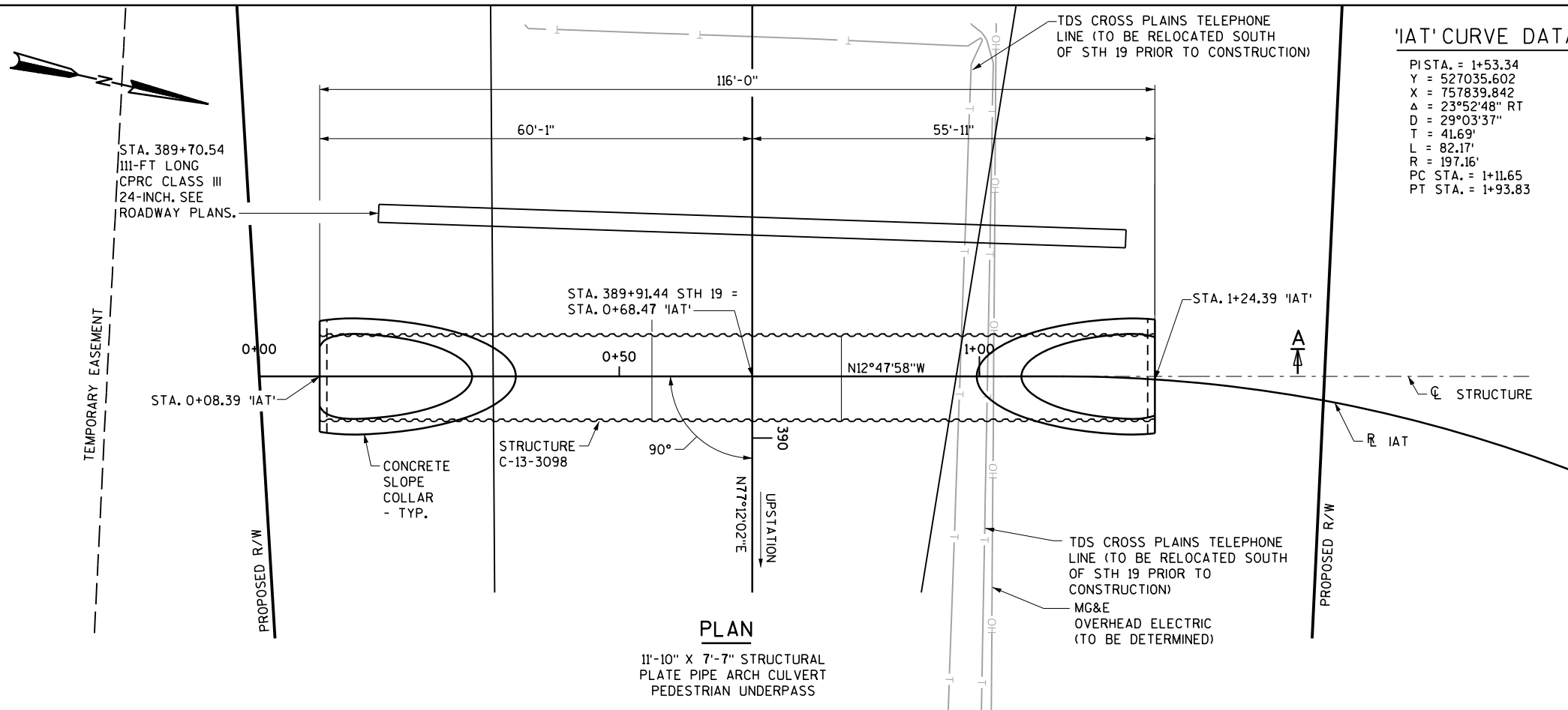


'IAT' CURVE DATA

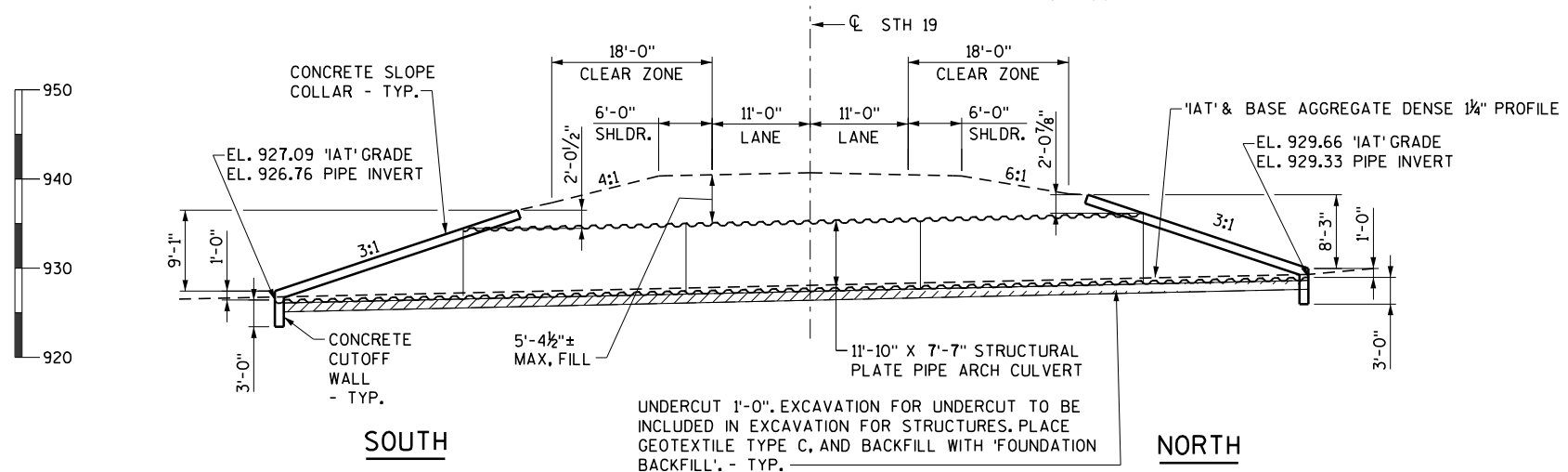
PISTA. = 1+53.34
 Y = 527035.602
 X = 757839.842
 Δ = 23°52'48" RT
 D = 29°03'37"
 T = 41.69'
 L = 82.17'
 R = 197.16'
 PC STA. = 1+11.65
 PT STA. = 1+93.83

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-13-3098" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL TYPE B WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON CUTOFF WALLS AND END COLLARS.
- THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED FOR 3 FEET BEYOND THE HORIZONTAL PLAN LIMITS AT THE BOTTOM OF THE PIPE ARCH, AND UP AT A 1:1.5 BACKFILL SLOPE FROM THE BOTTOM OF THE PIPE ARCH TO TOP OF THE PIPE ARCH COLLAR. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.
- CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BACKFILL GRANULAR TYPE 1. TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE PIPE ARCH. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.
- ANY COMBINATION OF SECTION LENGTHS IS ALLOWED TO ACHIEVE THE TOTAL PLAN LENGTH, PROVIDED NO PIPE SEAMS ARE UNDER TRAFFIC OF STH 19. NO ADDITIONAL COMPENSATION WILL BE MADE FOR CUTTING PIPES TO SIZE TO CONSTRUCT AS SHOWN.



