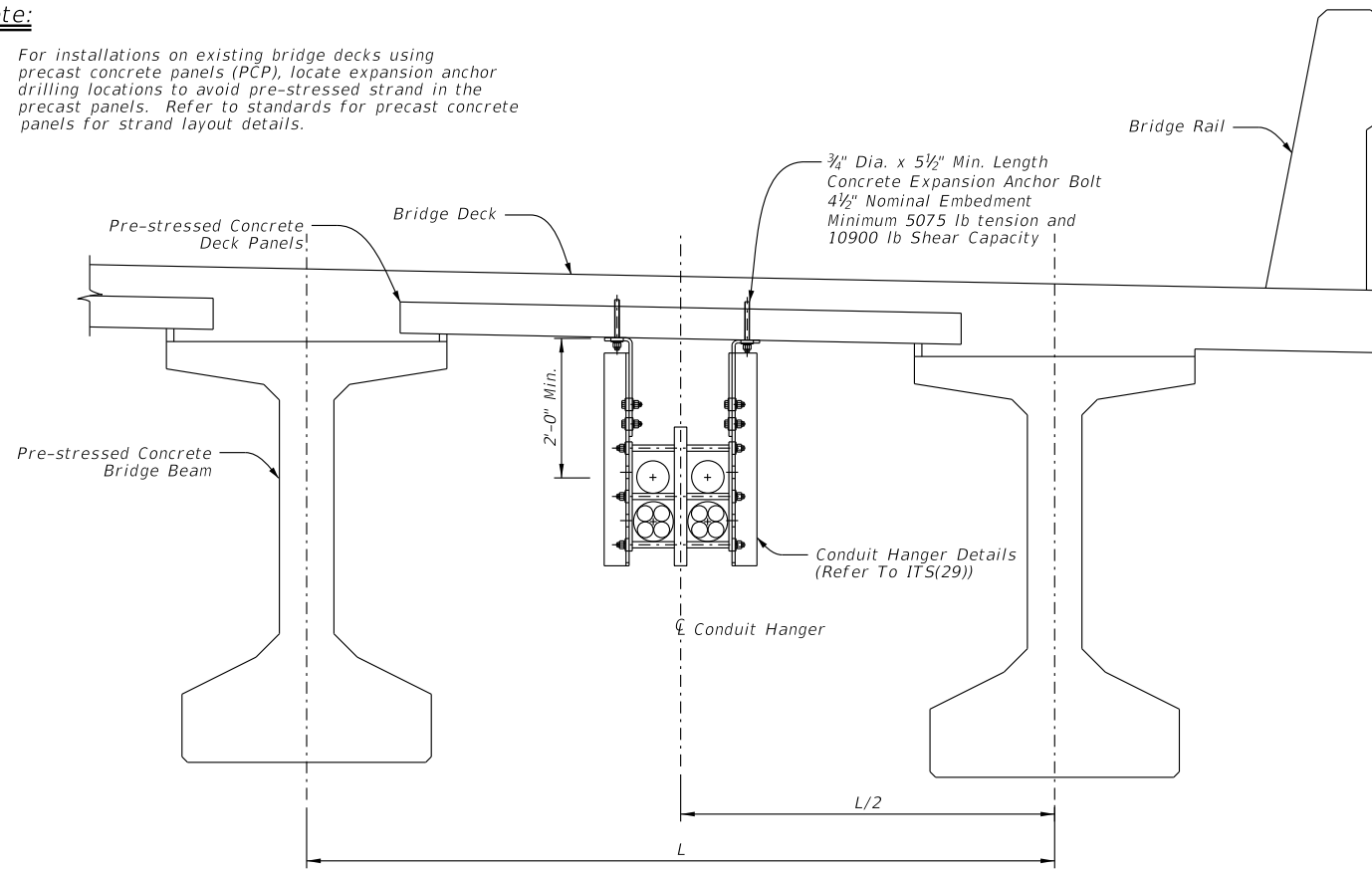


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Note:

- For installations on existing bridge decks using precast concrete panels (PCP), locate expansion anchor drilling locations to avoid pre-stressed strand in the precast panels. Refer to standards for precast concrete panels for strand layout details.

