CONTRACT CHANGE ORDER

Change Requested by: Engineer

CCO: 62 **Suppl. No. 0** **Contract No. 04 – 0120F4** **Road** SF-80-13.2/13.9 **FED. AID LOC.:**

To: **AMERICAN BRIDGE/FLUOR ENTERPRISES INC A JOINT VENTURE**

You are directed to make the following changes from the plans and specifications or do the following described work not included in the plans and specifications for this contract. ***NOTE: This change order is not effective until approved by the Engineer.***

Description of work to be done, estimate of quantities and prices to be paid. (Segregate between additional work at contract price, agreed price and force account.) Unless otherwise stated, rates for rental of equipment cover only such time as equipment is actually used and no allowance will be made for idle time. This last percentage shown is the net accumulated increase or decrease from the original quantity in the Engineer's Estimate.

Adjustment of Compensation at Lump Sum Price:

ITEM 1.

Incorporate into the work the tower shaft and splice details shown on sheets 2 through 10 of this change order. The following revised contract plan sheets detail all changes: 539R3, 543R2, 544R2, 546R3, 548R2, 549R2, 551R2, 553R3 and 554R2 (of 1204).

This change order resolves the costs associated with Contractor Request For Information (RFI) Nos. 215, 478, 618, 618R1, 708, 708R1, 826, 995, 1028, 1047, 1054, 1145, 1149, 1149R1, 1254, 1327 and 1333 with respect to changes listed above.

For this work, the Contractor will receive a lump sum price of $241,251.00. This sum constitutes full and complete compensation for furnishing all labor, material, tools and incidentals including all markups by reason of this change.

Adjustment of Compensation at Lump Sum Price..... $241,251.00

ITEM 2.

The items identified above in this change order have been paid as part of CCO 108 resolution. Therefore, the amount due under this change order will be adjusted by the amount paid under CCO 108 to prevent a double payment. Total amount paid under CCO 108, and to be credited to this change, is $241,251.00.

Adjustment of Compensation at Lump Sum Price..... <$241,251.00>

CHANGE ORDER COST AND TIME SUMMARY

(ITEM 1) Adjustment of Compensation for work pursuant to this change order	$241,251.00
(ITEM 2) Amount paid under CCO 108 for this change order	<$241,251.00>
Total net pay for this change order	$0.00

Contract time is addressed in CCO 108 for all work identified in this change order. Therefore contract time will not be adjusted in this change order.

Estimated Cost: **Increase** ☐ **Decrease** ☐ **$ 0.00**

By reason of this order the time of completion will be adjusted as follows: 0 days

Submitted by

Signature [signature] **Resident Engineer** Mark Woods for Gary Pursell, Sup.T.E. **Date** 10 Feb 2010

Approval Recommended by

Signature [signature] **Supervising Transportation Engineer** Gary Pursell, Sup.T.E. **Date** 2/10/10

Engineer Approval by

Signature [signature] **Supervising Transportation Engineer** Gary Pursell, Sup.T.E. **Date** 2/23/10

We the undersigned contractor, have given careful consideration to the change proposed and agree, if this proposal is approved, that we will provide all equipment, furnish the materials, except as otherwise be noted above, and perform all services necessary for the work above specified, and will accept as full payment therefor the prices shown above.

NOTE: If you, the contractor, do not sign acceptance of this order, your attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time therein specified.

Contractor Acceptance by

Signature [signature] (Print name and title) Michael D. Flowers Project Director **Date** 2-22-10

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	539R3	1204

Caltrans Metric

REGISTERED ENGINEER - CIVIL

12-6-04

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER Marwan N. Nader No. C 054426 Exp. 12/31/09 CIVIL STATE OF CALIFORNIA

T.Y. LIN / MOFFATT & NICHOL
825 BATTERY STREET
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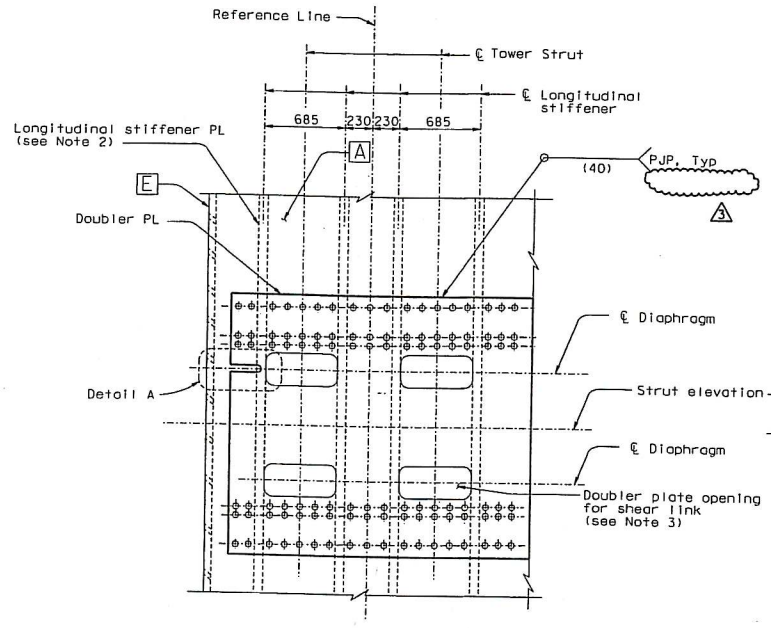
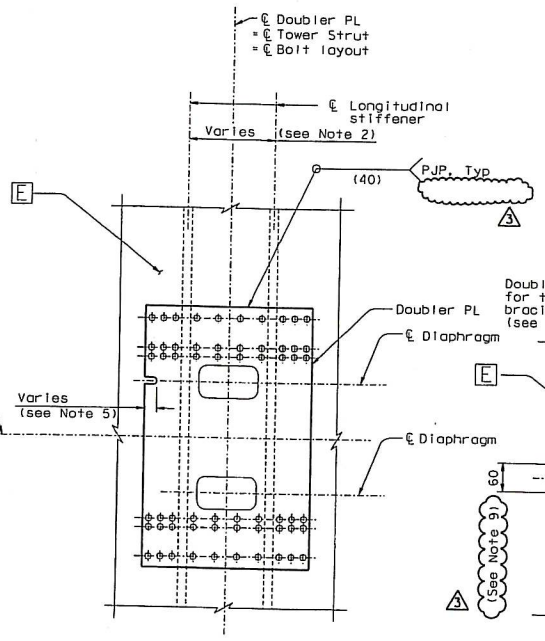


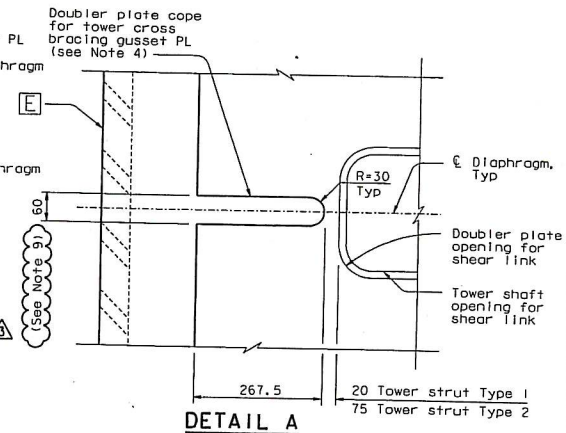
FOR STRUTS TYPE 1 AND TYPE 2

(Tower shaft opening for strut type 1 shown, strut type 2 similar)



FOR STRUTS TYPE 3

BOLT LAYOUT (See Note 7 and 8)
1:20



DETAIL A
1:5

LEGEND:

⌖ M24 A325-X HS Bolts

NOTES:

1. For doubler plate details, see "Tower Shaft Details No. 10" sheet.
2. For longitudinal stiffener spacing and size, see "Tower Shaft Details No. 3" and "Tower Shaft Details No. 7" sheets.
3. Seal weld all around doubler plate opening. For details, see "Tower Shaft Details No. 10" sheet.
4. Doubler plate cope is only located at tower cross bracing elevations. For tower cross bracing details, see "Tower Strut Details No. 9" sheet.
5. Cope doubler plate as necessary to accommodate cross bracing gusset plate.
6. Bolts for tower strut connection not shown for clarity. For tower strut connection details, see "Tower Strut Details" sheets. (3)
7. For bolt layout, see "Tower Strut Facade Details" sheet.
8. For Reference Line definition, see "Tower Strut Facade Details" sheets.
9. At the Contractor's option and subject to the approval of the Engineer, cope width may be enlarged to facilitate installation of gusset plate to skin plate, provided that the enlarged cope is filled with insert plates joined by CJP welds to the doubler plate and the gusset plate.

