MARATHON

6665-03-71

Index of Sheets

Sheet No.	1	Title
Sheet No.		Typical Sections and Details (includes erosion control plans)
Sheet No.		Estimate of Quantities
Sheet No.		Miscellaneous Quantities
Sheet No.		Right of Way Plat
Sheet No.		Plan and Profile
Sheet No.		Standard Detail Drawings
Sheet No.		Sign Plates
Sheet No.		Structure Plans
Sheet No.		Computer Earthwork Data
Sheet No.		Cross Sections

TOTAL SHEETS =

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH C - STH 153

(BIG EAU PLEINE RESERVOIR)

CTH S

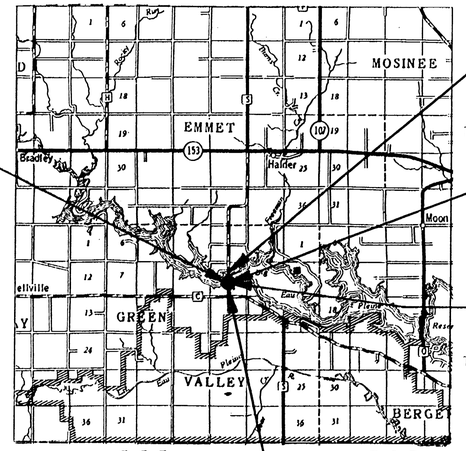
MARATHON COUNTY

STATE PROJECT NUMBER
6665-03/04-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6665-03/04-71		

Design Designation

A.D.T.	(1995)	=	610
A.D.T.	(2015)	=	760
D.H.V.	(2015)	=	135
D.		=	60/40
T.		=	6.0%
DESIGN SPEED		=	55 mph
ESALS		=	N/A



END PROJECT 6665-04-71
STA. 118+00

STRUCTURE
B-37-250

BEGIN PROJECT 6665-04-71
STA. 107+00

END PROJECT 6665-03-71
STA. 107+00

BEGIN PROJECT 6665-03-71
STA. 91+00
Y. 332,500(± 100)
X. 2,027,100(± 100)

N

Conventional Symbols

County Line		Combustible Fluids	CAUTION
Town or Range Line		Railroad	
Section Line		Fence	x x
Corporate Limits		Culvert (In Place)	
Property Line	P.L.	Culvert (Required)	
Lot Line		Power Pole	
Existing Right of Way Line		Telephone Pole	
New Right of Way Line		Right of Way Monument (Type)	(Type)
Reference Line		Marsh	
Slope Intercept		Wooded or Shrub Area	
Existing Roadway or		Grade Line Elevation	750
Private Entrance		Water	(Size) W
Limited Easement		Gas	(Size) G
Right of Way Point	O	Telephone	T
Silt Fence		Electric	E
Erosion Bales		Cable Television	TV
Sod		Fiber Optic	FO
Ditch Dike		Sanitary Sewer	(Size) SAN
Reinforced Sod		Storm Sewer	(Size) SS
Intercepting Embankment			
Riprap			
Erosion Mat.			

Layout

Scale 0 1 2 MI.

Total Net Length of Centerline: 0.511 Mi. Rural

COORDINATES ARE SCALED FROM THE U.S.G.S. TOPOGRAPHIC MAP HONEY ISLAND, WISCONSIN QUADRANGLE, FOR IDENTIFICATION ONLY.

ACCEPTED FOR
COUNTY OF MARATHON

DATE _____ COMMISSIONER

ORIGINAL PLANS PREPARED BY:

MSA MID-STATE ASSOCIATES, INC.
1230 South Blvd, Baraboo, WI 53913

WISCONSIN
MARVIN S. RUHLAND
E-15125
BARABOO
WISCONSIN
PROFESSIONAL ENGINEER

2-17-95 Marvin S. Ruhland
Date Signature

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MID-STATE ASSOCIATES, INC.
Designer	MID-STATE ASSOCIATES, INC.
District Examiner	RAB
District Supervisor	MNO
Proj. Dev. Engineer	
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE

DATE: _____ _____ (Signature)

D4\9392215

℄

* - INCLUDES WIDENING FOR BEAM GUARD
⊛ - SPECIAL DITCH ELEVATION

1167.12
1166.57 / 27.3 *
1166.57 / 27.3 *
0.02'/'
0.02'/'
3:1
3:1
R/W
3:1
SODDING & EROSION MAT (TYP.)
1155.6⊛
1154.4⊛
R/W

94+00 / 1170

P.E. STA. 93+48, RT. NOT FOR YARDAGE

93+48 / 1170

15.0%
R/W
18"ø C.P. REQ'D. 55' RT.
1157.8⊛

1169.70
1169.28 / 20.8'
1169.28 / 20.8'
3:1
3:1
3:1
3:1
1162.5⊛
1161.0⊛

93+00 / 1170

NOT FOR YARDAGE

6.5%
P.E. STA. 92+55, RT.
3:1
3:1
18"ø C.P. REQ'D. 41' RT.
1164.0⊛

92+55 / 1170

1172.70 / 20.8'
1173.12
1172.70 / 20.8'
3:1
3:1
3:1
3:1
1169.4⊛
1167.6⊛

92+00 / 1170

R/W
1177.37
R/W
0.02'/'
0.02'/'

MATCH EXISTING @ STA. 91+00 BEGIN ABRUPT

10
10'

91+00 / 1170

℄

STATE PROJECT NUMBER	SHEET NUMBER
6665 - 03 - 71	

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
91+00			
	100	209	56
92+00			
	100	461	378
93+00			
	100	396	1507
94+00			
	100	183	2728
95+00			
SHEET TOTAL		1249	4669

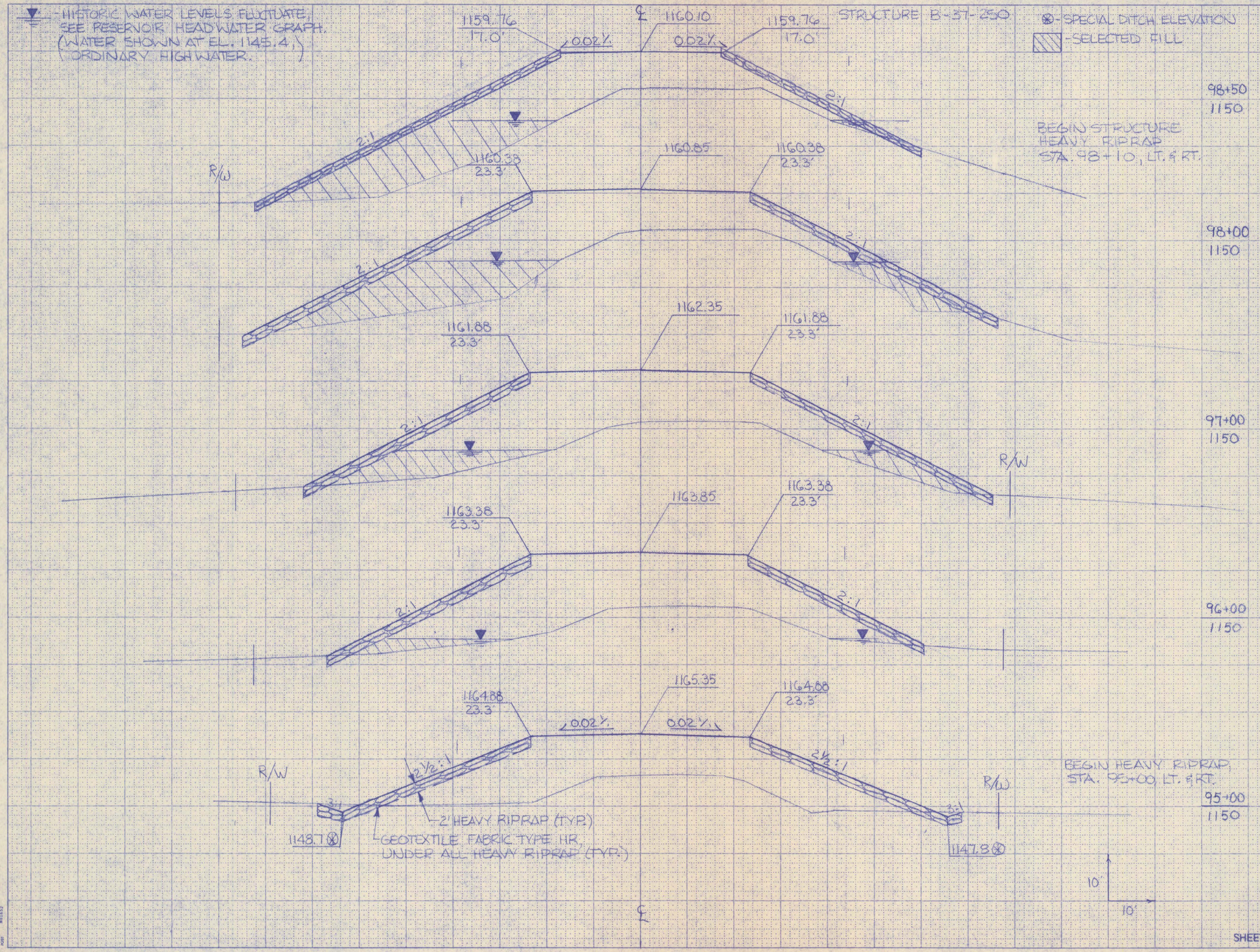
Catalog No. 2130-C121

-HISTORIC WATER LEVELS FLUCTUATE, SEE RESERVOIR HEADWATER GRAPH. (WATER SHOWN AT EL. 1145.4, ORDINARY HIGH WATER.

STRUCTURE B-37-250

⊗-SPECIAL DITCH ELEVATION

-SELECTED FILL



STATE PROJECT NUMBER	SHEET NUMBER
6665-03-71	

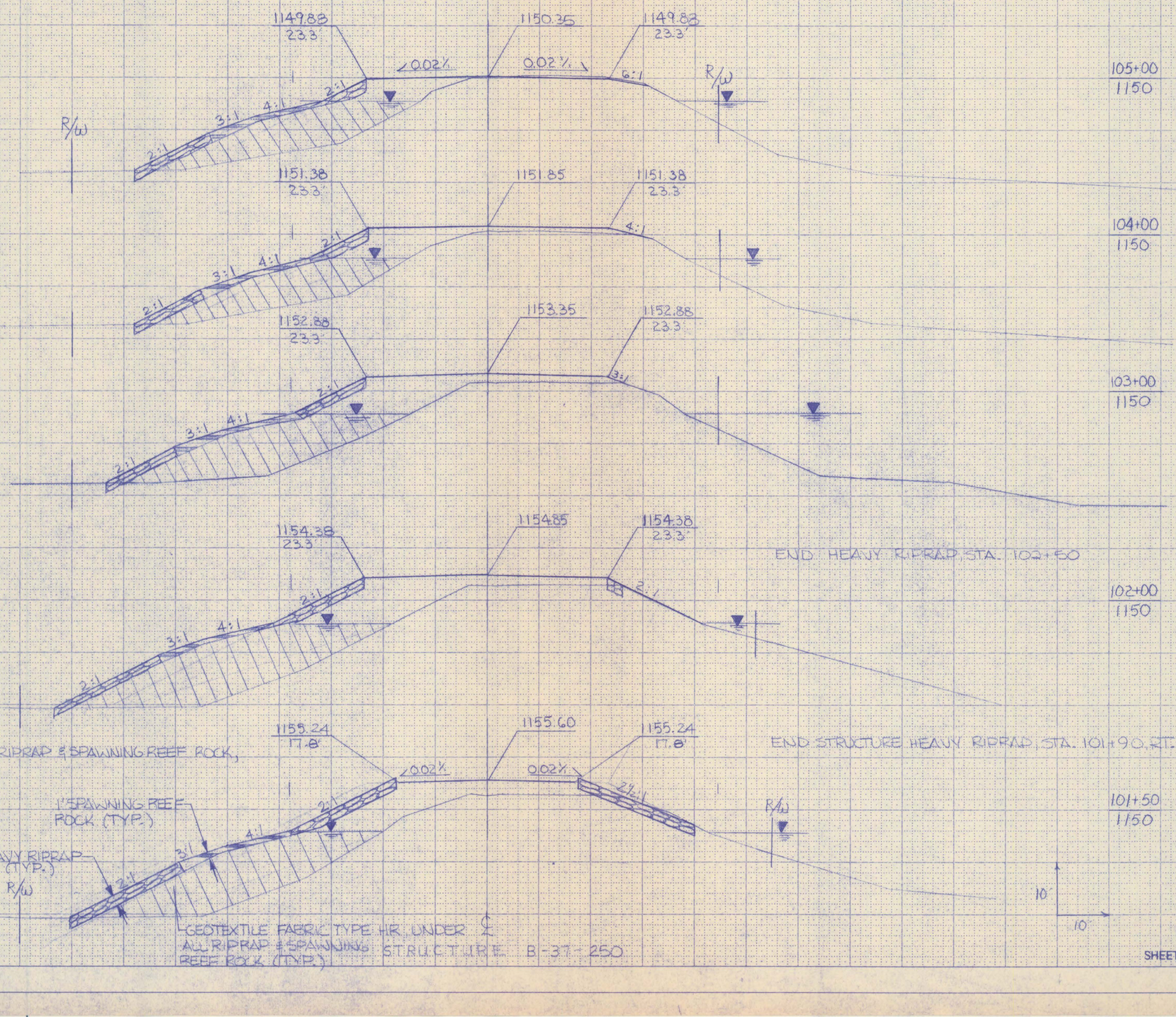
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	EXCAVATION HEAVY RIPRAP	EXCAVATION SELECTED FILL	FILL
95+00					
96+00	100	122		113	3422
97+00	100	50		556	3631
98+00	100	65		1300	3076
98+50	50	31		821	1187
98+62	12	6		188	252
98+91	29	8		228	305
	STRUCTURE B-37-250				
SHEET TOTAL		282		3206	11873

Catalog No. 2130-C1

▽ - HISTORIC WATER LEVELS FLUCTUATE, SEE RESERVOIR HEADWATER GRAPH. (WATER SHOWN AT EL. 1145.4, ORDINARY HIGH WATER.

℄

▨ - SELECTED FILL



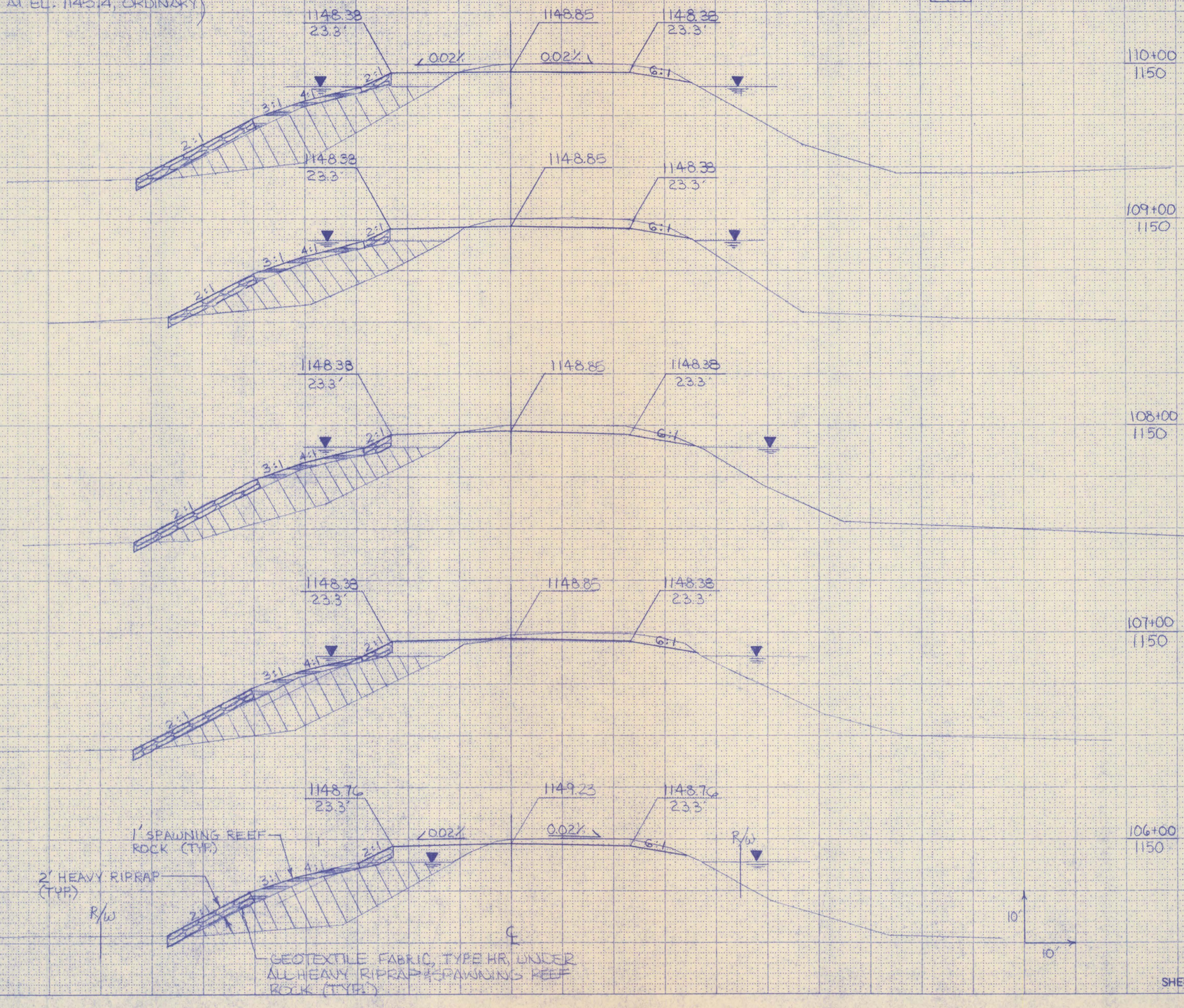
STATE PROJECT NUMBER	SHEET NUMBER
6665-03-71	

STATION	DISTANCE	YARDAGE: EXCAVATION UNCL.	EXCAVATION: SPAWNING REEF ROCK	EXCAVATION: HEAVY RIPRAP	EXCAVATION: SELECTED FILL	FILL
		STRUCTURE B-37-250				
101+18	16	13			110	58
101+34	16	26			219	117
101+50	50	47			750	389
102+00	100	17			1406	761
103+00	100	11			1046	587
104+00	100	31			926	365
105+00	100	111			1037	215
106+00						
SHEET TOTAL		256			5494	2492

▽ - HISTORIC WATER LEVELS FLUCTUATE. SEE RESERVOIR HEAD WATER GRAPH. (WATER SHOWN AT EL. 1145.4, ORDINARY HIGH WATER.

℄

▨ - SELECTED FILL



STATE PROJECT NUMBER	SHEET NUMBER
6665-03/04-71	

STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	SPAWNING REEF ROCK	HEAVY RIPRAP	SELECTED FILL	FILL
106+00						
	100	178			1156	178
107+00						
107+00						
	100	196			1106	150
108+00						
	100	239			976	122
109+00						
	100	259			1069	115
110+00						
	100	261			1063	106
111+00						
SHEET TOTAL		1133			5370	671

STATE PROJECT NUMBER	SHEET NUMBER
6665-04-71	

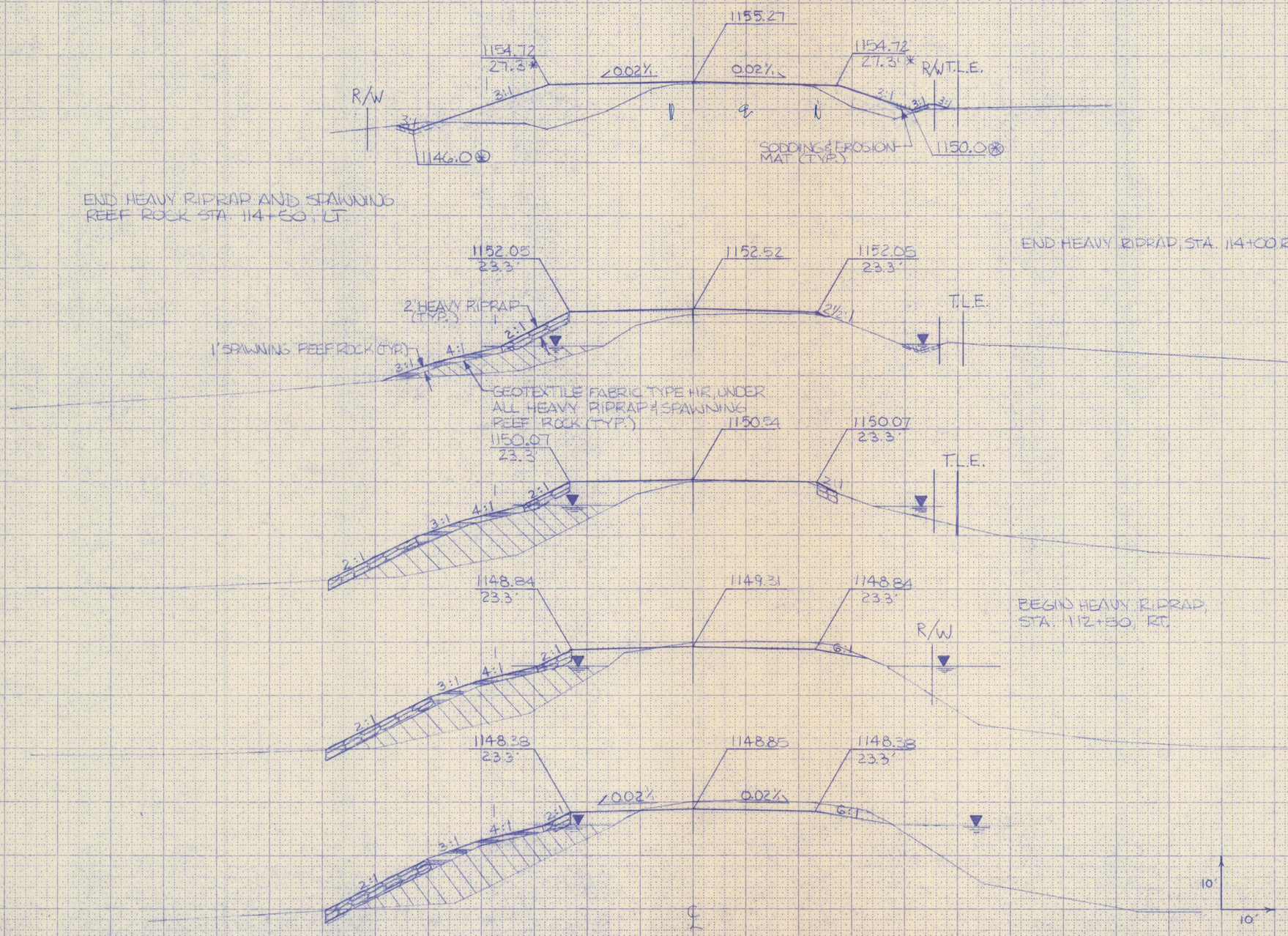
▼ - HISTORIC WATER LEVELS FLUCTUATE. SEE RESERVOIR HEAD WATER GRAPH. (WATER SHOWN AT EL. 1145.4, ORDINARY HIGH WATER.

