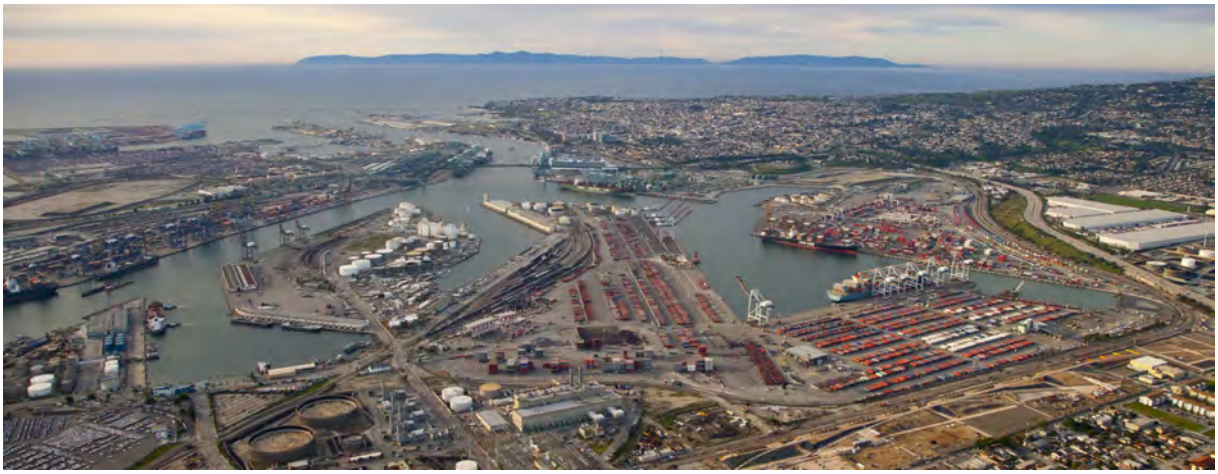
Port of Los Angeles
Master Plan Update

Final Program Environmental Impact Report
Volume 1



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THE PORT OF LOS ANGELES

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LIST OF ACRONYMS AND ABBREVIATIONS

ACG	allision, collisions, and grounding
ACMs	asbestos-containing material
AFY	acre-feet per year
AMP	alternative maritime power
ARSSS	Anchorage Road Soil Storage Site
AS	The Art Spot
bbls	barrels
BH	Brandt-Hawley Law Group
BMPs	best management practices
Board	City of Los Angeles Board of Harbor Commissioners
BOS	Bureau of Sanitation
BP	before present
CAAP	San Pedro Bay Ports Clean Air Action Plan
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCA	California Coastal Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDP	Coastal Development Permit
CEQA	California Environmental Quality Act
CFASE	Coalition For A Safe Environment
CH_4	methane
CHRIS	California Historical Resource Information System
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Program
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CSLC	California State Lands Commission
D/C ratio	demand/capacity ratio
dB	decibel
dB(A)	A-weighted sound level
dB(C)	C-weighted sound level
DOT	California Department of Transportation (Caltrans) District 7
DWP	Department of Water and Power
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
Exxon1	ExxonMobil Pipeline Company
FY	fiscal year
g	grams
g/bhp-hr	grams per brake-horsepower-hours
g/kW-hr	grams per kilowatt-hour
GHG	greenhouse gas
gpd	gallons per day
GRID	Green Rail Intelligent Design

GSNT	Gresham Savage Nolan & Tilden
GVW	gross vehicle weight
GVWR	gross vehicle weight rating
GWP	global warming potential
HABS	Historical American Buildings Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscapes Survey
HCM	Highway Capacity Manual
HIA	Health Impact Assessment
hr	hour
HRAs	health risk assessments
HRER	Historic Resources Evaluation Report
Hz	Hertz
I	Interstate
ICTF	Intermodal Container Transfer Facility
IRP	Integrated Resources Plan
IS	Initial Study
kHz	kilohertz
kV	kilovolt
kW	kilowatt
LA&I	Los Angeles and Independence Railroad
LA&SP	Los Angeles and San Pedro Railroad
LAC	Los Angeles Conservancy
LACMTA	Los Angeles County Metropolitan Transportation Authority
LAFD	City of Los Angeles Fire Department
LAHCM	City of Los Angeles Historic-Cultural Monument
LAHD	City of Los Angeles Harbor Department
LAX	Los Angeles International Airport
LAXT	Los Angeles Export Terminal
L_{dn}	day/night noise level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent level
LID	low impact development
M	magnitude (Richter)
M.D.	mid-day
Ma	million years ago
Metro	Los Angeles Metropolitan Transportation Authority; also their bus/rail system
mgd	million gallons per day
MM	Mitigation Measure
MMRP	mitigation monitoring and reporting program
MOTEMS	Marine Oil Terminal Engineering and Maintenance Standards
mph	miles per hour
MSL	mean sea level
MW	megawatt
MY	model year
N_2O	nitrous oxide
N/A	Not Applicable
NAHC	Native American Heritage Commission
nm	nautical mile
NO_2	nitrogen dioxide
NOP	Notice of Preparation

NOP/IS	Notice of Preparation/Initial Study
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NTC	Notice to Comply
NTHP	National Trust for Historic Preservation
O_3	ozone
OHR	Office of Historic Resources
PA/ED	Project Approval/Environmental Documentation
PAHs	polycyclic aromatic hydrocarbons
PCAC	Port Community Advisory Committee
PCE	passenger car equivalent
PCH	Pacific Coast Highway
PEIR	Program Environmental Impact Report
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PMP	Port Master Plan
PMPU	Port Master Plan Update
Port	Port of Los Angeles
ppm	parts per million
PRC	Public Resource Code
PSL	Project Street Legal
PT1	Draft PEIR Public Transcript
PT2	Draft PMPU Public Transcript
PTLA	PortTechLA
RMP	Risk Management Plan
RPV	City of Rancho Palos Verdes
RTP	Regional Transportation Plan
RTSP	Regional Transit System Plan
SAIC	Science Applications International Corporation
SAR	SA Recycling
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCIG	Southern California International Gateway
SHS	State Highway System
SO_2	sulfur dioxide
SO_x	sulfur oxides
SR	State Route
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
TAP	Technology Advancement Program
THUMS	Texaco, Humble, Union, Mobil, and Shell
TIA	Traffic Impact Analysis
TIWRP	Terminal Island Water Reclamation Plant
TMDL	Toxic Pollutants
TWIC	Transportation Worker Identification Credential
$\mu g/m^3$	micrograms per cubic meter
U.S.	United States
USCG	United States Coast Guard

USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
V/C	volume/capacity ratio
VdB	vibration decibels
WW	World War
ZECMS	zero emission container movement systems

1.0 INTRODUCTION

1.1 Final Program EIR Organization

A Draft Program Environmental Impact Report (PEIR) was prepared and circulated for public comment to evaluate environmental impacts related to the Port of Los Angeles (Port) Master Plan Update (PMPU or proposed Program). The Draft PEIR analyzed potential environmental impacts from a Port-wide perspective that is programmatic in nature. Project-specific analysis would be undertaken in environmental documents prepared when the proposed appealable/fill projects are initiated and carried forward for environmental review.

The PMPU serves as a long-range plan to establish policies and guidelines for future development at the Port, located in San Pedro Bay approximately 20 miles south of downtown Los Angeles. The PMPU focuses on the portion of the Port that is within the coastal zone (i.e., the Port's coastal zone boundary), as required under the California Coastal Act (CCA). In general, the PMPU area is bounded by the community of Wilmington to the north, lands surrounding the Consolidated Slip to the northeast, the City of Los Angeles boundary and lands surrounding the Cerritos Channel to the east, the Pacific Ocean to the south, and the community of San Pedro to the west.

This chapter presents background and introductory information for the proposed Program. The proposed Program is described in detail along with a brief summary of general changes and modifications made to the Draft PEIR. Chapter 2.0, Response to Comments, presents information regarding the distribution of and comments on the Draft PEIR, and responses to those comments. Chapter 3.0, Modifications to the Draft Program Environmental Impact Report (EIR), presents the modifications to the Draft PEIR. This Final PEIR has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resource Code [PRC] Section 21000 *et seq*.) and State CEQA Guidelines (California Code of Regulations [CCR] Title 14, Section 15000 *et seq*.). The Los Angeles Harbor Department (LAHD) is the lead agency.

1.2 CEQA Review Process

Preparation of the PEIR began in July 2012 with the publication of the Notice of Preparation (NOP) and will conclude with the consideration of the City of Los Angeles Board of Harbor Commissioners (Board) to certify the Final PEIR, which is

anticipated to occur in July 2013. The following describes the environmental review process that LAHD has undertaken for the proposed Program.

1.2.1 Notice of Preparation and Scoping Process

On July 26, 2012, the LAHD issued a NOP and Initial Study (IS) to inform responsible and trustee agencies, public agencies, and the public that the LAHD was preparing a PEIR for the proposed Program, pursuant to CEQA. The NOP/IS (State Clearinghouse Number 2012071081) was circulated for a 30-day comment period from July 26, 2012 to August 24, 2012, to neighboring jurisdictions, responsible agencies, other public agencies, and interested individuals in order to solicit input on the scope of the environmental analysis to be included in the PEIR. The LAHD held a public scoping meeting on August 14, 2012. A total of two individuals commented at the meeting, and twenty comment letters were received during the public comment period. Table 1.6-1 in Draft PEIR Section 1.6, Scope and Content of the Draft Program EIR, presents a summary of the key comments received during the NOP/IS public comment period. The NOP/IS and public comment letters received are included in Appendix B of the Draft PEIR.

1.2.2 Draft Program EIR and Public Review

The Draft PEIR was released for public review on February 21, 2013 for a 45-day public review period, which ended on April 8, 2013. Copies of the Draft PEIR were distributed to various government agencies, organizations, individuals, and Port tenants. The Draft PEIR was also available for public review on the LAHD website and at the LAHD Environmental Management Division, Los Angeles Public Library Central Branch, Los Angeles Public Library San Pedro Branch, and Los Angeles Public Library Wilmington Branch.

LAHD conducted a public hearing regarding the Draft PEIR on March 13, 2013 to provide an overview of the proposed Program and alternatives and accept public comments on the Draft PEIR. A total of 8 individuals commented at the meeting and 3 comment cards were received during the public hearing. LAHD received a total of 28 comment letters during the public comment period.

1.2.3 Final Program EIR and Certification

This Final PEIR has been provided to the public for review, comment, and participation in the planning process. This Final PEIR is being distributed to provide the basis for decision making by the lead agency. Should the Board decide to approve the proposed Program, it will adopt Findings of Fact to support a decision on the PMPU (PRC Section 21081 and CEQA Guidelines Section 15091). Additionally, because the PEIR identified significant and unavoidable impacts, the Board will consider a Statement of Overriding Considerations, which finds that specific overriding economic, legal, social, technological, or other benefits of the proposed Program outweigh the unavoidable adverse environmental effects (PRC Section 21081[b]; 14 CCR15093). Since the PEIR identified mitigation measures to reduce certain environmental impacts, the Board must also adopt a mitigation monitoring and reporting program (MMRP).

1.3 Existing Environmental Setting

1.3.1 Regional Setting

The Port is located at the southernmost end of the City of Los Angeles and comprises 43 miles of waterfront and 7,500 acres of land and water, with approximately 300 commercial berths. The Port is approximately 23 miles south of downtown Los Angeles and is surrounded by the community of San Pedro to the west, the Wilmington community to the north, the Port of Long Beach to the east, and the Pacific Ocean to the south (Figure 1.3-1).

The Port is an area of mixed uses that support various maritime-related activities. Port operations are predominantly centered on cargo shipping activities, including containerized, break bulk, dry bulk, liquid bulk, auto, and intermodal rail shipping; in 2011 the Port was the nation's largest seaport approximately 3,950 recreational vessels, 150 commercial fishing boats, 35 miscellaneous small service craft, and 15 charter vessels that handle sport fishing and harbor cruises. The Port has retail shops and restaurants, primarily along the west side of the Main Channel. It also has recreation, community, and educational facilities, such as a public swimming beach, Cabrillo Beach Youth Waterfront Sports Center, the Cabrillo Marine Aquarium, the Los Angeles Maritime Museum, 22nd Street Park, and the Wilmington Waterfront Park, by cargo volume. In addition to the large shipping industry at the Port, there is a cruise ship industry and a commercial fishing fleet. The Port also accommodates boat repair yards and provides slips for slips for approximately 3,950 recreational vessels, 150 commercial fishing boats, 35 miscellaneous small service craft, and 15 charter vessels that handle sport fishing and harbor cruises. The Port has retail shops and restaurants, primarily along the west side of the Main Channel. It also has recreation, community, and educational facilities, such as a public swimming beach, Cabrillo Beach Youth Waterfront Sports Center, the Cabrillo Marine Aquarium, the Los Angeles Maritime Museum, 22nd Street Park, and the Wilmington Waterfront Park.

1.3.2 Program Setting

The PMPU area includes the entire Port boundary that lies within the coastal zone (i.e., the Port's coastal zone boundary). In general, the PMPU area is bounded by the community of Wilmington to the north, lands surrounding the Consolidated Slip to the northeast, the City of Los Angeles boundary and lands surrounding the Cerritos Channel to the east, Los Angeles Harbor to the south, and the community of San Pedro to the west (Figure 1.3-1).

The existing Port Master Plan (PMP) divides the Port into nine planning areas (Figure 1.3-2), as described in Sections 1.3.2.1 – 1.3.2.9, and allows a variety of land uses within each planning area (Tables 1.3-1 and 1.3-2).

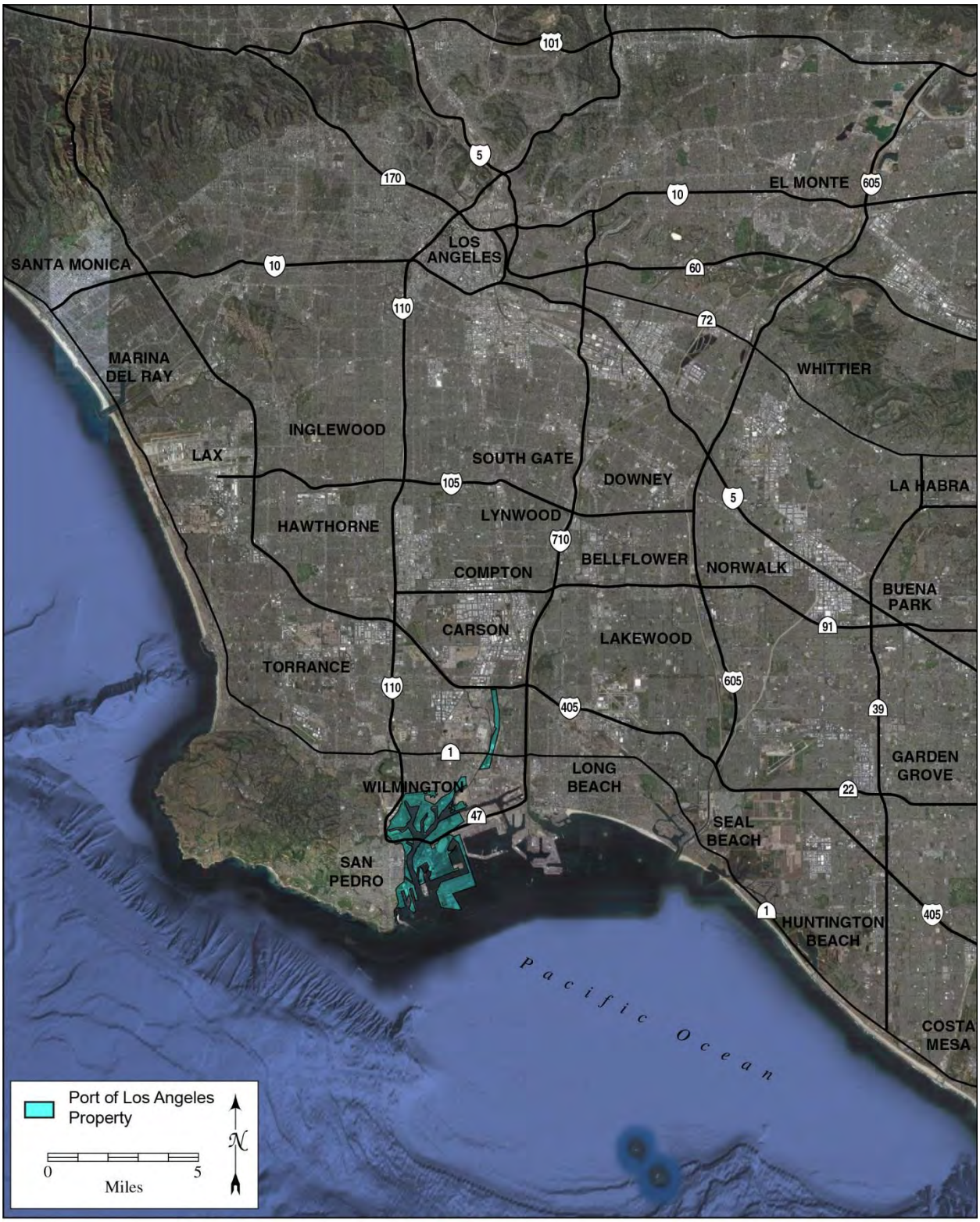

Figure 1.3-1. Regional Location

Figure 1.3-2. Existing PMP Planning Areas

Table 1.3-1. Existing PMP Planning Areas and Allowable Land Uses

Planning Area	*Land Uses Allowed*
1	Recreation, Industrial (light), Liquid Bulk, General Cargo, Other
2	General Cargo, Liquid Bulk, Dry Bulk, Commercial Fishing, Commercial, Recreation, Institutional, Industrial, Other
3	General Cargo, Liquid Bulk, Commercial, Institutional, Industrial, Other
4	General Cargo, Liquid Bulk, Industrial, Other
5	General Cargo, Liquid Bulk, Other Liquid Bulk, Dry Bulk, Commercial Fishing, Commercial*, Recreational*, Institutional, Industrial, Other
6	Recreation, Liquid Bulk, Other
7	General Cargo, Liquid Bulk, Dry Bulk, Commercial Fishing, Institutional, Industrial, Other
8	General Cargo*, Dry Bulk*, Commercial Fishing, Recreation, Industrial, Liquid Bulk, Other
9	General Cargo, Liquid Bulk*, Dry Bulk, Commercial Fishing*, Institutional, Industrial, Other
Note: *Indicates allowed land uses based on PMP Amendments.	

Table 1.3-2. Existing PMP Land Use Definitions

General Cargo	Generally including container, unit, break bulk, neo bulk, and passenger facilities.
Liquid Bulk	Comprising crude oil, petroleum products, petrochemical products, chemicals, and allied products.
Other Liquid Bulk	Comprising molasses, animal oils, and fats and vegetable oils.
Dry Bulk	Comprising metallic ores, some nonmetallic minerals, coal, chemicals, and allied products, primarily metal products, waste and scrap materials, and grains.
Commercial Fishing	Generally relating to the commercial fishing industry, including commercial fishing docks, fish canneries, fish waste treatment facilities, fish markets, and commercial fishing berthing areas.
Recreational	Uses include water-oriented parks, marinas, and related facilities, small craft launching ramps, museums, youth camping and water-oriented facilities, public beaches, public fishing piers, and sports fishing.
Industrial	Uses include shipbuilding/yard/repair facilities, light manufacturing/industrial activities, and ocean resource-oriented industries.
Institutional	Uses pertain to those lands that are either owned or leased by institutions of federal, state, or city governments.
Commercial	Uses include restaurants, tourist attractions, Ports O'Call office facilities, and retail activities.
Other	Uses include some vacant land, proposed acquisitions; rights of way for rail, utilities, and roads; and areas not designated for a specific short-term use.

1.3.2.1 Planning Area 1 (West Channel/Cabrillo Beach)

Planning Area 1 (West Channel/Cabrillo Beach) is located in the southwestern portion of the Port and encompasses approximately 110 acres. This area is generally designated for marine-oriented recreation activities. Existing land uses within Planning Area 1 include recreation, open space, commercial, institutional, and vacant lands (Figure 1.3-3).

1.3.2.2 Planning Area 2 (West Bank)

Planning Area 2 (West Bank) is located west of the Los Angeles Harbor Main Channel and south of Fourth Street. This area encompasses approximately 218 acres and contains a variety of land uses including liquid bulk, break bulk, commercial fishing, commercial, recreational, institutional, and vacant lands (Figure 1.3-3).

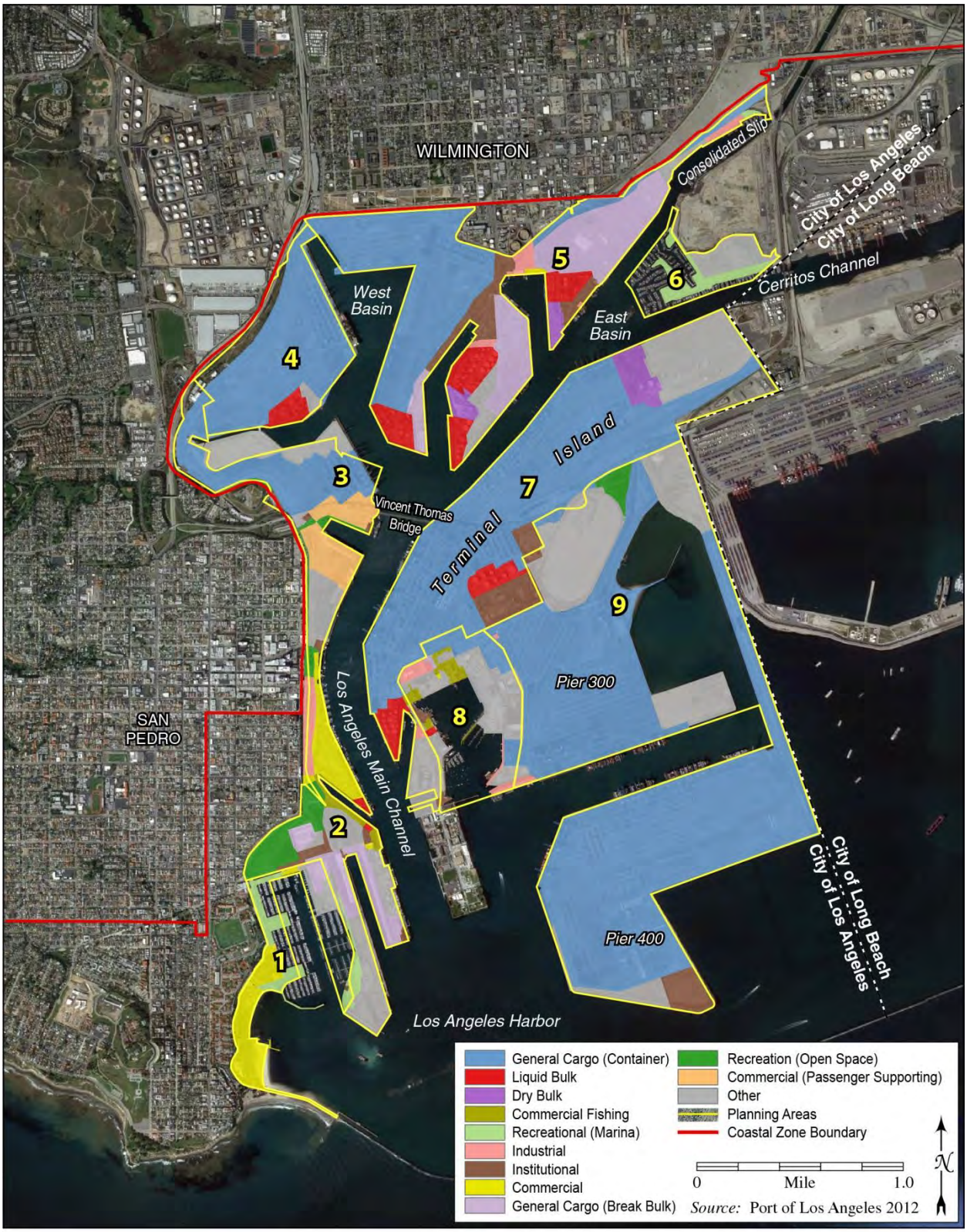

Figure 1.3-3. Existing Land Uses (2011)

1.3.2.3 Planning Area 3 (West Turning Basin)

Planning Area 3 (West Turning Basin) encompasses approximately 213 acres and extends from Berth 87 on the south to Berth 115 on the north. Existing land uses within this area include container cargo, liquid bulk, commercial, maritime support, institutional, open space, passenger, and vacant lands (Figure 1.3-3).

1.3.2.4 Planning Area 4 (West Basin)

Planning Area 4 (West Basin) encompasses 224 acres and is located between the Harbor Freeway and the West Basin area of the Inner Harbor. Existing land uses include container cargo, liquid bulk, break bulk, dry bulk, institutional, maritime support, and vacant lands (Figure 1.3-3).

1.3.2.5 Planning Area 5 (Wilmington District)

Planning Area 5 (Wilmington District) comprises approximately 622 acres encompassing the northern terminus of the Main Channel and includes areas adjacent to the community of Wilmington and the Consolidated Slip. Existing land uses include break bulk, dry bulk, liquid bulk, institutional, recreational, and vacant lands (Figure 1.3-3).

1.3.2.6 Planning Area 6 (Cerritos Channel)

Planning Area 6 (Cerritos Channel) is located in the northeastern portion of the Port between the East Basin and Cerritos Channel. This area encompasses approximately 59 acres and includes nine separate marinas and supporting facilities (e.g., boat repair and maintenance, administrative offices, marine supplies, and recreational areas). Existing land uses include recreational and open space (Figure 1.3-3).

1.3.2.7 Planning Area 7 (Terminal Island/Main Channel)

Planning Area 7 (Terminal Island/Main Channel) encompasses approximately 743 acres extending from Berth 206 to Reservation Point and is adjacent to the East Basin Channel, Turning Basin, and Main Channel. Fish Harbor and southern Terminal Island are situated on the southeastern boundary of this area. Existing land uses include container cargo, liquid bulk, dry bulk, institutional, and vacant lands (Figure 1.3-3).

1.3.2.8 Planning Area 8 (Fish Harbor)

Planning Area 8 (Fish Harbor) encompasses approximately 134 acres and is located in the southern portion of Terminal Island. Existing land uses include commercial fishing, container cargo, break bulk, commercial, liquid bulk, maritime support, institutional, and vacant lands (Figure 1.3-3).

1.3.2.9 Planning Area 9 (Terminal Island/Seaward Extension)

Planning Area 9 (Terminal Island/Seaward Extension) is generally located on the southern portion of Terminal Island and adjacent to the Outer Harbor. This area encompasses approximately 1,170 acres and supports container cargo, liquid bulk, institutional, open space, and vacant lands (Figure 1.3-3).

1.4 Program Purpose and Objectives

1.4.1 Program Purpose

The overall purpose of the PMPU is to create a consolidated planning document that clarifies LAHD's short- and long-term land-use plans in an easily accessible manner. The PMPU is needed to update historically outdated language in the 1980 PMP, as amended, with policies and guidelines that reflect current community and environmental conditions and account for trends in foreign and domestic waterborne commerce, navigation, and fisheries.

1.4.2 Program Objectives

The overall objectives of the PMPU are to:

- Develop the Port in a manner that is consistent with federal, state, county, and city laws, including the CCA and Charter of the City of Los Angeles;
- Integrate economic, engineering, environmental, and safety considerations into the Port development process for measuring the long-term impact of varying development options on the Port's natural and economic environment;
- Promote the orderly, long-term development and growth of the Port by establishing functional areas for Port facilities and operations; and,
- Allow the Port to adapt to changing technology, cargo trends, regulations, and competition from other United States (U.S.) and foreign ports.

1.5 Proposed Program

The PMPU addresses all elements required under CCA Chapter 8, Article 3 (Section 30711[a] and [b]), including permitted uses, design and location of land use areas, estimates of development effects on environmental resources, and anticipated projects listed as appealable.

The PEIR includes the following elements in the program description:

- Changes to the number and boundaries of existing planning areas;
- Changes to existing PMP land use categories;
- Revisions to allowable land uses within the planning areas;

- Descriptions of proposed appealable/fill projects; and,
- A list of the other projects that have been approved in a certified CEQA document and/or are undefined (i.e., in the conceptual design stage) that are identified for public disclosure purposes consistent with the PMPU.

1.5.1 Changes to Existing Planning Areas

The PMPU would result in three principal changes to the existing planning areas:

- Consolidate the number of land uses within the planning areas and specify a single land use for most sites;
- Reduce the number of planning areas from nine to five; and,
- Modify the boundaries of the individual planning areas.

The reduction in the number of planning areas is intended to consolidate general areas with predominant land use patterns within the Port. These changes are largely administrative and would cause no impacts to the physical environment. The locations, acreages, and allowable land uses for the proposed planning areas are described in Table 1.5-1, and the boundaries and land use designations for each planning area are shown in Figures 1.5-1 and 1.5-2.

Table 1.5-1. Proposed PMPU Planning Areas and Allowable Land Uses

Planning Area	*Location*	*Acreage*	*Allowable Land Uses**
1 (San Pedro)	From the Breakwater up to the Vincent Thomas Bridge	413	Recreational Boating, Commercial, Break Bulk, Open Space, Institutional, Cruise Operations, and Maritime Support
2 (West Basin and Wilmington)	From the Vincent Thomas Bridge to north of the Cerritos Channel	1,098	Container, Open Space, Liquid Bulk, Break Bulk, Dry Bulk, Maritime Support, Recreational Boating, and Commercial
3 (Terminal Island)	Terminal Island, excluding Fish Harbor	1,940	Container, Liquid Bulk, Dry Bulk, Maritime Support, Open Space
4 (Fish Harbor)	Fish Harbor, including former Southwest Marine Shipyard site	92	Commercial Fishing, Maritime Support, Break Bulk, and Institutional
5 (Water)	All water excluding areas adjacent to marinas	3,209	Navigable Waterways, Maneuvering Areas, Anchorage Areas, and Shallow Water Habitat
Note: *Proposed land uses would be confined to the specific sites identified on the PMPU Land Use Designations Map (Figure 1.5-2).			

1.5.2 PMPU Land Use Categories

The PMPU land use plan would consolidate the number of land uses within the planning areas and would specify a single land use for most sites. For much of the PMPU area, the revised land use categories would be compatible with or less intensive than existing land uses, potentially resulting in fewer impacts to the physical environment than under existing condition conditions. The proposed changes to land use categories are listed in Table 1.5-2.

Figure 1.5-1. Proposed PMPU Planning Areas

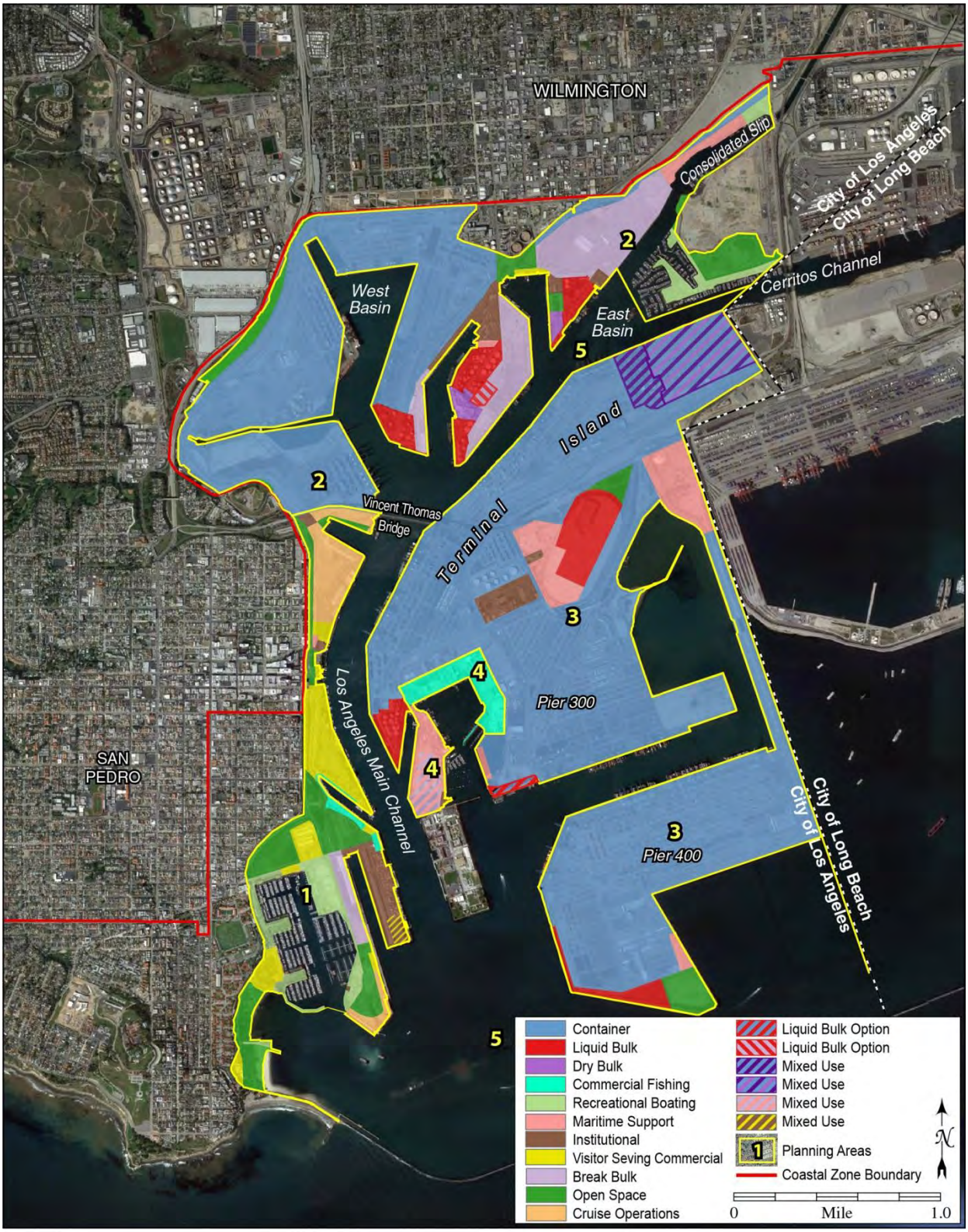

Figure 1.5-2. Proposed PMPU Land Use Designations

Table 1.5-2. Changes in Land Use Categories

Existing PMP Land Use Categories	*Proposed PMPU Land Use Categories*	*Comments*
General Cargo	Container	The General Cargo land use category is divided into three categories to provide more specificity.
	Break Bulk	
	Cruise Operations	
Liquid Bulk	Liquid Bulk	Liquid Bulk and Other Liquid Bulk (nonhazardous) are consolidated into one category.
Other Liquid Bulk		
Dry Bulk	Dry Bulk	No change.
Commercial Fishing	Commercial Fishing	No change.
Recreational	Recreational Boating	This category is divided to differentiate marinas from parks/beaches due to their different land use and water requirements.
	Open Space	
Industrial	Maritime Support	This category is renamed to provide more clarity to the land use description.
Institutional	Institutional	No change.
Commercial	Visitor Serving Commercial	This category is renamed to provide more clarity to the land use description.
Other	Not Applicable (N/A)	This land use category is no longer needed.

The proposed PMPU land and water use definitions are provided in Table 1.5-3; the examples of these uses are not comprehensive, but are only meant to be illustrative of the types of activities that may occur in the various land and water use categories.

Table 1.5-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
	Land Use	
Container	Water-dependent uses focused on container cargo handling and movement.	▪ Container Terminal ▪ Chassis Storage ▪ On-Dock Rail Yard ▪ Omni Terminal
Dry Bulk	Water-dependent uses focused on non-containerized, dry bulk cargoes shipped in large, unpackaged amounts.	▪ Cement ▪ Potash and similar ▪ Grain; ▪ Scrap Metal
Break Bulk	Water-dependent uses focused on non-containerized, bulk cargoes packaged as a unit.	▪ Roll-On Roll-Off Cargoes ▪ Steel Slabs ▪ Neo Bulk ▪ Fruit ▪ Automobiles
Cruise Operations	Water-dependent operations focused on cruise operations and passenger handling.	▪ Cruise Facilities ▪ Baggage Handling Facilities
Liquid Bulk	Water-dependent uses focused on storage, receipt, and delivery of liquid bulk commodities.	▪ Crude Oil Terminal ▪ Petroleum Products Terminal ▪ Non-petroleum Products and Other Liquid Bulk Commodities

Table 1.5-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
Maritime Support	Water-dependent and non water-dependent operations necessary to support cargo handling and other maritime activities.	▪ Barge/Tugboat ▪ Boatyard and Ship Repair ▪ Marine Fueling Station ▪ Marine Service Contractors, (e.g., diving, and emergency response services) ▪ Water Taxi ▪ Cargo Fumigation
Commercial Fishing	Facilities related to commercial fishing and processing.	▪ Fish Processing ▪ Cold Storage/Fish Unloading/Ice House ▪ Fishing Vessel Moorage ▪ Fish Laboratories and Testing
Recreational Boating	Recreational boating activities generally associated with marinas.	▪ Marinas ▪ Upland Boat Storage ▪ Yacht Clubs ▪ Marina-Related Retail
Visitor-Serving Commercial	Visitor serving commercial uses for the public, including museums.	▪ Restaurant ▪ Maritime Related Office ▪ Visitor Serving Retail ▪ Harbor Tour Vessels ▪ Sport Fishing ▪ Museums ▪ Community Centers/Conference Centers ▪ Exhibit Space
Open Space	Open spaces reserved for the general public such as parks and beaches or open areas reserved for environmental protection.	▪ Public Beaches ▪ Parks ▪ Environmentally Protected Area ▪ Wetlands
Institutional	Uses and facilities operated by government agencies.	▪ Public Safety (Police and Fire) ▪ Other federal, state, and local agencies ▪ Educational ▪ Marine Research Facility ▪ Non-profit Organizations
Water Use		
Navigation	Water areas devoted to anchorage of vessels, movement and maneuvering of vessels.	▪ Main Channel ▪ East and West Turning Basin
Environmental Mitigation	Water areas dedicated to environmental protection and not suitable for the navigation of cargo moving vessels.	▪ Shallow Water Habitat
Recreational Boating	Water areas associated with the mooring of recreational vessels.	▪ Marina Slip Areas
Berthing	Water areas directly adjacent to cargo berths. These areas are dedicated to the berthing of cargo vessels.	▪ Cargo Berths
Note: *In addition to the specific land use definitions and scope of activities, uses directly related to and supporting the land use are also permitted activities. Examples include but are not limited to an administrative office and/or maintenance and repair facility that support a container terminal or administrative offices and/or quality control laboratory that support commercial fishing processing activities.		

LAHD would be responsible for determining the land use category for all projects. Significant deviation from an allowable land use would require an amendment to the PMPU; however, slight boundary modifications would not require an amendment. Projects characterized by ancillary uses that are inconsistent with a site's land use designation would be permitted, but the predominant land use must be consistent with its PMPU land use designation; determinations of consistency are the responsibility of the LAHD. Temporary permits are not restricted by the land use designations but applicants must seek approval by the LAHD before activities commence (e.g., Temporary Entry and Access Permits, Filming Permits, etc.). Existing facilities that are not consistent with the land use designation of the PMPU would be a nonconforming use. General maintenance and facility repairs would still be allowed under the PMPU, but proposals for expansions and increases in the intensity of use of such facilities would not be allowed and would require a PMPU amendment.

An amendment would be required if a land use is proposed on a site that differs from the PMPU land use plan. Amendments must be certified by the California Coastal Commission (CCC). After an amendment is approved and certified by the CCC, the land use plan would be updated and would supersede the previous version of the PMPU land use plan.

1.5.3 Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas

The proposed Program includes revisions to allowable land uses and proposed appealable/fill projects (Figures 1.5-3 and 1.5-4 and Table 1.5-4). As previously discussed, the PEIR focuses on land use changes that would result in changes and/or intensification of activities with the potential for impacting the physical environment, as well as the proposed appealable/fill projects, as defined under CCA Section 30715. Appealable projects include: liquefied natural gas and crude oil projects that could have a significant impact on oil and gas supplies; wastewater treatment facilities except those producing incidental amounts associated with Port activities; road or highway projects that are not principally for internal circulation within the Port; office and residential buildings not associated with Port administrative activities; hotels, motels, and shopping facilities not associated with commercial goods for water-oriented purposes; commercial fishing facilities; recreational small craft marina related facilities; oil refineries; and, petrochemical production plants. The proposed appealable/fill projects are in various planning stages and are anticipated to be initiated or completed within the next 5 years. Future environmental documents for the proposed appealable/fill projects would incorporate this PEIR by reference and concentrate on the site-specific issues related to the appealable/fill project at the appropriate phase of the planning process. Following the completion of project-specific CEQA reviews for the proposed appealable/fill projects, the LAHD would issue Coastal Development Permits (CDPs) for approved projects.

Other projects included in the PMPU that have been approved in a certified CEQA document and/or are currently undefined (i.e., in the conceptual design stage) are addressed in Draft PEIR Chapter 4.0, Cumulative Analysis, and listed in Table 1.5-5.

Revisions to allowable land uses and proposed appealable/fill projects for each of the five proposed PMPU planning areas are described below.

Figure 1.5-3. Proposed PMPU Land Use Changes

Figure 1.5-4. Proposed PMPU Appealable/Fill Projects

Table 1.5-4. Proposed PMPU Appealable/Fill Projects and Land Use Changes

Planning Area	*Appealable/Fill Project*[a,b]	*Land Use Change*[c]
	Planning Area 1	
Planning Area 1: San Pedro	None	1: (Mixed Land Use Site): Existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial.
	Planning Area 2	
Planning Area 2: West Basin and Wilmington	Berths 187-189 Liquid Bulk Relocation	2: The liquid bulk terminal at Berths 187-189 (Vopak) would be relocated to Berths 191-194. Berths 187-189 would consist of open space and institutional land uses.
	Yang Ming Terminal Redevelopment, including Cut and Fill (3-acre cut; 6-acre fill)	3: An additional 6 acres of fill at Berths 120-121 and cut of 3 acres of land at Berths 121-127 for the Yang Ming Terminal would be designated as container area.
		4: The liquid bulk facility at Berths 118-120 (Kinder Morgan) would be eliminated and replaced with container cargo uses.
	China Shipping Fill (16-acre fill)	5: An additional 16 acres of fill would be added at Berth 102 for the China Shipping container terminal and designated for container cargo uses.
	None	6: (Optional Land Use Site): Vacant land on Mormon Island between San Clemente Avenue and Hermosa Street would be changed to liquid bulk or break bulk.
	Planning Area 3	
Planning Area 3: Terminal Island	Berth 300 Development (18-acre fill)	7: An additional 18 acres of fill would be added at Pier 300 and designated for container cargo uses.
	None	8: (Mixed Land Use Sites): Vacant land at Berths 206-209 would be changed to container, break bulk, and/or dry bulk and dry bulk land at Berths 210-211 would be changed to dry bulk and/or container.
		9: Vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue would be changed to maritime support.
		10: Vacant land along Ferry Street would be changed to maritime support.
		11: The land use consisting of the existing liquid bulk area (ExxonMobil) north of the Terminal Island Water Reclamation Plant (TIWRP) would be replaced with container cargo uses.
		12[d]: The institutional area south of Pier 400 would be changed to open space (least tern habitat).
		13: Existing container area on Pier 400 would be changed to maritime support.
		14: Vacant land, commercial fishing, and industrial areas near Fish Harbor would be changed to container cargo uses.
		15: (Optional Land Use Site): Existing maritime support uses at Berth 301 would be changed to container or liquid bulk.
	Planning Area 4	
Planning Area 4: Fish Harbor	Tri Marine Expansion	None
	338 Cannery Street Adaptive Reuse	None
	Al Larson Marina	16: Land use change from recreational boating to maritime support.
	None	17: (Mixed Land Use Site): Vacant land at Southwest Marine Shipyard would be changed to break bulk and/or maritime support. The surrounding area would be changed to maritime support.
		18: Vacant land, commercial fishing, liquid bulk, and institutional land uses at Fish Harbor would be replaced with commercial fishing and maritime support.
	Planning Area 5	
Planning Area 5: Water	None	None

Notes:
a. These projects are appealable to the CCC, as defined under CCA Section 30715. Refer to Section 1.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.
b. Proposed fill projects would be consistent with the PMPU, once certified, and would not require an amendment. Appealable/fill projects that would have fill or cut and fill are bolded.
c. Refer to Figure 1.5-3 (Proposed PMPU Land Use Changes) for the specific locations of the proposed land use changes. The numbers included in this column correspond to the number of the land use change depicted in Figure 1.5-3.
d. This land use change is administrative because it only changes the definition of the land use; no impacts to the physical environment would occur. Therefore, this land use change is not carried forward for analysis in the PEIR.

Table 1.5-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
		Planning Area 1		
Planning Area 1: San Pedro	Outer Harbor Cruise Terminal and Outer Harbor Park	No	Vacant land would be changed to cruise operations and open space.	This project was previously evaluated in the certified San Pedro Waterfront Project Environmental Impact Statement (EIS)/EIR.
	City Dock No. 1 Marine Research Project	No	The break bulk area east of East Channel (Berths 57-71) would be changed to institutional.	This project was previously evaluated in the certified City Dock No. 1 Marine Research Project EIR.
	Ports O'Call Redevelopment	No	Industrial uses along Harbor Boulevard would be changed to commercial.	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.
	Various	No	A variety of projects occurring along the San Pedro Waterfront have associated land use changes which eliminate industrial land uses and result in increased public access to the waterfront (open spaces), additional visitor-serving commercial development within the Port, and expanded cruise operations.	These land use changes were previously evaluated in the certified San Pedro Waterfront Project EIS/EIR and the certified Cabrillo Marina Phase II Development Project EIR.
		Planning Area 2		
Planning Area 2: West Basin and Wilmington	Wilmington Waterfront Development Project	No	Institutional and industrial areas near Wilmington (north of Berths 184-185) would be changed to open space.	This project was previously evaluated in the certified Wilmington Waterfront Development Project EIS/EIR.
	Anchorage Road Soil Storage Site (ARSSS) Open Space	No	None	This is not a proposed project. Specific details are currently not available.
	Berths 176-181 Break Bulk Terminal Redevelopment	No	The Mormon Island container area (Berths 174-181) would be changed to break bulk.	This is not a proposed project. Specific details are currently not available.
	East Basin Marina Improvements	Yes	Vacant land east of Yacht Haven Marina (Berths 201-203) would be changed to recreational boating.	This is not a proposed project. Specific details are currently not available.

Table 1.5-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
Planning Area 3				
Planning Area 3: Terminal Island	Pier 500 (200-acre fill)	No	None	This is not a proposed project. Specific details are currently not available.
	Trucking Support Center	No	None	This is not a proposed project. Specific details are currently not available.
	Terminal Island On-Dock Rail Facility	No	None	This is not a proposed project. Specific details are currently not available.
	Berths 212-224 Container Terminal Expansion	No	None	This is not a proposed project. Specific details are currently not available.
	Relocation of ExxonMobil Storage Tanks	Yes	None	This is not a proposed project. Specific details are currently not available.
Planning Area 4				
Planning Area 4: Fish Harbor	Relocation of Jankovich Marine Fueling Station	Yes	None	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.

Notes:
a. The PEIR does not analyze the impacts of other projects included in the PMPU that have already been evaluated in a certified CEQA document. Furthermore, as some projects included in the PMPU are in the conceptual design stage, sufficient project details are not available to support a programmatic evaluation of potential impacts. These other projects are listed in the PEIR for purposes of public disclosure and addressed in Draft PEIR Chapter 4.0, Cumulative Analysis.
b. These projects are appealable to the CCC, as defined under CCA Section 30715. Please refer to Section 1.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.

1.5.3.1 Planning Area 1: San Pedro

1.5.3.1.1 General Overview

Planning Area 1 would encompass the San Pedro Waterfront, extending from the breakwater to the Vincent Thomas Bridge along the western boundary of the Port (Figure 1.5-5). This area includes Berths 19-95, the Port's cruise operations, institutional uses, open space (Cabrillo Beach), and recreational boating activities. Planning Area 1 includes land uses focused on public access to the waterfront, but also has limited cargo operations and commercial fishing activities. Planning Area 1 emphasizes waterfront access through a waterfront promenade, parks, museums, academic uses, and visitor-serving commercial uses and attractions. In Planning Area 1, existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial. Adaptive reuse of Warehouse No. 1 would occur in conformance with LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy*.

1.5.3.1.2 Appealable/Fill Projects

No appealable/fill projects would occur within Planning Area 1.

Figure 1.5-5. Proposed PMPU Planning Area 1 Land Use Designations

1.5.3.2 Planning Area 2: West Basin and Wilmington

1.5.3.2.1 General Overview

Planning Area 2 would encompass the West Basin and Wilmington areas, and includes Berth 96 through Berth 204 (Figure 1.5-6). The West Basin consists of container terminals, while the remaining Wilmington areas consist of a variety of uses ranging from liquid bulk at Berths 148-150, liquid bulk and dry bulk uses on Mormon Island, to recreational boating and open space along Anchorage Road. Public access to the waterfront is provided at Berths 183-186. The planning framework for Planning Area 2 addressed in the PMPU is based on the *Wilmington Waterfront Plan*, Berths 97-109 (China Shipping) Container Terminal Project, Berths 136-147 (TraPac) Container Terminal Project, the *Anchorage Road Soil Storage Site Concept Plan*, and *Wilmington Marinas Plan*. Vacant land on Mormon Island between San Clemente Avenue and Hermosa Street would be an optional use site and allow liquid or break bulk uses. Additional land use changes are associated with the proposed appealable/fill projects in Planning Area 2.

1.5.3.2.2 Appealable/Fill Projects

Berths 187-189 Liquid Bulk Relocation

This project would relocate existing liquid bulk berthing operations at Berths 187-189 to Berths 191-194. Tankage located along Berths 187-189 would also be removed and replaced with new tankage at Berths 191-194. A new Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS)-compliant wharf and equipment would be constructed at Berths 191-194. Land uses at Berths 187-189 would change from liquid bulk to open space and institutional.

Yang Ming Terminal Redevelopment

This project would include filling approximately 6 acres of the harbor at Berths 120-121 and cutting (i.e., creating open water) approximately 3 acres of land at Berths 121-127 to facilitate redevelopment of the West Basin Container Terminal. The proposed cut and fill, combined with wharf redevelopment, would create approximately 3,400 feet of new wharf. The project would also include a land use change near Berths 118-120 from liquid bulk to container terminal and would accommodate an approximately 20-acre backland expansion.

China Shipping Fill

This project would fill approximately 16 acres of a slip at Berth 102 to add additional backland to the existing China Shipping container terminal.

Figure 1.5-6. Proposed PMPU Planning Area 2 Land Use Designations

1.5.3.3 Planning Area 3: Terminal Island

1.5.3.3.1 General Overview

Planning Area 3, located on Terminal Island, would be the largest planning area and would focus on container operations. The proposed area comprises all of Terminal Island, with the exception of Fish Harbor, which would be in Planning Area 4 (Figure 1.5-7). Of the six container terminals at the Port, four are located in Planning Area 3. The *Terminal Island Land Use Plan* provides the framework for land uses located in Planning Area 3. The plan optimizes cargo-handling operations on Terminal Island, while restricting non-cargo and non water-dependent uses.

Open space is located along the southern tip of Pier 400 as an environmentally protected area for least terns and the urban forest area north of the Los Angeles Export Terminal (LAXT) rail loop. The proposed appealable/fill projects would provide additional space for expanding container and liquid bulk cargoes by clearing underutilized and vacant facilities, reconfiguring existing operations, and completing approximately 18 acres of land expansion/filling. The following land use changes would occur within Planning Area 3:

- The land use consisting of the existing ExxonMobil liquid bulk facility north of the Terminal Island Water Reclamation Plant (TIWRP) would be replaced with container uses;
- Planning Area 3 includes two mixed use sites that would allow break bulk, dry bulk, and/or container uses at Berths 206-209 and dry bulk and/or container uses at Berths 211-212;
- Berth 301 would be an optional use site that would allow conversion of existing maritime support uses to either container or liquid bulk;
- Vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue would be changed to maritime support;
- Vacant land along Ferry Street would be changed to maritime support;
- Vacant land, commercial fishing, and industrial areas near Fish Harbor would be changed to container cargo uses; and,
- Existing container area on Pier 400 would be converted to maritime support.

1.5.3.3.2 Appealable/Fill Projects

Berth 300 Development

This project would fill approximately 18 acres of water behind Berths 270-271 and Berth 301 to create additional container backland. This project would include berthing for maritime support.

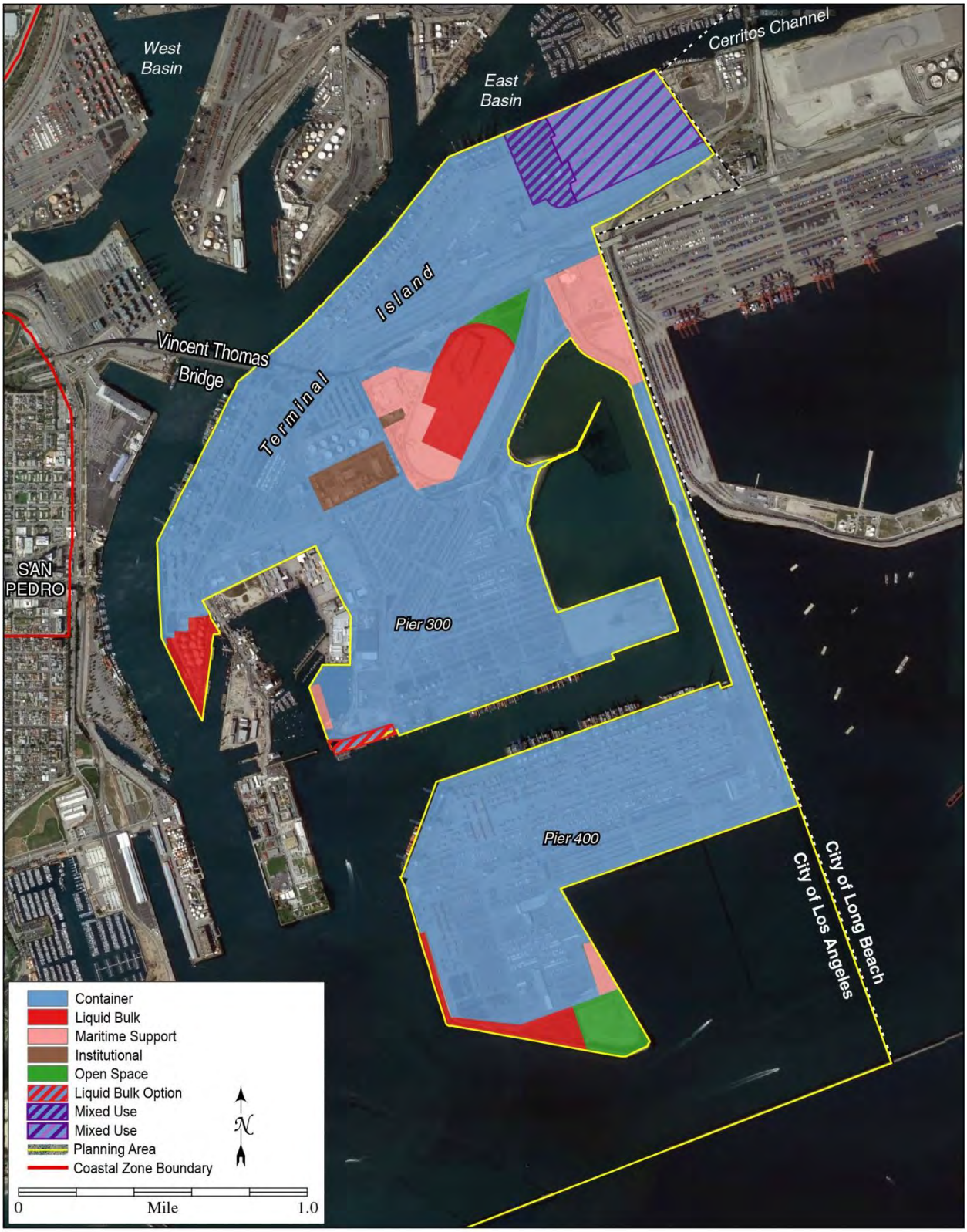

Figure 1.5-7. Proposed PMPU Planning Area 3 Land Use Designations

1.5.3.4 Planning Area 4: Fish Harbor

1.5.3.4.1 General Overview

Planning Area 4 would contain Fish Harbor and focus on expanding commercial fishing while maintaining adequate acreages for maritime support uses. Commercial fishing would remain in the northern and eastern portions of Fish Harbor, while maritime support, break bulk cargo, and other institutional uses would be located along the western portion of Fish Harbor (Figure 1.5-8). Vacant land at Southwest Marine Shipyard (Berths 240-241) would be a mixed land use site and would allow break bulk and/or maritime support uses. Additional land use changes are associated with the proposed appealable/fill projects in Planning Area 4. The *Terminal Island Land Use Plan* also provides the framework for Planning Area 4.

1.5.3.4.2 Appealable/Fill Projects

Tri Marine Expansion

This project would expand Tri Marine's current fish processing facility at Berth 264. The expanded facility would include fish processing operations, cold storage, and office space. A new fish pump to transfer fish from the fishing boats to the new facility would be constructed to complement the existing fish pump at the facility.

338 Cannery Street Adaptive Reuse

This project would redevelop a nine-acre site located in Fish Harbor at Berth 265 by adaptive reuse of the existing historic buildings for commercial fishing development. Improvements would complement and maintain existing historic structures, while helping to create a financially sustainable commercial fishing development.

Al Larson Marina

This project would remove approximately 125 recreational boating slips at Berths 256-257 to allow for the expansion of the boatyard located directly north of the marina.

1.5.3.5 Planning Area 5: Waterways

1.5.3.5.1 General Overview

Planning Area 5 would consist of water areas in the Port. Water uses allowed in Planning Area 5 include general navigation, areas designated for environmental mitigation, recreational boating, and berthing (Figure 1.5-9). No land use changes would occur in Planning Area 5.

1.5.3.5.2 Appealable/Fill Projects

No appealable/fill projects would occur within Planning Area 5.

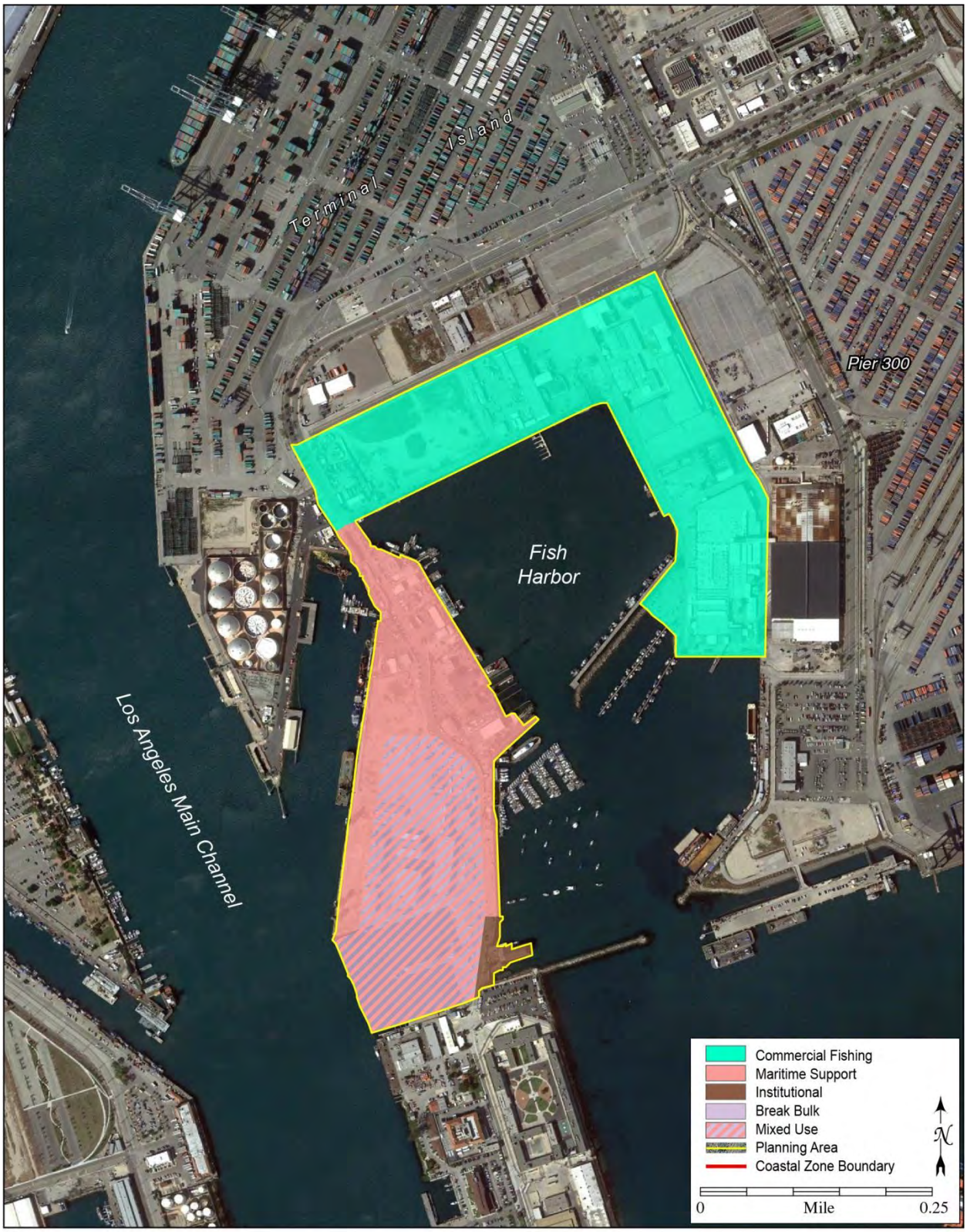

Figure 1.5-8. Proposed PMPU Planning Area 4 Land Use Designations

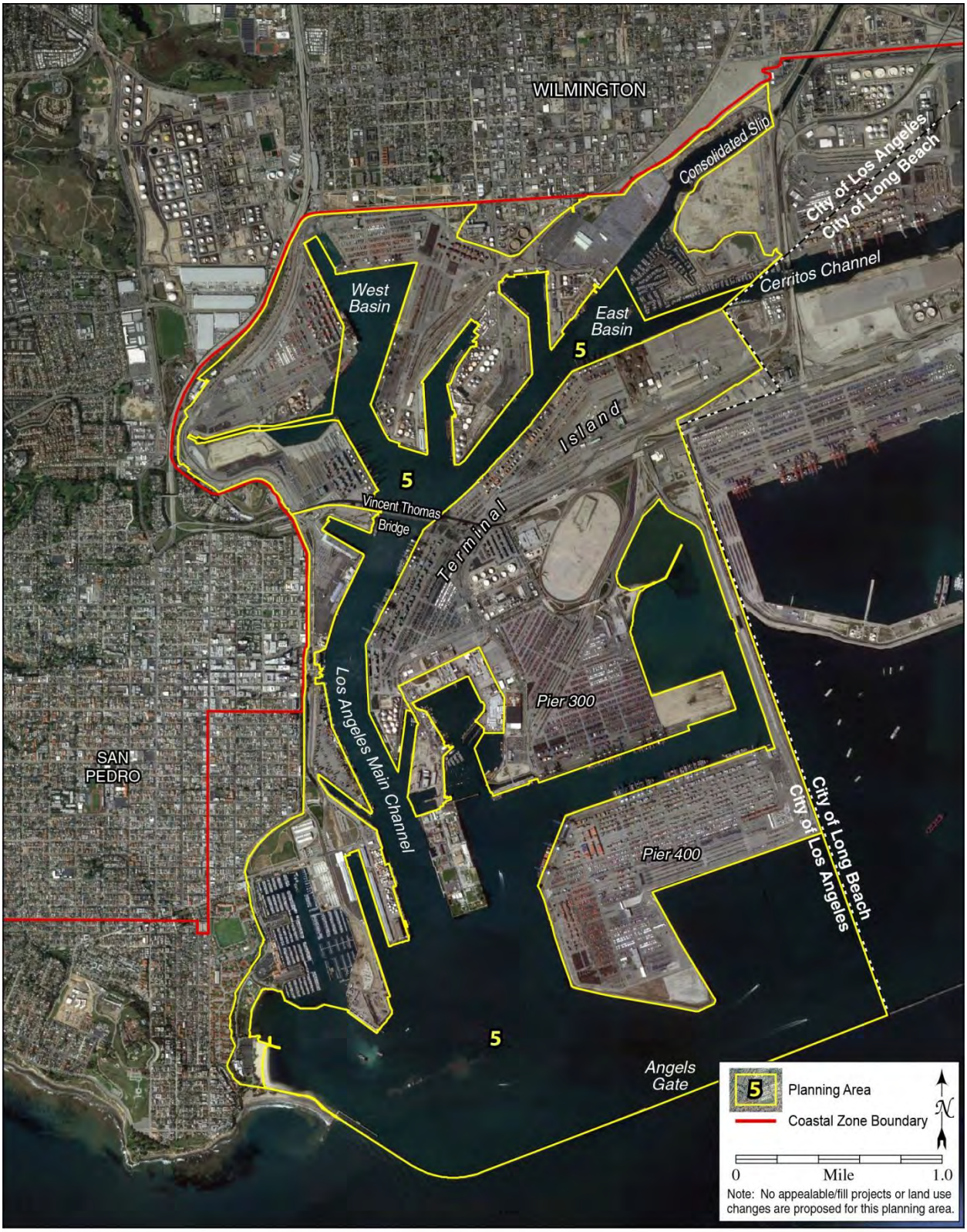

Figure 1.5-9. Proposed PMPU Planning Area 5 Land Use Designations

1.5.4 Changes in Land Use Acreage

The proposed changes in land use would result in changes to the total acreages associated with individual land use categories. Table 1.5-6 provides a summary of the land use changes (acres by land use type) that would occur with implementation of the PMPU, shown as differences between existing baseline conditions, defined as those occurring in 2011, and proposed conditions. Section 1.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, provides details regarding land use changes within specific planning areas.

Table 1.5-6. Summary of Proposed PMPU Land Use Changes

Land Use Type	*Existing (2011) (acres)*[a]	*Proposed Changes Evaluated in the PEIR (acres)*	*Previously Analyzed Changes (acres)*[b]	*Overall Difference (acres)*	*PMPU Acreage (acres)*
Container	2,050	288	33	321	2,371
Liquid Bulk	119	-17	66	49	168
Dry Bulk	45	-30	1	-29	15
Commercial Fishing	20	36	2	38	58
Recreational Marina (Recreational Boating)	66	0	25	25	91
Industrial (Maritime Support)	45	75	13	88	133
Institutional	115	-37	15	-22	92
Commercial (Visitor Serving/Commercial)	88	6	15	21	109
Break Bulk	160	21	38	59	219
Open Space	92	28	110	138	231
Passengers/Supporting Commercial (Cruise Operations)	54	0	15	15	69
Vacant	658	-333	-325	-658	0
Open Water[c]	3,224	-37	-7	-44	3,180
Total[d]	6,735	0	0	0	6,735

Notes:

a. All acreages are approximate. Acreages for mixed use and optional land use sites are associated with the "worst case" or most intensive land use for an individual site, as evaluated in this PEIR.

b. The PEIR does not analyze the impacts of the land use changes included in the PMPU that have already been evaluated in a certified CEQA document.

c. Acreages do not include the Reservation Point Area (i.e., 64 acres). This is not LAHD controlled property.

d. The total area includes open water acreage and all unassigned acreage in Planning Areas 1-4 and boundary differences.

1.5.5 Program Schedule

Buildout of the proposed appealable/fill projects would occur in multiple phases, although the precise schedule, and in most cases the scope, of these projects is unknown or has not been developed in sufficient detail at this time. The LAHD anticipates, however, that the proposed appealable/fill projects described above would be implemented within the next 5 years. However, the analysis of the PMPU planning horizon extends out to year 2035.

1.5.6 Summary

In summary, the PMPU would consolidate areas characterized by predominant land use patterns within the Port and allocate a single land use to most sites. The PMPU would also include appealable/fill projects and other projects that have been approved in certified CEQA documents and/or are currently undefined (i.e., in the conceptual design stage). The proposed appealable/fill projects included in the PMPU are in various planning stages and are expected to be initiated or completed within the next 5 years.

This PEIR focuses on land use changes that would result in changes and/or intensification of activities with the potential for directly or indirectly impacting the physical environment (CEQA Guidelines Section 15378(a)). Several changes proposed in the PMPU are administrative (e.g., changes to existing planning areas and land use categories/definitions) and would cause no impacts to the physical environment. For much of the PMPU area, proposed land use categories would be compatible with or less intensive than existing land uses, potentially resulting in fewer impacts to the physical environment compared to existing conditions.

This PEIR focuses on the proposed appealable/fill projects, as defined under CCA Section 30715, and provides a programmatic evaluation of impacts associated with buildout of these projects. In general, this PEIR is intended to simplify the task of preparing subsequent environmental documents for the proposed appealable/fill projects and will serve as the first-tier document for later CEQA review of the proposed appealable/fill projects included in the PMPU. The LAHD expects that most of the proposed appealable/fill projects that are included in this PEIR would require separate environmental documents. CDPs for the proposed appealable/fill projects would not be issued until those project-specific CEQA reviews are completed.

This PEIR does not analyze the impacts of other projects included in the PMPU that have already been evaluated in certified CEQA documents. Furthermore, as some projects included in the PMPU are in the conceptual design stage, sufficient project details are not available to support a programmatic evaluation of potential impacts. These other projects are listed in the PEIR for purposes of public disclosure and addressed in Draft PEIR Chapter 4.0, Cumulative Analysis.

1.6 Changes to the Draft Port Master Plan Update

A summary of the changes made to Draft PMPU is provided below. Revisions to the Draft PMPU that directly correspond to changes to the Draft PEIR are presented in Chapter 3.0, Modifications to the Draft Program EIR, of this Final PEIR. The Final PMPU is included in Appendix A, Port Master Plan, of this Final PEIR.

The key changes to the Draft PMPU include:

- Clarification of the PMPU Goals;
- Inclusion of additional PMPU land use examples;

- Clarification of public access infrastructure and programs at the Port;
- Modification of PMPU land use designations and boundaries;
- Clarification of land use acreages for the PMPU planning areas; and,
- Clarification of an existing and inclusion of an additional other project.

1.7 Changes to the Draft Program EIR

The Final PEIR discusses changes and modifications that have been made to the Draft PEIR. Actual changes to the text, organized by chapters, sections, and appendices, are presented in Chapter 3.0, Modifications to the Draft Program EIR, of this Final PEIR.

Changes noted in Chapter 3.0, Modifications to the Draft Program EIR, are identified by text strikeout and underline. These changes are referenced in Chapter 2.0, Response to Comments, of this Final PEIR, where applicable. The changes and clarifications presented in Chapter 3.0, Modifications to the Draft Program EIR, were reviewed to determine whether or not they warranted recirculation of the PEIR prior to certification according to CEQA Guidelines. The changes would not result in any new significant environmental impacts or a substantial increase in the severity of an existing environmental effect.

A summary of the key changes to the Draft PEIR include:

- Correction of the PMPU land use designation for Cabrillo Beach from visitor-serving commercial to open space;
- Inclusion of the boat launch area at Cabrillo Beach into the total acreage associated with the recreational boating land use category;
- Designation of Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses;
- Modification of the break bulk land use boundary in Planning Area 4 to include all of the buildings at the Southwest Marine terminal site (Berth 240). This area was also designated as a mixed land use site that would allow break bulk and/or maritime support;
- Enhancement of mitigation measure **MM CR-3** to specify additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation); and,
- Inclusion of additional freeway modeling and analyses completed for the proposed Program.

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2.0

RESPONSE TO COMMENTS

2.1 Distribution of the Draft Program EIR

The Draft PEIR was distributed to the public and regulatory agencies to review and comment from February 21, 2013 to April 8, 2013. Copies of the Draft PEIR were distributed to various government agencies, organizations, individuals, and Port tenants. In addition, postcards were mailed to all addresses in the communities of Wilmington and San Pedro. LAHD conducted a public hearing regarding the Draft PEIR on March 13, 2013 to provide an overview of the proposed Program and alternatives and accept public comments on the Draft PEIR.

The Draft PEIR was available for review at the following locations:

- LAHD, Environmental Management Division, 222 W. 6th Street, San Pedro, CA 90731;
- Los Angeles Public Library – Central Branch, 630 West 5th Street, Los Angeles, CA 90071;
- Los Angeles Public Library – San Pedro Branch, 931 S. Gaffey Street, San Pedro, CA 90731; and,
- Los Angeles Public Library – Wilmington Branch, 1300 North Avalon Boulevard, Wilmington, CA 90744.

In addition to printed copies of the Draft PEIR, electronic versions were made available, as requested by interested parties. Due to the size of the document, the electronic versions were prepared as series of PDF files to facilitate downloading and printing. The Draft PEIR was available in its entirety on the LAHD website at http://www.portoflosangeles.org/EIR/PMPU/DEIR/deir_pmpu.asp, and the public notice was available online at http://www.portoflosangeles.org/EIR/PMPU/DEIR/_Public_Notice.pdf.

2.2 Comments on the Draft Program EIR and Draft PMPU

The public comment and response component of the CEQA process serves an essential role. It allows the respective lead agencies to assess the impacts of a project, and it provides the opportunity to amplify and better explain the analyses that the lead agencies have undertaken to determine the potential environmental impacts of a project. To that extent, responses to comments are intended to provide complete and thorough explanations to commenting agencies and individuals, and to improve the overall understanding of the proposed Program for the decision making bodies.

The Draft PEIR and Draft PMPU were released on February 21, 2013 for a 45-day public review period ending on April 8, 2012. The LAHD received 28 comment letters, 3 public hearing comment cards, and 77 oral comments on these documents during the public review period. Table 2.2-1 presents a list of those agencies, organizations, and individuals who commented on the Draft PEIR and Draft PMPU.

Table 2.2-1. Public Comments Received on the Draft Program EIR and Draft PMPU

Letter Code	*Date*	*Organization/Individual*	*Page*
		State Government	
NAHC	2/5/2013	Native American Heritage Commission	2-5
CSLC	4/8/2013	California State Lands Commission	2-11
DOT	4/10/2013	California Department of Transportation (Caltrans) District 7	2-17
		Local Government	
RPV1	4/2/2013	City of Rancho Palos Verdes	2-31
RPV2	4/8/2013	City of Rancho Palos Verdes	2-35
BOS	4/11/2013	City of Los Angeles, Bureau of Sanitation	2-41
		Organizations	
PTLA	4/5/2013	PortTechLA	2-47
PSL1	4/7/2013	Project Street Legal	2-51
CCA	4/8/2013	Coalition for Clean Air	2-55
LAC	4/8/2013	Los Angeles Conservancy	2-67
NTHP	4/8/2013	National Trust for Historic Preservation	2-85
AS	4/8/2013	The Art Spot	2-99
CFASE1	4/8/2013	Coalition For A Safe Environment	2-105
		Individuals	
PR	3/25/2013	Patricia Ross	2-115
SG	3/29/2013	Stanley Green	2-119
LF	4/3/2013	Lawrence Fafarman	2-123
PB	4/3/2013	Philip Belfer	2-127
JR	4/6/2013	Jay Ross	2-131
DE	4/5/2013	Donna Ethington	2-135
LA	4/6/2013	Linda Alexander	2-143
SC	4/6/2013	Sue Castillo	2-147
CE	4/7/2013	Christine Esprabens	2-151
DSS	No Date	Denise and Stephen Smith	2-155
FA	No Date	Frank B. Anderson	2-159
		Businesses	
SAR	4/2/2013	SA Recycling	2-163
EXXON1	4/4/2013	ExxonMobil Pipeline Company	2-173
GSNT	4/4/2013	Gresham Savage Nolan & Tilden	2-177
BH	4/8/2013	Brandt-Hawley Law Group	2-485

Table 2.2-1. Public Comments Received on the Draft Program EIR and Draft PMPU

Letter Code	*Date*	*Organization/Individual*	*Page*
Comments Received at the Draft Program EIR and PMPU Public Hearings			
Draft Program EIR Public Hearing			
CFASE2	3/13/2013	Coalition for a Safe Environment	2-489
EXXON2	3/13/2013	ExxonMobil	2-495
PSL2	3/13/2013	Project Street Legal	2-499
PT1	3/13/2013	Draft PEIR Public Transcripts	2-503
Draft PMPU Public Hearing			
PT2	4/4/2013	Draft PMPU Public Transcript	2-559

2.3 Responses to Comments

In accordance with CEQA (Guidelines Section 15088), LAHD has evaluated the comments on environmental issues received from agencies and other interested parties and has prepared written responses to each comment pertinent to the adequacy of the environmental analyses contained in the Draft PEIR. In specific compliance with CEQA Guidelines Section 15088(b), the written responses address the environmental issues raised. In addition, where appropriate, the basis for incorporating or not incorporating specific suggestions into the proposed Program is provided. In each case, LAHD has expended a good faith effort, supported by reasoned analysis, to respond to comments.

This section includes responses to the written and oral comments received during the Draft PEIR public review period. This section also includes all the comments received on the Draft PMPU. Information provided in the response to comments on the Draft PMPU is included in Appendix A, Final PMPU, of this Final PEIR. Some comments have prompted revisions to the text of the Draft PEIR, which are referenced and included in Chapter 3.0, Modifications to the Draft Program EIR. A copy of each comment letter is provided, with responses to each comment immediately following.

2.3.1 Public Comments and Responses to Comments

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STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
(916) 657-5390 - Fax

February 5, 2013

Mr. James Bahng, Project Planner
City of Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, CA 90731

RE: SCH# 2012071081; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) – **Port of Los Angeles Master Plan Update**; located in the Harbor area of southwest Los Angeles County, California

Dear Mr. Bahng:

The Native American Heritage Commission has reviewed the Notice of Preparation (NOP) regarding the above referenced project. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA guidelines 15064(b)). To adequately comply with this provision and mitigate project-related impacts on archaeological resources, the Commission recommends the following actions be required: NAHC-1

- ✓ Contact the appropriate Information Center for a record search to determine:
  - If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources, which we know that it has.
  - The Native American Heritage Commission (NAHC) recommends that known cultural resources recorded on or adjacent to the APE be listed in the draft Environmental Impact Report.
- ✓ If an additional archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey. We suggest that this be coordinated with the NAHC, if possible. NAHC-2
  - The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure pursuant to California Government Code Section 6254.10.
- ✓ Contact has been made to the Native American Heritage Commission for: NAHC-3
  - A Sacred Lands File Check, and cultural resources have been identified to your agency.
  - A list of appropriate Native American Contacts for consultation concerning the project site has been provided and is attached to this letter.
  - Lack of surface evidence of archeological resources does not preclude their subsurface existence once ground-breaking activity begins. If that occurs, the NAHC suggests that inadvertent discoveries be coordinated with the NAHC.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

STATE OF CALIFORNIA Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
(916) 657-5390 - Fax

NAHC-4 ▪ Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

Sincerely,

Dave Singleton
Program Analyst
(916) 653-6251

CC: State Clearinghouse

Attachment: Native American Contacts List

Native American Contacts
Los Angeles County
March 1, 2013

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th St, Rm. 403
Los Angeles , CA 90020
randrade@css.lacounty.gov
(213) 351-5324
(213) 386-3995 FAX

Gabrielino Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net

(909) 262-9351 - cell

Ti'At Society/Inter-Tribal Council of Pimu
Cindi M. Alvitre, Chairwoman-Manisar
3094 Mace Avenue, Apt. B Gabrielino
Costa Mesa, , CA 92626
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
562-761-6417 - voice
562-761-6417- fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Private Address Gabrielino Tongva
,
tattnlaw@gmail.com
310-570-6567

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
P.O. Box 180 Gabrielino
Bonsall , CA 92003
(619) 294-6660-work
(310) 428-5690 - cell
(760) 636-0854- FAX
bacuna1@gabrieinotribe.org

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 -FAX

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
P.O. Box 1800 Gabrielino
Bonsall , CA 92003
palmsprings9@yahoo.com
626-676-1184- cell
(760) 636-0854 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012071081; CEQA Notice of Completion; draft Environmental Impact Report for the Port of Los Angeles Master Plan Update; located in the San Pedro area of Los Angeles County, California.

Native American Contacts
Los Angeles County
March 1, 2013

Santa Ynez Tribal Elders Council
Freddie Romero, Cultural Preservation Conslnt
P.O. Box 365 Chumash
Santa Ynez , CA 93460
805-688-7997, Ext 37
freddyromero1959@yahoo.com

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
(626) 926-4131
gabrielenoindians@yahoo.com

Gabrielino-Tongva Tribe
Conrad Acuna,
P.O. Box 180 Gabrielino
Bonsall , CA 92003
310-587-2203

760-636-0854 - FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012071081; CEQA Notice of Completion; draft Environmental Impact Report for the Port of Los Angeles Master Plan Update; located in the San Pedro area of Los Angeles County, California.

Comment Letter NAHC: Native American Heritage Commission

Response to Comment NAHC-1:

This comment identifies sources of information for determining whether project site locations contain known cultural and archaeological resources. As noted in Draft PEIR Section 3.04, Level of Analysis, the PEIR does not include a detailed environmental review of the proposed appealable/fill projects and land use changes since, consistent with CEQA Guidelines Section 15168, sufficient details are not available. When appropriate levels of detail regarding these projects become available, project-specific environmental documents will be prepared, concentrating on site-specific issues. Preparation of project-specific documents is expected to include records and database searches, consistent with the comment. Information concerning the existence of known resources at the project site would be presented in the CEQA document.

Response to Comment NAHC-2:

This comment notes that if an archaeological survey is required to evaluate potential project-related impacts, the results and findings of the survey should be presented in a report and coordinated with Native American Heritage Commission (NAHC). As noted in Response to Comment NAHC-1, the PEIR is programmatic in scope and existing conditions, including results from site surveys related to specific projects, will be addressed in project-specific CEQA documents. The comment is general and does not reference a specific section of the Draft PEIR or raise issues under CEQA requiring a response; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment NAHC-3:

This comment identifies additional actions to mitigate potential impacts to cultural and archaeological resources. As discussed in Draft PEIR Section 3.4, Cultural Resources, the proposed appealable/fill projects could have an adverse impact on archaeological or ethnographic resources during construction activities (Impact CR-1). Because the PMPU area has recorded archaeological sites and the potential to contain unknown buried or otherwise obscured archaeological or ethnographic resources, mitigation may be required for construction activities. The Draft PEIR contains mitigation measures **MM CR-1 and MM CR-2**, as restated below, that would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program.

MM CR-1: Cultural Resource Assessment. Once a proposed project site is identified, the LAHD shall make a determination on whether a Cultural Resource Assessment is necessary based on considerations such as the extent of proposed ground disturbance and the potential for impacting intact soil deposits. If necessary, the potential for the presence of a unique archaeological or ethnographic resource shall be identified through a phased investigation using qualified professional consultants and a consistent methodology. When a Phase I investigation identifies the presence of or the potential for an archaeological or ethnographic resource on a

proposed project site, the LAHD shall determine whether it is possible to avoid the resource through project redesign. If avoidance is not possible, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts:

- Conduct a Phase II investigation to determine site significance. When a Phase II investigation identifies a unique archaeological or ethnographic resource on a proposed project site, LAHD shall determine whether to avoid the resource through project redesign or to proceed with a Phase III investigation to mitigate impacts;
- Conduct archaeological monitoring of ground disturbing activities within potentially intact soil deposits by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards;
- Consult with the NAHC and applicable Native American groups (e.g., the Gabrielino Tongva Tribal Council) regarding proposed ground-disturbing activities and offer an opportunity to monitor the construction along with the project archaeologist; and/or,
- Conduct a pre-construction information and safety meeting to make construction personnel aware of archaeological monitoring procedures, if any, and the types of archaeological resources that might be encountered.

MM CR-2: Unanticipated Discovery Procedures. In the event potentially significant cultural resources are encountered during earthmoving activities, the construction contractor shall cease activity in the affected area until the discovery can be evaluated by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeologist shall complete any requirements for the mitigation of impacts on any resources and implement appropriate treatment measures, including the use of 1) subsurface testing after demolition of existing buildings, 2) data recovery of archaeological or ethnographic deposits, and/or 3) post-construction documentation.

If Native American human remains are discovered during project construction, it would be necessary to comply with state laws relating to the disposition of Native American burials that are under the jurisdiction of the NAHC (PRC Section 5097). With implementation of these mitigation measures, residual impacts to cultural/archaeological resources from the proposed Program would be less than significant.

Response to Comment NAHC-4:

Please see Response to Comment NAHC-3.

STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 FAX (916) 574-1810
California Relay Service From TDD Phone **1-800-735-2929**
from Voice Phone **1-800-735-2922**

Contact Phone: **(916) 574-1900**
Contact FAX: **(916) 574-1885**

April 8, 2013

File Ref: SCH #2012071081

CITY OF LOS ANGELES
APR 10 2013
ENV MGMT DIV
HARBOR DEPARTMENT

Christopher Cannon
Director of Environmental Management
Los Angeles Harbor Department
425 South Palos Verdes Street
San Pedro, CA 90731

Subject: Draft Program Environmental Impact Report (PEIR) for the Port Master Plan Update, Los Angeles County

Dear Mr. Cannon:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft PEIR for the Port of Los Angeles (Port) Master Plan Update (Program), which is being prepared by the City of Los Angeles Harbor Department (LAHD). The LAHD, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. CSLC-1

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion

CSLC-1 or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The proposed Program affects land use on sovereign tide and submerged lands that have been transferred, in trust, to the City of Los Angeles, pursuant to Chapter 656, Statutes of 1911 and as amended.

CSLC-2 **Project Description**

The LAHD proposes to amend the existing Port Master Plan (PMP) to meet the agency's objectives and needs as follows:

- Develop the Port in a manner that is consistent with federal, state, county, and city laws, including the California Coastal Act and Charter of the City of Los Angeles;
- Integrate economic, engineering, environmental, and safety considerations into the Port development process for measuring the long-term impact of varying development options on the Port's natural and economic environment;
- Promote the orderly, long-term development and growth of the Port by establishing functional areas for Port facilities and operations; and,
- Allow the Port to adapt to changing technology, cargo trends, regulations, and competition from other U.S. and foreign ports.

From the Project Description, CSLC staff understands that the Project would include the following components:

- Planning Areas. Changes to the number and boundaries of existing planning areas;
- Land Use Categories. Changes to existing PMP land use categories;
- Allowable Land Use. Revisions to allowable land uses within the planning areas;
- Fill Projects. Descriptions of the proposed appealable/fill projects; and,
- Other Future Projects. A list of the other projects that have been approved in a certified CEQA document and/or are undefined (i.e., in the conceptual design stage) that are identified for public disclosure purposes consistent with the Program.

The Draft PEIR identifies the No Fill Alternative, which would eliminate the cut/fill projects and associated land use changes (container storage), as the Environmentally Superior Alternative.

CSLC-3 CSLC staff has reviewed the environmental impact analysis in the Draft PEIR related to excavation of sediment from the intertidal zone to install the proposed outfall. Staff is satisfied with the analysis and has no further comments.

CSLC-4 Thank you for the opportunity to comment on the Draft PEIR for the Project. Please send copies of future Project-related documents, including electronic copies of the Final

PEIR, Mitigation Monitoring and Reporting Program (MMRP), Findings, Notice of Determination (NOD) and, if applicable, Statement of Overriding Considerations (SOC) when they become available, and refer questions concerning environmental review to Sarah Sugar, Environmental Scientist, at (916) 574-2274 or via e-mail at Sarah.Sugar@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Sharron Guerrieri, Graduate Legal Assistant, at (916) 574-1868, or via email at Sharron.Guerrieri@slc.ca.gov. CSLC-4

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
Sharron Guerrieri, CSLC
Sarah Sugar, CSLC
Kathryn Colson, CSLC

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Comment Letter CSLC: California State Lands Commission

Response to Comment CSLC-1:

The comment acknowledges that the California State Lands Commission (CSLC) has reviewed the Draft PEIR and summarizes their role as a trustee agency for proposed projects that could affect sovereign lands and accompanying Public Trust resources or uses. The comment is general and does not reference a specific section of the Draft PEIR or raise issues under CEQA requiring a response; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment CSLC-2:

This comment summarizes the proposed Program objectives and needs, and acknowledges that the No Fill Alternative is identified in the Draft PEIR as the environmentally superior alternative. The comment is general and does not reference a specific section of the Draft PEIR or raise issues under CEQA requiring a response; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment CSLC-3:

The comment notes that CSLC staff have reviewed the environmental impact analysis in the Draft PEIR and were satisfied with the analysis and had no additional comments. The reference to an outfall and excavation of intertidal sediments appears to be in error, as the program description for the proposed action does not include these elements.

Response to Comment CSLC-4:

Thank you for your comment. The LAHD will provide future project-related documents to CSLC as they become available. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN, JR. Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF TRANSPORTATION PLANNING
IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-6696
FAX: (213) 897-1337

Flex your power!
Be energy efficient!

April 10, 2013

Mr. Christopher Cannon
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731

Re: Port of Los Angeles Master Plan Update
Program Environmental Impact Report
Draft Environmental Impact Report (Draft EIR)
SCH #2012071081, IGR No. 130229EA
Vic. LA/110 / PM 0.00 – 5.00, LA/710/0.00-5.00

Dear Mr. Cannon:

The California Department of Transportation (Caltrans) has reviewed the transportation and circulation section in the Draft Environmental Impact Report (Draft EIR) prepared for the proposed Port of Los Angeles Master Plan Update (PMPU). The PMPU includes major planned developments such as the Wilmington Waterfront Project, Yang Ming Terminal Redevelopment, and Pier 500 Fill (200 acre fill). DOT-1

In our previous correspondence to the Notice of Preparation (NOP) of a Draft EIR, we expressed concerns over potential adverse transportation impacts to the state highway system (SHS) that serves the Port of Los Angeles (POLA). We also requested that traffic engineers consult with us to clarify the scope of work expected in the traffic impact study, which was not done. State highway facilities that would most likely be impacted by future growth within the PMPU include: Interstates 110 (I-110), 405 (I-405), 710 (I-710), State Routes 47 (SR-47), 60 (SR-60), State Route 91 (SR-91), State Route103 (SR-103), and Pacific Coast Highway (SR-1). DOT-2

We understand that the Draft comment period expired April 8, 2013, but given that Caltrans is a responsible agency in the CEQA review process, Ms. Lisa Ochsner indicated in a phone conversation with my staff, that our comments would still be considered. In the interest of mutual cooperation through build-out of the PMPU, we have the following comments on the traffic impact study included in the Draft EIR. DOT-3

- The freeway analysis was limited to segments designated as monitoring stations in the Los Angeles County's Congestion Management Plan (CMP); it is not clear to what extent other freeway segments closer and farther from the POLA would be impacted. To be able to determine whether the freeway study area is appropriate, we reiterate our request to view the results of a select zone model run for all trips having trips ends at POLA zones. For example, State Route 60 is considered a preferred truck route in the greater Los Angeles area; as such Caltrans is interested in knowing the extent to which it might be impacted.

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DOT-4 • The traffic impact study should include exhibits such as a map showing designated truck routes to and from the project site, as well as the trip assignment distribution.

DOT-5 • Caltrans requests that the traffic impact study analyze the truck lane movements at intersections involving state highway facilities. For example, if the designated truck route involves an intersection with a left turn pocket, the level of service and queue of that left movement needs to be evaluated. The traffic analysis should evaluate the adequacy of the projected storage length, and truck turning radii where applicable. PMPU related truck movements should be studied in more detail, especially at ramps, as this may adversely impact safety.

DOT-6 • According to the traffic impact study on freeways, Impact TRANS-4 (page 3.12-49), the proposed PMPU could significantly impact I-710 north of Pacific Coast Highway – northbound and southbound directions during the AM peak hour and northbound during the PM peak hour; I-710 north of I-405, south of Del Amo Boulevard – southbound during the AM peak hour; and I-710 north of I-105, north of Firestone Boulevard – northbound during the AM peak hour. We note freeway facilities were analyzed to comply with CMP. As stated in Caltrans NOP comments, Los Angeles County's CMP criteria alone is not adequate for the analysis of transportation impacts pursuant to a California Environmental Quality Act (CEQA) review. For example, the CMP does not adequately address cumulative transportation impacts and does not analyze for safety, weaving problems, or delay. The CMP improperly uses a percentage criterion for determining the significance of traffic impacts on freeways. The use of a "ratio theory" or "comparative approach", such as the CMP's 2% increase in V/C, improperly measures a project's incremental impact relative to the existing cumulative effect rather than measuring the combined effects of the proposed project and other relevant past, present, and future projects. Furthermore, CEQA does not call for evaluation of potential impacts from a project on an existing plan; it is concerned with the impacts upon the environment, which is defined as the existing physical conditions in the affected area. Given the level of existing congestion on nearby freeways, projected PMPU traffic is expected to significantly impact more freeways segments and ramps than those disclosed on the current traffic impact report. Caltrans requests the Los Angeles Harbor Department (LAHD) as lead agency consult with us and revise its criteria of significance for the SHS.

DOT-7 • We acknowledge MM TRANS-1 which states "LAHD shall collaborate with Caltrans and Metro to secure funding and ensure timely implementation of the I-710 Corridor project by 2035 to alleviate the effects of future Port area and regional traffic growth on the I-710". Caltrans requests that LAHD revise its mitigation commitment to mitigate for directly impacted state facilities and contribute to mitigation improvements for significant cumulative transportation impacts. It is recommended the LAHD develop a funding mechanism of its own to implement transportation improvements on the state highway system. These funds may serve as matching funds to attract State and Federal funds. Again, we request the lead agency seek Caltrans' concurrence as to proposed mitigation measures on state facilities that are under its jurisdiction.

DOT-8 As you may be aware, the proposed I-710 Corridor Project has not been approved or funded. It should not be relied upon as the only mitigation proposal to I-710; alternate transportation mitigation alternatives should be considered. We remind you that the more specific the mitigation commitment is at the program level, the more predictable it is for individual projects and a less intensive freeway analysis may suffice.

The traffic impact study does not mention whether it plans to follow through and implement improvements to freeway interchanges at I-110/"C" Street, I-110/John S. Gibson Boulevard, and the widening of the connector between southbound SR-47 to northbound I-110, for which a project study report (PSR) has been completed. Please explain whether and if these improvements are related to the PMPU. DOT-9

- In summary, the majority of the traffic concerns that Caltrans brought to your attention in the NOP comment letter have not been addressed adequately. Please see attached NOP comment letter. We request LAHD schedule a traffic impact scoping meeting with us to attempt to resolve the various outstanding issues we have identified in our comments to the NOP and now during the Draft EIR review. DOT-10

If you have any questions regarding these comments and wish to schedule a consultation meeting, you may contact project coordinator Elmer Alvarez at (213) 897 – 6696 or electronically at elmer_alvarez@dot.ca.gov.

Sincerely,

DIANNA WATSON,
IGR/CEQA Branch Chief
Office of Transportation Planning
Caltrans District 7

Cc: Scott Morgan, State Clearinghouse

Attachment: Caltrans' comment letter to PMPU Notice of Preparation of Draft EIR

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STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN, JR. Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7, OFFICE OF TRANSPORTATION
PLANNING - IGR/CEQA BRANCH
100 MAIN STREET, MS # 16
LOS ANGELES, CA 90012-3606
PHONE: (213) 897-6696
FAX: (213) 897-1337

Flex your power!
Be energy efficient!

August 20, 2012

Mr. Christopher Cannon
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731

Re: Port of Los Angeles Master Plan Update
Program Environmental Impact Report (NOP)
SCH #2012071081, IGR No. 120727EA
Vic. LA-110 / PM 0.00 – 5.00

Dear Mr. Cannon:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the proposed Port of Los Angeles Master Plan Update (PMPU). Based on the Notice of Preparation of an Environmental Impact Report (EIR), the environmental review will evaluate the cumulative effects of planned development projects within the various planning areas. Major planned developments include the Wilmington Waterfront Project, Yang Ming Terminal Redevelopment, Pier 500 Fill (200 acre fill).

The California Department of Transportation (Caltrans), the State agency with jurisdiction over State highways (freeways), is concerned that the expected increase in traffic volume has the potential to affect Interstates 110 (I-110), 405 (I-405), 710 (I-710), State Routes 47 (SR-47), 60 (SR-60), 91 (SR-91) and 103 (SR-103).

A traffic study, using Caltrans Criteria, is necessary to fully evaluate the potential project impacts to the above mentioned State transportation facilities. Please refer the traffic consultant to the *Caltrans Guide for the Preparation of Traffic Impacts Studies* (see Traffic Study Elements attachment) Website:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

The traffic study should analyze the extent of the impact to the mainline, as well as, the intersections at SR-47 and Harbor Boulevard, and the I-110 interchanges at John S. Gibson Boulevard, C Street, and Harry Bridges Boulevard.

The expected growth in the port complex promises substantial increase in container truck traffic by year 2035. Potential impacts from future increase in heavy duty truck traffic should receive special consideration in the transportation impact analysis.

It is requested that a queue analysis on the off-ramps that are expected to be utilized the most. Please include proposed mitigation measures for off-ramps where the projected vehicle queuing is expected to exceed the storage capacity.

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To determine the scope of freeway analysis, a select zone model run for trips with trip ends at the project zones should be performed, including loaded 2035 network with and without project, with network improvements.

It is requested that the traffic consultant contact Caltrans prior to the commencement of the traffic study to clearly identify scope of work. Caltrans may be able to share any data it may have collected for the routes to be analyzed.

Caltrans requests that the following information be included in the traffic impact analysis:

- Presentations of assumptions and methods used to develop trip generation, trip distribution, trip assignments, and choice of travel mode. Travel modeling should be consistent with other regional and local modeling forecasts and with travel data.

- Include all appropriate traffic volumes: a) traffic from the project under consideration, b) cumulative traffic from all specific approved developments in the area, c) cumulative traffic from likely not-yet-approved developments in the area, and d) traffic growth other than from the project and developments. For example: existing+ project+ other projects+ other growth.

- Analysis of AM, and PM peak-hour volumes for both existing and future conditions in the affected area. Level of Service should be specified (HCM2000 methodology is requested). Future conditions would include build-out of all projects and any plan-horizon years.

- Discussion of mitigation measures appropriate to alleviate anticipated traffic impacts. This discussion should include, but not be limited to, the following:

    - description of transportation infrastructure improvements
    - financial costs, funding sources and financing
    - sequence and scheduling considerations
    - implementation responsibilities, controls and monitoring

- A plan of realistic mitigation measures under the control of the lead agency or project sponsors or specification percent shares of the costs for various mitigation actions undertaken by other agencies. Any assessment fees for mitigation action should be in proportion of the additional traffic generated by the project to the amount of traffic benefiting from action (see Traffic Impact Study Guide).

The lead agency is required to comply with Los Angeles County Congestion Management Program (CMP) standards and thresholds of significant. However, Caltrans does not consider the Los Angeles County's CMP criteria alone to be adequate for the analysis of transportation impacts pursuant to a CEQA review. The CMP does not adequately address cumulative transportation impacts and does not analyze for safety, weaving problems, or delay. Caltrans' Guide directs preparers of traffic impact analysis to consult with the local District as early as possible to determine the appropriate requirements and criteria of significance to be used in the traffic impact analysis.

Traffic Mitigations Alternatives

The traffic engineering firm retained to prepare the traffic impact analysis should work cooperatively with Caltrans to determine and include transportation mitigation needed on State Highway facilities.

Due to the magnitude of planned development, it is anticipated that improvements to nearby State highways would be necessary to accommodate projected traffic demand. It is expected the plan will recommend construction of mitigation improvements on State facilities that are directly impacted and contribute on a proportional basis to those State facilities where the plan impacts on a cumulative basis.

The Port of Los Angeles in conjunction with Caltrans has prepared Project Study Reports (PSR) for modifications to the interchanges at I-110/John S. Gibson and I-110/C Street and for the widening of the connector between southbound SR-47 to northbound I-110. It is anticipated that the program EIR will require the completion these improvements.

Listed below are mitigation measures that may be considered:

Mitigation measures for Direct Impacts may include:
On-Dock Rail projects new or enhancement to existing ones.
Construction of On and Off-ramp improvements to/from I-110, SR-47, SR-103
Mainline operational improvements, e.g. Changeable Message signs, metering, etc.
Synchronization of traffic signals
Enhancements to Traffic Management Center

Transportation Demand Management (TDM) Measures
Shuttle Buses to Marine Research Center and/or Ports O' Call Fish Market
Incentives to Vanpooling and Carpooling, e.g. preferential parking
Port Shuttles e.g. Dash Buses

Mitigation measures for Cumulative impacts may include:
Fair Share funding contributions towards construction of future freeway improvements.
Funding of necessary planning studies to bring about future freeway improvements

Construction Traffic

There may be extensive construction activity associated with the planned projects, therefore, it is requested that the PMPU require truck-management-plans for those projects. Transportation of heavy equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a transportation permit from Caltrans. It is recommended that large size truck trips be limited to off-peak commute periods as to avoid disruption of daily traffic.

The transportation of heavy construction equipment, materials, or other special equipment, which requires the use of oversized-transport vehicles on State highways, will require a Caltrans transportation permit.

In all instances where the proposed work falls within or affects the State right-of-way such as constructions, grading, changes to hydraulic run-off, etc., a Caltrans encroachment permit will be required. The permit process for complex highway improvements requires additional time and attention.

Early coordination with Caltrans is strongly encouraged for any mitigation improvements to State highways.

Conclusion

We look forward to reviewing the traffic study and expect to receive a copy from the State Clearinghouse when the DEIR is completed. However, to expedite the review process, you may send a copy in advance to the undersigned. Caltrans staff is available for consultation meetings at your earliest convenience. If you have any questions regarding these comments, you may reach project coordinator Elmer Alvarez at (213) 897 – 6696 or electronically at Elmer_Alvarez@dot.ca.gov. Please refer to our internal record number 120727/EA.

Sincerely,

DIANNA WATSON,
IGR/CEQA Branch Chief
Office of Transportation Planning
Caltrans District 7

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Comment Letter DOT: California Department of Transportation (Caltrans), District 7

Response to Comment DOT-1:

The comment addresses introductory material and does not raise issues that require a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below.

Response to Comment DOT-2:

The Draft PEIR does adequately address potential traffic impacts on the State Highway System (SHS; refer to Draft PEIR Section 3.12, Transportation and Circulation, and Appendix F, Ground Transportation). First, in terms of analyzed SHS locations (freeways and arterial streets), the LAHD analyzed all locations that could be potentially impacted by the proposed Program, including the SHS identified in the DOT comment. As indicated in the analyses, none of the Pacific Coast Highway (PCH) intersections would be significantly impacted by the proposed Program. Further, it can be reasonably concluded that no other SHS arterial intersections located beyond the study area would be impacted because the proposed Program-level trips would be less at these further locations due to expected dissipation. No other freeway locations beyond the study area would be impacted either, as demonstrated in the select-zone analysis/results, and additional freeway analysis (refer to Chapter 3.0, Modifications to the Draft Program EIR). This analysis indicates that the proposed Program-level number of trips on other freeways beyond the study area would be less than the projected amount on those Congestion Management Program (CMP) locations analyzed in the Draft PEIR, and the incremental change in the demand/capacity ratio (D/C ratio) would be less than 0.02, including all freeway locations identified in the comment letter.

As prescribed in the *Guide For The Preparation of Traffic Impact Studies* (Caltrans 2002) for general plan amendments/updates, the general plan update is to be compared to the current general plan. The Port's PMP serves as the City of Los Angeles' long-term area plan for the Port district, similar to a City of Los Angeles Community Plan component of the General Plan. Hence, the LOS results shown in the Draft PEIR (Table 4.2-7) represent the required Caltrans traffic analysis scenario, which compared the PMPU with the existing PMP. As shown in Table 4.2-7 of the Draft PEIR, the PMPU would have a marginal (demand/capacity increase of 0.016) effect on the I-710, at Willow Street, and only in the northbound direction, during the morning peak hour.

Regarding the methodology used to analyze arterial street intersections and potential impacts, the planning level volume-capacity methodology (as opposed to analyzing several operational parameters such as left-turn lane storage lengths) is more appropriate, as most, if not all local agencies in southern California prescribe this approach. Moreover, this is the prescribed approach of the affected local agencies' with intersections analyzed in this PEIR (i.e., City of Long Beach, City of Los Angeles, and City of Carson).

Regarding the methodology used to analyze freeway operations and impacts, the planning level demand-capacity methodology is prescribed by the Los Angeles

County Metropolitan Transportation Authority's (*Metro's) Congestion Management Program Traffic Impact Analysis Guidelines* (LACMTA 2010) and therefore is appropriate for assessing the impacts of a program-level EIR as opposed to the Highway Capacity Manual [HCM] operational methodology. Furthermore, it should be noted that program-level EIR for master plans and general plans in Los Angeles County have analyzed the freeways in the same manner. Examples include the Los Angeles World Airports LAX Master Plan EIR and several recent City of Los Angeles community plan update programmatic EIRs. Finally, the Year 2035 LOS (using the HCM operational methodology) on the I-710, which accounts for the PMPU traffic, is presently being updated for the recirculated Draft EIR/Environmental Impact Statement (EIS) for the I-710 Corridor Project. This recirculated Draft EIR/EIS is currently being prepared by Caltrans, in conjunction with Metro and the Port and Port of Long Beach. Deference to this project-specific design-level EIR LOS analysis is more appropriate and recommended. Hence, the PMPU will not be updated for HCM methodology.

Regarding consultation with Caltrans, the LAHD is voluntarily collaborating with the state in addressing future traffic conditions on the I-710, as a partner with Caltrans and Metro, via the I-710 Corridor Project EIR/EIS. LAHD provided all Port and Port of Long Beach traffic volumes for direct incorporation into the I-710 Corridor Project EIR/EIS model (which is a focus model of the Southern California Association of Governments [SCAG's] Regional Transportation Plan [RTP] model). These projections informed the traffic study scope and are consistent with the PMPU Draft PEIR traffic analyses.

Response to Comment DOT-3:

Please see Response to Comment DOT-2.

Response to Comment DOT-4:

LAHD acknowledges Caltrans' request to include exhibits such as a map showing designated truck routes and trip distribution and understands that such documentation would improve the PEIR. Figure 3.12-6, Program Trip Distribution, has been incorporated and is included in the Final PEIR Chapter 3.0, Modifications to the Draft Program EIR.

Response to Comment DOT-5:

Please see Response to Comment DOT-2. The volume- capacity and demand-capacity methodologies used are appropriate for the PEIR. Furthermore, environmental assessment would be required at the project-level. If significantly impacted freeway locations are identified through the capacity analysis at the project-level, a design-level analysis (such as the HCM methodology) could be conducted to determine the appropriate course of action in mitigating the identified significant impacts.

Response to Comment DOT-6:

Please see Response to Comment DOT-5. The volume- capacity and demand-capacity methodologies used are appropriate for the PEIR. Environmental assessment

would be required at the project-level. If significantly impacted freeway locations are identified through the capacity analysis at the project-level, a design-level analysis (such as the HCM methodology) could be conducted to determine the appropriate course of action in mitigating the identified significant impacts. Furthermore, the CMP analysis addresses cumulative transportation impacts in Draft PEIR Section 4.2.12, Transportation and Circulation, in which the Year 2035 cumulative scenario is analyzed with and without the proposed Program-level trips on the freeways and arterial street intersections (refer to Draft PEIR Section 4.12, Transportation and Circulation, Tables 4.2-5 and 4.2-7).

Response to Comment DOT-7:

At the program-level, significant impacts to the I-710 have been identified, and as such, mitigation measure TRANS-1 does not address state highway facilities beyond I-710.

Project-specific environmental documentation would be completed for projects occurring under the PMPU and could determine project-specific impacts to other state highway facilities in addition to the I-710. The PEIR focuses on land use changes that would result in changes and/or intensification of activities and the proposed appealable/fill projects under the PMPU, and provides a programmatic evaluation of impacts associated with future buildout. The proposed appealable/fill projects under the PMPU are in preliminary planning stages; therefore, it is not possible to accurately describe or predict particular alternative infrastructure improvements which would be both feasible and effective at avoiding or reducing any significant freeway traffic impacts of any particular development projects under the proposed Program. This is because the type of development, timing of development, and conditions at the time in which development would occur are not currently known. Therefore, as future planning efforts occur for the proposed appealable/fill projects and development resulting from land use changes under the PMPU, separate environmental documentation with detailed traffic analyses would be prepared, if required under CEQA, to determine specific impacts associated with proposed development and mitigation would be applied, as necessary and as feasible. The mitigation measures would address significant impacts upon the I-710 and any other significantly impacted state highway facilities.

The LAHD proactively collaborates with other agencies to address regional transportation needs identified in LAHD and regional plans. For locations determined to be significantly impacted by Port operations through subsequent project-specific environmental documents, LAHD would collaborate with Caltrans and other agencies to identify the appropriate state highway facility improvements to mitigate those significant impacts, as it is doing for the I-710 Corridor Project. LAHD has and continues to demonstrate its commitment to collaborating with Caltrans and partnering agencies in addressing future traffic conditions on the I-710. The LAHD is a technical partner to Caltrans and Metro for the Project Approval/Environmental Documentation (PA/ED) phase. The I-710 Corridor Project Draft EIR/EIS proposes improvements to the entire 20-mile corridor to accommodate all Year 2035 Port and Port of Long Beach and regional traffic. Year 2035 Port and Port of Long Beach traffic represents buildout conditions at the ports. The corridor area includes the mainline freeway and adjacent arterial street system. The I-710 Corridor Project EIR/EIS utilizes HCM methodologies (weaving, mainline, ramp diverge/merge),

which is appropriate for a transportation facility environmental document and preliminary engineering.

The LAHD contributed $5 million for the PA/ED phase, and participates directly and extensively by providing technical guidance/input for the preliminary engineering; the Administrative, Draft, and Final EIR/EIS; and the Caltrans Project Report. This input is provided on all technical studies as well, that includes (but is not limited to): air quality; transportation; goods movement; rail/intermodal; and, alternative technology. For these studies, the LAHD provided all Port and Port of Long Beach traffic volumes for direct incorporation into the I-710 Corridor Project EIR/EIS model (which is a focus model of the SCAG RTP model). These projections are consistent with the PMPU Draft PEIR analyses. Additionally, the Port and Port of Long Beach jointly conducted several alternative technology (zero emission container movement systems [ZECMS]) studies which guided the I-710 Corridor Project EIR/EIS studies, and ultimately led to the recommendation of a separate truckway with zero emission technology.

LAHD's financial contribution toward infrastructure improvements to mitigate project-specific significant impacts would be examined in conjunction with the project-specific environmental assessments, and would be subject to the existence of a mechanism for pro-rata mitigation funding for the infrastructure improvements which are determined by the LAHD to be necessary and effective for avoiding or reducing the significant impacts.

Since the I-710 Corridor Project has not yet been approved, and because there is currently no funding mechanism allowing projects to contribute pro-rata mitigation funding for needed infrastructure improvements to that freeway, it is not currently feasible to mitigate impacts to the I-710 by contributing mitigation funding for that purpose. Nevertheless, if the I-710 Corridor Project, or components thereof, is approved for construction, and if a mechanism for the contribution of mitigation funding for the I-710 Corridor Project comes into existence, the LAHD will consider the need for and feasibility of contribution toward funding that project in the future, in connection with subsequent project-specific environmental review for the proposed appealable/fill projects and land use changes under the PMPU. Any such funding would be in addition to revenue from tolls on the truck facility and funds from other public sources, including Metro (e.g., Measure R, CMAQ, RTSP, etc.), the federal, and/or the state government.

Response to Comment DOT-8:

The LAHD agrees that reliance on the I-710 Corridor Project does not guarantee the specific impacts identified in the PEIR would be mitigated, given that the I-710 project has not been approved or funded. However, as future planning efforts occur for the proposed appealable/fill projects and other developments resulting from land use changes under the PMPU, project-specific environmental documentation would be conducted to readdress potential impacts. That documentation would include detailed traffic analyses that would identify specific impacts, and mitigation would be applied as necessary. Accordingly, it would be inappropriate to commit to specific mitigation measures at this time.

It is possible that in some cases those impacts could be mitigated by physical modifications to I-710 (no other freeways would experience significant program-related impacts). Given that the I-710 Corridor Project EIR/EIS is still in development, along with the associated specific freeway and arterial street improvement projects, it would be inappropriate and infeasible at present to identify alternative program-level specific mitigation measures. This is because such measures could be in conflict with the needs of the agency partners while those agencies are collaborating on detailed planning and design of the I-710 Corridor Project. Furthermore, it is possible that the degradation of operating conditions on the I-710 attributable to the PMPU could be ameliorated by implementation of the I-710 Corridor Project.

If the I-710 Corridor Project has not been approved, then the project-specific CEQA process would identify appropriate feasible mitigation and require its implementation (refer to Chapter 3.0, Modifications to the Draft Program EIR). Thus, mitigation measure **MM TRANS-1** is consistent with the Department's recommendation that alternate mitigation measures be considered.

Response to Comment DOT-9:

The I-110 Freeway Ramp & SR 47/I-110 North Bound Connector Widening Project, which is independent of the PMPU, will be advertised for construction in the next 2 to 3 months, and was accounted for in the PEIR cumulative impacts traffic analysis.

Response to Comment DOT-10:

The decision to make improvements, such as those mentioned in the NOP comment letter, would arise from the ongoing planning and design process for I-710 rather than the PEIR impact analysis. Impacts from the Port on I-710 are well documented, predating the PMPU, and are part of the consideration in the planning and design of I-710. Notably, the PEIR does not present new information, but rather provides additionally supporting results from previous analyses.

In summary:

- The LAHD believes the Draft PEIR adequately addresses potential impacts on the SHS and that the methodologies are adequate, as described in the above responses;
- Table 4.2-7 of the Draft PEIR represents the required Caltrans traffic analysis scenario, which compared the PMPU with the existing PMP. As shown in this table, the PMPU would have a marginal (demand/capacity increase of 0.016) effect on the I-710, at Willow Street, and only in the northbound direction, during the morning peak hour only;
- The PEIR is not a project-specific EIR and the cumulative impacts of all Port traffic are being addressed in the I-710 Corridor Project EIR/EIS, in which the LAHD is a technical partner; and,
- Project-specific environmental documentation would be completed for projects occurring under the PMPU to determine project-specific impacts to the I-710 and other state highway facilities.

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CITY OF RANCHO PALOS VERDES
CITY MANAGER'S OFFICE
ADMINISTRATION

2 April 2013

VIA ELECTRONIC & U.S. MAIL

Port of Los Angeles
Planning & Economic Development Division
425 S. Palos Verdes St.
San Pedro, CA 90731

SUBJECT: City of Rancho Palos Verdes' Comments on Draft Port Master Plan

To Whom It May Concern:

The City of Rancho Palos Verdes—located just west of the San Pedro community of the City of Los Angeles—appreciates the opportunity to review the Port of Los Angeles' Draft Port Master Plan. We have reviewed the Plan and offer the following comments: RPV1-1

1. Section 5.0 of the Plan describes the five (5) planning areas of the Plan, including the designation and acreage of land uses therein. We understand that the Plan proposes to eliminate liquid bulk storage within Planning Area 1 (located nearest to densely-populated areas in San Pedro and Rancho Palos Verdes) and to designate at least one hundred sixty-six acres (166 ac.) within Planning Areas 2 and 3 for liquid bulk storage. The City of Rancho Palos Verdes is supportive of any plan that would reduce the risk of exposing residents to the hazards related to the storage and transport of liquid bulk cargoes. We further suggest that the Port should make additional provisions in the Plan to facilitate the relocation of liquid bulk storage facilities to the harbor area, including the future 200-acre Pier 500 project within Planning Area 3 (i.e., Terminal Island).

2. Section 8.0 of the Plan describes the Risk Management Plan (RMP) for the Port. We understand that the stated intent of the RMP "is to assess the potential risks of the storage and transfer of hazardous commodities occurring at liquid bulk terminals within the Port." To this end, we offer the following observations: RPV1-2

   a. Although apparently not mandated by the California Coastal Commission, we believe that the RMP should also include a "good faith" effort to assess the risks associated with the storage and handling of hazardous liquid bulk cargoes on vessels, tanker trucks, rail tank cars and in pipelines, at least within the areas covered by the Plan. To do so would demonstrate the

30940 HAWTHORNE BLVD / RANCHO PALOS VERDES, CA 90275-5391 / (310) 544-5205 / FAX (310) 544-5291
WWW.PALOSVERDES.COM/RPV
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Port of Los Angeles
2 April 2013
Page 2

RPV1-2 Port's willingness to provide more than the minimum, statutorily-required protection and notification to "vulnerable resources."

RPV1-3 b. We note that the RMP identifies "[residents] living in the area around the Port [as] the largest and most vulnerable number of people exposed to risks." It also specifically identifies certain critical Port infrastructure (i.e., the Vincent Thomas and Badger Avenue bridges) as "vulnerable resources." The RMP discusses "hazard footprints" in terms of potential adverse impacts upon these "vulnerable resources," including radiant heat, toxic and/or flammable vapor cloud, blast overpressure and flying debris However, the RMP provides no specifics or details regarding the location or extent of these "hazard footprints" for either existing or proposed liquid bulk facilities in the Port.

RPV1-4 3. Section 9.0 of the Plan summarizes the Program Environmental Impact Report (PEIR) prepared for the Plan. The City of Rancho Palos Verdes will be commenting separately on the Draft PEIR, on or before the end of the public comment period on 8 April 2013.

Again, thank you very much for the opportunity to review and comment upon this important project. If you have any questions or need additional information, please feel free to contact me at (310) 544-5226 or via e-mail at *kitf@rpv.com*

Sincerely,

Kit Fox, AICP
Senior Administrative Analyst

cc: Mayor Susan Brooks and City Council
Carolyn Lehr, City Manager
Carolynn Petru, Deputy City Manager
Border Issues file

M:\Border Issues\LA Port Master Plan Update\20130402_POLA_DraftPMPComments.docx

Comment Letter RPV1: City of Rancho Palos Verdes

Response to Comment RPV1-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Final PMPU, for information provided in response to this comment.

Response to Comment RPV1-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Final PMPU, for information provided in response to this comment.

Response to Comment RPV1-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Final PMPU, for information provided in response to this comment.

Response to Comment RPV1-4:

Thank you for your comment. Responses to the city's comments on the Draft PEIR are provided in responses to Comments RPV2-1 through RPV2-4. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

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CITY OF RANCHO PALOS VERDES
OFFICE OF THE CITY MANAGER

8 April 2013

VIA ELECTRONIC & U.S. MAIL

Christopher Cannon, Director of Environmental Management
Los Angeles Harbor Department
425 S. Palos Verdes St.
San Pedro, CA 90731

SUBJECT: City of Rancho Palos Verdes' Comments on Draft Program Environmental Impact Report for the Port Master Plan Update

Dear Mr. Cannon:

The City of Rancho Palos Verdes appreciates the opportunity to review the draft Program Environmental Impact Report (PEIR) for the Port Master Plan Update (PMPU). We have reviewed the PEIR and offer the following comments: RPV2-1

1. Section 3.7 of the PEIR discusses the hazards and hazardous materials impacts of the PMPU. The two (2) relevant mitigation measures proposed in Section 3.7 are in response to "reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment" (i.e., Impact HAZ-2). However, the City of Rancho Palos Verdes respectfully suggests that Section 3.7 of the PEIR requires additional analysis in the following issue areas:

    a. The analysis of Impact HAZ-1 (i.e., relating to "[hazards] to the public or the environment through the routine transport, use, or disposal of hazardous materials") concludes that impacts will be less-than-significant and that no mitigation is warranted because these activities are already "extensively regulated…to prevent releases and accidents, and ensure the capability to respond in the event of an accident." From our review of the draft PMPU document, we understand that the California Coastal Commission does not mandate the assessment of risks associated with the storage and handling of hazardous liquid bulk cargoes on vessels, tanker trucks, rail tank cars and in pipelines as a part of a port master plan. However, we believe that the PEIR should include a "good faith" effort to assess these risks as well. To do so would demonstrate the Port's willingness to provide more than the minimum, statutorily-required protection and notification to vulnerable resources and populations in the vicinity of the Port.

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Christopher Cannon
8 April 2013
Page 2

RPV2-2

b. The analysis of Impact HAZ-2 (i.e., relating to "reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment") concludes that there are potentially-significant impacts related to the risk of hazardous materials releases into the waters of the Port, and suggests two (2) mitigation measures that would only apply to "projects involving hazardous liquid bulk facilities with in-water operations." The PEIR briefly discusses the Port's Risk Management Plan (RMP) as the means by which conflicts between liquid bulk facilities and vulnerable resources and populations are to be resolved. From our review of the draft PMPU document, we understand that this is to be done through the Port's assessment and identification of any overlapping "hazard footprints" for liquid bulk facilities and nearby vulnerable resources and/or populations. However, neither the PEIR nor the PMPU provides any specifics or details regarding the location or extent of these "hazard footprints" for either existing or proposed liquid bulk facilities in the Port. As such, we respectfully suggest that the conclusion that such environmental impacts are less-than-significant is not adequately supported by evidence provided in the PEIR.

RPV2-3

2. Section 5.0 of the PEIR discusses the program alternatives to the proposed PMPU. The PEIR notes that, although many key components of the program alternatives suggested by the Port Community Advisory Committee (PCAC) have been included in the PMPU, the PCAC recommendations related to liquid bulk storage facilities near the Wilmington community in the City of Los Angeles and on Terminal Island were rejected, respectively, as:

- Not avoiding or reducing significant environmental impacts; and,
- Being physically and financially infeasible.

The City of Rancho Palos Verdes offers the following comments with respect to the rejection of the PCAC alternative (Section 5.1.4.1) in the PEIR:

a. With respect to the PCAC recommendations regarding liquid bulk storage near Wilmington, the PEIR (Page 5-4, Lines 32-39) again relies upon the Port's RMP to ensure that there are no significant adverse impacts upon "vulnerable resources." However, as we noted in our Comment 1.b above, we are concerned that the lack of details and specifics about the "hazard footprints" of existing or proposed liquid bulk facilities in the Port does not offer sufficient evidence to support this conclusion in the PEIR.

RPV2-4

b. With respect to the PCAC recommendations regarding the relocation of liquid bulk storage to Terminal Island, the PEIR (Page 5-5, Lines 1-16) asserts that there is a lack of available berthing capacity and that the cost of such relocation would be economically infeasible. It is not clear if these

conclusions took into account the possible future expansion and development of the "Pier 500" project on Terminal Island, as described in the draft PMPU document. Would the berthing capacity for the relocation of liquid bulk facilities still be inadequate on Terminal Island with the addition of Pier 500? Would the relocation of such facilities to Pier 500 still be infeasible? RPV2-4

Again, thank you very much for the opportunity to review and comment upon this important project. If you have any questions or need additional information, please feel free to contact me at (310) 544-5226 or via e-mail at *kitf@rpv.com*

Sincerely,

Kit Fox, AICP
Senior Administrative Analyst

cc: Mayor Susan Brooks and City Council
Carolyn Lehr, City Manager
Carolynn Petru, Deputy City Manager
Border Issues file

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Comment Letter RPV2: City of Rancho Palos Verdes

Response to Comment RPV2-1:

This comment addresses the PEIR and requests that Draft PEIR Section 3.7, Hazards and Hazardous Materials, assess the risks to the public and environment (under Impact HAZ-1) associated with storage and handling of liquid bulk cargoes on vessels, tanker trucks, rail tank cars, and pipelines.

Draft PEIR Section 3.7.4.3, Impacts and Mitigation Measures, addresses the risks under Impact HAZ-1 of routine transport, use, or disposal of hazardous materials. The Draft PEIR does not address risks to the public and environment associated with vessel or pipeline transport of liquid bulk from future liquid bulk facilities because specific project details are not available. The Draft PEIR concludes that operation of the proposed appealable/fill projects and land use changes would present a less than significant risk to the public in part because transportation, storage, and use of hazardous materials are extensively regulated. These safety regulations that govern the shipping, transport, storage, and handling of hazardous materials (i.e., United States Coast Guard [USCG], City of Los Angeles Fire Department [LAFD], and United States Department of Transportation [USDOT] regulations and requirements) will limit the severity and frequency of potential releases of hazardous materials. The LAHD's Risk Management Plan (RMP) also contains rigorous policies to prevent or minimize risks associated with operations of liquid bulk facilities in the Port.

Siting is another primary method of controlling risks, and the LAHD's RMP precludes the siting of new hazardous liquid bulk facilities and modifications to existing facilities near vulnerable resources that could be impacted. The RMP also precludes vulnerable resources from being sited near existing hazardous liquid bulk facilities. Additionally, siting of new vulnerable resources proximal to existing or approved facilities that handle hazardous liquid bulk cargoes is not permitted. Improvements or modifications to existing hazardous liquid bulk facilities or operations that would expand a hazard footprint, and therefore result in an overlap with vulnerable resources, are not permitted. For security reasons the LAHD does not provide maps with hazard footprints in CEQA documents or the PMPU. Nevertheless, the LAHD believes that risks of routine handling of hazardous materials are adequately addressed in the Draft PEIR, and no further changes are warranted.

Response to Comment RPV2-2:

This comment addresses the PEIR and states that the less than significant conclusion under Impact HAZ-2 (refer to Draft PEIR Section 3.7, Hazards and Hazardous Materials) is not adequately supported because the PEIR and PMPU do not show hazard footprints and their relationships to sensitive resources.

Draft PEIR Section 3.7.4.3, Impacts and Mitigation Measures, addresses the risks under Impact HAZ-2 of a release of hazardous materials to the environment through reasonably foreseeable upset or accident conditions. As discussed in Response to Comment RPV2-1, LAHD's RMP prohibits the siting of hazardous liquid bulk facilities near vulnerable resources that could be impacted. Compliance with existing regulations and requirements would appropriately limit the risk to the public from an

upset or accident involving hazardous materials associated with onshore operations of the proposed appealable/fill projects and land use changes. The commenter suggests that the PEIR should provide specifics or details regarding the location or extent of hazard footprints for existing or proposed facilities. The determination of hazard footprints for proposed facilities is not supported at the program level since sufficient details regarding proposed liquid bulk facilities are not presently available. Project specific environmental documentation would be required for future liquid bulk facility developments. Hazardous footprint information for existing hazardous liquid bulk facilities, as defined by the Port's RMP, is not released to the general public for security reasons. Currently, no hazard footprints overlap with vulnerable resources outside and/or within the Port.

Response to Comment RPV2-3:

Please see Response to Comment RPV2-2. The LAHD believes that sufficient evidence is provided to support rejection of the Port Community Advisory Committee (PCAC) recommendations regarding the relocation of liquid bulk facilities to Terminal Island.

Response to Comment RPV2-4:

Please see Response to Comment RPV2-2. Pier 500 is not a proposed project because specific details are currently undefined (i.e., in the conceptual design stage). This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Final PMPU, for information provided in response to this comment.

CITY OF LOS ANGELES
CALIFORNIA

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APR 12 2013
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HARBOR DEPARTMENT

ANTONIO R. VILLARAIGOSA
MAYOR

April 11, 2013

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WASTEWATER ENGINEERING SERVICES DIV.
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
(323) 342-6211

File: SC.CE.

Christopher Cannon, Director of Environmental Management
LOS ANGELES HARBOR DEPARTMENT
425 S Palos Verdes Street
San Pedro, California 90731

Dear Mr. Cannon:

PORT MASTER PLAN UPDATE – DRAFT EIR

This is in response to your February 21, 2013 letter received March 5, 2013 requesting a review of your proposed long-range plan to establish policies and guidelines for future developments within the coastal zone boundary. The Bureau of Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project. BOS-1

WASTEWATER REQUIREMENT

The Bureau of Sanitation, Wastewater Engineering Services Division (WESD) has reviewed the request and found the project to be related to a long-range plan to establish policies and guidelines for future development within the Port of Los Angeles only.

Based on the project description, we have determined the project is unrelated to sewers and therefore do not have sufficient detail to offer an analysis at this time. Should the project description change, please continue to send us information so that we may determine if a sewer assessment is required in the future.

If you have any questions, please call Kwasi Berko of my staff at (323) 342-1562.

STORMWATER REQUIREMENTS BOS-2

The Bureau of Sanitation, Watershed Protection Division (WPD) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

Recyclable and made from recycled waste

BOS-2 POST-CONSTRUCTION MITIGATION REQUIREMENTS

The project requires implementation of stormwater mitigation measures. These requirements are based on the Standard Urban Stormwater Mitigation Plan (SUSMP) and the recently adopted Low Impact Development (LID) requirements. The projects that are subject to SUSMP/LID are required to incorporate measures to mitigate the impact of stormwater runoff. The requirements are outlined in the guidance manual titled"*Development Best Management Practices Handbook – Part B: Planning Activities*". Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lastormwater.org. It is advised that input regarding SUSMP requirements be received in the early phases of the project from WPD's plan-checking staff.

BOS-3 GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the SUSMP/LID requirements.

BOS-4 CONSTRUCTION REQUIREMENTS

The project is required to implement stormwater control measures during its construction phase. All projects are subject to a set of minimum control measures to lessen the impact of stormwater pollution. In addition for projects that involve construction during the rainy season that is between October 1 and April 15, a Wet Weather Erosion Control Plan is required to be prepared. Also projects that disturb more than one-acre of land are subject to the California General Construction Stormwater Permit. As part of this requirement a Notice of Intent (NOI) needs to be filed with the State of California and a Storm Water Pollution Prevention Plan (SWPPP) needs to be prepared. The SWPPP must be maintained on-site during the duration of construction.

If there are questions regarding the stormwater requirements, please call Kosta Kaporis at (213) 485-0586, or WPD's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Fl, Station 18.

Sincerely,

Ali Poosti, Division Manager for
Wastewater Engineering Services Division
Bureau of Sanitation

KB\AP:tn

cc: Kosta Kaporis, BOS
Daniel Hackney, BOS
Zemamu Gebrewold, BOS

Div Files\SCAR\CEQA Review\FINAL CEQA RESPONSE Ltrs\Port Master Plan Update – Draft EIR

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Comment Letter BOS: City of Los Angeles, Bureau of Sanitation

Response to Comment BOS-1:

The City of Los Angeles Bureau of Sanitation (BOS), Wastewater Engineering Services Division, concluded that the proposed Program is unrelated to sewers, and because of the lack of specific project information cannot provide an analysis at this time. The LAHD will provide future project-related documents to BOS as they become available. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment BOS-2:

This comment notes that any new projects would be subject to stormwater management requirements contained in the Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID) requirements. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment BOS-3:

This comment notes that the city is developing a Green Streets Initiative that can be implemented in conjunction with SUSMP/LID requirements. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment BOS-4:

This comments notes that projects are required to implement stormwater control measures during the construction phase. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

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PORT TECH LOS ANGELES

April 5, 2013

Port of Los Angeles
Planning and Economic Development Division
Attention: Michael Cham
425 South Palos Verdes Street
San Pedro, CA 90733

Re: Port Master Plan Comments

Dear Mr. Cham,

The mission of PortTechLA is to create jobs by luring to the harbor area emerging and advanced technology companies with solutions to Port challenges in the areas of environment, clean energy, logistics and homeland security; then, incubating/accelerating their growth. We have been extremely supportive of the idea of the Marine Research Center at City Dock #1 since it was first proposed. It is highly complementary to our work, and will surely develop some overlapping technology solutions to benefit the Port and the community. PTLA-1

As we stated in remarks a couple of years ago, there is no downside to: Taking a couple of historic old waterfront warehouses at City Dock #1, rehabilitating and repurposing them, filling them with marine research scientists from eleven southern California colleges and universities, berthing several large research vessels along side, adding the world's largest saltwater wave tank, appending a marine science business park and incubator (in conjunction with PortTechLA), instituting educational programs for local high school students and topping it all off by running the Promenade and Pacific Red Car line adjacent to the facility to connect it to the community and making it accessible to tourists interested in viewing marine research as it happens. PTLA-2

The proposed Center's environmental benefits are obvious. Researching how a lush marine environment, large industrial port, and major population center like Los Angeles interact in an era of global warming is an extremely important study. And, it sets us on the path to becoming a world center for such research and attracting some of the world's best scientists to San Pedro. PTLA-3

In addition to creating well-paid jobs, the Center will also add great value to our community's social environment by providing a career ladder for local high school students studying marine science at the Port of Los Angeles and San Pedro High Schools. PTLA-4

In investment parlance, the Marine Research Center project produces an excellent "triple bottom line." That is, it profits the Port and the community in all three areas . . . economically, environmentally and socially. We support its early completion.

Sincerely,

Herb Zimmer
Chairman, Board of Directors

302 W. 5th Street, Suite 201 • San Pedro, CA 90731 • 310.519.1801 • www.PortTechLA.org

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Comment Letter PTLA: PortTechLA

Response to Comment PTLA-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PTLA-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PTLA-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PTLA-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Cham, Michael

From: donaldgalaz@yahoo.com
Sent: Sunday, April 07, 2013 9:45 PM
To: Cham, Michael
Subject: FW: Port master plan/Project street legal "harbor area"

--- Sent with mail@metro - the new generation of mobile messaging

-----Original Message-----

From: donaldgalaz@yahoo.com
Sent: April 7, 2013 4/7/13
To: donaldgalaz@yahoo.com
Subject: Port master plan/Project street legal "harbor area"

Program:Project Street Legal
Objective: A solution to illegal street racing which is occuring in & all over the city of LA including the harbor area which is a public safety issue. Provide a safe alternative street legal racing program in the port of LA on unused parcel's of land in which there are plenty throughout the port. Parts of proceeds generated will be put back into area youth programs/gang pevention & develope a positive relationship with law inforcement with race teams such as "Team Sheriff Racing". The program would be on a temporary basis so pro's & con's analysis can be evaluated. All racing would be under a safe supervised controlled enviroment on a short acceleration closed corse using portable k-rails & nothing will be permanant. All vehicles must pass a "Tech" inspection & have closed exhaust before participating,noise monitoring with sounds meters will be used. The course will be sanctioned by the International Hot Rod Association which has strict safety standard requirements for street legal's events. They are located in Mesquite,Texas. This program is not intended for loud professional cars. Teamwork motorsports our counterpart has an active 501 non-profit and is ready to obtain full liability and insurance coverage. We have gained support from neighborhood councils in the harbor area,unions such as,ILWU LOCAL 13,PILEDRIVERS LOCAL 2375, PIPEFITTERS LOCAL 250,auto parts stores,automotive garages,local car clubs in the harbor area,steakholders/merchants. Collectively working with the port as a community project we could set the standard throughout the city and be an example,save youth lives,keep them out of the jail system,provied money for alternative programs. PSL-1
--- Sent with mail@metro - the new generation of mobile messaging

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Comment Letter PSL1: Project Street Legal

Response to Comment PSL1-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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COALITION FOR CLEAN AIR

April 8, 2013

Chris Cannon
Director of Environmental Management
425 South Palos Verdes Street
San Pedro, CA 90731

Re: Comments on Draft Port Master Plan Update EIR

Dear Mr. Canon:

On behalf of Coalition for Clean Air, I am submitting comments on the Port of Los Angeles Port Master Plan Update (PMPU). CCA-1

As a state-wide advocacy organization working to improve air quality and public health for all Californians, we are concerned that the PMPU's air quality mitigation efforts are not as comprehensive as they should be, and that the proposed Program's construction and operation activities exceed ambient air pollution concentrations, even after mitigation. As such, we recommend for the DEIR to develop and include a greenhouse gas plan as a mitigation strategy, maximize the capacity to accommodate zero and near-zero emission freight transportation technology, and analyze alternative scenarios that maximize on-dock rail.

Greenhouse Gas Mitigation Plan

Even after mitigation, the proposed Program would exceed CEQA threshold greenhouse gas (GHG) levels for Planning Area 2 and Planning Area 3 by 3,225% and 1,787% respectively. The proposed mitigation measures in the Program reduce GHG emissions by 2% for each Planning Area. Further reductions in GHG emissions can be achieved by developing a greenhouse gas reduction plan as part of the mitigation strategy. CCA-2

The EIR already includes emission data by cargo type but does not provide mitigation measures to reduce GHG emissions in areas where GHG emissions are CCA-3

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(916) 993-5313
fax (213) 223-6862

www.ccair.org

CCA-3 expected to exceed. For example, Table 3.2-3, *Mitigated Annual Emissions-Planning Area 2 Full Build-out* and Table 3.2-32 *Mitigated Annual Emissions-Planning Area 3 Full Build-out,* show emission source by cargo type for the Program for 30 years. The highest levels of emissions by source derive from container cargo. Emissions from these sources can be reduced by using zero and near-zero emission technology and cleaner fuels as part of the program activities. Yet the only mitigation measure to mention the use of zero-emission technology is *MM AQ-17 Periodic Review of New Technology and Regulations*, however, this mitigation measures does not commit to using the technology but rather to reviewing it. We recommend including a mitigation measure that specifically addresses then generation of GHG emissions related to container cargo and assures the capacity to develop, test and deploy zero and near-zero emission container movement technologies as quickly and efficiently as possible.

CCA-4 **Air Quality**

The DEIR for the PMPU shows that the Program will generate VOC, CO, NOx, PM 10, PM 2.5 and NO2 beyond South Coast Air Quality Management District (AQMD) thresholds even after mitigation. For construction activities the *Combined Peak Day Emissions Scenario- Terminal Development and Landfill Construction,* Table 3.2-1, show that emissions exceed the applicable threshold for VOCs, CO, NOx, PM10 and PM2.5 by 303%, 146%, 1767%, 171% and 225% respectively. For operations, all the threshold levels exceeded AQMD threshold levels for Planning Area 2 and 3 with the exception of SOx for Planning Area 2.

The increased emissions from port operations activities will affect the air quality of the region and the local communities that live close to port. Though we recognize that the DEIR does not analyze the impact of the program beyond the program boundaries, the emissions generated by the program will go beyond the program's boundaries so therefore to the extent possible, we recommend for the DEIR to include mitigation efforts that protect the public health of local residents and prioritize near-dock port activities. We recommend including the following mitigation measures:

Air Filtration—Ensure that homes, schools, and public facilities within 1,000 feet of the project and major arterials impacted by this project are equipped with register systems *plus* high performance-panel filter air filtration systems, or systems with equivalent effectiveness.
Trees and Streetscapes—Include tree planting and streetscape enhancement beyond MM GHG-4 Tree Planting. Trees can also be planted

2

along the sidewalks along the exterior of the port boundaries in order to further extend the mitigation measure and to improve the aesthetics of the Program. Other uses include using landscape improvements to mitigate noise, emissions and other nuisances. CCA-4

We are happy to discuss our recommendations in more detail and if you have any questions, please contact me at patricia@ccair.org.

Sincerely,

Patricia Ochoa
Deputy Policy Director

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Comment Letter CCA: Coalition for Clean Air

Response to Comment CCA-1:

The LAHD appreciates your comments. Comment CCA-1 includes three main topics and the responses to these are provided below in the following sections: 1) Greenhouse Gas Plan, 2) Zero and Near-Zero Emission Container Movement Systems; and 3) Alternative Scenarios that Maximize On-Dock Rail.

Greenhouse Gas Plan

The commenter requests that the Draft PEIR develop and include a greenhouse gas (GHG) plan as a mitigation strategy. The unmitigated proposed Program scenarios in the Draft PEIR include implementation of all applicable existing air regulations (refer to Draft PEIR Section 3.2, Air Quality, Tables 3-2.8 and 3.2-9). The Draft PEIR subsequently proposes all feasible measures to control and mitigate air quality and GHG impacts from construction and operational activities that could occur under the proposed Program. These measures include all applicable San Pedro Bay Ports Clean Air Action Plan (CAAP) emission control measures (Port and Port of Long Beach 2006). Many of the mitigation measures proposed in the Draft PEIR promote the use of the newest and most efficient engines and electrification of equipment that would minimize the consumption of fossil fuels and therefore the generation of criteria pollutant and GHG emissions. Specifically, mitigation measure **MM AQ-17** (Periodic Review of New Technology and Regulations) would require tenants that undergo a new LAHD lease amendment or facility modification to work with the LAHD to implement new emission reduction technologies. These new technologies could include zero and near-zero emission freight transportation systems and use of cleaner fuels. As part of a new lease agreement, the tenant would implement new emission control advancements not less frequently than once every 5 years, assuming they are operationally and economically feasible. Therefore, inclusion of a GHG plan as a mitigation strategy in the PEIR would not provide any additional GHG emission reduction benefits.

The LAHD and City of Los Angeles also implement a variety of citywide initiatives to minimize GHG emissions. These include the following:

- The City of Los Angeles Green LA Plan presents a citywide framework to create a cleaner, greener, sustainable Los Angeles (refer to Draft PEIR Section 3.2.3.4, Regional and Local Regulations and Plans);
- The Port's Climate Action Plan outlines specific steps that the LAHD will take to implement energy audits, green building policies, onsite photovoltaic solar energy, green energy procurement, tree planting, water conservation, alternative fuel vehicles, increased recycling, and green procurement;
- The Port of Los Angeles Green Building Policy requires a variety of United States Green Building Council Leadership in Energy and Environmental Design (LEED) standards for new building construction and solar power to the maximum extent feasible as well as best available technology for energy and water efficiency; and,
- On December 7, 2007, the LAHD, the Mayor of the City of Los Angeles, and the California Attorney General entered into a Memorandum of Understanding

> Creating a Partnership to Reduce Greenhouse Gases and Support the Port of Los Angeles Clean Air Action Plan that commits the LAHD to installing a 10 megawatt photovoltaic solar electric system in the Port.

As a result, the LAHD has comprehensive long-range plans to minimize GHG emissions from operations at the Port.

Zero and Near-Zero Emission Container Movement Systems

The commenter recommends that to mitigate air quality and GHG impacts that the Draft PEIR maximize the capacity to accommodate zero and near-zero emission container movement systems. While an EIR must describe feasible mitigation measures that could minimize the project's significant impacts (CEQA Guidelines Section 15126.4(a)(1)), an EIR need not identify and discuss or analyze in detail mitigation measures that are infeasible (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal. App. 4th 200, 245; *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal. App. 4th 316, 351). Feasible "means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (CEQA Guidelines Section 15364).

While zero and near-zero emission technologies are promising, zero emission trucks and zero emission container movement systems (ZECMS) have not yet proven, through demonstration and evaluation, to be feasible in Port operations (LAHD 2012). However, recognizing the potential future promise of ZECMS and near-zero emission technologies, the Draft PEIR includes a mitigation measure that would implement these technological advancements, when proven to be feasible, upon a 5-year review (**MM AQ-17**) and/or substituted for other equivalent new technology (**MM AQ-18**). The *Final Technology Status Report - Zero Emission Drayage Trucks* (TIAX 2011), prepared for the Port and Port of Long Beach, examined the state of current zero emission technologies and outlined a reasonable, programmatic approach to commercialization, based on a thorough demonstration and evaluation. The report concludes that a two-phase demonstration approach to commercialization is needed. The first phase would be a small-scale (one to three units) demonstration to test basic technical performance. This would be followed by the second phase consisting of a broader, large-scale (10 to 20 units) demonstration to assess how the technologies fit into existing operations on a multi-unit basis.

To date, no zero emission technologies that meet the Port and Port of Long Beach's need for container transport have completed a small-scale demonstration, and thus zero emission technologies are considered technologically infeasible. The Port and Port of Long Beach currently have two zero emission truck demonstration projects underway: 1) one battery plug-in truck; and, 2) one hydrogen fuel cell hybrid truck. In June of 2012, the battery plug-in truck was tested on a dynamometer using a Port-specific duty cycle at the University of California Riverside Center for Environmental Research & Technology. The test provided a baseline for future improvements. Since the dynamometer testing, the battery powered truck has been tested using empty and fully loaded containers that were loaned to the port for these tests. In this testing the unit has accumulated approximately 250 hours of use, but it has not yet been put into commercial drayage service. The hydrogen fuel cell powered truck has been used in isolated tests. One test, at a facility in Commerce, California, included picking up fully loaded containers and travelling over a 6 percent

grade. Another test was done by a national retailer picking up containers, traversing the Vincent Thomas Bridge, and delivering them to distribution centers.

Both technologies have been promising in initial use and additional hours of usage are currently being accrued. However, these isolated tests do not provide enough data points to constitute a completed small scale demonstration. A small scale demonstration would consist of approximately 1 year (up to 18 months if durability is questionable) of continuous demonstration to fully assess the technical capabilities and reliability of each technology. As stated in the TIAX report (page 21) "…the lack of a real-world demonstration over an extended period of time makes it impossible to assess the viability of these technologies in drayage operations. For these reasons, it is not possible in this report to estimate the timing of large-scale commercial viability for this vehicle without further information and testing."

The report *Technologies, Challenges & Opportunities I-710 Corridor Zero Emission Freight Corridor Vehicle Systems* (CALSTART 2012), is cited in several public comments on the I-710 Corridor Project Draft EIR/EIS (Caltrans and LACMTA 2012) as a recent analysis to support the technical feasibility of implementing zero emission truck technologies. The report includes a high level preliminary assessment of some potential technologies that may be able to serve the I-710 corridor by 2035. The citations generally state the possibility of zero emission technologies being in production before 2035 and even potentially within 5 to 10 years. The CALSTART report also identifies several challenges that need to be overcome before commercialization can be achieved. These challenges were generalized into three categories: 1) design factors; 2) costs; and, 3) economic/business case. The report does not provide a definitive timeline for commercialization.

Throughout the document, the CALSTART report outlines several development steps that must be achieved before any of the technologies examined can be fully commercialized. The report states that "It is not advisable to jump directly to the desired outcome because competing technologies must be evaluated, tested, proven, and commercialized. The commercialization process for a complex product like a Class 8 truck includes significant engineering and development work, including demonstration and validation of early prototypes, building a small number of pre-production vehicles, and constructing a business case for moving to full production – over the course of several years" (page 4). This supports the LAHD's desire to fully test technologies before deployment.

Through actions and commitments, the LAHD can catalyze the development of zero emission technologies but it is unrealistic for the Port to solely be expected to drive the market for zero emission trucks. In 2011, approximately 171,358 Class 8 trucks were sold in the U.S. It is not anticipated that isolated projects with specific duty cycles would be enough to individually drive a market for zero emission trucks. The CASTART report identifies regulation as a potential driver for the technology; however, "Regulations may force some users to adopt certain technologies but regulations alone may not create a large enough market base to support an OEM program" (page 28).

The CALSTART report also identifies economics/business case as a challenge that needs to be overcome before commercialization can be achieved. There is a high

capital cost associated with purchasing zero emission trucks. In some cases, electric trucks can be more than triple ($100,000 to $300,000+) the cost of a diesel truck. There may also be operational cost increases if battery swapping or charging downtime is required. A full economic analysis considering the current business model must be conducted prior to determining that zero emission technologies are feasible. The drayage trucking industry has recently made a large investment to comply with the Clean Truck Program. There are currently over 13,000 trucks in the Port Drayage Truck registry that meet or exceed United States Environmental Protection Agency (USEPA) 2007 emission standards. At approximately $100,000 per truck, this represents an investment of approximately $1.3 billion by the trucking industry. Including a new mitigation measure that requires up to triple that investment so soon after a major industry investment is not economically practical and therefore infeasible at this time.

It is imperative to the Port, its customers, and public safety that technologies be fully demonstrated and evaluated before being considered feasible for implementation. Research studies can be useful. However, real world data is essential, particularly when deploying technologies on public roads. There are many operational concerns, such as charging/fueling and maintenance that need to be examined prior to full deployment into the fleet. Additionally, durability, loss of power potential, and safety need to be monitored through testing before stakeholders commit to large capital investments. The amount of existing data in these areas is extremely limited. Furthermore, without the completion of the real world fleet testing with full loads and full duty cycles, including longer term mechanical service and reliability over a sufficient demonstration period, a system that later proved to be unreliable would result in disruption and delay of cargo flow and trade at the San Pedro Bay Ports. The technology of heavy-duty electric drive engines with the potential for zero emissions has advanced greatly in recent years. The LAHD has been a leader in developing and testing zero-emission, heavy-duty trucks and has sent a clear message to technology providers that zero emission technologies are needed as soon as practicable.

In 2006, the LAHD co-funded, with the South Coast Air Quality Management District (SCAQMD), the world's first plug-in, battery-powered heavy-duty truck prototype. Subsequently, the Port, together with the Port of Long Beach, through our Technology Advancement Program (TAP), has funded a hydrogen fuel cell/battery hybrid. The TAP is currently considering several other zero and near-zero emission heavy-duty truck technologies.

In July 2011, at a joint meeting with the Harbor Commissions of both ports, staff presented the *Roadmap for Moving Forward with Zero Emissions Technologies at the Ports of Long Beach and Los Angeles* (Port of Long Beach and Port 2011). This document expresses the ports' commitment to zero emission technologies by establishing a reasonable framework for future identification, development, and testing of non-polluting technologies for moving cargo.

As part of the LAHD's Five-Year Strategic Plan adopted by the Board in April 2012, the LAHD included an initiative to develop an action plan with a goal of 100 percent of the truck moves to proposed and existing near-dock rail yards by zero-emission trucks by 2020. These actions make the LAHD's intent with and commitment to zero-emission heavy-duty trucks abundantly clear.

It is unknown at this time when zero emission truck technologies will be commercially available for port needs by that time, nor is there any way to guarantee such an achievement. As discussed above, a programmatic approach to demonstration and commercialization must be completed before technologies can be viewed as commercially available. The LAHD's TAP serves as the catalyst to identify, evaluate, and demonstrate new and emerging technologies applicable to the Port. The LAHD and Port of Long Beach regularly meet with technology developers in order to stay informed about new and emerging technologies that may provide some options for reducing emissions from port operations. Furthermore, annual status reports on the TAP's completed and ongoing projects are provided on the TAP website at http://www.cleanairactionplan.org/programs/tap/default.asp. Recommendations from the TAP are taken to the port's Boards of Harbor Commissioners when selecting and funding projects.

The LAHD has had ongoing discussions with the SCAQMD on a potential demonstration project for a zero-emission catenary system that would transport containers between the Port and Port of Long Beach and near-dock rail yards. This is also being discussed as a potential project through the Zero Emission Truck Regional Collaborative, which is made up of the LAHD, Port of Long Beach, SCAQMD, Metro, Caltrans, SCAG, and Gateway Cities Council of Governments. The Regional Collaborative, with SCAQMD as the lead agency, prepared and submitted an application for grant funding to help offset the cost of a demonstration of an overhead catenary system. The project however was not selected for funding. As funding and project details are being worked out, there is currently not a project in place. A catenary system would also need to be fully demonstrated before being considered a commercially viable option.

The I-710 Corridor Project Draft EIR/EIS acknowledges that "the commercial viability of these types of trucks (zero-emission) will be assessed over the next several years as part of demonstration projects being developed by local agencies such as SCAQMD, LAHD, Port of Long Beach, and Metro. Although zero-emission trucks are currently in limited use, development and deployment of this technology involves the following four steps: 1) research and development; 2) technology development and demonstration; 3) pre-production deployment and assessments; and, 4) early production deployments." As a funding partner in those efforts, the LAHD supports the acceleration of zero emission technologies through the mitigations recommended for this Draft PEIR and other commitments as described above. However, similar to the conclusions described in the I-710 Corridor Project Draft EIR/EIS, a programmatic approach to demonstration and commercialization must be completed before zero emission technologies can be viewed as commercially available and feasible as discussed above.

Another category of ZECMS, based upon the use of rail or other fixed-guideway technologies, such as electric shuttle trains or magnetic levitation systems, is discussed in the Southern California International Gateway (SCIG) Recirculated Draft EIR (Section 5.2.2) (LAHD 2012). This discussion describes the various technologies that have been proposed, the evaluation process that the LAHD and Port of Long Beach and others have undertaken, and the state of development of the various systems. The SCIG Recirculated Draft EIR also discusses the Green Rail Intelligent Design (GRID) concept, (GRID 2013) which essentially is a variant of the concepts that the LAHD and Port of Long Beach considered in the Alternative

Container Movement Systems process (refer to SCIG Recirculated Draft EIR, Section 5.2.2). The GRID consists of three parts: 1) a new type of marine terminal that loads and unloads ships, including direct ship-to-train; 2) an underground pipeline (the "Freight Pipeline") containing an electrified rail line; and, 3) an inland port where containers would be sorted and distributed either to local-bound trucks or to eastbound trains. The system could in theory be deployed to move containers between terminals and a near-dock rail yard or possibly the downtown rail yards, thereby eliminating drayage truck trips. Truck emissions would be reduced in the Port area, although the electrical needs of the system would result in displaced emissions near power generating facilities. However, the GRID concept has not been tested in a cargo-handling environment, there is no operational pilot- or demonstration-scale prototype, and the concept has not undergone the screening analysis of economic and technological feasibility. At this time, the GRID concept is only a two-page concept on a website. Accordingly, the GRID concept is not a feasible technology.

Alternative Scenarios that Maximize On-Dock Rail

The commenter recommends that the Draft PEIR analyze alternative scenarios that maximize on-dock rail. The LAHD and Port of Long Beach recognize that the movement of cargo by rail is essential both economically and environmentally. Maximizing the use of on-dock rail yards is part of the CAAP and the LAHD and Port of Long Beach have a long term vision for maximizing cargo movement via on-dock rail yards. There are currently nine operating on-dock rail yards at the Port and Port of Long Beach, with two more (TraPac and Middle Harbor) permitted for construction. Four of the existing on-dock rail yards are located at the Port and five at the Port of Long Beach. The ports have plans in-place to expand on-dock rail yards and construct new facilities in the future. In addition, the ports will seek to maximize on-dock operations at the marine terminals by encouraging tenants to schedule round-the-clock shifts and optimize labor rules. LAHD's on-dock rail expansion plan is discussed in the San Pedro Bay Ports Rail Study Update (Parsons 2006). The Draft PEIR evaluated expansion of the existing on-dock rail yards within the Berths 100-131, 212-225, and 302-305 container facilities, which are proposed appealable/fill projects under the PMPU. Other potential projects that are not part of the PMPU but would expand on-dock rail capacity in the Port include the Terminal Island On-Dock Rail Facility within the backlands of Berths 226-236 and a new container terminal on the Pier 500 Fill. These projects would nearly maximize the on-dock rail capacity of the Port and therefore no additional on-dock rail alternative scenarios are feasible.

Response to Comment CCA-2:

Please see Response to Comment CCA-1 for details regarding a GHG reduction plan and mitigation measures to reduce GHG emissions.

Response to Comment CCA-3:

Please see Response to Comment CCA-1 for information regarding the use of zero and near-zero emission technologies and cleaner fuels to reduce GHG emissions from container cargo operations under the proposed Program. Please also see Response to Comment CCA-1 for information regarding inclusion of a mitigation measure that specifically addresses the generation of GHG emissions from container cargo activities and assures the capacity to develop, test and deploy zero and near-zero emission container movement technologies.

Response to Comment CCA-4:

The commenter recommends that the Draft PEIR include the following measures to mitigate air quality and GHG impacts from the proposed Program: 1) equip homes, schools, and public facilities within 1,000 feet of the project and major arterials impacted by the proposed Program with air filtration systems and 2) include tree planting and streetscape enhancement beyond **MM GHG-4** (Tree Planting) and landscape improvements.

The Draft PEIR proposes all feasible measures to control and mitigate air quality and GHG impacts from construction and operational activities under the proposed Program. However, future CEQA review for individual actions proposed under the PMPU could identify additional feasible measures to mitigate currently unforeseeable air quality and GHG impacts. Those mitigation measures would need to be proportional in nature and extent to the impacts identified in future environmental documents (CEQA Guidelines Section 15041(a); PRC Section 21002; CEQA Guidelines Section 15370). Mitigation in the form of air filtration devices as recommended by the commenter requires site specific data to determine receptor locations that would likely be impacted by particulate matter (PM) and the health risk. Such analyses can only be done at the project-scale. Given this a PEIR, it is not practicable to apply a site-specific mitigation measure without conducting the necessary analysis.

As part of the TraPac Container Terminal Project EIR Memorandum of Understanding (BOHC 2008), the LAHD provided $5.4 million to install high-efficiency air filtration devices at about 47 schools in the Wilmington area, representing the community most heavily impacted by operational emissions from the Port. This funding provides maintenance and repairs of these systems for five years. The SCAQMD implements and administers this program (SCAQMD 2011). Under the Memorandum of Understanding, as certain Port expansion projects proceed, the LAHD will make substantial additional contributions to the Port Community Mitigation Trust Fund. Those contributions could be used to support a program to install high-efficiency air filtration devices at schools, homes, and businesses.

Since the LAHD has already expended substantial funds on air filtration systems, the LAHD believes the best way to fund programs to further reduce future air quality impacts from Port operations would be to directly reduce emissions from the source, since this approach would provide the most benefit to the community as a whole. Therefore, the LAHD does not plan to implement the air filtration mitigation recommended by the commenter as part of the PMPU. This approach is reflected in the mitigation measures included in the Draft PEIR. Additionally, the LAHD already manages and/or supports programs aimed at further reducing source emissions, including the following:

- San Pedro Bay Ports Clean Air Action Plan
  - In 2006, the LAHD and Port of Long Beach completed development of the CAAP in collaboration with the USEPA, California Air Resources Board (CARB), SCAQMD, the public, and other stakeholders. One of the CAAP's foundations is the commitment "… to expeditiously and constantly reduce the public health risk associated with port-related mobile sources, and implement

programs in the near-term that will achieve this goal" (Port and Port of Long Beach 2006). The CAAP established source- and project-specific health risk standards, and identified the need to develop San Pedro Bay-wide Standards to reduce public health risks from air toxics and overall criteria pollutant emissions. The recently-adopted 2010 CAAP Update established specific aggressive long-term goals for emission and health risk reduction in the region surrounding the Port and the Port of Long Beach. A key component of the CAAP is Alternative Maritime Power (AMP), which allows ships to shut down diesel engines and plug into clean electricity while at berth, thereby reducing community impacts.

- Clean Trucks Program
  - A key component of the 2006 CAAP, this program established a progressive ban on polluting trucks, and facilitated the replacement of old trucks with low emission vehicles as mechanisms to significantly reduce port truck-related emissions.
  - As of January 2012, 100 percent of the cargo gate moves at Port terminals are being made by trucks meeting USEPA 2007 heavy duty truck emissions standards. This achievement allowed the San Pedro Bay Ports to meet their 2012 goal of 80 percent emissions reductions from overall drayage operations relative to 2007.
- Air Quality Mitigation Incentive Program
  - Through the Air Quality Mitigation Incentive Program the LAHD funds air quality mitigation projects that 1) reduce diesel PM and oxides of nitrogen (NO_x) emissions from Port operations in the communities of San Pedro and Wilmington; or, 2) develop emission reducing technologies that may be applied throughout the San Pedro Bay. Specific projects include yard truck replacements, marine engine repowers, off-road retrofits, and cargo handling equipment replacements.
- Technology Advancement Program
  - The LAHD, along with the Port of Long Beach, has developed the TAP which accelerates the commercialization of new technologies, including zero-emission technologies, to provide more options to reduce emissions. The TAP has contributed over $9 million of funding for new technology projects.

Regarding the recommendation that the Draft PEIR include tree planting and streetscape enhancement beyond **MM GHG-4** and landscape improvements, the LAHD already implements such a measure through its Climate Action Plan (LAHD 2007). Known as the Port of Los Angeles Tree Planting Program, this measure distributes and plants trees in and around the Port area to provide the same kinds of aesthetic and environmental benefits as those identified by the commenter. The LAHD intends to continue this program into the foreseeable future. Therefore, the LAHD does not need to additionally implement this recommended mitigation as part of the PMPU.

LOS ANGELES CONSERVANCY

April 8, 2013

Submitted by email
Mr. Christopher Cannon
Director of Environmental Management
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731
Email: ceqacomments@portla.org

Re: Port of Los Angeles Master Plan Update Draft Program Environmental Impact Report (PEIR)

Dear Mr. Cannon:

On behalf of the Los Angeles Conservancy, thank you for the opportunity to comment on the Draft Program Environmental Impact Report (PEIR) for the Port of Los Angeles Master Plan Update (PMPU). Despite our years-long efforts to work with the Port to recognize and protect the many historic resources throughout its boundaries – particularly noteworthy at Terminal Island – the Conservancy is concerned as the PMPU continues to disregard these resources and instead designate incompatible land uses that threaten their future viability. The Port appears poised to proceed with this plan without providing a path forward for preservation, full consideration of adaptive reuse opportunities, and most concerning, no identification of impacts or preservation alternatives, as required by the California Environmental Quality Act (CEQA). LAC-1

The Conservancy has repeatedly stated its concerns regarding the PMPU in our August 29, 2012 Notice of Preparation letter (attached), and our December 9, 2011 letter addressing the Draft Port of Los Angeles Terminal Island Land Use Plan – used as a framework for the PMPU -- and the Draft Built Environment Evaluation Report for Properties on Terminal Island (attached). Further, the Conservancy has brought up similar issues in numerous meetings with Port staff throughout 2012 and early 2013, community meetings convened by the Port (most recently on March 13, 2013), and at the April 4, 2013 meeting of the Los Angeles Board of Harbor Commissioners (testimony attached).

LAC-2

I. Prioritize preservation on par with other goals of the Master Plan Update

The PMPU lists "protection of historic resources" as one of its five stated goals within the master plan, but denotes this occurs only "when feasible."[1] This qualifier undercuts the commitment to preserve historic resources and, unlike other stated goals, appears only to apply when the Port deems it important.

In terms of meeting the Public Trust Doctrine, the Conservancy strongly believes it is the Port's responsibility to encourage preservation and do all it can to find feasible and creative solutions that protect the built heritage at the Port. This outcome ultimately benefits the public. We urge the Port to amend this goal to instead state, "The Port will identify and make every effort to preserve historic resources within the Port."

We fully concur that significant events should also be memorialized, as stated in the PMPU, but this should be done first through retaining and reusing the remaining built fabric as well as through monuments. The sentence ending with "memorialized through monuments," should add at the end "and associated existing buildings and sites." These measures, as well as the formation and adoption of a Port-wide historic resources policy, will reaffirm the Port's commitment to preservation as a goal equal to others in the PMPU.

LAC-3

II. Identify Port-wide historic resources through a comprehensive survey

Despite the Conservancy's earlier Notice of Preparation comments urging a comprehensive survey, the PEIR and the PMPU reference an incomplete compilation of historic and cultural resources, and completely omit any archaeological resources (for instance, Japanese-American Village remains). In addition to the resources identified at Terminal Island, an extremely limited survey of only seven selected sites was included. The Conservancy understands that the Port has not yet been surveyed nor all eligible historic resources identified. In their January 25, 2013 memorandum to the Port, the City's Office of Historic Resources states, "the [Port's] survey does not appear to be all inclusive of potential resources in the [PMPU] project area."

LAC-4

Whether the proposed uses are appropriate or will have a significant impact depends on knowing where and what the historic resources are from the beginning in terms of planning. The survey as part of the PEIR should act as the defining reference document that identifies and confirms the status of historic resources. It can also highlight adaptive reuse and rehabilitation opportunities as well as sites for potential new development. Where buildings were previously surveyed, the PMPU provides an opportunity to update and confirm the status of the resources, and collect all the information in one readily accessible location.

[1] Port of Los Angeles, "Draft Port Master Plan," 2/13/2013, p.6.

2

a. <u>The historic context and list of potential historic resources in the PMPU and PEIR are incomplete</u> LAC-5

The PEIR presents a narrow history of the Port area, focused primarily on the operational history of the Port. Other narratives, such as the commercial fishing history at the Port, including the tuna canning industry and the Japanese-American community on Terminal Island, are missing despite a brief mention in the appendix's Historic Resources Evaluation Report.

As a result, at least two sites the Conservancy previously identified as potentially historic on Terminal Island were excluded in the PEIR. These are the Japanese American Commercial Village at 700-702 and 712-716 Tuna Street, and the Canner's Steam Plant. The Port of Los Angeles Dive Team Building (Fireboat House 1/Fire Station No. 11) was also not included and others are not indicated on various Port maps and illustrations within the PMPU. LAC-6

On December 9, 2011 the Conservancy wrote to the Port (attached) addressing these long-standing oversights. And on January 13, 2012 the Conservancy and Janet Hansen from the City's Office of Historic Resources met with Port consultants to discuss the issues in detail. We asked to reevaluate eligibility of the Japanese-American Village and to survey for archaeological purposes. In previous analysis, this site was indicated to be eligible as a historic resource. The Conservancy believes it to be nationally significant from a cultural standpoint. In this same meeting the Conservancy also pressed for a greater understanding regarding the Port's recent internal decision stating Canner's Steam Plant was no longer eligible as an historical resource. We asked for further explanation and reevaluation and to date have not received a written response.

The Conservancy continues to believe these sites are eligible as historic resources, and should be treated as such in the PEIR and the PMPU. The City's Office of Historic Resources generally concurs and has also stated concerns with ineligibility findings for the DWP Distribution Station and the Wilmington Marine Service property. At a minimum, the exclusion of these various properties should be addressed.

In our August 29, 2012 letter to the Port regarding the Notice of Preparation, the Conservancy stated:

> "To ensure the survey results are compatible with the citywide SurveyLA project, we urge the Port to coordinate survey activities with the City of Los Angeles' Office of Historic Resources. As SurveyLA will be evaluating buildings and sites up to 1980, the Port may wish to adopt a similar scope. Given the master plan update is expected to be in effect for over twenty years, we also recommend the inclusion of policies mandating periodic survey updates so that buildings that may become historic before the planned expiration in 2035 are properly identified."

3

LAC-6 SurveyLA has yet to complete its Industrial Context so an opportunity presents itself to work with the City to complete a comprehensive inventory should the Port pursue this option.

III. Identify indirect and direct impacts on historic resources and provide a reasonable range of alternatives

LAC-7 Without a comprehensive and updated survey, and its inclusion in the PMPU, it is premature for the PEIR to conclude less than significant impacts on historic resources when the potential conflicts between historic resources and the PMPU land uses are unknown. Further, where known conflicts exist due to designated land uses, there is no acknowledgement of these consequences and evaluation of impacts on historic resources, or the consideration of preservation alternatives.

LAC-8 Conflicts between the PMPU proposed land use and historic resources are evident. The most blatant example is with the Southwest Marine Terminal site (Berth 240) in Planning Area 4, which includes a number of buildings and structures that contribute to a National Register-eligible historic district. The PMPU proposes two separate land uses for this district -- Maritime Support and Break Bulk -- yet the boundaries of the two different land uses bisect several buildings. This raises questions about the Port's intention for this site and for the individual buildings, as land use boundaries typically do not run through existing structures.

LAC-9 It is also unclear whether either Maritime Support or Break Bulk is an appropriate use for the industrial buildings at Southwest Marine. We ask that the Port provide examples where similar buildings have been used or adaptively reused for Break Bulk and/or Maritime Support to demonstrate those uses can be accommodated at Southwest Marine. There is no reason to declare that the Southwest Marine site shall be only used for Break Bulk or Maritime Support. Other viable uses have occurred at this location previously and are sufficiently related to water-dependent uses to survive scrutiny by the California Coastal Commission.

LAC-10 Such land use designation implies that the Port may be considering a particular project for the Southwest Marine area – as evidenced within the Draft Port of Los Angeles Terminal Island Land Use Plan -- and is not disclosing to the public what the effects will be on historic resources. CEQA requires more analysis, including project descriptions that include reasonably foreseeable future activities that may become part of the project. *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376.

LAC-11 Other identified historic resources will also be directly impacted by incompatible land use designations, essentially guaranteeing their demise and loss. For instance, where "Container" cargo land uses are indicated the following historic resources will be significantly impacted: Canner's Steam Plant, portions of the Japanese-American Village, the Sewage Pump Station #669 (Harris Place Sewage Pumping Plant), and the American Marine Corporation (Los Angeles Yacht Club).

4

A significant impact on the environment may result due to these overly prescriptive and limited land uses, ultimately to the point where there is no economically viable means of adaptive reuse. Pub Res. Code § 24084.1; Guideline § 15064.5 As a result, the Port must determine if there are "feasible alternatives or feasible mitigation measures available that would substantially lessen [those] environmental effects." Pub Res. Code § 21002. LAC-12

The Conservancy does not believe the California Coastal Act requires the Port to prescribe a narrow and limited range of land uses. Within the PEIR the Port cites four provisions of the Coastal Act as its basis for limiting uses in the way it proposes in the PMPU. However, the preservation of historic industrial Port facilities is entirely consistent with the goal of providing "coastal-related" developments. In terms of ensuring CEQA requirements are met and assessing impacts, the California Coastal Act contains a reference in Sections 20260 by permitting deviations if a proposed project would violate CEQA's mandate: LAC-13

> where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

In reference to the Port's goal of providing uses that support "port purposes," Section 30708 requires that Port-related projects are located, designed, and constructed as to "minimize substantial adverse environmental impacts."

a. <u>Propose land uses in PMPU that are compatible with historic resources and allow for flexibility and adaptive reuse</u> LAC-14

Ultimately, the best option for protecting the historic resources while meeting the other goals of the Port is to allow the most flexible reuse options. Unlike the existing master plan, the PMPU aims to allocate a single land use to most specific parcels for land use efficiency. The Conservancy maintains that a single land use will unnecessarily limit reuse options for historic resources. Viable reuses of historic resources may be dismissed because they are outside the narrowly defined land use in the PMPU, or alternatively, a proposed use consistent with the PMPU will lead to the demolition of a historic resource.

