

MAD
PROJECT ID:
WITH: N/A

MARCH 2021
ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile (Including Erosion Control)
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 46

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF BRADFORD, EMERALD GROVE ROAD

(WSOR BRIDGE B-53-0375)

LOCAL STREET
ROCK COUNTY

STATE PROJECT NUMBER
3614-00-77

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3614-00-77	WISC 2021217	1

END PROJECT 3614-00-77
STA. 13+50.00

BEGIN PROJECT 3614-00-77
STA. 07+50.00
Y = 253,019.02
X = 530,472.43



02

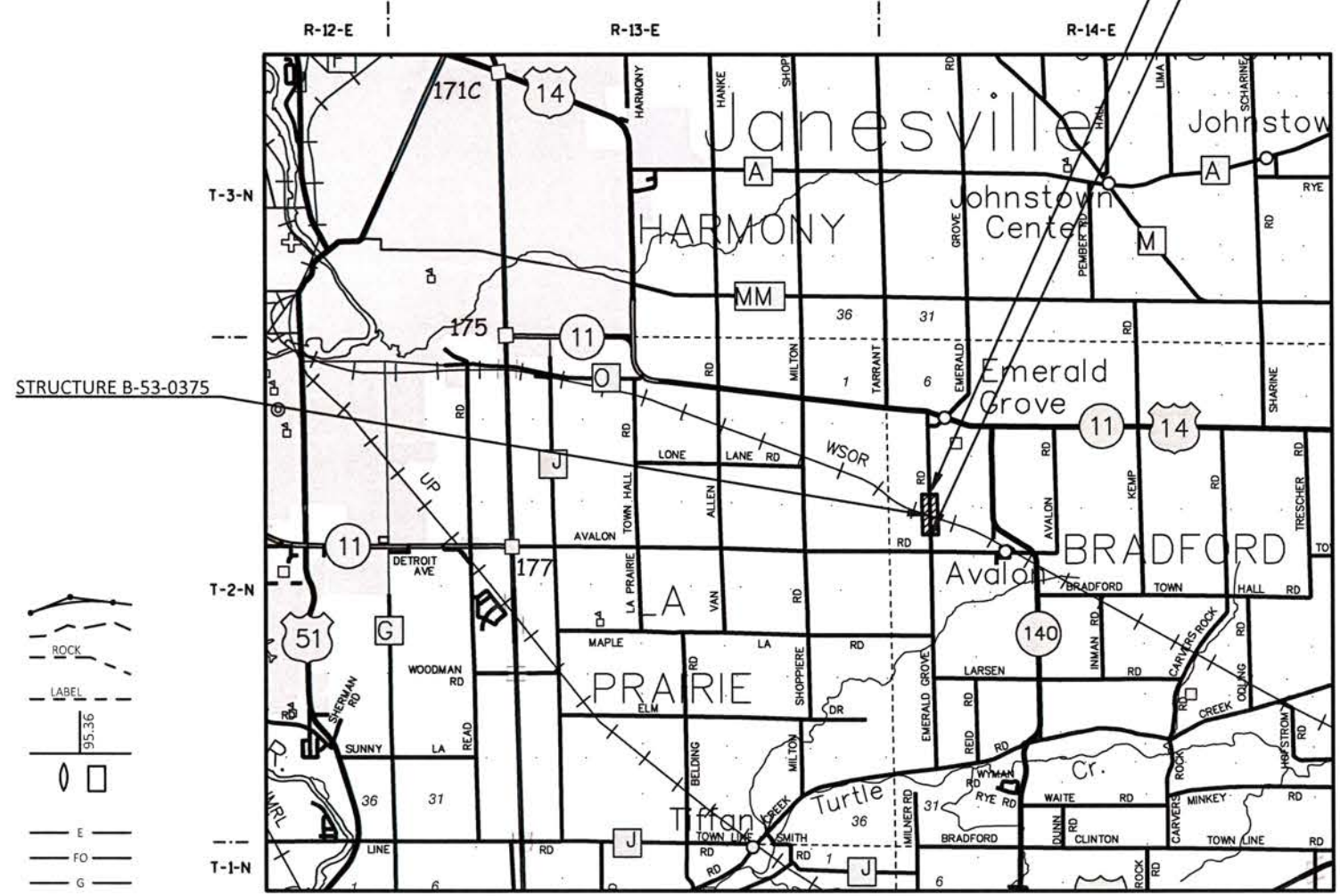
DESIGN DESIGNATION

A.A.D.T.	2021	=	100
A.A.D.T.	2041	=	120
D.H.V.		=	70
D.D.		=	50/50
T.		=	5%
DESIGN SPEED		=	25 MPH
ESALS		=	7,300

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



LAYOUT
SCALE 0 2 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.114 MILE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, ROCK 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.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD88 (2012).

ACCEPTED FOR
ROCK COUNTY
Date 10/6/2020
Director of Public Works

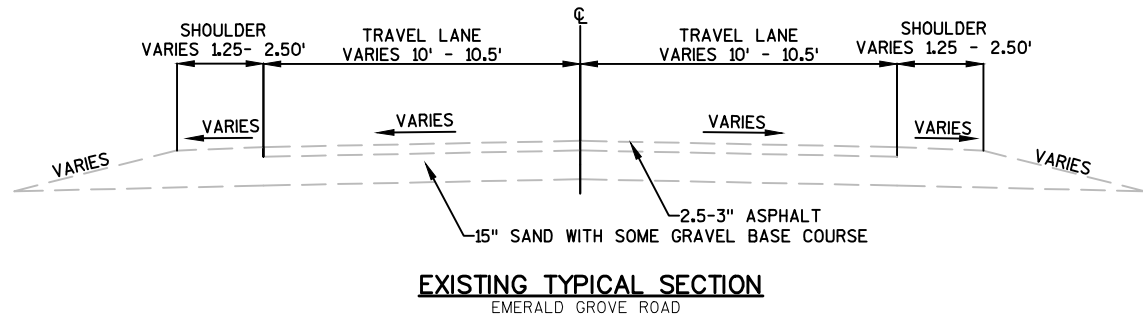
ORIGINAL PLANS PREPARED BY
MSA
1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664

WISCONSIN
JAIMIE L. KURTEN-CHMIELEWSKI
E-42403
MADISON
WI
PROFESSIONAL ENGINEER
Jaime Kurten Chmielewski
10-1-2020
DATE: _____
(Professional Engineer Signature)

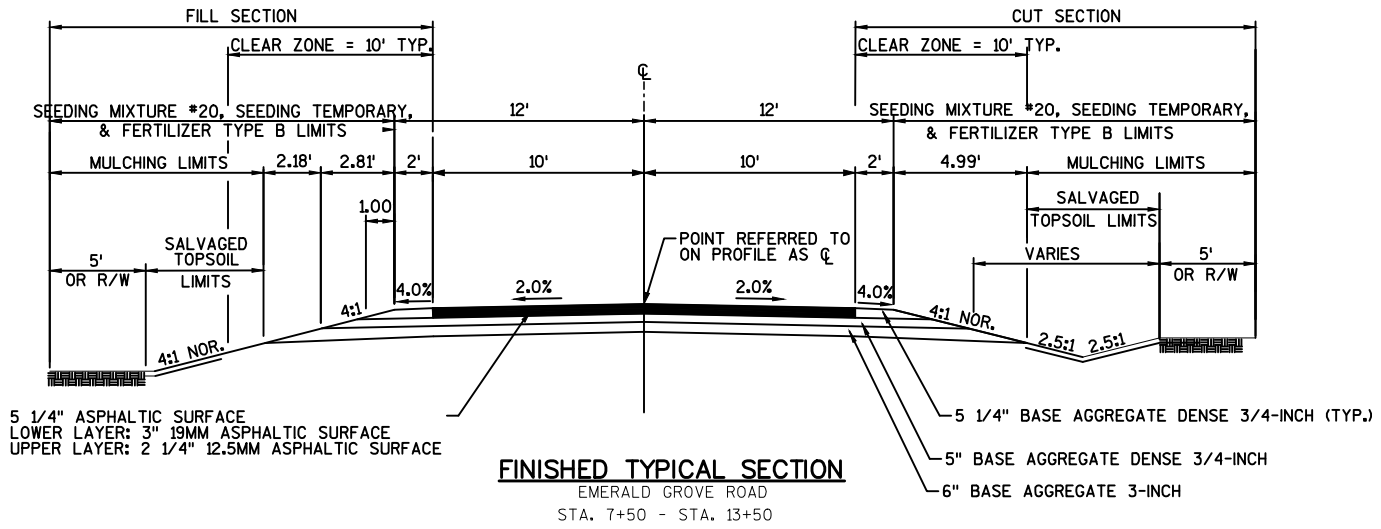
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor _____ MSA PROFESSIONAL SERVICES, INC.
Designer _____ MSA PROFESSIONAL SERVICES, INC.
Project Manager _____ ZACHARY PEARSON
Regional Examiner _____ SW REGION
Regional Supervisor _____ IAN WINGER

APPROVED FOR THE DEPARTMENT
DATE: 10/12/2020
(Signature)

E



EXISTING TYPICAL SECTION
EMERALD GROVE ROAD



FINISHED TYPICAL SECTION
EMERALD GROVE ROAD
STA. 7+50 - STA. 13+50

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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
SIDE SLOPE-TURF			.25			.27			.28			.30
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 = 0.68 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.52 ACRES

*-DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

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

GENERAL NOTES

- DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.
- NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
- THE 5 1/4" ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING A 2.25" UPPER LAYER WITH 12.5 MM AGGREGATE AND A 3.0" LOWER LAYER WITH 19.0 MM AGGREGATE.
- SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO BRIDGE REMOVAL.
- TEMPORARY DITCH CHECKS, IF NEEDED, SHALL BE PLACED AS DIRECTED BY THE ENGINEER.
- THE ASPHALTIC SURFACE SHALL TAPER FROM 24.0 FEET AT THE END OF THE BRIDGE TO 20.0 FEET AT +/- 25 FEET FROM THE BRIDGE ENDS.
- MAINTAIN 4:1 FORESLOPES AND BACKSLOPES UNTIL OUTSIDE THE CLEAR ZONE FOR CUT AND FILL SECTIONS.

STANDARD ABBREVIATIONS

- AC ACRES
- AEW APRON ENDWALL
- AH AHEAD
- ALUM. ALUMINUM
- A.P. ACCESS POINT
- ASPH ASPHALT
- AVE AVENUE
- BAD BASE AGGREGATE DENSE
- BK BACK
- BLK BLOCK
- BM BENCHMARK
- CABC CRUSHED AGGREGATE BASE COURSE
- CL or CL CENTERLINE
- Δ CENTRAL ANGLE or DELTA
- CONC CONCRETE
- CP CONTROL POINT
- CSM CERTIFIED SURVEY MAP
- D DEGREE OF CURVE
- DIA DIAMETER
- E EAST
- EB EASTBOUND
- EBS EXCAVATION BELOW SUBGRADE
- EOP EDGE OF PAVEMENT
- ET AL AND OTHERS
- EW ENDWALL
- EXIST EXISTING
- FOC FACE OF CURB
- FT FOOT
- FT2 SQUARE FEET
- GN GRID NORTH
- GV GAS VALVE
- HYD HYDRANT
- IN INCH
- INL INLET
- INV INVERT ELEVATION
- IP IRON PIPE
- L LENGTH
- L LENGTH OF CURVE
- LF LINEAL FEET
- LC LONG CHORD
- LCB LONG CHORD BEARING
- LP LOW POINT
- LS LUMP SUM
- LT LEFT
- MH MANHOLE
- MI MILE
- MON MONUMENT
- N NORTH
- NB NORTHBOUND
- NO NUMBER
- PB PULLBOX
- PC POINT OF CURVATURE
- PI POINT OF INTERSECTION
- PT POINT
- PT POINT OF TANGENCY
- PL PROPERTY LINE
- PLE PERMANENT LIMITED EASEMENT
- POB POINT OF BEGINNING
- R RADIUS
- R RANGE
- RCP REINFORCED CONCRETE PIPE
- REQ'D REQUIRED
- RL or R/L REFERENCE LINE
- RP RADIUS POINT
- RT RIGHT
- R/W RIGHT-OF-WAY
- RD ROAD
- S SOUTH
- SAN SANITARY SEWER
- SB SOUTHBOUND
- SL SPECIAL LOGO
- SQ SQUARE
- STD STANDARD SECTION
- SSPRC STORM SEWER PIPE REINFORCED CONCRETE
- SSPRCHE STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
- ST STREET
- STA STATION
- STH STATE TRUNK HIGHWAY
- STM STORM SEWER
- STR STRUCTURE
- T TANGENT
- TAN TANGENT
- TEMP TEMPORARY
- TLE TEMPORARY LIMITED EASEMENT
- T or TN TOWN
- TYP. TYPICAL
- UD PIPE UNDERDRAIN
- WM WATERMAIN
- WV WATER VALVE
- W WEST
- WB WESTBOUND
- X EAST GRID COORDINATE
- Y NORTH GRID COORDINATE

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: JAIME KURTEN, P.E.
1702 PANKRATZ STREET
MADISON, WI 53704
PHONE: (608) 242-6619
EMAIL: JKURTEN@MSA-PS.COM

ROCK COUNTY PUBLIC WORKS
ATTN: DUANE JORGENSEN
3715 N. NEWVILLE ROAD
JANESVILLE, WI 53545
PHONE: (608) 757-5450
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WISDOT SW REGION LOCAL PROGRAM
ATTN: STEFAN CIOBANU, P.E.
2101 WRIGHT STREET
MADISON, WI 53704
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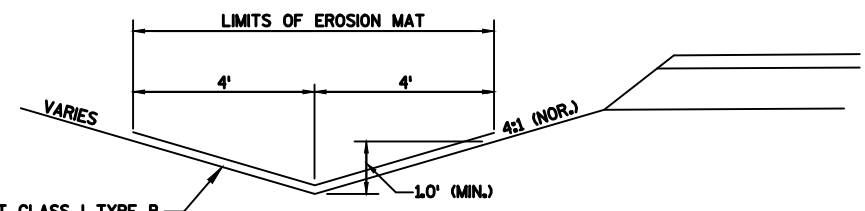
DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
ATTN.: SHELLEY NELSON
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 444-2835
EMAIL: SHELLEY.NELSON@WISCONSIN.GOV

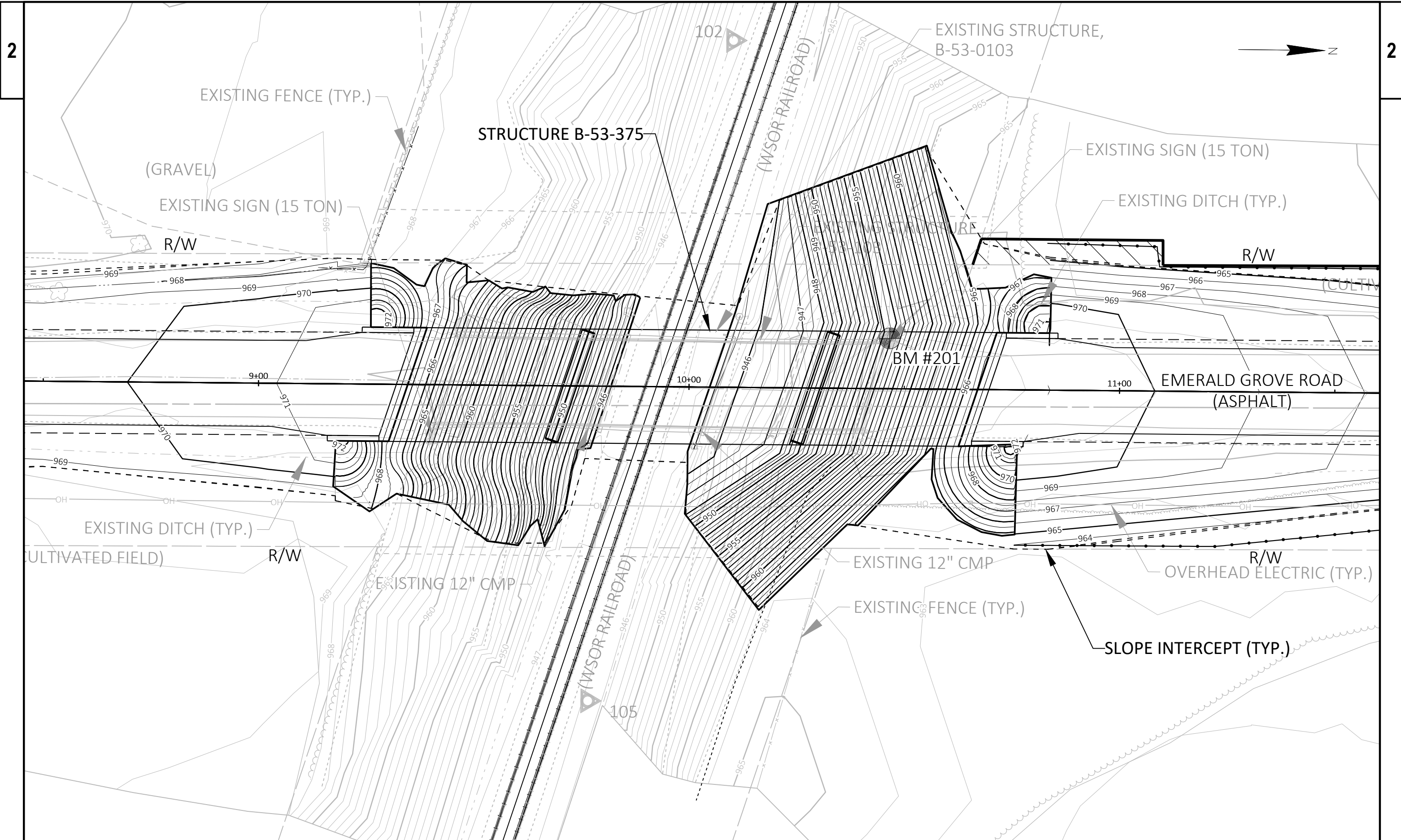
UTILITIES

TELEPHONE:
AT&T
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316 W. WASHINGTON AVENUE
MADISON, WI 53701
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EMAIL: CA2624@ATT.COM

ELECTRIC:
ALLIANT ENERGY
ATTN: RON ROHM
3730 KENNEDY ROAD
JANESVILLE, WI 53545
PHONE: (608) 757-7514
EMAIL: RONALDROHM@ALLIANTENERGY.COM



EROSION MAT DITCH DETAIL



2

2

PROJECT NO: 3614-00-77	HWY: EMERALD GROVE ROAD	COUNTY: ROCK	CONTOUR MAP	SHEET	E
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FILE NAME : P:\7000S\7050S\7052\07052032\CADD\SHEETS\PLAN\B-53-375_CON.DWG
LAYOUT NAME - Plan 1 IN 20 FT

PLOT DATE : 10/12/2020 2:51 PM

PLOT BY : JAIME KURTEN

PLOT NAME :

PLOT SCALE : 1 IN:20 FT

WISDOT/CADD SHEET 42

Estimate Of Quantities

3614-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0008	203.0200	Removing Old Structure (station) 01. 10+00	LS	1.000	1.000
0010	203.0225.S	Debris Containment (structure) 01. B-53-0375	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	778.000	778.000
0014	206.1000	Excavation for Structures Bridges (structure) 01. B-53-0375	LS	1.000	1.000
0016	208.0100	Borrow	CY	490.000	490.000
0018	210.1500	Backfill Structure Type A	TON	240.000	240.000
0020	213.0100	Finishing Roadway (project) 01. 3614-00-77	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	500.000	500.000
0024	305.0130	Base Aggregate Dense 3-Inch	TON	755.000	755.000
0026	455.0605	Tack Coat	GAL	51.000	51.000
0028	465.0105	Asphaltic Surface	TON	305.000	305.000
0030	502.0100	Concrete Masonry Bridges	CY	420.000	420.000
0032	502.3200	Protective Surface Treatment	SY	381.000	381.000
0034	502.3210	Pigmented Surface Sealer	SY	160.000	160.000
0036	503.0128	Prestressed Girder Type I 28-Inch	LF	542.000	542.000
0038	505.0400	Bar Steel Reinforcement HS Structures	LB	19,560.000	19,560.000
0040	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	63,180.000	63,180.000
0042	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	24.000	24.000
0044	506.4000	Steel Diaphragms (structure) 01. B-53-0375	EACH	9.000	9.000
0046	511.1200	Temporary Shoring (structure) 01. B-53-0375	SF	1,245.000	1,245.000
0048	516.0500	Rubberized Membrane Waterproofing	SY	18.000	18.000
0050	550.0500	Pile Points	EACH	12.000	12.000
0052	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	210.000	210.000
0054	604.0500	Slope Paving Crushed Aggregate	SY	329.000	329.000
0056	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	194.000	194.000
0058	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0060	618.0100	Maintenance And Repair of Haul Roads (project) 01. 3614-00-77	EACH	1.000	1.000
0062	619.1000	Mobilization	EACH	1.000	1.000
0064	624.0100	Water	MGAL	15.000	15.000
0066	625.0500	Salvaged Topsoil	SY	1,960.000	1,960.000
0068	627.0200	Mulching	SY	1,205.000	1,205.000
0070	628.1104	Erosion Bales	EACH	50.000	50.000
0072	628.1504	Silt Fence	LF	600.000	600.000
0074	628.1520	Silt Fence Maintenance	LF	1,200.000	1,200.000
0076	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000

Estimate Of Quantities

3614-00-77

Line	Item	Item Description	Unit	Total	Qty
0078	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0080	628.2004	Erosion Mat Class I Type B	SY	330.000	330.000
0082	628.2027	Erosion Mat Class II Type C	SY	585.000	585.000
0084	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0086	628.7560	Tracking Pads	EACH	2.000	2.000
0088	629.0210	Fertilizer Type B	CWT	1.330	1.330
0090	630.0120	Seeding Mixture No. 20	LB	58.000	58.000
0092	630.0200	Seeding Temporary	LB	29.000	29.000
0094	630.0300	Seeding Borrow Pit	LB	2.000	2.000
0096	630.0500	Seed Water	MGAL	48.000	48.000
0098	633.5100	Markers Row	EACH	12.000	12.000
0100	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0102	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0104	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0420	Traffic Control Barricades Type III	DAY	1,050.000	1,050.000
0110	643.0705	Traffic Control Warning Lights Type A	DAY	1,800.000	1,800.000
0112	643.0900	Traffic Control Signs	DAY	1,050.000	1,050.000
0114	643.5000	Traffic Control	EACH	1.000	1.000
0116	645.0111	Geotextile Type DF Schedule A	SY	114.000	114.000
0118	650.4500	Construction Staking Subgrade	LF	924.000	924.000
0120	650.5000	Construction Staking Base	LF	924.000	924.000
0122	650.6500	Construction Staking Structure Layout (structure) 01. B-53-0375	LS	1.000	1.000
0124	650.9910	Construction Staking Supplemental Control (project) 01. 3614-00-77	LS	1.000	1.000
0126	650.9920	Construction Staking Slope Stakes	LF	924.000	924.000
0128	690.0150	Sawing Asphalt	LF	38.000	38.000
0130	715.0502	Incentive Strength Concrete Structures	DOL	2,520.000	2,520.000
0132	801.0117	Railroad Flagging Reimbursement	DOL	19,238.000	19,238.000
0134	999.1000.S	Seismograph	LS	1.000	1.000
0136	999.1500.S	Crack and Damage Survey	LS	1.000	1.000
0138	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	6,000.000	6,000.000
0140	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	3,000.000	3,000.000
0142	SPV.0105	Special 01. Settlement Monitoring	LS	1.000	1.000
0144	SPV.0165	Special 01. Temporary Shoring Railroad	SF	195.000	195.000

3

3

201-CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	7+50	-	9+50	LT	2	2
0010	10+50	-	13+50	RT	0	2
TOTAL 0010					2	4

203.0100 - REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
0010	09+80	LT&RT	1	34' 12-Inch CMP
0010	10+06	LT&RT	1	33' 12-Inch CMP
TOTAL 0010			2	

Division	From/To Station	Location	Common Excavation (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)		Mass Ordinate +/- (7)	Waste	Borrow (item #208.0100)	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.25					
Project ID 3614-00-77													
1	7+50 - 9+32	Emerald Grove Rd - South Approach	190	0	0	190	190	238	-48		-48		
2	10+70 - 13+50	Emerald Grove Rd - North Approach	496	0	0	496	751	939	-442		-442		
UNDISTRIBUTED EBS			0	92									
Grand Total			686	92	0	686	941	1176	-490	0	-490		
			778										

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unusable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Base Aggregate Dense 3-Inch material.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusable 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.

465- BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	624.0100 WATER MGAL	REMARKS
0010	7+50	-	9+32	LT & RT	200	225	6	Water for Dust Control
0010	10+70	-	13+50	LT & RT	300	320	9	and Compaction
UNDISTRIBUTED						210		
TOTAL 0010					500	755	15	

455.0605 - ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	7+50	-	9+32	LT & RT	20	120	
0010	10+70	-	13+50	LT & RT	31	185	
TOTAL 0010					51	305	

628.7560- TRACKING PADS

CATEGORY	STATION	EACH	REMARKS
0010	7+50	1	BEGINNING OF PROJECT
0010	13+50	1	END OF PROJECT
TOTAL 0010		2	

628- MOBILIZATIONS EROSION CONTROL

CATEGORY	DESCRIPTION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT 3614-00-77	2	1
TOTAL 0010		2	1

SETTLEMENT MONITORING
SPV.0105.01

CATEGORY	LS	REMARKS
0010	1	Settlement Monitoring
TOTAL 0010		1

3

3

631-FINISHING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7504 TEMPORARY DITCH CHECKS LF	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
0010	7+50	-	9+32	LT	640	255	-	-	-	75	70.00	-	0.25	11	6	-	9
0010	7+50	-	9+32	RT	570	265	-	-	-	25	100.00	-	0.25	11	6	-	9
0010	10+70	-	13+50	LT	340	325	-	275	550	90	225.00	-	0.40	17	9	-	14
0010	10+70	-	13+50	RT	410	360	-	275	550	140	190.00	-	0.43	19	10	-	15
0010	UNDISTRIBUTED				-	-	50	50	100	-	-	50	-	-	-	2	-
TOTAL 0010					1,960	1,205	50	600	1,200	330	585.00	50.00	1.33	58	29	2	48

633.5100 - MARKERS ROW

CATEGORY	STATION	LOCATION	633.5100 MARKERS ROW EACH	REMARKS
0010	8+00.00	29.54' LT	1	1
0010	9+23.97	30.21' LT	1	2
0010	9+23.32	28.21' LT	1	3
0010	10+65.64	28.98' LT	1	4
0010	10+75.82	35.00' LT	1	5
0010	11+09.81	35.00' LT	1	6
0010	11+09.84	29.22' LT	1	7
0010	12+00.00	29.70' LT	1	8
0010	12+00.00	36.60' RT	1	9
0010	10+33.41	37.20' RT	1	10
0010	9+27.99	37.76' RT	1	11
0010	8+00.00	38.46' RT	1	12
TOTAL 0010			12	

637.2230 PERMANENT SIGNING

CATEGORY	STATION	LOCATION	SIGN CODE	634.0612 POSTS WOOD 4X6-INCH X 12- FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
0010	9+32	LT	W5-52L	1	3.00
0010	9+32	RT	W5-52R	1	3.00
0010	10+70	LT	W5-52L	1	3.00
0010	10+70	RT	W5-52R	1	3.00
TOTAL 0010				4	12.00

638.3000 REMOVING SMALL SIGN SUPPORTS

CATEGORY	STATION	LOCATION	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010	9+41	10.2' RT	1
0010	9+46	12.3' LT	1
0010	10+40	10.3' RT	1
0010	10+46	11.7' LT	1
TOTAL 0010			4

643-Traffic Control

CATEGORY	STATION	TO	STATION	LOCATION	Days	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
0010	7+50	-	13+50	Emerald Grove Rd	75.00	14	1,050	24	1,800	14	1,050	1
TOTAL 0010							1,050		1,800		1,050	1

690.0150-SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF
0010	7+50	RT & LT	19
0010	13+50	RT & LT	19
TOTAL 0010			38

650-CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (3614- 00-77) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	7+50	-	9+32	LT	182	182	-	182
0010	7+50	-	9+32	RT	182	182	-	182
0010	10+70	-	13+50	LT	280	280	-	280
0010	10+70	-	13+50	RT	280	280	-	280
0010	PROJECT 3614-00-77				-	-	1	-
TOTAL 0010					924	924	1	924

999-SEISMOGRAPH

CATEGORY	999.1000.S SEISMOGRAPH LS
0010	1
TOTAL 0010	1

999.1500.S-CRACK AND DAMAGE SURVEY

CATEGORY	999.1500.S CRACK AND DAMAGE SURVEY LS
0010	1
TOTAL 0010	1

CONVENTIONAL SYMBOLS

SECTION LINE		PARCEL NUMBER	UTILITY NUMBER
QUARTER LINE		SECTION CORNER	R/W MONUMENT NON-MONUMENTED
SIXTEENTH LINE		NOTATION FOR COMBUSTIBLE FLUIDS	FOUND IRON PIN
NEW REFERENCE LINE		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	VALVE (GAS, WATER, ETC.)
NEW R/W LINE		CAUTION	SIGN
EXISTING R/W LINE			OFF-PREMISE SIGN
PROPERTY LINE			
LOT, TIE, AND OTHER MINOR LINES			
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING		NO ACCESS (NEW HIGHWAY)	
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT	
BRIDGE		SIXTEENTH CORNER MONUMENT	
		PARALLEL OFFSETS	

CONVENTIONAL UTILITY SYMBOLS

WATER	
GAS	
TELEPHONE	
OVERHEAD TRANSMISSION LINES	
ELECTRIC	
CABLE TELEVISION	
FIBER OPTIC	
SANITARY SEWER	
STORM SEWER	
ELECTRIC TOWER	

NON-COMPENSABLE **COMPENSABLE**

POWER POLE

TELEPHONE POLE

TELEPHONE PEDESTAL

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ROCK COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

APPROVED BY:

COUNTY _____ of _____ ROCK

5/27/2020 Highway Commissioner

R/W PROJECT NUMBER 3614-00-07	SHEET NUMBER 4.01	TOTAL SHEETS 2
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR TOWN OF BRADFORD, EMERALD GROVE RD. WSOR BRIDGE P-53-0103		
TOWN ROAD	ROCK COUNTY	

END RELOCATION
ORDER STA.12+00.00
Y = 253650.308
X = 530472.697
APPROXIMATELY 181 FEET SOUTH OF AND 2 FEET WEST OF THE NORTH 1/4 CORNER OF SECTION 18, T-2-N, R-14-E, TOWN OF BRADFORD, ROCK COUNTY WL.

ACCEPTED FOR

TOWN _____ of _____ BRADFORD

5/27/2020 Town Chairman

ORIGINAL PLAT PREPARED BY

MSA

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL

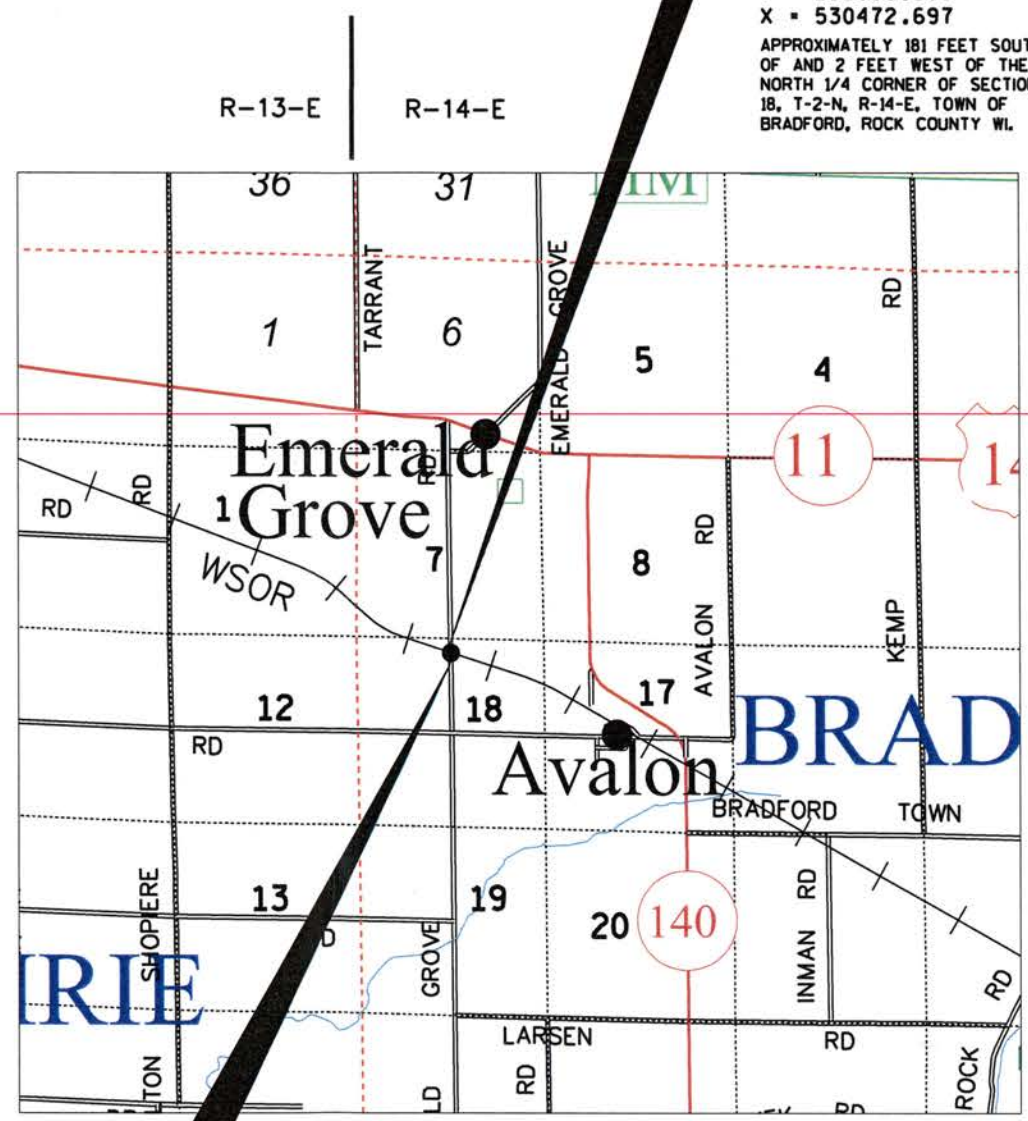
1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 www.msa-ps.com
© MSA Professional Services, Inc.

WISCONSIN LAND SURVEYOR

BRADLEY L. TISDALE
S-2824
WAUNAKEE WI

04/08/2020 (Professional Land Surveyor)

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

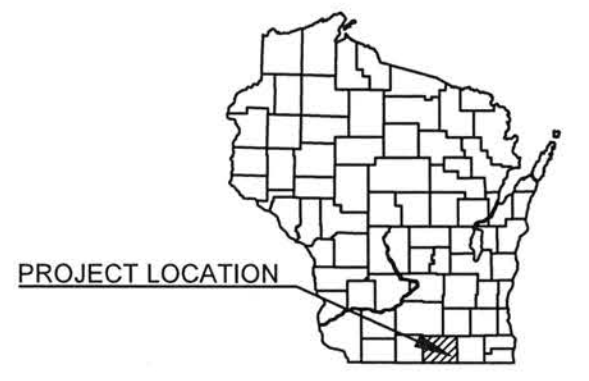


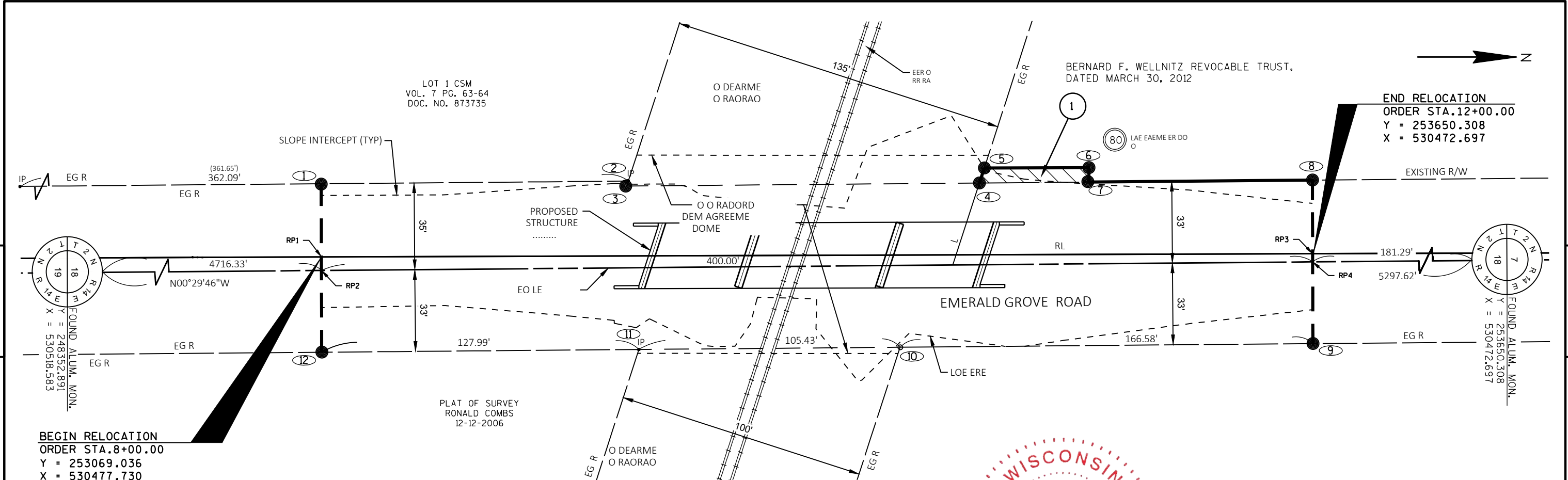
BEGIN RELOCATION
ORDER STA.8+00.00
Y = 253069.036
X = 530477.730
APPROXIMATELY 581 FEET SOUTH OF AND 0.5 FEET WEST OF THE NORTH 1/4 CORNER OF SECTION 18, T-2-N, R-14-E, TOWN OF BRADFORD, ROCK COUNTY WL.

LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.075 MI





END RELOCATION
 ORDER STA. 12+00.00
 Y = 253650.308
 X = 530472.697

BEGIN RELOCATION
 ORDER STA. 8+00.00
 Y = 253069.036
 X = 530477.730

FOUND ALUM. MON.
 Y = 253650.308
 X = 530472.697

FOUND ALUM. MON.
 Y = 248352.891
 X = 530518.583

LOT 1 CSM
 VOL. 7 PG. 63-64
 DOC. NO. 873735

PLAT OF SURVEY
 RONALD COMBS
 12-12-2006

EMERALD GROVE ROAD RGOA AED O LO O M
 REORDED E E RO O REGER O DEED OE
 VOLME O AGE A DOME OM LA O
 RVE DAED AD E ORO LE O EO

O OER RALROAD RG O A AED O RALROAD
 VALAO MA LO O AOREMEOD M OM LA O
 RVE DAED AD LARO LA O RVE



R/W COURSE TABLE

LINE	BEARING	DISTANCE
RP2-1	S89°48'48"W	35.00'
1-2	N00°29'46"W	123.97'
2-3	S72°01'38"E	2.11'
3-4	N00°29'46"W	142.33'
4-5	N72°01'38"W	6.34'
5-6	N00°11'12"W	42.19'
6-7	N89°30'13"E	5.79'
7-8	N00°29'46"W	90.16'
8-RP4	N89°48'48"E	33.00'
RP4-9	N89°48'48"E	33.00'
9-12	S00°29'46"E	400.00'
12-RP2	S89°48'48"W	33.00'
RP2-RP1	S89°48'48"W	5.46'
RP3-RP4	N89°48'48"E	3.30'
RP1-RP3	N00°11'12"W	400.00'
RP2-RP4	N00°29'46"W	400.00'

UTILITY INTERESTS REQUIRED			
UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED
80	WISCONSIN POWER & LIGHT	1 - DOC #350023 (BLANKET EASEMENT)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE TOWN.				
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
1	BERNARD F. WELLNITZ REVOCABLE TRUST, DATED MARCH 30, 2012	FEE	255	4613	4868	

R/W POINT	STATION	OFFSET	Y	X
1	8+00.00	L	253068.922	530442.731
2	9+23.97	L	253192.892	530441.657
3	9+23.32	L	253192.241	530443.663
4	10+65.64	L	253334.566	530442.431
5		L	253336.523	530436.400
6	11+09.81	L	253378.713	530436.262
7	11+09.84	L	253378.764	530442.047
8	12+00.00	L	253468.919	530441.266
9	12+00.00	R	253469.134	530507.267
10	10+33.41	R	253302.552	530508.710
11	9+27.99	R	253197.126	530509.623
12	8+00.00	R	253069.143	530510.732

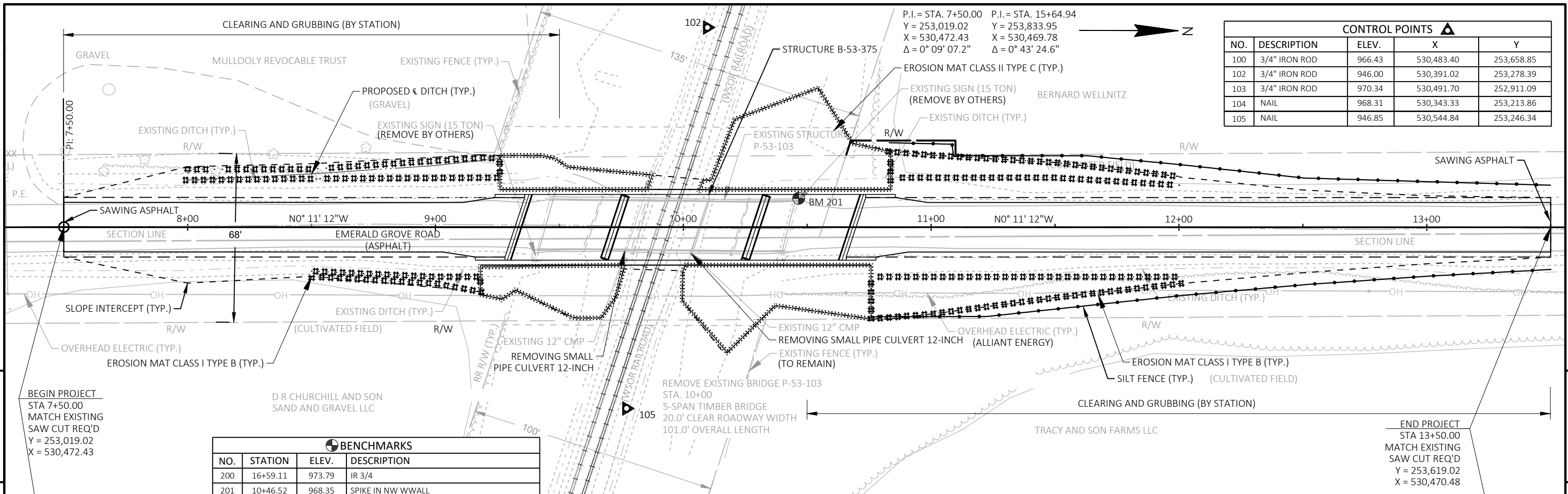
RADLE L DALE ROEOAL LAD RVEOR ERE ER A
 LL OMLAE E ROVO O EO O E O
 AE AD DER E DREO O E O O RADORD
 AVE RVEED AD MAED RAORAO ROE LA AD
 LA ORREL RERE E ALL EEROR ODARE O E RVEED LAD

GARE _____ DAE 04/08/20
 R AME RADLE L DALE
 REGRAO MER S-2824

LA AD RELOAO ORDER ARE AROVED OR
 THE O O RADORD

GARE _____ DAE
 R AME

REVO DAE	DAE 04/08/2020	ALE EE	HWY: EMERALD GROVE ROAD	AE R ROE MER	3614-00-07	LA EE 02
GRD AOR		0 20 40	O RO	ORO ROE MER	3614-00-77	E EE

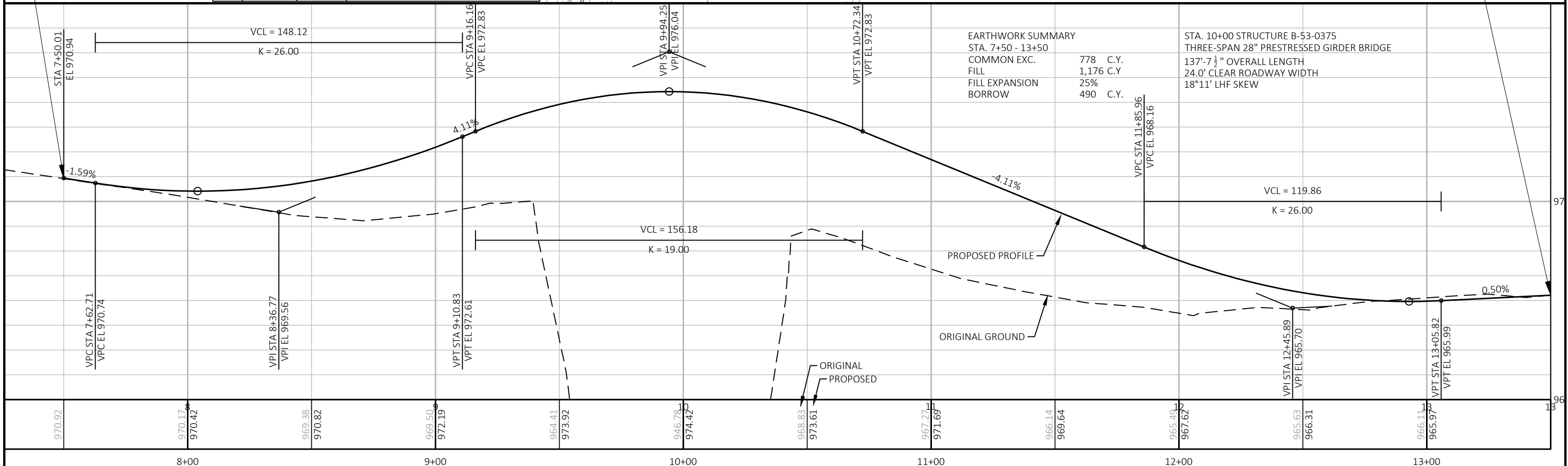


CONTROL POINTS Δ				
NO.	DESCRIPTION	ELEV.	X	Y
100	3/4" IRON ROD	966.43	530,483.40	253,658.85
102	3/4" IRON ROD	946.00	530,391.02	253,278.39
103	3/4" IRON ROD	970.34	530,491.70	252,911.09
104	NAIL	968.31	530,343.33	253,213.86
105	NAIL	946.85	530,544.84	253,246.34

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
200	16+59.11	973.79	IR 3/4
201	10+46.52	968.35	SPIKE IN NW WALL

BEGIN PROJECT
STA 7+50.00
MATCH EXISTING
SAW CUT REQ'D
Y = 253,019.02
X = 530,472.43

END PROJECT
STA 13+50.00
MATCH EXISTING
SAW CUT REQ'D
Y = 253,619.02
X = 530,470.48

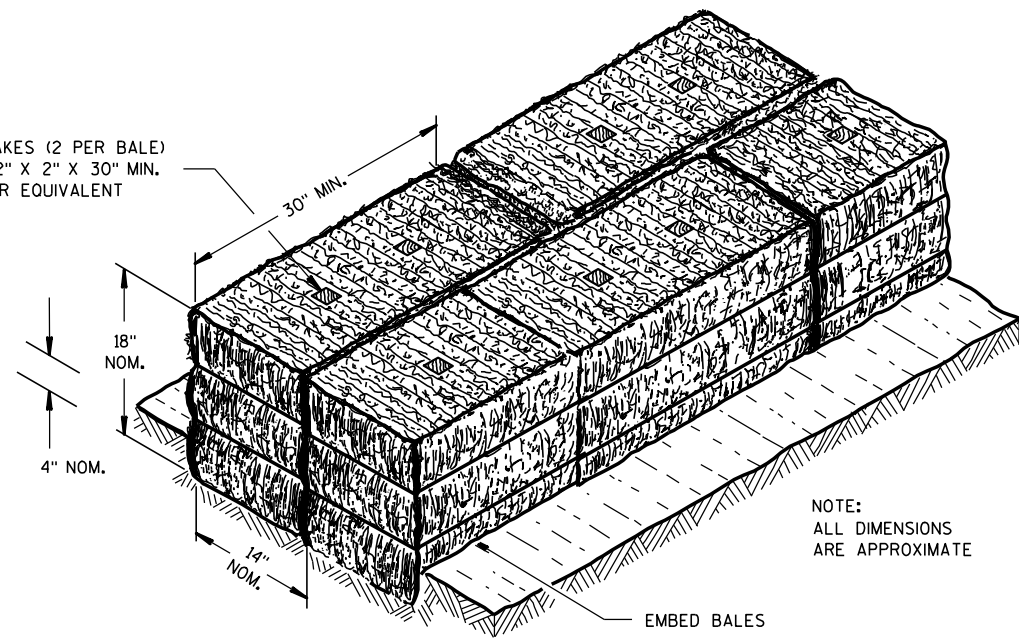


PROJECT NO: 3614-00-77	HWY: EMERALD GROVE ROAD	COUNTY: ROCK	PLAN AND PROFILE: EMERALD GROVE ROAD	SHEET	E
------------------------	-------------------------	--------------	--------------------------------------	-------	---

Standard Detail Drawing List

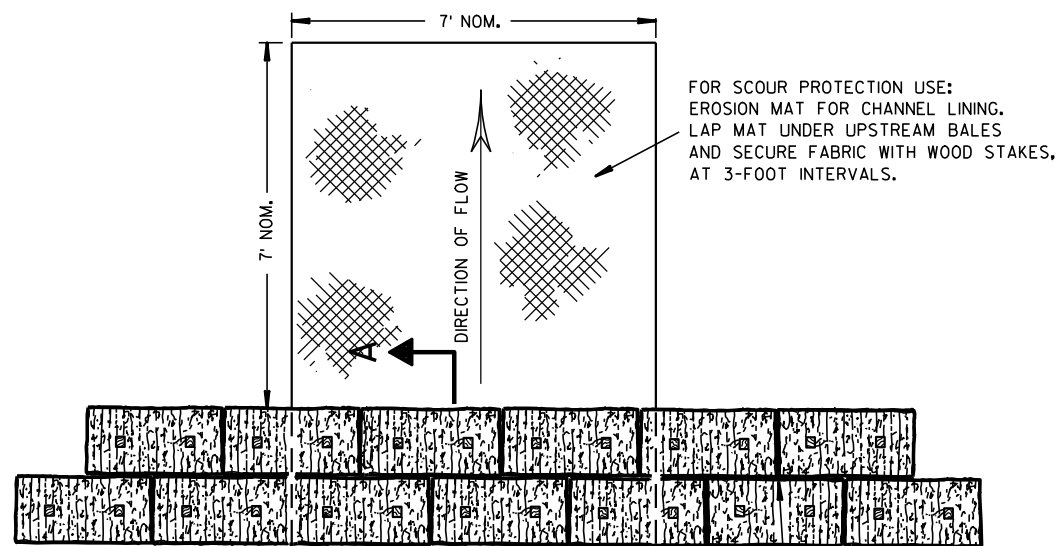
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

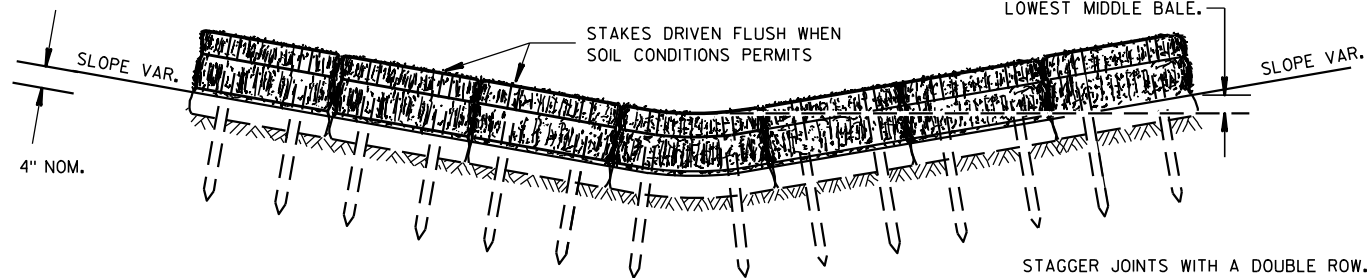
SECTION A-A



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



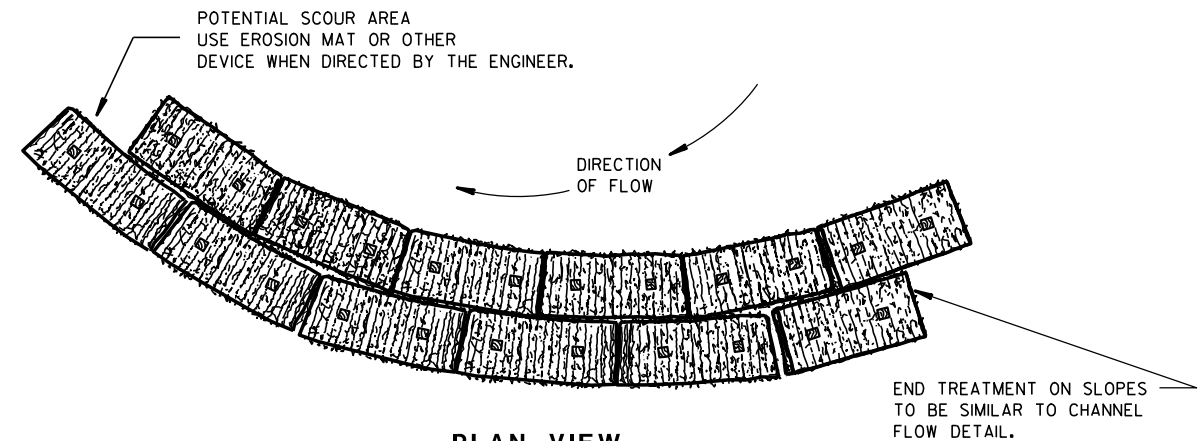
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

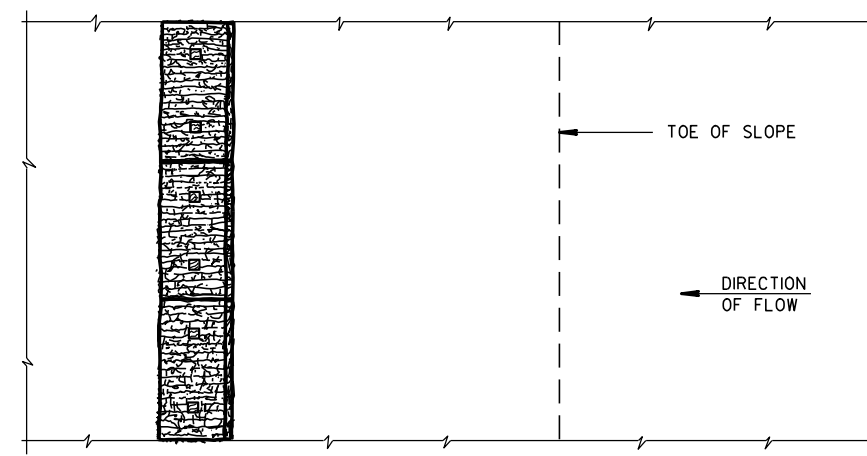
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

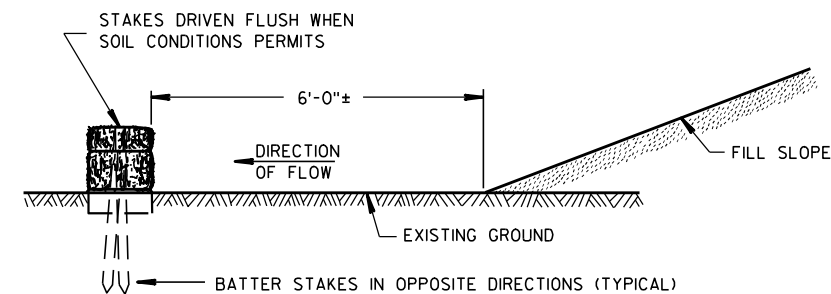


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

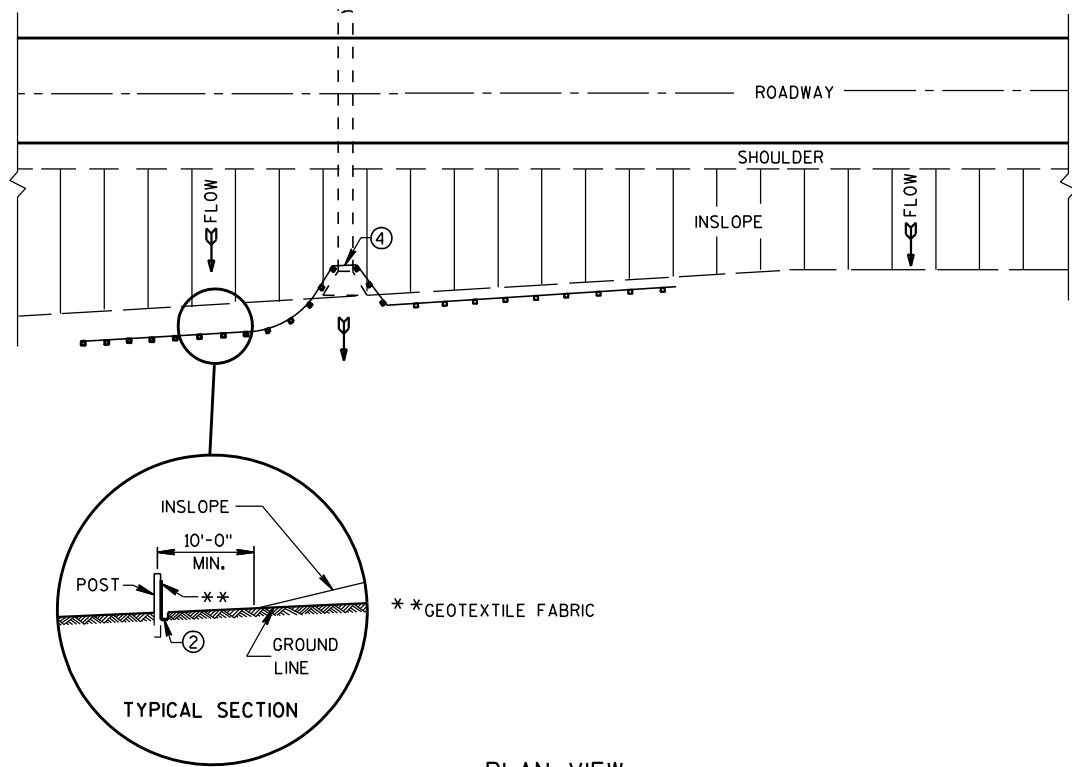
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

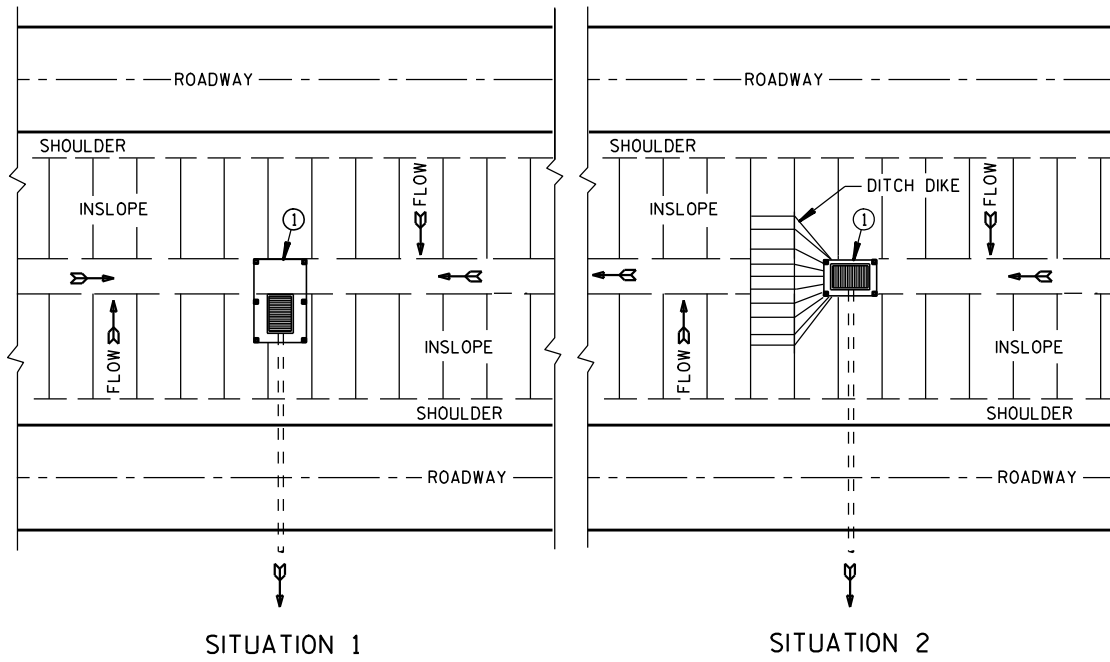
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 6/04/02 /S/ Beth Canestra
 DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

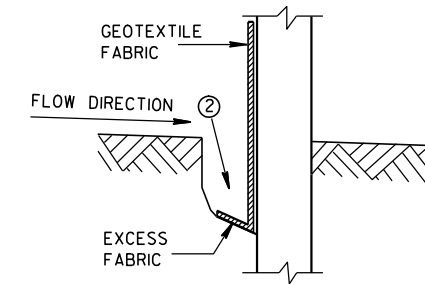


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

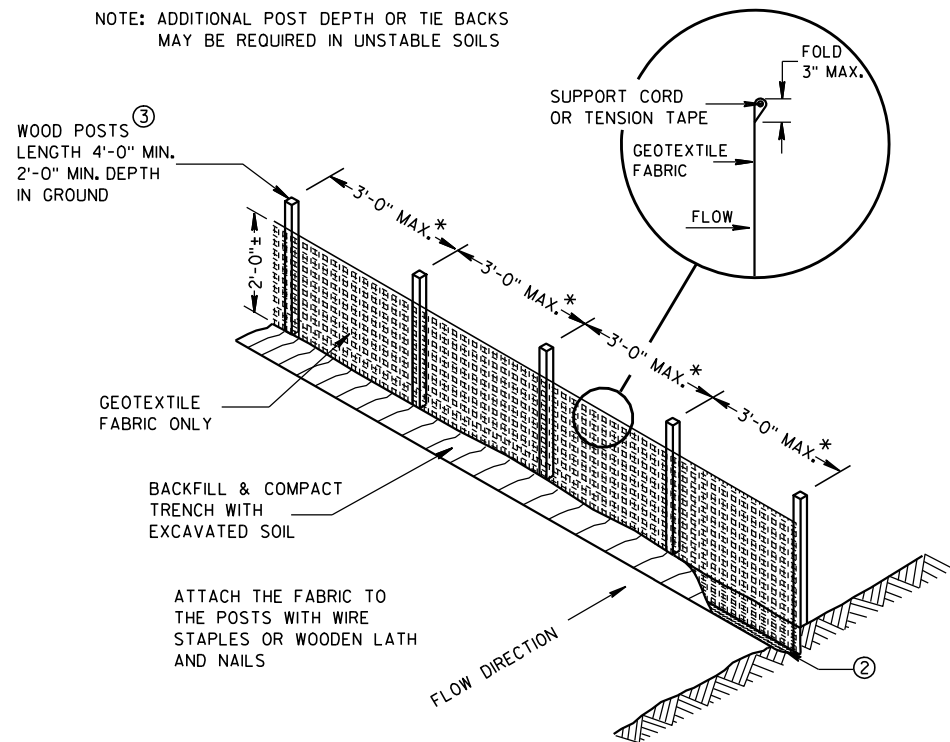
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.



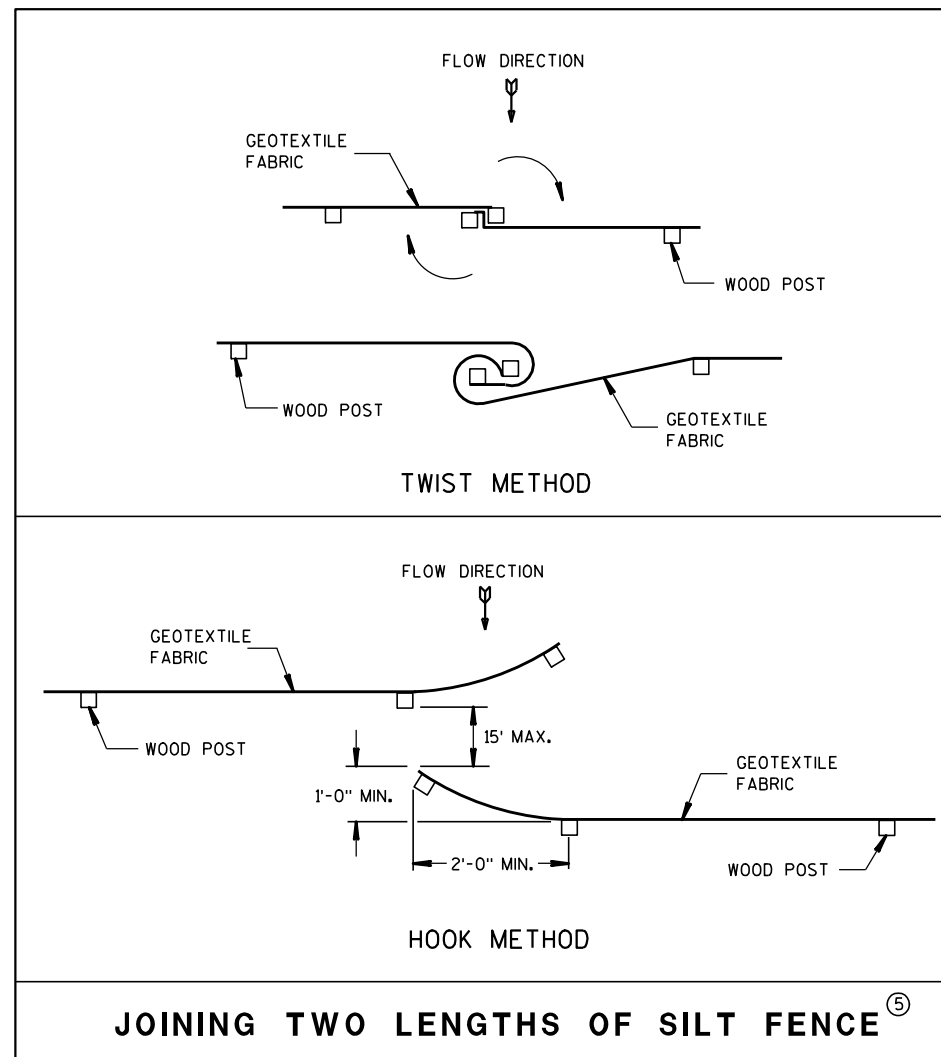
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

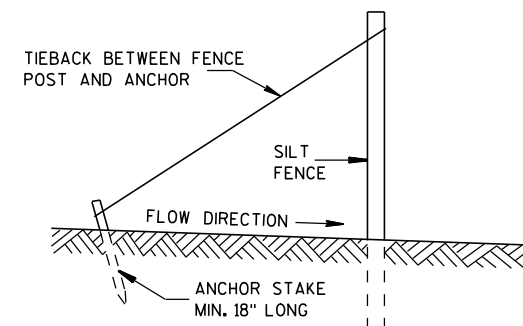


SILT FENCE

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



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

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

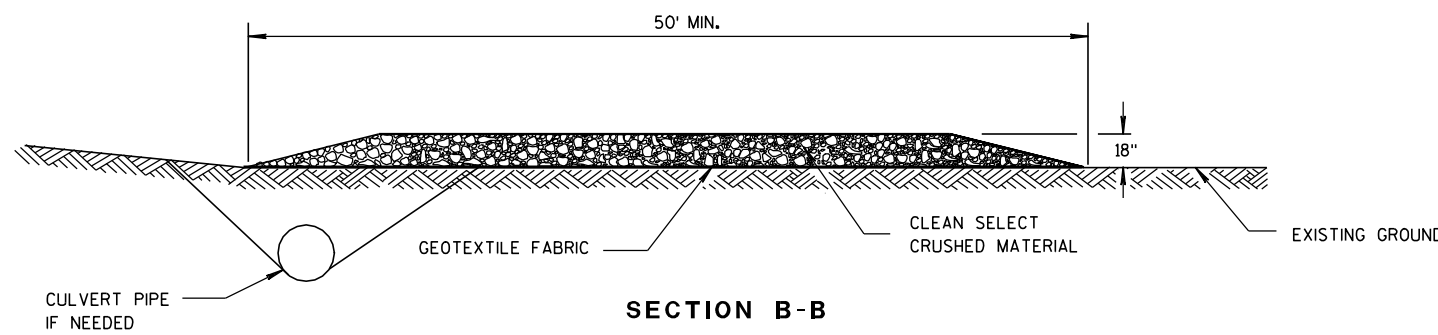
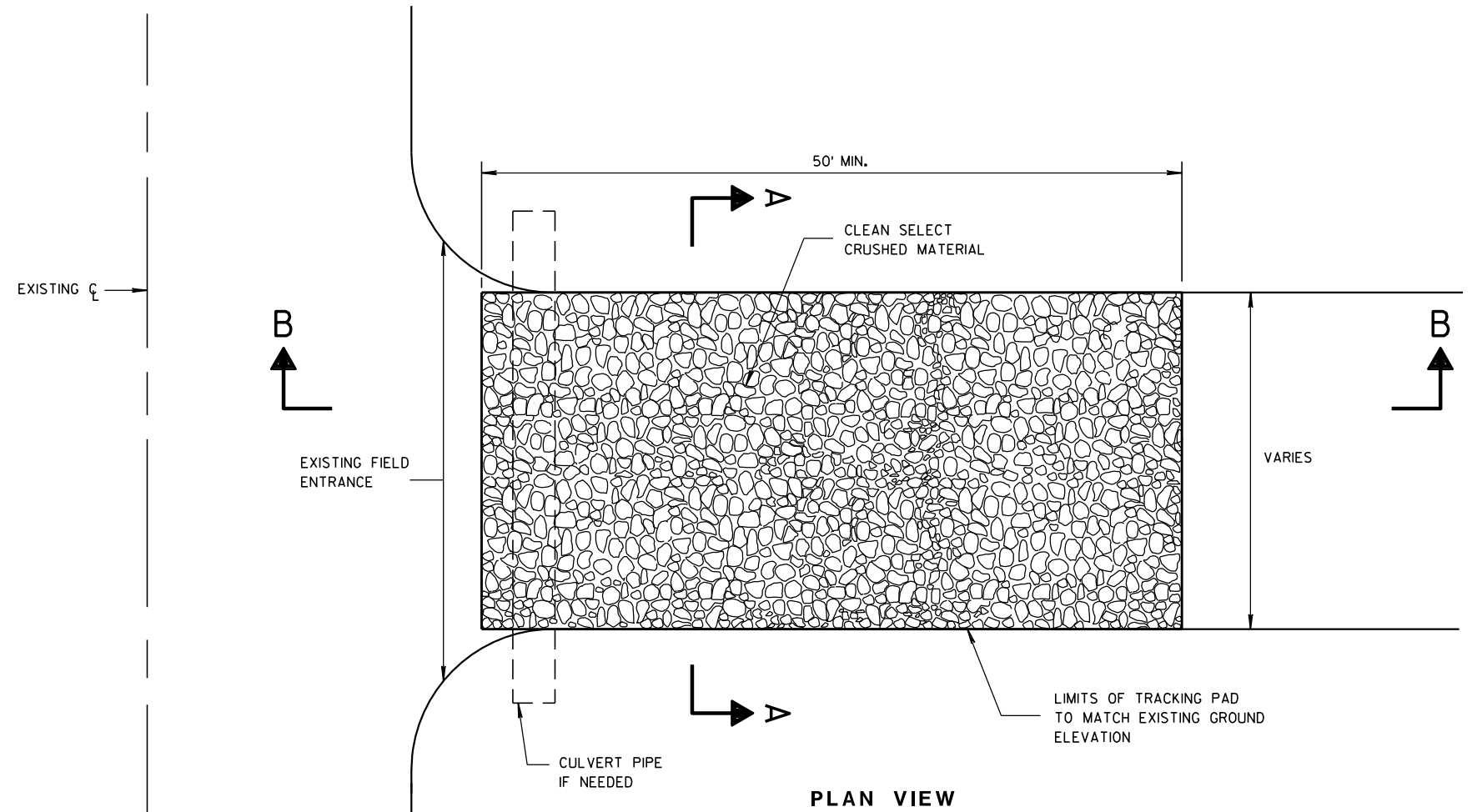
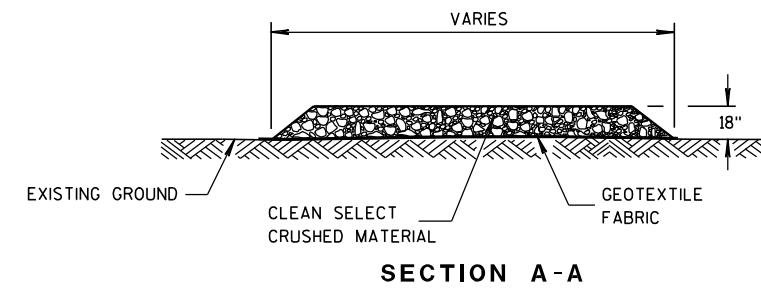
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

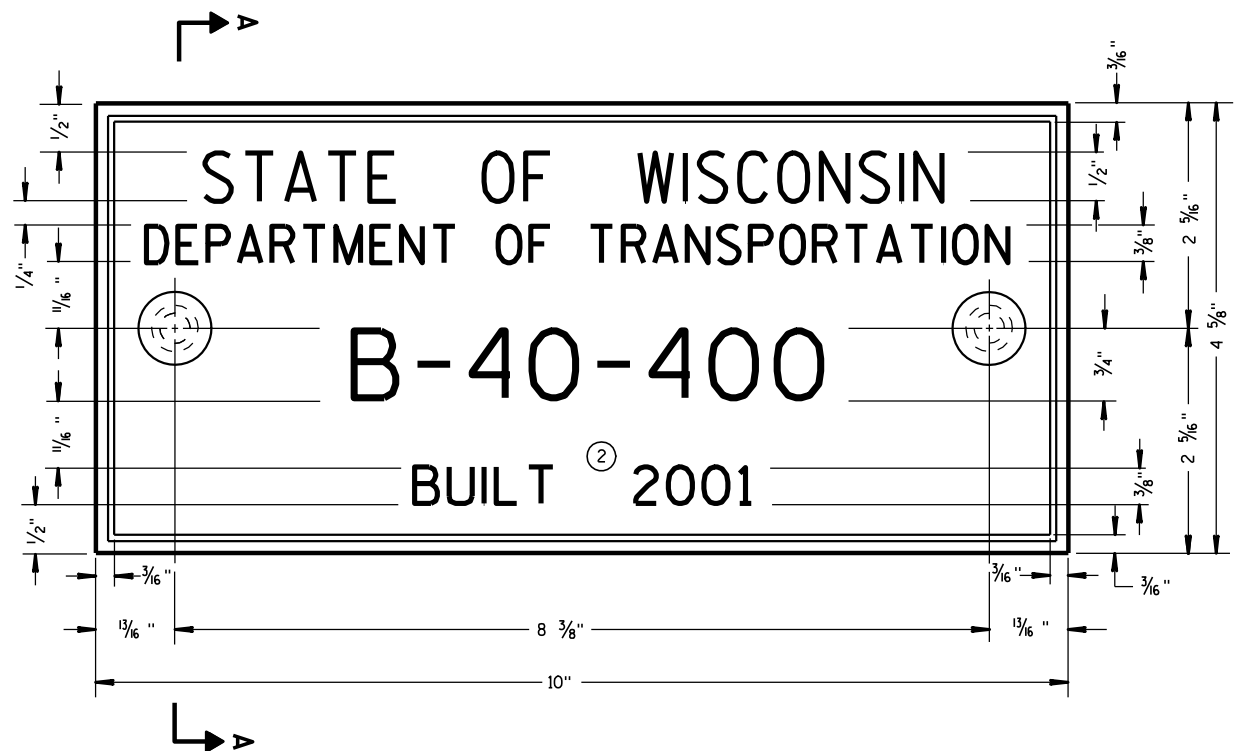


TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



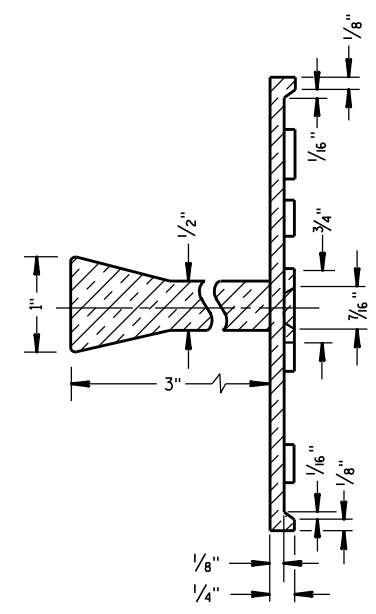
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

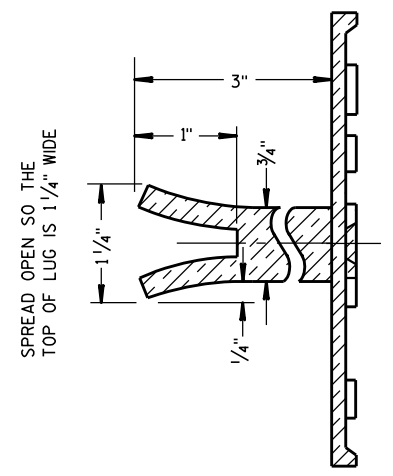
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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



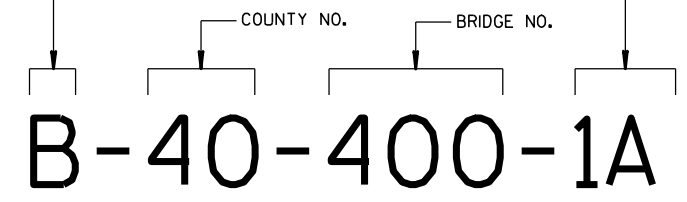
ALTERNATE LUG

6

6

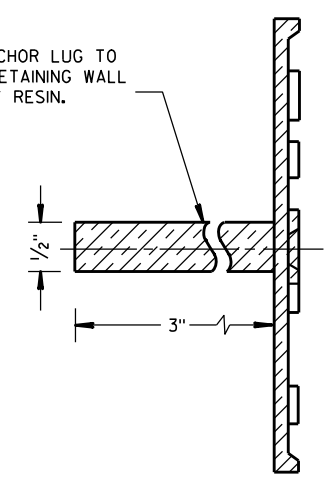
FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

- B = BRIDGE
- C = CULVERT
- R = RETAINING WALL
- UNIT NO. FOR MULTIPLE UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

