

Memorandum

Date : February 28, 1990

To : Peter Douglas, Executive Director
Pat Stebbins, Access Program
California Coastal Commission
631 Howard Street
San Francisco, California 94102

From : **State Coastal Conservancy**
Chris Kroll

Subject : Black Tor Application No. 5-89-1197

Enclosed for your information is a copy of the concept level estimate of probable construction costs for development of the Conservancy's vertical access easement and dedicated parking easement on the Chiate/Wildman properties in Malibu, prepared by the CGH Group under contract to the Conservancy. This information is being provided to you in response to Bill Allayaud's request relevant to your consideration of the above-referenced permit application.

Please feel free to contact me if you have any questions.

The CGH Group
Landscape Architecture
Park & Recreation Planning

MEMORANDUM

Date: February 23, 1990

To: Mr. Reed Holderman, Program Manager
California Coastal Conservancy

From: C. Gary Hyden

Subject: Chiate - Wildman Coastal Access

Enclosed for your use is the Concept Level Estimate of Probable Construction Cost for the Chiate - Wildman Coastal Access in Malibu.

Using a parcel map, topographic map and other information supplied by the Conservancy, I conducted a site reconnaissance on February 15, 1990 to review the field conditions that would affect the construction costs for developing coastal access at this location.

For purposes of preparing this estimate it was assumed that a permanent path surface would be provided. It was also assumed that due to the limited space and steep topography, this would not be a whole access facility, meeting State of California Title 24 Handicap Access Requirements. In addition, we also made the assumption that the adjacent landowners would allow access to the easement from their property for construction purposes. If this is not the case, the cost of building the facility may increase from 20 to 30 percent.

The easement has not been surveyed or staked. However during a portion of my site reconnaissance I was accompanied by Mr. Jonathan S. Horne, an attorney representing Mr. Wildman. With input from Mr. Horne and my recollection from a previous site visit with Mr. Chris Kroll and Ms. Marsh Grim in October 1989, I got a fairly good idea of the easement alignment and its relationship to the existing structures and the topography.

The following is a brief description of the various site conditions along the easement and the related construction elements required to provide coastal access. For reference purposes I have labeled the distances along the easement with station points starting with station 0+00 at the Pacific Coast Highway (PCH). This station point system is also used in the cost estimate. See EXHIBIT ONE Parcel Map for additional information on the station point relationship to the easement.

Page 2 of 3

STATION 0+00 - 0+54

Visitor parking will be developed in this section of the easement. See Exhibit one for the limits of the easement.

Existing topographic conditions will require a substantial retaining wall and backfill in order to provide parking off of PCH. The slope at the shoulder of the road falls at a 2:1 or greater and there are several trees, some of which may have to be removed. A 10 to 12 foot retaining wall will have to be constructed approximately 54 feet from the edge of PCH pavement. The retaining wall will be backfilled and paved to provide parking. A guard rail at the top of the wall will be required for safety. See Exhibit Two Photograph 1

STATION 0+54 - 1+20

This portion of the easement is relative flat and very little grading will be required to install the path. See Exhibit Two Photograph 2

STATION 1+20 - 1+66

Approximately at this point the easement goes onto Mr. Chlate's property. a slope across the easement also begins at this point. In order to provide a useable path a small 2 foot high retaining wall will be required on the uphill side of the path along this section. For purposes of the estimate we assumed the wall will be wood construction. See Exhibit Two Photograph 3

STATION 1+66 - 2+30

The same cross slope condition exists along this segment of the easement except that the slope is steeper and requires a 3 foot high retaining wall.

STATION 2+30 - 2+66

Due to the grade along this segment and the driveway edge built within the easement, a set of steps will be required to negotiate the elevation change. See Exhibit Two Photograph 4.

STATION 2+66 - 5+00

Due to the fact that a concrete driveway has been constructed on this portion of the easement, additional path improvements are unnecessary. However, 2 coastal access signs are recommended along this segment, so the path user will not become disoriented and wander onto private property. See Exhibit Two Photograph 5.

