DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	915R2	1204

Caltrans Metric

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Alex E. Sanjines No. C 051153 Exp. 9/30/11 CIVIL STATE OF CALIFORNIA

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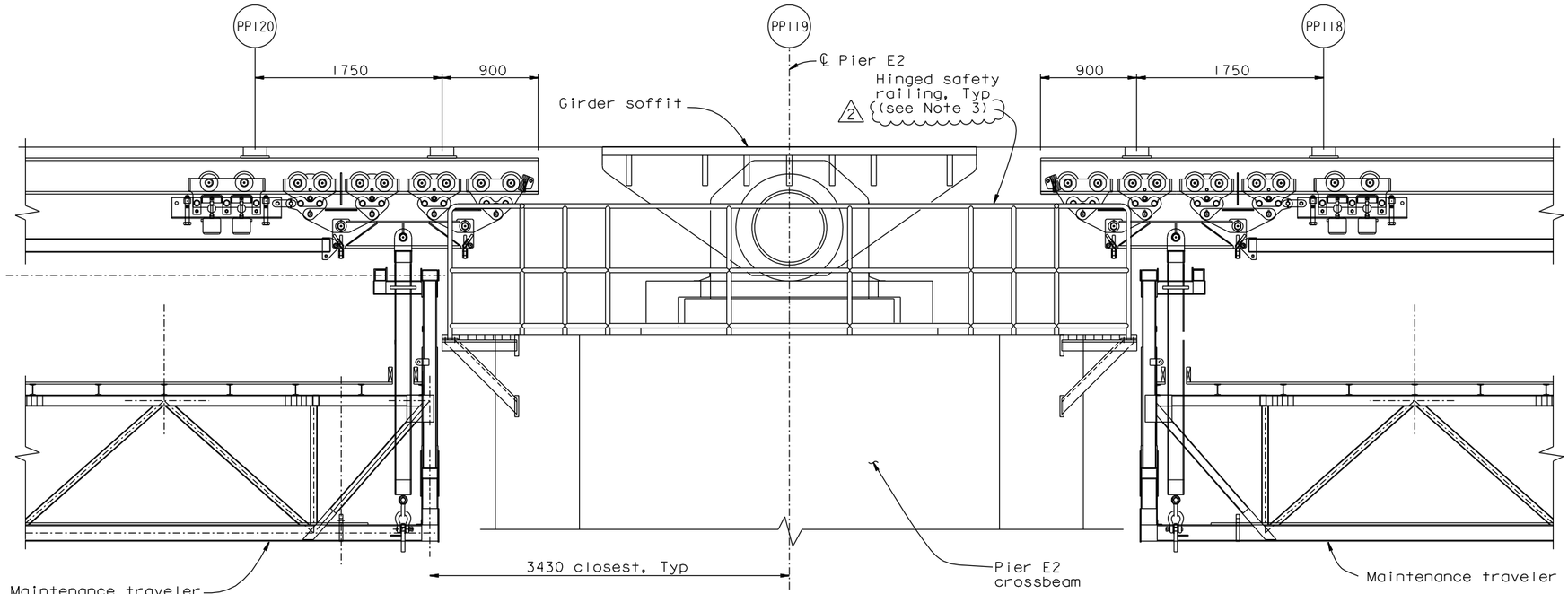
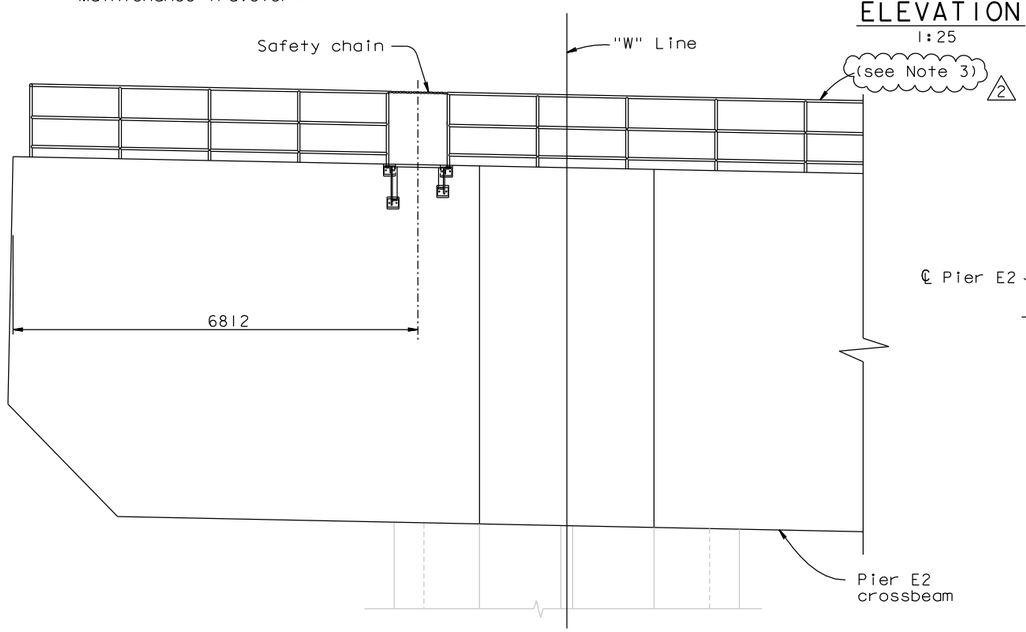


