

**ALAMEDA CORRIDOR TRANSPORTATION AUTHORITY**

3760 KILROY AIRPORT WAY, SUITE 200, LONG BEACH, CA 90806 • (562) 247-7777 • FAX (562) 247-7090

September 13, 2018

**To:** Parties listed on Exhibit A

**Subject:** Notice of Mutual Agreement No. 2018-5 - Request for Approval under Amended and Restated Alameda Corridor Use and Operating Agreement

**Matter:** Alameda Corridor Calendar Year 2019 Maintenance of Way and Operations & Maintenance Budgets

Dear Sir or Madam:

Reference is made to that certain Amended and Restated Alameda Corridor Use and Operating Agreement dated as of December 15, 2016 (the "Agreement"), by and among the BNSF Railway Company (BNSF), Union Pacific Railroad Company (UP), the City of Los Angeles, acting by and through its Board of Harbor Commissioners (POLA), the City of Long Beach, acting by and through its Board of Harbor Commissioners (POLB), and the Alameda Corridor Transportation Authority (ACTA).

The Agreement governs the use and operation of the Alameda Corridor and, among other things, contains provisions which require certain decisions to be made from time to time by either Mutual Agreement (as defined in the Agreement) or unanimous consent/approval. In particular, Mutual Agreement requires the approval from at least three of the following parties: BNSF, UP, POLB, and POLA, and unanimous consent/approval requires the approval of each of the same four entities. Pursuant to the terms of the Agreement, ACTA as an entity does not approve or disapprove Mutual Agreement matters.

Attached as Exhibit B is Notice of Mutual Agreement (NMA) No. 2018-5, for which approval by the requisite parties is requested at this time. The matter to be approved is described in the attached NMA (the "Matter"). Following consideration of the Matter, please email to ACTA a signed copy of the attached NMA (or, if such Matter is not approved by your entity, a written statement indicating such disapproval), no later than November 1, 2018. Once all responses are received, ACTA will send a letter to the four entities with the results.

If there are any questions, please advise.

Sincerely,



John T. Doherty, P.E.  
Chief Executive Officer

**EXHIBIT A**  
**LIST OF PARTIES**

Port of Los Angeles  
425 South Palos Verdes Street  
San Pedro, California 90733  
Attn: Executive Director  
Email: gene\_seroka@portla.org

Port of Long Beach  
4801 Airport Plaza Drive  
Long Beach, California 90815  
Attn: Executive Director  
Email: mario.cordero@polb.com

BNSF Railway Company  
2500 Lou Menk Drive  
AOG -Garden Level  
Fort Worth, Texas 76131  
Attn: Assistant Vice President - Contracts  
& Joint Facilities  
Email: sarah.bailiff@bnsf.com

Union Pacific Railroad Company  
1400 Douglas Street -Stop 1160  
Omaha, Nebraska 68179  
Attn: Executive Vice President of  
Operations  
Email: jointfacilitycontracts@up.com

Cc:

Email: Brian.Aman@bnsf.com  
Email: JBarager@UP.com  
Email: tgioiello@portla.org  
Email: carlo.luzzi@polb.com  
Email: hmcloskey@portla.org  
Email: Lauren.Misajon@longbeach.gov  
Email: duane.kenagy@polb.com

**EXHIBIT B**  
**NOTICE OF MUTUAL AGREEMENT**

**Number: 2018-5**

**Subject: Approval Request for the Alameda Corridor Calendar Year  
2019 Maintenance of Way and Operations & Maintenance  
Budgets**

**Recommendation:**

1. Approve 2019 Special Capital Items in the amount of \$2,320,351 that will be charged to the Reserve Account and included in the 2019 Maintenance of Way (MOW) Budget.
2. Approve the 2019 MOW Budget in the amount of \$7,707,679.
3. Approve the overall 2019 Operations and Maintenance (O&M) Budget in the amount of \$12,829,567, containing the MOW Budget, other estimated annual O&M expenses, and a \$600,000 contingency.

**Discussion:**

Section 2.5(b) of the Amended and Restated Use and Operating Agreement, dated as of December 15, 2016, (the "Agreement") requires that the Ports and Railroads through Mutual Agreement approve an Annual Maintenance and Capital Improvement Plan and Budget prior to January 1 of each year. The Plan and Budget are comprised of two documents.

The first is the Maintenance of Way (MOW) Budget as prepared by the Maintenance Contractor, which includes the projected maintenance and capital costs to be incurred by the Contractor for the coming year. The second is the overall Operations and Maintenance (O&M) Budget, which incorporates the MOW Budget, as well as other estimated O&M expenses, including but not limited to insurance, dispatching, security, utilities, and support costs. Attached for approval is the detail for both budgets for calendar year 2019.

The proposed 2019 MOW Budget was originally prepared in draft form by the Maintenance Contractor and submitted for review by the Railroads, the Ports, and ACTA. A meeting among the staffs of the Railroads, Ports and ACTA was held on September 11, 2018 to review and modify as necessary the draft budget. Discussions during and after that meeting resulted in the attached MOW and O&M Budgets submitted for approval. Major items reviewed included allocation of costs between the Rail and Non- Rail maintenance categories, Capital Expenses made in accordance with the approved definition of Capital Expenses, and proposed Contractor staffing levels.

The O&M Budget includes a \$600,000 contingency to be allocated as necessary during the year for unbudgeted, under-budgeted, or unplanned emergency work.

Attachment 1 contains a description of the special 2019 capital expenditures included in the MOW Budget. Attachment 2 is the 2019 MOW Budget spreadsheet and related detail, Attachment 3 is the 2019 O&M Budget spreadsheet. It is recommended that each of these items be approved.

### Summary Comparison - 2019 vs. 2018 MOW and O&M Budgets

#### *MOW Budget*

The proposed 2019 MOW Budget of \$7,707,679 is 5.1% higher than the 2018 Amended MOW Budget of \$7,335,839 and 8.9% higher than the original 2018 Approved MOW Budget of \$7,079,739. The funding of the 2019 MOW Budget is split between ACTA fee revenue (about 55%) and payment by the Railroads (about 45%).

The proposed 2019 MOW Budget is divided into three categories: labor positions, operations maintenance, and capital work. The labor category is up 3.2% over the 2018 original and amended budgets due to annual salary increases of 3.4% for non-management positions (by union contract) and an average of 2.7% for management positions. The operations maintenance category is down 6.7% from the 2018 Amended Budget due to completion of certain special 2018 work.

The capital costs category is up 19.7% over the Amended 2018 MOW Budget and 21.7% over the original 2018 Approved MOW Budget. Capital work can vary dramatically from year to year due to replacement needs. See Attachment 1 for Special 2019 Capital Items. The 2019 Capital Costs increase is primarily due to the installation of four fixed stairways in the trench and tie replacements on Compton Creek Rail Bridge.