PLAN
 11'-10" X 7'-7" STRUCTURAL
 PLATE PIPE ARCH CULVERT
 PEDESTRIAN UNDERPASS



SECTION A-A
 DIMENSIONS ARE NORMAL TO CL STH 19

DESIGN DATA

LIVE LOAD:
 DESIGN LOAD: HL-93
 INVENTORY RATING FACTOR = 1.0
 OPERATING RATING FACTOR = 1.67
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 190 KIPS

EARTH LOAD:
 DESIGNED FOR 3.0 TO 6.0 FEET OF FILL.

MATERIAL PROPERTIES:
 CONCRETE MASONRY:.....f'c = 3,500 PSI
 HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 PSI

FOUNDATION DATA:
 STRUCTURE TO BE SUPPORTED ON FOUNDATION BACKFILL
 WITH A REQUIRED FACTORED BEARING RESISTANCE OF 2,000 PSF*.

* THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

LIST OF DRAWINGS

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

TRAFFIC DATA

STH 19
 A.D.T. = 2,500 (2022)
 A.D.T. = 3,000 (2042)
 R.D.S. = 55 MPH

BENCH MARK

NO.	STATION	DESCRIPTION	ELEVATION
BM	STA. 383+00.67, 50.55' RT.	CP - LEVELED	938.87

NOTE: BENCHMARK LOCATION SUBJECT TO CHANGE

PRELIMINARY
 JUNE 2022

STRUCTURES DESIGN CONTACTS
 BRIDGE OFFICE:
 AARON BONK, P.E. (608) 261-0261
 CONSULTANT:
 CHRISTOPHER MARCUM, P.E. (920) 861-4823

