

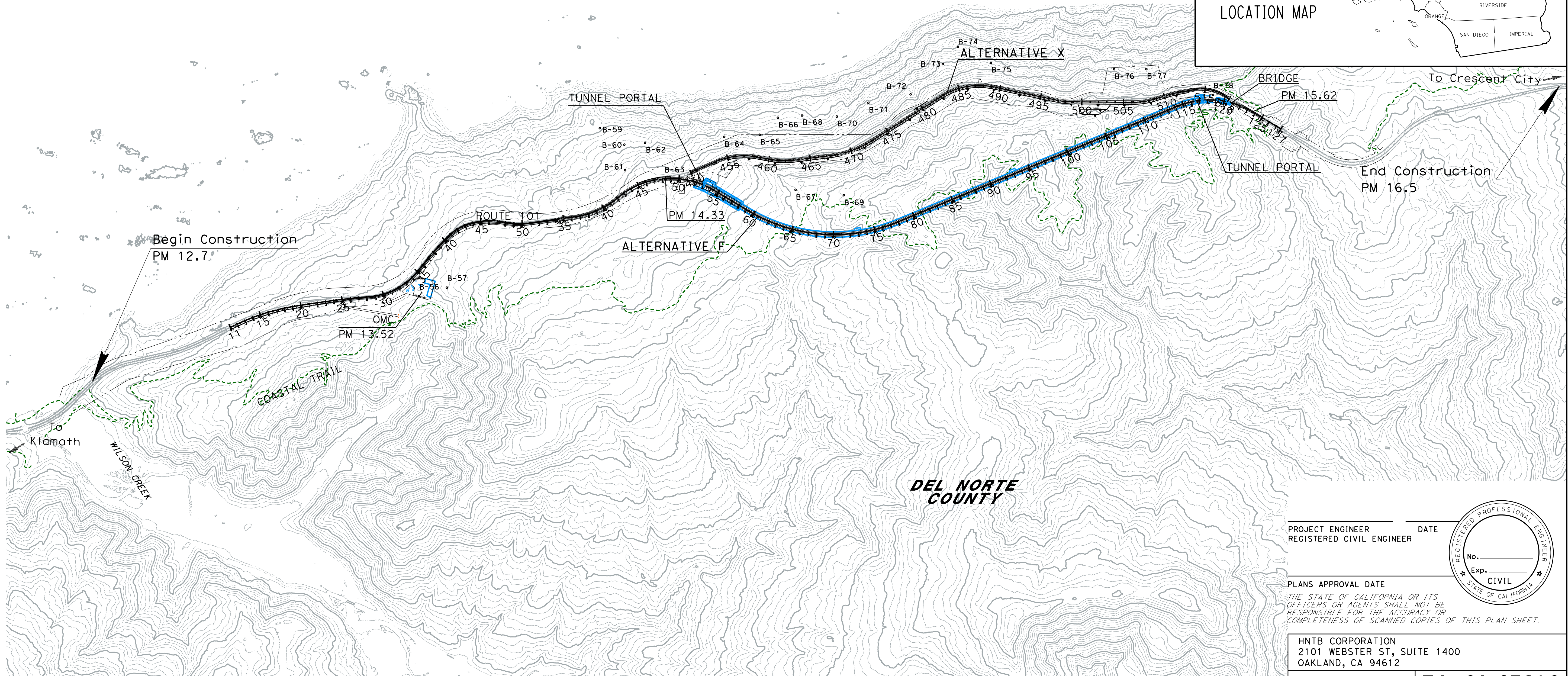
Attachment C

Preliminary Engineering Studies

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN DEL NORTE COUNTY
NEAR CRESCENT CITY
FROM WILSON CREEK BRIDGE TO
DAMNATION CREEK TRAILHEAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

GEOMETRIC APPROVAL DRAWINGS



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES)
OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

PROJECT ENGINEER
REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS
OFFICERS OR AGENTS SHALL NOT BE
RESPONSIBLE FOR THE ACCURACY OR
COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



HNTB CORPORATION
2101 WEBSTER ST, SUITE 1400
OAKLAND, CA 94612

| | |
|--------------|--------------------|
| CONTRACT No. | EA 01-OF280 |
| PROJECT ID | 0115000099 |

x

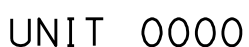
Subaru®

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USERNAME => $USER
DGN FILE => $REQUEST

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RELATIVE BORDER SCALE
IS IN INCHES



PROJECT NUMBER & PHASE

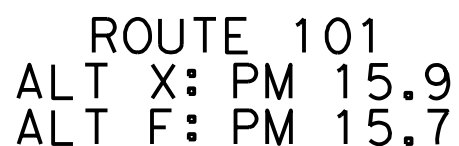
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| | |
|------------------------|---------------|
| DATE PLOTTED => \$DATE | LAST REVISION |
| TIME PLOTTED => \$TIME | 00-00-00 |

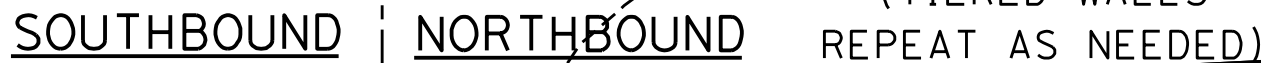
HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612

1. SEE LAYOUT SHEET FOR WALL LIMITS.
2. BROADBAND CONDUIT WILL BE ADDED TO EACH ROADWAY SECTION.


| | |
|---|---|
| 1 | 0.20' RHMA-G 0.45' HMA (TYPE A) 0.75' CI 2 AB |
| 2 | 0.20' RHMA-G 0.20' HMA (TYPE A) 0.75' CI 2 AB |
| 3 | 0.75' JPCP 1.00' CI 2 AB |



**EXISTING CONDITIONS
NORTH CONFORM**



ALIGNMENT "X"

"X" 500+02.55 TO 501+99.91 
 "X" 499+52.57 TO 500+02.55 SIMILAR
 "X" 501+99.91 TO 503+50.90 SIMILAR

RETAINING WAL



**EXISTING CONDITIONS
SOUTH CONFORM**



ALIGNMENT "X"

| | | | |
|----|-----------|----|-----------|
| X" | 455+00 | TO | 468+65 |
| X" | 470+50 | TO | 479+00 |
| | 481+00 | TO | 499+52.57 |
| | 503+50.90 | TO | 513+00 |

SINGLE WALL SECTION

RETAINING WALL 7A-1, 7A-2, 7A-3

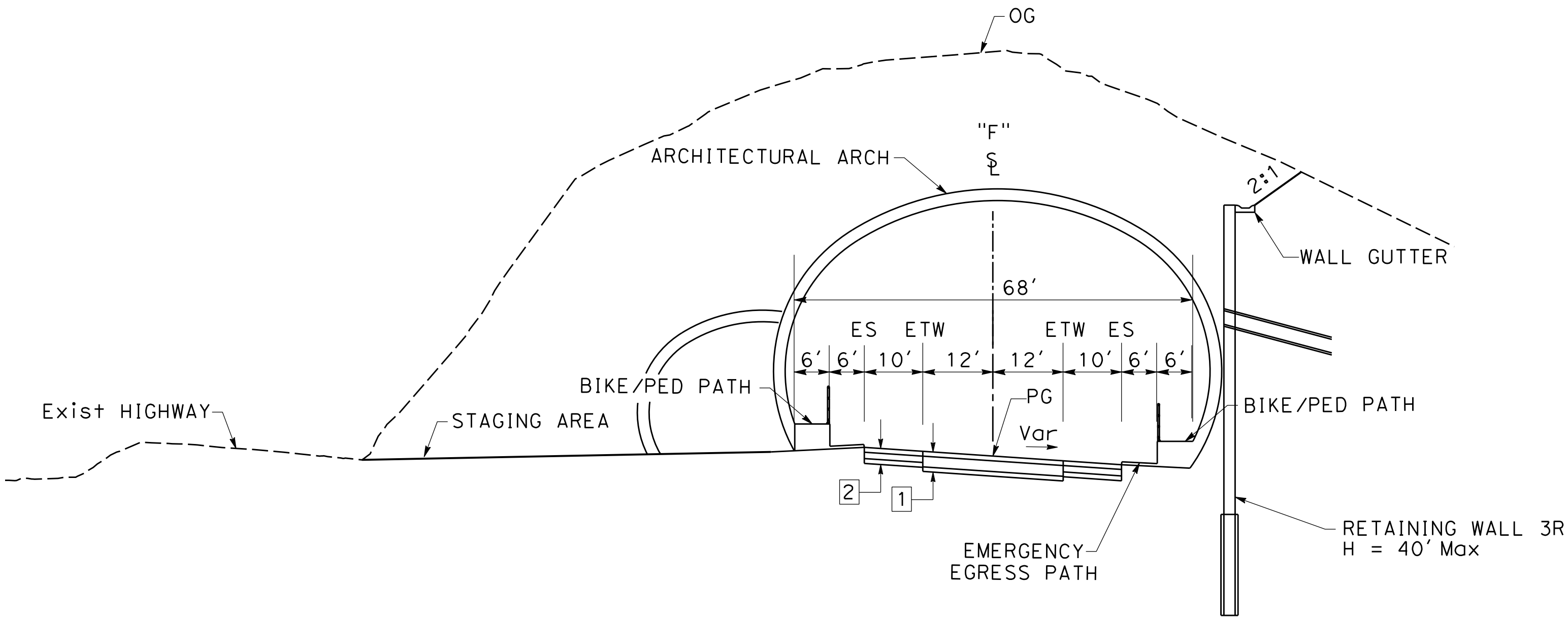
TYPICAL CROSS SECTIONS

NO SCALE

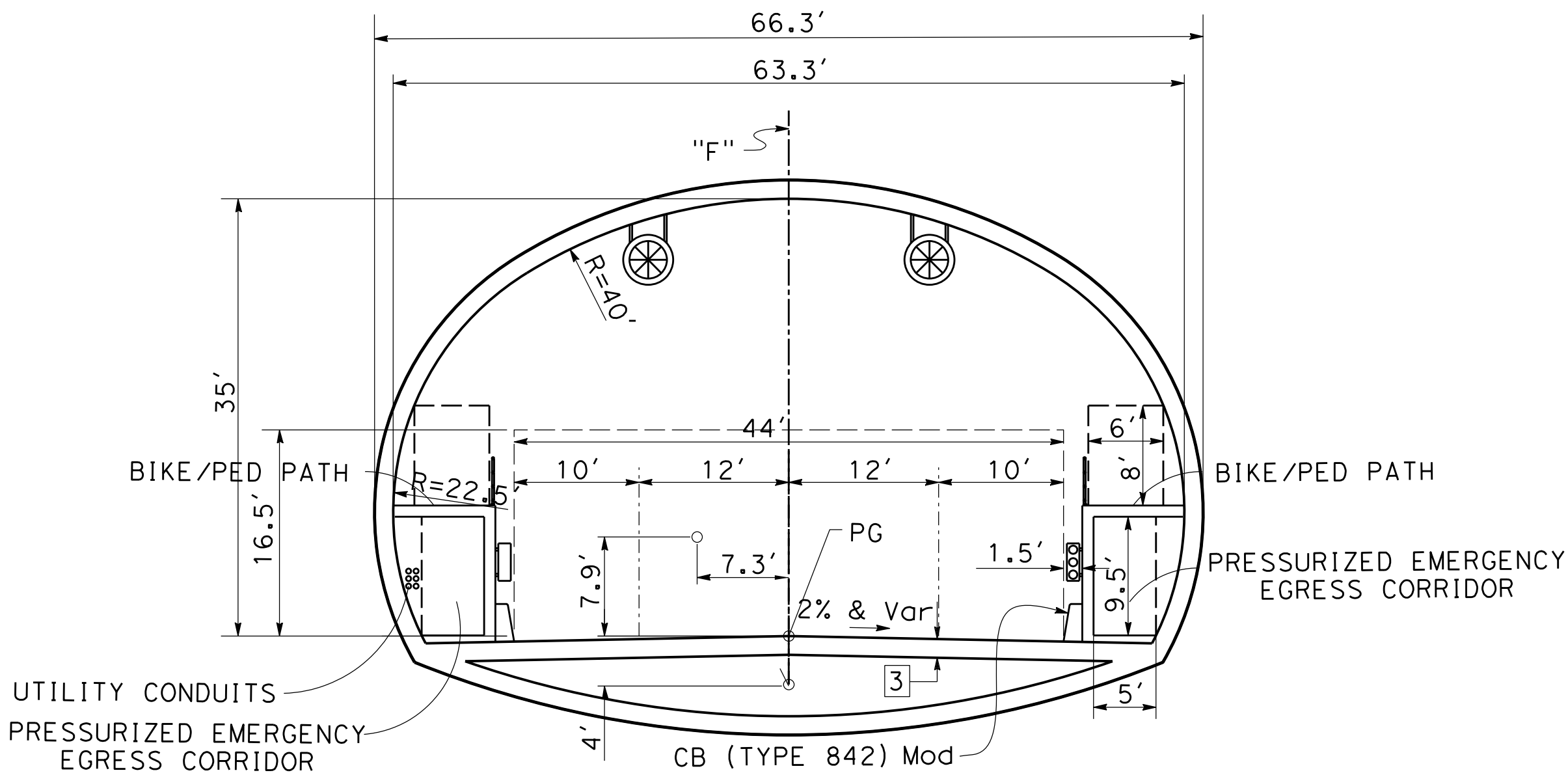
| | | | | | |
|--|------------|-----------------------|------------------------|------------|---------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT | FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | REVISED BY | |
| | | | | | |
| | | | | | |
| | | | | | |
| CALTRANS® | | | CHECKED BY | DATE | REVISED |
| | | | | | |
| | | | | | |
| | | | | | |

NOTES:

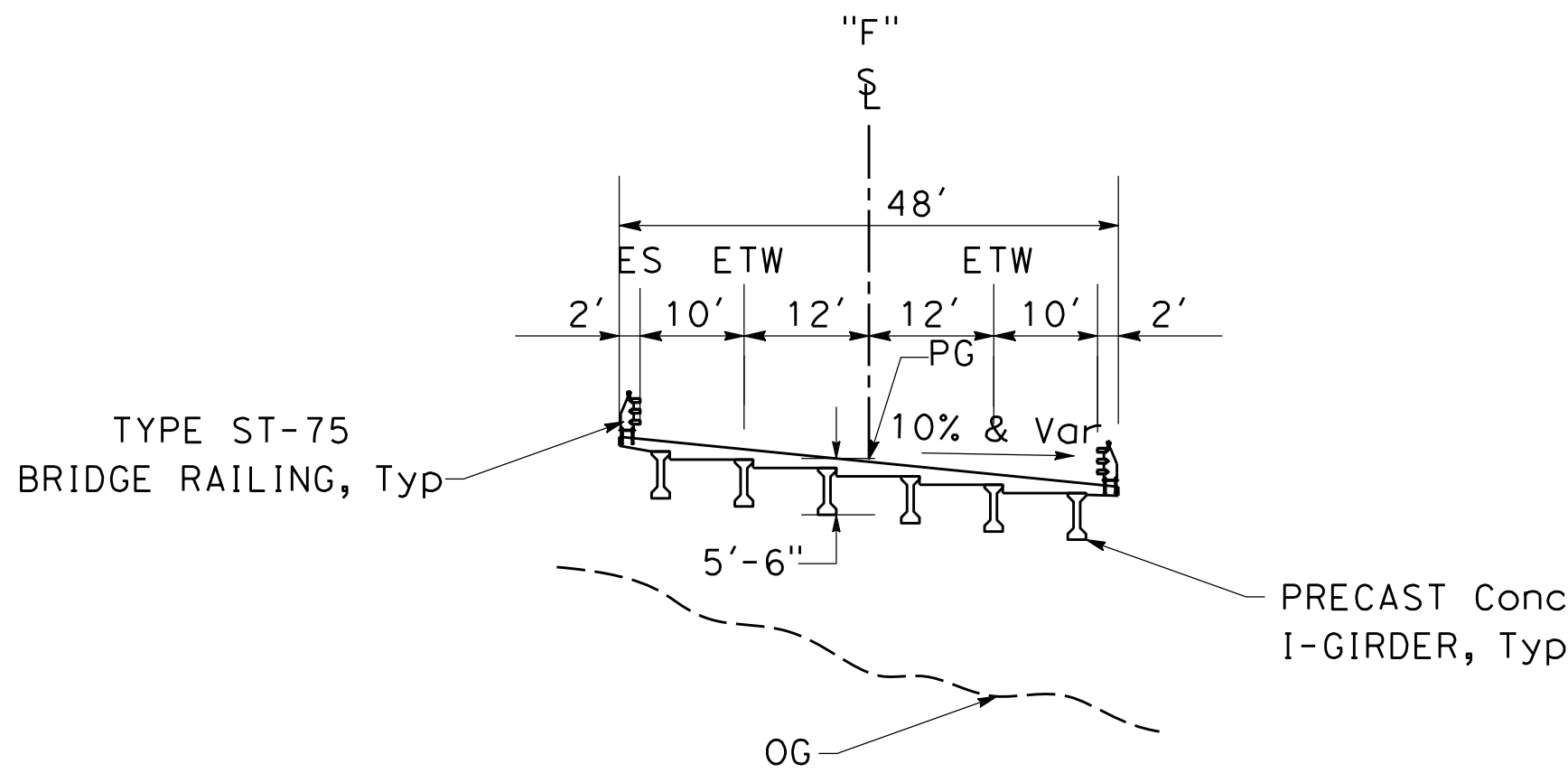
1. BROADBAND CONDUIT WILL BE ADDED TO EACH ROADWAY SECTION.
2. INITIAL SEQUENTIAL EXCAVATION LINING (BOLTS AND SHOTCRETE) NOT SHOWN.



"F" 117+50.00 TO 119+25.00
TUNNEL APPROACH



"F" 58+00.00 TO 116+50.00
TUNNEL - SEM SECTION



"F" 119+25.00 TO 120+47.00
BRIDGE

TYPICAL CROSS SECTIONS
NO SCALE

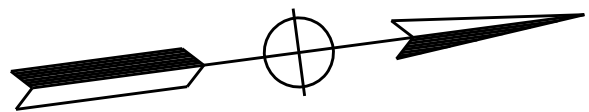
X-3

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX

o

BORING LOCATION



Dist

COUNTY

ROUTE

POST MILES
TOTAL PROJECT

SHEET
No.

TOTAL
SHEETS

01

DN

101

12.7/16.5

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
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SUITE 1400
OAKLAND, CA 94612

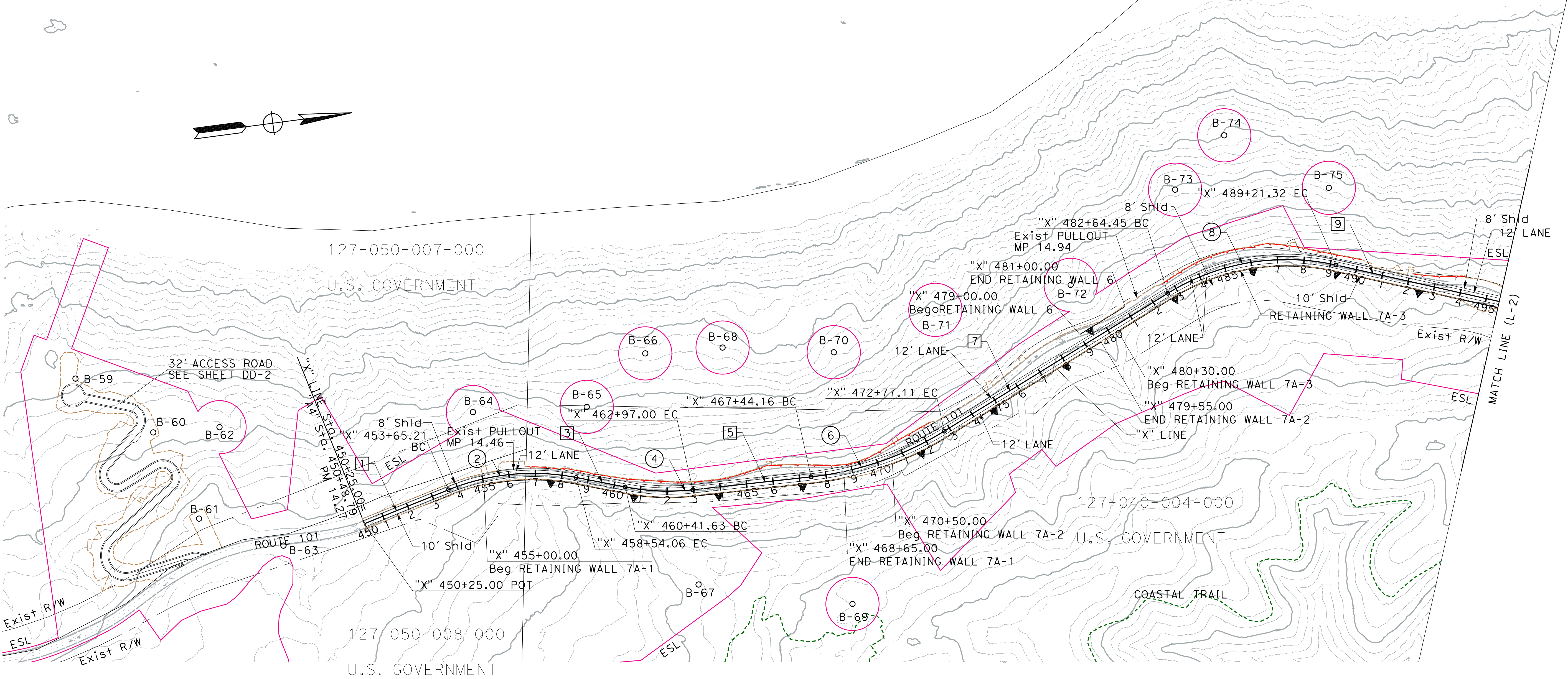
REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA



LINE DATA

| No. # | LENGTH | DIRECTION |
|-------|---------|---------------|
| 1 | 340.21' | N 21°58'19" W |
| 3 | 187.57' | N 10°58'50" E |
| 5 | 447.16' | N 06°13'58" W |
| 7 | 987.34' | N 31°40'47" W |
| 9 | 790.13' | N 12°35'51" E |

CURVE DATA

| No. # | R | Δ | T | L |
|-------|----------|-----------|---------|---------|
| 2 | 850.00' | 32°57'09" | 251.40' | 488.86' |
| 4 | 850.00' | 17°12'49" | 128.65' | 255.37' |
| 6 | 1200.00' | 25°26'48" | 270.95' | 532.96' |
| 8 | 850.00' | 44°16'38" | 345.82' | 656.87' |

LAYOUT
ALTERNATIVE X

SCALE: 1" = 200'

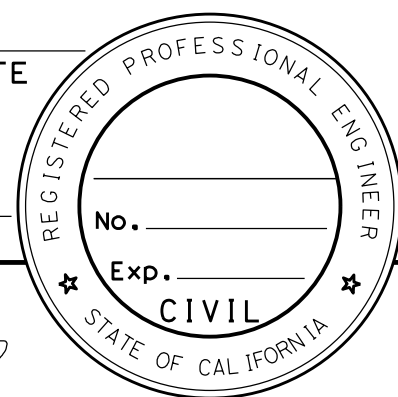
L-1

| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

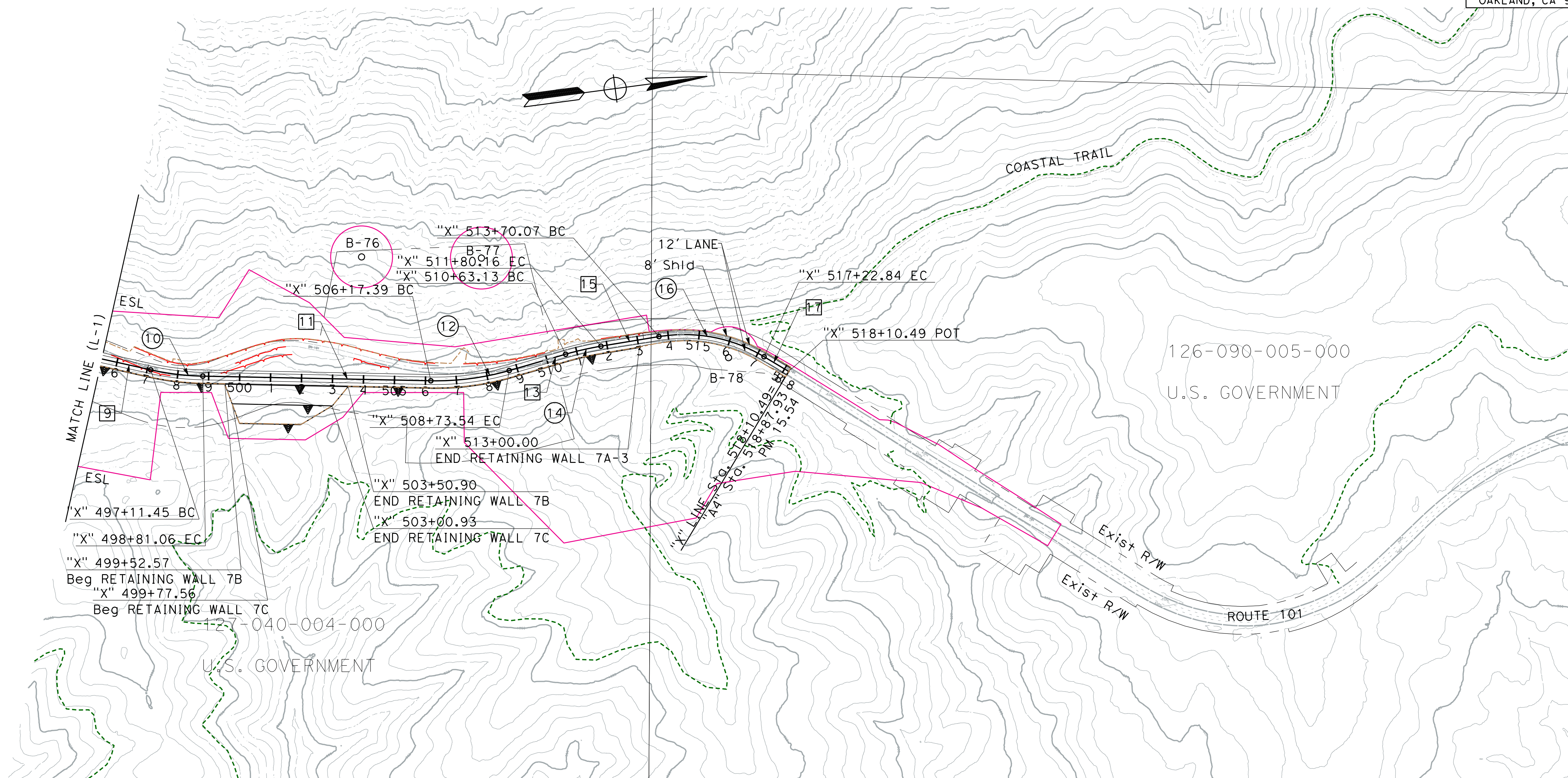
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SUITE 1400
OAKLAND, CA 94612

LEGEND:

CUT/FILL LINE
 COASTAL TRAIL
 ENVIRONMENTAL STUDY LIMITS (ESL)
 Exist R/W
 STRUCTURE
 RETAINING WALL
 B-xx o BORING LOCATION



| LINE DATA | | |
|-----------|---------|---------------|
| No. # | LENGTH | DIRECTION |
| 9 | 790.13' | N 12°35'51" E |
| 11 | 736.33' | N 01°09'51" E |
| 13 | 189.59' | N 16°06'07" W |
| 15 | 189.91' | N 09°23'47" W |
| 17 | 92.73' | N 31°01'40" E |

| CURVE DATA | | | | |
|------------|----------|-----------|---------|---------|
| No.⑧ | R | Δ | T | L |
| 10 | 850.00' | 11°26'00" | 85.09' | 169.62' |
| 12 | 850.00' | 17°15'58" | 129.05' | 256.15' |
| 14 | 1000.00' | 06°42'19" | 58.58' | 117.03' |
| 16 | 500.00' | 40°25'28" | 184.09' | 352.77' |

LAYOUT
ALTERNATIVE X
SCALE: 1" = 200'

L - 2

[illegible]

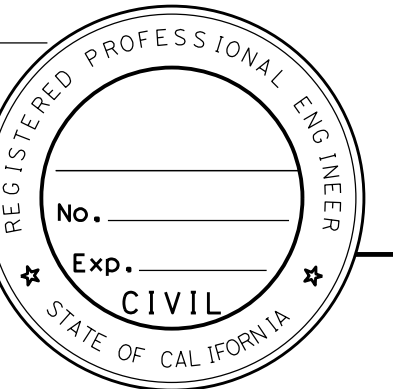
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE / /

PLANS APPROVAL DATE

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OAKLAND, CA 94612

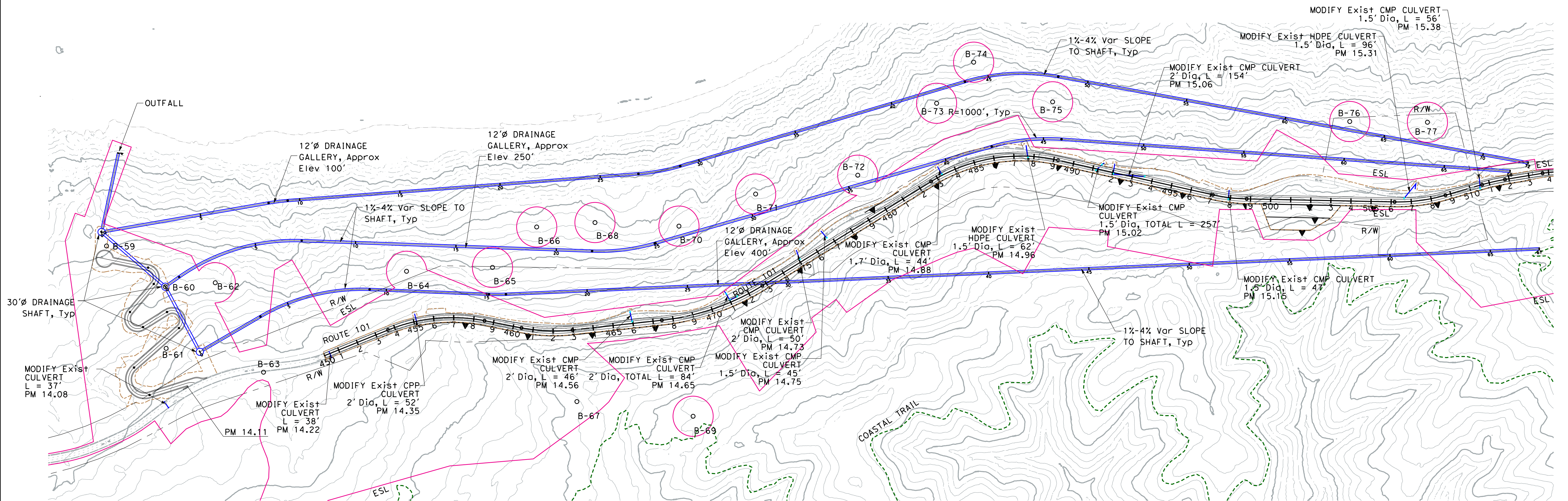
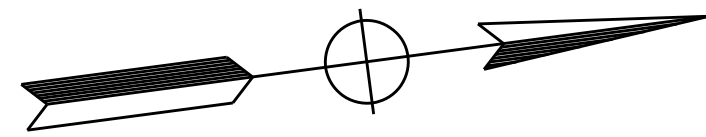


NOTE:

1. FOR DETAILS OF DRAINAGE SHAFT AND GALLERIES, SEE SHEET DD-1.

LEGEND:

| | |
|---|----------------------------------|
|  | CUT/FILL LINE |
|  | COASTAL TRAIL |
|  | ENVIRONMENTAL STUDY LIMITS (ESL) |
|  | Exist R/W |
|  | STRUCTURE |
|  | RETAINING WALL |
| B-XX ○ | BORING LOCATION |
|  | DRAINAGE STRUCTURE |



DRAINAGE PLAN

ALTERNATIVE X
SCALE: 1" = 250'

D-1

BORDER LAST REVISED 7/2/2010

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USERNAME => $USER
DGN FILE => $REQUEST

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RELATIVE BORDER SCALE
IS IN INCHES

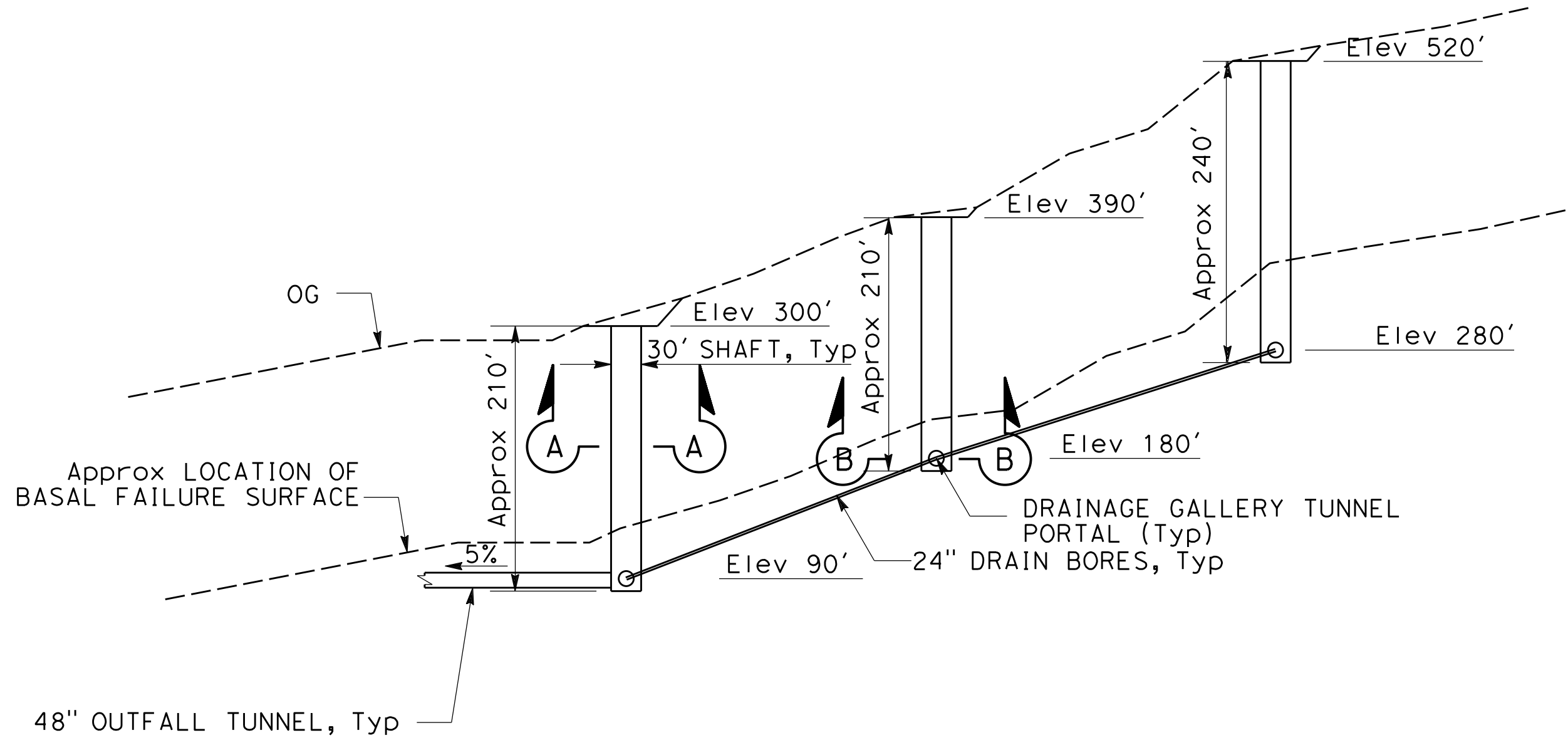


UNIT 0000

PROJECT NUMBER & PHASE

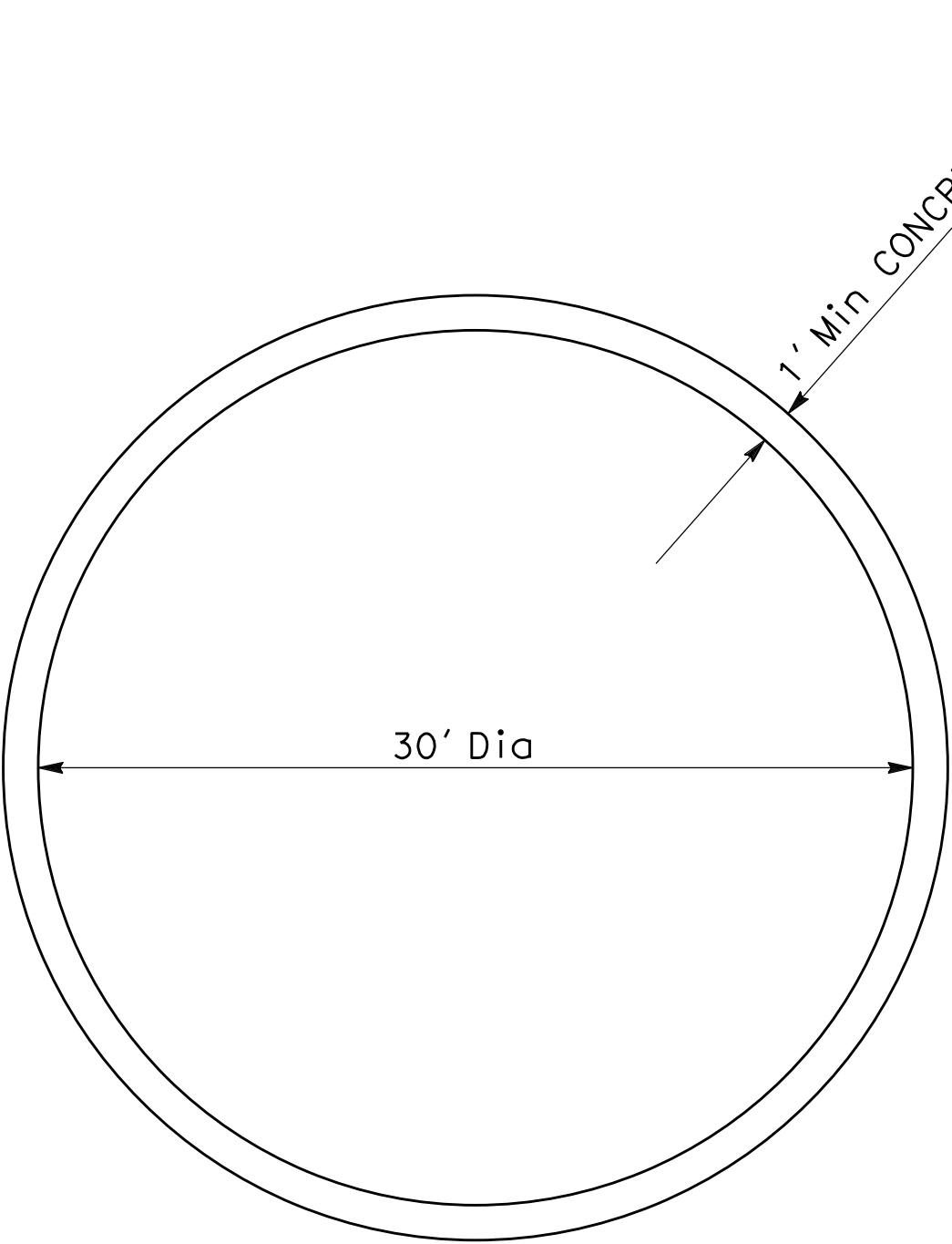
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| 00-00-00 | |

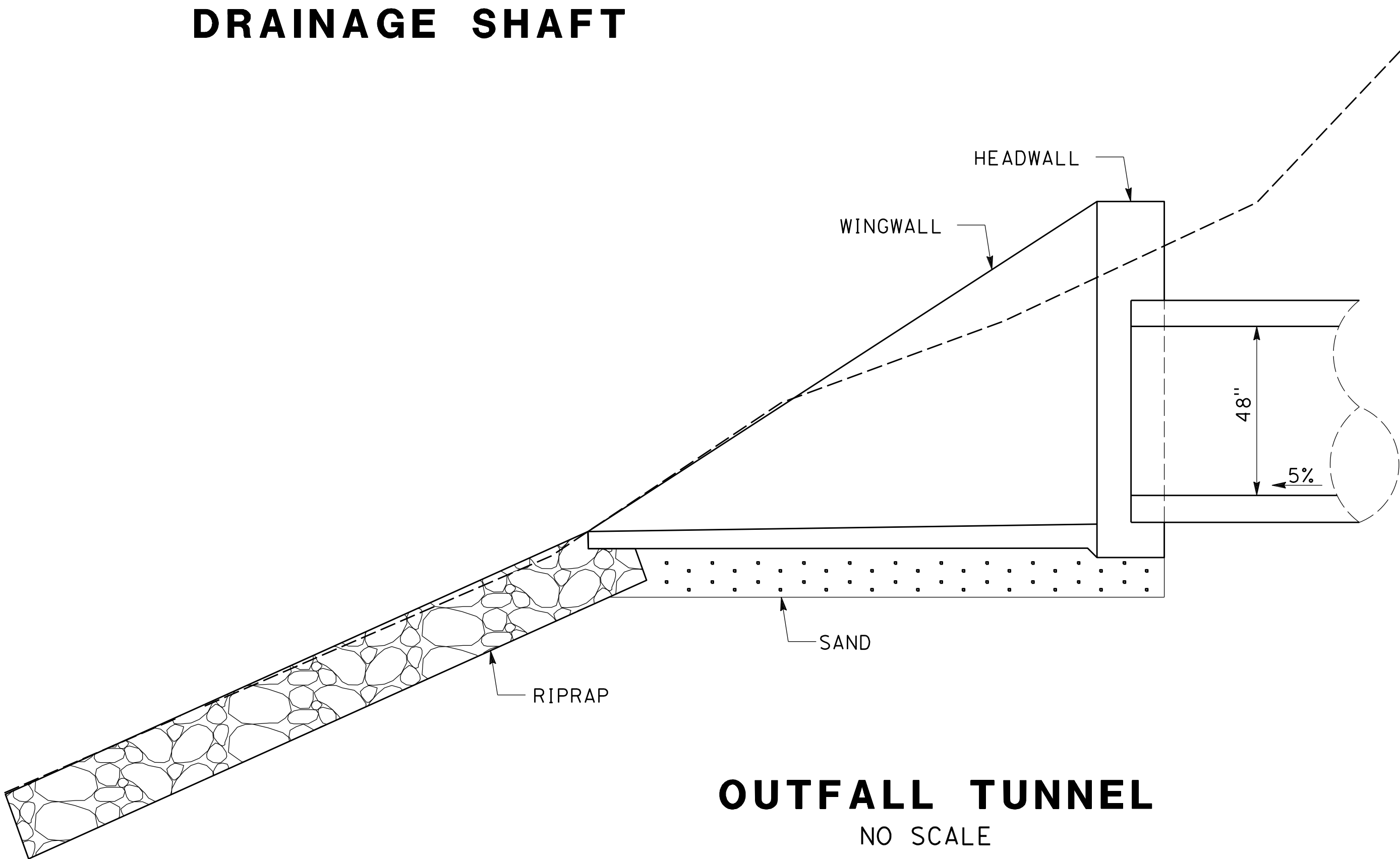


ELEVATION
NO SCALE

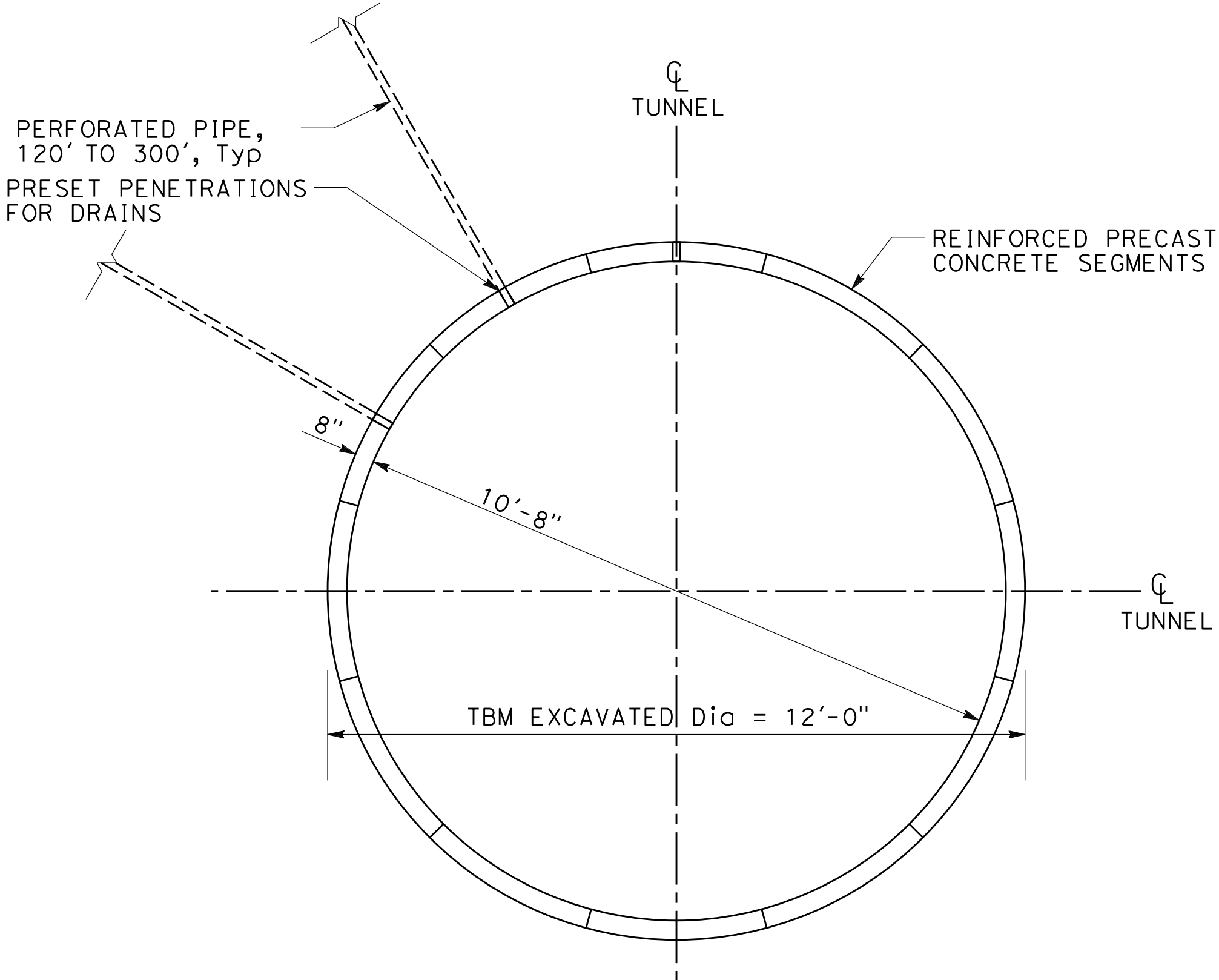
DRAINAGE SHAFT



SECTION A-A
NO SCALE



OUTFALL TUNNEL
NO SCALE



SECTION B-B
NO SCALE

DRAINAGE GALLERY TUNNEL

DRAINAGE DETAIL
NO SCALE

DD-1

| | | | | | |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

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HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612

REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

BORDER LAST REVISED 7/2/2010

USERNAME => \$USER
DGN FILE => \$REQUEST

RELATIVE BORDER SCALE
IS IN INCHES

0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE

00000000001

LAST REVISION
00-00-00
DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

| | | | | | | | | |
|--|----------------------------------|--|--|--|--|--|--|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | | | | | | | |
| | | | | | | | | |
| et Caltrans® | | | | | | | | |
| | | | | | | | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BORDER LAST REVISED 7/2/2010

USERNAME => \$USER
DGN FILE => \$REQUEST

RELATIVE BORDER SCALE
IS IN INCHES

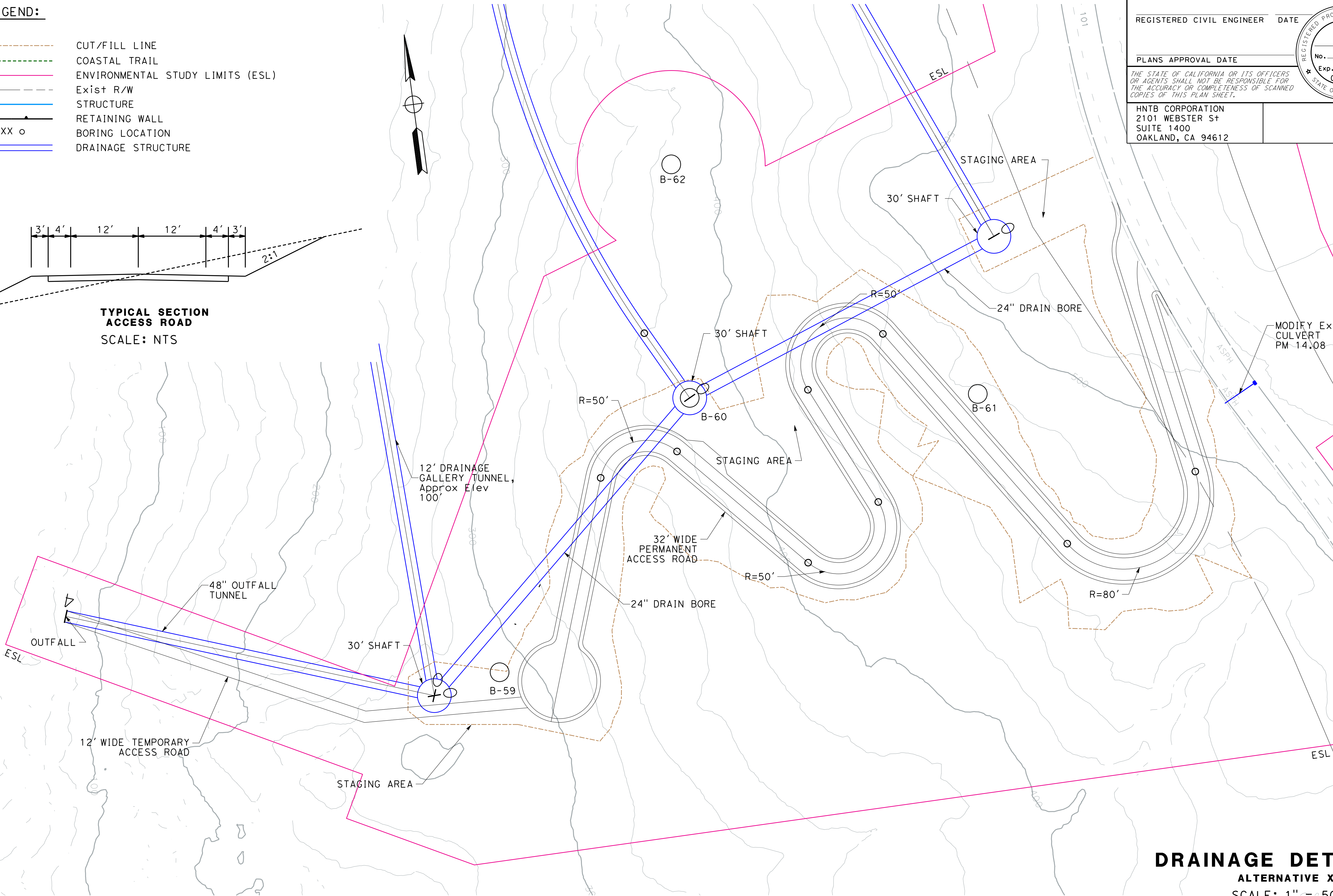
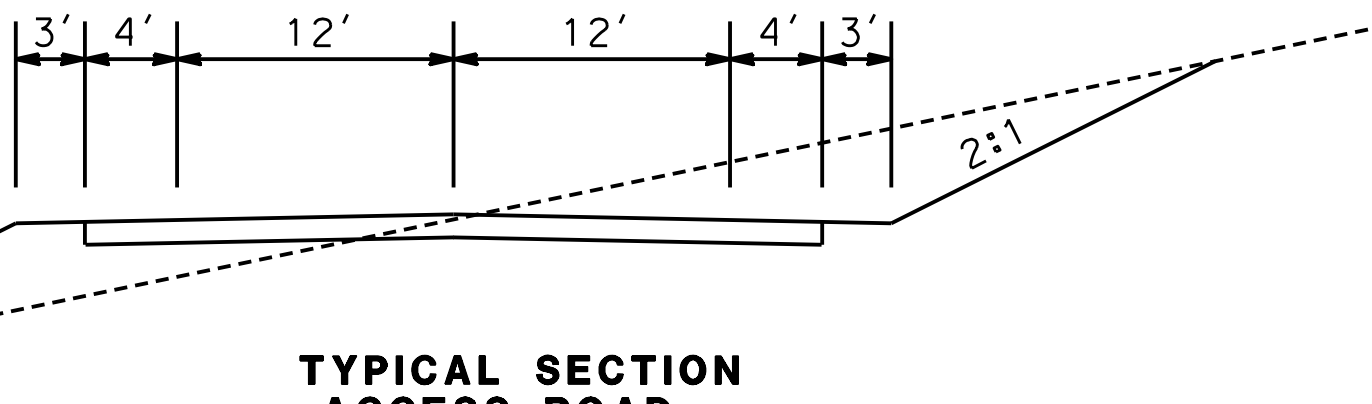
0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE

00000000001

- LEGEND:**
- CUT/FILL LINE
 - COASTAL TRAIL
 - ENVIRONMENTAL STUDY LIMITS (ESL)
 - Exist R/W
 - STRUCTURE
 - RETAINING WALL
 - B-XX o BORING LOCATION
 - DRAINAGE STRUCTURE



| | | | | | |
|--|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |
| REGISTERED CIVIL ENGINEER | | | DATE | | |
| PLANS APPROVAL DATE | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |
| HNTB CORPORATION 2101 WEBSTER St SUITE 1400 OAKLAND, CA 94612 | | | | | |

REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

CIVIL

STATE OF CALIFORNIA

DRAINAGE DETAIL
ALTERNATIVE X
SCALE: 1" = 50'
DD-2

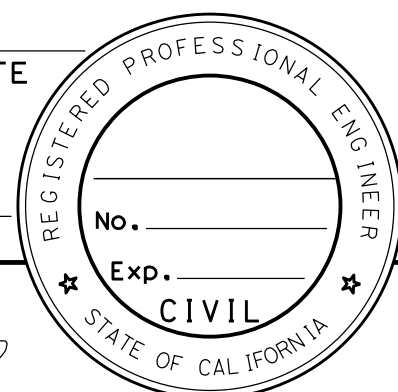
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|-----------------------------|--------------|-----------------|
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE








PLANS APPROVAL DATE

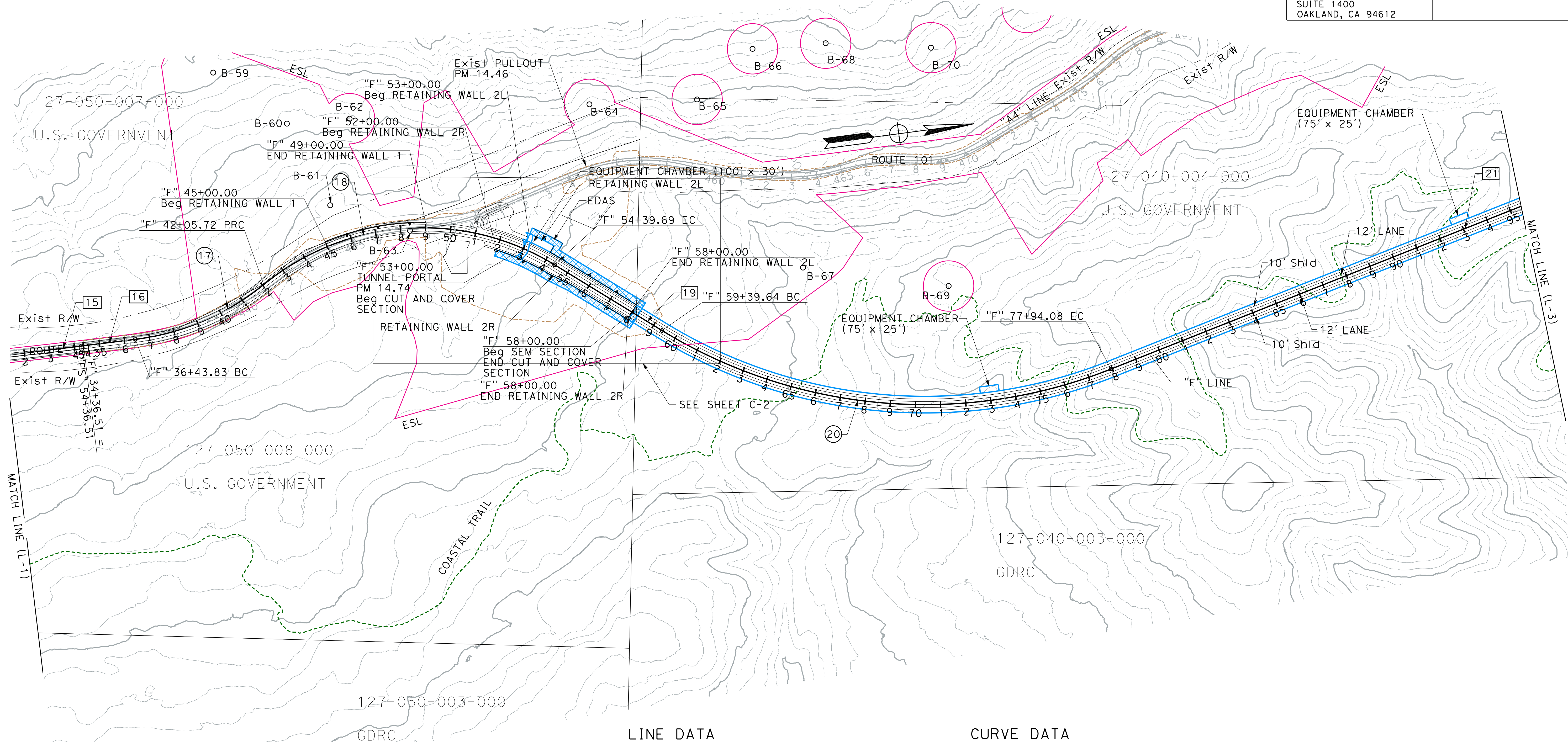
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2101 WEBSTER St
SUITE 1400
OAKLAND, CA 94612



LEGEND:

- | | |
|---|----------------------------------|
|  | CUT/FILL LINE |
|  | COASTAL TRAIL |
|  | ENVIRONMENTAL STUDY LIMITS (ESL) |
|  | Exist R/W |
|  | STRUCTURE |
|  | RETAINING WALL |
|  | DRAINAGE STRUCTURE |
| B-xx ○ | BORING LOCATION |



| No.  | LENGTH | DIRECTION |
|---|----------|---------------|
| 15 | 337.63' | N 07°01'59" W |
| 16 | 544.95' | N 07°01'59" W |
| 19 | 499.95' | N 31°28'30" E |
| 21 | 3636.31' | N 21°39'03" W |

| CURVE DATA | | | | |
|------------|----------|-------------|---------|----------|
| No. ⑧ | R | Δ | T | L |
| 17 | 1000.00' | 32° 11' 37" | 288.57' | 561.88' |
| 18 | 1000.00' | 70° 42' 06" | 709.37' | 1233.98' |
| 20 | 2000.00' | 53° 07' 32" | 999.90' | 1854.44' |

LAYOUT

ALTERNATIVE F

SCALE: 1" = 200'

L-2

BORDER LAST REVISED 7/2/2010

```

USERNAME => $USER
DGN FILE => $REQUEST

```

RELATIVE BORDER SCALE
IS IN INCHES



UNIT 0000

PROJECT NUMBER & PHASE

000000000001

| | |
|---------------|------------------------|
| LAST REVISION | DATE PLOTTED => \$DATE |
| 00-00-00 | TIME PLOTTED => \$TIME |

| | | | | | | | | | | | | | | | |
|--|-----|---|--|----------------------------|------------|---------|------|------|----|--------|-----------|-----------------------------|--------------|-----------------|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | | CONSULTANT FUNCTIONAL SUPERVISOR | | CALCULATED- DESIGNED BY | CHECKED BY | REVISOR | DATE | DIST | | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS | |
| | | | | | | | | 01 | DN | 101 | 12.7/16.5 | | | | |
| REGISTERED CIVIL ENGINEER | | | | | | | | | | | | | | DATE | <div>REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA</div> |
| PLANS APPROVAL | | | | | | | | | | | | | | DATE | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | | | | | | | | | | | |
| HNTB CORPORATION 2101 WEBSTER ST SUITE 1400 OAKLAND, CA 94607 | | | | | | | | | | | | | | | |
| STATION | | 86+00 88+00 90+00 92+00 94+00 96+00 98+00 100+00 102+00 104+00 106+00 108+00 110+00 112+00 114+00 116+00 118+00 120+00 122+00 124+00 126+00 | | | | | | | | | | | | | TOTAL |
| CY | Exc | | | | | | | | | | | | | | |
| | Emb | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| SUPERELEVATION DIAGRAM | | | | | | | | | | | | | |
| "F" LINE | | | | | | | | | | | | | |
| e=-2% L+ & R+ TW & Shld | | | | | | | | | | | | | |
| CURVE 22 R=1000' R+ | | | | | | | | | | | | | |
| e=10% L+ TW & Shld | | | | | | | | | | | | | |
| e=-10% R+ TW & Shld | | | | | | | | | | | | | |
| e=-5% L+ & R+ Shld | | | | | | | | | | | | | |
| e=-2% L+ & R+ TW | | | | | | | | | | | | | |
| AXIS OF ROTATION | | | | | | | | | | | | | |
| MATCH LINE (PS-2) | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PROFILE | | | | | | | | | | | | | |
| "F" LINE | | | | | | | | | | | | | |
| OG | | | | | | | | | | | | | |
| PG | | | | | | | | | | | | | |
| 6.00% | | | | | | | | | | | | | |
| OUTSIDE EDGE OF TUNNEL | | | | | | | | | | | | | |
| +64.04 PVI Elev 896.26 | | | | | | | | | | | | | |
| PROFILE AND SUPERELEVATION DIAGRAM ALTERNATIVE F | | | | | | | | | | | | | |
| SCALE: Horiz 1" = 200' Vert 1" = 200' | | | | | | | | | | | | | |
| PS-3 | | | | | | | | | | | | | |

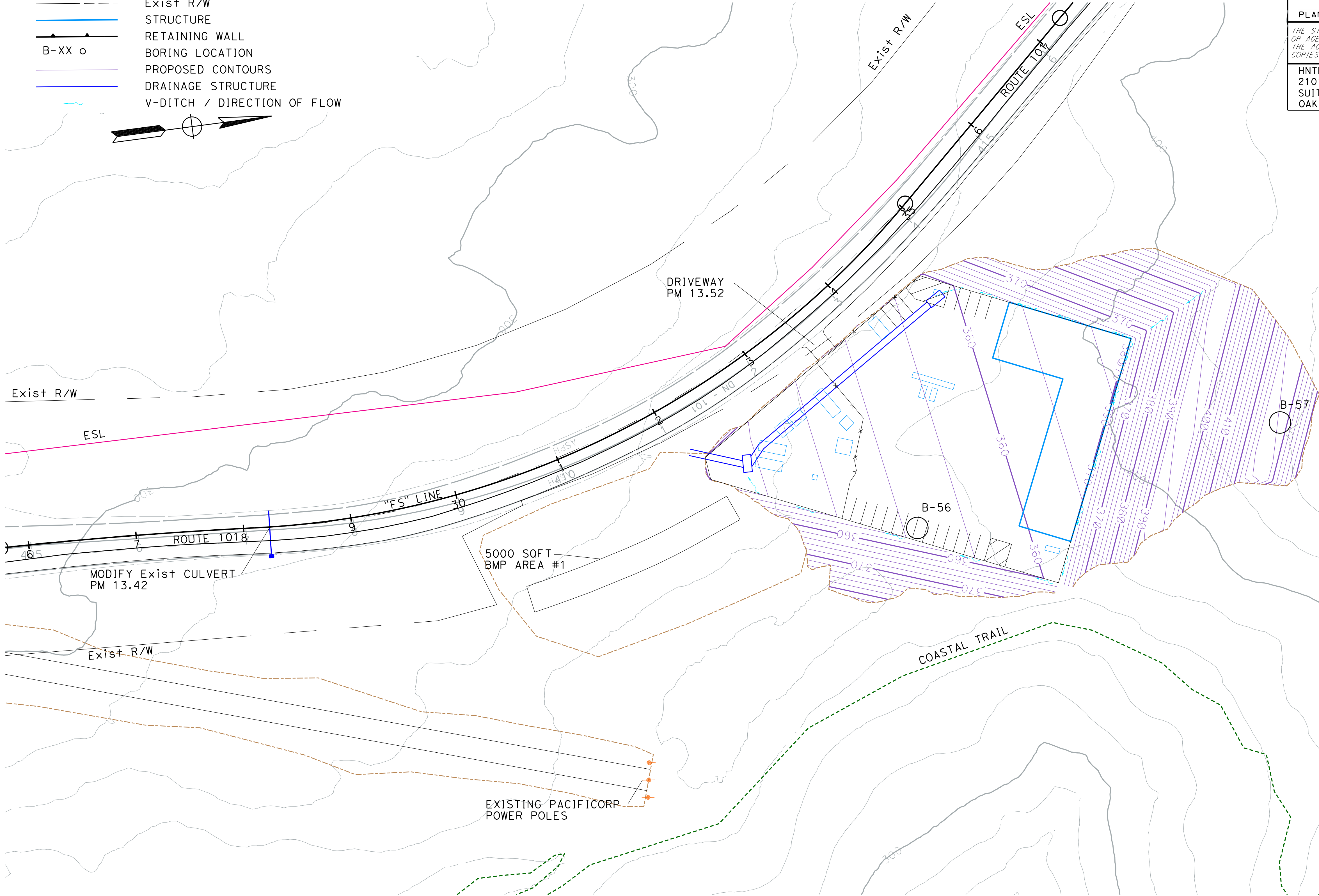
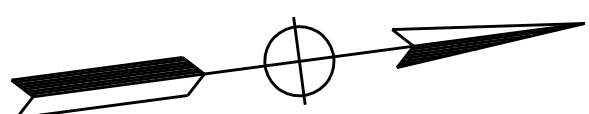
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|--|------------|-----------------------|------------------------|------------|------------|--------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT | FUNCTIONAL SUPERVISOR | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED |
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STATE OF CALIFORNIA

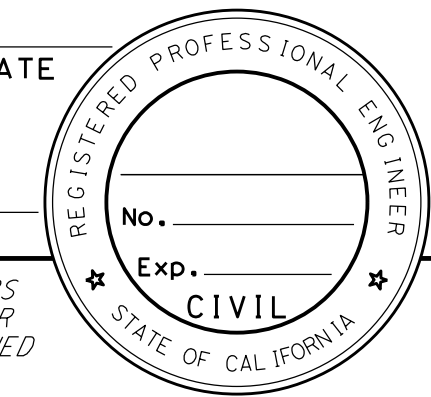
Caltrans

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX o BORING LOCATION
- PROPOSED CONTOURS
- DRAINAGE STRUCTURE
- V-DITCH / DIRECTION OF FLOW



| | | | | | |
|--|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |
| REGISTERED CIVIL ENGINEER | | | DATE | | |
| PLANS APPROVAL DATE | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |
| HNTB CORPORATION 2101 WEBSTER ST SUITE 1400 OAKLAND, CA 94612 | | | | | |

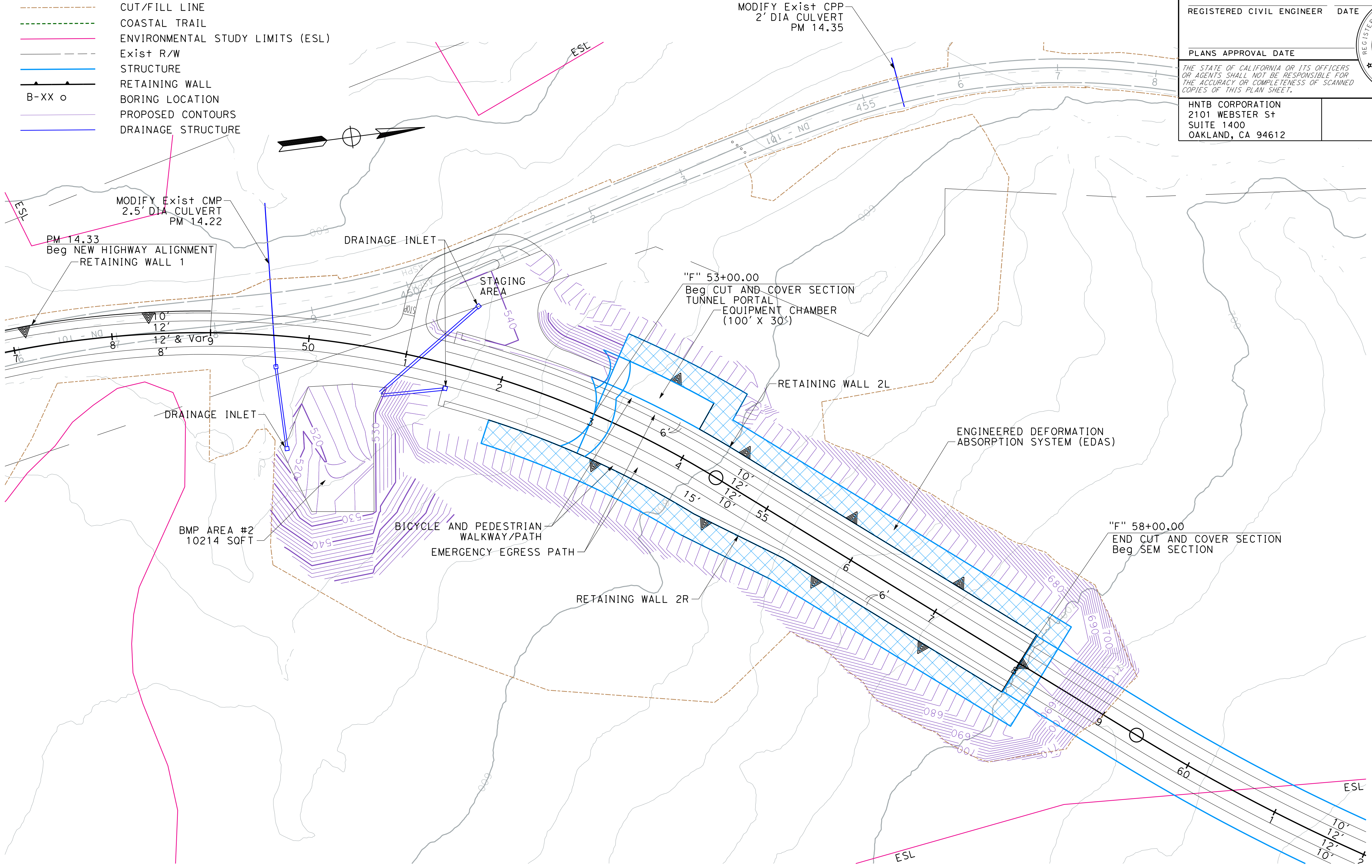


CONSTRUCTION DETAIL
ALTERNATIVE F
SCALE: 1" = 50'
C-1

| | | | | | | |
|--|----------------------------------|--|------------------------|------------|------------|--------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | | CALCULATED-DESIGNED BY | CHECKED BY | REVISED BY | DATE REVISED |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Caltans® | | | | | | |

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX o BORING LOCATION
- PROPOSED CONTOURS
- DRAINAGE STRUCTURE



| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612

REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA

CONSTRUCTION DETAIL

ALTERNATIVE F

SCALE: 1" = 50'

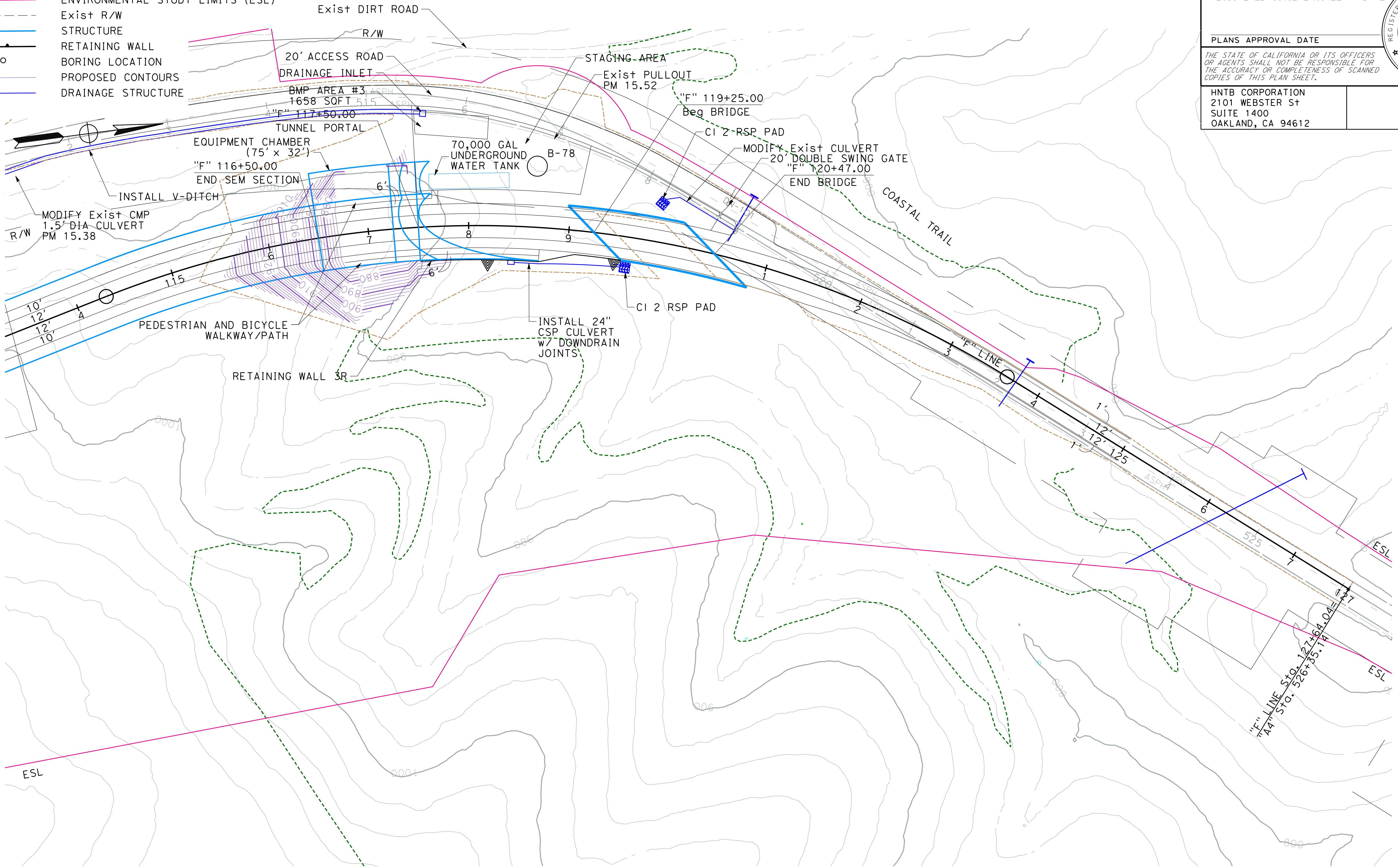
C-2

| | | | | | | |
|--|----------------------------------|--|------------------------|--|------------|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | | CALCULATED-DESIGNED BY | | REVISED BY | |
| | CHECKED BY | | DATE REVISED | | | |
| | | | | | | |
| | | | | | | |

Caltrans

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- BORING LOCATION
- PROPOSED CONTOURS
- DRAINAGE STRUCTURE



| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612

REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

CIVIL

STATE OF CALIFORNIA

CONSTRUCTION DETAIL
ALTERNATIVE F
SCALE: 1" = 50'
C-3

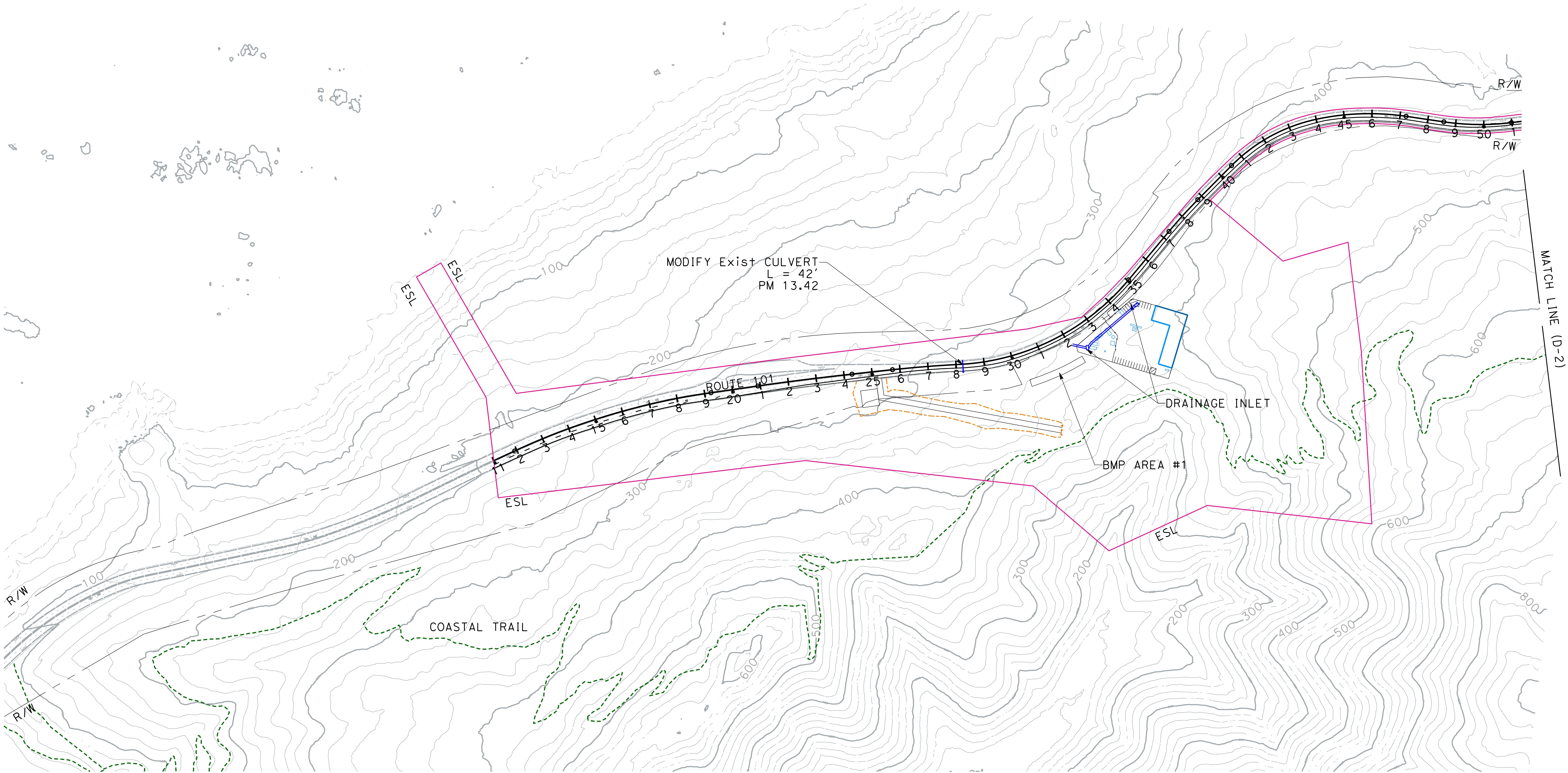
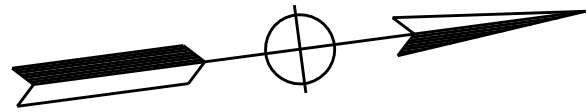
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|--|--|----------------------------------|--|------------------------|--|---------------|--|--------------|--|--|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | | CONSULTANT FUNCTIONAL SUPERVISOR | | CALCULATED-DESIGNED BY | | RAY SANDIFORD | | REVISED BY | | | |
| Caltrans® | | JOHN LITZINGER | | CHECKED BY | | MOE AMINI | | DATE REVISED | | | |
| | | | | | | | | | | | |

NOTE:

1. FOR DETAILS OF DRAINAGE SHAFT AND GALLERIES, SEE SHEET DD-1.

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX o BORING LOCATION
- DRAINAGE STRUCTURE