ELEVATION (Looking South)
1:25



ELEVATION (Looking East)
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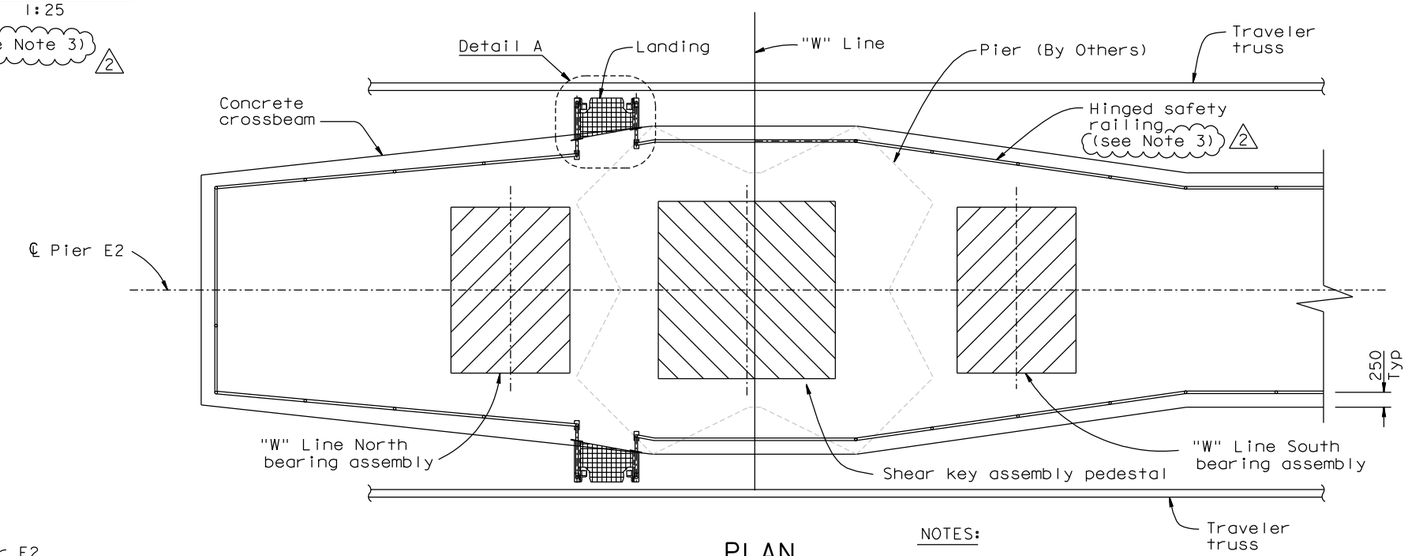

PLAN
1:50

NOTES:

1. For Detail A, see "Pier E2 Access Details No.2" sheet.
2. For typical hinged safety railing details, see "Revised Standard Plan RSP S11" sheet.
3. (2) Pier E2 Capbeam Safety Cable Alternate Plan may be used, see "Pier E2 Access Details No.3" sheet.