℄

* - WIDENING FOR BEAM GUARD

Ⓢ - SPECIAL DITCH ELEVATION

▨ - SELECTED FILL

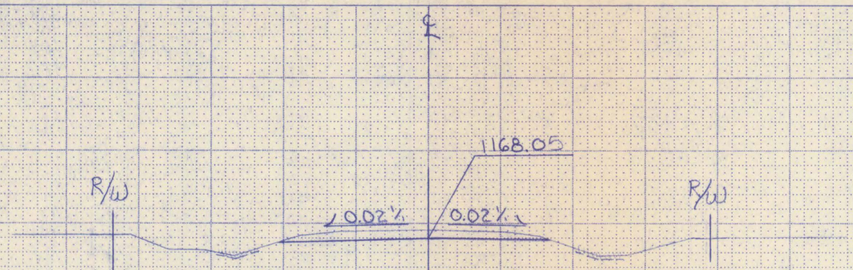


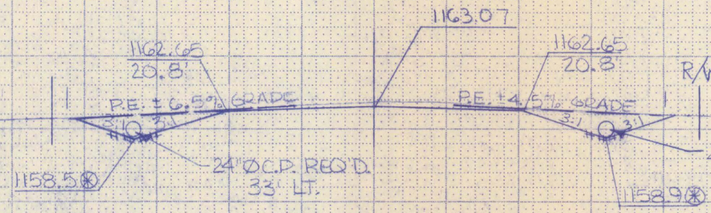
STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	EXCAVATION SPAWNING REEF ROCK	EXCAVATION HEAVY RIPRAP	EXCAVATION SELECTED FILL	FILL
111+00						
112+00	100	222			894	120
113+00	100	106			894	213
114+00	100	19			628	370
115+00	100	13			174	678
116+00	100	22				630
SHEET TOTAL	382				2590	2011

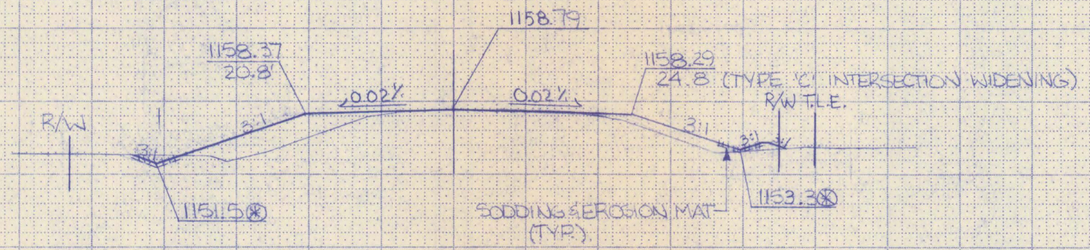
STATE PROJECT NUMBER	SHEET NUMBER
6665-04-71	

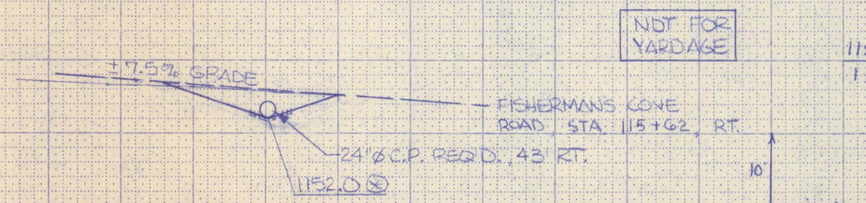
MATCH EXISTING
@ STA. 118+00
END ABRUPT

⊛ - SPECIAL DITCH ELEVATION







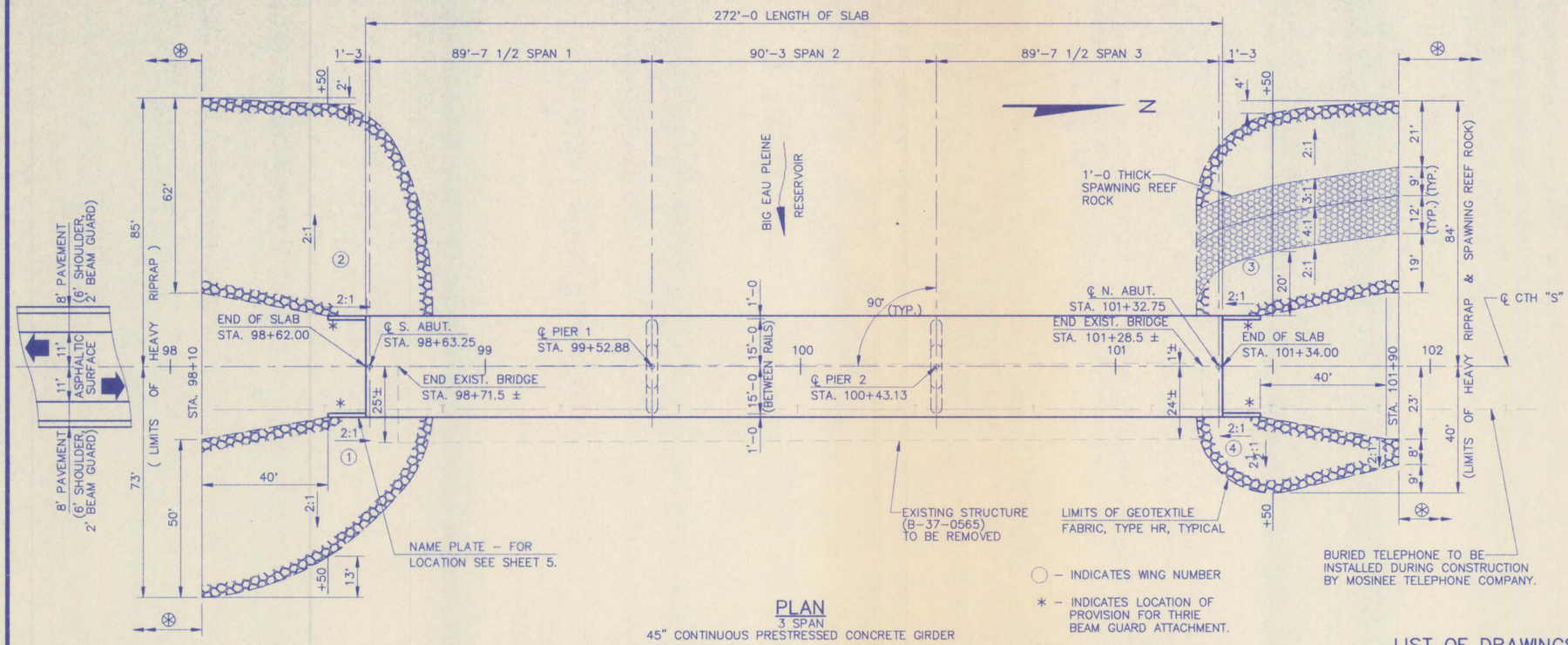


STATION	DISTANCE	YARDAGE EXCAVATION UNCL.	YARDAGE FILL
116+00			
	100	185	178
117+00			
	100	250	0
118+00			
118+00 / 1160			
117+00 / 1160			
116+00 / 1160			
115+62 / 1160			
SHEET TOTAL		435	178

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	

BENCHMARKS

NO.	STA.	DESCRIPTION	ELEV.
1	101+28 23' RT.	CHISELED CROSS ON N.E. TOP OF CURB.	1153.12
2	89+09 56' RT.	DBL. 20d. NAIL IN NORTHWEST FACE OF 8" ø ASPEN.	1185.17
3	116+12 44' RT.	DBL. 20d. NAIL IN NORTH FACE OF 24" ø OAK.	1156.48



PLAN

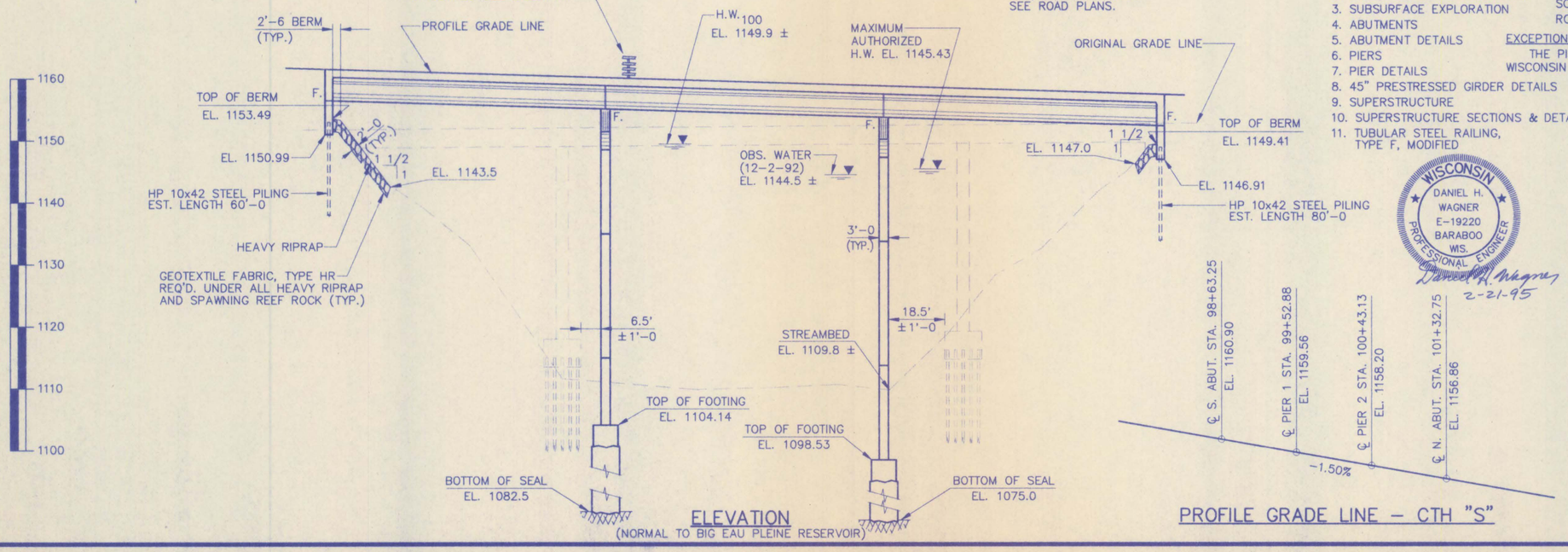
3 SPAN

45" CONTINUOUS PRESTRESSED CONCRETE GIRDER

◯ - INDICATES WING NUMBER

* - INDICATES LOCATION OF PROVISION FOR THRIE BEAM GUARD ATTACHMENT.

⊛ - FOR ADDITIONAL SPAWNING REEF ROCK AND/OR HEAVY RIPRAP SEE ROAD PLANS.



ELEVATION

(NORMAL TO BIG EAU PLEINE RESERVOIR)

PROFILE GRADE LINE - CTH "S"

DESIGN DATA

LIVELOAD

DESIGN RATING : HS-20
INVENTORY RATING : HS-23
OPERATIONAL RATING : HS-38
MAX. STANDARD PERMIT VEHICLE LOAD = 220 KIPS
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

TRAFFIC DATA:
A.D.T. (1995) = 610
A.D.T. (2015) = 760

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY - SLAB — fc' = 4,000 P.S.I.
- ALL OTHER — fc' = 3,500 P.S.I.
HIGH STRENGTH AND COATED HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
45" PRESTRESSED GIRDER CONCRETE MASONRY — fc' = 6,000 P.S.I.
1/2" DIA. STRANDS WITH ULTIMATE TENSILE STRENGTH OF — 270,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS SHALL BE SUPPORTED ON HP 10x42 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 60 TONS PER PILE. ESTIMATED PILE LENGTHS ARE 60'-0 AT THE SOUTH ABUTMENT AND 80'-0 AT THE NORTH ABUTMENT. THE PIERS SHALL BE FOUNDED ON SPREAD FOOTINGS WITH CONCRETE SEALS ON SOUND METAMORPHIC SHALE, MAXIMUM BEARING PRESSURE 10 TONS/SQ. FT.

HYDRAULIC DATA:

100 YEAR FREQUENCY

DRAINAGE AREA — 310 SQ. MI.
Q_{100} — 34600 C.F.S.
VELOCITY — 5.1 F.P.S.
WATERWAY AREA — 6817 SQ. FT.
HIGH WATER$_{100}$ ELEVATION — 1149.9 ±
SCOUR CRITICAL CODE — 5
ROADWAY OVERFLOW DESIGN FREQUENCY — N/A

EXCEPTION TO AASHTO 1993 DESIGN SPECIFICATION

THE PIERS ARE DESIGNED WITHOUT LIVELOAD IMPACT PER WISCONSIN DEPARTMENT OF TRANSPORTATION POLICY.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. ABUTMENTS
5. ABUTMENT DETAILS
6. PIERS
7. PIER DETAILS
8. 45" PRESTRESSED GIRDER DETAILS
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE SECTIONS & DETAILS
11. TUBULAR STEEL RAILING, TYPE F, MODIFIED

BRIDGE OFFICE CONTACT
(608) 266-8488
GERALD ANDERSON

WISCONSIN DANIEL H. WAGNER E-19220 BARABOO WIS. PROFESSIONAL ENGINEER
Daniel H. Wagner 2-21-95

No.	Date	Revision	By

PLANS PREPARED BY
MSA MID-STATE ASSOCIATES, INC.
1230 S. BLVD., BARABOO, WI. 53913

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

CTH S OVER BIG EAU PLEINE RESERVOIR

County: MARATHON		Town /~~City/Village~~: GREEN VALLEY	
Design Spec.: AASHTO 1993		Load: HS-20	Const. Spec.: WI "89"
Designed By: JMB	Design Checked: DHW	Drawn By: RLR	Plans Checked: DHW

Approved _____ State Bridge Engineer _____ Date

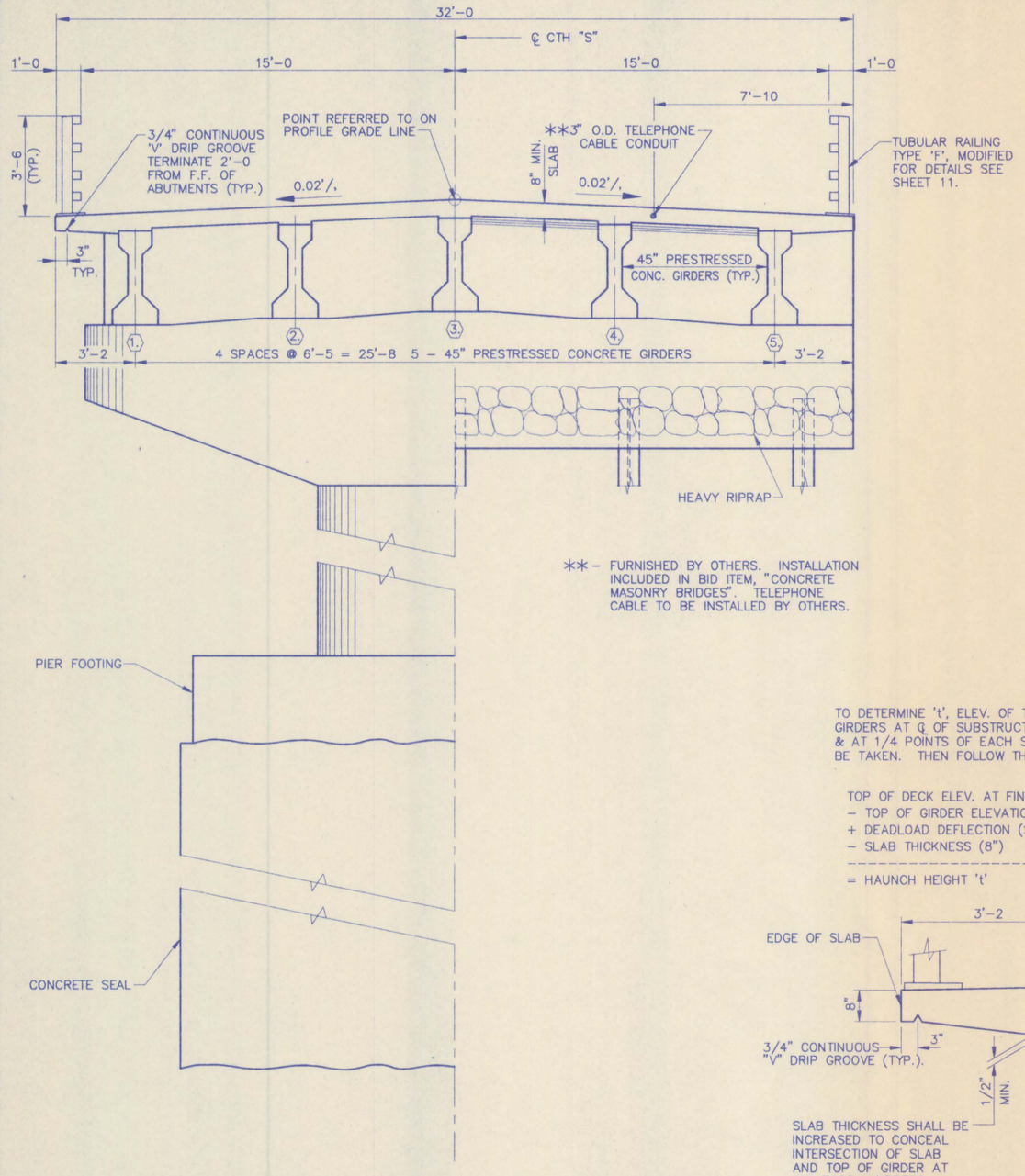
GENERAL PLAN

SHEET 1 OF 11

OCT. 1994

93924201

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



**- FURNISHED BY OTHERS. INSTALLATION INCLUDED IN BID ITEM, "CONCRETE MASONRY BRIDGES". TELEPHONE CABLE TO BE INSTALLED BY OTHERS.

AT PIERS AT ABUTMENTS

CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

	BID ITEMS	UNIT	SOUTH ABUT.	PIER 1	PIER 2	NORTH ABUT.	SUPER	TOTAL
	REMOVING OLD BRIDGE, STATION 100+00	L.S.						1
	EXCAVATION FOR STRUCTURES, BRIDGES B-37-250	L.S.						1
	COFFERDAMS	L.S.						1
	CONCRETE MASONRY, BRIDGES	C.Y.	29.4	91.7	96.5	29.4	281.0	528.0
	CONCRETE MASONRY, SEAL	C.Y.		132.0	147.0			279.0
	PROTECTIVE SURFACE TREATMENT	GAL.					44	44
	PRESTRESSED GIRDER, I TYPE, 45 INCH	L.F.					1350	1350
	HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.	2240	14260	15110	2240	21570	55420
	COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	LB.					32780	32780
	NON-LAMINATED ELASTOMERIC BEARING PADS	EACH					20	20
*	STEEL PILING DELIVERED & DRIVEN, HP 10 INCH, 42 POUND	L.F.	420			560		980
	TUBULAR RAILING, TYPE F, MODIFIED, STRUCTURE B-37-250	L.S.						1
	RUBBERIZED MEMBRANE WATERPROOFING	S.Y.	9			9		18
	HEAVY RIPRAP	C.Y.	650			310		960
	GEOTEXTILE FABRIC, TYPE HR	S.Y.	1020			660		1680
	SPAWNING REEF ROCK	C.Y.				55		55
	NON-BID ITEMS							
	FILLER	SIZE						3/4"

* - OIL FIELD PIPE IS NOT AN OPTION ON THIS PROJECT.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK, AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

NON-LAMINATED ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE HR TO THE LIMITS SHOWN ON SHEET 1 AND ON THE ABUTMENT SHEETS OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE ABUTMENTS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" FOR THE PIER SHALL BE THE STREAMBED ELEVATION.

AT THE ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL. PAYMENT WILL BE INCLUDED IN THE ITEM OF "EXCAVATION FOR STRUCTURES, BRIDGES B-37-250".

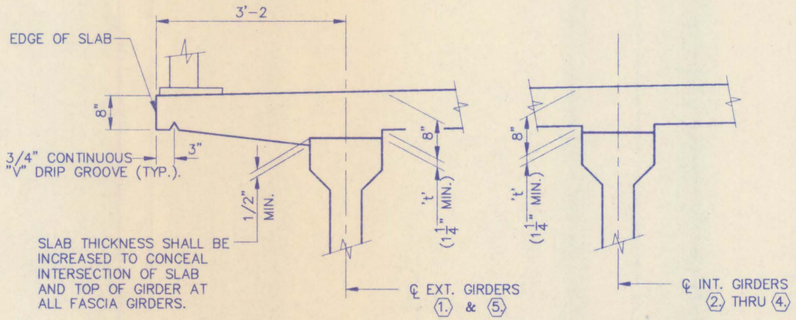
THIS STRUCTURE WILL REPLACE EXISTING STRUCTURE B-37-0565, 257' LONG, A SINGLE SPAN OVERHEAD TRUSS WITH LOW TRUSS APPROACH SPANS SET ON TIMBER ABUTMENTS AND TWO COLUMN CONCRETE CAISSON PIERS.

