




# Penfield & Smith

Engineering • Surveying • Planning • Construction Management

111 East Victoria Street • Santa Barbara, CA 93101  
tel 805-963-9532 • fax 805-966-9801

## MEMORANDUM

TO: Howard Zelefsky

FROM: Michael Osborn, P.E. 

SUBJECT: Paradiso del Mare Vertical Beach Access Alternatives

WORK ORDER: 12825.15

DATE: June 25, 2012

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It is our understanding that the County has expressed reservations about the potential of constructing a vertical beach access in the previously studied location near the mouth of Eagle Canyon. The property owner has offered the County a floating easement for vertical beach access along the bluff from Eagle Canyon to Drainage #5. The County has requested that the owner provide possible alternative locations along the bluff where a vertical access structure could be constructed.

On Friday, June 22, 2012, Bret Foster, P.E. and I visited the project site during the early morning low tide (approximately -0.5ft.) to walk to beach and determine alternative locations for a future vertical beach access. The following summarizes our observations:

- The bluff from Eagle Canyon to Drainage #4 is approximately 70-ft. tall. The rock material of the bluff face varies from more solid to very weathered in appearance and often has a thick layer of soil at the top. Vertical access along this stretch of beach and between the three locations described below would be difficult. See Photo A, below.
- Drainage #4 is a deep, narrow, incised channel with little horizontal protection at the bluff face along the beach. The vertical difference is much less than the adjacent bluffs; however, it will be difficult to locate a structure outside of the drainage flow path. See Photo B.
- There is an unnumbered local drainage between #4 and #5 that has greater potential than drainage #4 since it is not a major drainage course; the face material seems solid; and there is bedrock at the beach that may provide some protection to the structure's foundation. However, this face is still rather tall (over 30-ft.) and would require at least three flights of stairs to reach the beach. See Photo C.
- Drainage #5 presents the best alternative out of the three alternatives identified herein for a vertical beach access as the mouth of the drainage is very near beach level and in a natural cove that provides horizontal protection of a structure's

foundation. With some grading, access could come down the eastern side of the drainage and land on the east side of the drainage flow path. See Photo D.

The last three locations above are the apparent viable alternatives for a future vertical access. All three are within close proximity to old roads on the property along which public trail access to the top of the bluffs could be provided. Based upon visual observations, vertical access at Drainage #5 would be the first choice as an alternative to vertical access at Eagle Canyon. The un-named drainage between Drainage #4 and #5 would be the second choice and Drainage #4 would be the third choice. Although not apparently ideal, a fourth choice, any other location along the bluff between Eagle Canyon and Drainage #5 could be considered, if so desired.

At present, we are unable to clearly determine if access at Drainage #5 would be equal or superior to access at Eagle Canyon for several reasons. Access at Eagle Canyon has received more analysis and consideration than any other location along the beach frontage. It is expected that there would be some challenges at Drainage #5 that are yet unknown. Further geotechnical and geological analysis and engineering design would be needed make any further determinations of the viability for access at Drainage #5, or for that matter any alternative.

c. Hady Izadpanah, Penfield & Smith  
Bret Foster, Penfield & Smith  
April Winecki, Dudek and Associates

**Photographs:**



*Photo A: Typical Bluff Face Eagle Canyon to Drainage #4*



*Photo B: Drainage #4*



*Photo C: Unnumbered Local Drainage between #4 and #5*



*Photo D: Drainage #5*

## Cost Analysis - Eagle Canyon Beach Access Stairs

Project: Paradiso del Mare Estates  
 Location: APN 079-200-004; 079-200-008  
 Client: Makar Properties  
 W.O. No.: 12825.07  
 Calc'd By: mlo  
 Path Name: W:\work\12000-12999\12825\Project Estimates\  
 File Name: EagleCynStairsEst\_2010Oct.xls



111 East Victoria St.  
 Santa Barbara, CA 93101  
 (805)963-9532

Date: **10/29/2010**

| ITEM                      | DESCRIPTION                        | UNIT | QUANTITY | UNIT COST | TOTAL COST       |
|---------------------------|------------------------------------|------|----------|-----------|------------------|
| <b>Soft Costs</b>         |                                    |      |          |           |                  |
| 1                         | Design Level Survey                | LS   | 1        | \$15,000  | \$15,000         |
| 2                         | Engineering Services               | LS   | 1        | \$50,000  | \$50,000         |
| 3                         | Geotechnical & Geological Services | LS   | 1        | \$30,000  | \$30,000         |
| 4                         | Biological Survey                  | LS   | 1        | \$22,970  | \$22,970         |
| 5                         | Permitting                         | LS   | 1        | \$20,000  | \$20,000         |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$137,970</b> |
| <b>Construction Costs</b> |                                    |      |          |           |                  |
| 1                         | Mobilization                       | LS   | 1        | \$30,000  | \$30,000         |
| 2                         | Construction Survey                | LS   | 1        | \$8,000   | \$8,000          |
| 3                         | Biological Monitoring              | Day  | 60       | \$250     | \$15,000         |
| 4                         | Clearing & Grubbing                | LS   | 1        | \$5,000   | \$5,000          |
| 5                         | Grading                            | LS   | 1        | \$20,000  | \$20,000         |
| 6                         | Erosion & Sediment Control BMPs    | LS   | 1        | \$20,000  | \$20,000         |
| 7                         | Crane Rental                       | Day  | 30       | \$1,650   | \$49,500         |
| 8                         | Timber Stairs                      | LS   | 1        | \$50,000  | \$50,000         |
| 9                         | Steel Railing                      | LS   | 1        | \$52,000  | \$52,000         |
| 10                        | Protection of Piles from Sea Water | LS   | 1        | \$5,000   | \$5,000          |
| 11                        | Piles                              | EA   | 12       | \$5,000   | \$60,000         |
| 12                        | Treatment of Water from Pile Holes | LS   | 1        | \$5,000   | \$5,000          |
| 13                        | Concrete Landing & Stairs          | CY   | 60       | \$2,000   | \$120,000        |
| 14                        | Re-vegetation                      | LS   | 1        | \$5,000   | \$5,000          |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$444,500</b> |
|                           | <b>Contingency</b>                 | -    | 20%      | \$582,470 | <b>\$116,494</b> |
|                           | <b>Inflation</b>                   | -    | 10%      | \$698,964 | <b>\$69,896</b>  |
|                           | <b>Total</b>                       |      |          |           | <b>\$768,860</b> |



## Cost Analysis - Alternative Vertical Beach Access

Project: Paradiso del Mare Estates  
 Location: APN 079-200-004; 079-200-008  
 Client: CPH Dos Pueblos Associates, LLC  
 W.O. No.: 12825.15  
 Calc'd By: mlo  
 Path Name: W:\work\12000-12999\12825\Project Estimates\  
 File Name: EagleCynStairsEst\_2010Oct.xls

