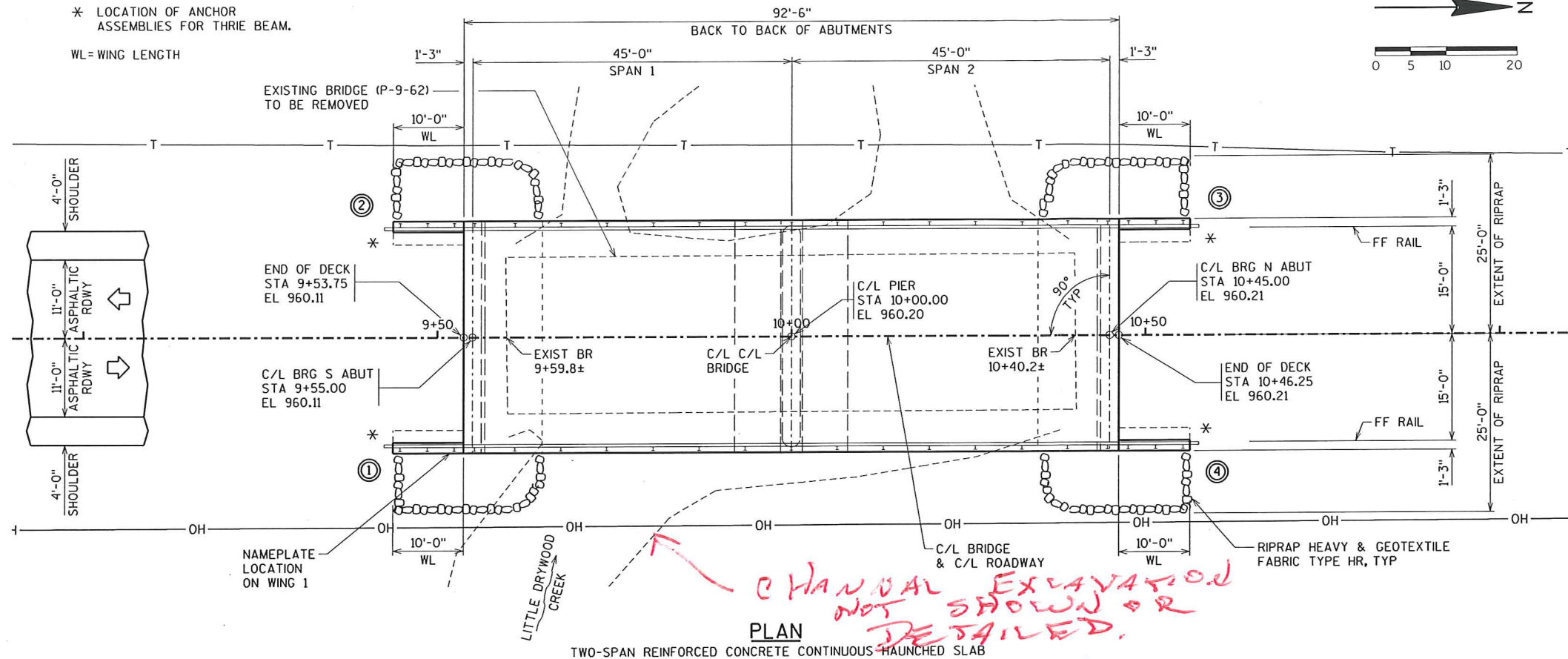


⊙ INDICATES WING.

* LOCATION OF ANCHOR
ASSEMBLIES FOR THRIE BEAM.

WL = WING LENGTH



DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93 ✓
 INVENTORY RATING FACTOR: RF = ---
 OPERATING RATING FACTOR: RF = ---
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = --- KIPS
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE ✓
 OF 20 PSF
 INVENTORY AND OPERATING RATINGS DO NOT INCLUDE
 FUTURE WEARING SURFACE.