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
3	01/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
2	02/28/07	DOUBLER PLATE SEAL WELD	MN	NV	21
1	06/23/06	DOUBLER PLATE SEAL WELD	MN	NV	21

REVISIONS

CONTRACT CHANGE ORDER NO. 62
SHEET 2 OF 10

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 07/29/08
Rev. Date: 5-15-98

DESIGN	BY M. Nader	CHECKED	M. Gulyas
DETAILS	BY L. Rus	CHECKED	M. Gulyas
QUANTITIES	BY L. Rus	CHECKED	Y. Zhang

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

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

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

CU 04
EA 0120F1

DISREGARD PRINTS BEARING EARLIER REVISION DATES

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

TOWER SHAFT DETAILS NO. 11

REVISION DATES (PRELIMINARY STAGE ONLY) 06/21/99 05/21/01 04/20/02 04/20/02 07/01/02 12/13/02

SHEET 122R3 OF

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100 % PS&E

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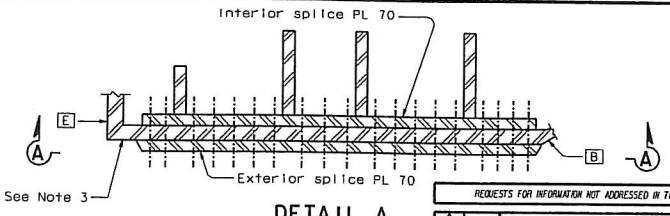
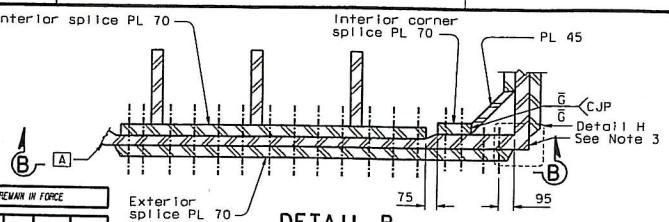


DETAIL A
1:15



DETAIL B
1:15

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	REVISIONS DESCRIPTIONS	BY	CH'D	CCO#
2	08/15/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	06/21/06	SPLICE PLATES PER 1SM	MN	NV	21

CONTRACT CHANGE ORDER NO. 82
SHEET 3 OF 10

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	543R2	1204

REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER Marwan N. Nader No. C 054426 Exp. 12/31/09 CIVIL STATE OF CALIFORNIA

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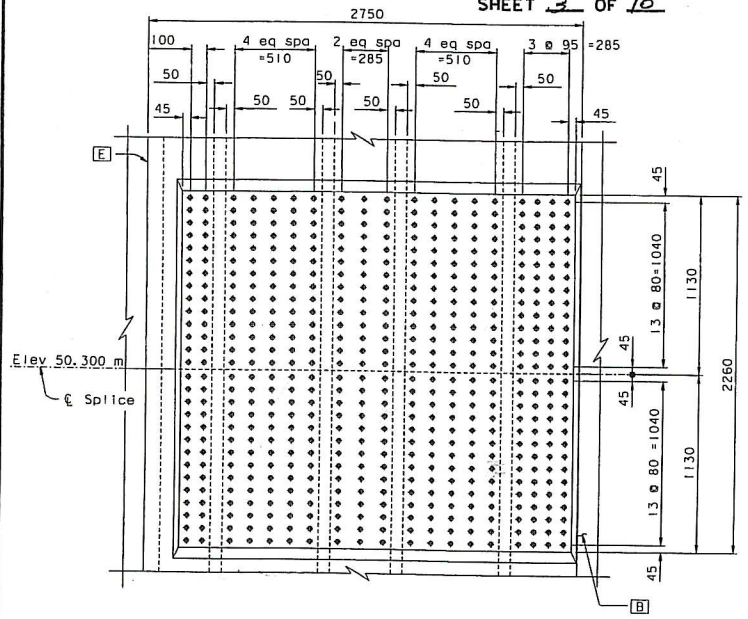
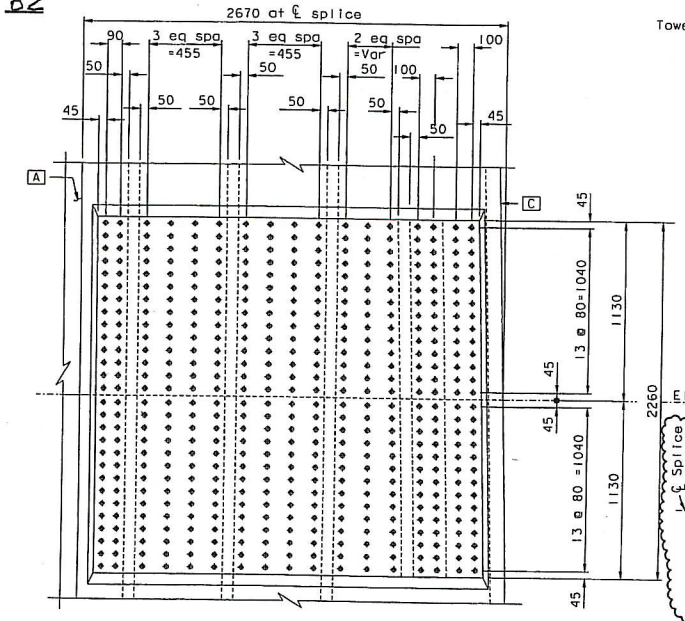


ELEVATION A-A
1:15



ELEVATION B-B
1:15

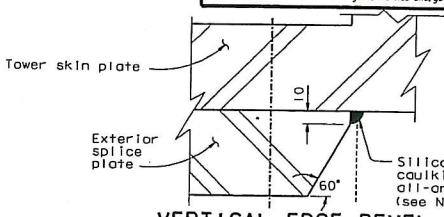
LEGEND:

⊕ M27 A490-X HS Bolts

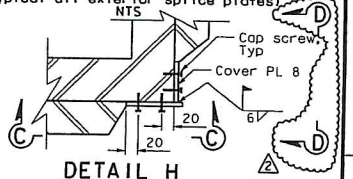
+ 12 Dia cap screw drilled in tapped hole

TOWER SKIN PLATE A

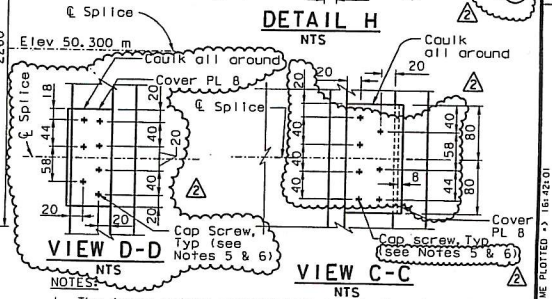
TOWER SKIN PLATE B



VERTICAL EDGE BEVEL DETAIL
(Typical all exterior splice plates)



DETAIL H
NTS



VIEW D-D
NTS

VIEW C-C
NTS

5. Whenever it is not practicable to have two screw rows, stagger the screw pattern using 3 bolts may be used subject to the approval of the Engineer.