This is particularly troublesome as existing and new industries evolve and economic factors shift demand over time. For instance, the commercial fishing land use in Planning Area 4 is appropriate for the current buildings and industry as is, but may not be adequate as this industry changes in the next twenty years. The Port acknowledges as much in its PMPU, stating "it does not seem likely that there will be additional demand for commercial fishing facilities at the Port over the next few decades."

5

LAC-14 This severely limits the ability to adaptively reuse the historic cannery buildings within Fish Harbor. While maintaining commercial fishing as the main use, we urge the Port to allow additional and ancillary uses that complement commercial fishing *and* the existing historic buildings. Neither the PMPU nor the PEIR explain why these new land use constraints are necessary.

LAC-15 **b. <u>Adopt overlay "hatching" or protection zones for historic resources</u>**

The Port should also consider adopting an overlay zone for buildings identified as historic resources to allow for a wider range of uses if the buildings are sensitively adapted and rehabilitated. This can be implemented Port-wide to attract creative reuse ideas without impinging on the Port's operations. Alternatively, the Port can create protected land use areas for historic resources, similar to the open space zoning set aside in Planning Area 3 for a biologically sensitive area.

LAC-16 **IV. <u>Strengthen Mitigation Measures</u>**

With a limited historic resources survey, the incompatible land uses at Southwest Marine elsewhere, and the number of pending projects, additional mitigation in the PEIR is needed to avoid further significant impacts to historic resources. These include formal adoption of the historic resources policy that is mentioned in the PMPU's Goal 5, as well as more specific procedures for project review and approvals that impact historic resources. As a first step, elements of the draft historic preservation policy should be incorporated into the PEIR as mitigation measures.

LAC-17 We also recommend the Port create a preservation staff position for in-house expertise that can guide the Port on overall planning and streamline the review process. The Port should also commit to remedying structural, environmental, or other perceived barriers in order to incentivize appropriate adaptive reuse of historic resources, as well as engage stakeholders early to seek creative and viable solutions for historic buildings.

LAC-18 **About the Los Angeles Conservancy**
The Los Angeles Conservancy is the largest local historic preservation organization in the United States, with over 6,500 members. Established in 1978, the Conservancy works to preserve and revitalize the significant architectural and cultural heritage of Los Angeles County.

LAC-19 The PMPU severely and unduly limits the ability to allow for preservation to occur at the Port in the future, which would then require a lengthy process to secure amendments and action by the California Coastal Commission. Because this aspects are not acknowledged as a significant impact and preservation alternatives are not provided – for instance, as alternative land use designations, overlay zones, or the Port's hatching – the Conservancy believes the PEIR is inadequate and represents a flawed process in terms of CEQA.

6

What we have been and are presently asking for is a level playing field, recognizing the historic and cultural resources that currently exist and providing land use designations that allow for some level of flexibility and expanded uses. LAC-19

Thank you for the opportunity to comment on the Program EIR (PEIR) for the Port of Los Angeles Master Plan Update (PMPU). We look forward to working with the Port to provide a framework for growth at the Port while protecting the existing historic resources. Please feel free to contact me at (213) 430-4203 or afine@laconservancy.org should you have any questions.

Sincerely,

Adrian Scott Fine

Adrian Scott Fine
Director of Advocacy

Attachment(s)

cc: National Trust for Historic Preservation
San Pedro Historical Society
City of Los Angeles, Office of Historic Resources

7

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Comment Letter LAC: Los Angeles Conservancy

Response to Comment LAC-1:

The comment includes introductory information and material relevant to the PMPU, and does not raise issues requiring a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below. Contrary to the commenter's opinion, the LAHD does not propose to proceed with the PMPU "without providing a path forward for preservation…" The PMPU, and the recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* (see Response to Comment LAC-3), specifically describe the policies and procedures that the LAHD will employ to protect and preserve cultural resources (Draft PEIR Section 3.4.4.3, Impacts and Mitigation). The PEIR does, in fact, describe the impacts of the proposed Program on cultural resources and applies specific mitigation measures as appropriate (Draft PEIR Section 3.4.4.3, Impacts and Mitigation). The LAHD has received and considered the Los Angeles Conservancy's input and has incorporated it as appropriate into both the PMPU and the PEIR. Accordingly, the PEIR complies with CEQA.

Response to Comment LAC-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment LAC-3:

On May 2, 2013, the LAHD adopted its *Built Environment Historic, Architectural, and Cultural Resource Policy*. This policy commits the LAHD to conducting a comprehensive survey of cultural resources in the Port, establishes a protocol for evaluating such resources, and describes the mechanisms that will be used to ensure the preservation and adaptive use, where feasible, of cultural resources. Accordingly, the LAHD will not approve any development under the PMPU until the site has been surveyed pursuant to the *Built Environment Historic, Architectural, and Cultural Resource Policy*, and any historical resources identified during the survey will be subject to the provisions of this policy.

Furthermore, most of the features mentioned in the comment letter as being of particular concern (e.g., Japanese American Fishing Village, Southwest Marine, Canner's Steam, and other fishing-related structures) are on Terminal Island, all of which were the subject of historic resource surveys, the latest in 2011 (SWCA Environmental Consultants 2011). In the 2011 survey, five of the facilities or buildings on Terminal Island had undergone a historic resource evaluation in last 5 years and, accordingly, were not resurveyed. Further, 5 buildings surveyed 9 to 25 years ago had their surveys updated; 20 were of recent construction and did not meet the 50-year threshold for evaluation; and 9 were evaluated for the first time. Port-wide since 2000, the LAHD has conducted 28 formal historic resource surveys and has made historic status determinations for 168 buildings or facilities within the Port, not including the 11 buildings, structures and sites listed as historic resources on federal, state, or local level historic registers. Seventy-three buildings, structure and districts have been found to be potentially eligible for listing on the federal, state or

local registers of historic resources. To date the majority of the Port has been surveyed and the LAHD is working to complete its survey to determine the historic status of all remaining buildings, structures, objects, and districts within the next 2 years.

The Draft PEIR, Section 3.4.2.5.1, Archaeological Resources (Table 3.4-1), identifies listed archaeological resources, based on a cultural resource site record and literature search performed on July 27, 2012 to identify the location of recorded archaeological sites and results of previous archaeological studies (Morlet et al. 2012). The records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, which maintains the California Historical Resource Information System (CHRIS) database for Orange, Los Angeles, and Ventura counties and keeps a record of all reported cultural resource studies and findings. The PEIR acknowledges the current state of knowledge regarding cultural resources in the Port by imposing mitigation measures that require cultural resources evaluations when proposed appealable/fill projects are initiated (**MM CR-1**), and sets forth procedures for protecting previously unknown resources discovered during construction (**MM CR-2**). The PEIR also includes a mitigation measure specific to historical resources (**MM CR-3**) that requires that proposed projects include historical resource assessments as appropriate and specifies measures to be undertaken that minimize or avoid potential impacts and protect identified historical resources; see Response to Comment LAC-7 for additional details. Accordingly, the PEIR's evaluation of potential impacts of implementing the PMPU is accurate and complies with CEQA.

Please refer to Response to Comment LAC-6 for information regarding the Japanese American Fishing Village and the Port's Dive Team Building (Fireboat House 1/Fire Station No. 11).

Response to Comment LAC-4:

Please see Response to Comment LAC-3.

Response to Comment LAC-5:

The Draft PEIR (Section 3.4.2.3, Historic Setting) describes the history of the Port in general terms, concentrating on its primary role as a commercial seaport, and the remainder of the cultural resources analysis (Section 3.4, Cultural Resources) describes numerous cultural resources associated with the other "narratives" mentioned by the commenter (see, for example, Draft PEIR Table 3.4-2). Although, the commenter does not specify how that approach represents a deficiency under CEQA, Final PEIR Section 3.4.2.3, Historic Setting, has nevertheless been revised to include additional information regarding the tuna canning industry and former Japanese American Fishing Village on Terminal Island.

Response to Comment LAC-6:

Please see Response to Comment LAC-3. The LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy* commits the LAHD to ongoing surveys. Section IV.B of the Policy refers to the inclusion of SurveyLA recordation forms.

The responses to potentially historic resources identified in Comment LAC-6 are provided below in the following sections: 1) Japanese American Fishing Village; 2) Canner's Steam Plant; 3) Port's Dive Team Building (Fireboat House 1/Fire Station No. 11); 4) City of Los Angeles Department of Water and Power (DWP) Distribution Station; and, 5) Wilmington Marine Service.

Japanese American Fishing Village

In 1914, the Port began dredging the area that would become Fish Harbor, a specialized area for fish processing and canning at Terminal Island. It was operational by 1915, and most of the Port's canneries moved to the new harbor, making tuna fishing and processing the most visible activity in that part of the island. By the 1920s, 11 canneries operated from the Port, served by a large fleet of fishing vessels and employing 1,800 cannery workers and 4,800 fishermen. The workforce was ethnically diverse and included Japanese, Italians, Mexicans, and Yugoslavians. Many workers lived on the island, either in the old Brighton Beach area (generally called Terminal) or in largely cannery-owned housing north of Fish Harbor (generally called East San Pedro or Fish Harbor). The latter residential area was predominantly occupied by first (Issei) and second (Nisei) generation Japanese and Japanese Americans, who formed a distinctive island community. The Japanese inhabitants of the island developed a distinctive hybrid dialect and culture unique to the Port, and many of them lived in near isolation from the rest of Los Angeles and Long Beach. Some second-generation residents never even left Terminal Island until they reached high school age and began taking the ferry to attend San Pedro High. The commercial heart of the East San Pedro/Fish Harbor community was a small but vigorous commercial core on Tuna and Cannery Streets. The block of Tuna Street between Cannery and Fish Harbor was lined with restaurants, barber shops, pool halls, markets, clothing stores, hardware stores, and grocery and dry goods stores, including Nanka Company and Nakamura Company.

On Terminal Island, the Japanese community was adversely affected by America's involvement in the war. At its height in 1940, the Japanese population there had grown to 3,000, just prior to its abrupt demise following the bombing of Pearl Harbor. Beginning in early 1942, the Port's Japanese Americans were forcibly removed from their homes on Terminal Island by the federal government. The residents there were the first Japanese Americans on the west coast to be taken to internment camps. Most were sent to Manzanar in California's Owens Valley. The Navy bulldozed their homes and most of the businesses, leaving nothing to return to at the war's end. The uprooting of Terminal Island's Japanese community led not only to dissemination of the population, but the destruction of nearly its entire built environment. Those buildings that were not demolished were altered into new uses. LAHD is aware of the important lesson to be learned from the experience of the Japanese American community on Terminal Island. Working with the Terminal Islanders Club, a memorial to honor and remember the members of this community was created. This memorial overlooks Fish Harbor, the center of the former Japanese American fishing community. Of the once vibrant community only two buildings remain 700-702 Tuna Street (Nanka Company) and 712–716 Tuna Street (Nakamura Company). In light of these facts, even though the property does not possess sufficient integrity to reflect its historical associations with the Japanese American Fishing Village and period of significance, in accordance with the discretion allowed by the LAHD under the *Built Environment Historic, Architectural, and Cultural Resource Policy*, the buildings at

700-702 and 712-716 Tuna Street will be included on the LAHD Built Environment Historic, Architectural and Cultural Resource Inventory as potentially eligible for listing as a City of Los Angeles Historic-Cultural Monument (LAHCM). Final PEIR Table 3.4-2, Recorded and Potentially Eligible Historic Resources in the PMPU Area, has been modified to include these buildings.

Canner's Steam Plant

Based on a 2004 historic resources assessment, Canner's Steam Company Plant appeared to be eligible for the NRHP under Criterion A and for the CRHR under Criterion 1 due to "its direct and significant association with the expansion of canning operations by providing the canneries with an efficient and reliable source of steam…and it high degree of integrity" (Jones & Stokes 2004). The evaluation found "[T]here have been minimal alterations to the plant over the years, and the interior equipment, in particular, appears to have been extremely well maintained. The plant clearly illustrates how the facility would have operated during the historic period. The plant's historic materials, workmanship, and design are all intact, and it remains in its original location" (Jones & Stokes 2004).

In 2009, the SCAQMD issued Canner's Steam Company a Notice to Comply (NTC), which identified damaged asbestos containing material (ACM) outside and inside of the steam plant. The NTC required Canner's Steam Company to address the damaged ACM to protect human health, including preparation of plan for removal of the ACM. In June 2009, SCAQMD issued a second NTC, this time to the LAHD. This NTC required the LAHD to address the hazards presented by the ACM at the steam plant.

In 2010, the exterior portion of the steam equipment containing asbestos was found to pose an immediate public health hazard and was removed. In light of this removal and the importance of integrity to the finding of the steam plant's eligibility for listing on the NRHP and CRHR, the steam plant was reevaluated to ascertain its current eligibility for listing. The 2011 reevaluation examined the seven aspects of integrity and found the steam plant's integrity in six had been degraded or lost (AECOM 2011). The loss of integrity was such that "[E]ssentially, the building is no longer recognizable as a steam plant and has the look and feel of an industrial building dating to the mid-20th century. Therefore, Canner's Steam Company Plant does not appear to retain sufficient integrity to meet NRHP or CRHR criteria" (AECOM 2011). The evaluation also found that the steam plant in its current condition "does not appear to qualify as a City of Los Angeles Historic-Cultural Monument [LAHCM]" (AECOM 2011).

In 2013, the steam plant was again evaluated after additional asbestos removal, and soil remediation of petroleum hydrocarbons from an above ground tank at the facility was completed. The steam plant was found to be not eligible for listing on the NRHP, CHRC, or as a LAHCM (AECOM 2013).

Port's Dive Team Building (Fireboat House 1/Fire Station No. 11)

Final PEIR Table 3.4-2, Recorded and Potentially Eligible Historic Resources in the PMPU Area, has been modified to include the Port's Dive Team Building (Fireboat House 1/Fire Station No. 11), which was inadvertently omitted from the Draft PEIR.

DWP Distribution Station and Wilmington Boat Services

In a letter to the City of Los Angeles Office of Historic Resources (OHR) dated March 11, 2013, the LAHD explained the rationale of their findings for DWP Distribution Station #3 and Wilmington Boat Services. With regards to DWP Distribution Station #3, LAHD concluded there are other examples of the DWP's distribution stations within the city that better covey the architectural and aesthetic values championed by the City of Los Angeles Municipal Art Commission in the early part of the century. In addition, the integrity of design, materials, and workmanship of DWP Distribution Station #3 is diminished by the alterations to the building. As such, the building does not meet eligibility standards or the integrity considerations and, therefore, does not possess the ability to convey its significance under criterion A for its association with Municipal Power and Light.

The basis for OHR's opinion concerning Wilmington Boat Services is that it was last owned by a Croatian immigrant. While Wilmington Marine Service has been owned for some time by a Croatian immigrant, it has been owned by others since its inception in the 1920's, and the structure is not known for its association with the Croatian community. In contrast, the Norwegian Methodist Episcopal Church is known for its association with the Norwegian community, and the Dalmatian-American Club is known as a social center for the Croatian community. Absent any other historic attribute, Wilmington Marine Service does not rise to the level of a historic, architectural, or cultural resource.

Response to Comment LAC-7:

The commenter incorrectly characterizes the PEIR's significance determination with regard to historic resources. In fact, the PEIR acknowledges that future projects under the PMPU could encounter currently unrecorded or unsurveyed historic resources, and finds that such an occurrence would represent a potentially significant impact (refer to Draft PEIR Section 3.4.4.3, Impacts and Mitigation [Impact CR-2]). Once a proposed project site is identified, the LAHD will not approve any development until the site has been surveyed pursuant to the *Built Environment Historic, Architectural, and Cultural Resource Policy*, and any historical resources identified during the survey will be subject to the provisions of this policy. Furthermore, in accordance with **MM CR-3**, if a historic resource is present, the LAHD will determine the need to implement measures , including but not limited to: 1) preconstruction and construction monitoring activities by a preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards; 2) Historical American Buildings Survey (HABS)/Historic American Engineering Record (HAER) documentation; 3) establishing an environmentally sensitive area with barriers to ensure the protection of specific built resources; and/or, 4) implementation of additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation). Therefore, implementation of **MM CR-3** would ensure potential impacts on previously unevaluated historical resources associated with future construction of proposed appealable/fill projects and land use changes would be less than significant. Furthermore, the recently-adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* provides an additional measure of protection to historic resources.

Response to Comment LAC-8:

The commenter is correct that with the map scales and general depictions employed in the PMPU and PEIR, land use boundaries appear to bisect one or more buildings in the vicinity of the Southwest Marine facilities. In the Final PMPU, the boundaries have been modified to include all of the buildings in the break bulk designation. Furthermore, the Final PMPU designates this area as a mixed land use site that would allow break bulk and/or maritime support uses, thereby providing greater flexibility to adaptively reuse the buildings at the former Southwest Marine site. These changes have been made as a clarification of the PMPU's intent. Break bulk cargo can include palleted and baled goods such as fruit, cotton, specialty lumber, paper rolls and other types of cargo that require relatively modest, covered warehouse spaces. In addition, break bulk facilities require office, maintenance, and other support facilities. These requirements can sometimes be accommodated by the reuse of older buildings. As an example, old warehouses in the vicinity of City Dock No. 1 have been approved for adaptive reuse as a marine technology center, and World War (WW) II-era Warehouse No. 10 has been adapted to support the Crafted marketplace in San Pedro. The LAHD has no current plans to demolish any of the buildings at the Southwest Marine facility, and would not contemplate such an action unless there was a proposed development project requiring their removal. In such a case, project-level cultural resource evaluations would be conducted in accordance with CEQA and the *Built Environment Historic, Architectural, and Cultural Resource Policy*, as described in Response to Comment LAC-3 to ensure that historic resources are adequately considered.

The modification of the land use boundaries discussed above would replace 6 acres of maritime support with break bulk land use within Planning Area 4. This change in land use would not alter conclusions regarding air quality, transportation, or utilities. In regard to air quality effects, the acreage change would result in minor increases of air emissions and resulting impacts compared to those estimated in the Draft PEIR. Draft PEIR Table 3.2-18 shows the amount of emissions that would occur from the proposed operation of 17 acres of break bulk facilities within Planning Area 4. Inclusion of emissions from an additional 6 acres of break bulk operations to the total emissions for Planning Area 4 would not change the significance of daily emissions estimated for this area. Therefore, this proposed change in the proposed Program description would not produce any new significant air quality impacts compared to those identified in the Draft PEIR. In regard to traffic effects, the addition of 6 acres of break bulk use would result in approximately 7 vehicle trips (in passenger car equivalents [PCEs]) in each of the A.M. mid-day (M.D.) and P.M. peak hour periods. This would represent an increase of 0.34, 0.31, and 0.36 percent in proposed Program trips in the A.M., M.D., and P.M. peak hours, respectively. The corresponding reduction in acreage for the maritime support use would further diminish any changes to the previous traffic analysis. As such, changing 6 acres of maritime support use to break bulk has negligible consequence on the traffic analysis and does not warrant further analysis. In regard to demand for utilities, overall water and wastewater demands would be comparatively lower, and solid waste generation would be the same, for the land use change.

Response to Comment LAC-9:

The comment provides no evidence that the proposed land uses would preclude adaptive reuse or other means of preserving or otherwise mitigating significant impacts to historic resources on Terminal Island (note that adaptive reuse is only one means of avoiding significant impacts on historic resources). The PEIR has incorporated mitigation measures that ensure appropriate protection of historic resources. Through the CEQA comment process the LAHD has strengthened **MM CR-3** to specify that additional protective measures will be implemented as necessary and appropriate (e.g., in-situ preservation, adaptive reuse, and relocation; see Response to Comment LAC-11). Finally, the LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* described in Response to Comment LAC-3 will enhance the protection of historic resources in the Port. These measures ensure that the PEIR complies with the requirements of CEQA as set forth in PRC Section 21002. Please refer to Final PEIR Appendix A, Port Master Plan, for information specific to the PMPU as provided in response to this comment.

Response to Comment LAC-10:

Please see Response to Comment LAC-8. The *Terminal Island Land Use Plan* cited by the commenter does not identify demolition of buildings at Southwest Marine as a feature of the land use plan, nor does the PMPU. The commenter's concerns notwithstanding, the LAHD is not contemplating a particular project in the area of Southwest Marine; the PMPU simply indicates permitted future land uses. Accordingly, there are no other "reasonably foreseeable future activities" that should be considered in the PEIR, and the PEIR complies with CEQA. As a note, existing uses at the Southwest Marine buildings would be allowable as non-conforming uses under the PMPU until such time as a redevelopment project is approved, so adoption of the PMPU would not have a physical effect on historic buildings (refer to Draft PMPU Section 6.3, Application Procedures).

Response to Comment LAC-11:

Sewage Pump Station #669 (390 North Seaside) occupies a small site within a vegetated area between North Seaside and the Terminal Island Freeway in an area that is already designated for container use. The structure coexists with the existing container operations. There is no land use change that would affect this facility.

There are no reasonably foreseeable actions that would affect the former Los Angeles Yacht Club facility. If a project is proposed in the future for this location, potential impacts to the structure would invoke **MM CR-3,** which could involve relocation options.

With respect to Canner's Steam Plant and the Japanese American Fishing Village, please see Response to Comment LAC-9.

Response to Comment LAC-12:

Please see Response to Comment LAC-8. The comment provides no evidence that the proposed land uses would preclude adaptive reuse or other means of preserving or

otherwise mitigating significant impacts to historic resources on Terminal Island (note that adaptive reuse is only one means of avoiding significant impacts on historic resources). The PEIR has imposed mitigation measures that ensure the protection of historic resources. Through the CEQA comment process the LAHD has strengthened **MM CR-3** to specify that additional protective measures will be implemented as necessary (e.g., in-situ preservation, adaptive reuse, and relocation; see Response to Comment LAC-11). Finally, the LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* described in Response to Comment LAC-3 will enhance the protection of historic resources in the Port. These measures ensure that the PEIR complies with the requirements of CEQA as set forth in PRC Section 21002.

Response to Comment LAC-13:

As noted in the previous responses to comments, the range of land uses, along with the LAHD's established policies and the mitigation measures imposed through the PEIR, afford adequate protection for historic resources in the Port. Accordingly, the land use designations in the PMPU do not conflict with the goal of protecting historic resources, and the PEIR properly concludes that, at the programmatic level appropriate for this analysis, the proposed PMPU would not have significant adverse impacts on such resources. As a result, the LAHD does not believe that any deviation from CCA goals and requirements of the sort cited by the commenter is necessary. The comment does not provide substantial evidence to the contrary, and therefore no change to the PMPU or the PEIR is required.

Response to Comment LAC-14:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment LAC-15:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment LAC-16:

As noted in previous responses to comments, the Board has adopted the LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy*, as suggested by the commenter. That policy includes a procedure for project-level management and protection of historic resources. Because it is official LAHD policy, it is unnecessary to impose the policy as mitigation in the PEIR. Please note that additional mitigation is included in the Final PEIR in the form of a revision of **MM CR-3** to incorporate specific preservation measures.

Response to Comment LAC-17:

The commenter's recommendation regarding creation of a new staff position is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU. The comment is general

and does not reference any specific section of the PEIR; furthermore, such a position would not mitigate any identified significant impacts because none of those impacts is the result of lack of trained LAHD staff. Accordingly, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

The commenter does not identify the "structural, environmental, or other perceived barriers" that the comment suggests needs remedying. Accordingly, no further response is either required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)) or possible under the PMPU public comment process.

Response to Comment LAC-18:

The comment addresses general descriptive material that is unrelated to either the PEIR or the PMPU, and does not raise issues that require a response under CEQA or the CCA.

Response to Comment LAC-19:

As described in previous responses to the Los Angeles Conservancy's comments, the PMPU fully allows, and does not limit the ability of the LAHD to identify and protect, as appropriate, the historic resources within its jurisdiction. The PMPU and associated policies contain the necessary procedures and guidelines to allow the LAHD to manage historic resources and to mitigate impacts to such resources in full compliance with CEQA and other applicable laws. The commenter does not explain why amendments would be required or why the CCC would require additional actions, or explain how the other measures mentioned (e.g., overlay zones, "Port's hatching") would add to LAHD's ability to avoid significant impacts of development under the PMPU. However, to clarify the PMPU's intent, two additional mixed land use sites have been incorporated into the Final PMPU: 1) existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial; and, 2) vacant land at Southwest Marine Shipyard would be changed to break bulk and/or maritime support. These land use designations provide flexibility that allows adaptive reuse of historic structures within the PMPU area. Furthermore, the term "level playing field" as used in the comment is undefined and unclear. Accordingly, the LAHD believes that the PMPU as revised to avoid bisection of buildings by land use designations provides appropriate protection for historic resources and that the PEIR adequately describes potential impacts and provides mitigation that is appropriate based on the programmatic nature of the analysis.

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National Trust *for* Historic Preservation
Save the past. Enrich the future.

April 8, 2013

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731

VIA EMAIL to: ceqacomments@portla.org

Re: Comments on the Master Plan Update for the Port of Los Angeles and Draft Program Environmental Impact Report

Dear Mr. Cannon:

On behalf of the National Trust for Historic Preservation, thank you for the opportunity to provide comments on the Port of Los Angeles's Draft Program Environmental Impact Report (Draft PEIR) for the Port Master Plan Update. The guidelines and policies established in the Plan Update will have a major role in shaping the future of the cultural and historic resources under the jurisdiction of the City of Los Angeles Harbor Department. Under the Public Trust Doctrine, the Department stewards these areas for the benefit of the public and future generations. NTHP-1

Summary

As we stated in our comments on the Notice of Preparation, our particular interest is to ensure the revitalization of the historic resources in proposed planning areas 3 and 4 – particularly those concentrated near Fish Harbor. These places are invaluable assets and tangible links to the Port's history, yet many remain underused, vacant, and in need of environmental remediation. Among them are three large canneries and a steam plant that were responsible for the development of the tuna canning industry in America, a highly significant World War II shipyard, and the few remains of a once-sizeable Japanese American fishing village forcibly evacuated in the panic that followed the Pearl Harbor attack.

We are pleased that the Port has made a commitment to the preservation of historic resources in Goal 5 of the Draft Master Plan Update. In addition, the Draft PEIR proposes at least some basic mitigation measures to ensure that

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NTHP-1 historic architecture and archaeological sites are protected as future projects move forward.

However, the Draft Plan Update also suffers from oversights and a lack of will to preserve historic and culturally significant sites, which will prohibit the fulfillment of Goal 5. In fact, increased restrictions on uses for historic buildings and ill-conceived planning district boundaries are a step backwards for the Port from the existing Master Plan. Further, many of our comments elaborate on the same issues we pointed out in our letter on the Notice of Preparation dated August 24, 2012.

NTHP-2 **Interests of the National Trust**

The National Trust for Historic Preservation was chartered by Congress in 1949 as a private nonprofit membership organization for the purpose of furthering the historic preservation policies of the United States and facilitating public participation in the preservation of our nation's heritage. 16 U.S.C. § 468. The National Trust works to protect significant historic sites and to advocate historic preservation as a fundamental value in programs and policies at all levels of government.

On June 6, 2012 the National Trust for Historic Preservation listed the historic resources at Terminal Island at the Port of Los Angeles among America's 11 Most Endangered Places. Our cause for concern was twofold. First, many historic resources on Terminal Island have long sat vacant and neglected and the Port has not prioritized their re-use. Without active long-term uses, the buildings are likely to further fall into disrepair, making their eventual re-use more challenging. Second, preliminary plans for Terminal Island suggested that future roadway alignments would result in a radical reconfiguration of the area's street grid which would likely cause the demolition of historic resources. Much of this plan was incorporated into the Draft Master Plan Update.

Concurrent with the 11-Most listing the National Trust designated Terminal Island a National Treasure, based on both the area's national significance, and recognition that the involvement of the National Trust would have positive implications for preservation nationwide. Through our focused advocacy we aim to work closely with the Port to create a master plan for Terminal Island that can serve as a model for similarly-situated ports across the country. We believe that this threshold will be met if the Master Plan Update promotes a realistic strategy for the adaptive re-use of historic structures a method for achieving the Port's broader economic success.

2

The Public Trust Doctrine Establishes the Basis for the Port's Responsibility to Preserve Historic Maritime Commerce Facilities at Terminal Island NTHP-3

Because most of Terminal Island consists of former tidelands, the Port of Los Angeles has the responsibility to manage the land and its assets consistent with the Public Trust Doctrine. Its general duties under this rule are not discussed in the Draft Plan Update, but have important consequences for historic preservation. The Public Trust Doctrine stems from the common law presumption that the land below the natural high tide line is incapable of private ownership. Each manager of public trust lands, such as the Port of Los Angeles, must steward the land for the benefit of the public, a principle rooted in Roman Civil Law and English Common Law.[1]

Fundamental to serving the public interest is the proper stewardship of assets that embody and reflect the Port's unique maritime-related history. While those uses were traditionally focused on promoting navigation, commerce, and fisheries, courts have recognized the need for new uses consistent with the desires of the public. In a landmark case in 1971, the California Supreme Court confirmed that "[t]he public uses to which tidelands are subject are sufficiently flexible to encompass changing public needs. In administering the trust the state is not burdened with an outmoded classification favoring one mode of utilization over another."[2] As a result, in order to promote historic uses related to maritime activities, the Port need not limit its allowable future activities in the area. For instance, educational initiatives which promote public appreciation for the area's history should be considered if they are necessary to revitalize the Port's neglected historic structures.

The Draft PMPU and Draft PEIR Contain an Incomplete List of Identified Historic Resources NTHP-4

CEQA requires that a lead agency consider a property historically significant if a "fair argument" can be made for its inclusion in the local or statewide Register of Historic Resources. *Architectural Heritage Association v. County of Monterey* (2005) 122 Cal.App.4th 1095. CEQA does not require that the resource be listed in any formal inventory, but by a fact-based opinion of an historic resources expert or advisory commission.

The Draft PEIR contains a discussion of historic resources and indicates that most are located within the Fish Harbor planning district area. Table 3.4-2

[1] National Audubon Society v. Superior Court (1983) 33 Cal. 3d 419, 433-34/

[2] Marks v. Whitney (1971) 6 Cal.3d 251, 259.

3

NTHP-4 purports to contain an exhaustive list of recorded and potentially eligible resources. However, we note two critical omissions:

Canner's Steam Plant
This plant was built in 1951 in the years following World War II as the seafood canning industry boomed. Five canneries formed a cooperative to provide steam for cooking and canning. The centralized steam generation enhanced the canning process and increased efficiency in the industry. It is a critical link to the area's once-mighty canning industry.

Historic Japanese Commercial Village
We were surprised to see that the Draft PEIR omits mention of the historic Japanese fishing village at Terminal Island. The forcible internment of the approximately 3,000 American citizens living at Terminal Island was a dark chapter in the Port's history, but nonetheless worthy of recognition. The Port has commendably created a memorial honoring the contributions of the Japanese Americans who were evicted, but should place greater effort on acknowledging and protecting the physical remnants of the former village. Two commercial storefronts, for instance, remain intact, albeit altered, and it is unclear why the Port does not place any value on them as historic assets. In addition, we presume there is a strong likelihood that any development in the area will encounter archaeological resources. The Master Plan Update must acknowledge the value of archaeological sites that post date the Native American settlement on its property as they may contribute information to our understanding about the Port's 19th Century history.

Recommendation
We recommend that the Port include a map and more comprehensive list of known cultural resources. The inclusion will improve the planning process as project specific CEQA review occurs in the future.

NTHP-5 **The Proposed Boundaries of Planning Area 3 in the Draft PMPU Do Not Respect Historic Resources and the Draft EIR Fails to Account for the Effects on Historic Resources**

The following image appears on page 36 of the Port Master Plan as a cropped version of Figure 7:

4

NTHP-5

The blue color indicates that the area will be zoned as a "container" land use area which is defined at Table 8 on page 22 as "Water-dependent uses focused on container cargo handling and movement." This designation is virtually a death knell for any extant structure, and/or extant archaeology as container storage areas require expansive, flat, and paved terrain.

This new planning area differs from existing Planning Area 8 which includes within the Fish Harbor area all historic resources southeast of Terminal Way. The departure is a major matter of concern for the historic environment at Terminal Island, as it divides the historic Japanese Commercial Village by placing the district boundary at Cannery Street. The area northwest of Cannery Street is designated for containers areas, while the area southeast towards Fish Harbor, is for commercial fishing (as detailed in Figure 8). The effect of developing the area for containers would cause a major loss of integrity for this resource. Furthermore, Canner's Steam Plant is also located within the container zone, we believe inappropriately. The Draft PEIR omits mention of both of these impacts.

Recommendation: Revise the boundaries of Planning Area 3 to include all the land southeast of Terminal Way within Planning Area 4. This will result in greater protection for the historic resources currently included in the Planning Area 3 boundary including the historic Japanese American Commercial Village as well as Canner's Steam Plant.

NTHP-6

The Proposed Boundaries of Planning Area 4 in the Draft PMPU Do Not Respect Historic Resources and the Draft EIR Fails to Account for the Effects on Historic Resources

The following image appears on page 39 of the Port Master Plan as a cropped version of Figure 8:

5

NTHP-6

As the Draft PEIR indicates, this area contains, by far, the greatest concentration of significant historic architectural resources within all five planning areas. Between Cannery and Wharf Street remnants of the Japanese American Commercial village still exist. Between Barracuda Street and Ways Street on the Western waterfront are three historic canneries: Chicken of the Sea, Pan-Pacific Fisheries, and StarKist Tuna Cannery Main Plant. Finally, to the east of Fish Harbor lies Sowthwest Marine complex, the Terminal Island Japanese Memorial, and the Al Larson Boat Shop Complex.

The proposed zoning that applies to each of these resources varies considerably from current permissible uses. The existing Master Plan permits commercial fishing, recreation, industrial, liquid bulk, institutional and "other" uses in the Fish Harbor Area (Planning Area 8). The Southwest Marine area in Planning Area 7 permits institutional uses in addition to the aforementioned uses.

NTHP-7

Neither the Draft Master Plan Update nor the Draft EIR explains why the new constraints are necessary. The canneries and Japanese Village are designated *only* for "Commercial Fishing." Southwest Marine is designated *only* as "Breakbulk." The Al Larson Boat Complex and the Memorial are indicated to be "Marine Support."

Notably, neither the Port Plan nor the Draft PEIR contain any indication of the consequences these zoning designations will have for historic resources. If a specific future tenant of these buildings was anticipated, the designation might be justified. However, the canneries and shipbuilding facilities remain vacant, underused, and in disrepair, and such strict, prescriptive zoning for these areas does not bring with it a promise of re-use.

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Further, we feel that additional credit should be given to repair and retain the historic resources in the Fish Harbor area of Terminal Island because of their value to the public and for representing to future generations the unique stories of the Port's history. We note that policy goals, such as environmental conservation, are reflected in other planning areas, such as the open space designated along the southern tip of Pier 400 as a protected area for least terns. Similarly, expanding permissible uses in places like Fish Harbor, that are densely concentrated with historic and cultural resources, is a major public policy benefit that the Port should support. NTHP-8

The Port already has proposed a precedent for expanding potential uses. The northern edge of Terminal Island in Planning Area 3, for instance, is cross-hatched, envisioning that Dry Bulk, Breakbulk, and Container uses could all be located in the same area.

Recommendation

Expand the boundaries of Planning Area 3 to include all historic resources in the Fish Harbor area including Canner's Steam Plant and the historic Japanese Commercial Village. Permit more flexible uses of historic buildings within the district by "cross-hatching" the revised "industrial history" zone with additional uses, such as has been the case under the existing Master Plan. Provide added financial incentives for tenants seeking to rehab historic buildings as a method of ensuring the long-term survival of historic resources. NTHP-9

CEQA Considerations NTHP-10

To the extent the Draft PEIR limits unduly limits allowable uses for historic resources to the point where there is no economically viable means of rehabilitating them for that use, it may cause a significant impact on the environment. Pub Res. Code § 24084.1; Guideline § 15064.5 As a result, the Port must determine if there are "feasible alternatives or feasible mitigation measures available that would substantially lessen [those] environmental effects." Pub Res. Code § 21002.

There is no analysis in the Draft PEIR regarding the effects of zoning the historic resources around Fish Harbor in such a narrowly prescriptive way. The single most alarming designation is the proposed breakbulk category specifically overlayed over some, but not all of the Southwest Marine site. Such designation implies that the Port may be considering a particular project for that area, and is not disclosing to the public what the effects will be on historic resources. CEQA requires much more. Project descriptions must include reasonably foreseeable future activities that may become part of the project. *Laurel Heights Improvement Ass'n v. Regents of the University of California* (1988) 47 Cal.3d 376. NTHP-11

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NTHP-11 Absent a specific project proposal, we see no reason to declare that the Southwest Marine site shall be only used for breakbulk, particularly when those resources have been used for a variety of uses in the past and could potentially support creative re-used proposals that are sufficiently related to water-dependent uses to survive scrutiny by the Coastal Commission.

NTHP-12 **The Coastal Act Does Not Prohibit More Expansive Port Related Uses in the Fish Harbor Area**

While the California Coastal Act of 1976 imposes unique responsibilities on the management of property within the coastal zone, we do not believe it is appropriate to cite the Act as a basis to prescribe such a narrow range of uses for historic buildings at the Port.

There are no provisions within the Coastal Act that diminishes a lead agency's responsibilities to the historic buildings under its jurisdiction under CEQA. Passed by the California legislature six years prior to the Coastal Act, CEQA contains a specific, substantive mandate that requires agencies to implement feasible mitigation measures for projects that may otherwise cause significant adverse effects. The "environment" is defined in CEQA to be inclusive of the State's "objects of historic or aesthetic significance." PRC § 21060.5. Nothing within the Coastal Act in any way lessens the Port's responsibilities to steward its historic resources differently than other value protected by CEQA.

NTHP-13 On page 3-8-4 of the Draft PEIR, the Port cites four provisions of the Coastal Act as its basis for limiting uses in the way it proposes in the Master Plan Update: Public Resource Code sections 30001.5(d), 30255, 30260 (which is incorrectly cited as "31260"), and 20708(c). While these sections establish that "coastal-related" developments are priorities of the Coastal Commission, preservation of historic industrial Port facilities is entirely consistent with that goal. For instance, the Coastal Act contains a clear reference to CEQA in Sections 20260 by permitting deviations if a proposed project would violate CEQA's mandate by specifically referencing CEQA's language:

> where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

In addition, Section 30708 mandates that port-related developments shall be located, designed, and constructed as to "minimize substantial adverse

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environmental impacts" in addition to the Port's referenced citation to giving highest priority to the use of properties for "port purposes." The language of these sections clearly imply that the Coastal Act protects the same environmental qualities as CEQA, including historic resources, and is not meant to contradict the lead agency's responsibilities to protect those sites. NTHP-13

Recommendation NTHP-14

The Coastal Act's requirements can be fulfilled while meeting the mandates of CEQA by prioritizing port-related uses in the historic buildings at the Port in through much broader means. Most importantly, the Port should recognize that while the Coastal Act emphasizes preferable uses, it does not mandate them, particularly when such preferable uses would cause impacts to the environment protected by CEQA. As such, we strongly encourage more expansive land use designations recognizing that the Coastal Act does not alter the substantive requirements of CEQA to protect the State's historic resources.

Conclusion NTHP-15

The proposed PMPU has the potential to set an important benchmark for similarly-situated ports across the country. In order for historic preservation to be a realistic and meaningful goal, the rehabilitation of historic infrastructure must be facilitated through specific commitments by the Port. This includes drawing respectful boundaries of planning districts and permitting greater flexibility in use designations.

Thank you for the opportunity to comment on this important document. As the Port of Los Angeles moves forward at this critical stage, we look forward to helping ensure that the preservation and use of historic resources remains a major priority. Please don't hesitate to contact me at (415) 947-0692 or bturner@savingplaces.org if you have any questions.

Sincerely,

Brian Roberts Turner
Senior Field Officer/Attorney
National Trust for Historic Preservation

Cc: Linda Dishman, Los Angeles Conservancy

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Comment Letter NTHP: National Trust for Historic Preservation

Response to Comment NHTP-1:

The comment addresses introductory material and does not raise issues that require a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below.

Response to Comment NTHP-2:

The comment is introductory material and does not raise issues that require a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below.

The "preliminary plans" for Terminal Island cited by the commenter are part of the *Terminal Island Land Use Plan*, which is not a formally approved document. Although applicable portions of the Terminal Island Land Use Plan were incorporated into the PMPU, the conceptual roadway alignments referenced in the comment were not integrated into the PMPU. The LAHD has no reasonably foreseeable plans to realign the roadway network on Terminal Island, and would not contemplate such an action unless there was a proposed development project that included realignment of existing roadways. In such a case, project-level cultural resource evaluations would be conducted in accordance with CEQA and the *Built Environment Historic, Architectural, and Cultural Resource Policy* described in Response to Comment LAC-3 to ensure that historic resources are adequately considered.

Response to Comment NTHP-3:

The LAHD agrees that preservation of historic resources is consistent with the Public Trust Doctrine. However, this comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment NTHP-4:

Please see responses to Comments LAC-3 and LAC-6.

Response to Comment NTHP-5:

Please see responses to Comments LAC-3, LAC-8, and LAC-11. The comment provides no evidence that the conversion of land in Planning Area 3 to container cargo uses near Planning Area 4 (Fish Harbor) would eliminate historical buildings (see Response to Comment LAC-8). The PEIR has imposed mitigation measures that ensure the protection of identified historic resources. Through the CEQA comment process the LAHD has strengthened **MM CR-3** to specify additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation; see Response to Comment LAC-11). Finally, the LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* described in Response to Comment LAC-3 will enhance the protection of historic resources in the Port. These

measures ensure that the PEIR complies with the requirements of CEQA as set forth in PRC Section 21002.

The LAHD has no current plans to demolish any of the historic resources within Planning Area 3, and would not contemplate such an action unless there was a proposed development project requiring their removal. In such a case, project-level cultural resource evaluations would be conducted in accordance with CEQA and the *Built Environment Historic, Architectural, and Cultural Resource Policy*, as described in Response to Comment LAC-3 to ensure that historic resources are adequately considered.

Response to Comment NTHP-6:

Please see responses to Comments LAC-3, LAC-8, and LAC-11. The comment provides no evidence that the boundary of Planning Area 4 would affect historical resources within Fish Harbor (see Response to Comment LAC-8). The PEIR has imposed mitigation measures that ensure the protection of identified historic resources. Furthermore, the LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* described in Response to Comment LAC-3 will enhance the protection of historic resources in the Port. The LAHD has no current plans to demolish any of the historic resources within Fish Harbor, and would not contemplate such an action unless there was a proposed development project requiring their removal. In such a case, project-level cultural resource evaluations would be conducted in accordance with CEQA and the *Built Environment Historic, Architectural, and Cultural Resource Policy* to ensure that historic resources are adequately considered.

Response to Comment NTHP-7:

The overall objectives of the PMPU are addressed in Section 1.4.2, Program Objectives, of the PEIR. Consolidation of the number of land uses within the planning areas and designation of a single land use for most sites are consistent with these objectives.

As noted in the Response to Comment LAC-13, the land use designations in the PMPU do not conflict with the goal of protecting historic resources. Instead, the range of land uses, along with the LAHD's established policies and the mitigation measures imposed through the PEIR, afford adequate protection for historic resources in the Port. Accordingly, the PEIR properly concludes that, at the programmatic level appropriate for this analysis, the proposed PMPU would not have significant adverse impacts on such resources.

Response to Comment NTHP-8:

As noted in the Response to Comment LAC-13, the range of land uses, along with the LAHD's established policies and the mitigation measures imposed through the PEIR, afford adequate protection for historic resources in the Port. Accordingly, the land use designations in the PMPU do not conflict with the goal of protecting historic resources, and the PEIR properly concludes that, at the programmatic level appropriate for this analysis, the proposed PMPU would not have significant adverse impacts on such resources. The recommendation related to financial incentives for

future tenants is not an issue requiring a response under CEQA, but is addressed in Final PEIR Appendix A, Port Master Plan,

Response to Comment NTHP-9:

Please see the responses to Comments NTHP-7 and NTHP-8.

Response to Comment NTHP-10:

Please see Response to Comment LAC-19.

Response to Comment NTHP-11:

Please see responses to Comments LAC-8, LAC-10, LAC-11, and LAC-12. As those responses explain, the LAHD has revised the boundaries of the break bulk and maritime support uses in the vicinity of the former Southwest Marine site in order to make it clear that individual buildings will not be bisected by different land uses. Furthermore, this area has been designated as a mixed land use site that would allow break bulk and/or maritime support uses, thereby providing greater flexibility to adaptively reuse the buildings at the former Southwest Marine site. In addition, those responses confirm that the LAHD has no current plans for a particular project at the Southwest Marine site: there are no reasonably foreseeable future actions that have been proposed in sufficient detail to allow their consideration in the PEIR. The re-designation proposed in the PMPU does not require that current uses must immediately change, but rather that future proposals should be consistent with the land use designation.

Response to Comment NTHP-12:

The PMPU does not rely on the CCA to avoid the mandates of CEQA or reduce its stewardship responsibilities, and the commenter provides no specific evidence to the contrary. The references to the CCA are intended to illustrate the range of planning priorities that must be addressed by the PMP, but does not imply that historic preservation is not one of those priorities. As PMP Goal 5 states, historic and cultural resource preservation is, in fact, one of the LAHD's goals.

The PEIR does, in fact, acknowledge potentially significant impacts on historic resources from implementation of the PMPU, and imposes mitigation to reduce those impacts to less than significant, as required by CEQA. The LAHD disagrees with the commenter's statement that the PMPU land use designations conflict with CEQA or are too narrow to provide protection to historic resources. As described fully in previous responses to comments by the National Trust for Historic Preservation and the Los Angeles Conservancy, the PMPU and the PEIR both acknowledge the presence of known and unknown cultural and historic resources, and establish procedures and mitigation measures for minimizing adverse impacts to those resources by future projects implemented in accordance with the PMPU.

Response to Comment NTHP-13:

Please see Response to Comment LAC-13. As mentioned in Response to Comment NHTP-12, the LAHD agrees that preservation of historic Port-related

facilities is not inconsistent with the LAHD's mandate under CCA to promote coastal-related development, and also agrees that the LAHD has a responsibility under both CEQA and the CCA to protect the cultural resources within its jurisdiction. Accordingly, one of the PMPU's goals is the protection of historic resources (PMPU Section 3.2.5, Goals), and the PEIR describes the measures the LAHD will undertake to achieve that goal, including cultural resource surveys, construction safeguards, and an array of preservation measures to be applied on a project-specific basis (Draft PEIR Section 3.4.4.3, Impacts and Mitigation). The LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy*, as described in Response to Comment LAC-3, will also enhance the protection of historic resources in the Port in furtherance of LAHD's responsibility for those resources.

Response to Comment NTHP-14:

Please see responses to Comments LAC-13 and NTHP-13.

Response to Comment NTHP-15:

Please see responses to Comments NTHP-1 through NHTP-13.

Cham, Michael

From: info@theartspot.org
Sent: Monday, April 08, 2013 6:50 PM
To: Cham, Michael
Cc: bturner@savingplaces.org; afine@laconservancy.org; bpolk@lafla.org; expressomiarte@gmail.com; msldenker@gmail.com; leminick@gmail.com
Subject: Pan-Pacific Fisheries Cannery Project

April 8, 2013

Geraldine Knatz
Executive Director

Michael Cham
Harbor Planning & Economic Analyst

The Port of Los Angeles
425 S. Palos Verdes Street
San Pedro, CA 90731

Commissioners
Board of Harbor Commissioners

Dear Port of Los Angeles and Board of Harbor Commissioners,

It was a pleasure to meet you last Thursday at Banning's Landing during the City Council Meeting. We, the Art Spot, would like to express our deep gratitude for your willingness to listen and consider our vision for revitalizing and restoring the Pan-Pacific Fisheries Cannery on Terminal Island. AS-1

We care not only about preserving the history of this building, but about building the future of the Port, its workers, and our community. We look forward to working together for the betterment of many.

Our Story AS-2

We are The Art Spot, a community of Women who have reclaimed and revitalized our lives through art and community. We want to use that same creative energy to fuel our vision for preserving the Pan Pacific Fisheries Cannery on Terminal Island.

Our Vision AS-3

We propose to include an additional visionary project in the Terminal Island section of the Master Plan, and therefore respectfully request that the Updated Master Plan includes the flexibility for Terminal Islands' historic buildings to be adaptively reused.

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AS-4 The Pan Pacific Cannery opened in 1946—in its day the most modern state of the art facility. The women who worked there carried on the daily process of the cannery, transforming raw fish from the wharf into canned product shipped out via truck or rail. The cannery was an essential part of these women's lives and Terminal Island itself was a true Company Town, at one time housing many employees.

To keep this spirit alive and to further this tradition, The Art Spot would like to restore and revitalize the Pan Pacific Cannery, while preserving its historicity, transforming it into a restaurant/brewery to serve the longshoremen, local community and visitors. The restaurant will be a place to sit and relax, enjoy a cup of coffee, a steaming bowl of chowder, or homemade chili, along with hand-crafted beer. The restaurant itself will be on the factory/waterfront side where customers can enjoy a view of Fish Harbor, looking out directly across the water toward our artsy neighbor Crafted, who transformed Warehouse No.10 into a craft marketplace. The décor inside the restaurant will reflect the history of both Terminal Island and specifically the Tuna industry, including where possible utilizing photos and artistic reinterpretation pieces done by our own artists.

AS-5 We intend for this enterprise to be a Local 100, where all items needed for the meals come from within a 100 mile radius from Terminal Island. In this regard we see an "Impossible Garden" in the concrete inner courtyard of the cannery, along with a recycled water fountain, where apple, orange and lemon trees grow atop the ground on huge recycled boxes filled with dirt and love for all that is possible, along with all other varieties of fruits and vegetables.

AS-6 Diners would be able to stroll through the garden, and on the way, hear some live music from the stage, if that didn't draw them toward the warehouse, now converted into gallery/studio space, then perhaps they are there for the play, live poetry reading at the stage.

AS-7 The women working in this social enterprise will be survivors of domestic violence whose art not only will decorate the walls, but will provide a space for the creative arts to flourish. The Pan-Pacific Cannery will double as a thriving business and housing for women artists who are hoping to move beyond poverty and live free of violence. We will have working studio space, gallery space, artist lofts, art workshops and classes, conferences, art retreats and much more to offer to students, artists and the community.

AS-8 We would like to explore green, wind and solar technologies in the restoration of the Pan-Pacific Fisheries Cannery to make it a green and self-sustaining model. We hope to collaborate with the best experts to be found who can help to make this a beacon of hope for the future.

AS-9 We would like to see the tuna cannery, once a thriving place that created jobs for many and provided sustenance to the world outside of the port... again a gateway to growth, productivity and community. We believe it can also be a most modern state of the art facility -- one that transforms raw creativity into colorful reality, bringing hope to the community. It is our hope that in cooperation with the Conservancy and the Port, The Art Spot be able to collaborate with and gain the support and resources of many, together we can accomplish much.

AS-10 <u>Our Request</u>

We would like to work together with you to bring this vision to life. Though we are confident in our ability to develop the expertise and partnerships that we will need along the way, we need both your guidance and your resources. We hope you will consider joining with us on this remarkable journey.

We propose to include an additional visionary project in the Terminal Island section of the Master Plan, and therefore respectfully request that the Updated Master Plan includes the flexibility for Terminal Islands' historic buildings to be adaptively reused.

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Yours sincerely,

The Art Spot

Lori Minick
Trini Nuñez
Loren Denker

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Comment Letter AS: The Art Spot

Response to Comment AS-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-7:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-8:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-9:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment AS-10:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Coalition For A Safe Environment

1601 N. Wilmington Blvd. Ste. B, Wilmington, California 90744
cfase @ att.net 310-704-1265

April 8, 2013

Michael Cham
Planning & Economic Development Division
425 S. Palos Verdes Street
San Pedro, CA 90731

Re: Port of Los Angeles Draft Port Master Plan
Su: CFASE Public Comments

Mr. Cham:

The Coalition For A Safe Environment (CFASE) wishes to submit the following public comments identifying omissions, non-compliance and deficiencies in the Port of Los Angeles Draft Port Master Plan (DPMP) that we would like to see included, acknowledged, assessed and addressed: CFASE1-1

1. DPMP 1.1 About the Port of Los Angeles

   The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

   The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

   These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

   > "The Port Master Plan (Plan) establishes policies and guidelines to direct the future development of the Port. This updated Plan is designed to better promote and safely accommodate foreign and domestic waterborne commerce, navigation, and fisheries in the national, state, and local public interests. The Plan also provides for public recreation facilities and visitor serving areas to facilitate public access to the waterfront and better integrate the Port with the surrounding community, consistent with the State Tidelands Trust."

CFASE1-2 2. DPMP 1.2 Authorizing State legislation

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "The Plan was originally adopted and certified in 1980 in conformance with the policies of the California Coastal Act. The California Coastal Act, enacted by the State Legislature in 1976, provides for the protection of California's coastline through the authorization of local coastal programs and port master plans to manage development in the coastal zone. The Coastal Act is administered by the Coastal Commission, whose mission is to protect, conserve, restore, and enhance the environment of the California coastline."

CFASE1-3 3. DPMP 1.2.1 California Coastal Act Port Policies

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manage, plans to purchase or acquire.

The Port of Los Angeles has illegally purchased or obtained properties for speculative investment, unspecified and unapproved projects using Public Trust Funds, without the authorization of the California States Lands Commission and California Coastal Commission that are not on Tidelands Property or in the Coastal Zone.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "The Coastal Act recognizes the importance of ports to California's economy and the national maritime industry. Ports are understood to be necessary to

ensure that inland and coastal resources are preserved and that economic development continues within the state. Further, existing ports are encouraged to modernize and construct necessary facilities within their boundaries in order to minimize or eliminate the necessity for future dredging and filling to create new ports in new areas of the state.

Chapter 8 (Ports) of the Coastal Act presents the policies of the state that are consistent with coastal protection in the port and govern the certification of port master plans. Port master plans are to contain the following elements: 1) land and water uses; 2) port facilities; 3) environmental inventory, impact analysis and mitigation measures; 4) a listing of appealable projects; and 5) provisions for public hearings and public participation in port planning and development decisions.

Under the Coastal Act, development activities within the Coastal Zone generally require a permit to ensure that the activity is consistent with the policies of the Coastal Act. A certified port master plan transfers coastal permit jurisdiction relative to port development from the Coastal Commission to the port authority, with limited appeal jurisdiction remaining with the Coastal Commission."

CFASE1-3

4. DPMP 1.2.2 Coastal Zone Boundary

CFASE1-4

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Port of Los Angeles has illegally purchased or obtained properties, plans to illegally purchase additional land properties for speculative investment, unspecified and unapproved projects using Public Trust Funds, without the authorization of the California States Lands Commission and California Coastal Commission that are not on Tidelands Property or in the Coastal Zone.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

The Port of Los Angeles has illegally purchased or obtained properties and plans to illegally and without authorization purchase additional properties that are beyond three miles.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

CFASE1-4

"The jurisdiction of the Coastal Act, and by extension, the jurisdiction of the Plan is the coastal zone. On land, the coastal zone varies in width from several hundred feet in highly urbanized areas up to five miles in certain rural areas. The coastal zone extends three miles inland from the shoreline."

CFASE1-5

5. DPMP 1.3 Port Master Plan Objectives

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

"To develop the Port in a manner that is consistent with federal, state, county and city laws, including the California Coastal Act of 1976 and the Charter of the City of Los Angeles.

To integrate economic, engineering, environmental and safety considerations into the Port development process for measuring the long-term impact of varying development options on the Port's natural and economic environment.

To promote the orderly long-term development and growth of the Port by establishing functional areas for Port facilities and operations.

To allow the Port to adapt to changing technology, cargo trends, regulations, and competition from other U.S. and foreign seaports."

CFASE1-6

6. DPMP 3.0 Development Goals & 3.1 Approach

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited

to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project. CFASE1-6

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "Long-range development goals are essential for guiding the future development and expansion of the Port. These planning goals are necessarily general to maintain flexibility and to allow the Port to respond to Port tenant needs. In addition, since development policies are driven by national and international economic trends, general goals allow the Port to respond to immediate and short-term requirements dictated by these trends."

7. DPMP 3.1.1 Goal 1: Optimize Land Use CFASE1-7

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "Goal 1: Optimize Land Use Development and the land uses designated on Port land should be compatible with surrounding land uses in order to maximize efficient utilization of land and minimize conflicts. Individual terminals within the Port should be compatible with neighboring Port tenants. When incompatible, port areas should be deliberately redeveloped or relocated to eliminate the conflict. Cargo handling facilities should be primarily focused on Terminal Island and other properties that are buffered from the neighboring residential communities of San Pedro and Wilmington. Non-water dependent use facilities should be eliminated from Port cargo-designated waterfront properties. Land use decisions should also take into consideration opportunities for Port tenants to grow and expand their businesses.

8. DPMP 3.1.2 Goal 2: Increase Cargo Terminal Efficiency CFASE1-8

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

CFASE1-8 The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "Cargo terminals should be utilized to their maximum potential in order to meet current and future needs of the Port's customers and region. The Port should develop and maintain the infrastructure necessary to support the terminals, while Port tenants should be encouraged to modernize their facilities and implement new technologies, including automated container terminal technology. Long-term development plans should maximize the utilization of low-performing assets, environmentally contaminated facilities, and unused assets.

CFASE1-9 9. DPMP 3.1.3 Goal 3: Accommodate Diverse Cargoes

The DPMP fails to include and identify all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

These issues have been identified in submitted written public comments and in verbal comments at Port sponsored public hearings and meetings.

> "The Port should continue its commitment to accommodating a variety of water-dependent cargo handling facilities, including container, breakbulk, dry bulk, and liquid bulk uses. While revenues generated from each land use vary, overall plans for the Port should allow for some capacity for different modes of cargo to serve the larger economic and public interest of the State. Ancillary uses, such as ship and boat repair, harbor craft, and barge and tug operations, are vital support industries and are also important customers that should be prioritized, based on need. Additionally, existing commercial fishing and recreational boating facilities will be protected consistent with the policies of the Coastal Act.

10. DPMP references berth numbers but does not include them on maps in the DPMP so that the public cannot know or accurately determine or validate DPMP information or compliance to the PMP, regulatory agencies, laws, rules and regulations. CFASE1-10

11. DPMP Table 8. Land Description fails to include existing Wetlands areas or potential Wetlands Restoration areas. Land Use Area Maps fail to include this information. CFASE1-11

12. DPMP 5.2.3 Area 3 – Terminal Island – Pier 500 Fill CFASE1-12

    Discusses Pier 500 Fill as a future Container Terminal Project area but fails to include other potential Alternative uses, such as the public requested use to be an On-Dock Railyard Intermodal Facility. The public has further requested that On-Dock Rail to be located on the shipside to facilitate maximization of efficiencies in unloading containers directly to rail and minimizing environmental and public health impacts.

13. The DPMP Planning Areas fail to include other potential Container or Cargo Terminal design configurations and Alternative uses, such as the public requested use to be an On-Dock Railyard Intermodal Facility. The public has further requested that On-Dock Rail to be located on the shipside to facilitate maximization of efficiencies by unloading containers directly to rail and minimization of environmental and public health impacts. Each terminal design should include On-Dock Rail to facilitate its handling capacity so as not to cause negative Off-Tidelands Property and Coastal Zone impacts. CFASE1-13

14. The Draft Program Environmental Impact Report prepared for the Port of Los Angeles Master Plan Update CFASE1-14

    The Draft Program Environmental Impact Report for the DPMP fails to include, identify and mitigate all Tidelands, Off-Tidelands and Coastal Zone properties that the Port of Los Angeles owns, has sole authority control, joint power authority control over, plans current and future development, manages or plans to manage, plans to purchase or acquire.

    The Harbor Department, Port of Los Angeles, Board of Harbor Commissioners and Los Angeles City Council have approved Project Proposals, Certified EIR's and Coastal Permits or plan to approve, certify and issue that did not and do not comply the Port Master Plan, State Lands Commission, California Coastal Commission and CEQA. Examples include but are not limited to: China Shipping Terminal Project, TraPac Terminal Expansion Project and the BNSF SCIG Project.

15. CFASE and the undersigned request a 90 day extension of the public comment period for both the Port of Los Angeles Master Plan Update and the Draft Program Environmental Impact Report to allow adequate time for the public to review, seek expert opinion and submit written comment. Also in consideration that the Port of Los Angeles has several other project EIRs pending. CFASE1-15

Cordially,

Jesse N. Marquez
Executive Director
jnm4ej@yahoo.com
jnmarquez@att.net

And as an individual negatively health and socio-economically impacted resident of the City of Carson living near the Port of Los Angeles.

Ricardo Pulido
Executive Director
Community Dreams

And as an individual negatively health and socio-economically impacted resident of the City of Carson living near the Port of Los Angeles.

Drew Wood
Executive Director
California Kids IAQ

Comment Letter CFASE1: Coalition For A Safe Environment

Response to Comment CFASE1-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-7:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-8:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-9:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-10:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-11:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-12:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-13:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CFASE1-14:

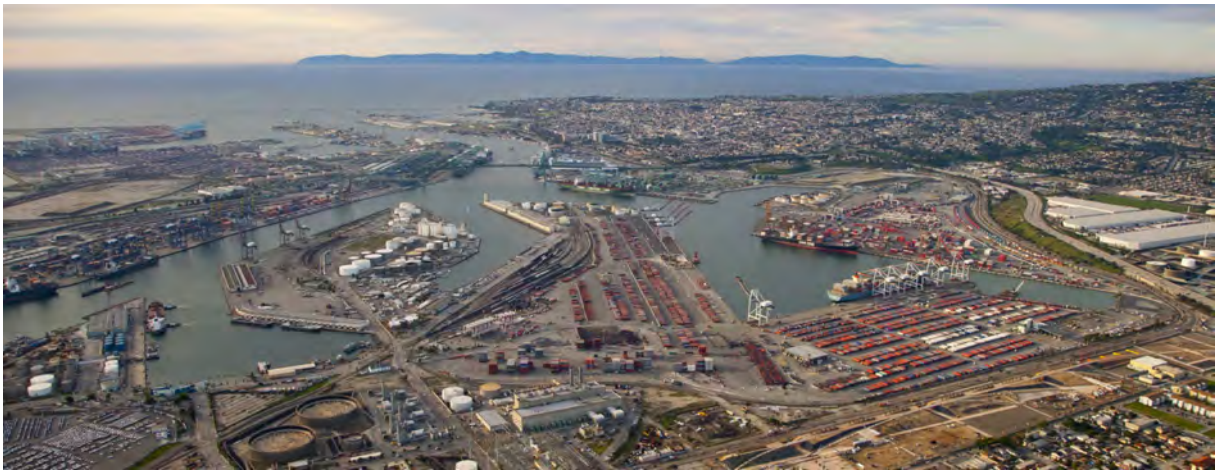
This comment asserts that the Draft PEIR does not address all tidelands, "off-tidelands," and coastal zone properties that LAHD owns or manages. Contrary to this assertion, the Draft PEIR does describe all Port activities and plans relevant to the master planning process, and the comment does not provide any information to the contrary. Accordingly, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). Please note that LAHD-owned lands outside the coastal zone are not included in the PMPU except insofar as that information might support activities within the coastal zone.

Response to Comment CFASE1-15:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Port of Los Angeles
Master Plan Update

Final Program Environmental Impact Report
Volume 2



Prepared by:

City of Los Angeles Harbor Department
Environmental Management Division
222 West 6th Street
San Pedro, CA 90731

With assistance from:

SAIC

THE PORT OF LOS ANGELES

ADP No. 110518-060
SCH No. 2012071081

July 2013

9-735 Pandora Avenue
Victoria, BC
CANADA V8W 1N9
March 25, 2013

Mr. Christopher Cannon
Director of Environmental Department
Los Angeles Harbor Department
425 South Paloes Verdes Street
San Pedro, CA 90731

Dear Mr. Cannon:

The proposed plan for Terminal Island's redevelopment is a matter of great interest to many people – including people such as myself who live in other countries. Many of us still have historic ties to the City of Los Angeles and its surrounding regions. We are always delighted to read about the various projects for historic preservation of historic homes, theatres, and the many public venues that remind us of Old California and its remarkable history. PR-1

I would like to urge the Port and the Board of Harbor Commissioners to place a priority on preserving and reusing the historic buildings on Terminal Island. The remaining historic buildings are the last vestige of the tuna canning industry and the World War I and II shipbuilding programs. Like many old buildings, they can be adapted and reconfigured for new and very creative uses. Of particular concern is the proposed roadway realignments in the Terminal Island Land Use Plan. The historic canneries will have to be demolished and historic buildings destroyed in order to realign Seaside Avenue through Southwest Marine. PR-2

This seems unnecessary. With a little flexibility and creative input a way can be found to preserve this important social legacy and historic district for future generations. I hope you will consider this in the Port Master Plan Update.

Your kind consideration of this matter is greatly appreciated.

Sincerely,

Patricia M. Ross

Patricia M. Ross

Cc: Geraldine Knatz
Marcello Vavala

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Comment Letter PR: Patricia Ross

Response to Comment PR-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PR-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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From: S.A. Green <greest@yahoo.com>
Sent: Friday, March 29, 2013 10:32 AM
To: Ceqacomments
Cc: Commissioners; Knatz, Geraldine
Subject: Draft Program Environmental Impact Report and Port Master Plan Update

Please include an historic preservation element in consideration of environmental impacts in the Harbor Island area and in the update of the Port Master Plan. SG-1

When my children (now in their 20s) were toddlers, they enjoyed seeing the fishing fleet and the historic structures in the port area. This heritage should be preserved alongside efforts to update the port's functionality.

Stanley Green, P.E.
P.O. Box 95
College Place, WA 99324

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Comment Letter SG: Stanley Green

Response to Comment SG-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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From: LarryFarma@aol.com
Sent: Wednesday, April 03, 2013 9:22 PM
To: Ceqacomments
Cc: Knatz, Geraldine; Commissioners; mvavala@laconservancy.org
Subject: I urge adaptive reuse of historic Terminal Island buildings

I think that adaptive reuse is often a good way to save important features of historic buildings. Some important features of two historic neighborhood movie theaters of mine -- the Loyola Theatre and the Baldwin Theater-- were saved when these theaters were converted to office buildings. LF-1

Sincerely,

Lawence Fafarman

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Comment Letter LF: Lawrence Fafarman

Response to Comment LF-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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From: Philip Belfer <philipbelfer@mac.com>
Sent: Wednesday, April 03, 2013 3:20 PM
To: Ceqacomments
Cc: Knatz, Geraldine; Commissioners
Subject: Preserve Historical Terminal Island

Dear Mr. Cannon:

I am a resident of Long Beach and am concerned that future plans for Terminal Island in neighboring San Pedro/Wilmington may result in the destruction of historically and culturally significant structures. I believe that the Port of LA and the Board of Harbor Commissioners can come up with a plan that will expand rail access to the port and improve port facilities while retaining the historic aspects of Terminal Island for generations to come. While developing the commercial port of today is of extreme importance, so is preserving historic structures to inspire youth with our maritime past. PB-1

Los Angeles has time and again made the mistake of tearing down what should and could have been preserved. Not only do these historic structures remind us of the past, they also provide an opportunity for the Port of LA to engage with the community and bring in tourist dollars as well.
Please do all that you can to preserve the WW I, WW II and cannery history of Terminal Island and make it accessible to the neighboring communities. Thank you for your consideration. PB-2

Sincerely,
Philip J .Belfer
Long Beach, CA

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Comment Letter PB: Philip Belfer

Response to Comment PB-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PB-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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From: Jay Ross [ross_jay@hotmail.com]
Sent: Saturday, April 06, 2013 4:37 PM
To: Ceqacomments; Knatz, Geraldine; Commissioners
Subject: Terminal Island: Opposition to proposed plan

To
Christopher Cannon, Director of Environmental Management, Los Angeles Harbor Department
Geraldine Knatz, Port of Los Angeles' Executive Director
Board of Harbor Commissioners

I concur with the LA Conservancy that you should not demolish everything on Terminal Island. JR-1
That's the easy way out, and you will create an area with no soul that no one will particularly want to visit.
Historic buildings are attractive to patrons and tenants, not soulless architecture that will replace it.

The Port Master Plan Update should provide a path forward for preservation of Terminal Island's historic buildings. Preservation and reusing historic buildings should be made a priority, on par with other identified goals within the Plan. JR-2

Designated land uses and policies should allow for the adaptive reuse of historic buildings, rather than their demise. Flexibility is needed within the Plan to ensure historic buildings can and will be adaptively reused while also still addressing fundamental goals for the Port. Placing competing land uses over Southwest Marine's buildings severely limits their ability to be reused and adhere to the Plan. JR-3

Terminal Island's historic buildings can be successfully adapted for new uses. Every effort should be taken to look at creative reuse opportunities and public-private partnerships that can complement Port functions while preserving historic buildings. JR-4

Historic, cultural and archaeological resources should be clearly identified within the Plan. The entire Port has yet to be surveyed and not all eligible historic buildings are indicated or even identified within the Plan. JR-5
The remaining historic buildings are the last vestige of Terminal Island's World War I and World War II shipbuilding, tuna canning industry, and Japanese-American built environment. As the last physical link to the extraordinary heritage of Terminal Island, the historic buildings should be appropriately maintained and preserved.

Proposed roadway and rail realignments by the Port should be fully reevaluated, as they will directly call for the demolition of buildings at Southwest Marine. Realigning Seaside Avenue through Southwest Marine will further bisect the historic district and jeopardize its continued eligibility, as multiple buildings will be demolished. JR-6

Jay Ross
1721 Granville Ave
Los Angeles, CA 90025
Ross_Jay@Hotmail.com
310 979 9255

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Comment Letter JR: Jay Ross

Response to Comment JR-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment JR-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment JR-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment JR-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment JR-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment JR-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Donna Ethington
Pacific Yacht Landing
Berth 203 #9, Wilmington, CA 90744
(310) 549-8111

April 5, 2013

Michael Cham
Port of Los Angeles
Planning & Economic Development Division
425 S. Palos Verdes Street
San Pedro, CA 90731

Re: Comments on Draft Port Master Plan Update

Dear Michael,

Thank you for the opportunity to comment on the Draft Port Master Plan Update. DE-1

On behalf of all the Wilmington marinas, I would like to thank the Port for including the ARSSS redevelopment plan in the PMP update. Please include a connection to the ARSSS site in the Pedestrian Pathways and California Coastal Trail (Figures 3 and 4). See additional comments on pages 3 - 5 under 3.2.4 Goal 4: Increase Public Access to the Waterfront.

Questions: Figure 6, Planning Area 2 DE-2

The marinas on the south side of the Consolidated Slip, Island Yacht Marina II and Leeward Bay Marina's annex do not appear in this Figure. Hopefully this is just an oversight. If not, what is the Port's intent?

The north side of the Consolidated Slip indicates maritime support, which is currently Manson Construction. It is our understanding that Manson will not be in that location beyond 2014. Is there another maritime support use being considered for that area? Is this area still under consideration as a future marina relocation site? DE-3

4.3 Demand for Recreational Boating Facilities DE-4

The PMP should reevaluate the need for recreational boatyard repair facilities. When the Port conducted a Boatyard Analysis in January 2012 there were two boatyards in the Port other than the small facility at Cerritos Yacht Anchorage. These two facilities are now closed. Ideally, there should be one boatyard site designated in the outer harbor and one in the inner harbor.

5.3.4 Other Projects

Relocation of SA Recycling DE-5

The updated PMP will analyze relocating SA Recycling eastward to Berths 206-207 to accommodate expansion of the Yusen container terminal. SA Recycling has stated several times in public hearings that it would not be financially feasible to move the scrap facility eastward. To

DE-5 do so could result in the loss of a 50-year Port tenant, a major exporter, and one of only two dry bulk facilities in the Port. SA has invested millions of dollars in environmental and site improvements, new technology and equipment, and is a valued community partner and good neighbor to all in the East Basin.

DE-6 Unlike SA, YTI's operations are mobile. It seems to me that YTI could expand to Berths 206-209 without disrupting the East Basin or driving business and jobs out of the Port or further reducing Port diversity if a short elevated access road was constructed from Berth 212 to 209 over SA's truck lanes. Please evaluate an elevated access road.

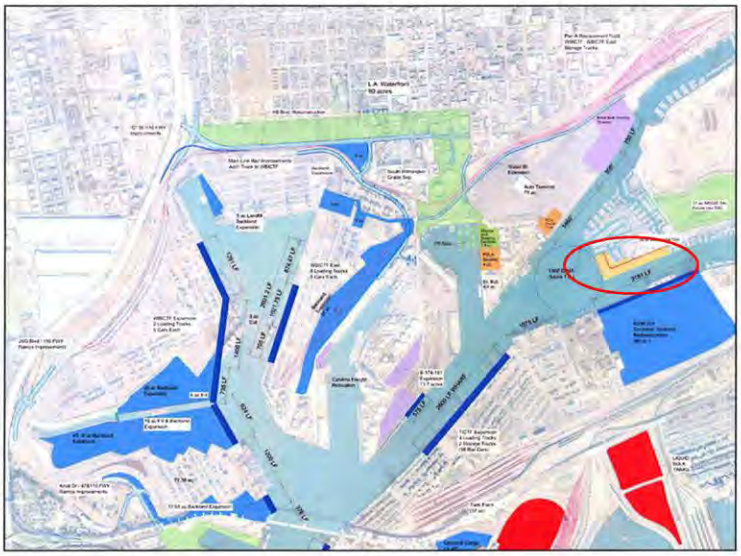
DE-7 For the last 7-8 years there have been 2 or 3 breakbulk ships per week unloading cargo at Berths 206-209 and an occasional auto carrier waiting for berth space at WWL, which has worked well with boating and marina uses in the channel. As 85 acres likely exceeds the needs for breakbulk, please evaluate a multi-use facility – breakbulk or dry bulk and container backlands. Additionally, emissions reduction technology should be made available to breakbulk ships and infrequent callers at these berths that do not have AMP capability.

DE-8 **East Basin Marina Improvements**

The updated PMP will also analyze constructing a breakwater in the East Basin marinas that would displace 170 boat slips, as shown below, to accommodate ships and protect the marinas from tug prop wash generated while moving ships into and out of Berths 206-209.

A breakwater would put Newmark's Yacht Centre, a 65-year Port tenant out of business. Other than a small incident involving a tug maneuvering a Matson ship in extreme weather conditions about 10 years ago, I don't recall any navigational incidents in the East Basin or Cerritos Channel in 30+ years that would warrant construction of a breakwater.

DE-9 According to Table 10, Planning Area 2 Acreages, the Wilmington marinas and Banning's Landing combined occupy 32 acres of land and water space. This represents .4% of the Port's 7,500 acres and approx. 2 miles, or 4.5% of its 43-mile waterfront.



DE-10 Even if Newmark's 170 slips were relocated to Banning's Landing,

a breakwater will reduce Wilmington's public waterfront by approx. 2500 feet, or 1%. DE-10

It should be noted that the Wilmington marinas have been in the East Basin since the 1920's. This is the only area in Wilmington designated for recreational boating. Please consider a use for Berths 206-209 that will not displace marinas or reduce Wilmington's scarce waterfront. DE-11

Figure 5. Planning Area 1 San Pedro

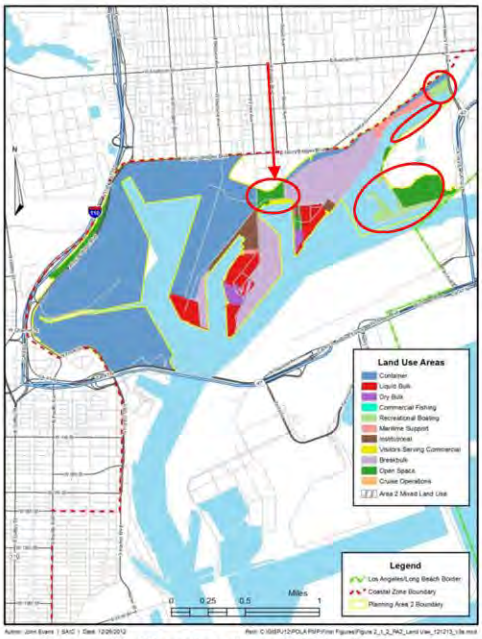


Figure 6. Planning Area 2 Wilmington

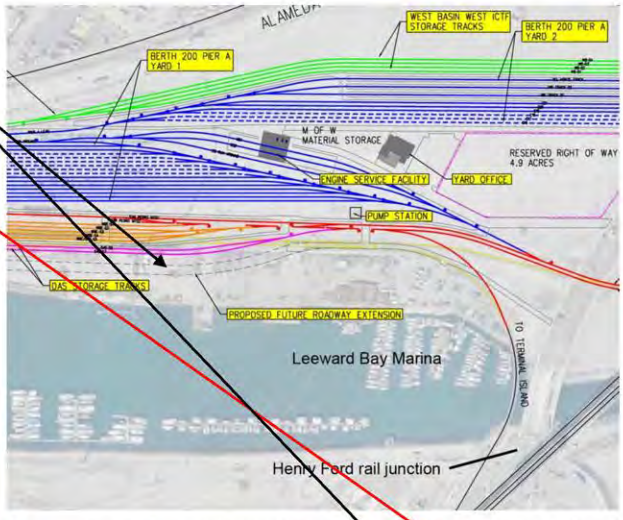
3.2.4 Goal 4: Increase Public Access to the Waterfront DE-12

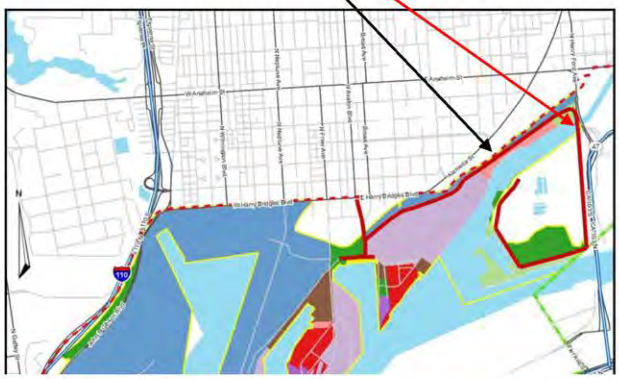
'As part of a larger community, the Port will provide for enhanced public access to the waterfront and visitor-serving facilities including retail restaurants, museums and parks to both the local communities of San Pedro and Wilmington. Visitor-serving areas should connect with local commercial districts directly outside the port district, such as Downtown San Pedro and the Wilmington Avalon Corridor. Within visitor-serving areas, pedestrian and bicycle pathways should connect a series of commercial and open space destinations as well as allow the opportunity to network into regional resources such as the California Coastal Trail.'

In the above side-by-side comparison of the San Pedro and Wilmington waterfronts it is clear that the community of San Pedro has multiple connections to a contiguous public waterfront, whereas Wilmington's waterfront is fragmented with only one connection from the community to its waterfront at Banning's Landing. Wilmington's marinas are separated from the community by shipping terminals, major truck routes, rail lines and other heavy industrial uses.

There are potential opportunities in the next 20 years to enhance Wilmington's public access to its waterfront by connecting all parts of its waterfront to the community.

DE-13 For instance, these two projects, the proposed access road from Avalon Blvd to Leeward Bay Marina (part of phase II of the Berth 200 railyard *) and the ACTA Truck Expressway (if amended to add an at-grade vehicular bridge to the support columns in the Consolidated Slip) can make this continuous connection from Banning's Landing to the marinas and ARSSS open space possible.



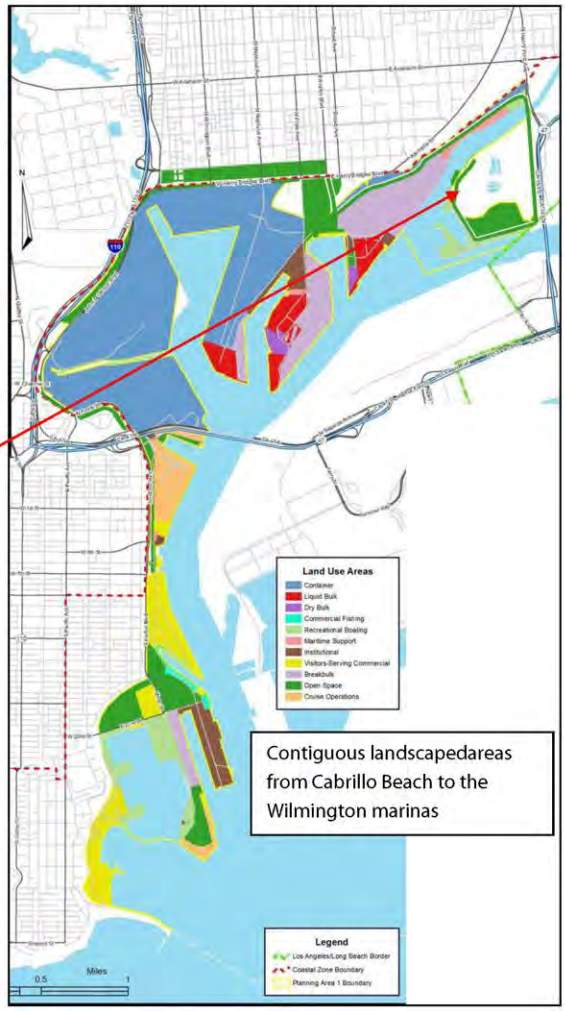


This connection would also resolve the ingress/egress problems at the Henry Ford rail junction (above photos) by allowing pedestrians, bicyclists and motorists to enter and exit the East Basin marinas at Avalon Blvd, and provide an unobstructed route for police and other emergency response vehicles.

* PCAC recommendation #101 - 6/3/10 - Board approved staff recommendation to include an access road to Leeward Bay Marina in the Berth 200 rail yard project improvements, and to designate harbor land as right-of-way for the future access road to be constructed when Harbor funds become available.

It would further benefit the harbor area communities by creating a contiguous landscaped boundary around the Port as envisioned in PCAC recommendation #42, approved by the Harbor Commission 2/15/07, and improving linkages in pedestrian and bike paths and California Coastal Trail. DE-14

The Wilmington Boat Owners Association is working with the Port of Long Beach to create a tree-lined, landscaped buffer that will be planted on Port of Long Beach property along Shore Road from the wetland area to Island Yacht Marina II to help complete the landscaped boundary within the Wilmington marinas.



Please include in Goal 4 language that recognizes the Port's intent of creating a 'physical, distinctive, recognizable, aesthetically landscaped Port boundary in the ongoing development of the LA Waterfront,' as approved by the Harbor Commission on 2/15/07, PCAC recommendation #42.

Please review all PCAC recommendations to ensure Board approved projects and mitigation measures are carried forward to the updated PMP.

Thank you for considering these comments. I look forward to your responses.

Respectfully,

Donna Ethington, Board member
Port-Community Advisory Committee
Wilmington Neighborhood Council
Wilmington Boat Owners Association

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Comment Letter DE: Donna Ethington

Response to Comment DE-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-7:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-8:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-9:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-10:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-11:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-12:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-13:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DE-14:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Linda L. Alexander
1179 W. 11th St., # 1
San Pedro, CA 90731
310-548-5395 lalex@cox.net

April 6, 2013

Michael Cham
Harbor Planning and Economic Analyst
Planning and Economic Development Division
Port of Los Angeles
425 S. Palos Verdes St.
San Pedro, CA 90731

Dear Michael,

I would like to comment on the Port's Master Plan. As you know our Central San Pedro Neighborhood Council was unable to forward the Port Relations' committee recommendations to the full vote for the board which would have occurred on Tuesday, April 8. However, I am in full agreement with the committee's recommendations: LA-1

1) That the Port maximize the use of its downtown San Pedro Cruise Terminal facilities before considering the construction of, or expansion to outer harbor cruise facilities e.g. at Kaiser Point.
2) That the Port incorporate into its current Master Plan Update a method of tourist and visitor transportation between the waterfront, Cabrillo Beach and downtown San Pedro via street car or alternate light rail system. LA-2
3) That the Port dedicate a parcel of land on Terminal Island no smaller than one acre at the former site of the historical Japanese "Lost" Village and facilitate the construction of a Japanese History Museum on that site to commemorate the rich history and contributions which the Japanese people made to San Pedro. LA-3

Thank you for the opportunity to comment on this important plan.

Sincerely,

Linda Alexander, President
Central San Pedro Neighborhood Council
(title for purposes of ID only)

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Comment Letter LA: Linda Alexander

Response to Comment LA-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment LA-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment LA-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Cham, Michael

From: Sue Castillo <redsue12@gmail.com>
Sent: Saturday, April 06, 2013 1:32 PM
To: Cham, Michael
Subject: Comments on the Port's Master Plan

Categories: Red Category

As a stakeholder within the boundaries of the Central San Pedro Neighborhood Council, I support the comments of Central San Pedro Neighborhood Council's Port Committee which strongly requests the following: SC-1

1) That the Port maximize the use of its downtown San Pedro Cruise Terminal facilities before considering the construction of, or expansion to outer harbor cruise facilities e.g. at Kaiser Point.

2) That the Port incorporate into its current Master Plan Update a method of tourist and visitor transportation between the waterfront, Cabrillo Beach and downtown San Pedro via street car or alternate light rail system. SC-2

3) That the Port dedicate a parcel of land on Terminal Island no smaller than one acre at the former site of the historical Japanese "Lost" Village and facilitate the construction of a Japanese History Museum on that site to commemorate the rich history and contributions which the Japanese people made to San Pedro. SC-3

I appreciate the effort and intention of this Land Use Master Plan update and thank you, both for the opportunity to provide input, and for listening to Central San Pedro Neighborhood Council's requests and incorporating them wherever possible." SC-4

Sue Castillo
809 S. Grand Avenue
San Pedro, Ca 90731

1

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Comment Letter SC: Sue Castillo

Response to Comment SC-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SC-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SC-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SC-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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From: LeFevre/Esprabens [solarium@pacbell.net]
Sent: Sunday, April 07, 2013 7:10 PM
To: Ceqacomments
Cc: Knatz, Geraldine; Commissioners
Subject: preservation of Terminal Island historic buildings

Christopher Cannon
Director of Environmental Management, Los Angeles Harbor Department

Dear Mr. Cannon,
I would like to take this opportunity to express how important I feel that the Master Plan Update allow Terminal Island's historic buildings to be adaptively reused. As a native Angeleno and one who now considers San Pedro my second hometown, I wholeheartedly support the preservation aspects of the important history of Terminal Island. CE-1
Please consider the following:

- That the preservation and reuse of historic buildings be on par with other identified goals within the Plan. CE-2
- Land uses and policies should allow for the adaptive reuse of historic buildings, rather than their demise. I was glad to hear at Thursday public hearing an example of artists wanting to incorporate art, restaurant and a brewery within these spaces. CE-3
- I understand that the entire Port has yet to be surveyed and not all eligible historic buildings are indicated or identified within the Plan. Let us acknowledge those who lived and worked on Terminal Island before being sent to internment camps during World War II, as Jeanne Wakatsuki Houston describes in her historical novel Farewell to Manzanar. CE-4
- These historic buildings are the last vestige of the Wars' shipbuilding, tuna canning industry, and Japanese-American built environment. CE-5
- I understand that proposed roadway and rail realignments by the Port should be fully reevaluated, as they will directly call for the demolition of buildings at Southwest Marine. CE-6

I hope that the revitalization of our waterfront and its future can stand alongside the preservation of Terminal Island's past.

Sincerely,
Christine Esprabens
1711 S Walker Ave
San Pedro, Ca 90731

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Comment Letter CE: Christine Esprabens

Response to Comment CE-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CE-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CE-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CE-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CE-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment CE-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Please, Please, Please, listen to the LA Conservancy regarding Terminal Island. Is California's Japanese History to become obsolete? Architecture is history in form.

LA CONSERVANCY RECOMMENDATIONS:

- **The Port Master Plan Update should provide a path forward for preservation of Terminal Island's historic buildings.** Preservation and reusing historic buildings should be made a priority, on par with other identified goals within the Plan. DSS-1
- **Designated land uses and policies should allow for the adaptive reuse of historic buildings, rather than their demise.** Flexibility is needed within the Plan to ensure historic buildings can and will be adaptively reused while also still addressing fundamental goals for the Port. Placing competing land uses over Southwest Marine's buildings severely limits their ability to be reused and adhere to the Plan. DSS-2
- **Terminal Island's historic buildings can be successfully adapted for new uses.** Every effort should be taken to look at creative reuse opportunities and public-private partnerships that can complement Port functions while preserving historic buildings. DSS-3
- **Historic, cultural and archaeological resources should be clearly identified within the Plan.** The entire Port has yet to be surveyed and not all eligible historic buildings are indicated or even identified within the Plan. DSS-4
- **The remaining historic buildings are the last vestige of Terminal Island's World War I and World War II shipbuilding, tuna canning industry, and Japanese-American built environment.** As the last physical link to the extraordinary heritage of Terminal Island, the historic buildings should be appropriately maintained and preserved. DSS-5
- **Proposed roadway and rail realignments by the Port should be fully reevaluated, as they will directly call for the demolition of buildings at Southwest Marine.** Realigning Seaside Avenue through Southwest Marine will further bisect the historic district and jeopardize its continued eligibility, as multiple buildings will be demolished. DSS-6

Denise and Stephen Smith

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Comment Letter DSS: Denise and Stephen Smith

Response to Comment DSS-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DSS-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DSS-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DSS-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DSS-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment DSS-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Draft Port Master Plan Comments

My comments related to the Draft Port Master Plan fall into two categories: agreement with the Central San Pedro Port Committee comments, and additional comments related to Development Goal 3-1-5 of the Plan. FA-1

The Port Committee of the Central San Pedro Neighborhood Council at the beginning of the public hearing process on the Draft Port Master Plan generated a long list of recommendations which we wanted to be included in the revised Plan. We strongly stand by those recommendations and have added three additional ones for inclusion into the public comment record:

1. Before the Port builds any outer harbor cruise line facilities, the downtown cruise terminal should be at maximum use;

2. The Port will expand waterfront tourism and visitor transport between the waterfront, Cabrillo Beach and downtown San Pedro through expansion of the street car rails, or developing a system of light rail; FA-2

3. The Port will dedicate a parcel of land at least one acre in size on Terminal Island in order to construct a Japanese History Museum on the site of the historical Japanese Village, honoring and memorializing the contributions the Japanese people made to San Pedro; FA-3

My comments related to Development Goal 3-1-5 are twofold. One, I wholeheartedly agree that all historical resources within Port boundaries should be preserved. Preservation of historical resources, however; is much more than a simple monument, sign or video of the resource commemorating the resource once it has been destroyed for container backland storage. Secondly, I strongly urge the Port to develop a robust "historic resources policy" as stated in Section 3-1-5. Shouldn't this type of policy have been developed before the Port began its revision of the Master Plan? Further, the development of this policy should be accomplished through public meetings that include interested local citizens, and groups that have expertise in preservation undertakings, such as the Los Angeles Conservancy and the Historic Trust. FA-4 FA-5

Sincerely,

Frank B. Anderson
515 North Meyler St.
San Pedro, Ca. 90731-1840
H 3108339113 C3103875665
Fbmjet@aol.com

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Comment Letter FA: Frank Anderson

Response to Comment FA-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment FA-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment FA-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment FA-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment FA-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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SA Recycling

3200 East Frontera Street
Anaheim, CA 92806
Office: (714) 630-2000
Fax: (714) 283-2706
www.sarecycling.com

Subject: Port Master Plan Update

To: Michael Cham
Planning and Economic Development Division
Port of Los Angeles
425 S. Palos Verdes Street
San Pedro, CA 90731

Date: April 2, 2013

Statement submitted on behalf of SA Recycling to the Port of Los Angeles concerning the Draft Program Environmental Impact Report (PEIR) and the Port Master Plan Update (PMPU). SAR-1

During the past year, SAR has participated in the various workshops and public hearings on the drafting and approval process of the Port master plan amendment. We are pleased to have the opportunity again to express our position on the revised draft Port document before it is submitted to the Board of Harbor Commissioners for its approval.

Though SAR in general supports the creation of a Mixed Use designation of 102 acres (which includes SAR's current location) in the latest draft of the Port Master Plan Update, SAR does object to the condition which is stated on page 35 of the Master Plan Update as follows: SAR-2

"This project would relocate the existing 26-acre dry bulk facility currently located at Berths 210-211 eastward to a similar sized facility at Berths 206-207. This relocation would only occur if container operations at the adjacent container terminal at Berths 212-226 were consolidated with Berths 210-211. If the Berth 212-226 container terminal does not expand, SA Recycling could remain at Berths 210-211".

We urge the Port to remove this condition and recognize the need for SAR to remain in operation at its existing site. We would like to comment further on the revised draft Master Plan Update by offering, what we believe to be, a compelling argument for keeping the bulk scrap operation at the existing location. In fact, we suggest that the Port seriously consider providing SAR in the future with the use of an additional/ adjacent wharf.

1

SAR-3 We have stated previously that during the past 50 years, SAR and its predecessor business entities have made enormous financial commitments to upgrade the site which was heavily contaminated and needed major infrastructure improvements. Since 1996 the company has spent millions on remediating the soil at the site thus saving the Port that expense. The company has also spent additional millions on infrastructure improvements such as upgrading the electrical grid, the storm water management systems and the water quality treatment facility, reinforcing the soil and constructing a new concrete cover and improving access into the site. SAR shared the expense 50/50 with the Port on constructing a new rail spur into the leasehold.

In addition to the land improvements, the company has spent huge amounts of its financial resources to construct a state-of-the-art electric shredder, upgrade its electric shear, install a non-ferrous metal recovery plant, and, most importantly, the company has implemented multiple environmental air quality and water control systems which are above and beyond most governmental regulations during the past 15 years. (*For a list of the major items please see footnote below*).* SAR had received numerous air quality and other environmental awards for these projects and for its leadership role in meeting the public goals of "greening" the Port of Los Angeles. In 2010 SA Recycling received the San Pedro Bay Ports Clean Air Action Plan Air Quality Awards presented by the Ports of Long Beach and Los Angeles as a Significant Early Action to Reduce Emissions. To receive and be honored for this award SA Recycling retired, replaced, and retrofitted cargo-handling equipment at its facilities in both Ports, exceeding state clean-air regulatory requirements. In August of 2012, SA again was honored with a Clean Air Action Plan Air Quality Award for exemplary efforts to reduce air pollution from its local maritime and goods-movement operation. These awards, given by the Port exemplify the commitment SA Recycling has to the environment and the community it serves.

SAR-4 SAR's recycling operation helps provide the region with the ability to meet the state mandated recycling goals while generating revenues for the Port and the City from one of its major exporting Port facilities. SAR's electric shredder and shear operations process over a million tons of shredded and HMS #1 scrap annually, which is exported to over 15 countries around the globe. The facility at Terminal Island employs over 150 men and women (30% of them have been with the company for 30 plus years) and generates thousands of additional peripheral jobs in connection with its recycling activities. In fact, SAR generates more jobs per acre than most other tenants in the Port *(as a rule of thumb a container terminal hires approximately one job per acre, SAR generates 6 jobs/acre).* SAR is committed and hopeful of adding to its workforce in the coming years.

2

Although in recent years the global and US economy had experienced a severe slowdown, which impacted the scrap business, we do anticipate that the market will gradually improve and the demand for SAR's bulk products will grow. The shipment of scrap is once again starting to reach our historic volume of over 1 million *MT/year) and shipping by bulk is once again becoming more economical. Given this situation,* the facility will be severely strained to accommodate the movement of the higher annual volumes. We anticipate that as the GDP continues to improve, there will be greater supply and demand for bulk scrap. It is imperative that SAR have the flexibility and the physical capability of responding to the constant fluctuations of the market and the economics of efficient and competitive shipment of the materials. We would like the Port to give serious consideration to expanding **SAR's leasehold by the addition of another Berth.** For example, by being able to use Berth 209, the company could load two vessels simultaneously with products destined for overseas shipment. SAR may also possibly need an additional 5-10 acres of backland adjacent to the second wharf in connection with the ship loading operations. SAR's anticipated growth in the volume of bulk shipments will benefit the Port with additional wharfage and dockage revenue. Scrap dry bulk shipments play a vital role in the region's economy and contribute positively to the Port's/ City's financial status. Therefore, it behooves the City to encourage and assist in the growth in the shipment of this very important bulk export product. SAR-5

We believe that the Port's estimates on future growth of the overseas shipment of scrap and related bulk products is understated at 1.2% (see Chart in Section 4.1.2) and should be more closely aligned with the estimated/ projected growth in the GDP. Furthermore, this projection appears to be in conflict with the Port's own, recent Scrap Metal Study which projected that recycling volumes will increase at a 3.1 % (percent) compounded annual growth rate. SAR concurs with the findings of that Study and urges the Port to plan for that higher level of growth in the scrap market and provide for increased flexibility and efficiency in the shipment of such products at the existing site as the most advisable and feasible long term alternative. SAR-6

For those reasons we want to work with the Port to find a workable solution that would address the Port's goal of providing for additional terminal operations while protecting the future tenancy and expansion of SAR's dry bulk export activities. As mentioned previously, the Port's latest draft Plan states that "*relocation (of SAR) would only occur if container operations at the adjacent container terminal at Berths 212-226 were consolidated with Berths 210-211. If the Berth 212-226 container terminal does not expand, SA Recycling could remain at Berths 210-211".* SAR-7

We urge the Port to **delete this condition** and **instead consider an engineering solution** put forth by SAR that would provide for a feasible, physical **connection between the two terminal**

3

SAR-7 **areas** (Berths 212-226 and Berths 206-209) **that are separated by the SAR leasehold.** During the past months we have proposed to the Port an alternative of constructing an elevated roadway which would connect the two terminal areas **without** having to relocate the bulk scrap operations. By constructing such a connection the Port could provide an operational link between the adjoining container terminals, while allowing SAR to stay at its current location. We also believe that such an option would be significantly less costly than the prohibitive costs associated with an attempted relocation of SAR, which most likely would result in the likely shutdown of that operation and the loss of hundreds of jobs.

SAR-8 As we have stated previously in our formal submittals to the Port, SAR believes that there are serious complications presented by the Port's proposed relocation alternative. The complications we foresee with the possible relocation of SAR to Berths 206-208 are the following:

- SAR has concerns that the Port Plan is placing two incompatible uses in close proximity of one another and does not address the various, potential conflicts that inevitably would arise when such incompatible uses -one industrial and the other recreational- are located next to each other.

SAR-9
- The proposed site configuration is too narrow to accommodate the key operational elements such as the mega-shredder, the shear, the rail spur and having a sufficient area for ship loading, which would, at best, mean a drastic reduction in the scale of operations and the level of employment.

SAR-10
- The site is limited to the loading of one ship at a time which negatively impacts the company's ability to efficiently load the multiple vessels which frequent the company's berth. The efficiency of the company's bulk loading capacity has been curtailed in the past as well as currently by the limitations of a shorter than preferred, needed wharf. Instead, SAR is in need of a second Berth.

SAR-11
- The relocation site is also too small to accommodate any future expansion. Given the projected volumes of scrap in the Port's *Scrap Metal Study*, in about 15 years the relocation site will be at least 10-15 acres too small to accommodate such growth in the volumes.

SAR-12
- The new facility would have to be fully upgraded to withstand the weight of scrap metal piles along with the existing old wharf where the pavement thickness is currently insufficient for the use of the large cranes used by SAR for loading scrap onto the

4

docked vessels. Prior to that, the entire site will have to be fully upgraded to the standards required for SAR's type of recycling operation. SAR-12

- We also foresee a serious problem with the rail alignment going to YTI's future, expanded terminal which will cause continuous and unavoidable disruptions at the front gate of SAR. The proposed site also will require a suitable rail spur into the SAR site (with *appropriate grade, switch control, rail curvature that can accommodate multiple rail car access to the site).* SAR-13

- Even if the above stated deficiencies at the new site can somehow be addressed and resolved, SAR believes that the logistical aspects of any relocation in the future would be extremely problematic. The availability of the new site will need to be coordinated with SAR's relocation. This means that SAR will be forced into a duplicate operation as **SAR must be able to continue to operate at its current location until all key elements are in place and operational at the new site; such as** the rail, the wharf, the shredder, the shear, the MRP and other components- to assure that SAR will not have to shut down its operations and layoff its workers for any period of time prior to its move. SAR-14

- Clearly, from our perspective the relocation site has serious deficiencies. Coupling that with the enormity of the cost of moving our entire operation would seriously jeopardize the company's ability to relocate. If the current recycling facility at Berths 210-211 is removed and shut down, according to the Port's Staff Report: ***"the region would not have enough capacity to meet demand unless a new facility is built."*** We agree. However, the smaller recycling facility at the suggested relocation site is not financially and operationally feasible and should be discarded as an alternative. SAR-15

- Finally, SAR would like to express its objections to debating the merits of relocating SAR **at this point in time.** It was not that many years ago when we were assured by Port management that our current site suited the Port's long term plans. Based on that assurance, the company moved ahead with the investment of tens of millions of dollars in new equipment and facilities. Those sunk costs will need years to recapture. To relocate our business in the near future could result in major operational disruptions and certainly would require considerable additional costs for constructing new facilities and equipment , as we have stated previously, some of which- such as a mega shredder- may not be able to be permitted at the location next to the recreational small craft marinas. Also, the prohibitive cost of such an undertaking would take additional decades to recover. SAR-16

5

SAR-17 **Recommended solution:**

SAR appreciates the Port's efforts at finding a long term solution for the continued presence of SAR's dry bulk operations. We do believe that such an effort should be based on reality. For the reasons stated above, the Port needs to recognize the fact that the option of relocating SAR's operation to Berths 206-208 is clearly unrealistic and infeasible. We strongly urge the Port to reconsider and discard any option which negates an opportunity for SAR – a tenant at the Port for 51 years- to continue to be a valuable and **viable tenant at the Port for decades to come and** encourage the Port staff to work with SAR to address the issues presented by the continued tenancy of SAR at its current location. **We believe that this option is the only feasible one.** At the same time we also recognize that some changes in SAR's circumstances may be warranted given the Port's goal of marketing the surrounding area as a viable container terminal. **SA Recycling supports the draft Port Master Plan Update as long as it allows for continued bulk operations at Berths 210 and 211, as well as for the possible addition of another wharf available for loading bulk cargo and the construction of an elevated connecting roadway between the two adjacent terminals, but have serious reservations about any plan that would relocate the dry bulk scrap operations. Thank you for your consideration.**

Statement submitted by Barna Szabo on behalf of SA Recycling on April 2, 2013

SAR-18 **Footnote:*

The improvements implemented at SAR's Terminal Island facility are as follow:

1) Paved all 23 acres, raising the ground level to 6' in 1998
2) Installed 24" underground pipes to handle the water storm system 1998
3) Installed 10 water tanks holding 750,000 gallons of reusable water and upgraded onsite advanced water treatment system; one of the most cutting-edge systems in the country
4) Upgraded the rail road system to handle 16 RR cars in 1998
5) Placed the mega shredder in service in 2006 and Regenerative Thermal Oxidizer (RTO) in 2011 - air filtering system
6) Metal recovery plant upgraded in 2010
7) Constructed steel sound wall around the water front and east side
8) Added new employee lunch room and locker room
9) *A majority of our equipment has been upgraded to Tier III engine diesel emission standards. The balance will soon to follow.*

The cost of all these improvements totaled around $ 88.5 MM during the last 15 years.

For the proposed schematics of the elevated terminal connecting road way please see attached.

6

Comment Letter SAR: SA Recycling

Response to Comment SAR-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-7:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-8:

The Expanded Terminal Project is addressed in the PEIR as an "other" project, which is defined as "projects that have been approved in a certified CEQA document and/or are undefined (i.e., in the conceptual design stage) that are identified for public disclosure purposes, consistent with the PMPU." Since some projects included in the PMPU, such as the Expanded Terminal Project, are in the conceptual design stage, sufficient project details are not available to support a programmatic evaluation of potential impacts. These other projects are addressed in Draft PEIR Chapter 4.0, Cumulative Analysis.

The existing SA Recycling facility is proximal to the East Basin marinas, where recreational vessels are berthed. Relocating SA Recycling to an adjacent berth would not be expected to alter existing conditions with respect to the potential for interferences with recreational boating in the vicinity of the East Basin marinas.

Response to Comment SAR-9:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-10:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-11:

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Response to Comment SAR-12:

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Response to Comment SAR-13:

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Response to Comment SAR-14:

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Response to Comment SAR-15:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-16:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-17:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment SAR-18:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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Cham, Michael

From: Saiget, Thomas K <thomas.k.saiget@exxonmobil.com>
Sent: Thursday, April 04, 2013 9:37 AM
To: Cham, Michael
Subject: Comments on the Port Master Plan Update

Msg Class:Unclassified

Hey Michael,

Could you please record our comments on the Port Master Plan Update? I did not see an input form like the Draft PEIR.

ExxonMobil Pipeline Company requests that the Port Master Plan Update and Program Environmental Impact Report designate Southwest Terminal Area 2 as dual usage, Container and Liquid bulk. EXXON1-1

The rezoning of the area north of the Terminal Island Water Reclamation Plant from liquid bulk to container will result in an unnecessary environmental impact due to the deconstruction of fully functional liquid bulk tanks and reconstruction of new tanks less than a mile away. EXXON1-2 The environmental impact of the demolishing and remediating the existing site, producing new tanks, reconstructing the tanks at a new site, and extending infrastructure to the new site should be included in the EIR. EXXON1-3 The Port should also consider the financial loss associated with liquid bulk tenants if relocations were forced upon them because of the cost burden. This could significantly impact the Port's ability to diversify revenue and import liquid bulk commodities necessary to meet California's projected energy demand. EXXON1-4

Thomas K. Saiget
Business Development Advisor
ExxonMobil Pipeline Co.
O: (713)-656-9694
M: (832)-317-1697

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Comment Letter EXXON1: ExxonMobil Pipeline Company

Response to Comment EXXON1-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment EXXON1-2:

This comment addresses the PEIR and states that the impacts of demolishing and remediating the existing site, producing new tanks, reconstructing the tanks at a new site, and extending infrastructure to a new site should be evaluated in the PEIR. Impacts from construction and operation of the proposed appealable/fill projects, including liquid bulk facilities, are discussed programmatically in the appropriate sections of Draft PEIR Chapter 3.0, Environmental Analysis. As noted in Draft PEIR Section 3.04, Level of Analysis, the PEIR does not include a detailed environmental review of the proposed appealable/fill projects and land use changes since, consistent with CEQA Guidelines Section 15168, sufficient details are not currently available. Therefore, for most resource areas, assessments of the proposed appealable/fill project and land use changes in the PEIR rely primarily on qualitative assessments. Quantitative assessments are completed to the extent that data allow. Consistent with the timing for specific proposed appealable/fill projects, when appropriate levels of detail regarding the projects become available, project-specific environmental documents will be prepared, concentrating on site-specific issues and focusing on quantitative assessments.

Response to Comment EXXON1-3:

Please see Response to Comment EXXON1-2.

Response to Comment EXXON1-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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GRESHAM | SAVAGE
ATTORNEYS AT LAW

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(909) 890-4499 · *fax* (909) 890-9877

April 4, 2013

VIA E-MAIL [ceqacomments@portla.org]
& GOLDEN STATE OVERNIGHT

Port of Los Angeles
Chris Cannon, Director of
Environmental Management
425 South Palos Verdes Street
San Pedro, CA 90731

Re: Comments on Cultural Resource Sections of the Draft Program Environmental Impact Report

Dear Chris Cannon:

On behalf of our client, U.S. Borax Inc., a wholly owned subsidiary of Rio Tinto Plc., we are submitting the enclosed Comments on the Port of Los Angeles Master Plan Update Program Environmental Impact Report provided from the URS Corporation. GSNT-1

In short, we believe the Program Environmental Impact Report's analysis as it relates to the U.S. Borax-Rio Tinto Processing Plant lacks sufficient detail and support for the Report's conclusions. In opposite, we have provided a comprehensive analysis that we feel illustrates our position in this regard as it relates to the cultural significance of the Processing Plant.

Thank you for your time and consideration of our comments and analysis.

Very truly yours,

Aaron C. Gettis, for
GRESHAM SAVAGE
NOLAN & TILDEN,
A Professional Corporation

Enclosure

Since 1910

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RIVERSIDE 3750 University Avenue, Suite 250 · Riverside, California 92501
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LOS ANGELES 333 South Hope Street, 35th Floor · Los Angeles, California 90071

GreshamSavage.com

R710-009 -- 1093288.1

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Memorandum

Date: April 2, 2013

To: Mr. Aaron C. Gettis
Gresham Savage Nolan & Tilden, PC
550 East Hospitality Lane, Suite 300
San Bernardino, CA 92408

From: Mr. Jeremy Hollins, MA
URS Corporation
4225 Executive Square, Suite 1600
La Jolla, CA 92037

Subject: **Comments for the Port of Los Angeles Master Plan Update Program Environmental Impact Report**

Dear Mr. Gettis:

GSNT-2 The following comment letter has been prepared to provide public comments for the Port of Los Angeles Master Plan Update (PMPU) Program Environmental Impact Report (PEIR), which was released for public review and circulation in March 2013, by the Port of Los Angeles. This comment letter specifically addresses the historical resource evaluation of the U.S. Borax-Rio Tinto Processing Plant within the PMPU PEIR, and it's accompanying technical report *Historic Resources Evaluation Report for the Port of Los Angeles Master Plan Update, ADP No. 110518-060* (HRER). This comment letter is being provided at the behalf of Rio Tinto, who are the property owners of the U.S. Borax-Rio Tinto Processing Plant, located at 300 Falcon Street, Wilmington, California, in the Port of Los Angeles.

In summary, Rio Tinto respectfully disagrees with the PMPU PEIR finding that the U.S. Borax-Rio Tinto Processing Plant appears to be eligible for listing to the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), and a Los Angeles Historic-Cultural Monument (LAHCM). Rather, based on an earlier historical evaluation prepared by URS Corporation (URS) (refer to Attachment A for a copy of the URS report), the U.S. Borax-Rio Tinto Processing Plant does not appear to be considered a historical resource for purposes of the California Environmental Quality Act (CEQA), as defined in State CEQA Guidelines Section 15064.5. While CEQA does not limit a lead agency's discretion to make a historic significance determination of any potential resource, such a determination needs to be supported by substantial evidence, and not based upon unsubstantiated or unsupported opinions. (See State CEQA Guidelines, Section 15064.5(a)(3)). This comment letter details the differences in professional opinion between the reports, the regulatory context, focusing on research efforts, period of significance, applicable criteria, integrity analyses, and comparative properties.

GSNT-3 **Regulatory Context**

The following provides an overview of the regulatory context the U.S. Borax-Rio Tinto Processing Plant was evaluated under, as part of the *Memorandum of Record for the Historical Evaluation of the U.S. Borax-Rio Tinto Processing Plant* (*Memorandum*), PMPU EIR, and HRER. Overall, for purposes of CEQA, a historical resource (these include built-environment and historic and prehistoric archaeological resources) is considered significant if it meets the criteria for listing to the NRHP, CRHR, or local register.

The NRHP criteria are set forth in 36 Code of Federal Regulations 60.4 and include resources that:

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A. Are associated with events that have made a significant contribution to the broad patterns of our history; or GSNT-3

B. Are associated with the lives of persons significant in our past; or

C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

For the CRHR, the criteria are set forth in CEQA Guidelines Section 15064.5 and include resources that:

1. Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Are associated with lives of persons important in our past;

3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Have yielded, or may be likely to yield, information important in prehistory or history.

LAHCM designation is reserved for those resources that have a special aesthetic, architectural, or engineering interest or value of a historic nature. The Cultural Heritage Ordinance establishes criteria for designation; these criteria are contained in the definition of a Monument in the Ordinance. A historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City of Los Angeles, and include resources that:

1. In which the broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified;

2. Which are identified with historic personages or with important events in the main currents of national, state, or local history;

3. Which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction;

4. Which are a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

Historical resources must also retain their historic integrity. Historic integrity is the ability of a property to convey its significance, and is comprised of seven aspects: location, design, setting, materials, workmanship, feeling, and association. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance.

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GSNT-4 **Previous Studies and Research Efforts**

The U.S. Borax-Rio Tinto Processing Plant has been evaluated for significance on two separate occasions: 1) in January 2013, as part of the attached *Memorandum of Record for the Historical Evaluation of the U.S. Borax-Rio Tinto Processing Plant* (*Memorandum*) (Attachment A) prepared by URS Corporation; and 2) in February 2013, as part of the PMPU PEIR HRER. These two reports differ regarding evaluation of the significance of the property; however, the *Memorandum* prepared by URS Corporation, is considered the most accurate, rigorous, and authoritative in terms of its identification and evaluation of the U.S. Borax-Rio Tinto Processing Plant, and thus should be relied upon most heavily for CEQA compliance.

The URS report is considered the most extensive due to in-depth primary and secondary source research focusing on U.S. Borax, Rio Tinto, the Port of Los Angeles, the U.S. Borax-Rio Tinto Processing Plant itself, and other major themes investigated. URS performed a record search through the California Historical Resources Information System (CHRIS) for the subject property and one-mile search radius, property-specific historic research, and an architectural survey of the subject property.

In addition to an intensive survey of the property, URS conducted site-specific research on the subject property and the immediate vicinity. Some of the unique materials that URS reviewed included the following: architectural drawings of the U.S. Borax-Rio Tinto Processing Plant; historic-period photographs of several Borax facilities throughout California; corporate literature and memoranda; legal property documentation; site plans and survey information; previous environmental reports; and, building permits. Additional research efforts were conducted at the California State University of Long Beach Special Collections, the San Pedro Bay Historical Society, Long Beach Historical Society, Los Angeles Department of Building and Safety, City of Los Angeles Bureau of Engineering, Los Angeles Harbor Department Historical Archives, Wilmington Historical Society, and the 20 Mule Team Museum in Boron, California. Lastly, informational requests were also made to Alameda Naval Air Museum, Wilmington Chamber of Commerce, and the Boron Chamber of Commerce. A more in-depth discussion of the research efforts and pertinent copies of research materials are included in Attachment A of this letter.

Overall, this is a tremendous effort to research one property; however, the efforts were needed to fully evaluate and document the historic context and theme of the U.S. Borax-Rio Tinto Processing Plant and U.S. Borax. In comparison, this level of analysis was not possible by investigators of the HRER, since most primary and secondary sources were not available or used, and an intensive survey of the entire property was not feasible due to time and schedule constraints.

GSNT-5 **Period of Significance and Applicable Criterion**

According to National Register Bulletin 39, period of significance refers to the span of time during which significant events and activities occurred. Events and associations with historic properties are finite; most properties have a clearly definable period of significance.

The HRER asserts that the U.S. Borax-Rio Tinto Processing Plant is eligible for the NRHP and CRHR under Criteria A and 1, with a period of significance of 1924 through 1957. However, though the U.S. Borax-Rio Tinto Processing Plant has been located at the property since 1924, the industrial complex is not representative of a significant event associated with the trends or events that have made a significant contribution to the broad patterns of history. Additionally, no justification of a finite event or association with this facility dating to 1957 was provided in the HRER Property-Specific History that defines the period of significance.

As indicated in the *Memorandum* in Attachment A, the U.S. Borax-Rio Tinto Processing Plant was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of

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Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax-Rio Tinto Processing Plant was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was not an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when twenty mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point. Further, the HRER offers no evidence to demonstrate that this change in 1957 affected the mission of the U.S. Borax-Rio Tinto Processing Plant. For example, no information was provided that explains how the plant was changed in 1957 and how this event could have affected operations. There is no indication that the plant operated with fewer staff or started using different equipment/processes that year. GSNT-5

According to historical research completed by URS, Rio Tinto affirms that no significant events occurred at its U.S. Borax-Rio Tinto Processing Plant and the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax-Rio Tinto Processing Plant is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in the NRHP under Criteria A or in the California Register of Historical Resources (CRHR) under Criterion 1 or to be considered a historical resource for purposes of the California Environmental Quality Act (CEQA). Similarly, based on this research, the U.S. Borax-Rio Tinto Processing Plant does not reflect or exemplify broad cultural, political, economic, or social history of the nation, state, or community. As such, the property does not appear to be eligible for listing as a Los Angeles Historic-Cultural Monument (LAHCM) under LAHCM Criterion 1, contrary to the findings in the HRER. GSNT-6

Further, the HRER identifies the plant as a 'good example' of the property type, and that U.S. Borax's visibility in the Port 'surely contributed to the commitment of other industrial ventures' at the Port. This is the basis for the property being associated with significant events; however, it is a speculative statement not based on historical fact or supported by evidence. Again, as stated in Section 15064.5 of the State CEQA Guidelines, a structure may be considered by the lead agency to be a historical resource, provided the determination is supported by substantial evidence. In all likelihood, another Port tenant would have occupied the site if U.S. Borax did not. GSNT-7

Lastly, no evidence is provided of similar industrial ventures that relocated or established operations in the Port because of U.S. Borax's presence. Rather, the Port's available berths, deep harbors, and proximity to railroad transportation were surely the drivers for industrial ventures to occupy the Port. For a property to be associated with significant events, it must have a connection to a 'distinctive' event, and that event must be a specific or a pattern of events. Based on this, the facility is not representative of a distinctive event or pattern of events; if anything, it would be all the industrial ventures in this area that led to the Port's growth and not simply this one facility because it is a good example of the property type. GSNT-8

Alterations GSNT-9

URS identified and documented in detail many alterations to the U.S. Borax-Rio Tinto Processing Plant in their *Memorandum* that the HRER did not include and consider in their evaluation.

To determine its architectural significance, the U.S. Borax-Rio Tinto Processing Plant requires evaluation as individual buildings designed in the Utilitarian Industrial-style, as well as individual components to a potential historic district. Based on historic research and field survey in Attachment A performed by URS, the U.S. Borax-Rio Tinto Processing Plant does not appear to possess distinctive characteristics of a significant Utilitarian Industrial design. While the plans for the U.S. Borax-Rio Tinto Processing Plant depict several characteristics

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GSNT-9 typical of the Utilitarian Industrial-style typical in California in the 1920s, the property, in its current form, lacks the majority of these distinctive architectural characteristics and its architectural integrity has been significantly compromised. Presently, many of its large multi-pane windows have been in-filled. The non-historic period conduit, ventilation, and industrial equipment added to the facility have obstructed and significantly altered historic-period materials. These alterations include the replacement of original board-formed wall texture with a smooth stucco exterior wall treatment as well as the modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment. The absence of these original designed features undermines the distinctive architectural characteristics of the U.S. Borax-Rio Tinto Processing Plant. Additions to the Warehouse and the Connecting Shed are not true representations of the original design. Also, the simple, rectangular chimney was not depicted in the 1924 drawings and does not match the original design of the building. The modern alterations and upgrades to the refinery complex detract from its intended architectural character. Lastly, the oldest extant portion of the building is completely covered by a non-historic period addition and is not visible. The removal of the addition would affect the materials of the extant portion, diminishing it's ability to convey its earliest construction episode.

GSNT-10 Further, while the facility was constructed using reinforced concrete construction method, the facility is a late example of this method of construction. In fact, the company had pioneered the method at the Alameda facility 32 years previously and at Bayonne, New Jersey 27 years before, and by 1924, the construction method was relatively common and countless better examples exist to illustrate such a method.

While the design of the U.S. Borax-Rio Tinto Processing Plant was undertaken by Albert C. Martin, a master architect, the property does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his major contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963).

GSNT-11 In addition, pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design, and have not achieved significance in their own right. They have completely comprised the significance of the older portions of the property and Martin's design. Therefore, although portions of the U.S. Borax-Rio Tinto Processing Plant were designed by Martin, the refinery is not a good representation of the master architect's work.

GSNT-12 Moreover, since the property was first constructed, large-scale changes to the property have undermined the original design. As noted earlier and within the Memorandum, non-historic features and major alterations to the property include:

- Seismic retrofitting of many of the buildings and structures between 1988 and 2004, which also resulted in the removal of the original 150-foot stack near the power plant;
- Introduction of large industrial equipment such as tanks, silos, conveyor belts, and piping (in some areas, the piping connects buildings that were not historically connected, disrupting the historic spatial relationships and datum);
- Removal of railroad tracks from the northeast portion of the property;
- Infilling of many of the buildings' windows and entries (e.g., the majority of the windows along the north and south elevation of the power plant have been infilled)
- Replacement of the original board-formed wall texture with a stucco exterior wall treatment;
- Modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment;

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- Additions of conduit, other piping, utility equipment, security lights, cameras, and signage to the exterior walls of the buildings; GSNT-12
- A large non-historic addition along the south east portion of the property, completely obstructing and compromising the oldest portion of the property;
- Re-arrangement and removal of parking areas located within the northern portion of the property; and
- Non-original metal corrugated sheeting wall covering and non-historic period conduit, rigging, other industrial equipment components, safety barriers, metal corner braces, and post bollards along the warehouse building.

Given the lack of integrity and the numerous alterations to the U.S. Borax-Rio Tinto Processing Plant, U.S. Borax agrees with the HRER that the property no longer retains its character-defining features and does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values. Therefore, the property does not appear to be eligible for listing in the NRHP under Criterion C or CRHR under Criterion 3 or to be considered a historical resource for purposes of CEQA. It should be noted that these numerous alterations described above and in URS's *Memorandu*m affect the property's historic integrity as is discussed below. GSNT-13

Changes to the Property's Historic Integrity GSNT-14

Historic integrity is typically recognized through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. The HRER asserts that the U.S. Borax-Rio Tinto Processing Plant appears to have retained sufficient integrity of location, design, materials, workmanship, feeling and association based on a review of historic aerials and observation from the exterior of the facility. Additionally, the HRER states that although the setting surrounding the facility has changed as businesses have come and gone, the general layout is the same as it has been since at least 1927. However, the HRER provided no rigorous analysis of integrity that would have noted that substantial changes have occurred to the property's integrity over time. In order to properly assess the property's historic integrity, a more developed and thorough integrity analysis would be needed to justify conclusions.

In comparison, according to URS's *Memorandum* in Attachment A, the facility does not meet the criterion for eligibility to any registry, and does not retain its historic integrity. The following summarizes URS's rigorous historic integrity analysis of the facility: GSNT-15

Location is defined as the place where the historic-period property was constructed or the place where the historic event took place. The subject property has not been moved; therefore, it retains its integrity of location.

Design is defined as the composition of elements that constitute the form, plan, space, structure, and style of a property. The form, plan, and space of the property have been altered by several additions and different periods of development. While some of the property's design features remain (such as some stepped parapets, cornices, and several rectangular capitals), the form, plan, space, and structure have been significantly compromised as a result of upgrading and adapting the facility to new refining technologies. GSNT-16

Setting is defined as the physical environment of a historic-period property that illustrates the character of the place. The refinery was built in an industrial port area of Los Angeles. Currently, the property retains its setting in respect to its location in proximity to the Port of Los Angeles. However, due to several episodes of development and re-development, it does not retain the setting associated with the exponential growth of the Port in the early 1900s following the opening of the Panama Canal. GSNT-17

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GSNT-18 Materials are defined as the physical elements combined in a particular pattern or configuration to form the historical resource during a period in the past. Many of the original materials have been altered or removed, such as a decorative wall features, original window systems, and board-formed concrete textured walls. Also, the addition of new industrial equipment and structures, such as the Bulk Storage Silos, has introduced materials not historically associated with the U.S. Borax-Rio Tinto Processing Plant.

GSNT-19 Workmanship is defined as the physical evidence of the crafts of a particular culture or people during any given period of history. The property does not represent physical evidence of the crafts of a given period of history. There have been major alterations and the removal of characteristics that are reflective of it's earliest period of development. Similar processing plants were located throughout the U.S., and the existing structure is not a particularly important example of a craft as it relates to a certain culture or people.

GSNT-20 Feeling is defined as the quality that a historic-period property has in evoking the aesthetic or historic sense of a past period of time. The property in its present form does not evoke a historic sense of feeling, but rather that of a relatively recently constructed refining facility. The substantial additions and changes, coupled with changes in the setting, have destroyed the "feeling" associated with the aesthetic or historic sense of the processing plant.

GSNT-21 Association is defined as the direct link between a property and the event or person for which the property is significant. While the property is associated with U.S Borax and Albert C. Martin, the property in its present form does not convey a direct link with the prominent architect. Further, a number of existing structures in the Los Angeles area remain that better illustrate the architectural skills and designs as they relate to Albert C. Martin.

GSNT-22 Given the numerous alterations to the U.S. Borax-Rio Tinto Processing Plant, Rio Tinto affirms that the property no longer retains most aspects of its historic integrity, divergent to the HRER findings, and would not be eligible under any type of criterion.

GSNT-23 **Comparative Properties and Historic Contexts**
Rio Tinto would like to respectfully suggest several other buildings that may be better examples of the historic context. The U.S. Borax-Rio Tinto Processing Plant was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was not an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when twenty mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

GSNT-24 In 1889, to expand the processing of raw minerals that formed the borax product, Francis "Twenty Mule Team" Smith worked with renowned engineer and reinforced concrete innovator Ernest L. Ransome, to design two new refineries for him -- one in West Alameda, California, and the other in Bayonne, New Jersey. The California refinery was recognized for being the first structure of its kind to be built with reinforced concrete (Legends of America, http://www.legendsofamerica.com/ca-francissmith.html).

According to the City of Alameda, *Alameda Historic Preservation Element* and Page & Turnbull's 2005 *NAS Alameda Historic District, Historic District Assessment and Historic Preservation Strategy*, one of the most illustrious industries to relocate to Alameda Point was Pacific Coast Borax Company, constructed in 1893 by Smith, the famous Death Valley borax miner. Although far from his Death Valley mines, Smith chose Alameda Point for its convenient rail connections and access to San Francisco Bay. Smith constructed a huge wood-frame and concrete refinery complex on what is presently the site of the Engine Overhaul Shop (Building 360) and a wharf and coal storage warehouse on what is now the location of the Engine Test Cell complex (Building 14).

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When it was completed, Pacific Coast Borax Company was the largest borax refinery in the world and reportedly one of the first to make use of reinforced concrete in the United States. The refinery was closed in 1930 after the exhaustion of the borax mines in Death Valley and the main four-story refinery building was subsequently dynamited. The Navy spared at least one building from the borax plant when they began grading and filling NAS Alameda in 1938. This building, Building 163, still exists as a small brick maintenance shed in the southeastern corner of the base. GSNT-24

According to Betsy Hunter Bradley (Bayonne Retro Magazine, http://bayonneretro.blogspot.com/2012/06/pacific-coast-borax-company.html), Ernest L. Ransome undertook groundbreaking work in the design and construction of reinforced concrete in the United States. After experimenting with twisted reinforcing rods during the 1880s and constructing several buildings of reinforced concrete in the San Francisco area, Ransome moved his business to the East Coast. As he erected buildings of the new material, Ransome 'Americanized' the construction process by developing a system of reinforcement that was simpler (and therefore cheaper) than the French Hennebique method. He seems also to have introduced American builders to the use of reinforced concrete in a skeletal form.

A demand for fireproof construction and the strength to support excessive loads led Ransome's first major building project in reinforced concrete. At the edge of New York City harbor in Bayonne, New Jersey, Ransome oversaw the construction of the Pacific Coast Borax Refinery. A loft building erected in 1897-1898 had originally been planned as a structure of mill construction with brick walls, but heavy tanks and large machinery required very strong floors. After deciding to use fireproof construction and evaluating the bids it received for the project, Pacific Coast Borax awarded a contract to Ransome. The first portion of the four-story structure utilized beam-and-girder floor construction, which was to become standard practice. The exterior walls of the structure, however, were conceived as self-supporting masonry walls and were pierced only by small window openings. Many of the engineers, architects and industrialists who visited the construction site were especially interested in how the heavy machinery was supported by the floors of the concrete structure. The Pacific Coast Borax facility also demonstrated the fireproof qualities of reinforced concrete construction when it withstood a fire in 1902 that destroyed its contents and wooden elements.

When comparing the property to other properties associated with U.S. Borax in the Los Angeles area or southern California, the U.S. Borax-Rio Tinto Processing Plant does not illustrate the economic development or historical importance of the company. Rather, since U.S. Borax's history is aligned with its historic activities of mineral extraction and not coastal shipping, properties associated with the property in Boron and within Death Valley better illustrate these historic themes. By 1883, following the discovery of borates in Death Valley, the refined product was being hauled great distances across the desert by twenty mule teams. Since 1896, the Twenty Mule Team symbol used by Pacific Coast Borax brought notoriety to Death Valley as a place. Twenty Mule teams toured the country as a promotional and advertising effort. This advertising had (combined with the uniqueness of the brand symbol) the added effect of attracting tourists to Death Valley. In 1927 Pacific Coast Borax moved mining operations out of the Ryan area (located in Death Valley). The bunkhouses associated with the mining operations in Ryan were adapted into guest houses at the Death Valley View Hotel (a place for tourists to stay). Pacific Coast Borax also built accommodations at Furnace Creek Ranch and Death Valley Junction. Furnace Creek Ranch was the most luxurious of the accommodations. Also, in 1927, a group of men, including Stephen Mather (who 37 years earlier had originated the Twenty Mule Team promotion with Pacific Coast Borax), visited Death Valley to consider its inclusion as a National Park. Death Valley was nominated as a National Monument in 1933. Mather withheld a formal recommendation at the time for fear that his previous employment with the company might cause negative reaction toward the nomination as a National Park. When Death Valley finally became a National Park in 1995, the land on which the National Park Service Visitor's Center sits was donated by U.S. Borax, which reflects the company's commitment to that area, and represents their extensive association with the development and growth of these areas. Also, soon after the U.S. Borax-Rio Tinto Processing Plant was GSNT-25

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GSNT-25 finished, the company opened an underground borate mine in Boron, California in the Mojave Desert. In 1956, the company became U.S. Borax when it merged with United State Potash Corporation. In 1957, the company built the Boron refinery and borax production was moved to Boron. Therefore, the company's presence in areas outside of the Los Angeles Port, particularly to represent its objective as a mineral extraction leader and its commitment to preserve its legacy in the Death Valley area, are more important to the history of U.S. Borax than it's shipping operations in the Port which are, in effect, ancillary to the true history as it relates to U.S. Borax.

GSNT-26 **Conclusions**

In conclusion, Rio Tinto would like to state for the record that the period of significance presented in the HRER for this property is inappropriate because justification for the finite dates for beginning and end of the period of significance is inadequate. The integrity analysis in the HRER lacks rigor and, based on the detailed identification of alterations to the property, it no longer retains most meaningful aspects of its historic integrity. Given the lack of integrity and numerous alterations, the property is ineligible for any criteria for listing in the NRHP or CRHR. The Pacific Coast Borax Refineries in Alameda, California and Bayonne, New Jersey are recommended as better examples of the property type's historic context, and properties within Boron and Death Valley better convey the importance of U.S. Borax and the company's place in history. Further, it is not the oldest or the most distinctive property within the Port, does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values, and is not representative of a major or unique industry in the Port. As a result, URS's *Memorandum* (Attachment A) is considered by Rio Tinto the most accurate, rigorous, and authoritative study in terms of its identification and evaluation of the U.S. Borax-Rio Tinto Processing Plant, and thus should be relied upon most heavily for CEQA compliance.

Sincerely,

Jeremy Hollins, Project Manager, URS

Attachments
Attachment A – *Memorandum*

R710-009 -- 1089445.1

Comment Letter GSNT: Gresham Savage Nolan & Tilden

Response to Comment GSNT-1:

The commenter states their opposition to the PEIR analysis of the U.S. Borax-Rio Tinto Processing Plant and submits an alternative comprehensive analysis for review. The URS memorandum was received and thoroughly reviewed.

Response to Comment GSNT-2:

The commenter respectfully disagrees with the PMPU PEIR findings regarding the U.S. Borax-Rio Tinto Processing Plant eligibility for listing in the NRHP, CRHR, and as a Los Angeles Historic-Cultural Monument (LAHCM) and provides this comment letter to detail the differences in professional opinion between the reports.

While the LAHD does not disagree with the findings provided in the URS report, the LAHD still believes that the U.S. Borax Wilmington Processing Plant (Wilmington Plant) is potentially eligible for listing to the NRHP, CRHR, and as a LAHCM as a significant cultural resource for the Port. As noted below in the responses to Comments GSNT-4 and GSNT-5, the general area of disagreement focuses on the following: URS evaluated the property for its eligibility as an individual property in the development of the industry of borax production and the history of U.S. Borax. This is not the same context as that of the Historic Resources Evaluation Report (HRER). The historic context in the HRER is the history of the Port and the Port's historic trends. The HRER considers the Wilmington Plant's contributions to the historic trends of the Port.

Response to Comment GSNT-3:

The URS memorandum lists the regulatory context for its evaluation under the NRHP, CRHR, and LAHCM. This is the same regulatory context as in the PMPU PEIR HRER.

Response to Comment GSNT-4:

The URS memorandum identifies the two previous studies and research methods. The memorandum states "Overall, this is a tremendous effort to research one property; however, the efforts were needed to fully evaluate and document the historic context and theme of the U.S. Borax-Rio Tinto Processing Plant and U.S. Borax" (URS 2013).

URS evaluated the property for its eligibility as an individual property in the development of the industry of borax production and the history of U.S. Borax. This is not the same context as that of the HRER. The historic context in the HRER is the history of the Port and the Port's historic trends. The HRER considers the Wilmington Plant's contributions to the historic trends of the Port.

Response to Comment GSNT-5:

The URS memorandum comments that the Wilmington Plant is not representative of a significant event associated with the trends or events that have made a significant contribution to the broad patterns of history. Furthermore, it states that no justification of a finite event or association with this facility dating to 1957 was provided in the HRER that defines the period of significance. The memorandum further comments on the motivation for U.S. Borax relocating to the Port, the presence of other buildings at the Port, and the process of transporting ore.

The period of significance for the Wilmington Plant at the Port has an end date of 1957. This date was selected since it corresponds with the opening of the new U.S. Borax refining plant at Boron, which changed the use of the Wilmington Plant. After the opening of the new refinery, the Wilmington Plant no longer processed raw minerals, but instead underwent alterations to process new refined products as well as continuing to serve as the West Coast shipping center.

Although U.S. Borax may have decided to build on Mormon Island due to its relative proximity to the Panama Canal, international shipping through the canal had no effect on the significance evaluation of the Wilmington Plant. The fact that other important buildings and structures were already constructed at the Port at the time the Wilmington Plant was constructed is irrelevant. Many important businesses for the Port were constructed before and after development of the Wilmington Plant. The statement that the transportation of ore from Death Valley to the coastal plant was not an innovation facilitated by the subject property is also not relevant. The process by which the plant receives its product does not affect the Wilmington Plant's significance for the Port.

Response to Comment GSNT-6:

The URS memorandum comments that the Wilmington Plant is not associated with events that have made a significant contribution to the broad patterns of California's history, and is therefore not eligible for listing in the NRHP under Criterion A, or in the CRHR under Criterion 1 or as a LAHCM contrary to the findings in the HRER.

The LAHD respectfully disagrees. Following WWI, the Port experienced a significant period of growth. From 1920 to 1924, tonnage shipped from the Port increased from 3 million to 26 million tons per year. While lumber and oil accounted for most of the increase, businesses new to the Port, such as Borax, Los Angeles Sea Food Packing, and A.J. Busefink Furniture, contributed to exports as well. Appendix D of the URS report provides two letters and accompanying information on the Wilmington Plant, as prepared by the plant's first manager, Thomas M. Cramer. Cramer states "The Borax Co. was a pioneer, industrially, in the harbor. I do not recall that there were any other manufacturers, up to that time, who had recognized the benefits of the location except the Union Oil, who had a refinery near San Pedro…" (Cramer 1949). In the 1923-24 Port of Los Angeles Annual Report, the Board of Harbor Commissioners agreed, noting that the Pacific Coast Borax Company brings a new industry to the Port. Cramer further remarks that the "towering concrete stack of 150 feet high became a harbor landmark" (Cramer 1949). The construction and continued operation of the Wilmington Plant was a significant event for the Port and did contribute to the rise of the Port's importance in trade and

commerce. While the Wilmington Plant may not be the single catalyst to the expansion of the Port between WWI and WWII, the Wilmington Plant did contribute to the Port's shipping status and was a visible landmark during the historic period of growth, thereby contributing to a historic trend that made a significant contribution to the Port.

Response to Comment GSNT-7:

The contention that other industrial ventures followed Borax's lead to establish plants at the Port is not purely speculative, but is instead based on available historical data. It is not possible to know all of the factors which lead to a business's decision to build at a specific location such as the Port. However, a review of building trends within a particular timeframe can contribute to understanding the dynamics of expansion within a particular area or particular city. According to economists Glenn Ellison, Edward Glaeser, and William Kerr in *The American Economic Review* "What causes industry agglomeration" (Ellison et al. 2010), they suggest that a business might choose a location for natural advantage reasons, such as shipping access, ease of receiving raw materials, and access to a potential labor pool, although those attributes make up only 20 percent of the decision making process. A review of other economic trends can contribute to better understanding of the dynamics of expansion and the reasons for selecting one location over another. For instance, small retail businesses may locate next to large, established "anchor" businesses to benefit from the customer traffic generated by the anchor. In the manufacturing industry, agglomeration is not related to customer draw such as in the retail business, but the other 80 percent of the decision making process can be attributed in part to brand image, perceived success, and expanding industry that will benefit a corporation's location. Therefore, it is reasonable to conclude that other businesses were drawn by Borax's decision to locate at the Port, recognizing that a national manufacturer would attract services that could be advantageous to all the firms locating to an industrial complex. For example, two chemical plants, the Agricultural Potassium-Phosphate Company of California and a vacuum fumigating plant, were constructed at the Port between 1928 and 1930, just a few years after Borax relocated to the Port. All these businesses contributed to the Port's shipping status during the historic period of growth, thereby creating an environment for success, a historic trend that made a significant contribution to the Port.

Response to Comment GSNT-8:

The URS memorandum comments that no evidence is provided of industrial ventures that relocated or established operations at the Port because of U.S. Borax's presence. The LAHD agrees that no evidence is available to indicate any business moved to the Port because of U.S. Borax, but industry began to vary. In order to remain successful, the Port needed to attract new industry and Borax was among the first to arrive.

Response to Comment GSNT-9:

The URS memorandum comments on alterations to the Wilmington Plant buildings. A bulleted list of alterations is provided in Comment GSNT-12.

The alterations to the Wilmington Plant buildings are known and where relevant, noted in the HRER. A total of 215 building permits on file at the Los Angeles

Department of Building and Safety were reviewed for the HRER, but it was not practical to include a complete list of all alterations, additions, and new construction completed over the last 88 years of the plant's operation. Instead, only significant visual changes were included in the HRER. As a correction to the URS memorandum, based on the building permit the original 150-foot boiler stack was replaced with a stack of identical size and overall height and was not removed as noted in the memorandum.

Response to Comment GSNT-10:

The URS memorandum comments on the commonality of the reinforced concrete construction method, earlier reinforced concrete U.S. Borax refineries, and that the Wilmington Plant Refinery Building is a late example.

According to *The Story of Borax* "The [Wilmington refinery] building was the first reinforced concrete industrial structure in Southern California" (Kern 1979:31). The HRER does not contend that the property is significant for its type, period, or method of construction under Criterion C of the NRHP or under Criterion 3 of the CRHR.

Response to Comment GSNT-11:

The URS memorandum comments on the architect for the Wilmington Plant. The LAHD agrees that the Wilmington Plant is not a good representation of the master architect's work, nor does the HRER contend that the property is significant for the work performed by a master architect under Criterion C of the NRHP or under Criterion 3 of the CRHR.

Response to Comment GSNT-12:

Please see Response to Comment GSNT-9.

Response to Comment GSNT-13:

Comment noted. The URS memorandum comments that U.S. Borax agrees with the HRER that the property is not eligible for listing in the NRHP under Criterion C or the CRHR under Criterion 3.

Response to Comment GSNT-14:

The URS memorandum comments on the lack of a rigorous analysis of integrity in the HRER. A detailed integrity analysis was not included for each of the properties evaluated in the HRER, although all aspects of integrity were considered in making eligibility recommendations.

Response to Comment GSNT-15:

Comment noted. The property is in the place it was constructed and retains integrity of location.

Response to Comment GSNT-16:

The URS memorandum comments that the integrity of design has been significantly compromised as a result of upgrading and adapting the facility.

The design of the Wilmington Plant has changed over time, although it is unlikely that any industrial business develops a site plan without anticipating change. Industrial properties must change over time to keep up with changing technology and stay profitable. While the core buildings remain, several alterations have changed the layout of the northeast section of the property. The original railroad lines no longer pass between the refinery building and the steam plant, but now pass to the north of the bulk storage bins reflecting the change in use for the refinery building. The dissolving plant and three thickener tanks were removed to make room for the bulk storage bins. The portion of the property subjected to these changes accounts for approximately a quarter of the site. With the original buildings taking up the majority of the property, it appears that much of the original design is still intact. As such, the property retains sufficient integrity of design.

Response to Comment GSNT-17:

The URS memorandum states that the plant "does not retain the setting associated with the exponential growth of the Port in the early 1900s following the opening of the Panama Canal" (URS 2013).

In fact, the history of the Port reflects a period of little or no growth in shipping following the opening of the canal, due to the U.S. entrance into WWI. More cargo was shipped in the 1912-13 fiscal year than in the subsequent 6 years. This trend does not begin to change until 1923 and was not substantially changed until 1924.

The Borax plant is currently surrounded by large metal tanks used for the storage of oil, a use that has been active since at least 1927. Several municipal transit sheds have occupied the area known as Pier A, located across Slip One from the Wilmington Plant since 1915. New sheds were constructed following a fire that destroyed the sheds in 1947 when the tanker *U.S.S. Markay* exploded at Berth 168. The replacement of the Pier A sheds with new sheds does not diminish the setting.

Regarding the plant itself, the refinery building, steam plant, wharf office, long warehouse along the berth, and the connecting shed are all in their original location. The location of several holding bins and the railroad tracks has changed over time, but the relationship between the core buildings has not. The property retains integrity of setting.

Response to Comment GSNT-18:

The URS memorandum comments that many of the original materials of the plant have been removed or altered and that the addition of new industrial equipment introduced materials not historically associated with the Wilmington Plant.

There have been changes to the buildings that reduce the integrity of materials. The removal and filling of windows is the most significant, as it changes the patterned appearance of the refinery building and steam plant. The newer plaster over the

board-formed concrete textured walls of the refinery building and steam plant does not appear to be a significant change for a property eligible under Criterion A. The new cladding does not look different until viewed up close. The wharf office, shed, and connecting shed are clad in corrugated metal sheets and appear to retain most of their original materials or, if replaced, were done in-kind. The northern gable end of the shed appears to be the only location that has new metal sheeting material in a different design. The addition of industrial equipment, such as the bulk storage bins, conveyor belt over the shed, and various water and electrical lines installed on the exterior of all the buildings, distracts from the aesthetics of the property. Therefore, it is agreed that the property has suffered a loss of materials, but the buildings are not completely without integrity of materials.

Response to Comment GSNT-19:

The URS memorandum comments that the property does not represent physical evidence of the crafts of a given period of history, nor does it reflect its earliest period of development.

The Wilmington Plant was not created to exhibit high style workmanship. For example, there are no elaborate front porches, cornice lines, or wall decorations. The workmanship of the refinery building was in the design of the frame or method of construction. It is understood that the first reinforced concrete building in the U.S. was constructed at the Borax refinery plant in West Alameda and that the Wilmington refinery was just a copy of earlier refineries used by Borax. However, the Wilmington refinery building was designed to improve on those earlier examples and, according to *The Story of Borax,* "The [Wilmington refinery] building was the first reinforced concrete industrial structure in Southern California" (Kern 1979:31). The Wilmington Plant's first Plant Manager, Cramer, explained that the refinery building's design was to "provide ample space for enlargement or expansion. The monolithic concrete construction was decided upon as best suited to carry the weight of machinery required….the roof was simply a third upper floor with full strength for future upward building if desired" (Cramer 1949). While upward expansion was never undertaken, its design was forward looking and the refinery building has continued to serve its purpose for over 80 years. The wharf office and sheds exhibit Neo-classical inspired parapets that surround the roofline and conceal the gable roofs. These parapets give the buildings a grander appearance rather than a purely industrial exterior. The property appears to exhibit evidence of style, design, and skill in construction and retains and exhibits integrity of workmanship.

Response to Comment GSNT-20:

The URS memorandum comments that substantial additions and changes, coupled with changes in the setting, have destroyed the 'feeling" associated with the aesthetic or historic sense of the Wilmington Plant.

Although the bulk storage bins and conveyor belt over the shed are very visible alterations to the property, it is not hard to recognize the Wilmington Plant from its historical photographs. URS states that the feeling of the plant has been destroyed, that is to say a contemporary of Borax would not recognize the property as a period example. In contrast, the Port contends that the presence of the original buildings, especially when viewed from sea or along Slip One, does have the ability to convey

the property's historic character. It is agreed that the property has suffered some loss of feeling with the new additions and removal of highly visible signage on the shed, but the property retains a reasonable integrity of feeling.

Response to Comment GSNT-21:

The URS memorandum comments that the property does not convey a direct link with the prominent architect.

The lack of association with the property's architect is unimportant, as the property is not considered significant under Criterion C. Integrity is generally assessed under the criterion for which it is significant. The Wilmington Plant did contribute to the Port's shipping status and was a visible landmark during the historic period of growth, thereby contributing to a historic trend that made a significant contribution to the Port. As the property is still located within the Port, the property retains integrity of association.

Response to Comment GSNT-22:

The URS memorandum comments that the property no longer retains most aspects of its historic integrity.

"Integrity is the ability of a property to convey its significance" (National Park Service 2002:44). "All properties change over time. It is not necessary for a property to retain all of its historic physical features or characteristics. A property that is significant for its historic association [Criterion A] is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event or historical pattern…" (National Park Service 2002:46). Since the U.S. Borax Processing Plant retains the essential physical features that made up its character or appearance during the period of its association with the important event or historical pattern, and retains sufficient integrity of location, design, setting, materials, workmanship, feeling, and association, the property appears to be eligible under Criterion A for the NRHP and Criterion 1 for the CRHR. These conclusions are based on property's contributions to the Port's shipping status during the historic period of growth, thereby contributing to a historic trend that made a significant contribution to the Port.

Response to Comment GSNT-23:

The URS memorandum comments that it would like to suggest several other buildings that may be better examples of the historic context.

The context in which URS evaluated the property is not the same as that of the HRER. The historic context in the HRER is the history of the Port; therefore, any other buildings that may be suggested as better examples of the historic context prepared by URS would not be significant for the Port.

Response to Comment GSNT-24:

The URS memorandum comments on the design of two reinforced concrete refineries for U.S. Borax.

The URS memorandum does not identify any comparable properties at the Port. Both the Bayonne, New Jersey and the West Alameda, California refineries are not significant for the Port, and hence do not replace the importance of the Borax property to the Port as a historic property retaining much of its historic appearance and setting.

Response to Comment GSNT-25:

The URS memorandum states "When comparing the property to other properties associated with U.S. Borax in the Los Angeles area or southern California, the U.S. Borax-Rio Tinto Processing Plant does not illustrate the economic development or historical importance of the company" (URS 2013).

The HRER considers properties that may be significant to the Port. The entire history of Borax and its activities in the Death Valley area are not significant to the development of the Port, nor can it be argued that any Borax property outside of the Port can convey the significance of the Port.

Response to Comment GSNT-26:

The URS memorandum summarizes that the HRER lacks appropriate justification for the period of significance and that the integrity analysis lacks rigor. Since the Wilmington Plant no longer retains its most meaningful aspects of its historic integrity, the property is ineligible for any criteria for listing in the NRHP or the CRHR. The URS memorandum adds that the "refineries in West Alameda, California and Bayonne, New Jersey are recommended as better examples of the property type's historic context, and properties within Boron and Death Valley better convey the importance of U.S. Borax and the company's place in history. Further, it is not the oldest or the most distinctive property within the port, does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values, and is not representative of a major or unique industry in the port" (URS 2013).

Both the period of significance and the analysis of integrity are addressed in responses provided above (see responses to Comments GSNT-5, 16-22). The fact that the Wilmington Plant is not the oldest or most distinctive property within the Port is not a criterion for eligibility. The LAHD agrees with the findings of the URS memorandum that the Wilmington Plant is not eligible for listing on the NRHP or the CRHR as an individual property in the development of the industry of borax production and the history of U.S. Borax.

However, the LAHD contends that the U.S. Borax Wilmington Processing Plant is a significant cultural resource potentially eligible for listing to the NRHP under Criterion A, the CRHR under Criterion 1, and as a LAHCM for its contributions to the Port's shipping status during the historic period of growth, thereby contributing to a historic trend that made a significant contribution to the Port.

Attachment A

URS

Memorandum

Date: January 30, 2013

To: Mr. Robert Ritter
Gresham Savage Nolan & Tilden, PC
550 East Hospitality Lane, Suite 300
San Bernardino, CA 92408

From: Mr. Jeremy Hollins
URS Corporation
4225 Executive Square, Suite 1600
La Jolla, CA 92037

Subject: **Memorandum of Record for the Historical Evaluation of the U.S. Borax Wilmington Facility**

Dear Mr. Ritter:

The following memorandum of record summarizes the historical evaluation of the U.S. Borax Wilmington Facility, located at 300 Falcon Street, Wilmington, California, in the Port of Los Angeles. At the request of Rio Tinto, the property owner, the property was evaluated for eligibility for inclusion in the California Register of Historical Resources (CRHR), as a Los Angles Historic Cultural Monument (LAHCM), and as a historical resource for purposes of the California Environmental Quality Act (CEQA), as defined in CEQA Guidelines Section 15064.5. In conclusion, the facility does not appear to be eligible for listing on the CRHR, LAHCM, or considered a historical resource for purposes of CEQA.

Introduction

The subject property, the U.S. Borax Wilmington Facility, built originally in 1923 and 1924, encompasses approximately 7.6 acres within the industrial Port of Los Angeles, California. The property is bordered to the north by Berth 164, occupied by Valero; to the east by Berths 174 to 181, occupied by Pasha; to the south by Berths 167 to 169, occupied by Shell; and to the west by Slip No. 1. The project is located within the Torrance (1981) 7.5-Minute United States Geological Survey (USGS) Quadrangle Map, with the approximate center point of the project located at UTM Zone 11 382667mE, 3735965mN. The subject property contains a grouping of buildings and structures used primarily in the refining and shipping of Borax. The facility is owned and operated by Rio Tinto. Maps of the subject property are included in Attachment A, and photographs of the subject property are included in Attachment B.

Methods

To assess the subject property for above-ground significance, URS performed a record search through the California Historical Resources Information System (CHRIS) for the subject property and one-mile search radius, property-specific historic research, and an architectural survey of the subject property.

Record Search

On January 7, 2013, URS performed a record search at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The search was performed through the CHRIS cultural resources

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database for all relevant previously-recorded cultural resources and previous investigations completed within the site and within a one-mile radius of the site. Information reviewed by URS included location maps for previously-recorded trinomial and primary prehistoric and historic sites and isolates, site record forms and updates for cultural resources previously identified. It also included review previous investigation boundaries, and National Archaeological Database citations for associated reports, historic maps, and historic addresses. Also reviewed were the properties listed on the California Points of Historical Interest, California Historical Landmarks (CHL), California Historical Resources Inventory, local registries of historic properties, CRHR, and the National Register of Historic Places (NRHP). A copy of the record search is included in Attachment C of this report and the results of this search are summarized below.

Previously-Conducted Investigations

The SCCIC record search identified 31 previously-conducted investigations within the one-mile search radius, which are listed in Table 1 below and mapped in Attachment C. Of these 31 previously-conducted investigations, two included the subject property. Additionally, the SCCIC identified 35 previously-conducted investigations located in the Long Beach, San Pedro and Torrance, CA 7.5-Minute USGS Quadrangles that are potentially within the one-mile radius of the subject property. However, the SCCIC did not have specific locational data for these surveys. Therefore, these additional investigations are not mapped in Attachment C or included in Table 1.

Table 1 – Previously-Conducted Cultural Resources Investigations within a One-Mile Search Radius

Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-953	Dillon, Brian	NA	1981	An Archaeological Resource Survey and Impact Assessment of the Proposed Container Terminal Berths 121-126 in the Port of Los Angeles, California	Torrance	No
LA-1431	Langenwalter, Paul	Port of Los Angeles	1977	Environmental Impact Report – Knoll Hill Development, Los Angeles Harbor	San Pedro, Torrance	No
LA-2399*	Winman, Lois J. and E. Gary Stickel	NA	1978	Los Angeles- Long Beach Harbor Areas Cultural Resource Survey	San Pedro, Torrance	Yes

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-2789	Govena, Fran and Beth Padon	LSA Associates, Inc.	1992	Cultural/Scientific Resource Assessment: B Street Realignment Project, Port of Los Angeles, Los Angeles County, California	Torrance	No
LA-3341	Komporlides, Dena S.	Tetra Tech, Inc.	1994	Cultural Resources Evaluation for Site 6-a, Long Beach Naval Station, California	Long Beach, Torrance	No
LA-3403	Gilliland, Donald B.	Angeles National Forest	1994	Josephine Peak Microwave Site, Los Angeles County	Condor Peak	No
LA-3583	Bucknam, Bonnie M.	Archaeological Research, Inc.	1974	The Los Angeles Basin and Vicinity: A Gazetteer and Compilation of Archaeological Site Information	Anaheim, Baldwin Park, Beverly Hills, El Monte, Hollywood, Inglewood, La Habra, Los Alamitos, Los Angeles, Malibu Beach, Newport Beach, Point Dume, Redondo Beach, San Pedro, Seal Beach, South Gate, Topanga, Triunfo Pass, Venice, Whittier	No

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-3707	Clewlow, C. William Jr.	University of California, Los Angeles Archaeological Survey	1974	Preliminary Report of the Potential Impact on Archaeological Resources of the Proposed Gas Transmission Pipeline from Los Angeles Harbor to Yorba Linda – Southern California Gas Co.: Environmental Analysis	Anaheim, Long Beach, Los Alamitos, Orange, San Pedro, Yorba Linda	No
LA-4130*	Unknown	Los Angeles – Long Beach Harbors Landfill Development and Channel	1984	Los Angeles – Long Beach Harbors Landfill Development and Channel Improvement Studied Cultural Resources Appendix	Long Beach, San Pedro, Torrance	Yes
LA-4228	McKenna, Jeanette A.	McKenna et al.	1995	Cultural Resources Investigations for the Proposed Banning's Landing Waterfront Access and Office Development Project Area, Port of Los Angeles, Wilmington, Los Angeles County, California	Torrance	No
LA-4455	Pierson, Larry J.	U.S. Army, Los Angeles District Corps	1980	A Cultural Resource Study for the Los Angeles Harbor Deepening Project	Long Beach, San Pedro, Torrance	No

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-4879	Lander, E. Bruce	Paleo Environmental Associates, Inc., Greenwood and Associates	1997	Report of Findings, Class I and III Historic Architectural Archaeological, Paleontological Surveys, Terminal Island Treatment Plant Advanced Wastewater Treatment Facility Phase I Distribution Pipeline, Los Angeles Harbor Area, Los Angeles, California	San Pedro, Torrance	No
LA-4907	Maki, Mary K.	NA	2000	Phase I Archaeological Investigation of Limited Areas within the Los Angeles Department of Water & Power's Harbor, Scattergood & Valley Generating Stations Los Angeles County, California	Torrance, Van Nuys, Venice	No
LA-4970	Smith, C. Philomene	Caltrans District 7	2000	Reconstruction Along Route 47 from the Vincent Thomas Toll Plaza to Navy Way	Long Beach, San Pedro, Torrance	No
LA-5331	Romani, John F.	Caltrans District 7	1982	Archaeological Survey Report for the 07-la-110 Freeway Transitway Corridor Project	Inglewood, San Pedro, Torrance	No
LA-6061	Lanz, Madeline	LSA Associates, Inc.	2001	Architectural Survey and Evaluation of the Historic Union Oil Terminal (Berths 148-151) of the Port of Los Angeles	Torrance	No

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-7031	Unknown	Jones & Stokes	2003	A Cultural Resources Assessment for the Port of Los Angeles Waterfront Gateway Development Project, City of San Pedro, Los Angeles County, California	San Pedro	No
LA-7032	Slawson, Dana N. and Alice Hale	Greenwood and Associates	2003	Cultural Resources Summary: Port of Los Angeles Berths 97-109 China Shipping Yard	San Pedro	No
LA-9329	Lassell, Susan E.	Jones & Stokes	2000	Final Evaluation Report for the Historic Fruit Company Terminal and the Port Café, Berth 147, Port of Los Angeles, Los Angeles County, California	Torrance	No
LA-9330	Lassell, Susan E.	Jones & Stokes	2000	Final Evaluation Report for Berths 104, 108-109, 115, and 118-120, Port of Los Angeles, Los Angeles County, California	Torrance	No
LA-9359	Bonner, Wayne H.	Michael Brandman Associates	2004	Cultural Resources Survey and Historic Architectural Assessment for Sprint Telecommunications Facility Candidate LA54XC7761 (DWP Facility), 161 North Island Avenue, Wilmington Los Angeles County, California	Torrance	No

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-10477	Snaver, Noelle	ICF Jones & Stokes	2009	An Analysis of Historic Period Artifacts Recovered from the Avalon Triangle Park Project, Port of Los Angeles, San Pedro, California	Torrance	No
LA-10528	Snaver, Noelle	Jones & Stokes	2004	Final Archaeological Monitoring and Treatment Plan for the Los Angeles Harbor Department, Waterfront Gateway Project, San Pedro, CA	San Pedro	No
LA-11232	Lee, Portia	ICF Jones & Stokes	2008	San Pedro Waterfront Redevelopment Project, Cultural Resources Technical Report, Historical Built Environment (Architectural Resources)	San Pedro, Torrance	No
LA-11348	Akyuz, Linda, Ciarus Backes, and John Dietler	SWCA Environmental Consultants	2010	Archaeological Excavation at Avalon Triangle Park, Port of Los Angeles, City of Los Angeles, Los Angeles County, California	Torrance	No
LA-11410	Unknown	ICF Jones & Stokes	2008	Cultural Resources Survey Report for the San Pedro Waterfront Project located in the City of Los Angeles, Los Angeles County, California	San Pedro, Torrance	No

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Survey Report Number	Author	Company	Date	Report Title	Quadrangle	Within Subject Property
LA-11411	Unknown	U.S. Army Corps of Engineers	2009	San Pedro Waterfront Project Final EIS/EIR	San Pedro, Torrance	No
LA-11482	Racer, F.H.	NA	Unknown	Camp Sites in Harbor District	Beverly Hills, Inglewood, Redondo Beach, San Pedro, Torrance, Venice	No
LA-11539	Fernandez, Trish and Barrett, Thomas	ICF International	2010	San Pedro Waterfront Development Project Historic Property Treatment Plan: Mexican Hollywood, San Pedro California	San Pedro	No
LA-11756	Amaglio, Allessandro	FEMA	2012	S.S. Lane Victory: Install Six Security Cameras on the S.S. Lane Victory berthed at Berth 64, San Pedro, Los Angeles, CA	San Pedro	No
LA-11811	Dietler, Sara and Gibson, Heather	AECOM	2012	Draft Phase I Archaeological Investigation: WWL Vehicle Cargo Terminal at Berths 195-200A Los Angeles County, California	Long Beach, Torrance	No

NA = Not Applicable

Previously-Recorded Cultural Resources

A review of the records at SCCIC indicates that there have been 31 previously-recorded cultural resources within the one-mile search radius of the subject property. No sites are listed on the Archaeological Determination of Eligibility list. One site is listed on the Historic Properties Data File list, Property # 175908 – Port of Los Angeles: Shell Oil Terminal. No previously-recorded cultural resources are located within the subject property.

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All previously-recorded cultural resources within a one-mile radius of the subject property are listed in Table 2 and mapped in Attachment C.

Table 2 – Previously-Recorded Cultural Resources within a One-Mile Search Radius

Primary #	Other Identifier	Cultural Resource Type	Cultural Resource Description	Within Subject Property	Latest Update	Eligibility Status
NA	Property # 175908	Historic-Period Built Environment	Port of Los Angeles: Shell Oil Terminal	No	2009	Determined ineligible for NRHP by consensus through Section 106 process – Not evaluated for CRHR or Local Listing (6Y)
19-000146	LAN-146	Archaeological Site (Destroyed)	Refuse Heap	No	1977	NA
19-000149	LAN-149	Archaeological Site (Destroyed)	Refuse Heap	No	1981	NA
19-000285	LAN-285	Archaeological Site (Destroyed)	Shell Midden	No	1981	NA
19-002135	CA-LAN-2135 H	Historic-Period Built Environment	Los Angeles Union Oil Refinery	No	1993	No Determination Available
19-003801	CA-LAN-3801	Historic-Period Built Environment (Destroyed)	Mexican Hollywood – Historic Latino Neighborhood	No	2008	NA
19-004279	CA-LAN-4279H	Archaeological Site (Destroyed)	POLA-Avalon Triangle-S-01 – Historic Trash Pit	No	2010	NA
19-167267	Property # 021220	Historic-Period Built Environment (Destroyed)	S.S. Catalina – Great White Steamer	No	1988	Removed from NRHP by the Keeper (6W)
19-167314	NA	Historic-Period Built Environment (Destroyed)	Terminal Island – Historic Japanese Fishing Community	No	1979	NA

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Primary #	Other Identifier	Cultural Resource Type	Cultural Resource Description	Within Subject Property	Latest Update	Eligibility Status
19-173042	Property # 027064	Historic-Period Built Environment (Further research indicates property is no longer extant)	Steam Propulsion System of the Ferry Boat Sierra Nevada	No	2006	Individual Property Determined Eligible for NRHP through Section 106 Process. Listed in the CRHR. (2S2)
19-180720	Property # 089064	Historic-Period Built Environment	Lane Victory – Large Maritime Vessel	No	1990	Individual property listed in NRHP by the Keeper. Listed in the CRHR. (1S)
19-186623	NA	Historic-Period Built Environment	Berth 148-1 49 Wharf	No	2000	Not Eligible for Listing or Designation (6)
19-186624	NA	Historic-Period Built Environment	Berth 148-149 Tank Farm	No	2000	Not Eligible for Listing or Designation (6)
19-186625	NA	Historic-Period Built Environment	Berth 148-149 Dock House	No	2000	Not Eligible for Listing or Designation (6)
19-186626	NA	Historic-Period Built Environment	Berth 148-149 Gatehouse	No	2000	Not Eligible for Listing or Designation (6)
19-186627	NA	Historic-Period Built Environment	Berth 148-149 Firewall	No	2000	Not Eligible for Listing or Designation (6)
19-186628	NA	Historic-Period Built Environment	Berth 148-149 Substation	No	2000	Not Eligible for Listing or Designation (6)

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Primary #	Other Identifier	Cultural Resource Type	Cultural Resource Description	Within Subject Property	Latest Update	Eligibility Status
19-186629	NA	Historic-Period Built Environment	Union Oil Terminal Berths 150-151	No	2000	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)
19-186630	NA	Historic-Period Built Environment	Berths 150-l5l Truck Rack	No	2000	Not Eligible for Listing or Designation (6)
19-186631	NA	Historic-Period Built Environment	Berths 150-l5l Warehouse	No	2000	Not Eligible for Listing or Designation (6)
19-186687	NA	Historic-Period Built Environment	Berths 150-l5l Main Office	No	2000	Not Eligible for Listing or Designation (6)
19-187017	NA	Historic-Period Built Environment	Wheelhouse Cafe	No	1997	Found Ineligible for NR, CR or Local Designation through Survey Evaluation (6Z)
19-187020	NA	Historic-Period Built Environment	Cottages at 419 West Harry Bridges Avenue	No	1997	Found Ineligible for NRHP, CRHR, or Local Designation through Survey Evaluation (6Z)
19-187021	NA	Historic-Period Built Environment	Harbor Steam Plant	No	1997	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)

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Primary #	Other Identifier	Cultural Resource Type	Cultural Resource Description	Within Subject Property	Latest Update	Eligibility Status
19-187022	NA	Historic-Period Built Environment	Commercial Building at 801 Neptune Avenue	No	1997	Appears Eligible for NRHP as a Contributor to an NRHP Eligible District through Survey Evaluation (3D)
19-188178	NA	Historic-Period Built Environment	Harbor Steam Plant	No	2003	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)
19-188197	NA	Historic-Period Built Environment	Port Cafe	No	2000	Found Ineligible for NRHP, CRHR, or Local Designation through Survey Evaluation (6Z)
19-188198	NA	Historic-Period Built Environment	United Fruit Company Terminal	No	2000	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)
19-188199	NA	Historic-Period Built Environment	Berths 118-120	No	2000	Found Ineligible for NRHP, CRHR, or Local Designation through Survey Evaluation (6Z)
19-188200	NA	Historic-Period Built Environment	Berths 104, 108-109, and 115	No	2000	Found Ineligible for NRHP, CRHR, or Local Designation through Survey Evaluation (6Z)

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Primary #	Other Identifier	Cultural Resource Type	Cultural Resource Description	Within Subject Property	Latest Update	Eligibility Status
19-188201	NA	Historic-Period Built Environment	California Petroleum Company Terminal	No	2000	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)
19-189468	NA	Historic-Period Built Environment	Vincent Thomas Bridge	No	2007	Appears Eligible for NRHP as an Individual Property through Survey Evaluation (3S)

CHL = California Historic Landmark
CRHR = California Register of Historical Resources
LAHCM = Los Angeles Historic-Cultural Monument
NA= Not Applicable
NRHP = National Register of Historic Places

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Historic Research

In addition to the CHRIS records search, URS conducted site-specific research on the subject property and the immediate vicinity. This information was utilized to develop a historic context in order to properly evaluate the subject property. Sources of information reviewed include Certified Local Government annual reports and data, Historic American Building Survey and Historic American Engineering Record records, the National Register Information System, the online database for National Register sites, Calisphere Digital Resources, Online Archives of California, Government Land Office Plat Maps, Sanborn Fire Insurance Maps, local historical societies and libraries, private collections, and inventory files and data on-file with other agencies that control property near the subject property(Refer to Attachment D).

Documentation regarding the history of the company was uncovered within the corporate headquarters. These materials included the following:

- architectural drawings of the Wilmington Facility
- historic-period photographs of several Borax facilities throughout California
- corporate literature and memoranda
- legal property documentation
- site plans and survey information
- previous environmental reports
- building permits

In-person research was also completed by URS. This research was conducted on January 9, 2013 at the California State University of Long Beach Special Collections, the San Pedro Bay Historical Society, and the Long Beach Historical Society. In-person research continued on January 10, 2013 at the Los Angeles Department of Building and Safety and the City of Los Angeles Bureau of Engineering. Additional research efforts were conducted remotely. Investigative correspondence was initiated with the Los Angeles Harbor Department Historical Archives, Wilmington Historical Society, and the 20 Mule Team Museum in Boron, California. The research provided insight into the historic contexts and themes of the area and specific information concerning the potential cultural resources within the property boundaries (e.g., date of construction, historic land ownership).

In addition, on January 14, 2013 information requests were sent to groups and organizations that may be interested in historical resources. The letters afforded local governments, historical societies, and other groups the opportunity to provide information regarding historical resources within or near the subject property. Recipients of the request included the following:

- Alameda Naval Air Museum
- Wilmington Chamber of Commerce
- California State University of Long Beach Special Collections
- San Pedro Bay Historical Society
- Long Beach Historical Society
- Boron Chamber of Commerce
- Port of Los Angeles

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On January 14, 2013, Dan Hoffman, Executive Director of the Wilmington Chamber of Commerce, responded that the Chamber of Commerce is not aware of any significant cultural resources within a half-mile radius of the site.

On January 14, 2013, Anne Hansford, Archivist of the San Pedro Bay Historical Society, responded to URS' request for information. Ms. Hansford replied that URS can review the San Pedro Historical Society's collection of historic maps and photographs.

Field Survey

An architectural survey was performed within the subject property on January 10, 2013. The survey was completed by Jeremy Hollins and Joel Levanetz; individuals who meet the Secretary of the Interior's Professional Qualification Standards in Architectural History and History. A DPR 523 series form was completed for the property (refer to Attachment E).

Historic Context

The historic themes researched for purposes of establishing an evaluative historic context for the subject property include the early history of San Pedro Bay, establishment of the Port of Los Angeles and Long Beach, development of U.S. Borax and the U.S. Borax Wilmington facility. References used as part of this historic context are included in Attachment F.