### **MOW Budget Summary**

*(in millions of dollars)*

<b>MOW Budget</b>	<b>Proposed 2019</b>	<b>Amended 2018</b>	<b>% Change</b>	<b>Original 2018</b>	<b>% Change</b>
A. Labor	\$2.045	\$1.982	3.2%	\$1.982	3.2%
B. Operations Maintenance	2.637	2.826	-6.7%	2.610	1.0%
C. Capital Costs	3.026	2.527	19.7%	2.487	21.7%
Total MOW	\$7.708	\$7.335	5.1%	\$7.079	8.9%



### *O&M Budget*

The 2019 O&M Budget of \$12,829,567 is the sum of the 2019 MOW Budget of \$7,707,679, a \$600,000 contingency, and \$4,521,888 in other costs. Only about 4% of these other costs is paid from ACTA fee revenue (Reserve Account), and about 96% is paid by the Railroads either directly or from deposits made to ACTA known as M&O charges. The proposed 2019 O&M Budget is 5.9% above the 2018 Amended O&M Budget and 9.5% above the original 2018 Approved O&M Budget. Much of this increase is due to increasing the contingency amount from \$200,000 to \$600,000 to facilitate timely action for unbudgeted, under-budgeted, or emergency work.

<b>O&amp;M Budget Summary</b> <i>(in millions of dollars)</i>					
<b>O&amp;M Budget</b>	<b>Proposed 2019</b>	<b>Amended 2018</b>	<b>% Change from 2019</b>	<b>Original 2018</b>	<b>% Change from 2019</b>
I. MOW Contractor <sup>(1)</sup>	\$4.681	\$4.809	-2.7%	\$4.593	1.9%
II. Capital Costs <sup>(2)</sup>	3.026	2.527	19.7%	2.487	21.7%
Contingency	0.600	0.200	200.0%	0.200	200.0%
III. Operating & Other	4.522	4.574	-1.1%	4.440	1.8%
Total O&M	\$12.829	\$12.110	5.9%	\$11.720	9.5%

<sup>(1)</sup> A+B from MOW Budget

<sup>(2)</sup> C from MOW Budget

### **Items of Note:**

1. The current Maintenance Contract expires December 14, 2018, and if the same or different contractor is selected through an ongoing RFP process, the budget may have to be amended through a separate Notice of Mutual Agreement in the future.
2. The 2019 MOW Budget is prepared before the close of the previously approved 2018 MOW Budget, and is based on estimates of where ongoing 2018 work will stand at year's end. Therefore, to the extent that certain 2018 work is not completed to the anticipated level, costs for that work will carry over into 2019 impacting the net 2019 expenditures.
3. The 2019 O&M Budget contains a \$600,000 contingency fund. It is recommended that each Port's rail group and each Railroad's joint facilities staff be authorized to allocate the contingency fund as needed. The staffs will then report back to their respective entity concerning the use and possible replenishment of the fund.

**Please provide your acceptance and approval by affixing your signature, name and title below:**

**Port of Los Angeles**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Port of Long Beach**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**BNSF Railway Company**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Union Pacific Railroad Company**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachments:**

- 1 – 2019 Special Capital Items
- 2 – 2019 MOW Budget and Detail
- 3 – 2019 O&M Budget

## **NMA 2018-5 Attachment 1 to Exhibit B**

### **2019 Special Capital Items**

For 2019, the following Special Capital Items totaling \$2,320,351 are budgeted within the \$3,026,232 of Capital Costs, all of which will be charged to the Reserve Account.

#### **1. Pump Station Upgrades, Item 3.o. - \$210,000**

Maintenance of both pump stations in the trench over the past several years has included phased repair and/or replacement of various components. Each location has 11 pumps: 4 large, 3 medium, and 4 small. Beginning in 2018, in addition to routine maintenance of all pump station components, one large and one medium pump at each location will receive major overhaul or replacement each year. The 2019 estimate is \$210,000 for the pump repair/replacement.

#### **2. Trench Emergency Ladder Repairs, Item 3.r. - \$100,000**

The 47 trench emergency ladders have and will continue to undergo upgrades to ensure they are in working order. This 2019 amount of \$100,000 is the remaining balance of the \$540,000 originally approved in 2014. See #9 below.

#### **3. Rehab Henry Ford Crossing at CP Dominguez, Item 3.w. - \$374,334**

The single track curved crossing at Pier A Way on the north end of the Henry Ford Viaduct is about 240 feet long and needs replacement due to settlement and deterioration of the underlying wood ties. It is planned to replace the entire crossing with new rail, concrete ties, and new concrete crossing panels. Old panels, which can be salvaged, will be placed in inventory for use at other wood tie crossing locations. This work was deferred from 2018, and individual panels will be installed to replace damaged ones in the interim and the underlying condition re-examined at that time. Depending on the results of the re-examination, this work may be deferred to 2020, when local heavy construction activity in the vicinity by the State is completed.

#### **4. Replace Signal Batteries, Item 3.y. - \$50,000**

There are approximately 30 signal houses on the Corridor, each containing an average of 30 batteries. The plan for 2018 is to replace about 90 of the 900 batteries. A ten-year plan is in place to incrementally replace all batteries.

#### **5. Curved Rail Replacement Item 3.gg. - \$283,500**

Rail on curves wears faster than rail in straight track, and must be replaced after excessive wear. Approximately 6,000 feet of curves will be replaced.

---

## **6. Diamond Replacements - West Thenard Item 3.hh. - \$541,318**

Locations where tracks cross other tracks do so over a piece of special trackwork known as a “diamond”. These diamonds wear over time and must be replaced when repairs are no longer viable. Three of the four diamonds at CP West Thenard will be replaced. The diamonds were ordered in 2018, as contained in the approved 2018 Budget, but will be delivered and installed in 2019. Therefore, the material value is carried over to 2019, when the diamonds will be paid for, and the installation amount added.

## **7. Signal Circuit Controllers for Switches Item 3.ii. - \$31,500**

Controllers will be replaced in five switch machines to prolong the useful life of the machines.

## **8. Retie Transitions at Various Control Points with 10’ Wood Ties Item 3.jj. - \$36,699**

Wood ties will be replaced just beyond certain concrete tie switches at several control points to improve settlement conditions.

## **9. Fixed Trench Ladders Item 3.ll. - \$378,000**

A prototype fixed aluminum stairway will be fabricated and installed in late 2018 as adjunct emergency egress from the trench. The 47 drop ladders will remain in place. If the prototype is successful, 4 additional stairways will be added in 2019. There will be a total of 9 stairways needed between Randolph St. in Vernon and Myrrh St. in Compton. A different design is needed north of Randolph St. due to closer strut spacing, which may necessitate one or two additional fixed stairways.

## **10. Compton Creek Bridge Timber Replacement Item 3.nn. - \$262,500**

The three-track open deck, through-girder bridge needs to have the bridge timbers replaced systematically over a 3-year period, replacing one track each year.

## **11. M23A Switch Machines Item 3.oo. \$52,500**

Replacing controllers in switch machines has extended their service life, however new ones are now required to be on hand. Two machines will be purchased in 2019. See #7 above.

