NWL FEB 2017

PROJECT ID: 7321-00-70

WITH: N/A

COUNTY: JACKSON

ORDER OF SHEETS

TOTAL SHEETS = 42

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7321-00-70	WISC 2017034	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

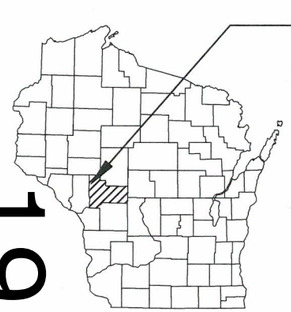
STH 121 - CTH B

BEAVER CREEK BRIDGE B270163

CTH FF

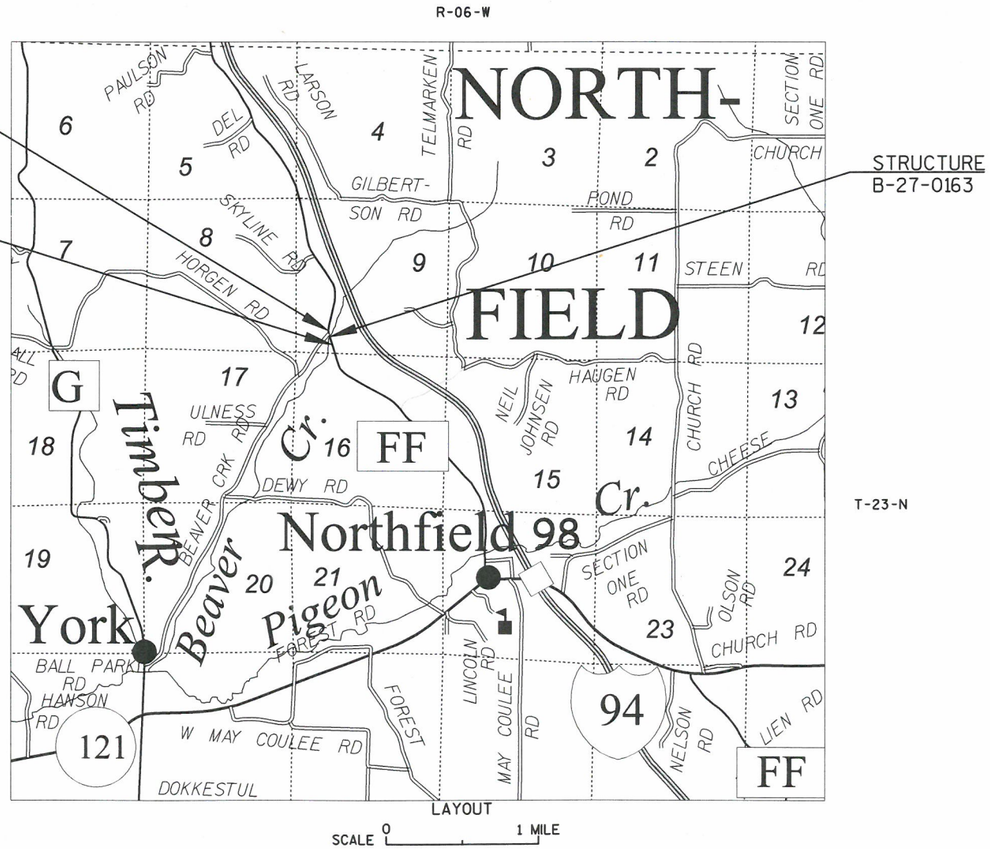
JACKSON COUNTY

STATE PROJECT NUMBER
7321-00-70



END PROJECT
STA 13+00.00

BEGIN PROJECT
STA 9+00.00
Y = 250,820.761
X = 313,378.891



TOTAL NET LENGTH OF CENTERLINE = 0.076 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, JACKSON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

DESIGN DESIGNATION

A.A.D.T.	(2017)	= <130
A.A.D.T.	(2037)	= 130
D.H.V.	(2037)	= 130
D.D.		= 50/50
T.		= 10.8%
DESIGN SPEED		= 60 MPH
ESALS		= 36,500

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- FENCE LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- OVERHEAD (OH)
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- TELEVISION (TV)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR JACKSON COUNTY

DATE: 9-22-16 Randy J. Anderson (Signature)

HIGHWAY COMMISSIONER (Title of Offical)

ORIGINAL PLANS PREPARED BY

CORRE Structural Environmental Municipal Transportation

1902 WARDEN ROAD
EAU CLAIRE, WI 54703
(608)828-1011
www.correinc.com

WISCONSIN KEVIN L. MEYER E-38309-006 ELK MOUND WI PROFESSIONAL ENGINEER

DATE: 9/22/16 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CORRE, INC.

Designer: CORRE, INC.

Management Consultant: KNIGHT E/A, INC.

APPROVED FOR THE DEPARTMENT

DATE: 9/22/16 Ryan B McKane MANAGEMENT CONSULTANT SIGNATURE

E

FILE NAME : P:\WI - NW REGION\7321-00-00_JACKSON CO_CTH FF\500_CADD\501_C3D\73210000\SHEETSPLAN\010101 TI_FF.DWG
LAYOUT NAME - 010101 TI

PLOT DATE : 9/13/2016 7:50 AM PLOT BY : BOBBY JONES PLOT NAME :

WISDOT/CADDS SHEET 10

UTILITY CONTACTS

* JACKSON ELECTRIC COOPERATIVE - ELECTRIC
ERIC STEIEN
N 6868 CTH F
BLACK RIVER FALLS, WI 54615
(715) 284-5385
esteien@jackelec.com

* TRI-COUNTRY COMMUNICATIONS - COMMUNICATION LINE
BRIAN MELSNESS
417 5TH AVENUE N
PO BOX 578
STRUM, WI 54770
(715) 530-0081
bmelsness@tccpro.net

* DENOTES UTILITIES THAT ARE
DIGGERS HOTLINE MEMBERS

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

DNR CONTACT

DNR SERVICE CENTER
KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 785-9115
karen.kalvelage@wisconsin.gov

CONSULTANT CONTACT

CORRE, INC
1802 WARDEN STREET
EAU CLAIRE, WI 54703
KEVIN MEYER, PE
(715)-299-1894
kmeyer@correinc.com

SPONSOR CONTACT

JACKSON COUNTY HIGHWAY DEPT.
RANDY ANDERSON
23 HARRISON STREET
BLACK RIVER FALLS, WI 54615
(715)-284-5615
randy.anderson@co.jackson.wi.us

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAV 88.

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED/TOPSOILED, FERTILIZED, AND SODDED/SEEDED AND MULCHED. FINISHED SODDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

4-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 2 LIFTS.

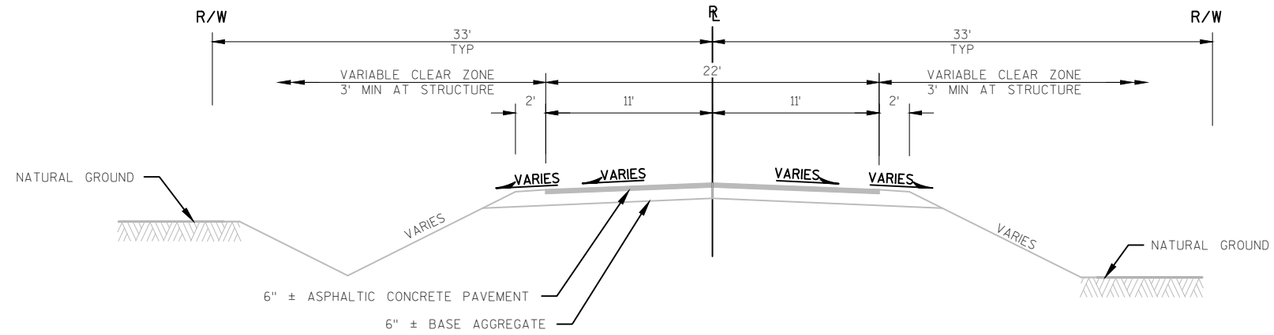
SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS. EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD.

UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

RUNOFF COEFFICIENT TABLE

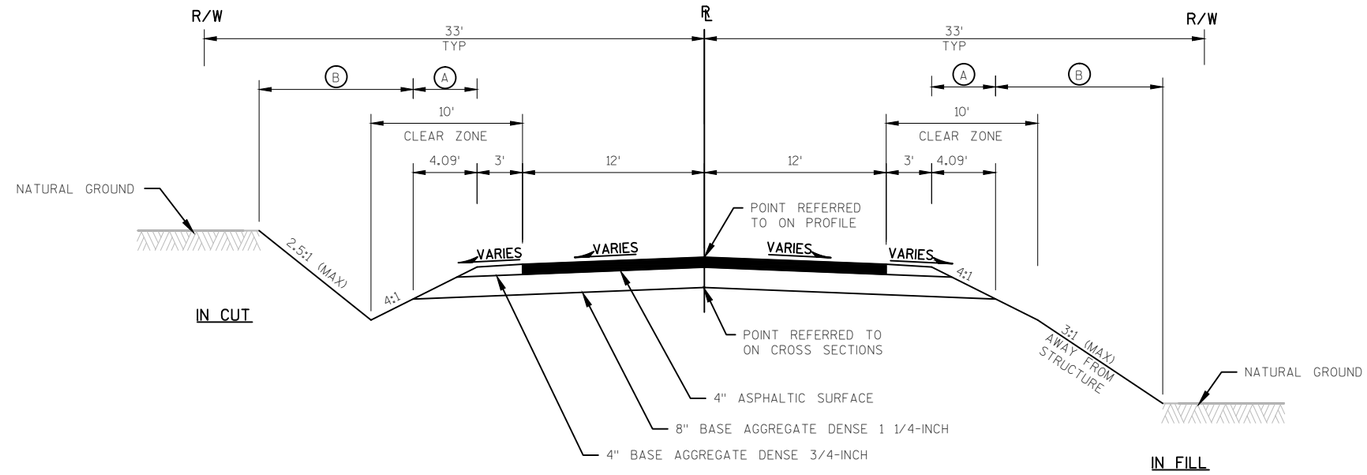
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 =0.63 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.53 ACRES



TYPICAL EXISTING SECTION
CTH FF

STA 9+00.00 - STA 9+73.75
STA 10+26.25 - STA 13+00.00



TYPICAL FINISHED SECTION
CTH FF

STA 9+00.00 - STA 9+73.75
STA 10+26.25 - STA 13+00.00

(A) FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

(B) SALVAGED TOPSOIL; MULCHING; FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; SEEDING TEMPORARY

SUPER ELEVATION TABLE

Station	Description	Left Shoulder	Left Lane	Right Lane	Right Shoulder
7+01.99'	Begin Alignment	-4.00%	-2.00%	-2.00%	-4.00%
8+96.00'	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
8+96.00'	End Normal Crown	-4.00%	-2.00%	-2.00%	-4.00%
9+41.00'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
9+85.00'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
10+30.00'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
10+70.00'	Begin Full Super	5.80%	5.80%	-5.80%	-5.80%
13+71.00'	End Full Super	5.80%	5.80%	-5.80%	-5.80%
14+11.00'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
14+56.21'	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
15+00.00'	Level Crown	0.00%	0.00%	-2.00%	-4.00%
15+45.00'	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-4.00%
15+45.00'	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
14+97.41'	End Alignment	-4.00%	-2.00%	-2.00%	-4.00%

2

MICKELSON FAMILY LIVING TRUST

MARK S OLSON

EX R/W

EX R/W

EX R/W

W5-52L 12"X36" — 1
REMOVE — 1R
REMOVE — 4R
REMOVE — 5R
W5-52R 12"X36" — 4
STOP R1-1 30"X30" — 7
STOP REMOVE — 7R

PC: 10+26.99

ESTR

10+00

11+00

12+00

CTH FF

END PROJECT
STA 13+00.00
SAWCUT REQ'D
MATCH EXISTING

EX R/W

EX R/W

EX R/W

WAYNE F ALBRECHT

BEGIN PROJECT
STA 9+00.00
SAWCUT REQ'D
MATCH EXISTING

BEAVER CREEK

2 — W5-52R 12"X36"
3R — REMOVE
2R — REMOVE
6R — REMOVE
6 — W5-52L 12"X36"

KENNETH J KRENZ

PROPOSED STRUCTURE
B-27-0163

LEGEND:

(A) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(B) PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)

PROJECT NO: 7321-00-70	HWY: CTH FF	COUNTY: JACKSON	PERMANENT SIGNING AND MARKING: CTH FF	SHEET 4	E

FILE NAME : P:\WI - NW REGION\7321-00-00_JACKSON CO_CTH FF\500_CADD\501_C3D\73210000\SHEETSPLAN\023201 PS_FF.DWG
LAYOUT NAME - 023201 PS
PLOT DATE : 11/16/2016 12:25 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:40 FT

7321-00-70

Line	Item	Item Description	Unit	Total	Qty
0010	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01.10+00	LS	1.000	1.000
0020	205.0100	Excavation Common	CY	231.000	231.000
0030	206.1000	Excavation for Structures Bridges (structure) 01. B-27-163	LS	1.000	1.000
0040	208.0100	Borrow	CY	227.000	227.000
0050	210.1500	Backfill Structure Type A	TON	440.000	440.000
0060	213.0100	Finishing Roadway (project) 01. 7321-00-70	EACH	1.000	1.000
0070	305.0110	Base Aggregate Dense 3/4-Inch	TON	80.000	80.000
0080	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	700.000	700.000
0090	415.0120	Concrete Pavement 12-Inch	SY	27.000	27.000
0100	415.0410	Concrete Pavement Approach Slab	SY	111.000	111.000
0110	455.0605	Tack Coat	GAL	70.000	70.000
0120	465.0105	Asphaltic Surface	TON	210.000	210.000
0130	502.0100	Concrete Masonry Bridges	CY	240.000	240.000
0140	502.3200	Protective Surface Treatment	SY	256.000	256.000
0150	505.0400	Bar Steel Reinforcement HS Structures	LB	4,720.000	4,720.000
0160	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	32,790.000	32,790.000
0170	513.4061	Railing Tubular Type M (structure) 01. B-27-163	LF	158.000	158.000
0180	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0190	550.0500	Pile Points	EACH	10.000	10.000
0200	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	500.000	500.000
0210	606.0300	Riprap Heavy	CY	175.000	175.000
0220	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	180.000	180.000
0230	619.1000	Mobilization	EACH	1.000	1.000
0240	624.0100	Water	MGAL	8.000	8.000
0250	625.0500	Salvaged Topsoil	SY	1,235.000	1,235.000
0260	627.0200	Mulching	SY	220.000	220.000
0270	628.1504	Silt Fence	LF	800.000	800.000
0280	628.1520	Silt Fence Maintenance	LF	800.000	800.000
0290	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0300	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0310	628.2008	Erosion Mat Urban Class I Type B	SY	1,100.000	1,100.000
0320	628.6005	Turbidity Barriers	SY	80.000	80.000
0330	629.0210	Fertilizer Type B	CWT	0.800	0.800
0340	630.0120	Seeding Mixture No. 20	LB	23.000	23.000
0350	630.0200	Seeding Temporary	LB	34.000	34.000
0360	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0370	637.2230	Signs Type II Reflective F	SF	17.180	17.180
0380	638.2602	Removing Signs Type II	EACH	7.000	7.000

7321-00-70

Line	Item	Item Description	Unit	Total	Qty
0390	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0400	642.5201	Field Office Type C	EACH	1.000	1.000
0410	643.0100	Traffic Control (project) 01. 7321-00-70	EACH	1.000	1.000
0420	643.0300	Traffic Control Drums	DAY	280.000	280.000
0430	643.0420	Traffic Control Barricades Type III	DAY	910.000	910.000
0440	643.0705	Traffic Control Warning Lights Type A	DAY	1,260.000	1,260.000
0450	643.0900	Traffic Control Signs	DAY	910.000	910.000
0460	645.0120	Geotextile Type HR	SY	225.000	225.000
0470	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,460.000	1,460.000
0480	650.4500	Construction Staking Subgrade	LF	348.000	348.000
0490	650.5000	Construction Staking Base	LF	348.000	348.000
0500	650.6500	Construction Staking Structure Layout (structure) B-27-163	LS	1.000	1.000
0510	650.9910	Construction Staking Supplemental Control (project) 01. 7321-00-70	LS	1.000	1.000
0520	650.9920	Construction Staking Slope Stakes	LF	348.000	348.000
0530	690.0150	Sawing Asphalt	LF	89.000	89.000
0540	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0550	715.0502	Incentive Strength Concrete Structures	DOL	1,440.000	1,440.000
0560	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0570	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000

Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	208.0100 Borrow
Division 1			Cut (2)	EBS Excavation (3)				Factor 1.25			
CTH FF	9+00 - 13+00	MAINLINE	231	0	142	89	253	316	-227	0	227
Grand Total			231	0	142	89	253	316	-227	0	227
Total Common Exc			231								

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

(4) Salvaged/Unusable Pavement Material

(5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Expanded Fill Factor = 1.25

(7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

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
CATEGORY CODE 0010				
9+00	9+53	MAINLINE	14	96
10+47	13+00	MAINLINE	53	459
10+20	10+40	BEAVER CREEK RD	---	97
--	--	UNDISTRIBUTED	13	48
		TOTALS:	**80**	**700**

CONCRETE PAVEMENT APPROACH SLAB

STATION	- STATION	LOCATION	415.0410 SY
CATEGORY CODE 0010			
9+53	9+74	CTH FF	55
10+26	10+47	CTH FF	56
		TOTAL	**111**

CONCRETE PAVEMENT 12-INCH

LOCATION	415.0120 SY
CATEGORY CODE 0010	
SW QUAD	4
SE QUAD	9
NW QUAD	10
NE QUAD	4
TOTAL	**27**

ASPHALTIC ITEMS

STATION	- STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
CATEGORY CODE 0010				
9+00	9+53	MAINLINE	15	32
10+47	13+00	MAINLINE	54	169
-	-	BEAVER CRK RD	8	26
		TOTALS	**70**	**210**

LANDSCAPING ITEMS

STATION	- STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEED MIX NO. 20 LBS	630.0200 SEED TEMPORARY LBS
CATEGORY CODE 0010								
9+00	9+60	LT	150	20	140	0.1	3	4
9+00	9+70	RT	155	20	140	0.1	3	4
10+30	13+00	LT	430	80	380	0.3	8	12
10+20	11+25	RT	500	100	440	0.3	9	14
		TOTALS	**1,235**	**220**	**1,100**	**0.8**	**23**	**34**

PROJECT NO: 7321-00-70	HWY: CTH FF	COUNTY: JACKSON	MISCELLANEOUS QUANTITIES	SHEET NO: 7	E

3

MOBILIZATION

CATEGORY	619.1000 EACH
0010	0.2
0020	0.8
TOTALS	**1**

WATER

LOCATION	624.0100 MGAL
CATEGORY CODE 0010	
BASE COMPACTION	8
TOTALS	**8**

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF	MOBILIZATIONS 628.1504 EROSION CONTROL EACH	MOBILIZATIONS 628.1910 EMERGENCY EROSION CONTROL EACH
CATEGORY CODE 0010					
PROJECT		---	---	2	2
9+00 - 9+70	LT	130	130	---	---
9+00 - 9+80	RT	130	130	--	--
9+90 - 10+80	LT	100	100	---	---
11+30 - 13+00	LT	170	170	--	--
10+30 - 13+00	RT	270	270	---	---
TOTALS		**800**	**800**	**2**	**2**

TURBIDITY BARRIER

LOCATION	628.6005 TURBIDITY BARRIER SY
CATEGORY CODE 0020	
SOUTH ABUTMENT	40
NORTH ABUTMENT	40
TOTALS	**80**

3

SAWING PAVEMENT ITEMS

STATION	LOCATION	690.0150 ASPHALT LF
CATEGORY CODE 0010		
9+00	CTH FF	24
13+00	CTH FF	25
10+40	BEAVER CRK RD	40
TOTALS		**89**

SIGNING ITEMS

STATION	LOCATION	SIGN NUMBER	SIGN CODE	SIZE	634.0612 POSTS WOOD 4X6X12 EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY CODE 0010								
9+50	LT	1	W5-52L	12" X 36"	1	3.00	---	---
9+70	LT	1R	W5-52L	---	---	---	1	1
9+70	RT	2	W5-52R	12" X 36"	1	3.00	---	---
9+90	RT	2R	W5-52R	---	---	---	1	1
9+85	RT	3R	R12-1	---	---	---	1	1
10+25	LT	4	W5-52R	12" X 36"	1	3.00	---	---
10+05	LT	4R	W5-52R	---	---	---	1	1
10+15	LT	5R	R12-1	---	---	---	1	1
10+50	RT	6	W5-52L	12" X 36"	1	3.00	---	---
10+30	RT	6R	W5-52L	---	---	---	1	1
BEAVER CREEK RD	LT	7	R1-1	30" X 30"	1	5.18	---	---
BEAVER CREEK RD	LT	7R	R1-1	---	---	---	1	1
				TOTALS	**5**	**17.18**	**7**	**7**

PAVEMENT MARKING ITEMS

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF
CATEGORY CODE 0010			
9+00 - 13+00	CL	---	800
9+00 - 13+00	EDGELINE	660	---
TOTALS		**660**	**800**
		1,460	

TRAFFIC CONTROL ITEMS

LOCATION	643.0100 TRAFFIC CONTROL 7321-00-70 EACH	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS
CATEGORY CODE 0010									
PROJECT	1	4	280	13	910	18	1,260	13	910
TOTALS	1		**280**		**910**		**1,260**		**910**

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 STAKING SUBGRADE LF	650.5000 STAKING BASE LF	650.6500* STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTAL CONTROL LS	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010						
PROJECT		---	---	1	---	---
9+00 - 9+74	MAINLINE	74	74	---	1	74
10+26 - 13+00	MAINLINE	274	274	---	---	274
TOTALS		**348**	**348**	**1**	**1**	**348**

*ALL STAKING ITEMS ARE PART OF CATEGORY CODE 0010 OTHER THAN 650.6500 WHICH IS CATEGORY 0020

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	7+02	10" SPIKE, 13.8' RT	950.34
2	9+98	CHISELED 'D' SE WING, 12.9' RT	953.23
3	10+22	10" SPIKE, 12.4' LT	950.89
4	12+47	10" SPIKE, 15.6' LT	952.06

LEGEND

- EROSION MAT CLASS I URBAN TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- XXXX SAW CUT
- TURBIDITY BARRIER

PI STA = 12+24.66
Y = 251130.018
X = 313280.097
DELTA = 27°32'07"
D = 7°06'08"
T = 197.67'
L = 387.70'
R = 806.73'
PC STA = 10+26.99
PT STA = 14+14.69

PI STA = 10+44.68'B'
Y = 251017.468
X = 313274.040
DELTA = 39°24'21"
D = 57°17'45"
T = 35.81'
L = 68.78'
R = 100.00'
PC STA = 10+08.87'B'
PT STA = 10+77.65'B'

BEGIN PROJECT
STA 9+00.00
SAWCUT REQ'D
MATCH EXISTING
Y = 250820.761
X = 313378.891

END CONSTRUCTION
STA 10+40.00
SAWCUT REQ'D
MATCH EXISTING

END PROJECT
STA 13+00.00
SAWCUT REQ'D
MATCH EXISTING

CONTROL POINTS

NO.	STATION	DESCRIPTION	NORTHING	EASTING	ELEV.
100	7+02	10" SPIKE, 13.8' RT	250636.322	313453.317	950.34
101	10+22	10" SPIKE, 12.4' LT	250932.887	313329.433	950.89
102	12+47	10" SPIKE, 15.6' LT	251156.856	313287.028	952.06

