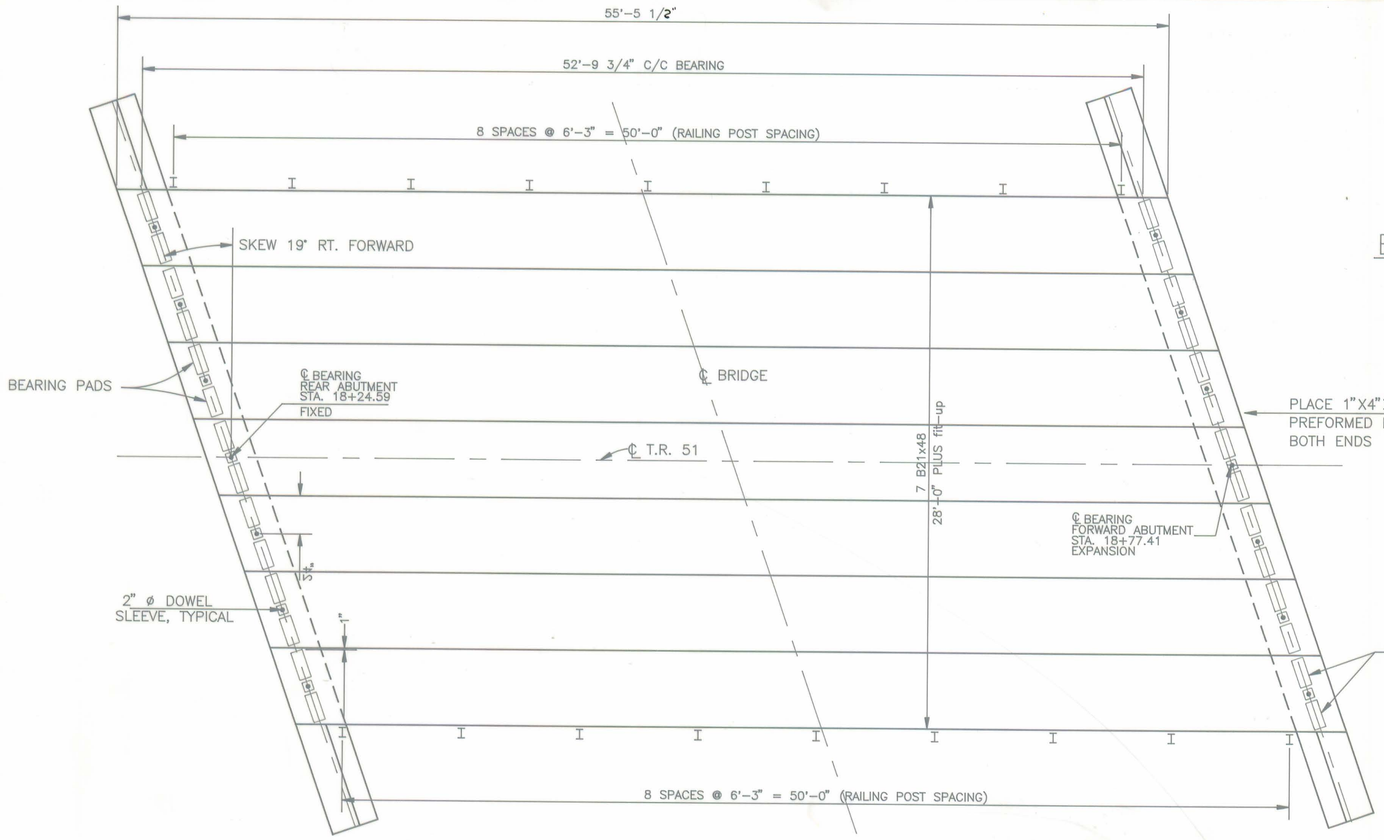
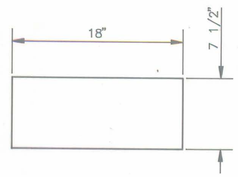


PLAN
SCALE: 1/4"=1'-0"



BEARING PAD DETAILS
1" thick, 60 durometer

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 1/2", shall be provided in the 7" x 1/2" plate and post.