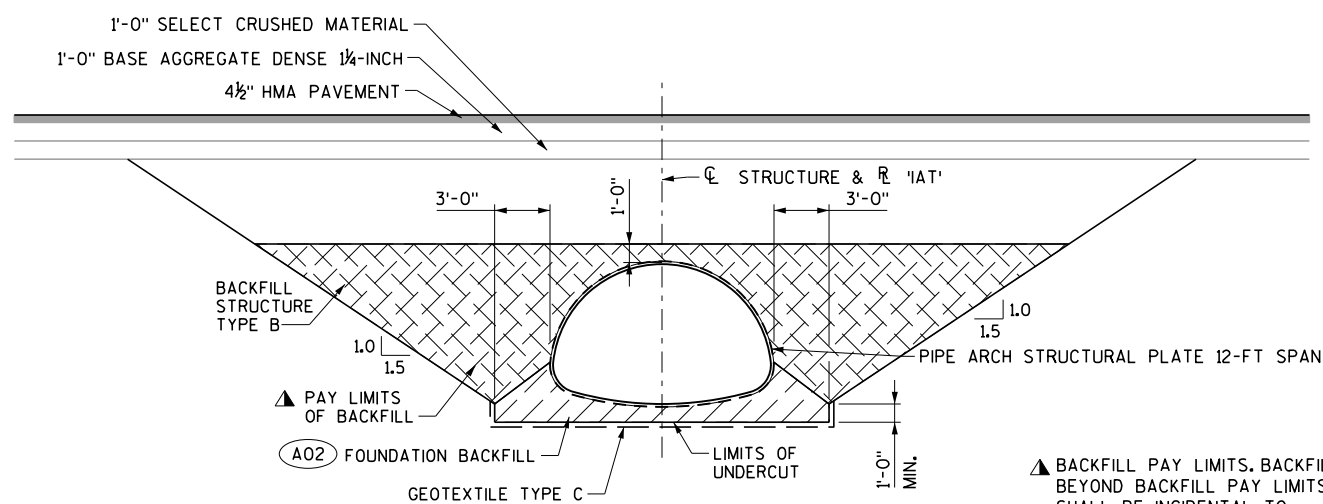
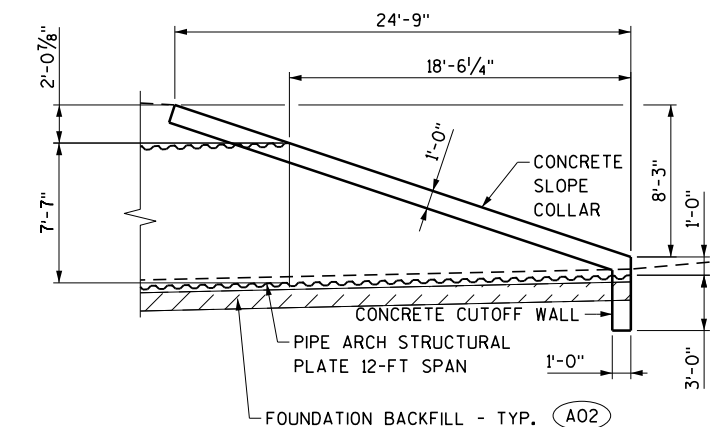
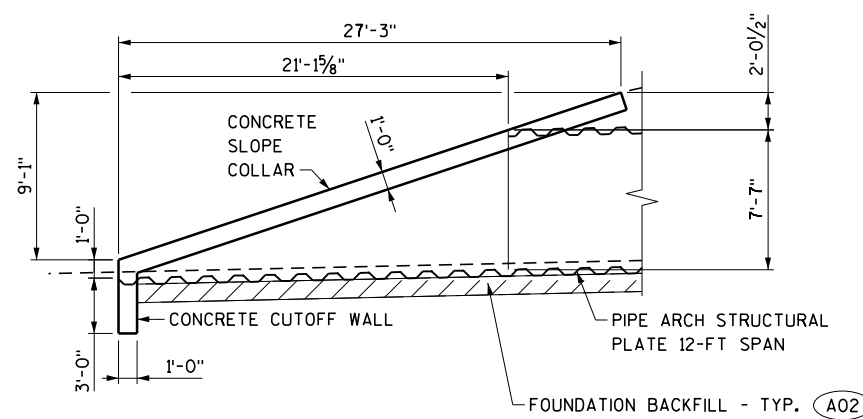
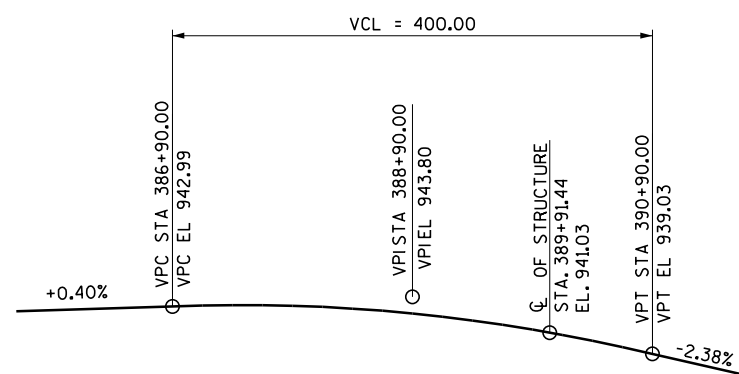
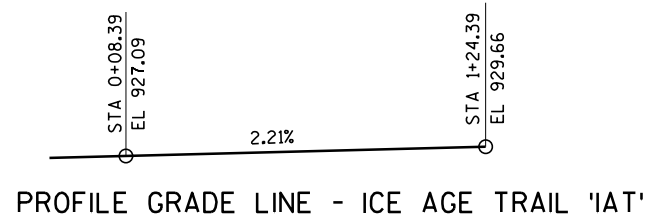
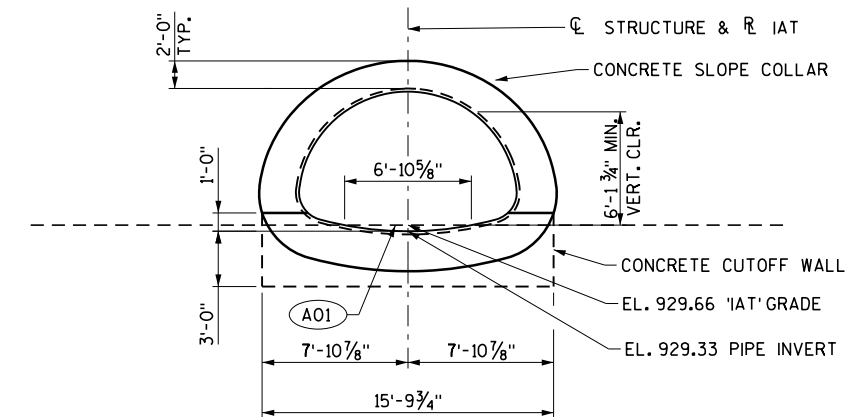
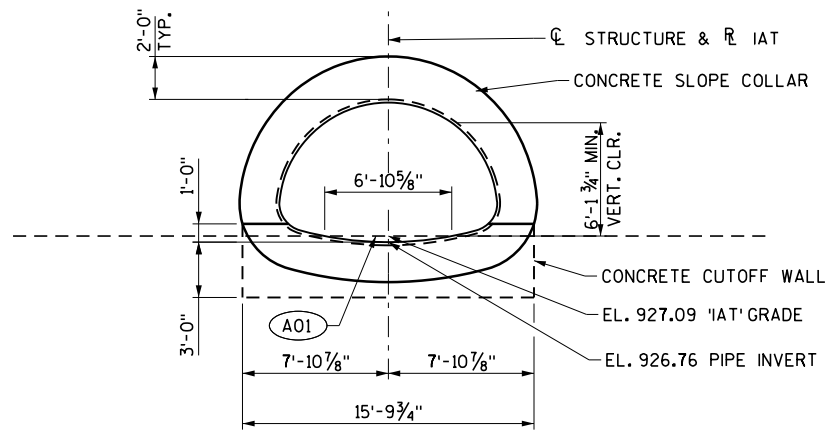
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		CHIEF STRUCTURES DESIGN ENGINEER	DATE
STRUCTURE C-13-3098 STH 19 OVER ICE AGE TRAIL			
COUNTY	DANE	TOWN	BERRY
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	CJM	DESIGN CK'D.	DRAWN BY
			CJM
GENERAL PLAN			SHEET 1 OF 3

