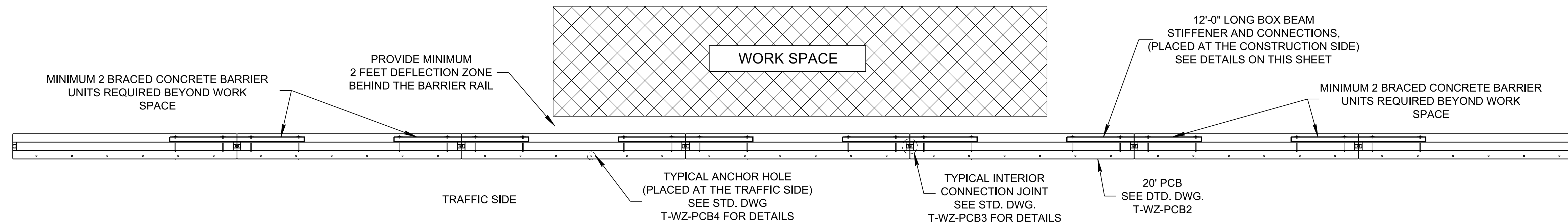
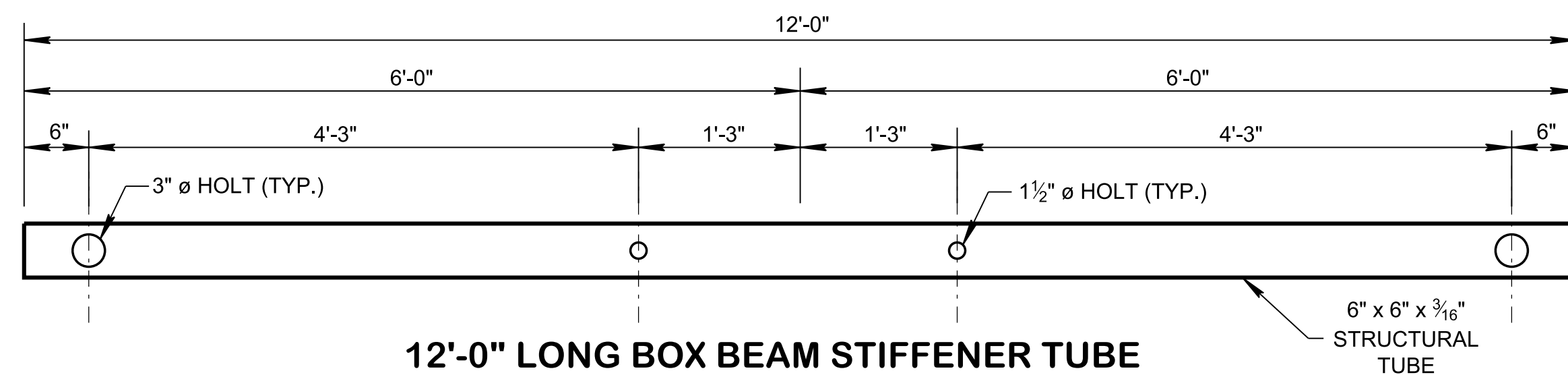


P:\StandDraw\DESIGN STANDARDS\Standards Drawings\Standard Roadway Drawings - CURRENT\In Progress\10-107.00 Design - Traffic Control IP\170.02 Work Zones IP\TZWPCB2A-20221209.dgn