TRI-COUNTRY COMMUNICATIONS
MARK S OLSON
MICKELSON FAMILY LIVING TRUST
BEAVER CREEK
BEAVER CREEK ROAD
R BEAVER CREEK RD
+53.06, 0.00' LT
SLOPE INTERCEPTS
WETLANDS 582 SF
WETLANDS 531 SF
WETLANDS 474 SF
WETLANDS 725 SF
+58.50 48.00. LT
+80.44'B' 45.00. LT
+00.22 132.00. LT
+62.21'B' 131.76. RT
PC: 10+26.99
PT: 10+77.65
PI: 10+44.68
PI: 12+24.66
EX R/W
33'
ASPH
CONC
CTH FF
N18° 00' 15"W
S18° 00' 00"W
R36'
BM 1 & CP 100
KENNETH J KRENZ
BM 2
BM 3 & CP 101
BM 4 & CP 102
PROPOSED STRUCTURE B-27-0163
EXISTING STRUCTURE P-27-0010
+47.47, 0.00' LT
STA 11+14.49 = STA 10+00.00'B'
JACKSON ELECTRIC COOPERATIVE
8+00
10+00
11+00
12+00
14+00

YARDAGE SUMMARY
EXCAVATION COMMON = 43 CY
FILL = 108 CY
WASTE = 95 CY

YARDAGE SUMMARY
EXCAVATION COMMON = 188 CY
FILL = 208 CY
WASTE = 132 CY

STA 9+00.00 EL 950.94
STA 9+75.00 EL 951.43
VPI STA 10+54.50 VPI EL 951.83
VPC STA 11+34.00 VPC EL 951.83
VPT STA 11+34.00 VPT EL 951.83
VPI STA 12+17.13 VPI EL 951.84
VPT STA 13+00.26 VPT EL 953.00
STA 13+00.28 EL 953.00

VCL = 166.25
K = 119.40
VCL = 159.00
K = 322.95

0.65%
1.41%

OBSERVED WATER EL 943.09 (9/24/15)
HIGH WATER 100 YR EL 949.75
PROPOSED PROFILE ON ℄
EXISTING GROUND
EXISTING ℄ ELEVATION
PROPOSED ℄ ELEVATION

STATION 10+00
REMOVE STRUCTURE P-27-0010
SINGLE SPAN GIRDER BRIDGE
34.4' OVERALL LENGTH
26.2' OVERALL WIDTH

STATION 10+00
STRUCTURE B-27-0163 REQ'D
50.0' SINGLE SPAN CONCRETE FLAT SLAB
30.0' CLEAR ROADWAY WIDTH
30° SKEW (RHF)

964 960 956 952 948 944 940 936

950.68 950.74 950.81 950.87 950.94 950.94 950.96 951.11 950.99 951.27 951.25 951.43 941.50 951.55 951.44 951.64 951.43 951.72 951.46 951.78 951.47 951.81 951.53 951.83 951.57 951.85 951.69 951.91 951.78 952.02 951.96 952.19 952.15 952.41 952.59 952.68 953.00 953.00 953.40 953.76 954.10 954.44

8+00 8+25 8+50 8+75 9+00 9+25 9+50 9+75 10+00 10+25 10+50 10+75 11+00 11+25 11+50 11+75 12+00 12+25 12+50 12+75 13+00 13+25 13+50 13+75 14+00

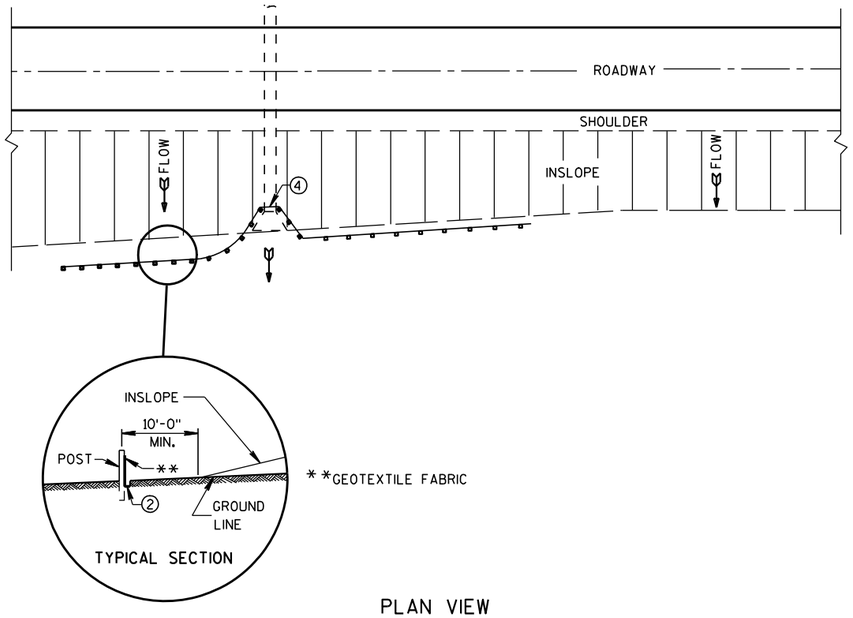
PROJECT NO: 7321-00-70	HWY: CTH FF	COUNTY: JACKSON	PLAN AND PROFILE: CTH FF	SHEET 9	E

FILE NAME : P:\WI - NW REGION\7321-00-00_JACKSON CO_CTH FF\500_CADD\501_C3D\73210000\SHEETSPLAN\050101 PP_FF.DWG
LAYOUT NAME - 050101_PP
PLOT DATE : 8/25/2016 2:07 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

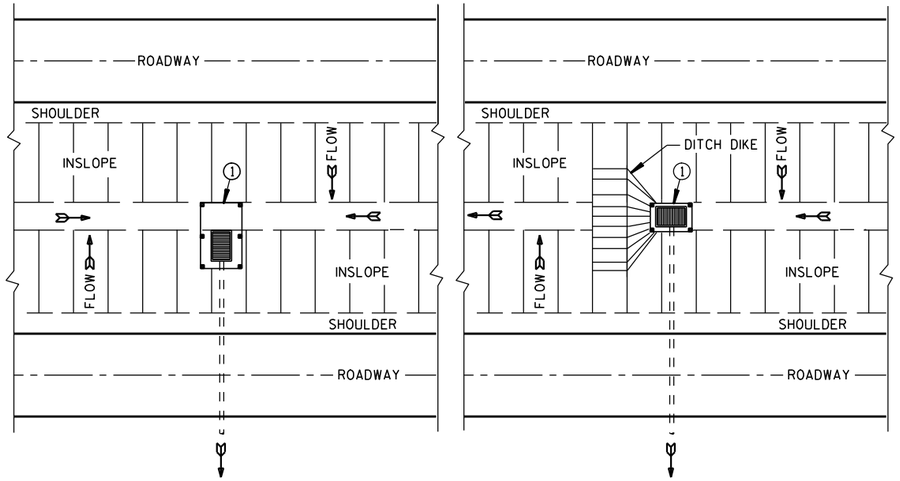
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



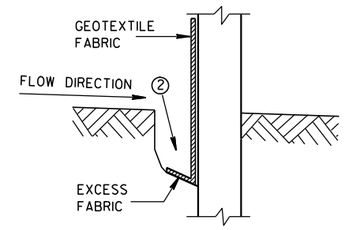
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

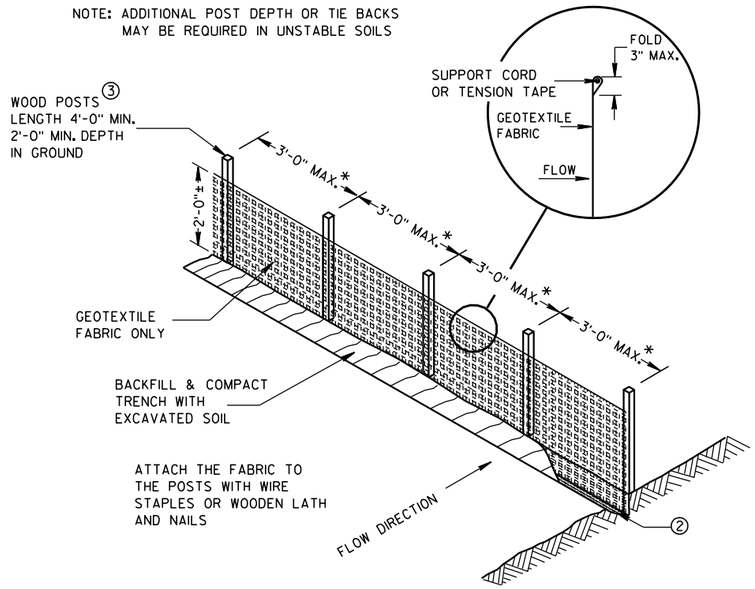
GENERAL NOTES

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.

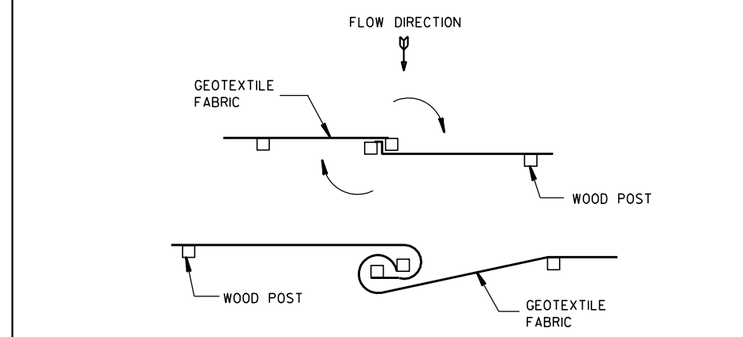


TRENCH DETAIL

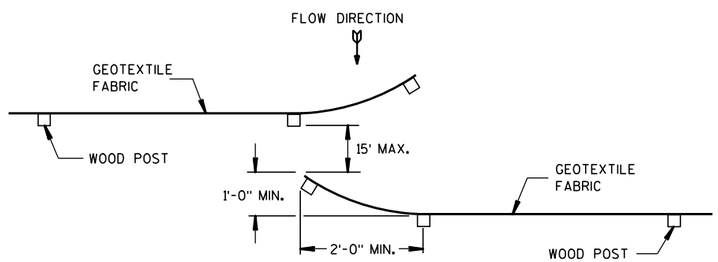


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

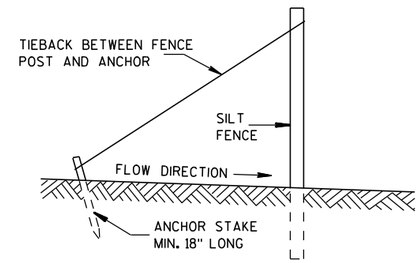


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

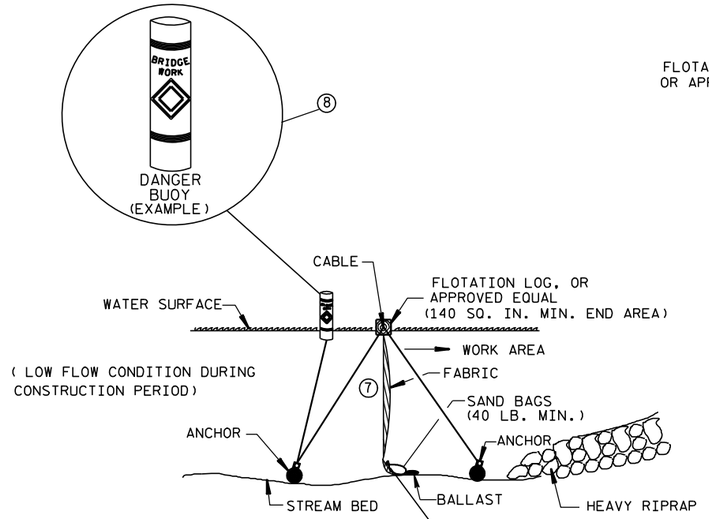
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

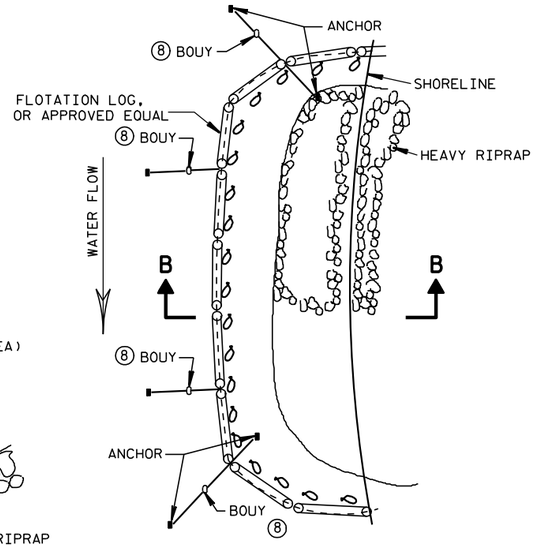
S.D.D. 8 E 9-6

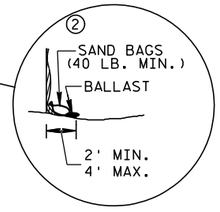
6

S.D.D. 8 E 9-6

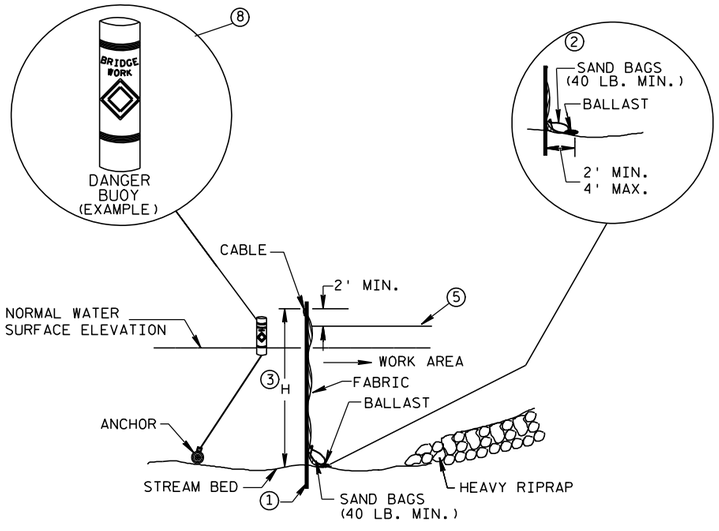


SECTION B-B

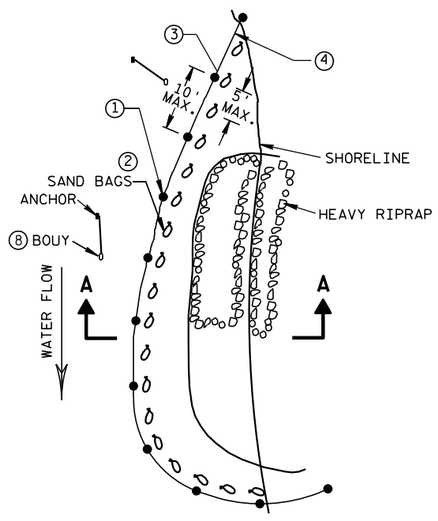




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



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.

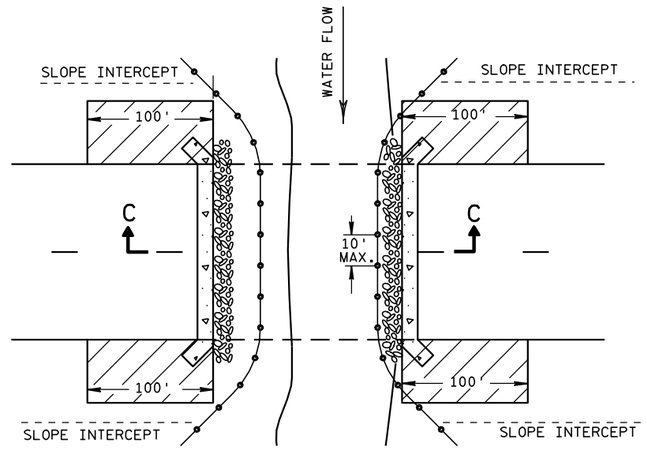
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

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.

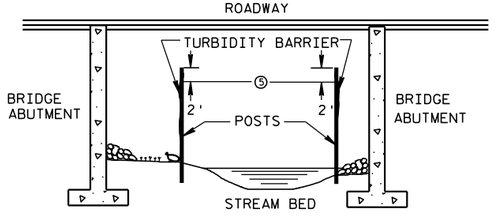
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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



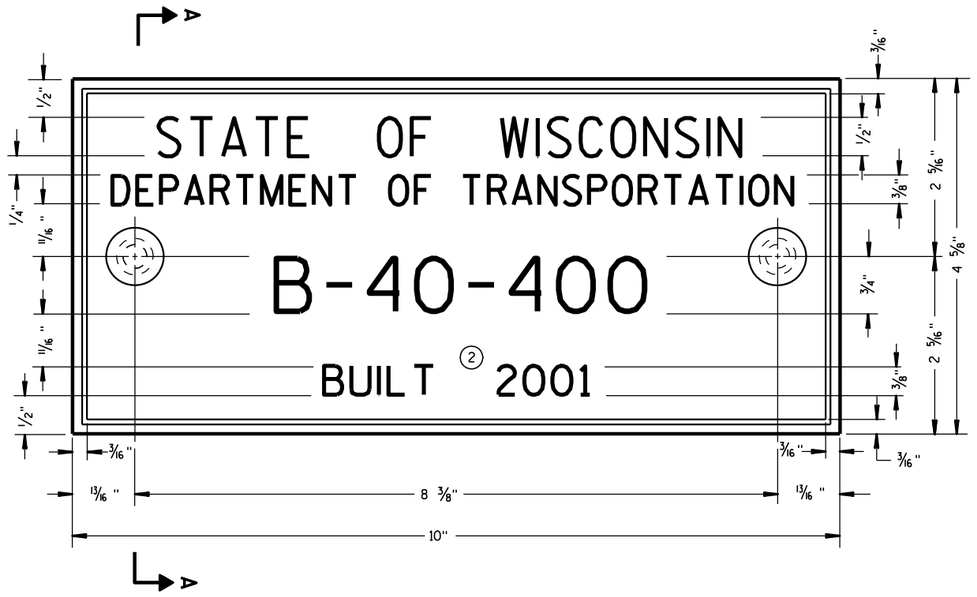
SECTION C-C

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	

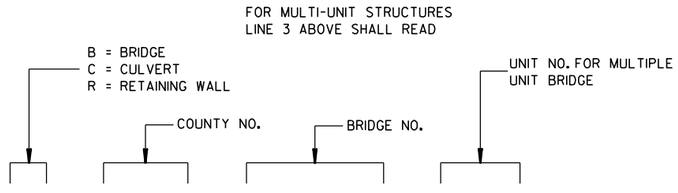
6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

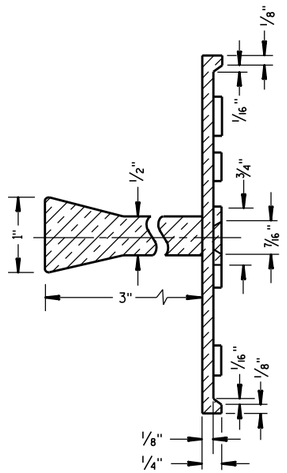
GENERAL NOTES

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.

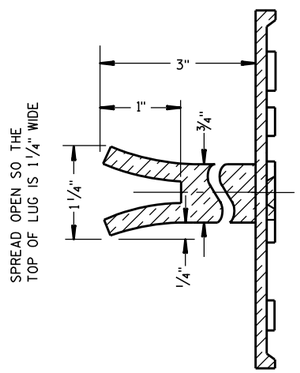
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

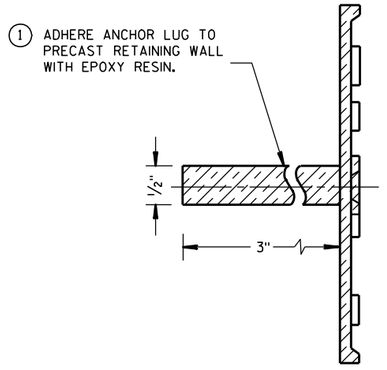
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



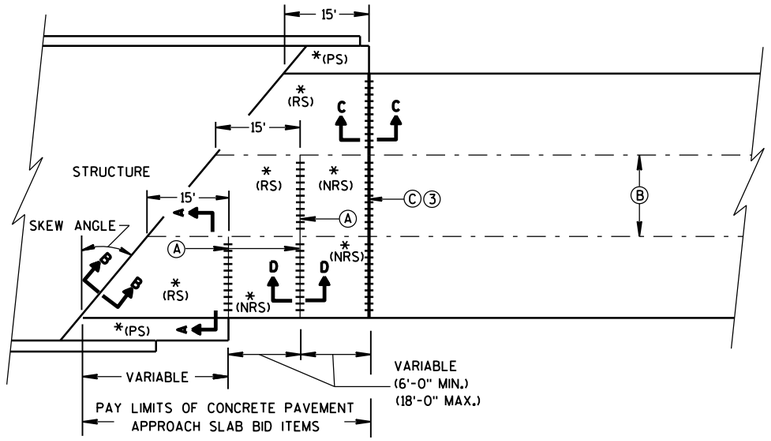
ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

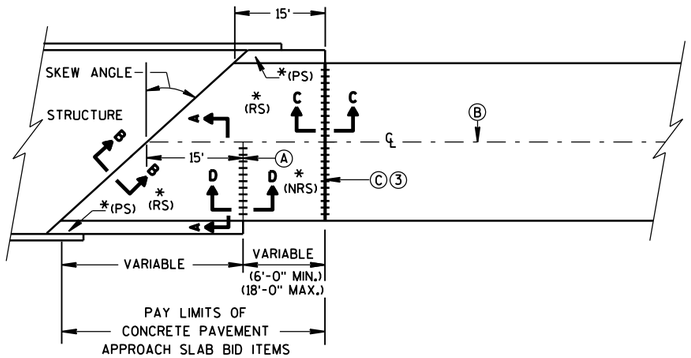
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

6

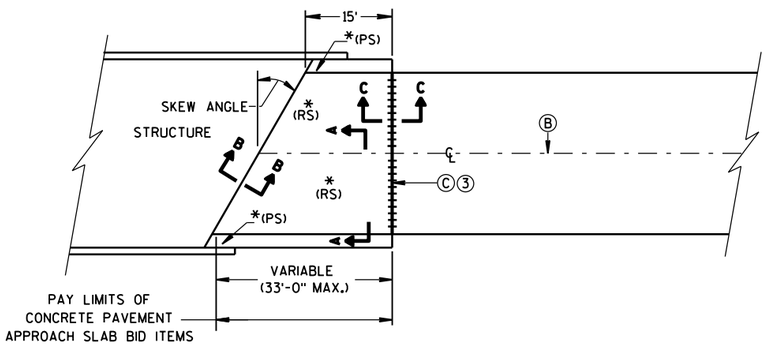
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

