

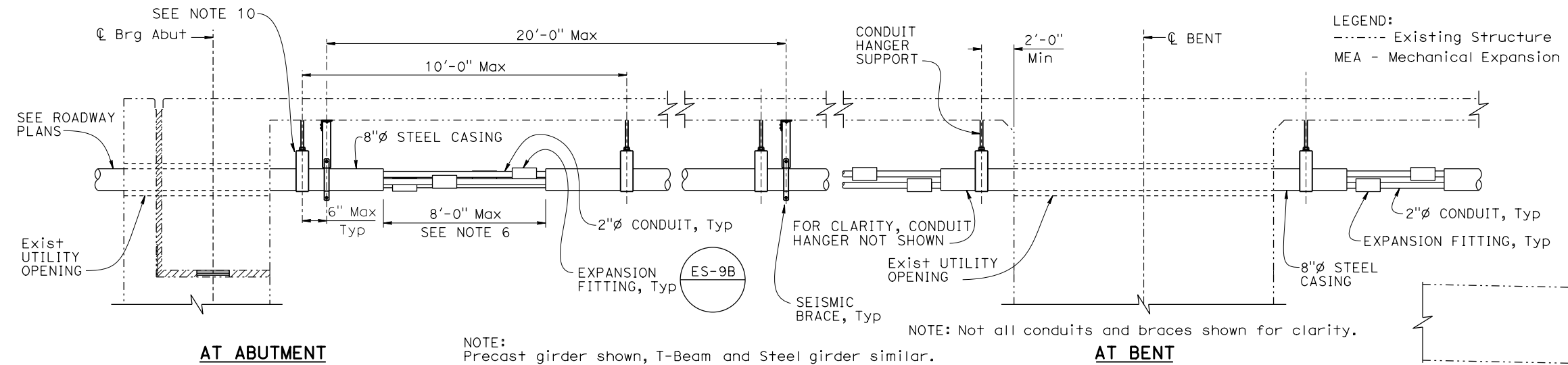
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
				X	

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.

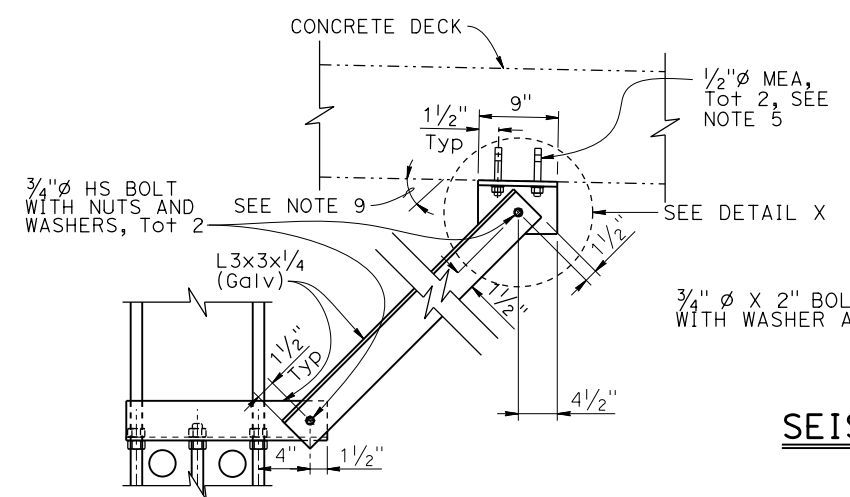
THE REGISTERED CIVIL ENGINEER FOR THE PROJECT IS RESPONSIBLE FOR THE SELECTION AND PROPER APPLICATION OF THE COMPONENT DESIGN AND ANY MODIFICATIONS SHOWN.