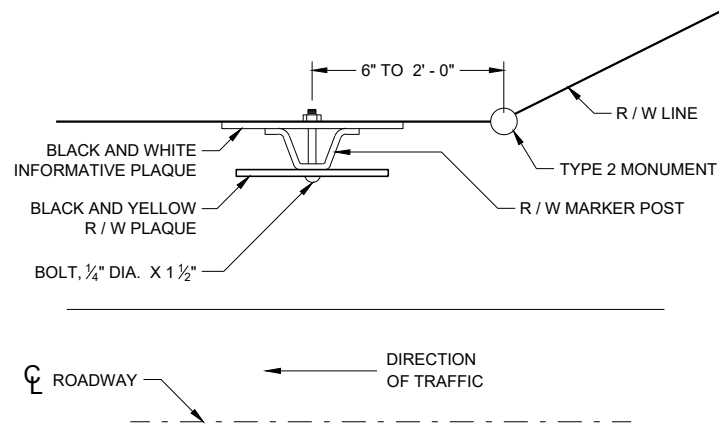


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

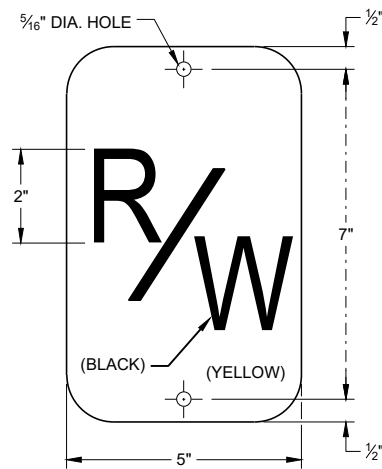
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

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

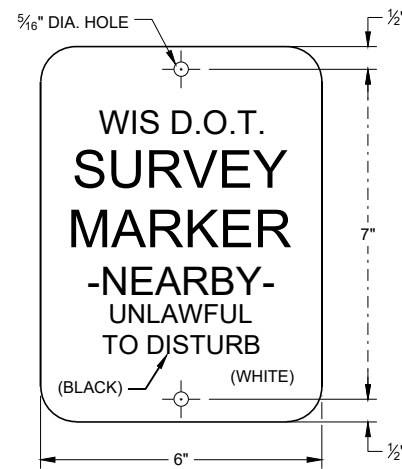


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

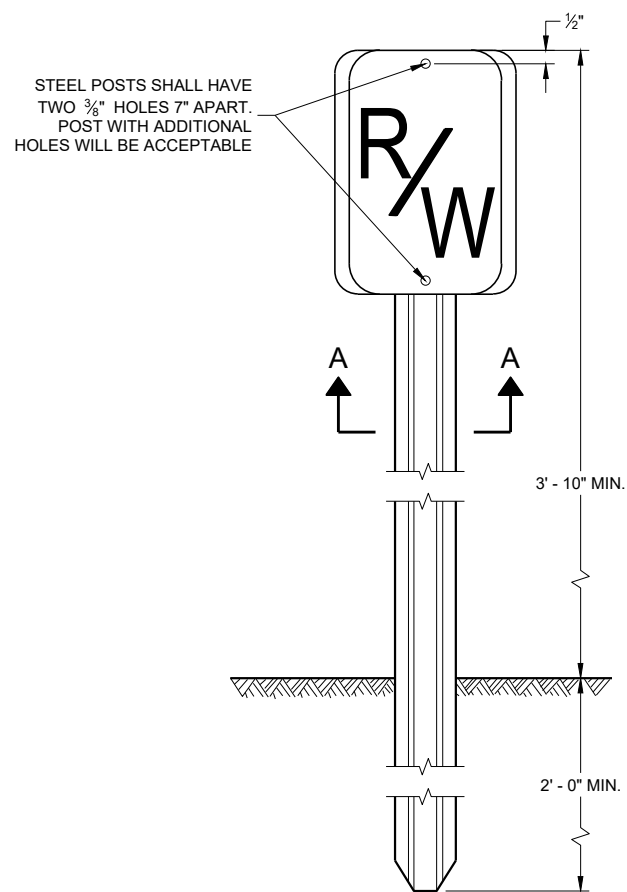
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

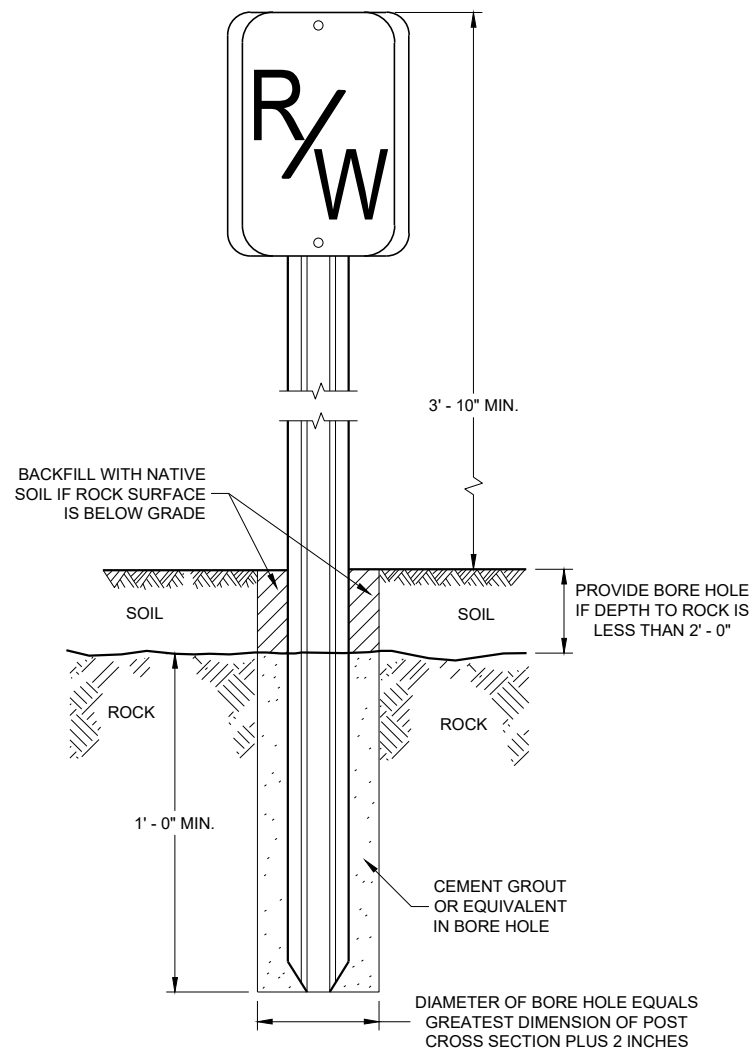
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

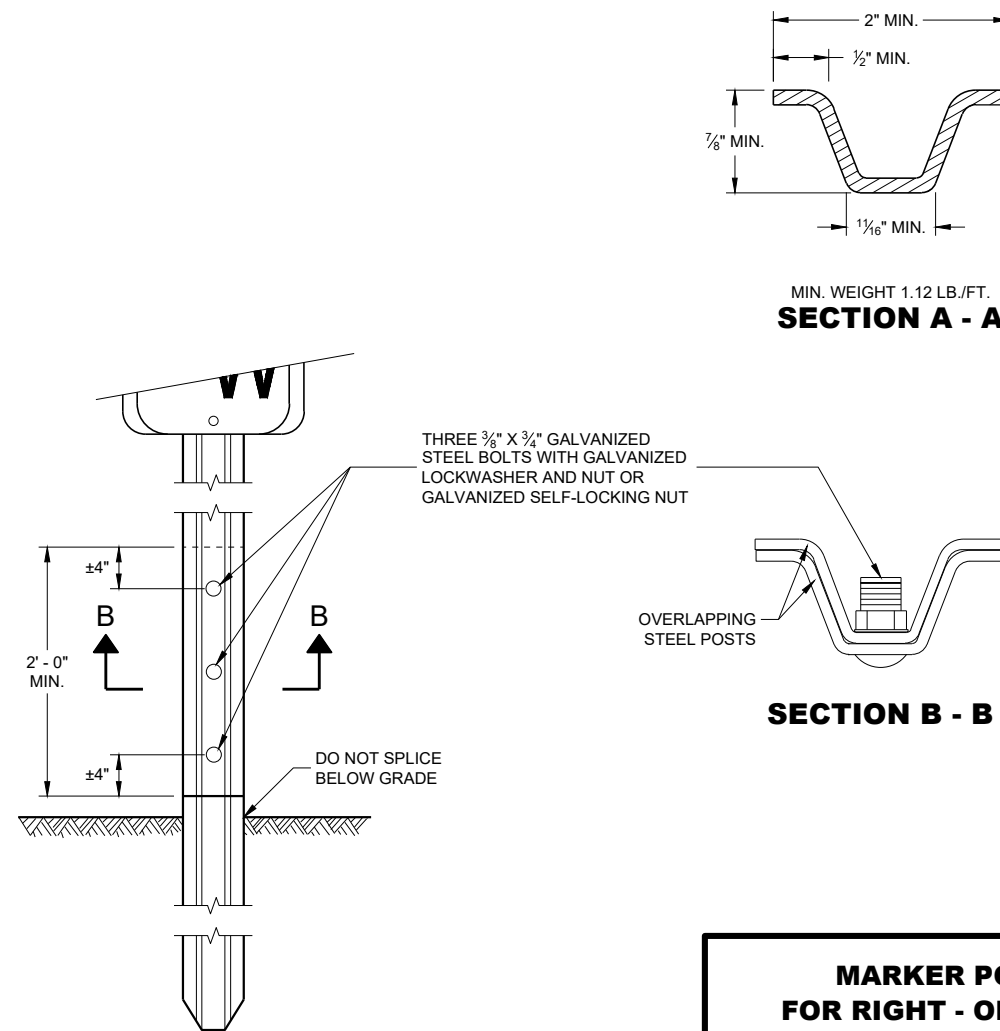
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



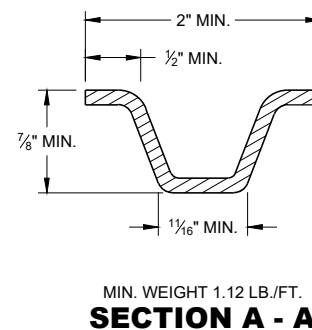
**FRONT VIEW
STEEL MARKER POST**



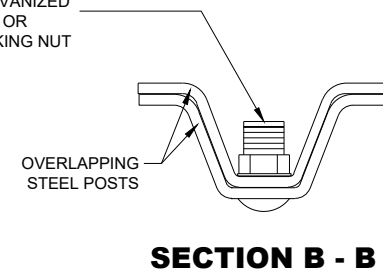
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



SECTION A - A



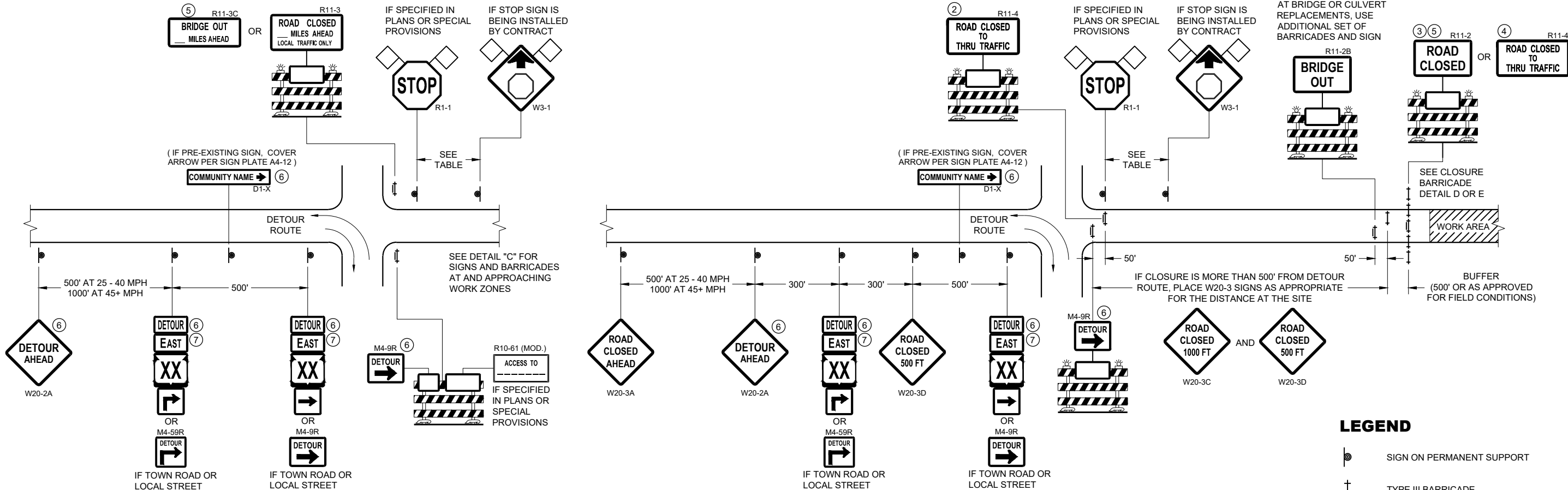
SECTION B - B

**MARKER POST
FOR RIGHT - OF - WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016 DATE /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

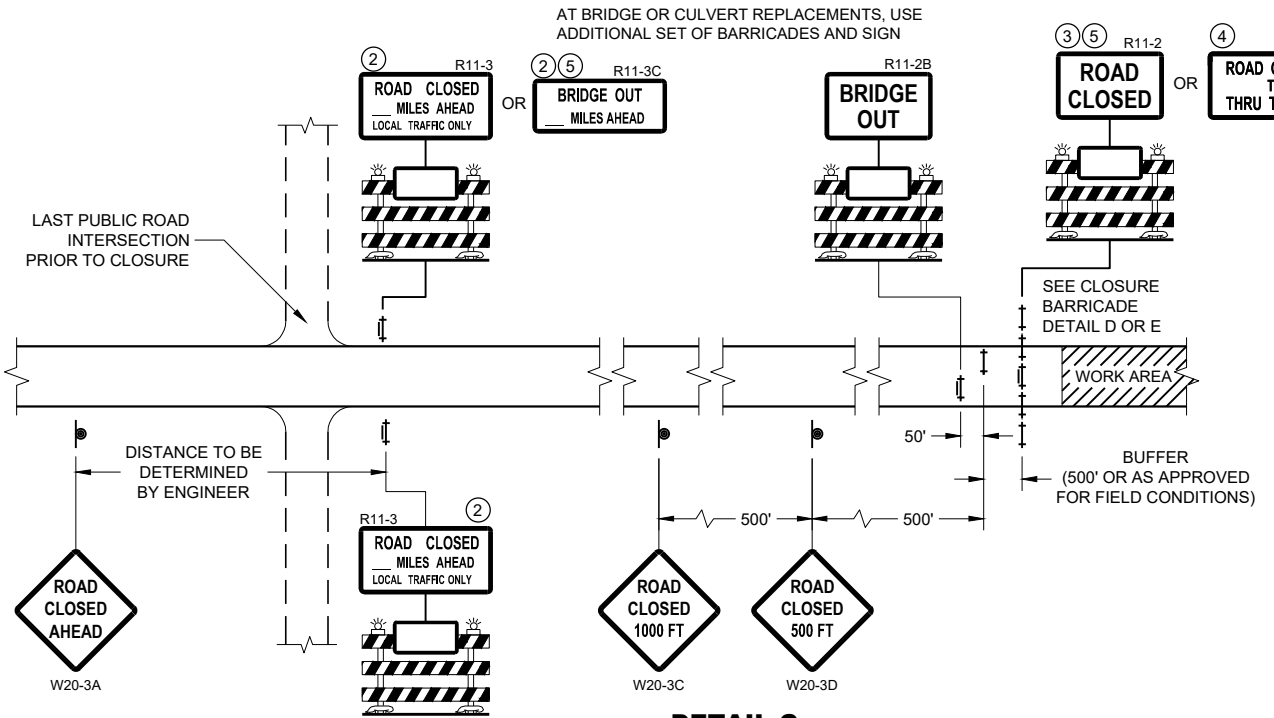
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



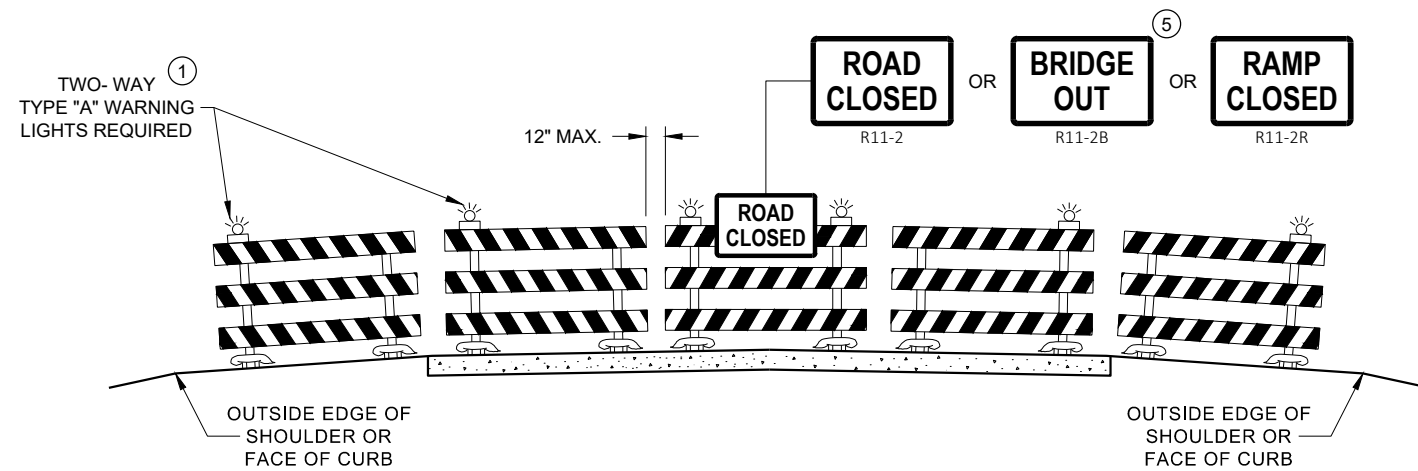
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

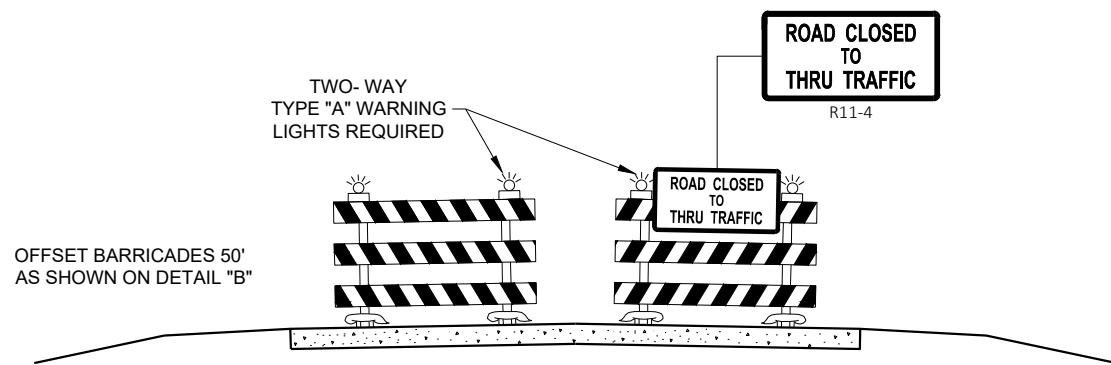
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER
FHWA



**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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 AN 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 ROAD 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
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

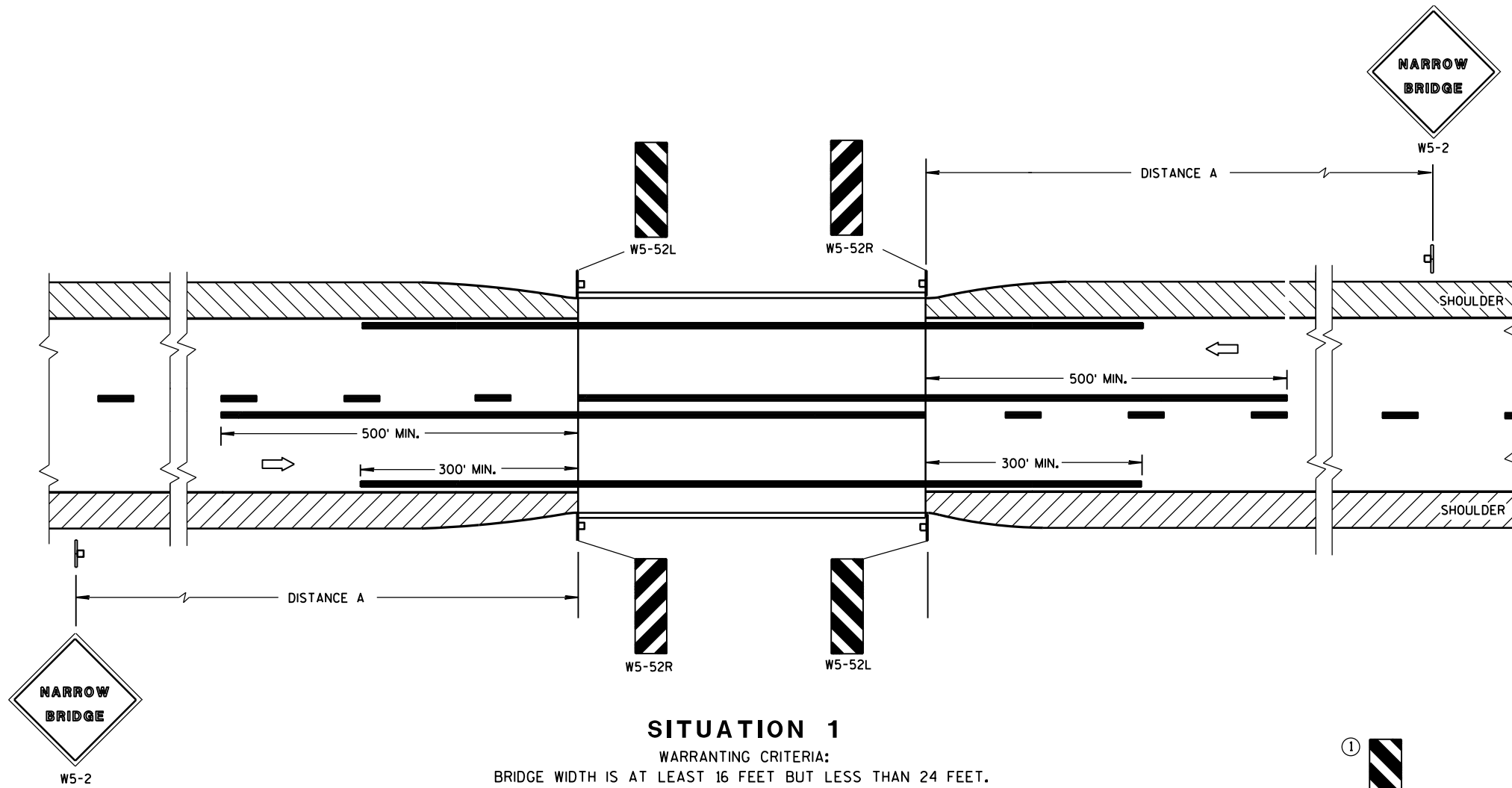
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

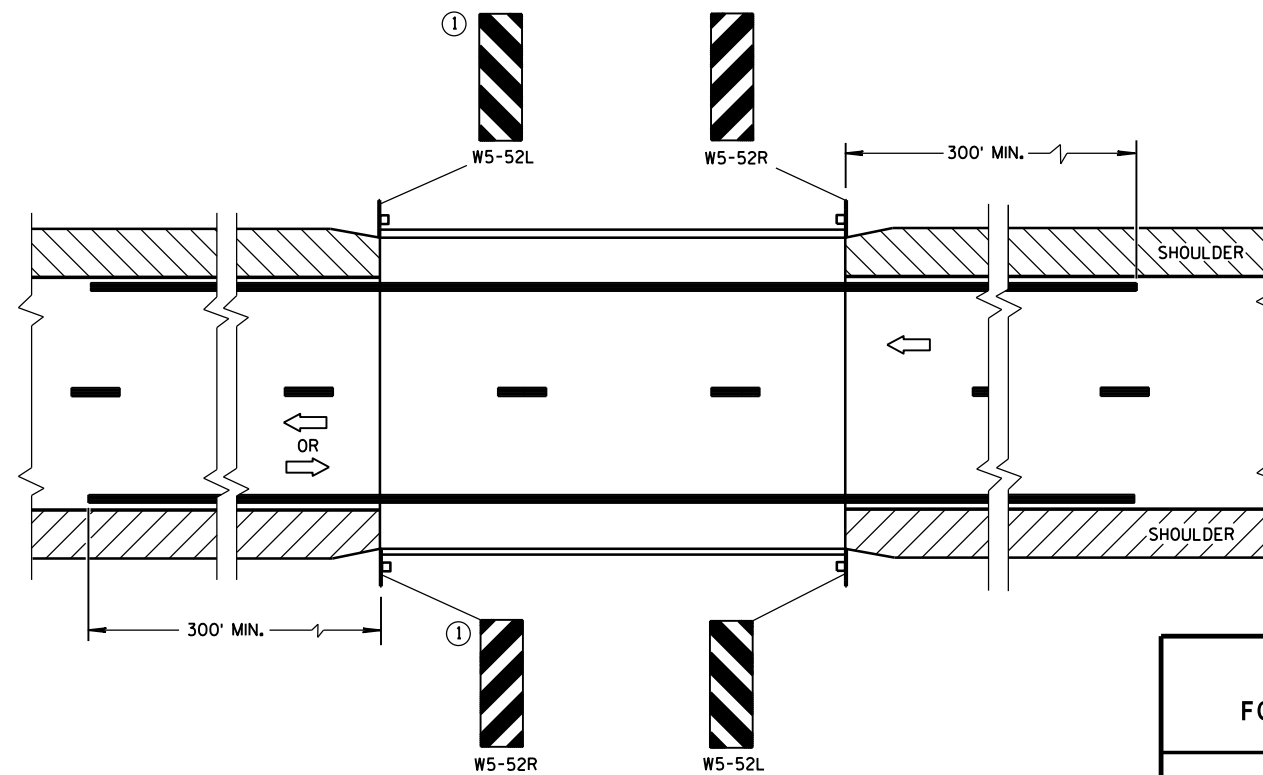
① OMIT ON ONE-WAY TRAVELLED WAYS.

➡ DIRECTION OF TRAFFIC



SITUATION 1

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



SITUATION 2

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

DISTANCE TABLE

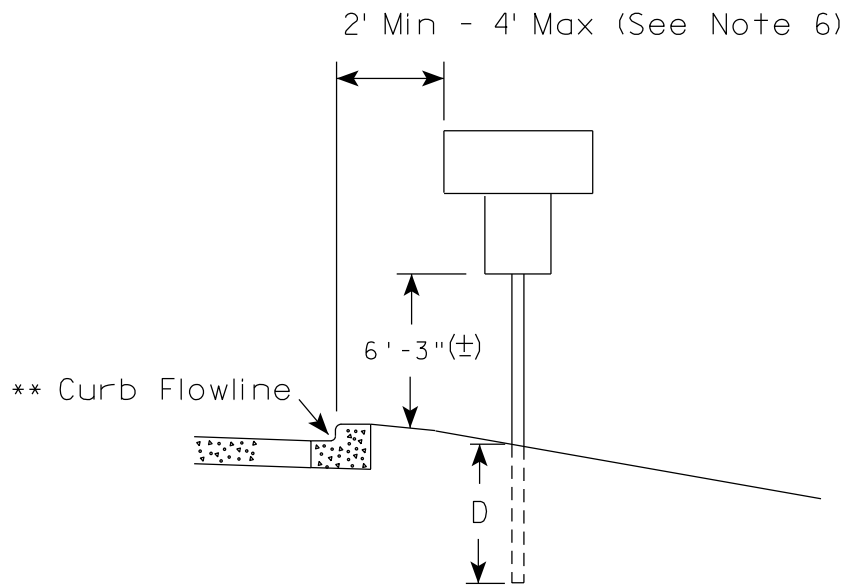
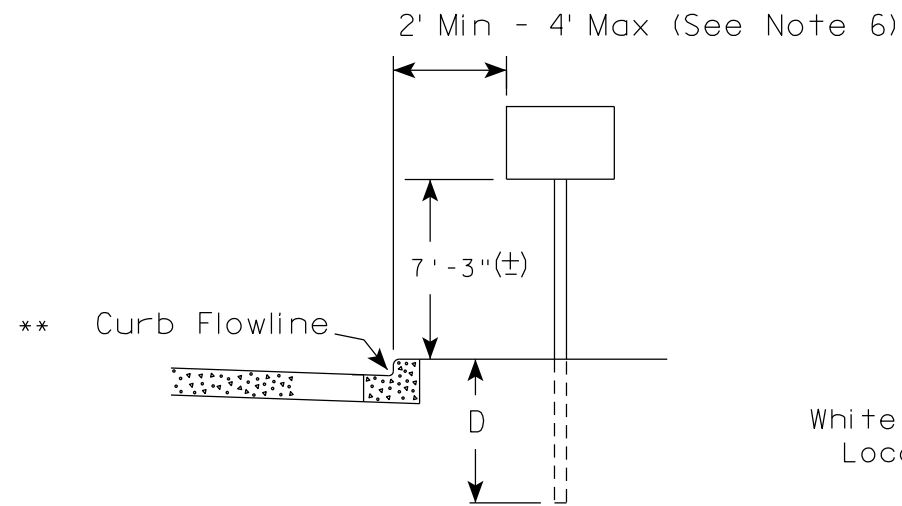
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

SIGNING & MARKING FOR TWO LANE BRIDGES

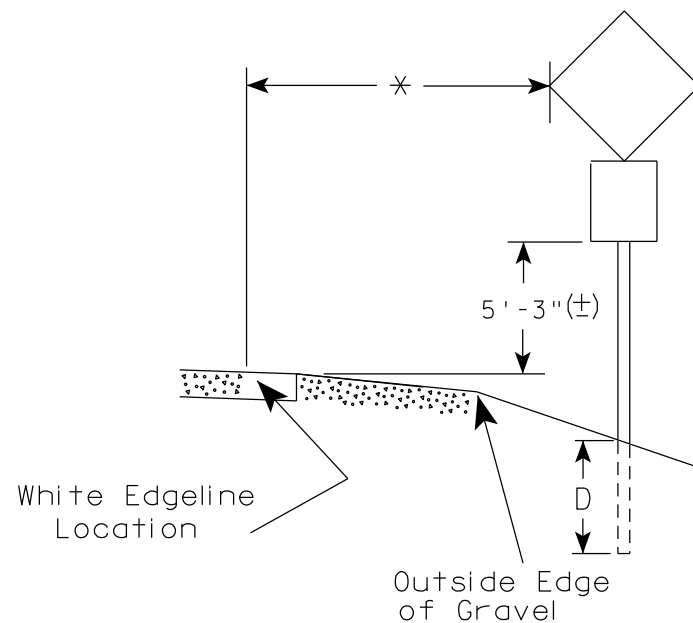
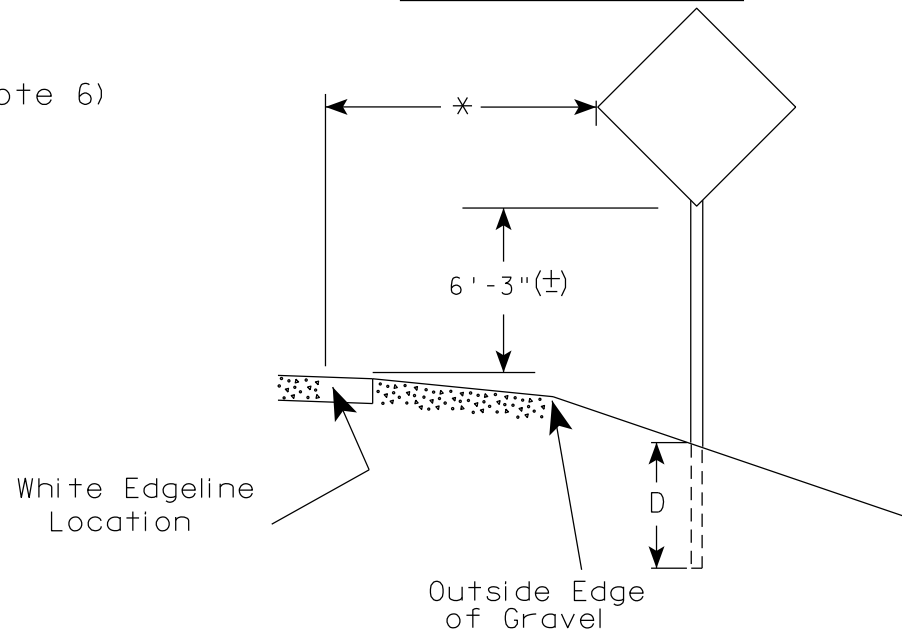
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

* * 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.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

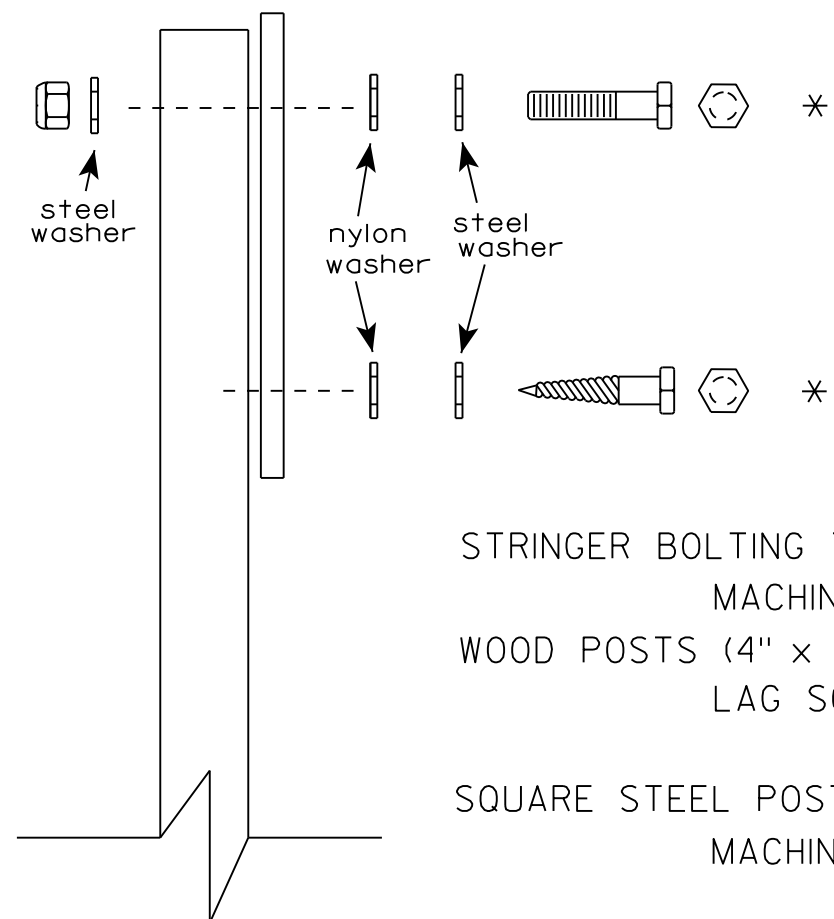
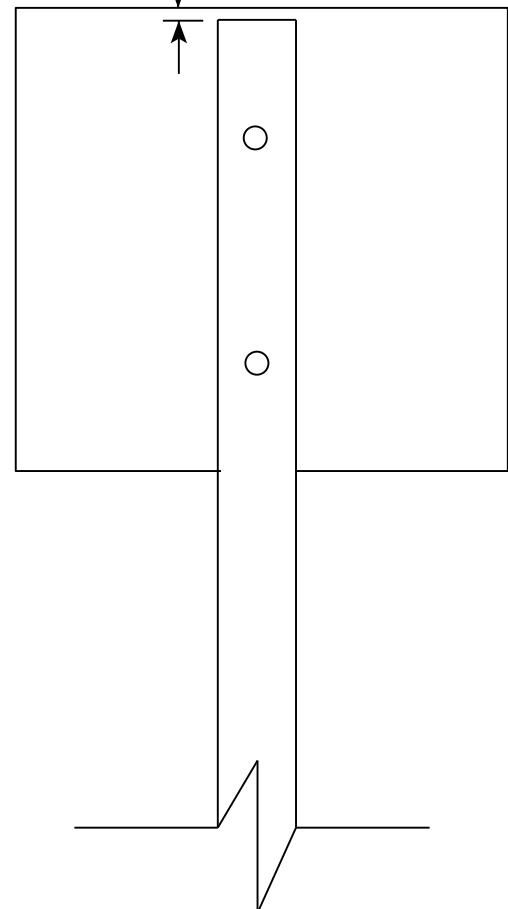
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

1"± 1/2"

SIGN SHALL BE MOUNTED TO PROJECT ABOVE THE TOP OF THE POST



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

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

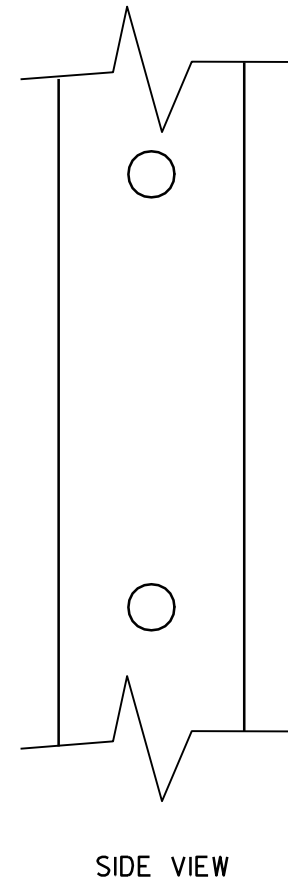
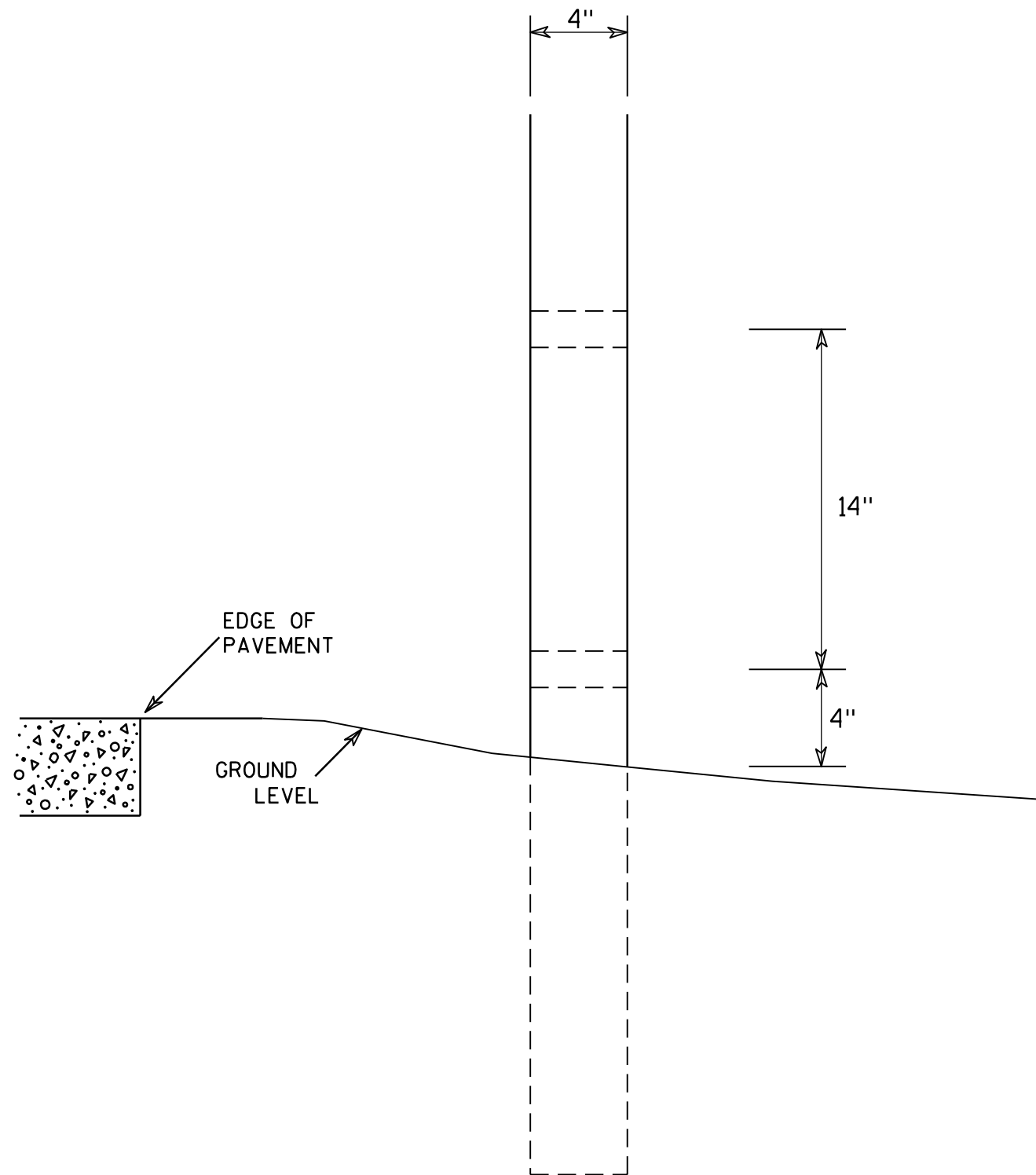
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- 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

* 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.