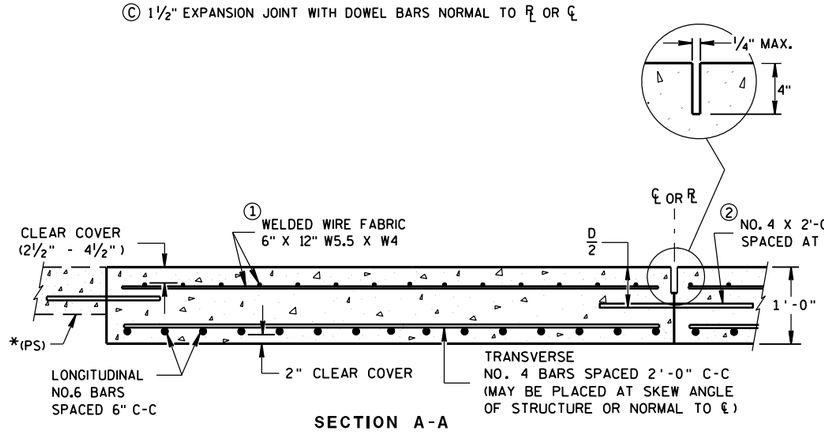
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

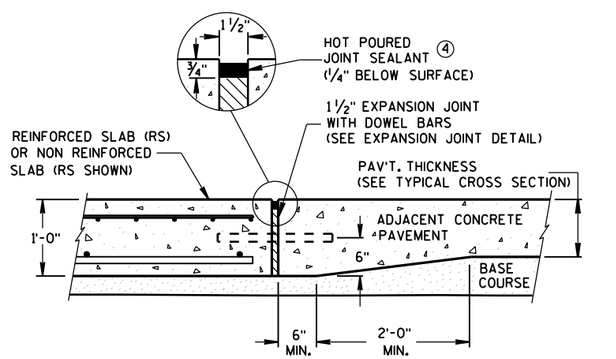
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

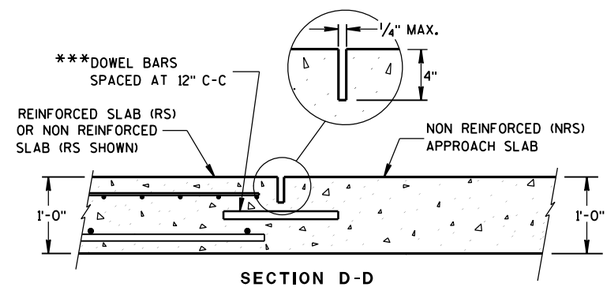
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

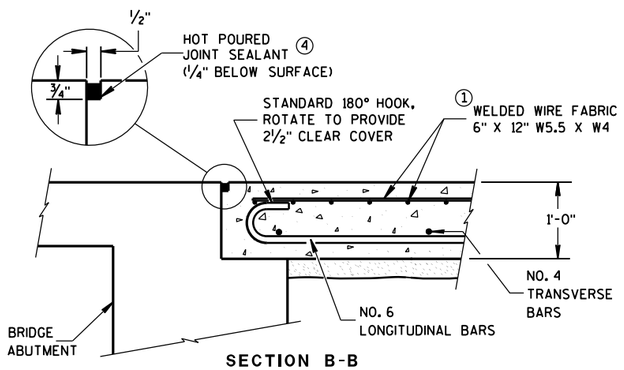
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

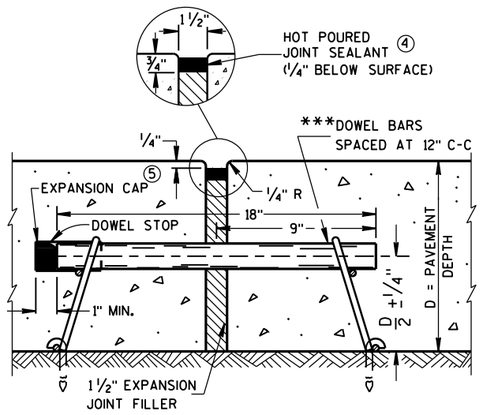
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



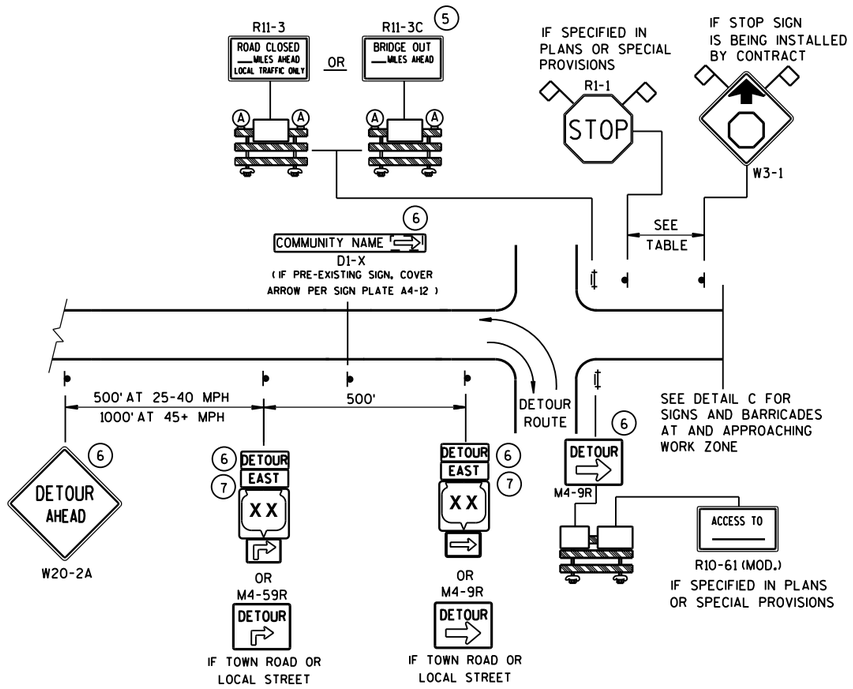
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

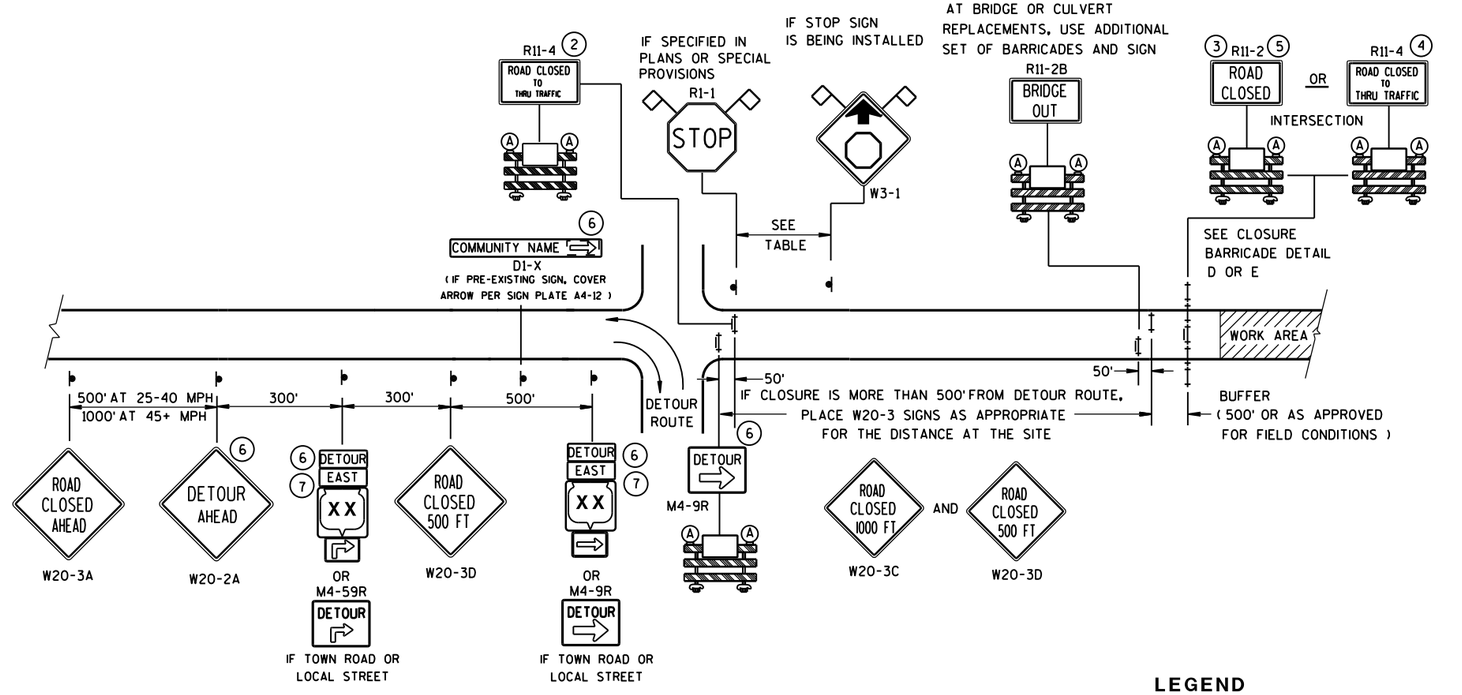
6
S.D.D. 13 B 2-8a



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

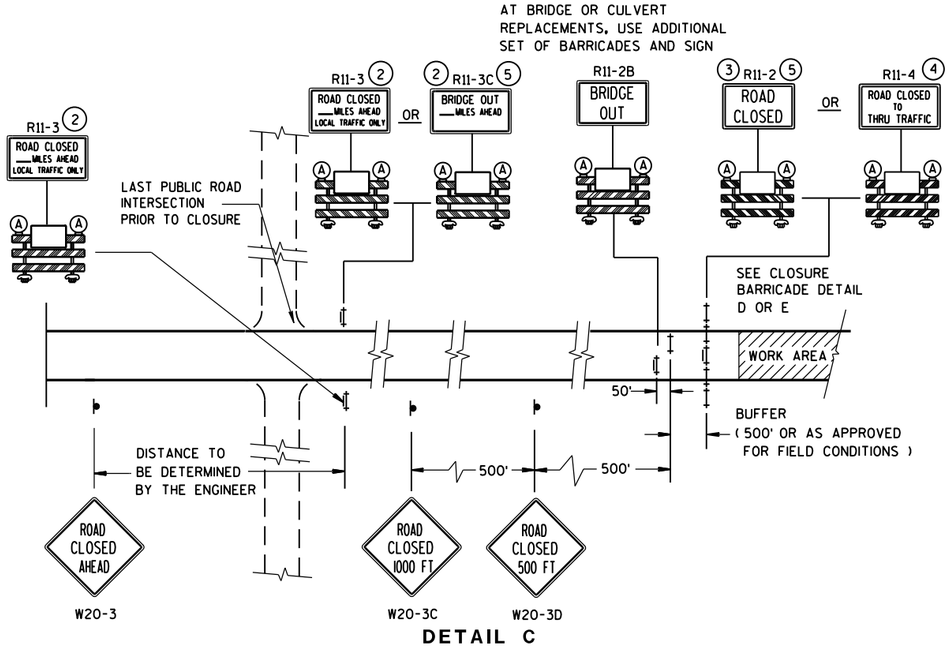
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



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

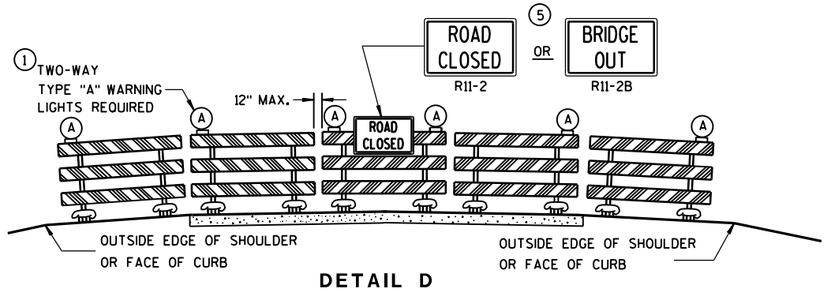
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

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

6

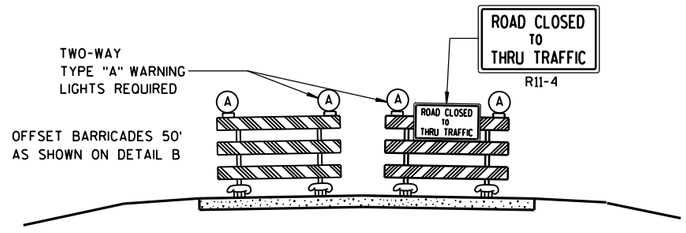
S.D.D. 15 C 2-6a



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

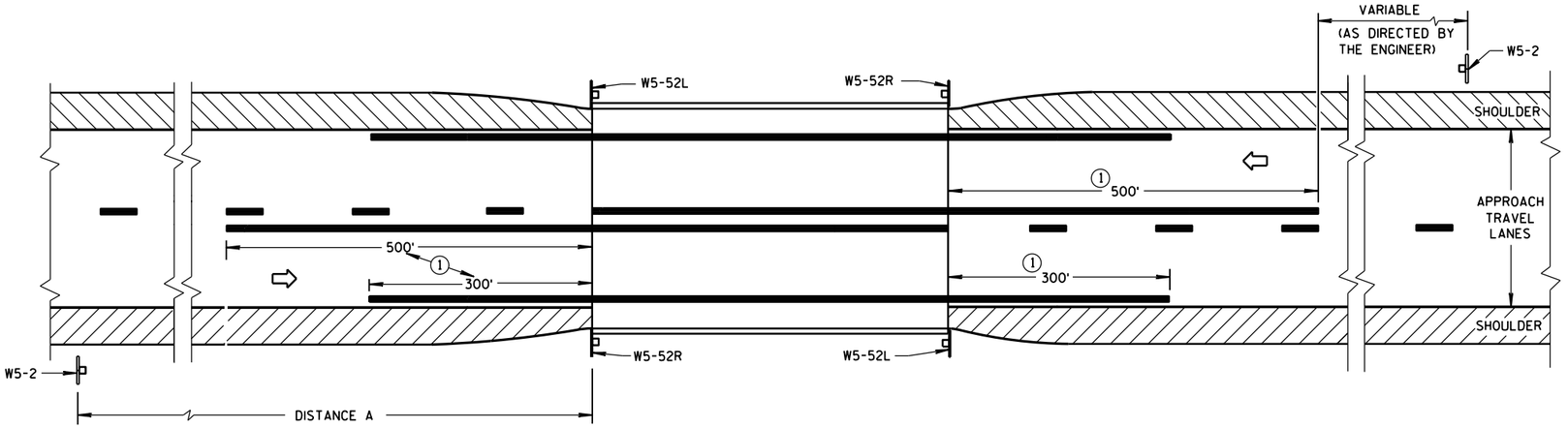
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] — FHWA

6

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



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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

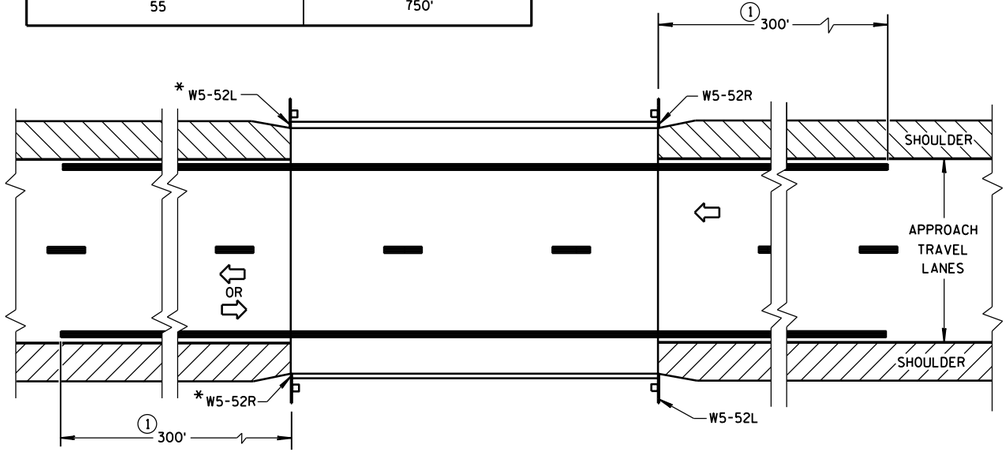
DISTANCE TABLE

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

SITUATION 1

WARRANTING CRITERIA:

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

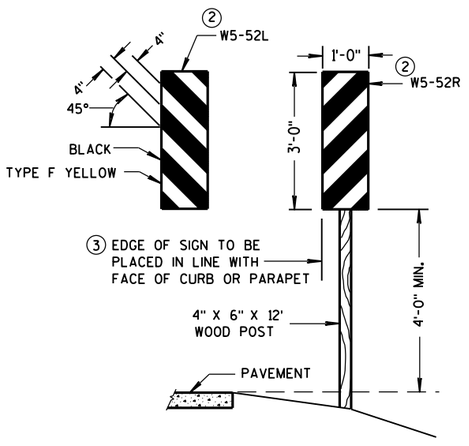


*OMIT ON ONE-WAY TRAVELLED WAYS

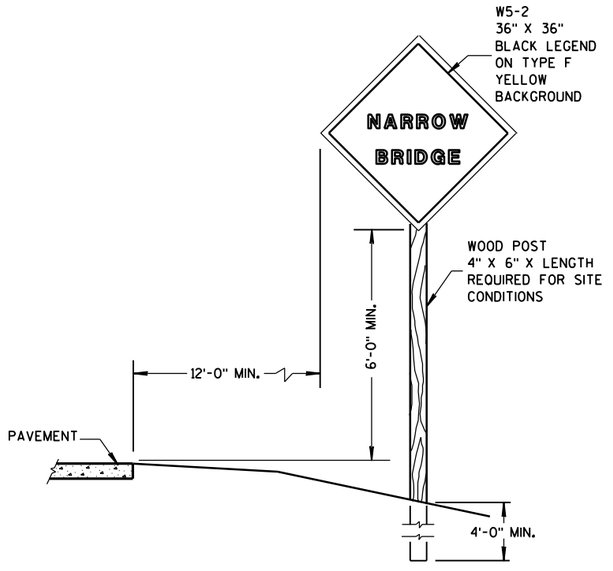
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

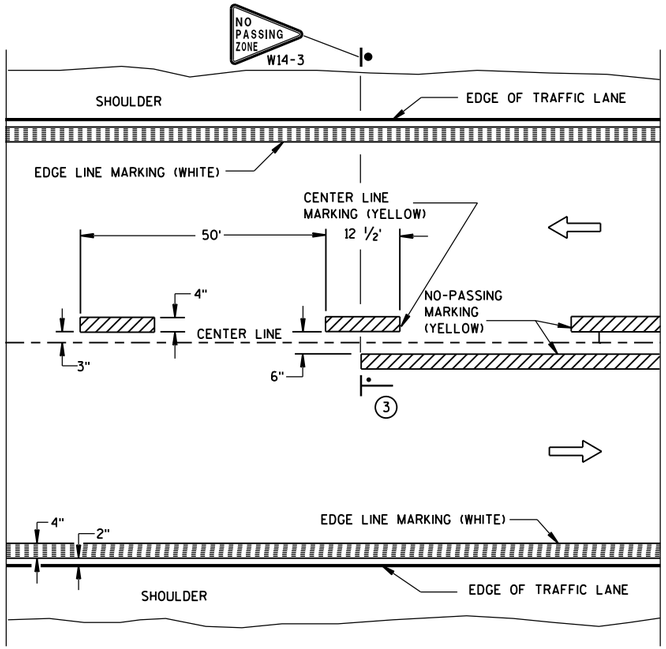
3-2014 DATE

/S/ Travis Feltes STATE TRAFFIC ENGINEER

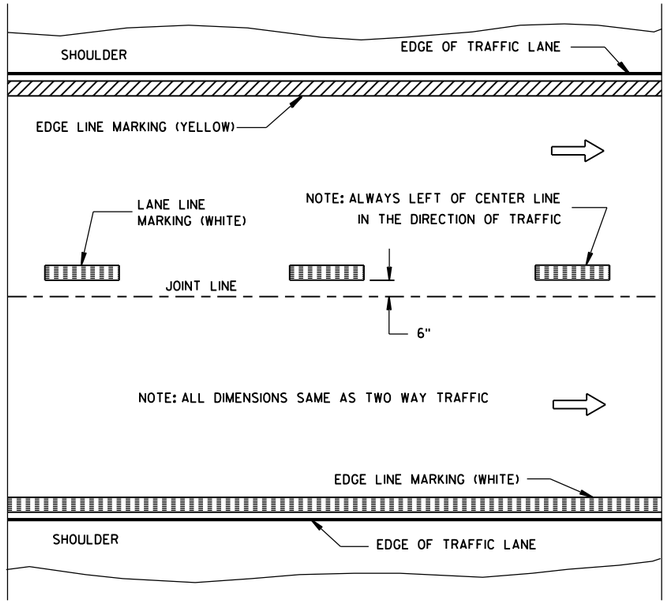
FHWA

6

S.D.D. 15 C 6-7

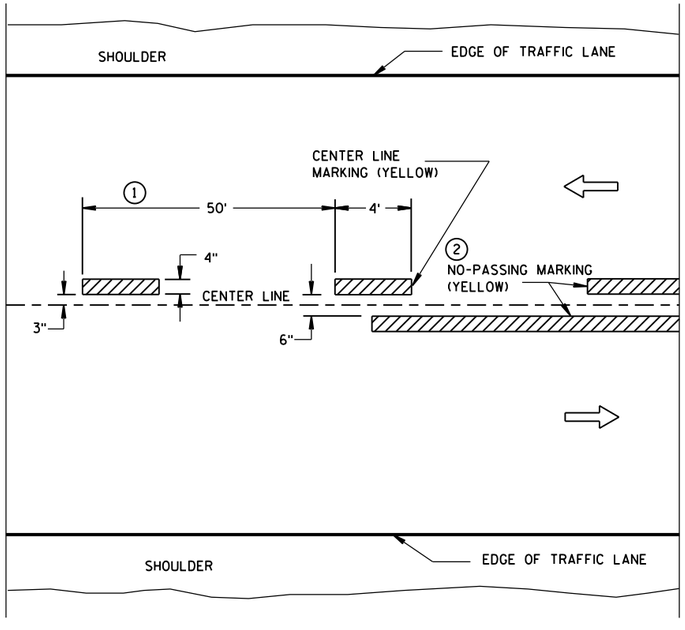


TWO WAY TRAFFIC

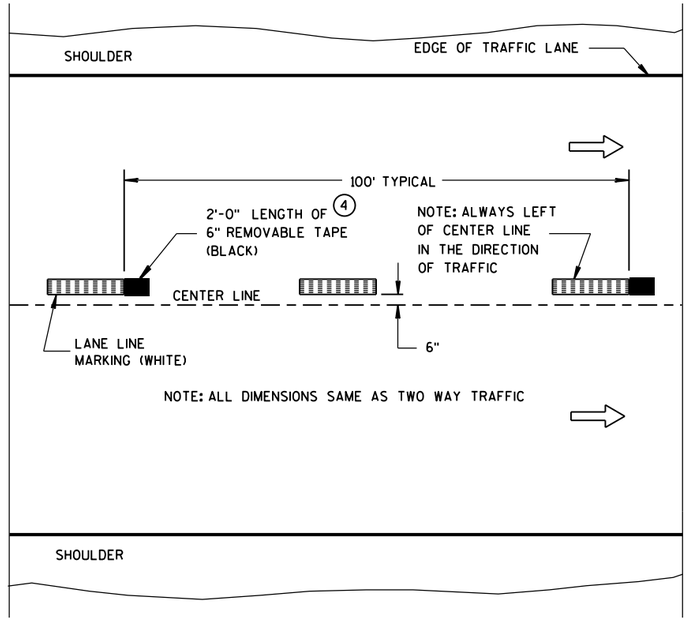


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

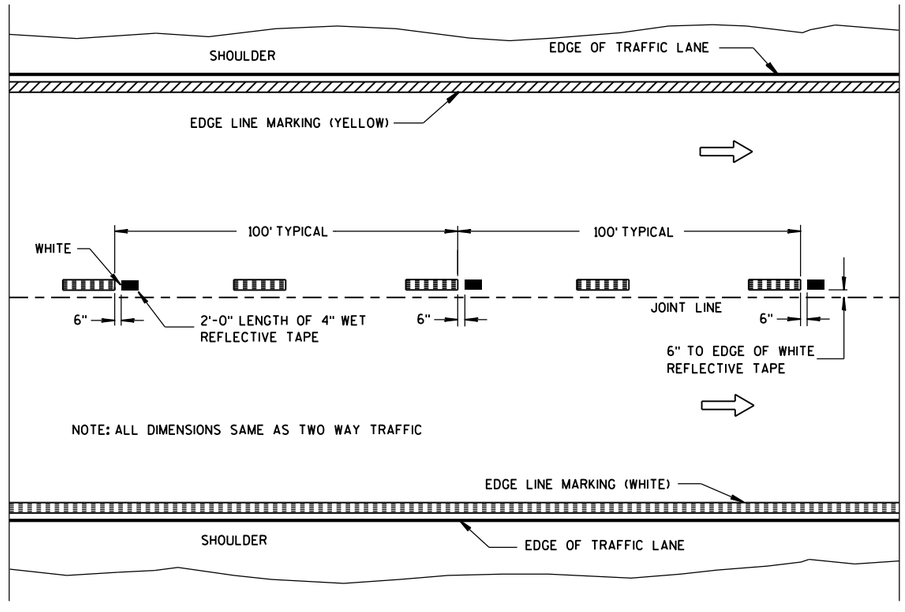
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