\* To date approximately \$24.5 million has been charged to the Capital Reserve Account for Corridor-related work. A target amount of \$15 million is generally kept in the account to be held in reserve for capital expenses. In all but a few years, the annual amount has not dropped below the \$15 million target. In December 2017, the \$15 million target was reaffirmed through 2022 via NMA 2017-5.



NMA 2018-5 - Attachment 2 to Exhibit B - Alameda Corridor - 2019 Maintenance of Way Budget  
(Capital Included)

LABOR POSITIONS

A. MANAGEMENT POSITIONS		Positions	Needed Portion	EST Hours	2019 Hourly RATE	OT RATE	OT VALUE	2019 VALUE	Share	R.R. M & O Rail Cost	Hours	Share	Reserve Account Non-Rail Cost	Hours	Share	ACTA Operating Budget Cost	Hours	2018 Approved Budget	2018 Projected Cost
1.a.i	Contract Manager	1	100.0%	1800	\$ 148.63	N/A	N/A	\$ 267,525	70.0%	\$ 187,268	1,260	25.0%	\$ 66,881	450	5.0%	\$ 13,376	90	\$ 261,000	\$ 261,000
1.a.ii	Track Superintendent	1	100.0%	1840	\$ 103.04	N/A	N/A	\$ 189,597	75.0%	\$ 142,198	1,380	25.0%	\$ 47,399	460	0.0%	\$ -		\$ 183,540	\$ 183,540
1.a.iii	Bridge Supt. / Safety	1	100.0%	1800	\$ 109.24	N/A	N/A	\$ 196,631	20.0%	\$ 39,326	360	80.0%	\$ 157,305	1,440	0.0%	\$ -		\$ 191,835	\$ 191,835
1.a.iv	Office Manager	1	100.0%	1880	\$ 59.91	N/A	N/A	\$ 112,633	70.0%	\$ 78,843	1,316	25.0%	\$ 28,158	470	5.0%	\$ 5,632	94	\$ 109,886	\$ 109,886
STAFF POSITIONS																			
1.b.	Track Inspector	1	100.0%	2000	\$ 65.68	\$ 98.53	\$ 13,793.82	\$ 145,164	75.0%	\$ 108,873	1,500	25.0%	\$ 36,291	500	0.0%	\$ -		\$ 140,390	\$ 140,390
1.b.i	Track Foreman	1	100.0%	2000	\$ 64.06	\$ 96.08	\$ 13,451.82	\$ 141,564	75.0%	\$ 106,173	1,500	25.0%	\$ 35,391	500	0.0%	\$ -		\$ 136,910	\$ 136,910
1.b.ii	Assistant Foreman	1	100.0%	2000	\$ 54.83	\$ 82.24	\$ 9,869.01	\$ 119,525	75.0%	\$ 89,644	1,500	25.0%	\$ 29,881	500	0.0%	\$ -		\$ 115,595	\$ 115,595
1.b.iii	Track Laborers	3	100.0%	5880	\$ 51.57	\$ 77.36	\$ 27,291.24	\$ 330,527	75.0%	\$ 247,895	4,410	25.0%	\$ 82,632	1,470	0.0%	\$ -		\$ 319,659	\$ 319,659
1.b.iv	Equipment Operators	1	100.0%	2000	\$ 81.70	\$ 122.55	\$ 14,705.81	\$ 178,104	75.0%	\$ 133,578	1,500	25.0%	\$ 44,526	500	0.0%	\$ -		\$ 172,247	\$ 172,247
1.b.v	Welder	1	100.0%	2000	\$ 63.51	\$ 95.27	\$ 11,432.42	\$ 138,459	100.0%	\$ 138,459	2,000	0.0%	\$ -	-	0.0%	\$ -		\$ 133,907	\$ 133,907
1.b.vi	Welder Helper	1	100.0%	2000	\$ 51.58	\$ 77.36	\$ 9,283.67	\$ 112,436	100.0%	\$ 112,436	2,000	0.0%	\$ -	-	0.0%	\$ -		\$ 108,738	\$ 108,738
1b.vii	Laborer (Graffiti/Pump Station)	1	100.0%	2000	\$ 51.57	\$ 77.36	\$ 9,282.74	\$ 112,424	0.0%	\$ -	-	100.0%	\$ 112,424	2,000	0.0%	\$ -		\$ 108,728	\$ 108,728

SUBTOTAL:								\$ 2,044,588		\$ 1,384,692	18,726		\$ 640,889	8,290		\$ 19,008	184	\$ 1,982,434	\$ 1,982,434
Note: Track Inspector & Track Foreman OT based on 7%; Assistant Foreman, Track Laborers, Equipment Operator, Welder, Welder Helper OT based on 6%.																			
								\$ 1,982,434		\$ 1,341,887	18,726		\$ 622,002	8,290		\$ 18,544	184		