7

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8



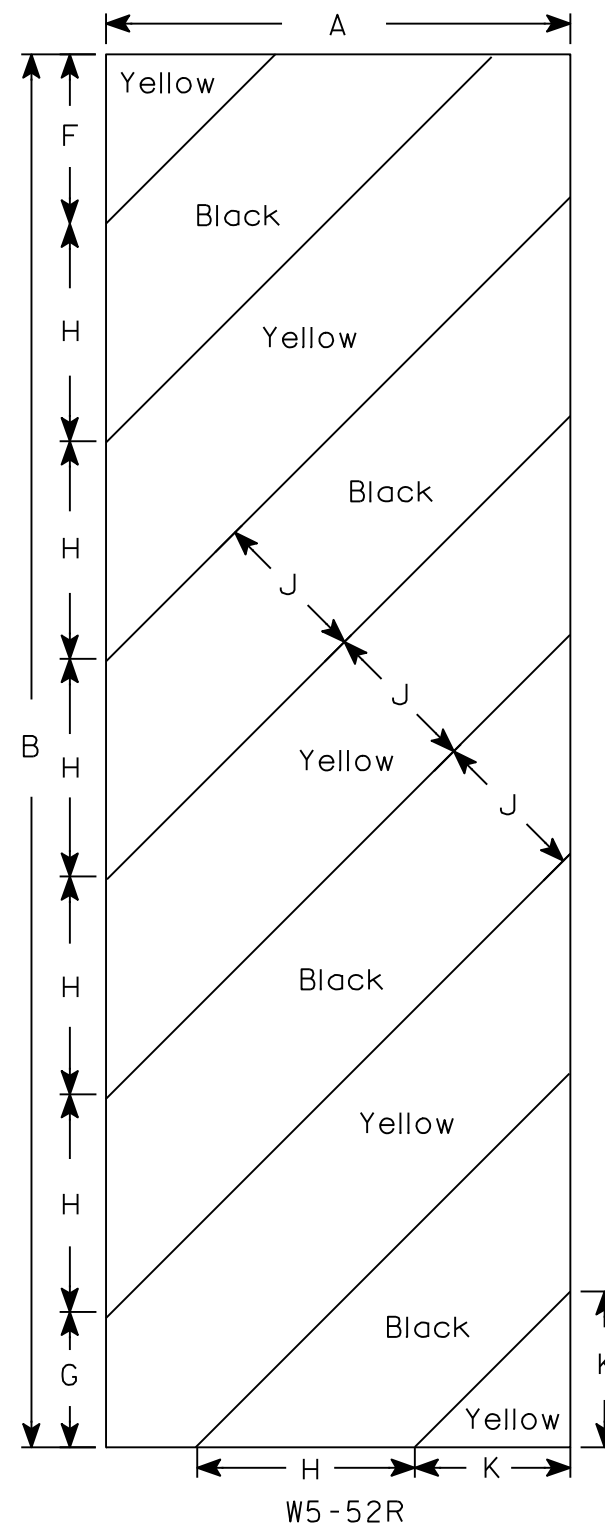
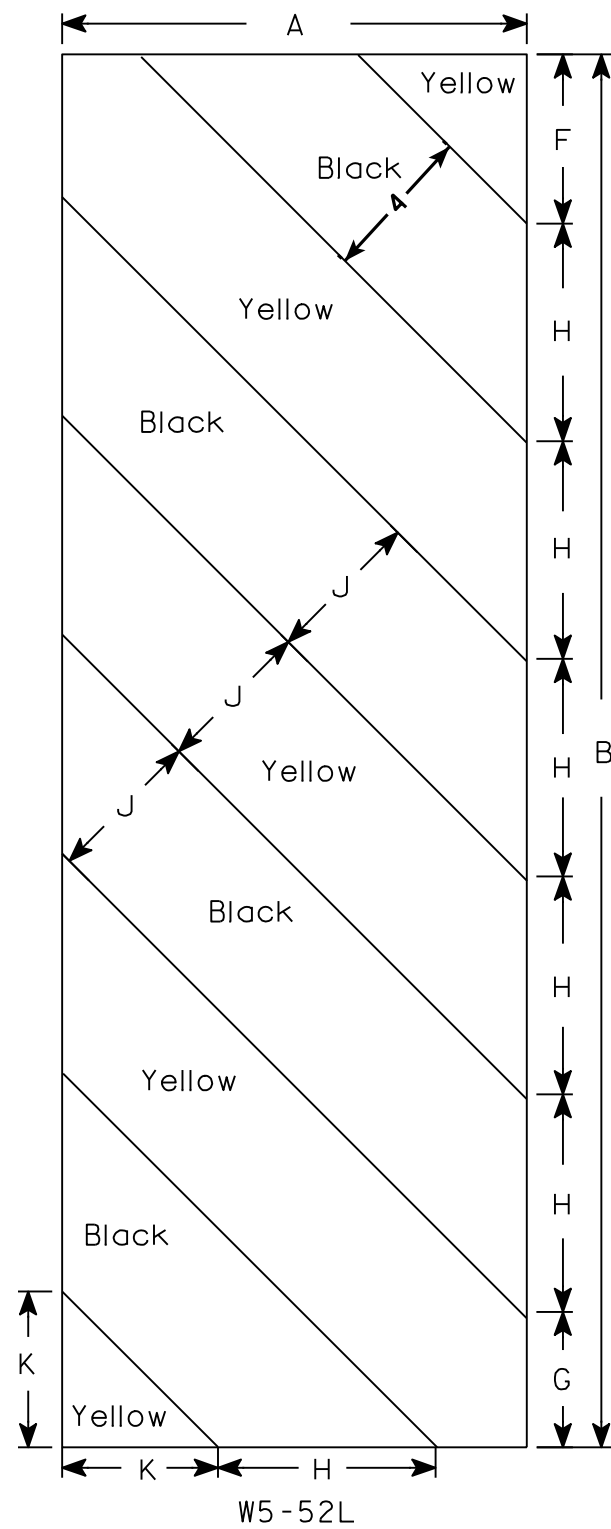
GENERAL NOTES

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	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 3/27/97	PLATE NO. A4-11.2



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.

7

7

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

NO.	STA./OFFSET	DESCRIPTION	ELEV.
200	16+59.11, 13.1' LT	IR 3/4	973.79
201	10+46.52, 11.6' LT	SPIKE IN NW WING WALL	968.35

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HL-93
 INVENTORY RATING FACTOR: 1.27
 OPERATIONAL RATING FACTOR: 1.89
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS.
 STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

TRAFFIC DATA:
 A.A.D.T. (2021) = 100
 A.A.D.T. (2041) = 120
 R.D.S. = 25 MPH

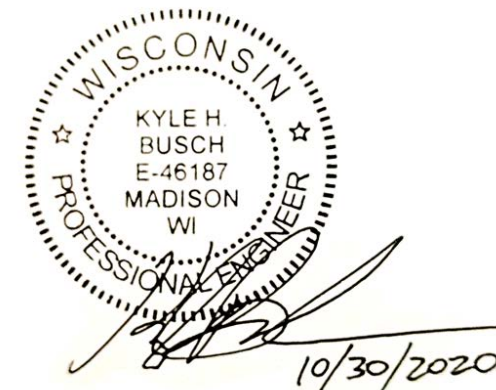
MATERIAL PROPERTIES:
 CONCRETE MASONRY, SUPERSTRUCTURE $f_c = 4,000$ P.S.I.
 ALL OTHER $f_c = 3,500$ P.S.I.
 HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 $f_y = 60,000$ P.S.I.
 28" PRESTRESSED GIRDERS
 CONCRETE MASONRY $f_c = 8,000$ P.S.I.
 STRANDS - 0.60" ϕ WITH AN ULTIMATE TENSILE STRENGTH OF $f_y = 270,000$ P.S.I.

FOUNDATION DATA:
 ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB WITH PILE POINTS DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS FOR THE SOUTH ABUTMENT ARE 15'-0". ESTIMATED PILE LENGTHS FOR THE NORTH ABUTMENT ARE 20'-0".

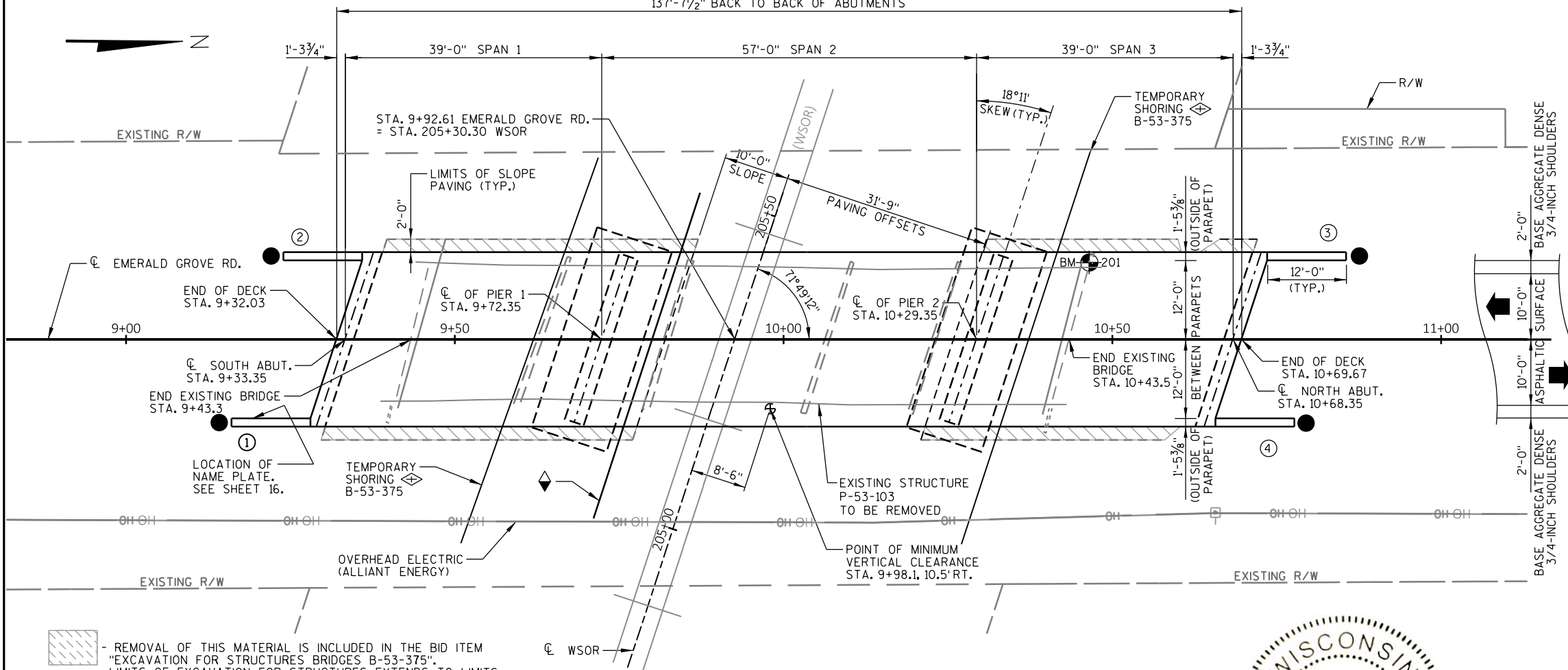
* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

PIERS ARE SUPPORTED ON SPREAD FOOTINGS BEARING ON FIRM BEDROCK WITH A FACTORED BEARING RESISTANCE OF 10,000 PSF. THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN. A GEOTECHNICAL ENGINEER, WITH THREE DAYS NOTICE, SHALL VERIFY THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE PIER FOOTINGS.

CONSULTANT DESIGN CONTACT: KYLE BUSCH (608) 216-2063
 BRIDGE OFFICE CONTACT: AARON BONK (608) 261-0261



137'-7 1/2" BACK TO BACK OF ABUTMENTS

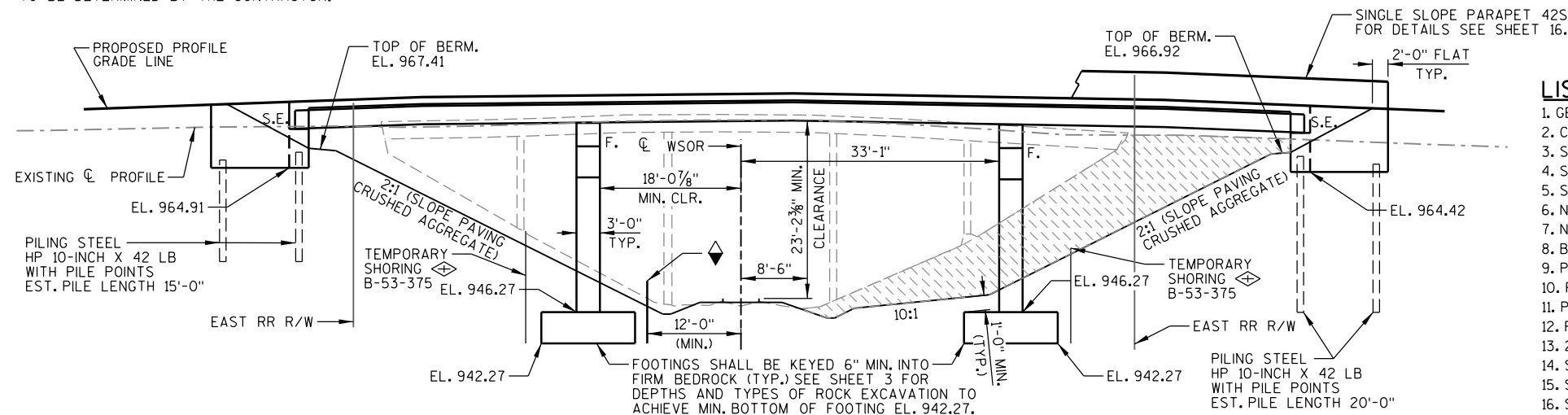


PLAN

(THREE SPAN 28" PRESTRESSED CONCRETE GIRDER)

REMOVAL OF THIS MATERIAL IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-53-375". LIMITS OF EXCAVATION FOR STRUCTURES EXTENDS TO LIMITS OF SLOPE PAVING 2'-0" FROM EDGE OF SUPERSTRUCTURE. SEE ROAD PLANS FOR OTHER EXCAVATION DETAILS AND QUANTITIES.

- - INDICATES LOCATION OF PROVISION FOR THRIE BEAM GUARD ATTACHMENT.
- - INDICATES WING NUMBER
- ◆ - TEMPORARY SHORING RAILROAD. DESIGN FOR ZONE A AND ZONE B SHORING AS DEFINED IN THE "HIGHWAY OVER RAILROAD DESIGN REQUIREMENTS", BRIDGE STD. 38.01, AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS FOR SHORING DESIGN REQUIREMENTS. PLAN ON THE PRESENCE OF BOULDERS, COBBLES, AND SHALLOW BEDROCK WHEN DESIGNING AND PLANNING FOR THE INSTALLATION OF THE SHORING. FINAL LOCATION AND TYPE OF SHORING SYSTEM TO BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT ALL DESIGN DRAWINGS AND CALCULATIONS DIRECTLY TO THE RAILROAD.
- ◇ - LOCATION OF TEMPORARY SHORING, EXACT LOCATION TO BE DETERMINED BY THE CONTRACTOR.



ELEVATION

(NORMAL TO WSOR)

NOTE: PROPOSED PIERS ARE CRASHWALL COMPLIANT.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, QUANTITIES & NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. BEARING SEAT LAYOUT
9. PIER 1
10. PIER 1 DETAILS
11. PIER 2
12. PIER 2 DETAILS
13. 28" PRESTRESSED GIRDER DETAILS
14. SUPERSTRUCTURE
15. SUPERSTRUCTURE SECTIONS & DETAILS
16. SINGLE SLOPE PARAPET 42SS
17. STEEL DIAPHRAGM
18. SLOPE PAVING CRUSHED AGGREGATE

NO.	DATE	REVISION	BY

ENGINEERING | ARCHITECTURE | SURVEYING
 FUNDING | PLANNING | ENVIRONMENTAL
MSA
 1702 PANKRATZ STREET, MADISON WI 53704
 (608) 242-7779 www.msa-ps.com

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 ACCEPTED *[Signature]* SPR **01/11/21**
 CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-53-375
 EMERALD GROVE ROAD OVER WSOR
 COUNTY ROCK TOWN/CITY/VILLAGE BRADFORD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
 DESIGNED BY JFM DESIGN CK'D. KHB DRAWN BY RLR PLANS CK'D. KHB

GENERAL PLAN SHEET 1 OF 18

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING CRUSHED AGGREGATE TO THE LIMITS SHOWN ON SHEETS 1, 4, 6, AND 18 OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES (B-53-375)" FOR THE ABUTMENTS AND PIERS.

THIS STRUCTURE WILL REPLACE EXISTING BRIDGE, P-53-103, A 101 FOOT LONG, FIVE SPAN TIMBER DECK GIRDER BRIDGE SET ON TIMBER BACKED, TIMBER PILE ABUTMENTS AND TIMBER PILE BENT PIERS.

AT THE BACKFACE OF ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH "BACKFILL STRUCTURE TYPE A".

ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.

ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD DEMOLITION GUIDELINES.

ERECTION WITHIN THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO ALL RAILROAD OPERATIONS.

SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.

INSTALL THE 42SS (CLOSED TYPE) PARAPET AND GRADE THE APPROACHES TO THE BRIDGE TO ENSURE THAT NO DRAINAGE WILL BE DISCHARGED ON RAILROAD RIGHT-OF-WAY.

FOR RAILROAD COORDINATION REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART OF THE SPECIAL PROVISIONS.

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

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 3'-0" ABOVE BOTTOM OF ABUTMENT.

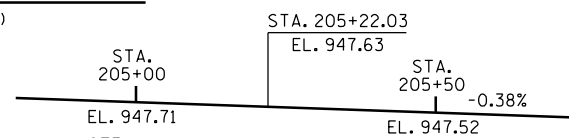
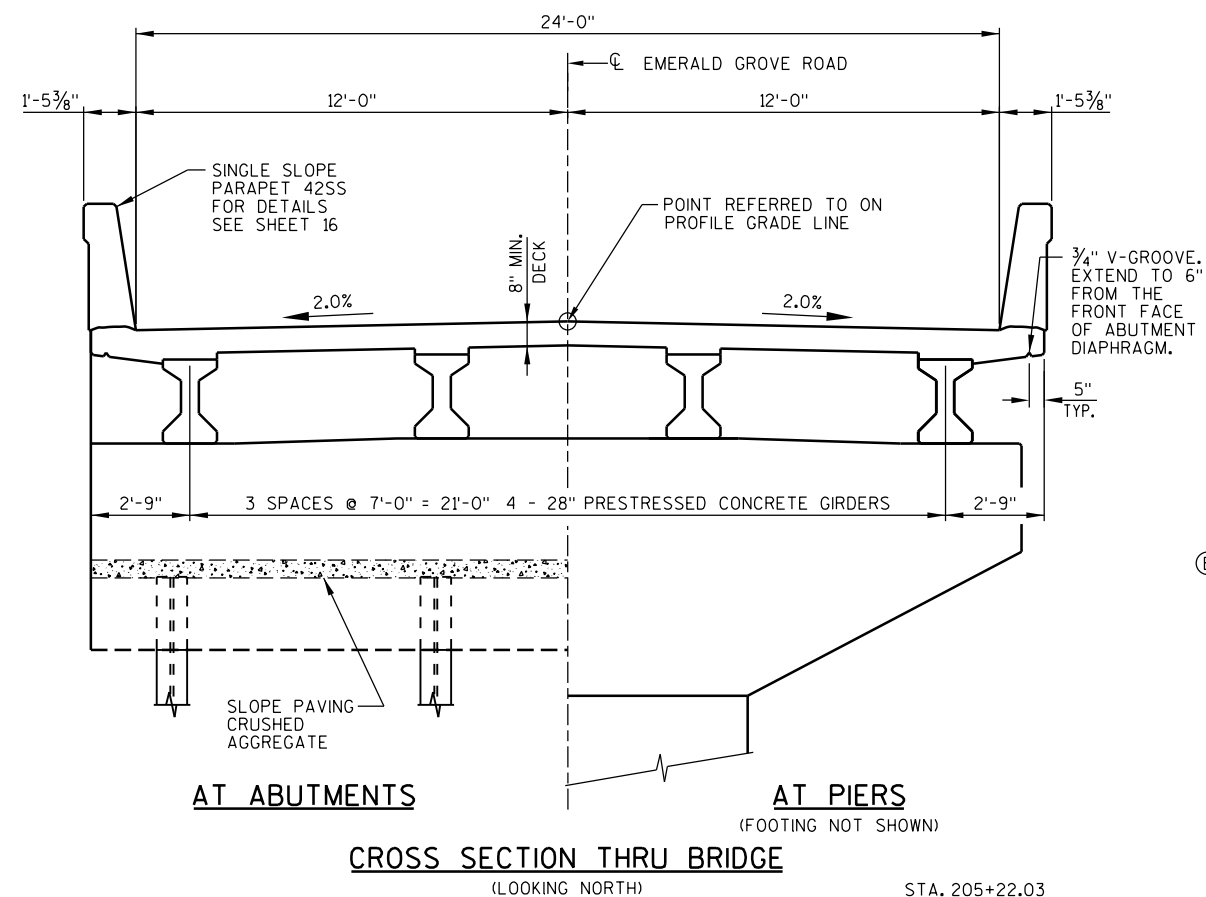
EXCAVATION OF ALL MATERIAL, INCLUDING ROCK, SHALL BE PAID FOR UNDER THE "EXCAVATION FOR STRUCTURES BRIDGES" BID ITEM. ANY BLASTING OF ROCK SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS. ALL EXCAVATIONS SHALL BE CLEANED BY HAND AND INSPECTED TO VERIFY THE SURFACE IS FREE OF LOOSE RUBBLE AND SOIL PRIOR TO CONCRETE PLACEMENT.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF DECK, TO THE EXTERIOR EXPOSED FACES OF WINGS, AND TO THE END 1'-0" OF THE FRONT FACE OF ABUTMENTS.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE INSIDE FACES, THE TOP FACES, AND THE ENDS OF THE PARAPETS.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARK REFERENCES AT THE PROJECT SITE WERE SET BY THE CONSULTANT USING GPS TECHNOLOGY.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE SUPERSTRUCTURE SHEET.

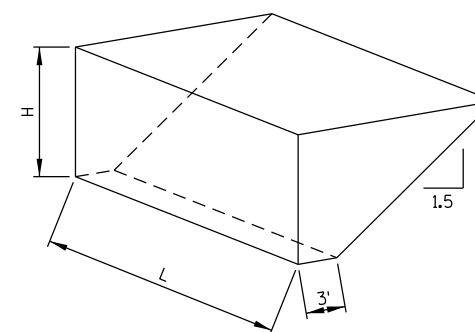


NOTE:
STA. 205+22.03, 8.50' RT ON WSOR CORRESPONDS WITH POINT OF MINIMUM VERTICAL CLEARANCE. SEE SHEET 1 FOR LOCATION.

PROFILE GRADE LINE - WSOR

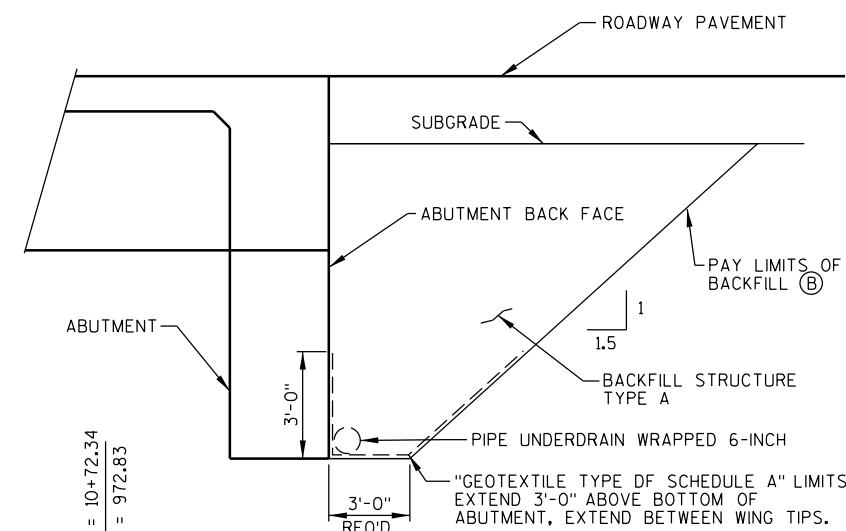
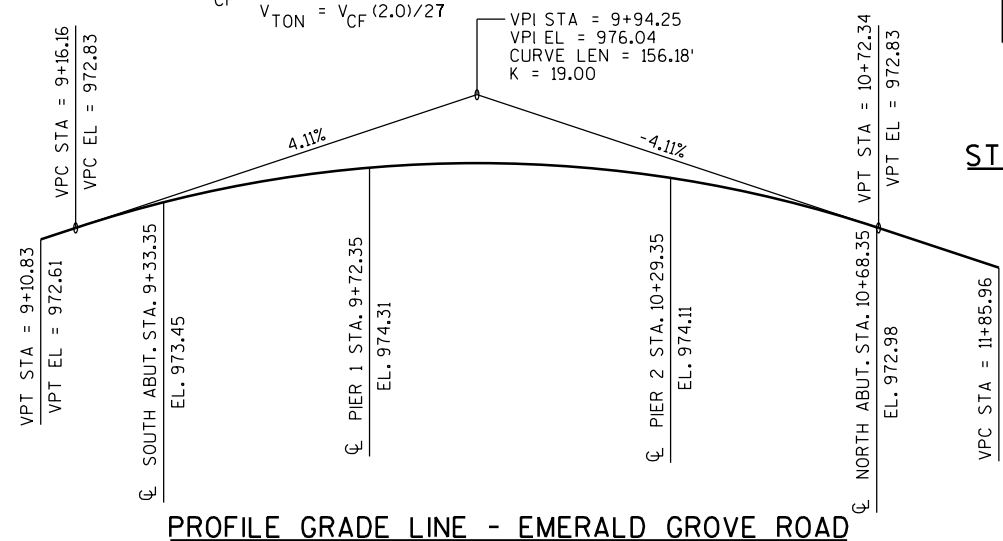
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	PIER 1	PIER 2	NORTH ABUT.	SUPER	TOTAL
203.0200.01	REMOVING OLD STRUCTURE STATION 10+00	LS	-	-	-	-	-	1
203.0225.S.01	DEBRIS CONTAINMENT B-53-375	LS	-	-	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-53-375	LS	-	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	120	-	-	120	-	240
502.0100	CONCRETE MASONRY BRIDGES	CY	32	94	94	32	168	420
502.3200	PROTECTIVE SURFACE TREATMENT	SY	7	-	-	7	367	381
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	-	160	160
503.0128	PRESTRESSED GIRDER TYPE I 28-INCH	LF	-	-	-	-	542	542
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1880	7900	7900	1880	-	19560
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1785	8765	8765	1785	42080	63180
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	24	24
506.4000.01	STEEL DIAPHRAGMS B-53-375	EACH	-	-	-	-	9	9
511.1200.01	TEMPORARY SHORING B-53-375	SF	-	663	582	-	-	1245
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	-	-	9	-	18
550.0500	PILE POINTS	EACH	6	-	-	6	-	12
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	90	-	-	120	-	210
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	176	-	-	153	-	329
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	97	-	-	97	-	194
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	-	-	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	57	-	-	57	-	114
SPV.0165.01	TEMPORARY SHORING RAILROAD	SF	-	195	-	-	-	195
NON-BID ITEMS								
	CORK FILLER	SIZE						3/4"
	PREFORMED FILLER	SIZE						1/2" & 3/4"



ABUTMENT BACKFILL DIAGRAM

L = OUT-TO-OUT OF ABUTMENT
H = AVERAGE ABUTMENT FILL HEIGHT
 $V_{CF} = \frac{L \times (3.0)(H) + (L)(0.5)(1.5H)(H)}{2}$
 $V_{TON} = V_{CF} (2.0) / 27$



STRUCTURE BACKFILL DETAIL

AT ABUTMENT BACK FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
CROSS SECTION, QUANTITIES & NOTES			SHEET 2 OF 18



BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	7-23-2019	253,204.0	530,476.8
2	7-23-2019	253,327.0	530,466.4
3	7-23-2019	253,321.0	530,479.4
4	8-6-2019	253,204.0	530,465.8
5	8-6-2019	253,239.1	530,486.7
5A	8-6-2019	253,244.0	530,456.7
6	8-6-2019	253,294.1	530,486.5
6A	8-6-2019	253,299.0	530,456.5

BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.
 REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.
 ALL COORDINATES REFERENCED TO WCCS NAD 83(11) ROCK COUNTY

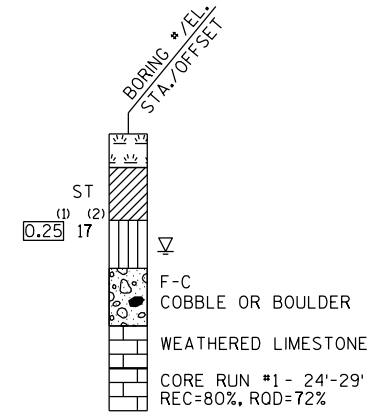
STATE PROJECT NUMBER

3614-00-77

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

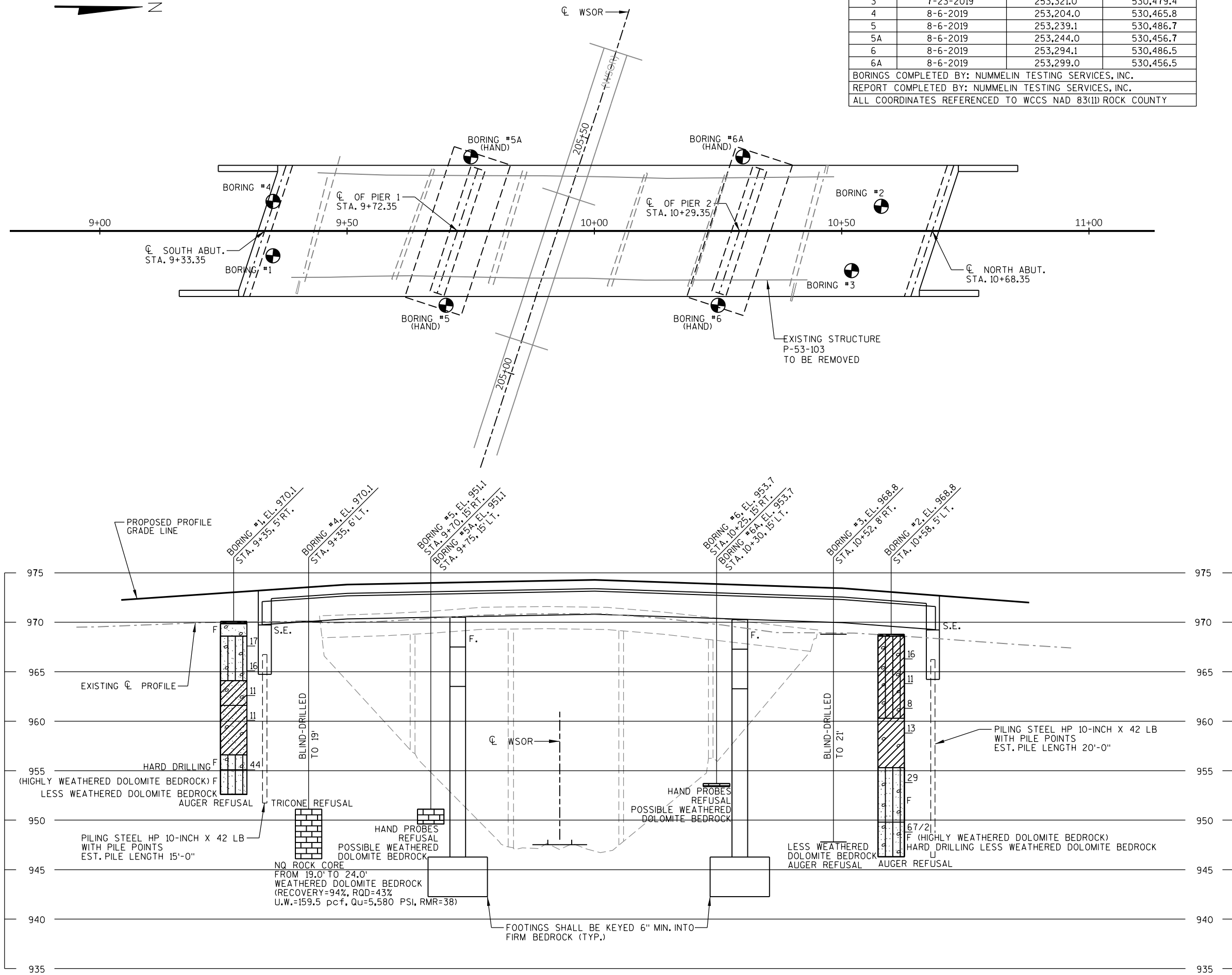
ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

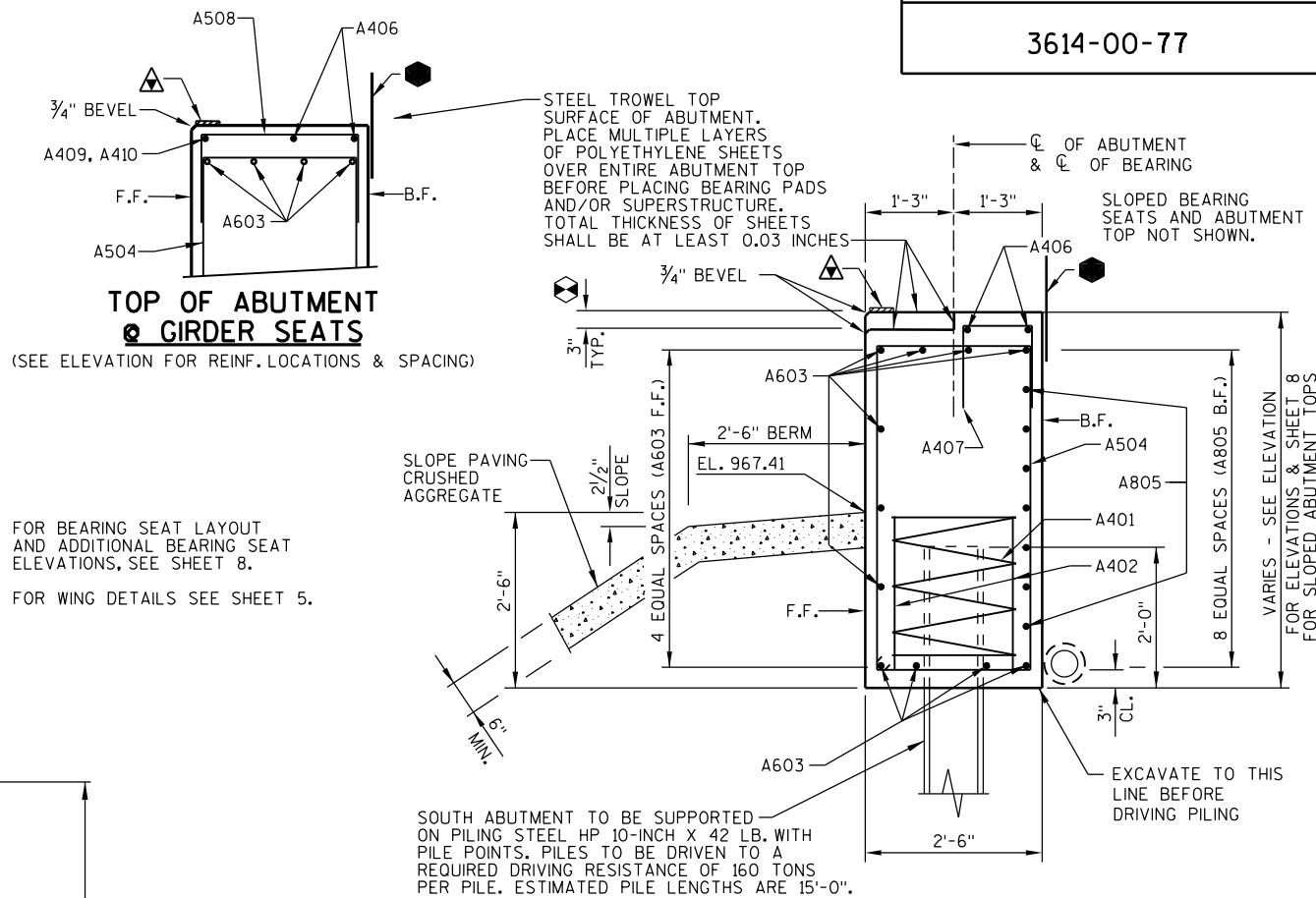
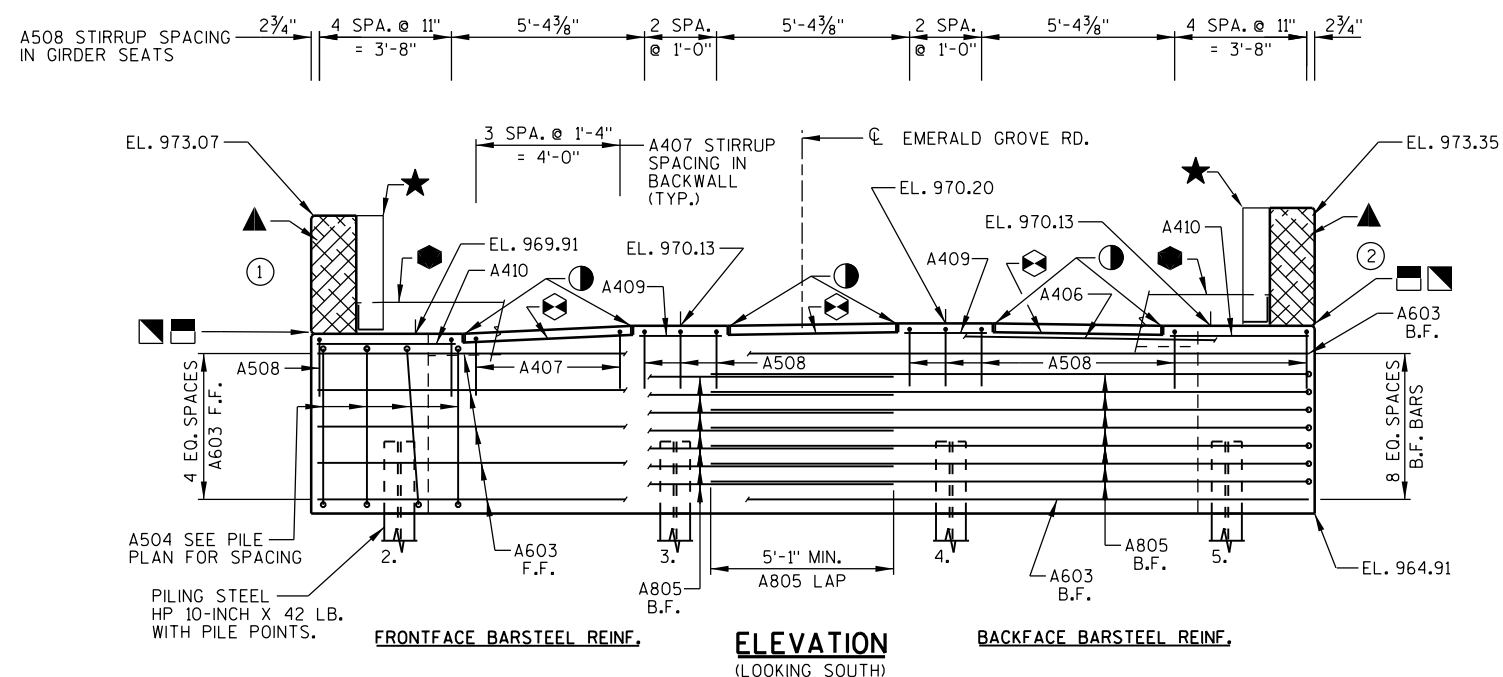
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT 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		B-53-375	
DRAWN BY		RLR	PLANS CK'D. KHB
SUBSURFACE EXPLORATION		SHEET 3 OF 18	