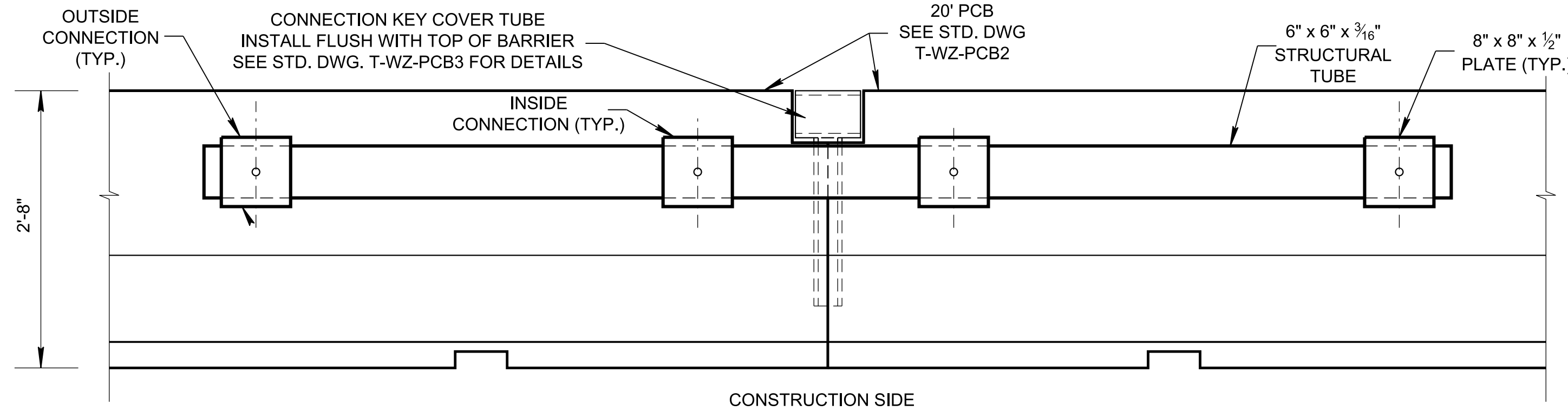
REV. 03-04-2021: REVISED CONNECTION BOLT ON DETAILS AND REVISED GENERAL NOTE (B).
 REV. 12-09-2022: GENERAL NOTES (B) AND (C) WERE REVISED.



