

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF=X.XX
OPERATING RATING FACTOR _____ RF=X.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE _____ $f'_c = 4,000$ P.S.I.
ALL OTHER _____ $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL _____
REINFORCEMENT, GRADE 60 _____ $f_y = 60,000$ P.S.I.
36-INCH PRESTRESSED GIRDER _____
CONCRETE MASONRY _____ $f'_c = 8,000$ P.S.I.
STRANDS 0.6 INCH DIA. WITH _____
ULTIMATE TENSILE STRENGTH _____ $f_y = 270,000$ P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 50 FT PILE LENGTHS AT BOTH ABUTMENTS. PILE POINTS REQUIRED AT ALL LOCATIONS.

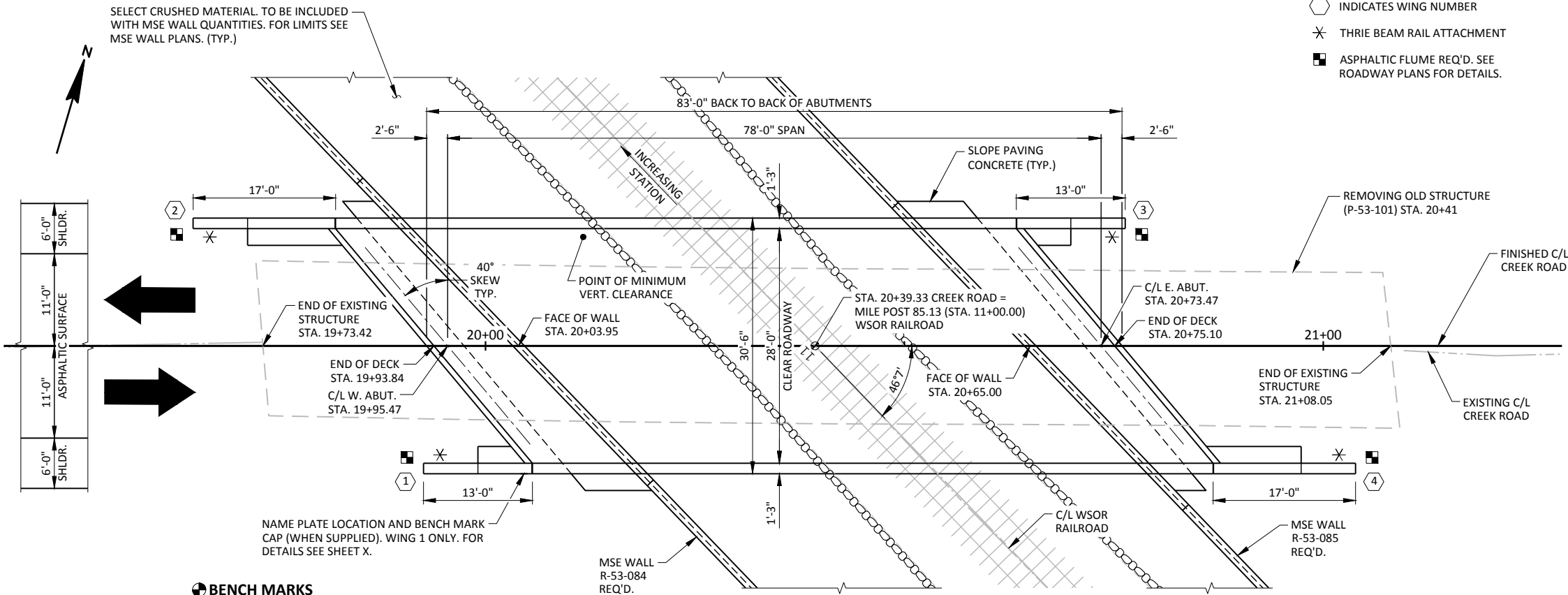
**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

A.D.T. (2020) _____ 480
A.D.T. (2040) _____ 520
DESIGN SPEED _____ 50 M.P.H.