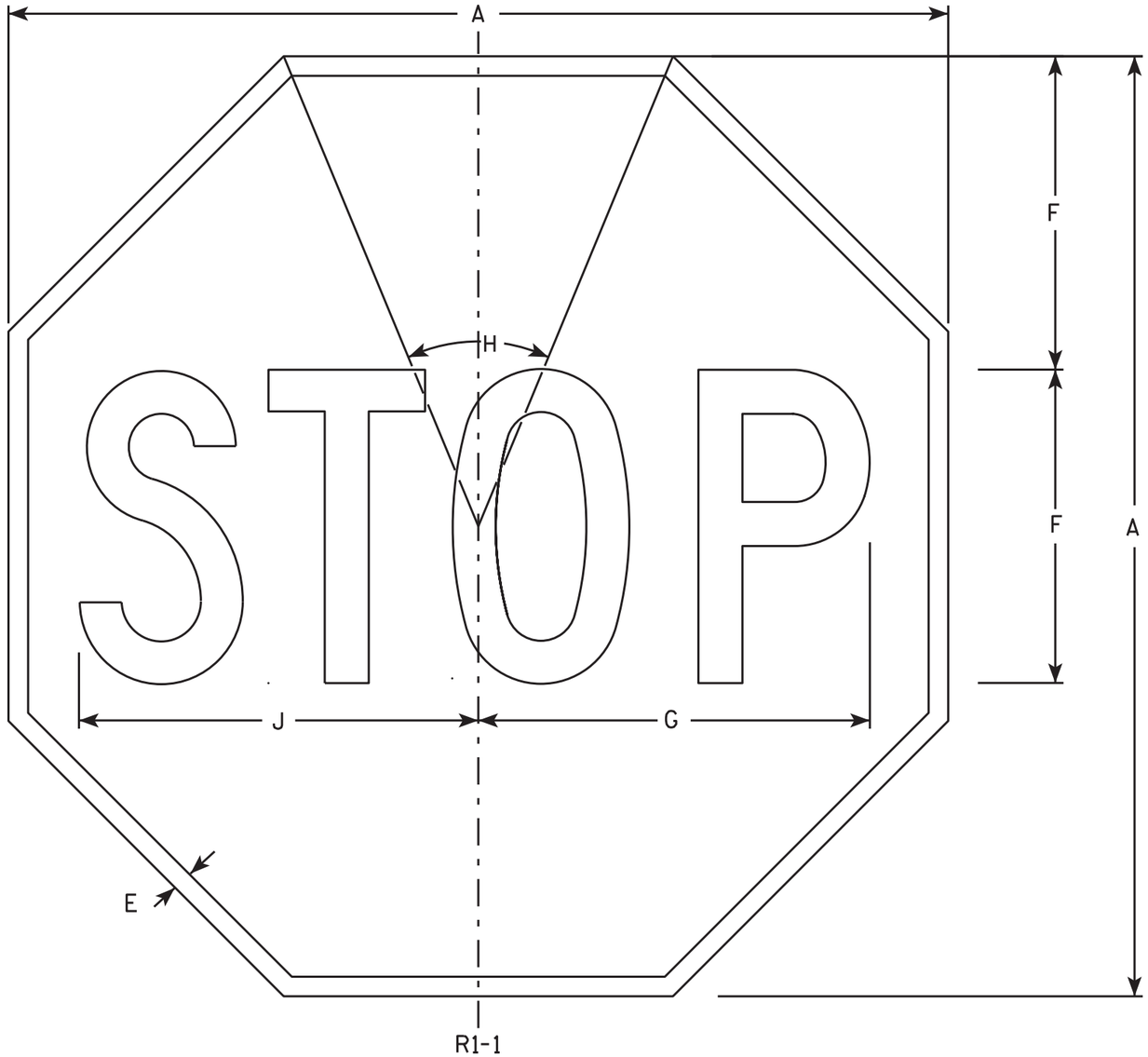
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

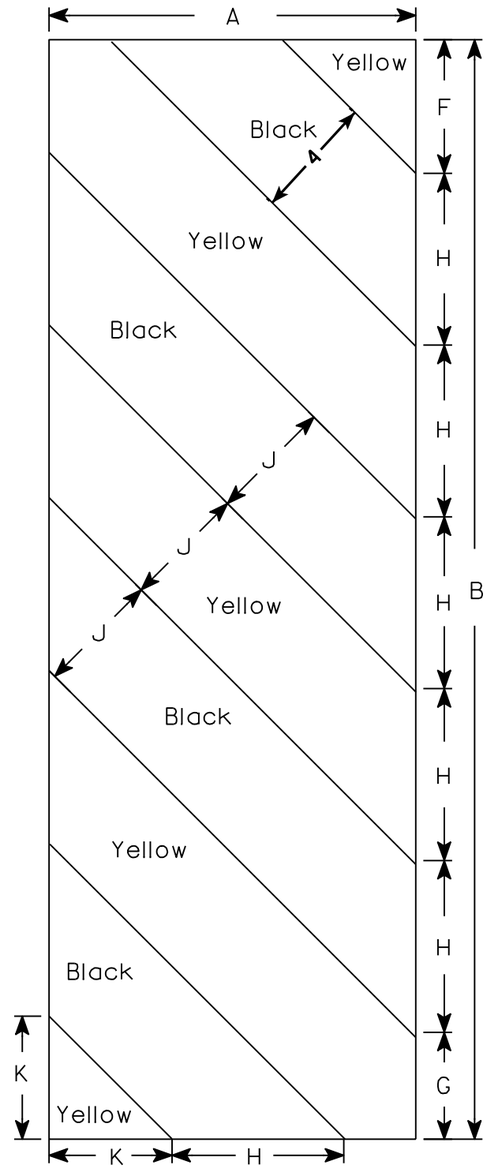
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

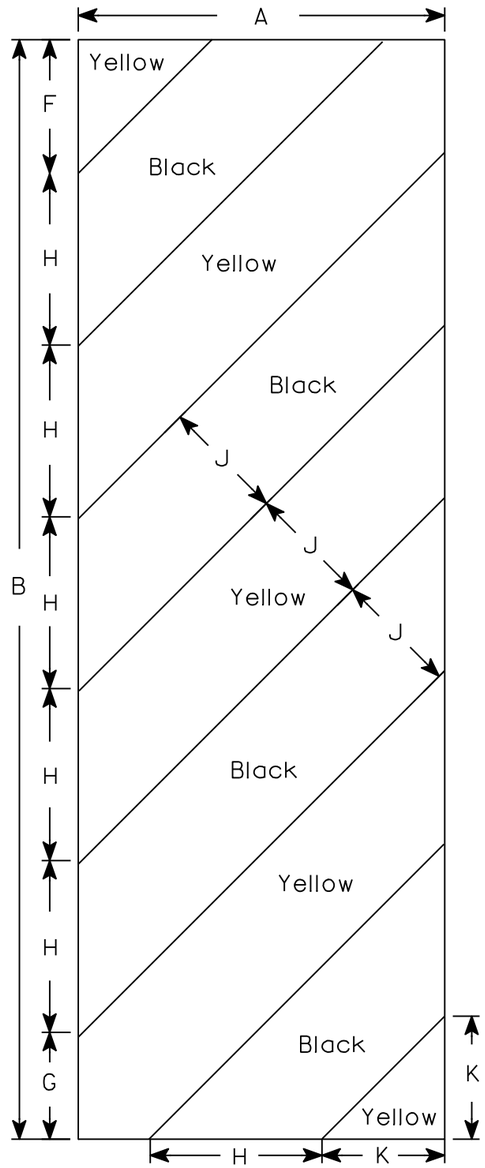
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 19 E



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

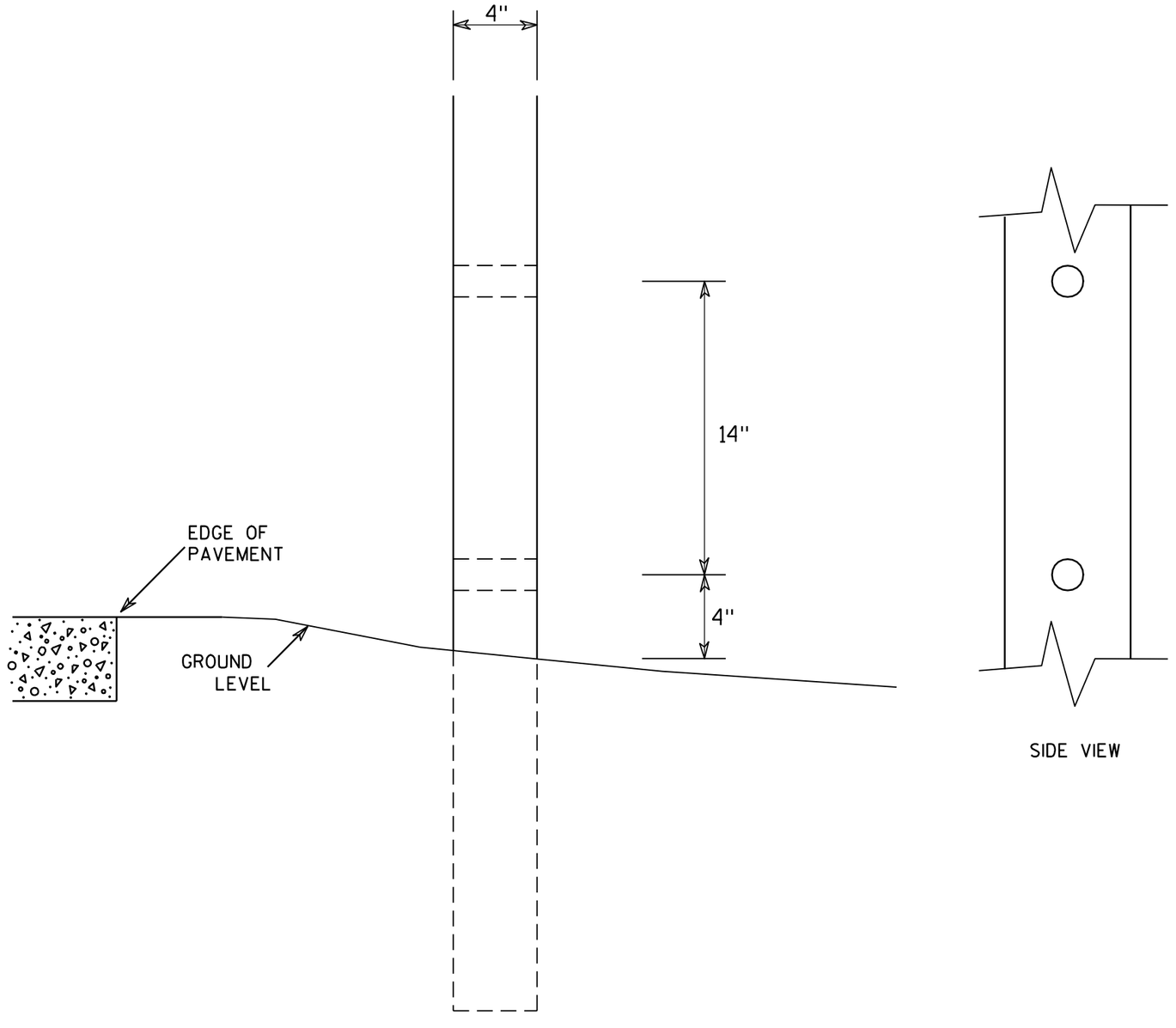
W5-52L & W5-52R

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: 20 | E



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

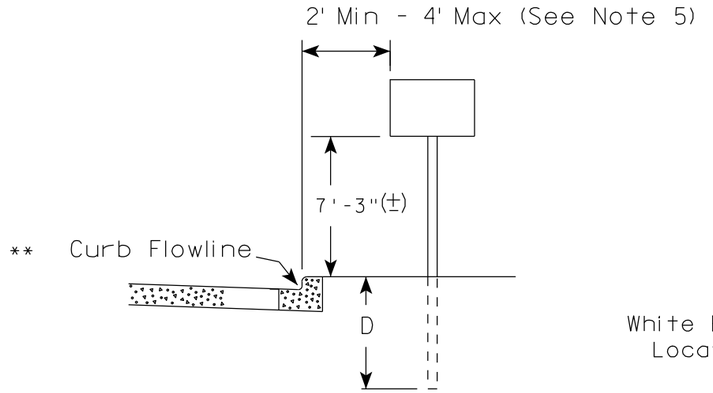
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

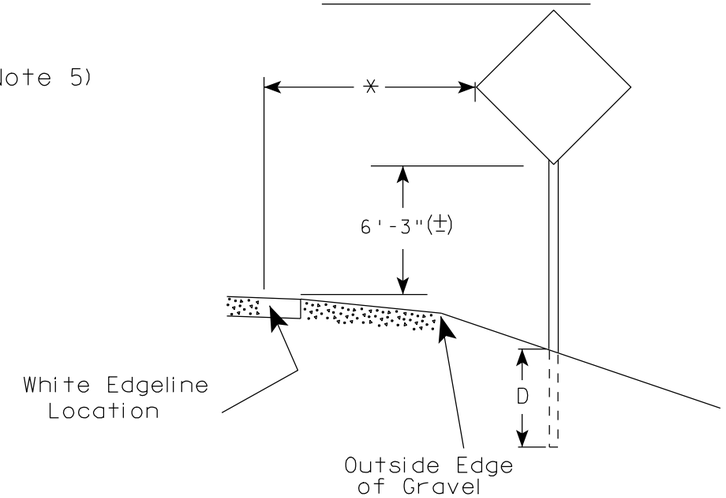
DATE 3/27/97 PLATE NO. A4-11.2

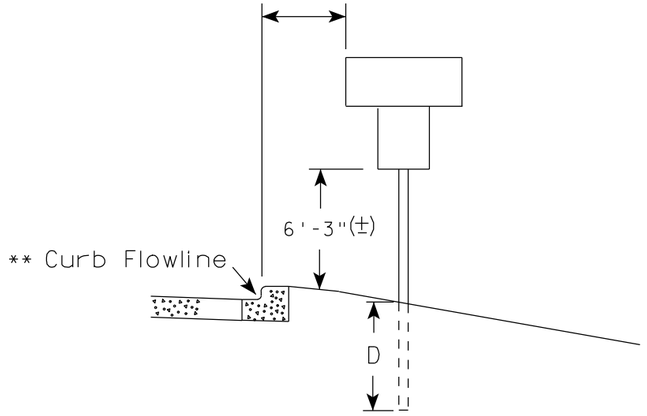
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 21	E

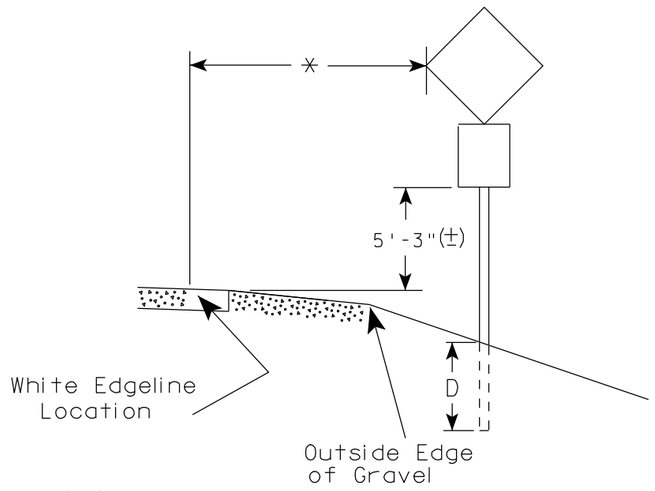
URBAN AREA



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 or larger than 20 sq. ft. 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 (A4-5) 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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) 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'

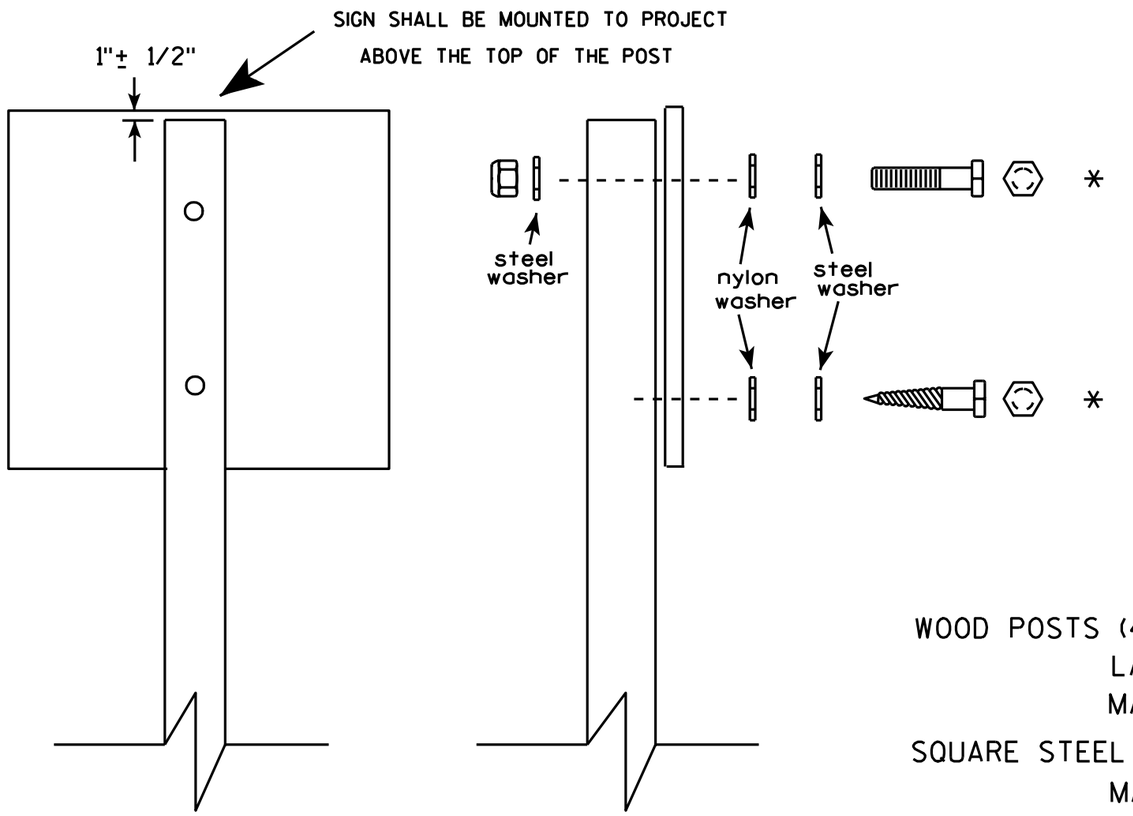
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 22	E



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

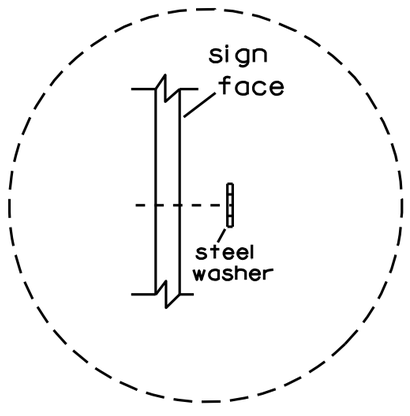
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

