| DIST. | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 04 | SF | 80 | 13.2/13.9 | 112IR5 | 1204 |

Caltrans Metric

George Baker
REGISTERED ENGINEER - CIVIL
12-6-04
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER George S. Baker No. C 57112 Exp. 12/31/05 CIVIL STATE OF CALIFORNIA

*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

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

*Caltrans now has a web site! To get to the web site, go to: http://www.dot.ca.gov*

MAIN TRAVELERS - RAIL JOINT LOCATIONS GIVEN BY PANEL POINT (PP) NUMBERS

| Rail Section No. | Sliding Connection | Fixed Connection | Sliding Connection |
|---|---|---|---|
| ** 1 | Near PP 8.5 | PP 9 | PP 10 |
| 2 | PP 10 | PP 11 | PP 12 |
| 3 | PP 12 | PP 13 | PP 14 |
| 4 | PP 14 | PP 15 | PP 16 |
| 5 | PP 16 | PP 17 | PP 18 |
| 6 | PP 18 | PP 19 | PP 20 |
| 7 | PP 20 | PP 21 | PP 22 |
| 8 | PP 22 | PP 23 | PP 24 |
| 9 | PP 24 | PP 25 | PP 26 |
| 10 | PP 26 | PP 27 | PP 28 |
| 11 | PP 28 | PP 29 | PP 30 |
| 12 | PP 30 | PP 31 | PP 32 |
| 13 | PP 32 | PP 33 | PP 34 |

| Rail Section No. | Sliding Connection | Fixed Connection | Sliding Connection |
|---|---|---|---|
| 14 | PP 34 | PP 35 | PP 36 |
| 15 | PP 36 | PP 37 | PP 38 |
| 16 | PP 38 | PP 39 | PP 40 |
| 17 | PP 40 | PP 41 | PP 42 |
| 18 | PP 42 | PP 43 | PP 44 |
| 19 | PP 44 | PP 45 | PP 46 |
| 20 | PP 46 | PP 47 | PP 48 |
| 21 | PP 48 | PP 49 | PP 50 |
| 22 | PP 50 | PP 51 | PP 52 |
| 23 | PP 52 | PP 53 | PP 54 |
| 24 | PP 54 | PP 55 | PP 56 |
| 25 | PP 56 | PP 57 | PP 58 |
| 26 | PP 58 | PP 59 | PP 60 |

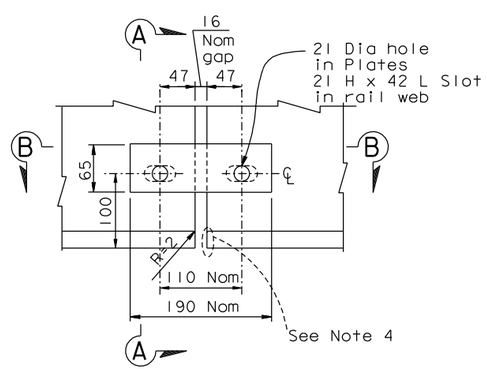
| Rail Section No. | Sliding Connection | Fixed Connection | Sliding Connection |
|---|---|---|---|
| 27 | PP 60 | PP 61 | PP 62 |
| 28 | PP 62 | PP 63 | PP 64 |
| 29 | PP 64 | PP 65 | PP 66 |
| 30 | PP 66 | PP 67 | PP 68 |
| 31 | PP 68 | PP 69 | PP 70 |
| 32 | PP 70 | PP 71 | PP 72 |
| 33 | PP 72 | PP 73 | PP 74 |
| 34 | PP 74 | PP 75 | PP 76 |
| 35 | PP 76 | PP 77 | PP 78 |
| 36 | PP 78 | PP 79 | PP 80 |
| 37 | PP 80 | PP 81 | PP 82 |
| 38 | PP 82 | PP 83 | PP 84 |
| 39 | PP 84 | PP 85 | PP 86 |

| Rail Section No. | Sliding Connection | Fixed Connection | Sliding Connection |
|---|---|---|---|
| 40 | PP 86 | PP 87 | PP 88 |
| 41 | PP 88 | PP 89 | PP 90 |
| 42 | PP 90 | PP 91 | PP 92 |
| 43 | PP 92 | PP 93 | PP 94 |
| 44 | PP 94 | PP 95 | PP 96 |
| 45 | PP 96 | PP 97 | PP 98 |
| 46 | PP 98 | PP 99 | PP 100 |
| 47 | PP 100 | PP 101 | PP 102 |

