

RHI

PROJECT ID: 1185-02-71

WITH: NA

COUNTY: IRON

AUGUST 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 102



DESIGN DESIGNATION		1185-02-01
A.A.D.T.	2024	= 4,070
A.A.D.T.	2044	= 4,620
D.H.V.		= 24
D.D.		= 61/39
T.		= 12.8%
DESIGN SPEED		= 60 MPH
ESALS		= 1,130,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

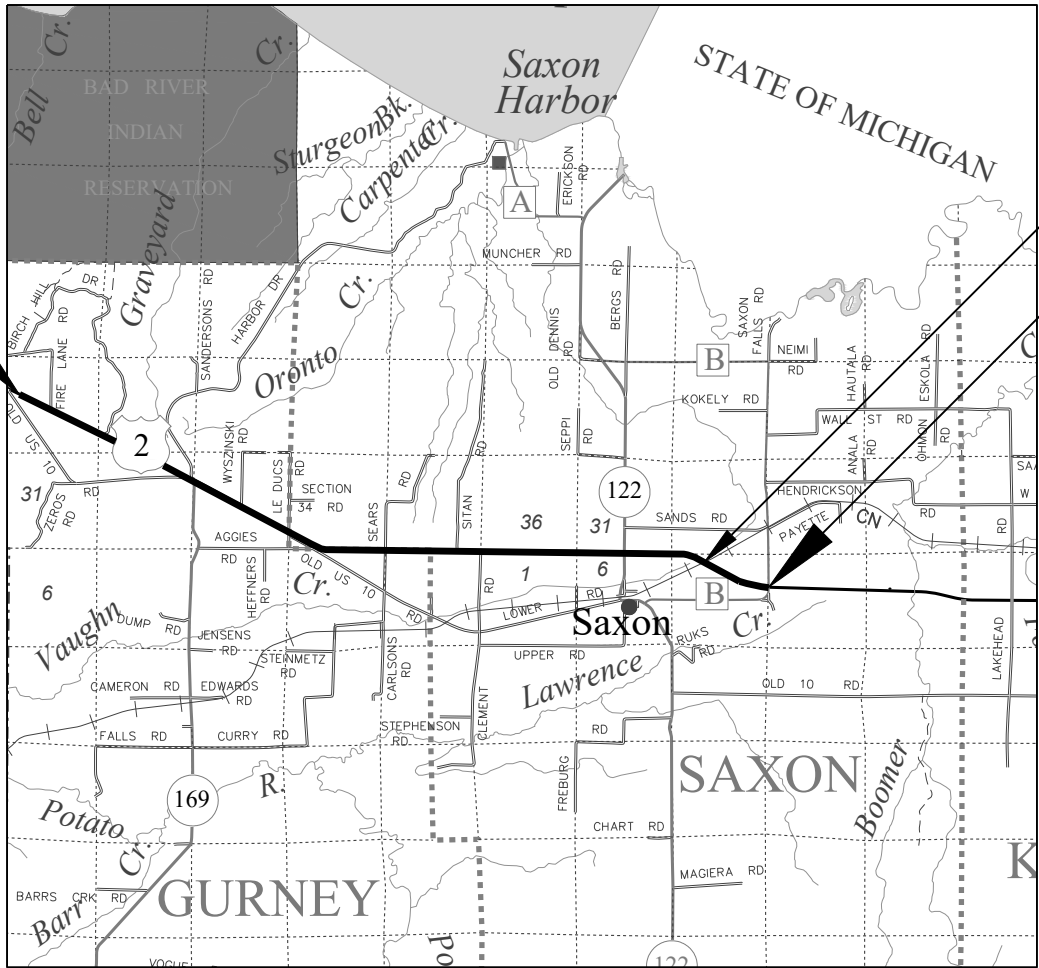
ASHLAND - SAXON

ASHLAND COUNTY LINE TO CTH B

USH 2

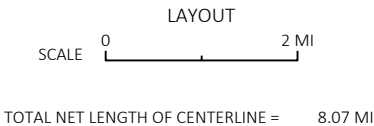
IRON COUNTY

STATE PROJECT NUMBER
1185-02-71



BEGIN PROJECT
STA 115+00
N: 397660.7610'
E: 652208.2200'

EXCEPTION TO NET CENTERLINE LENGTH
STA 507+80 TO 510+20
B-26-11
END PROJECT
STA 543+50



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), IRON COUNTY, NAD83 (2012), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1185-02-71	WISC 2024419	1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	REGION
Surveyor	MARC SHEAN
Designer	MICHELLE GUOIN
Project Manager	FRED SCHUNKE
Regional Examiner	DAN ERVA
Regional Supervisor	
APPROVED FOR THE DEPARTMENT	
DATE: 4/26/2024	Michelle Guoin (Signature)

E

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND EROSION MATTED

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

SECTION 2 ORDERAS-BUILT REFERENCE (YEAR)*

PROJECT OVERVIEW	DJ7893 (1932)
TYPICAL SECTION	T022-1(7) (1954)
CONSTRUCTION DETAILS	T022-1(28) (1961)
INTERSECTION DETAILS	1181-05-70 (1974)
EROSION CONTROL	1181-05-71 (1975)
PAVEMENT MARKING	1181-08-71 (1984)
TRAFFIC CONTROL	1185-02-70 (2003)

*APPROVAL YEAR (NOT CONSTRUCTION)

WI DNR LIASION

DNR NORTHERN REGION HEADQUARTERS
JON SIMONSEN
107 SUTLIFF AVE
RHINELANDER, WI 54501
PHONE: (715) 367- 1936
EMAIL: jonathan.simonsen@wisconsin.gov

Runoff Coefficient Table

	Hydrologic Soil Group											
	A			B			C			D		
	Slope Range (Percent)											
Land Use	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over	0 - 2	2 - 6	6 & Over
Row Crops	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
Median Strip-Turf	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
Side Slope Turf			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
Pavement												
Asphalt	0.70 - 0.95											
Concrete	0.80 - 0.95											
Brick	0.70 - 0.80											
Drives, Sidewalks	0.75 - 0.85											
Roofs	0.75 - 0.95											
Gravel Roads, Shoulders	0.40 - 0.60											

Total Project Area = 196 Acres
Total Area Expected To Be Disturbed By Construction Activities = 0.29 Acres

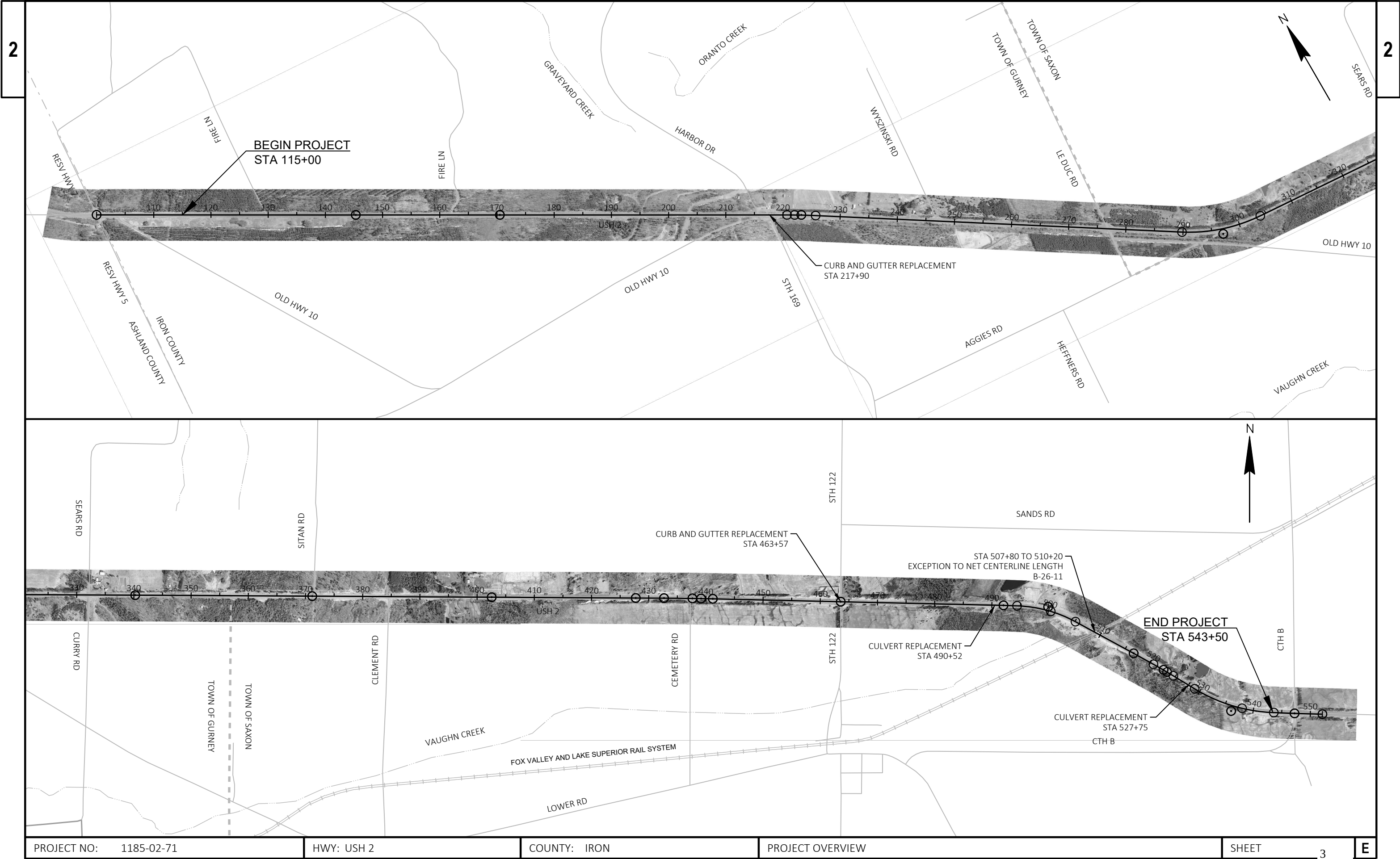
UTILITIES CONTACTS

Astrea - Communication Line ANDREW HEIGL 105 Kent Street P.O. Box 190 Iron Mountain, MI 49801 (906) 221-7536 Astreaconstruction@astreaconnect.com	Bayfield Electric Cooperative Inc - Electricity ROBERT LAHTI 68460 District Street Iron River, WI 54847 (715) 372-4287 Bob.Lahti@BayfieldElectric.com
Brightspeed N Ctrl W - Communications Line ROB LUICK 1905 Ward Avenue S LaCross, WI 54601 (980) 376-1572 relocations@brightspeed.com	Enbridge Energy - Gas/Petroleum KELLY DALY 1600 2ND Ave SW, Suite 16 Minot, ND 58701 (701) 857-0813 MWRcrossings@enbridge.com
Great Lakes Gas - Gas/Petroleum MICHAEL BRISTER 677 Anne Street NW, Suite H Bemidji, MN 56601 (701) 471-0519 michael_brister@tcenergy.com	Merit Networks, Inc - Communications Line NICK ANDRUS 100 Oakbrook Drive, Suite 200 Ann Arbor, MI 48104 (734) 527-5777 osp@merit.edu
Northern Natural Gas Company - Gas/Petroleum BILL MILLER 8101 Birchwood Court, Suite F Johnston, IA 50131 (402) 530-2026 William.Miller@NNGco.com	Xcel Energy - Electricity DAWN SCHULTZ 1414 West Hamilton P.O. Box 8 Eau Claire, WI 54702-0008 (715) 737-2482 dawn.schultz@xcelenergy.com
Xcel Energy - Gas/Petroleum DAWN SCHULTZ 1414 West Hamilton P.O. Box 8 Eau Claire, WI 54702-0008 (715) 737-2482 dawn.schultz@xcelenergy.com	

DIGGERSHOTLINE

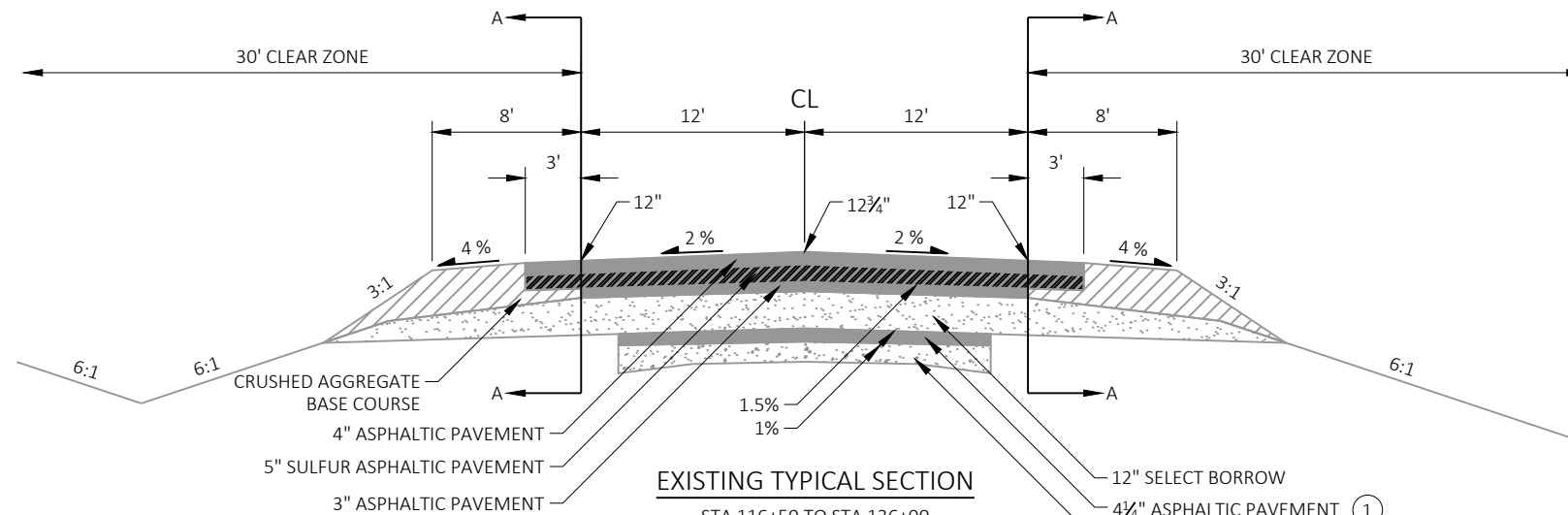
Dial 811 or (800)242-8511

www.DiggersHotline.com

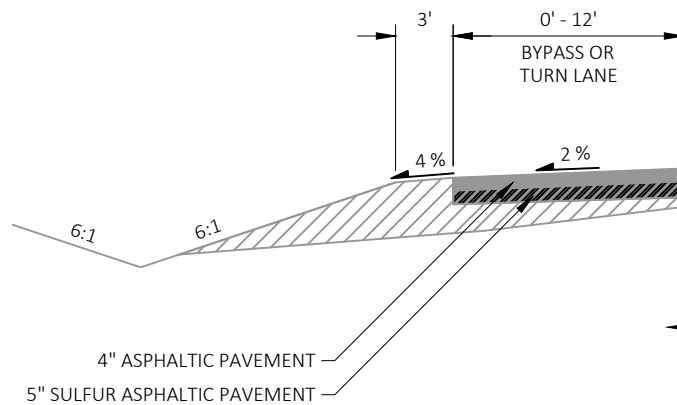


PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	PROJECT OVERVIEW	SHEET 3	E
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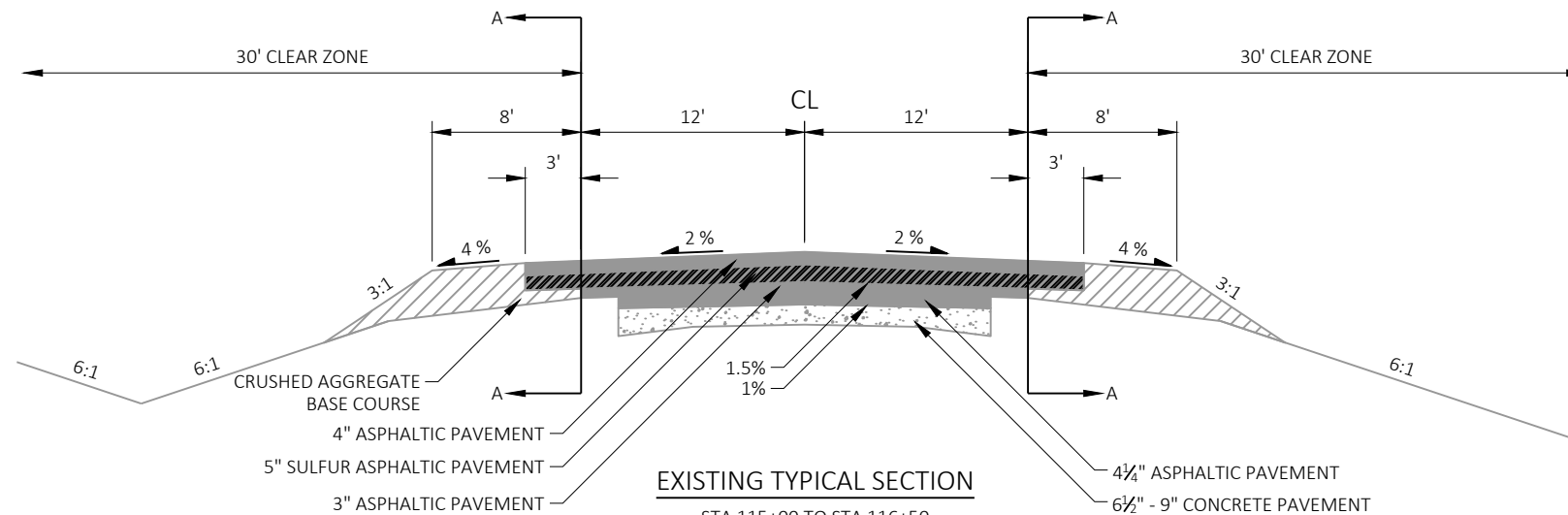
- ① DEPTH EQUALS 0"
STA 173+00 TO STA 181+00
STA 299+00 TO STA 305+00
STA 316+00 TO STA 327+50
STA 343+00 TO STA 351+50
STA 366+30 TO STA 372+75
STA 382+65 TO STA 388+00
STA 415+60 TO STA 428+00
STA 434+00 TO STA 439+30
STA 444+25 TO STA 450+00
STA 474+30 TO STA 481+85
STA 491+80 TO STA 495+00



STA 116+50 TO STA 136+00
STA 140+00 TO STA 148+00
STA 152+00 TO STA 160+00
STA 162+50 TO STA 164+50
STA 168+50 TO STA 190+00
STA 191+50 TO STA 200+00
STA 204+50 TO STA 213+00
STA 218+00 TO STA 228+00
STA 230+50 TO STA 271+50
STA 274+00 TO STA 333+50
STA 338+50 TO STA 398+50
STA 405+50 TO STA 528+00
STA 530+50 TO STA 541+00



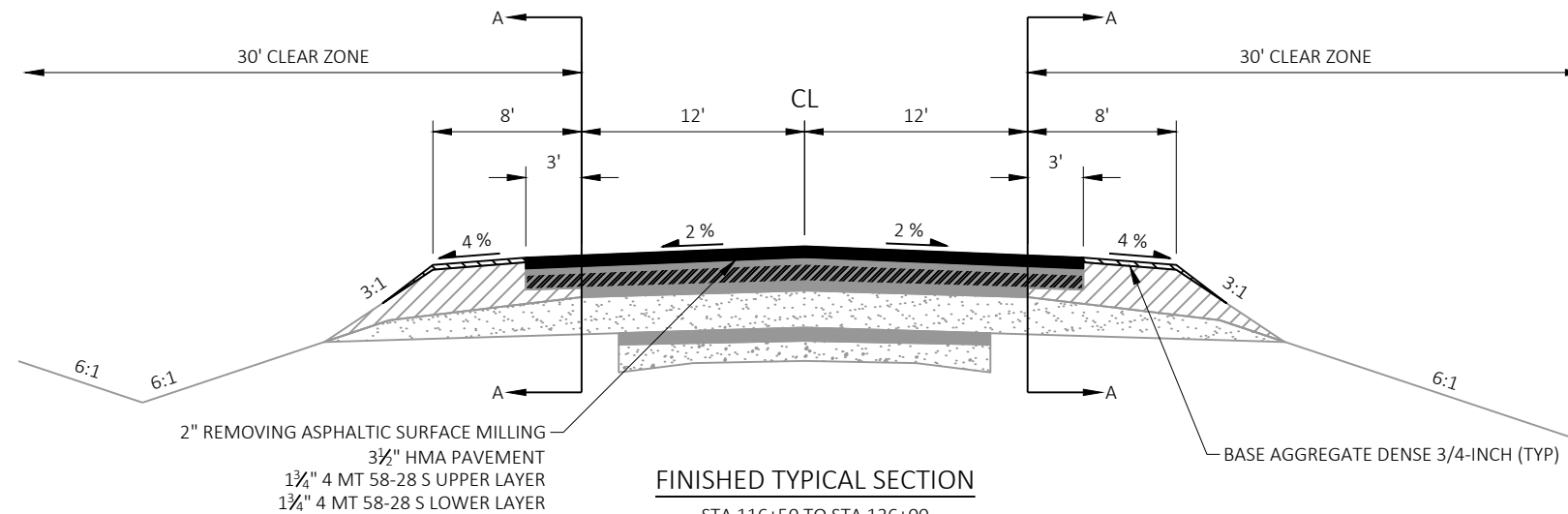
STA 214+15 RT TO STA 217+31 RT
STA 214+15 LT TO STA 220+95 LT
STA 458+66 RT TO STA 463+02 RT
STA 464+13 LT TO STA 468+16 LT
ROTATE 180° FOR RIGHT SIDE



STA 115+00 TO STA 116+50
STA 136+00 TO STA 140+00
STA 148+00 TO STA 152+00
STA 160+00 TO STA 162+50
STA 164+50 TO STA 168+50
STA 190+00 TO STA 191+50
STA 200+00 TO STA 204+50
STA 213+00 TO STA 218+00
STA 228+00 TO STA 230+50
STA 271+50 TO STA 274+00
STA 333+50 TO STA 338+50
STA 398+50 TO STA 405+50
STA 528+00 TO STA 530+50
STA 541+00 TO STA 543+50

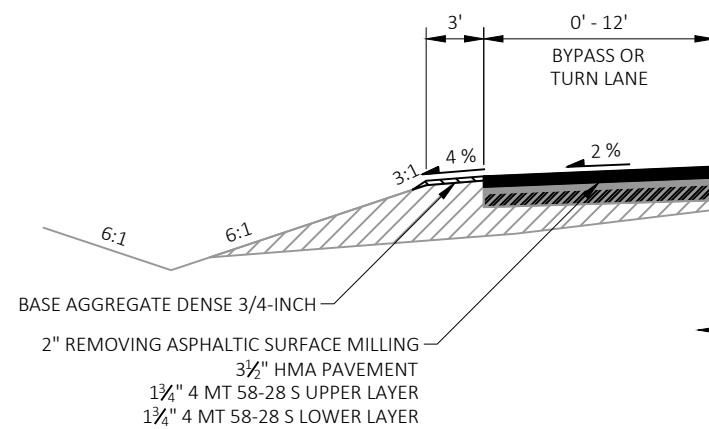
2

2 |



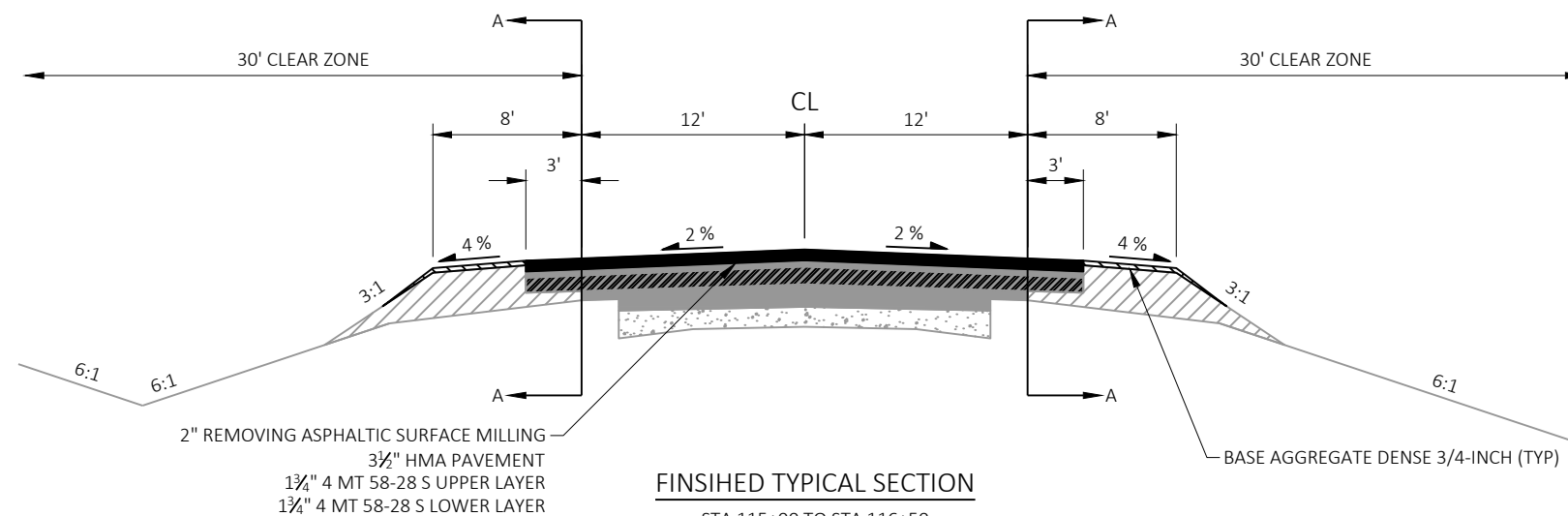
FINISHED TYPICAL SECTION

STA 116+50 TO STA 136+00
STA 140+00 TO STA 148+00
STA 152+00 TO STA 160+00
STA 162+50 TO STA 164+50
STA 168+50 TO STA 190+00
STA 191+50 TO STA 200+00
STA 204+50 TO STA 213+00
STA 218+00 TO STA 228+00
STA 230+50 TO STA 271+50
STA 274+00 TO STA 333+50
STA 338+50 TO STA 398+50
STA 405+50 TO STA 528+00
STA 530+50 TO STA 541+00



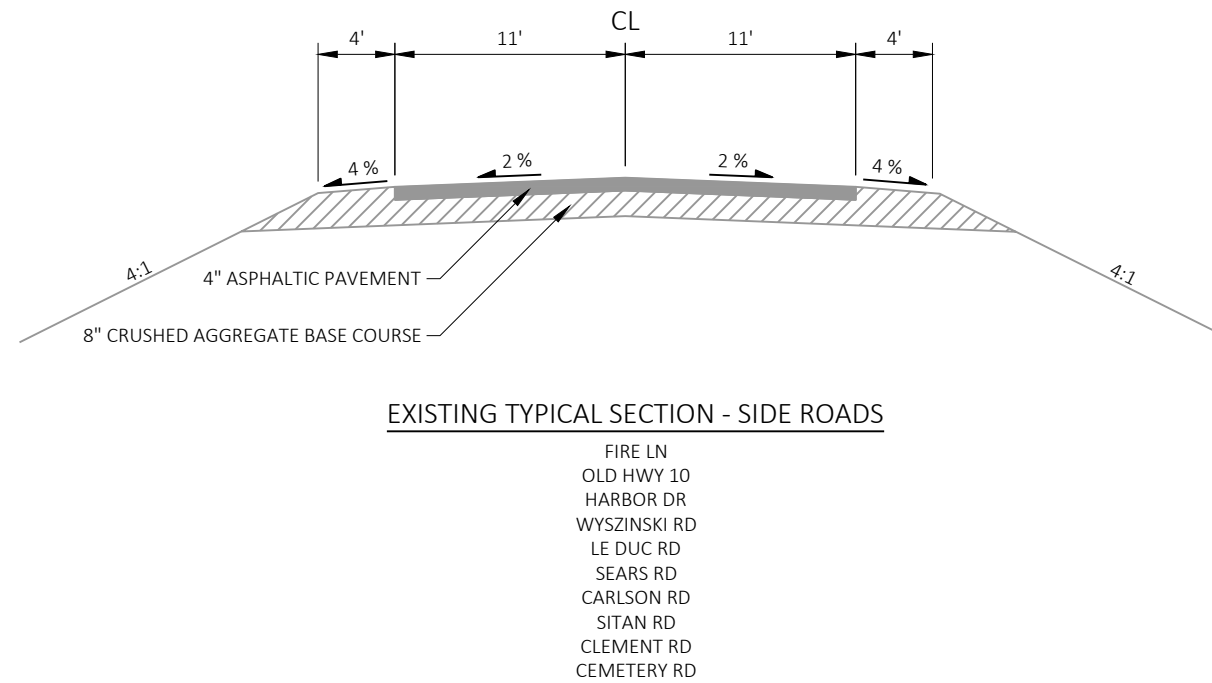
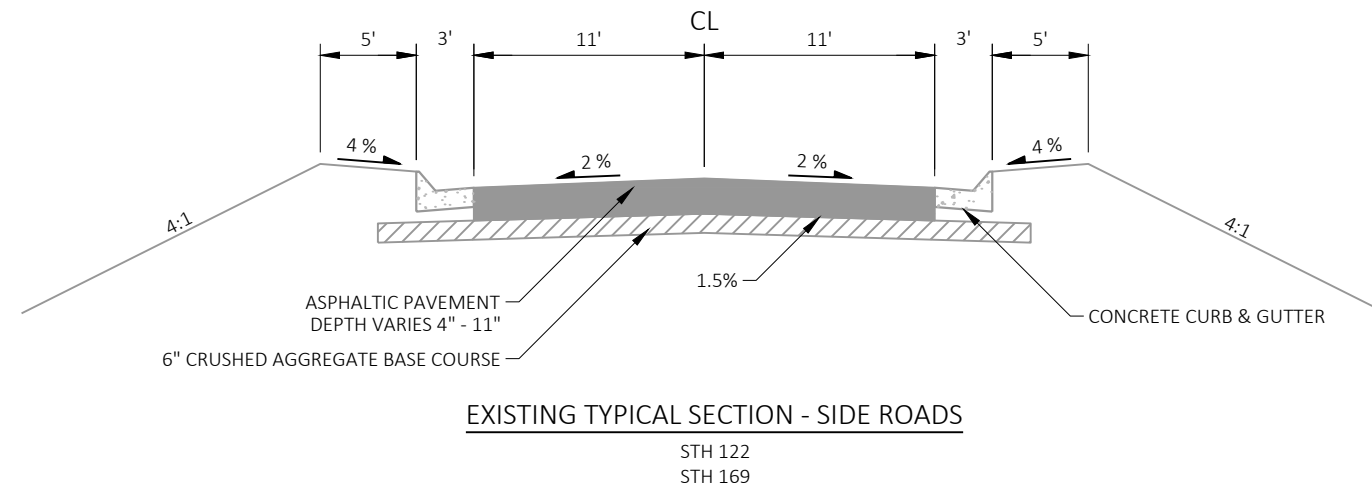
SECTION A-A

