NEL

JULY 2017

PROJECT ID: 4201-04-71

WITH: N/A

COUNTY: SHEBOYGAN

ORDER OF SHEETS

TOTAL SHEETS = 34

DESIGN DESIGNATION

A.A.D.T.	(2017)	= 90
A.A.D.T.	(2037)	= 100
D.H.V.	(2037)	= 40
D.D.		= 60/40
T.		= 7.4%
DESIGN SPEED		= 55 MPH
ESALS		= 8,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	955.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T HERMAN, MEADOWLARK RD

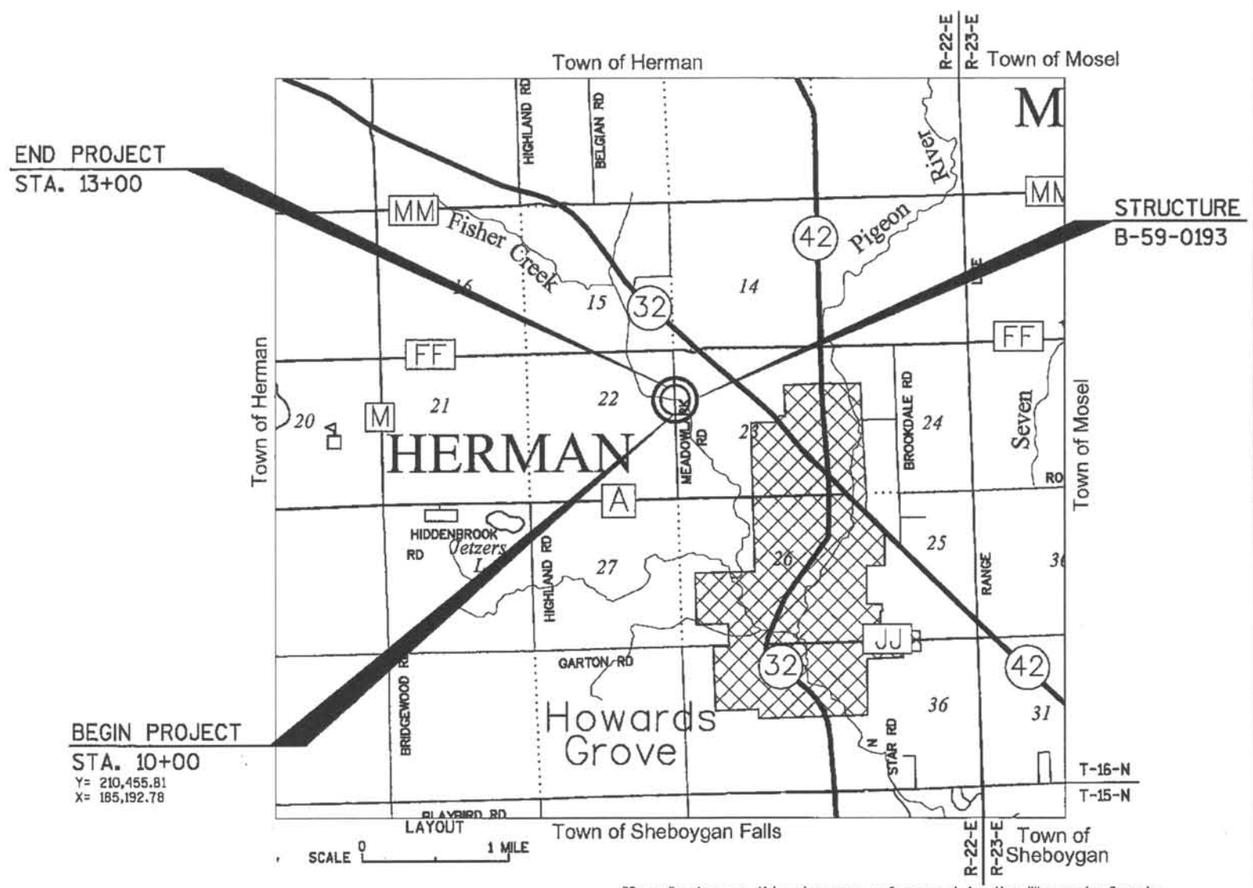
FISHER CREEK BRIDGE & APPROACHES

LOC STR

SHEBOYGAN COUNTY

STATE PROJECT NUMBER
4201-04-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4201-04-71	WISC 2017346	1



TOTAL NET LENGTH OF CENTERLINE = 0.057 MI.

"Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Sheboygan County."

"Elevations shown on the plan are referenced to the North American Vertical Datum of 1988 (NAVD 88)."

ACCEPTED FOR

COUNTY of SHEBOYGAN

1/16/2017 (Date) (Transportation Director)

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc.

Engineers - Architects - Surveyors

WISCONSIN ELLERY A. SCHAFFER E-41742-6 SPRING GREEN, WI PROFESSIONAL ENGINEER

1/16/17 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: JEWELL ASSOCIATES ENGINEERS, INC.

Designer: JEWELL ASSOCIATES ENGINEERS, INC.

Management Consultant: JT ENGINEERING INC.

APPROVED FOR THE DEPARTMENT

DATE: 11/9/17

Management Consultant Signature

E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\SHEETSPLAN\TITLE.DWG
LAYOUT NAME - TITLE - TITLE SHEET 1 IN EQ 1.0 MI

PLOT DATE : 11/21/2016 1:26 PM PLOT BY : JULIA ZEHNER PLOT NAME :

WISDOT/CADDS SHEET 10

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
AC	Acre
AGG	Aggregate
AH	Ahead
<	Angle
ASPH	Asphaltic
AVG	Average
ADT	Average Daily Traffic
BAD	Base Aggregate Dense
BK	Back
BF	Back Face
BM	Bench Mark
BR	Bridge
C or C/L	Center Line
CC	Center to Center
CTH	County Trunk Highway
CR	Creek
CR	Crushed
CY or CU YD	Cubic Yard
CP	Culvert Pipe
C & G	Curb and Gutter
D	Degree of Curve
DHV	Design Hour Volume
DIA	Diameter
E	East
X	East Grid Coordinate
ELEC	Electric (al)
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
FF	Face to Face
FE	Field Entrance
F	Fill
FG	Finished Grade
FL or F/L	Flow Line
FT	Foot
FTG	Footing
GN	Grid North
HT	Height
CWT	Hundredweight
HYD	Hydrant
INL	Inlet
ID	Inside Diameter
INV	Invert
IP	Iron Pipe or Pin
IRS	Iron Rod Set
JT	Joint
JCT	Junction
LHF	Left–Hand Forward
L	Length of Curve
LIN FT or LF	Linear Foot
LC	Long Chord of Curve
MH	Manhole
MB	Mailbox
ML or M/L	Match Line
N	North
Y	North Grid Coordinate
O.A.L.	Overall Length
OD	Outside Diameter
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PRC	Point of Reverse Curvature
PT	Point of Tangency
POC	Point On Curve
POT	Point on Tangent
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
LB	Pound
PSI	Pounds Per Square Inch
PE	Private Entrance
R	Radius
RR	Railroad
R	Range
RL or R/L	Reference Line
RP	Reference Point
RCCP	Reinforced Concrete Culvert Pipe
REQ'D	Required
RES	Residence or Residential
RW	Retaining Wall
RT	Right
RHF	Right–Hand Forward
R/W	Right–of–Way
R	River
RD	Road
RDWY	Roadway
SALV	Salvaged
SAN S	Sanitary Sewer
SEC	Section
SHLDR	Shoulder
SHR	Shrinkage
SW	Sidewalk
S	South
SQ	Square
SF or SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highways
STA	Station
SS	Storm Sewer
SG	Subgrade
SE	Superelevation
SL or S/L	Survey Line
SV	Septic Vent
T	Tangent
TEL	Telephone
TEMP	Temporary
TI	Temporary Interest
TLE	Temporary Limited Easement
t	Ton
T or TN	Town
TRANS	Transition
TL or T/L	Transit Line
T	Trucks (percent of)
TYP	Typical
UNCL	Unclassified
UG	Underground Cable
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
VOL	Volume
WM	Water Main
WV	Water Valve
W	West
WB	Westbound
YD	Yard

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA= 0.47 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.37 ACRES

GENERAL NOTES

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

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS SHOWN WITHIN THE RIGHT–OF–WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20), AND EROSION MATTED AS DIRECTED BY THE ENGINEER. AVOID PLACING FERTILIZER TYPE B NEAR WET AREAS.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO STRUCTURE REMOVAL.

EROSION MAT ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OR STORE/STOCKPILE MATERIALS BEYOND THE EXISTING TOE OF SLOPE.

4–INCH OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1¾–INCH UPPER LAYER AND A 2¼–INCH LOWER LAYER.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 115 LB/SY/IN.

CONTACTS

DNR LIAISON

STATE OF WISCONSIN
DNR NORTHEAST REGION HQ
2984 SHAWANO AVE.
GREEN BAY, WI 54313
ATTN: JAY SCHIEFELBEIN
PHONE: (920) 360-3784
EMAIL: jeremiah.schiefelbein@wi.gov

UTILITIES

ELECTRICITY

ALLIANT ENERGY
ATTN: JASON HOGAN
4902 NORTH BILTMORE LANE, SUITE 1000
MADISON, WI 53718
OFFICE: (608) 458–4871
CELL: (608) 395–7395
EMAIL: jasonhogan@alliantenergy.com

COMMUNICATION LINE

TDS TELECOM
ATTN: STEVE JAKUBIEC
10 COLLEGE AVENUE, SUITE 218A
APPLETON, WI 54911
PH: (920) 882–4166
EMAIL: steve.jakubiec@tdstelecom.com

ELECTRICITY - TRANSMISSION

AMERICAN TRANSMISSION COMPANY, LLC
ATTN: TONY MARCINIAK
W234 NORTH 2000 RIDGEVIEW PARKWAY COURT
PO BOX 47
WAUKESHA, WI 53187
OFFICE: (608) 506–6814
EMAIL: tmarciniak@atcllc.com

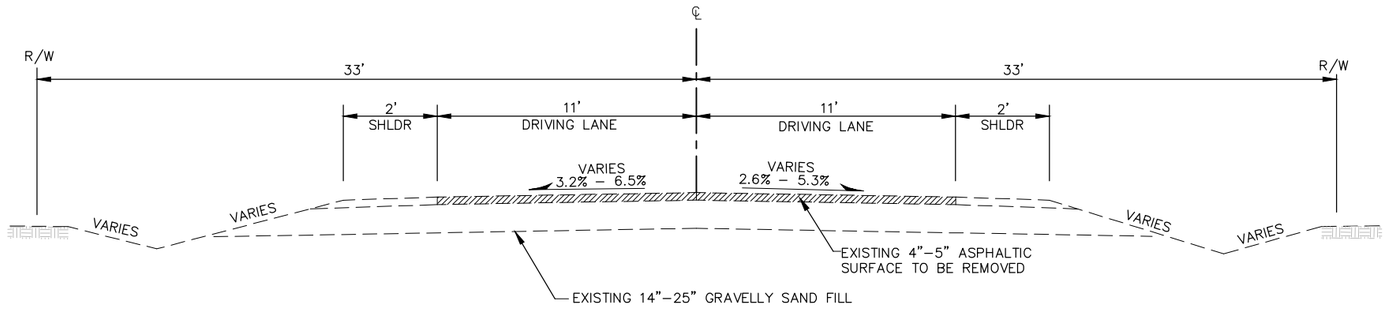
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

* DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

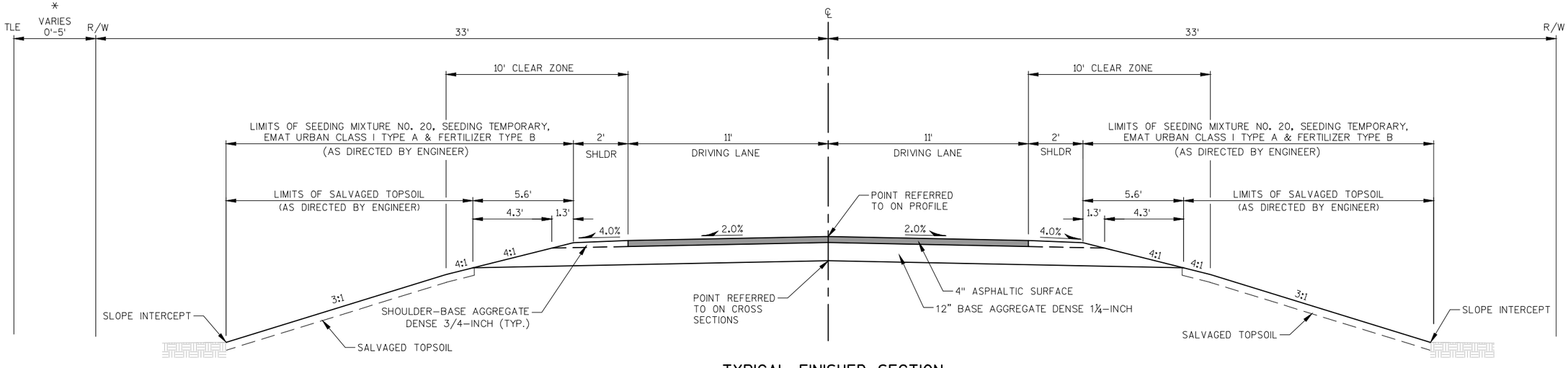
2

PROJECT NO: 4201-04-71	HWY: MEADOWLARK RD	COUNTY: SHEBOYGAN	GENERAL NOTES, HSG CHART, CONTACTS & UTILITIES	SHEET 2	E

2



TYPICAL EXISTING SECTION

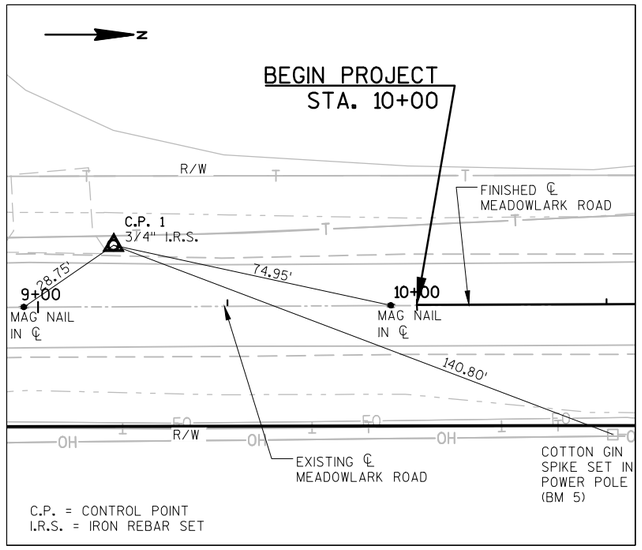


TYPICAL FINISHED SECTION

* TLE REQ'D FROM STA. 11+90 - STA. 13+00, LT.

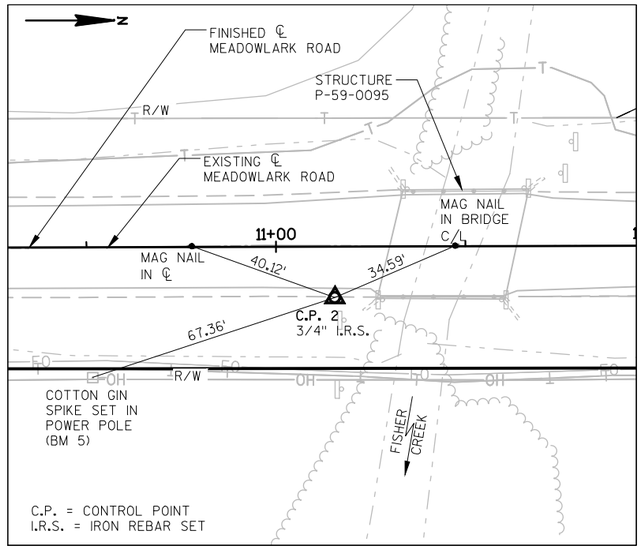
PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	TYPICAL EXISTING SECTION & TYPICAL FINISHED SECTION	SHEET 3	E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\SHEETSPLAN\TYPICALS\W11548_PROPOSED & EXISTING TYPICAL.DWG
LAYOUT : TYP.
PLOT DATE : 11/22/2016
PLOT TIME : 9:02:58 AM
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'



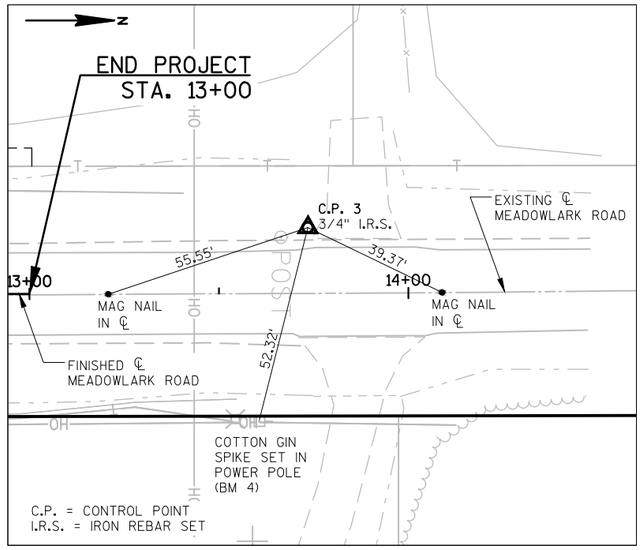
TIES TO C.P.#1

STA. 9+20.07; 16.09' LT.
Y = 210,375.72
X = 185,177.12



TIES TO C.P.#2

STA. 11+15.53; 13.45' RT.
Y = 210,571.37
X = 185,205.92



TIES TO C.P.#3

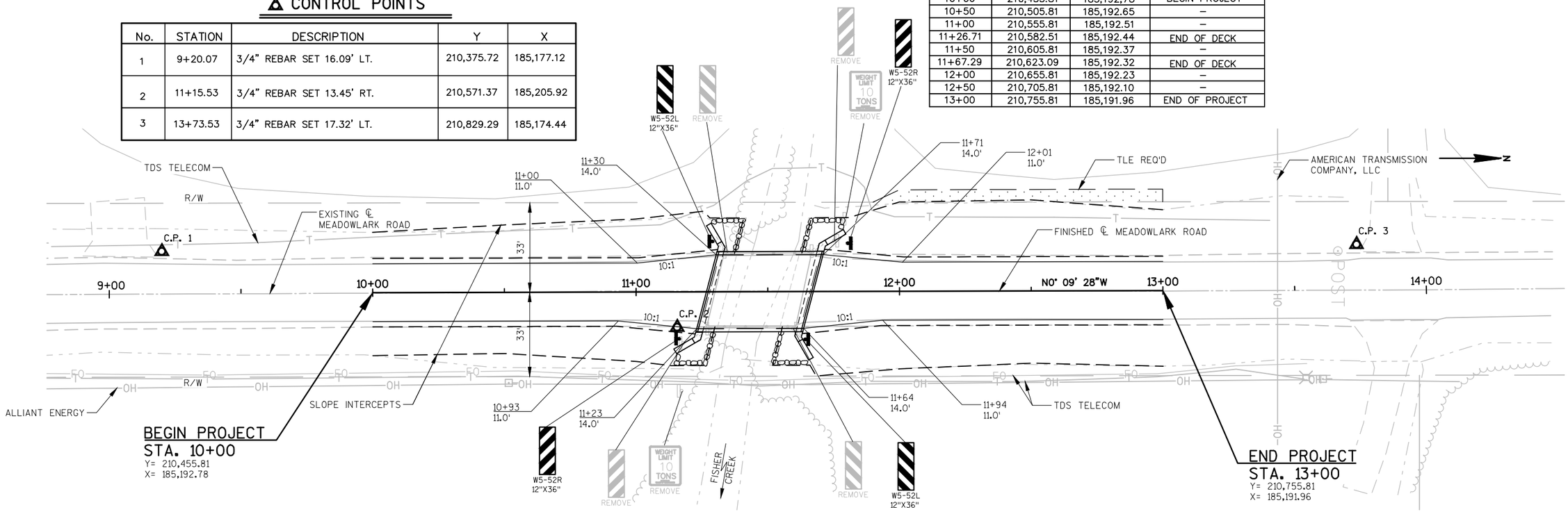
STA. 13+73.53; 17.32' LT.
Y = 210,829.29
X = 185,174.44

