

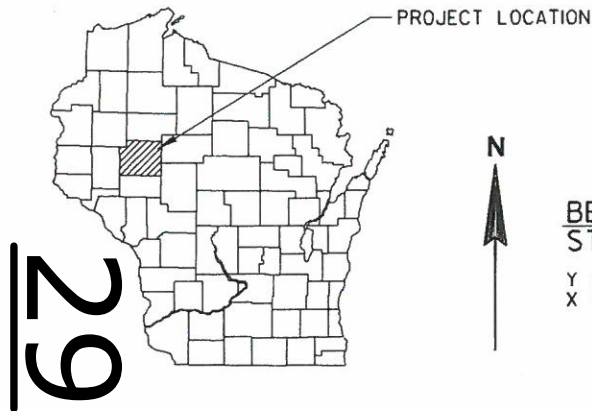
PROJECT ID: 8919-03-72
WITH: 8919-03-73

COUNTY: CHIPPEWA

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 |
| 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 = 100



DESIGN DESIGNATION

- | | | |
|---------------|---|-----------|
| A.A.D.T. 2015 | = | 8300 |
| A.A.D.T. 2035 | = | 10400 |
| D.H.V. | = | 13.6% |
| D.D. | = | 59/41 |
| T. | = | 3.8% |
| DESIGN SPEED | = | 45 MPH |
| ESALS | = | 1,817,700 |

CONVENTIONAL SYMBOLS

- | | | | |
|--------------------------|-----|------------------------|-----|
| COUNTY LINE | --- | COMBUSTIBLE FLUIDS | --- |
| CORPORATE LIMITS | --- | UNDERGROUND UTILITIES | --- |
| PROPERTY LINE | --- | GAS | --- |
| LOT LINE | --- | ELECTRIC | --- |
| LIMITED EASEMENT | --- | TELEPHONE OR TELEGRAPH | --- |
| EARTHWORK BALANCE POINT | --- | TV/CABLE | --- |
| EXISTING RIGHT OF WAY | --- | SERVICE PEDESTAL | --- |
| PROPOSED OR NEW R/W LINE | --- | POWER POLE | --- |
| SURVEY LINE | --- | TELEPHONE POLE | --- |
| SLOPE INTERCEPT | --- | RAILROAD | --- |
| ORIGINAL GROUND | --- | SANITARY SEWER | --- |
| MARSH OR ROCK PROFILE | --- | STORM SEWER | --- |
| (To be noted as such) | --- | WATER | --- |
| MARSH AREA | --- | EXISTING CULVERT | --- |
| WOODED OR SHRUB AREA | --- | PROPOSED CULVERT | --- |
| | --- | (Box or Pipe) | --- |
| | --- | CULVERT (Profile View) | --- |



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CHIPPEWA FALLS-CADOTT ROAD

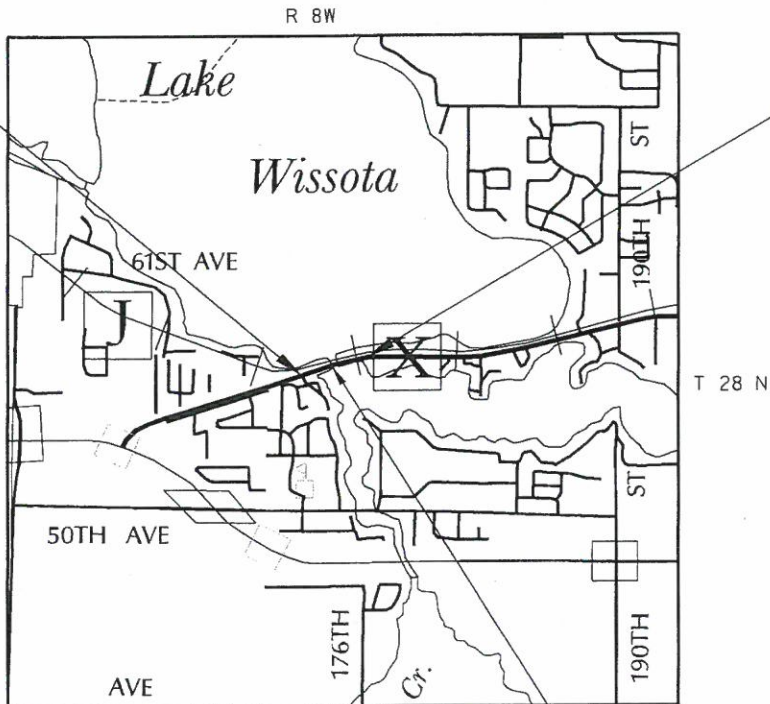
LAKE WISSOTA BRIDGE B-09-0280

CTH X

CHIPPEWA COUNTY

STATE PROJECT NUMBER
8919-03-72

BEGIN PROJECT 8919-03-72
STA 141+67.61
Y = 125402.8446
X = 190760.4505



END PROJECT 8919-03-72
STA 162+50.00
Y = 125888.5749
X = 192772.5801

STRUCTURE B-09-0280
STA 150+00

LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.394

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8919-03-72		

ACCEPTED FOR
COUNTY of CHIPPEWA
DATE: 8/13/15
Signature: [Signature]

ORIGINAL PLANS PREPARED BY:
SEH
WISCONSIN
TARA KRISTA
37975
CHIPPEWA FALLS, WI
PROFESSIONAL ENGINEER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor: SEH
Designer: SEH
Management Consultant: Knight E/A
C.O. Examiner:

APPROVED FOR THE DEPARTMENT
DATE: 8/31/15
Signature: Ryan B. McKim
(Management Consultant Signature)

E

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	HYD	HYDRANT
AC	ACRE	ID	INSIDE DIAMETER
AGG	AGGREGATE	INV	INVERT
AECPRC	APRON ENDWALL FOR CULVERT PIPE	IP	IRON PIPE ON PIN
	REINFORCED CONCRETE	LHF	LEFT-HAND FORWARD
ASPH	ASPHALTIC	L	LENGTH OF CURVE
AVG	AVERAGE	LF	LINEAR FOOT
ADT	AVERAGE DAILY TRAFFIC	LC	LONG CHORD OF CURVE
BF	BACK FACE	LS	LUMP SUM
BM	BENCH MARK	MH	MANHOLE
BR	BRIDGE	MOR	MID POINT OF RADIUS
CE	COMMERCIAL ENTRANCE	NC	NORMAL CROWN
CL OR C/L OR ☉	CENTER LINE	NO	NUMBER
Δ	CENTRAL ANGLE OR DELTA	OBLIT	OBLITERATE
CONC	CONCRETE	PAVT	PAVEMENT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PE	PRIVATE ENTRANCE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE	PVRC	POINT OF VERTICAL REVERSE CURVE
	HORIZONTAL ELLIPTICAL	QOR	QUARTER POINT OF RADIUS
CR	CREEK	R	RADIUS
CY	CUBIC YARD	REQ'D	REQUIRED
C & G	CURB AND GUTTER	RES	RESIDENCE OR RESIDENTIAL
D	DEGREE OF CURVE	RHF	RIGHT-HAND FORWARD
DHV	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DISCH	DISCHARGE	R	RIVER
DG	DITCH GRADE	RDWY	ROADWAY
DWY	DRIVEWAY	R/L OR ☉	REFERENCE LINE
X	EAST GRID COORDINATE	SALV	SALVAGED
EAT	STEEL PLATE BEAM GUARD	SAN	SANITARY SEWER
	ENERGY ABSORBING TERMINAL	SF	SQUARE FEET
EOR	END POINT OF RADIUS	SY	SQUARE YARD
EL	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STA	STATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	SE	SUPERELEVATION RATE
EXIST	EXISTING	TC	TOP OF CURB
FC	FACE OF CURB	T OR TN	TOWN
FF	FACE TO FACE	T	TRUCKS (PERCENT OF)
FERT	FERTILIZE	TYP	TYPICAL
FE	FIELD ENTRANCE	VAR	VARIABLE
FL	FLOW LINE	VC	VERTICAL CURVE
FO	FIBER OPTIC	Y	NORTH GRID COORDINATE
CWT	HUNDREDWEIGHT	YD	YARD

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM.

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

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

THE LOCATION OF ALL DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ALL SIDE ROAD EARTHWORK QUANTITIES ARE INCLUDED IN MAINLINE EARTHWORK QUANTITIES.

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

CONSTRUCTION PERMITS FOR SIDEWALK AND/OR DRIVEWAY CONSTRUCTION HAVE BEEN OBTAINED AND SUCH RIGHTS WILL BE EXTENDED TO THE CONTRACTOR.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO BRIDGE REMOVAL.

WISDOT MONUMENTS WILL BE SUPPLIED BY THE STATE AND INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

UTILITY CONTACTS

AT&T WISCONSIN
304 SOUTH DEWEY
EAU CLAIRE, WI 54701
TELEPHONE: 715.839.5565
ATTENTION: RICK PODOLAK
EMAIL: RP4514@ATT.COM

XCEL ENERGY - GAS
PO BOX 8
1414 WEST HAMILTON AVENUE
EAU CLAIRE, WI 54702-0008
TELEPHONE: 715.737.2584
ATTENTION: SCOTT SEAHOLM

XCEL ENERGY - DISTRIBUTION
PO BOX 8
1414 WEST HAMILTON AVENUE
EAU CLAIRE, WI 54702-0008
TELEPHONE: 715.737.4303
ATTENTION: DAN KLEIN
EMAIL: DANIEL.J.KLEIN@XCELENERGY.COM



Dial  or (800)242-8511

www.DiggersHotline.com

** NOT A MEMBER OF DIGGERS HOTLINE

DESIGN CONTACTS

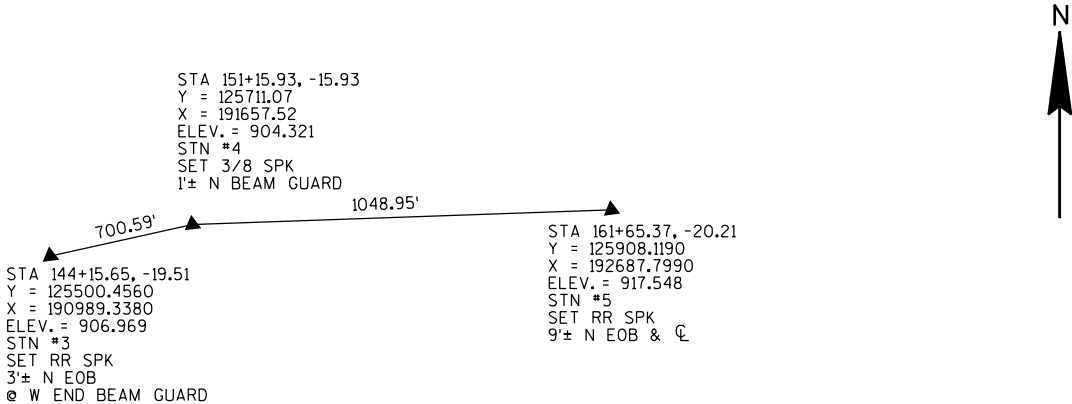
SEH
10 NORTH BRIDGE STREET
CHIPPEWA FALLS, WI 54729
TELEPHONE: 715.720.6266
ATTENTION: GREG WEYANDT
EMAIL: GWEYANDT@SEHINC.COM

WDNR CONTACT

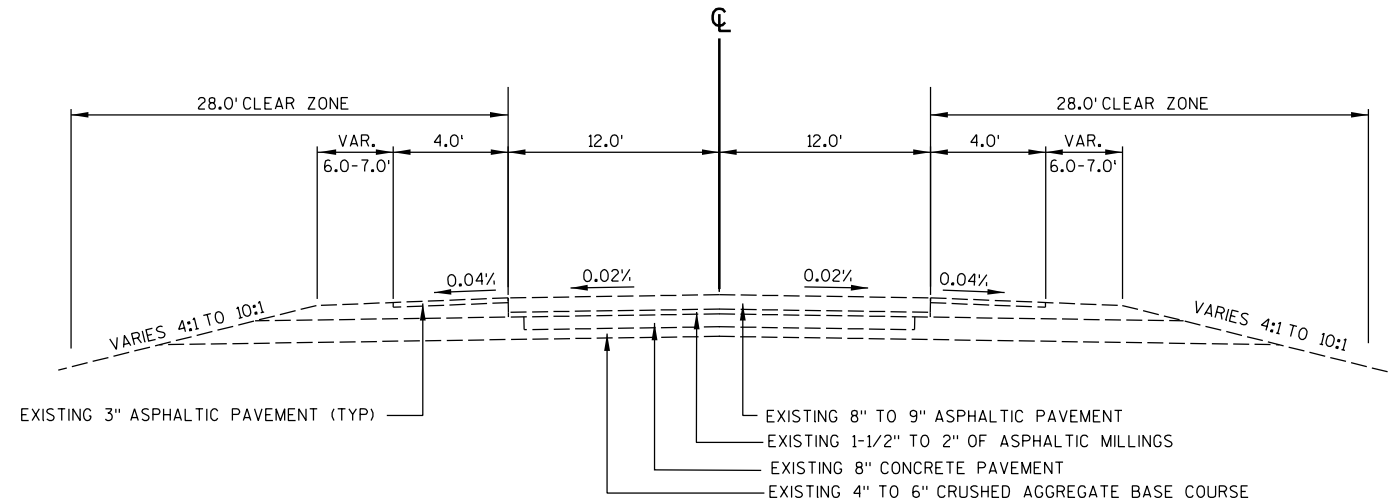
WI DEPT OF NATURAL RESOURCES
WEST CENTRAL REGION HQ
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE WI, 54702
TELEPHONE: 715.839.1609
ATTENTION: CHRIS WILLGER
EMAIL: CHRISTOPHERJ.WILLGER@WISCONSIN.GOV

WISDOT RAILROAD COORDINATOR

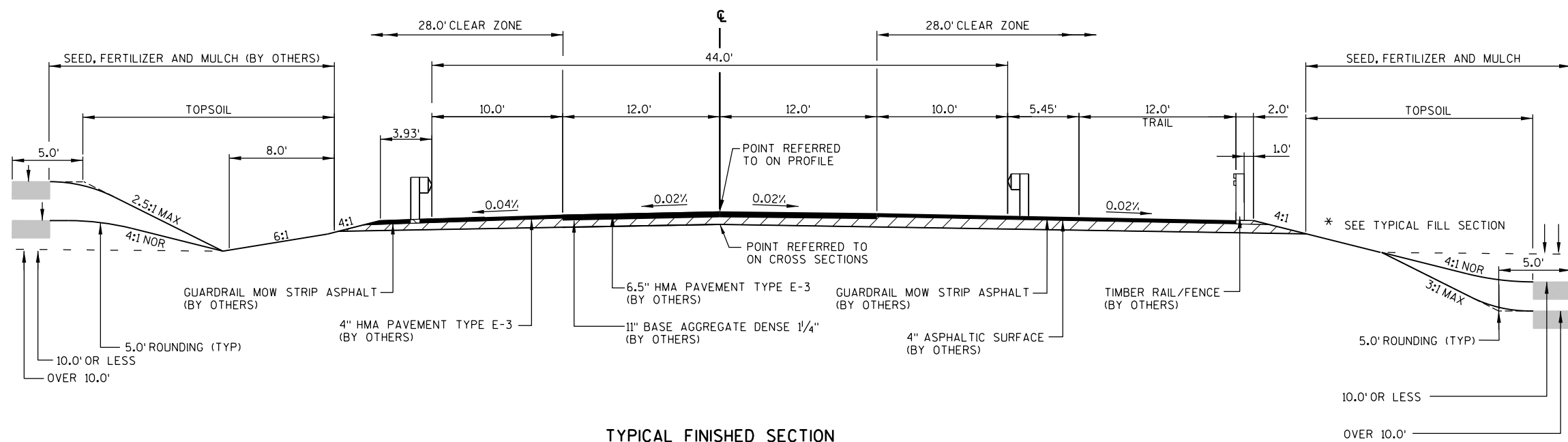
WI DEPT OF TRANSPORTATION
NORTHWEST REGION
1701 N 4TH STREET
SUPERIOR WI, 54880
TELEPHONE: 715.392.7960
ATTENTION: ANNA DAVEY
EMAIL: ANNA.DAVEY@DOT.WI.GOV



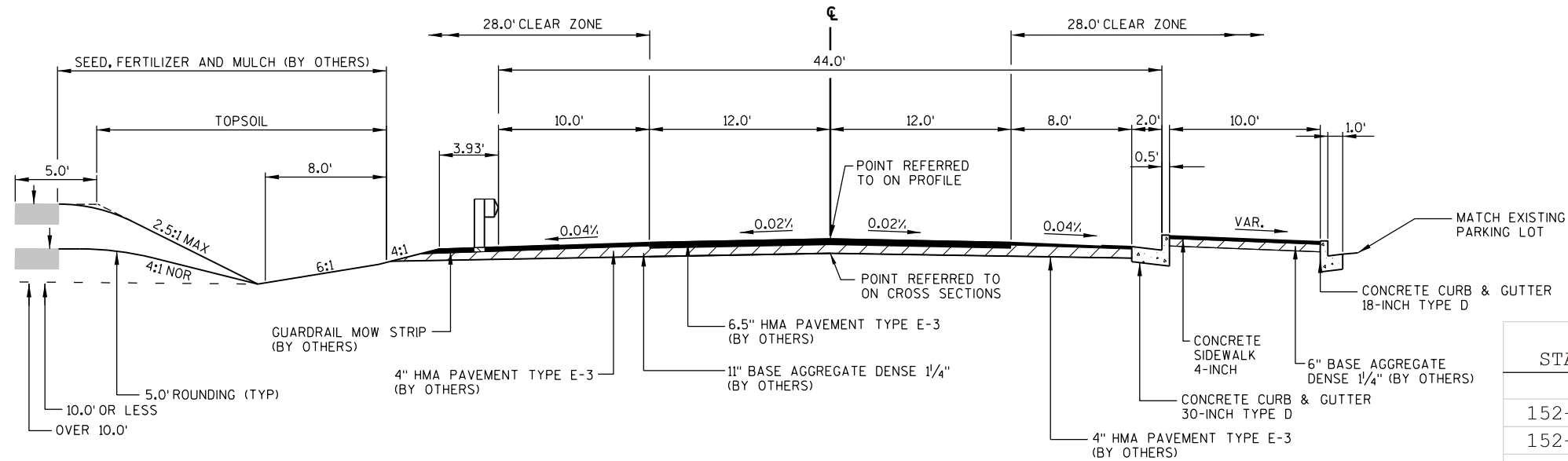
ALIGNMENT TIES

**EXISTING TYPICAL SECTION**

STA 141+67.61 TO STA 149+06.47
STA 150+93.73 TO STA 162+50.00

**TYPICAL FINISHED SECTION**

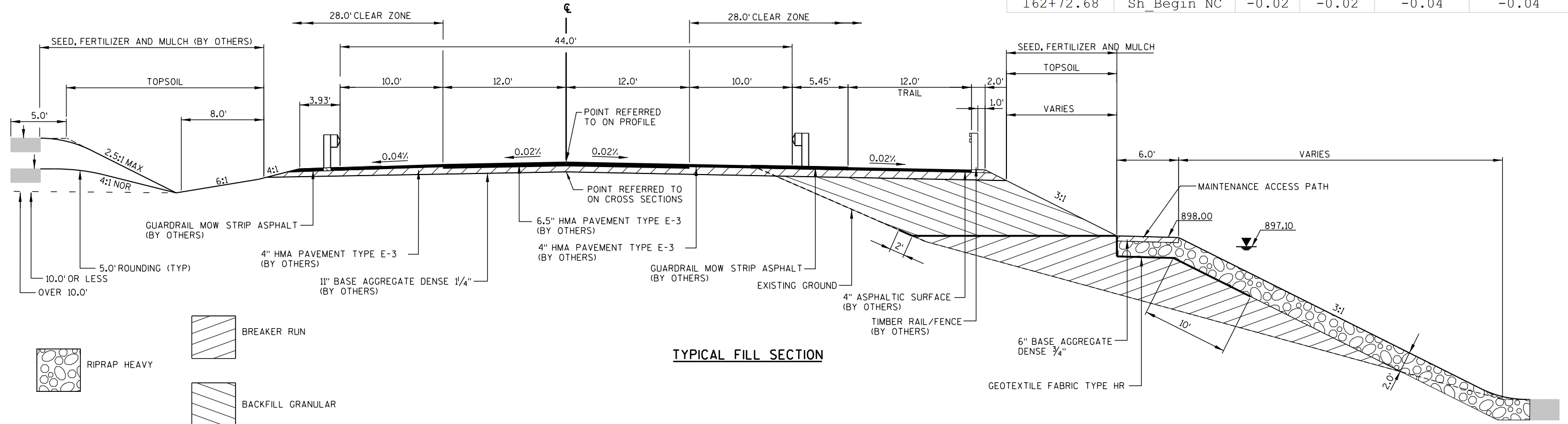
STA 141+67.61 TO STA 148+83.75
STA 151+16.25 TO STA 157+86.74



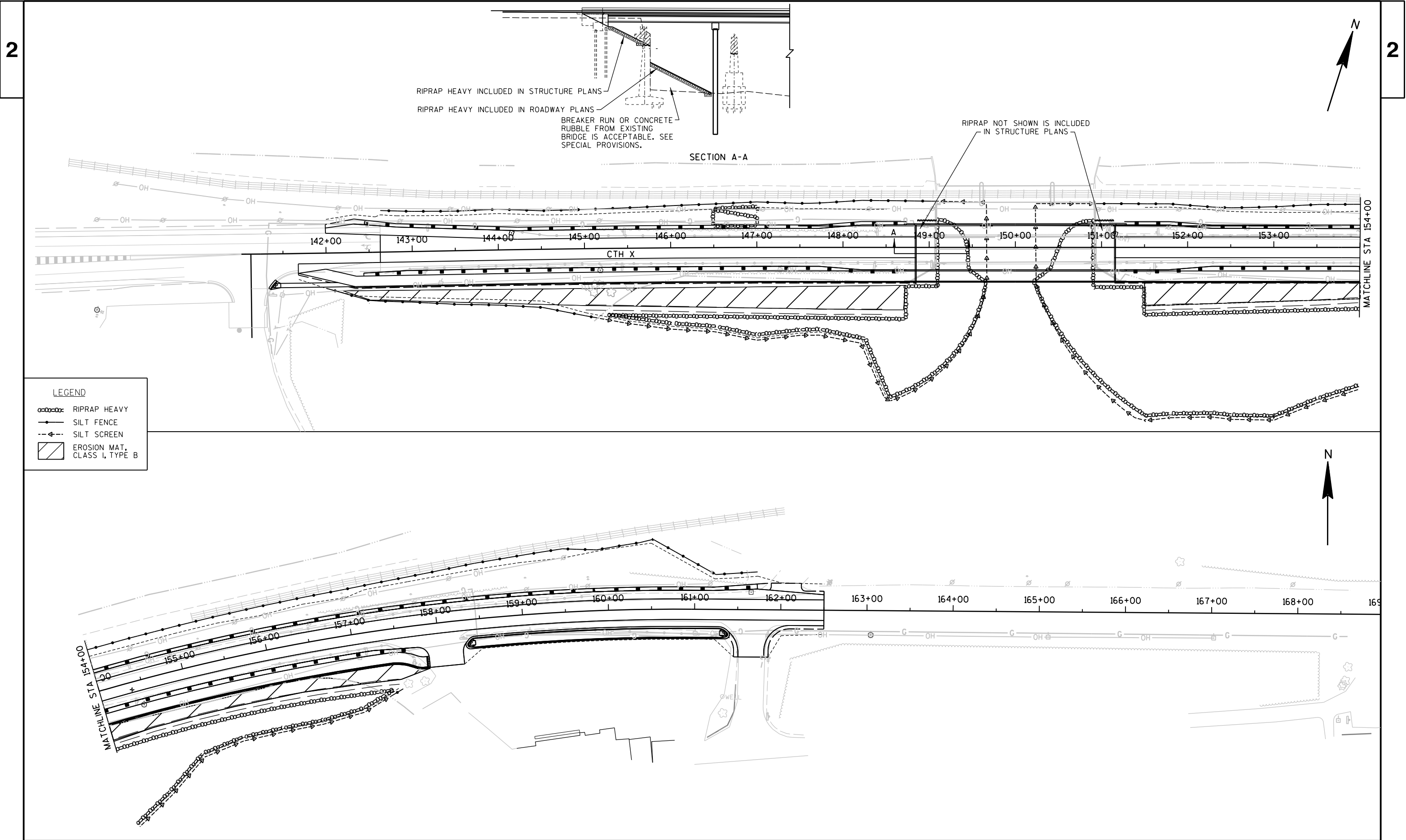
TYPICAL FINISHED SECTION
STA 157+86.74 TO STA 162+50.00

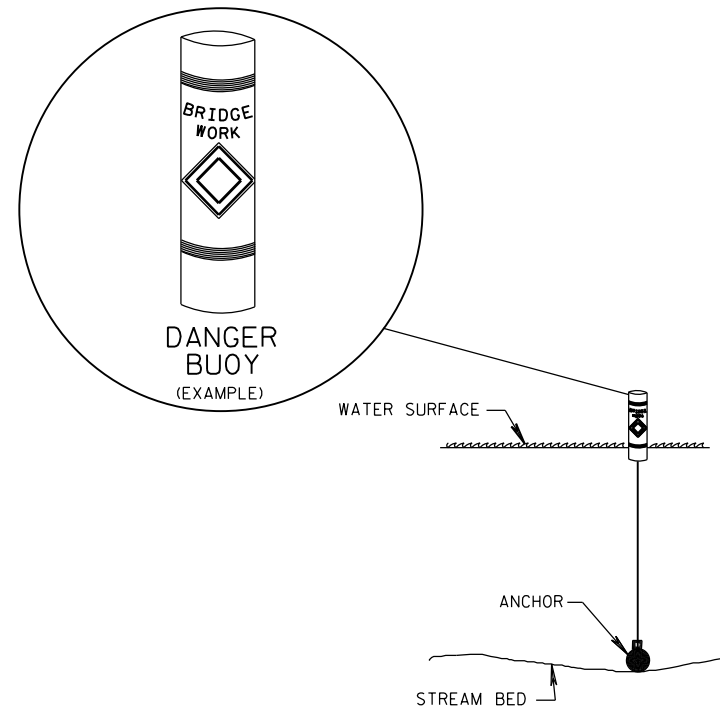
SUPERELEVATION TABLE

STATION	TYPE	LEFT	RIGHT	SHOULDER LEFT	SHOULDER RIGHT
152+02.22	Sh_End NC	-0.02	-0.02	-0.04	-0.04
152+53.13	End NC	-0.02	-0.02	-0.02	-0.04
153+04.04	Zero Super	0	-0.02	0	-0.04
153+54.95	Rev. Crown	0.02	-0.02	0.02	-0.04
154+05.86	Sh. Trans.	0.04	-0.04	0.04	-0.04
154+16.04	Begin FS	0.044	-0.044	0.044	-0.044
160+58.86	End FS	0.044	-0.044	0.044	-0.044
160+69.05	Sh. Trans.	0.04	-0.04	0.04	-0.04
161+19.95	Rev. Crown	0.02	-0.02	0.02	-0.04
161+70.86	Zero Super	0	-0.02	0	-0.04
162+21.77	Begin NC	-0.02	-0.02	-0.02	-0.04
162+72.68	Sh_Begin NC	-0.02	-0.02	-0.04	-0.04

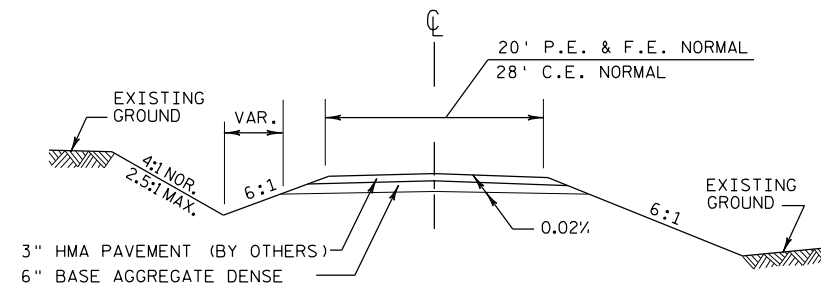
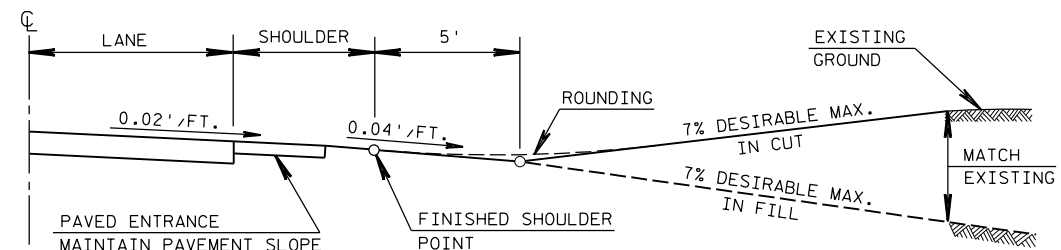
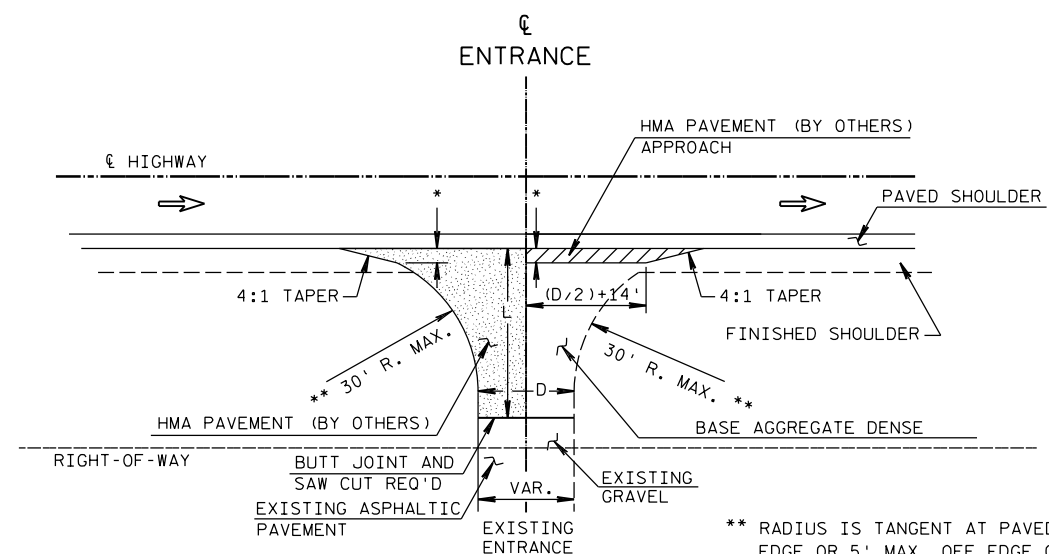


TYPICAL FILL SECTION



**DANGER BUOY PLACEMENT DETAIL**

USE AS DIRECTED BY COAST GUARD OR DNR PERMIT
BOUY MESSAGE MAY VARY (DANGER, NAVIGATIONAL, BOATS PROHIBITED)

**TYPICAL CROSS SECTION****PROFILE VIEW**

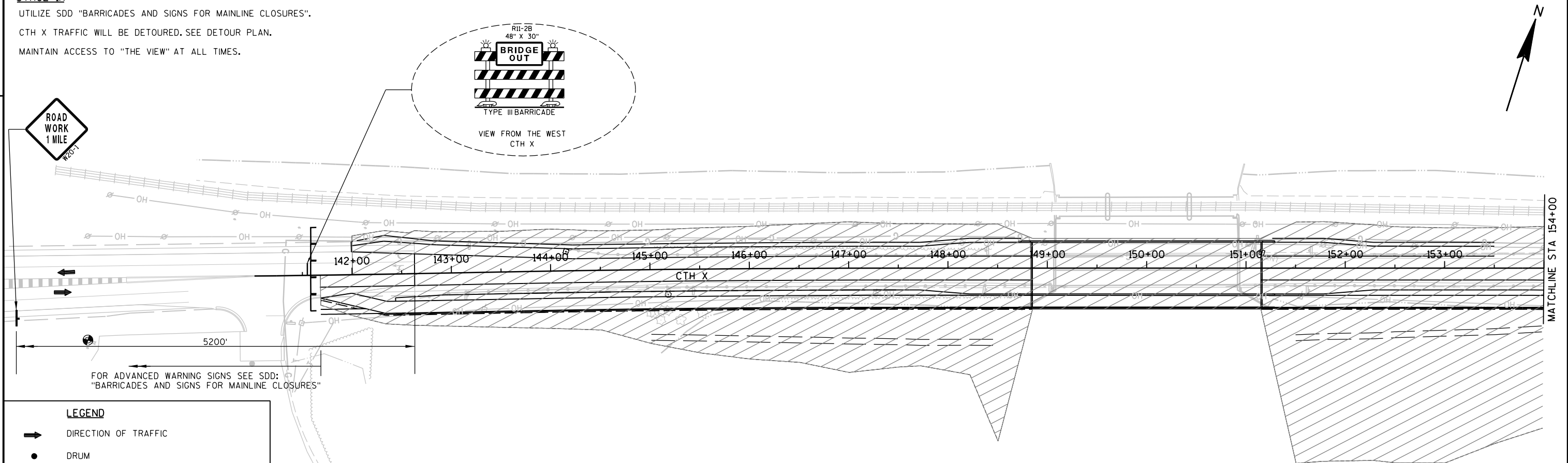
L=VARIABLE, EXACT LENGTH TO BE DETERMINED
IN THE FIELD BY THE ENGINEER.
BLEND BACK ON THE ENTRANCE FAR
ENOUGH TO GET A SMOOTH PROFILE.

D=DRIVEWAY WIDTH
D=20' TYP. (PE's & FE's) (16' MIN. - 24' MAX.)
D=28' TYP. (CE's & FARM ENT.) (24' MIN. - 35' MAX.)

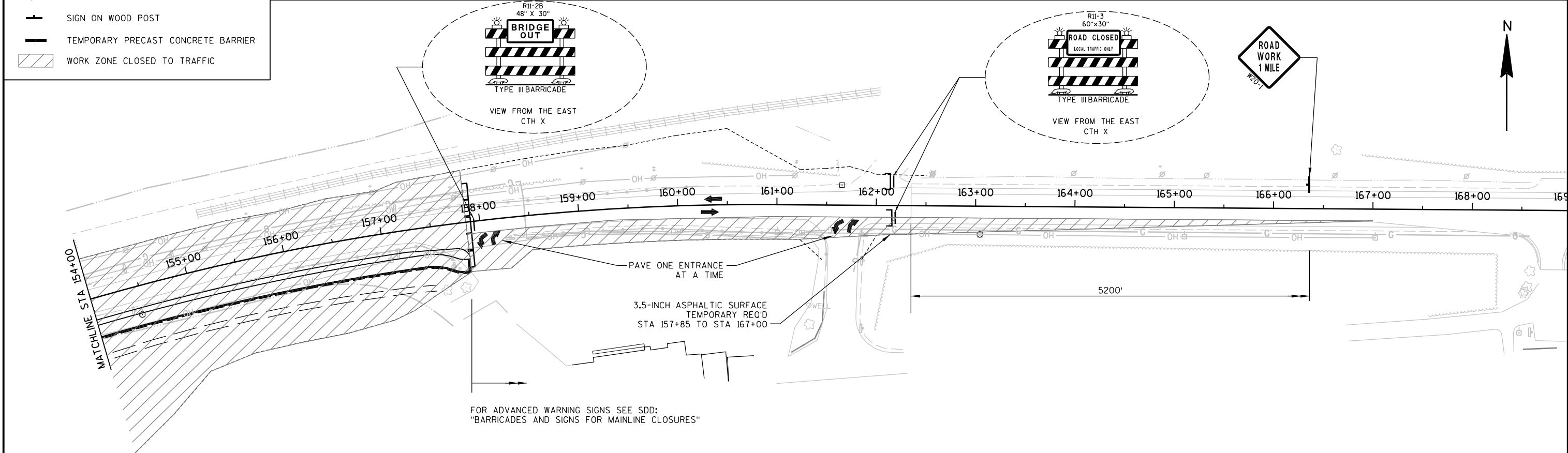
** RADIUS IS TANGENT AT PAVED SHOULDER
EDGE OR 5' MAX. OFF EDGE OF MAIN LINE
PAVEMENT WHICH EVER IS LESS.
* 3' MAX. OR TO FINISHED SHOULDER
WHICH EVER IS LESS.

PLAN VIEW**RURAL DRIVEWAY INTERSECTION DETAIL
(PE's, FE's & CE's)
(FOR NEW CONSTRUCTION)**

STAGE 1A
UTILIZE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES".
CTH X TRAFFIC WILL BE DETOURED. SEE DETOUR PLAN.
MAINTAIN ACCESS TO "THE VIEW" AT ALL TIMES.



- LEGEND**
- ➔ DIRECTION OF TRAFFIC
 - DRUM
 - ⦿ DRUM W/ WARNING LIGHT (TYPE C)
 - SIGN ON WOOD POST
 - TEMPORARY PRECAST CONCRETE BARRIER
 - ▨ WORK ZONE CLOSED TO TRAFFIC

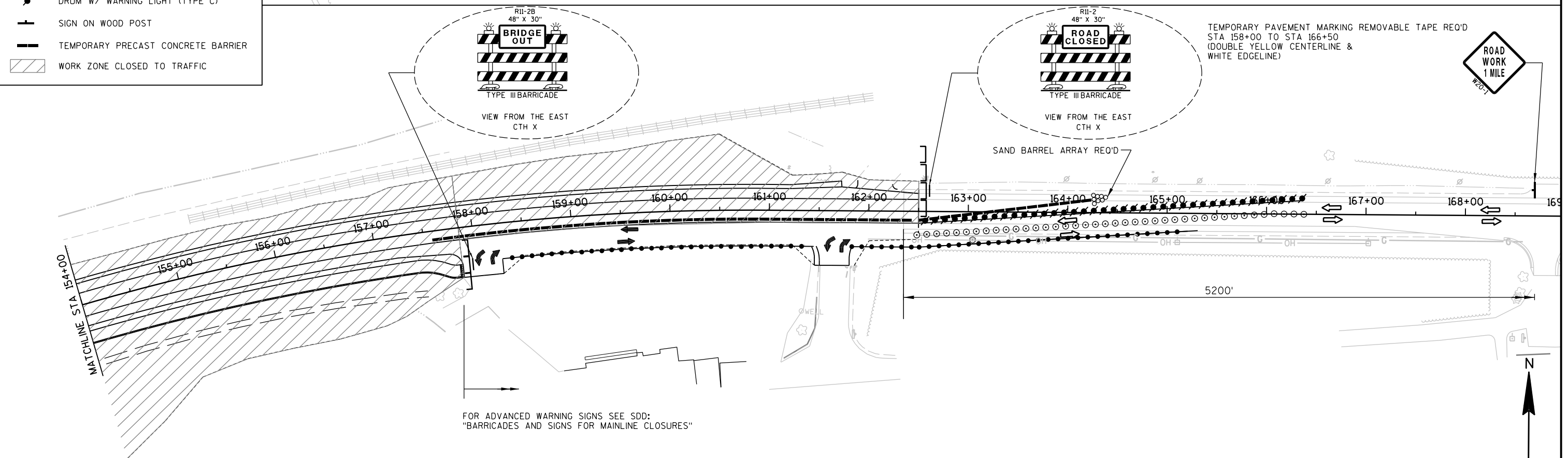
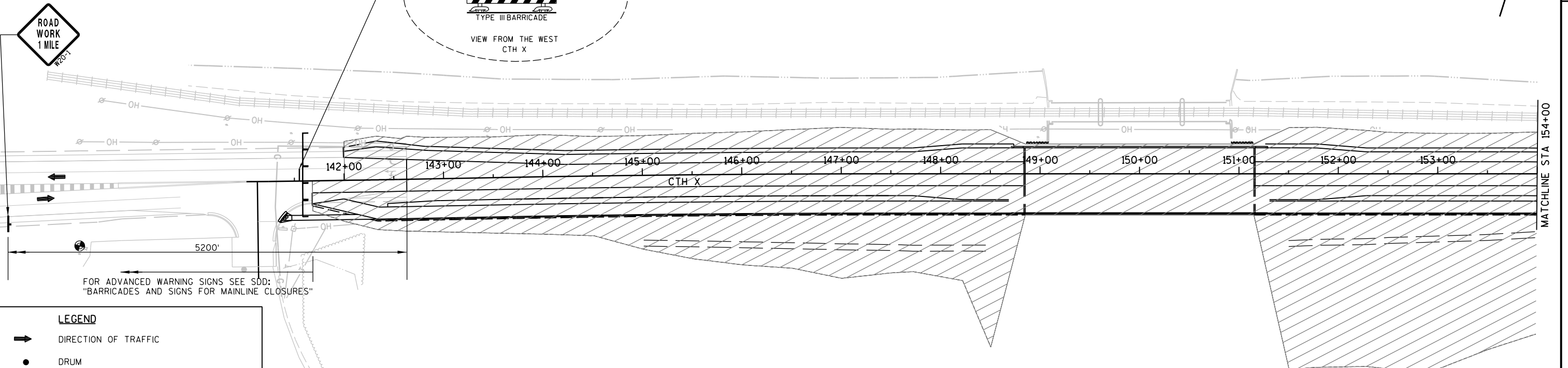


STAGE 1B

CTH X UTILIZE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

TRAFFIC WILL BE DETOURED. SEE DETOUR PLAN

MAINTAIN ACCESS TO "THE VIEW" AT ALL TIMES

BI-DIRECTIONAL TRAFFIC TO THE VIEW
WILL BE USING THE SOUTH SHOULDER,
SHARED USE PATH AND TEMPORARY ASPHALT.

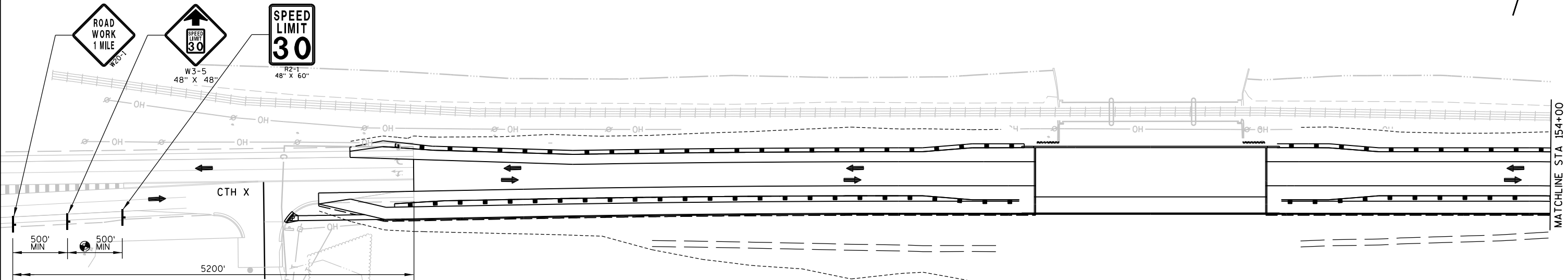
STAGE 1C

CTH X TRAFFIC WILL BE MOVED TO THE MAINLINE.

UTILIZE SDD "ADVANCED WARNING SIGNS 40 M.P.H OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

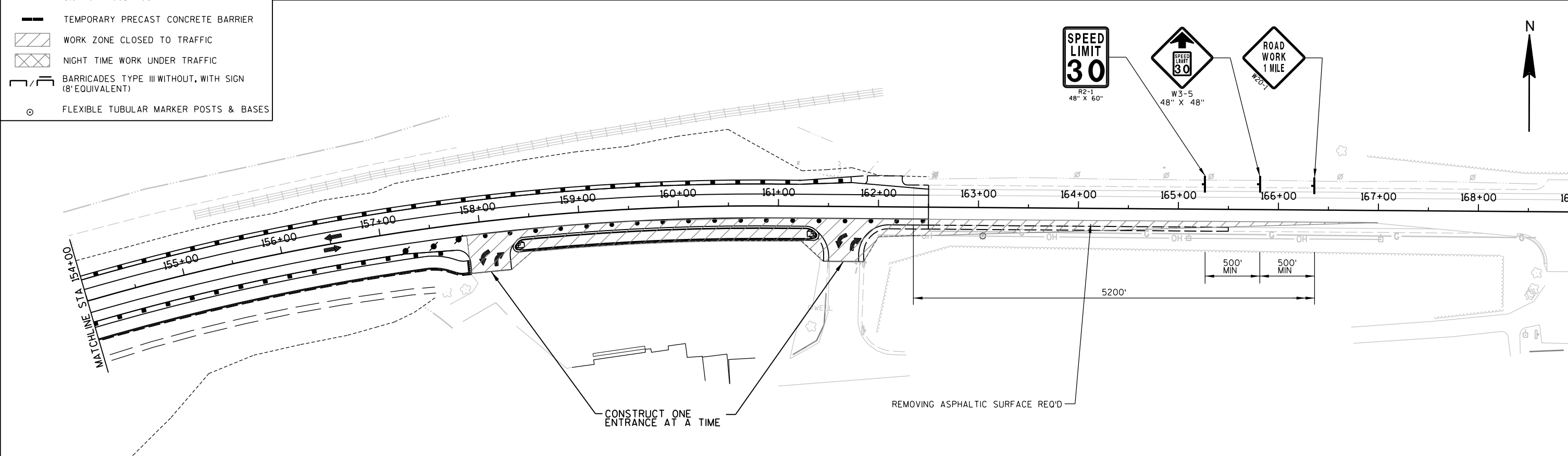
INSTALLATION OF GUARDRAIL, CURB & GUTTER AND ANY FINISHING ITEMS.

MAINTAIN ACCESS TO "THE VIEW" AT ALL TIMES.



LEGEND

- ➡ DIRECTION OF TRAFFIC
- DRUM
- ⦿ DRUM W/ WARNING LIGHT (TYPE C)
- SIGN ON WOOD POST
- TEMPORARY PRECAST CONCRETE BARRIER
- ▨ WORK ZONE CLOSED TO TRAFFIC
- ▩ NIGHT TIME WORK UNDER TRAFFIC
- BARRICADES TYPE III WITHOUT, WITH SIGN (8' EQUIVALENT)
- ⊙ FLEXIBLE TUBULAR MARKER POSTS & BASES



NOTES:

DETOUR UTILIZED DURING STAGES 1A and 1B ONLY.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

ALL SIGNS ARE TYPE 2 UNLESS OTHERWISE NOTED.

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.

ALL SIGNS SHALL BE FURNISHED BY THE CONTRACTOR.

ALL TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMTCD) AND STANDARD DETAIL DRAWINGS.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

ALL SIDEROAD INTERSECTIONS WITHIN THE PROJECT LIMITS SHALL BE CLOSED AND SIGNED IN ACCORDANCE WITH DETAIL 4 OF THE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

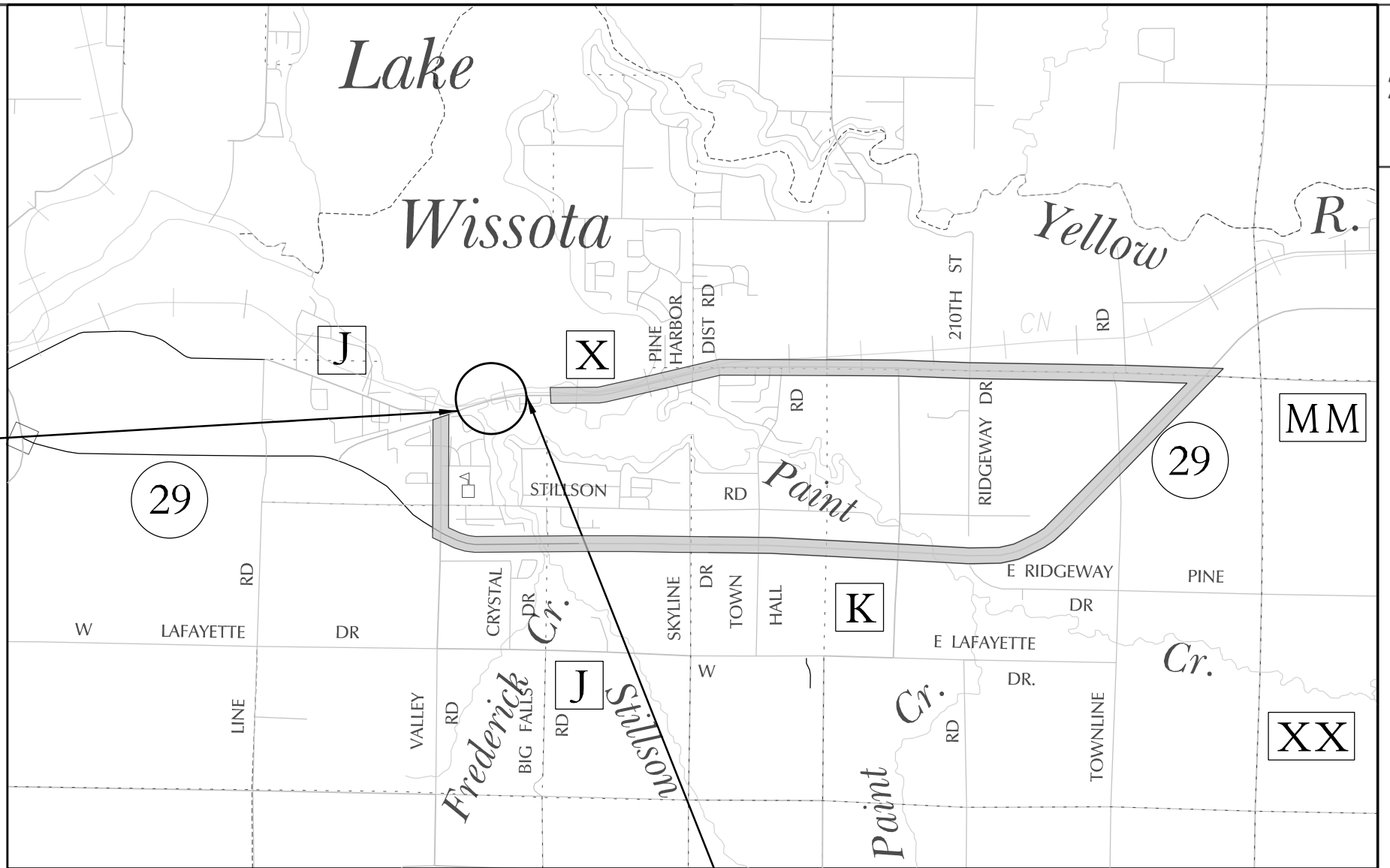
TYPICAL SIGN SPACING, SIGN CODES, SIGN SIZES AND ADDITIONAL GENERAL NOTES SHALL BE IN ACCORDANCE WITH SDD'S "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

A 200' SPACING BETWEEN SIGN LOCATIONS SHALL BE MAINTAINED WHEREVER CONDITIONS ALLOW.



BEGIN PROJECT
8919-03-72

END PROJECT
8919-03-72



LEGEND

- DETOUR ROUTE
- BARRICADES TYPE III (SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES")
- BARRICADES TYPE III WITH SIGN
- SIGN ON WOOD POST
- SIGN ON EXISTING POST
- DIRECTION OF TRAFFIC
- EXISTING SIGNS SHALL BE COVERED

PROJECT NO: 8919-03-72

HWY: CTH X

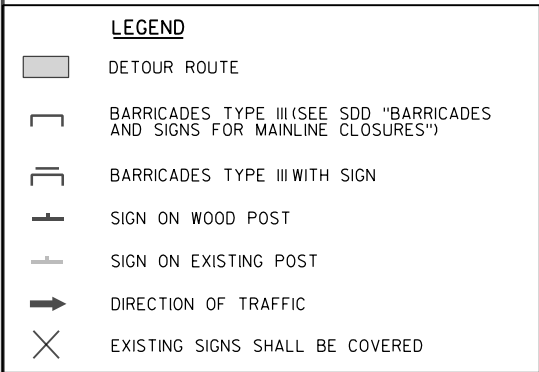
COUNTY: CHIPPEWA

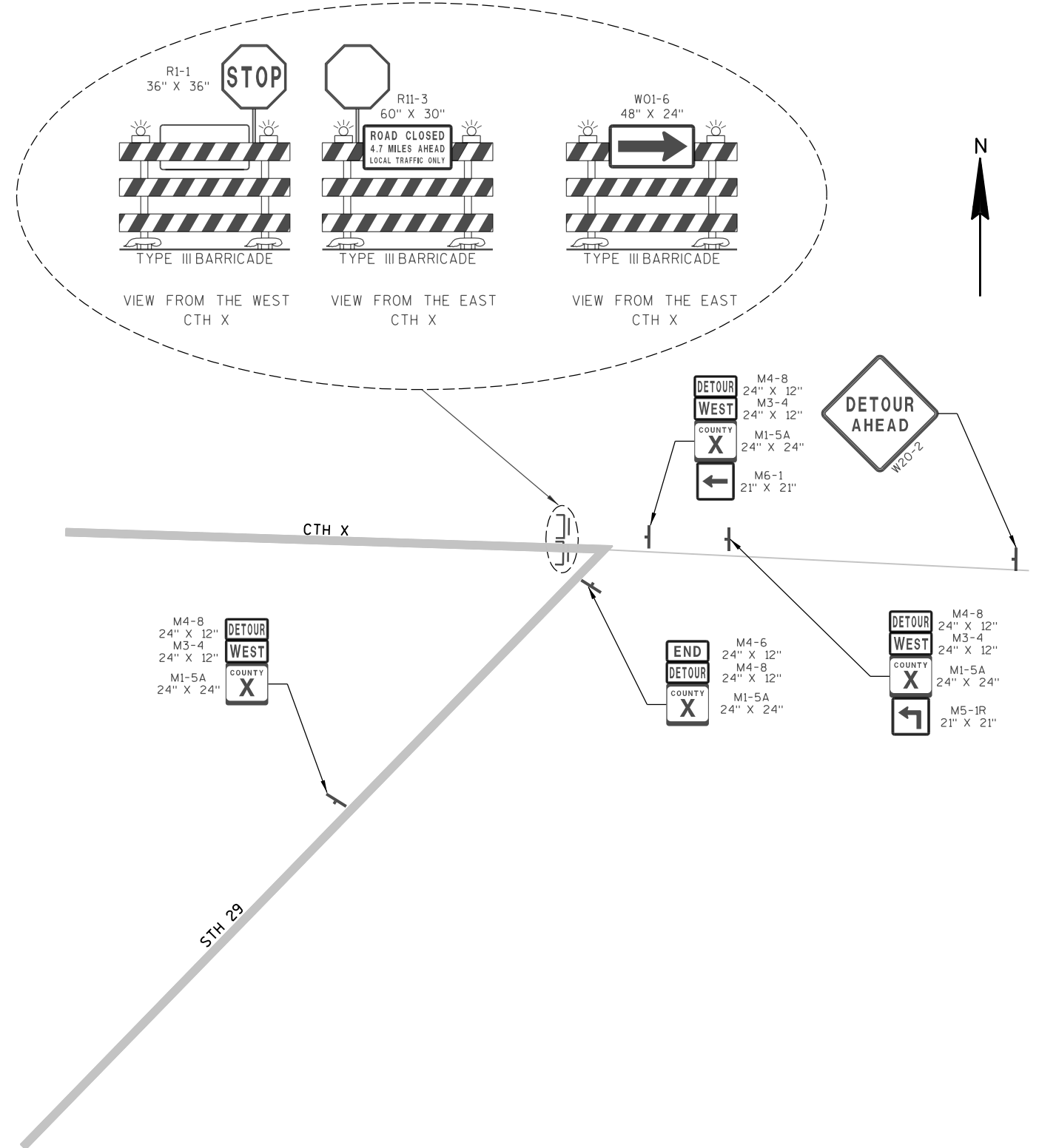
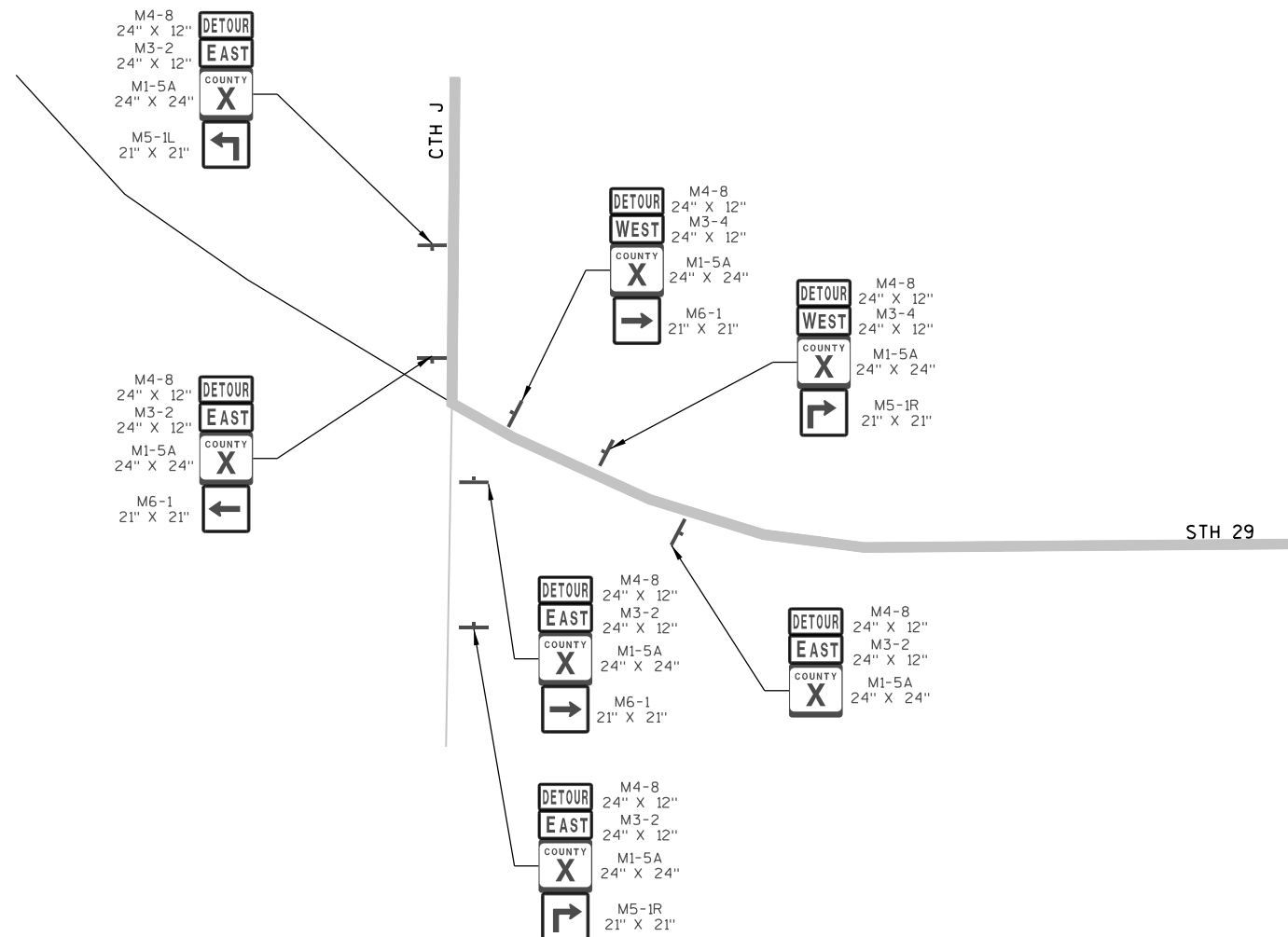
TRAFFIC CONTROL & DETOUR SIGNING

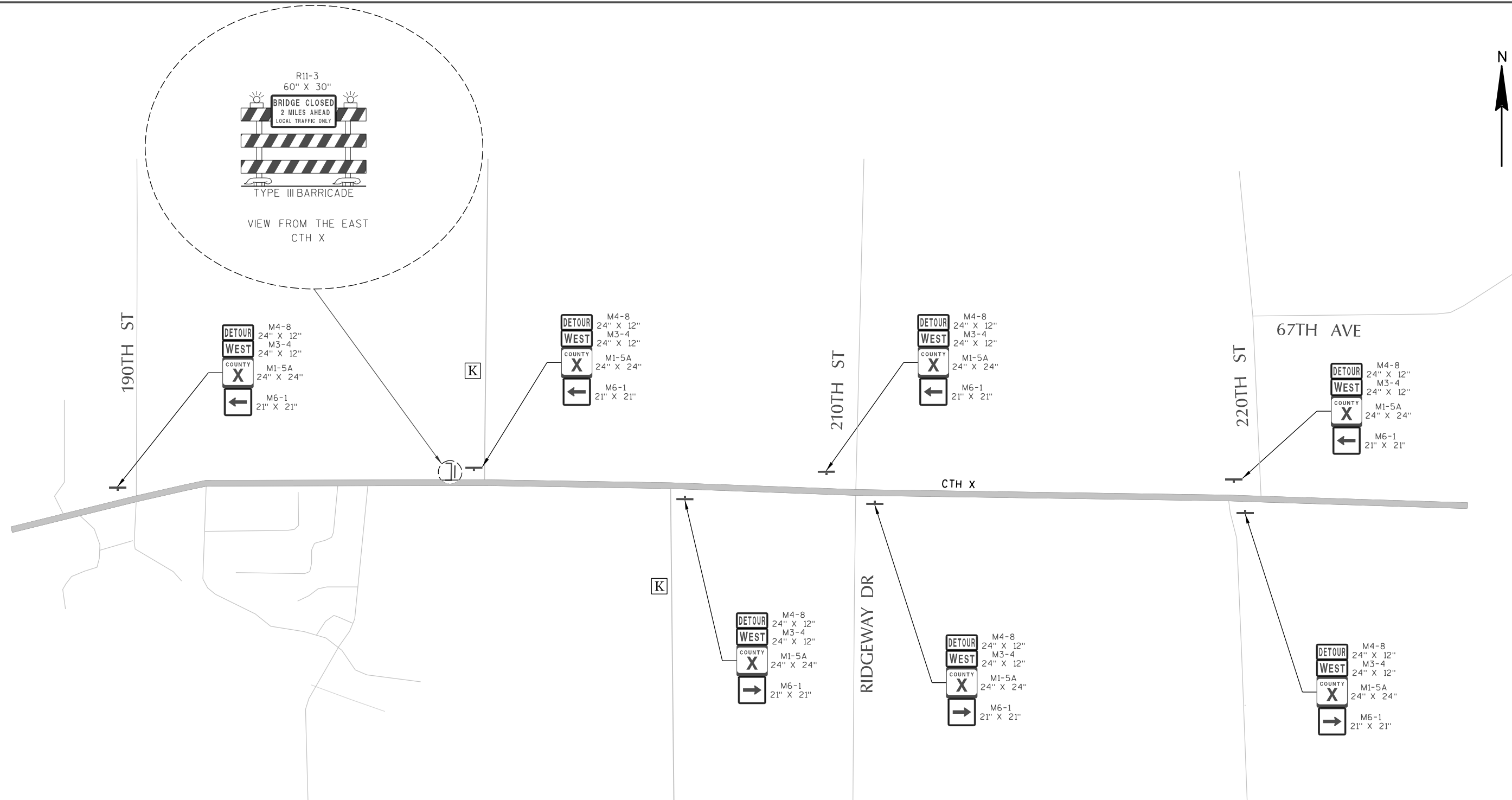
SCALE, FEET 0 5280

SHEET

E





**LEGEND**

-  DETOUR ROUTE
-  BARRICADES TYPE III (SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES")
-  BARRICADES TYPE III WITH SIGN
-  SIGN ON WOOD POST
-  SIGN ON EXISTING POST
-  DIRECTION OF TRAFFIC
-  EXISTING SIGNS SHALL BE COVERED

PROJECT NO: 8919-03-72

HWY: CTH X

COUNTY: CHIPPEWA

TRAFFIC CONTROL & DETOUR SIGNING

SHEET

E

DATE 05OCT15		E S T I M A T E O F Q U A N T I T I E S			
LINE		8919-03-72			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	10.000	10.000
0020	201.0205	Grubbing	STA	10.000	10.000
0030	203.0500.S	Removing Old Structure Over Waterway (station) 01. 150+00	LS	1.000	1.000
0040	204.0100	Removing Pavement	SY	4,935.000	4,935.000
0050	204.0110	Removing Asphaltic Surface	SY	1,600.000	1,600.000
0060	204.0150	Removing Curb & Gutter	LF	12.000	12.000
0070	205.0100	Excavation Common **p**	CY	3,030.000	3,030.000
0080	206.1000	Excavation for Structures Bridges (structure) 01. B-9-280	LS	1.000	1.000
0090	209.0100	Backfill Granular	CY	12,610.000	12,610.000
0100	210.0100	Backfill Structure	CY	544.000	544.000
0110	213.0100	Finishing Roadway (project) 01. 8919-03-72	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	270.000	270.000
0130	311.0110	Breaker Run	TON	60,456.000	60,456.000
0140	455.0605	Tack Coat	GAL	95.000	95.000
0150	465.0125	Asphaltic Surface Temporary	TON	315.000	315.000
0160	502.0100	Concrete Masonry Bridges	CY	960.000	960.000
0170	502.3200	Protective Surface Treatment	SY	2,134.000	2,134.000
0180	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,844.000	1,844.000
0190	505.0405	Bar Steel Reinforcement HS Bridges	LB	8,920.000	8,920.000
0200	505.0605	Bar Steel Reinforcement HS Coated Bridges	LB	159,220.000	159,220.000
0210	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	48.000	48.000
0220	506.4000	Steel Diaphragms (structure) 01. B-9-280	EACH	28.000	28.000
0230	512.0500	Piling Steel Sheet Permanent Delivered	SF	750.000	750.000
0240	512.0600	Piling Steel Sheet Permanent Driven	SF	750.000	750.000
0250	513.7020	Railing Steel Type C4 (structure) 01. B-9-280	LS	1.000	1.000
0260	516.0500	Rubberized Membrane Waterproofing	SY	32.000	32.000
0270	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,920.000	1,920.000
0280	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	250.000	250.000
0290	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	365.000	365.000
0300	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	12.000	12.000
0310	602.0405	Concrete Sidewalk 4-Inch	SF	3,238.000	3,238.000
0320	602.0415	Concrete Sidewalk 6-Inch	SF	203.000	203.000
0330	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	48.000	48.000
0340	603.8000	Concrete Barrier Temporary Precast Delivered	LF	675.000	675.000
0350	603.8125	Concrete Barrier Temporary Precast Installed	LF	675.000	675.000
0360	606.0300	Riprap Heavy	CY	6,456.000	6,456.000
0370	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	80.000	80.000
0380	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	158.000	158.000
0390	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0400	614.0700	Sand Barrels Arrays	EACH	1.000	1.000
0410	619.1000	Mobilization	EACH	1.000	1.000
0420	625.0100	Topsoil	SY	5,860.000	5,860.000
0430	627.0200	Mulching	SY	6,705.000	6,705.000
0440	628.1504	Silt Fence	LF	1,300.000	1,300.000
0450	628.1520	Silt Fence Maintenance	LF	1,300.000	1,300.000

DATE 05OCT15		E S T I M A T E O F Q U A N T I T I E S			
LINE		8919-03-72			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	628.1550	Silt Screen	LF	1,690.000	1,690.000
0470	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0480	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0490	628.2004	Erosion Mat Class I Type B	SY	2,785.000	2,785.000
0500	629.0205	Fertilizer Type A	CWT	4.200	4.200
0510	630.0120	Seeding Mixture No. 20	LB	180.000	180.000
0520	630.0200	Seeding Temporary	LB	180.000	180.000
0530	642.5001	Field Office Type B	EACH	1.000	1.000
0540	643.0100	Traffic Control (project) 01. 8919-03-72	EACH	1.000	1.000
0550	643.0300	Traffic Control Drums	DAY	16,954.000	16,954.000
0560	643.0420	Traffic Control Barricades Type III	DAY	2,890.000	2,890.000
0570	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	45.000	45.000
0580	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	45.000	45.000
0590	643.0705	Traffic Control Warning Lights Type A	DAY	5,780.000	5,780.000
0600	643.0715	Traffic Control Warning Lights Type C	DAY	6,470.000	6,470.000
0610	643.0900	Traffic Control Signs	DAY	2,990.000	2,990.000
0620	643.1050	Traffic Control Signs PCMS	DAY	374.000	374.000
0630	643.2000	Traffic Control Detour (project) 01. 8919-03-72	EACH	1.000	1.000
0640	643.3000	Traffic Control Detour Signs	DAY	17,170.000	17,170.000
0650	645.0120	Geotextile Fabric Type HR	SY	2,875.000	2,875.000
0660	646.0600	Removing Pavement Markings	LF	200.000	200.000
0670	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	3,400.000	3,400.000
0680	650.4500	Construction Staking Subgrade	LF	1,850.000	1,850.000
0690	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	615.000	615.000
0700	650.6500	Construction Staking Structure Layout (structure) 01. B-9-280	LS	1.000	1.000
0710	650.9910	Construction Staking Supplemental Control (project) 01. 8919-03-72	LS	1.000	1.000
0720	650.9920	Construction Staking Slope Stakes	LF	1,850.000	1,850.000
0730	690.0150	Sawing Asphalt	LF	170.000	170.000
0740	690.0250	Sawing Concrete	LF	18.000	18.000
0750	715.0502	Incentive Strength Concrete Structures	DOL	5,766.000	5,766.000
0760	SPV.0045	Special 01. PCMS Cellular Communications	DAY	187.000	187.000
0770	SPV.0060	Special 01. Pile Driving Analyzer	EACH	6.000	6.000
0780	SPV.0090	Special 01. Piling CIP Concrete Delivered And Driven 30 X 0.625 Inch	LF	1,020.000	1,020.000
0790	SPV.0090	Special 02. Concrete Curb And Gutter Cure and Seal Treatment	LF	627.000	627.000
0800	SPV.0105	Special 01. Settlement Monitoring	LS	1.000	1.000
0810	SPV.0105	Special 02. Vibration Monitoring	LS	1.000	1.000