MATERIAL PROPERTIES:

CONCRETE MASONRY - SUPERSTRUCTURE $f'_c = 4,000$ psi ✓
 - ALL OTHER $f'_c = 3,500$ psi ✓
 HIGH STRENGTH BAR STEEL REINFORCEMENT
 AASHTO GRADE 60 $f_y = 60,000$ psi ✓

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 12 3/4" CIP PILES
 (0.25" SHELL THICKNESS) WITH A REQUIRED DRIVING RESISTANCE
 OF 160 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES
 DYNAMIC EQUATION, ESTIMATED 50'-LONG AT BOTH ABUTMENTS.
 PIER TO BE SUPPORTED ON 12 3/4" CIP PILES
 (0.25" SHELL THICKNESS) WITH A REQUIRED DRIVING RESISTANCE
 OF 160 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES
 DYNAMIC EQUATION, ESTIMATED 50'-LONG.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION
 USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE
 MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED
 GATES TO DETERMINE DRIVEN PILE CAPACITY. ✓

HYDRAULIC DATA

100 YEAR FREQUENCY
 Q_{100} 2600 CFS
 Q_{100} THRU STRUCTURE 2600 CFS
 VELOCITY 4.89 FPS
 HIGH WATER EL 956.98 FT
 WATERWAY AREA 666.12 SQ FT
 DRAINAGE AREA 26.1 SQ MI