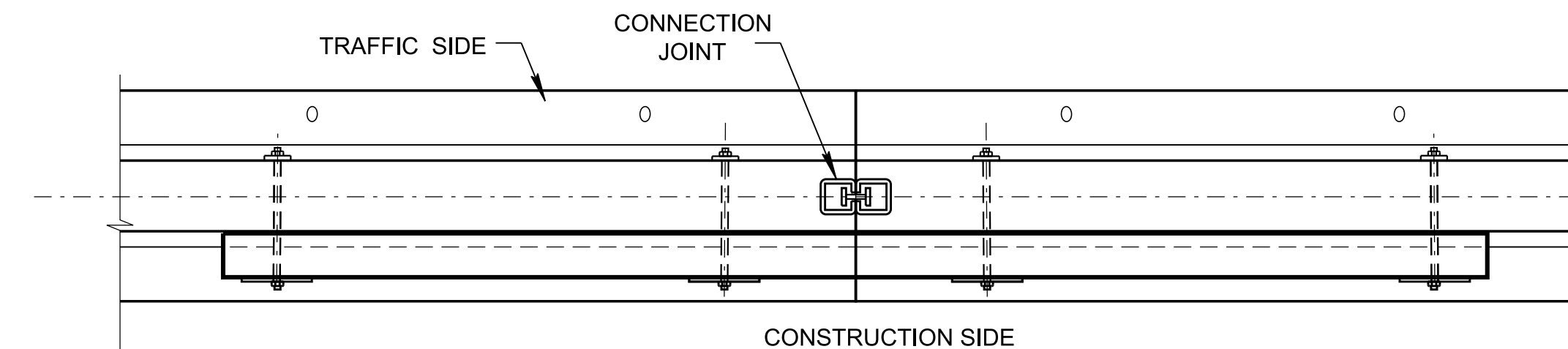
PLAN FOR 20' PCB LAYOUT



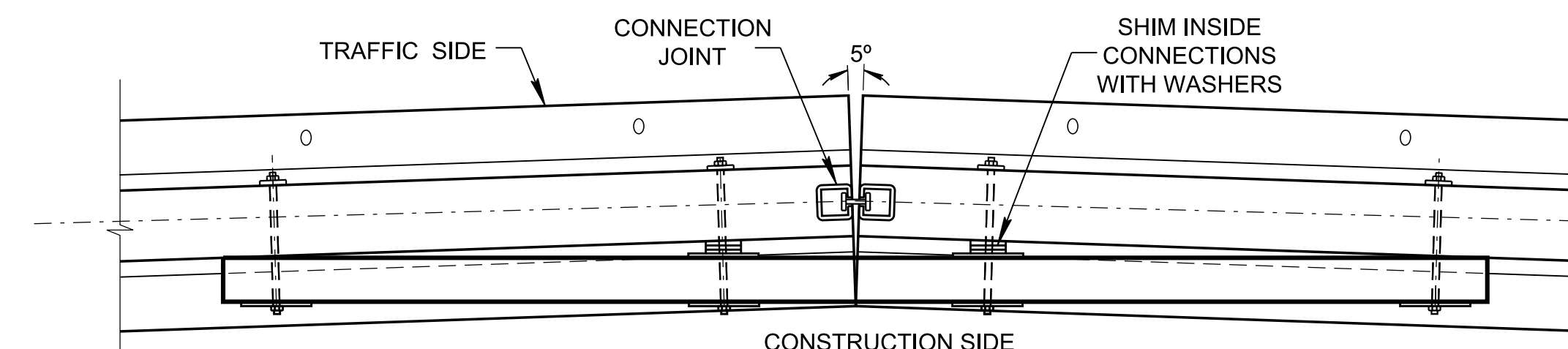