STA 214+15 RT TO STA 217+31 RT
STA 214+15 LT TO STA 220+95 LT
STA 458+66 RT TO STA 463+02 RT
STA 464+13 LT TO STA 468+16 LT
ROTATE 180° FOR RIGHT SIDE



FINISHED TYPICAL SECTION

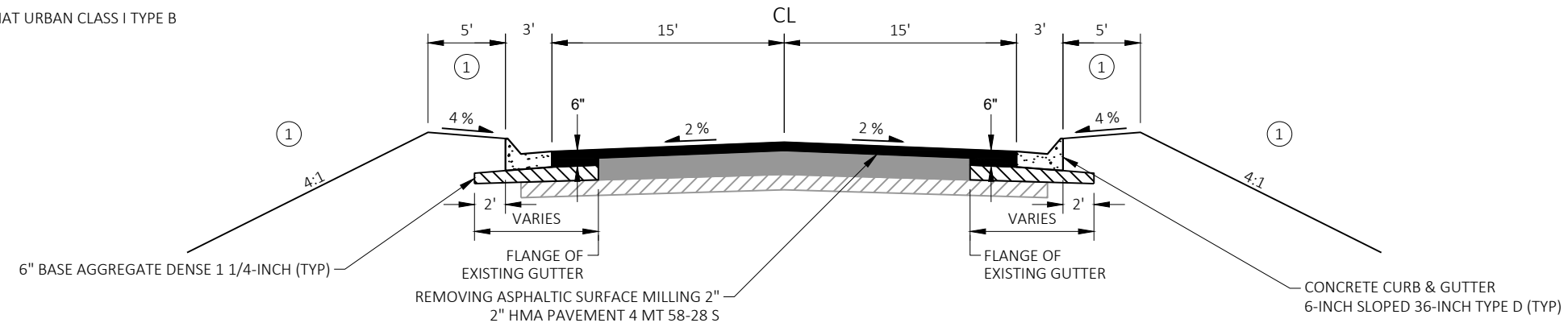
STA 115+00 TO STA 116+50
STA 136+00 TO STA 140+00
STA 148+00 TO STA 152+00
STA 160+00 TO STA 162+50
STA 164+50 TO STA 168+50
STA 190+00 TO STA 191+50
STA 200+00 TO STA 204+50
STA 213+00 TO STA 218+00
STA 228+00 TO STA 230+50
STA 271+50 TO STA 274+00
STA 333+50 TO STA 338+50
STA 398+50 TO STA 405+50
STA 528+00 TO STA 530+50
STA 541+00 TO STA 543+50



2

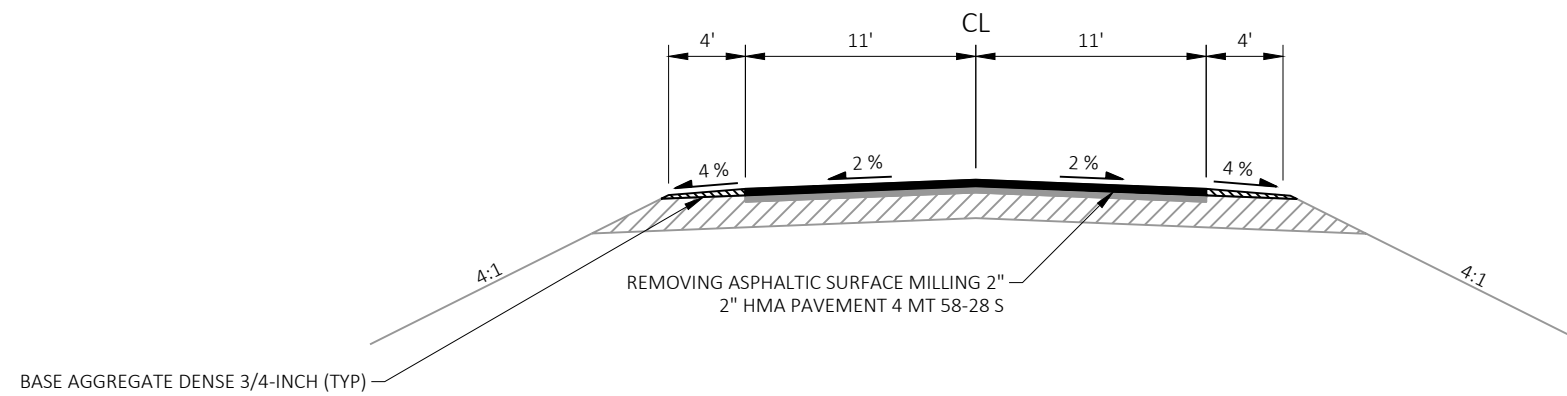
2 |

① TOPSOIL, SEED, FERTILIZER, EROSION MAT URBAN CLASS I TYPE B



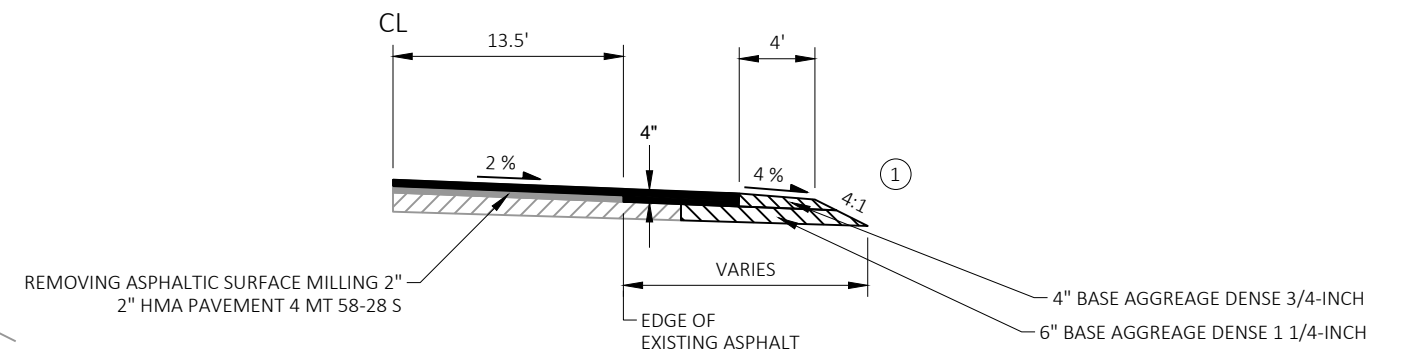
FINISHED TYPICAL SECTION - SIDE ROADS

STH 122
STH 169



FINISHED TYPICAL SECTION - SIDE ROADS

FIRE LN
OLD HWY 10
HARBOR DR - LT
WYZINSKI RD
LE DUC RD
SEARS RD
CARLSON RD
SITAN RD
CLEMENT RD
CEMETERY RD



FINISHED TYPICAL HALF SECTION - SIDE ROADS

HARBOR DR - RT

PROJECT NO:	1185-02-71
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HWY: USH 2

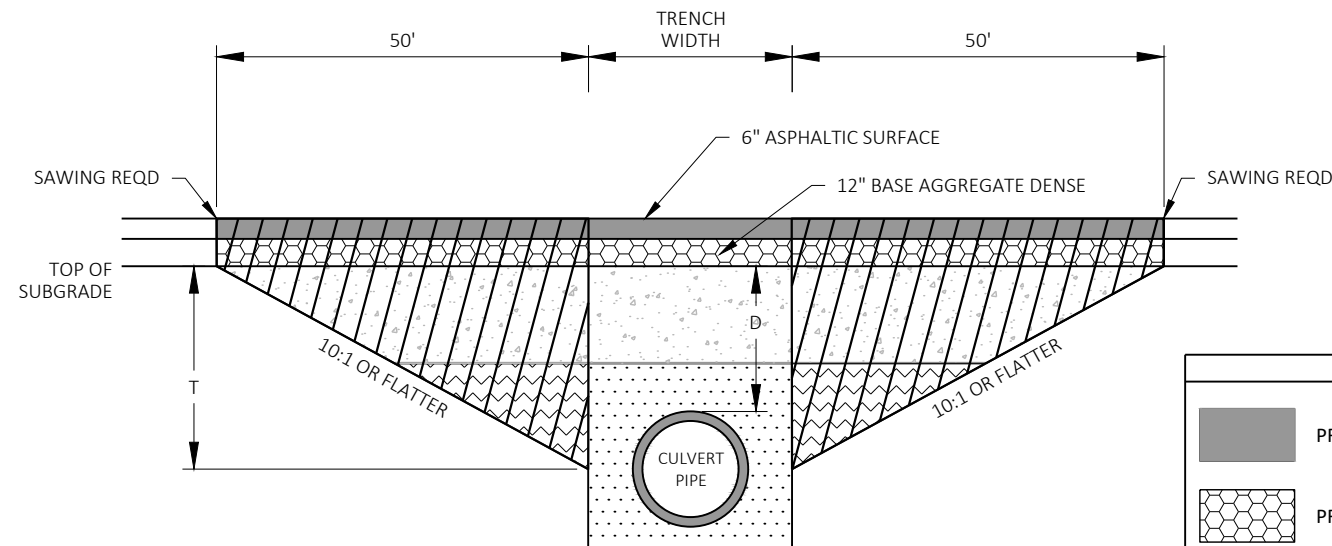
COUNTY: IRON

TYPICAL SECTION

SHEET

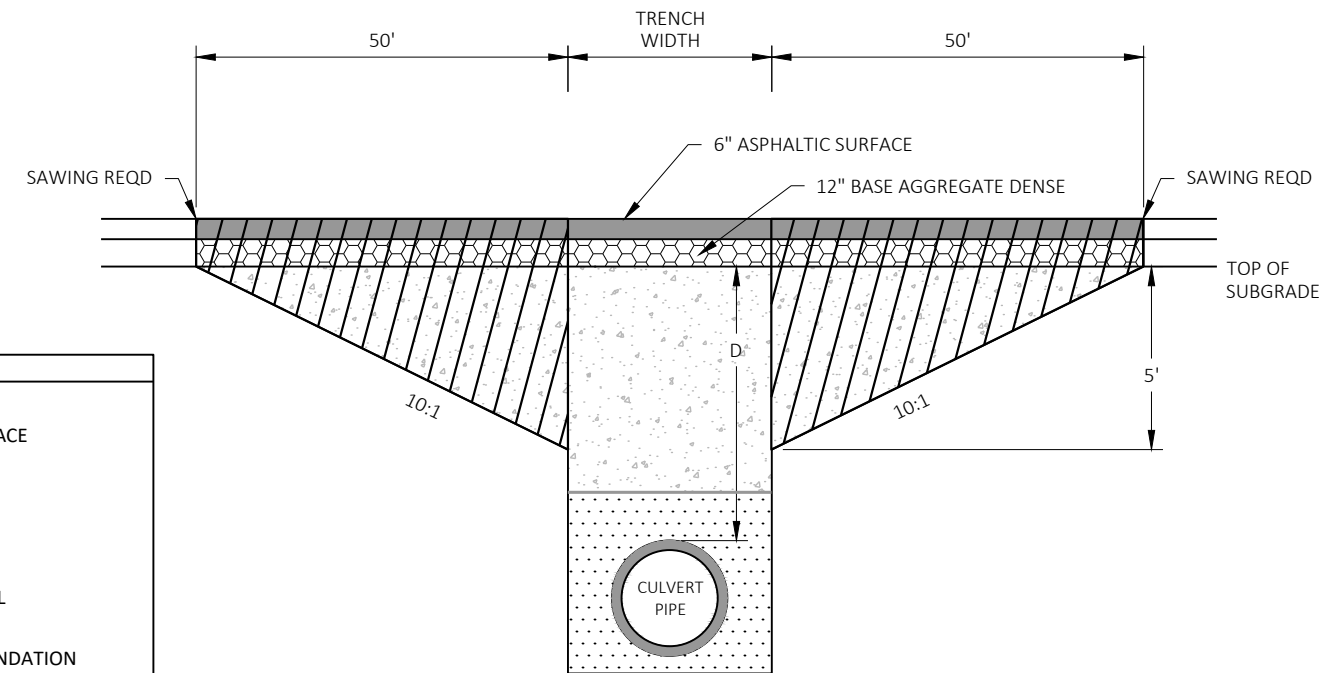
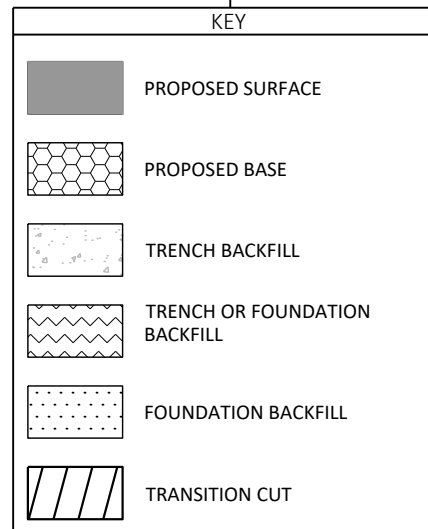
7

11



DEPTH D < 6 FT

TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.



DEPTH D ≥ 6 FT

NOTES

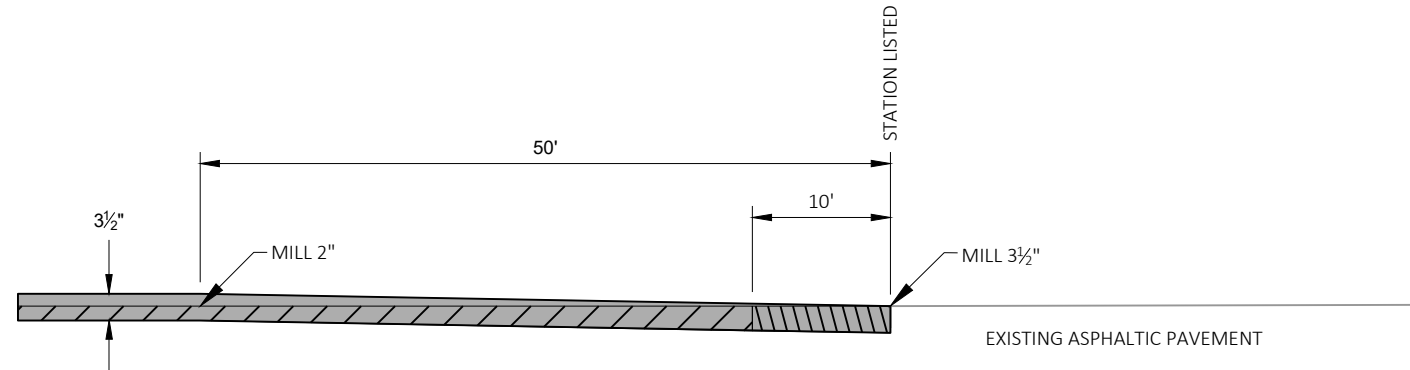
TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING
PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE INSTALLATION AND BEFORE MILLING & PAVING.

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
USH 2	490+52	5.5	24	26002000585
USH 2	527+75	5.4	24	26002000586

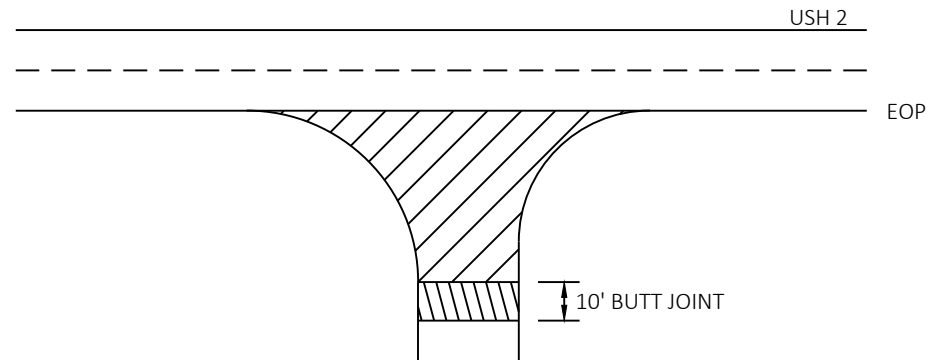
LEGEND

-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
-  REMOVING ASPHALTIC SURFACE MILLING
-  HMA PAVEMENT



TRANSITION & BUTT JOINT

STA 115+00
STA 507+80
STA 510+20
STA 543+50



-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS
SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE
BUTT JOINT IS NOT REQUIRED

SIDE ROADS

WITHOUT CURB AND GUTTER

FIRE LN	SEARS RD
OLD HWY 10	CARLSON RD
HARBOR DR	SITAN RD
WYSZINSKI RD	CLEMENT RD
LE DUC RD	CEMETERY RD

PROJECT NO: 1185-02-71

HWY: USH 2

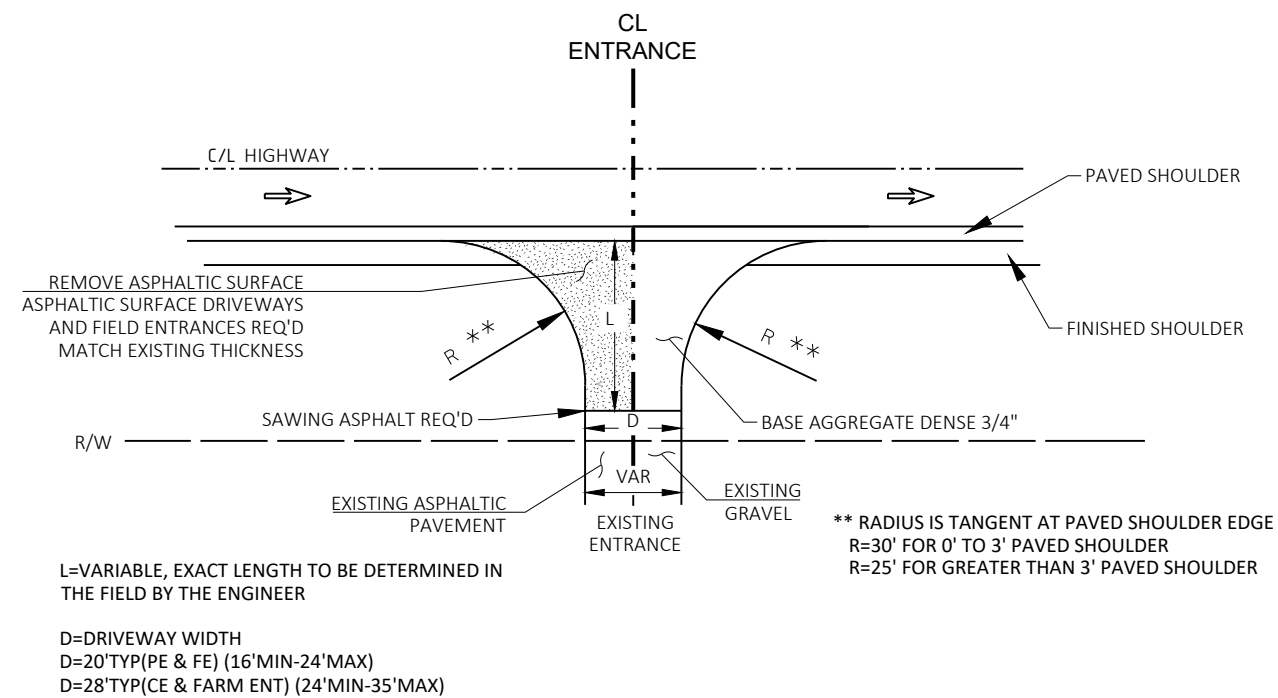
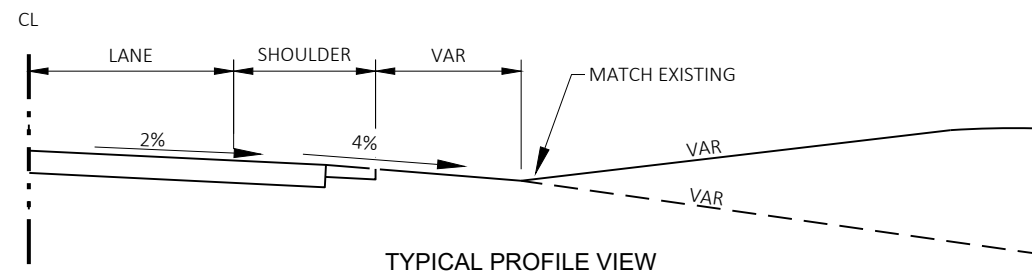
COUNTY: IRON

CONSTRUCTION DETAILS

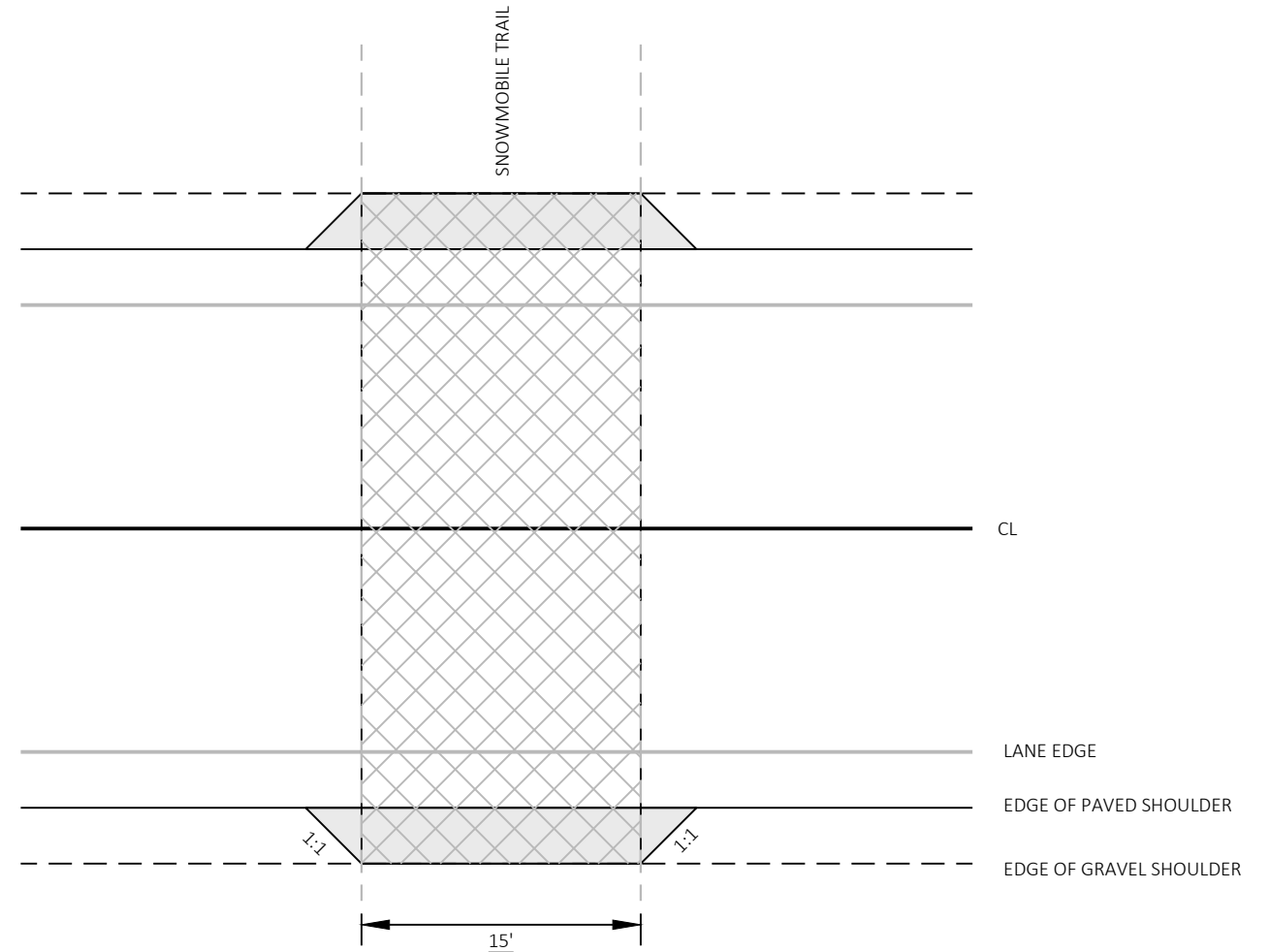
SHEET

9

E



RURAL DRIVEWAY INTERSECTION (PE, FE & CE)
(FOR RESURFACING PROJECTS WITH PROFILE CHANGE)



PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSING

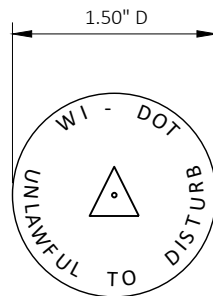


HMA PAVEMENT WIDENING 4-INCHES

NOTE:

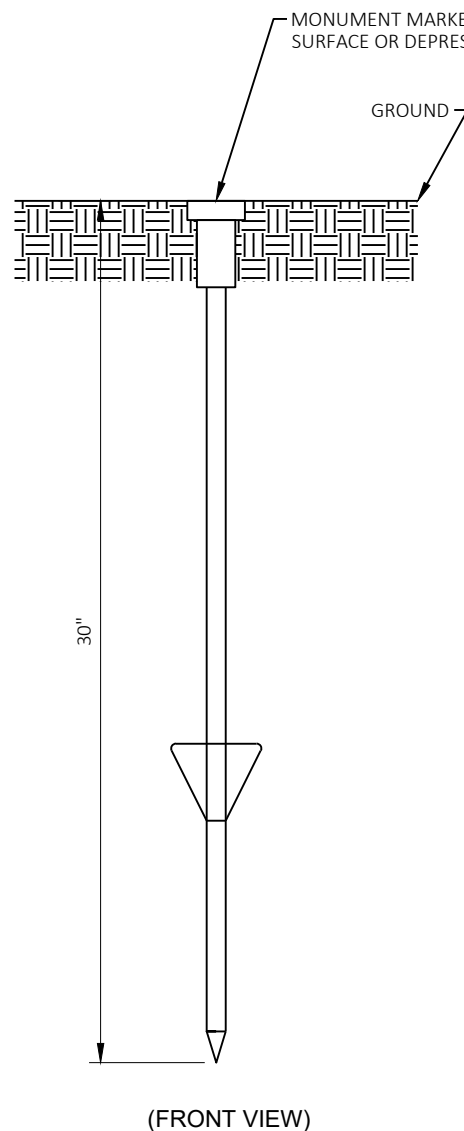
PREPARATION FOR PAVEMENT WIDENING IS INCLUDED IN
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

**SNOWMOBILE TRAIL CROSSING
WITH FULL WIDTH SHOULDERS AND PROTECTIVE COATING**

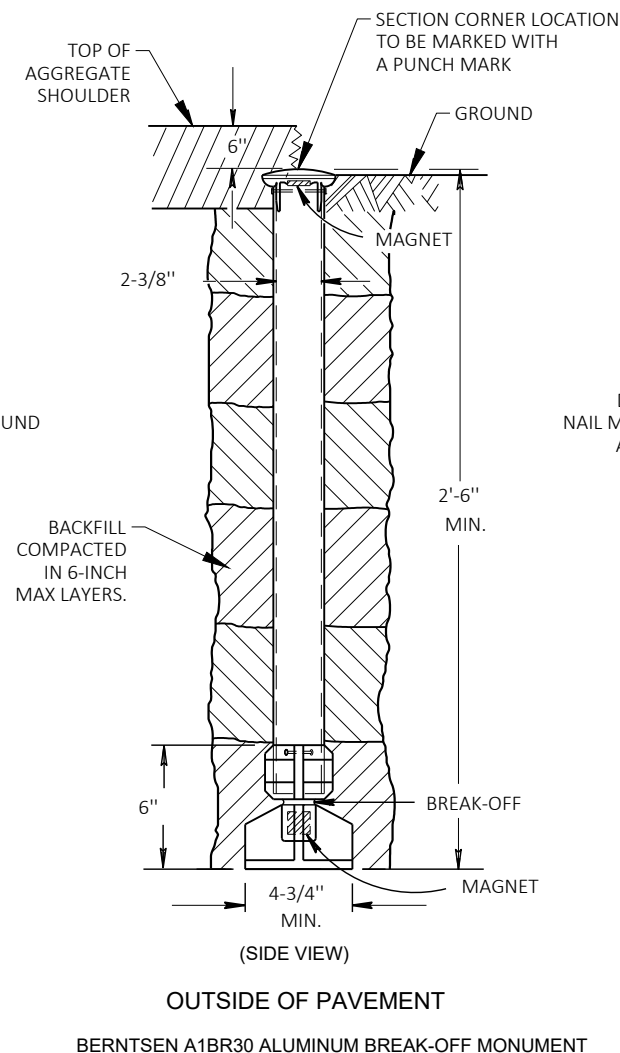


WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

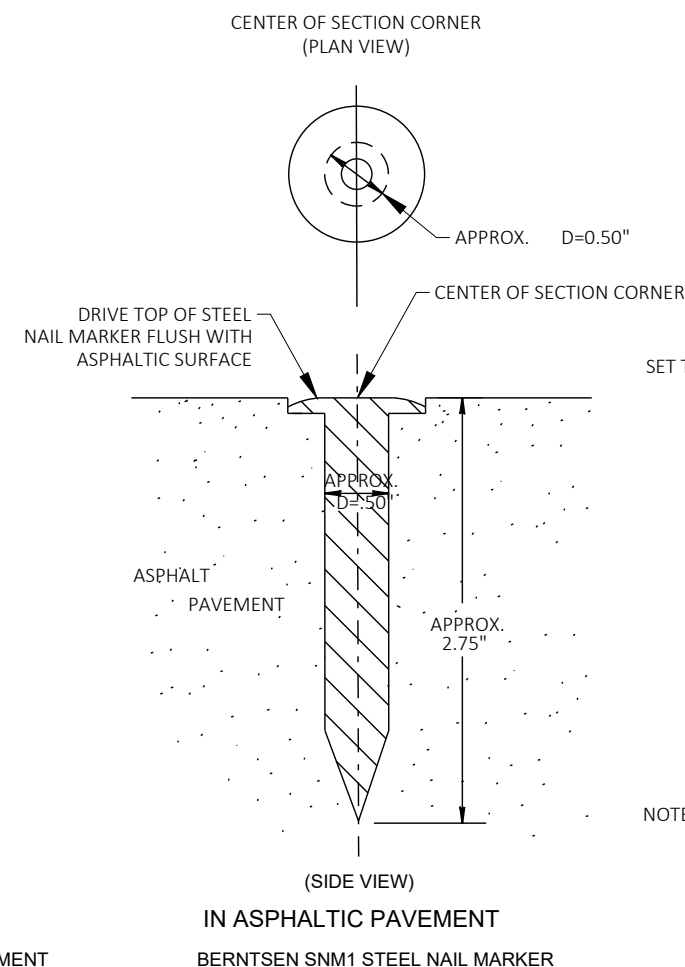
CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING



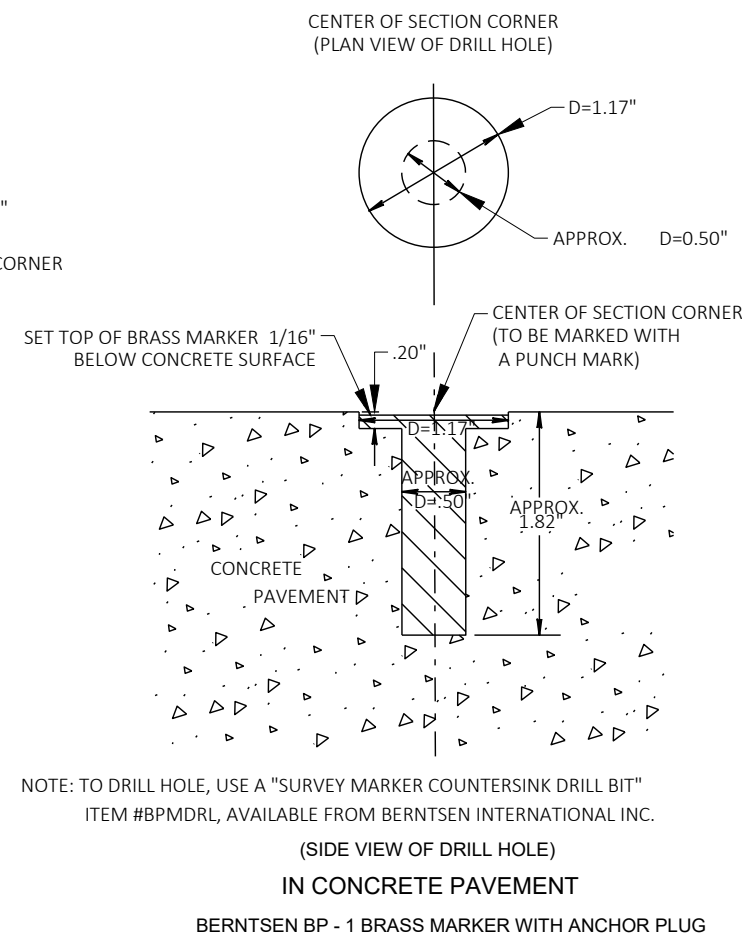
BERNSTEN DRIVABLE MONUMENT SSDR130
LANDMARK REFERENCE MONUMENT (TIES ONLY)



OUTSIDE OF PAVEMENT
BERNTSEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



IN ASPHALTIC PAVEMENT
BERNTSEN SNM1 STEEL NAIL MARKER



IN CONCRETE PAVEMENT
BERNTSEN BP - 1 BRASS MARKER WITH ANCHOR PLUG

SECTION CORNER MONUMENTS

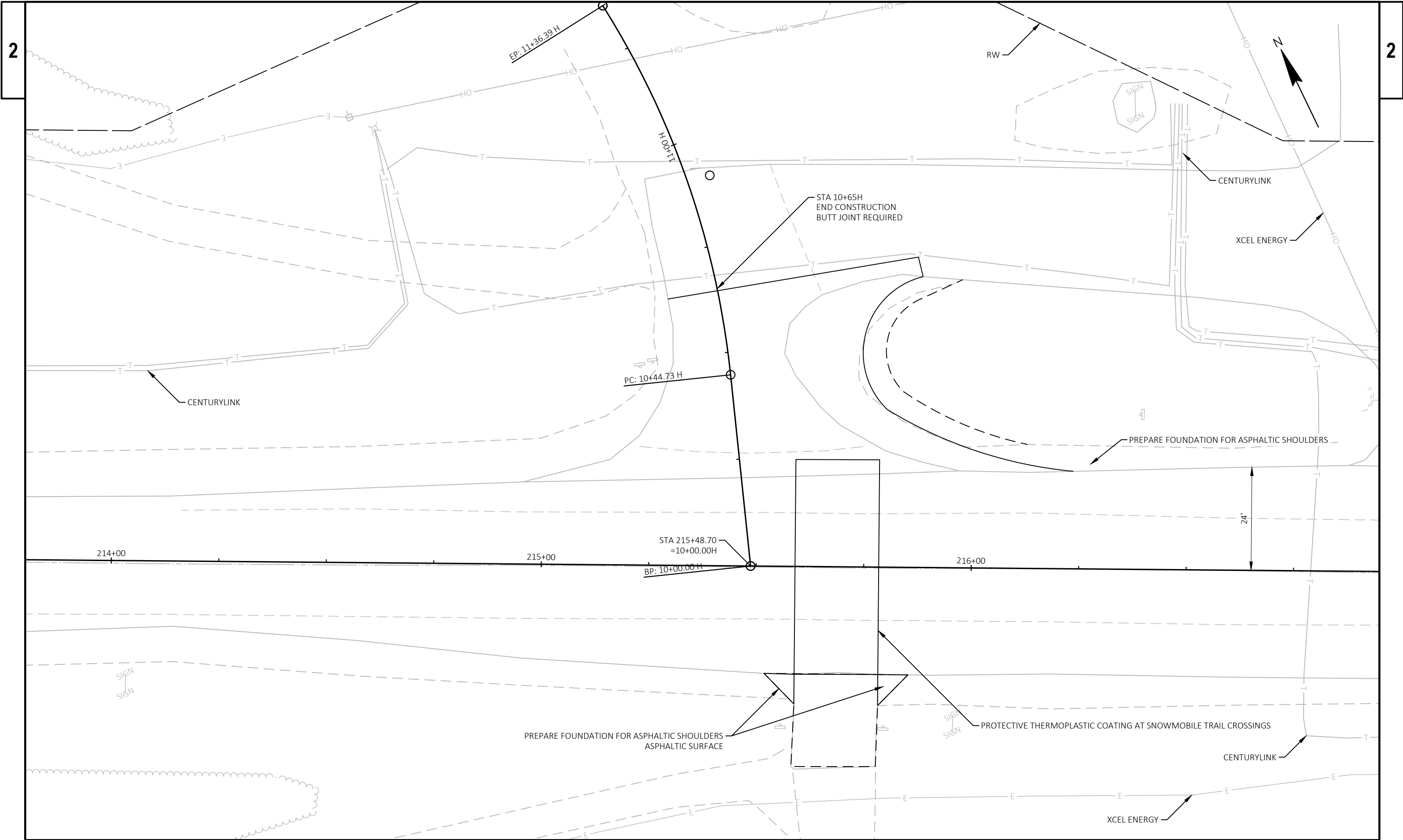
GENERAL NOTES

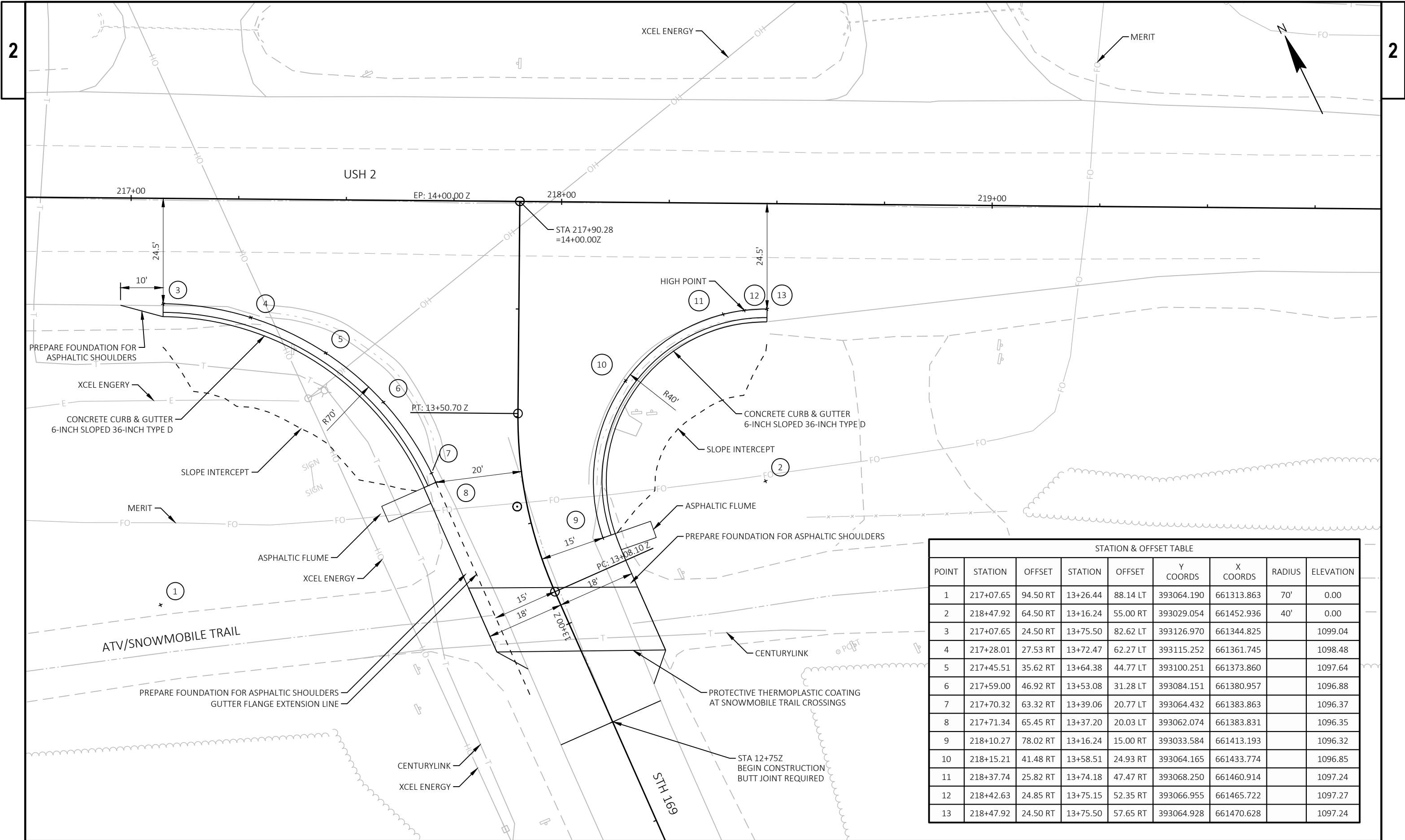
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

CONTRACTOR WILL SUPPLY ALL REQUIRED SURVEY MONUMENTS.

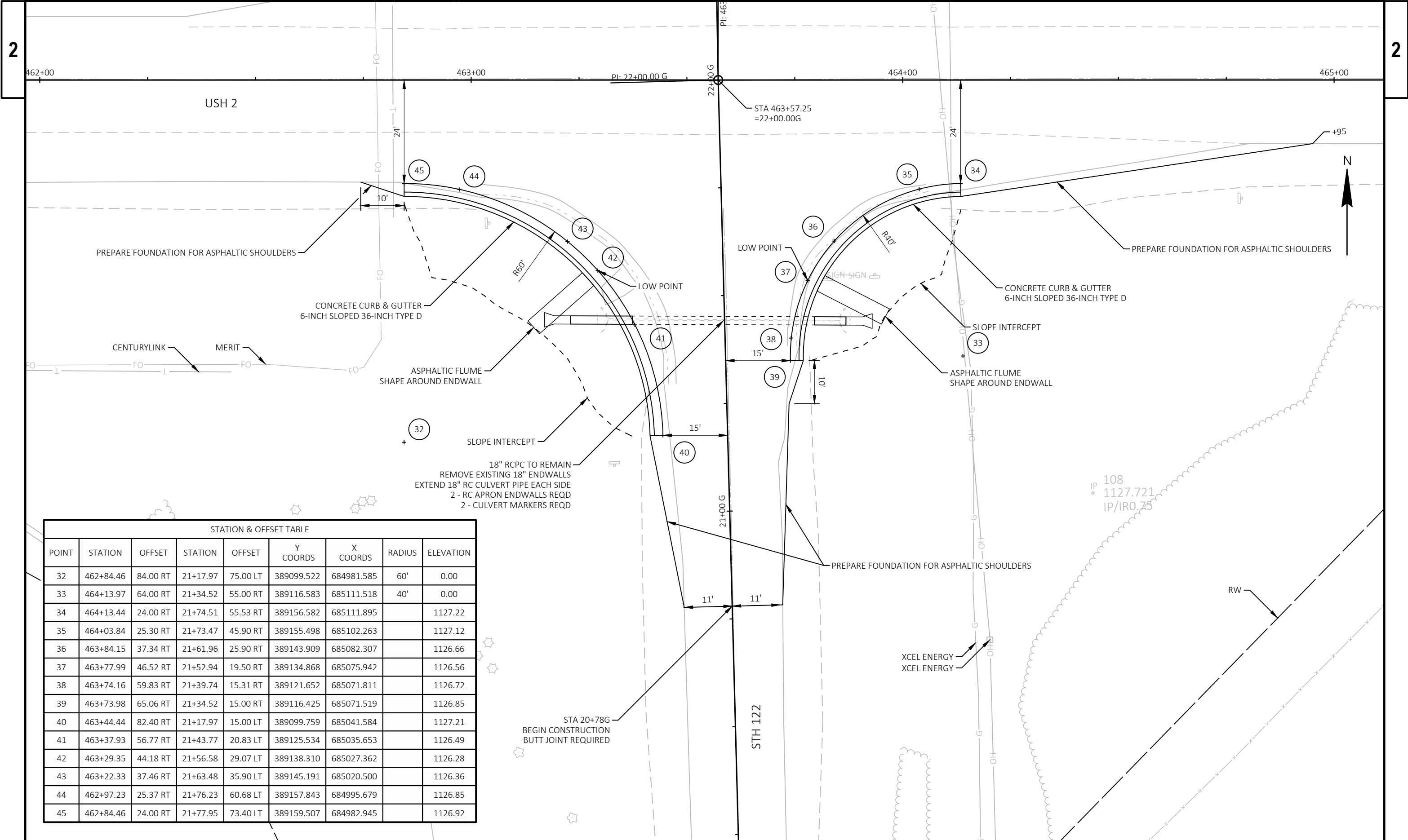
SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL



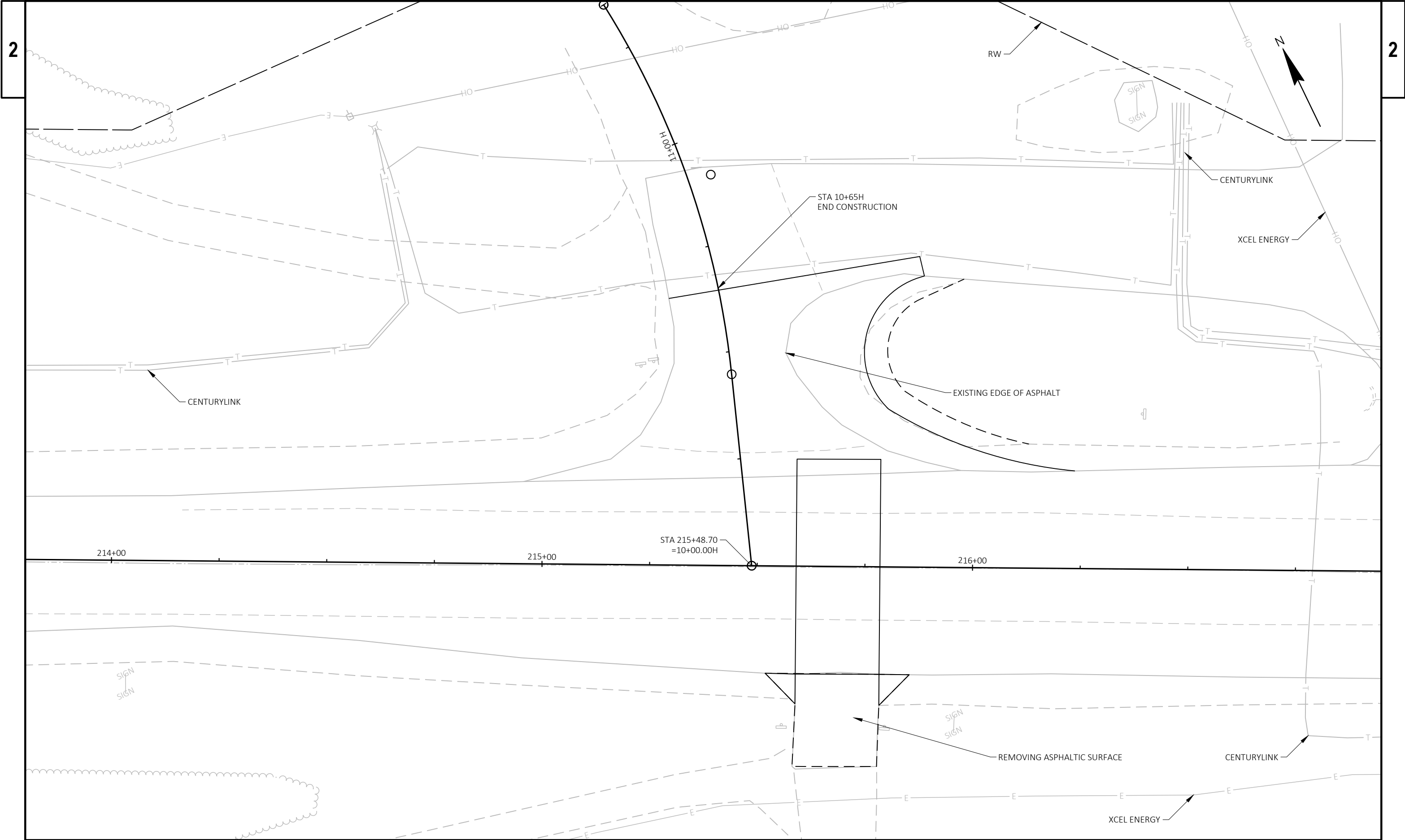


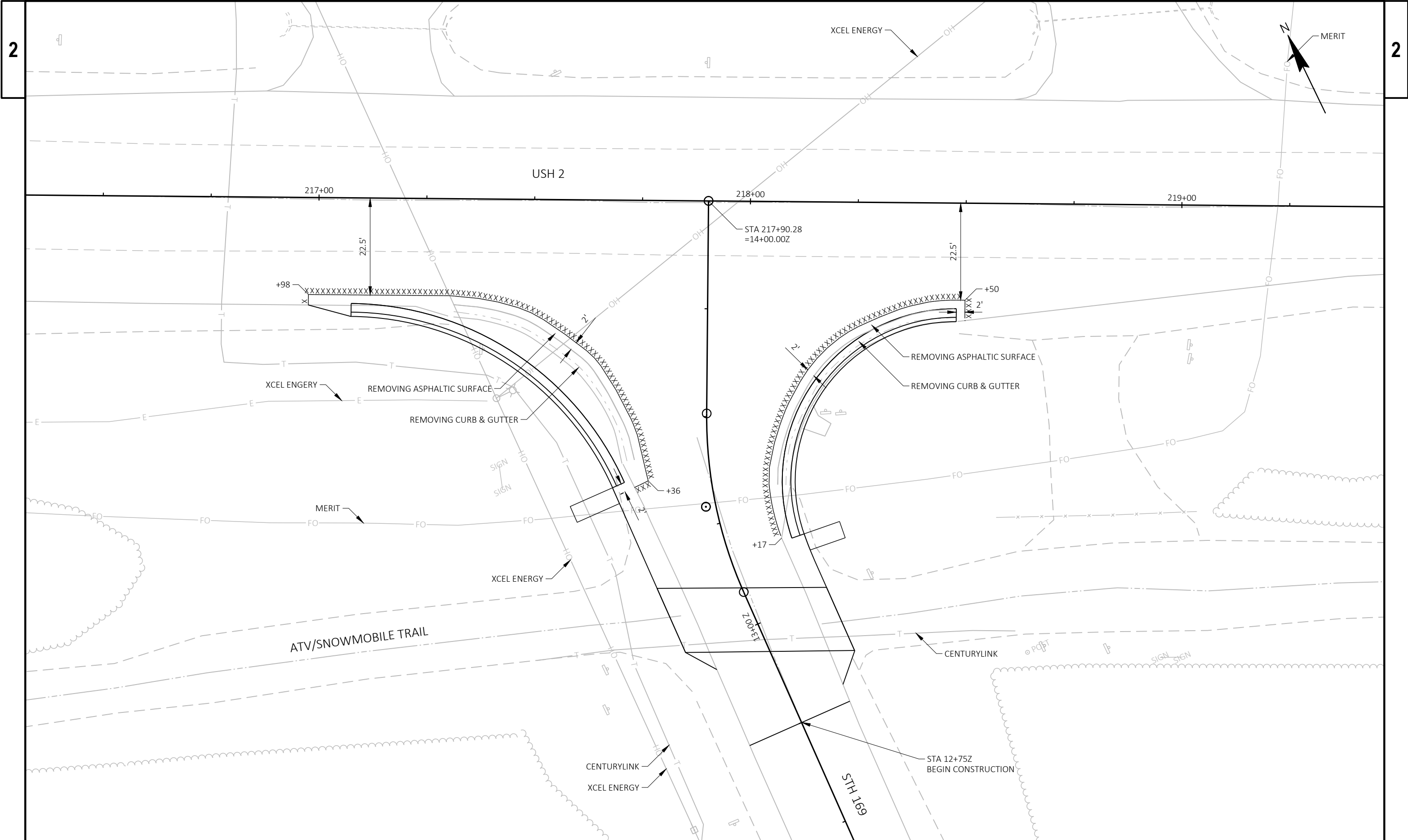
STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
1	217+07.65	94.50 RT	13+26.44	88.14 LT	393064.190	661313.863	70'	0.00
2	218+47.92	64.50 RT	13+16.24	55.00 RT	393029.054	661452.936	40'	0.00
3	217+07.65	24.50 RT	13+75.50	82.62 LT	393126.970	661344.825		1099.04
4	217+28.01	27.53 RT	13+72.47	62.27 LT	393115.252	661361.745		1098.48
5	217+45.51	35.62 RT	13+64.38	44.77 LT	393100.251	661373.860		1097.64
6	217+59.00	46.92 RT	13+53.08	31.28 LT	393084.151	661380.957		1096.88
7	217+70.32	63.32 RT	13+39.06	20.77 LT	393064.432	661383.863		1096.37
8	217+71.34	65.45 RT	13+37.20	20.03 LT	393062.074	661383.831		1096.35
9	218+10.27	78.02 RT	13+16.24	15.00 RT	393033.584	661413.193		1096.32
10	218+15.21	41.48 RT	13+58.51	24.93 RT	393064.165	661433.774		1096.85
11	218+37.74	25.82 RT	13+74.18	47.47 RT	393068.250	661460.914		1097.24
12	218+42.63	24.85 RT	13+75.15	52.35 RT	393066.955	661465.722		1097.27
13	218+47.92	24.50 RT	13+75.50	57.65 RT	393064.928	661470.628		1097.24

[illegible]

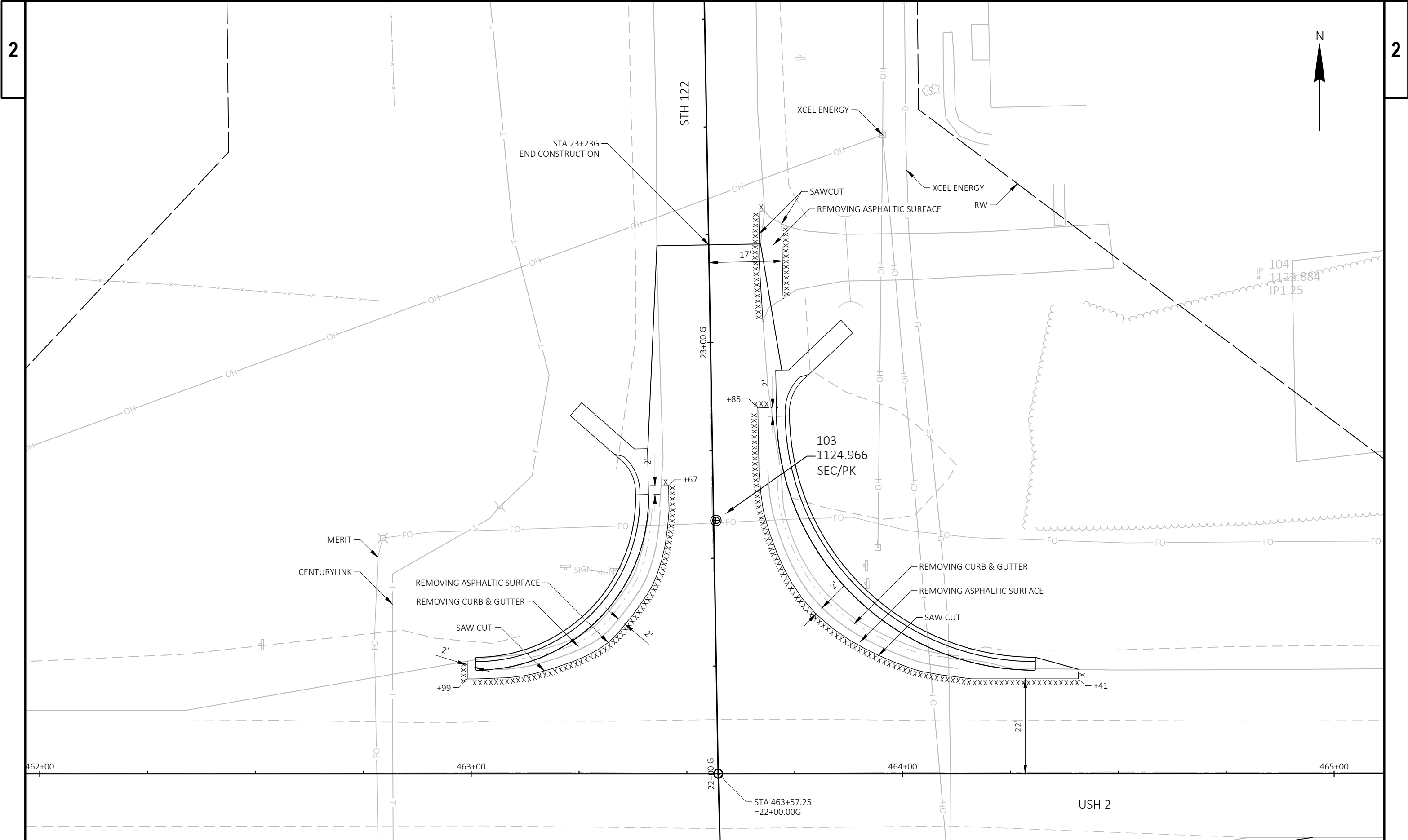


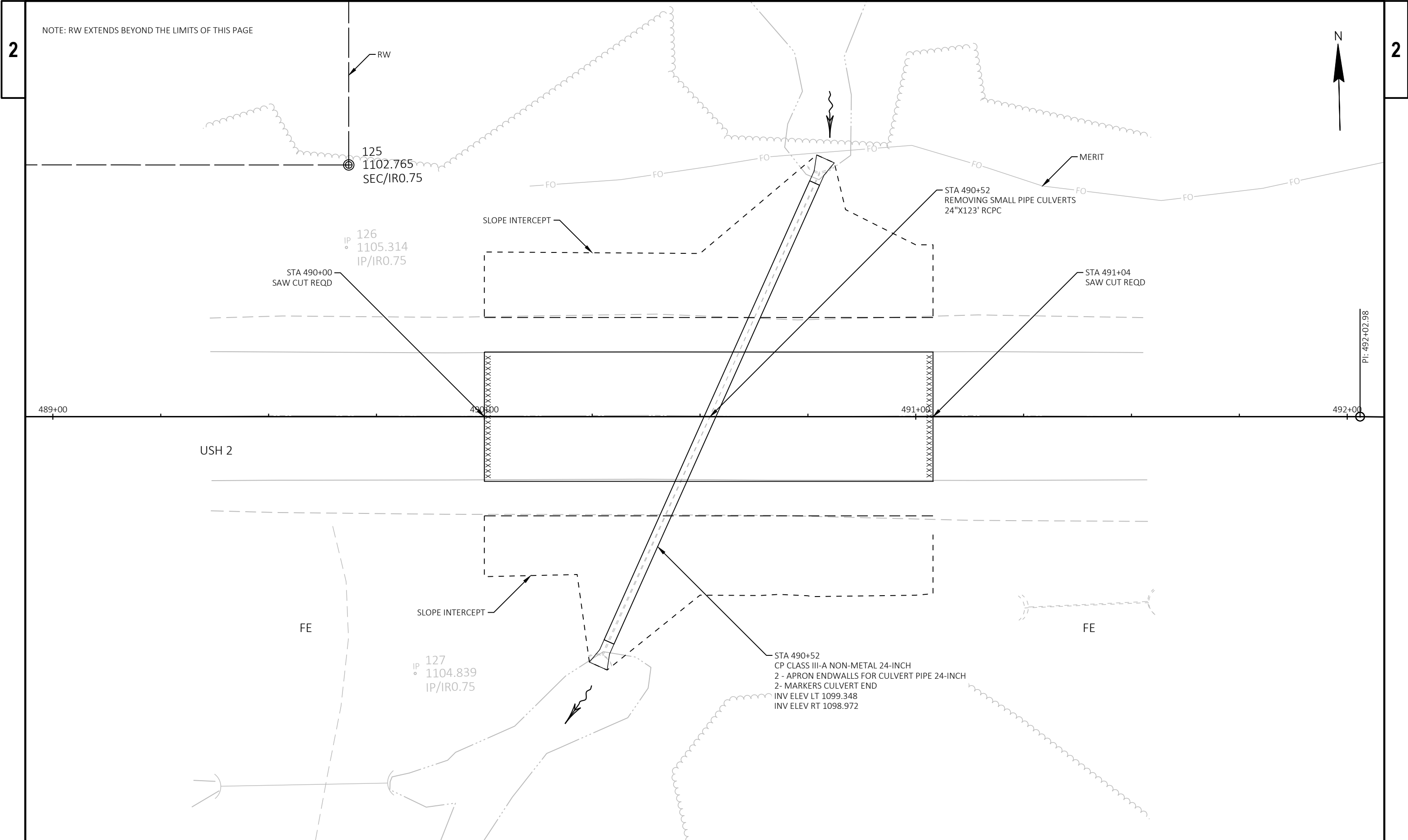
STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
32	462+84.46	84.00 RT	21+17.97	75.00 LT	389099.522	684981.585	60'	0.00
33	464+13.97	64.00 RT	21+34.52	55.00 RT	389116.583	685111.518	40'	0.00
34	464+13.44	24.00 RT	21+74.51	55.53 RT	389156.582	685111.895		1127.22
35	464+03.84	25.30 RT	21+73.47	45.90 RT	389155.498	685102.263		1127.12
36	463+84.15	37.34 RT	21+61.96	25.90 RT	389143.909	685082.307		1126.66
37	463+77.99	46.52 RT	21+52.94	19.50 RT	389134.868	685075.942		1126.56
38	463+74.16	59.83 RT	21+39.74	15.31 RT	389121.652	685071.811		1126.72
39	463+73.98	65.06 RT	21+34.52	15.00 RT	389116.425	685071.519		1126.85
40	463+44.44	82.40 RT	21+17.97	15.00 LT	389099.759	685041.584		1127.21
41	463+37.93	56.77 RT	21+43.77	20.83 LT	389125.534	685035.653		1126.49
42	463+29.35	44.18 RT	21+56.58	29.07 LT	389138.310	685027.362		1126.28
43	463+22.33	37.46 RT	21+63.48	35.90 LT	389145.191	685020.500		1126.36
44	462+97.23	25.37 RT	21+76.23	60.68 LT	389157.843	684995.679		1126.85
45	462+84.46	24.00 RT	21+77.95	73.40 LT	389159.507	684982.945		1126.92