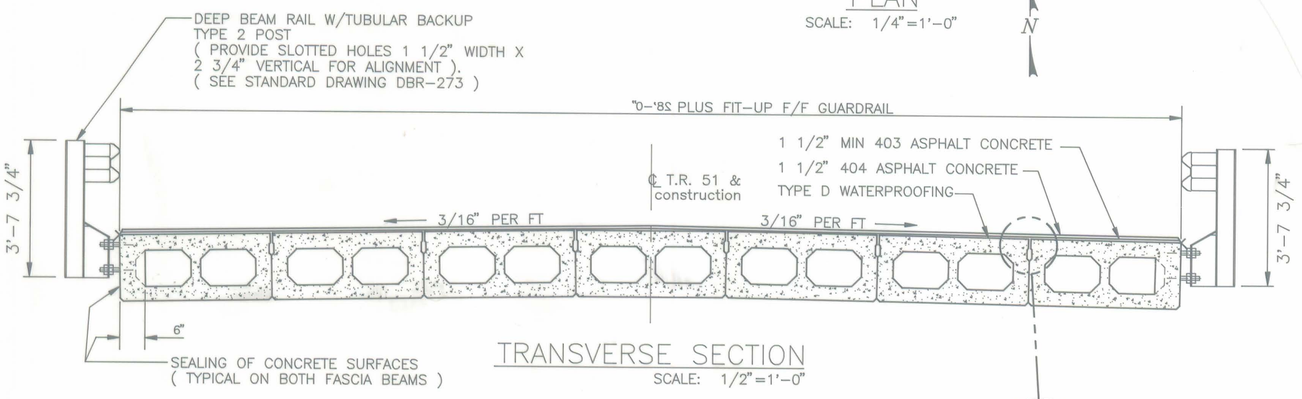
RAILING POST ANCHORS:

Railing post anchors shall conform to DBR-2-73 for prestressed concrete box beams, non-composite design. Vertical spacing shall be 8".

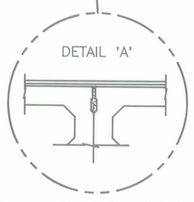
ASPHALT CONCRETE SURFACE COURSE:

Asphalt concrete surface course shall consist of a variable thickness of 403 and 1 1/2" thickness of 404. The 403 shall be placed in two operations. The first course shall be of 1 1/2" uniform thickness. The second course shall be feathered to place the surface parallel to and 1 1/2" below final pavement surface elevation.

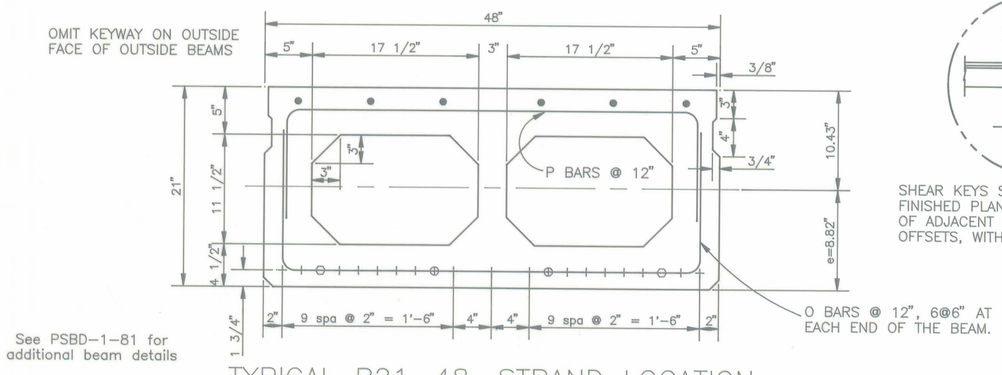
Drip strip: prior to applying deck membrane waterproofing a bent drip strip shall be installed along the edges of the deck as shown, the strips shall be fastened at 1' - 6" c/c maximum with 1 1/4" x 5/32" x 1/4" flat head pins and washers (length x shank dia. x head dia.) or #10 galvanized screws and expansion anchors, subject to the approval of the engineer. the strips shall be placed the full length of the deck ending at the face of abutment wingwall or steel end dam angle. where splices are required a 3" min. lap shall be used with a fastener through the lap. steel for galvanized strips shall be 8" x 0.105" and shall meet the requirements of astm a568. galvanizing shall be in accordance with 711.02. stainless steel shall be 20 gauge astm a167, type 304, mill finish. pay-ment shall be at the contract price bid for item special sq. ft. steel drip strip, which shall include all materials, labor, tools and incidentals necessary to complete item.