MEADOWLARK ROAD STATION LAYOUT

STATION	Y	X	COMMENTS
10+00	210,455.81	185,192,78	BEGIN PROJECT
10+50	210,505.81	185,192.65	–
11+00	210,555.81	185,192.51	–
11+26.71	210,582.51	185,192.44	END OF DECK
11+50	210,605.81	185,192.37	–
11+67.29	210,623.09	185,192.32	END OF DECK
12+00	210,655.81	185,192.23	–
12+50	210,705.81	185,192.10	–
13+00	210,755.81	185,191.96	END OF PROJECT

▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X
1	9+20.07	3/4" REBAR SET 16.09' LT.	210,375.72	185,177.12
2	11+15.53	3/4" REBAR SET 13.45' RT.	210,571.37	185,205.92
3	13+73.53	3/4" REBAR SET 17.32' LT.	210,829.29	185,174.44



PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	ALIGNMENT & TIES DETAIL	SHEET 4	E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\SHEETSPLAN\DETAILS\TIES AND ALIGNMENT.DWG
LAYOUT : ALIGNMENT
PLOT DATE : 11/21/2016
PLOT TIME : 2:48:13 PM
PLOT BY : JULIA ZEHNER
PLOT SCALE : 1" = 1'

Estimate Of Quantities

4201-04-71

Line	Item	Item Description	Unit	Total	Qty
0010	201.0205	Grubbing	STA	1.000	1.000
0020	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01.11+47	LS	1.000	1.000
0030	205.0100	Excavation Common **P**	CY	340.000	340.000
0040	206.1000	Excavation for Structures Bridges (structure) 01.B-59-0193	LS	1.000	1.000
0050	210.1500	Backfill Structure Type A	TON	260.000	260.000
0060	213.0100	Finishing Roadway (project) 01.4201-04-71	EACH	1.000	1.000
0070	305.0110	Base Aggregate Dense 3/4-Inch	TON	40.000	40.000
0080	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	690.000	690.000
0090	450.4000	HMA Cold Weather Paving	TON	160.000	160.000
0100	455.0605	Tack Coat	GAL	35.000	35.000
0110	465.0105	Asphaltic Surface	TON	160.000	160.000
0120	502.0100	Concrete Masonry Bridges	CY	145.000	145.000
0130	502.3200	Protective Surface Treatment	SY	160.000	160.000
0140	505.0400	Bar Steel Reinforcement HS Structures	LB	4,630.000	4,630.000
0150	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	17,770.000	17,770.000
0160	513.4061	Railing Tubular Type M (structure) 01.B-59-0193	LF	83.000	83.000
0170	516.0500	Rubberized Membrane Waterproofing	SY	13.000	13.000
0180	550.2104	Piling CIP Concrete 10 3/4 X 0.25-Inch	LF	800.000	800.000
0190	606.0300	Riprap Heavy	CY	95.000	95.000
0200	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	160.000	160.000
0210	619.1000	Mobilization	EACH	1.000	1.000
0220	624.0100	Water	MGAL	5.000	5.000
0230	625.0500	Salvaged Topsoil **P**	SY	700.000	700.000
0240	628.1504	Silt Fence	LF	630.000	630.000
0250	628.1520	Silt Fence Maintenance	LF	1,260.000	1,260.000
0260	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0270	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0280	628.2006	Erosion Mat Urban Class I Type A **P**	SY	1,470.000	1,470.000
0290	628.6005	Turbidity Barriers	SY	200.000	200.000
0300	628.7570	Rock Bags	EACH	40.000	40.000
0310	629.0210	Fertilizer Type B **P**	CWT	1.000	1.000
0320	630.0120	Seeding Mixture No. 20 **P**	LB	35.000	35.000
0330	630.0200	Seeding Temporary **P**	LB	20.000	20.000
0340	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0350	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0360	638.2602	Removing Signs Type II	EACH	6.000	6.000
0370	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0380	642.5001	Field Office Type B	EACH	1.000	1.000

4201-04-71

Line	Item	Item Description	Unit	Total	Qty
0390	643.0100	Traffic Control (project) 01.4201-04-71	EACH	1.000	1.000
0400	643.0420	Traffic Control Barricades Type III	DAY	1,140.000	1,140.000
0410	643.0705	Traffic Control Warning Lights Type A	DAY	1,770.000	1,770.000
0420	643.0900	Traffic Control Signs	DAY	760.000	760.000
0430	645.0120	Geotextile Type HR	SY	160.000	160.000
0440	646.0106	Pavement Marking Epoxy 4-Inch	LF	600.000	600.000
0450	650.4500	Construction Staking Subgrade	LF	260.000	260.000
0460	650.5000	Construction Staking Base	LF	260.000	260.000
0470	650.6500	Construction Staking Structure Layout (structure) 01.B-59-0193	LS	1.000	1.000
0480	650.9910	Construction Staking Supplemental Control (project) 01.4201-04-71	LS	1.000	1.000
0490	650.9920	Construction Staking Slope Stakes	LF	260.000	260.000
0500	690.0150	Sawing Asphalt	LF	44.000	44.000
0510	715.0502	Incentive Strength Concrete Structures	DOL	870.000	870.000
0520	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	150.000	150.000
0530	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY

FROM/TO STA	LOCATION	**P** (1) 205.0100 COMMON EXCAVATION CUT (CY)	AVAILABLE MATERIAL (CY) (2)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25 (3)	MASS ORDINATE +/- (CY) (4)	WASTE (CY)
10+00 - 13+00	MAINLINE	340	340	166	208	132	132
TOTALS =		340	340	166	208	132	132

NOTES:
1.) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2.) AVAILABLE MATERIAL = CUT
3.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
4.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEG

P PAY PLAN QUANTITY

GRUBBING

STATION - STATION	LOCATION	201.0205 GRUBBING (STA)
11+00 - 12+00	MAINLINE, LT. & RT.	1
	TOTALS =	1

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
10+00 - 13+00	MAINLINE	36	648
-	UNDISTRIBUTED	4	42
	TOTALS =	40	690

ASPHALTIC SURFACE

STATION - STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING (TON)	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
10+00 - 13+00	MAINLINE	150	33	150
-	UNDISTRIBUTED	10	2	10
	TOTALS =	160	35	160

WATER

PROJECT	624.0100 (MGAL)
4201-04-71	5
	5

FINISHING ITEMS

STATION - STATION	LOCATION	**P** 625.0500 SALVAGED TOPSOIL (SY)	**P** 628.2006 EROSION MAT URBAN CLASS I TYPE A (SY)	**P** 629.0210 FERTILIZER TYPE B (CWT)	**P** 630.0120 SEEDING MIXTURE NO. 20 (LB)	**P** 630.0200 SEEDING TEMPORARY (LB)
10+00 - 13+00	MAINLINE	564	1172	0.7	27	16
-	UNDISTRIBUTED	136	298	0.3	8	4
	TOTALS =	700	1470	1	35	20

P PAY PLAN QUANTITY

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
10+00 - 11+26	MAINLINE, LT.	135	270
10+00 - 11+26	MAINLINE, RT.	110	220
11+68 - 13+00	MAINLINE, LT.	127	254
11+68 - 13+00	MAINLINE, RT.	130	260
-	UNDISTRIBUTED	128	256
	TOTALS =	630	1260

MOBILIZATION EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
4201-04-71	5	2
TOTALS =	5	2

PROJECT NO: 4201-04-71 | HWY: MEADOWLARK ROAD | COUNTY: SHEBOYGAN | MISCELLANEOUS QUANTITIES | SHEET 7 E

ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

TURBIDITY BARRIER

LOCATION	628.6005 (SY)
SOUTH ABUTMENT	77
NORTH ABUTMENT	84
UNDISTRIBUTED	39
TOTALS =	200

PERMANENT SIGNING

STATION	DESCRIPTION	SIZE (INCH X INCH)	634.0612 POSTS WOOD 4X6 - INCH X 12-FT (EACH)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)
SW QUADRANT STRUCTURE B-51-0193	W5-52L	12X36	1	3
NW QUADRANT STRUCTURE B-51-0193	W5-52R	12X36	1	3
SE QUADRANT STRUCTURE B-51-0193	W5-52R	12X36	1	3
NE QUADRANT STRUCTURE B-51-0193	W5-52L	12X36	1	3
TOTALS =			4	12

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

STATION	LOCATION	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
11+18	MAINLINE, RT.	WEIGHT LIMIT	1	1
11+75	MAINLINE, LT.	WEIGHT LIMIT	1	1
-	SW QUADRANT STRUCTURE B-59-0193	BRIDGE HASH MARKS	1	1
-	NW QUADRANT STRUCTURE B-59-0193	BRIDGE HASH MARKS	1	1
-	SE QUADRANT STRUCTURE B-59-0193	BRIDGE HASH MARKS	1	1
-	NE QUADRANT STRUCTURE B-59-0193	BRIDGE HASH MARKS	1	1
TOTALS =			6	6

ROCK BAGS

LOCATION	628.7570 (EACH)
UNDISTRIBUTED	40
TOTALS =	40

TRAFFIC CONTROL

LOCATION	643.0100 TRAFFIC CONTROL (4201-04-71) (EACH)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)
PROJECT	1	1140	1770	760
	1	1140	1770	760

SAWING ASPHALT

STATION	LOCATION	690.0150 (LF)
10+90	MAINLINE	22
13+90	MAINLINE	22
TOTALS =		44

PAVEMENT MARKING EPOXY 4-INCH

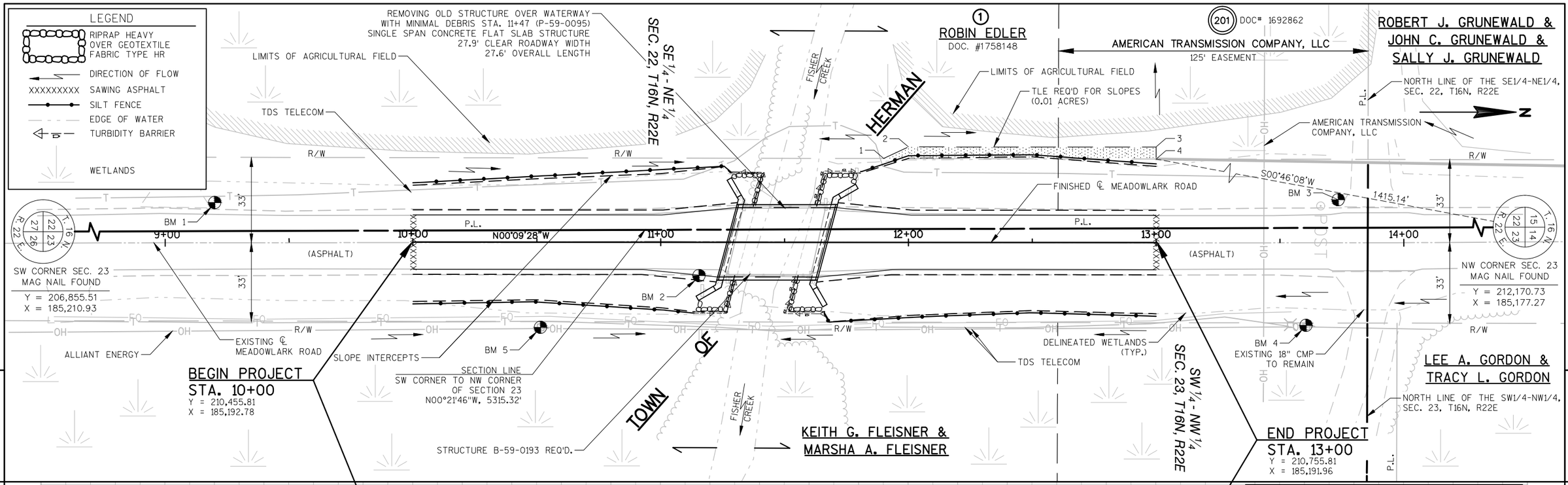
STATION - STATION	LOCATION	DESCRIPTION	646.0106 (LF)
10+00 - 13+00	MAINLINE	DOUBLE YELLOW	600
TOTALS =			600

CONSTRUCTION STAKING

STATION -STATION	LOCATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	*650.6500 STRUCTURE LAYOUT (B-59-0193) (LS)	650.9910 SUPPLEMENTAL CONTROL (01. 4210-04-71) (LS)	650.9920 SLOPES STAKES (LF)
10+00 - 11+26	MAINLINE	127	127	1	1	127
11+68 + 13+00	MAINLINE	133	133	-	-	133
TOTALS =		260	260	1	1	260

*CATEGORY 020

PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	MISCELLANEOUS QUANTITIES	SHEET 8	E



STA. 11+47
STRUCTURE B-59-0193 REQ'D.
SINGLE SPAN REINFORCED CONCRETE FLAT SLAB
CLEAR ROADWAY WIDTH = 28.0'
O.A.L. = 40.58'
SKEW = 15° LHF

NOTE:
EXISTING ℄ OF MEADOWLARK ROAD BASED ON CENTERLINE OF EXISTING PAVEMENT.
BASIS OF EXISTING RIGHT OF WAY FOR MEADOWLARK ROAD WAS BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND WIS STATUTE 82.31(2).

TLE LINE TABLE

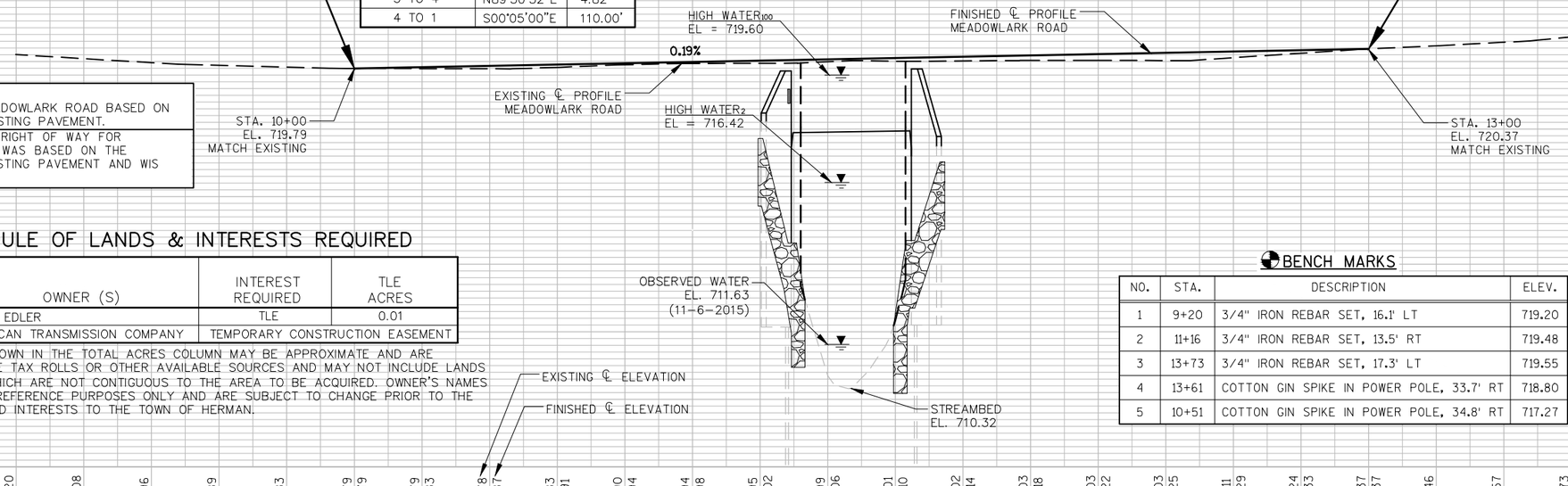
POINT TO POINT	BEARING	DISTANCE
1 TO 2	N25°12'22"W	11.04'
2 TO 3	N00°09'28"W	100.00'
3 TO 4	N89°50'32"E	4.82'
4 TO 1	S00°05'00"E	110.00'

HORIZONTAL POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD."

COORDINATE TABLE
TEMPORARY LIMITED EASEMENT (TLE) POINTS

POINT	STA.	OFFSET	Y	X
1	11+90.00	33.83 LT.	210645.71	185158.43
2	12+00.00	38.50 LT.	210655.70	185153.73
3	13+00.00	38.50 LT.	210755.70	185153.46
4	13+00.00	33.68 LT.	210755.71	185158.27



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	TLE ACRES
1	ROBIN EDLER	TLE	0.01
201	AMERICAN TRANSMISSION COMPANY	TEMPORARY CONSTRUCTION EASEMENT	

NOTE: AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM THE TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN OF HERMAN.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	9+20	3/4" IRON REBAR SET, 16.1' LT	719.20
2	11+16	3/4" IRON REBAR SET, 13.5' RT	719.48
3	13+73	3/4" IRON REBAR SET, 17.3' LT	719.55
4	13+61	COTTON GIN SPIKE IN POWER POLE, 33.7' RT	718.80
5	10+51	COTTON GIN SPIKE IN POWER POLE, 34.8' RT	717.27

EARTHWORK SUMMARY

EXCAVATION COMMON	=	340	C.Y.
FILL	=	166	C.Y.
FILL EXPANSION (25%)	=	208	C.Y.
WASTE	=	132	C.Y.

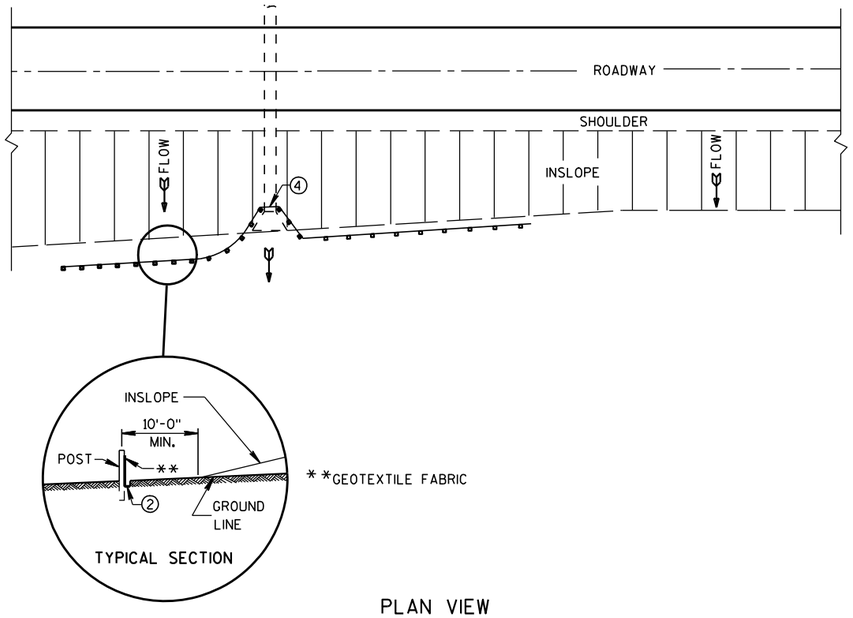
PROJECT NO: 4201-04-71	HWY: MEADOWLARK RD	COUNTY: SHEBOYGAN	PLAN AND PROFILE: MEADOWLARK ROAD	SHEET 9	E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\SHEETSPLAN\PLAN & PROFILE SHEETS\MEADOWLARK ROAD.DWG
LAYOUT : P&P – (1)
PLOT DATE : 1/10/2017
PLOT TIME : 3:44:39 PM
PLOT BY : STRINE, THERESA
PLOT SCALE : 1 IN:40 FT
PLOT SCALE : 1 IN:40 FT

Standard Detail Drawing List

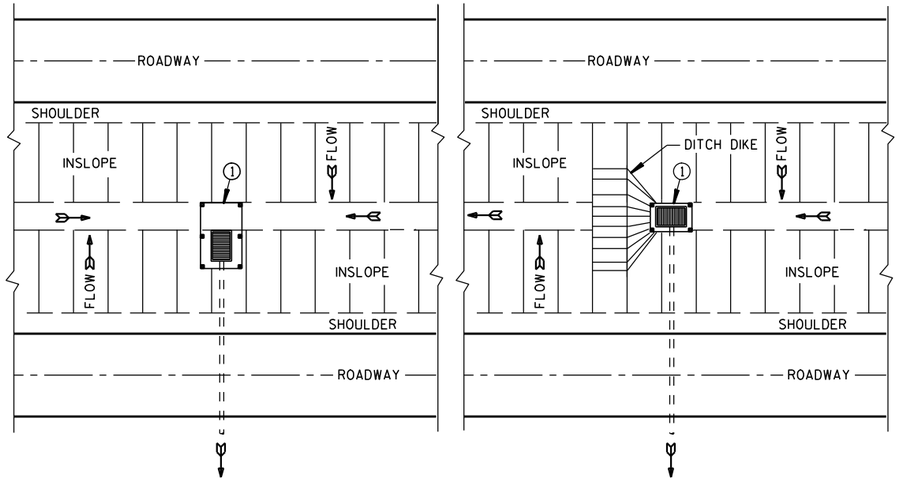
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-08	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