CONTRACT CHANGE ORDER NO. _____
SHEET ____ OF ____

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 02/01/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
2	02/01/11	PIER E2 CAPBEAM SAFETY CABLE	CC	AS	181
1	06/12/09	HANDRAIL	TH	AS	114

REVISIONS

DESIGN	BY A. Sanjines	CHECKED T. Ho	
DETAILS	BY R. Xu	CHECKED N. Vo	
QUANTITIES	BY A. Sanjines	CHECKED N. Vo	

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

PIER E2 ACCESS DETAILS NO.1

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 04
EA 0120F1

DISREGARD PRINTS BEARING EARLIER REVISION DATES → 08/02/99 05/31/01 04/08/02 07/09/02 12/19/02 12/07/05

SHEET 498R2 OF

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DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	916S1	1204

REGISTERED ENGINEER - CIVIL

02-01-11

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Marwan N. Nader No. C 054426 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA

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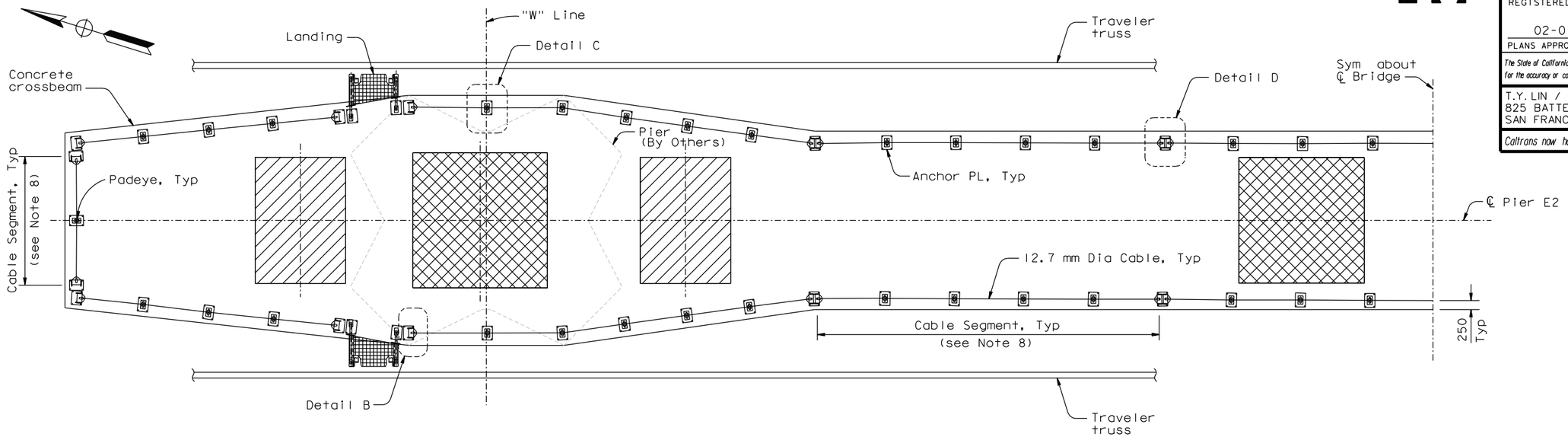

PIER E2 CAPBEAM SAFETY CABLE ALTERNATE PLAN

1:50

NOTES:

1. For details not shown, see "Pier E2 Access Details No. 1" sheet.
2. For Details B, C and D, see "Pier E2 Access Details No. 4" sheet.
3. The cable shall be RRL preformed wire rope, 6x19 Class, IWRC, XIP, with minimum breaking strength of 118.3 kN.
4. Cable shall not be spliced between terminations.
5. All cable and hardware to be galvanized and installed per manufacturer's recommendations.
6. Cable shall be installed with a deflection between 100 to 150 mm, measured from taut position, when pulled with an upward force of 0.13 kN at midpoint between any two padeyes.
7. The safety cable shall have a maximum use of two persons at one time between anchors.
8. For all cable segments, Contractor shall determine installation length by survey.

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CONTRACT CHANGE ORDER NO. _____
SHEET ___ OF ___

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

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DESIGN OVERSIGHT
SIGN OFF DATE 02/01/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
0	02/01/11	PIER E2 CAPBEAM SAFETY CABLE	CC	MN	181

REVISIONS

DESIGN	BY C. Choi	CHECKED M. Nader	
DETAILS	BY C. Choi	CHECKED M. Nader	
QUANTITIES	BY C. Choi	CHECKED M. Nader	

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

PIER E2 ACCESS DETAILS NO. 3

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 04
EA 0120F1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY) 02/01/11

SHEET 499S1 OF

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DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	916S2	1204