Early History of San Pedro Bay

Portuguese explorer Juan Rodriguez Cabrillo recorded sighting San Pedro Bay in 1542. He described it as an "excellent harbor" and named it Bahia de los Fumos (Bay of Smokes) after seeing the smoke from hunting fires lit by the native Tongva-Gabrieliño people who occupied the area prior to European arrival. Sixty years later, Sebastian Vizcaino dropped anchor off the site and reported the bay as a cove "with shelter from the northwest, west and southwest winds with a small island in it." The small island, about a half-mile east of a promontory on the western shore, was later named Deadman's Island. To the north, a set of sand dunes called Rattlesnake Island were present; these sand dunes protected the small channels and sloughs of the inland harbor from ocean waves. Between the islands lay an 18-foot bar of sand and rock. Vizcaino renamed the bay "San Andres". In 1734, Spaniard Cabrera Bueno renamed the bay "San Pedro," the name that has persisted.[1]

The first permanent European settlement of the region occurred in 1769, when Spanish soldiers and priests arrived to colonize California. Mission San Gabriel, about 40 miles inland from the bay, was established in 1771. The Spanish set up a system of large land grants, and the Nieto and Dominguez families controlled the waterfront lands at San Pedro.[2]

Trade during the Spanish Period was forbidden except with Spanish ships. Driven by the need for more regular supplies and trade, residents developed a thriving cargo-smuggling industry, which was supported by the small

[1] Charles F. Queenan, The Port of Los Angeles: From Wilderness to World Port (Los Angeles: Los Angeles Harbor Department, 1983), 1-2, 4.
[2] Ibid., 2.

town established at San Pedro. After Mexico declared independence from Spain in 1822, the new Mexican government lifted the trade restrictions and San Pedro became a robust commercial center. Lands along the bay remained in the possession of the Spanish land grantees.[3]

California came under the control of the United States in 1848, during the Mexican-American War. Two years later, California became a state in the Union. A young American, Phineas Banning, who arrived in the region in 1851, saw the potential for improving the harbor and its facilities to accommodate the increasing cargo shipments arriving in the rapidly-developing region. Banning eventually became known as the "Father of the Los Angeles Harbor" for his many ventures, which included the establishment of a freight and passenger transportation business that served five states, the founding of the small town of Wilmington, and the introduction of the first railroad bill to the California Legislature. Banning solicited Congress successfully for the first improvements to the harbor. This included the dredging of the main channel in 1871 to a depth of 10 feet and the construction of a breakwater between Rattlesnake Island (now Terminal Island) and Deadman's Island (no longer present). The railroad industry became the dominant transportation agent for the thousands of tons of cargo that moved through the port.[4]

During the 1880s, the population of the City of Los Angeles increased from less than 15,000 to over 50,000, placing increasing strain on the small San Pedro harbor to handle the cargoes of lumber for construction and coal for the railroads and building. Beginning in the early 1880s, the Southern Pacific Railroad Company (Southern Pacific) attempted to monopolize trade in the region by promoting a deep water harbor in Santa Monica. The Southern Pacific tried to capture the entire Senate Commerce Committee appropriation of $250,000 planned for improvements to San Pedro harbor. However, in 1896, Congress granted the appropriation to San Pedro as originally planned, thereby laying the foundation for the modern ports of Los Angeles and Long Beach.[5]

Establishment of the Ports of Los Angeles and Long Beach

By the turn of the century, the population of Los Angeles had doubled to more than 100,000, resulting in increasing demands for building supplies and other cargo to support the growing metropolis. With that in mind, the city annexed a 16-mile strip of land on the outskirts of the Communities of San Pedro and Wilmington in 1906 for a port (both towns became part of the City of Los Angeles three years later). A permanent Los Angeles Board of Harbor Commissioners was created in 1907 to oversee the port.[6] By 1911, the first 8,500-foot section of the harbor breakwater was completed and the main channel was widened to 80 feet and dredged to 30 feet.[7]

[3] Ibid., 3-4; Board of Harbor Commissioners of the City of Los Angeles, "Virtual History Tour," 2001, http://www.laporthistory.org/ (accessed January 7, 2010).
[4] Board and City, "Virtual History Tour."
[5] Queenan, Port of Los Angeles, 27, 31, 39.

[6] Lois J. Weinman and E. Gary Stickel, Los Angeles-Long Beach Harbor Areas Cultural Resource Study, Prepared for U. S. Army Engineer District (Los Angeles, California: April 1978).; Corps of Engineers and the Ports of Los Angeles and Long Beach, "Appendix," Los Angeles-Long Beach Harbors Landfill Development and Channel Improvement Studies Cultural Resources (July 1984).
[7] Queenan, Port of Los Angeles, 48.

Meanwhile, in 1909, the Los Angeles Dock and Terminal Company purchased 800 acres of sloughs and salt marshes at the mouth of the Los Angeles River adjacent and to the south of the Port of Los Angeles, to develop a port off of the City of Long Beach. The State of California officially granted the tideland areas to the City of Long Beach for port operations in 1910. The City of Long Beach continued the dredging project commenced by the Los Angeles Dock and Terminal Company after the company declared bankruptcy in 1916.[8]

The opening of the Panama Canal in 1914 sparked a boom in shipping to the Los Angeles and Long Beach ports. The need for deeper channels as well as extended breakwaters led to considerable dredging and land reclamation efforts in the ports during the twentieth century. Just 15 years after its first development, Long Beach attained "deep water" port status, handling more than one million tons of cargo and 821 vessel calls in 1926.[9]

In 1936, oil was discovered in Long Beach's harbor (the oil field is known as Wilmington Field), which led to the construction of the first oil well there in 1938. By 1943, the oil drilling program was producing 17,000 barrels a day and generating $10 million a year in oil revenues. Unfortunately, as early as 1939, the oil extraction appeared to be causing subsidence.[10] Although dikes were built in 1945 for flood control at high tide, by 1957 a 16-square-mile area of the north harbor had sunk between two feet and 24 feet. The solution was a water injection program termed Operation "Big Squirt," that was undertaken in 1960 and seemed to halt the subsidence.[11]

U.S. Borax

In 1962, Thomas Cramer, the first superintendent of the U.S. Borax Wilmington Facility, noted "[t]he story of the Wilmington Refinery is a forty year part of the hundred year history of the borax business in America."[12] In fact, U.S. Borax traces its origins to 1872 when founder Francis Marion Smith discovered the presence of borate deposits in Nevada. During those initial operations, the raw borate material was refined near the site of its extraction. According to Cramer, refining facilities were built beside marshes in Nevada. By 1883, following the discovery of borates in Death Valley, the refined product was being hauled great distances across the desert by 20-mule teams.[13] Smith founded the Pacific Coast Borax Company (predecessor to Borax Consolidated, which then became U.S. Borax) in 1890.[14] The 20 Mule Team symbol became the trademark of the Pacific Coast Borax Company in 1896.[15]

While exploiting a new source of borate deposits in the Calico Mountains, Smith decided to move away from the traditional onsite refining process to a large-scale refining operation in Alameda, California. The Alameda refinery was purchased about 1883 and expanded by Smith in 1890. The new Pacific Coast Borax Company

[8] Port of Long Beach, "History," http://www.polb.com/about/history/ (accessed January 13, 2010).
[9] Ibid.
[10] Bob Gettemy, "Sea Snarls at Man as Land Subsides," Los Angeles Times, December 6, 1953: H1, 5.
[11] Port of Long Beach, "History."
[12] Thomas Cramer, "Wilmington Refinery: Pacific Coast Borax Company" (Memorandum, U.S. Borax Company, June 26, 1962).
[13] Thomas Cramer, "The Mormon Island Story," *Pioneer*, (September 1962), 12.
[14] "View of the Borax Industry, ca. 1898-ca. 1915," Online Archive of California, http://www.oac.cdlib.org/findaid/ark:/13030/tf0n39n8j3/entire_text/ (accessed January 24, 2013).
[15] U.S. Borax, "A Famous Symbol Became One of the World's Best Known and Most Recognizable Trademarks," The Courageous and Fascinating "Century-Old" Saga of the Famous 20 Mule Team of Death Valley (advertisement, U.S. Borax, date not specified).

refinery was sited on Alameda Point in order to take advantage of inland rail connections and convenient access to shipping in the San Francisco Bay. The siting of the Alameda plant marked a key innovation point for the company. From then on, processing no longer occurred on site at the mines but ore was instead transported to a coastal plant for refining and shipping.[16] Additionally, the Alameda facility pioneered the use of reinforced concrete construction, a method that was subsequently used at the Bayonne, New Jersey facility in 1897. Smith resigned from the company in 1914.[17]

After World War I, the company chose to construct a new facility that would have ready access to the ships traveling through the new Panama Canal and would have proximity to raw materials being extracted in Death Valley. The company purchased property on Mormon Island in the Port of Los Angeles. In 1923, construction began on the Wilmington Facility and in 1924 the Alameda refinery was closed. The Bayonne refinery in New Jersey was also phased out.[18]

In 1927, soon after the Wilmington Facility was finished, the company opened an underground borate mine in Boron, California in the Mojave Desert. In 1956, the company became U.S. Borax when it merged with United State Potash Corporation. In 1957, the company built the Boron refinery and borax production was moved to Boron. The Boron Mine was converted to a surface mine in the late 1950s. In 1967, the company was acquired by Rio Tinto.[19] In 1980, U.S. Borax built its borax acid plant. Today, U.S. Borax continues to operate the Boron Mine, which is California's largest open pit mine.[20]

U.S. Borax Wilmington Facility

The U.S. Borax Wilmington Facility was constructed on Mormon Island on land previously used as the Chandler Shipyard, a World War I shipyard. Architect Albert C. Martin was retained to prepare the plans for the new facility, which was to include a refinery building, power plant, warehouse, office building, and a 150-foot stack. Norman B. Patten served as Martin's building superintendent and G.H. Schulte was the structural engineer. Davidson Construction was retained as the general contractor.[21] Martin was a master architect; however, the design of the U.S. Borax Wilmington Facility does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963).

The facility was constructed using the same reinforced concrete construction method that the company had employed first at Alameda 32 years previously and subsequently at Bayonne, New Jersey. Because the soil at Mormon Island could not sustain the load of the concrete buildings, piles were first driven below the groundwater line before concrete pads and pedestals were poured. The final design for the refinery called for a 207-by-252-foot

[16] U.S. Borax, 100 Years of U.S. Borax, 1872-1972 (Los Angeles, CA: U.S. Borax, 1972), 32-34.; U.S. Borax, "Bit of History," Pioneer (July-August 1968), 17.
[17] George Herbert Hildebrand, Borax Pioneer: Francis Marion Smith (La Jolla, CA: Howell-North Books, 1982), 56.
[18] U.S. Borax, "Borax Timeline," About Borax, http://www.borax.com/about-borax/timeline (accessed January 23, 2013).
[19] Ibid.
[20] Ibid.
[21] U.S. Borax, *100 Years*, 32-34.

building with three stories and a rooftop water tower. Martin's drawings also planned for a future expansion of the facility, including two additional refinery floors (never built), a lateral expansion on either side of the refinery (later partially constructed as the Connecting Shed and additions to the original Warehouse), and two additional buildings (never constructed). The stack was finished by November 1923. The main components of the buildings were completed on the last day of that same year, six months after the foundations had been finished.[22]

Meanwhile, the previously-installed boilers in the power plant and the plans for piping and equipment were drawn by Fred Beik by late fall 1923. By February 1924, the first of the equipment, the Sweetland press and Raymond power-mill, were installed in the refinery. Concurrently, the last of the building windows, roofing, and painting were being finished. The bulkhead had been put in and the channel in front of the property dredged during 1923, so construction of the wharf, warehouse, and wharf office building began in 1924. Separately, the Alameda facility was dismantled, and the bulk borax production goods were transferred to Wilmington. On November 1, 1924, the first cargo was loaded onto a ship from the Wilmington Facility.[23] On January 28, 1925, a survey map of the Borax Consolidated Wilmington facility was completed, which illustrated the site as containing a Factory (Refinery), Power Plant, Stack, Oil Tank, Office (now Wharf Office), Warehouse, Wharf, and Mud Scow Dock.[24] The Wilmington facility produced borax, Borax Soap Chips, BORAXO, bar soap, and borax "glass".[25] The U.S. Borax Wilmington Facility was an early occupant of the port, but it nevertheless was established years after the port had attained success through the shipping of such commodities as lumber, petroleum, and citrus products.[26]

Robert Shaw, Wilmington facility manager beginning in 1983, recollected that Borax Consolidated was challenged by the City of Los Angeles in 1935 in regard to ownership of the property. [27] The U.S. Supreme Court decided in the company's favor on November 11, 1935. The company was able to successfully prove that the property was part of the original Mormon Island and was never tideland; therefore, Los Angeles could not claim that the property was "public land" and take ownership. The property is now the only privately-owned property in the Port of Los Angeles.[28]

Since Martin drafted his designs for the refinery in 1923, large-scale changes to the property have undermined the architect's original design intent. Large additions to the south and north ends of the warehouse building and a Connecting Shed between the Refinery and the expanded Warehouse (generally based on Martin's 1923 designs for expansions) were constructed by 1952.[29] Following a feasibility study conducted in the early 1960s, U.S. Borax began plans for major terminal facilities at the Wilmington facility.[30] Construction began on the terminal (Bulk Storage Silos) in 1962 and the first railcar of product was loaded into the 12-silo structure in 1963. The 100-foot-tall by 30-foot-diameter concrete silos introduced a massive and substantial change to the property. A large conveying system was constructed at the same time to move the bulk borates from the silos to the holds of

[22] Cramer, "Wilmington Refinery."; U.S. Borax, *100 Years*, 32-34.
[23] Cramer, "Wilmington Refinery."
[24] U.S. Borax. Map of the Property of Borax Consolidated, Ltd. at Los Angeles Harbor, Slip No. 1 (Mormon Island), Wilmington California (map on file, U.S. Borax, 1925).
[25] U.S. Borax, *100 Years*, 34.
[26] U.S. Borax, *100 Years*, 32-34.
[27] Robert Shaw, "Wilmington Recollections" (Memorandum, U.S. Borax Company, 1988).
[28] Borax Consolidated, Ltd. v. Los Angeles, 296 U.S. 10 (1935).
[29] NETR Online, Historic Aerials, www.historicaerials.com (accessed January 24, 2013).
[30] U.S. Borax, *Annual Report 1962* (Los Angeles, CA: U.S. Borax, 1962), 16.

ships at the dock.[31] In 1979, an additional four-silo structure was constructed to the south of the original 12-silo structure.[32] Over time, additional alterations have occurred to the subject property and its buildings, including seismic retrofitting of many of the buildings and structures between 1988 and 2004, which also resulted in the removal of the original 150-foot stack near the power plant;[33] introduction of large industrial equipment such as tanks, silos, conveyor belts, and piping; infilling of many of the buildings' windows and entries; and attachment of conduit, other piping, utility equipment, security lights, cameras, and signage to the exterior walls of the buildings.

Currently, the Wilmington Facility serves as Rio Tinto's primary North American shipping facility. The refinery produces 16 specialty products, including wood preservatives and flame retardants, which can be stored in the facility's 35,000 tons of storage capacity before being transferred to docked ships for export.[34]

Architectural Description of the Property

The subject property is a part of an irregular-shaped lot that contains six main buildings and structures. From (generally) south to north, they are: Refinery Building, with the Power Plant adjacent to the east, the Connecting Shed, the Warehouse, with the Bulk Storage Silos to the east, and the Wharf Office. In addition, the subject property contains a dock along the west boundary that is adjacent to Slip No. 1. Miscellaneous industrial equipment such as tanks, piping, sheds, and a railroad spur are also located within the boundaries of the subject property, which is surrounded by a chain-link fence.

Refinery Building

The Refinery Building, designed by Albert C. Martin, was built in 1923 and 1924 and is a Utilitarian Industrial-style refinery (refer to Attachment B for photographs of the subject property). It occupies the south end of the subject property and has an east-facing orientation. It is three stories with a rectangular plan. Due to changes in refining technologies since 1924, the resource has undergone extensive alterations and upgrades. The building features a flat roof covered with composite sheet. Distributed across the rooftop are large tanks, pieces of electrical equipment, and conduit visible from the pedestrian right-of-way. At either corner of each elevation, there are groupings of three simple rectangular pilasters extending from the ground level to the roofline. In many cases, the stylized rectangular capital of the pilasters has been removed and the surface of the column has been altered or removed to accommodate industrial equipment.

Fenestration on all elevations includes original, large, multi-pane metal industrial windows with hopper panels near the center of most. A number of the locations where windows once existed have been in-filled, and many of the remaining windows have been altered or retrofitted for equipment installation. The walls of the refinery building no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers

[31] U.S. Borax, *100 Years*, 36.
[32] Shaw, "Wilmington Recollections."
[33] Oren Brown, "Seismic Work at the US Borax Facility at Wilmington" (Memorandum to Randy Luckman, U.S. Borax Company, February 11, 2004).
[34] Rio Tinto Minerals, "Our Operations," http://www.riotintominerals.com/ENG/ourbusiness/25_our_operations.asp (accessed January 24, 2013).; Rio Tinto Borax, "About Borax: Worldwide Locations, U.S. Borax Inc. – Wilmington Operations," *Deed and Legal Description, File Name 314* (website screenshot on file, U.S. Borax, date not specified).

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the wall surface. The retexturing is most apparent over the locations of in-filled windows. None of the wall surfaces indicate evidence of historic-period signage visible in historic photographs (refer to Attachment D).

The main entry, which is off-centered on the primary (east) façade, is filled with a non-original metal commercial door. The stoop for the main entry extends south passed a large non-original roll top door that is off-centered on the primary façade. This area serves as the East Dock for the Refinery Building. Both the loading dock and main entry are located beneath a corrugated metal awning. A smaller loading station with a non-original metal roll top door is located off-centered on the southern half of the primary façade. At the far south corner of the primary façade is a set of non-original industrial metal double doors beneath a similar corrugated metal awning. At the center and north corner of the primary elevation are two additional non-original single panel metal doors. Large non-historic period conduit, rigging, and other industrial equipment components are attached to the walls.

Although broader, the north elevation has similar characteristics and alterations to the primary façade. These similarities included a substantial amount of window in-fill, non-original stucco texturing on wall surfaces, and a significant level of alteration due to the installation of modern industrial equipment. Along with these changes, a non-original concrete exterior walkway has been installed along the north elevation. This addition extends across the entire elevation and includes a metal handrail separating the platform from an asphalt roadway. The rectangular stringcourse that historically spanned the entire center of the north wall has been largely removed to allow for industrial equipment mounting. Additional non-original equipment includes a concentration of conduit and metal framing near the center of the north elevation that connects the Refinery Building with the adjacent Power Plant.

Along with the alterations to the texture and form of the elevations mentioned above, the south and west elevations have both received significant non-original structural additions. With regard to the south elevation, in order to adapt the Refinery Building to new technologies, a two-story processing structure was attached to the wall. The large-scale alteration appears to be two separate tanks supported by a base constructed of steel beams. Access ladders, conduit, and vents extend from the structure to the south elevation. Directly adjacent on the west elevation of the Refinery Building is the Connecting Shed.

Connecting Shed

The Connecting Shed was built by 1952, generally following Martin's 1923 original design for an addition at that location. It is a Utilitarian Industrial-style building (Attachment B). It occupies the southeast portion of the subject property and has a south-facing orientation. It is one story with an L-shaped plan. The building features four consecutive and similar width front-gable roofs covered with composite sheet. Located on the southernmost portion of the roof are electronic equipment and piping. The roof features a plain parapet that is stepped on the south and north elevations and topped with a simple cornice. Mounted on the parapet are non-original spotlights. A simple cornice wraps around the building below the parapet. A sign with a historic photo of the Borax 20-Mule Team and the words "Rio Tinto" are painted on the parapet of the primary (south) façade.

Fenestration on the primary (south) façade includes a number of paired multi-pane, metal-framed industrial windows, two bays with non-original metal roll top and swing up doors, and an industrial door. The north elevation features four evenly-spaced bays and a number of paired multi-pane, metal-framed industrial windows. The east elevation is directly adjacent to the Refinery Building and the west elevation is directly adjacent to the

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Warehouse. The walls of the north and south elevations are covered with non-original corrugated metal sheeting. Large non-historic period conduit, rigging, and other industrial equipment components protrude from the wall. Non-original safety barriers, metal corner braces, and post bollards have been added near bay corners. The north elevation features a single, long awning of corrugated metal sheeting that is supported by steel truss bracing. The awning runs the length of the building, connecting with the Warehouse awning and providing cover for a concrete loading dock that also continues from the Warehouse.

Warehouse

The original portion of the Warehouse was built in 1924, with major additions to the north and south by 1952 that generally followed Martin's 1923 original design for the expansion of the Warehouse. It is a Utilitarian Industrial-style warehouse (refer to Attachment B for photographs). It occupies the east side of the subject property, beside Slip No. 1, and has an east-facing orientation. It is one story with a narrow rectangular plan. Due to changes in refining technologies since 1924, the Warehouse has undergone extensive alterations and upgrades, including the large additions by 1952 on the north and south elevations that quadrupled the size of the building. The Warehouse features a side-gabled roof covered with composite sheet. A non-original rooftop structure is located on the northern end of the rooftop. The structure is supported on a steel platform and features a covered conveyor belt that extends from the Bulk Storage Silos structure, a boom that can drop down for ship loading, corrugated-metal sheeted shed-like buildings, and numerous pipes and other industrial features. Like the adjacent Connecting Shed to the southeast and the Wharf Office to the north, the Warehouse roof features a plain parapet that is stepped on the north elevation and topped with a simple cornice. Mounted on the parapet are non-original spotlights. A simple cornice wraps around the building below the parapet.

Fenestration on the east, north, and west elevations includes a number of multi-pane metal industrial windows and evenly-spaced bays with non-original metal roll top doors. The primary (east) façade and the west elevation each feature approximately 29 bays. The north elevation has one bay. The south elevation is directly adjacent to the Connecting Shed. The walls of the east elevation are covered with non-original corrugated and flat metal sheeting. Large non-historic period conduit, rigging, and other industrial equipment components are attached to the walls. Non-original safety barriers, metal corner braces, and post bollards have been added near bay corners. None of the wall surfaces indicate evidence of historic-period signage notable in historic photographs (refer to Attachment D).

The north and west elevations have similar characteristics and alterations as the east elevation. These similarities include non-original metal corrugated sheeting wall covering and non-historic period conduit, rigging, other industrial equipment components, safety barriers, metal corner braces, and post bollards, which have been added near openings and corners. The west elevation features a single long awning of corrugated metal sheeting that is supported by steel truss bracing. The awning runs the length of the building, providing cover for a raised concrete loading dock.

Wharf Office

The Wharf Office, designed by Albert C. Martin, was built in 1924 and is a Utilitarian Industrial-style wharf office (refer to Attachment B for photographs). It occupies the northwest corner of the subject property and has an east-facing orientation. It is two stories with a rectangular plan. The resource has undergone some alterations to

accommodate the changing needs of the facility. The building features a side-gabled roof covered with composite sheet. Distributed across the roof ridge are approximately seven vents and a hatch or sunroof, all visible in historic photographs (refer to Attachment D). The roof features a plain parapet that is stepped on the south and north elevations and topped with a simple cornice. Mounted on the parapet are non-original cameras and spotlights. A simple cornice wraps around the building below the parapet.

Fenestration on all elevations includes large original multi-pane industrial metal-framed windows with hopper panels near the center of most. They are generally arranged in groupings of three. Many of the windows contain non-original air conditioning units that are supported on metal platforms with metal braces. Two fixed, wood-framed windows are located on either side of the northernmost entrance of the east elevation. One of the panes has been in-filled with wood. The walls of the Wharf Office no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers the parapet and corrugated metal sheeting covers the walls below the parapet. Numerous tracks of non-original conduit, piping, and other industrial equipment are attached to the walls.

The primary (east) façade has three entries, of which only the northern entry is original. The two southern entries are additions to the building and are filled with single industrial metal doors with one pane. The southernmost entry is covered by a non-original metal security door. The original entry (the northernmost entry) is filled with a wood-framed door with a single light. An original awning protrudes from the wall above the entry. A non-original awning extends over one of the first-story windows.

The south elevation has two original entries: one centered on the first story and one centered on the second story, the latter of which is reached by a metal staircase that replaced an original staircase. The entries are filled with non-original single industrial metal doors with one pane. The north and west elevations have similar characteristics to the other façades but they have no entries.

Power Plant

The Power Plant, designed by Albert C. Martin, was built in 1923 and 1924. It is a Utilitarian Industrial-style steam power plant (refer to Attachment B for photographs). It occupies the center-north portion of the subject property. It is approximately two stories in height with an L-shaped plan. Due to changes in power generating technologies since 1924, the resource has undergone extensive alterations and upgrades. The building features a slightly barreled roof covered with composite sheet. Distributed across the rooftop are pieces of non-original electrical equipment, vents, piping, and two tall, narrow, metal steam stacks. The roof has a simple parapet on which numerous non-original conduit pipes, other pipes, security cameras, and lights are mounted on or behind.

Fenestration on all elevations includes large rounded, arched, metal-framed windows with two hopper panels near the center. A number of the locations where windows once existed have been in-filled and many of the remaining windows have been altered to accommodate pipes and other industrial equipment. The walls of the power plant building no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers the walls, which are beveled at the base. The retexturing is most apparent over the locations of in-filled windows. Seismic bracing bolts are visible on all the walls below the parapet. Evidence of disintegration of the plaster and concrete is visible on some walls.

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The power plant has a number of entries on the east elevation, including a non-original metal roll top door, a non-original single industrial metal door with a single pane, and a non-original double metal industrial door with two panes. Four windows have been in-filled on the east elevation. In addition, the original concrete stack adjacent to the east elevation is no longer present. A non-original sign is attached to the east wall and reads "Rio Tinto/Wilmington Operations." Non-original access ladders, conduit, other piping, lights, vents, and other utility equipment have been attached to the walls.

The north, west, and south elevations have similar characteristics and alterations as the east elevation. These similarities included a substantial amount of window in-fill (three windows in-filled on the north elevation and two windows in-filled on the south elevation), non-historic period stucco texturing on wall surfaces, and a significant level of alteration due to the installation of modern industrial equipment such as non-original access ladders, conduit, other piping, lights, vents, and utility equipment. A non-original metal structure connects the west elevation of the Power Plant to the adjacent Refinery Building to the west.

An electrical substation is located directly to the north of the Power Plant.

Bulk Storage Silos

The original portion of the Bulk Storage Silos structure was built in 1962 and 1963, with a later addition in 1979. It is a grouping of 16 tower silos, topped with an industrial building and featuring associated industrial equipment, such as pipes, tanks, railroad car loading bays, and conveyor belts (refer to Attachment B for photographs). The structure occupies the northeast portion of the subject property, adjacent to a railroad spur to the east.

The silos are arranged in two groupings: 12 silos on the north, which were first used in 1963 and which are arranged two-by-six; and four silos, which were a 1979 addition, are arranged in a T-shape, and are separated from the other grouping by a gap. The silos are constructed of reinforced concrete and feature cylindrical forms with flat roofs. The silos are approximately 100 feet in height and have approximately 30-foot diameters. The silos have ground-story entries that are filled with double metal industrial doors with single panes. Metal staircases are attached to the sides of each of the silos; the staircases lead to secondary entrances located approximately one-third up the side of the silos. Some of the silos also feature metal access ladders that extend from the ground level to the roof.

The two groupings of silos are attached via a rooftop industrial building, which has a narrow and long rectangular footprint. The building is centered on the roof of the Bulk Storage Silos structure, extending from one end to the other, bridging the gap between the two silo groupings. The industrial building is primarily one-story with some two-story attached small additions. The building has a gabled roof covered with composite sheeting, corrugated metal wall surface, and numerous windows and entries that connect to metal catwalks, stairwells, and other appurtenances such as industrial equipment, small sheds, and structures that are located on the rooftop of the larger silo structure. Conduit, large piping, and security lights are mounted on the walls of building.

A railroad car loading bay, constructed of metal and covered with corrugated metal sheeting, is attached to the structure at the ground-level on the east elevation. Vertical gravity silos and associated piping and equipment are mounted on the flat roof of the loading bay. The west elevation of the structure features numerous ground-level tanks, vertical gravity silos, and other related industrial structures, some mounted on steel frames. A covered

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conveyor belt clad in corrugated metal sheeting connects the structure with the rooftop of the Warehouse to the west.

Findings and Recommendations

The property was evaluated for its eligibility for listing in the LAHCM and CRHR. Currently, the property is not listed on either register. A DPR 523 series form was completed for the property (refer to Attachment E). The following evaluation was completed by Jeremy Hollins and Joel Levanetz; individuals who meet the Secretary of the Interior's Professional Qualification Standards in Architectural History and History (refer to Attachment F for professional qualifications).

LAHCM Criteria for Significance

LAHCM designation is reserved for those resources that have a special aesthetic, architectural, or engineering interest or value of a historic nature. The Cultural Heritage Ordinance establishes criteria for designation; these criteria are contained in the definition of a Monument in the Ordinance. A historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City of Los Angeles, such as historic structures or sites:

1. in which the broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified;

2. which are identified with historic personages or with important events in the main currents of national, state, or local history;

3. which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction;

4. which are a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

A proposed resource may be eligible for designation as a LAHCM if it meets at least one of the criteria above.

LACHM Evaluation

LAHCM Criterion 1: The property was assessed under LAHCM Criterion 1 for its potential significance as a property in which the broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of broad trends of the nation, state, or community. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus

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products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was not an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

According to historical research, the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax Wilmington Facility does not reflect or exemplify broad cultural, political, economic, or social history of the nation, state, or community. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 1.

LAHCM Criterion 2: The property was assessed under LAHCM Criterion 2 as a property which is identified with historic personages or with important events in the main currents of national, state, or local history.

Historical research revealed that the property does not appear to be directly associated with the significant contributions from the life and career of an individual, such as Francis Marion Smith, who may have made important contributions to the history of the United States, California, or Los Angeles County. In fact, Smith resigned from Borax Consolidated in 1914, ten years before completion of the facility. Other individuals associated with the property, such as facility supervisors, were not revealed to have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 2 for association with historic personages.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of a significant event. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was not an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point. According to historical research, no important events occurred at its location. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 2 for association with important events in the main currents of national, state, or local history.

LAHCM Criterion 3: The property was assessed under LAHCM Criterion 3 as a property which embodies the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction.

To determine its architectural significance, the U.S. Borax Wilmington Facility requires evaluation as individual buildings designed in the Utilitarian Industrial-style, as well as individual components to a potential historic district. Based on historic research and field survey, the U.S. Borax Wilmington Facility does not appear to

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possess distinctive characteristics of a significant Utilitarian Industrial design. While the plans for the U.S. Borax Wilmington Facility depict several characteristics typical of the Utilitarian Industrial-style typical in California in the 1920s, the property, in its current form, lacks the majority of these distinctive architectural characteristics and its architectural integrity has been significantly compromised. Presently, many of its large multi-pane windows have been in-filled. The non-historic period conduit, ventilation, and industrial equipment added to the facility have obstructed and significantly altered historic-period materials. These alterations include the replacement of the original board-formed wall texture with a stucco exterior wall treatment as well as the modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment. The absence of these original designed features undermines the distinctive architectural characteristics of the U.S. Borax Wilmington Facility. Additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Also, the simple rectangular chimney was not depicted in the 1924 drawings and does not match the original design of the building. The modern alterations and upgrades to the refinery complex detract from its intended architectural character.

Further, while the facility was constructed using reinforced concrete construction method, the facility is a late example of this method of construction. In fact, the company had pioneered the method at the Alameda facility 32 years previously and at Bayonne, New Jersey 27 years before, and by 1924, the construction method was relatively common.

Given the lack of integrity and the numerous alterations to the U.S. Borax Wilmington Facility, the property no longer retains its character-defining features and does not embody the distinctive characteristics of a type, period, or method of construction. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 3.

LAHCM Criterion 4: The property was assessed under LAHCM Criterion 4 as a property which is a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

While the design of the U.S. Borax Wilmington Facility was undertaken by Albert C. Martin, a master architect, the property does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his major contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963). Moreover, since Martin drafted his plan for the refinery in 1923, large-scale changes to the property have undermined the architect's original design intent. Currently, non-historic features such as 100-foot-tall Bulk Storage Silos structure, major alterations to the buildings, and industrial equipment obscure Martin's contribution. Pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Therefore, although portions of the U.S. Borax Wilmington Facility were designed by Martin, the refinery is not a good representation of the master architect's work that influenced his age. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 4.

CEQA Criteria for Significance

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Generally under CEQA, a historical resource (these include built-environment and historic and prehistoric archaeological resources) is considered significant if it meets the criteria for listing on the CRHR. These criteria are set forth in PRC Section 15064.5 and are defined as any resource that:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

Aside from meeting a CRHR criterion, a potential historical resource must also retain its historic integrity. Historic integrity is the ability of a property to convey its significance, and is comprised of seven aspects: location, design, setting, materials, workmanship, feeling, and association. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance.

CRHR Evaluation

CRHR Criterion 1: The property was assessed under CRHR Criterion 1 for its potential significance as a part of a historic trend that may have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of a significant event associated with the trends or events that have made a significant contribution to the broad patterns of history. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

According to historical research, no significant events occurred at its location and the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax Wilmington Facility is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in the CRHR under Criterion 1 or to be considered a historical resource for purposes of CEQA.

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CRHR Criterion 2: The property was assessed under CRHR Criterion 2 for its association with the lives of persons important to local, California, or national history. Historical research revealed that the property does not appear to be directly associated with the significant contributions from the life and career of an individual, such as Francis Marion Smith, who may have made important contributions to the history of the United States, California, or Los Angeles County. In fact, Smith resigned from Borax Consolidated in 1914, ten years before completion of the facility. Other individuals associated with the property, such as facility supervisors, were not revealed to have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in CRHR under Criterion 2 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 3: The property was assessed under CRHR Criterion 3 for embodying the distinctive characteristics of a type, period, or method of construction, or representing the work of a master or possessing high artistic values.

To determine its architectural significance, the U.S. Borax Wilmington Facility requires evaluation as individual buildings designed in the Utilitarian Industrial-style, as well as individual components to a potential historic district. Based on historic research and field survey, the U.S. Borax Wilmington Facility does not appear to possess distinctive characteristics of a significant Utilitarian Industrial design. While the plans for the U.S. Borax Wilmington Facility depict several characteristics typical of the Utilitarian Industrial-style typical in California in the 1920s, the property, in its current form, lacks the majority of these distinctive architectural characteristics and its architectural integrity has been significantly compromised. Presently, many of its large multi-pane windows have been in-filled. The non-historic period conduit, ventilation, and industrial equipment added to the facility have obstructed and significantly altered historic-period materials. These alterations include the replacement of original board-formed wall texture with a smooth stucco exterior wall treatment as well as the modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment. The absence of these original designed features undermines the distinctive architectural characteristics of the U.S. Borax Wilmington Facility. Additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Also, the simple, rectangular chimney was not depicted in the 1924 drawings and does not match the original design of the building. The modern alterations and upgrades to the refinery complex detract from its intended architectural character.

Further, while the facility was constructed using reinforced concrete construction method, the facility is a late example of this method of construction. In fact, the company had pioneered the method at the Alameda facility 32 years previously and at Bayonne, New Jersey 27 years before, and by 1924, the construction method was relatively common.

While the design of the U.S. Borax Wilmington Facility was undertaken by Albert C. Martin, a master architect, the property does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his major contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963). Moreover, since Martin drafted his plan for the refinery in 1923, large-scale changes to the property have undermined the architect's original design intent. Currently, non-historic features such as 100-foot tall Bulk Storage Silos

structure, major alterations to the buildings, and industrial equipment obscure Martin's contribution. Pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Therefore, although portions of the U.S. Borax Wilmington Facility were designed by Martin, the refinery is not a good representation of the master architect's work.

Given the lack of integrity and the numerous alterations to the U.S. Borax Wilmington Facility, the property no longer retains its character-defining features and does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values. Therefore, the property does not appear to be eligible for listing in the CRHR under Criterion 3 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 4: The property was assessed under CRHR Criterion 4 for the potential to yield or likelihood to yield information important to prehistory or history of the local area, California, or the nation.

The U.S. Borax Wilmington Facility does not appear to have the potential to yield important information about the development of borate refining or the Port of Los Angeles that is not readily available and presented above. Therefore, the property does not appear to be eligible for listing in the CRHR under Criterion 4 or considered a historical resource for purposes of CEQA.

For a property to be eligible for listing in the CRHR, it must also retain its historic integrity in addition to meeting one of the CRHR criteria. The CRHR traditionally recognizes a property's integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. Though the facility does not meet the criterion for eligibility to the CRHR, the following summarizes its historic integrity analysis:

Location is defined as the place where the historic-period property was constructed or the place where the historic event took place. The subject property has not been moved; therefore, it retains its integrity of location.

Design is defined as the composition of elements that constitute the form, plan, space, structure, and style of a property. The form, plan, and space of the property have been altered by several additions and different periods of development. While some of the property's design features remain (such as some stepped parapets, cornices, and several rectangular capitals) the form, plan, space, and structure have been significantly compromised as a result of upgrading and adapting the facility to new refining technologies.

Setting is defined as the physical environment of a historic-period property that illustrates the character of the place. The refinery was built in an industrial port area of Los Angeles. Currently, the property retains its setting. Due to several episodes of development and re-development, it does not retain the setting associated with the exponential growth of the port in the early 1900s following the opening of the Panama Canal.

Materials are defined as the physical elements combined in a particular pattern or configuration to form the historical resource during a period in the past. Many of the original materials have been altered or removed, such as a decorative wall features and board-formed concrete textured walls. Also, the addition of new industrial equipment and structures such as the Bulk Storage Silos has introduced materials not historically associated with the U.S. Borax Wilmington Facility.

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Workmanship is defined as the physical evidence of the crafts of a particular culture or people during any given period of history. The property does not represent physical evidence of the crafts of a given period of history.

Feeling is defined as the quality that a historic-period property has in evoking the aesthetic or historic sense of a past period of time. The property in its present form does not evoke a historic sense of feeling, but rather that of a relatively recently constructed refining facility.

Association is defined as the direct link between a property and the event or person for which the property is significant. While the property is associated with Albert C. Martin, the property in its present form does not convey a direct link with the prominent architect.

Overall, while the facility has retained some aspects of historic integrity, the property does not appear to meet any of the CRHR or LAHCM criteria, and therefore is not considered a historical resource for purposes of CEQA.

Please feel free to contact us at (858) 812-9292 if you have any questions regarding this memorandum.

Sincerely,

Jeremy Hollins, Project Manager, URS Joel Levanetz, Architectural Historian, URS

Attachments

Attachment A – Property Area Maps
Attachment B – Property Photographs
Attachment C – Records Search Results
Attachment D – Historic Research
Attachment E – DPR 523 Series Form
Attachment F – References Consulted and Professional Qualifications

Attachment A

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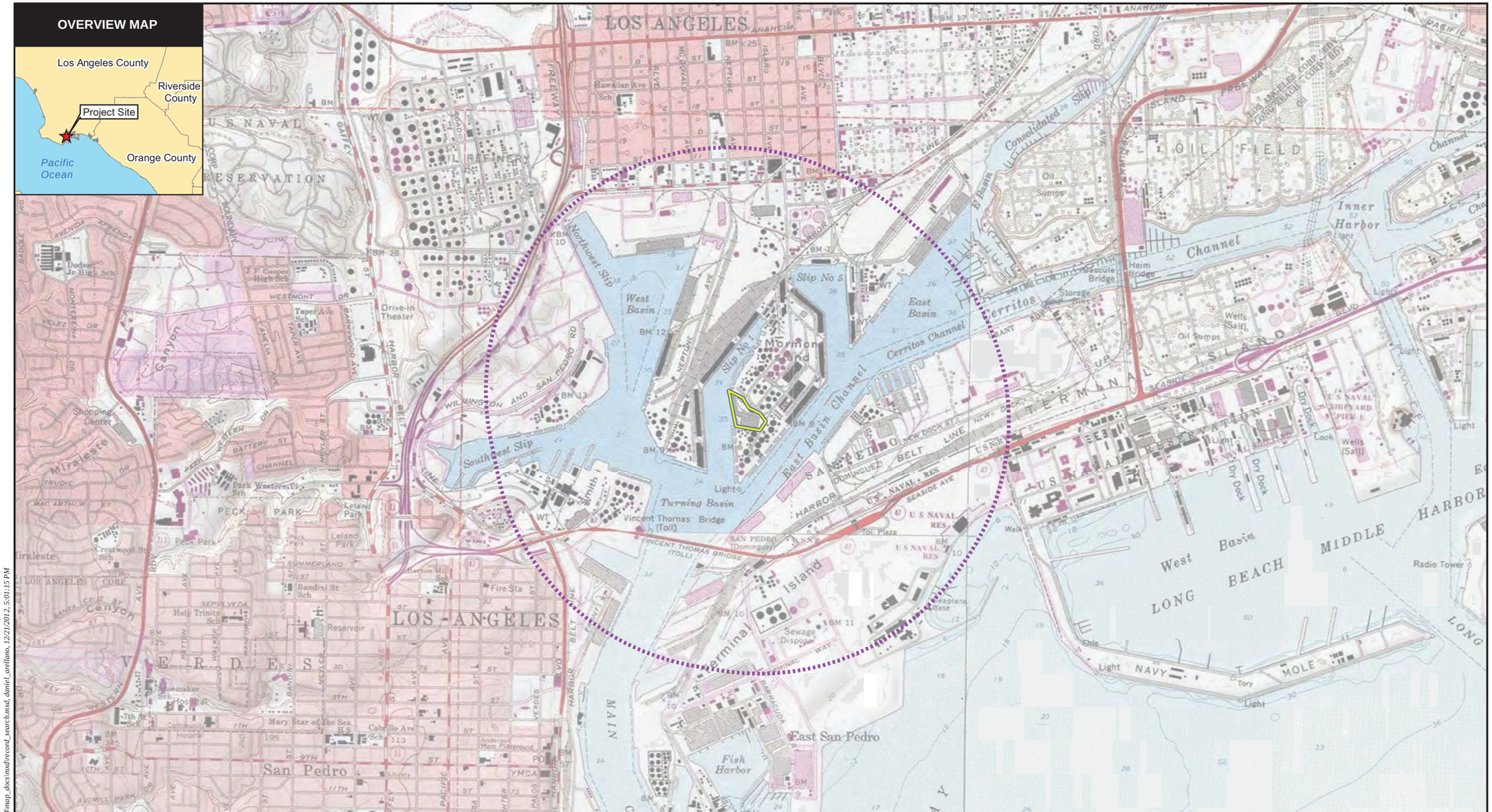
OVERVIEW MAP
Los Angeles County
Riverside County
Project Site
Orange County
Pacific Ocean
LOS ANGELES
U S NAVAL RESERVATION
OIL FIELD
Inner Harbor
Channel
Slip No 5
West Basin
East Basin
Cerritos Channel
Slip No 1
Mormon Island
Northwest Slip
Southwest Slip
East Basin Channel
Turning Basin
Vincent Thomas Bridge (Toll)
Terminal Island
U S NAVAL RES
Toll Plaza
Sewage Disposal
Fish Harbor
East San Pedro
West Basin
LONG BEACH
MIDDLE HARBOR
MOLE
NAVY
Radio Tower
Fire Sta
Reservoir
Holy Trinity Sch
Mary Star of the Sea
Cabrillo Ave Sch
Anderson Mem Playground
Peck Park
Leland Park
Bandini St Sch
Bacton Hill Sch
Dodson Jr High Sch
J P Cooper High Sch
Taper Ave Sch
Drive-in Theater
Shopping Center
Clark Western Flr Sch
Crestwood St Sch
Shoemaker Sch
Hospital
Canyon
Miraleste
PECK PARK
SAN PEDRO
LOS ANGELES
VERDES
Oil Sumps
Heim Bridge
Storage Bldg
Wells (Salt)
Dry Dock
Light
Tory
Ehle
Wharf
Walk
Pipeline
Base
Harbor Blvd
Seaside Ave
New Dock St
Belt Line
Ferry
Barracuda
Main
Harbor
Freeway
Anaheim
Ford
Pacific
Island
Seaside
Channel
Consolidated Slip
B Basin
Jetty
Breakwater
Boundary
Corp
Res
Park
Sch
Hospital
Playground
YMCA
Post Office
Airplane Base
Tower
Light
Oil Sumps
Wells (Salt)
Dry Dock
Lock
Tank
Bldg
Bridge
Slip
Basin
Channel
Harbor
Island
Terminal
Freeway
Boulevard
Avenue
Street
Drive
Road
Way
Place
Court
Terrace
Canyon
Park
Sch
Hospital
Playground
YMCA
Post Office

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Attachment B

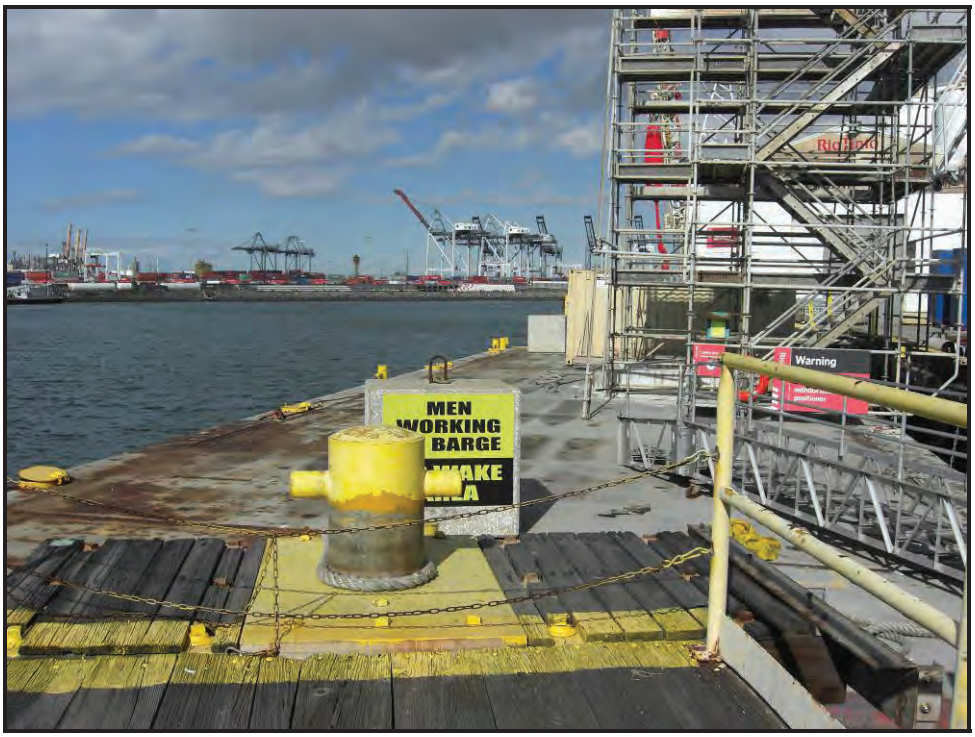
Looking northwest at a non-historic period storage silo.

Looking northeast at a grouping of non-historic period storage silos.

Looking southwest at the Connecting Building addition.

Looking south at the Connecting Building addition.

Looking north at the south elevation of the Connecting Building.



Looking north along the wharf area towards the south elevation of the Connecting Building.

Looking southeast from loading dock area of Warehouse Building.

Historic-period photograph looking southeast from loading dock area of Warehouse Building.

Looking southeast at detail of non-historic period addition to Warehouse Building.

Looking southeast at Warehouse Building.

Looking southwest at Warehouse Building.

Looking northwest at Warehouse Building.

Looking northwest at Wharf Office Building.

Detail of south east wall of Warehouse Office Building.

Looking west at the Power Plant.

Detail of in-filled window and non-historic period utilities added to Power Plant.

Looking east at alterations and non-historic period equipment added to Power Plant.

Detail of non-historic period metal roll-top door and window infill on north elevation of Power Plant.

Looking south at the north elevation of the Refinery Building with Power Plant in foreground.

Historic-period photograph of Refinery Building under construction (Courtesy of Chute, 1923).

Detail of in-filled windows and non-historic equipment on north elevation of Refinery Building.

Detail of in-filled windows and non-historic equipment on east elevation of Refinery Building.

Detail of in-filled windows and non-historic equipment on south elevation of Refinery Building.

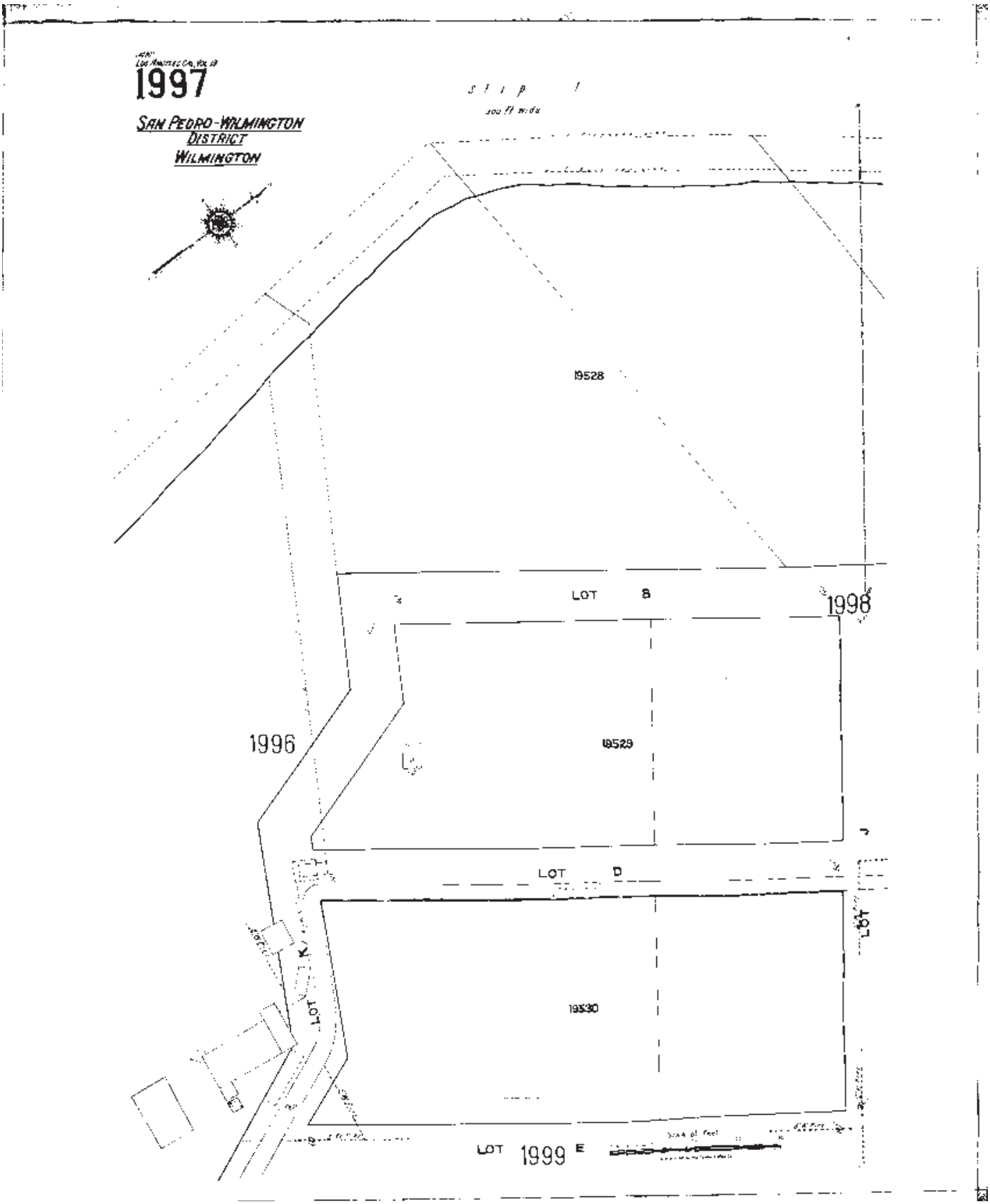
Detail of in-filled windows, non-historic equipment and addition on west elevation of Refinery Building.

Attachment C

CONFIDENTIAL INFORMATION WITHHELD

The content of Attachment C contains confidential cultural resources location information and is available for review upon request with URS Corporation. The distribution of this material should be restricted to those with a need to know. Cultural resources are nonrenewable, and their scientific, cultural, and aesthetic values can be significantly impaired by disturbance. To deter vandalism, artifact hunting, and other activities that can damage cultural resources, the locations of cultural resources should be kept confidential. The legal authority to restrict cultural resource information is in California Government Code 6254.1 (and the National Historic Preservation Act of 1966, as amended, Section 304).

Attachment D


1997
SAN PEDRO-WILMINGTON
DISTRICT
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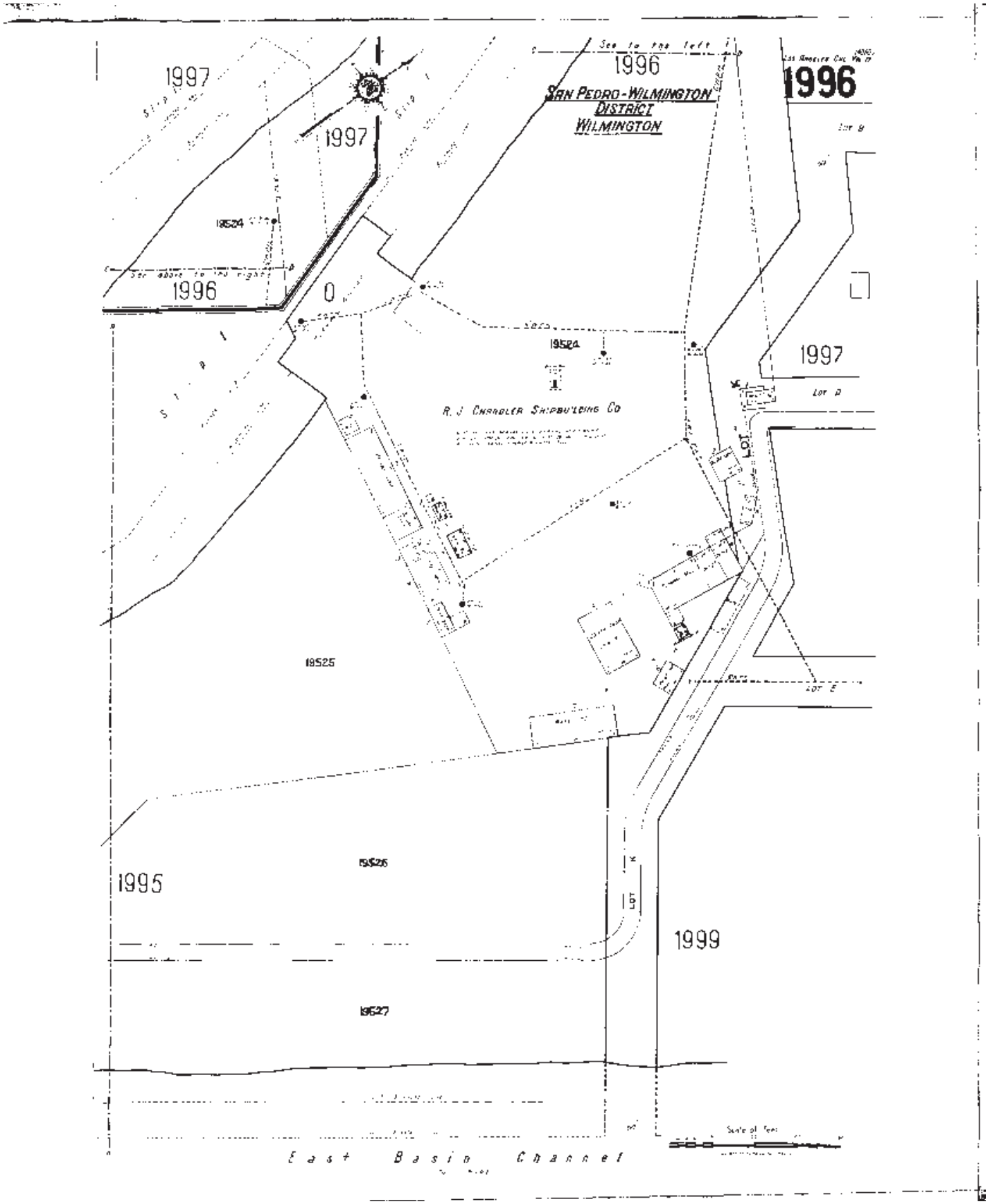
1997
1996
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SAN PEDRO-WILMINGTON
DISTRICT
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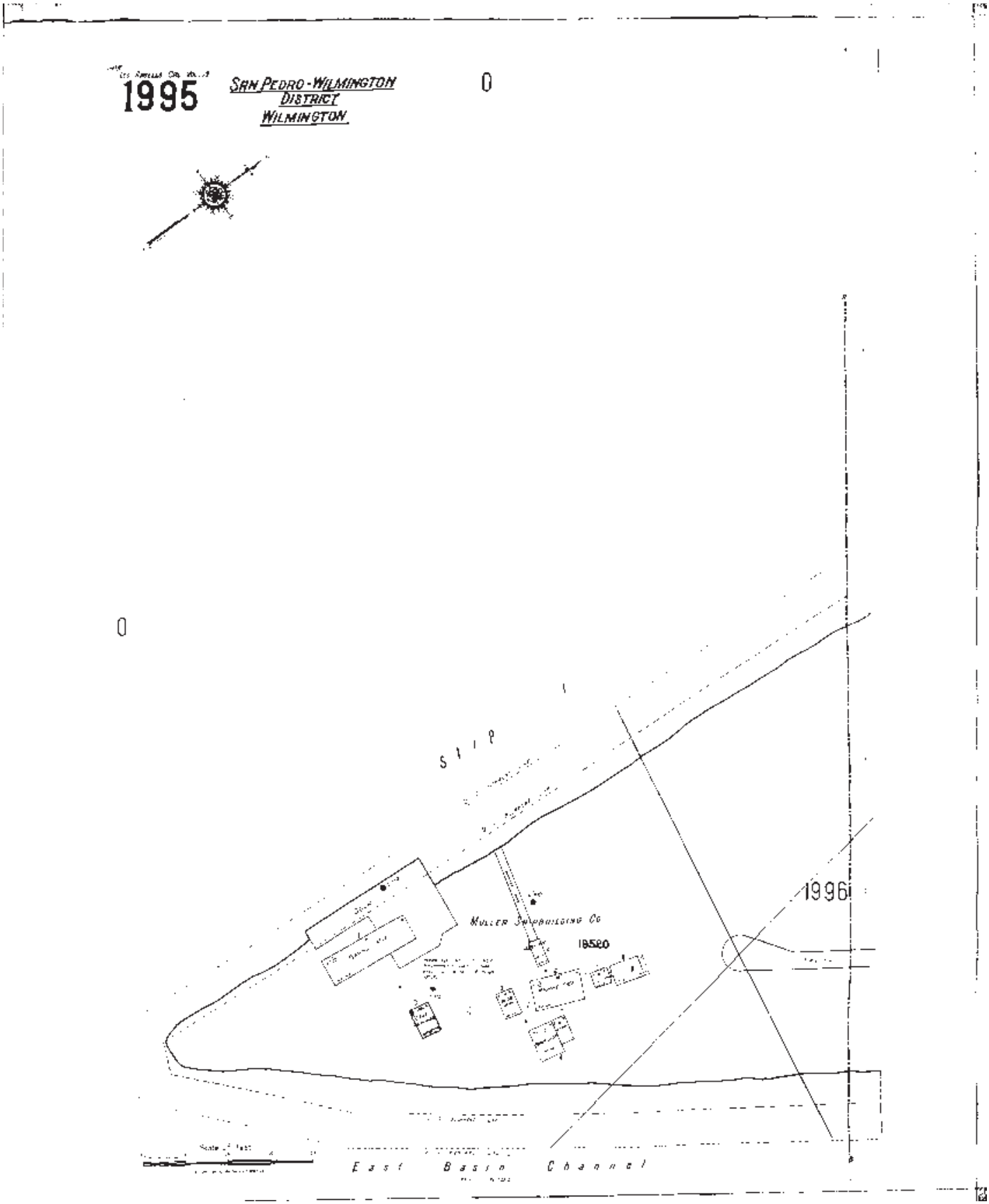
East Basin Channel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SLIP
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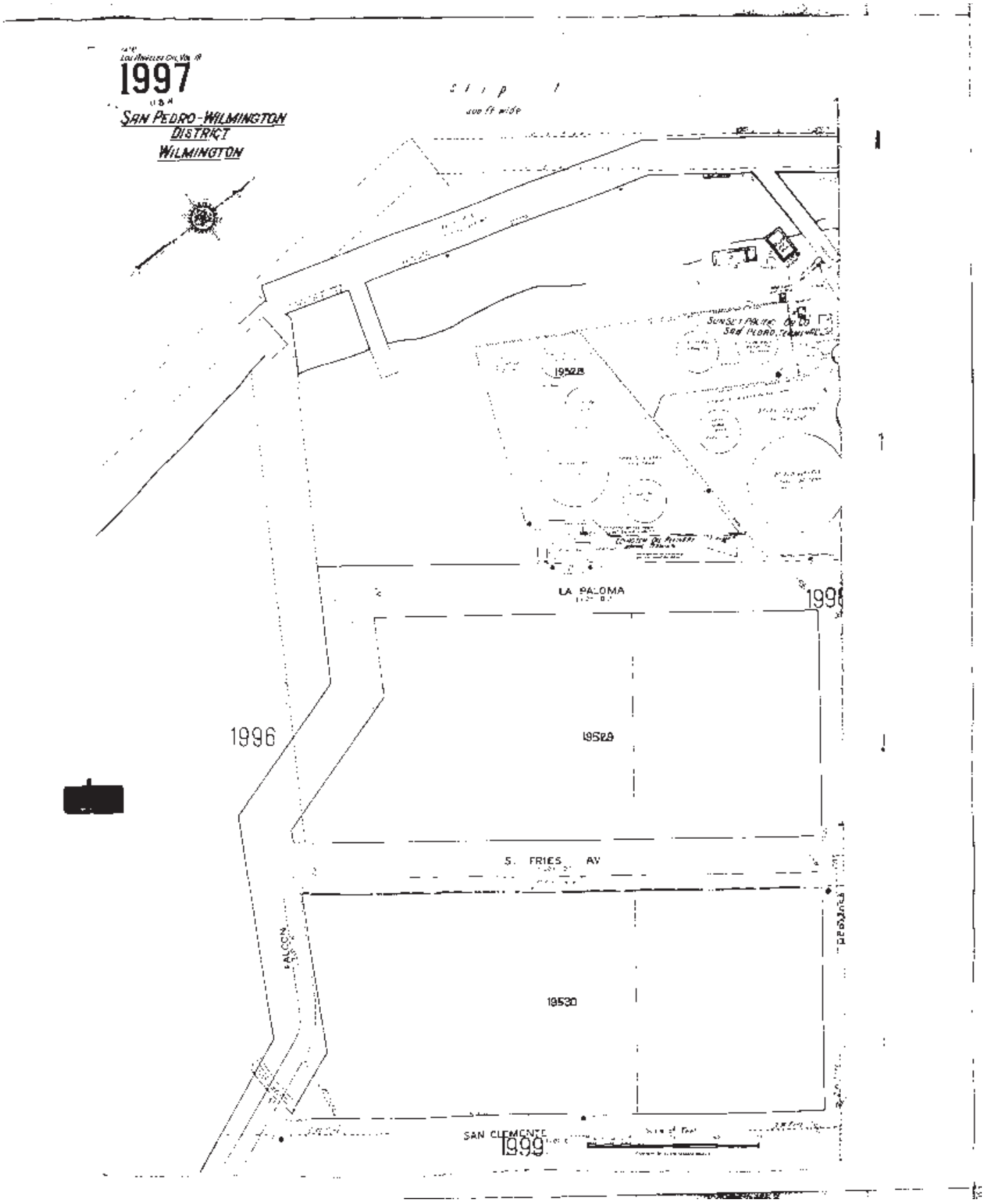
MULLER SHIPBUILDING CO
18520
East Basin Channel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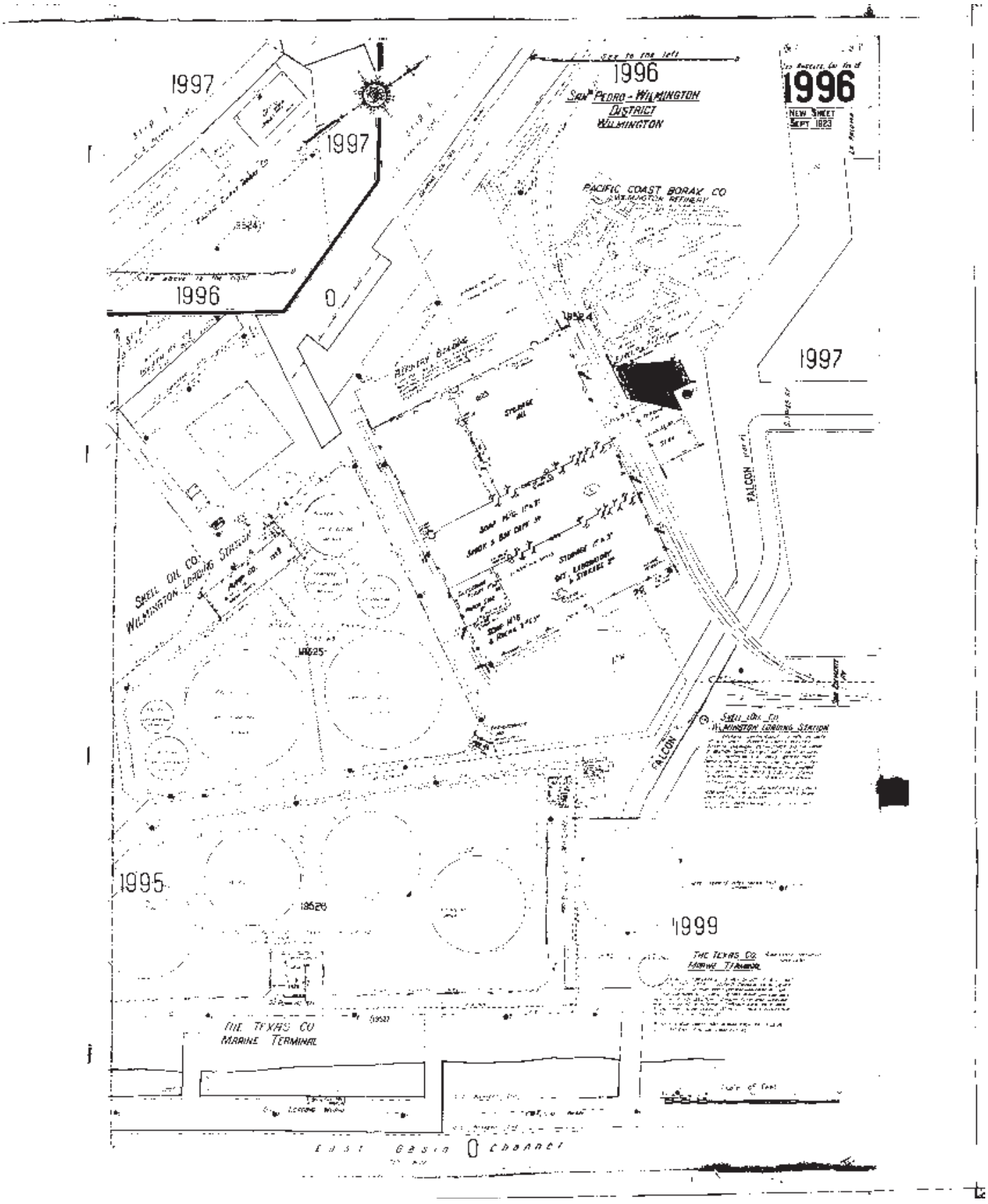
DISTRICT
WILMINGTON
LA PALOMA
1996
19528
S. FRIES AV
19530
SAN CLEMENTE
1999


1997
1997
1996
1996
SAN PEDRO - WILMINGTON
DISTRICT
WILMINGTON
NEW SHEET
SEPT 1923
PACIFIC COAST BORAX CO
1997
FALCON
SHELL OIL CO.
WILMINGTON LOADING STATION
1995
1999
THE TEXAS CO
MARINE TERMINAL
EAST BASIN CHANNEL

COPY
CODE # Wilm 0030
PUBLIC RELATIONS DEPARTMENT

October 29, 1949

Dear Ruth:

Here are a few answers to your questions as I recall them.

Mormon Island was, in the early days, an island in the Wilmington Lagoon. San Pedro was a village at the entrance to the lagoon and faced the sea. Point Firmin gave some shelter as did also the Palo Verdi Hills. Across from San Pedro lay the long sand island called Terminal Island and also a sharp rocky point called Deadmans Island. This is mentioned in Dana's "Two Years Before the Mast", which was written, as I recall it - about 1835.
A shallow channel and sand-bar formed the entrance to the lagoon and before dredging took place a depth of 2½ feet at low tide over the bar was recorded. Early dredging had created a ten foot channel into the lagoon and this was probably the situation when San Pedro and Wilmington started their fight for recognition as the deep water port of Los Angeles as against the proponents of Santa Monica for a site on the open sea to be protected by a break-water. That is an epic story all by itself as the railroads took sides and the Southern Pacific went all out for Santa Monica while the Salt Lake (later Union Pacific) chose San Pedro and built their railroad out onto Terminal Island. Dredging and improvement started shortly after the turn of the century and Capt. A. A. Fries, of the Army Engineers, later Major General, Chief Chemical Warfare Bureau, did much of the detail designing. Channels and slips were dredged to 33 feet and over at low water, and the dredgings were pumped behind walls and dikes on the mud flats and islands of the Lagoon to make very high land for wharf and terminal facilities. A Harbor Belt Line, operated by the city - served all railroads.

In this process Mormon Island was connected with the mainland and lost its identity as a separate land feature. As originally surveyed at the time, it was patented to Wm. Banning in 1880 it comprised 18 acres, and lay roughly north and south being several times longer than it was wide. The Banning subsequently divided the island property into three parcels - the north of 8 acres, the middle of 5 acres and the south of 5 acres.

The Borax Co. subsequently purchased the north parcel, the city purchased the middle parcel and leased to the Shell Oil Co. for a Marine Oil Terminal and I do not know the ultimate history of the South parcel. I believe it was still in Bannings ownership when I left in '32.

The name of Banning is closely associated with all harbor development and this family laid claim to considerable tideland areas which claim was contested by the City. A compromise resulted in Bannings getting a 30 year lease to considerable filled in tide lands, which became useful as harbor property but their title to Mormon Island was not contested at that time so far as I know. The 30 year lease has since expired. The Bannings were linked with early freighting and stage lines in Southern California - and Wm. Banning wrote a book on the subject. I believe their interest extended from Yuma to Los Angeles and Wilmington and perhaps north as well.

When I first became acquainted with the north tract of Mormon Island, shortly after World War I, there was an abandoned shipyard on the site. This had been known as the "Chandler Shipyard", and they had constructed wooden vessels there of considerable size during the war to help meet the emergency. Mr. Harry Chandler was the owner of the Los Angeles Times and a famous figure in Southern California history.

The yard had been in charge of Mr. Muller - an experienced ship builder of the old school. When I arrived in the area Mr. Muller was operating a small yard on the tract at the south end of the island, building yachts and other small boats. I believe much of the machinery had been moved from the Chandler yard to the new site.

The Borax site has several low wooden buildings on it and a ship's way. A long sloping area had been scooped out to provide the proper position for large timbers which were still in position. On these timbers or ways, the boats were constructed and then were allowed to slide into the channel at launching time.

Across the channel was a wharf at which the Yale or Harvard docked each morning after a run from San Francisco. These fast sleek boats were a popular means of overnight travel coastwise at that time, but long since have given way to the Limiteds and the airplane.

The Borax Co. was a pioneer, industrially, in the harbor. I do not recall that there were any other manufacturers, up to that time, who had recognized the benefits of the location except the Union Oil, who had a refinery near San Pedro, and two or three large lumber companies who had yards for handling the coast wise movement of lumber. A few large oil companies had established terminals for the movement of oil both import and export. There were two or three canneries in the area.

I do not know the date upon which the Borax Co. acquired the site, but when I first went to the scene it had already been decided to move the Alameda refinery there and instructions were given to provide ample space for enlargement or expansion.

3.

A monolithic concrete construction was decided upon as best suited to carry the weight of machinery required. The ground floor was constructed at freight car floor height to facilitate shipping. Two upper floors were provided and the roof was simply a third upper floor with full strength for future upward building if desired. Much equipment has since been placed on the roof. The building site was so selected that expansion at both ends was also possible, though I do not believe such expansion has yet been made.

Ground strength or bearing tests were made and we were convinced that a floating foundation would be inadequate for the great weights to be carried so clusters of piles were driven under the location of each building column and these piles were capped with concrete below permanent ground water level. Deterioration of piles does not take place where there is complete submersion in ground water.

The plant building has not been enlarged since the original construction although other structures have been placed on the premises. A wharf was built, soon after the main building was constructed and on this wharf a storage shed was built for the protection of goods to be shipped by water. A separate office building was placed on a small separate wharf at the north end. A casual observer would not notice that the small wharf is separate. The purpose was to avoid vibration and bumps when a large vessel, alongside the main wharf would pound the fender piles as waves caused it to move. I do not know what the present office arrangement is. Orginally we placed the plant office in the main concrete structure for the superintendent and his staff. The office on the wharf was originally occupied by the western Sales Department of the company and the Western Manager (Charles Dudley) and his staff together with the office of the auditor of the Tonopah & Tidewater R.R.

Buildings connecting the refinery with the wharf have since been built, so there is a considerable area under cover.

I should mention that the original construction also included a separate power plant, boiler plant and machine shop building and a towering concrete stack of 150 feet high which became a harbor landmark.

As a first stop in starting the plant, the borax and soap making machinery was moved from Alameda. Operations and capacity were gradually increased. Rasorite was developed at the Baker Mine and processes were modified to take care of this new material. A boric acid plant was installed. In the latter part of the twenties the Bayonne Plant of the PCB Co. was closed down and much of the equipment moved to Wilmington, and thereafter, all soap products were made there, and until some manufacturer started at Boron, all borax and boric acid products of the company as well.

4.

The city brought suit against the company claiming the original patent to Banning in 1880, to much of Mormon Island was faulty. They claim that the original lines of Mormon Island embraced too large an area. The suit was carried through the courts from the Federal District Court to the Supreme Court twice, and resulted in a complete affirmation of title in the Borax Co. I do not have dates in mind, but the suit was started in the late twenties and ended in the middle thirties.

Sincerely,

Tom

REPRODUCED FROM ORIGINAL IN THE LIBRARY SPECIAL COLLECTIONS UNIVERSITY OF OREGON

Tom Cramer

WILMINGTON REFINERY

Pacific Coast Borax Company.

The story of the Wilmington Refinery is a forty year part of the hundred year history of the borax business in America. The discoveries of crude borax or borax ores have been in areas that were remote. The distances from the sources to consuming markets were great. The crude material was either sodium borate, which was put through a purification process, or calcium borate, which underwent a chemical conversion.

Operations have alternated between those in which the refinery was installed at the source of raw materials and those in which the refinery was located two hundred to three thousand miles away. Refined borax was originally produced on the Nevada marshes, in Death Valley and on the margin of Searles Lake. These were the days of the long desert hauls by twenty mule teams. Colemanite, which is a calcium borate, was discovered in the Calico Mountains, near Daggett, and in the early nineties became the source of boron for the refinery at Alameda, on San Francisco Bay. One section of the Alameda refinery was the first large concrete structure erected in America. The Pacific Coast Borax Co, built another concrete building at Bayonne, New Jersey in 1897 to be used as a borax refinery and for the production of boric acid and various soap products.

The source of borate supply was later shifted to the Death Valley region and the company constructed a railroad from Ludlow to the Colemanite mine at "old Ryan" and on to Rhyolite and Goldfield.

The rails have been long since taken up, but the names of several stations on the Tonopah and Tidewater R. R. are still on the maps of California. Baker, Resor, Gerstley and Ryan were named after borax men of those days. By 1914 the mines were opened at "new" Ryan, overlooking Death Valley, and the Death Valley narrow-gauge was built. One of the original steam locomotives on this branch line is now on exhibition at Death Valley and the other is at the beach park in Carlsbad, New Mexico.

This was the situation right after the First World War: the mine was at Death Valley, the concentrator at Death Valley Junction, refineries at Bayonne and Alameda, and a packing plant and warehouse at Chicago. A powerful new economic force had recently come into being, - the Panama Canal. Cargos were moving through the Canal between the West and East Coast and European freighters were calling at Los Angeles Harbor. Low cost water transportation was available. It became obvious that a change was impending in the methods of getting borax products to market. Frank Jenifer, who was an official of the Tonopah and Tidewater, and later the president of Pacific Coast Borax Co., was charged with the responsibility of selecting the site for a new refinery, to be located on deep water and on a rail-water route from the mine to eastern and world markets. His choice was Mormon Island, at Wilmington, California.

Mormon Island , as its name implies, was once a very real island in the Wilmington Lagoon. This body of water was cut off from the ocean by Terminal Island. Phineas Banning was a pioneer of the Wilmington area. He owned boats and landings and freight

wagons. Goods destined to or from all of Southern California were handled by him through the small ports of San Pedro and Wilmington. Banning applied for and obtained a patent to Mormon Island in 1880 There were about eighteen acres within the lines of his patent. About thirty years later the Federal government started the survey and development of the San Pedro-Wilmington deep water harbor, under the direction of Corps of Engineers, U.S.A. The name of the officer in charge has been perpetuated as Fries Avenue, which ends at the refinery gate.

When deep-water channels were dredged and the mud and sand deposited to a thickness of five to fifteen feet over the remainder of the Wilmington Lagoon, Mormon Island became a part of the mainland, its west boundary facing the new Mormon Channel. Harry Chandler, the publisher, bought the north eight acres of the island from the Banning interests and during World War One had constructed ocean-going wooden ships there as a part of the war effort. It was this Chandler Shipyard site which the Borax Company purchased, together with the shop buildings and large timber ways.

Since the Alameda refinery was much closer to Wilmington than was the Bayonne plant, it was decided to first move the Alameda operations to the new location. The Alameda Engineering Staff, consisting of George Connell and Fred Beik went to work on designs which would incorporate the latest advances in borax production. H.P.Knight, who was in charge of the properties at Borosolvay and Alfred Newman, the Refinery Superintendent at Bayonne furnished valuable suggestions.

After the general outline of process space and storage requirements had been determined, architect A.C.Martin was retained to prepare drawings and specifications for a monolithic concrete structure. The building was to have great floor strength together with symmetrical interior dimensions and column spacing. The new refinery was to have three floors and a flat roof with a load capacity equal to that of the floors. Column strength to carry two additional floors was specified. The Company was following the concrete construction which it had pioneered thirty two years before at Alameda and which had proven itself at Bayonne. A power plant and stack were to complete the original Wilmington refinery structures.

Soil tests had demonstrated that the surface of the filled ground would not sustain a substantial concentrated weight. The engineers turned to piling as the answer. A large raft of logs was towed from the forests of the North and was moored in the channel. The Ledbetter Company moved in and drove the large logs, in clusters, under the locations of the future columns and other concentrated loads. The piles were cut off below the permanent ground-water line and concrete pads and pedestals were poured over them.

By the middle of June 1923 the general contractor, Davidson Construction, had started to put up construction towers to a height which would allow the distribution of fresh concrete by gravity to the rising refinery structure. The power plant and the hundred and fifty foot stack were also soon under way. The stack was topped out by the middle of November and had become a navigational landmark for the harbor.

Wilmington Refinery -5-

The water tower platform on the roof was finished by the last day of 1923 and this ended the heavy construction. The building, exclusive of foundations, was completed in six months, which was considered a good record for that time. Norman B. (Pat) Patten was A. C. Martin's building superintendent and was on the job during the entire construction period. G. H. Schulte of the same office was the structural engineer.

Fred Beik had his detail plans pretty well drawn for the piping and equipment by the late fall of 1923. As early as October the boilers in the power plant were already in place. By February 1924 the Sweetland press and Raymond powder-mill were ready. Equipment was being installed while the finishing touches on the building, such as windows, roofing and painting were still in progress. And now came a rather critical business, the transfer of operations from Alameda to Wilmington. This not only included bulk borax production but also soap products, Boraxo, glycerine and package goods. This had to be accomplished without inconvenience or delay in deliveries to customers. George Connell looked after the Alameda end of this project, which included dismantlement and shipment of all usable tanks, kettles and machinery. By late 1924 the transfer was complete.

The development of the Wilmington site included plans for a wharf and structures which would give the Company facilities for delivering cargos to freight vessels. During 1923 the bulkhead had been put in and the channel in front of the property dredged to a thirty five foot depth. A heavy rock rip-rap had been placed to protect the under-water slope of the land. With the completion of the refinery,

the wharf construction got under way. Another large raft of piling was floated in and the driving started in April. A Company headquarters office and a storage shed were built on the wharf. The office was placed on a small separate wharf so that freighters, bumping against the fender piles would not shake the building too much.

On November 1 1924 the Santa Paula took on the first cargo of Colemanite to move to the East over the Wilmington site.

Miscellany.

When it was time to move headquarters from San Francisco a number of the younger staff members came down by over-night boat. This was a popular means of travel and the Los Angeles dailies were in the habit of having reporters and photographers at the dock to interview and take pictures of the arriving celebrities. The coming of the Borax group was news-worthy. Articles about the large new plant in sight across the channel had frequently been in the papers. The party was photographed and notes were taken down. When they came to the dapper young office boy, he told the reporters that he was the General Representative and he received a top billing when the story appeared.

Conversation on top of the refinery during construction:

C. B. Zabriskie: "How tall is that stack, Tom ? "

"One hundred and fifty feet "

C. B. Z. " If you had remembered that the Bayonne stack is one hundred and fifty five feet you probably would have made this one a hundred and sixty "

R. C. Baker " We lowered the brick stack at our British works by over one hundred and fifty feet. "

I later consulted an engineer's hand-book and found the stack in question was about four hundred and fifty feet tall. I never found out whether this was before or after the lowering operation.

Wilmington Refinery -0-

Miscellany continued:

A number of operating men at the Alameda Refinery came to Wilmington. Most of them stayed on. George Connell and Lou Boyer can probably recall the full list, as they were both at the Alameda plant. Charlie Born, Jimmie Campion, Maurice Hallinan, Martin Campion, Filipelli, Bart Keville and his son were among them but there were others. It would be hopeless for me to try and recall the names of those who came to work in 1924 but a list would be most interesting, especially if they are still on the payroll. The office force from San Francisco could also be a part of the Refinery story, since they came directly to the office site on Mormon Island. George Connell can furnish the name of the filter press man at Alameda who ground borax-glass at Wilmington. Also, perhaps the glycerine operator. Johnny Seipp came down from Death Valley at an early date. I believe Sanda was a little later. I do not recall just when Bradley, Maynard and Boyd signed on. Jimmie Holtum and Bill Meyer can tell a lot. George will also remember whether some power plant help came along.

J. M. Cramer

June 24 1962

Thomas M. Cramer
Carlsbad, New Mexico

June 26 1962

Dear Nick:

I enclose some remarks regarding the start of the Wilmington refinery. There are several ways to handle this subject, and I have tried one of them. There is not much one can say about a concrete structure except to give its dimensions. But there is some sentiment in the fact that the story of concrete industrial buildings in America starts with the Alameda Refinery and I do not recall reading the reading about many large chemical plants of this type started after 1930 . A waterfront property cannot be utilized to its maximum potential without adequate warehouse space and, in the case of multi-storied buildings, this requires great floor strength. About thirty years ago engineers started to design self-supporting chemical equipment and then putting a roof over it.

At Carlsbad we went to a much lighter construction. No interior warehouse space was provided, but we still stayed with floors since we looked forward to possible changes in the process. The dissolver building erected in the early forties went all the way to the "cover only" design. A leap forward was made when power plants were designed with all of the equipment now placed outdoors except the operating stations. Chemical plants have gone a long ways in this same direction.

It seems to me that there is some interest attached to the reasons why the refinery came to Wilmington and I have recited

some of the facts. It will be recalled that the law does not permit vessels under a foreign flag to carry merchandise in inter-coastal trade. Lack of competition in the Canal route ~~permitted~~ gave the railroads the opportunity to recapture the coast to coast traffic.

Young Dana in Two Years Before the Mast, describes conditions at Los Angeles Harbor in 1835. Deadmans Island was a feature of the shore-line when we moved to Wilmington - a point of high ground at the entrance to the Inner Harbor.

" This, they told me, was a worse harbor than Santa Barbara, for southeasters; the bearings of the headland being a point and a half more to windward, and it being so shallow that the sea broke often as far out as we lay at anchor. The gale from which we slipped at Santa Barbara, had been so bad a one here, that the whole bay, for a league out, was filled with the foam of the breakers, and seas actually broke over the Dead Man's Island."

The Southern Pacific had used every political and commerciel pressure to have Santa Monica chosen for development by the Federal government. That fight, which went on for years, was finally resolved in favor of San Pedro.

I have prepared an album of about 180 pictures of early Wilmington development, and have most of the negatives. However I want to enlist your aid in rounding up some more. I loaned you a set of negatives which, when fitted together, provided a panorama of the Chandler Shipyard soon after Borax purchased it. On another day I used up a roll of six negatives taking pictures of Baker,

Nick Kocklor -3-

Zabriskie, Chichester, Knight, Rasor and myself. I have two of these, taken at a pile-driver on the site. You may have borrowed two of these recently but of this I am not sure. The other two may have been in the Los Angeles for a long time. Three or four years ago I was asked to identify Chichester in an enlargement there. Another film shows a group in the shadow of a shed at the site: Corkill, Newman, Jenifer, Baker, Zabriskie, Knight and Rasor. All of these negatives are post-card size. Perhaps you could send me contact prints of any of these that can be conveniently located so that I con add them to the album. I expect to mail this album to you shortly for inspection and comment. I am also short one negative showing the sales department and others in front of the borax wagons and which was taken in December 1924.

Please tear this writing apart and ask George Connell and Harry Gower to correct, augment and delete. Some of the facts related may seem dreary to the reader but can serve a purpose in recording matters that might otherwise be overlooked or forgotten.

Sincerely

J. M. Cramer

Mr. Nick Kockler

Los Angeles

WILMINGTON REFINERY DATA

Plant Managers — Previous titles for this position were: Superintendent, Plant Superintendent, General Superintendent - the Plant Manager.)

Thomas M. Cramer	The first Superintendent. He came from the Alameda Plant, served: 1924 - 1930.
George A. Connell	The first Assistant Superintendent. Came from (1924) Alameda Plant, was promoted to Superintendent and served: 1930 - 1936.
Alfred Newman	Superintendent: 1936 - 1941
Maurice H. Pickard	Superintendent: 1941 - 1943
Patrick J. O'Brien	Superintendent: 1943 - 1948
Ronald V. Chettle	Superintendent through all titles listed above: 1948 - 1963. Then spent 14 months in Los Angeles, returned and served: 1964 - 1967
E. Dean Lemon	Plant Manager: 1963 - 1964
Ronald V. Chettle	As shown above.
W. G. Anderson	Plant Manager: 1968 - 1969
Locke B. Parish	Plant Manager: 1969 - 1974
James G. Hardy	Plant Manager: 1974 - 1981
David R. Wheeler	Plant Manager: 1981 - 1982
Robert F. Shaw	Plant Manager: 1983 -

Miscellaneous Information:

The transfer from the Alameda Refinery was completed in late 1924. The first shipment from the new Wilmington Refinery was made on November 1, 1924 ... this was a shipment of Colemanite to New York via the S.S. Santa Paula, Pacific Mail Steamship Company.

WILMINGTON REFINERY DATA - continued

This property is the only privately owned property in the Los Angeles Harbor. The size of the plant is: 8.6567 acres. This is a little less than half of the "true" Mormon Island which measured a little less than 18 acres.* Our fence line (waterside/Edgington/Falcon Street) shows the shape of the original island -- from the fence up to the fish cannery on Fries Avenue is filled-in land, but now shown as "Mormon Island." The property line between our plant and Shell Oil is about in the middle of the original island.

The Pacific Coast Borax Company was challenged by the Los Angeles Harbor Department in regard to their ownership of the property. They claimed it was part of the tidelands and sought possession as such. The Company protected itself by going to court and proving the property was a part of a "true" island, not tideland, and that the bill of sale was legal (from Phineas Banning ownership). One of the interesting ways the Company proved this point was by submitting results of core samples taken from our property -- they consisted of proof of flora and fauna, plus old nails, pieces of wood, etc. from an old boat yard that used to be located on the island; it is believed that the core samples were taken to a depth of about 30 feet. Pacific Coast Borax Company won the suit and a Consent Decree was entered which precludes further claim to the property.

Many improvements have been made to the process since 1924. The various departments within the building have been expanded, new products have been added, etc. A portion of the Plant was moved to Boron in 1957 when we switched to open pit mining. The largest expansion since building the Plant was the 30,000 tons Bulk Loading Terminal:

09/24/62	Ground broken for Bulk Terminal
05/13/63	First car of product from Boron loaded into silo.
11/28/63	First shipment from the Bulk Terminal to Rotterdam -- M.V. Johann Schulte (Volkswagen transport).
09/14/79	Ground broken for an additional 4 silos (73-7055).

Plant Manager's Secretaries
F. Brooks - 11/02/71 thru 07/02/80
E. Hall - 07/27/83 thru 12/05/86
D. Campbell - 12/08/86 thru 05/24/88
T. Long - 06/16/88 thru

* Maybe it would be better to say "about 18 acres" as my records not available at this time -- or check the Land Department for exact total acreage -- the Wilmington portion is exact.

Detailed Parcel Information Page 1 of 2

Records for this property are kept at the South District Office
("How frequently is the information updated on this site?" and other FAQs)

Property Information

Assessor's ID No.	7440-019-001
Site Address	300 FALCON ST LOS ANGELES CA 90744
Property Type	Commercial / Industrial
Region / Cluster	26 / 26818
Tax Rate Area (TRA)	00014

Click Here to View Assessor's Map

(Click Here to View Index Map)

Recent Sale Information

Latest Sale Date
Indicated Sale Price

Search for Recent Sales

2012 Roll Values

Recording Date	02/24/1993
Land	$1,951,895
Improvements	$1,912,695
Personal Property	$8,453,198
Fixtures	$10,149,377
Homeowners' Exemption	$0
Real Estate Exemption	$0
Personal Property Exemption	$0
Fixture Exemption	$0

Click Here for 2012 Annual Taxes

(I have a question regarding my property tax payment)

Estimate Supplemental Taxes

Property Boundary Description

FOR DESC SEE ASSESSOR'S MAPS*POR OF LOT 1 SEC 8 T 5S R 11W

Building Description(s)

	Improvement 1
Square Footage	99,000
Year Built / Effective Year Built	1945 / 1945
Bedrooms / Bathrooms	0 / 0
Units	0

	Improvement 2
Square Footage	235,358
Year Built / Effective Year Built	1923 / 1930
Bedrooms / Bathrooms	0 / 0
Units	0

	Improvement 3
Square Footage	1,026
Year Built / Effective Year Built	1963 / 1963
Bedrooms / Bathrooms	0 / 0
Units	0

	Improvement 4
Square Footage	41,285
Year Built / Effective Year Built	1924 / 1956

Detailed Parcel Information Page 2 of 2

Bedrooms / Bathrooms	0 / 0
Units	0
Improvement 5	
Square Footage	10,360
Year Built / Effective Year Built	1923 / 1954
Bedrooms / Bathrooms	0 / 0
Units	0

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NAS Alameda Historic District
Historic District Assessment and Historic Preservation Strategy
Alameda Point Preliminary Development Concept

I. INTRODUCTION

This report was prepared by Page & Turnbull at the request of the Alameda Reuse and Redevelopment Authority (ARRA). The purpose of this report is to describe the existing conditions present at the Alameda Naval Air Station (NAS Alameda) prior to its redevelopment as a mixed-use project area consisting of new market rate and affordable housing, commercial and light industrial facilities and public open space. This report will primarily concentrate on the relative significance of resources on the former naval air station, as well as provide a baseline level of information about NAS Alameda. Following the Introduction, Section II includes a brief description of NAS Alameda and discusses the proposed project. Section III summarizes the current historic status of NAS Alameda and Section IV discusses the history of the former base. Section V describes the historic district and character-defining features of its contributing buildings and structures. Section VI includes the historic preservation strategy. The report concludes with a Bibliography and Appendix including relevant bibliographic sources and support documents.

II. SETTING

NAS Alameda was constructed in the late 1930s and early 1940s on filled tidal lands and marshes on the western end of the City of Alameda, an urban island community of 72,259 people located near the geographical center of the San Francisco Bay Area. The former naval air station is bounded by Oakland Inner Harbor to the north, San Francisco Bay to the south and west and residential neighborhoods of Alameda to the east. The former base occupies 1,734 acres of dry land and 1,108 acres of submerged lands laying largely within the City of Alameda. There is also a small section of filled land and submerged lands lying within the City and County of San Francisco. Occupying a total of 2,842 acres, NAS Alameda is currently the fourth largest naval property in the San Francisco Bay Area **(Figure 1)**.

NAS Alameda was commissioned in 1940; two years of active dredging, filling and construction operations were required to convert a former Army airfield, civilian airport and municipal marina into the most important naval air station on the West Coast during the Second World War. The Japanese attacks on Pearl Harbor and other American bases and possessions on December 7, 1941 unleashed a major expansion at NAS Alameda. Serving as a logistical supply base, aircraft repair facility, seaplane base and homeport for dozens of aircraft carriers and other naval vessels during the Second World War and the Korean and Vietnam Wars, the base continued in operation until 1993 when it was included on a list of bases to be decommissioned by the Base Realignment and Closure Commission (BRAC). Following BRAC's decision to close NAS Alameda, the Navy began preparations to decommission the base and turn it over to the City of Alameda. Although the Navy withdrew in 1997, the former base has not yet been transferred to the City. Today, the former base consists of an airfield with two runways, a seaplane lagoon, nine massive hangars and millions of square feet of industrial, warehousing, administrative, residential and recreational space, much of it presently vacant.

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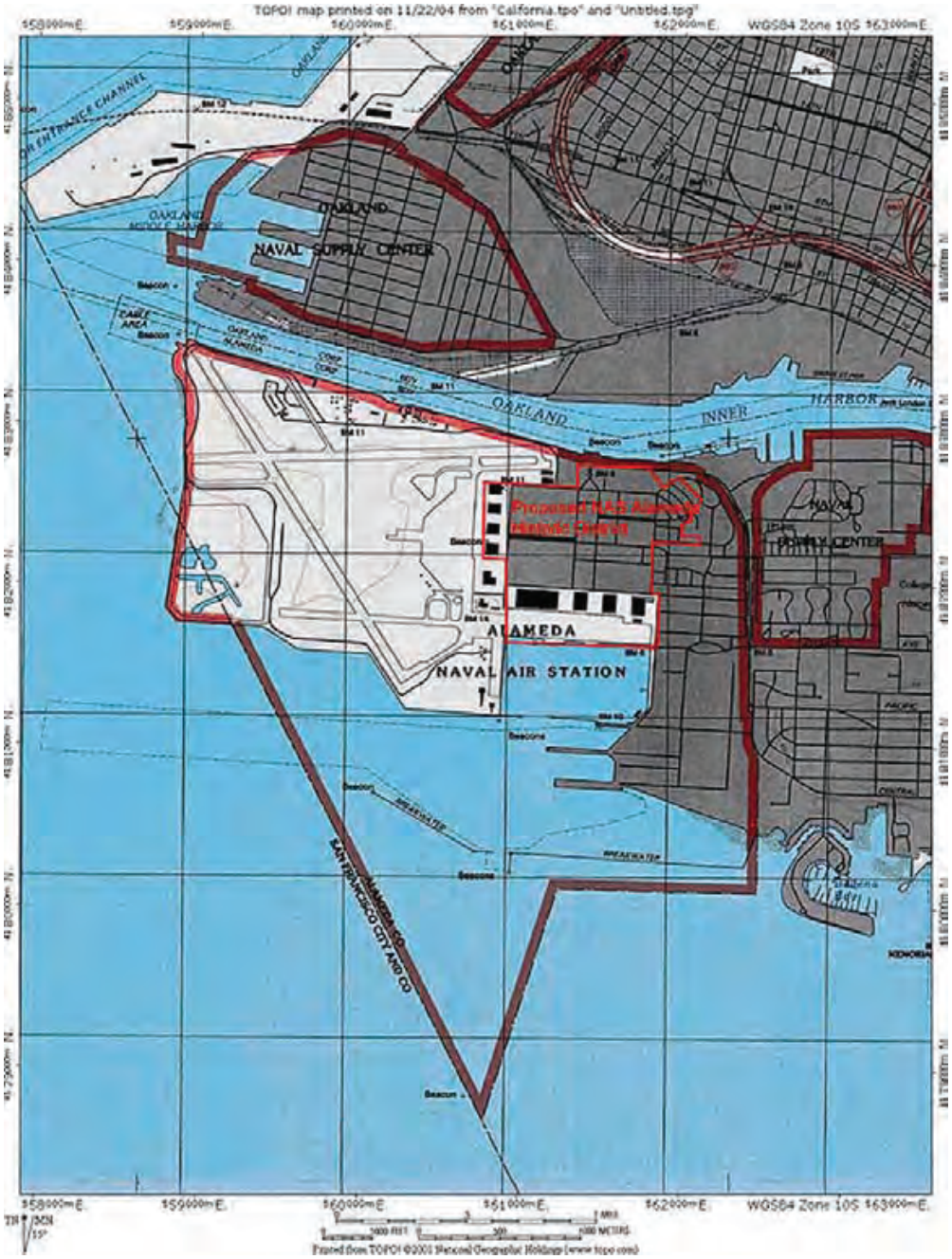

Figure 1. USGS Map showing location of NAS Alameda

III. CURRENT HISTORIC STATUS

Woodbridge Inventory
In 1992, prior to the closure of NAS Alameda, the Navy retained architectural historian Sally Woodbridge to survey all buildings on the base constructed prior to 1946 and assess their potential significance. Woodbridge determined that while no buildings appeared to be individually eligible for listing in the National Register, a potential historic district comprised of buildings, structures and landscapes dating to the pre-war and World War II periods existed at the core of the base. Consisting of eighty-five contributing buildings built between 1939 and 1945, the NAS Alameda Historic District (Historic District) was found to qualify for listing in the National Register under Criteria A (Events) and C (Architecture) **(Figure 2)**. The Navy and the California Office of Historic Preservation (OHP) concurred with the findings and OHP formally listed the district as being eligible for listing in the National Register.[1] The number of contributing buildings was revised to eighty-seven in a memorandum to OHP from the Navy, dated October 3, 1997 and acknowledged by OHP in a letter to the Navy dated November 5, 1997. In 2003, one contributor, Building 101, was lost in a fire, reducing the total number of contributors to eighty-six.

NAS Alameda Community Reuse Plan
In 1996, prior to the decommissioning of NAS Alameda, the City and ARRA adopted the *NAS Alameda Community Reuse Plan* (CRP), a "visioning" document designed to guide the City's incorporation of base into the city and its conversion to civilian use. Although this document covers a variety of topics, it devotes relatively little space to cultural resources, including historic structures or landscapes. The only reference to the Historic District occurs in the Open Space and Conservation Element sections, where a brief discussion concludes with seven policies for the treatment of buildings within the Historic District boundaries.[2]

1996 Advisory Council for Historic Preservation Memorandum of Agreement
In 1996, a Memorandum of Agreement (MOA) was signed by the City, the Navy, OHP and the Advisory Council for Historic Preservation (ACHP). This document authorized the Navy's proposal to demolish six contributing buildings within the Historic District.[3] Although all six were deemed to be contributors to the Historic District, Buildings 75A (Officers' Bathhouse), 115 (Ambulance Garage), 116 (Rehabilitation Center), 130 (Medical Laboratory), 135 (Community Facilities) and 137 (Recreation Storage Facility) were determined to be of lesser significance. All were constructed after 1942 and were not part of the original base design drawn up by the Navy Bureau of Yards & Docks. Furthermore, all but one (Building 75A) were classified by the Navy as "temporary" or "semi-permanent" buildings when they were constructed during the Second World War. As such, these temporary buildings were utilitarian structures built with lower quality materials and less substantial construction techniques. Constructed in a hurry to meet the immediate needs of wartime exigencies, temporary and semi-permanent buildings were not intended to be retained indefinitely once the War had ended. Nevertheless, as contributors, mitigation measures were required to lessen the effect of their demolition. Accordingly, the MOA required the recordation of each building according to Historic American Buildings Survey (HABS) standards. The completed documentation was submitted to OHP, the City and the Alameda Historical Society. To date, none of the vacant buildings have been demolished, although all have been recorded.

Guide to Preserving the Character of the NAS Alameda Historic District
In 1997, prior to decommissioning NAS Alameda, the Navy retained JRP Historical Consulting Services to develop Design Guidelines to facilitate the preservation and maintenance of contributing buildings and

[1] Sally Woodbridge, *Historic Architectural Inventory for Naval Air Station* (Alameda, 1992).
[2] EDAW, Inc., *NAS Alameda Community Reuse Plan* (San Francisco, 1996), pp. 5-14-5-16.
[3] "Memorandum of Agreement Submitted to the Advisory Council on Historic Preservation Pursuant to 36 CFR, Section 800.6," on file with the City of Alameda.

landscapes within the Historic District. Prepared as a guide to assist the Alameda Planning & Building Department and the Historic Advisory Board (HAB) in evaluating proposed redevelopment projects, the Design Guidelines identified important character-defining features and established five sub-areas within the Historic District: (1) Administrative Core, (2) Land plane Hangars Area, (3) Seaplane Hangars Area, (4) Shops Area and (4) Residential Area.[4]

1999 Advisory Council for Historic Preservation Memorandum of Agreement
In September 1999, a second MOA was signed by the City, the Navy, OHP and ACHP. This document required the Navy to complete the following tasks related to historic preservation prior to transferring the base to Alameda: (1) prepare and submit a National Register nomination for the Historic District, (2) donate or permanently loan the inventory of historic artifacts from NAS Alameda to museums in Alameda or the Bay Area and (3) follow the *Maintenance and Repair Guidelines for the Naval Air Station Alameda Historic District* extracted from the JRP Consulting Services technical report of April 1997.[5] To date, the Navy has not completed the National Register nomination, although recent conversations indicate that they have identified funds and personnel who will begin the process.

NAS Alameda Listed as a Historic Monument
In September 1999, the City passed Resolution No. 13139, listing the NAS Alameda Historic District in the City's Historical and Cultural Monument List.

Environmental Compliance
In 1999, the Navy completed a Final Environmental Impact Statement (FEIS) titled: *Disposal and Reuse of Naval Air Station Alameda and the Alameda Annex,* which was required before the base could be transferred to Alameda. Meanwhile, the City completed a Draft Environmental Impact Report (DEIR), titled: *Reuse of Naval Air Station Alameda and the Fleet and Industrial Supply Center, Alameda Annex and Facility*. Both documents identified the *NAS Community Reuse Plan*, adopted in 1996 and amended in 1997, as the preferred alternative for the reuse of NAS Alameda. Although the FEIS and DEIR concluded that the preferred alternative would have a significant effect on the Historic District, both documents stated that appropriate mitigation measures would reduce the impacts to a less-than-significant level.

On June 6, 2000, the Navy and ARRA signed a Lease in Furtherance of Conveyance (LIFOC) for NAS Alameda. By the terms of this agreement, ARRA leased the base from the Navy and took charge of maintenance and subleasing buildings to tenants. From this point on, all leases were to be granted under the terms of the City's Interim Leasing Program, in anticipation of a future master-planned redevelopment.

In November 2001, the City of Alameda issued a DEIR for a proposed amendment to the City's *General Plan*, which would result in the creation of the new *Alameda Point Element*. In March 2002, the City issued a new Notice of Preparation (NOP) for a second DEIR for the revised *General Plan Amendment* (GPA). The second GPA DEIR was finalized in March 2003 and published. On April 28, 2003, the GPA was considered for adoption by the City of Alameda Planning Commission and adopted by the Alameda City Council on May 20, 2003.

[4] Steven D. Mikesell, JRP Historical Consulting Services, *Guide to Preserving the Character of Naval Air Station Alameda Historical District* (Davis, CA: April 1997), p. 2.
[5] "Memorandum of Agreement Among the United States Navy, the Advisory Council on Historic Preservation and the California State Historic Preservation Officer Regarding the Layaway, Caretaker Maintenance, Leasing, and Disposal of the Historic Properties on the Former Naval Air Station, Alameda, California," on file with the City of Alameda, p. 2.

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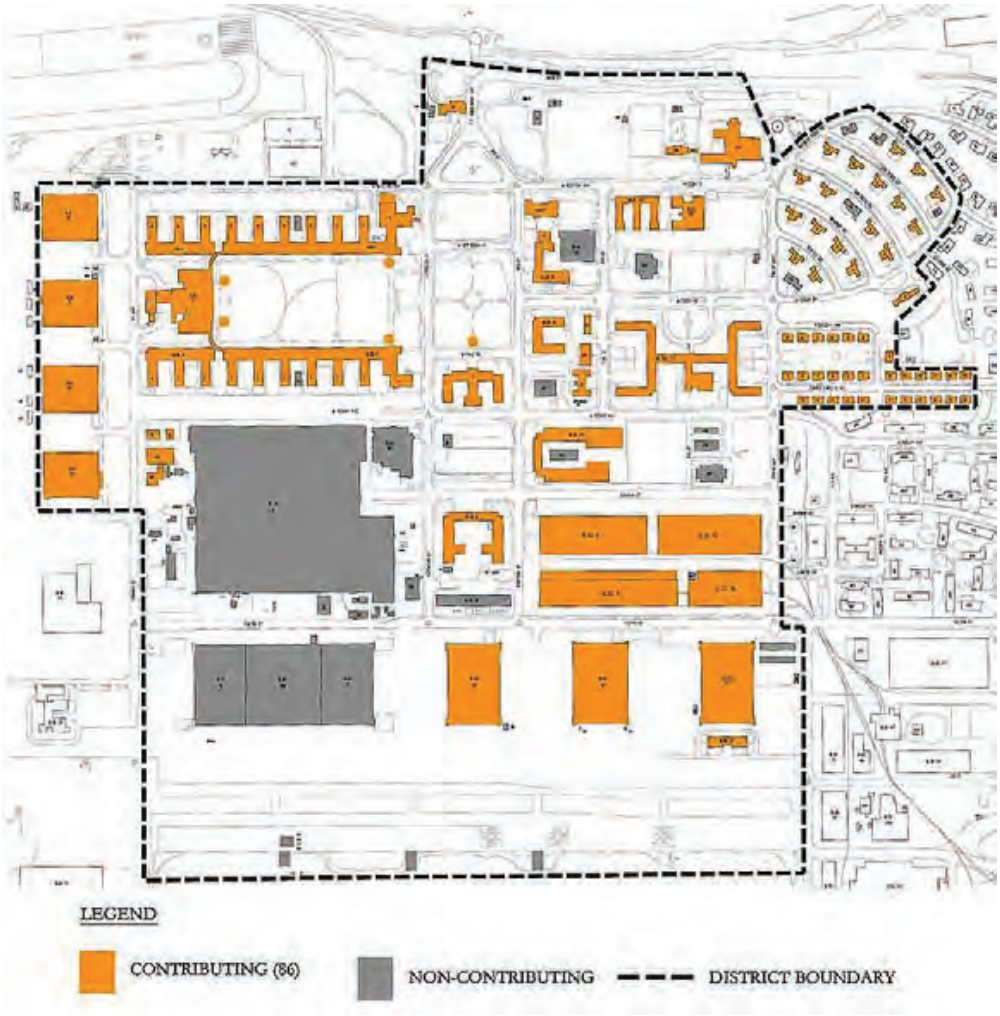

Figure 2. NAS Alameda Historic District Boundaries

IV. HISTORIC CONTEXT

Native American Period
Prior to European contact, the former marshlands on the western end of Alameda Island were occupied by a Penutian-speaking tribelet belonging to the larger Ohlone civilization. Although called the *Costeños* or "coast dwellers" by the Spanish, today their Native American descendents prefer the term Ohlone. Similar to many coastal California aboriginal groups, the Ohlone survived by fishing, hunting and gathering. Favored foods included fish, shellfish, waterfowl, acorns, roots, nuts, berries and other foods readily available in the marshlands, streams and foothills of the pre-contact San Francisco Bay Area. Based on the oral traditions of the tribe and data gathered by archaeologists from several large shellmounds on the margins of San Francisco Bay, it is likely that the ancestors of the Ohlone first inhabited the land surrounding San Francisco Bay between 5000 and 2000 BC. Ohlone occupation of the Bay Area appears to have been continuous until the beginning of the historic era, circa 1700 AD. After the arrival of Spanish missionaries and soldiers during the last quarter of the eighteenth century, the traditional lifestyle of the Ohlone gradually gave way to the influence of the Mission System and accompanying demographic changes brought on by disease and declining birthrates.[6]

Historically marshland and tidal flats, the site of NAS Alameda was utilized by the Ohlone as a rich larder where men would catch fish, hunt waterfowl and gather shellfish. Due to the fact that most of the land was at least partially submerged, it is unlikely that any permanent settlements were located within the boundaries of the former air station. However, permanent Ohlone settlements were not far away. Until it was quarried to provide surfacing for runways at the San Francisco Bay Airdrome, a prehistoric midden or refuse heap called Sather Mound was located approximately two miles southeast of NAS Alameda. Consisting of huge mounds of discarded shells, the middens were excavated in 1900 by an amateur archaeologist known as Captain Clark, who found them to contain flaked stone tools and burials. In addition to Sather Mound, five other known Ohlone sites have been identified in what is now the City of Alameda.[7]

European Contact: Spanish and Mexican Periods
The first permanent European settlements in the San Francisco Bay Area were established during the last quarter of the eighteenth century with the founding of Misión San Francisco de Asís and the Presidio of San Francisco in 1776. Two decades later, Misión San José was established by the Franciscans in what is now Fremont. During the ensuing decades, the Ohlone were rapidly dispossessed of their livelihoods, lands and freedom after being moved to the missions, where they were converted to Catholicism and taught European ways. Many died from exogenous diseases and others were killed when they attempted to escape and to return to their former way of life. Meanwhile, the Spanish and later Mexican governors of Alta California were granting vast tracts of land to retired Spanish soldiers and Mexican settlers. In 1820, Governor Don Pablo Vicente de Sola, the last Royal Spanish governor of Alta California, granted Rancho San Antonio to Sergeant Luís María Peralta. The 44,800-acre ranch included all of what is now Alameda and much of Oakland. In 1842, Peralta divided Rancho San Antonio among his sons. Antonio María Peralta, his third son, received 15,206 acres comprising the entire Alameda Peninsula, known then as Bolsa de Encinal.[8]

Early American Period
On February 2, 1848, the United States and Mexico signed the Treaty of Guadalupé-Hidalgo. Drawn up at the conclusion of the Mexican-American War, the treaty ceded much of northern Mexico to the United States. In exchange, the United States paid Mexico fifteen million dollars, assumed responsibility for three million dollars in claims against Mexico by American citizens and relieved Mexico of its monetary debt to the United States. Long before the ink dried on this document, American and European immigrants had been streaming into

[6] Busby et al., *Archaeological Survey and Site Evaluation: Disposal and Reuse, Department of Defense Family Housing, Novato, Marin County, California* (1995).
[7] Information on file at the Northwest Information Center, Sonoma State University, Rohnert Park, California.
[8] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 5.

California. In 1850, the year California became a state, William W. Chipman and Gideon Aughinbaugh purchased the section of Rancho San Antonio called Bolsa de Encinal from Antonio María Peralta. Bolsa de Encinal, which roughly translated means "pocket of oaks," was a tract of 1,960 acres comprising the majority of what is now the City of Alameda. The future site of NAS Alameda was part of this tract, although as partially submerged tidal flats and marshland, the land had little value.[9]

In 1853, the State Legislature created Alameda County out of parts of Contra Costa and Santa Clara Counties. Responding to a huge influx of American and foreign immigrants into the San Francisco Bay Area during the Gold Rush, Chipman and Aughinbaugh sold off sections of Bolsa de Encinal to speculators and real estate developers, who in turn subdivided the lands into farmsteads and residential lots. In 1854, the communities of Alameda and Encinal were incorporated, although neither was ultimately ratified by local election. However, due to poor access and lack of infrastructure, people did not flock to either settlement. Consequently, the peninsula remained sparsely populated throughout the 1850s and 1860s. On the other hand, the level terrain, rich soils and benevolent climate made Alameda ideal for pasture and horticulture. In addition, the presence of vast stands of native oaks made Alameda a popular location for commercial wood-cutting and charcoal manufacturing operations.[10]

Railroads Arrive at Alameda Point
In 1864, Alameda became infinitely more accessible to the wider world with the completion of the first leg of Alfred. A. Cohen's San Francisco & Oakland Railroad. The original alignment extended from what is now Versailles Avenue in eastern Alameda to Alameda Point, at the southwestern tip of the peninsula. The railroad was soon extended into Oakland via a bridge across San Leandro Bay and eventually on to Hayward. As the closest dry ground to San Francisco in Alameda, Alameda Point was selected by Cohen as the ideal location for railroad shops and a ferry wharf. From Alameda Point, ferries would connect rail passengers to San Francisco. Called "Cohen's Wharf," Alameda Point attracted a hotel, housing and several industries. Hoping to profit from land sales around his wharf, Cohen laid out a town in February 1868 and named it Woodstock.[11] Bounded by present-day Lincoln Avenue, Third Street, San Francisco Bay and Atlantic Avenue, Woodstock occupied a small section of what is now the southeastern corner of NAS Alameda.

Between 1868 and 1869, the community of Woodstock enjoyed a major building boom. In 1868, Pacific Coast Oil Works opened for business. Operated by Samuel Orr, the company was a predecessor to the Standard Oil Company.[12] For a brief time, Woodstock became the western terminus of the Transcontinental Railroad with the arrival of the first train from New York at Cohen's Wharf on September 6, 1869. Two months later, the Central Pacific Railroad, which had purchased the San Francisco & Oakland Railroad from Alfred Cohen in 1868, constructed a terminal at Prescott Street in West Oakland and removed the Transcontinental Railroad terminal from Cohen's Wharf.[13] Woodstock sustained another blow in 1873 when the Central Pacific re-routed the San Francisco & Oakland tracks from Alameda Point to Oakland via a new bridge spanning the Oakland Estuary just west of Webster Street. Cohen's Wharf was quickly abandoned and much of Woodstock reverted to agrarian uses.[14] The wharf and shops slowly deteriorated and collapsed but the remains of the facilities were encountered during excavations performed in 1938 during the construction of NAS Alameda.

In 1872, the City of Alameda incorporated, encompassing the entire peninsula historically known as Bolsa de Encincal, encompassing the communities of Encinal, Alameda and Woodstock **(Figure 3)**. According to the 1870 U.S. Census, the population of the new city remained very small, with only 1,557 residents. Nevertheless, major transportation projects undertaken during the 1870s set the stage for Alameda to eventually assume a

[9] *Ibid.*
[10] *Ibid.*, p. 6.
[11] *Ibid.*, p. 78.
[12] LSA Associates, *Alameda Point General Plan Amendment EI*R (Berkeley: 2002), p. 143.
[13] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 7.
[14] *Ibid.*, p. 71.

leading role in industrial, commercial and residential development in the decades to come. In 1874, the U.S. Army Corps of Engineers began dredging San Antonio Creek in anticipation of a proposed canal linking the Oakland Estuary with San Leandro Bay. As part of this work, the Corps built a "training wall" to guide the flow of San Antonio Creek.[15] This structure still exists north of NAS Alameda and is listed on the Alameda List of Monuments.

The completion of James G. Fair's South Pacific Coast Railroad from Santa Cruz to Alameda in 1878 restored railroad uses to Alameda Point. The right-of-way traversed the city from San Leandro Bay in the east, ran along Encinal and Central Avenues and terminated at a new pier near the decaying remains of Cohen's Wharf.[16] The new railroad began to attract industry back to Alameda Point. In 1879, Pacific Coast Oil Works built a kerosene refinery at Alameda Point near the southwest corner of what is now the intersection of Pacific Avenue and Main Street, within the present-day eastern boundary of NAS Alameda.

In search of improved access to San Francisco Bay, the South Pacific Coast Railroad eventually constructed a raised track bed along Main Street to the company's new Alameda Pier and Ferry Terminal at the northwestern corner of what is presently NAS Alameda. The construction of the causeway and ferry terminal in 1883 was the first major documented filling operation in the tidal marshland that would eventually become NAS Alameda. The causeway structure consisted of a double rock wall filled with mud and rubble, stretching over two miles into the Bay **(Figure 4)**. Constructed on top of the causeway were two tracks, a wagon road and a pedestrian walkway. Standing at the western end of the causeway was an 800'-long, 280'-wide pile trestle upon which was located a small railroad yard and massive terminal building. The terminal building measured 310' by 100' with two wings, each measuring 30' by 510' in plan. The Eastlake-style terminal featured electric lighting and was reported to have been "much handsomer an architectural sense than that of the Central Pacific (later Southern Pacific terminal in Oakland)."[17] The new South Pacific Coast pier (later called the Alameda Mole) was parallel to the Southern Pacific's Long Wharf on the other side of the Estuary in Oakland (later called the Oakland Mole). Both were much closer to San Francisco, cutting the length of the ferry trips between San Francisco and the East Bay by fifteen to twenty minutes. The new location also provided better access to deep water, solving the perennial silting problems that occured in the shallower waters off Alameda Point.

The old South Pacific Coast Railroad terminal in Alameda was destroyed by fire in 1902 and subsequently rebuilt by the Southern Pacific in 1903-04. After the 1906 Earthquake destroyed the San Leandro Bay trestle, the Southern Pacific bypassed the Alameda Pier and Ferry Terminal, reserving it exclusively for local service. In 1934, the terminal was retired following the completion of the San Francisco-Oakland Bay Bridge. No longer dependent on ferries, rail service on the bridge was provided by the Interurban Electric Railway (more popularly known as the Key System) on the lower deck until the 1960s. The Alameda Pier and Ferry Terminal were demolished when the Navy began constructing NAS Alameda in 1938.[18]

[15] *Ibid.*
[16] *Ibid.*
[17] Andy Fahrenwald, "A Short History of the Alameda Moles," *Newsletter of the Samuel Knight Chapter of the Society for Industrial Archaeology* (October 7, 1997), p. 7.
[18] Henry E. Bender and Thornton Waite, "Additional Depots Designed by D.J. Patterson," undated manuscript in the California State Railroad Museum.

Figure 3. Map showing northern Alameda County in 1878.
Courtesy Bancroft Library, UC Berkeley

Figure 4. Detail of Oakland Tribune Map showing Alameda Point, ca. 1885.
Courtesy Online Archive of California

Industrial Development at Alameda Point

Reflecting its growing importance as an industrial and residential community, Alameda re-incorporated as a Charter City in 1884. Between 1870 and 1880, the population grew from a little over 1,500 to 5,708. By 1890 the population had nearly doubled to 11,165. Residential development in the form of rows of speculator-built cottages and larger residences on the "Gold Coast" replaced the farmsteads along the principal rail corridors. Meanwhile, Woodstock, at the western end of the city, attracted increasing amounts of heavy industry, including refineries, potteries and shipyards. In 1885, the Standard Oil Company of California purchased the Alameda Oil Works and Pacific Coast Oil Company and consolidated these operations in a sprawling complex located immediately west of South Gate in what is now NAS Alameda **(Figure 5)**. The refinery remained in business at Alameda Point until Standard Oil moved its operations to Point Richmond in 1903.[19] In 1886, Standard Oil Company was joined at Alameda Point by N. Clark & Sons, a large commercial pottery at the corner of Fourth Street and Pacific Avenue in Woodstock.[20]

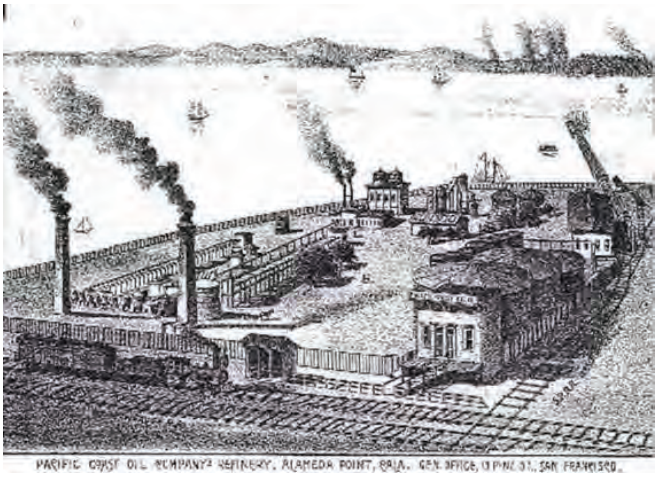

Figure 5. Pacific Coast Oil Refinery, Alameda Point, ca. 1890
Courtesy of Toxicspot.com

One of the most illustrious industries to relocate to Alameda Point was Pacific Coast Borax Company, constructed in 1893 by Francis "Twenty Mule Team" Smith, the famous Death Valley borax miner. Although far from his Death Valley mines, Smith chose Alameda Point for its convenient rail connections and access to San Francisco Bay. Smith constructed a huge wood-frame and concrete refinery complex on what is presently the site of the Engine Overhaul Shop (Building 360) and a wharf and coal storage warehouse on what is now the location of the Engine Test Cell complex (Building 14). When it was completed, Pacific Coast Borax Company was the largest borax refinery in the world and reportedly one of the first to make use of reinforced-concrete in the United States **(Figure 6)**.[21] The refinery was closed in 1930 after the exhaustion of the borax mines in Death Valley and the main four-story refinery building was subsequently dynamited. The Navy spared at least one building from the borax plant when they began grading and filling NAS Alameda in 1938. This building, Building 163, still exists as a small brick maintenance shed in the southeastern corner of the base.

[19] City of Alameda, *Alameda Historic Preservation Element* (Alameda: 1980), p. 143.
[20] *Ibid.*, p. 72.
[21] *Ibid.*, p. 73.

Despite the industrial boom at Alameda Point, most of what is now NAS Alameda remained undeveloped throughout the nineteenth and early twentieth centuries. First, ongoing title disputes over the submerged tidal flats and marshes between the Central Pacific Railroad (the successor to the South Pacific Coast Railroad) and the heirs of Antonio Peralta made investment in these lands risky. Even more daunting was the high cost of dredging and filling several thousand acres of submerged tidal flats. The 1897 Sanborn Fire Insurance Map, the earliest detailed insurance map to cover the area, shows almost no development in the area within what are now the boundaries of NAS Alameda. Meanwhile, the section of Alameda formerly known as Woodstock consisted of the Standard Oil Company Refinery, the acific Coast Borax Company complexes and a handful of wood-frame workers' dwellings along Pacific Avenue **(See Sanborn Maps in Appendix A)**.

Figure 6. Pacific Coast Borax Refinery, n.d.
Courtesy of the Bancroft Library, UC Berkeley

The dawning of the twentieth century witnessed many developments that contributed toward the evolution of Alameda into an important Bay Area community. By 1900, Alameda had a population of 16,464, making it the fourth largest city in the Bay Area and the eighth largest city in California. The completion of the Tidal Canal in 1902, which linked the Oakland Estuary with San Leandro Bay, provided additional Bay frontage for shipyards and other water-dependent industries in Alameda and Oakland. Incidentally, the Tidal Canal severed most of Alameda from the mainland, transforming the bulk of the community into an island in San Francisco Bay. Now known as the "Island City," the citizens and business leaders of Alameda anticipated continued industrial and residential growth in the upcoming decades. The 1906 Earthquake and Fire was a boon to Alameda. Fleeing the devastation in San Francisco, an influx of earthquake refugees boosted Alameda's population to 23,383 by 1910. Rows of neat Craftsman bungalows infilled much of the remaining vacant land in the city, converting the still quasi-rural community into a dense streetcar suburb of San Francisco.[22]

U.S. Naval Air Power

The history of naval aviation begins well over three decades before the founding of NAS Alameda. The Wright Brothers' successful flight at Kitty Hawk, North Carolina on December 17, 1903, launched the aviation revolution. Within a decade of this event, the value of the airplane as a military tool had become increasingly apparent to the United States military. The Navy was the first to create an aviation wing when it established the Naval Aviation Department in 1911. The Army followed suit in 1912 when it set up the Aviation Section within the U.S. Signal Corps. In 1914, the Navy opened its first naval air station at Pensacola, Florida.[23]

For most of the nineteenth century, the Navy focused its attention on threats coming from Europe and as a result, most Naval installations were located on the Atlantic and Gulf Coasts. The Spanish-American War of 1898 and growing American concerns over Japanese power in Asia following the Japanese victory in the Russo-

[22] United States Census, 1910.
[23] Department of the Navy, Naval Historical Center, *Chronology of Significant Events in Naval Aviation, Part I* http://www.history.navy.mil/avh-1910/PART01.PDF.

Japanese War of 1904-05, caused the Navy to shift its focus from Europe to the Pacific. Before 1900, the only naval installation of any consequence in California was Mare Island Naval Shipyard in Vallejo. In 1907, the Navy established the first Pacific Fleet and in 1922, the United States Fleet was again reorganized, with a Battle Fleet in the Pacific and a Scouting Fleet in the Atlantic. Most of the Navy's large battleships were moved to the Pacific to counter the growing threat from Imperial Japan. In the early 1920s, the Navy began looking for ports to house the growing Pacific Fleet; eventually San Diego, California; Bremerton, Washington and Pearl Harbor, Hawaii were selected. In 1921, the new headquarters of the Eleventh Naval District were established in San Diego, where they remained until they were moved to Pearl Harbor in 1940.[24]

Despite having established the first military aviation wing in 1911, Navy brass initially downplayed the significance of aircraft in combat. It was only after Billy Mitchell demonstrated the ability of an airplane to sink a battleship off Hampton Roads, Virginia in 1922 that the Navy began to seriously investigate the use of aircraft in future naval engagements. Not long after Mitchell's feat, the Navy began constructing its first aircraft carriers from converted colliers and battle cruisers. The first purpose-built aircraft carrier constructed, the *USS Ranger*, was commissioned in 1934. New land bases were established for naval aircraft as well. The earliest naval air station at Pensacola was joined in the 1930s by installations at Anacostia (Washington, D.C.); Norfolk, Virginia; San Diego; Pearl Harbor and the Panama Canal Zone.[25]

Alameda Point Becomes Center of Aviation in the Bay Area
Pioneering Bay Area aviators often dealt with significant challenges including frequent fog and the scarcity of level vacant land for take off and landing. The western portion of Alameda, on the other hand, was soon identified as being an ideal location for civil aviation, mostly due to its central location, abundant level land and infrequent fog-filled days. The first recorded flight at Alameda Point took place on Columbus Day, 1911, when aviator Weldon Cooke took off from Alameda Point to entertain President William Taft and other spectators gathered on the north side of the Estuary in Oakland.[26]

With its deepwater access and protected location, Alameda Point's potential strategic value attracted the attention of top military brass during the early twentieth century. Alameda Point's first defense-related industry materialized in 1916 when Bethlehem Steel Shipbuilding Company built a shipyard on the Estuary immediately northeast of what is now NAS Alameda. Several drydocks and manufacturing buildings still survive on the site, presently the location of the Alameda Ferry Terminal. A year later, during the height of the First World War, local Alameda business leader John J. Mulvany convinced the Navy that Alameda Point would be an ideal location for a destroyer base.[27] Mulvany's lobbying efforts resulted in a fact-finding investigation by a committee headed by Admiral James Helm. The Helm Report recommended that a supply station be built at Alameda. The Helm Report went on to argue that Alameda's sheltered location on a major bay, coupled with the presence of local industry and infrastructure, made the site compare most favorably with the Navy base at Hampton Roads, Virginia. With only one other major West Coast naval installation at San Diego, the Helm Report concluded that a new base at Alameda would fit in well with the Navy's plans to establish a chain of facilities stretching along the Pacific Coast from San Diego to Seattle.[28]

[24] U.S. Army Corps of Engineers Baltimore District, *National Historic Context for Department of Defense Installations, 1790-1940, Vol. 1* (Baltimore: 1995), pp. 81-82.
[25] *Ibid.*
[26] *History of U.S. Naval Air Station Alameda, California,* manuscript at the Pacific Branch of the National Archives, San Bruno (January 9, 1945), p. 2.
[27] *Ibid.*, p. 1.
[28] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.

Charles Lindbergh's famous transatlantic flight in 1927 unleashed a second and more sustained interest in commercial aviation in the United States, with hundreds of small private and municipal airfields opening in the

Figure 7. View of Alameda Municipal Airport, 1934.
Courtesy National Archives Pacific Region, San Bruno

wake of his flight. Opening in 1927, Mills Field in South San Francisco was the first major airfield constructed in the Bay Area. This airfield was eventually purchased by San Francisco and evolved into San Francisco International Airport. Oakland followed suit with the Oakland Municipal Airport. Alameda did not lag far behind and in 1928 Alameda Municipal Airport opened for business on filled land near the Alameda Pier and Ferry Terminal on the northwestern corner of the future NAS Alameda **(Figure 7)**. In addition to a short runway, the facility consisted of an administration building and three hangars. Curtis Wright Aviation was the principal tenant until Pan American Airways leased the facility to house the company's famous China Clippers.[29]

San Francisco Bay Airdrome

After witnessing the success of Alameda Municipal Airport, the Board of Regents of the University of California began making plans to construct their own airport on 458 acres of marshland that the university had acquired in western Alameda. The rectangular tract was bounded by Atlantic Avenue to the south, Main Street to the west, the Bethlehem Steel Shipbuilding Company yard to the north and Webster Street to the east. The San Francisco Bay Airdrome was intended to serve as a major regional airport and construction began in 1930. After draining the site, two runways—one 3,400' in length and the other 1,700'—were graded and paved with crushed oyster shells looted from prehistoric Ohlone shell middens on Bay Farm Island. The airport offices and the terminal were at first housed in a single 53,000-square-foot hanger constructed at a cost of $150,000. The San Francisco Bay Airdrome was initially very successful and in the early 1930s, a 160' addition was added to the original hangar and construction began on a second hangar. By the mid-1930s, however, the facility began to lose most of its major airline tenants to Oakland Municipal Airport and Mills Field. For the rest of the 1930s the San Francisco Bay Airdrome was primarily used by private aircraft. In 1941, the Navy condemned seventy acres of the airdrome bordering Atlantic Avenue for a housing project and later ordered the

[29] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 3.

abandonment of the rest of "America's first downtown Airport" to eliminate possible interference with operations at NAS Alameda.[30] Today, the site of the former airdrome is occupied by Alameda College and the new "Alameda Pointe" subdivision.

Benton Field
The third major airfield built at Alameda Point got its start in 1930 when the Army acquired a 128-acre tract of partially submerged land located between Alameda Municipal Airport and the San Francisco Bay Airdrome

Figure 8. 1938 map showing location of airfields at Alameda Point.
Courtesy of Richard Rutter

(Figure 8). On April 3, 1931, Captain Leander Larson arrived at the newly named Benton Army Air Corps Field to take charge of building the first military airfield at Alameda Point. On May 8, 1931, Captain Larson received authority to spend $500,000 to undertake the following work: drilling a well, driving piles prior to filling, constructing a levee, dredging and building a 200,000-gallon water tower and railroad spur.[31] Although it does not seem to have reached completion, Benton Army Airfield was substantially underway on the northern portion of what is now NAS Alameda when the Navy began to show renewed interest in the site. In fact, the water tower was reused during the construction of NAS Alameda and only demolished within the past decade.

Navy Acquires Alameda Point
Perhaps spurred on by interagency rivalry, in 1935, the Navy met with Alameda officials to inquire about the possibility of acquiring 1,000 acres of land near Alameda Point for a naval installation. In June 1936, Congress passed Public Resolution Number 19 authorizing President Franklin D. Roosevelt to accept the 929.34-acre Alameda Municipal Airport from the City of Alameda. A year later, on October 7, 1936, the Navy officially acquired the 1,075-acre Benton Airfield (including submerged lands) from the Army, bringing the total area of the proposed naval base to a little more than 2,000 acres.[32]

[30] K.O. Eckland, "San Francisco Bay Airdrome" http://www.aerofiles.com/SFBA/SFBA.html.
[31] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 4.
[32] *Ibid.*, p. 4.

Plans Drawn

The original peacetime plans for NAS Alameda called for a 1,000-man, 200-aircraft facility costing $13,500,000. In 1937, Congress appropriated $15,000,000 to build the base, although the project was delayed for some time due to the need to allow Pan Am to vacate Alameda Municipal Airport and the Army to decommission Benton Airfield.[33] The new naval air station was designed by the Navy's Bureau of Yards & Docks, Department of Planning and Design. The Bureau was under the leadership of Navy Captain Ben Morell, who was in charge of developing naval installations throughout the nation during the prewar buildup of the late 1930s. The officers of the Department of Planning and Design were usually drawn from the Civil Engineers Corps, although the majority of the staff were civilian architects, engineers and planners under the direction of Capt. Thomas Trexel, Chief Architect in the Bureau's Washington, D.C. office.[34]

Dredging and Filling Commences

On February 10, 1938, Commander E.C. Seibert arrived in Alameda to assume his duties as Officer-in-Charge of Construction, administering the work from a small shack in the center of the base. Seibert awarded lump-sum contracts to twenty-five companies totaling $12,200,000, including contracts for demolition, dredging and construction. The first task was to demolish the majority of the extant structures within the base boundaries. Former occupants and owners were given an opportunity to remove existing improvements before contractors moved in to demolish the remaining buildings and remove submerged pilings and foundations. Next, the land was scarified in anticipation of it being filled and graded. The removal of submerged construction debris was especially critical, in order to ensure the even distribution of fill and eliminate obstructions to future construction.[35] A stone rip-rap seawall was built to exclude bay water from submerged and partially submerged areas. Dredging then commenced, with silt removed from the future sites of the ship channel, turning basin and seaplane lagoon. The dredged materials were then deposited on top of the marshlands and tidal flats within the seawall by means of large pressurized tubes. Millions of cubic yards of silt were spread on top of the mud, gradually creating "dry" land **(Figure 9)**.[36] Filling was held up briefly in 1938 when the dredging crew encountered an old trestle pier and ferry slip, remains of Cohen's Wharf. The debris, including pilings, iron railings, locomotive wheels, coupling links and a pile of sandstone cobbles, were all located on the site of what is now Pier 2.[37]

[33] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[34] John S. Garner, *World War II Temporary Military Buildings: A Brief History of the Architecture and Planning of Cantonments and Training Stations in the United States* (Washington , D.C.: U.S. Army Corps of Engineers, 1993), p. 17; LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[35] LSA Associates, *Alameda Point General Plan Amendment EIR* (Berkeley: 2002), p. 143.
[36] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 3.
[37] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: Manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 6.

Figure 9. Filling underway at NAS Alameda, 1940.
Courtesy of National Archives Pacific Region, San Bruno

Figure 10. Building 5 under construction, April 1940.
Courtesy of the National Archives Pacific Region, San Bruno

Construction Begins
After dredging and filling were completed, contractors installed underground utilities and constructed the following buildings in order: Building 90 (Garage), Building 1 (Administration Building), Building 2 (Bachelor Enlisted Men's Quarters), Building 3 (Mess Hall), Building 18 (Post Office/Theater), Building 6 (Public Works Garage and Firehouse), Building 5 (Assembly and Repair Shop), Building 10 (Power Plant), Building 8 (General Storehouse), Building 9 (Aircraft Storehouse), Building 13 (Paint and Oil Storage), Building 14 (Engine Test Stands), Buildings 11 and 12 (Seaplane Hangars), Buildings 20, 21, 22 and 23 (Land Plane Hangars), Building 19 (Operations Building), Building 15 (Boathouse), Building 17 (Bachelor Officers' Quarters) and ten Married Officers' Quarters. The first building completed, Building 90, was built in 1938 as a garage. This building has been moved several times and is currently located near the East Gate, where it was most recently used as the Civilian Employment Office. In November 1938, Building 1, the Administration Building, had been completed and was ready for occupation. By 1940 the main base buildings were well underway, including the massive hangars on the north side of Seaplane Lagoon **(Figure 10)**.[38]

War in Europe
By the end of 1939, construction of NAS Alameda was progressing steadily under the supervision of Commander Harold J. Brow, USN, the first commander of NAS Alameda. Meanwhile, anxiety was steadily growing over the aggression of Nazi Germany in Eastern and Central Europe and Imperial Japan in Asia. By the end of 1938, Germany had annexed the Sudetenland region of Czechoslovakia and all of Austria and Adolf Hitler was showing few signs of being satisfied. Meanwhile, Japan was embroiled in a bitter war to conquer China. On September 1, 1939, German forces invaded Poland and two days later Britain and France declared war on Germany. The Second World War had begun. Although there were many in the United States who advocated remaining neutral, most Americans realized the likelihood of American participation in the War was high.

Rearmament
Realizing that American involvement in the War was ultimately inevitable, President Franklin D. Roosevelt signed the Hepburn Base Program Act on April 4, 1939. The act authorized the construction of additional naval bases throughout the United States and its possessions. At this time, Navy enlistment stood at 110,000 personnel with an additional 18,000 men in the Marines. Despite having won a medal from the Association of Federal Architects at the Seventh Annual Architectural Exhibition as an "outstanding example of functional planning," NAS Alameda was clearly inadequate to accommodate additional personnel and equipment necessitated by pre-war buildup.[39] In 1940, Captain Frank R. McCrary, USN, was appointed Commanding Officer of NAS Alameda and in July of that year, the Navy decided to dramatically enlarge the base from 1,000 to 4,000 men. Congress approved an emergency appropriation of $17,000,000 and Drake & Piper Construction Company was contracted to carry out the work.[40]

[38] *Ibid.*, pp. 5-6.
[39] *Ibid.*, p. 5.
[40] *Ibid.*, p. 8.

Landscaping
In addition to expanding the physical plant of NAS Alameda, Navy architects and engineers were faced with problems involving chronic soil slippage and blowing sand. In 1939, the Navy entered into an agreement with the organizers of the then-underway Golden Gate International Exposition (GGIE) to transplant grass and shrubs from the fair site on nearby Treasure Island to NAS Alameda after the fair closed in September. The State Forestry Division also stepped in, contributing shrubs and trees to the landscaped mall between the Main Gate and the Administration Building. When the mall was complete, it was promptly nicknamed the "The Magic Carpet" due to the effect created by the tapestry of flower beds and other decorative plantings **(Figure 11)**.[41] To reduce the impacts of storm-induced erosion, the Navy also scuttled and sank several World War I-era destroyers south of Seaplane Lagoon to serve as a breakwater.

Figure 11. View from north of the central Mall at NAS Alameda, 1950.
Courtesy of the National Archives Pacific Region, San Bruno

[41] *Ibid*, p. 12.

NAS Alameda Opens
On November 1, 1940, NAS Alameda was formally commissioned. The brief ceremony was attended by Rear Admiral A.J. Hepburn, USN, Commandant of the Twelfth Naval District and members of his staff; officers attached to NAS Alameda; officials representing the cities of Alameda, Oakland and San Francisco; newspaper reporters; and approximately 390 sailors and marines. The flag-raising ceremony took place at the flagpole installed three days earlier in front of the Administration Building. The United States flag required for the ceremony had to be procured at the last minute from Mare Island Naval Shipyard in Vallejo.[42]

The opening of NAS Alameda was a boon for the nearby communities of Alameda, Oakland and San Francisco, which were all still suffering from the residual effects of the Depression. The February 27, 1941 special edition of the *Alameda Times-Star* projected that NAS Alameda would eventually employ close to 800 Alamedans. This figure ended up being much larger; by the end of the War, the Assembly & Repair Department alone would employ close to 9,000 civilians. The *Oakland Tribune* heralded the arrival of the first seven of the projected 200 planes that would be based at the station and described how they would be housed in the "largest hangars in the world." One of the articles discussed the trade schools built to train civilians and enlisted men in airplane mechanics, instrumentation, metal fabrication and drafting. In July 1941, demand for trained personnel led to the opening of several "Class A" trade schools at Alameda Point, including the Aviation Metalsmiths' School, the Aviation Machinists Mates' School and the Aviation Radiomen's School.[43]

Prior to the Japanese attacks on Pearl Harbor, most of the 400-odd civilian employees of NAS Alameda arrived at work in their own private automobiles, most of which were parked in a lot by the Main Gate. After Pearl Harbor, gasoline rationing and rubber shortages compelled employees to take public transportation to work, mostly on Key System buses running between downtown Alameda and the Main Gate. Workers from San Francisco and Oakland could also take water taxis from Jack London Square in Oakland to NAS Alameda.[44]

Pearl Harbor
Despite the hectic construction activity, NAS Alameda was nowhere near completion when carrier-based Japanese bombers and fighters attacked Pearl Harbor and other U.S. possessions on December 7, 1941. The attacks panicked West Coast residents and put the military on alert. Bombers were expected over San Francisco and other West Coast cities in the months that followed Pearl Harbor. The shelling of an oil refinery outside of Santa Barbara by a Japanese submarine in February 1942 only elevated fears. After Pearl Harbor, all personnel stationed at NAS Alameda were commanded to immediately report for duty. Hasty preparations were undertaken to protect the base, including the installation of anti-aircraft guns, fire watch stations, fire hydrants and earthworks around important buildings. All access roads were closed off and protected by security checkpoints with orders issued to shoot to kill any intruders.[45] Meanwhile, construction continued into 1942 and the base was completed as originally designed by the end of the year **(Figure 12)**.

NAS Alameda During Wartime
The primary mission of NAS Alameda during the Second World War was to supply the ships and stations of the Pacific Fleet and to "Keep 'em flying"; in other words, repair damaged aircraft. Most of this work was carried out by the Assembly & Repair Department in Building 5. By 1945, this department employed 9,000 people, many of them women. Building 5 underwent continual expansion to accommodate more aircraft, growing from 204,000 square feet in 1941 to over one million square feet by 1945. Eventually, Building 5 and its neighbors accommodated nine divisions: Aircraft Overhaul, Engine Overhaul, Accessories, Metal and

[42] *Ibid.*, p. 9.
[43] *Ibid.*, p. 10.
[44] *Ibid.*, p. 12.
[45] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 4.

Machines, Radio-Radar, Engineering, Planning, Maintenance and Personnel. At its peak year in 1945, Assembly & Repair overhauled 842 aircraft and 2,027 engines.[46]

NAS Alameda also served as the primary supply base for Naval installations throughout the Pacific Theater. After the bombing of Pearl Harbor, Pacific Island bases were activated at Midway, Wake, Johnston and Palmyra Islands. Located on remote islands, these bases had to be supplied with nearly everything, including food, water, weapons, materiel and men. NAS Alameda also served several outlying installations in California, including Navy airfields at Crows Landing, Santa Rosa, Hollister, Monterey, Watsonville and Eureka, as well as a Coast Guard station in San Francisco. NAS Alameda was also the home port for several aircraft carriers.[47]

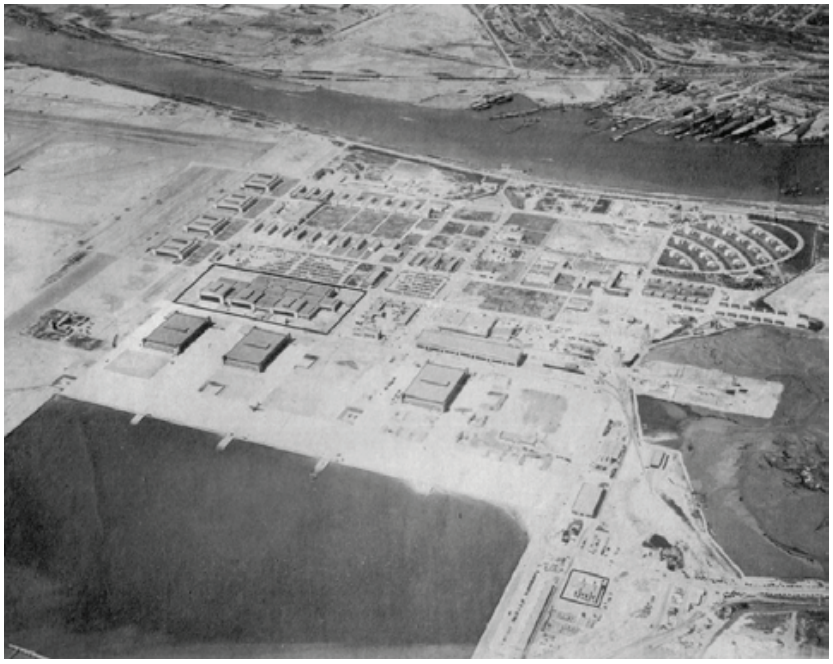

Figure 12. Aerial view of NAS Alameda, June 1942.
Courtesy of the National Archives Pacific Region, San Bruno

Labor Shortages
With all of the work going on at NAS Alameda, the demand for skilled labor grew to an insatiable level. During the Second World War, the city of Alameda became an unofficial Navy company town, more than doubling in population from 30,000 people in 1941 to over 85,000 people by 1945. Workers came from all over the United States to work at NAS Alameda and in other war industries ringing San Francisco Bay, especially shipyards and military installations. After the institution of the mandatory draft sent working-age men off to war, women became a critical part of the workforce at NAS Alameda. These women civilian workers, immortalized by the famous image of "Rosie the Riveter," joined forces with enlisted female military personnel called "WAVES"(Women Accepted for Voluntary Emergency Service).[48]

[46] *Ibid*, p. 5.
[47] *Ibid.*
[48] *Ibid.*, p. 5.

Wartime Events at NAS Alameda
One of the most important events to take place at NAS Alameda during the Second World War was the departure of the *USS Hornet* with Alameda native Lieutenant Colonel James Doolittle's force of eighteen B-25 bombers in April 1942. "Doolittle's Raiders," as they were called, bombed Tokyo and three other Japanese cities on April 18, 1942. American morale was at its lowest ebb, and the raids, although of little tactical benefit, proved to the American (and Japanese) public that the Japanese homeland was not invulnerable. Another noteworthy event took place in January 1944 when Army pilot 2nd Lieutenant Harry Pape of Sacramento bailed out of his P-39 seconds before it crashed within feet of Building 5. The pilot was uninjured, but several workers in Building 5 were wounded by flying debris.[49]

World War II Ends
By VJ Day in 1945, NAS Alameda barely resembled the small 500-man base that had existed before Pearl Harbor. Under the capable leadership of Captain Walter F. Boone, NAS Alameda had expanded over the course of the War to accommodate twenty-two squadrons of aircraft, twenty-three ships, 1,500 aircraft and 158 buildings. In order to accommodate all of this growth, in 1944, the Navy Bureau of Yards & Docks began to construct hundreds of temporary wood-frame and corrugated metal barracks, office buildings and machine shops throughout the base. Building 5, the home of the Assembly & Repair Department, was vastly enlarged to accommodate the large numbers of aircraft damaged in battle or those merely in need of overhaul. Large temporary wood-frame warehouses, such as Buildings 91 and 92, were erected in the Shops Area to house supplies awaiting shipment to the Pacific Theater. To accommodate the increasing size of aircraft carriers, the Navy awarded a million-dollar contract to Basalt Rock Company of Napa to build a mile-and-a-quarter-long breakwater south of the three carrier piers.[50]

Postwar Years: 1946-1950
The cessation of hostilities with Japan occurred on August 14, 1945 and demobilization took place with astounding speed. Charged with shipping men and materiel out to the Pacific Theater throughout the War, NAS Alameda was now responsible for bringing them home safely. Wartime personnel levels were cut in half by April 1946 and to one-third by June. By August 1946, NAS Alameda only had 187 officers and 1,792 enlisted personnel. Ships were decommissioned, planes mothballed and machinery and scrap melted down into ingots. Nevertheless, NAS Alameda would continue to play a role in the postwar Navy. Having invested over seven hundred million dollars in the construction and expansion of NAS Alameda, the Navy intended that the station would become one of three permanent stations of the Twelfth Naval District. In the immediate postwar period, NAS Alameda served as a supply depot for food, equipment and personnel sent to Occupied Japan. NAS Alameda was also home port to the Pacific Reserve Fleet and the aircraft carriers *Hancock*, *Ranger* and *Enterprise*. The giant Mars seaplanes used to ferry equipment and supplies to Pacific bases during the War were either mothballed or converted for use on rescue missions. By 1948, NAS Alameda was said to be "resting on its oars."[51]

Despite its reduced mission following the Second World War, aircraft overhaul work did not cease at NAS Alameda. After the War, a major amount of work went into converting the station from a facility catering to propeller-driven aircraft to one focused on jet propulsion. The Assembly & Repair Department (renamed Overhaul & Repair in 1948) continued to operate out of Building 5, which was radically altered and enlarged to accommodate jet aircraft and the 5,400 civilian workers who worked on them.[52] New engine test cells and other

[49] *Ibid.*
[50] *History of U.S. Naval Air Station Alameda, California* (San Bruno, California: manuscript at the Pacific Branch of the National Archives, January 9, 1945), p. 5.
[51] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 7.
[52] *Ibid.,* p. 8.

new structures were built in the southeastern part of the station and many World War II-era temporary buildings were demolished.

Korean War to Vietnam
On June 25, 1950, Chinese and Soviet-backed North Korean troops invaded South Korea, launching the Korean War. On June 27, President Harry Truman ordered U.S. air and sea forces to give the Korean government troops cover, and on June 30, he authorized American ground troops to take part in the fighting. On July 3, 1950, NAS Alameda-based Carrier Division 3 became the first to launch air strikes against North Korean troops. Marines stationed at NAS Alameda were also some of the first American troops to see combat on the Korean Peninsula. Given its new mission in Asia, the Navy embarked on a major expansion of NAS Alameda. An additional 1,000 civilian workers were hired; reservists were called up; ships re-commissioned; aircraft de-mothballed; and the two runways were lengthened from 5,200' to 7,200'. In total, forty-six million dollars were expended on improvements to NAS Alameda. After the Korean War ended on July 27, 1953, NAS Alameda experienced a slight slowdown in operations, although nothing equivalent to what happened after the conclusion of the Second World War. The Cold War kept the U.S. military on its toes and NAS Alameda remained active.[53]

By 1958, NAS Alameda had a station population of 13,200, of which 4,800 were military personnel and 8,400 civilian workers. The base itself was comprised of 2,679 acres of land: 1,607 acres of dry land and 1,072 acres of submerged land. There were approximately 283 buildings and over thirty miles of roads. During this period, NAS Alameda was home port to the largest aircraft carrier in the world, the *USS Ranger*, one of the newest generation of Forrestal-class carriers, which were 1,000' long and weighed 76,000 tons.[54] By 1962, NAS Alameda had three 8,000' runways, four large aircraft carriers—*USS Hancock*, *Ranger*, *Coral Sea* and *Midway*—three seaplane ramps, 1,920,000 square feet of shop area, 2,858,000 square feet of storage area and 280 buildings. The total size of the base in 1962 was 2,720 acres, including 1,612 acres of dry land and 1,108 acres of submerged land.[55]

In 1960, the last seaplane squadron was transferred from NAS Alameda to NAS Whidbey Island, marking the end of an era. In July 1961, NAS Lemoore opened in the San Joaquin Valley and most of the carrier-based jet squadrons moved to the new station or to NAS Miramar, near San Diego. This was done to reduce the congestion and noise of jet training in the increasingly urban Bay Area.[56]

In September 1960, a mission of another kind came to NAS Alameda when the Oakland Raiders, a newly formed American Football League team, made the station their practice grounds. Coached by former Naval Academy head coach Eddie Erdalatz, the scrappy Raiders attracted the attention of naval personnel and civilian workers on their lunch breaks.[57]

Vietnam
In 1966, NAS Alameda again became homeport to the world's largest aircraft carrier, this time the *USS Enterprise*, which was the first nuclear-powered aircraft carrier. Events in Southeast Asia kept the ship and its personnel away from NAS Alameda for months at a time during the 1960s. As with the World War II and the Korean War, Alameda was significantly involved with the Vietnam War. After Viet Cong troops attacked American and South Vietnamese troops in South Vietnam on February 7, 1965, aircraft from the Alameda-based carriers *USS Ranger*, *Hancock* and *Coral Sea* launched strikes against North Vietnamese positions in Dong Hoi. During the rest of the 1960s, half of the attack carriers involved in Vietnam were

[53] *Ibid.*, p. 9.
[54] *NAS Alameda Base Directory* (Alameda: 1958), p. 12.
[55] v, p. 8.
[56] LCDR B.L. Allbrandt, *History of the Naval Air Station & Naval Aviation Depot at Alameda, California* (unpublished manuscript: 1996), p. 14.
[57] *Ibid.*, p. 17.

home-ported at NAS Alameda. In 1967, the airfield at NAS Alameda was renamed "Nimitz Field" in honor of Admiral Chester W. Nimitz, the man credited with winning America's sea war with Japan. Also in 1967, the Overhaul & Repair Department of NAS Alameda ceased to exist, replaced with another similarly charged organization called the Naval Air Rework Facility, or "NARF" **(Figure 13)**. The Vietnam War continued for another six years until a cease-fire was signed on February 5, 1973, ushering in a period of peace, budget cuts and personnel reductions at NAS Alameda. By 1980, only two carriers were home-ported at NAS Alameda, *USS Coral Sea* and *Enterprise*.[58]

Post-Vietnam to BRAC

Faced with changing priorities and political sensibilities in the 1970s, the Navy introduced new programs emphasizing psychological and physical well-being and improved race relations, as well as several new recreational buildings. The demographic character of the workforce began to change as World War II-era workers retired, many to be replaced by ethnic minorities and women. Leaders of the environmental movement also began to place expectations on the Navy to improve its record of environmental responsibility at NAS Alameda. During the 1970s and 1980s, the Navy spent substantially more resources to mitigate hazards caused by spilled jet fuel and oil.

Figure 13. Interior of Hangar 20, 1960s.
Courtesy of Richard Rutter

Despite the Reagan-era military buildup of the 1980s, Secretary of Defense Caspar Weinberger suggested in 1985 that NAS Alameda be added to a list of twenty-two bases proposed for closure, partially due to declining productivity and morale in the NARF department (later renamed Naval Aviation Depot, Alameda, or NADEP). Nevertheless, productivity dramatically improved after the base made improvements to the station and gave pep talks to the employees, and as a result, NAS Alameda was taken off the list for closure.[59] On October 17, 1989, the San Francisco Bay Area was hit by the 7.1 Loma Prieta Earthquake. The earthquake heavily damaged runways, partially destroyed the control tower and disrupted utilities. Nevertheless, within days, NAS Alameda was back in service and providing assistance to earthquake victims throughout the Bay Area.

Base Realignment and Closure

The "Peace Dividend" resulting from the end of the Cold War put pressure on the branches of the military to cut costs and close redundant installations. In 1990, Defense Secretary Dick Cheney suggested closing all Navy facilities in the San Francisco area. After a brief respite during the First Persian Gulf War, the Base Realignment and Closure Commission (BRAC) began the work of determining which bases should be closed. NAS Alameda narrowly escaped the first cut in 1991. Many believed that Alameda's high level of productivity would cause the station to be spared, but on March 12, 1993, to the shock of base personnel and thousands of Alamedans who worked at the base, NAS Alameda was included in the next list of thirty-one bases designated for decommissioning.

[58] *Ibid.*, pp. 17-19.
[59] *Ibid.*, p. 21.

At the time that NAS Alameda was designated for closure, the station was comprised of 2,842 acres of land, including 1,527 acres of dry land and 1,315 acres of submerged land; 251 buildings; 195 structures; and two runways measuring 8,000' and 7,200' long. Total employment consisted of 2,861 military personnel and 4,025 civilians. Home-ported ships included two carriers, the *USS Abraham Lincoln* and *Carl Vinson*; one missile cruiser, the *USS Arkansas*; and one destroyer tender, the *USS Samuel Gompers*. In addition, NAS Alameda was home to four Naval Air Reserve squadrons and one Marine Air Group.[60] In 1997, NAS Alameda finally closed its gates, fifty-seven years after opening.

[60] *NAS Alameda Fact Sheet,* October 20, 1993.

V. DESCRIPTION OF NAS ALAMEDA HISTORIC DISTRICT

Boundaries
NAS Alameda Historic District encompasses an area of approximately 350 acres at the center of the former military base. The historic district is bounded by Main Street and Oakland Inner Harbor to the north, 1960s-era multi-family housing to the east, mixed-use industrial buildings and warehouses to the southeast, Seaplane Lagoon to the south, and Nimitz Field to the west **(Figure 2)**.

Figure 14. Main Gatehouse and Sentry House (Buildings 30 and 31), NAS Alameda, 2004.

Significance
Architectural Historian Sally Woodbridge, author of the 1992 *Historic Architectural Resources Inventory for the Naval Air Station, Alameda*, identified a potential historic district at the center of NAS Alameda that appeared to be eligible for National Register listing under Criteria A (Events) and C (Architecture), with a period of significance of 1938-1945. Under Criterion A, the district appears to be significant as an important component in the evolution of the Bay Area as America's "Arsenal of Democracy" during the Second World War. The district also appears to be eligible for listing under Criterion C as a military installation embodying the characteristics of "Total Base Design," as well as a rare example of a military installation designed in the Streamline Moderne style **(Figure 14)**. Military bases built during the Interwar Period (1919-38) and during the early years of the Second World War (1939-42), typically embody the characteristics of Total Base Design, defined as the careful integration of site planning, architectural program and landscape architecture. Influenced by municipal zoning ordinances adopted during the 1910s and 1920s, bases designed during this era usually display a pronounced segregation of uses for functional, aesthetic and safety reasons. Bases constructed according to the precepts of Total Base Design also often embody City Beautiful planning and design principles, particularly cross-axial patterns of circulation, large landscaped malls terminating at important visual monuments or vistas, and symmetrical disposition of buildings. Sally Woodbridge's *Historic Architectural Resources Inventory* identified eighty-five contributing resources and thirty-one non-contributing resources in the Historic District.[61]

Character-Defining Features

Site Plan
The original site plan for NAS Alameda is a logical arrangement composed around two primary cross axes centrally placed in a roughly square framework of roadways (**Figure 15**). Sprawling across over 350 acres of mostly level, filled land, the Historic District is bounded by streets and open water to the north and south, later multi-family construction to the east, industrial uses to the southeast and Nimitz Field to the west. The original

[61] Page & Turnbull has identified eighty-six contributors and fifty-five non-contributors within the boundaries of the NAS Alameda Historic District (Refer to Appendix E). Since Woodbridge's inventory, the number of contributors was revised to 87 (acknowledged in a letter from the Offfice of Historic Preservation dated Nov. 5, 1997) and one building (Building 101) was destroyed by fire, reducing the number of contributors to eighty-six.

award-winning design of NAS Alameda was executed by the Bureau of Yards & Docks, Department of Planning and Design, an agency that employed talented civilian planners, architects and engineers who were well-versed in the important planning trends of the time. One of the most obvious influences in the base's design is the City Beautiful Movement. Inspired by Daniel H. Burnham and Frederick Law Olmsted's design for the World's Columbian Exposition in Chicago in 1893, City Beautiful urban planning was characterized by symmetrical arrangements of buildings along landscaped axes terminated by important monuments or vistas, Beaux-Arts architectural vocabulary and unified landscape treatments. The City Beautiful Movement was reinterpreted in cities across the United States and its colonies, including Washington, D.C. (1901), Manila (1904), San Francisco (1905), Chicago (1909), Denver (1910) and others. Obsessed with resolving the chaotic conditions so characteristic of young and rapidly growing American cities, the City Beautiful Movement sought to appropriate the best elements of European Renaissance and Baroque planning traditions to imprint a uniquely American identity to our civic centers, educational campuses and federal institutions.

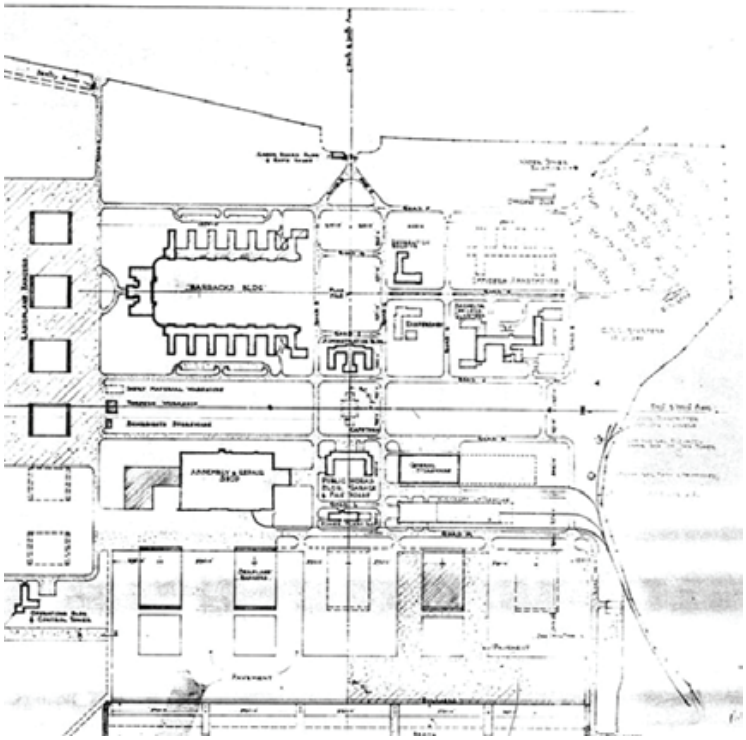

Figure 15. 1940 plan of NAS Alameda.
Courtesy of Department of the Navy, NAS Alameda Plan Room

Figure 16. Moffett Field, ca. 1940
Source: Moffett Field Historical Society

Between the First and Second World Wars, U.S. military leaders became increasingly committed to the orderly aesthetic of the City Beautiful Movement for base design. Mere aesthetics aside, the military's interest in City Beautiful planning principles was a culmination of a long history of logical and efficient base planning going back as far as the Roman *castrum*. U.S. military installations designed between the wars typically employed a strong axial plan (often centered around a landscaped mall), and a cohesive architectural vocabulary (usually referencing the local regional architectural tradition), which were set within a unified landscape. These bases follow what has been termed as "Total Base Design," meaning that architecture, site planning and landscape architecture are integrated, informing a whole, highly organized design.[62] Good examples of this system include March Airforce Base in Riverside; Hamilton Field in Novato; the Naval Training Center in San Diego; and NAS Sunnyvale (renamed Moffett Field) **(Figure 16)**. Unlike NAS Alameda, these four bases adhere to the popular Mission Revival or Spanish Colonial Revival architectural styles.[63] However, these bases share in common with NAS Alameda an expansive central mall. At Moffet Field, the mall serves as the heart of the base, connecting the main entry with the central administration buildings, ultimately terminating at the signature icon and *raison d'être* of the base: the dirigible hangar. In the case of NAS Alameda, the landscaped north-south axis terminates at the Seaplane Hangars and the Seaplane Lagoon, while the east-west axis terminates at the Landplane Hangars, and beyond that, the San Francisco skyline. This progression along the central axis gives hierarchy to the plan, leading from the entry point to the impressive buildings that most directly serve the base mission.

The Woodbridge inventory specifically identifies the central open spaces and the street system as character-defining features of the Historic District, and comments on its overall "continuity of style and a high degree of architectural integrity enhanced by the retention of landscaping and parklike open spaces."[64] The reference to the installation's manifestation of Total Base Design is also recognized in the JRP *Guidelines* as being analogous to Gunther Barth's "instant city" model, used by the author to describe the near instantaneous development of San Francisco and Denver during their respective Gold Rushes.[65] The overarching continuity of the Historic District is emphasized in the *Guidelines* as embodying the following characteristic:

> If there is one overriding character-defining element of the NAS Alameda Historic District, it is this uniformity of design features, elements, and materials. These buildings were designed as a group, an ensemble, and should, to the extent possible, be managed in the same manner.[66]

[62] U.S. Army Corp of Engineers, Sacramento District, *California Historic Military Buildings and Structures Inventory, Vol. III* (Sacramento: 2000), p. 6-21.
[63] These four bases are listed on the National Register of Historic Places as historic districts.
[64] Sally Woodbridge, *Historic Architectural Inventory for Naval Air Station* (Alameda, 1992), p.3.
[65] Steven Mikesell, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* (Prepared for Naval Facilities Engineering Command, San Bruno, CA, 1997), p. 1.
[66] *Ibid.*

Axes

As described above, the principal cross axes that help to define the character of NAS Alameda are clearly indicated in the original plans prepared by the Bureau of Yards & Docks. The main north-south axis is a large landscaped mall historically known as the "Magic Carpet," beginning at the Main Gatehouse (Building 30) and continuing south to the Administration Building (Building 1). Landscaped areas originally carried the main axis south to Building 6 and the Seaplane Lagoon beyond. As originally designed, the east-west axis separated the Administrative and Residential sub-areas from the Shops and Hangars sub-areas. However, after the bombing of Pearl Harbor, the formerly open east-west axis was sacrificed to wartime contingencies and filled with additions to the Assembly & Repair Shop (Building 5), and new training, maintenance and storage structures (including Buildings 114, 101, 73A and 73B). The primary north-south axis was retained along with a secondary east-west mall framed by the Bachelor's Enlisted Quarters Buildings and the General Service Building (Buildings 2, 3 and 4). This secondary mall and the landscaped boulevard along Road H (currently W. Essex Road), which connects to the Residential Area of Officer's Quarters, became the predominant east-west axis by the end of World War II **(Figures 17-19)**.

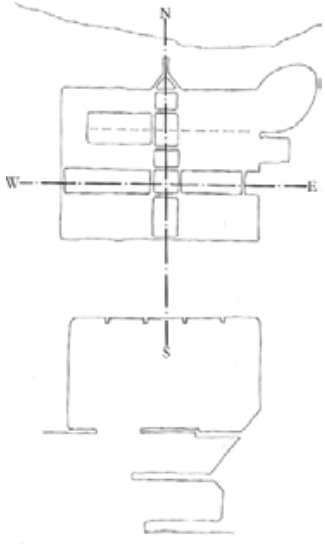

Figure 17. Original plan axes

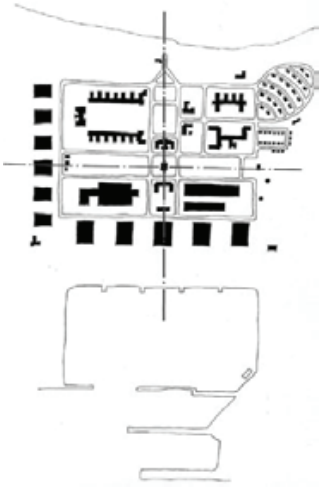

Figure 18. Master plan, ca. 1940

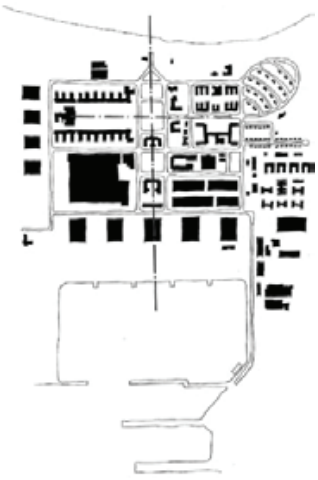

Figure 19. Built plan, ca. 1945

In addition to providing important vistas of significant monuments and landscapes beyond the base, the principal axes also serve as the primary circulation routes. Individual circulation elements, such as prominent entrance pavilions, arcaded passageways, paths and stairs, tend to relate to the principal axes. Some circulation elements, such as the covered pedestrian passageways connecting Buildings 2, 3, and 4, frame views of the Bay and downtown San Francisco in the distance. The axes are defined by rows of low-slung buildings, which serve not so much as continuous edges but as punctuation within a park-like setting. The most significant landscape treatments are encountered along the north-south and east-west malls, with some extending into other sub-areas like tendrils of green open space, especially a landscaped boulevard that originally existed along W. Essex Street. The malls are punctuated periodically by important structures and monuments, such as the main

flagpole at the southern end of the north-south mall, directly across from the main entrance to the Administration Building.

View Corridors
As discussed above, the two principal malls serve as important view corridors, providing vistas or glimpses of primary features of the base plan **(Figure 20)**. The corridors focus attention on symbolically and architecturally significant structures. The main north-south mall begins north at the Gatehouse (Building 30) and terminates at the Administration Building (Building 1) at the south. Visitors standing at any point along the mall enjoy dramatic views of both buildings at either end of the mall. The buildings lining the mall defer to the Administration Building, although their design is compatible. Landscaping, in particular mature Monterey Cypress trees, also direct the attention of the visitor to the Administration Building with the flagpole in front of it. In this way, planning, architecture and landscape architecture work in concert to direct strangers to the central nerve center of the base, as well as promote public interaction with the elements that embody the highest degree of architectural interest.