3

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CLEARING & GRUBBING <table><tr><th>STATION - STATION</th><th>LOCATION</th><th>201.0105 CLEARING STA</th><th>201.0205 GRUBBING STA</th></tr><tr><td>CTH X</td><td></td><td></td><td></td></tr><tr><td>145+00 - 149+00</td><td>LT & RT</td><td>4</td><td>4</td></tr><tr><td>156+00 - 162+00</td><td>LT & RT</td><td>6</td><td>6</td></tr><tr><td>ITEM TOTALS</td><td></td><td>10</td><td>10</td></tr></table>				STATION - STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	CTH X				145+00 - 149+00	LT & RT	4	4	156+00 - 162+00	LT & RT	6	6	ITEM TOTALS		10	10	FINISHING ROADWAY (8919-03-72) <table><tr><th>STATION - STATION</th><th>213.0100 EACH</th></tr><tr><td>CTH X</td><td></td></tr><tr><td>141+67.61 - 162+50.00</td><td>1</td></tr><tr><td>ITEM TOTAL</td><td>1</td></tr></table>				STATION - STATION	213.0100 EACH	CTH X		141+67.61 - 162+50.00	1	ITEM TOTAL	1	CONCRETE CURB & GUTTER <table><tr><th>STATION - STATION</th><th>LOCATION</th><th>601.0407 18-INCH TYPE D LF</th><th>601.0411 30-INCH TYPE D LF</th><th>601.0553 4-INCH SLOPED 36-INCH TYPE D LF</th><th>602.0405 CONCRETE SIDEWALK 4-INCH SF</th><th>602.0415 CONCRETE SIDEWALK 6-INCH SF</th><th>602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF</th><th>SPV.0090.02 CURE AND SEAL TREATMENT LF</th></tr><tr><td>CTH X</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>141+35</td><td>RT</td><td></td><td></td><td>12</td><td></td><td></td><td>8</td><td>12</td></tr><tr><td>141+35 - 142+33</td><td>RT</td><td></td><td></td><td></td><td>383</td><td>57</td><td></td><td></td></tr><tr><td>157+85</td><td>RT</td><td></td><td></td><td></td><td></td><td>36</td><td>24</td><td></td></tr><tr><td>158+31.70 - 161+40.16</td><td>RT</td><td>250</td><td>365</td><td></td><td>2855</td><td></td><td></td><td>615</td></tr><tr><td>158+36</td><td>RT</td><td></td><td></td><td></td><td></td><td>55</td><td>8</td><td></td></tr><tr><td>161+35</td><td>RT</td><td></td><td></td><td></td><td></td><td>55</td><td>8</td><td></td></tr><tr><td>ITEM TOTALS</td><td></td><td>250</td><td>365</td><td>12</td><td>3238</td><td>203</td><td>48</td><td>627</td></tr></table>								STATION - STATION	LOCATION	601.0407 18-INCH TYPE D LF	601.0411 30-INCH TYPE D LF	601.0553 4-INCH SLOPED 36-INCH TYPE D LF	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	SPV.0090.02 CURE AND SEAL TREATMENT LF	CTH X									141+35	RT			12			8	12	141+35 - 142+33	RT				383	57			157+85	RT					36	24		158+31.70 - 161+40.16	RT	250	365		2855			615	158+36	RT					55	8		161+35	RT					55	8		ITEM TOTALS		250	365	12	3238	203	48	627	
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PROJECT NO: 8919-03-72			HWY: CTH X		COUNTY: CHIPPEWA			MISCELLANEOUS QUANTITIES			SHEET		E																																																																																																																

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TOPSOIL, MULCHING AND SEEDING						
STATION - STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 TEMPORARY SEEDING LB
CTH X						
141+67.61 - 148+83.75	LT & RT	2560	2920	1.8	80	80
151+16.25 - 162+50	LT & RT	3300	3785	2.4	100	100
ITEM TOTALS		5860	6705	4.2	180	180

MOBILIZATIONS EROSION CONTROL		
STATION - STATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
CTH X		
141+67.61 - 162+50.00	3	3
ITEM TOTALS	3	3

CONSTRUCTION STAKING						
STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.6500* STRUCTURE LAYOUT (B-09-280) LS	650.9910 SUPPLEMENTAL CONTROL (8919-03-72) LS	650.9920 SLOPE STAKES LF
CTH X						
141+67.61 - 148+83.75	LT &RT	716				716
148+83.75 - 151+16.25				1	1	
151+16.25 - 162+50	LT &RT	1134				1134
158+31.70 - 161+40.16	RT		615			
ITEM TOTALS		1850	615	1	1	1850
*CATEGORY 0020						

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TRAFFIC CONTROL																			
STATION - STATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0700 SAND BARREL ARRAYS EACH	643.0100 (8919-03-72) EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0500 FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS DAYS	643.1050 PCMS DAYS	643.2000 DETOUR (8919-03-72) EACH	643.3000 DETOUR SIGNS DAYS	646.0600 REMOVING PAVEMENT MARKING LF	649.0400 TEMPORARY PAVEMENT MARKING 4-INCH REMOVABLE TAPE LF	SPV.0045.01 PCMS CELLULAR COMMUNICATIONS DAYS	REMARKS	
CTH X				1	0	153			306	0	153	32	1	909			16	STAGE 1A	
148+83.75 - 151+16.25	675	675	1		16744	2737	45	45	5474	6440	2737	322		16261	200	3400	161	STAGE 1B	
148+83.75 - 151+16.25					210	0			0	30	100	20		0			10	STAGE 1C	
ITEM TOTALS	675	675	1	1	16954	2890	45	45	5780	6470	2990	374	1	17170	200	3400	187		

EROSION CONTROL ITEMS						FIELD OFFICE TYPE B		SAWING			
STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1550 SILT SCREEN LF	628.2004 EROSION MAT CLASS I TYPE B SY	STATION - STATION	642.5001 EACH	STATION - STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
CTH X											
141+67.61 - 148+83.75	LT & RT	970	970	720	1510		1		RT		18
151+16.25 - 162+50	LT & RT	330	330	970	1275				LT & RT	46	
									LT & RT	24	
									DRIVEWAYS		
									158+06	70	
									SIDE ROADS		
									57TH AVE	30	
ITEM TOTALS		1300	1300	1690	2785		1			170	18

MONITORING			ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.	
STATION - STATION	SPV.0105.01 SETTLEMENT MONITORING LS	SPV.0105.02 VIBRATION MONITORING LS		
CTH X				
141+67.61 - 162+50.00	1	1		
ITEM TOTALS	1	1		

PROJECT NO: 8919-03-72	HWY: CTH X	COUNTY: CHIPPEWA	MISCELLANEOUS QUANTITIES	SHEET	E
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CONVENTIONAL SIGNS AND ABBREVIATIONS

A.P.	ACCESS POINT
AC	ACRES
AG	AGRICULTURAL
ALUM.	ALUMINUM
ANT	ANTENNA
B.	BARN
C.	CENTERLINE
CONC	CONCRETE
COR.	CORNER
C.S.M.	CERTIFIED SURVEY MAP
C.T.H.	COUNTY TRUNK HIGHWAY
DOC.	DOCUMENT
EASE.	EASEMENT
ET.AL.	AND OTHERS
FDN	FOUNDATION
FE	FIELD ENTRANCE
FRL.	FRACTIONAL
G	GARAGE
GP	GAS PUMPS
GRAY	GRAVEL
GV	GAS
HSE	HOUSE
IP	IRON PIPE OR PIN
L	LENGTH OF CURVE
LC	LONG CHORD OR LAND CONTRACT
LCB	LONG CHORD BEARING
LT	LEFT
MH	MANHOLE
MON.	MONUMENT
O.L.	OUTLOT
P.	PAGE
PC	POINT OF CURVATURE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PK	PARKER-KALON FASTENER
P.L.	PROPERTY LINE
P.L.E.	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENCY
R	RADIUS OR RANGE
R.D.E.	RESTRICTED DEVELOPMENT EASEMENT
REM.	REMAINING
R	REFERENCE LINE
RT	RIGHT
R/W	RIGHT OF WAY
S	SHED
SEC.	SECTION
SEPV	SEPTIC VENT
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
T	TANGENT LENGTH OF CURVE OR TOWN
TAV	TAVERN
T.I.	TEMPORARY INTEREST
U.S.H.	UNITED STATES HIGHWAY
V.	VOLUME
W	WALL
X	EAST COORDINATE (GRID)
Y	NORTH COORDINATE (GRID)
N	NORTH COORDINATE (GROUND) OR NORTH
E	EAST COORDINATE (GROUND), EAST OR EXTERNAL
Δ	CENTRAL ANGLE OR DELTA

---	STATE LINE
---	COUNTY LINE
---	TOWN OR RANGE LINE
---	SECTION LINE
---	QUARTER LINE
---	SIXTEENTH LINE
---	PROPOSED OR NEW R/W LINE
---	EXISTING R/W LINE
---	LOT LINE
P.L. ± 58.1	PROPERTY LINE
◆◆◆◆	ACCESS RESTRICTED (By Previous Acquisition / Control)
	ACCESS RESTRICTED (By Acquisition)
.....	NO ACCESS (By Statutory Authority)
.....	LIMITED EASEMENT (Temporary or Permanent)
////	CORPORATE LIMITS

⊙	SECTION CORNER
○	RIGHT OF WAY POINT (NOT MONUMENTED)
●	RIGHT OF WAY POINT (MONUMENTED)
(Type)	RECOVERED IRON PIN/PIPE
△	TRIANGULATION POINT OR HORIZONTAL CONTROL STATION
□	INLET
○	HYDRANT
⊙	TELEPHONE POLE
□	POWER POLE
243	RIGHT OF WAY POINT NUMBER

(Size)W	WATER
(Size)G	GAS
—Y—	TELEPHONE OR TELEGRAPH
—E—	ELECTRIC
—TV—	CABLE TELEVISION
—FO—	FIBER OPTIC
(Size)SAN	SANITARY SEWER
(Size)SS	STORM SEWER
CAUTION	NOTATION FOR COMBUSTIBLE FLUIDS
⊗	SERVICE PEDESTAL
(Label)	SILLO, MANHOLE OR WELL, ETC.

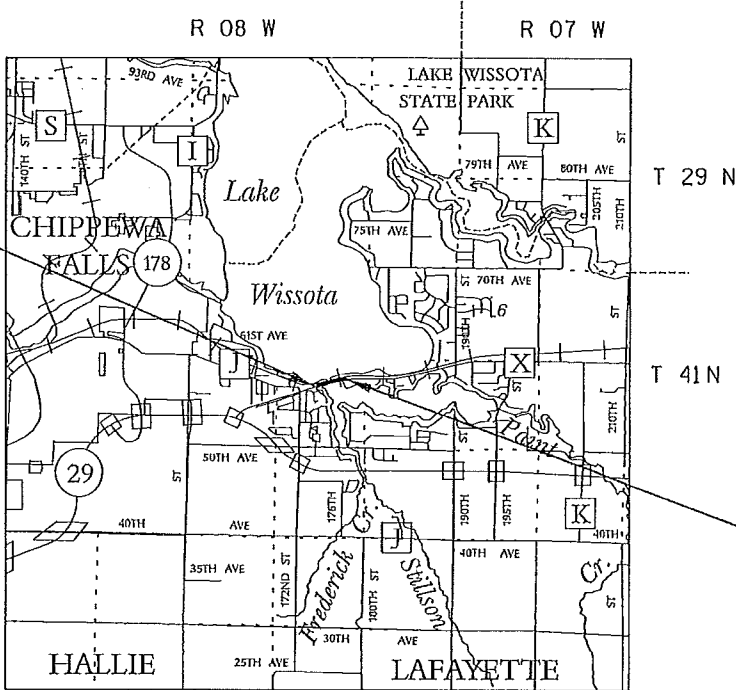
+	RAILROAD
⌌	BRIDGE
(Label)	BUILDING
(Label)	FOUNDATION OR RUINS
—X—X—	FENCE
⊗	MARSH AREA
⊗	LAKE OR POND
⊗	WOODED OR SHRUB AREA
⊗	TREE

R/W PROJECT NUMBER 8919-03-02	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	2
PLAT OF RIGHT-OF-WAY REQUIRED FOR CHIPPEWA FALLS - CADOTT ROAD LAKE WISSOTA BRIDGE		
CTH X		CHIPPEWA COUNTY
CONSTRUCTION PROJECT NUMBER 8919-03-72		

BEGIN RELOCATION ORDER
STA. 142+00

Y= 125,413.096
X= 190,791.176

921.390° NORTH AND 2,321.700° EAST OF THE
WEST 1/4 CORNER OF SECTION 11, T28N, R8W



END RELOCATION ORDER
STA. 163+00

Y= 125,888.965
X= 192,822.579

1,397.259° NORTH AND 4,353.103° EAST OF THE
WEST 1/4 CORNER OF SECTION 11, T28N, R8W

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES,
CHIPPEWA COUNTY, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN
ARE GRID COORDINATES, GRID BEARING, AND GRID DISTANCES. GRID
DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE-2 (3/4" X 24" REINFORCEMENT BAR
WEIGHING 1.04 LB/FT) 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 OR OTHER SURVEYS OF PUBLIC RECORD.

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.398 MI.

ORIGINAL PLANS PREPARED BY

SEH



7-2-2014
(Date)

(Signature)

REVISION DATE

10-13-2014

ACCEPTED FOR

COUNTY CHIPPewa

07/07/2014

(Signature)

(Date)

(Signature & Title of Official)

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

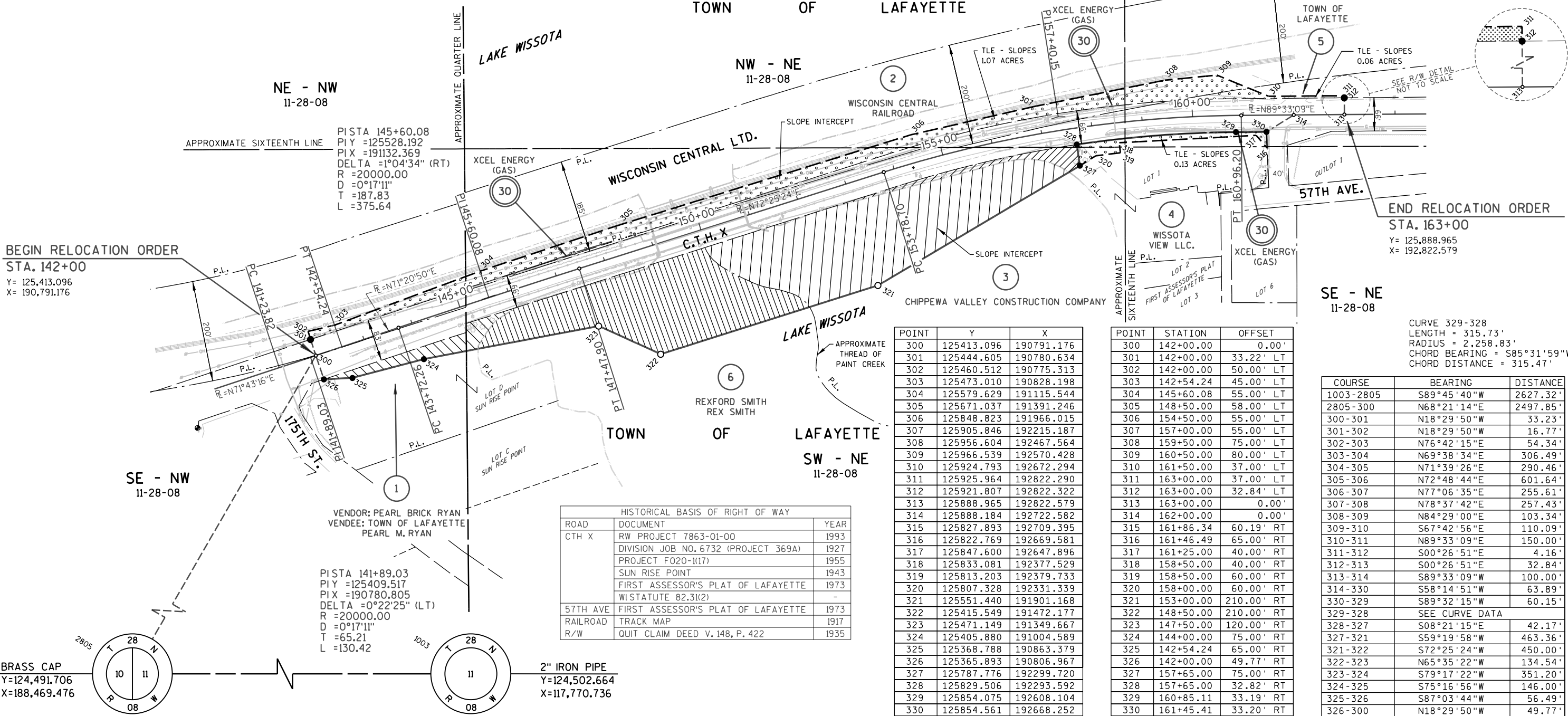
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R&W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	PEARL M. RYAN & VENDOR: PEARL BRICK RYAN VENDEE: TOWN OF LAFAYETTE	FEE	0.20	---	0.20	---
2	WISCONSIN CENTRAL RAILWAY COMPANY / WISCONSIN CENTRAL LTD.	TLE	---	---	---	1.07
3	CHIPPEWA VALLEY CONSTRUCTION COMPANY	FEE	1.99	---	1.99	---
4	WISSOTA VIEW LLC.	FEE/TLE	0.14	---	0.14	0.13
5	TOWN OF LAFAYETTE	TLE	---	---	---	0.06
6	REXFORD SMITH REX SMITH	FEE	1.51	---	1.51	---
10	AT&T	RELEASE OF RIGHTS				
20	XCEL ENERGY (ELECTRIC)	RELEASE OF RIGHTS				
30	XCEL ENERGY (GAS)	RELEASE OF RIGHTS				

FLOWAGE RIGHTS TABLE	
PARCEL AFFECTED	DOCUMENT LOCATION
1	V. 108, P. 136 V. III, P. 533
2	V. III, P. 533 V. 108, P. 136 V. 148, P. 422
3	V. III, P. 533
4	V. III, P. 533
5	DOC. # 727756
6	V. III, P. 533

UTILITY EASEMENT TABLE		
UTILITY	DOCUMENT LOCATION	PARCELS AFFECTED
10 AT&T	V. 114, P. 249 BLANKET EASEMENT	2 & 5
20 XCEL ENERGY (ELECTRIC)	V. 116, P. 305 BLANKET EASEMENT	1, 2, 3, 4, & 6
30 XCEL ENERGY (GAS)	NO RECORDED EASEMENT	2 & 4

PISTA 157+40.15
PIY =125884.552
PIX =192257.351
DELTA =17°07'45" (RT)
R =2400.00
D =2°23'14"
T =361.45
L =717.51



POINT	Y	X
300	125413.096	190791.176
301	125444.605	190780.634
302	125460.512	190775.313
303	125473.010	190828.198
304	125579.629	191115.544
305	125671.037	191391.246
306	125848.823	191966.015
307	125905.846	192215.187
308	125956.604	192467.564
309	125966.539	192570.428
310	125924.793	192672.294
311	125925.964	192822.290
312	125921.807	192822.322
313	125888.965	192822.579
314	125888.184	192722.582
315	125827.893	192709.395
316	125822.769	192669.581
317	125847.600	192647.896
318	125833.081	192377.529
319	125813.203	192379.733
320	125807.328	192331.339
321	125551.440	191901.168
322	125415.549	191472.177
323	125471.149	191349.667
324	125405.880	191004.589
325	125368.788	190863.379
326	125365.893	190806.967
327	125787.776	192299.720
328	125829.506	192293.592
329	125854.075	192608.104
330	125854.561	192668.252

POINT	STATION	OFFSET
300	142+00.00	0.00' LT
301	142+00.00	33.22' LT
302	142+00.00	50.00' LT
303	142+54.24	45.00' LT
304	145+60.08	55.00' LT
305	148+50.00	58.00' LT
306	154+50.00	55.00' LT
307	157+00.00	55.00' LT
308	159+50.00	75.00' LT
309	160+50.00	80.00' LT
310	161+50.00	37.00' LT
311	163+00.00	37.00' LT
312	163+00.00	32.84' LT
313	163+00.00	0.00'
314	162+00.00	0.00'
315	161+86.34	60.19' RT
316	161+46.49	65.00' RT
317	161+25.00	40.00' RT
318	158+50.00	40.00' RT
319	158+50.00	60.00' RT
320	158+00.00	60.00' RT
321	153+00.00	210.00' RT
322	148+50.00	210.00' RT
323	147+50.00	120.00' RT
324	144+00.00	75.00' RT
325	142+54.24	65.00' RT
326	142+00.00	49.77' RT
327	157+65.00	75.00' RT
328	157+65.00	32.82' RT
329	160+85.11	33.19' RT
330	161+45.41	33.20' RT

COURSE	BEARING	DISTANCE
1003-2805	S89°45'40"W	2627.32'
2805-300	N68°21'14"E	2497.85'
300-301	N18°29'50"W	33.23'
301-302	N18°29'50"W	16.77'
302-303	N76°42'15"E	54.34'
303-304	N69°38'34"E	306.49'
304-305	N71°39'26"E	290.46'
305-306	N72°48'44"E	601.64'
306-307	N77°06'35"E	255.61'
307-308	N78°37'42"E	257.43'
308-309	N84°29'00"E	103.34'
309-310	S67°42'56"E	110.09'
310-311	N89°33'09"E	150.00'
311-312	S00°26'51"E	4.16'
312-313	S00°26'51"E	32.84'
313-314	S89°33'09"W	100.00'
314-330	S58°14'51"W	63.89'
330-329	S89°32'15"W	60.15'
329-328	SEE CURVE DATA	
328-327	S08°21'15"E	42.17'
327-321	S59°19'58"W	463.36'
321-322	S72°25'24"W	450.00'
322-323	N65°35'22"W	134.54'
323-324	S79°17'22"W	351.20'
324-325	S75°16'56"W	146.00'
325-326	S87°03'44"W	56.49'
326-300	N18°29'50"W	49.77'

CURVE 329-328
LENGTH = 315.73'
RADIUS = 2,258.83'
CHORD BEARING = S85°31'59"W
CHORD DISTANCE = 315.47'

BRASS CAP
Y=124,491.706
X=188,469.476

2" IRON PIPE
Y=124,502.664
X=117,770.736

HISTORICAL BASIS OF RIGHT OF WAY		
ROAD	DOCUMENT	YEAR
CTH X	RW PROJECT 7863-01-00	1993
	DIVISION JOB NO. 6732 (PROJECT 369A)	1927
	PROJECT F020-1117	1955
	SUN RISE POINT	1943
	FIRST ASSESSOR'S PLAT OF LAFAYETTE	1973
57TH AVE	W/STATUTE 82.31(2)	-
	FIRST ASSESSOR'S PLAT OF LAFAYETTE	1973
	TRACK MAP	1917
	QUIT CLAIM DEED V. 148, P. 422	1935

REVISION DATE 10-13-2014

DATE

GRID FACTOR N/A

SCALE, FEET



HWY: CTH X

COUNTY: CHIPPEWA

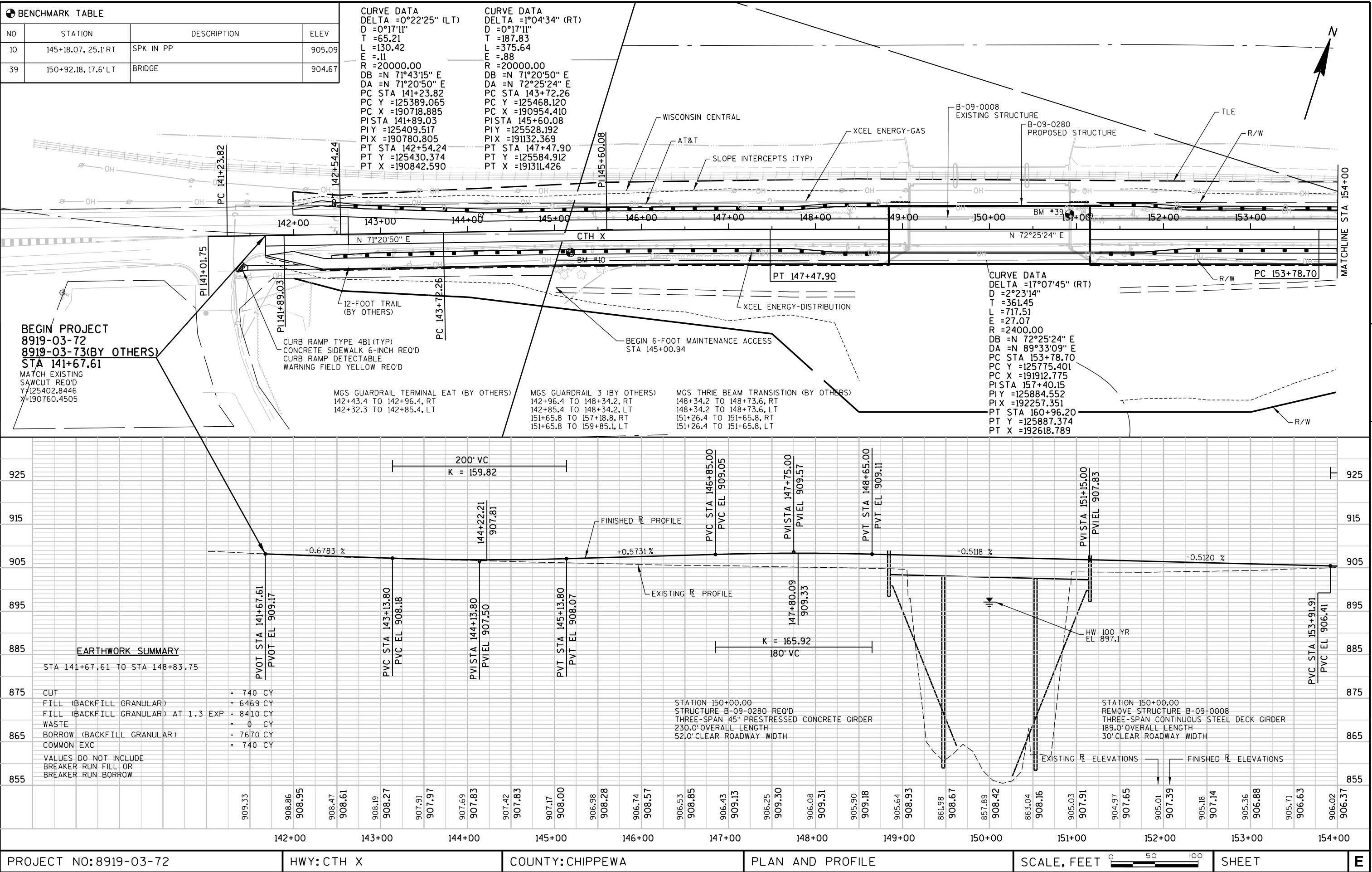
STATE R/W PROJECT NUMBER 8919-03-02

CONSTRUCTION PROJECT NUMBER 8919-03-72

PLAT SHEET NO: 4.02

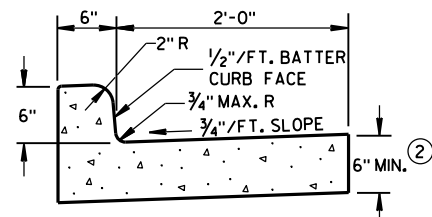
PS&E SHEET

E

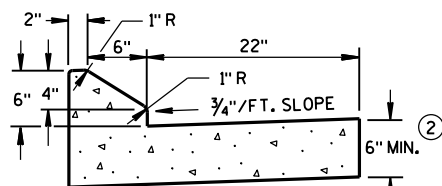


Standard Detail Drawing List

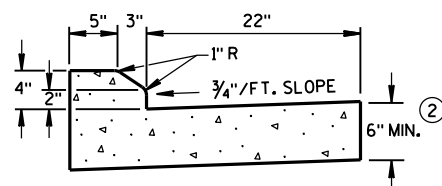
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E12-01	SILT SCREEN
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
12A03-10	NAME PLATE (STRUCTURES)
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14C01-02	TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C11-6	FLEXIBLE TUBULAR MARKER POST
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING



TYPES A & D ①

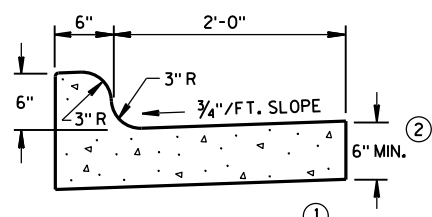


6" SLOPED CURB TYPES G & J ①



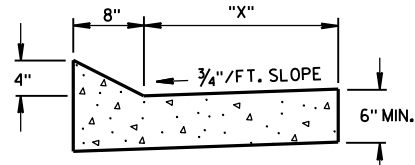
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



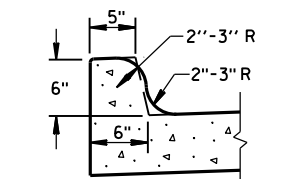
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

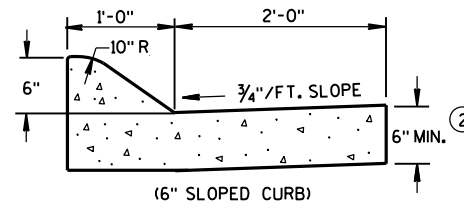


TYPES TBT & TBTT ①
CONCRETE CURB & GUTTER

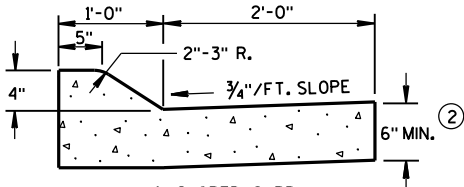
TBT & TBTT	"X"
30"	22"
36"	28"



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

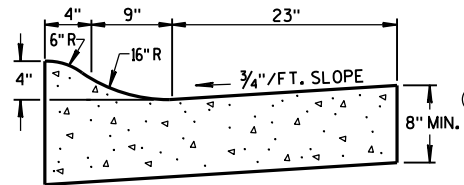


(6" SLOPED CURB)



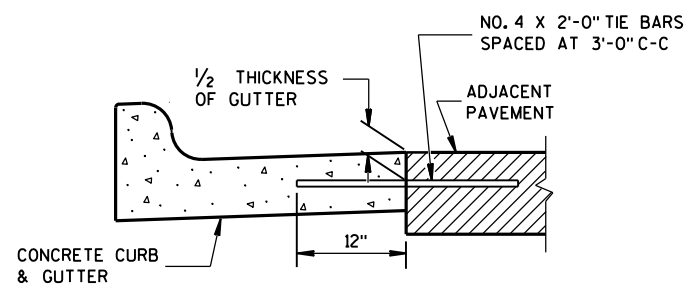
(4" SLOPED CURB)

TYPES A & D ①

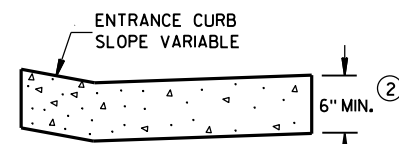


4" SLOPED CURB TYPES R & T ① ④

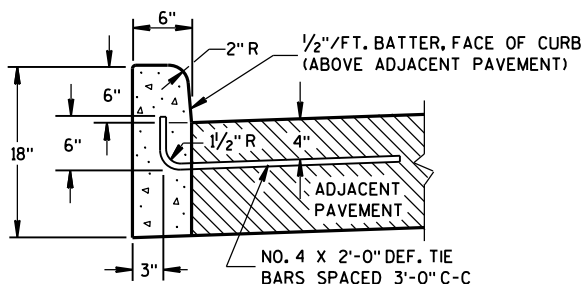
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

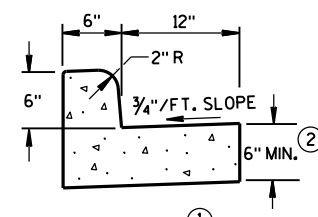


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

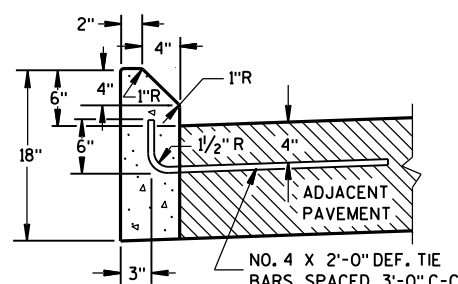


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

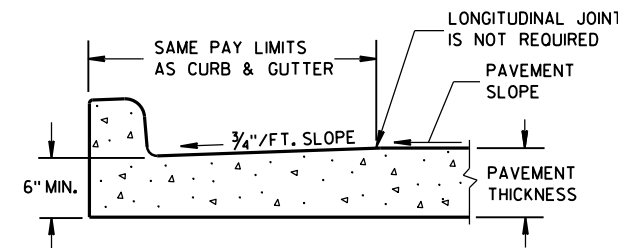
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

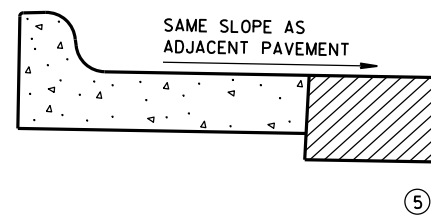
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

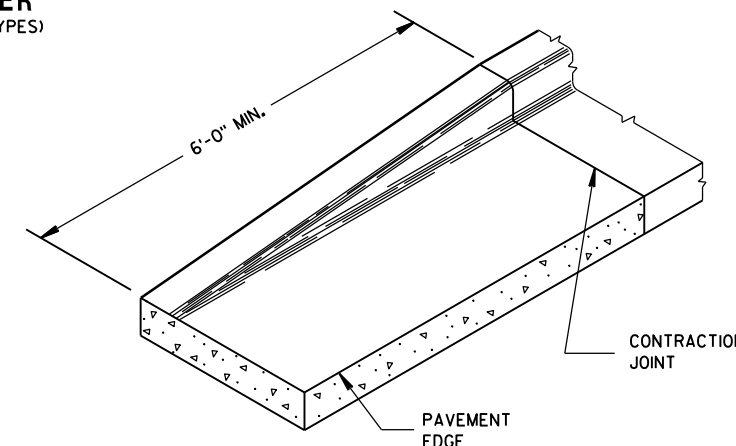
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



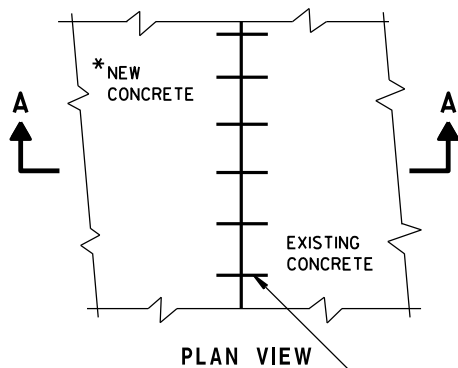
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



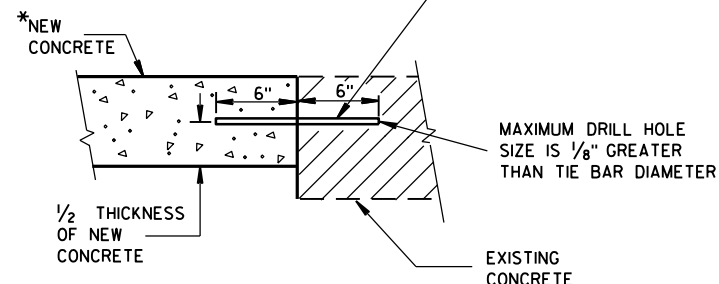
END SECTION CURB & GUTTER



PLAN VIEW

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

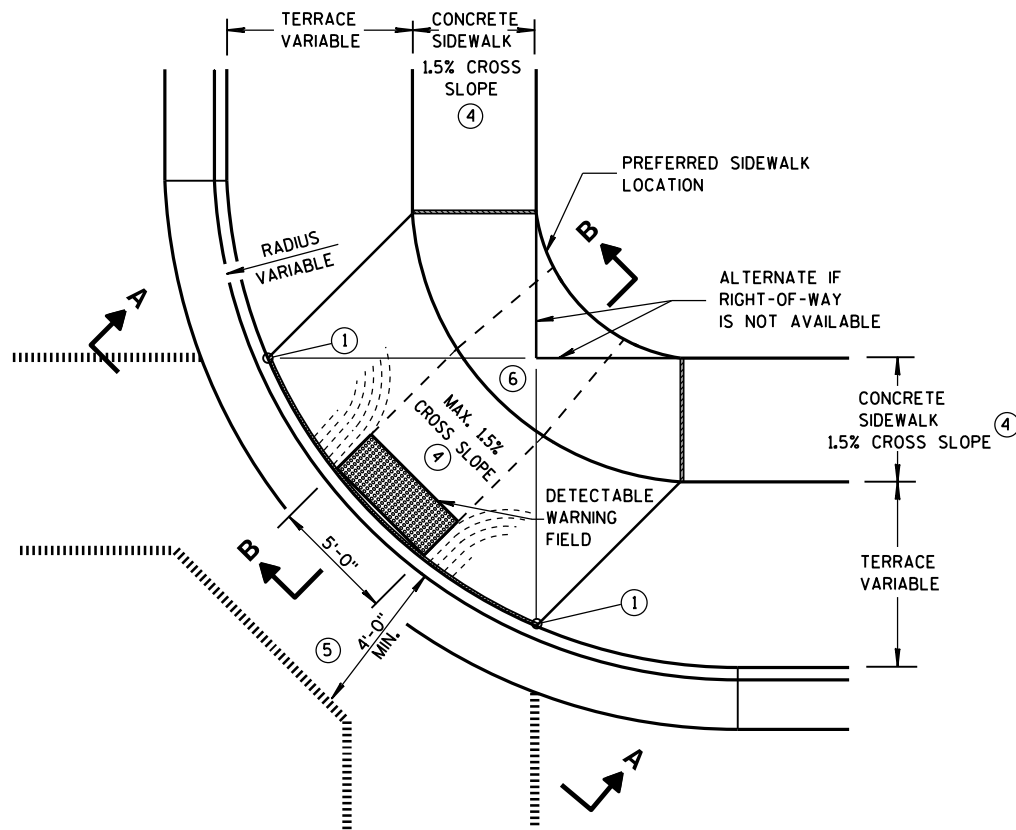


SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

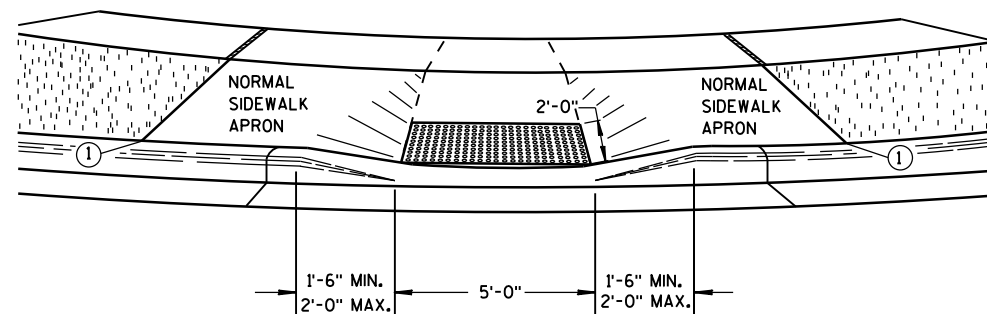
CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

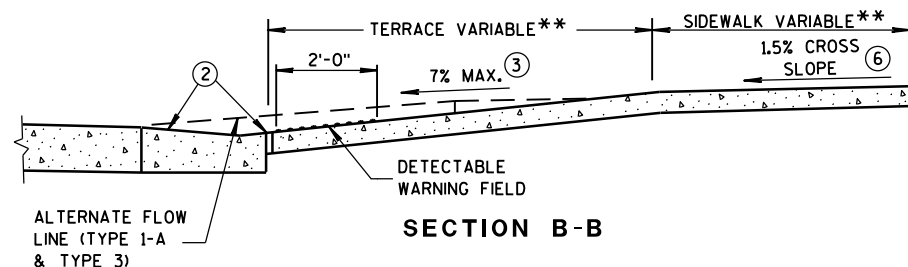


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

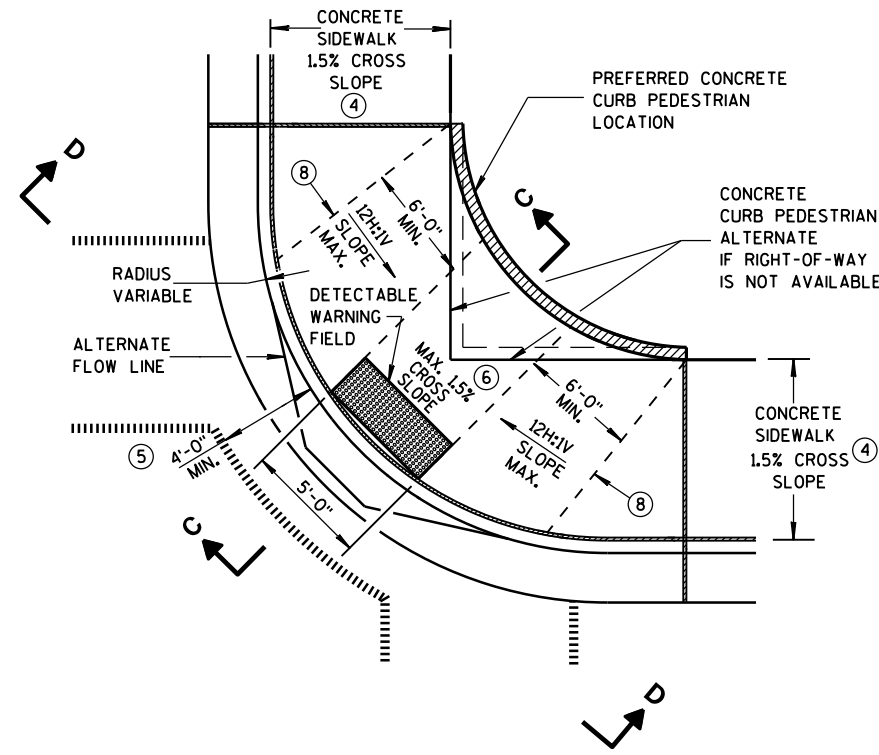


VIEW A-A

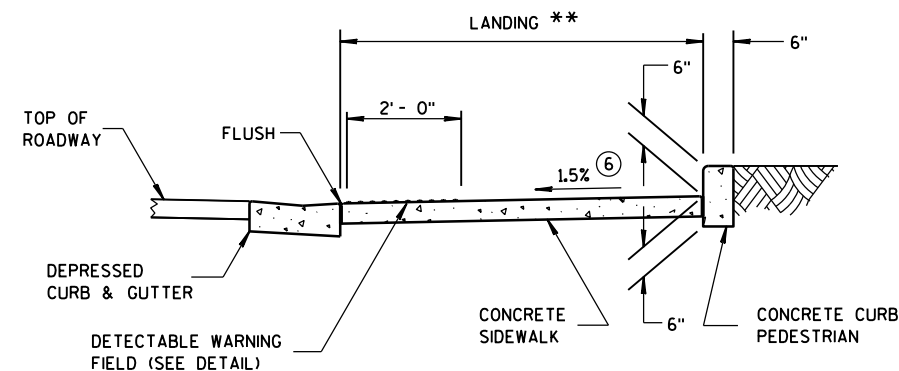
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



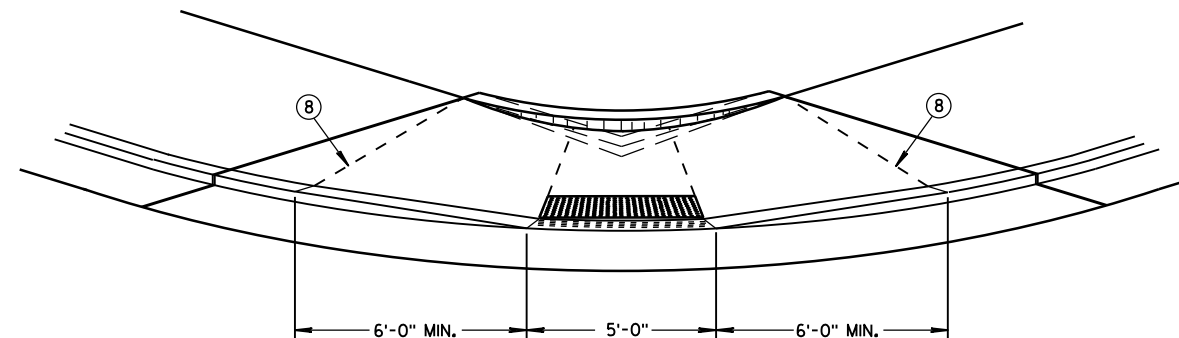
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

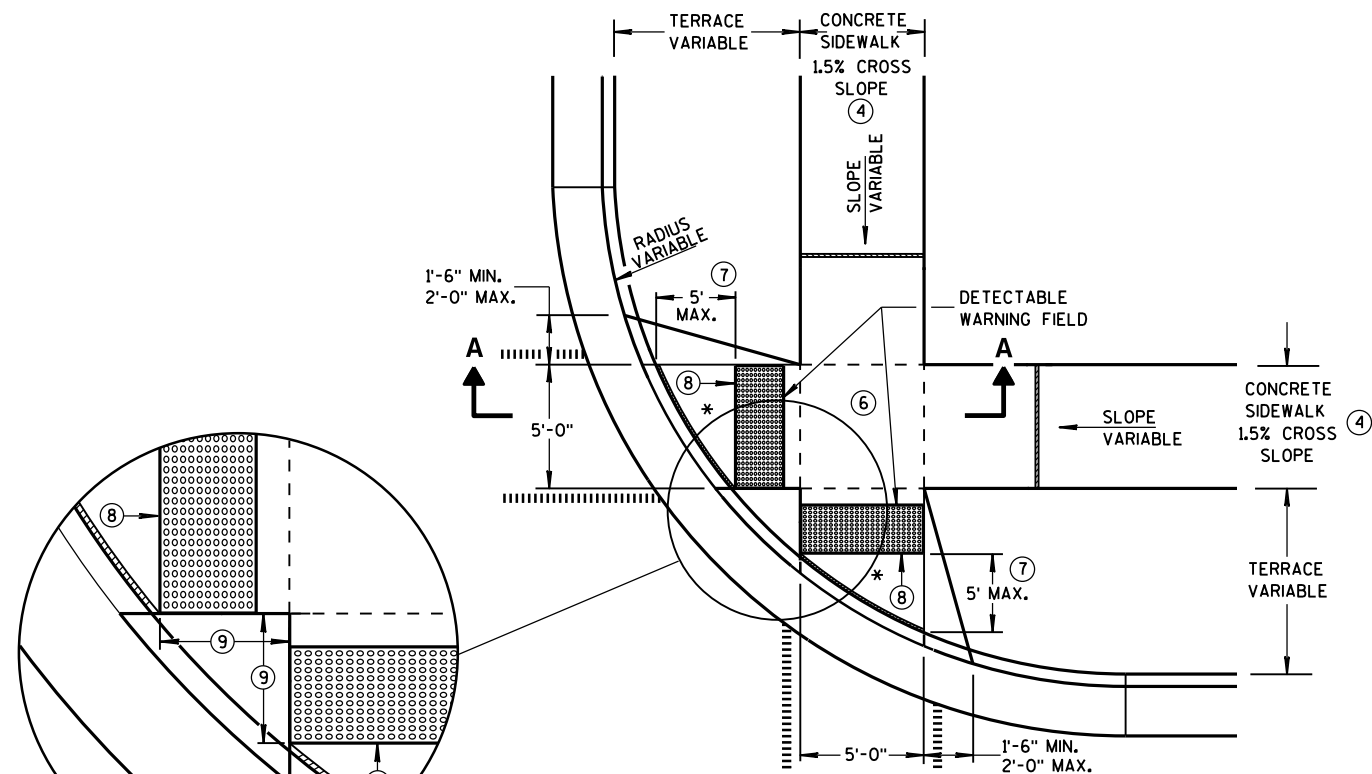
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑦ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

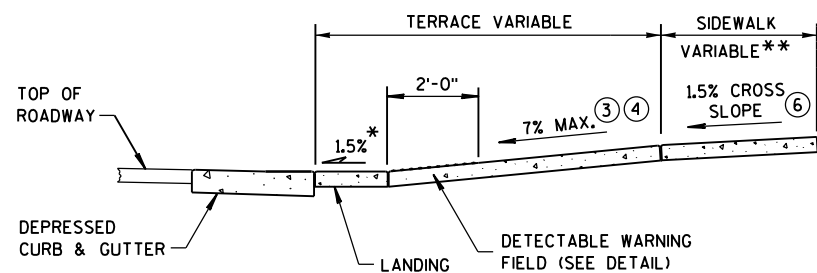
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



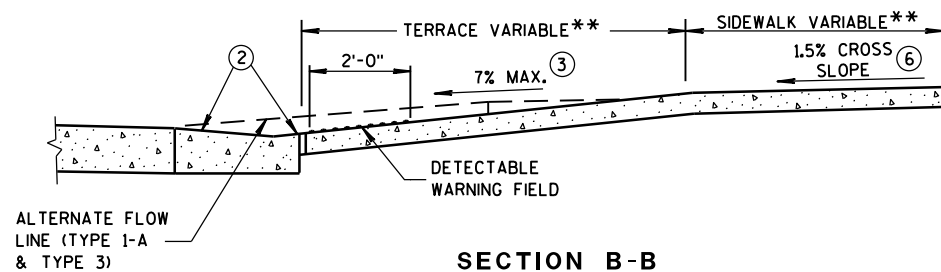
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

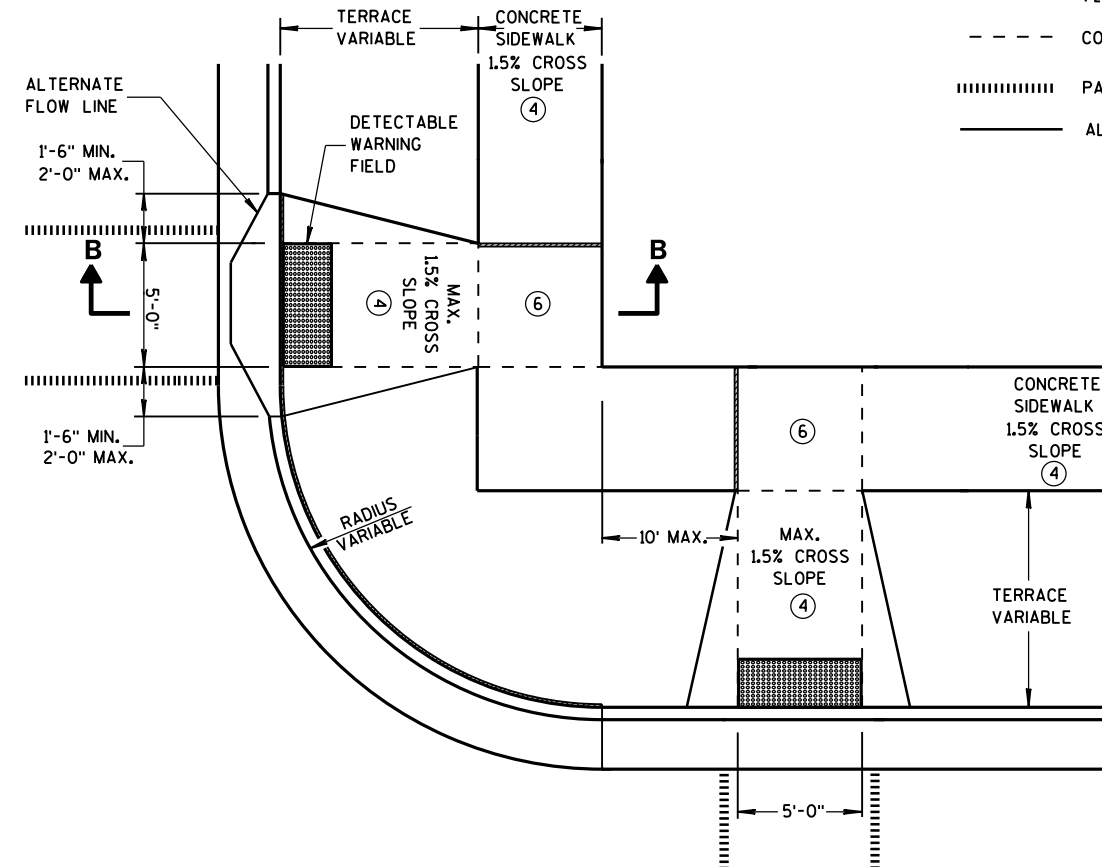
⑦ WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

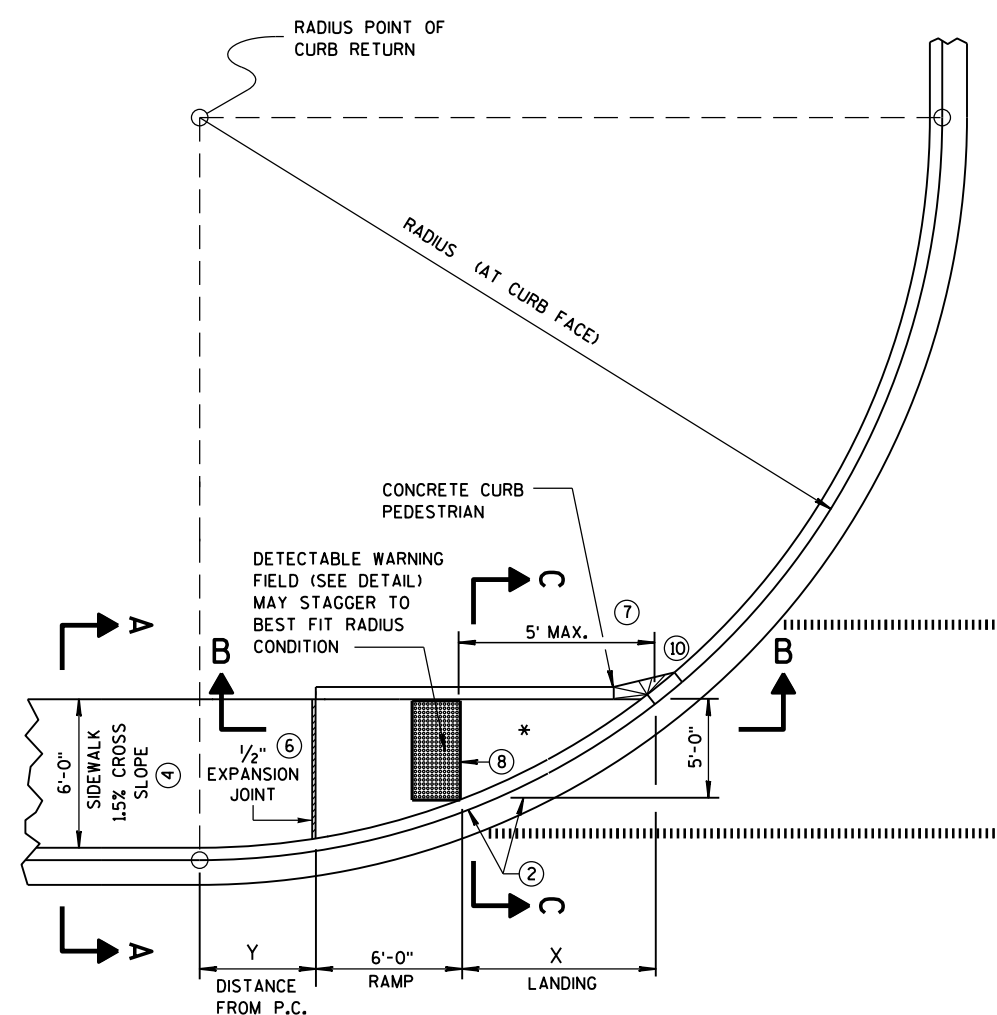
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



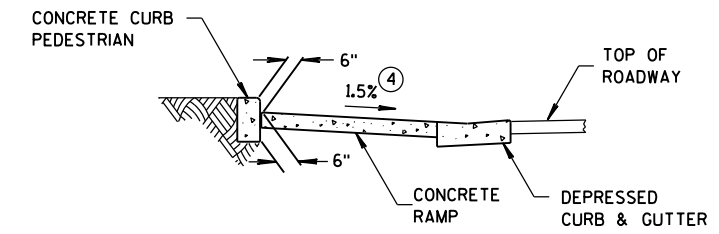
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

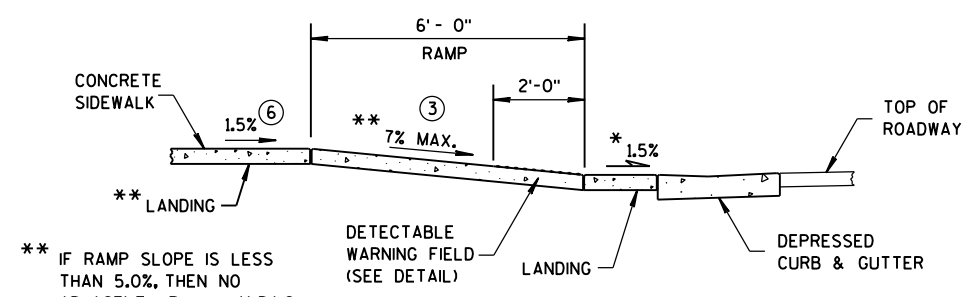
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A



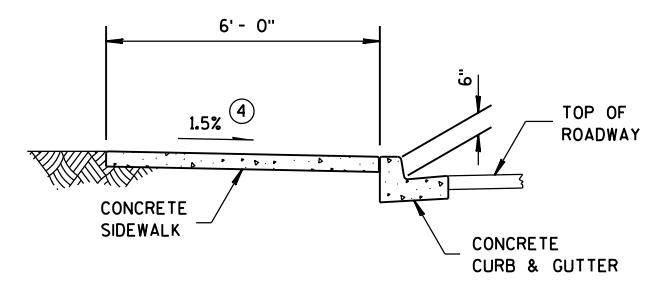
SECTION B-B FOR TYPE 4A

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

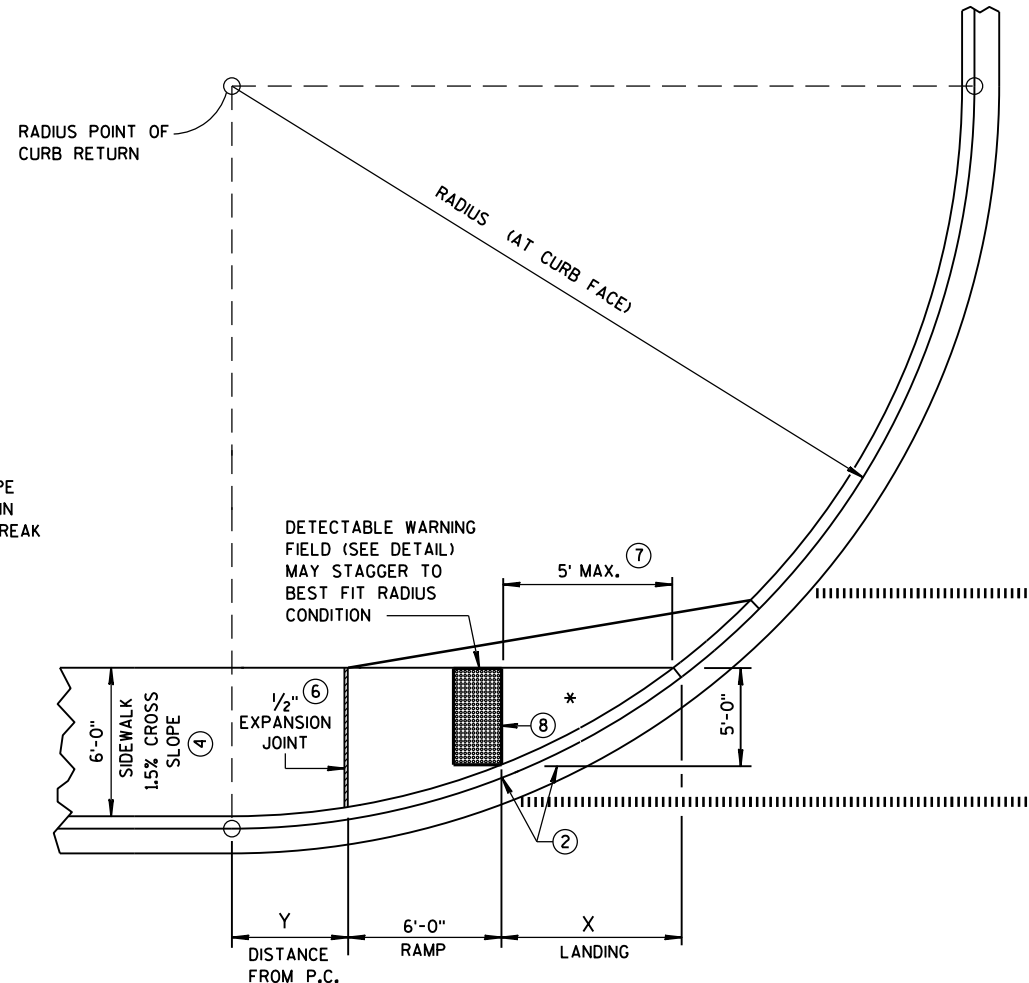
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



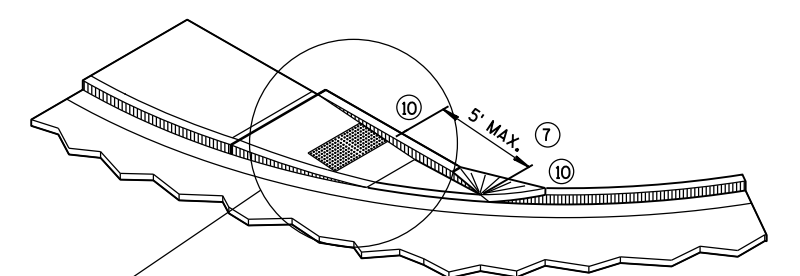
SECTION A-A FOR TYPE 4A



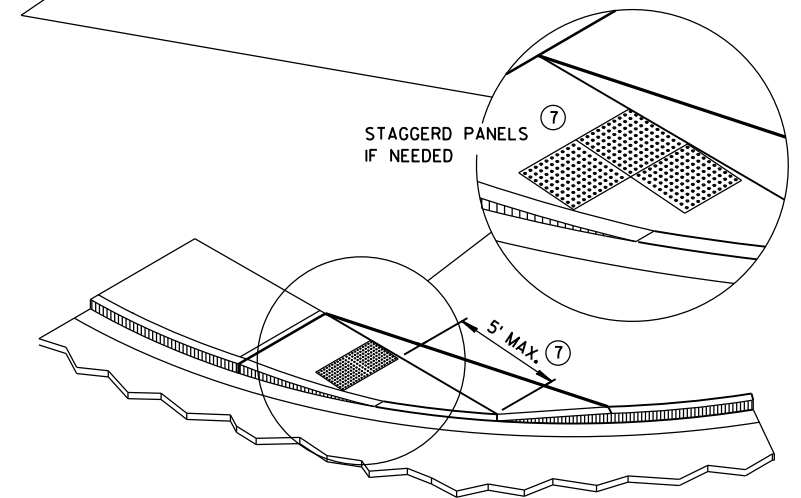
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



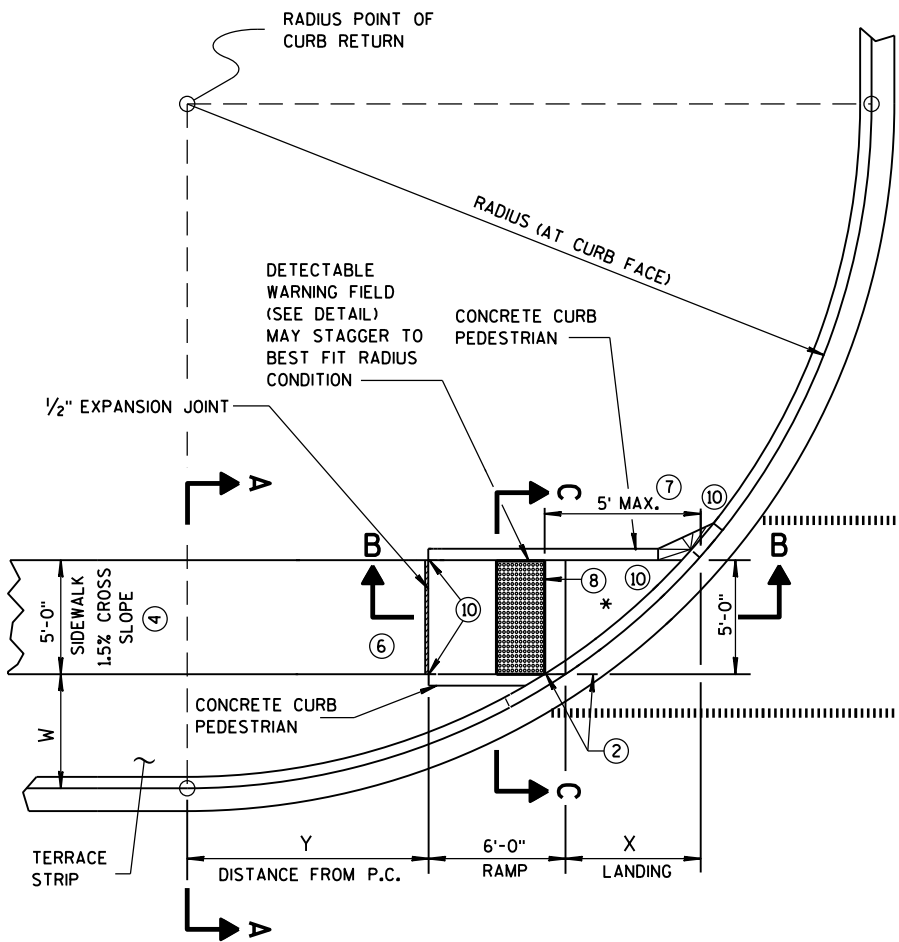
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

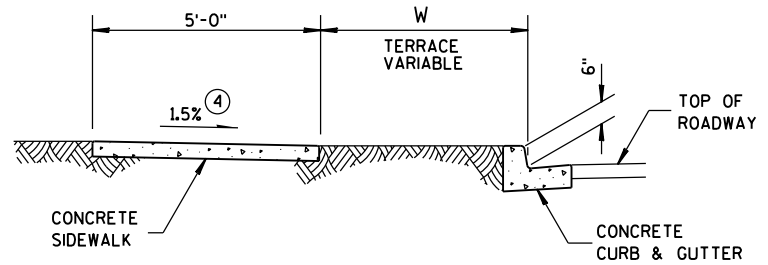
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

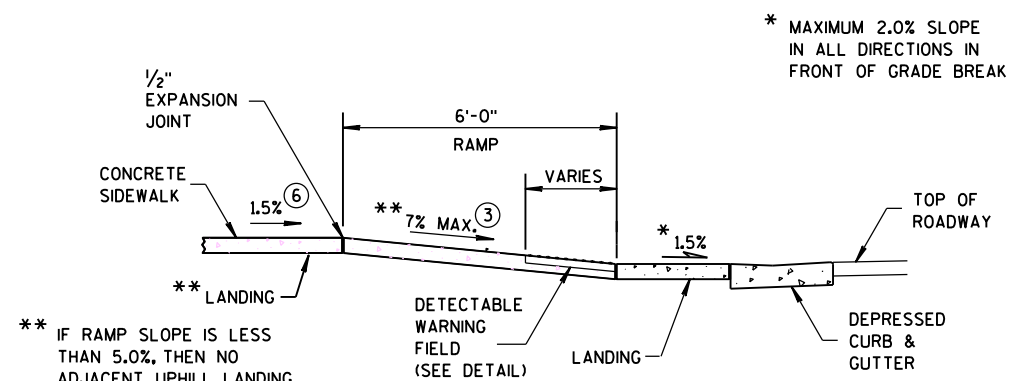
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B
PLAN VIEW

