

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
			<u>9% loss</u>

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

182,00 CY Cut

170,000 CY Fill x 1.15 shrinkage factor =

195,500 CY

75,000 CY dredge

Qty (CY)

195,000

Fill

-182,000

Cut

- 75,000

Dredge

- 61,500

Offsite Disposal

Say - 60,000

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

New capacity = 713 say 710 Boats

21% Loss

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

180,000 CY Cut	<u>Qty (CY)</u>	
	190,000	
165,000 CY Fill x 1.15 =	- 80,000	
-	<u>- 75,000</u>	
190,000 CY		
	- 65,000	Offsite Disposal
75,000 CY dredge		

CUT AREA

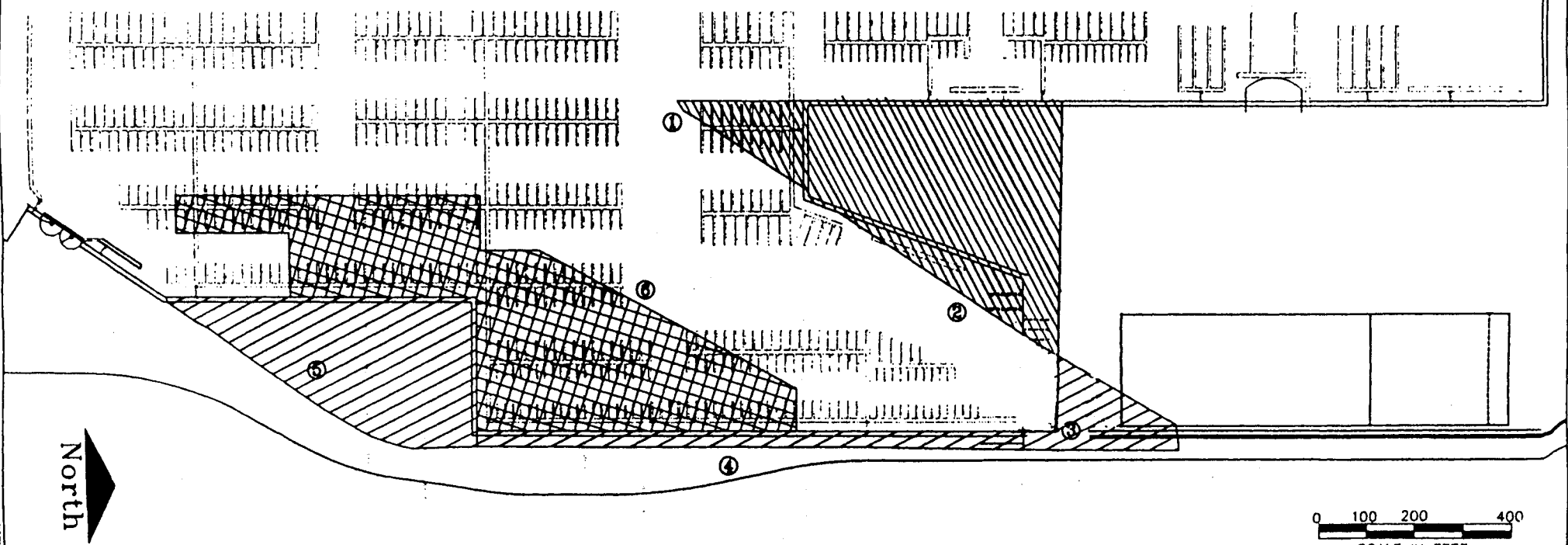
① 0.8 AC ② 4.4 AC
TOTAL = 5.0 AC
TOTAL CUT VOLUME = 192,000 CY

FILL AREA

③ 0.7 AC ④ 1.0 AC ⑤ 3.3 AC
TOTAL = 5.0 AC
TOTAL FILL VOLUME = 170,000 CY

DREDGING AREA

TOTAL = 9.8 AC ⑥
TOTAL DREDGE VOLUME = 75,000 CY



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

OPTION A

CUT/FILL/DREDGING MARKUP
CABRILLO WAY AT
CABRILLO YACHT HARBOR

CUT AREA

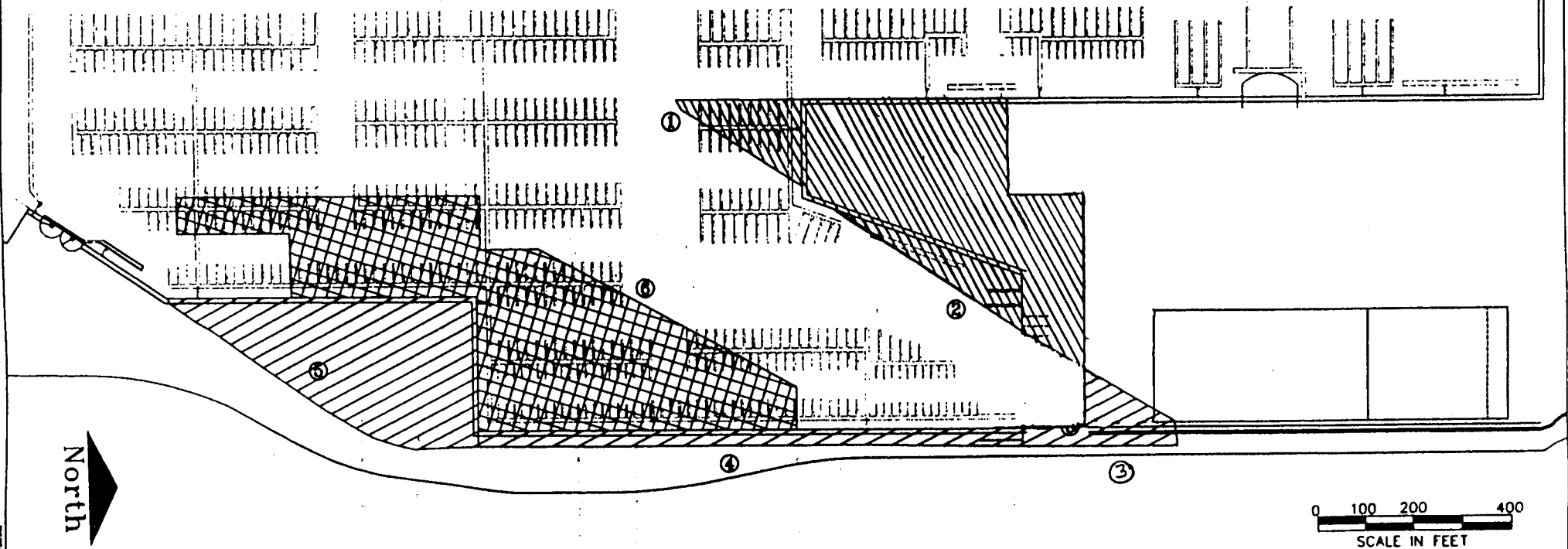
① 0.6 AC ② 4.3 AC
TOTAL = 4.9 AC
TOTAL CUT VOLUME = 180,000 CY

FILL AREA

③ 0.6 AC ⑤ 3.3 AC
④ 1.0 AC
TOTAL = 4.9 AC
TOTAL FILL VOLUME = 165,000 CY

DREDGING AREA

TOTAL = 9.6 AC ⑥
TOTAL DREDGE VOLUME = 75,000 CY



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

OPTION B

CUT/FILL/DREDGING MARKUP
CABRILLO WAY AT
CABRILLO YACHT HARBOR