6. Wherever it is not practicable to have cap screws, the cover plate shall be fillet seal welded to the splice plate.

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements are met at the faying surfaces.
2. Silicone caulk sealing shall be applied around the perimeter (horizontal and vertical edges) of all exterior splice plates.
3. Skin plate splice seam not covered by exterior splice plate shall be covered by cover plate and secured by cap screws with 8 mm all-around silicone caulk sealing (see Detail H). Corner CD is shown in Detail H. Corners AB, BC, DE and EA similar.
4. Elevation view of adjacent skin plate not shown for clarity.

100 % PS&E

R. Valizadeh/V. Toan/Y.L./N.L./F.C.
DESIGN OVERSIGHT
Ryan Valizadeh / Vinyd Toan / Y. Liu
SIGN OFF DATE 08/15/08
Rev. Date: 5-18-98

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	J. Lopez	N. Vo
QUANTITIES	J. Lopez	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

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

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)
8/15/08 | 8/4/08 | 7/24/08 | 7/3/08 | 6/19/08 | 6/5/08 | 11/1/05

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

TOWER SPLICE DETAILS NO. 4

SHEET 126R2 OF

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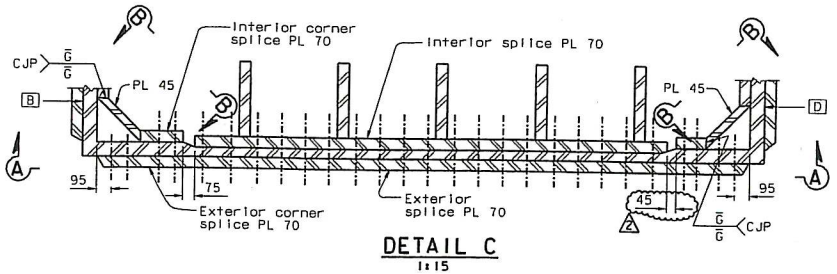
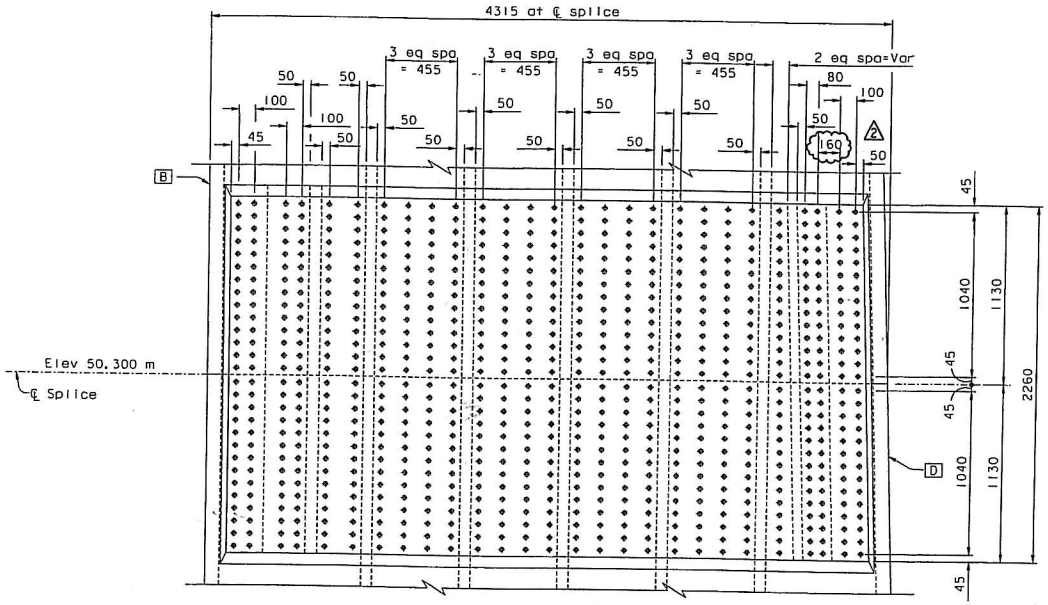
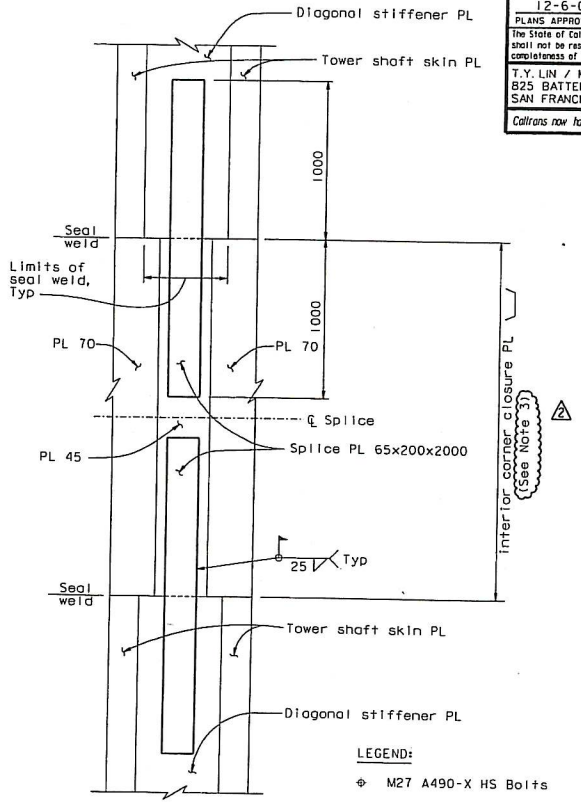


DETAIL C
1:15



ELEVATION A-A
1:15

TOWER SKIN PLATE C



ELEVATION B-B
1:15

LEGEND:

⊕ M27 A490-X HS Bolts

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements are met at the faying surfaces.
2. Elevation view of adjacent skin plate not shown
3. The length of the interior corner splice plate shall be adjusted to ensure the 45 mm minimum bolt edge distance (in the vertical direction).

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
2	01/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	06/21/06	SPLICE PLATES PER ISM	MN	NV	21
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 62
SHEET 4 OF 10

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

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

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	544R2	1204

REGISTERED ENGINEER - CIVIL
12-6-04
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R. Vallizadeh/V. Toan/Y.L./N.L./F.C.	DESIGN	BY M. Nader	CHECKED M. Gulyas
DESIGN OVERSIGHT	DETAILS	BY J. Lopez	CHECKED N. Vo
SIGN OFF DATE 01/29/08	QUANTITIES	BY L. Rus	CHECKED Y. Zhang
Rev. Date: 5-18-98			

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)

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

TOWER SPLICE DETAILS NO. 5

SHEET 127R2 OF

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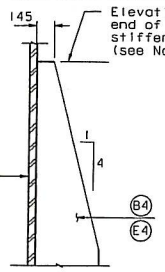
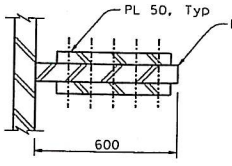
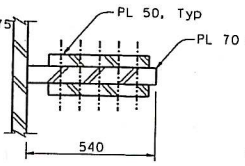
NOTES:

1. Weld of the longitudinal stiffener to the tower shaft skin plates beyond the length indicated shall be in accordance with Table 1 in "Tower Splice Details No.2" sheet.
2. Perimeter of exterior splice plates shall be caulked.
3. Longitudinal stiffener splice plates shall be A709M HPS 485W steel.
4. Dimension shall be increased by 25 mm for (E1), (E2), (E3) to account for shim plate between skin plate and interior splice plate.
5. For elevation of end of stiffener PL see "Tower Shaft Details No. 7" sheet.

