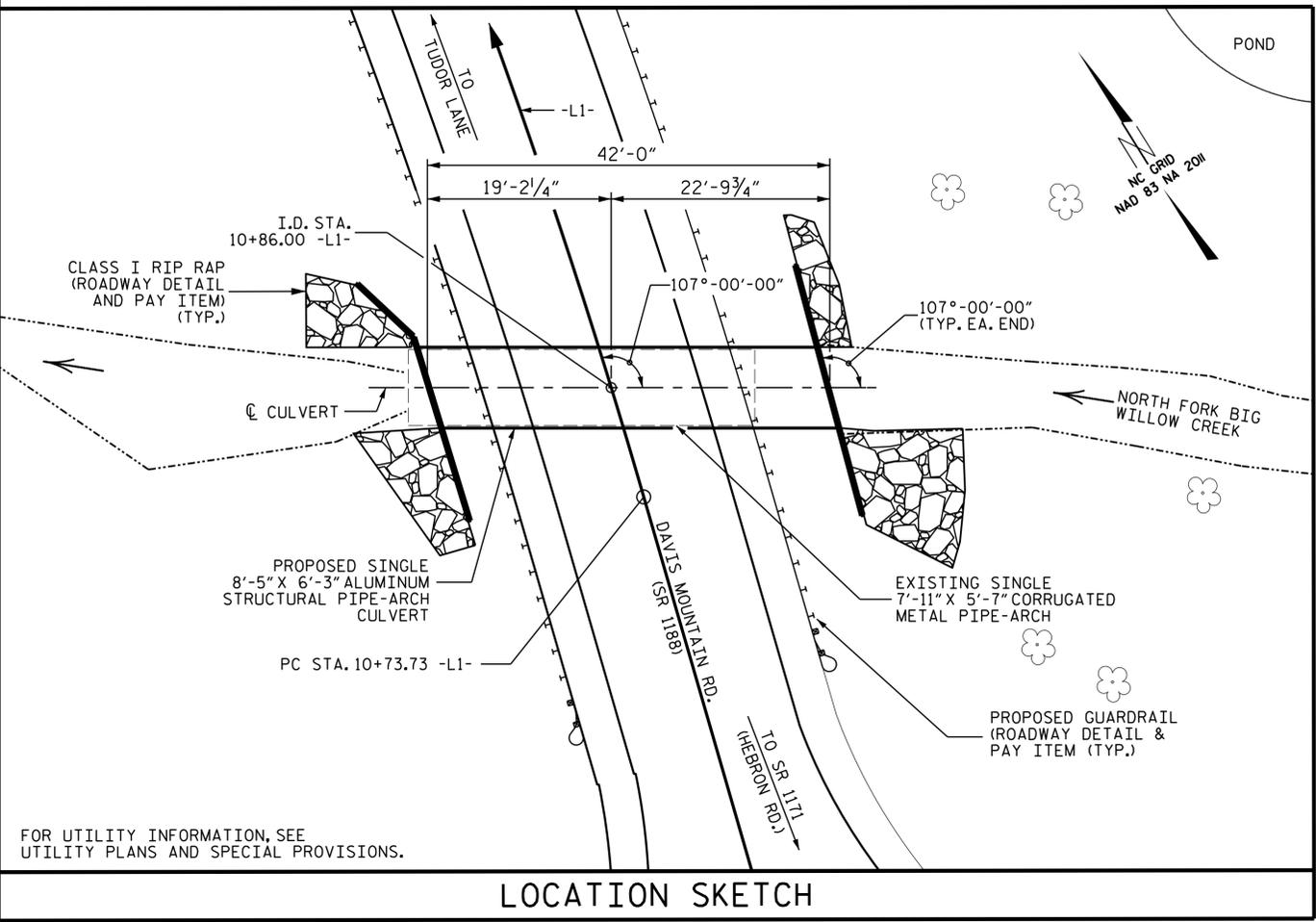


BM #1 - SQUARE CUT IN CONCRETE PAD, 22.62' LT. @ STA. 10+36.93 -L1-, N585263.7480 E944315.0320, ELEV. 2235.05



LOCATION SKETCH

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

NOTES

- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.
- DESIGN FILL ----- MAX. = 2.7', MIN. = 2.6'.
- FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE STANDARD NOTES SHEET SN.
- MATERIALS SHALL MEET THE REQUIREMENTS OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JANUARY 2024.
- THE DETAILS SHOWN ARE FOR GENERAL LAYOUT ONLY. THE SUPPLIER SHALL PROVIDE DESIGNS AND DETAILS THAT MEET THE REQUIREMENTS OF AASHTO SECTION 12 AND ARE SEALED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER.
- UNLESS OTHERWISE INDICATED, THE SUPPLIER SHALL DESIGN, DETAIL, AND FURNISH ALL STRUCTURAL ELEMENTS AND HARDWARE.
- 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.
- THE EXISTING STRUCTURE CONSISTING OF A SINGLE 7'-11" X 5'-7" CORRUGATED METAL PIPE-ARCH WITH A ROADWAY WIDTH OF 18'±, AND LOCATED AT THE PROPOSED STRUCTURE, SHALL BE REMOVED.
- REMOVAL OF THE EXISTING CULVERT SHALL BE PERFORMED IN A MANNER THAT PREVENTS DEBRIS FROM FALLING INTO THE WATER. THE CONTRACTOR SHALL SUBMIT DEMOLITION PLANS FOR REVIEW AND REMOVE THE CULVERT IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.
- CULVERT TO BE FILLED WITH NATIVE STREAM BED MATERIAL TO TOP OF SILLS. IF ENOUGH NATIVE STREAM BED MATERIAL IS NOT AVAILABLE, SUPPLEMENTAL BED MATERIAL MAY BE USED AND IS SUBJECT TO APPROVAL BY THE ENGINEER. THE COST OF PLACEMENT OF THE NATIVE STREAM BED MATERIAL SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR CULVERT EXCAVATION.
- 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 ASBESTOS ASSESSMENT, SEE SPECIAL PROVISIONS.