Figure 20. View corridors

Although not a landscape in the traditional sense, significant view corridors are afforded along and in-between the rows of massive Seaplane Hangars at the southern edge, and the somewhat smaller Landplane Hangars along the western edge of the district. The repetition of identical, 60-foot-tall volumes creates strong streetscapes when viewed along Monarch Street and West Tower Avenue. These two vistas, as well as the views between the hangar buildings, are mentioned in the JRP *Guidelines* as some of the most important character-defining elements of NAS Alameda. Taken in conjunction with glimpses of downtown San Francisco in the distance, these views are some of the most impressive on the base.

Sub-Areas
Five sub-areas within NAS Alameda were identified in the JRP *Guidelines* as possessing distinctive characteristics. Reflecting the segregation of usage that is so characteristic of the base, these sub-areas are coterminous with function: the Administrative Core, the Shops Area, the Residential Area, and the Seaplane and Landplane Hangars Areas. (**Figure 21**). The purposeful arrangement of functions, or zoning as it came to be known in the early 20th century, is indicative of the Total Base Design practice and the City Beautiful Movement, from which it derived in part. The functional segregation of different, mutually incompatible

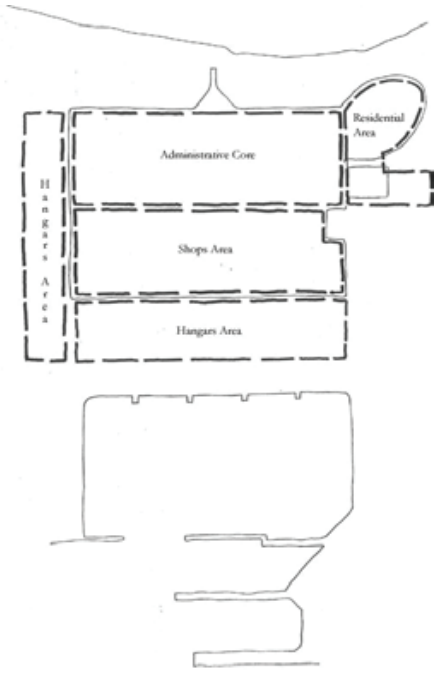

Figure 21. District Sub-Areas

uses fulfills the practical purpose of grouping similar activities together in one area, making work more efficient. It was also safer, in important consideration in an area containing large stores of explosive materials. Finally, the practice of zoning allowed for a better opportunity to shape the aesthetic character of the base as a coherent entity.

To that end, each sub-area of NAS Alameda is unique and distinguished from other sub-areas by different building massing, architectural treatment and landscaping. As the center of command and ceremonial nucleus of the base, the Administrative Core is located at the heart of the base. The most architecturally significant buildings are located here, including Buildings 1, 2, 3, 4, 16, 17 and 18. These buildings are symmetrically arranged on either side of broad, intersecting landscaped malls. The buildings are consistently two to three stories in height and have stepped massing, often consisting of a central pavilion flanked by two one-story wings **(Figure 22)**.

The Residential Area is located just east of the Administrative Core. Nestled into a landscaped area of lawns and mature street trees in the northeast corner of the base, the Residential Area is segregated from through-traffic by a network of curvilinear streets that do not connect to major through-streets. The Residential Area is comprised of two separate clusters of family housing: relatively large, hip-roofed, single-family houses intended for officers; and a secondary cluster of less-elaborate, small, flat-roofed bungalows intended for non-commissioned officers. Although quite different, reflecting discrepancies in rank, the scale and detailing of the architecture in the Residential Area is decidedly smaller and more "domestic" in nature than any of the other four sub-areas **(Figure 23)**.

Figure 22. Building 16, Administrative Core

The Shops Area is sandwiched between the Administrative Core to the north, the Seaplane Hangars Area to the south, and the Landplane Hangars to the west. The Shops Area contains the largest and the most utilitarian buildings of any of the five sub-areas. Although quite large, the buildings of the Shops Area are effectively screened from view from the Administrative and Residential Areas by landscaping and relatively horizontal massing, the notable exception being Building 5, which looms over much of the central portion of the Historic District. The Shops Area is also the most heterogeneous of the five sub-areas, running the gamut from utilitarian wood-frame, "semi-permanent" warehouses like Buildings 91, 92 and 114, to more elaborate Streamline Moderne structures, such as Building 6.

Figure 23. "Big White," Officers' Housing in the Residential Area

Similar to the structures of the Shops Area, the buildings of the two Hangars Areas are designed in a utilitarian mode. However, the hangars are substantially different from the Shops Area by virtue of their cohesive design (apparently by Detroit architect Albert Kahn) and repetitive arrangement in rows along the south and west sides of the Historic District. Visible from much of the inner Bay Area, the massive hangars visually summarize in an iconic fashion the mission of NAS Alameda. Built in proximity to the Seaplane Lagoon and Nimitz Airfield, the hangars define the edges of the runways and taxiways that dominate much of the base. The only building in the Hangars Areas that departs from the overall utilitarian character of the sub-area is Building 77, the Passenger Terminal. Built somewhat later than the hangars, Building 77 conforms to the Streamline Moderne aesthetic of the Administrative Core. Although not landscape features in the traditional sense, the tarmac taxiways alongside the bay side of both rows of hangars create important open spaces that serve as transitional zones between the Historic District, Nimitz Field and the Seaplane Lagoon **(Figure 24)**.

Architecture: Streamline Moderne

NAS Alameda is a rare example of a military base with significant portions designed in the Streamline Moderne style. Derived in part from European High Modernism and the contemporary work of American industrial designers, the Streamline Moderne style began to develop in the United States during the late 1920s and early 1930s, with the now-famous PSFS Building in Philadelphia (1929) and the McGraw-Hill Building in New York (1931). The basis of the style can be traced in large part back to American transportation designers like Raymond Loewy, who tested their designs in wind-tunnels and fluid tanks to produce aerodynamically advanced designs for train engines, automobiles, airplanes and ships that enhanced forward motion by reducing wind or water resistance. Industrial designers discovered that refrigerators, toasters, and pencil boxes with the same curves and wind lines appealed to consumers over earlier boxy models. Shoppers were even willing to pay more, maybe because these "modernistic" gadgets seemed futuristic in the same way the era's science-fiction films and comic books painted a future technologically freed of all problems. Buildings designed in the Streamline Moderne style referenced this fascination with speed and efficiency by exhibiting curved corners, ship rails, and porthole windows. The buildings also featured modern-age materials such as chrome-plated steel interior trim, magnesite flooring and ribbon windows

Figure 24. Seaplane Hangars north of Seaplane Lagoon, 2004

Figure 25. Building 18 (Theater), 2004

featuring aluminum sash or glass-block. More accessible to the public than the rarefied European Modernism of the 1920s, the Streamline Moderne style conveyed notions of speed, efficiency, cleanliness and a progressive vision of the future.

In the years leading up to the Second World War, the Navy began to build new bases under the provisions of the Hepburn Act. A handful of these new bases departed from the historicist and regional vocabularies typically used by the Navy and embraced a more modern design aesthetic influenced by the contemporary Art Deco and Streamline Moderne movements. Alternately called "Stripped" or "Starved Classicism," or "Works Progress Administration Moderne," the modern styling developed by the Navy's Bureau of Yards & Docks was generally more conservative than civilian works of the same era. Due in part to the fact that the military relied on standardized plans, Navy buildings constructed during the late 1930s continued to retain strict axial plans and symmetrical facades dominated by colonnades or porticos. However, instead of using traditional Neoclassical architectural detailing, the "new" modern buildings incorporated simple, stylized decorative details and massing typical of the Streamline Moderne style. Characteristics of the style evident at NAS Alameda include: smooth stucco walls, curved parapets, incised "speed lines," stacked window elements, glass-block or horizontal ribbon windows, and stylized sculpture depicting traditional military motifs such as eagles, or in the case of the Navy, anchors or figures of Pegasus **(Figures 25 & 26)**.

Figure 26. "Pegasus," Building 4, 2004

In California, the largest base designed wholly in the Streamline Moderne style is NAS Alameda. While other bases feature concentrated areas designed in the style, such as McClellan Air Force Base near Sacramento, or feature individual buildings, such as the Naval and Marine Corps Reserve Center in Los Angeles and the Naval Reserve Center in Santa Barbara, none retain such a large concentration of buildings designed in the Streamline Moderne style.[67] While NAS Alameda features World War II-era temporary and semi-permanent buildings that are not compatible with the original base design, the majority of the Historic District contains buildings constructed between 1938 and 1941 in the Streamline Moderne style.

Landscape

The most important landscaped areas at NAS Alameda are the two intersecting malls at the center of the Administrative Core **(Figure 27)**. Landscape materials consist of broad grassy areas segmented into smaller sections by paved paths. Decorative borders of box hedges, Monterey pine, Monterey cypress, red

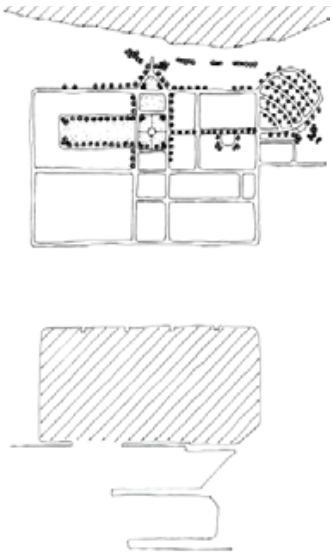

Figure 27. Landscape features

[67] U.S Army Corp of Engineers, Sacramento District, *California Historic Military Buildings and Structures Inventory., Vol. III* (Sacramento: 2000), pp. 7-44-7-45.

gum eucalyptus, bottle brush and other trees and shrubs typical of California, line important paths, borders or significant spaces, such as the area surrounding the flagpole in front of Building 1. Other significant areas of landscaping include the lawns and trees in the Residential Area, a large expanse of grass and athletic fields east of the Main Gate, three landscaped courtyards on three sides of Building 17 and a now-paved median in the center of Essex Drive. Some of the mature landscaping appears to have been either salvaged from the 1939 Golden Gate International Exposition or donated by the California Division of Forestry around the same time. Historic photographs taken of the base in the 1940s and 1950s indicate that the original landscaping in the Administrative Core was more formal, with ornamental parterres and shrub borders giving the north-south mall its historic nickname the "Magic Carpet." These areas are now either paved or covered in grass.

Contributing Buildings

As the nerve center of the former base, and the area most often encountered by visitors, the Administrative Core is home to the most architecturally significant buildings at NAS Alameda. Many of the most important contributors to the Historic District are located here and most are designed in the Streamline Moderne style. The Administrative Core also contains a handful of World War II-era "semi-permanent" buildings constructed during wartime, such as Buildings 94 (Chapel), 130 (Medical Lab), 135 (Community Facilities) and 137 (Recreation Storage Facility). Contributors in the Administrative Core include Buildings 1 (Administration Building), 2 (Bachelor Enlisted Men's Quarters), 3 (General Services/Commissary), 4 (Bachelor Enlisted Men's Quarters), 16 (Medical Clinic), 17 (Bachelor Officers' Quarters), 18 (Post Office and Theater), 30 (Main Gatehouse), 31 (Sentry House) and 94 (Chapel). Most are low-slung buildings with smooth stucco walls, curved corners and parapets, pronounced entry blocks, aluminum ribbon windows, glass block accent windows, "speed lines," colonnades with curved canopies, and occasional sculptural elements, including Pegasus figures on Buildings 2 and 4 and eagles on Building 3. Interior detailing is often quite fine, featuring terrazzo flooring, glass block and nickel-plated stair balustrades **(Figure 28)**

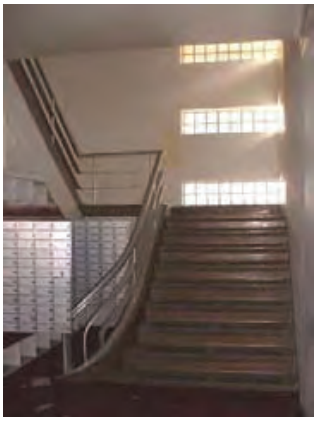

Figure 28. Interior stair, Building 17, 2004

Comprised of eighteen two-story Officers' Quarters and thirty one-story Non-commissioned Officers' Quarters, the Residential Area has a greater number of buildings than the other four sub-areas. However, unlike the other sub-areas, there are only two variants of contributing buildings in the Residential Area: the Married Officers' Quarters, also known as the "Big Whites," and the Non-Commissioned Officers' Quarters (NCO Quarters). The Big Whites are located in the distinctive beehive shaped network of curvilinear streets in the northeastern corner of the Historic District. Set down in a landscaped park-like setting, the Big Whites are large, two-story, hip-roofed structures with projecting sun room and

Figure 29. Officers' Quarters, "Big White," 2004

garage wings. Based largely on standardized military plans, the Big Whites closely resemble the classic American "foursquare" house. Typically rendered in the Neoclassical style on military installations in other parts of the country, the design of the Officers' Quarters at NAS Alameda was modified to blend in with the Streamline Moderne character of the base. Coated in smooth, white-painted stucco, the Big Whites feature distinctive Moderne elements, such as vertical bands of small rectangular windows and the absence of applied ornament. Instead, ornamental detailing is provided by geometric features, such as the circular openings punched into the portico canopy supports. The NCO Quarters, also based on standardized Navy plans, are much smaller and more utilitarian than the Officers' Quarters. Located on both sides of Corpus Christi Road and along the south side of Pensacola Lane, the NCO Quarters feature shallow-pitched hipped roofs (which appear flat), recessed porches and broad roof overhangs. All buildings have double-hung wood windows and wood doors. Few alterations have taken place over time to either the buildings or to the landscaping, resulting in a high level of integrity in the Residential Area.

Sandwiched between the Hangars Areas and the Administrative Core, the Shops Area is a support zone for the the Hangars. As utilitarian buildings used primarily for machining aircraft parts or storing goods intended for shipment overseas, the buildings of the Shops Area received comparatively little attention in regard to their appearance. The Shops Area has also undergone more ad hoc alterations than any other sub-area. During the Second World War, the area was subjected to massive new construction projects that infilled the formerly open east-west axis and added large additions to Building 5 (Repair and Assembly Shop). Contributing buildings in the Shops Area includes Buildings 6 (Public Works Garage and Firehouse), 8 (General Storehouse), 9 (Aircraft Storehouse), 42 (Fuel Chemical Lab and Office), 43 (Weapons Building), 44 (unknown), 91 (Shipping Storehouse), 92 (Packing/Shipping), 102 (Ordnance Building) and 114 (Machine Shop). Six of these structures (Buildings 6, 8, 9, 42, 43, and 44) are concrete or steel-framed permanent buildings that were part of the original 1938 plan. The rest are semi-permanent wood-frame structures that were not part of the original plan but were built to serve for the duration of the Second World War. On axis with the north-south mall, Building 6 shares architectural design elements in common with the buildings of the Administrative Core. Unique in the Shops Area, Building 9 is a steel-frame warehouse that resembles the nearby hangars in its construction and appearance. Buildings 8 and 9 are massive concrete structures with sparse ornamentation **(Figure 30)**. Buildings 91, 92, 102 and 114 are semi-permanent wood-frame buildings with flat or gable roofs, rustic channel siding and no ornamentation. Steel or wood industrial sash and sliding or hinged doors are nearly

Figure 30. Building 9, 2004

Figure 31. Building 40 (Seaplane Hangar), 2004

universal in the Shops Area.

Despite their functional purpose, the two rows of massive identical hangars along the southern and western boundaries of the Historic District comprise an indispensable character-defining feature of NAS Alameda. Although otherwise purely functional buildings, the hangars incorporate elements of the Streamline Moderne style, in particular in the stepped massing of their stucco exteriors. Contributors within the Hangars Area include Hangars 20, 21, 22, 23, 39, 40, 41 and Building 77 (Passenger Terminal). All of the hangars are large, steel-framed buildings with massive concrete bulkhead foundations; the hangars are based on standardized plans developed by Detroit architect Albert Kahn **(Figure 31)**. Additional character-defining features include large telescoping doors, the stepped massing of the corner pylons (which serve as door pockets), monitor roofs, open central workspaces bridged over by rows of steel trusses and steel industrial windows. The only building that departs from this function and aesthetic is Building 77. Constructed to serve as a passenger terminal, Building 77 is designed in a mode similar to the buildings of the Administrative Core.

VI. HISTORIC PRESERVATION STRATEGY

Purpose
The Naval Air Station Alameda Historic District is facing a critical transformation as ownership is transferred from the Navy to the City of Alameda. Over the past year, from 2004 to 2005, the City has created the Preliminary Development Concept (PDC) outlining a plan to integrate NAS Alameda with the remainder of the island city, by adding residential and commercial uses in existing structures and newly constructed buildings. The PDC has undertaken a study of a host of constraints affecting property development, including economic feasibility, environmental contamination, the 100-year flood plain, young bay mud, a wildlife refuge buffer, Tidelands Trust, Alameda housing policies, traffic impacts, timing and phasing of transfer from the Navy, and historic preservation. In this context, it is important that a historic preservation plan be put in place to outline the goals, standards, process and policies required to ensure the appropriate level of protection and enhancement of the historic resource. This section is intended to provide a historic preservation strategy to initiate that process. It begins with a summary of the significance of resources and their proposed treatment under the PDC, and ends with recommendations for the redevelopment and reuse of the Historic District.

Summary of Significance and Preliminary Development Concept (PDC) Policy by Sub-Area

The Administrative Core
The Administrative Core is the heart of the NAS Alameda Historic District. Most of the extant buildings and landscape elements were part of the original plans drawn up by the Bureau of Yards & Docks and were built during the earliest construction campaign between 1938 and 1940. Few of these contributors have undergone substantial alterations, resulting in the Historic District's high level of integrity. The Administrative Core contains several wood-frame semi-permanent buildings that do not share the same level of design significance as the original buildings. Although they are contributors to the Historic District, the Navy proposed to demolish six of these semi-permanent buildings in 1996. A Memorandum of Agreement signed by the City, the Navy, State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) in April 1996 acknowledges that while demolishing Buildings 75A, 115, 116, 130, 135 and 137 would have an effect on the Historic District, HABS recordation would be an appropriate mitigation measure.[68]

The Administrative Core is retained in large part in the PDC and given a prominent place as the civic center of the new community (**Figure 32**). Of the nineteen contributing buildings in the sub-area, twelve are to be

[68] Memorandum of Agreement Submitted to the Advisory Council on Historic Preservation Pursuant to 36 CFR, Section 800.6(a), April 12, 1996.

NAS Alameda Historic District
Historic District Assessment and Historic Preservation Strategy
Alameda Point Preliminary Development Concept

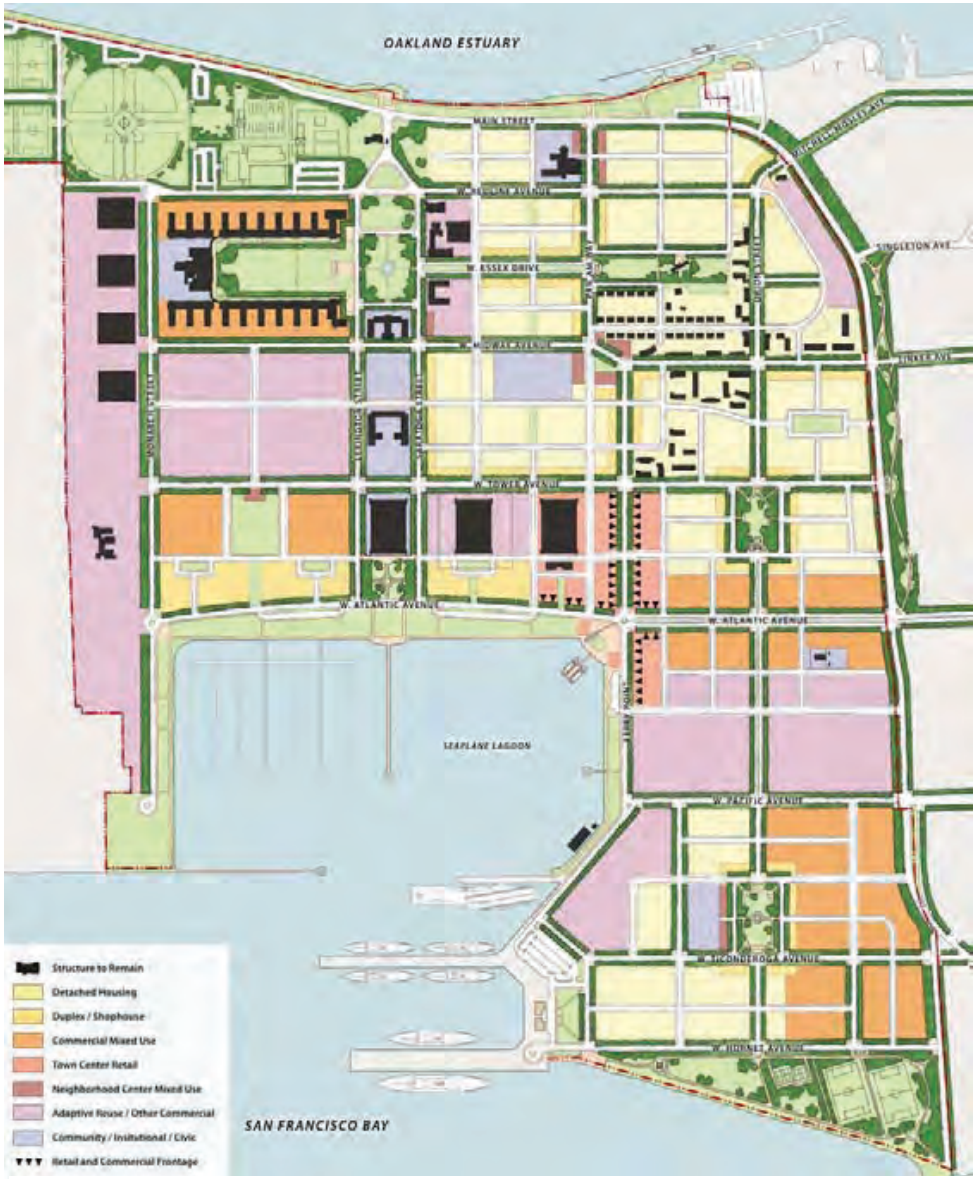

Figure 32. Preliminary Development Concept
Courtesy of ROMA Design Group

rehabilitated according to the Secretary of Interior's Standards and used for civic, office, community, and possibly work-live purposes. Alameda City Hall West will continue to serve as a civic center in Building 1, which is the original Main Administration Building and the primary structure on the site. The two main intersecting malls will be maintained in their present configuration, street framework and surroundings, thereby preserving the important symbolic core and the two primary axes of the site plan. The original entrance to the former base along the north-south axis is also preserved as an important gateway to Alameda Point. One contributing building, the Bachelor Officer's Quarters (Building 17), and the six contributors that were the subject of the 1996 MOA (Buildings 75A, 115, 116, 130, 135 and 137), will be demolished. In their place, as well as north of Redline Avenue, new single family residential units will be constructed. Seventy new units will be constructed on the current site of the Bachelor Officer's Quarters.

The Residential Area
Devoted entirely to housing, the Residential Area is the smallest and most homogeneous of the four sub-areas identified at NAS Alameda. Of the two contributing building types found there, the Officers' Quarters and the NCO Quarters, the former are more architecturally significant, although both contribute to the historical understanding of the former base. The Admiral's House, a larger version of the Officers' Quarters, is placed at the hinge between the two housing types and within a green park at the terminus of West Essex Drive. The Residential Area is also the only part of the base to feature smaller, domestic-scaled buildings exclusively. After the Administrative Core, the Residential Area features the most extensive and intact landscaping of any of the five sub-areas. Finally, as the only sub-area of NAS Alameda that has undergone few programmatic changes over time, the Residential Area retains a higher overall degree of integrity than the other sub-areas.

The thirty identical NCO Quarters will be reused for housing in the PDC. The Admiral's House will be rehabilitated for residential or community use, and will retain its setting within a park environment. The park will continue to serve as the eastern terminus of the east-west axis, enhanced with new landscaping and reshaped into a rectilinear configuration. The 18 Officer Quarters, known as the Big Whites, and the associated curvilinear road pattern will be demolished and replaced with approximately 120 new housing units following a linear street layout. New compacted fill, which will result in a new higher grade, is planned to address young bay mud and the 100-year flood plane that falls within the zone of the Big Whites. Adjacent to the Residential Area, outside of the Historic District boundaries, more residential development is planned, which will consist of mostly single family units and reuse of existing 1960's-era residential buildings.

The Shops Area
Designed to serve as a staging area for the Hangars and the supply ships, the Shops Area was planned with flexibility in mind, and originally included unidentified vacant space. During the Second World War, several wood-frame semi-permanent buildings went up around the more substantial permanent warehouses and shops. As a result, the Shops Area remains the most heterogeneous of the five sub-areas and the one that retains the lowest degree of integrity. According to Steven Mikesell's 1997 *Guide to Preserving the Character of the Naval Air Station Alameda Historic District:*

> The Shops Area was given the least attention of all areas of the original NAS Alameda, at least with respect to its architectural detail. The Shops Area buildings were tucked away from view, behind the Administrative Core, and had little public use or visibility. The shops, in short, were designed strictly for function rather than appearance. Nonetheless, the shops buildings do share some architectural features and elements with other parts of the base, including the hangars and the Administrative Core...[69]

[69] Steven Mikesell, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* (Prepared for Naval Facilities Engineering Command, San Bruno, CA, 1997), p. 57.

Other studies have reached similar conclusions about the Shops Area. Although historically significant, the several semi-permanent buildings contribute less to the area architecturally and even detract from the overall Streamline Moderne style of the original buildings. Steven Mikesell's *Guide to Preserving the Character of the Naval Air Station Alameda Historic District* states:

> It would be appropriate to consider policies that treat the wood-frame buildings (Buildings 91, 92, 101, 102 and 114) with a wider degree of latitude than with the concrete buildings and Building 9. The World War II-era temporary buildings were built to a much lower standard and are generally not consistent with the overall design of the base. Measured in terms of the uniform design of the original base, the World War II-era wood frame buildings make the least contribution to the overall quality of the historic district.[70]

Although it has been confirmed that Buildings 91, 92, 101, 102, and 114 are designated "semi-permanent" rather than "temporary" on Navy property record cards, it is widely accepted that these buildings do not exhibit the architectural integrity of the permanent buildings on the base.[71]

The PDC does acknowledge the Shops Area as the least historically significant of the sub-areas and most difficult collection of buildings to reuse, given their obsolete purpose and tremendous scale. The PDC proposes the most dramatic alteration to this zone of the Historic District, removing 9 of the 10 contributing structures and replacing the buildings with residential units and commercial buildings. The most strategic and architecturally consistent of the 10 contributing buildings, the Fire Station (Building 6), is retained and will continue to operate as a fire station.

The Hangars Area
The Seaplane and Landplane Hangars Areas are both relatively homogenous, consisting of two rows of identical hangars and the former Air Terminal (Building 77). The only non-contributors in the area are Buildings 11 and 12 and their linking wing, Building 400. Although the Streamline Moderne architectural treatment of the Administrative Core buildings is not found at the hangars, the sheer scale, the stacking track doors, as well as the structural engineering involved with the hangars, deserve recognition. Furthermore, as it appears that the hangars were based on the standardized plans drawn up by Detroit architect Albert Kahn, they are the only buildings on the base that can be attributed to an individual architect. Visible from much of the Bay, the hangars embody the purpose and historical significance of NAS Alameda for many people.

The PDC retains the Air Terminal Building (Building 77) and all seaplane and landplane hangars identified as contributing structures, a total of 8 hangars. Commercial and retail uses are proposed for the reuse of the large structures, with rehabilitation according to the Secretary of Interior's Standards. A few current uses, including the Alameda Naval Air Museum in Building 77, are to remain. Additional commercial infill development is planned for the Seaplane Hangar Area, along with a revitalized waterfront and a new public space consisting of green and hard space areas fronting the Seaplane Lagoon. The area adjoining the northeastern corner of the Seaplane Lagoon is identified as the Alameda Point's commercial and transportation hub, the Town Center, which includes contributing structures, Building 41 and 77. The Town Center and the waterfront are served by an extension of West Atlantic Avenue in-between the Seaplane Hangars and the Lagoon. The PDC recognizes

[70] Ibid., p. 67.
[71] Temporary World War II-era buildings are covered by a 1986 nationwide programmatic agreement, prepared and signed by the Department of Defense (DoD), Advisory Council on Historic Preservation (ACHP) and National Conference of State Historic Preservation Officers (NCSHPO) permitting any (DoD) branch to demolish any buildings classified as "temporary" that date from the World War II era (1939-1945) without review under standard provisions of Section 106 of the National Historic Preservation Act. Refer to U.S. Army Corps of Engineers, *California Historic Military Buildings and Structures Inventory* (Washington, D.C.: March 2000), p. 7-2.

the importance of the north-south axis extending through the District to the Oakland Estuary and the Seaplane Lagoon, and protects key view corridors looking south along Lexington and Saratoga Streets, and looking west towards San Francisco along Redline and Midway Avenues.

For a complete list of all buildings currently at NAS Alameda, summary information, and ratings of significance and integrity, see the Property Database in **Appendix F**.

Recommendations for the Redevelopment and Re-Use of the NAS Alameda Historic District

Goal
The goal for historic preservation planning is to ensure the protection and future preservation of historic and cultural resources. NAS Alameda Historic District, as a City of Alameda monument and a National Register eligible Historic District, is a property of historic significance with ties to important local and national historic trends. The protection of the resource will enable continued observation, interpretation, and understanding of its contribution to, as well as its unique place within, our society.

All projects within the eligible Historic District boundary should comply with *The Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (The Standards) (**Appendix G**). The Standards outline the Department of the Interior's advice on responsible preservation practice and are to be used when property owners seek certification for Federal tax benefits. They provide a consistent philosophical basis for the treatment of historic properties, be they buildings, structures, sites, objects, districts, or landscapes – all components found within the NAS Alameda Historic District. The Standards describe the following approach to rehabilitation:

1. Identify, retain and preserve character-defining features
2. Protect and maintain important materials and features
3. Repair materials and features
4. Replace deteriorated materials and features and design for replacement of missing features
5. Design alterations and additions in such a way so as not to change, obscure, damage or destroy character-defining features
6. Provide for life-safety and accessibility code requirements in a manner that does not radically change, obscure, damage or destroy character-defining elements

The Standards are referenced in the City of Alameda's Historical Preservation Ordinance as the guiding rule in determining whether to issue a Certificate of Approval for repairs and alterations to historical monuments.[72] The designation of a historic monument, according to the City's Ordinance, is discussed as follows:

> The purpose of this section is to promote the educational, cultural, and economic welfare of the City by preserving and protecting historic structures, sites, monuments, streets, squares, and neighborhoods which serve as visible reminders of the history and cultural heritage of the City, State or Nation. Furthermore, it is the purpose of this chapter to strengthen the economy of the City by stabilizing and improving property values in historic areas, and to encourage new buildings and developments that will be harmonious with the existing buildings and squares.[73]

[72] City of Alameda Historical Preservation Ordinance, 13-21.4.b.1.
[73] City of Alameda Historical Preservation Ordinance, 13-21.1.

The Alameda Point Element, Chapter 9 of the General Plan, currently outlines the following policies with respect to preservation of the historic resources within the NAS Alameda Historic District:

> *Guiding Policy: Historic Resources*
> 9.5.g Preserve Alameda Point's Historic District, buildings, development patterns, and open spaces.
>
> *Implementing Policies: Historic Resources*
> 9.5.h Preserve to the greatest extent possible buildings within the Alameda Point Historic District to maintain the neighborhood and historic character.
> 9.5.i Provide a mechanism for timely and expedient reviews to ensure that contributing buildings in the Historic District are not left vacant and are managed in compliance with all applicable regulations.
> 9.5.j Preserve the historic sense of place of the Historic District by preserving the historic pattern of streets and open spaces in the area.
> 9.5.k Minimize impacts on the architectural integrity of individual contributing buildings and structures.
> 9.5.l Make every reasonable effort to incorporate compatible adaptive uses or uses for which the buildings were originally designed…
> 9.5.m Prepare design guidelines and specifications for new construction within and adjacent to the Historic District that ensures compatibility of new construction with the character of the Historic District.[74]

Building upon this past work, the PDC recommends the following historic preservation strategies be used to guide future City actions and proposed development projects in the NAS Alameda Historic District. These strategies aim to protect and reinforce significant character-defining features while encouraging re-use and providing opportunities for new development. Care for the District's unique historic identity is stipulated while maintaining Alameda Point's future viability.

Strategy 1:
Prioritize Buildings for Stabilization
Since the Navy closed NAS Alameda in 1997, and base facilities have become available for public lease, many buildings have become filled with new tenants and have received architectural upgrades. Those structures that have not had the benefit of occupants and have remained vacant tend to be the very large structures with inflexible spaces. Examples of contributing buildings in this category include the Mess Hall (Building 3), and one of the Bachelor Enlisted Men's Quarters (Building 4). These buildings do not receive regular maintenance and have witnessed deterioration. Not only will the deferral of maintenance continue to compound the problem and add to the cost of rehabilitation in the future, but it places the condition of the historic property into question. It is recommended that further analysis be performed to determine how best to re-establish a stabilization and maintenance program, and which buildings according to the PDC will require this work. Immediate stabilization and sustained maintenance of these unoccupied buildings is the first and foremost items in need of action. Included in **Appendix H** is *NPS Preservation Brief 31: Mothballing Historic Buildings*, a primary reference on this topic.

Strategy 2:
Distinguish the NAS Alameda Historic District as a Unique Place within the Fabric of the City
The western end of Alameda island has, from the City's earliest documented history, been the site of notable industrial, rail, and aviation activity. The area has always been a zone primarily comprised of industry and transportation, while the remainder of the island supported the growth of residential, civic and commercial

[74] City of Alameda, 1991 General Plan as amended 2003, Chapter 9: Alameda Point, p. 15-16.

areas. It has a unique history and footprint, evident today in the site plan and building fabric that is an important and rare example of a Naval base designed in the Steamline Moderne style. This differentiation from the tree-lined neighborhood streets and Victorian-styled homes of adjacent areas is inherent in what is character-defining about the Historic District.

One of the stated goals of the NAS Community Reuse Plan is to preserve "the character of NAS whenever possible and appropriate while integrating the base into the culture and tradition of the city".[75] Continuing, the Community Reuse Plan looks to "achieve complete integration of the former NAS site with the rest of the island of Alameda, this is to be a seamless integration of the many neighborhoods, open space, and the best qualities of the existing city".[76] Redevelopment of the Historic District should maintain the character, integrity and singular quality of the historic resource while knitting the land into the fabric of the city. It is appropriate to consider thresholds and gateways that allow connection and porosity but acknowledge and allow for a unique historic environment to coexist and thrive. The objective is to remove barriers and fences, provide connections, support the continuation of neighborhood qualities, and make accessible Alameda Point's revitalized public amenities while fostering a recognition and protection of its valued historic character.

Strategy 3:
Restore and Reinforce the Site Planning Concepts Reflected in the Original 1940 Plan
The original master plan for NAS Alameda served as the organizational framework for the early development of the base and is a prime example of the Total Base Design concept, wherein architecture, site planning and landscape are integrated into a complete ensemble. The influence of City Beautiful planning is apparent, resulting in the most significant aspects of the plan: the landscaped cross axes, progression and hierarchy along the axes, symmetrical buildings or groupings, cohesive architectural vocabulary, and unified landscape treatment. This organization can equally be effective in serving as a framework and guide for future development. Specific concepts to address or reinforce consistent with the PDC include:

- North – South Axis and East – West Axis
- View Corridors
- Street Pattern and Circulation
- Central Landscaped Malls
- Landscape treatments including boulevard landscaping on W. Essex Road
- Relationship of Buildings and Open Spaces to Axes
- Relationship of the plan to the Seaplane Lagoon

Strategy 4:
Retain Significant Use Relationships Reflected in the Original Five Sub-Areas
The purposeful arrangement of functions, indicative of the Total Base Design practice, is found in the five sub-areas: the Administrative Core, the Shops Area, the Residential Area, the Landplane Hangar Area and the Seaplane Hangar Area. These distinctive zones, with the associated building and landscape treatments, should be understood, even as change and modification occurs. Beyond their historic association, they provide logical arrangement of building types, scale, edges, and massing variation to the historic area.

Where significant alteration of a sub-area is required, it is recommended to focus the alteration on areas that have historically experienced modification. Following this approach, the PDC proposes the highest percentage of demolition and new development in the Shops Area of the District, where buildings departed from the original master plan configuration and the architectural treatment was greatly simplified. The new PDC

[75] EDAW, *NAS Community Reuse Plan*, prepared for the Alameda Reuse and Redevelopment Authority, adopted January 31, 1996, p. 1-10.
[76] Ibid.

buildings in this area include the tallest new buildings and most densely developed program, including shop houses and commercial buildings, to re-establish compatible scale and volume characteristics.

With respect to functional uses, a compatible use to the building's historic use is to be employed with rehabilitation wherever feasible with the PDC. This is best illustrated in the re-use of the Administration Building (Building 1), a highly significant building at the center of the Historic District. The PDC proposes to maintain the City Hall West offices in this location and define the zone as a civic center in keeping with the nature and significance of the original historic use. The facing landscaped mall will be made available for large public gatherings and community events, a compatible use for a former parade ground.

Strategy 5:
Restore and Revitalize Historic District Landscapes and Open Spaces
Within the Historic District, the landscape serves to define the ceremonial entry and central open space. Two large rectangular intersecting green lawns orient along the main axes, originally comprised of more formal plantings. Decorative edges are formed with shrubs and trees, extending along streets into connecting areas and smaller entry courts. In the residential sub-area the green again becomes predominant, providing a park-like setting for residential quarters. Throughout, the planting material reflects the scale and function of the spaces.

It is recommended that a study of the Historic District landscape be completed to provide assessment and suggested guidelines for appropriate landscape rehabilitation. With this information, all new landscape plans should be formulated to reinforce the concepts of the original plan, provide for the restoration of the significant landscape features, and incorporate compatible new plant material in keeping with the historic plan. Monuments, flagpoles, and signage should be addressed and carefully integrated. The open space provided by the Seaplane Lagoon is equally important to consider. The open flat nature of the area in front of the grand row of seaplane hangars creates an impressive view corridor which must be considered in the design for improved public access and utilization of the waterfront on this important edge.

Strategy 6:
Encourage and Support Re-Use and Rehabilitation of Contributing Structures
Re-use of buildings is the first goal of any preservation plan. Occupancy brings not only life and purpose to the structure, but necessary care and maintenance. The most ideal use is the same as the original use of the building. However, a change in use is often required, in which case rehabilitation is to be followed. Rehabilitation is defined by the Standards as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.[77]

Currently the Mikesell document, *Guide to Preserving the Character of the Naval Air Station Alameda Historic District*, serves as guidelines for the NAS Alameda Historic District, providing a description of character-defining features and examples of suitable and non-suitable treatments to selected buildings in the District. Although the document has been an invaluable tool for the City, and has been recognized by the State Office of Historic Preservation as a guiding document, an updated, comprehensive set of re-use guidelines is suggested to accompany the PDC. Re-use guidelines outline information and conditions found in specific buildings to facilitate and assist owners and tenants with the re-use process. Data should be tailored to the needs of the building, but generally should include:

[77] National Park Service, *The Secretary of Interior's Standards for the Treatment of Historic Properties*, Standards for Rehabilitation, 1995, http://www.cr.nps.gov/hps/tps/secstan5.htm.

- Building summary information
- Identification of intact historic fabric
- Conditions assessment and recommendations
- Parameters for rehabilitation, repair, and maintenance work
- Pertinent code issues such as life-safety, accessibility and energy requirements
- State Historic Building Code
- Mechanical, electrical, and plumbing systems
- Preservation incentives, including tax-credits and grants

Strategy 7:
Guide New Development within the Historic District
When new buildings are introduced into a historic context the overarching aim is to have the new work exhibit differentiated, yet compatible design with the historic. The Standards address new construction with Rehabilitation Standard number 9, calling for compatibility with historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.[78]

Design guidelines for new development are necessary to establish a clear policy on appropriate design within the Historic District. Guidelines are used as a design aid in determining acceptable new construction that preserves the character of the District. They should allow for creative design to occur, and not prescribe a certain architectural style but rather encourage an understanding of and compatibility with the Streamline Moderne architectural vocabulary in the District. In the process of formulating Guidelines, interested parties can analyze the issue of compatibility and reach consensus on acceptable architectural review processes. In addition to architectural design issues, Guidelines for NAS Alameda can specify planning, zoning, and landscape criteria for new development that are equally important in preserving the character of the Historic District (**Strategies 3, 4 and 5**).

Strategy 8:
Manage the Historic Resource
The responsible management of historic resources will provide innumerable benefits to our community. Proper knowledge, planning, tools, and communication are key elements for the task, resulting in clear policies, roles, responsibilities, and anticipated funding mechanisms to manage development. Acceptable management practices of historic resources should be analyzed and stipulated; financial sources available for rehabilitation, low-income housing, and other uses which may involve historic resources studied and identified; marketing strategies crafted; and a roadmap for implementing sound management of the historic resource adopted. With these efforts, future development and growth as outlined in the PDC can be achieved in collaboration with historic preservation.

VII. CONCLUSION

The NAS Alameda Historic District is a rare asset that is facing an unprecedented period of change. In this period of planning and review there is an opportunity to truly recognize the historic significance of the resource and to plan for preservation. The aim is to protect and reinforce significant character-defining features while encouraging re-use and providing opportunity for new development. In preserving the historic resource we broaden our knowledge, we retain the opportunity for future understanding, and we enhance appreciation of our cultural heritage.

[78] Ibid.

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Francis Marion "Borax" Smith (1846-1931) - Known as the "Borax King," and "Frank," Smith was a Death Valley mining magnate and businessman who headed the Pacific Coast Borax Company. Born in Richmond, Wisconsin on February 2, 1846 to Henry G. and Charlotte Paul Smith, Francis attended public schools as a child before graduating from Milton College in Wisconsin.

Francis "Borax" Smith about 1875.

At the age of 21 he left his father's ranch and, answering to the irresistible call of the west, he made his way toward the Pacific, visiting Idaho, California and Nevada, spending considerable time in mining and other work in those states, before settling in Nevada for five years.

In the late 1860's, Smith was working under a contract with several ore mills near Columbus, Nevada, locating and getting out timber for the various mining camps. While working at Teel's Marsh, he discovered a rich supply of borax. Collecting samples, he had them assayed, which proved the ore to be higher than any known sources for borax. He soon staked several claims and began his career as a borax miner.

With the help of his older brother, Julius, and two brothers by the name of Storey, the men established a borax works at the edge of the marsh to concentrate the borax crystals and separate them from dirt and other impurities. Operations began in 1873 under the name, Smith and Storey Brothers Borax Co. Later, the Smiths acquired the Storey brothers' interest and the company name was changed to Smith Brothers Borax Co. and later to the Teel's Marsh Borax Co. The Teel's Marsh deposits soon became the world's principal source of supply and remained so for years, bringing borax to a wide commercial use around the world.

In 1875, during a national depression, Smith opened a retail store and office at 185 Wall Street in New York City to expand the borax market. His advertising claims that borax would "clean black cashmere, cameos and coral, keep milk and cream sweet" and "prevent diphtheria, lung fever and kidney trouble" may have been exaggerated, but they helped to popularize the cleaning additive in a prime market and in a period when sales were slumping. That same year, Francis married Mary "Mollie" Rebecca Thompson Wright, a divorcee from Brooklyn, New York.

In 1877, Smith founded the settlement of Marietta, Nevada, now a semi-ghost town, from which the borax was shipped in a 30-ton load using two large wagons with a third wagon for food and water drawn by a 24-mule team for 160 miles across the Great Basin Desert from Marietta to Wadsworth, Nevada where the nearest Central Pacific Railroad siding was.

In 1881, Smith and his wife, Mollie, moved to Oakland, California, where Frank began to invest in real estate, while continuing his operations at Teel's Marsh, Nevada. In 1884, Smith bought out his brother's interest in their partnership and Frank began to turn his eye to potential development in Death Valley. When William T. Coleman , who owned the Harmony and Amargosa Borax Works, the Lila C Mine, the Furnace Creek Ranch, and other properties in Death Valley, California, began to have financial troubles in the late 1880's, Smith provided Coleman with capital in exchange for mortgages on the property.

In 1889, to expand the processing of raw minerals that formed the borax product, Smith worked with renowned engineer and reinforced concrete innovator Ernest L. Ransome, to design two new refineries for him -- one in West Alameda, California, and the other in Bayonne, New Jersey. The California refinery was was recognized for being the first

structure of its kind to be built with reinforced concrete.

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Unfortunately for William T. Coleman, his empire collapsed and Smith gained all his properties in 1890. The name of Smith's properties then became the Pacific Coast Borax Company. Smith ceased operations at the Harmony and Amargosa Borax Works in order to focus on mining operations at Borate, California in the Calico Mountains. Initially the ore was hand sorted at the mine, and hauled to Daggett, California using the 20 mule teams and wagons that William T. Coleman had first used in Death Valley.

In 1891, Stephen Mather, the administrator of the company's New York office, persuaded Smith to add the name 20 Mule Team Borax to go with the famous sketch of the mule team already on the box. The trademark would be registered three years later. Mather would go on to own the Thorkildsen-Mather Borax Company, and in 1916, was appointed the first Director of the new National Park Service.

While Frank was busy with his borax interests, his wife was busy with charity work -- especially working hard for aid and assistance for orphaned girls. Mollie, after a tragic miscarriage, could never have children of her own, but she yearned for them. Raising money for their assistance, the couple also took in a number of young girls as wards over the years. In 1883, they had adopted an infant girl, who they named Marion Francis Smith. Ten years later, they would take in two young teenagers named Anna Mae and Sarah Winifred Burdge. While there were many others they looked after, these three would become part of the "Solid Six," as Frank affectionately called them. Over the years, Mollie's contributions and assistance to these many girls would continue.

The Smith's Presdeleau estate on Shelter Island in New York. Unfortunately the mansion was razed in 1938.

In 1892, Frank and Mollie went east to Shelter Island, New York, to find a place to build a summer home. This was probably for two reasons, the first of which was that New York was Mollie's original home; and the second, Shelter Island was also the place where his friend, and soon-to-be partner, Frank Havens, already had a summer home. Before they left New York, they had purchased a 42 acre homestead, which already included a colonial style home. Frank then hired an architect to add to the original home, which would eventually feature 35 rooms. He also added significant acreage over the years until the estate sat in the midst of some 435 acres. They called their new summer retreat “Presdeleau.” Over the next several years, Frank would continue to buy more property in the area, adding to the estate.

Convinced there was a more efficient and profitable way to haul the ore from the mines to the railhead at Daggett, Frank began to experiment with a steam tractor called "Old Dinah" in 1894. Unfortunately, due to the roads from the mines, the experiment failed and he would continue to utilize the 20-mule teams for the next several years.

In the meantime, Smith had also been investing heavily in real estate and public transit in Oakland. He, along with partner, Frank Havens formed the Realty Syndicate in 1895 buying area real estate, as well as acquiring and consolidating a number of small, independent transit companies to create an integrated system of streetcar lines and rail extensions to a number of subdivisions the company was developing.

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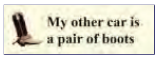

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3. Historical Setting – Port of Los Angeles

The following historical setting has been adapted, in part, from the intensive-level surveys of the Port of Los Angeles prepared by Jones & Stokes in 2008, as well the reconnaissance-level surveys by San Buenaventura Research Associates from 1992 to 1996. Additional historical information developed by ESA has been inserted into the historic setting where appropriate.

3.1 Early History

The Port of Los Angeles is located approximately 20 miles from downtown Los Angeles, at the southernmost point in Los Angeles County. Due to its location on the Pacific Ocean, the surrounding area historically served as a port facility to varying degrees. Commonly referred to as San Pedro, the port is located within the boundaries of three historic ranchos: Rancho San Pedro, Rancho Los Palos Verdes, and Rancho Los Cerrios. These ranchos, conferred by Governor Pedro Fages to three veterans of the 1769 Portola expedition, possessed combined acreage equaling almost 84,000 acres (Beck and Haase 1974). Owners of the rancho lands earned a living through the raising of cattle and participation in the hide and tallow trade, and by 1830, San Pedro was considered a leading hide center on the west coast (Rawls and Bean 1993; Queenan 1986).

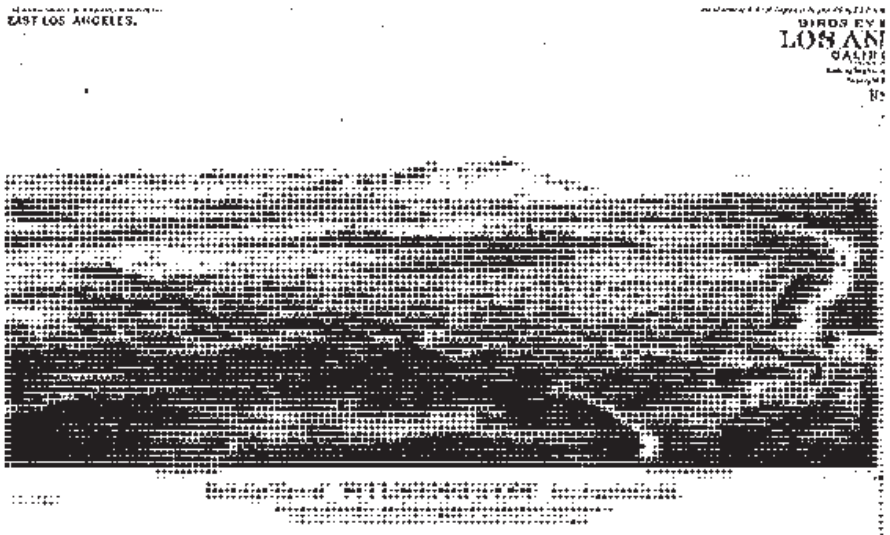
Following the annexation of California by the United States and the subsequent Gold Rush, an influx of new settlers descended upon the San Pedro area. While some residents realized the area's potential as a port area, the region was underused as a port during this period. Cattle and sheep ranching continued to dominate the economy, with one of the largest sheep operations in California, Flint, Bixby & Company, establishing the largest portion of its operation in San Pedro (Queenan 1986; Beck and Hasse 1974).

3.2 Commercial Shipping, 1857–1897

One of the earliest residents of the area, Phineas Banning, realized the potential of the area as a commercial shipping port, and in 1857, he constructed new docks to take advantage of the increasing trade coming in and out of Los Angeles. Two primary routes to the southwest gold fields, the Gila River Trail and the Old Spanish Trail, ended in Los Angeles. Banning shuttled materials on smaller boats from his base in Wilmington to and from a second location on the Rancho San Pedro waterfront.

Banning also realized the importance of rail transportation between his operation on the bay and the growing city of Los Angeles. In 1869, Banning and his investors organized the Los Angeles & San Pedro Railroad (LA&SP), marking the beginning of a period of fierce rail competition in the San Pedro and Los Angeles area. Banning's LA&SP was the first route to establish a reliable means of moving cargo from the ships coming into San Pedro Harbor to the City of Los Angeles.

Although the LA&SP was the first short line in southern California, by 1872 it had been purchased by the Southern Pacific Railroad (SPRR). In an attempt to break the stranglehold that the SPRR had on shipping in the area, Senator John P. Jones from Nevada established the Los Angeles and



SOURCE: POLA

Figure 3
Library of Congress Map of Wilmington, Los Angeles County, CA, 1877

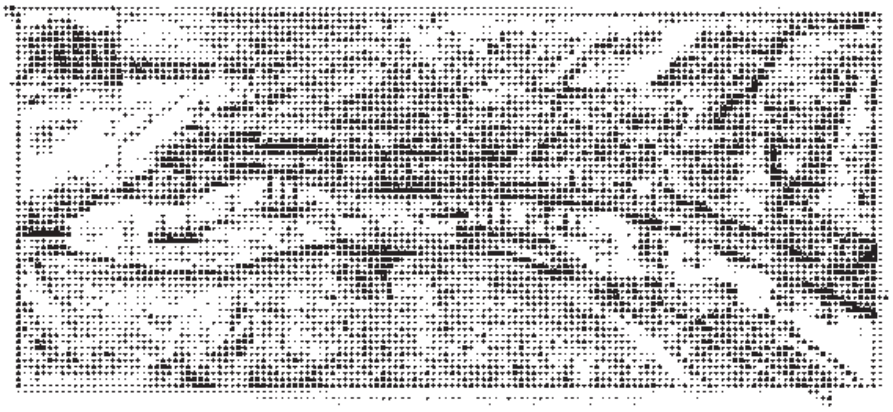
Independence Railroad (LA&I) a year before the SPRR's acquisition of the LA&SP. However, like the LA&SP, the LA&I soon was part of the SPRR system (Queenan, 1986).

Due in part to the improved transportation to and from the harbor, Los Angeles experienced rapid growth during the late nineteenth century. From a population in 1880 of 11,000, the city grew to 50,000 by 1890 and to 102,000 by the turn of the century (Matson, 1920). The increased population brought with it the need for more construction and living supplies, much of which came from ships destined for San Pedro shores.

3.3 San Pedro Bay and the Founding of Port of Los Angeles, 1897–1913

Growing commerce in Los Angeles eventually required the formal establishment of a shipping port. The federal government agreed to assist the City of Los Angeles by establishing its official harbor in San Pedro after several studies recommended it over other sites, including a Santa Monica site pursued by Collis Huntington, an influential member of the "Big Four" railroad barons. Following an extensive battle with Huntington, the San Pedro Harbor site won authorization from Congress in March 1897.

In 1906, in preparation for the opening of the Panama Canal, the City of Los Angeles extended its boundaries to coastal tidewaters when it annexed San Pedro. The Port of Los Angeles and the Los Angeles Harbor Commission were officially created in December 1907, and numerous



SOURCE: POLA

Figure 4
Library of Congress Map of San Pedro, CA, circa 1905

harbor improvements followed, including the completion of the 2.11-mile breakwater, the broadening and dredging of the main channel, the completion of the first major wharf by the SPRR, construction of the Angel's Gate lighthouse, and the construction of the first municipal pier and wholesale fish market. The construction of the breakwater was a "monumental engineering feat" requiring crane operators to place large boulders in precise locations 40 to 50 feet below the surface of the water. Both Wilmington and San Pedro were part of the City of Los Angeles by 1909, and because of this citywide growth, the Port of Los Angeles became the world's largest lumber importer by 1913 (Marquez and de Turenne, 2007; Matson 1920).

A 9-mile outer breakwater was completed in 1913, splitting the harbor into Inner and Outer Harbors. The Inner Harbor was known as Wilmington Harbor and the Outer Harbor was known as San Pedro Bay. The same year, dredging and filling of Mormon Island (Inner Harbor) allowed for its conversion from swamp land to land suitable for wharves and sheds (Marquez and de Turenne, 2007.) The first industries to use these new facilities were boatbuilding companies.

The opening of the Panama Canal in August 1914 decreased the amount of time spent by ships traveling between eastern and western U.S. ports, and promised to open up new trade opportunities worldwide. In preparation for this new trade, the City of Los Angeles completed one of many large municipal terminals in the harbor. However, the outbreak of World War I that same year temporarily stalled the movement toward expanded worldwide trade (Queenan, 1986).

3.4 Wartime Changes, 1914 – 1950

The principal use of the port changed again when England declared war on Germany. At the onset of World War I, the U.S. Navy took possession of a portion of the harbor for a training and submarine base in order to establish a significant presence on the Pacific coast. During the war, the Port was one of the chief sources of employment for residents of the area, with shipbuilding

enterprises turning out vessels by the dozens for the war effort. The Port of Long Beach, established only two years before the onset of the war, offered the only southern California competition to the Port of Los Angeles in terms of shipping or shipbuilding.

Despite the previous use of the Port for the shipment of goods, it was not until 1915 that the Port of Los Angeles began constructing its first warehouse. Warehouse No. 1, located on 60 acres, was six stories in height, with a total storage capacity of 500,000 square feet. Warehouse No. 1 opened on March 6, 1917 to great fanfare, with over 10,000 people in attendance. The completion of this building symbolized the Port's transition to a significant seaport able to handle deep sea ships of varied cargo (Marquez and de Turenne, 2007; Queenan, 1986).

In 1917, Terminal Island was dredged and filled. Boatbuilding companies moved their facilities from Mormon Island to Terminal Island. Oil terminals and petroleum facilities took their place on Mormon Island (Marquez and de Turenne, 2007).

Between 1917 and 1930, distributors constructed a large number of new wharves, warehouses and sheds, indicating a significant increase in trade at the Port. In the 1920s, over 25 million tons of cargo passed through the port (Marquez and de Turenne, 2007).

Transportation systems improvements also encouraged the growth of the import and export trade in the harbor area. By 1917, a vast railroad network existed around the harbor and Los Angeles, which facilitated the efficient movement of goods throughout the country. Los Angeles had an advantage over the Port of San Francisco in that it did not have the Sierra Nevada posing an impediment to cargo shipments en route to the east coast (San Buenaventura Research Associates, 1992).

During the period following the end of World War I in 1918, the Port was increasingly used for importing lumber and other types of raw materials. Similar to the prewar period, the vast majority of inbound cargo to the Port consisted of lumber to satisfy the rapid growth of the Los Angeles area. Exceptional levels of new construction of houses and factories necessitated the importation of lumber on a large scale (Matson, 1920). Comparatively, the biggest export product passing through the Port during the postwar years was crude oil.

Following the end of the war, many trade restrictions were lifted, and the Port provided for the transportation of a wide variety of products. Although lumber and crude oil were the biggest commodities to pass through the Port at the time, Los Angeles featured almost all types of industry. Soon after the war's end, many different types of commerce and business activities developed in the area. Although existing harbor facilities continued to be used for products such as oil, lumber, ships, and fish, new facilities were developed to handle products such as cotton, borax, citrus crops, and steel. In 1923, the City of Los Angeles passed a harbor improvement bond measure, resulting in the construction of additional wharves to meet the demands of increased imports and exports. In order to streamline the railroad portion of shipping in the harbor, the various railroad companies serving the Port consolidated operations by 1929 under the title the Harbor Belt Line Railroad (Queenan, 1986; San Buenaventura Research Associates, 1992).

Harbor traffic slowed during the Depression years and the harbor witnessed a sharp decline in international trade. The Harbor Commission continued to make improvements, however, including a new breakwater extension, completed by 1937, and the construction of new cargo and passenger terminals. The federal government's Works Progress Administration (WPA) helped the Port finance improvements, including passenger and freight terminals and wharf (Queenan, 1986).

As one of the major American ports closest to the fighting in the Pacific Ocean, San Pedro experienced new life and distinction during World War II. Ship and aircraft production facilities in the harbor area worked day and night between 1941 and 1945 to manufacture more than 15 million tons of war equipment. In addition, hundreds of thousands of personnel passed through the Port when departing for and returning from combat.

The LAHD launched a broad restoration program following the war, as many facilities in the harbor required maintenance which had been delayed during the war years. During this time, the LAHD improved several of its buildings and removed many temporary wartime buildings (Queenan, 1986).

3.5 Containerization: 1950 to Present

With the rise of containerization following the end of World War II, methods of shipping changed dramatically. Prior to this new method, cargo loading was labor intensive, with individual pieces of cargo, drums, boxes, bags or crates, loaded into ships. Cargo was brought to the dock by truck or train and the individual pieces of cargo were unloaded into transit sheds, sorted and organized, and then moved to the wharf for loading as individual packages into the ship's cargo holds by either ship-based or shore-based cranes where it was then stowed. Alternatively, longshoremen would place the individual pieces of cargo in cargo nets that were hoisted into the ship where the individual pieces of cargo were unloaded and stowed. Some efficiency was achieved by placing several individual containers (e.g., drums, bags, or boxes) on a pallet and then loading the pallet into the cargo hold.

Containerization ships appropriate cargo in standard sized, sealable steel boxes, typically 20 or 40 feet long. Special trailers transport these boxes to and from the port by trucks or rail. An empty container is delivered by truck to a location (manufacture, warehouse, or other enterprise), is loaded with cargo and sealed, then transported by truck or train to the port, where shore-based cranes lift the container from the trailer and place it in the ship's cargo hold or on the ship's deck. After the container is delivered to the destination port, the process was repeated in reverse. This consolidation of cargo in standard-sized containers improves the overall efficiency of transport and allows greater integration of transport by truck, train, and ship.

The adaptation of the maritime industry to containerization involved not only the creation of new ships, truck trailers, rail cars, and cargo cranes designed and built specifically to handle the standard cargo containers, but also the construction of new port facilities. As the loading and unloading of ships and the associated handling was the most time consuming aspect of moving cargo through the Port, under the old loading methods, cargo terminals were designed to

maximize the "surface area" of the terminal by providing as much berthing space as possible, with little backland (transit sheds) to service each wharf.

The containerization method required large-volume terminals, with extensive backlands, and internal roadways to service each wharf. The increased backlands reflected the need for storage of trailers and containers awaiting a ship's arrival, area needed for the loading and unloading of containers onto ships, and area needed to process the containers into and out of the terminal by truck or train. With the increased efficiency, the limiting factor of transferring of cargo became the organization and optimization of storage of containers awaiting shipment, movement to and from the wharf, and cargo flow into and out of the terminal via road or rail. This meant that ports had to either develop new terminals to meet the needs of the new geometry required by containerization or redevelop older terminals. In addition, with containerization, the weight of cargo "packages" (i.e., containers) increased dramatically, requiring much larger cranes and a corresponding move from timber to concrete wharves.

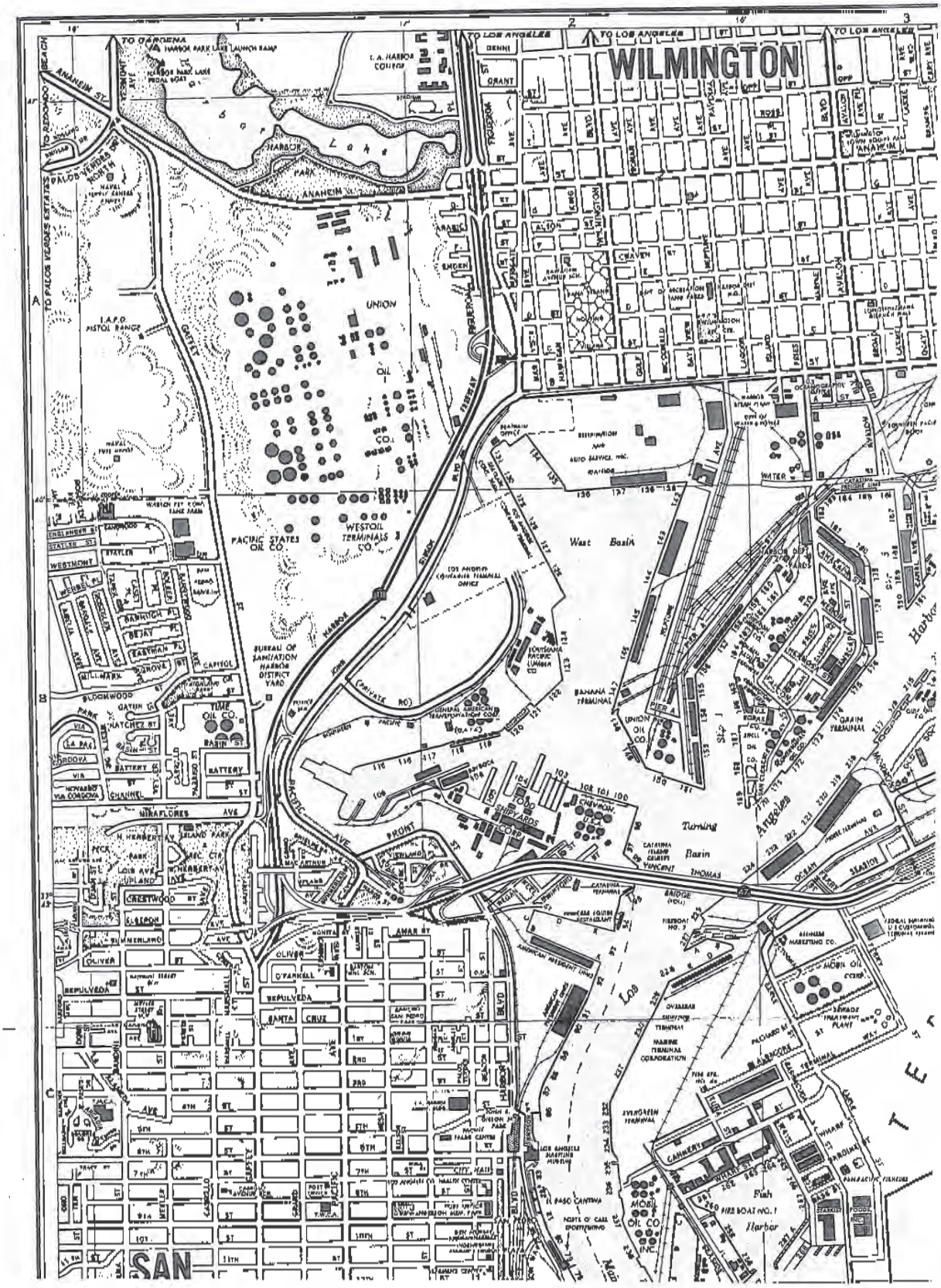
Major improvements to the Port in the 1970s included the deepening of the main channel to accommodate the larger container vessels entering the bay, the purchase of land to expand terminals, and the replacement of older wharves that could not bear the increased weight of newer containers.

Worldwide shipments through the Port increased during the latter half of the 20th century as ocean-going vessels grew to sizes no longer able to negotiate the Panama Canal. Using a "land-bridge" system, shippers wishing to pass materials from the Pacific Ocean to the Atlantic Ocean employed the more efficient practice of unloading at the Port of Los Angeles, moving materials cross country via truck or train, and loading materials onto ships on the east coast.

The following provides a historical context focused on Municipal Pier No. 1.

4. Historical Context – Municipal Pier No. 1

In anticipation of increased shipping due to the construction of the Panama Canal, to be completed in 1914, the Los Angeles Board of Harbor Commissioners initiated several improvements at the Port of Los Angeles in the early 1910s to capture a greater portion of the increased shipping traffic in the Pacific. Improvements to the Outer harbor included the construction of the massive Municipal Pier No. 1. Work on the Pier began with the filling of the Huntington Concession (also called the "Huntington Fill") during the spring of 1912. Over 60 acres were in-filled with materials taken from dredging the adjacent channel to a new depth of 35 feet (Marquez and De Turenne, 2007; Board of Harbor Commissioners, 1912-1913; LAT, February 6, 1912). According to the Los Angeles Times, this area provided the best opportunity for deep water wharfage at the Port (LAT, March 26, 1911). The Board of Harbor Commissioners Report for 1912-1913 called the construction of Municipal Pier No. 1 as, "one of the best pieces of wharf construction in the country," and also noted that, "This will be the finest wharf construction that can be built, and is designed for the deep sea commerce of the great ocean lines that will come through the Panama Canal from Europe, or engage in trans-Pacific trade. Figure 5 shows the dredging and fill operations circa 1913.


WILMINGTON
TO LOS ANGELES
TO LOS ANGELES
TO LOS ANGELES
TO CORONA
VIA HARBOR PARK LAKE LAUNCH RAMP
HARBOR PARK LAKE PEDAL BOAT
L. A. HARBOR COLLEGE
HARBOR PARK
ANAHEIM ST.
TO REDONDO BEACH
TO PALOS VERDES ESTATES
PALOS VERDES DR. NORTH
I.A.P.D. PISTOL RANGE
UNION OIL CO.
PACIFIC STATES OIL CO.
WESTOIL TERMINALS CO.
West Basin
BUREAU OF SANITATION HARBOR DISTRICT YARD
(PRIVATE RD.)
LOS ANGELES-CATALINA TERMINAL OFFICE
LOUISIANA PACIFIC LUMBER
CONTINENTAL AMERICAN TRANSPORTATION CORP.
BANANA TERMINAL
UNION OIL CO.
PIER A
GRAIN TERMINAL
TODD SHIPYARDS CORP.
CHEVRON U.S.A.
Turning Basin
CATALINA TERMINAL
CATALINA ISLAND CHAMBER OF COMMERCE
VINCENT THOMAS BRIDGE (VOH)
FERRY BOAT NO. 3
AMERICAN PRESIDENT LINES
MARINE TERMINAL CORPORATION
OVERSEAS SHIPPING TERMINAL
MOBIL OIL CORP.
TERMINAL
TERMINAL ISLAND
CANNERY
FISH HBR. BOAT NO. 1
Fish Harbor
MOBIL OIL CO. INC.
EL PASO CANTINA
HARBOR
PACIFIC
AVALON
FRONT
SAN

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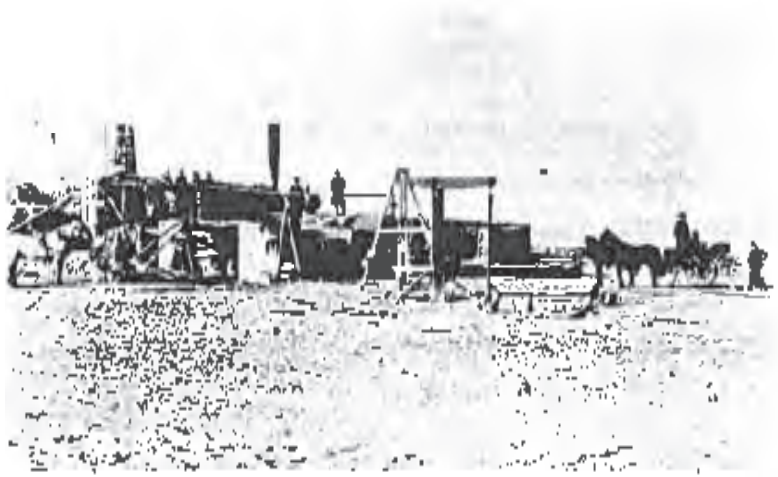
To Evelyn Ellis Smith, whose courage, intelligence and devotion made all the difference when these qualities meant the most to her husband and their children.



F. M. Smith's borax works on Columbus Marsh, Nevada, 1886. (Courtesy of Lorena Edwards Meadows.)

its assets, "in view of pressing engagements in New York" and "to prevent a dissipation of our property."[16] The firm's spokesman, Frank S. Johnson, a partner, reckoned its assets at between $4 and $4.5 million, and liabilities at $2 million. The borax properties alone were valued at $2 million, but their sale was blocked when Congress put borax on the free list in a new tariff bill. This was a fatal blow, for it threatened a fall in the domestic price of borax, and thus a corresponding decline in the capitalized values of all American borax deposits.

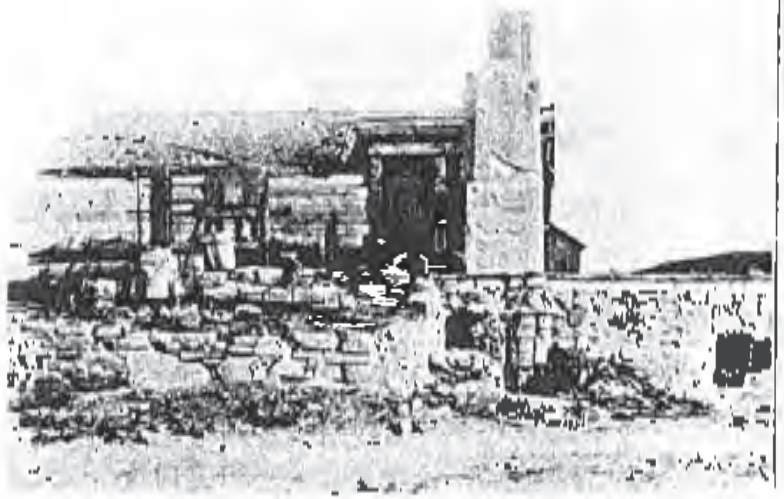
Initially, Coleman's failure was treated as a temporary matter, but it soon became apparent that the firm would not reopen its doors. Showing the characteristic integrity that made him one of the most highly regarded men in San Francisco, Coleman liquidated his personal holdings and devoted the few remaining years of his life to paying off his creditors in full.

In the assignment, the Coleman interests in Meridian Borax, Harmony Borax, and the West Alameda refinery were segregated for separate treatment under the custody of A. L. Tubbs.[17] In March 1890, Borax Smith acquired the borax properties and the Alameda refinery as well.[18] The reported price for the Death Valley properties

alone was put at $400,000. Smith undoubtedly borrowed heavily for this purpose, which may have been one reason why Joseph Mather began to sour on his employer. Mather disapproved of extensive debt, and also had the unhappy job of raising funds for Smith. Borax Smith, by contrast, had great ambition, and was only too glad to borrow money in the service of these larger ends.

Formation of the Pacific Coast Borax Company

Even before his financial collapse, Coleman had begun preparations for mining colemanite at Borate. Smith fully agreed with the wisdom of the move, so by 1890 Borate was in production. The time had now come for consolidation of his several borax companies. The Pacific Coast Borax Company was created on September 10, 1890, with Smith as president and majority stockholder. The age of colemanite had begun, while that of marsh extraction was virtually over. "PCB," as the new company soon came to be known, lost no time in winding up its marsh operations and in closing its mercantile stores in Columbus and Marietta.[19]



Borax works at Columbus Marsh, Nevada, in 1888. (Courtesy of Lorena Edwards Meadows.)

came Borax Smith's mine superintendent, first at his borax properties in Nevada, then at the great colemanite camp at Borate, and finally at Smith's West End Consolidated silver mine in Tonopah. Corkill was a mining engineer of rare ability, who had emigrated from the Isle of Man. He rose in the service of PCB, first at Borate, then at the Lila C (Old Ryan), and finally at "New" Ryan, on the east side of Death Valley. Both his son, Frederick W., and his grandson, J. Fred Corkill, became key men in PCB. However, the first Fred Corkill stuck with Borax Smith, leaving PCB for Smith's West End silver mine in 1914, when Smith himself severed all connections with the company he had founded.[33]

Then there was Benjamin Franklin Edwards, of Welsh descent, born in California in 1865 and 20 years later a young miner in Candelaria.[34] Edwards was a man of diverse talents, all of which attested to outstanding business ability. Undoubtedly he knew Borax Smith by the mid-1890s, through that tireless empire-builder's many trips to look over his three big properties in the

Bunkhouse built by F. M. Smith at Monte Blanco claim in Death Valley, 1882. The building now serves as the Furnace Creek Museum. (Fred Corkill collection.)

In taking this step, however, Smith made a deal with his old Candelaria banker friend, Ben F. Edwards, to continue operations on a smaller scale at Teel's, Fish Lake, and Columbus marshes, where profitable borax still remained. To carry out the deal, Edwards made an interesting arrangement with a Chinese labor contractor with the unlikely name of Billy Ford, under which Ben would pay Ford $60 per ton of sacked borax, providing the sacks and shovels, while Billy would feed, clothe, and house his crews. In turn PCB would pay Edwards $75 per ton.[35] Ford's Chinese laborers lived in little wooden shacks barely three feet high. Some of them are still intact today. In a speech to the PCB sales force in 1908, Borax Smith declared that production was still continuing at Teel's at that late date, with a total cumulative output of probably 17,000 tons.[36]

Before leaving this harsh, desolate, isolated and yet wildly beautiful region of the Nevada borax marshes, it is appropriate to take account of the many close friends and talented people whom F. M. Smith found there. Undoubtedly part of his business genius lay in his ability to select loyal and competent associates, to whom he readily delegated authority and responsibilities as rapidly as they could handle them. Some of these people came from Columbus or Teel's, but most of them lived in Candelaria. For convenience, they're referred to here as the "Nevada Circle."

Of the whole group, there were four men of outstanding ability, three of whom went to spend the rest of their careers "in the profitable service of Borax Smith."[37] In no particular order of preference, the first one was John Ryan, the Irish bachelor from County Clare, whose loyalty, natural intelligence, courage, and common sense made him Borax Smith's right-hand man for almost 40 years. He first went to work for Smith at Teel's Marsh in 1873, and stayed with him (save for three years in South Africa) until Smith quit PCB in 1914. Ryan was a rugged desert man and hard-rock miner with the natural leadership qualities of a top superintendent. Smith used him for everything from chasing claim jumpers in Death Valley to supervising a big camp at Borate and building and then operating the Tonopah and Tidewater Railroad. So far as John Ryan was concerned, Frank Smith was the boss. Anything he ever asked John Ryan to do he did, and did it the way "Mr. Smith" wanted it.

Next, there was Fred Corkill, superintendent of the Holmes Mine (a silver property) near Belleville, Nevada, in 1905. Later he be-

Abandoned Harmony Borax Works, Death Valley, about 1890. Harmony was operated by F. M. Smith and W. T. Coleman from 1883 to 1888. (Fred Corkill collection.)

western Nevada district. When PCB decided in 1891 to get out of "marsh farming" for borax mining, Smith picked Edwards as his agent and contractor to keep the properties going on a smaller scale. By this time Edwards was also a banker and merchant in Candelaria. Edwards and Smith would continue their business association until 1917, when they disagreed over management issues. Yet they remained friends until the death of Borax Smith in 1931.

Finally, there was Christian Brevoort Zabriskie, probably the most important of the whole group in terms of influence upon Smith. Chris, as he was universally known, was of Dutch and Polish descent. He was the son of an army officer, Captain Elias B. Zabriskie, and was born in 1864 in Fort Bridger, Wyoming.[36] Later the family moved to Carson City, where he grew up. Chris Zabriskie had good looks, charm, brains, plenty of ambition, and a measure of opportunism in his character. He worked in and around Candelaria in the early 1880s, and soon caught the sharp eye of Borax

Part of Greenland Ranch, now Furnace Creek Ranch, Death Valley, about 1890. (Fred Corkill collection.)

Smith, who was on the lookout for exceptional men. Toward the end of 1884 or early in 1885, Smith offered him the job of superintendent of his Pacific Borax Company works at Columbus Marsh. This connection seems not to have lasted very long, for the local papers carried reports of his doing various jobs in various places. In the fall of 1888, Chris Zabriskie married Margaret Louise Edwards, who was Ben Edwards' sister.[44] Toward the close of 1892, the Zabriskies and their year-old daughter moved to Oakland, where Chris entered the real estate business.[37]

Advertisements in the local paper disclosed that Chris was selling lots in the northwestern section of Oakland, near the Emeryville line. Of more importance was the claim that the lots would be conveniently close to the proposed "new ferry terminal" for San Francisco. This was the first public revelation of Borax Smith's great dream for a transbay electric railway and ferry system—a project that would not come to fruition for another 10 years.

From Ulexite to Colemanite

With the formation of PCB in 1890 and the shipping off of the marsh properties by the sub-contract with Ben Edwards, F. M. Smith was now a producer of colemanite borax with his mines at Borate. In picking up the remains of Coleman's fallen empire, Smith acquired two very important undeveloped colemanite deposits, one known as the Lila C (for Coleman's daughter), at Old Ryan on the east side of the Greenwater Range; and the other a collection of colemanite claims, the so-called Billie group, on the west side of this range, 3,200 feet above the floor of Death Valley. In time, these claims would become mines, to be known as the Widow, the Played Out, the Grand View, the Biddy McCarthy, the Monte Blanco, and the Lizzie V. Oakley.[48] But these properties were reserved for the future, for Smith as an outstanding mining man was always careful to keep his proved ore reserves well ahead of current production.

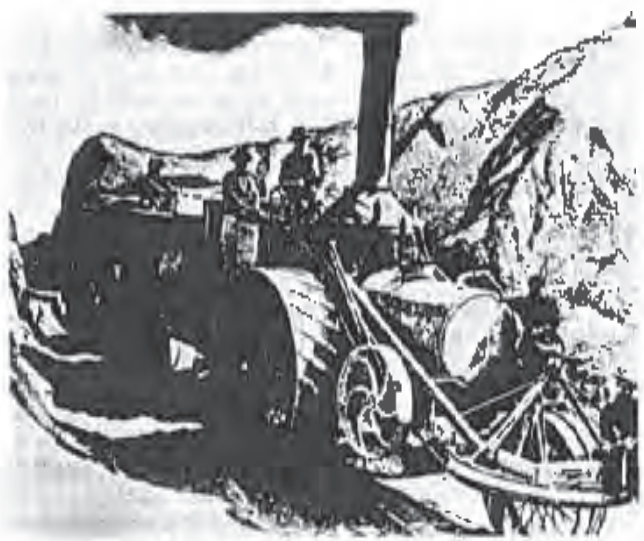
Colemanite is a very different type of mining proposition from the chalky pelleted lump mush from Ulexite. As noted in Chapter 1, it is classified by chemists as a double salt, sodium-calcium borate. By contrast, colemanite is one of the calcium borates. It is found in granular masses or in white or gray crystals.[49] Ulexite and the other salt-bed borates are believed by geologists to have been derived from hot springs and leaching from older deposits. As for colemanite, it is generally thought today that it was derived from the elevation and folding of salt bed or playa deposits during the Tertiary period in geological history. Subsequent drainage over millions of years leached out the sodium borates, leaving behind zones of mineralization composed of calcium borate (colemanite), which is insoluble in water.[50]

How, then, was borax to be extracted from colemanite? Smith's initial step was to build a new refinery at West Alameda in 1890. It was a crushing, reduction, and refining plant all in one. Its most unusual feature was its mode of construction. It was the first structure in the United States to be built with reinforced concrete. It was typical of Smith's daring spirit to bet his funds on a new material. For several years he had been financing an inventor by the name of Ernest L. Ransome. The building was constructed according to Ransome's own process, which was also used to build the Ferry Building in San Francisco in 1898. Ultimately, Ransome and Smith joined forces to form the Ransome Concrete Machinery Company of Dunellen, New Jersey, as well as two producing firms.

Operations at Borate were a case of genuine underground mining, with shafts, drifts, cross-cuts, and stopes. Mineralization was not continuous, but was scattered through zones or pockets that the miners called "kidneys."[51] The colemanite was sorted by hand, then sent to the surface through shafts of depths up to 600 feet. Twenty-mule teams then hauled the ore out of the deep and crooked canyon and across a dry lake to the railhead at Daggett, 12 miles distant. After arrival at West Alameda, the ore was crushed to a fine powder and treated with a hot sodium carbonate solution. By continuous agitation the precipitated calcium carbonate was removed and the remaining solution was placed in crystallizing tanks, where the borax was crystallized on suspended wires, then recrystallized to become a finished product.

But Smith was unhappy with the operation, first because it continued to require mule teams, and second because hand-sorting was the only means of eliminating waste material ("beneficiation") at the mine, which added to the shipping cost to Alameda. In 1894, to solve the transportation problem, Smith tried out a Daniel Best

The West Alameda borax refinery as it looked about 1890. This was the first concrete building in the United States. (Fred Corkill collection.)



Borax Smith's steam tractor, "Old Dinah," at work at Borate in 1894.
(Courtesy of U.S. Borax & Chemical Corporation.)

steam tractor, known locally as "Old Dinah." The experiment was a failure, although many of these machines had proved successful in lumber camps and under other more favorable conditions.[32] In any case, Borax Smith was a stubborn as well as a determined man. This time he met the need for transportation by building the Borate and Daggett, a narrow-gauge line of about eight miles in length. It was opened in 1898, and hauling power was supplied by two geared engines of the Heisler design, known respectively as the "Francis" and the "Marion."[33] Four miles from the new road's junction with the Santa Fe Railway at Daggett, the company built a modern calcining plant. This location was named Marion.

The objective of the new plant was to solve Smith's second problem, that of better ore beneficiation. The plant was based on the principle that colemanite flies apart [decrepitates] when heated. By appropriate screening, the waste rock can be separated at 1200°F, leaving the fine particles as borax freed from the calcium

carbonate. The gas was applied a second to effect the decrepitation, with screening to isolate the fines."

The Executive Organization of the Pacific Coast Borax Company

At this point, it is appropriate to examine in further detail the operating organization of the Pacific Coast Borax Company in the 1890s. The head office was in San Francisco. Although it was an incorporated firm, it was a business completely dominated by a single man, F. M. Smith himself. The board of directors was composed of Borax Smith nominees because Smith held most of the voting stock. Mining and refining were entrusted to superintendents who were loyal Smith lieutenants, such as Fred Corkill, Billy Smitheram, and J. W. S. Parry. Sales were headed by Smith himself, with Joseph Mather in a similar capacity at the New York office.

In 1892 Joe Mather's son, Stephen Tyng Mather, a young man of twenty-five who worked for the *New York Sun*, had an idea that aroused Smith's interest. Stephen Mather was convinced that there was a great story in borax, and he could not understand why it had never been written. He persuaded his father with his proposal, and together they got Borax Smith to finance it. Through his newspaper connections, Steve Mather recommended a reporter named John R. Spears to do the writing. The result was Spears' *Illustrated Sketches of Death Valley and Other Borate Deserts of the Pacific Coast*, which had a major impact in its time.[34] More than that, it convinced Smith that Steve Mather would make an excellent sales-history and sales-promotion manager for PCB. It was one of the best investments he ever made, for young Mather was a natural salesman, with an attractive personality, much energy, and a superb imagination. It was he who persuaded Smith to expand the package business, and to add the label "Mule Team Borax" to go with a sketch of the famous 20 already on the box.[35] Smith demurred initially, but eventually consented to adding the label "20 Mule Team Borax" to go with the famous trademark. In this way borax became a household word all over the country.

In the summer of 1894, Steve Mather and his wife traveled to California to see Borax Smith. Mather's goal was to persuade him to open a Chicago office. Smith agreed to think the proposal over, but sent him back with the question unresolved. Not long after,

Branching Out | 43

The Pacific Coast Borax Company's famous photograph of the 20 Mule Team in action in Death Valley, about 1887. (F M Smith collection.)

John Ryan, F. M. Smith's right-hand man for over 40 years, quenches his thirst. The locale is probably Death Valley in the 1890s. (Fred Corbett collection.)

worked at Borate, would have much to do with laying out the company's 174-mile Tonopah and Tidewater Railroad, and eventually was to become chief engineer for American operations.

Besides the two refineries at Alameda and Bayonne, Smith maintained three sets of offices for marketing and financial purposes. The head office in 1899 was in San Francisco, at 101 Sansome Street, where it remained until the earthquake and fire in April 1906. After that catastrophe, Smith transferred it to the Albany Block in Oakland, and about 1912 to the new Syndicate Building in that East Bay city, which Smith had had built to house his now-extensive group of enterprises.

Buckboard on the way to Greenland, Death Valley, in the 1890s. John Ryan was probably the driver. (Courtesy of U.S. Borax & Chemical Corporation.)

In order of priority, the second office was in New York, under the charge of Chris Zabriskie. Third was the Chicago office, headed by Steve Mather, who did a remarkable job of developing the household package trade.

This is the major outline of the American organization at the time BCL was formed. At its head was F. M. Smith himself, who enjoyed certain advantages over Baker. He had voting control of the company. He possessed an outstanding group of associates, all of them with many years in his service. Sheer geographic distance both weakened the cohesiveness of BCL in London, because of the slowness of communications in that day, and necessarily enlarged

would put the company in the center of the world's money market, and it ought to make no difference to Baker whether he lived in New York City or in London—or so Smith thought."

Baker seems not to have been unthinkable about any of the various weapons of Smith's kit, as his superior seemed to press the matter beyond suggesting that an American company could be useful in taking over "the Javne holdings" (presumably his own of BCL common stock. This would enable Smith to raise additional funds capital, which probably was his primary purpose all along."

The theme of autonomy asserted itself for Smith in another form toward the end of 1969. He had declined rather abruptly to Baker that he had been handing PG&E's surplus funds on the call loan market, making good returns in this way. As he described it, the loans went to himself, to various Oakland associates, and to banks. Following the advice of Lafayette Hoyt Dettmann, PG&E's able legal counsel, who happened to be in town, Smith proposed that the PG&E board pass a resolution authorizing him to make short-term loans with company funds, because such loans would earn more return than the possible conflict-of-interest problems involved in these actions, particularly under English company law. Dettmann must have urged the directors' resolution as a means of protecting all concerned. However, Smith could see no problems in thus granting him "as free a hand in this direction as possible."

Baker seems to have resisted this proposal, for in his next letter Smith told him that he had not wished to embarrass the board, and had not known that his proposed discretionary resolution allowing short-term lending of surplus funds, including anticipated forthcoming dividends, would make the director personally responsible for any losses incurred."

The ultimate fate of E. M. Smith's investment evolution is unknown. However, in a letter written in 1969, Smith refers to the requirements of the IRS board as regards his increasing personal claims, adding that "I realize that I have shifted away from the vacancies required by English auditors. However, all loans and advances have been and are abundantly secured, as the statement will show." Apparently the board did not prohibit Smith's lending policy, but did insist upon adequate security and full disclosure. In any event, the statement shows loans totalling $600,000 in 1969, including a 60-day demand note of $250,000 to California Transit Consolidated; a 60-day demand note of $125,000 to San Francisco, Oakland and San Jose Railway (Key Route); $50,000 to Henry Wadsworth (another Nevada associate now involved in Smith's Oakland ventures), secured by 1,000 shares of Realty Syndicate stock (par value $100). $10,000 to Ernest A. Heron against a 60-day demand note for $50,000; and $100,000 to Frank C. Havens against a 60-day demand note for $100,000." Wadsworth was a director of Smith's traction companies in Oakland, while Heron was president of the traction companies, and Havens was both a director and Smith's closest associate in the Realty Syndicate. Heron's and Havens' notes, Smith stated, were fully secured at over double their value.

Here Smith's endless pursuit of autonomy within the otherwise rather conservative precincts of PG&E was due to his remarkable adventurousness of energy, his lively imagination, and his unappeasable hunger to expand and diversify his business interests. The more cautious British colleagues simply had never encountered a man like this and doubtless had plenty of trouble trying to understand him. His predominant traits involved given him an insatiable need for more liquid capital. Put a little differently, his personal net worth in equity capital was usually perilously thin. He never seemed to have found a substantial alternative to massive and increasingly short term borrowing as a means, albeit temporary, of protecting his solvency in the classic sense, despite the large and continuing increases in his total wealth and net worth, year after year. The basic problem from which he suffered throughout his career in business was lack of liquidity, brought on by the method of financing upon which he chose to rely. More than this, Smith was an entrepreneur in the classic mold. His activities were wholly inner-directed.

As his brother-in-law, Norman F. Ellis (who was very close to E. M. Smith in his last years and who understood him unusually well), once described him, he was "a born-again capitalist," a man who built great ventures largely upon short-term finance and who regularly "sweated blood" at the end of each year as his notes fell due." His failure to develop adequate permanent financing for his many different enterprises was ultimately to prove his undoing. But if finance was Horace Smith's Achilles heel, his qualities of farsighted vision, his abilities as a builder, and his capacity for imaginative synthesis through which he could assemble the parts into the whole—these were the factors that made him great.

Oakland Junior Chamber of Commerce set aside October 24, 1933, as Founders' Day. The choice of Francis Marion Smith as the first resident to be so honored and of the date were not accidental. No other man had ever equalled him as a civic leader, while October 26 was the anniversary of the beginning of operations by the Key Route 30 years earlier. At the commemorative luncheon, Mayor McCracken declared that Smith "was one of the first to envision the possibilities of the great East-bay region, planning how the city could be served by a local transportation system and by vessels plying from its docks to the four corners of the world." The former postmaster, William Nat Friend, credited Smith with having given thousands of dollars to Oakland churches, to the construction of the YMCA building and to other benefactions. The publisher of the *Oakland Tribune*, Joseph R. Knowland, acknowledged that Smith's "crowning achievement was his vision of a transportation system for the East side of the bay. He sowed the seed for the development of Oakland's great harbor." Knowland also said, on another occasion, "He was perhaps one of the first to envision a bridge to aid in crossing the bay. Out of his earlier dreams came the present reality—the huge San Francisco–Oakland Bay bridge." Finally, Alfred J. Lundberg, who had rehabilitated the Key Route and then headed it as a prosperous concern, proceeded to introduce the crew of the first Key train from Berkeley to San Francisco, and the captain and chief engineer of the ferry *Yerba Buena*.

Lundberg then presented a plaque bearing a profile in bas-relief of Borax Smith and the 20-mule team, followed by a brief description which read:

FRANCIS MARION SMITH
"BORAX SMITH"
Founder of the "Key Route"

Commemorating operation of the first train from Berkeley Station one o'clock p.m. on October 26, 1903—connecting with SS. Yerba Buena for San Francisco. Edward M. Boggs engineer of construction. James P. Potter superintendent.

PRESENTED TO KEY SYSTEM LTD ON THE THIRTIETH ANNIVERSARY BY
ALFRED J. LUNDBERG
PRESIDENT

The plaque was designed by Andrew T. Hass and executed by William Gordon Huff. It was placed in the entrance of the Key System building on Broadway in Oakland, where it remained until the company was taken over by Alameda County Transit Lines.[31]

So ended the long and creative life of this remarkably interesting and very complex man. Ultimately, he had received a measure of the recognition and appreciation that lesser men and ill fortune had so long denied him. Even in finance he was restored posthumously to his rightful place. For through the leadership of Evelyn Smith, her brother George Ellis, and Henry D. Helmers, the West End Chemical Company that Smith had founded survived to become a money-maker. On September 25, 1956, 25 years after Borax Smith's death, the company was merged into the Stauffer Chemical Company. The aggregate price paid for the outstanding West End common and preferred shares was slightly over $27 million.[32]

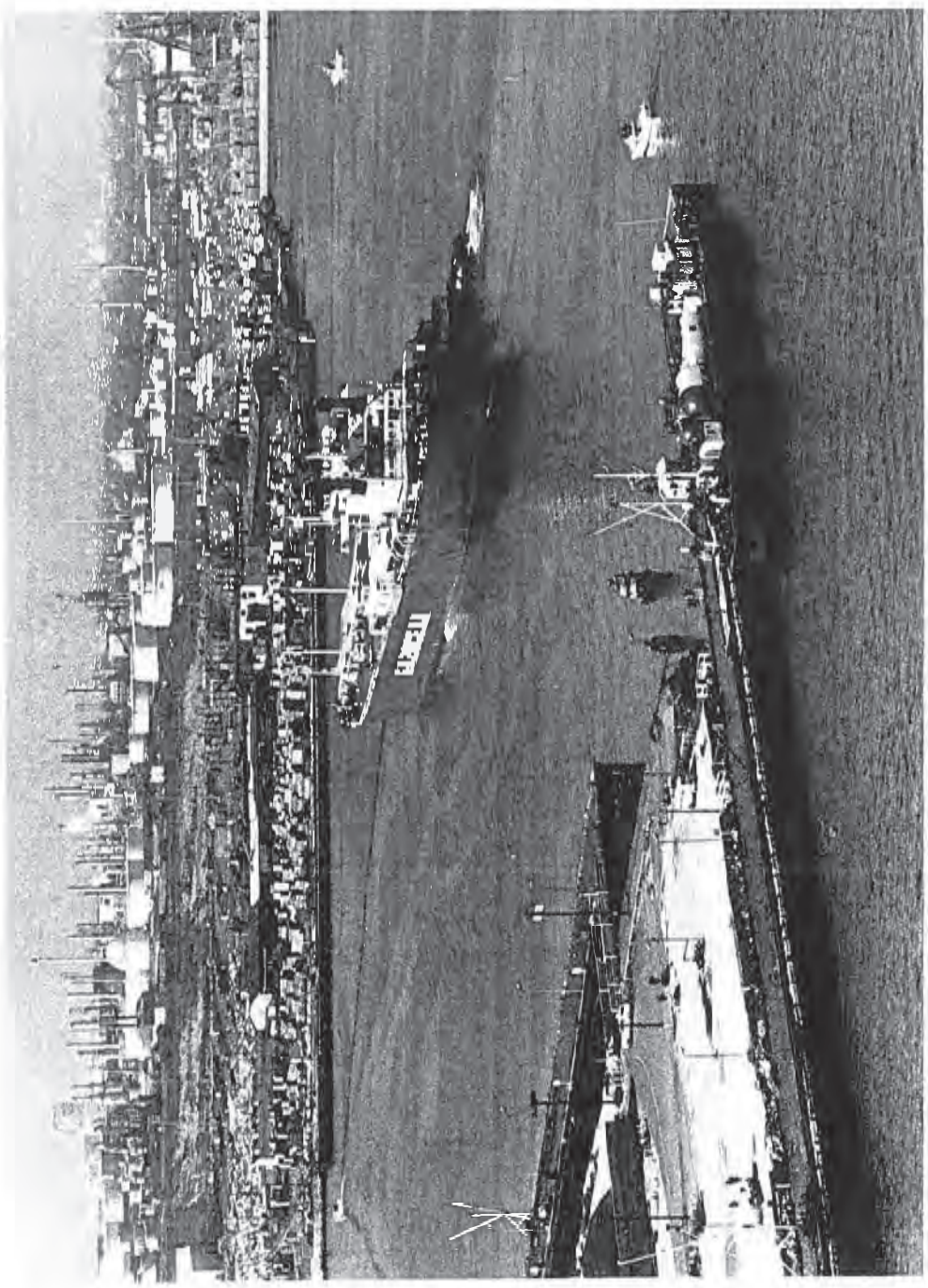
One likes to think that somehow, somewhere, Francis Marion Smith is aware that in the end his family was cared for, and that by his courage and foresight he had finally gotten back his own.

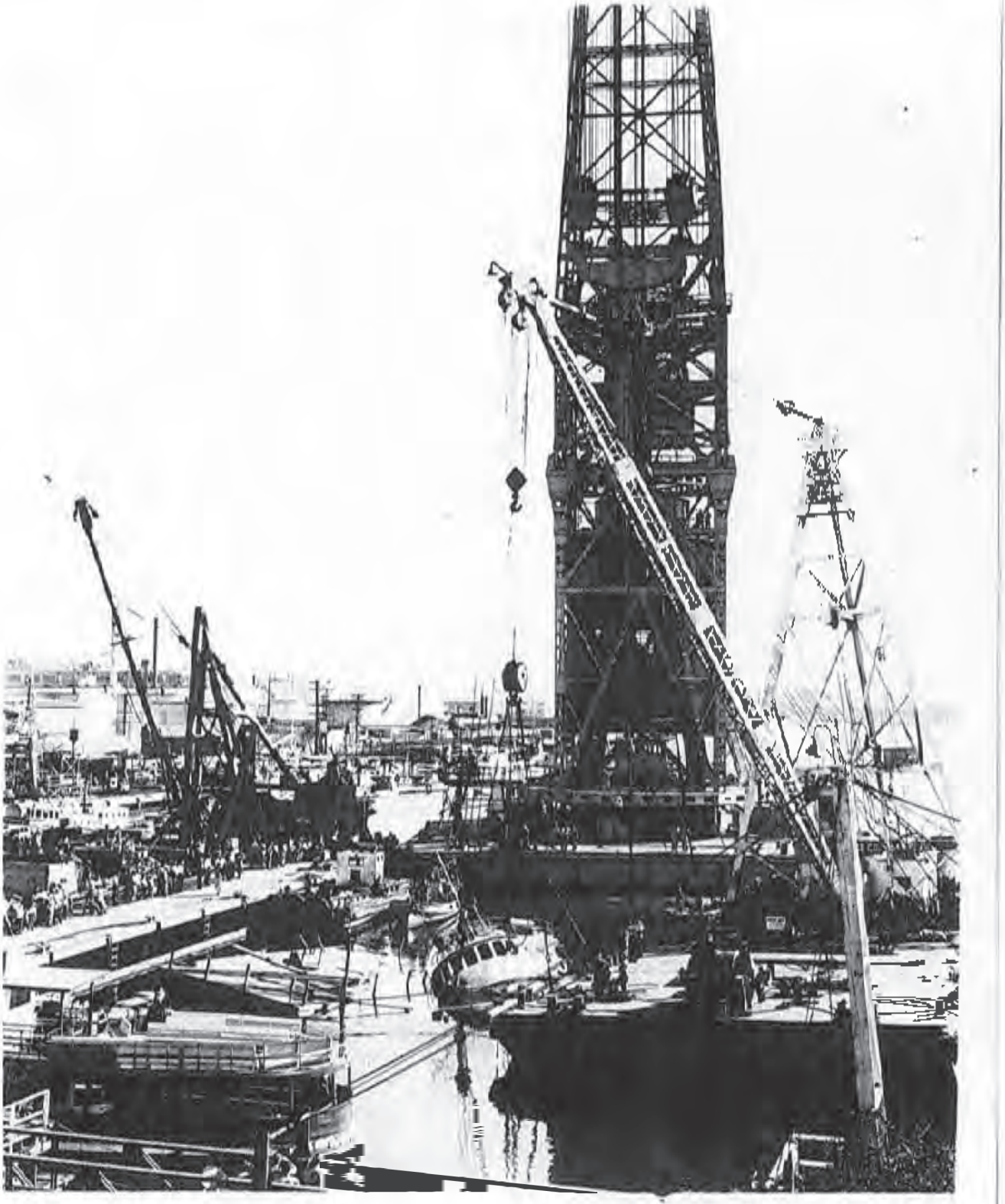
What Survives of the Physical Legacy of F. M. Smith?

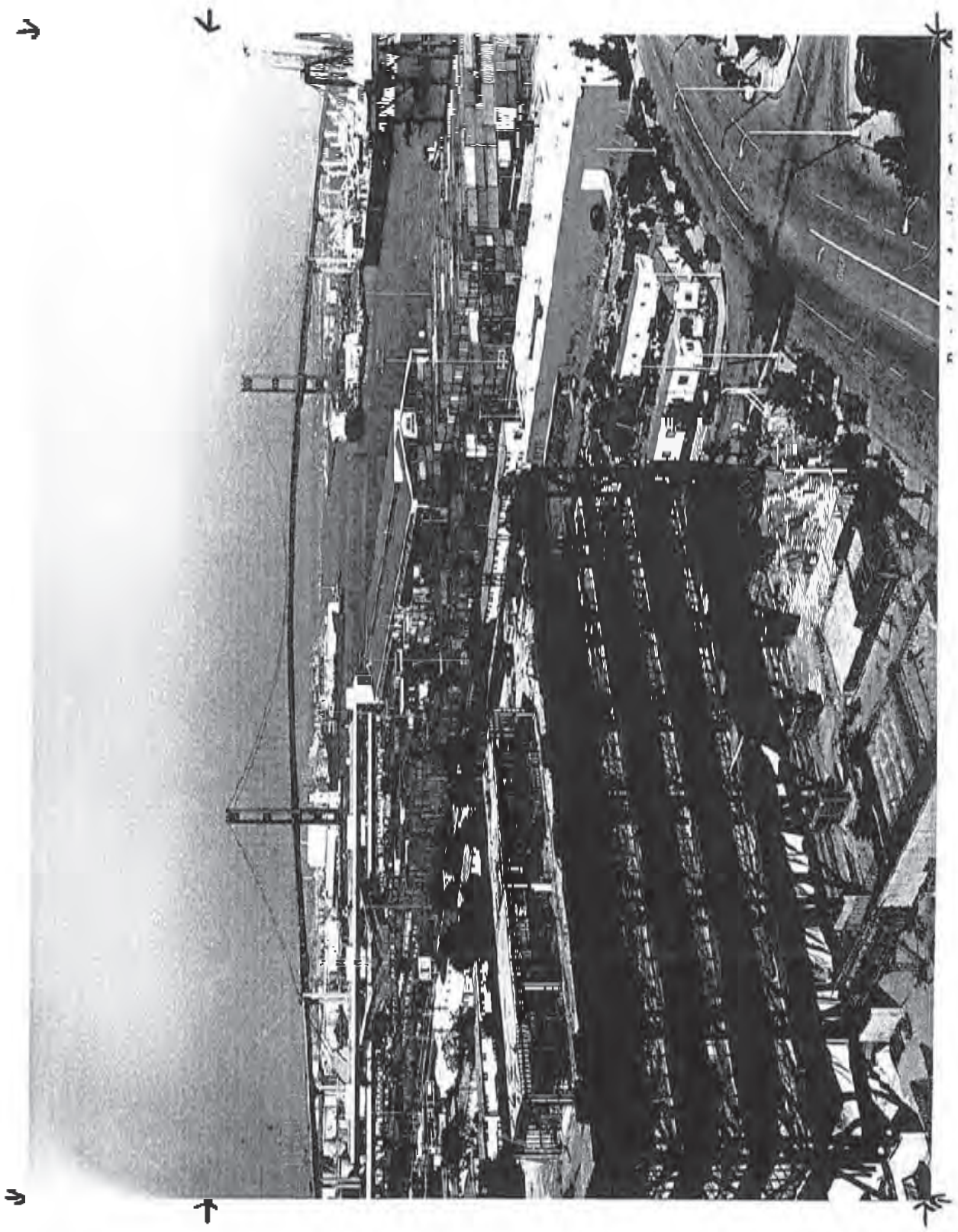
As a builder, F. M. Smith had made a substantial impact upon his times. What remains a half-century later?

Within weeks of his death in August 1931, the long-abandoned borax refinery at West Alameda was torn down. Because it had been built of reinforced concrete, dynamite had to be used to accomplish the job. Next came Oak Hall and the remnants of Arbor Villa. In January 1932, the wrecking crew arrived with hammers, mauls, and axes. Within days, the magnificent house with all of the splendor of its interiors of rare woods was reduced to wreckage, with nothing saved in its original form. Today all that remains to remind one of the past is the great line of desert palms along 9th Avenue, and some of the former cottages of the Mary R. Smith Trusts. Where the beautiful gardens once surrounded the big house, there now exist countless shabby apartment buildings and small stores.

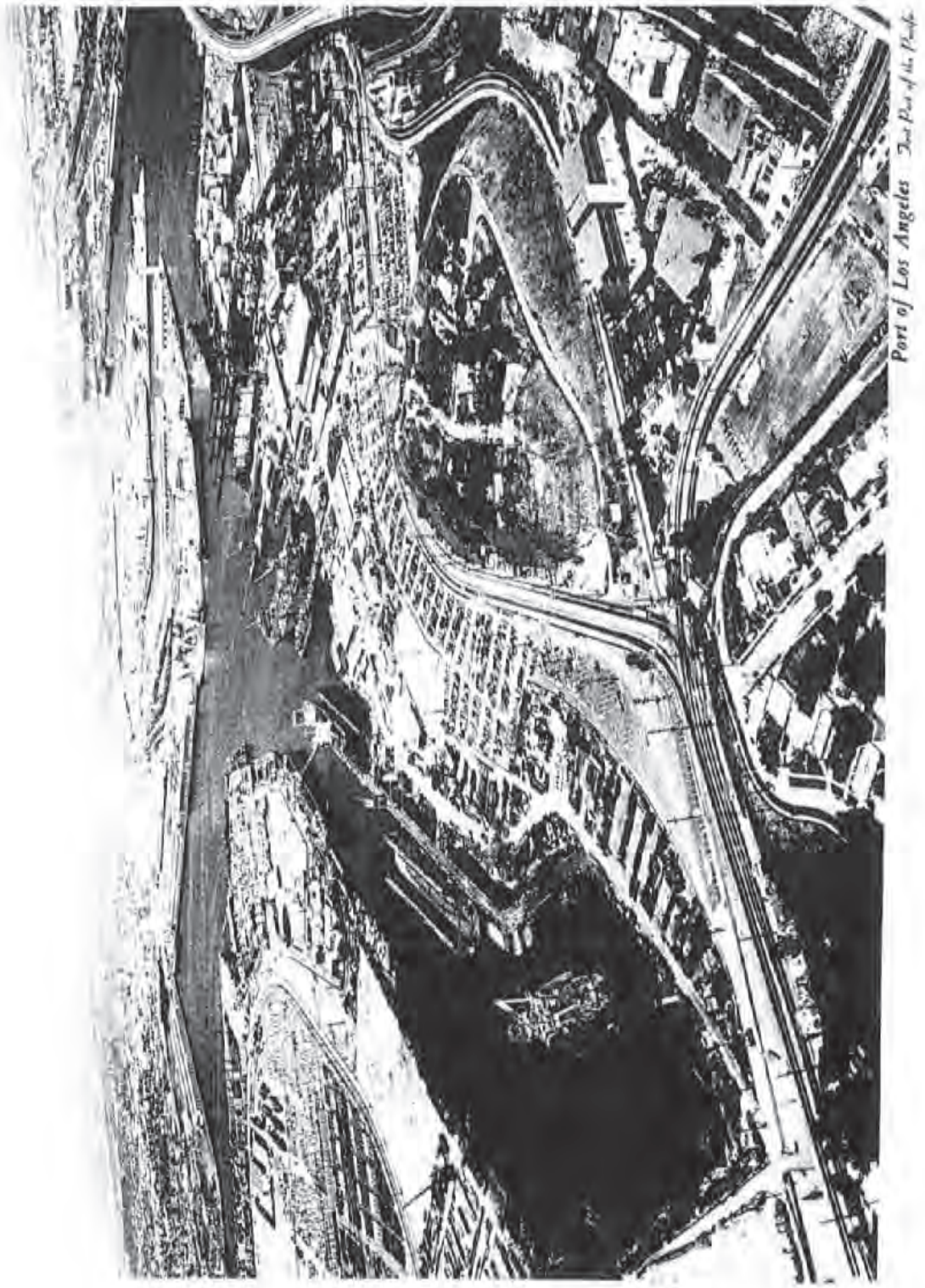
Presdeleau suffered a similar fate. The splendid barn and lookout tower burned in 1930. The house itself gradually became run down, and then was badly damaged by the hurricane of 1938. At that point, Evelyn Smith decided to have it torn down. After World War II the lands were sold and subdivided. All that now remains is the long sea wall that F. M. Smith had had built at the edge of Smith

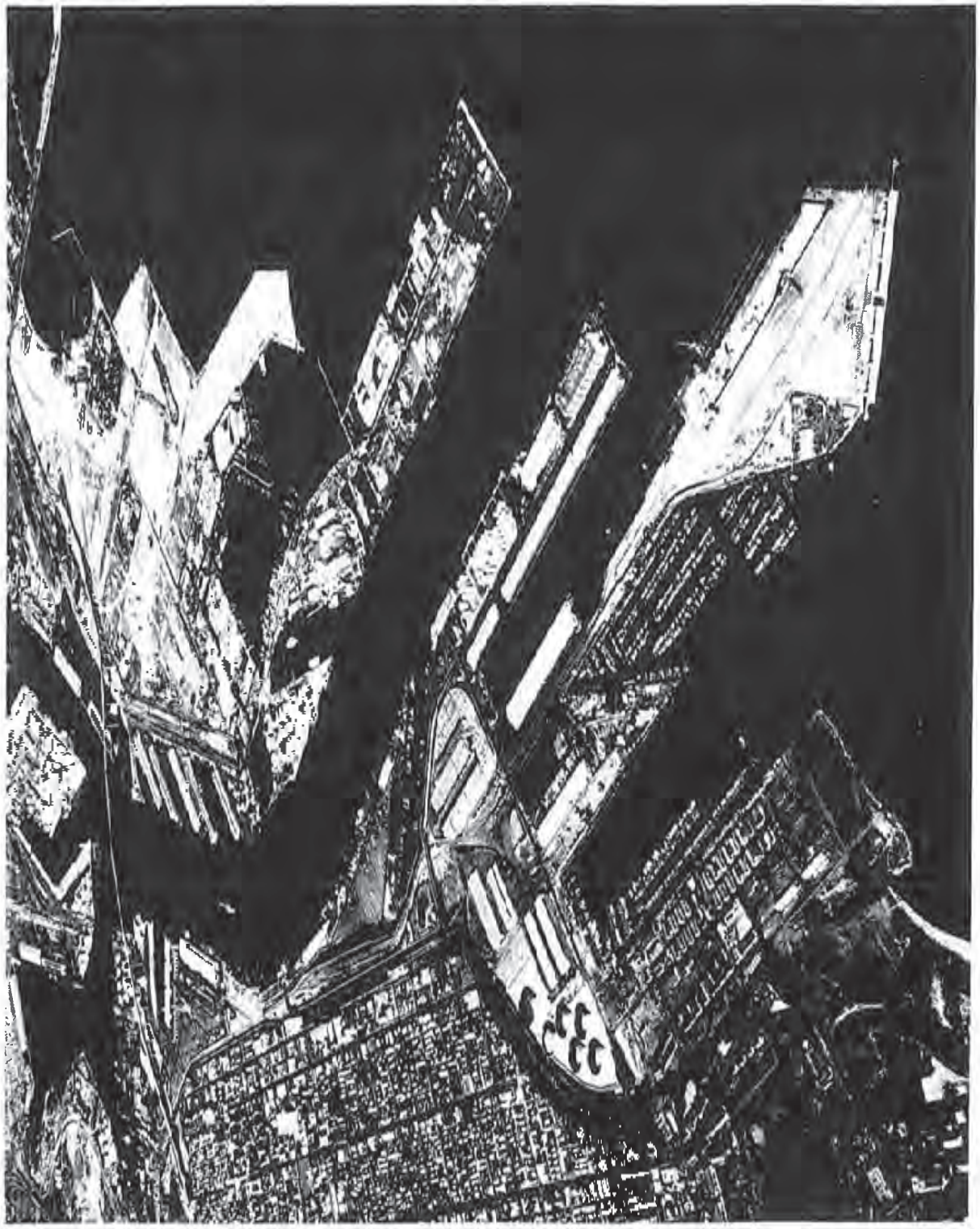






PORT OF LOS ANGELES
Port Part Of The Public

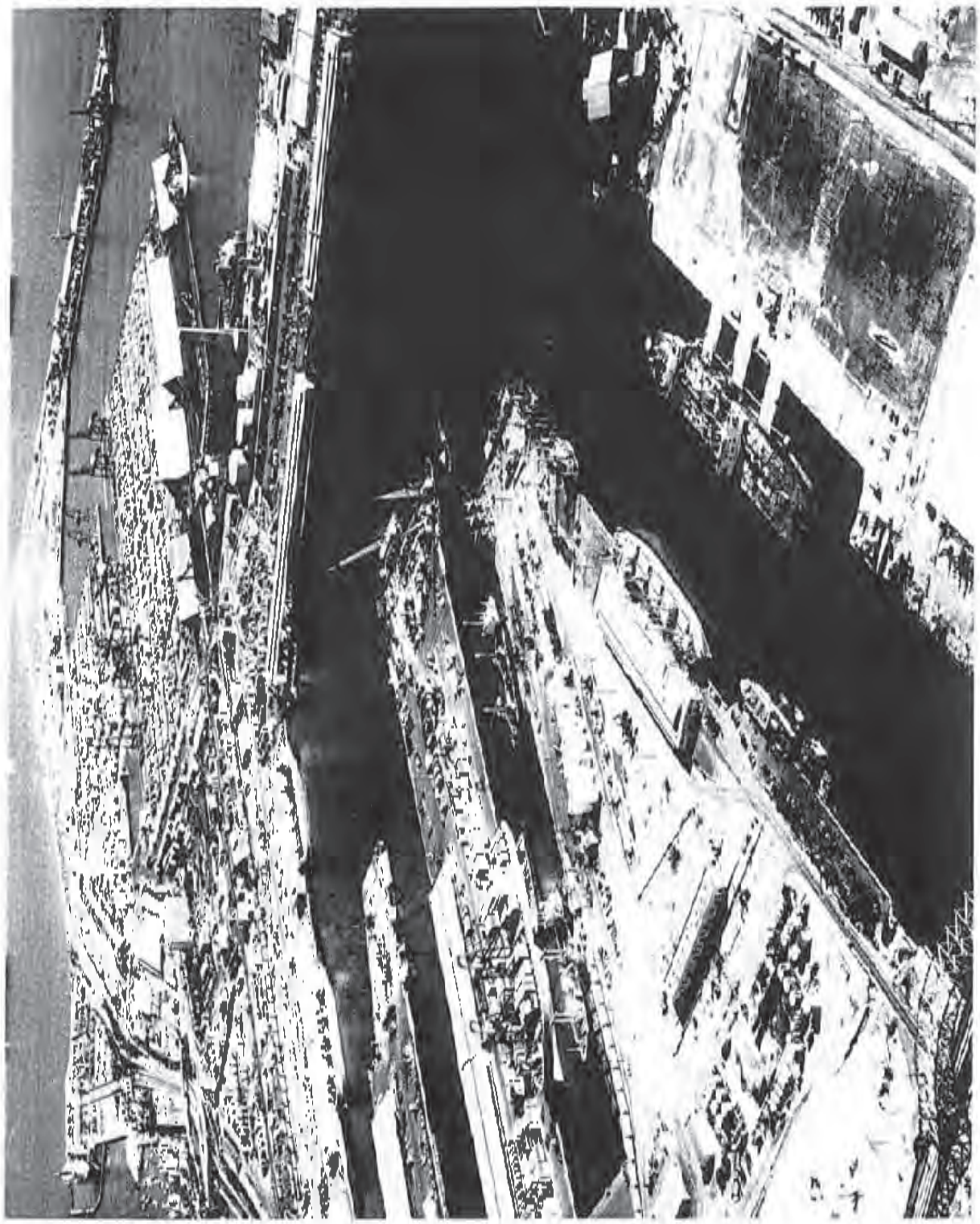

Port of Los Angeles

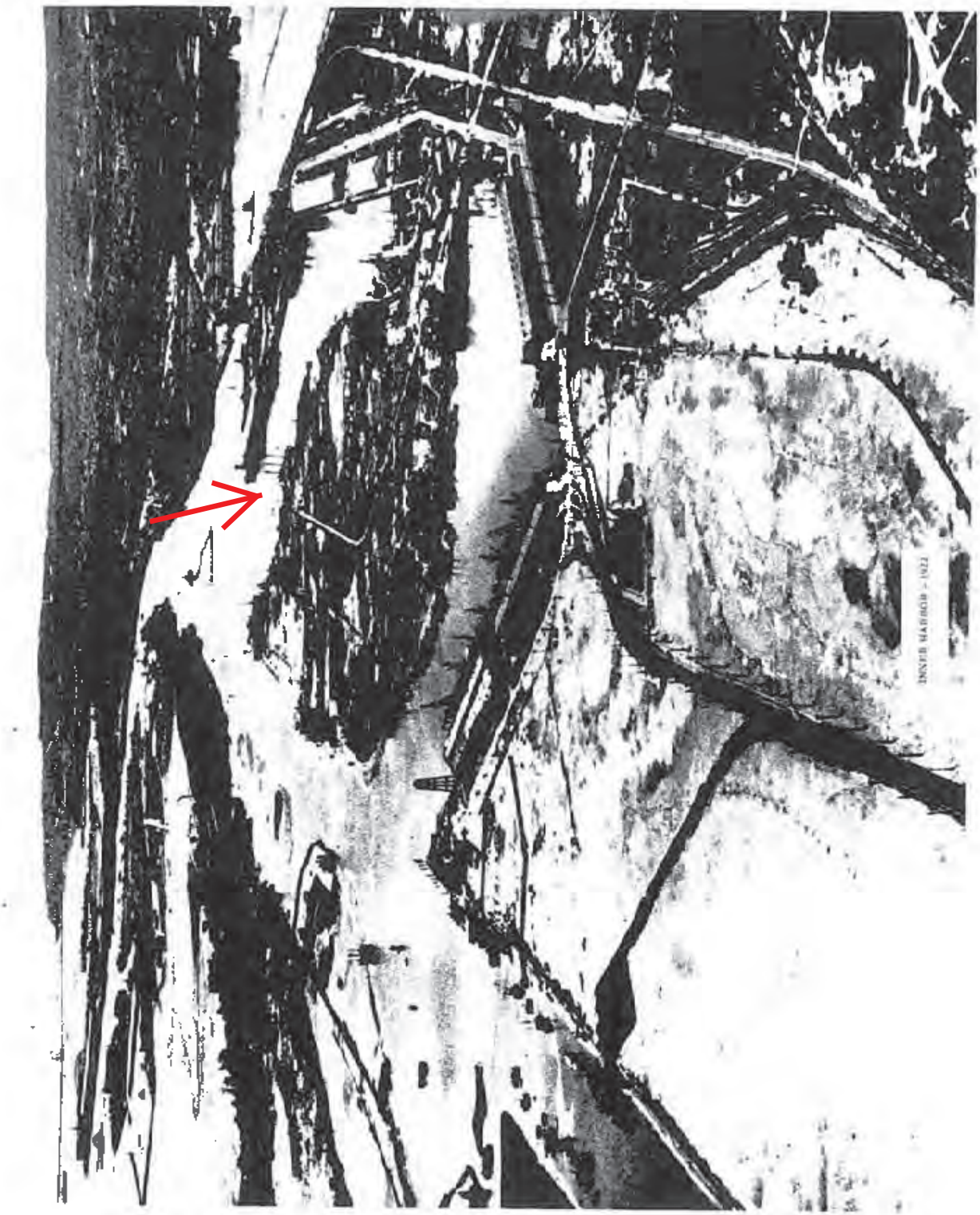


SPENC

Port of Los Angeles

2-20-60





ILLUSTRATED SKETCHES

OF

DEATH VALLEY

AND OTHER DESERTS OF THE PACIFIC SLOPE

BY

JOHN R. SPEARS

CHICAGO AND NEW YORK:

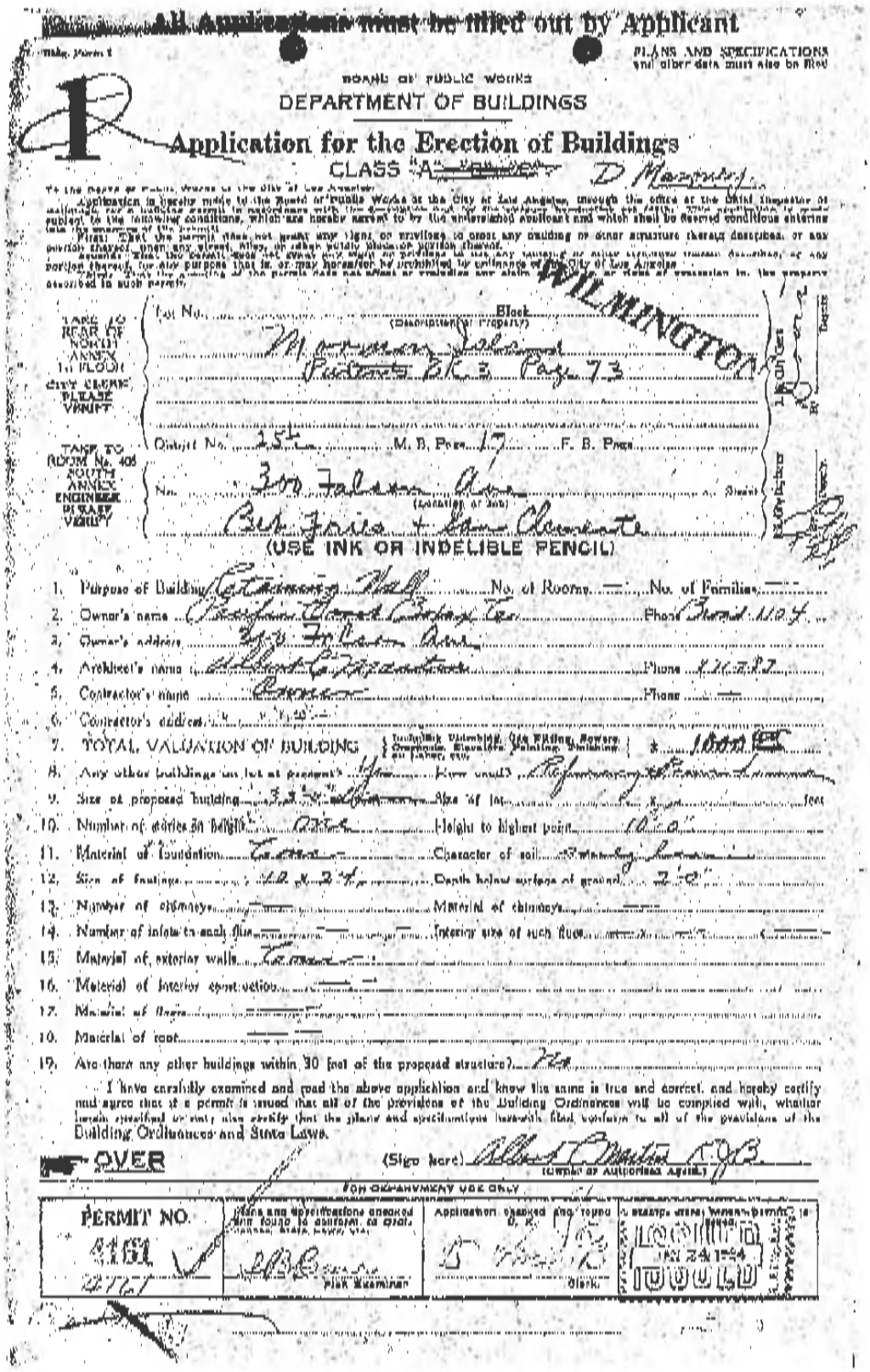
RAND, MCNALLY & COMPANY, PUBLISHERS

1892

California State College
Long Beach, Library

EW ON THE MOJAVE DESERT

PACIFIC COAST BORAX CO.



All Applications must be filled out by Applicant

Make Permit

PLANS AND SPECIFICATIONS and other data must also be filed

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

Application for the Erection of Buildings

CLASS "A" D Masonry

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the provisions and the requirements prescribed in the Building Ordinances of the City of Los Angeles, subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the issuance of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure thereon described, or any portion thereof, upon any street, alley, or other public property or portion thereof.

Second: That the permit does not grant any right or privilege to use any structure or other erection thereon described, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not absolve any state or local or municipal officer from the duty of enforcing the provisions of any law of this State or ordinance of the City of Los Angeles within his jurisdiction, nor vest any right not authorized by law or by the provisions of such ordinance or resolution.

TAKE TO REAR OF NORTH ANNEX 1st FLOOR CITY CLERK PLEASE VERIFY

Lot No. ... Block ... WILMINGTON
(Description of Property)
Partition Book 3 Page 73

District No. 151 M. B. Page 17 F. B. Page

TAKE TO ROOM No. 405 SOUTH ANNEX ENGINEER PLEASE VERIFY

No. 300 Falcon Ave. Street
(Location of Job)
Between Fries & Lane Channels

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Gathering Hall No. of Rooms — No. of Families —
2. Owner's name Seventh Church of Christ Phone Sterling 1104
3. Owner's address 300 Falcon Ave.
4. Architect's name Phone
5. Contractor's name Owner Phone —
6. Contractor's address —
7. TOTAL VALUATION OF BUILDING (including Plumbing, Gas Fitting, Sewers, Electric, Elevators, Painting, Heating, Air Fitting, Sewers) $ 10000.00
8. Any other buildings on lot at present? No How used? Reformatory for Women
9. Size of proposed building 34'-0" x 60'-0" Size of lot feet
10. Number of stories in height 1 Height to highest point 16'-0"
11. Material of foundation Concrete Character of soil Sandy Loam
12. Size of footings 12" x 24" Depth below surface of ground 2'-0"
13. Number of chimneys — Material of chimneys —
14. Number of inlets to each flue — Interior size of such flue — x —
15. Material of exterior walls Concrete
16. Material of interior construction —
17. Material of floors —
18. Material of roof —
19. Are there any other buildings within 30 feet of the proposed structure? No

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree that if a permit is issued that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that the plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

OVER

(Sign here) Albert Martin C.W.S.
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and specifications checked and found to conform to Ord.	Application checked and found O. K.	Stamps used; when permit is issued
4151	Plan Examiner	Clerk	JUL 24 1944

(Page 2 of 2)

REMARKS

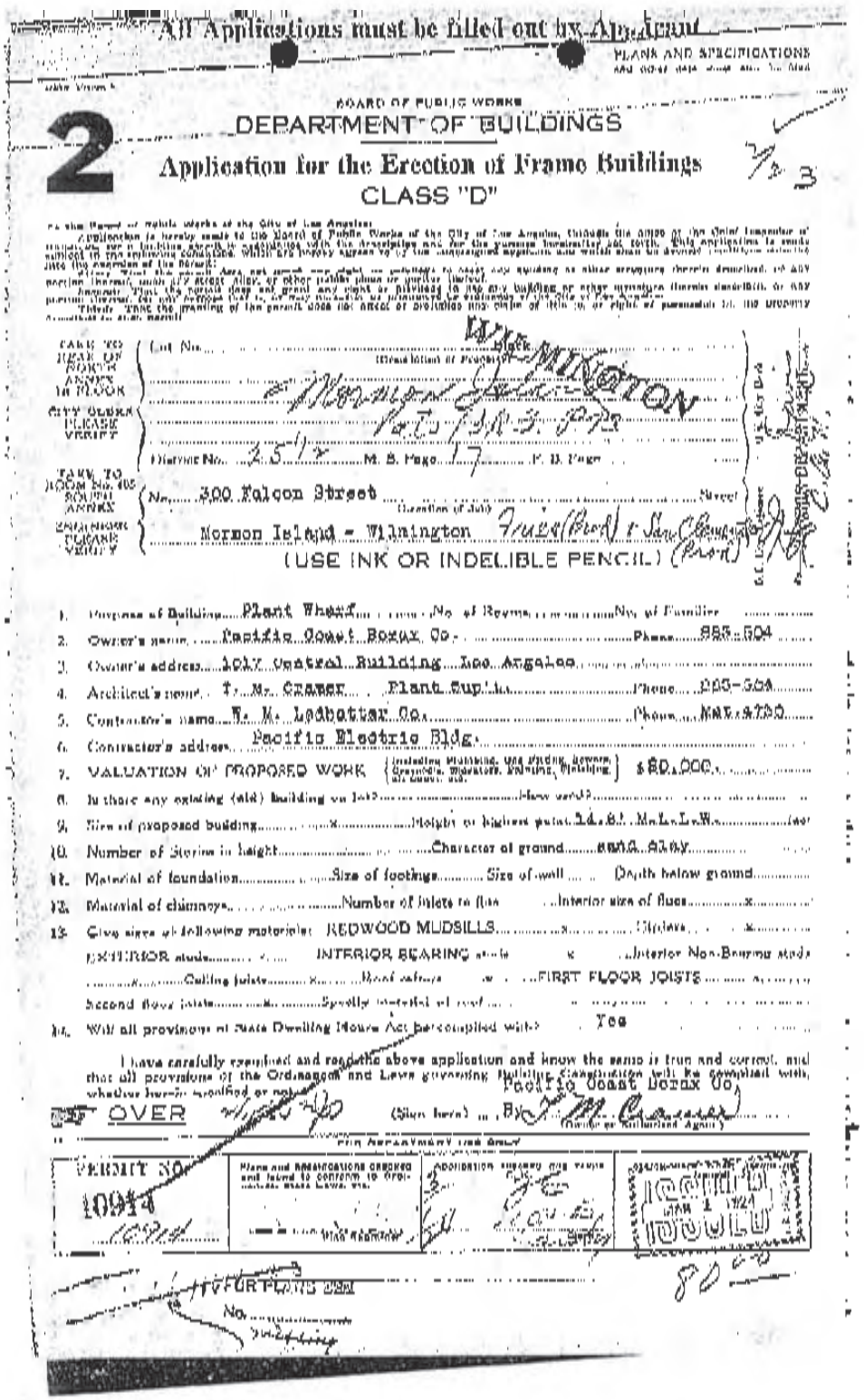
I hereby agree to locate and erect this building or structure and every portion thereof, except unenclosed porches, back a distance from the front property line equal to the set-back line of the nearest building now erected on any lot in this block in Zone "A" or "B" on the same side of the street.

Owner.

300 sacks cement
1 Ton steel

APPROVED BY
Board of Harbor Commissioners
JAN 22 1924
PRESIDENT
SECRETARY

(Page 1 of 2)



All Applications must be filled out by Applicant

PLANS AND SPECIFICATIONS

BOARD OF PUBLIC WORKS

DEPARTMENT OF BUILDINGS

2

Application for the Erection of Frame Buildings

CLASS "D"

To the Board of Public Works of the City of Los Angeles:

Application is hereby made to the Board of Public Works of the City of Los Angeles, through the office of the Chief Inspector of Buildings, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant, and which shall be deemed conditions precedent to the exercise of the permit:

First: That the permit hereby applied for shall not be granted nor shall the applicant or any person acting thereunder proceed with the erection of any building or other structure thereon described, or any portion thereof, until the street, alley, or other public place or thereof.

Second: That the permit shall grant any right or privilege in the use of any building or other structure thereon described, or any portion thereof, for any purpose that is, at that time, not permitted by ordinances of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any portion of title to, or right of possession in, the property described in said permit.

Black

Lot No. ...

(Description of Property)

Block ...

Tract Mormon Island

Map No. 1

Portion No. 2-3-1x M. B. Page 17 P. D. Page ...

No. 300 Falcon Street (Location of Job) Street

Mormon Island - Wilmington Fruit Block 1 San Clemente Tract

(USE INK OR INDELIBLE PENCIL)

1. Purpose of Building Plant Wharf No. of Rooms ... No. of Families ...
2. Owner's name Pacific Coast Borax Co. Phone 933-504
3. Owner's address 101 Central Building Los Angeles
4. Architect's name T. Mc. Cramer Plant Supt. Phone 203-504
5. Contractor's name W. M. Ledbetter Co. Phone Main 4700
6. Contractor's address Pacific Electric Bldg.
7. VALUATION OF PROPOSED WORK (including Plumbing, Gas Piping, Sewers, Grounds, Sidewalks, Heating, Painting, Etc. Labor, etc.) $80,000.
8. Is there any existing (old) building on lot? ... How used? ...
9. Size of proposed building ... x ... Height to highest point 14 ft. M. L. W. ... feet
10. Number of Stories in height ... Character of ground sand & clay ...
11. Material of foundation ... Size of footings ... Size of wall ... Depth below ground ...
12. Material of chimneys ... Number of flues to flue ... Interior size of flues ... x ...
13. Give sizes of following materials: REDWOOD MUDSILLS ... Girders ... x ...
EXTERIOR studs ... INTERIOR BEARING studs x ... Interior Non-Bearing studs ...
Ceiling joists ... Roof rafters ... FIRST FLOOR JOISTS ...
Second floor joists ... Specify material of roof ...
14. Will all provisions of State Dwelling House Act be complied with? Yes

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

Pacific Coast Borax Co.

(Sign here) ... By T. Mc. Cramer (Owner or Authorized Agent)

SEE OVER

For Assessment and Entry

PERMIT NO. 10914

Plans and specifications checked and found to conform to Ordinances and State laws, etc.

Application entered and number assigned

ISSUED JAN 1 1924

FOURTH FLOOR

No. ...

(Page 2 of 2)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD. 33751 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

I hereby agree to locate and erect this building or structure and every portion thereof, except unenclosed porches, back a distance from the front property line equal to the set-back line of the nearest building now erected on any lot in this block in Zone "A" on the same side of the street.

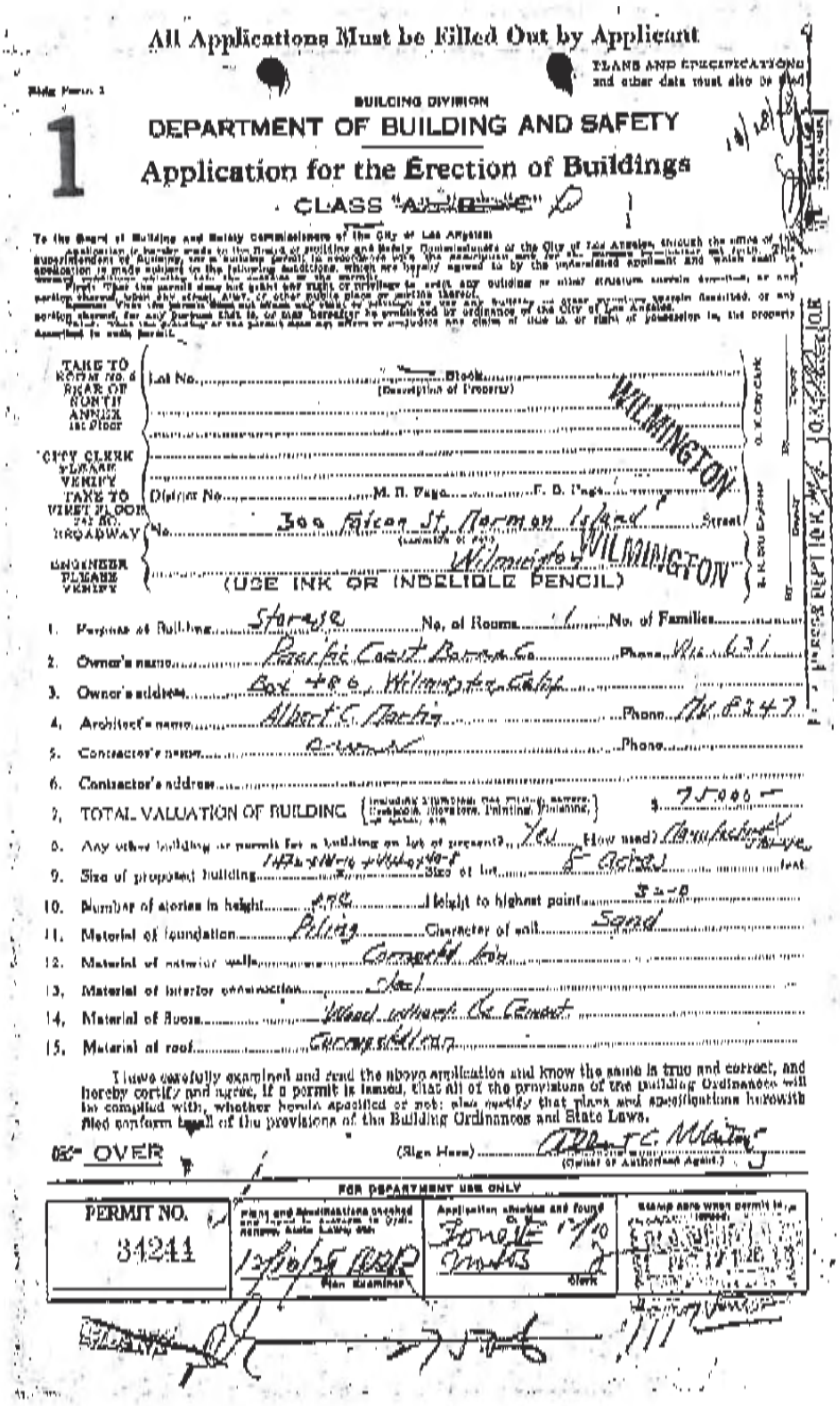
Owner.

Attached hereto and made a part hereof are two maps:

Map No. 1, showing property of company with the position of wharf thereon, also position of piles in wharf.

Map No. 2. Detailed plan of proposed wharf and shows depths of pile penetration prepared for.

(Page 1 of 2)



All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

DEPARTMENT OF BUILDING AND SAFETY

1

Application for the Erection of Buildings

CLASS "A" "B" "C" D

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall become conditions relating to the granting of the permit:

First: That the permit shall not grant any right or privilege to erect any building or other structure upon forbidden, or any portion thereof, within the street, alley, or other public place or within the

Second: That the permit shall not grant any right or privilege to use any building or other structure upon forbidden, or any portion thereof, for any purpose that is or shall hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit shall not prevent action and claim of title to or right of possession to the property involved in such permit.

TAKE TO ROOM No. 6 REAR OF MONTH ANNEX 1st Floor

CITY CLERK PLEASE VERIFY

TAKE TO FIRST FLOOR 741 BROADWAY

ENGINEER PLEASE VERIFY

Lot No. ... Block ... (Description of Property) WILMINGTON

District No. ... M. B. Page ... L. B. Page ...

No. 300 Falcon St. Terminal Island Street (Location of Site)

Wilmington WILMINGTON

(USE INK OR INDELIBLE PENCIL)

O. K. CITY CLERK — Deputy — Date — By — 2 N. BRD Engineer

1. Purpose of Building Storage No. of Rooms 1 No. of Families
2. Owner's name Pacific Coast Borax Co. Phone Mu. 631
3. Owner's address Box 460, Wilmington, Calif.
4. Architect's name Albert C. Martin Phone Mi. 6247
5. Contractor's name Owner Phone
6. Contractor's address
7. TOTAL VALUATION OF BUILDING (Including Foundation, Elevators, Painting, Plastering, Flues, Chimneys, Mantels, Grates, Tile Hearths, Mantels, Grates, Plumbing, Heating, Electric Wiring, etc.) $ 75-000 —
8. Any other building or permit for a building on lot at present? Yes How used? Manufacturing
9. Size of proposed building 148'-9" x 40'-0" Size of lot 5 Acres
10. Number of stories in height one Height to highest point 21'-0"
11. Material of foundation Piling Character of soil Sand
12. Material of exterior walls Corrugated Iron
13. Material of interior construction Steel
14. Material of floors Wood, cement & Gravel
15. Material of roof Composition

I have carefully examined and read the above application and know the same is true and correct, and hereby certify and agree, if a permit is issued, that all of the provisions of the Building Ordinances will be complied with, whether herein specified or not; also certify that plans and specifications herewith filed conform to all of the provisions of the Building Ordinances and State Laws.

OVER

(Sign Here) ... (Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO.	Plans and Specifications checked and found to conform to Ordinances, State Laws, etc.	Application checked and found O. K.	Stamp here when permit is issued
31241	12/10/25 (Plan Examiner)	Female 12/10 (Clerk)	

(Page 2 of 2)

FOR DEPARTMENT USE ONLY

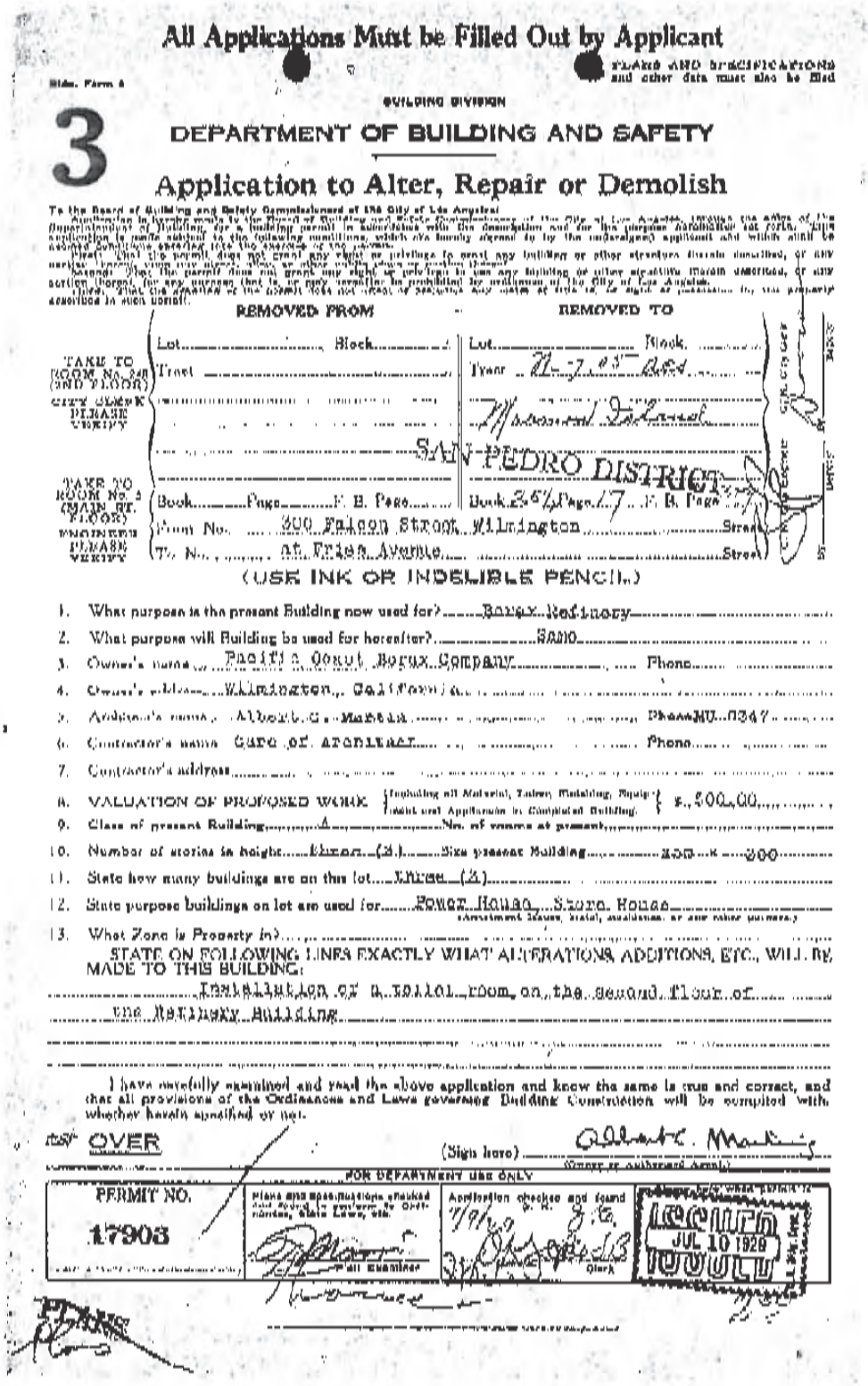
APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SETBACK LINE	O. K.
ORD. 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

APPROVED BY
Board of Harbor Commissioners
DEC 3 1928
PRESIDENT
SECRETARY

APPROVED
NOV

(Page 1 of 2)



All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

Bldg. Form 6

BUILDING DIVISION

3

DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby agreed to by the undersigned applicant and which shall be deemed conditions attaching to the granting of the permit:

First: That the permit does not grant any right or privilege to erect any buildings or other structures therein described, or any portion thereof, for any purpose that is in any way repugnant to prohibited by ordinances of the City of Los Angeles.

Second: That the granting of the permit does not grant or recognize any claim of title in or right of possession to the property described in such permit.

REMOVED FROM — REMOVED TO

TAKE TO ROOM No. 348 (3RD FLOOR) CITY CLERK DIAGRAM VERIFY

Lot ..... Block .....
Tract .....

Lot ..... Block .....
Tract Addition

Wilmington

SAN PEDRO DISTRICT

TAKE TO ROOM No. 3 (MAIN ST. FLOOR) ENGINEER'S DIAGRAM VERIFY

Book ..... Page ..... L. B. Page .....
From No. 300 Falcon Street Wilmington Street
To No. ..... at Frigate Avenue Street

Book 264 Page 17 L. B. Page

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Borax Refinery
2. What purpose will Building be used for hereafter? Same
3. Owner's name Pacific Coast Borax Company Phone
4. Owner's address Wilmington, California
5. Architect's name Albert C. Martin Phone MU 1347
6. Contractor's name Care of Architect Phone
7. Contractor's address
8. VALUATION OF PROPOSED WORK (Including all Material, Labor, Installing, Equipment and Appliances to Completed Building.) $ 5,000.00
9. Class of present Building A No. of rooms at present
10. Number of stories in height Three (3) Size present Building 100 x 200
11. State how many buildings are on this lot Three (3)
12. State purpose buildings on lot are used for Power House, Store House (Apartment House, Hotel, Auditorium, or any other purpose)
13. What Zone is Property in?

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Installation of a toilet room on the second floor of the Refinery Building.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with whether herein specified or not.

OVER

(Sign here) Albert C. Martin
(Owner or authorized Agent)

FOR DEPARTMENT USE ONLY

PERMIT NO. 17903

Plans and Specifications checked and found to conform to Ordinances, State Laws, etc. All Examiner

Application checked and found O. K. 7/9/28 J. E. Clerk

RECEIVED JUL 10 1928 BUILDING & SAFETY

(Page 2 of 2)

14. Size of new addition _____ x _____ No. of Stories in height _____
15. Material of foundation _____ Size footings _____ size wall _____ Depth below ground _____
16. Size of Redwood Mudsills _____ x _____ Size of interior bearing studs _____ x _____
17. Size of exterior studs _____ x _____ Size of interior non-bearing studs _____ x _____
18. Size of first floor joists _____ x _____ Second floor joists _____ x _____
19. Will all Lathing and Plastering Comply with Ordinance? _____
20. Will all provisions of State Housing Act be complied with? _____

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinance and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) _____
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K.
CONSTRUCTION	O. K.
ZONING	O. K.
SET-BACK LINE	O. K.
ORD 33761 (N. S.)	O. K.
FIRE DISTRICT	O. K.

REMARKS

(Page 1 of 2)

All Applications Must be Filled Out by Applicant

Bldg. Form 3

PLANS AND SPECIFICATIONS and other data must also be filed

BUILDING DIVISION

3 DEPARTMENT OF BUILDING AND SAFETY

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building, for a building permit in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions which are hereby agreed to by the undersigned applicant and which shall be deemed conditions entering into the issuance of any permit:

First: That no permit does not grant any right or privilege to use any building or other structure therein described, or any portion thereof, unless such use, alteration or other building shall or portion thereof, shall be in all respects with the provisions of the Ordinances of the City of Los Angeles.

Second: That no permit does not grant any right or privilege to use any premises or other structure described, or any portion thereof, for any purpose that is or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the issuance of any permit does not prevent the City of Los Angeles from thereafter requiring the correction of errors that may be found in the plans or in the construction of the building or structure mentioned therein, or from preventing the violation of any of the provisions of the Ordinances of the City of Los Angeles in the prosecution of the work mentioned in said permit.

	REMOVED FROM	REMOVED TO
TAKE TO ROOM No. 340 (2ND FLOOR) CITY CLERK PLEASE VERIFY	Lot ... Block ... Tract ... NORMAN ISLAND	Lot ... Block ... Tract ... SAN PEDRO DIST. PROP.
TAKE TO ROOM No. 5 (MAIN ST. WING) ENGINEER PLEASE VERIFY	Book ... Page ... F. B. Page ... Prior No. 300 FALCON ST. Tu No. ...	Book ... Page ... F. B. Page ... Street ... Tu No. ... Lincoln Blvd. Ave. ... Street

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? REFINERY
2. What purpose will Building be used for hereafter? REFINERY
3. Owner's name PACIFIC COAST BORAX CO. Phone ...
4. Owner's address 1010 CENTRAL BLDG. ...
5. Architect's name ALBERT C. MARTIN Phone ...
6. Contractor's name NOT AWARDED Phone ...
7. Contractor's address ...
8. VALUATION OF PROPOSED WORK (including all Material, Labor, Ventilating, Heating and Air Conditioning in Commercial Building) $ 10,000.00
9. Class of present Building A No. of rooms at present ...
10. Number of stories in height ONE Size present Building 90 x 100
11. State how many buildings are on this lot TWO
12. State purpose buildings on lot are used for REFINERY AND WAREHOUSE
13. What Zone is Property in? ...

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC. WILL BE MADE TO THIS BUILDING:

WALL CONSISTS OF ADDING STEEL FRAME BUILDING WITH CORRUGATED IRON SIDING AND ASBESTOS ROOF SUPPORTED ON EXISTING PILES AND FOOTINGS. ALSO INSTALLING A DUMPING PLATFORM AT SOUTH EAST CORNER OF EXISTING CONCRETE WHARF.

I have carefully examined and read the above application and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

SEE OVER

(Sign here) Albert C. Martin Jr. (OWNER OR AUTHORIZED AGENT)

PERMIT NO.	Plans and specifications checked and found correct. Mists Laws, etc.	Application checked and found correct. Fees collected	
2275	Plan examiner	Clerk	FEB 1935

(Page 2 of 2)

14. Size of new addition 40' x 100' No. of Stories in height One
15. Material of foundation Conc. Size footings See detail site wall Depth below ground
16. Size of Redwood Mudsill x Size of interior bearing studs x
17. Size of exterior studs x Size of interior non-bearing studs x
18. Size of first floor joists x Second floor joists
19. Will all Lathing and Plastering Comply with Ordinance? Yes
20. Will all provisions of State Housing Act be complied with? Yes

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinance and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here) Albert Martin AIA
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O. K. MM
CONSTRUCTION	O. K. MM
ZONING	O. K. OP
SET-BACK LINE	O. K. OP
ORD. 33761 (N. S.)	O. K. OP
FIRE DISTRICT	O. K. OP

REMARKS

Not Known (By Govt.)

(Page 1 of 3)

All Applications Must be Filled Out by Applicant

PLANS AND SPECIFICATIONS and other data must also be filed

3

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY
BUILDING DIVISION

SAN PEDRO DISTRICT

Application to Alter, Repair or Demolish

To the Board of Building and Safety Commissioners of the City of Los Angeles:

Application is hereby made to the Board of Building and Safety Commissioners of the City of Los Angeles, through the office of the Superintendent of Building for a building permit, in accordance with the description and for the purpose hereinafter set forth. This application is made subject to the following conditions, which are hereby assented to by the undersigned applicant and which shall be deemed conditions attached to the permit issued upon it, the granting of the permit:

First: That the permit does not grant any right or privilege to erect any building or other structure therein specified, or any portion thereof, upon any street, alley, or other public place or public street.

Second: That the permit does not grant any right or privilege to use said building or other structure therein specified, or any portion thereof, for any purpose that is, or may hereafter be prohibited by ordinance of the City of Los Angeles.

Third: That the granting of the permit does not affect or prejudice any rights of third parties, or rights of ownership in the property described in said permit.

	REMOVED FROM	REMOVED TO
TAKE TO Room No. 240 (2ND FLOOR) CITY CLERK PLEASE VERIFY	Lot ..... Block	Lot ..... Block .....
	Tract	Tract .....
TAKE TO ROOM No. 6 (MAIN ST.) FLOOR) ENGINEER PLEASE VERIFY	Book ..... Page ..... F. B. Page	Book ..... Page ..... F. B. Page .....
	From No. ..... (Falcon St.) ..... Street	..... Street
	To No. 320 Falcon St. Unit A ..... Street	..... Street

(USE INK OR INDELIBLE PENCIL)

1. What purpose is the present Building now used for? Office, Storage
2. What purpose will Building be used for hereafter? Same
3. Owner's name Pacific Coast Borax Co. Phone Atlantic 6-2
4. Owner's address 100 Pier 1 Terminal Island
5. Architect's name ..... Phone .....
6. Contractor's name Wood & Fischer Phone 627-20 L.B.
7. Contractor's address 923 Broadway Long Beach
8. VALUATION OF PROPOSED WORK (Including all Material, Labor, Fixtures, Plumbing, Heating and Ventilating Equipment) $ 5,000.00
9. Class of present Building 4 No. of Rooms at present 20
10. Number of stories in height 1 Size present Building 100 x 100
11. State how many Buildings are on this lot 2
12. State purpose Buildings on lot are used for Store & Warehouse & Border Inspection (Apartment House, Hotel, Residence, or Any Other Purpose.)
13. What Zone is Property In? E

STATE ON FOLLOWING LINES EXACTLY WHAT ALTERATIONS, ADDITIONS, ETC., WILL BE MADE TO THIS BUILDING:

Remodel warehouse Office and Partitions

OWNER

(Page 2 of 3)

14. Size of new addition.....x.....No. of stories in height.....Size of Lot.....x.....ft.
15. Material of foundation.....Size footings.....Size wall.....Depth below ground.....
16. Size of Redwood Mudsills.....x.....Size of interior bearing studs.....x.....
17. Size of exterior studs.....x.....Size of interior non-bearing studs.....x.....
18. Size of first floor joists.....x.....Second floor joists.....x.....
19. Will all Lathing and Plastering Comply with Ordinance? .....
20. Will all provisions of State Housing Act be complied with?.....

I have carefully examined and read the above blank and know the same is true and correct, and that all provisions of the Ordinances and Laws governing Building Construction will be complied with, whether herein specified or not.

(Sign here).....
(Owner or Authorized Agent)

FOR DEPARTMENT USE ONLY

APPLICATION	O.K.
CONSTRUCTION	O.K.
ZONING	O.K.
SET-BACK LINE	O.K.
ORD. 33751 (N.S.)	O.K.
FIRE DISTRICT	O.K.

REMARKS

APPROVED BY
Board of Harbor Commissioners
MAR 18 1931
McSween PRESIDENT
McRouse SECRETARY

APPROVED
Date MAR 12 1931
AS TO LOCATION AND DESCRIPTION
LOS ANGELES HARBOR DEPARTMENT
By

Note
Subject to conditions
contained in letter
Chief Engineer dated
of March 16 1931 attached

(Page 3 of 3)

M. Size of new addition ____ x ____ No. of stories in height ____ Size of lot ____ x ____ ft.
Depth below ground ____.

[illegible] 15, 1951.

To the Honorable
Board of Harbor Commissioners

SUBJECT - Application for Building Permit-
Pacific Coast Borax Company

Gentlemen:

Please find attached building permit, requested by the Pacific Coast Borax Company, and would recommend approval of same under the conditions that this agreement shall not be construed to acknowledge ownership or property rights to property herein described, other than those specifically herein set forth, and shall not be construed as a ratification of property interests in any manner whatsoever.

Very truly,

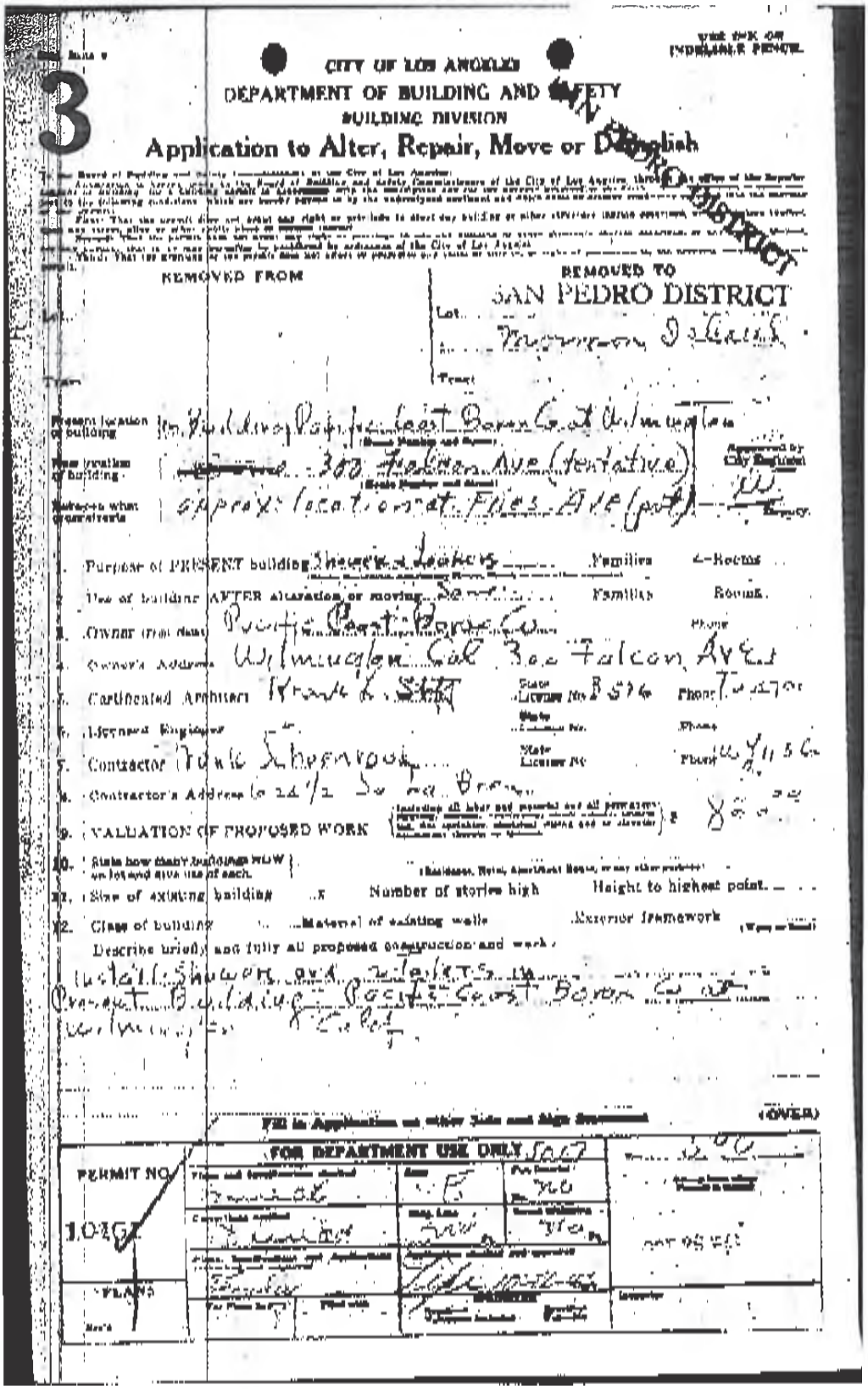
[signature]

D. F. NICHOLSON,
Acting General Manager.

CFM
D

Attach-

(Page 1 of 2)



CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

Application to Alter, Repair, Move or Demolish

REMOVED FROM

REMOVED TO SAN PEDRO DISTRICT

Lot Wilmington Dist.

Tract

Present location of building In Yard of Pacific Coast Borax Co at Wilmington

New location of building 300 Falcon Ave (tentative)

Approved by City Engineer

Address to which correspondence is to be sent approx. location at Fries Ave (port)

1. Purpose of PRESENT building Shower & Locker Families Rooms
2. Use of building AFTER alteration or moving Same Families Rooms
3. Owner (Print name) Pacific Coast Borax Co. Phone
4. Owner's Address Wilmington Cal 300 Falcon Ave
5. Certificated Architect Frank L. Stitt State License No B576 Phone Terminal 7-2170
6. Licensed Engineer State License No. Phone
7. Contractor Frank Silverwood State License No Phone WY 115 C
8. Contractor's Address 22 1/2 So Beacon
9. VALUATION OF PROPOSED WORK (including all labor and material and all permanent fixtures and apparatus, electrical, heating and ventilating systems and elevators) $ 800.00
10. State how many buildings NOW on lot and give use of each. (Residence, Barn, Apartment House, or any other purpose)
11. Size of existing building x Number of stories high Height to highest point
12. Class of building Material of existing walls Exterior framework

Describe briefly and fully all proposed construction and work.

Install Shower and Toilets in Present Building of Pacific Coast Borax Co at Wilmington

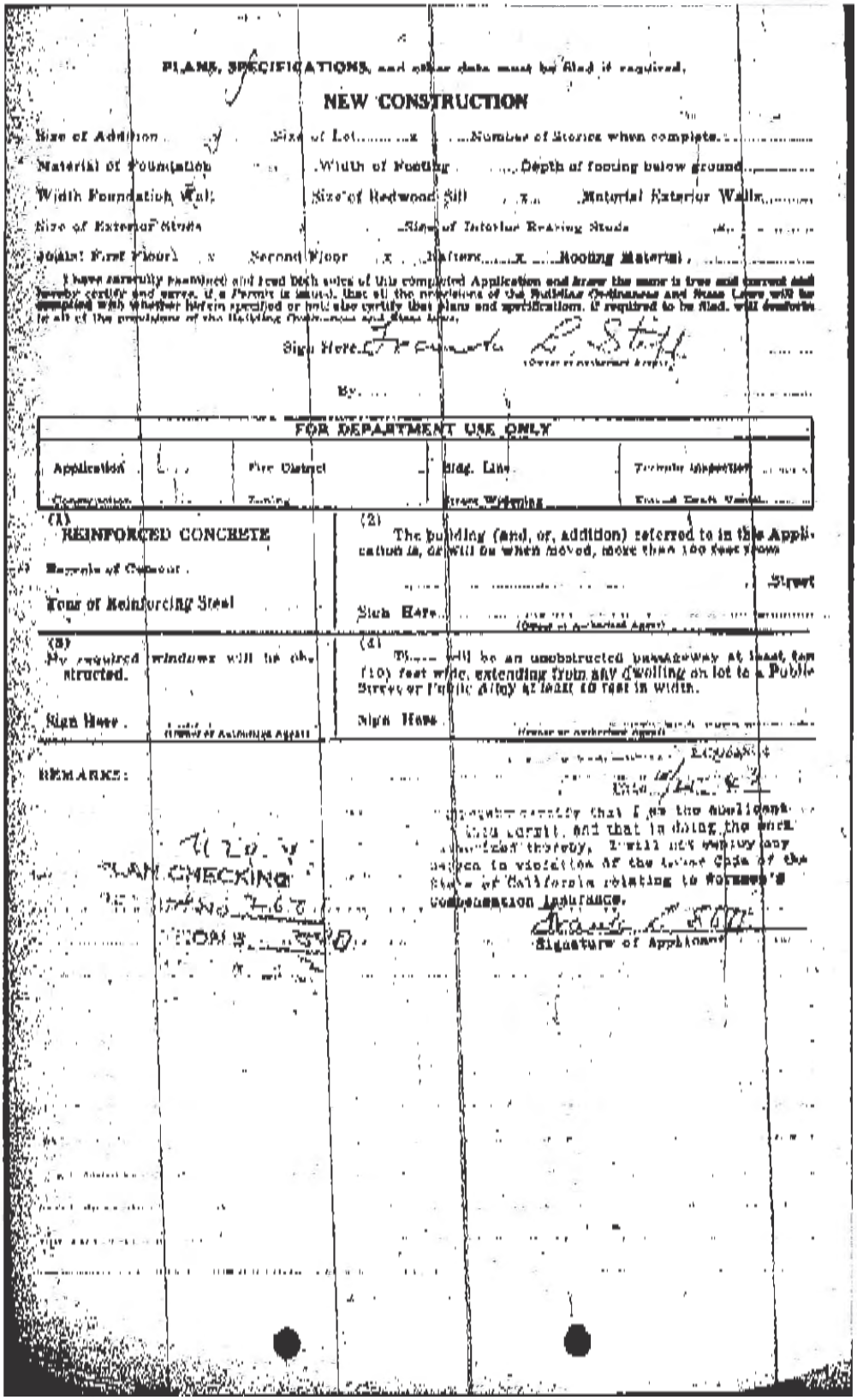
(OVER)

Fill in Applications and other Data and Sign Reverse

FOR DEPARTMENT USE ONLY

PERMIT NO 1067

PLANS



PLANS, SPECIFICATIONS, and other data must be filed if required.

NEW CONSTRUCTION

Size of Addition ... Size of Lot ... Number of Stories when complete ...

Material of Foundation ... Width of Footing ... Depth of footing below ground ...

Width Foundation Wall ... Size of Redwood Sill ... Material Exterior Walls ...

Size of Exterior Studs ... Size of Interior Bearing Studs ...

Joists: First Floor ... Second Floor ... Rafters ... Roofing Material ...

I have carefully examined and read both sides of this completed Application and know the same is true and correct and hereby certify and agree, if a Permit is issued, that all the provisions of the Building Ordinances and State Laws will be complied with whether herein specified or not; also certify that plans and specifications, if required to be filed, will describe in all of the provisions of the Building Ordinances and State laws.

Sign Here ... (Owner or authorized Agent)

By ...

FOR DEPARTMENT USE ONLY

Application ... Fire District ... Bldg. Line ... Permit Inspection ...

Occupancy ... Zoning ... Street Widening ... Final Each Vault ...

(1)
REINFORCED CONCRETE

Records of Concrete ...

Tons of Reinforcing Steel ...

(2)
The building (and, or, addition) referred to in this Application is, or will be when moved, more than 100 feet from ... Street

Sign Here ... (Owner or Authorized Agent)

(3)
No required windows will be obstructed.

Sign Here ... (Owner or Authorized Agent)

(4)
There will be an unobstructed passageway at least ten (10) feet wide, extending from any dwelling on lot to a Public Street or Public Alley at least 10 feet in width.

Sign Here ... (Owner or authorized Agent)

REMARKS:

PLAN CHECKING

I hereby certify that I am the applicant named herein, and that in doing the work authorized thereby, I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Signature of Applicant ...

1

CITY OF LOS ANGELES

DEPARTMENT OF BUILDING AND SAFETY

BUILDING DIVISION

APPLICATION TO ERECT A NEW BUILDING OF TYPE

Lot No.

Tract

Location of Building (House Number and Street)

Between what cross streets

Approved by City Engineer

USE ENK OR INDELIBLE PENCIL.