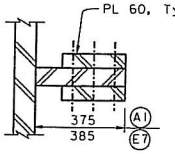




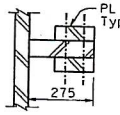
SECTION A-A
1:10



SECTION B-B
1:10



SECTION C-C
1:10



SECTION D-D
1:10

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	546R3	1204

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

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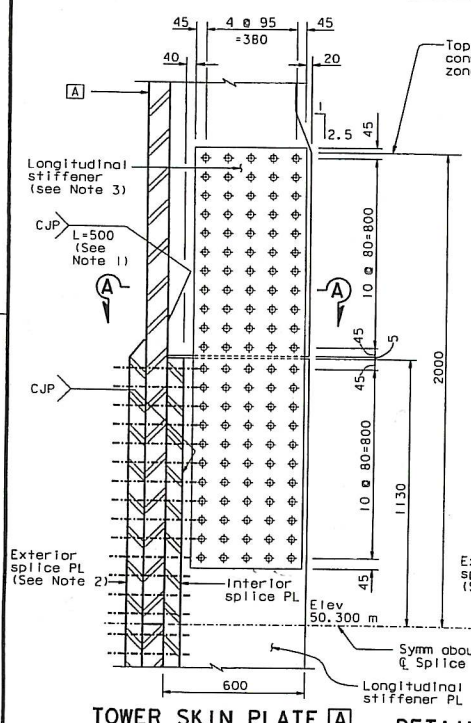
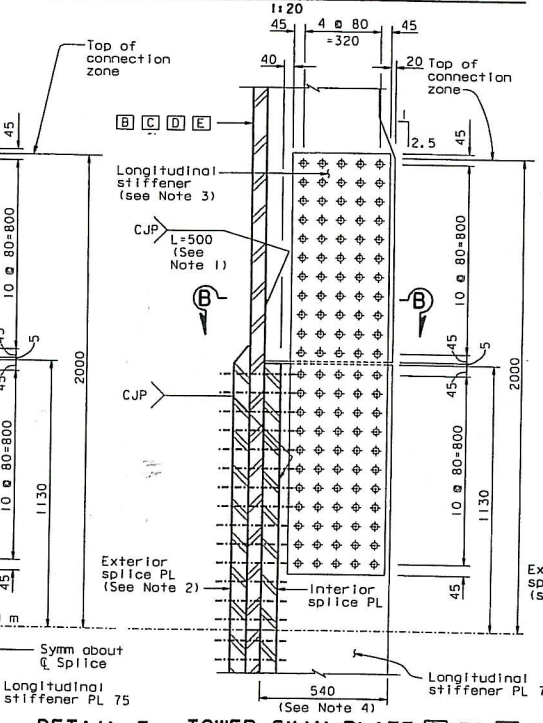
LONGITUDINAL STIFFENERS B4 AND E4

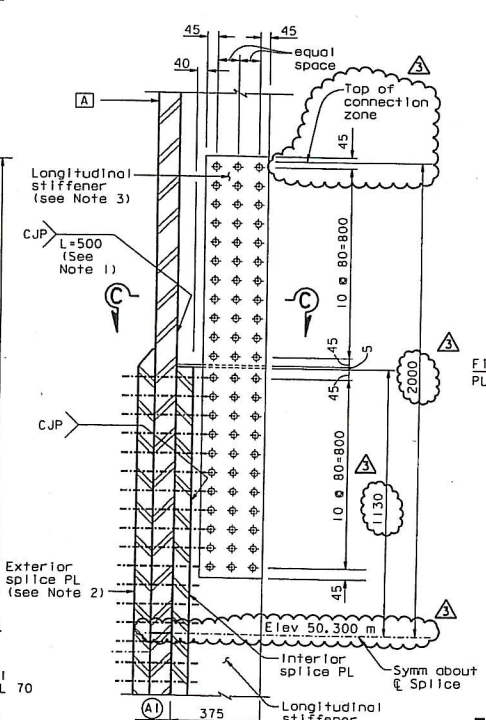
1:20



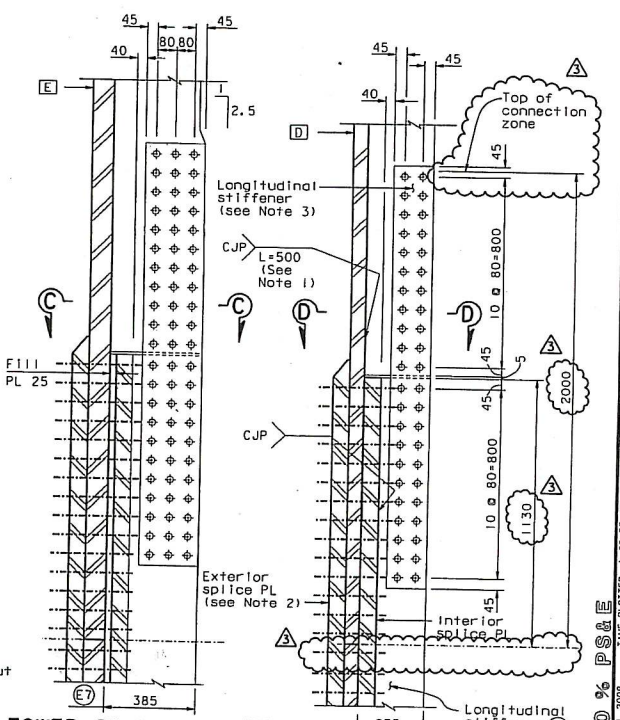
TOWER SKIN PLATE A
(Except A1)



TOWER SKIN PLATE B TO E
(Except B4, D4, E4, and E7)



TOWER SKIN PLATE A



TOWER SKIN PLATE E
(For details not shown, see stiffener A1)

DETAIL F (For A1 E7 and D4)
1:10

TOWER SKIN PLATE D

LEGEND:
M27 A490-X HS Bolt

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			
3	01/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
2	01/11/08	TOWER INTERNAL SHAFT	MN	NV	63
1	06/21/06	LONG STIFFENER GAP & MISC	MN	NV	21

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

CONTRACT CHANGE ORDER NO. 62
SHEET 5 OF 10

R. Valizadeh/V. Toan/Y. L. /M. L. /F. C.
DESIGN OVERSIGHT
SIGN OFF DATE 07/25/08

Rev. Date: 5-18-98

	BY	CHECKED
DESIGN	M. Nader	M. Gulyas
DETAILS	L. Rus	M. Gulyas
QUANTITIES	L. Rus	Y. Zhang

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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

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)

TOWER SPLICE DETAILS NO. 7

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 05/2006 | 10/2006 | 12/2006 | 03/2007 | 11/13/07