DRAINAGE PLAN
ALTERNATIVE F
SCALE: 1" = 200'
D-1

| | | | | | |
|--|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |
| REGISTERED CIVIL ENGINEER | | | DATE | | |
| PLANS APPROVAL DATE | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |
| HNTB CORPORATION 2101 WEBSTER ST SUITE 1400 OAKLAND, CA 94612 | | | | | |



LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX o BORING LOCATION
- DRAINAGE STRUCTURE

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612

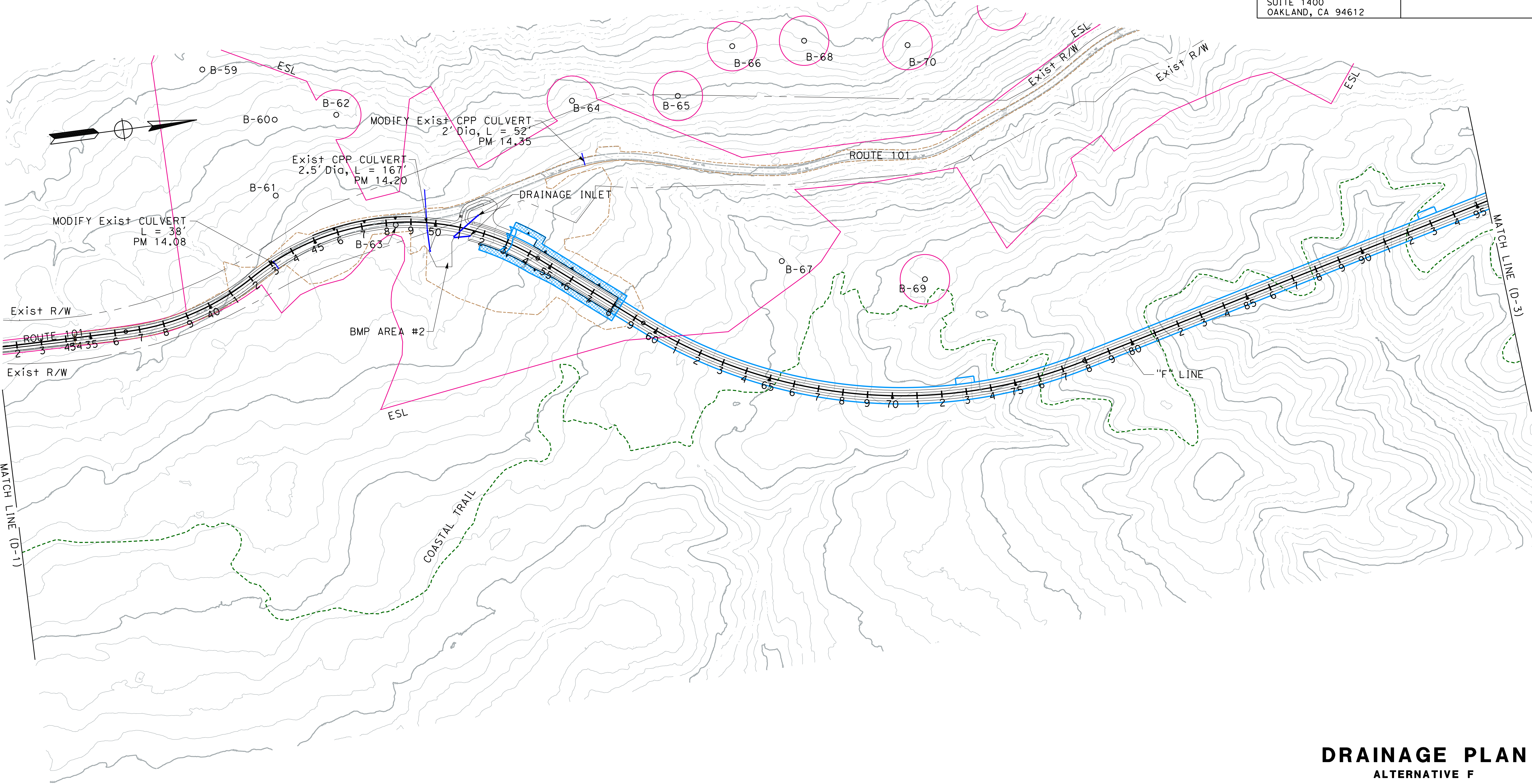
REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

CIVIL

STATE OF CALIFORNIA



DRAINAGE PLAN

ALTERNATIVE F

SCALE: 1" = 200'

D-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

REVISOR

BY

DATE

CALCULATED-DESIGNED BY

CHECKED BY

CONSULTANT

FUNCTIONAL SUPERVISOR

LEGEND:

- CUT/FILL LINE
- COASTAL TRAIL
- ENVIRONMENTAL STUDY LIMITS (ESL)
- Exist R/W
- STRUCTURE
- RETAINING WALL
- B-XX o BORING LOCATION
- DRAINAGE STRUCTURE

| | | | | | |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER

DATE

PLANS APPROVAL DATE

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HNTB CORPORATION

2101 WEBSTER St

SUITE 1400

OAKLAND, CA 94612

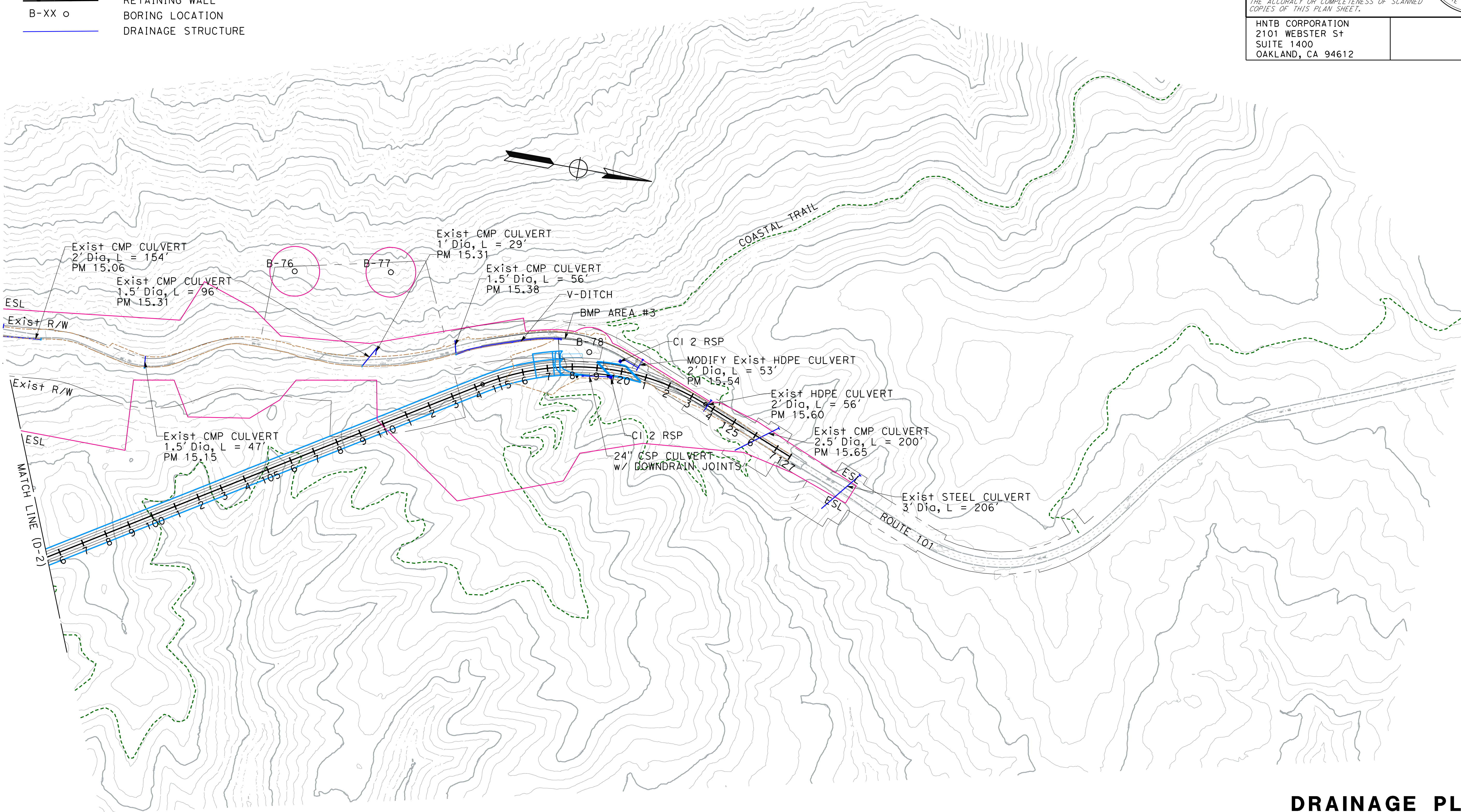
REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

CIVIL

STATE OF CALIFORNIA



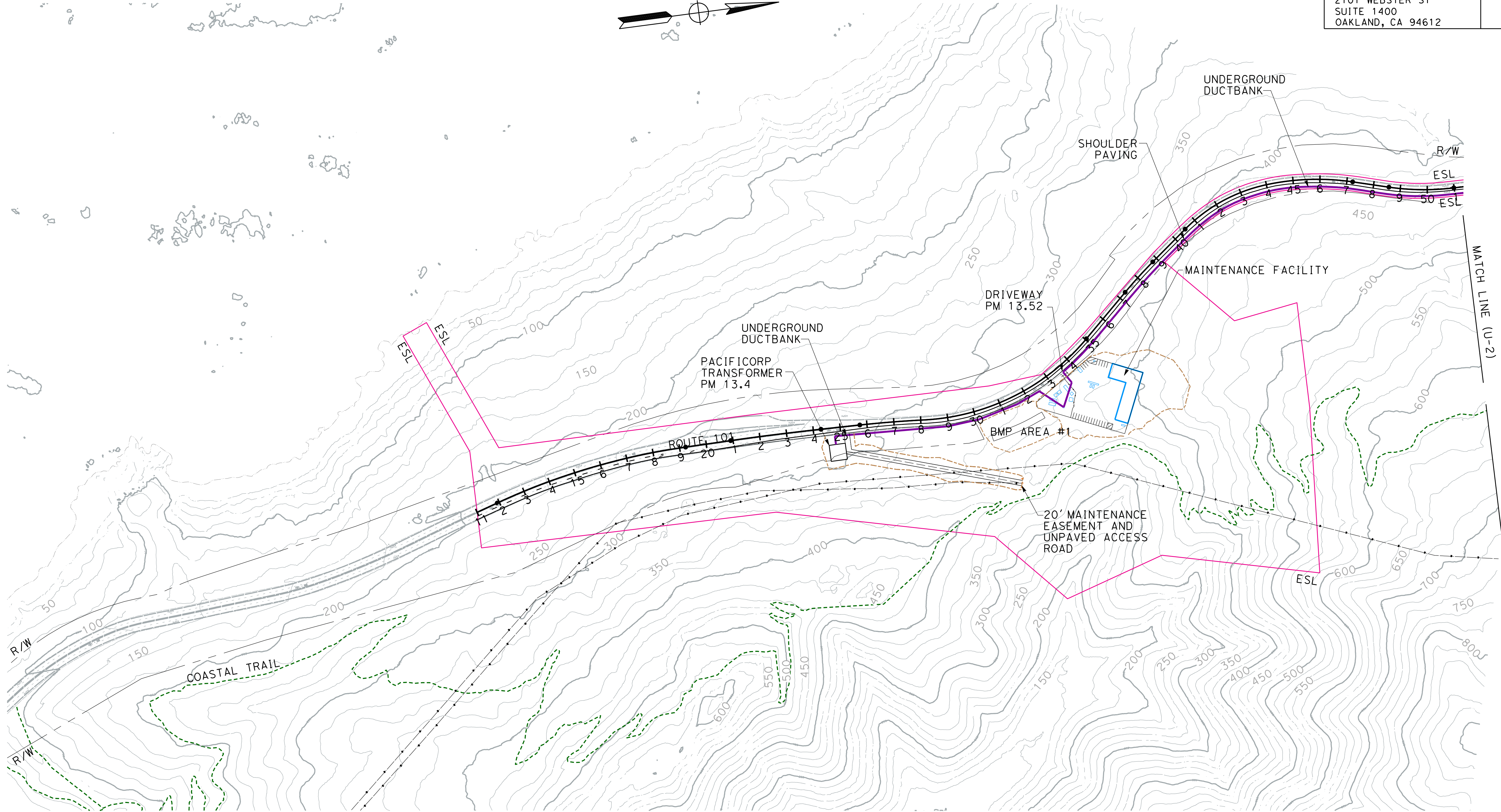
DRAINAGE PLAN
ALTERNATIVE F
SCALE: 1" = 200'
D-3

| | | | | | | |
|--|----------------------------------|--|------------------------|--|---------|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | | CALCULATED-DESIGNED BY | | REVISOR | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| DATE | DATE | | DATE | | DATE | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



- LEGEND:
- CUT/FILL LINE
 - COASTAL TRAIL
 - ENVIRONMENTAL STUDY LIMITS (ESL)
 - Exist R/W
 - STRUCTURE
 - RETAINING WALL
 - BORING LOCATION
 - UTILITY LINE



| | | | | | |
|--|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 01 | DN | 101 | 12.7/16.5 | | |
| REGISTERED CIVIL ENGINEER | | | DATE | | |
| PLANS APPROVAL DATE | | | | | |
| THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET. | | | | | |
| HNTB CORPORATION 2101 WEBSTER ST SUITE 1400 OAKLAND, CA 94612 | | | | | |

REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

CIVIL

STATE OF CALIFORNIA

UTILITY PLAN
ALTERNATIVE F
SCALE: 1" = 200'
U-1

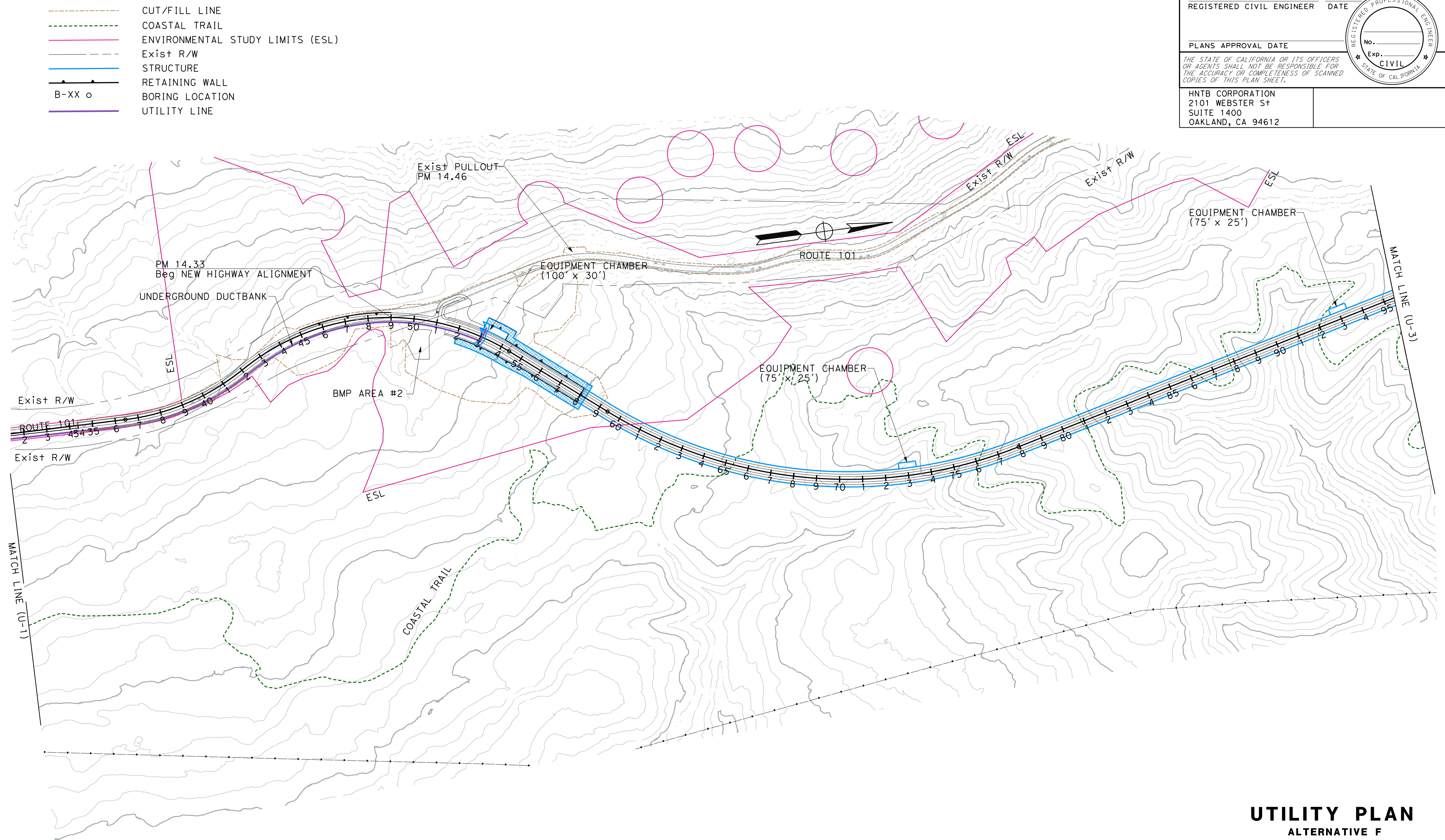
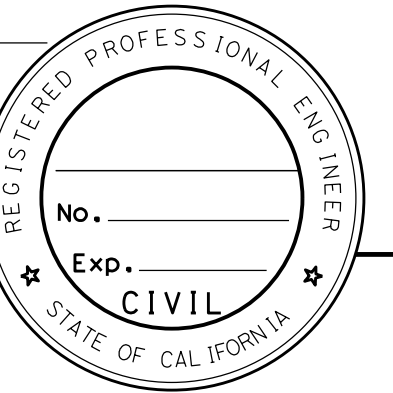
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|------|--------|-------|-----------------------------|--------------|-----------------|
| 01 | DN | 101 | 12.7/16.5 | | |

REGISTERED CIVIL ENGINEER DATE 11/1/11

PLANS APPROVAL DATE

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HNTB CORPORATION
2101 WEBSTER ST
SUITE 1400
OAKLAND, CA 94612




UTILITY PLAN

ALTERNATIVE F

SCALE: 1" = 200'

U-2

| | | | | | | |
|---|----------------------------------|--|--|--|--|--|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR | | | | | |
|  | | | | | | |
| | | | | | | |

BORDER LAST REVISED 7/2/2010

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DGN FILE => $REQUEST

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RELATIVE BORDER SCALE
IS IN INCHES



UNIT 0000

PROJECT NUMBER & PHASE

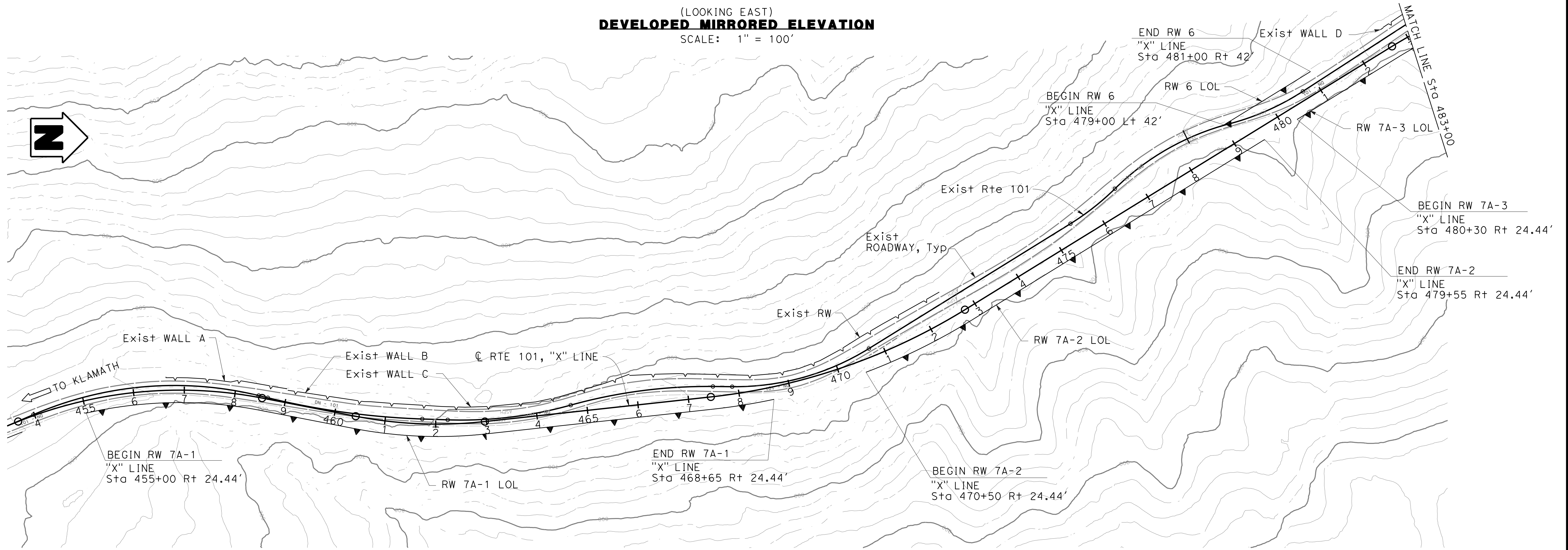
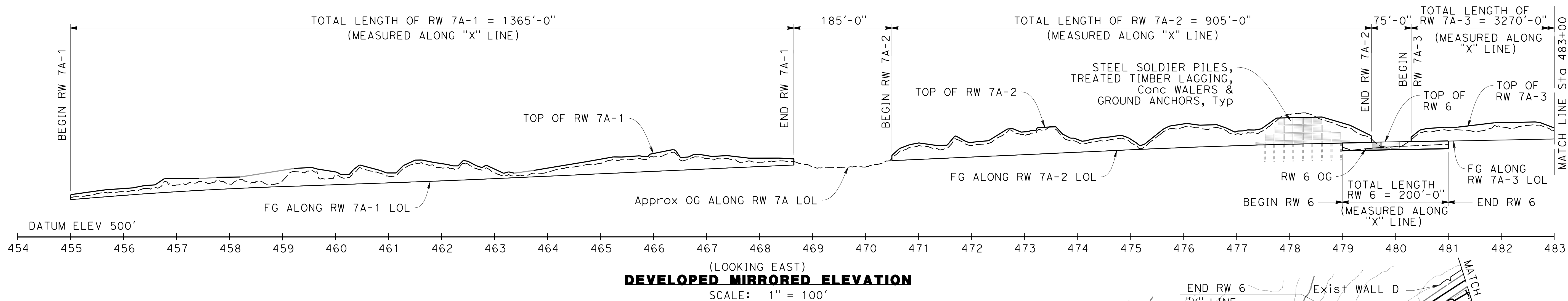
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| | |
|------------------------|---------------|
| DATE PLOTTED => \$DATE | LAST REVISION |
| TIME PLOTTED => \$TIME | 00-00-00 |

NOTES:

1. Plan and Developed Mirrored Elevations are based on available topographical and survey information, but may not reflect recent changes in ground movement and construction activities.
2. Access to downslope walls is limited due to steep terrain.
3. Alignment and profile shown are preliminary and approximate.
4. Traffic staging and control is required.

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



| | |
|---|------------------|
| X | DESIGN OVERSIGHT |
| X | SIGN OFF DATE |

| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | E. OKADA | DATE | 11/22/23 |
| DRAWN BY | H. LI | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

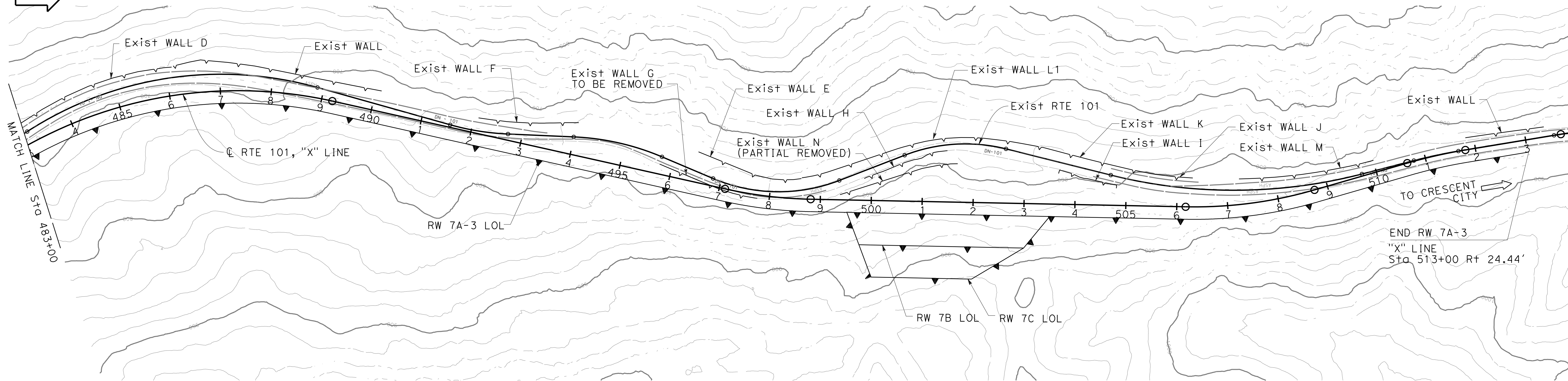
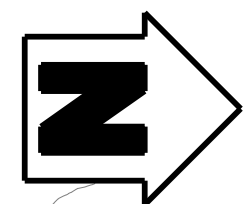
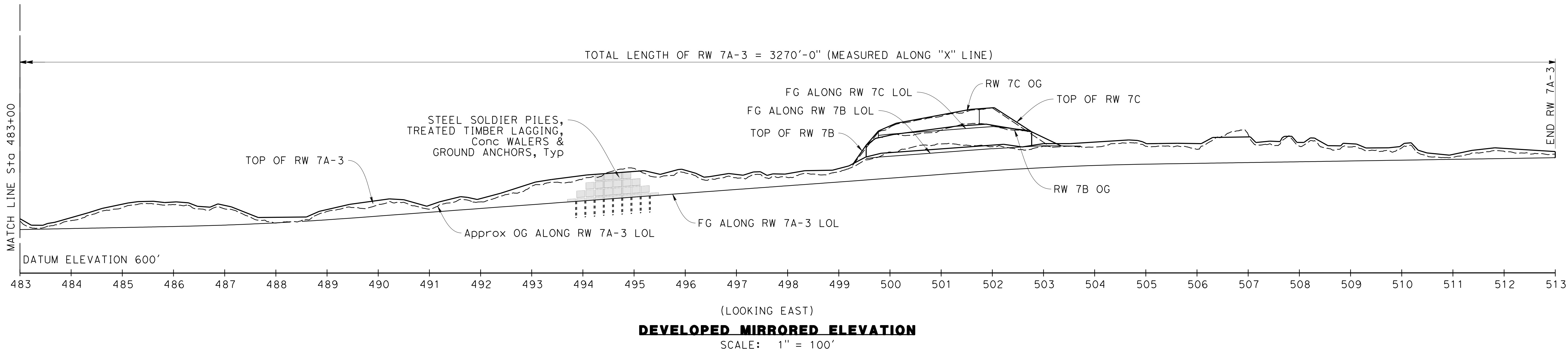
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|------------------|
| J. LITZINGER |
| PROJECT ENGINEER |

| PLANNING STUDY | |
|---------------------|------------------------------------|
| LCG ALT X WALLS GP1 | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

NOTES:

1. Plan and Developed Mirrored Elevations are based on available topographical and survey information, but may not reflect recent changes in ground movement and construction activities.
2. Access to downslope walls is limited due to steep terrain.
3. Alignment and profile shown are preliminary and approximate.
4. Traffic staging and control is required.