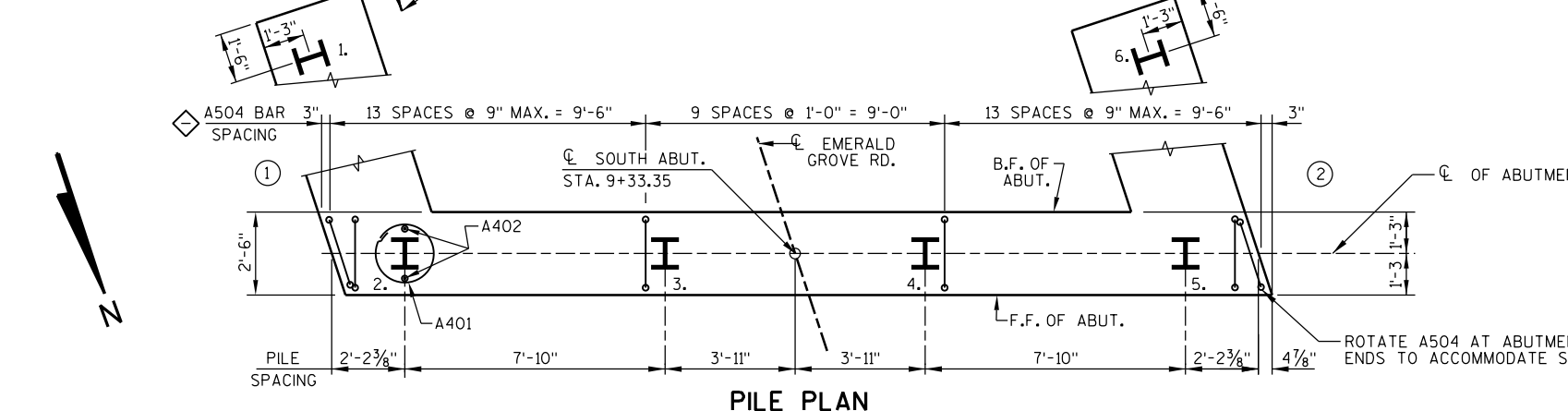
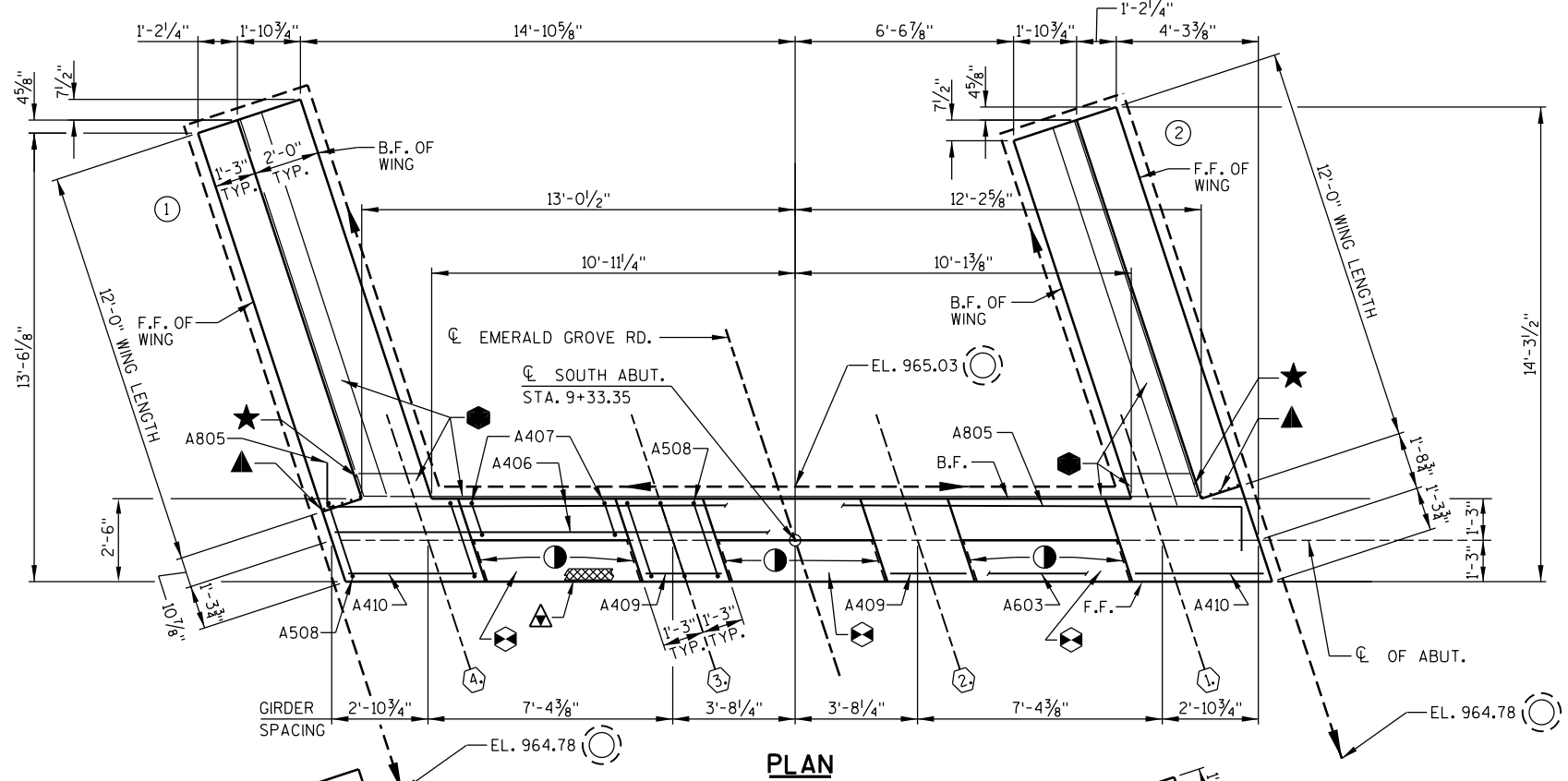


8

8

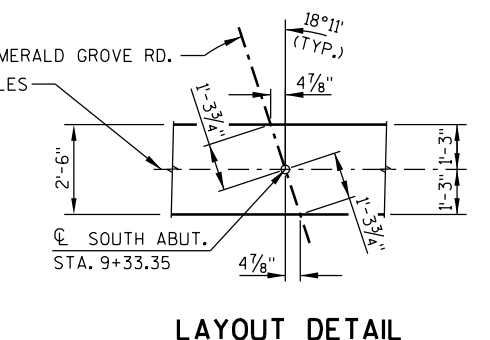


FOR BEARING SEAT LAYOUT AND ADDITIONAL BEARING SEAT ELEVATIONS, SEE SHEET 8.
FOR WING DETAILS SEE SHEET 5.



LEGEND

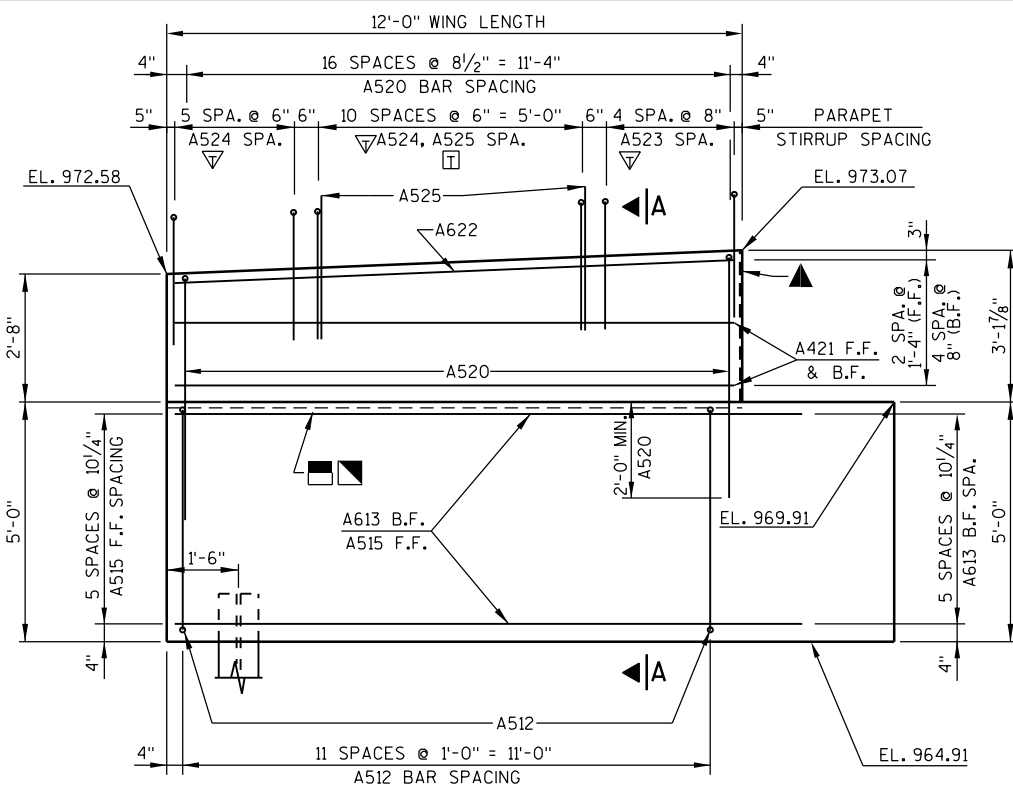
- — DENOTES GIRDER NUMBER.
- — INDICATES WING NUMBER.
- F.F.—FRONT FACE B.F.—BACK FACE CL.—CLEAR
- ⊗ — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU SLOPE PAVING CRUSHED AGGREGATE. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. SEE SHEET 18 FOR DETAILS.
- — 3/4" CORK FILLER (VERTICAL FACE ONLY) AT SIDES OF SEMI-EXPANSION POCKETS.
- ▲ — 4" x 1/2" PREFORMED JOINT FILLER, EXTEND FULL LENGTH ALONG F.F. OF ABUTMENT.
- ★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOPS OF WINGS.
- — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS AND ALONG WINGS.
- ▲ — 1/2" PREFORMED JOINT FILLER, EXTEND FROM BEAM SEAT TO TOP OF WING. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF PREFORMED JOINT FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE). FILLER INCLUDED IN WING LENGTH.
- ⊗ — SEMI-EXPANSION POCKET, CONSTRUCT 3" DEEPER THAN SURROUNDING BEAM SEATS AND BACKWALL.
- ▣ — 3/4" "V" GROOVE ON FRONT FACE OF WING WALL AT CONSTRUCTION JOINT.
- ▣ — KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2 x 6. PLACE ● ON B.F. OF WING. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE.
- ◇ — A504 BARS TO BE PLACED TO MISS PILING.



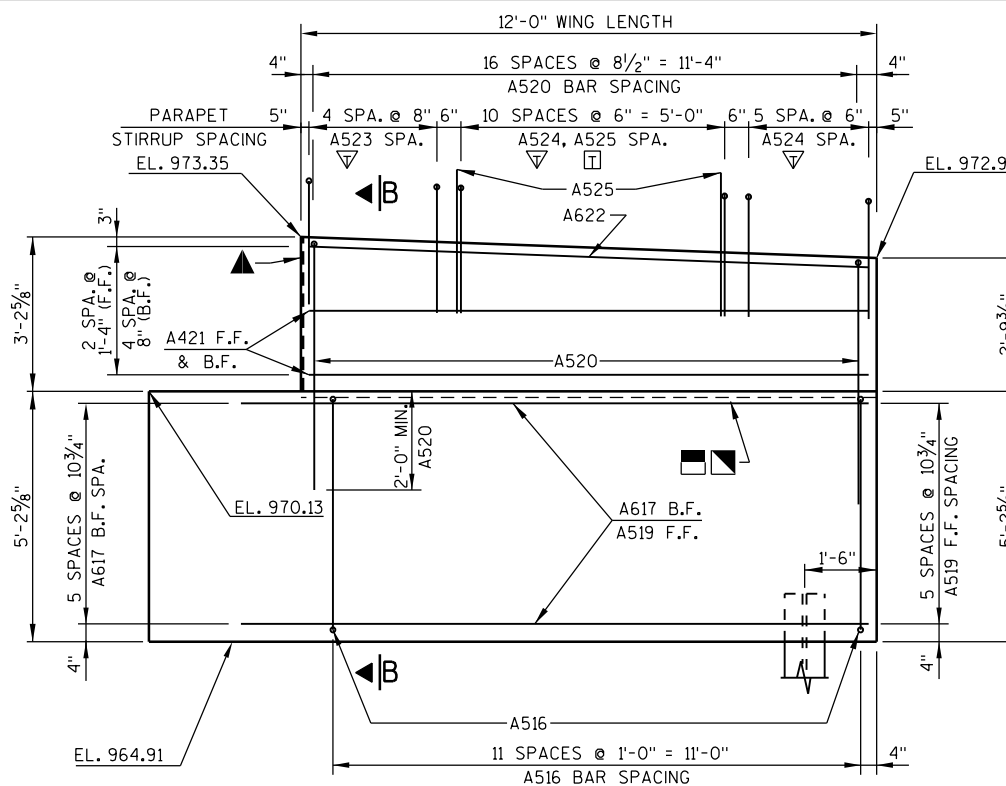
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-53-375	
DRAWN BY		PLANS CK'D.	
RLR		KHB	
SOUTH ABUTMENT			SHEET 4 OF 18

8

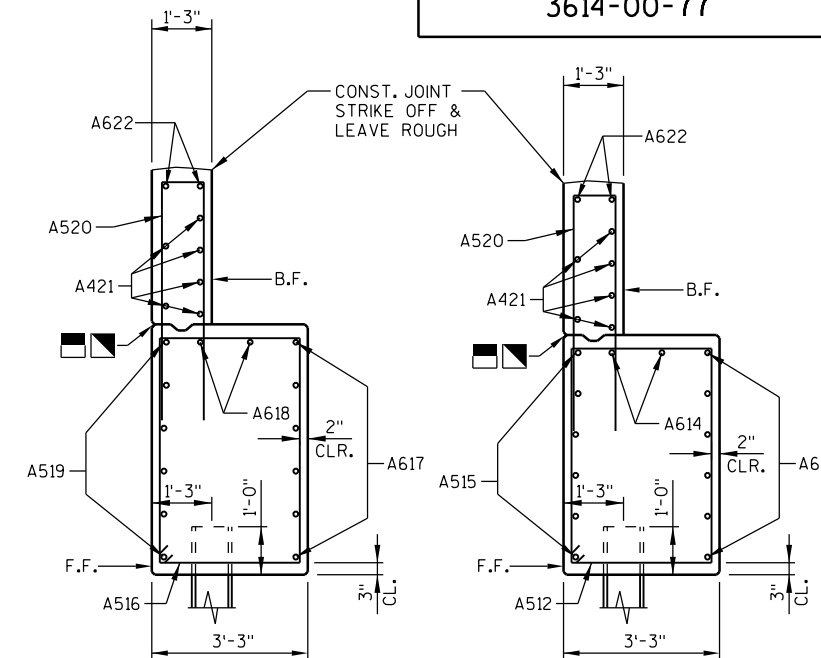
8



ELEVATION WING 1



ELEVATION WING 2



SECTION B-B THRU WING 2

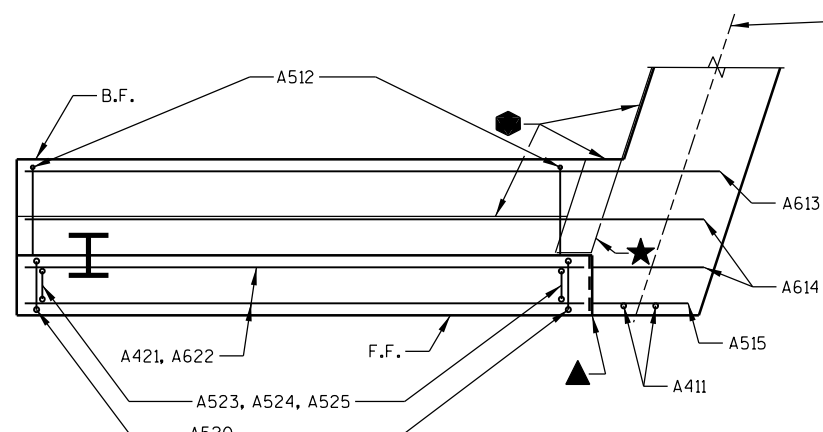
SECTION A-A THRU WING 1

COATED 1785 LBS.
UNCOATED 1880 LBS.

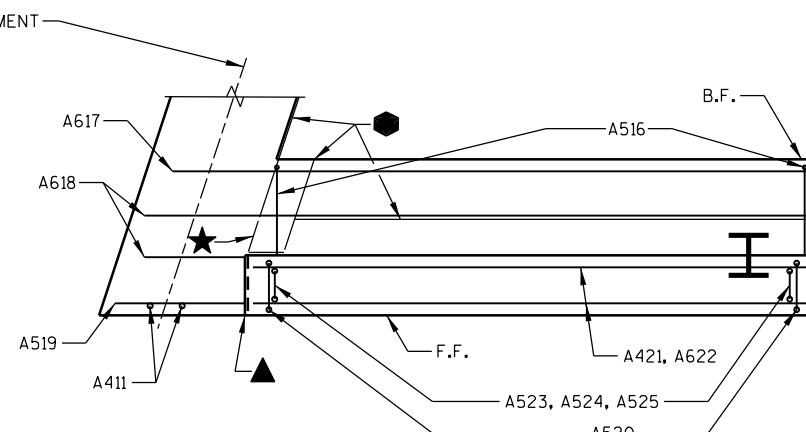
BILL OF BARS (SOUTH ABUTMENT)

MARK	NUMBER REQUIRED		LENGTH	BENT	LOCATION
	COATED	UNCOATED			
A401	-	4	28'-0"	X	ABUT. BODY PILES - 1 PER PILE 5 SPIRAL WRAPS
A402	-	8	2'-3"		ABUT. BODY PILES - 2 PER PILE - VERT.
A603	-	11	27'-6"		ABUT. BODY - F.F., TOP & BOTTOM - HORIZ.
A504	-	36	13'-8"	X	ABUT. BODY - STIRRUPS - VERT.
A805	-	14	17'-5"	X	ABUT. BODY - B.F. - HORIZ.
A406	-	2	27'-6"		ABUT. TOP - S.E. BACKWALL - HORIZ.
A407	-	12	4'-0"	X	ABUT. TOP - S.E. BACKWALL - TIES - VERT.
A508	-	16	5'-2"	X	ABUT. TOP - GIRDER SEATS - TIES - VERT.
A409	-	2	2'-3"		ABUT. TOP - F.F. - INT. GIRDER SEATS - HORIZ.
A410	-	2	3'-10"		ABUT. TOP - F.F. - END GIRDER SEATS - HORIZ.
A411	-	4	4'-7"		ABUT. BODY - ENDS - VERT.
A512	12	-	15'-8"	X	WING 1 - BASE - STIRRUP - VERT.
A613	6	-	14'-6"		WING 1 - BASE - B.F.
A614	2	-	14'-2"		WING 1 - BASE - TOP - HORIZ.
A515	6	-	13'-10"		WING 1 - BASE - F.F. - HORIZ.
A516	12	-	16'-0"	X	WING 2 - BASE - STIRRUP - VERT.
A617	6	-	13'-5"		WING 2 - BASE - B.F.
A618	2	-	13'-11"		WING 2 - BASE - TOP - HORIZ.
A519	6	-	14'-6"		WING 2 - BASE - F.F. - HORIZ.
A520	34	-	10'-10"	X	WINGS - TOP - TIES - VERT.
A421	12	-	11'-7"		WINGS - TOP - F.F. & B.F. - HORIZ.
A622	4	-	11'-7"		WINGS - TOP - F.F. & B.F. - HORIZ.
A523	10	-	5'-10"	X	WINGS - TOP - PARAPET STIRRUP - VERT.
A524	34	-	5'-7"	X	WINGS - TOP - PARAPET STIRRUP - VERT.
A525	22	-	3'-0"	X	WINGS - TOP - PARAPET STIRRUP - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



PLAN WING 1



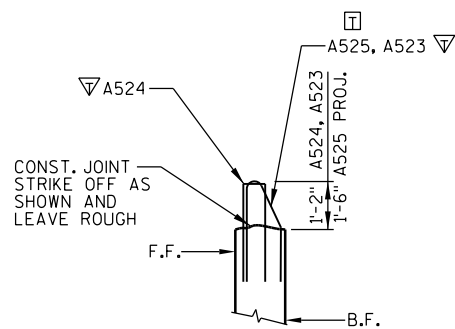
PLAN WING 2

□ A525 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A525 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

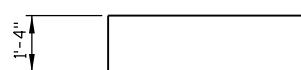
▽ A524 AND A523 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

SEE SHEET 16 FOR PLACEMENT DETAILS OF A523, A524 AND A525 BARS.

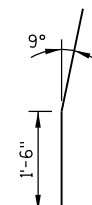
SEE SHEET 4 LEGEND FOR DESCRIPTION OF



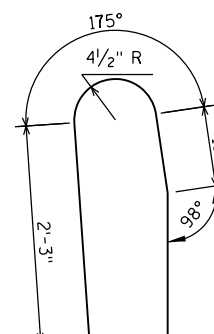
PARAPET STIRRUP PROJECTION DETAIL



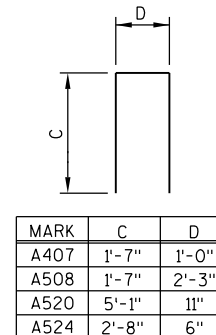
A805



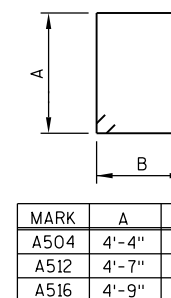
A525



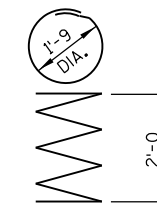
A523



MARK	C	D
A407	1'-7"	1'-0"
A508	1'-7"	2'-3"
A520	5'-1"	11"
A524	2'-8"	6"

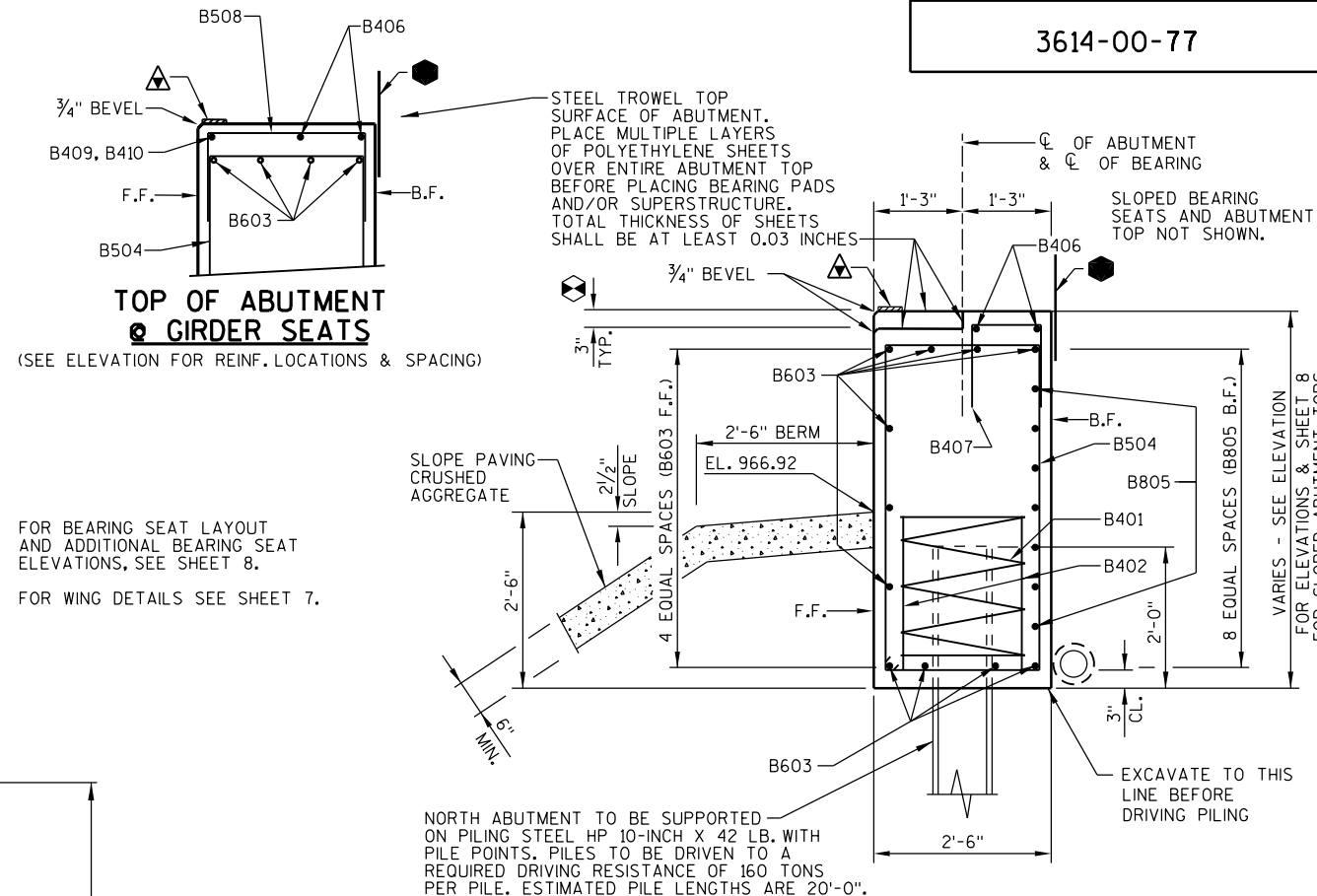
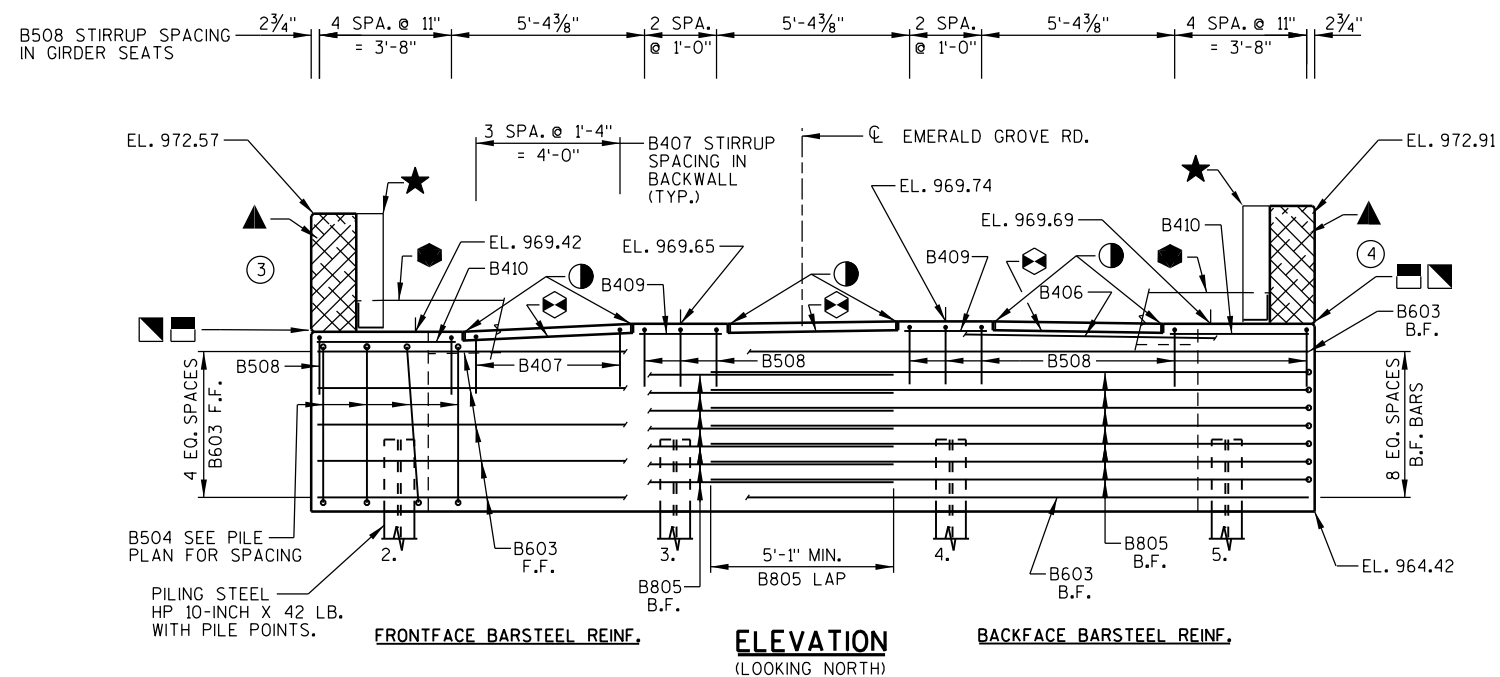


MARK	A	B
A504	4'-4"	2'-2"
A512	4'-7"	2'-11"
A516	4'-9"	2'-11"

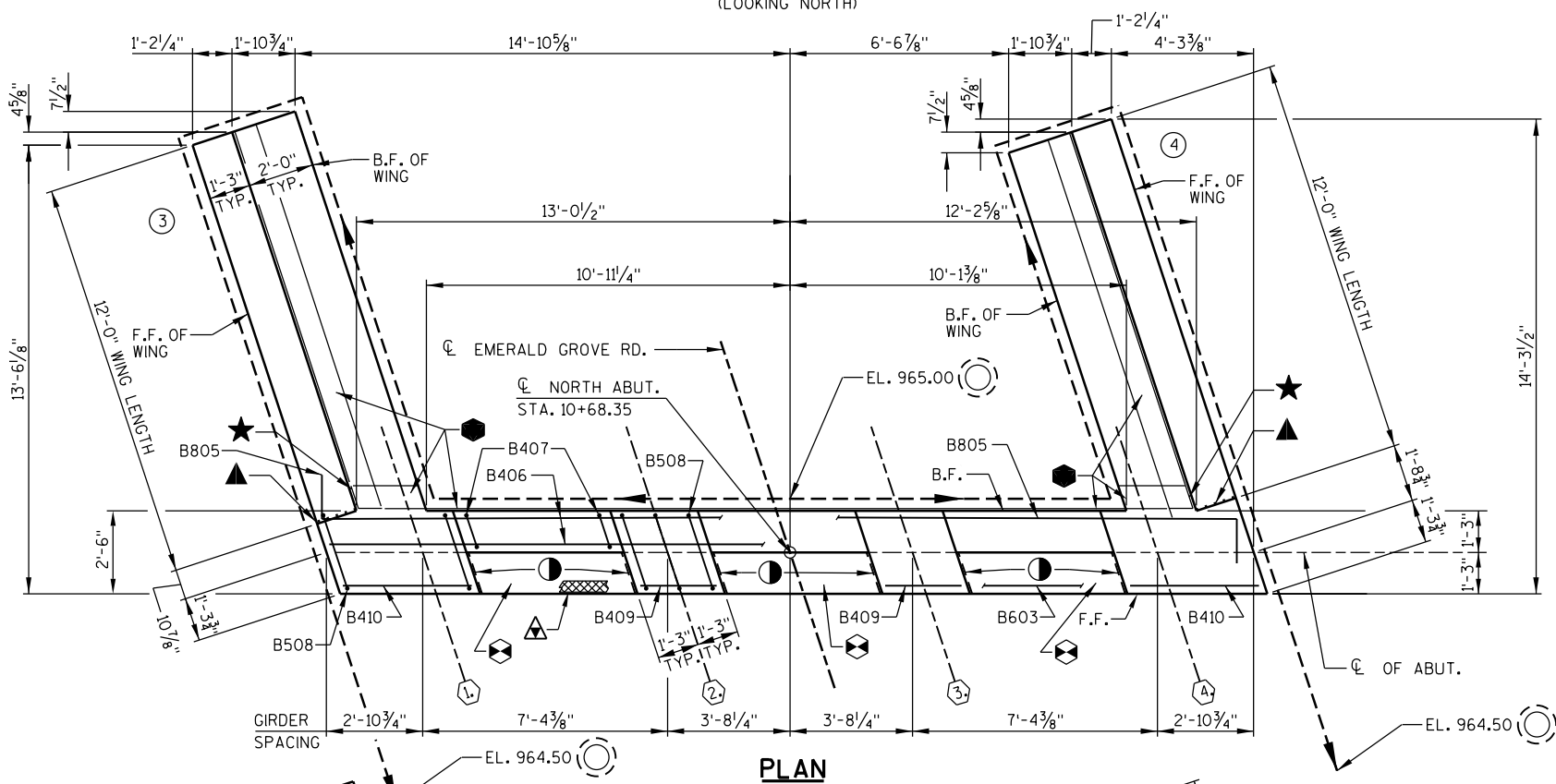


A401

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-53-375	
DRAWN BY		RLR	PLANS CK'D. KHB
SOUTH ABUTMENT DETAILS			SHEET 5 OF 18

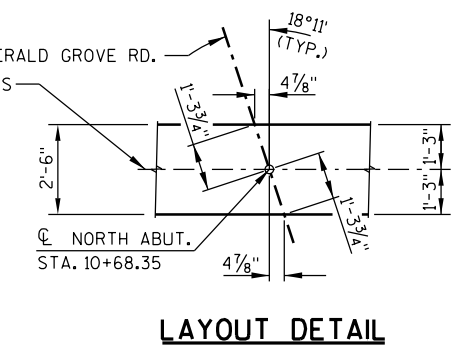
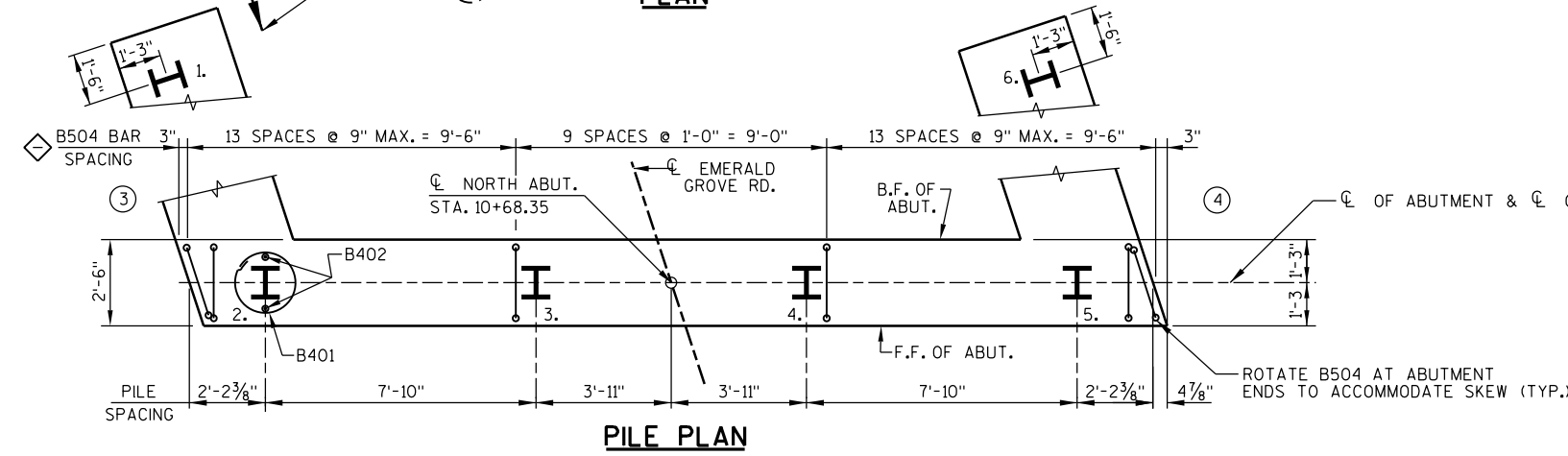


FOR BEARING SEAT LAYOUT AND ADDITIONAL BEARING SEAT ELEVATIONS, SEE SHEET 8.
FOR WING DETAILS SEE SHEET 7.