SHEET 129R3 OF

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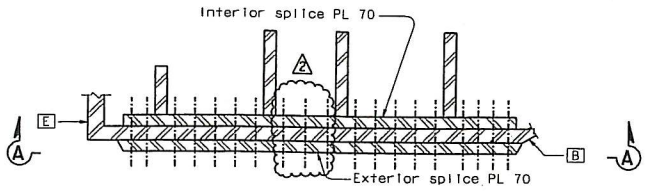
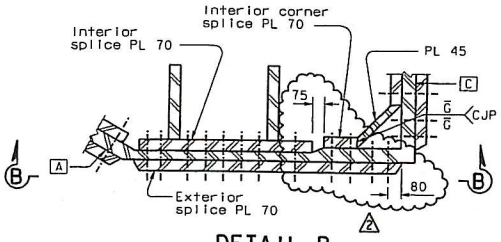


DETAIL A
1:15



DETAIL B
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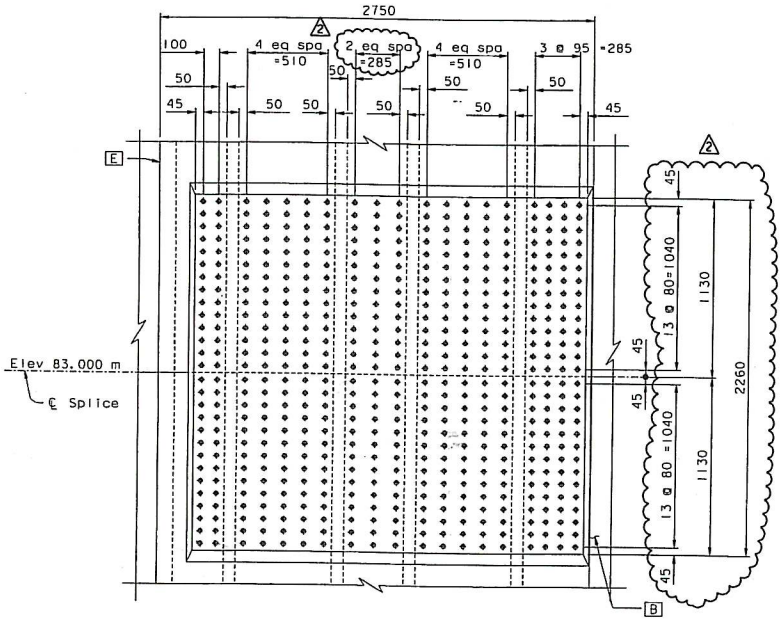
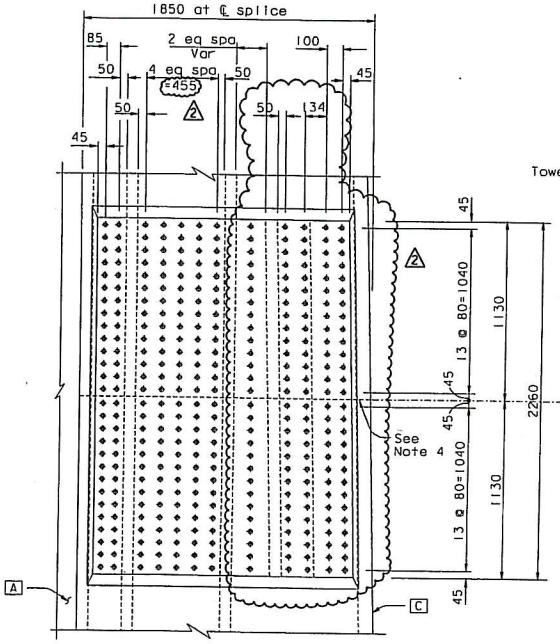


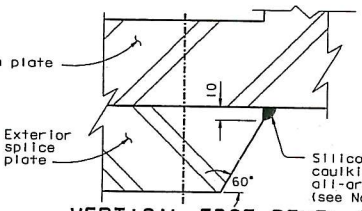
ELEVATION A-A
1:15

TOWER SKIN PLATE [A]



ELEVATION B-B
1:15

TOWER SKIN PLATE [B]



VERTICAL EDGE BEVEL DETAIL
(Typical all exterior splice plates)
NTS

LEGEND:

⊕ M27 A490-X HS Bolts

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements at the faying surfaces and the geometry control are met.
2. Silicone caulk sealing shall be applied around the perimeter (horizontal and vertical edges) of all exterior splice plates.
3. Elevation view of adjacent skin plate not shown for clarity.
4. For skin plate splice seam not covered by exterior splice plates, see details on "Tower Splice Details No. 4" sheet.

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	548R2	1204

REGISTERED ENGINEER - CIVIL

12-6-04
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/09 — CIVIL — STATE OF CALIFORNIA

T.Y. LIN / MOFFATT & NICHOL
825 BATTERY STREET
SAN FRANCISCO, CA 94111

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REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

MARK	DATE	REVISIONS / DESCRIPTIONS	BY	CH'D	CCO#
2	07/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	05/21/08	SPLICE PLATES PER ISM	MN	NV	21

CONTRACT CHANGE ORDER NO. 62
SHEET 6 OF 10

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

DESIGN OVERSIGHT	R. Vallizadeh/V. Toan/Y.L./W.L./F.C.		
SIGN OFF DATE	07/25/08		
DESIGN	M. Nader	N. Vo	
DETAILS	C. Choi	N. Vo	
QUANTITIES	C. Choi	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

CU 04
EA 0120F1

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

TOWER SPLICE DETAILS NO. 9

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)

SHEET 131R2

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

Rev. Date: 5-15-98

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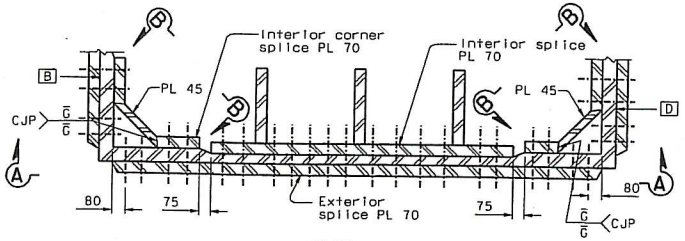
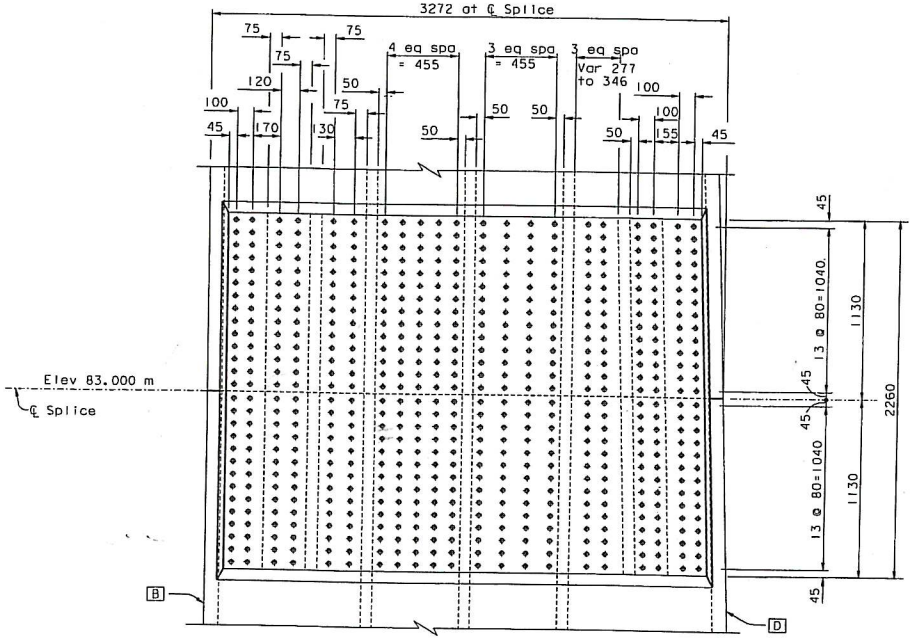
DATE PLOTTED => 25 JUL 2008 TIME PLOTTED => 09:59:38

