

PRESTRESSED CONCRETE BEAM NOTES

COMPRESSIVE STRENGTH

Provide concrete with a compressive strength of 6,300 p.s.i. at transfer of prestress and 9,000 p.s.i. at 28 days.

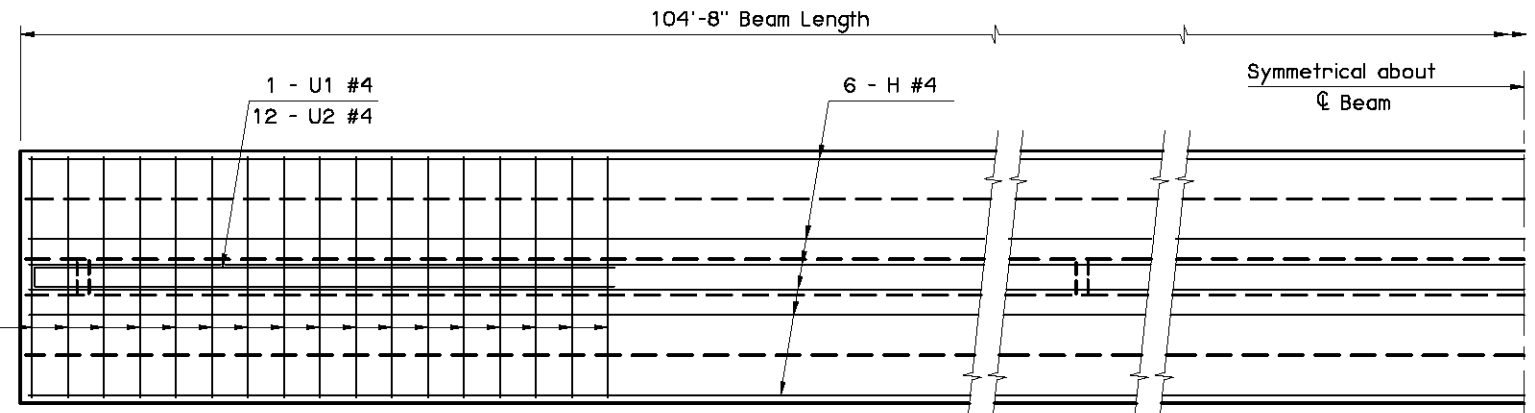
STRAND TYPE

Provide low-relaxation strands having a nominal diameter of 0.6" with ultimate tensile strength of 270 k.s.i.

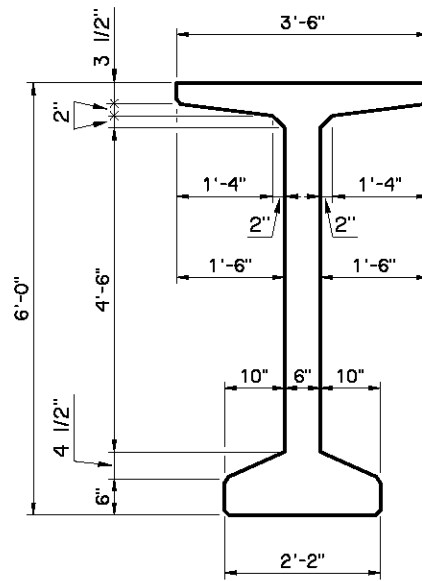
LFD OPERATING RATING - HS 41.1

The Operating Rating shown is based on a nominal strength using only strands that are bonded for the full length of the beam. All partially bonded strands are neglected in strength computations.