B. ESTIMATED COST CENTERS FOR 2019

2.a.	Administrative Burden					* see attachment	\$ 77,490	70.0%	\$ 54,243			25.0%	\$ 19,373		5.0%	\$ 3,875		\$ 73,710	\$ 73,710
2.a.i.	Accounting Support (Billing Clerk)						45,000	70.0%	\$ 31,500			25.0%	\$ 11,250		5.0%	\$ 2,250		\$ -	\$ -
2.b.	Pump Station Maintenance					*see attachment	\$ 14,383	0.0%	\$ -			100.0%	\$ 14,383		0.0%	\$ -		\$ 13,695	\$ 13,695
2.b.i.	Pump Station Repairs & Supplies					*see attachment	\$ 26,250	0.0%	\$ -			100.0%	\$ 26,250		0.0%	\$ -		\$ 26,250	\$ 26,250
2.c.	AEI & Misc. Maint-AAR Unit Count-757 Units @ \$222/Unit					*see attachment	\$ 168,054	0.0%	\$ -			0.0%	\$ -		100.0%	\$ 168,054		\$ 163,512	\$ 163,512
2.d.	Rail Flaw Detection (Subcontractor)						40,000	100.0%	\$ 40,000			0.0%	\$ -		0.0%	\$ -		\$ 32,000	\$ 38,500
2.e.	Graffiti Control					*see attachment	\$ 24,880	0.0%	\$ -			100.0%	\$ 24,880		0.0%	\$ -		\$ 21,780	\$ 21,780
2.f.	Weed Abatement (Subcontractor)						25,000	80.0%	\$ 20,000			20.0%	\$ 5,000		0.0%	\$ -		\$ 25,000	\$ 25,000
2.g.	Safety Training					*see attachment	\$ 25,500	85.0%	\$ 21,675			15.0%	\$ 3,825		0.0%	\$ -		\$ 25,500	\$ 25,500
2.h.	Safety Management					*see attachment	\$ 25,125	85.0%	\$ 21,356			15.0%	\$ 3,769		0.0%	\$ -		\$ 25,125	\$ 25,125
2.i.	Vehicles					*see attachment													
2.i.i	Contract Manager						27,531	70.0%	\$ 19,272			25.0%	\$ 6,883		5.0%	\$ 1,377		\$ 26,851	\$ 26,851
2.i.ii	Track Superintendent						40,332	75.0%	\$ 30,249			25.0%	\$ 10,083		0.0%	\$ -		\$ 39,984	\$ 39,984
2.i.iii	Welding Truck						42,744	100.0%	\$ 42,744			0.0%	\$ -		0.0%	\$ -		\$ 42,528	\$ 42,528
2.i.iv	Track Foreman						36,924	75.0%	\$ 27,693			25.0%	\$ 9,231		0.0%	\$ -		\$ 36,672	\$ 36,672
2.i.v	Assistant Track Foreman						37,332	75.0%	\$ 27,999			25.0%	\$ 9,333		0.0%	\$ -		\$ 36,804	\$ 36,804
2.i.vi	Track Inspector						37,032	75.0%	\$ 27,774			25.0%	\$ 9,258		0.0%	\$ -		\$ 36,708	\$ 36,708
2.k.	Bridge Superintendent/Safety Vehicle					*see attachment	\$ 25,020	20.0%	\$ 5,004			80.0%	\$ 20,016		0.0%	\$ -		\$ 24,600	\$ 24,600
2.l.	Hi-Rail Boom Truck					*see attachment	\$ 81,180	80.0%	\$ 64,944			20.0%	\$ 16,236		0.0%	\$ -		\$ 79,200	\$ 79,200
2.m.	Maint. Program Rail Grinding-Loram (Subcontractor)					*see attachment	\$ 83,475	100.0%	\$ 83,475			0.0%	\$ -		0.0%	\$ -		\$ 83,475	\$ -
2.n	Track Materials / Supplies & Rentals					*see attachment	\$ 250,740	100.0%	\$ 250,740			0.0%	\$ -		0.0%	\$ -		\$ 246,960	\$ 246,960
2.o.	Signal Maintenance - AAR Unit Count - 4901 Units @ \$222/Unit					*see attachment	\$ 1,088,022	100.0%	\$ 1,088,022			0.0%	\$ -		0.0%	\$ -		\$ 1,058,616	\$ 1,058,616
2.p	Ladder / Fence / Traffic Support					*see attachment	\$ 52,500	0.0%	\$ -			100.0%	\$ 52,500		0.0%	\$ -		\$ 102,500	\$ 102,500
2.q.	Security (Trench Cameras)					*see attachment	\$ 21,000	70.0%	\$ 14,700			25.0%	\$ 5,250		5.0%	\$ 1,050		\$ 21,000	\$ 21,000
2.r.	Security & Yard/Office Maintenance & Support					*see attachment	\$ 182,385	100.0%	\$ 182,385			0.0%	\$ -		0.0%	\$ -		\$ 194,460	\$ 194,460
2.s.	Underwater Bridge Inspection (Every 5 years-last inspection 2018)					*see attachment	\$ -	100.0%	\$ -			0.0%	\$ -		0.0%	\$ -		\$ 15,750	\$ 15,750
2.t.	Trench Ditch Cleaning					*see attachment	\$ 102,460	0.0%	\$ -			100.0%	\$ 102,459.79		0.0%	\$ -		\$ 116,198	\$ 60,000
2.v.	Replace Signal Wire on Corridor						20,000	100.0%	\$ 20,000			0.0%	\$ -		0.0%	\$ -		\$ 20,000	\$ 20,000
2.w.	Railroad Reporting & Record Keeping Software System						16,500	100.0%	\$ 16,500			0.0%	\$ -		0.0%	\$ -		\$ 16,500	\$ 16,500
2.x.	Railroad Emergency Drill Exercise						20,000	100.0%	\$ 20,000			0.0%	\$ -		0.0%	\$ -		\$ 20,000	\$ 15,000
2.y.	PTC Support at CP W&E Redondo (UP only unless BNSF also requests data)					*see attachment	\$ -	100.0%	\$ -			0.0%	\$ -		0.0%	\$ -		\$ 11,500	\$ 25,000
2.aa.	AEI Readers Upgrade						-	100.0%	\$ -			0.0%	\$ -		0.0%	\$ -		\$ 189,600	\$ 189,600

SUBTOTAL:							\$ 2,636,859		\$ 2,110,275			\$ 349,979		\$ 176,605		\$ 2,826,478		\$ 2,701,805	
							\$ 2,826,478		\$ 2,179,156			\$ 396,469		\$ 250,852					
TOTAL Operating Expenses:							\$ 4,681,447		\$ 3,494,967			\$ 990,867		\$ 195,613			\$ 4,808,912		\$ 4,684,239
							\$ 4,808,911		\$ 3,521,043			\$ 1,018,471		\$ 269,397					

C. 2019 CAPITAL BUDGET

		2019																	
3.a.	Surfacing Unit - 45 Days @ \$4,700/Day					*see attachment	\$ 211,500	0.0%	\$ -			100.0%	\$ 211,500		0.0%	\$ -		\$ 207,000	\$ 207,000
	Surfacing Mobilization						\$ 25,000	0.0%	\$ -			100.0%	\$ 25,000		0.0%	\$ -		\$ 25,000	\$ 25,000
3.c.i.	Reballast Program (Labor)					*see attachment	\$ 26,600	0.0%	\$ -			100.0%	\$ 26,600		0.0%	\$ -		\$ 25,728	\$ 25,728
3.c.ii.	Reballast Program (Operated Equipment)					*see attachment	\$ 31,250	0.0%	\$ -			100.0%	\$ 31,250		0.0%	\$ -		\$ 44,000	\$ 30,000
3.d.	Ballast - 1,000 Tons @ \$36/Ton						\$ 36,000	0.0%	\$ -			100.0%	\$ 36,000		0.0%	\$ -		\$ 36,000	\$ 36,000
3.f.	Capital Program Rail Grinding-Loram					*see attachment	\$ 83,475	0.0%	\$ -			100.0%	\$ 83,475		0.0%	\$ -		\$ 83,475	\$ -
3.g.	Track Reballast					*see attachment	\$ 38,150	0.0%	\$ -			100.0%	\$ 38,150		0.0%	\$ -		\$ 38,150	\$ 38,150
3.h.	Rail / Switch Component & Tie Replacement					*see attachment	\$ 253,906	0.0%	\$ -			100.0%	\$ 253,906		0.0%	\$ -		\$ 226,937	\$ 226,937
3.o.	Pump Station Upgrades					*see attachment	\$ 210,000	0.0%	\$ -			100.0%	\$ 210,000		0.0%	\$ -		\$ 231,000	\$ 231,000
3.r.	Trench Emergency Ladder/Stair Study/Repairs						\$ 100,000	0.0%	\$ -			100.0%	\$ 100,000		0.0%	\$ -		\$ 150,000	\$ 33,466
3.u.	Replace Long Beach Crossing Diamonds						\$ -	0.0%	\$ -			100.0%	\$ -		0.0%	\$ -		\$ -	\$ 60,000
3.w.	Rehab Henry Ford Crossing @ CP Dominguez					*see attachment	\$ 374,334	0.0%	\$ -			100.0%	\$ 374,334		0.0%	\$ -		\$ 371,675	\$ -
3.y.	Signal Battery Replacement (10 Year Program)						\$ 50,000	0.0%	\$ -			100.0%	\$ 50,000		0.0%	\$ -		\$ 50,000	\$ 45,249
3.aa.	Retie Crucero to LB Diamond w/ Concrete Ties						\$ -	0.0%	\$ -			100.0%	\$ -		0.0%	\$ -		\$ 24,483	\$ 24,483
3.bb.	Replace Hot Box Detector @ MP 12.90						\$ -	0.0%	\$ -			100.0%	\$ -		0.0%	\$ -		\$ 16,800	\$ -
3.gg.	Curve Rail Replacement					*see attachment	\$ 283,500	0.0%	\$ -			100.0%	\$ 283,500		0.0%	\$ -		\$ 283,500	\$ 283,500
3.hh.	Diamond Replacements - West Thenard					*see attachment	\$ 541,318	0.0%	\$ -			100.0%	\$ 541,318		0.0%	\$ -		\$ 462,000	\$ -
3.ii.	Signal Circuit Controllers for Switches					*see attachment	\$ 31,500	0.0%	\$ -			100.0%	\$ 31,500		0.0%	\$ -		\$ 31,500	\$ 31,500
3.jj.	Retie Various Control Points with 10 Ft. Wood Transition Ties					*see attachment	\$ 36,699	0.0%	\$ -			100.0%	\$ 36,699		0.0%	\$ -		\$ 64,180	\$ 27,481
3.kk.	Upgrade and Refurnish Maintenance Facility						\$ -	0.0%	\$ -			100.0%	\$ -		0.0%	\$ -		\$ 15,750	\$ 21,000
3.ll.	Fixed Trench Ladders					*see attachment	\$ 378,000	0.0%	\$ -			100.0%	\$ 378,000		0.0%	\$ -		\$ 76,750	\$ 76,750
3.mm.	Misc. Trench Structure Repairs						\$ -	0.0%	\$ -			100.0%	\$ -		0.0%	\$ -		\$ 63,000	\$ 63,000
3.nn.	Compton Bridges - Replace Approach and Deck Ties					*see attachment	\$ 262,500	0.0%	\$ -			100.0%	\$ 262,500		0.0%	\$ -		\$ -	\$ -