100 % PS&E

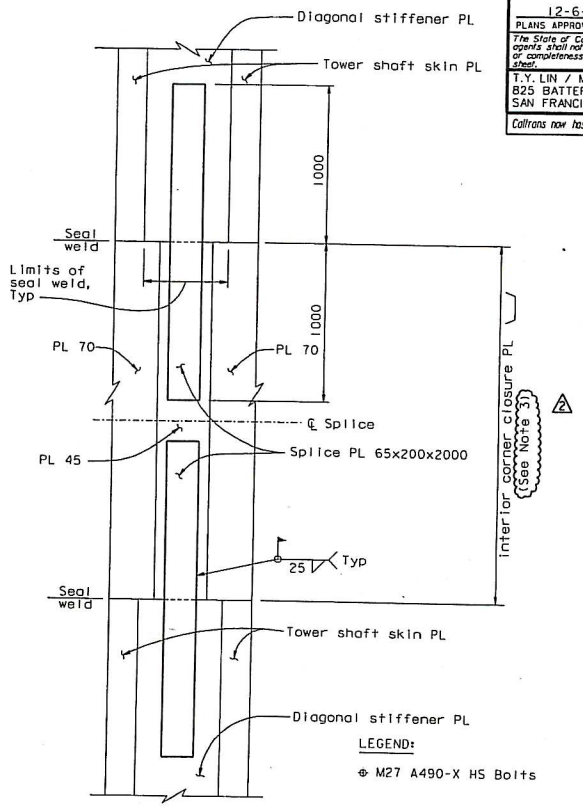


DETAIL C
1:15



ELEVATION A-A
1:15

TOWER SKIN PLATE C



ELEVATION B-B
1:15

LEGEND:

⊕ M27 A490-X HS Bolts

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements at the faying surfaces and the geometry control are met.
2. Elevation view of adjacent skin plate not shown for clarity.
3. The length of the interior corner splice plate shall be adjusted to ensure the 45 mm minimum bolt edge distance (in the vertical direction).

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE					
2	07/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	06/21/06	SPLICE PLATES PER ISM	MN	NV	21
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 62
SHEET 7 OF 10

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	549R2	1204

REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/09 — CIVIL — STATE OF CALIFORNIA

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R. Vallzadeh/V. Toan/Y.L./W.L./F.C.	DESIGN	BY M. Nader	CHECKED N. Vo
DESIGN OVERSIGHT	DETAILS	BY C. Choi	CHECKED N. Vo
SIGN OFF DATE 07/29/08	QUANTITIES	BY C. Choi	CHECKED N. Vo
Rev. Date 5-15-98			

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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)

TOWER SPLICE DETAILS NO. 10

DISREGARD PRINTS BEARING EARLIER REVISION DATES
REVISION DATES (PRELIMINARY STAGE ONLY): 10/27/95 | 05/20/97 | 01/30/98 | 12/15/98
SHEET 132R2 OF

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

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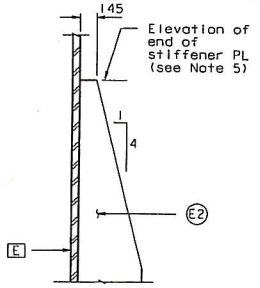
USERNAME •> vignatovs DATE PLOTTED •> 25 JUL 2008 TIME PLOTTED •> 10:01:24

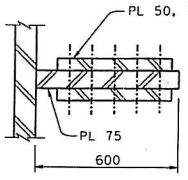
100 % PS&E

NOTES:

1. Weld of the longitudinal stiffener to the tower shaft skin plates beyond the length indicated shall be in accordance with Table 1 in "Tower Splice Details No.2" sheet.
2. Perimeter of exterior splice plates shall be caulked.
3. Longitudinal stiffener splice plates shall be A709M HPS 485W steel.
4. Dimension shall be increased by 25 mm for (E1) and (E7) to account for shim plate between skin plate and interior splice plate.
5. For elevation of end of stiffener PL see "Tower Shaft Details No.7" sheet.



LONGITUDINAL STIFFENER E2
1:20



SECTION A-A
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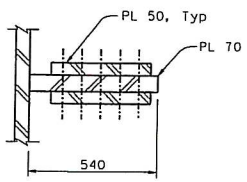

SECTION B-B
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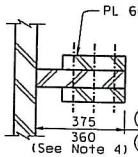

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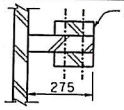

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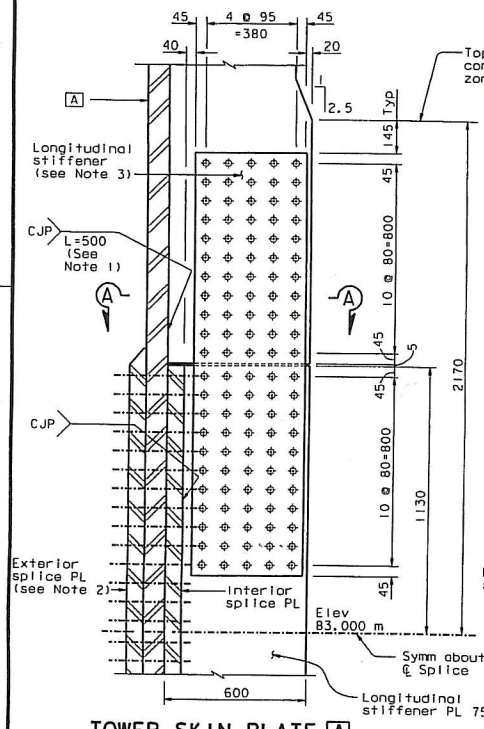
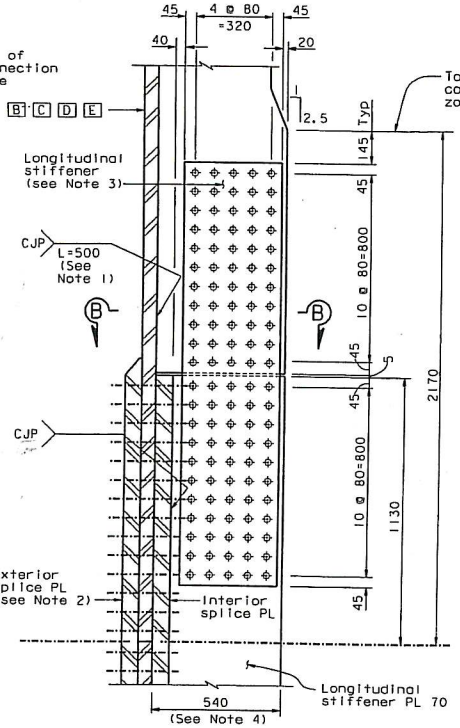
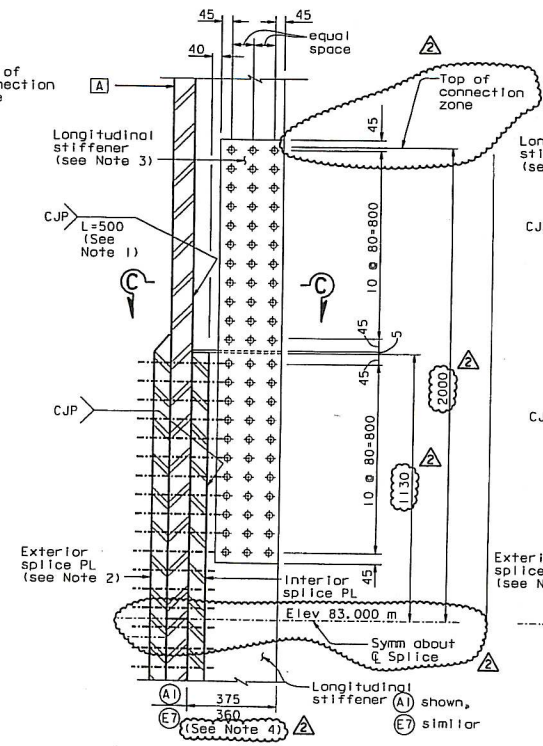




