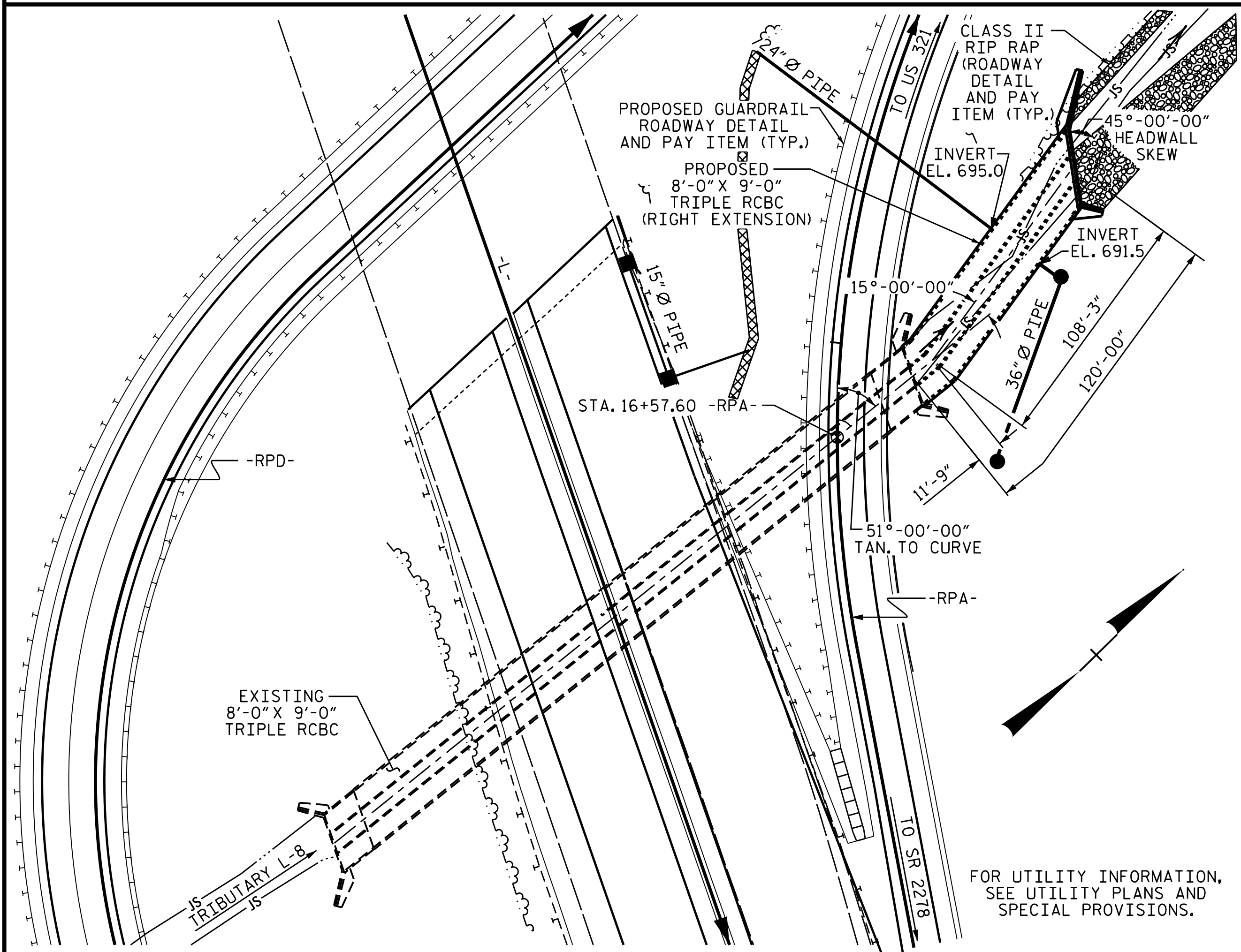


BM. #2: CHISELED SQUARE IN BRIDGE PIER BASE,
STA. 18+14.37 -RPA-, 188.81 LT., EL. 721.88

F. A. PROJECT No. IMF-085-1(113)17



LOCATION SKETCH

ROADWAY DATA

GRADE POINT ELEV. @ STA. 16+57.60 -RPA- = 735.15
BED ELEV. @ STA. 16+57.60 -RPA- = 689.5±
ROADWAY SLOPES = 2:1

HYDRAULIC DATA

DESIGN DISCHARGE = 850 C.F.S.
FREQUENCY OF DESIGN FLOOD = 50 YEARS
DESIGN HIGH WATER ELEVATION = 703.1
