

BEARING PAD DETAILS
1/2" thick, 60 durometer

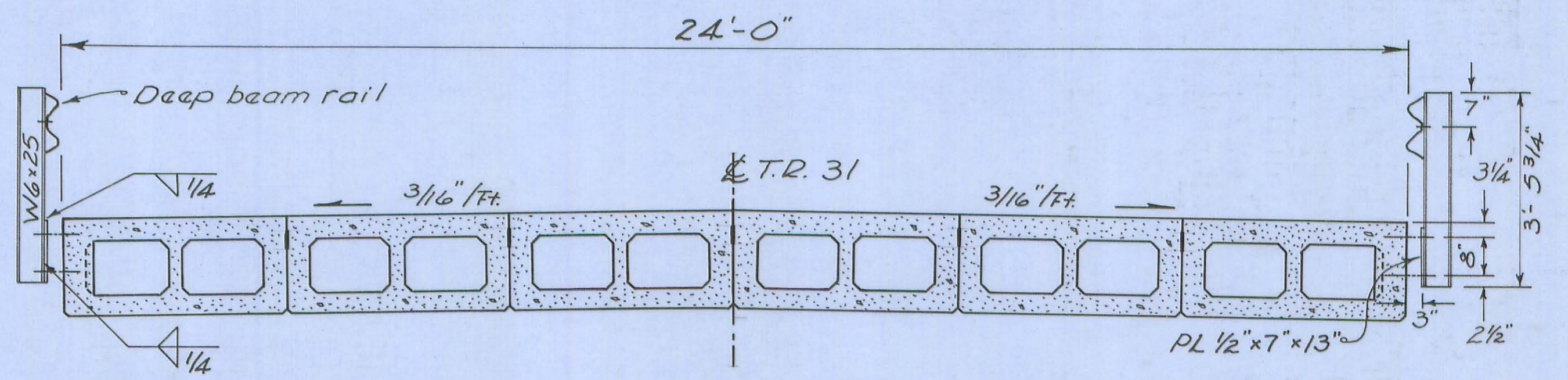
Place 1/2" x 4" x 25'-0" strip of preformed expansion joint filler, both ends.
6" x 6" x 1/2" preformed expansion joint filler, to be included with dowels for payment.

NOTES

SHIMS: 12 shims, 1/8" thick, as per 711.21 shall be provided. They shall be the same plan dimension as the bearing pads, and included with the bearing pads for payment.
RAILING POSTS: Railing post length shall be 3'-5 3/4". Vertically slotted holes, 3" x 1/2", shall be provided in the 7" x 1/2" plate and post.
RAILING POST ANCHORS shall conform to DBR-2-73 for prestressed concrete box beams, non-composite design. Vertical spacing shall be 8".