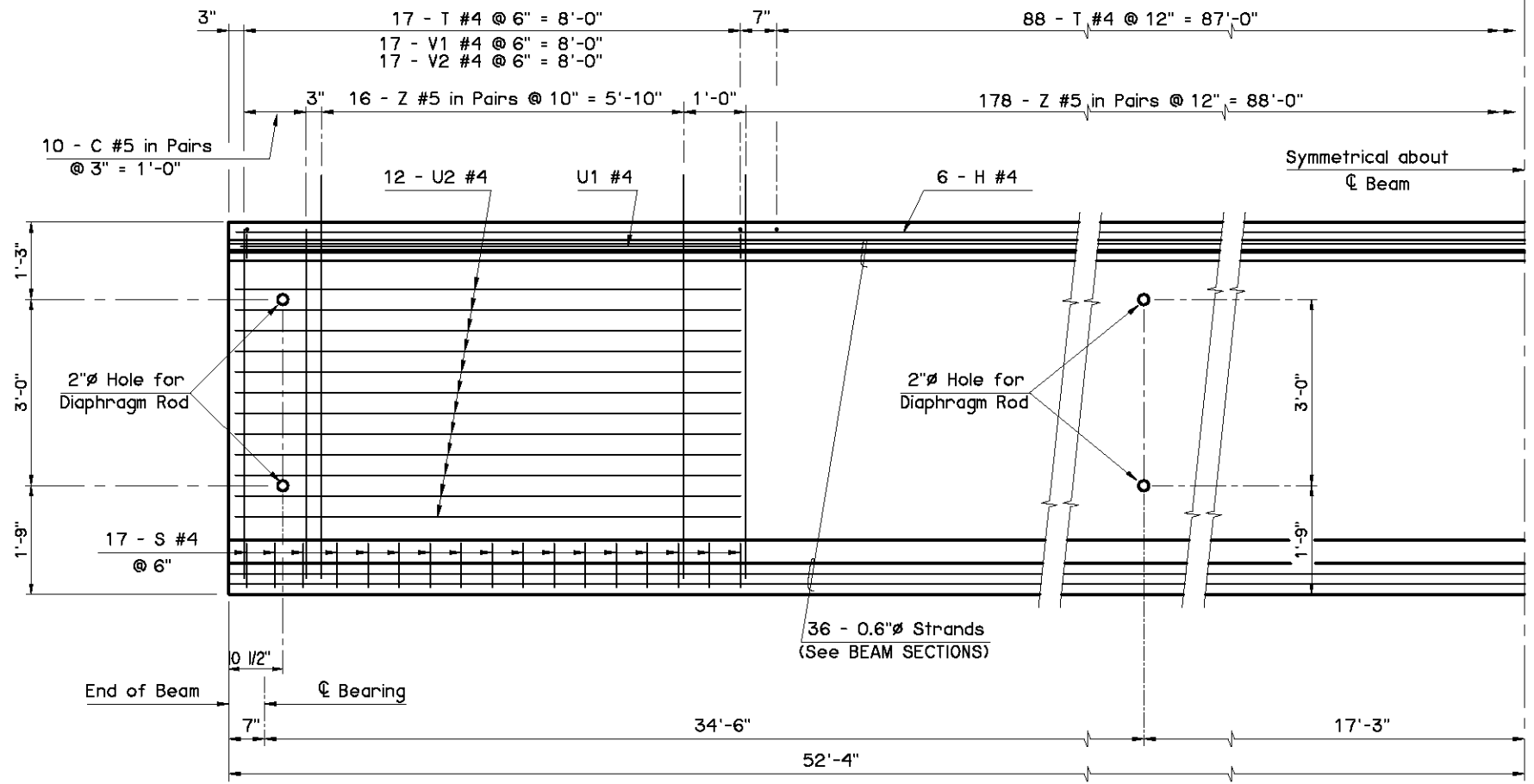
17 - T #4
17 - V1 #4
17 - V2 #4
(Top of Beam)
17 - S #4
(Bottom of Beam)



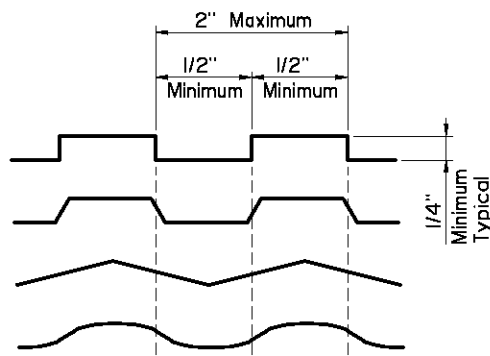
PLAN



END VIEW
(Type BT-72 P.C.B.)



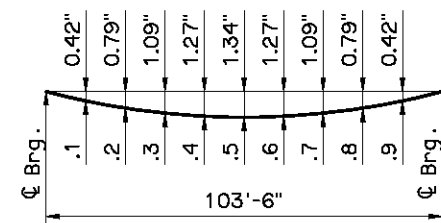
ELEVATION



INTENTIONALLY ROUGHENED SURFACE DETAILS

Intentionally roughen the entire top surface of P.C. Beam to a minimum height of 1/4" over a maximum pitch of 2" measured longitudinally along the length of the beam. Provide a crest and trough associated with the height of not less than 1/2". Produce the roughened surface by using a special trowel to form one of the surfaces shown in the details, by cleaning the concrete surface with a stiff wire brush (or blasting) to expose the aggregate to a height of 1/4", or by using another approved method. Submit the method to be used for approval by the Engineer. Repair any damage to reinforcement's epoxy coating before placement of deck concrete.

Information shown on this sheet is applicable only to the standard bridge cross-section with 40' Clear Roadway, 8" Deck Slab and 4 Beams at 11'-4" spacing. Any deviation requires custom design and details with an appropriate Dead Load Deflection Diagram.



DEAD LOAD DEFLECTION DIAGRAM

NOTE:
The Dead Load Deflection shown above at the tenth points are the initial deflections due to Deck Slab + Diaphragms + Haunch + S.I.P. Steel Deck Form Allowance + Concrete Traffic Rail. It does not include the Beam weight or Future Wearing Surface.

APPROVED BY BRIDGE ENGINEER *Scott J. Smith* DATE *4/2/10*

OKLAHOMA DEPT. OF TRANSPORTATION
BRIDGE STANDARD (ENGLISH)
TYPE BT-72 P.C. BEAM DETAILS
105' SPAN
CONVENTIONAL (SHEET 1 OF 2)

2009 SPECIFICATIONS | B40-C-PCB-BT-105-1 | 01E | B-320E