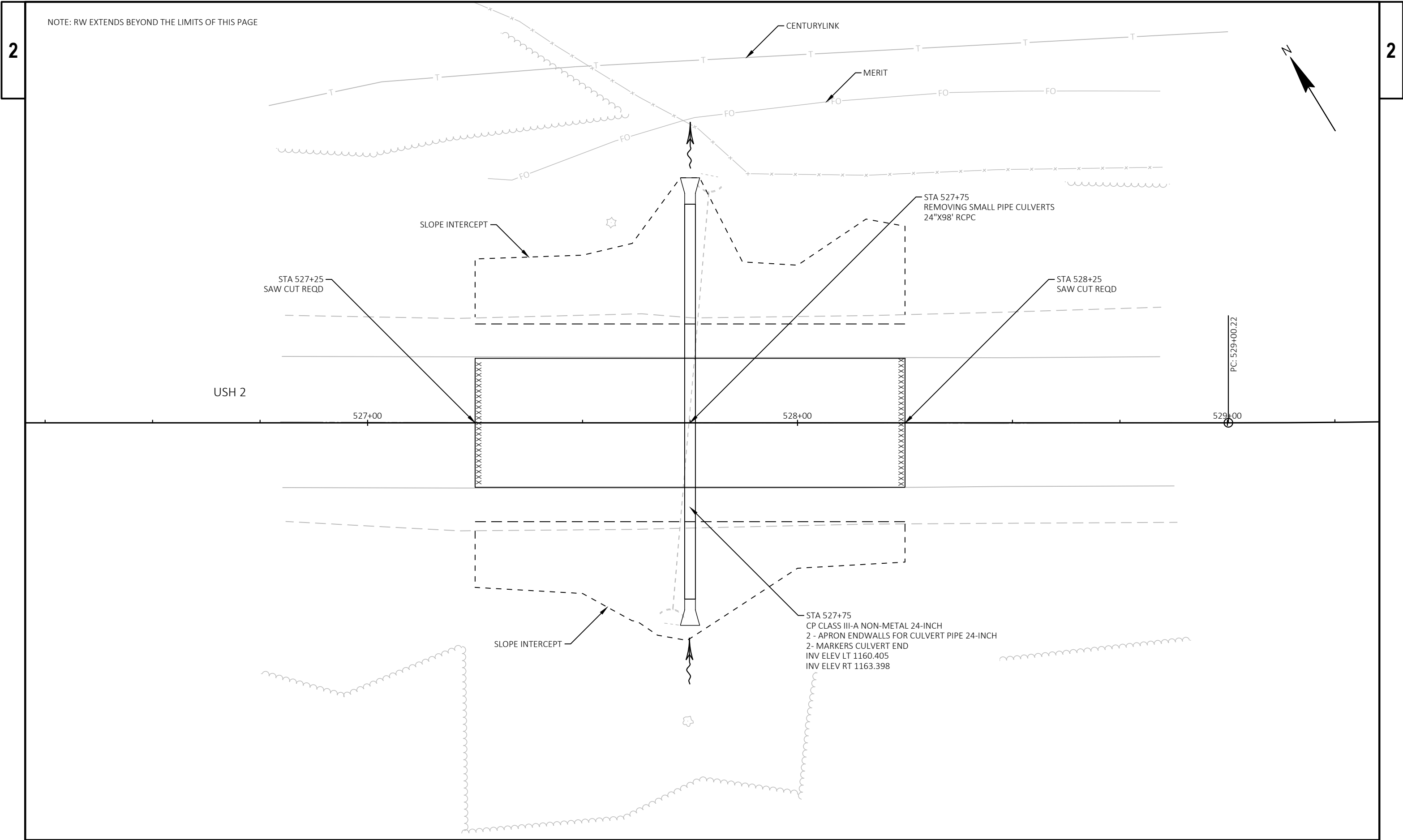


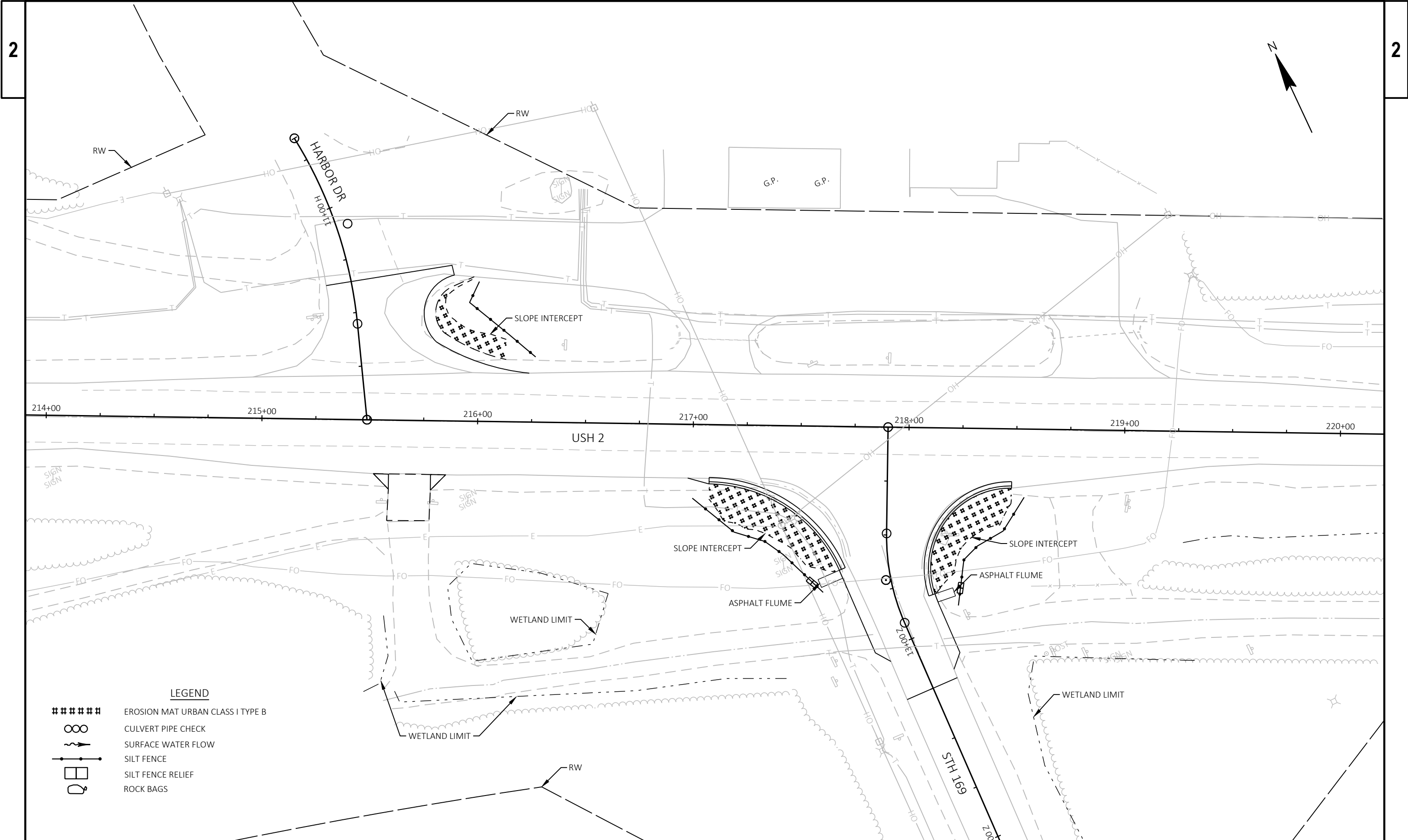


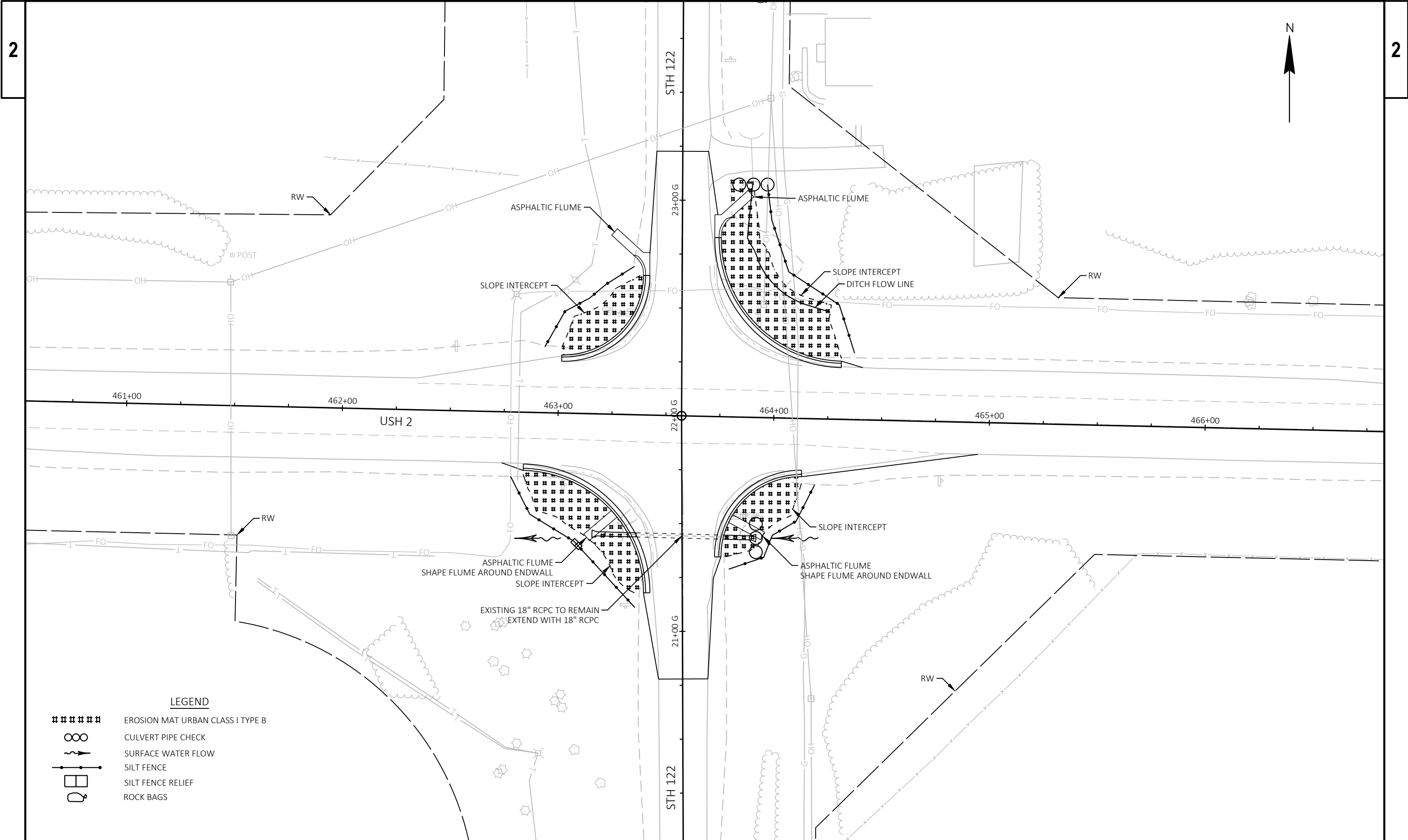
PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	REMOVAL DETAILS	SHEET 17	E
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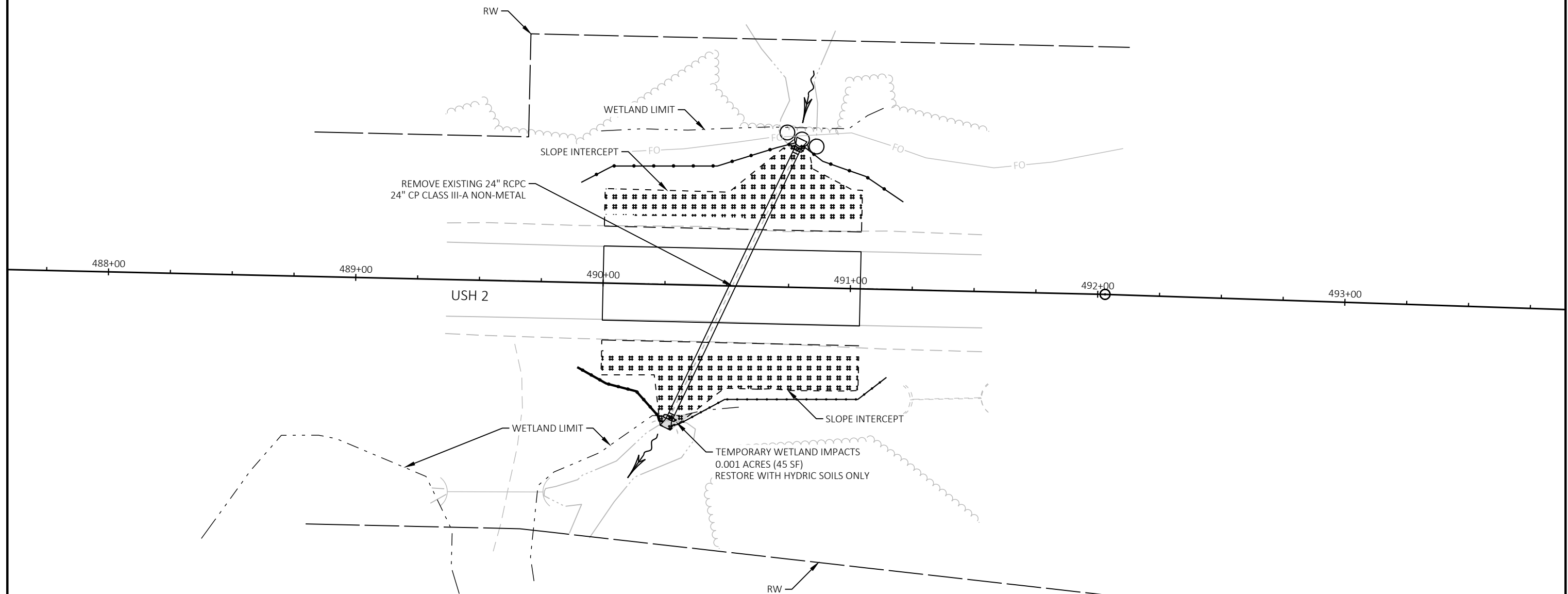






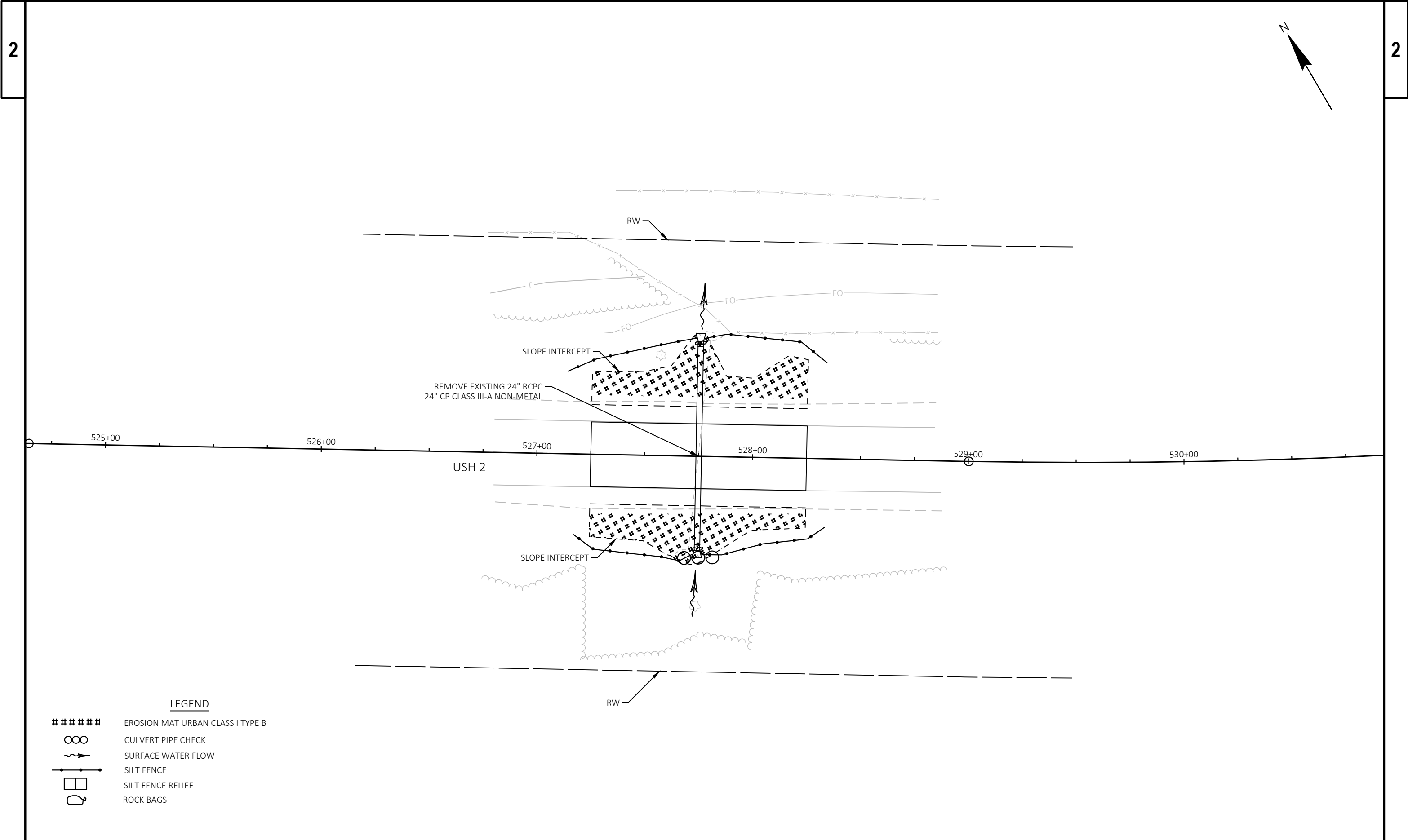






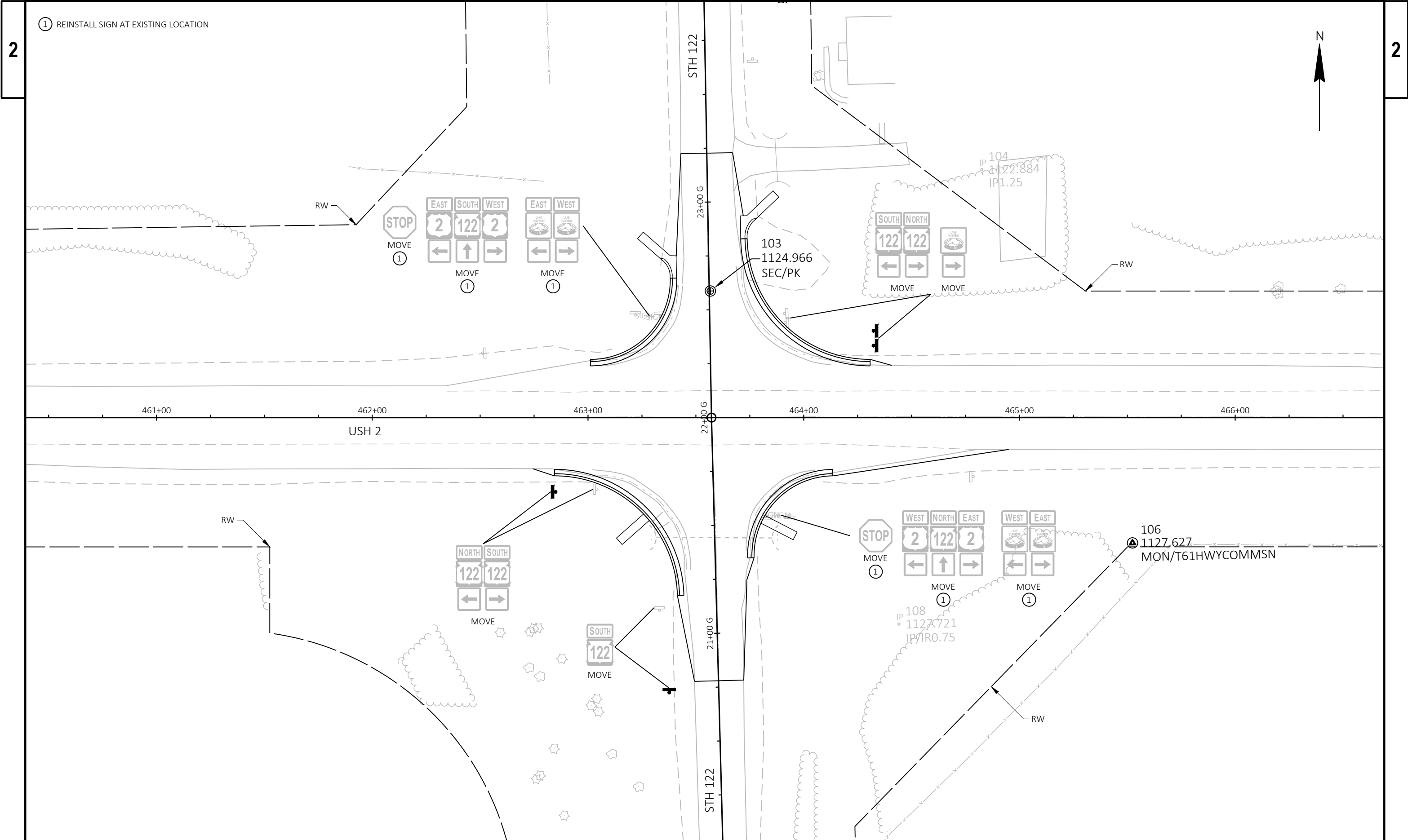
LEGEND

- ##### EROSION MAT URBAN CLASS I TYPE B
- ∞ CULVERT PIPE CHECK
- ~> SURFACE WATER FLOW
- SILT FENCE
- SILT FENCE RELIEF
- ROCK BAGS



LEGEND

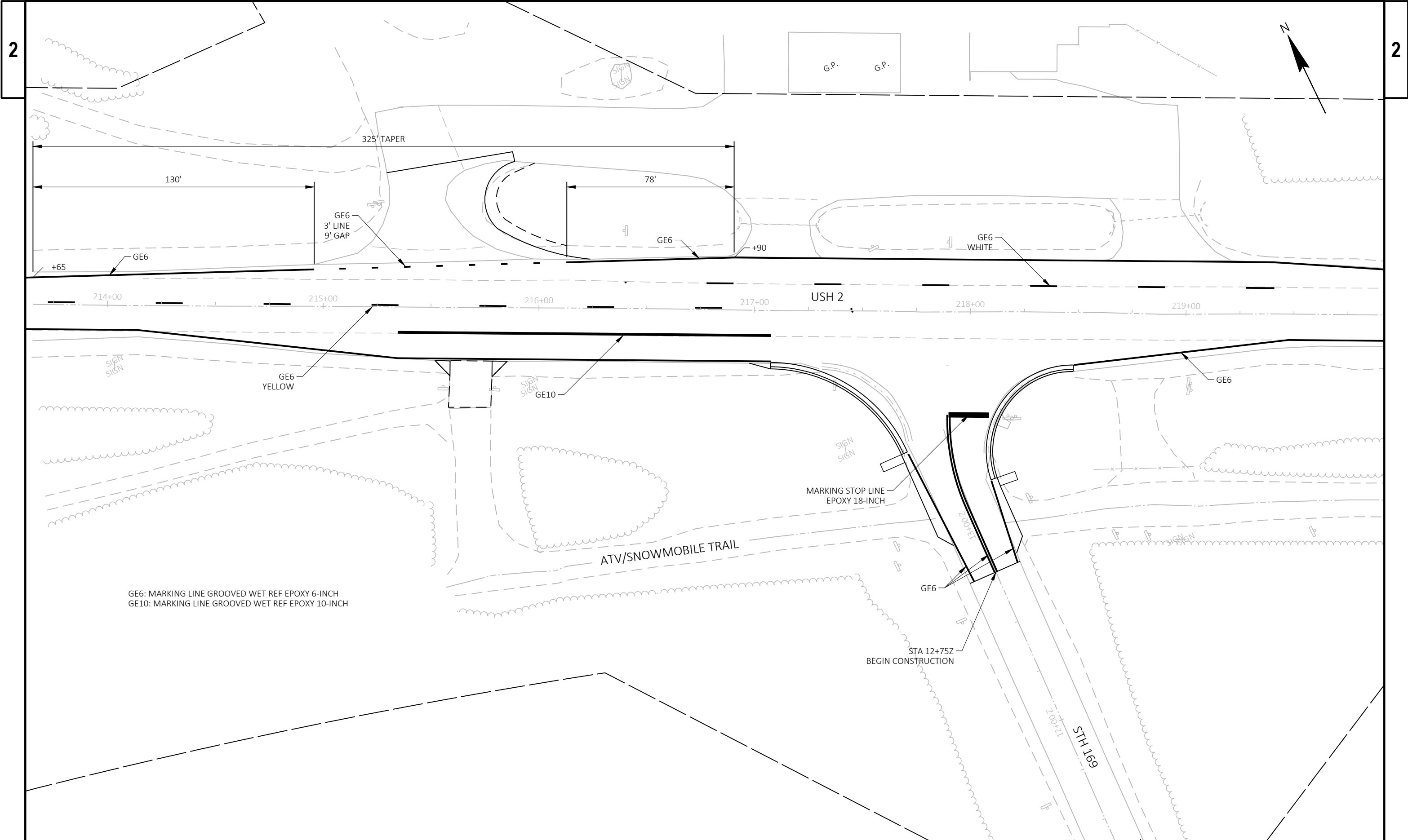
- ##### EROSION MAT URBAN CLASS I TYPE B
- ∞ CULVERT PIPE CHECK
- ~ SURFACE WATER FLOW
- SILT FENCE
- SILT FENCE RELIEF
- ROCK BAGS



① REINSTALL SIGN AT EXISTING LOCATION

2

2



[illegible]

Plan view of USH 2 showing road work areas, stations, and landmarks. The diagram includes stationing from 330 to 550 along USH 2. Key features include:

- Road Work Areas:** Indicated by diamond-shaped signs labeled "ROAD WORK AHEAD" and "END ROAD WORK".
- Signs:**
 - "ROAD WORK AHEAD" (W20-1A)
 - "END ROAD WORK" (G20-2A 48"X24")
 - "ROAD WORK NEXT 8 MILES" (G20-1 60"X24")
- Landmarks and Intersections:**
 - SEARS RD
 - CURRY RD
 - SITAN RD
 - CLEMENT RD
 - CEMETERY RD
 - LOWER RD
 - SANDS RD
 - CTH B
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM
- Stations and Mileage:**
 - Station 330 to 550 along USH 2.
 - Station 507+80 to 510+20: EXCEPTION TO NET CENTERLINE LENGTH B-26-11.
 - Station 490+52: CULVERT REPLACEMENT.
 - Station 527+75: CULVERT REPLACEMENT.
 - Station 531+00 to 555+00: WB PASSING LANE CLOSURE. SEE SDD 15D20-07B FOR DETAILS.
 - Station 543+50: END PROJECT.
- Other Labels:**
 - TOWN OF GURNEY
 - TOWN OF SAXON
 - CTH B
 - LOWER RD
 - SANDS RD
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM

Plan view of USH 2 showing road work areas, stations, and landmarks. The diagram includes stationing from 330 to 550 along USH 2. Key features include:

- Road Work Areas:** Indicated by diamond-shaped signs labeled "ROAD WORK AHEAD" and "END ROAD WORK".
- Signs:**
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- Landmarks and Intersections:**
 - SEARS RD
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 - SITAN RD
 - CLEMENT RD
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 - LOWER RD
 - SANDS RD
 - CTH B
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM
- Stations and Mileage:**
 - Station 330 to 550 along USH 2.
 - Station 507+80 to 510+20: EXCEPTION TO NET CENTERLINE LENGTH B-26-11.
 - Station 490+52: CULVERT REPLACEMENT.
 - Station 527+75: CULVERT REPLACEMENT.
 - Station 531+00 to 555+00: WB PASSING LANE CLOSURE. SEE SDD 15D20-07B FOR DETAILS.
 - Station 543+50: END PROJECT.
- Other Labels:**
 - TOWN OF GURNEY
 - TOWN OF SAXON
 - USH 2
 - CTH B

Plan view of USH 2 showing road work areas, stations, and landmarks. The diagram includes stationing from 330 to 550 along USH 2. Key features include:

- Road Work Areas:** Indicated by diamond-shaped signs labeled "ROAD WORK AHEAD" and "END ROAD WORK".
- Signs:**
 - "ROAD WORK AHEAD" (W20-1A)
 - "END ROAD WORK" (G20-2A 48"X24")
 - "ROAD WORK NEXT 8 MILES" (G20-1 60"X24")
- Landmarks and Intersections:**
 - SEARS RD
 - CURRY RD
 - SITAN RD
 - CLEMENT RD
 - CEMETERY RD
 - LOWER RD
 - SANDS RD
 - CTH B
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM
- Stations and Mileage:**
 - Station 330 to 550 along USH 2.
 - Station 507+80 to 510+20: EXCEPTION TO NET CENTERLINE LENGTH B-26-11.
 - Station 490+52: CULVERT REPLACEMENT.
 - Station 527+75: CULVERT REPLACEMENT.
 - Station 531+00 to 555+00: WB PASSING LANE CLOSURE. SEE SDD 15D20-07B FOR DETAILS.
 - Station 543+50: END PROJECT.
- Other Labels:**
 - TOWN OF GURNEY
 - TOWN OF SAXON
 - USH 2
 - CTH B

Plan view of USH 2 showing road work areas, stations, and landmarks. The diagram includes stationing from 330 to 550 along USH 2. Key features include:

- Road Work Areas:** Indicated by diamond-shaped signs labeled "ROAD WORK AHEAD" and "END ROAD WORK".
- Signs:**
 - "ROAD WORK AHEAD" (W20-1A)
 - "END ROAD WORK" (G20-2A 48"X24")
 - "ROAD WORK NEXT 8 MILES" (G20-1 60"X24")
- Landmarks and Intersections:**
 - SEARS RD
 - CURRY RD
 - SITAN RD
 - CLEMENT RD
 - CEMETERY RD
 - LOWER RD
 - SANDS RD
 - CTH B
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM
- Stations and Mileage:**
 - Station 330 to 550 along USH 2.
 - Station 507+80 to 510+20: EXCEPTION TO NET CENTERLINE LENGTH B-26-11.
 - Station 490+52: CULVERT REPLACEMENT.
 - Station 527+75: CULVERT REPLACEMENT.
 - Station 531+00 to 555+00: WB PASSING LANE CLOSURE. SEE SDD 15D20-07B FOR DETAILS.
 - Station 543+50: END PROJECT.
- Other Labels:**
 - TOWN OF GURNEY
 - TOWN OF SAXON
 - USH 2
 - CTH B

Plan view of USH 2 project area. The diagram shows a horizontal alignment of USH 2 with stationing from 330 to 550. Key features include:

- Road Work Zones:** Indicated by diamond-shaped signs labeled "ROAD WORK AHEAD" and "END ROAD WORK". Signs are placed at stations 330, 360, 440, 460, 490, 510, 530, and 550. Signs are labeled "W20-1A" and "G20-2A 48\"X24\"".
- Intersections and Crossings:**
 - SEARS RD (Station 330)
 - CURRY RD (Station 340)
 - SITAN RD (Station 370)
 - CLEMENT RD (Station 390)
 - CEMETERY RD (Station 440)
 - STH 122 (Station 460)
 - SANDS RD (Station 470)
 - CTH B (Station 510)
 - LOWER RD (Station 550)
- Project Details:**
 - STA 507+80 TO 510+20 EXCEPTION TO NET CENTERLINE LENGTH B-26-11
 - CULVERT REPLACEMENT STA 490+52
 - CULVERT REPLACEMENT STA 527+75
 - WB PASSING LANE CLOSURE STA 531+00 TO STA 555+00 SEE SDD 15D20-07B FOR DETAILS
 - END PROJECT STA 543+50
- Landmarks:**
 - TOWN OF GURNEY (Station 340-360)
 - TOWN OF SAXON (Station 360-390)
 - FOX VALLEY AND LAKE SUPERIOR RAIL SYSTEM (Station 400-550)
- Other Labels:**
 - USH 2
 - CTH B
 - CTH A
 - CTH C
 - CTH D
 - CTH E
 - CTH F
 - CTH G
 - CTH H
 - CTH I
 - CTH J
 - CTH K
 - CTH L
 - CTH M
 - CTH N
 - CTH O
 - CTH P
 - CTH Q
 - CTH R
 - CTH S
 - CTH T
 - CTH U
 - CTH V
 - CTH W
 - CTH X
 - CTH Y
 - CTH Z

PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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PROJECT NO: 1185-02-71	HWY: USH 2	COUNTY: IRON	TRAFFIC CONTROL OVERVIEW	SHEET 29	E
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Estimate Of Quantities

1185-02-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0004	204.0100	Removing Concrete Pavement	SY	310.000	310.000
0006	204.0110	Removing Asphaltic Surface	SY	310.000	310.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	435.000	435.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	150,840.000	150,840.000
0012	204.0150	Removing Curb & Gutter	LF	390.000	390.000
0014	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	2.000	2.000
0016	205.0100	Excavation Common	CY	2,110.000	2,110.000
0018	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	4.000	4.000
0020	209.1500	Backfill Granular Grade 1	TON	211.000	211.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1185-02-71	EACH	1.000	1.000
0024	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	6.000	6.000
0026	213.0100	Finishing Roadway (project) 01. 1185-02-71	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,800.000	8,800.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,580.000	1,580.000
0032	450.4000	HMA Cold Weather Paving	TON	7,450.000	7,450.000
0034	455.0605	Tack Coat	GAL	21,240.000	21,240.000
0036	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0038	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0040	460.2005	Incentive Density PWL HMA Pavement	DOL	11,186.000	11,186.000
0042	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	8,522.000	8,522.000
0044	460.2010	Incentive Air Voids HMA Pavement	DOL	14,001.000	14,001.000
0046	460.6224	HMA Pavement 4 MT 58-28 S	TON	29,785.000	29,785.000
0048	465.0105	Asphaltic Surface	TON	372.000	372.000
0050	465.0110	Asphaltic Surface Patching	TON	76.000	76.000
0052	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	15.000	15.000
0054	465.0315	Asphaltic Flumes	SY	47.000	47.000
0056	465.0560	Asphaltic Rumble Strips, Centerline	LF	37,916.000	37,916.000
0058	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0060	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	208.000	208.000
0062	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	21.000	21.000
0064	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0066	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	451.000	451.000
0068	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1185-02-71	EACH	1.000	1.000
0070	619.1000	Mobilization	EACH	1.000	1.000
0072	624.0100	Water	MGAL	124.000	124.000
0074	625.0100	Topsoil	SY	1,373.000	1,373.000
0076	628.1504	Silt Fence	LF	999.000	999.000
0078	628.1520	Silt Fence Maintenance	LF	999.000	999.000
0080	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0082	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0084	628.2008	Erosion Mat Urban Class I Type B	SY	1,373.000	1,373.000
0086	628.7555	Culvert Pipe Checks	EACH	12.000	12.000
0088	628.7570	Rock Bags	EACH	50.000	50.000
0090	629.0210	Fertilizer Type B	CWT	0.900	0.900
0092	630.0130	Seeding Mixture No. 30	LB	29.000	29.000
0094	630.0500	Seed Water	MGAL	283.000	283.000
0096	633.5200	Markers Culvert End	EACH	4.000	4.000
0098	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000	5.000

Estimate Of Quantities

1185-02-71

Line	Item	Item Description	Unit	Total	Qty
0100	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0102	638.2102	Moving Signs Type II	EACH	15.000	15.000
0104	638.4000	Moving Small Sign Supports	EACH	15.000	15.000
0106	642.5201	Field Office Type C	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	2,480.000	2,480.000
0110	643.0420	Traffic Control Barricades Type III	DAY	84.000	84.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	168.000	168.000
0114	643.0715	Traffic Control Warning Lights Type C	DAY	586.000	586.000
0116	643.0800	Traffic Control Arrow Boards	DAY	38.000	38.000
0118	643.0900	Traffic Control Signs	DAY	1,356.000	1,356.000
0120	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0122	643.3165	Temporary Marking Line Paint 6-Inch	LF	148,197.000	148,197.000
0124	643.5000	Traffic Control	EACH	1.000	1.000
0126	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	135,472.000	135,472.000
0128	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	910.000	910.000
0130	646.6120	Marking Stop Line Epoxy 18-Inch	LF	63.000	63.000
0132	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	33,868.000	33,868.000
0134	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	451.000	451.000
0136	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0138	650.8000	Construction Staking Resurfacing Reference	LF	42,610.000	42,610.000
0140	650.9911	Construction Staking Supplemental Control (project) 01. 1185-02-71	EACH	1.000	1.000
0142	690.0150	Sawing Asphalt	LF	916.000	916.000
0144	690.0250	Sawing Concrete	LF	213.000	213.000
0146	740.0440	Incentive IRI Ride	DOL	32,520.000	32,520.000
0148	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0150	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,980.000	1,980.000
0152	SPV.0060	Special 01. Reestablish Section Corner Monuments	EACH	4.000	4.000
0154	SPV.0180	Special 01. Protective Thermoplastic Coating at Snowmobile Trail Crossings	SY	173.000	173.000

MILLING										
						204.0100	204.0110	204.0115	204.0120	
						REMOVING CONCRETE PAVEMENT SY	REMOVING ASPHALTIC SURFACE SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMOVING ASPHALTIC SURFACE MILLING SY	
CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.9060.S REMOVING APRON ENDWALLS EACH	CATEGORY	STATION	TO	STATION	LOCATION	REMARKS
REMOVING PIPE	0010	115+00	-	507+80	MAINLINE	-	-	80	130,930	BEGIN PROJECT - BRIDGE
	0010	510+20	-	543+50	MAINLINE	-	-	95	10,970	BRIDGE - END PROJECT
	0010	129+10	-	129+80	LT	-	-	-	255	FIRE LANE WEST
	0010	161+33	-	162+13	LT	-	-	-	330	FIRE LANE EAST
	0010	212+24	-	213+34	RT	-	-	-	280	OLD HWY 10
	0010	213+75	-	217+05	LT	-	-	40	780	HARBOR DR AND BYPASS LANE
	0010	215+55	-	215+80	RT	-	50	-	-	SNOWMOBILE CROSSING
	0010	216+00	-	219+00	LT	-	220	-	-	GAS STATION DRIVEWAYS
	0010	214+99	-	217+50	RT	-	-	30	900	STH 169, AND TURN LANE
	0010	246+35	-	246+95	LT	-	-	-	280	WYSZINSKI RD
	0010	276+29	-	276+99	LT	-	-	-	255	LE DUC RD
	0010	276+29	-	276+99	RT	-	-	-	330	LE DUC RD
	0010	331+65	-	332+35	LT	-	-	-	330	SEARS RD
	0010	331+65	-	332+35	RT	-	-	-	330	CURRY RD
	0010	333+25	-	334+05	RT	-	-	25	165	PIT ENTRANCE
	0010	371+03	-	371+63	LT	-	-	-	330	SITAN RD
	0010	383+92	-	384+92	RT	-	-	-	305	CLEMENT RD
	0010	410+90	-	411+05	RT	-	40	-	-	DRIVEWAY
	0010	436+45	-	437+05	LT	-	-	30	830	SCENIC OVERLOOK AND TURN LANE
	0010	436+95	-	437+65	RT	-	-	-	245	CEMETARY RD
	0010	462+30	-	468+40	LT	-	-	30	855	N STH 122 AND TURN LANE
0010	459+00	-	464+80	RT	-	-	30	820	S STH 122 AND TURN LANE	
0010	490+00	-	491+04	CULVERT 26002000585	160	-	-	-	CULVERT PATCH	
0010	527+25	-	528+25	CULVERT 26002000586	150	-	-	-	CULVERT PATCH	
0010	531+35	-	543+50	LT	-	-	75	1,320	WB PASSING LANE	
TOTAL 0010						310	310	435	150,840	

EARTH WORK													
					205.0100						209.1500	208.1500.S	
					(1) EXCAVATION COMMON CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(2) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(3) EXPANDED FILL CY	(4) MASS ORDINATE +/- CY	BACKFILL GRANULAR GRADE 1 TON	TEMPORARY LANE SHIFT DURING CULVERT WORK EACH	REMARKS
CATEGORY	STATION	TO	STATION	LOCATION									
0010	490+00	-	491+04	USH 2	1,010	179	831	706	812	19	109	2	CULVERT TRANSITION
0010	527+25	-	528+25	USH 2	1,000	171	829	698	803	26	102	2	CULVERT TRANSITION
0010	215+55	-	216+15	HARBOR DR NE	20	-	-	-	-	-	-	-	WIDENING GRADING
0010	217+05	-	217+75	STH 169 SW	20	-	-	-	-	-	-	-	CURB AND GUTTER GRADING
0010	463+00	-	463+45	STH 122 NW	10	-	-	-	-	-	-	-	CURB AND GUTTER GRADING
0010	463+65	-	464+30	STH 122 NE	20	-	-	-	-	-	-	-	CURB AND GUTTER GRADING
0010	462+80	-	463+45	STH 122 SW	20	-	-	-	-	-	-	-	CURB AND GUTTER GRADING
0010	463+70	-	464+15	STH 122 SE	10	-	-	-	-	-	-	-	CURB AND GUTTER GRADING
TOTAL 0010					2,110						211	4	

(1) SALVAGED/UNUSEABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
(2) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSEABLE PAVEMENT MATERIAL
(3) EXPANDED FILL FACTOR = 1.15
(4) THE MASS ORDINATE + OR - QUANTITY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

BASE AGGREGATE DENSE									
						305.0110	305.0120	624.0100	
CATEGORY	STATION	TO	STATION	LOCATION		BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	WATER MGAL	REMARKS
0010	115+00	-	543+50	LT/RT	MAINLINE	8,680	-	87	SHOULDERS
0010	490+00	-	491+04		MAINLINE	-	700	14	CULVERT PATCH
0010	527+25	-	528+25		MAINLINE	-	670	14	CULVERT PATCH
0010	215+55	-	216+15	LT	HARBOR DR NE	-	40	1	SIDE ROAD/ENTRANCE
0010	217+05	-	217+75	RT	STH 169 SW	-	40	1	WIDENING BASE
0010	463+00	-	463+45	LT	STH 122 NW	-	20	1	CURB AND GUTTER BASE
0010	463+65	-	464+30	LT	STH 122 NE	-	40	1	CURB AND GUTTER BASE
0010	462+80	-	463+45	RT	STH 122 SW	-	40	1	CURB AND GUTTER BASE
0010	463+70	-	464+15	RT	STH 122 SE	-	20	1	CURB AND GUTTER BASE
0010	115+00	-	543+50		PROJECT	70	-	2	SIDE ROADS
UNDISTRIBUTED						50	10	1	AS NEEDED
TOTAL 0010						8,800	1,580	124	

CATEGORY	STATION	TO	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	REMARKS		
0010	115+00	-	507+80	MAINLINE	7,450	18,330	25,780	BEGIN PROJECT - BRIDGE		
0010	510+20	-	543+50	MAINLINE	-	1,540	2,160	BRIDGE - END PROJECT		
0010	129+00	-	130+00	LT	-	40	50	FIRE LANE WEST		
0010	161+50	-	162+50	LT	-	50	65	FIRE LANE EAST		
0010	212+50	-	213+50	RT	-	40	60	OLD HWY 10		
0010	213+75	-	217+05	LT	-	160	215	HARBOR DR AND BYPASS LANE		
0010	214+99	-	217+50	RT	-	130	180	STH 169, AND TURN LANE		
0010	246+50	-	247+50	LT	-	40	55	WYSZINSKI RD		
0010	276+00	-	277+50	LT	-	40	55	LE DUC RD		
0010	276+00	-	277+50	RT	-	50	65	LE DUC RD		
0010	331+50	-	332+50	LT	-	50	65	SEARS RD		
0010	331+50	-	332+50	RT	-	50	65	CURRY RD		
0010	333+25	-	334+05	RT	-	30	35	PIT ENTRANCE		
0010	371+00	-	372+00	LT	-	50	65	SITAN RD		
0010	384+00	-	385+00	RT	-	50	60	CLEMENT RD		
0010	436+45	-	437+05	LT	-	120	165	SCENIC OVERLOOK AND TURN LANE		
0010	437+00	-	438+00	RT	-	40	50	CEMETARY RD		
0010	463+00	-	464+00	LT	-	120	170	N STH 122 AND TURN LANE		
0010	463+00	-	464+00	RT	-	120	165	S STH 122 AND TURN LANE		
0010	531+35	-	543+50	LT	-	190	260	WB PASSING LANE		
TOTAL 0010					7,450	21,240	29,785			

ASPHALTIC SURFACE									
					211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	
CATEGORY	STATION	TO	STATION	LOCATION					REMARKS
0010	215+00	-	216+15	LT	-	17	-	-	HARBOR DR
0010	215+55	-	215+80	RT	1	6	-	-	SNOWMOBILE TRAIL
0010	216+75	-	217+09	LT	-	-	-	11	GAS STATION DRIVEWAYS
0010	217+05	-	217+75	RT	1	-	17	-	STH 169 SW
0010	218+00	-	218+50	RT	1	-	6	-	STH 169 SE
0010	333+25	-	334+05	RT	-	19	-	-	PIT ENTRANCE
0010	410+90		411+05	RT	-	-	-	4	DRIVEWAY
0010	462+80	-	463+45	RT	1	-	19	-	STH 122 SW
0010	463+00	-	463+45	LT	-	-	9	-	STH 122 NW
0010	463+65	-	464+30	LT	1	-	17	-	STH 122 NE
0010	463+70	-	464+15	RT	1	-	8	-	STH 122 SE
0010	490+00	-	491+04	CENTERLINE	-	178	-	-	CULVERT PATCH
0010	527+25	-	528+25	CENTERLINE	-	169	-	-	CULVERT PATCH
TOTAL 0010					6	372	76	15	

RUMBLE STRIP									
					465.0560 ASPHALT RUMBLE STRIPS, CENTERLINE LF		REMARKS		
0010	115+00	-	127+55	CENTERLINE	1,255		BOP - FIRE LANE WEST		
0010	131+55	-	160+05	CENTERLINE	2,850		FIRE LANE WEST - FIRE LANE EAST		
0010	164+05	-	210+76	CENTERLINE	4,671		FIRE LANE EAST - OLD HWY 10		
0010	219+91	-	244+73	CENTERLINE	2,482		STH 169 - WYSZINSKI RD		
0010	248+73	-	274+55	CENTERLINE	2,582		WYSZINSKI RD - LE DUC RD		
0010	279+05	-	330+16	CENTERLINE	5,111		LE DUC RD - SEARS RD/CURRY RD		
0010	334+85	-	369+57	CENTERLINE	3,472		PIT ENTRANCE - SITAN RD		
0010	373+57	-	382+60	CENTERLINE	903		SITAN RD - CLEMENT RD		
0010	386+60	-	435+49	CENTERLINE	4,889		CLEMENT RD - SCENIC OVERLOOK		
0010	439+49	-	461+47	CENTERLINE	2,198		CEMETERY RD - STH 122		
0010	465+57	-	507+55	CENTERLINE	4,198		STH 122 - BRIDGE		
0010	510+45	-	543+50	CENTERLINE	3,305		BRIDGE - EOP		
TOTAL 0010					37,916				

PWL MIXTURE USE TABLE									
LOCATION	ROADWAY	STATION (see NOTE)	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
								MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12-foot Driving Lane	USH 2 WB	115+00 - 543+50 LT	Lower	Milled Pavement Surface	HMA Pavement 4 MT 58-28 S	5588	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
3-foot Shoulder	USH 2 WB	115+00 - 543+50 LT	Lower	Milled Pavement Surface	HMA Pavement 4 MT 58-28 S	1397	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Acceptance testing by the Department; Not eligible for incentive
12-foot Driving Lane	USH 2 WB	115+00 - 543+50 LT	Surface	HMA Pavement 4 MT 58-28 S	HMA Pavement 4 MT 58-28 S	5588	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
3-foot Shoulder	USH 2 WB	115+00 - 543+50 LT	Surface	HMA Pavement 4 MT 58-28 S	HMA Pavement 4 MT 58-28 S	1397	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Acceptance testing by the Department; Not eligible for incentive
12-foot Driving Lane	USH 2 EB	115+00 - 543+50 RT	Lower	Milled Pavement Surface	HMA Pavement 4 MT 58-28 S	5588	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
3-foot Shoulder	USH 2 EB	115+00 - 543+50 RT	Lower	Milled Pavement Surface	HMA Pavement 4 MT 58-28 S	1397	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Acceptance testing by the Department; Not eligible for incentive
12-foot Driving Lane	USH 2 EB	115+00 - 543+50 RT	Surface	HMA Pavement 4 MT 58-28 S	HMA Pavement 4 MT 58-28 S	5588	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
3-foot Shoulder	USH 2 EB	115+00 - 543+50 RT	Surface	HMA Pavement 4 MT 58-28 S	HMA Pavement 4 MT 58-28 S	1397	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Acceptance testing by the Department; Not eligible for incentive
Passing Lanes	USH 2 WB	213+50 - 221+50 LT 531+00 - 543+50 LT	Lower	Milled Pavement Surface	HMA Pavement 4 MT 58-28 S	205	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
Passing Lanes	USH 2 WB	213+50 - 221+50 LT 531+00 - 543+50 LT	Surface	HMA Pavement 4 MT 58-28 S	HMA Pavement 4 MT 58-28 S	205	1.75"	PWL Incentive Air Voids HMA Pavement, 460.2010	Incentive Density PWL HMA Pavement, 460.2005
Side Roads	FIRE LANE WEST FIRE LANE EAST OLD HWY 10 HARBOR DR STH 169 WYSZINSKI RD LEDUC RD SEARS RD CURRY RD SITAN RD CLEMENT RD CEMETARY RD STH 122	129+50 LT 162+00 LT 213+00 RT 215+50 LT 218+00 RT 247+00 LT 276+75 LT / RT 332+00 LT 332+00 RT 371+50 RT 384+50 RT 437+50 RT 463+50 LT / RT	Surface	Existing Asphaltic Pavement	HMA Pavement 4 MT 58-28 S	1432	2"	PWL Incentive Air Voids HMA Pavement, 460.2010	Acceptance testing by the Department; Not eligible for incentive

PWL TEST
STRIP

CATEGORY	STATION	TO	STATION	LOCATION	460.0105.S	460.0110.S	REMARKS
					HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH	
0010	115+00	-	543+50	PROJECT	1	1	LOWER LAYER
TOTAL 0010					1	1	

CULVERT ITEMS

CATEGORY	STATION	LOCATION	520.1024	520.3424	522.0118	522.1018	633.5200
			APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	CULVERT PIPE CLASS III-A NON- METAL 24-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18- INCH EACH	MARKERS CULVERT END EACH
0010	490+52	CULVERT 26002000585	2	116	-	-	2
0010	527+75	CULVERT 26002000586	2	92	-	-	2
0010	21+44	STH 122 LT	-	-	14	1	-
0010	21+44	STH 122 RT	-	-	7	1	-
TOTAL 0010			4	208	21	2	4

CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150	601.0557	REMARKS
					REMOVING CURB & GUTTER LF	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	
0010	218+00	-	218+50	RT	70	78	SW STH 169
0010	217+05	-	217+75	RT	60	73	SE STH 169
0010	462+80	-	463+45	RT	70	90	SW STH 122
0010	463+00	-	463+45	LT	60	60	NW STH 122
0010	463+65	-	464+30	LT	70	90	NE STH 122
0010	463+70	-	464+15	RT	60	60	SE STH 122
TOTAL 0010					390	451	

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	625.0100	628.1504	628.1520	628.2008	628.7555	628.7570	629.0210	630.0130	630.0500
					TOPSOIL SY	SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT URBAN CLASS I TYPE B SY	CULVERT PIPE CHECKS EACH	ROCK BAGS EACH	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL
0010		-		NE HARBOR DR	39	51	51	39	-	-	0.03	1	8
0010		-		SW STH 169	105	76	76	105	-	10	0.07	2	22
0010		-		SE STH 169	81	63	63	81	-	10	0.06	2	17
0010		-		NW STH 122	71	57	57	71	-	-	0.05	2	15
0010		-		SW STH 122	121	85	85	121	-	10	0.08	3	25
0010		-		NE STH 122	204	93	93	204	3	-	0.13	4	42
0010		-		SE STH 122	72	60	60	72	3	-	0.05	2	15
0010	490+00	-	491+04	CULVERT 26002000585	362	275	275	362	3	5	0.23	7	74
0010	527+25	-	528+25	CULVERT 26002000586	318	239	239	318	3	5	0.20	6	65
UNDISTRIBUTED										10			
TOTAL 0010					1,373	999	999	1,373	12	50	0.90	29	283

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY	REMARKS
0010	217+70	SW STH 169	5	
0010	218+20	SE STH 169	4	
0010	463+30	NW STH 122	12	
0010	463+25	SW STH 122	8	SHAPE FLUME AROUND ENDWALL
0010	463+80	NE STH 122	12	
0010	463+80	SE STH 122	8	SHAPE FLUME AROUND ENDWALL
TOTAL 0010			47	

EROSION CONTROL MOBILIZATIONS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	4	3
TOTAL 0010		4	3

MOVING SIGNS										
CATEGORY	STATION	TO	STATION	LOCATION	634.0614	634.0616	638.2102	638.4000	REMARKS	
					POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	MOVING SIGNS TYPE II EACH	MOVING SMALL SIGN SUPPORTS EACH		
0010			216+40	LT	USH 2 LT	-	-	1	1	USH2 WEST AND LAKE SUPERIOR ROUTE
0010			217+35	RT	STH 169 SW RADIUS	-	-	1	1	USH 2 EAST & STH 169 SOUTH
0010			218+20	RT	STH 169 SE RADIUS	-	-	2	2	STOP & USH 2 WEST AND EAST
0010			219+00	RT	USH 2 RT	-	-	1	1	USH 2 EAST AND LAKE SUPERIOR ROUTE
0010			463+00	RT	STH 122 SW RADIUS	-	-	1	1	STH 122 NORTH AND SOUTH
0010			463+25	LT	STH 122 NW RADIUS	-	-	3	3	STOP, USH 2 EAST AND WEST, STH 122 SOUTH, AND LAKE SUPERIOR ROUTE
0010			463+30	RT	STH 122 SOUTH LT	-	-	1	1	STH 122 SOUTH
0010			463+80	RT	STH 122 SE RADIUS	-	-	3	3	STOP, USH 2 EAST AND WEST, STH 122 NORTH, AND LAKE SURPERIOR ROUTE
0010			463+85	LT	STH 122 NE RADIUS	-	-	2	2	STH 122 NORTH AND SOUTH AND LAKE SUPERIOR ROUTE
0010	115+00	-	543+50		UNDISTRIBUTED	5	5	-	-	AS NEEDED FOR POSTS OUT OF SPEC OR IN POOR CONDITION
TOTAL 0010						5	5	15	15	

TRAFFIC CONTROL													
CATEGORY	STATION	TO	STATION	LOCATION	643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	643.1000	* 643.3165	REMARKS
					TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	TRAFFIC CONTROL ARROW BOARDS DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	TEMPORARY MARKING LINE PAINT 6-INCH LF	
				PROJECT	-	-	-	-	-	1305	36	-	
0010	531+50	-	555+00	MAINLINE	1,520	76	152	532	38	27	-	660	WEST BOUND PASSING LANE TAPER
0010	490+52	-	527+75	MAINLINE	104	-	-	-	-	24	-	-	CULVERT REPLACEMENTS
0010				HARBOR DR	90	-	-	-	-	-	-	-	INTERSECTION WIDENING
0010				STH 169	180	-	-	-	-	-	-	-	INTERSECTION CURB WORK
0010				STH 122	360	-	-	-	-	-	-	-	INTERSECTION CURB WORK
0010				UNDISTRIBUTED	226	8	16	54	-	-	-	-	
TOTAL 0010					2,480	84	168	586	38	1,356	36	660	

*ADDITIONAL QUANITY MARKED ELSWERE IN PLAN

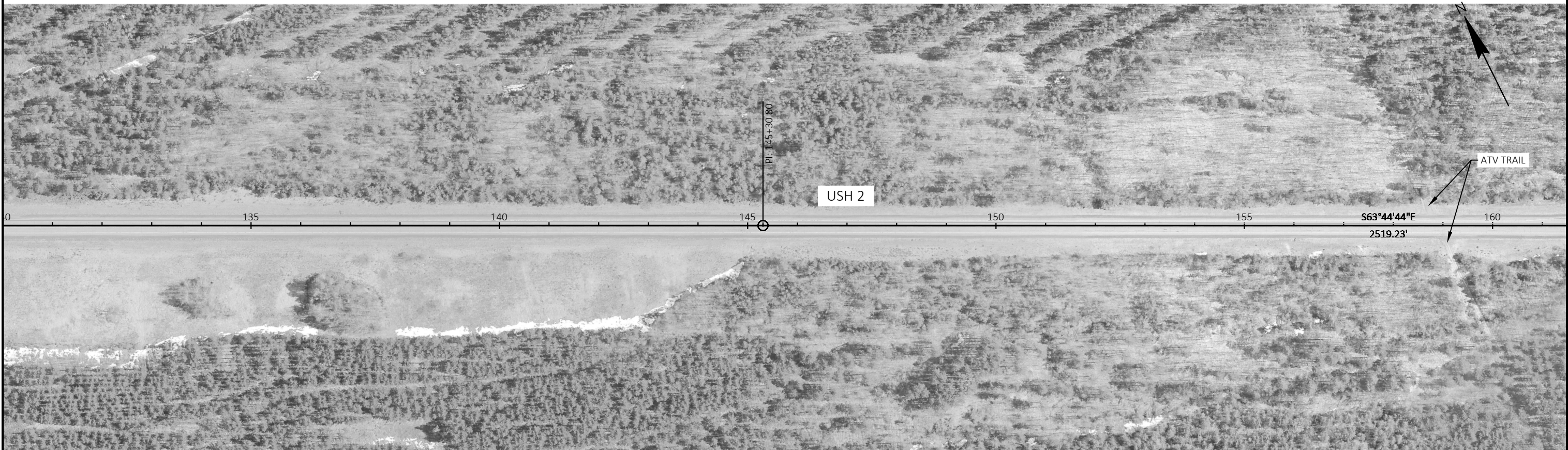
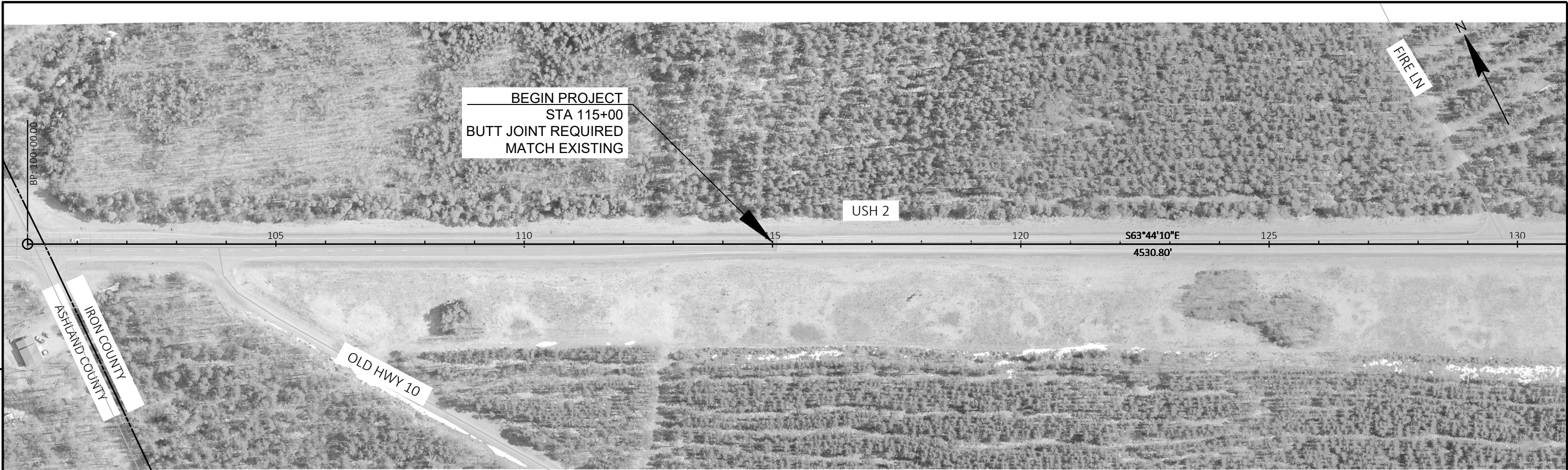
PAVEMENT MARKINGS										
*										
643.3165 646.2040 646.4040 646.6120 646.6466										
CATEGORY	STATION	TO	STATION	LOCATION	TEMPORARY MARKING LINE PAINT 6-INCH LF	MARKING LINE GROOVED WET REF EPOXY 6-INCH LF	MARKING LINE GROOVED WET REF EPOXY 10-INCH LF	MARKING STOP LINE EPOXY 18-INCH LF	COLD WEATHER MARKING EPOXY 6-INCH LF	REMARKS
0010	115+00	-	543+50	PROJECT	147537	-	-	-	33868	PROJECT
0010				MAINLINE	-	40719	-	-	-	CENTERLINE SOLID - YELLOW
0010				MAINLINE	-	8460	-	-	-	CENTERLINE SKIPS - YELLOW
0010				MANELINE	-	85468	-	-	-	EDGELINES - WHITE
0010				STH 169	-	150	-	-	-	CENTERLINE SOLID - YELLOW
0010				STH 169	-	107	-	-	-	EDGELINES - WHITE
0010				STH 122	-	300	-	-	-	CENTERLINE SOLID - YELLOW
0010				STH 122	-	193	-	-	-	EDGELINES - WHITE
0010				MAINLINE	-	-	910	-	-	TURN LANES - WHITE
0010				MAINLINE	-	75	-	-	-	BLOWBY LANE SKIPS - WHITE
0010				STH 169	-	-	-	22	-	
0010				STH 122	-	-	-	41	-	
TOTAL 0010					147,537	135,472	910	63	33,868	