TOWER SKIN PLATE A
(Except A1)

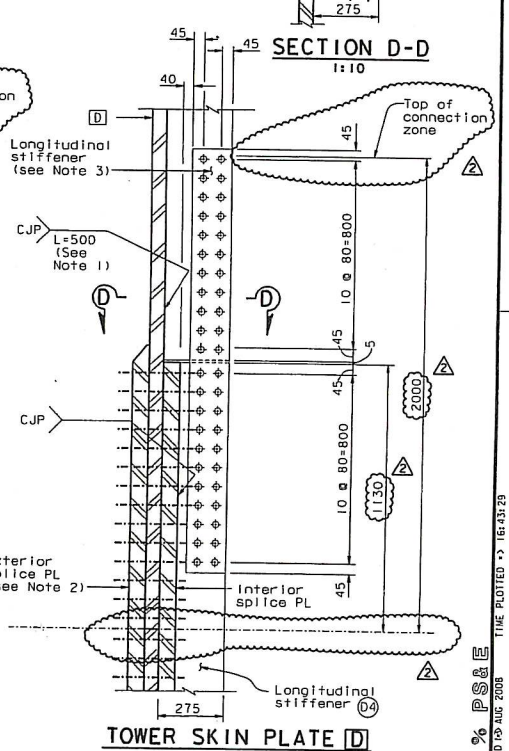
DETAIL F
1:10

TOWER SKIN PLATES B TO E
(Except E2, E7 and D4)



TOWER SKIN PLATE A
(Skin Plate E similar)

DETAIL F (For A1 E7 and D4)
1:10



TOWER SKIN PLATE D

LEGEND:
M27 A490-X HS Bolt

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	551R2	1204

REGISTERED ENGINEER - CIVIL
12-6-04
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Marwan N. Nader, No. C 054426, Exp. 12/31/09, CIVIL, STATE OF CALIFORNIA

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MARK	DATE	DESCRIPTIONS REVISIONS	BY	CH'D	CCO#
2	08/15/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	05/21/08	LONG. STIFFENER GAP & MISC.	MN	NV	21

DESIGN	BY M. Nader	CHECKED N. Vo	
DETAILS	BY J. Lopez	CHECKED N. Vo	
QUANTITIES	BY J. Lopez	CHECKED N. Vo	

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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)

TOWER SPLICE DETAILS NO. 12

SHEET 134R2

R. Vallizadeh/V. Toon/Y. L./W. L./F. C.
DESIGN OVERSIGHT
Ron Vallizadeh / Vong Toon / Y. Lin
SIGN OFF DATE 08/19/08

Rev. Date: 5-18-98

CONTRACT 8 CHANGE ORDER NO. 62
SHEET 8 OF 10

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 10/31/08 11/13/08 12/19/08 11/13/08

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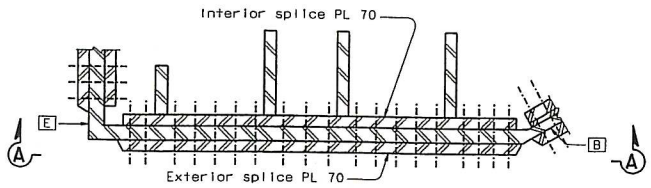

DETAIL A
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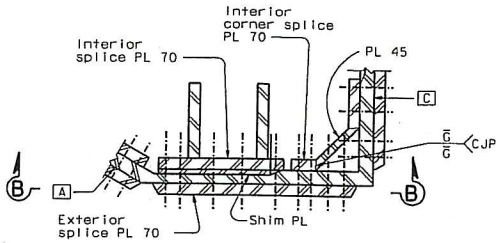

DETAIL B
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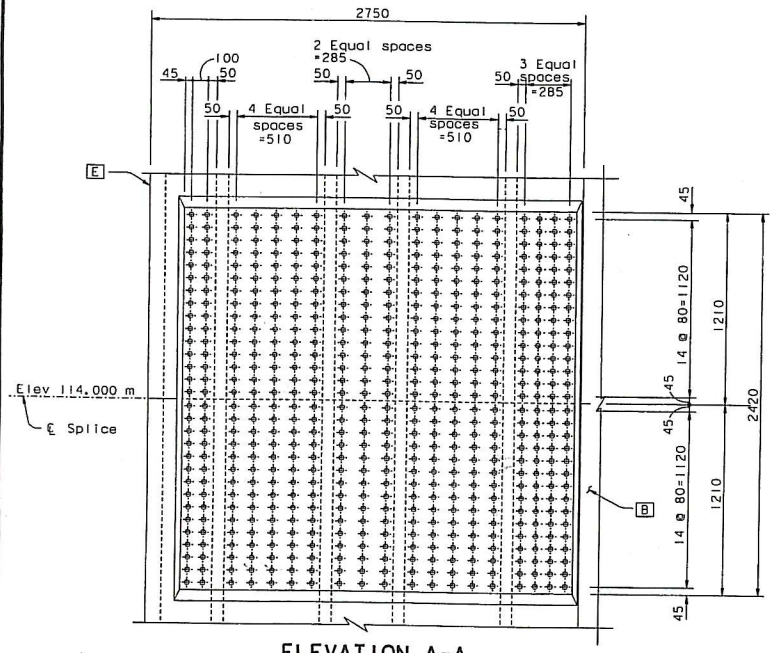
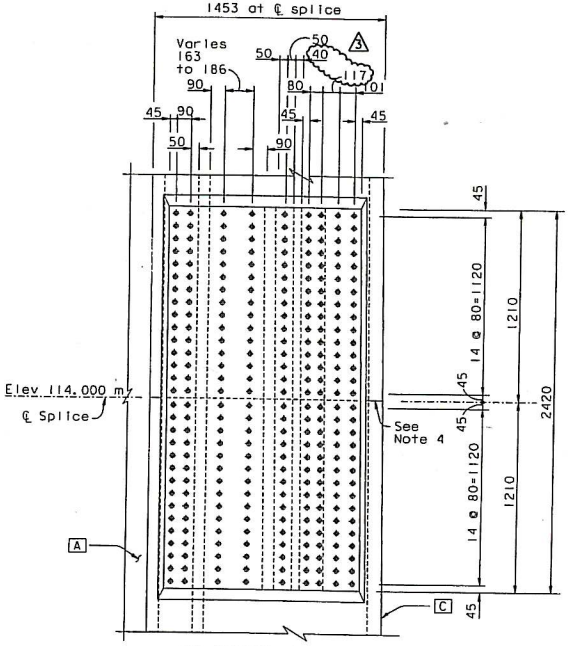


ELEVATION A-A
1:15



ELEVATION B-B
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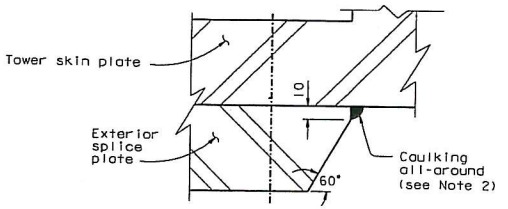

VERTICAL EDGE BEVEL DETAIL
(Typical all exterior splice plates)
NTS

TOWER SKIN PLATE A

TOWER SKIN PLATE B

LEGEND:

⊕ M27 A490-X HS Bolts

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements at the faying surfaces and the geometry control are met.
2. Caulk sealing shall be applied around the perimeter (horizontal and vertical edges) of all exterior splice plates.
3. Elevation view of adjacent skin plate not shown for clarity.
4. For skin plate splice seam not covered by exterior splice plates, see details on "Tower Splice Details No. 4" sheet.