Drainage  
#4



111 East Victoria St.  
 Santa Barbara, CA 93101  
 (805)963-9532

Date: **8/20/2012**

| ITEM                      | DESCRIPTION                        | UNIT | QUANTITY | UNIT COST | TOTAL COST       |
|---------------------------|------------------------------------|------|----------|-----------|------------------|
| <b>Soft Costs</b>         |                                    |      |          |           |                  |
| 1                         | Design Level Survey                | LS   | 1        | \$15,000  | \$15,000         |
| 2                         | Engineering Services               | LS   | 1        | \$50,000  | \$50,000         |
| 3                         | Geotechnical & Geological Services | LS   | 1        | \$30,000  | \$30,000         |
| 4                         | Biological Survey                  | LS   | 1        | \$22,970  | \$22,970         |
| 5                         | Permitting                         | LS   | 1        | \$20,000  | \$20,000         |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$137,970</b> |
| <b>Construction Costs</b> |                                    |      |          |           |                  |
| 1                         | Mobilization                       | LS   | 1        | \$30,000  | \$30,000         |
| 2                         | Construction Survey                | LS   | 1        | \$8,000   | \$8,000          |
| 3                         | Biological Monitoring              | Day  | 60       | \$250     | \$15,000         |
| 4                         | Clearing & Grubbing                | LS   | 1        | \$10,000  | \$10,000         |
| 5                         | Grading                            | LS   | 1        | \$40,000  | \$40,000         |
| 6                         | Erosion & Sediment Control BMPs    | LS   | 1        | \$20,000  | \$20,000         |
| 7                         | Crane Rental                       | Day  | 30       | \$1,650   | \$49,500         |
| 8                         | Timber Stairs                      | LS   | 1        | \$100,000 | \$100,000        |
| 9                         | Steel Railing                      | LS   | 1        | \$104,000 | \$104,000        |
| 10                        | Protection of Piles from Sea Water | LS   | 1        | \$5,000   | \$5,000          |
| 11                        | Piles                              | EA   | 12       | \$5,000   | \$60,000         |
| 12                        | Treatment of Water from Pile Holes | LS   | 1        | \$5,000   | \$5,000          |
| 13                        | Concrete Landing & Stairs          | CY   | 60       | \$2,000   | \$120,000        |
| 14                        | Re-vegetation                      | LS   | 1        | \$10,000  | \$10,000         |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$576,500</b> |
|                           | <b>Contingency</b>                 | -    | 20%      | \$714,470 | <b>\$142,894</b> |
|                           | <b>Inflation</b>                   | -    | 10%      | \$857,364 | <b>\$85,736</b>  |
|                           | <b>Total</b>                       |      |          |           | <b>\$943,100</b> |

## Cost Analysis - Alternative Vertical Beach Access

Project: Paradiso del Mare Estates  
 Location: APN 079-200-004; 079-200-008  
 Client: CPH Dos Pueblos Associates, LLC  
 W.O. No.: 12825.15  
 Calc'd By: mlo  
 Path Name: W:\work\12000-12999\12825\Project Estimates\  
 File Name: EagleCynStairsEst\_2010Oct.xls

Drainage  
#4.5



111 East Victoria St.  
 Santa Barbara, CA 93101  
 (805)963-9532

Date: **8/20/2012**

| ITEM                      | DESCRIPTION                        | UNIT | QUANTITY | UNIT COST | TOTAL COST       |
|---------------------------|------------------------------------|------|----------|-----------|------------------|
| <b>Soft Costs</b>         |                                    |      |          |           |                  |
| 1                         | Design Level Survey                | LS   | 1        | \$15,000  | \$15,000         |
| 2                         | Engineering Services               | LS   | 1        | \$50,000  | \$50,000         |
| 3                         | Geotechnical & Geological Services | LS   | 1        | \$30,000  | \$30,000         |
| 4                         | Biological Survey                  | LS   | 1        | \$22,970  | \$22,970         |
| 5                         | Permitting                         | LS   | 1        | \$20,000  | \$20,000         |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$137,970</b> |
| <b>Construction Costs</b> |                                    |      |          |           |                  |
| 1                         | Mobilization                       | LS   | 1        | \$30,000  | \$30,000         |
| 2                         | Construction Survey                | LS   | 1        | \$8,000   | \$8,000          |
| 3                         | Biological Monitoring              | Day  | 60       | \$250     | \$15,000         |
| 4                         | Clearing & Grubbing                | LS   | 1        | \$7,692   | \$7,692          |
| 5                         | Grading                            | LS   | 1        | \$30,769  | \$30,769         |
| 6                         | Erosion & Sediment Control BMPs    | LS   | 1        | \$20,000  | \$20,000         |
| 7                         | Crane Rental                       | Day  | 30       | \$1,650   | \$49,500         |
| 8                         | Timber Stairs                      | LS   | 1        | \$76,923  | \$76,923         |
| 9                         | Steel Railing                      | LS   | 1        | \$80,000  | \$80,000         |
| 10                        | Protection of Piles from Sea Water | LS   | 1        | \$5,000   | \$5,000          |
| 11                        | Piles                              | EA   | 12       | \$5,000   | \$60,000         |
| 12                        | Treatment of Water from Pile Holes | LS   | 1        | \$5,000   | \$5,000          |
| 13                        | Concrete Landing & Stairs          | CY   | 60       | \$2,000   | \$120,000        |
| 14                        | Re-vegetation                      | LS   | 1        | \$7,692   | \$7,692          |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$515,577</b> |
|                           | <b>Contingency</b>                 | -    | 20%      | \$653,547 | <b>\$130,709</b> |
|                           | <b>Inflation</b>                   | -    | 10%      | \$784,256 | <b>\$78,426</b>  |
|                           | <b>Total</b>                       |      |          |           | <b>\$862,682</b> |

## Cost Analysis - Alternative Vertical Beach Access

Project: Paradiso del Mare Estates  
 Location: APN 079-200-004; 079-200-008  
 Client: CPH Dos Pueblos Associates, LLC  
 W.O. No.: 12825.15  
 Calc'd By: mlo  
 Path Name: W:\work\12000-12999\12825\Project Estimates\  
 File Name: EagleCynStairsEst\_2010Oct.xls