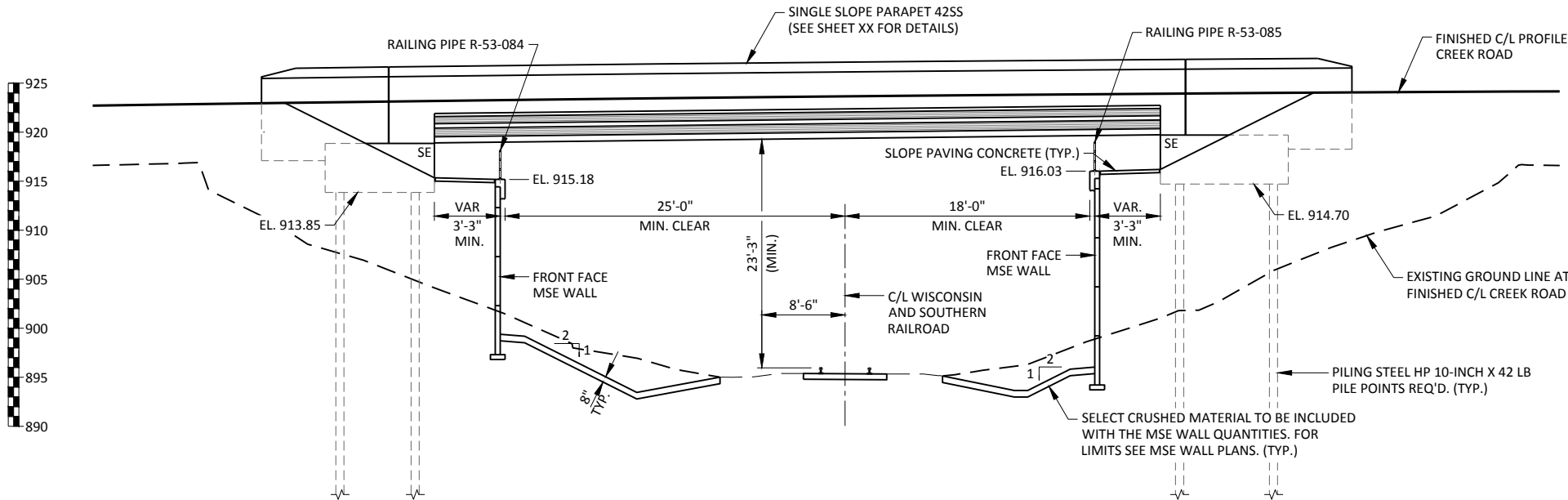
LIST OF DRAWINGS

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

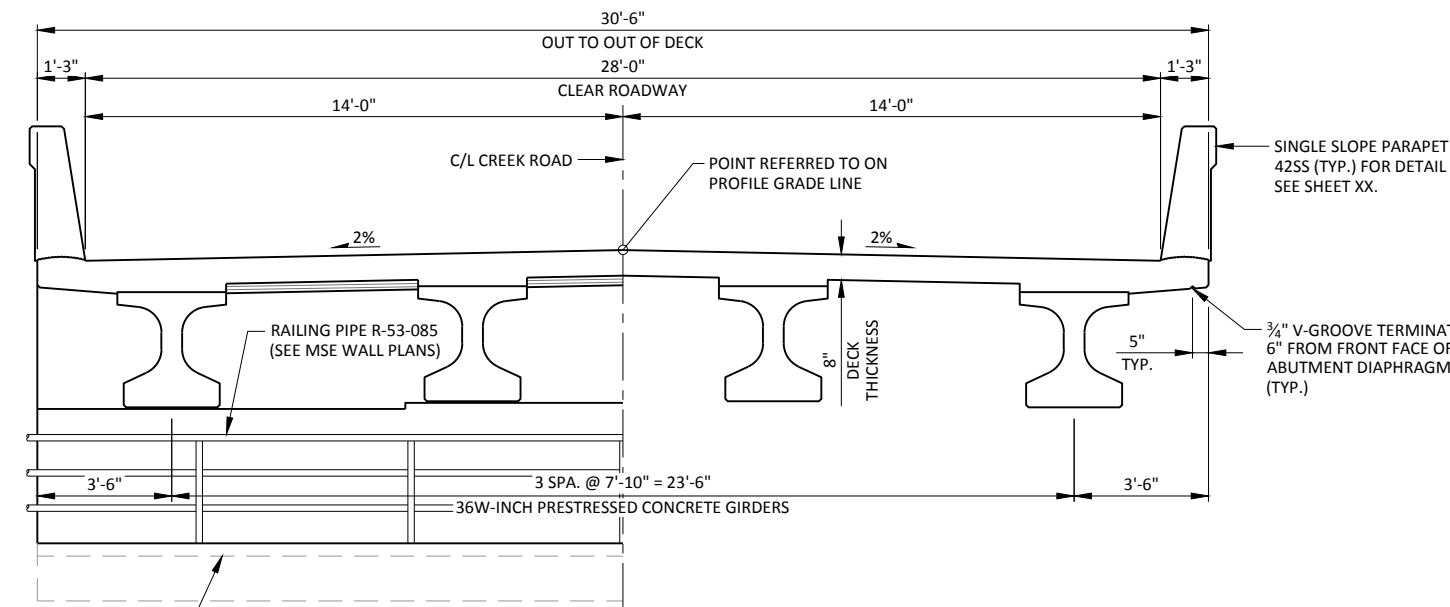


BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
4	8+08	3/4" IRON REBAR SET, 24.0' LT	897.12
5	16+81	3/4" IRON REBAR SET, 19.3' LT	906.61
101	19+92	STAR SPIKE IN PPOL, 39.8' RT	910.78
7	30+00	3/4" IRON REBAR SET, 48.3' RT	906.22



NO.	DATE	REVISION	BY
JEWELL <i>associates engineers, Inc.</i> <i>Engineers - Architects - Surveyors</i>		560 SUNRISE DRIVE SPRING GREEN, WI 53588 OFFICE: (608) 588-7484 www.jewellassoc.