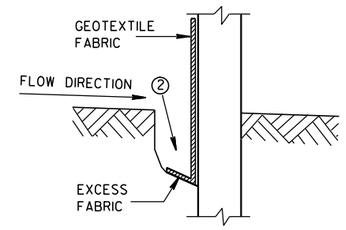
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

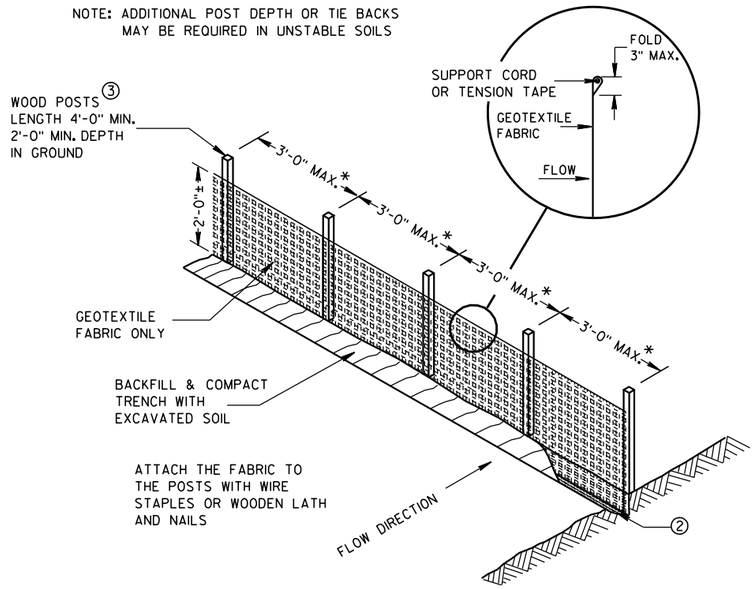
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

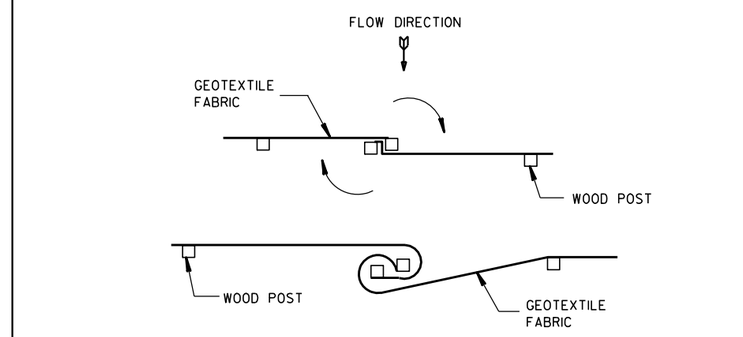


TRENCH DETAIL

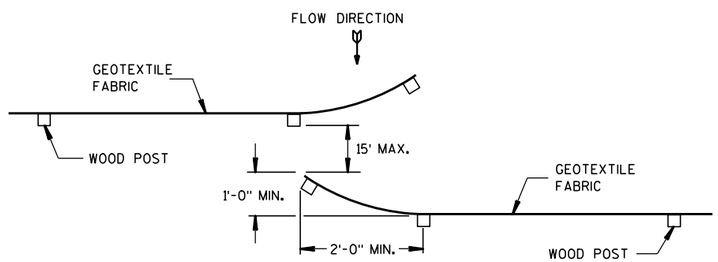


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

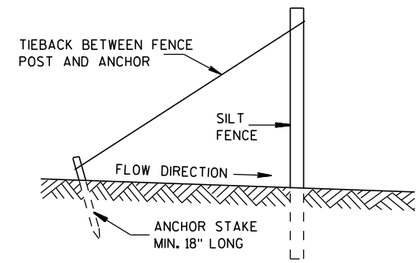


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

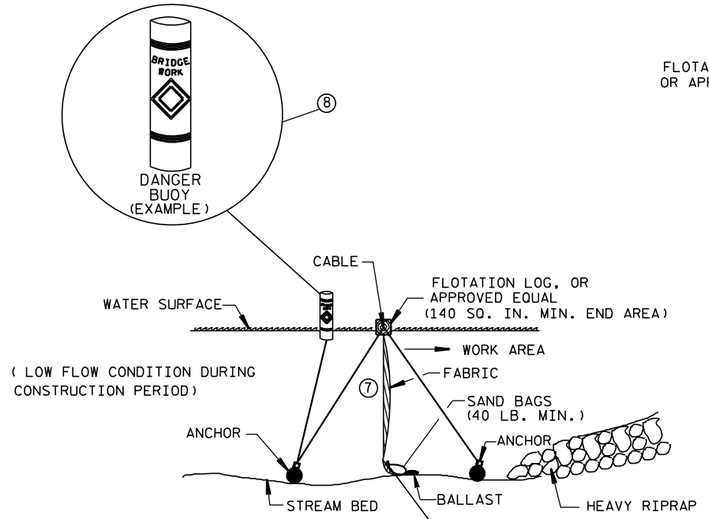
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

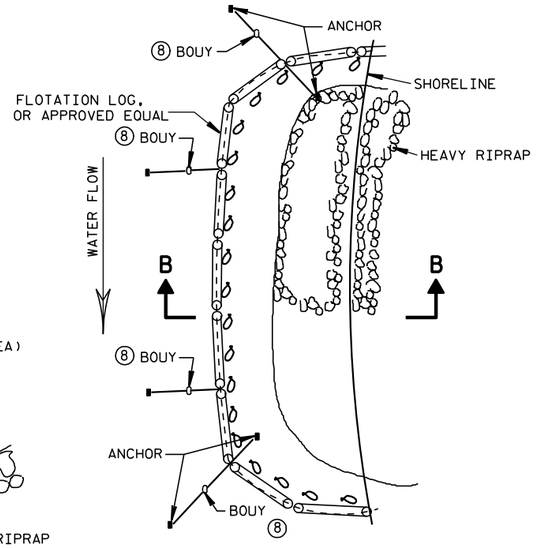
S.D.D. 8 E 9-6

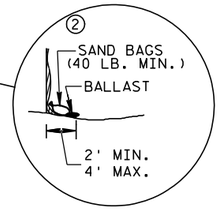
6

S.D.D. 8 E 9-6

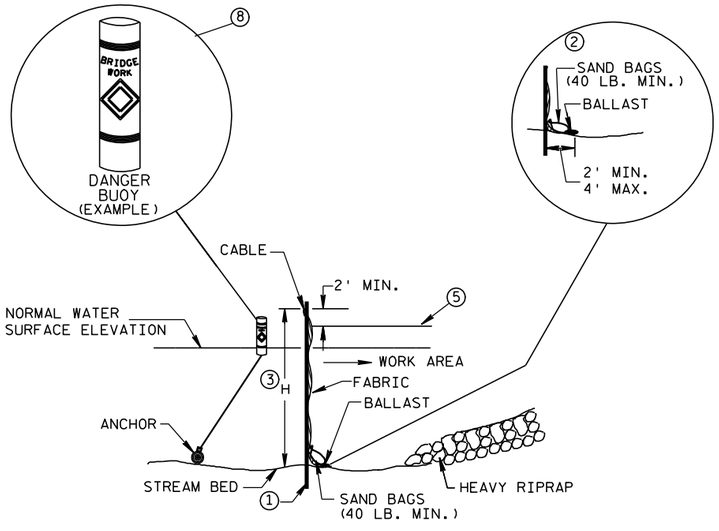


SECTION B-B

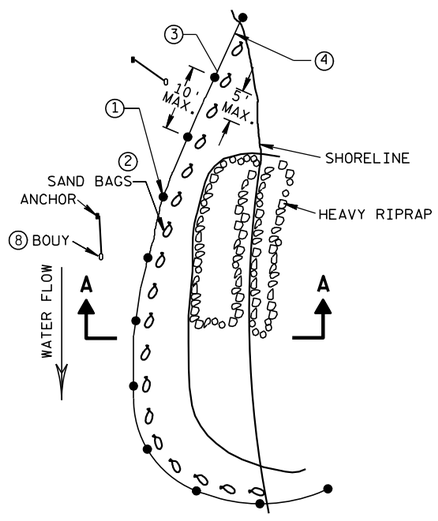




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

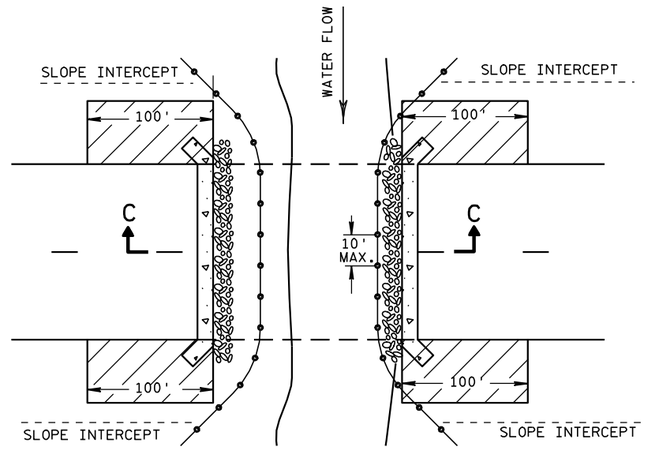
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

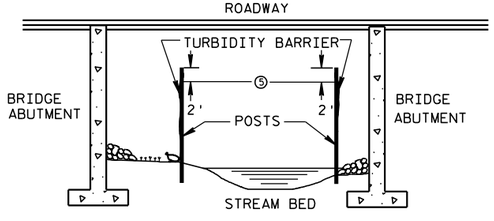
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



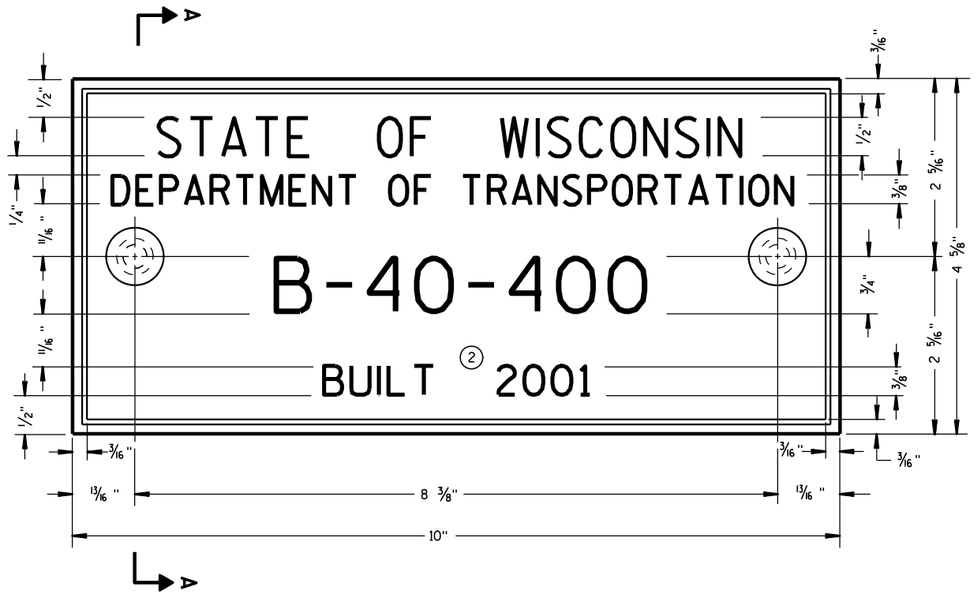
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
6/04/02 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

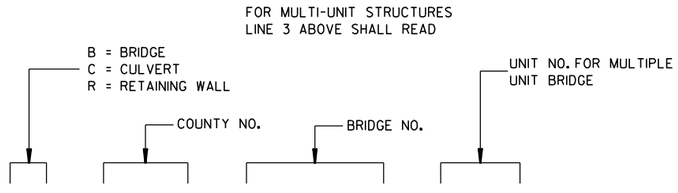
6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

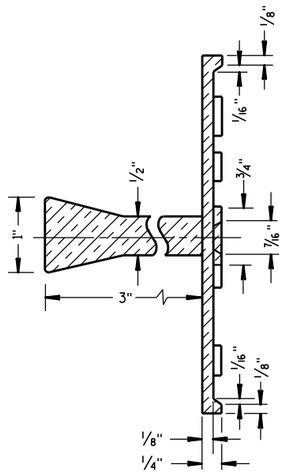
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

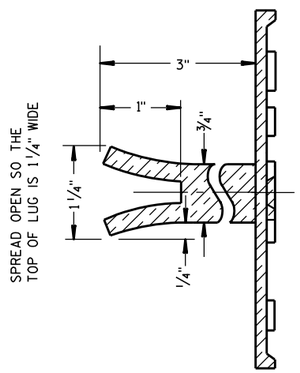
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

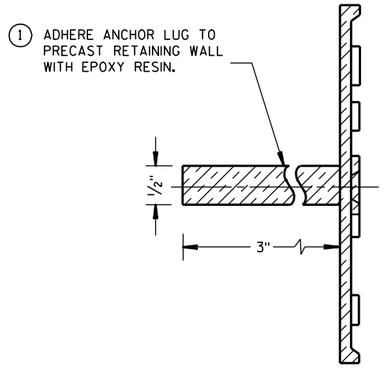
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



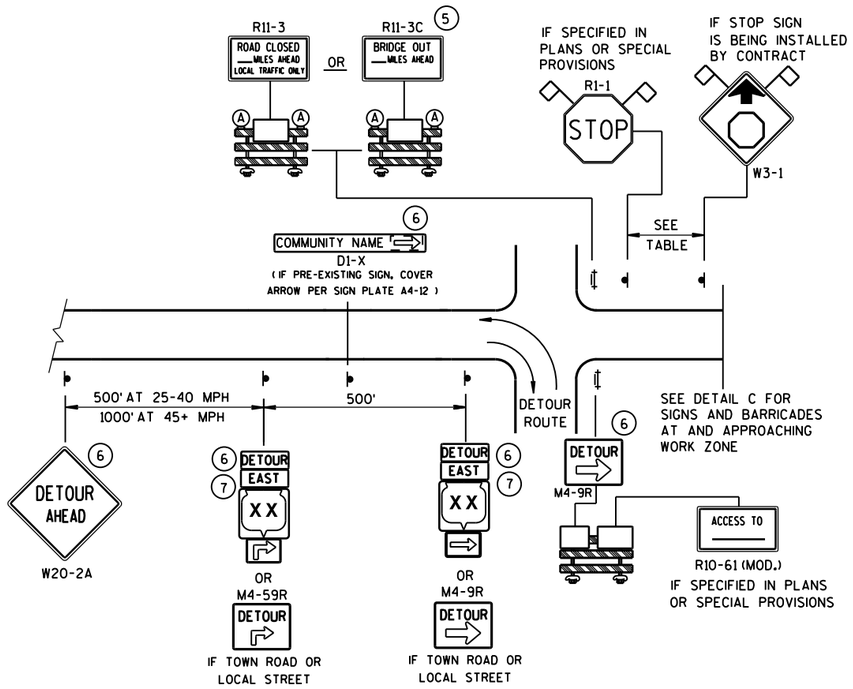
ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

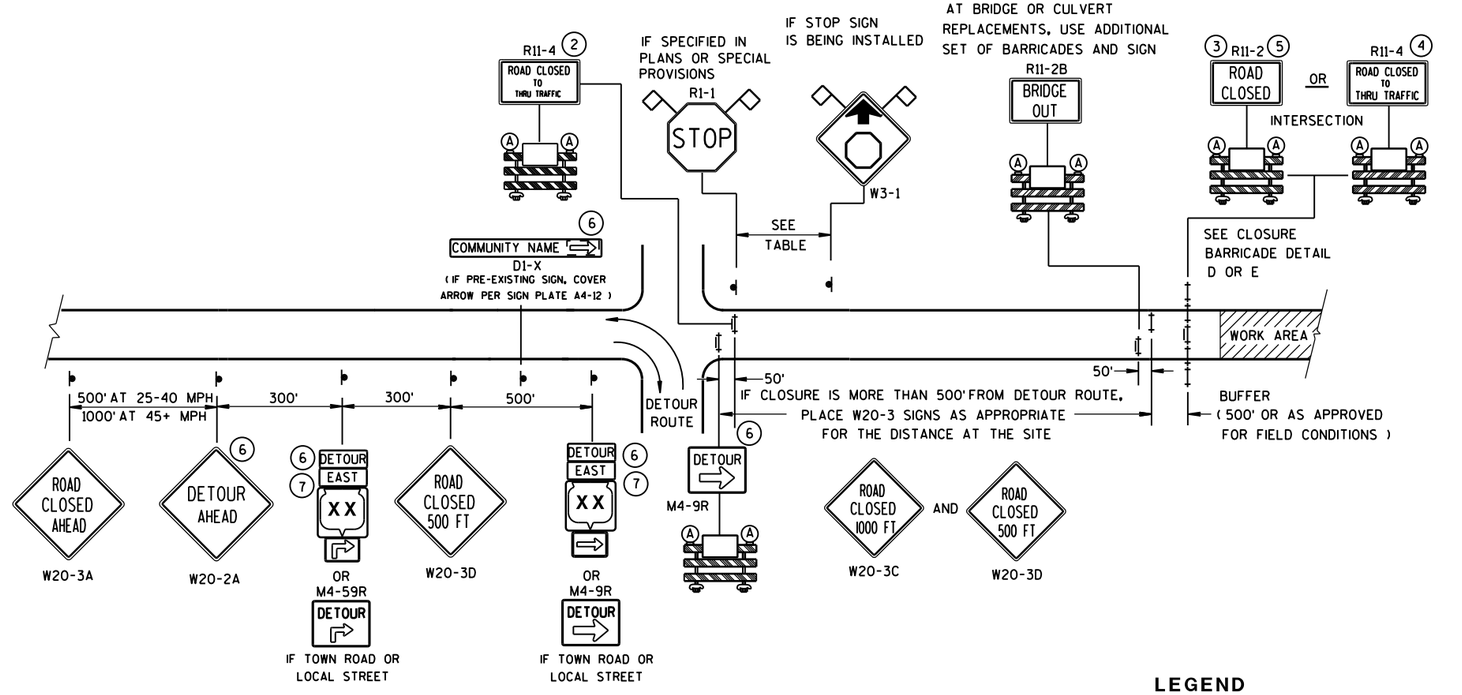
6

S.D.D. 12 A 3-10



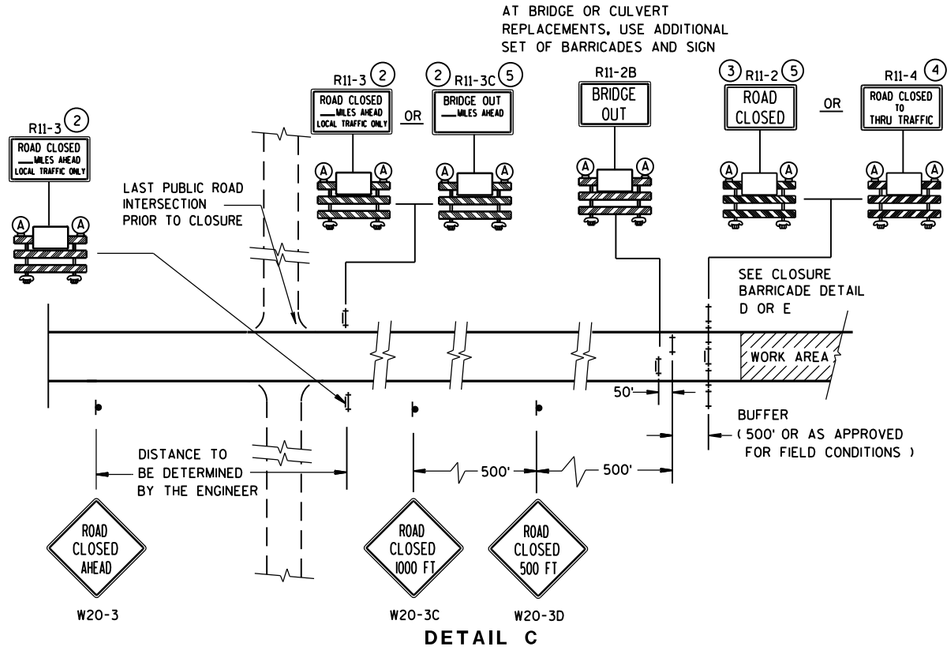
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