REGISTERED ENGINEER - CIVIL

02-01-11
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER Marwan N. Nader No. C 054426 Exp. 12/31/11 CIVIL STATE OF CALIFORNIA

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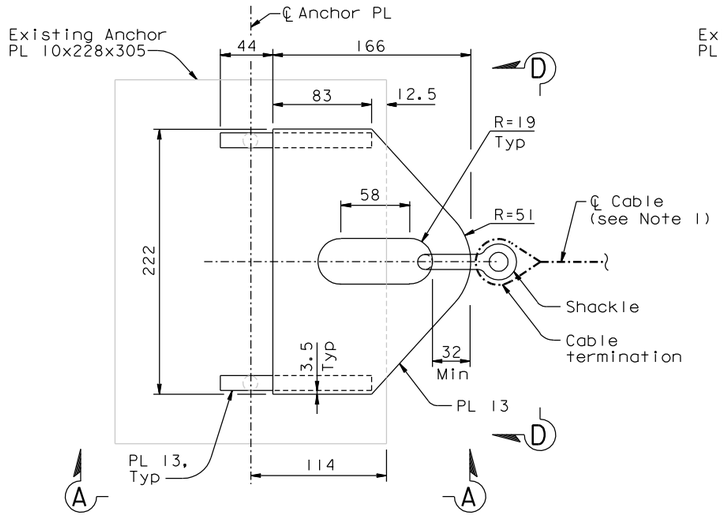
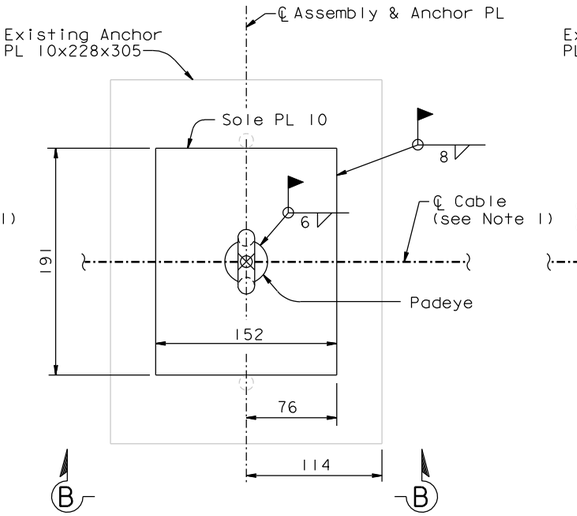
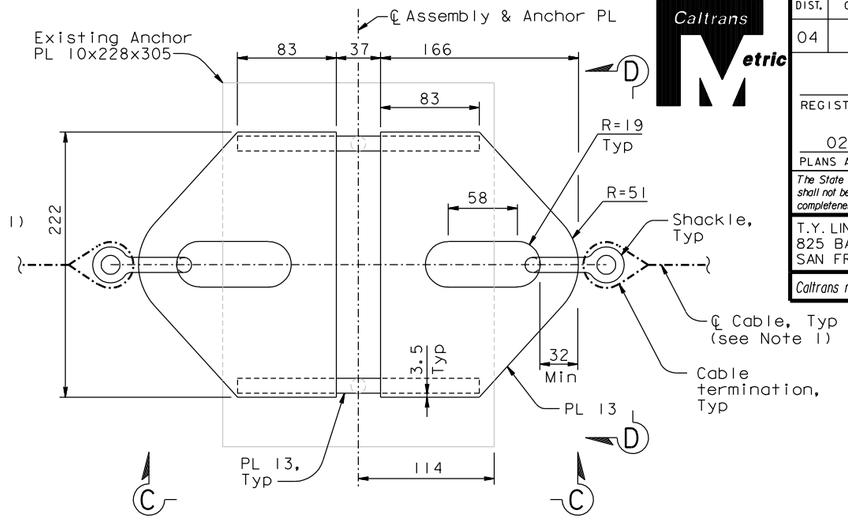


DETAIL B (Typical Single Anchor)
1:2.5



DETAIL C (Intermediate Padeye)
1:2.5



DETAIL D (Typical Double Anchor)
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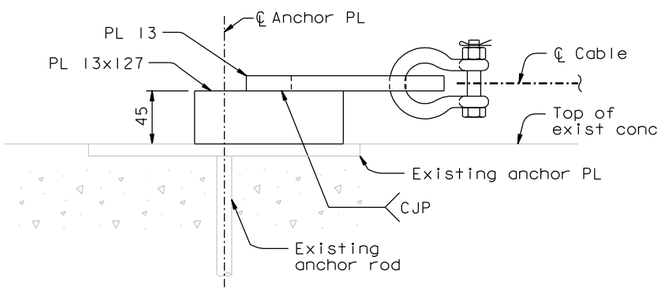