Drainage  
#5

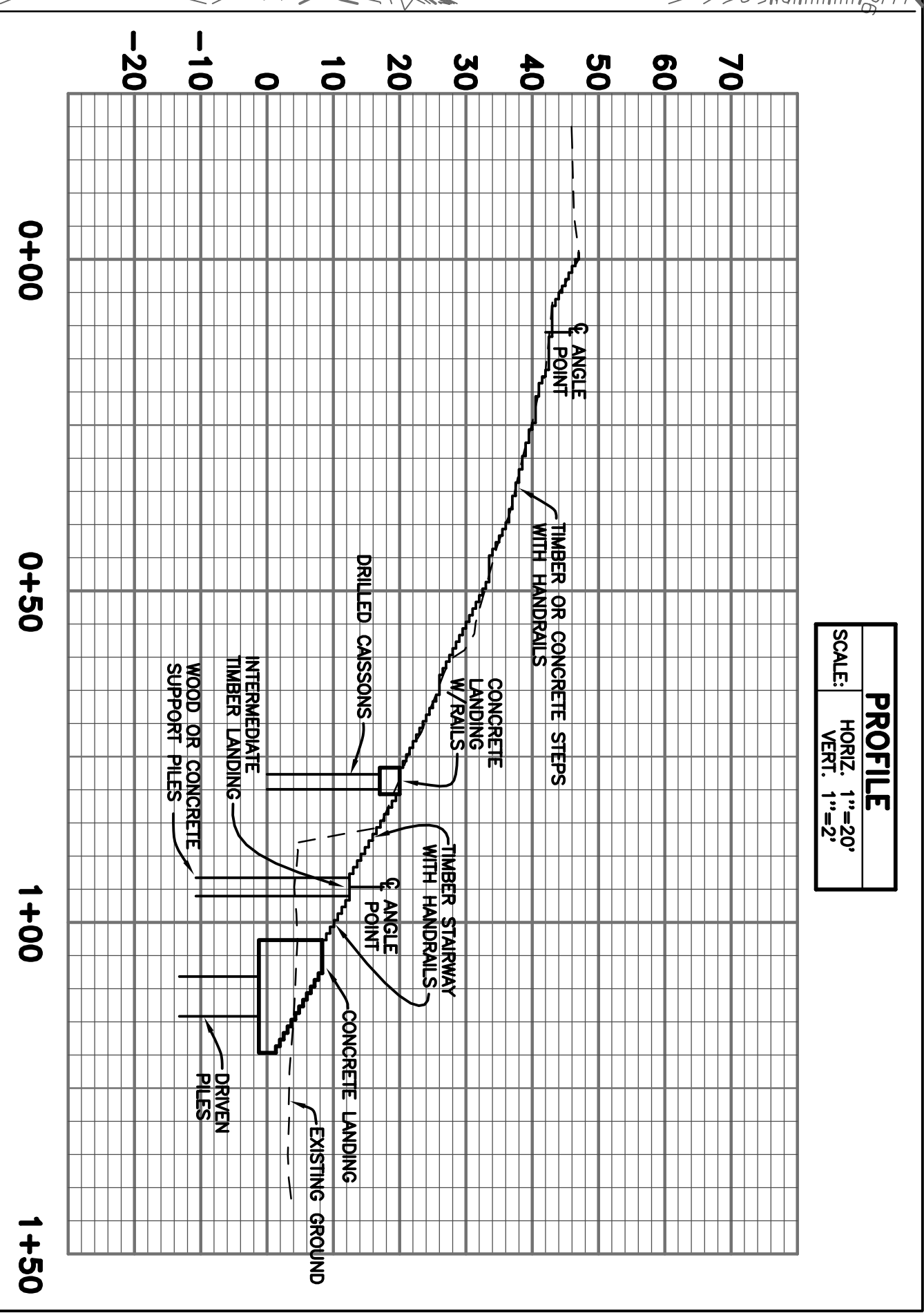
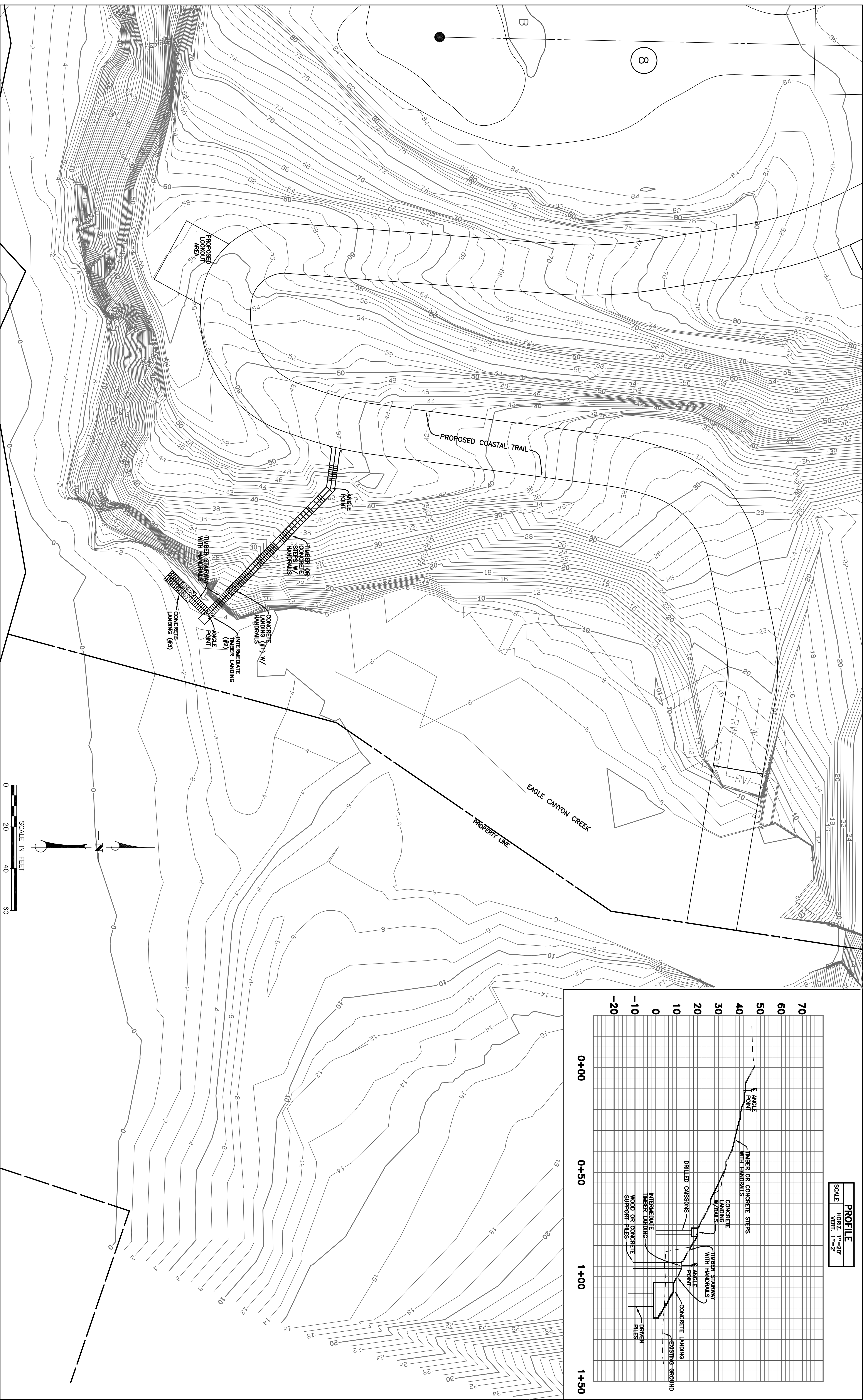


111 East Victoria St.  
 Santa Barbara, CA 93101  
 (805)963-9532

Date: **8/20/2012**

| ITEM                      | DESCRIPTION                        | UNIT | QUANTITY | UNIT COST | TOTAL COST       |
|---------------------------|------------------------------------|------|----------|-----------|------------------|
| <b>Soft Costs</b>         |                                    |      |          |           |                  |
| 1                         | Design Level Survey                | LS   | 1        | \$15,000  | \$15,000         |
| 2                         | Engineering Services               | LS   | 1        | \$50,000  | \$50,000         |
| 3                         | Geotechnical & Geological Services | LS   | 1        | \$30,000  | \$30,000         |
| 4                         | Biological Survey                  | LS   | 1        | \$22,970  | \$22,970         |
| 5                         | Permitting                         | LS   | 1        | \$20,000  | \$20,000         |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$137,970</b> |
| <b>Construction Costs</b> |                                    |      |          |           |                  |
| 1                         | Mobilization                       | LS   | 1        | \$30,000  | \$30,000         |
| 2                         | Construction Survey                | LS   | 1        | \$8,000   | \$8,000          |
| 3                         | Biological Monitoring              | Day  | 60       | \$250     | \$15,000         |
| 4                         | Clearing & Grubbing                | LS   | 1        | \$6,154   | \$6,154          |
| 5                         | Grading                            | LS   | 1        | \$24,615  | \$24,615         |
| 6                         | Erosion & Sediment Control BMPs    | LS   | 1        | \$20,000  | \$20,000         |
| 7                         | Crane Rental                       | Day  | 30       | \$1,650   | \$49,500         |
| 8                         | Timber Stairs                      | LS   | 1        | \$61,538  | \$61,538         |
| 9                         | Steel Railing                      | LS   | 1        | \$64,000  | \$64,000         |
| 10                        | Protection of Piles from Sea Water | LS   | 1        | \$5,000   | \$5,000          |
| 11                        | Piles                              | EA   | 12       | \$5,000   | \$60,000         |
| 12                        | Treatment of Water from Pile Holes | LS   | 1        | \$5,000   | \$5,000          |
| 13                        | Concrete Landing & Stairs          | CY   | 60       | \$2,000   | \$120,000        |
| 14                        | Re-vegetation                      | LS   | 1        | \$6,154   | \$6,154          |
|                           | <b>Sub-Total</b>                   |      |          |           | <b>\$474,962</b> |
|                           | <b>Contingency</b>                 | -    | 20%      | \$612,932 | <b>\$122,586</b> |
|                           | <b>Inflation</b>                   | -    | 10%      | \$735,518 | <b>\$73,552</b>  |
|                           | <b>Total</b>                       |      |          |           | <b>\$809,070</b> |