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____		CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____	
STRUCTURE B-53-177			
CREEK ROAD OVER WSOR RAILROAD			
COUNTY	ROCK	TOWN/CITY/VILLAGE	BRADFORD
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PTB
GENERAL PLAN		PLANS CK'D.	RBH
		SHEET 1 OF 3	

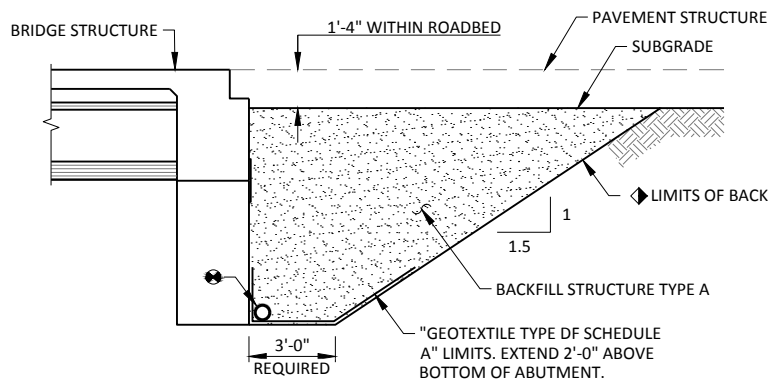


AT ABUTMENT

IN SPAN

PROPOSED CROSS-SECTION THROUGH ROADWAY

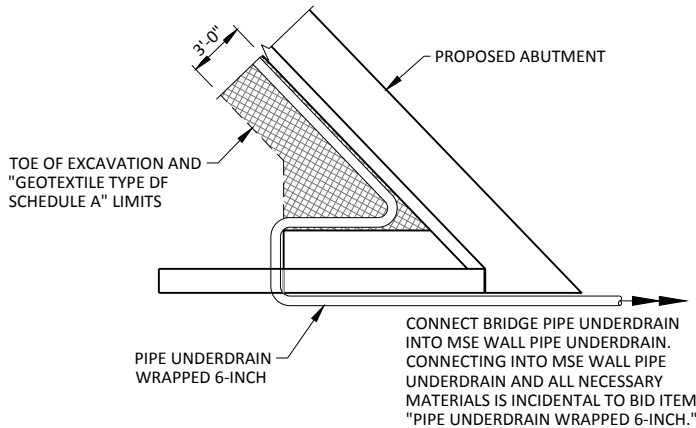
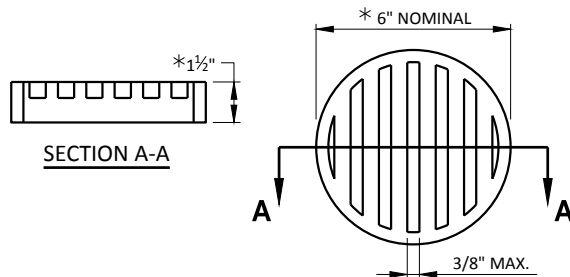
LOOKING EAST

