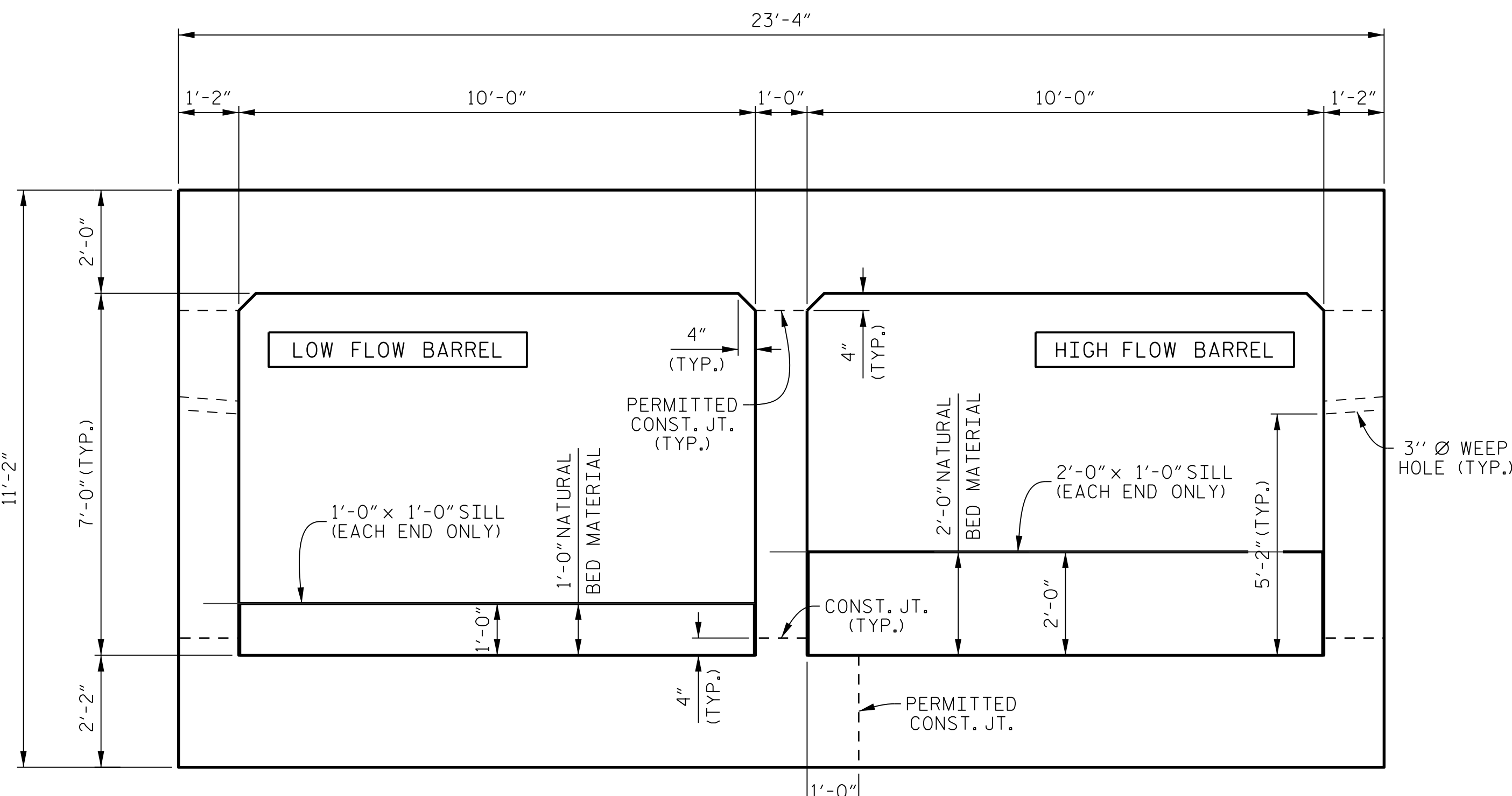
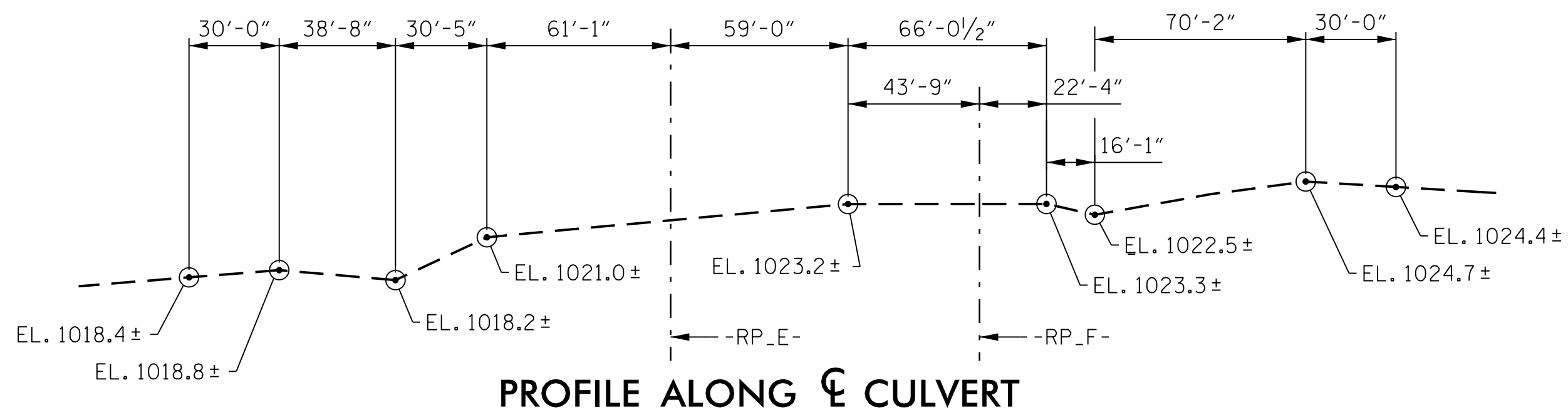