ALTERNATE STEEL INTERMEDIATE DIAPHRAGMS WILL NOT BE PERMITTED ON THIS STRUCTURE.

TO DETERMINE 't', ELEV. OF TOP OF GIRDERS AT ℄ OF SUBSTRUCTURE UNITS & AT 1/4 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

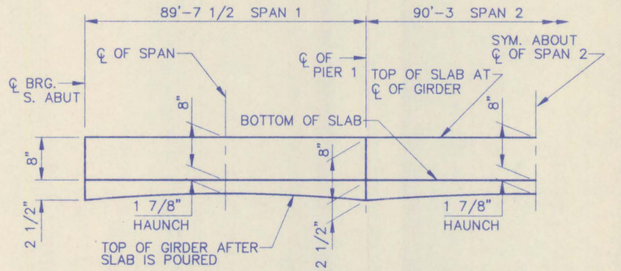
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEADLOAD DEFLECTION (SEE SHEET 8)
- SLAB THICKNESS (8")

= HAUNCH HEIGHT 't'



SLAB HAUNCH DETAIL

IF 1 1/4" MINIMUM HAUNCH HEIGHT 't' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. MAXIMUM HAUNCH HEIGHT EQUALS "STIRRUP PROJECTION" MINUS 3 INCHES.



HAUNCH HEIGHTS FOR GIRDER STIRRUP PROJECTION

NOTE: HAUNCH HEIGHTS ARE BASED ON THE TIME DEPENDENT VARIABLE "PRESTRESSED CAMBER" ASSUMING NORMAL CONSTRUCTION SCHEDULING.

No.	Date	Revision	By.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

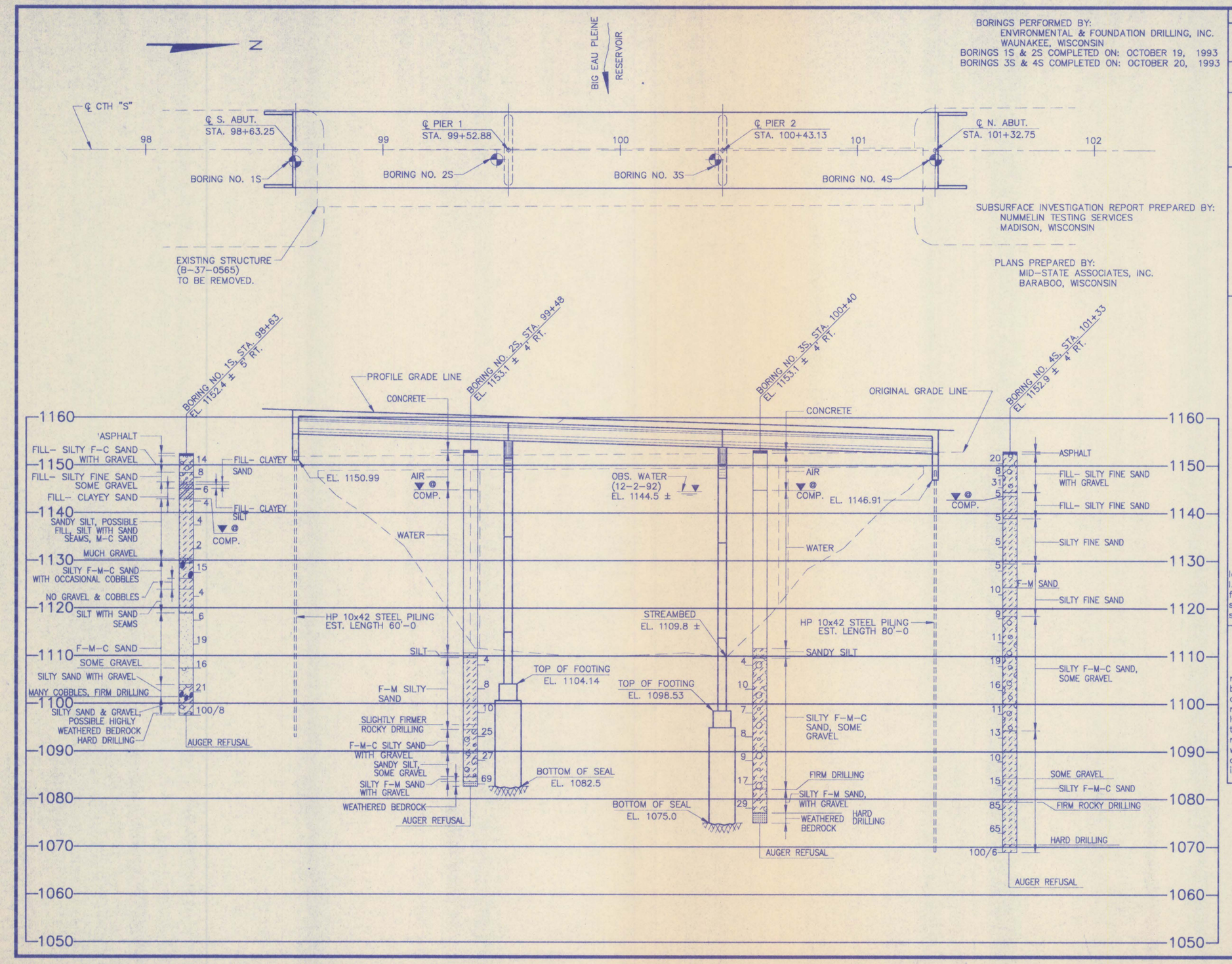
STRUCTURE B-37-250

Const. Spec: WI "89"	Drawn By RLR	Plans Checked DHW

CROSS SECTION & QUANTITIES

SHEET 2 OF 11

93924202



STATE PROJECT NUMBER	SHEET NO.
6665-03-71	

ABBREVIATIONS

F – Fine M – Medium C – Coarse
Ws – Weathered So – Sound

MATERIAL SYMBOLS

Topsoil, Sand, Gravel, Silt, Peat, Clay, Sandstone, Limestone, Igneous Rock

LEGEND OF PROBING

95/6=95 Blows for 6" Penetration
Probing taken with a 350# wt. Falling 18" on a 2" O.D. Point.

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal 95/6

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined Strength → 7.7
Blows Per Ft. Using 140# Wt. Falling 30"
Wash Sample
Shelby Tube — S.T.
Ground Water Elevation
No Ground Water Observed Above This Elevation
Sandy Gravel
F.
Boulders or Cobbles
Sand
Silty Clay
So. Limestone

Unless otherwise specified, the blows per foot at the locations indicated are based on driving a 2" O.D. x 1.4" I.D. split spoon sampler with a 140# hammer having a free fall of 30". The blow count is taken in undisturbed soil immediately below a cased or open hole eliminating side friction on the drive pipe.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

To obtain relative data concerning the character of material in and upon which the foundation might be built, borings and/or soundings were made at points approximately as indicated on this drawing. The data presented herein represents the findings of the subsurface explorations made. However, because the depths investigated are limited and the area of the borings and/or soundings is very small in relation to the entire area, the Division of Highways does not warrant conditions below the depths investigated or that the classification of material encountered in these investigations is necessarily typical of the entire site.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

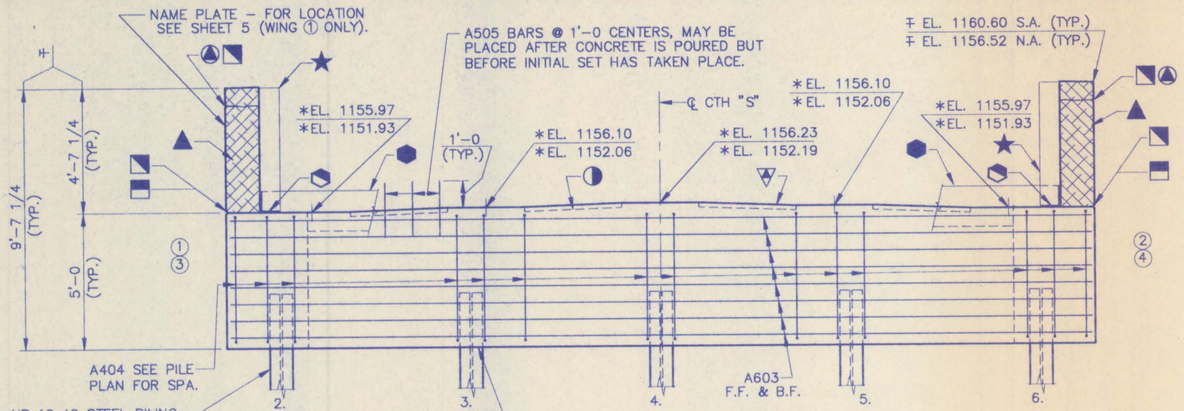
Const. Spec. WI "89"	Drawn By MMR/RLR	Plans Checked DHW

SUBSURFACE EXPLORATION

SHEET 3 OF 11

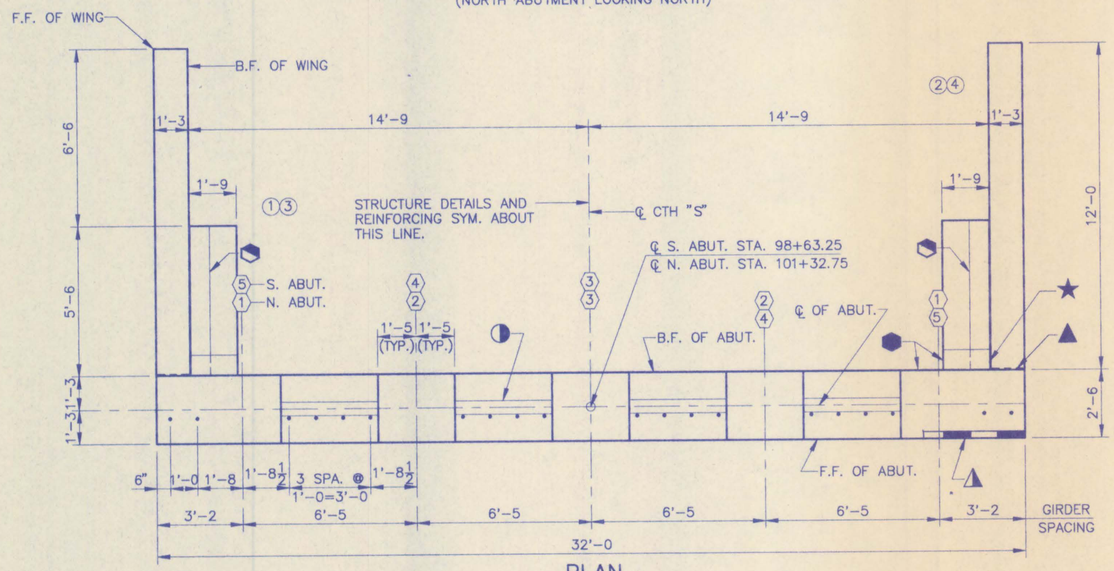
93924203

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



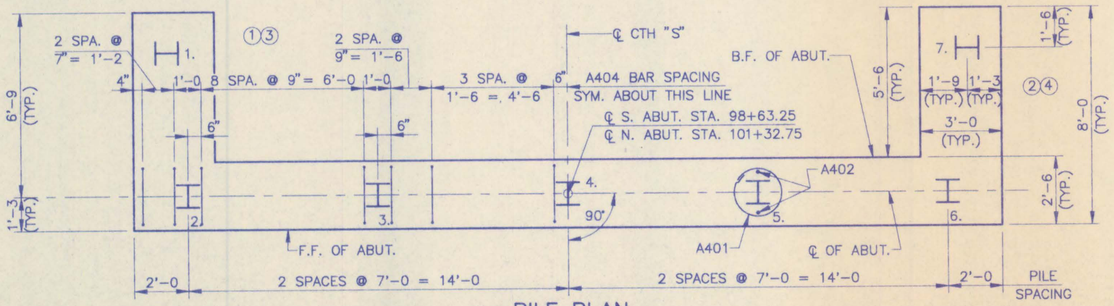
ELEVATION

(SOUTH ABUTMENT LOOKING SOUTH)
(NORTH ABUTMENT LOOKING NORTH)



PLAN

⬡ – INDICATES GIRDER NUMBER



PILE PLAN

LEGEND

∓ – DIMENSIONS AND ELEVATIONS GIVEN ARE AT THE BACKFACE (B.F.) OF ABUT. BODY AND F.F. OF WING. FOR WING ELEVATIONS AND DETAILS SEE SHEET 5.

* – ELEVATIONS GIVEN ARE AT THE ℄ OF ABUT.

◑ – KEYED CONSTRUCTION JOINT ON ABUTMENT BODY FORMED BY SURFACED AND BEVELED 2 X 6.

▽ – THE TOP OF ABUTMENT BODY BETWEEN THE BEAM SEAT AREAS MAY BE STEPPED INSTEAD OF SLOPED.

◥ – 3/4" "V" GROOVE ON FRONT FACE OF WING WALL, REQUIRED ONLY WHERE CONST. JOINT IS USED.

▬ – OPTIONAL KEYED CONST. JOINT ON WING FORMED BY SURFACED AND BEVELED 2 X 6.

◭ – OPTIONAL CONSTRUCTION JOINT AT TOP OF WING. LEAVE ROUGH.

POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE. AT LEAST ONE OPTIONAL CONSTRUCTION JOINT SHALL BE USED.

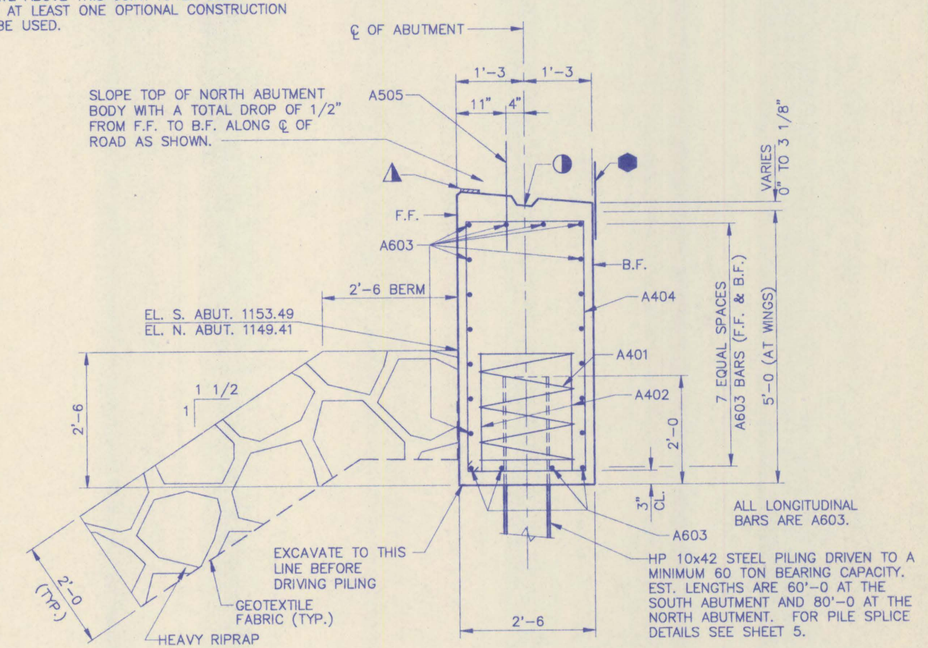
⬢ – PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING ON B.F. OF WING IF OPTIONAL CONST. JOINT IS USED. EXTEND FROM B.F. OF ABUTMENT TO END OF WING HAUNCH.

★ – VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.

⬢ – HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS. PLACE BOTTOM HALF HORIZ. AT HAUNCHED AREA OF WINGS.

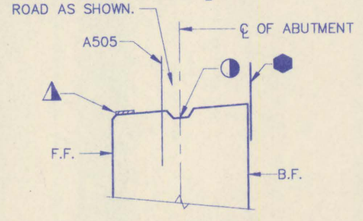
▲ – 3/4" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

◭ – 4" X 3/4" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.



TYPICAL SECTION THRU ABUTMENT

(NORTH ABUTMENT SHOWN)



SECTION THRU SOUTH ABUTMENT TOP

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

Const. Spec.	Drawn By	Plans Checked
WI. '89'	RLR	DHW

ABUTMENTS

SHEET 4 OF 11

93924204

BEARING ORIENTATION

BEARINGS ARE REFERENCED TO THE LINE BETWEEN THE NORTH 1/4 CORNER AND THE SOUTH 1/4 CORNER OF SECTION 10, T26N, R5E, WITH A BEARING OF N 00°13'46" E.

NOTE: EXISTING HIGHWAY R/W ESTABLISHED FROM THE NORTH–SOUTH QUARTER LINE OF SECTION 10, T26N, R5E.

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

RIGHT–OF–WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC RECORD. OTHER INFORMATION IS PROVIDED TO SUPPLEMENT THE BASIC PERIMETER DESCRIPTION AND SHALL NOT BE CONSTRUED TO PREVAIL OVER THE PERIMETER DESCRIPTION.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TOTAL ACRES REMAINING	T.L.E. ACRES
1		CLARA M. MILLER	FEE	37.42	0.09	–	0.09	37.33	–
2		WISCONSIN VALLEY IMPROVEMENT CO.	FEE	142.00	1.37	1.24	2.61	139.39	–
3		ANTHONY BJORNSON & MAUREEN BJORNSON	FEE	0.47	0.07	–	0.07	0.40	–
4		ALAN ZAHN AND DORIS ZAHN	FEE	1.05	0.01	–	0.01	1.04	0.01
5		DORIS H. ZAHN	FEE	0.15	0.02	–	0.02	0.13	0.02
6		CONSOLIDATED WATER POWER COMPANY	FEE	9.90	0.06	0.62	0.68	9.22	–
7		WALTER LAU AND MARY LAU	FEE	1.26	0.21	–	0.21	1.05	–
8		SANDRA LIETHEN	FEE	0.50	0.03	–	0.03	0.47	–
9		GTE NORTH, INC.	RELEASE OF RIGHTS	–	–	–	–	–	–

R/W COURSE DATA

COURSE	BEARING	DISTANCE	COURSE	BEARING	DISTANCE
1–2	S 89°58'21" W	41.21'	17–18	S 00°35'12" W	105.00'
2–3	N 06°27'11" W	301.90'	18–19	S 00°35'12" W	224.26'
3–4	N 02°14'34" W	150.11'	19–20	S 00°13'46" W	900.00'
4–5	N 02°14'34" W	237.91'	20–21	S 03°44'57" E	513.51'
5–6	N 00°12'01" E	412.62'	21–22	S 00°42'43" W	237.42'
6–7	N 05°54'40" E	100.50'	22–23	S 00°42'43" W	150.01'
7–8	N 00°12'01" E	1000.00'	23–24	S 04°15'42" W	200.56'
8–9	N 05°52'59" E	201.99	24–25	S 13°54'04" W	77.27'
9–10	N 06°00'32" E	225.82'	25–26	S 00°13'46" W	25.00'
10–11	N 00°13'46" E	75.01'	26–1	S 89°58'21" W	41.29'
11–12	S 88°52'12" E	82.51'	14–27	S 01°46'41" E	98.56'
12–13	S 00°13'47" W	50.01'	27–15	N 89°51'44" W	5.00'
13–14	S 04°55'43" E	50.28'	16–28	S 31°04'19" W	60.11'
14–15	S 01°07'48" W	98.52'	28–29	S 00°39'54" W	199.19'
15–16	S 34°11'22" E	60.54'	29–19	S 03°00'47" W	100.12'
16–17	S 58°43'45" W	41.21'			

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
6665–03/04–21	4.0	
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT–OF–WAY REQUIRED FOR:
CTH C – STH 153
(BIG EAU PLEINE RESERVOIR)
CTH S
MARATHON COUNTY

CONST. PROJECT

SCALE= 0 100 200 FT.

N

SOUTH 1/4 CORNER SECTION 10, T26N, R5E, RAILROAD SPIKE IN C/L OF CTH C & CTH S – FOUND

NORTH 1/4 CORNER SECTION 10, T26N, R5E, P.K. NAIL IN C/L OF CTH S – FOUND

N 00°13'38" E 1045.54'

N 00°13'46" E 5258.76'

N 00°15'55" E 3745.49'

CLARA M. MILLER ①

WISCONSIN VALLEY IMPROVEMENT CO. ②

ANTHONY BJORNSON AND MAUREEN BJORNSON ③

JOHANNA PEMPER

PETER W. SABLIAK

ALAN ZAHN AND DORIS ZAHN ④

DORIS H. ZAHN ⑤

CONSOLIDATED WATER POWER COMPANY ⑥

WALTER LAU AND MARY LAU ⑦

SANDRA LIETHEN ⑧

JOHN STEDER AND MARGARET STEDER

OVERHEAD ELECTRIC (WISCONSIN POWER & LIGHT CO.)

BURIED TELEPHONE (G.T.E. NORTH, INC.)

TELEPHONE PEDESTAL (G.T.E. NORTH, INC.) ⑨

TELEPHONE PEDESTAL (MOSINEE TELEPHONE CO.)

CORNFIELD

TALL GRASS

WOODS

LAWN

BIG EAU PLEINE RESERVOIR

NE–SW

SE–NW

NW–SE

SW–NE

EAST–WEST QUARTER LINE SEC. 10

EXISTING ROADWAY C/L

EXISTING R/W

CTH S (ASPHALT)

FISHERMANS COVE RD. (GRAVEL)

PHEASANT LANE (GRAVEL)

P.I. STA. 97+87.55

P.I. STA. 114+00

B–37–250

R/W

N 00°01'39" W

N 00°12'01" E

N 01°07'48" E

SEE PLAT OF RIGHT–OF–WAY DETAILS SHEET.