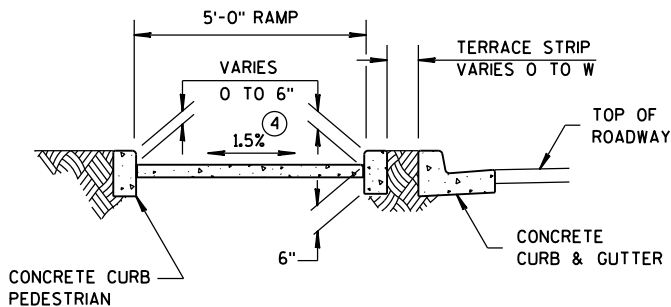


SECTION A-A FOR TYPE 4B

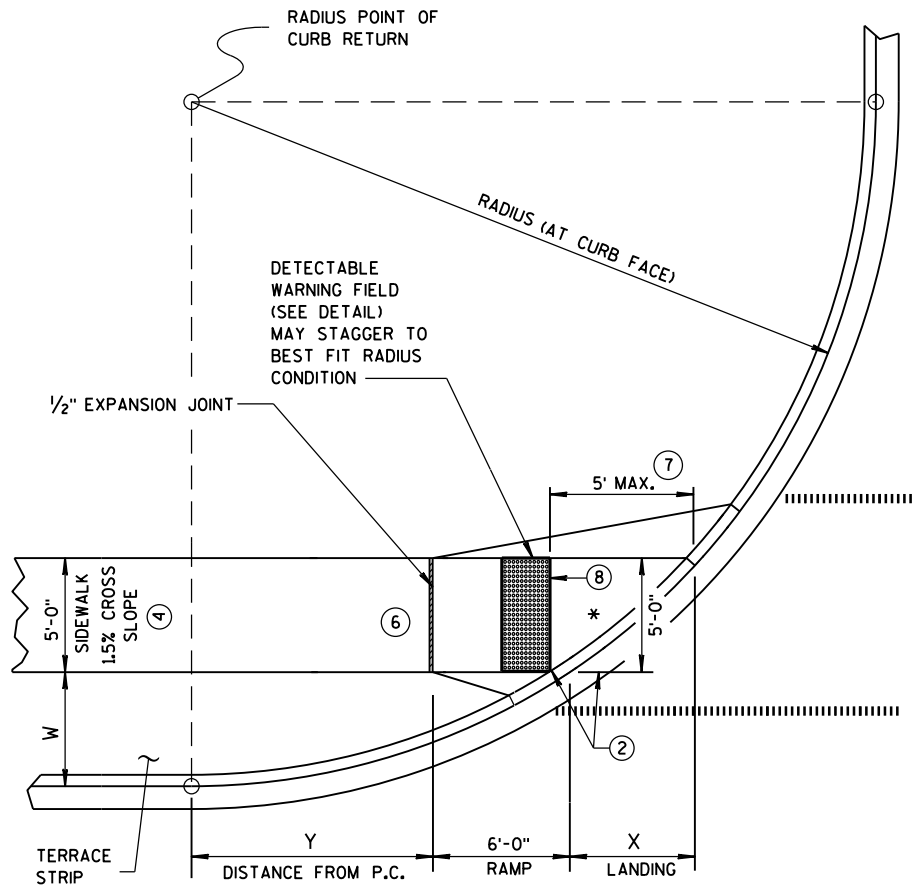


SECTION B-B FOR TYPE 4B

- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)



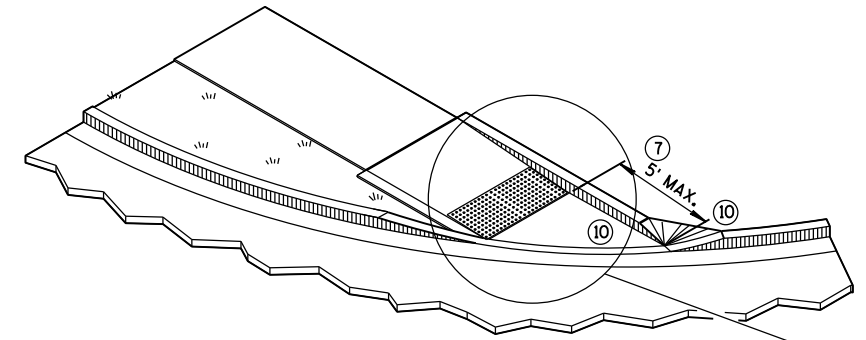
SECTION C-C FOR TYPE 4B



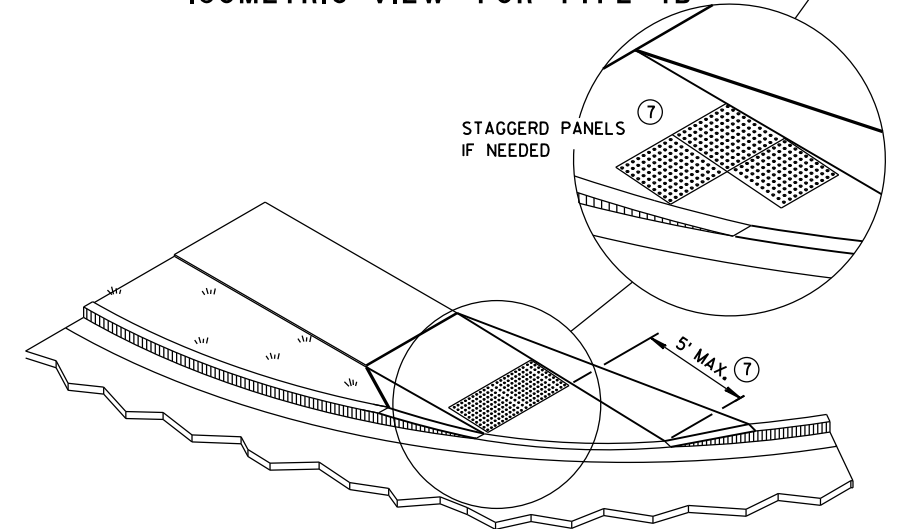
CURB RAMP TYPE 4B1
PLAN VIEW

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

- GENERAL NOTES**
- INTERMEDIATE RADII CAN BE INTERPOLATED
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
 - 3 ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
 - 7 WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
 - 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - 10 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



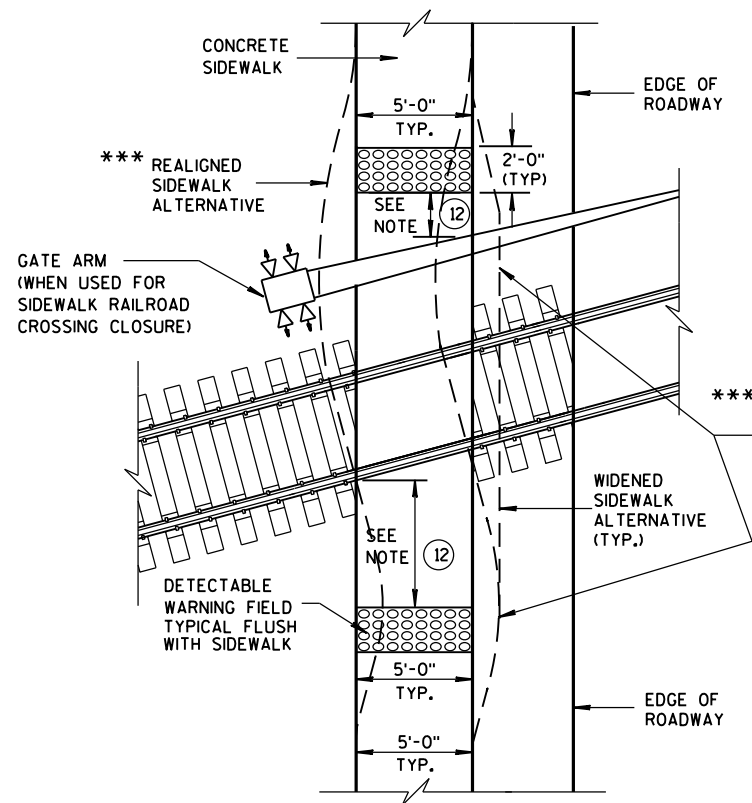
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

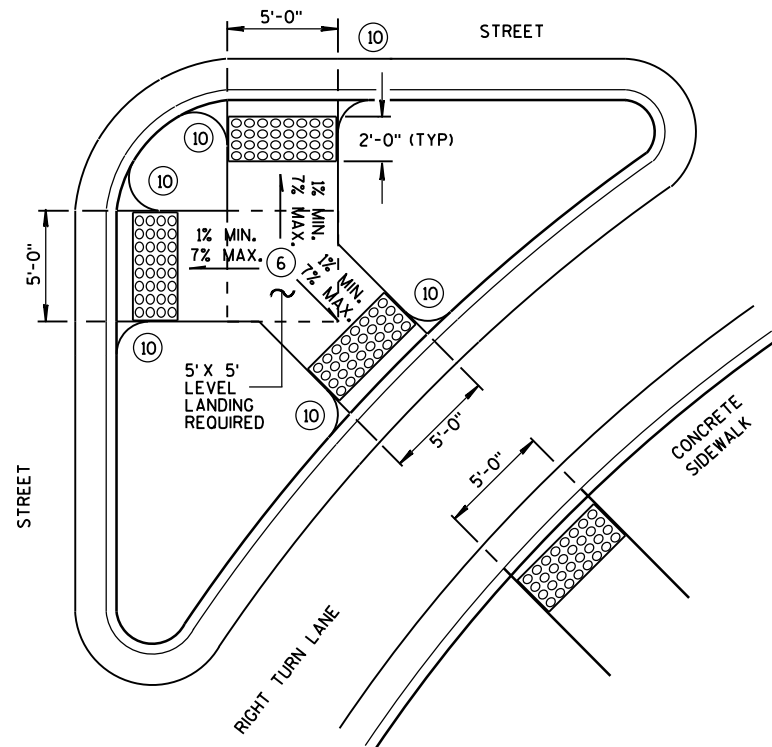
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

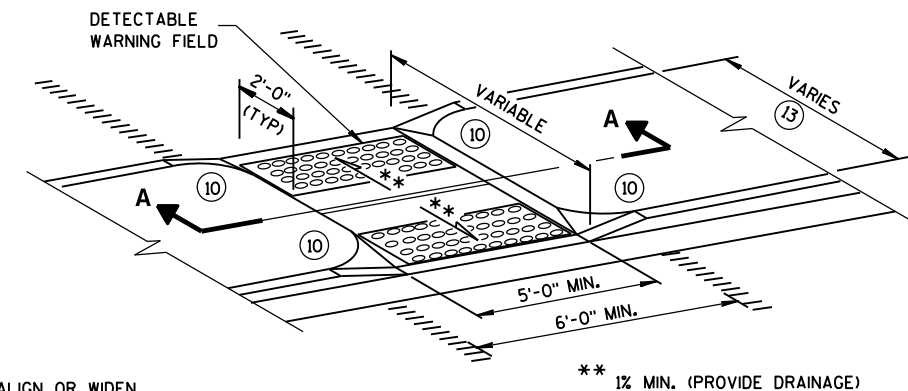


TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

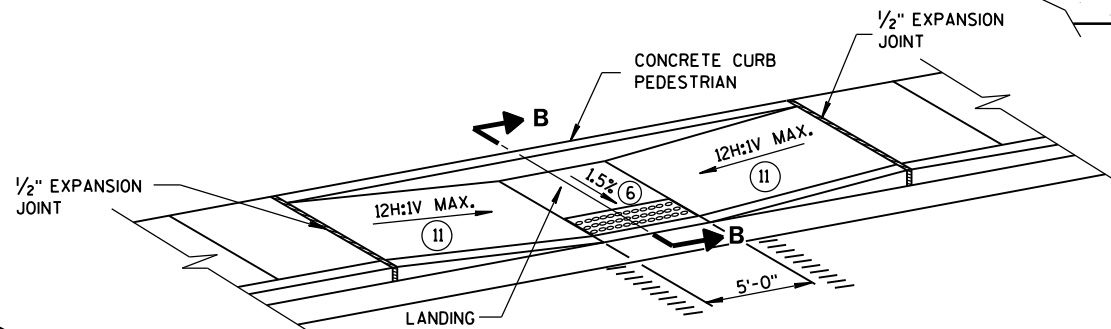
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



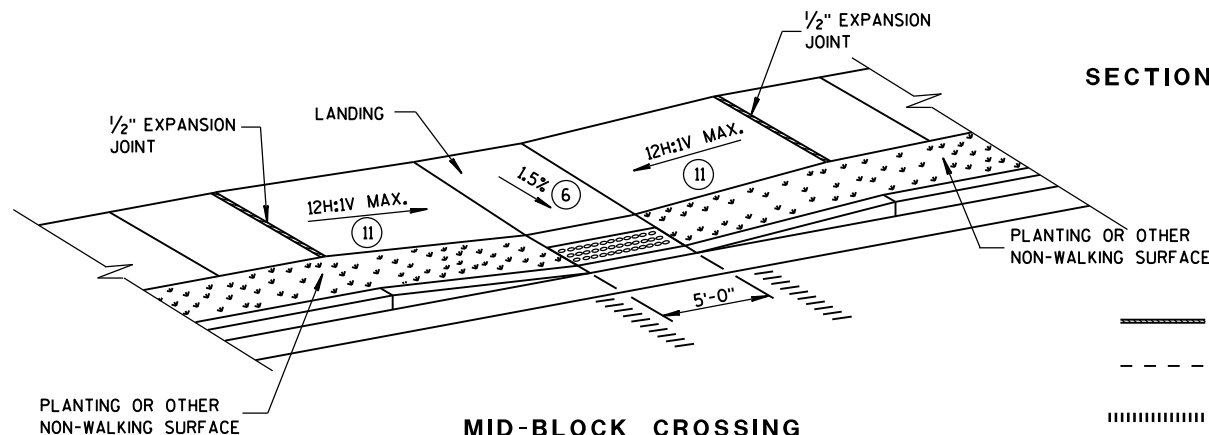
TYPE 6
DETECTABLE WARNING AT ISLANDS



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A

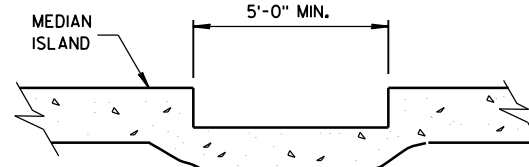


MID-BLOCK CROSSING
TYPE 7B

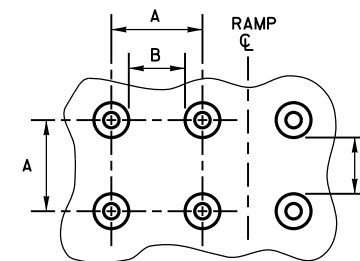
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



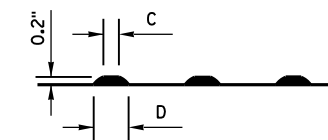
SECTION A-A



PLAN VIEW

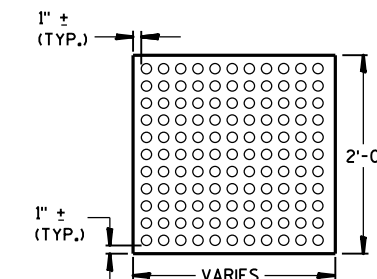
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



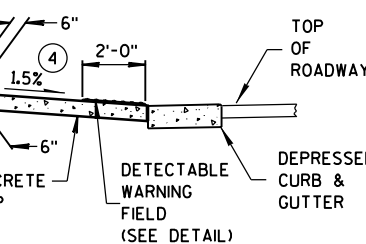
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

SECTION B-B



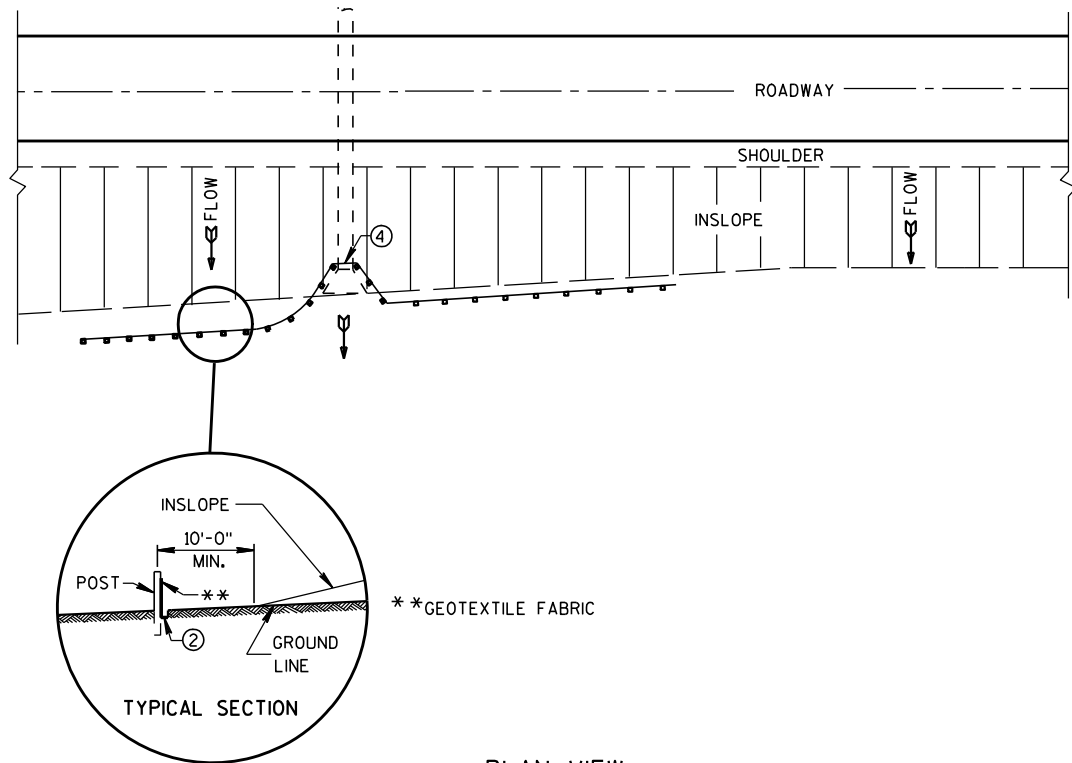
LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

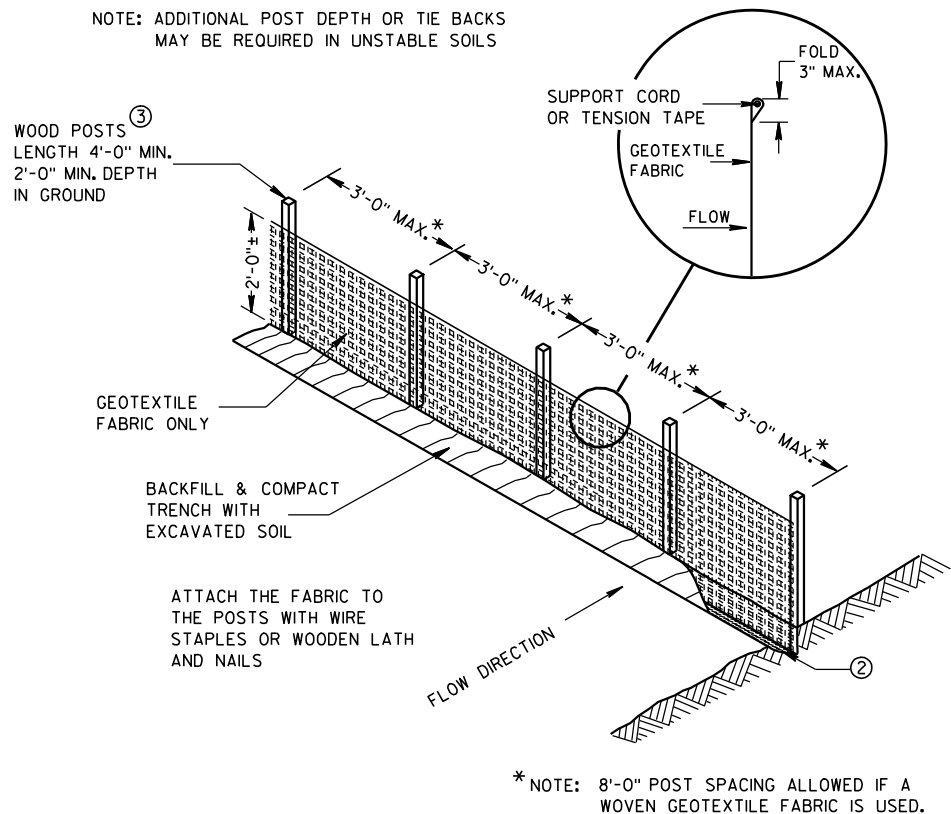
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

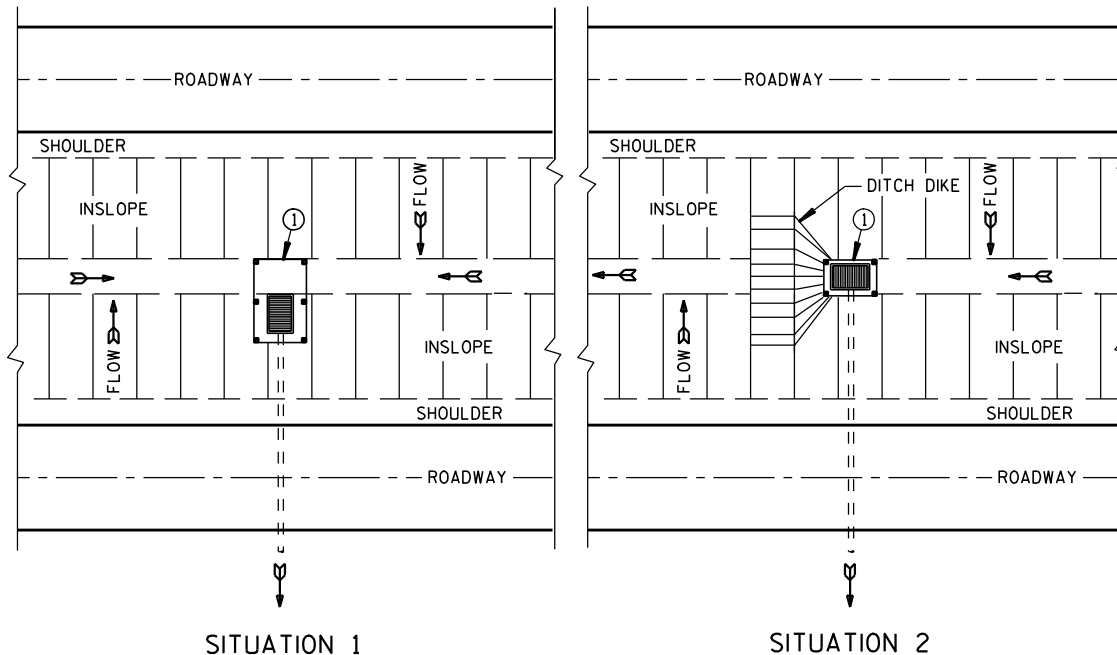
APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



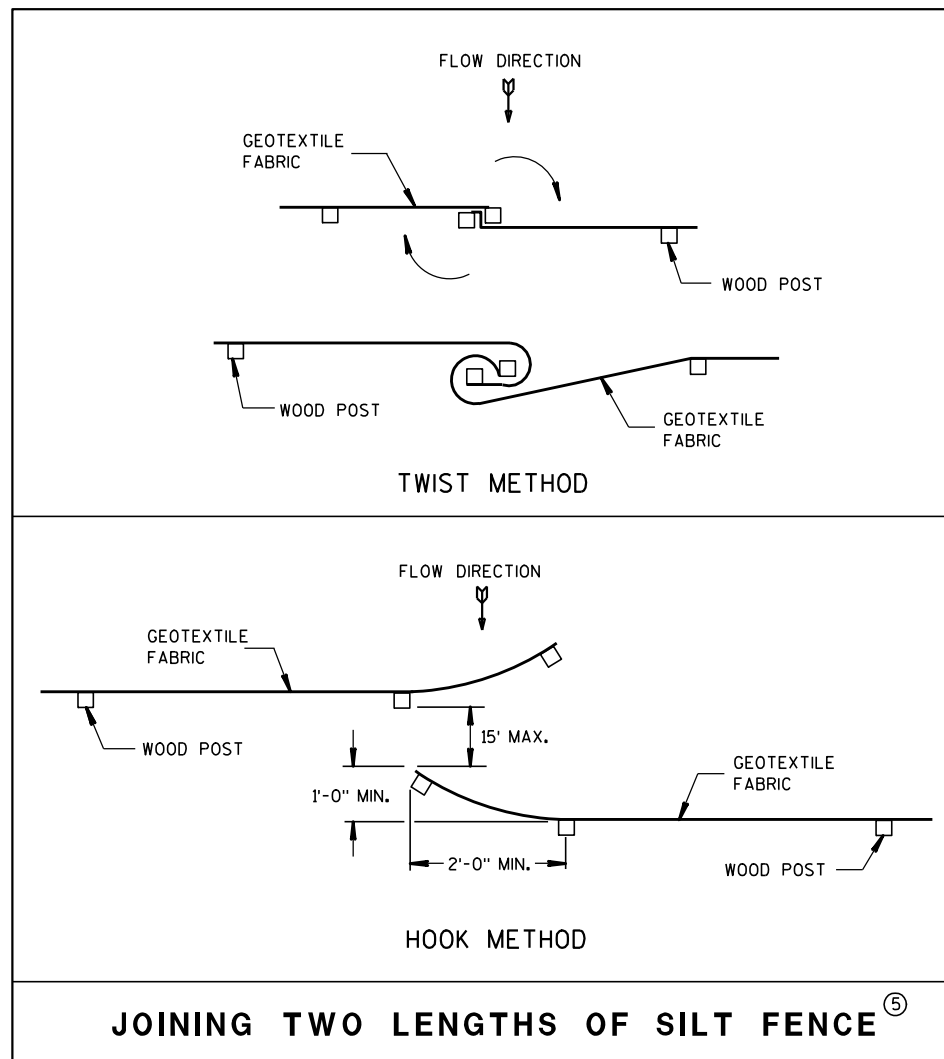
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

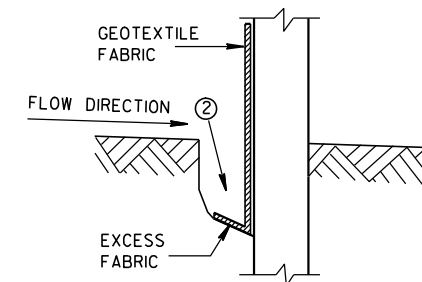


JOINING TWO LENGTHS OF SILT FENCE (5)

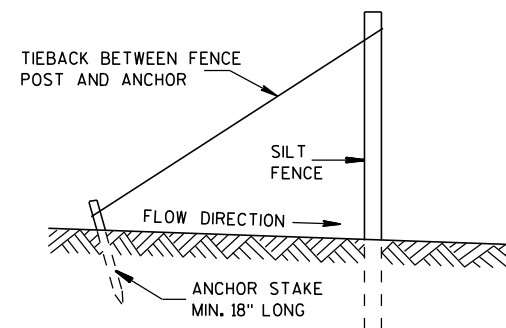
GENERAL NOTES

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.

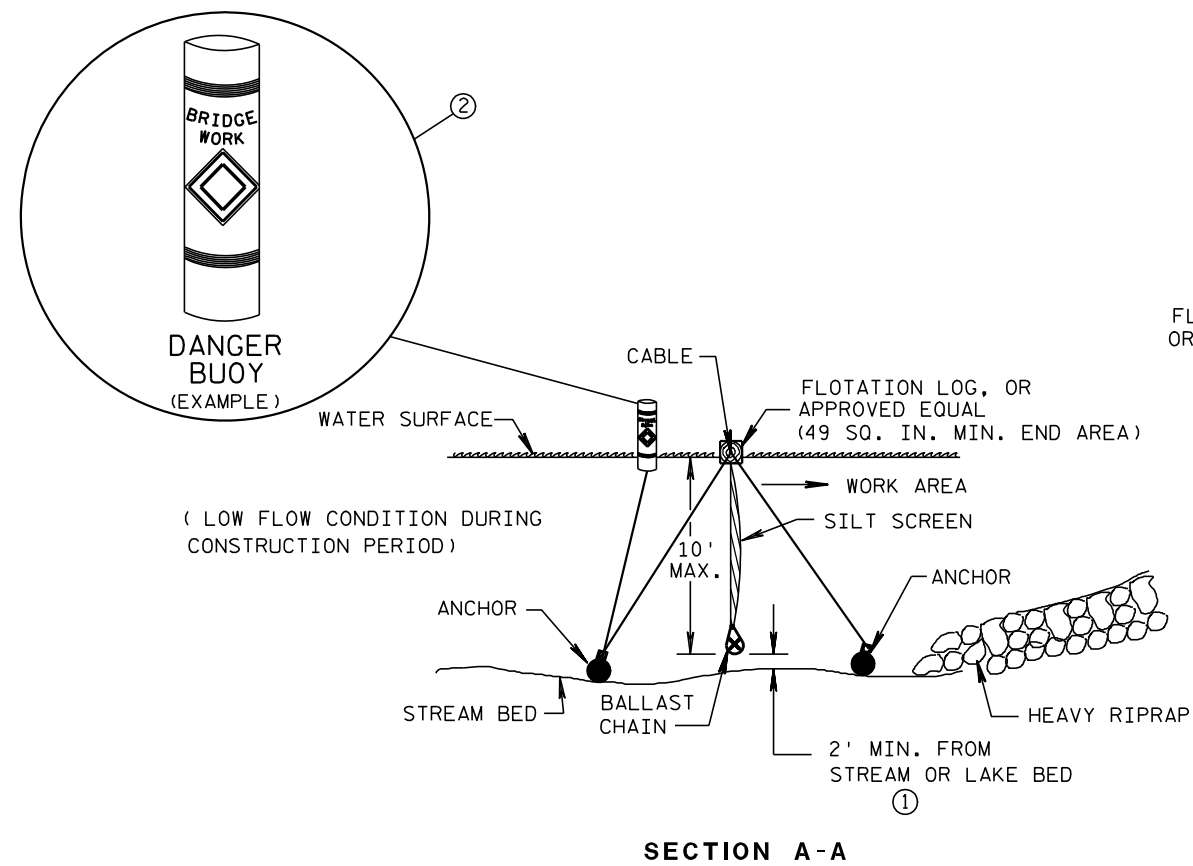


TRENCH DETAIL

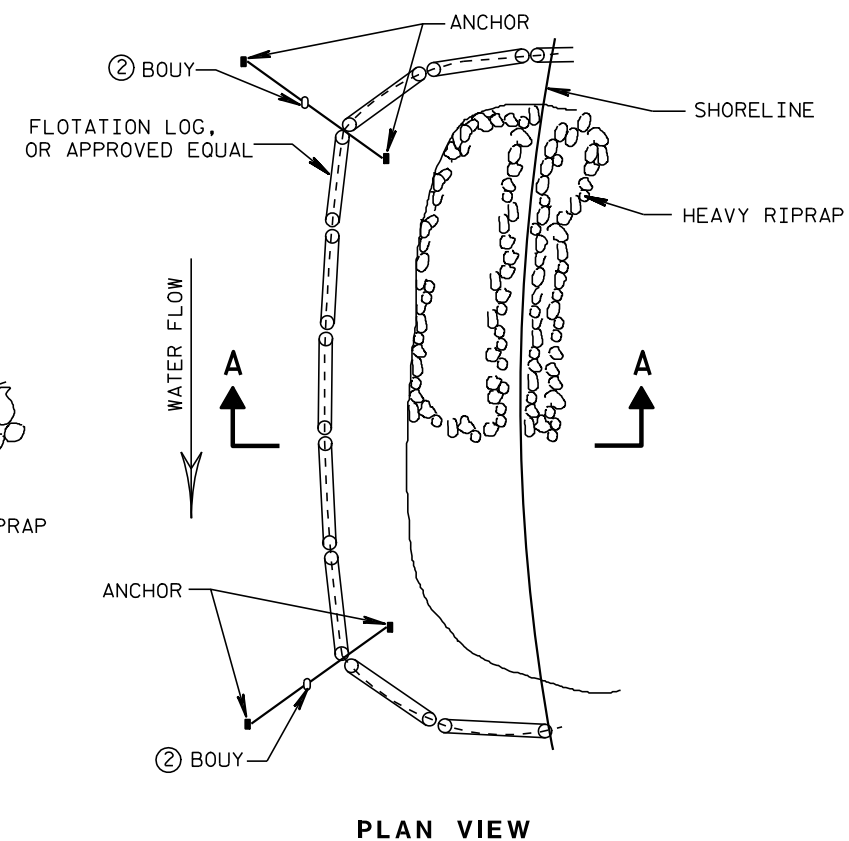


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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



SILT SCREEN PLACEMENT DETAIL



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 2' MINIMUM SHALL BE MAINTAINED DURING CONSTRUCTION PERIOD.
- ② USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.

SILT SCREEN

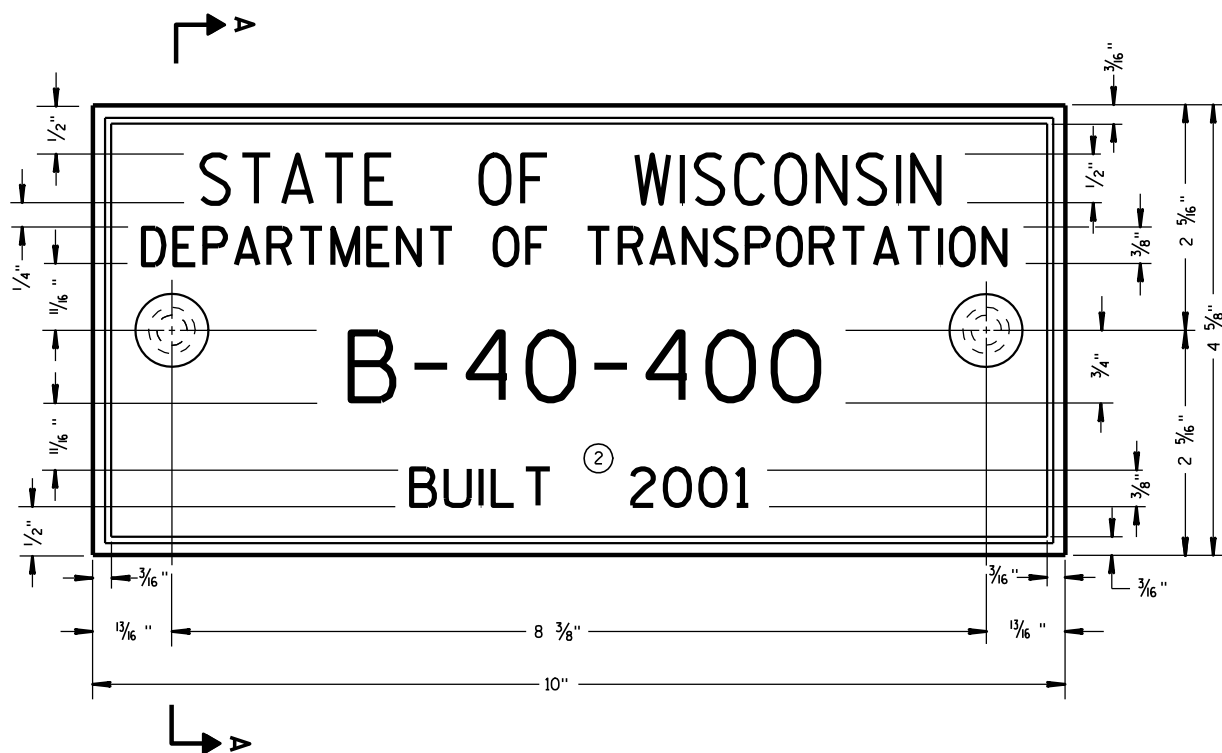
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

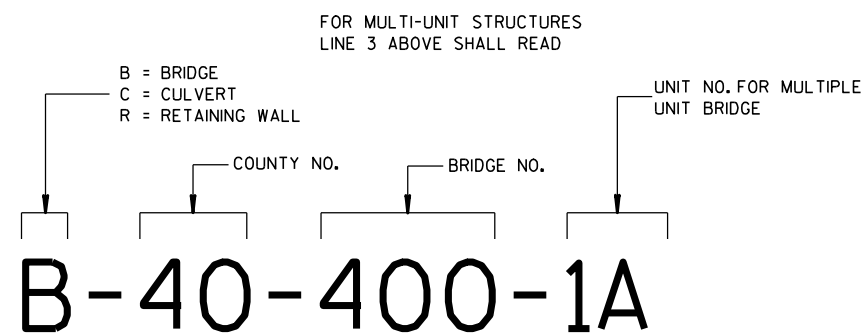
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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



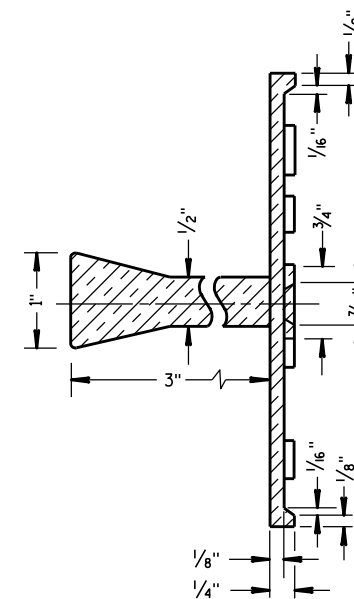
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

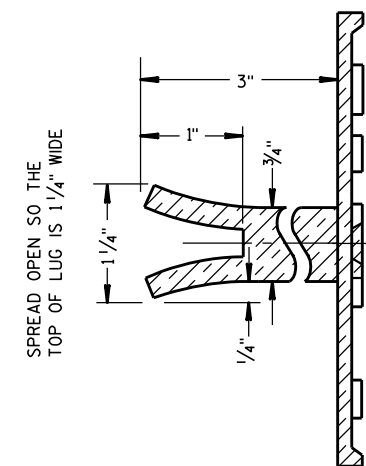
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

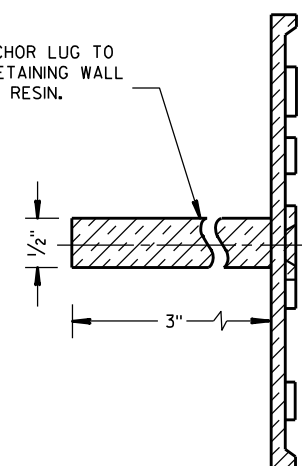


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

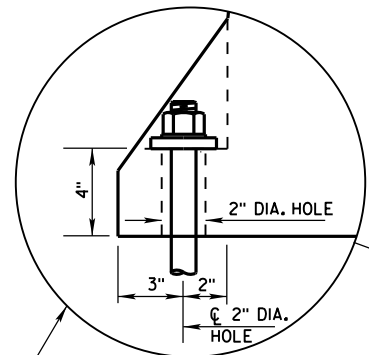
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

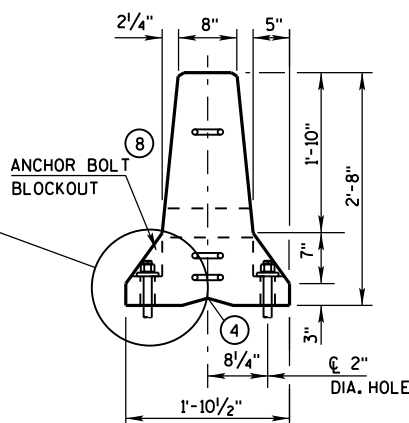
3/26/10
DATE

FHWA

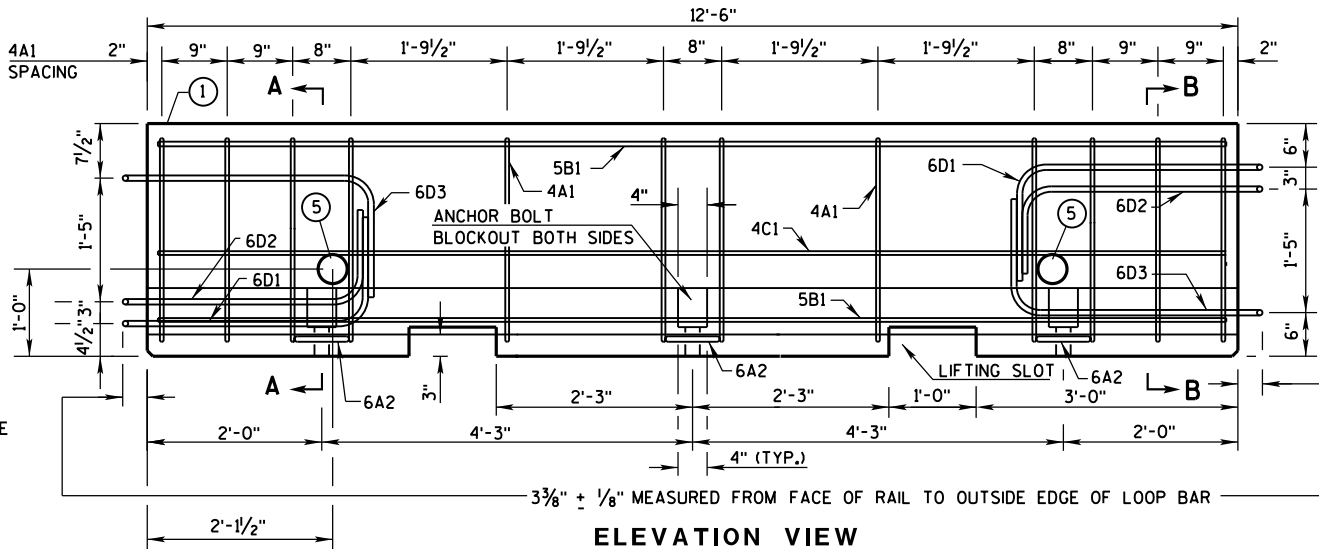
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



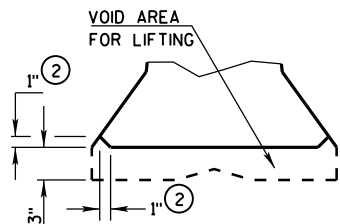
ANCHOR ON TRAFFIC SIDE
ONLY WHEN REQUIRED
(SEE SHEET D FOR ADDITIONAL
ANCHOR DETAIL)



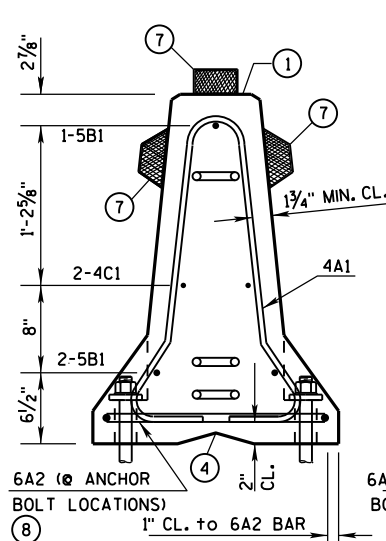
END VIEW



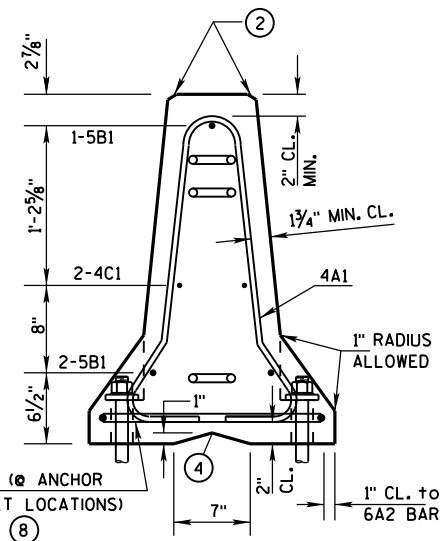
ELEVATION VIEW



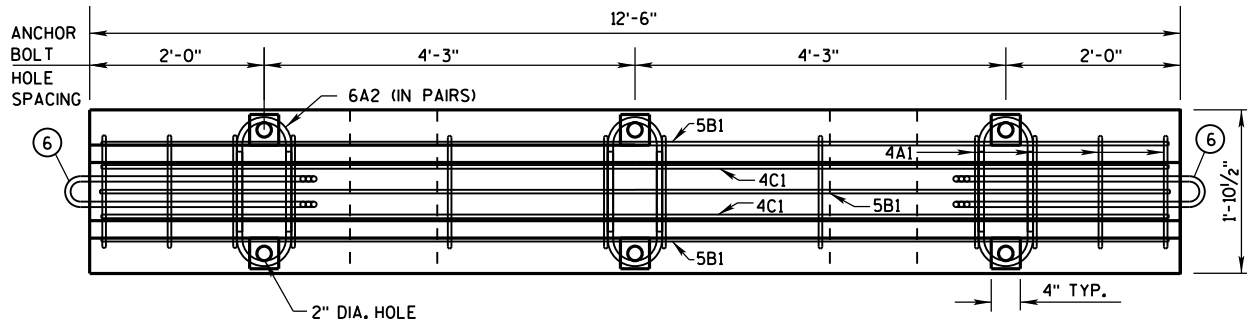
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

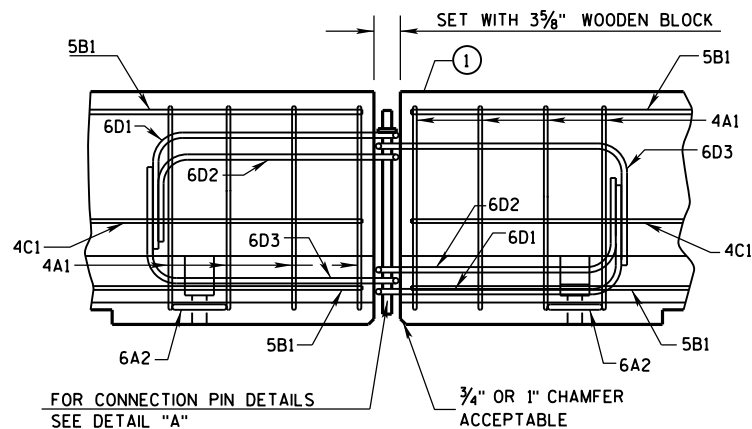


SECTION B-B
(STIRRUP PLACEMENT)

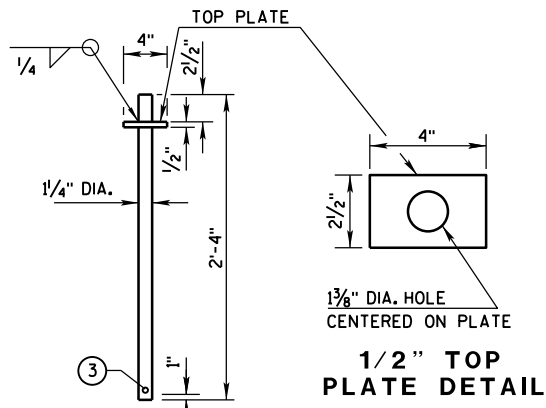


PLAN VIEW

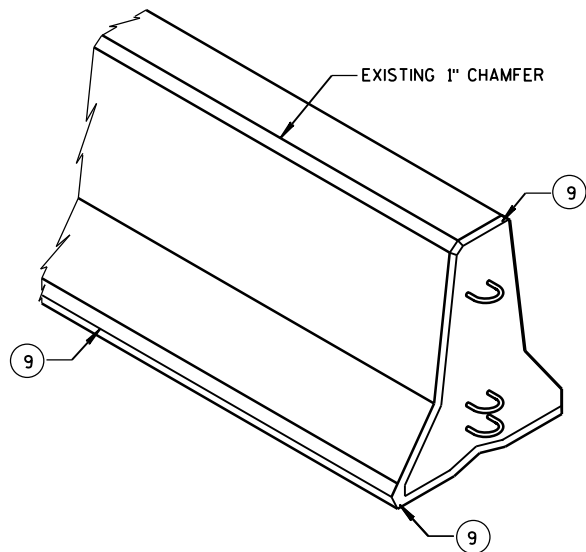
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(g) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - TYPE: WICBTP
 - MANUFACTURER
 - DATE MANUFACTURED (MONTH AND YEAR)
- 1" CHAMFER TO PREVENT SPALLING.
- A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- "V" NOTCH IS OPTIONAL.
- THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- SEE SHEET D FOR ANCHORING CRITERIA.
- 1" CHAMFER OPTIONAL.

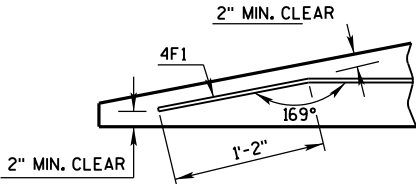
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

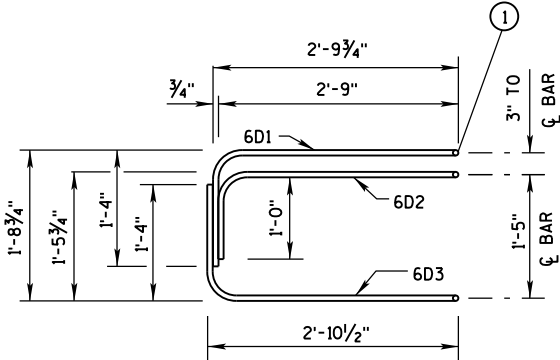
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

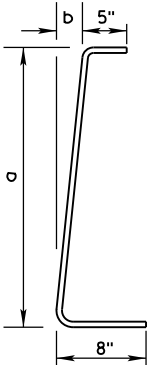
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

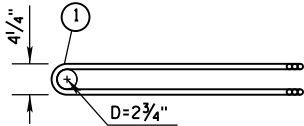
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

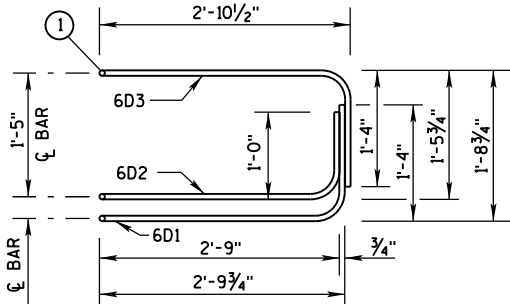
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

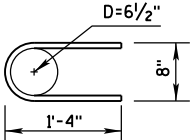


PLAN VIEW
LOOP BAR ASSEMBLY

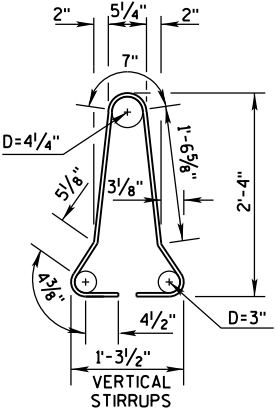
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

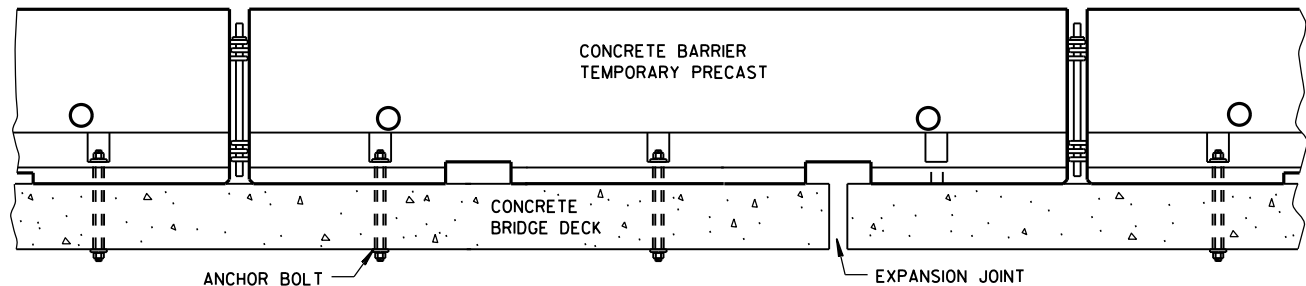
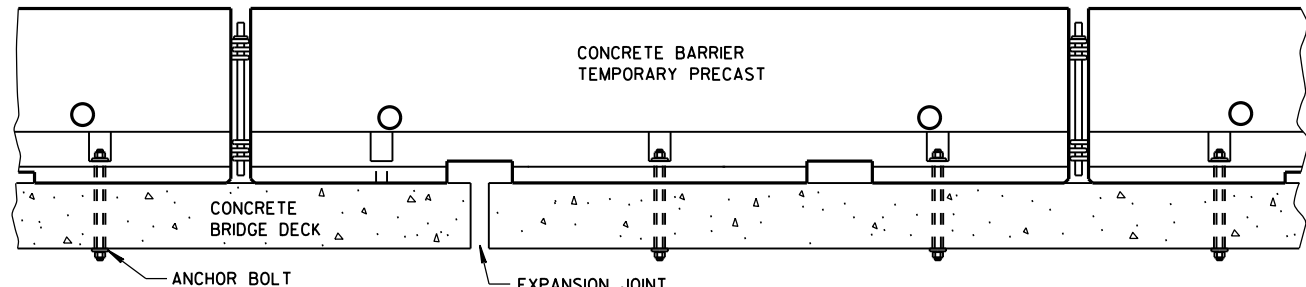


4A1

BARRIER SECTION

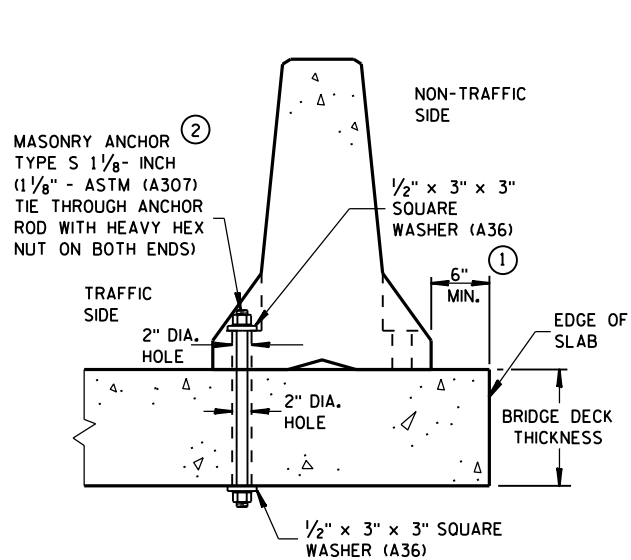
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



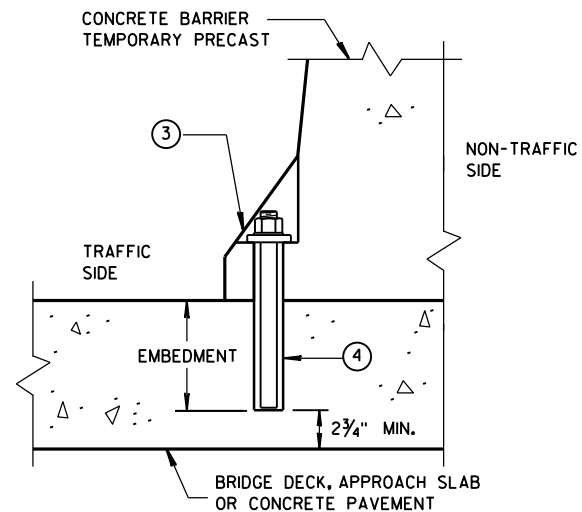
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



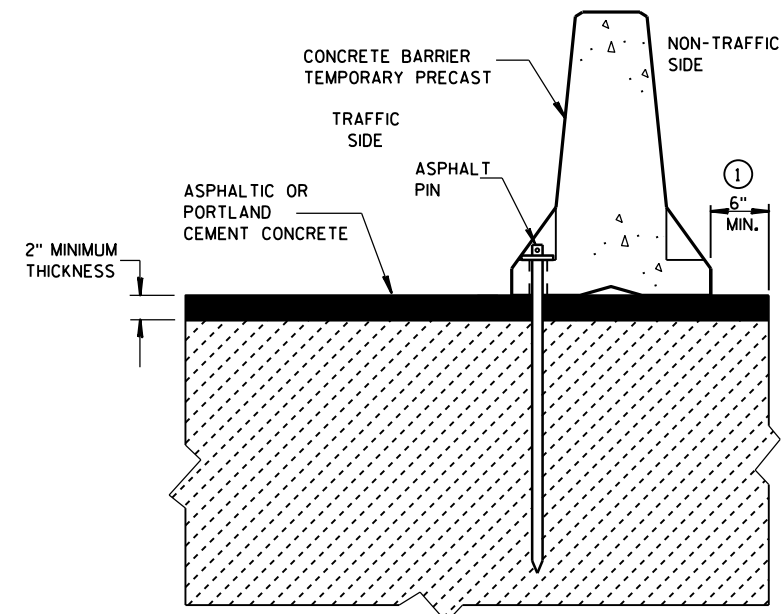
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



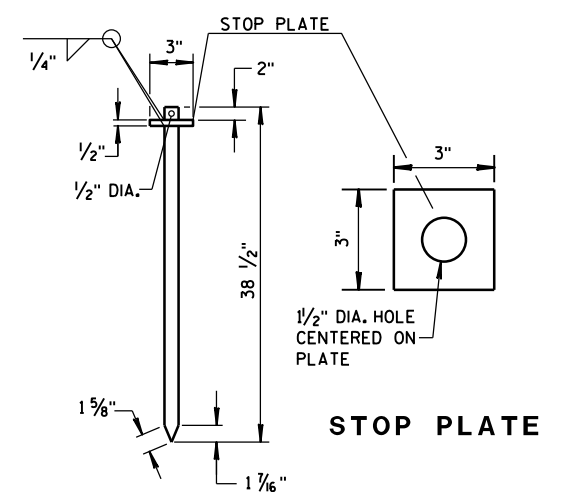
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

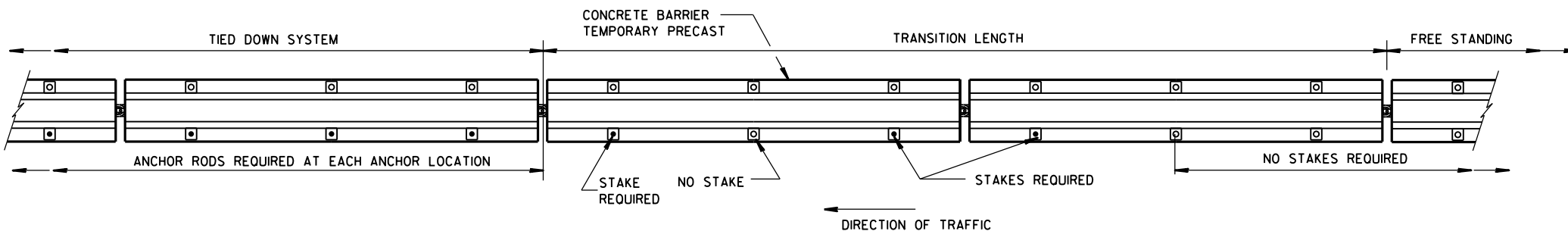


STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



ASPHALT PIN
(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

- ① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

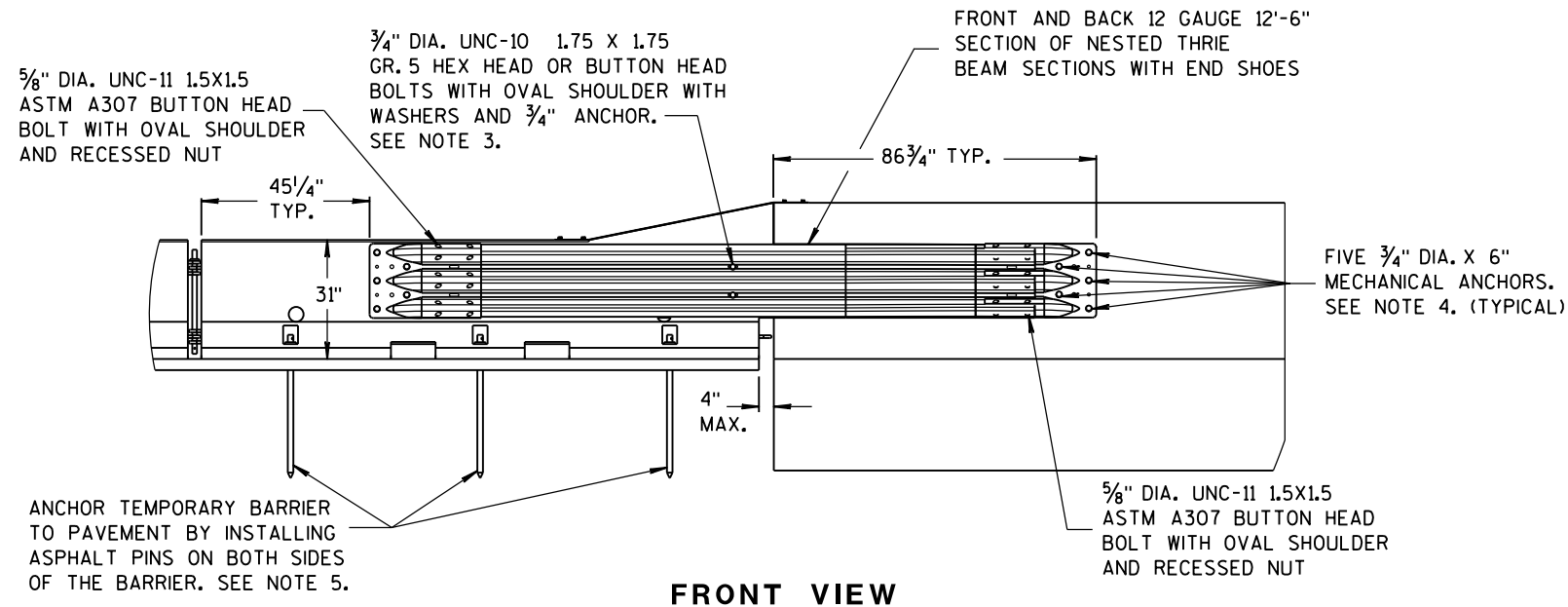
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT
INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE
BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE
S 1 1/8"-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE
ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

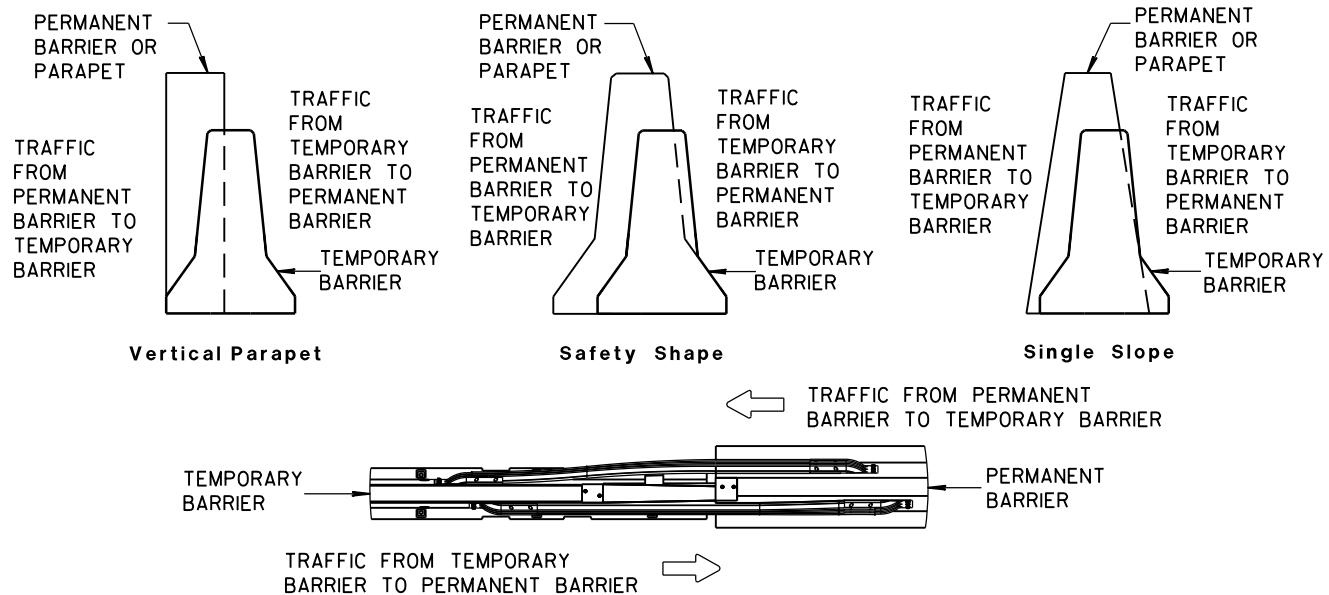
UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR MATERIAL
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.
- ③ 1/8" DIAMETER A307 THREADED ROD, 1/2" x 3" x 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL,
ASTM A563A HEAVY HEX NUT.
- ④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2
AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



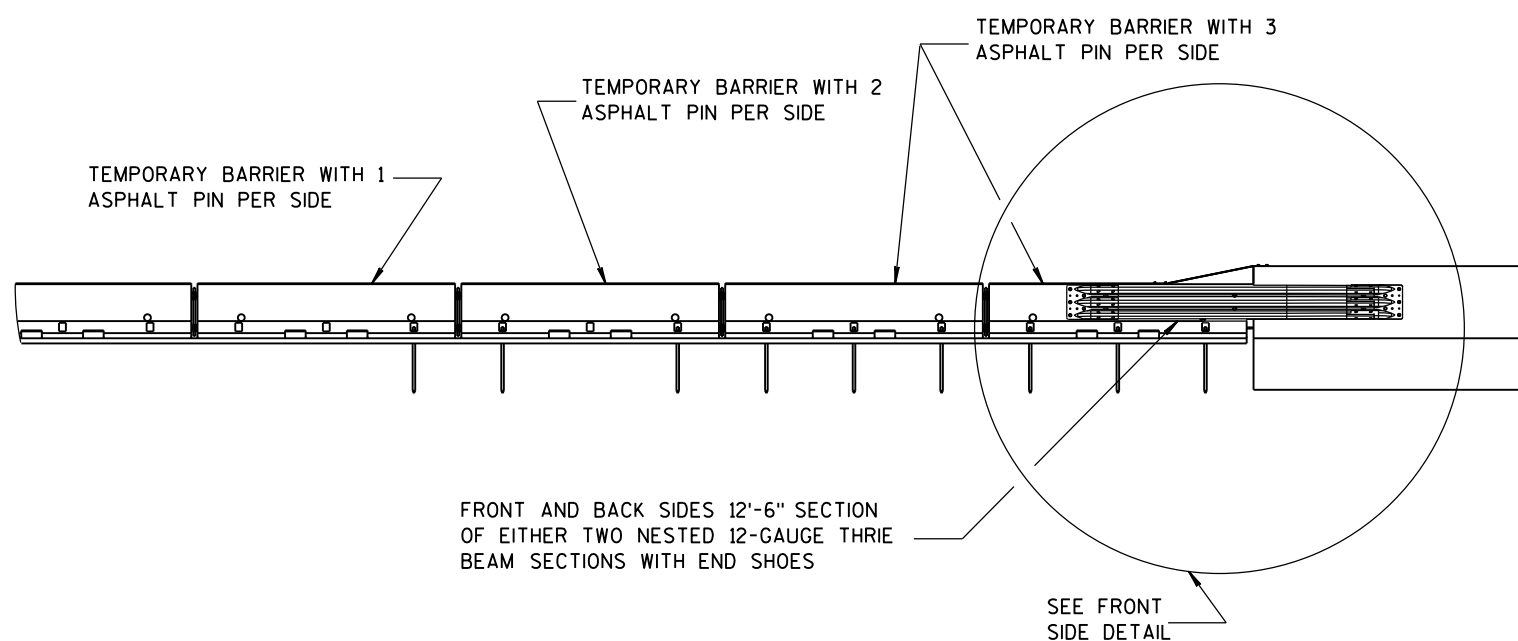
FRONT VIEW



TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

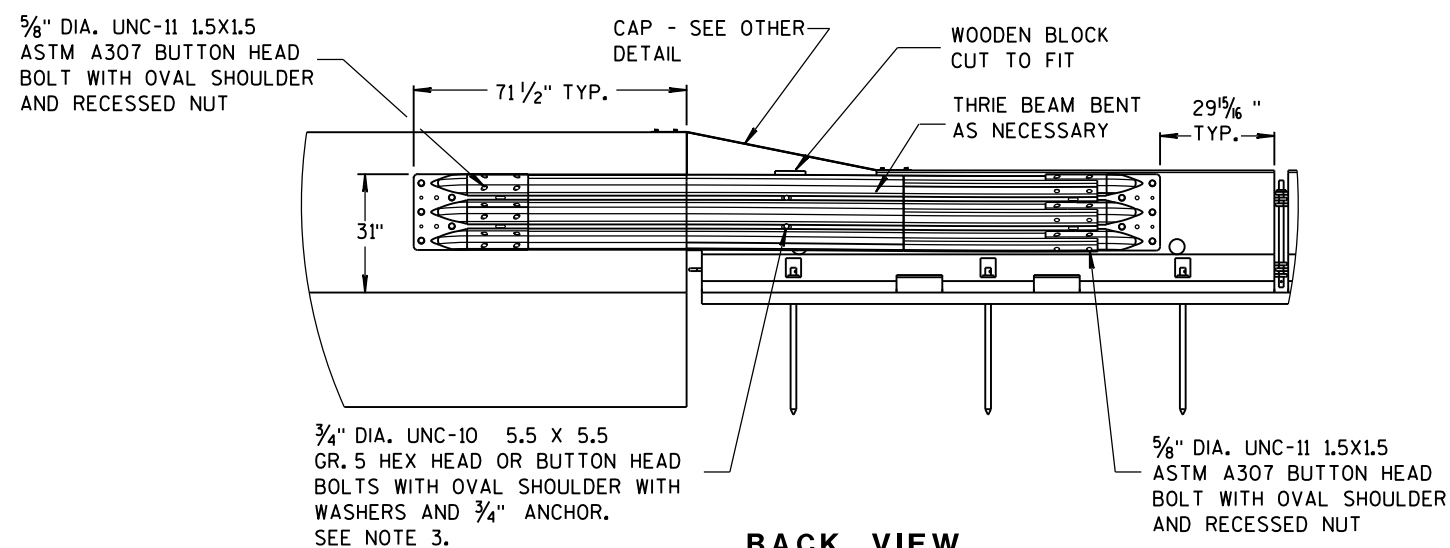
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