12'-0" LONG BOX BEAM STIFFENER TUBE



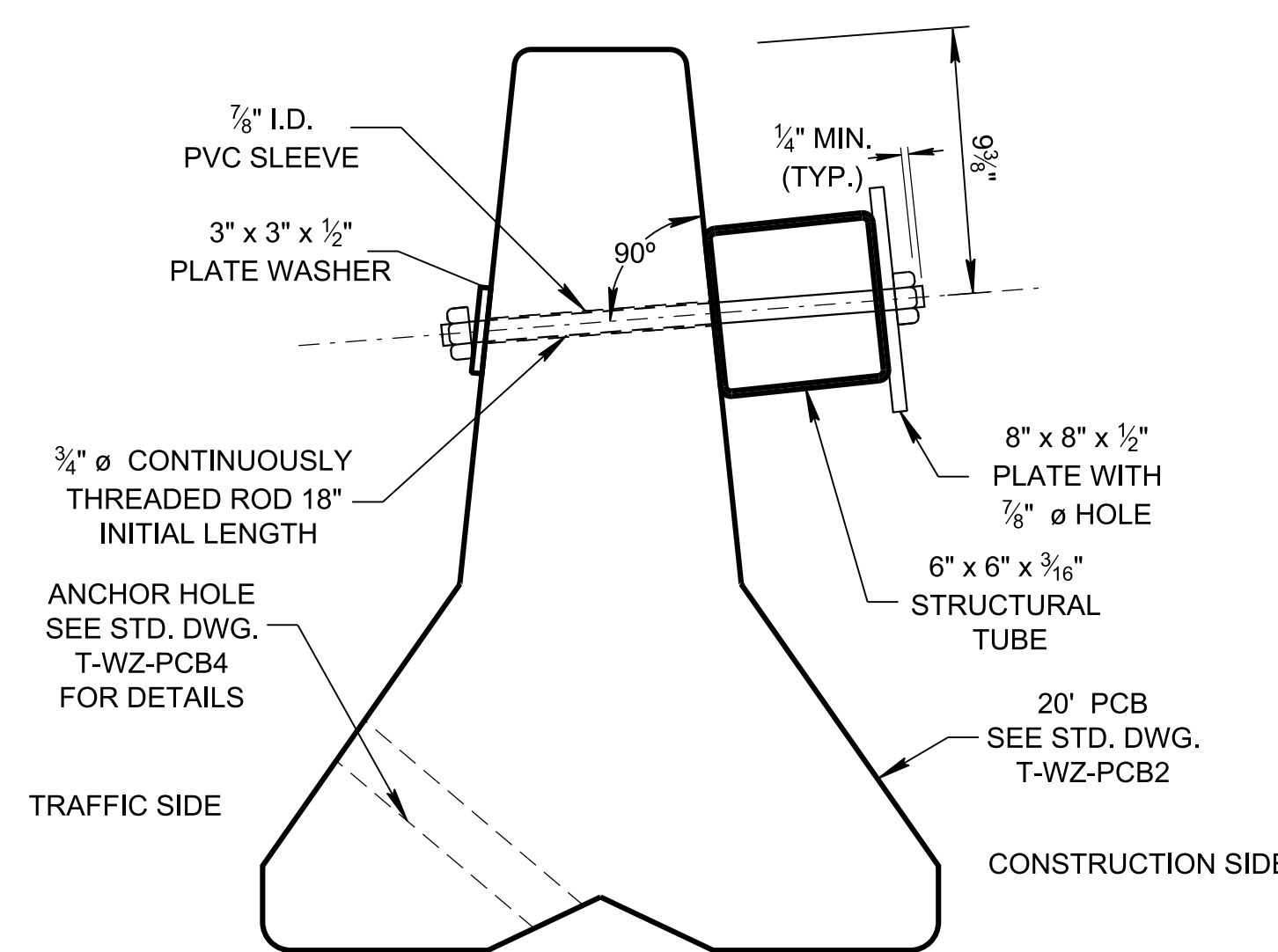
ELEVATION VIEW FOR 20' PCB BOX BEAM STIFFENER TUBE