8

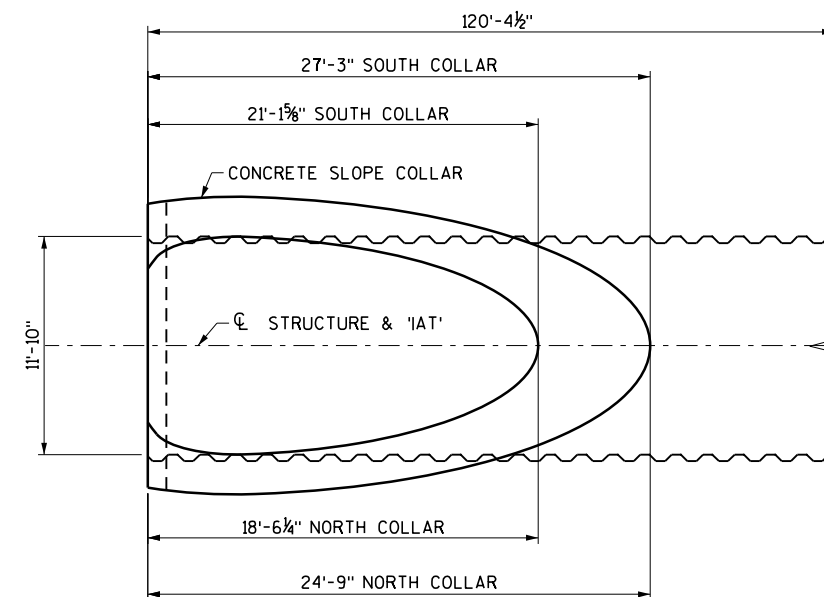
8

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	CATEGORY 0010	CATEGORY 0040	TOTAL
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-13-3098	LS	-----	1	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	-----		
504.0100	CONCRETE MASONRY CULVERTS	CY	-----		
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	-----		
645.0105	GEOTEXTILE TYPE C	SY	-----		
517.1010.S	CONCRETE STAINING C-13-3098	SF	-----		
A02 527.0335	PIPE ARCH STRUCTURAL PLATE 12-FT SPAN	LF	-----		
NON-BID ITEMS					
	NAME PLATE	EACH	-----	1	1



▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



LEGEND

- (A01) 4" MAX. BASE AGGERATE DENSE 1 1/4"
- (A02) FOUNDATION FILL COST INCIDENTAL TO BID ITEM PIPE ARCH STRUCTURAL PLATE 12-FT SPAN.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-14-3098			
DRAWN BY CJM		PLANS CK'D.	
CROSS SECTION AND QUANTITIES			SHEET 2 OF 3

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	09/21/2021	526918.71	757866.40
2	09/21/2021	526986.97	757850.88

BORINGS COMPLETED BY: GESTRA
REPORT COMPLETED BY: WISDOT SOUTHWEST REGION
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DANE COUNTY