**NMA 2018-5 - Attachment 2 to Exhibit B - Alameda Corridor - 2019 MOW Budget Detail**

2.a	ADMINISTRATIVE BURDEN		DURATION	QTY	RATE		COST	
	Cell Phone Service	Monthly	12		\$	1,100	\$	13,200
	Telephone Service	Monthly	12		\$	950	\$	11,400
	Office Supplies	Monthly	12		\$	1,100	\$	13,200
	Postal Services & Supplies	Monthly	12		\$	750	\$	9,000
	Ice / Water & Coffee Supplies	Monthly	12		\$	1,000	\$	12,000
	Dump Fees	Monthly	12		\$	1,250	\$	15,000
	SUBTOTAL							\$ 73,800
	5% MU							\$ 3,690
	TOTAL							\$ 77,490

2.b.	PUMP STATION MAINTENANCE		DURATION	QTY	RATE			
	Vehicle	Monthly	12		\$	2,397	50%	\$ 14,383
	TOTAL							\$ 14,383

Note: The vehicle cost is split 50/50 between 2.b. & 2.e.

2.b.1	PUMP STATION SUPPLIES & REPAIRS						
	Repairs to Pumps (Minor repairs & parts)						\$ 15,000
	Environmental Supplies (Chemicals for water treatment)						\$ 10,000
	SUBTOTAL						\$ 25,000
	5% MU						\$ 1,250
TOTAL						\$ 26,250	

2.c.	AEI & OTHER MISC MAINTENANCE - AAR UNIT COUNT		QTY	RATE			
	AEI Technician	1,450 Hours					
	Vehicle						
	Materials		757		\$	222	\$ 168,054
	TOTAL						\$ 168,054

2.e	GRAFFITI CONTROL		DURATION	QTY	RATE			
	Vehicle	Monthly	12		\$	2,397	50%	\$ 14,380
	Material Costs *		LS					\$ 10,000
	SUBTOTAL						\$ 24,380	
	5% MU*						\$ 500	
TOTAL						\$ 24,880		

Note: The vehicle cost is split 50/50 between 2.b. & 2.e.

2.g.	SAFETY TRAINING		DURATION	QTY	RATE			
	Training (Classes and seminars)			LS				\$ 15,000
	Instructor Lodging & Meals	Days	5		\$	2,000		\$ 10,000
	SUBTOTAL						\$ 25,000	
	5% MU*						\$ 500	
TOTAL						\$ 25,500		

2.h.	SAFETY MANAGEMENT		QTY	RATE			
	Safety Supplies & Equipment		LS				\$ 12,000
	Drug Testing - Employees		25		\$	500	\$ 12,500
	SUBTOTAL						\$ 24,500
	5% MU*						\$ 625
TOTAL						\$ 25,125	

2.i.	VEHICLES						
2.i.i		Monthly Rate	Registration	Insurance	Fuel Cost	Monthly Cost	YEARLY TOTAL
	Contract Manager	\$ 1,400	\$ 85	\$ 100	\$ 600	\$ 2,185	\$ 26,220
2.i.ii	Track Superintendent*	\$ 2,426	\$ 85	\$ 100	\$ 750	\$ 3,361	\$ 40,332
2.i.iii	Welding Truck*	\$ 2,877	\$ 85	\$ 100	\$ 500	\$ 3,562	\$ 42,744
2.i.iv	Track Foreman*	\$ 2,392	\$ 85	\$ 100	\$ 500	\$ 3,077	\$ 36,924
2.i.v	Assistant Track Foreman*	\$ 2,426	\$ 85	\$ 100	\$ 500	\$ 3,111	\$ 37,332
2.i.vi	Track Inspector *	\$ 2,251	\$ 85	\$ 100	\$ 650	\$ 3,086	\$ 37,032
SUBTOTAL							\$ 220,584
5% MU (Contract Manager vehicle only)							\$ 1,311
TOTAL							\$ 221,895
*Denotes Hi-Rail Vehicle							

2.k		Monthly Rate	Registration	Insurance	Fuel Cost	Monthly Cost	YEARLY TOTAL
	Bridge Superintendent/Safety Vehicle	\$ 1,400	\$ 85	\$ 100	\$ 500	\$ 2,085	\$ 25,020
	TOTAL						\$ 25,020

2.l.		DURATION	QTY	RATE			
	Hi-Rail Grapple/Boom Truck	Monthly	12		\$	6,765	\$ 81,180
	Total						\$ 81,180

NMA 2018-5 - Attachment 2 to Exhibit B - Alameda Corridor - 2019 MOW Budget Detail