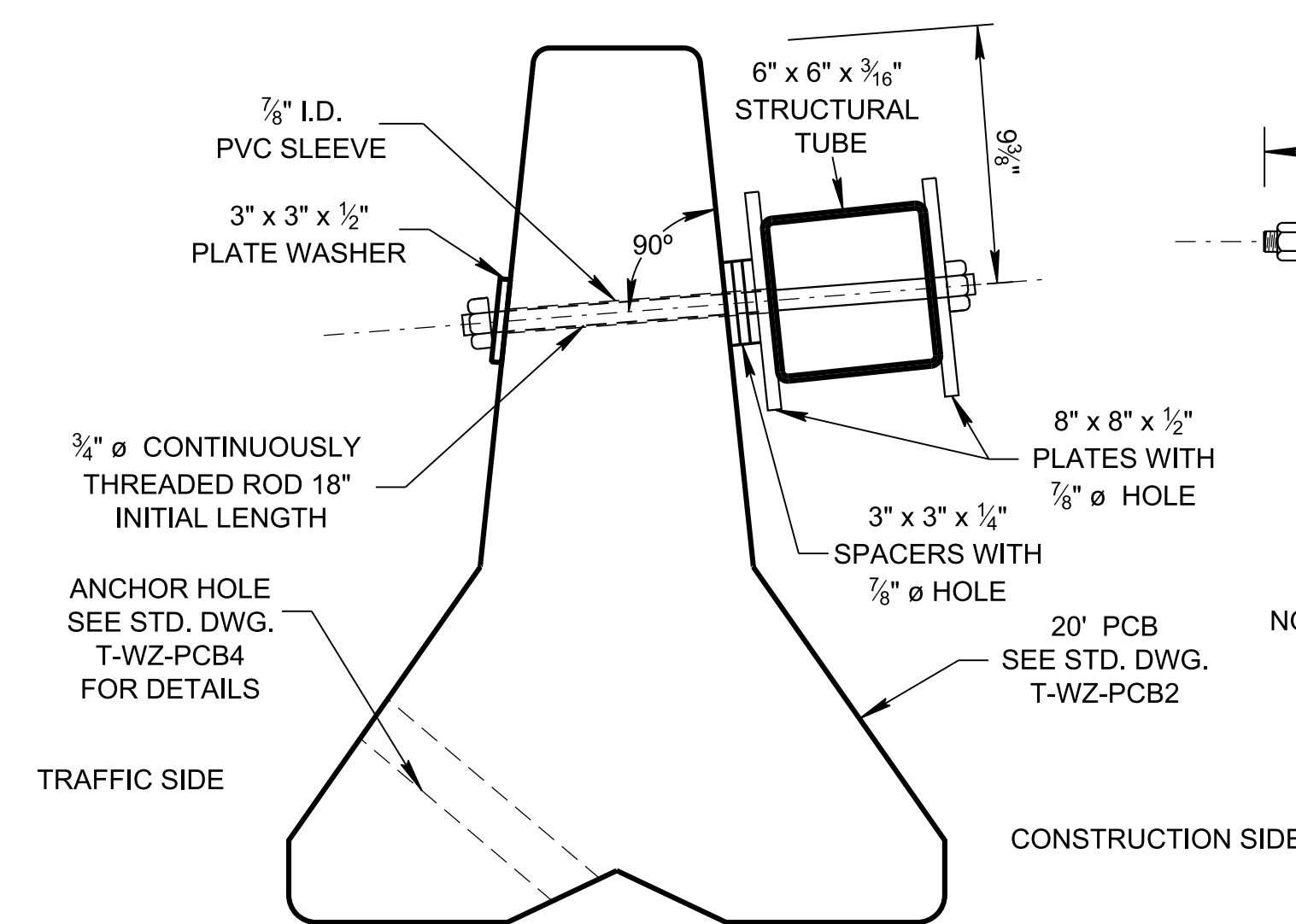
PLAN VIEW FOR STRAIGHT LAYOUT BARRIERS



PLAN VIEWS FOR CURVED LAYOUT BARRIERS

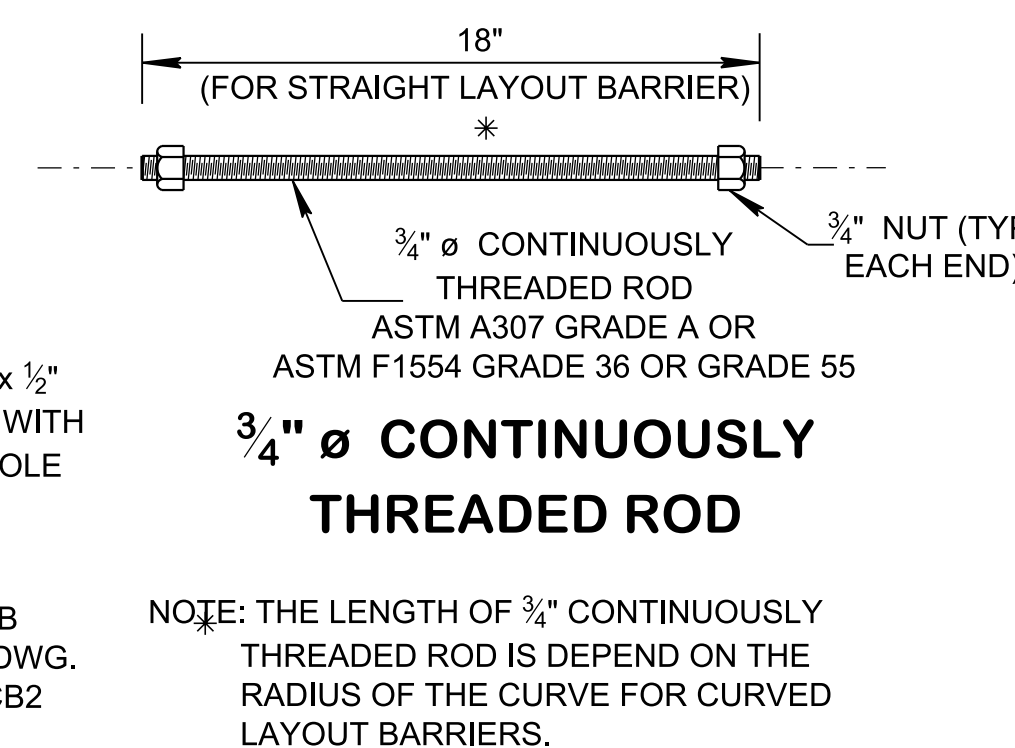


SECTION FOR STRAIGHT LAYOUT BARRIERS



SECTION FOR CURVED LAYOUT BARRIERS

DETAILS FOR 20' PCB BOX BEAM STIFFENER TUBE



3/4" Ø CONTINUOUSLY THREADED ROD

GENERAL NOTES	
(A)	ALL PORTABLE CONCRETE BARRIER UNITS FOR BOX BEAM STIFFENER SYSTEM SHALL BE A 20 FOOT LONG SEGMENT. SEE STANDARD DRAWING T-WZ-PCB2. DO NOT USE THE BOX BEAM STIFFENER AT LOCATIONS WHERE THE BOX BEAM MAY BE EXPOSED TO TRAFFIC SUCH AS AT A MEDIAN BARRIER (TRAFFIC ON BOTH SIDES OF THE BARRIER).
(B)	ALL STEEL PLATES AND SPACERS SHALL CONFORM TO ASTM A36 AND SHALL BE GALVANIZED. THE 3/4" DIAMETER CONTINUOUSLY THREADED RODS FOR THE BOX BEAM STIFFENER SHALL CONFORM TO ASTM A307 GRADE A OR ASTM F1554 GRADE 36 OR GRADE 55. NUTS SHALL CONFORM TO ASTM A563 GRADE A OR BETTER AND SHALL BE GALVANIZED. BOX BEAM STIFFENER TUBE SHALL CONFORM TO ASTM A500 GRADE B AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M111.
(C)	THE PERFORMANCE OF THE 32 INCH TALL 20 FOOT LONG STIFFENED PORTABLE CONCRETE BARRIER RAIL WITH FREE STANDING CONFIGURATION, AND CONNECTED USING A CONNECTION KEY AS SHOWN HAS BEEN EVALUATED BY THE MIDWEST ROADSIDE SAFETY FACILITY AND MEETS MASH TL-3 STANDARDS. THE EVALUATION OF STIFFENED PCB HAS BEEN DOCUMENTED IN REPORT NUMBER TRP-03-372-18. THE UNPINNED DEFLECTION FOR THIS DEVICE UNDER MASH TL-3 HAS BEEN DETERMINED TO BE 2". BASED ON THE 2" DEFLECTION CONSTRUCTION ACTIVITIES WITHIN THE 2' ZONE BEHIND THE PCB SHOULD BE AVOIDED. IF CONSTRUCTION ACTIVITIES CANNOT BE AVOIDED WITHIN THE 2' ZONE DIRECTLY BEHIND THE PCB, THE PCB SHALL BE PINNED ACCORDING TO T-WZ-PCB4.
