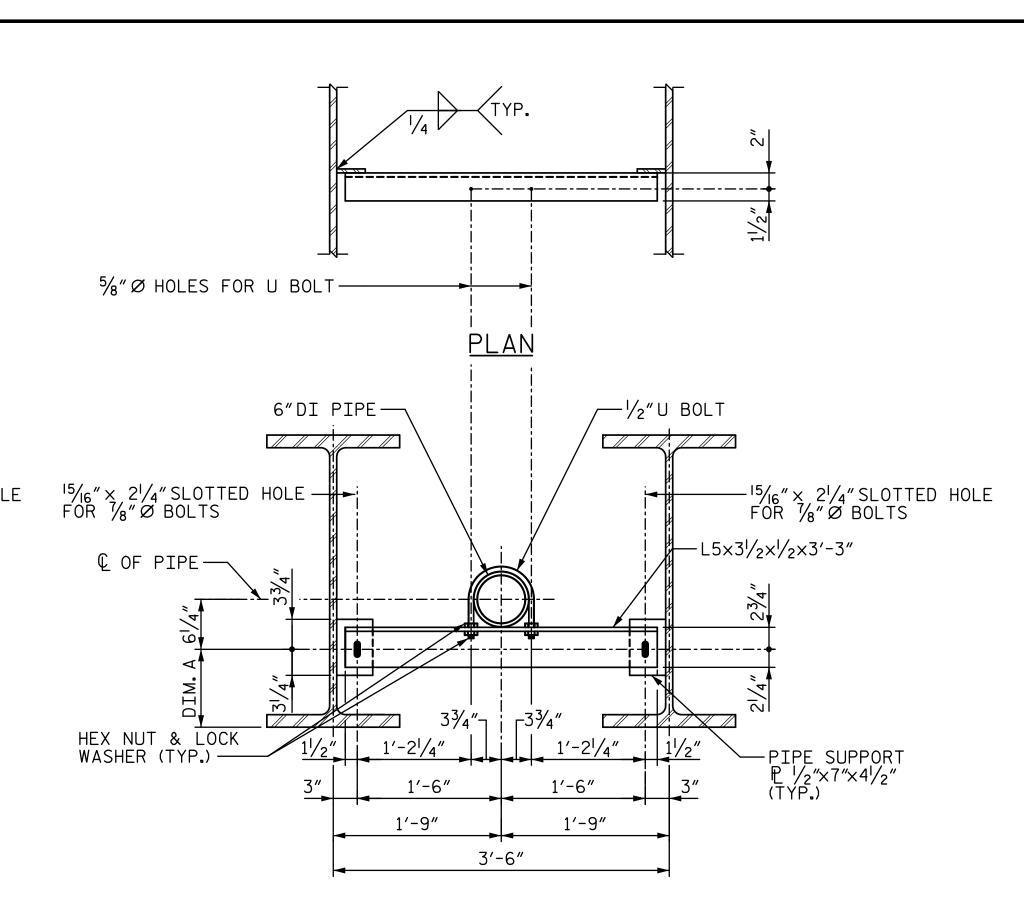
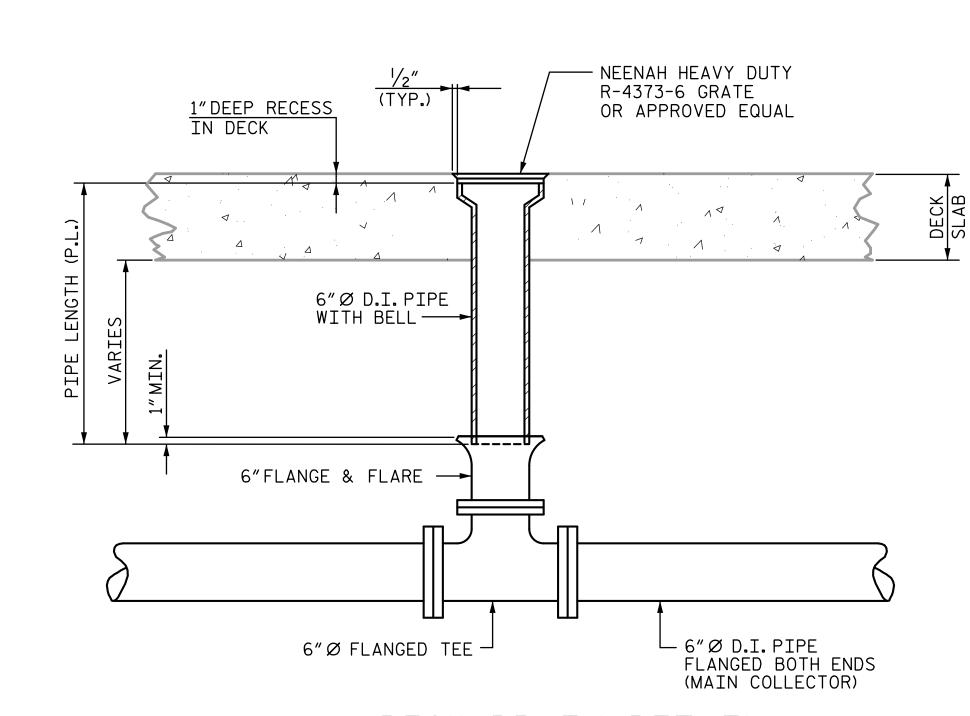
DIAPHRAGM SUPPORT ANGLE (DSA) FOR DIM. D AND ADDITIONAL DETAILS, SEE "STRUCTURAL STEEL DETAILS" SHEET.