TRANSVERSE SECTION
SCALE: 1/2"=1'-0"

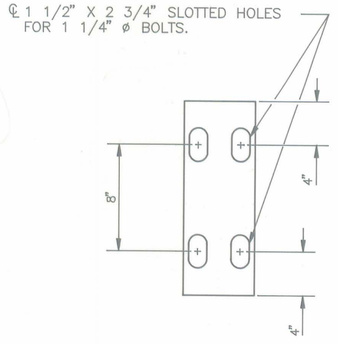


SHEAR KEYS SHALL BE MORTARED ON A FINISHED PLANE BETWEEN THE TOP EDGES OF ADJACENT BEAMS WHERE VERTICAL OFFSETS, WITHIN TOLERANCE, OCCURS.

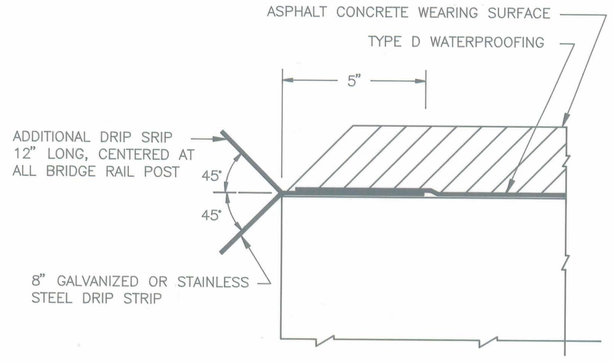


See PSBD-1-81 for additional beam details

TYPICAL B21-48, STRAND LOCATION
SCALE: 1 1/2"=1'-0"



SLOTTED HOLE DETAIL FOR
PLATE ON RAIL POST



DRIP STRIP DETAIL

BEAM DESIGN NOTES

PRESTRESSING STEEL:

21 strands, ASTM A416, Grade 270, 1/2" dia., seven wire, uncoated, stress-relieved strand.
As = 0.153 sq. in. f's = 270,000 p.s.i.
Initial Stress 0.7 f's = 189,000 p.s.i.
Stress @ release 0.63 f's = 170,100 p.s.i. (Assumed at section of max. moment)
Number and length of strands debonded:
O - 2 strands @ 1'-6" (measured from beam end)
⊕ - 2 strands @ 2'-6"

TENSILE BARS AT TOP:

Full length: 6 - No. 4 bars
Additional Bars Each End:
7 - No. 4 bars @ 10'-6"

CONCRETE STRESSES:

Min. concrete strength @ 28 days, f'c = 5,500 p.s.i.. Min. concrete strength @ time of initial prestress f'ci = 4,000 p.s.i..

CAMBER:

The calculated camber at time of paving, including allowance for camber growth due to creep is 2 3/8"
The calculated deflection due to weight of surface course and railing is 1/8"

The net final camber of beams is 2 1/4". This is 2 1/4" in exess of the amount required to place the top of the beam parallel to the profile grade. The excess amount shall be compensated for by thickening the 403 leveling course from 1 1/2" at the center of the spans to 3 1/2" at the ends of the spans.

FILE NAME
C:\DWG\92260BSS

REVISIONS

NUMBER	DATE	COMMENTS

LOGAN COUNTY
TOWNSHIP ROAD 51
SUPERSTUCTURE DETAILS

WORL & Associates, Inc.
Consulting Engineers & Surveyors
1067 Farrington Drive - Sidney, Ohio 45365
(513) 492-7636 - FAX (513) 498-5135

DRAWN BY: KLR & DLB
CHECKED BY:
JOB No.: 92260
DATE: NOVEMBER 1992
SHEET NUMBER: 9 | 10