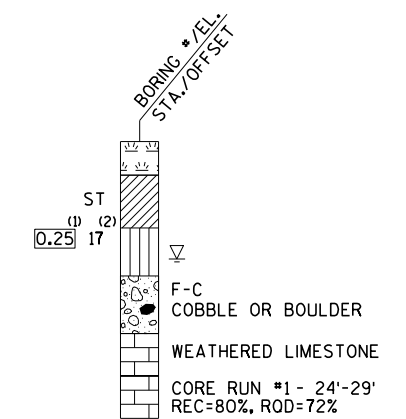
STATE PROJECT NUMBER

5145-00-71

MATERIAL SYMBOLS

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

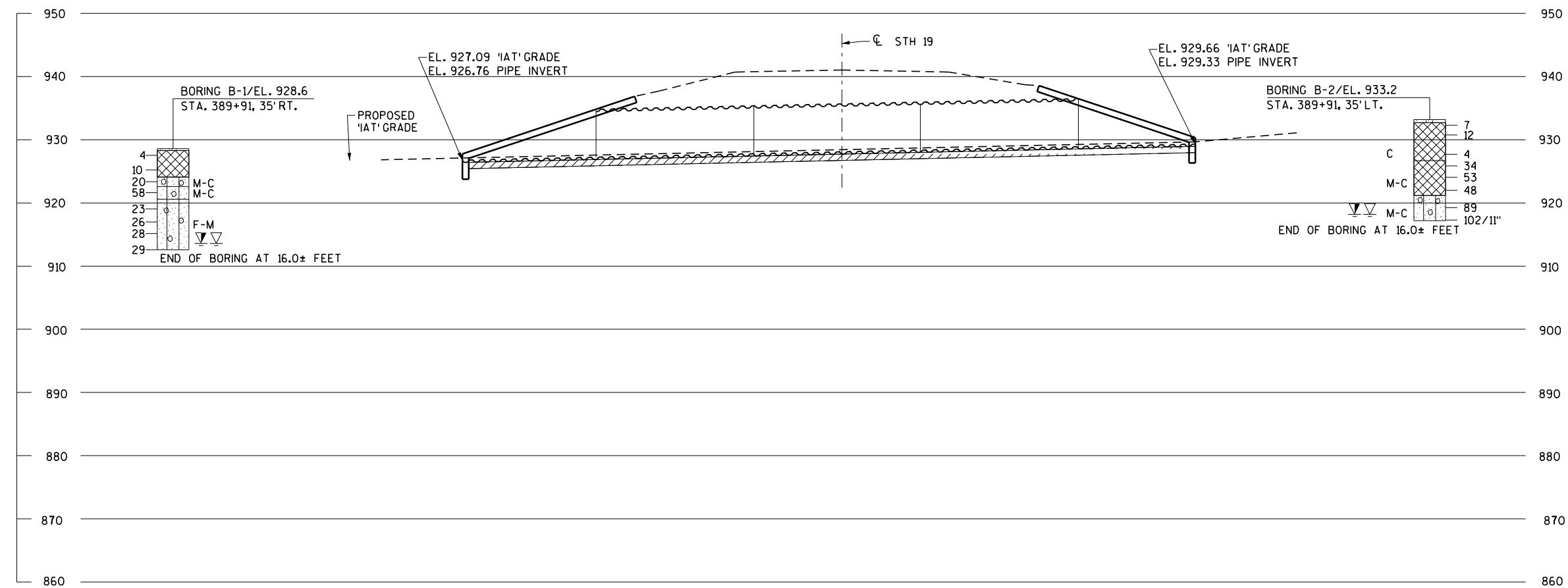
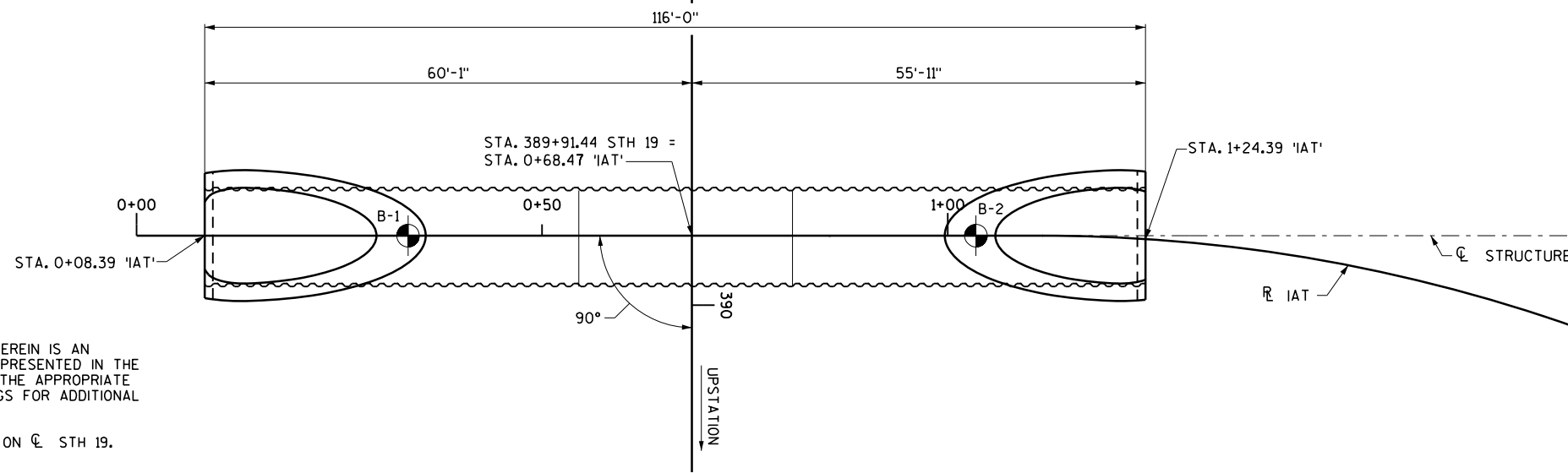
LEGEND OF BORING



NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON CL STH 19.



(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.

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 STRUCTURES DESIGN SECTION			
STRUCTURE C-13-3098			
DRAWN BY		CJM	PLANS CKD.
SUBSURFACE EXPLORATION		SHEET 3 OF 3	