DRAINAGE AREA = 1.12 SQ. MI.
BASE DISCHARGE (Q100) = 950 C.F.S.
BASE HIGH WATER ELEVATION = 703.98

OVERTOPPING FLOOD DATA

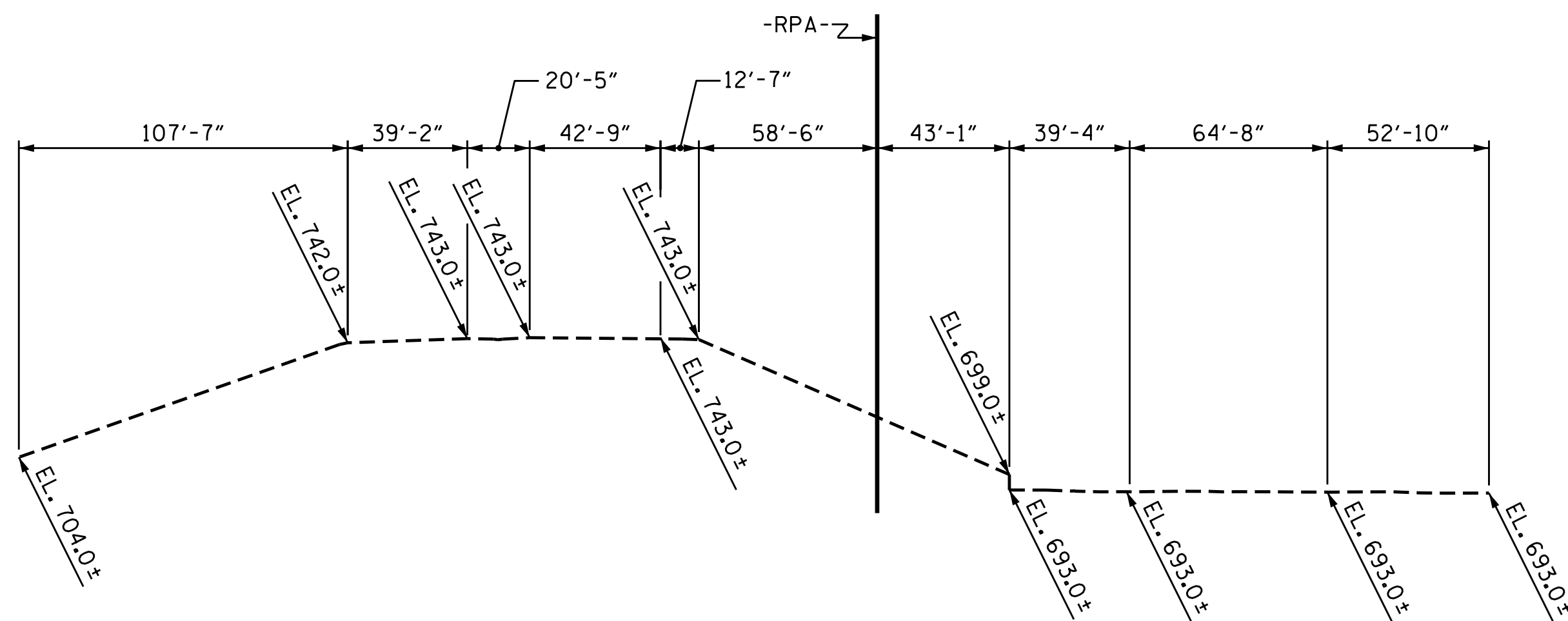
OVERTOPPING DISCHARGE = 4900 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD = 500+ YEARS
OVERTOPPING FLOOD ELEVATION = 730.1

I HEREBY CERTIFY THESE PLANS
ARE THE AS-BUILT PLANS

FOR UTILITY INFORMATION,
SEE UTILITY PLANS AND
SPECIAL PROVISIONS.