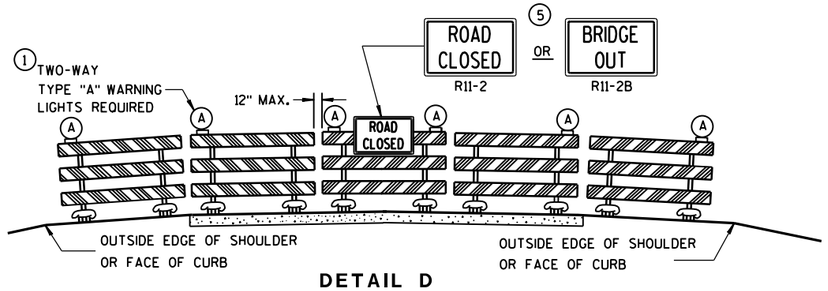
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

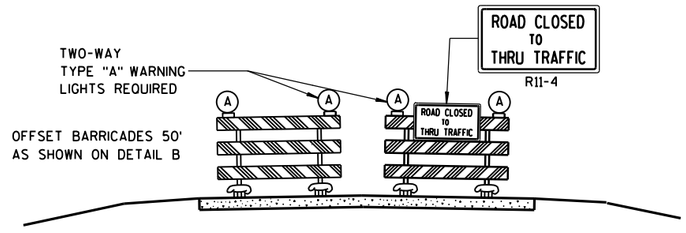
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

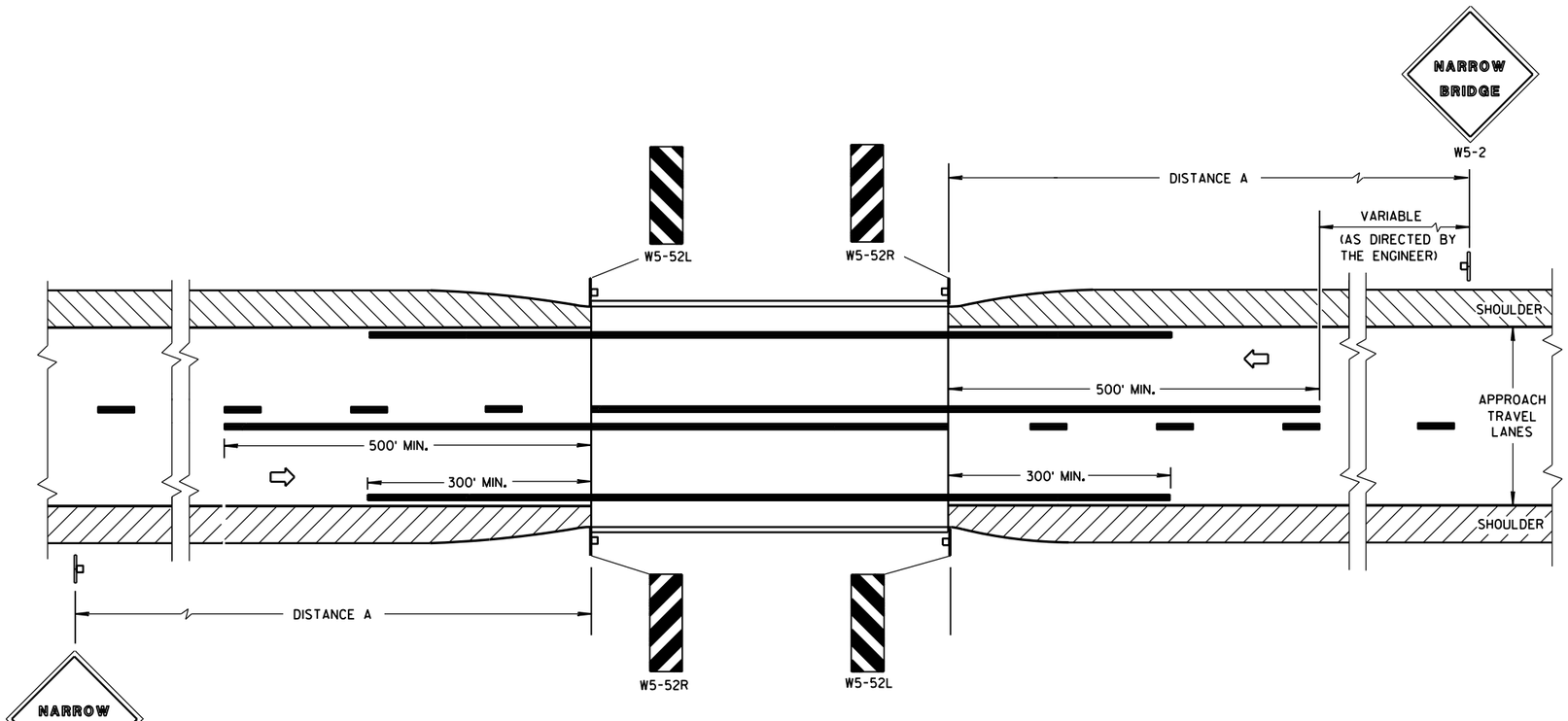
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FHWA — FIC

6

S.D.D. 15 C 2-6b



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

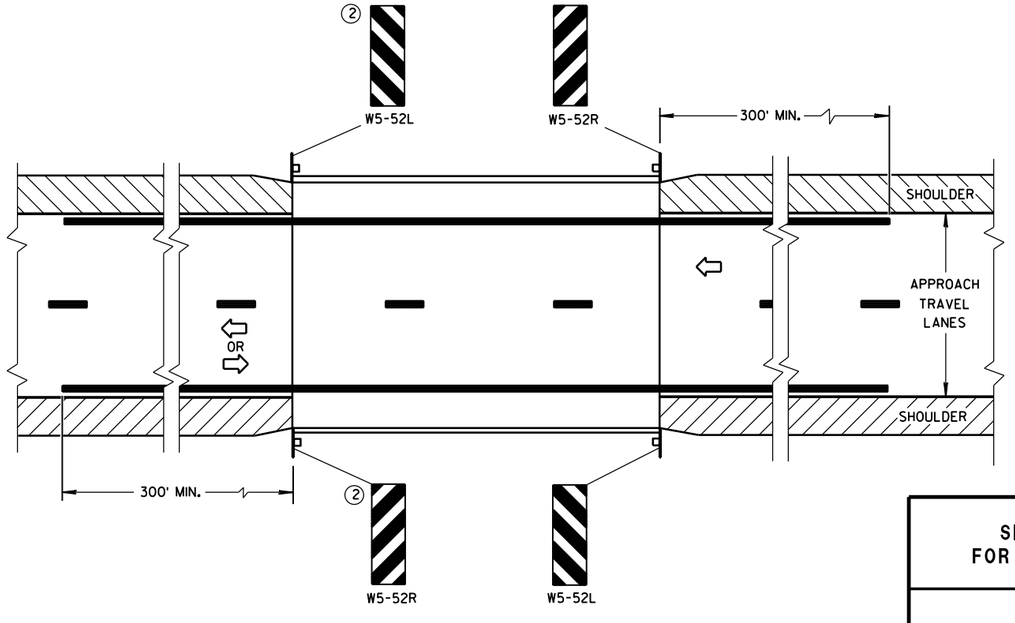
GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(1) LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

(2) OMIT ON ONE-WAY TRAVELLED WAYS.

(3) EDGE OF W5-52 SIGN SHALL BE PLACED IN LINE WITH FACE OF CURB OR PARAPET.



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

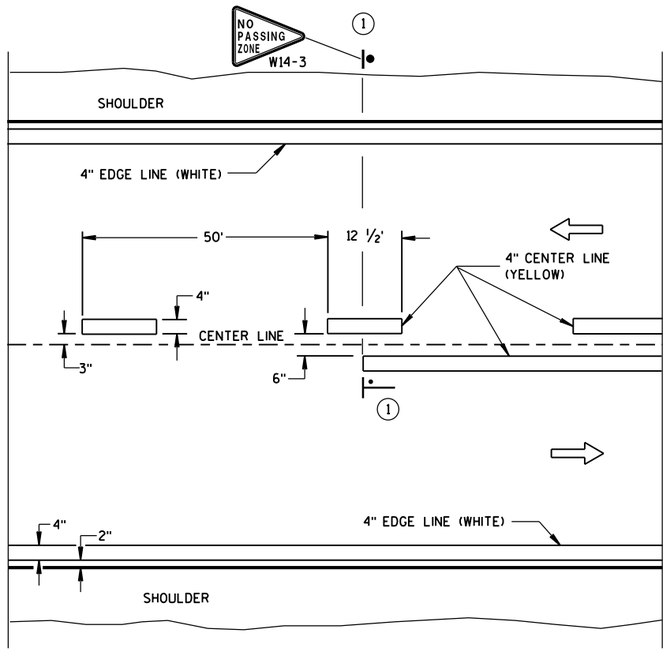
APPROVED
4-18-16 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR ...IEER
FHWA

6

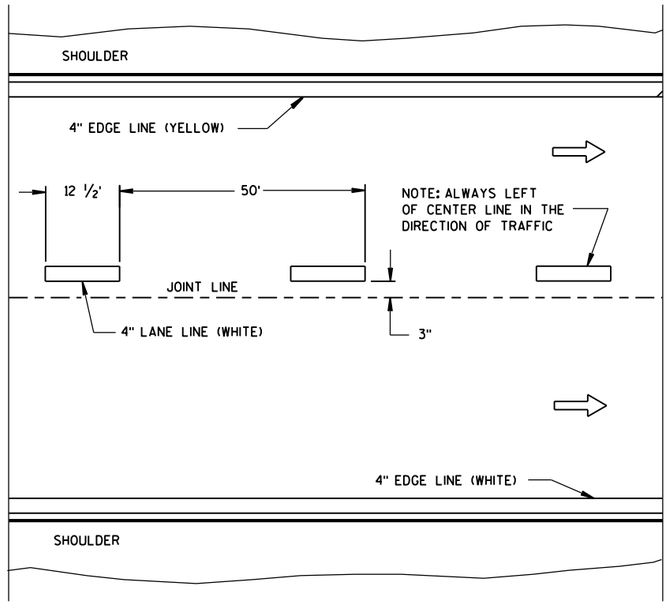
S.D.D. 15 C 6-8

6

S.D.D. 15 C 6-8



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

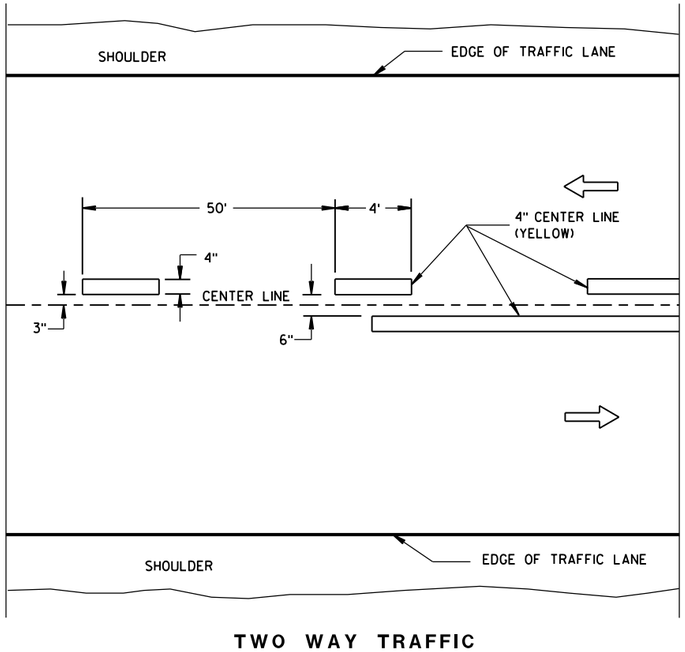
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

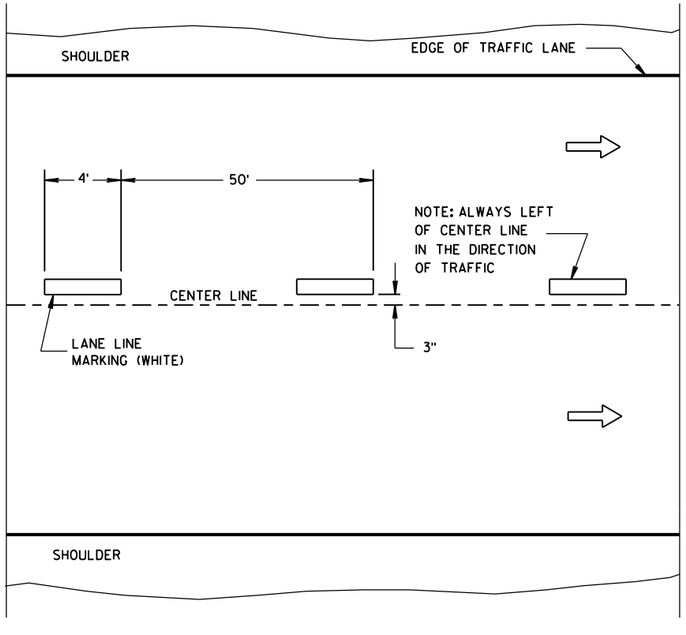
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

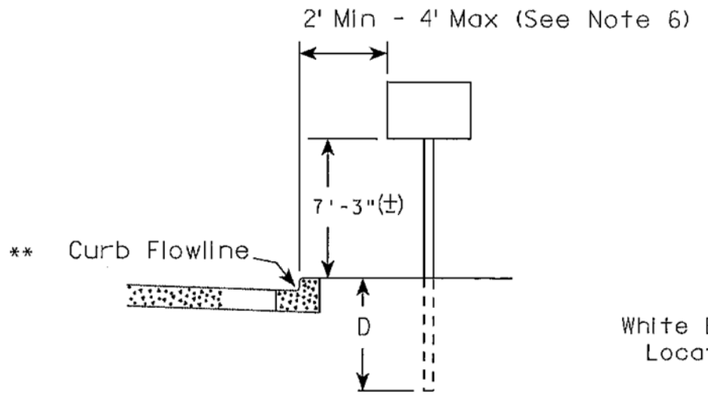
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

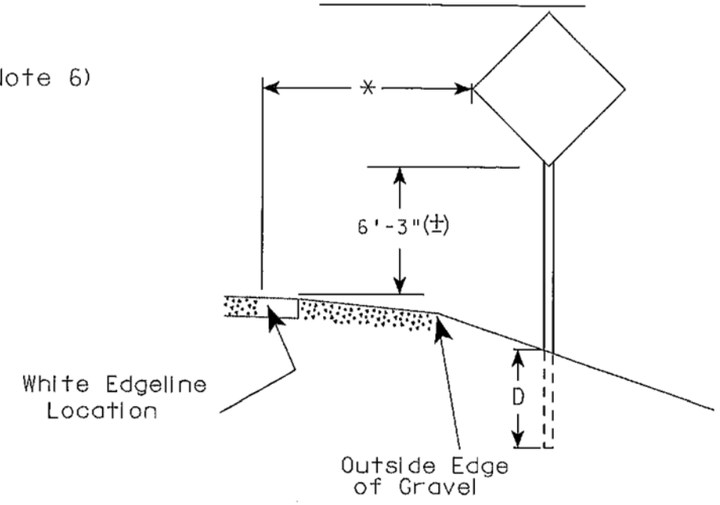
S.D.D. 15 C 8-17a

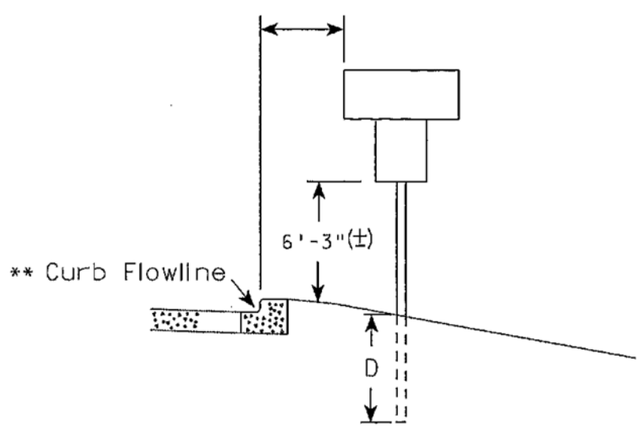
S.D.D. 15 C 8-17a

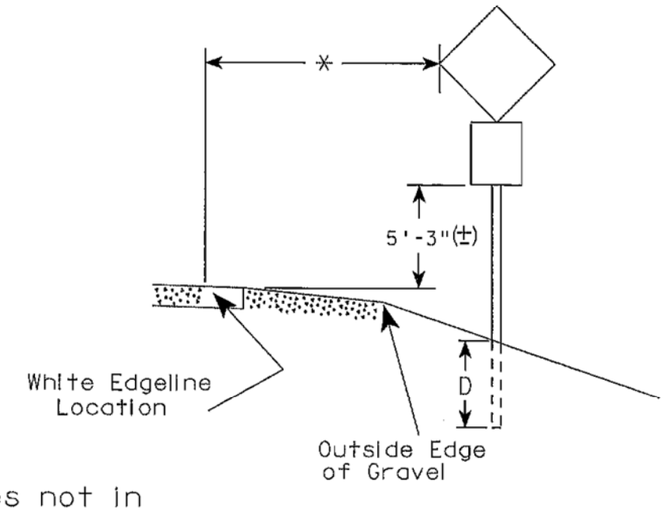
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

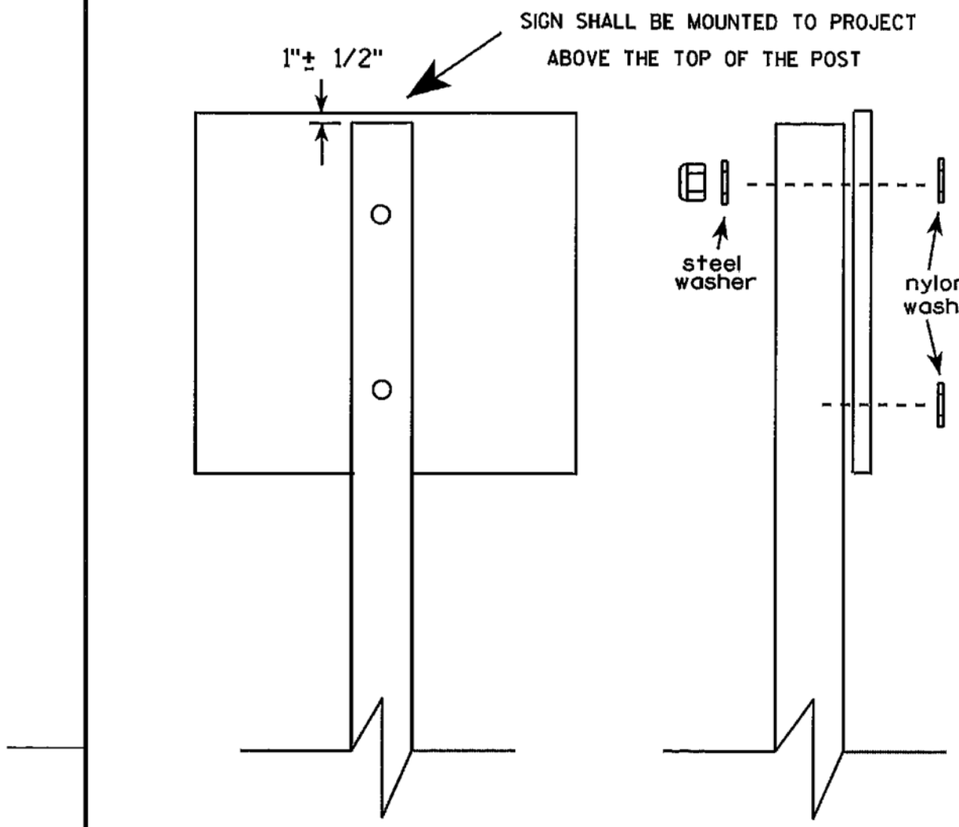
WISCONSIN DEPT OF TRANSPORTATION

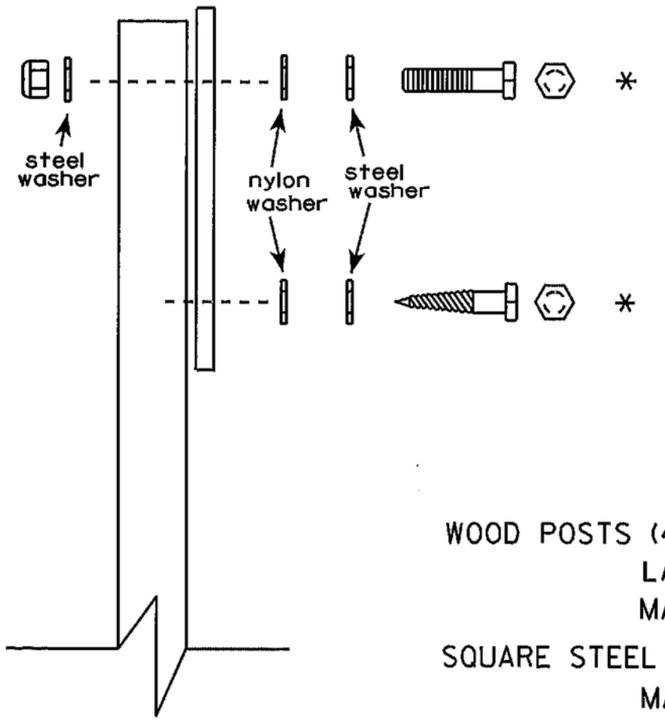
APPROVED Matthew L Rauch for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 12-NOV-2014 14:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