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



PLAN

SCALE: 1" = 100'

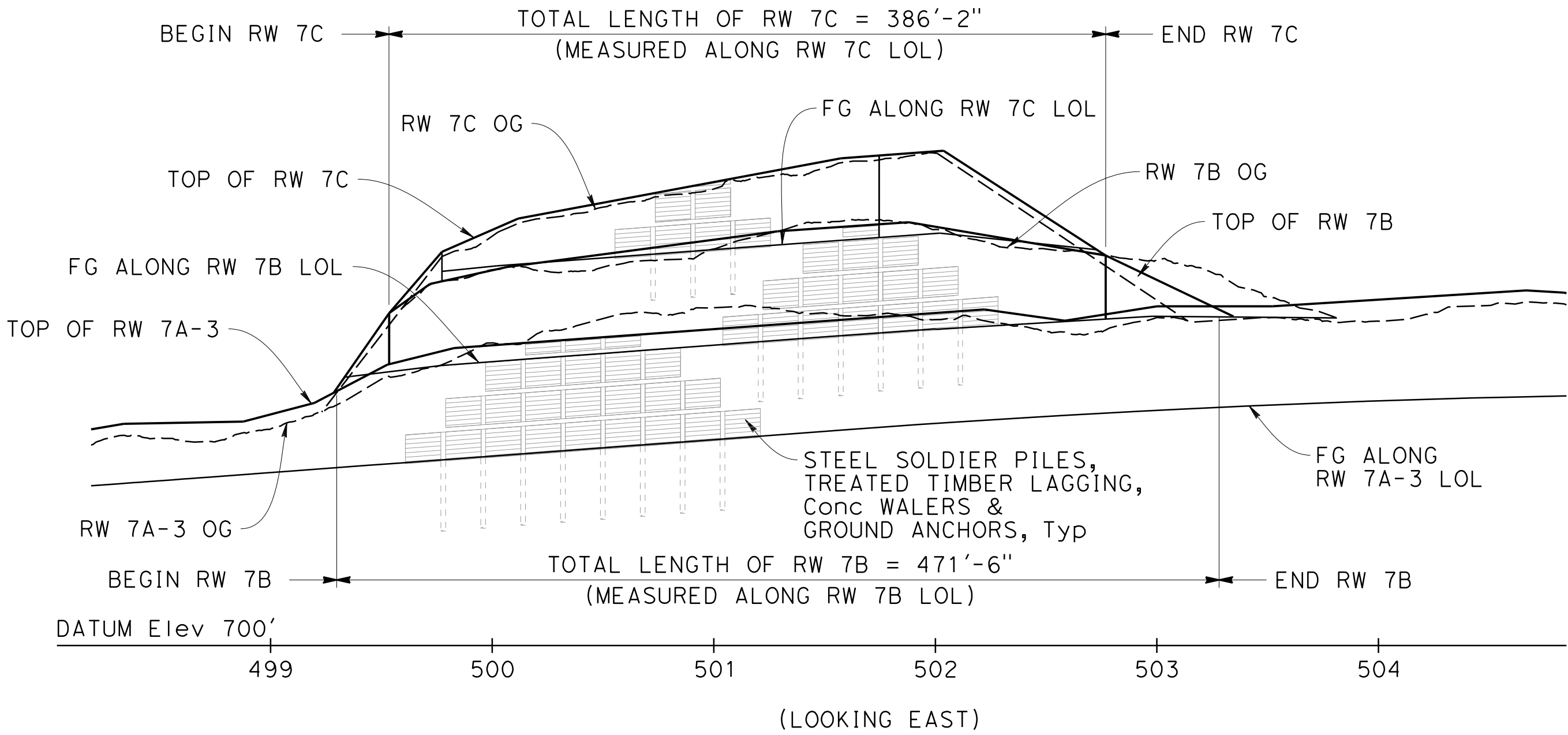
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|---|------------------|
| X | DESIGN OVERSIGHT |
| X | SIGN OFF DATE |

| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | E. OKADA | DATE | 11/22/23 |
| DRAWN BY | H. LI | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

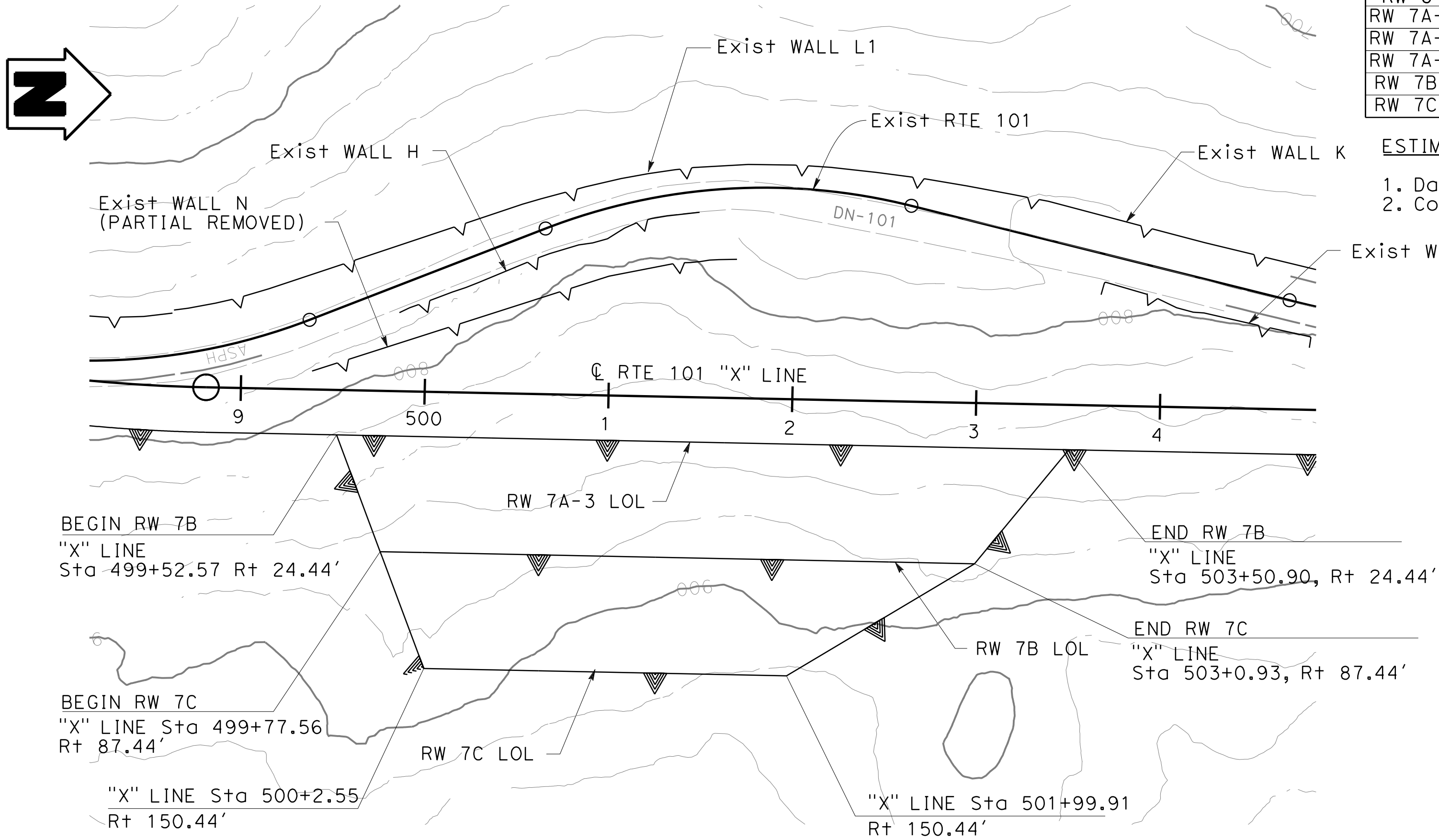
| |
|------------------|
| J. LITZINGER |
| PROJECT ENGINEER |

| PLANNING STUDY | |
|---------------------|------------------------------------|
| LCG ALT X WALLS GP2 | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



DEVELOPED MIRRORED ELEVATION
SCALE: 1" = 50'



PLAN
SCALE: 1" = 50'

EXISTING WALLS

| No. | DESCRIPTION | YEAR | TYPE | L | Max H | POSTMILE | SIDE |
|-----|----------------------|------|-------------------------------|------|-------|-------------|------|
| A | Wilson Crk Storm Dmg | 2017 | Soldier Pile w/Timber Lagging | 242' | 39' | 14.40/14.45 | L+ |
| B | Wilson Crk Wall #73 | 1991 | Soldier Pile w/Tiebacks | 327' | 17' | 14.46/14.52 | L+ |
| C | Wilson Crk Wall #83 | 1991 | Soldier Pile w/Tiebacks | 410' | 20' | 14.46/14.52 | L+ |
| D | South LCG Wall | 2015 | Soldier Pile w/Timber Lagging | 430' | 13' | 14.97/14.89 | L+ |
| E | Soil Nail Wall | 2015 | Soil Nail | 212' | 26' | 15.10/15.14 | L+ |
| F | Wall 2008/1 | 2008 | Soldier Pile w/Timber Lagging | 197' | 22' | 15.14/15.17 | L+ |
| G | Wall 2008/2 | 2008 | Soldier Pile w/Timber Lagging | 181' | 18' | 15.20/15.23 | R+ |
| H | Wall 2008/3 | 2008 | Soldier Pile w/Timber Lagging | 192' | 25' | 15.28/15.32 | R+ |
| I | Wall 2008/4 | 2008 | Soldier Pile w/Timber Lagging | 112' | 16' | 15.35/15.37 | R+ |
| J | Wall 2008/5 | 2008 | Soldier Pile w/Timber Lagging | 155' | 35' | 15.39/15.42 | L+ |
| K | Wall 2014/5A | 2014 | Soldier Pile w/Timber Lagging | 185' | 40' | 15.35/15.39 | L+ |
| L | Wall 2020/5B | 2020 | Soldier Pile w/Timber Lagging | 625' | 35' | 15.27/15.39 | L+ |
| M | Wall 2008/6 | 2008 | Soldier Pile w/Timber Lagging | 267' | 20' | 15.46/15.51 | L+ |
| N | Wall 2021/7 | 2021 | Soldier Pile w/Timber Lagging | 245' | 28' | 15.27/15.39 | R+ |

NOTES:

1. Access to downslope walls is limited due to steep terrain.
2. Alignment and profile shown are preliminary and approximate.
3. Traffic staging and control is required.

PROPOSED WALLS

| No. | TYPE | L | Max H | AREA | STATION | SIDE | COST/FT ² | TOTAL COST |
|---------|-------------------------------|-------|-------|---------|-----------------|------|----------------------|--------------|
| RW 6 | Soldier Pile w/ Ground Anchor | 200' | 15' | 2,854 | 479+00 - 481+00 | L+ | \$663 | \$1,892,000 |
| RW 7A-1 | Soldier Pile w/ Ground Anchor | 1365 | 50' | 31,964 | 455+00 - 468+65 | R+ | \$604 | \$19,307,000 |
| RW 7A-2 | Soldier Pile w/ Ground Anchor | 905' | 50' | 31,196 | 470+50 - 479+55 | R+ | \$533 | \$16,628,000 |
| RW 7A-3 | Soldier Pile w/ Ground Anchor | 3270' | 50' | 109,972 | 480+30 - 513+00 | R+ | \$540 | \$59,429,000 |
| RW 7B | Soldier Pile w/ Ground Anchor | 471' | 50' | 12,732 | 499+52 - 503+51 | R+ | \$547 | \$6,969,000 |
| RW 7C | Soldier Pile w/ Ground Anchor | 386' | 35' | 7,152 | 499+77 - 503+02 | R+ | \$604 | \$4,318,000 |

ESTIMATE NOTES:

1. Date of Estimate: 11-22-2023
2. Cost Includes 10% mobilization, 10% Time Related Overhead, and 25% contingency

| | |
|--|-----------------|
| DATE OF ESTIMATE | = 11-22-2023 |
| STRUCTURE HEIGHT | = VARIES |
| LENGTH | = VARIES |
| WIDTH | = N/A |
| AREA | = 189,834 SF |
| COST/FT ² INCLUDING TRO, MOBILIZATION & 25% CONTINGENCY | = \$572 |
| TOTAL COST | = \$108,543,000 |

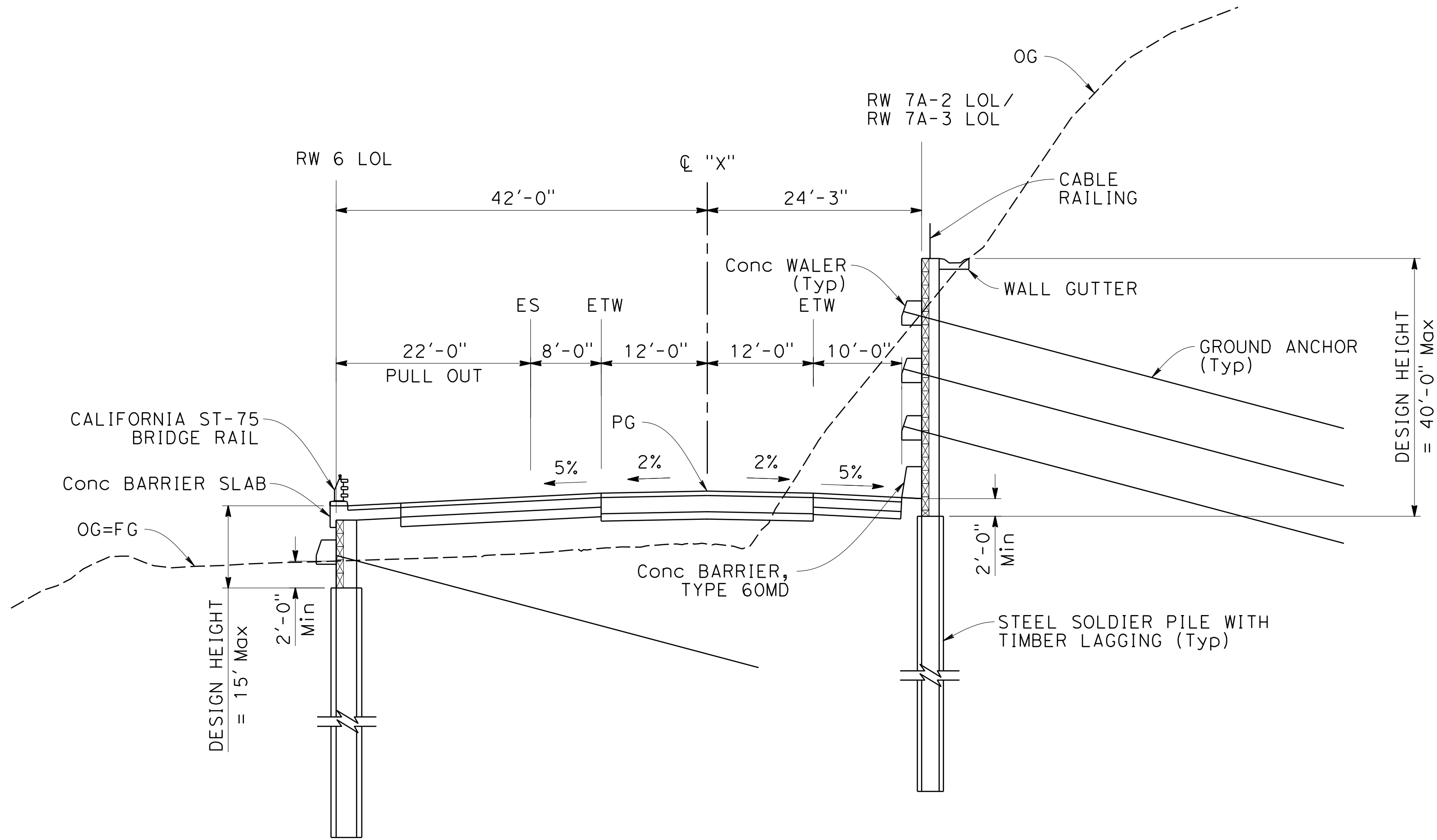
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|-------------|--------------|------|----------|
| DESIGNED BY | E. OKADA | DATE | 11/22/23 |
| DRAWN BY | H. LI | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

| |
|----------------------------------|
| J. LITZINGER PROJECT ENGINEER |
|----------------------------------|

| PLANNING STUDY | |
|---------------------|------------------------------------|
| LCG ALT X WALLS GP3 | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

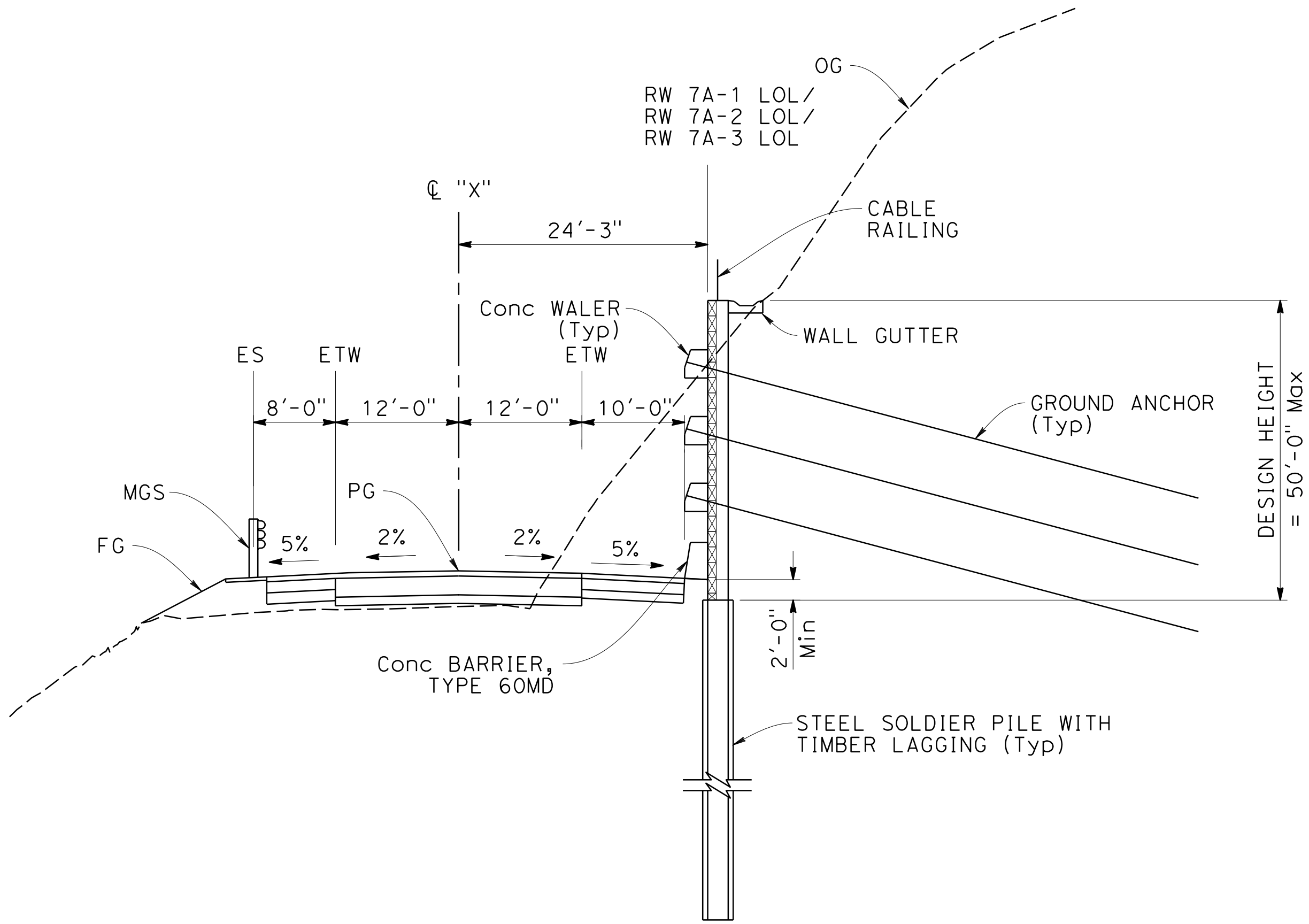
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| X DESIGN OVERSIGHT |
| X SIGN OFF DATE |

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|---|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST., SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



ALIGNMENT "X"
"X" 479+00 TO 479+55
"X" 480+30 TO 481+00

TYPICAL SECTION
SCALE: 1" = 10'



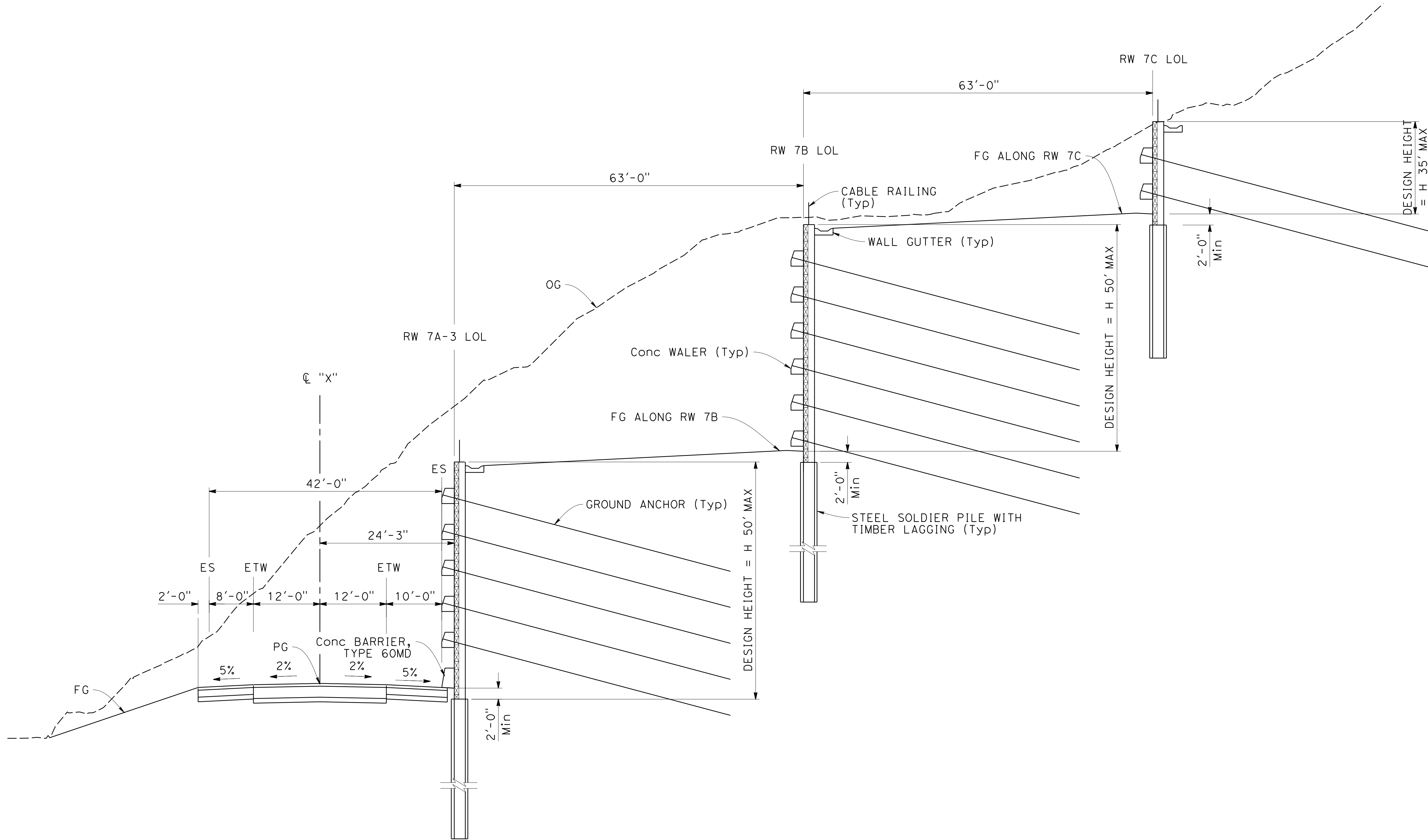
ALIGNMENT "X"
"X" 455+00 TO 468+65
"X" 470+50 TO 479+00
"X" 481+00 TO 499+52.57
"X" 503+50.90 TO 513+00

TYPICAL SECTION
SCALE: 1" = 10'

| | | | | |
|-----------------------|---------------|----------------------------------|--------------------------|------------------------------------|
| DESIGNED BY E. OKADA | DATE 11/22/23 | J. LITZINGER PROJECT ENGINEER | PLANNING STUDY | |
| DRAWN BY H. LI | DATE 11/22/23 | | LCG ALT X WALLS DETAIL 1 | |
| CHECKED BY M. AMINI | DATE 11/22/23 | | BRIDGE NO. X | UNIT: X |
| APPROVED J. LITZINGER | DATE 11/22/23 | | SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

| | |
|---|------------------|
| X | DESIGN OVERSIGHT |
| X | SIGN OFF DATE |

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



ALIGNMENT "X"
"X" 500+2.55 TO 501+99.91
"X" 499+52.57 TO 500+2.55 SIMILAR
"X" 501+99.91 TO 503+50.90 SIMILAR

TYPICAL SECTION
SCALE: 1" = 10'