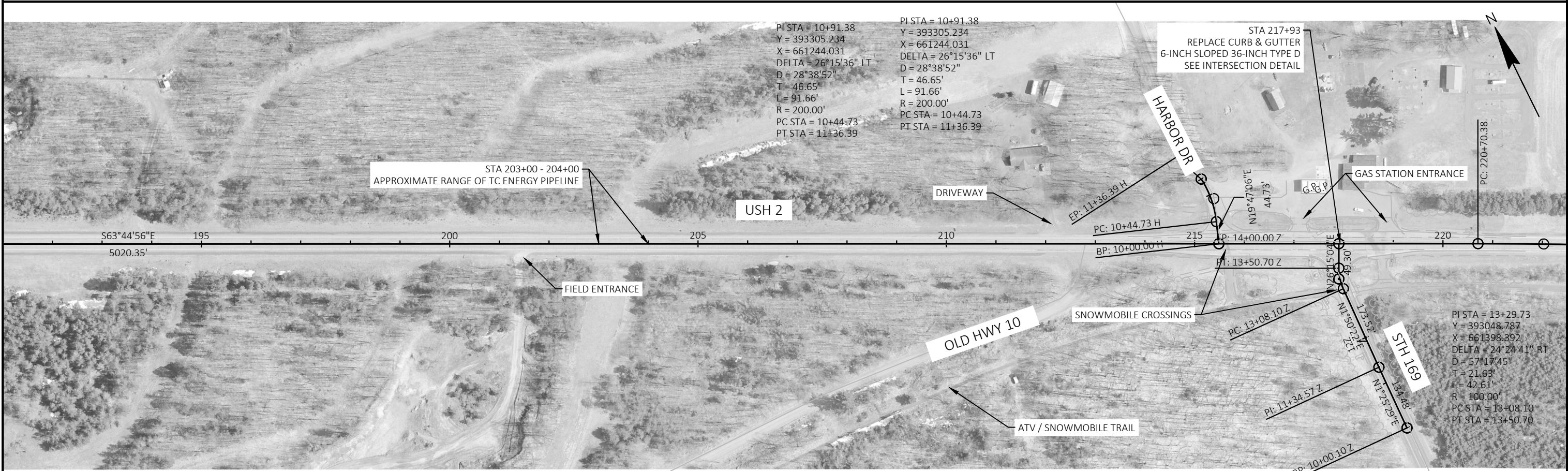
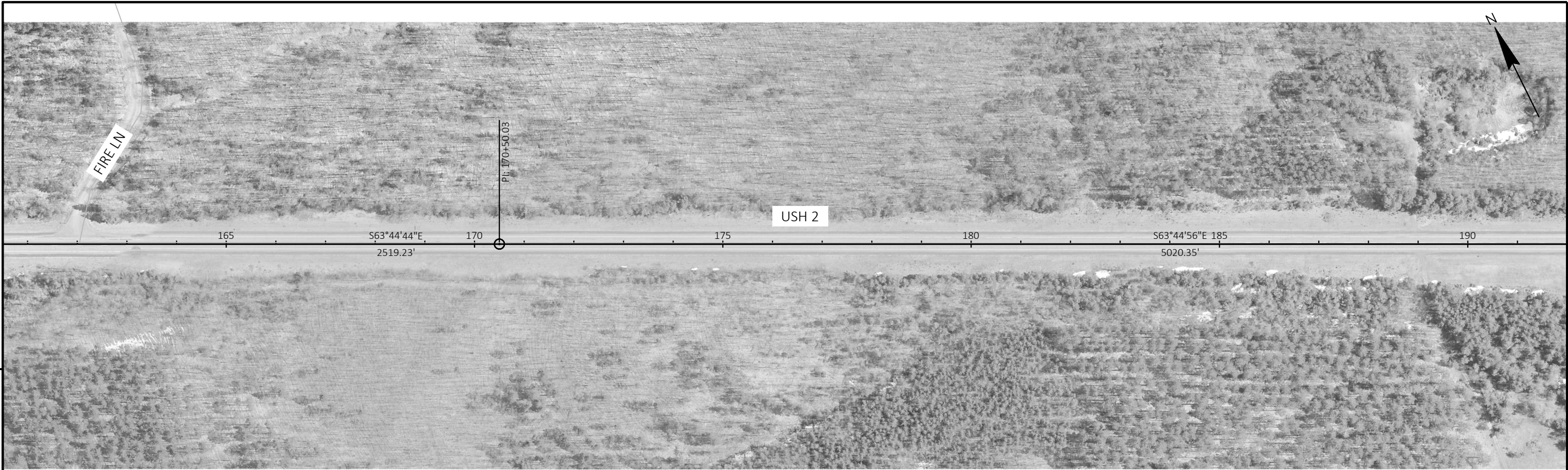
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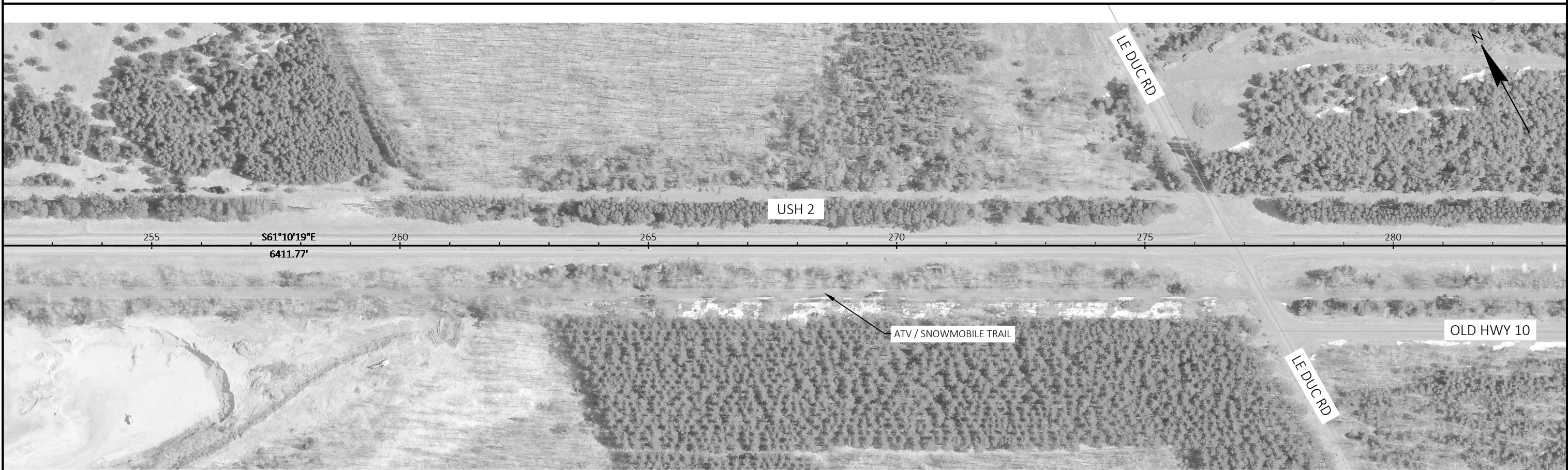
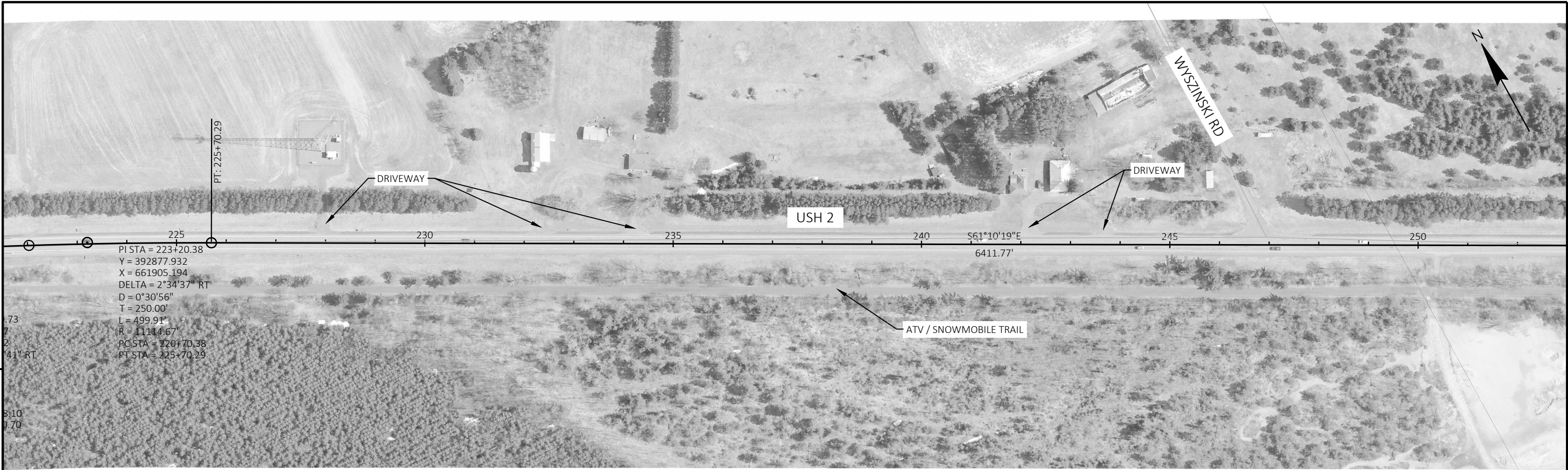
SNOWMOBILE CROSSING						SPV.0180.01	
						SPECIAL (01. PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS)	
CATEGORY	STATION	TO	STATION	LOCATION		SY	
0010	215+27	-	215+42	USH 2		108	
0010	12+92	-	13+08	STH 169		65	
TOTAL 0010						173	

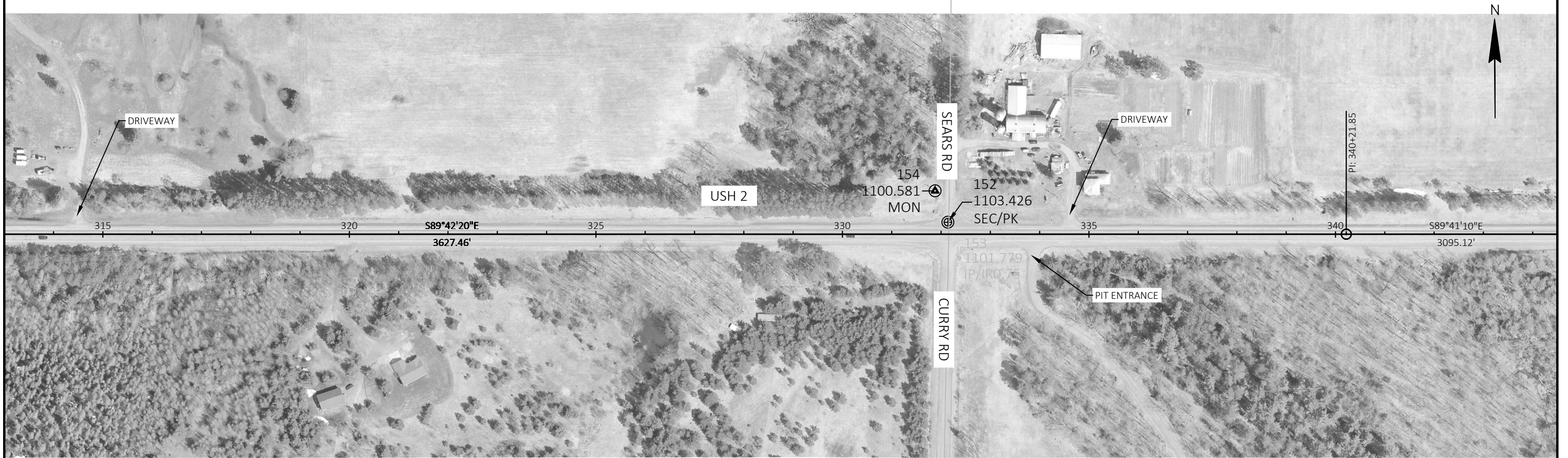
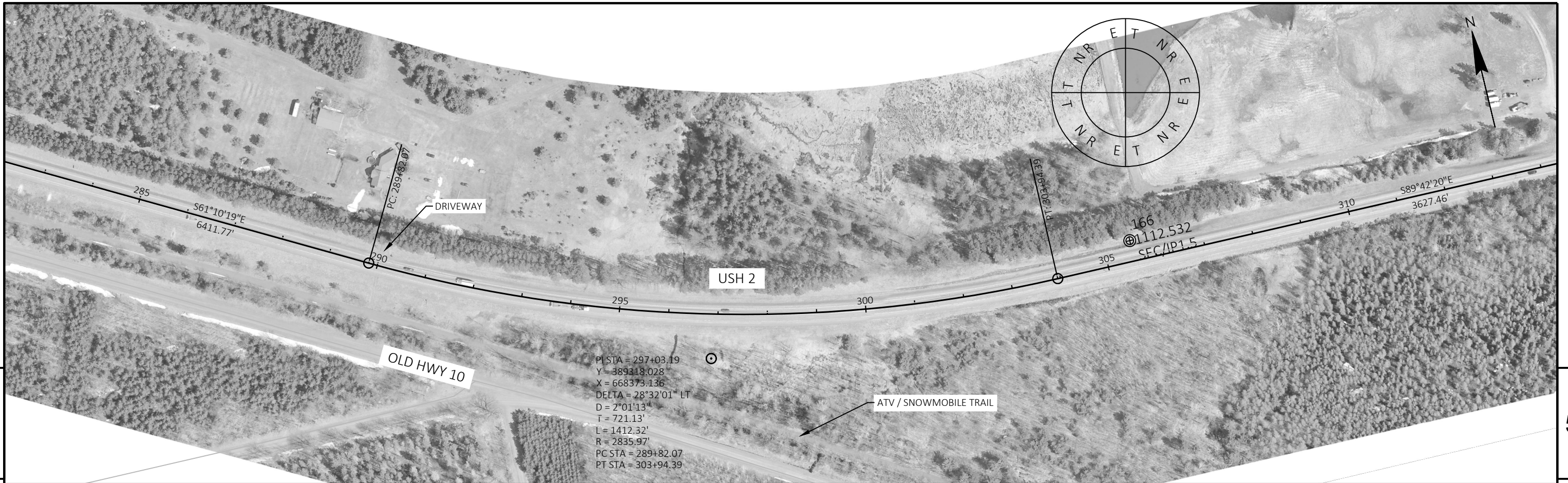
STAKING										
650.5500 650.6000 650.8000 650.9911.01 SPV.0060.01										
CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF CONSTRUCTION STAKING PIPE CULVERTS EACH CONSTRUCTION STAKING RESURFACING REFERENCE LF CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1185-02-71) LS SPECIAL (01. Reestablish Section Corner Monuments) EACH										
CATEGORY	STATION	TO	STATION	LOCATION	LF	EACH	LF	LS	EACH	REMARKS
0010				PROJECT	-	-	-	1	4	PROJECT
0010	115+00	-	507+80	-	-	-	39,280	-	-	
0010	510+20	-	543+50	-	-	-	3,330	-	-	
0010				STH 169	78	-	-	-	-	SW STH 169
0010				STH 169	73	-	-	-	-	SE STH 169
0010				STH 122	90	-	-	-	-	SW STH 122
0010				STH 122	60	-	-	-	-	NW STH 122
0010				STH 122	90	-	-	-	-	NE STH 122
0010				STH 122	60	-	-	-	-	SE STH 122
0010		490+52		-	-	1	-	-	-	CULVERT 26002000585
0010		527+75		-	-	1	-	-	-	CULVERT 26002000586
TOTAL 0010					451	2	42,610	1	4	

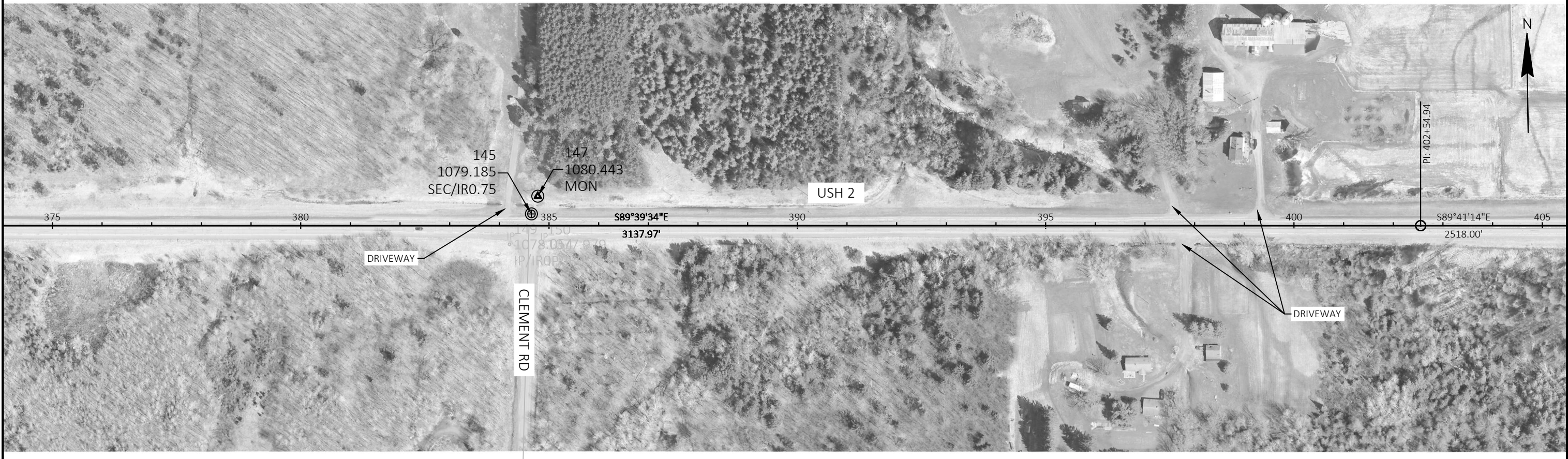
SAWING										
690.0150 690.0250										
SAWING ASPHALT LF SAWING CONCRETE LF										
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	REMARKS			
0010	216+77	-	218+85	LT	179	-	GAS STATION DRIVEWAYS			
0010	216+90	-	218+50	STH 169	108	-	SW CORNER			
0010	216+90	-	218+50	STH 169	87	-	SE CORNER			
0010	410+90	-	411+05	RT	15	-	DRIVEWAY			
0010	462+75	-	464+50	STH 122	81	-	NW CORNER			
0010	462+75	-	464+50	STH 122	121	-	NE CORNER			
0010	462+75	-	464+50	STH 122	122	-	SW CORNER			
0010	462+75	-	464+50	STH 122	83	-	SE CORNER			
0010	490+00	-	491+04	USH 2	60	109	CULVERT TRANSITION			
0010	527+25	-	528+25	USH 2	60	104	CULVERT TRANSITION			
TOTAL 0010					916	213				

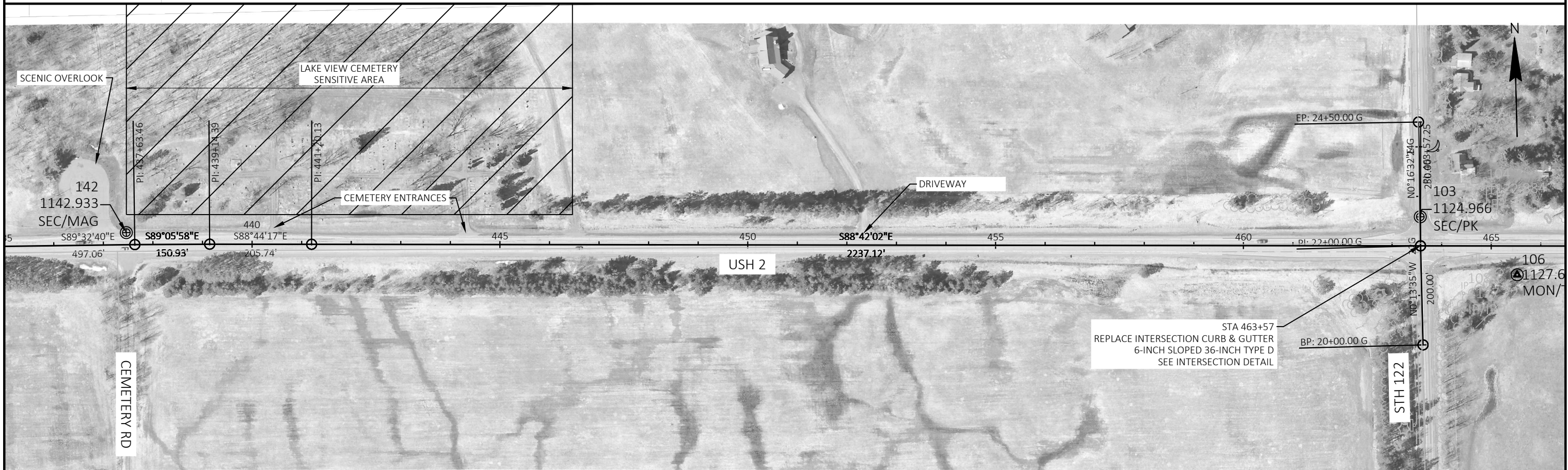
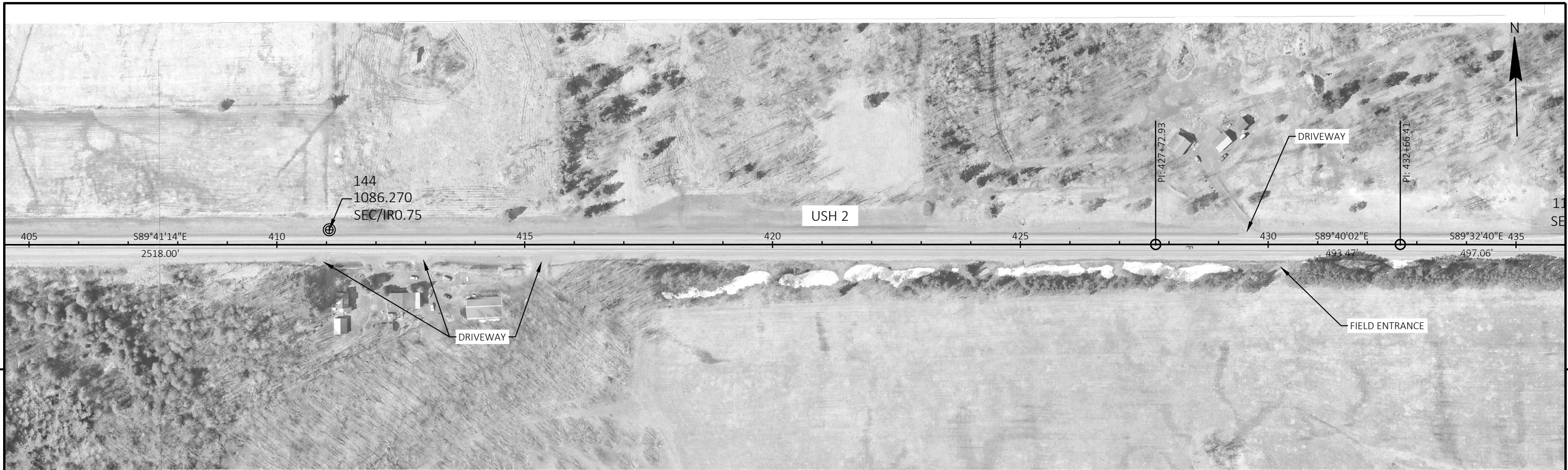


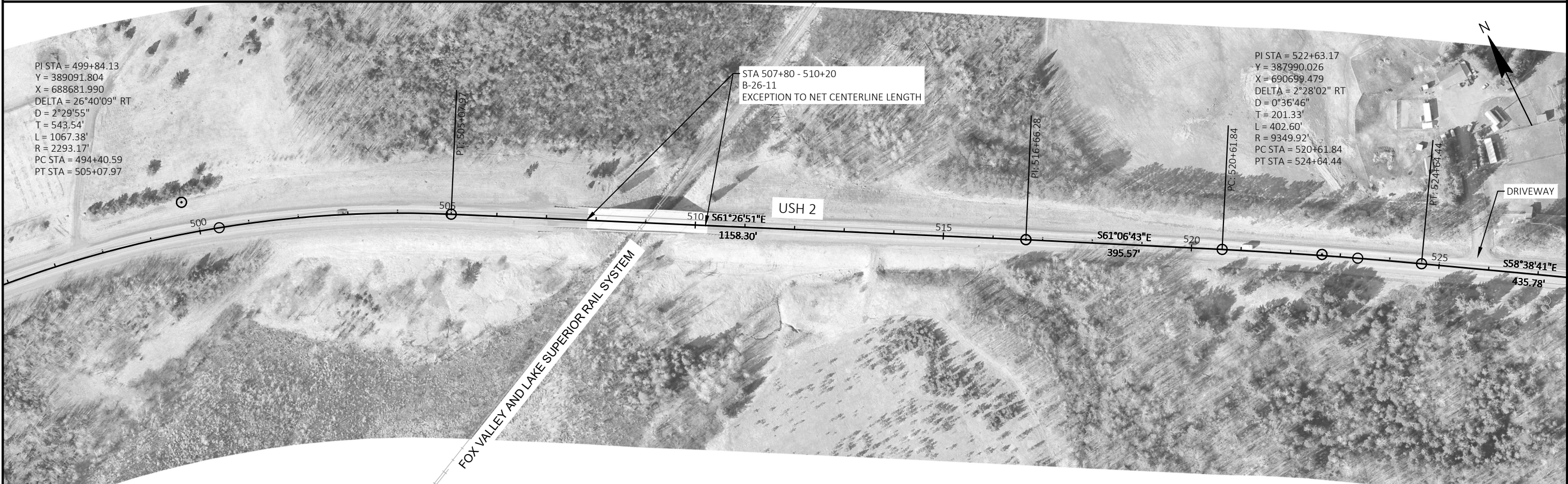
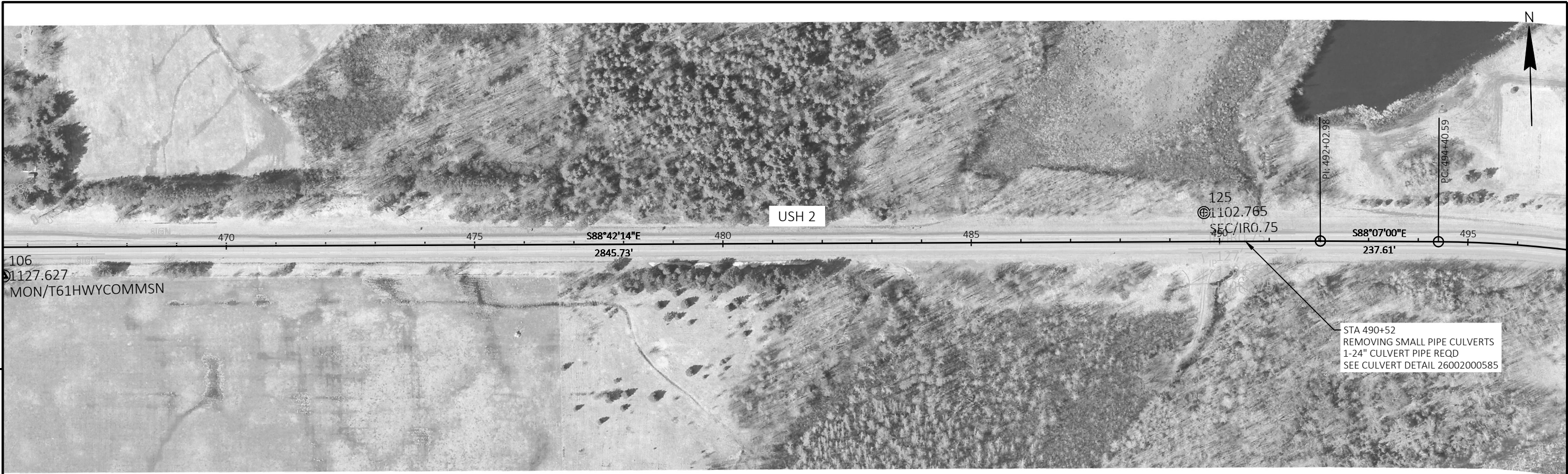