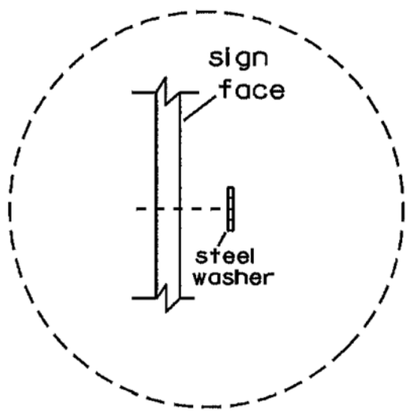
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

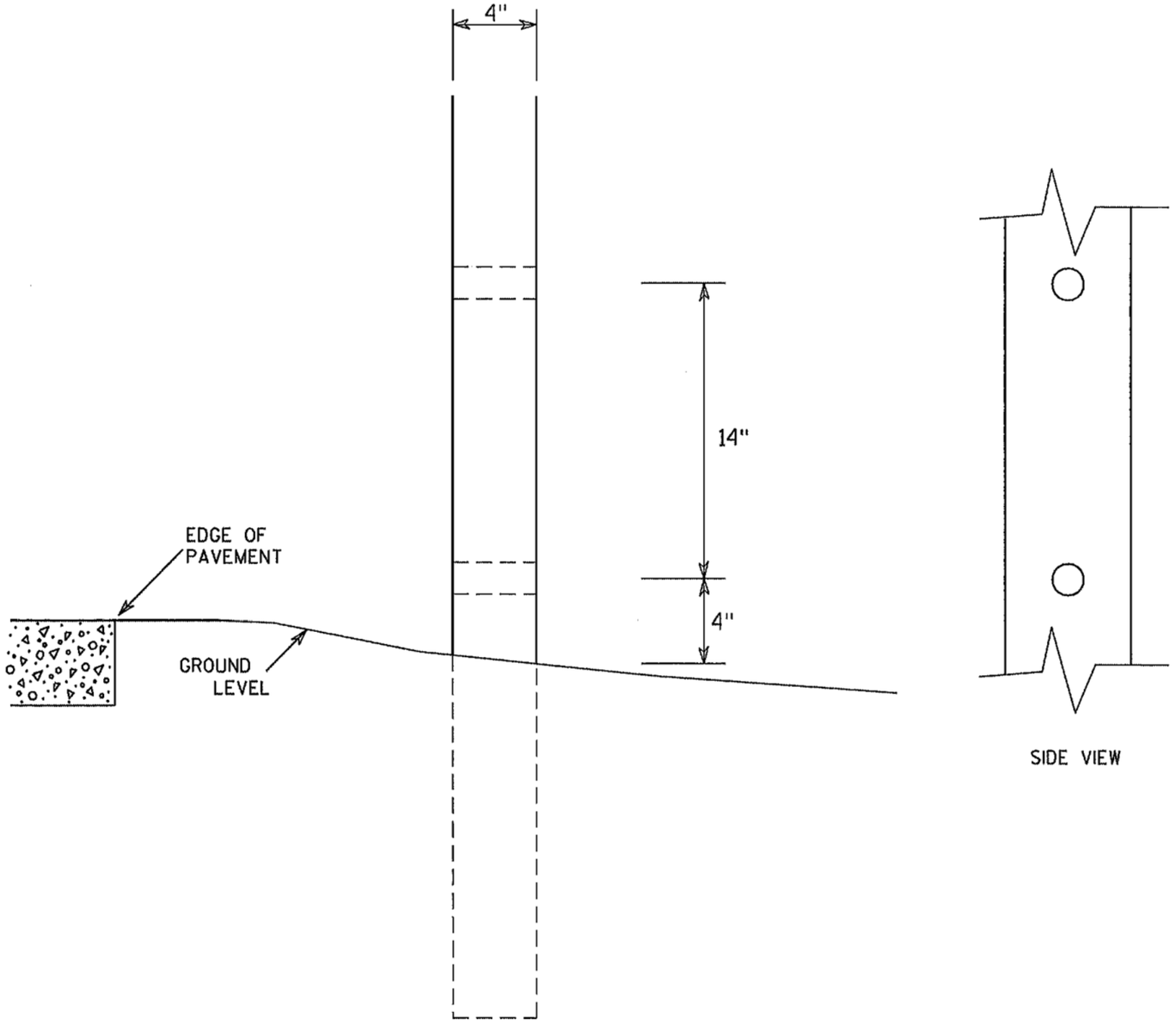
DATE 3/23/10 PLATE NO. A4-8.7

PROJECT NO:

SHEET NO: E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A48.DGN PLOT DATE : 23-MAR-2010 10:15 PLOT BY : dltjph

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

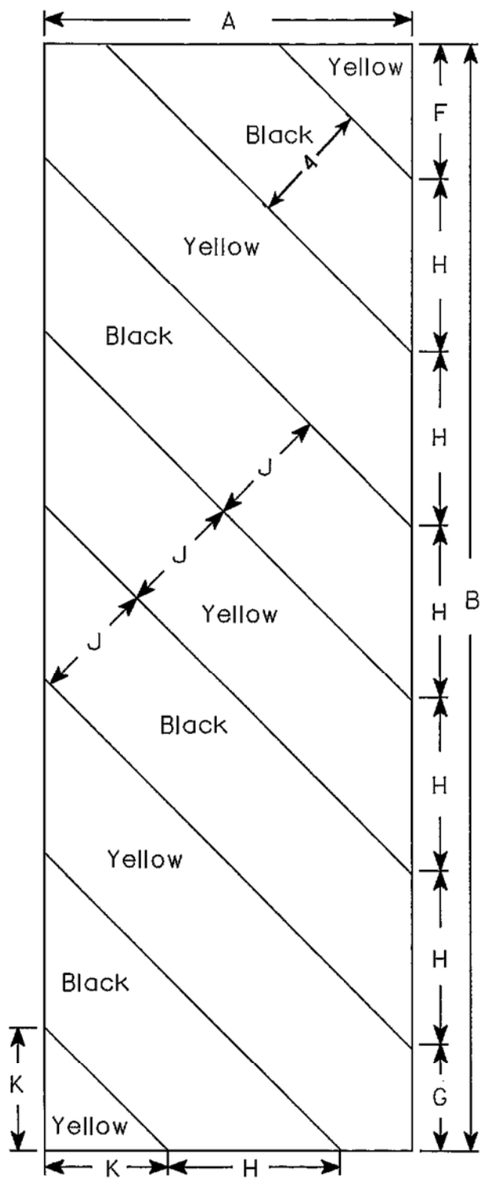
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

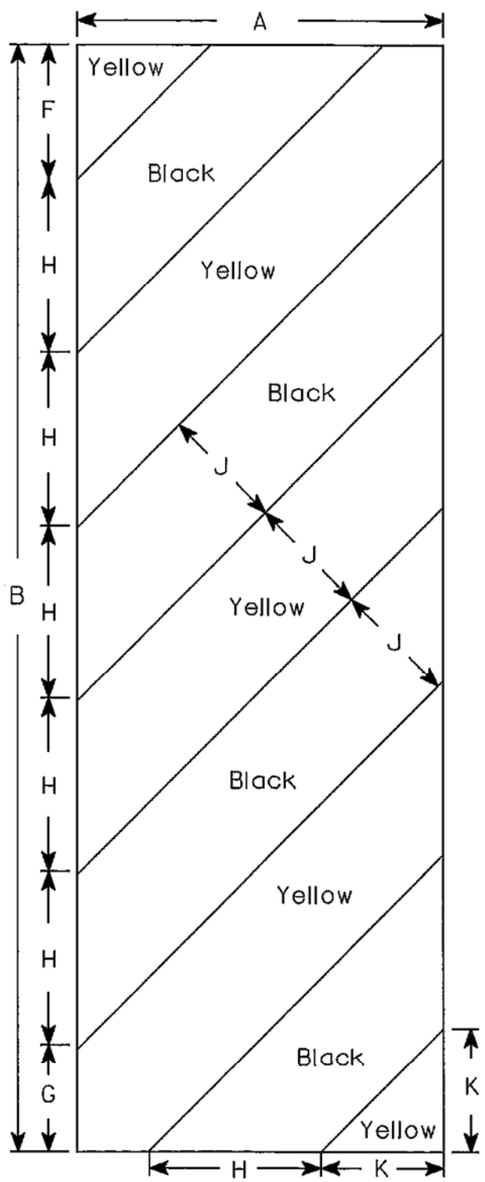
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\Users\Projects\tr_stdplate\A411.DGN PLOT DATE : 10-NOV-2005 10:09 PLOT BY : DOTSJA PLOT NAME : PLOT SCALE : 6.207338:1.000000 WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

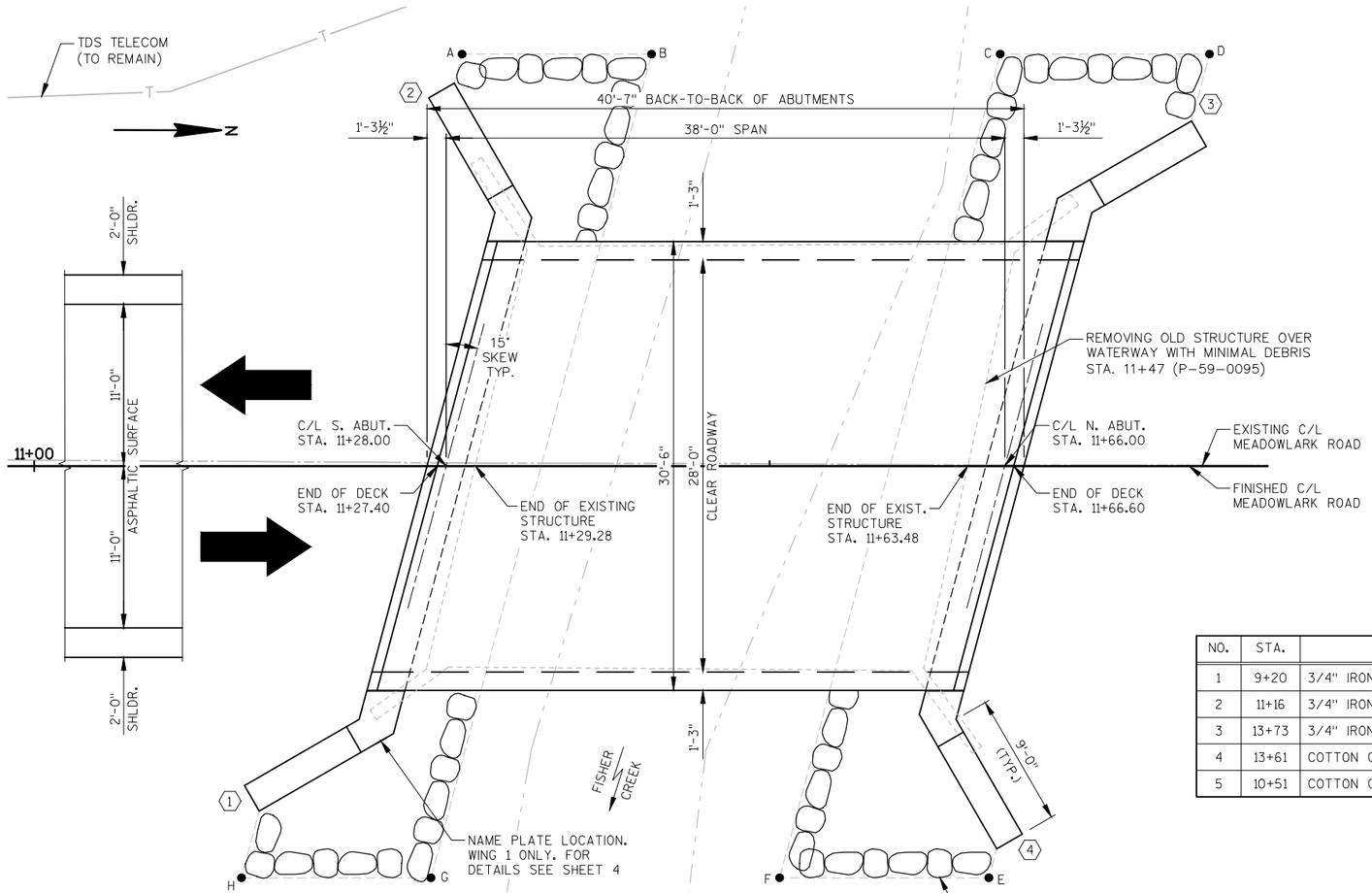
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000 WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

4201-04-71



PLAN B-59-193

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)

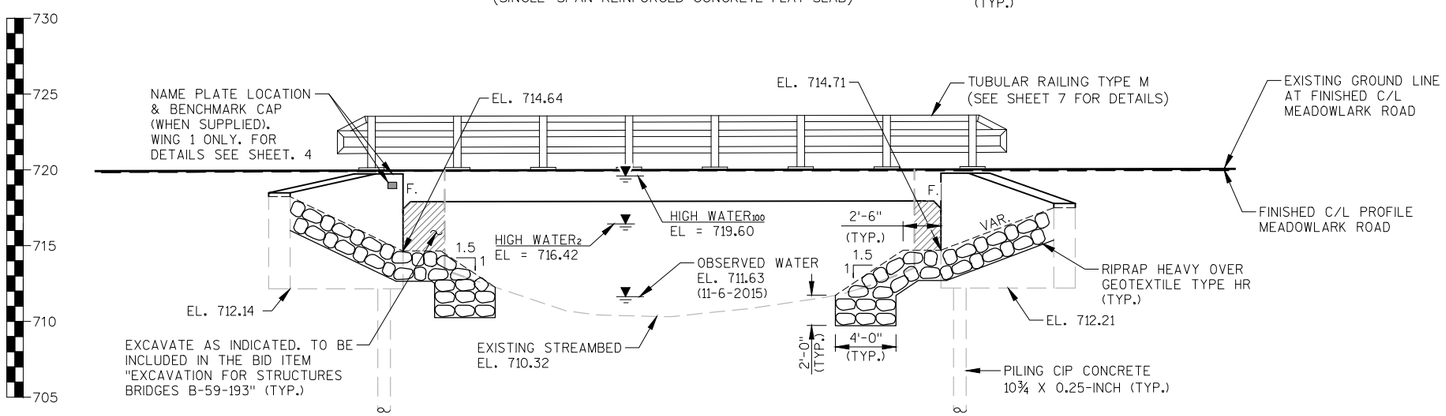
⬡ INDICATES WING NUMBER

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	11+29	28' LT.
B	11+42	28' LT.
C	11+66	28' LT.
D	11+80	28' LT.
E	11+65	28' RT.
F	11+51	28' RT.
G	11+27	28' RT.
H	11+14	28' RT.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	9+20	3/4" IRON REBAR SET, 16.1' LT	719.20
2	11+16	3/4" IRON REBAR SET, 13.5' RT	719.48
3	13+73	3/4" IRON REBAR SET, 17.3' LT	719.55
4	13+61	COTTON GIN SPIKE IN POWER POLE, 33.7' RT	718.80
5	10+51	COTTON GIN SPIKE IN POWER POLE, 34.8' RT	717.27



ELEVATION

(NORMAL TO FISHER CREEK)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.28
OPERATING RATING FACTOR — RF=1.66
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, SLAB — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 50 FT PILE LENGTHS AT BOTH ABUTMENTS.

**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. (2017) — 90
A.D.T. (2037) — 100
DESIGN SPEED — 55 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 4.2 SQ. MI.
Q_{100} TOTAL — 1,380 C.F.S.
THROUGH STRUCTURE — 1,380 C.F.S.
OVERTOPPING ROADWAY — 0 C.F.S.
VELOCITY - THROUGH STRUCTURE — 6.84 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 202 SQ. FT.
HIGH $WATER_{100}$ ELEVATION — 719.60
SCOUR CRITICAL CODE — 5

EROSION CONTROL
Q_2 — 310 C.F.S.
HIGH $WATER_2$ ELEVATION — 716.42

LIST OF DRAWINGS

WISCONSIN PROFESSIONAL ENGINEER
PATRICK T. BOLAND
E-36303
SPRING GREEN
WIS
Patrick Boland 12-15-16

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers · Surveyors · Architects

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/27/17
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-59-193

MEADOWLARK ROAD OVER FISHER CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
SHEBOYGAN	HERMAN

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
RBH	PTB	RBH	PTB

GENERAL PLAN

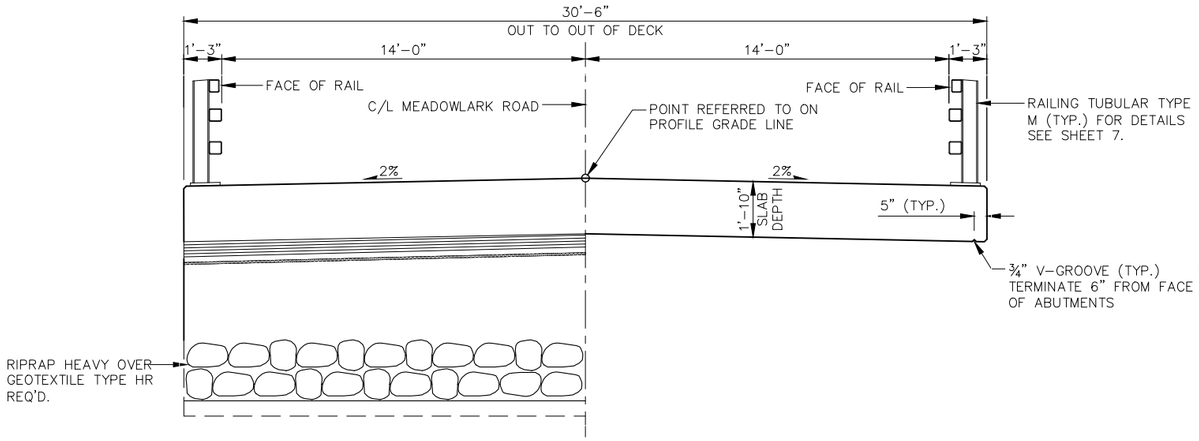
SHEET 1 OF 7

22

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

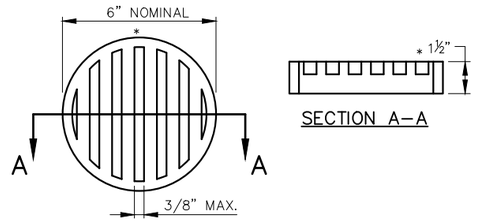
FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\STRUCTURE\CAD FILES\FINALS\01 GENERAL PLAN.DWG
LAYOUT : LAYOUT1
PLOT DATE : 3/16/2016
PLOT TIME : 9:25:49 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'



AT ABUTMENT IN SPAN

PROPOSED CROSS-SECTION THROUGH ROADWAY

(LOOKING NORTH)



RODENT SCREEN

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 COMMERCIALLY 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.

STATE PROJECT NUMBER

4201-04-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

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

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).