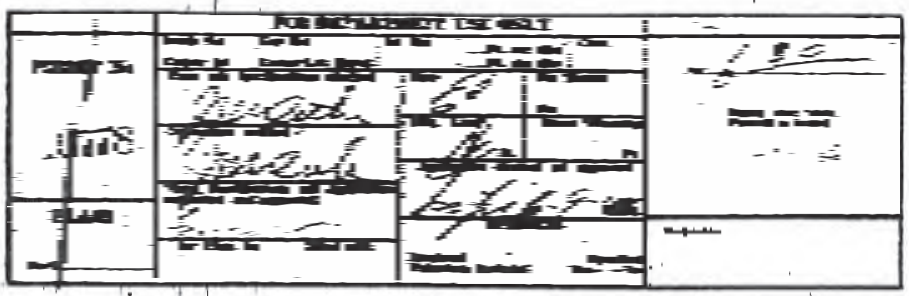
1. Purpose of building Families Rooms
2. Owner
3. Owner's address
4. Certificated Architect State License No. Phone
5. Licensed Engineer State License No. Phone
6. Contractor State License No. Phone
7. Contractor's address
8. VALUATION OF PROPOSED WORK (Building, heating, ventilating, wiring, supply, power, etc. fire sprinkler, elevator, piping and machinery equipment, however designated.)
9. State how many buildings NOW on lot and give use of each. (Store, Dwelling, Apartment House, Hotel, or other purpose)
10. Size of new building No. Stories Height to highest point Size lot
11. Material Exterior Walls Type of Roofing
12. For Accessory Buildings and similar structures (a) Footing: Width Depth in Ground Width of Wall (b) Size of Studs Material of Floor (c) Size of Floor Joists Size of Rafters

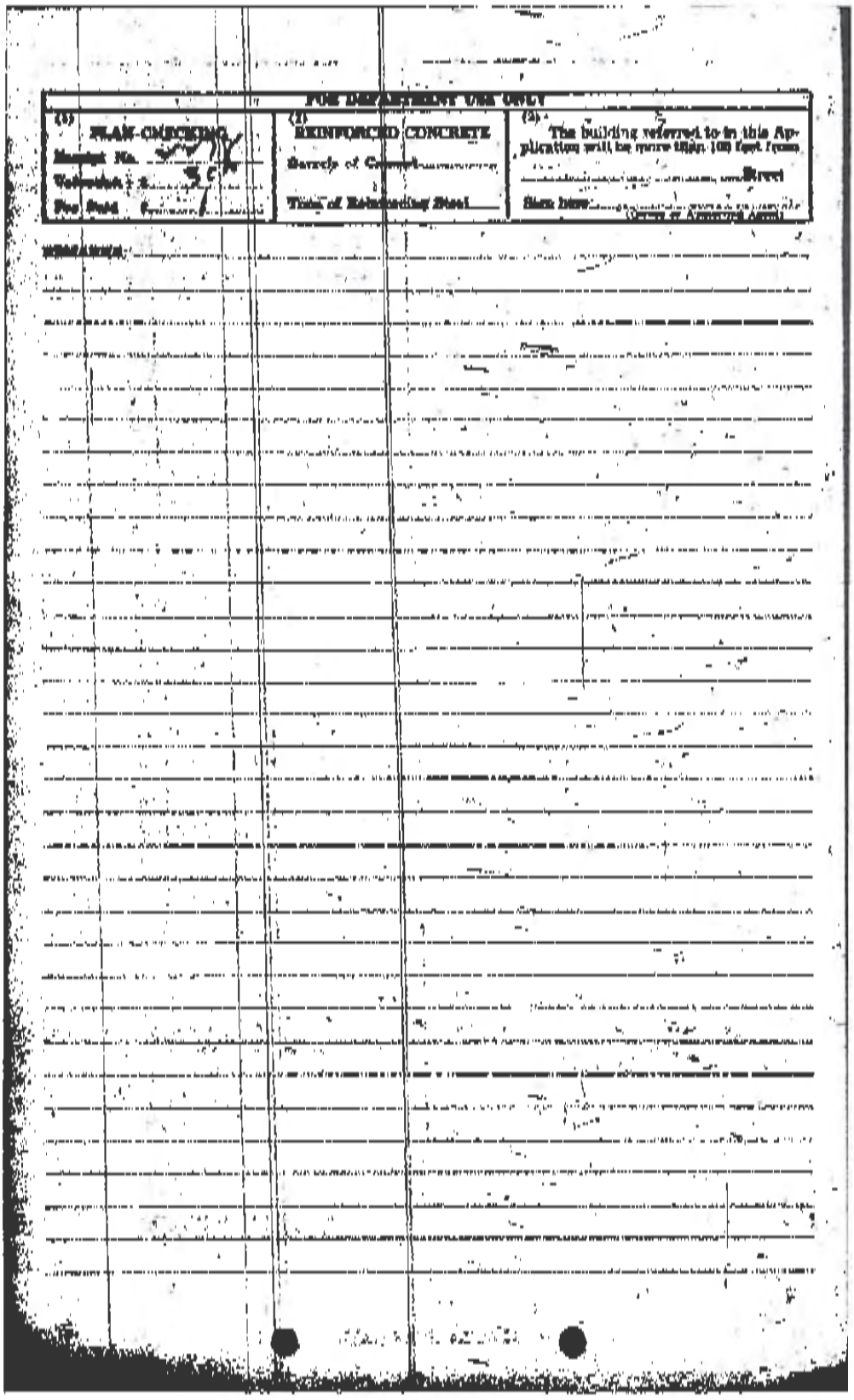
I hereby certify that to the best of my knowledge and belief the above application is correct and that this building or construction work will comply with all laws, and that in the doing of the work authorized thereby I will not employ any person in violation of the Labor Code of the State of California relating to Workmen's Compensation Insurance.

Sign here (Owner or Authorized Agent)

By

Plans, Specifications and other data must be filed.





FOR DEPARTMENT USE ONLY

(1) PLAN CHECKING

Receipt No. _____

Valuation $ 3,000

Fee Paid $ 7.00

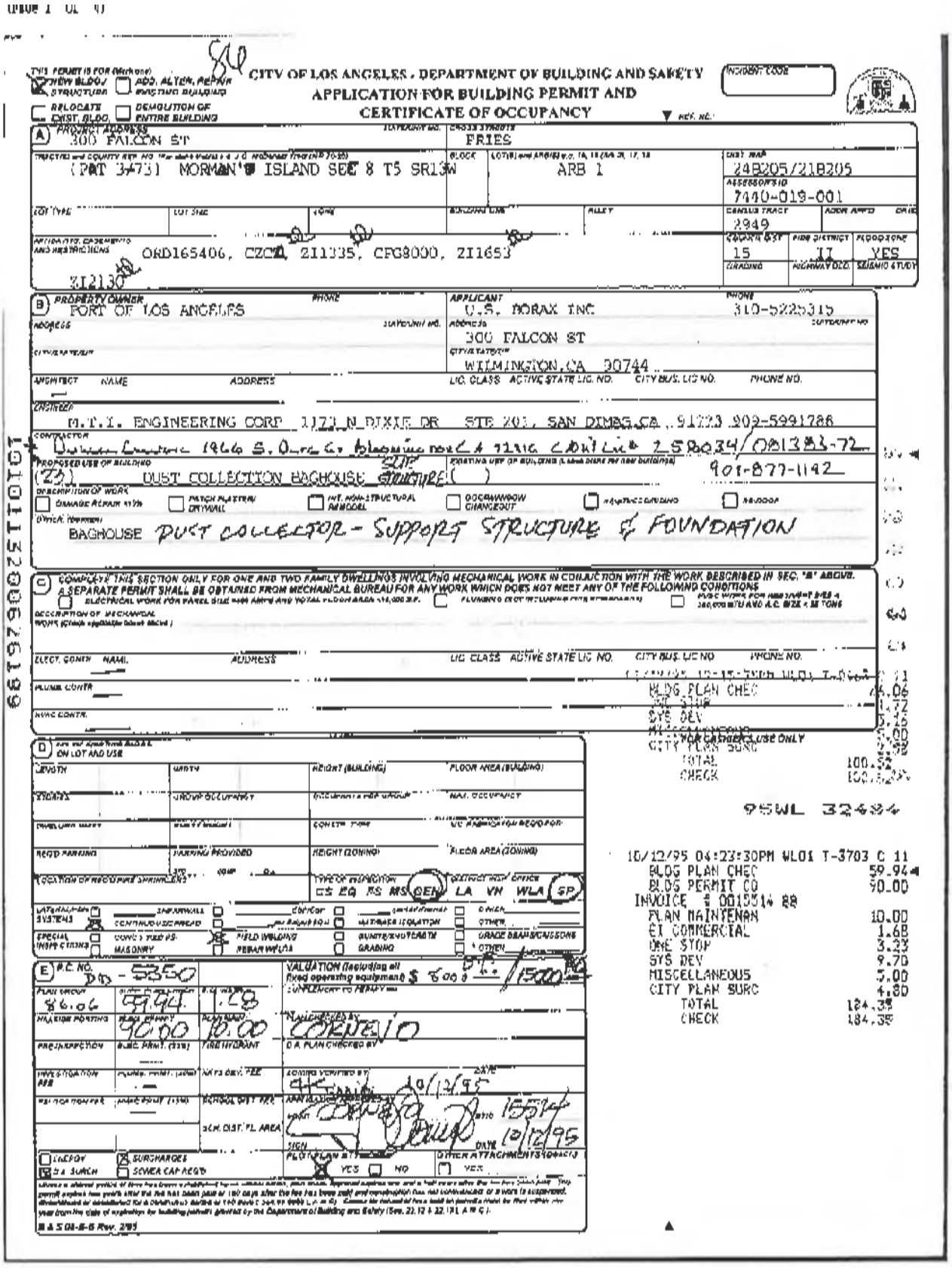
(2) REINFORCED CONCRETE

Strength of Concrete _____

Yield of Reinforcing Steel _____

(3) The building referred to in this Application will be more than 100 feet from _____ Street

Sign here: _____
(Owner or Authorized Agent)



CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
APPLICATION FOR BUILDING PERMIT AND CERTIFICATE OF OCCUPANCY

THIS PERMIT IS FOR (Mark one): ☒ NEW BLDG./STRUCTURE ☐ ADD, ALTER, REPAIR EXISTING BUILDING ☐ RELOCATE EXIST. BLDG. ☐ DEMOLITION OF ENTIRE BUILDING

INCIDENT CODE

REF. NO.

A — PROPERTY ADDRESS: 300 FALCON ST
CROSS STREETS: FRIES
TRACT(S) and COUNTY REF. NO.: (PRT 3473) MORMAN'S ISLAND SEE 8 T5 SR13W
LOT(S) and ARB(S): ARB 1
UNIT MAP: 24B205/218205
ASSESSOR'S ID: 7440-019-001
LOT TYPE / LOT SIZE / ZONE / BUILDING LINE / ALLEY
CENSUS TRACT: 2949
ADDR. APPD / GRID
APPLICATIVE EASEMENTS AND RESTRICTIONS: ORD165406, CZC, ZI1335, CPC8000, ZI1653
ZI2130
COUNCIL DIST: 15
FIRE DISTRICT: 11
FLOOD ZONE: YES
GRADING / HIGHWAY DED. / SEISMIC STUDY

B — PROPERTY OWNER: PORT OF LOS ANGELES
PHONE / ADDRESS / STATE/ZIP/CITY
APPLICANT: U.S. BORAX INC
PHONE: 310-5225315
ADDRESS: 300 FALCON ST
CITY/STATE/ZIP: WILMINGTON,CA 90744
ARCHITECT NAME / ADDRESS / LIC. CLASS / ACTIVE STATE LIC. NO. / CITY BUS. LIC NO. / PHONE NO.
ENGINEER: M.T.I. ENGINEERING CORP 1173 N DIXIE DR STE 201, SAN DIMAS,CA 91773 909-5991788
CONTRACTOR: Universal Construction 1966 S. Orange Blossom Trail Apopka, FL 32703 CONTR. LIC. # 1580034/081383-72
PROPOSED USE OF BUILDING: (23) DUST COLLECTION BAGHOUSE STRUCTURE( )
EXISTING USE OF BUILDING (Label shape for new buildings): 901-877-1142
DESCRIPTION OF WORK: ☐ DAMAGE REPAIR ☐ PATCH PLASTER/DRYWALL ☐ INT. NON-STRUCTURAL REMODEL ☐ DOOR/WINDOW CHANGEOUT ☐ ☐
OTHER (Specify): BAGHOUSE DUST COLLECTOR - SUPPORT STRUCTURE & FOUNDATION

C — COMPLETE THIS SECTION ONLY FOR ONE AND TWO FAMILY DWELLINGS INVOLVING MECHANICAL WORK IN CONJUCTION WITH THE WORK DESCRIBED IN SEC. "B" ABOVE.
A SEPARATE PERMIT SHALL BE OBTAINED FROM MECHANICAL BUREAU FOR ANY WORK WHICH DOES NOT MEET ANY OF THE FOLLOWING CONDITIONS
☐ ELECTRICAL WORK FOR PANEL SIZE NOT ABOVE AND TOTAL FLOOR AREA NOT OVER SQ.FT. ☐ PLUMBING (NOT INCLUDING GAS PIPING) ☐ FURNACE NOT OVER 100,000 BTU AND A.C. SIZE NOT OVER 5 TONS
DESCRIPTION OF MECHANICAL WORK (Include applicable items listed)
ELECT. CONTR. NAME / ADDRESS / LIC. CLASS / ACTIVE STATE LIC. NO. / CITY BUS. LIC NO. / PHONE NO.
PLUMB. CONTR.
HVAC CONTR.

D — LOT AND USE
LENGTH / WIDTH / HEIGHT (BUILDING) / FLOOR AREA (BUILDING)
STORIES / GROUP OCCUPANCY / OCCUPANT LOAD PER GROUP / MAX. OCCUPANCY
CONSTR. TYPE / USE PROVISION REQUIRED FOR:
REQ'D PARKING / PARKING PROVIDED / HEIGHT (ZONING) / FLOOR AREA (ZONING)
LOCATION OF REQUIRED SPRINKLERS / TYPE OF EXCAVATION: CS EQ FS MS (GEN) LA VN WLA SP / DISTRICT MAP / OFFICE
☐ FIRE ALARM SYSTEMS ☐ SPRINKLERS ☐ CONTINUOUS INSPECTION ☐ CONCRETE ☐ FIELD WELDING ☐ REBAR WELDS ☐ SHOTCRETE/GUNITE ☐ GRADING ☐ OTHER
SPECIAL INSPECTIONS: ☐ CONC'S TILT-UP ☐ MASONRY
☐ GRADE BEAMS/CAISSONS ☐ OTHER

E — B.C. NO. D5 - 5350
VALUATION (Including all fixed operating equipment) $ 600 + 1500
PLAN CHECK 86.06 / PLAN CHECK 59.94 / B.C. NO. 1.68
MANHOLE POSTING 90.00 / PLAN BOARD 10.00
PRE-INSPECTION / BLDG. PERMIT (23) / FIRE HYDRANT
INVESTIGATION FEE / PLUMB. PERMIT (23) / AIR POLL. DIST. FEE
RELOCATION FEE / MAP COPY (23) / SCHOOL DIST. FEE
SCH. DIST. FL. AREA
☐ LIEDOV ☒ SURCHARGE ☒ S.A. SURCH ☐ SEWER CAP REQ'D
PLOT PLAN ☐ YES ☐ NO
OTHER ATTACHMENTS (Specify)
☐ YES
CHECKED BY: CORTEZ / O
D.A. PLAN CHECKED BY
ZONING VERIFIED BY: 10/12/95
DATE
APPROVED BY / DATE: 10/12/95
SIGN

Where a deferral period of three years is established by this section, plan check fees and permit fees shall be paid at the time the application is filed. Any permit expires two years after the date it was issued or 180 days after the fee has been paid and construction has not commenced or if work is suspended or abandoned for a period of 180 days at any time after work is commenced. A written request may be filed by the applicant for an extension of time within which to commence work under that permit before the expiration date. The Department may grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension may be requested in writing and justifiable cause demonstrated. (See L.A.M.C. Section 98.0602)

B & S 08-B-6 Rev. 2/95

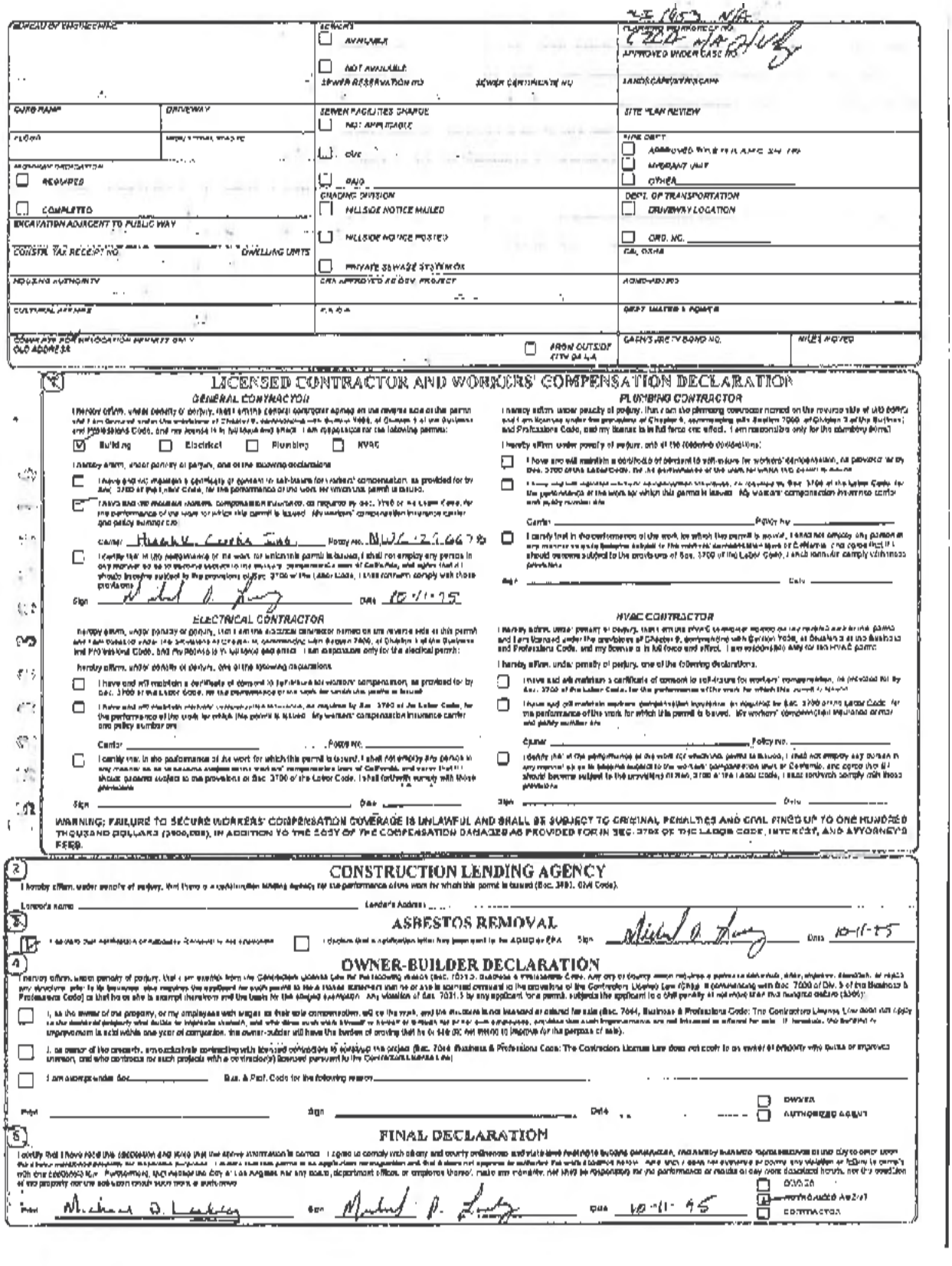
FOR CASHIER'S USE ONLY

BLDG PLAN CHEC	86.06
BLDG PERM	1.72
SYS DEV	3.45
MISCELLANEOUS	5.00
CITY PLAN SURC	4.80
TOTAL	100.23
CHECK	100.23

95WL 32484

10/12/95 04:23:30PM WL01 T-3703 C 11

BLDG PLAN CHEC	59.94
BLDG PERMIT CO	90.00
INVOICE # 0015514 88	
PLAN MAINTENAN	10.00
EI COMMERCIAL	1.68
ONE STOP	3.23
SYS DEV	9.70
MISCELLANEOUS	5.00
CITY PLAN SURC	4.80
TOTAL	184.35
CHECK	184.35



BUREAU OF ENGINEERING

SEWERS
☐ AVAILABLE
☐ NOT AVAILABLE
SEWER RESERVATION NO. SEWER CONNECTING NO.

PLANNING DEPARTMENT NO.
APPROVED UNDER CASE NO.
LAND CONTAINING CASE

CURB RAMP | DRIVEWAY

SEWER FACILITIES CHARGE
☐ NOT APPLICABLE
☐ DUE
☐ PAID

SITE PLAN REVIEW

FLOOD
SIDEWALK WAIVER

FIRE DEPT.
☐ APPROVED WITH FIRE SPRINKLERS
☐ VARIANCE ONLY
☐ OTHER

ENCROACHMENT REQUIRED
☐ COMPLETED

GRADING DIVISION
☐ HILLSIDE NOTICE MAILED
☐ HILLSIDE NOTICE POSTED

DEPT. OF TRANSPORTATION
☐ DRIVEWAY LOCATION
☐ ORD. NO.

EXCAVATION ADJACENT TO PUBLIC WAY

CONSTR. TAX RECEIPT NO. DWELLING UNITS

☐ PRIVATE SEWAGE SYSTEM OK

CAL OSHA

HOUSING AUTHORITY

CRA APPROVED REDEV. PROJECT

ADMINISTRATIVE

CULTURAL AFFAIRS

FIRE

DEPT. WATER & POWER

CERTIFICATE OF OCCUPANCY FOR
OLD ADOBE BR

☐ AREA OUTSIDE CITY OF L.A.

CASH/SURETY BOND NO. | MILES HAULED

LICENSED CONTRACTOR AND WORKERS' COMPENSATION DECLARATION

GENERAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the general contractor signed on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am applying for the following permits:

☑ Building ☐ Electrical ☐ Plumbing ☐ HVAC

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: Hawke, Cortez Tate, Policy no. WLC 21 667 96

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign: _____ Date: 10-11-95

ELECTRICAL CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the electrical contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am applying only for the electrical permit:

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: _____ Policy no. _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign: _____ Date: _____

PLUMBING CONTRACTOR

I hereby affirm under penalty of perjury, that I am the plumbing contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the plumbing permit.

I hereby affirm under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: _____ Policy no. _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

☐ I carefully read the contents of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign: _____ Date: _____

HVAC CONTRACTOR

I hereby affirm, under penalty of perjury, that I am the HVAC contractor named on the reverse side of this permit and I am licensed under the provisions of Chapter 9, commencing with Section 7000, of Division 3 of the Business and Professions Code, and my license is in full force and effect. I am responsible only for the HVAC permit.

I hereby affirm, under penalty of perjury, one of the following declarations:

☐ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued.

☐ I have and will maintain workers' compensation insurance, as required by Sec. 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier: _____ Policy no. _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the provisions of Sec. 3700 of the Labor Code, I shall forthwith comply with those provisions.

Sign: _____ Date: _____

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL AND SHALL BE SUBJECT TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF THE COMPENSATION DAMAGES AS PROVIDED FOR IN SEC. 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

CONSTRUCTION LENDING AGENCY

I hereby affirm, under penalty of perjury, that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3691, Civil Code).

Lender's name: _____ Lender's Address: _____

ASBESTOS REMOVAL

☐ I am not required to comply with the applicable requirements of 40 CFR Part 61, Subpart M

☐ I have obtained written approval from the Los Angeles Department of Building and Safety for demolition of my building

Sign: Michael D. Lantz Date: 10-11-95

OWNER-BUILDER DECLARATION

I hereby affirm, under penalty of perjury, that I am exempt from the Contractors License Law for the following reason (Sec. 7031.5, Business & Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Sec. 7000) of Div. 3 of the Business & Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Sec. 7031.5 by any applicant for a permit, subjects the applicant to a civil penalty of not more than five hundred dollars ($500):

☐ I, as the owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, any such improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business & Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law.)

☐ I am exempt under Sec. _____ B.& P. Code for the following reason: _____

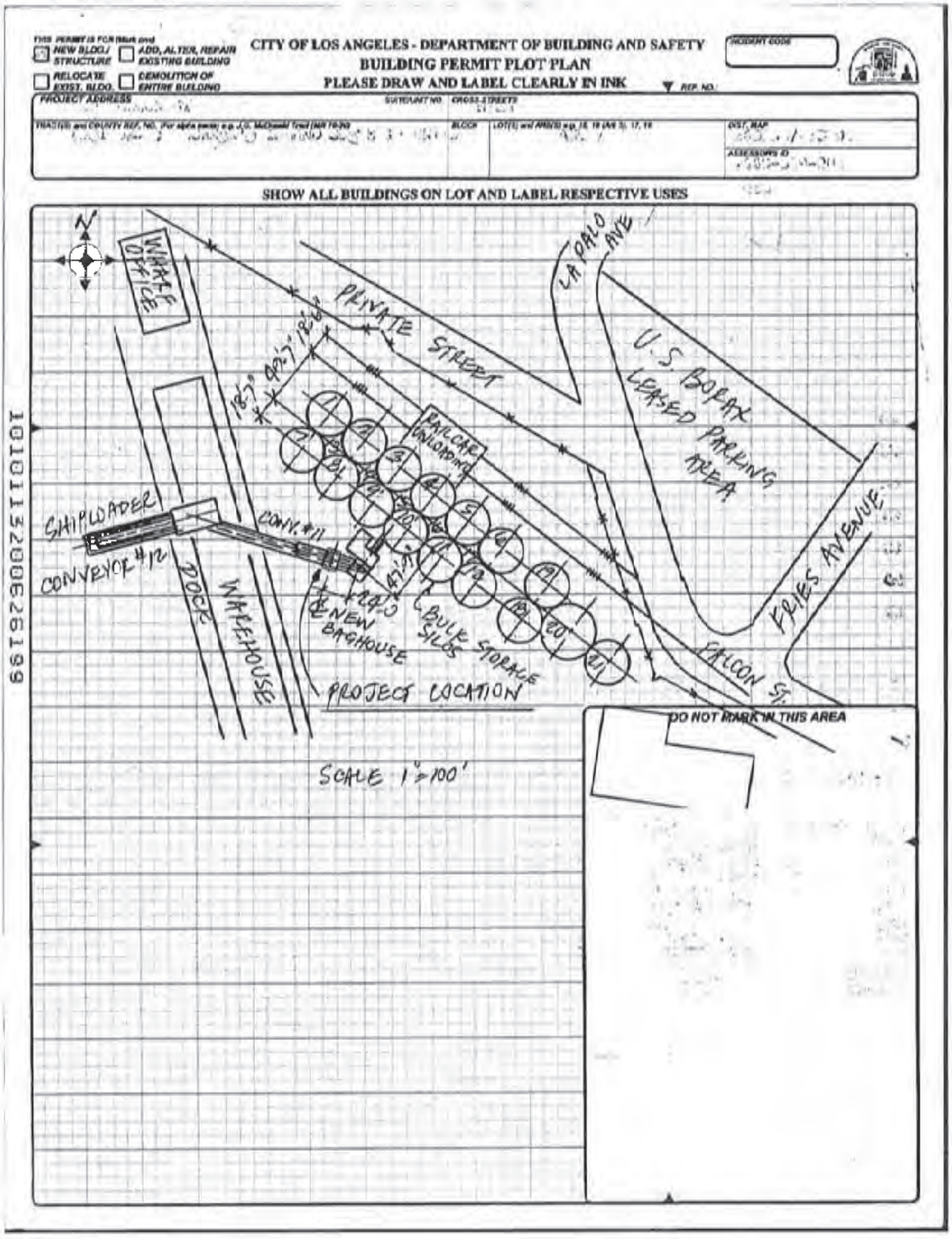
Print: _____ Sign: _____ Date: _____ ☐ OWNER ☐ AUTHORIZED AGENT

FINAL DECLARATION

I certify that I have read this application and state that the above information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection purposes. I am the owner or authorized agent and I agree to save indemnify and keep harmless the City of Los Angeles against all liabilities, judgments, costs, and expenses which may accrue against said City in consequence of the granting of this permit. In addition, I certify that the code(s) applicable to the type of work described in this application is limited to the following: electrical, plumbing, heating and air conditioning, refrigeration, fire protection, grading and energy conservation. I understand my plans may be subject to plan check for additional information. I certify that only the construction described in this application will be performed. In the event that changes are made in the plans or intended construction, I agree to notify the Department of Building and Safety in writing. I understand that issuance of a permit does not authorize any violation of any laws or ordinances. I understand that the issuance of a permit based upon plans, specifications and other data does not prevent the Department of Building and Safety from thereafter requiring corrections of errors in said plans, specifications and other data or prevent the Department of Building and Safety from requiring corrections of errors in the construction of the building or structure being built or prevent the Department of Building and Safety from ordering the cessation of any use when in violation of the Los Angeles Municipal Code or any other ordinance or law.

Print: Michael D. Lantz Sign: Michael D. Lantz Date: 10-11-95 ☐ OWNER ☑ AUTHORIZED AGENT ☐ CONTRACTOR

(Page 3 of 4)


CITY OF LOS ANGELES - DEPARTMENT OF BUILDING AND SAFETY
BUILDING PERMIT PLOT PLAN
PLEASE DRAW AND LABEL CLEARLY IN INK
NEW BLDG./ STRUCTURE
ADD, ALTER, REPAIR EXISTING BUILDING
RELOCATE EXIST. BLDG.
DEMOLITION OF ENTIRE BUILDING
PROJECT ADDRESS
SUBDIVISION NO.
CROSS STREETS
BLOCK
LOT(S) and AREA(S)
ASSESSOR ID
SHOW ALL BUILDINGS ON LOT AND LABEL RESPECTIVE USES
N
WHARF OFFICE
PRIVATE STREET
185' 4½" 185'
LA PALO AVE
U.S. BORAX LEASED PARKING AREA
RAILCAR UNLOADING
SHIPLOADER
CONVEYOR #12
CONV. #11
DOCK
WAREHOUSE
NEW BAGHOUSE
BULK SILOS
BULK STORAGE
PROJECT LOCATION
FRIES AVENUE
FALCON ST.
DO NOT PARK IN THIS AREA
SCALE 1" = 100'
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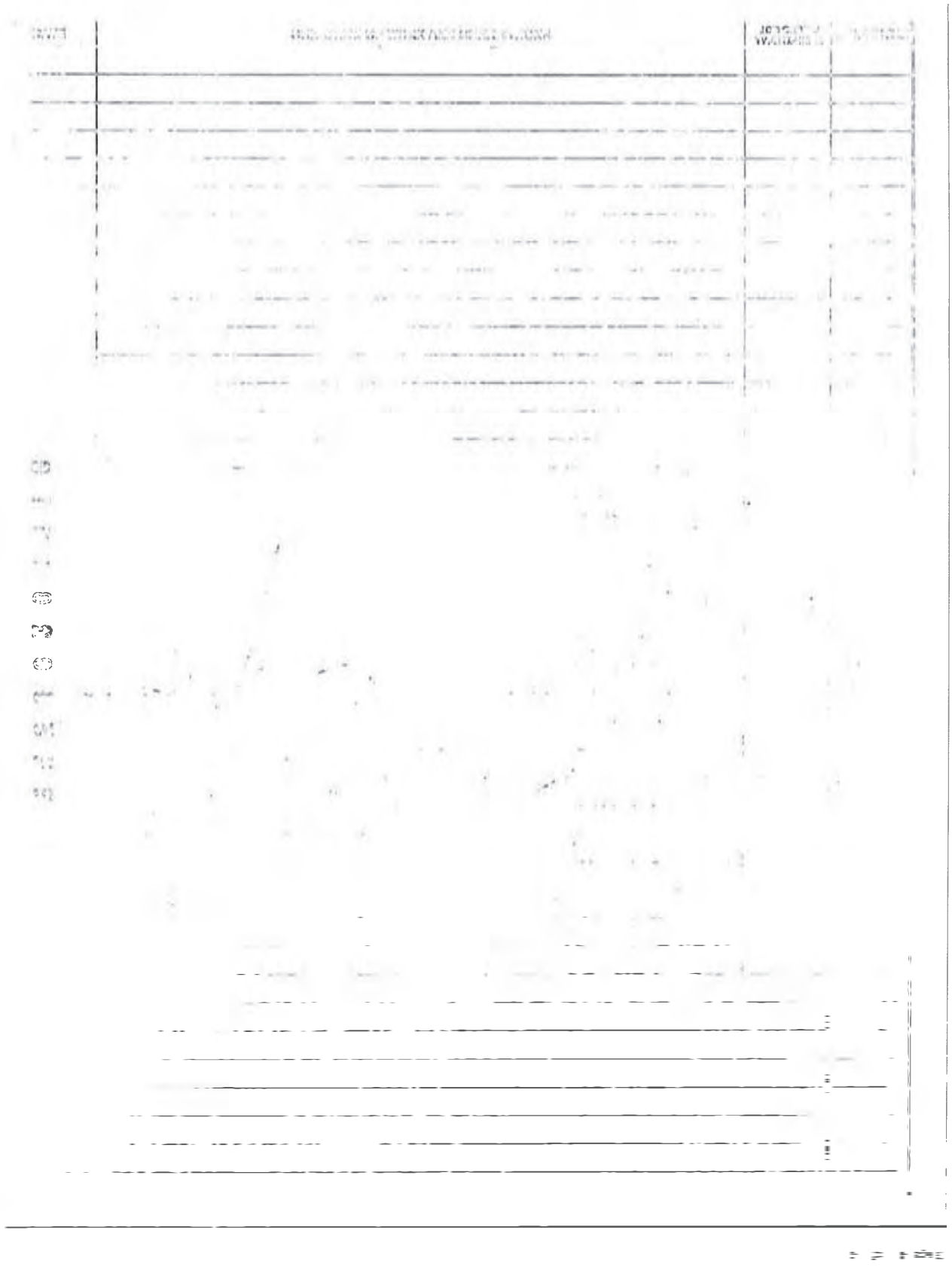

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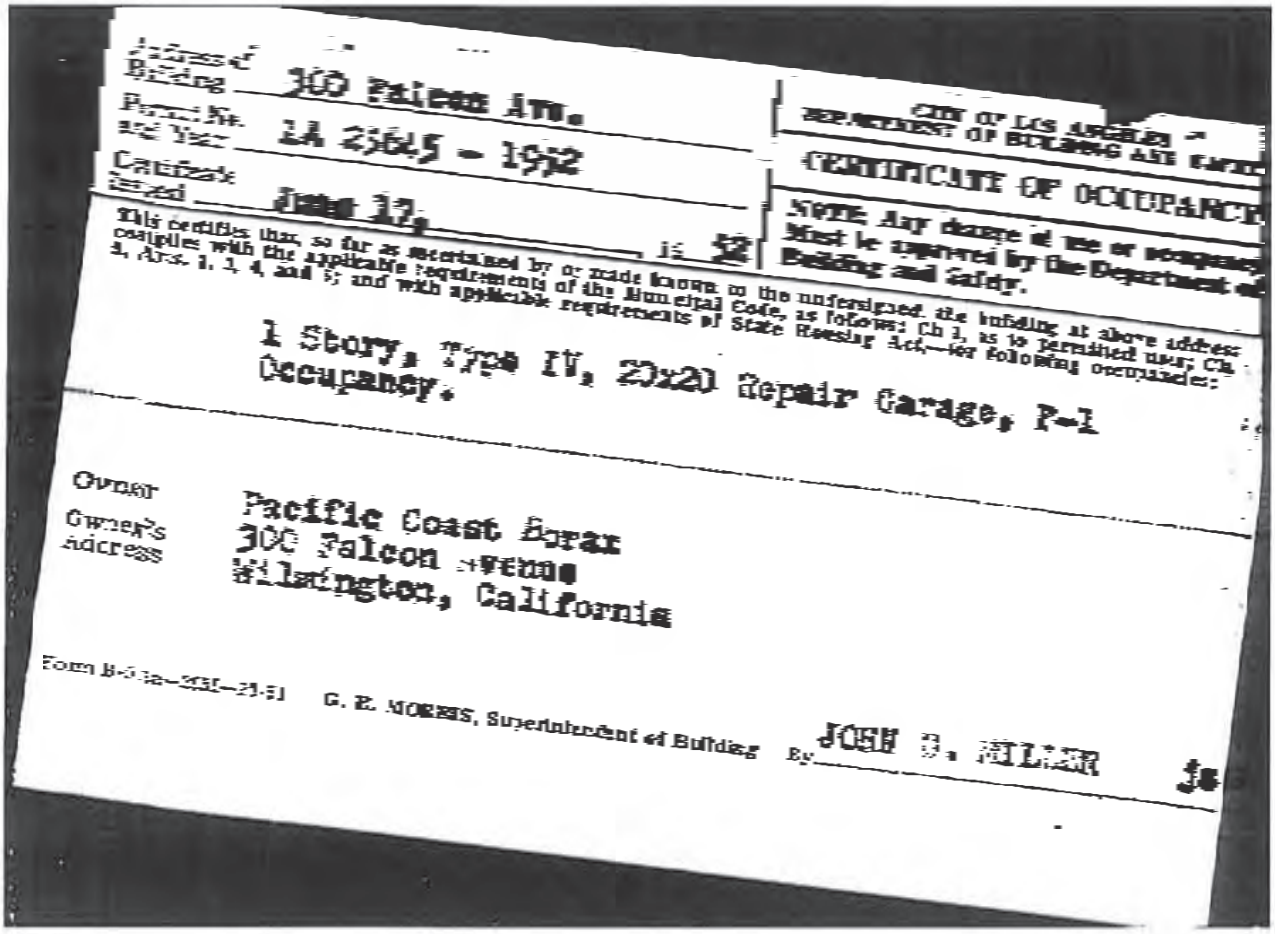


CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

CERTIFICATE OF OCCUPANCY

NOTE: Any change of use or occupancy must be approved by the Department of Building and Safety.

Address of Building 300 Falcon Ave.

Permit No. and Year LA 23645 - 1952

Certificate issued June 12, 19 52

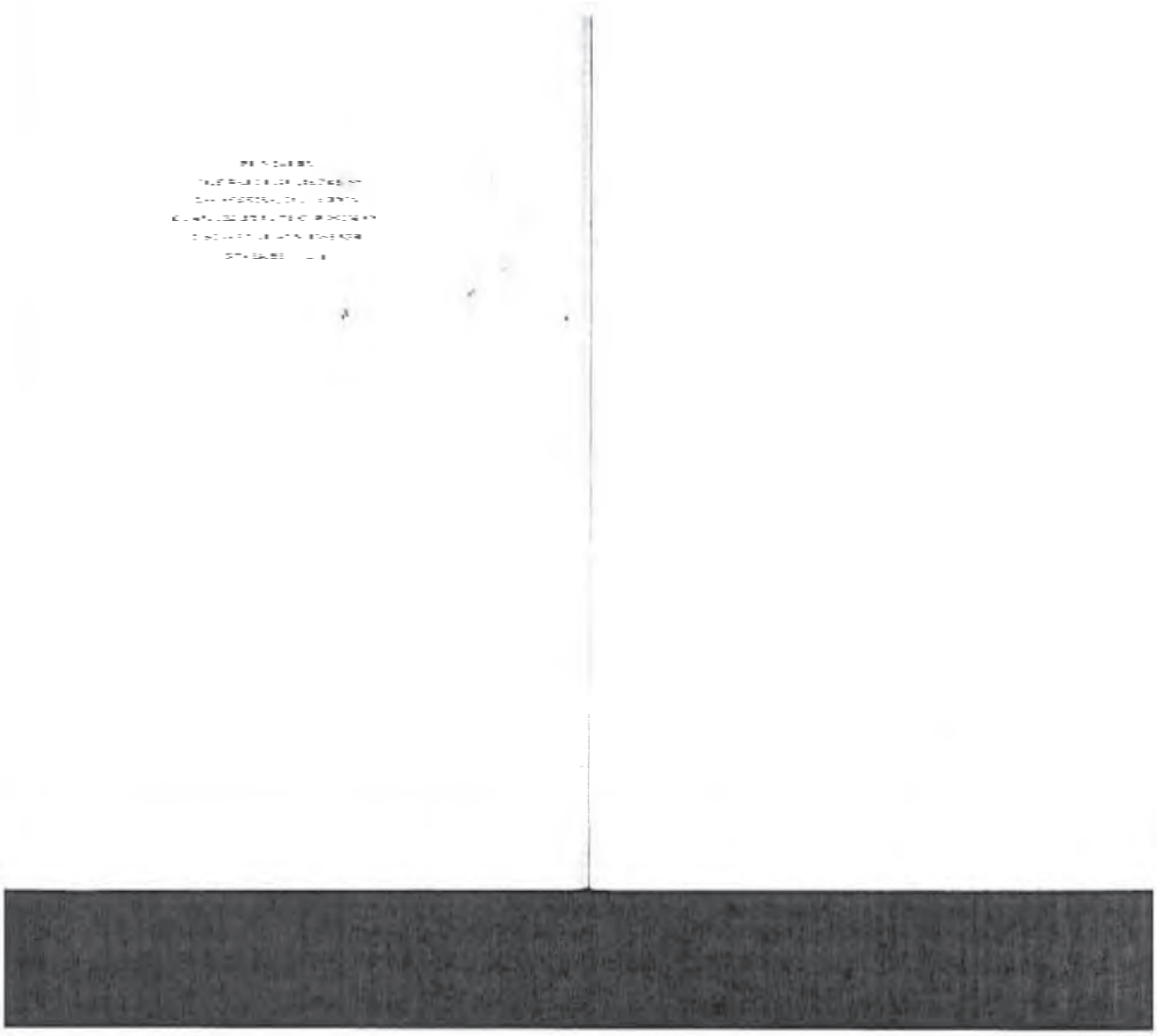
This certifies that, so far as ascertained by or made known to the undersigned, the building at above address complies with the applicable requirements of the Municipal Code, as follows: Ch 1, as to permitted use; Ch 4, Arts. 1, 3, 4, and 5; and with applicable requirements of State Housing Act, for following occupancies:

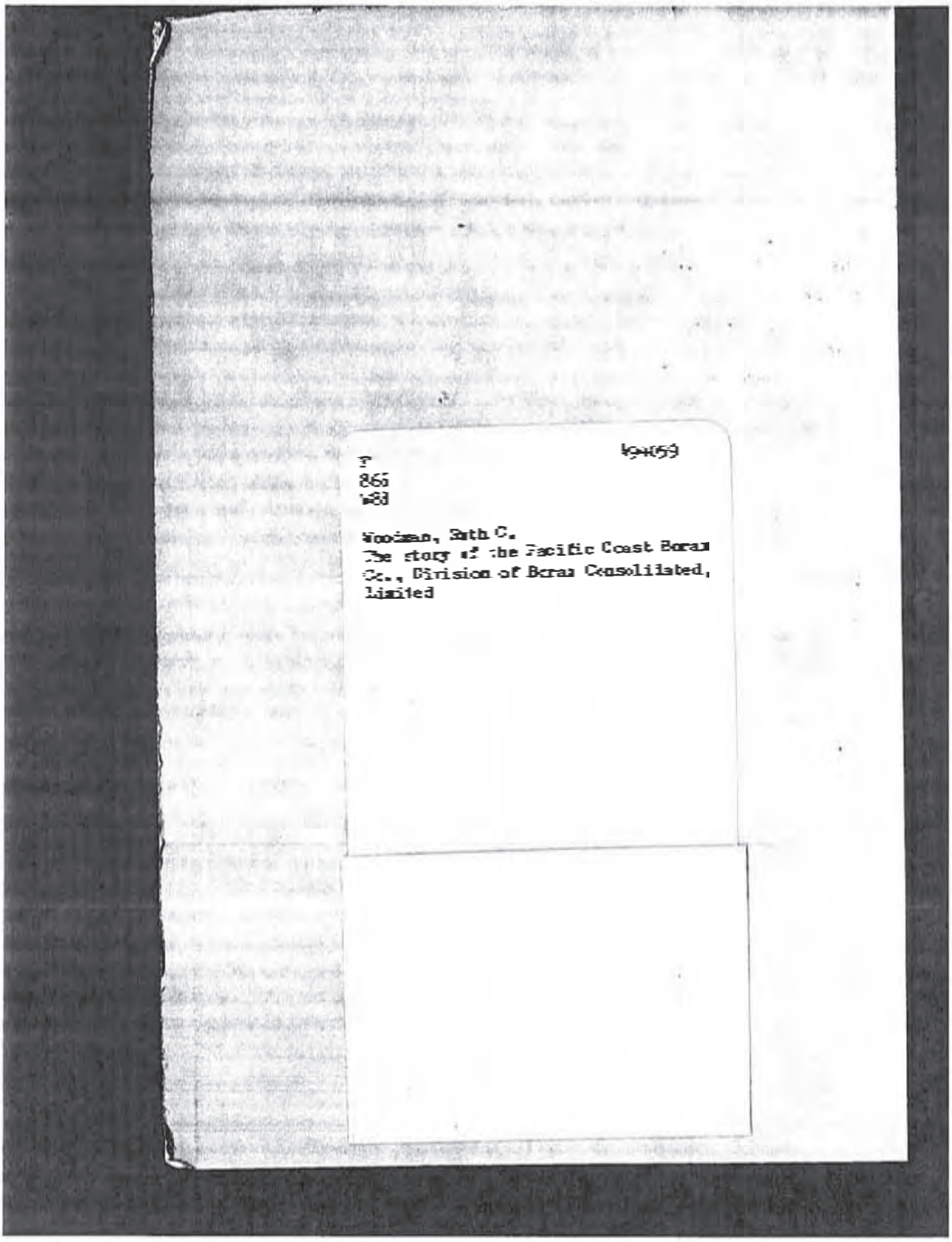
1 Story, Type IV, 20x20 Repair Garage, P-1 Occupancy.

Owner

Owner's Address Pacific Coast Borax
300 Falcon Avenue
Wilmington, California

Form B-[illegible]-[illegible]-51-5] G. E. MORRIS, Superintendent of Building By JOSH G. MILLER

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866
W83
Woodman, Seth C.
The story of the Pacific Coast Boraxx
Co., Division of Borax Consolidated,
Limited

COTTON BALL

Lily, back on Sibo, that borax would some day be lucrative to the Nevada town, and Trcup had kept a vigilant watch ever since. He was finally rewarded when he picked up some cottonball s few miles from Columbus Marsh and again, a few days later, at Salt Wells. By careful samples to the little settlement of Ragtown, borax was a wash boiler from a miner's wife, boiled the cottonball with some carbonate of soda, and thus produced the first borax in Nevada.

Within a year operations had started at both Columbus and Salt Wells. Imports declined further with the new discovery. Shipments of borax-lime from Nevada in 1873 were only half what they had been in 1872. Refined borax was still at 25¢. The price of borax fluctuated that year between 23¢ and 38¢ a pound.

The Borax Company of California at Little Borax Lake, started to utilize these competitive deposits in Nevada to keep their own yield. Carloads of ulexite were brought across the Sierras and crushed in tanks with the lake waters. The production of borax in California amounted to 280,000 pounds that year.

This was the situation at the time of F.M. Smith's discovery at Teel's Marsh—the discovery which was to start the first real borax rush.

The Discovery at Teel's Marsh

Frances Marion Smith had just turned twenty-one when he said good-by to his family and the farm in Michigan and headed west. That was in the spring of '69. With him he carried $165, a pocket Testament, and a huge chocolate cake baked by his mother. So eager was he that when the train was halted by spring floods west of Chicago, he got around the fifty miles of inundated track. During the next five years he drifted around, following the mining camps, supporting himself in many kinds of jobs from dishwashing to Indian fighting.

Late in the summer of 1894 he learned of the operations at Columbus Marsh. Queer stuff, known as colemanite, lay encrusted on the surface of that ancient dry lake. It was collected, shoveled into iron tanks, and boiled to separate the crystals for the product. Already there were several of these so-called borax plants on the marsh. It took a lot of fuel to keep the fires going under the boilers, and fuel was scarce in that country.

Smith saw an opportunity for himself. He located a wood ranch in the hills some ten miles from Columbus Marsh, built a little one-room cabin, hired a couple of woodchoppers, and went into the wood business. On his trips to the marsh with his loads of cedar and pine he had a chance to observe the borax operations and was interested.

Off in the opposite direction from his cabin, some ten miles to the northeast lay another alkali lake—Teel's Marsh, which Smith soon investigated. The surface was thickly encrusted with much the appearance of Columbus Marsh. Smith gathered some samples and carried them to an assayer in Columbus. When he got a state of analysis was handed to him two days later, he was amazed. The samples from Teel's Marsh were the richest specimens of colemanite ever discovered!

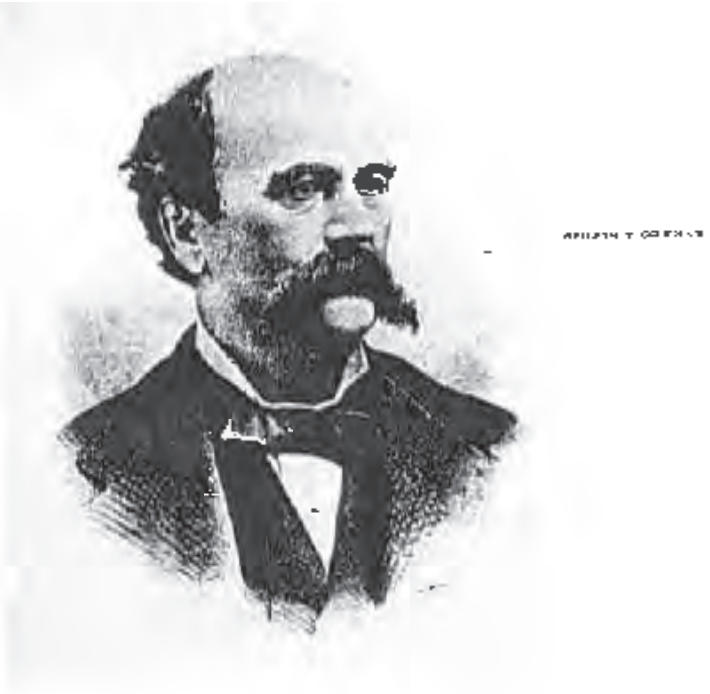
News of any strike travels with lightning speed around the desert. Although Smith wasted no time, on his return to Teel's Marsh he found a stranger camped there with his woodchoppers. The stranger introduced himself as a resident of Columbus. His friend, the

assayer, had sent him out to locate some borax deposits at a place called Teel's Marsh. Had Smith heard of such a place? Could he direct him there?

Smith had—and could. There was an alkali flat some twenty miles away. He'd be glad to let one of his woodchoppers go along as guide. The two left very early the next morning. When they returned, three days later, Smith had done a pretty complete job of locating the property.

The claims were located under the placer laws of the State of Nevada, which allowed 160 acres to each locator. Hardly had the location notices been filed, however, when the U.S. Commissioner of Mines ruled that borax was a mineral and that borax lands, therefore, came under the Mining Act, which limited each claim to twenty acres. The ruling came as a blow to Frank Smith. It meant that the thousands of acres he had staked out at Teel's Marsh would all have to be located.

Word of the strike had caused a sensation on the Pacific Coast, and already prospectors were flocking to Teel's Marsh to grab off for themselves what they could of its rich surface. Claim jumpers made the most of their opportunities. Some came singly. These Smith ran off, in odd moments, between claim staking. Others appeared in armed gangs. To eject them he had to appeal to the courts, but eject them he did. Lawyers who legally had staked claims he bought out, one by one. Some men would have been content to let a few claims go by the board—but not Smith. Teel's Marsh was his discovery. With the dynamic force which characterized his entire career, he battled for his rights and eventually acquired possession of the entire deposit.



Cottonball

Smith's first act, after filing his claims to Teel's Marsh, was to ask his brother Julius to become his partner. Julius Smith interested the Chicago firm of Storey Bros. in the enterprise, and that same fall of 1872 he arrived in Nevada, bringing with him the necessary machinery. The firm of Smith and Storey Bros. was formed and production at Teel's Marsh began.

The manufacturing process was relatively simple. At the outset, the crew at the works consisted of the Smith brothers and two men Frank Smith had picked up in Columbus. One of these men was John Ryan, whose name was to go down in borax history.

None of them knew much about making borax. Costs were high.

All supplies had to be hauled twenty five miles across the desert from Columbus. The output of borax from the established plants at Coleman, Marsh and Teele Borax Lake in California broke the market, and before the Smiths were able to sell any of their product the price had tumbled from 30c to 20c a pound in carload lots. Within a few months Storey Bros. sold its interest to the Smiths, and the firm from then on was known as Smith Bros.

Smith shipped his borax to William T. Coleman & Co. of San Francisco. The name of William T. Coleman probably carried as much prestige at that time as any in California. A Kentuckian by birth, he had joined the gold rush in '49 but once in California decided wisely that there was more money to be made in catering to the needs of the miners than in wielding a pick and shovel. He established a commission house and within a year was on his way to becoming one of San Francisco's foremost citizens. He organized and headed the famous Vigilantes of 1851 and 1856. He gave help and encouragement to the pioneer industries of his adopted state. It was Coleman who financed the first fish canneries in California; Coleman who shipped the first carloads of dried fruits to eastern markets; Coleman who handled the first borax produced in '64; Coleman to whom Smith turned, as a matter of course, when he was ready to market the product from Teel's Marsh. Smith needed someone with Coleman's experience and ability as his selling agent. Not only had the price of borax fallen to a third its former level, but the outlook was further dimmed by the tariff measure of 1872, putting borax on the free list. The Nevada Legislature, by taxing the proceeds of borax and soda mines fully in 1873, made matters worse.

The entire industry was feeling the strain. The group operating at Little Borax Lake gave up altogether. By 1875, out of all the numerous companies which had joined the race with such high hopes, only five remained. How long even these could survive was questionable, for their combined output was more than the demand. The uses of borax were still limited, the product relatively unknown to the general public.

THE STORY OF THE PACIFIC COAST BORAX CO.

CHINESE LABORERS GATHERING BORATE CRUST ON THE DESERT FLOOR, ABOUT 1885

man by the name of Christian Bernhart Zabriskie. The following year Zabriskie organized the Pacific Borax Salt Lake Company at Columbus Marsh. Zabriskie was made superintendent. It was the first step in Francis's climb up what was to become the Pacific Coast Borax Company.

At the same time that he was organizing and operating the new company at Columbus Marsh, Smith was equally busy at Teel's Marsh, organizing the Teel's Marsh Borax Company, as successor to Smith Bros. The output from these two plants now made Smith the largest producer of borax in the world.

A few hundred miles away in Death Valley, however, developments were taking place which were to get in Smith's all-out operations

Death Valley

DEATH VALLEY [illegible] is about 130 miles long and from six to fifteen miles wide. Walling it on either side are towering volcanic mountain ranges.

The first white men who set foot in the Valley were emigrants bound for the California gold fields in 1849. Looking for a short cut across the desert, they stumbled into the Valley, and not until they found themselves trapped there did they realize their terrible mistake. When they finally managed to escape, one of them, looking down from the summit of the Panamints on the scene of their sufferings, gave the place its name "Good by, Death Valley," he said.

The Indians who roamed the valley before the advent of the white men called it *Tomesha* – Ground Afire. Before the Indians, there were other inhabitants—the unidentified men who carved the picture writings found on the rocks of the Death Valley canyons.

Death Valley today has the distinction of being the lowest, hottest, driest spot on the American continent. The "elevation" at Badwater, the low point of the Valley, is 279.8 feet below sea level. From Dante's View in the Funeral Mountains, one can look down on this spot and then westward to the Sierras where the pinnacle of Mt. Whitney rises 14,495 feet—the highest and lowest points in the United States.

The Valley itself was created, according to geologists, some seven to eleven million years ago. At that time tremendous forces broke loose and changed the earth's surface. When the tilting and buckling, the pulling and twisting were over, a great valley had appeared between what are now called the Panamint and the Funeral Ranges.

Many millions of years passed. The valley became an inland lake, its deep waters charged with salt, borax and other minerals. Two million years ago, the waters began to evaporate, leaving a salt desert. In the rocks which were once the floor of the lake bed have been found fossil snails and bones of prehistoric animals.

It was the borax once held in those lake waters and deposited on

AN EARLY PHOTOGRAPH OF DEATH VALLEY. THE CROSS MARKED THE GRAVE OF A PROSPECTOR OR TEAMSTER

the Valley. Ever since millions of years ago, which was essentially to make Death Valley famous all over the whole world.

The first man to find it here was Isidore Dorsey, a Forty-niner who, with five other prospectors, had quit the mining camp of Dynamite City and was heading across the Valley to Arizona in midsummer, 1849. Three of the party died on the floor of the Valley. Dorsey and two others, with the help of friendly Indians, managed to reach the camp of Darwin. Inquire the opposite direction from Arizona. In his pocket Dorsey carried some strange white crystals he'd picked up in the Valley, near the place where their wagons had bogged down in the sand. But no one, when he showed them curiously to friends and neighbors, was interested.

Then, six years later, in the fall of 1881, Dorsey found himself standing near Howard Bigsby of Aurora. Winters and his good friend

AARON AND ROSIE WINTERS

"She Burns Green"

Aaron Winters was a "desert rat," living out an existence in Ash Meadows, just east of Death Valley, with his Spanish-born wife, Rosie. Their home was a ramshackle, ragged, half canvas barrack; their worldly possessions a few head of cattle; their prospects for the future very dim. Then one night in 1881 a traveler on his way from the Nevada desert stopped overnight at the Winters'. They shared their meager supper with him, and afterward the men talked. The stranger spoke of the interesting borax up north and from his saddlebag took some samples of colemanite, breaking one open to show the silky crystals inside.

Aaron examined the white chalk in the lamplight. He'd seen stuff like this lying all over the floor of Death Valley.

As soon as the stranger had ridden off the next morning, he went

new Death Valley with Basic to gather samples. They scraped up some cottonball from the ground north of Furnace Creek, then turned back to their camp to make the test.

As the sun dropped behind the Panamints, Aaron poured the sulphuric acid and alcohol over the samples and with trembling hand applied a ignited match. For an instant the sand and Borie held their breaths. Then Aaron let out a shout. "She burns green! Rose, by God, we're rich!"

Winters didn't stop to stake out any claims or to file a location notice with the County Recorder. He just gathered up a trekful of samples and forwarded them to William C. Coleman in San Francisco. Within a few weeks a Coleman representative, William Robertson, appeared at Ash Meadows.

When Robertson left for San Francisco after inspecting the borax deposits in Death Valley, he handed Aaron Winters a check for $20,000.

The news of Winters' discovery reached Isadore Daunet in Danville and revived memories of the white crystals he, too, had seen in the Valley, back in the summer of '75. He enlisted four partners and traveled into the Valley where he located some 200 acres of borax near Bennett's Well. By the time Coleman's first crew arrived in the Valley with the necessary equipment for a borax plant, Daunet's Eagle Borax Company was already in operation. The Frenchman and his partners had dragged a huge iron boiling pan and some crystallizing vats across the mountains. They hired fifty men to gather cottonball from the marsh and went to work making borax. Their first shipment was so impure they could get only 8¢ a pound for it. Daunet discovered, too, that the midsummer heat in Death Valley was just as fierce in 1883 as it had been in 1875. Even if the men could stand it, the borax process couldn't. The solutions would not crystallize in temperatures of 120° and upward. Operations would have to be suspended during the summer months. The following year they did somewhat better, but it was to be their last season. Daunet committed suicide, his partners went

teered, and the plant was abandoned after having produced a total output of 1500 tons. Today all that remains of the Eagle Borax Works is a huge rusted iron boiler, its black smokestack rising like a marker above a heap of white rubble—the last load of cottonball dumped there some sixty-eight years ago but never processed.

In the winter of 1883 Coleman's men set up a plant—the Harmony Borax Works—near the marsh where Winters had gathered his cottonball. Water was piped in from a spring and soda for the process was obtained from a nearby area. Indians cut and piled greasewood to use as fuel under the boiler. The work of gathering the cottonball was done by Chinese workmen.

In May the crystallizing tanks at the Harmony Works were covered with layers of thick felt for insulation against the blazing heat. Workers played a hose of water continuously on the felt to lower the temperature. But later in the season this did no good, since the water itself was scalding. This plant, too, would have to close down for the summer.

Luck, however, was with Coleman. Just at this juncture word came of another borax discovery in the desert east of Death Valley. Coleman bought it for $15,000. This solved the problem of the summer layoff at the Harmony plant. While the thermometer in Death Valley started its climb to make the manufacture of borax possible, operations were transferred to the Amargosa Works, where the temperatures in June, July and August rarely exceed a comparatively cool 110°. In autumn this plant was closed down in favor of the bigger and richer deposits in the Valley.

Two separate companies were organized—the Harmony Borax Mining Company, incorporated in May, 1884, and the Meridian Borax Company, incorporated six months later.

The Twenty Mule Team

When the bluecoats were hauled they called for wagons with rear wheels 7 feet high and front wheels 5 feet high, each with steel tires 8 inches wide and 3 inch thick. The hubs were 18 inches in diameter and 24 inches in length. The spokes, of split oak, measured 5½ inches wide at the hub and 4 inches wide at the point. The axletrees were made of solid steel bars, 3½ inches square. The wagon beds were 16 feet long, 4 feet wide and 6 feet deep. Each wagon, empty, weighed 7,800 pounds. Loaded with borax it would weigh 36,800 pounds. Two such loaded wagons, plus 1,000 gallons of the water tank, which held 1,000 gallons and weighed 8,600 pounds, made a total load of 73,200 pounds, or 36½ tons.

The cost was about $900 a wagon. That they were well built is proved by the fact that in the five years they were in constant operation not under but they broke down. In the sixty-six years that they have been standing since, in the hot sun and dry air of Death Valley, they have not fallen apart. They have toured the United States appeared at World Fairs and State Expositions, rolled through city streets in parades, and in 1937, fifty-two years after they were built, two of them traveled the original route from Death Valley to Mojave behind a twenty mule team—again without a breakdown.

While the wagons were being built, other men settled the prob-

lem of the route itself. To reach the western side of Death Valley and the pass over the Panamints, the teams would have to cross the salt bed known today as the Devil's Golf Course, its surface a mass of jagged pinnacles, anywhere from 6 inches to 5½ feet in height, keen as files, sharp as knives. A crew of Chinese was put to work, hacking off these pinnacles of rock salt until they had beaten a wagon road, six feet wide and eight miles long.

The route led past the site of the old Eagle Borax Works along the slopes of the Panamints and on up the long steep grade into Windy Gap. Once out of Death Valley and over the summit of the mountains, there remained one hundred miles of desert before reaching Mojave—a hundred miles in which there was no human habitation and only three springs of water. The loaded team could travel from fifteen to eighteen miles a day. At that rate it required ten days to make the 165-mile journey, which meant ten overnight camps, with at least half of them dry camps. In these camps water tanks were provided, which were towed by the teams from the springs to the dry camps and back again to be refilled. Each station was equipped with feed boxes. The teams bound for the Valley filled them and then used the feed on the return trip. Emergency blocks nothing equipment was also provided at each camp.

The twenty mule teams were actually not twenty mules but eighteen mules and two horses. Experience proved that it was advisable to have a pair of fine, strong draft horses as "wheelers." In hitching up the team, the wheelers would back into position, next to the wagon, on either side of the tongue. From the tongue stretched a steel chain, 120 feet long, equipped at proper intervals with spreaders and six pairs of traces for the nine pairs of mules. The lead pair would take its place at the end of this chain and the other sixteen mules would then fall quickly into place. Each mule knew its place in the "string"; in front of the wheelers were the pointers, who worked on the end of the tongue, ahead of them the "sixes," the "eights," the "tens," and so on, to the leaders.

The driver wielded a whip with a six-foot handle and a twenty-

two-foot lash. He also carried the traditional blacksnake. But the real guiding of the team was by the "jerk line"—a rawhide cotton rope, about half an inch thick, which was attached to the bridle of the nigh leader and ran the length of the team, through rings on the harness of each mule, back to the driver. This jerk line was his only means of communicating orders to the lead animals, 100 feet away. A steady pull on the rope indicated a left turn; a series of sharp jerks a turn to the right. The mules behind the leaders followed instinctively.

When rounding a sharp curve, by the time six or seven pairs of animals had turned, tremendous power was created at an angle which could easily pull the wagons off the road. To counteract this, the pointers and sixes were trained to jump over the tongue and pull furiously at an angle to the rest of the team until the wagons had safely reached the point of the turn—a very difficult maneuver.

It was the teamster's job to harness the mules each morning, inspect each piece of harness and hook up the outfit. He rode on the nigh wheeler and handled the brake of the lead wagon.

The swamper had many duties. He rode on the rear wagon and managed its brake on the downgrades. He kept the teamster supplied with rocks with which to "encourage" the mules on the upgrades. When they stopped at camp, he gathered the fuel, cooked, and washed the dishes. There was little drinking on the twenty-day round trip, but at Mojave the men generally made up for it. Between midafternoon, when they reached the little railroad settlement, and the following morning, when they started for Death Valley again, many a teamster blew his entire pay on liquor and fun.

Much has been written about the romance of the twenty mule teams. But to the men who drove them they were simply a practical means of hauling some two and a half million pounds of borax from Death Valley each year. It was not until long afterward that the twenty mule team system was recognized as one of the most remarkable transportation feats in the history of the country.

in San Francisco. The name of the new company was the Pacific Coast Borax Company.

A prospectus of the new corporation indicated that the Death Valley and Amargosa deposits would no longer be actively worked but held as reserves against the future. Nothing was said about the Teel's Marsh and Columbus Marsh deposits, but it was obviously only a matter of time before operations there, too, would be discontinued. The era of marsh operations was drawing to a close. The future of the Pacific Coast Borax Company—and the whole borax industry—lay in colemanite.

The man for whom it had been named, one who had originally acquired the rich and strategically located deposit in the Calicos was still working doggedly to pay off his creditors. Legally he could have settled for less, but he was not content to stop until every account had been paid, dollar for dollar. It took him four years to accomplish this, but the strain, at his age, was too much for him. William T. Coleman died late in 1893, one of the truly great figures in California's history.

A TYPICAL MULE TEAM AT THE BORAX WORKS, DEATH VALLEY, ABOUT 1884

The Calico Mine

The new work in the Calico Mountains has proved the railroad ran into richer deposit that had yet been discovered. From the siding at Daggett, on the Santa Fe (then known as the Atlantic & Pacific Railway), to the camp at Borate, it was only six miles as the crow flies. As the teamster traveled it was twelve miles, across a dry lake and up a crooked canyon into the mountains.

The camp itself was built in a canyon. The few frame buildings have long since worn away, but the sides of the canyon are still dotted with dugouts which many of the men made for themselves as living quarters—cooler in summer than the Company bunkhouse.

Borate was a stag camp. Of its 20 citizens, only two had families with them—the foreman and the storekeeper. Each of these had his own house. There was a third residence, atop a high hill overlooking the mine, where the winds blew so fiercely that the building had to be bolted to the rocks to keep it from blowing away. This was "The Smith House," used by the president of the Company and other officials on their occasional visits to the camp. Next door to the store was a small building known as the reading room—misnamed, according to W. W. Cahill, the storekeeper, who was in charge. At least there was reading matter there, supplied by the Company. The store also housed the U. S. Post Office of Borate in the latter years of the camp, after the railroad was built. Prior to that, mail was delivered to the Calico post office and brought from there 4½ miles across the mountains to Borate. The postman was a girl by the name of Fannie Moberly, who made the trip on horseback two or three times a week. The miners chipped in a dollar a month apiece for the service. Few of them ever received any mail, but it was worth a dollar a month to see a girl.

When operations first started at Borate, the ore was hauled out by mule team. But in 1894 Smith felt this to be an outmoded form of transportation which should be replaced with something more efficient. The result was an experiment with "Old Dinah."

POKER IN THE COMPANY STORE AT BORATE. W. W. CAMILL STANDS AT RIGHT, LEW BASHI, CLARENCE BASHI'S BROTHER, SEATED AT LEFT

EMPTY CARS OF THE BORATE & DAGGETT APPROACHING BORATE

SMITH N NAMED THIS ENGINE THE "FRANCIS" FOR HIMSELF. HE CHRISTENED ANOTHER LOCOMOTIVE ON THE BORATE & DAGGETT THE "MARION." ABOUT 1900

A SUNDAY OUTING ON "OLD DINAH"

"Old Dinah" was a curious engine which Smith purchased. He gather with two ore wagons. Dinah burned coal, and she had a voracious appetite. A ton and a half of fuel was her daily ration for the round trip between the railroad and the mines. On hard, level ground Dinah dragged along comfortably at a speed of six miles an hour, but when she struck soft sand she would dig herself in. Going up steep grades was a struggle to her crew. Like skinning a barrel staves the wheels for out front would spin up like a buckling mule—even with half a ton of sandbags loaded on it.

From these more or less primitive beginnings—an engineer, a fireman, and a lokkeeman. It took a mechanic all night every night to put her in shape for the next day's grind. At the end of the year Dinah was abandoned, and the mules took over the job again. She stands today, unknown piece, at the entrance to the Furnace Creek Ranch.

Since Smith's tracks have not valved the transportation problem. He decided to build a railroad from the main line to the mine. He also built a plant to concentrate the ore before shipping it to Alameda. This railroad, known as the Borate & Daggett, became the wagon road most of the way. A short distance out of Daggett, it skirted a small marsh of large water glaciers was erected.

The railroad was completed in 1898. The mule teams saw the great desert wagons were then retired for a time. There remained but a single locomotive still held.

The Founding of the Pacific Coast Borax Company

The discovery of colemanite was announced William T. Coleman that further prospecting should be done in Death Valley.

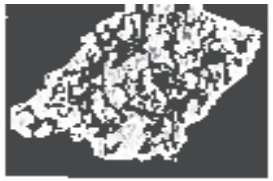
In December 1882, a Coleman prospector working his way up a small canyon on the east side of the Valley, found a new form of borax different from the cottonball which was shoveled from the dry lake beds. This was a quartzlike mineral occurring as an outcropping on the wall of the canyon. Assays proved it to be high in lime, with a considerably higher boron content than the cottonball variety. It was rather *colemanite*, in Coleman's honor.

The strikes in the Death Valley country came thick and fast after that. Most forgot about the gold in the Lost Gunsight and the Lost Breyfogle Mines. They were after borax now. In 1881, prospectors discovered a white hill in the volcanic ranges just south of Furnace Creek Wash, its thousand-foot peak overlaid with pure ulexite. They named it Monte Blanco. In the Funeral Mountains overlooking Death Valley, ledges of colemanite were uncovered. On the desert thirty miles east of the Valley, the Lee brothers—Lourder and Rhiander—located another deposit of this new ore. In Death Valley there still exist today the old mesquite markers of the early-day claims, with numbers and dates burned into the weathered wood.

The discovery of colemanite had no immediate effect upon the marsh operations. It was richer than cottonball, but it required a different and far more complex refining process, and at that time the company had neither the knowledge nor the equipment to handle it. Cottonball was plentiful and familiar at the Harmony and Amargosa works; they were just getting under way to manufacture borax on a large scale from this easily gathered material.

The mining of colemanite might have been delayed longer had not another deposit been discovered in 1883 in the Calico Mountains south of Death Valley, by two prospectors in search of silver. This new mine lay only a few miles from the railroad.

The property was acquired by Coleman, who put his man Bob Greene to work on the problem of developing a method of refining



Calico mine

the ore. Heaton bought a former soap factory in Alameda, California to be converted into a refinery. Since transcontinental freight rates were very high, it was cheaper to ship to New York from the west coast by water than by rail. Cheaper, even, to send the goods via Liverpool.

Development work was started in Calico during the mid-1880s and big-scale production lay just ahead, but Coleman was not destined to have a hand in it. In the spring of 1883, the financial world was rocked by headlines across the San Francisco papers announcing: Wm. T. Coleman & Co. Fail for $600,000! The great commission house, thought to be as solid and impregnable as the Bank of England, had crashed. Coleman summed it up simply, in an interview with reporters: "Want of immediately available cash." To finance his increasingly large and diversified interests, he had borrowed heavily both in the east and in California. Some of the banks called their loans unexpectedly. He was unable to meet the demands. Everything he owned, including his valuable borax properties, passed into the hands of his creditors.

In Nevada, F. M. Smith was still busy at Teel's Marsh and Columbus Marsh, leading all others in the production of borax. However, he had kept his eye on the Calico mine ever since it was located. Colemanite, he felt, was the ore of the future.

In March, 1890, twenty-two months after Coleman's failure, the entire assets of the Harmony and Meridian Borax Mining Companies were deeded to Smith. It was a big deal, including all the Death Valley and Amargosa claims, the ranch property in Death Valley, the Alameda refinery, and the Calico mine.

Smith's next step was to consolidate all these newly acquired holdings, together with his Nevada marsh properties, into one company. On September 5, 1890, incorporation papers were filed

The Formation of Borax Consolidated, Limited

On January 1st, 1884, a New York office of the Pacific Coast Borax Company was opened at 48 Wall Street. F. W. Mather, who had been president of Smith's Pacific Borax Salt & Soda Company at Columbus, Marsh, was in charge. He acted as Smith's sales agent in the east. It was a very happy choice. Mather's wide experience in the borax business, his excellent personal reputation, and his banking connections in New York were helpful to Smith.

In 1893 Mather's son, Stephen, joined the Company as advertising and promotion manager. In the opinion of those who knew him, Steve Mather—later founder and Director of the National Park System—was one of the greatest salesmen this country has ever seen. It was on a tour of the middle west, canvassing the trade for package borax, that he became convinced that this potential market had scarcely been tapped. He put the proposition up to Smith, and as a result a Chicago office was opened in the fall of 1894. Young Mather remained in charge of it for the next ten years, when he resigned to go into the borax business on his own. He was responsible, among other things, for the use of the "20 Mule Team" as the trademark of the Pacific Coast Borax Company.

Smith, unfortunately for him, did not confine his efforts to borax. Like Coleman before him, he began to overexpand his business interests.

In 1893, in partnership with Frank C. Havens, he established the Realty Syndicate and acquired some 43,000 acres of valuable land in Oakland. To develop this real estate project successfully, he needed adequate transportation facilities. With this in mind he had started as early as 1893, to buy up and consolidate various streetcar lines which were later to become a part of his farflung, 3,000-mile Key Route System of railways and ferries.

In the summer of 1896 Smith sailed for England. Since the American market, as borax had fallen off. He was anxious to find a possible European outlet for his product. On the same ship was a friend, Lewis Gerstle, then a vice-president of the Alaska Commercial Company of San Francisco, going to England for a visit. On his

Oakland Tribune

arrival, he looked up a young nephew, James Gerstley, who had recently joined forces with Richard C. Baker in a chemical business, known as Redmond & Sons of London. They had bought a small factory at Belvedere, on the Thames, and were specializing in food preservatives, of which boron products formed the base. In fact, they had become one of the largest buyers of borax and boracic acid on the English market. Their main problem, Gerstley informed his uncle, was to find a new source of supply of these materials.

"It's right here in London now!" Gerstle told him.

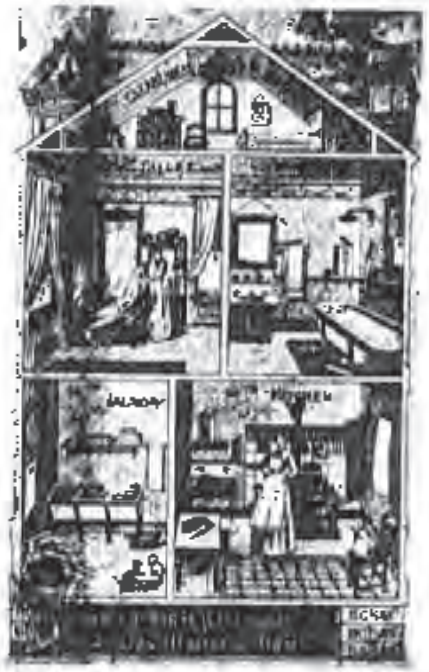
The following day a meeting was arranged between Smith, Baker and Gerstley. By the time they parted late that night, a contract had been drawn up, providing for a merger of their joint interests. The resulting company was called The Pacific Borax and Redwood's Chemical Works, Ltd., and on August 21st, 1896, the president of the Pacific Coast Borax Company signed an agreement to sell its entire assets—lands, buildings, machinery, everything necessary for the production of borax—to the new organization. A few months later Federic Lesser, a keen businessman and an excellent engineer, joined the new company. Richard Baker, James Gerstley and Federic Lesser were to play a major part in directing the company all their lives and the sons of Gerstley and Lesser are now active in the present firm.

One of the first decisions by the heads of the new company was to build a factory in the New York area, in order to meet other eastern refiners and importers on their own ground. A site was selected at Bayonne, New Jersey, and construction started in 1897. It was a drastic move, but by the time the building was completed in 1898 it had proved a wise one. With the new roaster at Marion calcining low-grade ore, and advantageous freight rates on the transcontinental railroads, it was cheaper to ship ore east and refine it there than in the West. Frank Heron, early enough, was sent to Alameda to take care of west coast needs.

Smith's horizon now stretched from San Francisco to London. The new contacts overseas were stimulating to a man of his ambition and imagination. He was beginning to be aware of the possibilities of business outside of the United States. Not only in England but elsewhere abroad there were markets waiting for raw material. Much of it the newly formed company could supply from its California mine. In some instances, however, foreign processes required a different type of ore. To make real headway in the foreign market, one would have to provide whatever kind of ore was demanded.

Smith and his British colleagues agreed that when and if a suitable opportunity arose the Company would do well to acquire some other sources of raw material besides those in California and at the same time—in order to assure a steady outlet for such ores—they should expand their foreign refining operations. The opportunity was not long in presenting itself. When Smith arrived in London in 1898, Baker and Gerstley had a general plan drawn up for his approval for the formation of a new company to carry out these enlarged activities.

On January 11th, 1899, Borax Consolidated, Limited, came into existence, absorbing Pacific Borax and Redwood's Chemical Works, Ltd. Smith was the largest shareholder in this new company. His title was "Managing Director in America."



Building the Tonopah and Tidewater Railroad

By 1903 it was becoming evident that the mines at Borate were nearing exhaustion. It would be necessary before too long to open up a new deposit. The logical choice was the Lila C., located back in 1881 but never developed.

The Lila C., named for a daughter of William T. Coleman, lay east of Death Valley, about 120 miles from the existing railroad. To negotiate those miles another desert railroad would have to be built.

When Senator William A. Clark of Montana heard of Smith's plan, he suggested that Smith connect with the Union Pacific (then known as the San Pedro, Los Angeles & Salt Lake Railroad) at the division point of Las Vegas. By running a spur up from the Lila C. they could also handle some profitable freight business from the booming camps of Tonopah, Goldfield and Rhyolite. Clark, himself, had a substantial stake in Rhyolite. There was no written contract with the Senator. Late in 1904 the Tonopah and Tidewater Railroad, familiarly known as the T & T, was organized as a subsidiary of Borax Consolidated, Limited.

In May, 1905, Smith's right-hand man, John Ryan, together with a young surveyor by the name of Clarence Raser, and W. W. Cahill from Borate, arrived in the heat and dust of Las Vegas and set up headquarters in a tent. Ten miles of grade were soon completed. The next step was to connect with the main line. To their amazement, they met with a curt refusal from a top official of the Clark line.

While he raced up the stairs to Clark's office in New York. The message sent back from the Senator was as Ryan could not be reached. When he finally returned, the Senator was quite blunt. He had not changed his mind about the desirability of running a railroad from Las Vegas to the Nevada mining camps. As a matter of fact, he was going to build the railroad himself.

Such an argument was useless to argue. He had already lost precious time. The race at Borate was becoming increasingly difficult and costly to operate. He made an immediate deal with the Santa Fe Railway to connect with that road at Ludlow and run a line north to the Lila C. This was the middle of August.

Ludlow at that time was little more than a tank town. Two prospectors shacks constituted the residential district. A small frame building was hastily constructed to serve as temporary field headquarters for the T & T and living quarters for John Ryan and Wash Cahill. By the same the first mule of the new line was surveyed, the grading had begun.

The Amargosa Canyon was the toughest part of the entire route. It took nine months to complete eleven miles, working from head of animal-and-man power. By the time the rails had reached the station of Zabriskie it was June, 1907, just twenty-two months since the first grading had started.

During these months the Calico mine had become depleted. At the Lila C. everything was in readiness to start shipping. The mine had been opened up, the calcining plant was operating. But a

THE T & T AT A DESERT STATION, ABOUT 1908

A BORAX MINER AT THE ENTRANCE TO HIS HILLSIDE DUGOUT

would gladly ride on the tender with the fireman rather than wait for the next train. The Borax Company could ill afford to wait that long. Again the wagons from Death Valley were hooked up, and within the T & T pushed on through the heat of a third summer twenty miles beyond the river from the Lake C. to the partially completed railroad.

The seven-mile grade from Death Valley Junction to Ratcliffe was finished on August 15, 1907, and that same day the Company started hauling ore directly from the bunkers to the cars. The twenty mile teams had quitted their haul of borax across the desert.

With the Lake C. shipping by rail and able to supply all demands for ore, the camps of Borate and Marion also became part of the Company's past history. Workings in the Calico were abandoned, buildings and machinery at the mine dismantled, and everything usable shipped to the Lila C. The tracks of the Borate & Daggett Railroad were ripped up and sold.

The final full-length run of the T & T from Junction to Beatty—169 miles—took place in December, 1907. The prospect of profitable outside traffic, however, had dimmed. The panic of 1907 hit the adjacent mining camps. Goldfield and Rhyolite faltered. It was the beginning of the end of the great borax era in the Nevada desert. For the next two decades it was hoped that would keep that engine alive

30

The Lila C.

Across the country from Death Valley farmers, seven miles away, there are wheels pointing upward like weighty black hands. They are the turning paddles of the Lila C.—all that is left of a once-famous way of life.

There was a time when there was no way of building the mill on one side of the tracks and the other the town of Ryan, named for John Ryan. It consisted of four houses and the Company store, housekeeping tents, and bunkhouse. As at Borate, many of the men lived in dugouts in the mountainside.

The camp offered nothing in the way of recreation. The store proprietor ran the saloon and the boarding house. Some Ryan men played baseball on different instrument organized the Death Valley Brass Band. This camp had a piano, too. Young Fred Gurkan, son of the former foreman at Eagle, who was superintendent of the mill at the Lila C., gave up the piano to the house he bought in Ryan. The famous personal white wagon, of all things, was brought over the mountains to the Lila C. by Fred Gurkan.

The first load of ore to Gilmore Siding was made in June, 1923. The desert which the T & T crossed. The washboard would wear out the bottom of the gasoline; loadbacks would work it out, and the grades were for the steep. The entrance would have to follow the hillside.

In the fall of 1923 Gilmore Siding was a scene of activity as narrow-gauge road to the Eddy McCarthy and Jr. January, 1924, the Death Valley Railroad was incorporated. Construction moved immediately. For by now the Lila C. was running out. As in the case of the T & T, mines were the reason.

A crew of 125 men and 150 mules were put on the job. In each direction simultaneously to go into operation. The Tonopah Bodie was completed in the most remarkable railroad in the world. In that is to say, in the entire year of 1924 to its entire length, there was not a single accident of any kind. Only the grade in the last mile was 12½%, which made it necessary to cut the rails every time it came in with extra freight.

For many years, while the railroad was being surveyed and built, developments were being made in the mines in the Panamint to the west. As the mines began to surge—new strikes were made at Death Valley Junction, as well as along the new highway. The Borate-Ryan, where the first ore train running across the Death Valley mountains narrow-gauge bridges on the mountainsides to the Death Valley Railroad, the ore was piled up, ready and waiting.

Smith's Resignation

The year 1913 was a watershed for more or less at the Pacific Coast Borax Company. F. M. Smith, its founder, president and guiding genius, tendered his resignation.

Early in 1913 Smith, with two San Francisco associates, had startled the financial world by forming a $20,000,000 corporation, known as the United Properties Company. This giant corporation, formed as a holding company for their combined assets, climaxed Smith's phenomenal business career and brought the fortune he had built up over a period of almost half a century crashing in ruins around him.

With the passing of each year Smith's interests had become greater and more diversified. Not only was he the borax king, he was the head of a score of other ambitious enterprises, most of them in or near Oakland. With the formation of the United Properties Company, he risked everything. Smith was a gambler, as well as an empire builder.

Within the Borax Company, routine business went on as usual during 1913. Its employees were as stunned as the rest of the public when the San Francisco and Oakland papers came out on a morning in May, 1913, with headlines announcing, F. M. Smith's Financial Interests Under Control of Trustees! The United Properties Company had collapsed, carrying Smith down with it to the tune of some $10,000,000.

The west coast financial world had not been so shocked since the failure of that other borax king, William T. Coleman, a quarter of a century earlier. For days the story occupied the most prominent place in the news.

A trust agreement was drawn up with the Mercantile Trust Company of San Francisco, whereby all Smith's assets passed into the hands of that company and an advisory committee, composed of the heads of five of the strongest banks and business institutions on both sides of the Bay.

Smith's holdings in Borax Consolidated, Limited, constituted the major part of his liquid assets, the only asset that could be realized

on short notice. These would have to be sold to help pay off his indebtedness. The London market was the most likely agency, and in the spring of 1914 Frank Anderson, president of the Bank of California, representing the bankers and creditors in general, went to England to negotiate the sale. It was a bitter blow to Smith.

Under British law, the director of any English company who becomes insolvent ceases automatically to continue his directorship. It became necessary, therefore, for R. C. Baker to notify Smith to that effect, at the same time expressing the hope that, even though no longer a director of Borax Consolidated, Limited, Smith might remain in charge of its American affairs. But Smith chose otherwise. Shortly after the sale of his stock, he resigned as president of the Pacific Coast Borax Company, thus severing completely his relations with the company he had established.

In the Funeral Mountains

When the exhaustion of the U.S.C. buildings prevented ore from the old campsite and set up at new Ryan to serve the new deposits. New Ryan, 2,000 feet above the floor of Death Valley, became a permanent camp. From eight to six miles in the district were opened up, connected by a two-foot railroad known as the "baby gauge" which wound and twisted its way through the mountains for seven miles, transporting men and ore.

The camp boasted many features which the earlier camps had lacked; electric hoists and gasoline speeders in place of mules, showers in the men's dormitories, and a sanitary system. Harry Gower, who is still with the Company, was mainly responsible for the organization and running of the camp.

Ryan, with more than 200 residents, was more of a family camp than its predecessors and had considerably more social life. No longer was a reading room considered sufficient diversion for the miners and muckers. The Company provided a recreation hall, put on a weekly motion picture show, and even built a swimming pool at the headwaters of Furnace Creek. Newcomers seeing the recreation hall for the first time, with its Gothic windows and belfry, were struck by its resemblance to a church. Originally it had been a little church in Rhyolite, built, it was said, largely with

funds collected from the gambling houses of that boom town.

It was during operations at Ryan that the Company fought the biggest claim-jumping case in its history. In 1926, James Hughes, a former miner at the U.S.C., posted location notices on some fifty claims in the Death Valley region, representing practically all of the Company's borate properties which were not actually being worked. The right to the land, Hughes declared, was based on the Company's failure to do the required $100 worth of assessment work per year on each claim.

Much of what followed reads like a western movie—the gang of claim jumpers here called behind bristling guns in a Death Valley canyon, defying the sheriff; the Borax Company combing the desert looking for miners and prospectors who had worked on former assessment crews; the picturesque testimony of these "desert rats" in the courtroom.

The Company won the case the following year, but it took seven years, and a final denial by the U. S. Supreme Court of any further hearing, to convince Hughes that his colossal holdup had failed.

The satisfaction of having won the case was tempered for many in the Company by the fact that John Ryan did not live to see the outcome. Although he had retired, he spent the last months of his life fighting Hughes. He died in May, 1928. He had been with the Company for more than forty years, since the early days at Teel's Marsh.

Many stories have been told about Ryan. A. G. Wells, former general manager of the Santa Fe in Los Angeles, always recalled the day the stocky Irishman walked into his office in digging clothes and dusty shoes, straight from the desert, where the T. & T. was under way. Pulling from his pocket a handful of crumpled unpaid bills for rails delivered, he figured up the total, wrote out a draft on the Pacific Coast Borax Company for $125,000, and signed it with his name. Was a countersignature required? Of course not. Was it heeded? No. He didn't even have an official title in the Borax Company. Why should he? Everybody knew John Ryan.

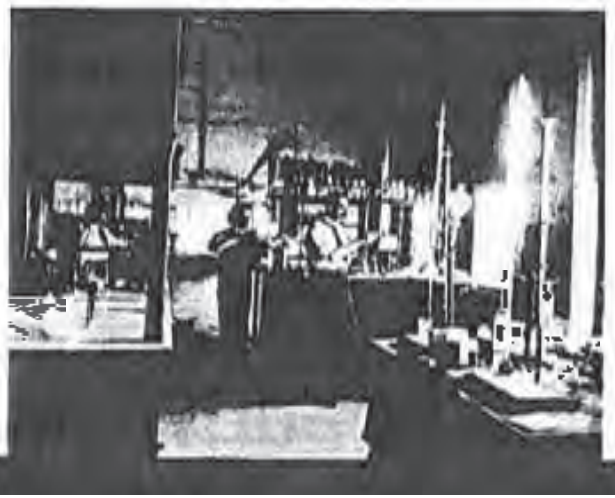
The Refineries

The Alameda refinery, enlarged by April of 1896, was the first industrial concrete building in the United States. The Bayonne plant, built in 1898, was the first reinforced concrete building in the east.

The log shipments from Bayonne were to Chicago. At the opening of the canal season each spring, barges, loaded with grain, docked at New York Harbor from the Great Lakes. With borax as the return cargo, the barges were pulled by tugboat to Albany. There mules took over and hauled the barges through the Erie Canal. At Buffalo, the borax was reloaded aboard lake steamers for Chicago. Four to six hundred tons of borax were moved each year by mule-drawn barges, which, like the twenty mule teams of the west, no longer exist today.

During the first part of this century transcontinental freight rates began to go up. The completion of the Panama Canal, on the other hand, offered the prospect of lower rates by water from west to east, or to Europe, than ever before. There was no doubt that the Company's mining operations would continue to be in Southern California and Nevada, where all the important borax deposits in the past—and probably in the future—were located. Everything, in short, pointed to the west coast as the logical center of refining and manufacturing operations.

In 1913 the Company acquired the site of the present refinery at Wilmington, California. Up to that time, few manufacturers had



LABORATORY, BAYONNE REFINERY

AN EARLY POSTER ADVERTISING PACKAGE BORAX

recognized the advantages of that deep-water port. The Borax Company was one of the pioneers there.

The entry of the United States into World War I postponed the construction of the new refinery, and it was not until September, 1919, that the Wilmington plant was ready for operation.

The Alameda refinery was closed down completely. It was old-fashioned, inadequate and too far from the mines. Since the plant was not salable, the Company decided to raze it. One wrecking outfit after another examined the forty-year-old building, and all said the same thing: it defied demolition. Finally, in 1931, a retired army officer agreed to tackle the job. He placed some two hundred charges of TNT under the concrete walls and set them off simultaneously. When the dust cleared, "Borax" Smith's famous old soap works was in ruins.

A few years after the Wilmington plant was built, the Bayonne refinery was permanently closed down and dismantled.

The Discovery of Borate

Within the Death Valley area operated the Borax Company's major borate deposit. The Company also worked other deposits, along with those of many companies that worked in Death Valley, California, and continued work that would later make the Death Valley mines, some Shoshone, a highlight the history of the world for its special type of rock and soil for twenty-five years.

Ever since 1913, when Dr. John Suckow accidentally struck subsurface there, the Borax Company had been interested in the Kramer district of Kern County, south of Death Valley. Over a period of years it had acquired title to a number of claims and had made some shallow surveys of the area for ore. The drill holes revealed plenty of colemanite under the flat surface of the desert but nothing of a somewhat unusual nature, nothing to warrant a transfer of operations from Ryan, which was mainly supplying the Company's needs.

"Here, only a few shallow workings under the supervision of Clarence Rasor, brought up layers of ABO feet rich borates of Death Valley borate of soda. There was something new in California. Tincal had been found in the Kramer district.

The Borax Company purchased the property, after securing all of the claims. In March, 1926, Roy Thurmond, as general superintendent, with a crew of men, went to work sinking a shaft. By mid-summer it was down 180 feet. Its bottom of soda. There, instead of white rock. Still none. With every foot of drilling the borates grew. Perhaps the original holes had been mixed and a costly mistake made.

On August 31st with the right shift finally struck ore. But not the rich ones they expected. Some of it was fine, but most of it was of no commercial value. The crystals broke into tiny

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THE STORY OF THE PACIFIC COAST BORAX CO.

Pacific-Palos Verdes

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ROOF TRIMMING IN ONE OF THE MINES AT BORON

happens to the concentrates after this depends upon the type of finished product required. They may be used as is to give

(1) Fertilizer Borate, in two different grain sizes—coarse or fine.
(2) Borascu, used for weed control.

Or, by drying with varying degrees of heat, they may be converted into

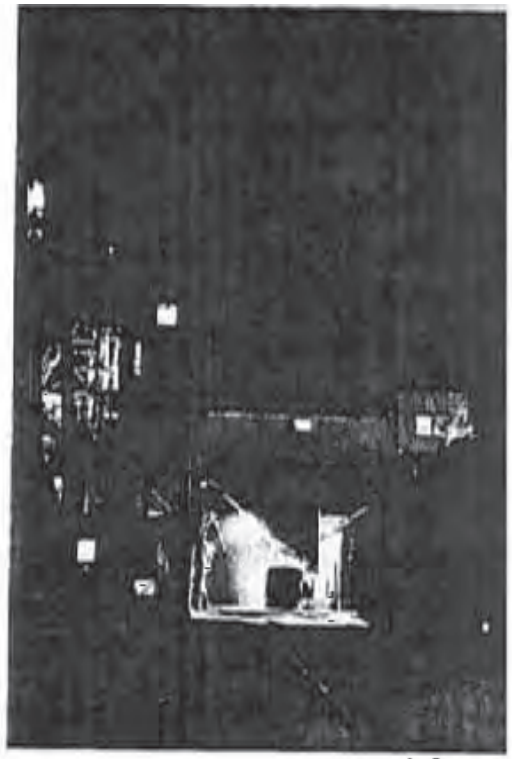
(3) Borocle Special Concentrates, also known as Special Concentrates Dried;
(4) Fertilizer Borate, High Grade, in both fine and coarse mesh sizes; or
(5) Anhydrous Borocle and Concentrated Borascu

In the crushing and drying operations, considerable fine material and dust are formed which cannot be either concentrated with the conventional equipment or returned to the finished products. In order to utilize such fine materials a borax plant was built at Boron. A boric acid plant was also built during the war, with the approval of the War Production Board, to meet the increased demand for this product. The processes used are very similar to those used at the main refinery at Wilmington.

The Wilmington Refinery, with its extensive up-to-date machinery, its main building and lesser plants all interconnected with mechanical conveying systems, its large steam-generating plant, and its dust control systems, bears little resemblance to the primitive refinery which the Smith brothers operated at Teel's Marsh or the Harmony Works on the floor of Death Valley. Constant additions to the Wilmington plant have resulted in new products as well as greatly increased productive capacity. Since World War I alone, borax output has increased threefold, while basic boric acid output has almost doubled.

Borax

In the refinery the crude ore is screened, the oversize put through a crusher, and then fed into cylindrical tanks known as



Ore Crusher

ore-dissolvers where, as the name indicates, the borate is dissolved. During the next few stages of the process all shale, mud and insoluble matter is removed, leaving a clear solution of borax. This is pumped into granulators where it is cooled until granular borax is formed. At this point, by controlling the temperature and concentration, either of two products can be made—regular borax or the pentahydrate (Borax 5 Mol), which has half the amount of water of crystallization. The borax is sent either to the borax dryers and made into fine granular borax or to the boric acid plant for conversion into boric acid or directly to the anhydrous borax plant.

Boric Acid

In the manufacture of boric acid, borax is put in tanks and combined with sulphuric acid. The mixture yields boric acid and Glauber salts. The two are separated by another process, and the boric acid is then redissolved, filtered, and pumped to coolers. The crystallized boric acid, again in suspension, is now passed through centrifugal baskets where the cooled mother solution is removed and the crystals washed. The boric acid is then passed through dryers. From the dryers the finished product is conveyed to storage bins to be packed and shipped.

Anhydrous Borax

Anhydrous means "destitute of water." The borax solid, as sent to the anhydrous plant is first passed through two rotary kilns which remove some of the water. The result is a product called calcined borax. From the kilns the calcined borax is then fed into a furnace where it is melted and the final water of crystallization removed. This fused, anhydrous borax, now the consistency of molten glass, flows continuously from the furnace on to pan conveyors and is subsequently cooled and crushed.

LOADING AN EXPORT SHIPMENT OF BORATE AT WILMINGTON

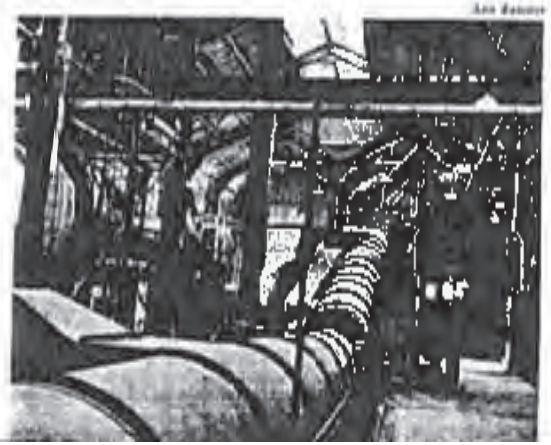
Ann Rosener

Special Products

The main refinery building also houses a number of smaller specialty plants which produce borax glass, anhydrous boric acid, sodium metaborate, potassium pentaborate, ammonium biborate, ammonium pentaborate, Sparkles (small flake boric acid), and soap powder for Mule Team Borax Soap Chips and for Borateem. All of these utilize either borax or boric acid in their manufacture. Many of them are made in several forms—granular, various sized crystals, powdered, and an impalpable powder.

In addition to the standard grades, various special grades of borax and boric acid are manufactured, such as U. S. P. and Special Quality, a high-purity product which equals, and in some respects exceeds, the U. S. P. grades.

In short, the Borax Company produces borates to meet all possible needs. Even the large lumps of crystal borax used by their forefathers generations ago can be bought today by Indian and Chinese goldsmiths.



PART OF THE ANHYDROUS BORAX PLANT, BORON

Some Uses of Boron Products

The greatest consumers of boron products in the United States are the glass and ceramic industries. Together they represent the largest proportion of the Company's domestic market. The balance is divided among a number of more other industries.

Borax has been used in the manufacture of common glass since the early days of the glass industry. Today it is a key ingredient also in the production of special types of glass—the heat-resistant borosilicate glasses, familiar in kitchenware, laboratory and optical glass.

Newcomers to this glass field in recent years are the manufacturers of fiber glass. This amazing product is, to a certain extent, a borosilicate glass, identical to other glass in its initial stage of manufacture. The end product, however, is very different. It consists of glass fibers, some of them so minute that an individual strand can hardly be seen with the naked eye. These strands of glass are woven into thread, known as textile yarn, which can later be fabricated in much the same way as are conventional fibers of cotton, linen, wool, or synthetics. Unlike these other materials, fiber glass is fireproof, mildewproof, stainproof. It is making its appearance in more and more forms every year—for insulation, as a substitute for cork and kapok, to reinforce plastic articles. Its future appears limitless.

The enamel industry has always been an excellent customer for borax. It is borax which enables the material to be fused at comparatively low temperatures, thus preventing excessive warping of the enamelware. Porcelain enamel is actually a glass which has been fused to the surface of steel, giving it a hard protective covering which is attractive to look at and easy to take care of. Stoves and other pieces of kitchen equipment are coated with this porcelain enamel, of which borax is an essential part. Many bathroom fixtures are similarly coated.

In recent years borax has been increasingly used in agriculture. Scientists discovered that boron, which exists naturally in most soils, is an essential food element for plants. Land under cultivation exhausts the small supply which nature originally put there, and

it becomes necessary to replenish the soil with some form of boron which is easily assimilated by the plant. Borax has proved to be the answer. Small amounts of borax, applied to the soil, eliminate the diseases caused by boron deficiency—cracked stem in celery, which used to destroy as much as 50% of the entire crop; cork disease in apples; heart rot in sugar beets; dark center in turnips; top sickness in lettuce; yellowing of alfalfa. The list could be extended indefinitely, through forage and field crops, fruits and vegetables. The Borax Company has carried on experimental and educational work in cooperation with federal and state agricultural agencies. It has established fellowships in agricultural colleges and universities over the country and has inaugurated two stations for experimental work.

Only very small quantities of borax are needed as a plant nutrient. Too much becomes toxic to the plant. This knowledge has been utilized to destroy weeds and other vegetation in such areas as along railroad rights of way, under wooden bridges, around oil storage tanks and electrical transformer stations.

Borax is used by the packers of citrus fruit as a wash before packing oranges, lemons and grapefruit, to prevent the formation of blue mold decay, which used to ruin as much as 30% to 40% of a shipment. The list of other industries using borax or boric acid covers an extensive range of industrial and household products, too long to enumerate here.

Boron and its many components are at vital in a defense as war program as in our normal civilian economy. To cite just a few examples: boron-intensified steel for armor plate in the construction of warships; electrolytic condensers for the multiple control and communication systems; fiber glass for insulation and other purposes; the preservation and fireproofing of combustible materials, such as tenting and camouflage; fluxes in metal melting and refining; magnesium brazing. Other recent developments include the use of boron in steel alloys as an excellent substitute for currently short chromium, nickel and molybdenum.

In Summary

In 1864, when the first borax operations started in Chile, the total output in the United States amounted to just twelve tons. The price then was $280 a ton at New York. In 1929, the U. S. Bureau of Mines reported a production of 467,492 tons. The price at New York—$63.40 a ton.

These figures in their small way show the development of an industry in which the Borax Company has played such a prominent part.

The crude little refinery at Teel's Marsh, where the Smith brothers and John Ryan boiled concentrates over mesquite fires, has become the large modern plants of Boron and Wilmington. Mule teams have long since given way to railroads. To keep pace with the expanding demands of modern industry, the Borax Company has spent large sums to increase output and to introduce new products. It has developed, through ingenuity and research, improved production methods to keep prices down despite steadily rising costs of material, labor and freight. It has introduced a greater variety of borate materials in the market during its history than any other producer in the world. While achieving its greatest expansion since World War II, it is still striving today to anticipate the future demands of industries, chemical and metallurgical research.

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1914-26: the end of an era in Death Valley and a new discovery

By 1914 the Lila C. mine in the mountains above Death Valley was believed to be nearing exhaustion. Since 1908 John Ryan, the mines supremo, had been studying other remnants of the former Coleman empire to find a suitable successor. Financial considerations and the obstacles presented by the mountainous terrain were limiting factors in the choice among the six available mining claims, but by the end of December 1914 the new Biddy McCarthy mine was ready to send ore by the Death Valley railroad down to the new roaster at Death Valley Junction, and soon 80–90 tons a day were moving along this route. In April 1915 this narrow gauge railway was reported to be in excellent condition and giving no more trouble through sliding rock, and prospects were hopeful for mining and transporting any quantity of ore that might be required from the new deposits.[1]

At the six Ryan mines – Played Out, Upper Biddy (McCarthy), Lower Biddy (ditto), Grandview, Oakley and Widow – the reserves of ore available had all been increased by development work and mining, the first five moderately so, while the reserves at the Widow Mine, which presented the poorest chance of all from surface indications, were increased enormously to well over a million tons.[2] Thus in this group of mines using one common mining camp at New Ryan there were reserves of colemanite far in excess of the world's needs at the time. In addition, although Lila C. had closed in April 1915 as worked out, Fred Corkill (the second) reported in June 1919 that a large body of ore was still there. This expensive lapse appears to have been the result of deliberate non-cooperation resulting from a foreman's intense dislike of the temporary mines superintendent, and hasty plans were made to put in a narrow-gauge spur to retrieve at least 100,000 tons of this good ore.[3] It was not until November 1925 that the last shipment from Lila C. was made, and the camp and the railroad as far as Horton Junction was dismantled. Not unnaturally, Baker wrote that 'it makes one rather jumpy about borate'; for F. M. Smith, who in spite of his financial recklessness had a reputation for having a good nose for a borax deposit, had left the company; Fred Corkill (the first) had retired; and John Ryan, the trusted veteran of Death Valley borate-mining, had died in May 1918.

Baker in the years after 1918 was thus left without experienced management at

the mines, and he did nothing much to remedy it except to become involved himself to such an extent that when he was not in the United States he became absorbed in a voluminous and almost daily correspondence about every detail of matters at the mines, mill, refineries and every part of the organization of which he was now President. After Smith, it was a marked change in style and method, and while Zabriskie and his staff responded, it would be difficult to imagine that they were enthusiastic. Today this method of management by letter and coded cables – with no telephones, of course – appears cumbersome, but Baker was a hard-working and meticulous man who did not avoid decisions, and nothing escaped his attention.

The exposed ore at Ryan was colemanite, and a new mill had been built at Death Valley Junction – a calciner (or roaster). However, the ore bodies at Ryan are a mixture of colemanite and ulexite impregnated with lime and shale, and at depth the ulexite begins to appear in increasing quantities, with resulting milling problems. Ulexite does not disintegrate in a calciner to a fine flour-like product as does colemanite, and instead of passing through the screens it stayed with the shale and ended as waste on the tailings dump. Until this problem was solved ulexite had to be separated as much as possible at the mine, and large dumps accumulated.

When Herbert Faulkner, a very tall – six-foot-six – English mining engineer (his height brought him the nickname 'Highpockets'), arrived at the Ryan mines the ulexite problem was coming to the fore; either mine production dropped or there were loud complaints about the ulexite content from the mill at Death Valley Junction. He set about trying to solve the difficulty, with little assistance and a good deal of cynicism from those at the mill. It was a problem that needed time and technical experiment, and fortunately someone recognized that outside help was needed. Tom Cramer has described a visit to the Alameda refinery by Professor Richards of Harvard,[4] a leading authority in America on ore-treatment, who carried out trials on ulexite. As a result, a wet concentrator plant was built at Death Valley Junction which separated light and heavy particles (using a process known technically as jigging). After fairly prolonged teething troubles this plant began to reduce the piles of ulexite, but when it was burnt down in 1924 it seems that no one wanted to go back to the wet process. Rasor suggested calling in a consultant, Dr Stebbins of Los Angeles,[5] who developed a dry process based on grinding the ore to fine particles and separating the ulexite from the shale by using an air separator and vibrating tables. Fred Beik, an engineer from Wilmington, was sent to Death Valley Junction to build a new plant,[6] which successfully disposed of both ulexite stocks and tailing dumps, and this meant that the Widow mine – which was the most inexpensive to work but which contained ulexite – remained the main producer.

Faulkner, who followed the popular Billy Smitheran, had a tough time, not the least of his problems being ex-employees who jumped company mining claims and defended them with guns, and he was no doubt ready to go when he left in 1921 to take charge of the Borax Consolidated mine in Turkey.[7]

Another side of mining life is revealed in a letter written by Baker in August 1923, which gives an original view of Ryan and Death Valley Junction.[8] The background was the attempt to find a job in mining for the son of Colonel Reid, the vice-chairman of Borax Consolidated, an attempt which did not meet with the gratitude it deserved:

> The camp at the Junction is certainly not the same as Ryan, which is the Ritz of American mining camps and the best in the States and, as it would appear, spoilt your son for the average life at American mines. I have never seen at the Junction the general untidiness and litter he mentions although, as the railroad passes through the camp and the passengers are of a mining type a good deal of stuff may at times be thrown about by them. . . . Also a great number of motors pass through that district and the people use our camp and, generally, are not of the most tidy type. The so-called hotel, in which your son has been accommodated, was recently bought by us for the purpose of getting rid of a saloon which attracted men with bootlegging liquor and for gambling, and also it is our intention to use this place for more accommodation providing more conveniences for the men. . . . The lavatory accommodation is necessarily not like that at Ryan where the camp, being on the side of the mountains, allows for splendid drainage. Our camp at the Junction is on the flat and nothing but earth closets are possible. . . . I have been glad to use one of these places myself when at the Junction, until recently, when bungalow accommodation has been provided for the management

Improvements continued in all aspects of personal comfort at these camps. In November 1924 a civic centre was completed at the Junction, and Baker wrote:[7] 'Although rather expensive, [it] is a very good advertisement for the Company. . . . I am glad to see that the men have started a baseball team and I hope with you that they will give a good account of themselves.'

In fact the civic centre cost $300,000, and everyone thought that the mines and mill in Death Valley would be the centre of the borax industry for generations to come. In addition to the feeding and sleeping accommodation for two hundred men, the civic centre included a general store, company offices, a hospital unit, theatre, recreation hall, pool-room, and guest-house. The *Inyo Register* described it as 'a city under one roof'. For opening night at the recreation hall – named Corkill Hall – Baker crossed the Atlantic, Zabriskie came from New York, and all Ryan and Wilmington were there. All who could wore dinner-jackets and starched shirts, ladies were in long dresses, and an abundance of fresh flowers were delivered from Los Angeles by the Tonopah and Tidewater railroad. Thereafter nothing escaped celebration at the Junction – Easter, May Day, Thanksgiving, and Christmas were big affairs, and of course on St Patrick's Day the whole town burnt green – but on Sunday Corkill Hall became a church.

In the midst of all this there still stood on 'the other side of the tracks' the one institution that had existed at the Junction since the railroad was built, and before all this civilization arrived. Bob Tubbs's saloon and desert store were combined with what was sometimes called an hotel and sometimes a 'travellers' rest', but was in fact a brothel. To Tubbs's credit, he applied to the state school system for the first teacher to come to the Junction, and as a result 4 ft 8 in, eighteen-year-old Bess Davis duly arrived with her suitcase at the Junction and reported to the school trustee – namely, Tubbs. She was puzzled by the fact that she was not allowed to board with the Tubbses but was happy in the Corkill home. She stayed for two years, was a great success, married a Pacific Coast Borax man, Frank Grace, and 'lived happily ever after'.[10] Some probably thought the Junction had become too civilized when Tubbs was asked to move, but a good solution was found, and the organization moved a few miles away to a 'ranch' at a remote and romantic spot called Ash Meadows, where the Tubbs tradition continued to flourish until the house was destroyed by fire in the 1960s.[11]

These communities were remarkable examples of the resourceful pioneering spirit which pervaded the western United States during these times and earlier. Harry Gower – who joined Pacific Coast Borax in 1910 and retired half a century

later – planned, built and developed a township at Ryan which included a store, a recreation hall, a school, a church, a brass band and a way of life far above that of the usual rough mining-camps in the West. Homes, wives and children all had a place, and before the days of home refrigeration or air conditioning it was a real test of self-reliance and courage. Since it was adjacent to one of the hottest places on earth, it needed people of character, and there were many such who worked there. Pauline Gower, Harry's wife, taught the children, and was always ready to play on the piano whatever anyone wanted. Amateur theatricals were a feature of life at both Ryan and the Junction. But these mines and this mill were becoming expensive indeed, and their lifeline, the Tonopah and Tidewater railroad (about which much has been said earlier) continued profitless and a drain on Borax Consolidated's finances which no amount of optimism about possible new sources of revenue along the route could diminish.[12]

This was a disquieting feature at a time when competition from the American Trona Company was somehow refusing to subside as expected, and when there were other factors in the situation to make Borax Consolidated 'jumpy about borate'. Among these the rise in labour costs during the 1914–18 War has already been mentioned. It continued throughout the first post-war years until 1921, when reductions of wages in many industries became possible without fear of strikes, owing to world-wide reduction in demand. Consequently both the Death Valley mines and the mill at the Junction were shut down for seven months during 1921, and restarted on reduced wages. After that things rapidly went the other way, and a boom and the Bolshevik scare – which deterred the US Government from admitting enough immigrant labour – forced wages up rapidly.[13] Overseas, the Turkish situation did not help. It had been hoped to resume supplying British and European works from the Turkish mines soon after the War, but Mustapha Kemal's nationalist rising cut off supplies from 1920 until 1927, and production of colemanite had to be boosted at the American mines to fill the gap.

In the USA itself the 1914–18 War had made life very difficult for the New Jersey works at Bayonne. To an abnormally high level of wages had been added the cost of moving raw material from Death Valley mines in the West to the east coast. After the War advantage was therefore taken of the vastly shortened sea route to the East offered by the opening of the Panama Canal in 1914 and all borax-refining became based on the west coast. For this the 'Chandler' site was acquired at San Pedro for $50,000 in July 1921,[14] and since it was on the Wilmington side of Los Angeles harbour it was renamed 'Wilmington'. Although the refinery was not fully completed until nearly 1930, the US headquarters of Pacific Coast Borax moved there in August 1924.[15] Boric-acid production remained at Bayonne until 1929,[16] after which the deserted site awaited a purchaser until it was sold to the rival Stauffer Chemical Company for $100,000 in 1945.[17]

Wilmington was not the only new works to be established by Borax Consolidated at this time. Inevitably, the War had altered the European sales figure, and in particular the collapse of the Austro-Hungarian Empire had left the company's works at Stadlau near Vienna serving the needs of only a small republic, instead of a vast multiracial territory.[18] More especially, the majority of the enamellers and glassmakers were now included in the new state of Czechoslovakia, and it became imperative, particularly owing to tariff and currency considerations, to supply them from somewhere within this new state.[19] Accordingly the Aussig works (which formerly belonged to the refiner Billwaerder of Hamburg) was acquired for £9,000 from one Max Illman in September 1920.[20]

Suckow, and each blamed the other for creating a situation which enabled the Doctor to enter the business at all. They also discussed Blumenberg, who since Daggett days had managed to lay claim to colemanite with sufficient success to tease both Pacific Coast Borax and Stauffer. Rasor chided Stauffer that he had bought out Blumenberg just as he had been about to run out of ore, and predicted – as it happened correctly – that it would merely enable him to show up again in borax-mining after a suitable interval. No admirer of Blumenberg, Rasor commented that he 'was cached away somewhere in Los Angeles. I am advised he devotes most of his time to young ladies of the movie class.'

As for Suckow, Rasor was unable to trace him, but he saw his agent Kleiner, who was 'sore as a boil', complaining 'that Suckow seldom comes to the office and when he does he spends most of his time "calling up chickens [chicks]".' Writing to Zabriskie, Rasor went on: 'I think I have intimated to you heretofore that Suckow seemed to be troubled with, or rather affected by some kind of sex complex. It has become very much apparent in the last year, and is getting much worse.' Rasor also reported that the Suckow mine contained considerable ore reserves, and it was not long before the financial demands of the Doctor's life-style brought an offer from him to sell, which was reluctantly accepted by Pacific Coast Borax in 1925.[40] However, Stauffer showed no interest in sharing Suckow's holding with them, and agreed to exchange his interest in the mine for Suckow's borax-refinery in Los Angeles, which ceased to produce in about 1927.

At this time Stauffer was endeavouring to organize a consortium of borax and potash interests to acquire American Trona, and a number of meetings with Dr Teeple took place which Stauffer and Zabriskie attended.[41] Baker was unwilling to consider taking such a step in harness with Stauffer, and also about the same time he turned down the proposal presented by a discontented shareholder called Gallois and a banker-creditor of Smith called Carlson, to try to acquire control of Smith's West End Chemical and Mining companies.[42] Smith had managed, in some seven years only, to enmesh both these companies in a web of unsound finance and long-term low-price contracts, and Baker and his colleagues had steadfastly refused to become embroiled again in his affairs, either to hinder or to help him. But even Baker allowed himself an uncharacteristic outburst when he heard Smith was offering borax in early 1925 at $6 a ton below Borax Consolidated price, and 'a fine specimen of the low-down, unscrupulous, lying Hun' was the uninhibited reference to Smith's ancestry.[3]

In his later years Smith ran into antagonism from a section of West End shareholders in the form of a shareholder's protective committee, and in 1926 resigned as President of the mining company.[44] He continued as President of the chemical company until he fell seriously ill in 1928; and then, on 27 August 1929, this old warrior of the West died at the age of eighty-five. Smith was succeeded by his wife Evelyn as President, assisted by her brother George Ellis, who in 1940 became President of West End Chemical Co. in 1940. This ran successfully and profitably, and in 1956 was acquired by Stauffer Chemical Company.

Meanwhile, the Pacific Coast Borax Company had by 1925 invested [illegible] $350,000 in getting title or contracts covering seven sections in the [illegible] district, and portions of several more. This area had been familiar territory to Rasor ever since Suckow's colemanite discovery in 1913. Rasor's men had put down about forty drill-holes but no mining had resulted, except to the small extent of the Suckow No. 2 shaft on Section 22. Drill-holes and exploration drifts at Kramer showed colemanite and ulexite averaging about 10 per cent bo[illegible]

(B_2O_3), while at Ryan there were vast reserves averaging 30 per cent (B_2O_3).[45] Thus after twelve years' exploration Kramer did not seem to be an area of much importance. Moreover, the Death Valley mines represented a substantial investment for Borax Consolidated, and unless there was some competitive or very significant cost reason for establishing new production facilities elsewhere, it was about the last thing they wanted to contemplate.

However, Rasor kept a watchful eye on the Kramer area and Corum – who drilled for Rasor, but also drilled on his own behalf and for others – reported to Rasor late in 1920 that at the eastern end of the Kramer district they had drilled down to basalt bedrock without finding anything.[46] Little of interest occurred in the area until October 1924, when Zabriskie reported to Baker that considerable activity had again commenced there, to which Baker replied:[47] 'I am glad to see that people are drilling wells in the latter district [i.e., Kramer] where there is not any prospect of their finding borate ore and that they are more likely to find water'[48] – this on the eve of a great discovery!

Another prospector, Widdess, who had also been working there for over five years, and had established claims, saw Rasor just before the end of 1924: he told him he had struck some blue shale at 440 ft and a green-flame test showed the presence of borate, adding that he would come back if he struck colemanite.[49] Rasor was nervous, but expected nothing.[50] However, by 11 March 1925 Zabriskie was cabling Baker[51] that Rasor recommended negotiation with Widdess for Section 18, as he had struck 13 ft of shale at 580 ft showing 11½ per cent boric oxide (B_2O_3) in the form of a soft white material like ulexite, and no colemanite. Rasor was already checking the ownership of other sections of land in the area, and got the Southern Pacific Railroad to agree not to sell Section 19 to anyone for the time being.[52] By the end of March Widdess was offering a quarter of Section 18 for $60,000, and was also approaching Stauffer and others.[53] At that point Baker pointed out that they had a good deal of that kind of stuff at Daggett and 'we require to keep our powder dry for other purposes'.[54]

A sample from a core sent to the Wilmington laboratory confirmed the 11½ per cent B_2O_3, and that the borate was largely, if not entirely, ulexite.[55] At the end of April Widdess started further drilling on Section 18 when Suckow appeared, claimed the mineral rights and put some men to work. On 24 April Widdess called the sheriff and had Suckow arrested and taken to Atolia, and both then retreated to Los Angeles 'to begin suit'.[56]

By the end of May Corum's independent activities on Section 24 also began to attract Rasor's attention. His first hole had struck blue shale some 260 ft nearer the surface than the Widdess strike, and showed about 67 ft of borate-bearing shale of the same type. Rasor concluded that borate was likely to be in Section 19 on the Southern Pacific Railroad's ground, and he agreed with Zabriskie that they should buy the north half of Section 19 and the west half of Section 17 without delay. These were Railroad land grants from the US Government which carried with them all mineral rights, and these came with the land.

Corum had four partners: Hannan, an experienced mining prospector and driller; [illegible], an ex-vaudeville actor specializing in hypnotic stunts (these two worked together on the drill); Corum's brother-in-law Edenburg; and Knean, an engineer, president of the Santa Monica Paving Company, and also a man of very strong financial connections.[58] In August Corum brought samples to Rasor which Zabriskie described as 'native or crude borax, different from any we have ever seen'.[59] Rasor sent four samples from the drill core to the

laboratory at Wilmington. They were small samples from which to draw any conclusions. Cramer reported[46] that most of the borax was soluble sodium borate with clay and shale impurities indicating uncal ore, and that one small crystal sample was gypsum only. In September Zabriskie wrote to Baker that Stauffer 24 was a great surprise, 'and as it is uncal [it] opens an entirely new feature as to what the costs would be of refining'.[47]

From November onward things began to move fast. Rasor was convinced that although on the evidence available it was something of a gamble, the existence of a new large borate ore body was more than a possibility, and that Pacific Coast Borax needed to move quickly if it were to consolidate the position before too much was known by others who would be interested in picking up separate pieces.[48] Zabriskie's letters to Baker reflected Rasor's views, but the problem was to get Baker to agree to an expenditure of a possible $500,000 for the Corum and Widdess claims. This required vesting powers of fact and persuasion because Baker had been sceptical about the Kramer district all along. Sitting in London, he was for good reasons preoccupied with the prevention of any unnecessary expenditure and the ever-present shadow of Trona competition from Searles Lake, and he began to ask for the kind of hard facts about the geology of the area which were simply not available, and which if they had been would have meant that the price and the number of people interested would almost certainly have put it out of reach of Borax Consolidated. On 20 November Baker was cabling that further information was necessary for him to form any opinion, that he could not understand how any assessment could be based on two drill-holes. He suggested that an option should be negotiated, and hoped to be in California in the New Year.[49] To this Rasor replied with spirit: 'Tat party is such a wind jammer, I do not know how to credit him. Stop. Will see them all next week believe delay dangerous.' The 'tat party' was the talkative Downing.[50]

Meanwhile Kneen was trying hard to persuade his partners not to sell and to develop the property themselves, but they declined and wanted cash.[51] Quite surprisingly, the property was offered to Rasor, and on 26 November he reported that Corum estimated their claim contained three million tons of ore between 30 and 40 per cent borate, and that there was no question of getting an option. Rasor felt there could well be a million tons of ore of grade 20 per cent or above, and he was against buying unless the Widdess property was bought as well.[52]

Baker continued to show scepticism about estimates based on two drill-holes and wrote: 'We have shown too much anxiety to deal with these people and their ideas have become too inflated. . . . A deniche is needed – we cannot buy the earth.'[53] A few days later, on 18 December, Baker felt that $250,000 was about the limit to what Borax Consolidated could go. And so, without any understanding having been reached, events moved to a board meeting of Borax Consolidated on 23 December at which a decision would be made. On the previous day news had reached Baker of a third drill-hole that supported the other results, together with an assessment by Borax Consolidated's position by Rasor and the firm recommendation to buy. At the board meeting, particularly by Baker, but no record of the discussion survives. A nervous Zabriskie and an elated Rasor received a cable agreeing to negotiation for both properties for up to $450,000, subject to clean claims.[54]

It is greatly to the credit and judgment of Rasor that he maintained such a positive outlook while negotiating with two sets of difficult people and dealing with complex legal background he found in trying to establish clean claims.[55] He was certainly getting no encouragement from London, and his own description, after attending a hearing of the Suckow case in Bakersfield, that he was carrying water on three shoulders, describes the situation well, as does his modest comment that 'strange to say, [I] do not believe I spilled any'.[56] Apart from the legal action which Suckow eventually lost, only just avoiding a charge of perjury,[57] Pacific Coast Borax had the difficult task of seeing that the claims for these properties were properly filed, and of assessing the problem that certain properties containing sodium salts like Searles Lake were now only eligible for US Government leases under the Sodium Leasing Act of 1920 and not for the preferable patented lode and placer-mining claims applicable to other minerals discovered on public lands. Practically nothing was known about the sodium borate in these deposits or its possible extent. It was vital that the discovery should be kept secret to avoid a 'borax rush' in the area, and it appears that Corum and partners co-operated and followed the advice of Pacific Coast Borax and Frank Wehe, their lawyer in San Francisco, which enabled these claims to be registered on a sound legal basis. A lot had to be done over Christmas 1925 and the New Year to enable final negotiations to start. The claim on the Widdess Section 18 presented no problem, except for Suckow's unsuccessful intervention, as sodium borate was not then in evidence and the claim could be registered as a normal colemanite and ulexite discovery.

On 14 January 1926 Rasor closed the deal to acquire from the Corum syndicate their interest in Section 24 for $375,000 and from Widdess the south-west quarter of Section 18 for $75,000.[58]

Baker must have decided to recommend the proposition to Borax Consolidated, Limited's Board – no one else in London could have known enough about the situation to say much, other than to ask questions. He certainly got precious little additional geological information to help him. In his final assessment, recommending that they buy both Kramer properties, Rasor had written:

The thought of Searles Lake of course always gives one a chill. No telling what will happen there in the end. With what we know now of Kramer District, I believe we would have in the new strike a formidable weapon with which to go after Trona. Whether we go into the Kramer District or Searles Lake District, the Ryan notes should be closed. The costs account double what they should be; this is not the fault of the mines. It is the system that prevails at that place. Gerstley (mine) could furnish the tonnage for a year or two at half the Ryan cost.[59]

difficult and expensive possibility of having to fight American Trona with a Searles Lake operation had been haunting Baker for some time, and this, the frightening thought of what competitors might be able to do to Borax solidated if Kramer was what Rasor thought it could be, were probably the ments he used to convince his colleagues. However, to commit his company a sum equal to its likely profits for the next two or three years, on the basis ch limited geological information, was a highly entrepreneurial decision of ose importance. It was unlike Baker not to have been in California during previous six months, but after the deal was done he wrote explaining that 'but ng in the doctor's hands' he would have been there, and with the usual ir he was telling Zabriskie and Rasor he was still very dubious and they had ir rights'.[60] Although this was not understood in London, Rasor's agree- th Corum and his partners was to acquire only the east half of Section 24. bled in response to Baker's query,[61] the north-west quarter was already and had been purchased in 1920, but, said Rasor, the 'ownership of the

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37. Zabriskie to R.C.B., 11.4.21.
38. M.D. to Zabriskie, 17.1.22.
39. P.C.B.: Rasor to Zabriskie, 1.8.24.
40. P.C.B.: Cable from Zabriskie to R.C.B., 25.6.25 and reply from M.D. to Zabriskie, 7.7.25.
41. P.C.B.: Cable from Z. to R.C.B., 7.1.25, and letter of 8.1.25.
42. P.C.B.: Zabriskie to R.C.B., 20.1.25.
43. M.D. to Zabriskie, 17.1.25.
44. Circular of Stockholders Protective Committee, May 1926.
45. P.C.B.: Zabriskie to R.C.B., 28.7.31; Sue Bee, J. W.: 'Geology of the Kramer Deposit' Jan 1979, U.S. Borax files.
46. P.C.B.: Rasor to Zabriskie, 19.10.20.
47. M.D. to Zabriskie, 15.10.24, re Zabriskie's letter of 6.10.24.
48. M.D. to Zabriskie, 26.10.24.
49. Rasor to Zabriskie, 22.12.24.
50. Zabriskie to M.D., 1.2.25.
51. Cable from Zabriskie to M.D., 11.3.25.
52. Rasor to Zabriskie, 9.3.25.
53. Cable, Zabriskie to R.C.B., 23.3.25.
54. Zabriskie to Rasor, 2.4.25, quoting R.C.B.
55. P.C.B.: Cramer to Rasor, 10.4.25.
56. Rasor to Zabriskie, 29.4.25.
57. Zabriskie to R.C.B., 23.6.25.
58. Rasor to Zabriskie, 15.6.25; Zabriskie to R.C.B., 28.11.25 (in this letter Ridenbury is referred to as Greenleaf).
59. Zabriskie to Baker, 28.11.25 (handwritten letter 20.8.25).
60. P.C.B.: Cramer to Rasor, 20.8.25.
61. P.C.B.: Zabriskie to R.C.B., 17.9.25.
62. P.C.B.: Rasor to Zabriskie, 18.12.25.
63. M.D. to Zabriskie, 26.11.25.
64. P.C.B.: Zabriskie to R.C.B., 23.11.25.
65. P.C.B.: Rasor to Zabriskie, 10.11.25.
66. Cable, P.C.B. to R.C.B., 26.11.25.
67. Cable, M.D. to Zabriskie, 7.12.25.
68. M.D. to Zabriskie, 18.12.25.
69. Cable, M.D. to Zabriskie, 23.12.25.
70. M.D. to P.C.B., 11.1.26.
71. P.C.B.: Rasor to Zabriskie (manuscript letter), 26.12.25.
72. M.D. re cable from Zabriskie, 28.12.25.
73. P.C.B.: Cable from Rasor, 8.1.26.
74. P.C.B.: Rasor to Zabriskie, 18.12.25.
75. M.D. to Zabriskie, 26.1.26.
76. M.D. to Zabriskie, cable 15.2.26.
77. P.C.B.: Rasor to Zabriskie, 31.12.25
78. M.D. to Zabriskie, 19.1.26.
79. P.C.B.: Zabriskie to Rasor, 6.1.26.
80. M.D. to Zabriskie, 2.2.26.
81. Osborne, L. D.: 'An account of this experience with the Pacific Coast Borax Company dated May 1947.

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The aftermath of the discovery of sodium borate at Boron

When the discovery shaft struck the 'crystal borax' mineral Rasor had thought that its appearance indicated a form of colemanite and was somewhat disappointed' as unlike the tincal (sodium borate) which the drill-holes had indicated, colemanite would require an additional cost of milling. On 17 August Rasor put a bulk sample in the back of his 'Rickenbacher' and headed for the Wilmington laboratory. 'It so happened that Cramer, Connell and Knight, the company's quasi of Stanford University graduates, were there at a meeting when he arrived, and indeed they all took a hand in carrying out the analysis of the needle-like crystals taken from one of the large lumps of ore that Rasor had brought. To everyone's astonishment they identified a crystal form of sodium borate never before reported' – $Na_2O.2B_2O_3.4H_2O$ – that is, one containing four instead of ten molecules of water of crystallization as in the case of tincal, a result which reminded them that Connell had written a 'fanciful' article some years previously (1922) predicting that such a form of borax could and perhaps should exist.

The new sodium borate mineral was for the time being referred to within the Coast Borax as 'Rasorite', until it was later officially christened kernite by the US Government, thus indicating its place of discovery, Kern County, California. 'Rasorite' was registered as a trademark in honour of Clarence Rasor, the first and only time ever since been the brand-name of some of the products derived from this remarkable boron mineral body.

Some published accounts the discovery of kernite at Kramer is (perhaps wrongly) attributed to Hannan and Downing,' who were working on the drill in the south-eastern quarter of Section 24 when it intersected sodium borate in June 1926. The drill cores must have contained kernite, but the logs of the drill-holes show 'borax' and 'crystal borax', and this was assumed to be tincal, the only known mineral form of sodium borate. Neither Hannan nor Downing nor any of their partners, nor anyone in Pacific Coast Borax, identified kernite in the cores, and this only occurred over a year later in August 1926 in the Wilmington laboratory.

Earlier Zabriskie had called attention to the unusual appearance of the

crystal borax in the Corum drill core. Pure tincal contains 36·5 per cent boric oxide (B_2O_3), but Corum claimed the crystal borax he had found had been shown by analysis to contain 40 per cent B_2O_3. A manuscript note in the margin of one of Rasor's letters suggests that the tincal sample had probably been partially dehydrated to give this high borate value[6] and thus another clue that something unusual was present was overlooked (pure kernite contains 51 per cent B_2O_3). The Wilmington laboratory, which might have been expected to identify kernite earlier, seem to have been confined to one meagre set of drill-core samples sent there by Rasor in August 1925, when they identified sodium borate but observed nothing special about it.

It was typical of contemporary exploration to keep samples and information relating to drill cores closely guarded, and Rasor certainly trusted no one, not even those within his own organization, when he was trying to establish mining claims. Twenty-five years in the West had taught him a great deal; Osborne, his assistant, asked few questions and answered none, and the Italians sinking the shaft knew neither English nor what it was all about.

As ore reached the surface in increasing quantities, self-congratulation and euphoria was evident on both sides of the Atlantic. As Zabriskie explained to Baker,[7] the new ore introduced 'an entirely new feature'. It was really a 'concentrated borax of very high quality or borax minus the water, on which we would have to pay freight were we shipping the refined article'. He had discussed with Newman, the superintendent of the Bayonne Works, 'the features of refining this material into borax' and they had come to the conclusion that it would be simple and inexpensive, not requiring the addition of alkalies or other reagents', but there is no evidence that the Bayonne works was asked to process any material in bulk. Tests conducted in England found that the new ore contained almost pure crystal borax, no arsenic or lead, and only a minute trace of chlorides and sulphates.[8] 'It was definitely of the top grade . . . too good for commercial borax'. Baker and Zabriskie therefore concluded that this new mineral would probably require no processing, and could perhaps be ground and then shipped to customers for industrial use without further treatment. But it was not the first time nor the last in the history of mining that the examination of samples did not reflect the real problems to be encountered when mining and processing on an industrial scale.

In the same year, 1926, following their decision to build a new plant, Ameri Trona (which had now become the American Potash & Chemical Corporation) announced[9] that they would soon be producing half the world's requirement of 50,000 tons of borax a year, and that the reduced prices in the last four years had been due to their efforts. Baker summed up the situation:[10]

> The sooner we can get large quantities of the ore the stronger will be our position. There is every indication that we have to face quite low prices in the meantime. At the meeting of Consolidated Goldfields yesterday, the Chairman referred to a cable he had just received from Count Donstating that by January 15th [1927] they will be in a position to produce two and a half times as much . . . and it goes without saying they will have to sell it somewhere and somehow.

Therefore nothing, it seemed, could have been more timely for the future of Borax Consolidated than the discovery at Kramer, but nobody realized how obstinate mineral kernite was going to be. However, before long they were mining about 1,500 tons a month through the discovery shaft, now christened

'Baker' shaft. By November a drill-hole on Section 13 showed a satisfactory extension of the deposit north of Section 24.[11] Another hole on Section 19, some 350 feet east of the discovery shaft, confirmed the thickness of the ore, and this area was chosen for sinking the main ('Osborne') shaft for what was to become the 'Baker Mine'. In December, much to Baker's relief, Section 19 had also been acquired from the Southern Pacific Railroad.[12]

Arrangements were made for the Santa Fe Railroad to build a spur to the mine as soon as the main shaft was completed, and consideration was being given to constructing the sort of economical mining camp that Baker had always dreamed of, but which had just as often eluded his cost-saving supervision[13] – 'We do not wish at the present time to go to a large expense in putting up a camp similar to Ryan but rather, as you say, to run the place on much the same lines as we are working at the lease' (i.e., the Gerstley colemanite mine). More explicitly, if they started with married men and families they would soon have the same sort of expensive upkeep that they had at Ryan, although they must expect that a more elaborate organization would have to be considered eventually.

The same spirit seems, in fact, to have guided the whole financing of the beginnings of this great mine. There is nothing to show that any share issue was made or any loans raised in these early years to provide the necessary capital; and the conclusion remains that it must have been financed from revenue or reserves, in spite of the deteriorating financial position of Borax Consolidated. As already noted, the district in which these new discoveries were located was called Kramer, but as operations developed and a mining centre was established the township was given the name Boron, by which it has now been known for over fifty years.

Early in 1927 Rasor estimated the deposit to contain at least 5 million tons of mineral, but as mining progressed it became apparent that the ore varied, and averaged about 70 per cent kernite and 30 per cent tincal[14] and that the discovery shaft had struck an area of almost pure kernite where the borate content was abnormally high, averaging about 40 per cent B_2O_3. There were increasing references to black shale, and the difficulty of obtaining a uniform product from the ore increased. Hand-picked samples of kernite were tried by the enamel trade in Europe and the United States, which seemed a new low-cost raw material. As often happens, the customers, although able to handle an impure product, needed one of constant composition, and variations in iron and other impurities in the mined product soon damped their enthusiasm. It was gradually realized that run-of-the-mine ore would average far less than the first indications from the discovery shaft. Although shipments of kernite crystals selected by hand were sold in Japan for several years, within six months the whole question of what to do with kernite to make it acceptable for sale was preoccupying almost everyone in the organization, and the Baker–Zabriskie dialogue is loaded with technical discussion and the need for a quick solution to the problem.[15]

The difficulty which kernite posed was that its solubility in water was about one-hundredth that of borax. The whole idea of such an insoluble sodium borate was a surprise, and the simple methods of refining which had been envisaged were impossible.[16] Before long Wilmington, Bayonne, Death Valley Junction, the Rent Staffordshire refineries in England and Dunkerque in France were all trying to find a way to deal with kernite, with Baker at the centre applying a stick and not so large a carrot in order to try to keep Borax Consolidated in

The beginning of 1927 trials were made at Wilmington using an autoclave (a

50 lb pressure vessel) to produce a temperature of 200°C in order to dissolve the kernite[17] and Cramer started working on the problem of large-scale refining using autoclaves and a batch process. Thoughts then turned to upgrading kernite by roasting it in the calciners at Death Valley Junction,[18] and Corkill, aided by the consultant Stebbins, started what proved to be a lengthy period of process development.

In the event it took two and a half years before Borax Consolidated could base its production on the new ore at Boron and supply its refineries and customers with products which were reasonably satisfactory. The Ryan mines at Death Valley ceased production in June 1927, and stocks and the Gerstley mine provided what additional colemanite was needed.

Today's mining world, with chemical, mechanical, civil and all kinds of specialist engineers on call, and with plant design based on research and pilot plants preceding full-scale operations, is difficult to reconcile with the industry of the 1920s. Pacific Coast Borax was no different from most of the mining industry, which has a long tradition of scepticism about the ability of laboratory-based scientists to answer their problems. 'Borax engineers' were few in number, and they had to deal with exploration, mining, milling, construction of railroads and other facilities; when any problem arose they had to tackle it when the rest of the day's work was under control. They worked under tough conditions financially and climatically, with Baker in London expecting quick and inexpensive answers. Hiring additional qualified staff probably never occurred to Baker, and no one suggested it. Apart from a bout of recruitment to strengthen the technical staff before the First World War, Pacific Coast Borax carried on with the old guard almost unchanged. Baker clearly suspected 'educated' engineers. Not only were they expensive but their ideas were liable to cause further expense, and to infect adversely those who had been trained to practise strict economy. When a mine superintendent was needed for the new mine at Boron the choice was Osborne, who was wholly 'borax' educated, and Baker and Zabriskie went to some lengths to sidetrack the Ryan manager Major Boyd, a graduate mining engineer, into a consultative role. Short bursts of extravagance on consultants were occasionally permitted, but only to solve special technical problems.

However, in fairness to Baker, it must be remembered that Borax Consolidated was afflicted with declining profits and sources of cash, and only a determined and skilled navigator could have steered the company past the Scylla of the Great Depression and the Charybdis of the low-priced by-product borax coming in increasing quantities from Searles Lake.

As the hopes of selling ground ore direct from the mine faded it became clear that the recalcitrant kernite needed further processing to produce an acceptable product. Trials at Death Valley Junction in the calciners had shown that roasting changed the kernite needles to a product rather like popcorn, which could be separated from the shale by an air-separation process; but the product picked up excessive amounts of moisture, and was impossible to handle commercially. Unsuccessful efforts were made to compress this fluffy borax into bricks at a pressure of up to 10,000 lb per square inch. In the end, in order to produce a product which could be packed and shipped commercially it had to be rehydrated by damping with water and then crushed. This product, which contained about 42 per cent water – i.e., about the same as the original kernite – was satisfactory, could be refined by simple methods. It also had a substantial freight advantage over ordinary refined borax, which contains 64 per cent of water. While

financial and human resources Corkill and Stebbins, working in gruelling heat throughout the summer of 1928, had finally arrived at this answer to the problem.[19]

For the process to be economical, the residual calcined shale (which contained a considerable amount of borax) had to be treated on a Stebbins vibrating table, and a fraction which was high in borax was added to the main stream and rehydrated. The end-product was called Calcined 'Rasorite' (C.R.). The whole process was something of a hotchpotch of technology, depending on the extraction of borax from the shale residues and the collection of the borax dust from all parts of the calcining process.

To send kernite to Death Valley for roasting was of course uneconomical, but by September 1928 there was sufficient confidence in the process to start moving the aged calciners to Boron.[20] However, in May 1929 Zabriskie was still explaining why sufficient calcined 'Rasorite' was not yet available for Europe, and that Corkill, now at Boron, was often working till 2 a.m. on the new process, while Cramer at Wilmington was just beginning to get production of refined borax up to the required level from the autoclaves.

Calcined 'Rasorite' (C.R.) just about saved the refineries of Borax Consolidated and those of their customers in Europe; and so the mining of borate of lime in South America and colemanite in Death Valley, after some fifty years of considerable activity, both reached the end of the road.

Meanwhile, Borax Consolidated had to face the uncertain outcome of exploration and mining activity all around its new property. Early in 1927 Baker wrote:[21] 'There is a good deal more publicity being given to the Kramer District than we like, but it is inevitable.' Indeed, general interest shifted from the Death Valley area just over a hundred miles south west to Boron with some rapidity, and irritations followed Pacific Coast Borax to their new pastures like a swarm of flies after a well-favoured milch cow. Every effort was made to keep the nature of the discovery quiet,[22] and even schools, museums and learned institutions received replies to their requests for samples saying that the mine was not yet fully developed, and that a perfect sample could not yet be offered. Scientific curiosity from the US Geological Survey found Zabriskie wishing that a prominent member of their staff would get interested in aerial explorations of the North Pole and spend most of his time in the Arctic regions'.[23] There was always, of course, the possibility that another sodium borate deposit might exist in some other part of the USA,[24] and there were two unfounded claims made within three years of the discovery of the Kramer deposit; but the real danger was rightly considered to lie in the probability that the deposit itself was extensive, with the consequent risk that some rich part might be left for others to claim.

The presence of interlopers in the vicinity soon made itself felt. In mid-August a syndicate headed by Buley, an oil-prospector, struck sodium borate at a depth of 890 feet in the south-western quarter of Section 24.[25] 'This is very disturbing', wrote Rasor, 'as we fully believed that that part of the section, being on the Kramer formation, was perfectly safe. . . .' This syndicate became The Western Borax Company, and rapidly produced two unpleasant surprises. Stauffer immediately included a contract with them for ore supplies;[26] and the realization dawned on the Pacific Coast Borax team that in this case both tincal and kernite had been found below the hard rock layer that they had taken as bedrock, and that the same would be true in other areas where they had drilled and found nothing worth mining. Immediate instructions were therefore given to probe deep into relatively unexplored areas – notably to the west of the deposit.

a New York firm had completed a $250,000 drilling campaign and were well pleased with the results.' Rasor did not hurry to New Mexico. In February 1929 he was investigating a hole bored somewhere in Utah by 'two men' called Mulvey and Means, which was alleged to contain carnallite (potash) but turned out to be a dud.[7] Meanwhile he had been making routine inquiries about New Mexico at the Bureau of Mines Geological Survey Department, and there he came across a great deal of information about the exploration work of a company called Snowden and McSweeney.[8]

V. H. McNutt, technical director of this company – who were oil operators – had obtained in 1925 a Federal Oil and Gas Permit to drill for oil on Federal land in Eddy County, New Mexico.[9] Permit-holders on Federal lands were required to send a portion of each drill core to the Geological Survey, and confirmation came back from the Survey that potash was present in the core of the first well drilled. Accordingly McNutt applied for and obtained a potash-prospecting permit on these same lands, and a series of holes were drilled between 1926 and 1930 to determine the extent and depth of the potash beds in the area.[10] Altogether about 3½ miles of 3 in. cores were obtained, which showed the existence of four beds of potash in the form of sylvite (potassium chloride ore). This was the most soluble and economic form of potash ore for conversion into refined muriate of potash (potassium chloride), or for sale in its crude form as 'manure salts'. The four beds discovered between 762 ft and 867 ft depth contained an estimated total of 231 million tons of potash, but the fourth or bottom bed, at 29·86 per cent K_2O, was almost twice as rich as the other three, and a fifth bed was appearing below it.

So Rasor went off, in September 1929, to the small township of Carlsbad in New Mexico, having promised Baker that 'the expense will not be very much'.[11] By December he delivered his report,[12] showing that the drill cores contained good potash values and claiming that the deposit contained enough ore to supply the needs of the United States for a hundred years.[13] The deposit was owned by 'the United States Potash Company', which was dominated by two elderly men, Snowden and McSweeney.

Baker, during one of his periodical visits to the States, met Snowden, and the meeting and Rasor's report had convinced him that this could be a major potash proposition,[14] and that even the Germans had not got a better one on which to work. On the other hand, the Snowden and McSweeney company, after abortive negotiations with American Cyanamid, decided to take a look at Borax Consolidated. McNutt visited Wilmington, and appears to have been suitably impressed with the company's technical resources, as he recommended to the board that an interest in the potash venture be offered to the company.[15]

Apart from the considerations dictated by the struggle with A.P. & C.C., there were more normal reasons which made the proposition an attractive one for the Borax Consolidated board. In 1929 the US potash market was substantial, but domestic production supplied only a small part of it.[16] At existing prices and estimated costs at Carlsbad the investment would show an attractive return.

The aspect of the negotiations which proved troublesome, however, was the proposed financing of this venture. At first all seemed most promising, even the cautious Baker, who was confident that Snowden would appreciate that Borax Consolidated's knowledge of the mining and chemical sides would be useful as soon as it was decided what financial arrangements were required.[17] He felt that the venture would best be financed in the joint interests of both parties, raising a part or the whole of the capital required from the public, as Kali

had recently done.[18] Preliminary negotiations were conducted principally with Snowden, but he died shortly after they began, leaving it to his younger partner McSweeney (then aged seventy five), to allow Borax Consolidated the precious extra 1 per cent over the 49 per cent interest in the U.S. Potash Company which Snowden had offered, and also the management of the venture.[19] The price eventually agreed for the 50 per cent interest was two million dollars, and the board of Borax Consolidated approved the deal on 8 September 1930. In a subsequent letter to J. P. Morgan[20] this was alluded to as 'a large sum' and it was paid in the form of notes maturing at 12, 18 and 24 months. This was in itself a heavy burden, which Lord Leven (Chairman of BCL), Baker and Gerstley eased by purchasing a total of 125 of the 2500 USP shares.[21] But there were further sums to be found. USP itself required an estimated $1,761,000 for the overall cost of the proposed mine and refinery, and a further $3m for working capital, and these were the figures put to J. P. Morgan of Wall Street, with the suggestion that Morgan take up an issue of 5 per cent preference stock or bonds.[22] This approach soon proved to have been a great mistake. Morgan stated that they could not take up the business, but would be pleased to give introductions to other finance houses[23] who then tended to take the attitude that, Morgan having considered the matter, they could not touch it. Morgan had in fact turned the idea down because they wanted a good share of the equity of United States Potash for a number of years, and Baker was not prepared to concede this, considering that the prospects for the project were too good to be given away for the sake of ready cash.[24] It was alleged that Morgan tipped off the other banks that this was the line they were going to take, and certainly Baker and his colleagues, after approaching the Continental Bank, Chase National Bank, and others, soon came to the same conclusion. A basic reason for the whole difficulty was, of course, that the effects of the Depression had reached all corners of the business world by 1931, and loan money was hard to obtain.

The method eventually adopted was to rely largely on financing the erection of the plant by deferred payments to contractors consisting of a certain part in cash and the rest in USP notes of the same type as those offered for the original purchase of the 50 per cent interest.[25] This meant that some financing would have to be done at once, though on a more restricted scale than that previously anticipated, and first thoughts were that it would have to be handled in Britain. Unfortunately, when Britain went off the gold standard on 20 September 1931 it put an end to any hope of raising money on the London market, owing to the potential exchange losses involved. It was therefore not until December 1931 that a deal was eventually made with a contractor in the USA to erect the refinery.[26] The Moore Company would put up the plant and would arrange the finance, and Borax Consolidated would pay 15 per cent of actual cost and bank interest, the total sum involved being about $800,000, which was to be paid over 17 months. In the absence of an adequate loan from the banks the monthly payments to Moore would probably have to be financed by USP drawing on Borax Consolidated in London, and this emphasized a weak side of this potash enterprise – the strain that it imposed on Borax Consolidated's finances throughout the 1930s. 'We are in the position', wrote Baker,[27] 'of having to provide money for the Potash Company as well as our own business in these most difficult times and we have advanced in money and plant a minimum of $600,000 up to date. . . . All this is depleting our reserves.' So perhaps Snowden and McSweeney's main motive for bringing Borax Consolidated into the enterprise in the first place was not so much

Glass fibre has been used decoratively for centuries, first appearing in Egyptian and later in Venetian objets d'art, while French and German glass-makers produced it commercially for this purpose in the 1700s. In 1892 Edward Drummond Libbey exhibited a dress made of glass fibre and silk at the Columbian Exhibition in Chicago. Then during the First World War the Germans developed a method of producing glass fibres to replace asbestos, although this continued to be a process based on single strands drawn through an orifice, until the 1930s, when a process was developed in the United States whereby a continuous filament was formed by multiple strands of glass extruded from a heated platinum box or bushing with many tiny holes. This product was used as a fibre, now familiar in textiles, electrical work and in a resin bonded form as the structural basis of boat hulls and many similar engineered products. At the same time a way was found to produce staple fibres from which the rolls of glass fibre are made, which are used for thermal and acoustical insulation.

Sales by the Owens Corning Fibre Glass Corporation, who pioneered the process of manufacture of glass fibre, expanded from about $4 million in 1939 to over $80 million by 1950. In the post-war world this industry has sustained a continuously high growth rate, reinforced in recent years by the compelling need to conserve energy in almost every form of building structure in which energy is used, either for the purpose of heating or for cooling.

The chemical sodium perborate, made from borax and hydrogen peroxide, was first produced as a laundry additive in England in 1907. Mixed with soap-flakes – the 'Persil' oxygen washer – it removed stains and produced laundry whiteness with remarkable success. However it was after the Second World War and the introduction of washing machines and detergents aimed at the housewife, with all the marshalled power of the advertising world, that the use of sodium perborate (particularly in Europe) escalated year by year. This 'washing industry' now rivals the glass industry as borax's largest user in this area.

The 1940s had seen some fundamental changes in methods of production of end-products at Boron. The relatively high cost of processing kernite use by calcination to make concentrated 'Rasorite' (CR) and its treatment in 'digesters' (autoclaves) under pressure to make refined borax at Wilmington, compared with the cost of processing tincal, put increasing emphasis on the mining of tincal and rejection of kernite. Before the end of the Second World War tincal had become the mined ore which was supplied to the processing plants at both Wilmington and Boron.

A magnetic separation process for recovering shale and iron impurities from tincal had been developed at Boron in 1933. However, until the Suckow mine was leased in 1936 there was no adequate supply of tincal, and in the absence of any cost system relating to individual processes, and with the reluctance to spend capital, the calcination of kernite continued well beyond the time when it would have been preferable to switch to tincal ore. Some additional magnetic separators were installed in 1937, but calcination of kernite only ceased in about 1943 and there were substantial additions to the magnetic separation plant in 1946 and 1951. In the post-war period about half of the mined ore (tincal) went to the Wilmington refinery and the other half to the Boron mill for conversion to 'Rasorite' products for shipment overseas. Soon after the War ended plant was installed at Wilmington to produce anhydrous borax.

American Potash and Chemical Corporation were tied to producing potash, soda-ash and sodium sulphate in a fixed ratio to match any increase in boron

Clarence Kaiser, the eyes and ears for some twenty-five years of Borax Consolidated's activities in North America

John Suckow, sometime 'partner' and always tough competitor of Borax Consolidated in the Kramer area

21

The end of underground mining at Boron and the beginning of U.S. Borax

Underground mining methods at Boron were similar to those used at other mines. A shaft was sunk into or close by the ore, and from it extending through the ore body at different levels were driven what the layman calls tunnels, which mining men call drifts and cross cuts, winzes and stopes, depending on their character. The two main mining methods used at Boron were the room and pillar and the shrinkage stope methods. By the early 1950s continuous mechanical miners had been introduced in the Jenifer mine to cut the ore at the face, instead of drilling and blasting, and mechanical moving belts had largely replaced the ore trains.

The Second World War brought about significant developments in the design and capacity of earth-moving equipment and vehicles. The economics of open-pit mining were revolutionized by these changes, and the Boron mine, with ore at a depth of a few hundred feet, had an unusually good potential for development by this method. However, a decision to change from underground mining to an open pit involved substantial capital expenditure, and in the case of the Boron mine it also gave an opportunity to redesign completely the refining process with a new plant alongside the mine instead of shipping raw material to Wilmington, where refined borax had hitherto been made.

In spite of these economic advantages Borax Consolidated, in the post-war years, was not yet in a financial position to meet the heavy capital costs involved. In April 1947 Fred Lesser wrote: 'We are not discarding the Open Pit method; we are only postponing it.' He added that the postponement would enable them to see the probable future trend of the demand for borax products, and this question was still an open one as late as February 1951, even during the Korean War boom. The serious drop in demand after the Korean War lasted from early 1952 until the autumn of 1953, but when demand then started showing every sign of being firmly on the upgrade again plans for an open pit and concentration of product at Boron were developed rapidly over the following two years.

Meanwhile the US Government had developed an unexpected interest in borates. J. M. Gerstley remembers that some time before Jenifer's death in 1950 an inquiry about availability of borates was received from the Office of the Ordnance at Washington, which indicated a military programme which was

secret', and clearly a matter of major importance. Pacific Coast Borax co-operated with the US Government by providing experienced staff to assist in a basic study of the availability of borate mineral resources, particularly in the North and South American continents, which was conducted by the US Geological Survey.

Following the Second World War the development of improved-performance aircraft fuels became an important military objective. The high energy in boron compounds was well known, and in 1947 the British had made an evaluation of their use as ramjet fuels, but decided to take the matter no further. However, in 1952 the US Defense Department initiated Project ZIP, aimed at developing a superior fuel to the hydrocarbon jet fuel JP-4, and as it transpired later ZIP was focused on the use of these compounds of boron and hydrogen called boron hydrides, or boranes. However, for several years little was known about the project, as quite properly it remained a classified top-secret matter. The programme acted as something of a spur to the borax industry, and in U.S. Borax it accelerated the decision on open-pit mining, which permitted a much higher recovery of ore, and therefore greatly increased the ore reserves available for production. Also, many companies increased their research effort to develop new boron chemicals, and not only those who were the prime producers of the raw material borax.

Plans for the open pit and new refinery at Boron were completed by the beginning of 1954. The capital cost of the project of about $20 million was approved by the board of Borax Consolidated, Limited, subject to satisfactory financing plans being developed. This was by far the largest single project undertaken by the company since its formation in 1899. The creation of the open pit involved moving about 10 million tons of earth overburden over a period of two years at a cost of $2 million; however, the financial advantages arising from higher recoveries of ore and lower mining costs, together with a refinery alongside the mine, were ample to support the project.

The raw materials for the new refinery would be crushed and ground in the open-pit mine, and tincal containing about 24 to 25 per cent of the essential boric oxide (B_2O_3) would be converted to three main products: 'Borax 10 mol', 'Borax 5 mol', and 'Rasorite 46'. 'Mol' denotes the proportion of water (or number of molecules of water in crystallization), and Rasorite 46 was a crude product, similar to the Rasorite SCD which had been made at Boron by the magnetic separation process, and which now contained about 46 per cent of B_2O_3. New furnaces for the manufacture of anhydrous borax were also included in the plan.

Borax Consolidated's operations in the United States in the post-war period had enabled about $6 million to be conserved from internally generated funds which was now available to finance the new project, but the international dollar situation prevented the balance of the capital being raised in Britain, and this needed to be done in the United States.

Discussions with the Farmers and Merchants Bank in Los Angeles and the Chase in New York were well advanced in the autumn of 1954, when an unexpected development postponed the financial negotiations and caused some delay of the project, and also had a far-reaching effect on the whole structure and future of Borax Consolidated. A syndicate led by Coleman Morton, a financier in Los Angeles, and the New York finance house of Model, Roland and Stone made a bid in London to acquire the shares of Borax Consolidated, Limited. This was what would be described today as an unwelcome approach, and it started with an unusual event. When a list of those forming the American syndicate was obtained

100 YEARS OF U.S. BORAX

CHAPTER V. WITHIN OUR MEMORY

NEWCOMERS TO SOUTHERN CALIFORNIA may find it hard to believe that there was a time when one of the region's great attractions was its clean, dry, healthful air. Large numbers of sufferers from lung afflictions came to Southern California, particularly to the deserts, for cure or relief. Fifty to 40 years ago the population of the Antelope Valley consisted substantially of such "lungers", and some Southern California sanitariums specializing in respiratory ailments gained world-wide fame.

Dr. John K. Suckow of Los Angeles had this in mind in 1913 when he filed a homestead claim on a section of land in the Mojave Desert near Kramer, in eastern Kern County. A specialist in lung ailments and rheumatism, he planned to build a sanitarium on the desert site—never suspecting that he was providing the springboard for another great leap forward by the borax industry.

He engaged Les M. Griffin to drill a water well on the site, and Mr. Griffin's crew struck colemanite ore. The find was reported to Clarence Rasor, Chief Engineer of the Tonopah & Tidewater Railroad, who reported it to John Ryan, General Manager of the Pacific Coast Borax Company at Ryan. The Company bought Dr. Suckow's claim and re-filed on the land as a mining location.

The War and the Canal

The following year, 1914, two world events took place that deeply affected the Company. In April the Panama Canal was opened (President Woodrow Wilson opened it by pressing a button in his White House office). In August World War I broke out. The Canal cut 8,000 miles from the sea route between Los Angeles and New York, making it more economical to refine products in the West near the mines and ship finished product East, than to ship raw materials East and do the refining near the markets. The War caused a postponement of all major projects; it also boomed world demand for borates from California. Much of the world's borate supplies at that time came from South America, and the German naval blockade virtually cut off that source. Conversely, U.S. production of borates increased from 67,004 tons valued at $1,663,521 in 1915 to 102,705 tons and $2,359,295 in 1916, and 109,944 tons and $2,561,958 in 1917.

In 1916, during the war, the Company undertook a joint project with Solvay Process Co. of Syracuse, N.Y., to extract potash and borax from the brines of Searles Lake, to which the Company held patent land rights. The war had cut off supplies of potash from Germany, and a domestic source of that important fertilizer material was a national need. After considerable research at the Alameda refinery using Searles Lake water shipped to Alameda in tank cars, the process was pronounced feasible and a plant was built at Borosolvay on Searles Lake. Production began in the Spring of 1917. By 1921, with the war ended and a postwar recession on, demand for potash declined and the Borosolvay project was discontinued. Borax and potash are still produced at Searles Lake by American Potash & Chemical Company, now a subsidiary of Kerr-McGee.

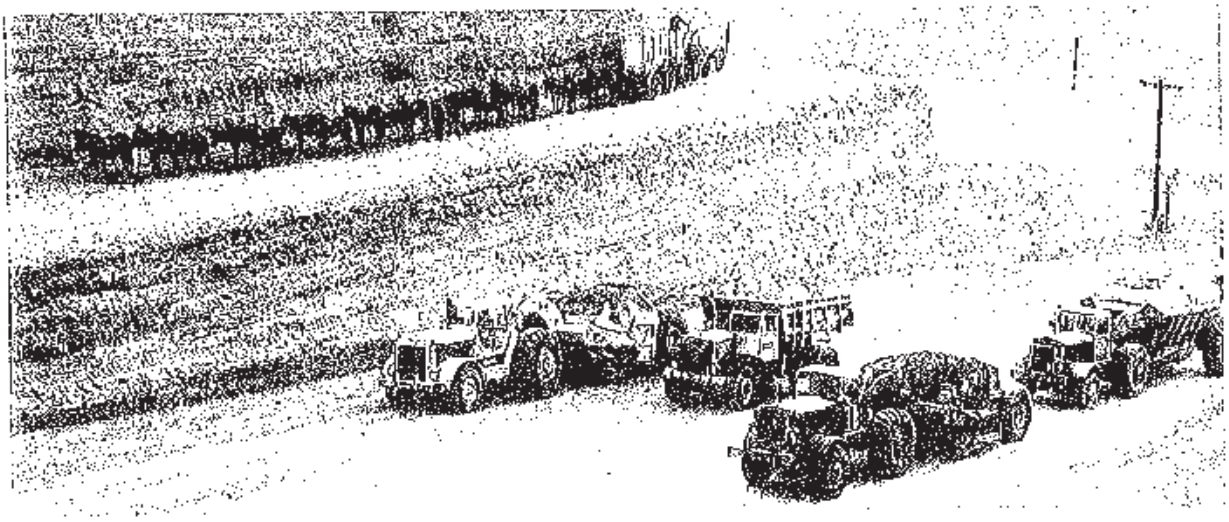
When the war ended in 1918 the Company went ahead with plans to build a refinery in a Southern California port, phasing out the plants at Alameda and Bayonne.

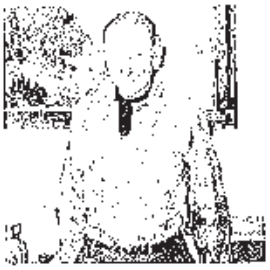
President Richard C. Baker asked Frank Jenifer to find a site for the refinery, although Mr. Jenifer was not then officially a Company employee; he was Assistant General Manager of the Tonopah & Tidewater Railroad. After careful study Mr. Jenifer chose Mormon Island, Wilmington, where Harry Chandler, famous publisher of the Los Angeles *Times*, operated a war-time shipyard. The property was acquired in April 1923. (It is the only privately owned waterfront property in Los Angeles Harbor; the rest is held by the City of Los Angeles).

Mr. Baker and Mr. Jenifer favored reinforced concrete construction for the new building. The Company had pioneered reinforced concrete at Alameda and Bayonne, and it had worked well in both cases. George Connell and Fred Beik of the Alameda refinery staff (with cooperation from Nix Knight, then in charge of the Company's part of the Borosolvay operations, and Alfred Newman, Superintendent at Bayonne) designed a building to accommodate the latest improvements in borax production. Tom Cramer, then Superintendent at Alameda, was placed in charge of the project. One of Southern California's most successful architects and engineers, Albert C. Martin, designer of the new Los Angeles City Hall, was commissioned to draw the plans and supervise construction.

The Wilmington Plan

The final design called for a building 307 ft. long by 252 ft. wide, three floors high, with ceilings 18 ft. high on the first floor and 16 ft. high on the others. The

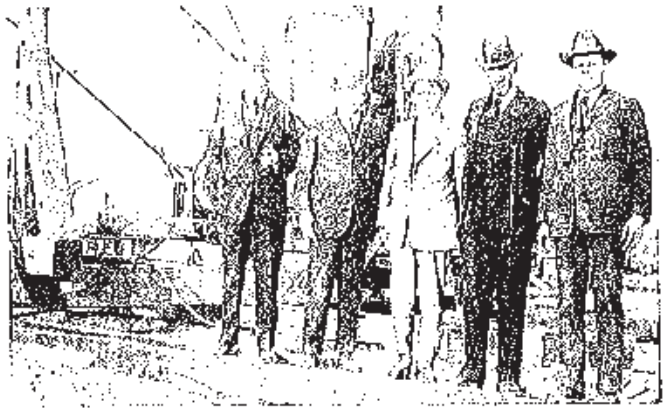


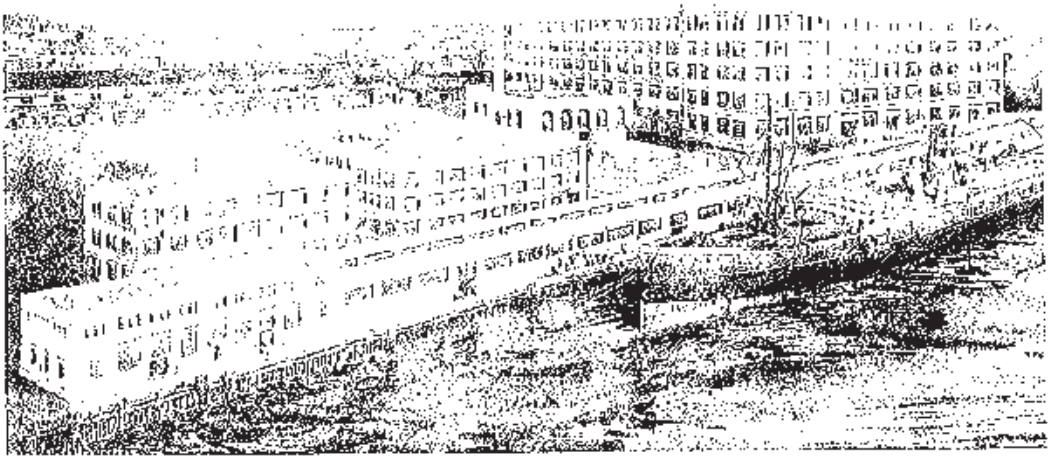


Les M. Griffin

John K. Stuchow

Photos courtesy
Mrs. Zella Griffin.





(Top) At the dedication of the open pit, the twenty-mule team and the modern scrapers, ore truck and water truck draw the contrast between old and new. Above, right, a distinguished group at the start of construction at Wilmington. From left, Richard C. Baker, Managing Director, BCL; Chris B. Zabriskie, Vice President and General Manager, PCB; Clarence Raser, Field Engineer, PCB; Lord Chichester, Chairman, BCL; and Tom Cramer, Refinery Superintendent. Below, architect's sketch of the Wilmington plant. Neither the wharf office (left) nor the wharf warehouse were built exactly as drawn; the two buildings in the left middle ground were never built.

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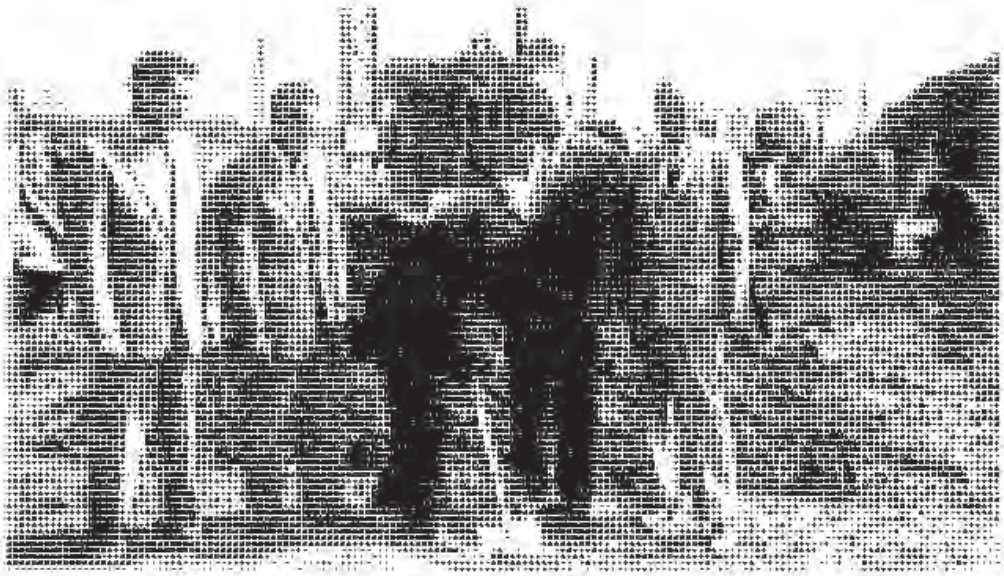


Ground for the Anaheim laboratory was broken September 19, 1956 with an appropriate ceremony witnessed by (from left) Dr. Howard Steinberg, then Manager of Organic Research, now Vice President, Technical; James McWaters, Security First National (now Security Pacific) National Bank; George A. Connell, then Vice President, Research, now retired; Charles A. Pearson, then Mayor of Anaheim; and the late Harry Cower, then Manager of the Land Department.

roof was to have the bearing strength of a floor so that equipment could be mounted on it, and the plans allowed for two additional floors and lateral expansion on both sides.

The building was begun in 1923. In April 1924 piles were driven for the 800-foot-long dock. By late 1924 usable equipment from Alameda had been moved down, Wilmington was in operation and Alameda was closed. The first shipment from Wilmington—colemanite for New York—was loaded on the SS *Santa Paula* November 1, 1924.

The Bayonne refinery was more gradually phased out, closing in 1928. The Death Valley Junction concentrating plant was closed in 1926.

The new Wilmington plant was a great boost for the new Los Angeles Harbor, then just beginning to grow. Mr. Cramer recalls that on a trip to Wilmington from Alameda, he got off the train at Saugus to learn the results of the election of a U.S. Senator from California, but the Los Angeles newspaper he bought headlined the news that Pacific Coast Borax Company was building a new plant on Los Angeles Harbor. The election got second-place position.

Wilmington produced borax, Borax Soap Chips, BORAXO®, bar soap and borax "glass", that is, anhydrous borax fused in a furnace. At first the plant operated on colemanite dust from the Death Valley Junction calcining plant, but within two years colemanite was replaced by kernite, a new ore from the new mines at Kramer (Boron), and still later by tincal.

Kernite

During the war, only exploratory drilling was done at Kramer, but in 1925 samples of tincal (sodium borate) were brought up from 380 feet. This aroused tremendous excitement in Company executives; for tincal is pure sodium borate or borax, requiring comparatively simple processing, whereas colemanite (calcium borate) requires additional and costly processing to eliminate the calcium and substitute sodium in the formula. If sizable tincal deposits were found, an entirely new and more profitable field would be opened for the Company. Clarence Raser, in charge of the Kramer tests, decided to sink a shaft, at very low cost and with the greatest secrecy, to keep word of the discovery from leaking out.

The shaft was sunk by a crew of four under Roy Osborne, who had joined the Company years before, at Lang. Mr. Osborne was asked to plan the shaft, headframe and equipment, but the project was such a great secret that even he wasn't told where the shaft was to be sunk until sinking was about to begin. As the shaft went

Dedication of Death Valley National Park
Remarks of Preston Chiaro, Vice President - Boron Operations
Friday, November 10, 1995

Today U.S. Borax is pleased and very proud to join in this dedication of Death Valley as a National Park. U.S. Borax shares a rich heritage with Death Valley and with the National Park Service. It is a heritage of Industry, of Promotion, and of Conservation. Industry, because at places like Harmony, The Lila C. and Ryan men worked to provide a growing industrial nation with a necessary raw material - borax. Promotion, because it was the need for advertising that made Death Valley and borax household words and brought thousands here to visit. And Conservation, for the very beginnings of both the National Park Service and U.S. Borax have there roots here in Death Valley.