NOTES

ASSUMED LIVE LOAD -----HL93 OR ALTERNATE LOADING.
 DESIGN FILL----- 40.0 FEET.
 FOR OTHER DESIGN DATA AND NOTES, SEE "STANDARD NOTES" SHEET.
 3" Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:
 1. WING FOOTINGS AND FLOOR SLAB INCLUDING 4" OF ALL VERTICAL WALLS.
 2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT, FOLLOWED BY ROOF SLAB AND HEADWALLS.
 THE 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 FEET. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

SEE SECTION 414 OF STANDARD SPECIFICATIONS FOR CULVERT EXCAVATION AND BACKFILLING.
 EXCAVATE 1 FOOT BELOW CULVERT AND FOOTING, AND REPLACE WITH FOUNDATION CONDITIONING MATERIAL IN ACCORDANCE WITH ARTICLE 414-4 OF THE STANDARD SPECIFICATIONS.
 CONSTRUCT THE REINFORCED CONCRETE BOX CULVERT AT STA. 20+89.16 -RP_E- WITH 8" OF CAMBER AND STA. 16+47.2 -RP_F- WITH 6" OF CAMBER TO ACCOUNT FOR ANTICIPATED SETTLEMENT.
 BACKFILL WITH SELECT MATERIAL, CLASS VI MEETING THE REQUIREMENTS OF SECTION 1016 OF THE STANDARD SPECIFICATIONS.
 DEWATERING MAY BE REQUIRED DURING CONSTRUCTION.
 ISOLATED AREAS OF WITH WEAK SOILS MAY REQUIRE EXCAVATION MORE THAN 1 FOOT BELOW THE BOTTOM OF THE CULVERT AND FOOTINGS.
 SUBGRADE NEEDS TO BE VERIFIED BY THE ENGINEER OR THERE REPRESENTATIVE PROP TO PLACING FOUNDATION CONDITIONING MATERIAL.
 USE TYPE 2 GEOTEXTILE UNDER RIP-RAP FOR BANK STABILIZATION MEETING SECTION 1056 OF THE NC DOT STANDARD SPECIFICATIONS.
 FOR CULVERT DIVERSION DETAILS AND PAY ITEMS, SEE EROSION CONTROL PLANS.



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.
 NO SEPARATE PAYMENT WILL BE MADE FOR THE 30 LB. ROOFING FELT. THE 30 LB. ROOFING FELT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE "CLASS A CONCRETE".

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.

DOWELS MAY BE SHIFTED SLIGHTLY AS NECESSARY TO CLEAR REINFORCING STEEL IN THE FLOOR SLAB.

ALL REINFORCING STEEL SHALL BE GRADE 60.

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 SHALL BE PAID FOR BY THE CONTRACTOR.

FOR HYDRAULIC AND DRAINAGE INFORMATION, SEE ROADWAY AND DRAINAGE PLANS.