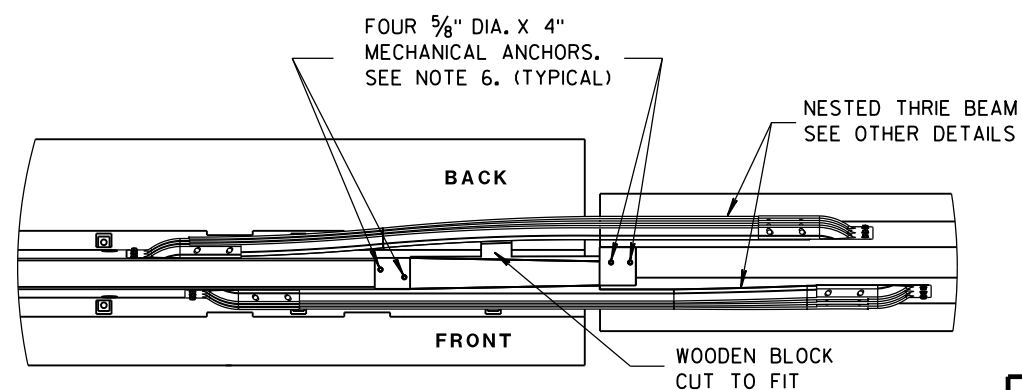


FRONT VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



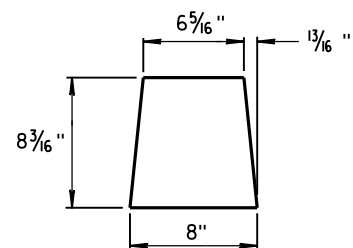
BACK VIEW



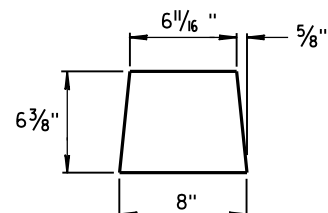
PLAN VIEW

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

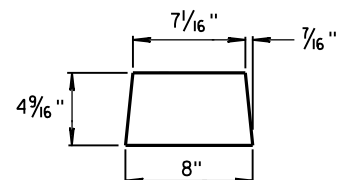
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



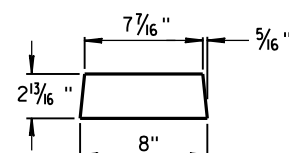
GUSSET 1



GUSSET 2

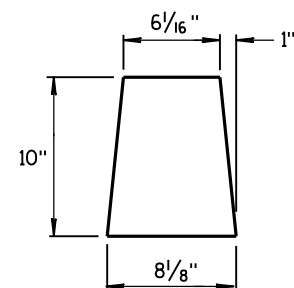


GUSSET 3

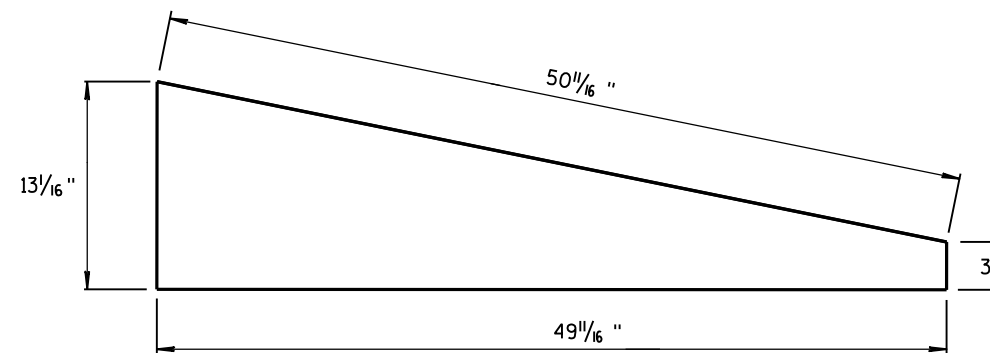


GUSSET 4

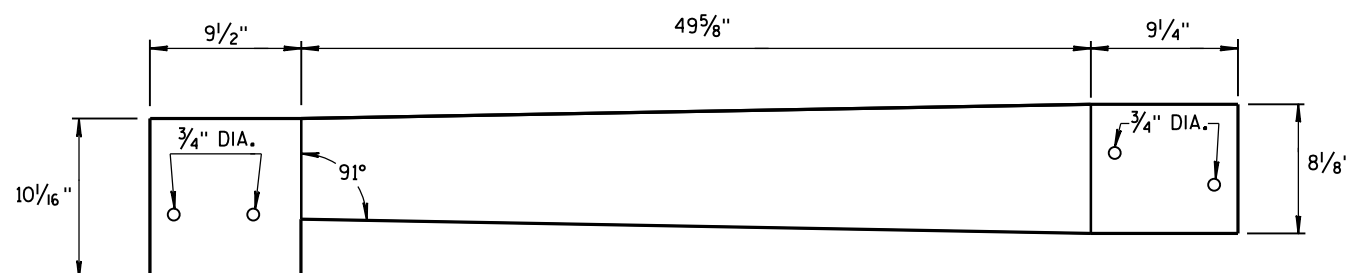
GUSSETS



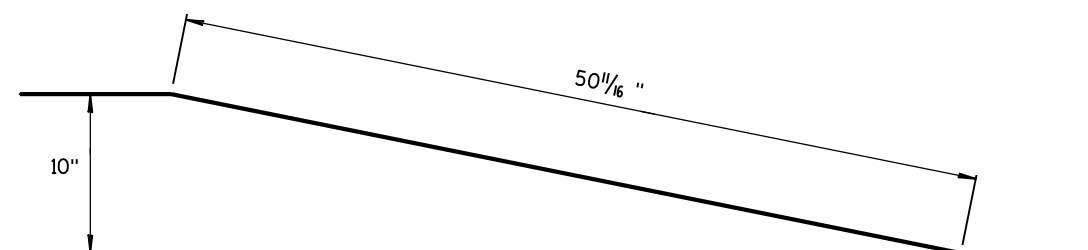
END PLATE



SIDE PLATE

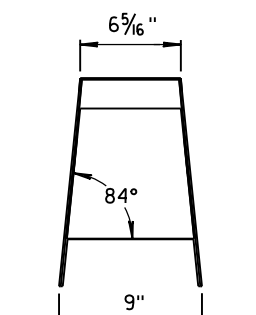


TOP PLATE

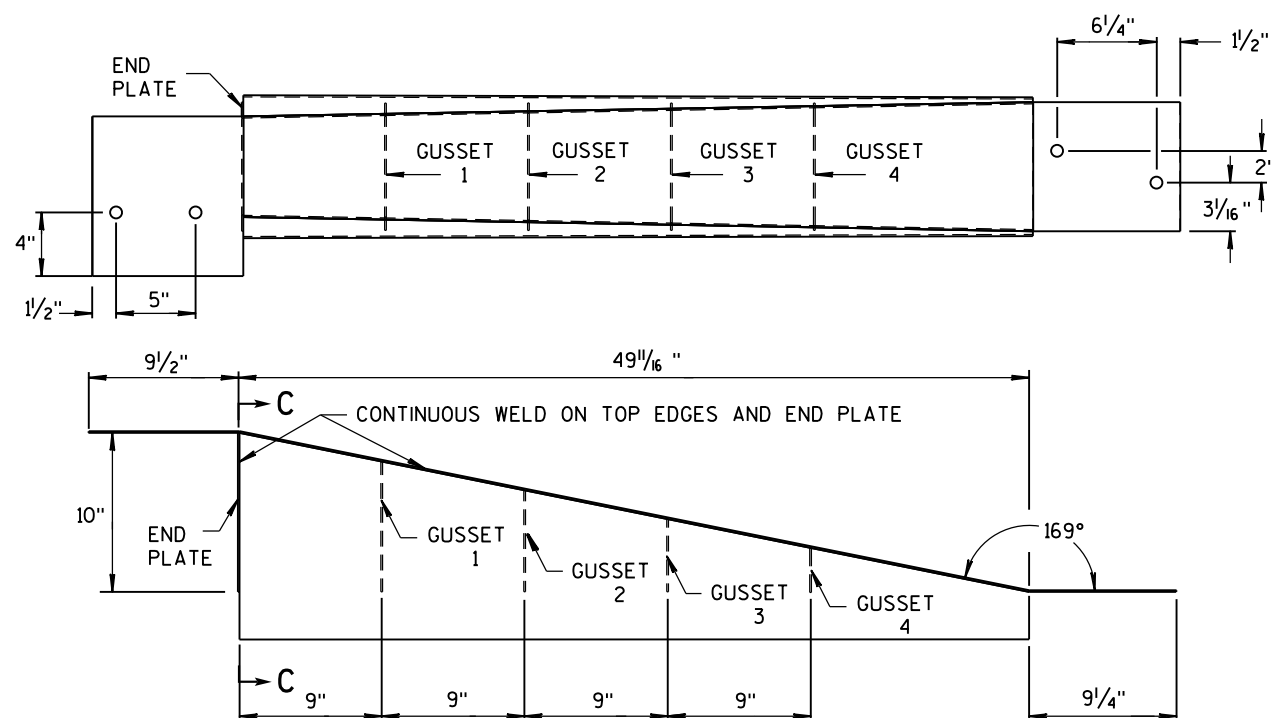


**SIDE, TOP AND END PLATES FOR CAP
FROM TEMPORARY CONCRETE BARRIER
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C



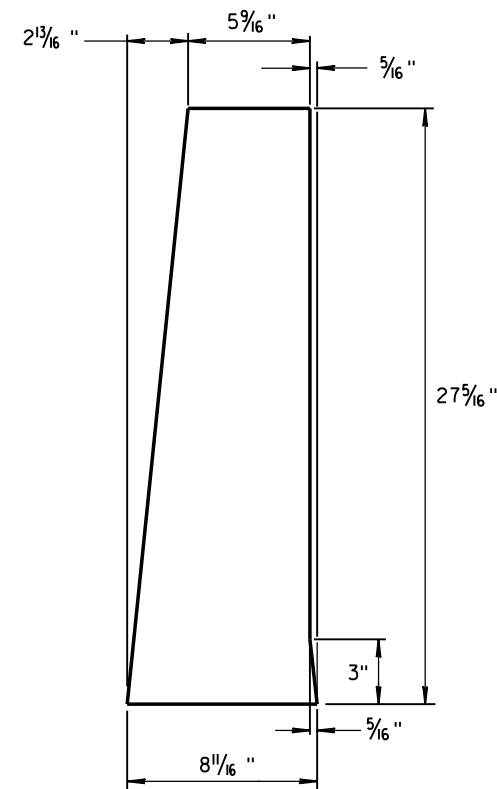
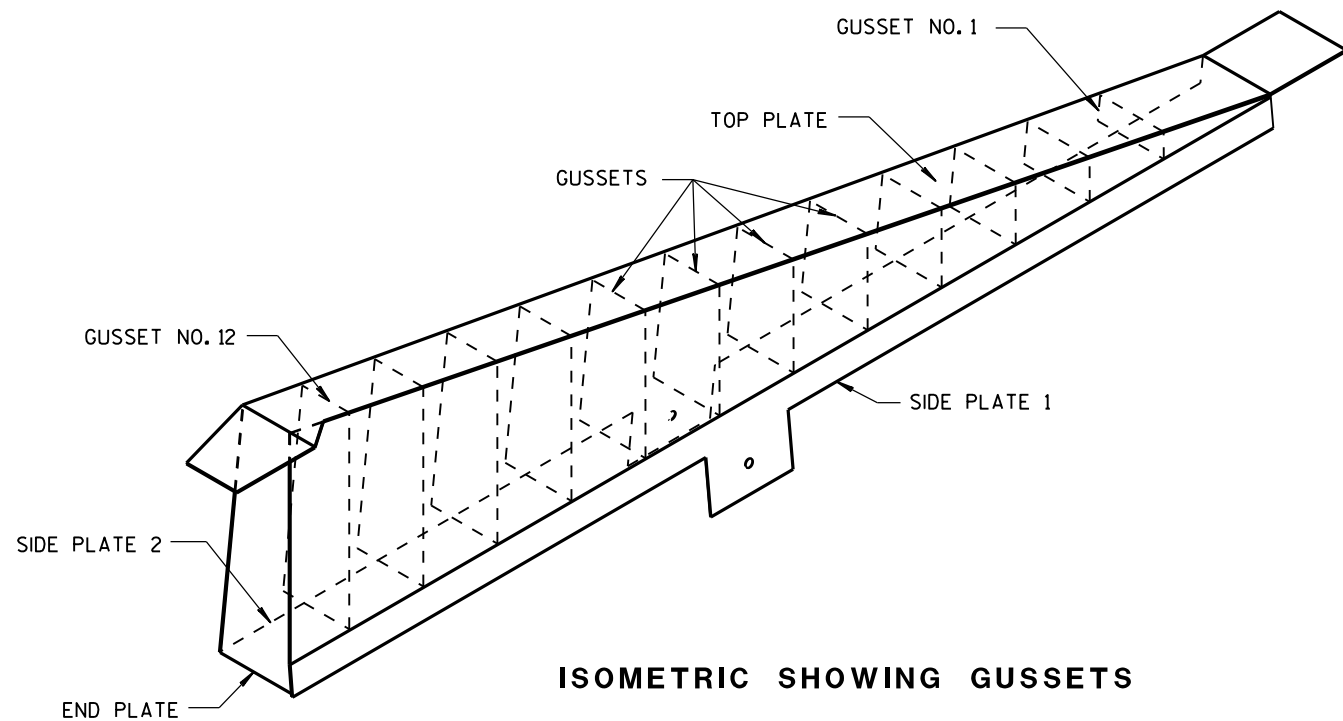
NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

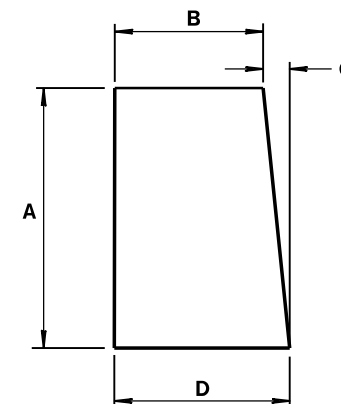
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

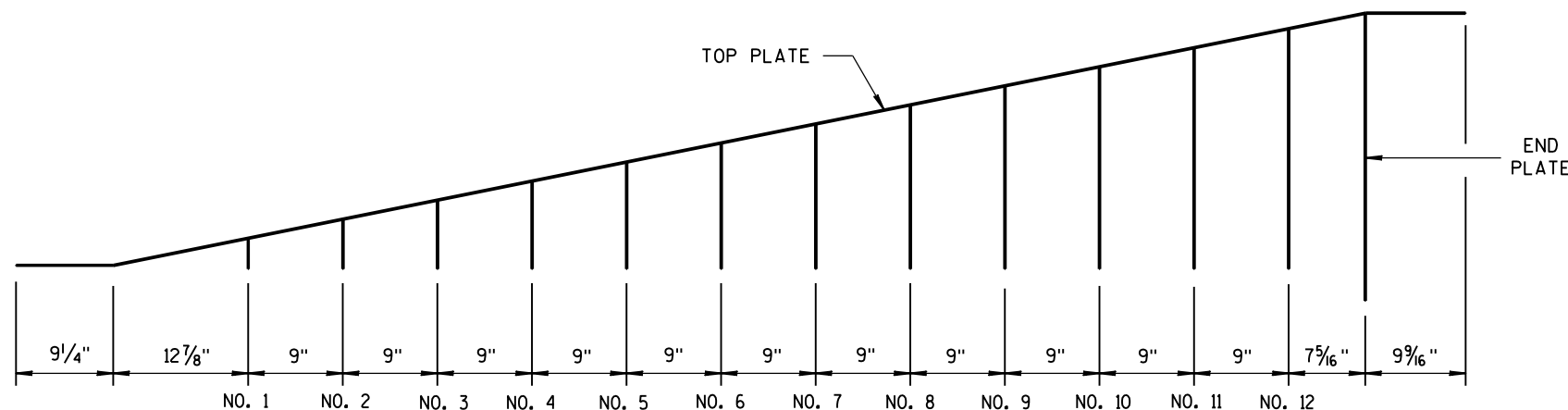


ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	1 1/16 "	8 1/16 "
4	8 5/16"	7 3/16"	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16"	6 1/16"	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16"	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16"	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

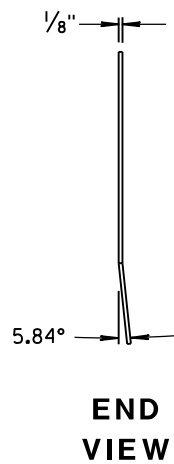
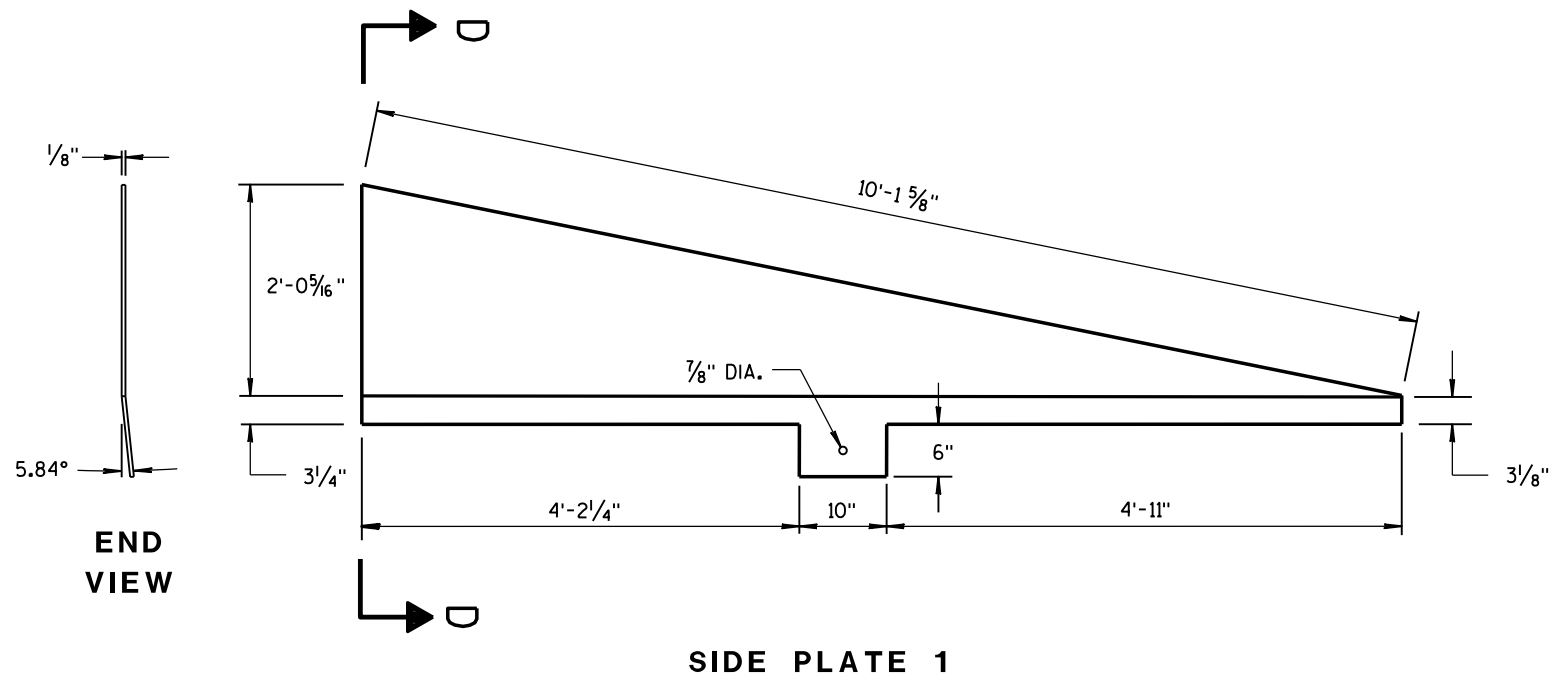
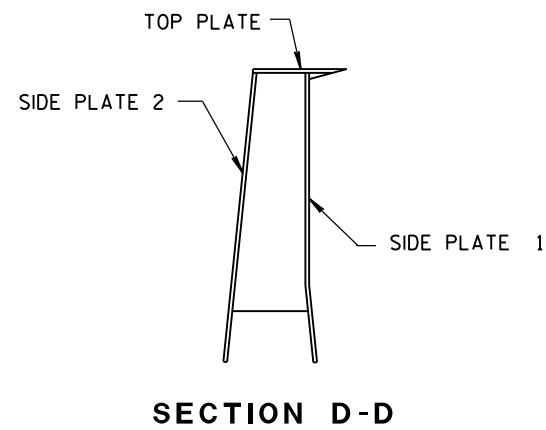
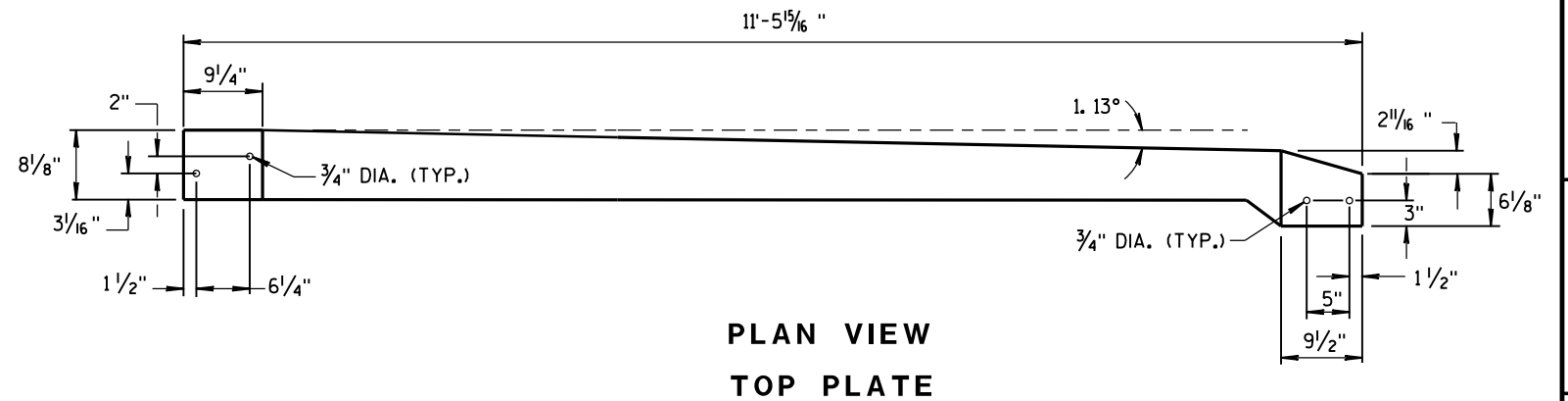
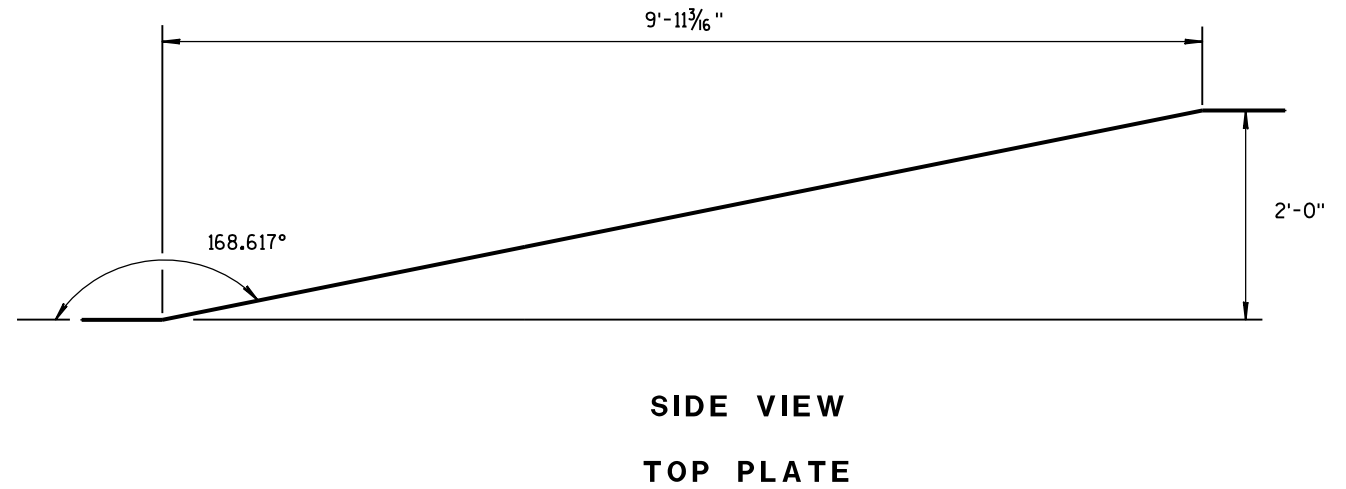
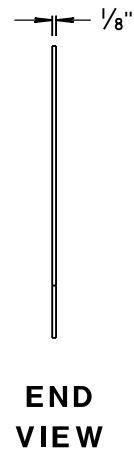
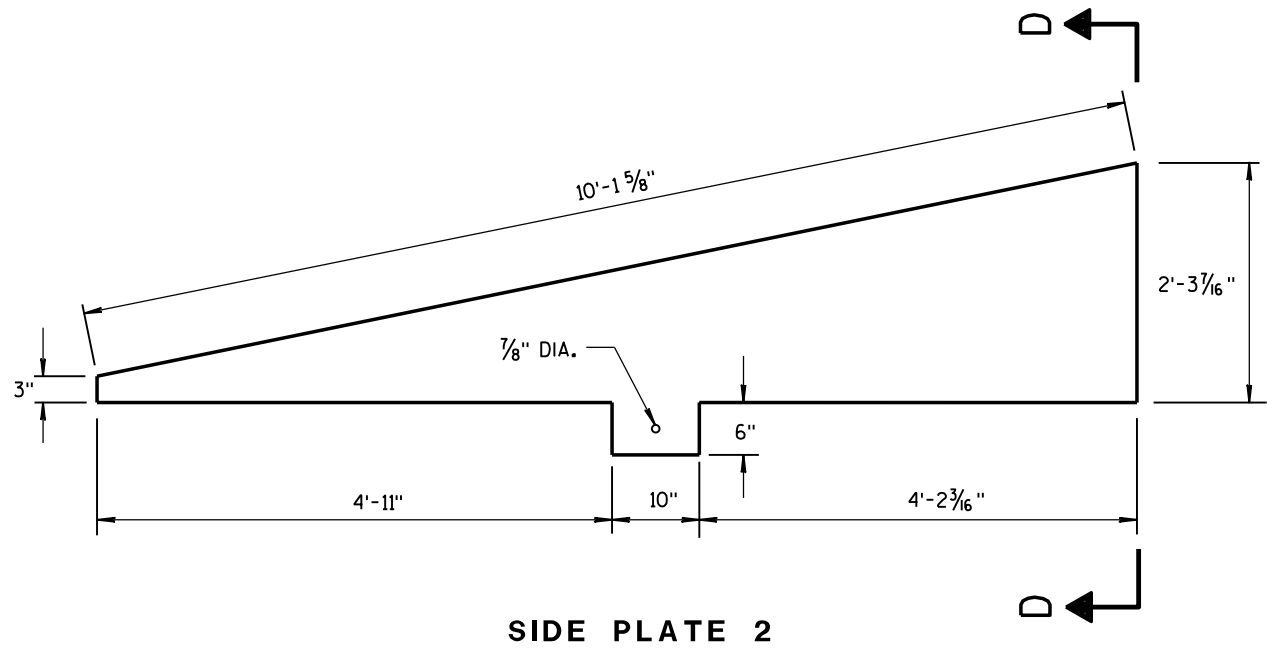
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

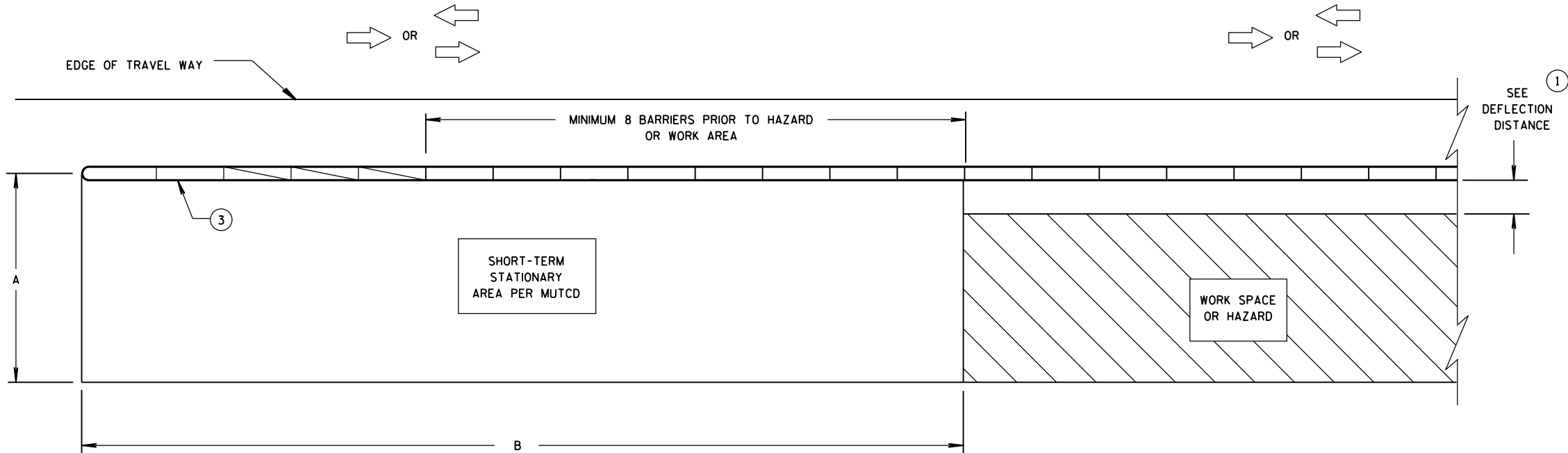
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

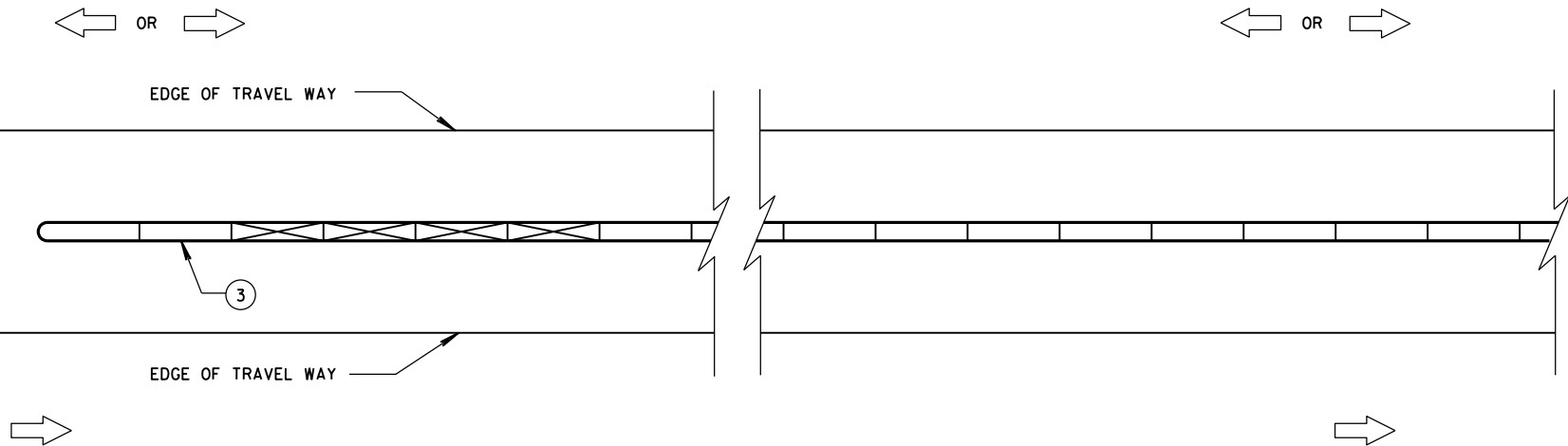


CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA	



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER**



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER**

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

③ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

DIMENSION A TABLE ②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE ②

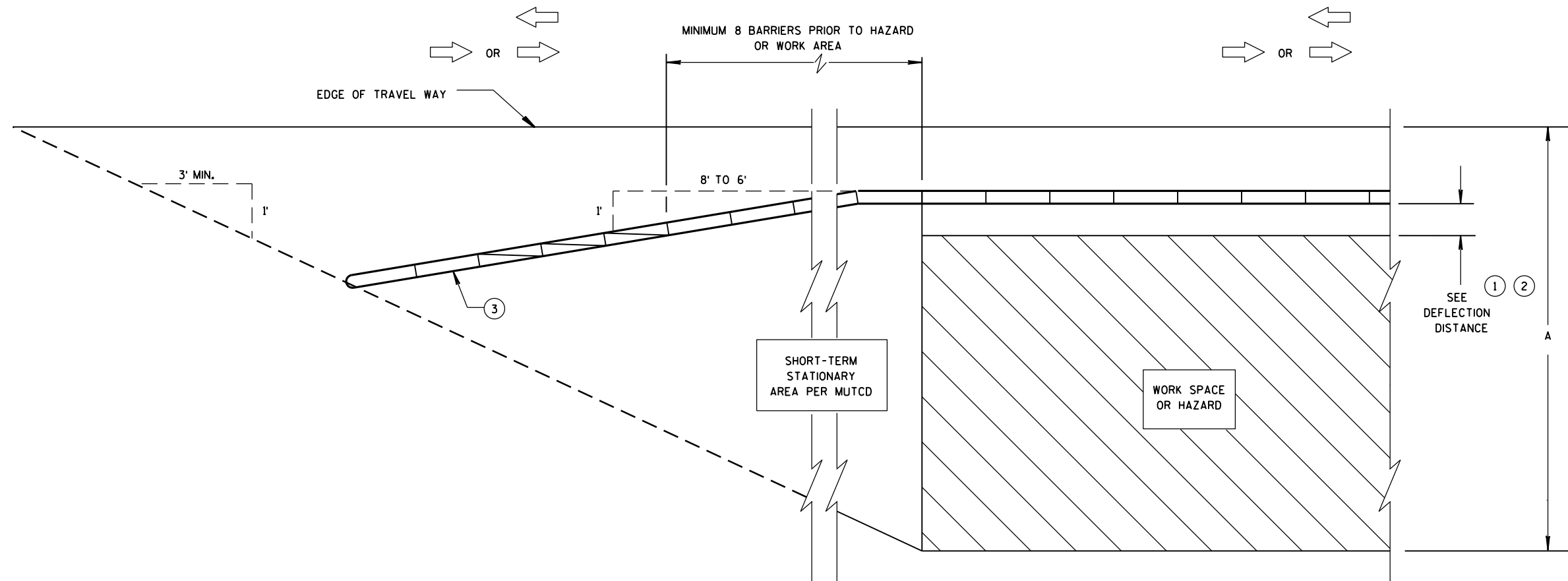
POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND

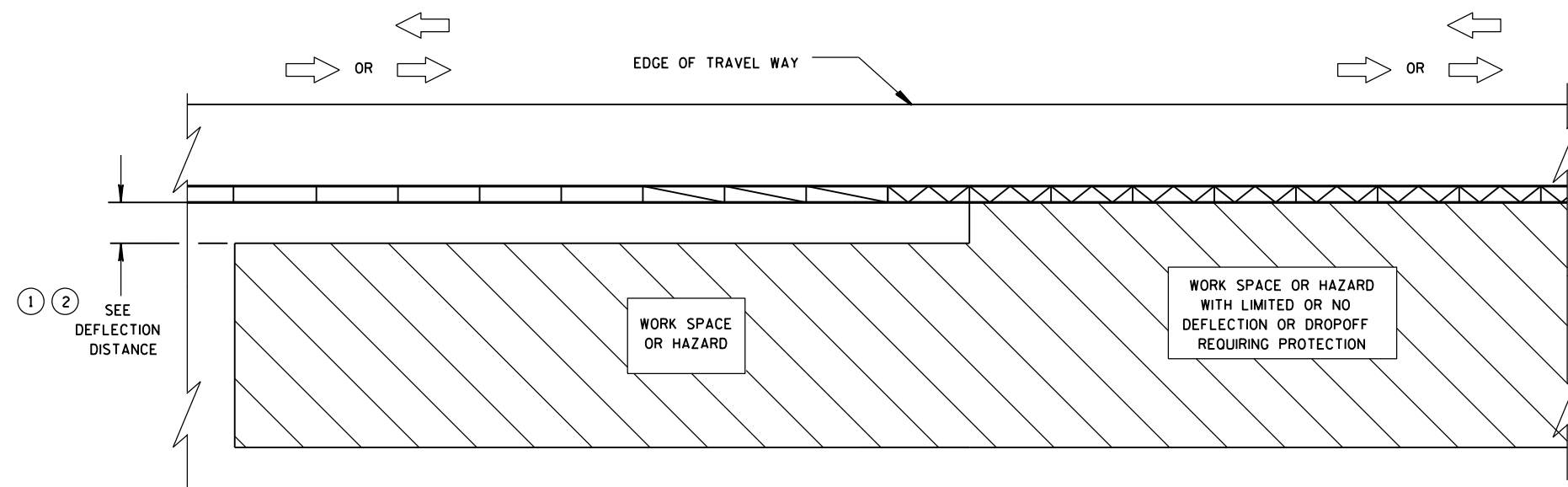
- DIRECTION OF TRAVEL →
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



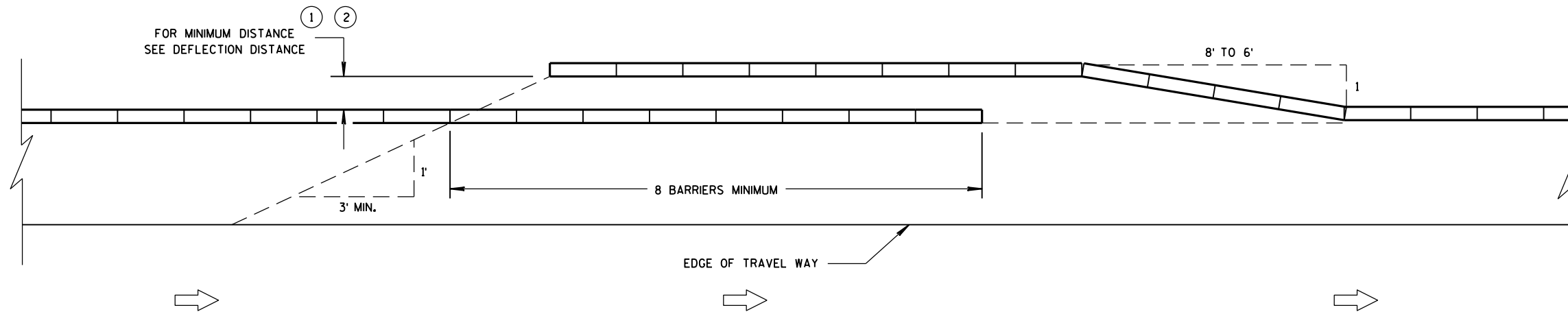
**TRANSITION FROM FREE STANDING TEMPORARY BARRIER
TO ANCHORED BARRIER**

LEGEND

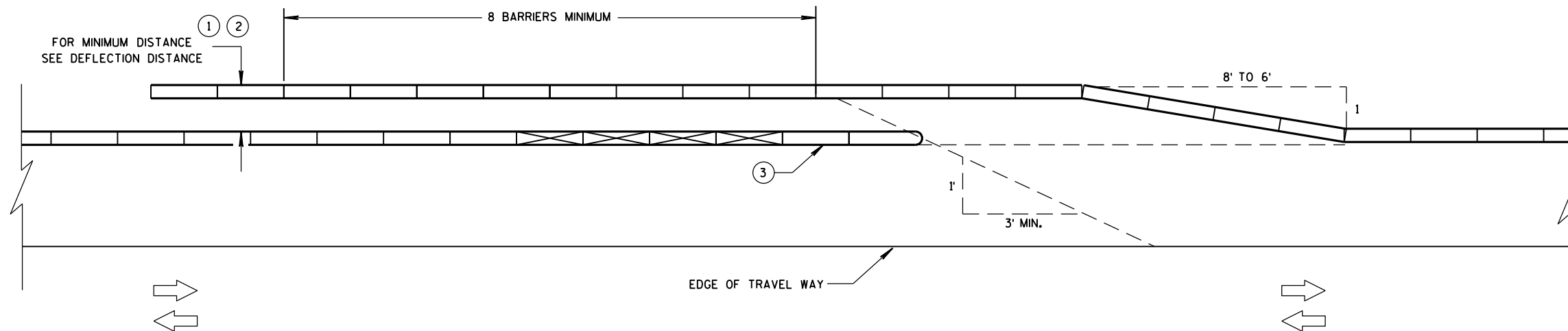
DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

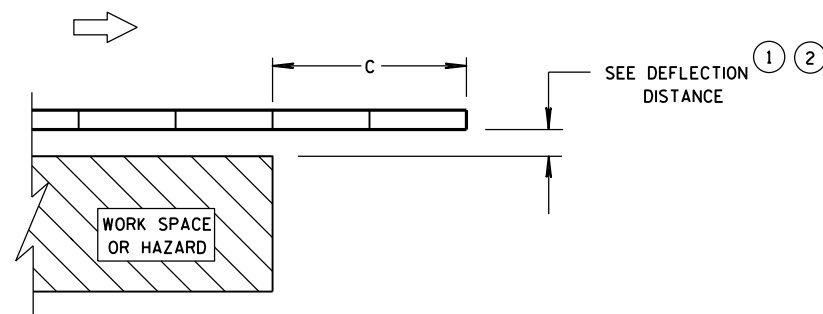
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



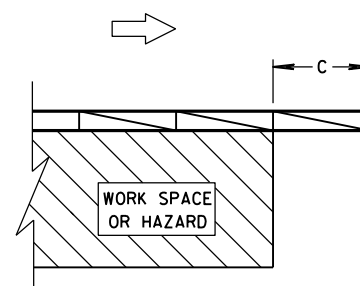
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



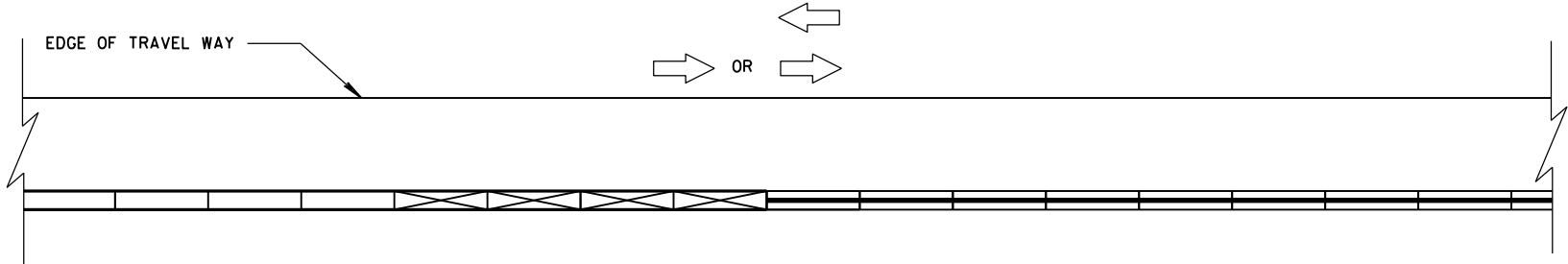
**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

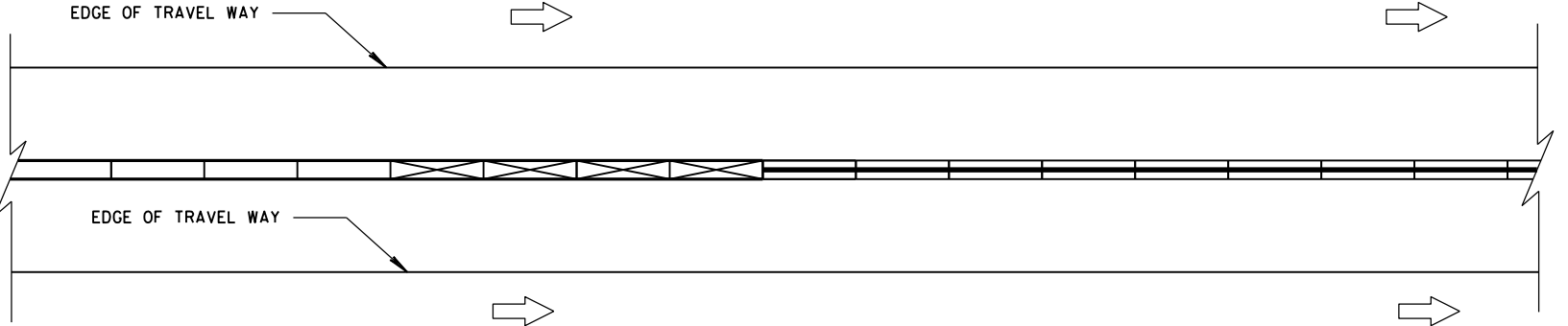
DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



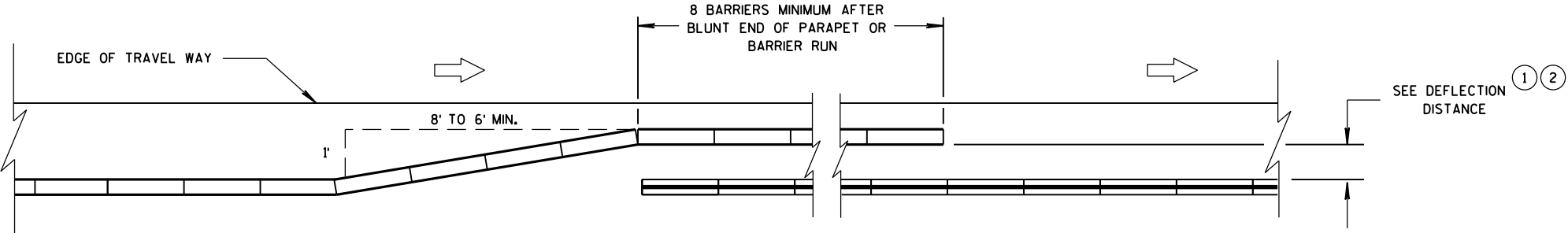
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



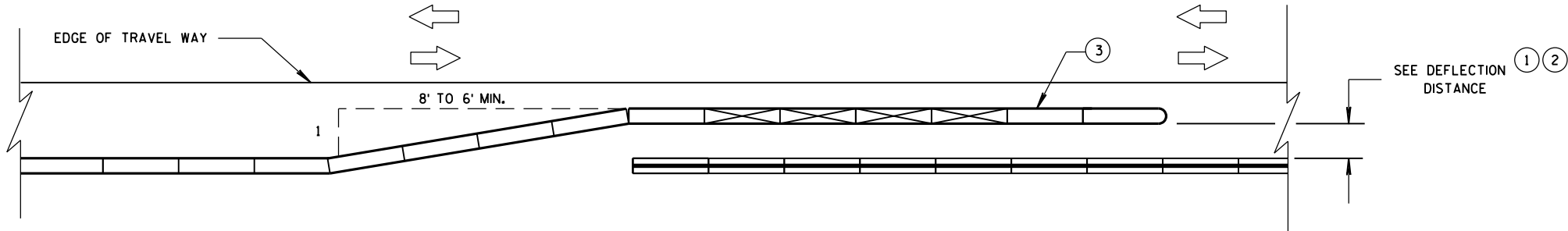
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC

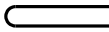
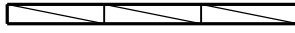
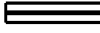
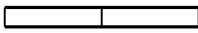


OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

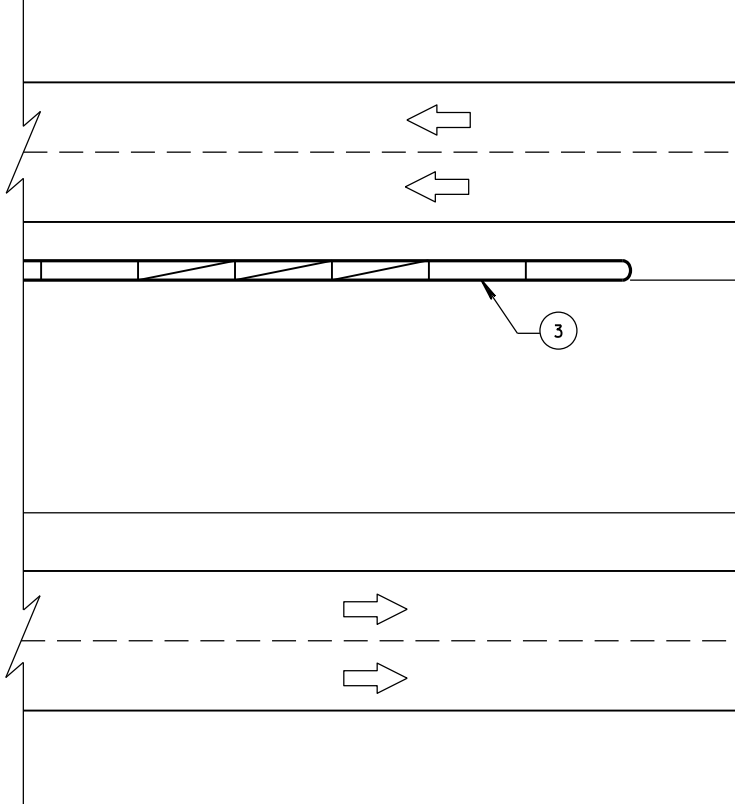
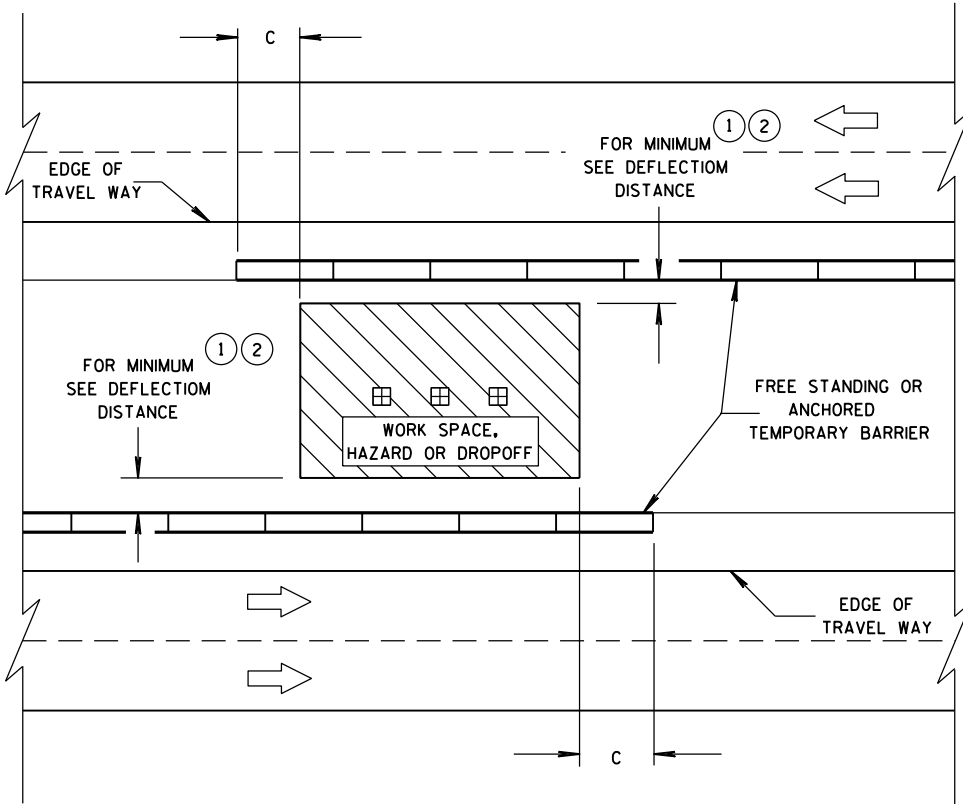
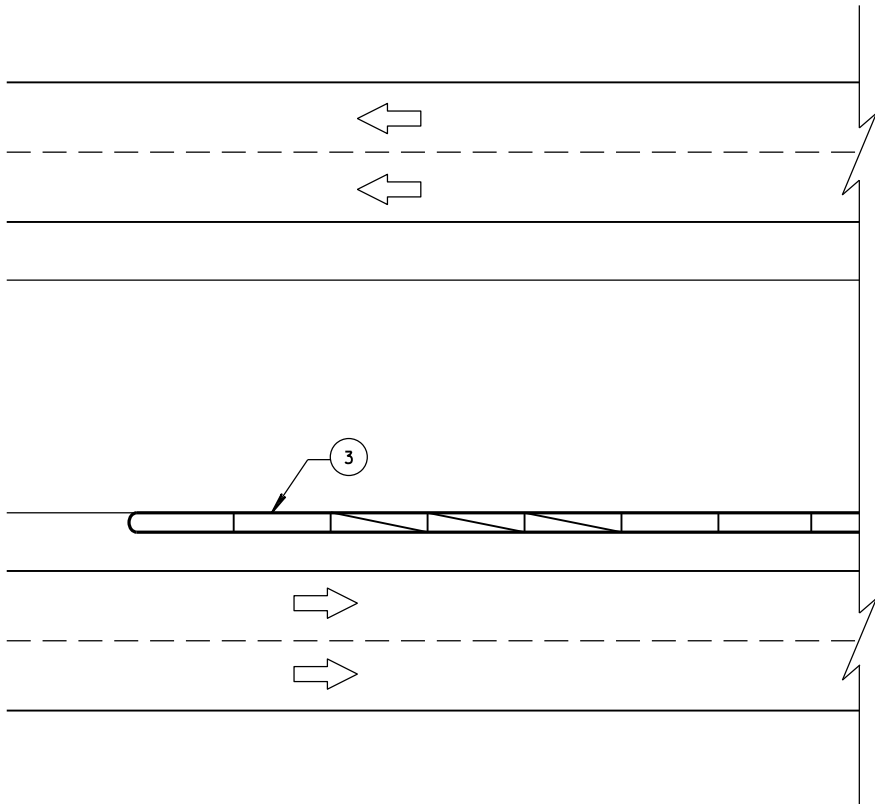
LEGEND

- DIRECTION OF TRAVEL 
- CRASH CUSHION OR SAND BARREL ARRAY 
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS 
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS 
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER 
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET 
- FREE STANDING TEMPORARY BARRIER 

DIMENSION C TABLE ²

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100

6

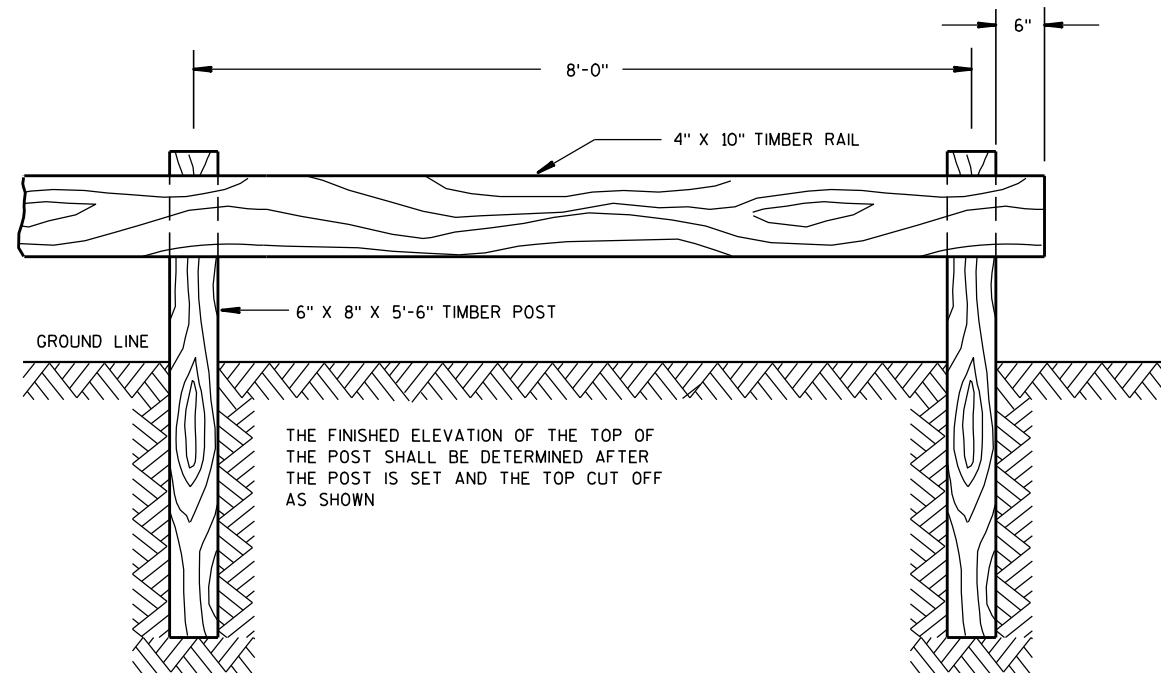


6

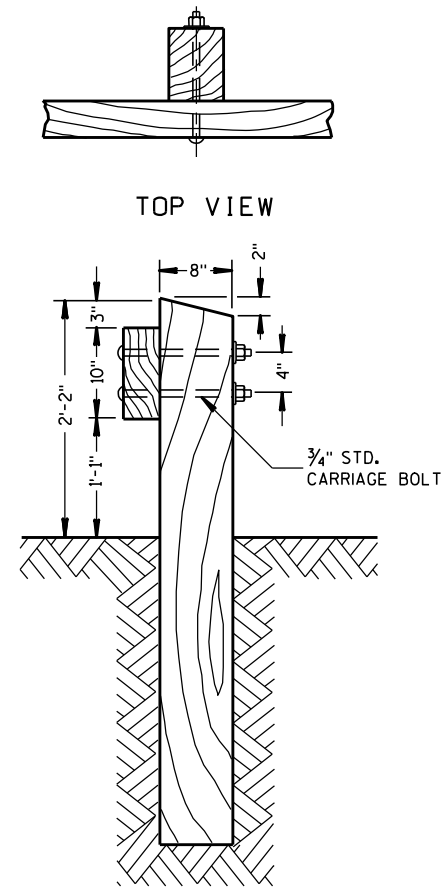
CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER

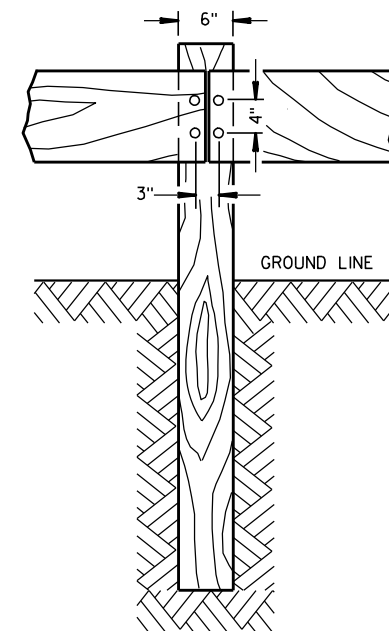


FRONT VIEW

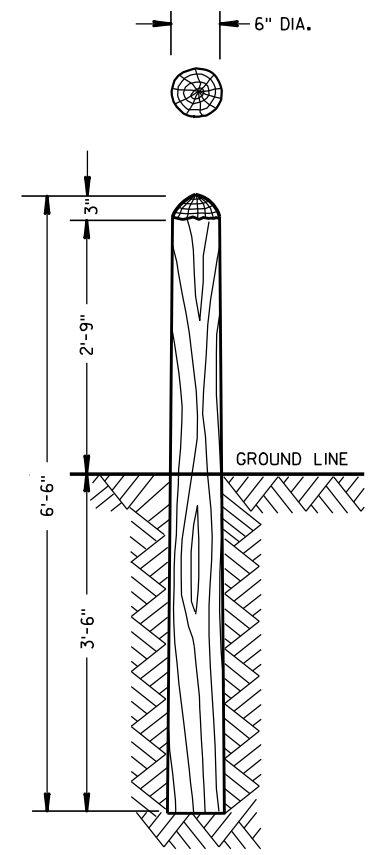


TOP VIEW

SIDE VIEW

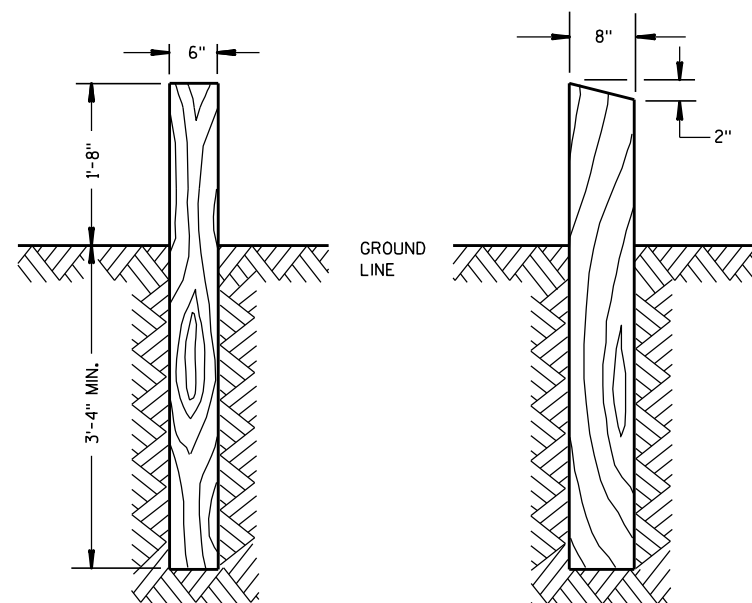


SPLICE POST



RUSTIC MARKER POST

TIMBER RAIL GUARD FENCE (PARKING LOT PROTECTION)

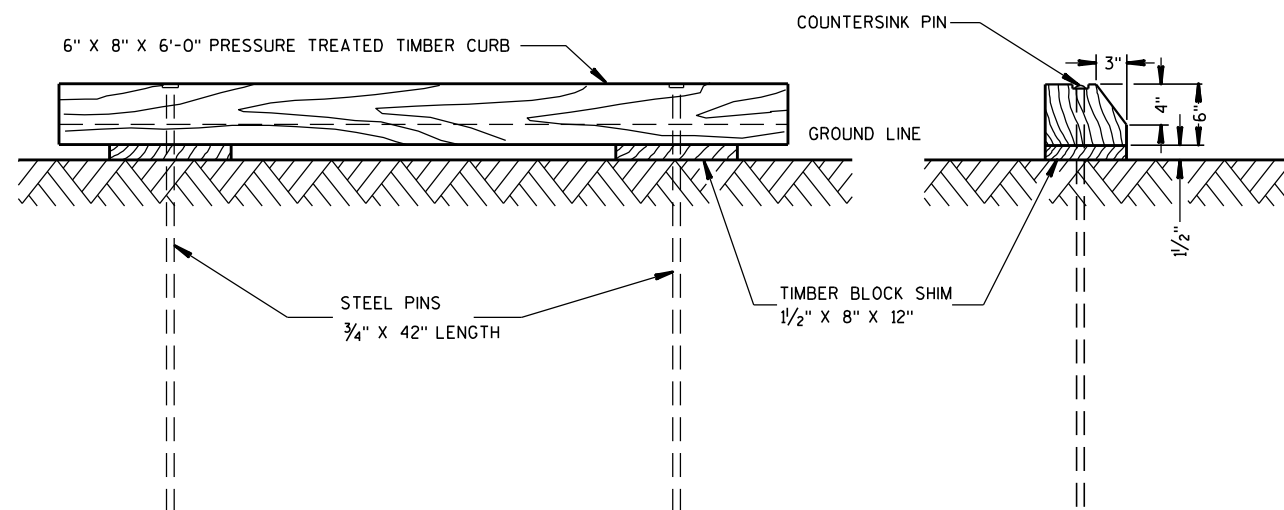


FRONT VIEW

SIDE VIEW

TIMBER GUARD POST

(REQUIREMENTS SHALL BE THE SAME AS POSTS FOR TIMBER RAIL GUARD FENCE)



FRONT VIEW

END VIEW

TREATED TIMBER CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS. ALL POST AND RAIL DIMENSIONS ARE NOMINAL DIMENSIONS.

TIMBER POSTS, RAILS AND MARKER POSTS

THE GALVANIZING OR CADMIUM PLATING OF HARDWARE WILL NOT BE REQUIRED.

POSTS WHEN UNTREATED SHALL BE PAINTED WITH TWO COATS OF BROWN WOOD STAIN CONFORMING TO THE REQUIREMENTS OF THE APPLICABLE STANDARD SPECIFICATIONS. TOPS OF POSTS, IF TREATED, SHALL BE PAINTED WITH TWO COATS OF CREOSOTE AFTER ERECTION. IF UNTREATED POST ARE USED, PAINT TOPS WITH TWO COATS OF PRESERVATIVE WOOD STAIN AFTER ERECTION.

TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

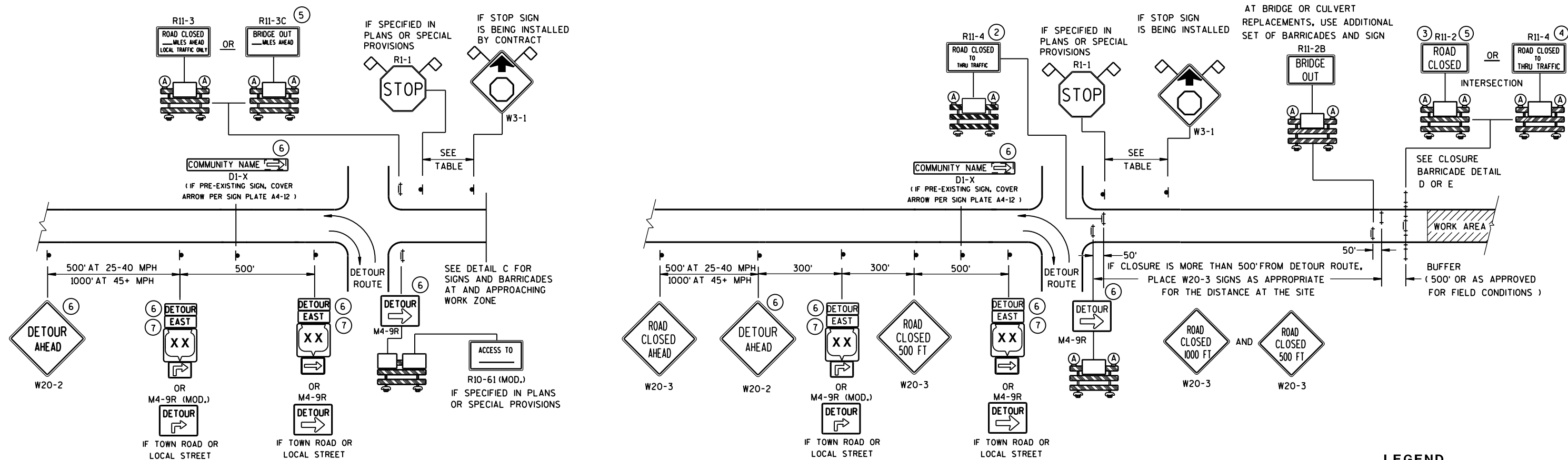
APPROVED

4/23/1974

DATE

FHWA

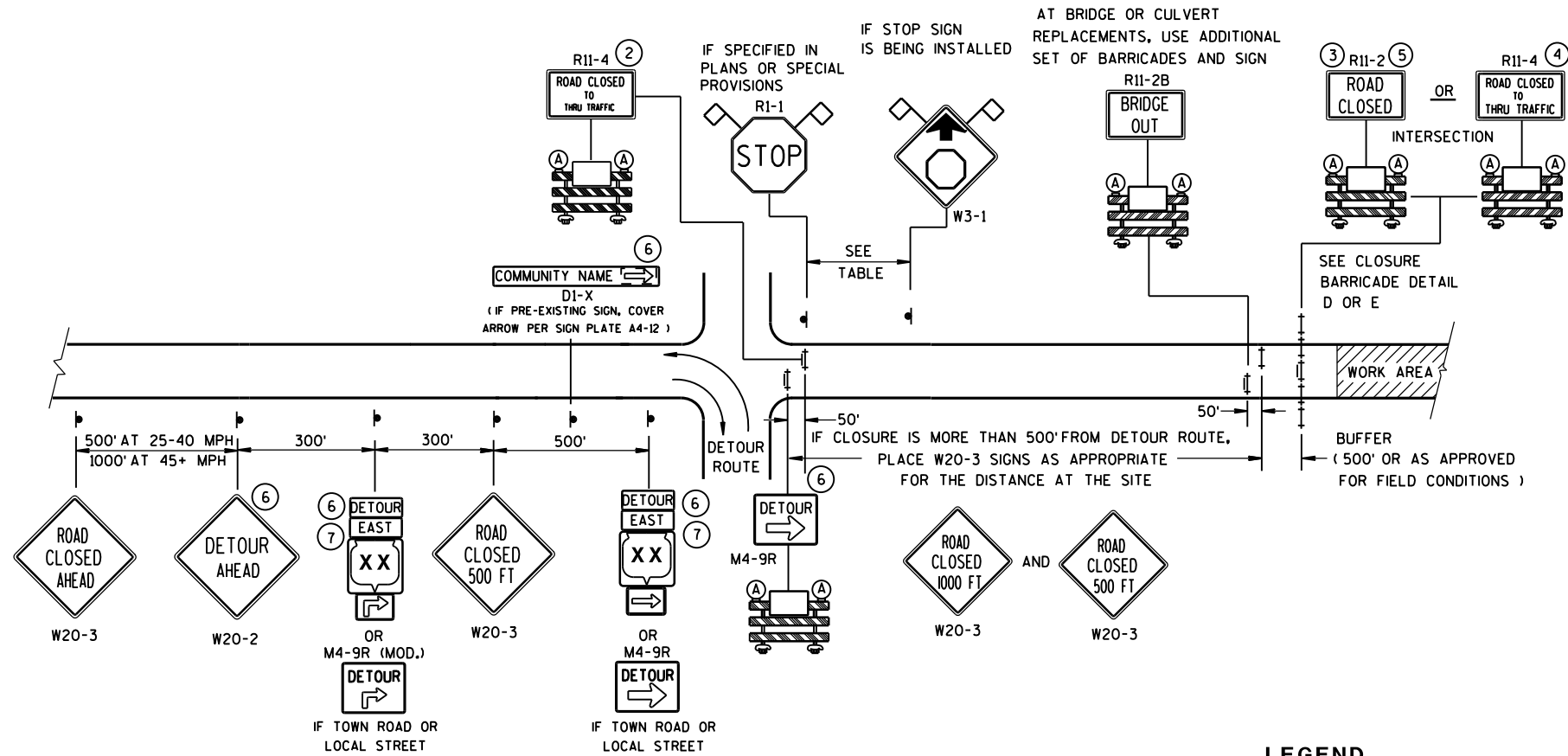
/S/ H. Fiedler
STATE HIGHWAY ENGINEER



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

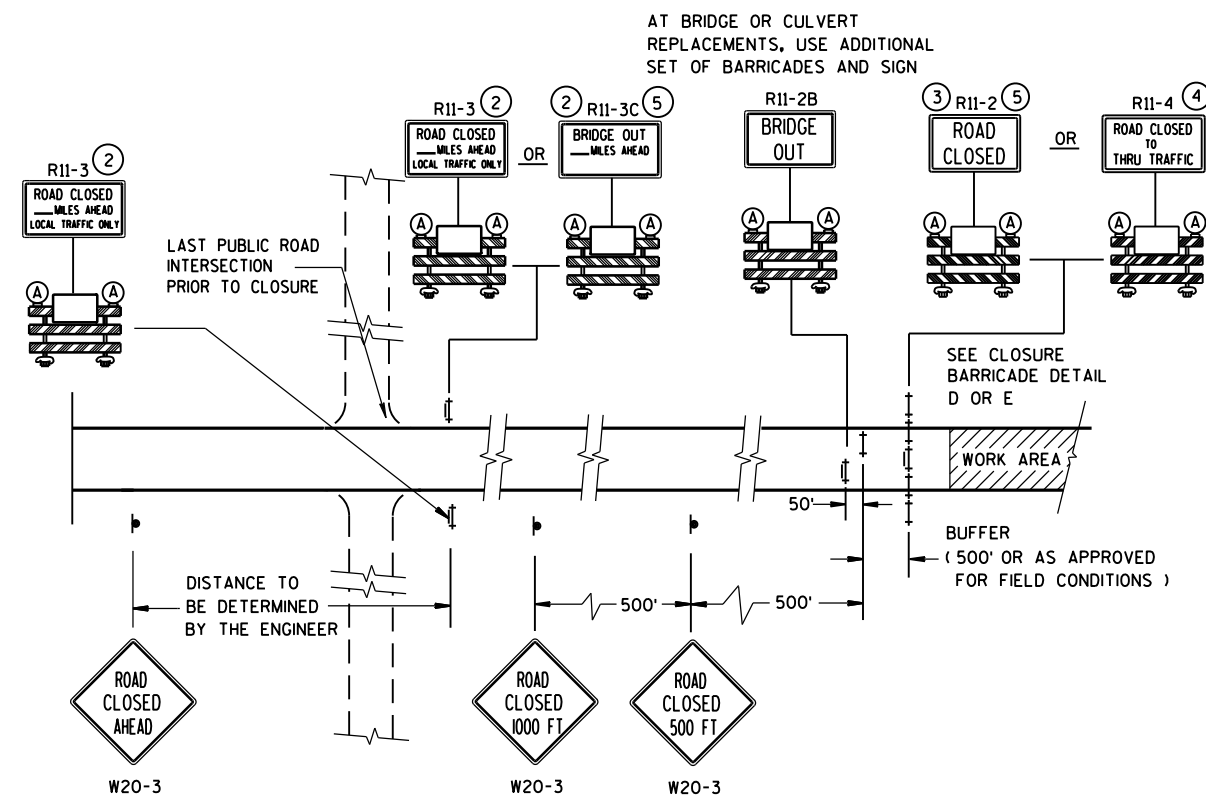
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

- | | |
|---|---------------------------------------|
|  | SIGN ON PERMANENT SUPPORT |
|  | TYPE III BARRICADE |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | TYPE "A" WARNING LIGHT (FLASHING) |

 WORK AREA

DETOUR M4-8
EAST M3-X

 OR  OR 

M1-4 M1-5A M1-6

 OR 
M05-1 M06-1

 FLAGS, 16" X 16" MIN., (ORANGE)

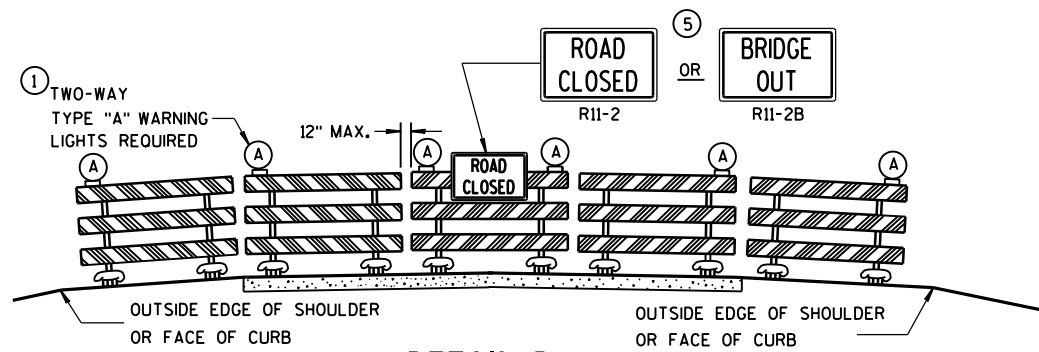
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

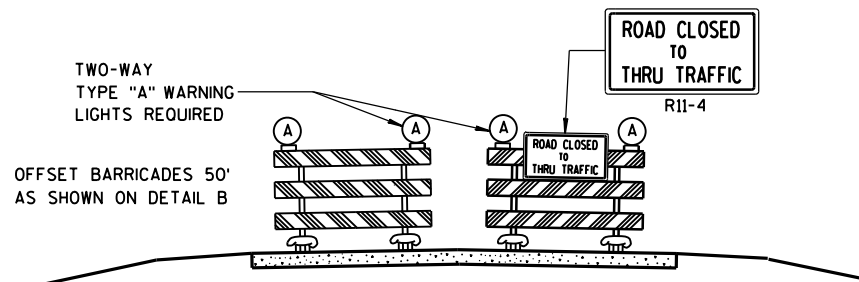
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

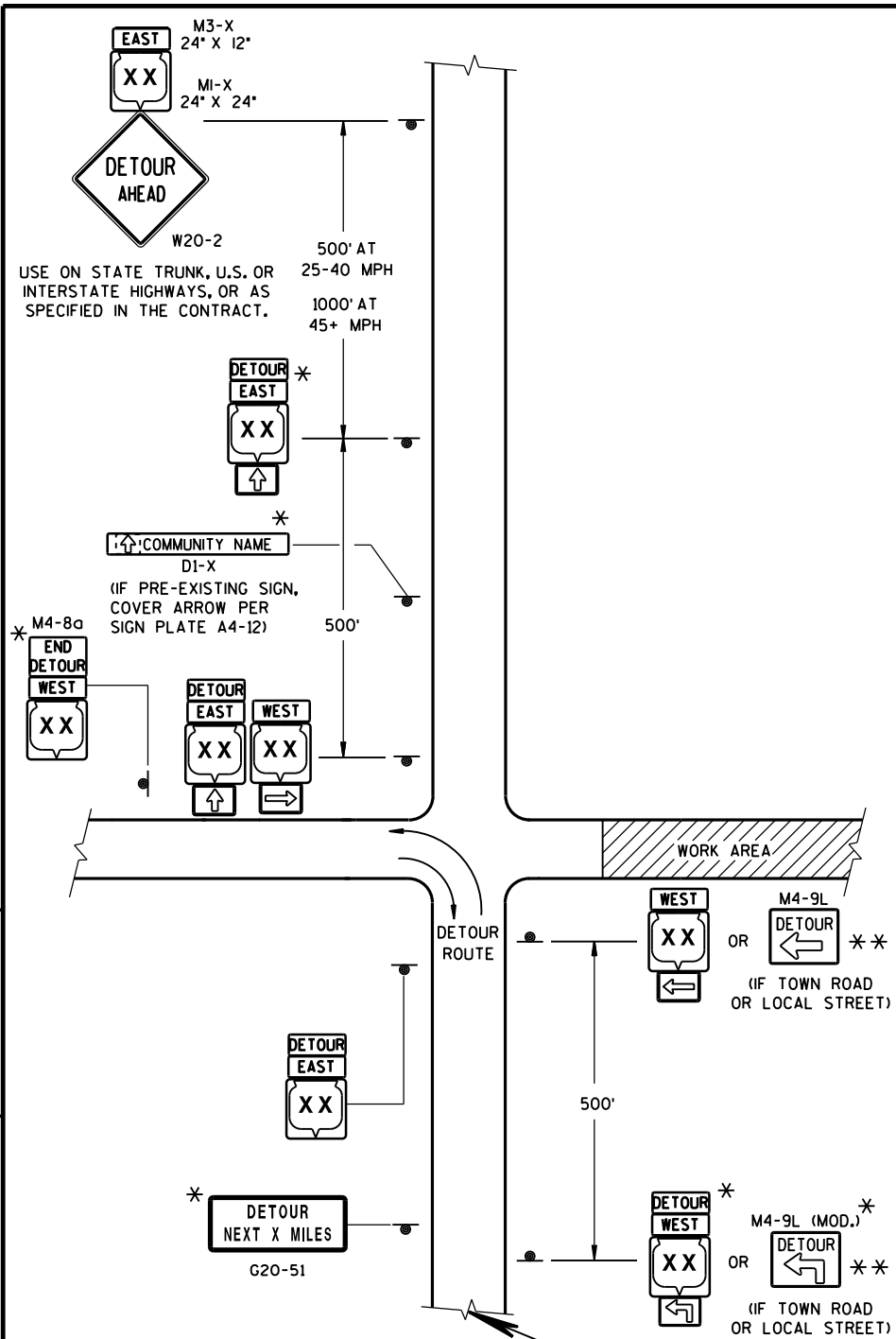
R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



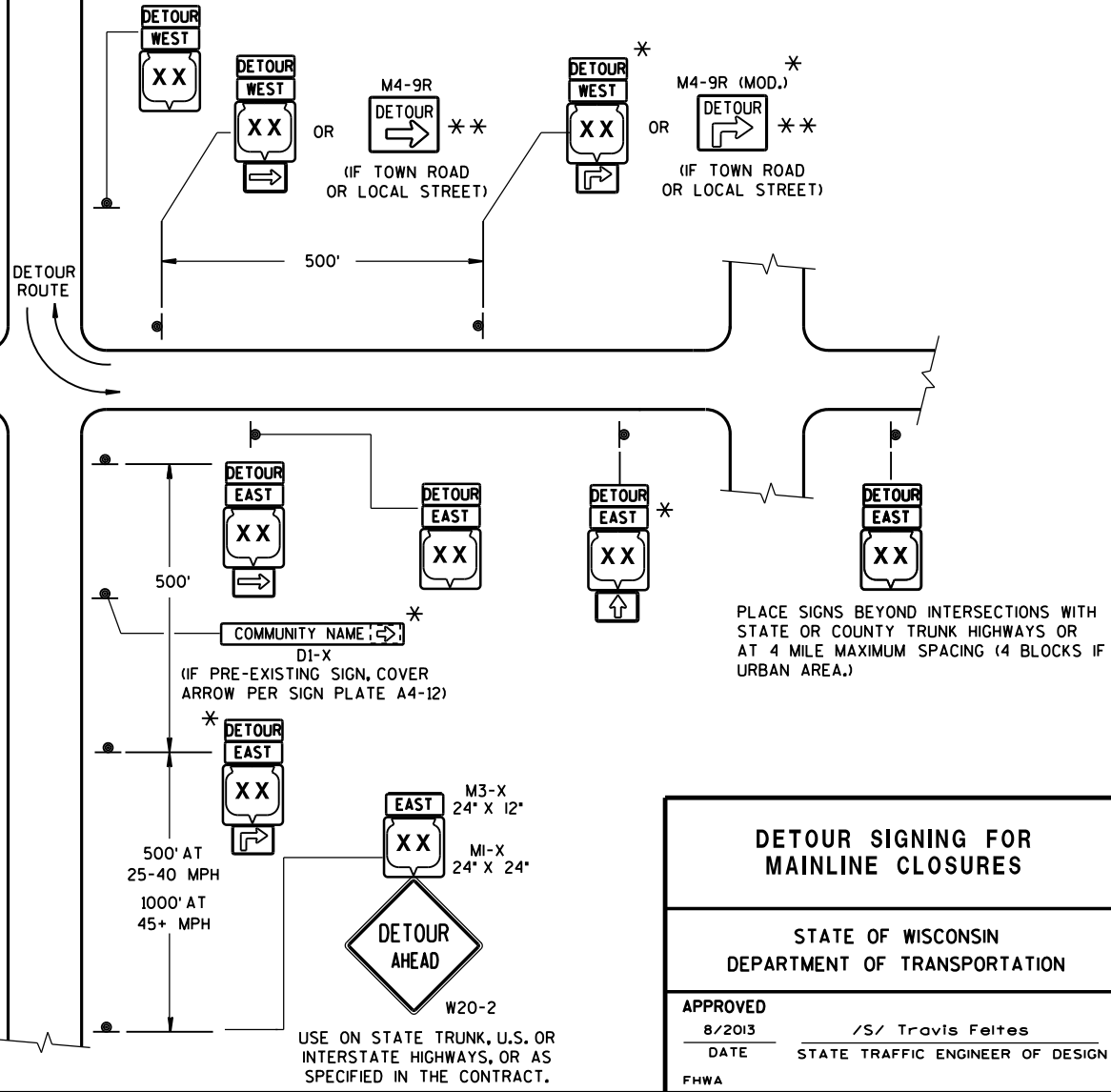
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

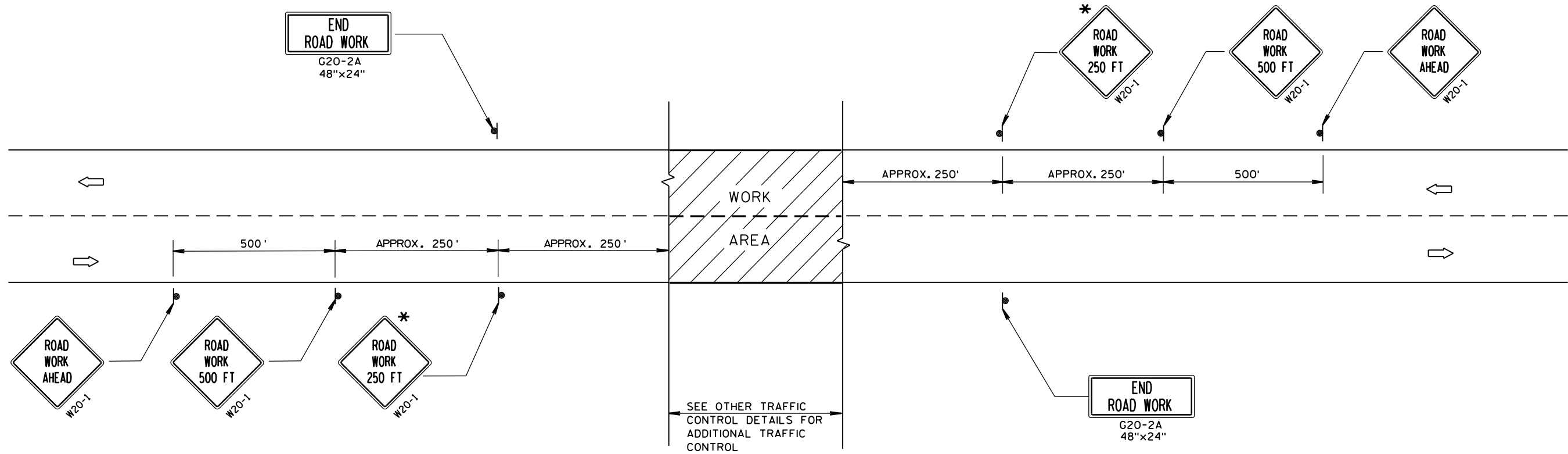
DETAIL F
DETOUR SIGNING

GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- 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.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOWS:
 - M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

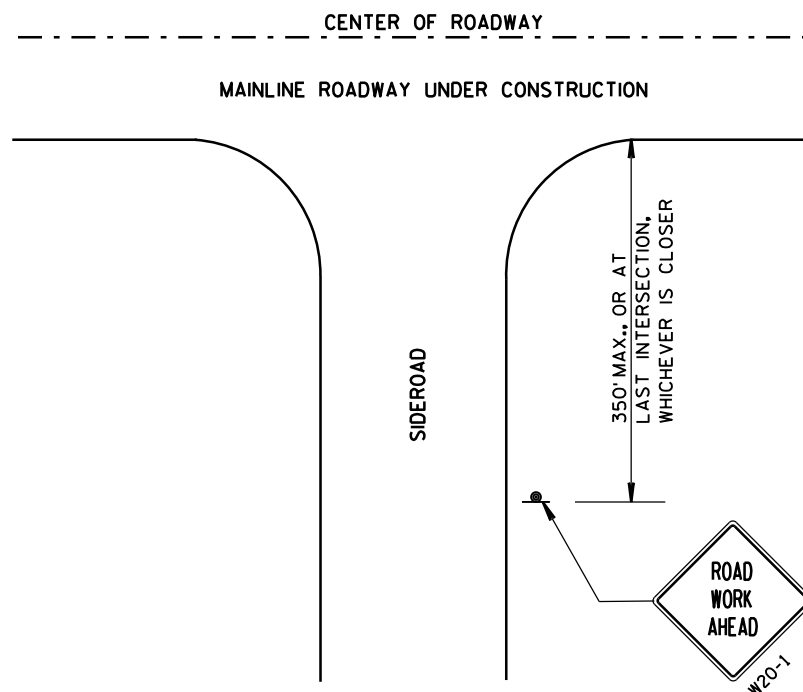
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



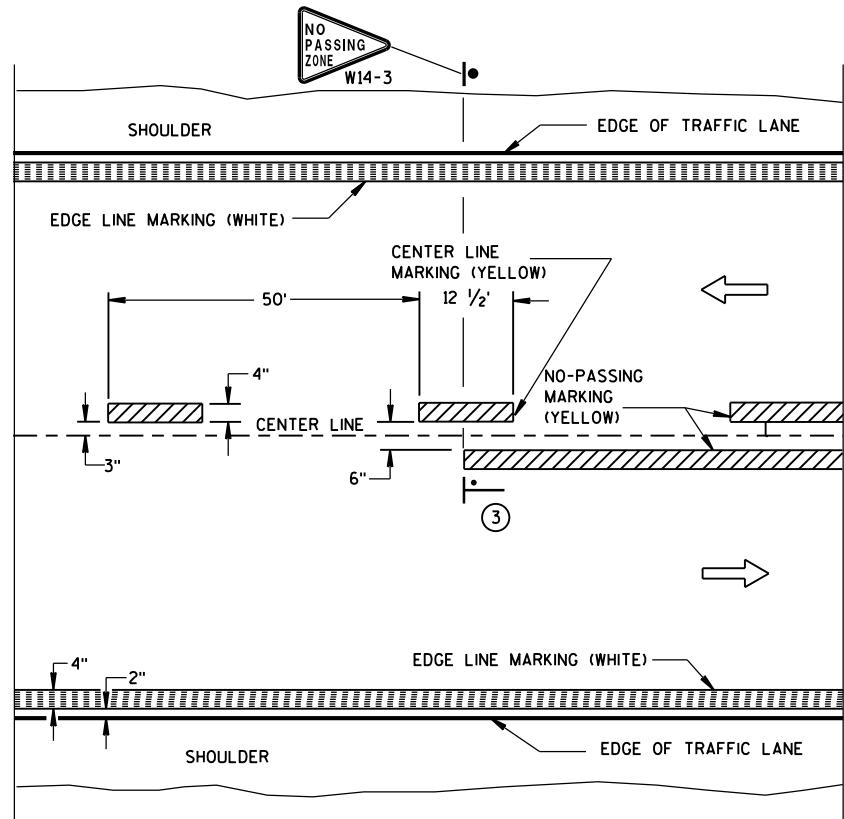
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

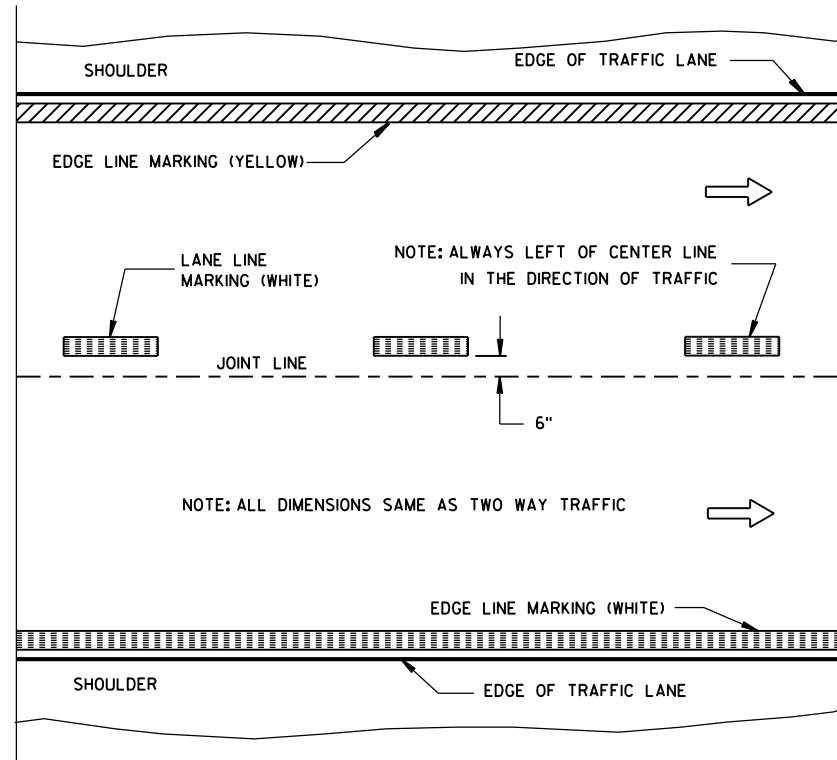
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

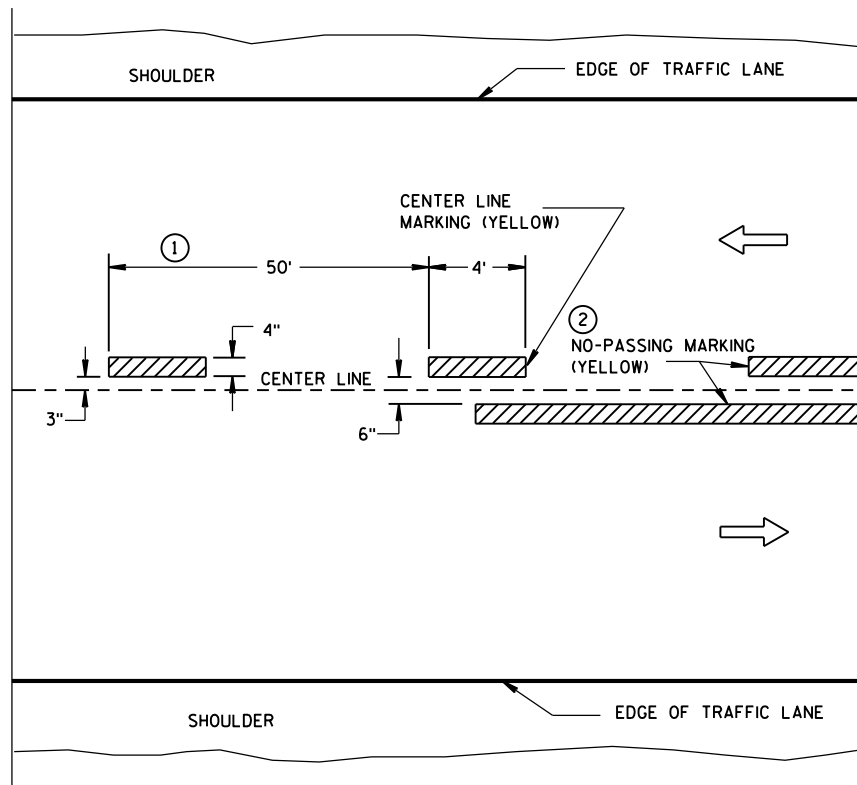


TWO WAY TRAFFIC

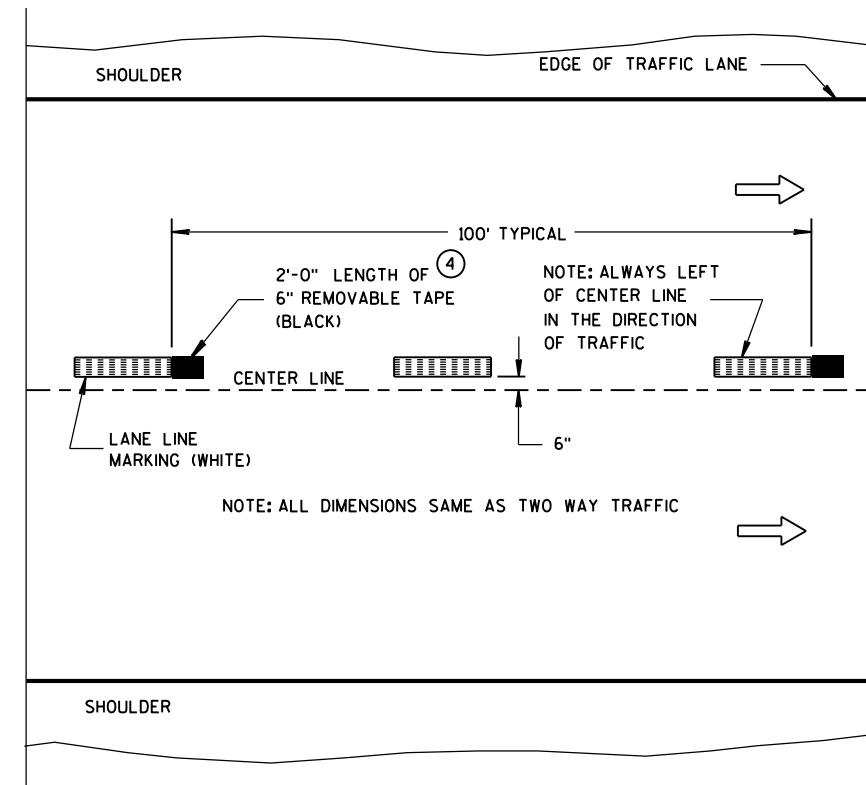


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

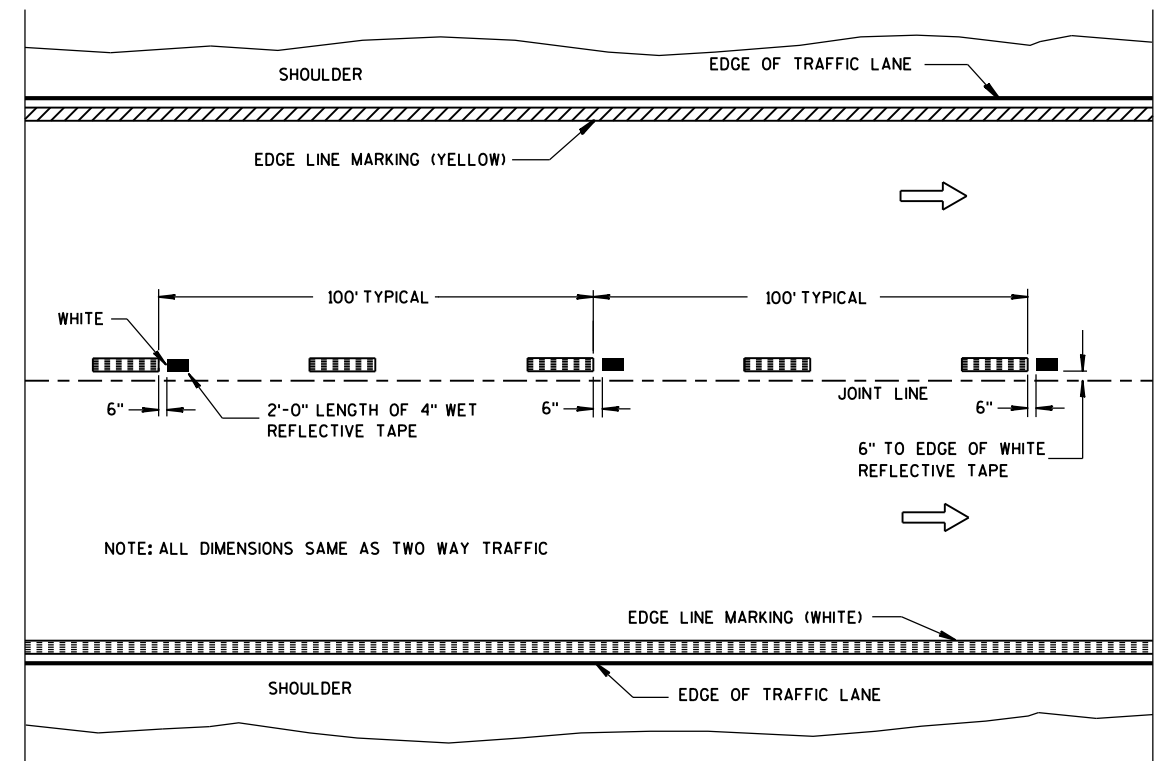
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

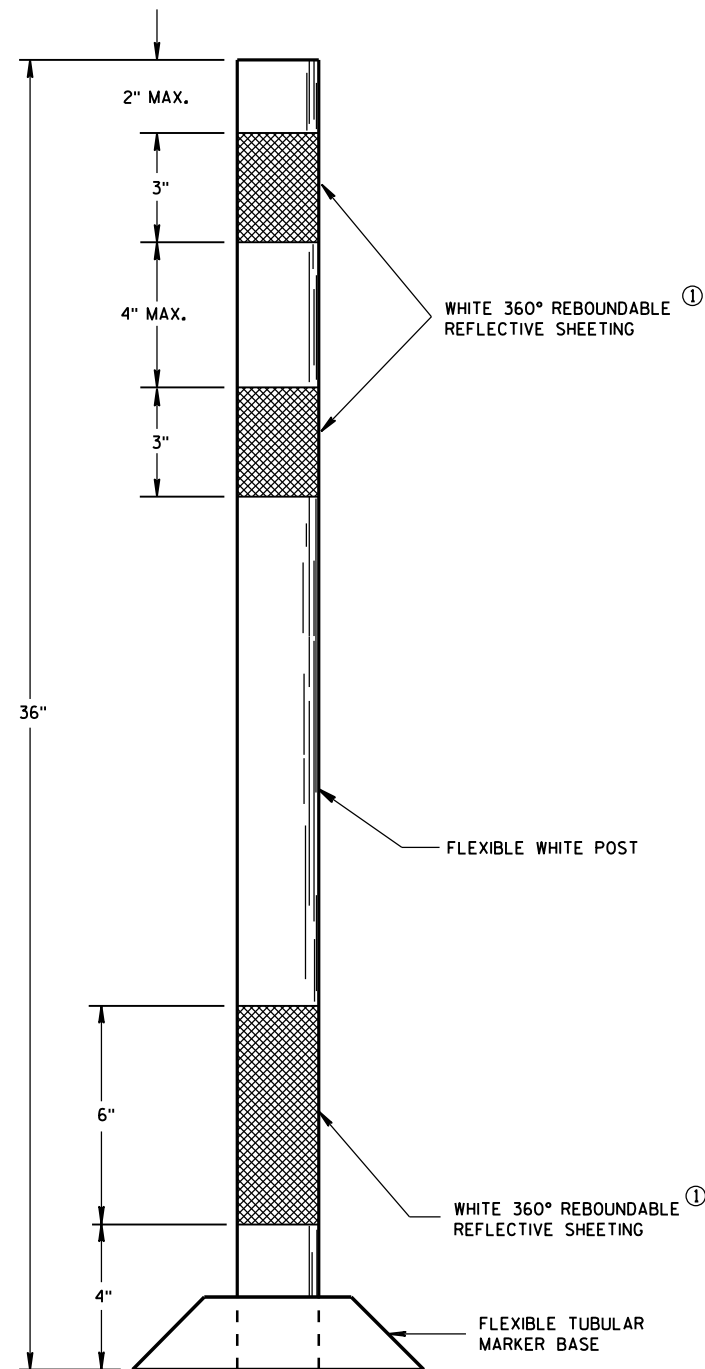
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

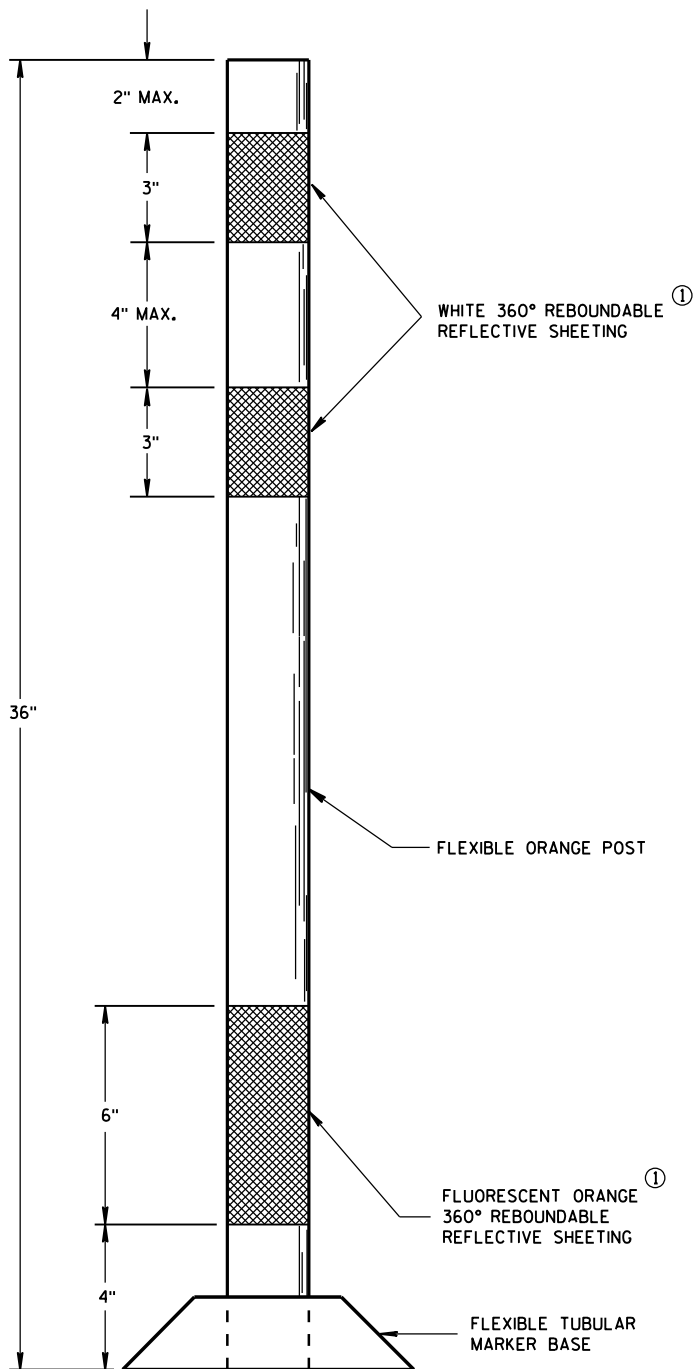
PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



**FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER**



**FLEXIBLE
TUBULAR MARKER POST
WORK ZONE**

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

FLEXIBLE TUBULAR MARKER POST	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

LEGEND

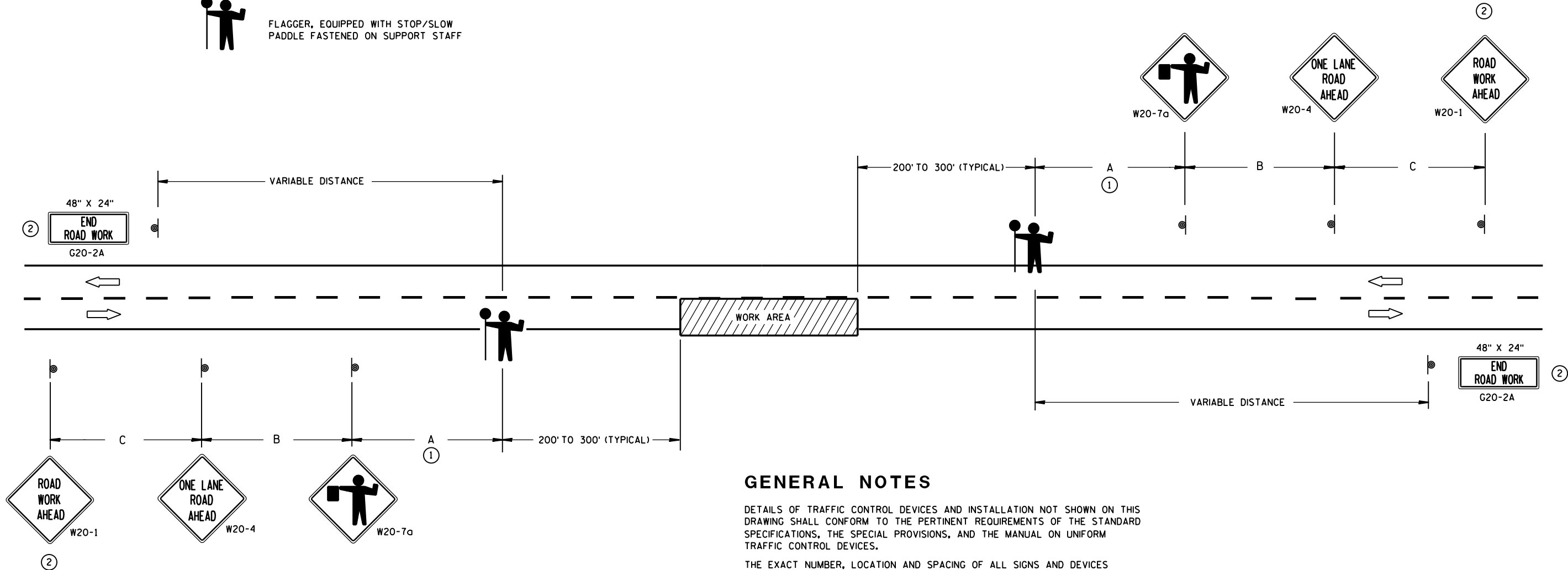
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



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.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

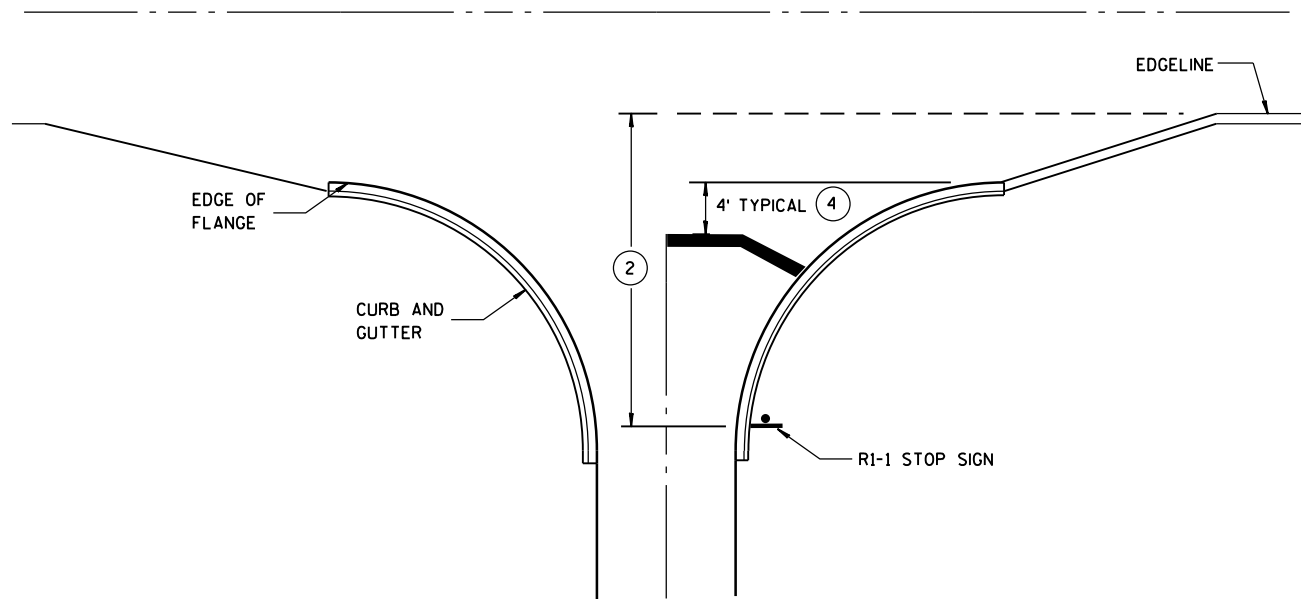
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

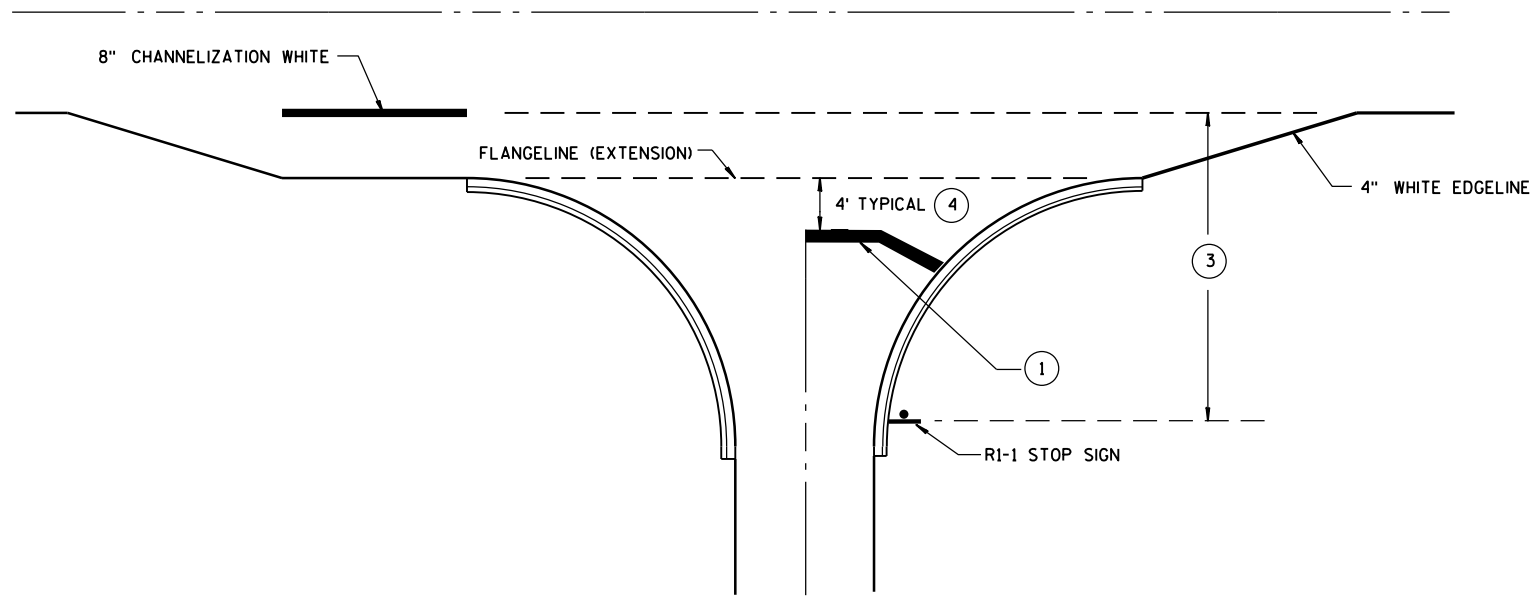
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

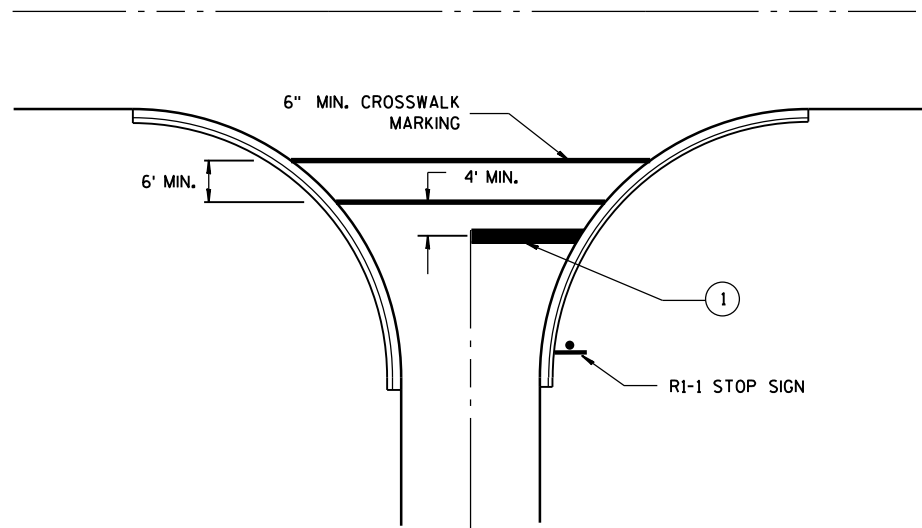
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



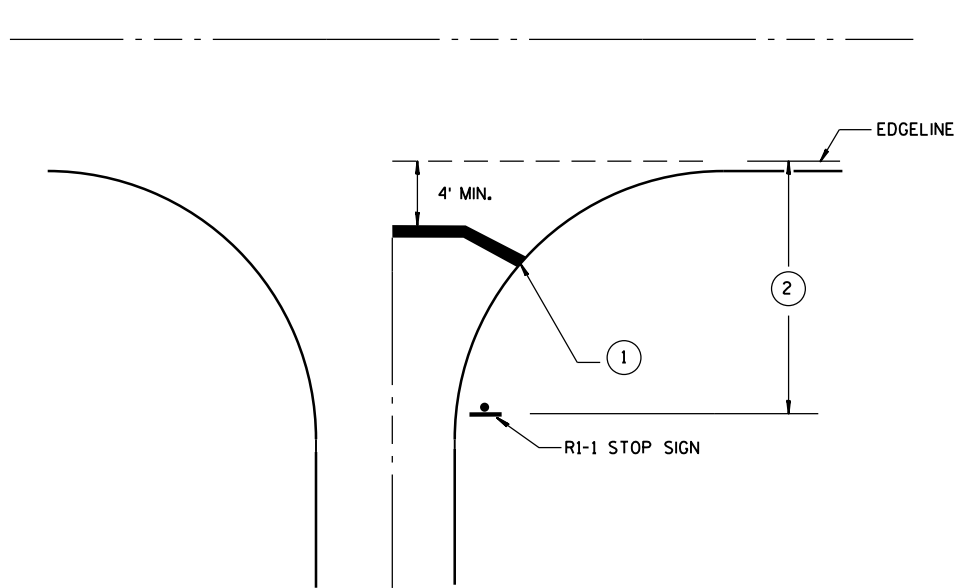
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

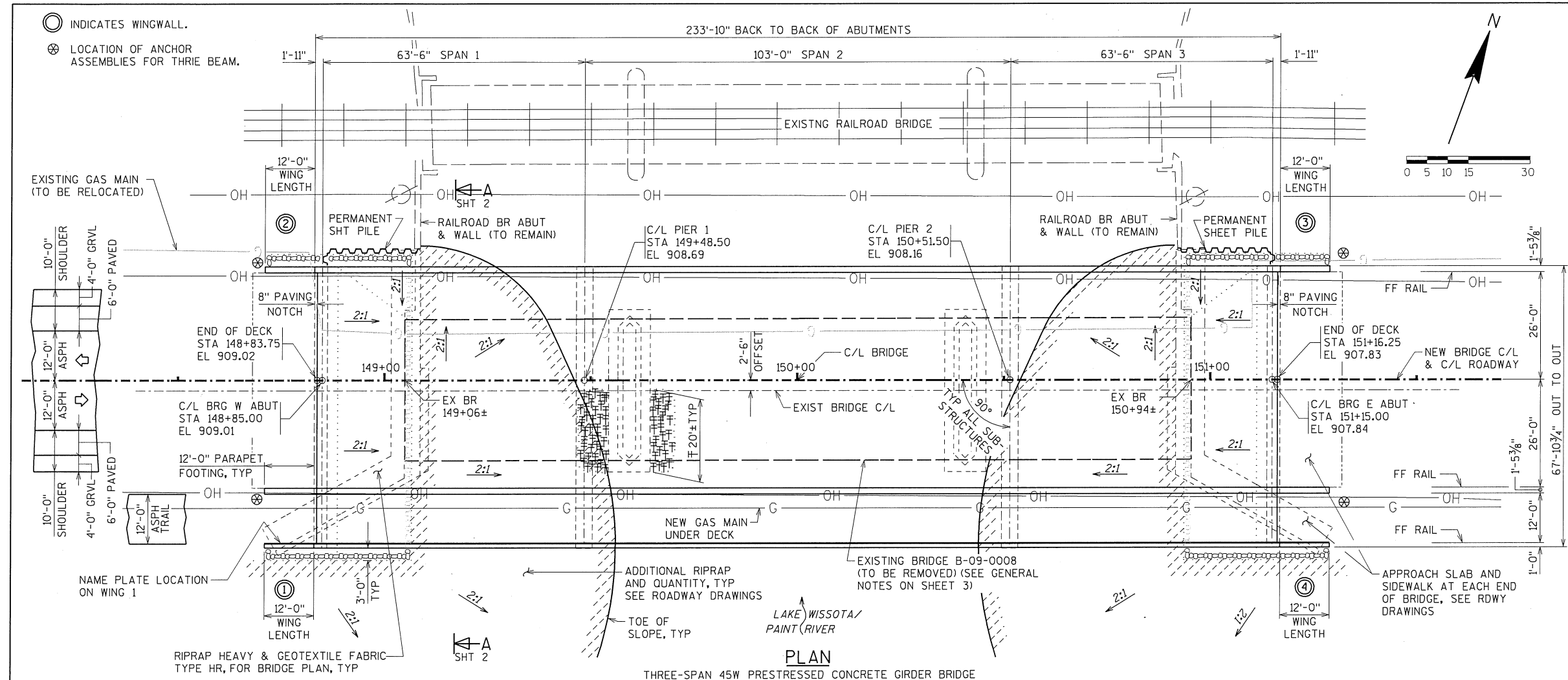
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE /S/ Travis Feltz
STATE TRAFFIC ENGINEER
FHWA

PLOT TIME: 6:43:24 AM
PLOT DATE: 9/29/2015

FILE NAME : S:\MVC\Chiph\1672\A\5-Final-dsgn\51-drwings\20-Struct\Brdge\B03280.dgn

8



DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.11
OPERATING RATING FACTOR: RF = 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 210 KIPS
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF
INVENTORY AND OPERATING RATINGS DO NOT INCLUDE FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY - SLAB $f'c = 4,000$ psi
- ALL OTHER (GRADE A) $f'c = 3,500$ psi
HIGH STRENGTH BAR STEEL REINFORCEMENT
AASHTO GRADE 60 $f_y = 60,000$ psi
PRESTRESSED CONCRETE GIRDER (45") CONCRETE $f'c = 8,000$ psi
STRANDS, 0.6 DIA ULTIMATE TENSILE STRENGTH $F_y = 270,000$ psi

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 80-FEET LONG AT EACH ABUTMENT.

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

PIERS TO BE SUPPORTED ON 30-INCH DIAMETER X 0.625-INCH WALL DRIVEN OPEN END PILES WITH A REQUIRED DRIVING RESISTANCE OF 380 TONS PER PILE AS DETERMINED BY PILE DRIVING ANALYZER. THE FACTORED AXIAL RESISTANCE OF THE PIER PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTORED OF 0.65. SEE SPECIAL PROVISIONS FOR PILE DRIVING ANALYZER. ESTIMATED 85-FEET LONG AT EACH PIER.

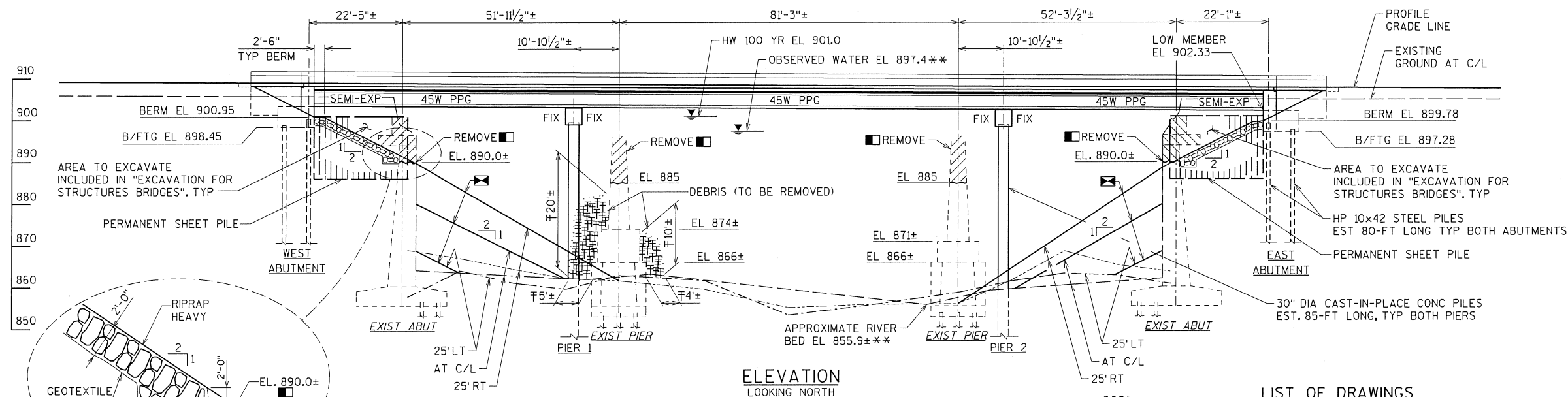
TRAFFIC DATA

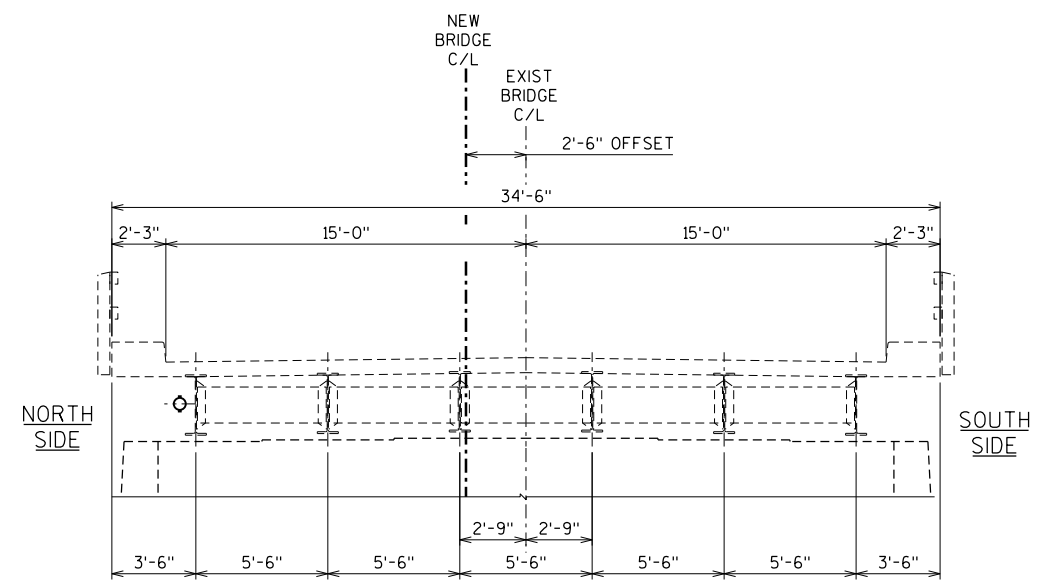
ADT (2014) = 8300
ADT (2034) = 10400
DHV = 13.6 %
D = 59/41
T = 3.8 %
DESIGN SPEED = 45 MPH

HYDRAULIC DATA

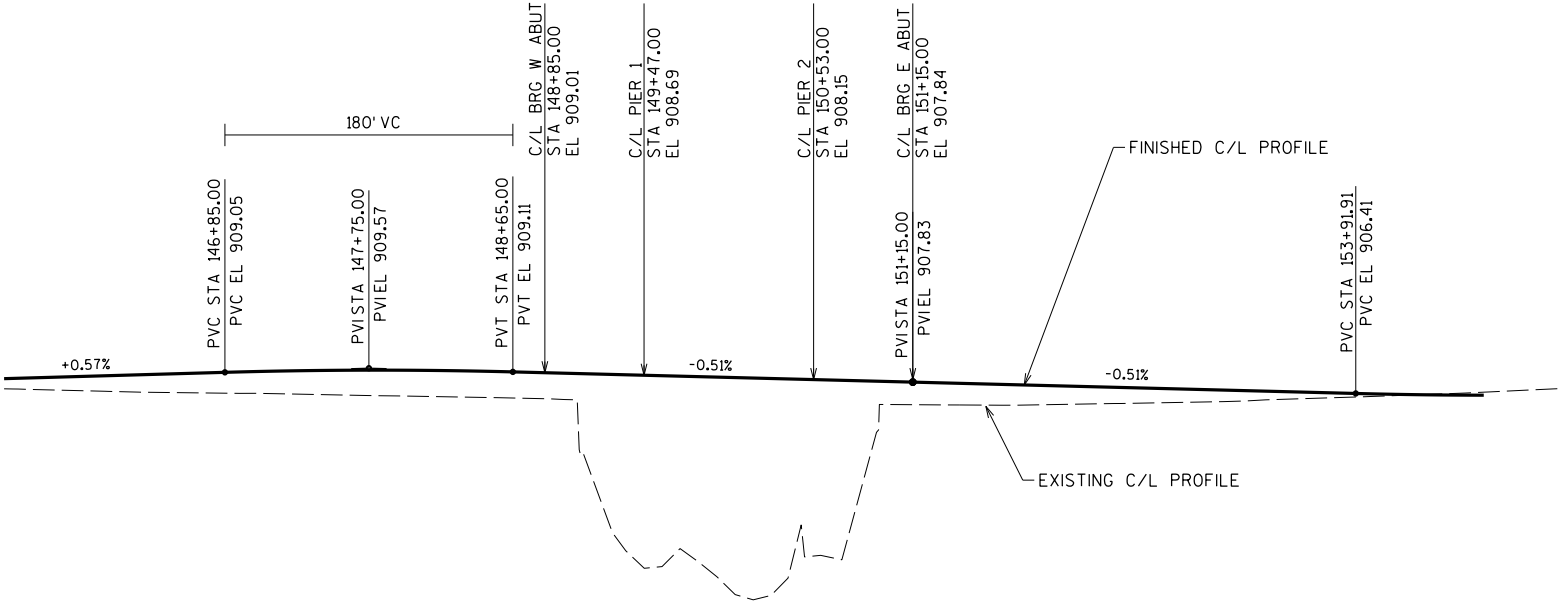
100 YEAR FREQUENCY
HIGH WATER EL 901.0 FT
WATERWAY AREA 5715 SQ FT
DRAINAGE AREA 65.9 SQ MI
SCOUR CODE = 5
WATER ELEVATION IS CONTROLLED BY THE HYDRO DAM. NORMAL DAY-TO-DAY OPERATING ELEVATION IS 897.1

SEH CONTACT: GREG WEYANDT, PE, 715.720.6266
WISDOT BRIDGE OFFICE CONTACT:
BILL DREHER, PE, 608.266.8489





NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
STRUCTURE B-9-280					
		DRAWN BY DLF		PLANS CK'D. NCK	
TYPICAL CROSS SECTIONS				SHEET 2 OF 26	



PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES - B-9-280

	BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT	E. ABUT	PIER 1	PIER 2	SUPER.	TOTAL
⑧	203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY (STATION) 150+00	LS	-	-	-	-	-	1
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) B-9-280	LS	-	-	-	-	-	1
	210.0100	BACKFILL STRUCTURE	CY	272	272	-	-	-	544
② ①	502.0100	CONCRETE MASONRY BRIDGES	CY	56	56	91	91	666	960
④	502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	2134	2134
	503.0146	PRESTRESSED GIRDER TYPE 145W-INCH	LF	-	-	-	-	1844	1844
	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	4,460	4,460	-	-	-	8920
③ ①	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1,250	1,250	15,940	15,940	124,840	159,220
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	48	48
	506.4000	STEEL DIAPHRAGMS (STRUCTURE) B-9-280	EACH	-	-	-	-	28	28
⑤	512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	375	375	-	-	-	750
	512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	375	375	-	-	-	750
	513.7020	RAILING STEEL TYPE C4 (STRUCTURE) B-9-280	LS	-	-	-	-	1	1
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	16	16	-	-	-	32
	550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	960	960	-	-	-	1920
	SPV.0060.01	PILE DRIVING ANALYZER	EACH	-	-	3	3	-	6
⑥	SPV.0090.01	PILING CIP CONCRETE DELIVERED AND DRIVEN 30 X 0.625-INCH	LF	-	-	510	510	-	1020
	606.0300	RIPRAP HEAVY	CY	140	140	-	-	-	280
⑦	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	40	40	-	-	-	80
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	79	79	-	-	-	158
	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	-	-	4	4
	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	280	280	-	-	-	560
		NON-BID ITEMS							
		FILLER	SIZE	-	-	-	-	-	1/2" & 3/4"
		NAME PLATE	EACH	-	-	-	-	-	1
		BENCH MARK	EACH	-	-	-	-	-	1

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

THE WISDOT BUREAU OF STRUCTURES FOUND ORIGINAL 1916 PLANS FOR THE EXISTING BRIDGE B-09-0008, AND PILING IS SHOWN FOR THE SUBSTRUCTURE UNITS ON THOSE PLANS. THE RAILROAD BRIDGE AND B-09-0008 WERE BUILT AT THE SAME TIME. THE ORIGINAL 1916 PLANS FOR THE EXISING BRIDGE B-09-008 ARE AVAILABLE AT CENTRAL OFFICE.

DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON EXISTING ORIGINAL STRUCTURE PLANS, SURVEY AND INSPECTION REPORTS. CONTRACTOR TO VERIFY BEFORE ACCEPTANCE.

STA 10+00 REMOVE EXISTING STRUCTURE B-09-0008, A THREE-SPAN CONCRETE DECK AND STEEL BEAM BRIDGE 185.5-FT LONG x 30'-CLEAR WIDTH.

SEE ROADWAY DRAWINGS FOR EXISTING & PROPOSED UTILITY LOCATIONS.

STATIONING MAY VARY BASED ON EXACT LOCATION OF BRIDGE TO PROPOSED ALIGNMENT.

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

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

ELASTORMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

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

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

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

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION :M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION :M213.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER SHEET.

COAT WITH "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS AND THE SUPERSTRUCTURE DETAILS SHEET.

QUANTITES NOTES:

- ① SUPERSTRUCTURE TOTAL INCLUDES THE PARAPET FOOTINGS AND ALL PARAPETS.
- ② PIER QUANTITY INCLUDES CONCRETE FOR THE 30" DIA PILES.
- ③ PIER QUANTITY INCLUDES BAR STEEL FOR THE 30" DIA PILES.
- ④ FURNISH AND APPLY A PROTECTIVE SURFACE FINISH TREATMENT TO THE ENTIRE TOP OF THE BRIDGE DECK, AND INSIDE FACES AND TOP OF THE CONCRETE PARAPETS.
- ⑤ TOP OF SHEET PILE ELEVATION TO MATCH TOP OF EXISTING WALL AT ONE END AND NEW ABUTMENT BERM AT THE OTHER.
PERMANENT SHEET PILE MINIMUM PROPERTIES:
LENGTH = 15'-0"
MOMENT OF INERTIA (I) = 80 IN⁴/FT
SECTION MODULUS (S) = 18 IN³/FT
WEB THICKNESS = 0.350 INCHES
STEEL YIELD POINT Fy = 50 KSI
- ⑥ PILE TO BE PAINTED IN ACCORDANCE WITH STANDARD SPECIFICATION.
- ⑦ INCLUDES RODENT SHIELD PER SDD 8F6-4.
- ⑧ REMOVAL BY USE OF EXPLOSIVES WILL NOT BE PERMITTED.