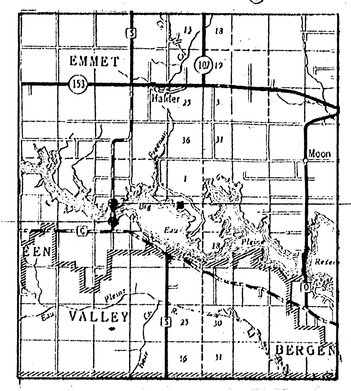
SEE PLAT OF RIGHT–OF–WAY DETAILS SHEET.

BEGIN RELOCATION ORDER

1045.53' NORTH OF AND 4.15' EAST OF THE SOUTH 1/4 CORNER OF SEC. 10, T26N, R5E.
STA. 91+00
PROJECT 6665–03–21

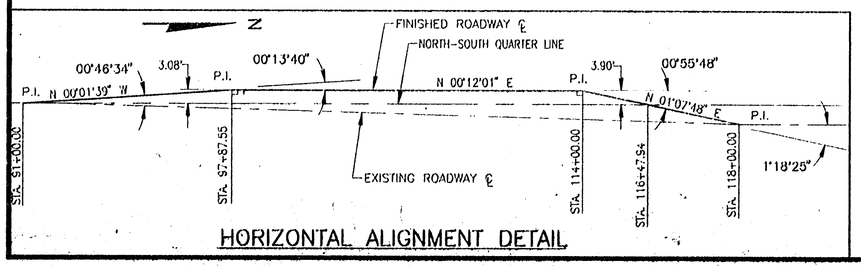
END RELOCATION ORDER

3745.45' NORTH OF AND 17.35' EAST OF THE SOUTH 1/4 CORNER OF SEC. 10, T26N, R5E.
STA. 118+00
PROJECT 6665–04–21



0 1 2 MI.

TOTAL NET LENGTH OF CENTERLINE= 0.511 MI.



HORIZONTAL ALIGNMENT DETAIL

WISCONSIN
DAVID J. MURPHY
S-1570
BARABOO, WISCONSIN
REGISTERED LAND SURVEYOR

David J. Murphy
9-20-94

LEGEND OF CONVENTIONAL SIGNS

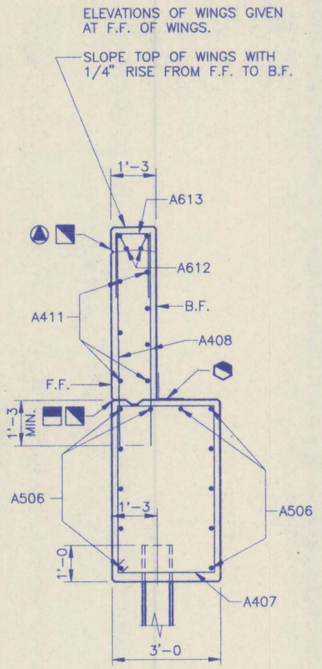
● – RIGHT–OF–WAY MARKER POST

ORIGINAL PLAT PREPARED BY:

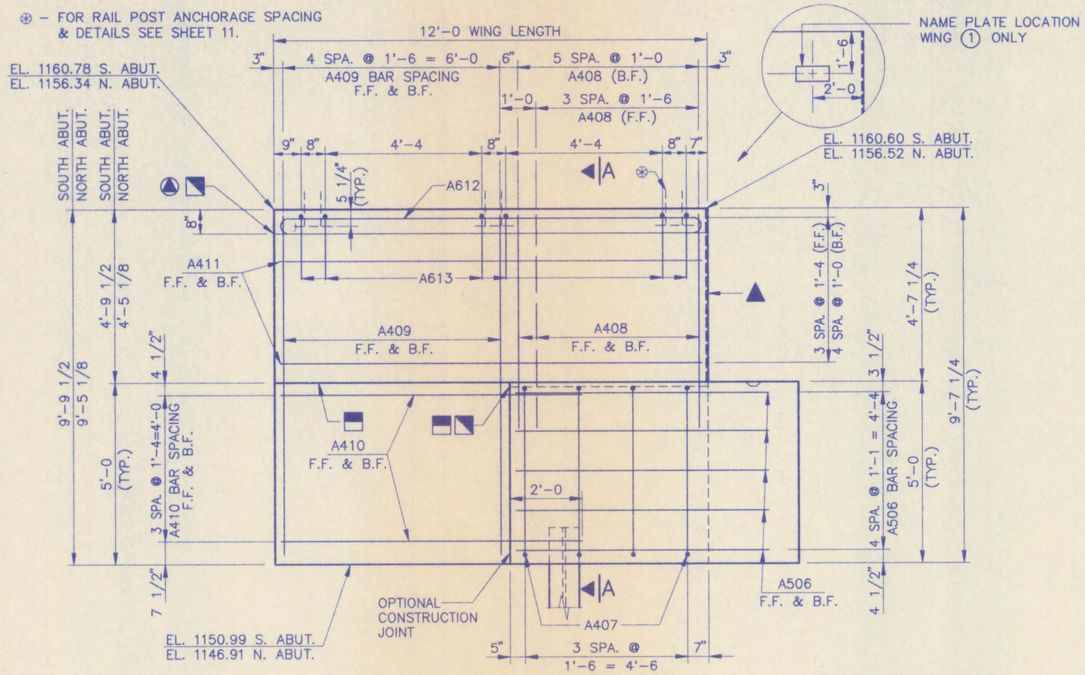
MSA MID–STATE ASSOCIATES, INC.
1230 South Blvd, Baraboo, WI 53913

D:\939242RW

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



SECTION A-A THRU WINGS

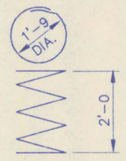


ELEVATION WINGS

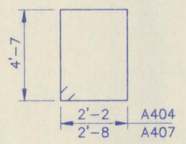
BILL OF BARS (1 ABUTMENT) 2240 LBS.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION
A401	5	28-0	X	AT BODY PILES-1 PER PILE 5 SPIRAL WRAPS
A402	10	2-3		" " " -2 " " - VERT.
A603	20	31-8		BODY - HORIZ.
A404	36	14-0	X	" - STIRRUPS - VERT.
A505	20	2-0		" - TOP DOWELS - "
A506	24	7-0		WINGS - BASE - HORIZ.
A407	8	15-0	X	" - " - STIRRUPS - VERT.
A408	20	5-10		" - TOP - "
A409	20	9-1		" - "
A410	16	8-4		" - BOTTOM - HORIZ.
A411	14	11-8		" - TOP - "
A612	4	12-7	X	" - @ RAIL ANCHORS - "
A613	12	4-0	X	" - " " " - VERT.

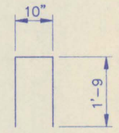
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
BAR MARKS FOR SOUTH ABUTMENT ARE SHOWN.
LABEL AND BUNDLE NORTH ABUTMENT BARS WITH B MARK (B401 THRU B613).



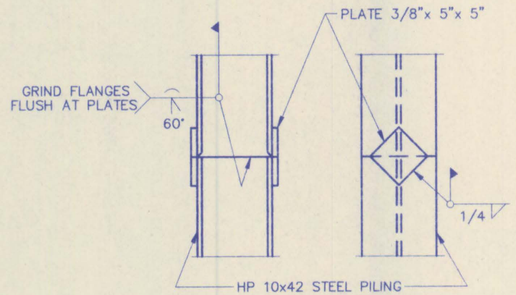
A401



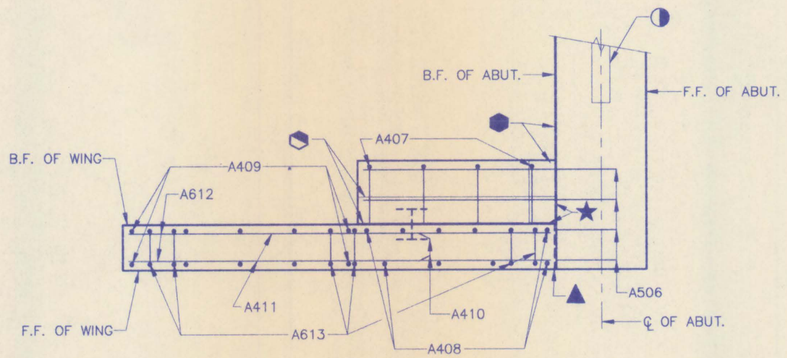
A404, A407



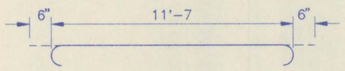
A613



PILE SPLICE DETAILS



PLAN WINGS



A612

SEE SHEET 4 LEGEND FOR DESCRIPTION OF

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

Const. Spec.	Drawn By	Plans Checked
WI. '89'	RLR	DHW

ABUTMENT DETAILS

SHEET 5 OF 11

93924205

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	

P922 (BUNDLED) TOP BARS BENT DOWN. AT OPPOSITE END OF PIER BOTTOM BARS BENT DOWN.

P425 - LONG LEG VERTICAL

15'-6 | 15'-6 | 14'-2

℄ CTH "S"

*EL. 1154.64 PIER 1 (1)
*EL. 1153.28 PIER 2

(3) *EL. 1154.90 PIER 1
*EL. 1153.54 PIER 2
*EL. 1154.77 PIER 1 (2)
*EL. 1153.41 PIER 2

*EL. 1154.77 PIER 1 (4)
*EL. 1153.41 PIER 2

*EL. 1154.64 PIER 1 (5)
*EL. 1153.28 PIER 2

*- BEARING ELEVATIONS GIVEN AT THE ℄ OF PIER.

2 1/2" CLEAR

4 1/2"

6 SPA. @ 9" = 4'-6 P527 SPACING

1'-0 (TYP.)

P528 BARS AT 1'-0 CENTERS MAY BE PLACED AFTER CONCRETE IS POURED, BUT BEFORE INITIAL SET HAS TAKEN PLACE. SEE LAYOUT PLAN FOR SPACING.

P718 | P421 | P619 | P426 | P420 SET 1 | 1'-6 | PIER CAP | 10'-0

3" | 4" | 3'-0 (TYP.) | 1'-6 | 4'-0 (TYP.) | 1'-0 | 5 SPA. @ 1'-0 = 5'-0

6 SPA. @ 8" = 4'-0 P524 - SET 1 | 10" | 4 SPA. @ 11" = 3'-8 P523 - SET 1 | 3"

13'-0 (TYP.) | 12 SPACES @ 1'-0 = 12'-0

2'-10 P917 | P413 | P414 | P412

4'-8" | 20'-0 (TYP.) | 19 SPACES @ 1'-0 = 19'-0

P917 | 4'-8 P1015, P1016

72'-0 (PIER 1) 78'-3 (PIER 2)

10'-6 14'-9 | 10 SPA. @ 1'-0 = 10'-0 | 14 SPA. @ 1'-0 = 14'-0 | 4'-8"

P1015 PIER 1 P1016 PIER 2

5'-10 P1011

2 1/2" CL. | EL. 1104.14 TOP OF FOOTING PIER 1 | EL. 1098.53 TOP OF FOOTING PIER 2

P509 | P710 | 6" (TYP.) | 3'-3 P501, P502 P603, P604

3'-6 (TYP.) | 3'-0 | 2'-0 | P808 | P1007

P412, P413 P414 SPACING

SEAL

P603 OR P604 @ 1'-0 SPACING

P501 OR P502 @ 2'-0 SPACING

1'-6 CL.

P505 | P506

PIER 1 12'-6 | 5 SPA. @ 2'-6 = 12'-6 P505, P506 SPACING
PIER 2 21'-0 | 6 SPA. @ 3'-0 = 18'-0

18'-0 ± 20'-0 ±

PIER 1 PIER 2

◀|A PIER DETAILS & REINF. SYM. ABOUT THIS LINE (TYP).

ELEVATION
(LOOKING NORTH)

1" | 1" | 1/2" | KEYED CONST. JOINT | 1" | 1/2" | 1/2" | 1"

CONSTRUCTION JOINT DETAILS
(RUSTICATION GROOVE AT THESE 2 JOINTS ONLY)

3'-0 | 1'-6 | 1'-6 | ℄ OF PIER | P528

P922 (BUNDLED) | P527 | P421 | P718 | P420 SET 1 | P412 | P413, P414 | P917

P1015 PIER 1 P1016 PIER 2 | P1011 | 2 1/2" CL. | P413 P414 | 2'-6 | P710 | P509 | P1011 | P808 | P1007 | 6" (TYP.)

P501 OR P502 | P506 | P505

EL. 1082.5 BOTTOM OF SEAL PIER 1
EL. 1075.0 BOTTOM OF SEAL PIER 2

SECTION A-A

4 EQUAL SPACES (TYP.) | P528 | P922 (BUNDLED) | 2 1/2" CL. (TYP.) | P523 SET 1 | P421 | 2 1/2" CL. (TYP.) | P420 SET 1 | P619

SECTION B-B

WIRE BARS TOGETHER @ 2'-0 CENTERS.

BUNDLING DETAIL
P922 BARS

1'-6 (TYP.) | 1'-6 (TYP.) | ℄ OF PIER | 1/2" | SLOPE TOP OF BOTH PIERS TO MATCH -1.5% GRADE.

GIRDER BEARING SEAT DETAIL
(ELEVATION LOOKING EAST)

℄ OF PIER | P426 | 1'-6 | 1'-6 | P425 LONG LEG VERTICAL | 5 EQUAL SPACES | P922 (BUNDLED)

PLAN AT CAP END

PIER DETAILS & REINF. SYM. ABOUT THIS LINE (TYP). | ℄ CTH "S"

℄ OF PIER | 4 1/2" | 5 SPA. @ 9" = 3'-9 | VERTICAL BAR SPACING | P414 | 3'-0 | 1'-6 | 1'-6 | 1'-6 R. | P414 BAR SPACING | 2'-3 | 1'-1 1/2" | P412 | P413 | 5 EQUAL SPACES | 1'-1 MIN. LAP BOTH ENDS (TYP.) | 11'-0

STA. 99+52.88 PIER 1
STA. 100+43.13 PIER 2

SECTION THRU PIER SHAFT

LEGEND

⬡ - DENOTES GIRDER NUMBER.

⊕ - KEYED CONST. JOINT FORMED BY SURFACED & BEVELED 2 x 6.

⊛ - KEYED CONST. JOINT FORMED BY SURFACED & BEVELED KEYWAY 4" DEEP x 1'-0 WIDE x 7'-0 LONG.

▼ - THE TOP OF PIER CAP BETWEEN THE BEAM SEAT AREAS MAY BE STEPPED INSTEAD OF SLOPED.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

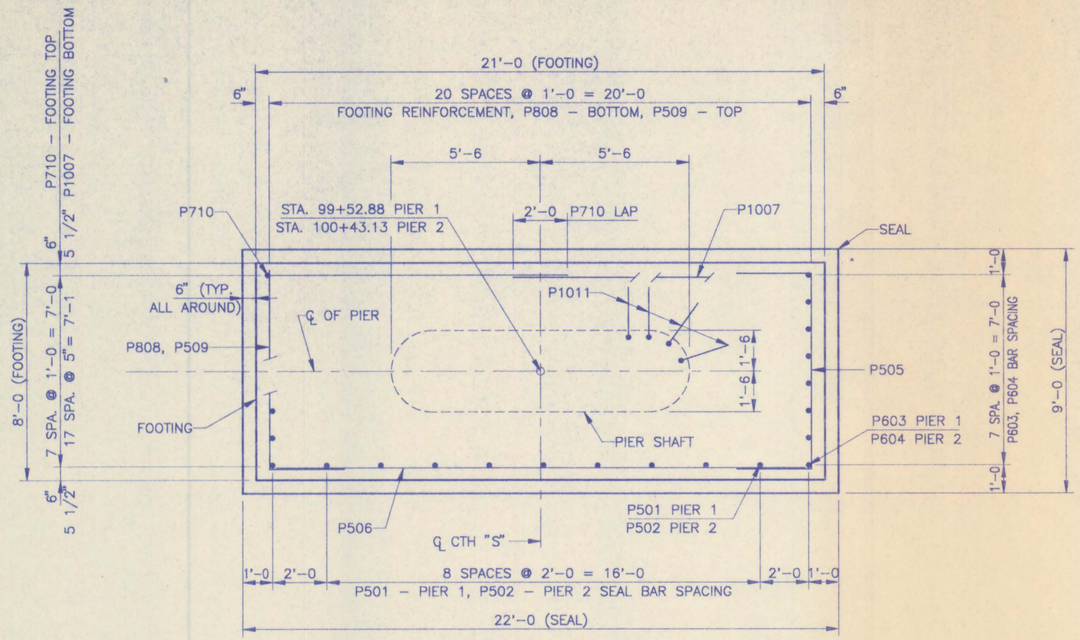
Const. Spec.	Drawn By	Plans Checked
WI "89"	RLR	DHW

PIERS

SHEET 6 OF 11

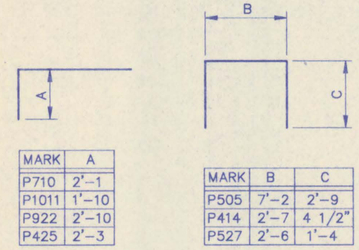
93924206

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



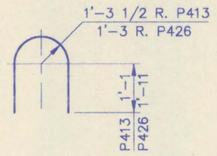
SEAL/FOOTING REINFORCEMENT PLAN

SEE ELEVATION, SHEET 6 FOR P505, P506 BAR SPACING
SEE SECTION THRU PIER SHAFT FOR P1011 BAR SPACING

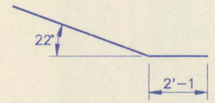


MARK	A
P710	2'-1
P1011	1'-10
P922	2'-10
P425	2'-3

MARK	B	C
P505	7'-2	2'-9
P414	2'-7	4 1/2"
P527	2'-6	1'-4



P413, P426



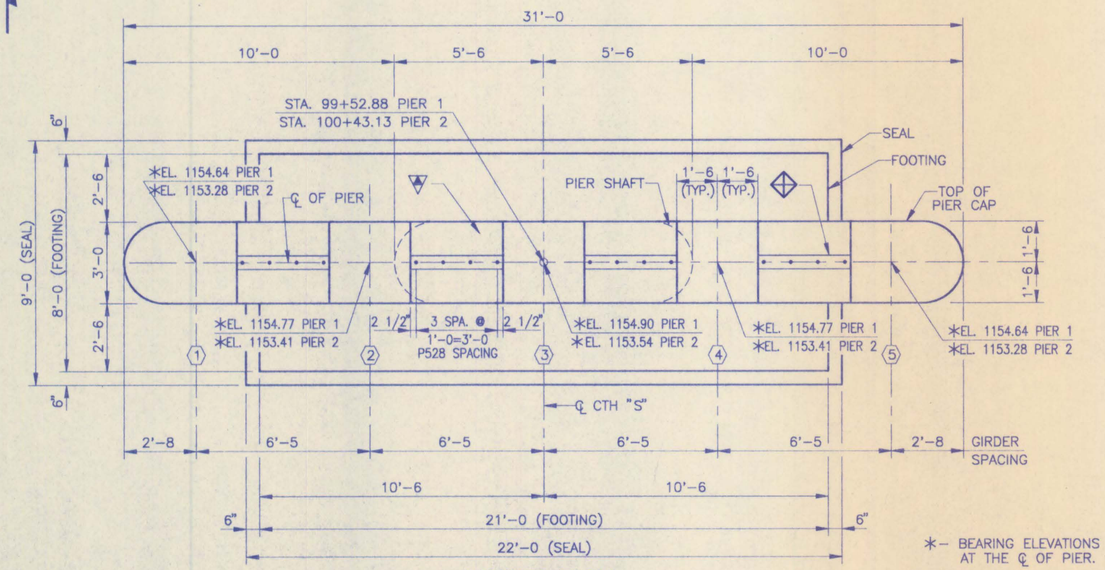
P619

BILL OF BARS

PIER 1 - 14260 LBS.
PIER 2 - 15110 LBS.

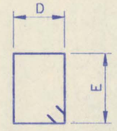
MARK	NO. REQ'D. PIER 1	NO. REQ'D. PIER 2	LENGTH	BENT	CUTTING DIAGRAM	LOCATION
P501	18	-	20-6			PIER SEAL - PIER 1 - VERT.
P502	-	18	22-6			" " " 2 "
P603	16	-	20-6			" " " 1 "
P604	-	16	22-6			" " " 2 "
P505	12	14	12-5	X		" " - HORIZ.
P506	12	14	19-6			" " "
P1007	18	18	20-3			" FOOTING - BOTTOM "
P808	21	21	7-3			" " " "
P509	21	21	7-3			" " - TOP "
P710	16	16	13-0	X		" " " "
P1011	32	32	10-2	X		" SHAFT & FOOTING - VERT.
P412	90	98	8-0			" " - HORIZ.
P413	90	98	6-2	X		" " - AT ENDS "
P414	180	196	3-2	X		" " - TIES "
P1015	32	-	15-2			" " - PIER 1 - VERT.
P1016	-	32	19-5			" " " 2 "
P917	32	32	22-10			" " "
P718	32	32	19-10			" " & CAP "
P619	8	8	11-4	X		" CAP - BOTTOM - HORIZ.
P420	4	4	37-9		X	" " "
P421	4	4	28-2			" " "
P922	10	10	30-11	X		" " - TOP - BUNDLED "
P523	5	5	35-4	X	X	" " - STIRRUPS - VERT.
P524	7	7	27-10	X	X	" " " "
P425	8	8	4-9	X		" " - ENDS "
P426	8	8	7-10	X		" " " - HORIZ.
P527	14	14	5-0	X		" " - TOP - VERT.
P528	16	16	2-0			" " - DOWELS @ TOP "

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
BENT BARS IF USED IN CUTTING DIAGRAM SHALL BE BENT AFTER CUTTING.



LAYOUT PLAN

*- BEARING ELEVATIONS GIVEN AT THE ℄ OF PIER.