UNDERCUT OF SOFT FOUNDATION SOILS UNDER THE CULVERT MAY BE REQUIRED AT THE DISCRETION OF THE RESIDENT ENGINEER'S OFFICE. THE LIMITS OF THIS UNDERCUT EXCAVATION SHALL BE AT LEAST THE LIMITS OF THE BOX CULVERT INCLUDING THE WINGS. NO SEPARATE PAYMENT WILL BE MADE FOR ANY TEMPORARY SHEETING, UNDERCUT, OR UNSUITABLE MATERIAL REPLACEMENT AS REQUIRED TO CONSTRUCT THE PROPOSED CULVERT. PAYMENT IS INCLUDED IN THE LUMP SUM PRICE FOR CULVERT EXCAVATION.

DETAILED DRAWINGS FOR FALSEWORK AND FORMS FOR THIS CULVERT SHALL BE SUBMITTED. SEE SHEET C-6.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.

NATIVE MATERIAL BETWEEN SILLS IN THE CULVERT SHALL PROVIDE A CONTINUOUS LOW FLOW CHANNEL. NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE STREAM OR FLOOD-PLAIN AT THE PROJECT SITE DURING CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAM BED MAY BE USED TO LINE THE LOW FLOW CULVERT BARREL. RIP-RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARRELS. IF RIP-RAP IS USED TO LINE THE HIGH FLOW CULVERT BARREL, NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

SILLS ARE TO BE 1.0 FT WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.

TOP OF LOW FLOW SILLS SHOULD MATCH STREAM BED ELEVATION IN LOW CHANNEL OF STREAM (THALWEG).

DO NOT SET ELEVATION OF HIGH SILLS ABOVE BANK FULL.

COIR FIBER MATTING SHALL BE SECURED ON THE BENCHES AND PLACED BEHIND RIP RAP TO PREVENT WASHOUT OF SEDIMENT THROUGH GAPS.

PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT ALL PRECAST SEGMENTS ARE PROPERLY MATCH CAST, DRY FIT AND MATCH MARKED IN ORDER TO ACCOMMODATE THE REQUIRED CAMBERS AS NOTED.

IF A PRECAST BOX CULVERT IS USED, THE CONTRACTOR MUST SUBMIT A PRECAST CULVERT DESIGN AND OBTAIN APPROVAL PRIOR TO CONSTRUCTION. PRECAST UNITS SHALL BE ABLE TO DEFLECT AND ROTATE WITHOUT CAUSING DAMAGE TO JOINTS BETWEEN ABUTTING SEGMENTS AS STRUCTURAL FILL IS PLACED ON TOP OF IT AT ANY PHASE OF CONSTRUCTION. THE SUBMITTAL SHALL INCLUDE PHASING OF WORK AND THE ANTICIPATED DEFLECTION OF THE CULVERT, ALONG THE CULVERT PROFILE, AT EACH PHASE OF THE BACKFILLING PROCESS. DETAILS FOR THE WINGWALL ATTACHMENTS SHALL BE INCLUDED. SUBMISSION OF STRUCTURAL DETAILS DOES NOT ASSURE PRECAST CULVERT WILL BE APPROVED FOR THE PROJECT. PRECAST CULVERT SHALL BE DESIGNED AND SUBMITTED FOR REVIEW IN ACCORDANCE WITH THE "PRECAST REINFORCED CONCRETE BOX CULVERT AT STATION 16+47.10 -RP_F-" SPECIAL PROVISION.

TOTAL STRUCTURE QUANTITIES	
FOUNDATION CONDITIONING MATERIAL BOX CULVERT	656 TONS
CULVERT EXCAVATION	LUMP SUM
CLASS A CONCRETE	1613.3 CU. YDS.
REINFORCING STEEL	153,914 LBS.

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT NO. **I-4729A**
POLK COUNTY
 STATION: **16 + 47.10 -RP_F-**

SHEET 1 OF 6 BRIDGE No. 740231

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

DOUBLE 10 FT. X 7 FT. CONCRETE BOX CULVERT
124° 30' 00" SKEW

REVISIONS						SHEET No. C-1
No.	BY:	DATE:	No.	BY:	DATE:	
1	SHAH	09-18-17	3			TOTAL SHEETS 6
2			4			STR. #3

REVISED NOTES.

PLANS PREPARED BY:
PARSONS
 5540 CenterView Drive, Suite 217
 Raleigh, NC 27606-3386
 NC LICENSE No. F-0246
 FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



DRAWN BY: T. DETMERS DATE: 7-17
 CHECKED BY: D. WHONG DATE: 7-17
 DESIGN ENGINEER: S. T. PHAN DATE: 7-17