(D)	PCB WITH BOX BEAM STIFFENER LAYOUT SHALL BEGIN AT LEAST A MINIMUM OF TWO 20 FEET BARRIERS PRIOR TO, BE CONTINUOUS THROUGH AND EXTEND AT LEAST A MINIMUM OF TWO 20 FEET BARRIERS BEYOND THE WORK SPACE REQUIRED LIMIT. AT EACH END OF BRACED BARRIER LAYOUT SHALL BE ANCHORED WITH ANCHOR PINS ON THE TRAFFIC SIDE.
(E)	WHERE PORTABLE CONCRETE BARRIERS ARE PLACED ON A RADIUS, THE RESULTING GAP BETWEEN THE BOX BEAM AND CONCRETE BARRIER SHALL BE SHIMMED.
(F)	THE SHIMMING SHALL CONSIST OF 8" x 8" x 1/2" SQUARE PLATES, AND SPACERS AS NEEDED TO SNUG THE BOX BEAM STIFFENER TO THE CONCRETE BARRIER RAIL.
(G)	THE PRESENCE OF NORMAL HOLES DRILLED PER THIS SHEET WILL NOT AFFECT THE REUSABILITY OF THE BARRIER SEGMENT.
(H)	DRILL HOLES IN PORTABLE BARRIER FOR PURPOSE OF BOX BEAM ATTACHMENT USING A CORE DRILL OR ANY OTHER APPROVED ROTARY DRILLING DEVICE THAT DOES NOT IMPART AN IMPACT FORCE.
(I)	PAYMENT: PAYMENT FOR PORTABLE BARRIER RAIL, BOX BEAM, PLATES, SPACERS, CONNECTION KEY, JOINT ASSEMBLY STEEL TUBE, PLATES, ANCHOR PINS AND OTHER HARDWARE MATERIALS WILL BE INCLUDED IN THE COST OF PORTABLE BARRIER RAIL, REDUCED DEFLECTION ITEM NUMBER.

712-02.12, PORTABLE BARRIER RAIL, REDUCED DEFLECTION (MASH TL-3), PER L.F.

STATE OF TENNESSEE
 STANDARD DRAWING
 DEPARTMENT OF TRANSPORTATION

20 FOOT PORTABLE CONCRETE BARRIER RAIL STIFFENER TUBE

10-16-2020 T-WZ-PCB2A

NOT TO SCALE