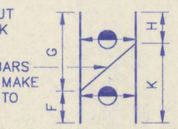


MARK	D	E (VARIES)
P523	2'-7	5'-2 TO 6'-8 IN 4 1/2" INC.
P524	2'-7	3'-3 TO 4'-10 IN 3 1/4" INC.

SEE SHEET 6 LEGEND FOR DESCRIPTION OF

MARK		F	G	H	K	NO. OF BARS/SET	SETS REQ'D
P420	SET 1	11'-5	26'-4	11'-5	26'-4	4	4
P523	SET 1	16'-2	19'-2	16'-2	19'-2	5	4
P524	SET 1	12'-4	15'-6	12'-4	15'-6	7	4

BUNDLE & MARK CUT BARS W/ BAR MARK & SET NUMBER.
MARK & CUT ALL BARS ALONG THIS LINE. MAKE ALL CUTS NORMAL TO BAR AXIS.



CUTTING DIAGRAM

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

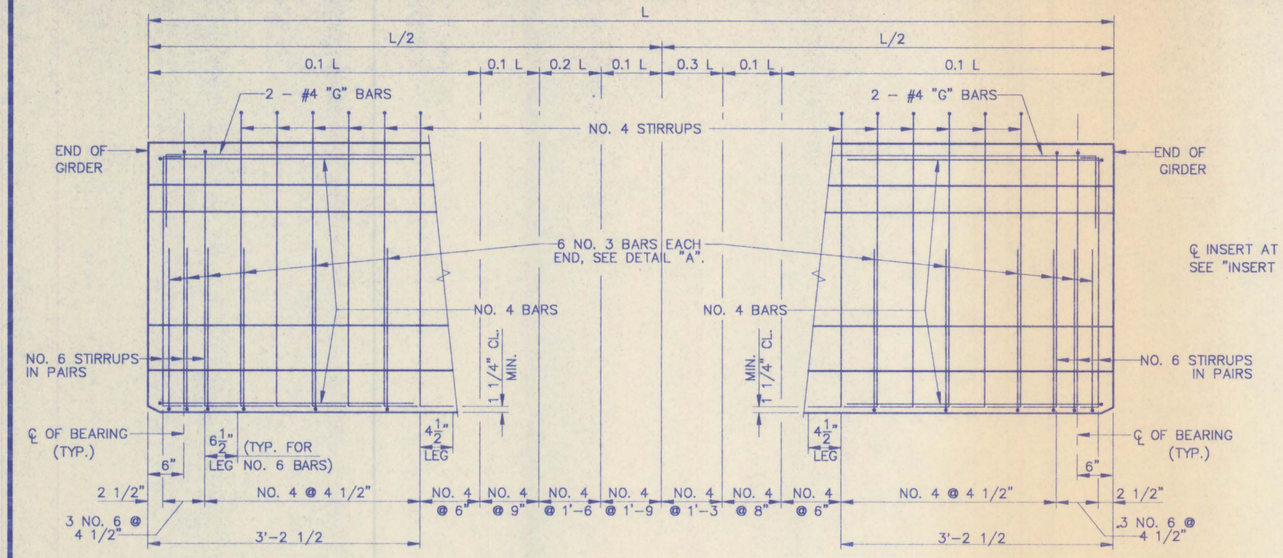
Const. Spec.	Drawn By	Plans Checked
WI "89"	RLR	DHW

PIER DETAILS

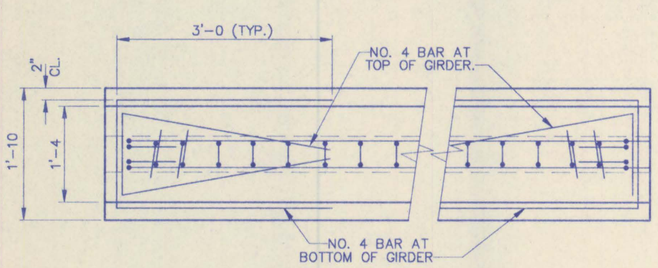
SHEET 7 OF 11

93924207

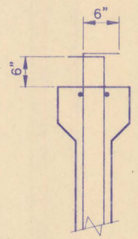
STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



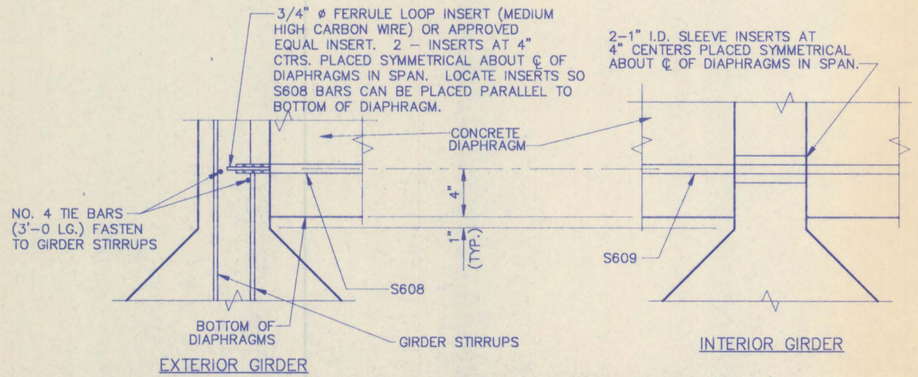
45" GIRDER – SIDE VIEW



TOP VIEW OF GIRDER

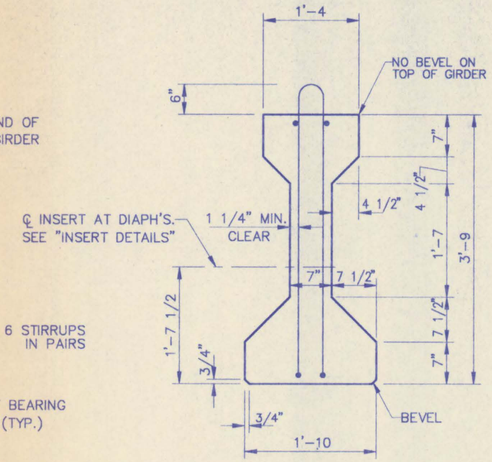


ALTERNATE STIRRUP DETAIL



INSERT DETAILS AT DIAPHRAGMS

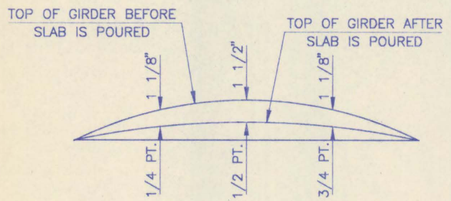
(FOR DIAPH. LOCATION SEE SUPERSTRUCTURE HALF PLAN – SHEET 9)



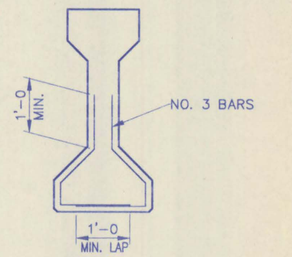
SECTION THRU GIRDER

NOTES

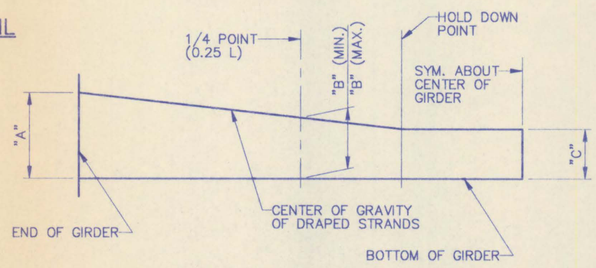
1. ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.
2. PRESTRESSING STRANDS SHALL BE 1/2" ø – 7 WIRE STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.
3. ALL STIRRUPS SHALL BE IN HOOPS OR PAIRS AND THE SPACING SHOWN IN "SIDE VIEW" IS MAXIMUM. THE LOCATION SHALL BE SHOWN IN THE SHOP DRAWINGS.
4. BEND EACH END OF NO. 4 STIRRUPS 4 1/2" & NO. 6 STIRRUPS 6 1/2".
5. THE GIRDER MANUFACTURER SHALL PROVIDE A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SUBMIT DETAILS OF THE LIFTING DEVICE USED FOR APPROVAL.
6. TOP OF GIRDERS TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 2" OF GIRDER WHICH SHALL BE TROWEL FINISHED.
7. IF CONTRACTOR USES BOTTOM FLANGES TO SUPPORT CONSTRUCTION FORMS, THE CONTRACTOR SHALL SUBMIT FALSEWORK PLANS FOR APPROVAL OF THE ENGINEER.
8. "G" BARS MAY BE SPLICED AT THE 1/2 POINT OF GIRDER. LAP LENGTH 1'-11. BEND DOWN 1'-0 AT ENDS.



DEAD LOAD DEFLECTION DIAGRAM



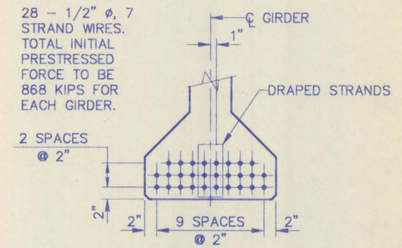
DETAIL "A"



DRAPED STRAND PROFILE

GIRDER DATA		LOW RELAXATION
GIRDER LENGTH "L" REQUIRED		90'-0
f'ci (PSI) *	DRAPED PATTERN	4800
	SPREAD PATTERN	——
DRAPED STRANDS	DIMENSION "A"	39"
	DIMENSION "B" (MINIMUM)	12 3/4"
	DIMENSION "B" (MAXIMUM)	15 3/4"
	DIMENSION "C"	4"

* MINIMUM CYLINDER STRENGTH OF CONCRETE AT TIME OF TRANSFER OF PRESTRESS FORCE.



SECTION THRU GIRDER AT ℄ SPAN

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

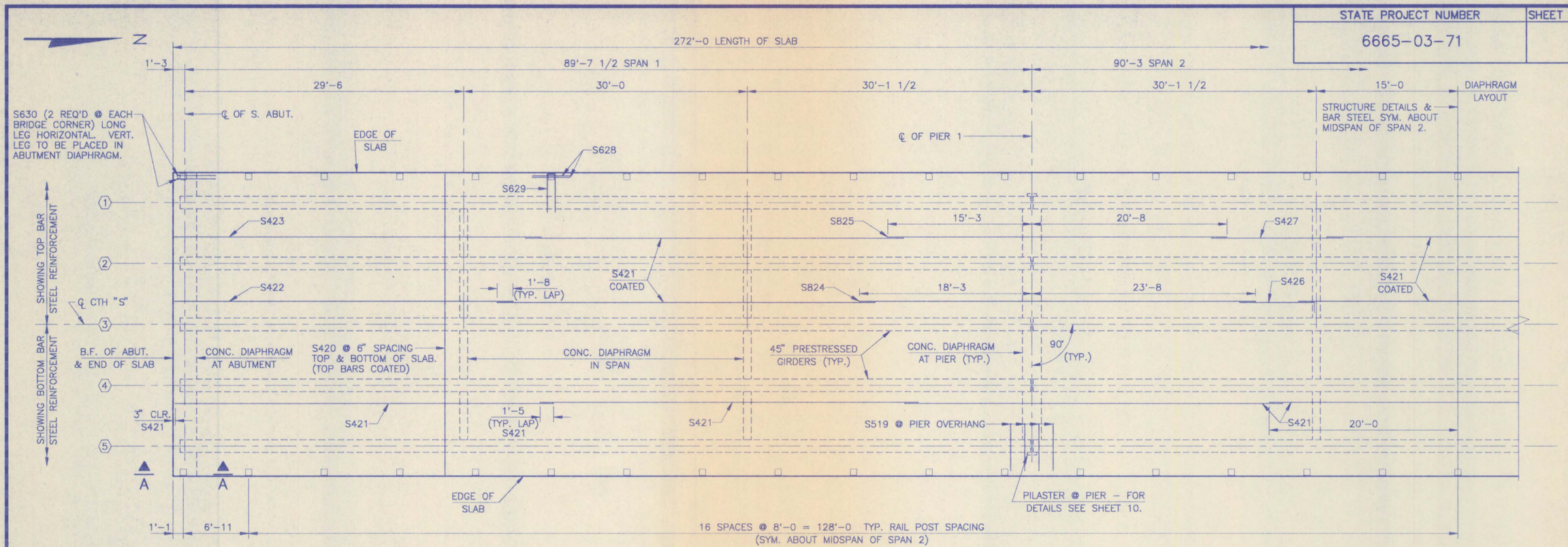
Const. Spec. WI "89"	Drawn By RLR	Plans Checked DHW

45" PRESTRESSED GIRDER DETAILS

SHEET 8 OF 11

93924208

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



GENERAL NOTES

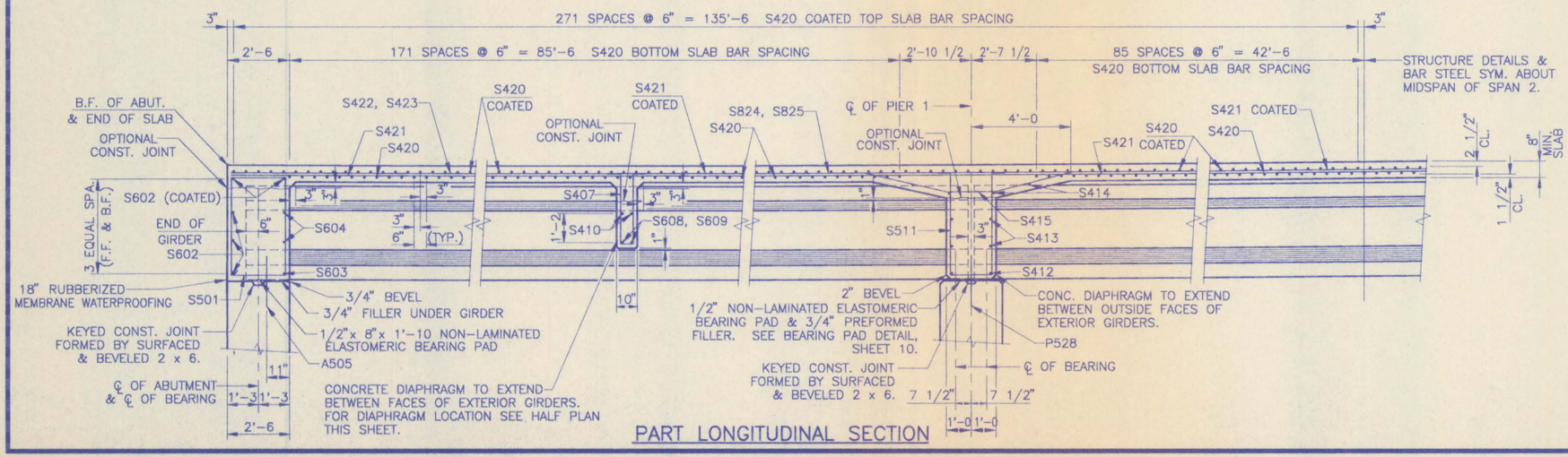
SEE SHEET 2 FOR SLAB HAUNCH DETAIL AND HAUNCH HEIGHTS FOR GIRDER STIRRUP PROJECTION.

ALL SURFACES OF PRESTRESSED GIRDERS THAT WILL BE WITHIN THE LIMITS OF THE ABUTMENT DIAPHRAGM SHALL BE COATED WITH PARAFFIN WAX.

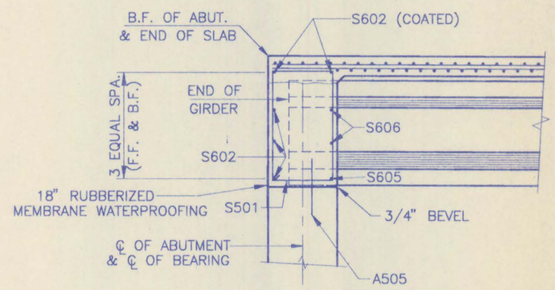
SEE CROSS SECTION THRU BRIDGE, IN SPAN, SHEET 10 FOR TYPICAL LONGITUDINAL BAR SPACING.

⬡ - INDICATES GIRDER NUMBER

HALF PLAN



PART LONGITUDINAL SECTION



SECTION A-A

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

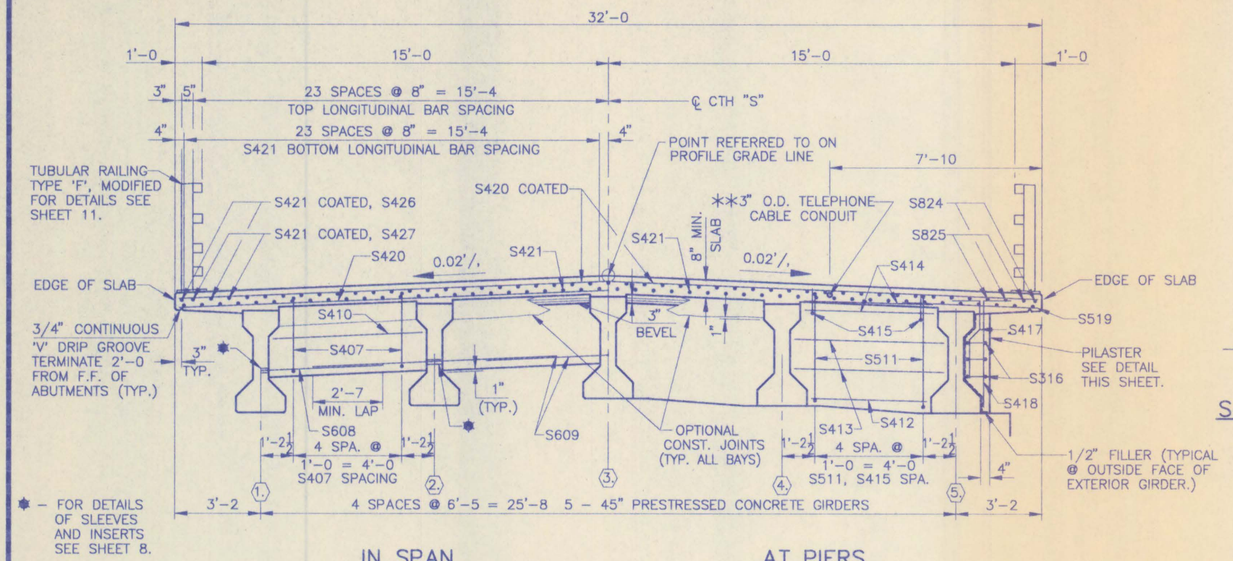
Const. Spec.	Drawn By	Plans Checked
WI "89"	RLR	DHW

SUPERSTRUCTURE

SHEET 9 OF 11

93924209

STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



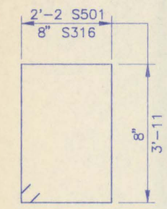
* - FOR DETAILS OF SLEEVES AND INSERTS SEE SHEET 8.

IN SPAN AT PIERS

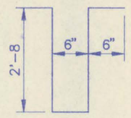
CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

⬡ - INDICATES GIRDER NUMBER

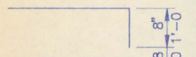
** - FURNISHED BY OTHERS. INSTALLATION INCLUDED IN THE BID ITEM, "CONCRETE MASONRY BRIDGES". TELEPHONE CABLE TO BE INSTALLED BY OTHERS.



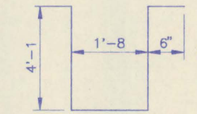
S501, S316



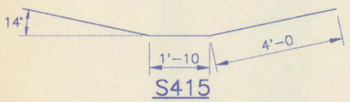
S407



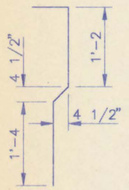
S418, S630



S511



S415



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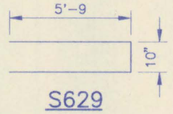


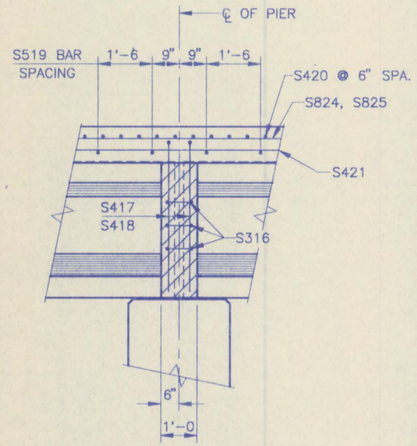
S629

BILL OF BARS

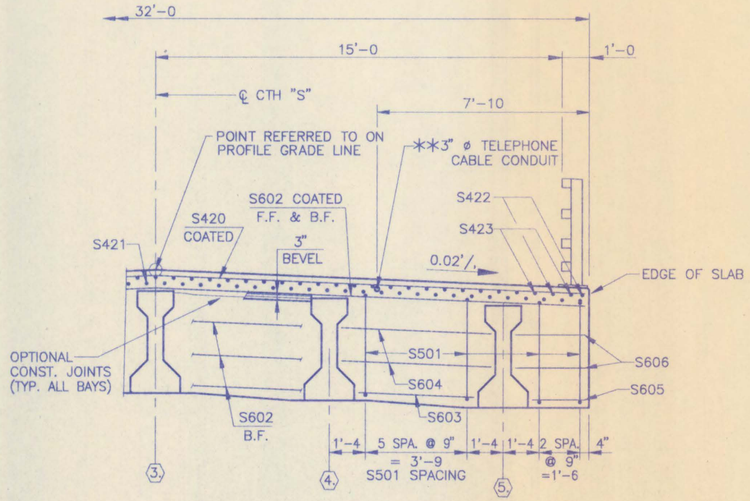
COATED 32780 LBS.
UNCOATED 21570 LBS.