LEGEND

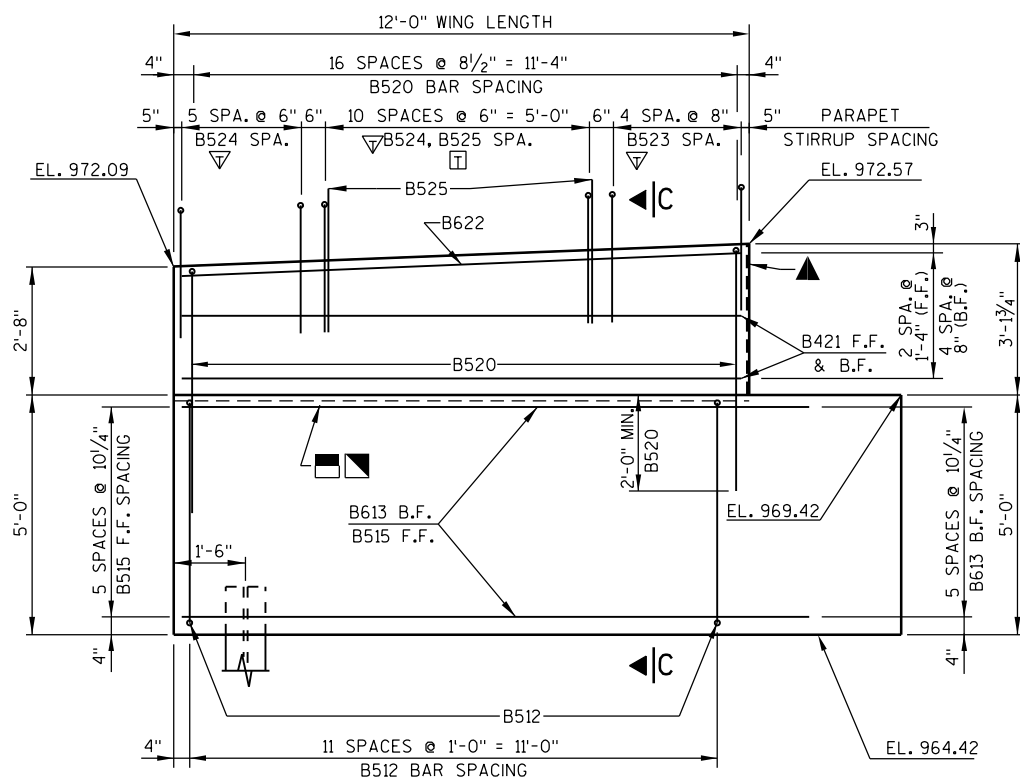
- — DENOTES GIRDER NUMBER.
- — INDICATES WING NUMBER.
- F.F.—FRONT FACE B.F.—BACK FACE CL.—CLEAR
- ⊖ — PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU SLOPE PAVING CRUSHED AGGREGATE. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. SEE SHEET 18 FOR DETAILS.
- — 3/4" CORK FILLER (VERTICAL FACE ONLY) AT SIDES OF SEMI-EXPANSION POCKETS.
- ▲ — 4" x 1/2" PREFORMED JOINT FILLER, EXTEND FULL LENGTH ALONG F.F. OF ABUTMENT.
- ★ — VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOPS OF WINGS.
- — HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS AND ALONG WINGS.
- ▲ — 1/2" PREFORMED JOINT FILLER, EXTEND FROM BEAM SEAT TO TOP OF WING. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF PREFORMED JOINT FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER, (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE). FILLER INCLUDED IN WING LENGTH.
- ⊖ — SEMI-EXPANSION POCKET, CONSTRUCT 3" DEEPER THAN SURROUNDING BEAM SEATS AND BACKWALL.
- — 3/4" "V" GROOVE ON FRONT FACE OF WING WALL AT CONSTRUCTION JOINT.
- — KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2 x 6. PLACE ● ON B.F. OF WING. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE.
- ◇ — B504 BARS TO BE PLACED TO MISS PILING.



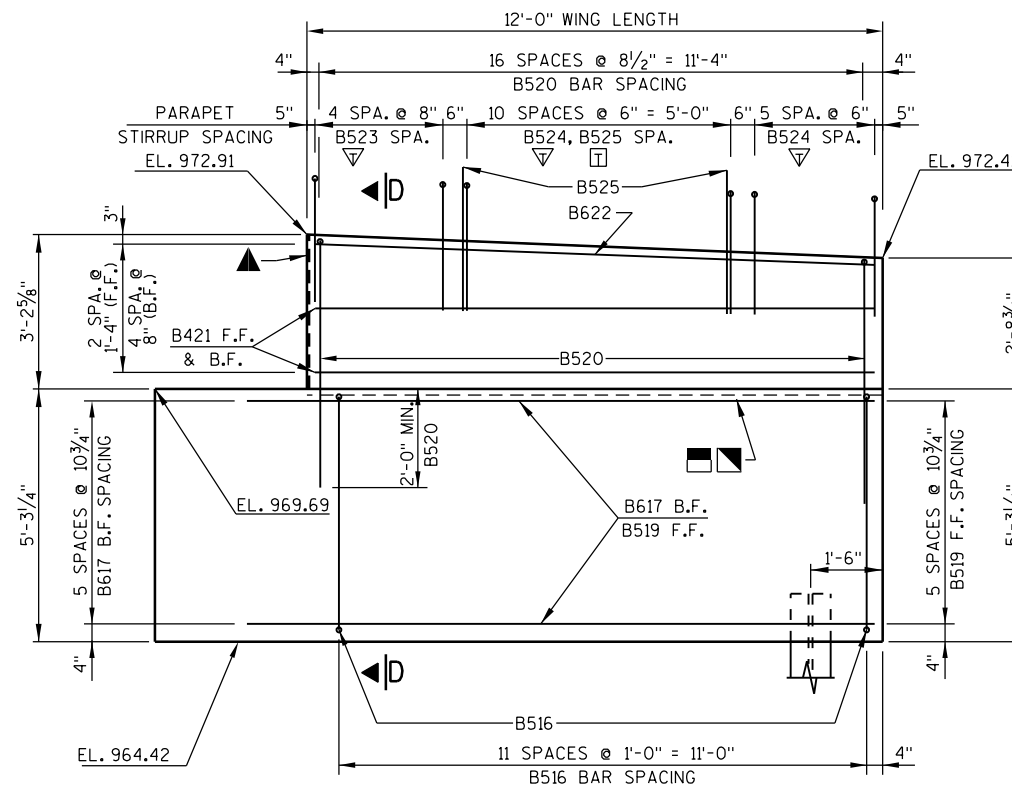
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375		DRAWN BY	PLANS CK'D.
NORTH ABUTMENT		RLR	KHB
		SHEET 6 OF 18	

8

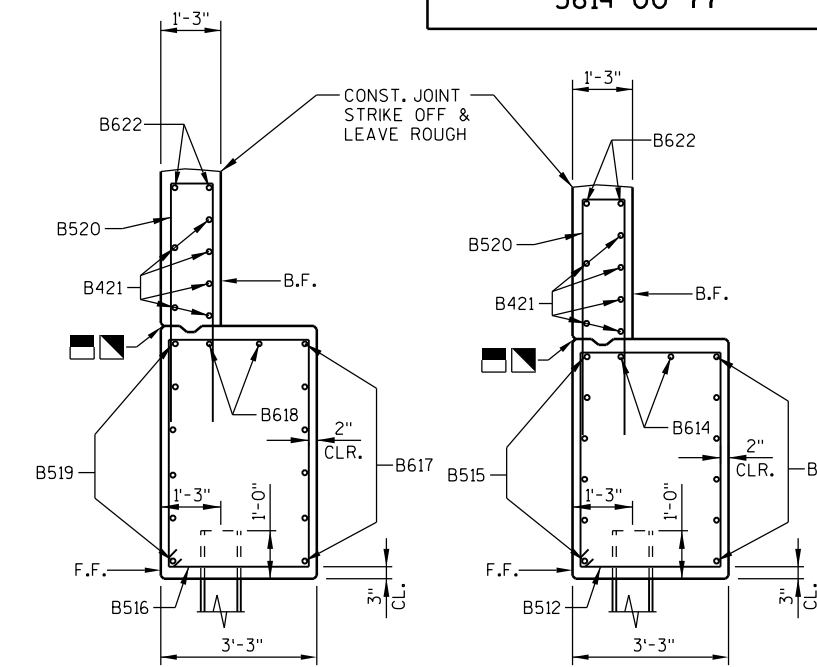
8



ELEVATION WING 3



ELEVATION WING 4



SECTION D-D
THRU WING 4

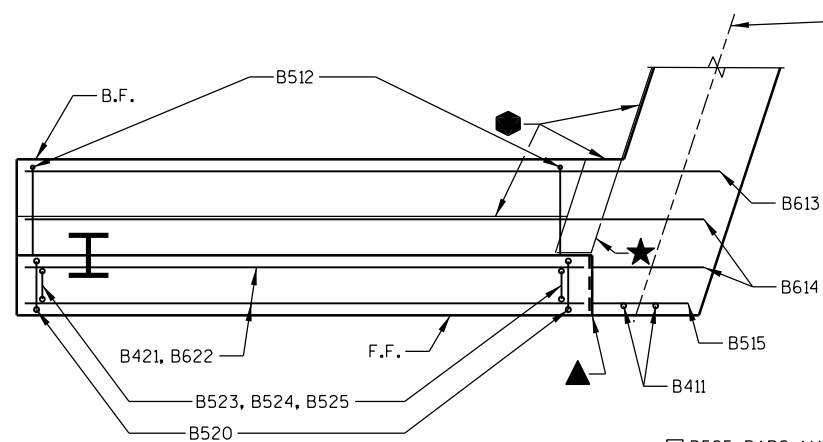
SECTION C-C
THRU WING 3

COATED 1785 LBS.

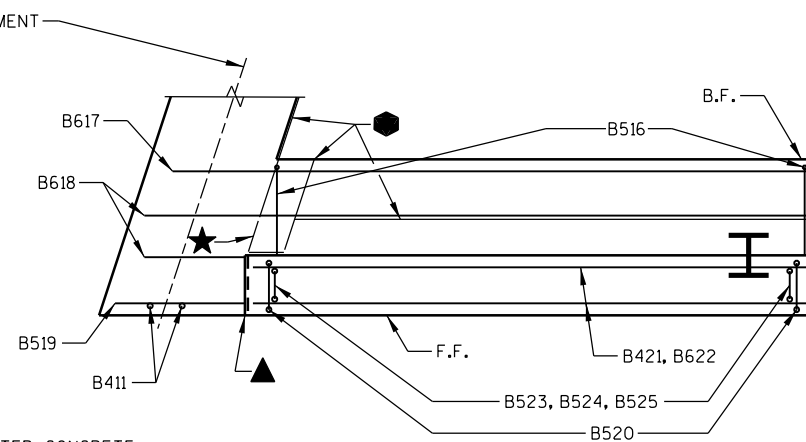
BILL OF BARS (NORTH ABUTMENT) UNCOATED 1880 LBS.

MARK	NUMBER REQUIRED		LENGTH	BENT	LOCATION
	COATED	UNCOATED			
B401	-	4	28'-0"	X	ABUT. BODY PILES - 1 PER PILE 5 SPIRAL WRAPS
B402	-	8	2'-3"		ABUT. BODY PILES - 2 PER PILE - VERT.
B603	-	11	27'-6"		ABUT. BODY - F.F., TOP & BOTTOM - HORIZ.
B504	-	36	13'-8"	X	ABUT. BODY - STIRRUPS - VERT.
B805	-	14	17'-5"	X	ABUT. BODY - B.F. - HORIZ.
B406	-	2	27'-6"		ABUT. TOP - S.E. BACKWALL - HORIZ.
B407	-	12	4'-0"	X	ABUT. TOP - S.E. BACKWALL - TIES - VERT.
B508	-	16	5'-2"	X	ABUT. TOP - GIRDER SEATS - TIES - VERT.
B409	-	2	2'-3"		ABUT. TOP - F.F. - INT. GIRDER SEATS - HORIZ.
B410	-	2	3'-10"		ABUT. TOP - F.F. - END GIRDER SEATS - HORIZ.
B411	-	4	4'-7"		ABUT. BODY - ENDS - VERT.
B512	12	-	15'-8"	X	WING 3 - BASE - STIRRUP - VERT.
B613	6	-	14'-6"		WING 3 - BASE - B.F.
B614	2	-	14'-2"		WING 3 - BASE - TOP - HORIZ.
B515	6	-	13'-10"		WING 3 - BASE - F.F. - HORIZ.
B516	12	-	16'-2"	X	WING 4 - BASE - STIRRUP - VERT.
B617	6	-	13'-5"		WING 4 - BASE - B.F.
B618	2	-	13'-11"		WING 4 - BASE - TOP - HORIZ.
B519	6	-	14'-6"		WING 4 - BASE - F.F. - HORIZ.
B520	34	-	10'-10"	X	WINGS - TOP - TIES - VERT.
B421	12	-	11'-7"		WINGS - TOP - F.F. & B.F. - HORIZ.
B622	4	-	11'-7"		WINGS - TOP - F.F. & B.F. - HORIZ.
B523	10	-	5'-10"	X	WINGS - TOP - PARAPET STIRRUP - VERT.
B524	34	-	5'-7"	X	WINGS - TOP - PARAPET STIRRUP - VERT.
B525	22	-	3'-0"	X	WINGS - TOP - PARAPET STIRRUP - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



PLAN WING 3



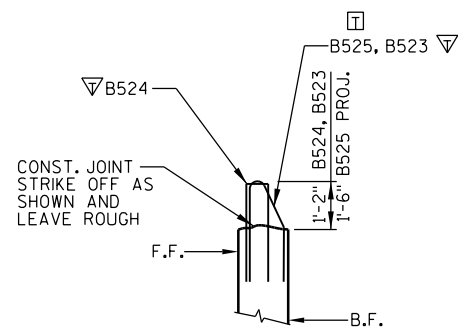
PLAN WING 4

□ B525 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE B525 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

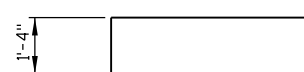
▽ B524 AND B523 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

SEE SHEET 16 FOR PLACEMENT DETAILS OF B523, B524 AND B525 BARS.

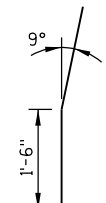
SEE SHEET 6 LEGEND FOR DESCRIPTION OF



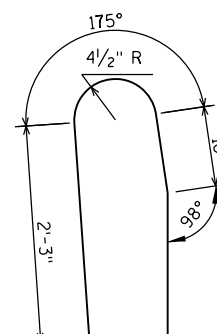
PARAPET STIRRUP
PROJECTION DETAIL



B805

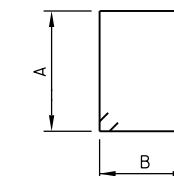


B525

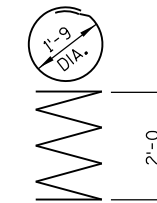


B523

MARK	C	D
B407	1'-7"	1'-0"
B508	1'-7"	2'-3"
B520	5'-1"	11"
B524	2'-8"	6"

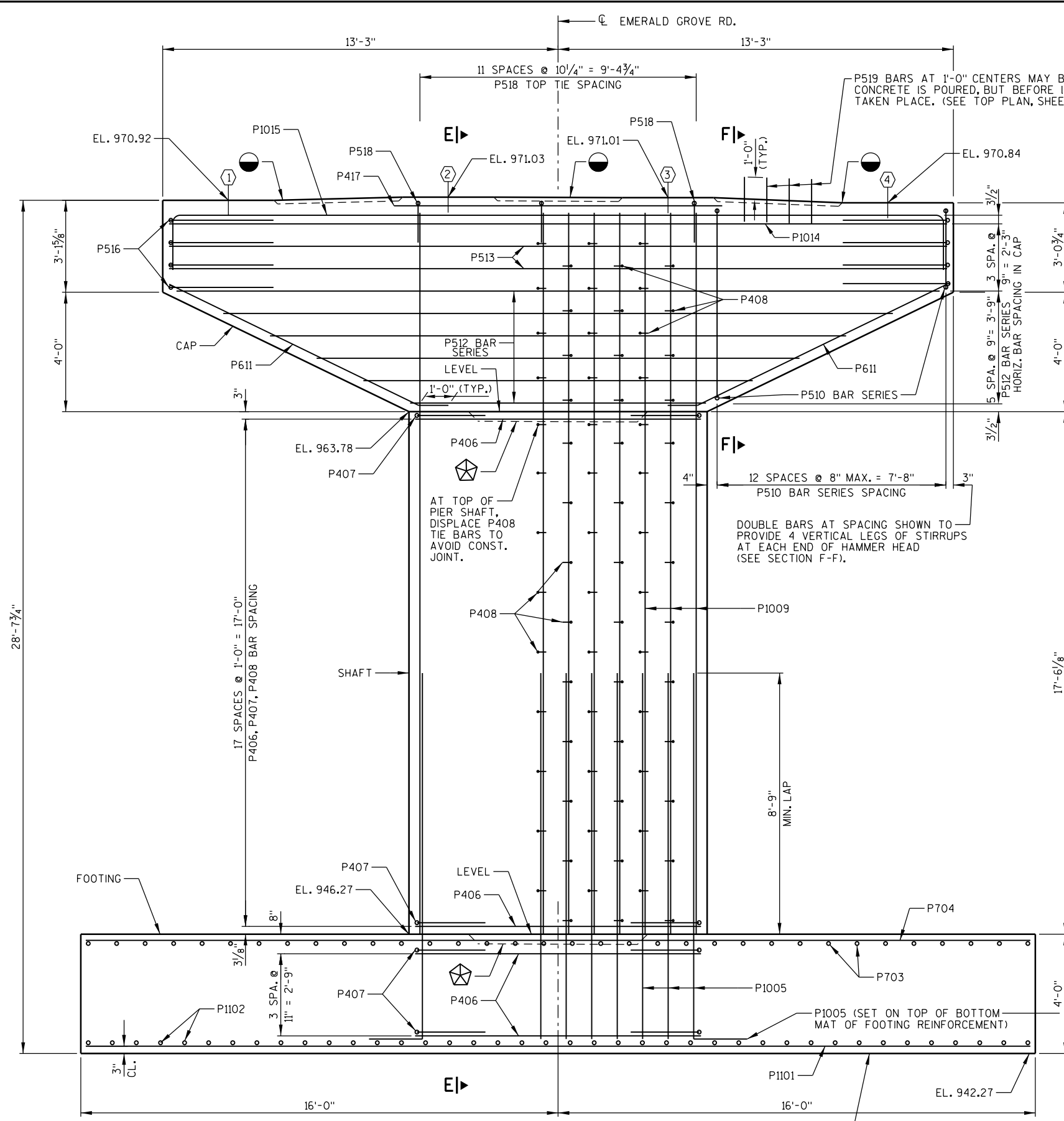


MARK	A	B
B504	4'-4"	2'-2"
B512	4'-7"	2'-11"
B516	4'-10"	2'-11"

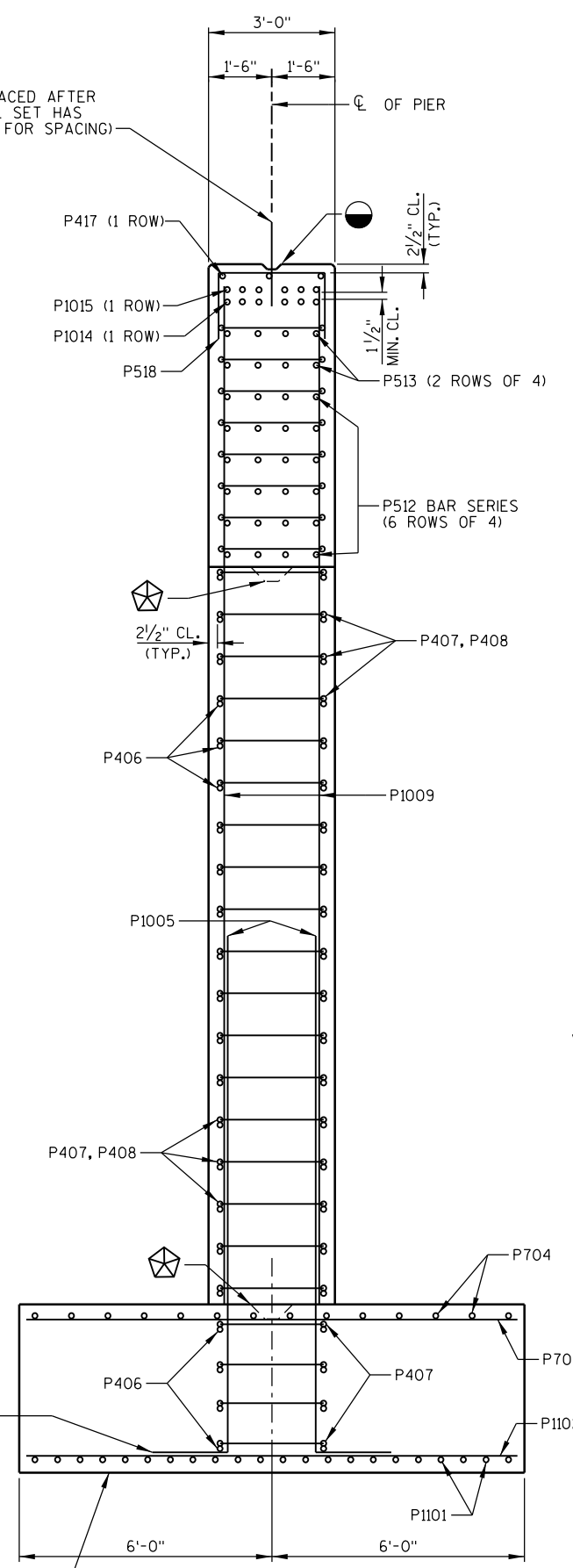


B401

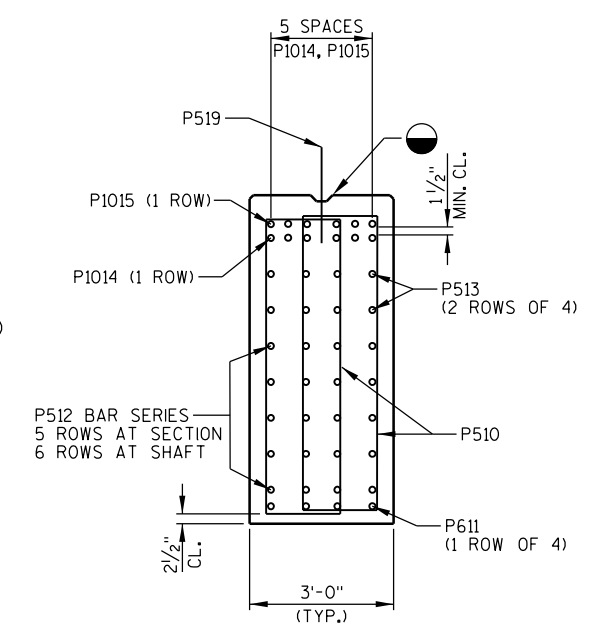
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-53-375	
DRAWN BY		RLR	PLANS CK'D. KHB
NORTH ABUTMENT DETAILS			SHEET 7 OF 18



ELEVATION
(LOOKING NORTH)



SECTION E-E



SECTION F-F

LEGEND

- - DENOTES GIRDER NUMBER.
- ◐ - KEYED CONST. JOINT FORMED BY BEVELED 2 X 6.
- ⬠ - CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-0" WIDE X 6'-0" LONG. CENTER ON PIER SHAFT.

NOTE:

SEE GENERAL PLAN, SHEET 1, FOR LAYOUT OF TEMPORARY SHORING B-53-375 NEAR PIERS AND TEMPORARY SHORING RAILROAD NEAR PIER 1.

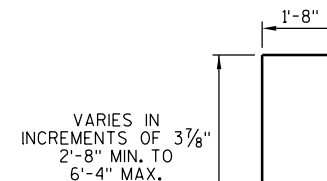
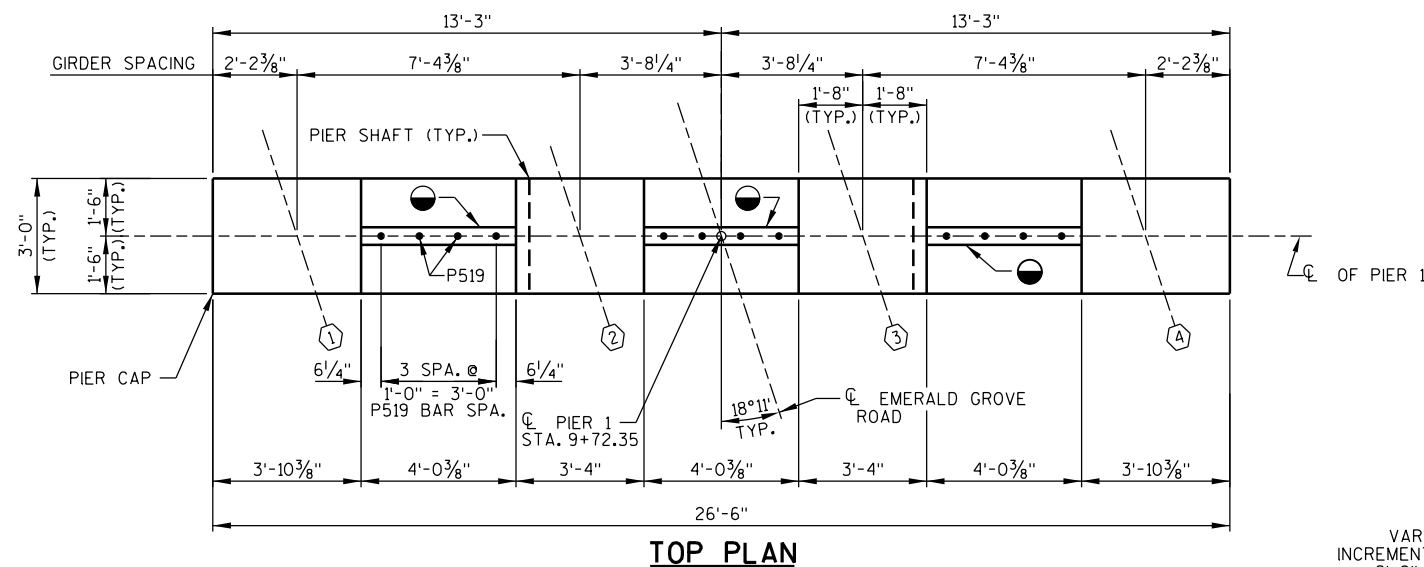
ELEVATIONS AND DIMENSIONS ARE GIVEN AT CL. OF PIER. SEE BEARING SEAT LAYOUT, SHEET 8, FOR ADDITIONAL BEARING SEAT ELEVATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
PIER 1			SHEET 9 OF 18

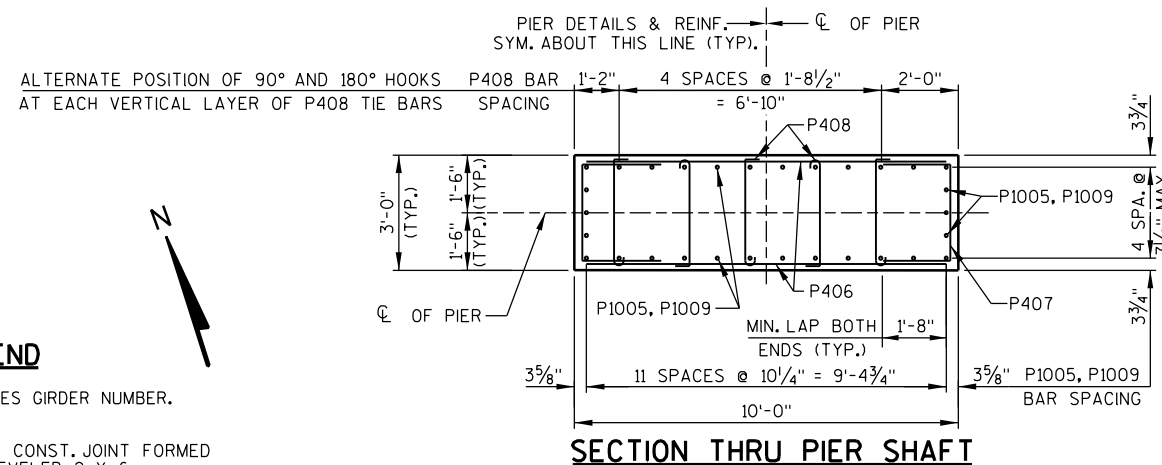
COATED 8765 LBS.
UNCOATED 7900 LBS.

BILL OF BARS (PIER 1)

MARK	NUMBER REQUIRED		LENGTH	BENT	BAR SERIES	LOCATION
	COATED	UNCOATED				
P1101	-	22	31'-8"			PIER FOOTING - BOTTOM - HORIZ.
P1102	-	40	11'-8"			PIER FOOTING - BOTTOM - HORIZ.
P703	-	34	11'-8"			PIER FOOTING - TOP - HORIZ.
P704	-	14	31'-8"			PIER FOOTING - TOP - HORIZ.
P1005	30	-	13'-10"	X		PIER FOOTING & SHAFT - DOWELS - VERT.
P406	44	-	9'-7"			PIER FOOTING & SHAFT - HORIZ.
P407	44	-	5'-9"	X		PIER SHAFT - TIES AT ENDS - HORIZ.
P408	130	-	3'-5"	X		PIER SHAFT & CAP - TIES - HORIZ.
P1009	30	-	24'-3"			PIER SHAFT & CAP - VERT.
P510	52	-	13'-0"	X	◇	PIER CAP - STIRRUPS - VERT.
P611	8	-	10'-3"	X		PIER CAP - BOTTOM - HORIZ.
P512	24	-	17'-9"		◇	PIER CAP - HORIZ.
P513	8	-	26'-0"			PIER CAP - HORIZ.
P1014	6	-	26'-0"			PIER CAP - TOP - HORIZ.
P1015	6	-	29'-0"	X		PIER CAP - TOP - HORIZ.
P516	8	-	9'-6"	X		PIER CAP - END TIES - HORIZ.
P417	3	-	11'-0"			PIER CAP - TOP - HORIZ.
P518	12	-	5'-4"	X		PIER CAP - TOP - TIES - VERT.
P519	12	-	2'-0"			PIER CAP - TOP - DOWELS - VERT.



P510

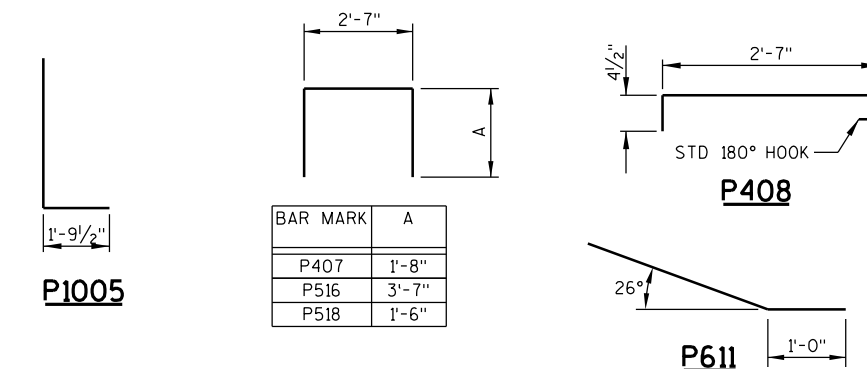


SECTION THRU PIER SHAFT

BAR SERIES TABLE
BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQ'D.	LENGTH
P510	4 SERIES OF 13	9'-4" TO 16'-8"
P512	4 SERIES OF 6	9'-11" TO 25'-7"

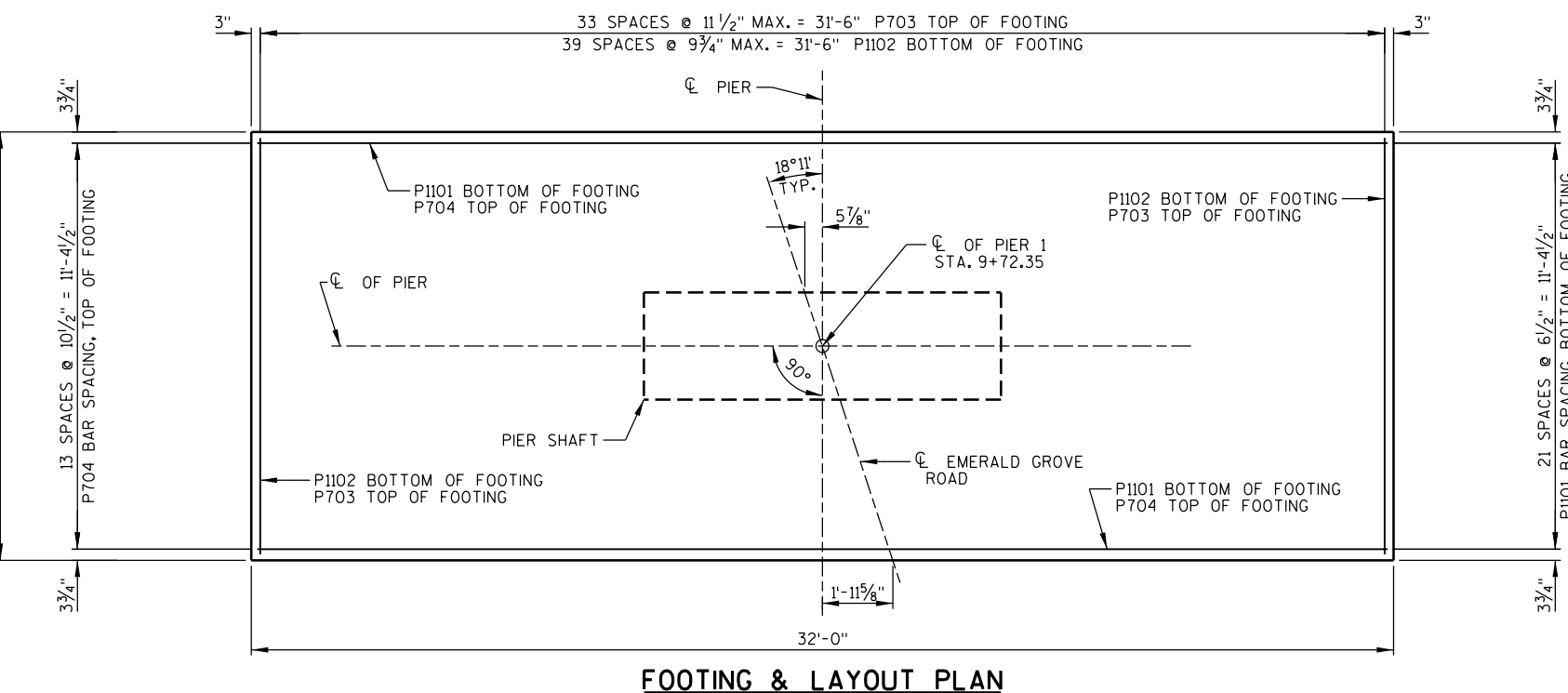
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
◇ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.



P1005

BAR MARK	A
P407	1'-8"
P516	3'-7"
P518	1'-6"

P1015
STANDARD 90° HOOKS



FOOTING & LAYOUT PLAN

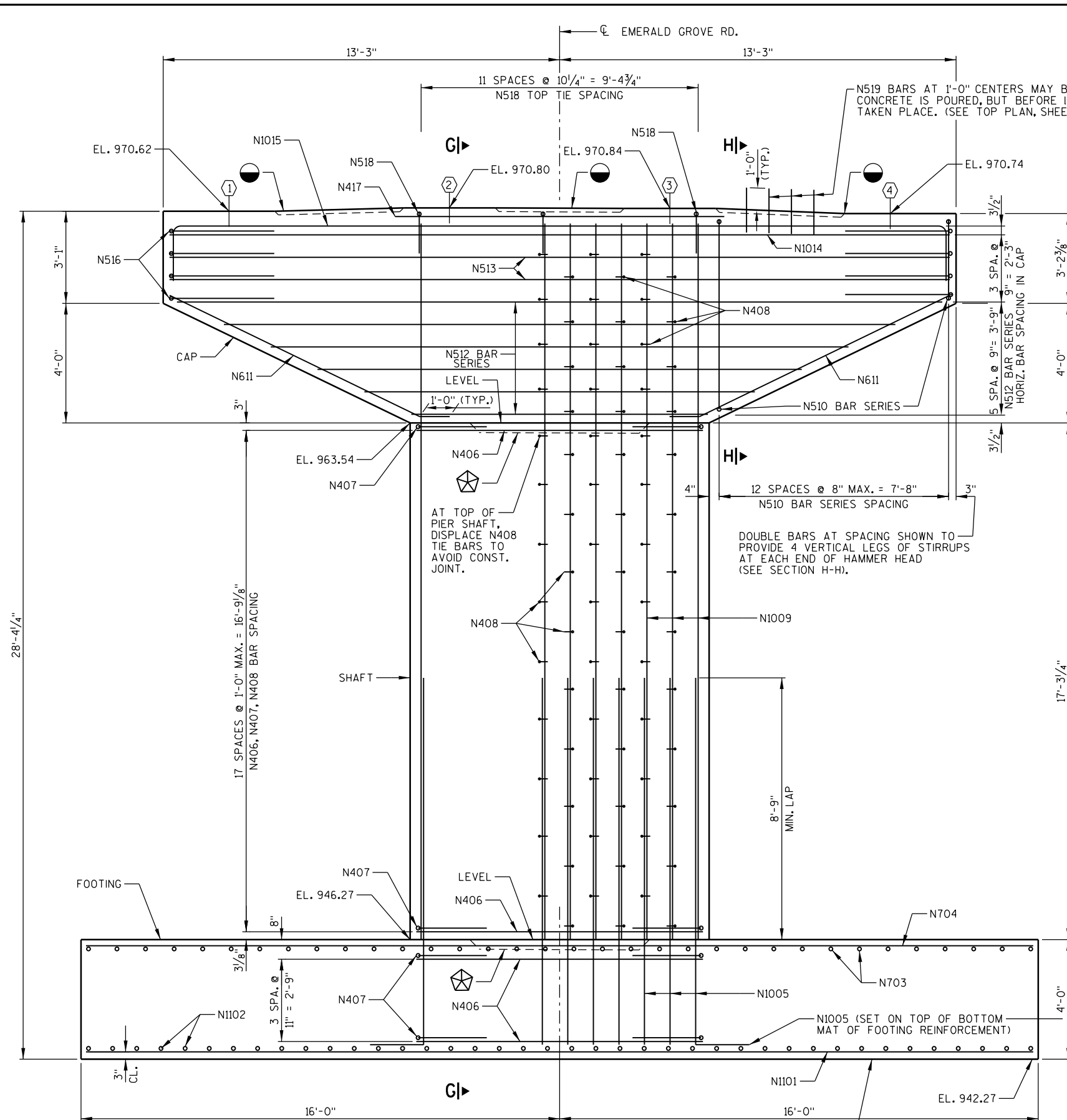
NOTE:

SEE GENERAL PLAN, SHEET 1, FOR LAYOUT OF TEMPORARY SHORING B-53-375 AND TEMPORARY SHORING RAILROAD NEAR PIERS.

SEE BEARING SEAT LAYOUT, SHEET 8, FOR BEARING SEAT ELEVATIONS.

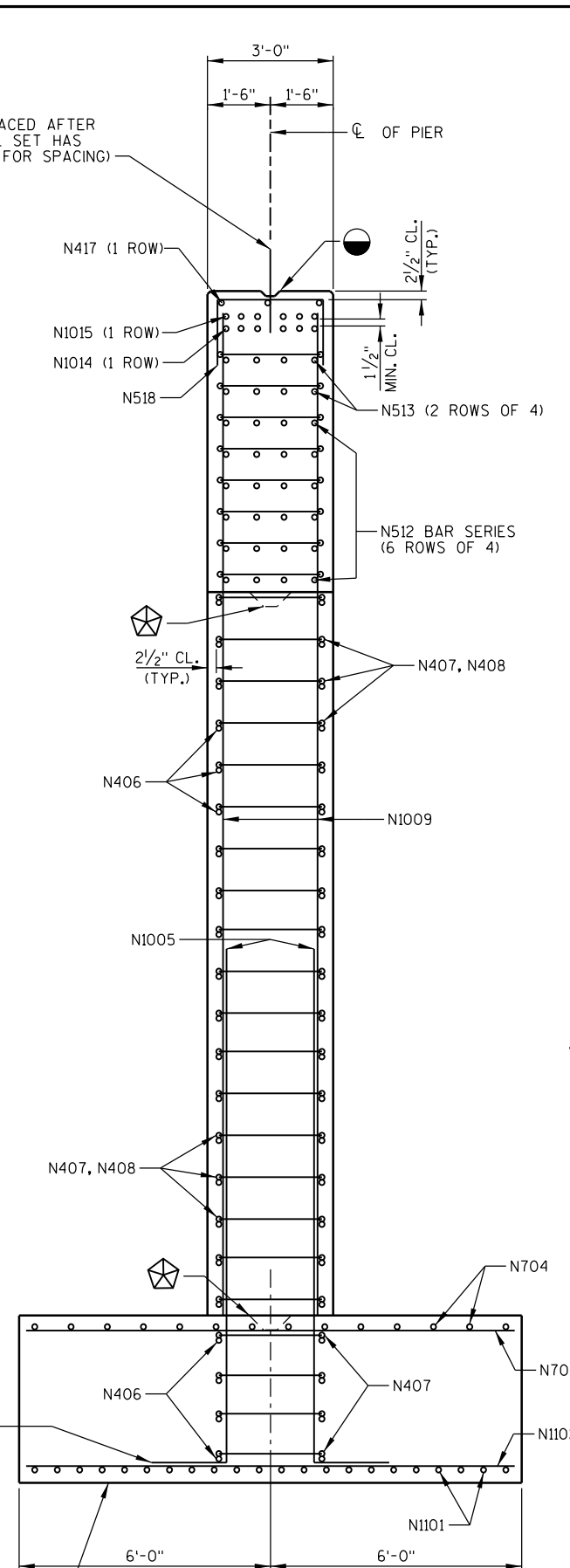
- LEGEND**
- ◇ - DENOTES GIRDER NUMBER.
 - - KEYED CONST. JOINT FORMED BY BEVELED 2 X 6.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
PIER 1 DETAILS			SHEET 10 OF 18



ELEVATION
(LOOKING NORTH)

PIERS ARE SUPPORTED ON SPREAD FOOTINGS BEARING ON FIRM BEDROCK WITH A MINIMUM FACTORED BEARING RESISTANCE OF 10,000 PSF. BOTTOM OF FOOTING TO BE EMBEDDED A MINIMUM OF 6" INTO FIRM BEDROCK. CONTRACTOR TO REMOVE LOOSE MATERIAL PRIOR TO POURING THE FOOTING. A GEOTECHNICAL ENGINEER, WITH THREE DAYS NOTICE, SHALL VERIFY THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE PIER FOOTINGS.