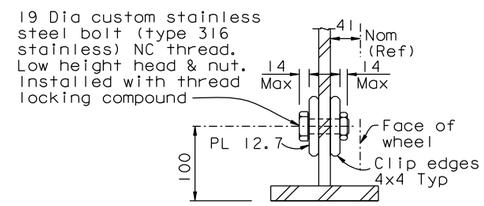
| Rail Section No. | Sliding Connection | Fixed Connection | Sliding Connection |
|---|---|---|---|
| 48 | PP 102 | PP 103 | PP 104 |
| 49 | PP 104 | PP 105 | PP 106 |
| 50 | PP 106 | PP 107 | PP 108 |
| 51 | PP 108 | PP 109 (K) | PP 110 (K) |
| 52 | PP 110 (K) | PP 111 (K) | PP 112 |
| 53 | PP 112 | PP 113 | PP 114 |
| 54 | PP 114 | PP 115 | PP 116 |
| ** 55 | PP 116 | PP 117 | PP 118 & PP 118.35 |
| ** 56 | PP 119.65 & PP 120 | PP 121 | PP 122 |
| 57 | PP 122 | none | PP 123 |
| 58 | PP 123 | PP 124 | PP 125 |
| 59 | PP 125 | PP 126 | PP 127 |
| ** 60 | PP 127 | PP 128 | see schematic |

K denotes kinked rail at these panel points.
See "Traveler Rail Details No. 15" sheet.

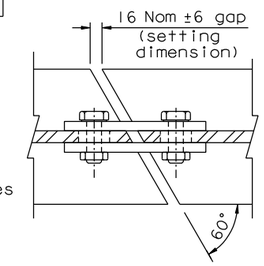
**Denotes Special Rail End Details




SLIDING JOINT DETAIL
1:4



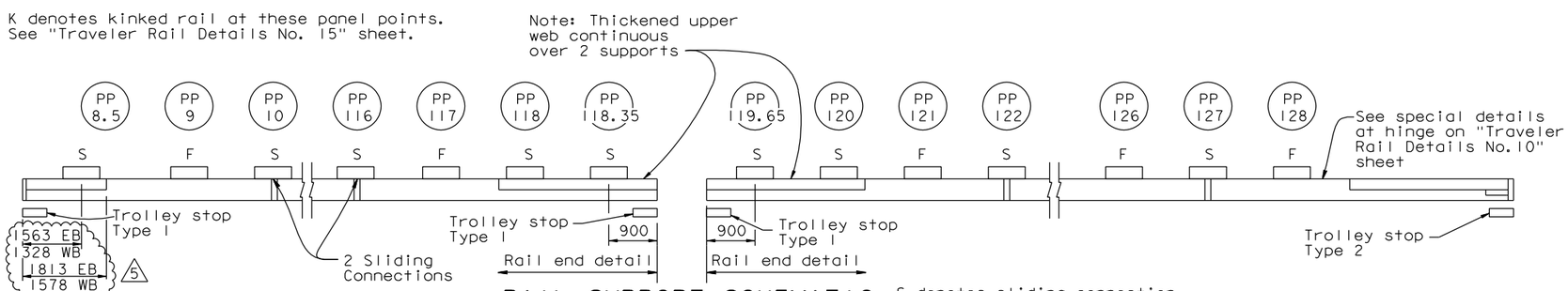

SECTION A-A
1:4




SECTION B-B
1:4

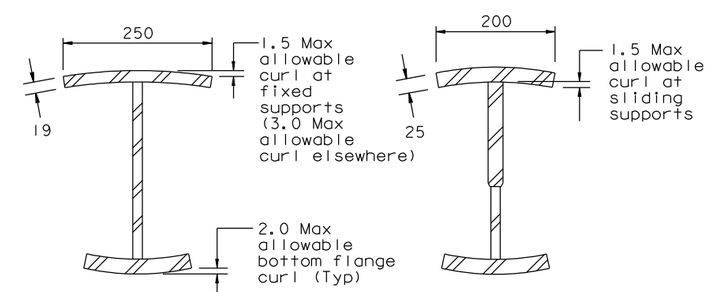
TRAVELER RAIL NOTES - SAS & E2/E3 TRAVELER RAILS