MARK	NUMBER REQ'D. COATED	NUMBER REQ'D. UN-COATED	LENGTH	BENT	DESCRIPTION	
S501	60	--	12-10	X	DIAPH. @ ABUT. - STIRRUP	- VERT.
S602	4	6	31-8		" " " - B.F. & TOP	- HORIZ.
S603	--	8	4-3		" " " - F.F. BETWEEN GIRDERS	"
S604	--	16	5-6		" " " " " "	"
S605	--	4	1-11		" " " @ ENDS	"
S606	--	8	2-6		" " " " " "	"
S407	120	--	6-6	X	" IN SPAN - STIRRUP	- VERT.
S608	--	24	4-6		" " "	- HORIZ.
S609	--	36	9-0		" " "	"
S410	--	48	5-6		" " "	"
S511	40	--	10-4	X	" @ PIER	"
S412	--	16	4-3		" " "	"
S413	--	32	5-6		" " "	"
S414	--	32	4-9		HAUNCH " "	"
S415	40	--	9-10	X	" " " BETWEEN GIRDERS	- LONGIT.
S316	--	12	3-2	X	PILASTER " " - STIRRUP	- HORIZ.
S417	8	--	3-7	X	" " "	- VERT.
S418	8	--	4-9	X	" " "	"
S519	--	16	5-0		SLAB " " - BOTTOM	- TRANS.
S420	544	515	31-8		" - TOP & BOTTOM	"
S421	147	336	40-0		" " " "	- LONGIT.
S422	50	--	35-9		" " @ ABUT.	"
S423	48	--	38-9		" " " "	"
S824	50	--	41-11		" " OVER PIER	"
S825	48	--	35-11		" " " "	"
S426	25	--	7-11		" " SPAN 2	"
S427	24	--	13-11		" " " "	"
S628	132	--	4-0		" @ RAIL POSTS, 2 PER POST	
S629	70	--	12-0	X	" " " " 1 " "	
S630	8	--	4-0	X	" " " CORNER POSTS AS NOTED	

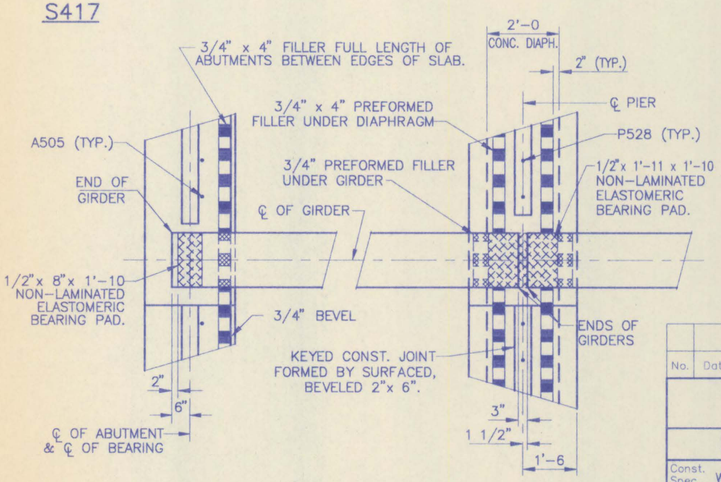
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
X - S608 DEFORMED BAR, THREAD ONE END 3".
XX - CONSIDER PLACING BARS PRIOR TO ERECTION OF FINAL GIRDER IN EACH SPAN.



END VIEW - PILASTER



CROSS SECTION THRU BRIDGE - AT ABUTMENT
(LOOKING NORTH)



AT ABUTMENT AT PIER

BEARING PAD DETAIL

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

Const. Spec.	Drawn By	Plans Checked
WI "89"	RLR	DHW

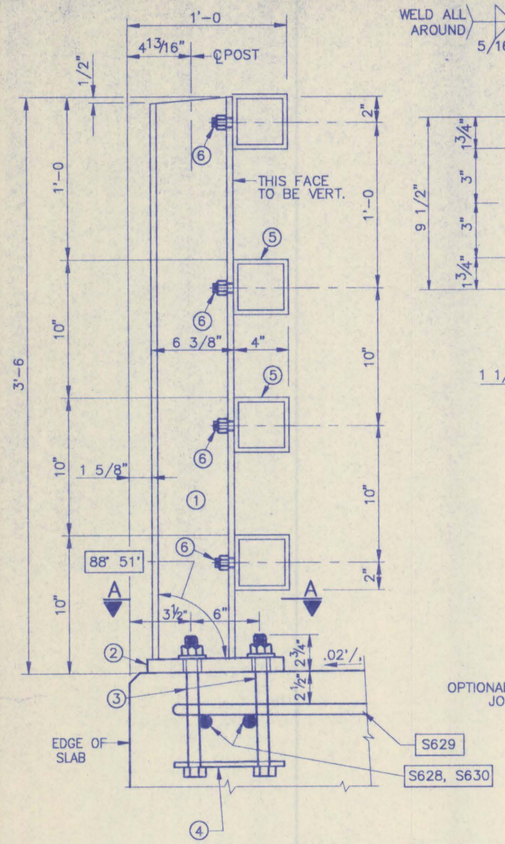
SUPERSTRUCTURE SECTIONS & DETAILS

SHEET 10 OF 11

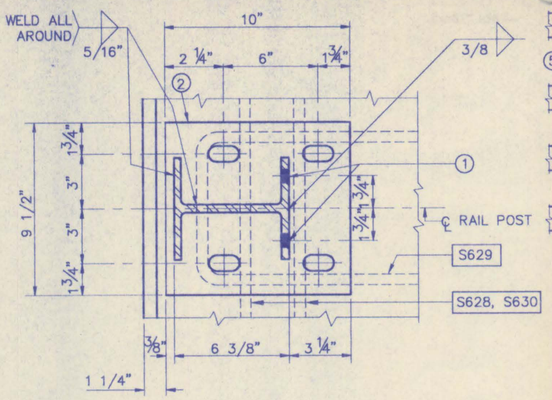
93924210

CH 7 (CHC - 214123)

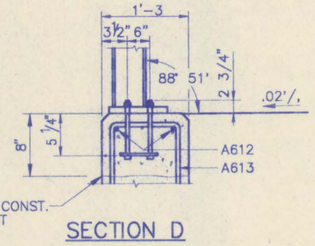
STATE PROJECT NUMBER	SHEET NO.
6665-03-71	



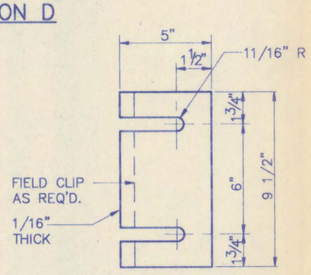
SECTION C THRU RAILING



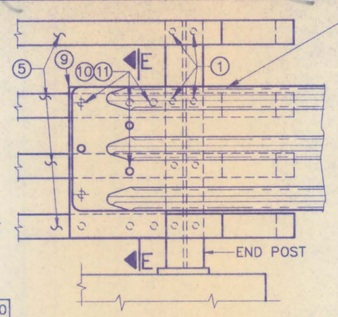
SECTION A

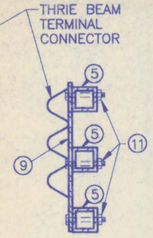


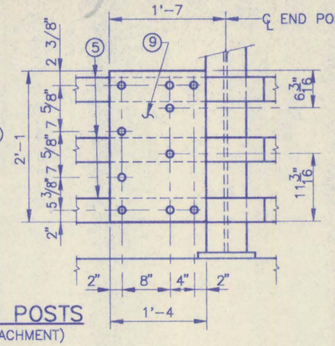
SECTION D



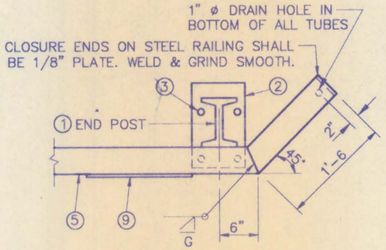
POST SHIM DETAIL
(4 PER POST)



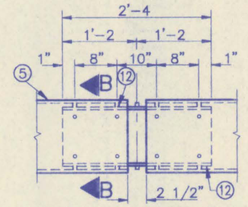




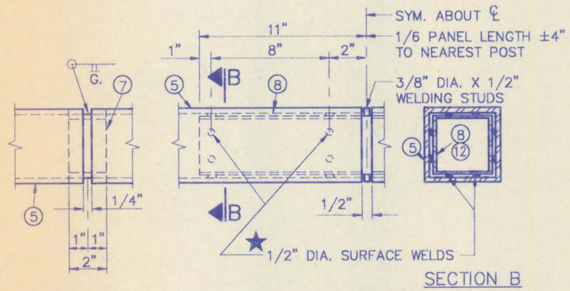
DETAIL AT END POSTS
(THRIE BEAM RAIL ATTACHMENT)



RAIL END DETAIL



JOINT DETAIL AT ABUTMENTS



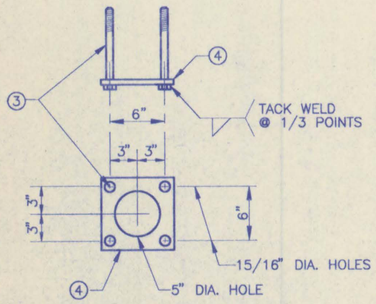
SECTION B

SHOP RAIL SPLICE DETAIL

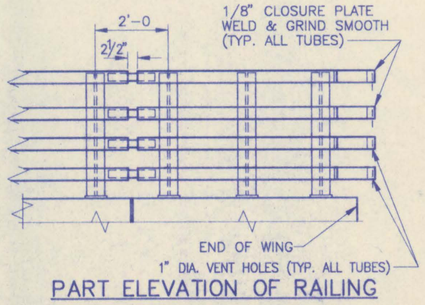
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

FIELD ERECTION JOINT DETAIL

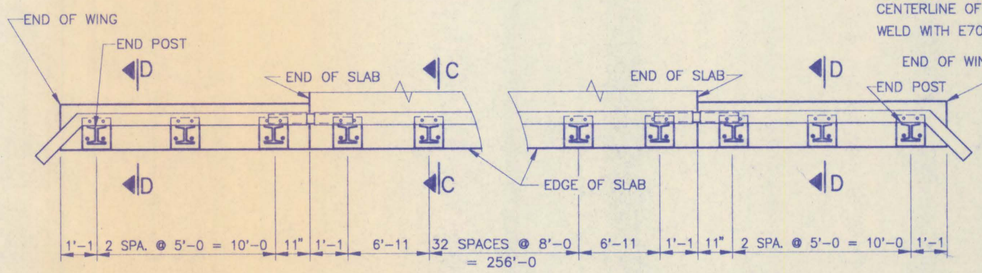
★ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHOR BOLT DETAIL



PART ELEVATION OF RAILING



WINGS 1 & 3

WINGS 2 & 4

PLAN OF RAILING

LEGEND

1. W 6 x 25 WITH 1 1/4" DIA. HOLES ON EACH SIDE OF POST FLANGE FOR STUD ⑥. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POST NORMAL TO GRADE LINE.
2. PLATE 1" x 9 1/2" x 10" WITH 1 1/16" x 1 1/2" SLOTTED HOLES FOR ANCHOR BOLTS ③. WELD TO ① AS SHOWN.
3. A325 – 7/8" DIA. HEX BOLT WITH A325 NUT AND WASHER. 8" LONG AT ALL POST LOCATIONS. 4 REQUIRED PER POST. THREAD 3" AND PLACE NORMAL TO PLATE ②. CHAMFER TOP OF BOLTS BEFORE THREADING.
4. 1/4"x 8"x 8" FLAT BAR, WITH 15/16" DIA. HOLES FOR ANCHOR BOLTS ③.
5. TS 4 x 4 x .25 STRUCTURAL TUBING, CONFORMING TO A.S.T.M. DESIGNATION A36. ATTACH TO ① WITH STUDS ⑥.
6. 5/8" DIA. x 1 1/2" LG. SHOP WELDED STUDS WITH HEX. NUT AND 2 WASHERS. 4 PER POST REQ'D. (2 REQ'D AT EACH LOCATION.)
7. SQUARE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE 'SLIDING FIT' WITH A MINIMUM OUT TO OUT DIMENSION OF 3 13/32".
8. TS 3 x 3 x .25 x 1'-10 LONG. PROVIDE 1/2" DIA. SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF ⑤. PROVIDE 3/8" DIA. x 1/2" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.
9. PLATE 3/8" x 1'-4 x 2'-1. BOLT TO RAIL ⑤ AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD ATTACHMENTS ONLY.
10. 1" DIA. HOLES IN PLATE ⑨ AND RAIL ⑤ FOR 7/8" DIA. A325 BOLTS W/HEX NUTS AND WASHERS.
11. 7/8" DIA. x 6" LG. A325 BOLTS W/ HEX NUTS & WASHERS. (7 REQ'D. AT EACH PLATE ⑨).
12. TS 3 x 3 x 0.25 x 2'-4 LONG, FABRICATE SIMILAR TO ⑧.

GENERAL NOTES

BID ITEM SHALL BE " TUBULAR RAILING TYPE 'F', MODIFIED " WHICH INCLUDES ALL ITEMS SHOWN, EXCLUDING THRIE BEAM AND THRIE BEAM TERMINAL CONNECTORS.

RAILING SHALL BE FABRICATED IN 2 OR 3 PANEL LENGTHS.

POSTS BASE PLATES, ② SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL, EXCEPT ANCHORAGE DETAIL (NO. ③ & ④) SHALL BE GALVANIZED AFTER FABRICATION.

FILL BOLT SLOT OPENINGS IN POST BASE PLATE SHIMS AND PLATE ② WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. SEAL BOTTOM EDGES OF PLATE ② TO DECK.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND COLD FORMED TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF POST BASE.

WELD WITH E70 ELECTRODES.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-37-250

Const. Spec.	Drawn By	Plans Checked
WI '89'	RLR	DHW

TUBULAR STEEL RAILING TYPE 'F', MODIFIED

SHEET 11 OF 11

93924211

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
6665-03/04-21	4.1	
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY DETAILS FOR:
CTH C – STH 153
(BIG EAU PLEINE RESERVOIR)
CTH S
MARATHON COUNTY

CONST. PROJECT

LEGEND OF CONVENTIONAL SIGNS
- ● – RIGHT-OF-WAY MARKER POST
- ⊙ – PROPERTY IRON (3/4" IRON ROD)

NOTE: FOR RIGHT-OF-WAY COURSE DATA SEE PLAT SHEET 4.0.

N

CLARA M. MILLER ①

CORNFIELD

R/W

WISCONSIN VALLEY IMPROVEMENT CO. ②

TALL GRASS

EXISTING R/W

OVERHEAD ELECTRIC (WISCONSIN POWER & LIGHT CO.)

CTH S (ASPHALT)

N 00°01'39" W

82.5'

BURIED TELEPHONE (G.T.E. NORTH, INC.)

+55 P.E.

KUEHLMAN LANE (GRAVEL)

SLOPE INTERCEPTS (TYP.)

JOHN STEDER AND MARGARET STEDER

SANDRA LIETHEN ⑧

WOODS

TELEPHONE PEDESTAL (G.T.E. NORTH, INC.) ⑨

WALTER LAU AND MARY LAU ⑦

28.87'

SHED

SOUTH END OF PROJECT

N

ANTHONY BJORNSON AND MAUREEN BJORNSON ③

MEANDER LINE

GARAGE

HOUSE

LAWN

JOHANNA PEMPER

SILT SCREEN (TYP.)

R/W

22.74'

EXISTING R/W

SLOPE INTERCEPTS (TYP.)

P.I. STA. 114+00

N 00°12'01" E

82.5'

N 01°07'48" E

P.E. (ASPHALT)

P.E. (GRASS)

TELEPHONE PEDESTAL (MOSINEE TELEPHONE CO.)

EXISTING R/W

TEMPORARY LIMITED EASEMENT (0.03 ACRE)

19.13'

LAWN

HOUSE

SHED

DORIS H. ZAHN ⑤

FISHERMANS COVE RD (GRAVEL)

EXISTING R/W

TEMPORARY LIMITED EASEMENT (0.01 ACRE)

ALAN ZAHN AND DORIS ZAHN ④

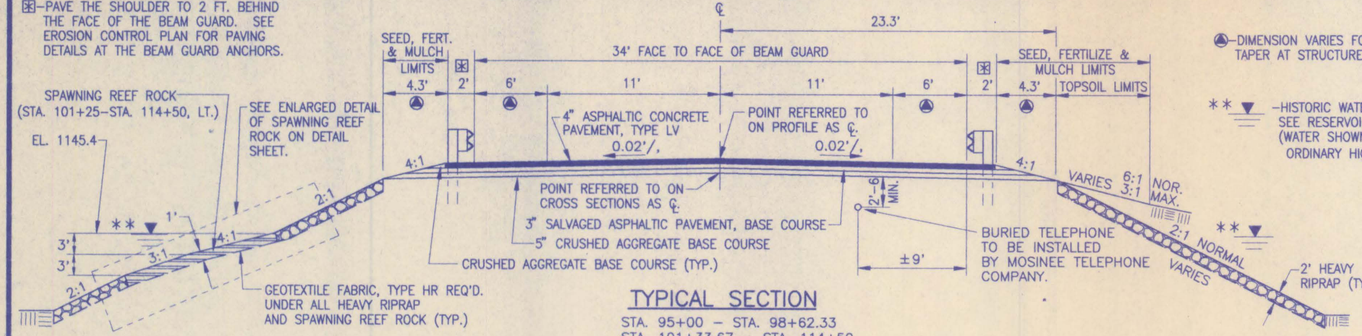
PETER W. SABLJAK

NORTH END OF PROJECT

D4\939242R2

STATE PROJECT NUMBER	SHEET NO.
6665-03/04-71	
TYPICAL SECTIONS, S.D.D., DETAILS, UTILITIES & GENERAL NOTES	

⊠–PAVE THE SHOULDER TO 2 FT. BEHIND THE FACE OF THE BEAM GUARD. SEE EROSION CONTROL PLAN FOR PAVING DETAILS AT THE BEAM GUARD ANCHORS.



TYPICAL SECTION

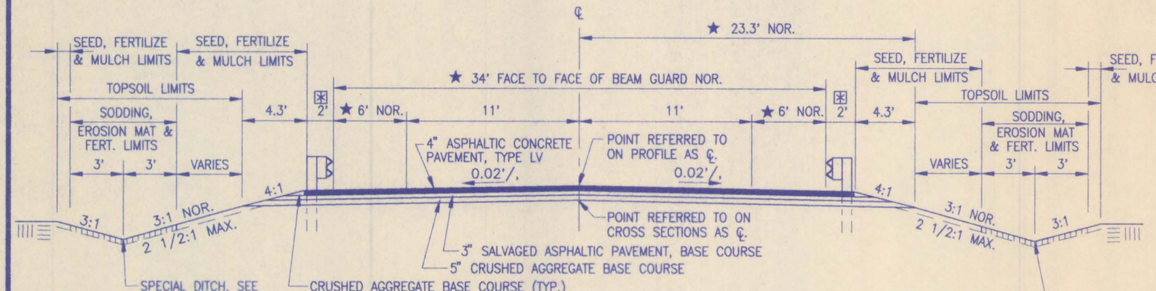
STA. 95+00 – STA. 98+62.33
STA. 101+33.67 – STA. 114+50

▲–DIMENSION VARIES FOR BEAM GUARD TAPER AT STRUCTURE ENDS

**▼ –HISTORIC WATER LEVELS FLUCTUATE, SEE RESERVOIR HEADWATER GRAPH. (WATER SHOWN AT EL. 1145.4, ORDINARY HIGH WATER)

DISTRICT DNR AREA LIAISON

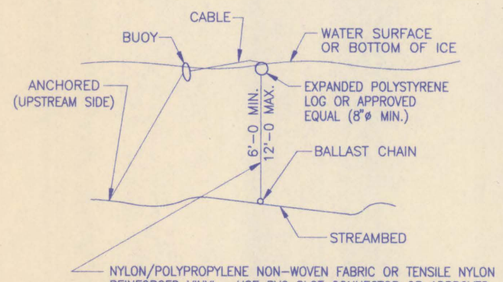
JAMES GRAFELMAN
WISC. DEPT. OF NATURAL RESOURCES
107 SUTLIFF AVENUE–BOX 818
RHINELANDER, WI. 54501
PHONE: 715–362–7616



★ – DIMENSIONS VARY AT ROADWAY WIDENING FOR BEAM GUARD END TREATMENT.

TYPICAL SECTION

STA. 93+92 – STA. 95+00
STA. 114+50 – STA. 115+04



NYLON/POLYPROPYLENE NON–WOVEN FABRIC OR TENSILE NYLON REINFORCED VINYL. USE PVC SLOT CONNECTOR OR APPROVED EQUAL FOR CONNECTING FABRIC PANELS. FABRIC TO BE FULL HEIGHT FROM STREAMBED TO TOP OF WATER.

EXCEPTION: THE MAXIMUM FABRIC HEIGHT REQ'D. IS 12'–0

SILT SCREEN DETAIL

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT–OF–WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SPAWNING REEF ROCK, AND HEAVY RIPRAP ARE TO BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

SILT FENCE (SILTY SOIL) TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO BRIDGE REMOVAL.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH A BENCHMARK MONUMENT MARKER TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

ELEVATIONS ON THIS PLAN ARE REFERENCED TO U.S.G.S. DATUM, A CHISELED SQUARE IN THE NORTH END OF AN 18"ø CONCRETE CULVERT PIPE, 600 FEET SOUTH OF THE 1/4 CORNER BETWEEN SECTIONS 13 & 14, 102 FEET SOUTH AND 30 FEET WEST OF THE INTERSECTION OF CTH C & CTH S, T26N, R5E, ELEVATION 1206.50.

THE 4–INCH ASPHALTIC CONCRETE PAVEMENT, TYPE LV SHALL CONSIST OF A 2–INCH UPPER COURSE AND A 2–INCH LOWER COURSE.

SILT SCREEN TO BE PLACED AS SHOWN ON THE PLAN WHEN RESERVOIR WATER LEVEL EQUALS OR EXCEEDS EL. 1128.0.