2.m.	<b>MAINTENANCE PROGRAM RAIL GRINDING-LORAM</b>				<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>		
	114 Stone Train				Days	2	\$ 50,000	\$	100,000
	Fuel				Gallons	6,000	\$ 4	\$	24,000
	Pre-Grinding Inspection				Days	1	\$ 15,000	\$	15,000
	Mobilization					LS		\$	20,000
	<b>SUBTOTAL</b>							\$	159,000
	<b>5% MU</b>							\$	7,950
	<b>TOTAL</b>							\$	<b>166,950</b>
	Note: This total is split 50/50 between Railroad M&O 2.m. & Capital 3.f. (\$83,475/each)								
2.n.	<b>TRACK MATERIALS / SUPPLIES &amp; RENTALS</b>				<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>		
	Equipment Rental				Monthly	12	\$ 3,200	\$	38,400
	Program Track Materials				Monthly	12	\$ 10,000	\$	120,000
	Miscellaneous Track Materials				Monthly	12	\$ 3,000	\$	36,000
	Curve Grease				Monthly	12	\$ 2,000	\$	24,000
	Supplies & Consumables				Monthly	12	\$ 1,700	\$	20,400
	<b>SUBTOTAL</b>							\$	238,800
	<b>5% MU</b>							\$	11,940
	<b>TOTAL</b>							\$	<b>250,740</b>
2.o.	<b>SIGNAL MAINTENANCE - AAR UNIT COUNTS</b>					<b>QTY</b>	<b>RATE</b>		
	Signal Supervisor	1,560	Hours						
	Signal Engineer	728	Hours						
	Test Maintainer	1,872	Hours						
	Signal Maintainers (3)	2,080	Hours						
	Vehicles								
	Materials								
		221.4				4,901	\$ 222	\$	1,088,022
	Note:								
	<b>TOTAL</b>							\$	<b>1,088,022</b>
2.p.	<b>LADDER / FENCE / TRAFFIC SUPPORT</b>								
	Ladder Replacement Parts							\$	10,000
	Traffic Support							\$	10,000
	Fence Replacement/Repair							\$	30,000
	<b>SUBTOTAL</b>							\$	50,000
	<b>5% MU</b>							\$	2,500
	<b>TOTAL</b>							\$	<b>52,500</b>
2.q.	<b>SECURITY (TRENCH CAMERAS)</b>								
	Wire Replacement							\$	5,000
	Motion Detector Replacement Parts							\$	5,000
	Camera Replacement Parts							\$	10,000
	<b>SUBTOTAL</b>							\$	20,000
	<b>5% MU</b>							\$	1,000
	<b>TOTAL</b>							\$	<b>21,000</b>
2.r.	<b>SECURITY &amp; YARD/OFFICE MAINTENANCE &amp; SUPPORT</b>								
	Security Guard Services							\$	158,000
	Janitorial Services							\$	7,700
	HVAC & Building Maintenance (Includes electrical, plumbing, and pest control)							\$	8,000
	<b>SUBTOTAL</b>							\$	173,700
	<b>5% MU</b>							\$	8,685
	<b>TOTAL</b>							\$	<b>182,385</b>
2.s.	<b>UNDERWATER BRIDGE INSPECTION (EVERY FIVE YEARS - LAST INSPECTION 2018)</b>								
	Subcontractor							\$	-
	<b>SUBTOTAL</b>							\$	-
	<b>5% MU</b>							\$	-
	<b>TOTAL</b>							\$	-
2.t.	<b>TRENCH DITCH CLEANING</b>				<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>		
	Assistant Foreman - BBII inside labor				Hours	150	\$ 54.83	\$	8,224
	Track Laborer - BBII inside labor				Hours	150	\$ 51.57	\$	7,736
	Hi-Rail Vac Truck				Days	30	\$ 2,450	\$	73,500
	Flagging - BBII inside labor				Days	20	\$ 650	\$	13,000
	<b>TOTAL</b>							\$	<b>102,460</b>

NMA 2018-5 - Attachment 2 to Exhibit B - Alameda Corridor - 2019 MOW Budget Detail

2018 CAPITAL Program

3.a.	<b>SURFACING PROGRAM</b>					
	Surfacing Unit - BBII outside labor & machinery	Days	45	\$ 4,700	\$	211,500
	Mobilization		LS		\$	25,000
	Note: All labor, equipment, and fuel included in daily rate					
	<b>TOTAL</b>				<b>\$</b>	<b>236,500</b>
3.c.i.	<b>REBALLAST PROGRAM</b>					
	Assistant Foreman - BBII inside labor	Hours	250	\$ 54.83	\$	13,707
	Track Laborer - BBII inside labor	Hours	250	\$ 51.57	\$	12,893
	<b>TOTAL</b>				<b>\$</b>	<b>26,600</b>
3.c.ii	<b>REBALLAST PROGRAM</b>					
	Operated Equipment (includes dump)	Hours	250	\$ 125	\$	31,250
	<b>TOTAL</b>				<b>\$</b>	<b>31,250</b>
3.f.	<b>CAPITAL PROGRAM RAIL GRINDING-LORAM</b>					
	114 Stone Train	Days	2	\$ 50,000	\$	100,000
	Fuel	Gallons	6,000	\$ 4	\$	24,000
	Pre-Grinding Inspection	Days	1	\$ 15,000	\$	15,000
	Mobilization		LS		\$	20,000
	<b>SUBTOTAL</b>				\$	159,000
	5% MU				\$	7,950
	<b>TOTAL</b>				<b>\$</b>	<b>166,950</b>
	Note: This total is split 50/50 between Railroad M&O 2.m. & Capital 3.f. (\$83,475/each)					
3.g.	<b>TRACK REBALLAST</b>					
	Equipment Rental*	Days	10	\$ 1,000	\$	10,000
	Hi-Rail Vac Truck	Days	10	\$ 2,450	\$	24,500
	Ballast Car Rental*	Days	10	\$ 300	\$	3,000
	<b>SUBTOTAL</b>				\$	37,500
	5% MU*				\$	650
	<b>TOTAL</b>				<b>\$</b>	<b>38,150</b>
3.h.	<b>RAIL / SWITCH COMPONENT REPLACEMENT</b>		<b>QTY</b>	<b>RATE</b>		
	<b>(FROGS AND CONCRETE SWITCH TIES)</b>					
	#10 RBM Frogs		1	\$ 16,250	\$	16,250
	#14 RBM Frogs		2	\$ 19,250	\$	38,500
	#20 RBM Frogs		2	\$ 23,500	\$	47,000
	Insulators and Tie pads		10,000	\$ 8	\$	80,000
	#14 Switch Ties (2 L.H. & 2 R. H.)		2	\$ 9,096	\$	18,193
	#20 Switch Ties (2 L.H. & 2 R. H.)		2	\$ 9,936	\$	19,873
	Transportation & Tax		LS		\$	22,000
	<b>SUBTOTAL</b>				\$	241,815
	5% MU				\$	12,091
	<b>TOTAL</b>				<b>\$</b>	<b>253,906</b>
3.o.	<b>PUMP STATION UPGRADES</b>					
	Replace Two Pumps at Greenleaf Pump Station				\$	130,000
	Parts & Materials				\$	70,000
	<b>SUBTOTAL</b>				\$	200,000
	5% MU				\$	10,000
	<b>TOTAL</b>				<b>\$</b>	<b>210,000</b>

Annual budget based on existing Corridor Maintenance Contractor's estimate. Contract expires December 14, 2018. Budget does not represent commitment to existing Contractor. Estimate is subject to revision based on new contractor selection.

