PRECAST PRESTRESSED BOX BEAMS

General Notes

SPECIFICATIONS: All references to the standard Specifications are to the current edition of the Kentucky Department of Highways Standard Specifications for Road and Bridge Construction, with current supplemental specifications. All references to the AASHTO Specifications are to the current edition of the AASHTO LRFD Bridge Design Specifications, unless otherwise noted.

DESIGN LOADS: Beam sections are designed for 1.25*HL93 (KYHL93) Live Load.

SUBSTRUCTURE DESIGN LOADS: Unfactored design reaction forces per beam end.

DESIGN LOAD DISTRIBUTION: Opposite ends.

FUTURE WEARING SURFACE: These beams are designed for a 15 PSF future wearing surface approved silane sealer as specified by the Division of Structural Design.

BEVELED EDGES: Bevel all exposed edges 1/8".

CORROSION INHIBITOR: Provide a corrosion inhibitor for B-type (non-composite) beams designed in accordance with Section 811.10 of the Specifications. Consider bars marked "C" to be a substitute for purposes of bend diameters. Non-epoxy reinforcement may be used for fabrication purposes only, provided that the steels not used in the top 5/8 of the beam and the location of the steels indicated on the shop drawings.

FABRICATION: Beams shall not be fabricated more than 20 days before the pour.

GROUT: Provide non-shrink grout for anchor dowels, shear keys, and tensioning rods. Grouting shall be completed after longitudinal tension rods have been fully tightened and before leveling devices have been removed.

CONSTRUCTION METHOD: Transferring bond stress to the concrete will not be allowed, nor releasing of anchor ends until the concrete has attained a minimum compressive strength of 5500 PSI, whichever occurs later. This minimum is true for both standard and composite sections.

SUBSTRUCTURE DESIGN LOADS: Unfactored design reaction forces per beam end. Excavate below grade to allow proper grout placement and curing.

DESIGN DEFLECTIONS: Use the next greater designed section for non-standard lengths.

DETAILS: The following details are shown for the purposes of fabricating and constructing the beams. These details are not to be taken as the final design and shall be modified to conform with the shop drawings.

PRESTRESSING STRANDS: Ensure prestressing strands are to be 1/2" oversize to allow for cure, shrinkage, and fabrication. Use Type I-A prestressing strands conforming to ASTM A 416, Grade 1470, and type I-B prestressing strands conforming to ASTM A 416, Grade 1860.

CORROSION INHIBITORS: Provide a corrosion inhibitor for B-type (non-composite) beams from the list of approved materials.

GENERAL NOTES:

REMARKS: Dimensions shown from the face of concrete to reinforcement are clear distances. Spacing of reinforcement is center to center of reinforcement. All reinforcement is to be epoxy coated in accordance with Section 811.10 of the Specifications. Consider bars marked "C" to be a substitute for purposes of bend diameters. Non-epoxy reinforcement may be used for fabrication purposes only, provided that the steels not used in the top 5/8 of the beam and the location of the steels indicated on the shop drawings.

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