7

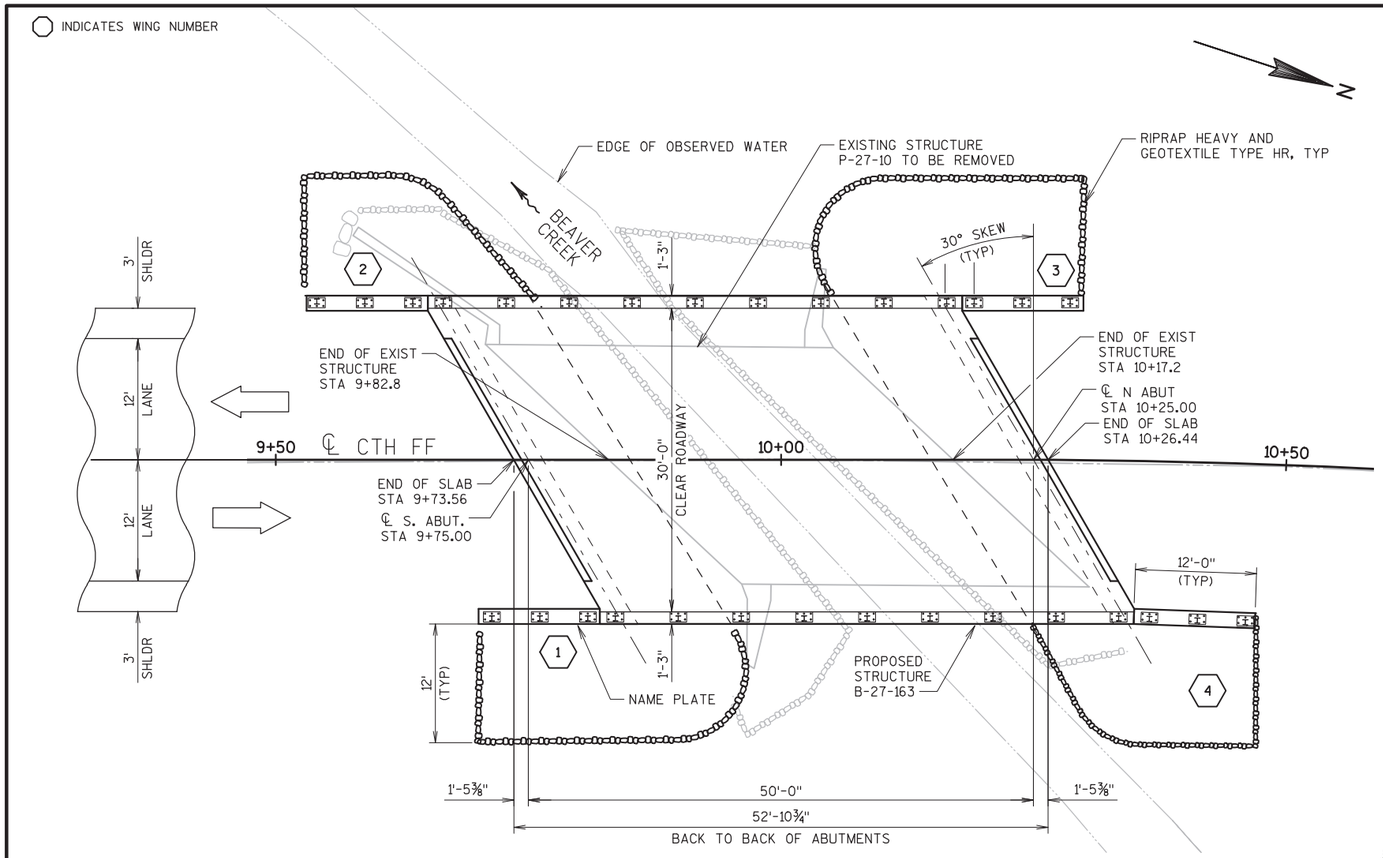
7

PROJECT NO:

SHEET NO: 23 E

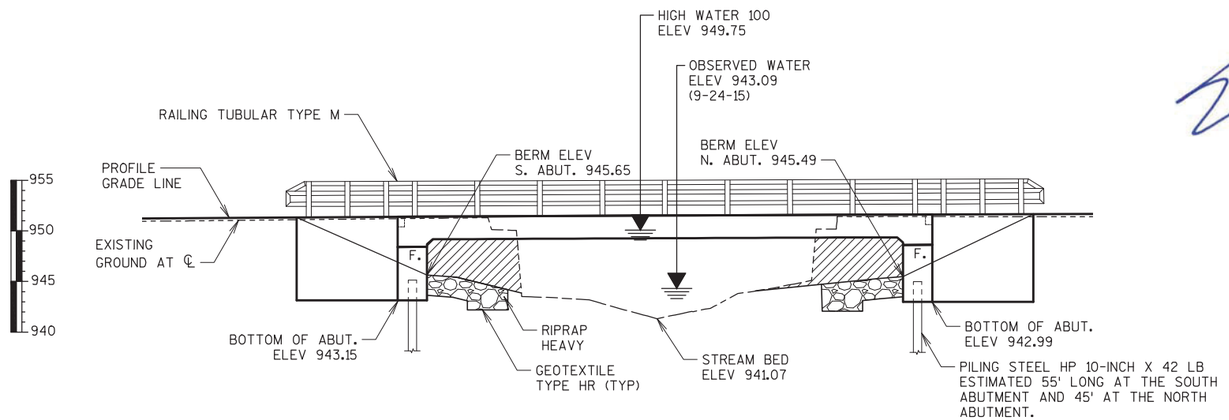
STATE PROJECT NUMBER

7321-00-70



PLAN

SINGLE SPAN CONCRETE FLAT SLAB BRIDGE



ELEVATION

(LOOKING WEST)

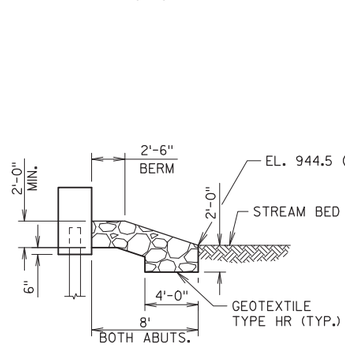
AREA TO EXCAVATE INCLUDED IN "EXCAVATION FOR STRUCTURES BRIDGES"

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	9+98	CHISELED SQUARE TOP OF SE RAILING	953.23
3	10+22	CP #101	950.89

HORIZONTAL GEOMETRY

PI STA = 12+24.66
Y = 251130.018
X = 313280.097
DELTA = 27°32'07"
D = 7°06'08"
T = 197.67'
L = 387.70'
R = 806.73'
PC STA = 10+26.99
PT STA = 14+14.69
SE = 5.80%



RIPRAP DETAIL

8/1/2016

DESIGN DATA

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — 1.16
OPERATIONAL RATING FACTOR — 1.50
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

MATERIAL PROPERTIES

CONCRETE MASONRY, SLAB — f'c = 4,000 psi
ALL OTHER — f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT — fy = 60,000 psi

TRAFFIC DATA

ADT (2017) = <100
ADT (2037) = 130
DESIGN SPEED = 45 MPH

FOUNDATION DATA

ABUTMENTS SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180* TONS PER PILE AS REQUIRED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 55' LONG AT THE SOUTH ABUTMENT AND 45' AT THE NORTH ABUTMENT.

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

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 930 C.F.S.
VEL. = 5.63 F.P.S.
HW_{100} = EL. 949.75
WATERWAY AREA = 165.2 SQ. FT.
DRAINAGE AREA = 3.4 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 = 175 C.F.S.
VEL. = 3.42 F.P.S.
HW_2 = EL. 946.35

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/12/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-27-163

CTH FF OVER BEAVER CREEK

COUNTY: JACKSON
TOWN/~~CITY/VILLAGE~~: NORTHFIELD
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ERA	ETP	PKF	ETP

GENERAL PLAN

SHEET 1 OF 10

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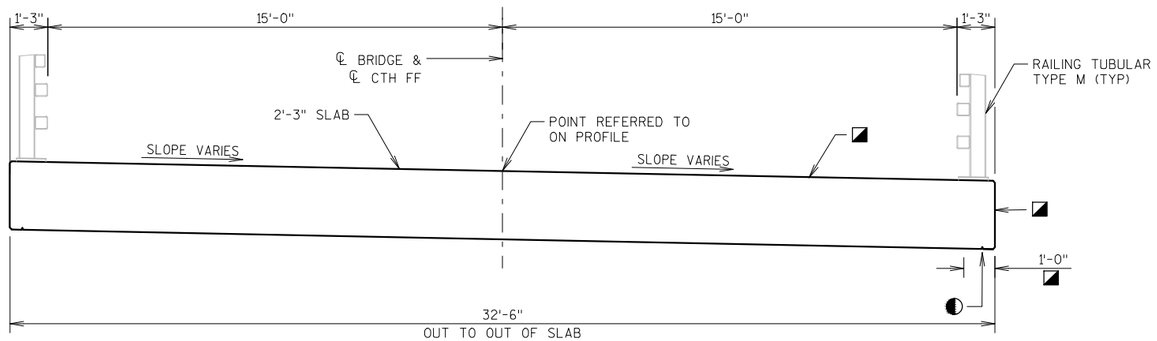
BRIDGE OFFICE CONTACT
WILLIAM DREHER, P.E.
TELEPHONE: (608) 266-8489

CONSULTANT CONTACT
ERIC PRICE, P.E.
TELEPHONE: (608) 826-6146

STATE PROJECT NUMBER
7321-00-70



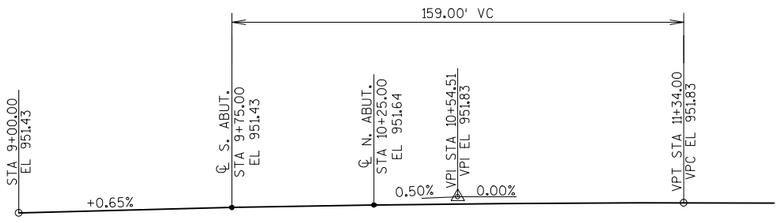
CROSS SECTION THRU BRIDGE

(LOOKING NORTH)

LEGEND

◐ 3/4" V-GROOVE. TERMINATE 2'-0" FROM FRONT FACE OF ABUTMENTS.

◪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0" OF THE FRONT FACE OF ABUTMENT.



PROFILE GRADE LINE - CTH FF

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	SOUTH ABUT	NORTH ABUT	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-27-163	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	210	230	-----	440
502.0100	CONCRETE MASONRY BRIDGES	CY	38	41	161	240
502.3200	PROTECTIVE SURFACE TREATMENT	SY	13	13	230	256
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,240	2,480	-----	4,720
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,730	1,800	29,260	32,790
513.4061	RAILING TUBULAR TYPE M B-27-163	LF	-----	-----	158	158
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	12	-----	24
550.0500	PILE POINTS	EACH	5	5	-----	10
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	275	225	-----	500
606.0300	RIPRAP HEAVY	CY	85	90	-----	175
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	90	90	-----	180
645.0120	GEOTEXTILE TYPE HR	SY	110	115	-----	225
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

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 NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.

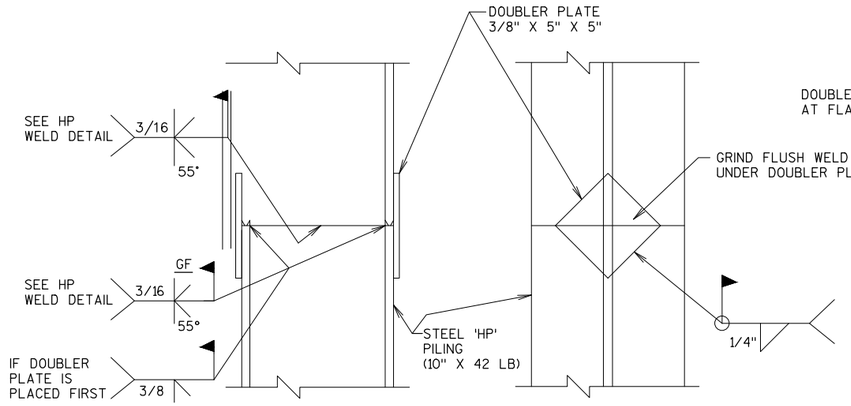
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

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

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-27-163" SHALL BE THE EXISTING GROUNDLINE.

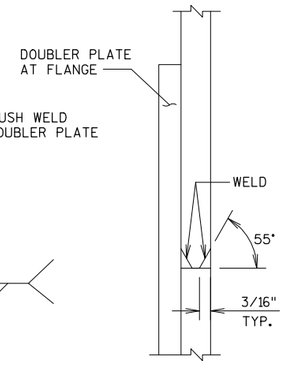
THE EXISTING STRUCTURE P-27-010, TO BE REMOVED, IS A SINGLE SPAN CONCRETE DECK GIRDER BRIDGE, 34.4 FT. LONG WITH A 23.0 FT. CLEAR ROADWAY WIDTH.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.



STEEL 'HP' PILING

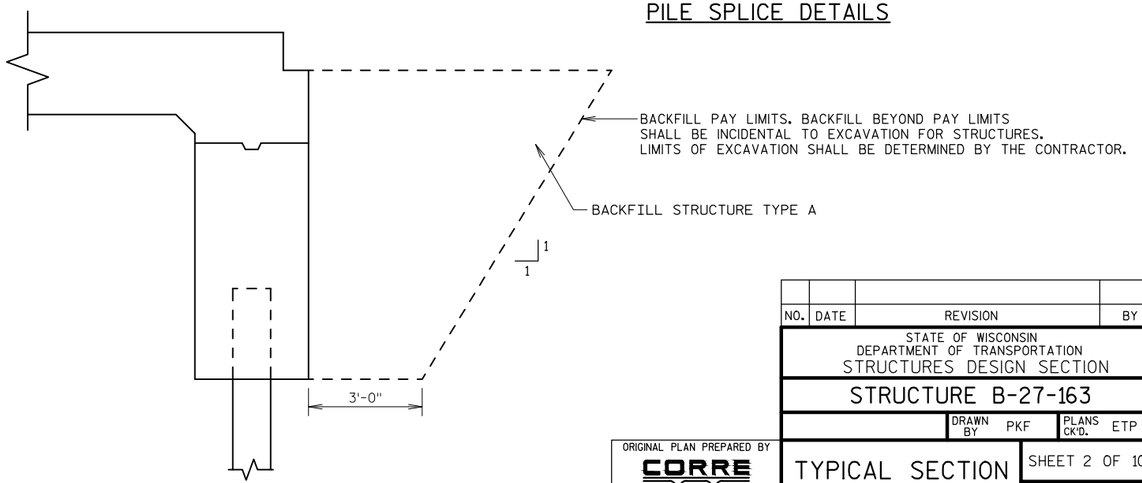
STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. DESIGNATION A36.



HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



STRUCTURE BACKFILL LIMITS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-163

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE ENGINEERING

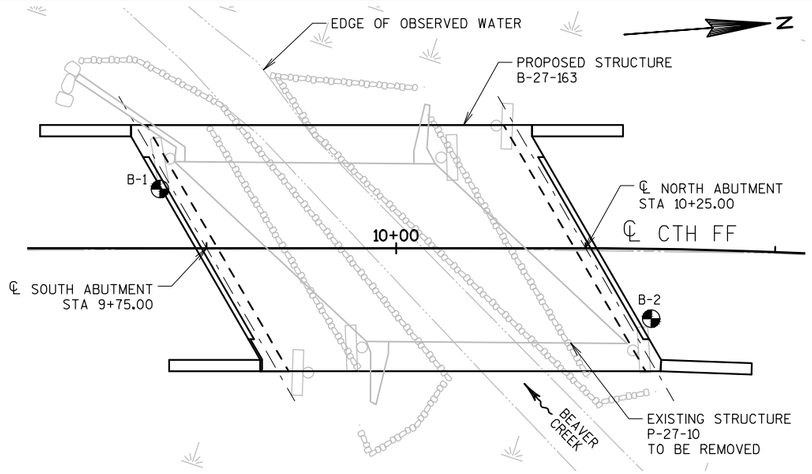
TYPICAL SECTION & QUANTITIES

SHEET 2 OF 10

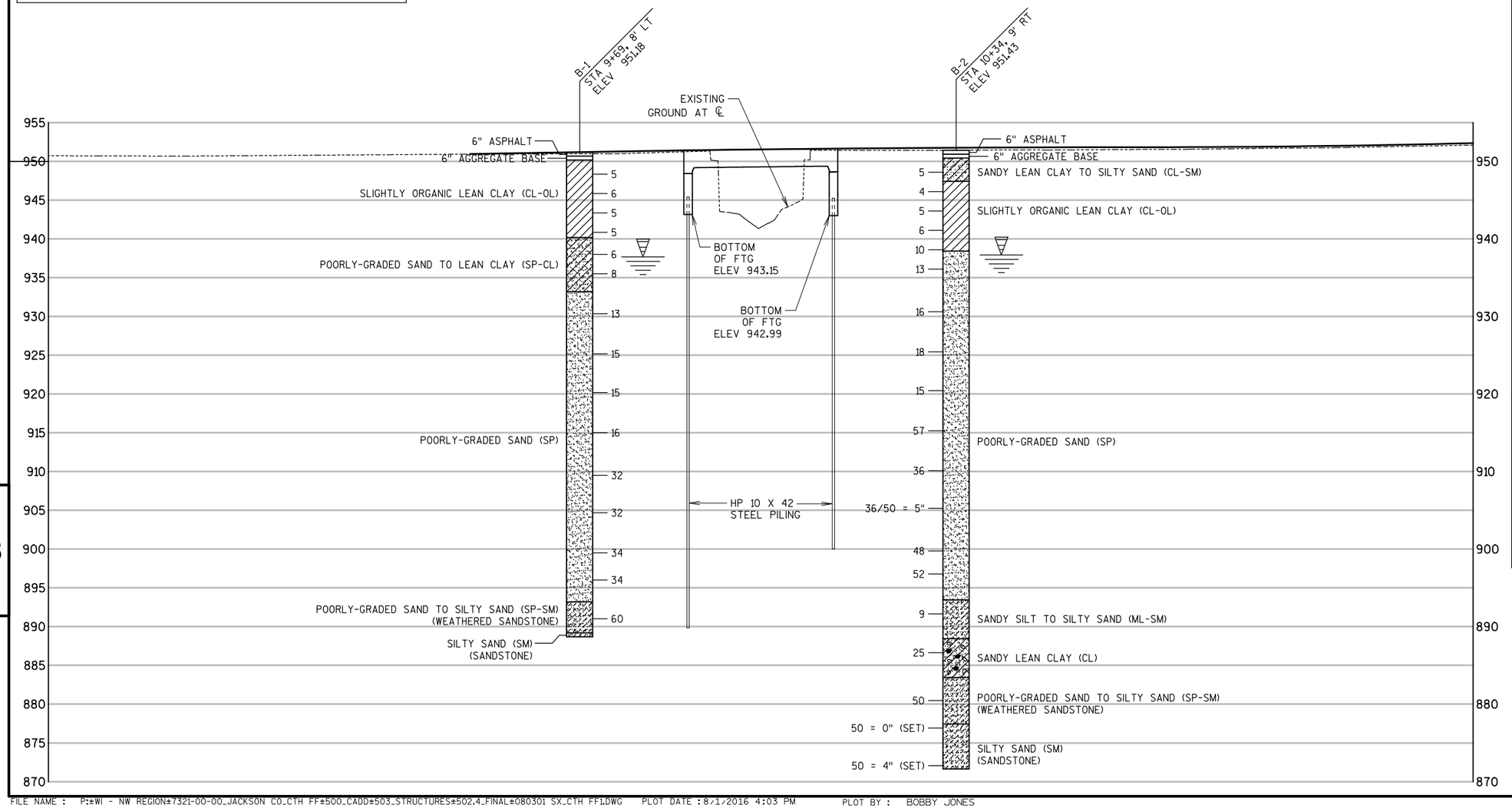
25

8

8



BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	SEPT 22, 2015	250,883.848	313,350.197
2	SEPT 22, 2015	250,950.769	313,346.435
BORINGS COMPLETED BY: CHOSEN VALLEY TESTING, INC.			
REPORT COMPLETED BY: CHOSEN VALLEY TESTING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) JACKSON COUNTY			



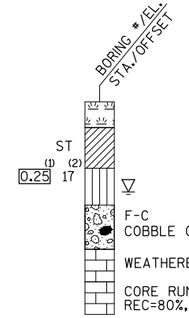
STATE PROJECT NUMBER

7321-00-70

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

ground water elevation

▽ at time of drilling

▼ end of drilling

▼ after drilling

ABBREVIATIONS

F-Fine M-Medium C-Coarse st-shelby tube

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE 7321-00-70

DRAWN BY PKF | PLANS CK'D. ETP

SUBSURFACE EXPLORATION

SHEET 3 OF 10

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8

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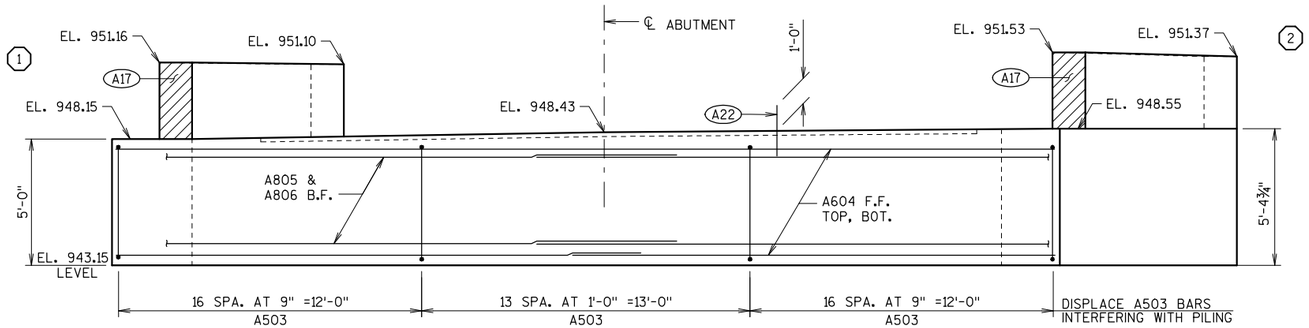
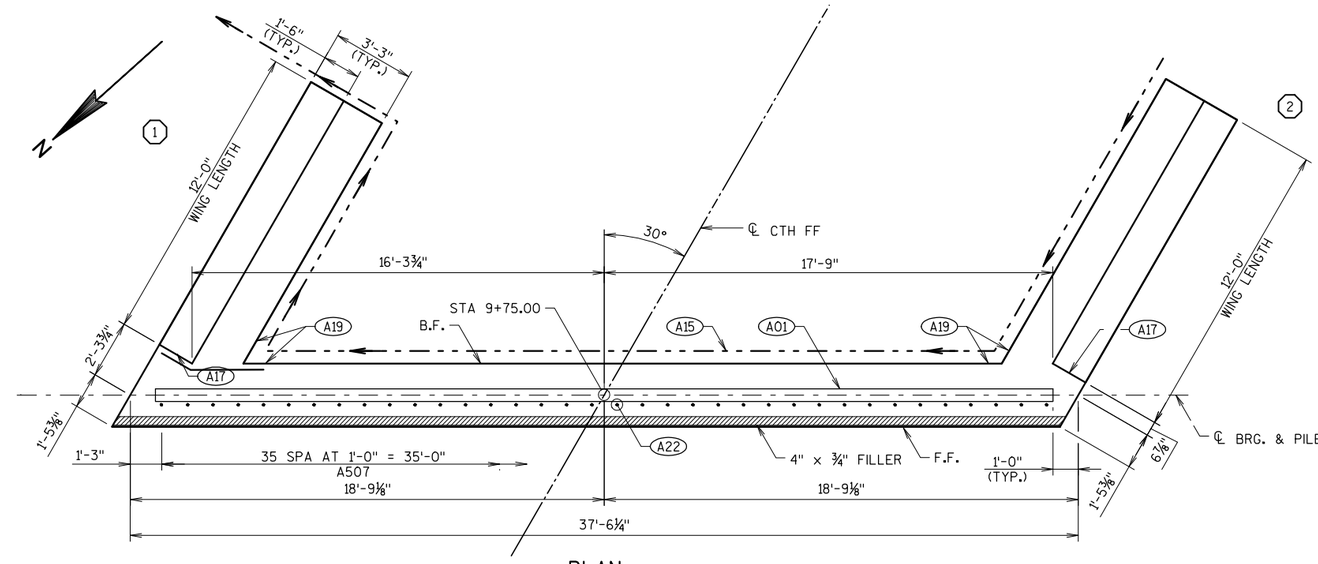
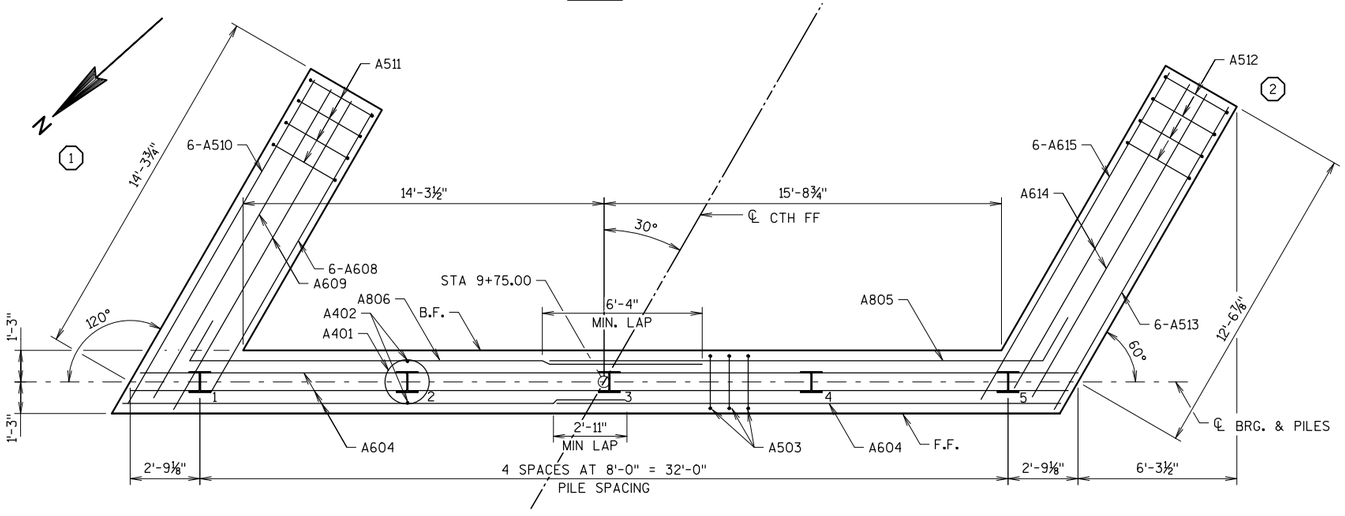


ELEVATION
(LOOKING SOUTH)



PLAN



PILE PLAN

LEGEND

⬡ INDICATES WING NUMBER

(A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".