REFERENCES:  
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 DATA FILE:  
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 VIEW NAME:  
 XREF NAME(S):  
 DATE: SEPTEMBER 18, 2001

| NO. | DATE | REVISIONS | APP'D. |
|-----|------|-----------|--------|
|     |      |           |        |
|     |      |           |        |
|     |      |           |        |

**Penfield & Smith**  
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 101 E. VICTORIA ST.  
 SANTA BARBARA, CALIF. 93101  
 MAILING ADDRESS: P.O. BOX 98 (93102) R.C.E. 48267

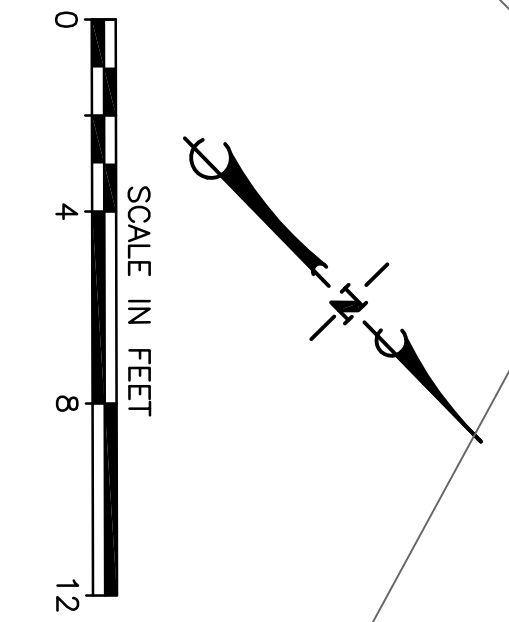
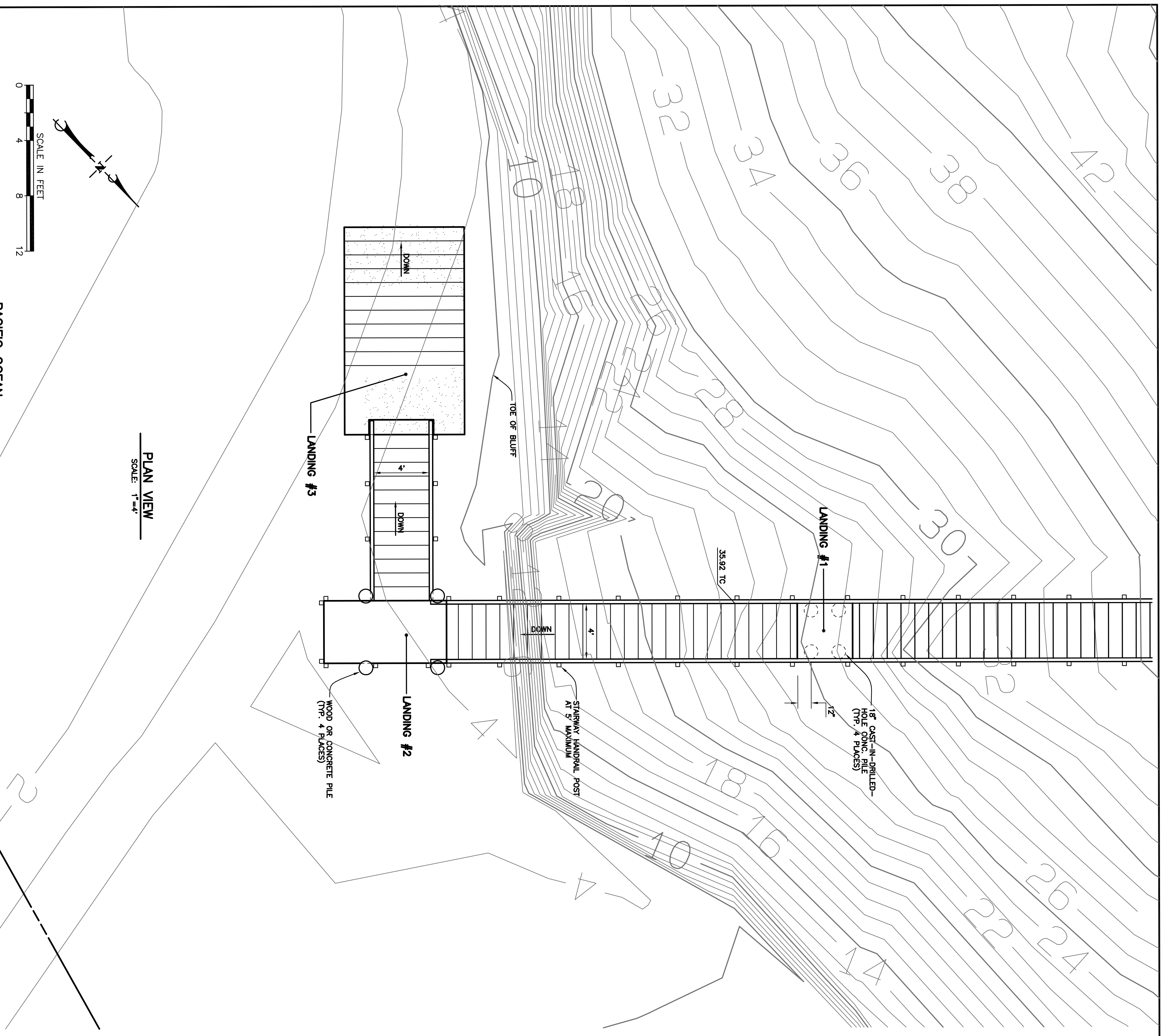
DESIGN: BEF/HL  
 DRAWN: BEF  
 CHECKED: \_\_\_\_\_  
 PROJECT ENGINEER: BRET FOSTER  
 DATE: \_\_\_\_\_  
 (EXP. 6-30-04)