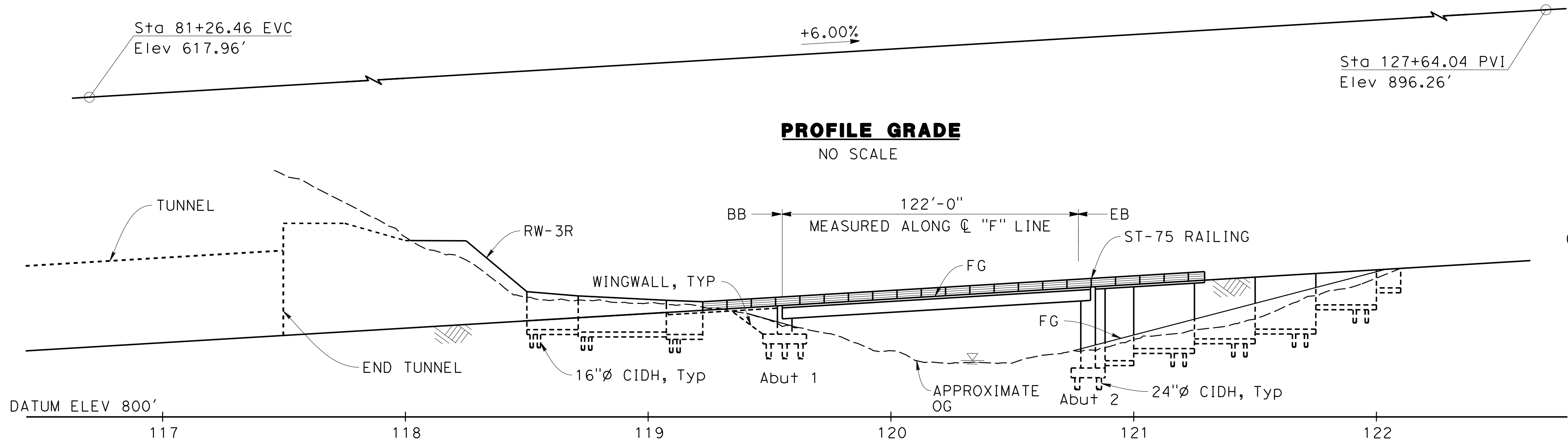
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|-------------|--------------|------|----------|
| DESIGNED BY | E. OKADA | DATE | 11/22/23 |
| DRAWN BY | H. LI | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

| |
|----------------------------------|
| J. LITZINGER PROJECT ENGINEER |
|----------------------------------|

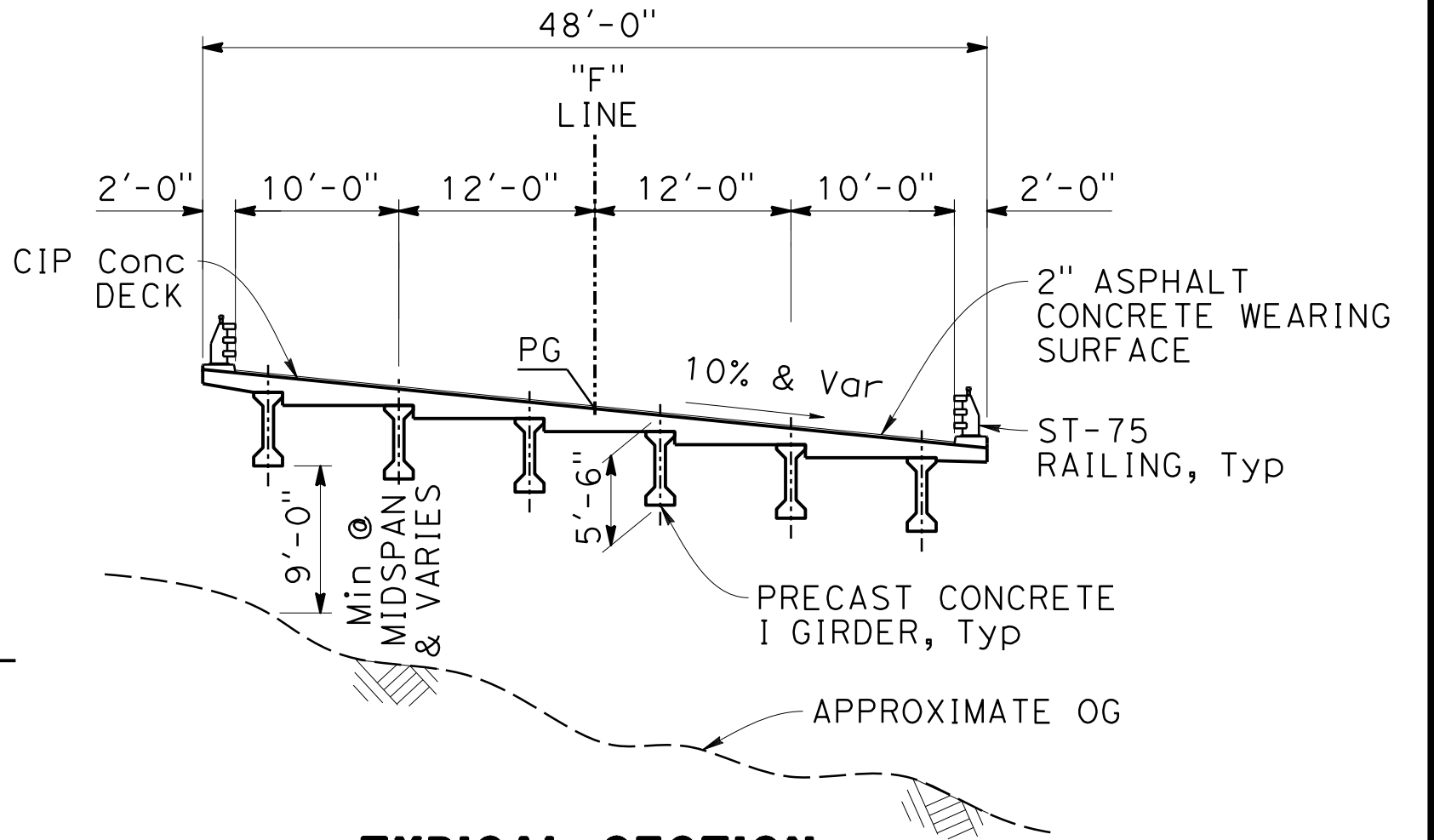
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|--------------------------|------------------------------------|
| LCG ALT X WALLS DETAIL 2 | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

| |
|-----------------------|
| X DESIGN OVERSIGHT |
| X SIGN OFF DATE |

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, SUITE 1400 OAKLAND, CA 94612 | | | |
| | | | |



PROFILE GRADE
NO SCALE



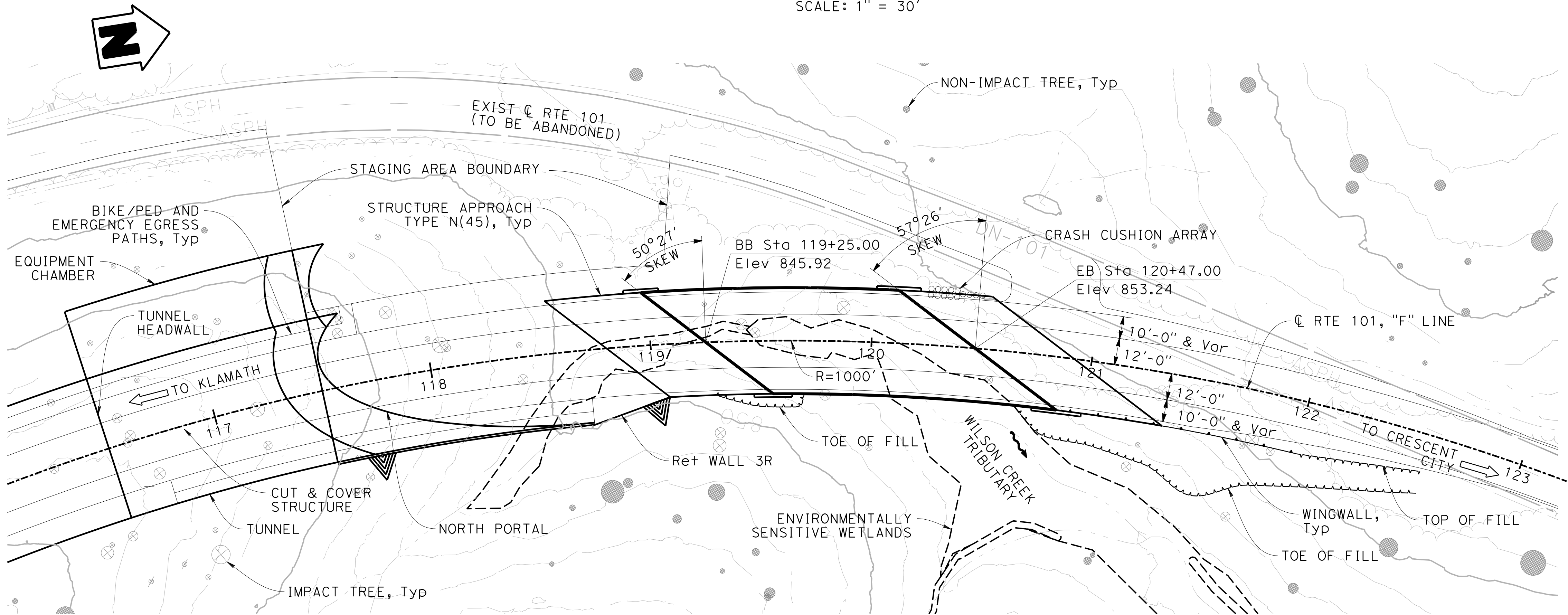
TYPICAL SECTION
SCALE: 1" = 10'

NOTES:

- Access is limited due to steep, remote terrain, and wetland.
- Alignment and profile shown are preliminary and approximate.
- 24" CIDH piles were assumed in 60-ft lengths for the Abutments.
- 16" CIDH piles were assumed in 40-ft lengths for the approach retaining walls.

LEGEND:

- Indicates Ordinary High Water (O₅₀)
- Impacted Tree
- Non-Impacted Tree



PLAN
SCALE: 1" = 30'

CURVE DATA
"F" LINE
R=1000.00'
Δ=53°29'40"
T=503.98'
L=933.65'

| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | E. OKADA | DATE | 11/22/23 |
| DRAWN BY | H. LI | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

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|----------------------------------|
| J. LITZINGER PROJECT ENGINEER |
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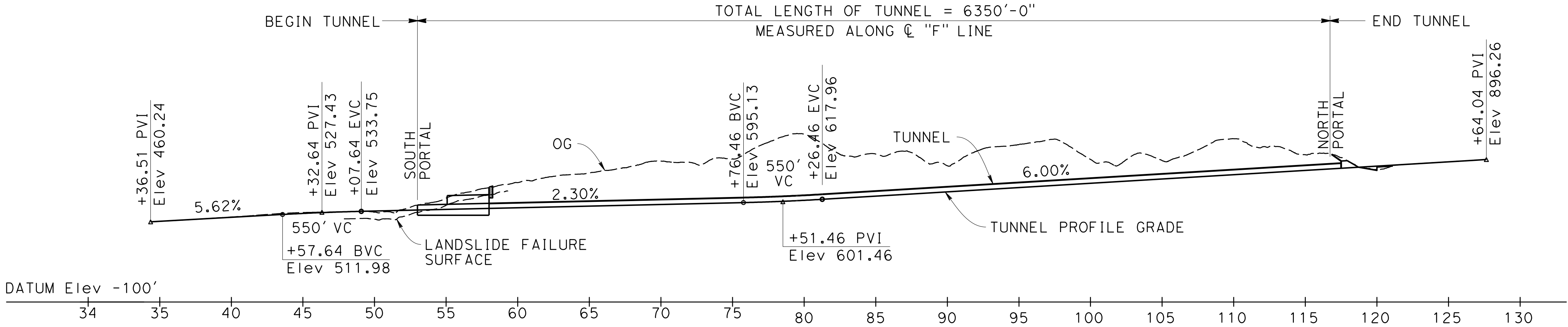
| PLANNING STUDY | |
|-------------------------------|------------------------------------|
| WILSON CREEK TRIBUTARY BRIDGE | |
| BRIDGE NO. | UNIT: X |
| SCALE: | PROJECT NUMBER & PHASE: 0115000099 |

| |
|-----------------------|
| X DESIGN OVERSIGHT |
| X SIGN OFF DATE |

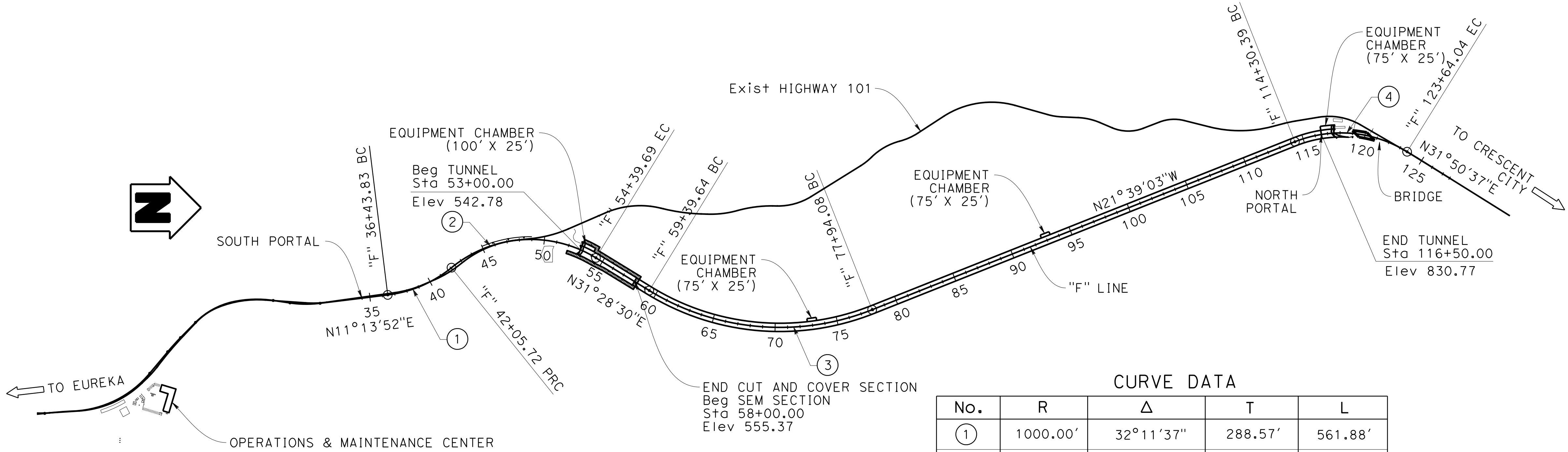
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|---|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST., Ste 1400 OAKLAND, CA 94612 | | | |
| | | | |

NOTES:

- Linings for sequentially mined tunnel - An initial shotcrete lining of approximately 6 inches thickness (or 12 inches thickness with combination of lattice girders if necessary), temporary rock bolts, a high density polyethylene (HDPE) waterproof lining, and then a final lining of 24 inches of cast-in-place reinforced concrete. Concrete compressive strength - 5,000 psi minimum.
- Interior concrete will be either cast-in-place concrete or a combination of cast-in-place and precast concrete. Concrete compressive strength - 5,000 psi minimum.
- Tunnel drains southward to the south portal to a sump pit.



DEVELOPED PROFILE
SCALE: 1" = 500'



PLAN
SCALE: 1" = 500'

| CURVE DATA | | | | |
|------------|----------|-----------|---------|----------|
| No. | R | Δ | T | L |
| ① | 1000.00' | 32°11'37" | 288.57' | 561.88' |
| ② | 1000.00' | 70°42'06" | 709.37' | 1233.98' |
| ③ | 2000.00' | 53°07'32" | 999.90' | 1854.44' |
| ④ | 1000.00' | 53°29'40" | 503.98' | 933.65' |

| | |
|---|-------------------|
| DATE OF ESTIMATE | 11-22-2023 |
| BRIDGE REMOVAL | = N/A |
| STRUCTURE HEIGHT | = 66'-3" |
| LENGTH | = 6,350'-0" |
| WIDTH | = 116'-7" |
| AREA | = 397,500 SF |
| COST/LF INCLUDING TRO, MOBILIZATION & 30% CONTINGENCY | = \$3,312 |
| TOTAL COST | = \$1,316,456,813 |

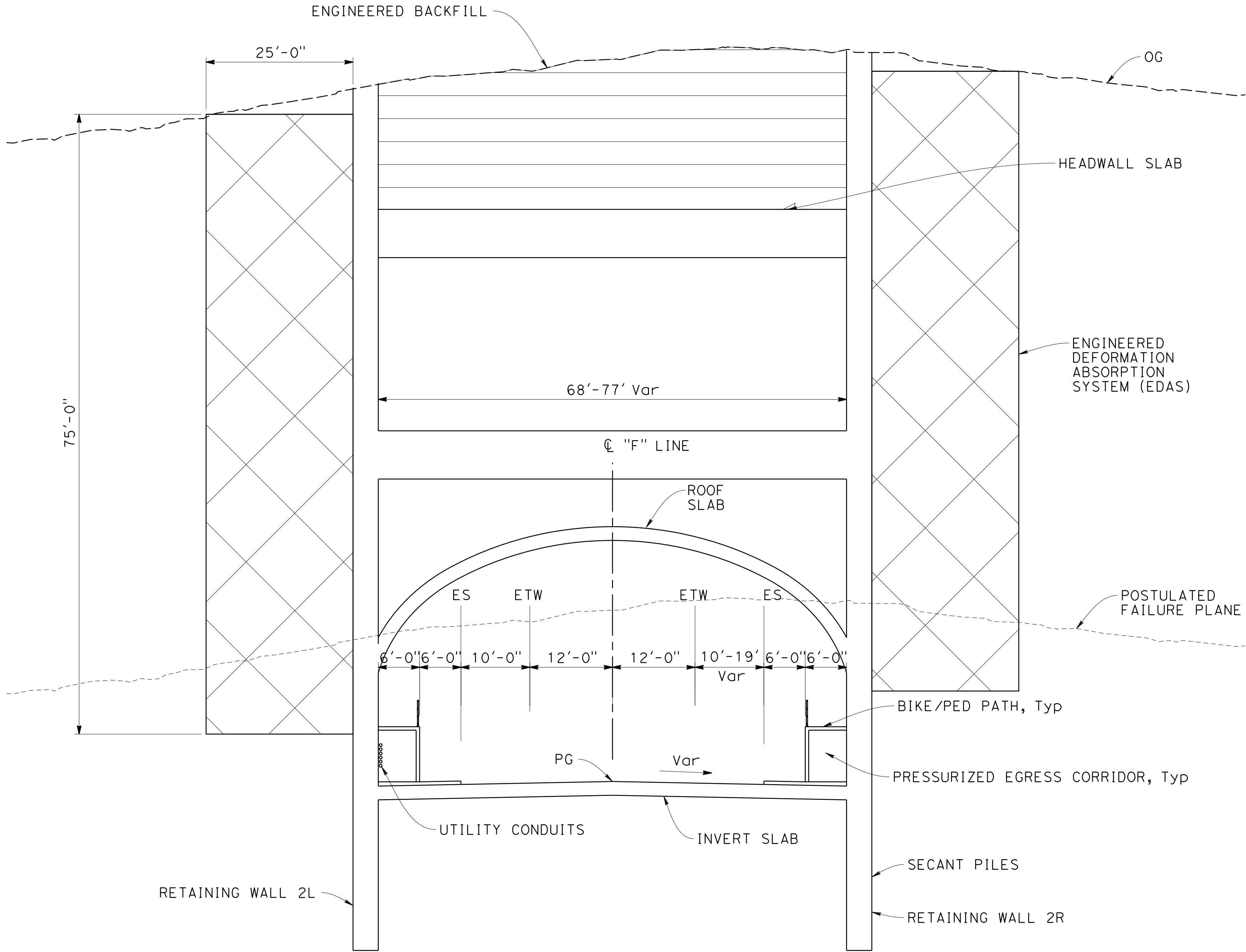
| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | R. SANDIFORD | DATE | 11/22/23 |
| DRAWN BY | B. WONG | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

| |
|----------------------------------|
| J. LITZINGER PROJECT ENGINEER |
|----------------------------------|

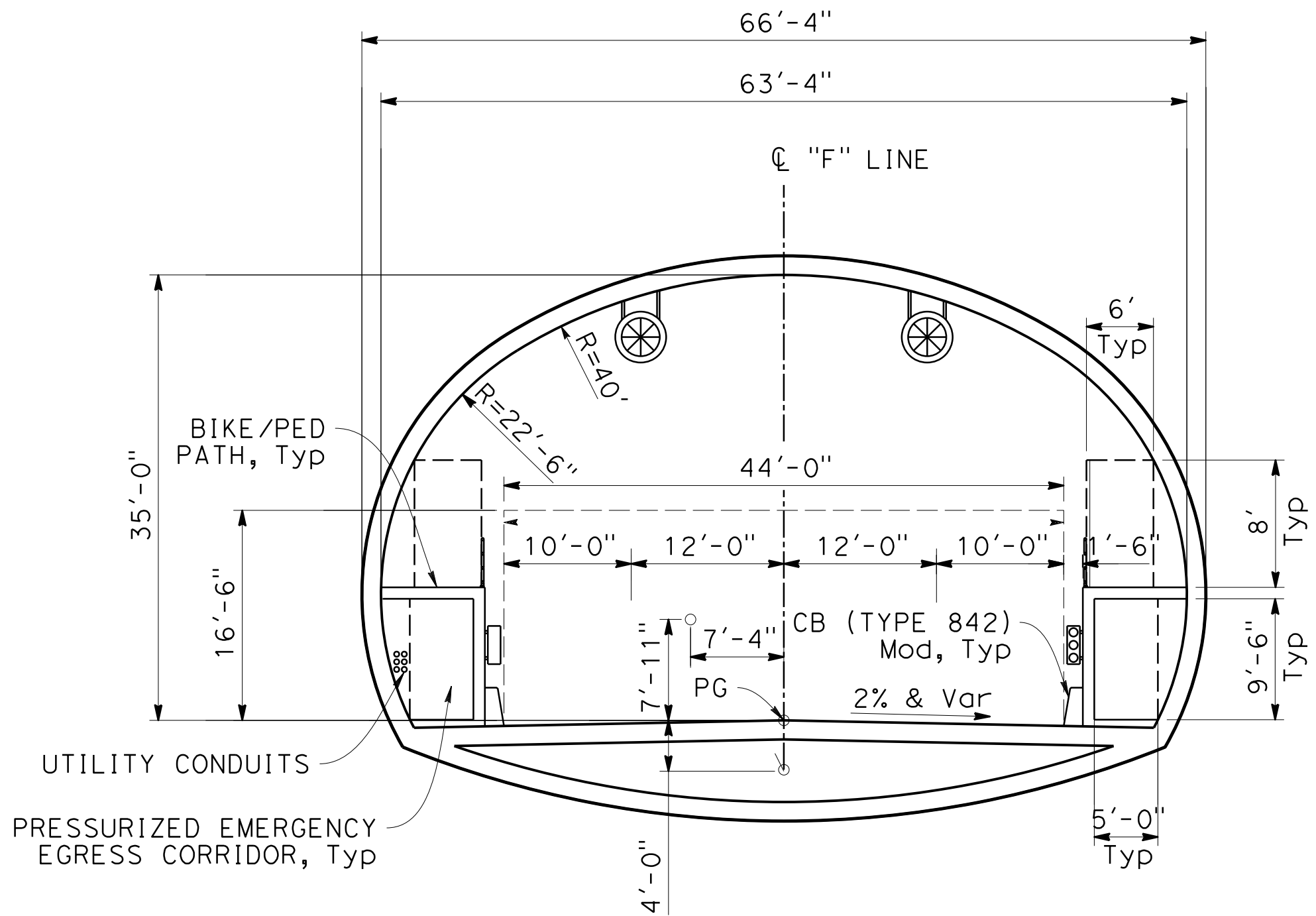
| PLANNING STUDY | |
|------------------|------------------------------------|
| LCG ALT F TUNNEL | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

| |
|-----------------------|
| X DESIGN OVERSIGHT |
| X SIGN OFF DATE |

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, Ste 1400 OAKLAND, CA 94612 | | | |
| | | | |



"F" 53+00.00 TO 58+00.00
**CUT AND COVER /
ENGINEERED DEFORMATION
ABSORPTION SYSTEM**
SCALE: 1" = 10'



"F" 58+00.00 TO 116+50.00
TUNNEL - SEM SECTION
SCALE: 1" = 10'

| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | R. SANDIFORD | DATE | 11/22/23 |
| DRAWN BY | B. WONG | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

J. LITZINGER
PROJECT ENGINEER

| PLANNING STUDY | |
|-------------------------|------------------------------------|
| TUNNEL TYPICAL SECTIONS | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |

| | |
|---|------------------|
| X | DESIGN OVERSIGHT |
| X | SIGN OFF DATE |

X

DESIGN OVERSIGHT

X

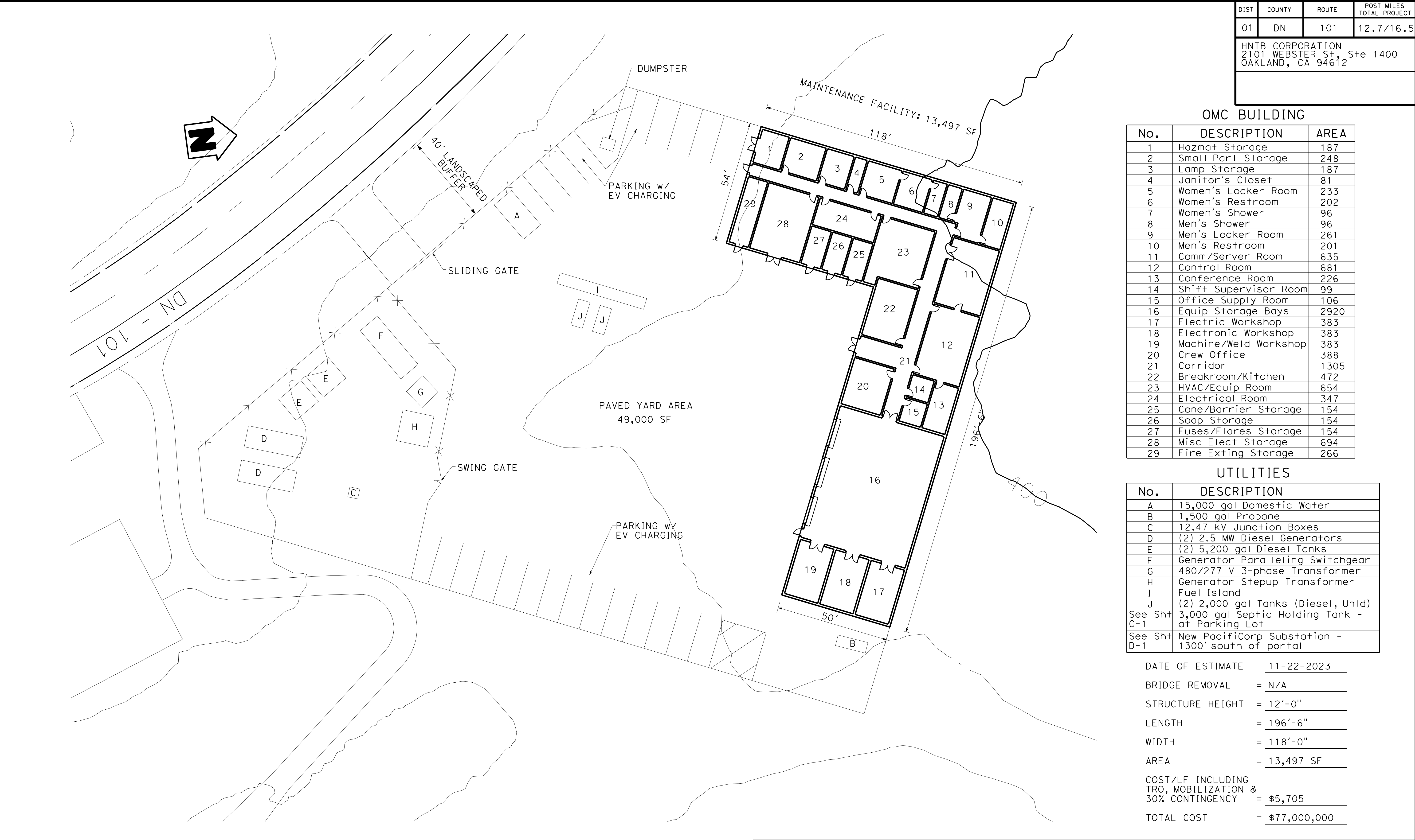
SIGN OFF DATE

PLAN
SCALE: 1" = 20'

| | | | |
|-------------|--------------|------|----------|
| DESIGNED BY | J. HARDER | DATE | 11/22/23 |
| DRAWN BY | J. TRAUTMANN | DATE | 11/22/23 |
| CHECKED BY | M. AMINI | DATE | 11/22/23 |
| APPROVED | J. LITZINGER | DATE | 11/22/23 |

