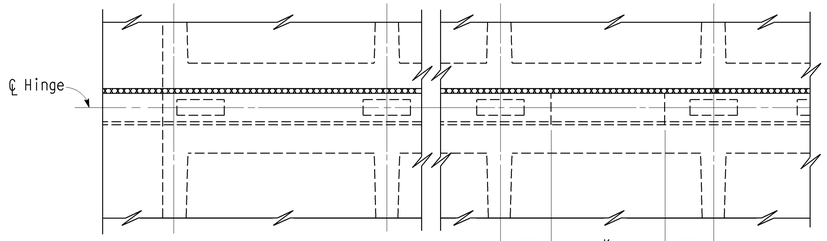
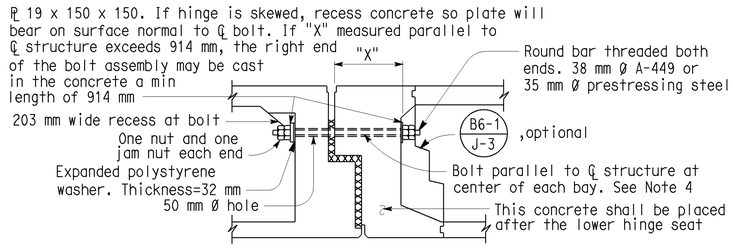


PLAN

HINGE NORMAL TO GIRDER



EQUALIZING BOLT DETAIL & PLACING SEQUENCE

Note: This detail not required on structure with only one hinge
Nuts, bolts and plate washers shall be painted.

EXTERIOR FACE	D
Vertical	150 mm
Sloping	305 mm

DESIGN LOADING DATA

Girder depth (mm)	Max Hinge Seat Load (k/ft)		Key Size and Max Transverse Load	
	Vertical	Longitudinal	Depth	Load/Key
610	12	1.8	150 mm	75k
914	16	2.7		
1219	20	3.0		
1524	22	3.3	305 mm	190k
1524 & over	23	3.4		

Caltrans Metric

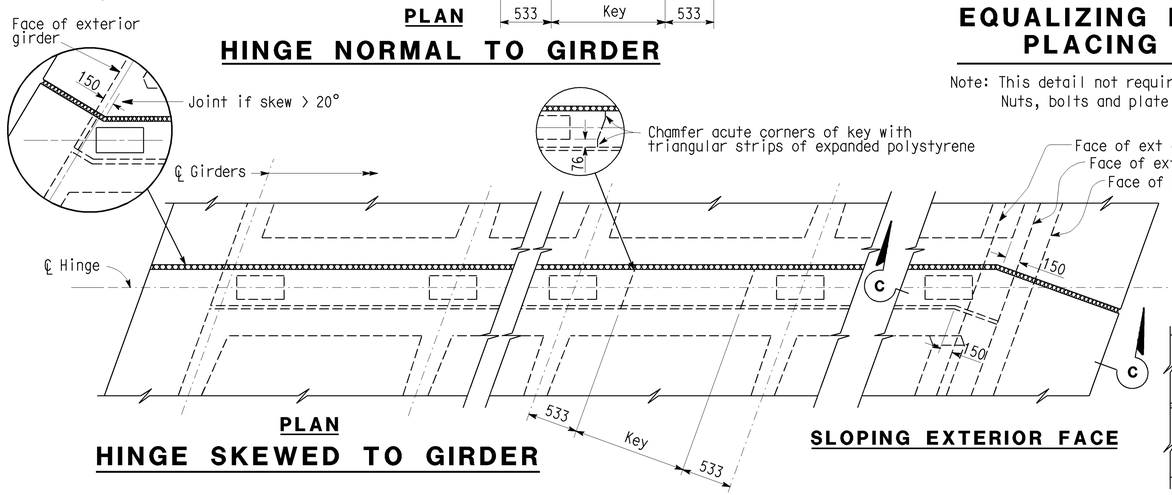
DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ENGINEER - CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