COUNTY OF SANTA BARBARA, CALIFORNIA  
 REVIEWED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

**DOS PUEBLOS GOLF LINKS**  
**EAQLE CANYON - BEACH ACCESS EXHIBIT**  
 COUNTY OF SANTA BARBARA

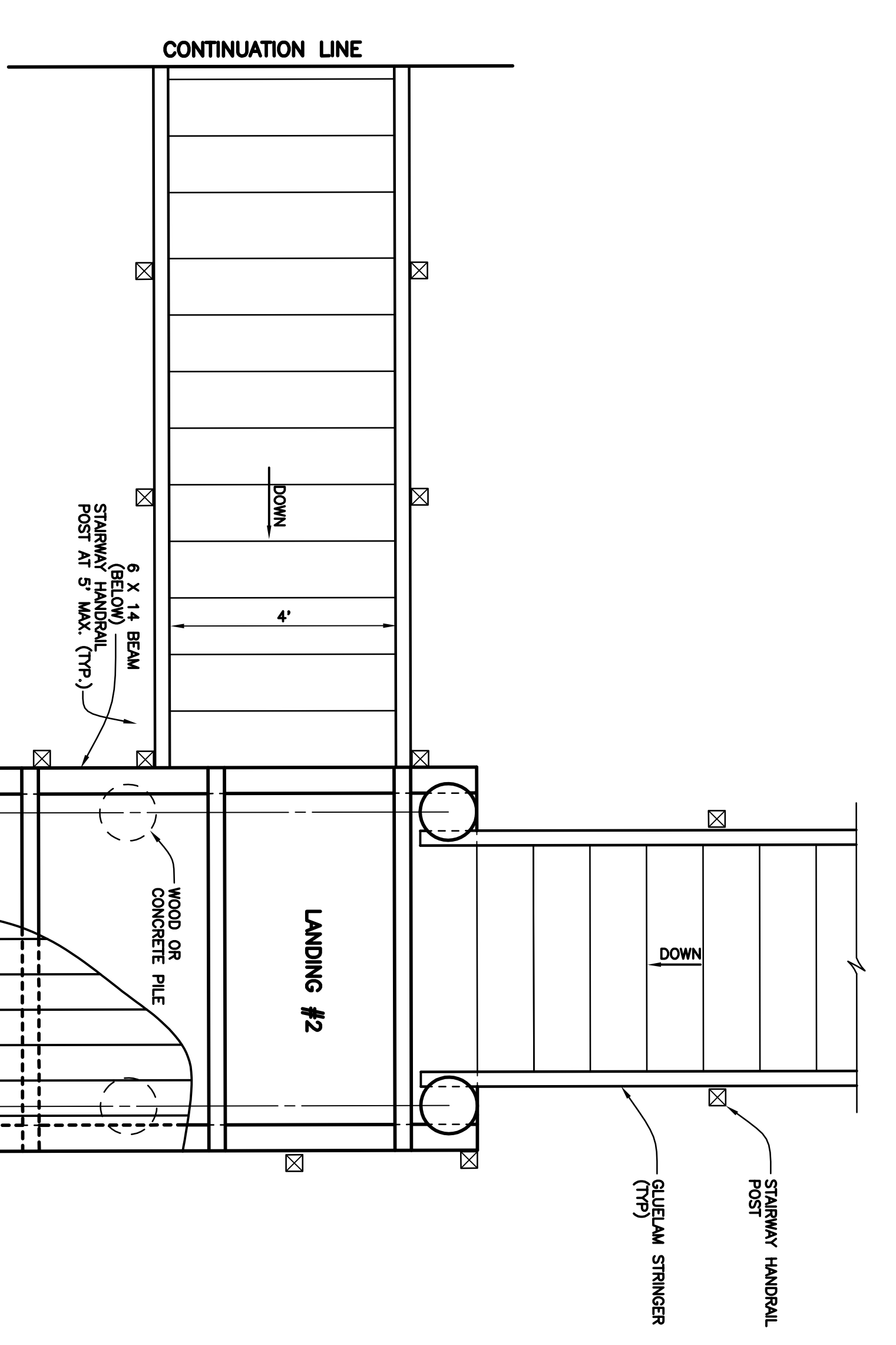
WORK ORDER: 12825.06  
 SHEET: 1 OF 3  
 S.B. COUNTY FILE



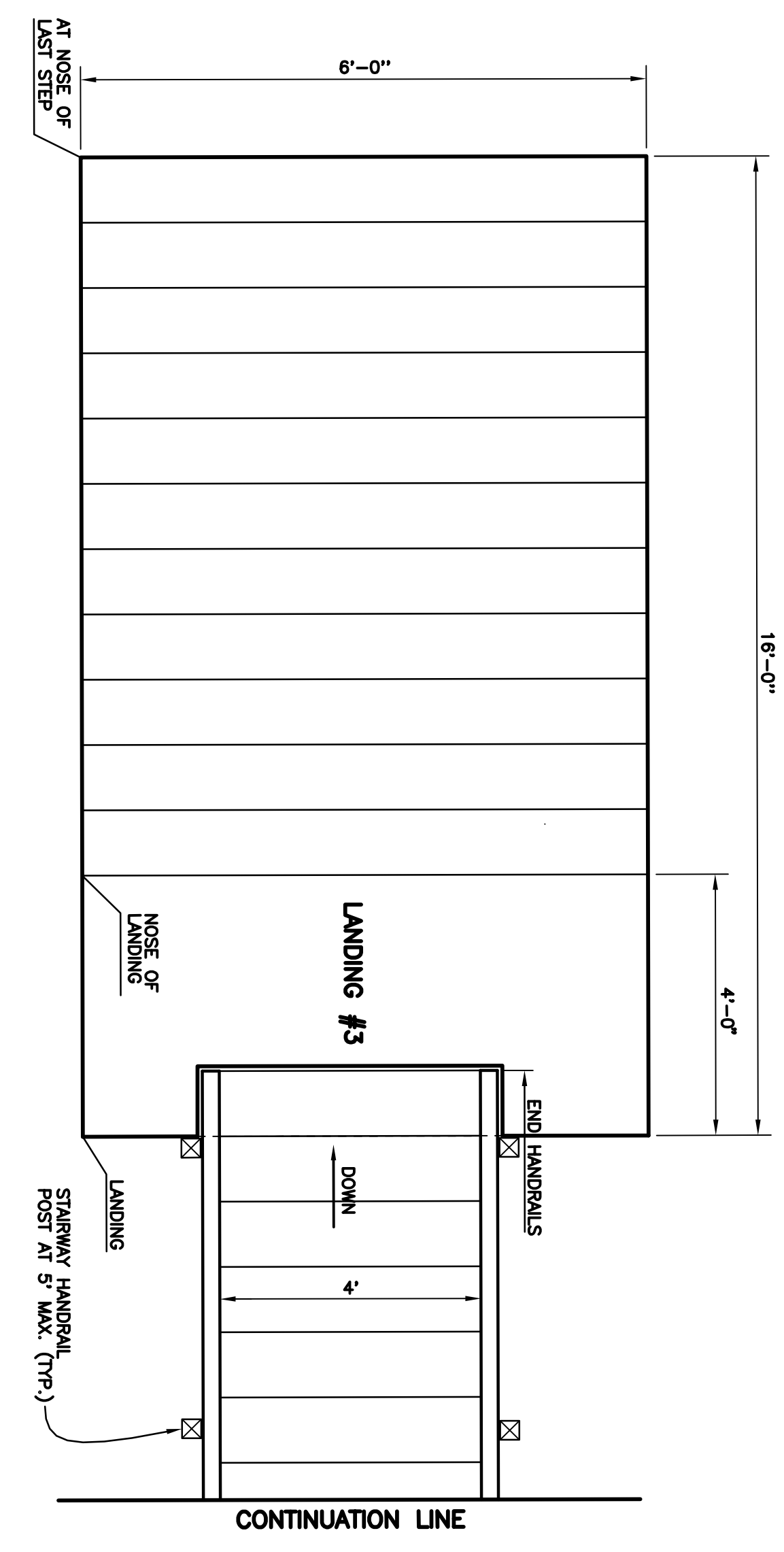


PLAN VIEW  
SCALE: 1"=4'