SECTION G-G

LEGEND

- ⬡ - DENOTES GIRDER NUMBER.
- ⊙ - KEYED CONST. JOINT FORMED BY BEVELED 2 X 6.
- ⬠ - CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-0" WIDE X 6'-0" LONG. CENTER ON PIER SHAFT.

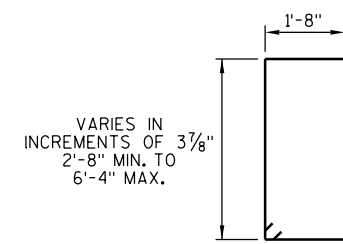
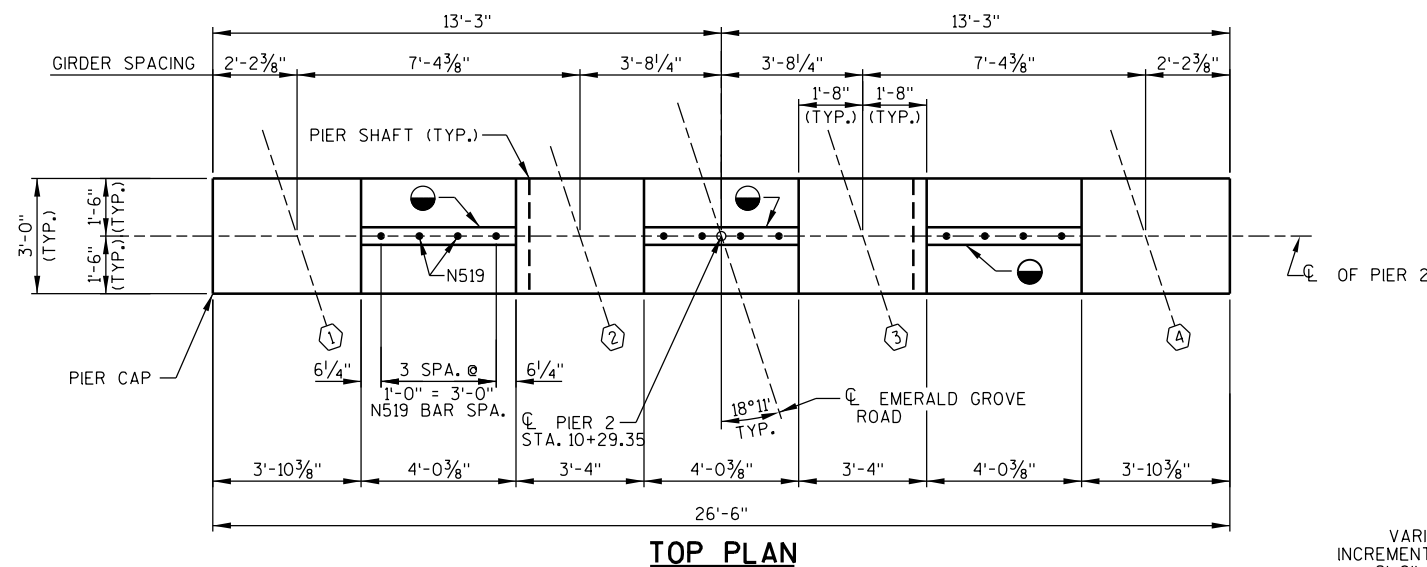
NOTE:
SEE GENERAL PLAN, SHEET 1, FOR LAYOUT OF TEMPORARY SHORING B-53-375 NEAR PIERS AND TEMPORARY SHORING RAILROAD NEAR PIER 1.
ELEVATIONS AND DIMENSIONS ARE GIVEN AT CL OF PIER. SEE BEARING SEAT LAYOUT, SHEET 8, FOR ADDITIONAL BEARING SEAT ELEVATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
PIER 2			SHEET 11 OF 18

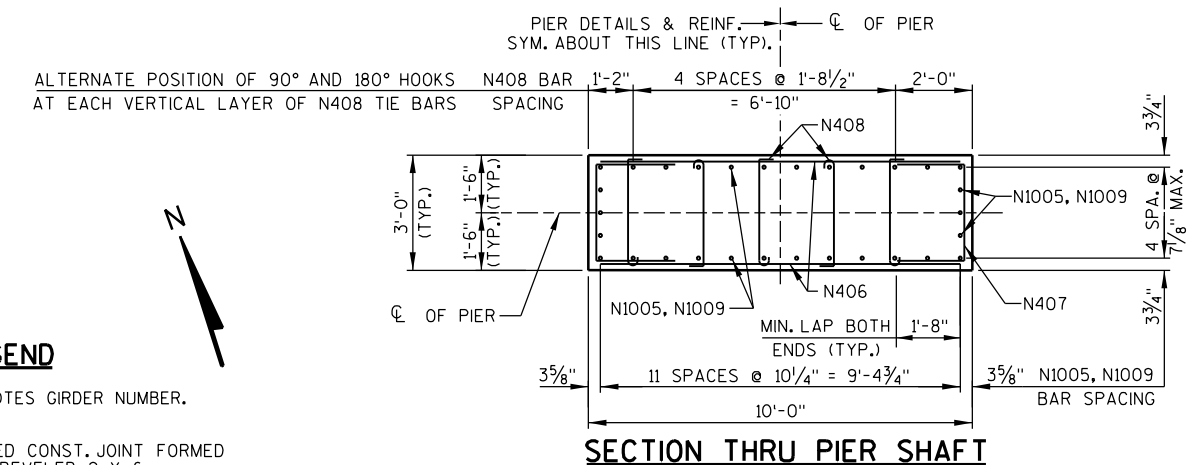
COATED 8765 LBS.
UNCOATED 7900 LBS.

BILL OF BARS (PIER 2)

MARK	NUMBER REQUIRED		LENGTH	BENT	BAR SERIES	LOCATION
	COATED	UNCOATED				
N1101	-	22	31'-8"			PIER FOOTING - BOTTOM - HORIZ.
N1102	-	40	11'-8"			PIER FOOTING - BOTTOM - HORIZ.
N703	-	34	11'-8"			PIER FOOTING - TOP - HORIZ.
N704	-	14	31'-8"			PIER FOOTING - TOP - HORIZ.
N1005	30	-	13'-10"	X		PIER FOOTING & SHAFT - DOWELS - VERT.
N406	44	-	9'-7"			PIER FOOTING & SHAFT - HORIZ.
N407	44	-	5'-9"	X		PIER SHAFT - TIES AT ENDS - HORIZ.
N408	130	-	3'-5"	X		PIER SHAFT & CAP - TIES - HORIZ.
N1009	30	-	24'-3"			PIER SHAFT & CAP - VERT.
N510	52	-	13'-0"	X	◇	PIER CAP - STIRRUPS - VERT.
N611	8	-	10'-3"	X		PIER CAP - BOTTOM - HORIZ.
N512	24	-	17'-9"		◇	PIER CAP - HORIZ.
N513	8	-	26'-0"			PIER CAP - HORIZ.
N1014	6	-	26'-0"			PIER CAP - TOP - HORIZ.
N1015	6	-	29'-0"	X		PIER CAP - TOP - HORIZ.
N516	8	-	9'-6"	X		PIER CAP - END TIES - HORIZ.
N417	3	-	11'-0"			PIER CAP - TOP - HORIZ.
N518	12	-	5'-4"	X		PIER CAP - TOP - TIES - VERT.
N519	12	-	2'-0"			PIER CAP - TOP - DOWELS - VERT.



N510

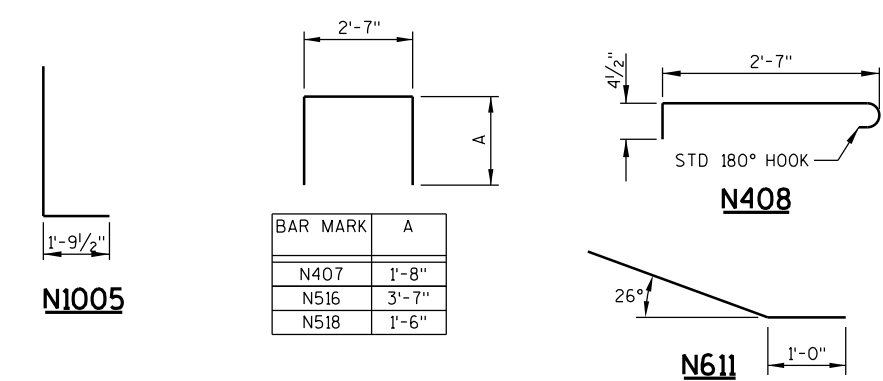


SECTION THRU PIER SHAFT

BAR SERIES TABLE
BUNDLE AND TAG EACH SERIES SEPARATELY

BAR MARK	NO. REQ'D.	LENGTH
N510	4 SERIES OF 13	9'-4" TO 16'-8"
N512	4 SERIES OF 6	9'-11" TO 25'-7"

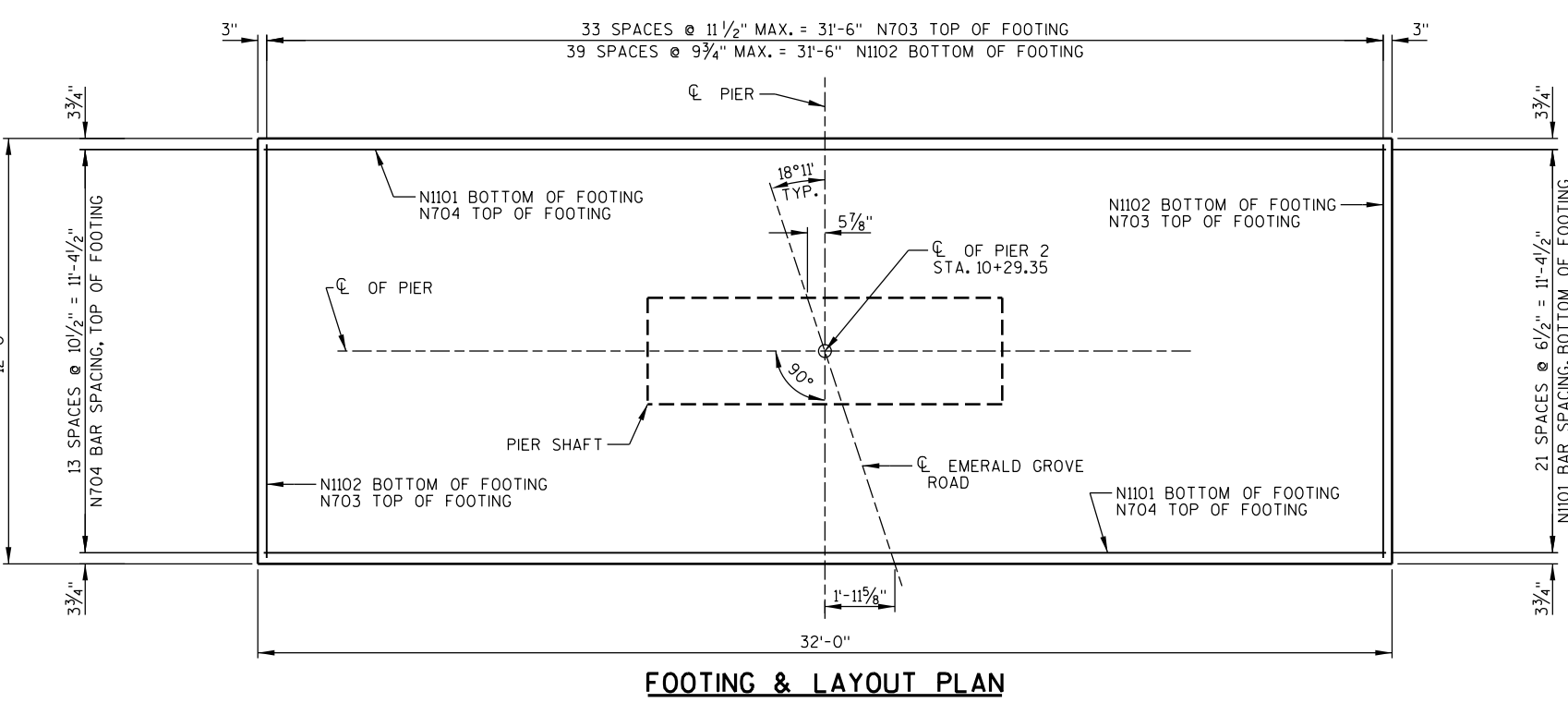
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
◇ - LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.



N1005

BAR MARK	A
N407	1'-8"
N516	3'-7"
N518	1'-6"

N1015
STANDARD 90° HOOKS



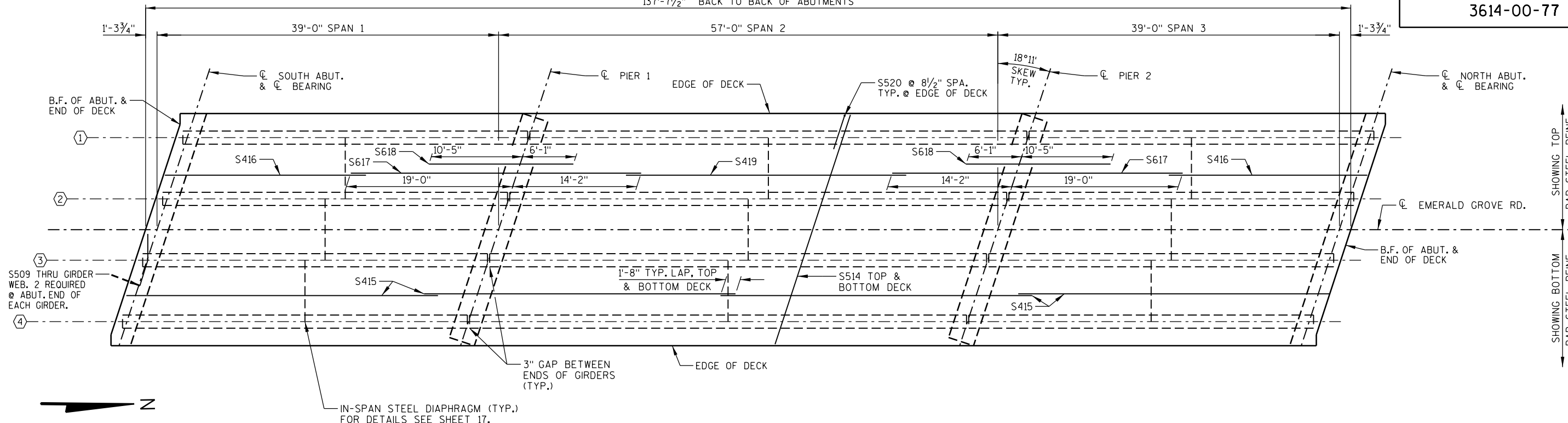
FOOTING & LAYOUT PLAN

LEGEND
○ - DENOTES GIRDER NUMBER.
● - KEYED CONST. JOINT FORMED BY BEVELED 2 X 6.

NOTE:
SEE GENERAL PLAN, SHEET 1, FOR LAYOUT OF TEMPORARY SHORING B-53-375 AND TEMPORARY SHORING RAILROAD NEAR PIERS.
SEE BEARING SEAT LAYOUT, SHEET 8, FOR BEARING SEAT ELEVATIONS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
PIER 2 DETAILS			SHEET 12 OF 18

137'-7 1/2" BACK TO BACK OF ABUTMENTS



PLAN

GENERAL NOTES

⊖ - INDICATES GIRDER NUMBER

SEE SHEET 15 FOR LONGITUDINAL AND TRANSVERSE BAR SPACING.

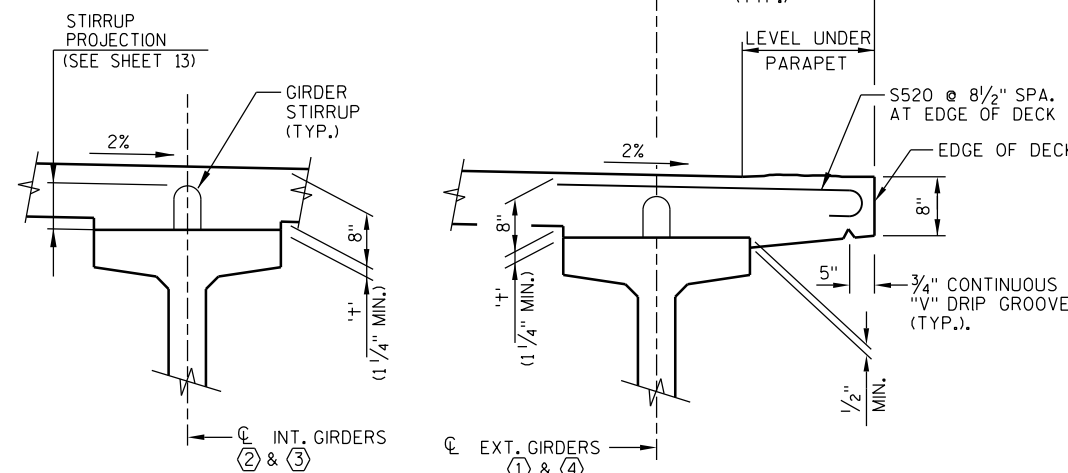
SEE SHEET 17 FOR LOCATION AND DETAILS OF DIAPHRAGM INSERTS ON GIRDERS.

TO DETERMINE '+', ELEV. OF TOP OF GIRDERS AT ⊖ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. TO DETERMINE THE TOP OF DECK ELEVATION FOR POINT REFERRED USE TABLE ON THIS SHEET AND ADJUST FOR CROSS SLOPE OVER GIRDER. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATIONS ⊖ ⊖ OF GIRDERS

** EDGE OF DECK ELEVATION IS THE SAME AS THE INSIDE FACE OF THE PARAPET.

LOCATION	SPAN POINT	EAST DECK EDGE	C/L GIRDER 4	C/L GIRDER 3	C/L EMERALD GROVE RD	C/L GIRDER 2	C/L GIRDER 1	WEST DECK EDGE
S. ABUT.	1	973.09	973.14	973.35	973.46	973.43	973.36	973.34
	1.1	973.22	973.26	973.48	973.58	973.54	973.47	973.45
	1.2	973.34	973.38	973.59	973.69	973.66	973.58	973.56
	1.3	973.45	973.50	973.70	973.80	973.76	973.67	973.66
	1.4	973.56	973.60	973.80	973.90	973.85	973.76	973.75
	1.5	973.65	973.70	973.89	973.98	973.94	973.85	973.83
	1.6	973.74	973.78	973.97	974.07	974.02	973.92	973.90
	1.7	973.82	973.86	974.05	974.14	974.09	973.99	973.96
	1.8	973.90	973.94	974.11	974.20	974.15	974.04	974.02
1.9	973.96	974.00	974.17	974.26	974.21	974.09	974.07	
PIER 1	2	974.02	974.06	974.23	974.31	974.25	974.14	974.11
	2.1	974.09	974.12	974.29	974.37	974.31	974.18	974.16
	2.2	974.14	974.17	974.33	974.41	974.34	974.21	974.18
	2.3	974.18	974.21	974.36	974.43	974.36	974.22	974.20
	2.4	974.19	974.22	974.37	974.44	974.36	974.22	974.19
	2.5	974.19	974.22	974.36	974.42	974.35	974.20	974.17
	2.6	974.18	974.20	974.33	974.40	974.32	974.16	974.13
	2.7	974.14	974.17	974.29	974.35	974.27	974.10	974.07
	2.8	974.09	974.12	974.23	974.29	974.20	974.03	973.99
	2.9	974.02	974.05	974.16	974.21	974.12	973.94	973.90
PIER 2	3	973.94	973.96	974.06	974.11	974.02	973.83	973.79
	3.1	973.87	973.89	973.99	974.03	973.94	973.75	973.71
	3.2	973.80	973.82	973.91	973.95	973.85	973.66	973.62
	3.3	973.71	973.73	973.82	973.86	973.76	973.56	973.52
	3.4	973.62	973.64	973.72	973.76	973.66	973.45	973.41
	3.5	973.52	973.54	973.61	973.65	973.55	973.34	973.29
	3.6	973.41	973.43	973.50	973.53	973.43	973.22	973.17
	3.7	973.30	973.31	973.38	973.41	973.30	973.08	973.04
	3.8	973.17	973.19	973.25	973.28	973.17	972.95	972.90
	3.9	973.04	973.05	973.11	973.14	973.03	972.80	972.75
N. ABUT.	4	972.90	972.91	972.96	972.99	972.88	972.64	972.59



DECK HAUNCH DETAIL

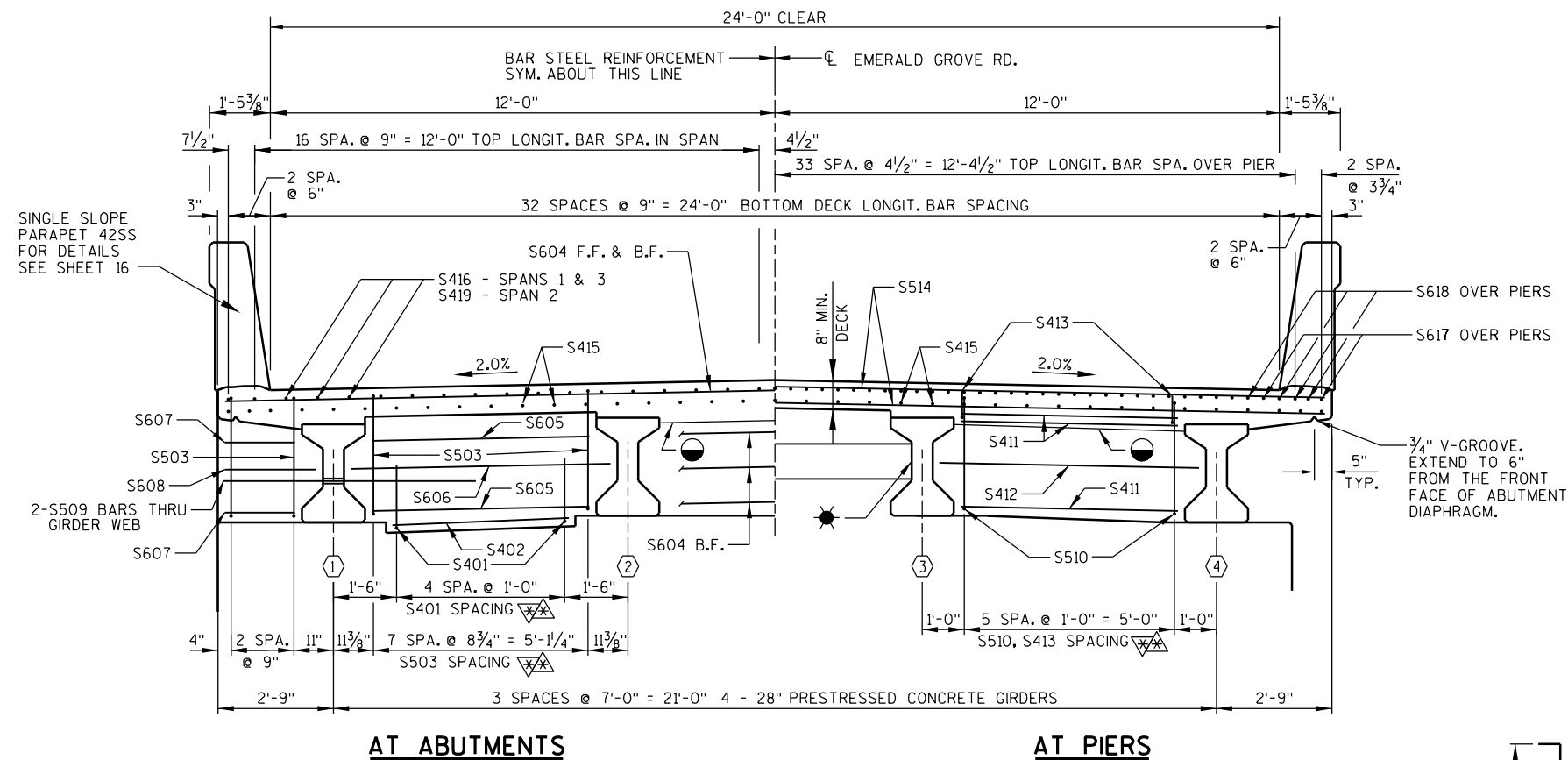
TOP OF DECK ELEV. AT FINAL GRADE
 - TOP OF GIRDER ELEVATION
 + DEADLOAD DEFLECTION (SEE SHEET 13)
 - DECK THICKNESS

 = HAUNCH HEIGHT '+'

IF 1/4" MINIMUM HAUNCH HEIGHT '+' CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN AND PROFILE BY MORE THAN 1/2" OR IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

NOTE: AN AVERAGE HAUNCH ('+') OF 2 7/8" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES."

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
SUPERSTRUCTURE			SHEET 14 OF 18



AT ABUTMENTS

AT PIERS

CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

BILL OF BARS (COATED) 26,145 LBS.

MARK	NUMBER REQ'D.	LENGTH	BENT	DESCRIPTION
S401	30	3'-9"	X	ABUT. DIAPH. - S.E. SEAT - STIRRUP - VERT.
S402	12	4'-5"		ABUT. DIAPH. - S.E. SEAT - TRANS.
S503	60	10'-10"	X	ABUT. DIAPH. - STIRRUP - VERT.
S604	10	27'-6"		ABUT. DIAPH. - B.F. & TOP - TRANS.
S605	12	5'-5"		ABUT. DIAPH. - INT. BAY - TRANS.
S606	6	6'-5"		ABUT. DIAPH. - INT. BAY - TRANS.
S607	8	1'-9"		ABUT. DIAPH. - ENDS - TRANS.
S608	4	2'-3"		ABUT. DIAPH. - ENDS - TRANS.
S509	16	6'-0"	X	ABUT. DIAPH. - THRU GIRDER WEB - TRANS.
S510	36	7'-7"	X	PIER DIAPH. - STIRRUP - VERT.
S411	36	5'-5"		PIER DIAPH. - TRANS.
S412	12	6'-5"		PIER DIAPH. - TRANS.
S413	36	10'-5"	X	PIER DIAPH. - STIRRUP - LONGIT.
S514	389	27'-6"		DECK - TOP & BOTTOM - TRANS.
S415	148	35'-7"		DECK - BOTTOM - LONGIT.
S416	72	22'-10"		DECK - TOP @ ABUTS. & SPANS 1 & 3 - LONGIT.
S617	72	33'-2"		DECK - TOP - OVER PIERS - LONGIT.
S618	70	16'-6"		DECK - TOP - OVER PIERS - LONGIT.
S419	36	32'-0"		DECK - TOP - SPAN 2 - LONGIT.
S520	390	5'-1"	X	DECK - TOP @ EDGES - TRANS.

S401

S503

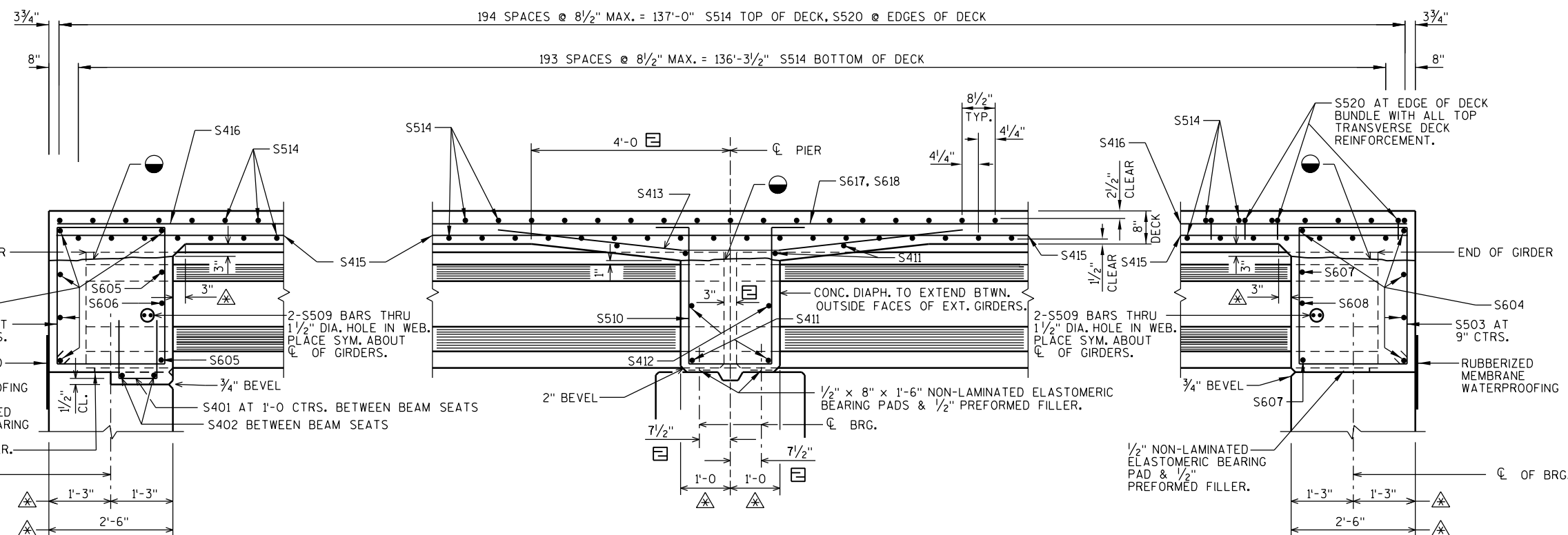
S509

S510
(STIRRUP)

S413

S520
STD. 180° HOOK

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
EPOXY COAT ALL SUPERSTRUCTURE BAR REINFORCEMENT.



ABUTMENT DIAPHRAGM - INT. BAYS

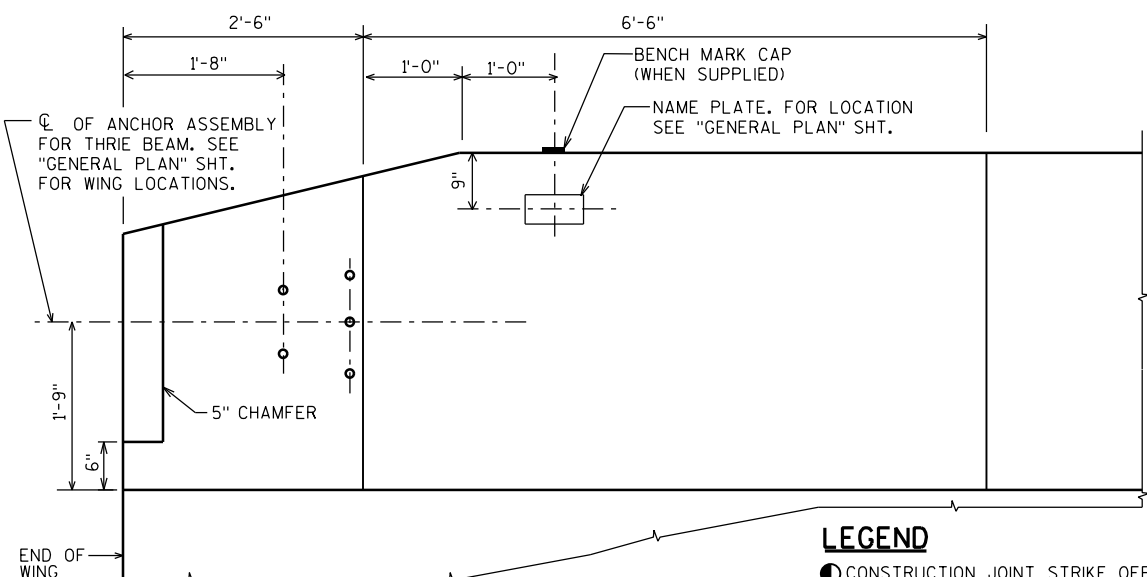
PIER DIAPHRAGM
PART LONGITUDINAL SECTION

ABUTMENT DIAPHRAGM - ENDS

LEGEND

- - INDICATES GIRDER NUMBER
- - OPTIONAL CONSTRUCTION JOINT. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR. (TYP. ALL BAYS)
- ☼ - FOR LAYOUT, SPACING AND DETAILS OF STEEL DIAPHRAGMS, SEE SHEET 17.
- △ - DIMENSION IS TAKEN NORMAL TO SUBSTRUCTURE UNITS.
- ▽ - DIMENSION IS TAKEN NORMAL TO CL GIRDER.
- ▢ - DIMENSION IS TAKEN PARALLEL TO CL GIRDER.
- F.F. - FRONT FACE
- B.F. - BACK FACE

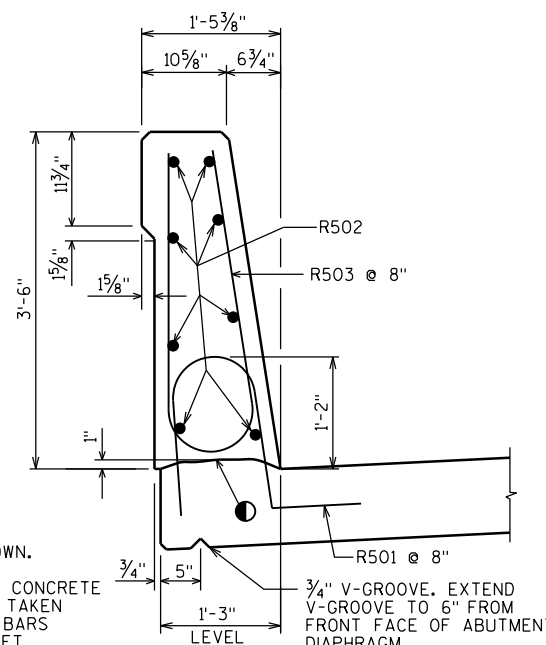
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
SUPERSTRUCTURE SECTIONS & DETAILS			SHEET 15 OF 18



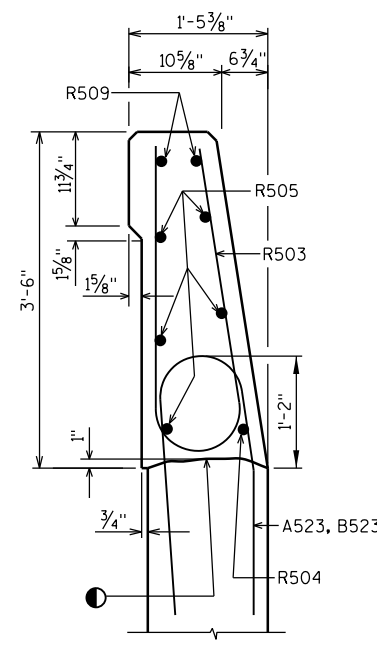
INSIDE ELEVATION

LEGEND

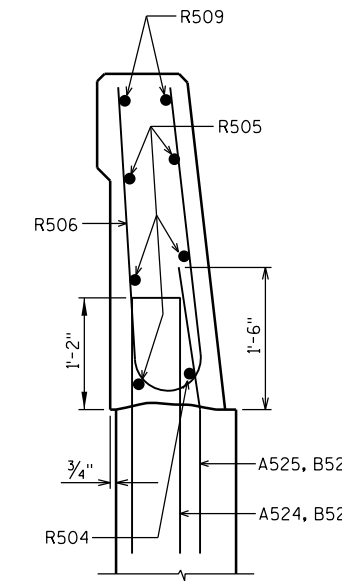
- CONSTRUCTION JOINT STRIKE OFF AS SHOWN.
- A525, B525 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A525, B525 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ A524, B524 AND A523, B523 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



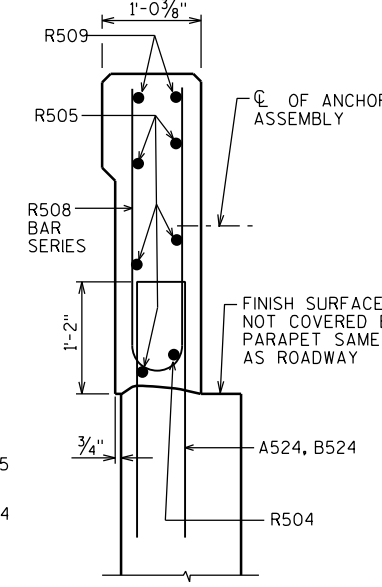
SECTION S4-S4 ON DECK



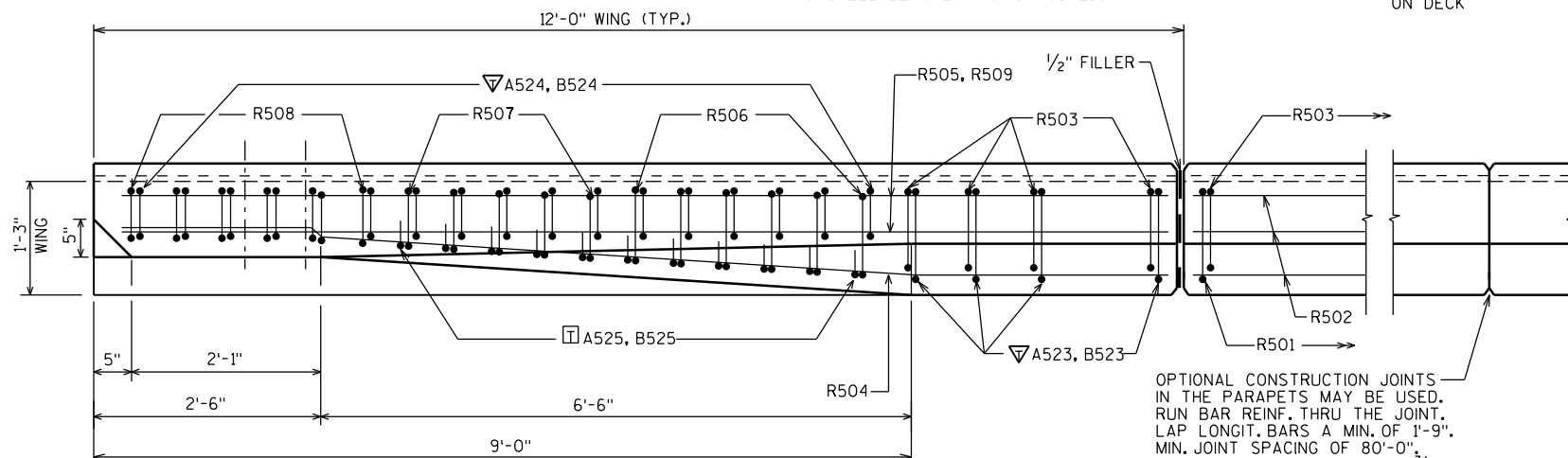
SECTION S3-S3 ON WING



SECTION S2-S2 ON WING

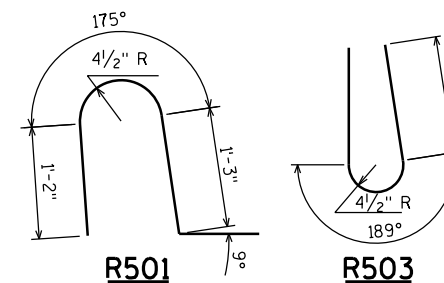


SECTION S1-S1 AT END OF WING



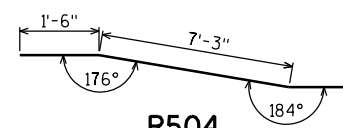
PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" V-GROOVE.