J. LITZINGER
PROJECT ENGINEER

| PLANNING STUDY | |
|----------------|------------------------------------|
| LCG ALT F OMC | |
| BRIDGE NO. X | UNIT: X |
| SCALE: X | PROJECT NUMBER & PHASE: 0115000099 |



| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT |
|--|--------|-------|-----------------------------|
| 01 | DN | 101 | 12.7/16.5 |
| HNTB CORPORATION 2101 WEBSTER ST, Ste 1400 OAKLAND, CA 94612 | | | |

OMC BUILDING

| No. | DESCRIPTION | AREA |
|-----|-----------------------|------|
| 1 | Hazmat Storage | 187 |
| 2 | Small Part Storage | 248 |
| 3 | Lamp Storage | 187 |
| 4 | Janitor's Closet | 81 |
| 5 | Women's Locker Room | 233 |
| 6 | Women's Restroom | 202 |
| 7 | Women's Shower | 96 |
| 8 | Men's Shower | 96 |
| 9 | Men's Locker Room | 261 |
| 10 | Men's Restroom | 201 |
| 11 | Comm/Server Room | 635 |
| 12 | Control Room | 681 |
| 13 | Conference Room | 226 |
| 14 | Shift Supervisor Room | 99 |
| 15 | Office Supply Room | 106 |
| 16 | Equip Storage Bays | 2920 |
| 17 | Electric Workshop | 383 |
| 18 | Electronic Workshop | 383 |
| 19 | Machine/Weld Workshop | 383 |
| 20 | Crew Office | 388 |
| 21 | Corridor | 1305 |
| 22 | Breakroom/Kitchen | 472 |
| 23 | HVAC/Equip Room | 654 |
| 24 | Electrical Room | 347 |
| 25 | Cone/Barrier Storage | 154 |
| 26 | Soap Storage | 154 |
| 27 | Fuses/Flores Storage | 154 |
| 28 | Misc Elect Storage | 694 |
| 29 | Fire Exting Storage | 266 |

UTILITIES

| No. | DESCRIPTION |
|----------------|--|
| A | 15,000 gal Domestic Water |
| B | 1,500 gal Propane |
| C | 12.47 kV Junction Boxes |
| D | (2) 2.5 MW Diesel Generators |
| E | (2) 5,200 gal Diesel Tanks |
| F | Generator Paralleling Switchgear |
| G | 480/277 V 3-phase Transformer |
| H | Generator Stepup Transformer |
| I | Fuel Island |
| J | (2) 2,000 gal Tanks (Diesel, Unld) |
| See Sh+ C-1 | 3,000 gal Septic Holding Tank - at Parking Lot |
| See Sh+ D-1 | New PacifiCorp Substation - 1300' south of portal |

| | |
|---|----------------|
| DATE OF ESTIMATE | 11-22-2023 |
| BRIDGE REMOVAL | = N/A |
| STRUCTURE HEIGHT | = 12'-0" |
| LENGTH | = 196'-6" |
| WIDTH | = 118'-0" |
| AREA | = 13,497 SF |
| COST/LF INCLUDING TRO, MOBILIZATION & 30% CONTINGENCY | = \$5,705 |
| TOTAL COST | = \$77,000,000 |

Attachment D

Preliminary Cost Estimate

PROJECT
PLANNING COST ESTIMATE

EA: 01-0F280

EA: 01-0F280 PID: 01-1500-0099

PID: 01-1500-0099

District-County-Route: 01-DN-101

PM: 12.7/16.5

Type of Estimate : Planning

Program Code : 20.XX.201.131

Project Limits : 01-DN-101 PM 12.7/16.5

Project Description: Permanent Restoration Project

Scope : Roadway Realignment

Alternative : "X"

SUMMARY OF PROJECT COST ESTIMATE

| | Current Year Cost | Escalated Cost |
|----------------------------|-------------------|------------------|
| TOTAL ROADWAY COST | \$ 56,658,300 | \$ 89,567,567 |
| TOTAL STRUCTURES COST | \$ 788,706,597 | \$ 1,246,816,989 |
| SUBTOTAL CONSTRUCTION COST | \$ 845,364,897 | \$ 1,336,384,557 |
| TOTAL RIGHT OF WAY COST | \$ 106,578,507 | \$ 146,774,000 |
| TOTAL CAPITAL OUTLAY COSTS | \$ 951,944,000 | \$ 1,539,661,000 |
| PA/ED SUPPORT | \$ 50,000,000 | \$ 50,000,000 |
| PS&E SUPPORT | \$ 120,000,000 | \$ 120,000,000 |
| RIGHT OF WAY SUPPORT | \$ 1,000,000 | \$ 1,000,000 |
| CONSTRUCTION SUPPORT | \$ 431,214,000 | \$ 431,214,000 |
| TOTAL SUPPORT COST | \$ 602,214,000 | \$ 602,214,000 |

| | | |
|---------------------------|-------------------------|-------------------------|
| TOTAL PROJECT COST | \$ 1,555,000,000 | \$ 2,086,000,000 |
|---------------------------|-------------------------|-------------------------|

If Project has been programmed enter Programmed Amount

Date of Estimate (Month/Year) 12 / 2023

Estimated Construction Start (Month/Year) 6 / 2031

Number of Working Days = 783

Estimated Mid-Point of Construction (Month/Year) 10 / 2036

Estimated Construction End (Month/Year) 10 / 2039

Number of Plant Establishment Days 261

Estimated Project Schedule

| | |
|--------------------|------------|
| PID Approval | 2016-06-30 |
| PA/ED Approval | 2025-11-17 |
| PS&E | 2030-04-15 |
| RTL | 2030-09-02 |
| Begin Construction | 2031-06-16 |

Reviewed by District O.E. or
Cost Estimate Certifier

Tyler Smith
T.J. Smith, Office Engineer / Cost Estimate Certifier

12/9/23

Date

Phone

Approved by Project Manager

Jaime Matteoli
Jaime Matteoli, Project Manager

12/9/23

Date

Phone

PROJECT COST ESTIMATE

EA: 01-0F280 PID: 01-1500-0099

I. ROADWAY ITEMS SUMMARY

| | Section | Cost |
|----------------------------|-----------------------------|----------------------|
| 1 | Earthwork | \$ 3,357,600 |
| 2 | Pavement Structural Section | \$ 3,675,100 |
| 3 | Drainage | \$ 2,486,000 |
| 4 | Specialty Items | \$ 13,591,500 |
| 5 | Environmental | \$ 3,000,500 |
| 6 | Traffic Items | \$ 1,208,000 |
| 7 | Detours | \$ - |
| 8 | Minor Items | \$ 1,092,800 |
| 9 | Roadway Mobilization | \$ 2,841,200 |
| 10 | Supplemental Work | \$ 2,136,200 |
| 11 | State Furnished | \$ 966,000.00 |
| 12 | Time-Related Overhead | \$ 12,860,300.00 |
| 13 | Roadway Contingency | \$ 9,443,100.00 |
| TOTAL ROADWAY ITEMS | | \$ 56,658,300 |

Estimate Prepared By :


 Brandon Wong, Project Engineer

12/08/2023

Date

(510) 587-8763

Phone

Estimate Reviewed By :


 John Litzinger, Project Manager

12/08/2023

Date

(408) 346-9274

Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|---|--------|----------|---|-----------------|------|-----------|
| 190101 | Roadway Excavation | CY | 122,132 | x | 27.00 | = \$ | 3,297,564 |
| 192037 | Structure Excavation (Retaining Wall) | CY | | x | | = \$ | - |
| 193013 | Structure Backfill (Retaining Wall) | CY | | x | | = \$ | - |
| 193031 | Pervious Backfill Material (Retaining Wall) | CY | | x | | = \$ | - |
| 16010X | Clearing & Grubbing | LS | 1 | x | 35,000.00 | = \$ | 35,000 |
| 170101 | Develop Water Supply | LS | 1 | x | 25,000.00 | = \$ | 25,000 |
| 19801X | Imported Borrow | CY/TON | | x | | = \$ | - |
| 210130 | Duff | ACRE | | x | | = \$ | - |
| XXXXXX | Some Item | Unit | | | | | |

| | | |
|--------------------------------------|-----------|------------------|
| TOTAL EARTHWORK SECTION ITEMS | \$ | 3,357,600 |
|--------------------------------------|-----------|------------------|

SECTION 2: PAVEMENT STRUCTURAL SECTION

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|--|------|----------|---|-----------------|------|-----------|
| 390132 | Hot Mix Asphalt (Type A) | TON | 7,062 | x | 250.00 | = \$ | 1,765,500 |
| 390137 | Rubberized Hot Mix Asphalt (Gap Graded) | TON | 4,108 | x | 180.00 | = \$ | 739,440 |
| 395020 | Bonded Wearing Course | TON | 1,227 | x | 180.00 | = \$ | 220,860 |
| 39300X | Geosynthetic Pavement Interlayer (Type X) | SQYD | 8,462 | x | 10.00 | = \$ | 84,620 |
| 26020X | Class 2 Aggregate Base | CY | 7,870 | x | 70.00 | = \$ | 550,900 |
| 397005 | Tack Coat | TON | 8 | x | 2,000.00 | = \$ | 16,000 |
| 153103 | Cold Plane Asphalt Concrete Pavement | SQYD | 1,269 | x | 10.00 | = \$ | 12,690 |
| 39405X | Shoulder Rumble Strip (HMA, X-In Indentations) | STA | 136 | x | 100.00 | = \$ | 13,600 |
| 391006 | Asphalt Binder | TON | 388 | x | 280.00 | = \$ | 108,640 |
| 846051 | Centerline Rumble Strip | STA | 68 | x | 65.00 | = \$ | 4,420 |
| 198209 | Subgrade Enhancement Geotextile (class B2) | SQYD | 18,108 | x | 5.00 | = \$ | 90,540 |
| 394074 | Place HMA Dike | LF | 6,785 | x | 10.00 | = \$ | 67,850 |
| XXXXXX | Some Item | Unit | | x | | = \$ | - |

| | | |
|--|-----------|------------------|
| TOTAL PAVEMENT STRUCTURAL SECTION ITEMS | \$ | 3,675,100 |
|--|-----------|------------------|

SECTION 3: DRAINAGE

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|--------|----------|---|-----------------|------|-----------|
| Culvert -Cross Culvert every 500' | LF | 1,100 | x | 260.00 | = \$ | 286,000 |
| Drainage (Hydraulics) | LS | 1 | x | 2,200,000.00 | = \$ | 2,200,000 |
| Including: | | | x | | = \$ | - |
| Minor Concrete (Minor Structure) | CY | | x | | = \$ | - |
| Minor Concrete (Type XX) | CY | | x | | = \$ | - |
| Rock Slope Protection (Type and Method) | CY/TON | | x | | = \$ | - |
| Rock Slope Protection Fabric (Class X) | SQYD | | x | | = \$ | - |
| Concrete (Ditch Lining) | CY | | x | | = \$ | - |
| Concrete (Channel Lining) | CY | | x | | = \$ | - |

| | |
|-----------------------------|---------------------|
| TOTAL DRAINAGE ITEMS | \$ 2,486,000 |
|-----------------------------|---------------------|

SECTION 4: SPECIALTY ITEMS

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|------|----------|---|-----------------|------|------------|
| 080050 Progress Schedule (Critical Path Method) | LS | 1 | x | 10,000 | = \$ | 10,000 |
| 070030 Lead Compliance Plan | LS | 1 | x | 10,000 | = \$ | 10,000 |
| 832006 Midwest Guardrail System (Steel Post) | LF | 6,785 | x | 45 | = \$ | 305,325 |
| 832070 Vegetation Control (Minor Concrete) | SQYD | 2,262 | x | 90 | = \$ | 203,580 |
| 141120 Treated Wood Waste | LB | 82,140 | x | 0.50 | = \$ | 41,070 |
| 839752 Remove Guardrail | LF | 6,845 | x | 10 | = \$ | 68,450 |
| 780460 Anti-Graffiti Coating | SQFT | 195,870 | x | 10 | = \$ | 1,958,700 |
| 839584 Alternative In-Line Terminal System | EA | 2 | x | 4,650 | = \$ | 9,300 |
| 033699 Rock Fall Protection | LS | 1 | x | 125,000 | = \$ | 125,000 |
| 511035 Architectural Treatment (Walls) | SQFT | 200,000 | x | 50 | = \$ | 10,000,000 |
| 203070 Rock Stain | SQFT | 8,000 | x | 25 | = \$ | 200,000 |
| 839643 Concrete Barrier (Type 60MD - Mod) | LF | 6,600 | x | 100 | = \$ | 660,000 |

| | |
|------------------------------|----------------------|
| TOTAL SPECIALTY ITEMS | \$ 13,591,500 |
|------------------------------|----------------------|

SECTION 5: ENVIRONMENTAL**5A - ENVIRONMENTAL MITIGATION**

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|--|------|----------|---|-----------------|------|-------------------|
| Biological Mitigation | LS | 1 | x | 500,000.00 | = \$ | 500,000 |
| 130670 Temporary Reinforced Silt Fence | LF | | x | | = \$ | - |
| 141000 Temporary Fence (Type ESA) | LF | 10,000 | x | 5.00 | = \$ | 50,000 |
| <i>Subtotal Environmental Mitigation</i> | | | | | | <i>\$ 550,000</i> |

5B - LANDSCAPE AND IRRIGATION

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|--|------|----------|---|-----------------|------|---------------------|
| 20XXXX Highway Planting | LS | 1 | x | 1,150,500.00 | = \$ | 1,150,500 |
| <i>Subtotal Landscape and Irrigation</i> | | | | | | <i>\$ 1,150,500</i> |

5C - EROSION CONTROL

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|------|----------|---|-----------------|------|---------------------|
| 210010 Move In/Move Out (Erosion Control) | EA | 1 | x | 1,000,000.00 | = \$ | 1,000,000 |
| XXXXXX Temporary Construction BMPs | LS | 1 | x | | = | |
| <i>Subtotal Erosion Control</i> | | | | | | <i>\$ 1,000,000</i> |

5D - NPDES

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|----------------------------|------|----------|---|-----------------|------|-------------------|
| 130300 Prepare SWPPP | LS | 1 | x | 50,000.00 | = \$ | 50,000 |
| 130200 Prepare WPCP | LS | | x | | = \$ | - |
| 130100 Job Site Management | LS | 1 | x | 250,000.00 | = \$ | 250,000 |
| <i>Subtotal NPDES</i> | | | | | | <i>\$ 300,000</i> |

| | |
|----------------------------|---------------------|
| TOTAL ENVIRONMENTAL | \$ 3,000,500 |
|----------------------------|---------------------|

Supplemental Work for NPDES

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|------|----------|---|-----------------|------|------------------|
| 066595 Water Pollution Control Maintenance Sharing* | LS | 1 | x | 50,000.00 | = \$ | 50,000 |
| 066596 Additional Water Pollution Control** | LS | 1 | x | 8,400.00 | = \$ | 8,400 |
| 066597 Storm Water Sampling and Analysis*** | LS | 1 | x | 5,000.00 | = \$ | 5,000 |
| 066916 Annual Construction General Permit Fees | LS | 1 | x | 16,300.00 | = \$ | 16,300 |
| XXXXXX Some Item | LS | | x | | = \$ | - |
| <i>Subtotal Supplemental Work for NDPS</i> | | | | | | <i>\$ 79,700</i> |

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS**6A - Traffic Electrical**

Item code

XXXXX Some Item

| Unit | Quantity | | Unit Price (\$) | | Cost |
|------------------------------------|----------|---|-----------------|------|------|
| LS | | x | | = \$ | - |
| <i>Subtotal Traffic Electrical</i> | | | | | \$ - |

6B - Traffic Signing and Striping

Item code

84XXXX Permanent Pavement Delineation

| Unit | Quantity | | Unit Price (\$) | | Cost |
|--|----------|---|-----------------|------|------------|
| LS | 1 | x | 110,000.00 | = \$ | 110,000 |
| <i>Subtotal Traffic Signing and Striping</i> | | | | | \$ 110,000 |

6C - Traffic Management Plan

Item code

128652 Portable Changeable Message Signs
 014105 Alternative Temporary Crash Cushion TL-3
 010413 Portable Radar Speed Feedback Sign Systems
 013804 Stationary Impact Attenuator Vehicle
 066062 COZEEP Contract
 066063 Traffic Management Plan - Public Information
 066070 Maintain Traffic
 120090 Construction Area Signs
 120320 Temporary Barrier System
 128601 Temporary Signal System

| Unit | Quantity | | Unit Price (\$) | | Cost |
|---|----------|---|-----------------|------|------------|
| LS | 1 | x | \$ 23,000 | = \$ | 23,000 |
| EA | | x | \$ 5,500 | = \$ | - |
| LS | 1 | x | \$ 14,000 | = \$ | 14,000 |
| DAY | 1 | x | \$ 80,000 | = \$ | 80,000 |
| LS | 1 | x | | = \$ | - |
| LS | 1 | x | \$ 25,000 | = \$ | 25,000 |
| LS | 1 | x | | = \$ | - |
| LS | 1 | x | \$ 16,000 | = \$ | 16,000 |
| LF | | x | \$ 40 | = \$ | - |
| LS | 1 | x | \$ 390,000 | = \$ | 390,000 |
| <i>Subtotal Traffic Management Plan</i> | | | | | \$ 548,000 |

6D - Stage Construction and Traffic Handling

Item code

120198 Traffic Plastic Drum
 120100 Traffic Control System

| Unit | Quantity | | Unit Price (\$) | | Cost |
|---|----------|---|-----------------|------|------------|
| EA | | x | 75.00 | = \$ | - |
| LS | 1 | x | 550,000.00 | = \$ | 550,000 |
| <i>Subtotal Stage Construction and Traffic Handling</i> | | | | | \$ 550,000 |

| | |
|----------------------------|---------------------|
| TOTAL TRAFFIC ITEMS | \$ 1,208,000 |
|----------------------------|---------------------|

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|--------|----------|-----------------|-------------|
| 190101 Roadway Excavation | CY | x | = \$ | - |
| 19801X Imported Borrow | CY/TON | x | = \$ | - |
| 390132 Hot Mix Asphalt (Type A) | TON | x | = \$ | - |
| 26020X Class 2 Aggregate Base | TON/CY | x | = \$ | - |
| 250401 Class 4 Aggregate Subbase | CY | x | = \$ | - |
| 130620 Temporary Drainage Inlet Protection | EA | x | = \$ | - |
| 129000 Temporary Railing (Type K) | LF | x | = \$ | - |
| 128601 Temporary Signal System | LS | x | = \$ | - |
| 120149 Temporary Pavement Marking (Paint) | SQFT | x | = \$ | - |
| 80010X Temporary Fence (Type X) | LF | x | = \$ | - |
| XXXXXX Some Item | Unit | x | = \$ | - |
| TOTAL DETOURS | | | | \$ - |

SUBTOTAL SECTIONS 1 through 7 \$ 27,318,700

SECTION 8: MINOR ITEMS**8A - Americans with Disabilities Act Items**

ADA Items 0.5% \$ 136,594

8B - Bike Path Items

Bike Path Items 0.5% \$ 136,594

8C - Other Minor Items

Other Minor Items 3.0% \$ 819,561

Total of Section 1-7 \$ 27,318,700 x 4.0% = \$ 1,092,748

TOTAL MINOR ITEMS \$ 1,092,800**SECTIONS 9: MOBILIZATION**

| | | | | | | |
|-----------|-------------------|---------------|---|-----|------|-----------|
| Item code | | | | | | |
| 999990 | Total Section 1-8 | \$ 28,411,500 | x | 10% | = \$ | 2,841,150 |

TOTAL MOBILIZATION \$ 2,841,200**SECTION 10: SUPPLEMENTAL WORK**

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|---|------|----------|-------------------|---------|
| 066094 Value Analysis | LS | 1 | x 10,000.00 = \$ | 10,000 |
| 066070 Maintain Traffic | LS | 1 | x 500,000.00 = \$ | 500,000 |
| 066919 Dispute Resolution Board | LS | 1 | x 30,000.00 = \$ | 30,000 |
| 066921 Dispute Resolution Advisor | LS | 1 | x = \$ | - |
| 066015 Federal Trainee Program | LS | 1 | x 52,000.00 = \$ | 52,000 |
| 066610 Partnering | LS | 1 | x 90,000.00 = \$ | 90,000 |
| 066393 HMA Pavement Smoothness Incentive | LS | 1 | x 12,000.00 = \$ | 12,000 |
| XXXXXX Payment Adjustments for Oil Price Index Fluc | LS | 1 | x 226,000.00 = \$ | 226,000 |

Cost of NPDES Supplemental Work specified in Section 5D = \$ 79,700

Total Section 1-8 \$ 28,411,500 4% = \$ 1,136,460

TOTAL SUPPLEMENTAL WORK \$ 2,136,200

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-------------------|--|------|------------|---|-----------------|------|-----------|
| 066105 | Resident Engineers Office | LS | 1 | x | 287,750.00 | = | \$287,750 |
| 066063 | Traffic Management Plan - Public Information | LS | 1 | x | 10,000.00 | = | \$10,000 |
| 066062 | COZEED Contract | LS | 1 | x | 100,000.00 | = | \$100,000 |
| XXXXXX | Some Item | Unit | | x | | = | \$0 |
| Total Section 1-8 | | \$ | 28,411,500 | | 2% | = \$ | 568,230 |

TOTAL STATE FURNISHED**\$966,000****SECTION 12: TIME-RELATED OVERHEAD**

Total of Roadway and Structures Contract Items excluding Mobilization \$128,602,820 (used to calculate TRO)
 Total Construction Cost (excluding TRO and Contingency) \$142,895,497 (used to check if project is greater than \$5 million excluding contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **10%**

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|-----------------------|------|----------|---|-----------------|---|--------------|
| 070018 | Time-Related Overhead | WD | 783 | X | \$16,424 | = | \$12,860,300 |

TOTAL TIME-RELATED OVERHEAD**\$12,860,300**

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency : (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

Total Section 1-12 \$ 47,215,200 x **20%** = \$9,443,040

TOTAL CONTINGENCY**\$9,443,100**

II. STRUCTURE ITEMS

| | <u>Building 1</u> | | | <u>Building 2</u> | | | <u>Building 3</u> | |
|-------------------------------|--------------------------|--|--|--------------------------|--|--|--------------------------|--|
| DATE OF ESTIMATE | 11-22-23 | | | 11-22-23 | | | 11-22-23 | |
| Building Name | RW 6 | | | RW 7A-1 | | | RW 7A-2 | |
| Bridge Number | | | | | | | | |
| Structure Type | Anchored Soldier Pile | | | Anchored Soldier Pile | | | Anchored Soldier Pile | |
| Width (Feet) [out to out] | LF | | | LF | | | LF | |
| Total Building Length (Feet) | 200 LF | | | 1365 LF | | | 905 LF | |
| Total Area (Square Feet) | 2854 SQFT | | | 31964 SQFT | | | 31196 SQFT | |
| Structure Depth (Feet) | 14.3 LF | | | 23.4 LF | | | 34.5 LF | |
| Footing Type (pile or spread) | Pile | | | Pile | | | Pile | |
| Cost Per Square Foot | \$510 | | | \$465 | | | \$410 | |
| COST OF EACH | \$1,454,665 | | | \$14,851,202 | | | \$12,790,755 | |

| | <u>Building 4</u> | | | <u>Building 5</u> | | | <u>Building 6</u> | |
|-------------------------------|--------------------------|--|--|--------------------------|--|--|--------------------------|--|
| DATE OF ESTIMATE | 11-22-23 | | | 11-22-23 | | | 11-22-23 | |
| Building Name | RW 7A-3 | | | RW 7B | | | RW 7C | |
| Bridge Number | | | | | | | | |
| Structure Type | Anchored Soldier Pile | | | Anchored Soldier Pile | | | Anchored Soldier Pile | |
| Width (Feet) [out to out] | LF | | | LF | | | LF | |
| Total Building Length (Feet) | 3270 LF | | | 471 LF | | | 386 LF | |
| Total Area (Square Feet) | 109972 SQFT | | | 12732 SQFT | | | 7152 SQFT | |
| Structure Depth (Feet) | 33.6 LF | | | 34 LF | | | 18.5 LF | |
| Footing Type (pile or spread) | Pile | | | Pile | | | Pile | |
| Cost Per Square Foot | \$416 | | | \$421 | | | \$464 | |
| COST OF EACH | \$45,714,463 | | | \$5,360,148 | | | \$3,321,534 | |

| | |
|------------------------------|------------|
| TOTAL COST OF BRIDGES | \$0 |
|------------------------------|------------|

| | |
|--------------------------------|---------------------|
| TOTAL COST OF BUILDINGS | \$83,492,767 |
|--------------------------------|---------------------|

| | | |
|------------------------------------|-----|--------------------|
| Structures Mobilization Percentage | 10% | \$8,349,277 |
|------------------------------------|-----|--------------------|

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

| | | |
|-----------------------------------|-----|---------------------|
| Structures Contingency Percentage | 20% | \$16,698,553 |
|-----------------------------------|-----|---------------------|

| | |
|------------------------------------|----------------------|
| SUBTOTAL COST OF STRUCTURES | \$108,540,597 |
|------------------------------------|----------------------|

Estimate Prepared By: 

Erik Okada ----- HNTB Structures

12/08/2023

Date

II. STRUCTURE ITEMS

| | <u>Building 1</u> | | <u>Building 2</u> | | |
|--------------------------------|--------------------------|--|-----------------------------|--|------------|
| DATE OF ESTIMATE | 11-22-23 | | 11-14-23 | | |
| Building Name | Underground Drainage | | Geotechnical Investigations | | |
| Bridge Number | | | n/a | | |
| Structure Type | TBM Tunnel | | n/a | | |
| Width (Feet) [out to out] | 12 LF | | | | |
| Total Building Length (Feet) | 20700 LF | | | | |
| Total Area (Square Feet) | SQFT | | | | |
| Structure Depth (Feet) | LF | | | | |
| Footings Type (pile or spread) | | | | | |
| Cost Per Square Foot | | | | | |
| COST OF EACH | \$446,281,538 | | \$76,923,077 | | \$0 |

| | | | | | |
|--------------------------------|------------|--|------------|--|------------|
| DATE OF ESTIMATE | | | | | |
| Name | | | | | |
| Bridge Number | | | | | |
| Structure Type | | | | | |
| Width (Feet) [out to out] | | | | | |
| Total Length (Feet) | | | | | |
| Total Area (Square Feet) | | | | | |
| Structure Depth (Feet) | | | | | |
| Footings Type (pile or spread) | | | | | |
| Cost Per Square Foot | | | | | |
| COST OF EACH | \$0 | | \$0 | | \$0 |

| | |
|------------------------------|------------|
| TOTAL COST OF BRIDGES | \$0 |
|------------------------------|------------|

| | |
|--------------------------------|----------------------|
| TOTAL COST OF BUILDINGS | \$523,204,615 |
|--------------------------------|----------------------|

| | | |
|------------------------------------|-----|---------------------|
| Structures Mobilization Percentage | 10% | \$52,320,462 |
|------------------------------------|-----|---------------------|