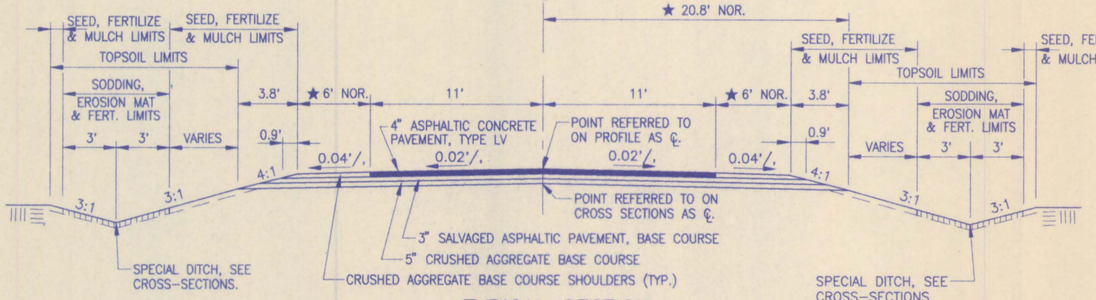
THE EXACT LOCATION OF PRIVATE ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

CULVERT PIPE ELEVATIONS AS SHOWN ON THE PLAN MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS BY THE ENGINEER IN THE FIELD.

SELECTED BORROW EXCAVATION IS REQUIRED FOR ALL FILL PLACED BELOW WATER. QUANTITIES FOR THIS ITEM ARE BASED ON THE WATER LEVEL AT EL. 1145.4.

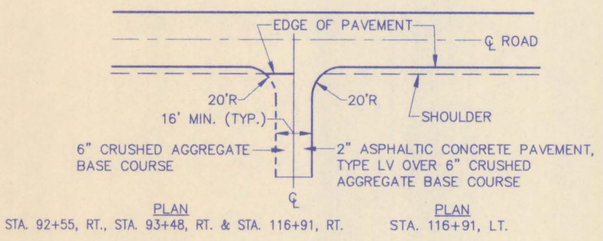
STANDARD DETAIL DRAWINGS

8E4–2	SOD OR MASONRY AND SOD DITCH CHECKS
8E8–2	TYPICAL INSTALLATIONS OF EROSION BALES
8E9–4	SILT FENCE
8F1–11	APRON ENDWALLS FOR CULVERT PIPE
8F4–5	JOINT TIES FOR CONCRETE PIPE
9A1–9a	AT–GRADE SIDE ROAD INTERSECTIONS, TYPES "B", "C" AND "D"
12A3–4	NAME PLATE–STRUCTURES
14B15–1a	CLASS 'A' STEEL PLATE BEAM GUARD, INSTALLATION AND ELEMENTS
14B16–1a&b	CLASS 'A' STEEL PLATE BEAM GUARD END TREATMENT WITH ANCHORAGE TYPE 1 & 2
14B18–1a	CLASS 'A' STEEL PLATE BEAM GUARD (AT BRIDGES, OBSTACLES, AND SIDEROADS/DRIVEWAYS)
14B20–2a	STEEL THRIE BEAM STRUCTURE APPROACH
14B20–2d	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
15A1–6	MARKER POSTS FOR RIGHT–OF–WAY
15C2–2	BARRICADES AND TRAFFIC CONTROL FOR ROAD CLOSURES
15C6–3	TRAFFIC CONTROL DEVICES FOR TWO LANE BRIDGES
15C8–6a	PAVEMENT MARKING (MAINLINE)
15C8–6b	PAVEMENT MARKING (INTERSECTIONS)



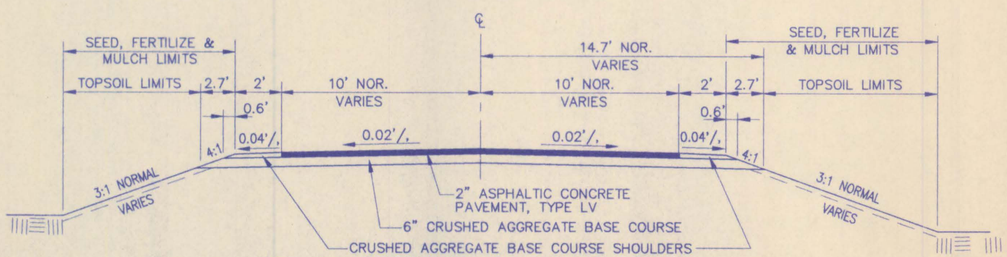
TYPICAL SECTION

STA. 91+00 – STA. 93+92
STA. 115+04 – STA. 118+00



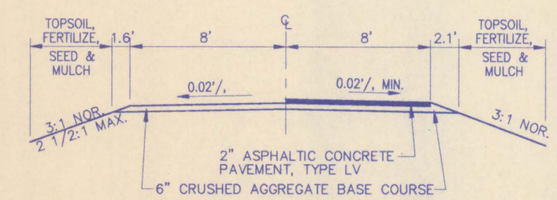
PLAN
STA. 92+55, RT., STA. 93+48, RT. & STA. 116+91, RT.

PLAN
STA. 116+91, LT.



FISHERMANS COVE RD.–TYPICAL SECTION

STA. 115+62, RT.
NOTE: PAVEMENT WIDTH VARIES DUE TO TYPE 'C' INTERSECTION



TYPICAL SECTION
STA. 92+55, RT., STA. 93+48, RT. & STA. 116+91, RT.

TYPICAL SECTION
STA. 116+91, LT.

PRIVATE ENTRANCE DETAILS

UTILITIES

ELECTRIC:
WISCONSIN POWER & LIGHT CO.
ATTN.: JIM PALZKILL
222 WEST WASHINGTON STREET
MADISON, WI. 53703
PHONE: 608–252–3456

TELEPHONE:

G.T.E. NORTH, INC.
ATTN.: RON KOLTON
202 CALLON STREET
WAUSAU, WI. 54401
PHONE: 715–847–1511

MOSINEE TELEPHONE CO.
ATTN.: JERRY STAHLECKER
410 FOURTH STREET
MOSINEE, WI. 54455
PHONE: 715–693–2622

MEMBER DIGGERS HOTLINE SYSTEMS INTERNATIONAL

CALL DIGGERS HOTLINE
1–800–242–8511
TOLL FREE
TELEFAX (414) 259–0947
TDD (FOR HEARING IMPAIRED) 1–800–542–2289

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

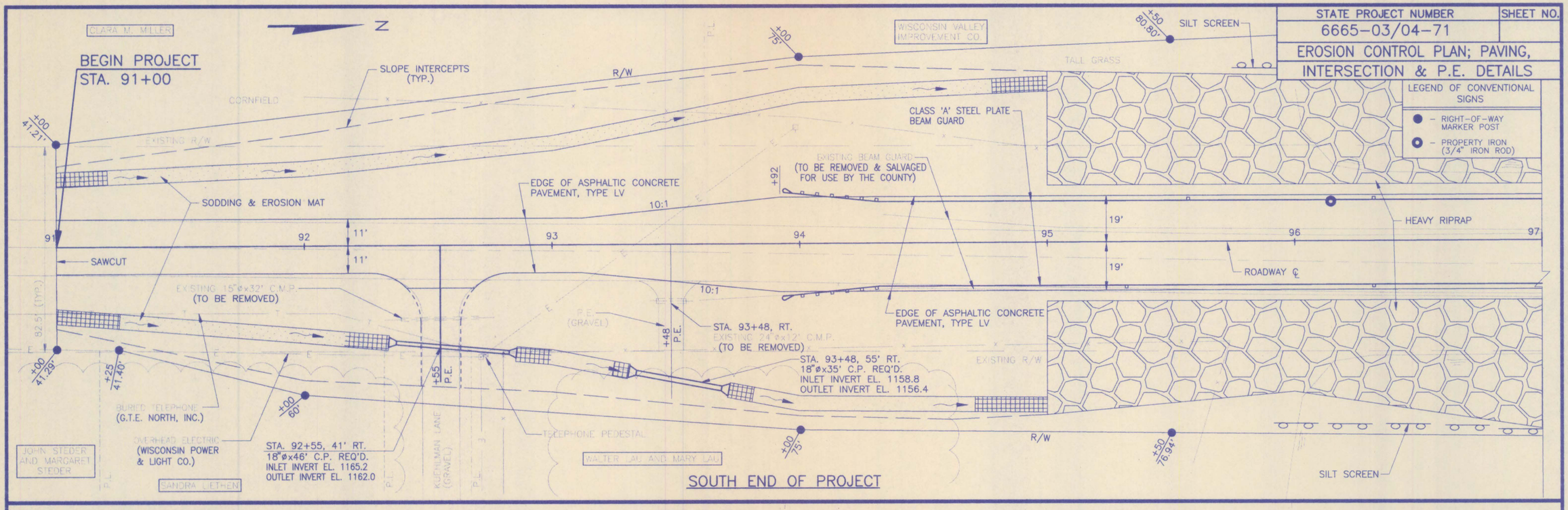
WIS. STATUTE 182.0175(1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

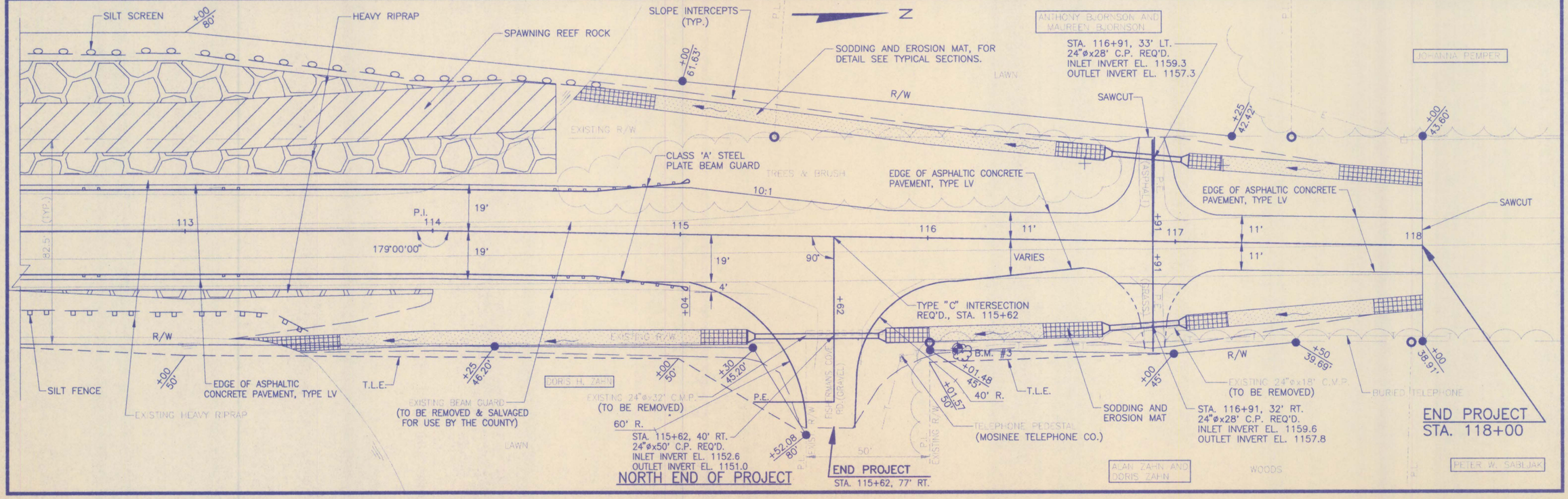
D4\939242XC

STATE PROJECT NUMBER	SHEET NO.
6665-03/04-71	

EROSION CONTROL PLAN; PAVING, INTERSECTION & P.E. DETAILS

LEGEND OF CONVENTIONAL SIGNS
- ● – RIGHT-OF-WAY MARKER POST
- ⊙ – PROPERTY IRON (3/4" IRON ROD)

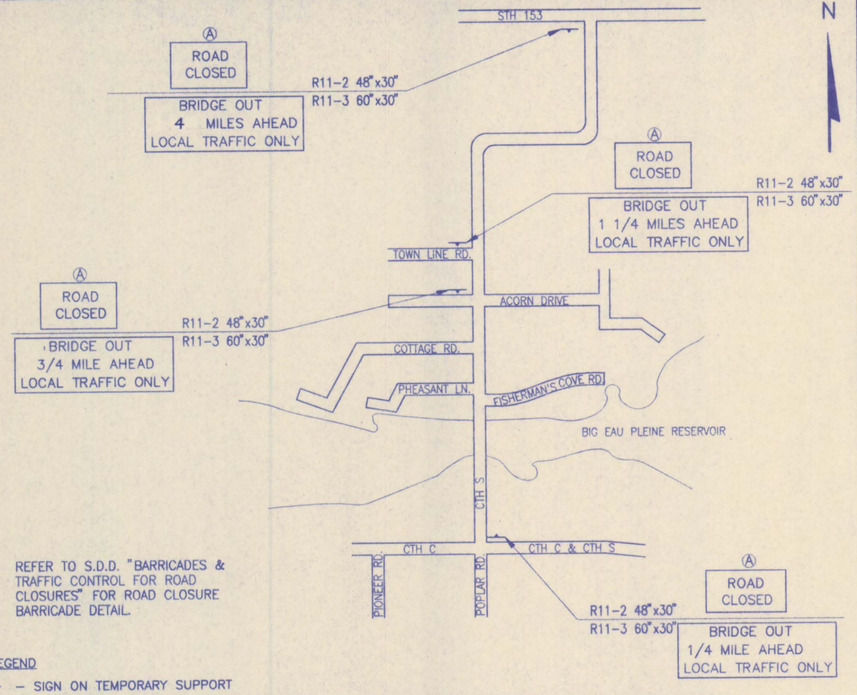




D4\939242EC

STATE PROJECT NUMBER	SHEET NO.
6665-03/04-71	

SUPP. TRAFFIC CONTROL, TIES, SUBSURFACE EXPLORATION, TEMP. DATA, RES. HEADWATER GRAPH & SPAWNING REEF ROCK DETAIL



REFER TO S.D.D. "BARRICADES & TRAFFIC CONTROL FOR ROAD CLOSURES" FOR ROAD CLOSURE BARRICADE DETAIL.

LEGEND
– SIGN ON TEMPORARY SUPPORT
Ⓐ – TYPE "A" WARNING LIGHT

PLAN – SUPPLEMENTAL TRAFFIC CONTROL

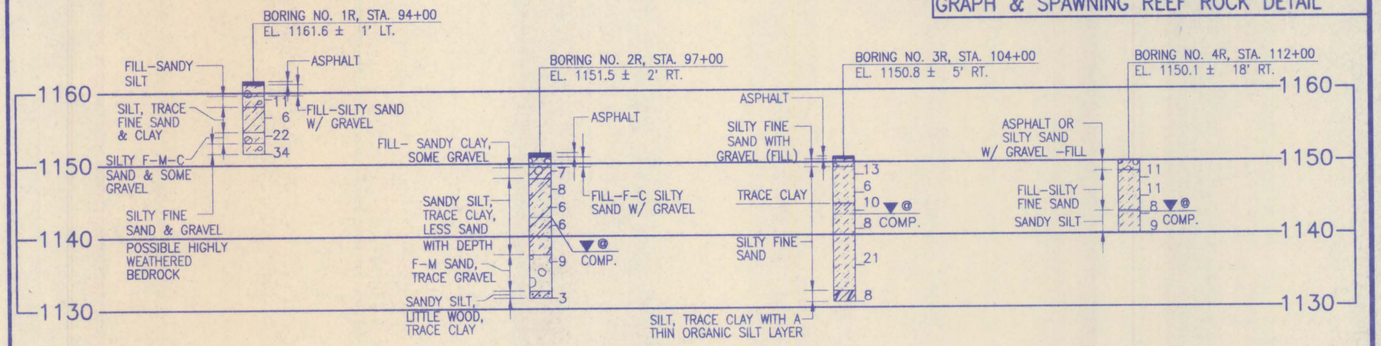
	FEBRUARY			MARCH			APRIL			MAY		
	TEMPERATURE			TEMPERATURE			TEMPERATURE			TEMPERATURE		
	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.	MAX.	MIN.	AVG.
1	23	3	13	32	12	22	47	27	37	62	39	51
2	23	3	13	32	13	22	47	28	37	62	40	51
3	24	4	14	32	13	23	48	28	38	63	40	52
4	24	4	14	33	14	23	48	28	38	63	40	52
5	24	4	14	33	14	24	49	29	39	63	41	52
6	24	4	14	34	15	24	49	29	39	64	41	52
7	25	4	15	34	15	25	50	30	40	64	41	53
8	25	5	15	35	16	25	50	30	40	65	42	53
9	25	5	15	35	16	26	51	31	41	65	42	54
10	26	5	15	35	16	26	51	31	41	65	43	54
11	26	5	16	36	17	26	52	32	42	66	43	54
12	26	6	16	36	17	27	52	32	42	66	43	55
13	26	6	16	37	18	27	53	32	43	67	44	55
14	27	6	16	37	18	28	53	33	43	67	44	55
15	27	7	17	38	19	28	54	33	44	67	44	56
16	27	7	17	38	19	29	54	34	44	68	44	56
17	28	7	17	39	20	29	55	34	45	68	45	56
18	28	8	18	39	20	30	55	34	45	68	45	57
19	28	8	18	40	21	30	56	35	45	69	45	57
20	29	8	18	40	21	31	56	35	46	69	46	57
21	29	9	19	40	22	31	57	36	46	69	46	58
22	29	9	19	41	22	32	57	36	47	70	46	58
23	30	9	20	42	23	32	58	36	47	70	47	58
24	30	10	20	42	23	33	58	37	48	70	47	59
25	30	10	20	43	24	33	59	37	48	71	47	59
26	31	11	21	43	24	34	59	38	48	71	48	59
27	31	11	21	44	25	34	60	38	49	71	48	59
28	31	12	22	44	25	35	60	38	49	71	48	59
29				45	26	35	61	39	50	72	49	60
30				45	26	36	61	39	50	72	49	61
31				46	27	36				72	49	61

INFORMATION IS PROVIDED BY THE STATE CLIMATOLOGY OFFICE, MADISON, FOR WAUSAU, WISCONSIN. THE DAILY VALUES PRESENTED IN THESE TABLES ARE NOT SIMPLE MEANS OF OBSERVED VALUES. THEY ARE INTERPOLATED FROM THE MUCH LESS VARIABLE MONTHLY NORMALS BY USE OF THE NATURAL SPLINE FUNCTION. TEMPERATURE UNITS = DEG F.

DAILY NORMALS OF TEMPERATURE (1961–1990)

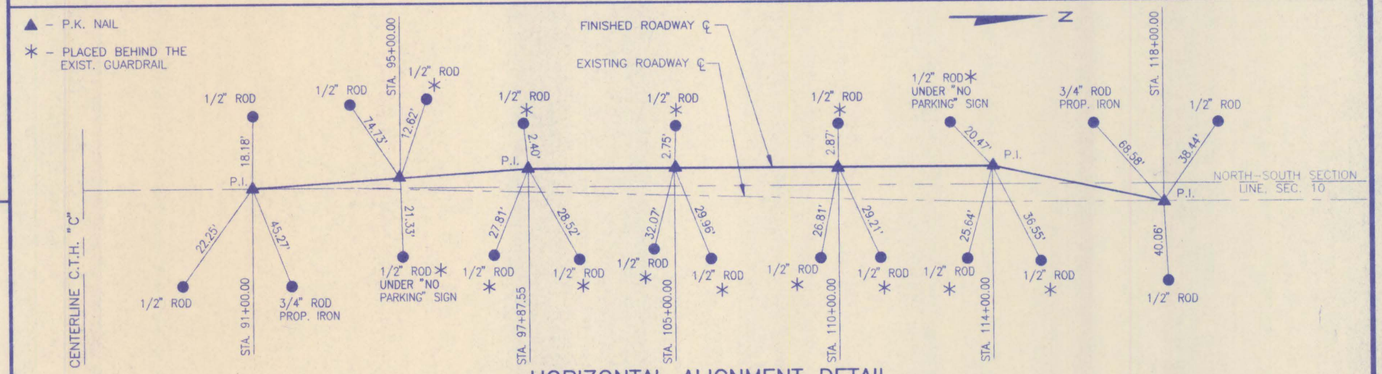
BORINGS PERFORMED BY:
ENVIRONMENTAL AND FOUNDATION DRILLING, INC., WAUNAKEE, WISCONSIN
SUBSURFACE INVESTIGATION REPORT PREPARED BY:
NUMMELIN TESTING SERVICES, MADISON, WISCONSIN

BORINGS COMPLETED ON: OCTOBER 21, 1993

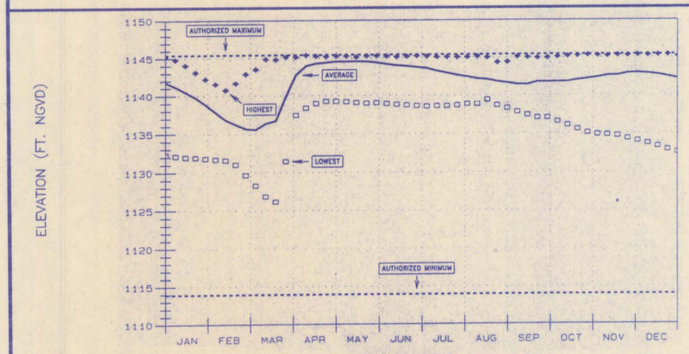


SUBSURFACE EXPLORATION

▲ – P.K. NAIL
✱ – PLACED BEHIND THE EXIST. GUARDRAIL

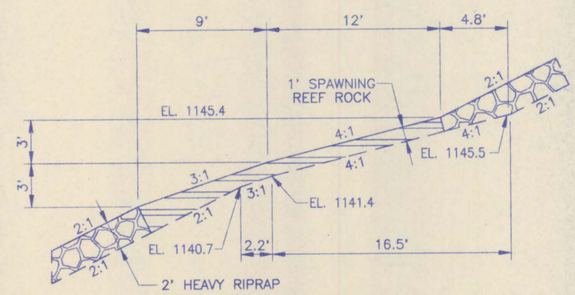


HORIZONTAL ALIGNMENT DETAIL



EAU PLEINE RESERVOIR
HEADWATER (1980 – 1993)

NOTE: HEADWATER GRAPH PROVIDED BY WISCONSIN VALLEY IMPROVEMENT COMPANY. THE PERIOD OF RECORD IS REPRESENTATIVE OF WVIC'S CURRENT OPERATION OF THE RESERVOIR. THE "HIGHEST" AND "LOWEST" WATER LEVELS SHOWN ON THE GRAPH ARE THE HIGHEST AND LOWEST LEVELS THAT OCCURED DURING A GIVEN WEEK OVER THE PERIOD OF RECORD. AS SUCH, THESE DATA DO NOT REPRESENT ANY PARTICULAR YEAR. THE MAXIMUM HEADWATER ELEVATION AUTHORIZED BY THE FEDERAL ENERGY REGULATORY COMMISSION IS 1145.43 NGVD.