PLAN

See PSBD-1-81 for additional beam details

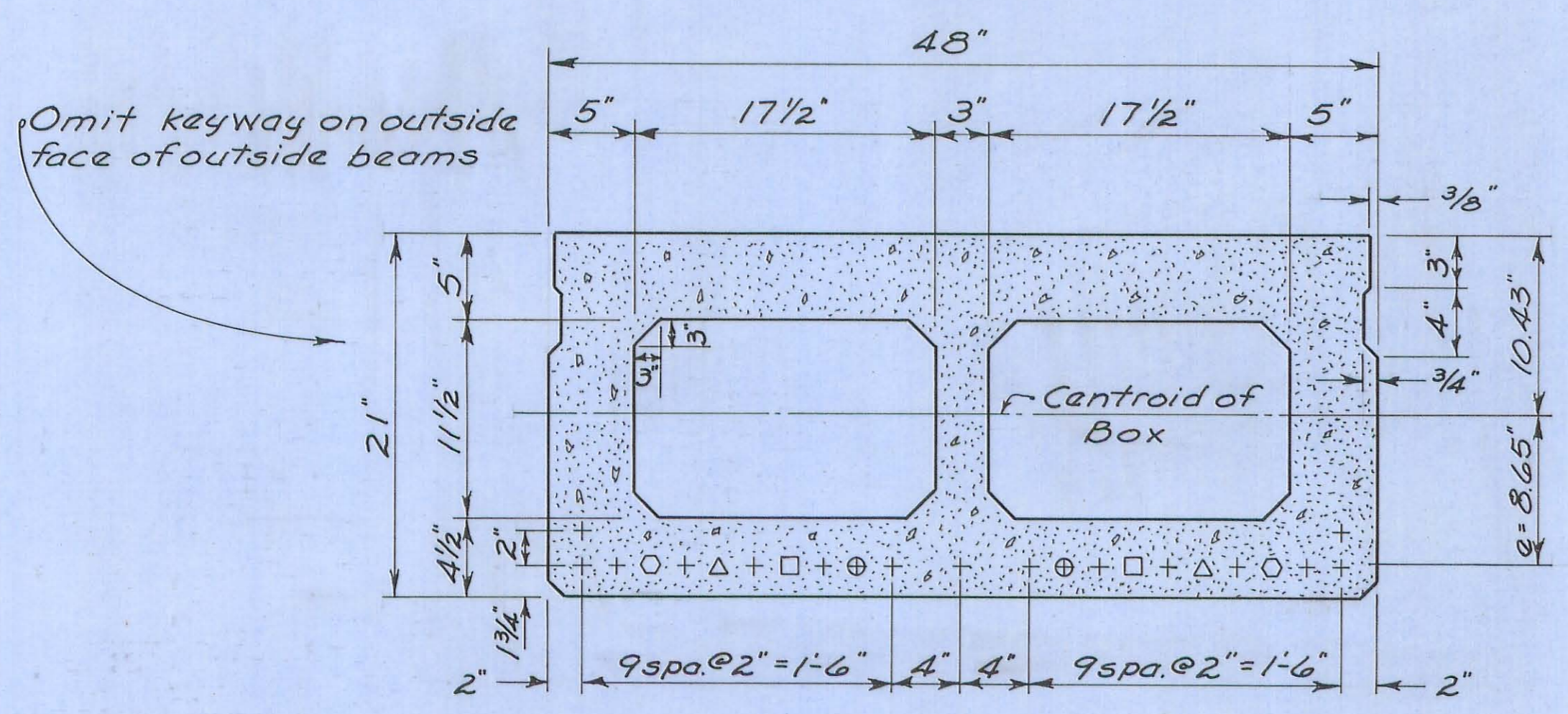


TRANSVERSE SECTION

BEAM DESIGN NOTES

PRE-STRESSING STEEL: 23 strands, ASTM A416, Grade 270, 1/2" dia., seven wire, uncoated, stress-relieved strand.
As = 0.153 sq. in. fs = 270,000 psi.
Initial Stress 0.7fs = 189,000 psi.
Stress @ release 0.63fs = 170,100 psi. (Assumed at section of max. moment)
Number and length of strands debonded:
○ - 2 strands @ 1'-6" (measured from beam end)
⊕ - 2 strands @ 2'-6"
□ - 2 strands @ 3'-6"
△ - 2 strands @ 6'-6"
TENSILE BARS AT TOP:
Full length: 6 - No. 4 bars
Additional Bars Each End:
6 - No. 4 bars @ 11'-1"

CONCRETE STRESSES: Min. concrete strength @ 28 days, fc = 5,500 psi. Min. concrete strength @ time of initial prestress fci = 4,000 p.s.i.
INITIAL CAMBER = 1.15 inches which is at the time of transfer of stress and includes deflection due to weight of beam, but does not include an allowance for creep.
TOTAL CAMBER = 2 3/4", which includes an allowance for camber growth due to creep.



TYPICAL B21x48, 55'-10" % STRAND LOCATION

Omit keyway on outside face of outside beams

3/4				
LOGAN COUNTY ENGINEER CHESTER R. KURTZ				
SUPERSTRUCTURE DETAILS BR. NO. 31-7.62 Harrison Township Logan County				
DESIGNED R.A.B.	DRAWN R.A.B. 10-23-84	CHECKED	REVIEWED	REVISED