It began in 1883 when William Coleman commissioned great wagons to be built - the largest wagons of their day. He assembled teams and teamsters who could meet the challenge of hauling borax ore 165 hard, hot, and dry miles from the mill in Harmony to the railroad at Mojave. Men like Ed Stiles, Johnny O'Keefe and Johnny Mills skillfully drove the teams. It was their job. The giant wagons and twenty mule teams were nothing more than the American West at work. These men were not famous. Their work was not glamorous. It was simply industry doing what it had to do to get the job done.

But a man named Stephen Mather saw something else in the wagons. He was a newspaperman hired by Francis "Borax" Smith in 1890 to help promote the sale of borax. Mather wrote to Smith, "As a suggestion, how would the brand name "Mule Team" do...? Smith didn't like the idea at first, but eventually agreed to "Twenty Mule Team." With the brand name, an American legend was born. Since then the Twenty Mule Team has been synonymous with Death Valley. From the 1890s through the 1920s the teams toured the country. The painted message on the wagons read "Borax from Death Valley." In 1930 Pacific Coast Borax started a radio program and called it "Death Valley Days." Mine Superintendent Harry Gower and writer Ruth Woodman combed the mountains and canyons looking for "old-timers" who could tell true stories of the region. In the 1950s those stories made their way from radio to television. In the minds and imagination of America, Death Valley was synonymous with a familiar bugle call, the twenty mule team, and borax.

This promotion of Death Valley led to something extraordinary - tourism. People wanted to see this place of legend. A place where pioneers has struggled and died. A place where prospectors found and, more often, lost fortunes in gold and silver. A place where a man named Scotty had a secret gold mine...or did he? And a place where those giant wagons rolled majestically across a seemingly endless desert. They came to see a place that had inspired writers and photographers. They came because the very name filled them with fear and awe and stirred the imagination. They came to see places with names like the Devil's Golf Course, the Devil's Cornfield, the Funeral Mountains, and Dante's View. And with so many sightseers coming to the Valley, they needed a place to stay.

In 1927, Pacific Coast Borax moved the mining operations out of Ryan. The miners' bunkhouses at Ryan were turned into guest houses. It was called the Death Valley View Hotel. But tourists could also stay at other Borax-built accommodations like the Furnace Creek Ranch or Death Valley Junction. And if they wanted to splurge a bit, the newly opened Furnace Creek Inn provided a luxurious oasis. For several years Pacific Coast Borax operated four hotels in Death Valley. And railroads, like the Tonapah and Tidewater, The Death Valley Railroad, and a Baby Gauge train, which originally were built for hauling ore, now carried tourists.

Also is 1927, a group of men visited Death Valley to consider including it in the National Park system. Among them was the first director of the National Park Service, Stephen Mather, the same Stephen Mather who 37 years earlier had originated the Twenty Mule Team promotion with Pacific Coast Borax. Also with them was Horace Albright, a local boy from Bishop, who was Mather's assistant. There were representatives from Pacific Coast Borax and the Union Pacific Railroad. All of them agreed Death Valley was worthy of park status. But Mather was afraid his old company connections would look like favoritism. Death Valley had to wait until 1933 when it became a national monument through the efforts of President Herbert Hoover and Preaident Hoover's new park service director, Horace Albright. After completing his term with the Park Service, Horace Albright went to work with a U.S. Borax subsidiary in Carlsbad, New Mexico.

We at U.S. Borax, the successor to Pacific Coast Borax, share a unique bond with this valley and with the Park Service. Our roots run long and deep. From our mining and industrial operations, to our promotional and tourism campaigns, to our efforts to preserve and protect its scenic wonders. The land on which the National Park Service Visitors' Center sits was donated by the Borax company, as was the Harmony site and, of course, spectacular Zabriske Point, named for one of the presidents of Pacific Coast Borax.

So it is with great pride that U.S. Borax, today's largest supplier of borates worldwide, joins with the National Park Service, the United States Congress, the President of the United States, and all Americans in dedicating this special valley, this place of legends, as one of our newest and largest National Parks. Though the American landscape may change, just as surely as industry has moved from great wagons to giant trucks, we hope and trust that Death Valley will remain forever as a land of spectacular beauty and extraordinary history.

Thank you again on behalf of U.S. Borax for the opportunity to be a part of this historic dedication.

A FAMOUS SYMBOL BECAME...

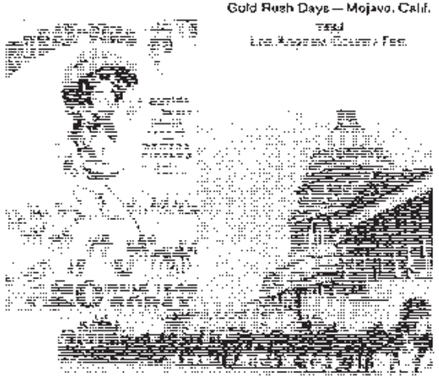
...ONE OF THE WORLD'S BEST KNOWN AND MOST RECOGNIZABLE TRADEMARKS

In 1896, the 20 MULE TEAM symbol became the trademark of the Pacific Coast Borax Company (predecessor to U.S. Borax) and the many industrial and household products of the company. Through vigorous promotion and advertising the "BIG-TEAM" captured the imagination of the public.

Long after their practical usefulness had ended, the teams were destined to make many promotional and ceremonial appearances on behalf of the Company.

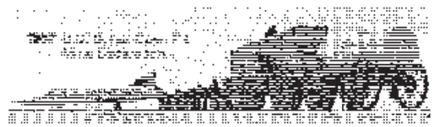
PROMOTIONAL APPEARANCES

1904-1906 2 year U.S. Tour—St. Louis World's Fair—Philadelphia, Chicago and New York.
1916 U.S. Tour - Woodrow Wilson Inauguration, Washington, D.C.
1917 Pasadena Rose Parade - First Place Commercial Float.
1936 La Fiesta de Los Angeles
1937 San Francisco Bay Bridge Dedication; Opening of the Death Valley-Lone Pine Highway
1940 40-city U.S. Tour in conjunction with MGM film "Twenty Mule Team" starring Wallace Beery
1949 Centennial of California Admission to the Union, Los Angeles.
1950 Las Vegas, Nevada, Old Timer Parade, Hollywood Bowl Appearances
1957 Boron, California, U.S. Borax Open Pit Mine Dedication.
1958 Gold Rush Days—Mojave, Calif.
1959 Los Angeles County Fair.

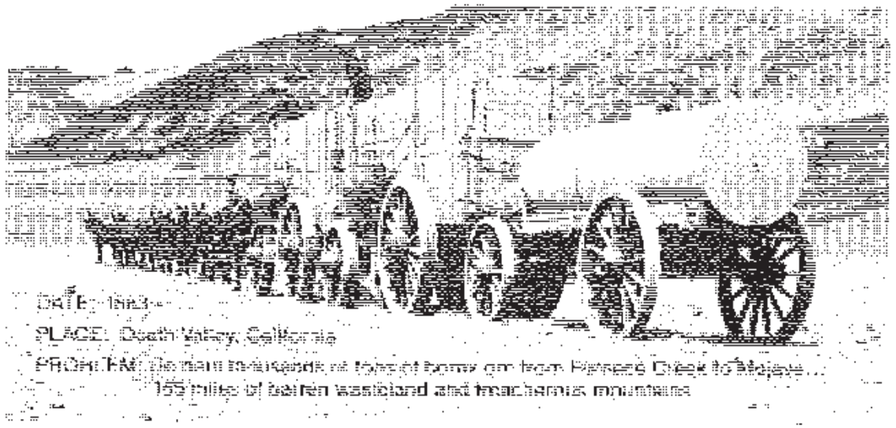


1916 Woodrow Wilson Inauguration.

1940 U.S. Promotional Tour of M.G.M. movie "Twenty Mule Team" starring Wallace Beery



Early history of the mule team is probably better known than that of any corporate symbol in North America, and possibly in the world. For many years, millions and millions of people have heard the clarion call of the popular television program, "Death Valley Days" and have seen the Twenty Mule Team... a living corporate signature.



and the . . . TWENTY MULE TEAM ROLLED

The saga of the twenty mule teams began with the discovery of borax in California in 1881. This mineral, used for thousands of years in ceramics and in the working of gold, previously had come from Tibet and Italy. Its discovery in California's Death Valley resulted in a rapid increase in the use of borax in the United States in various industrial processes and as a household cleanser.

With a growing demand for borax and an apparently unlimited reserve of crude ore, a practical and economical method had to be devised for freighting borax ore from the "mines" in Death Valley's vast dry lake beds to the nearest railhead at Mojave. It was the hottest, driest, roughest most desolate 165 miles imaginable.

William T. Coleman, owner of the Old Harmony Borax Works near what is now Furnace Creek Ranch, took on this Herculean task. The borax transportation system had to be built around the capabilities and limitations of mules, horses, men and wagons.

William T. Coleman

He had seen 8 and 12 mules hauling heavy loads, and had observed that the payload increased disproportionately with each added pair of animals. Experimenting, Coleman found that twenty mules could move 36 tons with relative ease. The mules were hitched to single-trees and double-trees hooked into an 80-foot chain which ran the length of the team and fastened directly onto the lead wagon. Ed Stiles, the most expert "long-line skinner" of the time, was hired to drive the first twenty mule team between Harmony and Mojave.

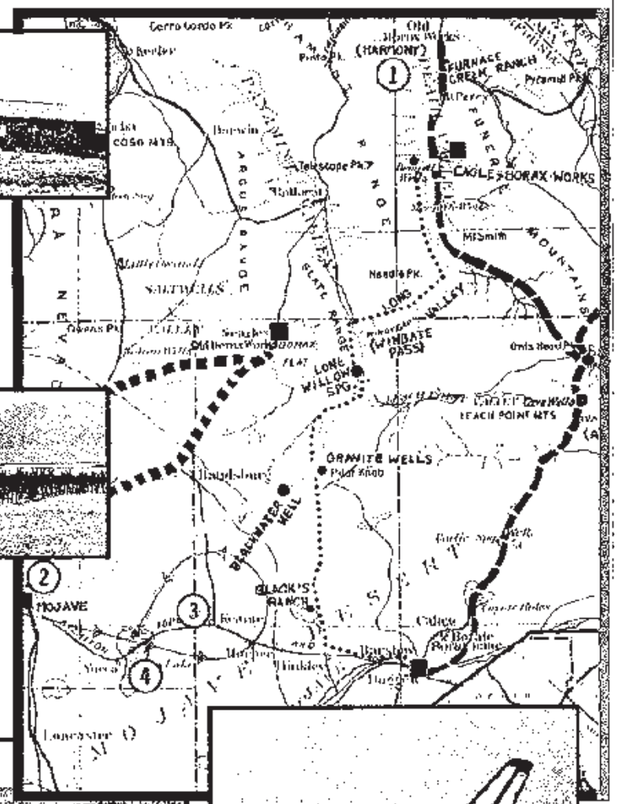
The route finally decided on, from Death Valley to Mojave, covered 165 miles of raw, blistering temperatures (often running to 130°F in summer), desolate mountains and desert, and was dictated by the topography of the country and availability of water. Work crews were sent out to hack, blast and hammer a roadbed of sorts over this rugged wasteland. The mules and wheels of the wagons were counted on to do the rest.

There arose the problem of survival, and that meant water and food. It was about 26 miles from Harmony to the first water at Bennett's Wells, five miles to Mesquite Wells, 53 miles to Lone Willow, 20 to Granite Wells, an easy six miles to Blackwater, then a 50-mile waterless stretch to Mojave.

But a loaded team could travel an average of only 17 miles

(1) A mule team is loaded with 24 tons of borax ore at Harmony Borax Works for the torturous 10 day, 165 mile trek to the Mojave Railhead. (2) (designated by heavy solid line) where it is unloaded into rail cars and then filled with feed and supplies to be dropped off on the return trip at various trail stations and for the mine at Harmony.

(3) Today's U.S. Borax open pit mine that produces over 60% of the free world's supply of borax is located just a few miles from the original twenty mule team trail. It would take over 250 mule teams to transport the borax ore processed in this modern facility in one day.

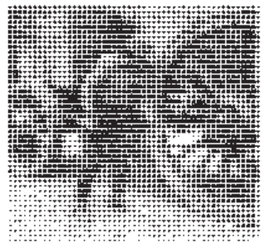

Old Borax Works (HARMONY)
FURNACE CREEK RANCH
EAGLE BORAX WORKS
Telescope Pk.
Ballarat
Panamint Valley
Saltdale
Searles Lake
Old Borax Works
Owls Head Mts.
LONE WILLOW SPG.
(WINGATE PASS)
BEACH POINT MTS
GRANITE WELLS
Pilot Knob
BLACKWATER WELL
BLACK'S RANCH
MOJAVE
Tropico
Rosamond
Lancaster
Palmdale
Barstow
Victorville
Hesperia
Apple Valley
Victor Valley
Adelanto
Oro Grande
Victor
Helendale
Lucerne Valley
Yucca Valley
Joshua Tree
Twentynine Palms
Morongo Valley
Banning
Beaumont
Calimesa
Yucaipa
Redlands
Loma Linda
Colton
Rialto
San Bernardino
Highland
Mentone
Crafton
Redlands
Grand Terrace
Colton
Rialto
Fontana
Ontario
Upland
Claremont
Pomona
Chino
Chino Hills
Diamond Bar
Walnut
Rowland Heights
La Habra Heights
Whittier
Hacienda Heights
La Puente
West Covina
Baldwin Park
Irwindale
Azusa
Glendora
San Dimas
La Verne
Pomona
Chino
Ontario
Rancho Cucamonga
Upland
Claremont
Montclair
Pomona

a day, so the gaps between natural water supplies had to be filled by caches of water transported in 500-gallon iron tanks on wheels (wooden tanks would have dried up and fallen apart when empty). Water, hay and grain were spotted a day's journey apart. The natural springs, too, had to be improved by digging out and cleaning; in some places where springs were at a distance from the road, water was piped down. As for the men's food (mostly bacon and beans) it was carried along on the wagons.

THOSE INCREDIBLE WAGONS

Perhaps the most difficult problem was designing and building wagons capable of hauling heavy loads of borax over the rough desert and mountain trails, a breakdown in the wrong place could be a major disaster for both men and animals.

The wagons which were built in Mojave for $800 each had rear wheels seven feet high and front wheels five feet high, each with steel tires eight inches wide and one inch thick. The hubs were eighteen inches in diameter and twenty-two inches in length. The spokes, of split oak, measured 5½ inches wide at the hub. The axle-trees were made of solid steel bars, 3½ inches square. The wagon beds were sixteen feet long, four feet wide and six feet deep. Empty, each wagon weighed 7800 pounds. Two loaded wagons plus the water tank (which held 1,200 gallons) made a total load of 73,200 pounds or 36¼ tons.

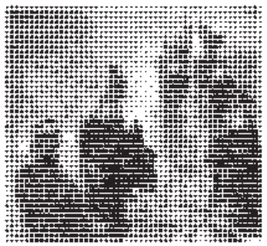


From 1883 to 1889, the twenty mule teams hauled borax out of Death Valley, over the steep Panamint Mountains and across the desert to Mojave, traveling 15 to 16 miles a day, a twenty-day round trip. During those years the twenty mule teams carried over 20 million pounds of borax out of the Valley without a single breakdown—a considerable tribute to the ingenuity of the designers and builders, and to the stamina of the teamsters, swampers and animals.

Today, a century later, one set of wagons is still in running condition and can be seen at the visitors viewing point on the edge of the U.S. Borax open pit mine at Boron, California. Other sets, in Death Valley, are displayed at Furnace Creek Ranch at the Old Harmony Borax Works.

Each twenty mule team crew consisted of two men, a driver (the muleskinner) and a swamper.

The muleskinner drove his team from the "box" of the first wagon, or, in rough going, from the back of the "nigh wheeler," or left-hand animal nearest the wheel. His only means of controlling the teams were his voice and the "jerkline," a long rope running through a collar ring of each left-hand mule up to the leaders. A steady pull turned the team to the left, a series of jerks sent it to the right. A sight which never failed to win admiration was that of the "big team" taking a sharp turn··see details of this maneuver on the following page.



The driver, besides driving, which of itself demanded great skill and strength, had to be a practical veterinarian, for he was responsible for curing any mule that got sick on the road; and a wheel-wright to make minor repairs to the wagons. The swamper helped apply the brakes on downgrades, helped stimulate the mules on upgrades, gathered fuel, cooked, washed the dishes, unharnessed the mules at the end of each day's run, and did other chores. Drivers earned $100 to $120 a month, swampers about $75. They were usually silent, short-tempered men; the loneliness, monotony and hardships of their work made them no easier to get along with. There are tales of quarrels between swamper and driver, some ending in murder and lynching.

It was a hazardous life. Added to the heat, desolation, rattlesnakes, and general chance of injury, the great wagons themselves were a menace. Brakes gave way at times on steep grades. Then the 36-ton juggernauts would thunder down the incline hard on the heels of the frantic mules, the 'skinner yelling and hoorawing at his team in a desperate effort to keep them outrunning the wagons. Camp was made on the desert each night. The one-way trip, from mine to railroad point, took about ten days.

THE MOST FAMOUS OF THE "REAL" MULESKINNERS...

"Borax Bill"

BILL PARKINSON (c. 1883-1889)

MULE TEAM SKINNERS

Beadslee, Lph — (Circa 1880-90)
Bennett, Charles — (c. 1883)
Original 20 Mule Team Driver
Cartwright, Charles ·· (c. 1880-90)
Delamater, J. A. (c. 1939)
Eagles, Curtis — (c. 1940) U.S. Tour -
Wallace Beery Movie
Elwood, Tom (c. 1880-90)
Ewell, Tex — (c. 1919) U.S. Tour
Galbraith, W. L.— (c. 1914)
Hawn, J. A.— (c. 1882-89)
Ishamel, George (c. 1936)
San Francisco Bridge Dedication
Kibbitts, Bill (c. 1904) U.S. Tour ··
World's Fair, St. Louis
Menzies, Harold (c. 1916) U.S. Tour
Moon, Ira — (c. 1919) U.S. Tour
Morgan, Bruce — (1957) U.S. Borax
Mine Dedication
Morris, Emory — (c. 1878)
Original 20 Mule Team Driver
Nelson, Chs — (c. 1880-90)
O'Keefe, Johnnie — (1936) San Francisco Bridge Dedication
Parkinson, Bill ·· (c. 1883-89) Original 20 Mule Team Driver
Pitcher, Ed (c. 1880-90)
Pyle, John ·· (c. 1880-90)
Pyle, Red — (c. 1880-90)
Riggs, Jeff — (c. 1880-90)
Rogers, Manuel ·· (c. 1880-90)
Shadley, W. D (c. 1880-90)
Squires, James F. — (c. 1883-89)
Stiles, Ed — (c. 1883) Original 20 Mule Team Driver
Seymour, Alf — (c. 1880-90)
Small, Jim · (1919) U.S. Tour
Smith, Walter (c. 1880-90)
Spainhover, Russell · (1949) California Centennial
Thomas, Miles — (c. 1880-90)
Tilton, Frank — (c. 1883-89) Original 20 Mule Team Driver
White, Charles — (c. 1880's)
Wilson, Wm. Frank (1916) U.S. Tour — Woodrow Wilson Inauguration
Yount, Sam — (c. 1880-90)

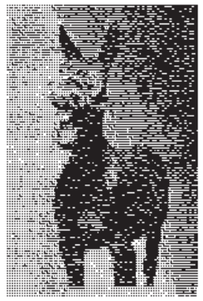
THE MOST FAMOUS OF THE "MAKE-BELIEVE" SKINNERS

Wallace Beery

In 1940, Metro-Goldwyn-Mayer produced "Twenty Mule Team," a popular movie starring Wallace Beery as a muleskinner with Leo Carrillo and Marjorie Rambeau. A 40 city tie-in promotion featured the live twenty mule team in conjunction with the release of the movie in each metropolitan area.

MAN'S FAITHFUL BEAST OF BURDEN...

The Mighty Mule



Staunch, sturdy, strong and durable...this intelligent and hardy animal of work played a vital role in the development and building of a greater America.

SWINGING THE TEAM AROUND CURVES

It was relatively easy to drive the mule team along a straight road. However, swinging a curve in a mountain pass or over rough terrain presented a real test of driver and team.

Sections of the mule team were chosen and trained to perform special jobs. As the team started around a sharp curve, the chain tended to be pulled into a straight line between the lead mules and the wagon. Therefore, in order to keep the chain going *around* the curve, some of the span of mules were ordered to leap the chain and pull at an angle away from the curve. (See drawing.) These mules, the "pointers," the "sixes" and the "eights" would step along sideways until the corner had been turned.

Swinging a curve successfully was a real demonstration of the training and intelligence of the mules as well as the skill of the driver.

THE LEADERS (2 MULES)

These mules were chosen for intelligence because they had to lead the others.

THE SWING TEAMS (10 MULES)

These mules were workers and did not require as much special training. However, they had to know their names and had to respond to commands to "pull" and "stop."

THE "POINTERS," "SIXES" AND "EIGHTS" (6 MULES)

These mules were specially trained to leap over the chain when the mule train turned a corner. They had to respond to commands by name. In turning a corner, their training prevented the wagon from going over a cliff or into a bank.

THE WHEELERS (2 MULES OR 2 HORSES)

These were usually the largest and strongest of the animals. The driver rode the "nigh wheeler" (left-hand mule) and from this position operated the brake on the front wagon.

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Attachment E

State of California - The Resources Agency Primary#_____
DEPARTMENT OF PARKS AND RECREATION HRI#_____
PRIMARY RECORD Trinomial_____
NRHP Status Code_____
Other Listings _____
Review Code Reviewer Date _____

Page 1 **of** 14 ***Resource Name or #:** (Assigned by recorder) U.S. Borax Wilmington Facility

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Los Angeles **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Torrance **Date** 1981 **T** 5S; **R** 13W; N/A ¼ **of** N/A ¼ **of Sec 8; B.M.** SB
c. Address 300 Falcon Street City Los Angeles Zip 90744
d. UTM: (Give more than one for large and/or linear resources) Zone 11, 382667 mE/ 3735965 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
APN: 7440-019-001. Located on the west side of Falcon Street at Berths 165-166 of the Port of Los Angeles.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
The U.S. Borax Wilmington Facility at 300 Falcon Street encompasses approximately 7.6 acres within the industrial Port of Los Angeles, California. The property is bordered to the north by Berth 164, occupied by Valero; to the east by Berths 174 to 181, occupied by Pasha; to the south by Berths 167 to 169, occupied by Shell; and to the west by the Slip No. 1. The subject property contains a grouping of buildings and structures used in the refining and shipping of Borax. The facility is owned and operated by Rio Tinto.
SEE CONTINUATION SHEET

P3b. Resource Attributes: (List attributes and codes) Industrial Buildings – HP8

***P4. Resources Present:** ☒Building ☒Structure ☐Object ☐Site ☐District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View to the West, January 2013

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both
1924, pre-1952, 1963, 1979 (U.S. Borax, *100 Years of U.S. Borax, 1872-1972* [Los Angeles, CA: U.S. Borax, 1972], 32-34.)

***P7. Owner and Address:**
Private

***P8. Recorded by:** (Name, affiliation, and address)
URS Corporation
4225 Executive Square, Suite 1600
San Diego, CA, 92108-4314

***P9. Date Recorded**: January 2013

***P10. Survey Type:** (Describe)
Reconnaissance Survey

***P11. Report Citation**:
(Cite survey report and other sources, or enter "none.") Memorandum of Record for the Historical Evaluation of the U.S. Borax Wilmington Facility, 2013
***Attachments:** ☐NONE ☐Location Map ☒Continuation Sheet ☒Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐Other (List):

DPR 523A (1/95) ***Required information**

State of California – The Resources Agency Primary #_____
DEPARTMENT OF PARKS AND RECREATION HRI #_____

BUILDING, STRUCTURE, AND OBJECT RECORD

Page 2 **of** 14 ***NRHP Status Code** 6Z

***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility

B1. Historic Name: Pacific Coast Borax Company – Wilmington Facility

B2. Common Name: U.S. Borax Wilmington Facility

B3. Original Use: Borax Refinery

B4. Present Use: Borax Refinery

***B5. Architectural Style:** Utilitarian Industrial

***B6. Construction History:** (Construction date, alterations, and date of alterations)

The Refinery Building, designed by Albert C. Martin, was built in 1923 and 1924. The Connecting Shed was built by 1952, generally following Martin's 1923 original design for an addition at that location. The original portion of the Warehouse was built in 1924, with major additions to the north and south by 1952 that generally followed Martin's 1923 original design for the expansion of the Warehouse. The Wharf Office, designed by Albert C. Martin, was built in 1924. The Power Plant, designed by Albert C. Martin, was built in 1923 and 1924. The original portion of the Bulk Storage Silos structure was built in 1962 and 1963, with a later addition in 1979. Presently, many of the facility's large multi-pane windows have been in-filled. Non-historic period conduit, ventilation, and industrial equipment have been added to the facility. Other alterations include the replacement of the original board-formed wall texture with a smooth stucco exterior wall treatment as well as the modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment.

***B7. Moved?** X **No** ____ **Yes** ____ **Unknown** **Date:** _____ **Original Location:** _____

***B8. Related Features:**

The subject property contains a dock along the west boundary that is adjacent to Slip No. 1. Miscellaneous industrial equipment such as tanks, piping, sheds, and a railroad spur are also located within the boundaries of the subject property, which is surrounded by a chain-link fence.

B9a. Architect: Albert C. Martin (1924) b. Builder: Norman B. Patten, building superintendent (1924). G.H. Schulte, structural engineer (1924), Davidson Construction, general contractor (1924), Fred Beik, piping and equipment plans (1924)

***B10. Significance: Theme** N/A **Area** Los Angeles, CA
Period of Significance N/A **Property Type** Industrial Facility
Applicable Criteria N/A (Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The historical significance of the U.S. Borax – Wilmington Facility was determined by applying the procedure and criteria for Los Angeles Historic-Cultural Monument (LAHCM) and California Register of Historical Resources (CRHR) designation.

Based on site investigations and historic research, the U.S. Borax Wilmington Facility does not appear to possess the requisite significance to be eligible for designation as a LAHCM or listing on the CRHR.

SEE CONTINUATION SHEET

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

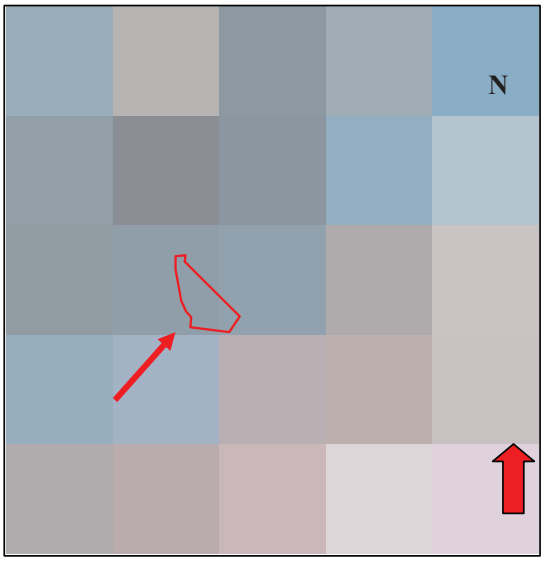
SEE CONTINUATION SHEET

B13. Remarks: None

***B14. Evaluator:** URS Corporation

***Date of Evaluation:** January 2013

(This space reserved for official comments.)



Torrance (1981) USGS Map N

DPR 523B (1/95) ***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #_____
HRI #_____
Trinomial_____

Page 3 **of** 14 ***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility

***Recorded by:** URS Corporation ***Date** January 2013 X **Continuation** __ **Update**

***P3a. (Continued)**
Architectural Description

Refinery Building

The Refinery Building, designed by Albert C. Martin, was built in 1923 and 1924 and is a Utilitarian Industrial-style refinery. It occupies the south end of the subject property and has an east-facing orientation. It is three stories with a rectangular plan. Due to changes in refining technologies since 1924, the resource has undergone extensive alterations and upgrades. The building features a flat roof covered with composition sheet. Distributed across the rooftop are large tanks, pieces of electrical equipment, and conduit visible from the pedestrian right-of-way. At either corner of each elevation, there are groupings of three simple rectangular pilasters extending from the ground level to the roofline. In many cases, the stylized rectangular capital of the pilasters has been removed and the surface of the column has been altered or removed to accommodate industrial equipment.

Fenestration on all elevations includes original, large, multi-pane metal industrial windows with hopper panels near the center of most. A number of the locations where windows once existed have been in-filled, and many of the remaining windows have been altered or retrofitted for equipment installation. The walls of the refinery building no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers the wall surface. The retexturing is most apparent over the locations of in-filled windows. None of the wall surfaces indicate evidence of historic-period signage visible in historic photographs.

The main entry, which is off-centered on the primary (east) façade, is filled with a non-original metal commercial door. The stoop for the main entry extends south passed a large non-original roll top door that is off-centered on the primary façade. This area serves as the East Dock for the Refinery Building. Both the loading dock and main entry are located beneath a corrugated metal awning. A smaller loading station with a non-original metal roll top door is located off-centered on the southern half of the primary façade. At the far south corner of the primary façade is a set of non-original industrial metal double doors beneath a similar corrugated metal awning. At the center and north corner of the primary elevation are two additional non-original single panel metal doors. Large non-historic period conduit, rigging, and other industrial equipment components are attached to the walls.

Although broader, the north elevation has similar characteristics and alterations to the primary façade. These similarities included a substantial amount of window in-fill, non-original stucco texturing on wall surfaces, and a significant level of alteration due to the installation of modern industrial equipment. Along with these changes, a non-original concrete exterior walkway has been installed along the north elevation. This addition extends across the entire elevation and includes a metal handrail separating the platform from an asphalt roadway. Additionally, the rectangular stringcourse that historically spanned the entire center of the north wall has been largely removed to allow for industrial equipment mounting. Additional no-original equipment includes a concentration of conduit and metal framing near the center of the north elevation that connects the Refinery Building with the adjacent Power Plant.

Along with the alterations to the texture and form of the elevations mentioned above, the south and west elevations have both received significant non-original structural additions. With regard to the south elevation, in order to adapt the Refinery Building to new technologies, a two-story processing structure was attached to the wall. The large-scale alteration appears to be two separate tanks supported by a base constructed of steel beams. Access ladders, conduit, and vents extend from the structure to the south elevation. Directly adjacent on the west elevation of the Refinery Building is the Connecting Shed.

Connecting Shed

The Connecting Shed was built by 1952, generally following Martin's 1923 original design for an addition at that location. It is a Utilitarian Industrial-style building. It occupies the southeast portion of the subject property and has a south-facing orientation. It is one story with an L-shaped plan. The building features four consecutive and similar width front-gable roofs covered with composite sheet. Located on the southernmost portion of the roof are electronic equipment and piping. The roof features a plain parapet that is stepped on the south and north elevations and topped with a simple cornice. Mounted on the parapet are non-original spotlights. A simple cornice wraps around the building below the parapet. A sign with a historic photo of the Borax 20-Mule Team and the words "Rio Tinto" are painted on the parapet of the primary (south) façade.

DPR 523L (1/95) ***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #_____
HRI #_____
Trinomial_____

Page 4 **of** 14 ***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility
***Recorded by:** URS Corporation ***Date** January 2013 X **Continuation** __ **Update**

***P3a. (Continued)**

Fenestration on the primary (south) façade includes a number of paired multi-pane, metal-framed, industrial windows, two bays with non-original metal roll top and swing up doors, and an industrial door. The north elevation features four evenly-spaced bays and a number of paired multi-pane, metal-framed, industrial windows. The east elevation is directly adjacent to the Refinery Building and the west elevation is directly adjacent to the Warehouse. The walls of the north and south elevations are covered with non-original corrugated metal sheeting. Large non-historic period conduit, rigging, and other industrial equipment components protrude from the wall. Non-original safety barriers, metal corner braces, and post bollards have been added near bay corners. The north elevation features a single, long awning of corrugated metal sheeting that is supported by steel truss bracing. The awning runs the length of the building connecting with the Warehouse awning and providing cover for a concrete loading dock that also continues from the Warehouse.

Warehouse

The original portion of the Warehouse was built in 1924, with major additions to the north and south by 1952 that generally followed Martin's 1923 original design for the expansion of the Warehouse. It is a Utilitarian Industrial-style warehouse. It occupies the east side of the subject property, beside Slip No. 1, and has an east-facing orientation. It is one story with a narrow rectangular plan. Due to changes in refining technologies since 1924, the Warehouse has undergone extensive alterations and upgrades, including the significant additions by 1952 on the north and south elevations that quadrupled the size of the building. The Warehouse features a side-gabled roof covered with composite sheet. A non-original rooftop structure is located on the northern end of the rooftop. The structure is supported on a steel platform and features a covered conveyor belt that extends from the Bulk Storage Silos structure, a boom that can drop down for ship loading, corrugated-metal sheeted shed-like buildings, and numerous pipes and other industrial features. Like the adjacent Connecting Shed to the southeast and the Wharf Office to the north, the Warehouse roof features a plain parapet that is stepped on the north elevation and topped with a simple cornice. Mounted on the parapet are non-original spotlights. A simple cornice wraps around the building below the parapet.

Fenestration on the east, north, and west elevations includes a number of multi-pane metal industrial windows and evenly-spaced bays with non-original metal roll top doors. The primary (east) façade and the west elevation each feature approximately 29 bays. The north elevation has one bay. The south elevation is directly adjacent to the Connecting Shed. The walls of the east elevation are covered with non-original corrugated and flat metal sheeting. Large non-historic period conduit, rigging, and other industrial equipment components are attached to the walls. Non-original safety barriers, metal corner braces, and post bollards have been added near bay corners. None of the wall surfaces indicate evidence of historic-period signage notable in historic photographs.

The north and west elevations have similar characteristics and alterations as the east elevation. These similarities include non-original metal corrugated sheeting wall covering and non-historic period conduit, rigging, other industrial equipment components, safety barriers, metal corner braces, and post bollards, which have been added near openings and corners. The west elevation features a single, long awning of corrugated metal sheeting that is supported by steel truss bracing. The awning runs the length of the building, providing cover for a raised concrete loading dock.

Wharf Office

The Wharf Office, designed by Albert C. Martin, was built in 1924 and is a Utilitarian Industrial-style wharf office. It occupies the northwest corner of the subject property and has an east-facing orientation. It is two stories with a rectangular plan. The resource has undergone some alterations to accommodate the changing needs of the facility. The building features a side-gabled roof covered with composite sheet. Distributed across the roof ridge are approximately seven vents and a hatch or sunroof, all visible in historic photographs. The roof features a plain parapet that is stepped on the south and north elevations and topped with a simple cornice. Mounted on the parapet are non-original cameras and spotlights. A simple cornice wraps around the building below the parapet.

Fenestration on all elevations includes large original multi-pane industrial metal-framed windows with hopper panels near the center of most. They are generally arranged in groupings of three. Many of the windows contain non-original air conditioning units that are supported on metal platforms with metal braces. Two fixed, wood-framed windows are located on either side of the northernmost entrance of the east elevation.

DPR 523L (1/95) ***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #_____
HRI #_____
Trinomial_____

Page 5 **of** 14 ***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility
***Recorded by:** URS Corporation ***Date** January 2013 X **Continuation** __ **Update**

***P3a. (Continued)**

One of the panes has been in-filled with wood. The walls of the Wharf Office no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers the parapet and corrugated metal sheeting covers the walls below the parapet. Numerous tracks of non-original conduit, piping, and other industrial equipment are attached to the walls.

The primary (east) façade has three entries, of which only the northern entry is original. The two southern entries are additions to the building and are filled with single industrial metal doors with one pane. The southernmost entry is covered by a non-original metal security door. The original entry (the northernmost entry) is filled with a wood-framed door with a single light. An original awning protrudes from the wall above the entry. A non-original awning extends over one of the first-story windows.

The south elevation has two original entries: one centered on the first story and one centered on the second story, the latter of which is reached by a metal staircase that replaced an original staircase. The entries are filled with non-original single industrial metal doors with one pane. The north and west elevations have similar characteristics to the other façades but they have no entries.

Power Plant

The Power Plant, designed by Albert C. Martin, was built in 1923 and 1924. It is a Utilitarian Industrial-style steam power plant. It occupies the center-north portion of the subject property. It is approximately two stories in height with an L-shaped plan. Due to changes in power generating technologies since 1924, the resource has undergone extensive alterations and upgrades. The building features a slightly barreled roof covered with composite sheet. Distributed across the rooftop are pieces of non-original electrical equipment, vents, piping, and two tall, narrow, metal steam stacks. The roof has a simple parapet on which numerous non-original conduit pipes, other pipes, security cameras, and lights are mounted on or behind.

Fenestration on all elevations includes large rounded, arched, metal-framed windows with two hopper panels near the center. A number of the locations where windows once existed have been in-filled and many of the remaining windows have been altered to accommodate pipes and other industrial equipment. The walls of the power plant building no longer retain their original board-formed concrete texturing. Instead, a modern stucco texture covers the walls, which are beveled at the base. The retexturing is most apparent over the locations of in-filled windows. Seismic bracing bolts are visible on all the walls below the parapet. Evidence of disintegration of the plaster and concrete is visible on some walls.

The power plant has a number of entries on the east elevation, including a non-original metal roll top door, a non-original single industrial metal door with a single pane, and a non-original double metal industrial door with two panes. Four windows have been in-filled on the east elevation. In addition, the original concrete stack adjacent to the east elevation is no longer present. A non-original sign is attached to the east wall and reads “Rio Tinto/Wilmington Operations.” Non-original access ladders, conduit, other piping, lights, vents, and other utility equipment have been attached to the walls.

The north, west, and south elevations have similar characteristics and alterations as the east elevation. These similarities included a substantial amount of window in-fill (three windows in-filled on the north elevation and two windows in-filled on the south elevation), non-historic period stucco texturing on wall surfaces, and a significant level of alteration due to the installation of modern industrial equipment such as non-original access ladders, conduit, other piping, lights, vents, and utility equipment. A non-original metal structure connects the west elevation of the Power Plant to the adjacent Refinery Building to the west.

An electrical substation is located directly to the north of the Power Plant.

Bulk Storage Silos

The original portion of the Bulk Storage Silos structure was built in 1962 and 1963, with a later addition in 1979. It is a grouping of 16 tower silos, topped with an industrial building and featuring associated industrial equipment, such as pipes, tanks, railroad car loading bays, and conveyor belts. The structure occupies the northeast portion of the subject property, adjacent to a railroad spur to the east.

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***P3a. (Continued)**

The silos are arranged in two groupings: 12 silos on the north, which were first used in 1963 and which are arranged two-by-six; and four silos, which were a 1979 addition, are arranged in a T-shape, and are separated from the other grouping by a gap. The silos are constructed of reinforced concrete and feature cylindrical forms with flat roofs. The silos are approximately 100 feet in height and have approximately 30-foot diameters. The silos have ground-story entries that are filled with double metal industrial doors with single panes. Metal staircases are attached to the sides of each of the silos; the staircases lead to secondary entrances located approximately one-third up the side of the silos. Some of the silos also feature metal access ladders that extend from the ground level to the roof.

The two groupings of silos are attached via a rooftop industrial building, which has a narrow and long rectangular footprint. The building is centered on the roof of the Bulk Storage Silos structure, extending from one end to the other, bridging the gap between the two silo groupings. The industrial building is primarily one-story with some two-story attached small additions. The building has a gabled roof covered with composite sheeting, corrugated metal wall surface, and numerous windows and entries that connect to metal catwalks, stairwells, and other appurtenances such as industrial equipment, small sheds, and structures that are located on the rooftop of the larger silo structure. Conduit, large piping, and security lights are mounted on the walls of building.

A railroad car loading bay, constructed of metal and covered with corrugated metal sheeting, is attached to the structure at the ground-level on the east elevation. Vertical gravity silos and associated piping and equipment are mounted on the flat roof of the loading bay. The west elevation of the structure features numerous ground-level tanks, vertical gravity silos, and other related industrial structures, some mounted on steel frames. A covered conveyor belt clad in corrugated metal sheeting connects the structure with the rooftop of the Warehouse to the west.

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***B10. (Continued)**
Historic Context
U.S. Borax

In 1962, Thomas Cramer, the first superintendent of the U.S. Borax Wilmington Facility, noted "[t]he story of the Wilmington Refinery is a forty year part of the hundred year history of the borax business in America."[1] In fact, U.S. Borax traces its origins to 1872 when founder Francis Marion Smith discovered the presence of borate deposits in Nevada. During those initial operations, the raw borate material was refined near the site of its extraction. According to Cramer, refining facilities were built beside marshes in Nevada. By 1883, following the discovery of borates in Death Valley, the refined product was being hauled great distances across the desert by 20-mule teams.[2] Smith founded the Pacific Coast Borax Company (predecessor to Borax Consolidated, which then became U.S. Borax) in 1890.[3] The 20 Mule Team symbol became the trademark of the Pacific Coast Borax Company in 1896.[4]

While exploiting a new source of borate deposits in the Calico Mountains, Smith decided to move away from the traditional onsite refining process to a large-scale refining operation in Alameda, California. The Alameda refinery was purchased about 1883 and expanded by Smith in 1890. The new Pacific Coast Borax Company refinery was sited on Alameda Point in order to take advantage of inland rail connections and convenient access to shipping in the San Francisco Bay. The siting of the Alameda plant marked a key innovation point for the company. From then on, processing no longer occurred on site at the mines but ore was instead transported to a coastal plant for refining and shipping.[5] Additionally, the Alameda facility pioneered the use of reinforced concrete construction, a method that was subsequently used at the Bayonne, New Jersey facility in 1897. Smith resigned from the company in 1914.[6]

After World War I, the company chose to construct a new facility that would have ready access to the ships traveling through the new Panama Canal and would have proximity to raw materials being extracted in Death Valley. The company purchased property on Mormon Island in the Port of Los Angeles. In 1923, construction began on the Wilmington Facility and in 1924 the Alameda refinery was closed. The Bayonne refinery in New Jersey was also phased out.[7]

In 1927, soon after the Wilmington Facility was finished, the company opened an underground borate mine in Boron, California in the Mojave Desert. In 1956, the company became U.S. Borax when it merged with United State Potash Corporation. In 1957, the company built the Boron refinery and borax production was moved to Boron. The Boron Mine was converted to a surface mine in the late 1950s. In 1967, the company was acquired by Rio Tinto.[8] In 1980, U.S. Borax built its borax acid plant. Today, U.S. Borax continues to operate the Boron Mine, which is California's largest open pit mine.[9]

U.S. Borax Wilmington Facility

The U.S. Borax Wilmington Facility was constructed on Mormon Island on land previously used as the Chandler Shipyard, a World War I shipyard. Architect Albert C. Martin was retained to prepare the plans for the new facility, which was to include a refinery building, power plant, warehouse, office building, and a 150-foot stack. Norman B. Patten served as Martin's building superintendent and G.H. Schulte was the

[1] Thomas Cramer, "Wilmington Refinery: Pacific Coast Borax Company" (memorandum, U.S. Borax Company, June 26, 1962).
[2] Thomas Cramer, "The Mormon Island Story," *Pioneer,* September 1962, 12.
[3] "View of the Borax Industry, ca. 1898-ca. 1915," *Online Archive of California,* http://www.oac.cdlib.org/findaid/ark:/13030/tf0n39n8j3/entire_text/ (accessed January 24, 2013).
[4] U.S. Borax, "A Famous Symbol Became One of the World's Best Known and Most Recognizable Trademarks," *The Courageous and Fascinating "Century-Old" Saga of the Famous 20 Mule Team of Death Valley* (advertisement, U.S. Borax, date not specified).
[5] U.S. Borax, *100 Years of U.S. Borax, 1872-1972* (Los Angeles, CA: U.S. Borax, 1972), 32-34; U.S. Borax, "Bit of History," *Pioneer,* July-August 1968, 17.
[6] George Herbert Hildebrand, *Borax Pioneer: Francis Marion Smith* (La Jolla, CA: Howell-North Books, 1982), 56.
[7] U.S. Borax, "Borax Timeline," *About Borax,* http://www.borax.com/about-borax/timeline (accessed January 23, 2013).
[8] Ibid.
[9] U.S. Borax, "History," *About Borax,* http://www.borax.com/about-borax/history (accessed January 23, 2013).

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structural engineer. Davidson Construction was retained as the general contractor.[10] Martin was a master architect; however, the design of the U.S. Borax Wilmington Facility does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963).

The facility was constructed using the same reinforced concrete construction method that the company had employed first at Alameda 32 years previously and subsequently at Bayonne, New Jersey. Because the soil at Mormon Island could not sustain the load of the concrete buildings, piles were first driven below the ground-water line before concrete pads and pedestals were poured. The final design for the refinery called for a 207-by-252-foot building with three stories and a rooftop water tower. Martin's drawings also planned for a future expansion of the facility, including two additional refinery floors (never built), a lateral expansion on either side of the refinery (later partially constructed as the Connecting Shed and additions to the original Warehouse), and two additional buildings (never constructed). The stack was finished by November 1923. The main components of the buildings were completed on the last day of that same year, six months after the foundations had been finished.[11]

Meanwhile, the previously-installed boilers in the power plant and the plans for piping and equipment were drawn by Fred Beik by late fall 1923. By February 1924, the first of the equipment, the Sweetland press and Raymond power-mill, were installed in the refinery. Concurrently, the last of the building windows, roofing, and painting were being finished. The bulkhead had been put in and the channel in front of the property dredged during 1923, so construction of the wharf, warehouse, and wharf office building began in 1924. Separately, the Alameda facility was dismantled, and the bulk borax production goods were transferred to Wilmington. On November 1, 1924, the first cargo was loaded onto a ship from the Wilmington Facility.[12] On January 28, 1925, a survey map of the Borax Consolidated Wilmington facility was completed, which illustrated the site as containing a Factory (Refinery), Power Plant, Stack, Oil Tank, Office (now Wharf Office), Warehouse, Wharf, and Mud Scow Dock.[13] The Wilmington facility produced borax, Borax Soap Chips, BORAXO, bar soap, and borax "glass".[14] The U.S. Borax Wilmington Facility was an early occupant of the Port, but it nevertheless was established years after the port had attained success through the shipping of such commodities as lumber, petroleum, and citrus products.[15]

Robert Shaw, Wilmington facility manager beginning in 1983, recollected that Borax Consolidated was challenged by Los Angeles in 1935 in regard to ownership of the property.[16] The U.S. Supreme Court decided in the company's favor on November 11, 1935. The company was able to successfully prove that the property was part of the original Mormon Island and was never tideland; therefore, Los Angeles could not claim that the property was "public land" and take ownership. The property is now the only privately-owned property in the Port of Los Angeles.[17]

Since Martin drafted his designs for the refinery in 1923, large-scale changes to the property have undermined the architect's original design intent. Large additions to the south and north ends of the warehouse building and a Connecting Shed between the Refinery and the expanded Warehouse (generally based on Martin's 1923 designs for expansions) were constructed by 1952.[18] Following a feasibility study undertaken in the early 1960s, U.S. Borax began plans for major terminal facilities at the Wilmington facility.[19] Construction began on the terminal (Bulk Storage Silos) in 1962 and the first railcar of product was loaded into the 12-silo structure in 1963.

[10] U.S. Borax, *100 Years*, 32-34.
[11] Cramer, "Wilmington Refinery)," 32-34.
[12] Ibid.
[13] U.S. Borax, Map of the Property of Borax Consolidated, Ltd. at Los Angeles Harbor, Slip No. 1 (Mormon Island), Wilmington California (map on file, U.S. Borax, 1925).
[14] U.S. Borax, *100 Years*, 34.
[15] Ibid., 32-34.
[16] Robert Shaw, "Wilmington Recollections" (memorandum, U.S. Borax Company, 1988).
[17] Borax Consolidated, Ltd. v. Los Angeles, 296 U.S. 10 (1935).
[18] NETR Online, *Historic Aerials,* www.historicaerials.com (accessed January 24, 2013).
[19] U.S. Borax, *Annual Report 1962* (Los Angeles, CA: U.S. Borax, 1962), 16.

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The 100-foot-tall by 30-foot-diameter concrete silos introduced a massive and substantial change to the property. A large conveying system was constructed at the same time to move the bulk borates from the silos to the holds of ships at the dock.[20] In 1979, an additional four-silo structure was constructed to the south of the original 12-silo structure.[21] Over time, additional alterations have occurred to the subject property and its buildings, including seismic retrofitting of many of the buildings and structures between 1988 and 2004, which also resulted in the removal of the original 150-foot stack near the power plant;[22] introduction of large industrial equipment such as tanks, silos, conveyor belts, and piping; infilling of many of the buildings' windows and entries; and attachment of conduit, other piping, utility equipment, security lights, cameras, and signage to the exterior walls of the buildings.

Currently, the Wilmington Facility serves as Rio Tinto's primary North American shipping facility. The refinery produces 16 specialty products, including wood preservatives and flame retardants, which can be stored in the facility's 35,000 tons of storage capacity before being transferred to docked ships for export.[23]

LACHM Evaluation

LAHCM Criterion 1: The property was assessed under LAHCM Criterion 1 for its potential significance as a property in which the broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of broad trends of the nation, state, or community. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was not an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

According to historical research, the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax Wilmington Facility does not reflect or exemplify broad cultural, political, economic, or social history of the nation, state, or community. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 1.

LAHCM Criterion 2: The property was assessed under LAHCM Criterion 2 as a property which is identified with historic personages or with important events in the main currents of national, state, or local history.

Historical research revealed that the property does not appear to be directly associated with the significant contributions from the life and career of an individual, such as Francis Marion Smith, who may have made important contributions to the history of the United States, California, or Los Angeles County. In fact, Smith resigned from Borax Consolidated in 1914, ten years before completion of the facility. Other individuals associated with the property, such as facility supervisors, were not revealed to have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 2 for association with historic personages.

[20] U.S. Borax, *100 Years*, 36.
[21] Shaw, "Wilmington Recollections."
[22] Oren Brown, "Seismic Work at the US Borax Facility at Wilmington" (memorandum to Randy Luckman, U.S. Borax Company, February 11, 2004).
[23] Rio Tinto Minerals, "Our Operations," http://www.riotintominerals.com/ENG/ourbusiness/25_our_operations.asp (accessed January 24, 2013); Rio Tinto Borax, "About Borax: Worldwide Locations, U.S. Borax Inc. – Wilmington Operations," *Deed and Legal Description, File Name 314* (website screenshot on file, U.S. Borax, date not specified).

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Currently, non-hsitoric features such as 100-foot-tall Bulk Storage Silos structure, major alterations to the buildings, and industrial equipment obscure Martin's contribution. Pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Therefore, although portions of the U.S. Borax Wilmington Facility were designed by Martin, the refinery is not a good representation of the master architect's work that influenced his age. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 4.

CRHR Evaluation

CRHR Criterion 1: The property was assessed under CRHR Criterion 1 for its potential significance as a part of a historic trend that may have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of a significant event associated with the trends or events that have made a significant contribution to the broad patterns of history. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

According to historical research, no significant events occurred at its location and the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax Wilmington Facility is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in the CRHR under Criterion 1 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 2: The property was assessed under CRHR Criterion 2 for its association with the lives of persons important to local, California, or national history. Historical research revealed that the property does not appear to be directly associated with the significant contributions from the life and career of an individual, such as Francis Marion Smith, who may have made important contributions to the history of the United States, California, or Los Angeles County. In fact, Smith resigned from Borax Consolidated in 1914, ten years before completion of the facility. Other individuals associated with the property, such as facility supervisors, were not revealed to have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in CRHR under Criterion 2 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 3: The property was assessed under CRHR Criterion 3 for embodying the distinctive characteristics of a type, period, or method of construction, or representing the work of a master or possessing high artistic values.

To determine its architectural significance, the U.S. Borax Wilmington Facility requires evaluation as individual buildings designed in the Utilitarian Industrial-style, as well as individual components to a potential historic district. Based on historic research and field survey, the U.S. Borax Wilmington Facility does not appear to possess distinctive characteristics of a significant Utilitarian Industrial design. While the plans for the U.S. Borax Wilmington Facility depict several characteristics typical of the Utilitarian Industrial-style typical in California in the 1920s, the property, in its current form, lacks the majority of these distinctive architectural characteristics and its architectural integrity has been significantly compromised. Presently, many of its large multi-pane windows have been in-filled. The non-historic period conduit, ventilation, and industrial equipment added to the facility have obstructed and significantly altered historic-period materials.

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Currently, non-hsitoric features such as 100-foot-tall Bulk Storage Silos structure, major alterations to the buildings, and industrial equipment obscure Martin's contribution. Pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Therefore, although portions of the U.S. Borax Wilmington Facility were designed by Martin, the refinery is not a good representation of the master architect's work that influenced his age. As such, the property does not appear to be eligible for listing as an LAHCM under LAHCM Criterion 4.

CRHR Evaluation

CRHR Criterion 1: The property was assessed under CRHR Criterion 1 for its potential significance as a part of a historic trend that may have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

Though the U.S. Borax Wilmington Facility has been located at the property since 1924, the industrial complex is not representative of a significant event associated with the trends or events that have made a significant contribution to the broad patterns of history. As indicated previously, the U.S. Borax Wilmington Facility was constructed on Mormon Island to take advantage of ready access to the Panama Canal and the proximity to raw materials being extracted in Death Valley. At the time of the refinery's completion, international shipping to and from the Port of Los Angeles through the Panama Canal had been common practice for about a decade. The U.S. Borax Wilmington Facility was built years after several other more important buildings and structures were already constructed, shipping such commodities as lumber, petroleum, and citrus products. In addition, the process of transporting ore extracted from Death Valley to a coastal plant for refining and shipping was an innovation facilitated by the subject property. In fact, this method was popularized in the late 1800s when 20-mule teams traversed the desert to carry the minerals to rail lines that would ultimately deliver the ore to the original Pacific Coast Borax Company Refinery on Alameda Point.

According to historical research, no significant events occurred at its location and the property is not representative of any type of achievement or development associated with industrial refining or commerce. Therefore, the U.S. Borax Wilmington Facility is not associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in the CRHR under Criterion 1 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 2: The property was assessed under CRHR Criterion 2 for its association with the lives of persons important to local, California, or national history. Historical research revealed that the property does not appear to be directly associated with the significant contributions from the life and career of an individual, such as Francis Marion Smith, who may have made important contributions to the history of the United States, California, or Los Angeles County. In fact, Smith resigned from Borax Consolidated in 1914, ten years before completion of the facility. Other individuals associated with the property, such as facility supervisors, were not revealed to have made a significant contribution to the broad patterns of California's history and cultural heritage. As such, the property does not appear to be eligible for listing in CRHR under Criterion 2 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 3: The property was assessed under CRHR Criterion 3 for embodying the distinctive characteristics of a type, period, or method of construction, or representing the work of a master or possessing high artistic values.

To determine its architectural significance, the U.S. Borax Wilmington Facility requires evaluation as individual buildings designed in the Utilitarian Industrial-style, as well as individual components to a potential historic district. Based on historic research and field survey, the U.S. Borax Wilmington Facility does not appear to possess distinctive characteristics of a significant Utilitarian Industrial design. While the plans for the U.S. Borax Wilmington Facility depict several characteristics typical of the Utilitarian Industrial-style typical in California in the 1920s, the property, in its current form, lacks the majority of these distinctive architectural characteristics and its architectural integrity has been significantly compromised. Presently, many of its large multi-pane windows have been in-filled. The non-historic period conduit, ventilation, and industrial equipment added to the facility have obstructed and significantly altered historic-period materials.

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These alterations include the replacement of the original board-formed wall texture with a smooth stucco exterior wall treatment as well as the modification and removal of the stringcourse and rectangular capitals for the installation of industrial equipment. The absence of these original designed features undermines the distinctive architectural characteristics of the U.S. Borax Wilmington Facility. Additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Also, the simple, rectangular chimney was not depicted in the 1924 drawings and does not match the original design of the building. The modern alterations and upgrades to the refinery complex detract from its intended architectural character.

Further, while the facility was constructed using reinforced concrete construction method, the facility is a late example of this method of construction. In fact, the company had pioneered the method at the Alameda facility 32 years previously and at Bayonne, New Jersey 27 years before, and by 1924, the construction method was relatively common.

While the design of the U.S. Borax Wilmington Facility was undertaken by Albert C. Martin, a master architect, the property does not embody notable architectural designs attributed to Martin's significant works. Along with the 1927 Inn at Furnace Creek which he crafted for the Pacific Coast Borax Company in Death Valley, Martin is known for his major contributions to the Los Angeles skyline with his designs of the Los Angeles City Hall (1926), St. Vincent's Church (1923), and the Department of Water and Power Building (1963). Moreover, since Martin drafted his plan for the refinery in 1923, large-scale changes to the property have undermined the architect's original design intent. Currently, non-historic features such as 100-foot tall Bulk Storage Silos structure, major alterations to the buildings, and industrial equipment obscure Martin's contribution. Pre-1952 additions to the Warehouse and the Connecting Shed, though generally based on Martin's original plans, are not true representations of the original design. Therefore, although portions of the U.S. Borax Wilmington Facility were designed by Martin, the refinery is not a good representation of the master architect's work.

Given the lack of integrity and the numerous alterations to the U.S. Borax Wilmington Facility, the property no longer retains its character-defining features and does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values. Therefore, the property does not appear to be eligible for listing in the CRHR under Criterion 3 or to be considered a historical resource for purposes of CEQA.

CRHR Criterion 4: The property was assessed under CRHR Criterion 4 for the potential to yield or likelihood to yield information important to prehistory or history of the local area, California, or the nation.

The U.S. Borax Wilmington Facility does not appear to have the potential to yield important information about the development of borate refining or the Port of Los Angeles that is not readily available and presented previously. Therefore, the property does not appear to be eligible for listing in the CRHR under Criterion 4 or to be considered a historical resource for purposes of CEQA.

For a property to be eligible for listing in the CRHR, it must also retain its historic integrity in addition to meeting one of the CRHR criteria. The CRHR traditionally recognizes a property's integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. Though the facility does not meet the criterion for eligibility to the CRHR, the following summarizes its historic integrity analysis:

Location is defined as the place where the historic-period property was constructed or the place where the historic event took place. The subject property has not been moved; therefore, it retains its integrity of location.

Design is defined as the composition of elements that constitute the form, plan, space, structure, and style of a property. The form, plan, and space of the property have been altered by several additions and different periods of development. While some of the property's design features remain (such as some stepped parapets, cornices, and several rectangular capitals) the form, plan, space, and structure have been significantly compromised as a result of upgrading and adapting the facility to new refining technologies.

DPR 523L (1/95) ***Required information**

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CONTINUATION SHEET

Primary #_____
HRI #_____
Trinomial_____

Page 13 **of** 14 ***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility

***Recorded by:** URS Corporation ***Date** January 2013 X **Continuation** __ **Update**

***B10. (Continued)**

Setting is defined as the physical environment of a historic-period property that illustrates the character of the place. The refinery was built in an industrial port area of Los Angeles. Currently, the property retains its setting. Due to several episodes of development and re-development, it does not retain the setting associated with the exponential growth of the port in the early 1900s following the opening of the Panama Canal.

Materials are defined as the physical elements combined in a particular pattern or configuration to form the historical resource during a period in the past. Many of the original materials have been altered or removed, such as a decorative wall features and board-formed concrete textured walls. Also, the addition of new industrial equipment and structures such as the Bulk Storage Silos has introduced materials not historically associated with the U.S. Borax Wilmington Facility.

Workmanship is defined as the physical evidence of the crafts of a particular culture or people during any given period of history. The property does not represent physical evidence of the crafts of a given period of history.

Feeling is defined as the quality that a historic-period property has in evoking the aesthetic or historic sense of a past period of time. The property in its present form does not evoke a historic sense of feeling, but rather that of a relatively recently constructed refining facility.

Association is defined as the direct link between a property and the event or person for which the property is significant. While the property is associated with Albert C. Martin, the property in its present form does not convey a direct link with the prominent architect.

Overall, while the facility has retained some aspects of historic integrity, the property does not appear to meet any of the CRHR or LAHCM criteria, and therefore is not considered a historical resource for purposes of CEQA.

***B12. (Continued)**

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DPR 523L (1/95) ***Required information**

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #_____
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Page 14 **of** 14 ***Resource Name or #** (Assigned by recorder) U.S. Borax Wilmington Facility

***Recorded by:** URS Corporation ***Date** January 2013 X **Continuation** __ **Update**

***B12. (Continued)**

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DPR 523L (1/95) ***Required information**

Attachment F

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URS

Jeremy Hollins, MA

Senior Architectural Historian/ Architectural History Team Lead

Areas of Expertise

Vernacular Architecture
19th – 20th century California Architecture
Historic Preservation Treatments and Law
Secretary of Interior Professional Qualification Architectural History (36 CFR Part 61)

Years of Experience

With URS: 5 years
With Other Firms: 2 year

Education

MA, University of San Diego, Public History, 2005
BA, University of Rhode Island, History [Environmental], 2003

Continuing Education

SRIF "Section 106: Principles and Practice," 2006
FEMA Institute Independent Study Course IS-00253 "Coordinating Environmental & Historic Preservation Compliance," 2006
FEMA Institute Independent Study Course IS-00650 "Building Partnerships in Tribal Communities," 2006
Certificate Program, Urban Planning, UC San Diego Extension; In Completion
Association of Environmental Professionals "Introductory and Advanced CEQA Workshop Series," 2005
California Preservation Foundation Annual Conference, 2005

Overview

Jeremy Hollins is a Secretary of Interior Professional Qualified Architectural Historian for URS' San Diego office. Since 2003, Mr. Hollins has performed numerous historic evaluations, context studies, and determinations of eligibility and effect for a range of resources based on local, state, and National Register criteria and through technical reports, DPR 523 series forms, HABS reports, cultural landscape reports, historic structures reports, and resolution documents. He has a detailed knowledge of the laws and ordinances which affect historic properties, such as Section 106 of the NHPA, CEQA, NEPA, Section 4(f), California Public Resources Code, State Historic Building Code, and the Secretary of Interior Standards for the Treatment of Historic Properties. Additionally, two academic journals have published Mr. Hollins' work, and he was an adjunct instructor in 'World Architectural History' at the New School of Architecture before coming to URS in 2006.

Project Specific Experience

Verizon Wireless, Telecommunication Projects – CA and NV.: Architectural History Task Manager on over 95 intensive architectural history field surveys in California and Nevada for telecommunication projects' direct Areas of Potential Effect (APE) and viewshed (indirect APE). Projects completed as part of Section 106 of the NHPA and the FCC Programmatic Agreement with the California Office of Historic Preservation (OHP). Conducted and oversaw archival research, evaluated the projects' APE for eligibility for listing in the NRHP and California Register of Historic Resources (CRHR), identified effects, completed appropriate DPR 523 forms, drafted the reports for submission to OHP, and provided technical editing expertise. Resources identified and evaluated have dated from the late nineteenth century to the recent past, were located in various settings (dense urban, suburban, rural, and industrial), and have included numerous property types such as residential and commercial buildings, churches, educational institutions, hospitals, water towers, windmills, farm and ranch landscapes, an oil refinery, and irrigation canals. Responsible for scoping, budget and tasks management, client/agency interaction, and submission of compliance materials (2008-Present)

Brightsource Solar Energy, Rio Mesa Solar – Blythe, CA.: Oversaw architectural history field survey and archival research as architectural history task manager for a large solar project in the Colorado Desert (partially within BLM land) in accordance with Section 106 of the NHPA, NEPA and, CEQA. Oversaw architectural history field survey of project footprint, transmission line and substation locations, and half-mile buffer. Oversaw historic research and community consultation, and the recordation and evaluation of approximately 30 cultural resources,

including historic-age transmission lines, canals and irrigation ditches, historic roads, mines, and borrow pits. (2011)

FAA, San Francisco International Airport Runway Safety Area Program – San Francisco, CA.:
Task manager for reconnaissance survey of the historic-age runways, taxiways, canal, and approach-lighting trestles within the project APE; evaluated the airport facilities pursuant to Section 106 of the NHPA, NEPA, and CEQA; assessed effects and impacts from the proposed undertaking; completed DPR 523 forms; and authored the Historic Architecture Survey Report. (2011)

Los Angeles Unified School District, Alameda Transportation Relocation Project – Historical Architecture Assessment – Los Angeles, CA.:
Oversaw a historic architecture assessment in accordance with CEQA and according to City of Los Angeles criteria for listing as a historical or cultural monument. Managed an intensive architectural history survey, archival research, and evaluation. Authored the letter report to assess the significance of the three mid-twentieth century light industrial buildings on the site and any project impacts according to CEQA. (2011)

National Oceanic and Atmospheric Administration (NOAA), Integrated Water Resources Science and Services (IWRSS), University of Alabama Section 106 Compliance – Tuscaloosa, AL.:
Leader of project planning and photo guidance for a desktop evaluation of eligibility and effect pursuant to Section 106 of the NHPA for buildings associated with the mid-nineteenth century Bryce Hospital (Alabama State Hospital for the Insane) NRHP-eligible historic district. Task manager for resolution of adverse effects and completing SHPO consultation regarding the necessary HABS standards. (2011)

Caltrans and Alameda Corridor Transportation Authority, HAER, Level II, for the Commodore Schuyler F. Heim Bridge, Schuyler Heim Bridge Replacement and SR-47 Expansion Project – Long Beach, CA.:
Managed HAER for Commodore Schuyler F. Heim Bridge, a 1948 steel vertical lift bridge eligible for listing in the NRHP, to fulfill NHRA Section 106 mitigation requirements. The study was completed consistent to the specific guidelines and requirements of the United States Department of Interior and Library of Congress for a Level II HAER and included written historical and descriptive data, 5-by-7" large-format photographs and negatives, and 4-by-5" large-format photographic copies of as-built drawings and negatives. Oversaw project planning (client meetings, site visits, access permits, contract and engagement with photographer), facilitated field work, archival research, report drafting and editing and archival processing. Project required extensive FHWA, Caltrans, and Port of Los Angeles-Port of Long Beach coordination and consultation. Project was nominated for a URS Pyramid Award for Technical Excellence. (2010-2011)

Caltrans and City of Santa Ana, Bristol Street HPSR and HRER, Phase 3 and Phase 4 – Santa Ana, CA. Task manager for an intensive architectural history field survey of the direct APE and a reconnaissance survey of the indirect APE in accordance with the Programmatic Agreement between the FHA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans. Managed archival research, wrote a historic context, evaluated the APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded 66 resources (primarily early to mid-century residences in planned subdivisions) on the appropriate DPR 523 forms, and authored the HPSR and HRER. Adapted unique approach for recordation based on historic subdivisions and property types to facilitate and streamline compliance. (2010-2011)

Caltrans and SANDAG, Lenwood Road HPSR, ASR, and HRER – Barstow, CA.
Task manager for cultural resources studies, and preparation of HPSR, ASR, and HRER. Oversaw archival research, historic context, evaluated the project APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded forty-one resources (Historic Route 66-related commercial buildings and single-family residences) on the appropriate DPR 523 forms, and drafted the Historic Resources Evaluation Reports and Historic Properties Survey Reports. (2009-2011)

Pio Pico Energy Center, LLC, Pio Pico Energy Center, Otay Mesa – San Diego County, CA.:
Supervised an intensive architectural history field survey of the project survey area in accordance with CEQA and CEC guidelines. Oversaw archival research, evaluated the project APE for eligibility for listing in the CRHR or as a historical resource for purposes of CEQA, recorded two new resources (circa 1909 ranch complex and 1960 ranch-style residence) and re-recorded a third (historic road) on the appropriate DPR 523 forms, and drafted the architectural history portion of the cultural resources technical report for submission to the CEC. (2010-2011)

FEMA, Lake Valley Roof Replacement – Lake Valley Fire Protection District, CA.:
Managed and planned strategic tasks man tasks for preliminary NHPA Section 106 compliance evaluation of project involving hundreds of mid-twentieth century recreational residences and roof replacements. (2010-2011)

FEMA, Marcucci – Jackson, CA.:
Completion of Section 106 studies per the FEMA Programmatic Agreement for flood damage control (culvert replacement). Prepared Section 106 compliance materials, including findings memorandum, APE maps, DPR 523 series forms, correspondence records, and historic research (2010)

FEMA, Sutter Creek Broad Storm Drain Diversion – Sutter Creek, CA.:
Managed Programmatic Agreement between FEMA, the California OHP, the California Governor's Office of Emergency Services, and the Advisory Council on Historic Preservation for proposed flood damage control (culvert drainage system alterations near a NRHP-eligible creek wall and historic district) tasks Prepared Section 106 compliance materials, including findings memorandum, APE maps, DPR 523 series forms, correspondence records, and historic research (2010)

FEMA, Fairfax Pavilion – Fairfax, CA.:
Completion of Section 106 studies per the FEMA Programmatic Agreement for seismic retrofit to NRHP-eligible property). Prepared Section 106 compliance materials, including findings memorandum, APE maps, DPR 523 series forms, correspondence records, and historic research (2010)

FEMA, Lake Elsinore Seismic Retrofit – Lake Elsinore, CA.:
Managed Programmatic Agreement between FEMA, the California OHP, the California Governor's Office of Emergency Services, and the Advisory Council on Historic Preservation to proposed seismic retrofit tasks for preliminary NHPA Section 106 compliance evaluation of project involving the city hall buildings. (2010)

Caltrans and Riverside County Transportation Department, Clay Street Grade Separation Project – County of Riverside, CA.:
Task manager for cultural resources studies, and preparation of HPSR, ASR, and HRER. Oversaw archival research, historic context, evaluated the project APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded 5 resources on the appropriate DPR 523 forms, and drafted the Historic Resources Evaluation Report and Historic Properties Survey Reports. (2010)

United States Postal Service, USPS San Diego Midway Processing and Distribution Facility Property – San Diego, CA.:
Oversaw NRHP eligibility (including Criterion Consideration G) and effects for NHPA Section 106 compliance for the proposed disposition of the USPS San Diego Midway Processing and Distribution Facility property, which contained a large 1972 Brutalism and New Formalism-style building. Supervised a records search, Native American consultation, historic research, evaluation, integrity analysis, assessment of adverse effects, and drafting of report. (2010)

Apex Energy Group, Pio Pico Energy Center – Chula Vista, CA.:
Oversaw an intensive architectural history field survey of the project's APE in accordance with CEQA and the CEC guidelines. Supervised archival research, evaluated the project APE for eligibility for listing in the CRHR or as a historical resource for purposes of CEQA, recorded three resources (1897 reservoir and 1919 dam, late-1950s public park facilities,

and early twentieth-century livestock pens) on the appropriate DPR 523 forms, and drafted the architectural history portion of the cultural resources technical report for submission to the CEC. (2009-2010)

FEMA Santa Maria Seismic Retrofit–Santa Maria, CA.:
Supervised NRHP- and CRHR-eligibility of the Cook and Miller Court Complex, a Monterey style complex constructed in 1954, in compliance with NHPA Section 106 and the Programmatic Agreement between FEMA, California OHP, California Emergency Management Agency, and the Advisory Council on Historic Preservation. Completed DPR 523 forms. (2009)

Tessera Solar, Imperial Valley Solar (formerly Solar II) – El Centro, CA.:
Supervised archival research and compiled findings regarding Juan Bautista de Anza National Historic Trail and historic gravel mines in the project APE and vicinity pursuant to Section 106 of the NHPA, NEPA, and CEQA. Input archaeological field data to DPR 523 form database. (2009)

Naval Air Facility El Centro Fire Station – El Centro, CA.:
Task manager for background research to evaluate eligibility of historic-age utilitarian industrial buildings at Naval Air Facility El Centro. Manager and oversaw the evaluation and architectural history description for technical report for fire station project. (2011)

California High Speed Rail Authority, High Speed Train – Sylmar to Palmdale, CA.:
Task manager for field reconnaissance data analysis, records search review, and cultural resource location map revisions pursuant to Section 106 of the NHPA and CEQA. (2009)

Lost Hills Solar, Lost Hills – Kern County, CA.:
Facilitated **r**esearch and drafted the historic context pursuant to CEQA. (2009)

Clay Street Grade Separation, Riverside County Transportation Department, Riverside County, CA.:
Cultural Resources Task Manager (URS Corporation)
Performed Section 106 Compliance Study for Riverside County Transportation Department for the at-grade crossing of Clay Street with the Union Pacific Railroad. Prepared HPSR, ASR, and DPR 523 series forms for project per Caltrans/FHWA guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect. (2010)

Westside Extension Cultural Resources Technical Report and Historic Survey Report, Los Angeles County Metropolitan Transportation Authority (Metro), Los Angeles, West Hollywood, Beverly Hills, Santa Monica, and the County of Los Angeles, CA.:
Architectural History Task Leader (URS Corporation)
Led architectural history tasks for the Los Angeles Metro Westside Extension project, which involved the planning and design of a heavy-rail subway connecting City of Los Angeles, West Hollywood, Beverly Hills, Santa Monica, and the County of Los Angeles. Responsibilities include Metro, FTA, and SHPO coordination/meetings; authoring project Programmatic Agreement; organizing field survey activities and background research; and authoring the Section 106 of the NHPA, NEPA, and CEQA technical studies. Field survey activities and background research required development of project-specific field survey forms, photograph protocols, architectural style guide, APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, and impact analysis. In total, the project identified and evaluated a total of 91 NRHP-listed, -eligible, or contributing resources, and over 200 non-significant historic-period properties. (2009-2010)

NHPA Section 106 Compliance for ARRA Projects Undertaken by National Railroad Passenger Corporation (Amtrak). CA, WA, NM.:
Architectural Historian (URS Corporation)
West Coast lead for California, Oregon, Washington, and New Mexico National Historic Preservation Act Section 106 consultation and State Historic Preservation Office (SHPO) coordination regarding Amtrak's receipt of $1.3 billion in American Recovery and Reinvestment Act (ARRA) funds under an expediated timeline for receive ARRA funding. Responsibilities included field assessments/built environment surveys with engineering teams; development of design guidelines per project based on the Secretary of the Interior's Standards for Rehabilitation; and completion of Section 106 compliance materials (letter reports). Project required extensive coordination with SHPOs (e.g., CA, WA, and NM). SHPOs) to ensure Section 106 concurrence (No Adverse Effect to Historic Properties) was received in less than 30 days for each project. In total, project involved alterations and additions to nearly 7 NRHP-eligible and -listed properties (e.g., Los Angeles Union Station). Project was nominated for a URS Pyramid Award for Innovation. (2009-2010)

California High-Speed Train Project EIR/EIS-Los Angeles to Palmdale Segment, California High-Speed Rail Authority, Los Angeles County, CA.:
Architectural History Task Leader (URS Corporation)
Led architectural history tasks for the CA High Speed Train Palmdale to Los Angeles Union Station. Responsibilities include sub-consultant management; organizing field survey activities and background research; and authoring the technical reports and EIR/EIS sections. Field survey activities and background research required development of project-specific field survey forms, photograph protocols, architectural style

guide, APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, and impact analysis. (2009-Present)

BNSF Tehachapi Cultural Resources Assessment, Kern County, CA.:
Architectural Historian (URS Corporation)
Architectural historian for the evaluation of built environment resources and features located within APE for an eleven mile addition of a double-track in the Tehachapi area, near the Tehachapi Loop. Developed historic context and performed determination of eligibility, integrity analysis, and identification of effect. Prepared DPR 523 series forms and co-authored the technical reports per Caltrans Division of Rail CEQA-level standards. Project required complex evaluation of Cesar Chavez former office and gravesite, involving Criterion Considerations C, D, E, F G. (2008-Present)

California High-Speed Train Project EIR/EIS-Fresno to Bakersfield Segment, California High-Speed Rail Authority, CA.:
Architectural Historian (URS Corporation)
Technical reviewer for the Section 106, NEPA, and CEQA studies for the High Speed Train Fresno to Bakersfield segment. (2010)

Alosta Avenue Bridge Section 106 Compliance, LADPW, Los Angeles County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1929 Plate-Girder bridge and the California Central Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect. (2008)

Long Beach Blvd. Bridge Section 106 Compliance, LADPW, Los Angeles County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1932 Warren truss Bridge and the Union Pacific Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect. (2008)

Willow Street Bridge Section 106 Compliance, LADPW, Los Angeles County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1932 Warren truss Bridge and the Union Pacific Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect. (2007)

Palomar Road Widening Cultural Resource Survey, County of Riverside, Riverside County, CA.:
Architectural Historian (URS Corporation)
Performed historic research and CRHR and NRHP determination of eligibility for a 19th century rural (garden) cemetery (historic designed landscape) in Wildomar. NRHP evaluation required application of Criterion Consideration D: Cemeteries. Information was incorporated into DPR 523 series forms and final technical report. (2007)

California High-Speed Train Project EIR/EIS Methodology and Detailed Work Plan, Federal Rail Authority and High-Speed Train Authority, Statewide, CA.:
Architectural Historian (URS Corporation)
Prepared Architectural History Methodologies for the completion of the state-wide Section 106, NEPA, and CEQA compliance of the High Speed Train Project EIR/EIS. Developed research, survey, identification, evaluation, and consultation methodologies for completion of the project, as well as identified possible constraints. Also prepared the Detailed Work Plan for the LA-Palmdale Segment Project EIR/EIS. (2007)

US-101/McCoy Lane Interchange Project ASR and HPSR, Caltrans Santa Barbara County, CA.*:*
Architectural Historian (URS Corporation)
Prepared the Historic Context for a Section 106, NEPA, and CEQA compliance study for improvements to the US-101/McCoy Lane interchange. Performed primary and secondary sections. The historic context examined the development of oil prospecting in the Santa Maria Valley and the development and operation of the Battles Plant Facility, which was adjacent to the APE. (2007)

US 101/SR 46W Interchange Improvement, City of Paso Robles, Paso Robles, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Study for proposed undertaking. Survey discovered 5 previously unrecorded historic properties and evaluated the resources within 2 historic contexts. Performed determination of eligibility, identification of effect, analysis of integrity, and recommended mitigation measures for project. Completed DPR 523 series forms, HRER, and HPSR for Caltrans. (2006)

2701 North Harbor Drive Demolition Project EIR, San Diego Unified Port District and San Diego County Regional Airport Authority, City of San Diego, CA.:
Cultural Resources Task Manager/Architectural Historian (URS Corporation)
Served as Task Manager for CEQA-level cultural resources assessment. Performed fieldwork and authored Cultural Resources EIR section and technical report for the demolition of 50 structures at San Diego International Airport. Project considered potential effects to a National Register-eligible historic district (comprised of 17 properties). Duties included coordination of field survey, CHRIS records search, Native

American consultation, primary and secondary research, development of historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, and development of mitigation measures. (2008-2009)

Phase I Archaeological Assessment of Nuevo Business Park II, Private Client, Riverside, CA.:
Architectural Historian (URS Corporation)
Performed CEQA-level cultural resource assessment of 5 rural historic-period landscapes associated with agricultural/subsistence activities in Riverside County. Developed historic context on Riverside County's commercial agriculture industry, performed built environment survey, recorded and evaluated resources through DPR 523 series forms, and produced a technical report per County of Riverside Planning Department regulations. (2008)

Anaheim Historic Resource Evaluation, City of Anaheim, Orange County, CA.:
Architectural Historian (URS Corporation)
Performed CEQA-level cultural resource assessment for three historic-period residences (Tudor Revival, modern ranch, contemporary style) within the City of Anaheim. Performed background research, wrote historic context on northeast Anaheim's transformation from agricultural to industry in the mid-20th century, performed built environment survey, recorded and evaluated resources through DPR 523 series forms, and produced a technical report. (2007)

Space Shuttle Program NEPA, Section 106, and 110 Compliance, NASA, Third Party Peer Review of Technical Reports:
Architectural Historian (URS Corporation)
Performed third party NEPA, Section 106 and Section 110 review of technical reports for NASA for the decommissioning of its Space Shuttle Program properties. Reviewed properties per Criterion Considerations B (Moved Properties) and G (Properties less than 50 years), federal government definition of personal properties, and as geographic historic districts. Space Shuttle Program properties were located at Dryden Flight Research Center (Edwards, CA), White Sands Space Harbor, and White Sands Test Facility (Las Cruces, NM). (2007)

Pacific Gateway Cargo Center, Ontario International Airport Construction Monitoring and Treatment Plan, Ontario International Airport, Ontario, CA.:
Architectural Historian (URS Corporation)
Authored construction monitoring and treatment plan for subsurface features and built environment. Plan was for the redevelopment of 96 acre site, and included monitoring guidelines for construction/grading, and a visual inspection program for surrounding historic resources. Plan encompassed entire building process from pre-construction meetings to post-construction reports. (2006)

West Moreland Clean Harbors Landfill Expansion Cultural Resource Assessment, Private Client, West Moreland, CA.:
Architectural Historian (URS Corporation)
Performed CHRIS Center Records Search for Study Area for proposed landfill site. Results of Record Search were tabulated and used for cultural resource assessment of Study Area. (2006)

La Posada Hotel Engineering Contingency Plan, Private Client, Winslow, AZ.:
Architectural Historian (URS Corporation)
Planned and wrote an Engineering Contingency Plan for the La Posada Hotel (within the La Posada National Register District) for the removal of oil seepage from a raised concrete foundation. Plan provided scope, costs, and recommended Rehabilitation and Restoration treatments (per Secretary of Interior Standards for the Treatment of Historic Properties). Project required informal consultation with AZ SHPO and Materials Contractors. (2006)

IERF Building Historic and Architectural Documentation (HABS), University of California, Irvine, Irvine, CA.:
Architectural Historian (URS Corporation)
Performed equivalent of HABS Level 2 survey of a 1986 Frank Gehry-designed academic complex at the University of California – Irvine. Responsible for architectural investigation, physical history, historic context, and coordination with HABS photographer. (2006)

Uptown San Diego Historic Reconnaissance Survey, City of San Diego, San Diego, CA.:
Architectural Historian (IS Architecture)
Historian for the identification and evaluation of 20,000 resources in San Diego. Responsible for jointly preparing survey's first volume, which included "Data Analysis, Phase Implementation, Methodology, Styles Guide/Context, and Proposed Districts/Conservation Overlays." Evaluated and grouped resources based on association to historic context, and drafted district and overlay records, contributing elements, boundaries, and integrity. (2005-2006)

100MW Solar/Bio-Waste Power Plant, Spinnaker Energy, Inc., Fresno County, CA.:
Cultural Resources Task Manager (URS Corporation)
Served as Task Manager for cultural resources assessment. Performed fieldwork and co-authored Cultural Resources AFC section and technical report for a proposed hybrid solar and bio-fuel power plant in Fresno County. Deliverables were submitted to the CEC in support of a CEQA-level assessment. Duties included coordination of field survey, CHRIS records search, Native American consultation, primary and secondary research, development of historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, analysis of effects, and development of mitigation measures. (2008)

Carrizo Energy Solar Farm AFC Data Requests, Ausra, Inc., San Luis Obispo County, CA.:
Architectural Historian (URS Corporation)
Performed additional historic research and field surveys for CEC AFC Data Requests to determine the presence of a potential cultural landscape within the northern Carrizo Plains near the vicinity of the Project Area. Research efforts included a review of primary and secondary sources, development of an evaluative context, and recordation and evaluation of 8 potential contributing resources through DPR 523 series forms. Recordation and evaluation followed National Register Bulletin 30: Guidelines for Evaluating and Documenting Rural Historic Landscapes. (2008)

Carrizo Energy Solar Farm AFC Supplemental Filing, Ausra, Inc., San Luis Obispo County, CA.:
Cultural Resources Task Manager (URS Corporation)
Served as Task Manager for cultural resources assessment. Performed CHRIS records search and authored Cultural Resources AFC section for a 150-mile transmission line corridor intended for use as part of the 177 MW solar power project located in San Luis Obispo County, California. (2008)

Confidential Solar Energy Project, Confidential Private Client, Imperial County, CA.:
Architectural Historian (URS Corporation)
Performed primary and secondary source research to develop a historic context for the project area in support of a CEQA-level assessment for submission to the CEC. Context focused on Imperial County transportation/circulation networks (Highway 80), local military activities, irrigation agriculture, and the San Diego-Arizona Railroad. (2008)

Carrizo Energy Solar Farm 177 MW Solar Plant, CEC, Ausra, Inc., San Luis Obispo County, CA.:
Cultural Resources Task Manager (URS Corporation)
Served as Task Manager for cultural resources assessment. Performed fieldwork and authored Cultural Resources AFC section and technical report for a 177 MW solar power project located in San Luis Obispo County, California (640 acre solar farm; 380 acre construction laydown). Deliverables were submitted to the CEC in support of a CEQA-level assessment. Duties included coordination of field survey, CHRIS records search, Native American consultation, primary and secondary research, development of historic context, recordation and evaluation of historic-period properties, analysis of effects, and development of mitigation measures. (2007-2008)

Stirling Energy Systems – Solar 2 Project and Data Request 125, CEC, Imperial County, CA.:
Architectural Historian (URS Corporation)
Performed primary and secondary source research to develop a historic and evaluative context for the project area. Context focused on Imperial

County transportation/circulation networks (Highway 80), local military activities, irrigation agriculture, and the San Diego-Arizona Railroad. Also, recorded and performed determination of eligibility, analysis of integrity, and identification of effect for six historic-period properties. Prepared for Stirling Energy Systems. (2007-2009)

Solar Hybrid Power Plant Cultural Resources Assessment, Bethel Energy, Imperial County, CA.:
Architectural Historian (URS Corporation)
Performed CEQA-level cultural resource assessment of two early 20th century earthen and concrete-lined canals in Imperial Valley area. Performed CHRIS Center Record Search, developed historic context on Imperial Valley's irrigated commercial agriculture industry, performed built environment survey, recorded and evaluated resources through DPR 523 series forms, and produced a technical report. (2007)

Calnev Expansion Project, Kinder Morgan, San Bernardino County, CA.:
Architectural Historian (URS Corporation)
Served as Architectural Historian for cultural resources assessment for NEPA and CEQA project. Performed fieldwork and authored technical report for a 190-mile portion of a proposed 245-mile pipeline expansion project from Colton, CA to Primm, NV. Deliverables were submitted to the BLM as the lead agency for NEPA and the County of San Bernardino as the lead agency for CEQA. Duties included coordination of field survey, CHRIS records search, primary and secondary research, development of historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, analysis of effects, and development of mitigation measures. In total, recorded and evaluated 39 unrecorded historic-period properties and 17 previously recorded historic-period properties. Prepared for Kinder Morgan, Inc. (2008)

Carson Cogeneration Plan Expansion, BP, Inc., Los Angeles, CA.:
Cultural Resources Task Manager (URS Corporation)
Served as Task Manager for cultural resources assessment for a cogeneration plant expansion. Performed fieldwork and co-authored Cultural Resources AFC section and technical reports. Deliverables were submitted to the CEC in support of a CEQA-level assessment. Duties included coordination of field survey, CHRIS records search, Native American consultation, primary and secondary research, development of historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, analysis of effects, and development of mitigation measures. (2008)

1507 Mt. Vernon Avenue Historic Property Assessment, Patch Services Engineering, City of Pomona, Los Angeles County, CA.:
Project Manager/Architectural Historian (URS Corporation)
Project Manager/ Architectural historian for the evaluation of a 1927 paper mill located within a cogeneration power facility. Developed

historic context, construction chronology, and performed determination of eligibility, analysis of integrity, and identification of effect. (2008)

Starwood-Midway Power Plant AFC Data Requests, Starwood Energy, Fresno County, CA.:
Architectural Historian (URS Corporation)
Performed additional historic research and field surveys for CEC AFC Data Requests to determine the location of a historic farm in relation to the Project Area. Research efforts included a review of historic maps, aerial photographs, real estate and county records, and newspaper articles. The Data Requests, and associated figures and maps, were submitted to CEC via a Letter Report. (2007)

Revised Niland Cultural Treatment Plan and Research Design, Niland Gas Turbine Plant Project, CEC, Niland, CA.:
Architectural Historian (URS Corporation)
Authored the Historic Period Research Questions used in the Treatment Plan. Research questions focused on emigration, irrigation, flooding episodes, and power generation in Imperial Valley. (2007)

Confidential Pipeline Expansion Project Feasibility Study and Constraints Analysis, Private Client, CA and NV.:
Architectural Historian (URS Corporation)
Performed CHRIS Center Records Search for 223-mile pipeline expansion. Results of Record Search were tabulated and included in Feasibility Study. Also coordinated all cultural resource mapping with GIS personnel. (2006)

Cultural Resource Survey and Assessment, Imperial Irrigation District, Niland and El Centro, CA.:
Architectural Historian (URS Corporation)
Staff architectural historian for the evaluation of built environment resources and effect caused by alterations to power plant facilities. Evaluated resources per California Register criteria and developed recommended mitigation measures for project. Co-authored the Technical Reports, DPR 523 series forms, and Application for Certification. Identified an historic bank, eligible for the California Register of Historic Resources, related to the early development of Niland and a historic powerplant building, associated with the early development of the Imperial Irrigation District and eligible for the California Register. (2006)

Cook & Miller Court Complex Seismic Retrofit, FEMA, Santa Barbara County, CA.:
Architectural Historian (URS Corporation)
As part of HMGP-funding, evaluated the NRHP and CRHR eligibility of the Cook & Miller Court Complex, a Monterey style complex constructed in 1954, in compliance with Section 106 and the PA Completed architectural history survey, background research, DPR 523 series forms and findings memorandum. (2010)

Franklin Reservoir Improvement Section 106 Compliance Project, FEMA, Los Angeles County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for LADWP for the replacement of five catch basins for a 1940s dam within the City of Beverly Hills. Prepared DPR 523 series forms and technical report for SHPO. Developed historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, analysis of effects, and development of mitigation measures. (2008-2009)

Santa Monica City Hall MOA Seismic Retrofit, Jail-Area Adaptive Use, and ADA Improvements, FEMA, Los Angeles County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Review on behalf of FEMA for the seismic retrofit, jail-area adaptive use, and ADA improvements of the National Register-eligible City Hall. Reviewed consultant and City prepared studies and drawings, performed integrity analysis and identification of character defining features, analyzed effects, and developed a resolution of effects plan. Coordinated with ACHP, SHPO, OES, FEMA, and City, and authored Notification Letter and Draft MOA to resolve effects. Prepared for FEMA (2008-2009)

Harada House Section 106 Review, FEMA, Riverside County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Review on behalf of FEMA for emergency repairs to a National Historic Landmark (Harada House) within the City of Riverside. Reviewed project through NEMIS database, and responsible for SHPO consultation, applying Section 106 Programmatic Agreement Allowances, integrity analysis, and identification of effects. Drafted Notification Letter for ACHP, SHPO, OES, FEMA, and City. (2008)

Ross School Flood Mitigation Assistance, FEMA, Sonoma County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Review for FEMA for a flood elevation assistance project. Performed CHRIS Center Record Search and determination of eligibility, analysis of integrity, and identification of effect. Compliance study submitted via letter report to FEMA. (2008)

Sonoma County Flood Mitigation Assistance, FEMA. Sonoma County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for FEMA for flood mitigation assistance project. Performed CHRIS Center Record Search and determination of eligibility, analysis of integrity, and identification of effect. Compliance study submitted via letter report to SHPO. Prepared for Sonoma County. (2008)

Napa County Flood Mitigation Assistance, FEMA, Napa County, CA.:
Architectural Historian (URS Corporation)
Performed Section 106 Compliance Study for FEMA for flood mitigation assistance project. Performed CHRIS Center Record Search and performed determination of eligibility, analysis of integrity, and identification of effect. Compliance study data transmitted via letter report to SHPO. Prepared for Sonoma County. (2008)

Municipal Water District - Upper Feeder Line, FEMA, Riverside County, CA.:
Architectural Historian (URS Corporation)
Staff architectural historian for the evaluation of built environment resources for FEMA disaster recovery project. Evaluated resources ("Pratt" truss bridge and gaging station) per National Register criteria and requirements of Section 106 of the NHPA. Performed determination of eligibility, identification of effect, analysis of integrity, and recommended mitigation measures for project. Prepared for Riverside County. (2006)

San Diego Vegetative Management, FEMA, San Diego County, CA.:
Architectural Historian (URS Corporation)
Assisted FEMA's Section 106 compliance for vegetative management for the San Diego County communities of Bay Terrace, Del Cerro, Encanto, Lake Murray, Marion Bear Park, Serra Mesa, Black Mountain, Carmel Valley, Los Penasquitos, Tecolote Canyon, Scripps Ranch, and Tierrasanta. Performed CHRIS Center Records Search and wrote historic contexts for communities of Bay Terrace, Del Cerro, Encanto, Lake Murray, Marion Bear Park, Serra Mesa, Black Mountain, Carmel Valley, Los Penasquitos, Tecolote Canyon, Scripps Ranch, and Tierrasanta. Part of technical reports submitted to FEMA for Section 106 Compliance. Prepared for City of San Diego. (2006)

Hurricane Katrina Public Assistance, DR-1604-MS, FEMA, Biloxi, MS.:
Architectural Historian (URS Corporation)
Historic Preservation Specialist for NEPA review of over 100 public assistance projects. Reviewed projects through NEMIS database. Responsible for SHPO consultation, applying Section 106 Programmatic Allowances, determinations of eligibility, integrity analysis, and identification of effects. Drafted MOAs, developed mitigation measures, ensured projects met Secretary of Interior Standards for the Treatment of Historic Properties, and coordinated and led meetings between applicants, FEMA, and Mississippi SHPO. Projects included over 10 National Register Properties, 1 National Historic Landmark, and 15 Mississippi Landmarks. (2006)

Nevada City Fuel Reduction Project, FEMA, Deer Creek Environs, Nevada County, CA.:
Architectural Historian (URS Corporation)
Assisted FEMA's Section 106 compliance for wildfire mitigation of 600 acres. Mr. Hollins participated in kick-off meetings; performed extensive background research; developed an evaluative historic context; completed architectural history surveys for the Undertaking; and, prepared DPR 523 series forms and a findings memorandum. Four previously recorded cultural resources, one previously unidentified historic-period residential camp site, and five historic-period isolates were recorded in the Area of Potential Effect (APE) - all associated with the early history of 19th and 20th century northern California gold mining. (2006)

Water

Calaveras Dam Staff Housing Replacement Project, San Francisco Public Utilities Commission, Sunol, Alameda County, CA.:
Architectural History Task Manager (URS Corporation)
Architectural History Task Manager for the CEQA evaluation of a historic-period rural property that would be demolished to accommodate new staff housing for the SFPUC, as part of Calaveras Dam replacement project. CEQA evaluation included preparation of a technical archaeology and architectural history memorandum, recordation of the property through DPR 523 series forms, and preparation of project area maps. Developed evaluative historic context for the Spring Valley Water Company, Sunol, and Alameda County historic-period rural properties. (2010)

City of Los Angeles Lower Franklin Reservoir No. 2 - Debris Basins Replacement, Los Angeles, CA.:
Architectural Historian (URS Corporation)
Assisted FEMA's Section 106 compliance for LADWP's replacement of five catch basins for a 1940s dam within the City of Beverly Hills. Mr. Hollins performed extensive background research; developed an evaluative historic context; completed architectural history surveys for the Undertaking; and, prepared DPR 523 series forms and a findings memorandum. (2009)

MCB Camp Pendleton Bachelor Enlisted Quarters Siting Study, San Diego County, CA.
Architectural Historian (URS Corporation)
Reviewed MCB Camp Pendleton GIS layers and cultural resources records and data to identify potential direct impacts to previously recorded cultural resources located within a 500-foot radius of proposed Bachelor Enlisted Quarters at MCB Camp Pendleton. Provided cultural resources analysis as part of a preliminary NEPA constraints and siting study to support the preparation of the Project's design-build RFP for FY2008, FY2009, and FY2010. In total, 25 potential BEQ sites were analyzed for potential direct impacts to cultural resources. Prepared for MCB Camp Pendleton. (2008)

Desert Installation Appearance Plan and Airfield Security Study for NAF El Centro, NAS Fallon, NWS Seal Beach, NAS Lemoore, and NAWS China Lake:
Architectural Historian (URS Corporation)
Architectural Historian responsible for developing cultural resources considerations, base-wide historic contexts, design guidelines for historic structures and districts, and base-wide visual themes. Project was completed at five installations throughout California and Nevada. Within the historic district analysis, the character-defining features, visual quality and context, and historic contexts were identified to classify built environment styles and a harmonizing theme. In addition, all built environment properties within the installations were identified and categorized, in order to provide clear visual design guidance and functional and aesthetic guidance. Lastly, based on the preceding data, design guidelines (including material and construction elements) were then established for each installation. Prepared for NAVFAC. (2008)

Telecommunications

Verizon Wireless Communications Tower Section 106 Compliance, CA and NV.:
Lead Architectural Historian (URS Corporation)
Performed or supervised the completion of over a hundred Section 106 Compliance Studies for FCC on behalf of Verizon Wireless for new tower support structures and collocated towers throughout California and Nevada. Performed determination of eligibility, analysis of integrity, and identification of effect. Projects completed within various counties of California. Prepared FCC Form 620 or 621, DPR 523 series forms, and letter report. (On-Going)

Verizon Wireless Communications Tower Viewshed Analysis, Wendover, NV.:
Architectural Historian (URS Corporation)
Performed specialized historic viewshed analysis for FCC on behalf of Verizon Wireless for a new tower support structure in Wendover, NV. Viewshed analysis considered the project's effect within a half-mile radius. Results of the viewshed analysis were submitted via letter report to SHPO. (2008)

Historic-Period Property Evaluation Report – Twin Peaks, San Francisco Planning Department, San Francisco, CA.:
Architectural History Task Manager (URS Corporation)
Architectural History Task Manager for the Section 106 of the NHPA and CEQA evaluation of a historic-period religious building (church) located within the City of San Francisco, which would be substantially altered. CEQA evaluation was completed in compliance with San Francisco Planning Department regulations, as well as the guidelines established by the Major Environmental Analysis (MEA) staff and the Planning's Department's Preservation Coordinator. Section 106 of the NHPA and CEQA evaluation included preparation of a letter report, DPR 523 series

forms, APE maps, historic maps and images, records search information, and a San Francisco Planning Department Supplemental Information Form for Historic Resource Evaluation form. Historic-period property was evaluated using the Criterion Consideration A: Religious Properties, in addition to NRHP/CRHR criterion. (2010)

Scripps Park Historical Structures and Cultural Landscape Report, La Jolla, CA.:
Project Manager (Independent Contractor)
Project Manager and lead investigator for historic context and treatment plan of site. Work entailed identifying landscape features, flora/botanical species, existing conditions, review of original drawings and plans, historic sequence of events, construction chronology, and archaeological discoveries. Responsible for assigning tasks, overseeing sub-consultants work, coordination of report, budget, and application of Secretary of Interior standards, CEQA, and Coastal Commission regulations. Project submitted to City of San Diego and Coastal Commission for Restoration and Reconstruction of site and future planning. (2005)

Guy Fleming House at Torrey Pines Park Historic Structures Report, San Diego, CA.:
Lead Historian (IS Architecture)
Created historic context, performed site assessment, documented present conditions, and developed treatment plan for National Register site for California State Parks. Coordinated and oversaw sub-consultants' work (i.e., engineers, architect, spectrographers, archaeologist, paint-chip analyst). Organized meetings and was lead contact between State Parks and project staff. Building is a 1925 vernacular Pueblo Revival Building, formerly the headquarters for California State Parks southern office. (2005)

Half Round Building HABS Report, Escondido, CA.:
Lead Historian (IS Architecture)
HABS Level 1 documentation and research for City of Escondido on a Quonsett hut type building which predated World War II. Responsible for historic context, current conditions analysis, oral interviews, and overseeing project architect, engineer, and photographers work. Organized meetings and lead contact between city and project staff. Left firm before completion of the project. (2005)

Historic Reconnaissance and Intensive Survey, La Jolla, CA.:
Historian (La Jolla Historical Society)
Responsible for review, quality control, and redrafting of Context Statement and Historic Districts for City of San Diego. Reviewed survey data, performed archival research, and drafted new historic districts. Led workshop between city staff, public, client, and project team. (2005)

New School of Architecture and Design, San Diego, CA.:
Adjunct Instructor for "World Architectural History"

Professor for class of 55 students (graduate and undergraduate) - curriculum examined Prehistoric through Romanesque architectural history. (2005)

Warners Ranch Adobe Farmhouse and Barn Historical Structures Report and HABS Report, Warner Springs, CA.:
Lead Historian (IS Architecture)
Coordinated the production of the Historic Structures Report of National Register site. Responsible for drafting historic context, current conditions analysis, and co-authored treatment plan with preservation architect. Oversaw sub-consultants' work (i.e., contractor, engineers, architect, spectrographers, archaeologist, paint-chip analyst). Lead contact between client (Vista Irrigation District) and staff. (2004)

Casa de Bandini and Casa de Pico Historic Structures Report, San Diego, CA.:
Project Historian (IS Architecture)
Co-authored the Historic Structures Report of two National Register Sites for California State Parks. Report included historic context, current condition analysis, and treatment plan for buildings' adaptive use. Responsible for deliverables to client, and the coordination of sub-consultants' work (i.e., engineers, architect, spectrographers, archaeologist, paint-chip analyst). (2004)

City of Cape May General Plan Update, Cape May, NJ.:
Field Associate (Vital Computer Resources)
Responsible for 400-resource historic reconnaissance survey for City of Cape May Tax Assessor Office and Planning Department. Created measured field sketches, collected lot information, interior/exterior elements, construction details, alterations, integrity, and identified if contributor to potential district. Information was used to update existing Residential-Building Records, PDO information, future EIR content, future Land Use and Zoning Ordinance amendments. Cape May is a National Historic Landmark City and has high concentrations of Queen Anne and Stick Style buildings. (2003)

Community Involvement

Traffic and Parking Commission, City of Del Mar, Del Mar, CA.:
Appointed by the Del Mar City Council to serve four-year term as member of five person committee. Meet monthly and make recommendations to City Council based on public input and participation. Responsible for resolving traffic and parking issues; such as speeding, reoccurring regulatory violations, traffic congestion, parking problems, and application of new technologies. Work and meet regularly with the public, City Council, Parking Enforcement, the Fire Department, the San Diego Sheriff's officers, City Manager's office, Public Works and Planning Departments, and the City's Traffic Engineer. (July 2005-July 2009)

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Publications

"Village Memories: A Photo Essay on La Jolla's Past," *Journal of San Diego History*, Vol. # 54, Fall 2008

"Until Kingdom Come: The Design and Construction of La Jolla's Children's Pool," *Journal of San Diego History*, Vol. # 51, Winter/Spring, 2005

Chronology

2006-Present: URS Corporation, Senior Architectural Historian, San Diego, CA

2005-2006: New School of Architecture, Adjunct Instructor, San Diego, CA

2004-2005: IS Architecture, Architectural Historian, La Jolla, CA

2003-2004: La Jolla Historical Society, Archivist and Preservation Specialist, La Jolla, CA

Contact Information

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URS

Joel Levanetz, M.A.

Architectural Historian

Areas of Expertise

Secretary of Interior Professional Qualification Architectural History and History (36 CFR Part 61)
19th – 20th Century Architecture
Archival Research
Historic Preservation Treatments and Law
Urban History

Years of Experience

With URS: 2 Years
With Other Firms: 2 Years

Education

MA, Public History, University of San Diego, 2008
BA, Anthropology, University of Wisconsin-Madison, 2006

Overview

Joel Levanetz is a Secretary of Interior Professional Qualified Architectural Historian and Historian for the URS San Diego office. Since 2008, Mr. Levanetz has been active in the field of architectural history. In this discipline, Mr. Levanetz has applied his knowledge and ability to a range of projects, including historic structures reports, historic resources assessments, Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) documentation, and DPR 523 series form preparation.

Mr. Levanetz possesses a detailed understanding of relevant regulations and ordinances that affect historic properties, such as Sections 106 and 110 of National Historic Preservation Act (NHPA), the National Environmental Protection Act (NEPA), the California Environmental Quality Act (CEQA), and the Secretary of Interior Standards for the Treatment of Historic Properties. He has applied this understanding to a breadth of historic assessments and determinations of eligibility across a range of administration levels including local, state, and National Register of Historic Places (NRHP). Among the agencies served by Mr. Levanetz are the Federal Emergency Management Agency (FEMA), Bureau of Land Management (BLM), California Energy Commission (CEC), Federal Communications Commission (FCC), Federal Aviation Administration (FAA), Department of Housing and Urban Development (HUD), California Department of Transportation (Caltrans), as well as countless local agencies and private clients.

Project Experience

Transportation

California High Speed Rail Authority, High Speed Train, Palmdale to Los Angeles Union Station Segment EIR/EIS and Technical Report – Los Angeles County, CA., Architectural Historian: Survey lead and co-author of the Historic Architecture Survey Report, Historic Properties Survey Report, and the historic architecture section of the EIR/EIS for the Palmdale to Los Angeles Union Station segment of the California High Speed Train project pursuant to CEQA and NHPA. Delineated area of potential effect (APE), conducted archival research, oversaw task management and led execution of survey spanning from Palmdale to downtown Los Angeles. (Ongoing)

BNSF Mojave Subdivision, Tehachapi Pass, Second Main Track-Bena to Marcel – Kern County, CA., Architectural Historian: Conducted a desktop evaluation of properties in the Project Area Limits (PAL) associated with events in local and state history such as the National Register of Historic Places-listed Nuestra Señora Reina de La Paz, associated with labor rights leader Cesar Chavez. Following Caltrans Division of Rail standards and comments, drafted the Historical

Resources Evaluation Report (HRER), Archaeological Survey Report (ASR), and Historical Resources Compliance Report (HRCR). (2011)

Caltrans and Alameda Corridor Transportation Authority, HAER, Level II, for the Commodore Schuyler F. Heim Bridge, Schuyler Heim Bridge Replacement and SR-47 Expansion Project – Long Beach, CA., Architectural Historian:
Peer-reviewed HAER Level II photo and written documentation of Heim Bridge within the Port of Los-Angeles-Long Beach to fulfill NHRA Section 106 mitigation requirements. Ensured project met all Standards and Guidelines of HAER Level II for submission to the Library of Congress. Project was nominated for a URS Pyramid Award for Technical Excellence. (2011)

Caltrans and City of Santa Ana, Bristol Street, Phase 3 and Phase 4 – Santa Ana, CA., Architectural Historian:
Performed Section 106 Compliance Study for the City of Santa Ana Public Works Agency for the roadway widening at Bristol Street from Civic Center Drive and Seventeenth Street and from Warner Avenue to Saint Andrew Place. Assisted in the preparation of HPSR, HRER, and DPR 523 series forms for project per Caltrans/FHWA guidelines. Tasks included APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, and impact analysis. (2011)

Caltrans and SANDAG, Lenwood Road – Barstow, CA., Architectural Historian:
Performed Section 106 Compliance Study for the San Bernardino Associated Governments for the roadway and railroad track grade separation at the Lenwood Road rail crossing. Updated HPSR, ASR, HRER, and DPR 523 series forms for project per Caltrans/FHWA guidelines. Performed determination of eligibility, analysis of integrity, and identification of effect on residential and commercial properties associated with Historic Route 66 in San Bernardino County. (2011)

Caltrans and Riverside County Transportation Department, Clay Street Grade Separation Project – County of Riverside, CA., Architectural Historian:
Conducted Section 106 Compliance Study for the Riverside County Transportation Department for the roadway and railroad track grade separation at the Clay Street rail crossing. Prepared HPSR and ASR for project per Caltrans/FHWA guidelines, requested records search information, tabulated and evaluated the records search results, conducted historic research, evaluated potential impacts to previously-recorded properties and completed DPR 523 forms. (2011)

Caltrans and Los Angeles County Metropolitan Transportation Authority, Interstate 710 Corridor Project between Ocean Boulevard and the State Route 60 Interchange – Los Angeles County, CA., Architectural Historian:
Provided secondary critical review of the Historic Property Survey Report (HPSR) and Historical Resources Evaluation Report (HRER) prepared by Galvin Preservation Associates in compliance with Section 106 of the NHPA and Caltrans's Section 106 PA. The review focused on the content of the work product including compliance with applicable codes and standards and consistency with requirements in the proposal and Project Execution Plan (PXP). A total of 172 historic-period (45 years of age or older) resources were documented and evaluated in the project APE. (2011)

Caltrans, I-405 Widening – Los Angeles and Orange Counties, CA., Architectural Historian:
Assisted the cultural resources task lead with preliminary project planning for the I-405 Widening project in Lose Angeles and Orange Counties. Reviewed records search results and records search results maps, requested NAHC Sacred Lands File search, and assisted with contacting Native American tribal representatives. (2010)

Orange County Transit Authority and Cities of Santa Ana and Garden Grove, Santa Ana and Garden Grove Fixed Guideway EIS/EIR – Santa Ana and Garden Grove, California, USA., Architectural Historian:
Served as archival researcher as well as technical report and EIS/EIR section co-author for an approximately four mile proposed streetcar line in the City of Santa Ana. Completed determination of eligibility, analysis of integrity, and identification of effect for approximately 100 resources in accordance with the NHPA, NEPA, CEQA, and Federal Transit Administration guidelines. Project requirements included APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, field map and field form creation, and impact analysis. Architectural history resources recorded ranged from late nineteenth to late-1970s commercial, residential, institutional, and industrial properties, including an NRHP-eligible steel-truss bridge and two NRHP-listed historic districts as well as numerous locally landmarked and individually NRHP-eligible buildings. (2011)

Los Angeles County Metropolitan Transportation Authority (Metro), Westside Subway Extension, EIR and Historic Survey Report–Los Angeles, CA., Architectural Historian:
Assisted with architectural history tasks for the Los Angeles Metro Westside Extension project. Tasks included archival research, reviewing the historic context, evaluating the project APE for eligibility, identifying and evaluating NRHP-listed, -eligible, or contributing resources, considering project effects by alternative, proposing mitigation measures, and reviewing the technical report and EIR section. (2010)

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Energy

BrightSource Energy, Siberia and Sonoran West Projects Application for Certification – San Bernardino and Riverside Counties, CA. Architectural Historian:
Serving as the cultural resources field data manager, archival researcher, and technical contributor for large solar projects. Co-authoring the architectural history portion of cultural resources section of the Application for Certification, which will evaluate the direct and indirect impacts of the project to cultural resources. Will complete determination of eligibility, analysis of integrity, and identification of effect for resources in accordance with the NHPA, NEPA, CEQA, and California Energy Commission guidelines. (Ongoing)

BrightSource Energy, Rio Mesa Solar Energy Project Application for Certification – Riverside County, CA., Architectural Historian:
Served as the field surveyor and archival researcher for an approximately 8,000 acre solar project in the Colorado Desert of California. Co-authored the architectural history portion of cultural resources section of the Application for Certification, which evaluated the direct and indirect impacts of the project to cultural resources. Completed determination of eligibility, analysis of integrity, and identification of effect for 30 resources in accordance with the NHPA, NEPA, CEQA, and California Energy Commission guidelines. (2011-2012)

Chevron Central Reliability Center and Central Tool Room/I&E Shops Project Cultural Resources Technical Memorandum – El Segundo, CA., Architectural Historian:
Prepared a preliminary CEQA Compliance Study using the criteria outlined in Section 5024.1 of the California Public Resources Code (CPRC) for the removal of seven historic-period structures and construction of modern facilities at the refinery. Drafted a technical memo for Chevron to identify historic properties and determine possible effects of the project on these properties. Work included APE delineation, analyzing records search results, historic context and site history development, identification and evaluation, and Native American consultation. (2012)

Pio Pico Energy Center, LLC, Pio Pico Energy Center, Otay Mesa – San Diego County, CA. Architectural Historian:
Performed a historic architecture assessment for alterations to plans for a proposed gas plant in San Diego County in accordance with CEQA and CEC guidelines. Conducted archival research, evaluated the project APE for eligibility for listing in the CRHR or as a historical resource for purposes of CEQA, and updated the architectural history portion of the cultural resources technical report for submission to the CEC. (2011)

Bethel Energy, L.L.C., Bethel 10 – Imperial County, CA., Architectural Historian:
Performed an intensive architectural history field survey of the project's APE in accordance with CEQA and the CEC guidelines for a proposed gas plant in Chula Vista. Conducted archival research and evaluated the

project APE for eligibility for listing in the CRHR or as a historical resource for purposes of CEQA. Recorded several resources on the appropriate DPR 523 forms, including an international border marker and the All-American Canal. Drafted the architectural history portion of the cultural resources technical report for submission to the CEC. (2010)

Infrastructure Development

Verizon Wireless Telecommunication Projects, Section 106 Compliance – CA and NV., Architectural Historian:
Performed over 55 NRHP compliance studies for the Federal Communications Commission on behalf of Verizon Wireless for new tower support structures and collocated towers throughout California and Nevada. Completed determinations of eligibility, analyses of integrity, and identifications of effect. Resources identified and evaluated have dated from the late nineteenth century to the recent past, were located in various settings (dense urban, suburban, rural, and industrial), and have included numerous property types (residential and commercial buildings, churches, educational institutions, hospitals, water towers, windmills, farm and ranch landscapes, an oil refinery, and irrigation canals). (Ongoing)

Centre City Development Corporation, Rehabilitation and Construction of New Urban Plaza at Horton Plaza – San Diego, CA., Architectural Historian:
Served as field survey and research lead for a unique subsurface investigation in downtown San Diego. Authored the Historic Architecture Monitoring Technical Report and attachments for the San Diego Register of Historical Resources-listed Horton Plaza. Drafted content and format consistent with the Project Execution Plan (PXP), compliant with applicable codes and standards, and following technical project standards. (2012)

San Francisco Public Utilities Commission, Peninsular Pipelines Seismic Upgrade – City and County of San Francisco, CA., Architectural Historian:
Coordinated and led field survey for improvements to water utilities across northern San Mateo County. Led archival research and drafted the Historic Architecture Survey Report (HASR). Completed determination of eligibility, analysis of integrity, and identification of effect for approximately 30 resources in accordance with the NHPA, NEPA, and CEQA. Project requirements included APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, field map creation, and impact analysis. Architectural history resources recorded included a Dr. Alister Mackenzie-designed, NRHP-eligible 1929 golf course, portions of three pipelines dating to the early 1900s, and three mid-century residences. (2011-2012)

North Hollywood Park Field House Demolition Project Cultural Resources Investigations – Los Angeles County, CA.< Architectural Historian:
Prepared a preliminary CEQA Compliance Study using the criteria outlined in Section 5024.1 of the California Public Resources Code

(CPRC) for the removal of a Spanish-Colonial Revival style field house constructed in the 1930s. Drafted a technical memo for the City of Los Angeles Department of Recreation and Parks to identify historic properties and determine possible effects of the project on these properties. Work included APE delineation, archival research, analyzing records search results, historic context and site history development, identification and evaluation, and Native American consultation. (2011)

FAA, San Francisco International Airport Runway Safety Area Program – San Francisco, CA., Architectural Historian:
Assisted an assessment of the historic-age runways, taxiways, canal, and approach-lighting trestles within the project APE for runway safety area improvements required by the FAA at the San Francisco International Airport. Airport facilities were evaluated pursuant to Section 106 of the NHPA, NEPA, and CEQA. Assessed effects and impacts from the proposed undertaking; completed DPR 523 series forms; and co-authored the Historic Architecture Survey Report. (2011)

Government & Military

FEMA, Dant Wash Drain Diversion – Reno, NV., Architectural Historian:
Performed Section 106 Compliance Study for FEMA for a flood damage mitigation assistance project involving the replacement of a culvert and historic-age retaining walls. Performed determination of eligibility, analysis of integrity, and identification of effect. Drafted findings memo. (2012)

FEMA, East Bay Hills Hazardous Fire Risk Reduction Program – Alameda County, CA., Architectural Historian:
Prepared a preliminary Section 106 Compliance Study for FEMA for a fire damage mitigation assistance project involving the removal of vegetation from potentially hazardous areas throughout the East Bay Region. Drafted an EIS section for FEMA to evaluate and record historic properties as well as determine possible effects of the project on potentially historic properties. Tasks included APE delineation, identification and evaluation, and Native American consultation. (2010)

FEMA, Northwest Reno Fire Mitigation Program – Washoe County, NV., Architectural Historian:
Performed a Section 106 Compliance Study for FEMA for a wildfire damage mitigation assistance project involving fuel removal from open spaces in disparate residential areas. Executed extensive field survey which included both surveying the built environment and assisting the survey of over 400 acres for archeological resources. Performed determination of eligibility, analysis of integrity for individual properties and potential cultural landscapes, and identification of effect. Drafted the finding of no historic properties. (2012)

FEMA, Caliente Flood Mitigation Assistance, Lincoln County, NV., Architectural Historian:
Performed a Section 106 Compliance Study for FEMA for a flood mitigation assistance project involving the elevations of early twentieth century residences in Lincoln County. Performed determination of eligibility, analysis of integrity, and identification of effect. (2012)

FEMA, Carson Senior High School Seismic Retrofit – Carson, CA., Architectural Historian:
Prepared a preliminary Section 106 Compliance Study for FEMA for a seismic retrofit project involving the seismic upgrade of a mid-century high school gymnasium design by a recognized, Los Angeles-based architectural firm. Authored a memo for FEMA recommending a project approach, including APE delineation, identification and evaluation methods, and specific application of the Secretary of the Interior Standards for Rehabilitation for the historic property. (2011)

FEMA, San Anselmo City Hall – San Anselmo, CA., Architectural Historian:
Performed a post-mortem Section 106 Compliance Study for FEMA for a flood damage mitigation assistance project involving the repair of the Town Hall Complex, an early 19th century building which houses the Public Library, Fire Station and Town Hall Offices. Executed determination of eligibility, analysis of integrity, and identification of effect. Drafted the finding of no historic properties. (2011)

FEMA, North Tahoe Roof Replacement – North Tahoe Fire Protection District, CA., Architectural Historian:
Co-authored a memo for FEMA recommending a project approach, including APE delineation, identification and evaluation methods, Native American consultation and involvement, and specific application of the Secretary of the Interior Standards for Rehabilitation for any identified historic properties. (2010)

FEMA, Fairfax Pavilion – Fairfax, CA., Architectural Historian:
Drafted a Section 106 Compliance Study for FEMA under an earthquake damage mitigation assistance project for a memorial pavilion in Fairfax. Performed determination of eligibility, analysis of integrity, and identification of effect. Drafted findings memo. (2012)

National Oceanic and Atmospheric Administration (NOAA), Integrated Water Resources Science and Services (IWRSS), University of Alabama Section 106 Compliance – Tuscaloosa, AL., Architectural Historian:
Created field methodology and photo guidance for survey conducted by qualified university staff. Completed evaluation of eligibility and effect pursuant to Section 106 of the NHPA for buildings associated with the mid-nineteenth century Bryce Hospital NRHP-eligible historic district. Through consultation with interested parties and Alabama SHPO, determined appropriate level of recordation and drafted modified HABS report approved by SHPO. (2011)

United States Postal Service (USPS), Historic Context Study 1940-1971 – Nationwide, Architectural Historian:
Conducted interviews with key individuals for historic context theme and research methods development. Distributed information to project team members identifying potential research repositories for various historic-period post offices throughout the Western Region. (2012)

US Navy, Marine Corps Air Station Chocolate Mountain Aerial Gunnery Range (MCAS CMAGR) Land Withdrawal Renewal – Riverside and Imperial Counties, CA., Architectural Historian:.
Assisted with research to identify potential cultural resources in the project APE for the cultural resources section of the Legislative Environmental Impact Statement (LEIS). (2011)

United States Marine Corps, Marine Corps Base (MCB) Camp Pendleton, Area Development Plan, Museum District Plan – County of San Diego, California, Architectural Historian:
Contributed to the Museum District Plan by reviewing primary and secondary sources, developing a historic context, and reviewing data forms for the district's historic-period buildings and structures. Assisted in the identification of potential future projects and addressed the specific needs of the Marine Corps Mechanized Museum, with recommendations for improvement and repair based on the Secretary of the Interior's Standards for Rehabilitation. (2012)

Projects performed at another Firm

Quieter Home Program, San Diego, CA., Historian (Heritage Architecture and Planning):
Undertook an extensive architectural historic field survey for the San Diego Airport Authority. Determined the eligibility of hundreds of residences in the project's extensive Area of Potential Effect. Conducted a large-scale historical investigation for each of the subject properties to ensure that exterior treatments applied to the homes beneath the flight path did not violate local, state or federal regulations. (2008-2010)

Carl G. Bray House, Indian Wells, CA., Historian (Heritage Architecture and Planning):
Compiled historical data from various repositories, drafted historical context and executed a historical evaluation for the home and gallery of artist Carl G. Bray for the Carl Bray House Historic American Buildings Survey (HABS). This was implemented by authorities in Indian Wells as a measure to mitigate the demolition of the structures. (2010)

Historic Structures Report, Bonsall Schoolhouse, County of San Diego, CA., Historian (Heritage Architecture and Planning):
Completed a historic structures report for the late 19th century one-room schoolhouse located on the current school grounds. This project required field work, archival research, historical context development, technical writing and integrity analysis. (2009)

Lanterman Developmental Center, Pomona, CA., Historian (Heritage Architecture and Planning):
Led a team of architects to record and analyze the 120 structures that constitute the Lanterman campus for the California Department of General Services. Drafted a comprehensive Historic Resources Assessment Report that included a historical overview, an evaluation of the integrity of each building and information regarding potential historic districts. Each structure was identified and evaluated for their significance based upon the criteria set forth by the local, state and national registers. (2009)

Professional Societies/Affiliates

National Trust for Historic Preservation
California Preservation Foundation
San Diego History Center
Phi Alpha Theta, History Honor Society
Phi Kappa Phi, Honor Society

Awards

Nomination, URS Pyramid Award for Technical Excellence, 2011. Historic American Engineering Record for the Commodore Schuyler F. Heim Bridge, Schuyler Heim Bridge Replacement & SR-47 Expressway

Publications

James Wood Coffroth, The Journal of San Diego History, 2009
A Compromised Nation: Redefining the U.S.-Mexico Border, The Journal of San Diego History, 2008
Architectural Feature, The Times, San Diego Historical Society, 2007-2008
Belle Baranceanu: The Artist at Work, Resource Library, Traditional Fine Arts Organization, 2007
Lydia Knapp Horton, The Times, San Diego Historical Society, 2007

Lectures and Public Presentations

Arts, Crafts and Architecture: The American Craftsman. Continually presented to a variety of interested parties at the George White Marston House, 2007-2008
Topics on Early San Diego History. Presentations given to participants of the Conference on Early San Diego Regional History, 2007-2008
Curator's Talk. Presentations given to students of the "School in the Park" Program, 2007-2008
These Days. Live interview with KPBS host Tom Fudge regarding the history of enduring San Diego's summer heat, 2007

URS

Continuing Education

New School of Architecture & Design Lecture Series: 2009, 2010, 2011, 2012
Published "James Wood Coffroth, (1872-1943): West Coast Promoter," 2009

Chronology

URS Corporation, Architectural Historian, San Diego/La Jolla, California, 2010-Present
New School of Architecture & Design, San Diego, California, 2008-Present
Heritage Architecture and Planning, Historian, San Diego, California, 2008-2010
San Diego History Center (formerly San Diego Historical Society), Curator, San Diego, California, 2006-2008
Archeology Field Technician, ASM Affiliates, 2005-2006

Contact Information

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Joel.levanetz@urs.com

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Brandt-Hawley Law Group

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preservationlawyers.com

April 8, 2013

Christopher Cannon, Director of Environmental Management
Los Angeles Harbor Department
425 South Paloes Verdes Street
San Pedro, CA 90731

via email ceqacomments@portla.org

Subject: Comments on Program EIR
Port Master Plan Update

Dear Director Cannon:

This office represents the Los Angeles Conservancy regarding the Port Master Plan Update and EIR. Our statewide practice focuses on citizen enforcement of the California Environmental Quality Act. The many CEQA cases handled by this office over the last thirty years include published appellate decisions in *Friends of Sierra Madre v. City of Sierra Madre, Flanders Foundation v. City of Carmel, Lincoln Place Tenants Association v. City of Los Angeles, The Pocket Protectors v. City of Sacramento, Preservation Action Council v. City of San Jose, Friends of the Santa Clara River v. Castaic Lake Water Agency, Architectural Heritage Association v. County of Monterey, League for Protection v. City of Oakland, Galante Vineyards v. Monterey Peninsula Water Management District, Stanislaus Natural Heritage Project v. County of Stanislaus,* and *Sierra Club v. County of Sonoma*. BH-1

Consistent with the comments presented by the Conservancy and National Trust for Historic Preservation, I note that CEQA requires both indirect and direct impacts of the Master Plan Update to be addressed to the extent that they are known or reasonably foreseeable at this programmatic level. The uses being described within the Master Plan parameters foretell significant adverse impacts on listed or potentially-eligible historic resources. These uses conflict with mandates of the Coastal Act and CEQA that require avoidance of such impacts when feasible. (*E.g.*, Pub. Resources Code, §§ 21002, 21080, 21084.1, 30708.)

BH-2 The Master Plan Update Program EIR should expand its analysis of a range of reasonable alternatives to include uses compatible with the feasible adaptive reuse of designated or historic resources. Impacts on such resources should be considered and mitigated. The EIR should be revised and recirculated.

Thank you for your attention to these comments.

Sincerely,

Susan Brandt-Hawley

Comment Letter BH: Brandt-Hawley Law Group

Response to Comment BH-1:

This comment references comments on the PEIR and PMPU provided by the Los Angeles Conservancy and National Trust for Historic Preservation and notes that CEQA requires the PEIR to address both direct and indirect impacts of the proposed Program on historical resources to the extent they are known and avoid impacts where feasible. The LAHD has no current plans to demolish any of the buildings in the Fish Harbor area of Terminal Island or specifically at the Southwest Marine facility, and would not contemplate such an action unless there was a proposed development project requiring their removal. In such a case, project-level cultural resource evaluations would be conducted in accordance with CEQA and the *Built Environment Historic, Architectural, and Cultural Resource Policy*, as described in Response to Comment LAC-3, to ensure that historic resources are adequately considered. The PMPU simply indicates permitted future land uses, and that the proposed land uses would not preclude adaptive reuse or other means of preserving historic resources on Terminal Island (note that adaptive reuse is only one means of avoiding significant impacts on historic resources). Accordingly, there are no other "reasonably foreseeable future activities" that should be considered in the PEIR, and the PEIR complies with CEQA.

Response to Comment BH-2:

This comment states that the PEIR should expand the analysis of alternatives to include adaptive reuse of designated or historical resources. The alternatives considered in the PEIR, and land use changes described in the PMPU, do not preclude adaptive reuse of historical buildings. Instead, the range of land uses, along with the LAHD's established policies and the mitigation measures imposed through the PEIR, afford adequate protection for historic resources in the Port. Specifically, the LAHD has adopted its *Built Environment Historic, Architectural, and Cultural Resource Policy* that specifies the mechanisms that will be used to ensure the preservation and adaptive use, where feasible, of cultural resources. Accordingly, the land use designations in the PMPU do not conflict with the goal of protecting historic resources, and the alternatives considered in the PEIR already incorporate the preservation and reuse of historical properties. As such, expanding the PEIR to include additional alternatives specifically focused on adaptive reuse of historical properties would be unnecessary because this concept is already addressed in the existing alternatives. Correspondingly, the LAHD disagrees with the suggestion that the PEIR should be recirculated.

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THE PORT OF LOS ANGELES

Port of Los Angeles Master Plan Update
Draft Program Environmental Impact Report (PEIR)
Comment Form

Date: 3-16-13

Comments on the Draft PEIR must be postmarked or received by **April 8, 2013**. Comments may be submitted at the public hearing, via email to **ceqacomments@portla.org** or by U.S. Postal Service to the address below.

1. EIR FAILS TO INCLUDE ALL PORT ACTIVITIES ON TIDELANDS AND OFF TIDELANDS PORT OWNED PROPERTIES. CFASE2-1
2. EIR FAILS TO ASSESS ALL PORT AND TENANT ENVIRONMENTAL IMPACTS CFASE2-2
3. EIR FAILS TO MITIGATE ALL PORT AND TENANT ENVIRONMENTAL IMPACTS CFASE2-3
4. EIR USES AN OUTDATED HEALTH RISK ASSESSMENTS AS THE BASIS FOR IT DECISION MAKING, WHEN IN FACT HEALTH IMPACT ASSESSMENT AND PUBLIC HEALTH SURVEYS PROVIDE EXTREMELY ACCURATE PUBLIC HEALTH IMPACTS INFORMATION AND ALLOW APPROPRIATE MITIGATION. CFASE2-4
5. EIR FAILS TO INCLUDE PUBLIC REQUESTED TIDELANDS AND NON TIDELANDS USES. CFASE2-5

Please Print

1. Name: JESSE N. MARQUEZ
2. Organization/Affiliation (if applicable): COALITION FOR A SAFE ENVIRONMENT
3. Address: 1601 N. WILMINGTON BLVD, STE B
   WILMINGTON, CA 90744
   JNM4EJ@YAHOO.COM

Please give this form to one of the Port of Los Angeles representatives, place in the comment box or mail by **April 8, 2013**, to:

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, CA 90731

Comments may also be emailed to **ceqacomments@portla.org**

CFSSE2-6 6. THE EIR CLAIMS of REQUIRING ALTERNATIVE GREEN AND ZERO EMISSIONS TECHNOLOGIES IN PORT TENANT LEASE AGREEMENTS IS MISLEADING. THE WORDING DOES NOT MANDATE THE USE ~~OF~~ OF NEW CLEAN TECHNOLOGIES WHEN THEY ARE APPROVED, CERTIFIED OR ACKNOWLEDGED BY REGULATORY AGENCIES OR WHOSE TECHNOLOGY HAS BEEN VALIDATED BY THIRD PARTY ENGINEERING COMPANIES AND/OR LABORATORIES OR EXPERTS

CFSSE2-7 7. THE EIR FAILS TO include PUBLIC REQUESTS FOR THE EXPANSION AND DEVELOPMENT of WETLANDS RESTORATION, & WETLANDS AND cultural NATURE CENTER. CFSSE IDENTIFIES CONSOLIDATED SLIP AS AN AREA WHERE WETLANDS could BE INCREASED SIGNIFICANTLY BUT CHOSE THE MINIMUM DEVELOPED NATIVE AMERICANS OCCUPIED SAN PEDRO BAY BUT THERE IS NO HISTORICAL ACKNOWLEDGEMENT OR PLANS TO ESTABLISH A NATIVE AMERICAN & WETLANDS CENTER.

CFSSE2-8 8. EIR FAILS TO ASSESS, QUANTIFY AND REMOVE CONTAMINATED LAND ABOVE WATER LEVEL AND BELOW WATER LEVEL SUCH AS CONSOLIDATED SLIP.

Comment Form CFASE2: Coalition For A Safe Environment

Response to Comment CFASE2-1:

The commenter does not provide any specifics regarding the Draft PEIR's suggested failure "to include all port activities on tidelands and off tidelands port owned properties" (sic). The Draft PEIR does describe all Port activities and plans relevant to the master planning process, and the comment does not provide any information to the contrary. Accordingly, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). Please note that LAHD-owned lands outside the coastal zone are not included in the PMPU except as that information might support activities within the coastal zone. The CCA stipulates that ports prepare and adopt master plans (PMPs) for the land and water areas within their boundaries that lie within the coastal zone.

Response to Comment CFASE2-2:

The commenter does not provide any specifics regarding the Draft PEIR's suggested failure "to assess all port and tenant environmental impacts." The Draft PEIR does describe all impacts relevant to the master planning process, and the comment does not provide any information to the contrary. Accordingly, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

Response to Comment CFASE2-3:

The commenter does not provide any specifics regarding the Draft PEIR's suggested failure "to mitigate all port and tenant environmental impacts." The Draft PEIR does provide mitigation for all significant impacts, as required by CEQA, and the comment does not provide any information to the contrary. Accordingly, no further response is s required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

Response to Comment CFASE2-4:

The Draft PEIR includes an appropriately thorough evaluation of potential health risks that is consistent with CEQA. The Draft PEIR also contains a comprehensive assessment of other health-related impacts of the proposed Program in various other resource chapters that collectively with the health risk evaluation is appropriate for a programmatic document under CEQA. There is no requirement under CEQA that a lead agency include a Health Impact Assessment (HIA) or conduct every study requested by commenters. The LAHD has established, funded, and participated in an extensive amount of community programs, financial assistance trust funds, and outreach of the type often sought by commenters or the literature as part of the process or outcomes of HIAs.

Response to Comment CFASE2-5:

The commenter does not provide any specifics regarding the Draft PEIR's suggested failure "to include public requested tidelands and non-tidelands uses." Without knowing which uses the commenter is referring to, it is not possible to provide further response. Notwithstanding, the comment is noted and is hereby part of the

Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment CFASE2-6:

CEQA provides that environmental analysis should emphasize feasible mitigation measures (PRC Section 21003(c). An agency may, however, reject mitigation measures or project alternatives if it finds them to be "infeasible" (PRC Section (a)(3); CEQA Guidelines Section 15091(c)(3)). A "feasible" action is one defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors (PRC Section 21061.1; CEQA Guidelines Section 15364). Consideration of feasibility of mitigation measures may also be based on practicality (*No Slo Transit, Inc. v. City of Long Beach* (1987) 197 Cal.App.3d 241, 257).

The commenter appears to be referring to **MM AQ-17 and MM AQ-18**, both of which focus on the adoption and implementation of new alternative technologies as they become commercially available and are determined by the LAHD to be feasible. The commenter is correct that the mitigation measures do not contain absolute requirements to implement every new technology that is approved by a regulatory agency or "validated by third party engineering companies and/or laboratories or experts." However, the mitigation measures in the Draft PEIR are appropriate under CEQA because they reflect the considerations of reasonable time, economic and technological factors, and practicality described above. Based on the variety of activities and land uses in the Port, a rigid requirement to adopt every new technology would be inappropriate because it would not take into account the fact that different technologies are appropriate for different applications. Instead, the mitigation measures represent a commitment by the LAHD to incorporate new technologies into Port operations when and where they are determined to be feasible. Furthermore, a PEIR is not the appropriate forum for such specificity; instead, project-specific mitigation measures would require the application of technologies appropriate to each project.

The commenter's suggestion that tenants and the LAHD be required to implement technologies that are "acknowledged" by regulatory agencies or "validated" by (unspecified) third parties is inappropriate because it does not take into account the fact that acknowledgement by an agency or validation by an engineering company does not constitute proof of feasibility in the circumstances of Port operations.

Response to Comment CFASE2-7:

The commenter appears to be addressing two different issues: development of additional wetlands inside the Port; and establishment of some type of cultural center related to past habitation of San Pedro Bay by Native Americans. With regard to the first issue, the LAHD is not aware of any proposals to establish wetlands on the site of the Consolidated Slip. That body of water is currently a navigational waterway devoted to cargo, maritime support activities, recreational boating, and stormwater conveyance, and would continue to support such uses in the future under the PMPU. However, the open space designation proposed areas in the vicinity of the Consolidated Slip under the PMPU would be consistent with any future proposal for

wetlands enhancement. Thus, the PMPU designations would not preclude the concept of wetlands.

Although no wetlands are planned for the Consolidated Slip, please note that the proposed PMPU includes possible wetlands expansion nearby, in the Anchorage Road/Wilmington Marinas areas. The PMPU (Section 5.3.2) and PEIR (Section 2.5.3.3, Planning Area 2) specifically cite the Anchorage Road Soil Storage Site (ARSSS) Concept Plan as part of the planning framework for Planning Area 2. This plan as set forth in the *Wilmington Marinas/ARSSS Preferred Conceptual Plan* (LAHD 2011) was developed through a process of public participation and included several wetlands expansion alternatives. Note also that the proposed PMPU designates the Anchorage Road site as open space, which would allow a wetlands project to be implemented. Accordingly, the commenter is incorrect in stating that the PEIR "fails to include public requests for the expansion and development of wetlands restorations."

With regard to a Native American cultural center, the LAHD is unaware of any proposal to that effect, and the commenter does not provide any justification for locating such a facility within the Port. Furthermore, the presence or absence of a cultural center in the PMPU is not a CEQA issue, and no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

Response to Comment CFASE2-8:

Remediation of contaminated soils and sediments in and around the Consolidated Slip is not an appropriate topic for the PEIR (or the PMPU) because such an activity is not a proposed appealable/fill project, and thus its consideration would be speculative. A PEIR does not need to resolve existing environmental problems that would not be made worse by the project. (*Watsonville Pilots Ass'n v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1094 ["The FEIR was not required to resolve [the existing] overdraft problem, a feat that was far beyond its scope"]). "A change which is speculative or unlikely to occur is not reasonably foreseeable" (CEQA Guidelines Section 15064(d)(3)). "There is no requirement that an EIR analyze speculative impacts." (*Friends of Eel River v. Sonoma County Water Agency* (2003) 108 Cal.App.4th 859, 876.) "An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR" (CEQA Guidelines Section 15130(a)(1)).

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THE PORT OF LOS ANGELES

Port of Los Angeles Master Plan Update
Draft Program Environmental Impact Report (PEIR)
Comment Form

Date: March 13, 2013

Comments on the Draft PEIR must be postmarked or received by **April 8, 2013**. Comments may be submitted at the public hearing, via email to **ceqacomments@portla.org** or by U.S. Postal Service to the address below.

ExxonMobil Pipeline Company requests that the Port Master Plan Update and Program Environmental Impact Report designate Southwest Terminal Area 2 as dual usage, Container and Liquid Bulk. The re-zoning of the area north of the Terminal Island Water Reclamation Plant from liquid bulk to container will result in an unnecessary environmental impacts due to the deconstruction of fully functional liquid bulk tanks and reconstruction of new tanks less than a mile away. The environmental impact of demolishing and remediating the existing site, producing new tanks, reconstructing the tanks at a new site, and extending infrastructure to the new site should be included in the EIR. The port should also consider the financial loss associated with liquid bulk tenants if relocations were forced upon them. This could significantly impact the Port's ability to diversify revenue and import liquid bulk commodities necessary to meet California's projected energy demand.

EXXON2-1

EXXON2-2

EXXON2-3

EXXON2-4

Please Print

1. Name: Thomas Saiget
2. Organization/Affiliation (if applicable): ExxonMobil Pipeline Co.
3. Address: 800 Bell Street, Houston, TX 77002

Please give this form to one of the Port of Los Angeles representatives, place in the comment box or mail by **April 8, 2013**, to:

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, CA 90731

Comments may also be emailed to **ceqacomments@portla.org**

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Comment Form EXXON2: ExxonMobil Pipeline Company

Response to Comment EXXON2-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment EXXON2-2:

This comment notes that rezoning the area north of the TIWRP from liquid bulk to container would result in unnecessary environmental impacts due to deconstruction of existing liquid bulk tanks and construction of new liquid bulk tanks. Please see Response to Comment EXXON1-2.

Response to Comment EXXON2-3:

Please see Response to Comment EXXON1-2.

Response to Comment EXXON2-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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THE PORT OF LOS ANGELES

Port of Los Angeles Master Plan Update
Draft Program Environmental Impact Report (PEIR)
Comment Form

Date: 3-13-13

Comments on the Draft PEIR must be postmarked or received by **April 8, 2013**. Comments may be submitted at the public hearing, via email to **ceqacomments@portla.org** or by U.S. Postal Service to the address below.

HELP US LOCATE TEMPORARY LANDOA PARKING LOT FOR OUR PROJECT STREET LEGAL PILOT PROGRAM - HARBOR AREA

Thanks!
Angel Nieves
Organizer

PSL2-1

Please Print

1. Name: ANGEL NIEVES
2. Organization/Affiliation (if applicable): PROJECT STREET LEGAL - HARBOR AREA
3. Address: 11003 TOWNLEY DRIVE
   WHITTIER CA 90606

Please give this form to one of the Port of Los Angeles representatives, place in the comment box or mail by **April 8, 2013**, to:

Christopher Cannon, Director
City of Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes St.
San Pedro, CA 90731

Comments may also be emailed to **ceqacomments@portla.org**

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Comment Form PSL2: Project Street Legal

Response to Comment PSL2-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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PORT MASTER PLAN UPDATE

DRAFT PROGRAM EIR

PUBLIC HEARING

REPORTER'S TRANSCRIPT OF COMMENTS

Wednesday, March 13, 2013

6:00 p.m. to 7:30 p.m.

Banning's Landing Community Center

100 East Water Street

Wilmington, California 90744

REPORTER BY: LINDA M. STANTON, CSR 7769

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A P P E A R A N C E S

FOR THE CITY OF LOS ANGELES HARBOR DEPARTMENT
ENVIRONMENTAL MANAGEMENT DIVISION
425 South Palos Verdes Street
San Pedro, California 90731
Christopher Cannon, Director
James Bahng

KATZ AND ASSOCIATES
4250 Executive Square, Suite 670
La Jolla, California 92037
858-452-0031
Emily Michaelson
Samantha Valencia

P R O C E E D I N G S

MR. CANNON: We've got a small group here, so I won't give a big formal talk. I will just welcome everybody. And we're going to have the project manager for the environmental impact report give an overview of the project and of what we've done with the PEIR and what it includes. I am Christopher Cannon, I'm the Director of the Environmental Division of the Port.

All I ask is that you recognize -- I want to tell you about what the process is. This is a scoping meeting. The purpose of the scoping meeting is for us to listen to you. Realize that we're not going to be in a position to answer questions. A lot of people come to scoping meetings hoping to have a dialogue. I don't have a problem with having a dialogue with you, either before or afterwards. We can certainly chat about what's going on, but in the process of the scoping meeting, the purpose is for us to listen. So we're going to do that.

We have a three-minute rule, but I think since there's really two people that are going to speak, we'll probably be a little loose with that, but don't take advantage of that looseness. And you know, I think that's about all.

Turn it over to James -- where are you, James?

This is James Bahng. He's my favorite staff member, because he has a name that is pretty impressive sounding, B-a-h-n-g, but you can't tell that when you say that. Bahng, James Bahng.

MR. BAHNG: Thank you, Chris. I just want to go through a couple of housekeeping issues. For our Spanish speaking audience, we do have a translator who has headsets. Our translator, could you raise your hand. If you need a Spanish translator headset, you can go speak with her, she will help you out with that.

We do have a couple of different mediums for you to provide comments. Towards the back, we have a comment table and a comment box. So if during the meeting presentation you feel inclined to make a comment, feel free to do so. We also have speaker cards, so if you plan on providing oral comment, please fill those out and hand that to one of our meeting coordinators and we'll provide additional instructions on how to comment later on with the presentation.

So before we get started, I would like to clarify and make a distinction about the draft EIR and the PMPU, Port Master Plan Update. The purpose of the Environmental Impact Report is to evaluate the potential environmental effects of the PMPU. There's a PMPU document prepared by the planning division. So I just wanted to be

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clear we are here to talk about the Environmental Impact Report and give you an overview of what the PMPU entails, the PMPU draft EIR released to the public on February 21, 2013.

The most important purpose of this public hearing is to provide an outlet to the public to provide comments. So we would appreciate your comments tonight either verbally, orally, or written.

These are the objectives in CEQA to discuss the potential environmental effects, identify how to avoid or review impacts, prevent environmental damage through mitigation or alternatives, foster interagency coordination during review of projects, and enhance public -- like I said earlier, enhance public participation.

This provides an overview of the environmental review process. Last July we issued the notice of preparation to the public, and shortly thereafter, we held a scoping meeting. Like I said earlier, on February 21, we released the draft EIR, and tonight we're holding the public hearing to provide the community an opportunity to comment on the project and the Environmental Impact Report, although we have a couple of additional steps that we're going to follow for the EIR. Later on I'll go over the additional steps that are going to be taken.

These are the program EIR requirements. A program EIR is used to address a series of actions that can

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be considered as larger projects and are related. I'd like to rephrase that, the PEIR, Program Environmental Impact Report, is the first tier environmental assessment. And as such, evaluates impact at a higher level, future environmental documents will be prepared for projects and the environment occurring under the PMPU. I'd like to repeat that. Future environmental documents will be prepared for other projects in the development occurring under the PMPU.

Before going into the Port Master Plan Update, I would like to give you a brief overview of what the current PMPU or current Port Master Plan contains. The Master Plan was originally approved by the board and certified by the California Coastal Commission in 1980. And since then has been amended several times.

A comprehensive review and updated PMPU has not been completed since it's original certification. The PMP Update would combine the PMP -- existing Port Master Plan and its subsequent amendments into a comprehensive document. It would also incorporate recent land use plans, such as the Terminal Island planning. Let me emphasize, the Port Master Plan is a requirement of the California Coastal Commission, and as such it covers Port property within the coastal zone. So certain Port properties, such as the near dock yards are not considered in the Port Master Plan.

I'd like to explain to you what the PMPU

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environmental process entailed. The Harbor Department

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received input from the various stake holders, tenants, customers, agencies, and the community. Two workshops were held by our planning division, on July 19 and October 25 of last year. During the workshops, the Harbor Department received comments on a variety of issues, including land use designations, preservation of resources, implementation of environmental conservation efforts, increase cargo diversity, and public access from San Pedro and Wilmington.

The Port Master Plan covers five different planning areas. I would liked to give you an overview of what the PMPU entails. The PMPU consolidates areas characterized by predominate land use pattern, thereby reducing the number of planning areas and would allocate a single allowable land use to most sites. Certain areas may be land use that would result in intensification of activities with the potential for impact on physical environment.

The PMPU also defines anticipated proposal projects. These projects are further classified as appealable. And the appealable projects are those which can be appealed to the Coastal Commission by the public.

The appealable projects include, but are not limited to, oil refineries, commercial fishing facilities, and recreation marina facilities. These proposed appealable

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projects are expected to occur within the next five years.

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The PMPU mentioned other projects which include those that have already undergone environmental analysis through CEQA. And those which are in the conceptual planning stage, the PEIR does not analyze impacts of the other projects, because they have been already evaluated through CEQA or not insufficient details about the conceptual projects are known.

So Planning Areas 1 and 5 for -- Planning Areas 1 and 5 have minimal environmental analysis. Planning Area 1 consists of some other projects and those are already analyzed by CEQA. So there was not a need to analyze those under this EIR. Planning Area 5 consists of water areas of the Port, including the main channel, outer harbor, and other navigable waters within the Port Master Plan area. There would not be any environmental impact within Planning Area 5 under the PMPU.

I would like to go back and make a note about Planning Area 1. Overall, what the PMPU would do for Planning Area 1 is it would result in the deindustrialization of the San Pedro area. Projects under the PMPU -- other projects under this include increased accesses to the water front, visitor center, commercial development, and expanded activities.

Planning Area 2 consists of the west basin and

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Wilmington areas. The west basin consists of container terminals in Wilmington consisting of a variety of liquid

Page 8

bulk, dry bulk, recreational boating, and open space. We have a couple projects proposed and projects for the Planning Area 2. First off, this is the Yang Ming terminal redevelopment project. That would be roughly in this area. It would include approximately three acres of cut, which would result in extra water or additional water area and six acres of fill.

We have the China Shipping project, which is roughly in this area, and that would create 16 acres of landfill at Berth 1 and 2, increase the back lands of existing the China Shipping container terminal.

The Vopak liquid bulk relocation terminal. Currently Vopak is around the west space of this area. It would be moved to the east space. The west space would be replaced with open space and institutional land uses.

Planning Area 3 covers Terminal Island. It's the largest planning area. And it consists of all Terminal Island with the exception of Fish Harbor. The Terminal Island land use plan completed in January 2012 the framework for land uses located in this area. For plan optimization, cargo hauling operations on Terminal Island has containers, but would restrict non-cargo, non-water dependent uses. This planning area includes proposed fill projects under which it

would create 18 acres of fill for container purposes. This is the general area of where that fill will be developed.

This cross-hatched area represents another project which would be the Pier 500 project. And at present, we do not have enough details about that project to even analyze it at a programmatic level.

Planning Area 4 covers Fish Harbor. It focuses on commercial fishing and maritime supported uses. Commercial fishing will remain focused on the northern and eastern portions of Fish Harbor, while maritime support and other institutional uses are located along the western portion of Fish Harbor. Break bulk is anticipated at Berths 240 and 241 and the back land area. Proposed projects in this planning area, first we have the Tri Marine expansion project, which would expand the operations of the current and existing Tri Marine facility. And it's roughly in this area here. We would also have the 338 Cannery Street adaptive reuse project would redevelop the nine acre site at Berth 265, readaptive reuse of existing historical buildings. And that's in this same general area.

Also includes the Al Larson Marina project, which would remove approximately 125 recreational boating slips. These existing boating slips are in this general area.

Planning Area 4 also includes another project

already analyzed by CEQA, and that's the Jankovich Marine fueling station, analyzed through San Pedro Waterfront Project Environmental Impact Report.

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As required by CEQA, we analyzed a number of program alternatives. The first one was no program alternative required by CEQA. We also analyzed and considered a no fill alternative, and that happened to be the environmentally superior alternative obvious reasons. It wouldn't create fill. We also evaluated or considered the liquid bulk relocation. This alternative would have involved relocating liquid bulk facilities to Terminal Island.

However, this alternative was dismissed for a couple of important reasons. First off, this alternative would not substantially reduce environmental impacts. Existing liquid bulk facilities are in accordance with the Port's risk management plan. Liquid bulk facilities in the present form are not incompatible with surrounding land uses.

Additionally, financially unfeasible to relocate liquid bulk terminals onto Terminal Island, because of the cost associated with redevelopment on Terminal Island and restoration of the existing lands.

Lastly, there's insufficient berth and berth capacity at Terminal Island for liquid bulk facilities.

So next we'll talk about the findings of our Environmental Impact Report. This slide shows the

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significant and unavoidable impacts. Air quality impacts would be associated with the construction of new facilities under the PMPU. And also may be associated with operations

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resulting from the increased cargo. Noise impacts would be attributable to construction activities. There would not be any noise impacts associated with operation. As a result of the increased cargo handling, there would be additional truck traffic and congestion along the I-710 Freeway.

These are the resource areas that had less than significant impacts with mitigation. Includes biological resources, cultural resources, geology hazards, and hazardous materials and public services. Biological, cultural, geology.

These are the resource areas where we found less than significant impact to aesthetics, ground water and soils, land use recreation, utilities, water quality sediments and oceanography.

Under this Environmental Impact Report, we had a number of mitigation measures. I am just going to go over the mitigations that we thought were key mitigation matters that would be of most interest to the public.

Mitigation measure AQ-1 through 8 are based on the Port's sustainable construction guidelines may raise emissions during construction activities.

AQ-9 to 16 would include, but are not limited

to, alternatives for vessel emission reduction, clean cargo handling equipment, and to help reduce emissions from trucks. These measures would mitigate or attempt to mitigate the impact of operation at the Port.

Mitigation measure AQ-17 and 18 would ensure that new technology and regulations are considered by the Port tenants and efforts to further reduce operational emissions.

Mitigation measure BIO-1 through BIO-4 ensure marine mammals, seals, sensitive bird life so they are not adversely affected during future construction under the PMPU. These mitigation measures include but are not limited to preconstruction surveys to identify birds. And other measures having biological monitors during pile driving activities.

Mitigation measure BIO-5 addresses the loss of marine habitat as a result of the fill projects under the PMPU.

Mitigation measure CR-1 to CR-5 relates to the impact of the cultural resources as a result of the development under the PMPU. This completes requirements to redevelopment services, identify cultural resources, and procedures for dealing with unanticipated discovery of such resources, such as fossils and bones.

Mitigation Measures NOI1 to 11 reduces impacts

of noise resulting from construction occurring under the PMPU. They include measures such as restricting the days and hours of construction work. And they also include notifying the public of pending construction.

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Mitigation Measure TRANS-1 would require the Port to support the Caltrans I-710 corridor project to address congestion as a result of increased truck activity occurring under the PMPU.

These are the next steps for the EIR. We still need to prepare the Final PEIR, and there would be revisions to the EIR based on public comment. Obviously, we're going to respond to public comments and we would be required to prepare a mitigation monitoring under the Port program. Board certification of the Final EIR is expected this summer.

I would like to give you an overview of what the Port Master Plan Update process is. And again this is being handled by our planning division. Like the Environmental Impact Report, the draft document for the PMPU was released to the public February 21, and also has a 45-day review period. The planning division will be holding a meeting -- public hearing for the board Master Plan on April 4. And like the Environmental Impact Report, the Port action will occur this summer. Additional steps required for plan approval by the Coastal Commission will occur some time later

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this year and needs to occur within 90 days of the board and Harbor Commission's action.

So the format of this meeting is we're soliciting public input. We will not be answering questions or delving more into the Environmental Impact Report. So

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we're solely here to solicit public input. Like I mentioned earlier, we have a couple avenues for you guys to provide comment. Towards the back of the room we have a comment table where you can fill out a comment card and place it in the box. You can also provide comment via e-mail. If you do so, please include the project title and subject line, attach to the e-mail a letter and include the valid e-mail address in that e-mail. And the e-mail comment will go to CEQAcomments@portla.org.

Also tonight we're going to be accepting oral comments. Please make sure that you completed a speaker card and that you presented it to one of our meeting coordinators. We're going to have our elected officials speak first so they can resume official business. Otherwise our audience will be asked to speak in the order that the speaker cards are presented.

Like Chris mentioned, we have a relatively small audience, so typically we restrict our audience to speaking to three minutes, but we'll provide some flexibility on that tonight. We'll just try to keep it under control so

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that we're not here too long.

If you do come up to the front to speak, we ask that you spell your name, and if you're affiliated with an agency, please make a note of that. And I forgot to mention the 45 -- we have a 45-day comment period on the EIR.

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So the comment period started on February 21 and will end on April 8, 2013. So if you plan to send in written comments or e-mail comments, that must be done by April 8.

VOICE: For the Final EIR, what is the anticipated public comment period of time? This is the Draft. When you release the Final, what is your anticipated public comment period of time?

PORT REPRESENTATIVE: There's no public comment period. We have to notify the public agency within 10 days prior to the certification of the EIR.

MR. BAHNG: With that we'll go ahead and begin accepting oral comments. We don't have an elected official present, so we're just going to call up speakers in the order that they presented comment cards.

First we have Donald Galaz, and he's with Project Street Legal.

PT1-1 MR. GALAZ: Donald Galaz, Donald Galaz. And I am with an organization -- I'm with Project Street Legal. Project Street Legal was organized two years ago. And what our organization does, along with Teamwork Motor Sports, is

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we're ridding our city streets of illegal street racing, which is a big public safety issue that occurs in the Harbor area, throughout Los Angeles, and the South Bay. Currently, we have been attending most of these meetings, and we are aware of the Port property that would be suitable for this particular pilot program that we would be able to run

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temporarily on Port property.

Currently, we have neighborhood counsel support from Harbor City and San Pedro, and we are working with Harbor Gateway. We are also working with the Watts territory. And we have union backing by the International Longshoreman's Warehouse Union, and Pile Drivers Local 2375 out of Wilmington. And we are also working with the welders union out of Gardena, California, also.

The public safety issue that is right before our hand is something that puts a public at risk, and it's definitely occurring throughout our area. In January of this year, we had a death to a 29-year-old out of Long Beach, California, that was illegally street racing in the public streets of Long Beach, and he ejected four passengers from his vehicle that was racing. And one of them was killed.

About two weeks ago we had a young, little boy out of the Inglewood area killed due to suspected illegal street racing that occurred on public streets also. During around that same time, about three days later, over in the

PT1-1

PT1-2

PT1-3

17

Willowbrook area there was illegal street racing activity that occurred and a 23-year-old drove his Honda Civic underneath a semi-tractor pulling out of an industrial area over in the Willowbrook area.

A lot of these illegal street racers, they are -- some of them are good kids. Okay. A lot of them are

Page 17

PT1-3

in schools and vocational classes. And unfortunately, they are not facilitated right now, at this time, for them to have a place to go and legally race, with safety crews and technical inspectors there to visually check everything on their vehicles.

We have noticed a bunch of potential sites here in the port, and they would suit us for a pilot program so we can evaluate the pros and cons. And also funds generated from this legal raceway would go directly back into the neighborhood communities.

One of my major goals and focuses is to bring funds to vocational programs which have been drawn way within local high schools. And as you know, different occupational centers that are shutting down welding classes and stuff like that.

Another thing that I'm trying to do is physically just get -- use the car as a gimmick and to draw their attention. We're not trying to make a racer out of everybody. What we are trying to promote is hands-on,

out-of-the-book training and physically putting a wrench in these young individuals' hands and possibly turning them into something that could go to a whole other different avenue, other than, you know, working on vehicles.

PT1-4

Currently, our project has been speaking with Mayoral Candidate Wendy Gruel and Eric Garcetti, and they have both informed us that it is a public safety issue and

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that they would like to help us in any way they can. We are 501 nonprofit. Teamwork Motor Supports is active in that point, and we have a board of different individuals that are -- that are knowledgeable about the ins and outs of organizing such a raceway, if we were to get the opportunity to bring this worthwhile project to the Port of Los Angeles and to the Harbor area.

PT1-4

I'm a local resident of 40 years in San Pedro. I have family throughout Wilmington, San Pedro, Torrance. I am also a Central San Pedro neighborhood council member and this has been something that I have been pursuing for approximately two years. Like I said, and it's a lot bigger than just being a legal raceway to the Port. It has to do with impacting local auto parts stores, local tire shops, local restaurants and businesses, and those other types of things that exist here in the Harbor area. I have a lot of support from different people throughout the area, and we're going to continue to move forward with this project. And I'm

PT1-5

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hoping that by showing up here tonight that the Port would consider, you know, possibly sitting down with us and talking about something we could do as a community project that would be a great, great success for the community and for the Port of Los Angeles also. So thank you.

MR. BAHNG: Thank you. Next we have Jesse Marquez with the Coalition for a Safe Environment.

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PT1-6

MR. MARQUEZ: Thank you very much for the opportunity to speak, and for the extra time, because oftentimes it's difficult to reduce our notes down to a few minutes. My name is Jesse Marquez, J-e-s-s-e M-a-r-q-u-e-z. I am the founder and executive director of the Coalition for a Safe Environment. It is headquartered in Wilmington and is over 12 years old now. I am also speaking as a resident of the City of carson who lives by and near to a proposed -- a project -- project concern about that and I have a comment I would like to make. I will be sending written comments.

That is one of the big concerns we have is the Port's lack of acknowledgement of the fact that they only have prepared the Program EIR -- only prepared the Port Master Plan based on tide lands properties. We believe that's an incorrect assumption. The Port has gone beyond its responsibility in just managing tide lands by purchasing hundred of acres of property off tide lands in Wilmington. I estimate it to be about 5-, 600 acres, could be more in San

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Pedro. How many acres are in the City of Carson, Long Beach? We don't know that fact.

The fact of the matter is, that the Port is expanding off its tide lands property, and we believe that if you continue to do that, then you are obligated to include it in your Master Plan. You are obligated to also include it in your Program Environmental Impact Report. So that is a request from us.

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Also assess all the port and tenant environmental impacts. Typically, what the Port does in an EIR, say, for example in truck destinations, they include a round trip as if the route was only from the Port to the location and back, which is not true. We have thousands of trucks leaving various city locations, East L.A., San Fernando Valley, Orange County. The truck is in that community, therefore it has to go to a local gas station, then has to travel anywhere from a few miles to as many as 20 or 30 miles to get to the Port.

But then it is not just to get to the Port. In many cases it has to pick up a chassis in order to pick up a container. Well, there are off-Port container storage yards in Wilmington, in Carson, and in Long Beach. That truck must, therefore, get off that freight route and onto a local street or highway to pick up a chassis. Then it has to go to the Port terminal. And even when it picks up a

PT1-7

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container, for example, it is not necessarily going straight to its destination. It might have to go through an inspection. So it would be a different Port site inspection facility or off-Port property, tide lands property, for the inspection facility. Some containers also have to go through fumigation. So it can be at the Port at a different location, also be off tide lands, for a different destination.

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PT1-7

Also there are times when accidents occur, like on the bridges, and they have to be rerouted. In that case what happens now in Wilmington is instead of rerouting trucks from the Harbor Freeway to come down the logical truck route, which is Harry Bridges Road, all the signs tell them to go through the Pacific Coast Highway, which is right through the middle of the community.

So in this case, we feel that those designations are not properly included. When you do your traffic congestion studies, it's an area where I am very unfamiliar with, but I did learn a little detail not too long ago. They calculate the traffic congestion at an intersection, which means, then, for example, if the green light is three minutes, they basically count how many vehicles go through. Well, depending on what time of the day you go through, we're talking with resident cars, vehicles going back and forth versus truck count of going back and

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forth. We're talking about not only just your container trucks, but then we have construction going on at the Port. So then you have construction equipment type trucks going back and forth. But then if you count three minutes, within of those numbers, then you get the maximum amount that can go through. What is not included is the fact that it could be backed up three, four blocks. So even though you counted traffic during that one-hour counting period, it could have been three hours for the actual traffic flow to go through.

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So we feel that, you know, we're not getting -- the accurate amount of traffic and congestion is not accurately being counted or estimated. And therefore the appropriate mitigation is not being performed. And so we would like to see that taken care of.

Now, because traffic destinations are not being properly estimated or ideally during congestion at intersections, the emissions are not properly being counted. So whatever the Port counts as their estimated emissions, it is underestimated. And if they are underestimated, then therefore, your mitigation is also underestimated. PT1-7

The Port uses a health risk assessment as a basis for decision-making in terms of environmental public health impacts, which believe that it is an outdated method. Yes, it is approved by the State agencies, that's not a problem, but the fact of the matter is, in the last 10 years PT1-8

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the most accurate assessment tool that exists in the United States and throughout the world and throughout the planet, is a health impact assessment.

So therefore, to continue using an assessment tool that's outdated, we still believe you need to include a health impact assessment. I want to give you some examples. A health risk assessment does not tell you how many residents in Lomita and San Pedro, or anywhere have asthma. Doesn't tell you how long they have had asthma. Doesn't tell you how

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PT1-8

severe the asthma rate is and how much it costs them, the socioeconomic impact to that family.

There's also the socioeconomic impact to the State of California. The California Air Board did a study on the public health impacts the State of California Port's movement was causing about approximately 2 billion in annual public healthcare costs the Port is not mitigating. Well, because you're not doing those health impact assessments, because you're not doing a public health survey, you don't know how many people are sick, how long they have been sick, and what that socioeconomic impact has been.

A health impact assessment with the public health survey can do that. And could bring reality to life. Today, now, approximately three weeks ago Mrs. Villante, a Wilmington resident, died of COPD. So your PEIR proposed clean air initiatives either to clean the area or fix the

truck plan did not save her life. A week or two before that, Mrs. Melendez, a lady longshoreman who had the best health plan on the planet, died of an acute asthma attack. So those are examples whereby health assessment does not identify that. So you don't know that your proposed mitigation is accurate, because you have no established public health baseline.

So even though clean air has been getting cleaner here at the Port based on the emissions assessments, we don't know year to year to year, over a longer period of

time, has it actually improved public health? PT1-8

I'll just stand by this last point, in that our organization does support alternative land uses at the Port of L.A. You just heard Mr. Galaz talk about a land use they would like to have. So there are both Port tide land property and off-Port tide land property that the Port owned the public has a right to use. PT1-9

We have seen the Port of L.A. deprive the public of uses of the oceans off San Pedro Bay. Boat owners are restricted and unable to use their boat and sailing yachts in the area now that the Port continues to increase its container imports. Then more ships come in, which again further restricts public land uses. So we feel that the EIR and Port Master Plan should include and assess alternative uses. PT1-10

Saying that the Pier 500 cannot be properly assessed at this time is not actually a true statement. Because you have container terminals, you have dry bulk, liquid bulk, and we believe Pier 500 can have those type of uses. And one of these to be used is the BNSF SCIG project, which would be a land use designated for that use, and with no credit available today. We need to plan for it. Thank you. PT1-11

MR. BAHNG: Thank you. Next we have Rick Whearty with American Shipyard Group.

PT1-12

MR. WHEARTY: Hi. Rick Whearty, W-h-e-a-r-t-y, representing American Shipyard Group, Wilmington Boater Association. Currently involved with a group trying to reopen San Pedro boat works, which on most of the drawings here is showing up as another cruise terminal. Currently, there are no boat yards or marine maintenance facilities left in the Port. Colonial has been closed. Wilmington Marine Services closed. And San Pedro Boat Service was closed in early 2000. So there are no facilities whatsoever to maintain the nearly 5,000 boats that are in this harbor, pleasure boats and yachts.

So even on the basic number, that's 13 boats a day that have to be service, hauled out every year, if they are hauled on a yearly basis. Half that amount on a biannual basis.

PT1-13

There's also no emergency service. Should a boat of any consequence start to sink, there's no place to haul it out. I can't just take it 15 miles to Long Beach or 15, 18 miles to Marina del Rey if there's an emergency. There is a much needed facility here and the group I'm working with is looking at putting in a new state of the art boat yard that's clean, meets all emission standards, and does measures and controls. And we have actually presented a letter of intent to the Port of Los Angeles, and I have a letter of commitment from Chase Bank for a multimillion dollar amount that can pull off the construction and

acquisition of the property and the yard. We would also provide hundreds of jobs on the front line of the services, and then the ancillary support of sales and other businesses in the Port area would also benefit from all the activities that could go on in the marine maintenance facility.

PT1-13

We're actually looking at putting in a complete service center that covers all sales, welding, woodwork, paint work, and all the services necessary to support the marine maritime community in this harbor.

The tradition of boat work is rich and long in the Port of Los Angeles. Also up among that is all the local Wilmington, San Pedro city communities in support of this project. And so we really would like the Port to take a deeper look at this.

I just recently had a meeting with somebody from the mayor's office yesterday. And there seems to be a lot of push about it not being aesthetically pleasing, about it not might be current -- somehow there's this vision of it being dirty. And that is absolutely the furthest thing from the truth that will happen here.

PT1-14

Currently, there are a lot of yards, especially in San Diego, San Francisco, and Newport Beach that are directed -- in direct proximity to restaurants and residential and other businesses that meet every type of qualification to be an adjacent business to another business

PT1-14 or residence. It is not a business that will be a detriment to the port. It will be an enhancement to the Port, yacht clubs, recreational boating community in this area.

PT1-15 You know, there's -- I currently have a yard bill here from one boat that I just took to Newport Beach. Three days, it was $19,000. So you know the economic impact that this could have in generating jobs and the tax basis for the area is considerable. That's not including the mega yachts that are bypassing this area because there's no place to service them and no place to tie them up. Mega yachts come through at a hundred foot plus, with crew, visiting guests would come into join them. And it's a huge economic impact on this area and being completely overlooked.

PT1-16 You know, currently the cruise ship terminal,

as I see it down here all the time, I don't see it fully -- I don't see it overflowing with cruise ships waiting to berth. I have heard that the AMP system they put in cost $10,000 a day to keep it idle, barely getting the money back. A lot of money wasted a year here.

Also residents of San Pedro do not want the cruise ship terminal out there, not only for the aesthetic look out their houses to see cruise ships there, but also don't want the ancillary traffic up and down Harbor Boulevard, to further support vessels and all the passenger loading and unloading that goes along with that situation.

PT1-17 So you know, to not look at this as an ideal

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situation with the multimillion dollar improvement that has been in the Cabrillo marinas, and as a tie and anchor tenant taking this into the future is a little bit shortsighted in our opinion. PT1-17

I mean, to really look at this, we have the funding, we have the viability. We want to meet every environmental standard up to date as possible and really create an amazing destination that people from other harbors will come to, because they want something new. They don't want to go to Long Beach that's got 40-year-old technology.

So I doubt the current cruise terminal is operating, maybe, in the black. I don't know if it's in the green. I kind of think it might be in the red. But we look PT1-18

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forward to having another conversations with the Port and I hope that in the public comment period we can make something happen and make this a reality. Thank you very much.

MR. BAHNG: Thank you.

PORT REPRESENTATIVE: I want to ask you to make sure you come to the board meeting when the Master Plan is actually presented, your comments are very good, not really EIR comments, just about policy and we appreciate them. PT1-19

MR. WHEARTLY: Dealing with the environmental issue, they don't deal with me because CEQA is all environmental. And you know, I see those other projects, when the Port wants to get them done, they breeze right through them. The EIR

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gets done.

PORT REPRESENTATIVE: Please come. These are actually good things that we ought to be thinking about. Please come.

MR. BAHNG: Next we have Adrian Scott with the Los Angeles Conservancy.

MR. FINE: Good evening. Adrian Scott Fine, F-i-n-e, Director of Advocacy for the Los Angeles Conservancy. Want to thank the Port for doing this meeting. The Conservancy has been involved at the Port, really, for the past six, seven years. Certainly our focus is on the cultural resources side of things, and some of the concerns we have in terms of the potential reuse recognition, of course,

identification and evaluation of historic resources, and cultural resources at the Port. Much of our focus has been on Terminal Island most recently. And what we're looking for and what I wanted to comment on a little bit here tonight is providing a path forward for preservation that this Master Plan, this Program EIR process can, one, identify that as a legitimate goal, but also identify some creative ways to address that issue.