TRAFFIC DATA

ADT (2018) = 120
 ADT (2038) = 170
 DHV = 17
 DD = 50%
 T = 10%
 DESIGN SPEED = 40 MPH

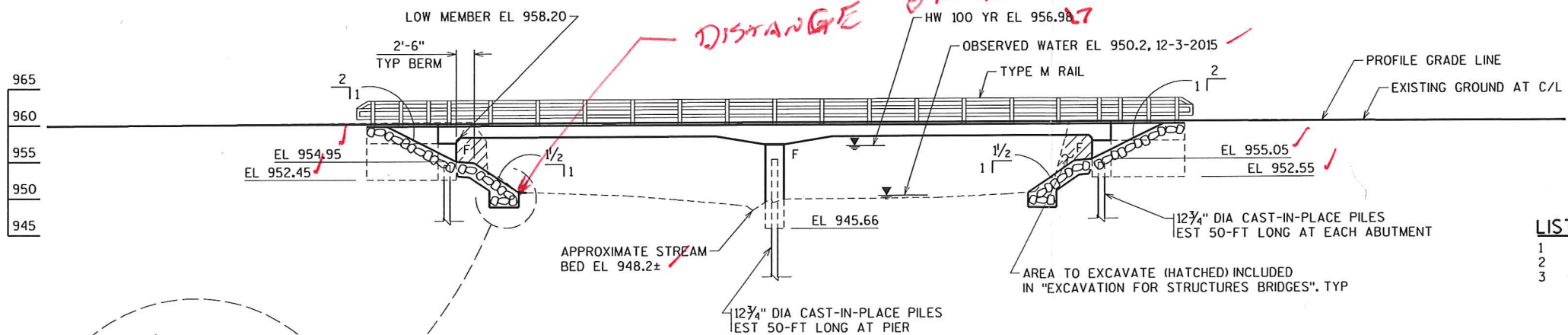
2 YEAR FREQUENCY

Q_2 787 CFS
 HIGH WATER EL 954.83 FT

SCOUR CODE 5

LIST OF DRAWINGS

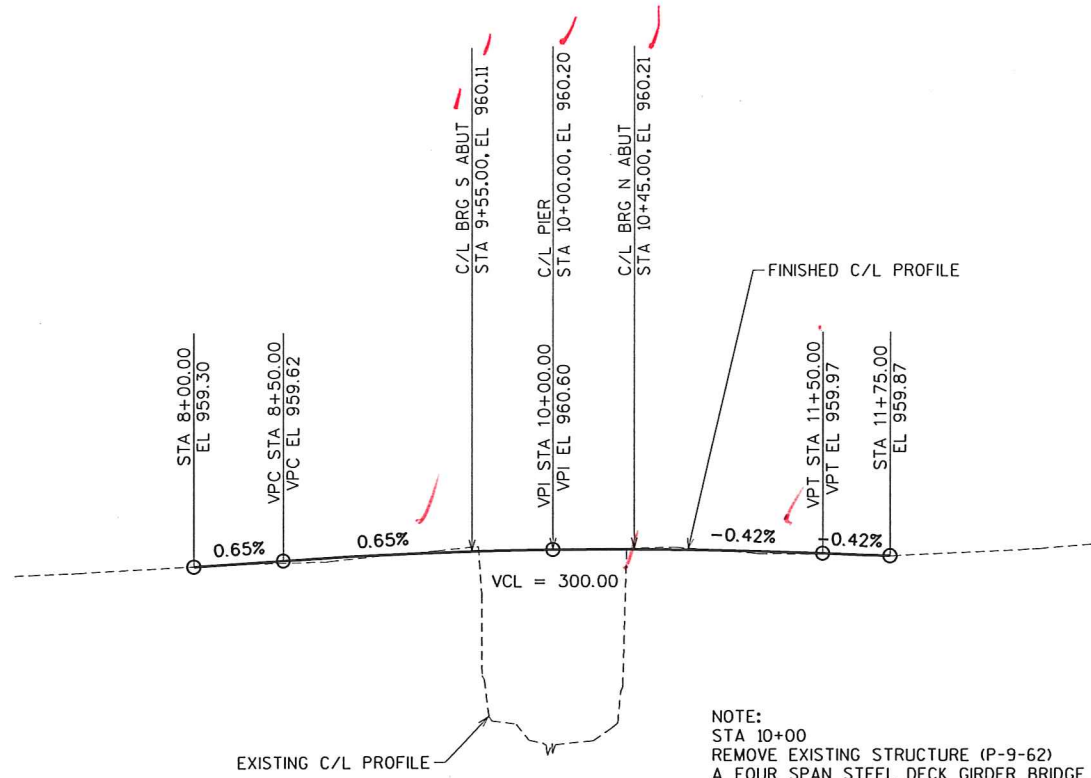
- 1 GENERAL PLAN
- 2 CROSS SECTION AND QUANTITIES
- 3 SUBSURFACE EXPLORATION



BENCHMARK (DATUM = NAVD88)			
NO	STATION	DESCRIPTION	ELEV
1	440± SE OF BRIDGE	3/8" SPK IN PP	956.70
2	11+14.87, 25.68' RT	3/8" SPK IN PP	957.55
3	410± NE OF BRIDGE	3/8" SPK IN PP	968.51

SEH CONTACT: CHRIS BLUM, PE, 608.620.6192
 WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

NO.	DATE	REVISION	BY
 SHORT ELLIOTT HENDRICKSON INC.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-9-306			
CTH K OVER LITTLE DRYWOOD CREEK			
COUNTY	CHIPPEWA	TOWN/CITY/VILLAGE	ANSON
DESIGN SPEC.			
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	CJB	DESIGN CK'D.	DLF
DRAWN BY	DLF	PLANS CK'D.	CJB
GENERAL PLAN			SHEET 1 OF 3



PROFILE GRADE LINE

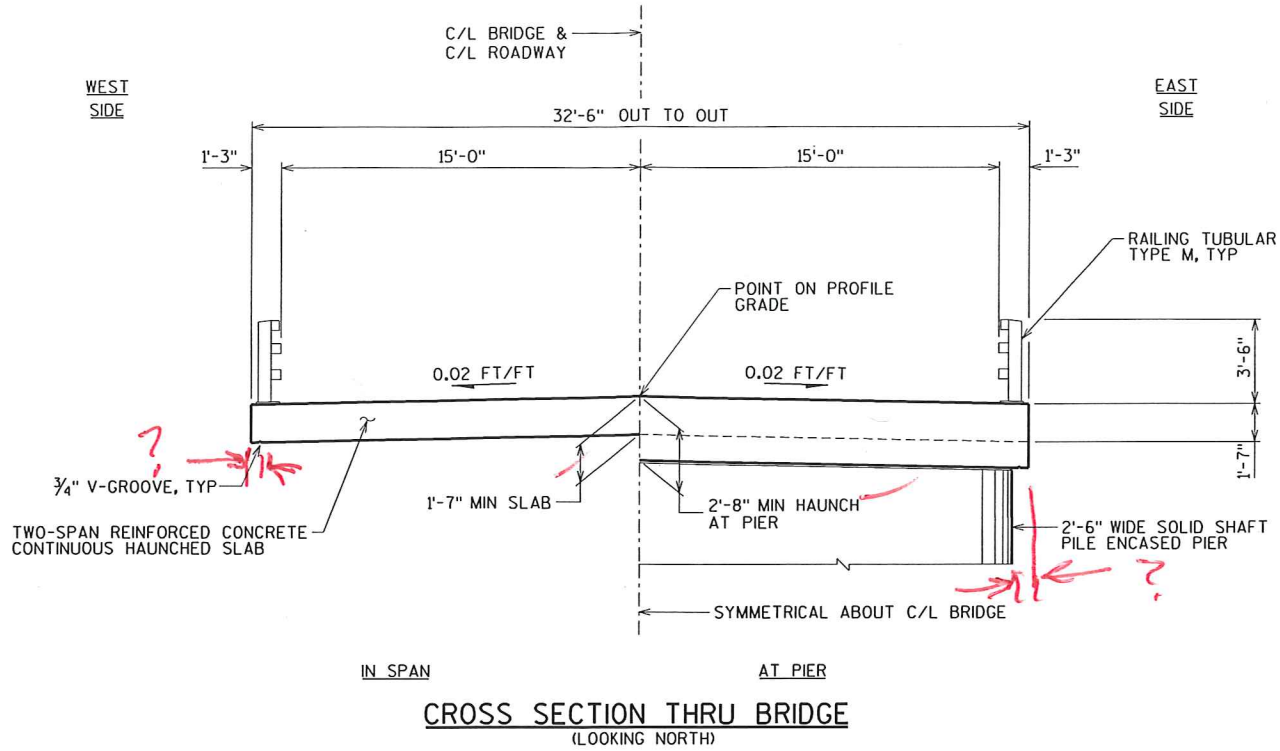
NOTE:
STA 10+00
REMOVE EXISTING STRUCTURE (P-9-62)
A FOUR SPAN STEEL DECK GIRDER BRIDGE
80.4 FT OVERALL LENGTH x 24.0 FT OVERALL WIDTH.