- FOR ALUMINUM STRUCTURAL PIPE-ARCH CULVERT, SEE SPECIAL PROVISIONS.
- FOR CULVERT BACKFILL, SEE SPECIAL PROVISIONS.
- EXCAVATE 1 FOOT BELOW CULVERT FLOOR AND REPLACE WITH FOUNDATION CONDITIONING MATERIAL IN ACCORDANCE WITH ARTICLE 414 OF THE STANDARD SPECIFICATIONS.

TOTAL STRUCTURE QUANTITIES	
REMOVAL OF EXISTING STRUCTURE @ STA. 10+86.00 -L1-	LUMP SUM
ASBESTOS ASSESSMENT	LUMP SUM
CULVERT EXCAVATION	LUMP SUM
FOUNDATION CONDITIONAL MATERIAL	38 TONS
ALUMINUM STRUCTURAL PIPE-ARCH CULVERT @ STA. 10+86.00 -L1-	LUMP SUM
CULVERT BACKFILL	487 TONS

HYDRAULIC DATA	
DESIGN DISCHARGE	= 260 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 25 YRS.
DESIGN HIGH WATER ELEVATION	= 2231.9
DRAINAGE AREA	= 0.9 SQ. MI.
BASIC DISCHARGE (Q100)	= 420 C.F.S.
BASIC HIGH WATER ELEVATION	= 2233.9

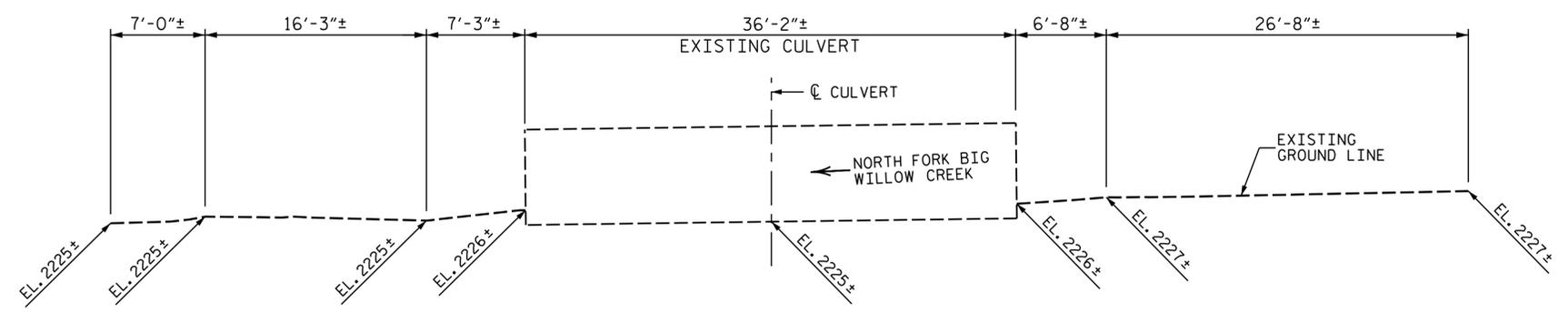
OVERTOPPING FLOOD DATA	
OVERTOPPING DISCHARGE	= 366 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 50+ YRS.
OVERTOPPING FLOOD ELEVATION	= 2233.7*
*SHOULDER ELEVATION NEAR STATION 10+96	

GRADE DATA

GRADE POINT ELEV. @ STA. 10+86.00 -L1- 2234.00
 BED ELEV. @ STA. 10+86.00 -L1- 2225.85 ♦
 ROADWAY FILL SLOPES 2:1 (MAX.)

♦ CULVERT INVERT TO BE BURIED 1'-0"

PROJECT NO. DF 18314.2045181
HENDERSON COUNTY
 STATION. 10+86.00 -L1-
 SHEET 1 OF 2



PROFILE ALONG CULVERT

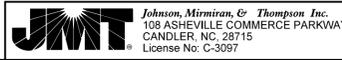


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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SITE 925
SINGLE 8'-5" X 6'-3"
ALUMINUM STRUCTURAL PIPE-ARCH CULVERT
107° SKEW

ENG. OF RECORD: RA	DATE: 12/2025
DWN. BY: WDC	DATE: 12/2025
CHKD. BY: RA	DATE: 12/2025

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



wdc:utcher
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