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE				
3	07/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
2	07/07/08	CAULKING	MN	NV	66
1	06/23/06	SPLICE PLATES PER ISM	MN	NV	21
MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
REVISIONS					

CONTRACT CHANGE ORDER NO. 62
SHEET 9 OF 10

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	553R3	1204

REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE
Marwan N. Nader No. C 054426 Exp. 12/31/09 CIVIL STATE OF CALIFORNIA
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DESIGN	BY M. Nader	CHECKED N. Vo	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	R. Manzanarez PROJECT ENGINEER	BRIDGE NO. 34-0006L/R
DETAILS	BY J. Lopez	CHECKED N. Vo			KILOMETER POST 13.2/13.9
QUANTITIES	BY J. Lopez	CHECKED N. Vo		CU 04 EA 0120F1	

R. Vallizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 07/25/08
Rev. Date: 5-15-98

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 10/30/08 | 11/24/08 | 12/19/08 | 12/19/08 | | | | | |

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

TOWER SPLICE DETAILS NO. 14

SHEET 136R3 OF

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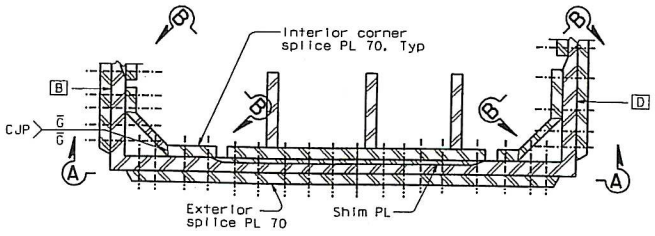
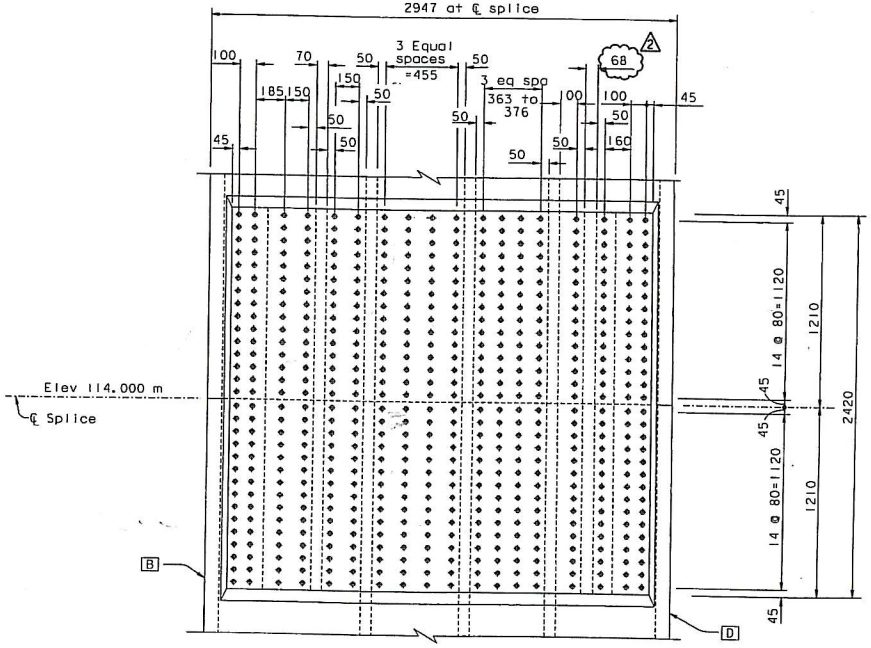
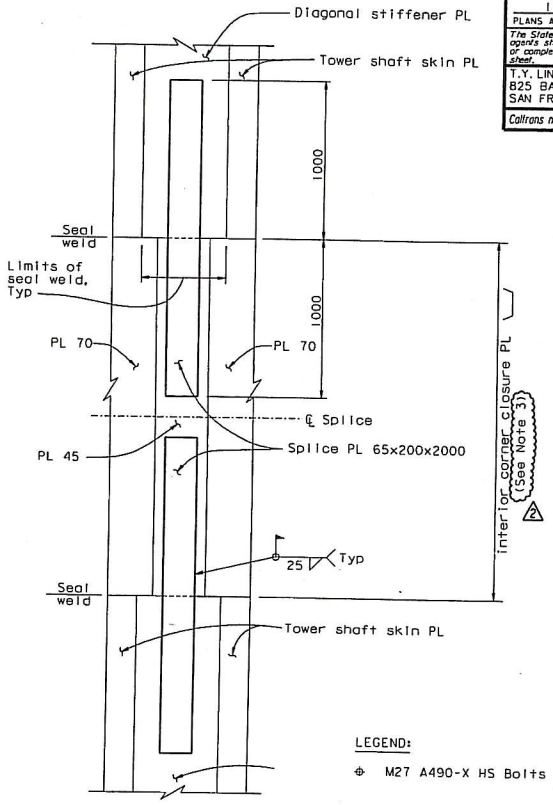


DETAIL C
1:15



ELEVATION A-A
1:15

TOWER SKIN PLATE C



ELEVATION B-B
1:15

LEGEND:

⊕ M27 A490-X HS Bolts

NOTES:

1. The tower splice connections are designed as slip critical connections with class B contact surface (slip coefficient 0.5). The Contractor shall ensure that the flatness requirements at the faying surfaces and the geometry control are met.
2. Elevation view of adjacent skin plate not shown for clarity.
3. The length of the interior corner splice plate shall be adjusted to ensure the 45 mm minimum bolt edge distance (in the vertical direction).

MARK	DATE	DESCRIPTIONS	BY	CH'D	CCO#
		REVISIONS			
2	01/25/08	TOWER DOUBLER PLATE & SPLICE CORNER DETAILS	MN	NV	62
1	05/21/08	SPLICE PLATES PER ISM	MN	NV	21

REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE

CONTRACT CHANGE ORDER NO. 62
SHEET 10 OF 10

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	554R2	1204

REGISTERED ENGINEER - CIVIL
12-6-04
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REGISTERED PROFESSIONAL ENGINEER — Marwan N. Nader — No. C 054426 — Exp. 12/31/09 — CIVIL — STATE OF CALIFORNIA

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825 BATTERY STREET
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R. Vallzadeh/V. Toon/Y.L./W.L./F.C.
DESIGN OVERSIGHT
SIGN OFF DATE 07/25/08

	BY	CHECKED
DESIGN	M. Nader	N. Vo
DETAILS	J. Lopez	N. Vo
QUANTITIES	J. Lopez	N. Vo

PREPARED FOR THE STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

R. Manzanarez
PROJECT ENGINEER

CU 04
EA 0120F1

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)

TOWER SPLICE DETAILS NO. 15

SHEET 137R2 OF

Rev. Date: 5-18-98

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

DISREGARD PRINTS BEARING EARLIER REVISION DATES → REVISION DATES (PRELIMINARY STAGE ONLY)

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