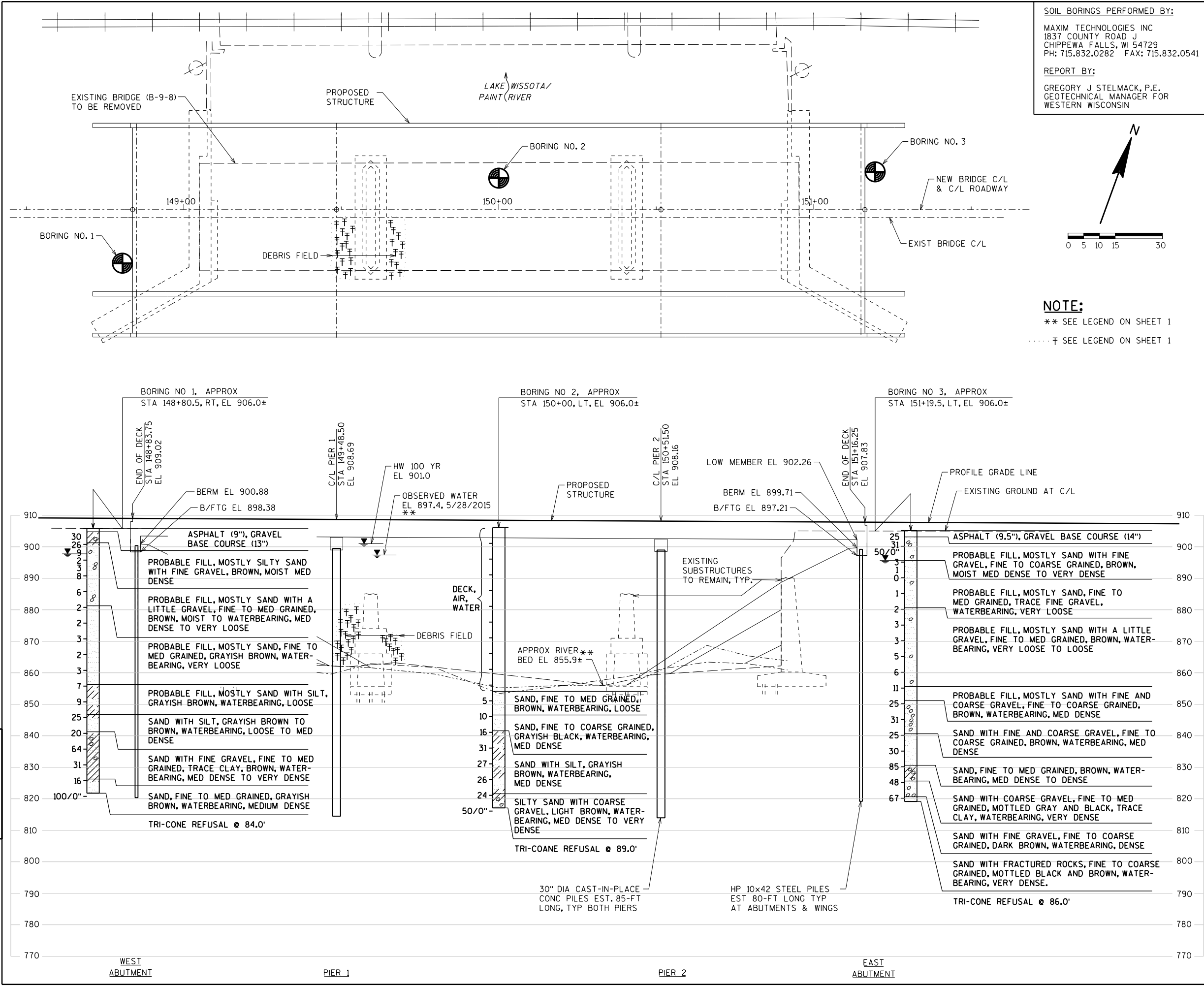
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
		DRAWN BY DLF	PLANS CK'D. NCK
PROFILE GRADE, QUANTITIES AND GENERAL NOTES			SHEET 3 OF 26

PLOT TIME: 10/17/23 AM

PLOT DATE: 9/10/2015

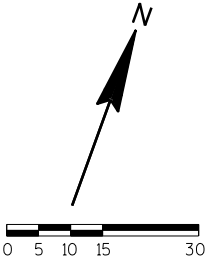
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8



SOIL BORINGS PERFORMED BY:
MAXIM TECHNOLOGIES INC
1837 COUNTY ROAD J
CHIPPEWA FALLS, WI 54729
PH: 715.832.0282 FAX: 715.832.0541

REPORT BY:
GREGORY J. STELMACK, P.E.
GEOTECHNICAL MANAGER FOR
WESTERN WISCONSIN



NOTE:
** SEE LEGEND ON SHEET 1
... SEE LEGEND ON SHEET 1

STATE PROJECT NUMBER			
8919-03-72			
ABBREVIATIONS			
F — FINE	M — MEDIUM	C — COARSE	
WS — WEATHERED	SO — SOUND		
MATERIAL SYMBOLS			
TOPSOIL	SILT	SANDSTONE	
SAND	PEAT	LIMESTONE	
GRAVEL	CLAY	IGNEOUS ROCK	
LEGEND OF PROBING			
PROBING NO. STA. ELEVATION 7 AVERAGE BLOWS PER FOOT REFUSAL 95/6			
95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.			
LEGEND OF BORING			
ELEV. BORING NO. STA. SANDY GRAVEL F. BOULDERS OR COBBLES SAND SILTY CLAY SO LIMESTONE			
UNCONFINED STRENGTH 7.7 BLOWS PER FT. USING 140# WT. FALLING 30" WASH SAMPLE SHELBY TUBE — S.T. GROUND WATER ELEVATION NO GROUND WATER OBSERVED ABOVE THIS ELEVATION			
UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.			
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION			
TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
SUBSURFACE EXPLORATION (MAXIM TECHNOLOGIES INC)		SHEET 4 OF 26	

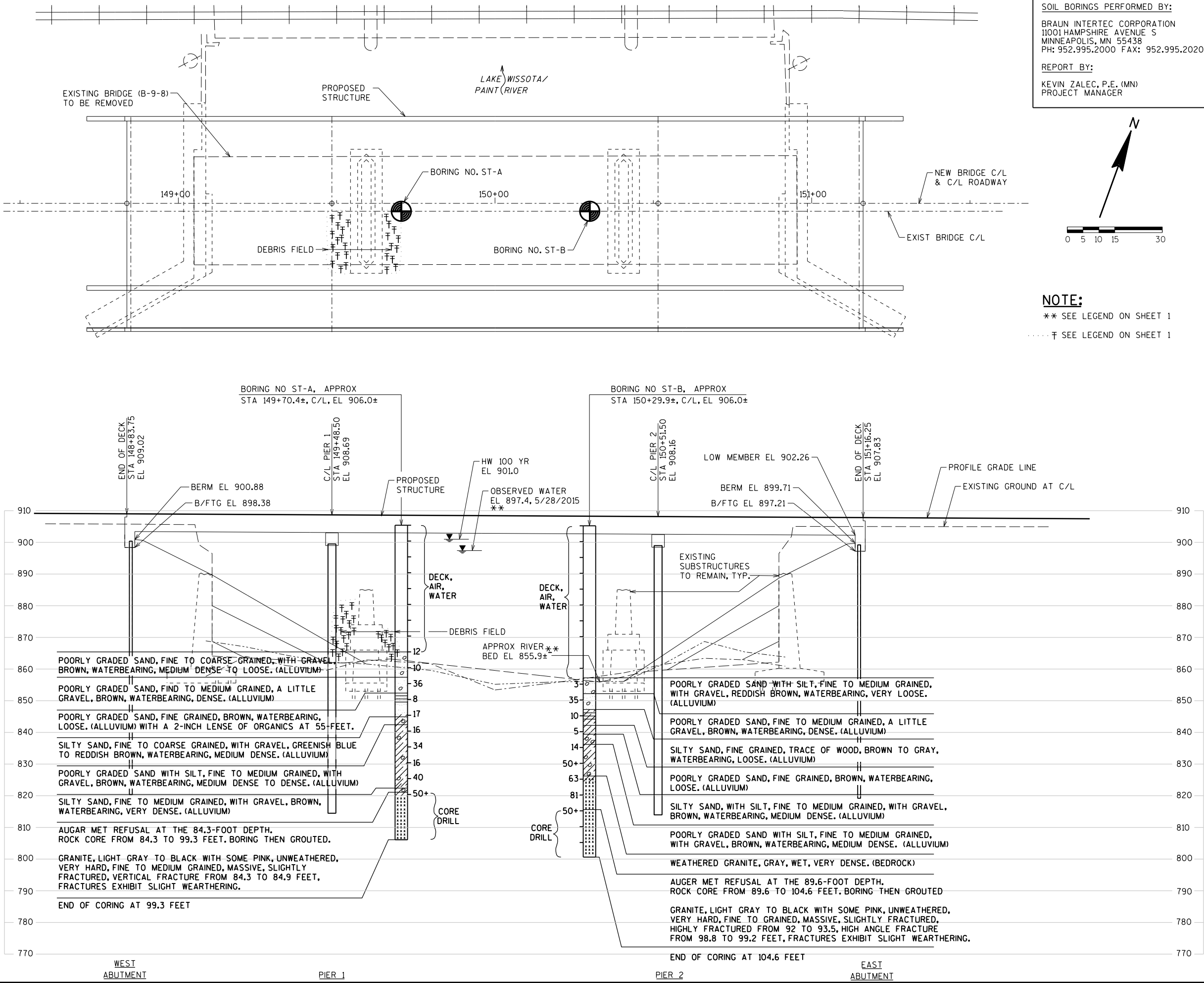
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PLOT DATE: 9/10/2015

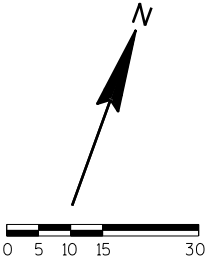
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8



SOIL BORINGS PERFORMED BY:
BRAUN INTERTEC CORPORATION
11001 HAMPSHIRE AVENUE S
MINNEAPOLIS, MN 55438
PH: 952.995.2000 FAX: 952.995.2020

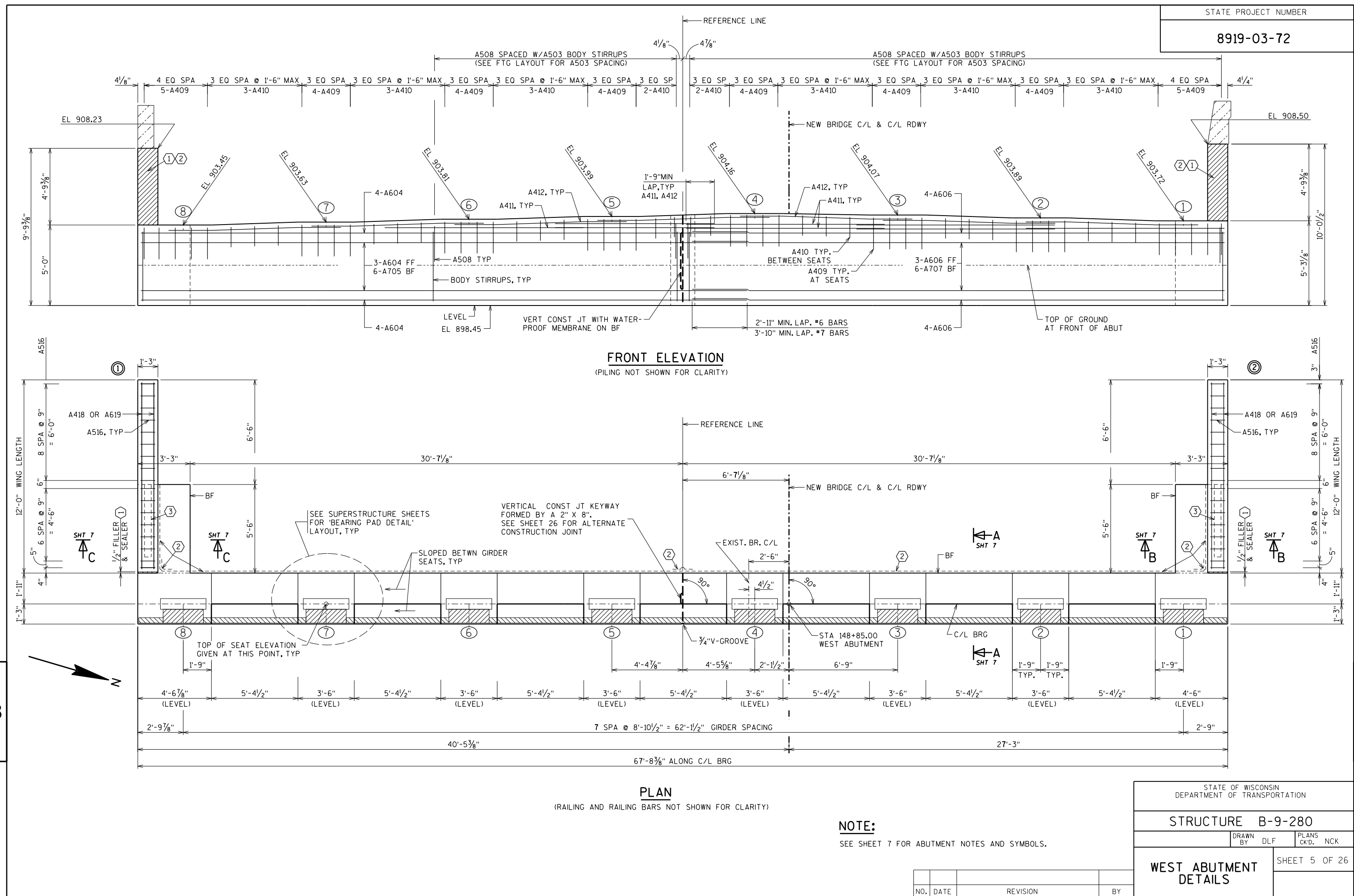
REPORT BY:
KEVIN ZALEC, P.E. (MN)
PROJECT MANAGER

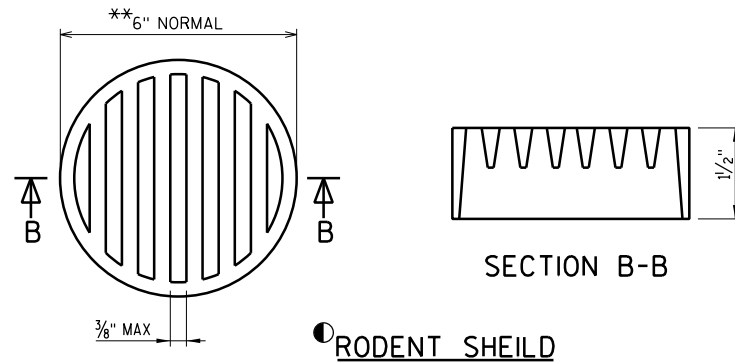


NOTE:
** SEE LEGEND ON SHEET 1
SEE LEGEND ON SHEET 1

STATE PROJECT NUMBER			
8919-03-72			
ABBREVIATIONS			
F — FINE	M — MEDIUM	C — COARSE	
WS — WEATHERED	SO — SOUND		
MATERIAL SYMBOLS			
TOPSOIL	SILT	SANDSTONE	
SAND	PEAT	LIMESTONE	
GRAVEL	CLAY	IGNEOUS ROCK	
LEGEND OF PROBING			
PROBING NO.			
STA.			
ELEVATION			
7 AVERAGE BLOWS PER FOOT			
REFUSAL 95/6			
95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.			
LEGEND OF BORING			
ELEV.			
BORING NO. STA.			
UNCONFINED STRENGTH → 7.7			
BLOWS PER FT. USING 140# WT. FALLING 30"			
WASH SAMPLE			
SHELBY TUBE — S.T.			
GROUND WATER ELEVATION			
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION			
SANDY GRAVEL			
F. BOULDERS OR COBBLES			
SAND			
SILTY CLAY			
SO			
LIMESTONE			
UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.			
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION			
TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
SUBSURFACE EXPLORATION (BRAUN INTERTEC CORPORATION)		SHEET 4A OF 26	

8

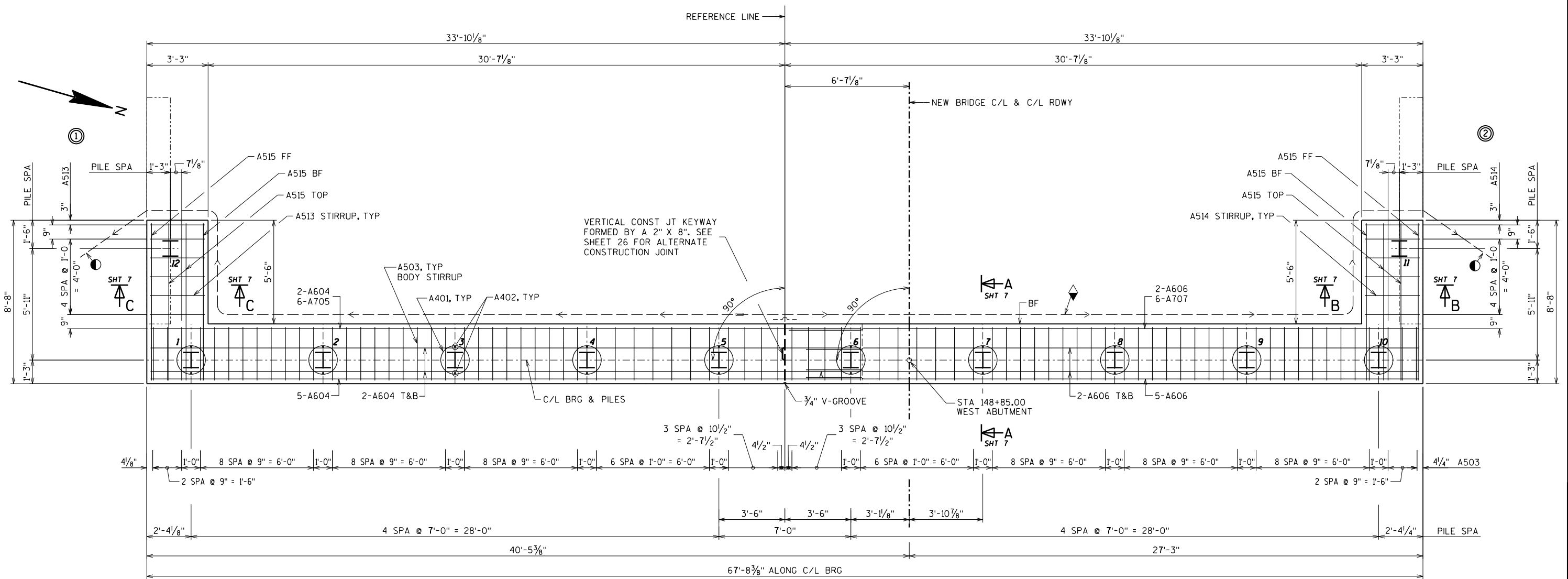




**NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETIAL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT 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.



FOOTING LAYOUT

NOTE:

SEE SHEET 7 FOR ABUTMENT NOTES AND SYMBOLS.

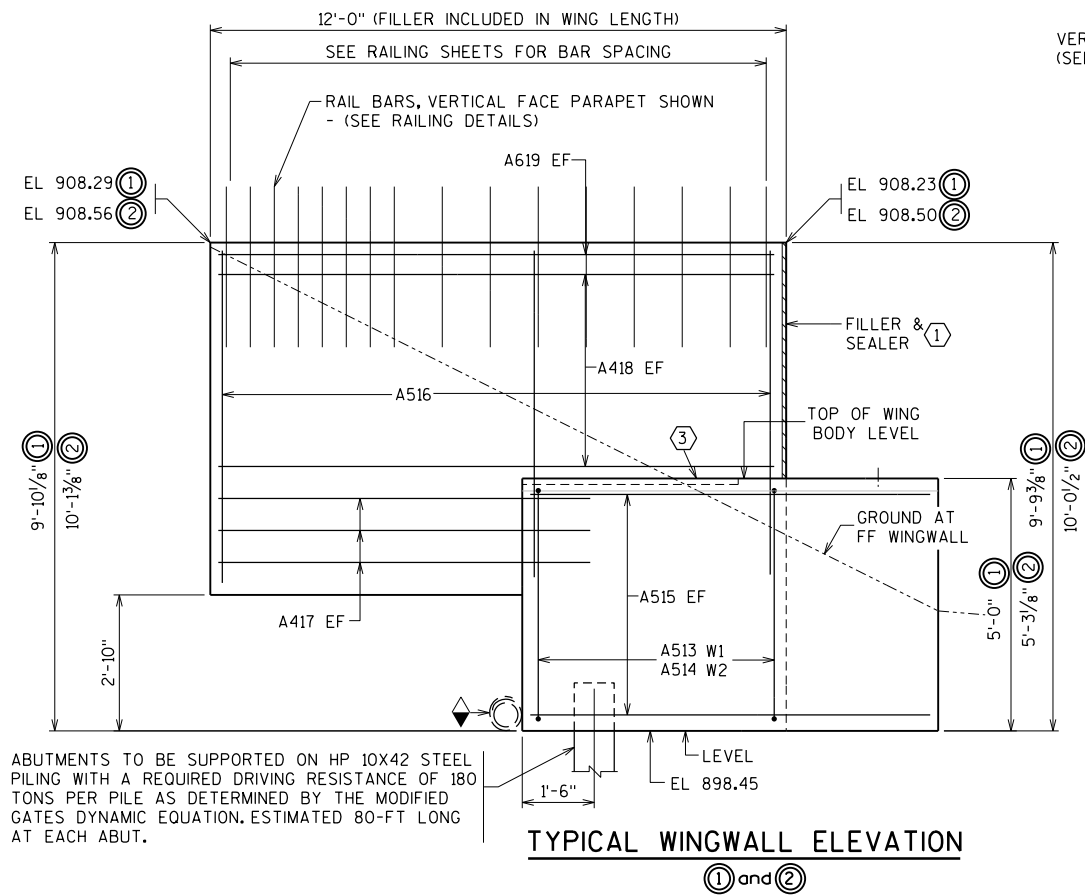
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
WEST ABUTMENT DETAILS			SHEET 6 OF 26

FILE NAME : S:\M\EC\Chipr\16724\5-final-dsgn\5-drawings\20-Structure\bridge\09280a2.dgn

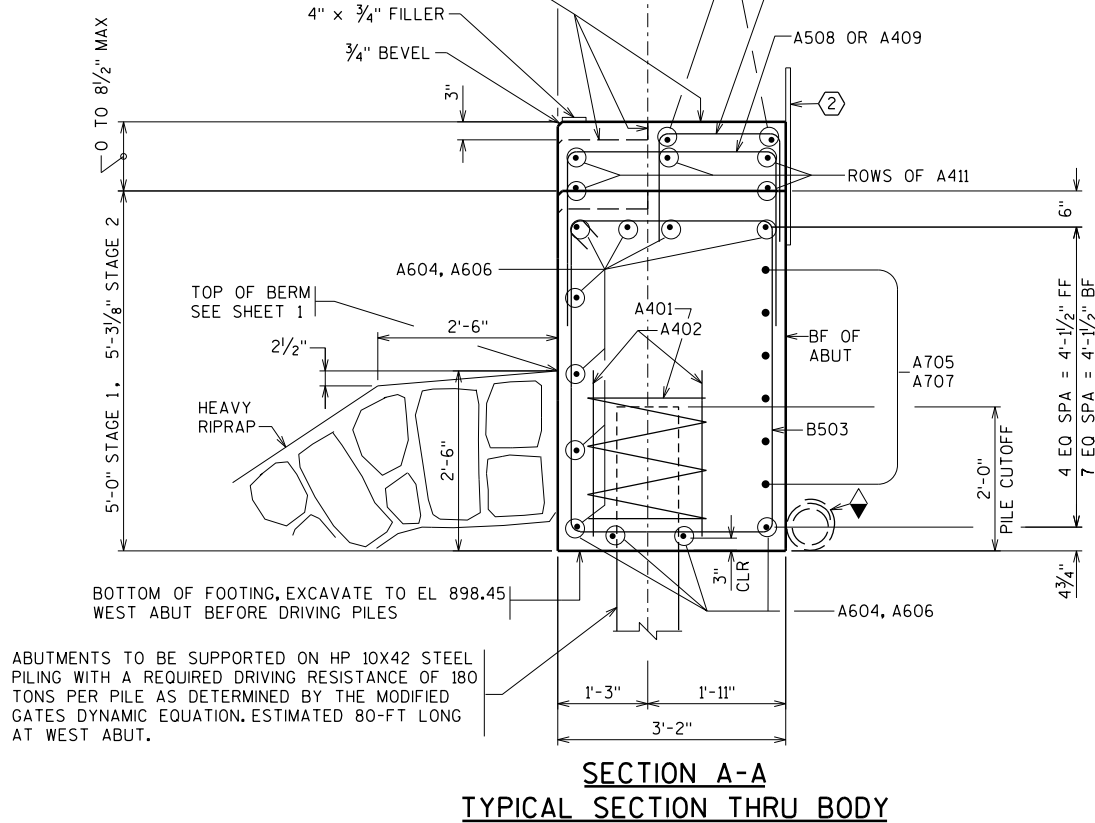
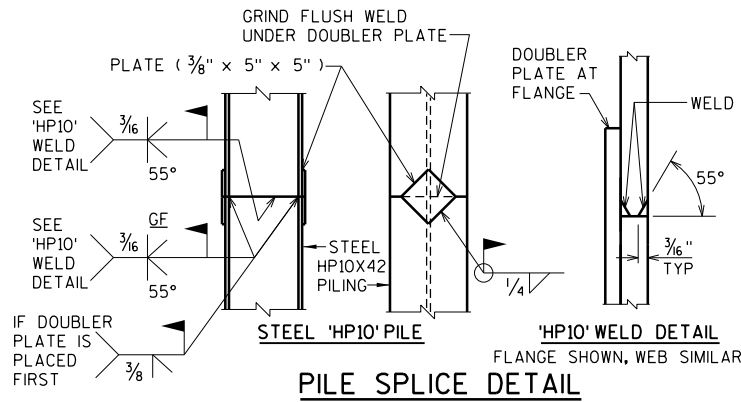
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PLOT TIME: 10:17:25 AM

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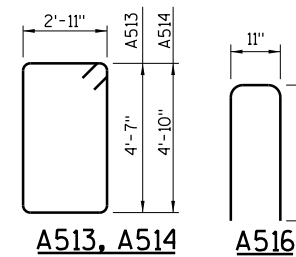
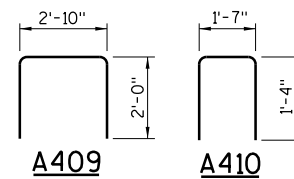
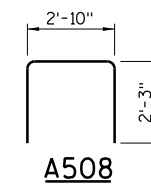
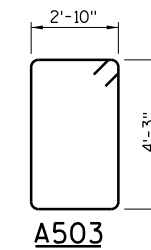
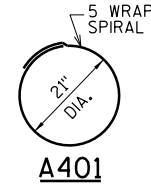


STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"



SECTION C-C
①

SECTION B-B
②



ABUTMENT NOTES & SYMBOLS

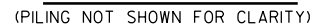
- SEAL ALL EXPOSED HORIZ. AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE). FILLER INCLUDED IN WING LENGTH.
 - 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ & VERT JOINTS ON BACK- FACE. VERTICAL WATER-PROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING.
 - KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6". 3/4" V-GROOVE ON FRONT FACE OF WINGWALL.
- ◆ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN BEHIND ABUTMENT BODY AND WINGS. PIPE UNDERDRAIN UNPERFORATED TO BE PLACED OUTSIDE WINGS.
- = GIRDER LINE 1 THRU 8
UN = UNLESS SHOWN OR NOTED OTHERWISE
FF = FRONT FACE
BF = BACK FACE
EF = EACH FACE
T = TOP
B = BOTTOM
T&B = TOP AND BOTTOM
⊙ INDICATES WINGWALL

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE ENGLISH BAR DIAMETER SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS						WEST ABUTMENT
BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
A401		10	28 - 0		X	BODY AT PILES
A402		20	2 - 3			BODY AT PILES
A503		82	14 - 9		X	BODY STIRRUPS
A604		11	37 - 10			BODY HORIZ
A705		6	37 - 10			BODY HORIZ BF
A606		11	32 - 6			BODY HORIZ
A707		6	33 - 5			BODY HORIZ BF
A508		59	7 - 1		X	BODY TOP TIE
A409		34	6 - 8		X	BODY TOP TIE
A410		22	4 - 1		X	BODY TOP TIE
A411		24	12 - 4			BODY TOP HORIZ
A412		14	10 - 8		X	BODY TOP HORIZ
A513	X	6	15 - 7		X	WING BODY STIRRUPS
A514	X	6	16 - 1		X	WING BODY STIRRUPS
A515	X	30	8 - 4			WING BODY HORIZ
A516	X	34	14 - 2		X	WING WALL VERT
A417	X	12	7 - 11			WING WALL HORIZ
A418	X	20	11 - 7			WING WALL HORIZ
A619	X	4	11 - 7			WING WALL HORIZ TOP

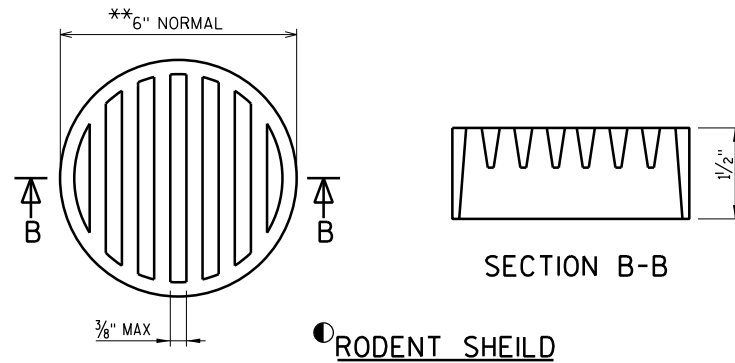
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
WEST ABUTMENT DETAILS			SHEET 7 OF 26

8



SEE SHEET 10 FOR ABUTMENT NOTES AND SYMBOLS.

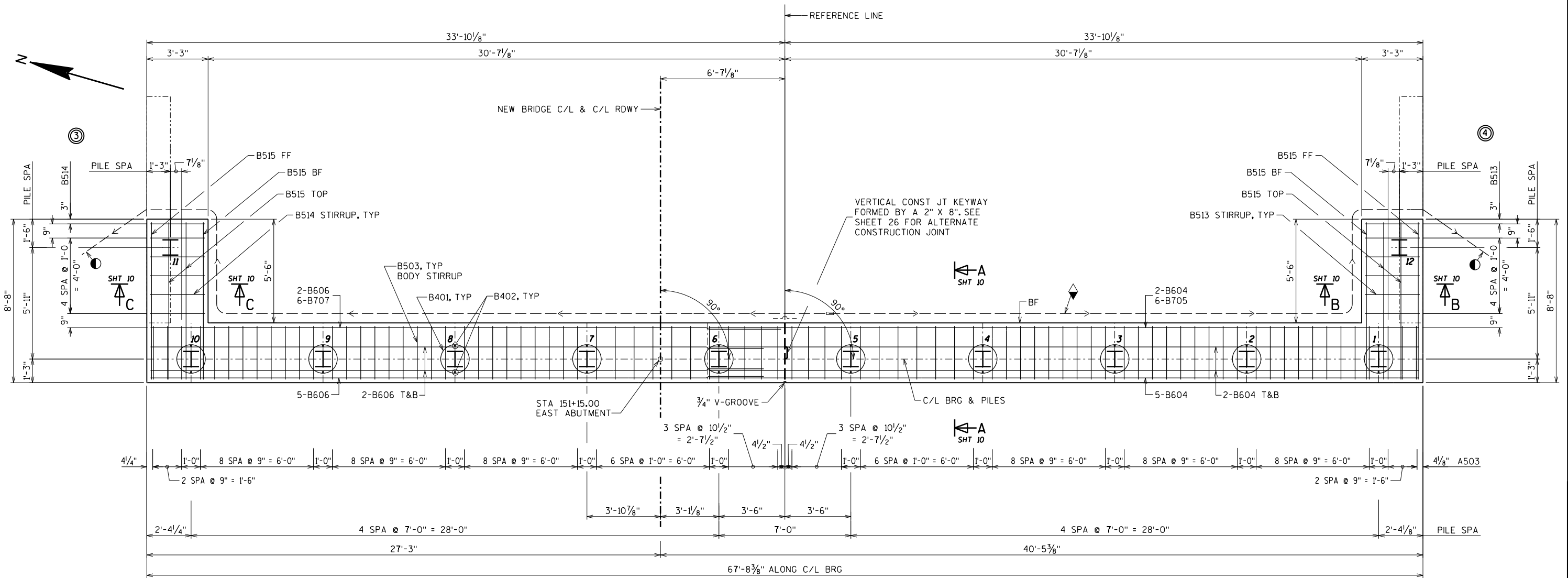
SHEET 8 OF 26



**NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

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

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETIAL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT 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.



FOOTING LAYOUT

NOTE:

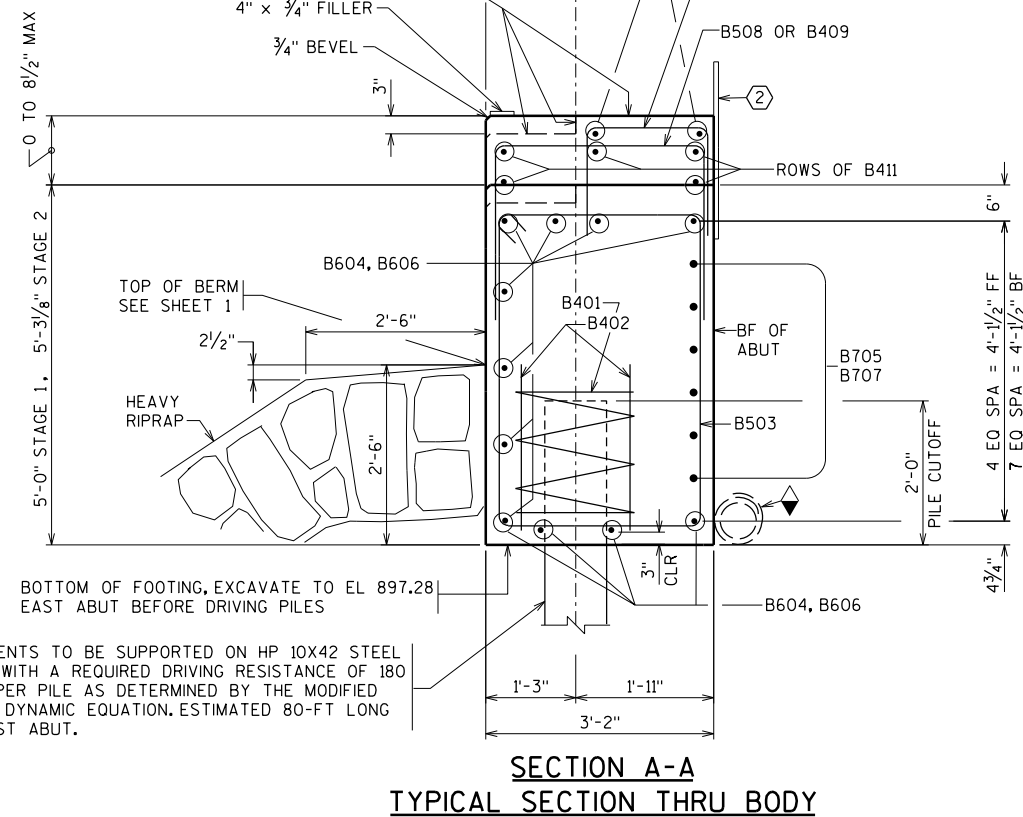
SEE SHEET 10 FOR ABUTMENT NOTES AND SYMBOLS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
EAST ABUTMENT DETAILS			SHEET 9 OF 26

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

Technical drawings of two U-shaped metal components, B410 and B516. B410 has a width of 1'-7" and a height of 1'-4". B516 has a width of 11" and a height of 6'-9". Both are shown in side and end views.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
		DRAWN BY DLF	PLANS CK'D. NCK
EAST ABUTMENT DETAILS		SHEET 10 OF 26	



ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL
PILING WITH A REQUIRED DRIVING RESISTANCE OF 180
TONS PER PILE AS DETERMINED BY THE MODIFIED
GATES DYNAMIC EQUATION. ESTIMATED 80-FT LONG
AT EAST ABUT.

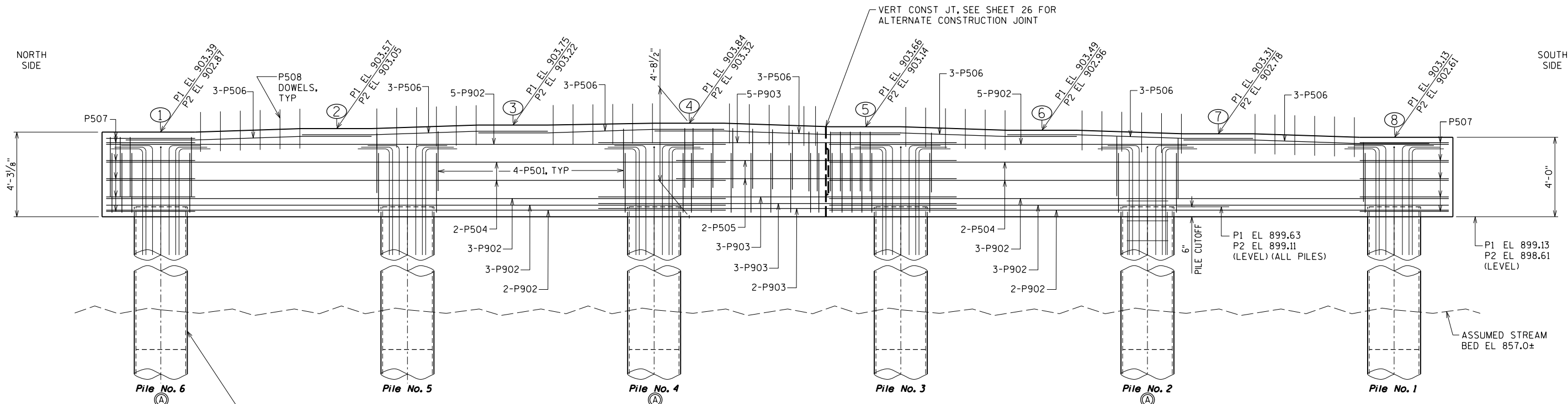
SECTION A-A
TYPICAL SECTION THRU BODY

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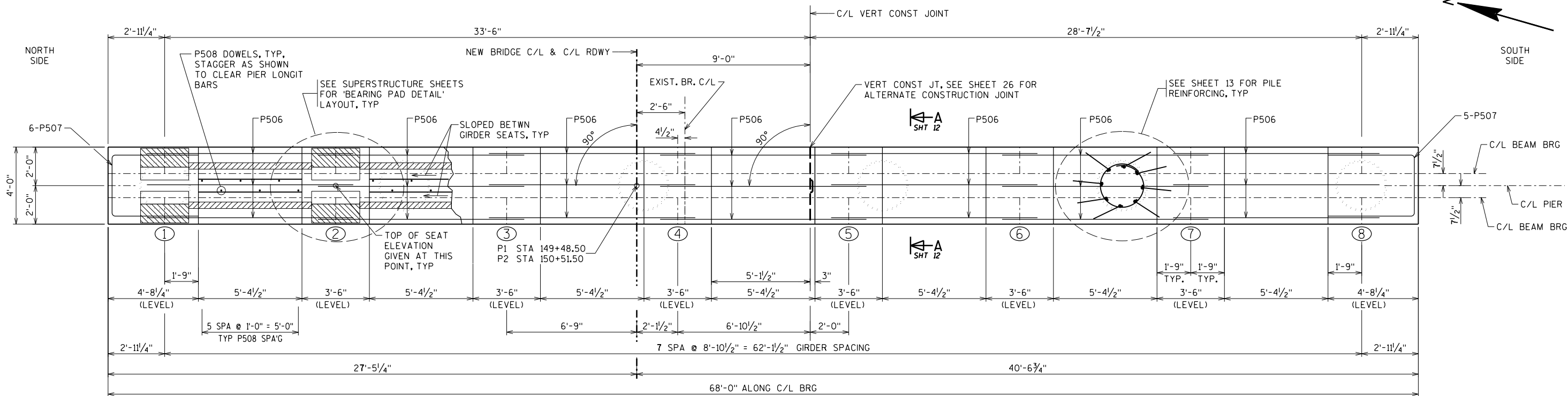
STATE PROJECT NUMBER

8919-03-72



SEE NOTE BELOW FOR PILE DRIVING ORDER

ELEVATION



PLAN TOP

NOTE:

PIER 1 AND PIER 2 ARE IDENTICAL UNLESS SHOWN OR NOTED OTHERWISE.
BEGIN WITH DRIVING PILE 6 (NORTH PILE NEAREST RR BRIDGE) FIRST
AND PROGRESS TO SOUTH WITH EACH SUBSEQUENT PILE.

Ⓐ TEST THIS PILE WITH THE PILE DRIVING ANALYZER.

T = TOP
B = BOTTOM
T&B = TOP AND BOTTOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-9-280

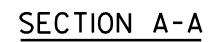
DRAWN BY DLF PLANS CK'D. NCK

PIER 1 & 2
DETAILS

SHEET 11 OF 26

NO.	DATE	REVISION	BY

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```
T = TOP
B = BOTTOM
T&B = TOP AND BOTTOM
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NO.	DATE	REVISION	BY
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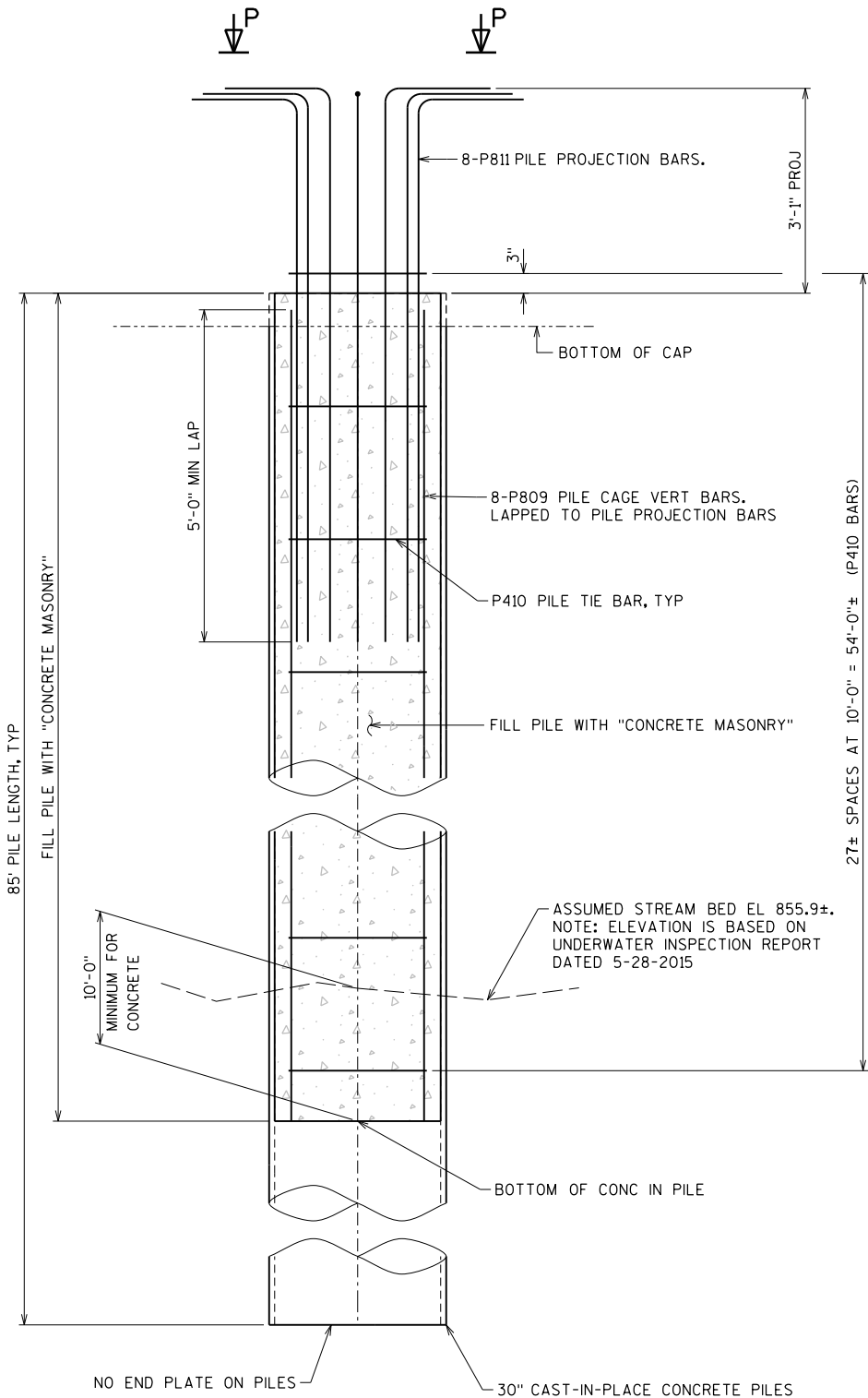
SHEET 12 OF 26

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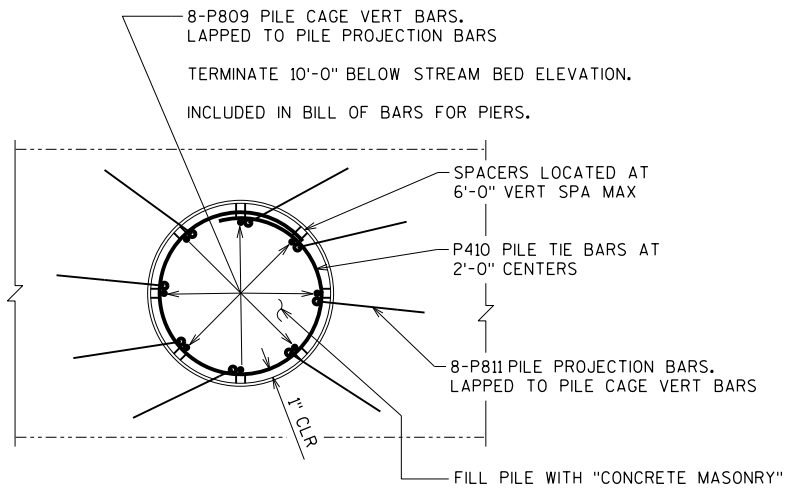
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CAST-IN-PLACE PILE

SECTION P-P
TYP THRU CONCRETE CAST-IN-PLACE PILE

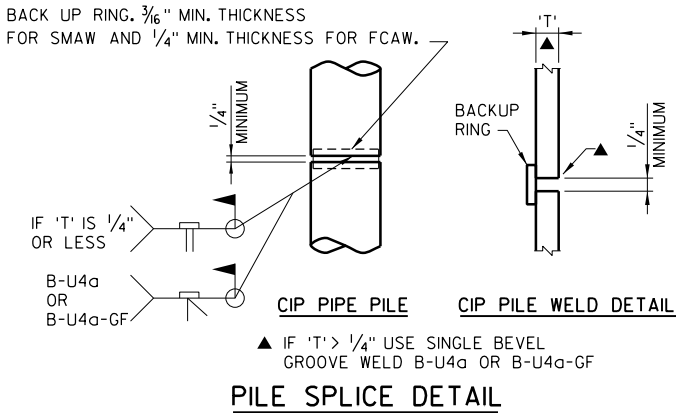
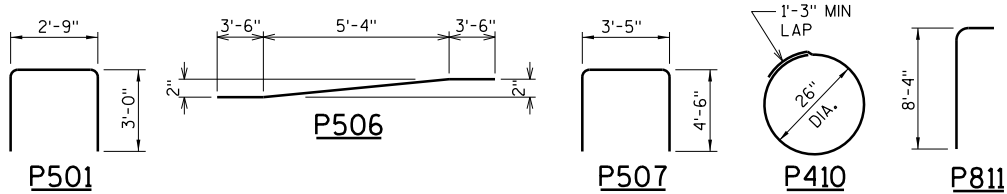


STATE PROJECT NUMBER	
8919-03-72	

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE
ENGLISH BAR DIAMETER SIZE.
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT.

BILL OF BARS							PIER 1 & 2	
BAR MARK	COAT	PIER 1 NO. REQ'D.	PIER 2 NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION	
P501	X	256	256	8 - 9		X	CAP STIRRUP	
P902	X	26	26	31 - 2			CAP HORIZ	
P903	X	13	13	18 - 6			CAP HORIZ	
P504	X	8	8	31 - 2			CAP HORIZ SIDES	
P505	X	4	4	10 - 8			CAP HORIZ SIDES	
① P506	X	21	21	12 - 4		X	CAP TOP HORIZ	
P507	X	11	11	12 - 5		X	CAP ENDS	
P508	X	42	42	2 - 0			DOWEL	
P809	X	48	48	55 - 0			PILE CAGE VERT	
P410	X	168	168	8 - 1		X	PILE TIE	
P811	X	48	48	9 - 11		X	PILE PROJECTION	

① CUT BARS IN THE FIELD TO FIT.



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
STRUCTURE B-9-280	
DRAWN BY DLF	PLANS CK'D. NCK
PIER 1 & 2 DETAILS	
SHEET 13 OF 26	

NO.	DATE	REVISION	BY

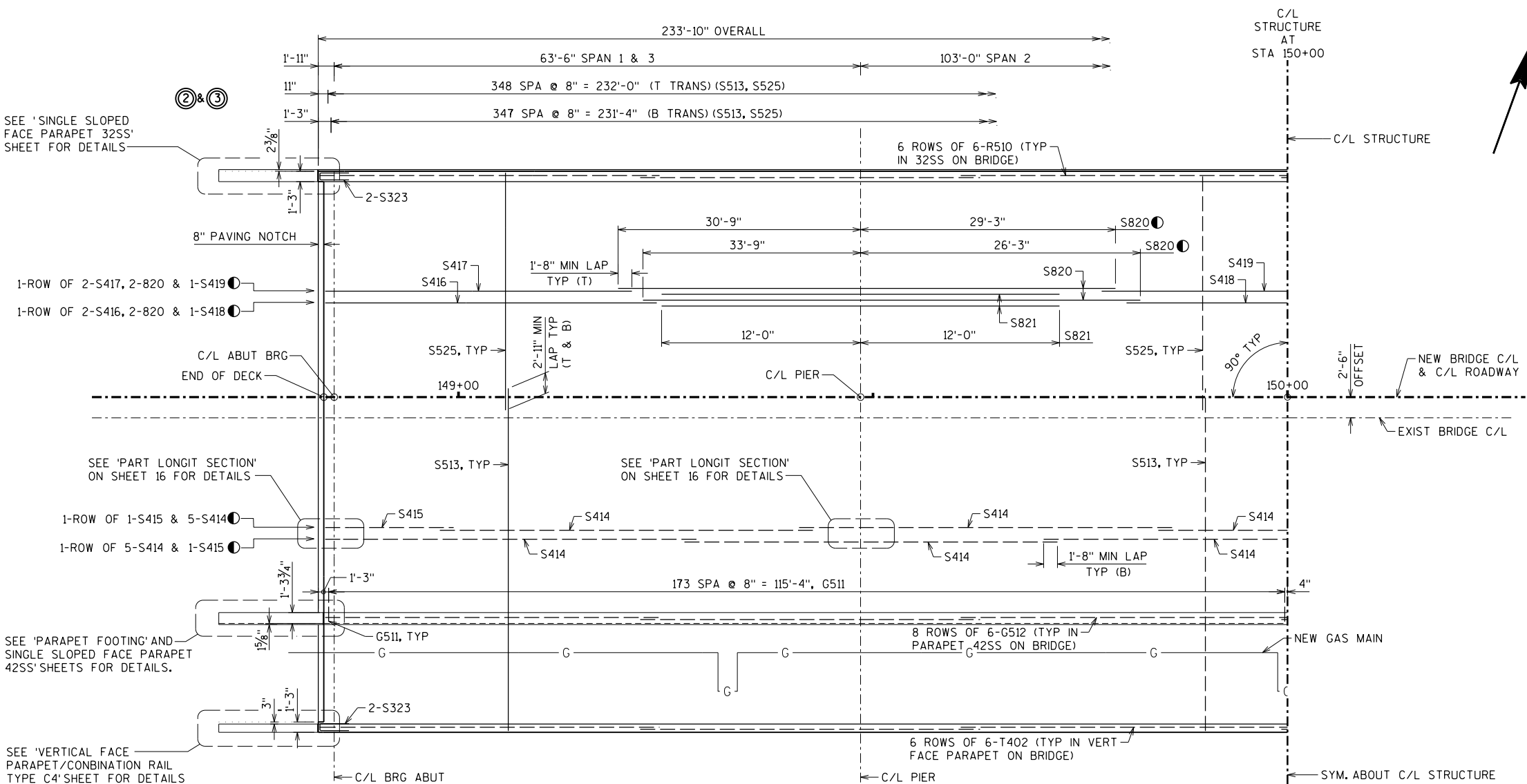
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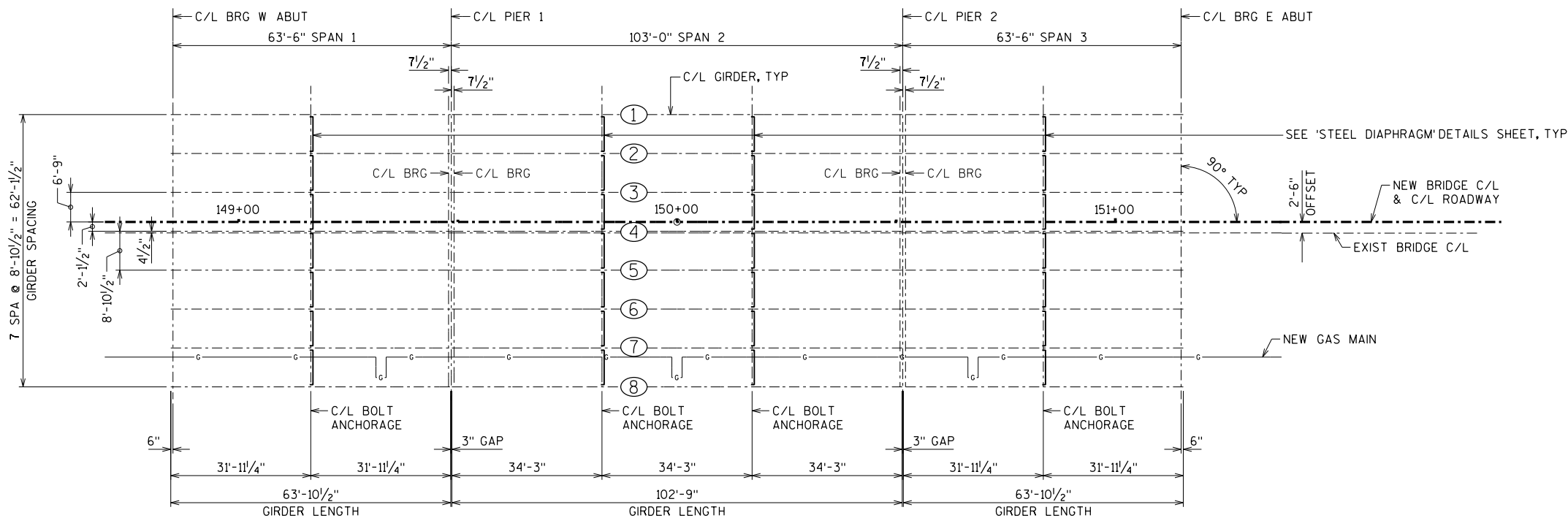
PLOT TIME: 10/7/28 AM

PLOT DATE: 9/10/2015

8



HALF LONGITUDINAL DECK PLAN



FRAMING PLAN

STATE PROJECT NUMBER

8919-03-72

SUPERSTRUCTURE NOTES & SYMBOLS:

BOTTOM TRANSVERSE BAR STEEL SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE END OF THE BOTTOM TRANSVERSE BAR STEEL.

TOP LONGITUDINAL BAR STEEL SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.

FOR PRESTRESSED GIRDER DETAILS SEE SHEET 18 & 19.

FOR STEEL INTERMEDIATE DIAPHRAGM DETAILS SEE SHEET 20.

— INDICATES TOP BAR STEEL REINFORCEMENT
- - - INDICATES BOT BAR STEEL REINFORCEMENT

● ALTERNATE ROWS SO LAPS STAGGER AS SHOWN AND AS SPACED IN TRANSVERSE SECTION.

○ = GIRDER LINE 1 THRU 8

UN = UNLESS SHOWN OR NOTED OTHERWISE

FF = FRONT FACE

BF = BACK FACE

EF = EACH FACE

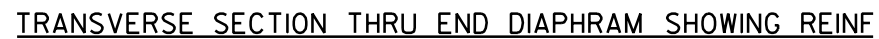
T = TOP

B = BOTTOM

⊙ INDICATES WINGWALL:

		8	
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
SUPERSTRUCTURE DETAILS			SHEET 14 OF 26

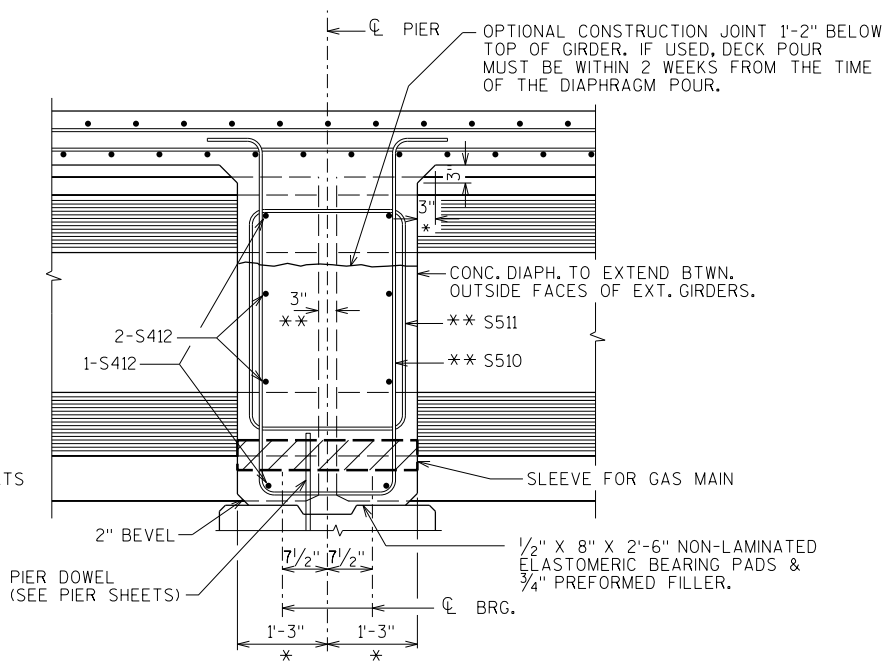
8



SUPERSTRUCTURE DETAILS	SHEET 15 OF 26

BILL OF BARS	SUPERSTRUCTURE
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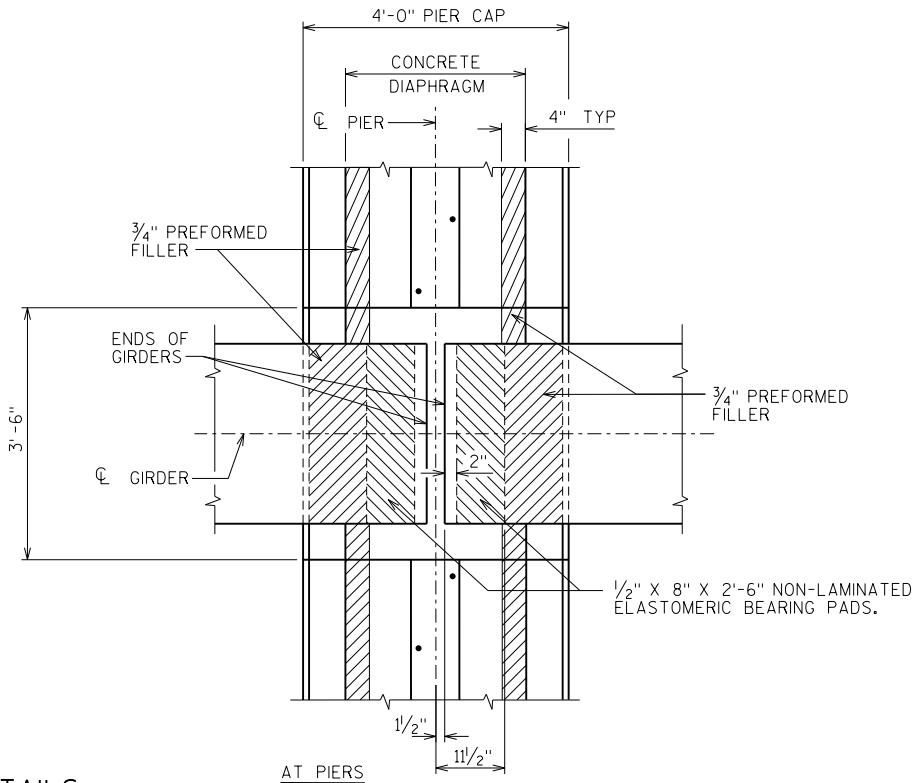
BAR MARK	COAT	NO. REQ'D.	LENGTH (FT-IN)	BAR SERIES	BENT	LOCATION
S501	X	120	13 - 1		X	END DIAPH STIRRUP
S502	X	32	10 - 9		X	END DIAPH STIRRUP
S403	X	84	3 - 5		X	END DIAPH KEY
S504	X	120	6 - 1		X	END DIAPH TIE
S405	X	28	4 - 11			END DIAPH KEY HORIZ
S606	X	84	5 - 8			END DIAPH HORIZ
S607	X	84	11 - 8			END DIAPH HORIZ
S608	X	8	4 - 4		X	END DIAPH HORIZ
S609	X	8	6 - 6		X	END DIAPH HORIZ
S510	X	84	12 - 0		X	PIER DIAPH STIRRUP
S511	X	28	9 - 3		X	PIER DIAPH STIRRUP
S412	X	168	5 - 8			PIER DIAPH HORIZ
S513	X	697	41 - 4			SLAB TRANS T & B
S414	X	485	45 - 0			SLAB LONGIT B
S415	X	97	15 - 6			SLAB LONGIT B
S416	X	98	32 - 6			SLAB LONGIT T
S417	X	96	35 - 6			SLAB LONGIT T
S418	X	49	53 - 10			SLAB LONGIT T
S419	X	48	47 - 10			SLAB LONGIT T
S820	X	194	60 - 0			SLAB LONGIT T
S821	X	180	24 - 0			SLAB LONGIT T
S522	X	32	6 - 0			THRU GIRDERS
S323	X	8	7 - 11		X	SLAB CORNERS
S424	X	8	4 - 4			END DIAPH AT END
S525	X	697	29 - 0			SLAB TRANS T & B



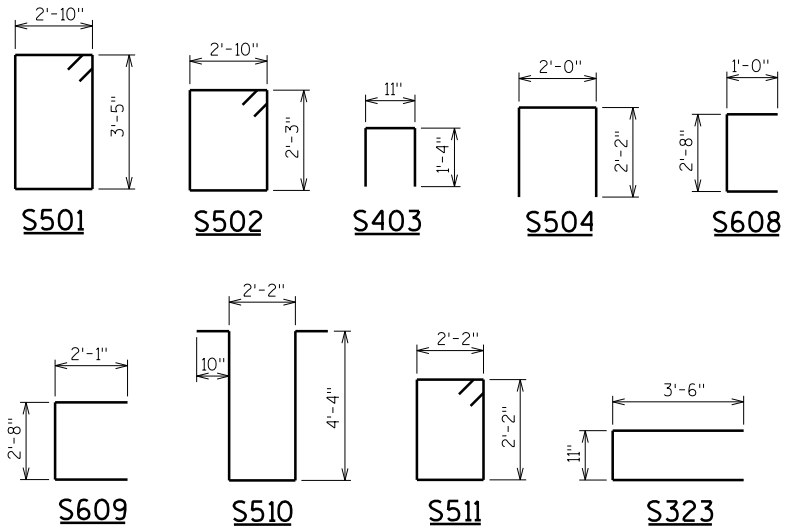
PART LONGIT. SECTION
AT PIER DIAPHRAGM

* DIMENSION IS TAKEN NORMAL TO ϕ
SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS
SPACING PERPENDICULAR TO ϕ GIRDERS



BEARING PAD DETAILS



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
SUPERSTRUCTURE DETAILS		SHEET 16 OF 26	

PLOT TIME: 10/7/29 AM

PLOT DATE: 9/10/2015

FILE NAME : S:\ME\C\Chipr\116724\5-final-dsgn\5-final-dsgn\5-struct\bridge\b09280ss3.dgn

FINAL TOP OF DECK ELEVATIONS											
SPAN 1											
	WEST ABUT	.1	.2	.3	.4	.5	.6	.7	.8	.9	PIER 1
NORTH EDGE OF DECK (GUTTER LINE)	908.49	908.46	908.42	908.39	908.36	908.33	908.29	908.26	908.23	908.20	
GIRDER LINE 1	908.52	908.49	908.45	908.42	908.39	908.36	908.32	908.29	908.26	908.23	
GIRDER LINE 2	908.70	908.66	908.63	908.60	908.57	908.53	908.50	908.47	908.44	908.41	
GIRDER LINE 3	908.87	908.84	908.81	908.78	908.74	908.71	908.68	908.65	908.61	908.58	
C/L	909.01	908.98	908.94	908.91	908.88	908.85	908.81	908.78	908.75	908.72	
GIRDER LINE 4	908.97	908.93	908.90	908.87	908.84	908.80	908.77	908.74	908.71	908.68	
GIRDER LINE 5	908.79	908.76	908.72	908.69	908.66	908.63	908.59	908.56	908.53	908.50	
GIRDER LINE 6	908.61	908.58	908.55	908.51	908.48	908.45	908.42	908.38	908.35	908.32	
GIRDER LINE 7	908.43	908.40	908.37	908.34	908.30	908.27	908.24	908.21	908.17	908.14	
GIRDER LINE 8	908.26	908.22	908.19	908.16	908.13	908.09	908.06	908.03	908.00	907.97	
SOUTH EDGE OF DECK (BREAK POINT)	908.23	908.19	908.16	908.13	908.10	908.06	908.03	908.00	907.97	907.93	

FINAL TOP OF DECK ELEVATIONS											
SPAN 2											
	PIER 1	.1	.2	.3	.4	.5	.6	.7	.8	.9	PIER 2
NORTH EDGE OF DECK (GUTTER LINE)	908.17	908.11	908.06	908.01	907.96	907.90	907.85	907.80	907.74	907.69	907.64
GIRDER LINE 1	908.20	908.14	908.09	908.04	907.99	907.93	907.88	907.83	907.77	907.72	907.67
GIRDER LINE 2	908.37	908.32	908.27	908.22	908.16	908.11	908.06	908.00	907.95	907.90	907.85
GIRDER LINE 3	908.55	908.50	908.45	908.39	908.34	908.29	908.23	908.18	908.13	908.08	908.02
C/L	908.69	908.63	908.58	908.53	908.48	908.42	908.37	908.32	908.26	908.21	908.16
GIRDER LINE 4	908.64	908.59	908.54	908.49	908.43	908.38	908.33	908.27	908.22	908.17	908.12
GIRDER LINE 5	908.47	908.41	908.36	908.31	908.26	908.20	908.15	908.10	908.04	907.99	907.94
GIRDER LINE 6	908.29	908.24	908.18	908.13	908.08	908.03	907.97	907.92	907.87	907.81	907.76
GIRDER LINE 7	908.11	908.06	908.01	907.95	907.90	907.85	907.79	907.74	907.69	907.64	907.58
GIRDER LINE 8	907.93	907.88	907.83	907.78	907.72	907.67	907.62	907.56	907.51	907.46	907.41
SOUTH EDGE OF DECK (BREAK POINT)	907.90	907.85	907.80	907.74	907.69	907.64	907.59	907.53	907.48	907.43	907.38

FINAL TOP OF DECK ELEVATIONS											
SPAN 3											
	PIER 2	.1	.2	.3	.4	.5	.6	.7	.8	.9	EAST ABUT
NORTH EDGE OF DECK (GUTTER LINE)		907.61	907.58	907.54	907.51	907.48	907.45	907.41	907.38	907.35	907.32
GIRDER LINE 1		907.64	907.61	907.57	907.54	907.51	907.48	907.44	907.41	907.38	907.35
GIRDER LINE 2		907.81	907.78	907.75	907.72	907.69	907.65	907.62	907.59	907.56	907.52
GIRDER LINE 3		907.99	907.96	907.93	907.90	907.86	907.83	907.80	907.77	907.73	907.70
C/L		908.13	908.10	908.06	908.03	908.00	907.97	907.93	907.90	907.87	907.84
GIRDER LINE 4		908.08	908.05	908.02	907.99	907.96	907.92	907.89	907.86	907.83	907.79
GIRDER LINE 5		907.91	907.88	907.84	907.81	907.78	907.75	907.71	907.68	907.65	907.62
GIRDER LINE 6		907.73	907.70	907.67	907.63	907.60	907.57	907.54	907.50	907.47	907.44
GIRDER LINE 7		907.55	907.52	907.49	907.46	907.42	907.39	907.36	907.33	907.29	907.26
GIRDER LINE 8		907.37	907.34	907.31	907.28	907.25	907.21	907.18	907.15	907.12	907.08
SOUTH EDGE OF DECK (BREAK POINT)		907.34	907.31	907.28	907.25	907.21	907.18	907.15	907.12	907.08	907.05

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
SUPERSTRUCTURE DETAILS		SHEET 17 OF 26	

FILE NAME : S:\AEC\Chipr\16724\5-final-dsgn\5-final-drawings\20-Structure\bridge\03280g45w.dgn

PLOT DATE: 9/10/2015

PLOT TIME: 00:17:30 AM

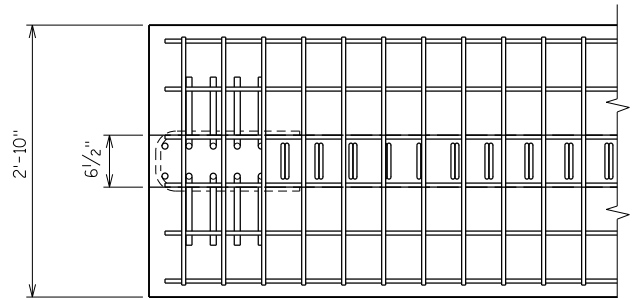
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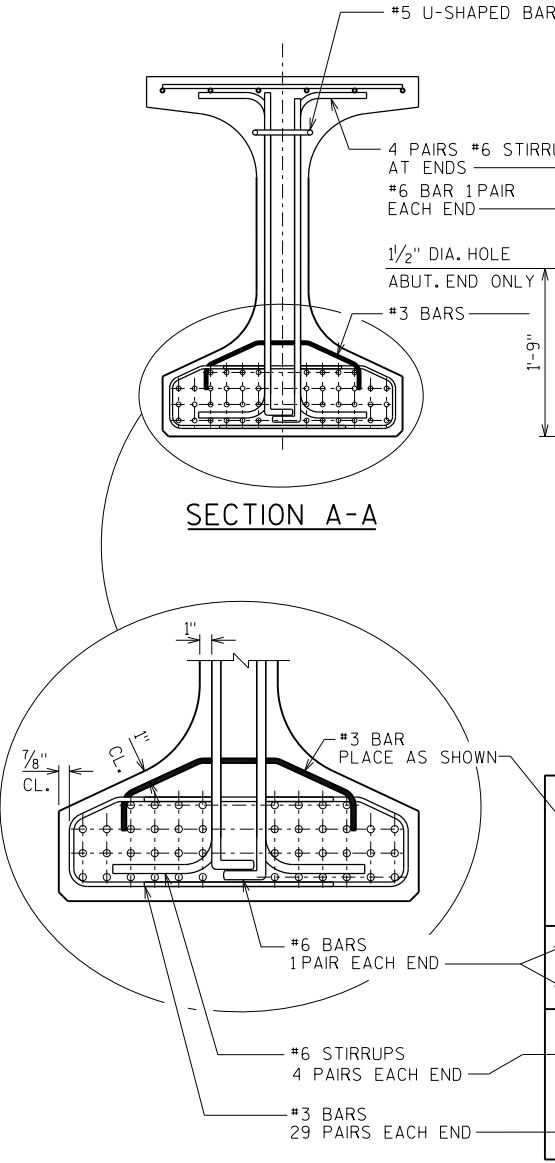
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2

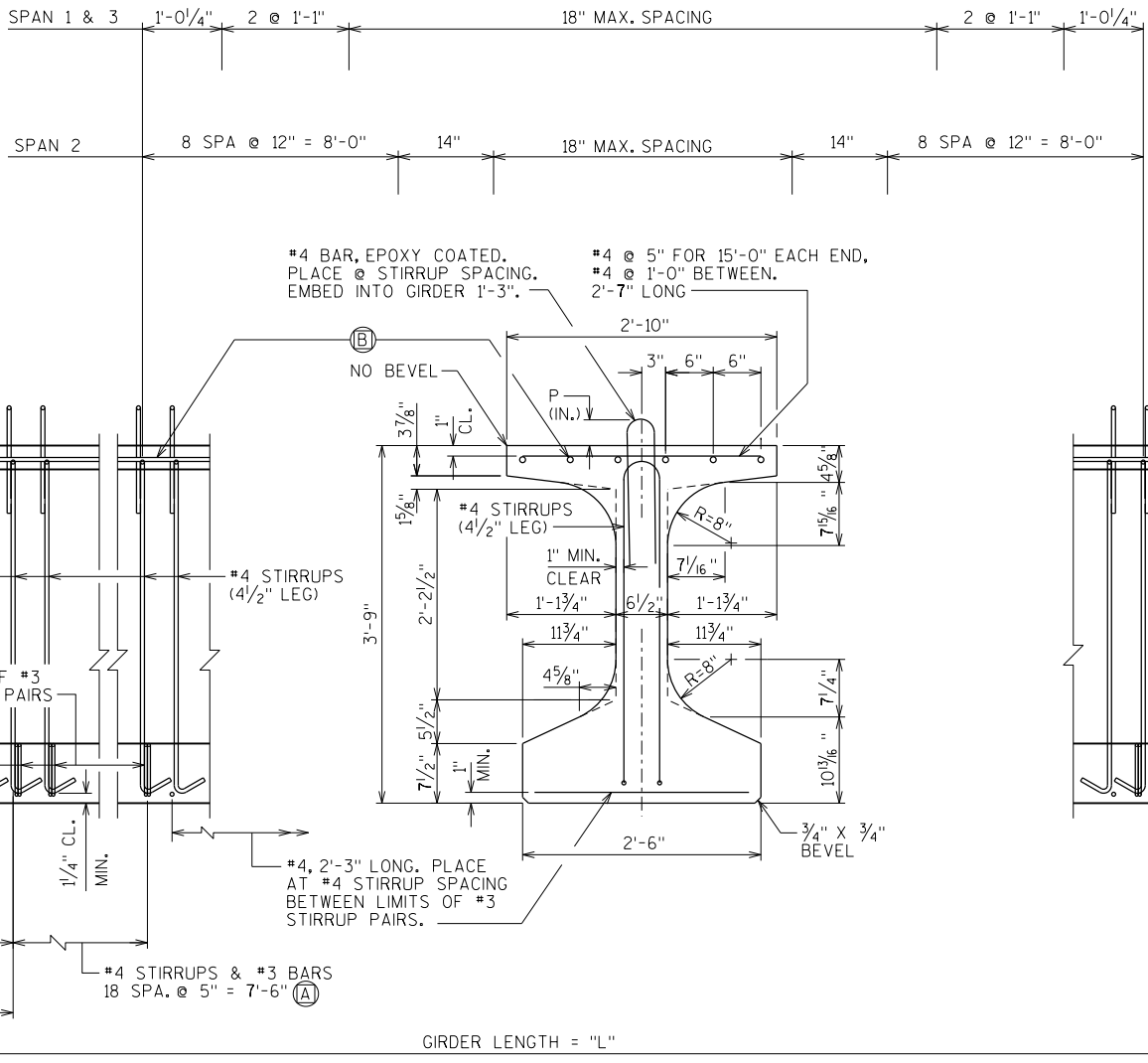
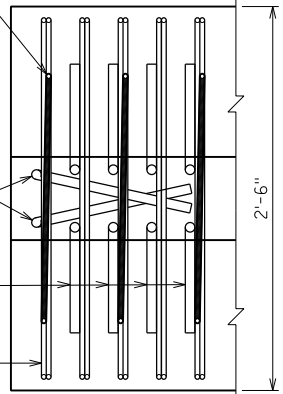


TOP FLANGE



SECTION A-A

BOTTOM FLANGE



SIDE VIEW & TYPICAL SECTION IN SPAN

- (A) DETAIL TYP. AT EACH END
- (B) 6 #_ BARS, FULL LENGTH, MIN. LAP = 2'-7".