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

| | | |
|-----------------------------------|-----|----------------------|
| Structures Contingency Percentage | 20% | \$104,640,923 |
|-----------------------------------|-----|----------------------|

| | |
|------------------------------------|----------------------|
| SUBTOTAL COST OF STRUCTURES | \$680,166,000 |
|------------------------------------|----------------------|

Estimate Prepared By: _____

Raymond Sandiford ----- Division of Structures

12/08/2023

Date

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

| | | | | |
|----|-----|--|----|-------------|
| A) | A1) | Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees | \$ | 305,813 |
| | A2) | SB-1210 | \$ | 0 |
| B) | | Acquisition of Offsite Mitigation | \$ | 105,088,477 |
| C) | C1) | Utility Relocation (State Share) | \$ | 0 |
| | C2) | Potholing (Design Phase) | \$ | 0 |
| D) | | Railroad Acquisition | \$ | 0 |
| E) | | Clearance / Demolition | \$ | 1,000,000 |
| F) | | Relocation Assistance (RAP and/or Last Resort Housing Costs) | \$ | 0 |
| G) | | Title and Escrow | \$ | 0 |
| H) | | Environmental Review | \$ | 0 |
| I) | | Condemnation Settlements | \$ | 0 |
| J) | | Design Appreciation Factor | \$ | 0 |
| K) | | Utility Relocation (Construction Cost) | \$ | 0 |
| | | Project Development Permit Fees | \$ | 184,217 |

| | | |
|----|------------------------------------|----------------------|
| L) | TOTAL RIGHT OF WAY ESTIMATE | \$106,578,507 |
|----|------------------------------------|----------------------|

| | | |
|----|--------------------------------------|----------------------|
| M) | TOTAL R/W ESTIMATE: Escalated | \$146,774,000 |
|----|--------------------------------------|----------------------|

| | | |
|----|-----------------------------|--------------------|
| N) | RIGHT OF WAY SUPPORT | \$1,000,000 |
|----|-----------------------------|--------------------|

Support Cost Estimate
Prepared By _____ Project Coordinator¹ _____ Phone _____

Utility Estimate Prepared
By _____ Utility Coordinator² _____ Phone _____

R/W Acquisition Estimate
Prepared By _____ Right of Way Estimator³ _____ Phone _____

Note: Items G & H applied to items A + B

¹ When estimate has Support Costs only² When estimate has Utility Relocation³ When R/W Acquisition is required

PROJECT
PLANNING COST ESTIMATE

EA: 01-0F280

EA: 01-0F280 PID: 01-1500-0099

PID: 01-1500-0099

District-County-Route: 01-DN-101

PM: 12.7/16.5

Type of Estimate : Planning

Program Code : 20.XX.201.131

Project Limits : 01-DN-101 PM 12.7/16.5

Project Description: Permanent Restoration Project

Scope : Roadway Realignment

Alternative : "F"

SUMMARY OF PROJECT COST ESTIMATE

| | Current Year Cost | Escalated Cost |
|----------------------------|-------------------|------------------|
| TOTAL ROADWAY COST | \$ 328,296,800 | \$ 518,983,903 |
| TOTAL STRUCTURES COST | \$ 1,575,152,392 | \$ 2,490,060,019 |
| SUBTOTAL CONSTRUCTION COST | \$ 1,903,449,192 | \$ 3,009,043,922 |
| TOTAL RIGHT OF WAY COST | \$ 211,367,382 | \$ 291,083,000 |
| TOTAL CAPITAL OUTLAY COSTS | \$ 2,114,817,000 | \$ 3,300,131,000 |
| PA/ED SUPPORT | \$ 50,000,000 | \$ 50,000,000 |
| PS&E SUPPORT | \$ 120,000,000 | \$ 120,000,000 |
| RIGHT OF WAY SUPPORT | \$ 1,000,000 | \$ 1,000,000 |
| CONSTRUCTION SUPPORT | \$ 431,214,000 | \$ 431,214,000 |
| TOTAL SUPPORT COST | \$ 602,214,000 | \$ 602,214,000 |

| | | |
|---------------------------|-------------------------|-------------------------|
| TOTAL PROJECT COST | \$ 2,718,000,000 | \$ 3,903,000,000 |
|---------------------------|-------------------------|-------------------------|

If Project has been programmed enter Programmed Amount

Date of Estimate (Month/Year) 12 / 2023

Estimated Construction Start (Month/Year) 6 / 2031

Number of Working Days = 783

Estimated Mid-Point of Construction (Month/Year) 12 / 2036

Estimated Construction End (Month/Year) 10 / 2039

Number of Plant Establishment Days 261

Estimated Project Schedule

| | |
|--------------------|------------|
| PID Approval | 2016-06-30 |
| PA/ED Approval | 2025-11-17 |
| PS&E | 2030-04-15 |
| RTL | 2030-09-02 |
| Begin Construction | 2031-06-16 |

Reviewed by District O.E. or
Cost Estimate Certifier

Tyler Smith
T.J. Smith / Office Engineer / Cost Estimate Certifier

12/9/23

Date

Phone

Approved by Project Manager

Jaime Matteoli
Jaime Matteoli, Project Manager

12/9/23

Date

Phone

PROJECT COST ESTIMATE

EA: 01-0F280 PID: 01-1500-0099

I. ROADWAY ITEMS SUMMARY

| | Section | Cost |
|----------------------------|-----------------------------|-----------------------|
| 1 | Earthwork | \$ 1,863,800 |
| 2 | Pavement Structural Section | \$ 13,579,900 |
| 3 | Drainage | \$ 860,000 |
| 4 | Specialty Items | \$ 40,405,400 |
| 5 | Environmental | \$ 5,106,800 |
| 6 | Traffic Items | \$ 1,322,000 |
| 7 | Detours | \$ - |
| 8 | Minor Items | \$ 2,525,600 |
| 9 | Roadway Mobilization | \$ - |
| 10 | Supplemental Work | \$ 4,240,900 |
| 11 | State Furnished | \$ 51,711,100.00 |
| 12 | Time-Related Overhead | \$ 151,965,100.00 |
| 13 | Roadway Contingency | \$ 54,716,200.00 |
| TOTAL ROADWAY ITEMS | | \$ 328,296,800 |

Estimate Prepared By :


 Brandon Wong, Project Engineer

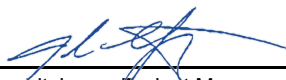
12/08/2023

Date

(510) 587-8763

Phone

Estimate Reviewed By :


 John Litzinger, Project Manager

12/08/2023

Date

(408) 346-9274

Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|---|--------|----------|---|-----------------|------|-----------|
| 190101 | Roadway Excavation | CY | 65,879 | x | 27.00 | = \$ | 1,778,733 |
| 192037 | Structure Excavation (Retaining Wall) | CY | | x | | = \$ | - |
| 193013 | Structure Backfill (Retaining Wall) | CY | | x | | = \$ | - |
| 193031 | Pervious Backfill Material (Retaining Wall) | CY | | x | | = \$ | - |
| 16010X | Clearing & Grubbing | LS | 1 | x | 60,000.00 | = \$ | 60,000 |
| 170101 | Develop Water Supply | LS | 1 | x | 25,000.00 | = \$ | 25,000 |
| 19801X | Imported Borrow | CY/TON | | x | | = \$ | - |
| 210130 | Duff | ACRE | | x | | = \$ | - |
| XXXXXX | Some Item | Unit | | x | | = \$ | - |

| | |
|--------------------------------------|---------------------|
| TOTAL EARTHWORK SECTION ITEMS | \$ 1,863,800 |
|--------------------------------------|---------------------|

SECTION 2: PAVEMENT STRUCTURAL SECTION

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|--|------|----------|---|-----------------|------|------------|
| 401050 | Jointed Plain Concrete Pavement | CY | 7,883 | x | 1,300.00 | = \$ | 10,247,900 |
| 390132 | Hot Mix Asphalt (Type A) | TON | 6,383 | x | 200.00 | = \$ | 1,276,600 |
| 390137 | Rubberized Hot Mix Asphalt (Gap Graded) | TON | 3,297 | x | 200.00 | = \$ | 659,400 |
| 395020 | Bonded Wearing Course | TON | 535 | x | 180.00 | = \$ | 96,300 |
| 39300X | Geosynthetic Pavement Interlayer (Type X) | SQYD | 5,160 | x | 10.00 | = \$ | 51,600 |
| 26020X | Class 2 Aggregate Base | CY | 17,778 | x | 50.00 | = \$ | 888,900 |
| 39405X | Shoulder Rumble Strip (HMA, X-In Indentations) | STA | 144 | x | 25.00 | = \$ | 3,600 |
| 391006 | Asphalt Binder | TON | 351 | x | 280.00 | = \$ | 98,280 |
| 846051 | Centerline Rumble Strip | STA | 117 | x | 65.00 | = \$ | 7,605 |
| 198209 | Subgrade Enhancement Geotextile (class B2) | SQYD | 9,780 | x | 5.00 | = \$ | 48,900 |
| 394074 | Place HMA Dike | LF | 1,630 | x | 10.00 | = \$ | 16,300 |
| 398300 | Remove Base and Surfacing | CY | 4,100 | x | 45.00 | = \$ | 184,500 |
| XXXXXX | Some Item | Unit | | x | | = \$ | - |

| | |
|--|----------------------|
| TOTAL PAVEMENT STRUCTURAL SECTION ITEMS | \$ 13,579,900 |
|--|----------------------|

SECTION 3: DRAINAGE

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|--------|----------|---|-----------------|------|---------|
| Bioretention Area | SQFT | 18,000 | x | 20.00 | = \$ | 360,000 |
| Drainage (Geotechnical) | LS | 1 | x | 500,000.00 | = \$ | 500,000 |
| Including: | | | x | | = \$ | - |
| Minor Concrete (Minor Structure) | CY | | x | | = \$ | - |
| Minor Concrete (Type XX) | CY | | x | | = \$ | - |
| Rock Slope Protection (Type and Method) | CY/TON | | x | | = \$ | - |
| Rock Slope Protection Fabric (Class X) | SQYD | | x | | = \$ | - |
| Concrete (Ditch Lining) | CY | | x | | = \$ | - |
| Concrete (Channel Lining) | CY | | x | | = \$ | - |

| | | |
|-----------------------------|-----------|----------------|
| TOTAL DRAINAGE ITEMS | \$ | 860,000 |
|-----------------------------|-----------|----------------|

SECTION 4: SPECIALTY ITEMS

| Item code | Unit | Quantity | | Unit Price (\$) | | Cost |
|---|------|----------|---|-----------------|------|------------|
| 080050 Progress Schedule (Critical Path Method) | LS | 1 | x | 10,000 | = \$ | 10,000 |
| 070030 Lead Compliance Plan | LS | 1 | x | 10,000 | = \$ | 10,000 |
| 832006 Midwest Guardrail System (Steel Post) | LF | 14,320 | x | 45 | = \$ | 644,400 |
| 832070 Vegetation Control (Minor Concrete) | SQYD | 4,773 | x | 90 | = \$ | 429,570 |
| 141120 Treated Wood Waste | LB | 108,660 | x | 1 | = \$ | 108,660 |
| 839752 Remove Guardrail | LF | 9,055 | x | 10 | = \$ | 90,550 |
| 839584 Alternative In-Line Terminal System | EA | 8 | x | 4,650 | = \$ | 37,200 |
| 033699 Rock Fall protection | LS | 1 | x | 125,000 | = \$ | 125,000 |
| 511035 Architectural Treatment (Walls) | SQFT | 25,000 | x | 50 | = \$ | 1,250,000 |
| 203070 Rock Stain | SQFT | 8,000 | x | 25 | = \$ | 200,000 |
| XXXXXX Mitigation (Construction) | LS | 1 | x | 37,500,000.00 | = \$ | 37,500,000 |

| | | |
|------------------------------|-----------|-------------------|
| TOTAL SPECIALTY ITEMS | \$ | 40,405,400 |
|------------------------------|-----------|-------------------|

SECTION 5: ENVIRONMENTAL**5A - ENVIRONMENTAL MITIGATION**

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|------|----------|-------------------|-------------------|
| Biological Mitigation (Construction) | LS | 1 | x 500,000.00 = \$ | 500,000 |
| 130670 Temporary Reinforced Silt Fence | LF | | x = \$ | - |
| 141000 Temporary Fence (Type ESA) | LF | 10,000 | x 5.00 = \$ | 50,000 |
| XXXXXX Some Item | Unit | | x = \$ | - |
| XXXXXX Some Item | Unit | | x = \$ | - |
| <i>Subtotal Environmental Mitigation</i> | | | | <i>\$ 550,000</i> |

5B - LANDSCAPE AND IRRIGATION

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|------|----------|---------------------|---------------------|
| 20XXXX Highway Planting and Revegetation | LS | 1 | x 3,256,785.00 = \$ | 3,256,785 |
| <i>Subtotal Landscape and Irrigation</i> | | | | <i>\$ 3,256,785</i> |

5C - EROSION CONTROL

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|---|------|----------|---------------------|---------------------|
| 210010 Move In/Move Out (Erosion Control) | EA | 1 | x 1,000,000.00 = \$ | 1,000,000 |
| XXXXXX Erosion Control | LS | 1 | x = \$ | - |
| XXXXXX Temporary Construction BMPs | LS | 1 | x = \$ | - |
| XXXXXX Some Item | Unit | | x = \$ | - |
| <i>Subtotal Erosion Control</i> | | | | <i>\$ 1,000,000</i> |

5D - NPDES

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|----------------------------|------|----------|-------------------|-------------------|
| 130300 Prepare SWPPP | LS | 1 | x 50,000.00 = \$ | 50,000 |
| 130200 Prepare WPCP | LS | | x = \$ | - |
| 130100 Job Site Management | LS | 1 | x 250,000.00 = \$ | 250,000 |
| <i>Subtotal NPDES</i> | | | | <i>\$ 300,000</i> |

| | |
|----------------------------|---------------------|
| TOTAL ENVIRONMENTAL | \$ 5,106,800 |
|----------------------------|---------------------|

Supplemental Work for NPDES

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|---|------|----------|------------------|------------------|
| 066595 Water Pollution Control Maintenance Sharing* | LS | 1 | x 50,000.00 = \$ | 50,000 |
| 066596 Additional Water Pollution Control** | LS | 1 | x 8,400.00 = \$ | 8,400 |
| 066597 Storm Water Sampling and Analysis*** | LS | 1 | x 5,000.00 = \$ | 5,000 |
| 066916 Annual Construction General Permit Fees | LS | 1 | x 16,300.00 = \$ | 16,300 |
| XXXXXX Some Item | LS | | x = \$ | - |
| <i>Subtotal Supplemental Work for NDPS</i> | | | | <i>\$ 79,700</i> |

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS**6A - Traffic Electrical**

Item code

XXXXX Some Item

| Unit | Quantity | | Unit Price (\$) | | Cost |
|------------------------------------|----------|---|-----------------|------|------|
| LS | 1 | x | | = \$ | - |
| <i>Subtotal Traffic Electrical</i> | | | | | \$ - |

6B - Traffic Signing and Striping

Item code

84XXXX Permanent Pavement Delineation

| Unit | Quantity | | Unit Price (\$) | | Cost |
|--|----------|---|-----------------|------|------------|
| LS | 1 | x | 224,000.00 | = \$ | 224,000 |
| <i>Subtotal Traffic Signing and Striping</i> | | | | | \$ 224,000 |

6C - Traffic Management Plan

Item code

128652 Portable Changeable Message Signs
 014105 Alternative Temporary Crash Cushion TL-3
 010413 Portable Radar Speed Feedback Sign Systems
 013804 Stationary Impact Attenuator Vehicle
 066062 COZEEP Contract
 066063 Traffic Management Plan - Public Information
 066070 Maintain Traffic
 120090 Construction Area Signs
 120320 Temporary Barrier System
 128601 Temporary Signal System

| Unit | Quantity | | Unit Price (\$) | | Cost |
|---|----------|---|-----------------|------|------------|
| LS | 1 | x | \$ 23,000 | = \$ | 23,000 |
| EA | 1 | x | \$ 5,500 | = \$ | - |
| LS | 1 | x | \$ 14,000 | = \$ | 14,000 |
| (LS) | 1 | x | \$ 80,000 | = \$ | 80,000 |
| LS | 1 | x | | = \$ | - |
| LS | 1 | x | \$ 25,000 | = \$ | 25,000 |
| LS | 1 | x | | = \$ | - |
| LS | 1 | x | \$ 16,000 | = \$ | 16,000 |
| LF | 1 | x | \$ 40 | = \$ | - |
| LS | 1 | x | \$ 390,000 | = \$ | 390,000 |
| <i>Subtotal Traffic Management Plan</i> | | | | | \$ 548,000 |

6D - Stage Construction and Traffic Handling

Item code

120100 Traffic Control System

| Unit | Quantity | | Unit Price (\$) | | Cost |
|---|----------|---|-----------------|------|------------|
| LS | 1 | x | 550,000.00 | = \$ | 550,000 |
| <i>Subtotal Stage Construction and Traffic Handling</i> | | | | | \$ 550,000 |

| | |
|----------------------------|---------------------|
| TOTAL TRAFFIC ITEMS | \$ 1,322,000 |
|----------------------------|---------------------|

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|--------|----------|-----------------|-------------|
| 190101 Roadway Excavation | CY | x | = \$ | - |
| 19801X Imported Borrow | CY/TON | x | = \$ | - |
| 390132 Hot Mix Asphalt (Type A) | TON | x | = \$ | - |
| 26020X Class 2 Aggregate Base | TON/CY | x | = \$ | - |
| 250401 Class 4 Aggregate Subbase | CY | x | = \$ | - |
| 130620 Temporary Drainage Inlet Protection | EA | x | = \$ | - |
| 129000 Temporary Railing (Type K) | LF | x | = \$ | - |
| 128601 Temporary Signal System | LS | x | = \$ | - |
| 120149 Temporary Pavement Marking (Paint) | SQFT | x | = \$ | - |
| 80010X Temporary Fence (Type X) | LF | x | = \$ | - |
| XXXXXX Some Item | Unit | x | = \$ | - |
| TOTAL DETOURS | | | | \$ - |

SUBTOTAL SECTIONS 1 through 7 \$ 63,137,900

SECTION 8: MINOR ITEMS**8A - Americans with Disabilities Act Items**

ADA Items 0.5% \$ 315,690

8B - Bike Path Items

Bike Path Items 0.5% \$ 315,690

8C - Other Minor Items

Other Minor Items 3.0% \$ 1,894,137

Total of Section 1-7 \$ 63,137,900 x 4.0% = \$ 2,525,516

TOTAL MINOR ITEMS \$ 2,525,600**SECTIONS 9: MOBILIZATION**

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|------|----------|-----------------|-------------|
| 999990 | | | | |
| Total Section 1-8 \$ 65,663,500 x 10% = \$ | | | | - |
| TOTAL MOBILIZATION | | | | \$ - |

SECTION 10: SUPPLEMENTAL WORK

| Item code | Unit | Quantity | Unit Price (\$) | Cost |
|--|------|----------|-------------------|---------------------|
| 066094 Value Analysis | LS | 1 | x 10,000.00 = \$ | 10,000 |
| 066070 Maintain Traffic | LS | 1 | x 500,000.00 = \$ | 500,000 |
| 066919 Dispute Resolution Board | LS | 1 | x 30,000.00 = \$ | 30,000 |
| 066921 Dispute Resolution Advisor | LS | 1 | x = \$ | - |
| 066015 Federal Trainee Program | LS | 1 | x 45,000.00 = \$ | 45,000 |
| 066610 Partnering | LS | 1 | x 90,000.00 = \$ | 90,000 |
| 066393 HMA Pavement Smoothness Incentive | LS | 1 | x 9,000.00 = \$ | 9,000 |
| 066405 Concrete Pavement Smoothness Incentive | LS | 1 | x 14,000.00 = \$ | 14,000 |
| XXXXXX Payment Adjustment for Oil Price Fluctuations | LS | 1 | x 180,000.00 = \$ | 180,000 |
| <i>Cost of NPDES Supplemental Work specified in Section 5D</i> | | | | <i>= \$ 79,700</i> |
| Total Section 1-8 \$ 65,663,500 5% = \$ | | | | 3,283,175 |
| TOTAL SUPPLEMENTAL WORK | | | | \$ 4,240,900 |

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-------------------|--|------|---------------|---|-----------------|------|--------------|
| 066105 | Resident Engineers Office | LS | 1 | x | 287,750.00 | = | \$287,750 |
| 066063 | Traffic Management Plan - Public Information | LS | 1 | x | 10,000.00 | = | \$10,000 |
| 066062 | COZEED Contract | LS | 1 | x | 100,000.00 | = | \$100,000 |
| XXXXXX | PacifiCorp Line Upgrades | LS | 1 | x | 50,000,000.00 | = | \$50,000,000 |
| Total Section 1-8 | | | \$ 65,663,500 | | 2% | = \$ | 1,313,270 |

| | |
|------------------------------|---------------------|
| TOTAL STATE FURNISHED | \$51,711,100 |
|------------------------------|---------------------|

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization \$1,519,650,323 (used to calculate TRO)
Total Construction Cost (excluding TRO and Contingency) \$1,696,767,892 (used to check if project is greater than \$5 million excluding contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **10%**

| Item code | | Unit | Quantity | | Unit Price (\$) | | Cost |
|-----------|-----------------------|------|----------|---|-----------------|---|---------------|
| 070018 | Time-Related Overhead | WD | 783 | X | \$194,081 | = | \$151,965,100 |

| | |
|------------------------------------|----------------------|
| TOTAL TIME-RELATED OVERHEAD | \$151,965,100 |
|------------------------------------|----------------------|

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

SECTION 13: ROADWAY CONTINGENCY

Recommended Contingency : (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

Total Section 1-12 \$ 273,580,600 x **20%** = \$54,716,120

| | |
|--------------------------|---------------------|
| TOTAL CONTINGENCY | \$54,716,200 |
|--------------------------|---------------------|

II. STRUCTURE ITEMS

| | <u>Bridge 1</u> | | <u>Bridge 2</u> | | <u>Building 1</u> |
|-------------------------------|------------------------|--|------------------------|--|--------------------------|
| DATE OF ESTIMATE | 11-22-23 | | 11-22-23 | | 11-22-23 |
| Bridge Name | Bridge F-1 | | Full Tunnel | | OMC Building & Site |
| Bridge Number | | | | | |
| Structure Type | PC Conc I-Girder | | SEM | | |
| Width (Feet) [out to out] | 48 LF | | 68 LF | | 200 LF |
| Total Bridge Length (Feet) | 122 LF | | 6000 LF | | 118 LF |
| Total Area (Square Feet) | 5856 SQFT | | SQFT | | 13500 SQFT |
| Structure Depth (Feet) | LF | | LF | | LF |
| Footing Type (pile or spread) | Pile | | N/A | | N/A |
| Cost Per Square Foot | \$793 | | | | |
| COST OF EACH | \$4,644,082 | | \$976,165,450 | | \$77,000,000 |

| | <u>Building 2</u> | | | | |
|-------------------------------|-----------------------------|--|--|--|--|
| DATE OF ESTIMATE | 11-14-23 | | | | |
| Building Name | Geotechnical Investigations | | | | |
| Bridge Number | n/a | | | | |
| Structure Type | n/a | | | | |
| Width (Feet) [out to out] | | | | | |
| Total Building Length (Feet) | | | | | |
| Total Area (Square Feet) | | | | | |
| Structure Depth (Feet) | | | | | |
| Footing Type (pile or spread) | | | | | |
| Cost Per Square Foot | | | | | |
| COST OF EACH | \$153,846,154 | | | | |

| | |
|--|----------------------|
| TOTAL COST OF BRIDGES/Walls/Tunnels | \$980,809,532 |
|--|----------------------|

| | |
|--------------------------------|----------------------|
| TOTAL COST OF BUILDINGS | \$230,846,154 |
|--------------------------------|----------------------|

| | | |
|------------------------------------|-----|----------------------|
| Structures Mobilization Percentage | 10% | \$121,165,569 |
|------------------------------------|-----|----------------------|

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

Total recommended percentages includes any quantified risk based contingency from the risk register.

| | | |
|-----------------------------------|-----|----------------------|
| Structures Contingency Percentage | 20% | \$242,331,137 |
|-----------------------------------|-----|----------------------|

| | |
|---------------------------------|------------------------|
| TOTAL COST OF STRUCTURES | \$1,575,152,392 |
|---------------------------------|------------------------|

Estimate Prepared By:

Raymond Sandiford ----- Division of Structures

12/08/2023

Date

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

| | | | | |
|----|-----|--|----|-------------|
| A) | A1) | Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees | \$ | 94,688 |
| | A2) | SB-1210 | \$ | 0 |
| B) | | Acquisition of Offsite Mitigation | \$ | 210,088,477 |
| C) | C1) | Utility Relocation (State Share) | \$ | 0 |
| | C2) | Potholing (Design Phase) | \$ | 0 |
| D) | | Railroad Acquisition | \$ | 0 |
| E) | | Clearance / Demolition | \$ | 1,000,000 |
| F) | | Relocation Assistance (RAP and/or Last Resort Housing Costs) | \$ | 0 |
| G) | | Title and Escrow | \$ | 0 |
| H) | | Environmental Review | \$ | 0 |
| I) | | Condemnation Settlements | 0% | \$ 0 |
| J) | | Design Appreciation Factor | 0% | \$ 0 |
| K) | | Utility Relocation (Construction Cost) | \$ | |
| | | Project Development Permit Fees | \$ | 184,217 |

| | | |
|----|------------------------------------|----------------------|
| L) | TOTAL RIGHT OF WAY ESTIMATE | \$211,367,382 |
|----|------------------------------------|----------------------|

| | | |
|----|--------------------------------------|----------------------|
| M) | TOTAL R/W ESTIMATE: Escalated | \$291,083,000 |
|----|--------------------------------------|----------------------|

| | | |
|----|-----------------------------|--------------------|
| N) | RIGHT OF WAY SUPPORT | \$1,000,000 |
|----|-----------------------------|--------------------|

Support Cost Estimate
Prepared By _____ Project Coordinator¹ _____ Phone _____

Utility Estimate Prepared
By _____ Utility Coordinator² _____ Phone _____

R/W Acquisition Estimate
Prepared By _____ Right of Way Estimator³ _____ Phone _____

Note: Items G & H applied to items A + B

¹ When estimate has Support Costs only² When estimate has Utility Relocation³ When R/W Acquisition is required