<u>ELEVATION</u>

PIPE SUPPORT ANGLE (PSA)



DECK DRAIN DETAIL

STRUCTURAL DRAINAGE SYSTEM ESTIMATED QU	ANTI	TIES
DESCRIPTION	UNIT	QTY.
NEENAH R-4373-6 GRATE	EACH	56
6" I.D. BEVELED STEEL WASHER	EACH	8
6" FLANGED TEE	EACH	48
6" FLANGE AND FLARE	EACH	56
6" FLANGED CROSS	EACH	8
6" DIA. FLANGED EXPANSION JOINT (2" MOVEMENT)	EACH	8
6" DIA. CLOSURE PLATE WITH GASKET FOR CLEANOUT	EACH	16
6" DIA. D.I. PIPE FLANGED BOTH ENDS (P.L. AS REQUIRED)	EACH	24
6" DIA. D.I. PIPE FLANGED BOTH ENDS	FT	400′-8"
6" DIA. D.I. PIPE BELL AND PLAIN END	FT	67′-7"
6" DIA. D.I. PIPE FLANGED AND PLAIN END	FT	20′-0"
8" I.D. BEVELED STEEL WASHER	EACH	4
8" FLANGED TEE	EACH	8
8" FLANGE AND FLARE	EACH	8
8" 45° FLANGED ELBOW	EACH	8
8" CLOSURE PLATE WITH GASKET FOR CLEANOUT	EACH	4
8" DIA. D.I. PIPE FLANGED BOTH ENDS	FT	82′-6"
8" DIA. D.I. PIPE FLANGE AND PLAIN END	FT	2'-0"
8" I.D. W/8" OFFSET PIPE CLAMPS	EACH	26
8" I.D. W/6" OFFSET PIPE CLAMPS	EACH	6
DIAPHRAGM SUPPORT ANGLES (DSA)*	EACH	40
PIPE SUPPORT ANGLES (PSA)*	EACH	24

DIM. A

73/4"

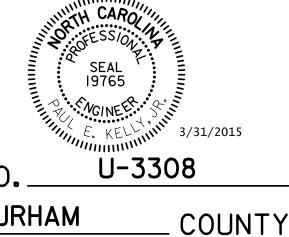
83/4" 95/8" 91/4" |'-|<sup>|</sup>/4"

Α2

\*INCLUDES U-BOLTS, ANGLES, NUTS, BOLTS, WASHERS AND PLATES.

## NOTES:

- 1. ALL PIPE, TEES, BELLS AND BENDS SHALL BE CLASS 54 DUCTILE IRON.
- 2. ALL BENDS TO BE SHORT RADIUS, INCLUDING FLANGE & FLARE BENDS.
- 3. LAYOUT IS BASED ON DIMENSIONS GIVEN IN THE PIPE MANUAL OF THE US PIPE AND FOUNDRY COMPANY.
- 4. FOR LOCATIONS AND DESIGNATIONS OF DSA & PSA, SEE "FRAMING PLAN AND GIRDER DETAILS" SHEETS.
- 5. PIPE LENGTHS SHOWN DO NOT ALLOW FOR  $\frac{1}{8}$ "THICK GASKETS TO BE USED AT ALL BOLTED FLANGE CONNECTIONS.
- 6. MAKE FINAL PIPE ALIGNMENT AND TIGHTEN U-BOLTS AFTER RAILROAD TRACK HAS BEEN LAID ACROSS THE BRIDGE.
- 7. SUPPORT ANGLES AND U-BOLTS ARE INCLUDED IN STRUCTURAL STEEL QUANTITIES.
- 8. OUTSIDE COATING FOR D.I. PIPE SHALL BE A SHOP PRIME COAT OF INORGANIC ZINC PRIMER AND A FINISH (FIELD) COATING OF VINYL PAINT AS SPECIFIED FOR STRUCTURAL STEEL.
- 9. SEE SHEETS 3 OF 4 AND 4 OF 4 FOR ADDITIONAL DETAILS.
- 10. U-BOLTS AND H.S. BOLTS SHALL BE MECHANICALLY GALVANIZED.
- 11. FOR STRUCTURE DRAINAGE SYSTEM, SEE SPECIAL PROVISIONS.
- 12. ALL PIPE DIMENSIONS ARE SUBJECT TO ADJUSTMENT TO FIT MEASUREMENTS TAKEN AFTER THE DECKS HAVE BEEN POURED.



Paul Kelly Jr

PROJECT NO.\_

DURHAM

STATION: POT 24+09.63 -LALT-

POT 21+11.43 -NSN-

SHEET 2 OF 4

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

STRUCTURE\_DRAINAGE SYSTEM

STV/Ralph Whitehead Associates, Inc. **UNLESS ALL SIGNATURES COMPLETED** 

900 W Trade Street, Suite 715 Charlotte, NC 28202 NC License No. F-0991

REVISIONS SHEET NO. S3-14 DATE: DATE: NO. NO. BY: BY: TOTAL SHEETS

MTC DRAWN BY : \_ DATE : 06-14 CHECKED BY : DJM

DOCUMENT NOT CONSIDERED FINAL