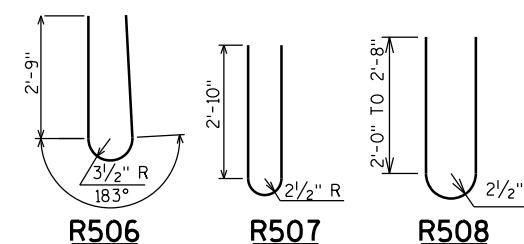


R501

R503



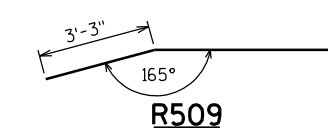
R504



R506

R507

R508

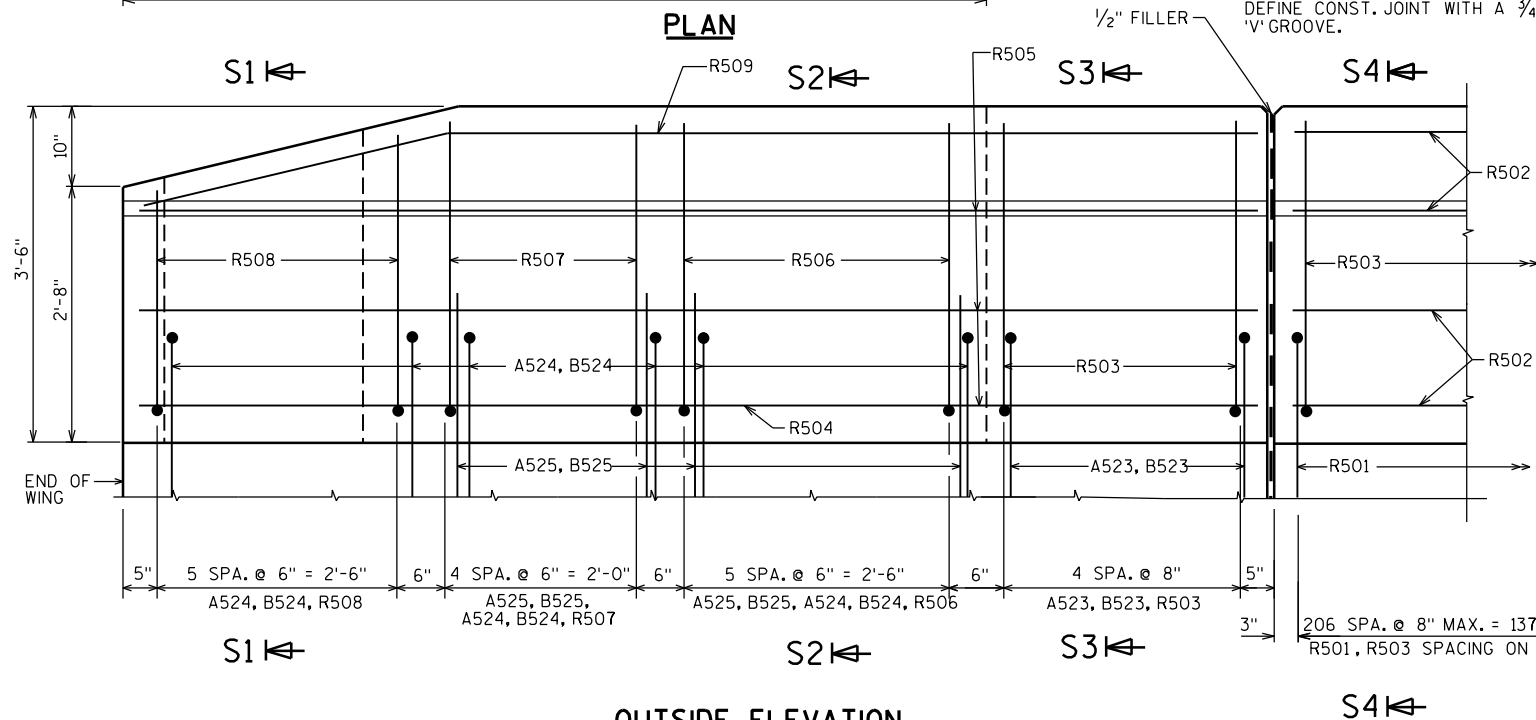


R509

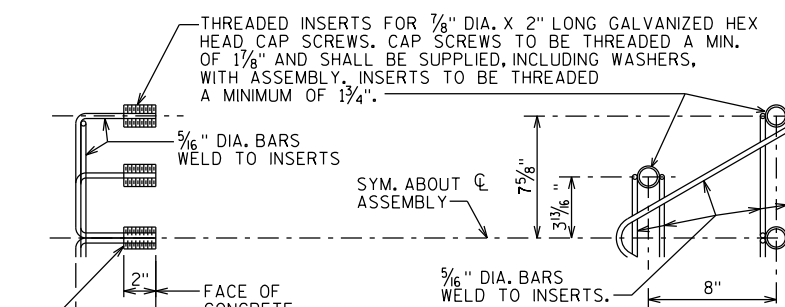
BILL OF BARS (COATED) 15,935 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	414	4'-5"	X		PARAPET ON DECK - STIRRUP - VERT.
R502	64	35'-8"			PARAPET ON DECK - LONGIT.
R503	434	6'-8"	X		PARAPET - STIRRUP - VERT.
R504	4	11'-7"	X		PARAPET ON WING - BOTTOM - LONGIT.
R505	20	11'-7"			PARAPET ON WING - LONGIT.
R506	24	6'-6"	X		PARAPET ON WING - STIRRUP - VERT.
R507	20	6'-5"	X		PARAPET ON WING - STIRRUP - VERT.
R508	24	5'-5"	X	⊠	PARAPET ON WING - END - STIRRUP - VERT.
R509	8	11'-8"	X		PARAPET ON WING - TOP - LONGIT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR. EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT. ⊠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BEND BAR AFTER CUTTING.



OUTSIDE ELEVATION



DETAIL OF ANCHOR ASSEMBLY

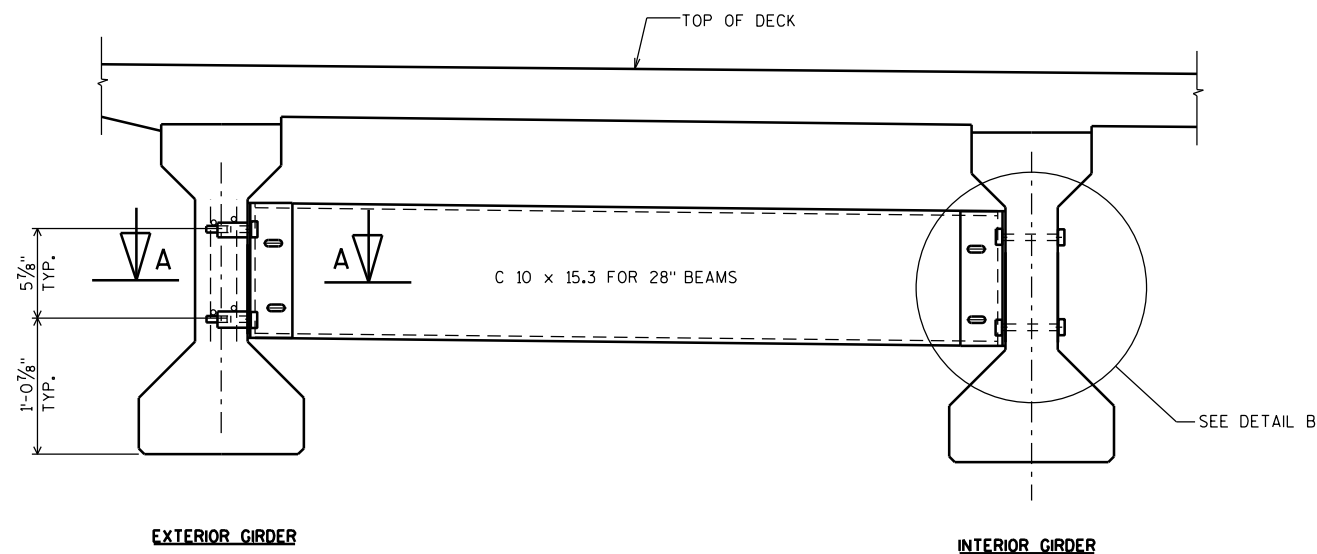
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C. ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

BAR SERIES TABLE

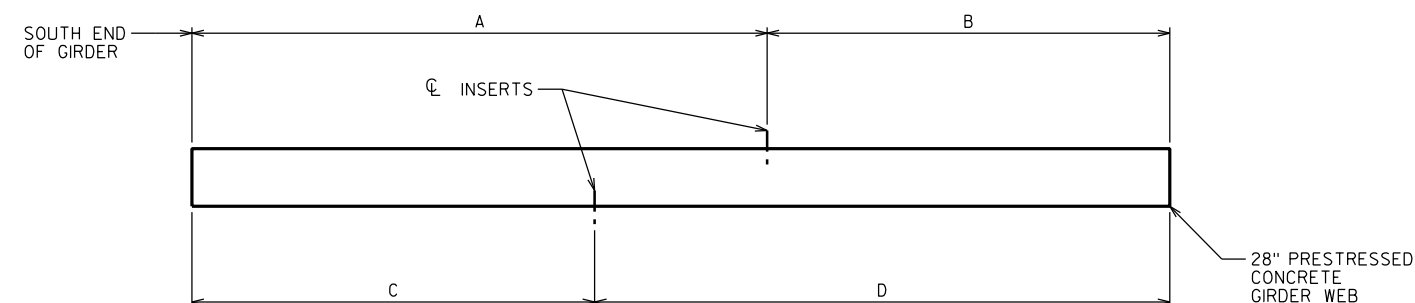
MARK	NO. REOD.	LENGTH
R508	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
SINGLE SLOPE PARAPET 42SS		SHEET 16 OF 18	



PART TRANSVERSE SECTION AT DIAPHRAGM

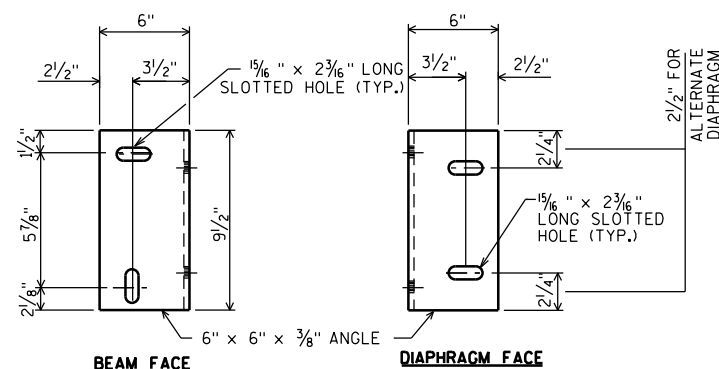


DIAPHRAGM INSERT LOCATION PLAN

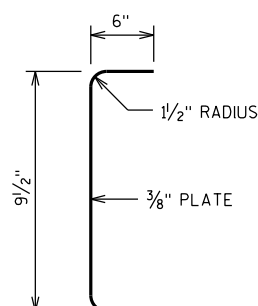
SEE PLAN, SHEET 14

DIAPHRAGM INSERT LOCATION TABLE

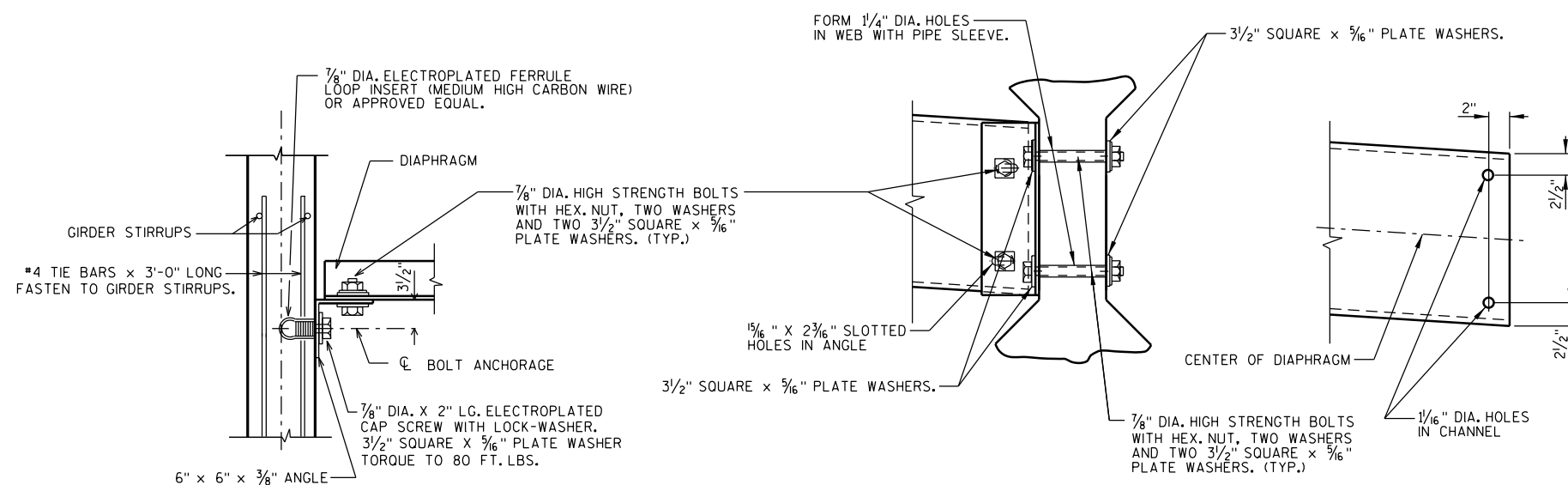
	GIRDER NUMBER	A	B	C	D	INSERT TYPE
SPAN 1	1	-	-	18'-6 1/2"	20'-10"	FERRULE LOOPS
	2	20'-10"	18'-6 1/2"	18'-6 1/2"	20'-10"	PIPE SLEEVES
	3	20'-10"	18'-6 1/2"	18'-6 1/2"	20'-10"	PIPE SLEEVES
	4	20'-10"	18'-6 1/2"	-	-	FERRULE LOOPS
SPAN 2	1	-	-	27'-2 3/4"	29'-6 1/4"	FERRULE LOOPS
	2	29'-6 1/4"	27'-2 3/4"	27'-2 3/4"	29'-6 1/4"	PIPE SLEEVES
	3	29'-6 1/4"	27'-2 3/4"	27'-2 3/4"	29'-6 1/4"	PIPE SLEEVES
	4	29'-6 1/4"	27'-2 3/4"	-	-	FERRULE LOOPS
SPAN 3	1	-	-	18'-6 1/2"	20'-10"	FERRULE LOOPS
	2	20'-10"	18'-6 1/2"	18'-6 1/2"	20'-10"	PIPE SLEEVES
	3	20'-10"	18'-6 1/2"	18'-6 1/2"	20'-10"	PIPE SLEEVES
	4	20'-10"	18'-6 1/2"	-	-	FERRULE LOOPS



DIAPHRAGM SUPPORT



SECTION THRU ALTERNATE DIAPHRAGM



SECT. A-A

(FOR EXTERIOR ATTACHMENT)

DETAIL B

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-53-375", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

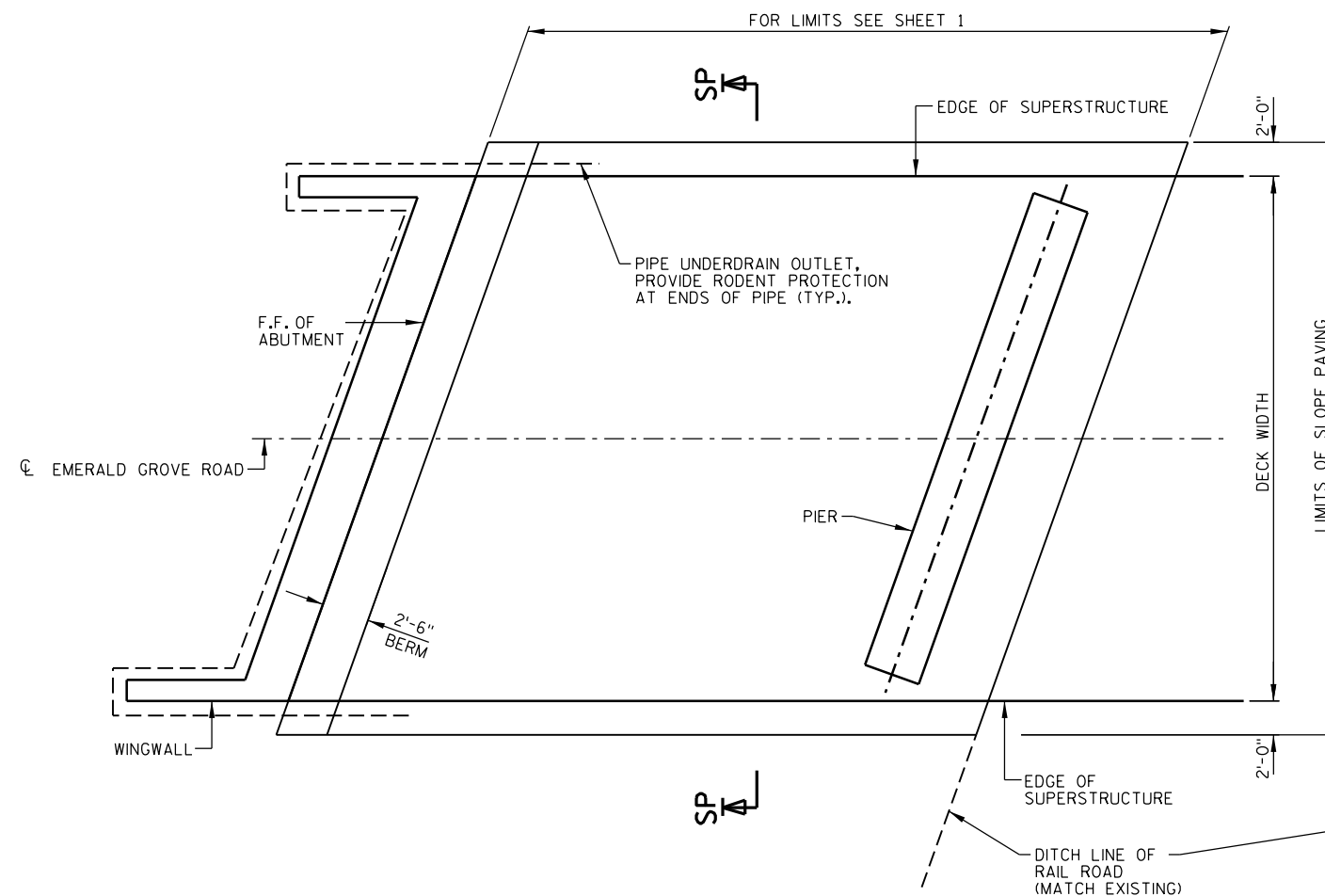
SEE SHEET 14 FOR GENERAL LOCATION OF DIAPHRAGMS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
STEEL DIAPHRAGM			SHEET 17 OF 18

GENERAL NOTES

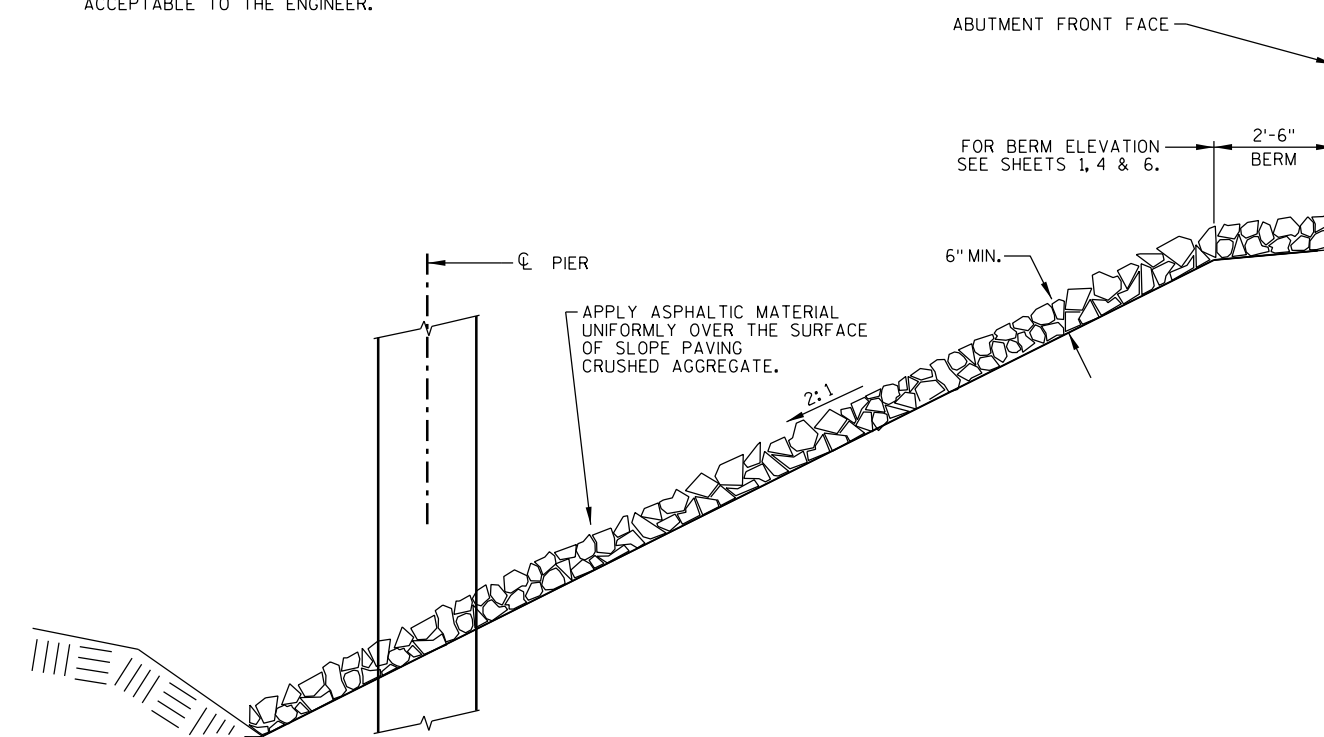
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.



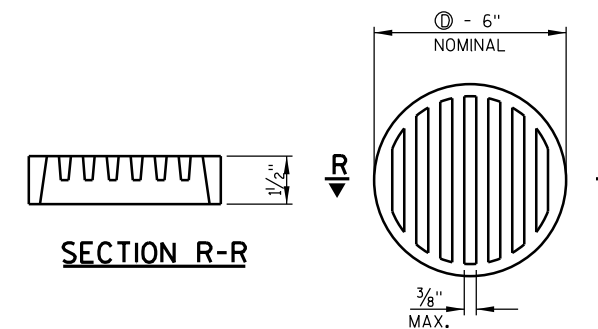
PLAN - SLOPE PAVING CRUSHED AGGREGATE

(SOUTH ABUTMENT AND PIER 1 SHOWN, PIER 2 AND NORTH ABUTMENT SIMILAR)



TYPICAL LONGITUDINAL SECTION AT ABUTMENT

(SOUTH ABUTMENT AND PIER 1 SHOWN, PIER 2 AND NORTH ABUTMENT SIMILAR)



RODENT SHIELD

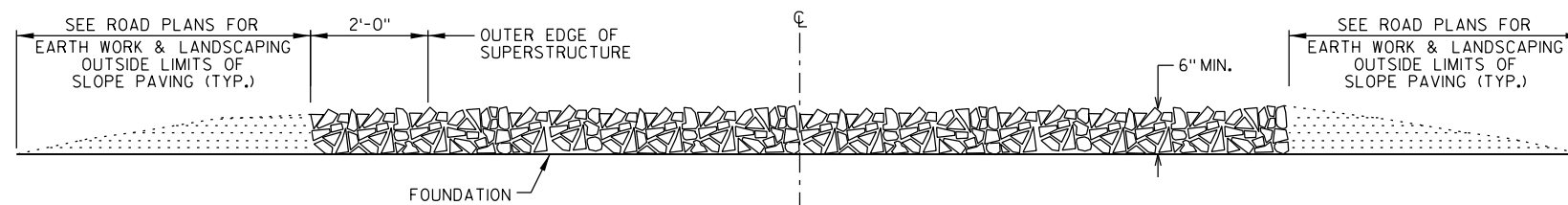
① - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

RODENT SHIELD NOTES:

ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER.

A PIPE COUPLING IS REQUIRED FOR THE ATTACHEMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".



SECTION SP-SP

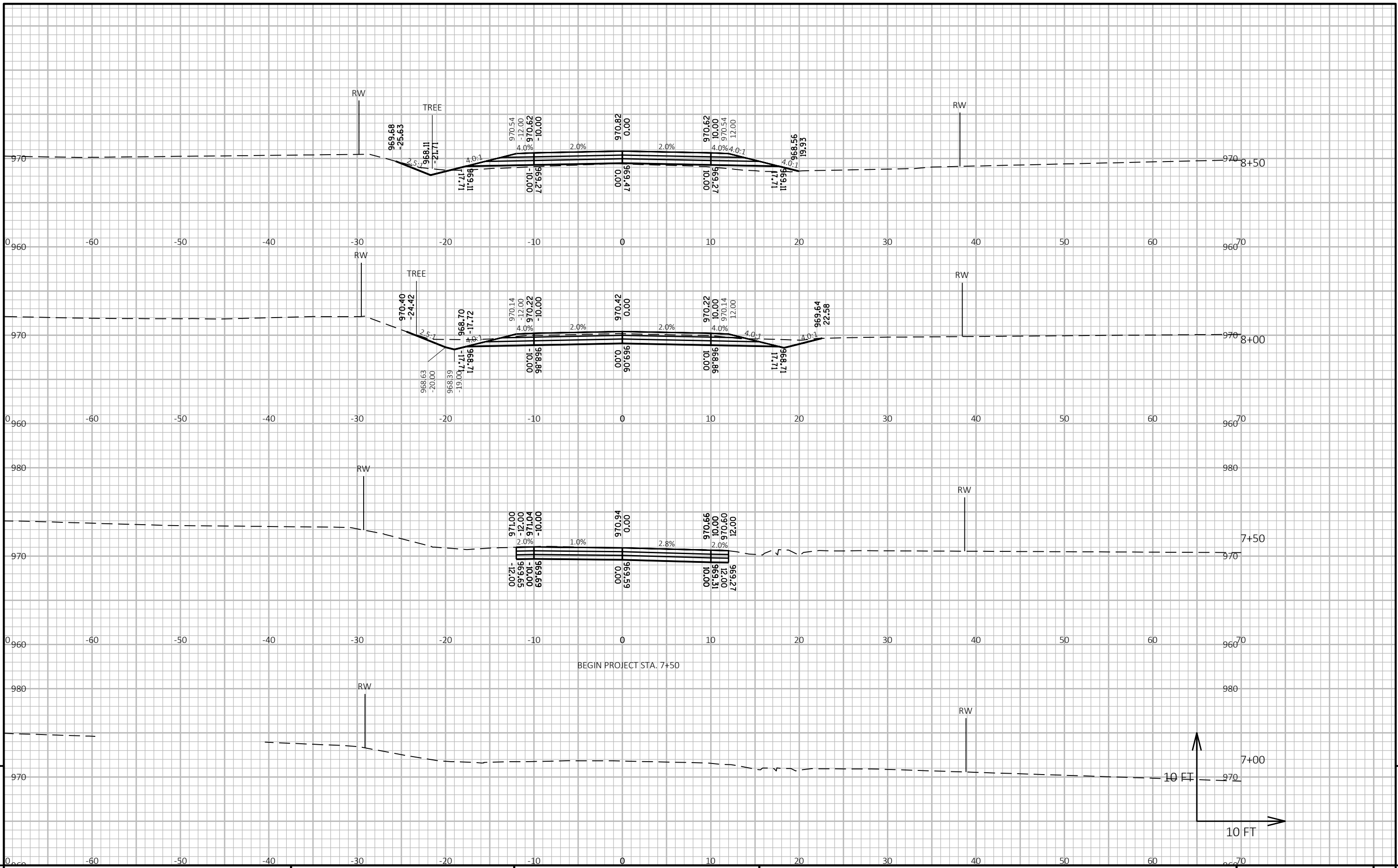
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-375			
DRAWN BY RLR		PLANS CK'D. KHB	
SLOPE PAVING CRUSHED AGGREGATE			SHEET 18 OF 18

EARTHWORK PROJECT I.D. 3614-00-77

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	
7+00		0	0	0	0	0	0	0	0	0
7+50.	50.00	33	0	0	31	0	0	31	0	31
8+00.	50.00	42	0	0	69	0	0	100	0	100
8+50.	50.00	2	0	10	40	0	9	140	11	129
9+00.	50.00	2	0	73	4	0	77	144	108	36
9+32.	32.00	2	0	73	2	0	87	146	216	-70
9+32-10+00	-	-	-	-	43	0	17	190	238	-48
B-53-0375										
					190	0	190			

EARTHWORK PROJECT I.D. 3614-00-77

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.25	
B-53-0375										
10+00-10+70	-	-	-	-	337	0	41	337	51	286
10+70.		0	0	207	0	0	0	337	51	286
11+00	30.00	0	0	207	0	0	230	337	339	-2
11+50	50.00	0	0	121	0	0	304	337	718	-381
12+00	50.00	0	0	30	0	0	140	337	893	-556
12+50	50.00	18	0	4	17	0	32	354	933	-579
13+00	50.00	34	0	0	49	0	4	403	938	-535
13+50	50.00	33	0	0	63	0	0	465	939	-473
14+00	50.00	0	0	0	31	0	0	496	939	-442
					496	0	751			



PROJECT NO: 3614-00-77

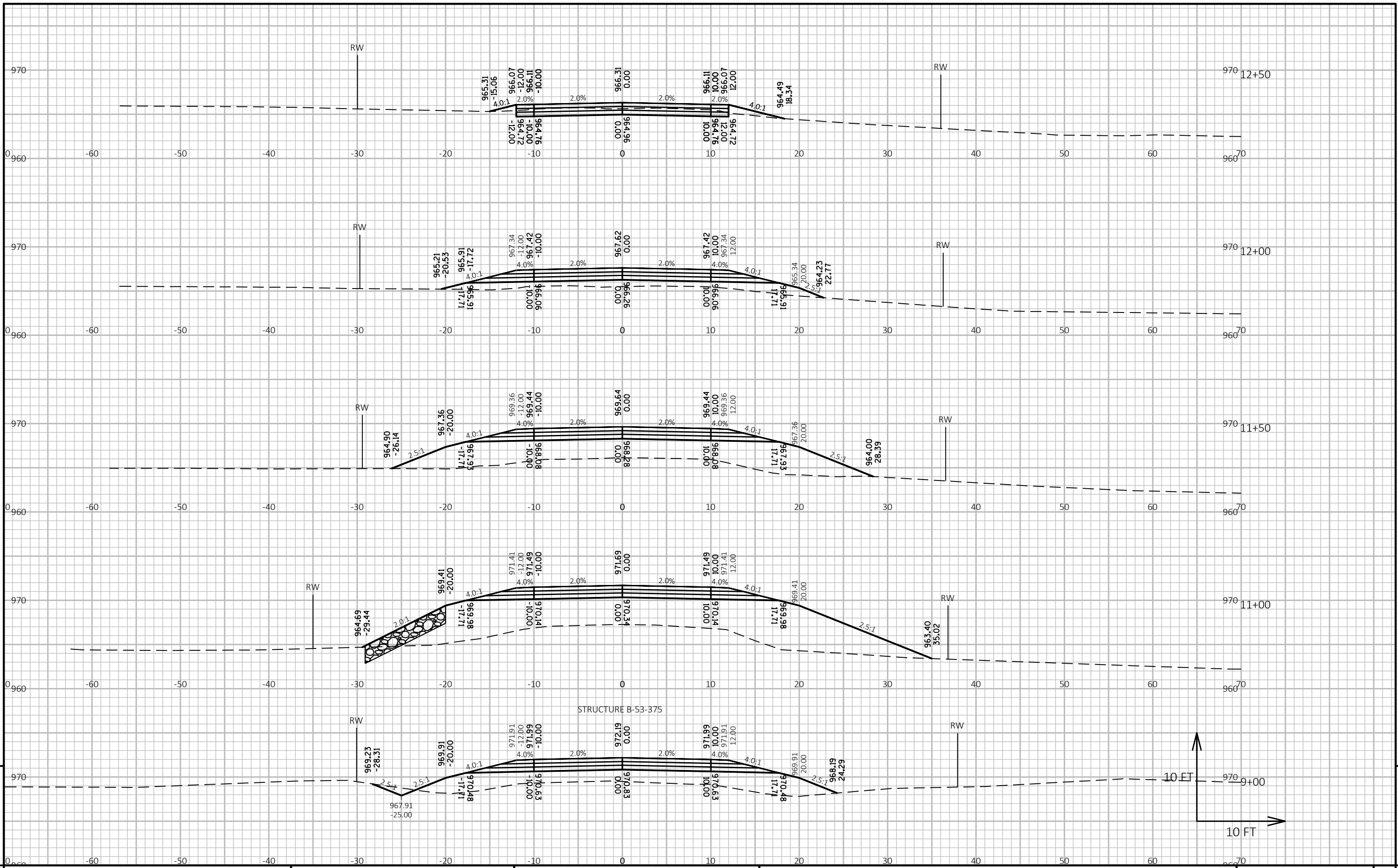
HWY: EMERALD GROVE ROAD

COUNTY: ROCK

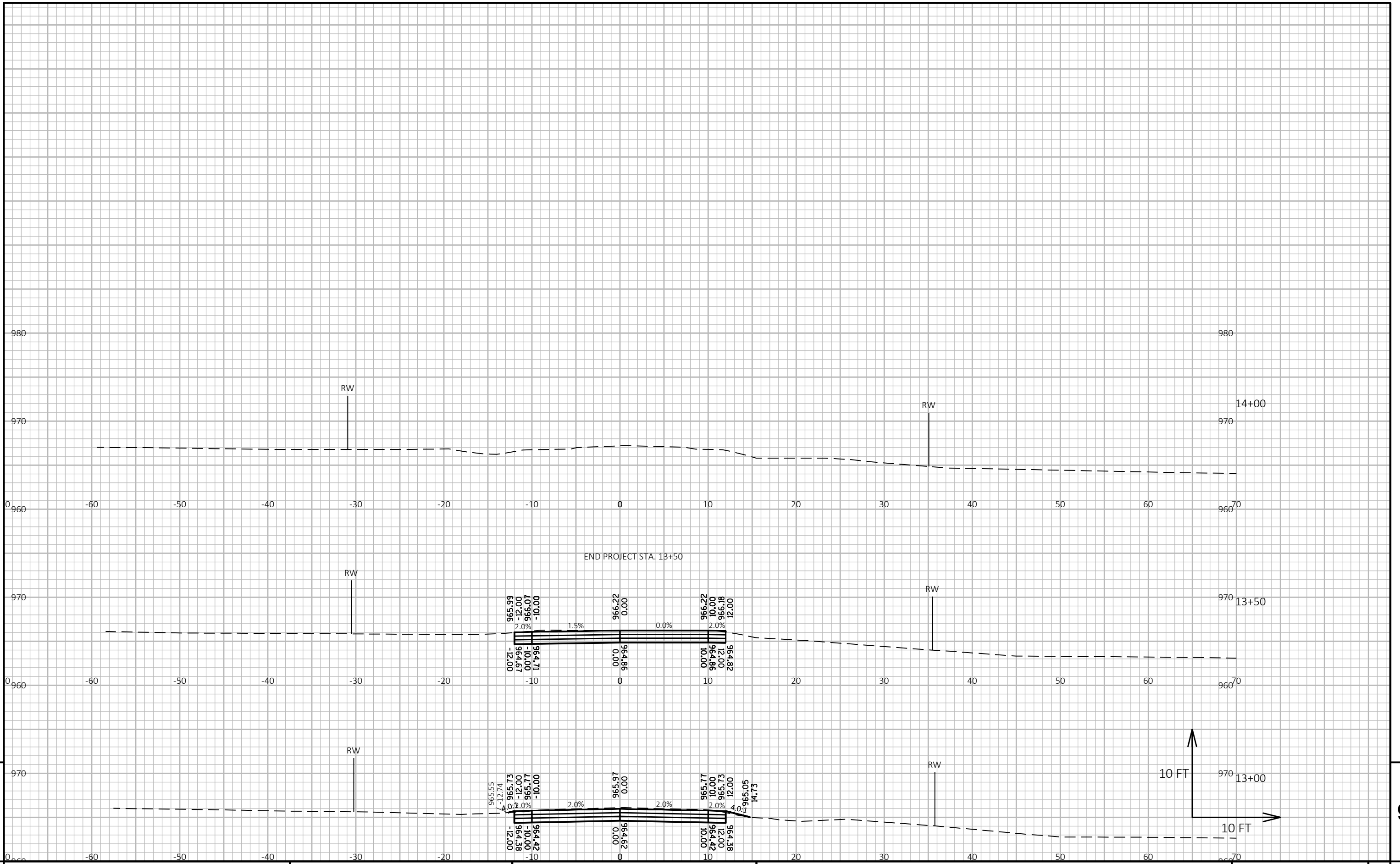
CROSS SECTIONS: EMERALD GROVE ROAD

SHEET

E



PROJECT NO: 3614-00-77 HWY: EMERALD GROVE ROAD COUNTY: ROCK CROSS SECTIONS: EMERALD GROVE ROAD SHEET E



PROJECT NO: 3614-00-77

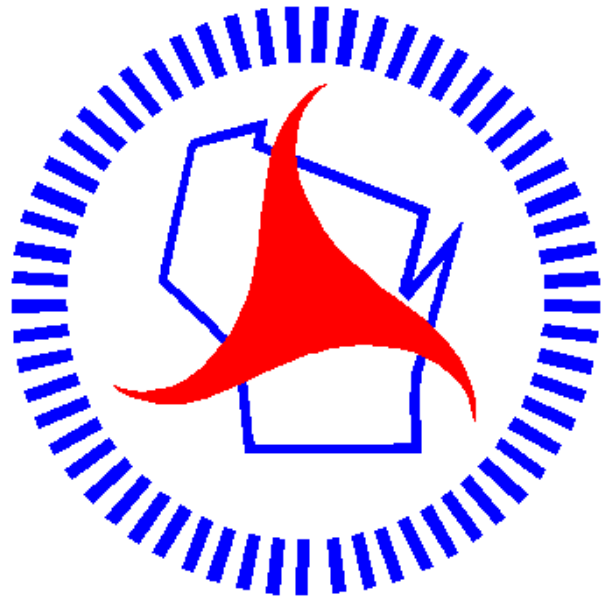
HWY: EMERALD GROVE ROAD

COUNTY: ROCK

CROSS SECTIONS: EMERALD GROVE ROAD

SHEET

E



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