SECTION A-A
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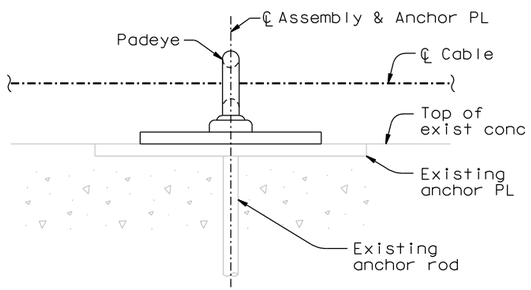

SECTION B-B
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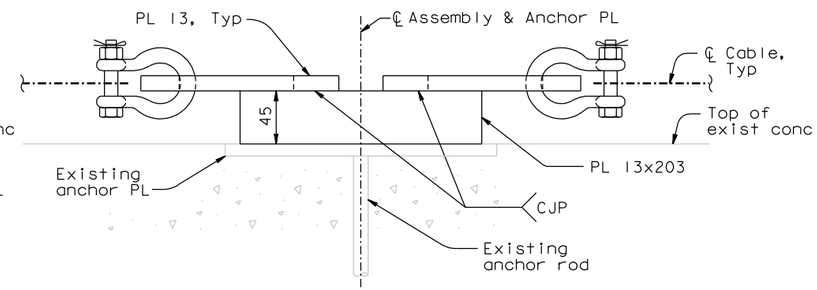

SECTION C-C
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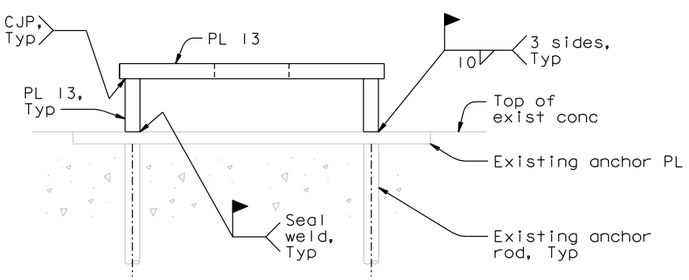
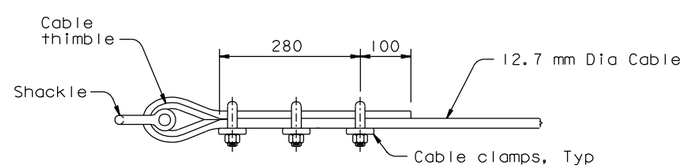


SECTION D-D (Shackle and Cable not shown for clarity)
1:2.5



CABLE TERMINATION DETAIL
NTS

NOTES:

1. For layout of cable, see "Pier E2 Access Details No. 1" sheet.
2. Provide thimbles at all cable loops per manufacturer's recommendation.
3. Padeye shall be Crosby size No. 5 or equivalent.
4. Sole plates and anchor plates shall have a minimum yield strength of Fy=50 ksi (345 MPa) and shall be A572 or equivalent.
5. Shackle shall be 0.5 in (12.7 mm) Crosby bolt type anchor shackle or equivalent, with a working load limit of at least 2 metric tons (19.6kN). Shackle shall be galvanized.

CONTRACT CHANGE ORDER NO. ____
SHEET ____ OF ____

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R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
Y. Liu
SIGN OFF DATE 02/01/11

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
0	02/01/11	PIER E2 CAPBEAM SAFETY CABLE	CC	MN	181

REVISIONS

DESIGN	BY C. Choi	CHECKED M. Nader	
DETAILS	BY C. Choi	CHECKED M. Nader	
QUANTITIES	BY C. Choi	CHECKED M. Nader	

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

BRIDGE NO. 34-0006L/R
KILOMETER POST 13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE
(SUPERSTRUCTURE & TOWER)

PIER E2 ACCESS DETAILS NO. 4

Rev. Date: 5-18-98

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

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REVISION DATES (PRELIMINARY STAGE ONLY) 02/01/11

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