We appreciate the cultural resources that have been identified, but still have some pretty strong concerns that the Master Plan, as it is currently envisioned, doesn't provide that path.

So we'll provide certainly more comments in

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written form. I also want to identify a few things, certainly, in this forum. One of those is the issue of goals. While it's great that in the five goals that are identified within the Master Plan, that cultural resources and the preservation of historic buildings and places on the Port were identified, that we really appreciate that's included. However, of the five the goals, cultural resources is treated quite differently than the other four. The other four are identified in the context of the Port will or the Port should. PT1-21

When you get to cultural resources and the Port will, it doesn't say "will," it just says "where

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feasible." We would like to be brought up to the "should" category. And also to give meaning to that goal -- if it is a goal, give meaning to it and also identify whether our conflicts and goals and what does that mean in terms of what prevails.

Another issue is the issue of cultural resources itself, in terms of identification and evaluation of those. We would encourage and we certainly pushed for, early in this process, that there would be a comprehensive inventory of cultural resources so that the Port could plan and develop a Master Plan that had that in mind. That hasn't occurred to date, there has not been a comprehensive list. And in some cases, the Master Plan omits identified cultural PT1-22

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PT1-22 resources that were previously identified. So that needs to be corrected as well.

PT1-23 Another point, and I think a big point that we have, is that the Master Plan needs to acknowledge the impacts, as well as the potential limitations, of land use classifications, and what does that mean for the cultural resources that exist there.

A couple of examples, Fish Harbor is identified for commercial fishing. It -- also in the plan it identifies or acknowledges that commercial fishing may not be viable in the future or it's diminishing industry. So if that's the case, why are you limiting yourself to that very

specific land use classification in that case. It doesn't bode well for the potential of what you can do within that classification zone, specifically what you can do with the resources. The Cannery Building, for instance, how can you even use those in the future with that very limited classification? Another example is the Southwest Marine, you actually have two land use classifications, bulk as well as maritime support. However in some cases -- in all cases, there are two land use classifications that actually straddle and go over existing buildings. So existing buildings could have both classifications. Not sure how you can do that, ultimately, to reuse those building. Again, it doesn't bode well in terms of a path forward for preservation or adaptive reuse.

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I think the last point I would like to end on -- I certainly have other issues with the Master Plan -- is the documentation to date, at least not here, there ultimately doesn't include the context of the Port or its cultural resources that existed in terms of not just the Port history, but what happened there before the Port or the development of the entire site. PT1-24

Terminal Island, for instance, doesn't talk anything about the tuna industry, doesn't talk much about the ship building industry, and completely omits the Japanese-American contribution and the village that existed

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there. Thank you.

MR. BAHNG: Thank you. Next we have Brian Turner with The National Trust.

MR. TURNER: Good evening. My name is Brian Turner. I'm an attorney with The National Trust for Historic Preservation. PT1-25

Last June The National Trust listed the historic buildings at Terminal Island among the nation's most endangered historic places. The National Trust is a nationwide, nonprofit advocacy organization chartered in 1949 to help protect America's historic resources. I want to make a few comments on the plan, as well as the analysis in the Program Environmental Impact Report. Also be following up with some written comments.

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PT1-25 We're very pleased that the Port included one of its principal goals to preserve historic resources at the Port. I want to provide some context for why I think that's a benefit to the public as a whole. Not only are these tangible reminders of the contributions that the Port has made to American history, both with a history of the tuna canning industry, the ship building industry, as well as the Japanese-American community, and World War II history there. The buildings offer -- also offer very important spaces for promoting new entrepreneurship, creative uses, maritime uses at the Port. There are irreplaceable historic resources

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there.

PT1-26 And when we first approached this issue, our concern was principally based on the fact that many of the resources, particularly those concentrated around Fish Harbor are vacant. And they are in need of environmental remediation, in need of tenants, because adding tenants to occupy historic buildings is the best way to preserve them for the future generations. So we think that the plan could go much further in terms of making the goal of preservation a reality.

PT1-27 First, to echo the Conservancy's, it's important to know what we're preserving and there some existing controversy out there we would like to see resolved before the documents are finalized. One is with the Cannery Steam Plant, which we believe, the city believes, and the

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L.A. Conservancy believes is eligible for the California Register. A couple other resources we noticed missing from the evaluation is related to the Japanese-American history at Terminal Island, the potential for archeological historic resources there, in what is now open space. Also two store fronts on Tuna Street. PT1-27

I think is unfortunate that the boundary between Zone 3 or 4 cut right in between that historic community. So we would be very concerned with the implications of developing container terminals in an area PT1-28

that on the historic Japanese-American community area. We would ask that zoning for Planning Area 4 be expanded westward to include those resources.

To echo a Conservancy point as well, we would be very much interested in working with the Port on expanding the permissible uses within the Fish Harbor area, to make sure that viable tenants can be found. PT1-29 I think that the Public Trust Act is very important requirement that the Port needs to comply with. PT1-30 And I would just note that expansive uses have been acknowledged by the Port in terms of promoting ecological conservation with the tern habitat. And there's no reason why public policy shouldn't preclude the conservation of historic resources, which is in the public benefit, as well. PT1-31

Finally, I would argue that I think the PT1-32

PT1-32 mitigation measures in the cultural resources connection in the EIR could be substantially boosted by providing for additional interpretation, education, funding, and incentives for tenants who are interested in locating in historic buildings, and the processes and procedures for RFPs and engaging stakeholders in the preservation early, prior to the time that projects are proposed. Thank you, very much.

MR. BAHNG: Thank you. Next we have Rachel Bruhnke with Harbor Farms.

PT1-33 MS. BRUHNKE: Hello. Rachel Bruhnke with Harbor

Farms. In this organization I would promote urban farming in the Harbor area from Watts to San Pedro. And it's interesting also, as a high school teacher at the Port of Los Angeles High School, I want to commend all the comments I have heard so far. It's just interesting to me, because I think the big picture is that these are all voices from the community who live here, who work here, who play here, who want diverse use of this land. And we're up against something that has kind of captured all this land for purposes that are to promote consumption. There's big debate coming up on this -- about all this. But this Port promotes massive consumption.

And I don't think that my comments today are going to change anything really, but I want to get them on the record, because I am here to advocate that if that is true, that you also work -- if we're going to create a mind

set of consumption, we can also work to create a mind set of trying to have some type of environmental and historical and cultural preservation and promotion also, and mitigate the fact that the very reason of this Port here is to promote consumption. PT1-33

We read in the paper every day about climate change. I don't know if there's been a study with all the development that's going on here -- going to happen. We are about to see the level rise and what's that going to do to PT1-34

the potential developments around here? I was sitting at Ports-O-Call Restaurant the other day and for the first time I thought about it. I'm five feet above the ocean here, and I don't know how long this is going to be here.

But the fact is that the more quote/unquote development that happens that's carbon based and carbon heavy and more of the same old same old, we're not going to get different results in terms of the climate.

So because that's not going to stop any time soon, until the climate, I believe, kind of alters our way, I would just ask that this Los Angeles Port really, really consider being the gold standard. Kind of like making up for knowing what we've got to do to the climate, let's really work hard to make this Port the gold standard in terms of community and in terms of environment about how we develop.

One of the -- so including public voices like

PT1-34
this, the most innovative technologies -- as mentioned before, the more that innovative technologies and methodologies are employed here at the development of this Port, the more it sparks innovative ideas and solutions.

PT1-35
I said that I'm from the organization Harbor Farms, and we have a letter out to the Port of Los Angeles with one small request, that we would love to see -- knowing that even a foothold in the old way of doing business can create a lot of new ideas, that the development happening on

Front Street, the green belt, not just the grass and the useless trees -- although every tree sequesters 200 pounds of carbon a year, and so that's a good thing -- but we have a grove of fruit trees also, because I believe that gone also are the days when we have passive parks that are absolutely passive. People need to be growing food. The rules that were made however many decades ago about fruit dropping -- and these are gone -- there's an interest in this area --

PT1-36
As I said, I am a high school teacher. I teach a class at Port of Los Angeles High School on environmental engineering studies. And these kids are farming with me. They are building soil, they are turned onto this. And I'm a good teacher. It's a good class. But it's about -- I'm tapping into something that's a human need. And I don't see a lot of young people's voices. And I always tell them --

It's not like I feel patronizing to say young

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people are the future. I bet there's young people that die of asthma, too, a lot of my kids have asthma, a lot have diabetes from unhealthy communities. And it's unsafe to go out, and so their parents don't let them out.

So one of the things we do at Harbor Farms is we advocate for alternative use of open space, where the safest thing for a community is to have, frankly, mom's and daughters, mom's and kids -- I have a daughter -- and

PT1-36

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families out on the streets cleaning that, claiming that space again. One way is use of -- mixed use of public space.

And so that's pretty much my comments. And thank you very much.

MR. BAHNG: Thank you. Next we have Daniel Neri with the USC School of Architecture.

PT1-37

MR. NERI: Good evening, everyone. My name is Daniel Neri, last name N-e-r-i.

I'm a grad student at the USC School of Architecture, and I'm currently working on my thesis, which is a design thesis. And the area of focus that I chose to look at is Fish Harbor. I have chosen Fish Harbor because of my interest in not only landscape architecture, but also in cultural resources and heritage conservation.

I wanted to first echo the statements that were made before about the layout of Planning Areas 3 and 4, with Planning Area 3 being Terminal Island, 4 being Fish

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PT1-37

Harbor. And the way that they are separated splits right between the historic core of where the historic Japanese village was. And it's my understanding there are fish-related fishing industry and related businesses that occur, I believe it's north of Cannery Street, between Cannery and Terminal Way. And so I would request that that be reevaluated and that Planning Area 4 be expanded.

PT1-38

As I mentioned before, I have a concern for

the cultural resources. I'm pleased to know about the adaptive reuse plan for Chicken of the Sea site. However, there's also the Starkist site. And having gone to the site and actually conducted interviews with the fishermen down there, they are in need of services. Many of them live on the boats and they are in need of a place to shower, to change, to conduct business. While I was there, there was someone who had arrived to purchase lobster, and they were just buying it off a truck -- buying it from the boat and loading it onto their truck. So I really believe the Starkist site can be utilized as a place to do direct sales for these fishermen, used as a place where they have the meetings, change.

I have a concern for Pan-Pacific fisheries, as well as the Cannery Steam Plant. It's my understanding from the previous iteration of this draft plan that there was also a need to provide support to the trucking industry, and particularly with the trucks that line up on Terminal Way

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before 6 o'clock, I believe. I think that there's a great opportunity that shouldn't be missed with adaptive reuse of the Cannery Steam Plant that can support the truckers. PT1-38

My other concern is 198 Cannery Street that will be developed. And the permeability of that site right now is allowing some infiltration. There is overgrowth and vegetation on that site, but soon it will be developed. And PT1-39

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my concern is that there will no longer be permeable spaces permeable pavement -- an area for water infiltration. And I believe it's important that we take into consideration how storm water is treated to keep it from going directly into Fish Harbor and further contaminating it.

It's my hope that the 198 Cannery Street can also support Tuna Street in giving it some semblance of it having been an important district for the Japanese community that lived there.

And so I think that's just about it. Thank you.

MR. BAHNG: Thank you. Last we have Carol Scoville. PT1-40

MS. SCOVILLE: Good evening. My name is Carol Scoville, a San Pedro resident. I'm a member of a number of --

MR. BAHNG: Spell your last name, please.

MS. SCOVILLE: S-c-o-v-i-l-l-e.

And I'm a member of a number of organizations,

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PT1-40 but I'm here today to speak on behalf of myself. Do you have maps that you can show or -- I'd like to speak about Terminal Island. I think that's Plan 3. I want to speak about Terminal Island.

There were some work groups done on Terminal Island recently conducted with tenants of Terminal Island about what they would like to see Terminal Island become.

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They were conducted during the day at Terminal Island with tenants, and so the general public was not present or didn't really have access or input available to have input into these plans. And the outcome is much what you see in this plan right here.

PT1-41 I want to talk about public access to Terminal Island. Right now it's planned to be mainly container facilities, which would leave the public out.

PORT REPRESENTATIVE: Just a second. When you say "here" and "there," it's hard for her to know -- to show in a transcript what you're talking about. So please just describe it. If you have a particular area in 3 that you're pointing to or something, try to do that, so that we get it all.

MS. SCOVILLE: Thanks.

And so what we have here is a plan that has very limited public access sites on it. It's mainly industrial. And it's also -- I'm sure Homeland Security restricted. I think there's opportunity for more sites for

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public access on this area -- in this planning area.

For instance, from Navy Way out to Pier 400 is a long road for trucks. You understand what I'm talking about? From Navy Way out to Pier 400 is a long road where it is just truck use and the train. There is no terminal there on the long narrow stretch. That is a site that can be used

PT1-41

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for public access to the water. Set off a lane for people to park and -- maybe park there and watch the ships come.

If you go there, it's a great site for watching the ships come and go. You can go there on a Sunday, for instance, any Sunday at 2 o'clock and see the ships come. This to Pier 300 or 400. It's a great vista point. But there's no place to park, because it's all a truck thoroughfare. It will be nice if there were parking spaces allowed and maybe grass or somewhere you could have a picnic, giving the public access on that area. It's not a container terminal, it's a public road.

Also in Long Beach, opposite Pier J, I believe, between the Queen Mary and around the exterior, they have areas where people -- have special lanes where people can park and get out and go fishing. And they do. It's full all the time. Maybe there's places on Terminal Island where people can get out and go fishing. Say, at the end of the proposed area that doesn't have coastal permitting yet, towards the break water -- somewhere towards the break water.

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PT1-41 The area that's green at the end of Pier 500, that is, I believe, primarily for least terns, so it's not public access. Although it's green, it's not for the public. Maybe there's an area somewhere along there where the public can have access to go fishing or, you know, where the red area -- where Pier 400 is, the oil terminal just pulled out

anyway, and they are not going to develop it. Maybe that's an area where the public can have access, and that would be fresh water coming in from the break water. That's where the break water opens, so the fish would be coming right there. It's not the back inner harbor, it is actually the outer harbor.

There could be picnic area there. Could be areas only accessible by water taxi. They don't necessarily have to have roads to get there. I also want to say that in

PT1-42 Long Beach they are building the -- rebuilding the Gerald Desmond Bridge and going to have bicycle lanes. It is going to bring bikes on Terminal Island. We need to plan for that in our area and have bicycle lanes, appropriate lanes in Planning Area 3 and places for bikes to go to rest -- for people on bikes. Not everything is going to be trucks, not everything is going to be private automobiles. There are different ways to get around. Even if you can't take a bike across the Vincent Thomas bridge, maybe we can set up a water taxi system so people can go somewhere and just have a picnic. And that's it for Terminal Island.

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I would like to talk just a brief moment about the West Basin. I live in San Pedro. Until very recently, I lived on Black Hill across the street from the Port, just below the hill, which is just above the China Shipping terminal. I was there for 12 years. I saw the land go from PT1-43

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a slip -- an open water slip, public access waterways to now it's filled in and it's restricted because it's a private terminal. Well, the Port land put restricted access.

I want to say that from -- on the West Basin you have the China and Yang Ming and the TraPac terminal. These are all container terminals, and they are all adjacent to residential communities. I don't think that was a very wise plan when that was developed and when that was put through, because container terminals are extremely invasive on the surrounding neighborhoods. Container terminals are not just contained within the parcel. They have thousands of trucks. The trucks spill out and there's nothing you can do about it. I feel if we are going to have container terminals, they need to be confined parcels like Terminal Island. Someplace that is accessible to rail, like the Alameda Corridor, like Terminal Island is. And have it -- that's much a more appropriate planning use. Thank you. PT1-44

MR. BAHNG: Thank you. That is all of the speaker cards that were received. Are there any other members of the public that would like to speak.

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So we thank you for your comments. And again, I'd like to reiterate that we do have -- if you chose to provide written comments, we do have a 45-day comment period which will end on April 8. So please provide comments by then. And we appreciate your time. Thank you.

(The public hearing was adjourned at 7:20 p.m.)

REPORTERS CERTIFICATE

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)

I, Linda M. Stanton, a Certified Shorthand Reporter within and for the County of Los Angeles, State of California, do hereby certify:

That the foregoing proceedings were taken down by me in stenotype to the best of my ability at the time and place herein stated and thereafter reduced to print by Computer-Aided Transcription under my direction.

Dated this ____ day of _____, 2013.

LINDA M. STANTON, CSR. 7769

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Draft PEIR Public Hearing Transcripts

Response to Comment PT1-1:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-2:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-4:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-6:

This comment states that the PEIR is deficient because it only addresses tide land properties. Article 3 of Chapter 8 of the CCA stipulates that ports shall prepare and adopt master plans (PMPs) for the land and water areas within their boundaries that lie within the coastal zone. The PMPU focuses on that portion of the Port that is within the coastal zone (i.e., the Port's coastal zone boundary), as required under the CCA. Port land outside the coastal zone is not subject to CDPs and, therefore, is not evaluated in the PEIR. The Draft PEIR does describe all Port activities and plans relevant to the master planning process, and the comment does not provide any information to the contrary. Accordingly, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

Response to Comment PT1-7:

This comment states that the PEIR does not evaluate all environmental impacts associated with the proposed Program; specifically, traffic congestion and air emissions are underestimated.

In contrast to the comment, the LAHD contends that the Draft PEIR does describe all impacts relevant to the master planning process. In particular, as part of the analysis and consistent with City of Los Angeles Department of Transportation guidelines, a queuing analysis (where the length of the queue of vehicles at an intersection is analyzed) is not included. This is because the CEQA analysis is conducted at a planning-level and is intended to indicate locations with potentially significant impacts based on inadequate capacity. If an impact is identified, a more specific design-level analysis would occur as part of assessments of mitigation measures that would evaluate the queuing and other design issues at the location. Notwithstanding, overall intersection delay (which includes the time stopped at an intersection) is included in the analysis, although significance is not determined by delay.

For the capacity analysis, which is a basis for determining significance of traffic impacts, a PCE is used to account for the larger size, slower acceleration, and slower turning speed of trucks, so that the number of vehicles in the analysis is shown as PCEs, not the number of trucks or autos. The comment is incorrect that all subsequent analyses (such as the air quality analysis) are inaccurate given that the truck volumes and speeds are included in the analysis and accounts for the numbers of trucks and speed reductions due to overall congestion. Furthermore, the air quality hot-spot analysis considers the intersections with the highest level of delay and represents the most conservative scenario for the PMPU area. Therefore, the PEIR does provide an accurate and thorough assessment of potential impacts associated with the proposed Program.

Response to Comment PT1-8:

This comment states that the PEIR uses an outdated health risk assessment (HRA) approach in lieu of a health impact assessment approach to evaluate public health impacts.

The Draft PEIR does not present either a HRA or a HIA to evaluate public health risks from the proposed Program. However, pursuant with CEQA requirements, the PEIR appropriately analyzes the health impacts of the proposed Program by considering those changes to the physical environment that would result from implementation of the Program. Therefore, the requested additional analysis of an HIA is not required. Furthermore, there is no requirement under CEQA that a lead agency include a HIA or conduct every study requested by commenters.

Response to Comment PT1-9:

This comment addresses the PMPU and supports alternative land uses at the Port. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU. The comment is general and does not reference any specific section of the Draft PEIR; therefore, no further response is required under CEQA (PRC Section 21091(d); CEQA Guidelines Section 15204(a)).

Response to Comment PT1-10:

This comment recommends that the PMPU and PEIR assess alternative land uses.

The PMPU addresses the proposed Program purpose and objectives, identified in Section 2.4 of the Draft PEIR, and incorporates all elements required under CCA Chapter 8, Article 3 (Section 30711[a] and [b]), including permitted uses, design and location of land use areas, estimates of development effects on environmental resources, and anticipated projects listed as appealable. Two of the proposed Program objectives are to: promote the orderly, long-term development and growth of the Port by establishing functional areas for Port facilities and operations; and allow the Port to adapt to changing technology, cargo trends, regulations, and competition from other U.S. and foreign ports. Regardless, the PMPU also includes a number of land uses (Table 2.5-3 in the Draft PEIR), such as visitor-serving commercial, open space, recreational boating, and institutional, that support diverse uses of Port property and resources.

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to a proposed project, or to the location of the project, that could feasibly attain most of the basic objectives of the proposed project while avoiding or substantially decreasing any significant environmental impacts. A PEIR need not consider every conceivable alternative to the proposed Program. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The Draft PEIR presents a reasonable range of alternatives, pursuant to CEQA, that are consistent with LAHD's legal mandates under the Port of Los Angeles Tidelands Trust (Los Angeles City Charter, Article VI, Section 601), its leasing policy (LAHD 2006), and the CCA (20 PRC 30700 *et seq*.). The selection, development, and evaluation of alternatives analyzed in the Draft PEIR are in accordance with CCA policies that identify the coastal zone as a distinct and valuable natural resource. The Port is one of only five locations in the state identified in the CCA for the purposes of international maritime commerce (PRC Sections 30700 and 30701). LAHD's mandates identify the Port and its facilities as a primary economic/coastal resource of the state and an essential element of the national maritime industry for promotion of commerce, navigation, fisheries, environmental preservation, and public recreation.

Response to Comment PT1-11:

This comment asserts that statements in the PEIR noting the Pier 500 Landfill Project is not included because sufficient project information is unavailable are inaccurate. The LAHD disagrees with this assertion. At this time, the LAHD does not anticipate that a Pier 500 Project would be initiated within the next 5 years. A project-specific CEQA document would be prepared for a Pier 500 Project when sufficient project details become available. The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment PT1-12:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-13:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-14:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-15:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-16:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-17:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-18:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-19:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-20:

Please see Response to Comment LAC-1.

Response to Comment PT1-21:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-22:

Please see Response to Comment LAC-3.

Response to Comment PT1-23:

Please see responses to Comments LAC-8 and LAC-12.

Response to Comment PT1-24:

Please see Response to Comment LAC-5.

Response to Comment PT1-25:

Please see Response to Comment NTHP-2.

Response to Comment PT1-26:

Please see responses to Comments LAC-1 through LAC-3.

Response to Comment PT1-27:

Please see Response to Comment LAC-6.

Response to Comment PT1-28:

Please see Response to Comment NTHP-6.

Response to Comment PT1-29:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-30:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-31:

As noted in responses to Comments LAC-1, the LAHD's recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* describes the Port's commitment to protect and preserve historical resources.

Response to Comment PT1-32:

The commenter's recommendation regarding mitigation measures that provide for "…additional interpretation, education, funding, and incentives for tenants who are interested in locating in historic buildings…" is noted and hereby part of the Final

PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment PT1-33:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-34:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-35:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-36:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-37:

Please see Response to Comment NTHP-6.

Response to Comment PT1-38:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-39:

This comment addresses the PEIR and expresses concerns that development on Cannery Street would reduce infiltration of rainfall and impact water quality in Fish Harbor. Impacts from construction and operation of the proposed appealable/fill projects and land uses on water quality in the Port are addressed in Draft PEIR Section 3.14, Water Quality, Sediments, and Oceanography. In general, stormwater runoff from construction sites is governed by a construction stormwater pollution prevention plan (SWPPP), and runoff from developed sites are governed by a discharge permit issued by the Regional Water Quality Control Board. In most areas of the Port, housekeeping best management practices (BMPs) are the principal means of preventing or minimizing discharges of contaminated stormwater. Contained and covered storage, regular sweeping, appropriate waste management, storage, and handling procedures (e.g., spill and drip prevention, oily rag and solvent storage, use

of containment structures for toxic chemicals, lubricants and solvents, fertilizers, and paint and cleaning wastes), and personnel training are key measures for preventing contaminated runoff. Implementing appropriate BMPs and compliance with the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Program, City of Los Angeles Municipal Code, and all other applicable federal, state, and local regulations prior to project approval would be required for all new appealable/fill projects. Compliance with applicable plans and permits would result in less than significant impacts from stormwater runoff to water quality.

In general, groundwater in the harbor area is impacted by saltwater intrusion (salinity) and is, therefore, unsuitable for use as drinking water, as discussed in Draft PEIR Section 3.6, Groundwater and Soils. Surface recharge of groundwater likely is negligible and does not support beneficial uses of groundwater. Operations of the proposed appealable/fill projects are not expected to extract groundwater and, therefore, would have no effect on existing groundwater supplies. Consequently, the proposed appealable/fill projects would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. As discussed in Draft PEIR Section 3.3, Biological Resources, upland areas of the Port are highly disturbed and represent poor habitat for native vegetation. Therefore, impacts from altering the permeability of sites are generally considered less than significant. Nevertheless, impacts to water quality, surface water infiltration, and vegetation habitat from individual projects would be evaluated in project-specific CEQA documents when appropriate levels of detail regarding the projects become available.

This comment also addresses the PMPU and supports preservation of historic resources related to the Japanese community that lived on Terminal Island. The comment is general and does not reference a specific section of the Draft PEIR or raise issues under CEQA requiring a response; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment PT1-40:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-41:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-42:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT1-43:

This comment addresses the PMPU and restrictions of public access to the West Basin in association with the China Shipping Container Terminal Project. Impacts from the China Shipping Container Terminal Project on land uses were evaluated in the Berths 97-109 (China Shipping) Container Terminal Project Final EIS/EIR (LAHD and USACE 2008). The China Shipping Container Terminal Project EIR/EIS concluded that the proposed project would be consistent with the site zoning, PMP, community plans, and other land use plans, and would not affect the existing land uses or divide or isolate existing communities. The China Shipping Container Terminal Project EIR/EIS also concluded that the proposed project would not result in significant impacts resulting from substantial losses of recreational, educational, or visitor-oriented resources. The recent Port San Pedro Waterfront, Wilmington Waterfront, and City Dock/Marine Research Center projects have improved public access to waterfront areas of the Port that do not conflict with industrial activities of commercial terminal operations.

The comment is general and does not reference a specific section of the Draft PEIR or raise issues that require a response under CEQA; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Response to Comment PT1-44:

This comment addresses the PMPU and the relationship between the China Shipping, Yang Ming, and TraPac terminals and the adjacent residential communities. Similar to the Response to Comment PT-43, impacts from the China Shipping, Yang Ming, and TraPac terminal projects on existing land uses have been evaluated in the respective project-specific CEQA documents. Cumulative impacts from other present and reasonably foreseeable future projects on residential communities, related to traffic, noise, air quality, and other project elements, are also evaluated in these CEQA documents.

The comment is general and does not reference a specific section of the Draft PEIR or raise issues that require a response under CEQA; therefore no further response is required (PRC Section 21091(d); CEQA Guidelines Section 15204(a)). The comment is noted and is hereby part of the Final PEIR, and is therefore before the decision-makers for their consideration prior to taking any action on the PMPU.

Note: Prior text from the transcript is not included since it does not pertain to the PMPU Board Hearing.

issues. We are not talking about the union now. I'm not talking about us.

Are we going after this guy because he spoke out, or what is going on? And I just want to make sure that that's not happening, okay.

So I would like that investigated. I want to find out if a complaint was filed against him, why. And it better be justified.

LADY VOICE: Thank you. Well, I don't know that we want to have that discussion in public because it does deal with personnel, but I think it does bear investigating and at least reporting back by memo or conveying that information to the commissioner and the other commissioners as well.

Thank you. And we look forward to what Molly indicated, that in the next 30 days or so get a report back on the implementation on some of the changes that are recommended on this. And thank you for that.

I believe that now takes us to Item G.

LADY VOICE: A public hearing to receive comments pursuant to California Coastal Act of 1976 for the draft port master plan. PT2-1

Okay.

LADY VOICE: Okay. We also have a number of cards on this one. So why don't you just -- why don't

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we have our public comments first, and then we'll have the presentation. Let me start. I'll be calling a number of people in order. PT2-1

Pat Knave, Adrian Fine, Jeff Ferraro or Ferrano. I can't see if that's an F or an N.

Are those folks still here?

Pat, I don't see. Adrian Fine and Jeff Ferrano.

ADRIAN FINE: Good morning, Commissioners. PT2-2
Adrian Scott Fine, director of advocacy for the Los Angeles Conservancy. And I'm representing our nearly 7,000 members across Los Angeles County.

In our years' long efforts to work with the port to recognize and protect historic and cultural resources, notably at Terminal Island, we have been working closer with staff in the last year, especially talking about the master plan update. And we greatly appreciate that opportunity and want to acknowledge that as part of the process.

However, our concerns remain as the master PT2-3
plan update does not provide, in our opinion, a path forward for preservation and adaptive re-use of historic structures, specifically in terms of offering flexibility and expanded uses, which you heard earlier in regards to the Pan Pacific Canneries building.

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So there are a number of outstanding issues that we would like to raise. The biggest of these are the direct impacts associated with, one, leaving off and omitting some historic and cultural resources from the plan; and, two, not acknowledging or studying the impacts to historic and cultural resources that come with changing land use classifications and designations. PT2-4

These actions severely and unduly limit the ability to allow for preservation to occur in the future, which would, in our opinion, require movements and a process going through the Coastal Commission.

Because this is not acknowledged as a significant impact and preservation alternatives are not provided -- in this case, looking at alternative land uses, overlay zones or hatching that you have elsewhere -- we have consulted with our attorney. And we do believe that this is an inadequate and flawed EIR process.

What we have been and are asking for and are asking for today is a level playing field. Recognizing the historic cultural resource, as it currently exists at the location within the port, throughout the port and on Terminal Island and providing land use designations that allow for some level of flexibility and expanded uses. PT2-5

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We have raised these issues with staff. However, we have not really seen it yet in the plan as it exists today. PT2-6

We don't want to oppose this initiative, and we would like to work together, and I think we have made headway towards that. So we would like to continue that.

We believe there's still time to work through these issues in terms of making amendments to the plan as it exists so that we can address these issues.

So I think with that, we're asking the commissioners today to help us find a way to work together to reach that conclusion.

I think we have made some progress. And we fully acknowledge where the port has done well by preservation. That's commendable. PT2-7

And what we're really looking here is at Terminal Island resources and some other aspects port wide. And I think we -- one of the issues that has been suggested is a draft historic preservation policy. And I think that's working its way through the system, which is another good stride in the process. PT2-8

But it's really these issues, I think, that we have brought up. And we'll certainly add more in a comment letter that's due on April 8.

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But these are the thing I think we need to work through. PT2-8

Thank you.

LADY VOICE: Thank you. Jeff Ferrano and then Brian Turner. PT2-9

JEFF FERRANO: Good morning. Thank you for this opportunity to speak. My name is Jeff Ferrano, and I'm with SA Recycling. We did turn in a written letter a couple days ago. But I just want to take a few minutes to summarize our points in that letter.

Though SA Recycling, in general, supports the creation of a mixed-use designation of the 102 acres, in the latest drafts of the port master plan update, we do object to the condition, which states on Page 35 of the master plan as follows:

"This project would relocate the existing 26-acre dry bulk facility currently located at Berth 2010 and 2011 eastward to a similar sized facility at Berth 206 and 207. This relocation would only occur if container operations at the adjacent containers terminals of Berths 212 and 226 were consolidated with Berth 210 and 211. If Berth 212 and 216 contain a facility does not expand, SA Recycling could remain at Berths 210 and 212. We ask the port to remove this condition and recognize the need for SA's Recycling

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remaining operations at its existing facility. In fact, we suggest that the port consider providing SAR -- SA Recycling -- the future with the use of additional and adjacent wharf. At the same time, we also recognize that some changes in SA Recycling's circumstances may be warranted given the port's goal of marketing the surrounding area as a viable container facility." PT2-9 PT2-10

For this reason, we have met with the port staff over the past several months and offered the port's consideration and engineering solutions that would provide for a feasible, physical connection between the two terminal areas, Berth 212 to 226 and Berths 206 to 209 that are separated by SA's lease hold. PT2-11

The alternative project would be an elevated roadway, which would connect the two terminal areas without having to relocate the bulk wrap operations.

By constructing such a connection, the port would provide an operational link between the adjoining container terminals, while allowing SA to remain at its current location.

We also believe that such an option would be measurably less costly than a prohibitive cost associated with attempting the relocation of SA, which most likely would result in a likely shutdown of the scrap processing operations and the loss of hundreds of PT2-12

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jobs. PT2-12

Clearly, SA's prospective -- the relocation site has serious deficiencies, to plain update, envision the possibility of placing the two water-dependent uses in close proximity to one another, but does not address the various potential conflicts that would inevitably arise when two such incompatible uses, one industrial and the other a marine recreational, are located next to next to each other. PT2-13

Coupling that with the enormity of the costs of moving SA's operation and the uncertainty --

LADY VOICE: Three minutes.

MALE VOICE: I have got just 30 seconds -- uncertainty of permitting process, the numerous complications would seriously jeopardize the company's ability to move to a new site. PT2-14

In summary, SA is in support of the draft port master plan update as long as it allows for the continued bulk operations as well as the expansion of such operation into adjoining area and the construction of an elevated connective roadway between the two terminals.

But SA has serious reservations about any plans that would relocate this dry bulk operations to an ill-advised, uneconomic location.

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Thank you for your consideration. PT2-14

LADY VOICE: Thank you.

MALE VOICE: Can I discuss the question of staff? If we get to this master plan and we vote on it -- but there's a caveat at least from my point of view that in this particular situation, if SA can't be re -- can't be moved somewhere else, it doesn't make sense financially, how does that fit into us voting on a master plan? PT2-15

I mean, I don't want to see these guys close down based on, you know, a decision that we make here, that here is the future of the waterfront, and it doesn't include SA Recycle.

LADY VOICE: Yeah, the master plan -- there's no specific project in the master plan to move SA Recycling.

In the plan for that area, it provided an option for SA to stay where they are or to move.

MALE VOICE: Okay.

LADY VOICE: Flip over in the other spot. So that would be an option to consider in the future if it was economically viable to do that. PT2-16

LADY VOICE: And I also think that generally, what you are saying is if this -- this would come to pass at some future date if we had a viable different

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user -- i.e., a terminal operator who was going to use this land and adjoining land. And that would only be -- that would be presented to a board of commissioners. PT2-16

And at that time, SA would say well, we don't think it's viable or economic, or look at this option of letting us stay where we are and provide this overcrossing or whatever.

And it would be in the hands of the then-commissioners to decide what they do with it with a full public hearing.

So this master plan does not pre-conclude a decision there. It's going to definitely be a project decision sometime in the future if it comes to pass.

LADY VOICE: Exactly.

LADY VOICE: Okay. We have Brian Turner, Larry Pearson and Keith Nikata.

BRIAN TURNER: Good morning, commissioners and port staff. PT2-17

My name is Brian Turner. I work as an attorney for the National Trust for Historic Preservation.

I'm grateful to have the opportunity to speak to you and offer our perspective on how the draft master plan can be improved to meet the requirements of the

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California Environmental Quality Act. PT2-17

Without question, this plan will have a major role in determining the future of the historic assets under the port's jurisdiction.

And these places are just that, assets. As time passes, the stories they tell and the sense of place they provide can only increase to the public.

An historic place -- is that the port can contribute to, not detract from its continued economic viability.

Precious few places remain that tell the port's history so vividly as the historic area around the Fish Harbor area. Those industrial facilities are built reminders of the industry that was responsible for the growth and success of Los Angeles and provide a record of the evolution of industrial design during the 20th century.

They are tangible reminders of the era that vaulted the poor into international prominence.

We are pleased that the port's master plan has a stated goal to preserve stated resources. However, we also believe that it suffers from some oversights, which we fear will prohibit the fulfillment of that goal.

Specifically, new restrictions on uses for historic buildings and ill-conceived planning district PT2-18

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boundaries are a step backwards from the existing master plan. PT2-18

Land use designations for historic resources are proposed to become more rigid and inflexible. The draft program EIR does not provide an analysis of the potential impacts or evaluate alternative models as is required under CEQA for increased zoning limitations. PT2-19

This failure to consider impacts subject the port to needless litigation risks and run contrary to best practices in land use planning.

In addition, several key resources are missing from its inventory of historic resources, including the Canners Steam Plant and the historic Japanese/American commercial village, both of which are inappropriately designated for container storage. PT2-20

We believe the conclusion of the draft EIR that suggests that impacts can be mitigated to a less-than-significant level is improper at this time. PT2-21

The comment letter we submit Monday will outline these concerns more specifically. And I encourage you all to take our concerns seriously.

Thank you.

LADY VOICE: Thank you.

Larry Pearson.

LARRY PEARSON: Good morning, everyone. My PT2-22

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name is Larry Pearson. I'm a location manager with the Teamsters Local 399. I have been doing this job for about 28 years. And I started my job at the Port of L.A. PT2-22

This has been a major backlot for us for filming. It would be a shame to see some of the areas moved. I have watched over the 28 years -- I have watched buildings disappear, the old Spruce Goose hanger, a lot of areas that we have used constantly for filming.

What this means to us is ultimately our filming has to go elsewhere, which means job loss for Los Angeles, job loss for California because if we're not able to film in the harbors -- the containers yards are wonderful. We wish we could film there, but we're not allowed to because of maybe homeland concerns, maybe too busy, whatever it is. But we don't have these facilities to use anymore. PT2-23

To lose some of the others would be -- would be devastating to us. Warehouse No. 1, we have used for I don't know how many films. I started off -- I did my first six feature films with Charles Bronson. Every one of them were down here between the harbors, the boats, whatever. We used this property.

I work in television primarily now. I have PT2-24

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probably done at least 50, maybe 70 episodes of television in this area. Movie of the Week, I have done probably 10, maybe 12 Movie of the Weeks. PT2-24

So this is just me. I think the industry -- we have done thousands of locations at Southwest Marine, Al Larson Boats, the canneries, Starkist. I have filmed inside the canneries while they were in operation. It's just an absolute shame for us to lose some of these buildings.

That's about all I have to say at this point.

Thank you.

LADY VOICE: Thank you.

We'll have Keith Nikata. And the final speaker will be Christine Espraben.

KEITH NIKATA: Hi. Good morning, commissioners. My name is Keith Nikata, and I'm also a film industry location manager and a member of Teamsters Local 399. PT2-25

Thanks for the opportunity to speak to you today concerning the draft EIR for the port master plan update. I have attended the two workshops, workshop sessions on this matter.

And as a location scout and manager for the last 25 years in the film industry, I have been working in port on many different projects from commercials to

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feature films over the years. I would like to add that San Pedro and Wilmington are also important locations for our industry. PT2-25

There are many great and irreplaceable locations that directors love here and have returned to film over and over many times.

Southwest Marine has more screen credits than more SAG actors. We, as a major industry in Los Angeles, have seen our jobs leave the state and country at an alarming rate.

There are -- there are, of course, many reasons for this. But one has to be the loss and difficulty in finding diverse filmable locations.

The Teamsters Local 399 represent location managers, casting directors and drivers with well-paid union jobs. They have submitted a letter to the planner during the workshop period, which I have brought copies with me today for you to review.

We encourage the goals of 3.2.5 of the plan concerning historic preservation. As part of the goal, we strongly recommend a comprehensive historic plan be part of the master plan update, instead of just the mention of the need to develop one. PT2-26

Historic buildings on Terminal Island are the last record of World War I and II, shipbuilding, tuna PT2-27

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canning and the Japanese/American community that existed there and should be preserved and, when possible, be adaptively re-used and appropriately maintained. PT2-27

These resources tell the story of the port and should be considered invaluable and irreplaceable. The plan, as currently presented, does not accomplish this. Only one property is even addressed for re-use.

If the plan is followed as presented today, it would actually lead to the destruction of historic resources and not the preservation and a possible adaptive re-use. PT2-28

The alignment of Seaside Avenue through Southwest Marine could jeopardize it and lead to its demise. PT2-29

I'm not sure how a planning document can be drawn up without the historical preservation plan being completed first. PT2-30

How can you plan to save buildings and resources without identifying which are most valuable? PT2-31

LADY VOICE: Three minutes -- PT2-32

KEITH NIKATA: May I finish?

LADY VOICE: Conclude, yes.

MALE VOICE: Okay. I believe that successful adaptive re-use of similar type resources have been accomplished at the Brooklyn Naval Yard and Hunters

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Point in San Francisco and can coexist with improved cargo processing and other goals of the master plan. PT2-32

The port can be a powerful economic engine for the Southland if it takes a broader look at the economic possibilities instead of narrowing opportunities and providing a wider palate of choices.

I believe that in the past, this commission has requested of the planning staff a more comprehensive plan of historic preservation, and it should be part of the master plan and a road map for planning in the future. PT2-33

Thank you.

LADY VOICE: Thank you.

And the last speaker is Christine Espraben, if she is still here. If not, then that will conclude the public hearing on this matter.

And let me ask staff to give us an update as to where we go from here.

MALE VOICE: Good morning, commissioners. My name is Michael Chan. I'm the project manager for the port master plan update. I just wanted to quickly review the schedule moving forward from today.

As you know, today is the public hearing that you have scheduled when you released the draft port master plan on February 21.

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Draft PMPU Public Hearing Transcripts

Response to Comment PT2-1:

This comment addresses introductory material and does not raise issues that require a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below.

Response to Comment PT2-2:

This comment addresses introductory material and does not raise issues that require a response under CEQA. Responses to specific CEQA issues raised by subsequent comments are provided below.

Response to Comment PT2-3:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-4:

The LAHD disagrees with the comment that the PEIR omits historical or cultural resources and does not evaluate the impacts of land use classifications identified in the PMPU. The Draft PEIR identifies listed cultural and archaeological resources, based on a cultural resource site record and literature search performed on July 27, 2012 (Morlet et al. 2012). The records search was conducted at the SCCIC at California State University, Fullerton, which maintains the CHRIS database for Orange, Los Angeles, and Ventura counties and keeps a record of all reported cultural resource studies and findings. Please see Response to Comment LAC-6 for additional information regarding historical and cultural resources within the PMPU area.

The PEIR acknowledges the current state of knowledge regarding cultural resources in the Port by imposing mitigation measures that require cultural resources evaluations when proposed appealable/fill projects are initiated (**MM CR-1**), and sets forth procedures for protecting previously unknown resources discovered during construction (**MM CR-2**). The PEIR acknowledges that future projects under the PMPU could encounter currently unrecorded or unsurveyed historic resources, and finds that such an occurrence would represent a potentially significant impact (refer to Draft PEIR Section 3.4.4.3, Impacts and Mitigation [Impact CR-2]). Once a proposed project site is identified, the LAHD will not approve any development until the site has been surveyed pursuant to the *Built Environment Historic, Architectural, and Cultural Resource Policy*, and any historical resources identified during the survey will be subject to the provisions of this policy. Furthermore, in accordance with **MM CR-3**, if a historic resource is present, the LAHD will determine the need to implement measures , including but not limited to: 1) preconstruction and construction monitoring activities by a preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards; 2) HABS/HAER documentation; 3) establishing an environmentally sensitive area with barriers to ensure the protection of specific built resources; and/or 4) implementation of

additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation). Therefore, implementation of **MM CR-3** would ensure potential impacts on previously unevaluated historical resources associated with future construction of proposed appealable/fill projects and land use changes would be less than significant. Further, the land use designations in the PMPU do not conflict with the goal of protecting historic resources, and the PEIR correctly concludes that, at the programmatic level appropriate for this analysis, the proposed PMPU would not have significant adverse impacts on such resources. Accordingly, the PEIR's evaluation of potential impacts of implementing the PMPU is accurate and complies with CEQA.

Response to Comment PT2-5:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-6:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-7:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-8:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-9:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-10:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-11:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-12:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-13:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment. The existing SA Recycling facility is proximal to the East Basin marinas, where recreational vessels are berthed. Relocating SA Recycling to an adjacent berth would not be expected to alter existing conditions with respect to the potential for interferences with recreational boating in the vicinity of the East Basin marinas.

Response to Comment PT2-14:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-15:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-16:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-17:

This comment provides background and introductory material. Please see responses to Comments PT2-19, PT2-20, and PT2-21.

Response to Comment PT2-18:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-19:

The LAHD disagrees with the comment that the land use designations in the PMPU would make it harder to protect historical and cultural resources. The PMPU fully allows, and does not limit the ability of the LAHD to identify and protect, as appropriate, the historic resources within its jurisdiction. One of the PMPU's goals is

the protection of historic resources (PMPU Section 3.2.5, Goals), and the PEIR describes the measures the LAHD will undertake to achieve that goal, including cultural resource surveys, construction safeguards, and an array of preservation measures to be applied on a project-specific basis (Draft PEIR Section 3.4.4.3, Impacts and Mitigation).

Furthermore, the PEIR acknowledges that future projects under the PMPU could encounter currently unrecorded or unsurveyed historic resources, and finds that such an occurrence would represent a potentially significant impact (refer to Draft PEIR Section 3.4.4.3, Impacts and Mitigation [Impact CR-2]). Once a proposed project site is identified, the LAHD will not approve any development until the site has been surveyed pursuant to the recently adopted *Built Environment Historic, Architectural, and Cultural Resource Policy*, and any historical resources identified during the survey will be subject to the provisions of this policy. Furthermore, in accordance with **MM CR-3**, if a historic resource is present, the LAHD will determine the need to implement measures , including but not limited to: 1) preconstruction and construction monitoring activities by a preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards; 2) HABS/HAER documentation; 3) establishing an environmentally sensitive area with barriers to ensure the protection of specific built resources; and/or, 4) implementation of additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation). Therefore, implementation of **MM CR-3** would ensure potential impacts on previously unevaluated historical resources associated with future construction of proposed appealable/fill projects and land use changes would be less than significant. Furthermore, the recently-adopted *Built Environment Historic, Architectural, and Cultural Resource Policy* provides an additional measure of protection to historic resources. Thus, the PMPU and associated policies contain the necessary procedures and guidelines to allow the LAHD to manage historic resources and to mitigate impacts to such resources in full compliance with CEQA and other applicable laws.

Response to Comment PT2-20:

Please see Response to Comment LAC-6.

Response to Comment PT2-21:

For reasons discussed in the Response to Comment PT2-4, the LAHD disagrees with this comment and believes that at the programmatic level appropriate for this analysis, the proposed PMPU would not have significant adverse impacts on such resources, as concluded by the PEIR.

Response to Comment PT2-22:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-23:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-24:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-25:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-26:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-27:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-28:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-29:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-30:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-31:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-32:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

Response to Comment PT2-33:

This comment addresses the PMPU and does not raise issues that require a response under CEQA. Please refer to Final PEIR Appendix A, Port Master Plan, for information provided in response to this comment.

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3.0

MODIFICATIONS TO THE DRAFT PROGRAM EIR

3.1 Introduction

This chapter addresses modifications made to the Draft PEIR for the proposed Program. It presents all revisions to the Draft PEIR, including changes in response to public comments, as determined necessary by the LAHD for the following sections of the PEIR:

- Executive Summary;
- Chapter 2.0, Program Description;
- Chapter 3.0, Environmental Analysis;
- Section 3.1, Aesthetics/Visual Resources;
- Section 3.2, Air Quality and Greenhouse Gases;
- Section 3.3, Biological Resources;
- Section 3.4, Cultural Resources;
- Section 3.5, Geology;
- Section 3.6, Groundwater and Soils;
- Section 3.7, Hazards and Hazardous Materials;
- Section 3.8, Land Use;
- Section 3.9, Noise;
- Section 3.10, Public Services;
- Section 3.11, Recreation;
- Section 3.12, Transportation and Circulation;
- Section 3.13, Utilities;
- Section 3.14, Water Quality, Sediments, and Oceanography;
- Chapter 4.0, Cumulative Analysis;
- Chapter 5.0, Program Alternatives;
- Chapter 10.0, References;

- Appendix A, Draft Port Master Plan Update (PMPU);
- Appendix D, Air Quality; and,
- Appendix F, Ground Transportation.

Only subsections of the above chapters with revisions are included herein; subsections that were not revised are not shown. Please refer to the Draft PEIR for the complete text.

Consistent with CEQA Guidelines Section 15088(d), responses to comments may take the form of a revision to the Draft PEIR or may be presented in a separate section in the Final PEIR. Chapter 2.0, Response to Comments, of this Final PEIR includes the responses to public comments. Revisions to the Draft PEIR made in response to public comments, for purposes of clarification or correction, or issues identified by LAHD are presented in the following subsections. The numbering format from the Draft PEIR is maintained in the sections presented herein. Changes to the Draft PEIR are shown in revision mode format (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with underline). Corrections of inconsequential typographical errors are not included.

3.2 Changes to the Draft Program EIR

Changes to the text of the Draft PEIR as presented below are incorporated into the Final PEIR.

3.2.1 Changes Made to the Executive Summary

3.2.1.1 Table ES-1, Proposed PMPU Planning Areas and Allowable Land Uses

Table ES-1 was updated to reflect changes to the Final PMPU.

Table ES-1. Proposed PMPU Planning Areas and Allowable Land Uses

Planning Area	*Location*	*Acreage*	*Allowable Land Uses**
1 (San Pedro)	From the Breakwater up to the Vincent Thomas Bridge	~~414~~413	Recreational Boating, Commercial, Break Bulk, Open Space, Institutional, Cruise Operations, and Maritime Support
2 (West Basin and Wilmington)	From the Vincent Thomas Bridge to north of the Cerritos Channel	~~1,095~~1,098	Container, Open Space, Liquid Bulk, Break Bulk, Dry Bulk, Maritime Support, Recreational Boating, and Commercial
3 (Terminal Island)	Terminal Island, excluding Fish Harbor	~~2,156~~1,940	Container, Liquid Bulk, Dry Bulk, Maritime Support, Open Space
4 (Fish Harbor)	Fish Harbor, including former Southwest Marine Shipyard site	92	Commercial Fishing, Maritime Support, Break Bulk, and Institutional
5 (Water)	All water excluding areas adjacent to marinas	3,~~211~~209	Navigable Waterways, Maneuvering Areas, Anchorage Areas, and Shallow Water Habitat
Note: *Proposed land uses would be confined to the specific sites identified on the PMPU Land Use Designations Map (Figure ES-5).			

3.2.1.2 Figure ES-5, Proposed PMPU Land Use Designations

Figure ES-5 was modified to depict the PMPU land use designation for Cabrillo Beach as open space. This figure was updated to identify Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. Figure ES-5 was also revised to include all of the buildings at the Southwest Marine Shipyard site (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

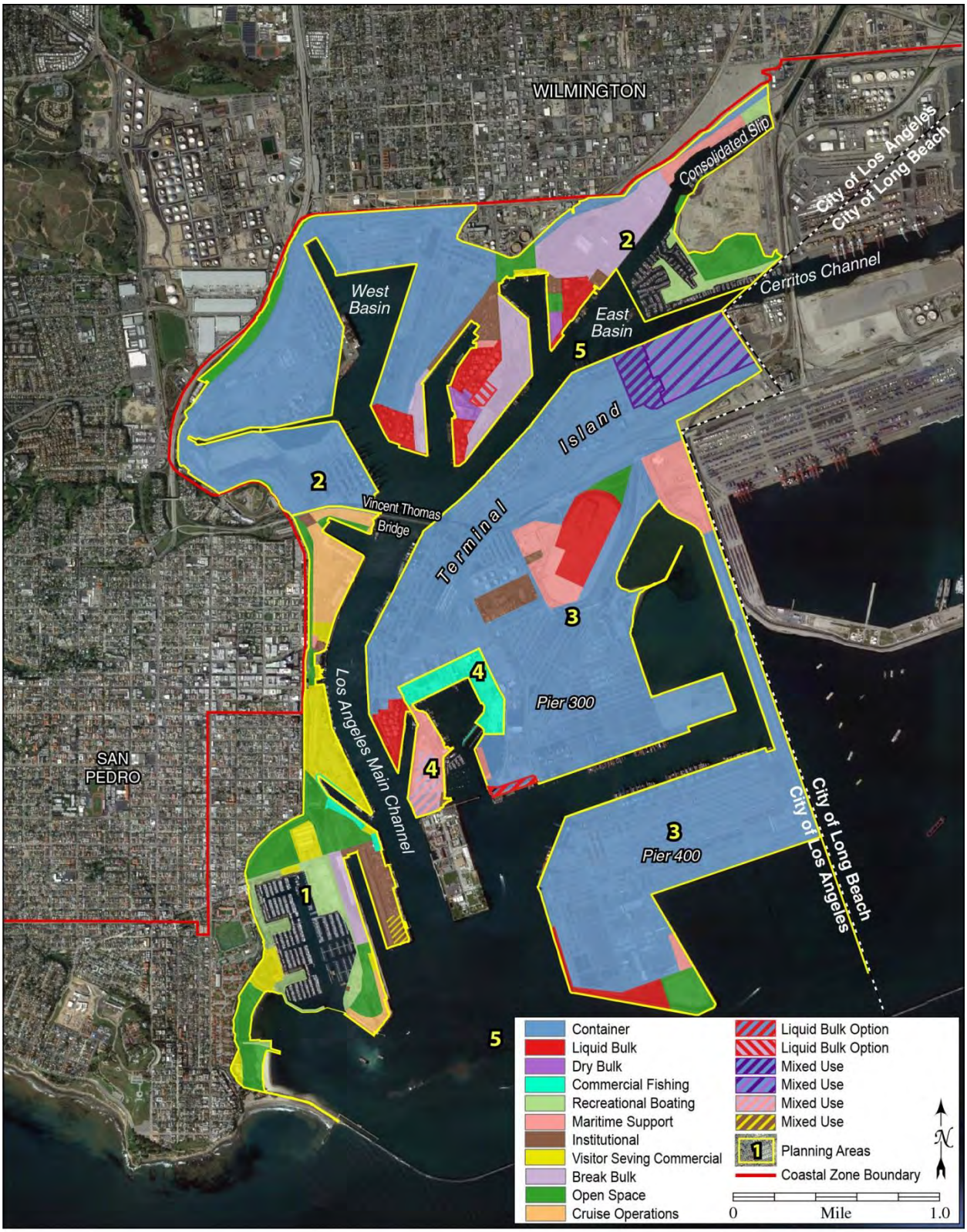


Figure ES-5. Proposed PMPU Land Use Designations

3.2.1.3 Table ES-3, Proposed PMPU Land and Water Use Definitions

Table ES-3 was updated to reflect changes to the Final PMPU.

Table ES-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
*Land Use**		
Container	Water-dependent uses focused on container cargo handling and movement.	▪ Container Terminal ▪ Chassis Storage ▪ On-Dock Rail Yard ▪ Omni Terminal
Dry Bulk	Water-dependent uses focused on non-containerized, dry bulk cargoes shipped in large, unpackaged amounts.	▪ Cement ▪ Potash and similar ▪ Grain; ▪ Scrap Metal
Break Bulk	Water-dependent uses focused on non-containerized, bulk cargoes packaged as a unit.	▪ Roll-On Roll-Off Cargoes ▪ Steel Slabs ▪ Neo Bulk ▪ Fruit ▪ Automobiles
Cruise Operations	Water-dependent operations focused on cruise operations and passenger handling.	▪ Cruise Facilities ▪ Baggage Handling Facilities
Liquid Bulk	Water-dependent uses focused on storage, receipt, and delivery of liquid bulk commodities.	▪ Crude Oil Terminal ▪ Petroleum Products Terminal ▪ Non-petroleum Products and Other Liquid Bulk Commodities
Maritime Support	Water-dependent and non water-dependent operations necessary to support cargo handling and other maritime activities.	▪ Barge/Tugboat ▪ Boatyard and Ship Repair ▪ Marine Fueling Station ▪ Marine Service Contractors, (e.g., diving, and emergency response services) ▪ Water Taxi ▪ Cargo Fumigation
Commercial Fishing	Facilities related to commercial fishing and processing.	▪ Fish Processing ▪ Cold Storage/Fish Unloading/Ice House ▪ Fishing Vessel Moorage ▪ Fish Laboratories and Testing
Recreational Boating	Recreational boating activities generally associated with marinas.	▪ Marinas ▪ Upland Boat Storage ▪ Yacht Clubs ▪ Marina-Related Retail

Table ES-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
Visitor-Serving Commercial	Visitor serving commercial uses for the public, including museums.	▪ Restaurant ▪ Maritime Related Office ▪ Visitor Serving Retail ▪ Harbor Tour Vessels ▪ Sport Fishing ▪ Museums ▪ Community Centers/Conference Centers ▪ Exhibit Space
Open Space	Open spaces reserved for the general public such as parks and beaches or open areas reserved for environmental protection.	▪ Public Beaches ▪ Parks ▪ Environmentally Protected Area ▪ Wetlands
Institutional	Uses and facilities operated by government agencies.	▪ Public Safety (Police and Fire) ▪ Other Federal, State, and Local Agencies ▪ Educational ▪ Marine Research Facility ▪ Non-profit Organizations
Water Use		
Navigation	Water areas devoted to anchorage of vessels, movement and maneuvering of vessels.	▪ Main Channel ▪ East and West Turning Basin
Environmental Mitigation	Water areas dedicated to environmental protection and not suitable for the navigation of cargo moving vessels.	▪ Shallow Water Habitat
Recreational Boating	Water areas associated with the mooring of recreational vessels.	▪ Marina Slip Areas
Berthing	Water areas directly adjacent to cargo berths. These areas are dedicated to the berthing of cargo vessels.	▪ Cargo Berths
Note: *In addition to the specific land use definitions and scope of activities, uses directly related to and supporting the land use are also permitted activities. Examples include, but are not limited to, an administrative office and/or maintenance and repair facility that support a container terminal or administrative offices and/or quality control laboratory that support commercial fishing processing activities.		

3.2.1.4 Table ES-4, Proposed PMPU Appealable/Fill Projects and Land Use Changes

Table ES-4 was modified to identify Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. This table was also revised to include all of the buildings at the Southwest Marine Shipyard site (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

Table ES-4. Proposed PMPU Appealable/Fill Projects and Land Use Changes

Planning Area	*Appealable/Fill Project*[a,b]	*Land Use Change*[c]
	Planning Area 1	
Planning Area 1: San Pedro	None	1: (Mixed Land Use Site): Existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial.~~None~~
	Planning Area 2	
Planning Area 2: West Basin and Wilmington	Berths 187-189 Liquid Bulk Relocation	~~1~~2: The liquid bulk terminal at Berths 187-189 (Vopak) would be relocated to Berths 191-194. Berths 187-189 would consist of open space and institutional land uses.
	Yang Ming Terminal Redevelopment, including Cut and Fill (3-acre cut; 6-acre fill)	~~2~~3: An additional 6 acres of fill at Berths 120-121 and cut of 3 acres of land at Berths 121-127 for the Yang Ming Terminal would be designated as container area.
		~~3~~4: The liquid bulk facility at Berths 118-120 (Kinder Morgan) would be eliminated and replaced with container cargo uses.
	China Shipping Fill (16-acre fill)	~~4~~5: An additional 16 acres of fill would be added at Berth 102 for the China Shipping container terminal and designated for container cargo uses.
	None	~~5~~6: (Optional Land Use Site): Vacant land on Mormon Island between San Clemente Avenue and Hermosa Street would be changed to liquid bulk or break bulk.
	Planning Area 3	
Planning Area 3: Terminal Island	Berth 300 Development (18-acre fill)	~~6~~7: An additional 18 acres of fill would be added at Pier 300 and designated for container cargo uses.
	None	~~7~~8: (Mixed Land Use Sites): Vacant land at Berths 206-209 would be changed to container, break bulk, and/or dry bulk and dry bulk land at Berths 210-211 would be changed to dry bulk and/or container.
		~~8~~9: Vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue would be changed to maritime support.
		~~9~~10: Vacant land along Ferry Street would be changed to maritime support.
		~~10~~11: The land use consisting of the existing liquid bulk area (ExxonMobil) north of the Terminal Island Water Reclamation Plant (TIWRP) would be replaced with container cargo uses.
		~~11~~[d]12[d]: The institutional area south of Pier 400 would be changed to open space (least tern habitat).
		~~12~~13: Existing container area on Pier 400 would be changed to maritime support.
		~~13~~14: Vacant land, commercial fishing, and industrial areas near Fish Harbor would be changed to container cargo uses.
		~~14~~15: (Optional Land Use Site); Existing maritime support uses at Berth 301 would be changed to container or liquid bulk.
	Planning Area 4	
Planning Area 4: Fish Harbor	Tri Marine Expansion	None
	338 Cannery Street Adaptive Reuse	None
	Al Larson Marina	~~15~~16: Land use change from recreational boating to maritime support.
	None	~~16~~17: (Mixed Land Use Site): Vacant land at Southwest Marine Shipyard would be changed to ~~maritime support and~~ break bulk and/or maritime support. The surrounding area would be changed to maritime support.

Table ES-4. Proposed PMPU Appealable/Fill Projects and Land Use Changes

Planning Area	*Appealable/Fill Project*[a,b]	*Land Use Change*[c]
		~~17~~18: Vacant land, commercial fishing, liquid bulk, and institutional land uses at Fish Harbor would be replaced with commercial fishing and maritime support.
Planning Area 5		
Planning Area 5: Water	None	None

Notes:
a. These projects are appealable to the CCC, as defined under CCA Section 30715. Refer to Section ES.3.5, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.
b. Proposed fill projects would be consistent with the PMPU, once certified, and would not require an amendment. Appealable/fill projects that would have fill or cut and fill are bolded.
c. Refer to Figure ES-6 (Proposed PMPU Land Use Changes) for the specific locations of the proposed land use changes. The numbers included in this column correspond to the number of the land use change depicted in Figure ES-6.
d. This land use change is administrative because it only changes the definition of the land use; no impacts to the physical environment would occur. Therefore, this land use change is not carried forward for analysis in the PEIR.

3.2.1.5 Figure ES-6, Proposed PMPU Land Use Changes

Figure ES-6 was modified to include the proposed mixed land use designation (institutional and/or visitor-serving commercial) for Warehouse No. 1 in Planning Area 1.

Figure ES-6. Proposed PMPU Land Use Changes

3.2.1.6 Section ES.3.5, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas

The proposed appealable/fill projects are in various planning stages and are anticipated to be initiated or completed within the next 5 years. Future environmental documents for the proposed appealable/fill projects would incorporate this PEIR by reference and concentrate on the site-specific issues related to the proposed appealable/fill project at the appropriate phase of the planning process. Following the completion of project-specific CEQA reviews for the proposed appealable/fill projects, the LAHD would issue CDPs for approved projects. ~~However, it would not be necessary to seek a PMPU amendment from the CCC regarding the proposed fill projects analyzed herein.~~

3.2.1.7 Table ES-5, Other PMPU Projects and Land Use Changes

Table ES-5 was modified to include updates to the Final PMPU regarding the other project, Berths 212-224 Container Terminal Expansion, in Planning Area 3. This table was also updated to incorporate the additional other project, Relocation of ExxonMobil Storage Tanks, included in the Final PMPU.

Table ES-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
Planning Area 1				
Planning Area 1: San Pedro	Outer Harbor Cruise Terminal and Outer Harbor Park	No	Vacant land would be changed to cruise operations and open space.	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.
	City Dock No. 1 Marine Research Project	No	The break bulk area east of East Channel (Berths 57-71) would be changed to institutional.	This project was previously evaluated in the certified City Dock No. 1 Marine Research Project EIR.
	Ports O'Call Redevelopment	No	Industrial uses along Harbor Boulevard would be changed to commercial.	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.
	Various	No	A variety of projects occurring along the San Pedro Waterfront have associated land use changes which eliminate industrial land uses and result in increased public access to the waterfront (open spaces), additional visitor-serving commercial development within the Port, and expanded cruise operations.	These land use changes were previously evaluated in the certified San Pedro Waterfront Project EIS/EIR and the certified Cabrillo Marina Phase II Development Project EIR.

Table ES-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
Planning Area 2				
Planning Area 2: West Basin and Wilmington	Wilmington Waterfront Development Project	No	Institutional and industrial areas near Wilmington (north of Berths 184-185) would be changed to open space.	This project was previously evaluated in the certified Wilmington Waterfront Development Project EIS/EIR.
	Anchorage Road Soil Storage Site (ARSSS) Open Space	No	None	This is not a proposed project. Specific details are currently not available.
	Berths 176-181 Break Bulk Terminal Redevelopment	No	The Mormon Island container area (Berths 174-181) would be changed to break bulk.	This is not a proposed project. Specific details are currently not available.
	East Basin Marina Improvements	Yes	Vacant land east of Yacht Haven Marina (Berths 201-203) would be changed to recreational boating.	This is not a proposed project. Specific details are currently not available.
Planning Area 3				
Planning Area 3: Terminal Island	Pier 500 (200-acre fill)	No	None	This is not a proposed project. Specific details are currently not available.
	Trucking Support Center	No	None	This is not a proposed project. Specific details are currently not available.
	Terminal Island On-Dock Rail Facility	No	None	This is not a proposed project. Specific details are currently not available.
	Berths 212-224 Container Terminal Expansion~~Relocation of SA Recycling~~	No	None	This is not a proposed project. Specific details are currently not available.
	Relocation of ExxonMobil Storage Tanks	Yes	None	This is not a proposed project. Specific details are currently not available.
Planning Area 4				
Planning Area 4: Fish Harbor	Relocation of Jankovich Marine Fueling Station	Yes	None	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.

Notes:

a. The PEIR does not analyze the impacts of other projects included in the PMPU that have already been evaluated in a certified CEQA document. Furthermore, as some projects included in the PMPU are in the conceptual design stage, sufficient project details are not available to support a programmatic evaluation of potential impacts. These other projects are listed in the PEIR for purposes of public disclosure and addressed in Chapter 4.0, Cumulative Analysis.

b. These projects are appealable to the CCC, as defined under CCA Section 30715. Please refer to Section ES.3.5, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.

3.2.1.8 Section ES.3.5.1.1, Planning Area 1: San Pedro, General Overview

Planning Area 1 would encompass the San Pedro Waterfront, extending from the breakwater to the Vincent Thomas Bridge along the western boundary of the Port (Figure ES-8). This area includes Berths 19-95, the Port's cruise operations, institutional uses, open space (Cabrillo Beach), and recreational boating activities. Planning Area 1 includes land uses focused on public access to the waterfront, but also has limited cargo operations and commercial fishing activities. Planning Area 1 emphasizes waterfront access through a waterfront promenade, parks, museums, academic uses, and visitor-serving commercial uses and attractions. ~~No land use changes would occur in Planning Area 1.~~ In Planning Area 1, existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial. Adaptive reuse of Warehouse No. 1 would occur in conformance with LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy.*

3.2.1.9 Figure ES-8, Proposed PMPU Planning Area 1 Land Use Designations

Figure ES-8 was modified to show the PMPU land use designation for Cabrillo Beach as open space. This figure was updated to show Warehouse No. 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses.

Figure ES-8. Proposed PMPU Planning Area 1 Land Use Designations

3.2.1.10 Section ES.3.5.4.1, Planning Area 4: Fish Harbor, General Overview

Planning Area 4 would contain Fish Harbor and focus on expanding commercial fishing while maintaining adequate acreages for maritime support uses. Commercial fishing would remain in the northern and eastern portions of Fish Harbor, while maritime support, break bulk cargo, and other institutional uses would be focused along the western portion of Fish Harbor. ~~Break bulk cargo handling is anticipated at Berths 240-241 and the backland area.~~ Vacant land at Southwest Marine Shipyard (Berths 240-241) would be a mixed land use site and allow break bulk and/or maritime support uses. Additional land use changes are associated with the proposed appealable/fill projects in Planning Area 4. The *Terminal Island Land Use Plan* also provides the framework for Planning Area 4.

3.2.1.11 Figure ES-11, Proposed PMPU Planning Area 4 Land Use Designations

Figure ES-11 was modified to show all of the buildings at the Southwest Marine Shipyard site (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

Figure ES-11. Proposed PMPU Planning Area 4 Land Use Designations

3.2.1.12 Table ES-6, Summary of Proposed PMPU Land Use Changes

Table ES-6 was modified to clarify the following**:**

- The land use designation for Cabrillo Beach was changed from visitor-serving commercial to open space, which resulted in the removal of approximately 21 acres from the previously analyzed visitor-serving commercial land uses;
- The Cabrillo Beach boat launch area was incorporated into the previously analyzed recreational boating area acreage, which resulted in an additional 2 acres for this land use designation. This change also resulted in the loss of approximately 2 acres of open water in Planning Area 5;
- Warehouse No. 1 was changed to a mixed land use site that would allow institutional and/or visitor-serving commercial land uses. Because visitor-serving commercial is a more intensive land use, this resulted in the removal of approximately 6 acres of institutional uses in Planning Area 1; and,
- Vacant land at Southwest Marine Shipyard was changed to a mixed land use site that would allow break bulk and/or maritime support uses. Because break bulk is a more intensive land use, this resulted in the removal of approximately 6 acres of maritime support in Planning Area 4.

Table ES-6. Summary of Proposed PMPU Land Use Changes

Land Use Type	*Existing (2011) (acres)*[a]	*Proposed Changes Evaluated in the PEIR (acres)*	*Previously Analyzed Changes (acres)*[b]	*Overall Difference (acres)*	*PMPU Acreage (acres)*
Container	2,050	288	33	321	2,371
Liquid Bulk	119	-17	66	49	168
Dry Bulk	45	-30	1	-29	15
Commercial Fishing	20	36	2	38	58
Recreational Marina (Recreational Boating)	66	0	25~~23~~	25~~23~~	91~~88~~
Industrial (Maritime Support)	45	75~~81~~	13	88~~94~~	133~~139~~
Institutional	115	-37~~31~~	15	-22~~16~~	92~~98~~
Commercial (Visitor Serving/Commercial)	88	6~~0~~	15~~36~~	21~~36~~	109~~124~~
Break Bulk	160	21~~15~~	38	59~~53~~	219~~213~~
Open Space	92	28	110~~89~~	138~~117~~	231~~210~~
Passengers/Supporting Commercial (Cruise Operations)	54	0	15	15	69
Vacant	658	-333	-325	-658	0
Open Water[c]	3,224	-37	-7~~-5~~	-44~~-42~~	3,180~~3,182~~
Total[d]	6,735	0	0	0	6,735

Notes:
a. All acreages are approximate. Acreages for mixed use and optional land use sites are associated with the "worst case" or most intensive land use for an individual site, as evaluated in this PEIR.
b. The PEIR does not analyze the impacts of the land use changes included in the PMPU that have already been evaluated in a certified CEQA document.
c. Acreages do not include the Reservation Point Area (i.e., 64 acres). This is not LAHD controlled property.
d. The total area includes open water acreage and all unassigned acreage in Planning Areas 1–4 and boundary differences.

3.2.1.13 Table ES-7, Summary of Potential Impacts and Mitigation Measures for the Proposed Program

Table ES-7 was revised to clarify the title of Mitigation Measure TRANS-1.

Table ES-7. Summary of Potential Impacts and Mitigation Measures for the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact After Mitigation*
3.1 Aesthetics/Visual Resources			
Operations			
TRANS-4: Operation of the proposed Program would cause increases considered significant for freeway congestion.	Significant	**MM TRANS-1: ~~Implement the~~ Interstate (I)-710 Corridor ~~Project~~Improvements**	Significant and unavoidable

3.2.2 Changes Made to Chapter 2.0, Program Description

Section 2.3.2.5 was inadvertently omitted from the Draft PEIR.

3.2.2.1 Section 2.3.2.5, Planning Area 5 (Wilmington District)

Planning Area 5 (Wilmington District) comprises approximately 622 acres encompassing the northern terminus of the Main Channel and includes areas adjacent to the community of Wilmington and the Consolidated Slip. Existing land uses include break bulk, dry bulk, liquid bulk, institutional, recreational, and vacant lands (Figure 2.3-2).

3.2.2.2 Table 2.5-1, Proposed PMPU Planning Areas and Allowable Land Uses

Table 2.5-1 was updated to reflect changes to the Final PMPU.

Table 2.5-1. Proposed PMPU Planning Areas and Allowable Land Uses

Planning Area	*Location*	*Acreage*	*Allowable Land Uses**
1 (San Pedro)	From the Breakwater up to the Vincent Thomas Bridge	413~~4~~	Recreational Boating, Commercial, Break Bulk, Open Space, Institutional, Cruise Operations, and Maritime Support
2 (West Basin and Wilmington)	From the Vincent Thomas Bridge to north of the Cerritos Channel	1,098~~095~~	Container, Open Space, Liquid Bulk, Break Bulk, Dry Bulk, Maritime Support, Recreational Boating, and Commercial
3 (Terminal Island)	Terminal Island, excluding Fish Harbor	1,940~~2,156~~	Container, Liquid Bulk, Dry Bulk, Maritime Support, Open Space
4 (Fish Harbor)	Fish Harbor, including former Southwest Marine Shipyard site	92	Commercial Fishing, Maritime Support, Break Bulk, and Institutional
5 (Water)	All water excluding areas adjacent to marinas	3,209~~11~~	Navigable Waterways, Maneuvering Areas, Anchorage Areas, and Shallow Water Habitat
Note: *Proposed land uses would be confined to the specific sites identified on the PMPU Land Use Designations Map (Figure 2.5-2).			

3.2.2.3 Figure 2.5-2, Proposed PMPU Land Use Designations

Figure 2.5-2 was modified to depict the PMPU land use designation for Cabrillo Beach as open space. This figure was updated to identify Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. Figure 2.5-2 was also revised to include all of the buildings at the Southwest Marine Shipyard site (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

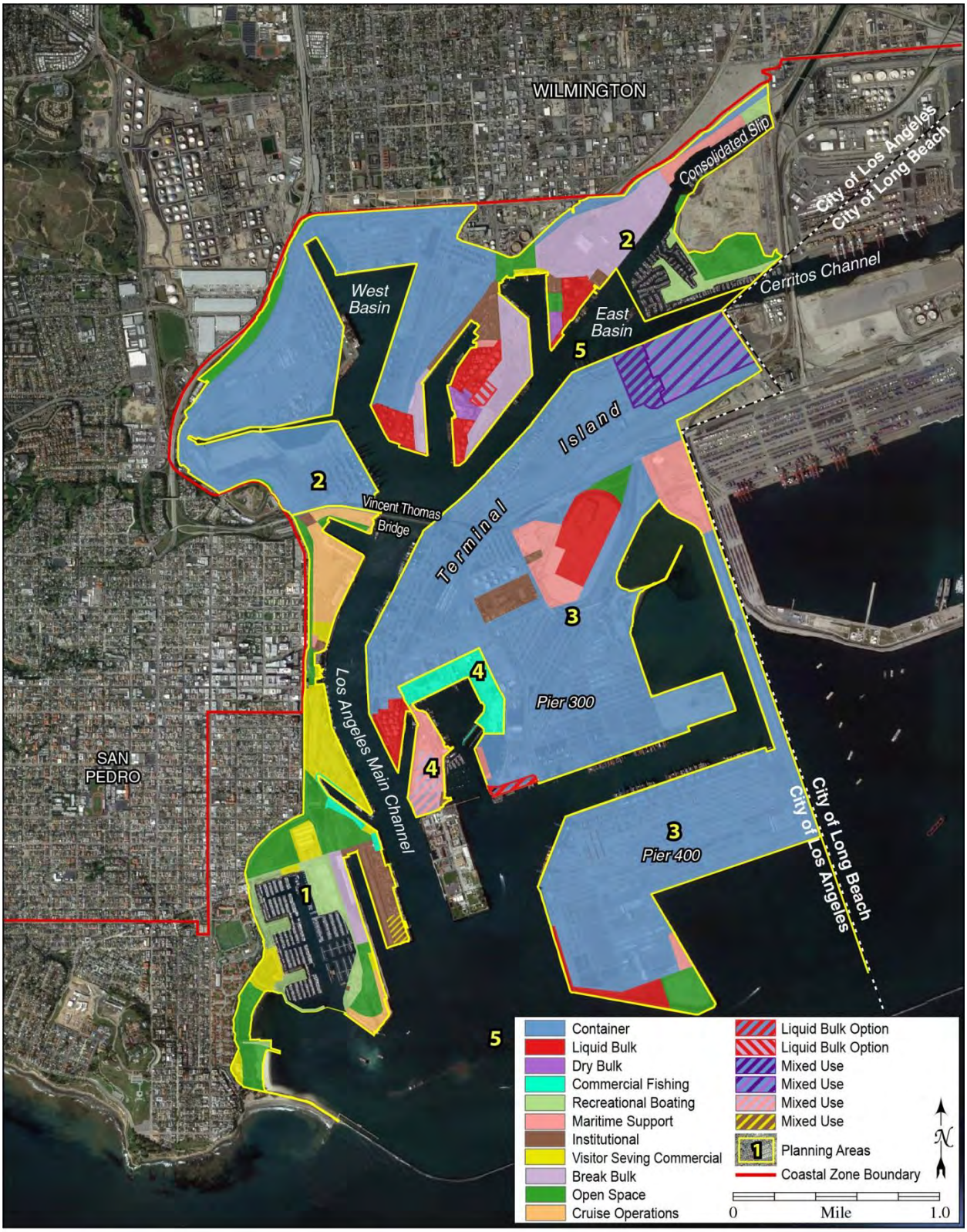


Figure 2.5-2. Proposed PMPU Land Use Designations

3.2.2.4 Table 2.5-3, Proposed PMPU Land and Water Use Definitions

Table 2.5-3 was updated to reflect changes to the Final PMPU.

Table 2.5-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
	*Land Use**	
Container	Water-dependent uses focused on container cargo handling and movement.	▪ Container Terminal ▪ Chassis Storage ▪ On-Dock Rail Yard ▪ Omni Terminal
Dry Bulk	Water-dependent uses focused on non-containerized, dry bulk cargoes shipped in large, unpackaged amounts.	▪ Cement ▪ Potash and similar ▪ Grain; ▪ Scrap Metal
Break Bulk	Water-dependent uses focused on non-containerized, bulk cargoes packaged as a unit.	▪ Roll-On Roll-Off Cargoes ▪ Steel Slabs ▪ Neo Bulk ▪ Fruit ▪ Automobiles
Cruise Operations	Water-dependent operations focused on cruise operations and passenger handling.	▪ Cruise Facilities ▪ Baggage Handling Facilities
Liquid Bulk	Water-dependent uses focused on storage, receipt, and delivery of liquid bulk commodities.	▪ Crude Oil Terminal ▪ Petroleum Products Terminal ▪ Non-petroleum Products and Other Liquid Bulk Commodities
Maritime Support	Water-dependent and non water-dependent operations necessary to support cargo handling and other maritime activities.	▪ Barge/Tugboat ▪ Boatyard and Ship Repair ▪ Marine Fueling Station ▪ Marine Service Contractors, (e.g., diving, and emergency response services) ▪ Water Taxi ▪ Cargo Fumigation
Commercial Fishing	Facilities related to commercial fishing and processing.	▪ Fish Processing ▪ Cold Storage/Fish Unloading/Ice House ▪ Fishing Vessel Moorage ▪ Fish Laboratories and Testing
Recreational Boating	Recreational boating activities generally associated with marinas.	▪ Marinas ▪ Upland Boat Storage ▪ Yacht Clubs ▪ Marina-Related Retail

Table 2.5-3. Proposed PMPU Land and Water Use Definitions

Land Use	*Description*	*Examples*
Visitor-Serving Commercial	Visitor serving commercial uses for the public, including museums.	▪ Restaurant ▪ Maritime Related Office ▪ Visitor Serving Retail ▪ Harbor Tour Vessels ▪ Sport Fishing ▪ Museums ▪ Community Centers/Conference Centers ▪ Exhibit Space
Open Space	Open spaces reserved for the general public such as parks and beaches or open areas reserved for environmental protection.	▪ Public Beaches ▪ Parks ▪ Environmentally Protected Area ▪ Wetlands
Institutional	Uses and facilities operated by government agencies.	▪ Public Safety (Police and Fire) ▪ Other Federal, State, and Local Agencies ▪ Educational ▪ Marine Research Facility ▪ Non-profit Organizations
Water Use		
Navigation	Water areas devoted to anchorage of vessels, movement and maneuvering of vessels.	▪ Main Channel ▪ East and West Turning Basin
Environmental Mitigation	Water areas dedicated to environmental protection and not suitable for the navigation of cargo moving vessels.	▪ Shallow Water Habitat
Recreational Boating	Water areas associated with the mooring of recreational vessels.	▪ Marina Slip Areas
Berthing	Water areas directly adjacent to cargo berths. These areas are dedicated to the berthing of cargo vessels.	▪ Cargo Berths
Note: *In addition to the specific land use definitions and scope of activities, uses directly related to and supporting the land use are also permitted activities. Examples include, but are not limited to, an administrative office and/or maintenance and repair facility that support a container terminal or administrative offices and/or quality control laboratory that support commercial fishing processing activities.		

3.2.2.5 Section 2.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas

The proposed Program includes revisions to allowable land uses and proposed appealable/fill projects (Figures 2.5-3 and 2.5-4 and Table 2.5-4). As previously discussed, the PEIR focuses on land use changes that would result in changes and/or intensification of activities with the potential for impacting the physical environment, as well as the proposed appealable/fill projects, as defined under CCA Section 30715. Appealable projects include: liquefied natural gas and crude oil projects that could have a significant impact on oil and gas supplies; wastewater treatment facilities except those producing incidental amounts associated with Port activities; road or highway projects that are not principally for internal circulation within the Port; office and residential buildings not associated with Port administrative activities;

hotels, motels, and shopping facilities not associated with commercial goods for water-oriented purposes; commercial fishing facilities; recreational small craft marina related facilities; oil refineries; and, petrochemical production plants. The proposed appealable/fill projects are in various planning stages and are anticipated to be initiated or completed within the next 5 years. As noted in Section 1.5.1, Scope of Analysis, future environmental documents for the proposed appealable/fill projects would incorporate this PEIR by reference and concentrate on the site-specific issues related to the appealable/fill project at the appropriate phase of the planning process. Following the completion of project-specific CEQA reviews for the proposed appealable/fill projects, the LAHD would issue CDPs for approved projects. ~~However, it would not be necessary to seek a PMPU amendment from the CCC in regard to the proposed fill projects analyzed herein.~~

3.2.2.6 Figure 2.5-3, Proposed PMPU Land Use Changes

Figure 2.5-3 was modified to include the proposed mixed land use designation (institutional and/or visitor-serving commercial) for Warehouse No. 1 in Planning Area 1.

Figure 2.5-3. Proposed PMPU Land Use Changes

3.2.2.7 Table 2.5-4, Proposed PMPU Appealable/Fill Projects and Land Use Changes

Table 2.5-4 was modified to identify Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. This table was also revised to include all of the buildings at the Southwest Marine Shipyard site (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

Table 2.5-4. Proposed PMPU Appealable/Fill Projects and Land Use Changes

Planning Area	*Appealable/Fill Project*[a,b]	*Land Use Change*[c]
Planning Area 1		
Planning Area 1: San Pedro	None	1: (Mixed Land Use Site): Existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial.~~None~~
Planning Area 2		
Planning Area 2: West Basin and Wilmington	Berths 187-189 Liquid Bulk Relocation	~~1~~2: The liquid bulk terminal at Berths 187-189 (Vopak) would be relocated to Berths 191-194. Berths 187-189 would consist of open space and institutional land uses.
	Yang Ming Terminal Redevelopment, including Cut and Fill (3-acre cut; 6-acre fill)	~~2~~3: An additional 6 acres of fill at Berths 120-121 and cut of 3 acres of land at Berths 121-127 for the Yang Ming Terminal would be designated as container area.
		~~3~~4: The liquid bulk facility at Berths 118-120 (Kinder Morgan) would be eliminated and replaced with container cargo uses.
	China Shipping Fill (16-acre fill)	~~4~~5: An additional 16 acres of fill would be added at Berth 102 for the China Shipping container terminal and designated for container cargo uses.
	None	~~5~~6: (Optional Land Use Site): Vacant land on Mormon Island between San Clemente Avenue and Hermosa Street would be changed to liquid bulk or break bulk.
Planning Area 3		
Planning Area 3: Terminal Island	Berth 300 Development (18-acre fill)	~~6~~7: An additional 18 acres of fill would be added at Pier 300 and designated for container cargo uses.
	None	~~7~~8: (Mixed Land Use Sites): Vacant land at Berths 206-209 would be changed to container, break bulk, and/or dry bulk and dry bulk land at Berths 210-211 would be changed to dry bulk and/or container.
		~~8~~9: Vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue would be changed to maritime support.
		~~9~~10: Vacant land along Ferry Street would be changed to maritime support.
		~~10~~11: The land use consisting of the existing liquid bulk area (ExxonMobil) north of the Terminal Island Water Reclamation Plant (TIWRP) would be replaced with container cargo uses.
		~~11~~[d]12[d]: The institutional area south of Pier 400 would be changed to open space (least tern habitat).
		~~12~~13: Existing container area on Pier 400 would be changed to maritime support.
		~~13~~14: Vacant land, commercial fishing, and industrial areas near Fish Harbor would be changed to container cargo uses.

Table 2.5-4. Proposed PMPU Appealable/Fill Projects and Land Use Changes

Planning Area	*Appealable/Fill Project*[a,b]	*Land Use Change*[c]
		~~14~~15: (Optional Land Use Site): Existing maritime support uses at Berth 301 would be changed to container or liquid bulk.
Planning Area 4		
Planning Area 4: Fish Harbor	Tri Marine Expansion	None
	338 Cannery Street Adaptive Reuse	None
	Al Larson Marina	~~15~~16: Land use change from recreational boating to maritime support.
	None	~~16~~17: (Mixed Land Use Site): Vacant land at Southwest Marine Shipyard would be changed to ~~maritime support and~~ break bulk and/or maritime support. The surrounding area would be changed to maritime support.
		~~17~~18: Vacant land, commercial fishing, liquid bulk, and institutional land uses at Fish Harbor would be replaced with commercial fishing and maritime support.
Planning Area 5		
Planning Area 5: Water	None	None

Notes:
a. These projects are appealable to the CCC, as defined under CCA Section 30715. Refer to Section 2.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.
b. Proposed fill projects would be consistent with the PMPU, once certified, and would not require an amendment. Appealable/fill projects that would have fill or cut and fill are bolded.
c. Refer to Figure 2.5-3 (Proposed PMPU Land Use Changes) for the specific locations of the proposed land use changes. The numbers included in this column correspond to the number of the land use change depicted in Figure 2.5-3.
d. This land use change is administrative because it only changes the definition of the land use; no impacts to the physical environment would occur. Therefore, this land use change is not carried forward for analysis in the PEIR.

3.2.2.8 Table 2.5-5, Other PMPU Projects and Land Use Changes

Table 2.5-5 was modified to include updates to the Final PMPU regarding the other project, Berths 212-224 Container Terminal Expansion, in Planning Area 3. This table was also updated to incorporate the additional other project, Relocation of ExxonMobil Storage Tanks, included in the Final PMPU.

Table 2.5-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
Planning Area 1				
Planning Area 1: San Pedro	Outer Harbor Cruise Terminal and Outer Harbor Park	No	Vacant land would be changed to cruise operations and open space.	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.
	City Dock No. 1 Marine Research Project	No	The break bulk area east of East Channel (Berths 57-71) would be changed to institutional.	This project was previously evaluated in the certified City Dock No. 1 Marine Research Project EIR.
	Ports O'Call Redevelopment	No	Industrial uses along Harbor Boulevard would be changed to commercial.	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.
	Various	No	A variety of projects occurring along the San Pedro Waterfront have associated land use changes which eliminate industrial land uses and result in increased public access to the waterfront (open spaces), additional visitor-serving commercial development within the Port, and expanded cruise operations.	These land use changes were previously evaluated in the certified San Pedro Waterfront Project EIS/EIR and the certified Cabrillo Marina Phase II Development Project EIR.
Planning Area 2				
Planning Area 2: West Basin and Wilmington	Wilmington Waterfront Development Project	No	Institutional and industrial areas near Wilmington (north of Berths 184-185) would be changed to open space.	This project was previously evaluated in the certified Wilmington Waterfront Development Project EIS/EIR.
	Anchorage Road Soil Storage Site (ARSSS) Open Space	No	None	This is not a proposed project. Specific details are currently not available.
	Berths 176-181 Break Bulk Terminal Redevelopment	No	The Mormon Island container area (Berths 174-181) would be changed to break bulk.	This is not a proposed project. Specific details are currently not available.
	East Basin Marina Improvements	Yes	Vacant land east of Yacht Haven Marina (Berths 201-203) would be changed to recreational boating.	This is not a proposed project. Specific details are currently not available.
Planning Area 3				
Planning Area 3: Terminal Island	Pier 500 (200-acre fill)	No	None	This is not a proposed project. Specific details are currently not available.
	Trucking Support Center	No	None	This is not a proposed project. Specific details are currently not available.
	Terminal Island On-Dock Rail Facility	No	None	This is not a proposed project. Specific details are currently not available.

Table 2.5-5. Other PMPU Projects and Land Use Changes[a]

Planning Area	*Other Projects*	*Appealable[b]*	*Land Use Changes*	*Comments*
	Berths 212-224 Container Terminal Expansion~~Relocation of SA Recycling~~	No	None	This is not a proposed project. Specific details are currently not available.
	Relocation of ExxonMobil Storage Tanks	Yes	None	This is not a proposed project. Specific details are currently not available.
Planning Area 4				
Planning Area 4: Fish Harbor	Relocation of Jankovich Marine Fueling Station	Yes	None	This project was previously evaluated in the certified San Pedro Waterfront Project EIS/EIR.

Notes:
a. The PEIR does not analyze the impacts of other projects included in the PMPU that have already been evaluated in a certified CEQA document. Furthermore, as some projects included in the PMPU are in the conceptual design stage, sufficient project details are not available to support a programmatic evaluation of potential impacts. These other projects are listed in the PEIR for purposes of public disclosure and addressed in Chapter 4.0, Cumulative Analysis.
b. These projects are appealable to the CCC, as defined under CCA Section 30715. Please refer to Section 2.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas, for additional details.

3.2.2.9 Section 2.5.3.2.1, Planning Area 1: San Pedro, General Overview

Planning Area 1 would encompass the San Pedro Waterfront, extending from the breakwater to the Vincent Thomas Bridge along the western boundary of the Port (Figure ES-8). This area includes Berths 19-95, the Port's cruise operations, institutional uses, open space (Cabrillo Beach), and recreational boating activities. Planning Area 1 includes land uses focused on public access to the waterfront, but also has limited cargo operations and commercial fishing activities. Planning Area 1 emphasizes waterfront access through a waterfront promenade, parks, museums, academic uses, and visitor-serving commercial uses and attractions. ~~No land use changes would occur in Planning Area 1.~~ In Planning Area 1, existing institutional uses at Warehouse No. 1 would remain and/or be changed to visitor-serving commercial. Adaptive reuse of Warehouse No. 1 would occur in conformance with LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy.*

3.2.2.10 Figure 2.5-5, Proposed PMPU Planning Area 1 Land Use Designations

Figure 2.5-5 was modified to show the PMPU land use designation for Cabrillo Beach as open space. This figure was also updated to show Warehouse No. 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses.

Figure 2.5-5. Proposed PMPU Planning Area 1 Land Use Designations

3.2.2.11 Section 2.5.3.5.1, Planning Area 4: Fish Harbor General Overview

Planning Area 4 would contain Fish Harbor and focus on expanding commercial fishing while maintaining adequate acreages for maritime support uses. Commercial fishing would remain in the northern and eastern portions of Fish Harbor, while maritime support and other institutional uses would be located along the western portion of Fish Harbor (Figure 2.5-8). ~~Break bulk cargo handling is anticipated at Berths 240-241 and the backland area.~~ Vacant land at Southwest Marine Shipyard (Berths 240-241) would be a mixed land use site and allow break bulk and/or maritime support uses. Additional land use changes are associated with the proposed appealable/fill projects in Planning Area 4. The *Terminal Island Land Use Plan* also provides the framework for Planning Area 4.

3.2.2.12 Figure 2.5-8, Proposed PMPU Planning Area 4 Land Use Designations

Figure 2.5-8 was modified to show all of the buildings at the Southwest Marine Shipyard (Berths 240-241) within the break bulk land use designation and identify this area as a mixed land use site that would allow break bulk and/or maritime support uses.

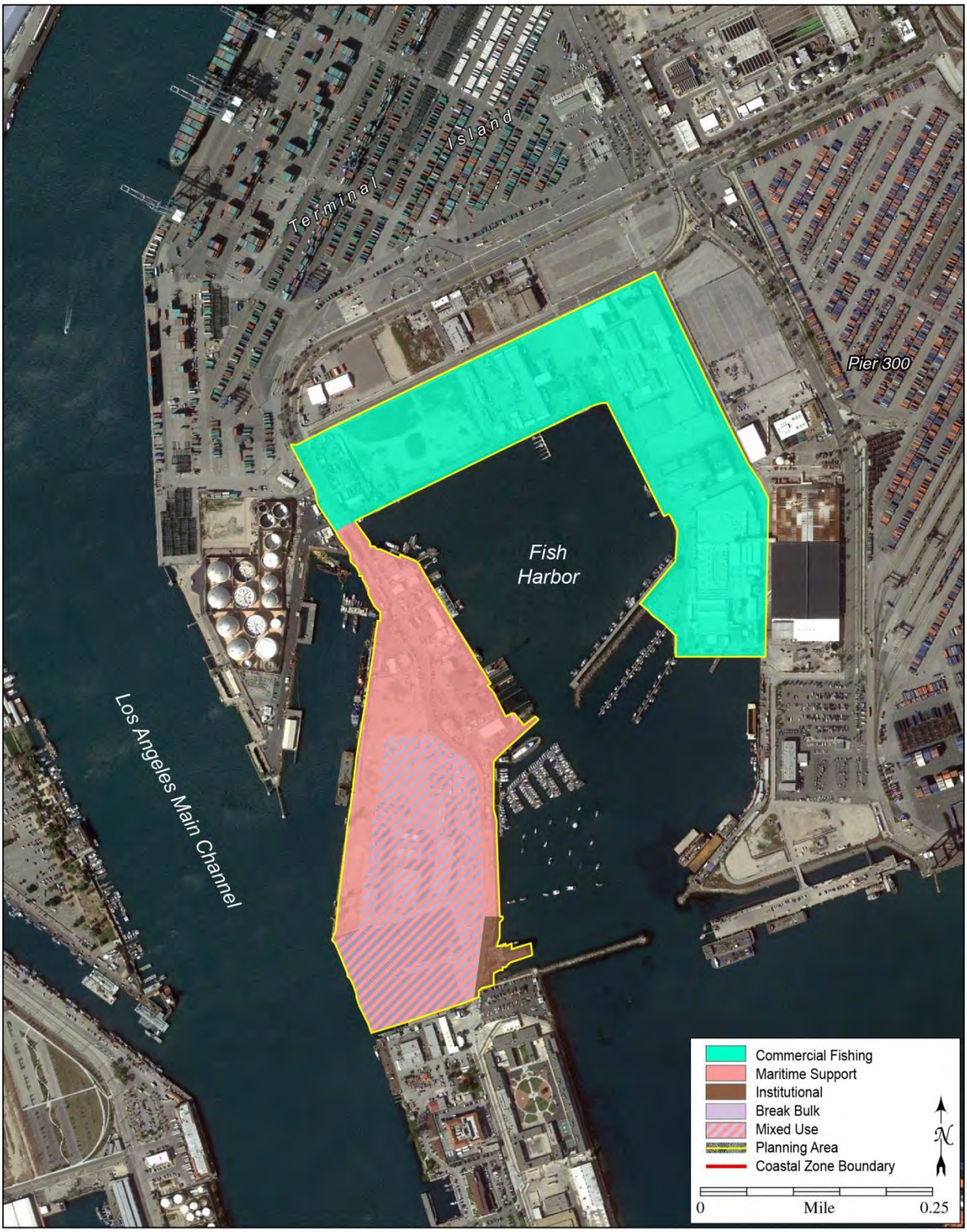


Figure 2.5-8. Proposed PMPU Planning Area 4 Land Use Designations

3.2.2.13 Table 2.5-6, Summary of Proposed PMPU Land Use Changes

Table 2.5-6 was modified to clarify the following**:**

- The land use designation for Cabrillo Beach was changed from visitor-serving commercial to open space, which resulted in the removal of approximately 21 acres from the previously analyzed visitor-serving commercial land uses;
- The Cabrillo Beach boat launch area was incorporated into the previously analyzed recreational boating area acreage, which resulted in an additional 2 acres for this land use designation. This change also resulted in the loss of approximately 2 acres of open water in Planning Area 5; and,
- Warehouse No. 1 was changed to a mixed land use site that would allow institutional and/or visitor-serving commercial land uses. Because visitor-serving commercial is a more intensive land use, this resulted in the removal of approximately 6 acres of institutional uses in Planning Area 1; and,
- Vacant land at Southwest Marine Shipyard was changed to a mixed land use site that would allow break bulk and/or maritime support uses. Because break bulk is a more intensive land use, this resulted in the removal of approximately 6 acres of maritime support in Planning Area 4.

Table 2.5-6. Summary of Proposed PMPU Land Use Changes

Land Use Type	*Existing (2011) (acres)*[a]	*Proposed Changes Evaluated in the PEIR (acres)*	*Previously Analyzed Changes (acres)*[b]	*Overall Difference (acres)*	*PMPU Acreage (acres)*
Container	2,050	288	33	321	2,371
Liquid Bulk	119	-17	66	49	168
Dry Bulk	45	-30	1	-29	15
Commercial Fishing	20	36	2	38	58
Recreational Marina (Recreational Boating)	66	0	25~~23~~	25~~23~~	91~~88~~
Industrial (Maritime Support)	45	75~~81~~	13	88~~94~~	133~~139~~
Institutional	115	-37~~31~~	15	-22~~16~~	92~~98~~
Commercial (Visitor Serving/Commercial)	88	6~~0~~	15~~36~~	21~~36~~	109~~124~~
Break Bulk	160	21~~15~~	38	59~~53~~	219~~213~~
Open Space	92	28	110~~89~~	138~~117~~	231~~210~~
Passengers/Supporting Commercial (Cruise Operations)	54	0	15	15	69
Vacant	658	-333	-325	-658	0
Open Water[c]	3,224	-37	-7~~-5~~	-44~~-42~~	3,180~~3,182~~
Total[d]	6,735	0	0	0	6,735

Notes:
a. All acreages are approximate. Acreages for mixed use and optional land use sites are associated with the "worst case" or most intensive land use for an individual site, as evaluated in this PEIR.
b. The PEIR does not analyze the impacts of the land use changes included in the PMPU that have already been evaluated in a certified CEQA document.
c. Acreages do not include the Reservation Point Area (i.e., 64 acres). This is not LAHD controlled property.
d. The total area includes open water acreage and all unassigned acreage in Planning Areas 1–4 and boundary differences.

3.2.2.14 Section 2.5.7.1, PMPU Goals

Section 2.5.7.1, PMPU Goals, was updated to reflect changes to the Final PMPU.

Goal 3: Accommodate Diverse Cargoes

The Port should continue its commitment to accommodating a variety of water-dependent cargo handling facilities, including container, break bulk, dry bulk, and liquid bulk uses. While revenues generated from each land use vary, overall plans for the Port should allow for some capacity for different modes of cargo to serve the larger economic and public interest of the state. Ancillary uses, such as ship and boat repair, harbor craft, and barge and tug operations, are vital support industries and are also important customers that should be prioritized, based on need. Demand and market studies for specific ancillary uses should be pursued periodically. Additionally, existing commercial fishing and recreational boating facilities will be protected consistent with the policies of the CCA.

Goal 4: Increase Public Access to the Waterfront

As a part of a larger community, the Port will provide for enhanced public access to the waterfront and visitor-serving facilities including retail restaurants, museums, and parks. Waterfront access should be provided to both the local communities of San Pedro and Wilmington. These visitor-serving areas should be developed to connect with local commercial districts directly outside the Port district, such as Downtown San Pedro and the Wilmington Avalon Corridor. Within the visitor-serving areas, pedestrian and bicycle pathways should connect a series of commercial and open space destinations as well as allow the opportunity to network into regional resources such as the California Coastal Trail (CCT). Public access areas and residential areas adjacent to the Port should be buffered through landscaping, as feasible.

Goal 5: Protect Historic Resources

The Port shall identify and pursue the preservation of the historic resources within its jurisdiction. The history of the Port, including significant periods such as the era of shipbuilding, commercial fishing industry, and the Japanese American Fishing Village, should continue to be memorialized, as appropriate, through monuments and preservation of associated existing buildings and sites. Nothing stated herein shall be interpreted to impede the Port's ability to meet its mandates identified in the CCA to operate as a commercial port and accommodate transportation, commercial, industrial and cargo handling activities. The *Built Environment Historic, Architectural, and Cultural Resource Policy,* adopted by the Board, established the formal procedures to potentially adaptively reuse and protect historic resources.

The goal to adaptively reuse historic resources shall be included among other goals when considering a proposed use for the site. Further, the Port shall encourage the productive reuse of historic resources in the future by periodically reviewing, as needed, with stakeholder input, whether additional Port related land uses in certain areas with identified historic resources would enhance the opportunity to the reuse vacant or underutilized historic resources.~~The Port should, where feasible, identify and preserve historic resources within the Port. Significant historic events, such as~~

~~the historic commercial fishing industry or the Japanese-American fishing village on Terminal Island, should continue to be memorialized through monuments. A historic resources policy should be formalized and adopted by the Board to establish the Port's commitment to adaptive reuse and protection of historic structures.~~

3.2.3 Changes Made to Chapter 3.0, Environmental Analysis

Chapter 3.0, Environmental Analysis, was revised to clarify that the proposed land use change in Planning Area 1 (i.e., designating Warehouse No. 1 as a mixed land use site) was included in the Final PEIR impact analysis. Additional revisions are related to the analysis of an additional freeway link location on the I-710 north of Florence Avenue in response to comments received from Caltrans on the Draft PEIR.

As mentioned in Chapter 2.0, Response to Comments, the change in land use related to the Southwest Marine Shipyard in Planning Area 4 would not alter conclusions identified in the Draft PEIR, and therefore is not analyzed herein.

3.2.3.1 Section 3.0.4, Level of Analysis

Consistent with a PEIR level of analysis, it is notable that several changes proposed in the PMPU are administrative (e.g., changes to existing planning areas and land use categories/definitions) and would cause no impacts to the physical environment. For much of the PMPU area, proposed land use categories would be compatible with or less intensive than existing land uses, potentially resulting in fewer impacts to the physical environment compared to existing conditions. Consequently, these land use changes are not addressed in the individual resource sections. Further, since there are no proposed appealable/fill projects or land use changes associated with Planning Area ~~s1 and~~ 5 (Section 2.5.3, Changes to Land Uses and Proposed Appealable/Fill Projects within the PMPU Planning Areas), evaluations are presented only for Planning Areas 1, 2, 3, and 4 in the resource sections.

3.2.4 Changes Made to Section 3.1, Aesthetics/Visual Resources

Section 3.1, Aesthetics/Visual Resources, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.4.1 Section 3.1.4.3, Impacts and Mitigation

Impact AES-1: The proposed Program would not cause substantial, adverse effects on a scenic vista.

Planning Areas ~~2~~ 1 – 4

Main Channel, Adjacent Areas, and San Pedro Waterfront

One proposed appealable/fill project, the Berths 187-189 Liquid Bulk Relocation Project, would be within view from the Main Channel, Slip 5, and the East Basin Marinas. It is possible that land use changes within the Southwest Marine Shipyard may be visible from points within the Main Channel and from the southeast end of Ports O'Call Village and the adjacent marina. The proposed land use change at Warehouse No. 1 would be visible from the Main Channel and San Pedro Waterfront. No other proposed appealable/fill projects or land use changes would be seen from points elsewhere along the Main Channel, adjacent areas, or the San Pedro Waterfront.

The extent of obstruction

Since views from the Main Channel and San Pedro Waterfront do not currently extend past the edge of the Main Channel and its adjacent areas, such as the East Basin Marinas, the proposed appealable/fill project (Berths 187-189 Liquid Bulk Relocation Project), land use changes within the Southwest Marine Shipyard, and Warehouse No. 1 land use change would have no potential for obstructing views to the interior of the PMPU area.

Impact AES-2: The proposed Program would not cause substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within [view from] a state scenic highway.

Planning Areas ~~2~~ 1 – 4

Impact AES-3: The proposed Program would not cause a substantial degradation of existing visual character or quality of a site and its surroundings.

The issue addressed in Impact AES-3 is the degree to which the proposed Program would contrast unfavorably and noticeably with features of the PMPU area.

Planning Areas ~~2~~ 1 – 4

Main Channel, Adjacent Areas and San Pedro Waterfront

The proposed appealable/fill project nearest to the Main Channel and adjacent areas and the San Pedro Waterfront is the Al Larson Marina at Fish Harbor. It would not be within critical public views, as would be the case for the two other projects at Fish Harbor (Tri Marine Expansion and 338 Cannery Street Adaptive Reuse), Pier 300

(Berth 300 Development), and conversion of Berth 301 to liquid bulk or container cargo uses. It is possible that land use changes within the Southwest Marine Shipyard may be visible. The proposed changes include converting recreational boating to maritime support and vacant land changing to maritime support and break bulk. These land use changes may be noticeable from points within the Main Channel and from the southeast end of Ports O'Call Village and the adjacent marina. Changes from recreational boating and vacant land to maritime support and break bulk would be entirely within the established character of the Port, and no unfavorable contrast would result. Similarly, conversion of Berth 301 from maritime support to liquid bulk or container cargo uses would be within the established character of the Port. The proposed land use change at Warehouse No. 1 would be visible from points within the Main Channel. The proposed change includes converting existing institutional uses to mixed use - institutional and/or visitor-serving commercial. Construction (i.e., improvements to Warehouse No. 1 to support visitor-serving commercial uses) and operations would be entirely within the established character of the Port, and no unfavorable contrast would result. Therefore, the condition of the potentially affected views would continue to be rated ***Visual Modification Class 1***.

Impact AES-4: The proposed Program would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Planning Areas ~~2~~ 1 – 4

Impact AES-5: The proposed Program would not result in substantial shadow effects on nearby shadow-sensitive uses.

Planning Areas ~~2~~ 1 – 4

Construction and Operations

Existing shadow-sensitive land uses occur only in PMPU Planning Area 1 within the vicinity of the World Cruise Center, Catalina Terminal, Maritime Museum, Ports O'Call Village, and within or near 22nd Street Park and Bloch Field, Cabrillo Marina, and Cabrillo Beach. Only the proposed appealable/fill projects and land use changes occurring southeast, south, and southwest of these public use areas would have the potential to cast shadows on them. The proposed land use change at Warehouse No. 1 (i.e., existing institutional uses would be changed to mixed use - institutional and/or visitor-serving commercial) would be located approximately 0.3 miles from the nearest sensitive viewers (users of Cabrillo Way Marina). These viewers would not be affected by the negligible amounts of new shading that would occur as a result of improvements to Warehouse No. 1. ~~However, no~~ No ~~such~~ proposed appealable/fill projects or other land use changes would occur in ~~these areas, so no shadows would be cast upon shadow-sensitive land uses.~~Planning Area 1.

Development associated with the proposed appealable/fill projects and land use changes under the proposed Program would not affect shadow-sensitive land uses outside the PMPU area. In general, shading produced by new facilities and infrastructure would be limited to within individual project sites, adjacent waters, and industrial areas.

Impact AES-6: The proposed Program would not result in impacts inconsistent with guidelines and regulations established to protect aesthetic/visual resources.

Planning Areas ~~2~~ 1 – 4

3.2.5 Changes Made to Section 3.2, Air Quality and Greenhouse Gases

Section 3.2, Air Quality and Greenhouse Gases, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.5.1 Section 3.2.4.3, Impacts and Mitigation

Impact AQ-1: Construction activities associated with the proposed Program would produce emissions that exceed a SCAQMD Daily Emission Threshold.

The impact criterion relates only to construction, so operational impacts are not discussed in the analyses for this criterion.

Planning Area 1

Construction

Proposed land use changes within Planning Area 1 would allow for potential conversion of the Warehouse No. 1 area from institutional to visitor-serving commercial land uses. Construction activities associated with this land use change would include improvements to support potential future uses. Table 3.2-12 presents estimates of daily unmitigated emissions from a variety of terminal, backland, and landfill construction activities that could occur as part of the PMPU. The activity identified in Table 3.2-12 that would pertain to proposed construction activities in Planning Area 1 is building construction. However, the smaller amount of construction activities proposed within Planning Area 1 would produce lower peak daily emissions compared to those identified for building construction in Table 3.2-12.

Impact Determination

Construction

The data in Table 3.2-12 show that unmitigated peak daily emissions from either terminal development or landfill construction would exceed the SCAQMD daily emission thresholds for VOCs and NO_x. In addition peak daily emissions from terminal development would exceed the CO, PM_{10}, and $PM_{2.5}$ thresholds. Further, the peak day scenario of combined terminal/backlands development and landfill construction activities would exceed all SCAQMD daily emission thresholds except SO_x. Therefore, unmitigated construction emissions within Planning Areas 2 and 3 would be significant for VOCs, CO, NO_x, PM_{10}, and $PM_{2.5}$. Peak daily emissions from terminal development would occur from all seven activities identified for this

action. Peak daily emissions from landfill construction would occur from trench excavation and quarry run placement during dike construction at project locations. Construction activities within Planning Areas 1 and 4 would have the potential to produce significant levels of NO_x and PM_{10} emissions.

Impact AQ-2: Construction activities associated with the PMPU would result in offsite ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

The impact criterion relates only to construction, so operational impacts are not discussed in the analyses for this criterion.

Planning Area 1

Construction

The proposed land use change within Planning Area 1 would require only a minor amount of construction activities. It is expected that the minor amounts of emissions generated from these activities would not contribute to an exceedance of any SCAQMD ambient significance threshold.

Impact AQ-3: Operations associated with the proposed Program would result in emissions that exceed a SCAQMD daily emission threshold.

This impact criterion relates only to operations, so construction impacts are not discussed in the analyses for this criterion.

Planning Area 1

Operations

Table 3.2-15a summarizes peak daily unmitigated emissions estimated for the full build-out of operations associated with the Planning Area 1 land use change. Operational emission sources associated with the proposed land use change in Planning Area 1 would include user vehicles, area sources, and natural gas-fired space and water heaters.

Table 3.2-15a. Unmitigated Peak Daily Operational Emissions – Planning Area 1

Planning Area/Emission Source	*Pounds per Day*					
	VOC	*CO*	*NO_x*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Planning Area 1						
Area Material Usage	2.7	-	-	-	-	-
Space and Water Heaters	0.0	0.1	0.1	0.0	0.0	0.0
User Vehicles*	0.6	29.4	2.6	0.4	0.8	0.3
Total Daily Emissions - Planning Area 1	**0.6**	**29.4**	**2.6**	**0.4**	**0.8**	**0.3**
SCAQMD Significance Thresholds	**55**	**550**	**55**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Notes: *User vehicle emissions would occur within the SCAB.						

Impact Determination

Operations

The data in Table 3.2-15a show that peak daily unmitigated emissions generated by operations of proposed land use changes in Planning Area 1 would not exceed any SCAQMD daily significance threshold. The data in Tables 3.2-16 and 3-2-17 also show that unmitigated emissions generated by operations of proposed appealable/fill projects and land use changes in Planning Areas 2 and 3 during a peak day would exceed the SCAQMD daily emission significance thresholds for all pollutants. Lastly, the data in Table 3.2-18 show that unmitigated NO_x emissions generated by operations of proposed appealable/fill projects and land use changes in Planning Area 4 during a peak day would exceed the SCAQMD daily significance threshold. In addition, VOC emissions generated by operations of proposed appealable/fill projects and land use changes within Planning Areas 2 and 3 would exceed the 10 tons per year annual VOC threshold. Therefore, unmitigated emissions of VOC, CO, NO_x, SO_x, PM_{10}, and $PM_{2.5}$ that exceed these significance thresholds during the operation of the proposed Program would be significant.

Impact AQ-4: Operations associated with the proposed Program would result in ambient air pollutant concentrations that exceed a SCAQMD threshold of significance.

This impact criterion only relates to operations, so construction impacts are not discussed in the analyses for this criterion.

Planning Area 1

Operations

The land use change proposed in Planning Area 1 would involve only a minor amount of operational activities. It is expected that emissions generated from these activities would not exceed any SCAQMD ambient significance threshold.

Impact AQ-5: The proposed Program would not generate on-road traffic that would contribute to an exceedance of the 1-hour or 8-hour CO standards.

This impact criterion relates only to operations, so construction impacts are not discussed in the analyses for this criterion.

Planning Areas ~~2~~ 1 – 4

Impact AQ-6: Operations associated with the proposed Program would not create an objectionable odor at the nearest sensitive receptor.

This impact criterion relates only to operations, so construction impacts are not discussed in the analyses for this criterion.

Planning Areas ~~2~~ 1 – 4

Impact AQ-7: The proposed Program would expose receptors to significant levels of TACs.

Planning Area 1

Construction and Operations

The amount of TACs generated from construction and operations due to the proposed land use change within Planning Area 1 would be low enough that they would not exceed any SCAQMD public health threshold.

Impact AQ-8: The proposed Program would not conflict with or obstruct implementation of an applicable AQMP or the CAAP.

Planning Areas ~~2~~ 1 – 4

Impact GHG-1: The proposed Program would produce GHG emissions that would exceed a CEQA threshold.

Planning Areas ~~2~~ 1 – 4

Table 3.2-26. GHG Emissions from Construction Activities – Proposed Program

Planning Area/Activity	*Total Emissions (Metric Tons)*[a,b]			
	CO_2	CH_4	N_2O	CO_2e[c]
Planning Area 1				
Building Construction	356	0.02	0.01	360
Planning Area 2				
6-Acre Landfill Construction	3,868	0.6	0.0	3,892
16-Acre Landfill Construction	10,314	1.5	0.1	10,378
Wharf Construction	2,015	0.1	0.05	2,031
Backland Construction	1,107	0.07	0.03	1,118
AMP Installation	166	0.01	0	168
Demolition	46	0	0	46
Building Construction	712	0.04	0.02	719
Reefer Area Expansion	161	0.01	0.01	162
Utility Infrastructure	127	0.01	0	128
Cranes Installation	59	0	0	59
Modify Gate	122	0.01	0	123
Worker Commute	443	0.02	0.01	446
Total GHGs - Planning Area 2	**19,139**	**2.34**	**0.25**	**19,269**

Table 3.2-26. GHG Emissions from Construction Activities – Proposed Program

Planning Area/Activity	*Total Emissions (Metric Tons)*[a,b]			
	CO_2	*CH_4*	*N_2O*	*CO_2e*[c]
Planning Area 3				
18-Acre Landfill Construction	11,603	1.7	0.1	11,675
Terminal/Backland Developments	26,439	1.4	0.6	26,663
Total GHGs - Planning Area 3	**38,042**	**3.13**	**0.75**	**38,338**
Planning Area 4				
Terminal/Backland Developments	1,821	0.1	0.0	1,837
Total GHGs - Planning Area 4	**1,821**	**0.1**	**0.04**	**1,837**
Total GHGs - PMPU	**59,715** ~~**59,359**~~	**5.62** ~~**5.6**~~	**1.11** ~~**1.1**~~	**60,164** ~~**59,804**~~

Notes:
a. Emissions might not add precisely due to rounding.
b. One metric ton equals 1,000 kilograms, 2,205 pounds, or 1.1 U.S. (short) tons.
c. CO_2e = the carbon dioxide equivalent emissions of all GHGs combined. The carbon dioxide equivalent emission rate for each GHG represents the emission rate multiplied by its GWP. The GWPs are 1 for CO_2; 21 for CH_4; and 310 for N_2O.

Tables 3.2-~~27~~ 26a through 3.2-29 summarize the annual unmitigated GHG emissions that would occur in California from potential construction and operation of proposed appealable/fill projects and land use changes within Planning Areas ~~2~~ 1 through 4. Construction emissions presented in Tables 3.2-~~27~~ 26a through 3.2-29 are amortized over 30 years. For all cargo types, GHG emission sources include OGVs, tugboats, on-road trucks, trains, and cargo handling equipment. In addition, these data include fugitive refrigerant losses from refrigerated containers and worker commuter vehicles for container cargo operations.

Table 3.2-26a. Unmitigated Annual GHG Emissions – Planning Area 1 Full Build-out

Activity/Emission Source	*Metric Tons per Year CO_2e*[a,b]
Construction - 30-Year Average	12
Operations	
Energy	462
Waste	49
Water	51
User Vehicles	1,722
Total – Operations	**2,284**
Total GHGs - Planning Area 1[c]	**2,296**
GHG Significance Threshold	**10,000**
Significant?	**No**

Notes:
a. One metric ton equals 1,000 kilograms, 2,205 pounds, or 1.1 U.S. (short) tons.
b. CO_2e = the carbon dioxide equivalent emissions of all GHGs combined. The carbon dioxide equivalent emission rate for each GHG represents the emission rate multiplied by its GWP. The GWPs are 1 for CO_2; 21 for CH_4; 310 for N_2O; and 1,300 for HFC-134a.
c. Emissions might not add precisely due to rounding.

Impact Determination

Construction and Operations

Tables 3.2-26a~~27~~ through 3.2-29 show that future construction and operation of proposed appealable/fill projects and land use changes within Planning Areas 2 and 3 would produce annual CO_2e emissions that would exceed the CEQA threshold of 10,000 metric tons per year of CO_2e. Therefore, GHG emissions from the proposed Program would result in a significant impact. Construction and operation of proposed land use changes within Planning Areas 1 and 4 would produce annual CO_2e emissions that would not exceed the CEQA threshold of 10,000 metric tons per year of CO_2e.

Impact GHG-2: The proposed Program would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

Planning Areas ~~2~~ 1 – 4

3.2.6 Changes Made to Section 3.3, Biological Resources

Section 3.3, Biological Resources, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.6.1 Section 3.3.4.3, Impacts and Mitigation

Impact BIO-1: The proposed Program would not result in the loss of individuals, or the reduction of existing habitat, of a state- or federally-listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or the loss of federally-listed critical habitat.

Planning Area 1

Construction

The only construction in Planning Area 1 would be potential improvements to Warehouse No. 1 associated with a land use change from institutional to mixed use. Although the details of potential construction activities presently are unavailable, it is not expected that they would involve any in-water work such as dredging or pile installation. Construction or demolition activities would likely produce temporary increases in noise, night-time lighting, and activity that could result in short-term disturbances to special-status species, if present in the vicinity of work areas.

No adverse effects on sensitive bird species would be expected based on distance considerations. For example, the nest area on Pier 400 that is seasonally used by endangered California least terns would be more than 1 mile from construction or demolition activities. Similarly, construction or demolition activities would be more

than 2 miles from nest sites of peregrine falcons at the Vincent Thomas or Schuyler F. Heim bridges, and locations near Fries Avenue on Mormon Island where burrowing owls have been reported as transient visitors.

Peregrine falcons and loggerhead shrike prey on other birds (e.g., rock pigeons, starlings), which may be disturbed away from the work areas during construction. This temporary disturbance of potential foraging area would not adversely affect peregrine falcons or loggerhead shrike because they forage over several miles throughout the port complex.

No adverse effects would occur to other special status bird species listed on Table 3.3-1 (western snowy plover, Belding's savannah sparrow, brant, common loon), which have a low potential to occur and do not nest at the Port.

Land use changes involving construction or demolition associated with changes in types of facilities could adversely affect birds covered under the MBTA and/or similar provisions of the California Fish and Game Code, if construction/demolition occurs during the nesting season and suitable nesting areas are in the vicinity. Surveys generally are required to confirm presence or absence of nesting during the breeding season.

Operations

No adverse effects on special-status birds would be expected from the proposed land use change in Planning Area 1. Operations would be more than 1 mile from nesting sites of California least tern and other SSC on Pier 400 and would not affect potential nesting sites of the peregrine falcon located more than 2 miles away on the Vincent Thomas or Schuyler F. Heim bridges or burrowing owls that can be transient visitors to Mormon Island.

Impact BIO-2: The proposed Program would not result in a substantial reduction or alteration of a state-, federally-, or locally-designated natural habitat, special aquatic site, or plant community, including wetlands.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 (retaining existing institutional uses at Warehouse No. 1 and/or changing uses to visitor-serving commercial) would not reduce or alter natural habitats, special aquatic sites, plant communities, or wetlands.

Essential Fish Habitat

Construction and demolition activities for land-based facilities would have no direct effects on EFH, which is located in the water. Indirect impacts to waters associated with runoff during construction would be controlled with standard BMPs, project-specific SWPPPs, and permit compliance (Section 3.14.4.3, Water Quality, Sediments, and Oceanography).

Natural or Plant Communities

Natural plant communities, mudflats, or wetlands would not be affected by construction activities since none occur at Warehouse No. 1.

Significant Ecological Areas

No SEAs occur in Planning Area 1.

Operations

Operations associated with the proposed change in land use would have limited, if any, effects on designated natural habitat, special aquatic sites, or plant communities. There would be no discharges other than stormwater runoff, and facilities would be operated in accordance with SWPPPs to ensure that stormwater quality complies with permit conditions (Section 3.14.4.3, Water Quality, Sediments, and Oceanography). Consequently, no degradation in the quality of EFH would be expected.

Impact BIO-3: The proposed Program would not result in interference with wildlife movement/migration that may diminish the long-term survival of a species.

Planning Area 1

Construction

No migration corridors occur within the port complex. Construction activities would not block or interfere with the migration of special status birds or birds covered under the MBTA, which could fly over or around the construction activities.

The movement of marine mammals, if present in the vicinity, could be affected by noise and disturbance associated with construction or demolition activities (discussed under Impact BIO-1). No long-term effects on marine mammal populations would occur due to the localized and temporary nature of construction or demolition activities as well as the lack of rookeries within the port complex.

Operations

The proposed change in land use would not create barriers to wildlife movement within the port complex. Additional vessel calls to the Port associated with development in Planning Area 1 would not impede or interfere with migrations of whales or turtles, which generally are sparsely distributed along the coast.

Impact BIO-4: The proposed Program would result in a substantial disruption of local biological communities.

Planning Area 1

Construction

The proposed land use change from institutional to visitor-serving commercial would not result in substantial disruption of biological communities. Construction or demolition could result in temporary disturbance of terrestrial animals (e.g., lizards, rodents, and upland birds) that may inhabit or use developed land areas. As discussed under Impact BIO-1, construction or demolition associated with changes in the types of facilities could adversely affect birds covered under the MBTA and/or similar provisions of the California Fish and Game Code, if construction/demolition occurs during the nesting season and suitable nesting areas occur in the vicinity. Most terrestrial wildlife is dominated by non-native species or those adapted to living in an urbanized environment; therefore, localized impacts would have limited, if any, effects on populations of native wildlife. Construction activities would have minimal effects on terrestrial plant resources because plant cover is generally sparse or dominated by non-native species. Potential indirect impacts to waters from runoff during construction would be controlled with standard BMPs, project-specific SWPPPs, and permit compliance (Section 3.14.4.3, Water Quality, Sediments, and Oceanography).

Operations

Operations consistent with land use changes would have limited effects on biological communities. There would be no discharges other than stormwater runoff, and facilities would be operated in accordance with SWPPPs to ensure that stormwater quality complies with permit conditions (Section 3.14.4.3, Water Quality, Sediments, and Oceanography).

Impact BIO-5: The proposed Program would not result in a permanent loss of marine habitat.

Planning Area 1

Construction and Operations

The proposed land use change in would not include any fill or in-water activities; therefore, there would be no loss of marine habitat in Planning Area 1.

Impact BIO-6: The proposed Program would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Planning Area 1

Construction and Operations

Removal of native trees would not be expected in Planning Area 1 since none occur in the area of the proposed land use change.

3.2.7 Changes Made to Section 3.4, Cultural Resources

Section 3.4, Cultural Resources, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site. Sections 3.4.2.3.2 through 3.4.2.3.4 were revised to include additional information regarding the Port's tuna canning industry and former Japanese-American community on Terminal Island.

3.2.7.1 Section 3.4.2.3.2, Initial Commercial Shipping, 1857 to 1897

Phinneas Banning, one of the earliest residents of the area, recognized its potential as a commercial shipping port. In 1857, he constructed new docks to capitalize on the increasing trade coming in and out of Los Angeles along two of the primary routes to the southwest goldfields, the Gila River Trail and the Old Spanish Trail. With his base location in Wilmington, Banning shuttled materials on smaller boats to and from the Rancho San Pedro waterfront.

Banning also understood the importance of rail transportation between his operation on the bay and the growing City of Los Angeles. In 1869, Banning organized the Los Angeles and San Pedro Railroad (LA&SP), the first reliable means of moving cargo from the ships coming into San Pedro Harbor to the City of Los Angeles.

The first short rail line in southern California, the LA&SP, was acquired by the Southern Pacific Railroad (SPRR) in 1872. In an attempt to break the monopoly the SPRR had on shipping in the area, Senator John P. Jones from Nevada started the Los Angeles and Independence Railroad (LA&I) (Los Angeles to Santa Monica Pier) 1 year prior to the acquisition of LA&SP by SPRR. However, the LA&I also was absorbed quickly into the SPRR system, in 1877 (Queenan 1986).

Improved transportation to and from the harbor facilitated the burgeoning growth of Los Angeles. Between 1880 and 1890, the population of the city grew from 11,000 to 50,000. By 1900, it had reached 102,000 (Matson 1920). This boom fueled increased demand for construction supplies and consumer goods, much of which arrived on ships that docked at San Pedro.

In 1893, the first fish cannery was established within the Port, associated with the start of an industry that was to play a large role in the Port's development. Soon thereafter, Albert Halfhill, co-owner of the California Fish Company, developed a method of canning whereby albacore were steamed (removing the oils and changing the color to white), and the meat was packed in vegetable oil. This gave the tuna a more acceptable taste and appearance to Euro-American consumers.

3.2.7.2 Section 3.4.2.3.3, Founding of Port of Los Angeles, 1897 to 19141913

The growth of commerce in the Los Angeles region required formal establishment of a shipping port. The federal government agreed to assist the city by establishing its official harbor in the region. Following the recommendation of several studies of possible alternatives, the San Pedro Harbor site won authorization from Congress in March 1897.

In preparation for the opening of the Panama Canal (which occurred in 1914), the City of Los Angeles extended its boundaries to coastal tidewaters when it annexed a strip of San Pedro in 1906. The Port and the LAHD were officially created in December 1907, and numerous harbor improvements followed. These improvements included completion of the 2.22-mile breakwater, broadening and dredging of the main channel, completion of the first major wharf by the SPRR, construction of the Angel's Gate lighthouse, and construction of the first municipal pier and wholesale fish market. By 1909, both Wilmington and San Pedro had been consolidated into the City of Los Angeles. As a result of these improvements and consolidation, by 1913, the Port was the largest lumber importer in the world (Matson 1920).

The opening of the Panama Canal in August 1914 significantly reduced the transshipment time between eastern and western U.S. ports. The canal also promised to open up new trade opportunities worldwide. In anticipation of increased trade, the City of Los Angeles completed one of many large municipal terminals in the harbor. With the outbreak of World War I, the promise of increased trade and expansion possibilities was put on hold (Queenan 1986).

In 1914, the Port began dredging what would become Fish Harbor, a specialized area for fish processing and canning at Terminal Island. Fish Harbor was operational by 1915 and most of the Port's canneries moved to the new harbor, making tuna fishing and processing the most visible activity in that part of the island. Martin Bogdanovich founded the French Sardine Company, better known by its later name Star-Kist. Eventually, the company became the largest fish cannery in the world. By the 1920s, 11 canneries operated from the Port, served by a large fleet of fishing vessels and employing 1,800 cannery workers and 4,800 fishermen (Jones & Stokes 2004). The workforce was ethnically diverse and included Japanese, Italians, Mexicans, and Yugoslavians.

3.2.7.3 Section 3.4.2.3.4, Wartime Changes, 1914 to 1950

World War I considerably changed the principal uses of the Port. Wishing to establish a significant presence on the Pacific coast, the U.S. Navy took possession of a portion of the harbor and used it as a training and submarine base.

During the war, the Port was one of the chief sources of employment for area residents. Shipbuilding enterprises (including Southwestern Shipbuilding Company, Los Angeles Shipbuilding and Drydock Corporation, and Ralph J. Chandler Shipbuilding) began turning out vessels by the dozens for the war effort. The Port of Long Beach, established only 2 years before the onset of the war, offered the only southern California shipping and shipbuilding competition to the Port.

Despite the previous use of the Port for the shipment of goods both into and out of California, it was not until 1915 that the first warehouse was completed. With that completion, the Port was transformed from a small, poorly equipped landing to a significant seaport able to handle deep-sea ships with varied cargo (Queenan 1986). Increased trade at the Port between 1917 and 1930 motivated many distributors to construct more warehouses and sheds.

Improvements to transportation systems in the harbor area also facilitated the growth of trade. By 1917, a vast railroad network existed around the harbor and the Los Angeles region, allowing for the efficient transfer of goods across the country (San Buenaventura Research Associates 1992).

Following the end of World War I in 1918, the Port was increasingly used for the importation of lumber and other types of raw materials. As in the prewar period, approximately 98 percent of the inbound cargo consisted of lumber needed to satisfy the demand for housing and factories caused by the rapid growth of the Los Angeles area (Matson 1920). The dominant export in the postwar years was crude oil.

The fishing industry continued to expand, and in 1929 75 percent of the fish canned in California was from Port canneries. The Port received 45 percent of the California fish catch and 25 percent of the total catches in the U.S., including Alaska, for a total of 857 million pounds.

With the end of the war, limitations on trade ended. Los Angeles had developed a wide variety of enterprises whose products passed through the Port. Although freight-handling facilities had long existed for oil, lumber, shipbuilding, and fish, new facilities were developed to handle such products as cotton, borax, citrus crops, and steel. In 1923, the City of Los Angeles passed a harbor improvement bond measure for construction of additional wharves to meet the demands of increased trade (Queenan 1986; San Buenaventura Research Associates 1992). By 1929, in an effort to streamline the railroad portion of shipping within the harbor, the various railroad companies including the SPRR, UP, Santa Fe, and Pacific Electric Railway, consolidated their operations under the title “Harbor Belt Line Railroad” (Queenan 1986; San Buenaventura Research Associates 1992).

During the Depression years, traffic within the Port slowed along with the rest of the American economy (Queenan 1986). Although the Port experienced a sharp decline in its international trade, the Harbor Commission continued to improve its facilities, constructing a new breakwater and new cargo and passenger terminals.

In 1940, the Pacific Fleet was moved to Pearl Harbor where it was attacked on December 7, 1941, bringing the U.S. into World War II. On Terminal Island, the Japanese community that had centered on the fishing industry was adversely affected by America’s involvement in the war. At its height in 1940, the Port’s Japanese

population had grown to 3,000, just prior to its abrupt decline following the bombing of Pearl Harbor. Beginning in early 1942, the Port's Japanese Americans were forcibly removed from their homes, and most were sent to Manzanar in California's Owens Valley.

During World War II, San Pedro Harbor, as one of the closest major ports to the Pacific Theatre of Operations, was fully involved in defense activities. Between 1941 and 1945, ship and aircraft production facilities in the harbor area worked day and night to produce more than 15 million tons of war equipment. Hundreds of thousands of military and civilian personnel shipped out through San Pedro in support of the war effort and returned through it when their tasks were done.

Following the war, LAHD launched a broad restoration program. Many of the facilities in the harbor required maintenance that had been delayed due to the war. Although the adjacent Long Beach Harbor conducted its own improvements while battling subsidence (the sinking of the land from the many years of oil extraction), LAHD improved a number of its buildings and removed many temporary wartime buildings (Queenan 1986).

Related to the fishing industry, the Los Angeles Harbor area produced nearly half of the 9.5 million cases of tuna packed in the U.S. during 1950. However, the 1960s marked the beginning of the Fish Harbor cannery decline as the larger canning operations (i.e., Van Camp and StarKist), began establishing other, more cost-effective canneries overseas. By 1975, most of the Port's canneries had been bought out by multinational corporations, and by the mid 1980s many of their operations had moved out of Los Angeles. The last plant, Chicken of the Sea, closed in 2001.

3.2.7.4 Table 3.4-2, Recorded and Potentially Eligible Historic Resources in the PMPU Area

Table 3.4-2 was modified to include the Port of Los Angeles Dive Team Building (Fireboat House 1/Fire Station No. 11), which was inadvertently omitted from the Draft PEIR. The table was also revised to include two buildings associated with the Japanese American Fishing Village, located at 700–702 and 712-716 Tuna Street, as potentially eligible for inclusion on the LAHCM Register.

Table 3.4-2. Recorded and Potentially Eligible Historic Resources in the PMPU Area

Register	*Name/Description*	*PMPU Planning Area*
CRHR	Al Larson Boat Shop, 1046 South Seaside Avenue, Structures A1 (Stock Room and Tool Room), A2 (Offices, Carpenter Shop, winch houses and bathrooms and storage), A3 (Storage), C1 (Machine and Electrical Shops), and C2 (Welding Shop and Storage)	4
LAHCM	American Marine Corporation, 1500 S. Barracuda Street, office and sheds	3
CRHR	Borax Facility, 300 Falcon Street, Berths 165-166	2
LAHCM	Cabrillo Beach Bathhouse,3720 Stephen M. White Drive, LAHCM No. 571	1
CRHR	***Cabrillo Marine Aquarium, 3730 Stephen M. White Drive***	1
NRHP	California Petroleum Company Terminal, Marine Oil Terminal, Berths 171-173 (demolished)	2

Table 3.4-2. Recorded and Potentially Eligible Historic Resources in the PMPU Area

Register	*Name/Description*	*PMPU Planning Area*
NRHP	Chicken of the Sea Cannery, 338 Cannery Street, Cannery Building, Retort Building, Packing Building, Cooking Building, Butchering Building, Office Building, and Warehouse 1	4
LAHCM	College of Oceaneering - National Polytechnic College of Engineering and Oceaneering, 252 South Fries Street, Single Two-Story Wooden Office Building	2
CRHR	Cruise Terminal 100 Swinford Street, Berths 93A, B, C	2
CRHR	Duffy's Ferry	2
NRHP	Federal Breakwater	5
CRHR	Harbor Construction and Maintenance Yard, Berth 161, Auto Repair Garage, Service Building, Cabinet Shop and Mill, Consolidated Shop, Boat Shop, Carpenter's Shop and Rigging Loft, Blacksmith Shop, Electric Shop, and Paint Shop	2
LAHCM	Japanese American Fishing Village, Buildings at 700–702 and 712-716 Tuna Street	4
SHL	***Liberty Hill Site, vicinity of 5th Street and Harbor Boulevard, SHL-1021, 19-150331***	1
NRHP	***Los Angeles Harbor Light Station, San Pedro (19-167268)***	5
NRHP, LAHCM	***Municipal Ferry Building (Maritime Marine Museum), Berth 84, San Pedro (19-176736), LAHCM No. 146***	1
NRHP, LAHCM	***Municipal Warehouse No. 1, 2500 Signal Street, LAHCM No. 2709***	1
NRHP	Municipal Pier No. 1, Berths 57-60	1
NRHP	Municipal Wholesale Fish Market, 2190 Signal Street	1
NRHP	Pan American Petroleum Company Marine Loading Station Facility Pump House (Westway Facility), Berth 70	1
NRHP	Pan Pacific Fisheries, 350 Sardine Street, Cannery Building	4
NRHP	Pan-Am Terminal Facility – Signal Street Properties, Berth 56, CDFG Building	1
NRHP, LAHCM	***Ralph J. Scott Fireboat No. 2, Berth 87, San Pedro (19-180719), LAHCM No. 154***	1
CRHR	Port of Los Angeles Police Dive Team Building (Old Fireboat Station #1)	4
NRHP	S.P. Slip No. 1	1
NRHP	***S.S. Lane Victory, Berth 4, San Pedro (19-1870720)***	1
NRHP, SHL, LAHCM	***S.S. Catalina (The Great White Steamship), San Pedro (19-167267), SHL-0894, LAHCM No. 213, (Broken up for Scrap)***	
CRHR	San Pedro Boat Works, Berth 44, All Buildings	1
CRHR	Sewage Pump Station #666, 647 Fries Avenue	2
NRHP	Sewage Pump Station #669, 390 N. Seaside Avenue	4
NRHP District	Southwest Marine Terminal, Berth 240, Administration Building, Medical Building (No. 8), Foreman's Building (No. 34), Transportation Shop (No. 4), Blacksmith and Anglesmith Shop, Plate Shop (No. 6), Machine Shop (No. 3), Machine Storage and Warehouse Building (No. 7), Shop (No. 9), Employees' Building, Paint Shop and Substation, Substation No. 3, Substation No. 7, Building No. 22, Dry Dock No. 2, and Pre-1946 Cranes	3
NRHP	Star-Kist Tuna Cannery Main Plant, 1050-1054 Ways Street	4
SHL, LAHCM	***Timm's Point and Landing, SHL-0384, 19-186583, LAHCM No. 171***	1
NRHP	Transit Sheds, Berths 57, 58-60, 151-157	2

Table 3.4-2. Recorded and Potentially Eligible Historic Resources in the PMPU Area

Register	*Name/Description*	*PMPU Planning Area*
NRHP	Union Oil Terminal, Berths 150-151	2
NRHP	United Fruit Company Terminal, Berth 147 (Demolished)	2
NRHP	U.S. Customs House, 300 South Ferry Street, Office Building and Warehouse	3
NRHP	U.S. Immigration Station, 309 E. 22nd Street, Two-story Commercial Building (currently Canetti's Restaurant)	1
LAHCM	***USS Los Angeles Naval Monument (John S. Gibson, Jr. Park), LAHCM No. 188***	1
NRHP	Vincent Thomas Bridge	2, 3, 5
Note: Bold italic type indicates that a property is listed in the NRHP, CRHR, or LACHM.		

3.2.7.5 Section 3.4.4.2, Impacts and Mitigation Measures

Impact CR-1: The proposed Program would not disturb, damage, or degrade archaeological or ethnographic resources, and thus cause a substantial adverse change in the significance of such resources as defined in §15064.5.

Planning Area 1

Construction

The proposed land use change for Planning Area 1 would designate Warehouse No. 1 as mixed use, either retaining the existing institutional use or changing to visitor-serving commercial. Warehouse No. 1 is underlain by artificial fill materials from prior dredging and construction activities. No proposed appealable/fill projects would be constructed in Planning Area 1. Therefore, no archaeological or ethnographic resources would be disturbed or degraded by the proposed land use change.

Operations

The proposed Program would not result in any operations-related impacts on cultural resources within Planning Area 1. This is because no ground disturbances are expected to occur during operations associated with the proposed land use change.

Impact CR-2: The proposed Program would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

Planning Area 1

Construction

Warehouse No. 1 is identified as an historical resource on the NRHP and LAHCM (Table 3.4-2). Construction associated with changing this facility to visitor-serving commercial likely would include improvements to support potential future uses, such as a restaurant, maritime related office, visitor serving retail, harbor tour vessels,

sport fishing, museums, and/or community centers/conference centers. Any modifications to the structure would be completed in compliance with Secretary of the Interior's Professional Qualifications Standards and the LAHD's *Built Environment Historic, Architectural, and Cultural Resource Policy.*

Operations

The proposed Program would not result in any operations-related impacts on cultural resources within Planning Area 1. This is because no ground disturbances are expected to occur during operations associated with the proposed land use change.

Mitigation Measures

The following mitigation measures would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program.

MM CR-3: Historical Resource Assessment. Once a proposed project site is identified, the LAHD shall make a determination on whether a Historical Resource Assessment is necessary to determine the presence of a historical resource, as defined under CEQA. If such an assessment determines that a historic resource is present, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts:

- A preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards in historic architecture shall participate in preconstruction and construction monitoring activities to ensure continuing conformance with Secretary's Standards and/or avoidance of a material impairment of the historical resources;
- Complete photographic documentation of the historic resource prior to implementing the project. Such documentation shall adhere to standards and guidelines for Historical American Buildings Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscapes Survey (HALS) documentation, as outlined in the November 2011 HABS/HAER/HALS Guidelines set by the Heritage Documentation Programs instituted by the National Park Service (http://www.cr.nps.gov/hdp/standards/halsguidelines.htm). At a minimum, the level of photographic documentation shall be at the HABS/HAER Level II;
- For certain projects it may be necessary to establish an environmentally sensitive area and put up barriers to ensure the protection of specific built environment features, such as buildings, structures, and landscape and hardscape elements. The environmentally sensitive area shall be outlined on project plans and the construction crew must be made aware of restrictions and requirements for protecting historical resources for the duration of the project. A qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards may be required to monitor the project to ensure adherence to restrictions; and/or,
- Additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation) shall be implemented as necessary.

Impact CR-3: The proposed Program would not disturb, destroy, or eliminate access to unknown unique paleontological resources.

Planning Area 1

Construction

Warehouse No. 1 is an existing structure underlain by artificial fill materials from prior dredging and construction activities. Therefore, no paleontological resources would be disturbed or degraded by the land use change.

Operations

The proposed Program would not result in any operations-related impacts on cultural resources within Planning Area 1. This is because no ground disturbances are expected to occur during operations associated with the proposed land use change.

3.2.7.6 Table 3.4-3, Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Table 3.4-3 was revised to include the additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation) for **MM CR-3**.

Table 3.4-3. Summary Matrix of Potential Impacts and Mitigation Measures for Cultural Resources Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
Construction			
CR-2: Construction of the proposed Program would not cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.	Significant	**MM CR-3: Historical Resource Assessment.** Once a proposed project site is identified, the LAHD shall make a determination on whether a Historical Resource Assessment is necessary to determine the presence of a historical resource, as defined under CEQA. If such an assessment determines that a historic resource is present, the LAHD shall determine the need to implement measures that might include, but are not limited to, one or more of the following to further avoid, minimize, or substantially reduce the identified impacts: ▪ A preservation architect meeting the Secretary of the Interior's Professional Qualifications Standards in historic architecture shall participate in preconstruction and construction monitoring activities to ensure continuing conformance with Secretary's Standards and/or avoidance of a material impairment of the historical resources; ▪ Complete photographic documentation of the historic resource prior to implementing the project. Such documentation shall adhere to standards and guidelines for HABS, HAER, and HALS documentation, as outlined in the November 2011 HABS/HAER/HALS Guidelines set by the Heritage Documentation Programs instituted by the National Park Service (http://www.cr.nps.gov/hdp/standards/halsguidelines.htm). At a minimum, the level of photographic documentation shall be at the HABS/HAER Level II; ▪ For certain projects it may be necessary to establish an environmentally sensitive area and put up barriers to ensure the protection of specific built environment features, such as buildings, structures, and landscape and hardscape elements. The environmentally sensitive area shall be outlined on project plans and the construction crew must be made aware of restrictions and requirements for protecting historical resources for the duration of the project. A qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards may be required to monitor the project to ensure adherence to restrictions; and/or, ▪ <u>Additional protective measures (e.g., in-situ preservation, adaptive reuse, and relocation) shall be implemented as necessary.</u>	Less than significant

3.2.8 Changes Made to Section 3.5, Geology

Section 3.5, Geology, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.8.1 Section 3.5.4.3, Impacts and Mitigation

Impact GEO-1: The proposed Program would not result in substantial damage to structures or infrastructure or expose people to substantial risk of injury from seismic activity along the Palos Verdes Fault Zone or other regional faults that could produce fault ruptures, seismic ground shaking, liquefaction, or other seismically induced ground failure.

Planning Area 1

Construction

Construction associated with modifying Warehouse No. 1 to visitor-serving commercial likely would include improvements to support potential future uses. Construction would not cause or accelerate geologic hazards. However, the Los Angeles region, as for the overall southern California region, cannot avoid earthquake-related hazards, such as liquefaction, ground rupture, ground acceleration, and ground shaking. Although no faults within the Port area are currently zoned under the Alquist-Priolo Act, potential hazards exist due to seismic activities associated with the Palos Verdes Fault Zone and the presence of hydraulic fill.

The City of Los Angeles Building Code, Sections 91.000 through 91.7016 of the LAMC, regulates construction. These building codes and criteria provide requirements for construction, grading, excavations, use of fill, and foundation work, including type of materials, design, procedures, etc. These codes are intended to limit the probability of occurrence and the severity of consequences from geological hazards, such as earthquakes. Necessary permits, plan checks, and inspections are also specified. The LAMC also incorporates structural seismic requirements of the CBC. LAHD's and City of Los Angeles' Department of Building and Safety engineers would review the individual project plans for compliance with the appropriate standards in the building codes. Any modifications to Warehouse No. 1 would comply with the appropriate standards established in the building codes.

Operations

Because active faults are located within and near Planning Area 1 and the area is mapped within an area of historic liquefaction, there is a potential for substantial risk of seismic impacts and subsequent potential to contribute to seismically-induced ground shaking that could result in injury to people and damage to structures during operations. However, any modifications to Warehouse No. 1 associated with the proposed land use change in Planning Area 1 would be completed in compliance with established building codes and LAHD design criteria, including incorporation of modern construction engineering and safety standards.

Impact GEO-2: The proposed Program would not expose people and structures to substantial risk involving tsunamis or seiches.

Planning Area 1

Construction

The Port region historically has been subject to tsunamis and seiches. Therefore, development on or near the shore within exposed portions of the PMPU area would risk the exposure of people to hazards from a tsunami or seiche. Although relatively rare, if a large tsunami or seiche occurred it would be expected to cause some amount of damage and possibly injuries in exposed on- or near-shore locations. As a result, this type of risk is considered by the LAHD as the average, or normal condition for most on- and near-shore locations in southern California. Therefore, impacts from a tsunami or seiche would be any that exceeded this normal condition and cause substantial damage and/or substantial injuries.

Since tsunamis and seiches are derived from wave action, the risk of damage or injuries from these events at any particular location is lessened if the location is high enough above sea level, far enough inland, or protected by manmade structures such as dikes or concrete walls. The height of a given site above sea level is either the result of an artificial structure (e.g., a dock or wall), topography (e.g., a hill or slope), or both, and a key variable related to the height of a site location relative to sea level is the behavior of tides. During high tide, for instance, the distance between a site and sea level is less, while during low tide the distance is greater. How high a site must be located above sea level to avoid substantial wave action during a tsunami or seiche depends on the height of the tide at the time of the event and the height of the potential tsunami or seiche wave. These factors would be considered for any construction within the PMPU area.

The Los Angeles/Long Beach Port Complex model (Moffat and Nichol 2007) predicts maximum tsunami wave heights in the Port area of approximately 5.2 to 6.6 feet above mean sea level (MSL) for the earthquake scenario and approximately 7.2 to 23.0 feet above MSL for the landslide scenario. The highest anticipated water levels from these scenarios would occur in the Outer Harbor area. For the Palos Verdes Landslide II scenario (Moffat and Nichol 2007), the model predicts a 23-foot wave height in the vicinity of Warehouse No. 1. Because construction at Warehouse No. 1 would be at lower elevations than predicted tsunami wave heights, there is a risk of coastal flooding due to tsunamis and seiches. Modifications to Warehouse No. 1 based on existing building codes may not prevent substantial damage to structures from coastal flooding. In addition, projects in construction phases are especially susceptible to damage due to the temporary conditions, such as unfinished structures, which are typically not in a condition to withstand coastal flooding.

Emergency planning and coordination between the Port contractors and LAHD would contribute to reducing onsite injuries during a tsunami. Port engineers and LAHD police work with contractors to develop earthquake and tsunami response training and procedures based on the Port's tsunami plan to ensure that construction and operations personnel are prepared to act in the event of a large seismic event. These procedures include immediate evacuation requirements in the event that a large seismic event occurs.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

Impact GEO-3: The proposed Program would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from subsidence/soil settlement.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 associated with Warehouse No. 1 would not necessarily require new construction, but may involve improvements to change this facility to visitor-serving commercial uses. Any modifications would be consistent with city design guidelines, including Sections 91.000 through 91.7016 of the LAMC, in conjunction with criteria established by LAHD. Compared to existing conditions, these modifications are expected to reduce potential risks from subsidence or settlement to the structure or to people.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

Impact GEO-4: The proposed Program would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from soil expansion.

Planning Area 1

Construction

Warehouse No. 1 is constructed on fill, which may be expansive. The proposed land use change associated with Warehouse No. 1 would not necessarily require new construction, but may involve improvements to change this facility to visitor-serving commercial uses. Any modifications would be consistent with city design guidelines, including Sections 91.000 through 91.7016 of the LAMC, in conjunction with criteria established by LAHD. Compared to existing conditions, these modifications are expected to reduce potential risks from soils expansion to the structure or to people.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

Impact GEO-5: The proposed Program would not result in or expose people or property to a substantial risk of landslides or mudslides.

Planning Areas ~~2~~ 1 – 4

Construction

The topography in Planning Areas 1, 2, 3, and 4 is flat and not subject to landslides or mudflows.

Operations

Impacts associated with operations within Planning Areas 1, 2, 3, and 4 would be the same as discussed above for construction impacts.

Impact GEO-6: The proposed Program would not result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury from unstable soil conditions from excavation, grading, or fill.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 associated with Warehouse No. 1 may involve improvements to change this facility to visitor-serving commercial uses. Any modifications would be consistent with city design guidelines, including Sections 91.000 through 91.7016 of the LAMC, in conjunction with criteria established by LAHD. Therefore, modifications to Warehouse No. 1 would not increase risks to infrastructure or to people as a result of unstable soil conditions.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

Impact GEO-7: The proposed Program would not result in one or more distinct and prominent geologic or topographic features being destroyed, permanently covered, or materially and adversely modified.

Planning Areas ~~2~~ 1 – 4

Construction

Since Planning Areas 1, 2, 3, and 4 are relatively flat and paved, with no prominent geologic or topographic features, new construction associated with the proposed appealable/fill projects and land use changes would not result in any distinct and

prominent geologic or topographic features being destroyed, permanently covered, or materially and adversely modified.

Operations

Potential destruction of distinct or prominent geologic or topographic features would only pertain to construction activities.

Impact GEO-8: The proposed Program within the limits of the oil field would not result in the permanent loss of availability of any mineral resource of regional, statewide, or local significance.

Planning Area 1

Construction

Planning Area 1 is not within a significant aggregate resource zone. The proposed project site is in a mineral resource zone area classified as MRZ-1, which is defined as an area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (LAHD 2012). Planning Area 1 does not contain nor is it in close proximity to an oil, gas, or geothermal well. In addition, Planning Area 1 is not known to contain mineral resources that would be of value to the region or state. No quarrying operations are established in the vicinity, and the nearest oil field and drilling areas include the Torrance Oil Field, located north of PCH (SR-1), and the Wilmington Oil Field~~,~~ located in the northern portion of the Port. Consequently, no impacts to mineral resources from the proposed land use change would occur.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

Impact GEO-9: The proposed Program would not result in substantial damage to structures or infrastructure or expose people to substantial risk of injury from sea level rise.

Planning Area 1

Construction

As indicated in Table 3.5-3, predicted sea level rise in the Port through 2050 varies from 10 to 17 inches, with an average of 14 inches. Such an increase in itself would not likely inundate Planning Area 1. However, such an increase could locally exacerbate flooding in the unlikely event of a tsunami or seiche. Refer to Impact GEO-2 for a discussion of potential tsunami impacts.

Operations

Impacts associated with operations within Planning Area 1 would be the same as discussed above for construction.

3.2.9 Changes Made to Section 3.6, Groundwater and Soils

Section 3.6, Groundwater and Soils, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.9.1 Section 3.6.4.3, Impacts and Mitigation

Impact GW-1: The proposed Program would expose soils containing toxic substances and petroleum hydrocarbons, associated with prior operations, resulting in exposure to construction and operation personnel. The exposure would not be deleterious to humans, based on regulatory standards established by the lead agency for the site.

Planning Area 1

Construction

Because there are no proposed appealable/fill projects in Planning Area 1, the only potential for impacts from exposure to contaminated soils would be associated with improvements to Warehouse No. 1 related to changes to a visitor-serving commercial land use. The details of these improvements, and their potential for disturbing contaminated soils, presently are unknown. However, if contaminated soils were encountered, they would be handled, transported, remediated, and/or disposed of in accordance with all applicable federal, state, and local laws and regulations, the regulatory lead agency's (e.g., DTSC or Los Angeles RWQCB) requirements, and LAHD leasing requirements related to hazardous materials, hazardous wastes, and regulatory compliance.

Operations

Operation of an improved Warehouse No. 1 as a visitor-serving commercial facility would not expose workers or the public to unacceptable levels of soil or groundwater contamination.

Impact GW-2: The proposed Program would not result in changes in the rate or direction of movement of existing contaminants; expansion of the area affected by contaminants; or increases in the level of groundwater contamination, which would increase risk of harm to humans.

Planning Area 1

Construction

The only potential for impacts in Planning Area 1 from contaminant dispersion would be associated with improvements to Warehouse No. 1, as related to changing

existing institutional uses to visitor-serving commercial. The details of these possible improvements, and their potential for dispersing contaminants, presently are unknown. However, if contaminated soils or groundwater were encountered during construction of improvements to Warehouse No. 1 they would be handled, transported, remediated, and/or disposed of in accordance with all applicable federal, state, and local laws and regulations; requirements of the regulatory lead agency (e.g., DTSC or Los Angeles RWQCB) requirements; and LAHD leasing requirements related to hazardous materials, hazardous wastes, and regulatory compliance.

Operations

Operation of an improved Warehouse No. 1 as a visitor-serving commercial facility would not increase risks to humans through dispersion of existing contaminants.

Impact GW-3: The proposed Program would not result in a demonstrable and sustained reduction in groundwater recharge capacity or change in potable water levels sufficient to reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, or summer/winter peaking, or to respond to emergencies and drought; reduce yields of adjacent wells or well fields (public or private); or, adversely change the rate or direction of groundwater flow.

Planning Areas ~~2~~ 1 – 4

Impact GW-4: The proposed Program would not result in a violation of regulatory water quality standards at an existing production well, as defined in CCR, Title 22, Division 4, Chapter 15 and in the Safe Drinking Water Act.

Planning Areas ~~2~~ 1 – 4

3.2.10 Changes Made to Section 3.7, Hazards and Hazardous Materials

Section 3.7, Hazards and Hazardous Materials, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.10.1 Section 3.7.4.3, Impacts and Mitigation

Impact HAZ-1: The proposed Program would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Planning Areas ~~2~~ 1 – 4

The only proposed land use change for Planning Area 1 would be changing Warehouse No. 1 from institutional use to mixed use (institutional and/or visitor-serving commercial). There are no proposed appealable/fill projects in Planning Area 1.

Impact HAZ-2: The proposed Program would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Planning Areas ~~2~~ 1 – 4

Existing institutional uses at Warehouse No. 1 in Planning Area 1 would be changed to mixed use (institutional and/or visitor-serving commercial). The proposed appealable/fill projects and associated land use changes in Planning Area 2 would relocate Vopak from Berths 187-189 to Berths 191-194. Vacant land at the optional land use site on Mormon Island (Planning Area 2) would be changed to liquid bulk or break bulk. In Planning Area 3, there would be the option of changing Berth 301 from maritime support to container cargo uses or liquid bulk.

Impact HAZ-3: The proposed Program would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Planning Areas ~~2~~ 1 – 4

Section 3.7.2.1, Regional Setting, presents a list of schools within approximately one-quarter mile of the Port boundary.

Three schools are located within one-quarter mile of the boundary of Planning Area 1: 15th Street Elementary, Port of Los Angeles High School, and World Tots LA. However, the proposed land use change in this planning area (i.e., retaining existing institutional uses at Warehouse No. 1 and/or changing uses to visitor-serving commercial) would not involve handling or emitting hazardous materials and would not be within one-quarter mile of these schools.

Impact HAZ-4: The proposed Program would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Planning Areas ~~2~~ 1 – 4

3.2.11 Changes Made to Section 3.8, Land Use

Section 3.8, Land Use, was revised to clarify that the proposed land use change in Planning Area 1 (i.e., designating Warehouse No. 1 as a mixed land use site) was including in the impact analysis.

3.2.11.1 Section 3.8.4.3, Impacts and Mitigation

Impact LU-1: The proposed Program would be consistent with the General Plan or adopted environmental goals or policies contained in other applicable plans adopted for the purpose of avoiding or mitigating an environmental impact.

Planning Areas ~~2~~ 1 – 4

3.2.12 Changes Made to Section 3.9, Noise

Section 3.9, Noise, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.12.1 Section 3.9.4.3, Impacts and Mitigation

Impact NOI-1: Daytime construction activities lasting more than 10 days in a 3-month period would produce noise levels that exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise-sensitive use.

Planning Area 1

Construction

The only construction activities in Planning Area 1 would be from possible improvements to Warehouse No. 1 associated with changing land use designations (existing institutional uses would be changed to mixed use - institutional and/or visitor-serving commercial). The details of these possible improvements presently are unknown. Nevertheless, sources of construction-related noise could include many of the equipment types listed in Table 3.9-5, with the exception that use of a pile driver is not anticipated. The closest sensitive receptors (liveaboards in Cabrillo Marina) would be more than 400 feet from noise sources associated with Warehouse No. 1 structural upgrades, and general construction noise would be below 5 dB at that distance.

Impact NOI-2: Construction activities would not produce noise levels that exceed the ambient noise level by 5 dB(A) at a noise-sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.

The impact criterion relates only to construction, so operational impacts are not discussed in the analyses for this criterion.

Planning Areas ~~2~~ 1 – 4

Impact NOI-3: Construction or operation would not expose persons to or generate excessive groundborne vibration or groundborne noise levels.

Planning Areas ~~2~~ 1 – 4

Construction

Construction of the proposed appealable/fill projects in Planning Areas ~~2~~ 1 through 4 would likely involve a range of heavy equipment for excavating and pile driving along with associated truck and vehicle traffic. Vibration levels generated by construction equipment would vary depending on factors such as the type of equipment, the activity being performed, and the condition of the equipment. The dominant sources of vibration from construction equipment are impact pile-driving or pavement-breaking and heavy truck traffic. Sensitive receptor locations in Planning Areas ~~2~~ 1 through 4 are more than 50 feet from construction areas. Therefore, ground vibration from pile driving or truck traffic associated with construction of the proposed appealable/fill projects and land use changes would not exceed the FTA ground-borne criterion for buildings extremely susceptible to vibration damage, as shown in Figure 3.9-1, at sensitive receptor locations in Planning Areas ~~2~~ 1 through 4.

Operations

The dominant sources of operational vibration would likely be haul truck traffic into and out of the Port and rail movements. The only residential uses located within the PMPU which are close to rail lines are liveaboards. Ground vibration would be sufficiently damped at these locations due to the effect of groundborne to waterborne vibration transfer attenuation. Ground vibration from truck or rail traffic associated with operations of the proposed appealable/fill projects and land use changes would not exceed FTA ground-borne vibration criteria at sensitive receptor locations in Planning Areas ~~2~~ 1 through 4.

Impact NOI-4: The ambient noise level measured at the property line of affected uses would not increase by 3 dB(A) in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dB(A) or greater noise increase, as defined by city thresholds.

Cargo Terminals

The main operational noise sources associated with the proposed appealable/fill projects and land use changes would include intermittent sounds associated with loading and unloading at marine terminals, movement of ocean going and support vessels, movement of vehicles (primarily trucks) entering and exiting various terminals and commercial locations within the planning area, and rail traffic. These

noise sources are common within the Port, and the operation of the proposed appealable/fill projects and land use changes in Planning Areas ~~2~~ 1 through 4 would not result in noise levels exceeding the noise increment threshold.

Planning Areas ~~2~~ 1 – 4

Operations

Rail yard noise sources associated with the proposed Program, when added to the ambient noise level, are expected to result in maximum noise levels of 63 dB(A) CNEL at the closest "residential" area – the East Basin/Cerritos Channel marinas. This would represent a 2 dB(A) increase in the CNEL and, therefore, would be below the noise increment threshold.

The proposed Program would result in up to a stand-alone increase of 6 dB(A) in rail related noise at the Henry Ford Avenue at-grade crossing and along the rail lines leading out of the Port (from 56 to 62 dB). This would not be indicative of noise impacts resulting from train movements in and out of Terminal Island on liveaboards within the East Basin/Cerritos Channel marinas because the dominant traffic noise sources are louder. Existing ambient noise levels are already high in the vicinity of the rail crossing, and the contribution of increased rail operations associated with the proposed Program to the overall CNEL in this area would be less than 3 dB(A) CNEL, which would be below the noise increment threshold.

Similarly, noise from cargo terminal operations associated with the proposed appealable/fill projects and land use changes in Planning Areas ~~2~~ 1 through 4 would not exceed the noise increment threshold.

3.2.13 Changes Made to Section 3.10, Public Services

Section 3.10, Public Services, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.13.1 Section 3.10.4.3, Impacts and Mitigation

Impact PS-1: The proposed Program would not burden existing USCG, LAPD, or Port Police staff levels and facilities, such that the USCG, LAPD, or Port Police would not be able to maintain an adequate level of service without constructing additional facilities that could cause significant environmental effects.

Planning Area 1

Construction

The Port Police would provide primary law enforcement services during construction associated with changing existing institutional uses at Warehouse No. 1 to visitor-serving commercial; therefore, demands on LAPD services would be minimal. The

construction site would be fenced and access would be limited to authorized personnel. However, during construction additional demands on Port Police personnel for traffic control services would be required if roadway operations are impacted by installation or upgrades to utility infrastructure within the public right-of-way.

Construction activities associated with the land use change noted above would not affect USCG response times because this project would be within the current USCG coverage area and would not affect the distance or routes between USCG facilities and the construction site.

Operations

Operations associated with visitor-serving commercial uses at Warehouse No. 1 would increase operational activities within the PMPU area. Replacing the existing institutional uses at Warehouse No. 1 with visitor-serving commercial uses would increase demands on law enforcement services compared to existing conditions.

The Port Police would provide primary law enforcement services to the PMPU area and the LAPD would provide support to the Port Police under special circumstances. As such, LAPD response times would not be affected by operations at Warehouse No. 1. In addition to working with the LAPD, the Port Police also coordinate with the Long Beach Police Department and the Los Angeles County Sheriff for landside assistance and with the USCG for commercial vessel operations (Grant 2011, personal communication). The proposed land use change in Planning Area 1 would not burden the Port Police such that they would not be able to maintain their current level of service to the PMPU area. However, the Port Police continue to assess the needs of the Port, including the PMPU area, and would make adjustments to their operations as needed.

The proposed visitor-serving commercial land uses at Warehouse No. 1 would result in additional visitors to the PMPU area. However, it is not expected that activities associated with this area would require a substantial increase in police protection compared to existing conditions. This is because the site is relatively small (approximately 6 acres) and within the Port Police's existing patrol area. Given the Port Police's existing patrol of land and water and their expanding and updating of resources, the PMPU area would be adequately served. Furthermore, as discussed above, the Port Police currently work cooperatively with various agencies to provide adequate protection when additional support is needed to respond to an emergency situation.

Operation of the proposed land use change in Planning Area 1 would not affect USCG response times. This is because this area would be within the current USCG coverage area and would not affect the distance or routes between USCG facilities and the project site.

Impact PS-2: The proposed Program would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service.

Planning Area 1

Construction

Construction associated with upgrading Warehouse No. 1 to support visitor-serving commercial uses would have the potential to temporarily interrupt fire flow water supplies during installation of utility infrastructure. However, utility upgrades/modifications occur frequently during construction, and are generally conducted with minimal, if any, disruptions to existing utility services. However, temporary interruptions and/or delays to fire protection services would occur if roadway operations are impacted during installation or upgrades to utility infrastructure within the public right-of-way.

Construction activities associated with the land use change in Planning Area 1 would comply with all applicable state and local codes and ordinances to ensure adequate fire protection. In addition, the LAHD would notify the LAFD in advance of construction activities that would affect fire suppression infrastructure. The LAFD would be afforded the opportunity to review and comment on project features affecting fire suppression infrastructure. As discussed under Impact PS-1, construction and demolition activities would be subject to emergency response systems implemented by LAFD and WATCH requirements (**MM PS-1**). Consequently, construction associated with this land use change would not result in a need for changes to existing fire protection facilities.

Operations

Operations associated with the land use change in Planning Area 1 would increase demands on fire protection services compared to existing conditions due to replacing the existing institutional uses at Warehouse No. 1 with visitor-serving commercial uses. The land use change in Planning Area 1 would be designed and constructed to meet applicable state and local codes and ordinances to ensure adequate fire protection and would be subject to LAFD review and approval. These codes and ordinances require fire protection infrastructure (e.g., fire hydrants and sprinklers). Furthermore, fire stations in the PMPU area are generally located to facilitate quick emergency response throughout the Port.

The proposed visitor-serving commercial uses at Warehouse No. 1 would result in additional visitors to the PMPU area. However, it is not expected that activities associated with this area would require a substantial increase in fire protection services compared to existing conditions. As previously discussed, response times to the PMPU area is 5 minutes or less by land and 10 minutes or less by water, which are less than the LAFD required response times.

3.2.14 Changes Made to Section 3.11, Recreation

Section 3.11, Recreation, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.14.1 Figure 3.11-1, On-Land Park and Recreational Facilities

Figure 3.11-1 was modified to show the correct location of the existing California Coastal Trail within the PMPU area.

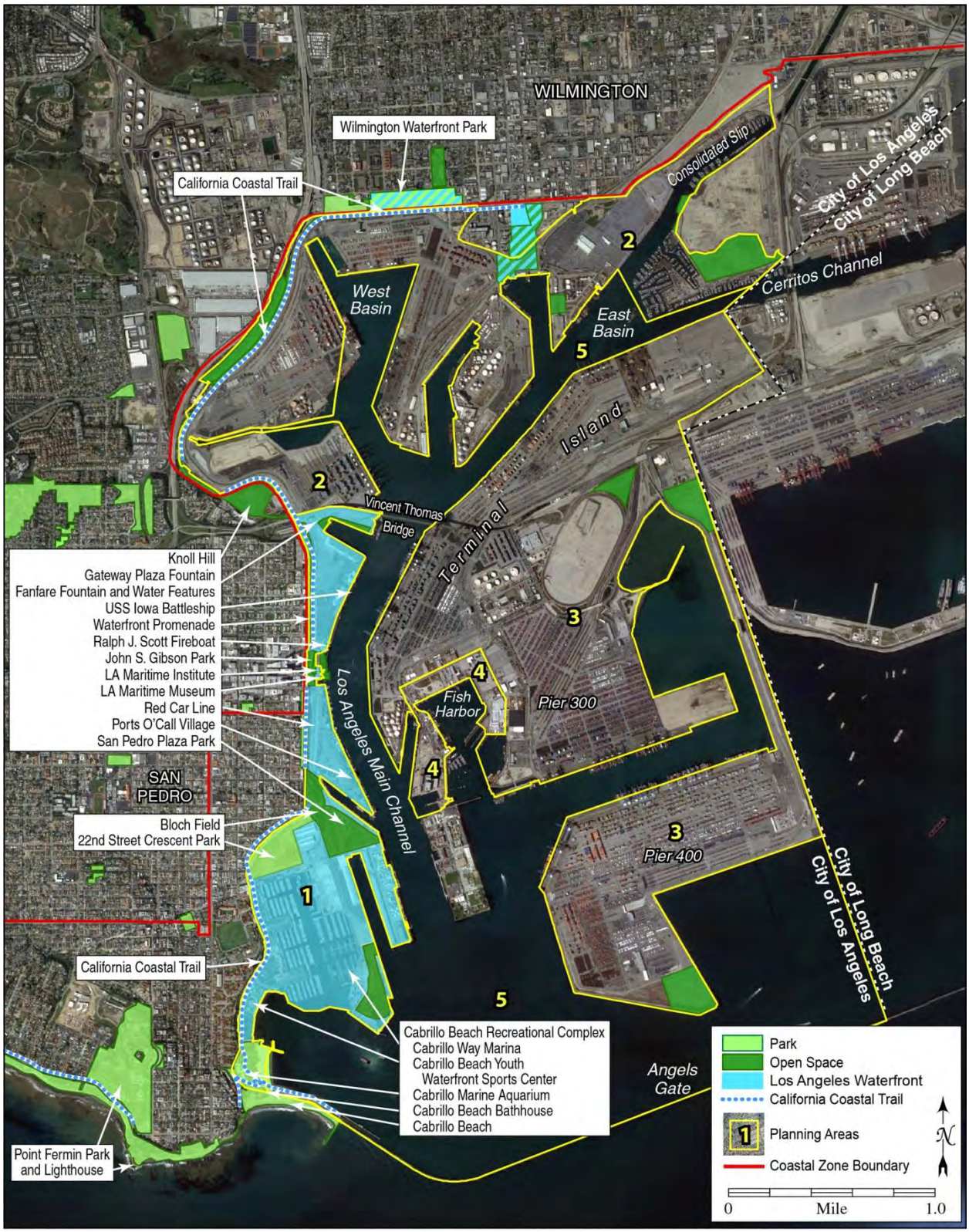


Figure 3.11-1. On-Land Park and Recreational Facilities

3.2.14.2 Section 3.11.4.3, Impacts and Mitigation

Impact REC-1: The proposed Program would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

Planning Area 1

Construction

Construction associated with the land use change at Warehouse No. 1 would not increase use of or demand for neighborhood parks. This is because this land use change is not expected to result in substantial in-migration or relocation of construction employees to satisfy the need for increased temporary, construction-related employment (Section 7.3, Effects Related to Socioeconomics and Environmental Quality). Since construction associated with the proposed land use change in Planning Area 1 would not increase use of existing recreational facilities, indirect acceleration of the physical deterioration of facilities would not occur.