NOTES

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.
- DESIGN FILL ----- 21.00 FT. (MIN.) 31.25 FT. (MAX.)
- FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.
- 3"Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONCRETE IN CULVERT TO BE POURED IN THE FOLLOWING ORDER:
1. WING FOOTINGS, CURTAIN WALL AND FLOOR SLAB INCLUDING 4" OF VERTICAL WALLS.
2. THE REMAINING PORTION OF WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB, HEADWALLS AND SILLS.
- FOR CONSTRUCTION SEQUENCE, SEE EROSION CONTROL PLANS.
- THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.
- DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.
- TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 70 FT. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.
- STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES WILL BE PAID FOR BY THE CONTRACTOR.
- DOWELS SHALL BE USED TO CONNECT THE CULVERT EXTENSION TO THE EXISTING CULVERT AS SHOWN. FOR NOTE REGARDING SETTING OF DOWELS, SEE SHEET SN.
- IF APPROVED BY THE ENGINEER, THE CONTRACTOR MAY USE THE EXISTING WINGS AS TEMPORARY SHORING FOR THE CONSTRUCTION OF THE CULVERT EXTENSIONS. IN THIS CASE, THE BOTTOM SLAB OF THE EXTENSION SHALL BE POURED AT LEAST 72 HOURS PRIOR TO CUTTING THE WINGS. THE WINGS MAY BE CUT EARLIER PROVIDED THE SLAB CONCRETE STRENGTH HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI.
- AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS ABOVE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.
- THE 24" & 36" DIA. PIPE THROUGH THE SIDEWALLS OF THE CULVERT SHALL BE LOCATED BY THE ENGINEER. THE REINFORCING STEEL SHALL BE FIELD BENT AS NECESSARY TO CLEAR PIPE.
- A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.



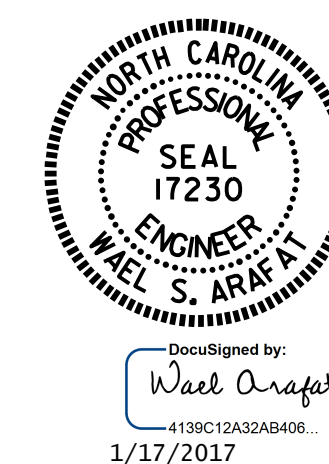
PROFILE ALONG C CULVERT

TOTAL STRUCTURE QUANTITIES

| | |
|--|------------|
| CLASS A CONCRETE | |
| BARREL @ 4.198 _____ CY/FT _____ | 503.8 C.Y. |
| WING ETC. _____ | 24.2 C.Y. |
| TOTAL _____ | 528.0 C.Y. |
| REINFORCING STEEL | |
| BARREL _____ | 47977 LBS. |
| WINGS ETC. _____ | 1259 LBS. |
| TOTAL _____ | 49236 LBS. |
| CULVERT EXCAVATION _____ | LUMP SUM |
| FOUNDATION CONDITIONING MATERIAL _____ | 400 TONS |

PROJECT NO. I-5000
GASTON COUNTY
STATION: 16+57.60 -RPA-

SHEET 1 OF 7



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TRIPLE 8 FT. X 9 FT.
RCBC
51°-00'-00" SKEW
(RIGHT EXTENSION)

DRAWN BY : H. T. BARBOUR DATE : 11-8-16
CHECKED BY : I. L. AVERETTE DATE : 11-16
DESIGN ENGINEER OF RECORD : A. M. LEE DATE : 11-16

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | C-12 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 26 |

CULVERT #4