3.w.	<b>REHAB HENRY FORD CROSSING @ CP DOMINGUEZ</b>					
	Carryover from 2018					
	Surfacing- BBII outside labor				\$	13,649
	Labor- BBII inside labor				\$	31,020
	Labor - BBII outside labor				\$	25,850
	Welding - BBII inside labor				\$	10,340
	Subject to 5% MU					
	Rail, Ties, & Trim				\$	52,000
	Concrete Crossing Panels (custom designed for curve)				\$	90,000
	Rental Equipment				\$	20,000
	Ballast & Fabric				\$	5,000
	Consultants - as needed				\$	25,000
	Paving & Track Subcontractors				\$	30,000
	Traffic Permits & Mitigation				\$	40,000
	Contingency				\$	10,000
	Clean-up & Tie Disposal				\$	7,500
	<b>SUBTOTAL</b>				\$	360,359
	5% MU				\$	13,975
	<b>TOTAL</b>				<b>\$</b>	<b>374,334</b>
	Note: Engineering and Permit Costs (\$40K) included under Section III. Corridor Operating & Other MOW Cost of O&M Budget					

NMA 2018-5 - Attachment 2 to Exhibit B - Alameda Corridor - 2019 MOW Budget Detail

3.gg.	<b>CURVE RAIL REPLACEMENT</b>	<b>MEASUREMENT</b>	<b>QTY</b>	<b>RATE</b>	
	Subcontractor Labor, Equipment, & Materials	Linear Feet	6,000	\$ 45	\$ 270,000
	<b>SUBTOTAL</b>				\$ 270,000
	<b>5% MU</b>				\$ 13,500
	<b>TOTAL</b>				<b>\$ 283,500</b>
3.hh.	<b>DIAMOND REPLACEMENTS - WEST THENARD</b>	<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>	
	Diamonds - Carryover from 2018		3	\$ 146,667	\$ 440,000
	Labor & Equipment - 2019 Work				
	Track Foreman - BBII inside labor	Hours	100	\$ 64.06	\$ 6,406
	Track Laborers - BBII inside labor	Hours	600	\$ 51.57	\$ 30,942
	Equipment Operators - BBII inside labor	Hours	100	\$ 81.70	\$ 8,170
	Equipment	LS	1	\$ 15,000	\$ 15,000
	Surfacing Unit - BBII outside labor & machinery	Days	4	\$ 4,700	\$ 18,800
	<b>SUBTOTAL</b>				\$ 519,318
	<b>5% MU</b>				\$ 22,000
	<b>TOTAL</b>				<b>\$ 541,318</b>
3.ii.	<b>SIGNAL CIRCUIT CONTROLLERS FOR SWITCHES (In Cycle)</b>	<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>	
	Subcontractor Labor, Equipment, & Materials	Yearly	5	\$ 6,000	\$ 30,000
	<b>SUBTOTAL</b>				\$ 30,000
	<b>5% MU</b>				\$ 1,500
	<b>TOTAL</b>				<b>\$ 31,500</b>
3.jj.	<b>RETIE VARIOUS CONTROL POINTS WITH 10 FT. WOOD TRANSITION TIES</b>	<b>DURATION</b>	<b>QTY</b>	<b>RATE</b>	
	Clips, Pads, & Insulators*		LS		\$ 5,000
	Track Foreman - BBII inside labor	Hours	40	\$ 64.06	\$ 2,562
	Track Laborers - BBII inside labor	Hours	160	\$ 51.57	\$ 8,251
	Equipment Operators - BBII inside labor	Hours	80	\$ 81.70	\$ 6,536
	Surfacing Unit - BBII outside labor & machinery	Days	3	\$ 4,700	\$ 14,100
	<b>SUBTOTAL</b>				\$ 36,449
	<b>5% MU*</b>				\$ 250
	<b>TOTAL</b>				<b>\$ 36,699</b>
3.ii.	<b>FIXED TRENCH LADDERS (Nine fixed ladders required. If prototype is successful, four will be completed in 2019.)</b>		<b>QTY</b>	<b>RATE</b>	
	Subcontractor Labor, Equipment, & Materials		4	\$ 90,000	\$ 360,000
	<b>SUBTOTAL</b>				\$ 360,000
	<b>5% MU</b>				\$ 18,000
	<b>TOTAL</b>				<b>\$ 378,000</b>
3.nn.	<b>COMPTON BRIDES - REPLACE APPROACH, AND DECK TIES</b>		<b>QTY</b>	<b>RATE</b>	
	Subcontractor Labor, Equipment, & Materials		500	\$ 500	\$ 250,000
	<b>SUBTOTAL</b>				\$ 250,000
	<b>5% MU</b>				\$ 12,500
	<b>TOTAL</b>				<b>\$ 262,500</b>
3.oo.	<b>REPLACEMENT OF M23A SWITCHES</b>		<b>QTY</b>	<b>RATE</b>	
	Materials		2	\$ 25,000	\$ 50,000
	<b>SUBTOTAL</b>				\$ 50,000
	<b>5% MU</b>				\$ 2,500
	<b>TOTAL</b>				<b>\$ 52,500</b>

NMA 2018-5 - Attachment 3 to Exhibit B - Alameda Corridor - 2019 Operations & Maintenance Budget