1. Rail material (flange plates & web plates) to be ASTM A572 or A709 grade 50 (Fy= 345 MPa).
2. Rail, boss plates & angles to be hot dip galvanized per specification.
3. The Nominal 16 mm gap between rail sections is to allow for slippage movement between rail and box in major seismic event.
4. Rail gaps to be set only after all dead load is in place on the structure. Tolerances across gaps to be per "Traveler Rail Details No. 15" sheet.
5. Rail to be fabricated in one to three span units as called out on this sheet.
6. Rail to be supported at panel points of the box structure at 5300 maximum c/c supports, unless noted otherwise.
7. Traveler rail and mounting on the Skyway structure is by Others except as noted below:
   - The inner (SAS) rail set (which crosses the Hinge A joint) is to be supplied and installed under this contract. It will be mounted to brackets on the Skyway structure which will be supplied and installed by Others.
   - The outer (transition span) rail set bolts are to be tightened under this contract after the connection of the transition span to the SAS and all dead load is in place on the structure.
8. Fabricator is to select a connection from types as appropriate to the geometry and to detail the connection within the permissible ranges of variation shown on the details.
9. For details of the various connection types, see "Traveler Rail Details" sheets.
10. Location of traveler rails is described on the "Traveler Operating Ranges" sheets.
11. All bolts to be ASTM A325 unless otherwise noted on the plans.
12. For special support details, see "Traveler Rail Details No. 14" sheet.




RAIL SUPPORT SCHEMATIC
NTS

S denotes sliding connection
F denotes fixed connection




MAXIMUM ALLOWABLE FLANGE DEFORMATIONS
NTS

REVISION 3 SUPERSEDES REVISIONS 1 & 2

CONTRACT CHANGE ORDER NO. _____
SHEET ___ OF ___

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

FOR REVISIONS ONLY

*REQUESTS FOR INFORMATION NOT ADDRESSED IN THIS CCO REMAIN IN FORCE*

| MARK | DATE | DESCRIPTIONS | BY | CH'D | CCO# |
|---|---|---|---|---|---|
| 5 | 08/23/11 | MISCELLANEOUS TRAVELER MODIFICATIONS | TH | MN | 183 |
| 4 | 09/15/10 | TRAVELER RAIL TOLERANCES | MN | GB | 168 |
| 3 | 06/05/09 | TRAVELER RAIL MODIFICATIONS | MN | GB | 24S0 |
| 2 | 07/20/07 | RAIL CHANGE & MISCELLANEOUS DETAILS | GB | NV | 24 |
| 1 | 08/04/06 | TRAVELER RAILS | GB | NV | 24 |

REVISIONS

R. Valizadeh/V. Toan/Y.L./W.L./F.C.
DESIGN OVERSIGHT
Roya Valizadeh / Vong Toan / Y. Liu
SIGN OFF DATE 08/23/11

Rev. Date: 5-18-98

| | BY | CHECKED |
|---|---|---|
| DESIGN | J. Otter | G. Baker |
| DETAILS | J. Otter | M. Roberts |
| QUANTITIES | J. Otter | M. Roberts |

**PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION**

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

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)

# TRAVELER RAIL DETAILS NO. 2

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) 04/18/02 01/30/02 12/19/02

SHEET 704R5 OF

FILE => I:\bb\04-012001\sas\contract plans and cco\cco\cco#183\7-revision 08-23-11\dgn\aktrvl13.dgn

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USERNAME => DWinrow DATE PLOTTED => 23 AUG 2011 TIME PLOTTED => 13:43:58