PACIFIC OCEAN

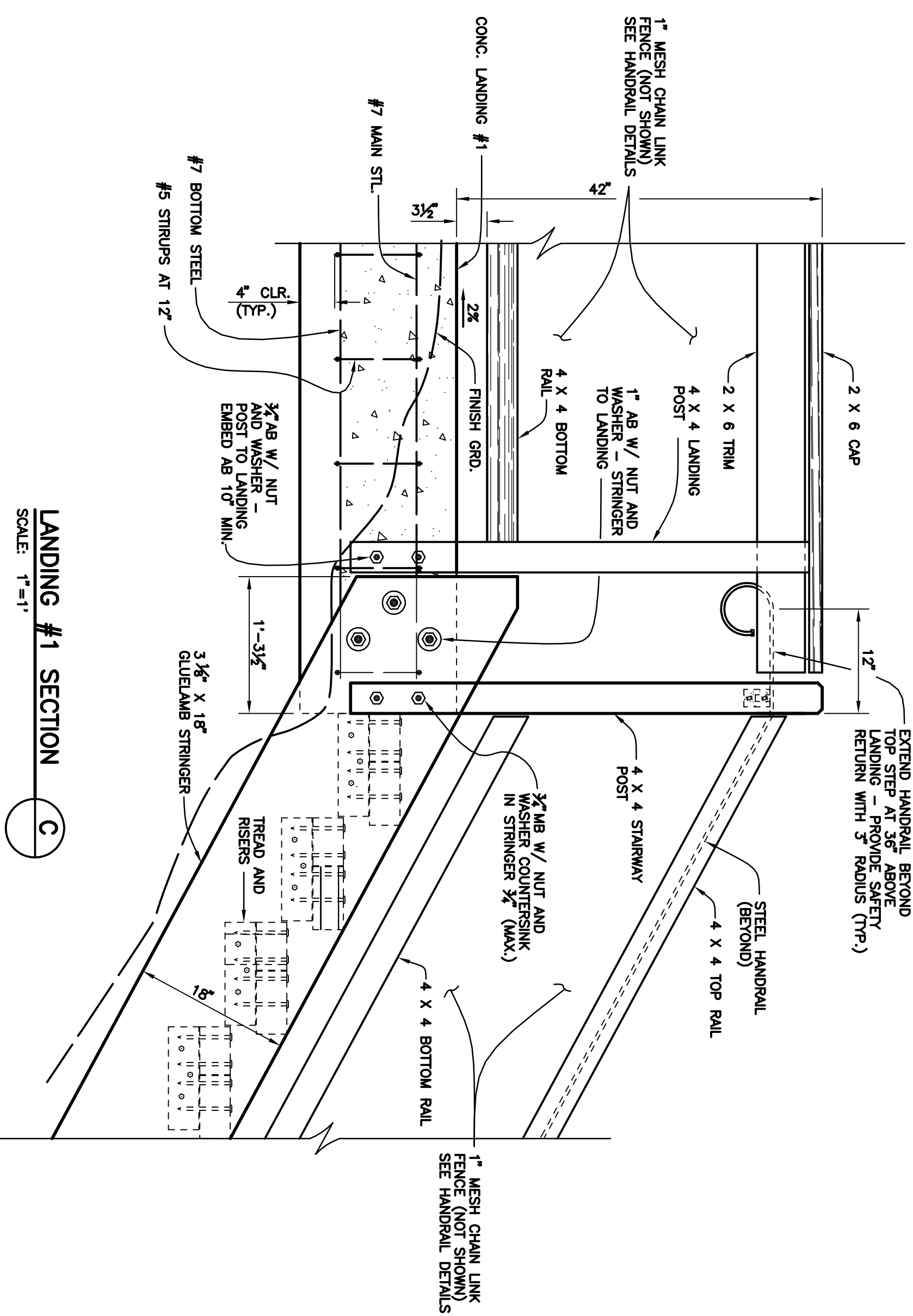
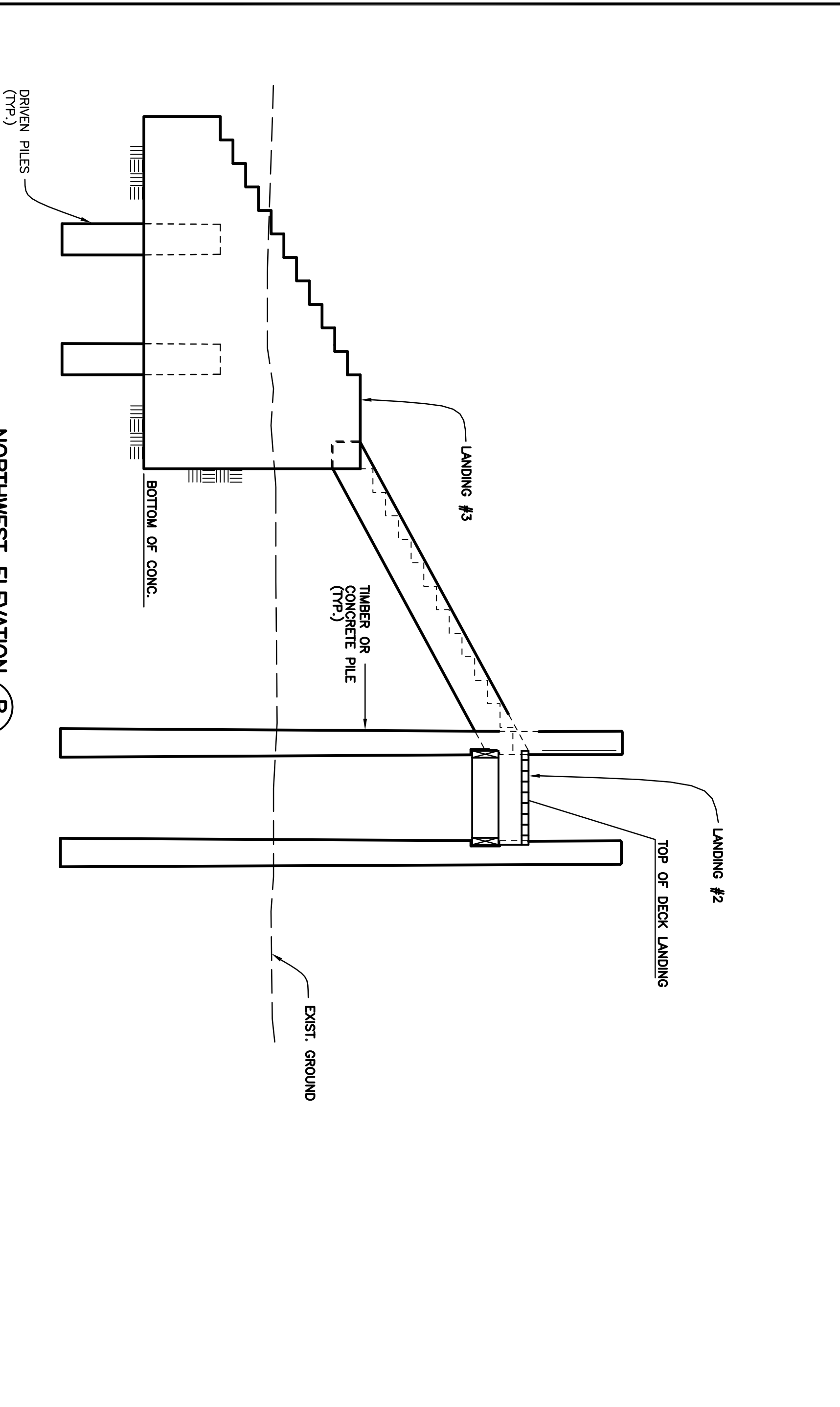