Operations

Operations associated with the proposed visitor-serving commercial uses at Warehouse No. 1 would not generate substantial new demand for recreational or park services that would in turn result in a substantial physical deterioration or expansion of existing park or recreational facilities. Therefore, operation of the proposed land use change in Planning Area 1 would not result in direct or indirect deterioration of recreational parks or other recreational facilities.

Impact REC-2: The proposed Program would not include recreational facilities or require the construction or expansion of recreational facilities that could have an adverse physical effect on the environment.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 would not construct new recreational facilities or expand existing facilities. Therefore, construction activities would not result in actions to recreational facilities that would have physical effects on the environment.

Operations

Operations associated with the visitor-serving commercial uses at Warehouse No. 1 would not require constructing new recreational facilities or modifying existing facilities. Therefore, operations would not result in actions to recreational facilities that would have physical effects on the environment.

3.2.15 Changes Made to Section 3.12, Transportation and Circulation

Section 3.12, Transportation and Circulation, was modified to include Planning Area 1 land use trip generation in the transportation analysis along with two additional intersection analysis locations near Planning Area 1: Gaffey Street/1st Street; and Harbor Boulevard/Swinford Street/SR-47 EB Ramps. Section 3.12.3.1.3 and Tables 3.12-19 and 3.12-20 were updated to clarify that the proposed Program would have significant freeway impacts during additional peak hours on the I-710 north of I-105, north of Firestone Boulevard. Tables 3.12-19 and 3.12-20 also include analysis of an additional freeway link location on the I-710 north of Florence Avenue. This additional location was analyzed in response to comments received from Caltrans on the Draft PEIR.

3.2.15.1 Section 3.12.2.1, Environmental Setting, Ground Transportation

Harbor Boulevard is classified as a Major Class II Highway and provides north-south access along the eastern edge of the San Pedro community.

Gaffey Street is classified as a Major Class II Highway that runs north-south. The arterial provides a connection for local and regional travel from San Pedro to other parts of Los Angeles and the South Bay region. Gaffey Street is a major commercial corridor within San Pedro.

The traffic setting for the proposed Program includes those streets and intersections that would be used by both automobile and truck traffic to gain access to and from the PMPU area, as well as those streets that would be used by construction traffic related to future development (i.e., equipment and commuting workers). Thirty-four study intersections that are located near or on routes serving the PMPU area were chosen for analysis. The 34 study intersections include the following (refer to Figure 3.12-1 for illustration of study intersection locations):

1. Ocean Boulevard Westbound/Terminal Island Freeway (SR-47) – City of Long Beach;
2. Ocean Boulevard Eastbound/Terminal Island Freeway (SR-47) – City of Long Beach;
3. Ocean Boulevard Westbound/Pier S Avenue – City of Long Beach;
4. Ocean Boulevard Eastbound/Pier S Avenue – City of Long Beach;
5. Seaside Avenue/Navy Way – City of Los Angeles;
6. Ferry Street/SR 47 Ramps – City of Los Angeles;
7. Pico Avenue/Pier B Street/9th Street/I-710 Ramps – City of Long Beach;
8. Anaheim Street/Harbor Avenue – City of Long Beach;
9. Anaheim Street/Santa Fe Avenue – City of Long Beach;
10. Anaheim Street/East I Street/West 9th Street – City of Long Beach;
11. Anaheim Street/Farragut Avenue – City of Los Angeles;
12. Anaheim Street/Henry Ford Avenue – City of Los Angeles;

13. Anaheim Street/Alameda Street – City of Los Angeles;
14. Henry Ford Avenue/Pier A Way/SR-47/103 Ramps – City of Los Angeles;
15. Harry Bridges Boulevard/Broad Avenue – City of Los Angeles;
16. Harry Bridget Boulevard/Avalon Boulevard – City of Los Angeles;
17. Harry Bridges Boulevard/Fries Avenue – City of Los Angeles;
18. Harry Bridges Boulevard/Neptune Avenue – City of Los Angeles;
19. Harry Bridges Boulevard/Wilmington Boulevard – City of Los Angeles;
20. Harry Bridges Boulevard/Figueroa Street – City of Los Angeles;
21. PCH/Alameda Street Ramp – City of Los Angeles;
22. PCH/Santa Fe Avenue – City of Long Beach;
23. PCH/Harbor Avenue – City of Long Beach;
24. Sepulveda Boulevard/Alameda Street Ramp – City of Carson;
25. Intermodal Way/Sepulveda Boulevard – City of Carson;
26. Intermodal Container Transfer Facility (ICTF) Driveway/Sepulveda Boulevard – City of Los Angeles;
27. Middle Road/Sepulveda Boulevard – City of Los Angeles;
28. Sepulveda Boulevard/SR-103 – City of Long Beach;
29. Alameda Street/Henry Ford Avenue – City of Los Angeles;
30. Alameda Street/PCH Ramp – City of Los Angeles;
31. Alameda Street/Sepulveda Boulevard Ramp – City of Carson;
32. Alameda Street/223rd Street Ramp – City of Carson;
33. Alameda Street Ramp/223rd Street – City of Los Angeles;
34. I-405 Southbound Ramps/223rd Street – City of Los Angeles;
35. Gaffey Street/1st Street – City of Los Angeles; and,
36. Harbor Boulevard/Swinford Street/SR-47 Ramps – City of Los Angeles.

~~Two~~ Three additional non-CMP locations on the State Highway system were included for analysis, as also shown in Figure 3.12-2, on the basis of their location relative to the PMPU area and the potential for proposed Program-related traffic using the roadways. The locations are:

1. I-710 north of Florence Avenue;
2. ~~1.~~ SR-47 at Vincent Thomas Bridge; and,
3. ~~2.~~ SR-47 at Commodore Schuyler Heim Bridge.

3.2.15.2 Figure 3.12-1, Project Study Area and Study Intersections

Figure 3.12-1 was updated to include the two additional intersection analysis locations near Planning Area 1 (i.e., Gaffey Street/1st Street and Harbor Boulevard/Swinford Street/SR-47 Ramps).

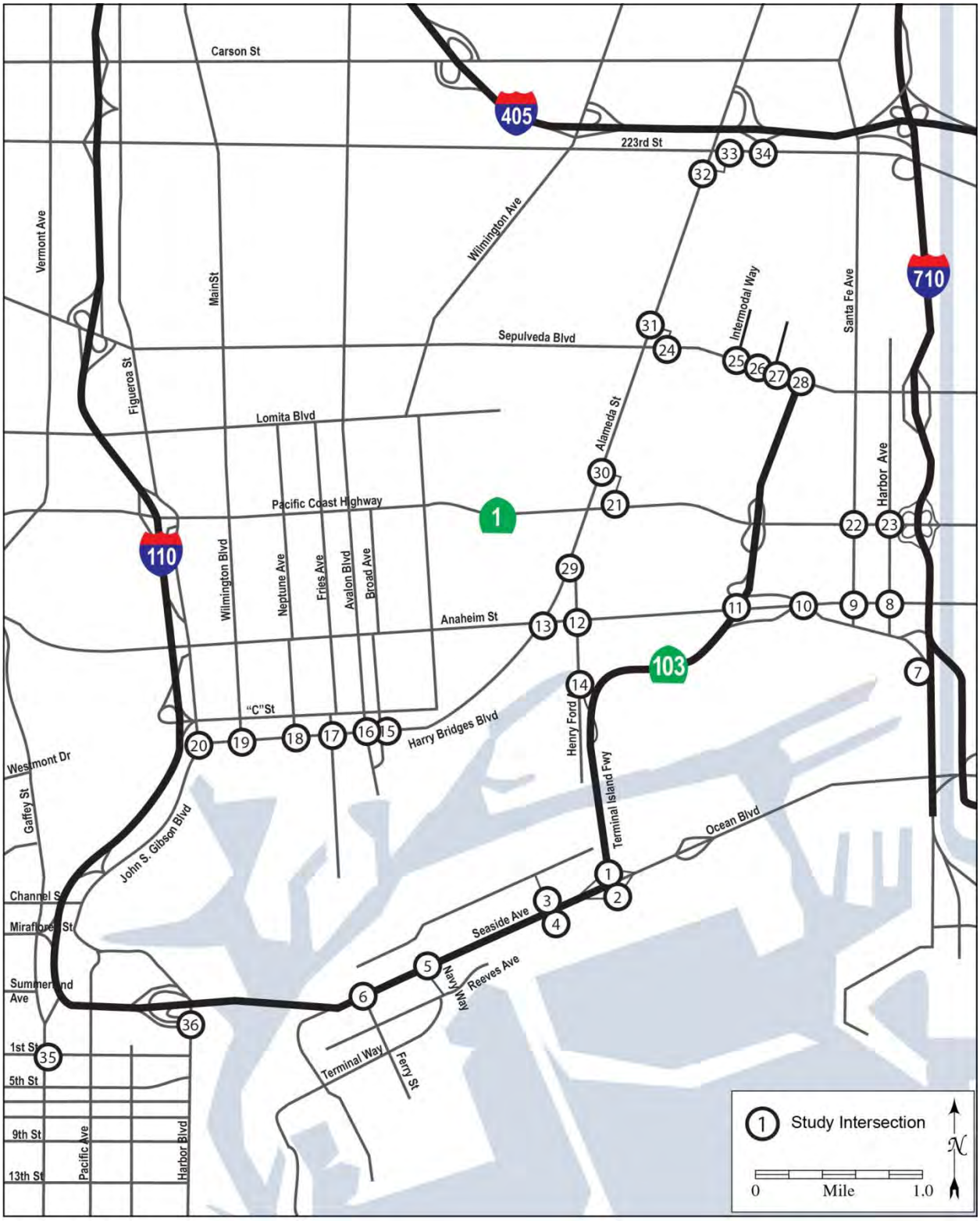


Figure 3.12-1. Project Study Area and Study Intersections

3.2.15.3 Figure 3.12-2, Study Area Freeway Segments

Figure 3.12-2 was updated to include the additional freeway link location on the I-710 north of Florence Avenue.

3.2.15.4 Section 3.12.2.1.1, Existing Area Traffic Conditions

Levels of Service Analysis

Based on peak-hour traffic volumes and V/C ratios, the corresponding LOS at study area intersections were determined, as summarized in Table 3.12-3. The data in the table indicate that all of the existing study intersections currently operate at LOS C or better during peak hours except intersection #22 PCH at Santa Fe Avenue which operates at LOS D in the P.M. peak hour and intersection #35 Gaffey Street at 1st Street, which operates at LOS D in the A.M. and P.M. peak hours. Midday analysis was not conducted at intersections #35 and #36, which are located in the commercial district of San Pedro, due to a lack of available trip generation data and since the midday period does not have peaking characteristics that are studied as part of traffic analysis. Retail land use trip generation does not have empirical trip generation rates because they usually generate fewer trips in the midday than in the A.M. or P.M. peak hours. This is specifically the case with commercial land uses in San Pedro, which, unlike the other locations analyzed in this document (container terminals), do not peak in the midday.

As shown in Table 3.12-4 all freeway locations currently operate at LOS D or better except for the following:

- I-405 at Santa Fe Avenue – LOS F(0) (northbound A.M. Peak Hour); LOS E (southbound A.M. Peak Hour); LOS E (northbound P.M. Peak Hour); LOS F(0) (southbound P.M. Peak Hour);
- I-710 north of PCH – LOS E (northbound A.M. Peak Hour); LOS F(0) (southbound A.M. Peak Hour); LOS E (northbound P.M. Peak Hour); LOS E (southbound P.M. Peak Hour);
- I-710 north of I-405, south of Del Amo Boulevard – LOS E (southbound A.M. Peak Hour); LOS E (northbound P.M. Peak Hour);
- I-710 north of I-105, north of Firestone Boulevard – LOS F(0) (northbound A.M. Peak Hour); LOS F(0) (southbound A.M. Peak Hour); LOS F(0) (northbound P.M. Peak Hour); LOS F(0) (southbound P.M. Peak Hour); and,
- I-710 north of Florence Avenue – LOS E (northbound A.M. Peak Hour); LOS F(0) (southbound A.M. Peak Hour); LOS F(0) (northbound P.M. Peak Hour); LOS F(0) (southbound P.M. Peak Hour).

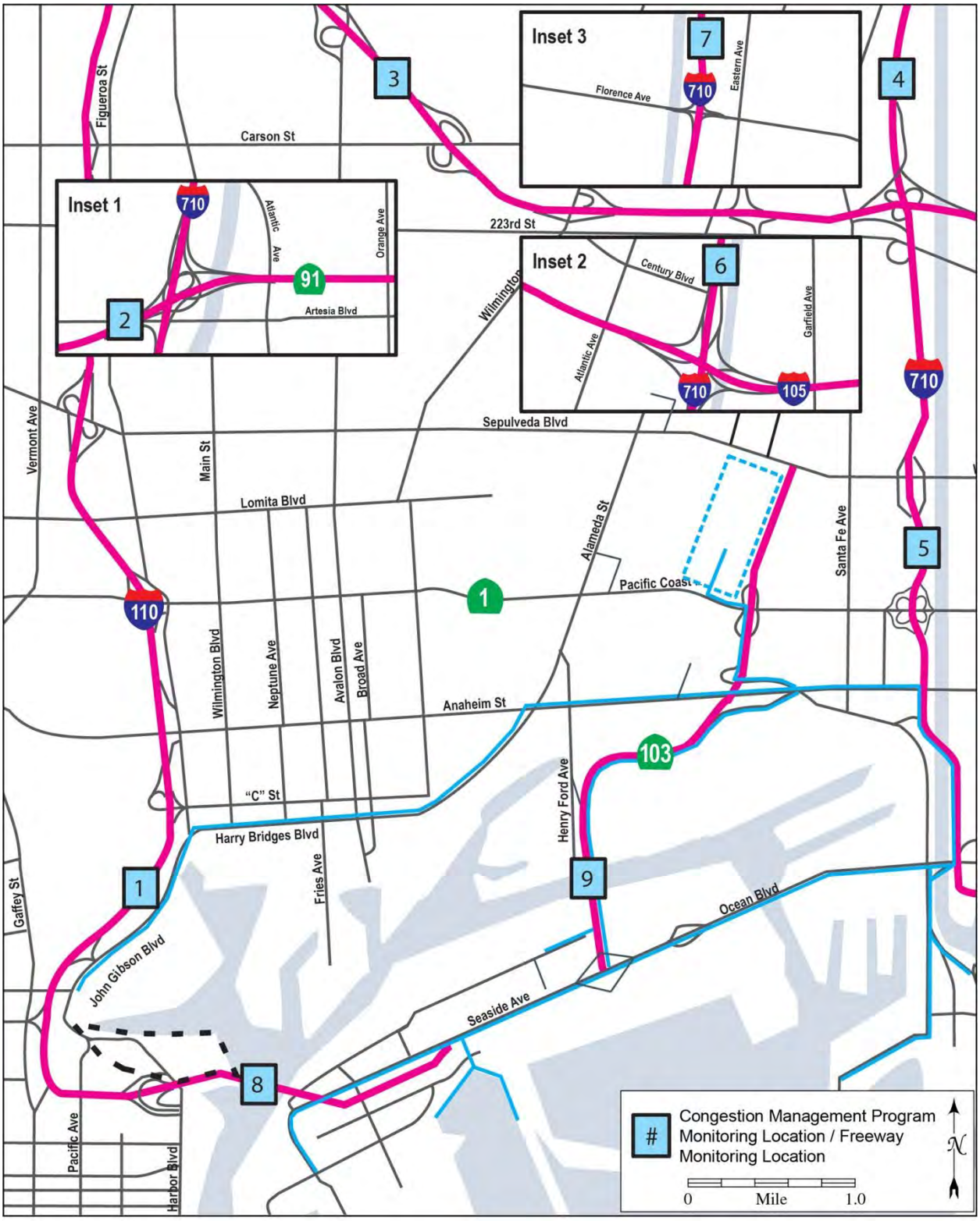


Figure 3.12-2. Study Area Freeway Segments

Table 3.12-3. Baseline Intersection Level of Service

Int #	*Analysis Intersection*	*Baseline*					
		A.M.		*M.D.*		*P.M.*	
		LOS	*V/C*	*LOS*	*V/C*	*LOS*	*V/C*
1	Ocean Blvd (WB)/[Terminal Island Fwy[b]	A	0.335	A	0.398	A	0.375
2	Ocean Blvd (EB)/Terminal Island Fwy[b]	A	0.215	A	0.379	A	0.348
3	Ocean Blvd (WB)/Pier S Ave[b]	A	0.266	A	0.313	A	0.341
4	Ocean Blvd (EB)/Pier S Ave[b]	A	0.209	A	0.364	A	0.340
5	Seaside Ave/Navy Way[a]	A	0.427	A	0.316	A	0.541
6	Ferry St (Seaside Ave)/SR-47 Ramps[a]	A	0.112	A	0.244	A	0.142
7	Pico Ave / Pier B St/9th St / I-710 Ramps[b]	A	0.435	A	0.519	A	0.499
8	Anaheim St/Harbor Ave[b]	A	0.453	A	0.455	A	0.560
9	Anaheim St/Santa Fe Ave[b]	A	0.473	A	0.508	A	0.578
10	Anaheim St/E I St / W 9th St[b]	A	0.501	A	0.525	A	0.529
11	Anaheim St/Farragut Ave[a]	A	0.277	A	0.228	A	0.286
12	Anaheim St/Henry Ford Ave[a]	A	0.300	A	0.416	A	0.560
13	Anaheim St/Alameda St[a]	A	0.361	A	0.325	A	0.468
14	Henry Ford Ave/Pier A Wy/SR-47/103 Ramps[a]	A	0.078	A	0.125	A	0.167
15	Harry Bridges Blvd/Broad Ave[a]	A	0.143	A	0.115	A	0.218
16	Harry Bridges Blvd/Avalon Blvd[a]	A	0.155	A	0.082	A	0.238
17	Harry Bridges Blvd/Fries Ave[a]	A	0.123	A	0.127	A	0.203
18	Harry Bridges Blvd/Neptune Ave[a]	A	0.053	A	0.028	A	0.127
19	Harry Bridges Blvd/Wilmington Blvd[a]	A	0.119	A	0.077	A	0.202
20	Harry Bridges Blvd/Figueroa St[a]	A	0.235	A	0.237	A	0.292
21	Pacific Coast Hwy/Alameda St Ramp[a]	A	0.505	A	0.411	A	0.561
22	Pacific Coast Hwy/Santa Fe Ave[b]	C	0.773	B	0.699	D	0.821
23	Pacific Coast Hwy/Harbor Ave[b]	B	0.628	B	0.603	C	0.733
24	Sepulveda Blvd/Alameda St Ramp[c]	B	0.679	A	0.484	B	0.612
25	Intermodal Way/Sepulveda Blvd[c]	A	0.371	A	0.310	A	0.403
26	ICTF Drwy/Sepulveda Blvd[a]	A	0.193	A	0.369	A	0.425
27	Middle Rd/Sepulveda Blvd[a]	A	0.223	A	0.254	A	0.481
28	Sepulveda Blvd/SR-10[b]	A	0.318	A	0.330	A	0.491
29	Alameda St/Henry Ford Ave[a]	A	0.057	A	0.183	A	0.207
30	Alameda St/Pacific Coast Hwy Ramp[a]	A	0.439	A	0.368	A	0.598
31	Alameda St/Sepulveda Boulevard Ramp[c]	A	0.389	A	0.463	A	0.588
32	Alameda St/223rd St Ramp[c]	A	0.509	A	0.484	A	0.565
33	Alameda St Ramp/223rd St[a]	A	0.342	A	0.504	C	0.758
34	I-405 SB Ramps/223rd St[a]	A	0.379	A	0.319	A	0.435
35	Gaffey St/1st St[a]	D	0.860	n/a	n/a	D	0.825
36	Harbor Blvd/Swinford St/SR-47 (EB) Ramp[a]	A	0.307	n/a	n/a	A	0.331

Notes:
a. City of Los Angeles intersection, analyzed using CMA methodology, according to city standards.
b. City of Long Beach intersection analyzed using ICU methodology, according to city standards.
c. City of Carson intersection analyzed using ICU methodology, according to city standards.

Table 3.12-4. Baseline Freeway Level of Service

Freeway	*Location*	*Capacity*	*Northbound/Eastbound*						*Southbound/Westbound*					
			A.M. Peak Hour			*P.M. Peak Hour*			*A.M. Peak Hour*			*P.M. Peak Hour*		
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*
#1 I-110	South of C Street (CMP monitoring station - south of "C" St)	8,000	4,375	0.55	C	2,490	0.31	A	3,375	0.42	B	4,205	0.53	B
#2 SR-91	West of I-710 (CMP monitoring station - east of Alameda St/Santa Fe Ave interchange)	12,000	6,060	0.51	B	8,928	0.74	C	10,660	0.89	D	7,205	0.60	C
#3 I-405	Between I-110 and I-710 (CMP monitoring station - Santa Fe Ave)	10,000	11,535	1.15	F(0)	9,865	0.99	E	9,545	0.95	E	11,160	1.12	F(0)
#4 I-710	North of PCH (CMP monitoring station-north of Jct Rte 1 [PCH], Willow St)	6,000	5,770	0.96	E	5,950	0.99	E	6,690	1.12	F(0)	5,660	0.94	E
#5 I-710	North of I-405 (CMP monitoring station n/o Jct. 405, south of Del Amo)	8,000	6,370	0.80	D	7,740	0.97	E	7,805	0.98	E	6,785	0.85	D
#6 I-710	North of I-105, north of Firestone	8,000	8,175	1.02	F(0)	9,120	1.14	F(0)	9,285	1.16	F(0)	9,105	1.14	F(0)
#7 I-710	North of Florence Avenue*	8,000	7,710	0.96	E	8,600	1.08	F(0)	8,760	1.10	F(0)	8,590	1.07	F(0)
#~~7~~ 8 SR-47	Vincent Thomas Bridge*	4,000	2,445	0.61	C	2,560	0.64	C	2,100	0.53	B	2,930	0.73	C
#~~8~~ 9 SR-47	Commodore Schuyler Heim Bridge*	6,000	305	0.05	A	830	0.14	A	590	0.10	A	655	0.11	A

Notes: Capacity based on the methodology in the 2010 CMP for Los Angeles County (LACMTA 2010); D/C = demand to capacity ratio.
*Non-CMP location.

3.2.15.5 Section 3.12.3.1.1, Methodology, Proposed Program Trip Generation

Program-related trip generation was developed using existing intermodal facility traffic counts, tenant-supplied information, the ports' QuickTrip truck generation model, and the Institute of Transportation Engineers Trip Generation, 9th Edition. Traffic that would be generated by the proposed Program was forecasted to determine potential impacts on study area roadways.

The trip generation estimate for the 102,000 square foot retail land use at Warehouse No. 1 for the proposed Program was obtained from the Institute of Transportation Engineers Trip Generation, 9th Edition Land Use 820 (Shopping) for the Daily and A.M. trip generation rate and Land Use 826 (Specialty Retail) for the P.M. trip generation rate, consistent with the San Pedro Waterfront Project EIS/EIR.

For the purposes of this analysis the residential distribution data of terminal employees, surveyed as part of the Longshore Worker place of residence, was used to distribute port-related employee auto trips in the Port Travel Demand Model.

Figure 3.12-6, Program Trip Distribution, depicts the distribution and routes of trips in the vicinity. The proposed Program trip generation was determined by using the proposed Program's TEU projections, the QuickTrip outputs, and specific trip generation from non-container truck trips at Warehouse No. 1 (Planning Area 1) and Fish Harbor (Planning Area 4). The resultant proposed Program's daily trip generation, distinguished between trips into and out of the Port ("In" and "Out", respectively), is shown in Table 3.12-14, and its peak hour trip generation is shown in Table 3.12-15.

Table 3.12-14. Proposed Program Daily Trip Generation

Planning Area	*Location*	*Autos*		*Non-container Trucks*		*Bobtails*		*Chassis*		*Containers*		*Total Vehicles*
		In	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	
Planning Area 1: San Pedro	Warehouse No. 1	2,175	2,180	-	-	-	-	-	-	-	-	4,355
Planning Area 2: West Basin and Wilmington	Berths 100-131 (West Basin Container Terminal-Yang Ming-China Shipping)	1,155	940	-	-	1,010	950	315	135	2,020	2,255	8,780
Planning Area 3: Terminal Island	Berths 302-305 (APL-Eagle Marine Services)	1,410	1,145	-	-	1,475	1,395	235	350	2,810	2,795	11,615
Planning Area 4: Fish Harbor	Fish Harbor	-	-	25	25	-	-	-	-	-	-	50
	Total	**4,740 ~~2,565~~**	**4,265 ~~2,085~~**	**25**	**25**	**2,485**	**2,345**	**550**	**485**	**4,830**	**5,050**	**~~20,445~~ 24,800**

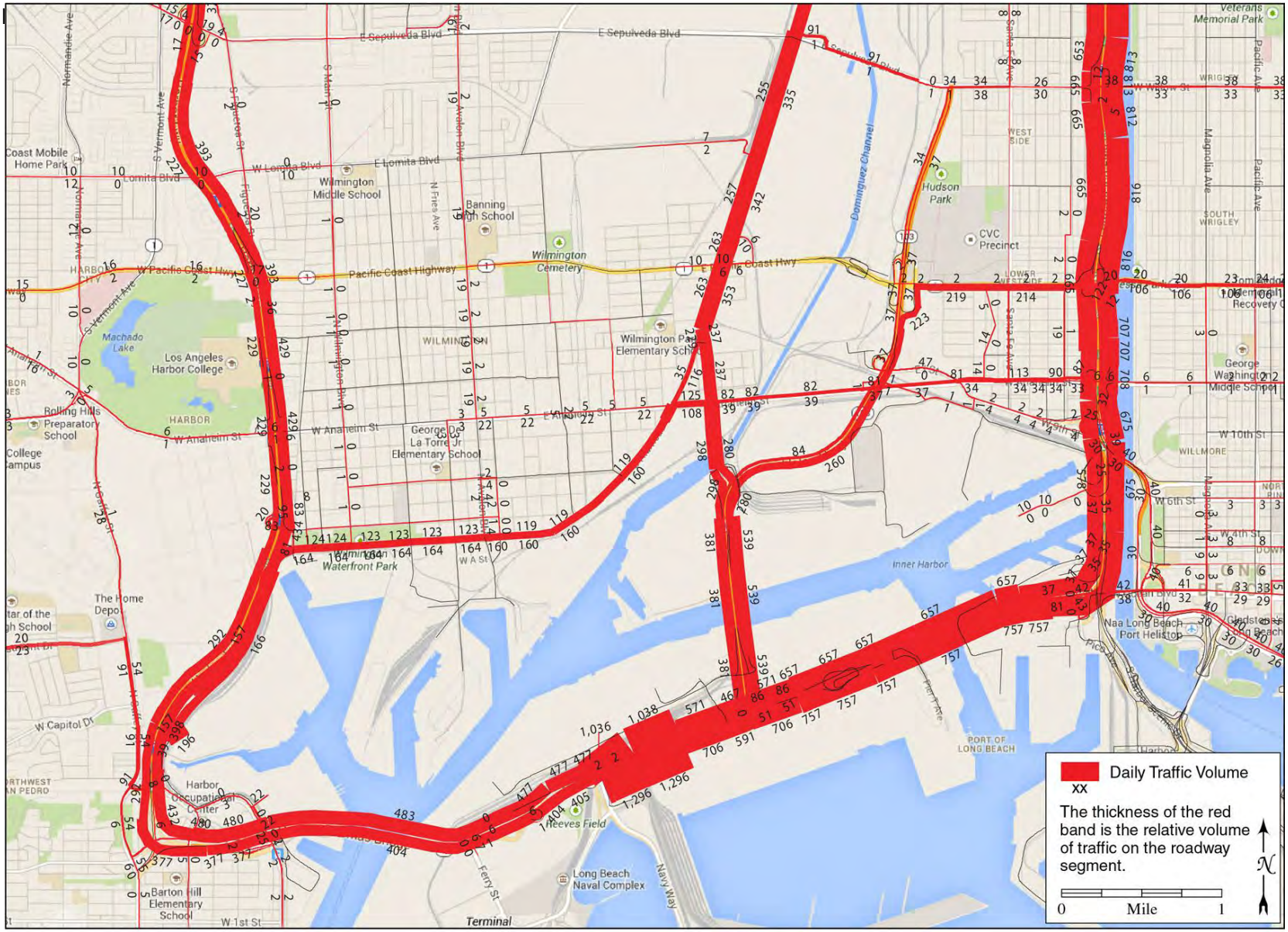


Figure 3.12-6. Program Trip Distribution

Table 3.12-15. Proposed Program Peak Hour Trip Generation (in Passenger Car Equivalents)

Planning Area	*Location*	*A.M. Peak Hour*			*M.D. Peak Hour*			*P.M. Peak Hour*		
		In	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Planning Area 1: San Pedro	Warehouse No. 1	40	25	65	n/a	n/a	n/a	120	155	275
Planning Area 2: West Basin and Wilmington	Berths 100-131 (West Basin Container Terminal-Yang Ming-China Shipping)	435	460	895	475	475	950	375	485	860
Planning Area 3: Terminal Island	Berths 302-305 (APL-Eagle Marine Services)	590	560	1,150	630	650	1,280	460	605	1,065
Planning Area 4: Fish Harbor	Fish Harbor	10	10	20	10	10	20	10	10	20
Total		**1,075~~1,035~~**	**1,055~~1,030~~**	**2,130~~2,065~~**	**1,115~~1,115~~**	**1,135~~1,135~~**	**2,250~~2,250~~**	**965~~845~~**	**1,255~~1,100~~**	**2,220~~1,945~~**

3.2.15.6 Section 3.12.3.1.3, Impacts and Mitigation

Impact TRANS-1: The proposed Program would not result in a short-term, temporary increase in truck and auto traffic.

Impact TRANS-1 only pertains to construction, so operations impacts are not applicable for this evaluation.

Planning Areas ~~2~~ 1 – 4

The proposed land use change in Planning Area 1 includes designating Warehouse No. 1 as a mixed land use site (i.e., existing institutional uses would be changed to mixed use - institutional and/or visitor-serving commercial).

Impact TRANS-2: The proposed Program would not significantly impact at least one study location V/C ratios or level of service for long-term vehicular traffic.

Traffic conditions that would be associated with the proposed appealable/fill projects and land use changes under the proposed Program were compared to the applicable baseline to determine the proposed Program's incremental impacts, and the incremental impacts were assessed using the significance criteria described above in Section 3.12.3.1.2, Thresholds of Significance.

Planning Areas ~~2~~ 1 – 4

Construction and Operations

The proposed land use change in Planning Area 1 includes designating Warehouse No. 1 as a mixed land use site (i.e., existing institutional uses would be changed to mixed use - institutional and/or visitor-serving commercial).

As described in Section 3.12.3.1.1, Methodology, the Port travel demand model was used to estimate the growth in traffic from the proposed Program at the analysis locations. The trips shown in Table 3.12-17 were added to the model and distributed through the roadway network to determine the level of traffic added to baseline turning movement volumes by the proposed Program. Midday analysis was not conducted at intersections #35 and #36, which are located in the commercial district of San Pedro, due to a lack of available trip generation data and the midday period not having peaking characteristics that are studied as part of traffic analysis. Retail land use trip generation does not have empirical trip generation rates because they usually generate fewer trips in the midday than in the A.M. or P.M. peak hours. This is specifically the case with commercial land uses in San Pedro, which, unlike the other locations analyzed in this document (container terminals), do not peak in the midday.

Table 3.12-17. Trip Generation Analysis Assumptions and Input Data for the Proposed Program

	CEQA Baseline (2011)	*Proposed Program (2035)*
Annual TEUs	3,729,000	11,249,000
Peak Monthly TEUs	339,000	1,024,000
Trip Generation Results – A.M. Peak		
Program Added Auto Trips	-----	~~225~~290
Program Added Truck Trips (PCE)	-----	1,840
Program Added Total Trips (PCE)	-----	~~2,065~~2,130
Trip Generation Results – M.D. Peak		
Program Added Auto Trips	-----	110
Program Added Truck Trips (PCE)	-----	2,140
Program Added Total Trips (PCE)	-----	2,250
Trip Generation Results – P.M. Peak		
Program Added Auto Trips	-----	~~525~~800
Program Added Truck Trips (PCE)	-----	1,420
Program Added Total Trips (PCE)	-----	~~1,945~~2,200
Note: Trips generated for the proposed Program represent incremental increases compared to the CEQA baseline.		

Impact Determination

Construction and Operations

Table 3.12-18 summarizes the CEQA baseline and CEQA baseline with Program operating conditions at each study intersection. The results of the traffic study, as presented in Table 3.12-18 and in the worksheets in Appendix F show that circulation system impacts from the proposed Program relative to CEQA baseline conditions would be less than significant.

Table 3.12-18. Intersection Level of Service Analysis – CEQA Baseline vs. Proposed Program

#	Study Intersection	CEQA Baseline (2011)						CEQA Baseline Plus Program						Changes in V/C			Significant Impact		
		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	A.M. Peak	M.D. Peak	P.M. Peak
		LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C						
1	Ocean Blvd (WB) / Terminal Island Fwy[b]	A	0.335	A	0.398	A	0.375	A	0.401	A	0.490	A	0.417	0.066	0.092	0.042	N	N	N
2	Ocean Blvd (EB) / Terminal Island Fwy[b]	A	0.215	A	0.379	A	0.348	A	0.295	A	0.447	A	0.381	0.080	0.068	0.033	N	N	N
3	Ocean Blvd (WB) / Pier S Ave[b]	A	0.266	A	0.313	A	0.341	A	0.325	A	0.400	A	0.386	0.059	0.087	0.045	N	N	N
4	Ocean Blvd (EB) / Pier S Ave[b]	A	0.209	A	0.364	A	0.340	A	0.297	A	0.453	A	0.385	0.088	0.089	0.045	N	N	N
5	Seaside Ave / Navy Wy A	A	0.427	A	0.316	A	0.541	A	0.494	A	0.383	A	0.596	0.068	0.067	0.055	N	N	N
6	Ferry St (Seaside Ave) / SR-47 Ramps[a]	A	0.112	A	0.244	A	0.142	A	0.114	A	0.258	A	0.153	0.002	0.014	0.011	N	N	N
7	Pico Ave / Pier B St / 9th St / I-710 Ramps[b]	A	0.435	A	0.519	A	0.499	A	0.455	A	0.528	A	0.499	0.020	0.009	0.000	N	N	N
8	Anaheim St / Harbor Ave[b]	A	0.453	A	0.455	A	0.560	A	0.518	A	0.478	A	0.566	0.065	0.023	0.006	N	N	N
9	Anaheim St / Santa Fe Ave[b]	A	0.473	A	0.508	A	0.578	A	0.503	A	0.519	A	0.585	0.030	0.011	0.007	N	N	N
10	Anaheim St / E I St / W 9th St[b]	A	0.501	A	0.525	A	0.529	A	0.548	A	0.561	A	0.542	0.047	0.036	0.013	N	N	N
11	Anaheim St / Farragut Ave[a]	A	0.277	A	0.228	A	0.286	A	0.326	A	0.268	A	0.305	0.049	0.040	0.019	N	N	N
12	Anaheim St / Henry Ford Ave[a]	A	0.300	A	0.416	A	0.560	A	0.391	A	0.468	A	0.592	0.091	0.052	0.032	N	N	N
13	Anaheim St / Alameda St[a]	A	0.361	A	0.325	A	0.468	A	0.418	A	0.391	A	0.468	0.057	0.066	0.000	N	N	N
14	Henry Ford Ave / Pier A Wy / SR-47 Ramps[a]	A	0.078	A	0.125	A	0.167	A	0.078	A	0.164	A	0.193	0.000	0.039	0.026	N	N	N
15	Harry Bridges Blvd / Broad Ave[a]	A	0.143	A	0.115	A	0.218	A	0.222	A	0.195	A	0.255	0.079	0.080	0.037	N	N	N
16	Harry Bridges Blvd / Avalon Blvd[a]	A	0.155	A	0.082	A	0.238	A	0.233	A	0.162	A	0.270	0.078	0.080	0.032	N	N	N
17	Harry Bridges Blvd / Fries Ave[a]	A	0.123	A	0.127	A	0.203	A	0.180	A	0.193	A	0.240	0.057	0.066	0.037	N	N	N
18	Harry Bridges Blvd / Neptune Ave[a]	A	0.053	A	0.028	A	0.127	A	0.125	A	0.100	A	0.163	0.072	0.072	0.036	N	N	N
19	Harry Bridges Blvd / Wilmington Blvd[a]	A	0.119	A	0.077	A	0.202	A	0.217	A	0.173	A	0.248	0.098	0.096	0.046	N	N	N
20	Harry Bridges Blvd / Figueroa St[a]	A	0.235	A	0.237	A	0.292	A	0.297	A	0.307	A	0.328	0.062	0.070	0.036	N	N	N
21	Pacific Coast Hwy / Alameda St Ramp[a]	A	0.505	A	0.411	A	0.561	A	0.533	A	0.450	A	0.575	0.028	0.039	0.014	N	N	N
22	Pacific Coast Hwy / Santa Fe Ave[b]	C	0.773	B	0.699	D	0.821	C	0.787	C	0.745	D	0.854	0.014	0.046	0.033	N	N	N
23	Pacific Coast Hwy / Harbor Ave[b]	B	0.628	B	0.603	C	0.733	B	0.635	B	0.636	C	0.758	0.007	0.033	0.025	N	N	N
24	Sepulveda Blvd / Alameda St Ramp[c]	B	0.679	A	0.484	B	0.612	B	0.679	A	0.492	B	0.612	0.000	0.008	0.000	N	N	N
25	Intermodal Way / Sepulveda Blvd[c]	A	0.371	A	0.310	A	0.403	A	0.371	A	0.310	A	0.403	0.000	0.000	0.000	N	N	N
26	ICTF Drwy / Sepulveda Blvd[a]	A	0.193	A	0.369	A	0.425	A	0.201	A	0.411	A	0.432	0.008	0.042	0.007	N	N	N
27	Middle Rd / Sepulveda Blvd[a]	A	0.223	A	0.254	A	0.481	A	0.223	A	0.254	A	0.481	0.000	0.000	0.000	N	N	N
28	Sepulveda Blvd / SR-103[b]	A	0.318	A	0.330	A	0.491	A	0.356	A	0.358	A	0.509	0.038	0.028	0.018	N	N	N
29	Alameda St / Henry Ford Ave[a]	A	0.057	A	0.183	A	0.207	A	0.147	A	0.273	A	0.262	0.090	0.090	0.055	N	N	N
30	Alameda St / Pacific Coast Hwy Ramp[a]	A	0.439	A	0.368	A	0.598	A	0.478	A	0.401	B	0.619	0.039	0.033	0.021	N	N	N
31	Alameda St / Sepulveda Boulevard Ramp[c]	A	0.389	A	0.463	A	0.588	A	0.422	A	0.492	B	0.606	0.033	0.029	0.018	N	N	N
32	Alameda St / 223rd St Ramp[c]	A	0.509	A	0.484	A	0.565	B	0.607	B	0.621	B	0.611	0.098	0.137	0.046	N	N	N
33	Alameda St Ramp / 223rd St[a]	A	0.342	A	0.504	C	0.758	A	0.374	A	0.542	C	0.772	0.032	0.038	0.014	N	N	N
34	I-405 SB Ramps / 223rd St[a]	A	0.379	A	0.319	A	0.435	A	0.389	A	0.330	A	0.439	0.010	0.011	0.004	N	N	N
35	Gaffey St/1st St	D	0.860	n/a	n/a	D	0.825	D	0.861	n/a	n/a	D	0.828	0.001	n/a	0.003	N	n/a	N
36	Harbor Blvd / Swinford St / SR-47 EB Ramp	A	0.307	n/a	n/a	A	0.331	A	0.312	n/a	n/a	A	0.356	0.005	n/a	0.025	N	n/a	N

Notes:
a. City of Los Angeles intersection, analyzed using CMA methodology according to city standards.
b. City of Long Beach intersection analyzed using ICU methodology according to city standards.
c. City of Carson intersection analyzed using ICU methodology according to city standards.

Impact TRANS-3: The proposed Program would not cause an increase in onsite employees due to operations, which would then result in a significant increase in public transit use.

Impact TRANS-3 only pertains to operations, so construction impacts are not applicable for this evaluation.

Planning Areas ~~2~~ 1 – 4

Operations

The proposed appealable/fill projects (i.e., Berths 187-189 Liquid Bulk Relocation, Yang Ming Terminal Redevelopment, China Shipping Fill, Berth 300 Development, Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson Marina) and land use changes would involve some increase in personnel during operations. Commuters in the Port tend to drive, meaning proposed appealable/fill projects under the PMPU would result in increases in traffic. Due to the need of many longshoremen and other Port workers for daily mobility since they work at different berths, public transit is generally not heavily utilized. The primary reason that workers generally would not use public transit is their work shift schedule. Most workers prefer to use a personal automobile to facilitate timely commuting. Also, Port workers' incomes are generally higher than similarly skilled jobs in other areas and higher incomes correlate to lower public transit usage. In addition, parking at the Port is readily available and free for employees, which encourages workers to drive to work. Further, some Port workers report first each day to union locations and are then are assigned to a Port terminal location. This requires the workers to have a car due since their work destination each day may vary. Finally, although there are 13 existing transit routes that serve the general vicinity surrounding the PMPU area, none of the existing routes stop within 1 mile of the PMPU Planning Areas with Port terminals.

The land use change associated with Warehouse No. 1 in Planning Area 1 would have increased transit utilization as estimated using the 2010 *Los Angeles County Congestion Management Program Appendix D Guidelines for Transportation Impact Analysis*:

- Multiply total trips generated by 1.4 to convert vehicle trips to person trips; and,
- For each time period, multiply nine percent for the primarily commercial land uses within ¼ mile of the CMP transit corridor.

The resulting transit trip generation is 550 daily transit trips, in the A.M. peak hour 5 inbound and 3 outbound transit trips, and in the P.M. peak hour 15 inbound and 20 outbound transit trips.

Impact Determination

Operations

Although the proposed appealable/fill projects and land use changes under the proposed Program would result in additional onsite employees, the increase in work-related trips using public transit would be negligible. Consequently, impacts on local transit services due to additional demand would be less than significant.

The transit demand associated with the Warehouse No. 1 land use change in Planning Area 1 is estimated as 550 daily transit trips, in the A.M. peak hour 5 inbound and 3 outbound transit trips, and in the P.M. peak hour 15 inbound and 20 outbound transit trips. Transit operators in San Pedro would be notified of this land use change and the potential increase of public transit use. However, the estimated level of ridership is not expected to significantly impact transit services.

Impact TRANS-4: The proposed Program would result in operations that would cause increases considered significant for freeway congestion.

Impact TRANS-4 only pertains to operations, so construction impacts are not applicable for this evaluation.

Planning Areas ~~2~~ 1 – 4

Operations

As noted above, the proposed land use change in Planning Area 1 includes changing existing institutional uses at Warehouse No. 1 to mixed use - institutional and/or visitor-serving commercial. The proposed appealable/fill projects in Planning Area 2 include the Berths 187-189 Liquid Bulk Relocation, Yang Ming Terminal Redevelopment, and China Shipping Fill. The Berths 187-189 Liquid Bulk Relocation Project would involve relocating liquid bulk storage from Slip 5 to Berths 191-194 in the East Basin. The proposed appealable/fill project in Planning Area 3 is the Berth 300 Development, which includes 18 acres of fill to be designated for container uses. The proposed appealable/fill projects in Planning Area 4 include the Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson Marina. Likewise, additional proposed land use changes in Planning Areas 2 and 3 that would affect future operations include converting vacant land at an optional land use site on Mormon Island to liquid bulk in Planning Area 2; converting Berths 206-209 and 210-211 to mixed use; changing vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue to maritime support; changing the institutional area along Ferry Street to maritime support; converting liquid bulk in the area north of the TIWRP to container area; changing vacant land, commercial fishing, and industrial areas near Fish Harbor to container area; and the option of changing Berth 301 to a liquid bulk or container handling facility in Planning Area 3.

While the proposed appealable/fill projects and land use changes are not evenly distributed between planning areas, truck traffic associated with these projects would ultimately use the same freeways. The proposed appealable/fill projects would increase truck traffic on freeways in the vicinity of the Port, although more cargo is expected to be transported by rail in the future than has been the case in the past with existing development at the Port. These projects would also increase employment to some extent; however, as noted above, they would not be likely to substantially increase commuter traffic.~~Most proposed appealable/fill projects and land use changes would involve some increase in personnel during operations. Larger cargo volumes would also tend to increase truck traffic, although a larger fraction of cargo is expected to travel by rail in the future. Commuter and truck traffic associated with the proposed appealable/fill projects and land use changes under the PMPU would result in increases in traffic on the freeway system.~~

A traffic impact analysis was conducted for the following locations, consistent with requirements under the CMP TIA Guidelines (LACMTA 2010):

- CMP arterial monitoring intersections, including freeway on-ramp or off-ramp, where the program would add 50 or more trips during either the A.M. or P.M. weekday peak hours;
- CMP freeway monitoring locations where the program ~~would~~ could add 150 or more trips during either the A.M. or P.M. weekday peak hours. The freeway locations potentially affected by appealable/fill projects under the proposed Program are as follow:
  - I-110 south of C Street (CMP Station 1045);
  - SR-91 east of Alameda Street and Santa Fe Avenue (CMP Station 1033);
  - I-405 at Santa Fe Avenue (CMP Station 1066);
  - I-710 between PCH and Willow Street (CMP Station 1078);
  - I-710 between I-405 and Del Amo Boulevard (CMP Station 1079);
  - I-710 north of I-105 and north of Firestone Boulevard (CMP Station 1080);
  - I-710 north of Florence Avenue (as requested in Caltrans comments on the Draft PEIR);
  - SR-47 at Vincent Thomas Bridge; and,
  - SR 47 at Commodore Schuyler Heim Bridge.

As prescribed in the *Guide For The Preparation of Traffic Impact Studies* (Caltrans 2002) for general plan amendments/updates, the general plan update is to be compared to the current general plan. The Port's PMP serves as the City of Los Angeles' long-term area plan for the Port district, similar to a City of Los Angeles Community Plan component of the General Plan. Therefore, the LOS results shown in the Draft PEIR (Table 4.2-7) represent the required Caltrans traffic analysis scenario, which compared the PMPU with the existing PMP under future conditions. However, to ensure full compliance with CEQA, traffic conditions with the PMPU, under CEQA baseline conditions, also were analyzed.

The proposed appealable/fill projects and land use changes under the proposed Program would result in additional truck trips on the surrounding freeway system. Tables 3.12-19 and 3.12-20 identify the change in LOS at freeway monitoring locations due to the proposed Program compared to baseline.

Table 3.12-19. CEQA Baseline vs. Proposed Program Freeway Analysis – A.M. Peak Hour

Fwy.	*Location*	*Capacity*	*Northbound/Eastbound*								*Southbound/Westbound*							
			CEQA Baseline			*CEQA Baseline Plus Program*			*Δ D/C*	*Proj Imp*	*CEQA Baseline*			*CEQA Baseline Plus Program*			*Δ D/C*	*Proj Imp*
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*			*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*		
I-110	Wilmington, s/o "C" St.	8,000	4,375	0.55	C	4,555~~4,540~~	0.57	C	0.02	No	3,375	0.42	B	3,570~~3,540~~	0.45~~44~~	B	0.03~~02~~	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	6,060	0.51	B	6,115	0.51	B	0.00~~0.01~~	No	10,660	0.89	D	10,685~~10,680~~	0.89	D	0.00	No
I-405	Santa Fe Ave.	10,000	11,535	1.15	F(0)	11,545	1.15	F(0)	0.00	No	9,545	0.95	E	9,550	0.96	E	0.01~~00~~	No
I-710	n/o Jct Rte 1 (PCH), Willow St.	6,000	5,770	0.96	E	6,045	1.01	F(0)	0.05	Yes	6,690	1.12	F(0)	6,935	1.16	F(0)	0.04	Yes
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	6,370	0.80	D	6,640	0.83	D	0.03	No	7,805	0.98	E	8,050	1.01	F(0)	0.03	Yes
I-710	n/o Rte 105, n/o Firestone	8,000	8,175	1.02	F(0)	8,375	1.05	F(0)	0.03	Yes	9,285	1.16	F(0)	9,440	1.18	F(0)	0.02	No
I-710	n/o Florence Avenue	8,000	7,710	0.96	E	7,880	0.99	E	0.03	No	8,760	1.10	F(0)	8,900	1.11	F(0)	0.01	No
SR-47	Vincent Thomas Bridge	4,000	2,445	0.61	C	2,590	0.65	C	0.04	No	2,100	0.53	B	2,210	0.55	C	0.02~~3~~	No
SR-47	Commodore Schuyler Heim Bridge	6,000~~4,000~~	305	0.05	A	565	0.09	A	0.04	No	590	0.10	A	830	0.14	A	0.04	No
*Supplemental Select Zone Analysis Locations**			*Max Project Increment Before Significant Imp*			*Project Increment*			*Δ D/C*	*Sig Imp*	*Max Project Increment Before Significant Imp*			*Project Increment*			*Δ D/C*	*Sig Imp*
I-405	n/o I-110	10,000	150			35			0.00	No	150			25			0.00	No
SR-91	e/o Lakewood Blvd.	10,000	150			140			0.01	No	150			80			0.01	No
SR-60	e/o Jct 605	12,000	180			30			0.00	No	180			25			0.00	No
I-105	e/o Bellflower Bl, w/o I-605	8,000	120			60			0.01	No	120			50			0.01	No
I-110	Manchester Bl	12,000	180			85			0.01	No	180			85			0.01	No
I-605	n/o Telegraph Rd	10,000	150			80			0.01	No	150			65			0.01	No
I-710	s/o SR-60	8,000	120			20			0.00	No	120			10			0.00	No

Notes: *Full impact analysis not performed for these locations; instead, the maximum project increment before the increment becomes a significant impact was calculated for each location and was compared to the project increment shown on the Select Zone Analysis.

Table 3.12-20. CEQA Baseline vs. Proposed Program Freeway Analysis – P.M. Peak Hour

Fwy.	*Location*	*Capacity*	*Northbound/Eastbound*								*Southbound/Westbound*							
			CEQA Baseline			*CEQA Baseline Plus Program*			Δ *D/C*	*Proj Imp*	*CEQA Baseline*			*CEQA Baseline Plus Program*			Δ *D/C*	*Proj Imp*
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*			*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*		
I-110	Wilmington, s/o "C" St.	8,000	2,490	0.31	A	2,730~~2,645~~	0.34~~0.33~~	A	0.03~~02~~	No	4,205	0.53	B	4,445~~4,355~~	0.56~~0.54~~	C	0.03~~0.02~~	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	8,925	0.74	C	8,965~~8,955~~	0.75	C	0.01~~0~~	No	7,205	0.60	C	7,220~~7,210~~	0.60	C	0.00	No
I-405	Santa Fe Ave.	10,000	9,865	0.99	E	9,870	0.99	E	0.00	No	11,160	1.12	F(0)	11,165	1.12	F(0)	0.00	No
I-710	n/o Jct Rte 1 (PCH), Willow St.	6,000	5,950	0.99	E	6,170	1.03	F(0)	0.04	Yes	5,660	0.94	E	5,840	0.97	E	0.03	No
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	7,740	0.97	E	7,960	1.00	E	0.03	No	6,785	0.85	D	6,925	0.87	D	0.02	No
I-710	n/o Rte 105, n/o Firestone	8,000	9,120	1.14	F(0)	9,275~~270~~	1.16	F(0)	0.02	~~No~~Yes	9,105	1.14	F(0)	9,195~~9,190~~	1.15	F(0)	0.01	No
I-710	n/o Florence Avenue	8,000	8,600	1.08	F(0)	8,735	1.09	F(0)	0.01	No	8,590	1.07	F(0)	8,670	1.08	F(0)	0.01	No
SR-47	Vincent Thomas Bridge	4,000	2,560	0.64	C	2,655	0.66	C	0.02	No	2,930	0.73	C	3,035	0.76	C	0.03	No
SR-47	Commodore Schuyler Heim Bridge	~~4~~6,000	830	0.14	A	1,015	0.17	A	0.03	No	655	0.11	A	800	0.13	A	0.02	No
*Supplemental Select Zone Analysis Locations**			*Max Project Increment Before Significant Imp*			*Project Increment*			Δ *D/C*	*Sig Imp*	*Max Project Increment Before Significant Imp*			*Project Increment*			Δ *D/C*	*Sig Imp*
I-405	n/o I-110	10,000	150			45			0.00	No	150			25			0.00	No
SR-91	e/o Lakewood Blvd.	10,000	150			110			0.01	No	150			55			0.01	No
SR-60	e/o Jct 605	12,000	180			25			0.00	No	180			15			0.00	No
I-105	e/o Bellflower Bl, w/o I-605	8,000	120			60			0.01	No	120			30			0.00	No
I-110	Manchester Bl	12,000	180			100			0.01	No	180			105			0.01	No
I-605	n/o Telegraph Rd	10,000	150			60			0.01	No	150			35			0.00	No
I-710	s/o SR-60	8,000	120			20			0.00	No	120			5			0.00	No

Notes: *Full impact analysis not performed for these locations; instead, the maximum project increment before the increment becomes a significant impact was calculated for each location and was compared to the project increment shown on the Select Zone Analysis.

The analysis shows that the proposed Program would cause an increase of 0.02 or more of the D/C ratio at three freeway link locations operating at LOS F or worse, and exceed the threshold of significance of the CMP. Proposed appealable/fill projects under the proposed Program would result in significant freeway impacts relative to the CEQA baseline conditions at the following locations:

- I-710 north of PCH – northbound A.M. Peak Hour; southbound A.M. Peak Hour; northbound P.M. Peak Hour;
- I-710 north of I-405, south of Del Amo Boulevard – southbound A.M. Peak Hour; and,
- I-710 north of I-105, north of Firestone Boulevard – northbound A.M. Peak Hour; southbound A.M. Peak Hour; northbound P.M. Peak Hour.

The freeway link along I-710 between PCH and Firestone Boulevard is forecast to have more than 150 proposed Program-associated trips and operate at LOS F. That section of I-710 is a component of a broader I-710 Corridor EIS/EIR analyzing the range of possible improvement alternatives for the 18-mile I-710 corridor between the Port and the Port of Long Beach and the Pomona Freeway (SR-60) being conducted by Metro, Caltrans and five other agencies. The recently released I-710 Draft EIR/EIS (Caltrans and LACMTA 2012) identifies improvements to the corridor to accommodate all future year (2035) regional traffic. The Draft EIR/EIS analyses were based on a projected Port/Port of Long Beach container cargo forecast of 43.2 million TEUs (Caltrans and LACMTA 2012). The projected future year 2035 combined ports (Port and the Port of Long Beach) container forecast analyzed in this Draft PEIR is 42.8 million TEU, including the increment associated with the proposed Program. Therefore, the proposed Program is consistent with the I-710 Draft EIR/EIS since the proposed I-710 Corridor improvements will have accounted for the incremental traffic associated with the proposed Program. The final I-710 Corridor EIS/EIR is scheduled to be approved by Caltrans in July ~~the first quarter of 2013~~2016. However, to be conservative in analyzing potential impact from the proposed Program, the I-710 Corridor improvements were not assumed in this analysis.

It should be noted that the Port is voluntarily collaborating with the state in addressing future traffic conditions on the I-710, as a ~~funding and technical~~ partner with Caltrans and Metro. The LAHD contributed $5 million for the Project Approval/Environmental Documentation (PA/ED) phase, and participates directly and extensively by providing technical guidance/input for preliminary engineering; the Administrative, Draft, and Final EIR/EIS; and the Caltrans Project Report. This input also is provided on all technical studies, including -but not limited to: air quality, transportation, goods movement, rail/intermodal, and, alternative technology. For these studies, the LAHD provided all Port and Port of Long Beach traffic volumes for direct incorporation into the I-710 Corridor Project EIR/EIS model (which is a focus model of the SCAG RTP model). These projections are consistent with the PMPU Draft PEIR analyses. Additionally, the Port and Port of Long Beach jointly conducted several alternative technology (ZECMS) studies which guided the I-710 Corridor Project EIR/EIS studies, and ultimately led to the recommendation of a separate truckway with zero emission technology.~~The recently released I-710 Draft EIR/EIS (Caltrans and LACMTA 2012) identifies improvements to the corridor to accommodate all future year (2035) regional traffic. The Draft EIR/EIS analyses~~

~~were based on a projected Port/Port of Long Beach container cargo forecast of 43.2 million TEUs (Caltrans and LACMTA 2012). The projected future year 2035 combined ports (Port and the Port of Long Beach) container forecast analyzed in this Draft PEIR is 42.8 million TEU, including the increment associated with the proposed Program. Therefore, the proposed Program is consistent with the I-710 Draft EIR/EIS since the proposed I-710 Corridor improvements will have accounted for the incremental traffic associated with the proposed Program.~~

Impact Determination

Operations

The I-710 Corridor Project Recirculated Draft EIR/EIS (Caltrans and LACMTA 2012) is currently being prepared, and will identify improvements to the corridor to accommodate all future year (2035) regional traffic, including Year 2035 Port and Port of Long Beach traffic. As such, the I-710 Corridor Project EIS/EIR would address traffic impacts of the overall Port area and regional growth on the I-710 corridor, which encompasses the significant impact determined as part of this analysis for the proposed Program. However, until the I-710 Corridor Project is implemented the proposed Program would cause significant impacts to three freeway study locations along the I-710, as noted above.

As described previously, the LAHD is voluntarily collaborating with the state in addressing future traffic conditions on the I-710, as a partner with Caltrans and Metro. Because the I-710 Corridor Project has not yet been approved, and because there is currently no funding mechanism allowing projects to contribute pro-rata mitigation funding for needed infrastructure improvements to that freeway, it is not currently feasible to mitigate impacts to the I-710 by contributing mitigation funding for that purpose. Nevertheless, if the I-710 Corridor Project, or components thereof, is approved for construction, and if a mechanism for the contribution of mitigation funding for the I-710 Corridor Project comes into existence, the LAHD will consider the need for and feasibility of contribution toward funding that project in the future, in connection with subsequent project-specific environmental review for the proposed appealable/fill projects and land use changes under the PMPU. Any such funding would be in addition to revenue from tolls on the truck facility and funds from other public sources, including Metro (e.g., Measure R, CMAQ, RTSP, etc.), the federal, and/or the state government. The LAHD is also providing input to Metro's private-public partnership study, which includes tolls as a fund source.

~~If the entire I-710 Corridor Project, or components thereof, is approved for construction, the Port may voluntarily contribute funding in the future. This funding would be in addition to revenue from tolls on the truck facility and funds from other public sources such as Metro (e.g., Measure R, CMAQ, RTSP, etc.), the federal, and/or the state government. The Port is also providing input to Metro's private-public partnership study, which includes tolls as a fund source. As such, the I-710 Corridor EIS/EIR would address the traffic impact of overall Port area and regional growth on the I-710 corridor, which encompasses the significant impact determined as part of this analysis for the proposed Program. Until the I-710 Corridor Project is implemented, the proposed Program would cause a significant impact to the three freeway study locations along the I-710.~~

Mitigation Measures

This PEIR determined that development of the proposed appealable/fill projects and land use changes under the PMPU, in aggregate, would have a potential significant impact at three locations that are undergoing detailed design-level analysis as part of the I-710 Corridor Project Recirculated Draft EIR/EIS. Given that the I-710 Corridor Project EIR/EIS is still in development, along with the associated specific freeway and arterial street improvement projects, it would be inappropriate and infeasible at present to identify alternative Program-level specific mitigation measures. This is because such measures could be in conflict with the needs of the agency partners while those agencies are collaborating on detailed planning and design of the I-710 Corridor Project. Furthermore, it is possible that the degradation of operating conditions on the I-710 attributable to the PMPU could be ameliorated by implementation of the I-710 Corridor Project.

Furthermore, the proposed appealable/fill projects under the PMPU are in preliminary planning stages. Therefore, it is not possible at present to accurately describe or predict particular alternative infrastructure improvements that would be both feasible and effective at avoiding or reducing any significant freeway traffic impacts of any particular development projects or land use changes under the proposed Program. This is because the type of development, timing of development, and conditions at the time in which development would occur are not currently known. Therefore, as future planning efforts occur for the proposed appealable/fill projects and development resulting from land use changes under the PMPU, separate environmental documentation with detailed traffic analyses would be prepared, if required under CEQA, to determine specific impacts associated with proposed development and mitigation would be applied, as necessary and as feasible.

Accordingly, although implementation of the I-710 Corridor Project is beyond the LAHD's authority, although project-specific mitigation funding for the I-710 Corridor Project is not currently feasible, and although it is premature to identify alternative infrastructure improvements which could feasibly mitigate significant traffic impacts of development under the PMPU, the following measure would be implemented, as required under CEQA, for the proposed appealable/fill projects and land use changes under the proposed Program which are determined to cause a significant freeway impact to the I-710.

~~The following mitigation measure would be implemented, as applicable, for the proposed appealable/fill projects and land use changes under the proposed Program. Project-specific environmental documents may adjust this mitigation measure as necessary to respond to project-specific conditions.~~

MM TRANS-1: ~~Implement~~ I-710 Corridor ~~Project~~Improvements. Project-specific environmental documentation would be completed for projects occurring under the PMPU to determine project-specific impacts to the I-710. For significantly impacted locations determined in subsequent project-specific environmental documents, LAHD would collaborate with Caltrans and other agencies to identify how potential regional infrastructure improvements are funded. If the I-710 Corridor Project is not yet approved or has been abandoned at the time of consideration of future project-specific approvals under the PMPU, subsequent environmental documents for such development will evaluate whether alternative infrastructure

improvements would be both feasible and necessary to mitigate any potential significant impacts of such projects.

~~LAHD shall collaborate with Caltrans and Metro to secure funding and ensure timely implementation of the I-710 Corridor project by 2035 to alleviate the effects of future Port area and regional traffic growth on the I-710.~~

~~Mitigation measures such as lane additions or other potential freeway modifications that arise from the I-710 EIS/EIR may be sufficient to alleviate the LOS deficiency. However, it is not known at this time if this will be the case. Also, schedules for completion of the proposed appealable/fill projects and land use changes are not known at this time, and all of them will have project-specific environmental documentation conducted to readdress these potential impacts. Therefore, additional mitigation measures may need to be considered in those documents.~~

Residual Impacts

Unless or until the I-710 Corridor Project is approved and constructed, ~~R~~residual impacts would be significant and unavoidable ~~if the I-710 Corridor Project is not implemented by 2035.~~ .

Impact TRANS-5: The proposed Program would not result in operations that would cause a significant impact in vehicular delay at railroad grade crossings.

Impact TRANS-5 only pertains to operations, so construction impacts are not applicable for this evaluation.

Planning Areas ~~2~~ 1– 4

Operations

As noted above, the proposed land use change in Planning Area 1 includes changing existing institutional uses at Warehouse No. 1 to mixed use - institutional and/or visitor-serving commercial. The proposed appealable/fill projects in Planning Area 2 are the Berths 187-189 Liquid Bulk Relocation, Yang Ming Terminal Redevelopment, and China Shipping Fill. The Berths 187-189 Liquid Bulk Relocation Project would involve relocating bulk liquid storage from Slip 5 to Berths 191-194 in the East Basin. The proposed appealable/fill project in Planning Area 3 is the Berth 300 Development, which involves 18 acres of fill to be designated for container uses. Proposed appealable/fill projects in Planning Area 4 are the Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson Marina. Likewise, a number of proposed land use changes in Planning Areas 2 and 3, such as converting vacant land at an optional land use site on Mormon Island to liquid bulk or break bulk in Planning Area 2; converting Berths 206-209 and Berths 210-211 to mixed use; changing the vacant land between Seaside Avenue and Reeves Avenue and south of Reeves Avenue to maritime support; changing institutional area along Ferry Street to maritime support; converting liquid bulk in the area north of the TIWRP to container area; changing vacant land, commercial fishing, and industrial areas near Fish Harbor to container area; and the option of changing Berth 301 to a

liquid bulk or container handling facility in Planning Area 3, would affect future operations at the Port. As the analysis below demonstrates, the proposed appealable/fill projects in Planning Area 2, in particular, would increase train movements at the Henry Ford Avenue grade crossing.

Impact TRANS-6: The proposed Program would not substantially increase hazards due to a design feature or incompatible uses.

Planning Areas ~~2~~ 1 – 4

Construction and Operations

Proposed appealable/fill projects in Planning Areas 2 through 4 are the Berths 187-189 Liquid Bulk Relocation, Yang Ming Terminal Redevelopment, China Shipping Fill, Berth 300 Development, Tri Marine Expansion, 338 Cannery Street Adaptive Reuse, and Al Larson Marina. Some of the proposed appealable/fill projects would involve modifications to entry or egress from existing roadways in the Port. While the proposed appealable/fill projects could result in design changes relative to transportation ingress/egress, such changes would be designed in accordance with building and safety code requirements and any new access roads or driveways would need to meet LADOT and Port engineering requirements. All design changes would be subject to review prior to permitting or leasing. Likewise there are a number of land use changes in Planning Areas ~~2~~ 1 through 4 that would affect future operations at the Port, and new development would be subject to building and safety code requirements.

Impact TRANS-7: The proposed Program would not result in inadequate emergency access.

Planning Areas ~~2~~ 1 – 4

Impact TRANS-8: The proposed Program would not conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Planning Areas ~~2~~ 1 – 4

Construction and Operations

Construction and operation of the proposed appealable/fill projects and development associated with proposed land use changes in Planning Areas ~~2~~ 1 through 4 would be subject to a comprehensive review of adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities to ensure that they do not decrease the performance or safety of such facilities.

Impact TRANS-9: The proposed Program would not result in inadequate parking capacity.

Planning Areas ~~2~~ 1 – 4

Construction and Operations

Most of the proposed appealable/fill projects and development resulting from proposed land use changes in Planning Areas ~~2~~ 1 through 4 would involve some increase in personnel during construction and operations which would increase commuter traffic to some extent and the need for parking. However, parking is not currently limited within the Port and the large areas associated with marine terminals typically provide sufficient parking. In addition, the Port currently has excess parking available at many of its terminals. Future development associated with the proposed appealable/fill projects and land use changes would meet parking code requirements based on its land use designation and zoning through the incorporation of appropriate design features and/or parking management plans.

3.2.15.7 Section 3.12.3.2.3, Impacts and Mitigation

Impact VT-1: The proposed Program would not interfere with the operation of designated vessel traffic lanes and/or adversely affect the safety of vessels navigating within the Port of Los Angeles and its approaches.

Planning Areas ~~2~~ 1 – 4

The proposed land use change in Planning Area 1 includes changing existing institutional uses at Warehouse No. 1 to mixed use - institutional and/or visitor-serving commercial.

3.2.15.8 Table 3.12-27, Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated With the Proposed Program

Table 3.12-27. Summary Matrix of Potential Impacts and Mitigation Measures for Transportation and Circulation Associated With the Proposed Program

Environmental Impacts	*Impact Determination*	*Mitigation Measures*	*Impact after Mitigation*
		Operations	
TRANS-4: Operation of the proposed Program would cause increases considered significant for freeway congestion.	Significant	**MM TRANS-1: ~~Implement the~~ I-710 Corridor ~~Project~~Improvements.** Project-specific environmental documentation would be completed for projects occurring under the PMPU to determine project-specific impacts to the I-710. For significantly impacted locations determined in subsequent project-specific environmental documents, LAHD would collaborate with Caltrans and other agencies to identify how potential regional infrastructure improvements are funded. If the I-710 Corridor Project is not yet approved or has been abandoned at the time of consideration of future project-specific approvals under the PMPU, subsequent environmental documents for such development will evaluate whether alternative infrastructure improvements would be both feasible and necessary to mitigate any potential significant impacts of such projects. ~~LAHD shall collaborate with Caltrans and Metro to secure funding and ensure timely implementation of the I-710 Corridor project by 2035 to alleviate the effects of future Port area and regional traffic growth on the I-710.~~ ~~Mitigation measures such as lane additions or other potential freeway modifications that arise from the I-710 EIS/EIR may be sufficient to alleviate the LOS deficiency. However, it is not known at this time if this will be the case. Also, schedules for completion of the proposed appealable/fill projects and land use changes are not known at this time, and all of them will have project-specific environmental documentation conducted to readdress these potential impacts. Therefore, additional mitigation measures may need to be considered in those documents.~~	Significant and unavoidable

3.2.16 Changes Made to Section 3.13, Utilities

Section 3.13, Utilities, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site, in particular modifying Table 3.13-1, Table 3.13-2, and Table 3.13-3.

3.2.16.1 Section 3.13.4.1.1, Water Supply

Table 3.13-1. Predicted Water Demand for the Proposed Program

Planning Area	*PMPU Land Use Designation*	*General Land Use*	*Area[a] (square feet)*	*Water Consumption Rate[b] (gpd/ 1,000 square feet)*	*Water Demand (mgd)*	*Water Demand (AFY)*
Planning Area 1	Institutional	Office	-239,580	167	-0.04	-45
	Visitor Serving Comm	Museum	239,580	167	0.04	45
				Planning Area 1 Subtotal	**0.00**	**0**
Planning Area 2	Container	Warehouse	1,446,192	22	0.03	36
	Break Bulk	Warehouse	-87,120	22	0.00	-2
	Liquid Bulk	Warehouse	17,424	22	0.00	0
	Dry Bulk	Warehouse	-152,460	22	0.00	-4
	Institutional	Office	-209,088	167	-0.03	-39
	Industrial	Industrial	-8,712	89	0.00	-1
				Planning Area 2 Subtotal	**0.010.00**	**-90**
Planning Area 3	Container	Warehouse	11,138,292	22	0.25	277
	Liquid Bulk	Warehouse	-723,096	22	-0.02	-18
	Commercial Fishing	Industrial	-87,120	89	-0.01	-9
	Dry Bulk	Warehouse	-1,158,696	22	-0.03	-29
	Maritime Support	Industrial	2,783,484	89	0.25	277
				Planning Area 3 Subtotal	**0.44**	**499**
Planning Area 4	Break Bulk	Industrial	-771,012	22	-0.02	-19
	Liquid Bulk	Industrial	-43,560	22	0.00	-1
	Commercial Fishing	Office	1,655,280	89	0.15	165
	Maritime Support	Industrial	1,006,236	89	0.09	100
	Institutional	Office	-78,408	150	-0.01	-13
				Planning Area 4 Subtotal	**0.21**	**231**
				Total	**0.640.65**	**721730**

Notes*: gpd*- gallons per day; *mgd* – millions of gallons per day; *AFY* – acre-feet per year

a. Areas are based on the change (net increase or loss) of acreage resulting from the PMPU. Areas are also based on the overall land use category of the land to be developed or converted, not individual buildings. Development of the project sites will include parking areas as well as others that have minimal water demands. These estimates are conservative and may overestimate the projected increase in water demands.

b. Sewer Generation Rates from City of Los Angeles 2006 – Appendix M multiplied by 111 percent.

3.2.16.2 Section 3.13.4.1.2, Wastewater

Table 3.13-2. Predicted Wastewater Generation

Planning Area	*PMPU Land Use Designation*	*General Land Use*	*Area[a] (square feet)*	*Sewer Generation Factor[b] (gpd/1,000 square feet)*	*Wastewater Generation (mgd)*
Planning Area 1	Institutional	Office	-239,580	150	-0.04
	Visitor Serving Comm	Museum	239,580	150	0.04
				Planning Area 1 Subtotal	**0.00**
Planning Area 2	Container	Warehouse	1,446,192	20	0.03
	Break Bulk	Warehouse	-87,120	20	0.00
	Liquid Bulk	Warehouse	17,424	20	0.00
	Dry Bulk	Warehouse	-152,460	20	0.00
	Institutional	Office	-209,088	150	-0.03
	Industrial	Industrial	-8,712	80	0.00
				Planning Area 2 Subtotal	**-0.01~~00.00~~**
Planning Area 3	Container	Warehouse	11,138,292	20	0.22
	Liquid Bulk	Warehouse	-723,096	20	-0.01
	Commercial Fishing	Industrial	-87,120	80	-0.01
	Dry Bulk	Warehouse	-1,158,696	20	-0.02
	Maritime Support	Industrial	2,783,484	80	0.22
				Planning Area 3 Subtotal	**0.40**
Planning Area 4	Break Bulk	Industrial	-771,012	20	-0.02
	Liquid Bulk	Industrial	-43,560	20	0.00
	Commercial Fishing	Office	1,655,280	80	0.13
	Maritime Support	Industrial	1,006,236	80	0.08
	Institutional	Office	-78,408	150	-0.01
				Planning Area 4 Subtotal	**0.18**
				Total	**0.58~~59~~**

Notes: *gpd*- gallons per day; *mgd* – millions of gallons per day

a. Areas are based on the change (net increase or loss) of acreage resulting from the PMPU. Areas are also based on the overall land use category of the land to be developed or converted, not individual buildings. Development of the project sites will include parking areas as well as other non-wastewater generation land uses. By using the overall land use category, these estimates may overestimate the projected increase in wastewater generation.

b. City of Los Angeles 2006 – Appendix M.

3.2.16.3 Section 3.13.4.1.4, Solid Waste

Table 3.13-3. Predicted Solid Waste Generation

	Planning Area 1	*Planning Area 2*	*Planning Area 3*	*Planning Area 4*	*Total*
Net Development (acres)	0	24.3	274.4	40.6	339.30
Generation Factor*	0.372	0.372	0.372	0.372	0.372
Total Solid Waste (tons/year)	0	9.0	102.1	15.1	126.2
Total Solid Waste (tons/day)	0	0.025	0.280	0.041	0.346
Chiquita Canyon Landfill Permitted Throughput (tons/day)	6,000	6,000	6,000	6,000	6,000
Chiquita Canyon Landfill Permitted Throughput (Percent)	0.0	0.0004	0.0047	0.0007	0.0058
Sunshine Canyon Permitted Throughput (tons/day)	5,500	5,500	5,500	5,500	5,500
Sunshine Canyon Landfill Permitted Throughput (percent)	0.0	0.0005	0.0051	0.0008	0.0063

Source: *Solid waste generation for terminals provided by LAHD.

3.2.16.4 Section 3.13.4.3, Impacts and Mitigation

Impact UT-1: The proposed Program would not result in a substantial increase in wastewater flows that would exceed the wastewater treatment requirements of the Los Angeles RWQCB or the capacity of existing treatment facilities.

Planning Area 1

Construction

The proposed Program would designate Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. Conversion to a visitor-serving commercial use could involve upgrading plumbing at existing facilities and could require modifying existing wastewater systems and constructing new infrastructure to connect to new buildings. These activities would require temporary shutdown of the plumbing within the affected buildings as upgrades are implemented and would preclude use of these fixtures during this time. However, portable temporary facilities would be available for construction workers. Waste from such facilities would be hauled away and disposed of in accordance with Los Angeles RWCQB regulations. Construction associated with the proposed land use change would not result in increased wastewater flows that would exceed existing capacity.

Operations

Conversion of Warehouse No. 1 to a visitor-serving commercial use would result in no net change in wastewater generation compared to existing institutional uses (Table 3.13-2). Wastewater generated from the Warehouse No. 1 area would be conveyed to and treated at the TIWRP. Land use changes would not result in increased wastewater flows that would exceed existing capacity.

Impact UT-2: The proposed Program would not result in a substantial increase in water demand that would exceed the water supplies available from existing entitlements and resources, and new or expanded facilities or entitlements would not be required.

Planning Area 1

Construction

The proposed Program would designate Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. Conversion to a visitor-serving commercial use would use water for various purposes, such as dust suppression, mixing and pouring concrete, and other construction-related activities. Typically, the majority of water use during construction is associated with dust suppression during grading or trenching, which is generally performed by water trucks. Water usage during construction would be temporary and insubstantial and would not exceed the existing supply.

Operations

Conversion of Warehouse No. 1 to a visitor-serving commercial use would result in no net change in water use compared to existing institutional uses (Table 3.13-1). All proposed land use changes would be designed in accordance with LAHD's Green Building Policy, the City of Los Angeles Green LA Action Plan, and LAMC, ensuring implementation of water/energy efficiency designs and material reuse. Operation of the proposed land use change at Warehouse No. 1 would not result in increased water demand that would exceed the existing supply.

Impact UT-3: The proposed Program would not generate substantial surface runoff that would exceed the capacity of existing municipal storm drain systems.

Planning Area 1

Construction

The proposed Program would designate Warehouse No. 1 in Planning Area 1 as a mixed land use site that would allow institutional and/or visitor-serving commercial uses. Conversion to a visitor-serving commercial use would be managed in accordance with the project's construction SWPPP, prepared in compliance with CWA NPDES, to avoid flooding and uncontrolled runoff requirements (refer to Section 3.14, Water Quality, Sediments, and Oceanography for additional details). Stormwater runoff volumes from this site are not expected to exceed the capacity of storm drain systems.

Operations

Storm drains within the PMPU area have sufficient capacity to accommodate current demands and are designed to accommodate 10-year storm events. Storm drain improvements may be required on a project specific basis. The proposed Warehouse No. 1 land use change could require installation and expansion of stormwater drainage facilities necessary to accommodate stormwater runoff.

The proposed land use change in Planning Area 1 could result in minor changes in stormwater runoff volumes due to differences in site permeability. However, these differences would not be substantial and would not exceed the capacity of the existing storm drain systems.

The proposed land use change in Planning Area 1 would implement LID and LEED requirements that include design features for reducing impervious cover and increasing infiltration (e.g., through porous paving or other permeable surface), increasing evapotranspiration (e.g., by increased use of vegetation), and capturing, treating, and re-using stormwater runoff (e.g., through the use of bioswales, retention basins, and cisterns). Facilities would be constructed in accordance with the requirements of the Municipal Storm Water NPDES Permit (NPDES Permit No. CAS004001), SUSMP regulations, and LAMC requirements (e.g., LID), which specify similar design and operational measures to reduce runoff. These measures would reduce runoff from the Warehouse No. 1 area compared to baseline conditions.

Impact UT-4: The proposed Program would not result in an increase in solid waste generation due to project operations that would exceed the capacity of existing solid waste handling and disposal facilities.

Planning Area 1

Construction

Construction and demolition activities associated with the conversion Warehouse No. 1 in Planning Area 1 to a visitor-serving commercial use would generate debris including asphalt, concrete, building materials, and solids. In 2010, the LAHD achieved a 99 percent diversion rate for construction debris through its construction recycling program. Assuming similar diversion rates would be achieved for this land use change, the quantity of debris from construction and demolition that would require solid waste disposal would be relatively small and would not exceed the capacity of existing solid waste handling and disposal facilities.

In the event that unidentified hazardous materials are encountered during construction associated with the conversion of Warehouse No. 1 to a visitor-serving commercial use, LAHD would consider feasible recycling options. However, if recycling is not an option, disposal of hazardous materials at a Class I landfill would be in accordance with facility and hazardous material requirements.

Operations

The proposed land use change in Planning Area 1 is estimated to cause no net change in the generation of solid waste (Table 3.12-3). To ensure adequate long-term solid waste management, the proposed land use change would be required to comply with policies and standards set forth in the city's solid waste plans, including the city's Solid Waste IRP that is currently under preparation. The city is pursuing Zero-Waste solutions in the city, which could result in substantial reductions in solid waste disposal volumes, thereby preserving the capacity of existing landfills over an extended time period. Operation of the proposed land use change would also be

required to comply with applicable waste diversion requirements, as well as all existing hazardous waste laws and regulations.

Impact UT-5: The proposed Program would not require new, offsite energy supply and distribution infrastructure, or capacity-enhancing alterations to existing facilities that are not anticipated by adopted plans or programs.

Planning Area 1

Construction

Energy (diesel fuel and electricity) would be used during construction associated with the conversion of Warehouse No. 1 in Planning Area 1 to a visitor-serving commercial use. Energy expenditures during construction activities would be short-term, occurring periodically during project-specific construction phases. Construction associated with this land use change would not result in substantial waste or inefficient use of energy because construction would be competitively bid, which would facilitate efficiency in all construction stages. Current LAHD bid specifications include provisions to reduce energy consumption, such as staging work during non-peak hours when appropriate.

Operations

The land use change in Planning Area 1 would incorporate energy-efficient designs that are mandated by current building codes and LAHD policies (e.g., LEED, LAHD's Green Building Policy, the City of Los Angeles Green LA Action Plan, and LAMC). LAHD policies, such as LEED, aim to make construction and development projects more energy efficient. To accomplish this goal, LAHD has committed to design any new building over 7,500 square feet with a minimum LEED Gold or Silver certification, depending on the type of building. As such, energy efficiency standards would be incorporated into the improvements of Warehouse No. 1 to decrease energy demands. Additionally, any modifications to Warehouse No. 1 would incorporate energy conservation measures in compliance with CBC Title 24 that requires energy efficiency standards for additions, alterations, and repairs to nonresidential buildings.

3.2.17 Changes Made to Section 3.14, Water Quality, Sediments, and Oceanography

Section 3.14, Water Quality, Sediments, and Oceanography, was modified to evaluate potential impacts associated with designating Warehouse No. 1 in Planning Area 1 to a mixed land use site.

3.2.17.1 Section 3.14.4.3, Impacts and Mitigation

Impact WQ-1: The proposed Program would not cause violations of any water quality standard or waste discharge requirement, or create a condition of pollution, contamination or nuisance as defined in California Water Code §13050.

Planning Area 1

Construction

The only construction in Planning Area 1 would be potential structural upgrades of Warehouse No. 1 associated with a land use change from institutional to mixed use (institutional and/or visitor-serving commercial). Although the details of potential construction activities presently are unknown, it is not expected that they would involve any in-water work such as dredging or pile installation. Construction would require coverage under the General Construction Activities Storm Water Permit. The WDRs for stormwater runoff in the County of Los Angeles and incorporated cities covered under NPDES Permit No. CAS004001 (December 13, 2001) require implementation of runoff control from all construction sites. Preparation and implementation of a construction SWPPP would be required prior to the start of any construction activities, and construction contractors would be required to implement BMPs such as general site management, construction and waste materials management, erosion control, and sediment control to prevent/contain releases of soils and contaminants. Any accidental releases are expected to be small and result in temporary, localized impacts to water quality that would not violate water quality standards or adversely affect the beneficial uses of waters of the Port.

Operations

Operation of Warehouse No. 1 as a visitor-serving commercial facility would not result in any discharges other than stormwater runoff, which would be collected by the storm drain system and likely discharged to the harbor in quantities and at locations similar to existing conditions.

Impact WQ-2: The proposed Program would not result in placement of fill that substantially reduces or increases the amount of surface water in a water body.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 associated with changing Warehouse No. 1 from institutional to mixed use (institutional and/or visitor-serving commercial) would not involve placement of fill or other in-water construction work that would alter the surface water of the Port.

Operations

Operation of Warehouse No. 1 as a mixed use facility would not result in placement of fill or alter the surface water of the Port.

Impact WQ-3: The proposed Program would not result in placement of fill that causes permanent adverse changes to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

Planning Area 1

Construction

The proposed land use change in Planning Area 1 (associated with changing Warehouse No. 1 from institutional to mixed use (institutional and/or visitor-serving commercial) would not involve placement of fill or other in-water construction work that would alter water flow in the Port.

Operations

Operation of Warehouse No. 1 as a mixed use facility would not result in placement of fill or alter water flow in the Port.

Impact WQ-4: The proposed Program would not accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition which would not be contained or controlled onsite.

Planning Area 1

Construction

The only construction in Planning Area 1 would be potential structural improvements to Warehouse No. 1 associated with changing the land use from institutional to mixed use (institutional and/or visitor-serving commercial). Construction would require coverage under the General Construction Activities Storm Water Permit. The WDRs for stormwater runoff in the County of Los Angeles and incorporated cities covered under NPDES Permit No. CAS004001 (December 13, 2001) require implementation of runoff control from all construction sites. Preparation and implementation of a

construction SWPPP would be required prior to the start of any construction activities, and construction contractors would be required to implement BMPs such as general site management, construction and waste materials management, erosion control, and sediment control to prevent/contain releases of soils and contaminants.

Operations

Operation of Warehouse No. 1 as a visitor-serving commercial facility would not result in any conditions that would allow or promote erosion or sedimentation.

3.2.18 Changes Made to Chapter 4.0, Cumulative Analysis

3.2.18.1 Table 4.1-1, Related and Cumulative Projects

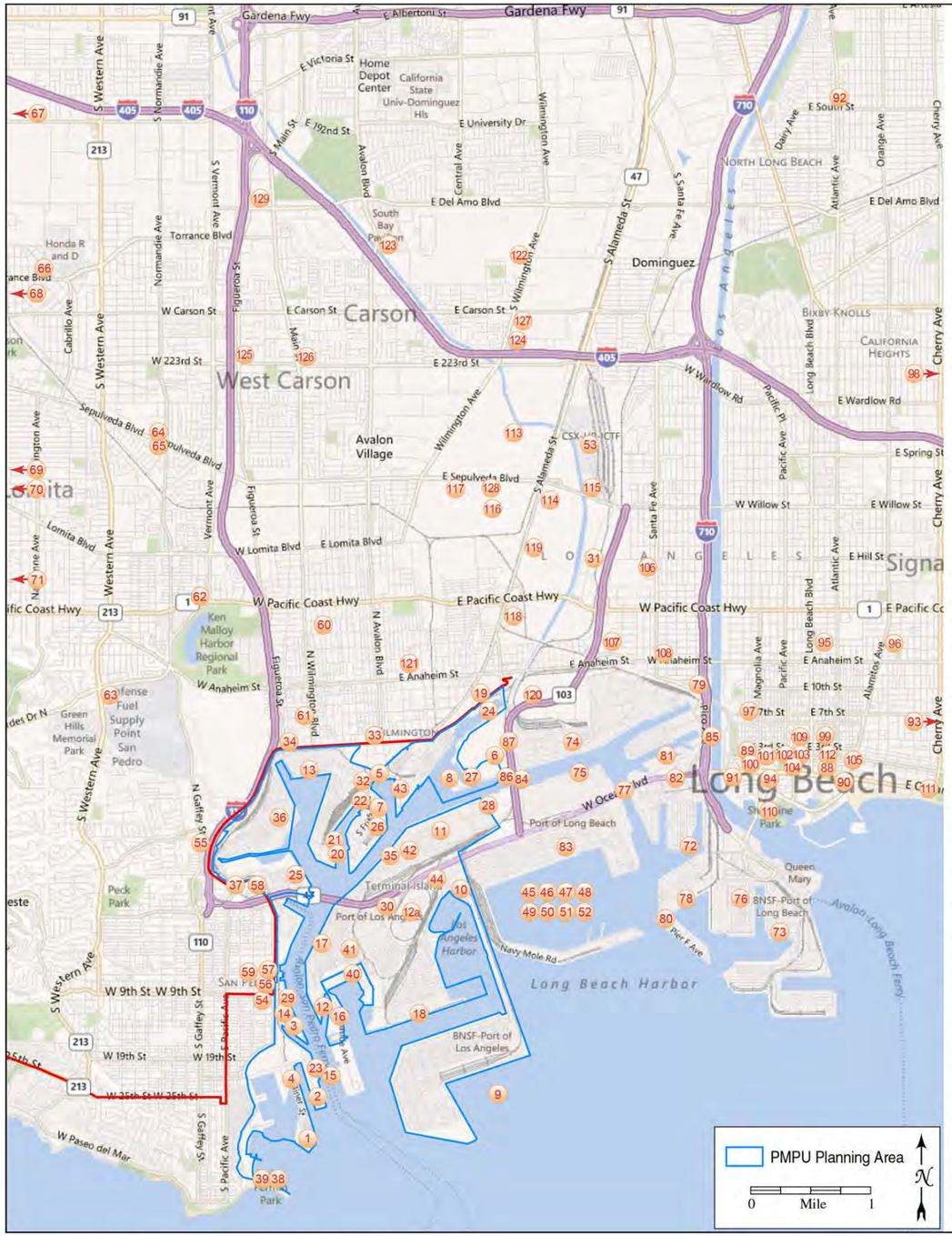
Table 4.1-1 was modified to include updates to the Final PMPU regarding the other project, Berths 212-224 Container Terminal Expansion, in Planning Area 3. This table was also updated to incorporate the additional other project, Relocation of ExxonMobil Storage Tanks, included in the Final PMPU.

Table 4.1-1. Related and Cumulative Projects

No. in Figure 4.1-1	*Project Title and Location*	*Project Description*	*Project Status*
Port of Los Angeles Projects			
11	~~Relocation of SA Recycling~~Berths 212-224 Container Terminal Expansion, Port of Los Angeles	This project would expand the existing container terminal at Berths 212-224 to the east. Depending on the operational scheme and acreage requirements for the container terminal expansion, the existing dry bulk facility at Berths 210-211 may be allowed to remain in its current location and potentially expand its operations. Should non-contiguous container operations prove not to be feasible, the existing dry bulk facility may require relocation to the east to allow for container uses immediately adjacent to the existing container operations. Break bulk uses are also included in the potential container terminal expansion.~~This project would relocate the existing 26-acre dry bulk facility currently located at Berths 210-211 eastward to a similar sized facility at Berths 206-207.~~	Conceptual planning stage.
12a	Relocation of ExxonMobil Storage Tanks, Port of Los Angeles	This project would relocate the existing ExxonMobil crude oil storage facility on Terminal Island to a site within the rail loop track.	Conceptual planning stage.

3.2.18.2 Figure 4.1-1, Location of Cumulative Projects

Figure 4.1-1 was modified to include updates to the Berths 212-224 Container Terminal Expansion Project (#11) and the Relocation of ExxonMobil Storage Tanks Project (#12a).



LEGEND

Port of Los Angeles Projects

1. Outer Harbor Cruise Terminal and Outer Harbor Park
2. City Dock No. 1 Marine Research Project
3. Ports O' Call Redevelopment
4. Cabrillo Way Marina, Phase II
5. Wilmington Waterfront Development Project
6. Anchorage Road Soil Storage Site (ARSSS) Open Space
7. Berths 176-181 Break Bulk Terminal Redevelopment
8. East Basin Marina Improvements
9. Pier 500
10. Trucking Support Center
11. Berths 212-224 Container Terminal Expansion
12. Relocation of Jankovich Marine Fueling Station

12a. Relocation of ExxonMobil Storage Tanks

13. Berths 136-147 Marine Terminal (TraPac)
14. San Pedro Waterfront Project
15. Channel Deepening Project
16. Al Larson Boat Shop Improvement Project
17. Berths 226-236 (Evergreen) Container Terminal Improvements Project
18. Berths 302-306 APL Container Terminal Project
19. ILWU Local 13 Dispatch Hall Project
20. SSA Marine Outer Harbor Fruit Facility Relocation
21. Crescent Warehouse Company Relocation
22. Ultramar Lease Renewal Project
23. Westway Decommissioning
24. Consolidated Slip Restoration Project
25. Berths 97-109, China Shipping Development Project
26. Berths 171-181, Pasha Marine Terminal Improvements Project
27. Wilmington Youth Sailing and Aquatic Center
28. Berths 206-209 Interim Container Terminal Reuse Project
29. San Pedro Waterfront Enhancements Project
30. Joint Container Inspection Facility
31. Southern California International Gateway Project (SCIG)
32. South Wilmington Grade Separation
33. Wilmington Waterfront Master Plan (Avalon Boulevard Corridor Project)
34. "C" Street/Figueroa Street Interchange
35. Berths 212-224 (YTI) Container Terminal Improvements Project
36. Berths 121-131 (Yang Ming) Container Terminal Improvements Project
37. John S. Gibson Blvd/I-110 Access Ramps and SR-47/I-110 Connector Improvement Program
38. Inner Cabrillo Beach Water Quality Improvement Program
39. Cabrillo Beach Pump Project (Tier III)
40. Fish Harbor Redevelopment
41. Terminal Island On-Dock Rail Redevelopment
42. Solar Panel Installation Program
43. WWL Vehicle Services Cargo Terminal

POLA and/or POLB Potential Port-Wide Operational Projects

44. Navy Way/Seaside Avenue Interchange
45. Terminal Free Time
46. Extended Terminal Gates (Pier Pass)
47. Shuttle Train/Inland Container Yard
48. Origin/Destination and Toll Study
49. Virtual Container Yard
50. Increased On-Dock Rail Usage
51. Optical Character Recognition
52. Truck Driver Appointment System

ICTF Joint Powers Authority

53. Union Pacific Railroad ICTF Modernization Project

Community Projects San Pedro

54. Pacific Corridors Redevelopment Project
55. Single Family Homes (Gaffey Street)
58. Mixed-Use Development, 281 W. 8th Street
59. Palos Verdes Urban Village
58. Temporary Little League Park
59. Centre Street Lofts

Community of Wilmington Projects

60. Distribution Center and Warehouse
61. Dana Strand Public Housing Development Project

Projects in Harbor City, Lomita, and Torrance

62. Kaiser Permanente South Bay Master Plan
63. Ponte Vista, 26900 Western Avenue (near Green Hills Park)
64. Warehouses, 1351 W. Sepulveda Blvd.
65. Sepulveda Industrial Park
66. Capellino & Associates 1104 Sartori Ave.

Projects in Harbor City, Lomita, and Torrance (continued)

67. Linda Francis 18900 Hawthorne Blvd.
68. Providence Health System 5215 Torrance Blvd.
69. Torrence Memorial Medical Center 3330 Lomita Blvd.
70. Continental Development 2843 Lomina Blvd.
71. Mark Sachs 2909 PCH

Port of Long Beach Projects

72. Middle Harbor Terminal Redevelopment
73. Piers G & J Terminal Redevelopment Project
74. Pier A East
75. Pier S Marine Terminal
76. Administration Building & Maintenance Facility Replacement Project
77. Gerald Desmond Bridge Replacement Project
78. Chemoil Marine Terminal, Tank Installation
79. Pier B Rail Yard Expansion
80. Mitsubishi Cement Corporation Facility Modifications
81. Eagle Rock Construction Aggregate Terminal Development
82. Cemera Long Beach Aggregate Terminal
83. TTI Grain Export Terminal Installation Project

Alameda Corridor Transportation Authority and Caltrans Projects

84. Schuyler Heim Bridge Replacement
85. I-710 (Long Beach Freeway) Corridor Project
86. Badger Avenue Bridge Expansion
87. SR-47 Expressway

City of Long Beach Projects

88. Shoreline Gateway Project
89. West Gateway Redevelopment Project
90. 2nd+PCH 6400 Pacific Coast Highway
91. Golden Shore Master Plan
92. North Village Center
93. Kroc Community Center
94. Hotel Sierra, 290 Bay Street
95. 1235 Long Beach Blvd., Mixed-Use Project
96. Douglas Park Rezone Project
97. Drake Chavez Park Expansion
98. 15th St. & Alamitos Ave. Open Space Development Intersection Improvements
99. City Place Lofts, 4th Street and Elm Avenue
100. Lyon West Gateway Residential Development, Broadway at Magnolia Ave. & 3rd St.
101. Pine-Pacific, bounded by Pine & Pacific Avenues, and 3rd & 4th Streets
102. Lofts at 3rd & Promenade
103. Broadway Block Development, Broadway
104. Hotel Esterel, Promenade at Broadway
105. Promenade Master Plan, between Shoreline Dr. & 5th Street
106. Admiral Kidd Park Expansion Site, Santa Fe at Willard
107. Everbright Paper Recycling Center
108. Westside Storm Drain Improvement Project
109. 495 Promenade North
110. 100 Aquarium Way
111. 2010 Ocean Blvd.
112. 600 E. Broadway

Wilmington/Carson Projects

113. BP Carson Refinery Safety, Compliance, and Optimization Project
114. Kinder Morgan Terminal Expansion
115. Chemoil Terminals Corporation
118. ConocoPhillips Refinery Tank Replacement Project
117. BP Logistics Project
118. Ultramar Inc., Olympic Tank Farm
119. WesPac Smart Energy Transport System Project
120. Tesoro Reliability Improvements and Regulatory Compliance Project
121. Warren Oil WTU Central Facility and New Equipment Project, 625 E. Anaheim St., Wilmington

City of Carson Projects

122. 20945 S. Wilmington Ave., CUP430-95
123. 770 E. Del Amo Blvd., DOR 831-03
124. 1950 E. 220th St., DOR 1324-09
125. 418 E. 223rd St., DOR 893-05
126. 22309 S. Main St., DOR 1305-09
127. 2000 E. Carson St., DOR 1300-08
128. 2000 E. Sepulveda Blvd., CUP 529-02
129. 20331 S. Main St., GPA 86-08; ZCC 160-08; DOR 1294-08

Figure 4.1-1. Location of Cumulative Projects

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3.2.18.3 Section 4.2.10.2, Cumulative Impact PS-2

The Cumulative Impact PS-2 impact statement was revised for consistency with the cumulative analysis conclusion.

Cumulative Impact PS-2: The proposed Program would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility to maintain service – Less than Cumulatively Considerable ~~with Mitigation~~

3.2.18.4 Section 4.2.12.1.1, Ground Transportation

Section 4.2.12.1.1, Ground Transportation, and Tables 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6 and 4.2.7 were updated to include proposed Program trips from Planning Area 1 and the analysis of two additional intersection analysis locations at Gaffey Street/1st Street and Harbor Boulevard/Swinford Street/SR-47 Ramps, and an additional freeway link location on the I-710 north of Florence Avenue. The additional freeway location was analyzed to in response to comments received from Caltrans on the Draft PEIR. Table 4.2-7 was also updated to clarify that the proposed Program would have a significant freeway impact during the A.M. peak hour on the I-710 between PCH and Willow Street, determined as part of the freeway analysis conducted to evaluate cumulatively considerable impacts. Additionally, Table 4.2-7 has been updated to show the results of the select zone freeway analysis that was completed in response to comments received from Caltrans on the Draft PEIR.

QuickTrip

The net differences in vehicle trips between the proposed Program and PMP are listed by planning area in Table 4.2-1. The proposed Program trip generation was determined by using the proposed Program's TEU projections, the QuickTrip outputs, and specific trip generation from non-container truck trips at Warehouse No. 1 (Planning Area 1) and Fish Harbor (Planning Area 4). The resultant proposed Program's daily trip generation is shown in Table 4.2-2, and its peak hour trip generation is shown in Table 4.2-3.

Table 4.2-2. Proposed Program Daily Trip Generation

		Autos		*Noncontainer Trucks*		*Bobtails*		*Chassis*		*Containers*		*Total Vehicles*
Planning Area	*Location*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	*In*	*Out*	
Planning Area 1: San Pedro	Warehouse No. 1	2,175	2,180	-	-	-	-	-	-	-	-	4,355
Planning Area 2: West Basin and Wilmington	Berths 100-131 (West Basin Container Terminal-Yang Ming-China Shipping)	170	135	-	-	135	125	70	5	295	390	1,325
Planning Area 3: Terminal Island	Berths 302-305 (APL-Eagle Marine Services)	410	335	-	-	415	385	150	25	840	1,040	3,600
Planning Area 4: Fish Harbor	Fish Harbor	-	-	25	25	-	-	-	-	-	-	50
	Total	**2,755 ~~580~~**	**2,650 ~~470~~**	**25**	**25**	**550**	**510**	**220**	**30**	**1,135**	**1,430**	**9,330 ~~4,975~~**

Table 4.2-3. Proposed Program Peak Hour Trip Generation (in Passenger Car Equivalents)

		A.M. Peak Hour			**M.D. Peak Hour**			**P.M. Peak Hour**		
Planning Area	*Location*	*In*	*Out*	*Total*	*In*	*Out*	*Total*	*In*	*Out*	*Total*
Planning Area 1: San Pedro	Warehouse No. 1	40	25	65	n/a	n/a	n/a	120	155	275
Planning Area 2: West Basin and Wilmington	Berths 100-131 (West Basin Container Terminal-Yang Ming-China Shipping)	70	55	125	65	65	130	45	70	115
Planning Area 3: Terminal Island	Berths 302-305 (APL-Eagle Marine Services)	185	165	350	175	185	360	125	165	290
Planning Area 4: Fish Harbor	Fish Harbor	10	10	20	10	10	20	10	10	20
	Total	**305 ~~265~~**	**255 ~~230~~**	**560 ~~495~~**	**250**	**260**	**510**	**300 ~~180~~**	**400 ~~245~~**	**700 ~~425~~**

Cumulative Impact TRANS-2: The proposed Program would not significantly impact at least one study location V/C ratios or level of service for long-term vehicular traffic - Less than Cumulatively Considerable

Contribution of the Proposed Program (Prior to Mitigation)

Tables 4.2-4 and 4.2-5 also show future operating conditions with the proposed Program. The proposed Program conditions were compared to CEQA baseline and the future without Program conditions to determine cumulative and cumulatively considerable impacts, and then the impacts were assessed using the significant impact criteria.

Table 4.2-4. Cumulative Intersection Level of Service Analysis – Year 2035 Proposed Program

#	Study Intersection	CEQA Baseline (2011)						2035 With Program						Changes in V/C			Cumulative Impact		
		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	A.M. Peak	M.D. Peak	P.M. Peak
		LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C						
1	Ocean Blvd (WB) / Terminal Island Fwy[b]	A	0.335	A	0.398	A	0.375	A	0.539	A	0.587	A	0.455	0.204	0.189	0.080	N	N	N
2	Ocean Blvd (EB) / Terminal Island Fwy[b]	A	0.215	A	0.379	A	0.348	A	0.497	A	0.543	A	0.454	0.282	0.164	0.106	N	N	N
3	Ocean Blvd (WB) / Pier S Ave[b]	A	0.266	A	0.313	A	0.341	A	0.563	A	0.547	A	0.433	0.297	0.234	0.092	N	N	N
4	Ocean Blvd (EB) / Pier S Ave[b]	A	0.209	A	0.364	A	0.340	A	0.393	A	0.538	A	0.454	0.184	0.174	0.114	N	N	N
5	Seaside Ave / Navy Way	A	0.427	A	0.316	A	0.541	Not an Intersection									N	N	N
6	Ferry St (Seaside Ave) / SR-47 Ramps[a]	A	0.112	A	0.244	A	0.142	A	0.404	A	0.484	A	0.379	0.292	0.240	0.237	N	N	N
7	Pico Ave / Pier B St / 9th St / I-710 Ramps[b]	A	0.435	A	0.519	A	0.499	D	0.846	E	0.921	B	0.622	0.411	0.402	0.123	N	N	N
8	Anaheim St / Harbor Ave[b]	A	0.453	A	0.455	A	0.560	B	0.688	C	0.712	B	0.649	0.235	0.257	0.089	N	N	N
9	Anaheim St / Santa Fe Ave[b]	A	0.473	A	0.508	A	0.578	B	0.679	B	0.671	C	0.781	0.206	0.163	0.203	N	N	N
10	Anaheim St / E I St / W 9th St[b]	A	0.501	A	0.525	A	0.529	D	0.853	D	0.848	C	0.795	0.352	0.323	0.266	N	N	N
11	Anaheim St / Farragut Ave[a]	A	0.277	A	0.228	A	0.286	A	0.351	A	0.285	A	0.360	0.074	0.057	0.074	N	N	N
12	Anaheim St / Henry Ford Ave[a]	A	0.300	A	0.416	A	0.560	C	0.742	C	0.792	D	0.867	0.442	0.376	0.307	Yes	Yes	Yes
13	Anaheim St / Alameda St[a]	A	0.361	A	0.325	A	0.468	A	0.596	A	0.486	C	0.746	0.235	0.161	0.278	N	N	Yes
14	Henry Ford Ave / Pier A Wy / SR-47/103 Ramps[a]	A	0.078	A	0.125	A	0.167	A	0.511	A	0.449	A	0.336	0.433	0.324	0.169	N	N	N
15	Harry Bridges Blvd / Broad Ave[a]	A	0.143	A	0.115	A	0.218	A	0.263	A	0.185	A	0.365	0.120	0.070	0.147	N	N	N
16	Harry Bridges Blvd / Avalon Blvd[a]	A	0.155	A	0.082	A	0.238	A	0.477	A	0.320	A	0.568	0.322	0.238	0.330	N	N	N
17	Harry Bridges Blvd / Fries Ave[a]	A	0.123	A	0.127	A	0.203	A	0.258	A	0.253	A	0.360	0.135	0.126	0.157	N	N	N
18	Harry Bridges Blvd / Neptune Ave[a]	A	0.053	A	0.028	A	0.127	A	0.150	A	0.100	A	0.280	0.097	0.072	0.153	N	N	N
19	Harry Bridges Blvd / Wilmington Blvd[a]	A	0.119	A	0.077	A	0.202	A	0.379	A	0.265	A	0.358	0.260	0.188	0.156	N	N	N
20	Harry Bridges Blvd / Figueroa St[a]	A	0.235	A	0.237	A	0.292	B	0.617	A	0.447	C	0.778	0.382	0.210	0.486	N	N	Yes
21	Pacific Coast Hwy / Alameda St Ramp[a]	A	0.505	A	0.411	A	0.561	A	0.512	A	0.461	C	0.716	0.007	0.050	0.155	N	N	Yes
22	Pacific Coast Hwy / Santa Fe Ave[b]	C	0.773	B	0.699	D	0.821	E	0.917	D	0.881	E	0.974	0.144	0.182	0.153	Yes	N	N
23	Pacific Coast Hwy / Harbor Ave[b]	B	0.628	B	0.603	C	0.733	C	0.735	C	0.765	E	0.900	0.107	0.162	0.167	N	N	N
24	Sepulveda Blvd / Alameda St Ramp[c]	B	0.679	A	0.484	B	0.612	A	0.486	A	0.514	B	0.617	-0.193	0.030	0.005	N	N	N
25	Intermodal Way / Sepulveda Blvd[c]	A	0.371	A	0.310	A	0.403	A	0.561	A	0.564	B	0.634	0.190	0.254	0.231	N	N	N
26	ICTF Driveway / Sepulveda Blvd[a]	A	0.193	A	0.369	A	0.425	A	0.425	A	0.446	A	0.512	0.232	0.077	0.087	N	N	N
27	Middle Rd / Sepulveda Blvd[a]	A	0.223	A	0.254	A	0.481	A	0.272	A	0.240	A	0.509	0.049	-0.014	0.028	N	N	N
28	Sepulveda Blvd / SR-103[b]	A	0.318	A	0.330	A	0.491	A	0.467	A	0.363	B	0.619	0.149	0.033	0.128	N	N	N
29	Alameda St / Henry Ford Ave[a]	A	0.057	A	0.183	A	0.207	A	0.247	A	0.298	A	0.230	0.190	0.115	0.023	N	N	N
30	Alameda St / Pacific Coast Hwy Ramp[a]	A	0.439	A	0.368	A	0.598	A	0.542	A	0.549	B	0.696	0.103	0.181	0.098	N	N	N
31	Alameda St / Sepulveda Boulevard Ramp[c]	A	0.389	A	0.463	A	0.588	D	0.802	D	0.848	C	0.717	0.413	0.385	0.129	N	N	N
32	Alameda St / 223rd St Ramp[c]	A	0.509	A	0.484	A	0.565	B	0.611	D	0.814	B	0.607	0.102	0.330	0.042	N	N	N
33	Alameda St Ramp / 223rd St[a]	A	0.342	A	0.504	C	0.758	A	0.388	C	0.726	D	0.854	0.046	0.222	0.096	N	Yes	Yes
34	I-405 SB Ramps / 223rd St[a]	A	0.379	A	0.319	A	0.435	A	0.447	A	0.467	A	0.473	0.068	0.148	0.038	N	N	N
35	Gaffey St/1st St	D	0.860	n/a	n/a	D	0.825	F	1.064	n/a	n/s	E	0.934	0.204	n/a	0.109	Yes	n/a	Yes
36	Harbor Blvd / Swinford St / SR-47 EB Ramp	A	0.307	n/a	n/a	A	0.331	A	0.549	n/s	n/s	B	0.659	0.243	n/a	0.328	N	n/a	N

Notes:
a. City of Los Angeles intersection, analyzed using CMA methodology according to city standards.
b. City of Long Beach intersection analyzed using ICU methodology according to city standards.
c. City of Carson intersection analyzed using ICU methodology according to city standards.

Table 4.2-5. Cumulatively Considerable Intersection Level of Service Analysis – Year 2035 Proposed Program

#	Study Intersection	2035 Without Program						2035 With Program						Changes in V/C			Cumulatively Considerable Impact		
		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak		M.D. Peak		P.M. Peak		A.M. Peak	M.D. Peak	P.M. Peak	A.M. Peak	M.D. Peak	P.M. Peak
		LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C						
1	Ocean Blvd (WB) / Terminal Island Fwy[b]	A	0.518	A	0.574	A	0.442	A	0.539	A	0.587	A	0.455	0.021	0.013	0.013	N	N	N
2	Ocean Blvd (EB) / Terminal Island Fwy[b]	A	0.472	A	0.530	A	0.441	A	0.497	A	0.543	A	0.454	0.025	0.013	0.013	N	N	N
3	Ocean Blvd (WB) / Pier S Ave[b]	A	0.548	A	0.530	A	0.425	A	0.563	A	0.547	A	0.433	0.015	0.017	0.008	N	N	N
4	Ocean Blvd (EB) / Pier S Ave[b]	A	0.404	A	0.528	A	0.444	A	0.393	A	0.538	A	0.454	-0.011	0.010	0.010	N	N	N
5	Seaside Ave / Navy Way	Not an Intersection															N	N	N
6	Ferry St (Seaside Ave) / SR-47 Ramps[a]	A	0.404	A	0.484	A	0.379	A	0.404	A	0.484	A	0.379	0.000	0.000	0.000	N	N	N
7	Pico Ave / Pier B St / 9th St / I-710 Ramps[b]	D	0.843	E	0.918	B	0.618	D	0.846	E	0.921	B	0.622	0.003	0.003	0.004	N	N	N
8	Anaheim St / Harbor Ave[b]	B	0.688	C	0.712	B	0.649	B	0.688	C	0.712	B	0.649	0.000	0.000	0.000	N	N	N
9	Anaheim St / Santa Fe Ave[b]	B	0.671	B	0.659	C	0.778	B	0.679	B	0.671	C	0.781	0.008	0.012	0.003	N	N	N
10	Anaheim St / E I St / W 9th St[b]	D	0.842	D	0.836	C	0.787	D	0.853	D	0.848	C	0.795	0.011	0.012	0.008	N	N	N
11	Anaheim St / Farragut Ave[a]	A	0.343	A	0.275	A	0.354	A	0.351	A	0.285	A	0.360	0.008	0.010	0.006	N	N	N
12	Anaheim St / Henry Ford Ave[a]	C	0.715	C	0.774	D	0.860	C	0.742	C	0.792	D	0.867	0.027	0.018	0.007	N	N	N
13	Anaheim St / Alameda St[a]	A	0.554	A	0.479	C	0.739	A	0.596	A	0.486	C	0.746	0.042	0.007	0.007	N	N	N
14	Henry Ford Ave / Pier A Wy / SR-47/103 Ramps[a]	A	0.500	A	0.444	A	0.331	A	0.511	A	0.449	A	0.336	0.011	0.005	0.005	N	N	N
15	Harry Bridges Blvd / Broad Ave[a]	A	0.247	A	0.165	A	0.353	A	0.263	A	0.185	A	0.365	0.016	0.020	0.012	N	N	N
16	Harry Bridges Blvd / Avalon Blvd[a]	A	0.460	A	0.300	A	0.557	A	0.477	A	0.320	A	0.568	0.017	0.020	0.011	N	N	N
17	Harry Bridges Blvd / Fries Ave[a]	A	0.245	A	0.238	A	0.345	A	0.258	A	0.253	A	0.360	0.013	0.015	0.015	N	N	N
18	Harry Bridges Blvd / Neptune Ave[a]	A	0.137	A	0.085	A	0.265	A	0.150	A	0.100	A	0.280	0.013	0.015	0.015	N	N	N
19	Harry Bridges Blvd / Wilmington Blvd[a]	A	0.363	A	0.246	A	0.340	A	0.379	A	0.265	A	0.358	0.016	0.019	0.018	N	N	N
20	Harry Bridges Blvd / Figueroa St[a]	B	0.617	A	0.447	C	0.767	B	0.617	A	0.447	C	0.778	0.000	0.000	0.011	N	N	N
21	Pacific Coast Hwy / Alameda St Ramp[a]	A	0.512	A	0.454	C	0.712	A	0.512	A	0.461	C	0.716	0.000	0.007	0.004	N	N	N
22	Pacific Coast Hwy / Santa Fe Ave[b]	E	0.917	D	0.859	E	0.956	E	0.917	D	0.881	E	0.974	0.000	0.022	0.018	N	N	N
23	Pacific Coast Hwy / Harbor Ave[b]	C	0.735	C	0.749	D	0.884	C	0.735	C	0.765	E	0.900	0.000	0.016	0.016	N	N	N
24	Sepulveda Blvd / Alameda St Ramp[c]	A	0.461	A	0.486	B	0.617	A	0.486	A	0.514	B	0.617	0.025	0.028	0.000	N	N	N
25	Intermodal Way / Sepulveda Blvd[c]	A	0.544	A	0.544	B	0.634	A	0.561	A	0.564	B	0.634	0.017	0.020	0.000	N	N	N
26	ICTF Drwy / Sepulveda Blvd[a]	A	0.411	A	0.430	A	0.504	A	0.425	A	0.446	A	0.512	0.014	0.016	0.008	N	N	N
27	Middle Rd / Sepulveda Blvd[a]	A	0.272	A	0.240	A	0.509	A	0.272	A	0.240	A	0.509	0.000	0.000	0.000	N	N	N
28	Sepulveda Blvd / SR-103[b]	A	0.467	A	0.361	B	0.616	A	0.467	A	0.363	B	0.619	0.000	0.002	0.003	N	N	N
29	Alameda St / Henry Ford Ave[a]	A	0.235	A	0.287	A	0.227	A	0.247	A	0.298	A	0.230	0.012	0.011	0.003	N	N	N
30	Alameda St / Pacific Coast Hwy Ramp[a]	A	0.533	A	0.544	B	0.692	A	0.542	A	0.549	B	0.696	0.009	0.005	0.004	N	N	N
31	Alameda St / Sepulveda Boulevard Ramp[c]	C	0.791	D	0.840	C	0.712	D	0.802	D	0.848	C	0.717	0.011	0.008	0.005	N	N	N
32	Alameda St / 223rd St Ramp[c]	A	0.596	C	0.796	B	0.600	B	0.611	D	0.814	B	0.607	0.015	0.018	0.007	N	N	N
33	Alameda St Ramp / 223rd St[a]	A	0.319	B	0.640	D	0.812	A	0.326	B	0.647	D	0.816	0.007	0.007	0.004	N	N	N
34	I-405 SB Ramps / 223rd St[a]	A	0.446	A	0.464	A	0.471	A	0.447	A	0.467	A	0.473	0.001	0.003	0.002	N	N	N
35	Gaffey St/1st St	F	1.063	n/a	n/a	E	0.930	F	1.064	n/a	n/s	E	0.934	0.001	n/a	0.004	N	n/a	N
36	Harbor Blvd / Swinford St / SR-47 EB Ramp	A	0.541	n/a	n/a	B	0.635	A	0.549	n/s	n/s	B	0.659	0.008	n/a	0.024	N	n/a	N

Notes:
a. City of Los Angeles intersection, analyzed using CMA methodology according to city standards.
b. City of Long Beach intersection analyzed using ICU methodology according to city standards.
c. City of Carson intersection analyzed using ICU methodology according to city standards.

Cumulative Impact TRANS-3: The proposed Program would not cause an increase in onsite employees due to operations, which would then result in a significant increase in public transit use - Less than Cumulatively Considerable

Contribution of the Proposed Program (Prior to Mitigation)

Although operation of the proposed appealable/fill projects would result in additional onsite employees, the increase in work-related trips using public transit would be negligible. Intermodal facilities generate extremely low transit demand for several reasons. The primary reason that workers generally would not use public transit is their work shift schedule. Most workers prefer to use a personal automobile to facilitate timely commuting, and in any case would live throughout the southern California region and generally not have convenient access to the few bus routes that serve the Port. Finally, parking at proposed appealable/fill project sites would be readily available and free for employees. Therefore, it is expected that fewer than ten work trips per day would be made on public transit, which could easily be accommodated by existing transit services and would not result in a demand for transit services which would exceed the supply of such services. Accordingly, the proposed Program would not make a cumulatively considerable contribution to a significant cumulative impact.

Planning Area 1, which would have a land use change for Warehouse No. 1, would have increased transit utilization as estimated using the 2010 *Los Angeles County Congestion Management Program Appendix D Guidelines for Transportation Impact Analysis*:

- Multiply total trips generated by 1.4 to convert vehicle trips to person trips; and,
- For each time period, multiply nine percent for the primarily commercial land uses within ¼ mile of the CMP transit corridor.

The resulting transit trip generation is 550 daily transit trips, in the A.M. peak hour 5 inbound and 3 outbound transit trips, and in the P.M. peak hour 15 inbound and 20 outbound transit trips.

Cumulative Impact TRANS-4: The proposed Program would result in operations that would cause increases considered significant for freeway congestion – Less than Cumulatively Considerable with Mitigation

Cumulative Impact TRANS-4 addresses the potential for the proposed Program when combined with past, present, and reasonably foreseeable future projects to result in significant increases in highway congestions.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Freeways in the region are affected by new projects that add traffic or change the distribution of traffic. Most of the related projects in Table 4.1-1 (e.g., Ports O'Call

Redevelopment (#3), Trucking Support Center (#10), Berths 226-236 (Evergreen) Container Terminal Improvements Project (#17, and Berths 121-131 (Yang Ming) Container Terminal Improvements Project (#36)) can be expected to add traffic to the freeway system. The effects were evaluated at the freeway monitoring stations listed below that likely would be affected by the proposed appealable/fill projects under the proposed Program:

- I-110 south of "C" Street (CMP Station 1045);
- SR-91 east of Alameda Street and Santa Fe Avenue (CMP Station 1033);
- I-405 at Santa Fe Avenue (CMP Station 1066);
- I-710 between Pacific Coast Highway and Willow Street (CMP Station 1078);
- I-710 between I-405 and Del Amo Boulevard (CMP Station 1079);
- I-710 between I-105 and Firestone Boulevard (CMP Station 1080);
- I-710 north of Florence Avenue;
- SR-47 at Vincent Thomas Bridge; and,
- SR 47 at Commodore Schuyler Heim Bridge.

Tables 4.2-6 and 4.2-7 show the expected volumes of traffic on those segments, a comparison of the CEQA baseline to 2035 With Program (i.e., with the related projects and other background growth) and 2035 Without Program. The past, present, and reasonably foreseeable future projects would add traffic to the freeway system and at the CMP monitoring stations, resulting in significant cumulative impacts to monitoring stations operating at LOS F or worse.

Table 4.2-6, summarizes future freeway operating conditions of the CEQA Baseline and the CEQA Baseline plus the proposed Program including the related projects in Table 4.1-1 at each study CMP location. A number of the study locations will operate at LOS D or E in the future. Cumulative impacts are shown to occur at ~~four~~ five locations; those locations are along the I-405 and I-710.

Table 4.2-6. Year 2035 Proposed Program Cumulative Freeway Analysis

Fwy.	*Location*	*Capacity*	*Northbound/Eastbound*								*Southbound/Westbound*							
			CEQA Baseline			*Year 2035 Future With Program*			*Δ D/C*	*Cum Imp*	*CEQA Baseline*			*Year 2035 Future With Program*			*Δ D/C*	*Cum Imp*
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*			*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*		
A.M. Peak Hour																		
I-110	Wilmington, s/o "C" St	8,000	4,375	0.55	C	5,0455,030	0.63	C	0.08	No	3,375	0.42	B	4,345315	0.54	B	0.12	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	6,060	0.51	B	8,715	0.73	C	0.22	No	10,660	0.89	D	8,905900	0.74	C	-0.15	No
I-405	Santa Fe Ave.	10,000	11,535	1.15	F(0)	9,900	0.99	E	-0.16	No	9,545	0.95	E	10,910	1.09	F(0)	0.14	Yes
I-710	n/o Jct Rte 1 (PCH), Willow St.	6,000	5,770	0.96	E	8,370	1.40	F(2)	0.44	Yes	6,690	1.12	F(0)	8,785	1.46	F(3)	0.3435	Yes
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	6,370	0.80	D	8,880	1.11	F(0)	0.31	Yes	7,805	0.98	E	9,975	1.25	F(0)	0.27	Yes
I-710	n/o Rte 105, n/o Firestone	8,000	8,175	1.02	F(0)	9,110	1.14	F(0)	0.12	Yes	9,285	1.16	F(0)	9,905	1.24	F(0)	0.08	Yes
I-710	n/o Florence Avenue	8,000	7,710	0.96	E	8,585	1.07	F(0)	0.11	Yes	8,760	1.10	F(0)	9,335	1.17	F(0)	0.07	Yes
SR-47	Vincent Thomas Bridge	4,000	2,445	0.61	C	3,690	0.92	D	0.31	No	2,100	0.53	B	3,050	0.76	C	0.2324	No
SR-47	Commodore Schuyler Heim Bridge	6,000	305	0.05	A	4,265	0.71	C	0.66	No	590	0.10	A	3,640	0.61	C	0.51	No
P.M. Peak Hour																		
I-110	Wilmington, s/o "C" St	8,000	2,490	0.31	A	4,825740	0.6059	C	0.2928	No	4,205	0.53	B	5,270180	0.6665	C	0.1312	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	8,925	0.74	C	10,525515	0.88	D	0.14	No	7,205	0.60	C	9,510500	0.79	D	0.19	No
I-405	Santa Fe Ave.	10,000	9,865	0.99	E	10,400	1.04	F(0)	0.05	Yes	11,160	1.12	F(0)	11,510	1.15	F(0)	0.03	Yes
I-710	n/o Jct Rte 1 (PCH), Willow St	6,000	5,950	0.99	E	7,220	1.20	F(0)	0.21	Yes	5,660	0.94	E	7,080	1.18	F(0)	0.24	Yes
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	7,740	0.97	E	9,140	1.14	F(0)	0.17	Yes	6,785	0.85	D	7,970	1.00	E	0.15	No
I-710	n/o Rte 105, n/o Firestone	8,000	9,120	1.14	F(0)	9,665660	1.21	F(0)	0.07	Yes	9,105	1.14	F(0)	9,520515	1.19	F(0)	0.05	Yes
I-710	n/o Florence Avenue	8,000	8,600	1.08	F(0)	9,105	1.14	F(0)	0.06	Yes	8,590	1.07	F(0)	8,975	1.12	F(0)	0.05	Yes
SR-47	Vincent Thomas Bridge	4,000	2,560	0.64	C	3,110	0.78	D	0.14	No	2,930	0.73	C	3,630	0.91	D	0.18	No
SR-47	Commodore Schuyler Heim Bridge	6,000	830	0.14	A	4,245	0.71	C	0.57	No	655	0.11	A	4,905	0.82	D	0.71	No

Table 4.2-7. Year 2035 Proposed Program Cumulatively Considerable Freeway Analysis

Fwy	*Location*	*Capacity*	*Northbound/Eastbound*								*Southbound/Westbound*							
			Year 2035 Future Without Program			*Year 2035 Future With Program*			*Δ D/C*	*Cum Con Imp*	*Year 2035 Future Without Program*			*Year 2035 Future With Program*			*Δ D/C*	*Cum Con Imp*
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*			*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*		
A.M. Peak Hour																		
I-110	Wilmington, s/o "C" St	8,000	4,985	0.62	C	5,045~~030~~	0.63	C	0.01	No	4,275	0.53	B	4,345~~315~~	0.54	B	0.01	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	8,710	0.73	C	8,715	0.73	C	0.00	No	8,900	0.74	C	8,905~~900~~	0.74	C	0.00	No
I-405	Santa Fe Ave	10,000	9,900	0.99	E	9,900	0.99	E	0.00	No	10,905	1.09	F(0)	10,910	1.09	F(0)	0.00	No
I-710	n/o Jct Rte 1 (PCH), Willow St	6,000	8,275	1.38	F(2)	8,370	1.40	F(2)	0.02	~~No~~Yes	8,685	1.45	F(2)	8,785	1.46	F(3)	0.01~~02~~	No
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	8,780	1.10	F(0)	8,880	1.11	F(0)	0.01	No	9,880	1.24	F(0)	9,975	1.25	F(0)	0.01	No
I-710	n/o Rte 105, n/o Firestone	8,000	9,035	1.13	F(0)	9,110	1.14	F(0)	0.01	No	9,835	1.23	F(0)	9,905	1.24	F(0)	0.01	No
I-710	n/o Florence Avenue	8,000	8,520	1.07	F(0)	8,585	1.07	F(0)	0.00	No	9,270	1.16	F(0)	9,335	1.17	F(0)	0.01	No
SR-47	Vincent Thomas Bridge	4,000	3,640	0.91	D	3,690	0.92	D	0.01	No	3,010	0.75	C	3,050	0.76	C	0.01	No
SR-47	Commodore Schuyler Heim Bridge	6,000	4,170	0.70	C	4,265	0.71	C	0.01~~02~~	No	3,545	0.59	C	3,640	0.61	C	0.02	No
*Supplemental Select Zone Analysis Locations**			*Max Project Increment Before Significant Impact*			*Project Increment*			*Δ D/C*	*Cum Con Imp*	*Max Project Increment Before Significant Impact*			*Project Increment*			*Δ D/C*	*Cum Con Imp*
I-405	n/o I-110	10,000	150			5			0.00	No	150			15			0.00	No
SR-91	e/o Lakewood Blvd	10,000	150			15			0.00	No	150			25			0.00	No
SR-60	e/o Jct 605	12,000	180			10			0.00	No	180			10			0.00	No
I-105	e/o Bellflower Bl, w/o I-605	8,000	120			10			0.00	No	120			10			0.00	No
I-110	Manchester Bl	12,000	180			25			0.00	No	180			30			0.00	No
I-605	n/o Telegraph Rd	10,000	150			25			0.00	No	150			30			0.00	No
I-710	s/o SR-60	8,000	120			5			0.00	No	120			5			0.00	No
P.M. Peak Hour																		
I-110	Wilmington, s/o "C" St	8,000	4,690	0.59	C	4,825~~4,740~~	0.60~~59~~	C	0.01	No	5,150	0.64	C	5,270~~5,180~~	0.66~~65~~	C	0.02~~00~~	No
SR-91	e/o Alameda Street/Santa Fe Ave	12,000	10,510	0.88	D	10,515	0.88	D	0.00	No	9,500	0.79	D	9,500	0.79	D	0.00	No
I-405	Santa Fe Ave	10,000	10,400	1.04	F(0)	10,400	1.04	F(0)	0.00	No	11,505	1.15	F(0)	11,510	1.15	F(0)	0.00	No

Table 4.2-7. Year 2035 Proposed Program Cumulatively Considerable Freeway Analysis

Fwy	*Location*	*Capacity*	*Northbound/Eastbound*								*Southbound/Westbound*							
			Year 2035 Future Without Program			*Year 2035 Future With Program*			Δ *D/C*	*Cum Con Imp*	*Year 2035 Future Without Program*			*Year 2035 Future With Program*			Δ *D/C*	*Cum Con Imp*
			Demand	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*			*Demand*	*D/C*	*LOS*	*Demand*	*D/C*	*LOS*		
I-710	n/o Jct Rte 1 (PCH), Willow St	6,000	7,145	1.19	F(0)	7,220	1.20	F(0)	0.01	No	7,015	1.17	F(0)	7,080	1.18	F(0)	0.01	No
I-710	n/o Jct Rte 405, s/o Del Amo	8,000	9,055	1.13	F(0)	9,140	1.14	F(0)	0.01	No	7,910	0.99	E	7,970	1.00	E	0.01	No
I-710	n/o Rte 105, n/o Firestone	8,000	9,605	1.20	F(0)	9,665~~660~~	1.21	F(0)	0.01	No	9,475	1.18	F(0)	9,520~~515~~	1.19	F(0)	0.01	No
I-710	n/o Florence Avenue	8,000	9,060	1.13	F(0)	9,110	1.14	F(0)	0.01	No	8,940	1.12	F(0)	8,980	1.12	F(0)	0.00	No
SR-47	Vincent Thomas Bridge	4,000	3,070	0.77	C	3,110	0.78	D	0.01	No	3,585	0.90	D	3,630	0.91	D	0.01	No
SR-47	Commodore Schuyler Heim Bridge	6,000	4,170	0.70	C	4,245	0.71	C	0.01	No	4,855	0.81	D	4,905	0.82	D	0.01	No
*Supplemental Select Zone Analysis Locations**			*Max Project Increment Before Significant Impact*			*Project Increment*			Δ *D/C*	*Cum Con Imp*	*Max Project Increment Before Significant Impact*			*Project Increment*			Δ *D/C*	*Cum Con Imp*
I-405	n/o I-110	10,000	150			20			0.00	No	150			15			0.00	No
SR-91	e/o Lakewood Blvd	10,000	150			25			0.00	No	150			10			0.00	No
SR-60	e/o Jct 605	12,000	180			10			0.00	No	180			5			0.00	No
I-105	e/o Bellflower Bl, w/o I-605	8,000	120			10			0.00	No	120			10			0.00	No
I-110	Manchester Bl	12,000	180			50			0.00	No	180			50			0.00	No
I-605	n/o Telegraph Rd	10,000	150			25			0.00	No	150			15			0.00	No
I-710	s/o SR-60	8,000	120			10			0.00	No	120			0			0.00	No

Note: *Full impact analysis not performed for these locations; instead, the maximum project increment before the increment becomes a significant impact was calculated for each location and compared to the project increment shown on the Select Zone Analysis.

Contribution of the Proposed Program (Prior to Mitigation)

As prescribed in the *Guide For The Preparation of Traffic Impact Studies* (Caltrans 2002) for general plan amendments/updates, the general plan update is to be compared to the current general plan. The Port's PMP serves as the City of Los Angeles' long-term area plan for the Port district, similar to a City of Los Angeles Community Plan component of the General Plan. Hence, the LOS results shown in the Draft PEIR (Table 4.2-7) represent the required Caltrans traffic analysis scenario, which compared the PMPU with the existing PMP. However, to ensure full compliance with CEQA, baseline traffic conditions with the PMPU have also been analyzed.

Table 4.2-7 compares the future 2035 Without Program (CEQA baseline plus related projects) to the proposed Program at each CMP location in order to determine if there is a cumulatively considerable impact. The analysis shows that the proposed Program would cause an increase of 0.02 or more of the D/C ratio at one ~~freeway link~~ location~~s~~ ~~-~~operating at LOS F or worse, I-710 between PCH and Willow, and, therefore would cause a CMP location to experience a cumulatively considerable impact by exceeding the threshold of significance.

The I-710 Corridor Project Recirculated Draft EIR/EIS (Caltrans and LACMTA 2012) is currently being prepared, and will identify improvements to the corridor to accommodate all future year (2035) regional traffic, including Year 2035 Port and Port of Long Beach traffic. As such, the I-710 Corridor Project EIS/EIR would address traffic impacts of the overall Port area and regional growth on I-710 corridor, which encompasses the significant impact determined as part of this analysis for the proposed Program. The LAHD contributed $5 million for the PA/ED phase, and participates directly and extensively by providing technical guidance/input for preliminary engineering; the Administrative, Draft, and Final EIR/EIS; and the Caltrans Project Report. This input also is provided on all technical studies, including but not limited to: air quality, transportation, goods movement, rail/intermodal, and alternative technology. For these studies, the LAHD provided all Port and Port of Long Beach traffic volumes for direct incorporation into the I-710 Corridor Project EIR/EIS model (which is a focus model of the SCAG RTP model). These projections are consistent with the PMPU Draft PEIR analyses. Additionally, the Port and Port of Long Beach jointly conducted several alternative technology (ZECMS) studies which guided the I-710 Corridor Project EIR/EIS studies, and ultimately led to the recommendation of a separate truckway with zero emission technology.

Mitigation Measures and Cumulative Residual Impacts

The proposed Program would make a cumulatively considerable contribution to a significant cumulative impact if future improvements to the I-710 corridor are not accomplished as expected. ~~**MM TRANS-1** would require the Port to collaborate with Caltrans and Metro to secure funding and ensure timely implementation of the I-710 Corridor project by 2035 to alleviate future Port area and regional traffic growth on the I-710. Implementation of this measure would reduce cumulative freeway segment impacts to be less than cumulatively significant.~~

This PEIR determined that development of the proposed appealable/fill projects and land use changes under the PMPU, in aggregate, would have a potential significant cumulative impact at one location that is undergoing detailed design-level analysis as part of the I-710 Corridor Project Recirculated Draft EIR/EIS. Given that the I-710 Corridor Project EIR/EIS is still in development, along with the associated specific freeway and arterial street improvement projects, it would be inappropriate and infeasible at present to identify alternative Program-level specific mitigation measures. This is because such measures could be in conflict with the needs of the agency partners while those agencies are collaborating on detailed planning and design of the I-710 Corridor Project. Furthermore, it is possible that the degradation of operating conditions on the I-710 attributable to the PMPU could be ameliorated by implementation of the I-710 Corridor Project.

Furthermore, the proposed appealable/fill projects under the PMPU are in preliminary planning stages; therefore, it is not possible at present to accurately describe or predict particular alternative infrastructure improvements which would be both feasible and effective at avoiding or reducing any significant freeway traffic impacts of any particular development projects or land use changes under the proposed Program. This is because the type of development, timing of development, and conditions at the time in which development would occur are not currently known. Therefore, as future planning efforts occur for the proposed appealable/fill projects and development resulting from land use changes under the PMPU, separate environmental documentation with detailed traffic analyses would be prepared, if required under CEQA, to determine specific impacts associated with proposed development and mitigation would be applied, as necessary and as feasible.

Accordingly, although implementation of the I-710 Corridor Project is beyond the LAHD's authority, although project-specific mitigation funding for the I-710 Corridor Project is not currently feasible, and although it is premature to identify alternative infrastructure improvements which could feasibly mitigate significant traffic impacts of development under the PMPU, the following measure would be implemented, as required under CEQA, for the proposed appealable/fill projects and land use changes under the proposed Program which are determined to cause a significant freeway impact to the I-710.

MM TRANS-1: I-710 Corridor Improvements. Project-specific environmental documentation would be completed for projects occurring under the PMPU to determine project-specific impacts to the I-710. For significantly impacted locations determined in subsequent project-specific environmental documents, LAHD would collaborate with Caltrans and other agencies to identify how potential regional infrastructure improvements are funded. If the I-710 Corridor Project is not yet approved or has been abandoned at the time of consideration of future project-specific approvals under the PMPU, subsequent environmental documents for such development will evaluate whether alternative infrastructure improvements would be both feasible and necessary to mitigate any potential significant impacts of such projects.

Given that the impact is limited to one freeway location, and considering the implementation of reasonably foreseeable projects (those approved or proposed), and the implementation of mitigation measures related to future project-specific

environmental documents, cumulative freeway segment impacts would be reduced to less than cumulatively significant.

3.2.19 Changes Made to Chapter 5.0, Program Alternatives

Section 5.2, Alternative 1 – No-Program Alternative, and Section 5.3, Alternative 2 – No Fill Alternative, were revised for consistency with the alternatives analysis conclusions.

3.2.19.1 Section 5.2.2.2, Air Quality and Greenhouse Gases

The No-Program Alternative would include future projects constructed and operated under the existing PMP that would be expected to generate a range of significant project-specific and cumulative air quality impacts. However, these impacts would be similar but slightly less than ~~to~~ those associated with the PMPU, as evaluated in Section 3.2, Air Quality and Greenhouse Gases, and other projects evaluated in Chapter 4.0, Cumulative Analysis. Differences between the No-Program and proposed Program alternatives would be associated with emissions from construction and operation of appealable/fill projects and land use changes under the PMPU, although it is possible that projects similar to the PMPU appealable/fill projects could occur in the future, under an amended PMP scenario, and result in impacts comparable to those described for the proposed Program. Therefore, under the No-Program Alternative, no new impacts would occur beyond those that presently exist under the PMP.

3.2.19.2 Section 5.2.2.3, Biological Resources

Under the No-Program Alternative, future projects constructed and operated under the existing PMP would be expected to result in significant project-specific and cumulative impacts to biological resources. These impacts would be similar but slightly less than ~~to~~ those associated with the PMPU, as evaluated in Section 3.3, Biological Resources, and other projects evaluated in Chapter 4.0, Cumulative Analysis. Differences between the No-Program and proposed Program alternatives would be associated with the appealable/fill projects and land use changes under the PMPU. In particular, the No-Program Alternative would not result in the loss of EFH and marine habitat due to project-related fills, although it is possible that projects similar to the PMPU appealable/fill projects could occur in the future, under an amended PMP scenario, and result in impacts comparable to those described for the proposed Program.

3.2.19.3 Section 5.2.2.9, Noise

Under the No-Program Alternative, noise and vibration impacts from construction and operation of future projects under the PMP would be similar but slightly less than~~to~~ those described for the proposed Program. Given the absence of project-specific details to assess the potential magnitude of these impacts, this analysis concludes that construction activities under the No-Program Alternative would have the potential to result in significant noise impacts. Residual impacts would depend on

project-specific factors; however, noise impacts during construction would be significant and unavoidable. Operation of future projects under the No-Program Alternative would not result in a substantial change in the noise environment within the PMPU area or result in vibration that exceeds thresholds. Regardless, under the No-Program Alternative, no new impacts to noise would occur beyond those that presently exist under the PMP.

3.2.19.4 Section 5.3.2.2, Air Quality and Greenhouse Gases

Under the No Fill Alternative, appealable projects other than the cut/fill projects and associated land use changes included in the proposed Program would generate a variety of project-specific and cumulative air quality impacts that would be similar but slightly less than~~to~~ those for the proposed Program and other projects evaluated in Chapter 4.0, Cumulative Analysis.

3.2.19.5 Section 5.3.2.9, Noise

Under the No Fill Alternative, impacts would be slightly less than those described for the proposed Program. This is because the cut/ fill projects and associated land use changes that are included in the proposed Program would not occur~~The No Fill Alternative would involve four appealable projects, but no cut/fill projects~~. Compared to the proposed Program, this would reduce the potential for construction-related noise impacts. Nevertheless, as for the proposed Program, construction activities would likely involve noise levels that exceed standards at sensitive receptors, and impacts would be significant. Similar to the proposed Program, implementation of mitigation measures (**MM NOI-1 through MM NOI-11**) would be required during construction activities. Residual impacts would depend on project-specific factors; however, noise impacts during construction would be significant and unavoidable. Operation of allowable projects under the No-Program Alternative would not result in a substantive change in the noise environment within the PMPU area. Therefore, noise impacts from operations would be less than significant. Construction activities under the No Fill Alternative would not result in vibration that exceeds thresholds.

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3.2.21 Changes Made to Appendix A, Draft Port Master Plan Update

A summary of the changes made to Draft PMPU is provided below. Revisions to the Draft PMPU that directly correspond to changes to the Draft PEIR are presented in this chapter. The Final PMPU is included in Appendix A, Port Master Plan, of this Final PEIR.

The key changes to the Draft PMPU include:

- Clarification of the PMPU Goals;
- Inclusion of additional PMPU land use examples;
- Clarification of public access infrastructure and programs at the Port;
- Modification of PMPU land use designations and boundaries;
- Clarification of land use acreages for the PMPU planning areas; and,
- Clarification of an existing and inclusion of an additional other project.

3.2.22 Changes Made to Appendix D, Air Quality

Appendix D, Air Quality, was modified to include the air quality emission calculations associated with construction and operation of Warehouse No. 1 as a mixed land use site.

Appendix D Table of Contents - Air Emissions Calculations for the POLA PMPU PFEIR

Table D-1. Increases in Auto Daily VMT by Speed Category for Planning Area 1 - POLA PMPU
Table D-2. On-Road Auto Emission Factors - POLA PMPU Project
Table D-3. Daily Auto Emissions - Planning Area 1 - POLA PMPU
Table D-4. Operational Emissions from CalEEMod - Year 2025 - Full Build-out of PMPU Planning Area 1
Table D-5. Unmitigated Peak Daily Operational Emissions - Year 2025 - Full Build-out of PMPU Planning Area 1
Table D-6. Unmitigated Annual GHG Emissions - Year 2025 - Full Build-out of PMPU Planning Area 1

Table D-1. Increases in Auto Daily VMT by Speed Category for Planning Area 1 - POLA PMPU

Speed	*Autos*
0-10	1
11-15	261
16-20	855
21-25	3,668
26-30	3,387
31-35	2,168
36-40	1,924
41-45	1,594
46-50	1,161
51-55	521
56-60	249
61-65	96
Total Daily VMT	**15,888**

Table D-2. On-Road Auto Emission Factors - POLA PMPU Project

	Emission Factors (Grams/Mile)											
Project Year/Mode	*VOC*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*	*Dust PM10*	*Dust PM2.5*	*Total PM10*	*Total PM2.5*	*CO2*	*References*
Year 2025												
5	0.09	1.51	0.13	0.01	0.01	0.01	0.02	0.01	0.03	0.02	1,106	(1)
10	0.06	1.29	0.11	0.01	0.01	0.01	0.02	0.01	0.03	0.01	819	(1)
15	0.03	1.04	0.09	0.01	0.00	0.00	0.02	0.01	0.02	0.01	503	(1)
20	0.02	0.95	0.08	0.01	0.00	0.00	0.02	0.01	0.02	0.01	418	(1)
25	0.02	0.87	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	359	(1)
30	0.01	0.81	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	321	(1)
35	0.01	0.77	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	299	(1)
40	0.01	0.71	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	287	(1)
45	0.01	0.66	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	287	(1)
50	0.01	0.62	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	296	(1)
55	0.01	0.58	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	315	(1)
60	0.01	0.56	0.07	0.01	0.00	0.00	0.02	0.01	0.02	0.01	351	(1)
65	0.02	0.69	0.09	0.01	0.00	0.00	0.02	0.01	0.02	0.01	384	(1)

Notes: (1) From EMFAC2011 (ARB 2011) for SCAB average fleet and year 2020.

Table D-3. Daily Auto Emissions - Planning Area 1 - POLA PMPU

	Pounds per Day											
Year/Speed	VOC	CO	NOx	SOx	PM10	PM2.5	Dust PM10	Dust PM2.5	Total PM10	Total PM2.5	CO2	CO2 TPY
Year 2025												
0-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	0.44
10-15	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	472	64.39
15-20	0.1	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	949	129.60
20-25	0.2	7.7	0.6	0.1	0.0	0.0	0.2	0.1	0.2	0.1	3,377	461.02
25-30	0.1	6.5	0.5	0.1	0.0	0.0	0.2	0.1	0.2	0.1	2,683	366.18
30-35	0.0	3.9	0.3	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1,533	209.27
35-40	0.0	3.3	0.3	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1,267	172.92
40-45	0.0	2.5	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1,010	137.93
45-50	0.0	1.7	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0	735	100.33
50-55	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	340	46.44
55-60	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	173	23.63
60-65	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74	10.15
Subtotal	**0.6**	**29.4**	**2.6**	**0.4**	**0.1**	**0.1**	**0.7**	**0.2**	**0.8**	**0.3**	**12,618**	**1,722**

Table D-4. Operational Emissions from CalEEMod - Year 2025 - Full Build-out of PMPU Planning Area 1

	Tons per Year						
Scenario/Emission Source	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO2e
Proposed							
Area	0.49	-	-	-	-	-	-
Energy	-	0.01	0.01	-	-	-	462
Waste					-	-	49
Water					-	-	51
Total - TPY	**0.49**	**0.01**	**0.01**	**-**	**-**	**-**	**561**
Proposed							
Area	2.7	-	-	-	-	-	
Energy	-	0.1	0.1	-	-	-	
Waste	-	-	-	-	-	-	
Water	-	-	-	-	-	-	
Total - PPD	**2.7**	**0.1**	**0.1**	**-**	**-**	**-**	

Table D-5. Unmitigated Peak Daily Operational Emissions - Year 2025 - Full Build-out of PMPU Planning Area 1

	Pounds per Day					
Scenario/Emission Source	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Container Cargo						
Area	2.7	-	-	-	-	-
Energy	-	0.1	0.1	-	-	-
Waste	-	-	-	-	-	-
Water	-	-	-	-	-	-
User Vehicles	0.6	29.4	2.6	0.4	0.8	0.3
Total - Planning Area 1	**0.6**	**29.4**	**2.6**	**0.4**	**0.8**	**0.3**

Table D-6. Unmitigated Annual GHG Emissions - Year 2025 - Full Build-out of PMPU Planning Area 1

Activity/Emission Source	*Total Emissions (Metric Tons)*				
	CO_2	*CH_4*	*N_2O*	*HFC-134*	*CO2e*
Construction					
Construction - 30-Year Average					11.98
Operations					
Area					-
Energy					462
Waste					49
Water					51
User Vehicles					1,722
Total Operations					**2,284**
Total - Planning Area 1					**2,296**

CalEEMod Version: CalEEMod.2011.1.1 Date: 5/30/2013

Strip Mall

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Strip Mall	102	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Southern California Edison
Climate Zone	9		2.2		
		Precipitation Freq (Days)			
			33		

1.3 User Entered Comments

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment -

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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	1.06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.18				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2011	0.12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2012	1.06					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.18				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	#	#	0.00	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	#	#	#####	0.02	0.01	462.21
Mobile	2.51	5.85	####	0.05	5.13	0.29	5.42	0.08	0.28	0.36	#	#	####	0.16	0.00	#######
Waste						0.00	0.00		0.00	0.00	#	#	####	1.28	0.00	48.72
Water						0.00	0.00		0.00	0.00	#	#	####	0.23	0.01	50.55
Total	3.00	5.86	22.29	0.05	5.13	0.29	5.42	0.08	0.28	0.36	21.74	4,610.06	4,631.80	1.69	0.02	4,671.91

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	459.33	459.33	0.02	0.01	462.21
Mobile	2.51	5.85	22.28	0.05	5.13	0.29	5.42	0.08	0.28	0.36	0.00	4,107.07	4,107.07	0.16	0.00	4,110.43
Waste						0.00	0.00		0.00	0.00	21.74	0.00	21.74	1.28	0.00	48.72
Water						0.00	0.00		0.00	0.00	0.00	43.66	43.66	0.23	0.01	50.55
Total	3.00	5.86	22.29	0.05	5.13	0.29	5.42	0.08	0.28	0.36	21.74	4,610.06	4,631.80	1.69	0.02	4,671.91

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5.0 Energy Detail

5.2 Energy by Land Use - Natural Gas

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	450.08	450.08	0.02	0.01	452.90
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	450.08	450.08	0.02	0.01	452.90
NaturalGas Mitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31
NaturalGas Unmitigated	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.1 Mitigation Measures Energy

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Strip Mall	173400	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31
Total		0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Strip Mall	173400	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31
Total		0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00	0.00	9.25	9.25	0.00	0.00	9.31

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Strip Mall	1.54734e+006					450.08	0.02	0.01	452.90
Total						**450.08**	**0.02**	**0.01**	**452.90**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Strip Mall	1.54734e+006					450.08	0.02	0.01	452.90
Total						**450.08**	**0.02**	**0.01**	**452.90**

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6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.12					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.12					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.37					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.49	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					43.66	0.23	0.01	50.55
Unmitigated					43.66	0.23	0.01	50.55
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Strip Mall	7.5554 / 4.63073					43.66	0.23	0.01	50.55
Total						**43.66**	**0.23**	**0.01**	**50.55**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Strip Mall	7.5554 / 4.63073					43.66	0.23	0.01	50.55
Total						**43.66**	**0.23**	**0.01**	**50.55**

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8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					21.74	1.28	0.00	48.72
Unmitigated					21.74	1.28	0.00	48.72
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Strip Mall	107.1					21.74	1.28	0.00	48.72
Total						**21.74**	**1.28**	**0.00**	**48.72**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Strip Mall	107.1					21.74	1.28	0.00	48.72
Total						**21.74**	**1.28**	**0.00**	**48.72**

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3.2.23 Changes Made to Appendix F, Ground Transportation

Appendix F, Ground Transportation, was modified to include Figure F-1 and Figure F-2 that show the results of the select zone freeway analysis. This appendix was also updated to include the additional analysis sheets for the two new intersection analysis locations (i.e., Gaffey Street/1st Street and Harbor Blvd/Swinford Street/ SR-47 Ramps).

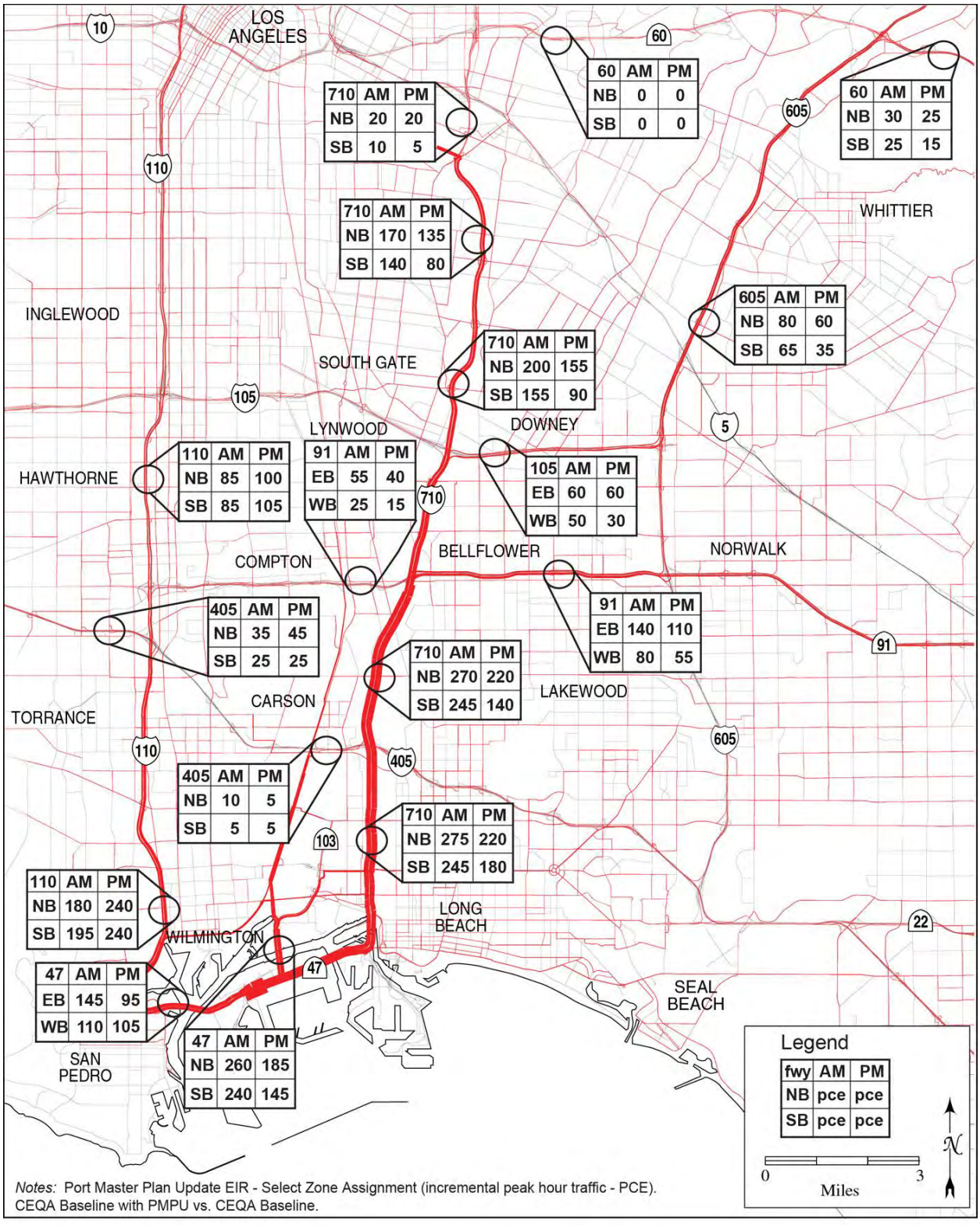

Figure F-1. Proposed Program Select Zone Analysis

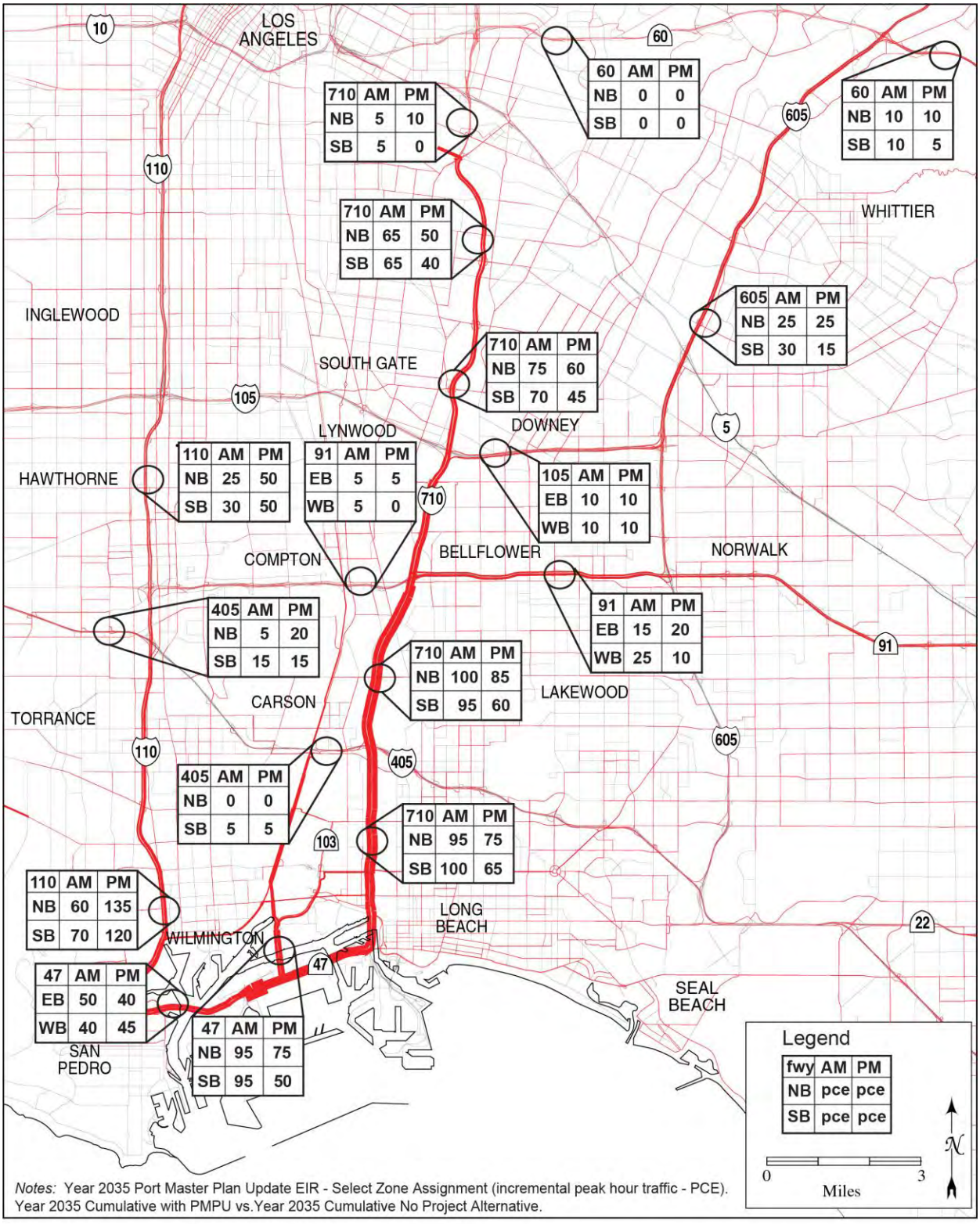

Figure F-2. Year 2035 Cumulative Select Zone Analysis

LADOT Moving LA Forward

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Gaffey Street	Year of Count:	2011	Ambient Growth: (%):		Conducted by:		Date:	
35	East-West Street:	1st Street	Projection Year:	2042	Peak Hour:	AM	Reviewed by:		Project:	PMPU

No. of Phases				3				3				3				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2				2				2				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2			2
Override Capacity				0				0				0				0			0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	12	1	12	0	12	12	0	12	1	12	0	12	1	12	0	12	1	12
	Left-Through		0							0				0				0	
	Through	1696	2	568	2	1698	569	113	1809	2	606	2	1811	2	607	0	1811	2	607
	Through-Right		1							1				1				1	
	Right	8	0	8	0	8	8	0	8	0	8	0	8	0	8	0	8	0	8
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	73	1	73	0	73	73	125	198	1	198	0	198	1	198	0	198	1	198
	Left-Through		0							0				0				0	
	Through	1363	2	567	3	1366	569	62	1425	2	632	3	1428	2	634	0	1428	2	634
	Through-Right		1							1				1				1	
	Right	339	0	339	0	339	339	132	471	0	471	0	471	0	471	0	471	0	471
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	1066	1	560	0	1066	560	0	1066	1	563	0	1066	1	563	0	1066	1	563
	Left-Through		1							1				1				1	
	Through	53	0	560	0	53	560	6	59	0	563	0	59	0	563	0	59	0	563
	Through-Right		0							0				0				0	
	Right	24	1	18	0	24	18	0	24	1	18	0	24	1	18	0	24	1	18
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	41	1	41	0	41	41	0	41	1	41	0	41	1	41	0	41	1	41
	Left-Through		0							0				0				0	
	Through	134	1	134	0	134	134	2	136	1	136	0	136	1	136	0	136	1	136
	Through-Right		0							0				0				0	
	Right	203	1	167	0	203	167	186	389	1	290	0	389	1	290	0	389	1	290
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		641	North-South:		642	North-South:			804	North-South:			805	North-South:			805
		East-West:		727	East-West:		727	East-West:			853	East-West:			853	East-West:			853
		SUM:		1368	SUM:		1369	SUM:			1657	SUM:			1658	SUM:			1658
VOLUME/CAPACITY (V/C) RATIO:				0.960			0.961				1.163				1.164				1.164
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.860			0.861				1.063				1.064				1.064
LEVEL OF SERVICE (LOS):				D			D				F				F				F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	Δ*v/c* after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

LADOT Moving LA Forward

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Gaffey Street		Year of Count:	2011	Ambient Growth: (%):		Conducted by:		Date:	
35	East-West Street:	1st Street		Projection Year:	2042	Peak Hour:	PM	Reviewed by:		Project:	PMPU

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			3			3			3				3					3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2				2					2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0	NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0		NB-- 0 SB-- EB-- 0 WB--		0
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	31	1	**31**	0	31	**31**	2	33	1	**33**	0	33	1	**33**	0	33	1	**33**
	Left-Through		0							0				0				0	
	Through	1421	2	479	12	1433	485	149	1570	2	531	12	1582	2	537	0	1582	2	537
	Through-Right		1							1				1				1	
	Right	17	0	17	0	17	17	6	23	0	23	0	23	0	23	0	23	0	23
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	88	1	88	0	88	88	141	229	1	229	0	229	1	229	0	229	1	229
	Left-Through		0							0				0				0	
	Through	1726	2	**723**	10	1736	**728**	49	1775	2	**774**	10	1785	2	**779**	0	1785	2	**779**
	Through-Right		1							1				1				1	
	Right	444	0	444	0	444	444	104	548	0	548	0	548	0	548	0	548	0	548
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	771	1	**439**	0	771	**439**	70	841	1	**500**	0	841	1	**500**	0	841	1	**500**
	Left-Through		1							1				1				1	
	Through	107	0	439	0	107	439	52	159	0	500	0	159	0	500	0	159	0	500
	Through-Right		0							0				0				0	
	Right	58	1	43	0	58	43	1	59	1	43	0	59	1	43	0	59	1	43
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	35	1	35	0	35	35	2	37	1	37	0	37	1	37	0	37	1	37
	Left-Through		0							0				0				0	
	Through	125	1	**125**	0	125	**125**	30	155	1	155	0	155	1	155	0	155	1	155
	Through-Right		0							0				0				0	
	Right	147	1	103	0	147	103	128	275	1	**161**	0	275	1	**161**	0	275	1	**161**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		754	*North-South:*		759	*North-South:*			807	*North-South:*			812	*North-South:*			812
		East-West:		564	*East-West:*		564	*East-West:*			661	*East-West:*			661	*East-West:*			661
		SUM:		1318	*SUM:*		1323	*SUM:*			1468	*SUM:*			1473	*SUM:*			1473
	VOLUME/CAPACITY *(V/C)* RATIO:			0.925			0.928				1.030				1.034				1.034
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.825			0.828				0.930				0.934				0.934
	LEVEL OF SERVICE (LOS):			D			D				E				E				E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Harbor Bl	Year of Count:	2011	Ambient Growth: (%):	0	Conducted by:		Date:	
11	East-West Street:	Swinford St / SR-47 EB Ramps	Projection Year:	2042	Peak Hour:	AM	Reviewed by:		Project:	

		2011 CONDITION			2011 PLUS PROJECT			2042 CONDITION W/O PROJECT				2042 CONDITION W/ PROJECT				2042 W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4					4
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2				2					2
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- EB-- 3 WB--		0 0	NB-- 0 SB-- EB-- 3 WB--		0 0	NB-- 0 SB-- EB-- 3 WB--		0 0		NB-- 0 SB-- EB-- 3 WB--		0 0		NB-- 0 SB-- EB-- 3 WB--		0 0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2					2
	Override Capacity			0			0			0				0					0
NORTHBOUND	Left	371	2	204	4	375	206	166	537	2	295	4	541	2	298	0	541	2	298
	Left-Through		0							0				0				0	
	Through	753	1	260	13	766	264	604	1357	2	461	13	1370	2	466	0	1370	2	466
	Through-Right		1							1				1				1	
	Right	27	0	0	0	27	0	0	27	0	0	0	27	0	0	0	27	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	28	1	28	0	28	28	0	28	1	28	0	28	1	28	0	28	1	28
	Left-Through		0							0				0				0	
	Through	77	2	39	1	78	39	46	123	2	55	1	124	2	55	0	124	2	55
	Through-Right		1							1				1				1	
	Right	41	0	0	0	41	0	0	41	0	0	0	41	0	0	0	41	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	178	1	178	0	178	178	86	264	1	264	0	264	1	264	0	264	1	264
	Left-Through		0							0				0				0	
	Through	122	0	499	0	122	512	0	122	0	847	0	122	0	860	0	122	0	860
	Through-Right		0							0				0				0	
	Right	876	1	0	26	902	0	696	1572	1	0	26	1598	1	0	0	1598	1	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	39	0	39	0	39	39	0	39	0	39	0	39	0	39	0	39	0	39
	Left-Through		1							1				1				1	
	Through	9	0	26	0	9	26	0	9	0	26	0	9	0	26	0	9	0	26
	Through-Right		1							1				1				1	
	Right	17	0	0	0	17	0	0	17	0	0	0	17	0	0	0	17	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		288	North-South:		292	North-South:		489		North-South:		494		North-South:		494	
		East-West:		538	East-West:		551	East-West:		886		East-West:		899		East-West:		899	
		SUM:		826	SUM:		843	SUM:		1375		SUM:		1393		SUM:		1393	
	VOLUME/CAPACITY (V/C) RATIO:			0.601			0.613			1.000				1.013				1.013	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.501			0.513			0.900				0.913				0.913	
	LEVEL OF SERVICE (LOS):			A			A			D				E				E	

PROJECT IMPACT

Change in *v/c* due to project: 0.013 — Δ*v/c* after mitigation: 0.013

Significant impacted? YES — Fully mitigated? NO

version 1d beta;5/18/2011

Specialized EB RT Calcs

2011 CONDITION	EB Critical Move RT	EB Critical Move LT
N-S	288	288
EB	232	178
WB	39	39
Sum	559	505
V/C	0.407	0.367
Less	0.307	0.267
LOS	A	A
Int V/C	0.307	
	A	

2011 PLUS PROJECT	EB Critical Move RT	EB Critical Move LT
N-S	292	292
EB	235	178
WB	39	39
Sum	566	509
V/C	0.412	0.370
Less A	0.312	0.270
LOS	A	A
Int V/C	0.312	
	A	

2042 CONDITION W/O PROJECT	EB Critical Move RT	EB Critical Move LT
N-S	489	489
EB	354	264
WB	39	39
Sum	882	792
V/C	0.641	0.576
Less ATS	0.541	0.476
LOS	A	A
Int V/C	0.541	
	A	

2042 CONDITION W/ PROJECT	EB Critical Move RT	EB Critical Move LT
N-S	494	494
EB	360	264
WB	39	39
Sum	893	797
V/C	0.649	0.580
Less ATS	0.549	0.480
LOS	A	A
Int V/C	0.549	
	A	

PROJECT IMPACT

Change in *v/c* due to project: 0.008

Significant impacted? NO

5/31/2013-12:32 PM

PMPU 2 additional intersection analysis.xlsx

LADOT Moving LA Forward

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Harbor Bl	Year of Count:	2011	Ambient Growth: (%):	0	Conducted by:		Date:	
11	East-West Street:	Swinford St / SR-47 EB Ramps	Projection Year:	2042	Peak Hour:	PM	Reviewed by:		Project:	

		2011 CONDITION			2011 PLUS PROJECT			2042 CONDITION W/O PROJECT				2042 CONDITION W/ PROJECT				2042 W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4				4	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2			2				2				2	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 3 WB--		0	EB-- 3 WB--		0	EB-- 3 WB--		0		EB-- 3 WB--		0		EB-- 3 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	435	2	239	25	460	253	426	861	2	474	25	886	2	487	0	886	2	487
	Left-Through		0							0				0				0	
	Through	605	1	209	82	687	236	804	1409	2	477	82	1491	2	504	0	1491	2	504
	Through-Right		1							1				1				1	
	Right	22	0	0	0	22	0	0	22	0	0	0	22	0	0	0	22	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	12	1	12	0	12	12	0	12	1	12	0	12	1	12	0	12	1	12
	Left-Through		0							0				0				0	
	Through	123	2	62	4	127	64	60	183	2	86	4	187	2	88	0	187	2	88
	Through-Right		1							1				1				1	
	Right	75	0	0	0	75	0	1	76	0	0	0	76	0	0	0	76	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	224	1	224	0	224	224	47	271	1	271	0	271	1	271	0	271	1	271
	Left-Through		0							0				0				0	
	Through	13	0	557	0	13	597	0	13	0	910	0	13	0	951	0	13	0	951
	Through-Right		0							0				0				0	
	Right	1100	1	0	81	1181	0	707	1807	1	0	81	1888	1	0	0	1888	1	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	38	0	38	0	38	38	0	38	0	38	0	38	0	38	0	38	0	38
	Left-Through		1							1				1				1	
	Through	31	0	44	0	31	44	0	31	0	44	0	31	0	44	0	31	0	44
	Through-Right		1							1				1				1	
	Right	13	0	0	0	13	0	0	13	0	0	0	13	0	0	0	13	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	North-South:		301	North-South:		317	North-South:		560		North-South:		575		North-South:		575	
		East-West:		601	East-West:		641	East-West:		954		East-West:		995		East-West:		995	
		SUM:		902	SUM:		958	SUM:		1514		SUM:		1570		SUM:		1570	
	VOLUME/CAPACITY (V/C) RATIO:			0.656			0.697			1.101				1.142				1.142	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.556			0.597			1.001				1.042				1.042	
	LEVEL OF SERVICE (LOS):			A			A			E				F				F	

PROJECT IMPACT

Change in *v/c* due to project: 0.041 — Δ*v/c* after mitigation: 0.041

Significant impacted? YES — Fully mitigated? NO

version 1d beta;5/18/2011

Specialized EB RT Calcs

2011 CONDITION			2011 PLUS PROJECT			2042 CONDITION W/O PROJECT			2042 CONDITION W/ PROJECT			2042 W/ PROJECT W/ MITIGATION
EB Critical Move	RT	LT	EB Critical Move	RT	LT	EB Critical Move	RT	LT	EB Critical Move	RT	LT	EB Critical Move
N-S	301	301	N-S	317	317	N-S	560	560	N-S	575	575	N-S
EB	248	224	EB	266	224	EB	407	271	EB	425	271	EB
WB	44	44	WB	44	44	WB	44	44	WB	44	44	WB
Sum	593	569	Sum	627	585	Sum	1011	875	Sum	1044	890	Sum
V/C	0.431	0.414	V/C	0.456	0.425	V/C	0.735	0.636	V/C	0.759	0.647	V/C
Less	0.331	0.314	Less A	0.356	0.325	Less ATS	0.635	0.536	Less ATS	0.659	0.547	Less ATS
LOS A		A	LOS	A	A	LOS	B	A	LOS	B	A	LOS
Int V/C		0.331	Int V/C		0.356	Int V/C		0.635	Int V/C		0.659	
		A			A			B			B	

PROJECT IMPACT

Change in *v/c* due to project: 0.024

Significant impacted? NO