210.1500 Structure backfill type A, TON. Granular materials can be bid in units of cubic yard or tons. Structure plans (with a December 2016 letting or thereafter) should use the TON bid item, unless directed otherwise by the Region

TOTAL ESTIMATED QUANTITIES - B-9-306

BID ITEM NUMBER	BID ITEMS	UNIT	SOUTH ABUT	NORTH ABUT	PIER	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 10+00	LS	-	-	-	-	
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-9-306	LS	-	-	-	-	
210.0100	BACKFILL STRUCTURE	CY					
502.0100	CONCRETE MASONRY BRIDGES	CY					
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-		
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB				-	
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB					
513.4061	RAILING TUBULAR TYPE M B-9-306	LF	-	-	-		
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY			-	-	
550.2124	PILING CIP CONCRETE 12 3/4 X 0.25-INCH	LF				-	
606.0300	HEAVY RIPRAP	CY			-	-	
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF			-	-	
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF			-	-	
645.0120	GEOTEXTILE FABRIC TYPE HR	SY			-	-	
NON-BID ITEMS							
	FILLER	SIZE					1/2 & 3/4

① INCLUDES RODENT SHIELD PER SDD 8F6-4.



GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- SEE ROADWAY DRAWINGS FOR EXISTING UTILITY LOCATIONS.
- SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.
- THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE FABRIC TYP HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENTS DETAILS.
- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
- THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.
- AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.
- THE QUANTITY FOR BACKFILL STRUCTURE, BID ITEM 210.0100 IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6-1 AND 12.6-2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.
- FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION :M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION :M213.
- COAT WITH "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS AND THE SUPERSTRUCTURE DETAILS SHEET.
- FOR EXISTING STRUCTURE SEE PROFILE GRADE LINE THIS SHEET.

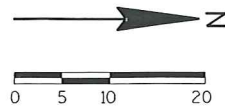
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-306			
DRAWN BY		DLF	PLANS CK'D. CJB
CROSS SECTION AND QUANTITIES			SHEET 2 OF 3

PLOT TIME: 2:33:58 PM

PLOT DATE: 6/28/2016

FILE NAME : S:\AAE\Chippewa\34766\5-Final-dsgn\51-drawings\20-Structure\Bridges\B09306b1.dgn

8



BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	3/31/2016	-	-
B-2	4/7/2016	-	-
B-3	3/31/2016	-	-

BORINGS COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC
REPORT COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC

SOIL BORINGS PERFORMED BY:
PROFESSIONAL SERVICE INDUSTRIES, INC
12839 30th AVENUE, SUITE A
CHIPPEWA FALLS, WISCONSIN 54729
PH: (715) 738-2770
FAX: (715) 738-2771

REPORT BY:
JEFFREY A. MANNINEN
BRANCH MANAGER

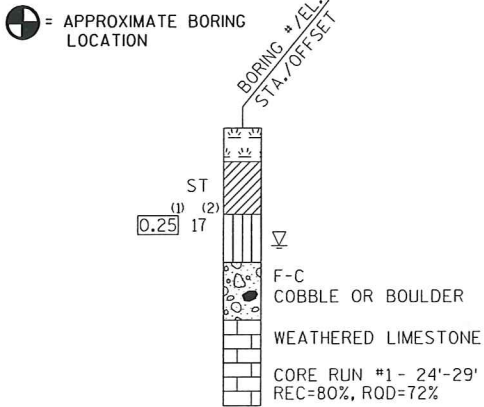
STATE PROJECT NUMBER

8914-00-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING
▼ END OF DRILLING
▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