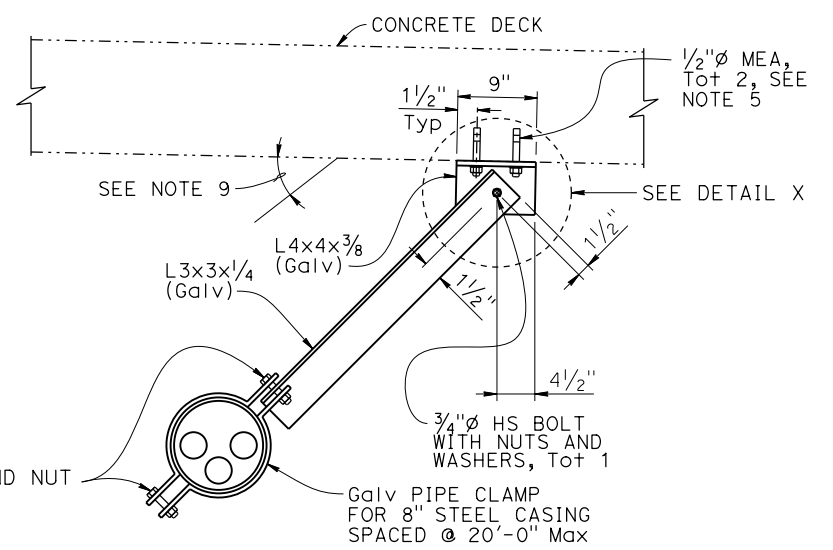
- NOTES:**
- Expansion fittings and expansion-deflection fittings shall be installed adjacent to BB, EB, joints or hinges (within 8 feet). Fittings must be able to handle up to the Movement Range (MR) noted for the bridge. Stagger fittings on either side of BB, EB, joints or hinges. At expansion fittings, add gradual field bends as needed. For expansion fitting installation, see "EXPANSION FITTING INSTALLATION POSITION TABLE."
  - For vault locations and other details not shown, see ROADWAY PLANS.
  - For additional details see "COMMUNICATION CONDUIT (ATTACHMENT DETAILS)" sheet.
  - Conduit hanger details depend on conduit configuration and layout shown in ROADWAY PLANS. Details shown can be used for all steel girder, precast girder or T-Beam structures.
  - Mechanical expansion anchors must be authorized by the Department.
  - 8" steel casing ends at locations of 2" conduit expansion fittings. Maximum gap between casings is 8'-0".
  - Access openings may be added as required per Engineer's approval.
  - Coring is not allowed in existing diaphragms or bent caps.
  - Minimum angle of seismic brace is 0°. Maximum angle is 60°.
  - At BB, EB, and hinges, replace the casing hanger with a pipe roller steel yoke system.
  - All mounting hardware shall be protected against corrosion.

**PART ELEVATION**  
NO SCALE

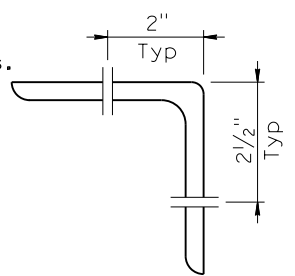
NOTE: Not all conduits and braces shown for clarity.



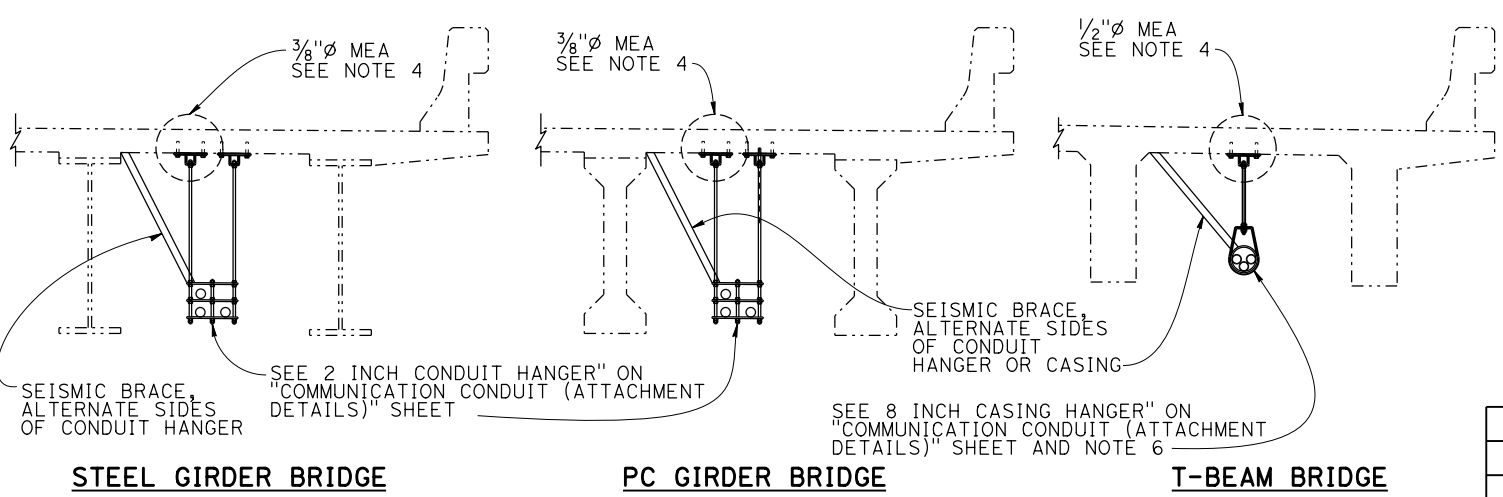
**SEISMIC BRACE DETAIL 2-INCH CONDUIT HANGER**  
NO SCALE