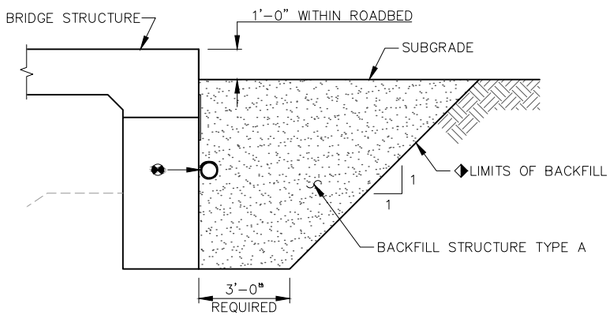
THE EXISTING STRUCTURE (P-59-0095) IS A SINGLE SPAN CONCRETE FLAT SLAB STRUCTURE, SUPPORTED ON CONCRETE ABUTMENTS. THE STRUCTURE HAS A 27.9' CLEAR ROADWAY WIDTH AND A 31.0' OVERALL LENGTH AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

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

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

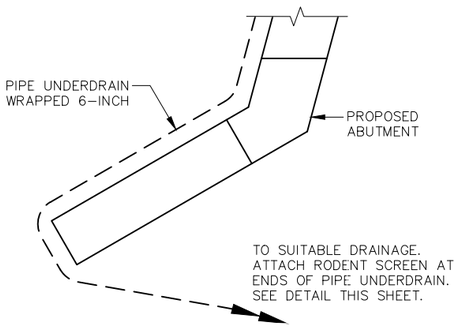


BACKFILL STRUCTURE DETAIL

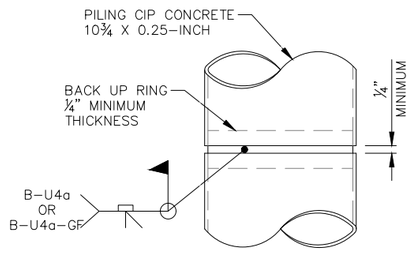
(TYPICAL AT BOTH ABUTMENTS)

◆ BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-59-193". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

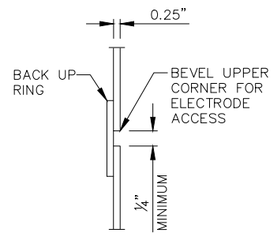
◆ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



PIPE UNDERDRAIN DETAIL



CAST-IN-PLACE CONCRETE PILE



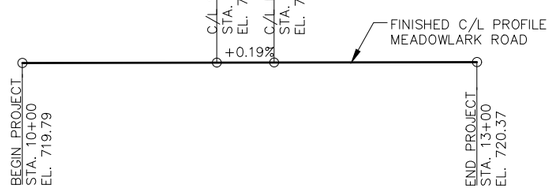
C.I.P. PILE WELD DETAIL

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	SUPER	N. ABUT.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 11+47	LS	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-59-193	LS	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	130	--	130	260
502.0100	CONCRETE MASONRY BRIDGES	CY	28	89	28	145
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	160
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,315	--	2,315	4,630
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1360	15,050	1360	17,770
513.4061	RAILING TUBULAR TYPE M B-59-193	LF	--	--	--	83
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	--	13
550.2104	PILING CIP CONCRETE 10¾ X 0.25-INCH	LF	400	--	400	800
606.0300	RIPRAP HEAVY	CY	45	--	50	95
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	--	80	160
645.0120	GEOTEXTILE TYPE HR	SY	75	--	85	160
	NON-BID ITEMS					
	FILLER	SIZE	--	--	--	½" & ¾"

NOTES:

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS



MEADOWLARK ROAD – PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-193

DRAWN BY RBH | PLANS CK'D. PTB

CROSS SECTION AND QUANTITIES

SHEET 2 OF 7

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\STRUCTURE\CAD FILES\FINALS\02 CROSS SECTION AND QUANTITIES.DWG
LAYOUT : LAYOUT1
PLOT DATE : 10/19/2016
PLOT TIME : 8:41:20 AM
PLOT BY : BOLAND, PATRICK
PLOT SCALE : 1" = 1'

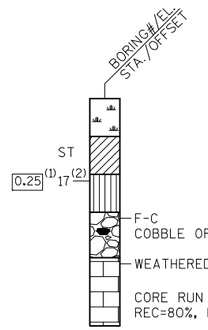
STATE PROJECT NUMBER

4201-04-71

MATERIAL SYMBOLS

Asphalt, Topsoil, Peat, Concrete, Fill, Gravel, Sand, Clay, Silt, Boulders or Cobbles, Limestone, Bedrock (unknown), Shale, Sandstone, Igneous/meta

LEGEND OF BORING



(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

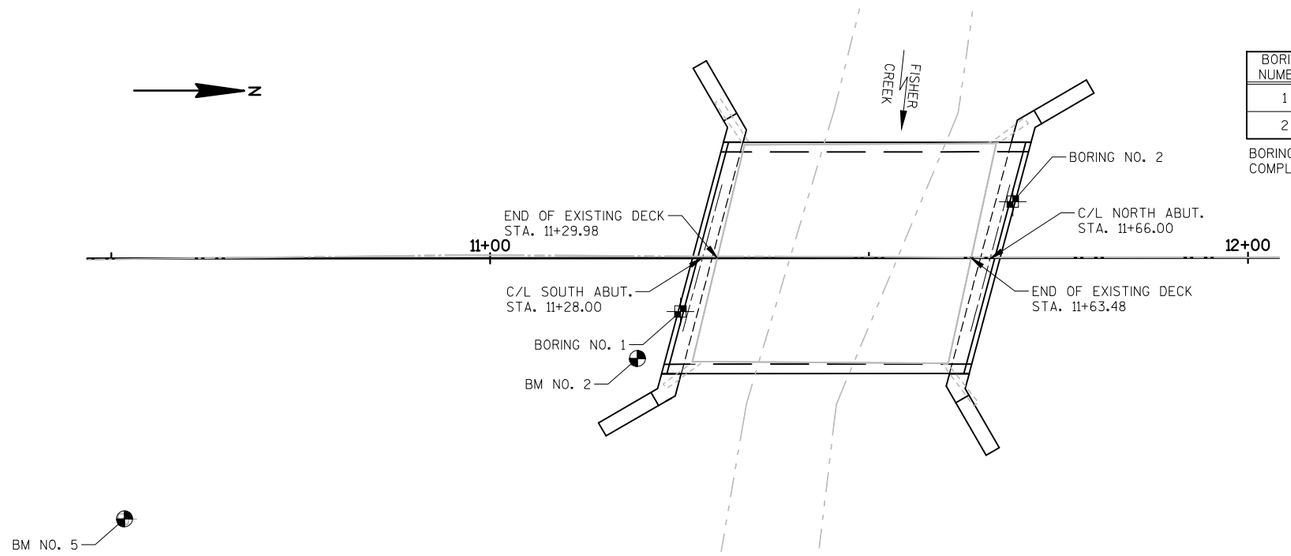
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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, 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.

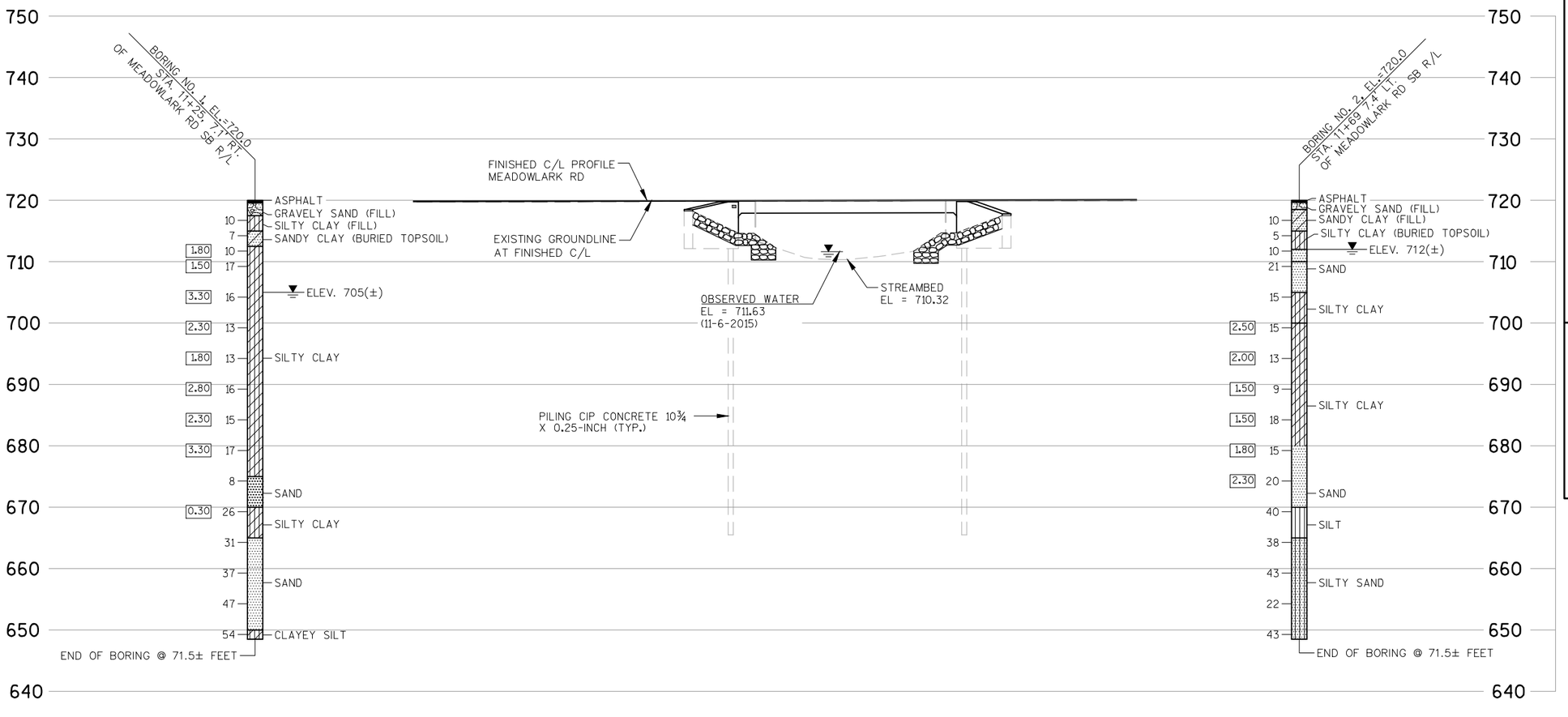
SOIL BORINGS

BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	02/16/16	210,580.9	185,199.5
2	02/16/16	210,624.8	185,184.9

BORINGS & REPORT COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC. (PSI)
1125 W. TUCKAWAY LANE, SUITE B
MENASHA, WI 54952



PLAN B-59-193



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-193

DRAWN BY JZ | PLANS CK'D. PTB

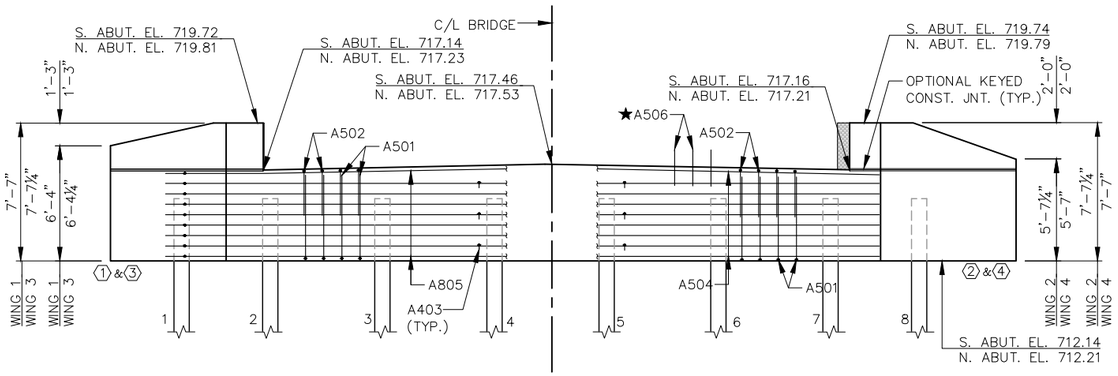
SUBSURFACE EXPLORATION

SHEET 3 OF 7

24

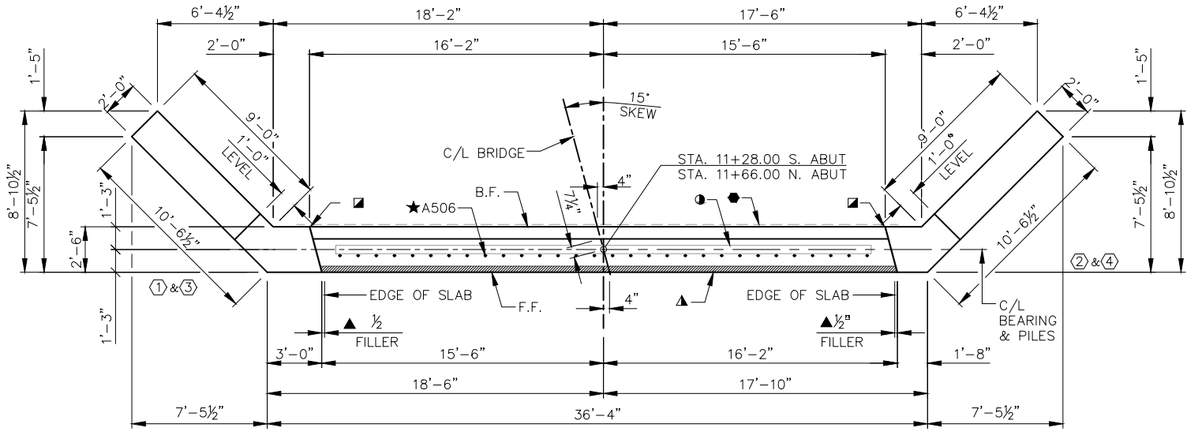
STATE PROJECT NUMBER

4201-04-71

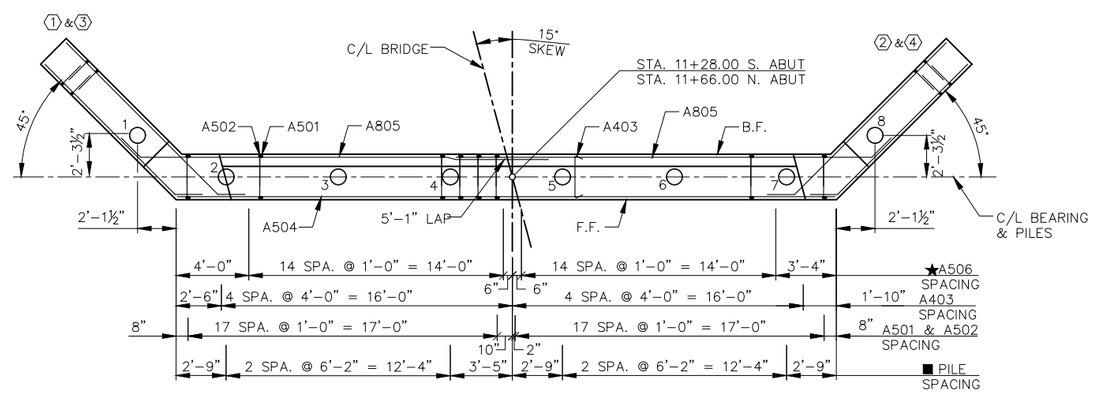


ELEVATION

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



PLAN



LAYOUT

NOTES

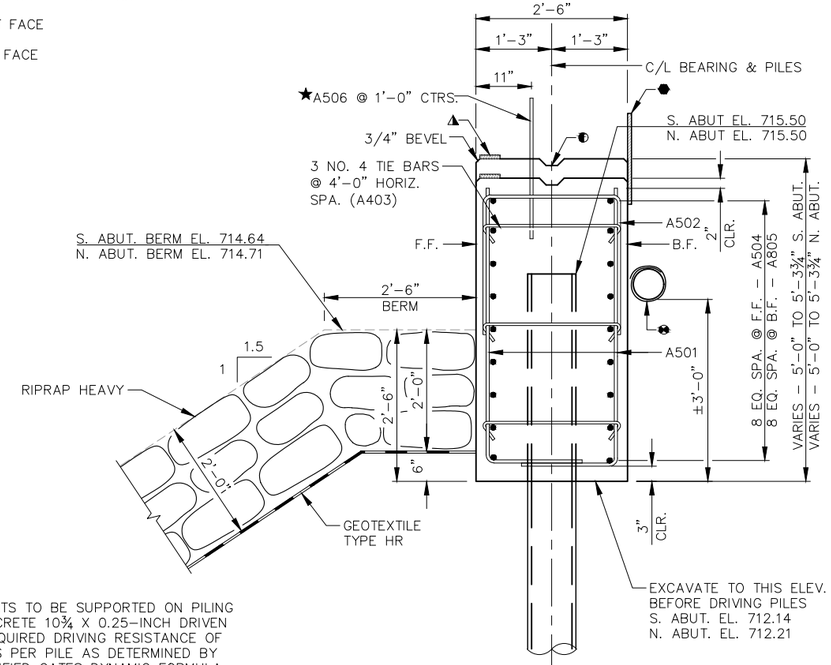
SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. – FRONT FACE

B.F. – BACK FACE

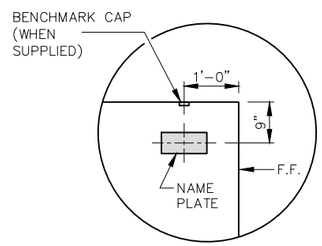


ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 50 FT PILE LENGTHS AT BOTH ABUTMENTS.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ★ A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- ■ PILE SPACING MEASURED AT BASE OF SHAFT.
- ◓ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."



NAME PLATE AND BENCHMARK CAP DETAIL

WING 1 ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-193

DRAWN BY JZ | PLANS CK'D. PTB

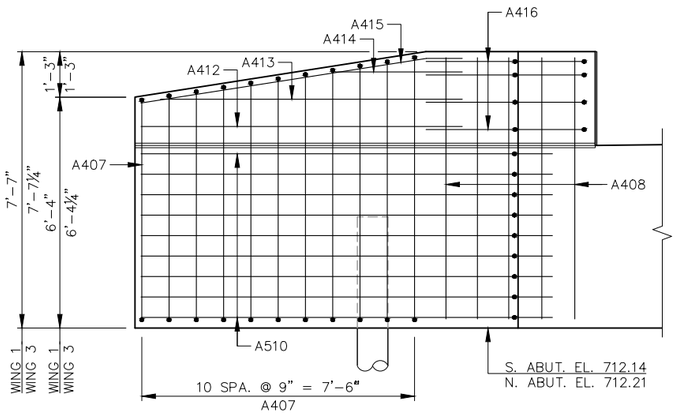
ABUTMENTS

SHEET 4 OF 7

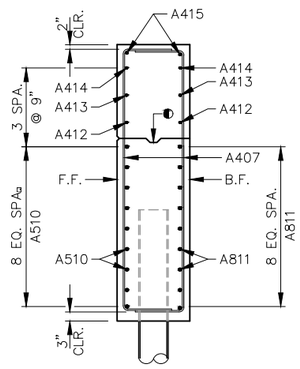
25

STATE PROJECT NUMBER

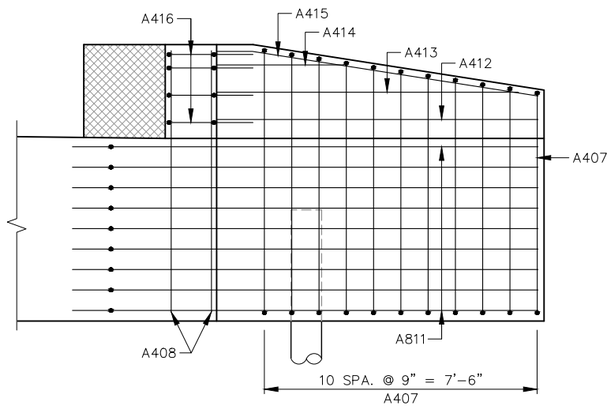
4201-04-71



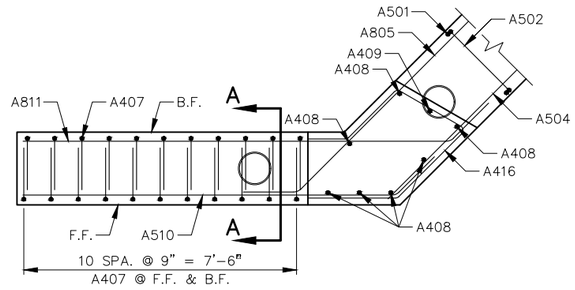
F.F. ELEVATION – WING 1 & 3



SECTION A–A



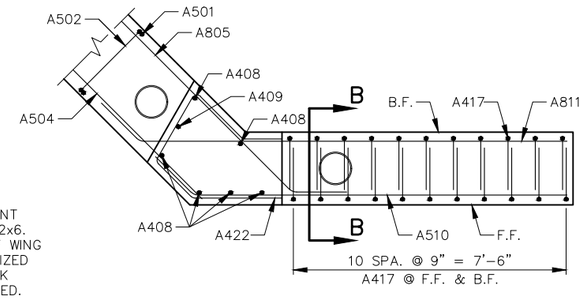
B.F. ELEVATION – WING 1 & 3



PLAN VIEW – WING 1 & 3

LEGEND

◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".