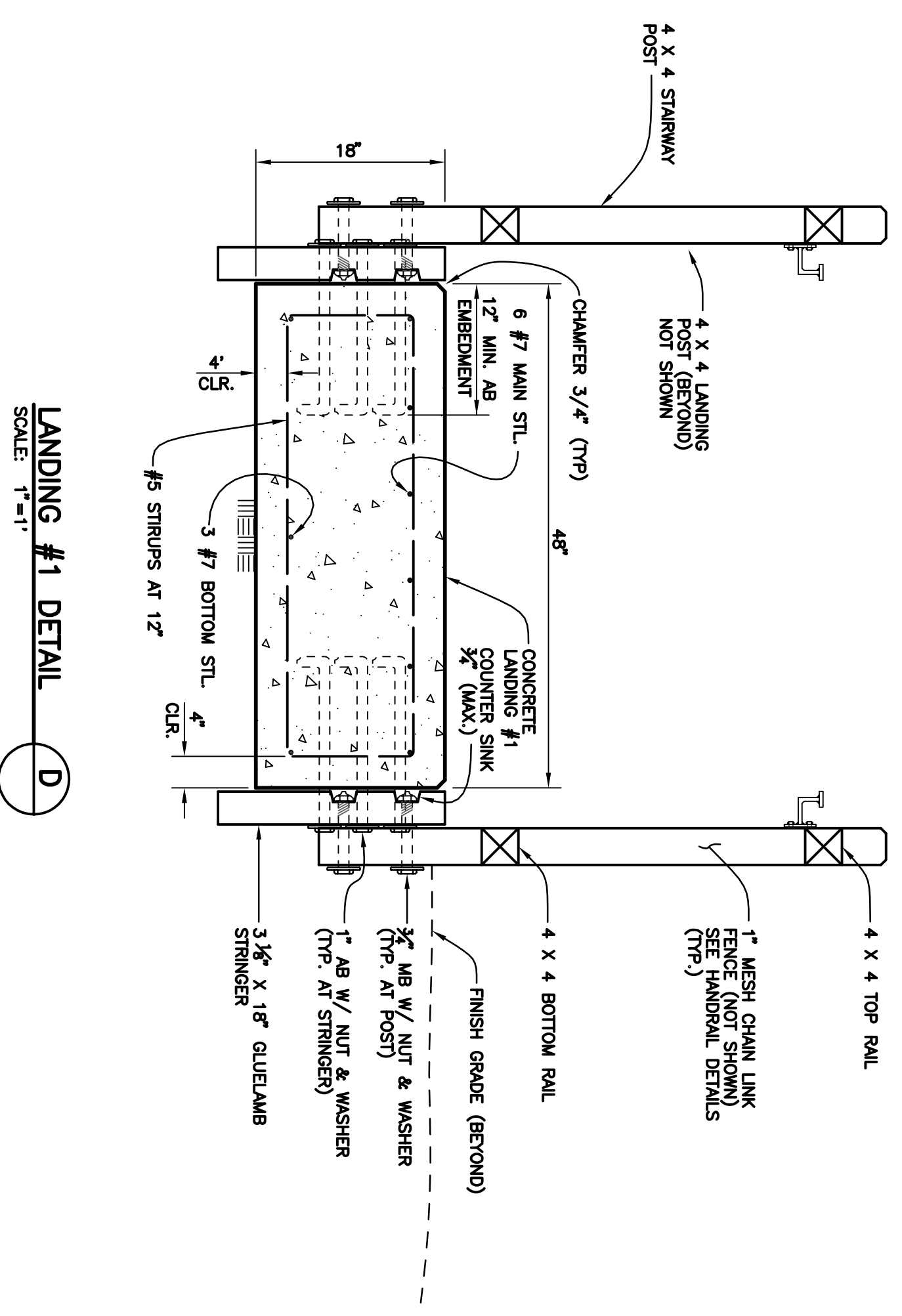
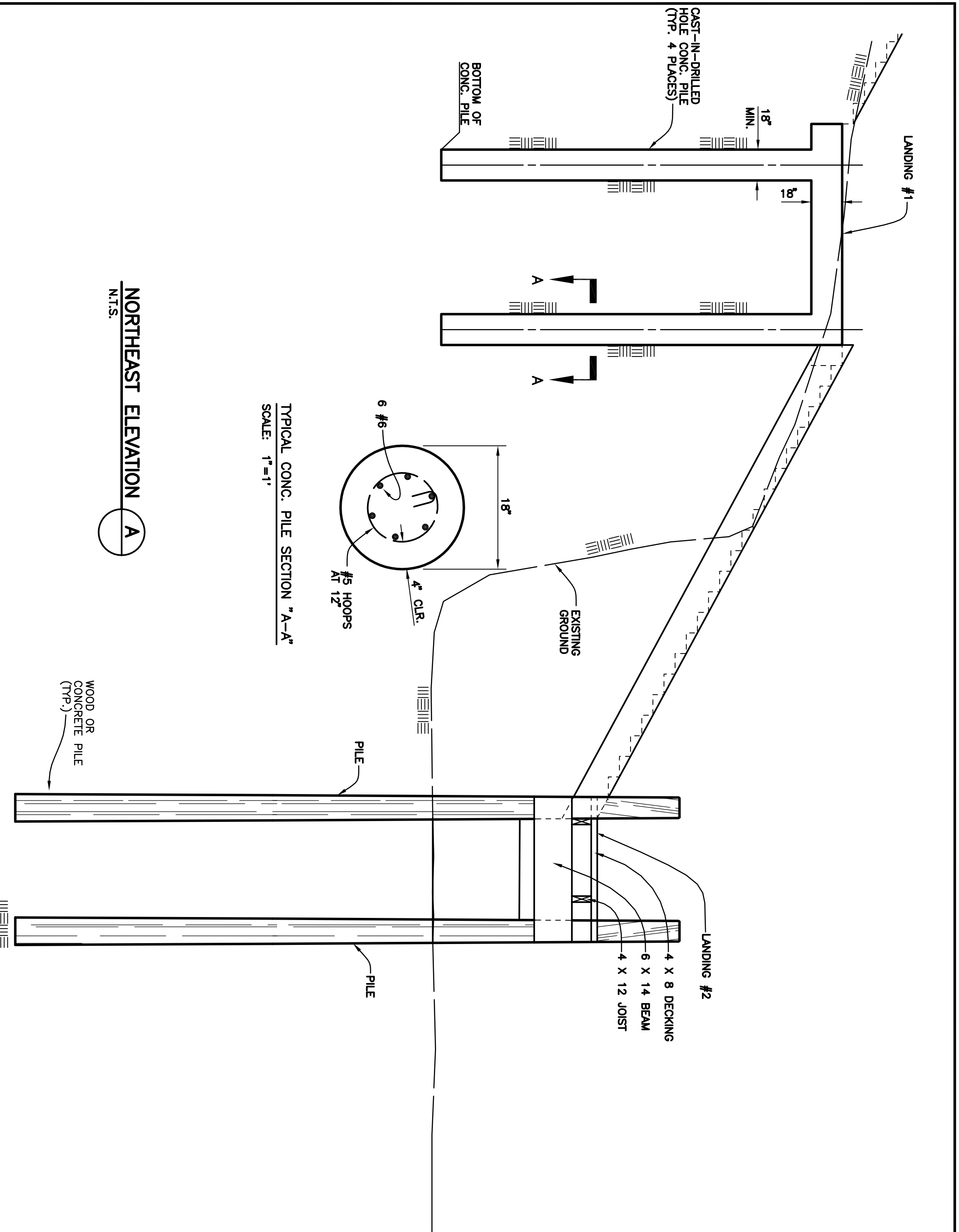