SPAWNING REEF ROCK DETAIL

D4\939242TC

NOTE:

GROUP CODE 010 ITEMS REFER TO PROJECT 6665-03-71.

GROUP CODE 030 ITEMS REFER TO PROJECT 6665-04-71.

STATE PROJECT NUMBER	SHEET NO.
6665-03/04-71	

MISCELLANEOUS QUANTITIES

CLEARING & GRUBBING

GROUP CODE	STATION TO STATION	LOCATION	CLEARING STA.	GRUBBING STA.
010	92+00 – 95+00	RT.	3	3
030	114+00 – 116+00	LT.	2	2
	116+00 – 117+00	LT. & RT.	1	1
	117+00 – 118+00	RT.	1	1
	TOTALS		7	7

REMOVING OLD CULVERTS

GROUP CODE	STATION	LOCATION	EACH	DESCRIPTION
010	93+48	RT.	1	24"x12' C.M.P.

REMOVING GUARDRAIL

GROUP CODE	STATION TO STATION	LOCATION	L.F.
010	93+60 – 98+71	RT.	511
	94+33 – 98+71	LT.	438
	101+28 – 107+00	LT. & RT.	1144
030	107+00 – 115+40	RT.	840
	107+00 – 115+46	LT.	846
	TOTAL		3779

EARTHWORK

GROUP CODE	STATION TO STATION	UNCL. C.Y.	BORROW C.Y.	SELECTED BORROW C.Y.	FILL * C.Y.	SELECTED * FILL
010	91+00 – 98+91	1531	19974	4168	16542	3206
	101+18 – 107+00	434	3037	8645	2670	6650
030	107+00 – 118+00	1772	1715	8845	2682	6804
	TOTALS	3737	24726	21658	21894	16660

SHRINKAGE FACTOR – FILL 30%

* NOT A BID ITEM, FOR INFORMATION ONLY.

CRUSHED AGGREGATE BASE COURSE

GROUP CODE	STATION TO STATION	BASE TON	SHOULDERS TON
010	91+00 – 93+92	368	73
	93+92 – 98+62	657	17
	P.E. STA. 92+55, RT.	35	–
	P.E. STA. 93+48, RT.	35	–
	101+34 – 107+00	780	20
030	107+00 – 118+00	1470	105
	FISHERMAN'S COVE ROAD, STA. 115+62, RT.	120	–
	P.E. STA. 116+91, RT.	30	–
	P.E. STA. 116+91, LT.	30	–
	TOTALS	3525	215

SALVAGED ASPHALTIC PAVEMENT, BASE COURSE

GROUP CODE	STATION TO STATION	TON
010	91+00 – 93+92	205
	93+92 – 98+62	375
	101+34 – 107+00	440
030	107+00 – 118+00	830
	TOTALS	1850

ASPHALTIC MATERIAL FOR TACK COAT

GROUP CODE	STATION TO STATION	GAL.
010	91+00 – 93+92	20
	93+92 – 98+62	50
	101+34 – 107+00	60
030	107+00 – 115+04	85
	115+04 – 118+00	20
	TOTALS	235

ASPHALTIC MATERIAL FOR PLANT MIXES

GROUP CODE	STATION TO STATION	TON
010	91+00 – 93+92	9
	93+92 – 98+62	25
	P.E. STA. 92+55, RT.	1
	101+34 – 107+00	30
030	107+00 – 115+04	42
	115+04 – 118+00	9
	FISHERMAN'S COVE ROAD, STA. 115+62, RT.	2
	P.E. STA. 116+91, RT.	1
	P.E. STA. 116+91, LT.	1
	TOTALS	120

ASPHALTIC CONCRETE PAVEMENT, TYPE LV

GROUP CODE	STATION TO STATION	MAINLINE TON	NOTES
010	91+00 – 93+92	174	–
	93+92 – 98+62	464	–
	P.E. STA. 92+55, RT.	3	6' WIDENED MAINLINE TO P.E. RADII
	101+34 – 107+00	550	
030	107+00 – 115+04	785	–
	115+04 – 118+00	170	–
	FISHERMAN'S COVE ROAD, STA. 115+62, RT.	41	TYPE 'C' INTERSECTION
	P.E. STA. 116+91, RT.	3	6' WIDENED MAINLINE TO P.E. RADII
	P.E. STA. 116+91, LT.	10	PAVED P.E.
	TOTALS	2200	

CULVERT PIPE, CLASS III

MINOR SIDE ROAD AND PRIVATE ENTRANCES

GROUP CODE	STATION	LOCATION	CULVERT PIPE DIAMETER 18" L.F.	CULVERT PIPE DIAMETER 24" L.F.	THICKNESS (INCHES) STEEL	THICKNESS (INCHES) ALUMINUM	APRON ENDWALLS FOR CULVERT PIPE 18" EACH	APRON ENDWALLS FOR CULVERT PIPE 24" EACH	NON-BID ITEM JOINT TIES EACH (IF CONC.)
010	92+55	P.E., 41' RT.	46	–	0.064	0.060	2	–	10
	93+48	P.E., 55' RT.	35	–	0.064	0.060	2	–	8
030	115+62	FISHERMAN'S COVE ROAD, 40' RT.	–	50	0.064	0.075	–	2	12
	116+91	P.E., 32' RT.	–	28	0.064	0.075	–	2	6
	116+91	P.E., 33' LT.	–	28	0.064	0.075	–	2	6
	TOTALS		81	106			4	6	42

₸ HEAVY RIPRAP & GEOTEXTILE FABRIC

GROUP CODE	STATION TO STATION	LOCATION	HEAVY RIPRAP C.Y.	GEOTEXTILE FABRIC, TYPE HR S.Y.
010	95+00 – 98+10	LT. & RT.	2430	3700
	101+90 – 107+00	LT.	1090	3050
	101+90 – 102+50	RT.	15	35
030	107+00 – 114+50	LT.	1460	4280
	112+50 – 114+00	RT.	55	120
	TOTALS		5050	11185

INCLUDES GEOTEXTILE FABRIC UNDER SPAWNING REEF ROCK

₸ SEE STRUCTURE PLANS FOR ADDITIONAL QUANTITIES

STEEL THRIE BEAM STRUCTURE APPROACH

GROUP CODE	STATION TO STATION	LOCATION	L.F.
010	98+26 – 98+53	LT. & RT.	54
	101+43 – 101+70	LT. & RT.	54
	TOTAL		108

STEEL PLATE BEAM GUARD, CLASS A

GROUP CODE	STATION TO STATION	LOCATION	L.F.
010	93+93 – 98+26	LT. & RT.	866
	101+70 – 107+00	LT. & RT.	1060
030	107+00 – 115+03	LT. & RT.	1606
	TOTAL		3532

ANCHORAGES FOR STEEL PLATE BEAM GUARD, TYPE 1

GROUP CODE	STATION	LOCATION	EACH
010	93+95	21' LT. & RT.	2
030	115+01	21' LT. & RT.	2
	TOTAL		4

MARKER POSTS FOR RIGHT-OF-WAY

GROUP CODE	STATION	LOCATION	EACH
010	91+00	41.21' LT.	1
	91+00	41.29' RT.	1
	91+25	41.40' RT.	1
	92+00	60.0' RT.	1
	94+00	75.0' LT.	1
	94+00	75.0' RT.	1
	95+50	80.80' LT.	1
	95+50	76.94' RT.	1
	TOTAL		8

GROUP CODE	STATION	LOCATION	EACH
030	114+25	46.20' RT.	1
	115+00	61.63' LT.	1
	115+30	45.20' RT.	1
	115+52.08	80.0' RT.	1
	116+01.48	45.0' RT.	1
	117+00	45.0' RT.	1
	117+25	42.42' LT.	1
	117+50	39.69' RT.	1
	118+00	43.60' LT.	1
	118+00	38.91' RT.	1
	TOTAL		10

TOPSOIL, MULCHING, FERTILIZING & SEEDING

GROUP CODE	STATION TO STATION	TOPSOIL S.Y.	MULCHING S.Y.	TYPE B FERT. CWT.	MIX #20 SEED LBS.	TEMP. SEED LBS.
010	91+00 – 98+50	3200	3400	3.0	95	95
	101+46 – 107+00	430	980	1.0	25	25
	BORROW PIT	–	–	10.0	40	–
030	107+00 – 118+00	2450	3000	2.0	80	80
	BORROW PIT	–	–	3.0	140	–
	TOTALS	6080	7350	19.0	380	200

EROSION CONTROL ITEMS

GROUP CODE	LOCATION	EROSION BALES, DELIVERED EACH	EROSION BALES, INSTALLED EACH	(1) SILT FENCE, DELIVERED L.F.	SILT FENCE, INSTALLED L.F.	SILT FENCE, MAINTENANCE L.F.	(2) EROSION MAT, DELIVERED S.Y.	EROSION MAT, INSTALLED S.Y.	SODDING S.Y.
010	STA. 91+00 – STA. 95+00, LT.	–	–	–	–	–	280	280	280
	STA. 91+00 – STA. 92+34, RT.	–	–	–	–	–	95	95	95
	STA. 92+85 – STA. 95+00, RT.	–	–	–	–	–	150	150	150
	STA. 101+50 – STA. 107+00, RT.	–	–	550	550	1100	–	–	–
	UNDISTRIBUTED	50	50	100	100	200	50	50	50
030	STA. 107+00 – STA. 113+50, RT.	–	–	650	650	1300	–	–	–
	STA. 113+20 – STA. 115+28, RT.	–	–	–	–	–	145	145	145
	STA. 114+60 – STA. 116+72, LT.	–	–	–	–	–	150	150	150
	STA. 115+84 – STA. 116+72, RT.	–	–	–	–	–	60	60	60
	STA. 117+04 – STA. 118+00, LT.	–	–	–	–	–	70	70	70
	STA. 117+04 – STA. 118+00, RT.	–	–	–	–	–	70	70	70
	UNDISTRIBUTED	50	50	100	100	200	50	50	50
	TOTALS	100	100	1400	1400	2800	1120	1120	1120

(1) SILTY SOILS
(2) CLASS I, TYPE B

SILT SCREEN

GROUP CODE	LOCATION	SILT SCREEN 6' DEPTH L.F.	SILT SCREEN 8' DEPTH L.F.	SILT SCREEN 12' DEPTH L.F.
010	STA. 95+90 – STA. 96+40, LT.	50	–	–
	STA. 95+90 – STA. 96+40, RT.	50	–	–
	STA. 96+40 – STA. 97+40, LT.	–	100	–
	STA. 96+40 – STA. 96+90, RT.	–	50	–
	STA. 96+90 – STA. 98+60, RT.	–	–	170
	STA. 97+40 – STA. 98+60, LT.	–	–	120
	SOUTH BANK @ BRIDGE CHANNEL	100	–	60
	NORTH BANK @ BRIDGE CHANNEL	100	–	60
	STA. 101+34 – STA. 107+00, LT.	–	–	570
030	STA. 107+00 – STA. 114+00, LT.	–	–	700
	STA. 114+00 – STA. 114+70, LT.	70	–	–
	TOTALS	370	150	1680

WOOD POSTS, 4 X 4 INCH X 10 FT.

GROUP CODE	LOCATION	EACH	REMARKS
010	STA. 98+50, ±15' LT.	1	BRIDGE WING TIP
	STA. 98+50, ±15' RT.	1	BRIDGE WING TIP
	STA. 101+46, ±15' LT.	1	BRIDGE WING TIP
	STA. 101+46, ±15' RT.	1	BRIDGE WING TIP
	TOTAL	4	

SIGNS, TYPE II, REFLECTIVE

GROUP CODE	LOCATION	S.F.	REMARKS
010	STA. 98+50, ±15' LT.	3	W5-52L
	STA. 98+50, ±15' RT.	3	W5-52R
	STA. 101+46, ±15' LT.	3	W5-52R
	STA. 101+46, ±15' RT.	3	W5-52L
	TOTAL	12	

TRAFFIC CONTROL

GROUP CODE	LOCATION	BARRICADES TYPE III DAYS	WARNING LIGHTS TYPE A DAYS	SIGNS DAYS
010	AT BRIDGE PER S.D.D. 15C2-2	1008	2016	1008
	SUPPLEMENTAL TRAFFIC CONTROL	–	524	1048
030	SUPPLEMENTAL TRAFFIC CONTROL	–	148	296
	TOTALS	1008	2688	2352

PAVEMENT MARKING, COLD PAINT

GROUP CODE	STATION TO STATION	DESCRIPTION	L.F.
010	91+00 – 107+00, 10.5' LT.	WHITE EDGE LINE	1608
	91+00 – 92+28, 10.5' RT.	WHITE EDGE LINE	128
	92+28 – 107+00	WHITE EDGE LINE	1418
	91+00 – 95+00	YELLOW C/L, NO PASSING LEFT LANE	400
	91+00 – 107+00	INT. YELLOW CENTERLINE	400
030	107+00 – 116+64, 10.5' LT.	WHITE EDGE LINE	964
	107+00 – 114+92, 10.5' RT.	WHITE EDGE LINE	792
	107+00 – 118+00	INT. YELLOW CENTERLINE	275
	116+06 – 116+70, RT.	WHITE EDGE LINE	64
	117+18 – 118+00, 10.5' LT. & RT.	WHITE EDGE LINE	164
	TOTAL		6213

SAWING EXISTING PAVEMENT

GROUP CODE	LOCATION	L.F.
010	STA. 91+00	23
030	P.E. STA. 116+91, LT.	10
	STA. 118+00	23
	TOTAL	56

₸₸ SPAWNING REEF ROCK

GROUP CODE	STATION TO STATION	C.Y.
010	STA. 101+90 – STA. 107+00, LT.	475
030	STA. 107+00 – STA. 114+50, LT.	700
	TOTAL	1175

₸₸ SEE STRUCTURE PLANS FOR ADDITIONAL QUANTITIES

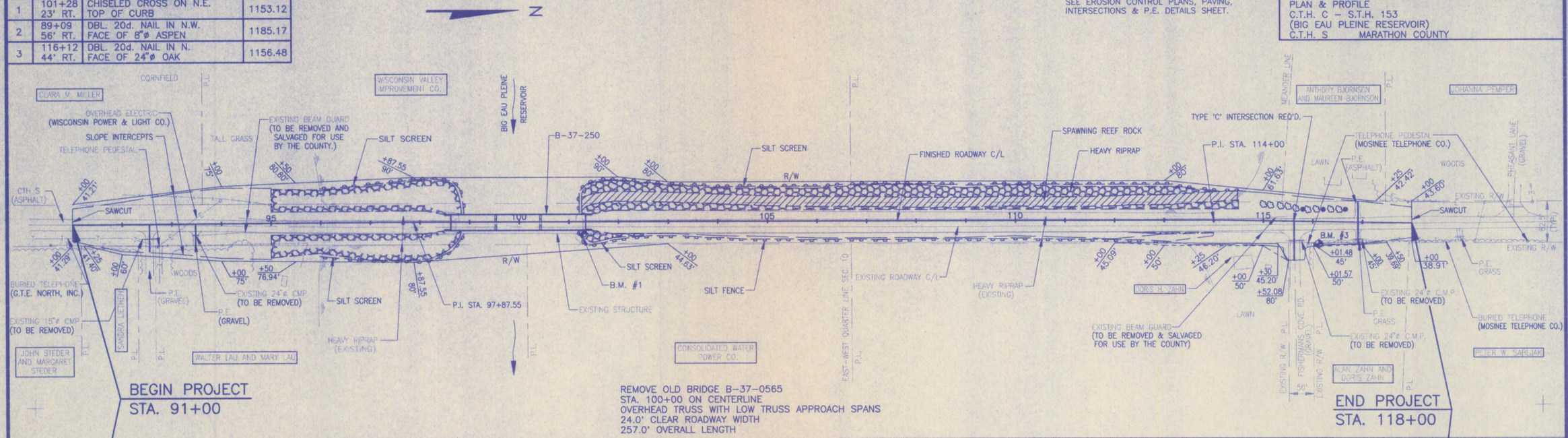
D4\939242MQ

BENCHMARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	101+28 23' RT.	CHISELED CROSS ON N.E. TOP OF CURB	1153.12
2	89+09 56' RT.	DBL. 20d. NAIL IN N.W. FACE OF 8"ø ASPEN	1185.17
3	116+12 44' RT.	DBL. 20d. NAIL IN N. FACE OF 24"ø OAK	1156.48

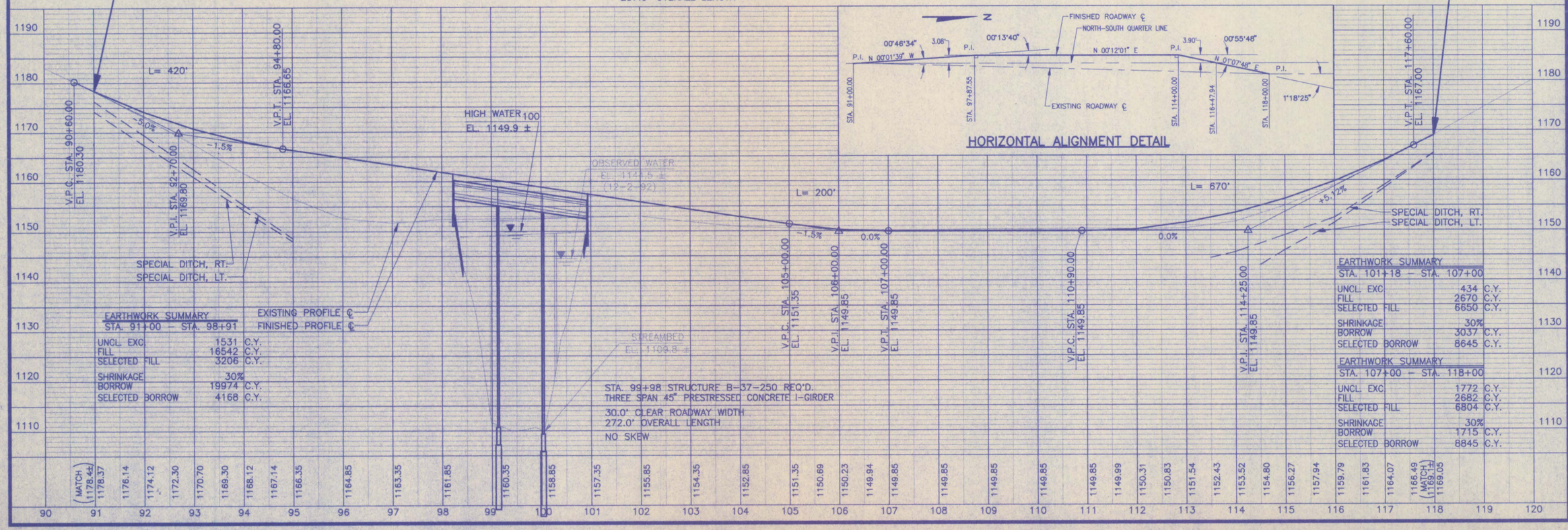
NOTE: FOR CLASS 'A' BEAM GUARD LIMITS, NEW CULVERT PIPES AND P.E. LOCATIONS SEE EROSION CONTROL PLANS, PAVING, INTERSECTIONS & P.E. DETAILS SHEET.

STATE PROJECT NUMBER	SHEET NO.
6665-03/04-71	

PLAN & PROFILE
C.T.H. C – S.T.H. 153
(BIG EAU PLEINE RESERVOIR)
C.T.H. S MARATHON COUNTY



REMOVE OLD BRIDGE B-37-0565
STA. 100+00 ON CENTERLINE
OVERHEAD TRUSS WITH LOW TRUSS APPROACH SPANS
24.0' CLEAR ROADWAY WIDTH
257.0' OVERALL LENGTH



HORIZONTAL ALIGNMENT DETAIL

EARTHWORK SUMMARY
STA. 91+00 – STA. 98+91

UNCL. EXC.	1531	C.Y.
FILL	16542	C.Y.
SELECTED FILL	3206	C.Y.
SHRINKAGE	30%	
BORROW	19974	C.Y.
SELECTED BORROW	4168	C.Y.

EARTHWORK SUMMARY
STA. 101+18 – STA. 107+00

UNCL. EXC.	434	C.Y.
FILL	2670	C.Y.
SELECTED FILL	6650	C.Y.
SHRINKAGE	30%	
BORROW	3037	C.Y.
SELECTED BORROW	8645	C.Y.

EARTHWORK SUMMARY
STA. 107+00 – STA. 118+00

UNCL. EXC.	1772	C.Y.
FILL	2682	C.Y.
SELECTED FILL	6804	C.Y.
SHRINKAGE	30%	
BORROW	1715	C.Y.
SELECTED BORROW	8845	C.Y.

D4\939242PP

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* - INCLUDES WIDENING FOR BEAM GUARD

Ⓧ - SPECIAL DITCH ELEVATION

STATE PROJECT NUMBER	SHEET NUMBER
6665 - 03 - 71	

STATION	OFFSET	YARDAGE EXCAVATION
1167+12		