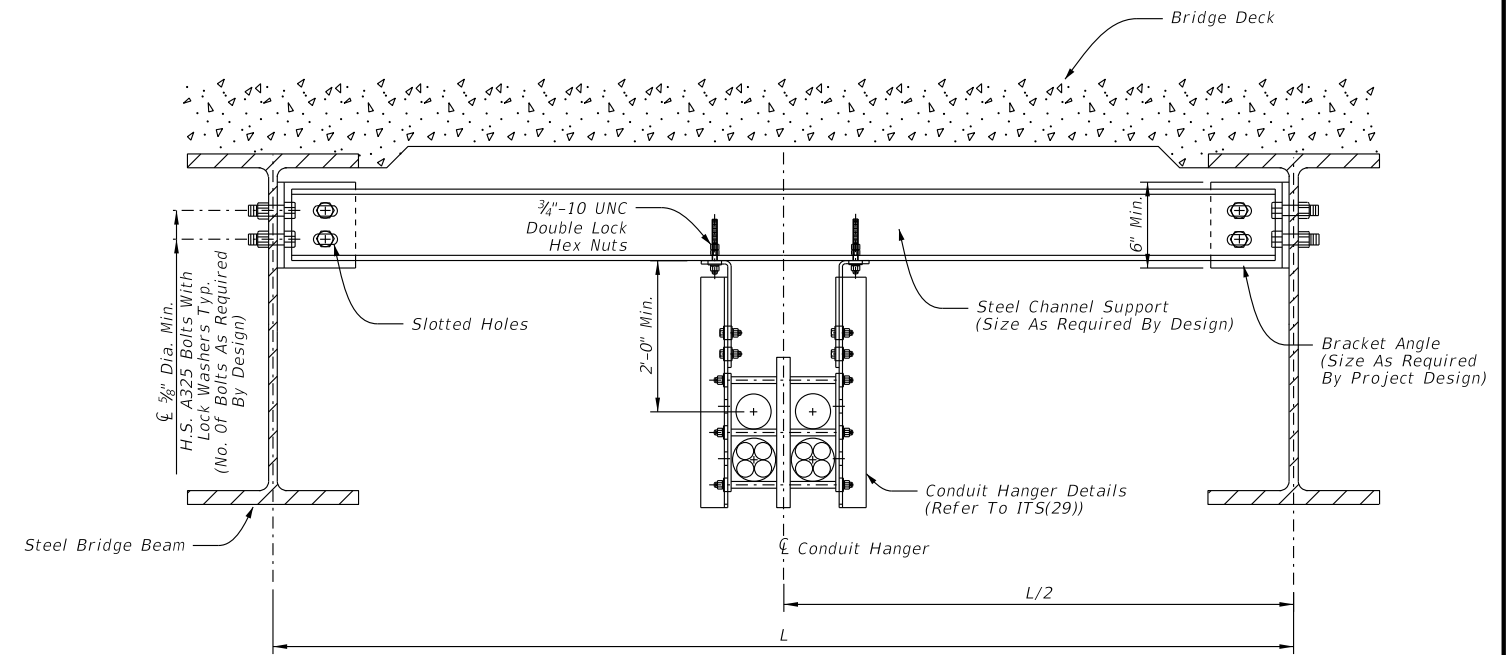


Structure Mounted ITS Conduit - Concrete Bridge Deck With Precast Panels

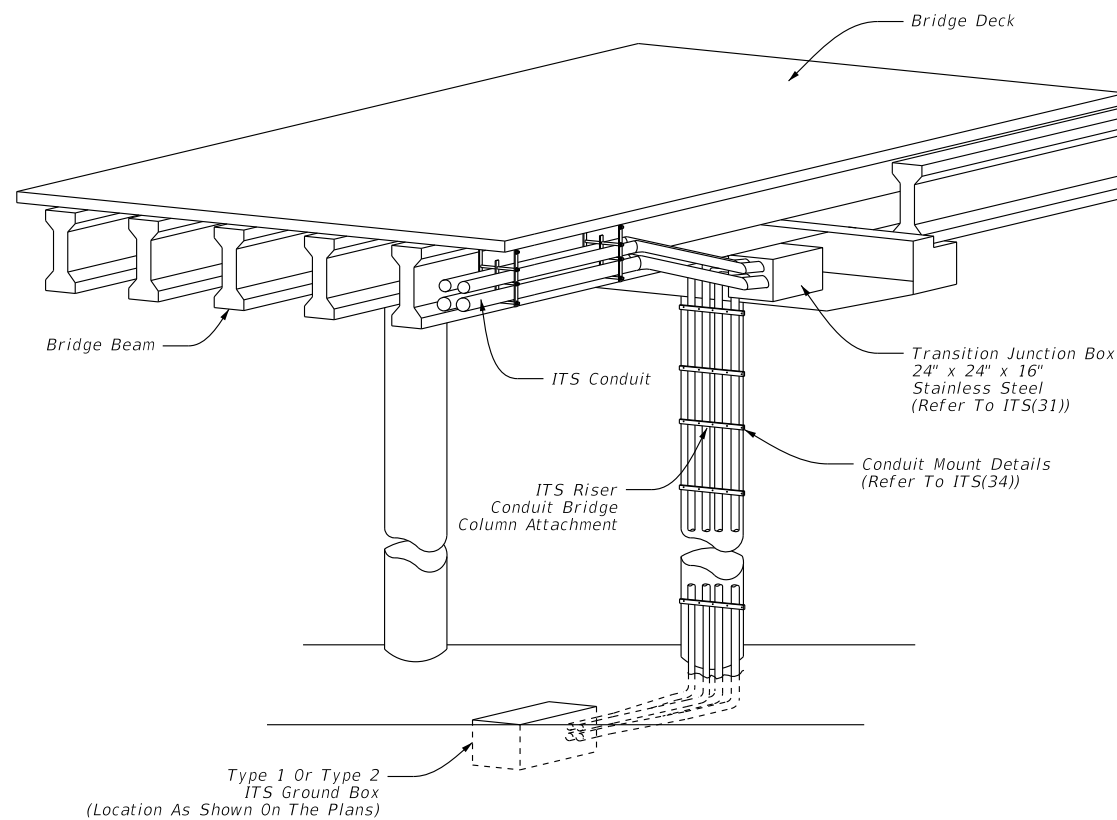
Refer To ITS(29) For General Notes

Note:

- Position conduit hanger height to avoid conflicts with diaphragms in the conduit runs.



Typical Alternate Conduit Hanger Support (Steel I-Beam Mount)



Type 1 Or Type 2
ITS Ground Box
(Location As Shown On The Plans)

Underside Conduit Hanger Transition Detail

General Notes:

- The alternative mounting conduit hanger support mounting detail for steel I-Beam structures as shown is a suggested detail for steel structures. Submit details for the configuration shown on this sheet via shop drawings and include structural load analysis, support member and connection design. Seal all calculations and shop drawings by a Texas P.E.
- Conduit hanger support mounting details for concrete bridge deck with precast panels as shown are a suggested method for pre-stressed concrete beam structures. Submit any deviation from these details via shop drawing and include structural load analysis, support member, and connection design. Seal all calculations and shop drawings by a Texas P.E.
- Locate auxiliary conduit hanger supports for steel structures at a maximum 5'-0" spacing.
- For conduit loads located between beams exceeding 5 lbs per ft, furnish structural load analysis calculations for adjacent beams in the shop drawing submission.
- Submit design details for structure with cathodic protection in the shop drawing submission.
- Do not extend conduit hangers below the bottom of the bridge beams (any exceptions at end spans are subject to approval).