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

GIRDER DATA																								
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.)				TOTAL NO. OF STRANDS	f'ci (P.S.I.) *
																			"A"	"B" MIN.	"B" MAX.	"C"		
1 & 3	1-8	63'-10" 1/2"	1/8	1/4	1/4	3/8	3/8	3/8	1/4	1/4	1/8	8000	7	7	7	0.6	-	-	-	-	-	18	4500	
2	1-8	102'-9"	3/4	1 3/8	1 7/8	2 1/8	2 1/4	2 1/8	1 7/8	1 3/8	3/4	8000	7	6	7	0.6	40	6800	39	13.5	16.5	5	-	-

STATE PROJECT NUMBER

8919-03-72

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

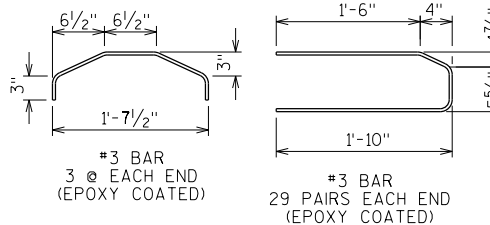
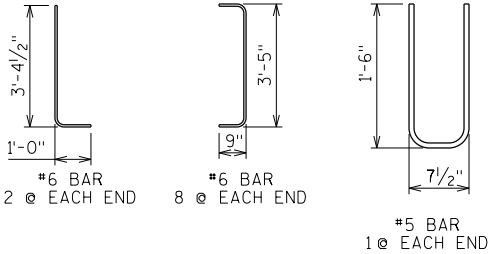
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



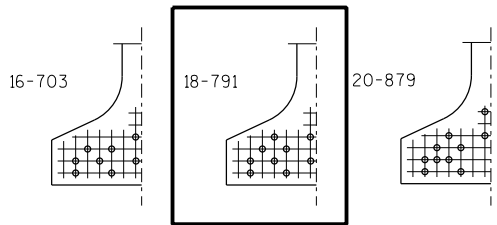
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
45W" PRESTRESSED GIRDER DETAILS			SHEET 18 OF 26

FILE NAME : S:\A\E\C\Chp\N\16724\5-final-dsgn\5-drawings\20-Struct\bridge\B03280g45w.dgn

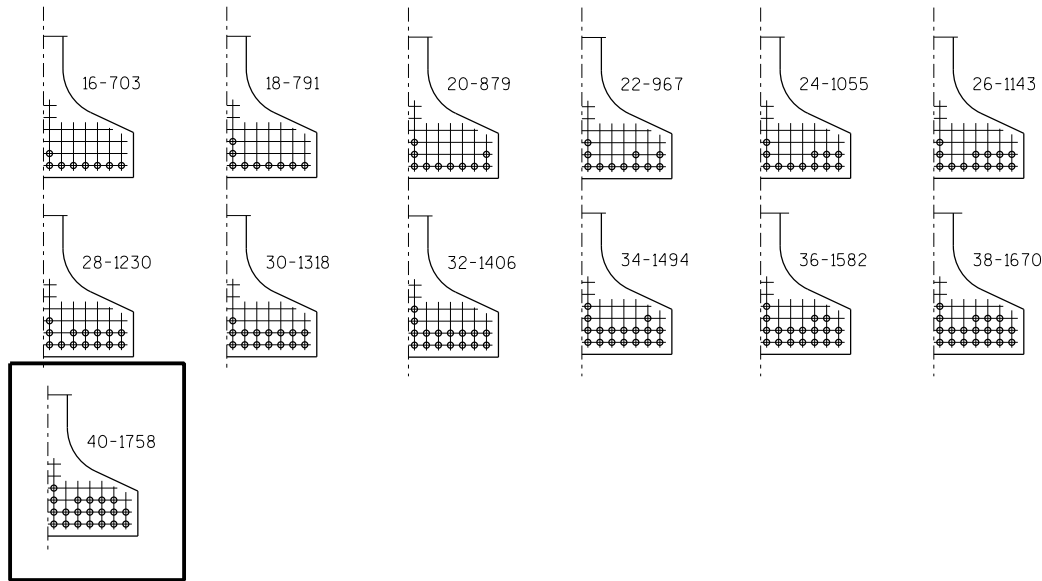
PLOT DATE: 9/10/2015

PLOT TIME: 10:17:30 AM



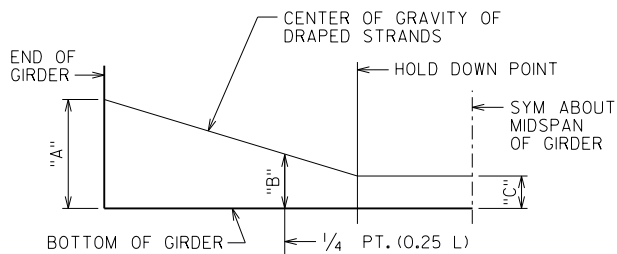
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY
TO AVOID DRAPING OF STRANDS

0.6"φ STRANDS



ARRANGEMENT AT $\frac{1}{4}$ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"φ STRANDS

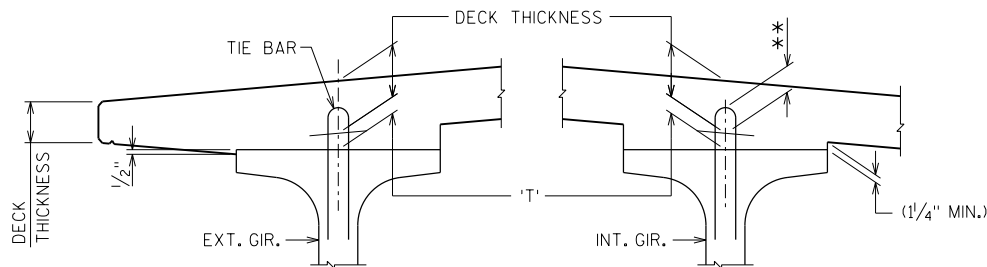


DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1 & 3	1 1/8
2	4 3/8

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T',
USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

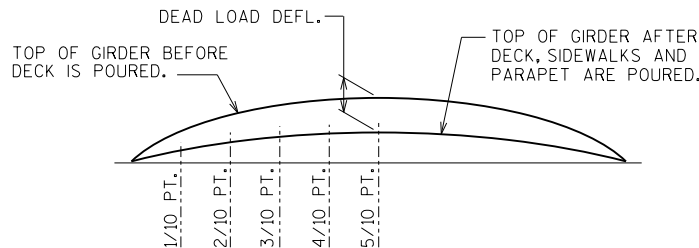
IF 1/4" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN 1/2" OR, ** IF 3" MINIMUM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

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT $\frac{1}{4}$ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
- + DEAD LOAD DEFLECTION
- DECK THICKNESS
- = HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3 5/8" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

NOTE:
3.63" AT ABUTMENTS
3.63" AT PIERS



DEAD LOAD DEFLECTION DIAGRAM

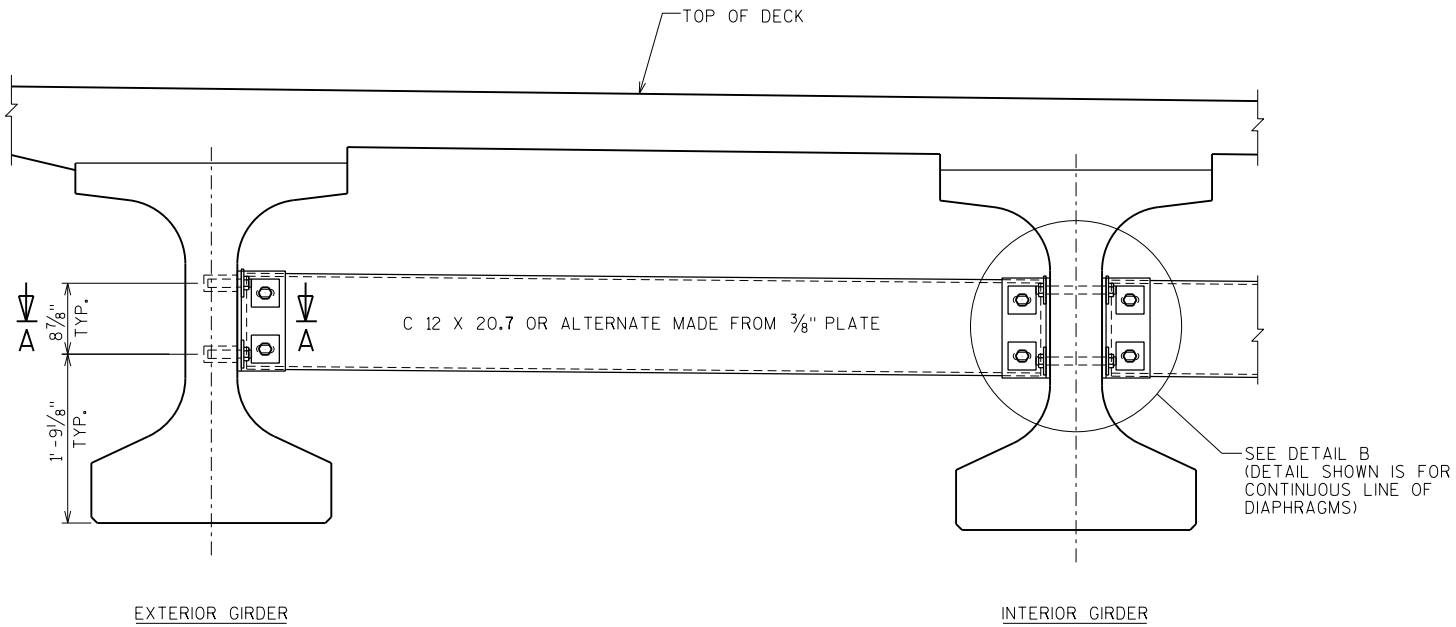
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
45W" PRESTRESSED GIRDER DETAILS		SHEET 19 OF 26	

PLOT TIME: 10:17:31 AM

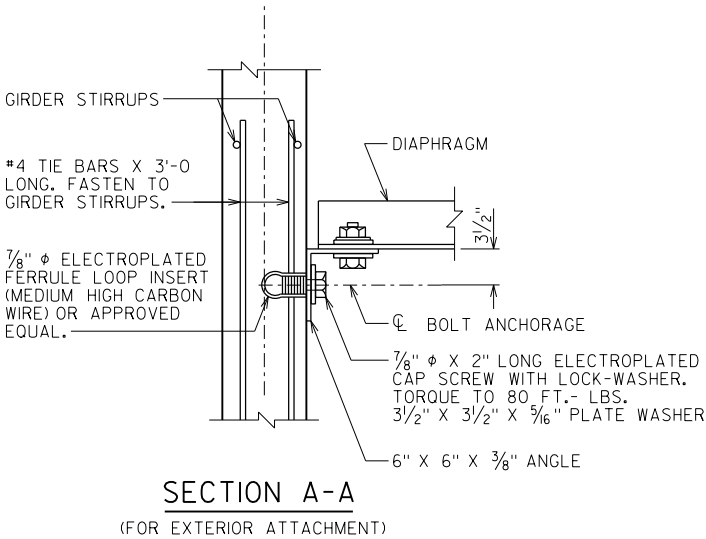
PLOT DATE: 9/10/2015

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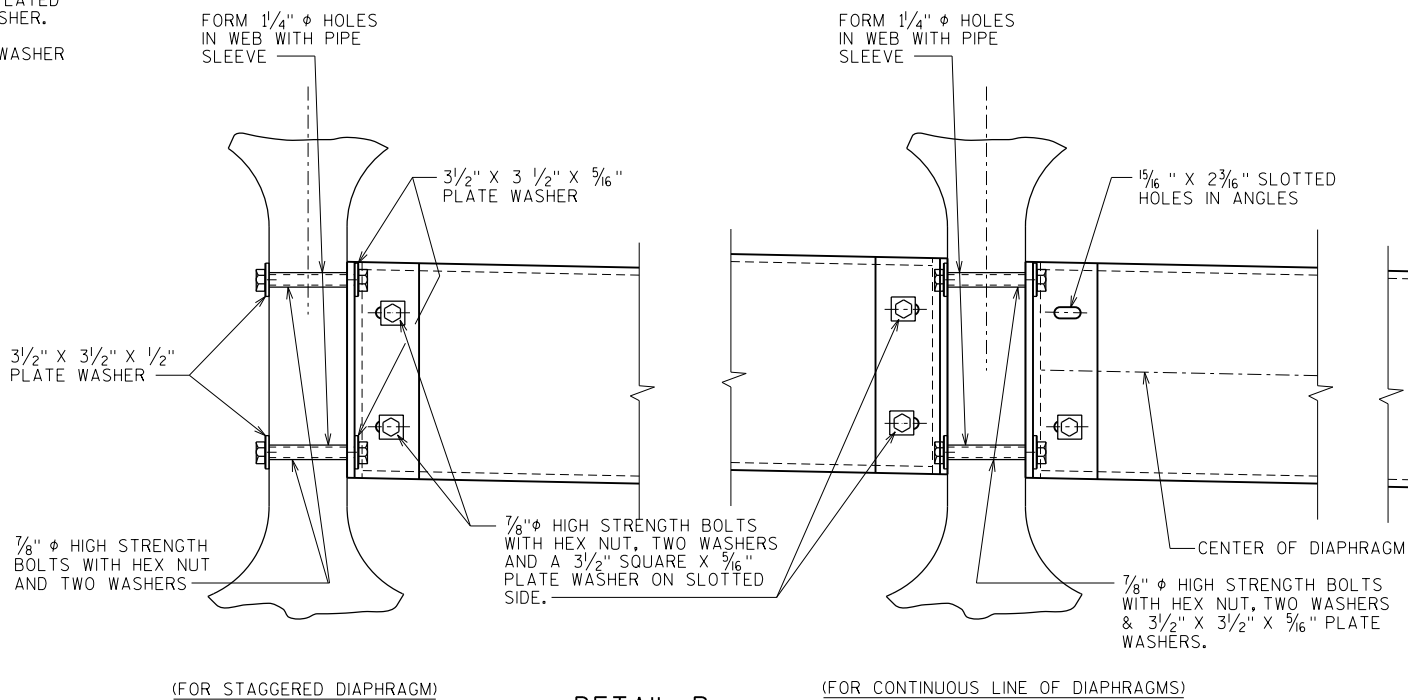
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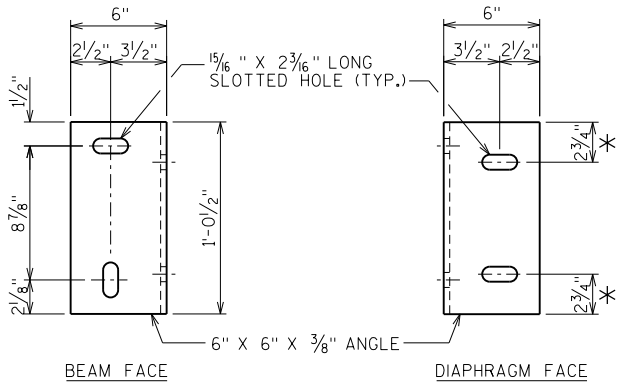
PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A
(FOR EXTERIOR ATTACHMENT)

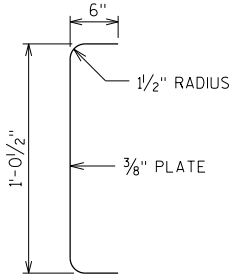


DETAIL B



DIAPHRAGM SUPPORT

* 2 1/2\"



SECTION THRU
ALTERNATE DIAPHRAGM

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS (STRUCTURE) B-9-280", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S10F OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

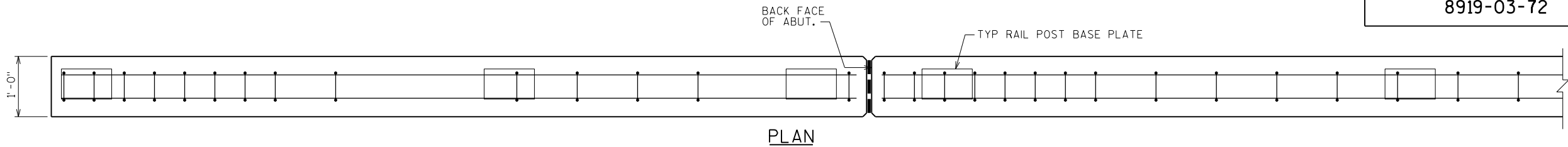
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY		DLF	PLANS CK'D. NCK
STEEL DIAPHRAGM			SHEET 20 OF 26

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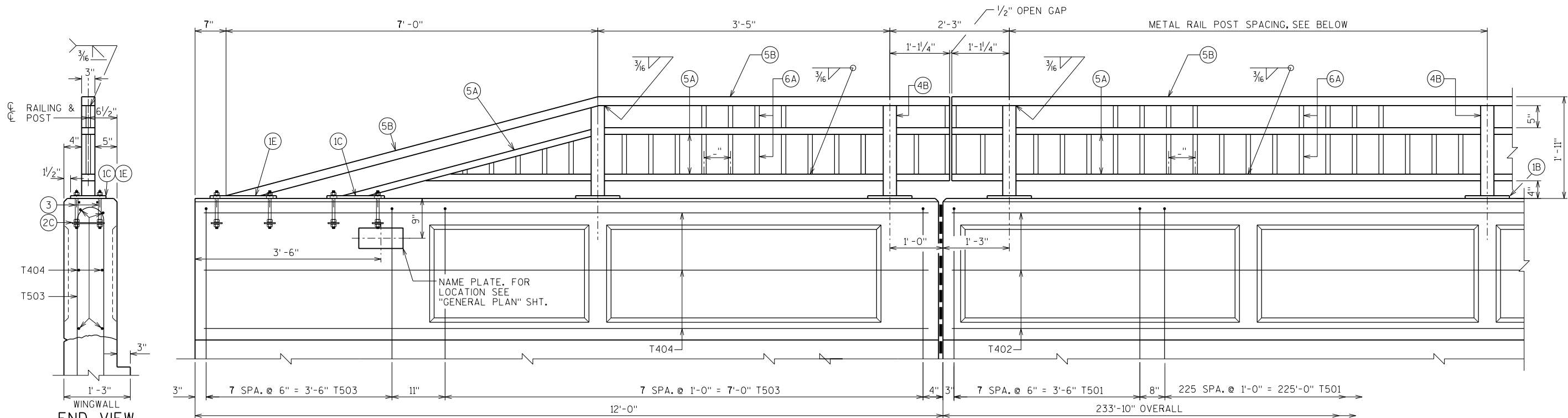
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PLOT TIME: 10/7/23 AM
PLOT DATE: 9/10/2015
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STATE PROJECT NUMBER

8919-03-72

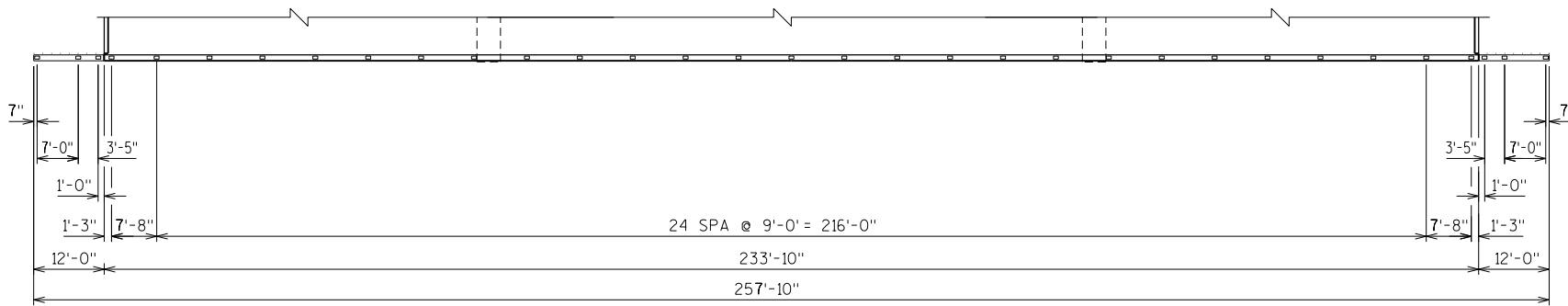


PLAN



ELEVATION OF PARAPET

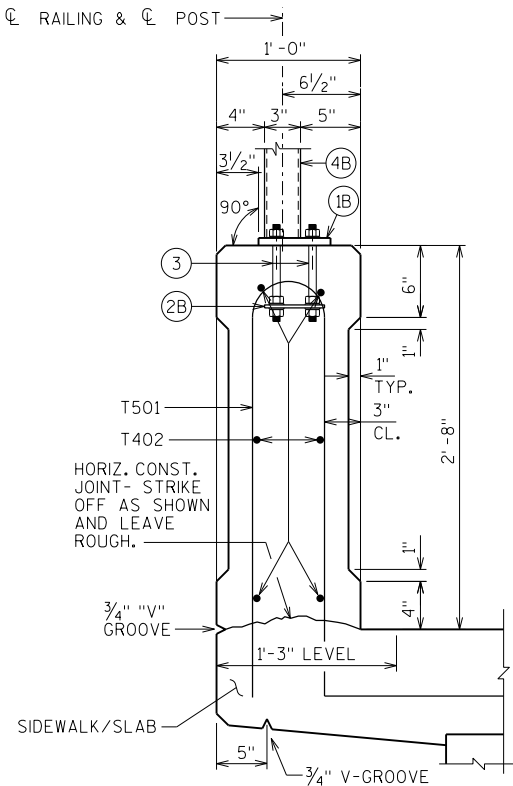
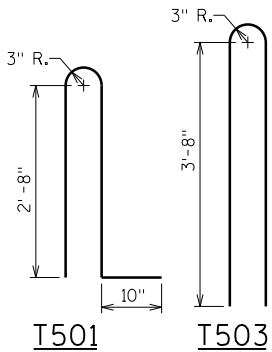
NOTES: NO DEFLECTION JOINTS IN THE PARAPETS ARE REQUIRED.
SEE FDM STD 30.07 FOR ADDITIONAL INFORMATION.



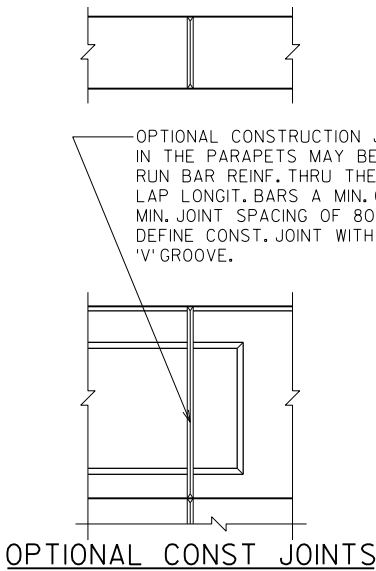
METAL RAIL POST LAYOUT

BILL OF BARS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	SUPER.	LENGTH	BENT	LOCATION
T501	X	-	-	242	6-10	X	PARAPET VERT.
T402	X	-	-	36	40'-6"		PARAPET HORIZ.
T503	X	16	16	-	8-2	X	PARAPET VERT. @ WINGS
T404	X	6	6	-	11-7		PARAPET HORIZ. @ WINGS

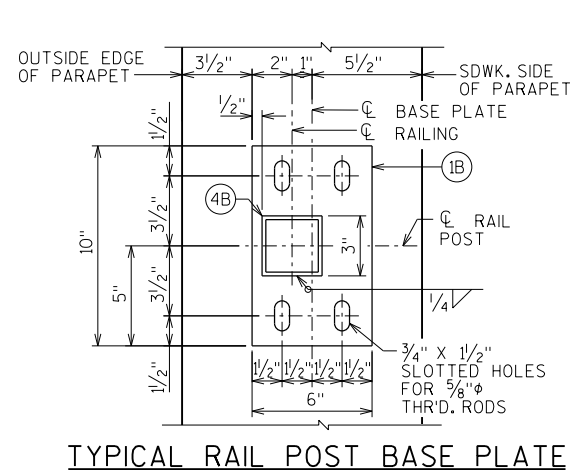


SECTION THRU PARAPET ON BRIDGE

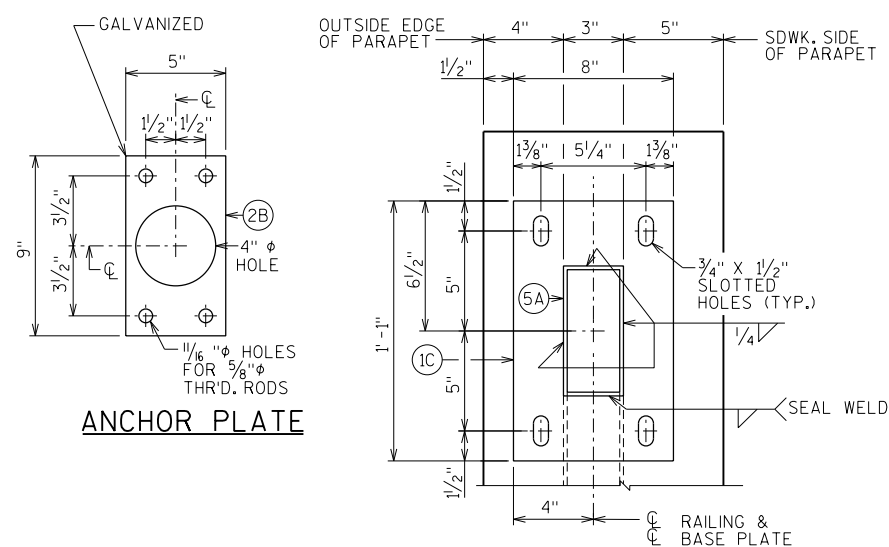


OPTIONAL CONST JOINTS

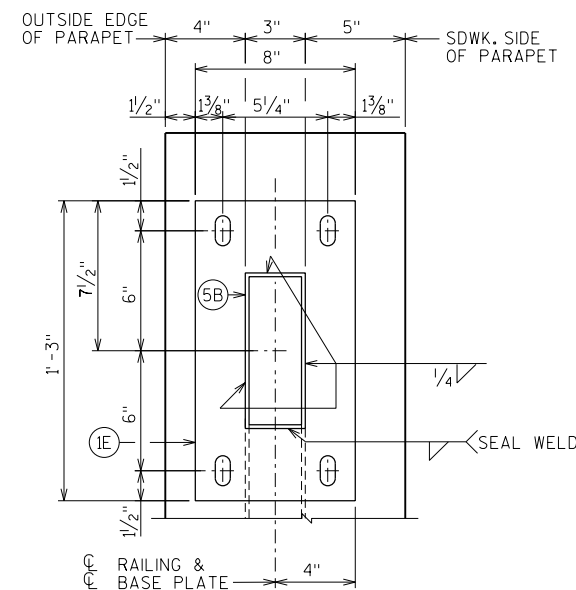
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
VERTICAL FACE PARAPET/COMBINATION RAIL TYPE "C4"		SHEET 21 OF 26	



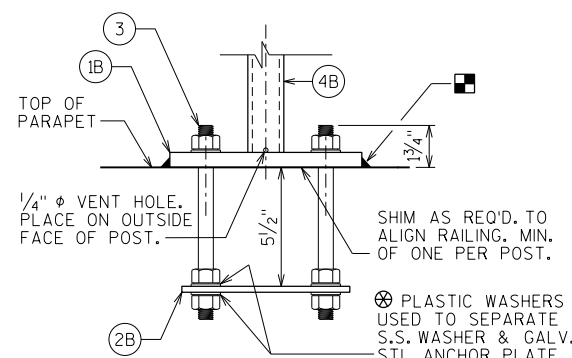
TYPICAL RAIL POST BASE PLATE



END RAIL BASE PLATE

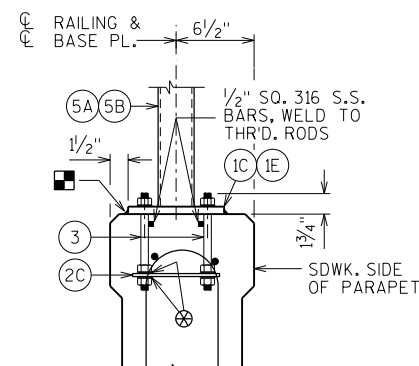


END RAIL BASE PLATE



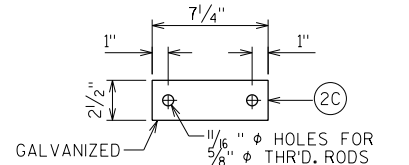
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED
WHEN TYPE S ANCHORS ARE USED.



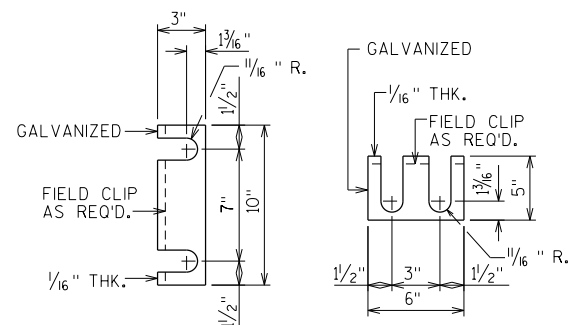
ANCHORAGE FOR END RAIL

NOTE: ANCHOR PLATES NOT REQ'D. WHEN
TYPE "S" ANCHORS ARE USED.



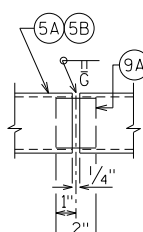
END RAIL ANCHOR PLATE

FOR END RAIL BASE PLATES
2 REQ'D. PER END RAIL BASE PLATE



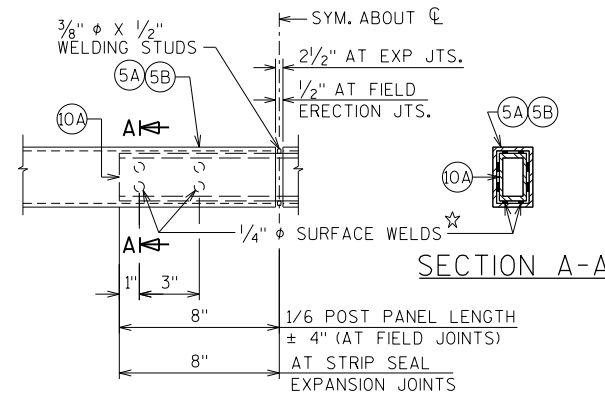
RAIL POST SHIM DETAIL

(2 SETS PER POST)



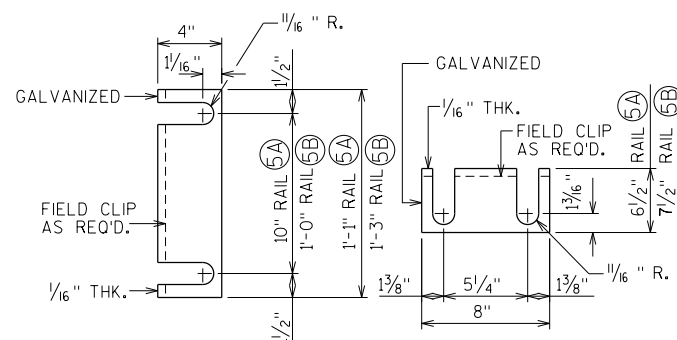
SHOP RAIL
SPLICE DETAIL

(LOCATION MUST BE
SHOWN ON SHOP DRAWINGS)



FIELD ERECTION JOINT DETAIL

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



END RAIL SHIM DETAIL

(2 SETS PER POST)

- LEGEND
- (1B) PLATE $\frac{5}{8}$ " X 6" X 10" WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES
 - (1C) PLATE $\frac{5}{8}$ " X 8" X 1'-1" WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES.
 - (1E) PLATE $\frac{5}{8}$ " X 8" X 1'-3" WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES
 - (2B) $\frac{1}{4}$ " X 5" X 9" ANCHOR PLATE WITH $\frac{1}{16}$ " ϕ HOLES FOR THR'D. RODS NO. 3.
 - (2C) $\frac{1}{4}$ " X 2 $\frac{1}{2}$ " X 7 $\frac{1}{4}$ " ANCHOR PLATE WITH $\frac{1}{16}$ " ϕ HOLES FOR THR'D. RODS NO. 3.
 - (3) $\frac{5}{8}$ " DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP.
(ALTERNATE RAIL POST ANCHORAGE: 4 EQUIVALENT STAINLESS STEEL CONCRETE MASONRY ANCHORS TYPE S $\frac{5}{8}$ -INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS.)
 - (4B) STRUCTURAL TUBING 3" X 3" X $\frac{3}{16}$ ". PLACE VERTICAL. WELD TO NO.1 & 5.
 - (5A) STRUCTURAL TUBING 3" X $\frac{1}{2}$ " X $\frac{3}{16}$ " RAILS. WELD TO NO.1 & NO.4, INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
 - (5B) STRUCTURAL TUBING 3" X 2" X $\frac{3}{16}$ " RAILS. WELD TO NO.1 & NO.4, INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
 - (6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.
 - (6C) BAR 1" X $\frac{1}{2}$ " PICKETS. WELD TO NO. 11. PLACE VERTICAL
 - (9A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. PROVIDE "SLIDING FIT".
 - (10A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)
 - ~~(11A) BAR 2 $\frac{1}{2}$ " X 1" X ' ' "~~
 - ~~(11B) BAR 2 $\frac{1}{2}$ " X $\frac{1}{2}$ " X ' ' "~~
 - (12) $\frac{1}{2}$ " DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C4 (STRUCTURE) B-9-280", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

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

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709
GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO.1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL SPEC 595 C COLOR NO. 17038, BLACK.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
		DRAWN BY DLF	PLANS CK'D. NCK
VERTICAL FACE PARAPET/COMBINATION RAIL TYPE "C4"		SHEET 22 OF 28	

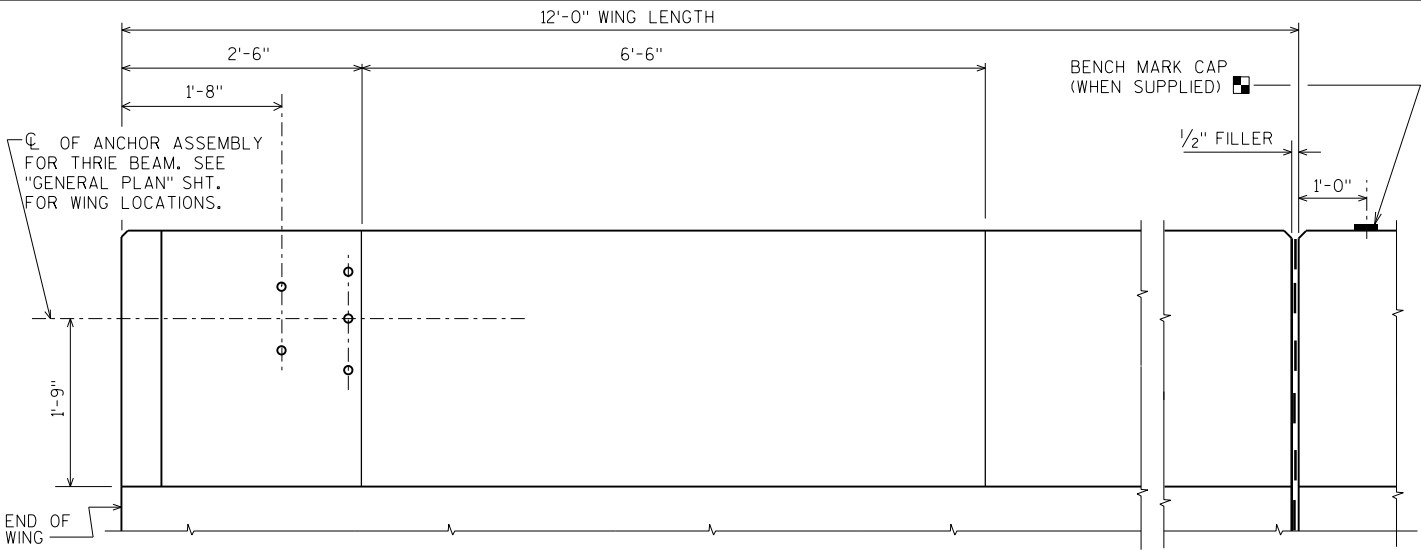
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PLOT TIME: 10/7/32 AM
PLOT DATE: 9/10/2015

STATE PROJECT NUMBER

8919-03-72

BILL OF BARS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	SUPER.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	-	5-10	X		PARAPET VERT.
R502	X	6	6	351	5-0	X		PARAPET VERT.
R503	X	12	12	-	3-0	X		PARAPET VERT.
R504	X	17	17	-	5-7	X		PARAPET VERT.
R505	X	11	11	-	4-9	X		PARAPET VERT.
R506	X	6	6	-	4-10	X		PARAPET VERT.
R507	X	1	1	-	11'-7"	X		PARAPET HORIZ.
R508	X	5	5	-	11'-7"			PARAPET HORIZ.
R509	X	-	-	351	4-5	X		PARAPET VERT.
R510	X	-	-	36	41-2			PARAPET HORIZ.

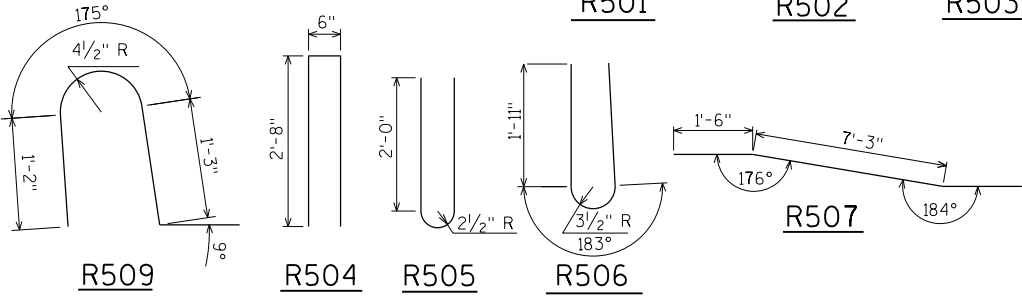
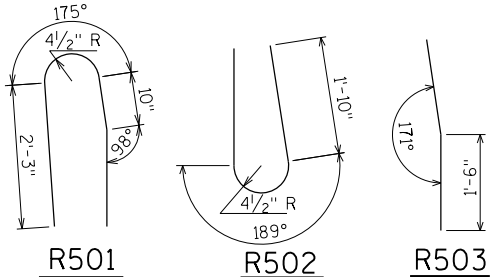


INSIDE ELEVATION

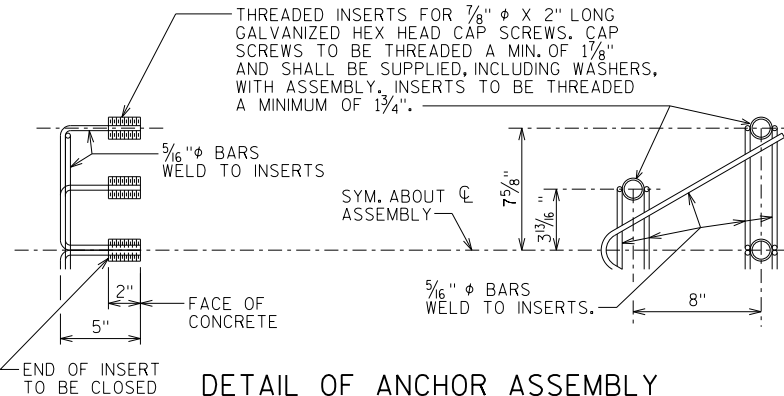
SECTION A

SECTION B

SECTION C



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" - 1" V-GROOVE.

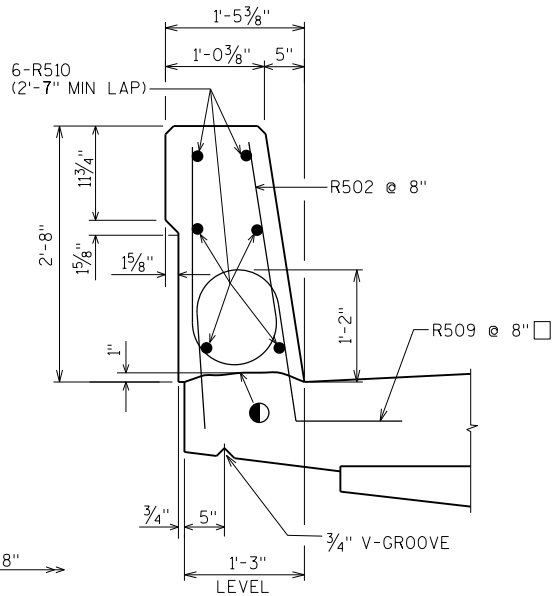


DETAIL OF ANCHOR ASSEMBLY

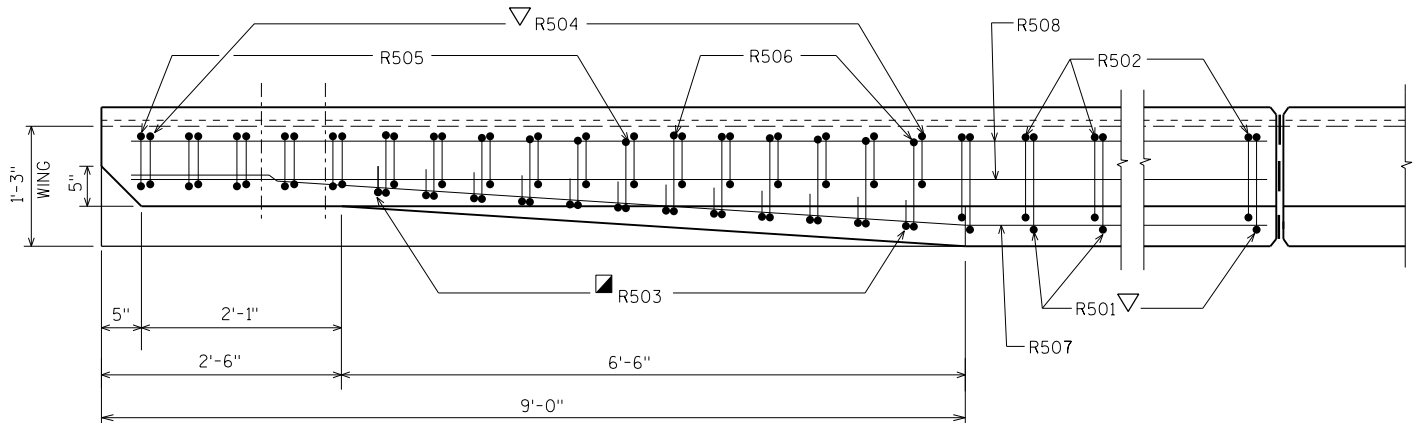
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

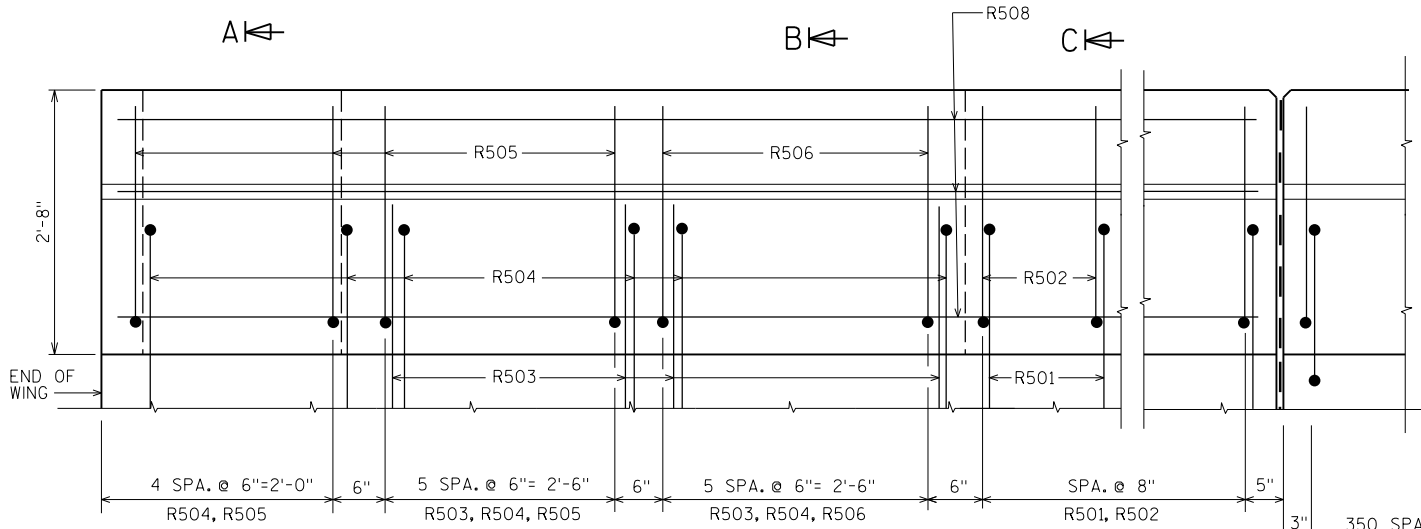
- PLACE WITH DECK REINFORCEMENT
- CONST. JOINT - STRIKE OFF AS SHOWN.
- R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



SECTION THRU PARAPET ON BRIDGE



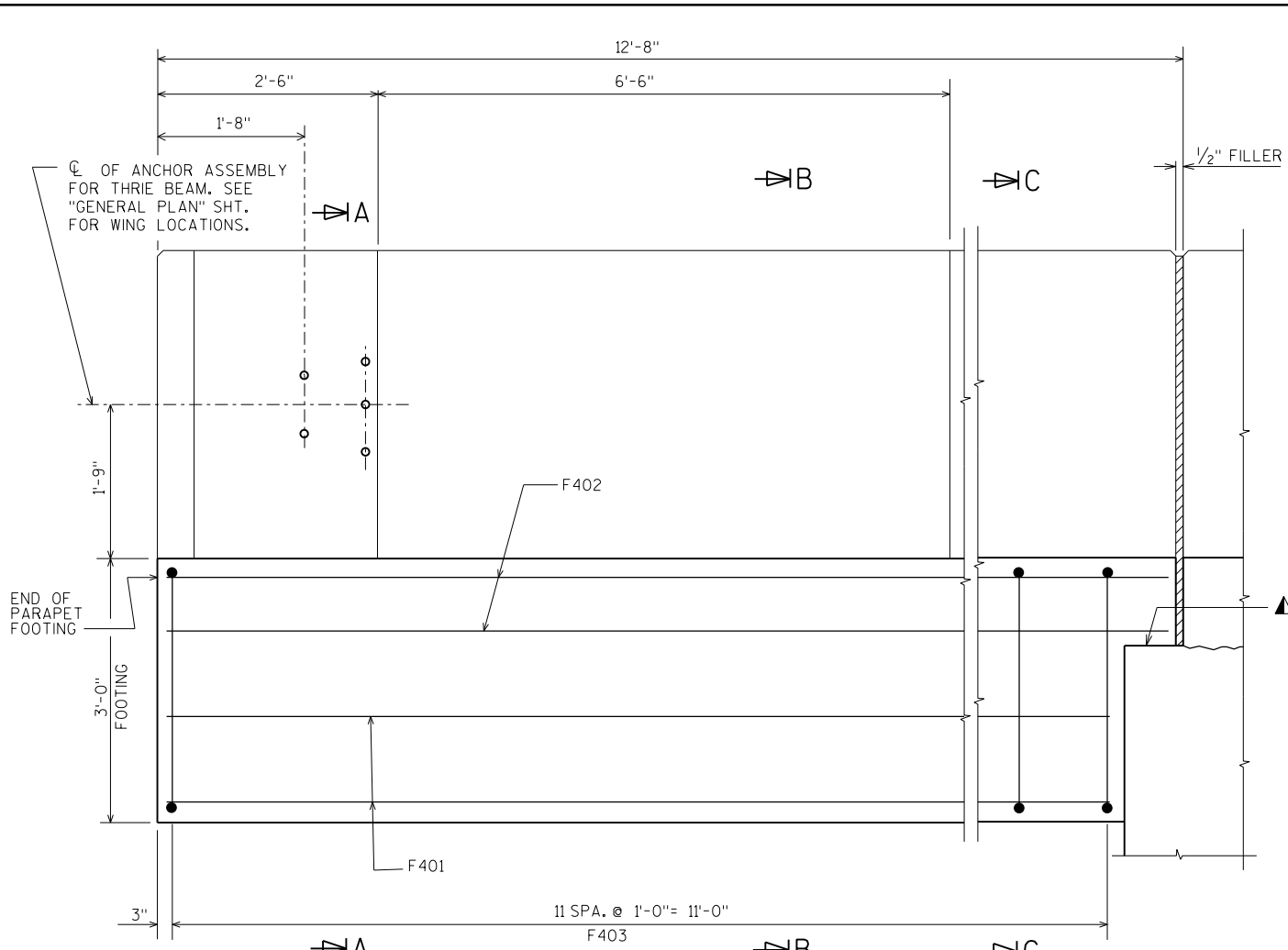
PLAN



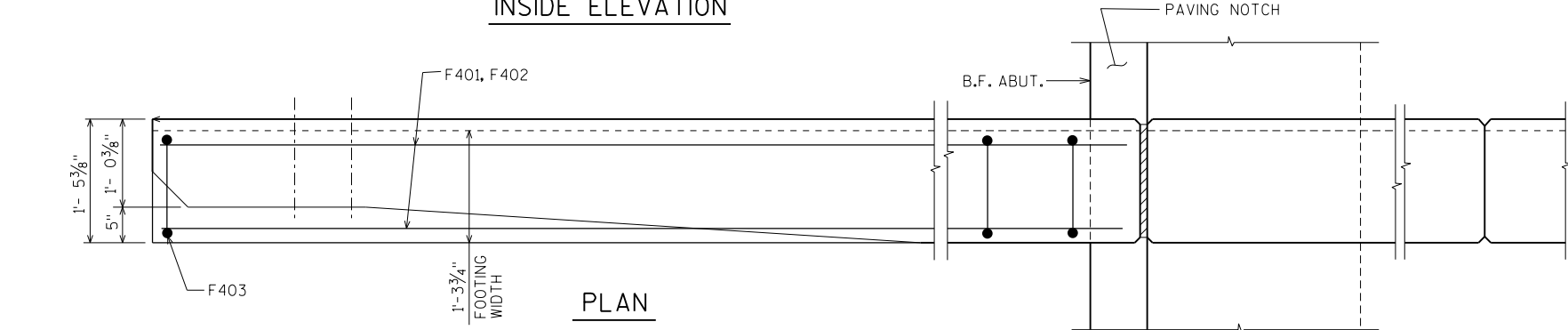
OUTSIDE ELEVATION

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
SINGLE SLOPED PARAPET 32SS			SHEET 23 OF 26

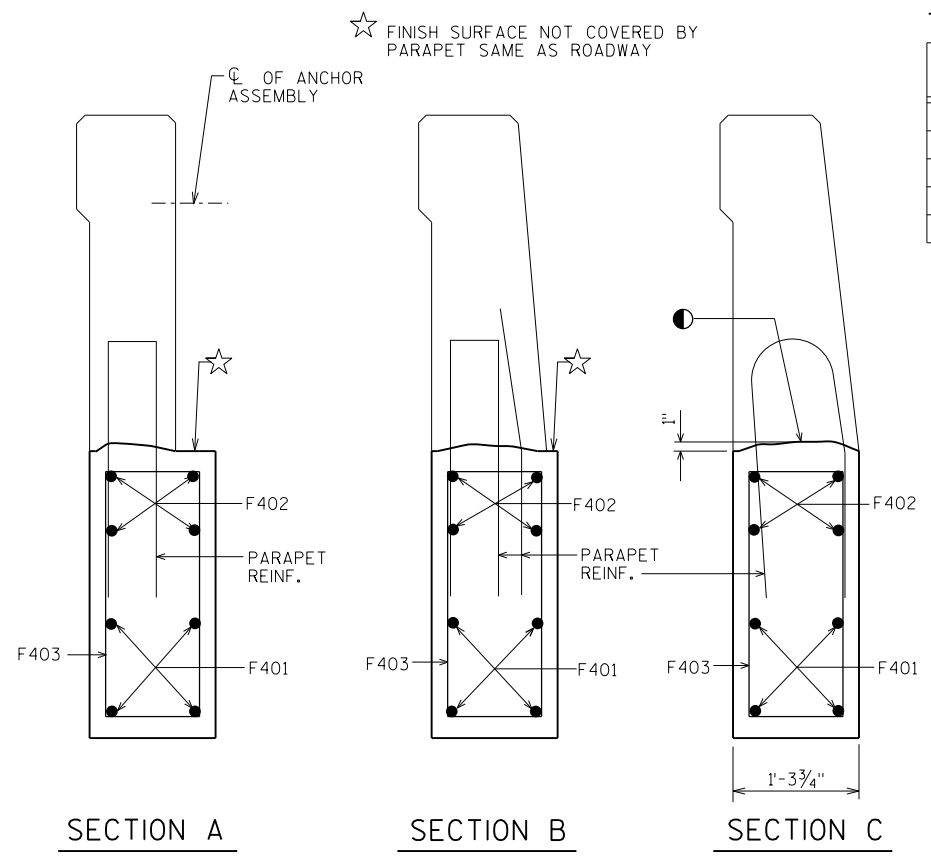
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INSIDE ELEVATION



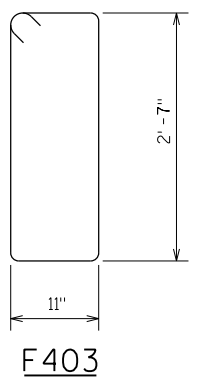
PLAN



SECTION A

SECTION B

SECTION C



F403

STATE PROJECT NUMBER

8919-03-72

BILL OF BARS

FOR PARAPET FOOTINGS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
F401	X	4	4	11-7			PARAPET FOOTING
F402	X	4	4	12-3			PARAPET FOOTING
F403	X	12	12	7-6	X		PARAPET FOOTING

- ▲ STEEL TROWEL HORIZ. SURFACE OF ABUTMENT PAVING NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- CONST. JOINT - STRIKE OFF AS SHOWN.

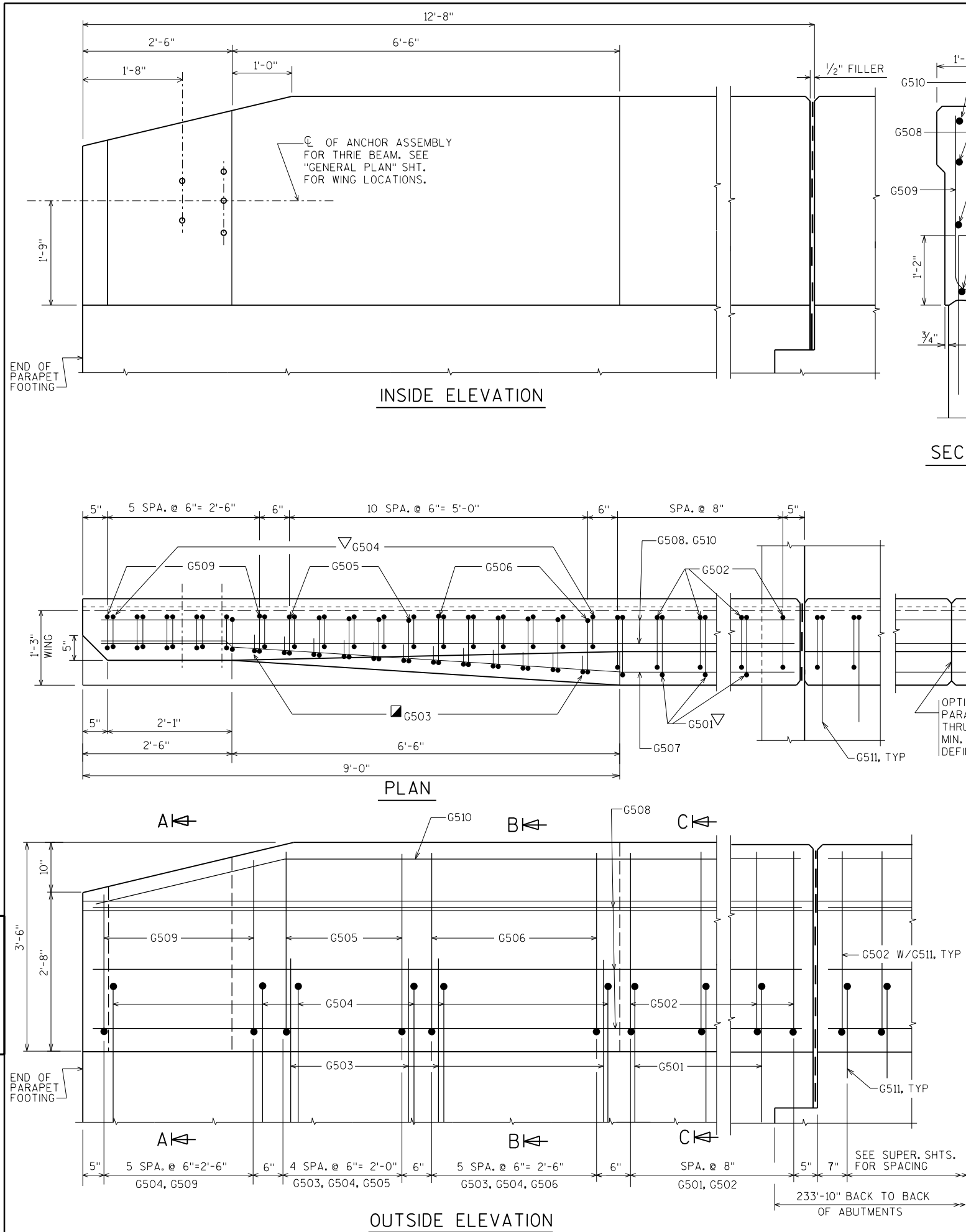
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
PARAPET FOOTING FOR SINGLE SLOPED PARAPET 42SS		SHEET 24 OF 26	

PLOT TIME: 10/7/33 AM

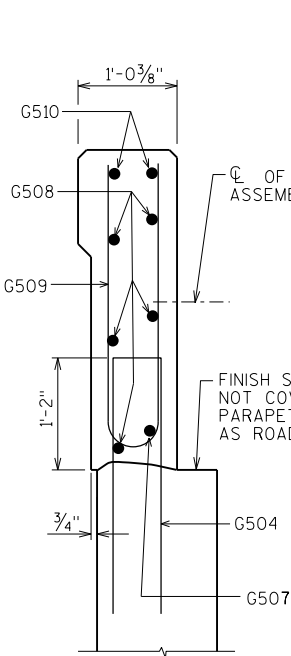
PLOT DATE: 9/10/2015

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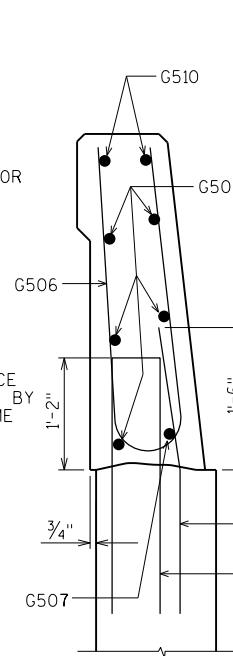
8



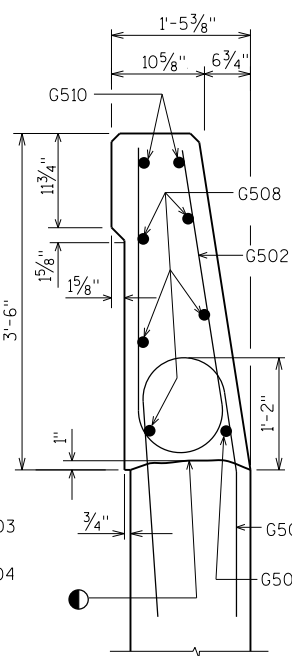
SECTION A



SECTION B

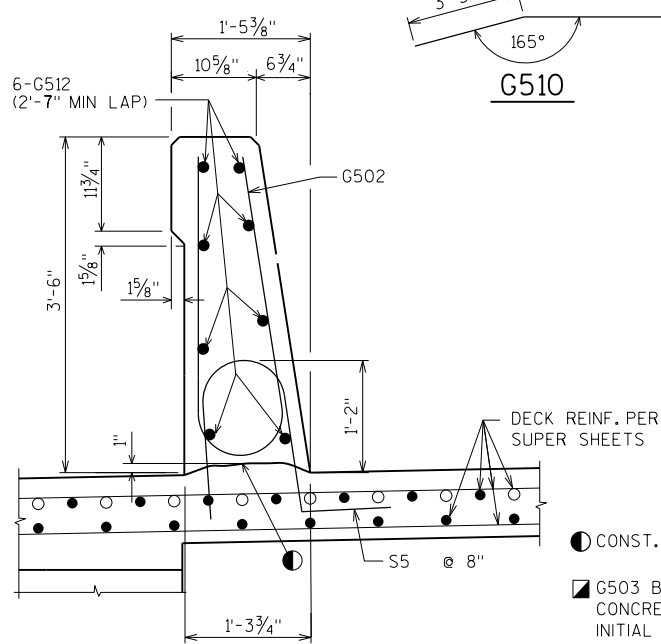


SECTION C



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.

