

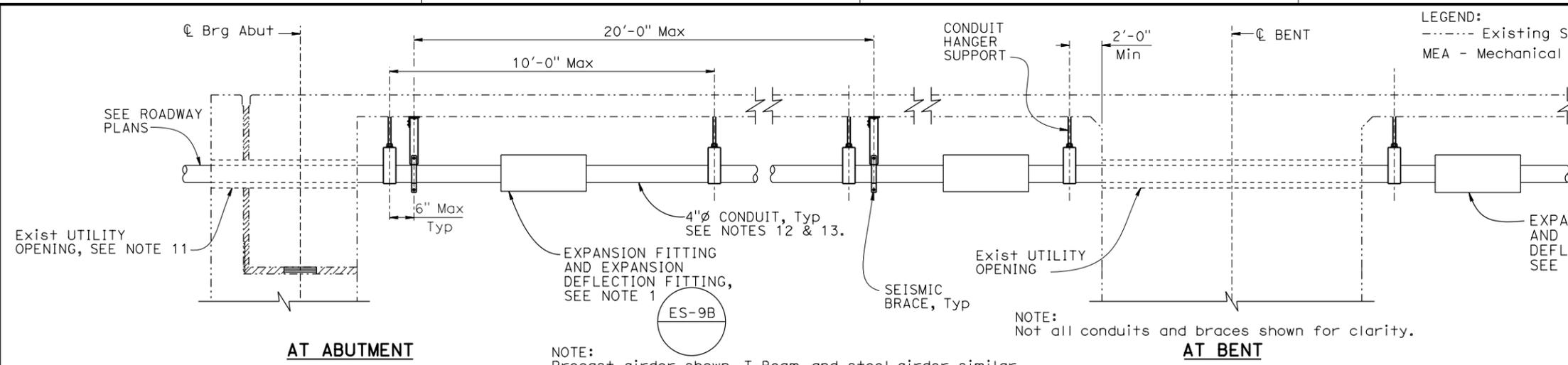
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER	X
DATE	
PLANS APPROVAL DATE	