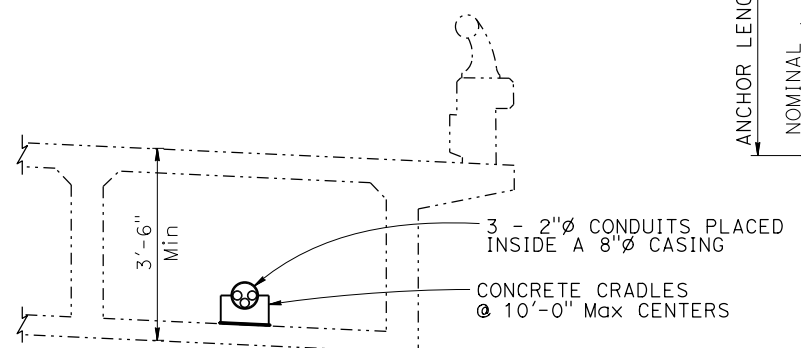
**SEISMIC BRACE DETAIL 8-INCH STEEL CASING**  
NO SCALE



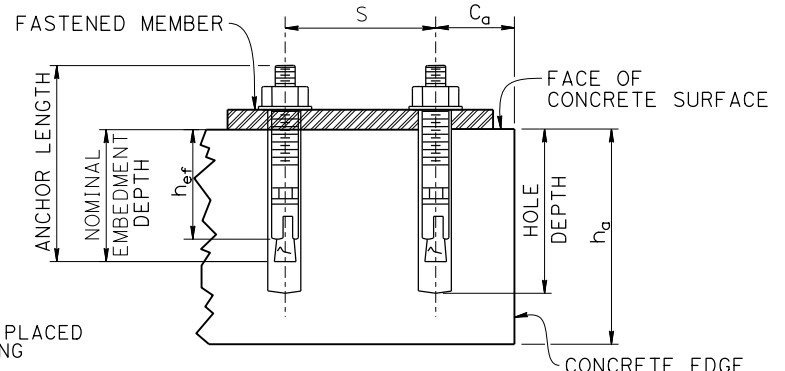
**DETAIL X**



**ALTERNATIVE ATTACHMENTS TO BRIDGE**  
NO SCALE



**BOX GIRDER BRIDGE** (B14-3)  
SEE NOTE 3



**TYPICAL STUD TYPE (WEDGE)**  
**STUD MEA**  
NO SCALE

EXPANSION FITTING INSTALLATION POSITION TABLE

INSTALLATION PERIOD	% OF MAXIMUM EXPANSION RANGE
December to February	80%
March to May and September to November	50%
June to August	20%

CONCRETE ANCHORAGE REQUIREMENTS

Anchor Diameter (in)	Minimum Effective Embedment h <sub>ef</sub> (in)	Minimum Concrete Thickness h <sub>a</sub> (in)	Minimum Edge Distance C <sub>a</sub> (in)	Minimum Anchor Spacing S (in)
3/8	2	6	6	3
1/2*	2	6	4	6
	3/4	6	4	4

\* = Alternative embedment depths for 1/2" anchor.

BRIDGE STANDARD DETAILS			STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF ENGINEERING SERVICES		BRIDGE No. XX-XXXX POST MILE X.X		COMMUNICATION CONDUIT (Exist UTILITY OPENING)		
xs20-010-3 FILE NO.	MAY 2023 APPROVAL DATE	The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California.	DATE PLOTTED => 8-JUN-2023 FILE => 20230309_xs20-010-3.dgn	TIME PLOTTED => 11:57 USERNAME => s151015	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT: XXXX PROJECT NUMBER & PHASE: XXXXXXXXXX1	COUNTY/ROUTE: XXX/XXX CONTRACT No.: XX-XXXXX4	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET X	OF X