SECTION THRU PARAPET ON BRIDGE



BILL OF BARS

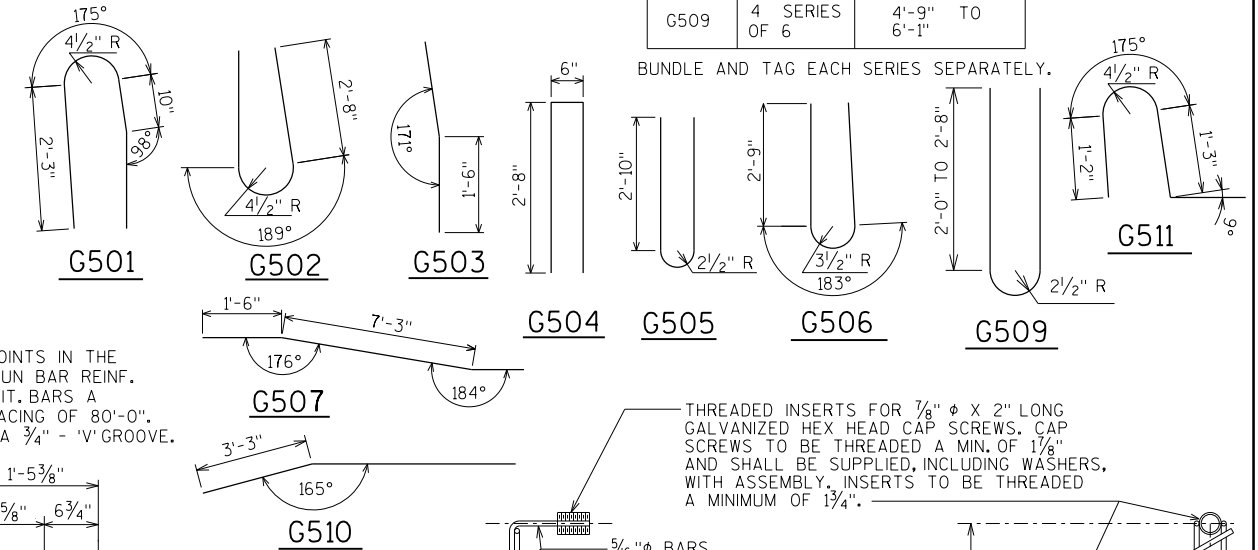
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	SUPER.	LENGTH	BEND	BAR SERIES	LOCATION
G501	X	5	5	-	5-10	X		PARAPET VERT.
G502	X	6	6	348	6-8	X		PARAPET VERT.
G503	X	11	11	-	3-0	X		PARAPET VERT.
G504	X	17	17	-	5-7	X		PARAPET VERT.
G505	X	5	5	-	6-5	X		PARAPET VERT.
G506	X	6	6	-	6-6	X		PARAPET VERT.
G507	X	1	1	-	11-7	X		PARAPET HORIZ.
G508	X	5	5	-	11-7			PARAPET HORIZ.
G509	X	6	6	-	5-5	X	▲	PARAPET VERT.
G510	X	2	2	-	11-7	X		PARAPET HORIZ.
G511	X	-	-	346	4-5	X		PARAPET VERT.
G512	X	-	-	48	41-2			PARAPET HORIZ.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

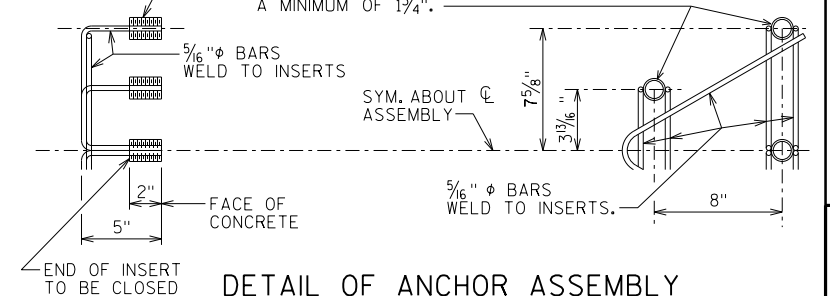
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
G509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



THREADED INSERTS FOR 7/8" ϕ X 2" LONG GALVANIZED HEX HEAD CAP SCREWS. CAP SCREWS TO BE THREADED A MIN. OF 1/8" AND SHALL BE SUPPLIED, INCLUDING WASHERS, WITH ASSEMBLY. INSERTS TO BE THREADED A MINIMUM OF 1/4".



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

● CONST. JOINT - STRIKE OFF AS SHOWN.

■ G503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE G503 OR S503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ G501 AND G504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
SINGLE SLOPED PARAPET 42SS			SHEET 25 OF 26

8

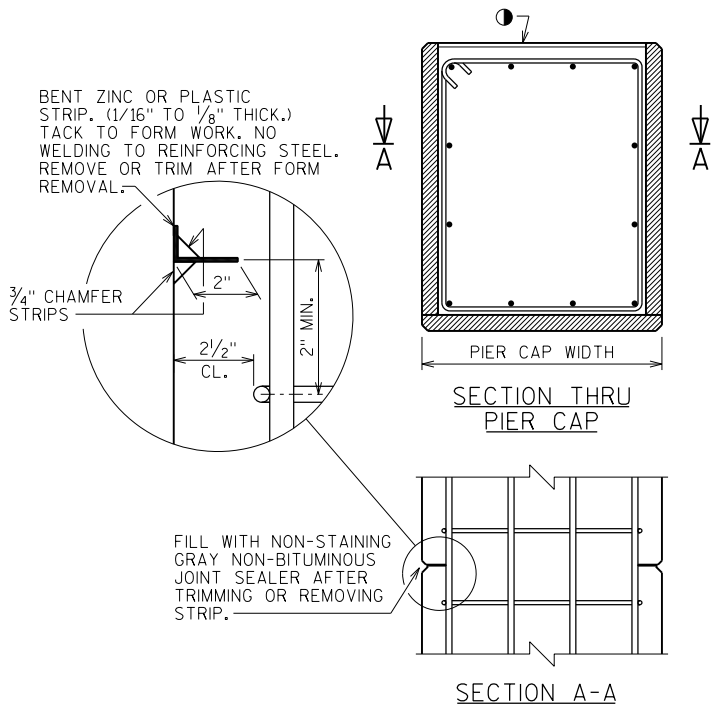
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PLOT TIME: 10/7/33 AM

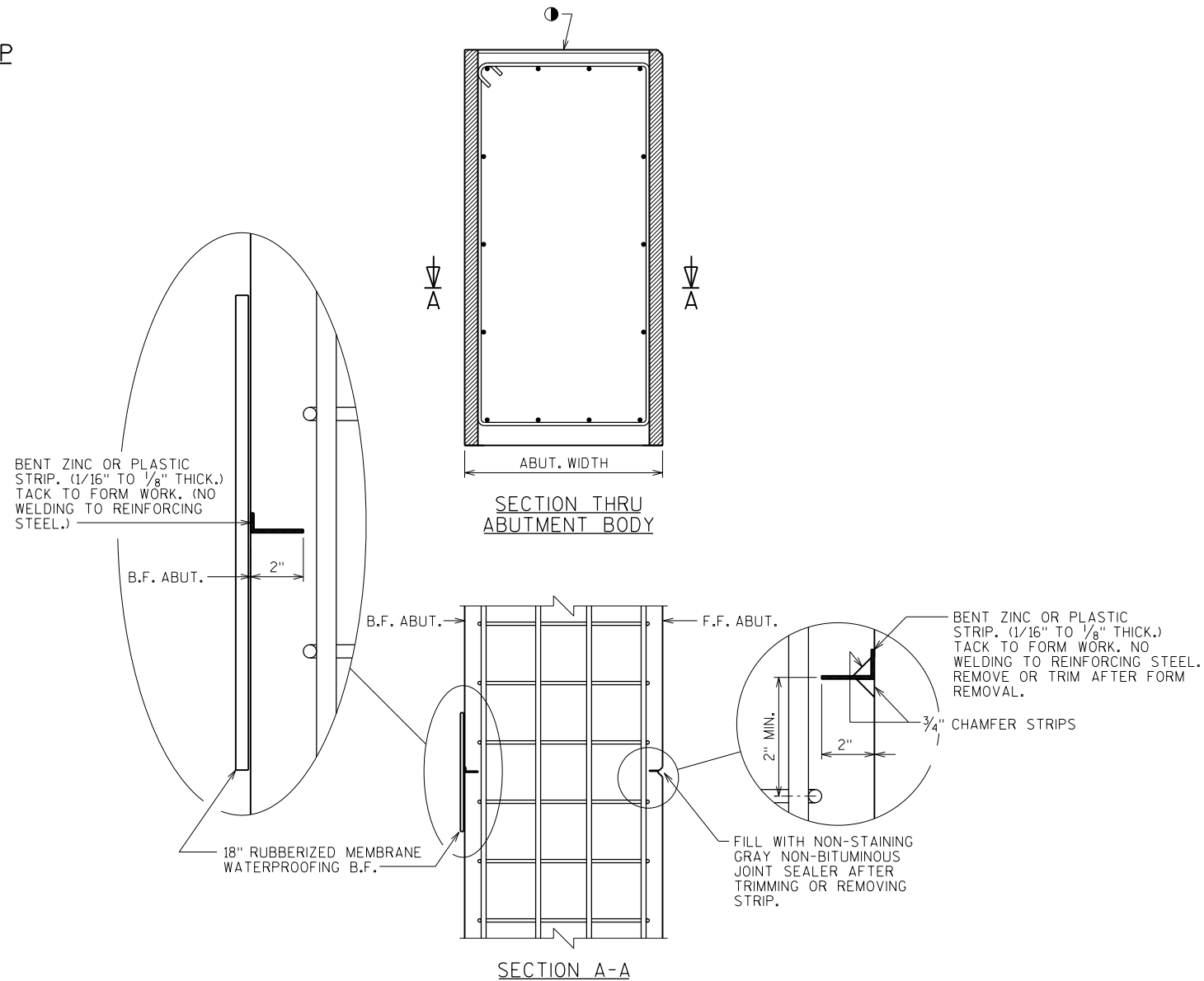
PLOT DATE: 9/10/2015

1 2 3 6

8



ALTERNATE CONSTRUCTION JOINT AT PIER CAP



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

STATE PROJECT NUMBER

8919-03-72

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-9-280			
DRAWN BY DLF		PLANS CK'D. NCK	
ALTERNATE CONSTRUCTION JOINT		SHEET 26 OF 26	

ALT.JOINT
10-08

8

CTH X, CHIPPEWA COUNTY
BACKFILL GRANULAR - *EXPANDED AT 1.3

	END AREA	VOLUME		CUM VOLUME		MASS HAUL	
STATION	CUT (SF)	FILL (SF)	CUT (CY) Note 1	FILL (CY) Note 2, 3	CUT (CY) Note 1	FILL (CY) Note 2, 3	(CY) Note 4

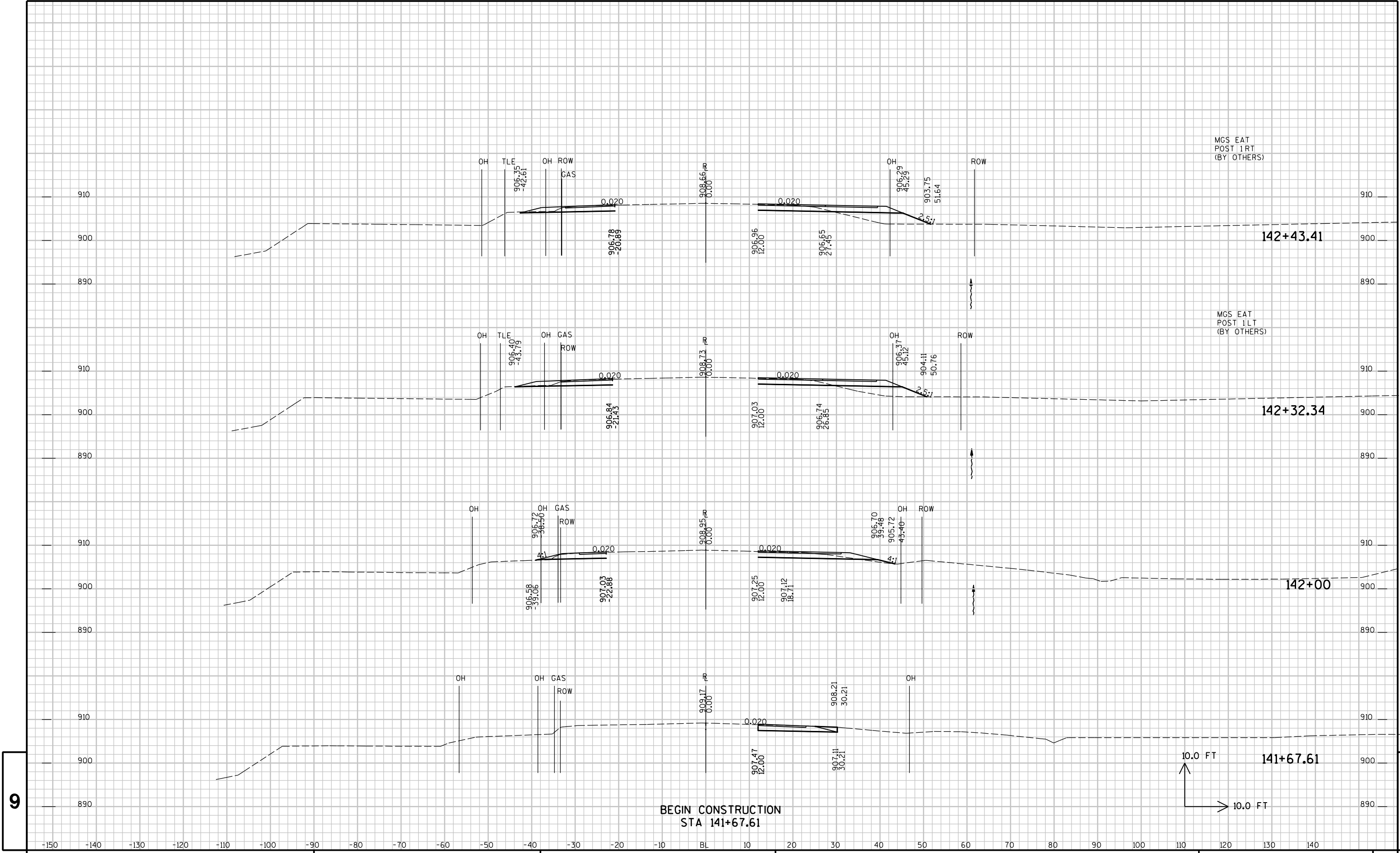
141+68	23	0	0	0	0	0	0
142+00	37	6.7	36	5	36	5	31
142+32	33	27.3	42	26	78	32	46
142+43	33	32.7	14	16	91	48	44
142+57	35	34.3	18	22	109	70	39
142+63	81.4	33.9	12	9	121	79	42
142+68	82	33.4	16	9	137	88	49
142+82	82.1	32.1	42	22	180	110	70
142+93	83	32.3	34	17	213	127	86
143+00	83.9	32.8	21	10	234	138	96
143+50	84.1	37	156	84	390	222	168
144+00	70.4	72.8	143	132	533	354	179
144+50	44.1	137.8	106	254	639	607	31
145+00	23.8	214.12	63	424	702	1031	-329
145+50	7.4	260.71	29	572	731	1603	-872
146+00	0	316.28	7	695	737	2297	-1560
146+50	0	368.87	0	825	737	3122	-2384
147+00	0	431.73	0	964	737	4085	-3348
147+50	0	461.73	0	1075	737	5161	-4424
147+72	0	482.09	0	496	737	5657	-4920
148+22	0	473.75	0	1147	737	6804	-6067
148+50	0	470.04	0	643	737	7447	-6710
148+85	0	470.04	0	792	737	8240	-7502
149+00	0	0	0	170	737	8409	-7672
STRUCTURE B-09-0280							
151+00	0	0	0	0	0	0	0
151+15	3.4	330.5	1	119	1	119	-118
151+50	3.4	330.5	4	557	5	676	-671
151+78	3	304.84	3	433	9	1109	-1101
152+28	2.6	265.97	5	685	14	1794	-1780
152+50	1.6	239.22	2	266	16	2060	-2044
153+00	1.1	203.05	3	532	18	2592	-2574
153+50	15.5	187.59	15	470	33	3063	-3029
154+00	39	144.05	50	399	84	3462	-3378
154+50	62.9	101.4	94	295	178	3757	-3579
155+00	85	82.2	137	221	315	3978	-3663
155+50	100.6	71.5	172	185	487	4163	-3676
156+00	108.4	80.08	194	182	681	4346	-3665
156+50	101	114.19	194	234	874	4579	-3705
157+00	87.5	135.16	175	300	1049	4880	-3831
157+22	78.9	156.77	68	154	1117	5034	-3917
157+47	63.3	127.23	66	172	1183	5206	-4023
157+72	64.6	87.1	60	130	1243	5336	-4093
158+00	54.4	106	61	129	1304	5465	-4161
158+50	51.2	121.5	98	274	1401	5738	-4337
159+00	51	139.2	95	314	1496	6052	-4556
159+50	50	119	94	311	1590	6363	-4774
160+00	56	133.8	98	304	1688	6667	-4980
160+50	60.1	140.8	108	331	1795	6998	-5203
161+00	64.2	16.8	115	190	1910	7188	-5277
161+23	63	7.6	54	13	1964	7201	-5237
161+48	61.1	9.2	57	10	2021	7211	-5190
161+73	69.8	8.9	61	11	2082	7222	-5140
162+00	71.8	1	71	6	2153	7228	-5075
162+50	73.4	0.4	134	2	2288	7230	-4942

CTH X, CHIPPEWA COUNTY
BREAKER RUN - NOT EXPANDED (TABLE VALUES ARE IN CY. VALUES ON MISCELLANEOUS QUANTITIES SHEET ARE IN TONS.)

	END AREA	VOLUME		CUM VOLUME		MASS HAUL	
STATION	CUT (SF)	FILL (SF)	CUT (CY) Note 1	FILL (CY) Note 2, 3	CUT (CY) Note 1	FILL (CY) Note 2, 3	(CY) Note 4

144+50	0	0	0	0	0	0	0
145+00	0	14.58	0	14	0	14	-14
145+50	0	105.99	0	112	0	125	-125
146+00	0	228.92	0	310	0	435	-435
146+50	0	276.53	0	468	0	903	-903
147+00	0	471.17	0	692	0	1596	-1596
147+50	0	357.75	0	768	0	2363	-2363
147+72	0	312.61	0	271	0	2634	-2634
148+22	0	314.35	0	579	0	3213	-3213
148+50	0	632.76	0	497	0	3710	-3710
148+85	0	632.76	0	820	0	4530	-4530
STRUCTURE B-09-0280							
151+15	0	1860	0	0	0	0	0
151+50	0	1860	0	2411	0	2411	-2411
151+78	0	1756.26	0	1896	0	4307	-4307
152+28	0	1591.23	0	3090	0	7397	-7397
152+50	0	1634.38	0	1305	0	8702	-8702
153+00	0	1529.45	0	2929	0	11631	-11631
153+50	0	1285.45	0	2606	0	14238	-14238
154+00	0	915.45	0	2038	0	16275	-16275
154+50	0	500	0	1311	0	17586	-17586
155+00	0	282.1	0	724	0	18310	-18310
155+50	0	274.9	0	516	0	18826	-18826
156+00	0	310.22	0	542	0	19368	-19368
156+50	0	277.01	0	544	0	19912	-19912
157+00	0	165.54	0	410	0	20321	-20321
157+22	0	78.43	0	99	0	20420	-20420
157+47	0	5.874	0	39	0	20460	-20460

- NOTES:
1) Salvaged/Unusable Pavement Material is included in Cut.
2) Does not include Unusable Pavement Excavation volume.
3) Will be backfilled with Cut or Borrow.
4) Plus quantity indicates an excess of material. Minus indicates a shortage of material.

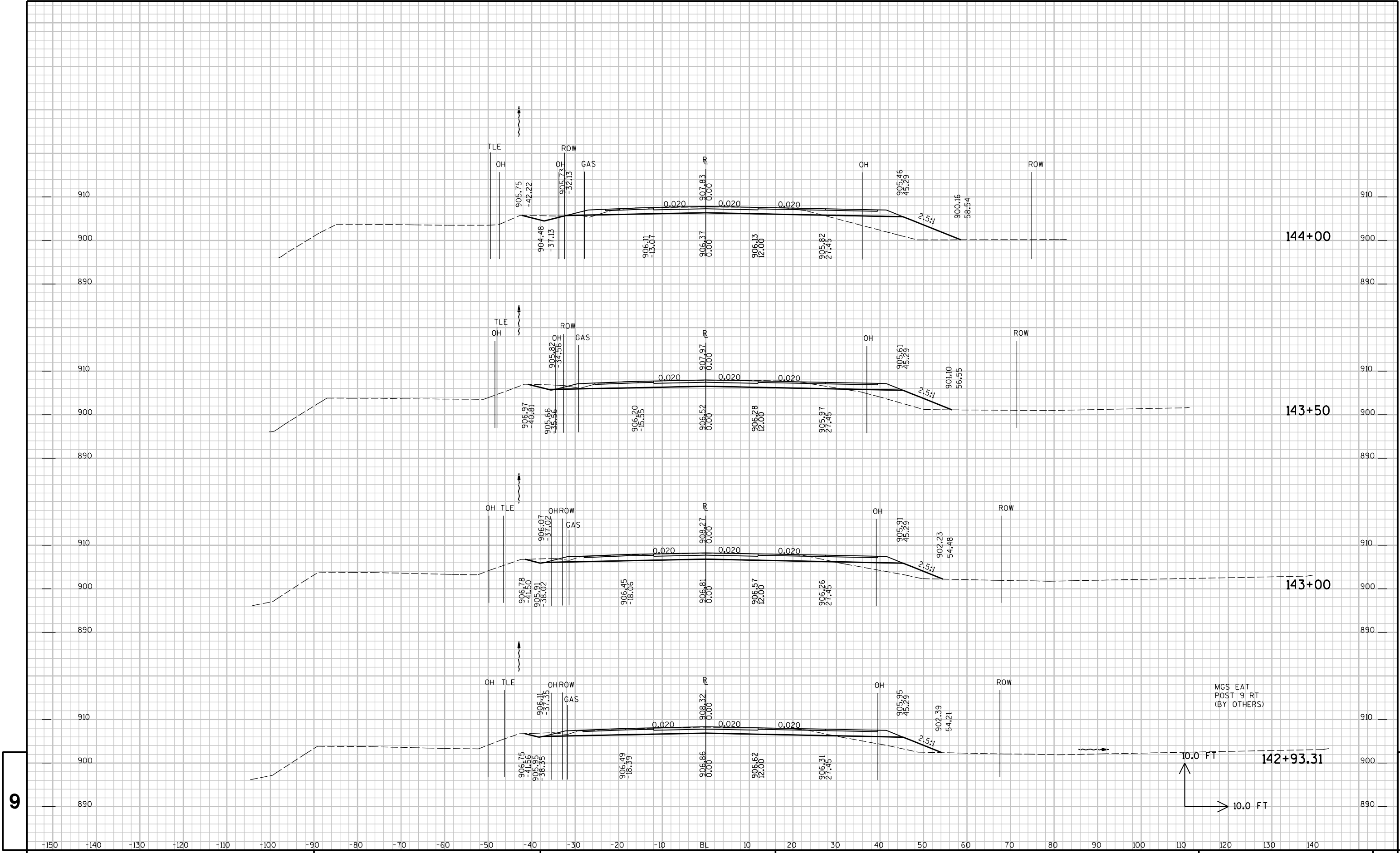


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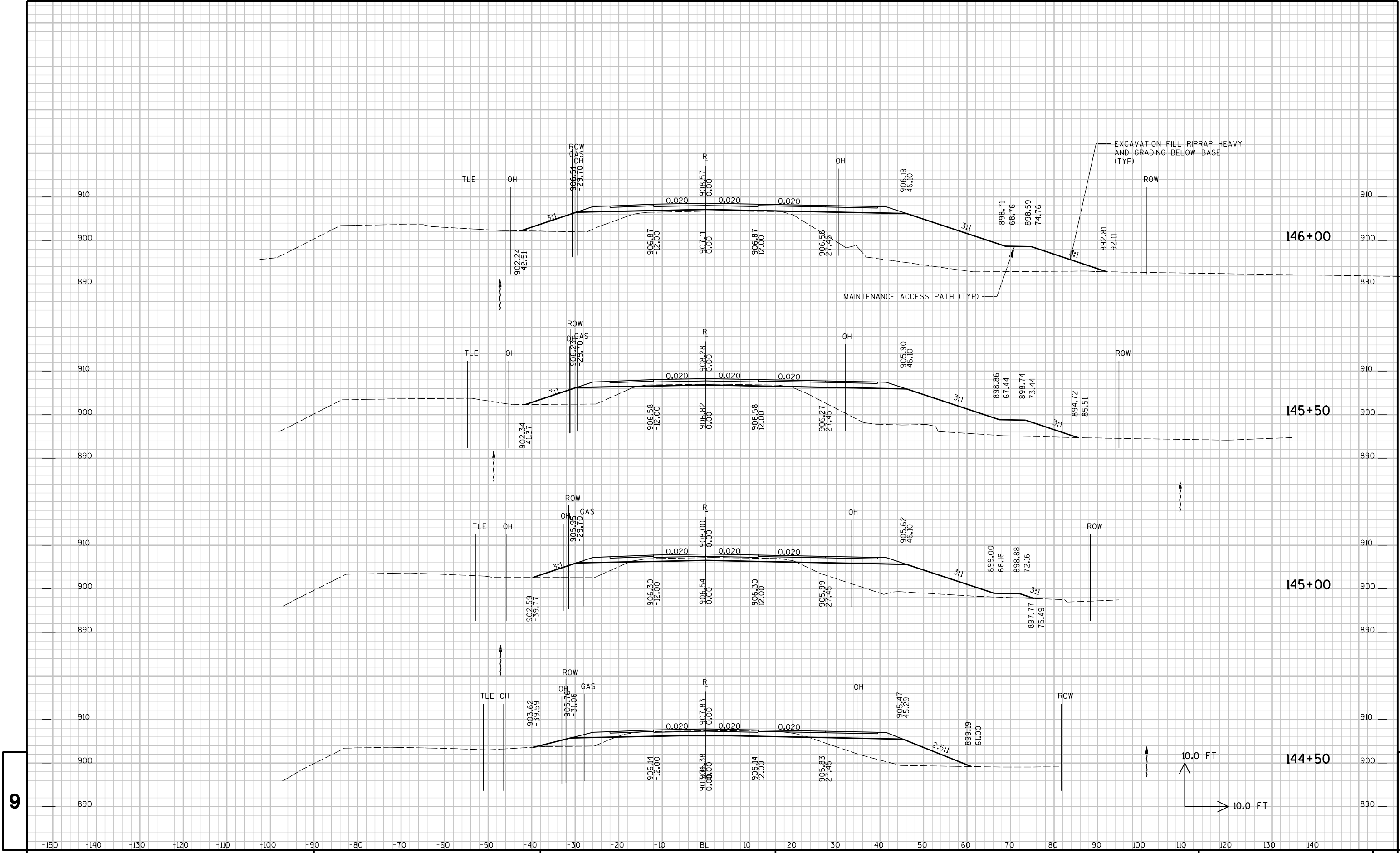
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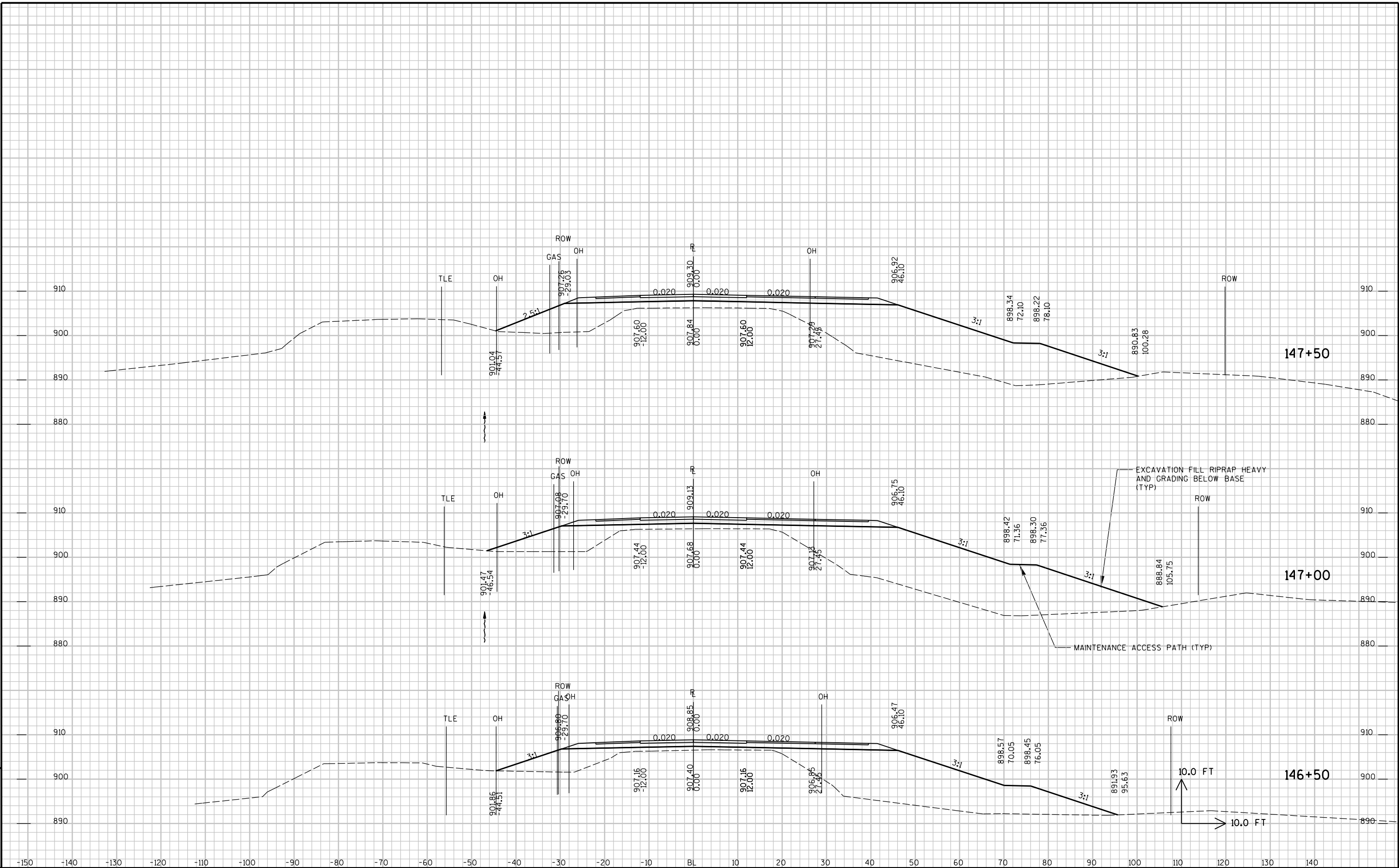


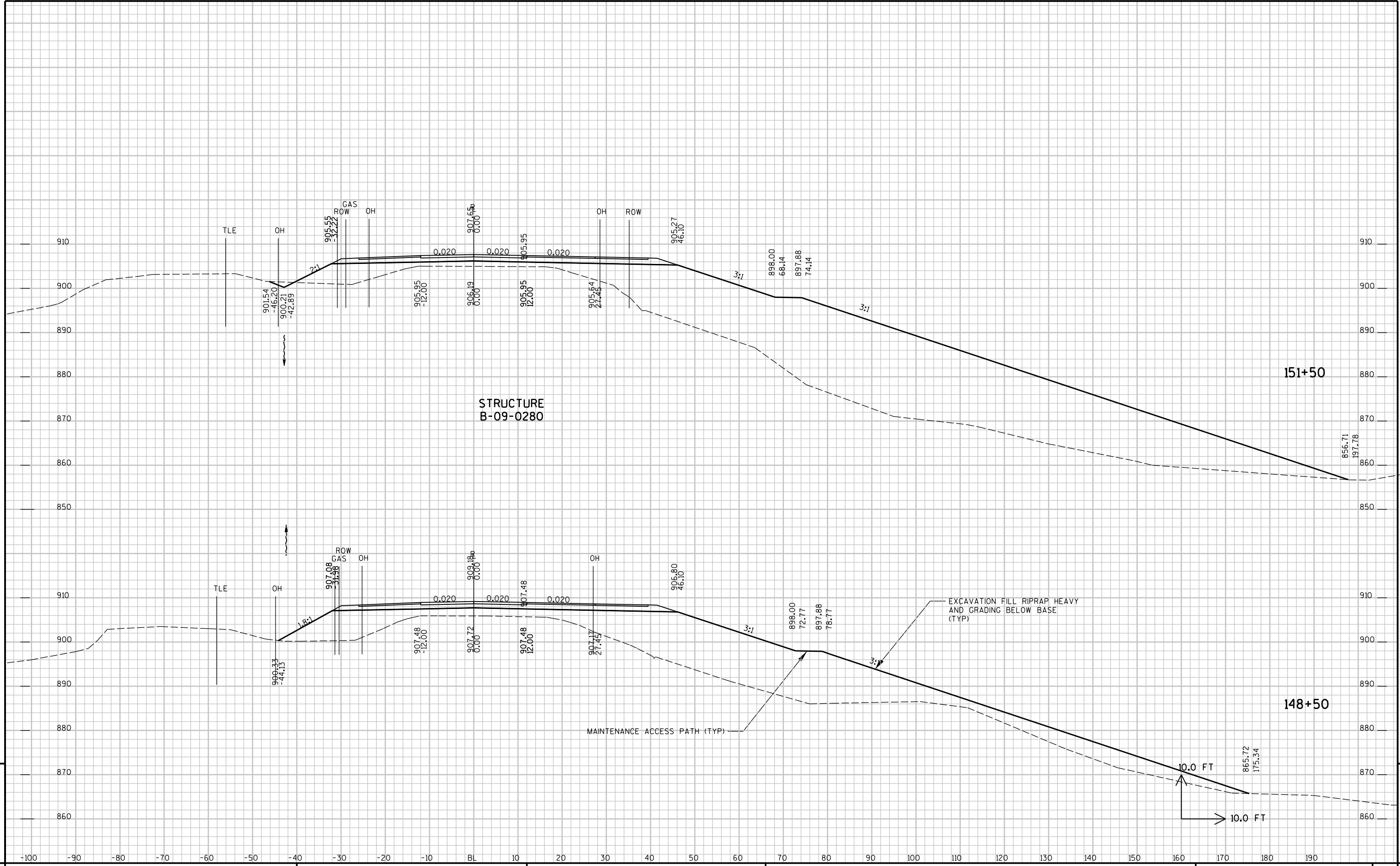
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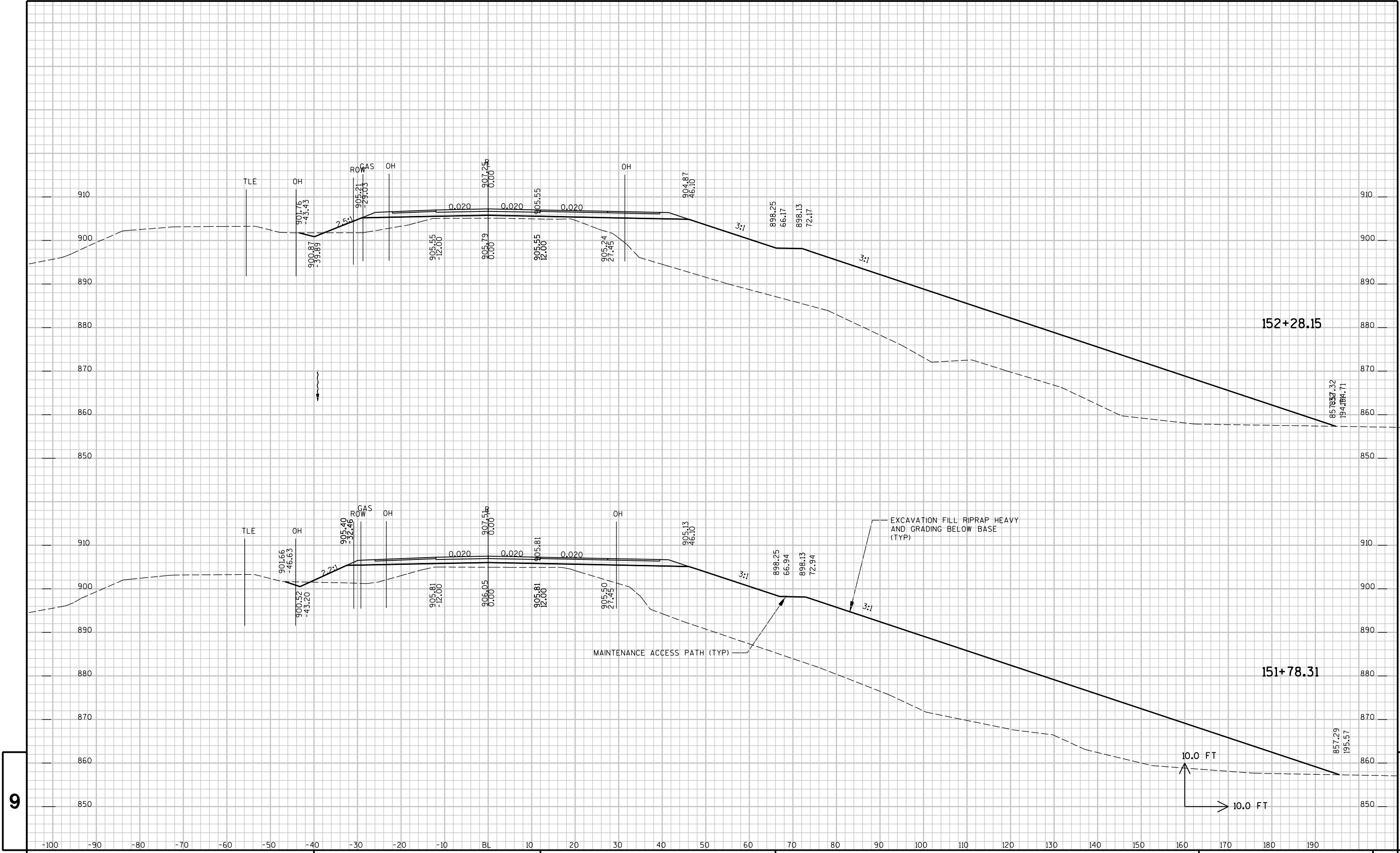
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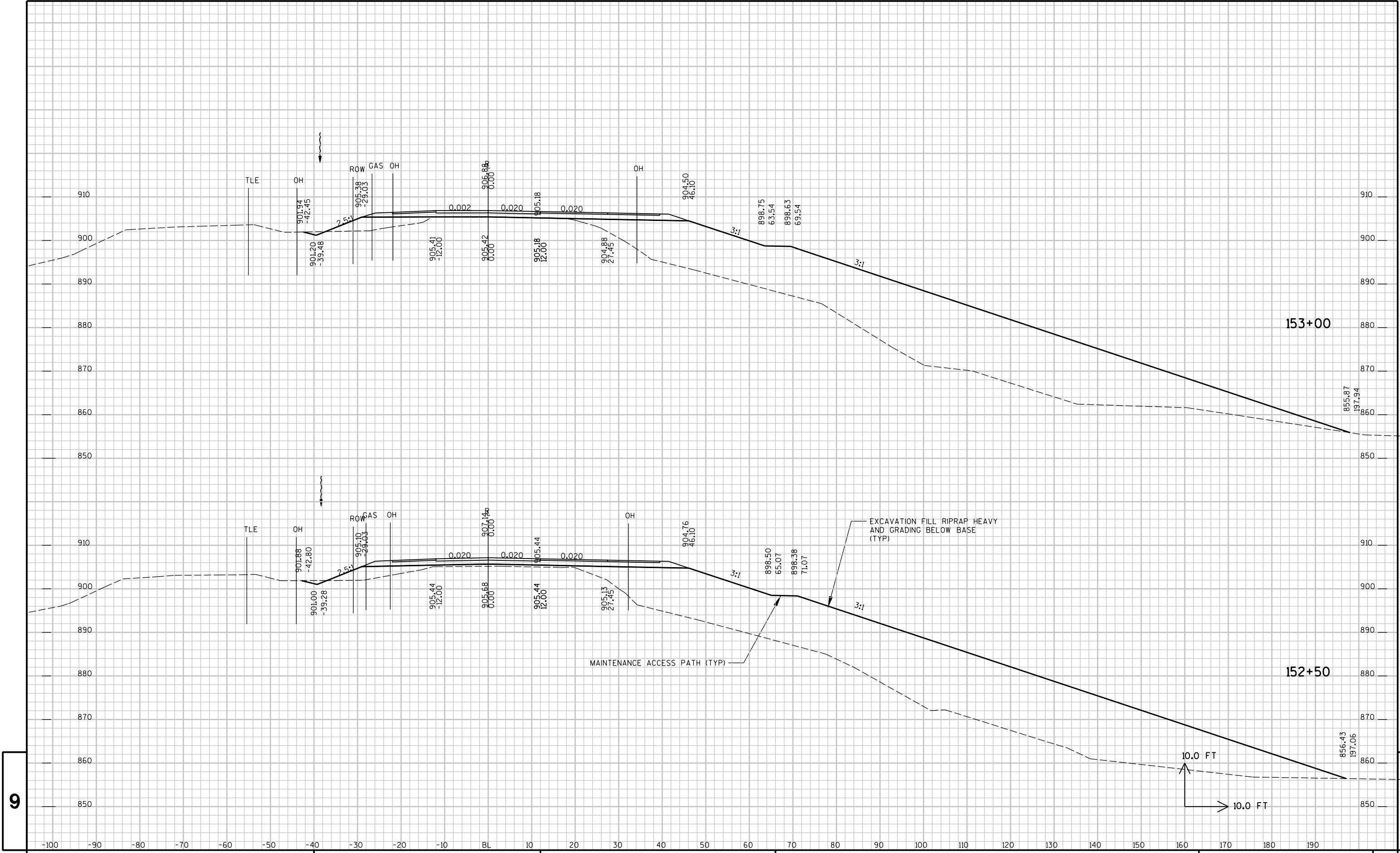
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PROJECT NO: 8919-03-72	HWY : CTH X	COUNTY : CHIPPEWA	CROSS SECTIONS -	SHEET NO:	E
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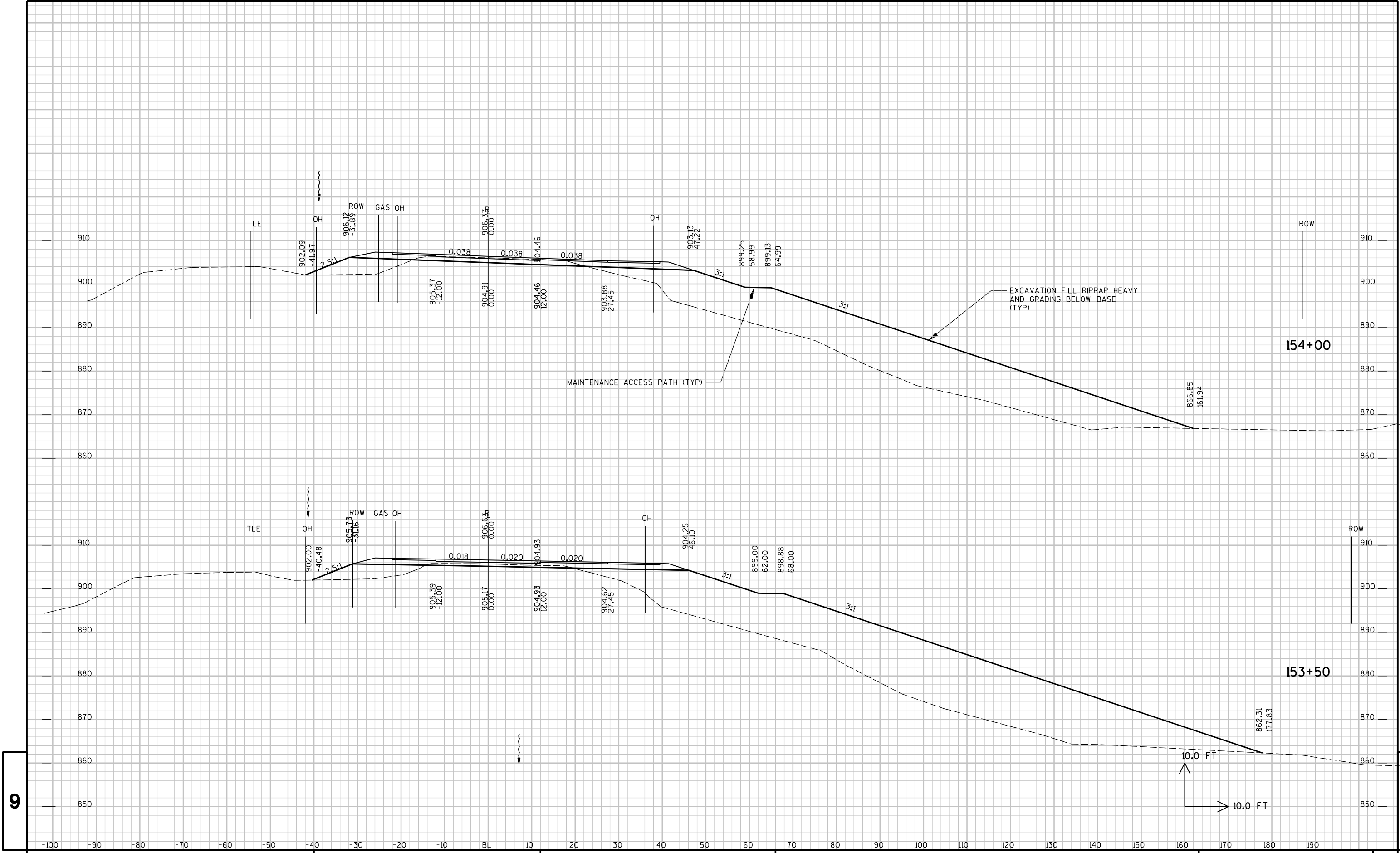
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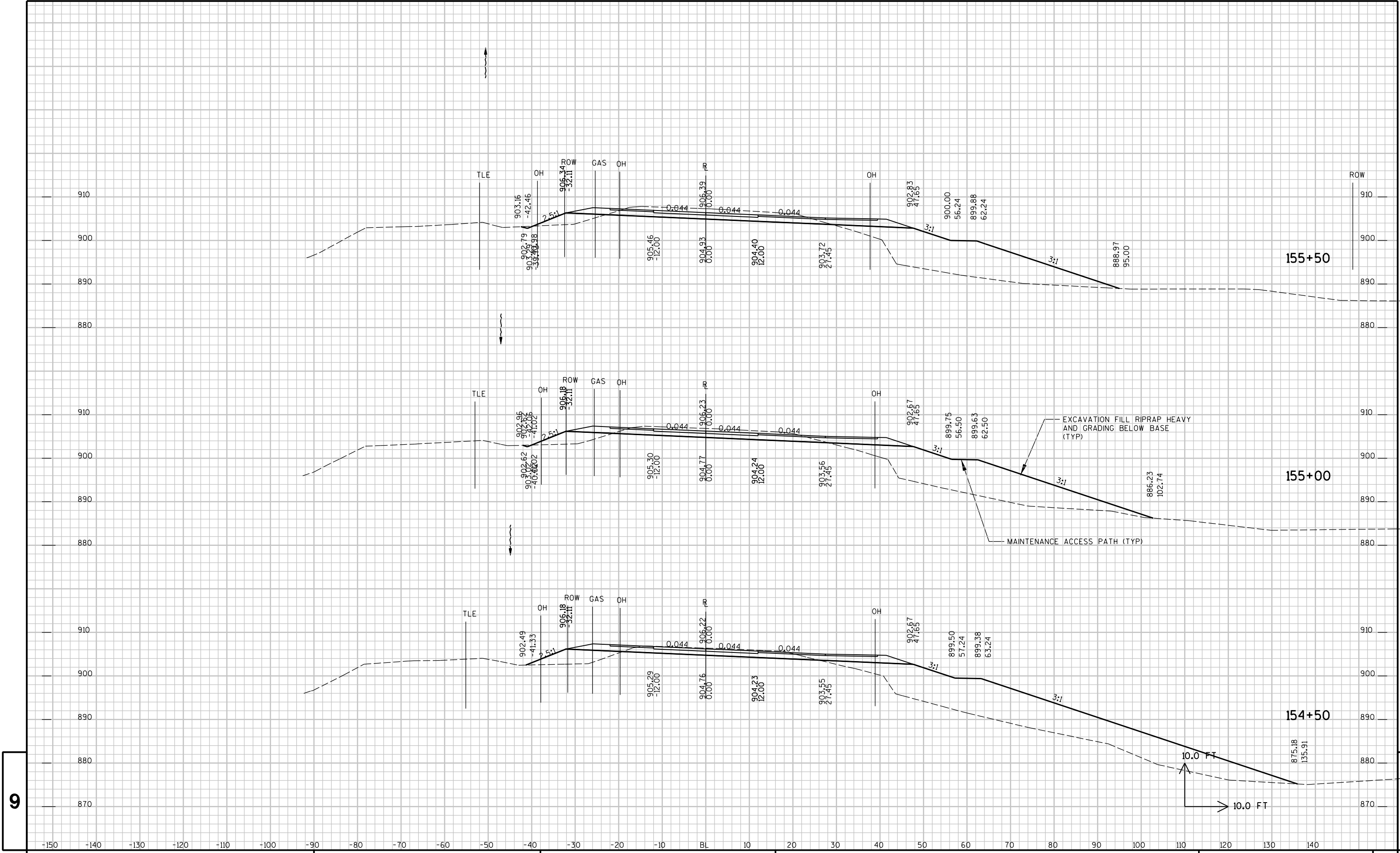
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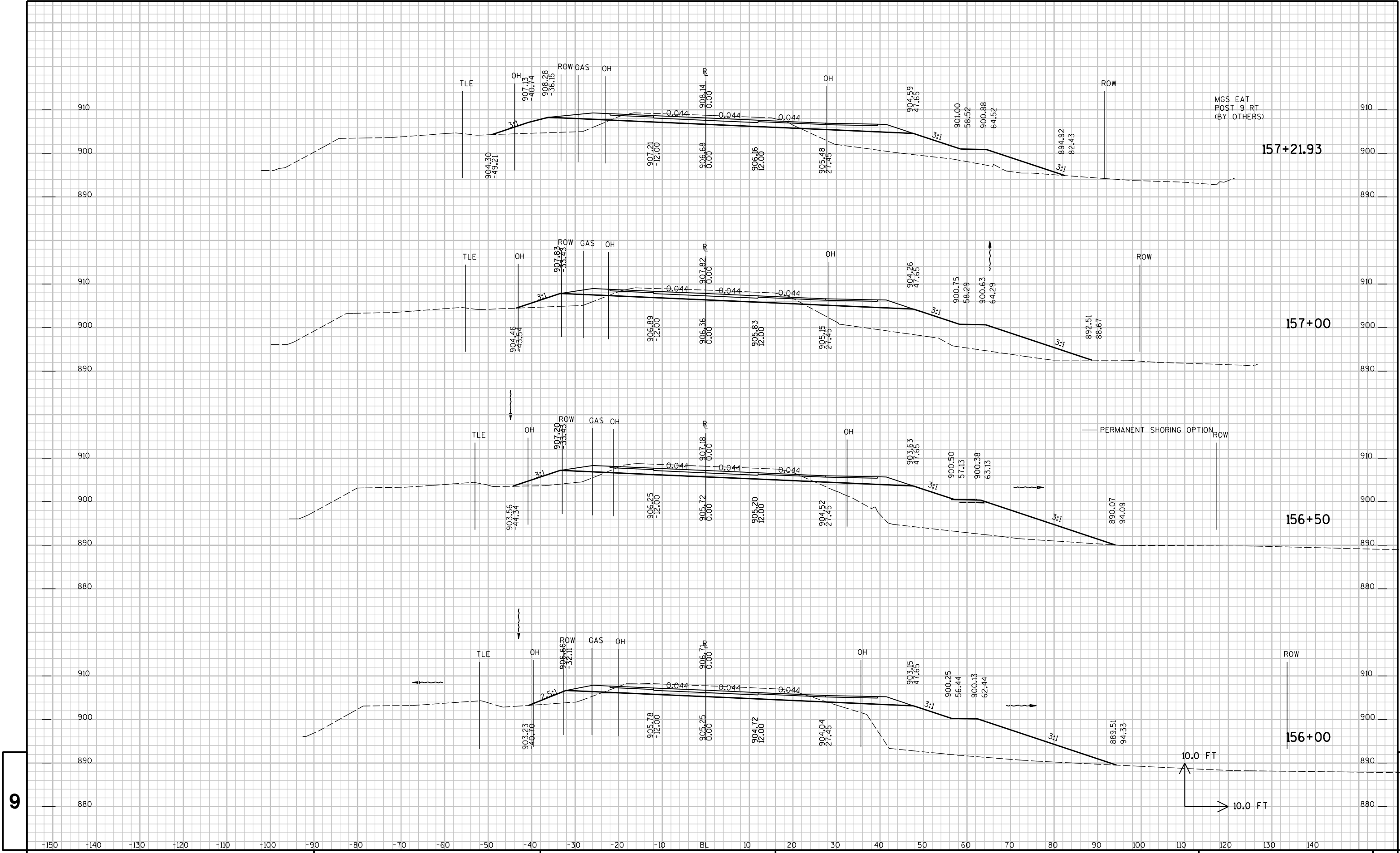
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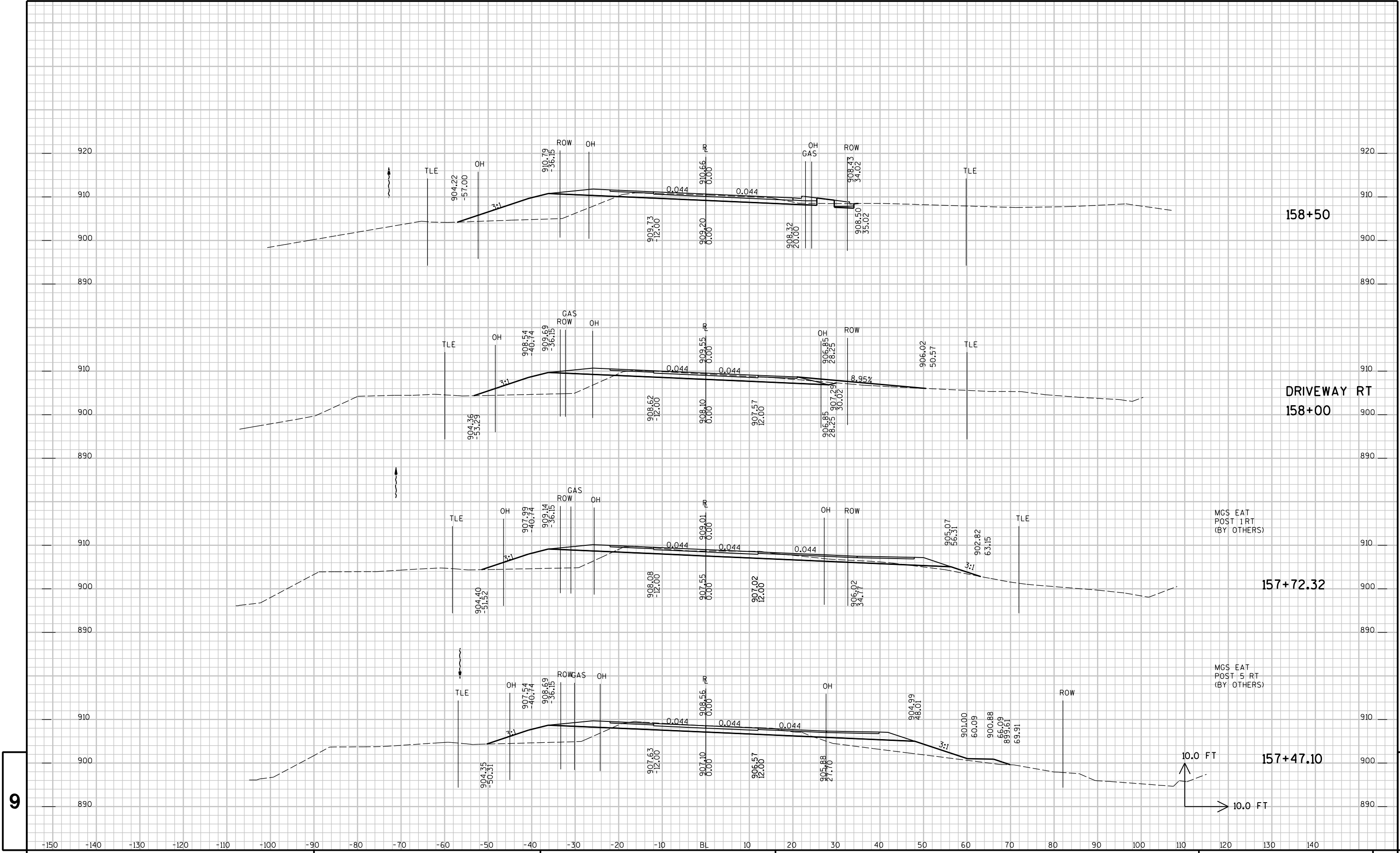
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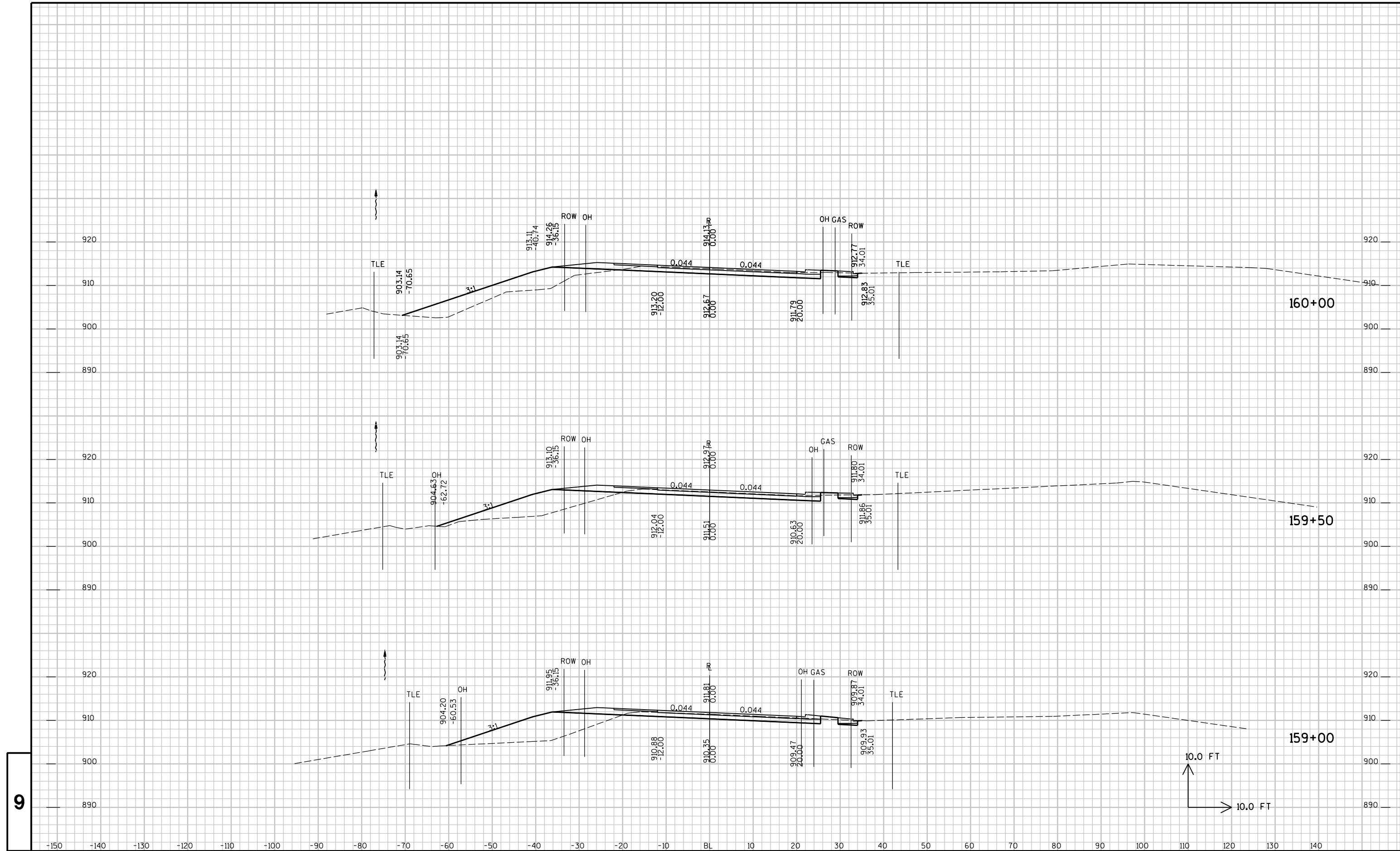
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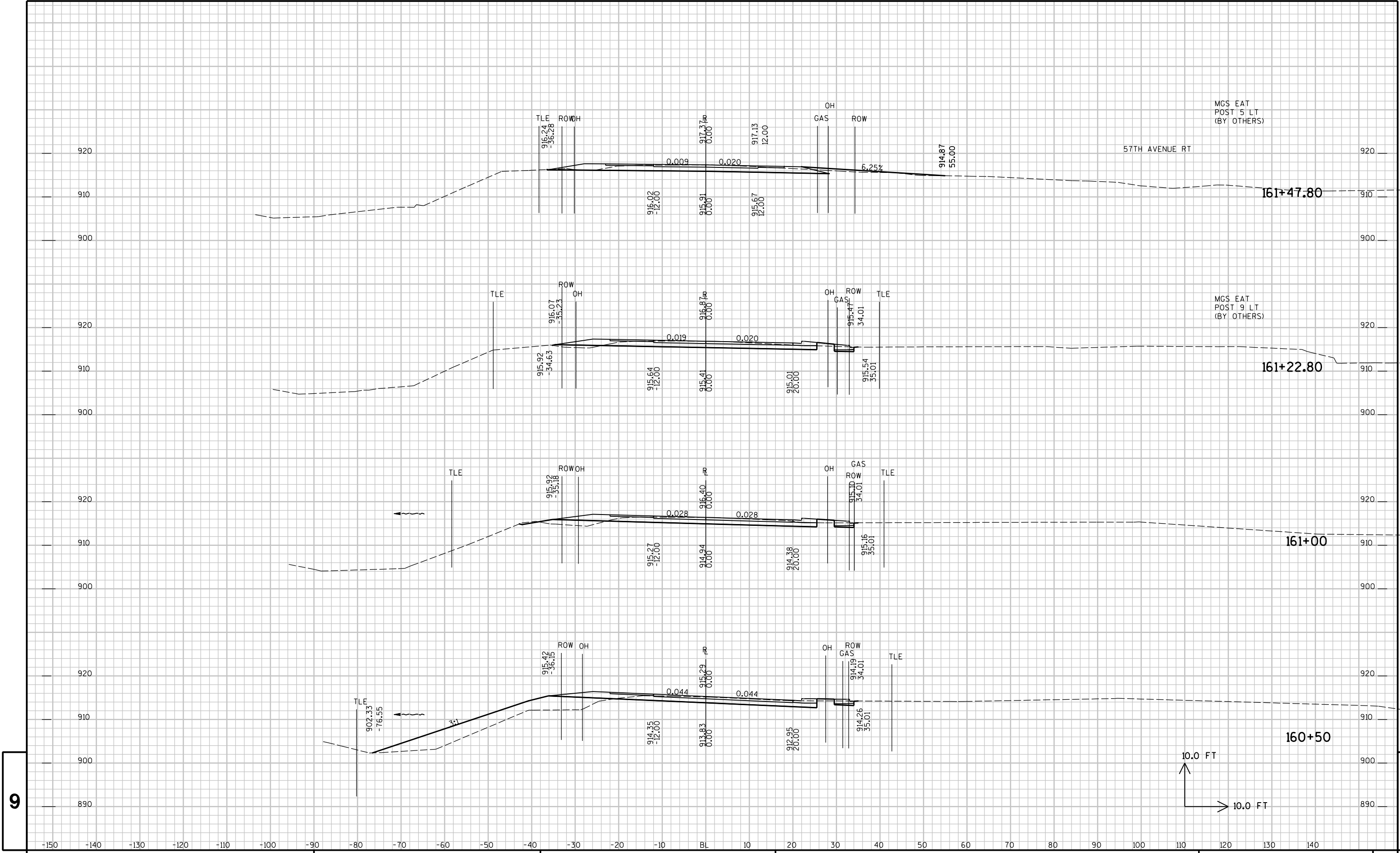
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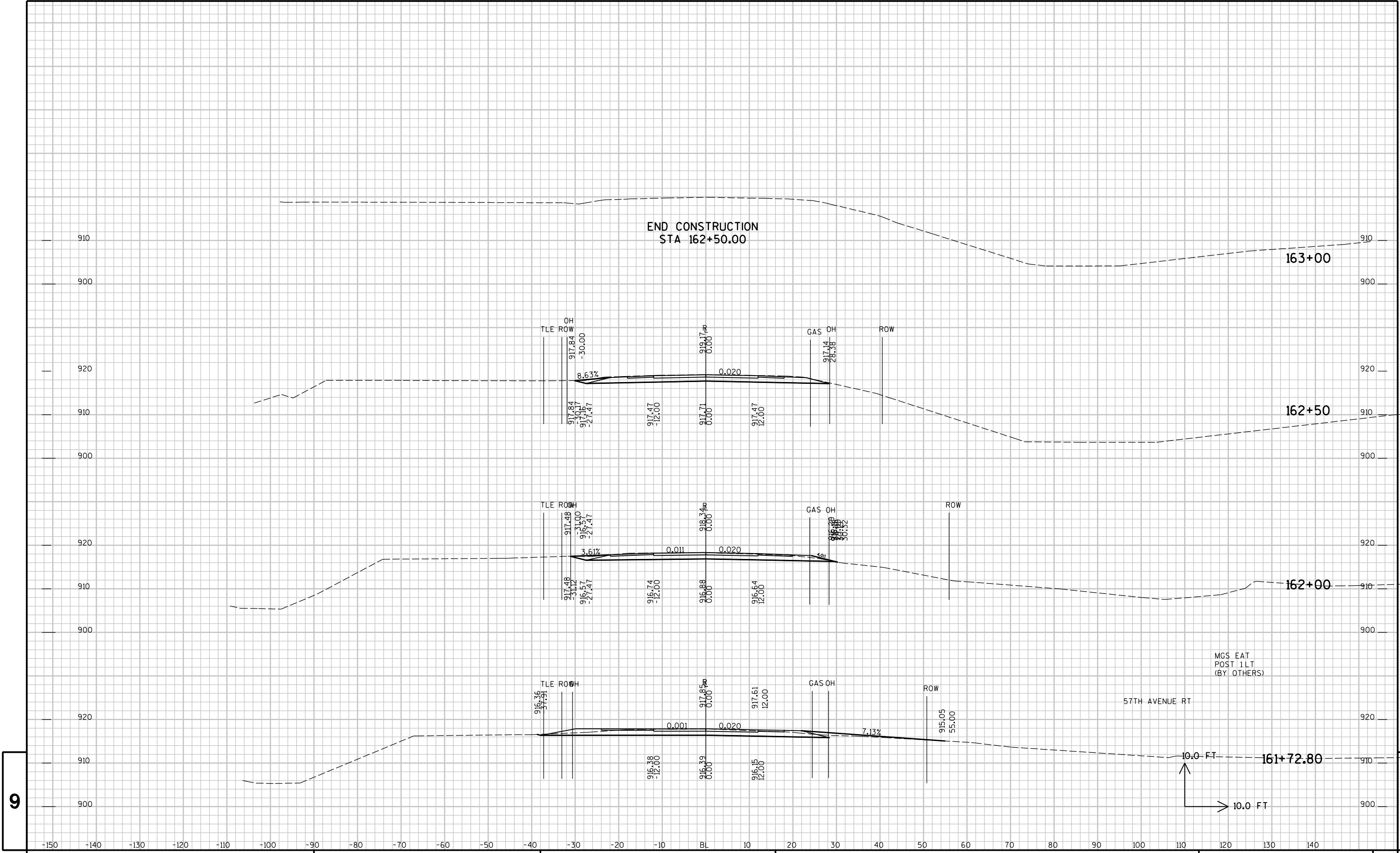
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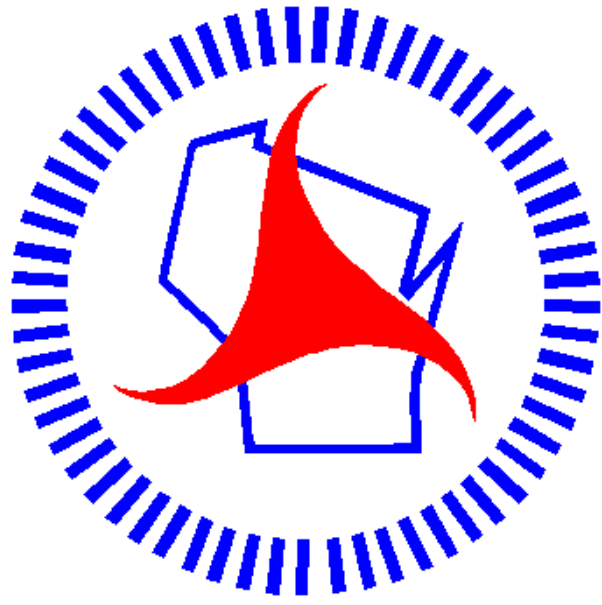
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Notes



Wisconsin Department of Transportation

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