**BACKFILL STRUCTURE DETAIL**

(TYPICAL AT BOTH ABUTMENTS)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT.	SUPER.	E. ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 20+41	LS	--	--	--	1
203.0225.S	DEBRIS CONTAINMENT P-53-101	LS	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-177	LS	--	--	--	--
210.1500	BACKFILL STRUCTURE TYPE A	TON	--	--	--	--
502.0100	CONCRETE MASONRY BRIDGES	CY	--	--	--	--
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	--	--	--	--
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	--	--	--
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	--	--	--	--
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	--	--
506.4000	STEEL DIAPHRAGMS B-53-177	EACH	--	--	--	--
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	--	--
550.0500	PILE POINTS	EACH	--	--	--	--
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	--	--	--	--
604.0400	SLOPE PAVING CONCRETE	SY	--	--	--	--
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	--	--	--
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	--	--	--	--
NON-BID ITEMS						
	FILLER	SIZE	--	--	--	½" & ¾"
	EXPANDED POLYSTYRENE	SIZE	--	--	--	1"
	NAME PLATE					

**PIPE UNDERDRAIN DETAIL**

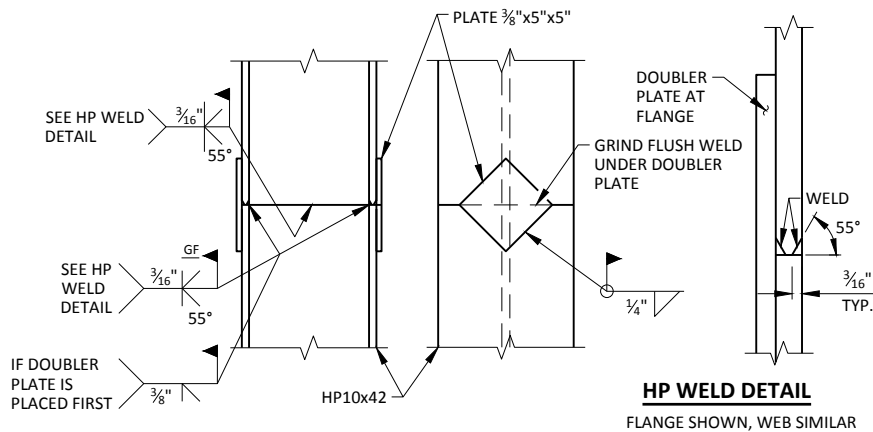
NOTES:

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

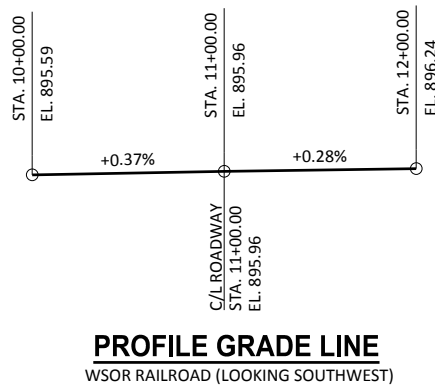
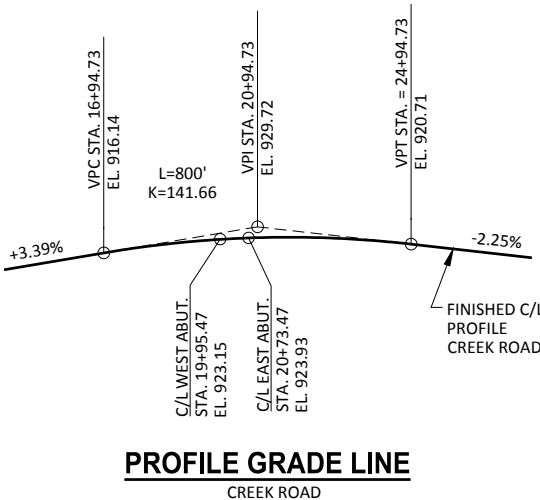
ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