PLAN VIEW – WING 2 & 4

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

BILL OF BARS
TWO ABUTMENTS SHOWN

2,720 LB (COATED)
4,630 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	144	6-0	X			BODY – VERT. – F.F & B.F.
A502	72	8-3	X			BODY – VERT. – TOP
A403	54	2-8	X			TIE BARS
A504	18	36-2				BODY – HORIZ. – F.F.
A805	36	24-4	X			BODY – HORIZ. – B.F.
A506	60	2-0		X		BODY – VERT. – DOWELS
A407	44	9-0	X	X	*	WING 1 & 3 – VERT. – F.F. & B.F.
A408	22	7-2		X		WINGS – VERT.
A409	4	3-6		X		WINGS – VERT. – TOP
A510	36	11-8	X	X		WINGS – HORIZ. – F.F.
A811	36	13-3	X	X		WINGS – HORIZ. – B.F.
A412	4	8-10		X		WING 1 & 3 – HORIZ. – F.F. & B.F.
A413	4	8-4		X		WING 1 & 3 – HORIZ. – F.F. & B.F.
A414	4	3-6		X		WING 1 & 3 – HORIZ. – F.F. & B.F.
A415	4	8-11	X	X		WING 1 & 3 – HORIZ. – F.F. & B.F.
A416	8	10-2	X	X		WING 1 & 3 – HORIZ. – TOP
A417	44	8-8	X	X	*	WING 2 & 4 – VERT. – F.F. & B.F.
A418	4	8-6		X		WING 2 & 4 – HORIZ. – F.F. & B.F.
A419	4	5-6		X		WING 2 & 4 – HORIZ. – F.F. & B.F.
A420	4	2-6		X		WING 2 & 4 – HORIZ. – F.F. & B.F.
A421	4	9-1	X	X		WING 2 & 4 – HORIZ. – F.F. & B.F.
A422	8	8-10	X	X		WING 2 & 4 – HORIZ. – TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

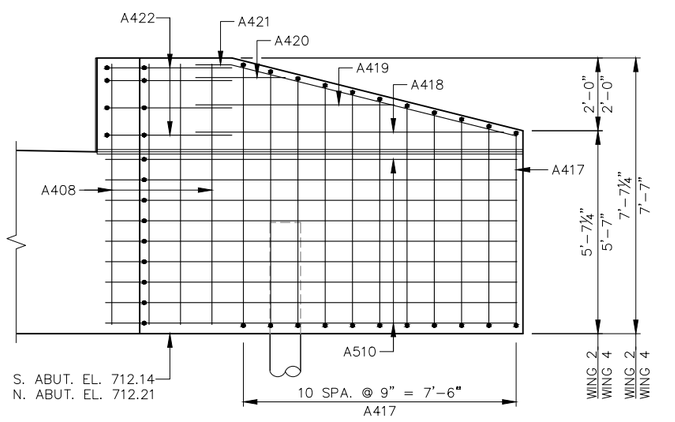
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

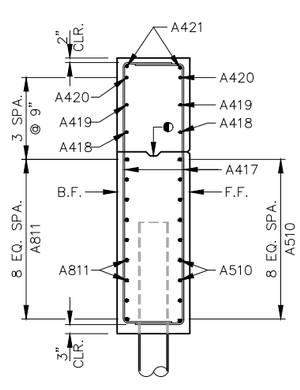
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A407	4 SERIES OF 11	9-7 TO 8-5
A417	4 SERIES OF 11	9-7 TO 7-9

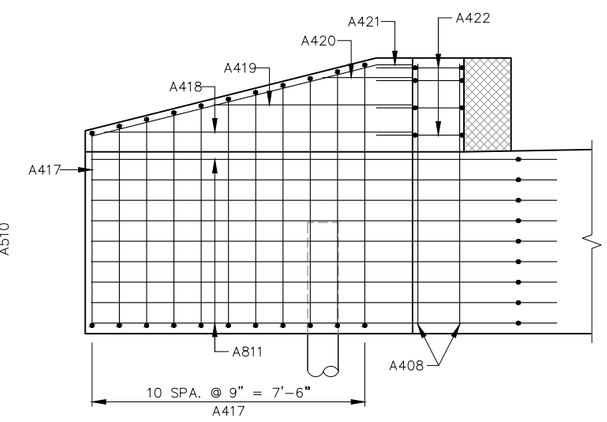
BUNDLE AND TAG EACH SERIES SEPARATELY.



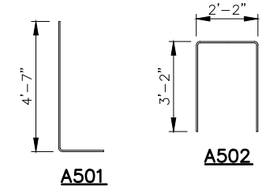
F.F. ELEVATION – WING 2 & 4

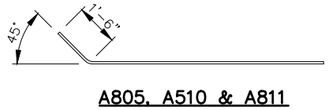


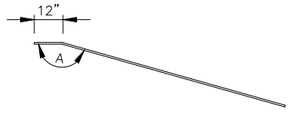
SECTION B–B



B.F. ELEVATION – WING 2 & 4







MARK	'A'
A415	171°07'
A421	165°58'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

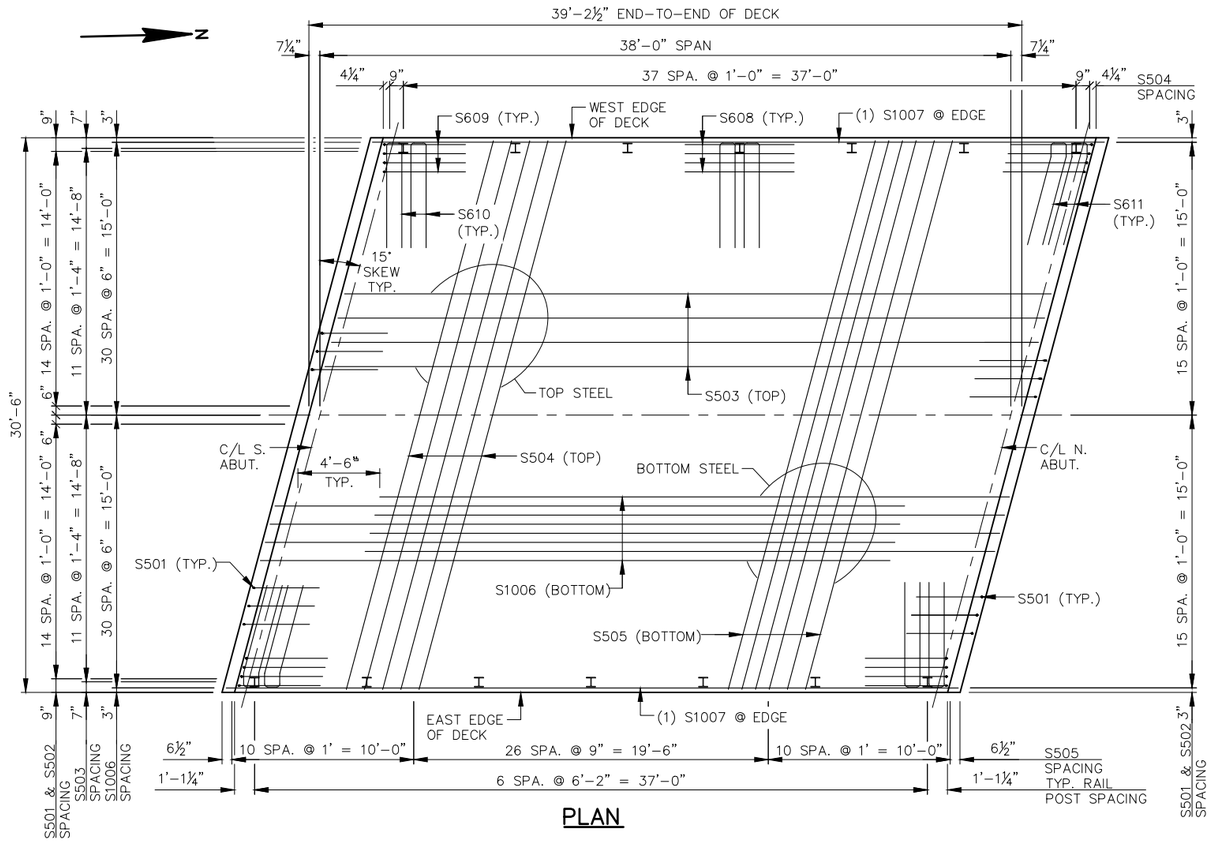
STRUCTURE B-59-193

DRAWN BY JZ | PLANS CK'D. PTB

ABUTMENT DETAILS

SHEET 5 OF 7
26

STATE PROJECT NUMBER
4201-04-71



PLAN

TOP OF DECK ELEVATIONS

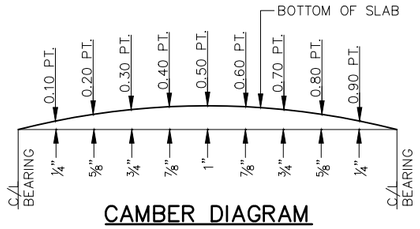
	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	719.74	719.74	719.75	719.76	719.76	719.77	719.78	719.79	719.79	719.80	719.81
C/L	720.04	720.04	720.05	720.06	720.07	720.07	720.08	720.09	720.10	720.10	720.11
E. EDGE	719.72	719.73	719.73	719.74	715.75	719.76	719.76	719.77	719.78	719.79	719.79

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



CAMBER DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR THEORETICAL DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR CENTER LINE FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE
−SLAB THICKNESS
+CAMBER
+FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (COMPUTED BY CONTRACTOR)
=TOP OF SLAB FALSEWORK ELEVATION.

SURVEY TOP OF DECK ELEVATIONS

	S. ABUT.	0.50 PT.	N. ABUT.
W. EDGE OF DECK			
CENTER LINE			
E. EDGE OF DECK			

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

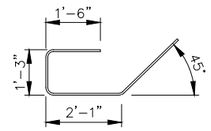
BILL OF BARS SUPERSTRUCTURE — 15,050 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	61	6-9	X	X	END OF DECK
S502	61	3-3	X	X	END OF DECK
S503	23	38-10		X	SLAB - TOP - LONGIT.
S504	40	31-2		X	SLAB - TOP - TRANS.
S1005	53	31-2		X	SLAB - BOTTOM - TRANS.
S1006	61	34-8		X	SLAB - BOTTOM - LONGIT.
S607	2	40-3		X	SLAB - BOTTOM - LONGIT. - EDGES
S608	40	6-0		X	RAIL POSTS - INTERIOR
S609	16	6-0	X	X	RAIL POSTS - ENDS
S610	24	12-0	X	X	RAIL POSTS - INTERIOR
S611	4	12-0	X	X	RAIL POSTS - CORNERS

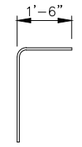
NOTES: THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

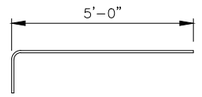
SOME BARS HAVE BEEN OMITTED FOR CLARITY.



S501



S502



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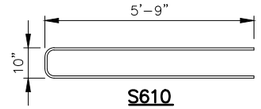
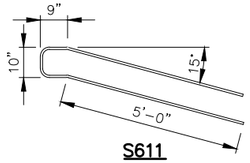


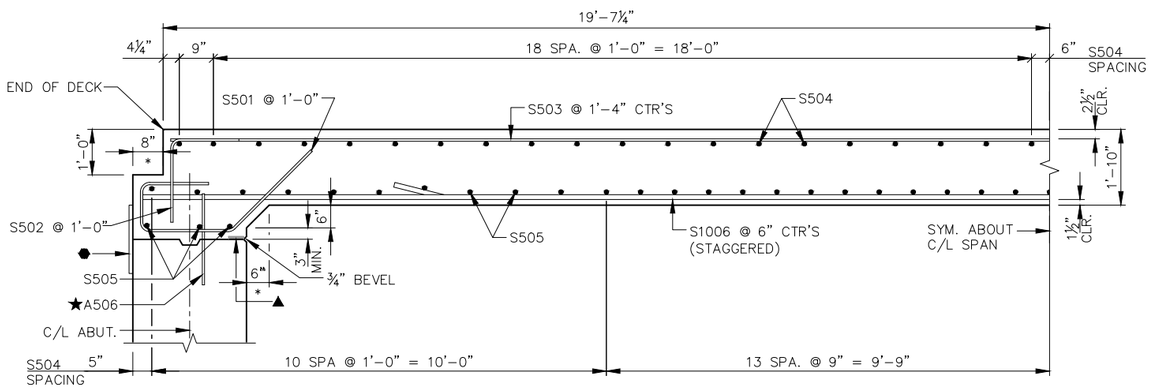
S610



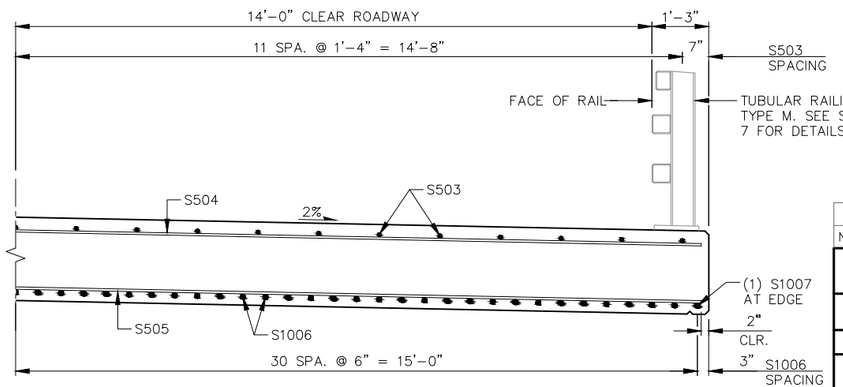
S611

LEGEND

- ⬢ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- * DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ★ SEE SHEET 4 FOR PLACEMENT OF A506 BARS.



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY



PARTIAL CROSS SECTION THROUGH ROADWAY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-193

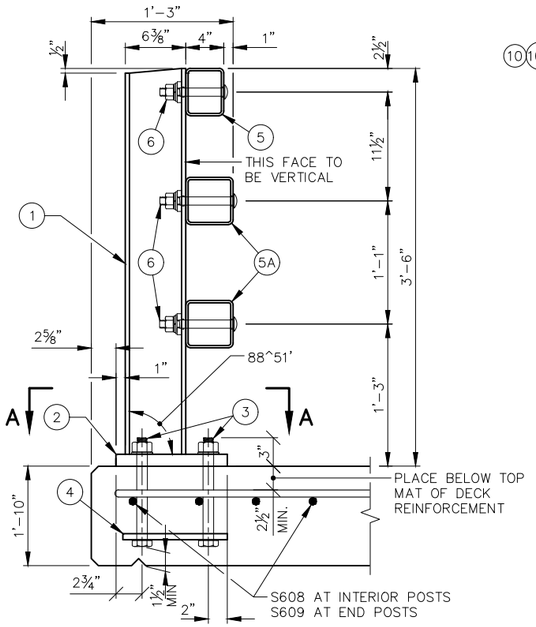
DRAWN BY JZ | PLANS CK'D. PTB

SUPERSTRUCTURE

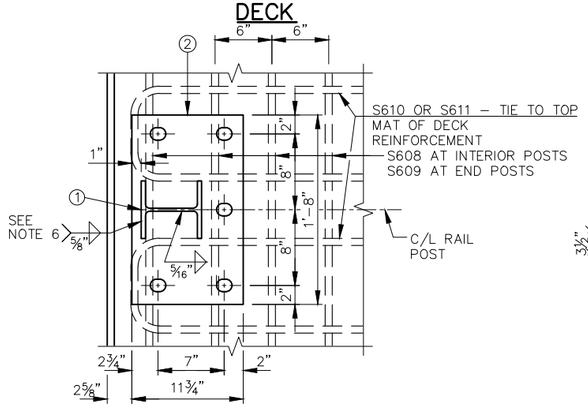
SHEET 6 OF 7
27

STATE PROJECT NUMBER

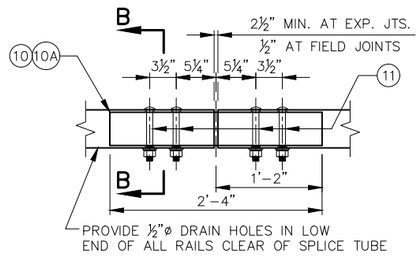
4201-04-71



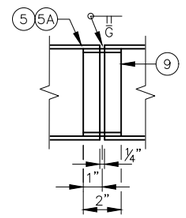
SECTION THROUGH RAILING ON DECK



SECTION A–A

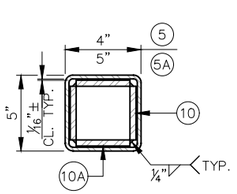


FIELD ERECTION JOINT DETAIL

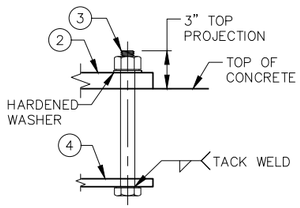


SHOP RAIL SPLICE DETAIL

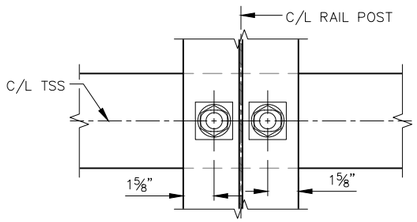
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



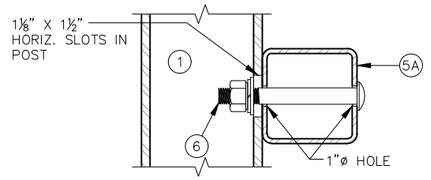
SECTION B–B



ANCHOR BOLTS



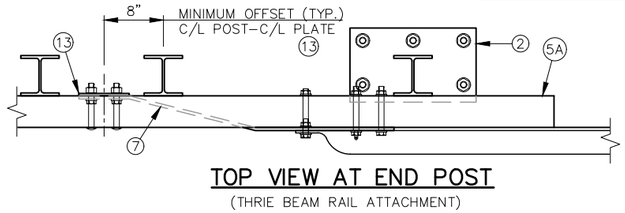
SECTION THROUGH POST WEB



SECTION THROUGH RAIL

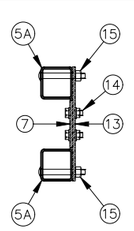
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS

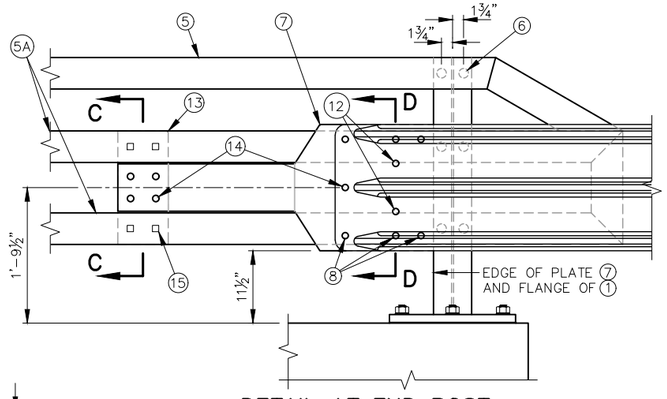


TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)

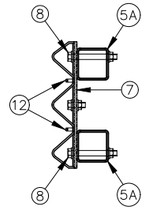


SECTION C–C

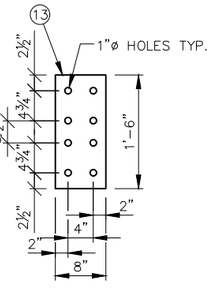


DETAIL AT END POST

(THRIE BEAM RAIL ATTACHMENT)

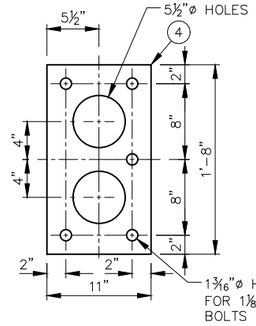


SECTION D–D



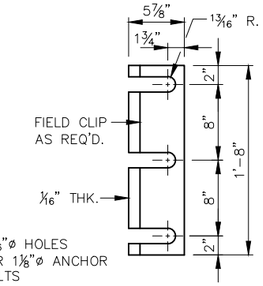
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

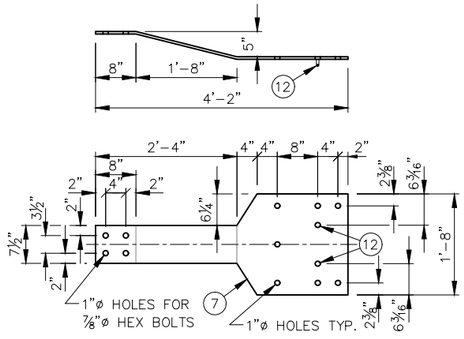


ANCHOR PLATE

AT RAIL TO DECK CONNECTION



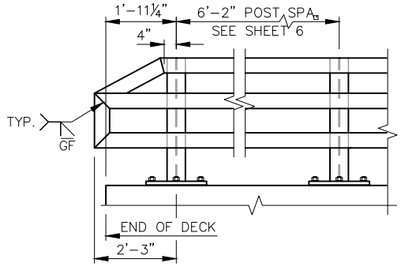
POST SHIM DETAIL



BACK–UP PLATE

AT BEAM GUARD ATTACHMENT

DETAIL



PART ELEVATION OF RAILING

LEGEND

① W6x25 WITH 1⅛" x 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

② PLATE 1¼"x11¾"x1'-8" WITH 1⅝"x1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

③ ASTM A449 – 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS.