LANDING #2 PLAN  
SCALE: 1"=2'



LANDING #3 PLAN  
N.T.S.

|   |  |                                |  |   |  |   |  |   |  |  |  |  |  |
|---|--|--------------------------------|--|---|--|---|--|---|--|--|--|--|--|
| <b>REFERENCES:</b><br>PROGRAM FILE:<br>DATA FILE:<br>PROJECT FILE:<br>DRAWING FILE: ALT-ACCESS-EAGLE-SHT2.DWG<br>DATE: SEPTEMBER 18, 2001 |  | NO. DATE REVISIONS<br><br><br> |  | <b>Penfield &amp; Smith</b><br>ENGINEERS • SURVEYORS<br>101 E. VICTORIA ST. SANTA BARBARA CALIF. 93101<br>(805) 963-9332 FAX: (805) 963-9332<br>MAILING ADDRESS: P.O. BOX 98 (93102) R.C.E. 48267 |  | DESIGN BY: _____ CHECKED BY: _____<br>BRETT FOSTER PROJECT ENGINEER DATE: _____<br>(EXP. 6-30-04) |  | COUNTY OF SANTA BARBARA, CALIFORNIA<br>REVIEWED BY: _____ DATE: _____<br>FOR: _____ |  | <b>EAGLE CANYON - BEACH ACCESS EXHIBIT</b><br><b>DETAILS</b><br>SANTA BARBARA COUNTY, CALIFORNIA |  | WORK ORDER<br>12925.06<br>SHEET<br><b>2 OF 3</b><br>S.B. COUNTY FILE |  |
|---|--|--------------------------------|--|---|--|---|--|---|--|--|--|--|--|

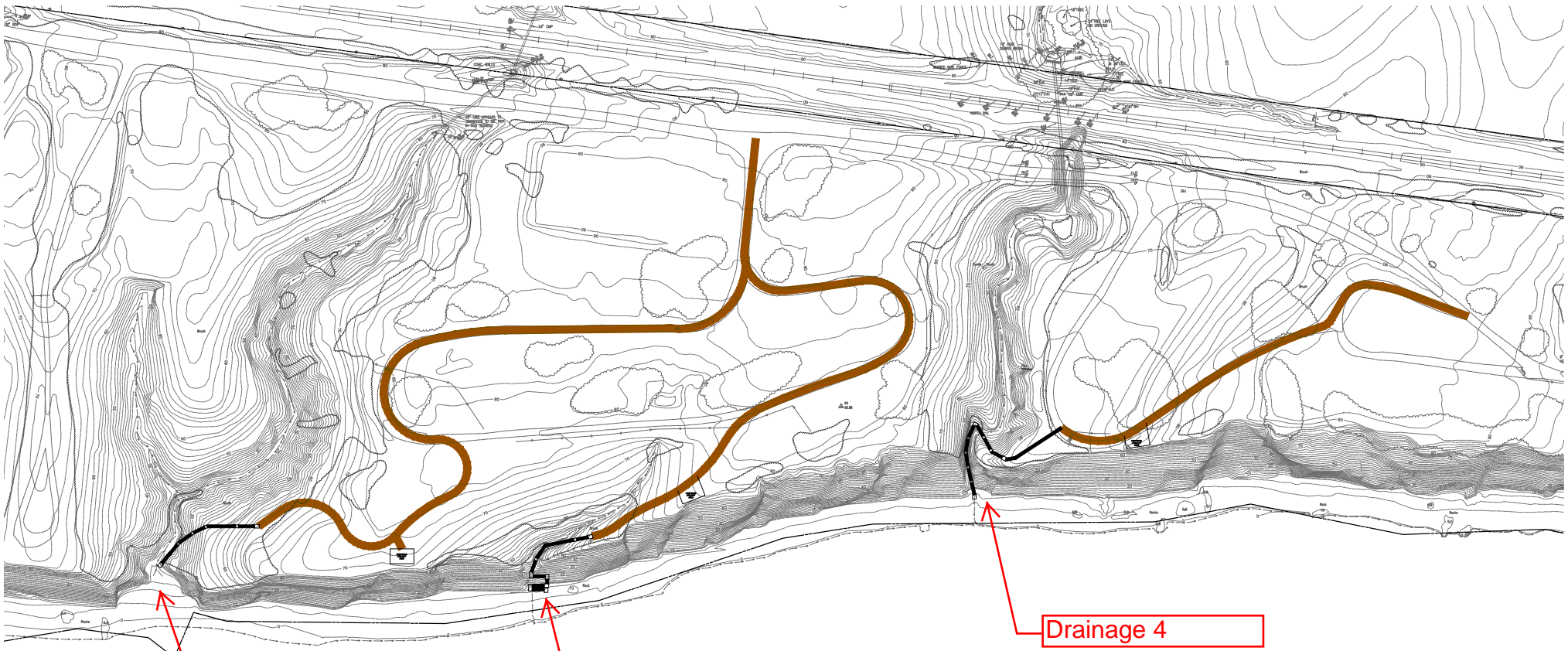


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|---|---|
| <b>REFERENCES:</b><br>PROGRAM FILE:<br>DATA FILE:<br>PROJECT FILE:<br>DRAWING FILE: | AUT-ACCESS-EAGLE-SHT3.DWG<br>DATE: SEPTEMBER 18, 2001 |
| <b>NO.</b><br><b>DATE</b><br><b>REVISIONS</b><br><b>APPD.</b>                       |   |
| <b>DESIGN:</b> BEF<br><b>CHECKED:</b><br><b>DATE:</b>                               |   |
| <b>COUNTY OF SANTA BARBARA, CALIFORNIA</b><br><b>REVIEWED BY:</b><br><b>DATE:</b>   |   |
| <b>EAGLE CANYON - BEACH ACCESS EXHIBIT</b><br><b>DETAILS</b>                        |   |
| <b>WORK ORDER</b><br>12825.06<br><b>SHEET</b> 3 OF 3<br>S.B. COUNTY FILE            |   |

**Penfield & Smith**  
 ENGINEERS • SURVEYORS  
 101 E. ANGELO ST. SANTA BARBARA CALIF. 93101  
 (805) 963-9133  
 MAILING ADDRESS: P.O. BOX 98 (93102) R.C.E. 48267

BRETT FOSTER  
 PROJECT ENGINEER  
 (EXP. 6-30-04)

BRETT FOSTER  
 PROJECT ENGINEER  
 (EXP. 6-30-04)



Drainage 5

Drainage 4.5

Drainage 4



APN 079-200-004

FUTURE ENGINEERED  
STRUCTURE,  
APPROX. 160 LF

FUTURE COASTAL  
ACCESS TRAIL

LANDING, TYP.  
TIMBER STAIRWAY,  
TYP

TOP OF  
BLUFF

**DRAINAGE #5**

PACIFIC OCEAN

**FUTURE COASTAL TRAIL  
BEACH ACCESS AT DRAINAGE #5  
PARADISO DEL MARE  
COUNTY OF SANTA BARBARA, CA**