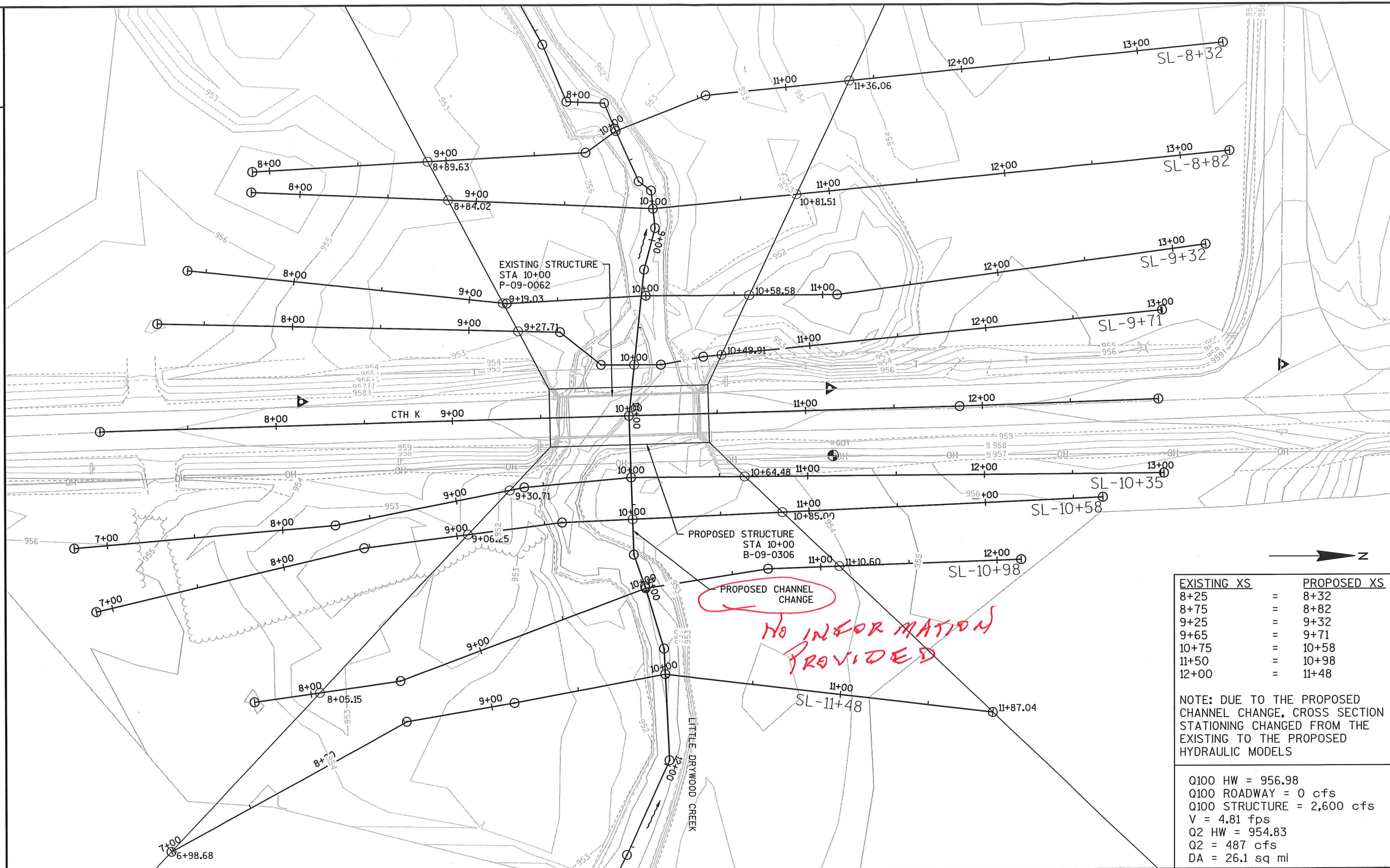
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-306			
DRAWN BY DLF		PLANS CK'D. CJB	
SUBSURFACE EXPLORATION		SHEET 3 OF 3	

SOIL REPORT HAS HP 10x42
THE SAME LENGTH AND
MORE CAPACITY FOR LESS
COST.

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PROJECT NO: 8914-00-70

HWY: CTH K

COUNTY: CHIPPEWA

LITTLE DRYWOOD CREEK BRIDGE B-9-306

SHEET

E