(A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH x 42 LB, ESTIMATED 55 FEET LONG DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

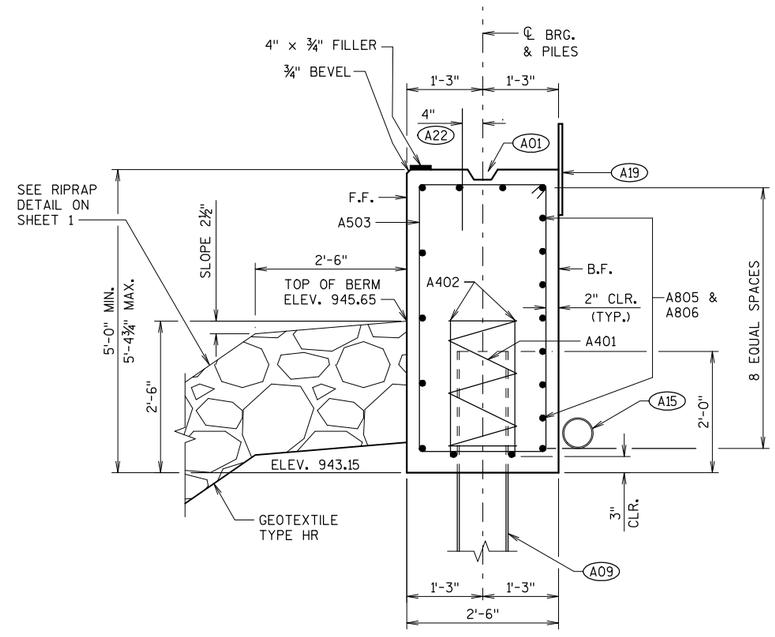
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A507 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

NOTES

ELEVATIONS AND DIMENSIONS ARE GIVEN AT THE ℄ OF ABUTMENT.



SECTION THRU BODY
HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-27-163

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

SOUTH ABUTMENT

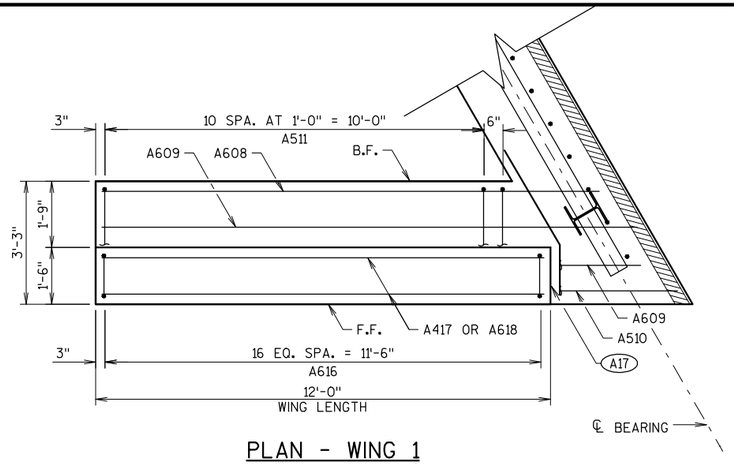
SHEET 4 OF 10

27

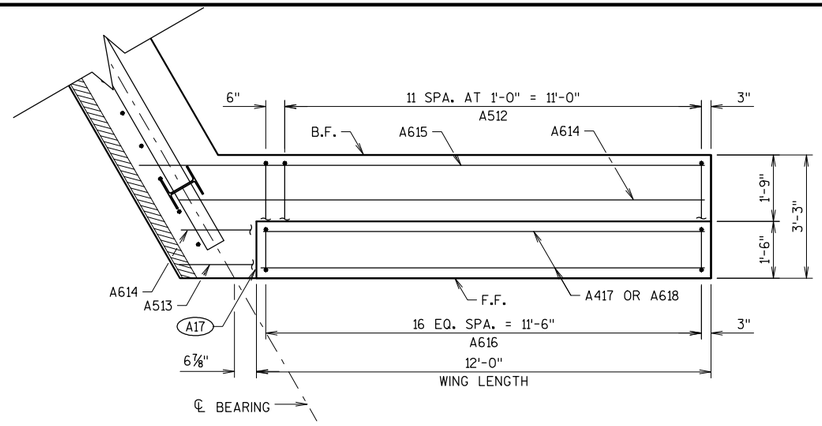
STATE PROJECT NUMBER
7321-00-70

8

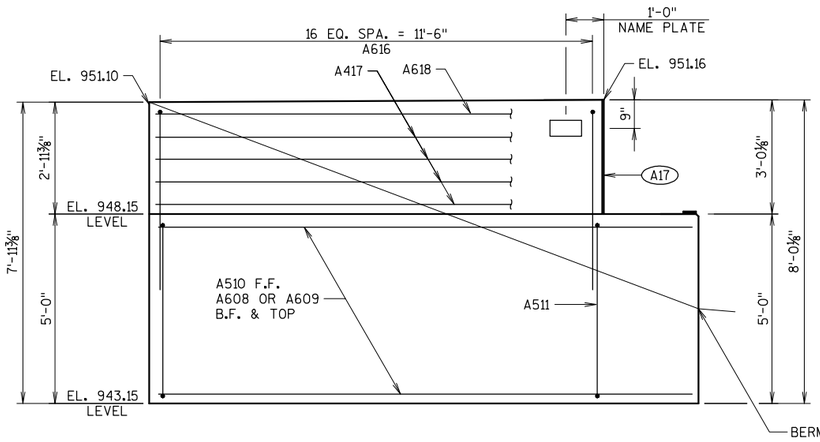
8



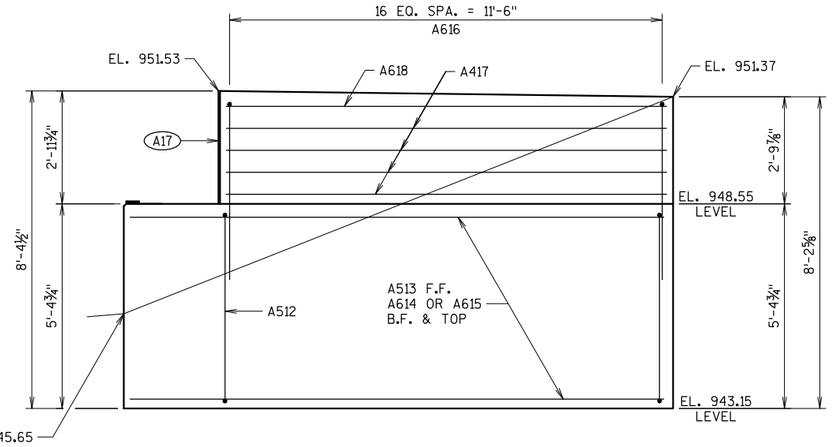
PLAN - WING 1



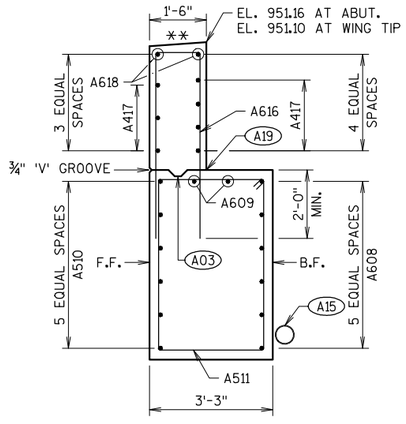
PLAN - WING 2



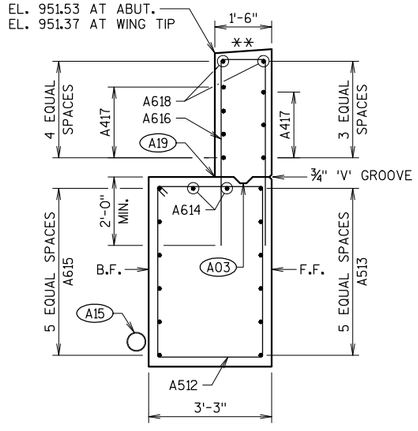
ELEVATION - WING 1



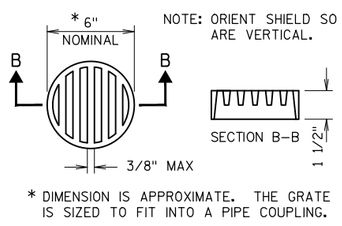
ELEVATION - WING 2



SECTION THRU WING 1



SECTION THRU WING 2

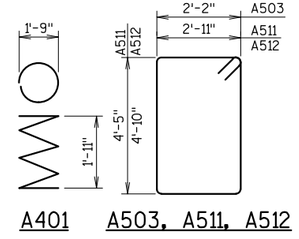


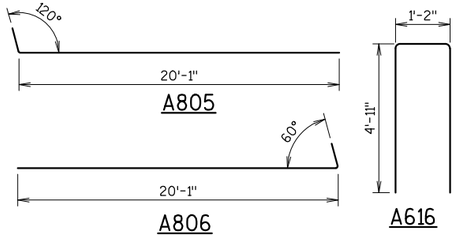
* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD DETAIL

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

THE RODENT SHIELD 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 SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.





STATE PROJECT NUMBER

7321-00-70

BILL OF BARS - SOUTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,240 LBS
A401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
A402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
A503	46	13'-10"	X		BODY - STIRRUPS VERT.
A604	22	20'-1"			BODY - B.F. & F.F. HORIZ.
A805	7	21'-3"	X		BODY - B.F. HORIZ.
A806	7	21'-3"	X		BODY - B.F. HORIZ.
COATED BARS					TOTAL WEIGHT = 1,730 LBS
A507	36	2'-0"			BODY - TOP VERT.
A608	6	13'-0"			WING 1 - B.F. HORIZ.
A609	2	14'-1"			WING 1 - TOP HORIZ.
A510	6	15'-4"			WING 1 - F.F. HORIZ.
A511	12	15'-4"	X		WING 1 - STIRRUPS VERT.
A512	13	16'-2"	X		WING 2 - STIRRUPS VERT.
A513	6	13'-8"			WING 2 - F.F. HORIZ.
A614	2	13'-8"			WING 2 - TOP HORIZ.
A615	6	14'-10"			WING 2 - B.F. HORIZ.
A616	34	10'-8"	X		WINGS 1 & 2 - TOP VERT.
A417	14	11'-8"			WINGS 1 & 2 HORIZ.
A618	4	11'-8"			WINGS 1 & 2 - TOP HORIZ.

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

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

** MATCH SLOPE OF SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-27-163

DRAWN BY BJJ | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY
CORRE

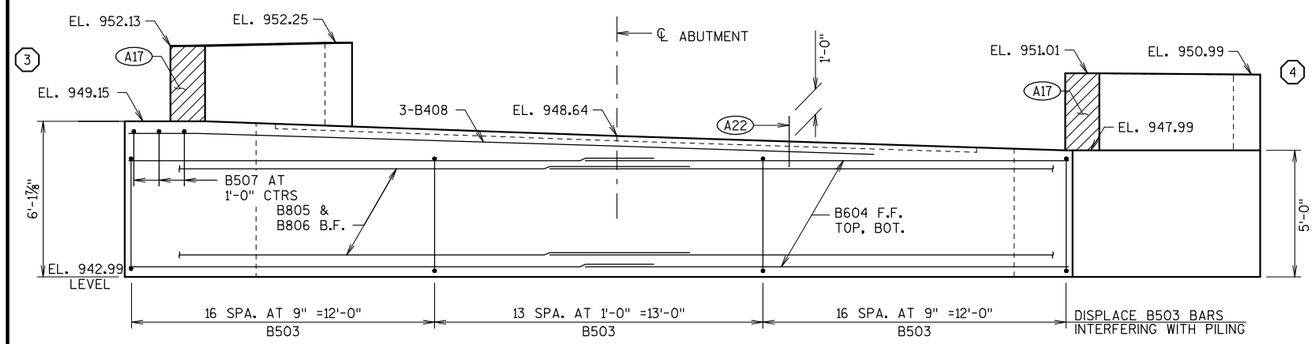
SOUTH ABUTMENT DETAILS

SHEET 5 OF 10

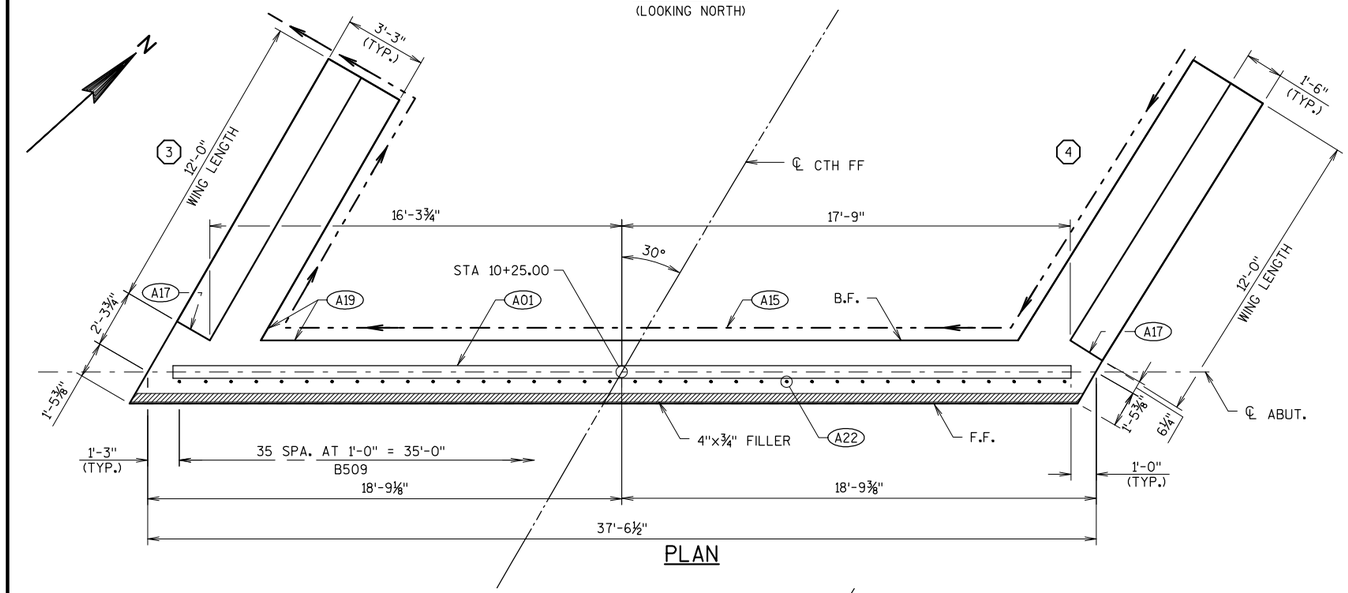
28

8

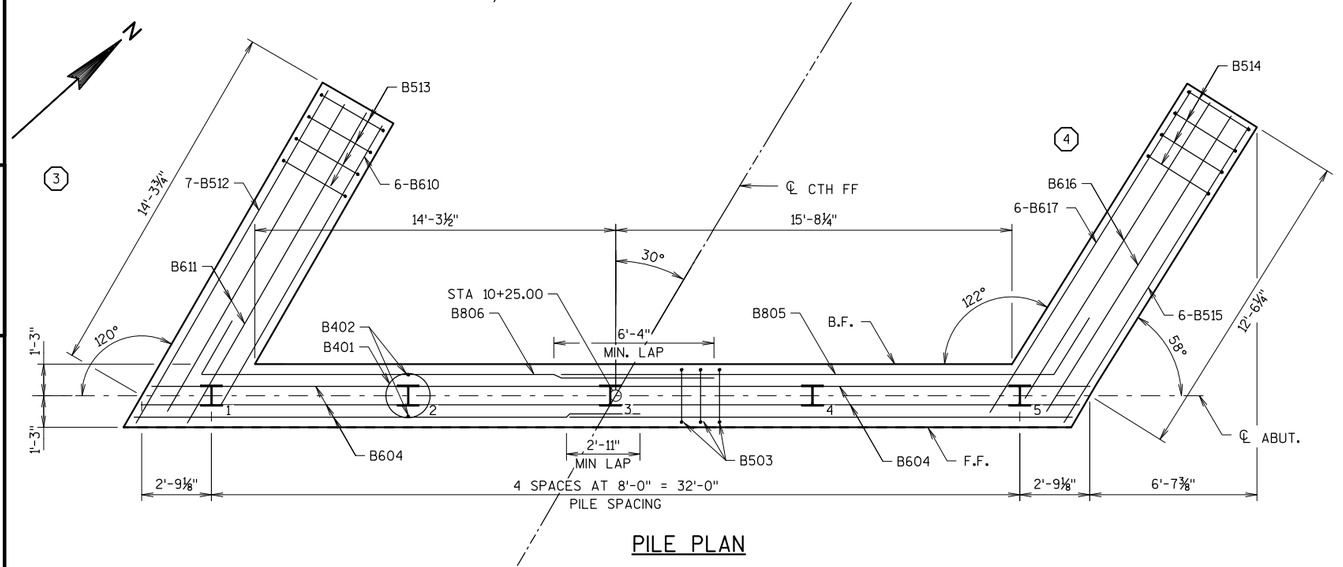
8



ELEVATION
(LOOKING NORTH)



PLAN



PILE PLAN

LEGEND

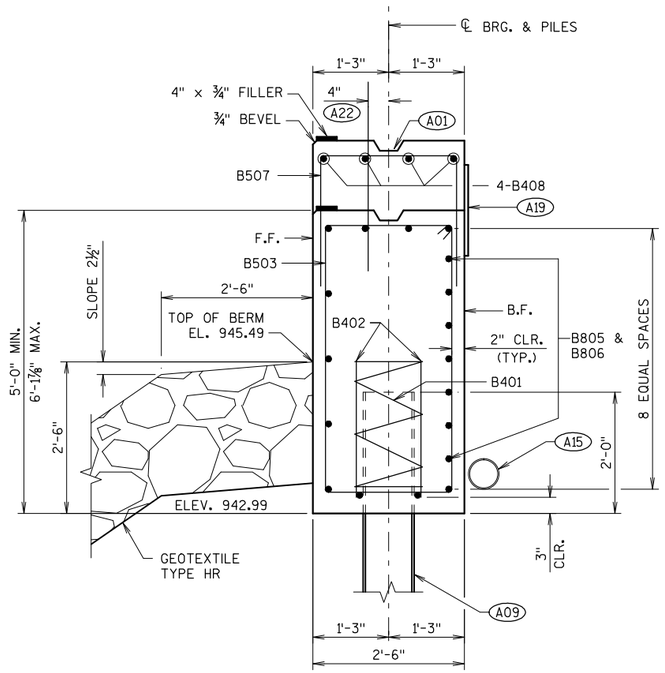
- ⬡ INDICATES WING NUMBER
- (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" × 6".
- (A09) SUPPORT ABUTMENT ON PILING STEEL HP 10-INCH × 42 LB, ESTIMATED 45 FEET LONG DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) B509 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

NOTE

ELEVATIONS AND DEMINSIONS ARE GIVEN AT THE ℄ OF ABUTMENT.



SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE B604 BARS

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NORTH ABUTMENT

SHEET 6 OF 10

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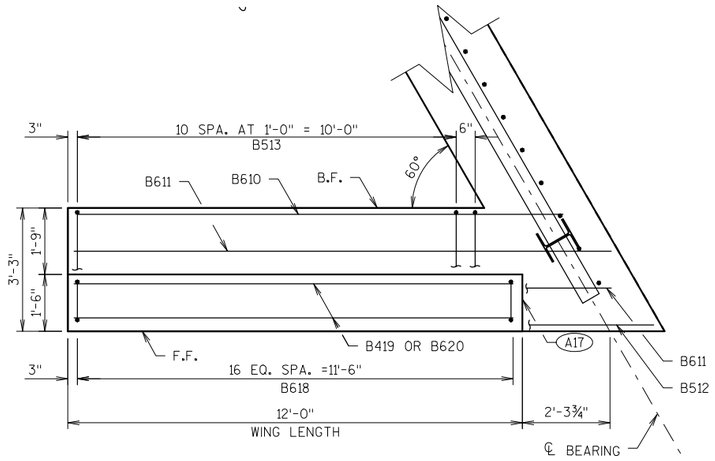
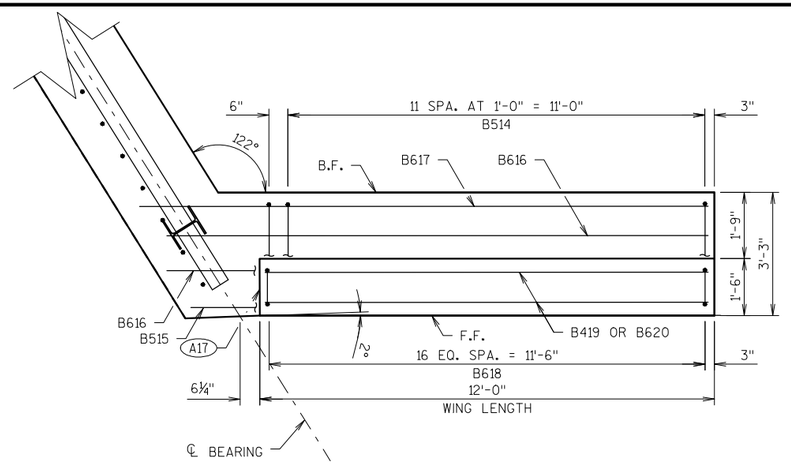
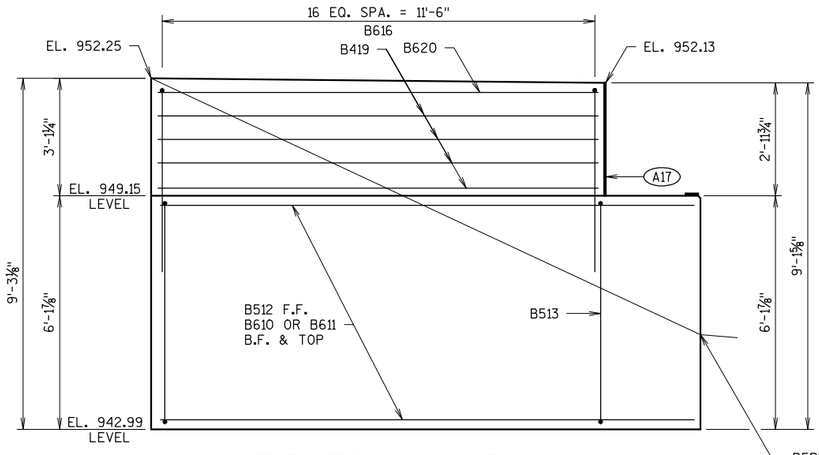


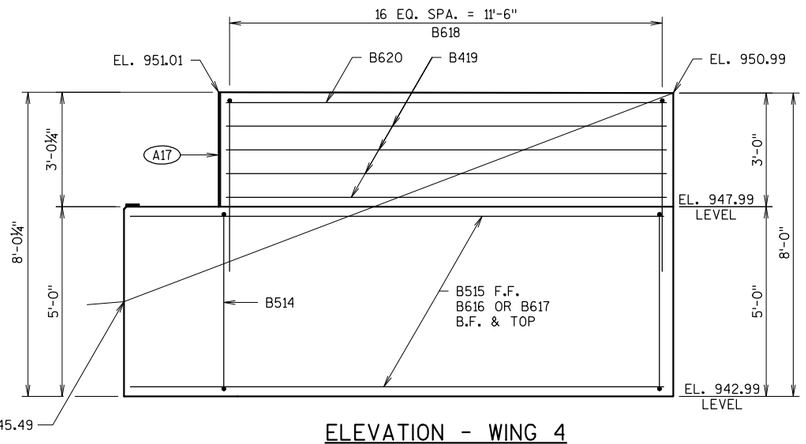
PLAN - WING 3



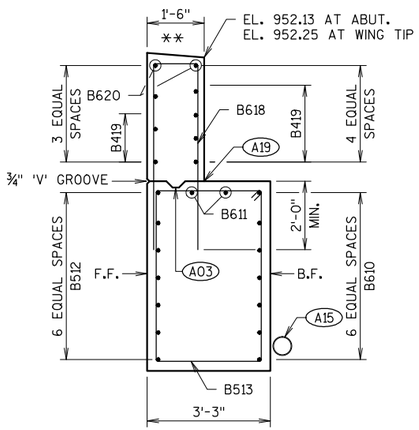
PLAN - WING 4



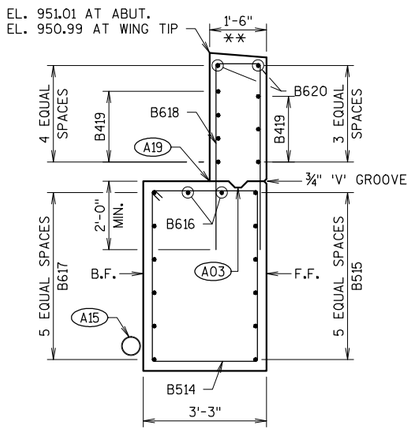
ELEVATION - WING 3



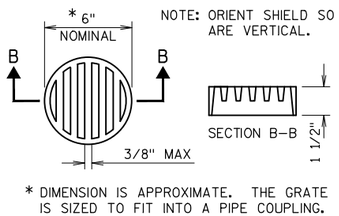
ELEVATION - WING 4



SECTION THRU WING 3



SECTION THRU WING 4



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

RODENT SHIELD DETAIL

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

THE RODENT SHIELD 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 SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

BILL OF BARS - NORTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 2,480 LBS	
B401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE	VERT.
B402	10	2'-3"			BODY - AT PILES - 2 PER PILE	VERT.
B503	46	13'-10"	X		BODY - STIRRUPS	VERT.
B604	22	20'-1"			BODY - B.F. & F.F.	HORIZ.
B805	7	21'-3"	X		BODY - B.F.	HORIZ.
B806	7	21'-3"	X		BODY - B.F.	HORIZ.
B507	28	6'-5"	X		BODY - TOP	VERT.
B408	3	27'-0"			BODY - TOP	HORIZ.
COATED BARS					TOTAL WEIGHT = 1,800 LBS	
B509	36	2'-0"			BODY - TOP	VERT.
B610	7	13'-0"			WING 3 - B.F.	HORIZ.
B611	2	14'-1"			WING 3 - TOP	HORIZ.
B512	7	15'-4"			WING 3 - F.F.	HORIZ.
B513	12	17'-8"	X		WING 3 - STIRRUPS	VERT.
B514	13	15'-4"	X		WING 4 - STIRRUPS	VERT.
B515	6	13'-8"			WING 4 - F.F.	HORIZ.
B616	2	13'-8"			WING 4 - TOP	HORIZ.
B617	6	14'-10"			WING 4 - B.F.	HORIZ.
B618	34	10'-11"	X		WINGS 3 & 4 - TOP	VERT.
B419	14	11'-8"			WINGS 3 & 4	VERT.
B620	4	11'-8"			WINGS 3 & 4 - TOP	HORIZ.

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

LEGEND

(A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6". (18" RUBBERIZED MEMBRANE WATERPROOFING AT BF & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

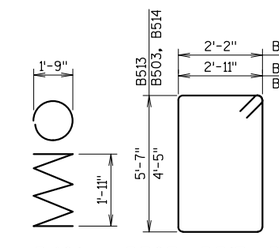
(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMNOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

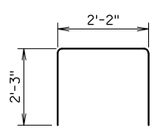
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

B.F. DENOTES BACK FACE

F.F. DENOTES FRONT FACE

** MATCH SLOPE OF SLAB





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NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE ℄ OF SUBSTRUCTURE UNITS.

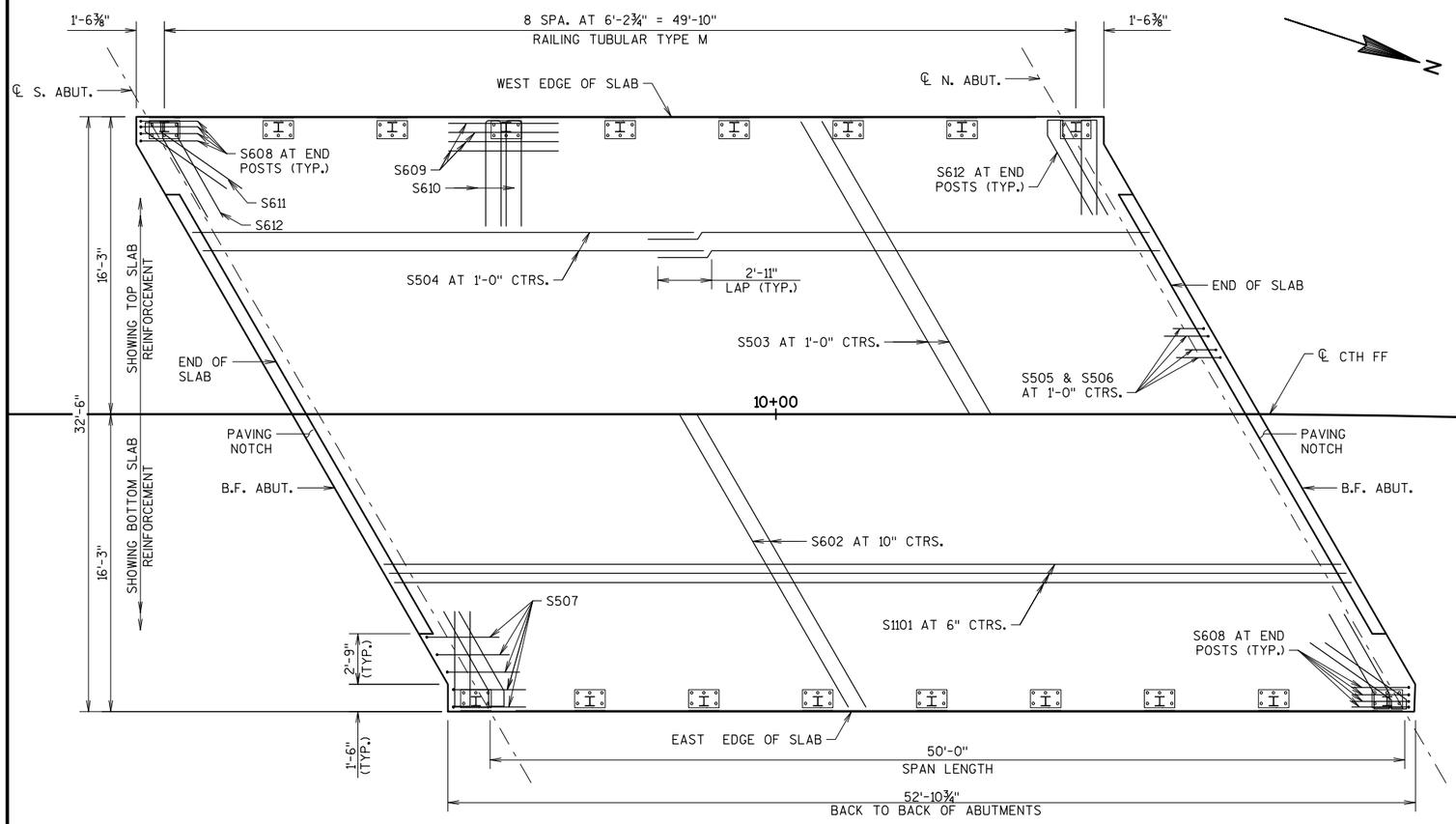
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

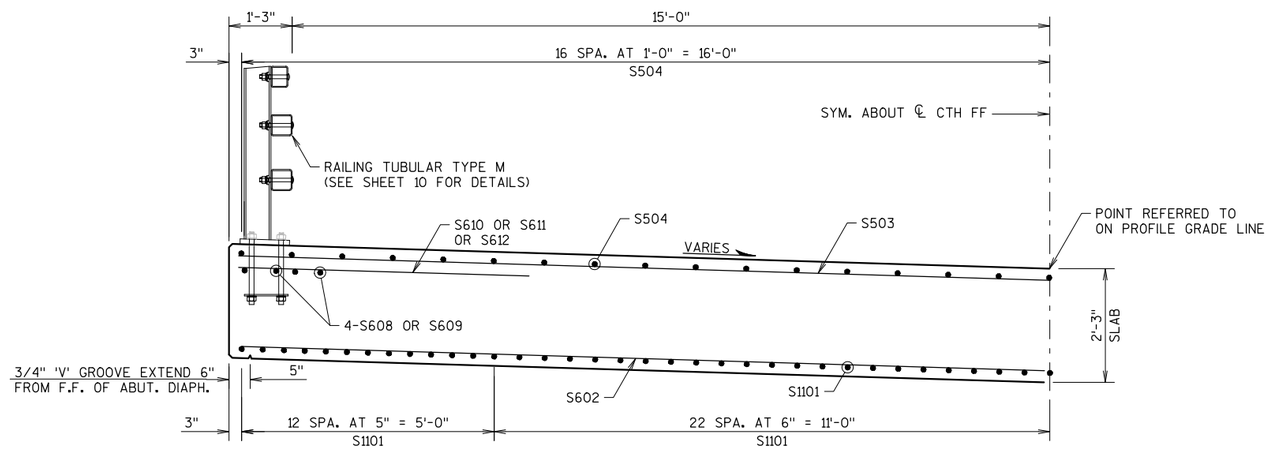
(A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A22) A507 OR B509 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

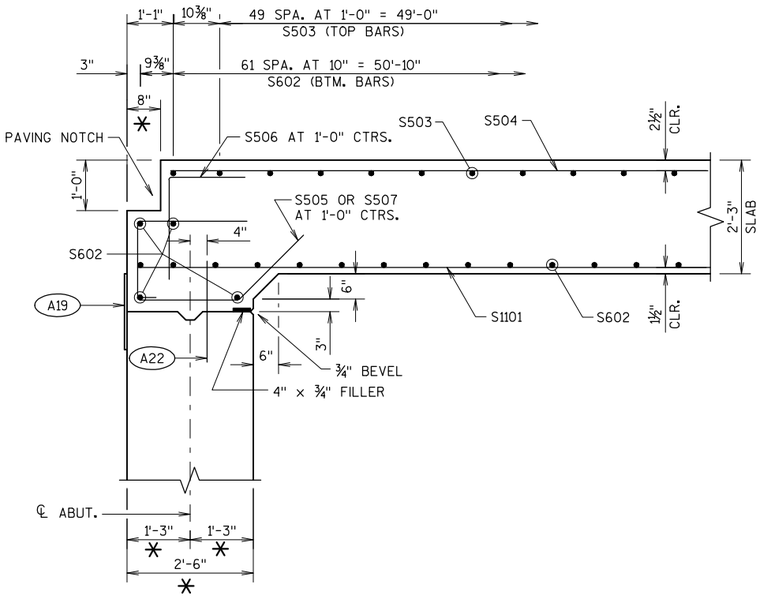
✳ DIMENSION IS NORMAL TO ℄ SUBSTRUCTURE.



PLAN



TYPICAL SECTION THRU SLAB



PARTIAL LONGITUDINAL SECTION

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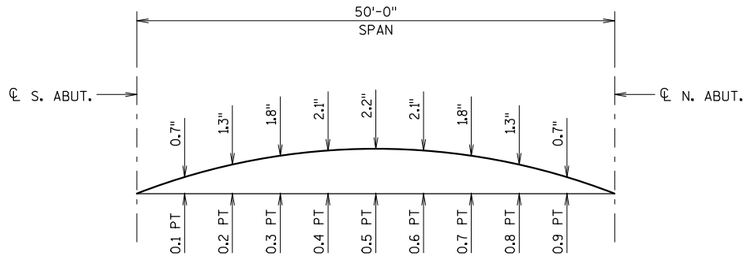


CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

EQUALS TOP OF SLAB FALSEWORK ELEVATION.

TOP OF DECK ELEVATIONS

LOCATION	℄ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF N. ABUT.
WEST EDGE OF SLAB	951.55	951.62	951.69	951.75	951.81	951.87	951.93	951.99	952.04	952.10	952.17
℄ STRUCTURE	951.43	951.46	951.48	951.50	951.52	951.55	951.57	951.59	951.61	951.62	951.64
EAST EDGE OF SLAB	951.15	951.14	951.13	951.12	951.10	951.08	951.07	951.05	951.03	951.01	950.99

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE OF SLAB			
℄ STRUCTURE			
EAST EDGE OF SLAB			

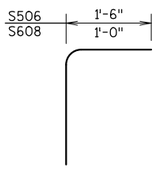
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

BILL OF BARS - SUPERSTRUCTURE

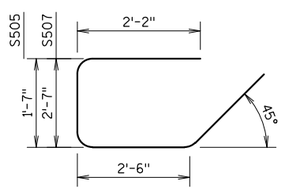
DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 29,260 LBS
S1101	69	52'-6"			SLAB - BTM	LONGIT.
S602	72	37'-2"			SLAB - BTM	TRANS.
S503	52	37'-2"			SLAB - TOP	TRANS.
S504	66	27'-9"			SLAB - TOP	LONGIT.
S505	50	8'-1"	X		SLAB - AT PAVING NOTCH	VERT.
S506	50	3'-7"	X		SLAB - AT PAVING NOTCH	VERT.
S507	20	9'-1"	X		SLAB - OUTSIDE PAVING NOTCH	VERT.
S608	20	4'-2"	X		SLAB - AT CORNER RAIL POSTS	TRANS.
S609	56	6'-0"			SLAB - AT INTERIOR RAIL POSTS	TRANS.
S610	30	12'-0"	X		SLAB - AT RAIL POSTS	TRANS.
S611	2	12'-0"	X		SLAB - AT CORNERS 2 & 4	TRANS.
S612	4	12'-0"	X		SLAB - AT CORNER RAIL POSTS	TRANS.

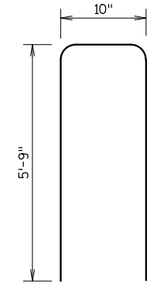
THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.



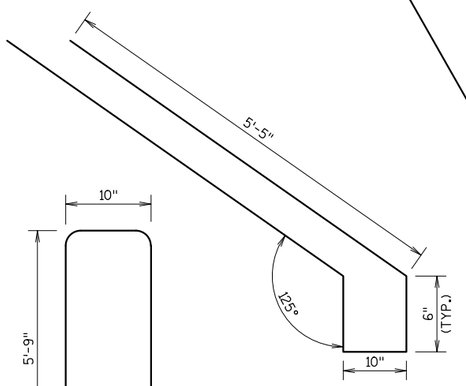
S506, S608



S505, S507



S610



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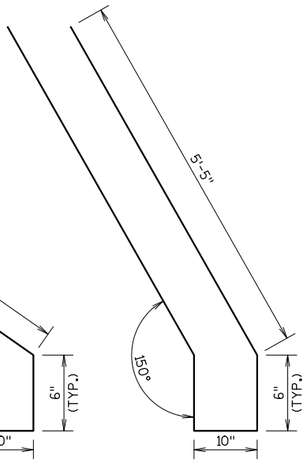

S612

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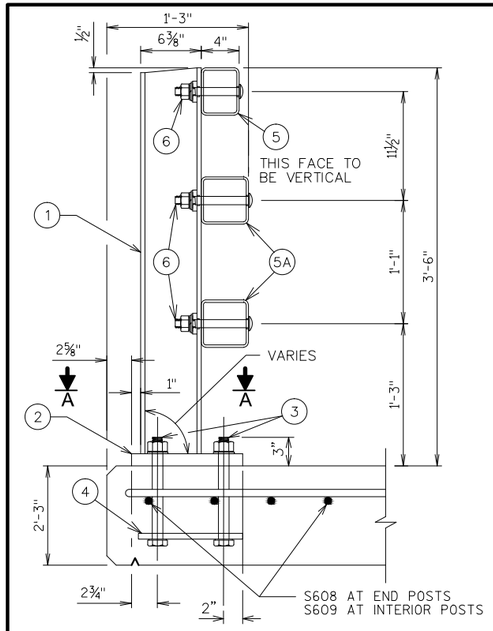
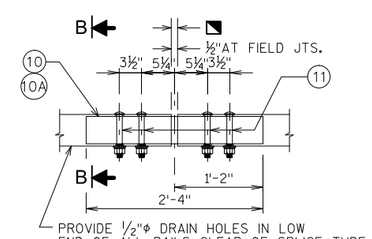
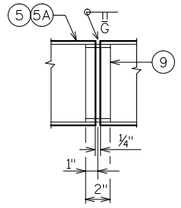


SECTION THRU RAILING ON DECK

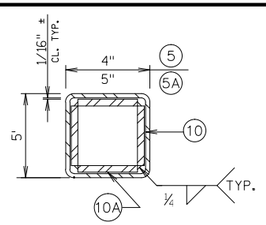


FIELD ERECTION JOINT DETAIL

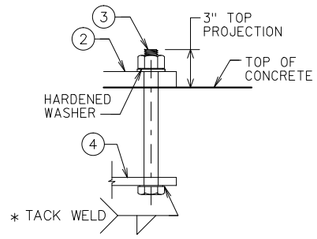


SHOP RAIL SPLICE DETAIL

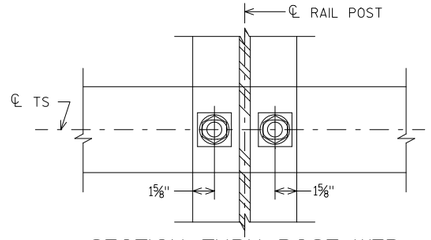
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



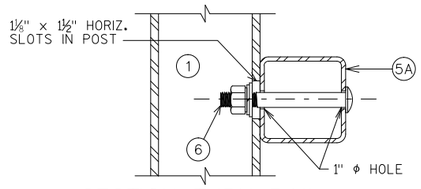
SECTION B–B



ANCHOR BOLTS



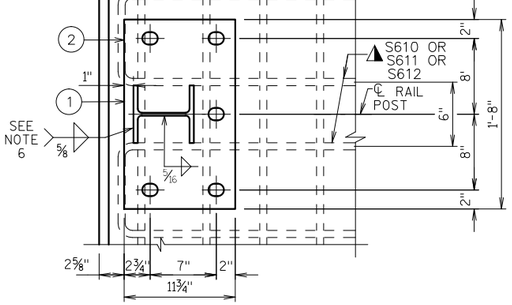
SECTION THRU POST WEB



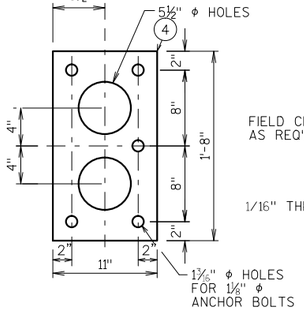
SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS

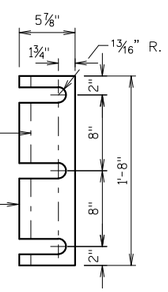


SECTION A–A

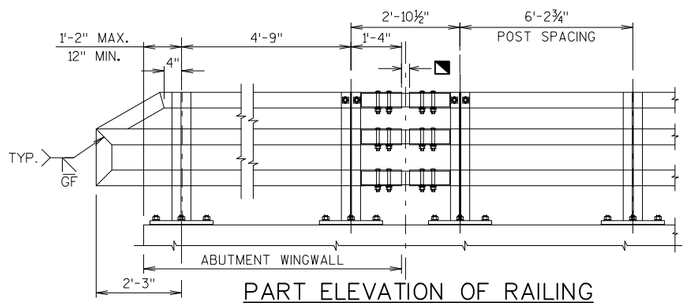


ANCHOR PLATE

AT RAIL TO DECK CONNECTION



POST SHIM DETAIL



PART ELEVATION OF RAILING

LEGEND

1. W6 x 25 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" x 11¾" x 1'-8" WITH 1⅝" X 1⅝" 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. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
4. ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1⅜6" DIA. HOLES FOR ANCHOR BOLTS NO. 3
5. TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ⅜6" X 1⅝" X 1⅛" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
7. ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" 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" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

10A. ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

11. ⅞" ϕ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15⁄16 " X 1" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 15⁄16 " X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
12. ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-27-0163" 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. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
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 SSPC SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

⚠ TIE TO TOP MAT OF STEEL.

* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

STATE PROJECT NUMBER

7321-00-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-27-163

DRAWN BY PKF | PLANS CK'D. ETP

ORIGINAL PLAN PREPARED BY CORRE

RAILING TUBULAR TYPE M

SHEET 10 OF 10

33

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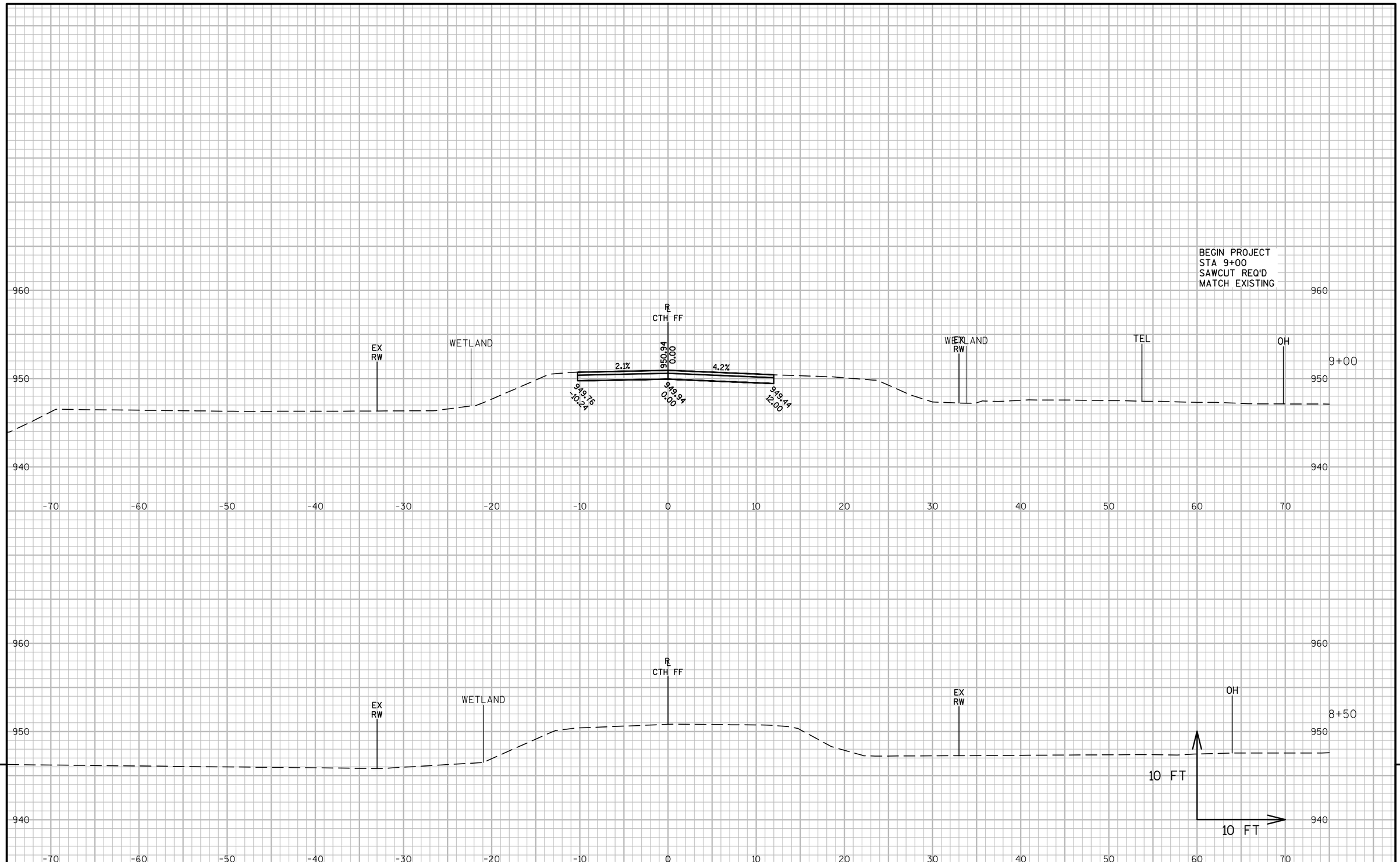
STATION	Distance	AREA (SF) Cut	AREA (SF) Salvaged/Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1,2	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS Note 3	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25 Note 6	Cumulative Vol (CY) Expanded EBS Backfill 1.30 Note 5	Cumulative Vol (CY) Reduced EBS in Fill 0.80 Note 4	Mass Ordinate Note 7
09+00	0.00	22.43	11.00	0.00	0	0	0	0	0	0	0	0	0
09+25	25.00	18.86	11.00	37.43	19	10	17	0	19	22	0	0	-13
09+50	25.00	15.18	11.00	56.56	16	10	44	0	35	76	0	0	-62
09+73.75	23.75	2.49	11.00	1.43	8	10	26	0	43	108	0	0	-95
STRUCTURE B-27-163													
10+25	0.00	0.00	11.00	8.94	0	0	0	0	43	108	0	0	-95
10+50	25.00	16.73	11.00	64.86	8	10	34	0	50	151	0	0	-140
10+75	25.00	11.80	11.00	30.53	13	10	44	0	64	206	0	0	-193
10+86.09	11.09	15.40	11.00	12.87	6	5	9	0	69	217	0	0	-203
11+00	13.91	24.98	11.00	3.69	10	6	4	0	80	222	0	0	-203
11+14.67	14.67	35.53	11.00	2.62	16	6	2	0	96	224	0	0	-195
11+25	10.33	23.62	11.00	2.32	11	4	1	0	107	226	0	0	-189
11+50	25.00	16.24	11.00	19.23	18	10	10	0	126	238	0	0	-193
11+75	25.00	17.79	11.00	12.27	16	10	15	0	142	256	0	0	-206
12+00	25.00	14.97	11.00	10.29	15	10	10	0	157	269	0	0	-214
12+02.24	2.24	15.87	11.00	14.36	1	1	1	0	158	271	0	0	-215
12+25	22.76	20.39	11.00	10.87	15	9	11	0	173	284	0	0	-222
12+50	25.00	18.83	11.00	9.08	18	10	9	0	191	296	0	0	-226
12+75	25.00	22.10	11.00	13.15	19	10	10	0	210	308	0	0	-230
13+00	25.00	22.26	11.00	0.00	21	10	6	0	231	316	0	0	-227
			TOTALS		231	142	253	0					

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material.
4) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
5) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100
6) Expanded Fill. Factor = 1.25 Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor
7) The Mass Ordinate + or -, a plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
8) Use 260 CY of material from Division 1. Borrow Excavation item number 208.0100



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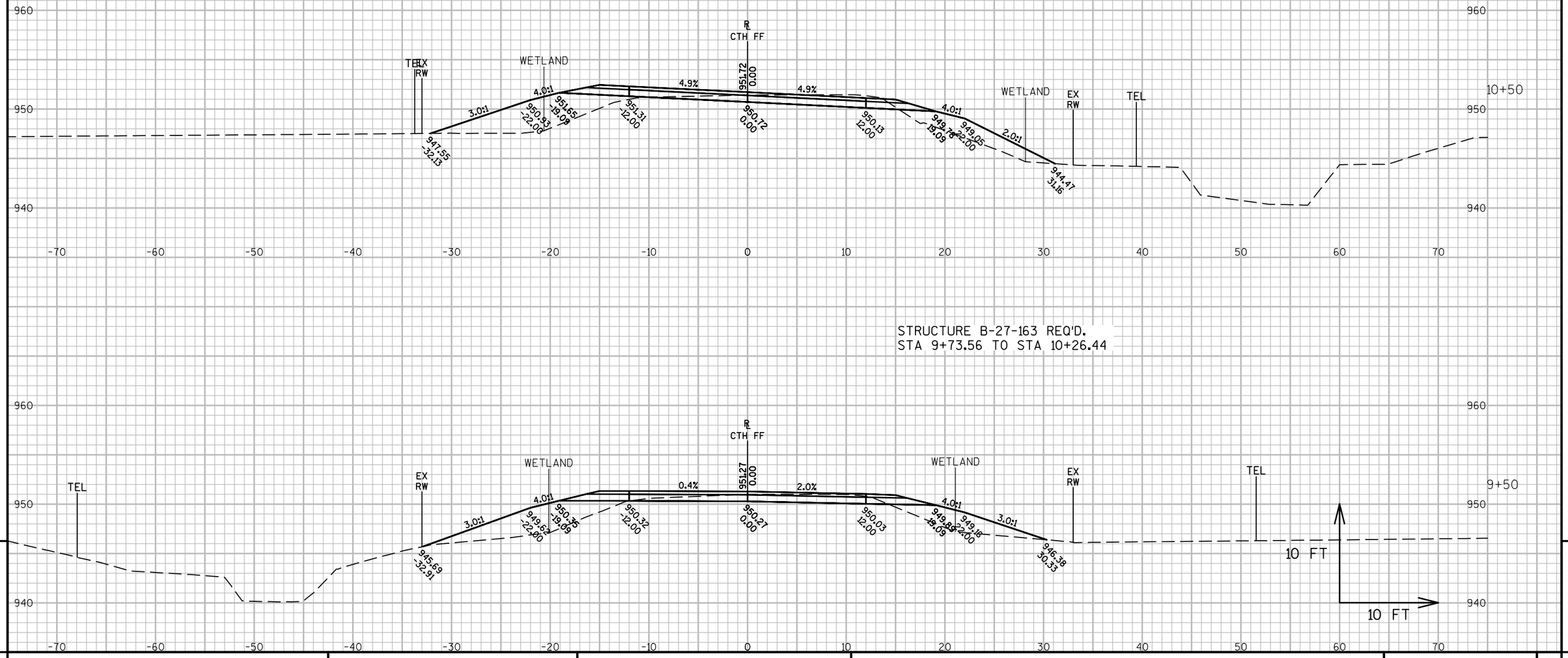
LAYOUT NAME - 090001-XS

PLOT DATE : 8/22/2016 1:13 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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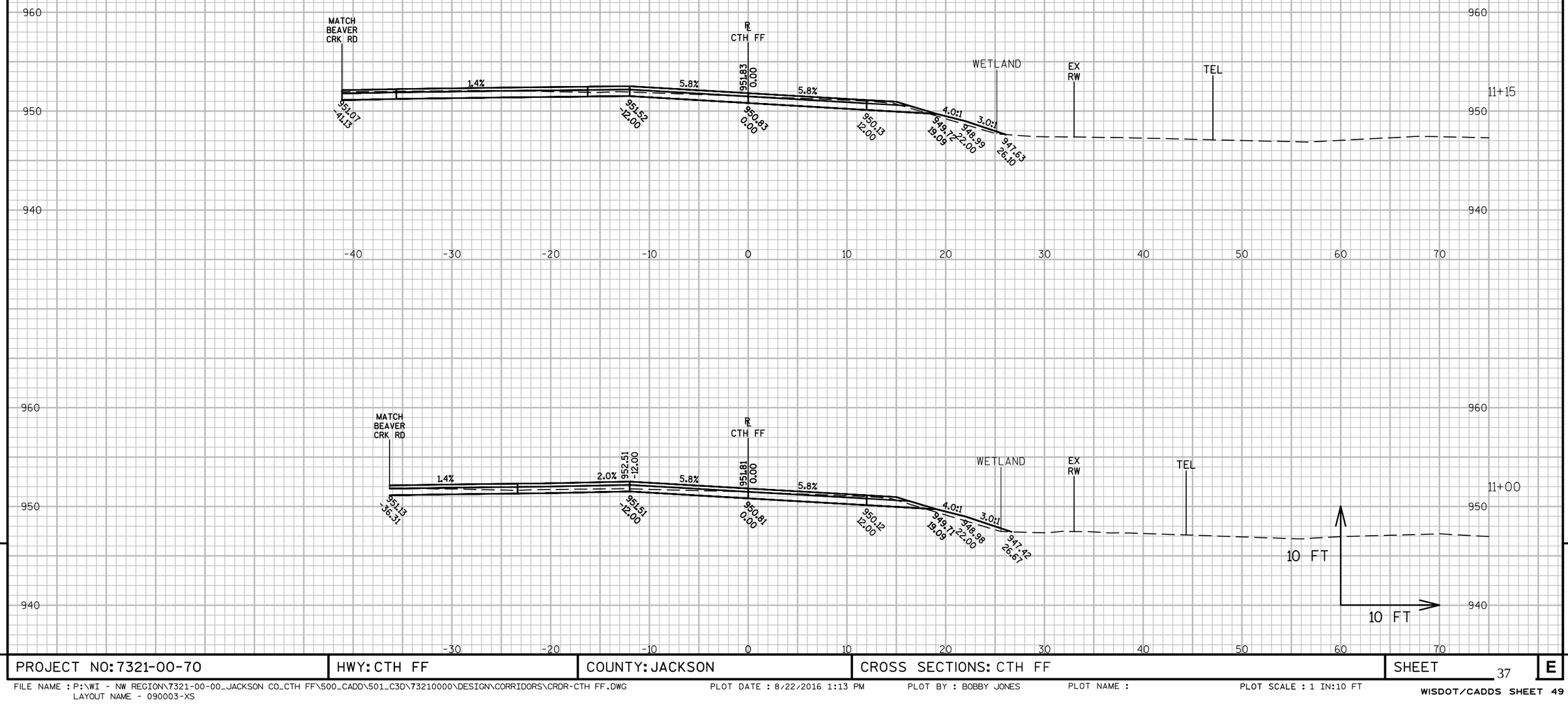
PROJECT NO: 7321-00-70	HWY: CTH FF	COUNTY: JACKSON	CROSS SECTIONS: CTH FF	SHEET 36	E



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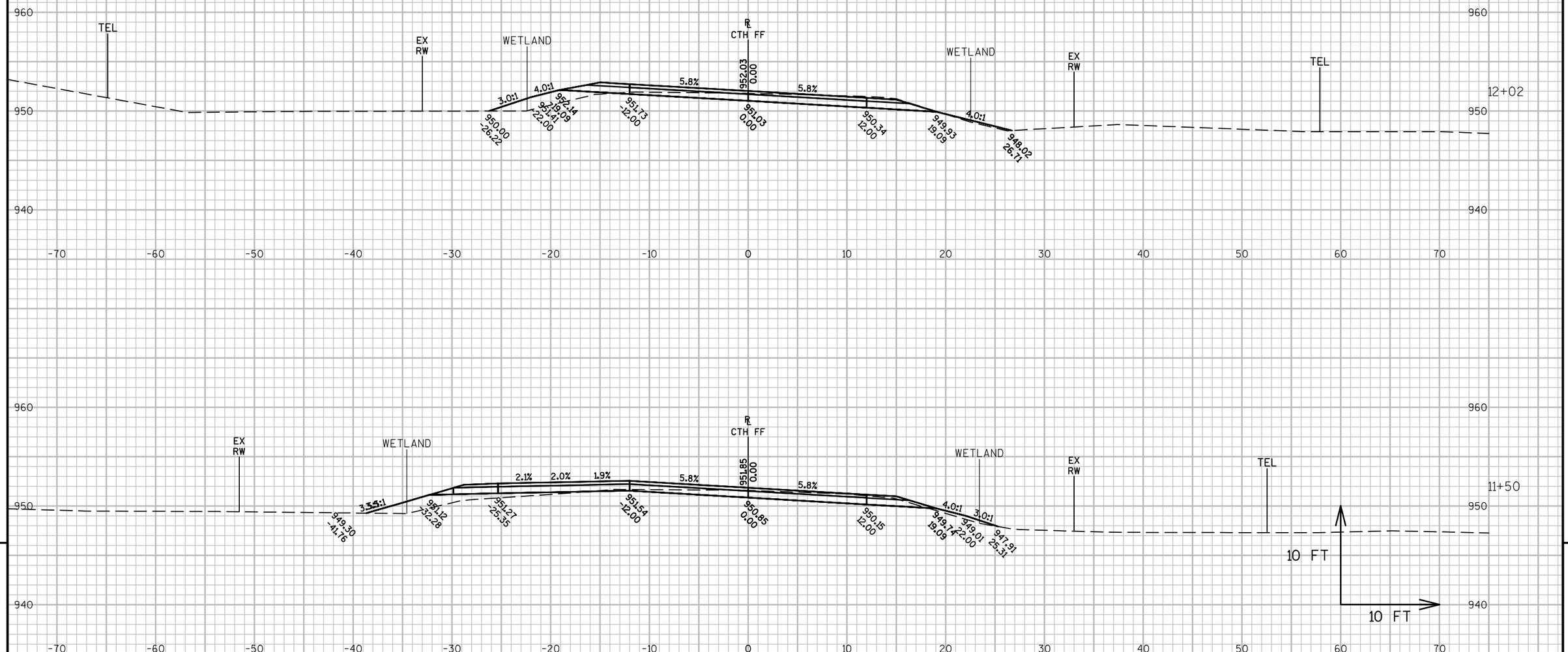
LAYOUT NAME - 090003-XS
PLOT DATE : 8/22/2016 1:13 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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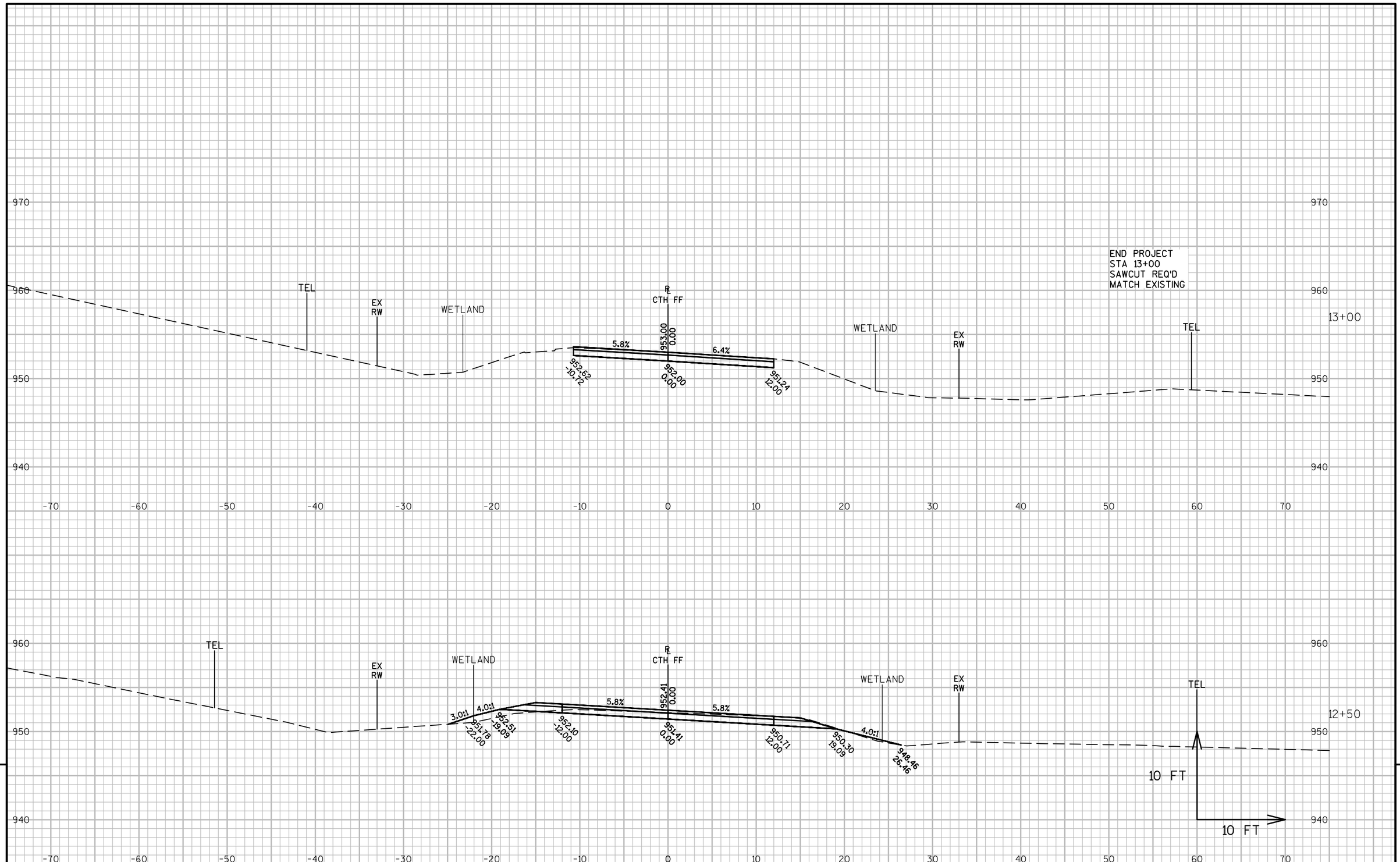
LAYOUT NAME - 090004-XS
PLOT DATE : 8/22/2016 1:13 PM
PLOT BY : BOBBY JONES
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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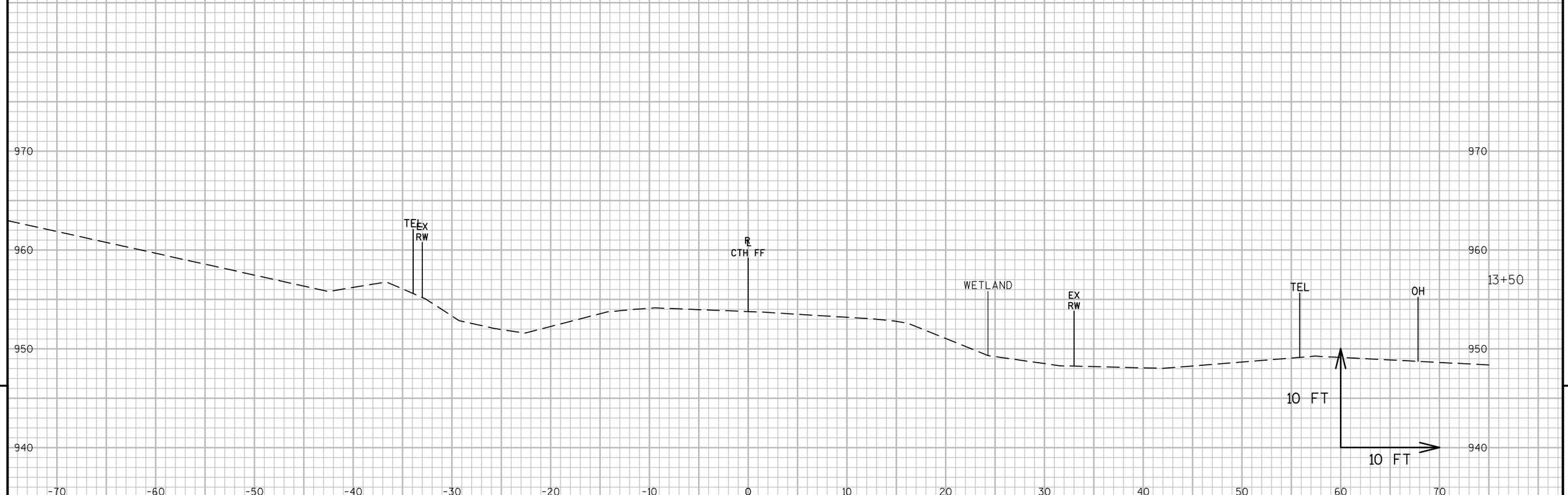
LAYOUT NAME - 090005-XS

PLOT DATE : 8/22/2016 1:13 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 7321-00-70	HWY: CTH FF	COUNTY: JACKSON	CROSS SECTIONS: CTH FF	SHEET 40	E

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LAYOUT NAME - 090006-XS

PLOT DATE : 8/22/2016 1:13 PM PLOT BY : BOBBY JONES PLOT NAME : PLOT SCALE : 1 IN:10 FT

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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