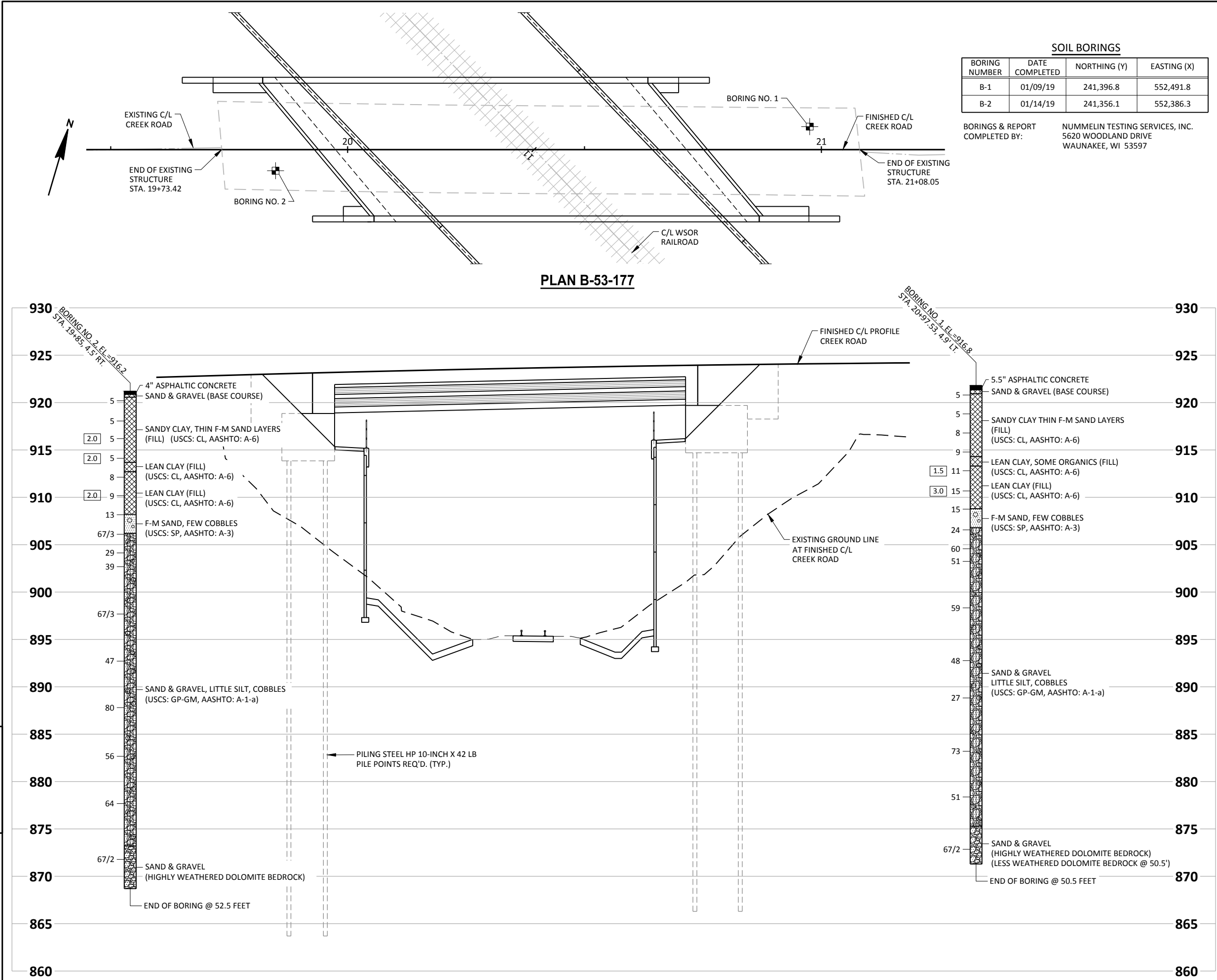
THE RODENT SCREEN SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

**PILE SPlice DETAIL**

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-177			
DRAWN BY		PTB	PLANS CK'D. RBH
CROSS SECTION AND QUANTITIES			SHEET 2 OF 3



STATE PROJECT NUMBER
3614-00-75

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 ELEVATIONS

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COURSE 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, SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS ARE NOT WARRANTED. 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-53-177			
DRAWN BY		PTB	PLANS CK'D. RBH
SUBSURFACE EXPLORATION		SHEET 3 OF 3	