Appendix K

Cut Fill Options
CABRILLO WAY MARINA DEVELOPMENT
EQUAL AREAS OF CUT AND FILL

OPTION “A” ALTERNATIVE

Under the Option “A” Alternative the project site would be developed with some of the same project elements as the proposed project but with more emphasis on equal net areas of cut and fill. The landside development has limited visitor-serving retail/commercial uses compared to the proposed project. The capacity for storing boats in the drystack building is reduced by nine percent and two significant retail buildings and approximately 85 parking spaces are eliminated. Since the project objectives would not be met, this alternative is considered infeasible. In addition, with the associated removal (approximately 60,000 cubic yards hauled offsite) and disposal of a significant quantity of material for the creation of new water surface area, the higher cost of this alternative makes it economically infeasible.

Dry Stack Impacts

Requirement: 140’ clear between launch and dry stack entrance

Proposed dry stack: 133,500 SF = 900 Boats
               148 SF per 1 Boat

Lose 50’ x 230’ = 11,500 SF = 78 Boats

New capacity = 822 say 820 Boats
               9% loss

Lose 0.5 AC Land

Retail Impacts

Lose D-2 = 0.8 AC + 10,000 SF Restaurant

Lose D-3 = 1.3 AC + 10,000 SF Marina Club

Lose 45% D-1 = 0.2 AC (Partial Loss)

Lose = 1.6 AC Parking & Misc. land uses

*Assume no slip loss/gain
Quantity Impacts

<table>
<thead>
<tr>
<th>Qty (CY)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>195,000</td>
<td>Fill</td>
</tr>
<tr>
<td>182,000</td>
<td>Cut</td>
</tr>
<tr>
<td>75,000</td>
<td>Dredge</td>
</tr>
<tr>
<td></td>
<td>Offsite Disposal</td>
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OPTION “B” ALTERNATIVE

Under the Option “B” Alternative the project site would be developed with some of the same project elements as the proposed project but with more emphasis on equal net areas of cut and fill. The landside development has limited visitor-serving retail/commercial uses compared to the proposed project. The capacity for storing boats in the drystack building is significantly reduced (21 percent!) and two retail buildings and approximately 66 parking spaces are eliminated. Since the project objectives would not be met, this alternative is considered infeasible. In addition, with the associated removal (approximately 65,000 cubic yards hauled offsite) and disposal of a significant quantity of material for the creation of new water surface area, the higher cost of this alternative makes it economically infeasible.

Dry Stack Impacts

Same requirements as Option “A” Alternative

|LOSE| 120’ x 230’ | 27,600 SF | = | 186 Boats |
|LOSE| New capacity | 713       | say | 710 Boats |
|LOSE| 0.6 AC Land  |           |     |           |

Retail Impacts

|LOSE| D-2 | 0.8 AC | + | 10,000 SF | Restaurant |
Lose 85% D-3 = 1.1 AC + 10,000 SF Marina Club
Lose = 1.9 AC Parking & misc. land uses

*Assume no slip loss/gain

**Quantity Impacts**

<table>
<thead>
<tr>
<th>Cut</th>
<th>Qty (CY)</th>
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<tbody>
<tr>
<td>180,000 CY</td>
<td>190,000</td>
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<tr>
<td>165,000 CY Fill x 1.15 =</td>
<td>- 80,000</td>
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<tr>
<td>-</td>
<td>- 75,000</td>
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<tr>
<td>190,000 CY</td>
<td>- 65,000</td>
</tr>
<tr>
<td>75,000 CY dredge</td>
<td>Offsite Disposal</td>
</tr>
</tbody>
</table>
CUT AREA
1. 0.5 AC
2. 4.3 AC
TOTAL = 4.8 AC
TOTAL CUT VOLUME = 180,000 CY

FILL AREA
3. 0.6 AC
4. 1.8 AC
5. 3.3 AC
TOTAL = 4.9 AC
TOTAL FILL VOLUME = 165,000 CY

DREDGING AREA
TOTAL = 9.6 AC
TOTAL DREDGE VOLUME = 75,000 CY

* MATERIALS EXTRACTED FROM CUT/DREDGED AREAS ARE TO BE USED IN THE FILL PORTION OF THE SITE