- Drilling in pre-stressed beams or field welding of steel beams is not permitted. Submit any exceptions on a case by case basis for evaluation and approval by the Engineer.
- Ensure all conduit hanger assemblies are furnished and supplied by the conduit hanger manufacturer.
- Galvanize all hardware and structural steel that is not stainless steel. Ensure all bolt hardware used to secure hangers to steel structures conforms to A325 for high strength. Ensure all expansion anchors conform to ASTM A307. Separate dissimilar materials for use of galvanized hardware with weathering steel girders.
- Select conduit lengths so that couplings do not coincide with conduit hanger locations.
- Refer to Special Specification, "ITS Multi-Duct Conduit" or Item 618 "Conduit", for details on conduit mandreling and other testing required upon conduit installation.
- Provide a flat pull cord in each conduit and inner duct to allow for installation of future cables to match 1250 lbs-ft tension. Refer to ITS(27) for additional conduit details.
- Provide a transition junction box for conduit access located outside the abutments for bridge spans < 800 ft. For bridge spans > 800 ft., locate an additional junction box for conduit access near the mid-span/pier.
- Provide ITS conduit of the type and configuration shown on the plans in accordance with Special Specification, "ITS Multi-Duct Conduit" or Item 618 "Conduit". Ensure all other conduit is in accordance with Item 618 "Conduit" and as shown on the plans.
- Bond all external structure mounted conduit throughout entire length of run and ground the run at ground box locations according to ITS(37) and ITS(39).



**STRUCTURE MOUNTED
ITS CONDUIT**

ITS (30) - 16

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