STATION 5+00 - 6+00

The existing concrete pavement ends at this point. Access development along this segment will require removal of several trees and the negotiation of a steep slope with a stairway. See Exhibit Two Photograph 6.

STATION 6+00 - 8+80

This segment of the easement travels along a steep ravine with slopes of 1:1 or greater in some locations. In order to develop a path here two sets of stairs and a bridge like structure approximately 200 feet in length will be required. My consulting structural engineer has suggested a single concrete caisson support with a 24" x 24" concrete cap (all poured in place), with 3 - 8" x 30" glulam stringers and decking from 2 x 6 treated lumber, with wooden handrails.

STATION 8+80

Approximately at this point the easement hits sandy beach and coastal access has been accomplished. See Exhibit Two Photograph 7

At this stage of project development there are many unknowns, such as geological and soils conditions. In order to compensate we have added a 20% design contingency to the estimate.

This concept level estimate and accompanying information should be used only for feasibility discussion purposes. If it is determined that the Conservancy wants to proceed with developing this easement a boundary and topographic survey should be made, some sample soils boring should be taken, and a preliminary plan and preliminary level estimate of probable construction cost should be developed using this additional information.

THE CGH GROUP
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**CONCEPT ESTIMATE OF PROBABLE
 CONSTRUCTION COSTS**

Project: Chiate-Wildman Coastal Access
 Project No: 90.05
 Date: 23-Feb-90
 By: CGH

Item #	Description	Quantity	Unit	Cost	Item Total	Subtotal
GENERAL REQUIREMENTS						
1	Performance & Materials Bonds	Allow	LS	\$3,500.00	\$3,500.00	
2	Mobilization	Allow	LS	\$14,000.00	\$14,000.00	
						\$17,500
STATION 0+00 - 0+54						
Demolition						
1	Clearing and grubbing	7411	SF	\$0.08	\$592.88	
2	Tree removal	3	EA	\$150.00	\$450.00	
						\$1,043
Earthwork						
1	Engineered fill	1048	CY	\$7.00	\$7,336.00	
2	Rough grading	7411	SF	\$0.10	\$741.10	
3	Backfill drain rock	89	CY	\$23.50	\$2,091.50	
						\$10,169
Paving and Walks						
1	Paving AC 2" over 4" base	7411	SF	\$2.15	\$15,933.65	
2	Concrete Curb	194	LF	\$15.00	\$2,910.00	
						\$18,844
Walls/Steps/Rails						
1	Footing, concrete	262	LF	\$57.00	\$14,934.00	
2	Retaining wall, concrete	2172	SSF	\$19.50	\$42,354.00	
3	Guardrail	248	LF	\$45.00	\$11,160.00	
						\$68,448
Soil Preparation						
1	Fine grading	1020	SF	\$0.10	\$102.00	
						\$102
Planting						
1	Seeding	1020	SF	\$0.20	\$204.00	
						\$204
STATION 0+54 - 1+20						
Demolition						
1	Clearing and grubbing	408	SF	\$0.08	\$32.64	
2	Tree removal	2	EA	\$150.00	\$300.00	
						\$333
Earthwork						
1	Cut & fill combination	5	CY	\$3.95	\$19.75	
2	Rough grading	408	SF	\$0.10	\$40.80	
						\$61
Paving and Walks						
1	Paving AC 2" over 4" base	180	SF	\$2.50	\$450.00	
						\$450
Soil Preparation						
1	Fine grading	244	SF	\$0.10	\$24.40	

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**CONCEPT ESTIMATE OF PROBABLE
 CONSTRUCTION COSTS**

Project: Chiate-Wildman Coastal Access
 Project No: 90.05
 Date: 23-Feb-90
 By: CGH