④ ⅝"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1³⁄₁₆" DIA. HOLES FOR ANCHOR BOLTS NO. 3

⑤ TSS 5x4x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TSS 5x5x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ³⁄₁₆"x1⅝"x1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).

⑦ ½" THK. BACK–UP PLATE WITH 2 –⅞"x1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.

⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

⑨ SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

⑩ ⅜"x3⅝"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜"x2⅝"x2'-4" PLATE USED IN NO. 5, ⅜"x3⅝"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE ¹⁵⁄₁₆"x1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND ¹⁵⁄₁₆"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.

⑫ ⅞" DIA. BY 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

⑬ ⅜"x8"x1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

⑭ ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

⑮ 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-59-193" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. POST BASE PLATES 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.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-193

DRAWN BY JZ | PLANS CK'D. PTB

TUBULAR RAILING TYPE M

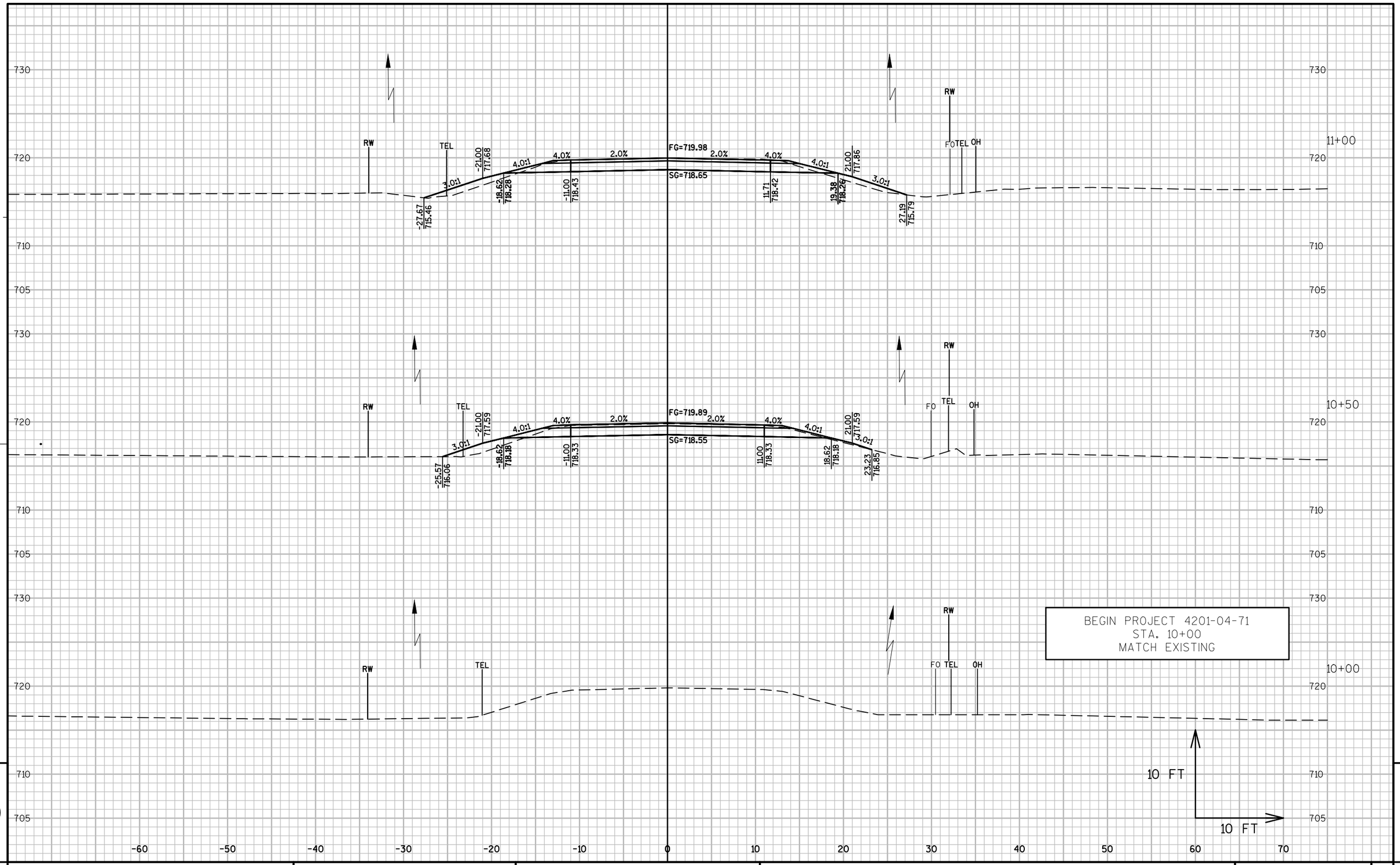
SHEET 7 OF 7

28

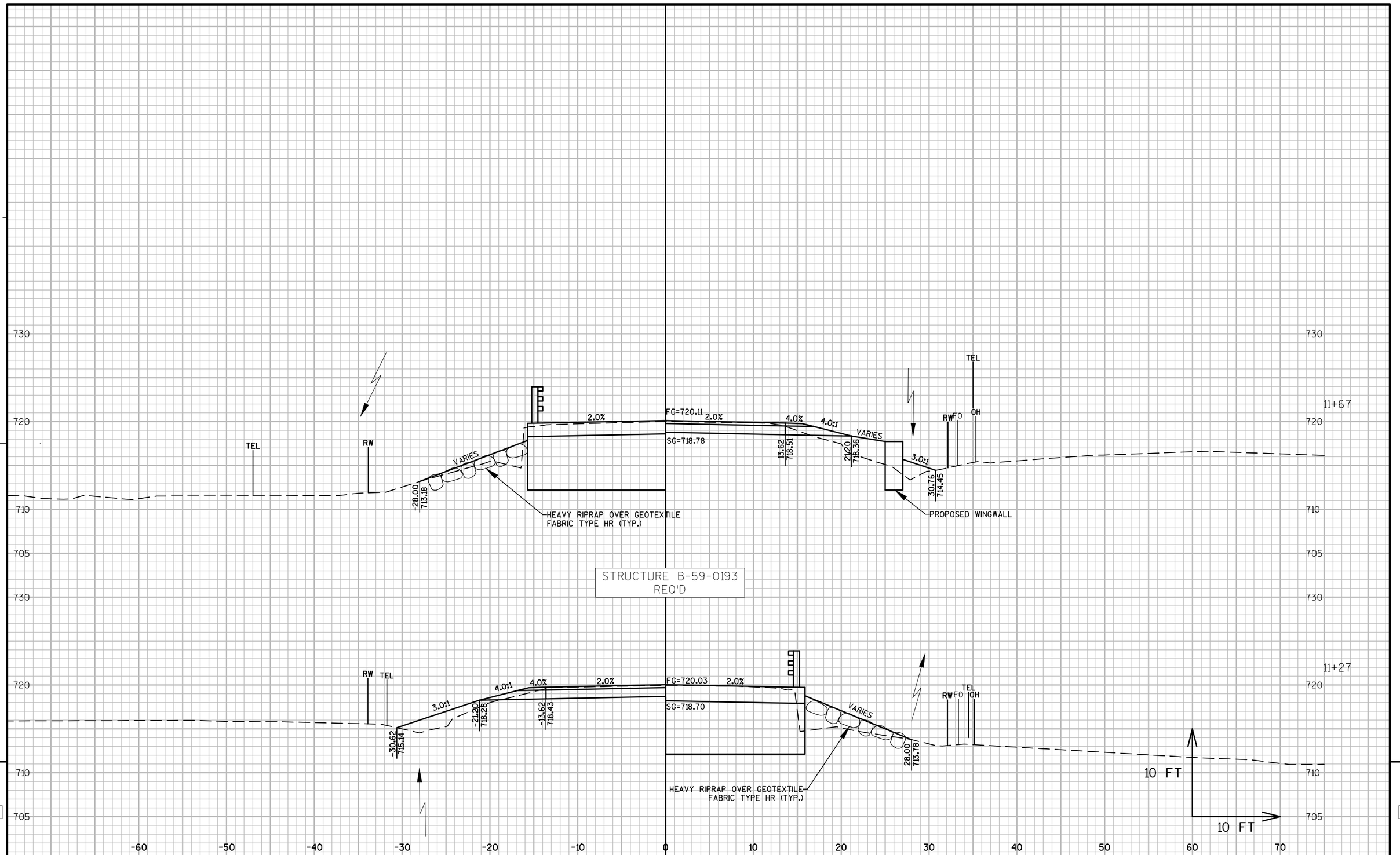
EARTHWORK-MAINLINE

	AREA (SF)					INCREMENTAL VOL (CY)								CUMMULATIVE VOLUME (CY)							
STATION	CUT	SALVAGED/ UNUSABLE PAV'T MATERIAL	FILL	MARSH EX	EBS	CUT NOTE 1	SALVAGED/ UNUSABLE PAV'T MATERIAL NOTE 2	FILL NOTE 3	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%)	SELECT CRUSHED MATERIAL (1.5)	EBS	CUT 1.00 NOTE 1	FILL	MARSH EX	REDUCED MARSH IN FILL (0.6) NOTE 4	FILL (25%) NOTE 5	SELECT CRUSHED MATERIAL (1.5)	EBS	MASS ORDINATE NOTE 6
10+00	37	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10+50	37	0	7	0	0	68	0	13	0	0	16	0	0	68	13	0	0	16	0	0	52
11+00	39	0	9	0	0	70	0	15	0	0	19	0	0	138	28	0	0	35	0	0	103
11+26	38	0	9	0	0	38	0	9	0	0	11	0	0	176	37	0	0	46	0	0	130
11+26	0	0	0	0	0	0	0	0	0	0	0	0	0	176	37	0	0	46	0	0	130
11+68	0	0	0	0	0	0	0	0	0	0	0	0	0	176	37	0	0	46	0	0	130
11+68	38	0	33	0	0	0	0	0	0	0	0	0	0	176	37	0	0	46	0	0	130
12+00	35	0	25	0	0	43	0	35	0	0	44	0	0	219	72	0	0	90	0	0	129
12+50	32	0	25	0	0	62	0	47	0	0	59	0	0	281	119	0	0	149	0	0	132
13+00	32	0	25	0	0	59	0	47	0	0	59	0	0	340	166	0	0	208	0	0	132
					COLUMN SUBTOTALS	340	0	166	0	0	208	0	0								
					MAINLINE	340	0	166	0	0	208	0	0	340	166	0	0	208	0	0	132

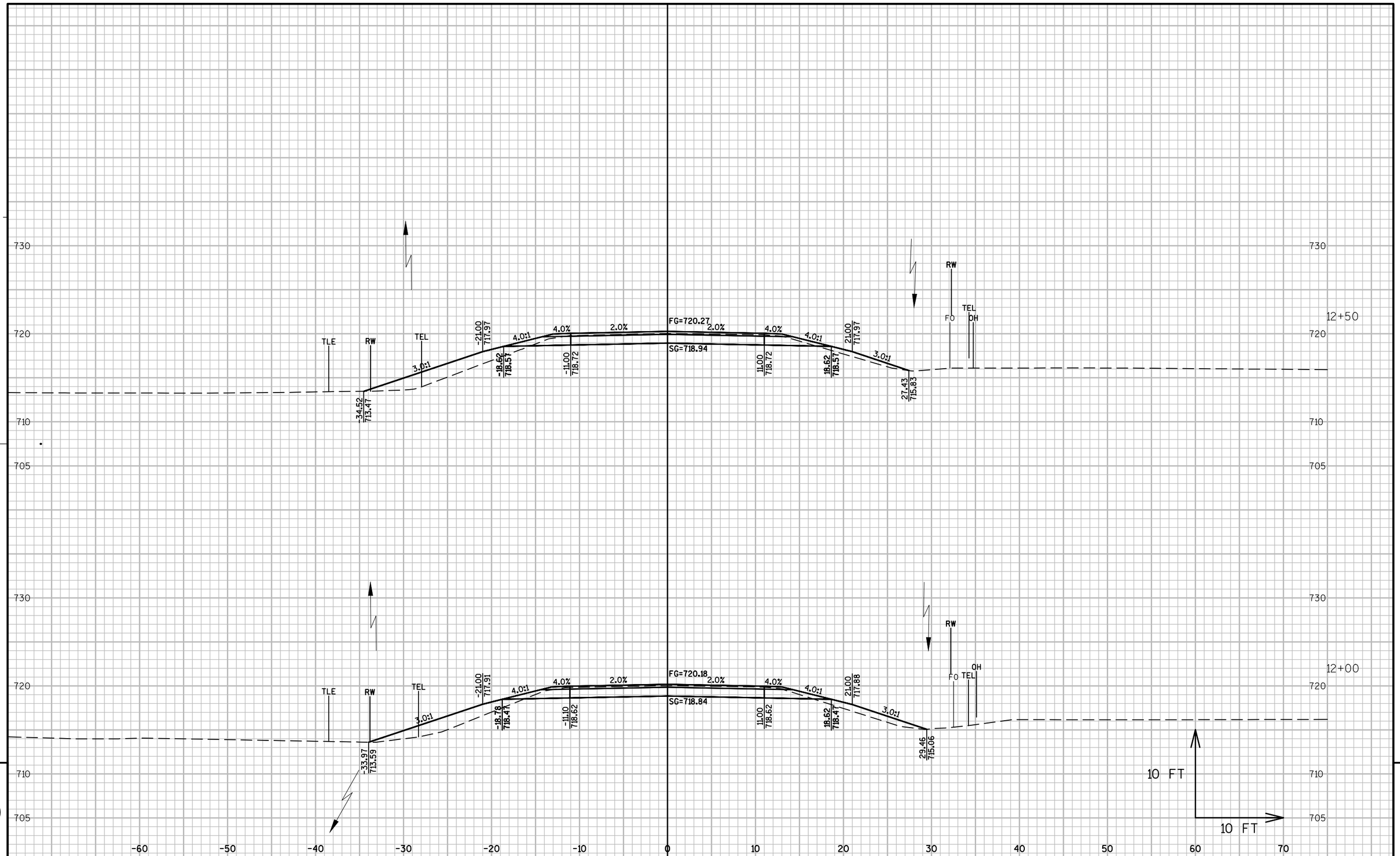
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - REDUCED MARSH IN FILL	REDUCED MARSH THAT CAN BE USED IN FILL
5 - FILL (25%)	FILL 25%: (FILL -REDUCED MARSH IN FILL)*1.25
6 - MASS ORDINATE	(CUT - FILL (25%))



PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: MAINLINE	SHEET 30	E



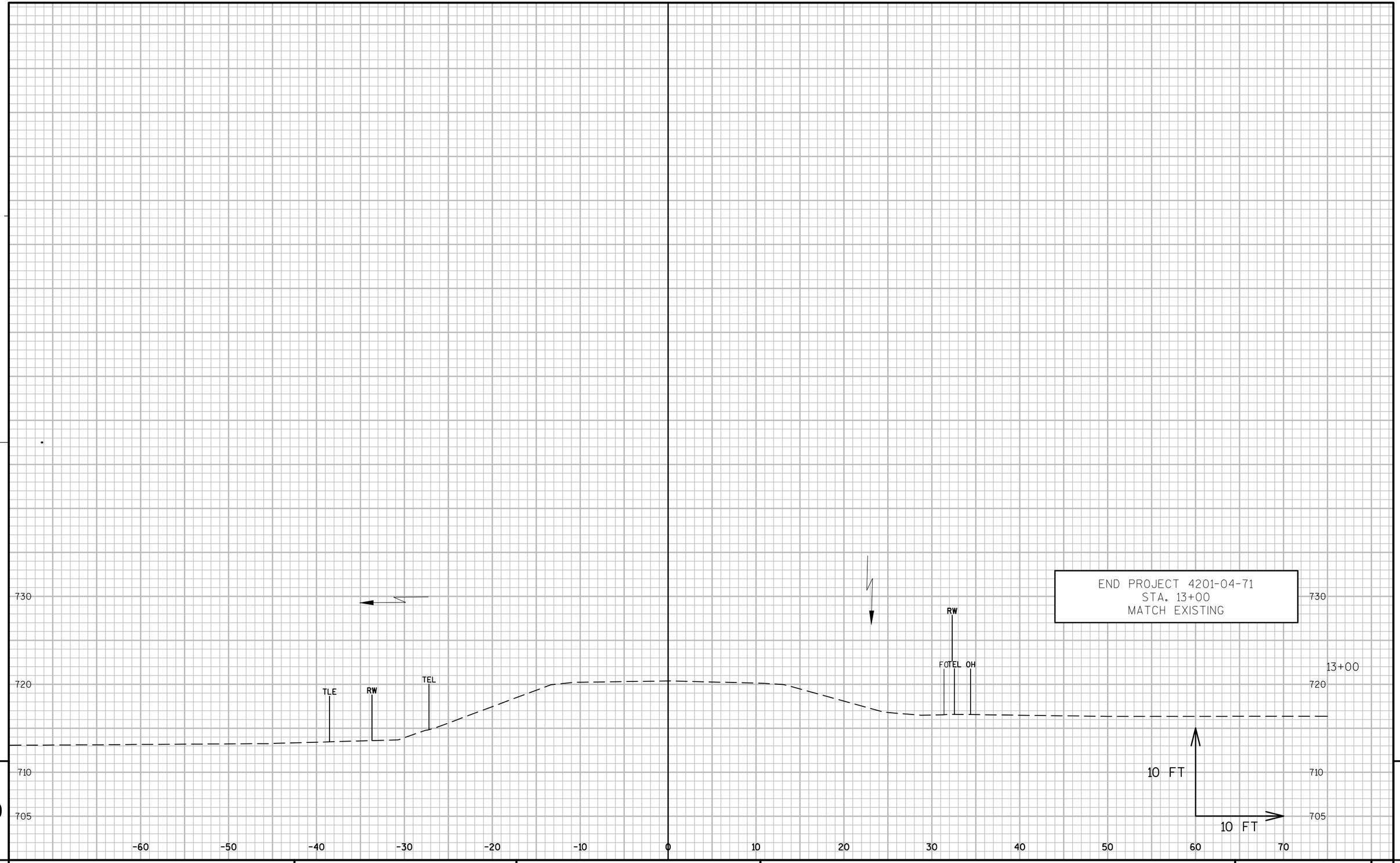
PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: MAINLINE	SHEET 31 E



PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: MAINLINE	SHEET 32 E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\DESIGN\CORRIDORS\CRDR - MEADOWLARK ROAD.DWG PLOT DATE : 11/22/2016 9:31 AM PLOT BY : JULIA ZEHNER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 4201-04-71	HWY: MEADOWLARK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: MAINLINE	SHEET 33	E

FILE NAME : S:\PROJECTS\W11548 MEADOWLARK RD SHEBOYGAN CO\DESIGN\CORRIDORS\CRDR - MEADOWLARK ROAD.DWG PLOT DATE : 11/22/2016 9:31 AM PLOT BY : JULIA ZEHNER PLOT NAME : PLOT SCALE : 1 IN:10 FT

Wisconsin Department of Transportation

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