												Calendar Year 2019				Calendar Year 2018						
												Basis of Apportionment		R.R. M & O Rail	Reserve Account Non-	ACTA Operating	Total	R.R. M & O Rail Cost	Reserve Account Non-	ACTA Operating	Total	
												GR Ton MI	Train MI	Cost (A)	Rail Cost (B)	Budget Cost (C)		(A)	Rail Cost (B)	Budget Cost (C)		
I.	Maintenance of Way Contractor's Costs:																					
1.a.i	Contract Manager			GTM	TM	\$	187,268	\$	66,881	\$	13,376	\$	267,525	\$	182,700	\$	65,250	\$	13,050	\$	261,000	
1.a.ii	Track Superintendent			GTM			142,198		47,399		-		189,597		137,655		45,885		-		183,540	
1.a.iii	Bridge Supt. / Safety			GTM			39,326		157,305				196,631		38,367		153,468		-		191,835	
1.a.iv	Office Manager				TM		78,843		28,158		5,632		112,633		76,920		27,472		5,494		109,886	
1.b.	Track Inspector			GTM			108,873		36,291				145,164		105,293		35,098		-		140,390	
1.b.i	Track Foreman			GTM			106,173		35,391				141,564		102,682		34,227		-		136,910	
1.b.ii	Assistant Foreman			GTM			89,644		29,881				119,525		86,696		28,899		-		115,595	
1.b.iii	Track Laborers			GTM			247,895		82,632				330,527		239,744		79,915		-		319,659	
1.b.iv	Equipment Operators				TM		133,578		44,526				178,104		129,185		43,062		-		172,247	
1.b.v	Welder			GTM			138,459		-				138,459		133,907		-		-		133,907	
1.b.vi	Welder Helper			GTM			112,436		-				112,436		108,738		-		-		108,738	
1b.vii	Laborer (Graffiti/Pump Station)				TM		-		112,424				-		-		108,728		-		108,728	
2.a.	Administrative Burden				TM		54,243		19,373		3,875		77,490		51,597		18,428		3,686		73,710	
2.a.i	Accounting Support				TM		31,500		11,250		2,250		45,000		-		-		-		-	
2.b.	Pump Station Maintenance						-		14,383		-		14,383		-		13,695		-		13,695	
2.b.i.	Pump Station Repairs & Supplies						-		26,250		-		26,250		-		26,250		-		26,250	
2.c.	AEI & Misc Maint-AAR Unit Count-757 Units @ \$216/Unit						-		-			168,054	168,054		-		-		163,512		163,512	
2.d.	Rail Flaw Detection (Subcontractor)						-		-		-		-		-		-		-		-	
2.e.	Graffiti Control			GTM			40,000		-				40,000		32,000		-		-		32,000	
2.f.	Weed Abatement (Subcontractor)				TM		-		24,880				24,880		-		21,780		-		21,780	
2.g.	Safety Training				TM		20,000		5,000				25,000		20,000		5,000		-		25,000	
2.h.	Safety Management				TM		21,675		3,825				25,500		21,675		3,825		-		25,500	
2.i.	Vehicles				TM		21,356		3,769				25,125		21,356		3,769		-		25,125	
2.k.	Bridge Superintendent / Safety Vehicle			GTM	TM		175,731		44,788		1,377		221,895		173,949		44,255		1,343		219,547	
2.l.	Hi-Rail Boom Truck			GTM	TM		5,004		20,016				25,020		4,920		19,680		-		24,600	
2.m	Maintenance Program Rail Grinding - Loram (1/2 of Capital cost, see 3.f.)			GTM			64,944		16,236				81,180		63,360		15,840		-		79,200	
2.n	Track Materials / Supplies & Rentals						83,475		-				83,475		83,475		-		-		83,475	
2.o.	Signal Maintenance - AAR Unit Count - 4901 Units @\$ 216/Unit			GTM			250,740		-				250,740		246,960		-		-		246,960	
2.p	Ladder / Fence / Traffic Support				TM		1,088,022		-				1,088,022		1,058,616		-		-		1,058,616	
2.q	Security (Trench Cameras)						-		52,500				52,500		-		102,500		-		102,500	
2.r.	Security & Yard / Office Maintenance & Support			GTM	TM		14,700		5,250		1,050		21,000		14,700		5,250		1,050		21,000	
2.s.	Underwater Bridge Inspection				TM		182,385		-				182,385		194,460		-		-		194,460	
2.t.	Trench Ditch Cleaning						-		-				-		15,750		-		-		15,750	
2.v.	Replace Signal Wire on Corridor						-		102,460				102,460		-		116,198		-		116,198	
2.v.	Replace Signal Wire on Corridor				TM		20,000		-				20,000		20,000		-		-		20,000	
2.w.	Railroad Reporting & Record Keeping Software System				TM		16,500		-				16,500		16,500		-		-		16,500	
2.x.	Railroad Emergency Drill Exercise				TM		20,000		-				20,000		20,000		-		-		20,000	
2.y.	PTC Support at CP W&E Redondo (UP only unless BNSF also requests data)				TM		-		-				-		11,500		-		-		11,500	
2.aa.	AEI Readers Upgrade (7)						-		-				-		108,337		-		-		189,600	
Subtotal MOW Contractor's Costs							\$3,494,967		\$990,867		\$195,613		\$4,681,447		\$3,521,043		\$1,018,471		\$269,397		\$4,808,912	
II.	Annual Capital Cost																					
3.a.	Surfacing Unit - 45 Days @ \$4,600/Day					\$	-	\$	211,500	\$	-	\$	211,500	\$	-	\$	207,000	\$	-	\$	207,000	
	Surfacing Mobilization						-		25,000				25,000		-		25,000		-		25,000	
3.c.i	Reballast Program (Labor)						-		26,600				26,600		-		25,728		-		25,728	
3.c.ii	Reballast Program (Operated Equipment)						-		31,250				31,250		-		44,000		-		44,000	
3.d.	Ballast - 1,000 Tons @ \$36/Ton						-		36,000				36,000		-		36,000		-		36,000	
3.f.	Capital Program Rail Grinding - Loram						-		83,475				83,475		-		83,475		-		83,475	
3.g.	Track Reballast						-		38,150				38,150		-		38,150		-		38,150	
3.h.	Rail / Switch Component & Tie Replacement						-		253,906				253,906		-		226,937		-		226,937	
3.o.	Pump Station Upgrades						-		210,000				210,000		-		231,000		-		231,000	
3.r.	Trench Emergency Ladder/Stair Study/Repairs						-		100,000				100,000		-		150,000		-		150,000	
3.u.	Replace Long Beach Crossing Diamonds						-		-				-		-		-		-		-	
3.w.	Rehab Henry Ford Crossing @ CP Dominguez						-		374,334				374,334		-		371,675		-		371,675	
3.y.	Signal Battery Replacement (10-Year Program)						-		50,000				50,000		-		50,000		-		50,000	
3.aa.	Retie Crucero to LB Diamond w/ Concrete Ties						-		-				-		-		24,483		-		24,483	
3.bb.	Replace Hot Box Detector @ MP 12.90						-		-				-		-		16,800		-		16,800	
3.gg.	Curve Rail Replacement						-		283,500				283,500		-		283,500		-		283,500	
3.hh.	Diamond Replacements - West Thenard						-		541,318				541,318		-		462,000		-		462,000	
3.ii.	Signal Circuit Controllers for Switches						-		31,500				31,500		-		31,500		-		31,500	
3.jj.	Retie Various Control Points with Concrete Ties						-		36,699				36,699		-		64,180		-		64,180	
3.kk.	Upgrade and Refurnish Maintenance Facility						-		-				-		-		15,750		-		15,750	
3.ll.	Fixed Trench Ladders						-		378,000				378,000		-		76,750		-		76,750	
3.mm.	Misc. Trench Structure Repairs						-		-				-		-		63,000		-		63,000	
3.nn.	Compton Bridges - Replace Approach and Deck Ties						-		262,500				262,500		-		-		-		-	
3.oo.	Replacement of M23A Switches						-		52,500				52,500		-		-		-		-	
Subtotal Capital Expenditures							\$0		\$3,026,232		\$0		\$3,026,232		\$0		\$2,526,927		\$0		\$2,526,927	
Subtotal of I & II							\$3,494,967		\$4,017,099		\$195,613		\$7,707,679		\$3,521,043		\$3,545,398		\$269,397		\$7,335,839	
Multiple use contingency for 2018, not in MOW Budget but included in O&M Budget														\$600,000								\$200,000
III.	Corridor Operating & Other MOW Cost																					
	Insurance (annual amount) (8)																					