Item #	Description	Quantity	Unit	Cost	Item Total	Subtotal
	Planting					\$24
1	Seeding	240		\$0.20	\$48.00	
						\$48
	STATION 1+20 - 1+66					
	Demolition					
1	Clearing and grubbing	270	SF	\$0.08	\$21.60	
						\$22
	Earthwork					
1	Cut & fill combination	16	CY	\$3.95	\$63.20	
2	Rough grading	270	SF	\$0.09	\$24.30	
						\$88
	Paving and Walks					
1	Paving AC 2" over 4" base	180	SF	\$2.50	\$450.00	
						\$450
	Walls/Steps/Rails					
1	Wood retaining wall	90	SFF	\$22.50	\$2,025.00	
						\$2,025
	STATION 1+66 - 2+30					
	Demolition					
1	Clearing and grubbing	462	SF	\$0.08	\$36.96	
						\$37
	Earthwork					
1	Cut & fill combination	37	CY	\$3.95	\$146.15	
2	Rough grading	462	SF	\$0.09	\$41.58	
						\$188
	Paving and Walks					
2	Paving AC 2" over 4" base	264	SF	\$2.50	\$660.00	
						\$660
	Walls/Steps/Rails					
1	Wood retaining wall	198	SFF	\$22.50	\$4,455.00	
						\$4,455
	STATION 2+30 - 2+66					
	Demolition					
1	Clearing and grubbing	216	SF	\$0.08	\$17.28	
						\$17
	Earthwork					
1	Engineered Fill	20	CY	\$7.00	\$140.00	
2	Rough grading	216	SF	\$0.09	\$19.44	
						\$159
	Paving and Walks					
1	Paving AC 2" over 4" base	144	SF	\$2.50	\$360.00	
						\$360
	Walls/Steps/Rails					

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**CONCEPT ESTIMATE OF PROBABLE
 CONSTRUCTION COSTS**

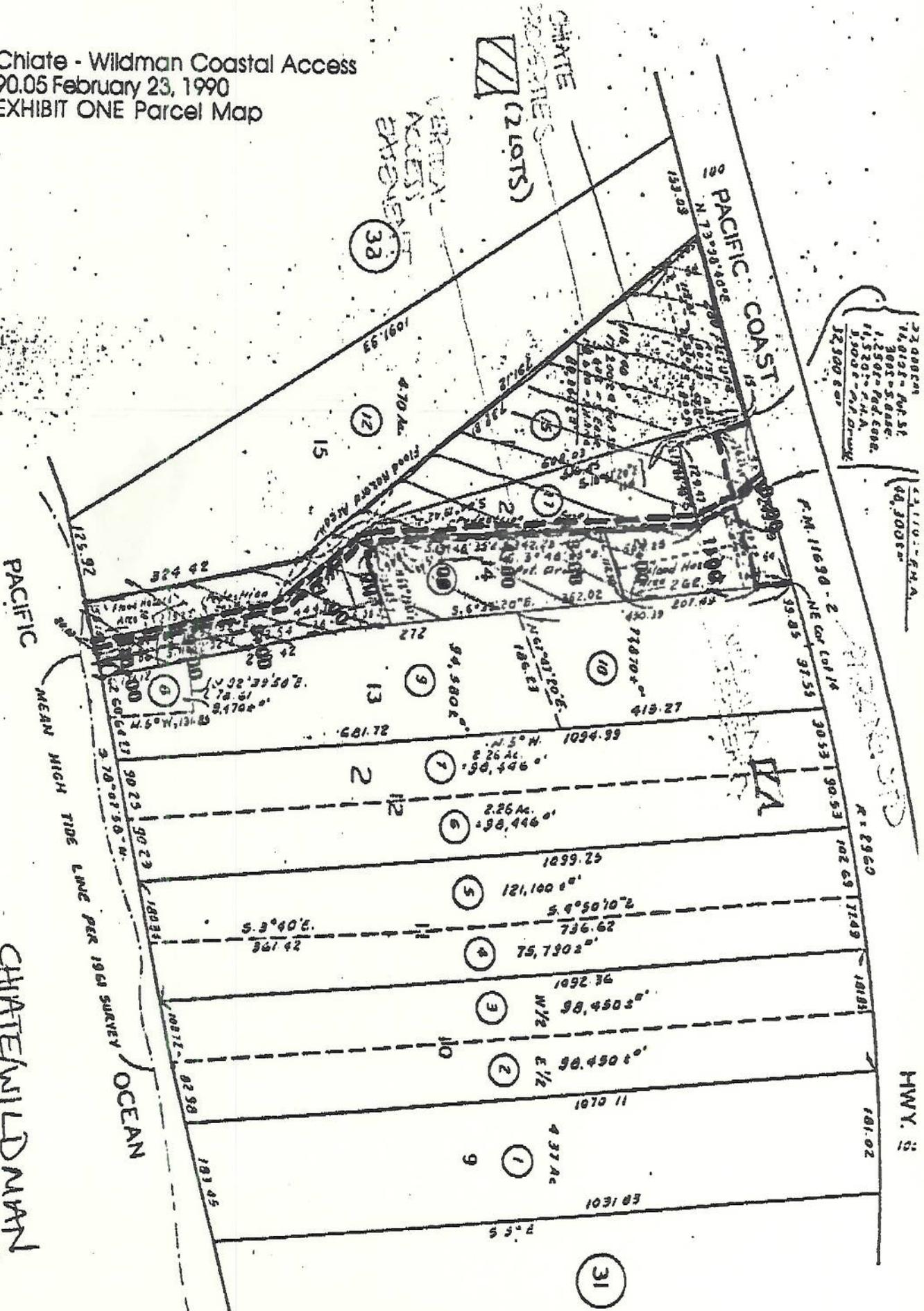
Project: Chiate-Wildman Coastal Access
 Project No: 90.05
 Date: 23-Feb-90
 By: CGH