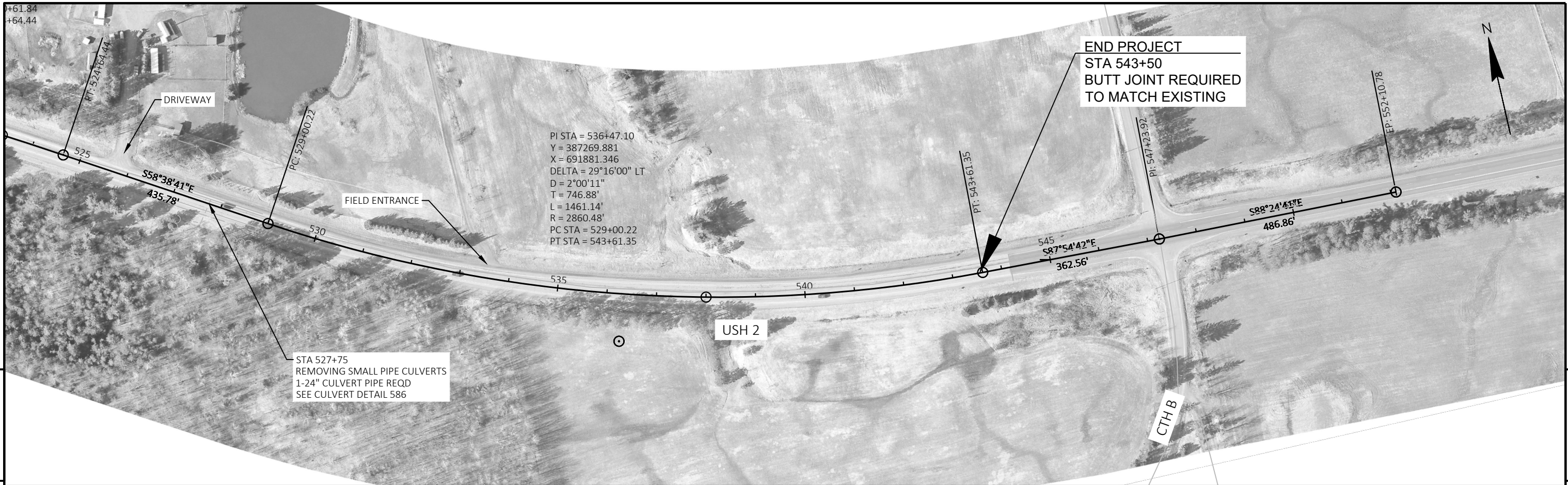








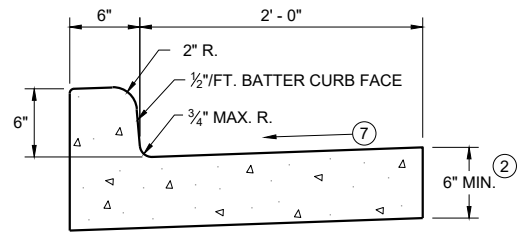




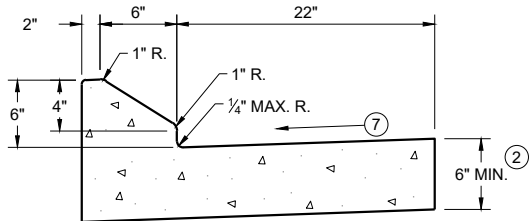
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Standard Detail Drawing List

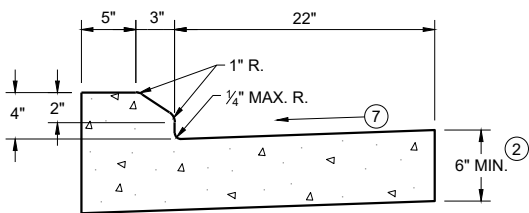
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C35-06B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-06C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



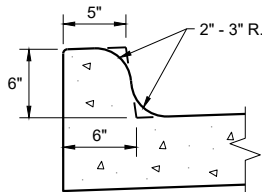
TYPES A^① & D



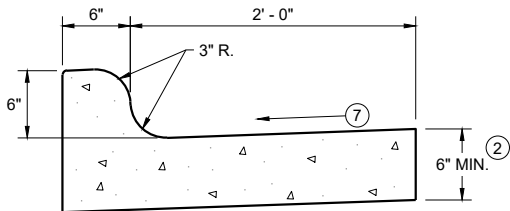
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

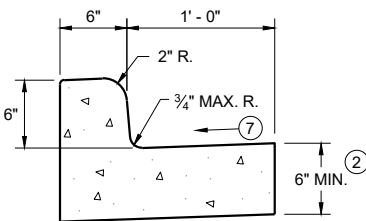


TYPES K^① & L
(OPTIONAL CURB SHAPE)



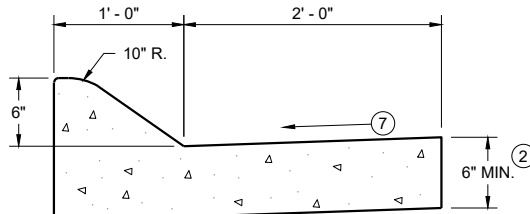
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

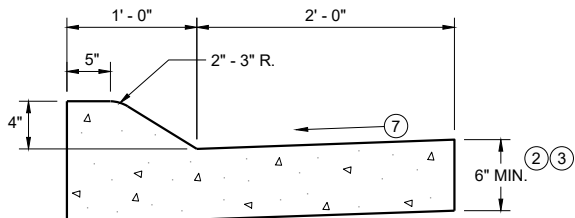


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

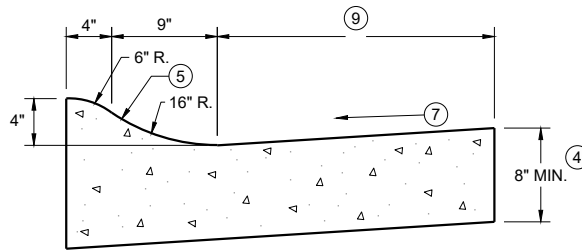


6" SLOPED CURB TYPES A^① & D



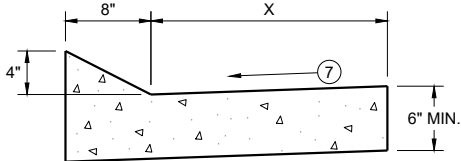
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

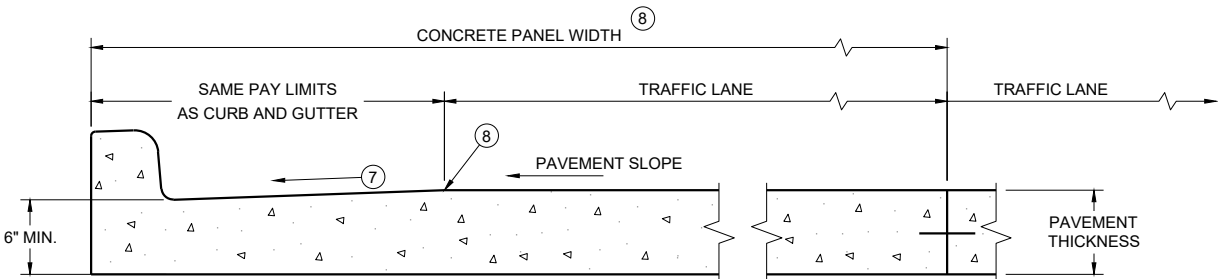


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

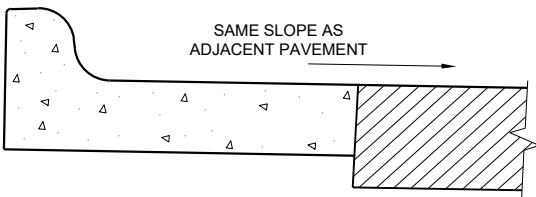
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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.

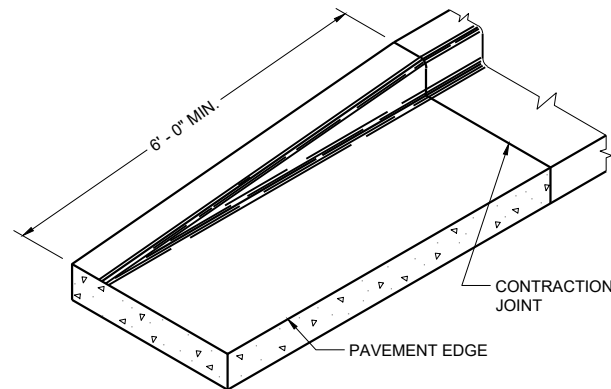
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

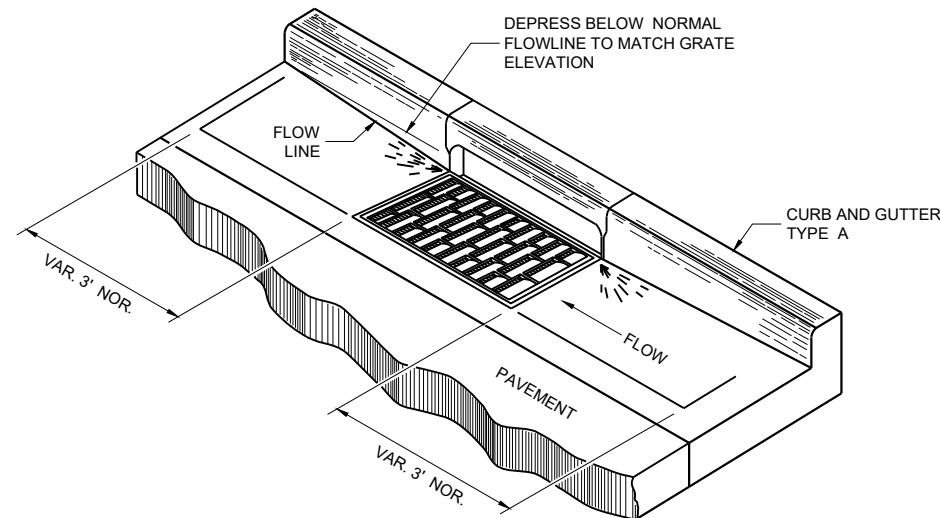
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ 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.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

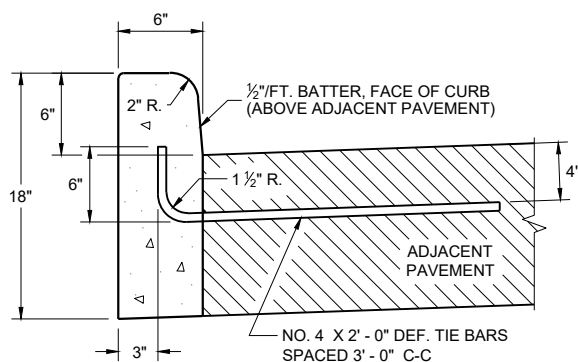


END SECTION CURB AND GUTTER

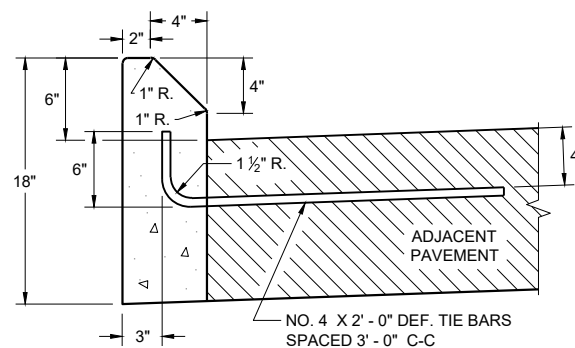


DETAIL OF CURB AND GUTTER AT INLETS

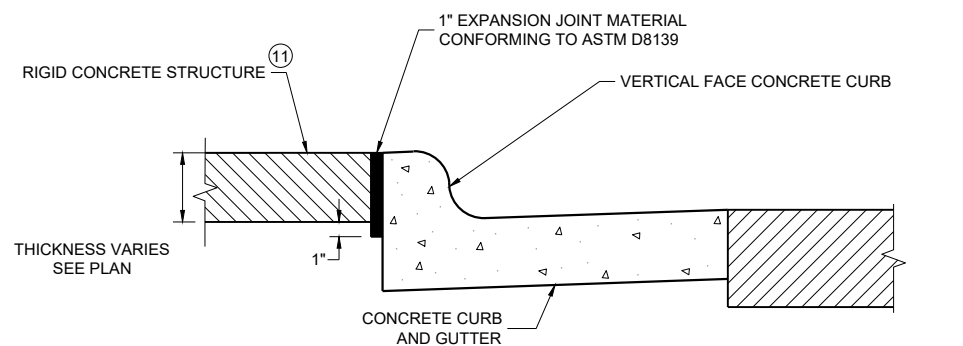
(TYPICAL H INLET COVER SHOWN)



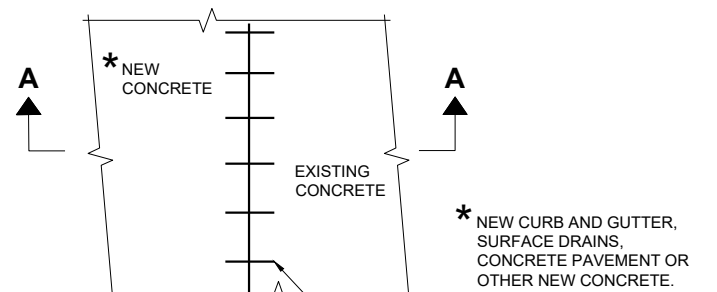
TYPES A^① & D



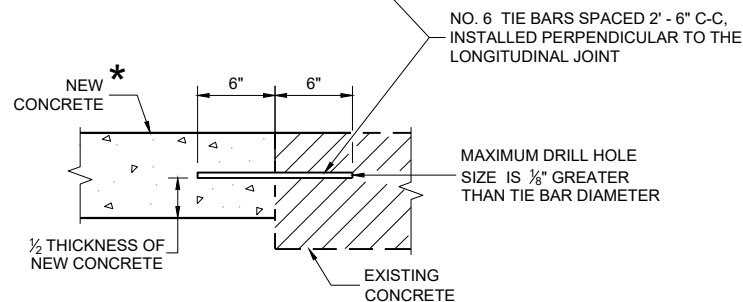
TYPES G^① & J
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



PLAN VIEW



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

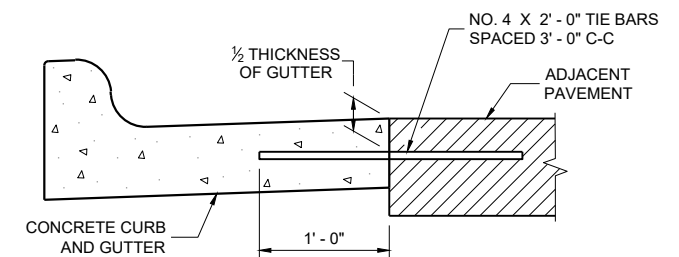
GENERAL NOTES

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

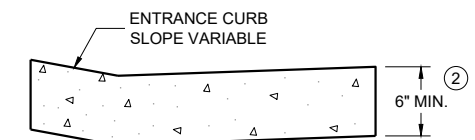
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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 GUTTERS 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.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

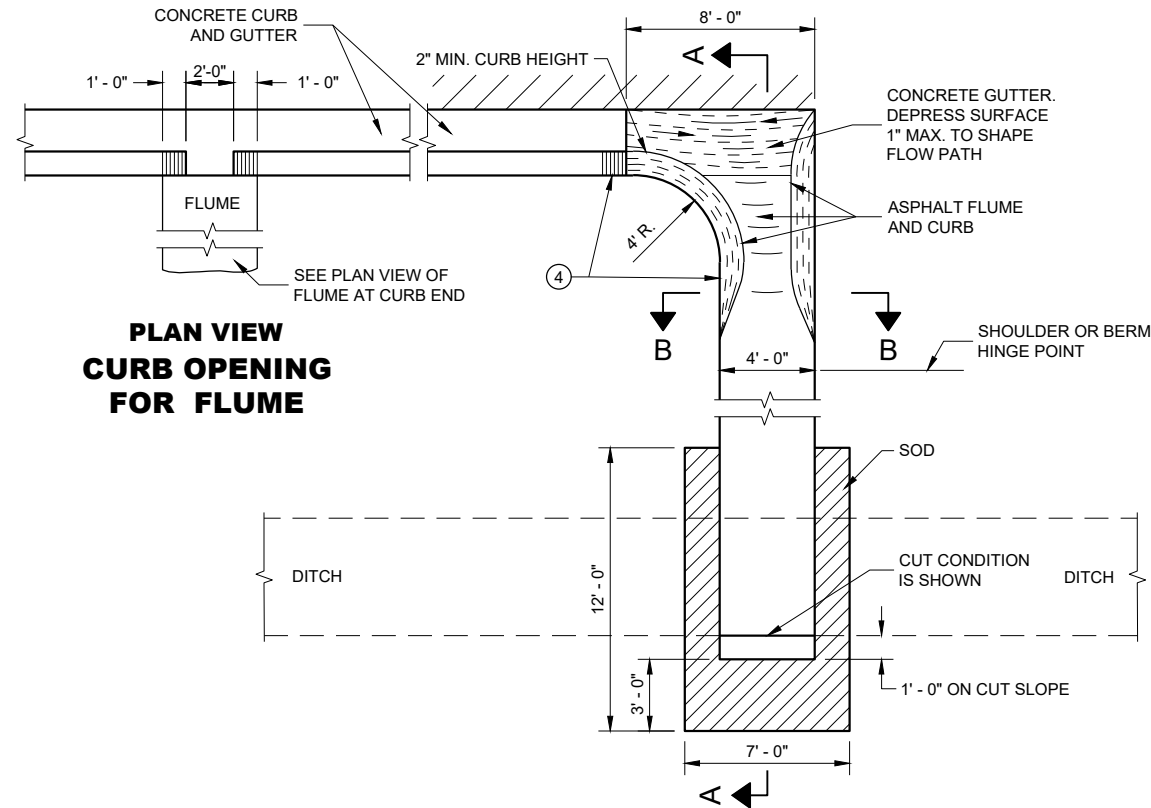
CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

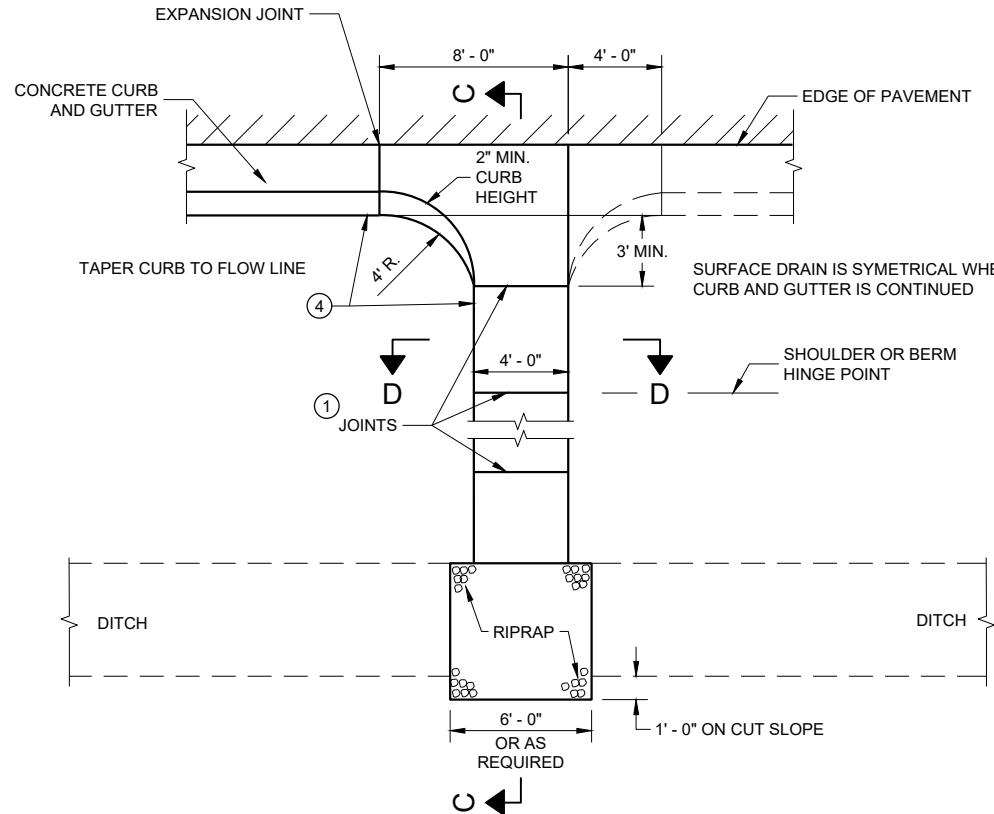
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



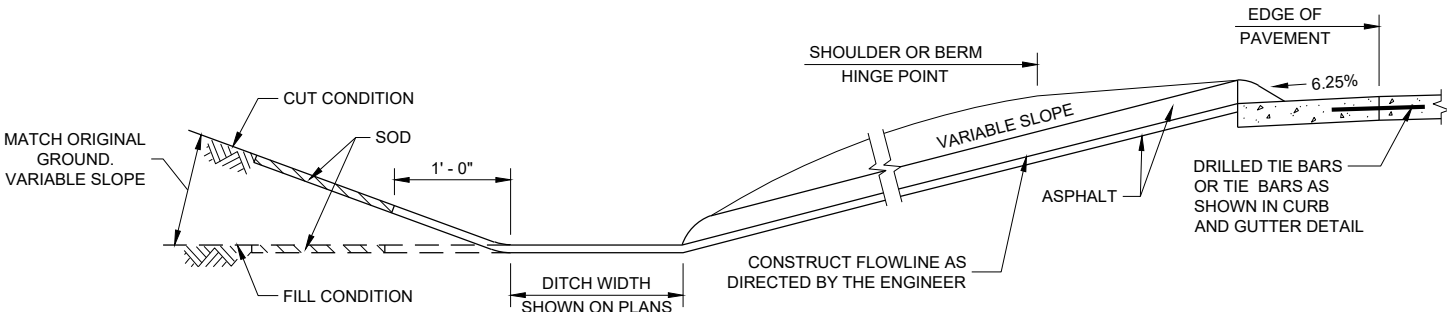
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

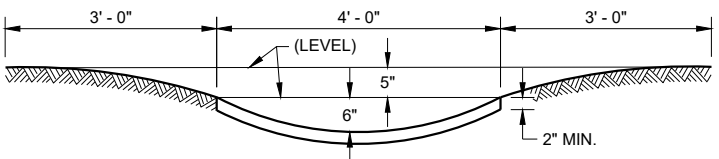
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

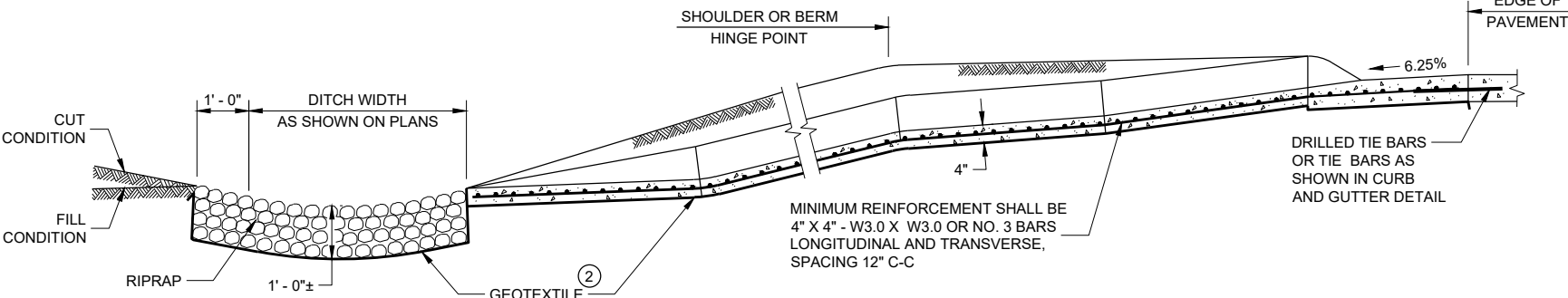
- JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



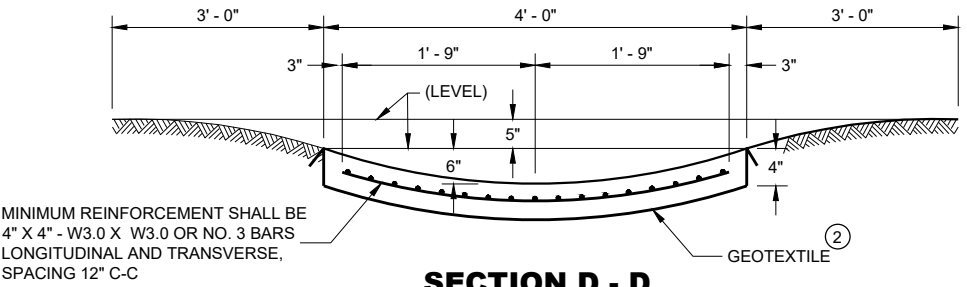
SECTION A - A



SECTION B - B



SECTION C - C

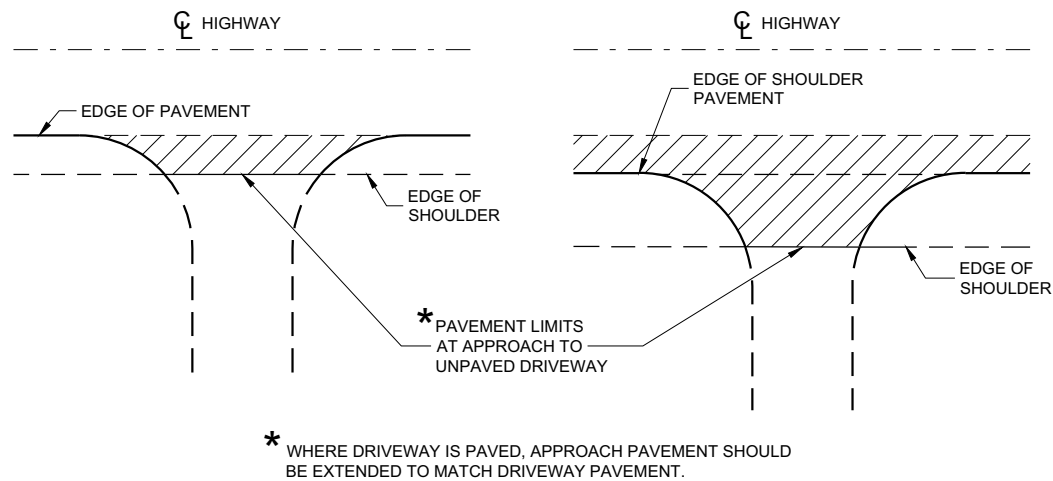


SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

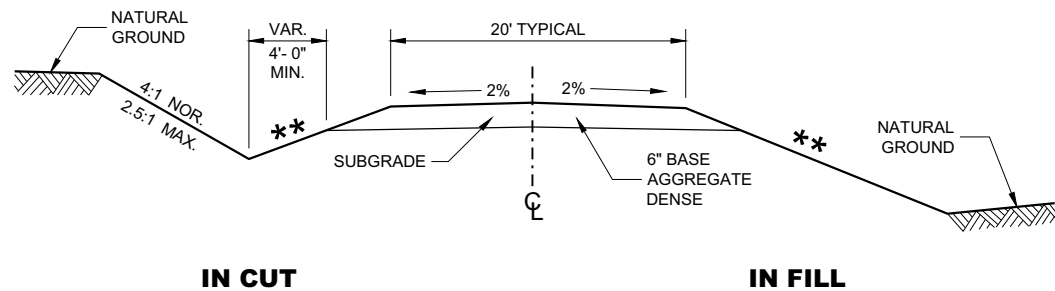
APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 49
FHWA



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

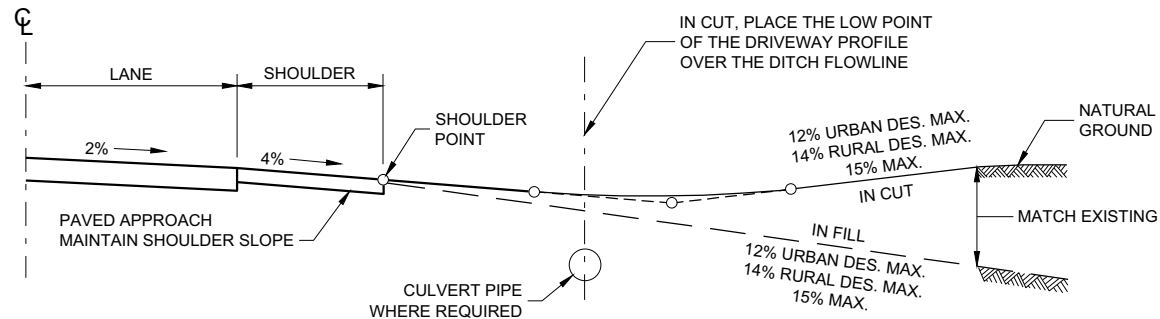
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



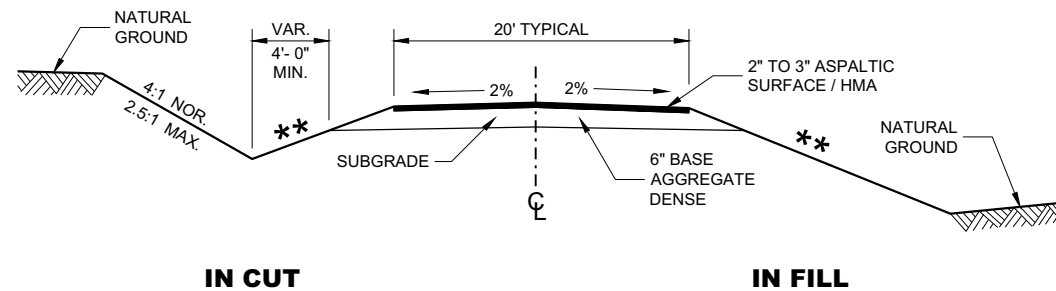
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH
SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES

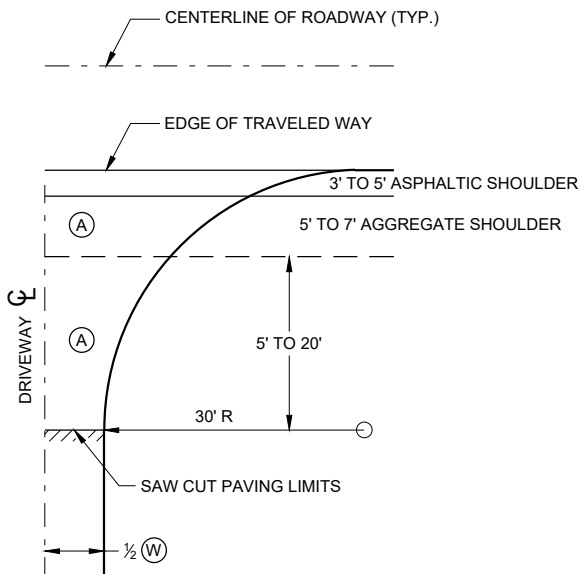


**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

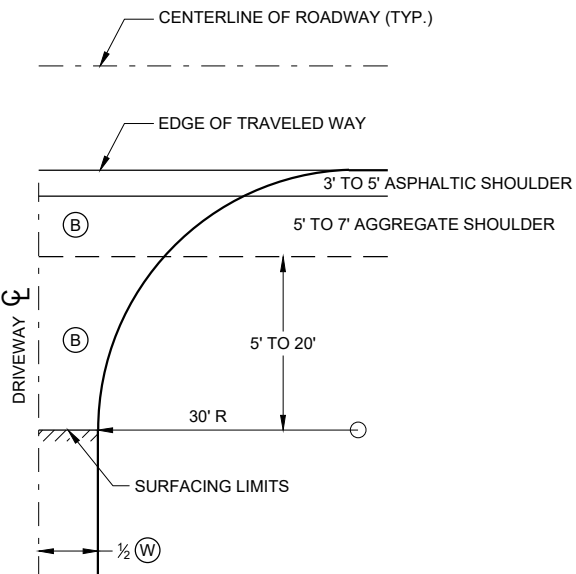
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

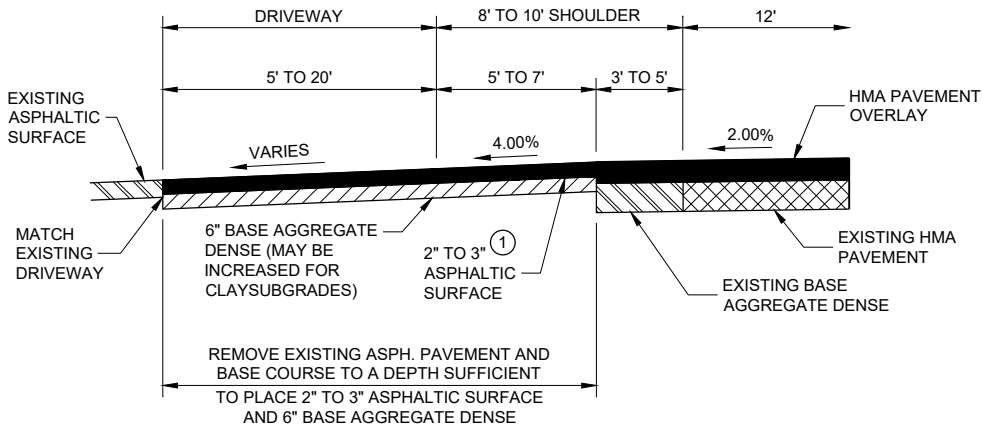


**PLAN VIEW
HALF SECTION**

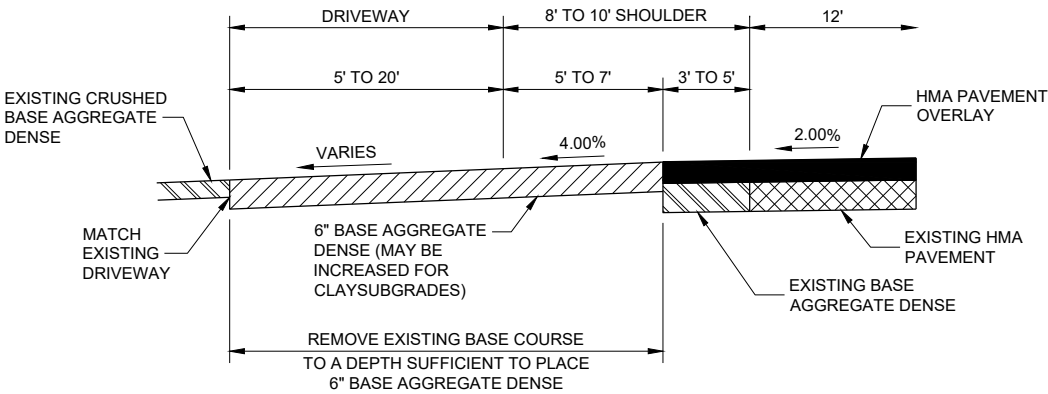
- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

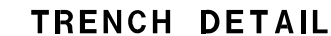
**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 51
FHWA



- 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 1½" X 1½" 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.