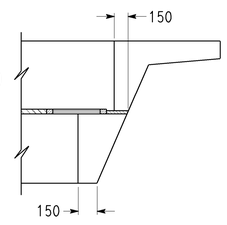
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



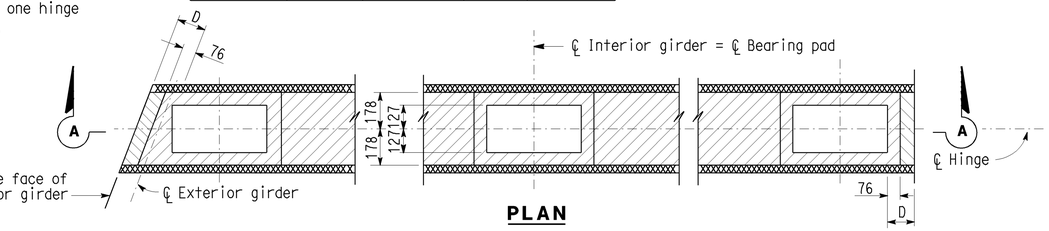
PLAN

HINGE SKEWED TO GIRDER

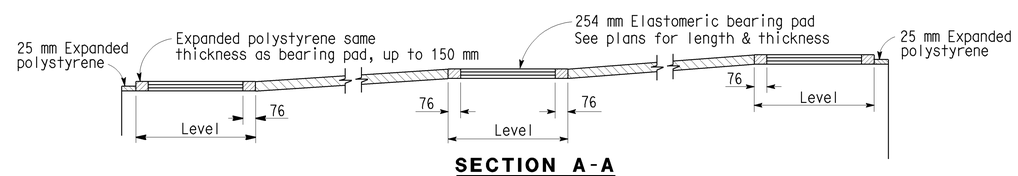
SLOPING EXTERIOR FACE



SECTION C-C

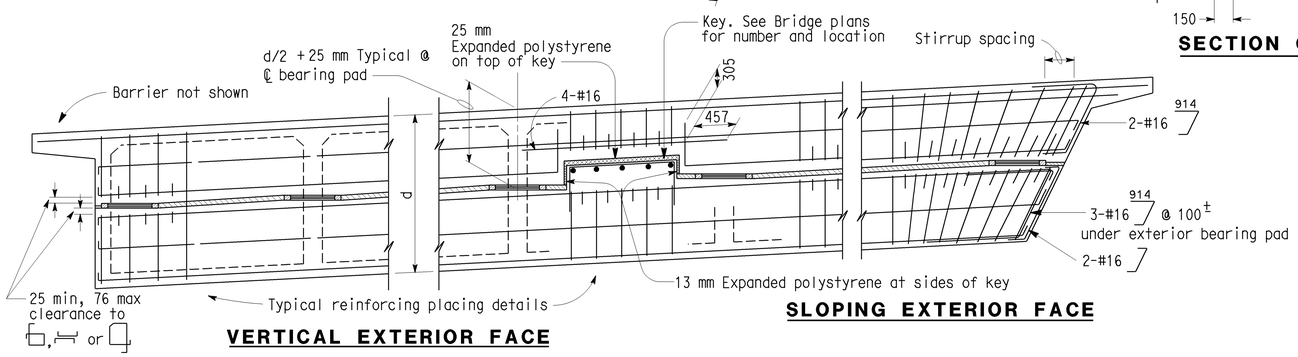


PLAN



SECTION A-A

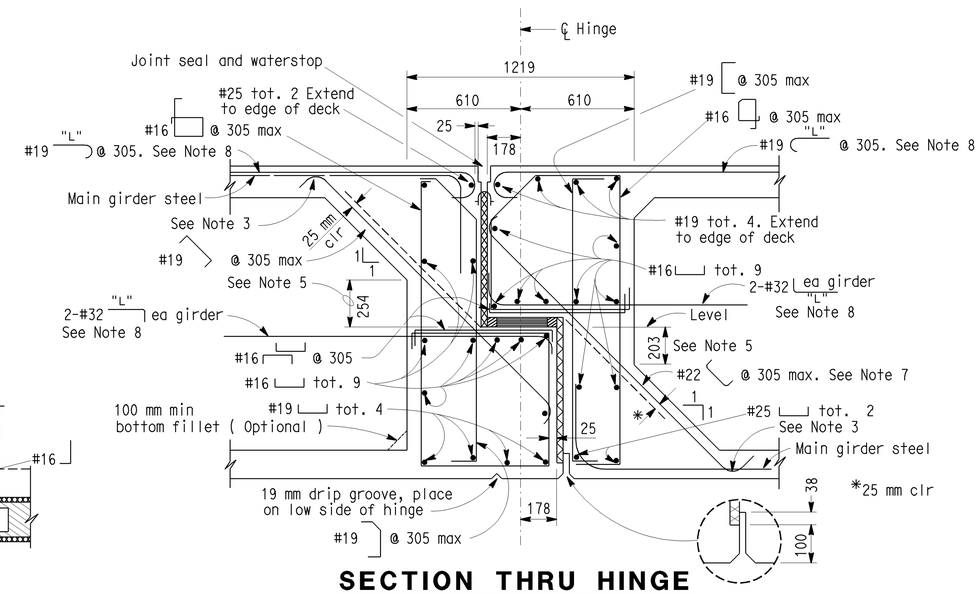
TYPICAL BEARING DETAIL



VERTICAL EXTERIOR FACE

SLOPING EXTERIOR FACE

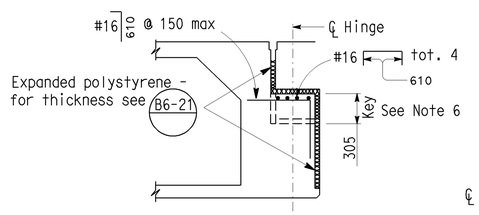
SECTION AT ℄ HINGE



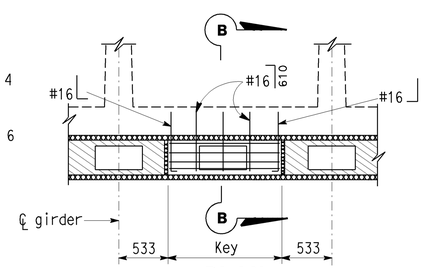
SECTION THRU HINGE

NOTES:

1. See Standard Plans B0-13 / 13-1 & B0-13 / 13-2
2. To provide for free movement of the completed hinge, concrete is to be excluded from the joint by sealing all openings.
3. Bars may be placed with hooks horizontal if required for clearance.
4. When the key interferes with the placement of the equalizing bolt, place two bolts at 914 mm centers in either adjacent cell.
5. When girder depth is less than 1067 mm±, reduce dimension as required to provide 100 mm min fillet.
6. Use 150 mm deep key when girder depth is less than 1219 mm.
7. Adjust angle of bars at key to clear.
8. "L" = 3048 mm when skew is less than or equal to 20°, 2438 mm when skew is greater than 20°.
9. Reinforcement shall be spaced along ℄ of hinge and placed parallel to ℄ structure.



SECTION B-B



PLAN

KEY DETAIL

NO SCALE
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

STANDARD DRAWING					
RELEASE DATE 10/17/94	DESIGN	BY D. VANDERSHAFF	CHECKED G.A. AMARO	RELEASED BY	
FILE NO. xs1-010	DETAILS	BY R. YEE	CHECKED G.A. AMARO		
	SUBMITTED	BY G.A. AMARO	DRAWING DATE 12/76	OFFICE CHIEF	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.

KILOMETER POST

BOX GIRDER HINGE DETAIL-ELASTOMERIC

DS OSD 2147A (METRIC) (REV. 2/25/97)

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

CU
EA

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY) SHEET OF

USERNAME => jsanchez

xs1-010.dgn

DATE PLOTTED => 16-JAN-2004 TIME PLOTTED => 14:29