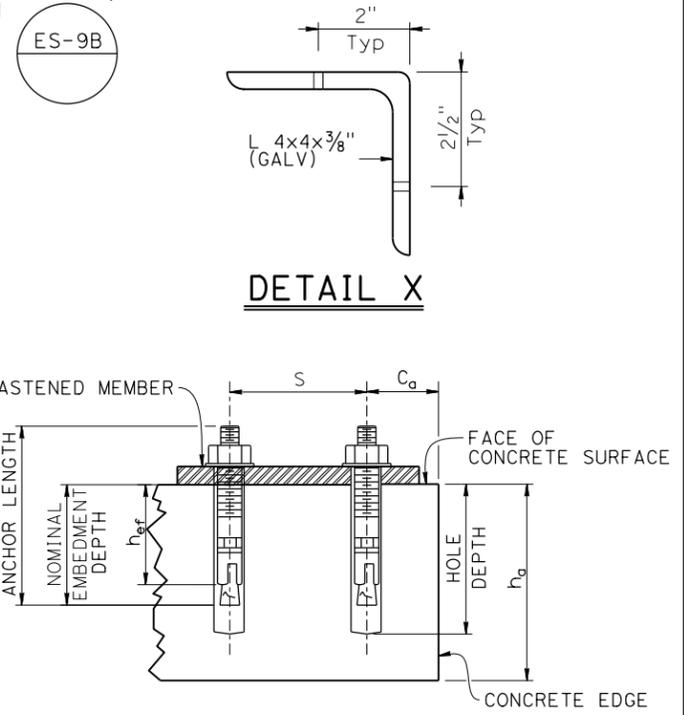
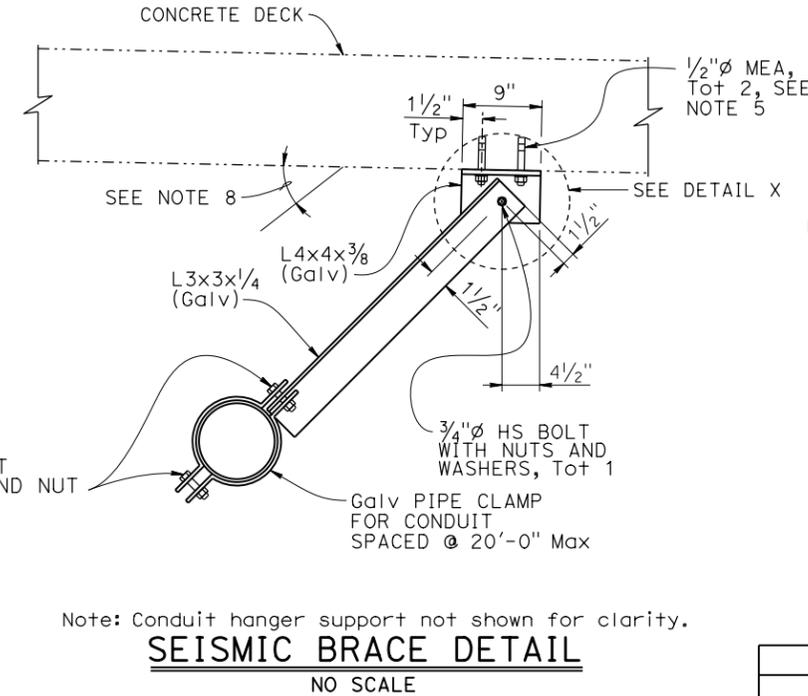
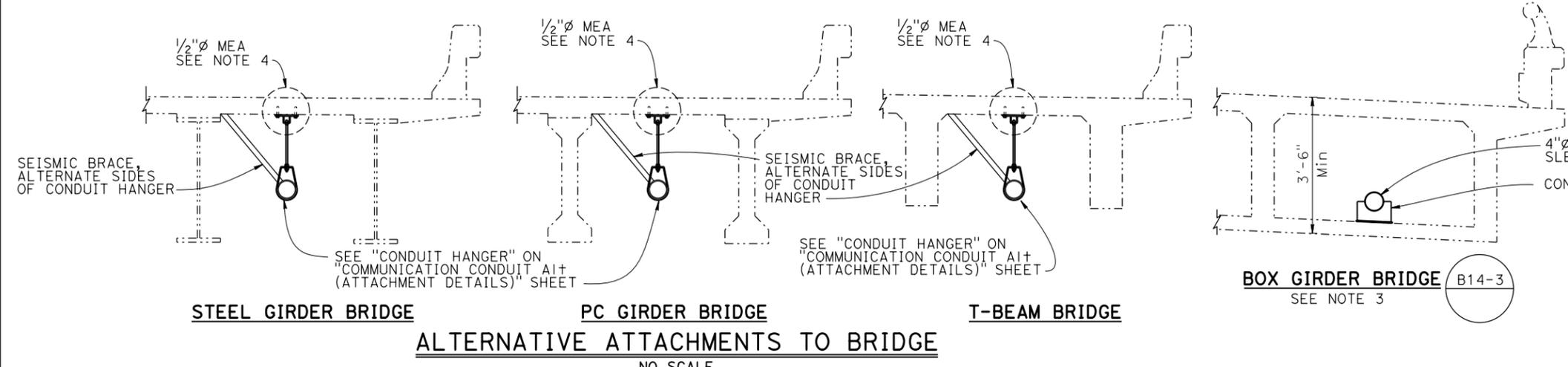
REGISTERED PROFESSIONAL ENGINEER	X
No.	X
Exp.	X
CIVIL	
STATE OF CALIFORNIA	

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 and hinges (within 8 feet). Fittings must be able to handle up to the Movement Range (MR) noted for the bridge. For expansion fitting installation, see "EXPANSION FITTING INSTALLATION POSITION TABLE." For diaphragm abutments, fittings to accommodate movement may be relocated along the wing wall before conduit is buried or it may be omitted as directed by the Engineer.
 - For vault locations and other details not shown, see ROADWAY PLANS.
 - For additional details see "COMMUNICATION CONDUIT AIT (ATTACHMENT DETAILS)" sheet.
 - Conduit hanger support 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.
 - 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 conduit hanger support with a pipe roller steel yoke system.
 - All mounting hardware shall be protected against corrosion.
 - Seal utilities at abutments with concrete or mortar, after tightly wrapping utility with 2 layers of 15 LBS building paper.
 - Use 4"Ø conduit, (optional 5"Ø conduit is allowed).
 - For 4"Ø conduit, a minimum bend radius of 2'-0" is required to allow cable pulls through the conduit.



TYPICAL STUD TYPE (WEDGE) STUD MEA

CONCRETE ANCHORAGE REQUIREMENTS				
Anchor Diameter (in)	Minimum Effective Embedment h_{ef} (in)	Minimum Concrete Thickness h_c (in)	Minimum Edge Distance C_a (in)	Minimum Anchor Spacing S (in)
1/2*	2	6	4	6
	3/4	6	4	4

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

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%