Item #	Description	Quantity	Unit	Cost	Item Total	Subtotal
1	Wood retaining wall	94	SFF	\$22.50	\$2,115.00	
2	Wood steps	3	LF	\$150.00	\$450.00	\$2,565
STATION 2+66 - 5+00						
1	Signage	2	EA	\$250.00	\$500.00	
STATION 5+00 - 6+00						
Demolition						
\$500						
1	Clearing and grubbing	1000	SF	\$0.08	\$80.00	
2	Tree removal 10"-14" diameter	8	EA	\$150.00	\$1,200.00	\$1,280
Earthwork						
1	Cut & fill combination	8	CY	\$3.95	\$31.60	
2	Rough grading	400	CY	\$0.09	\$36.00	\$68
Paving and Walks						
1	Paving AC 2"	400	SF	\$2.50	\$1,000.00	\$1,000
Walls/Steps/Rails						
1	Wood steps	20	LF	\$150.00	\$3,000.00	\$3,000
STATION 6+00 - 8+80						
1	Stairways	125	LF	\$150.00	\$18,750.00	
2	Bridge walkway	200	LF	\$495.00	\$99,000.00	\$117,750
SUB-TOTAL						\$251,848
Contingency						\$50,370
1	Concept Level Contingency, 20%					\$302,217
TOTAL OF CONSTRUCTION						
Professional Services						
1	Easement & Topographic survey	Allow		\$7,000.00	\$7,000.00	
2	Design and Engineering	Allow		\$28,710.65	\$28,710.65	\$35,711
TOTAL CONSTRUCTION ESTIMATE						\$337,928

The above items, amounts, quantities, and related information are based on CGH Group's judgment at this level of document preparation and is offered only as reference data. CGH Group has no control over construction quantities, costs and related factors affecting costs, and advises the client that significant variation may occur between this estimate of probable construction costs and actual construction prices.

Chiate - Wildman Coastal Access
90.05 February 23, 1990
EXHIBIT ONE Parcel Map

PARCEL MAP
TRACT NO. 12935
P. M. 135-58-59
M. B. 248-39-40



CHATE/WILDMAN
27900-27910 PCH