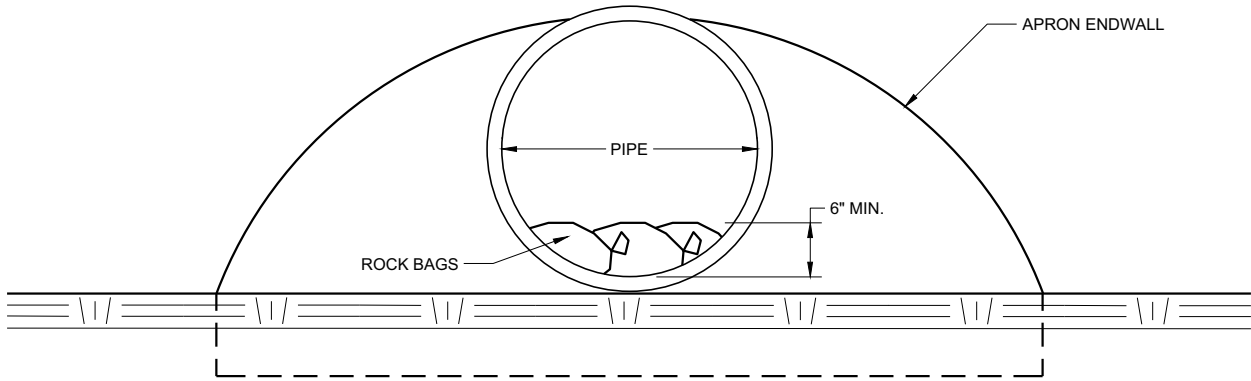


SILT FENCE

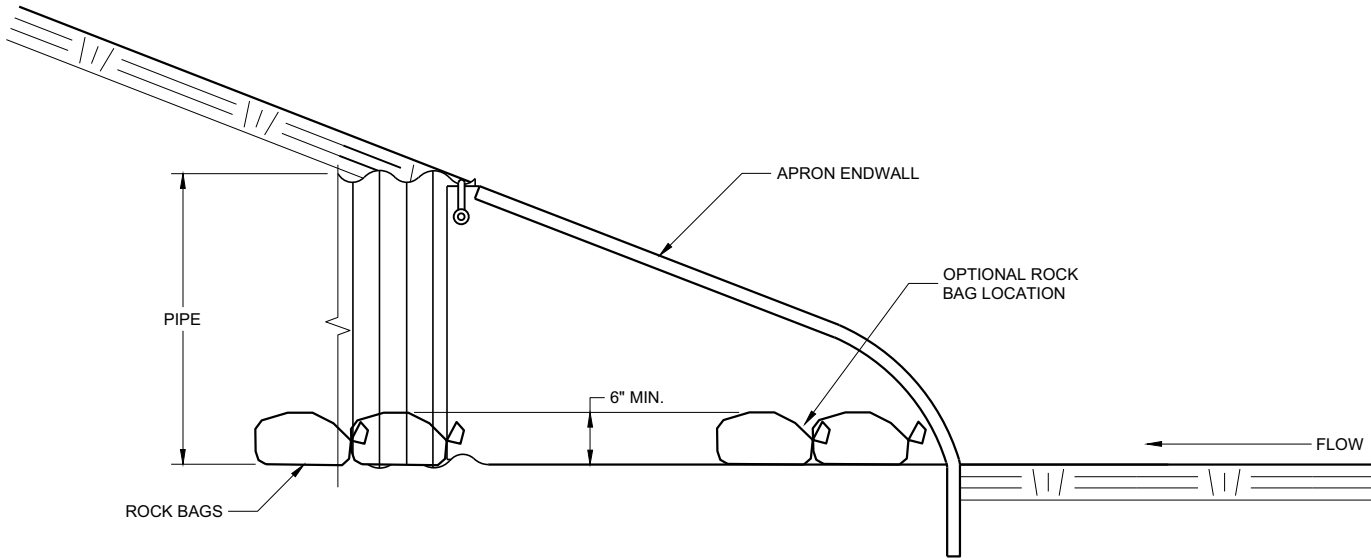
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



END VIEW



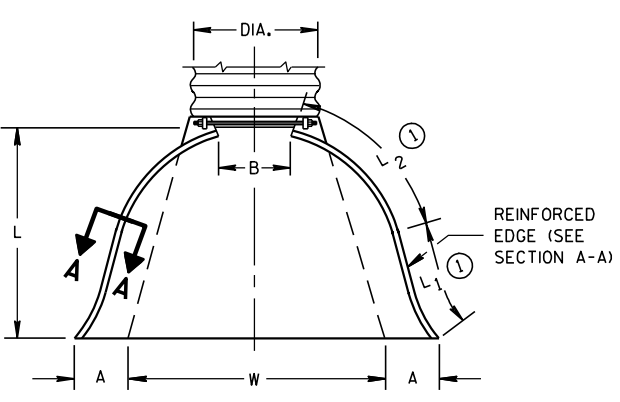
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI 53
FHWA	

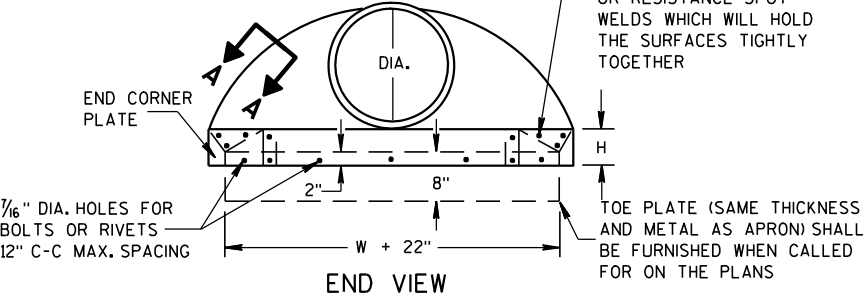
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

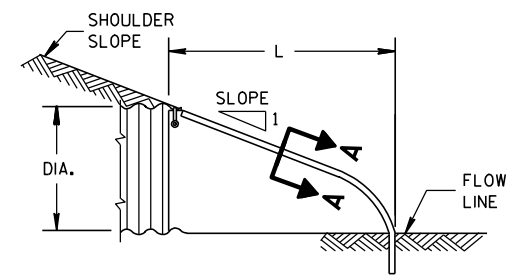


PLAN VIEW

REINFORCED
EDGE (SEE
SECTION A-A)



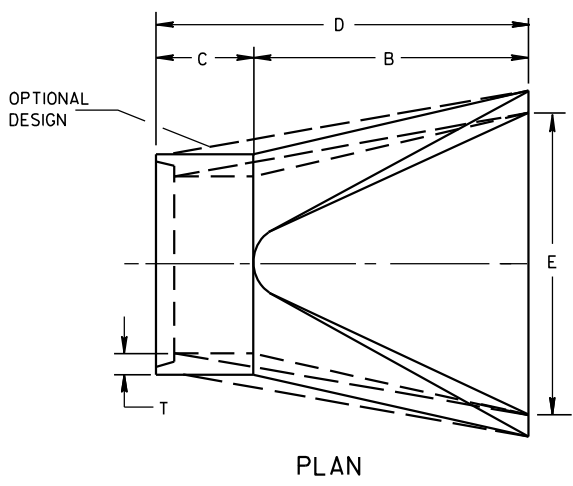
END VIEW



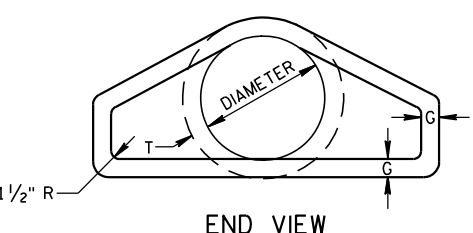
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

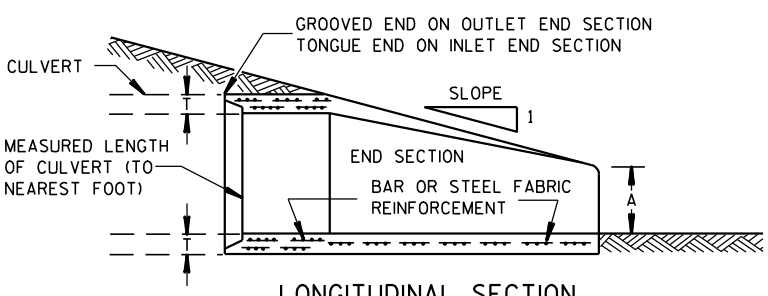
*MINIMUM
**MAXIMUM



PLAN

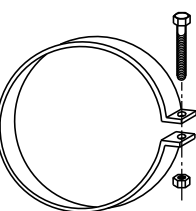


END VIEW

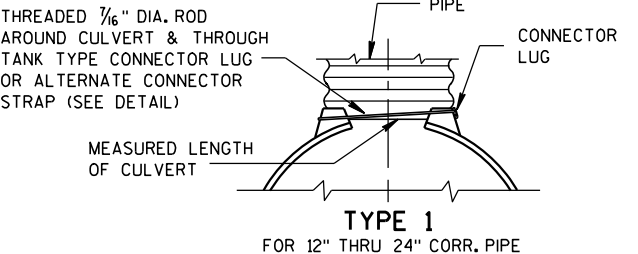


LONGITUDINAL SECTION
CONCRETE ENDWALLS

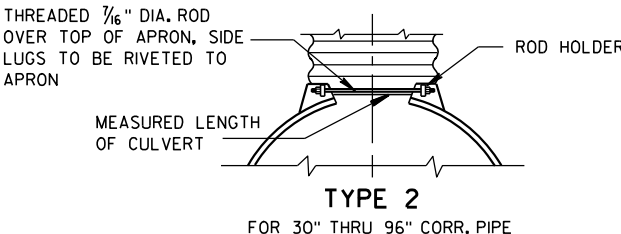
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



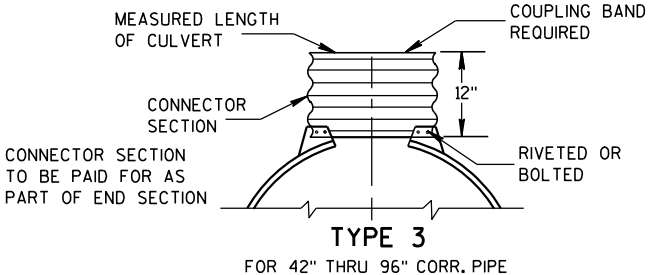
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



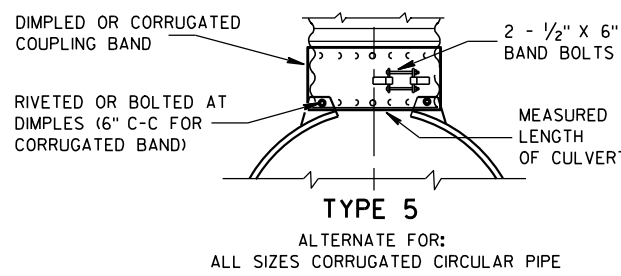
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

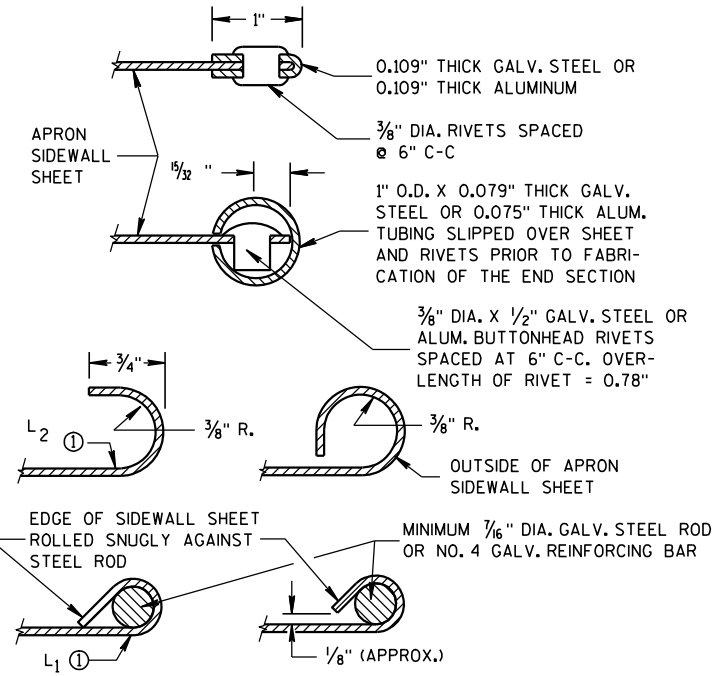
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

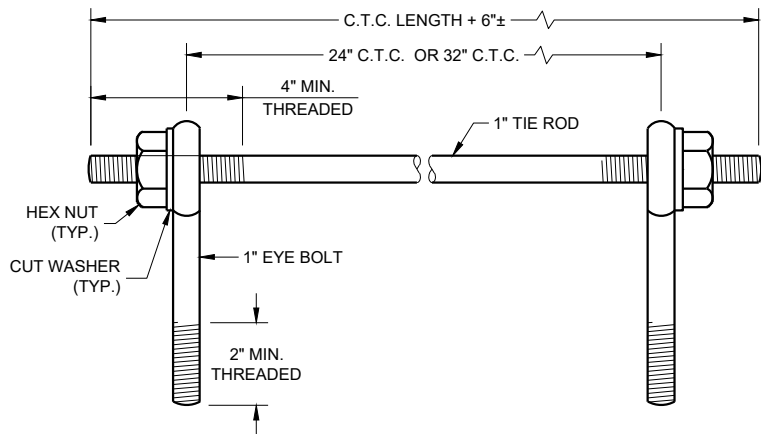
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

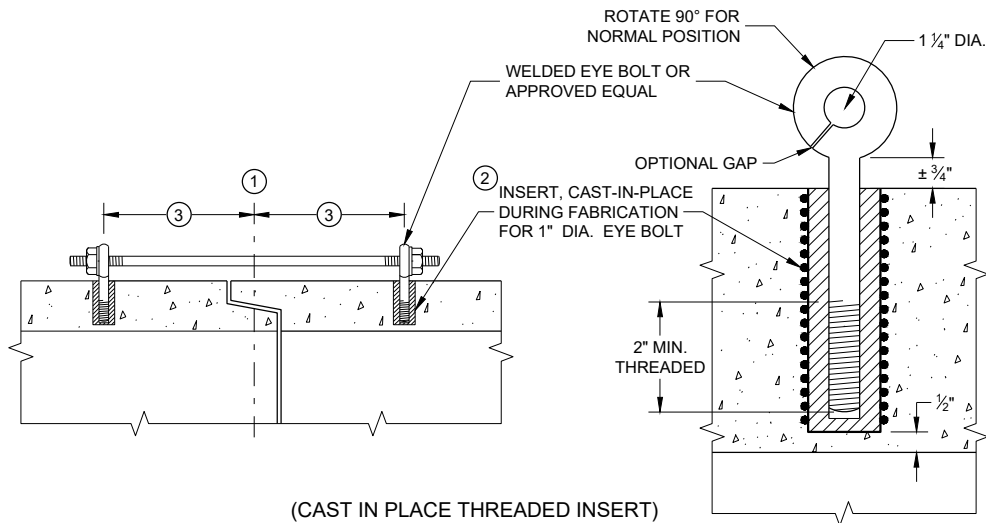
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOP
54
NEER
FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

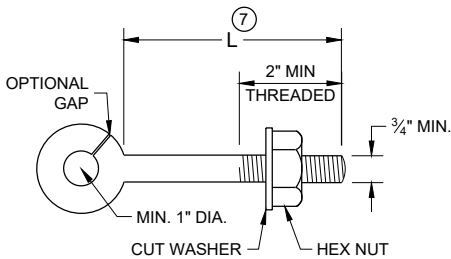
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

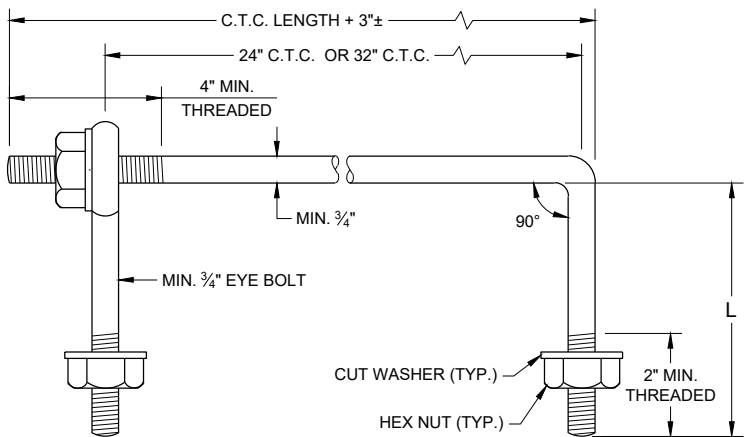
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- 2 THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- 3 HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 4 BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- 5 OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- 6 LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

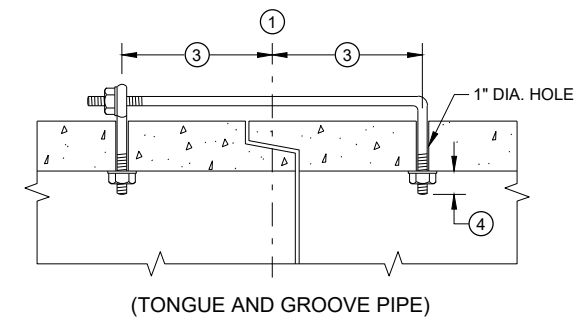


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

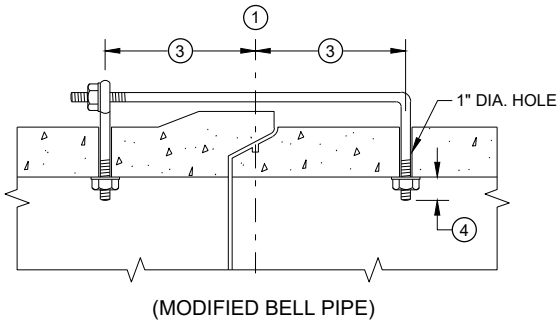


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

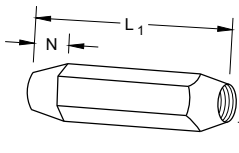


(MODIFIED BELL PIPE)

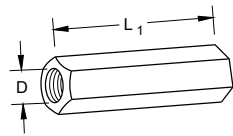
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

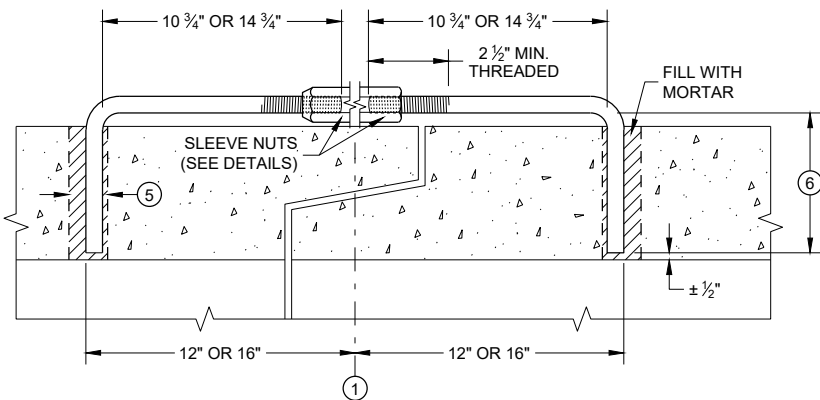


TAPERED



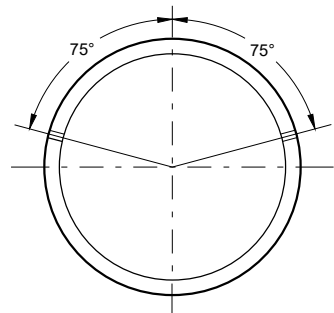
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



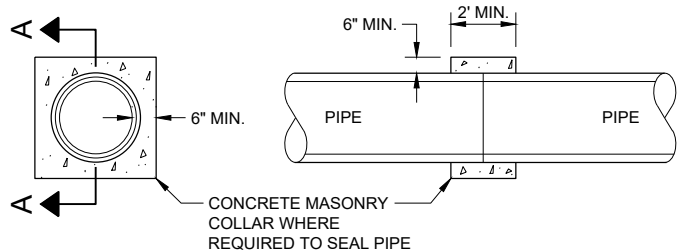
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE
PIPE AND CONCRETE
COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 55
FHWA



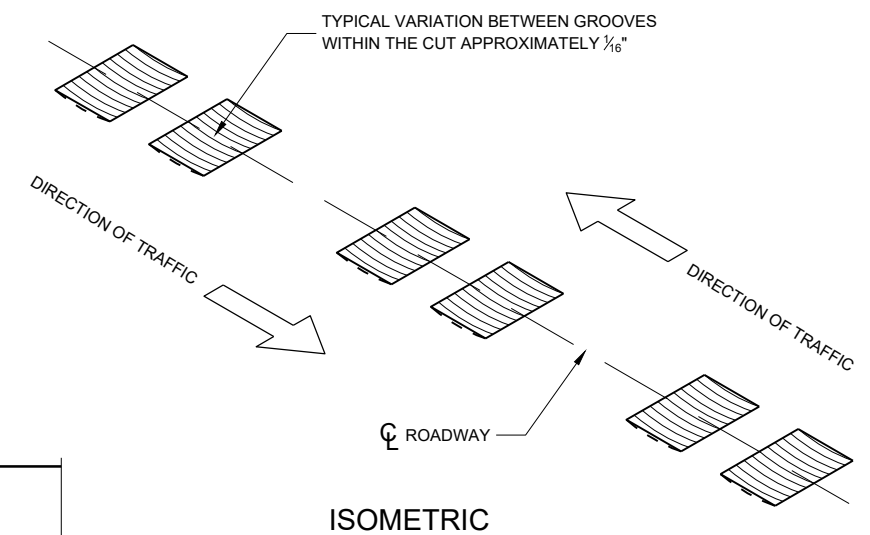
CENTERLINE RUMBLE STRIPS - ASPHALT

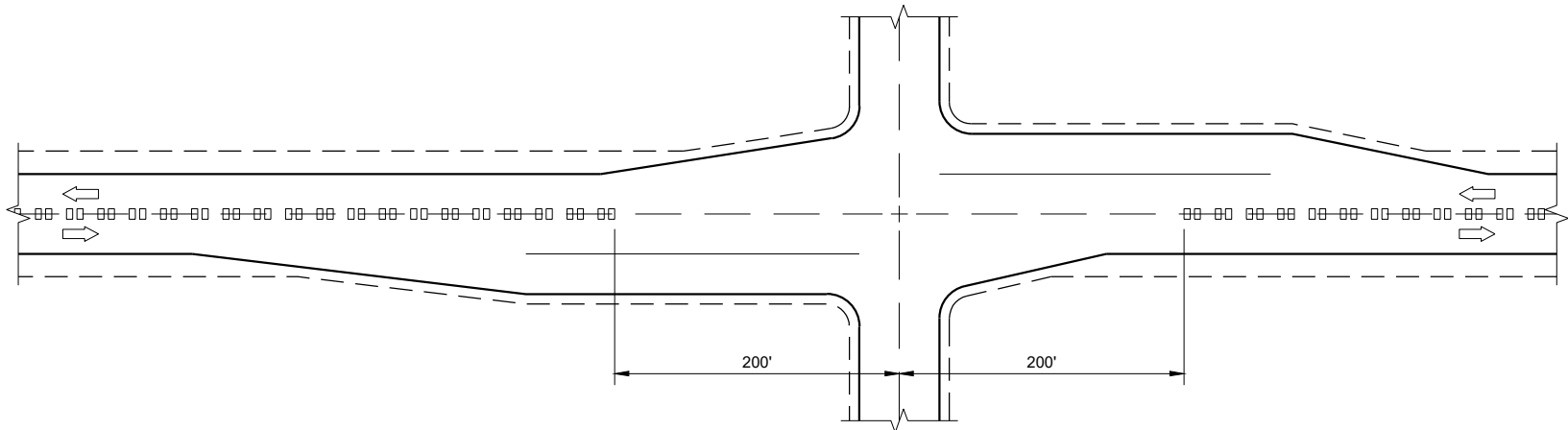


GENERAL NOTES

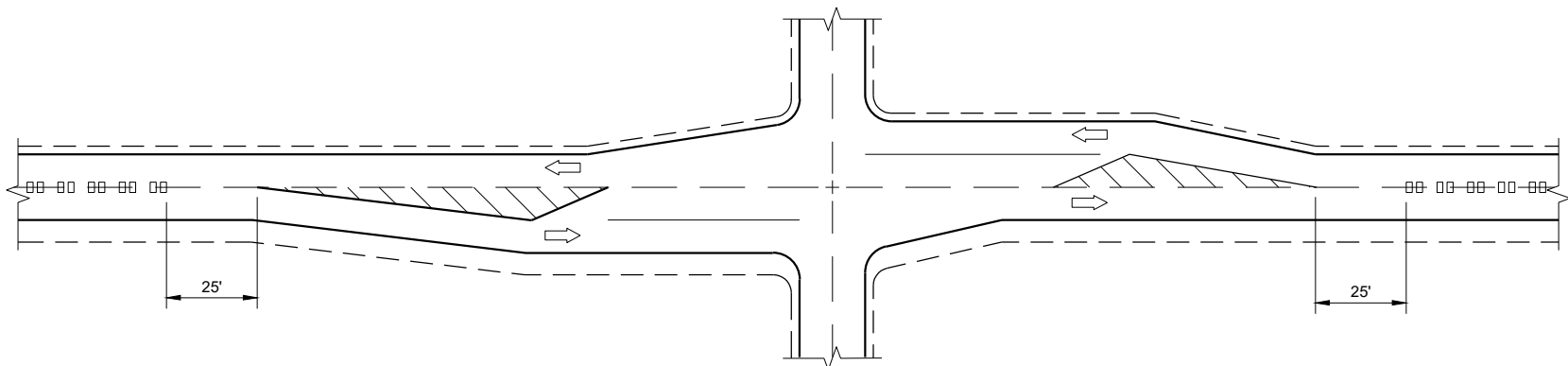
DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

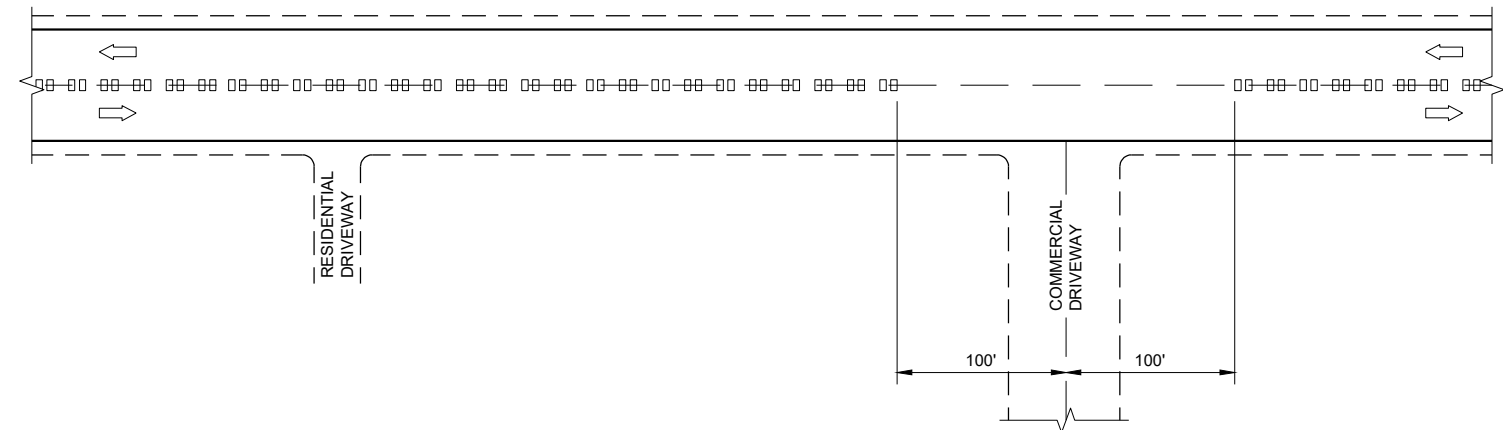




CENTERLINE GROOVES AT INTERSECTIONS



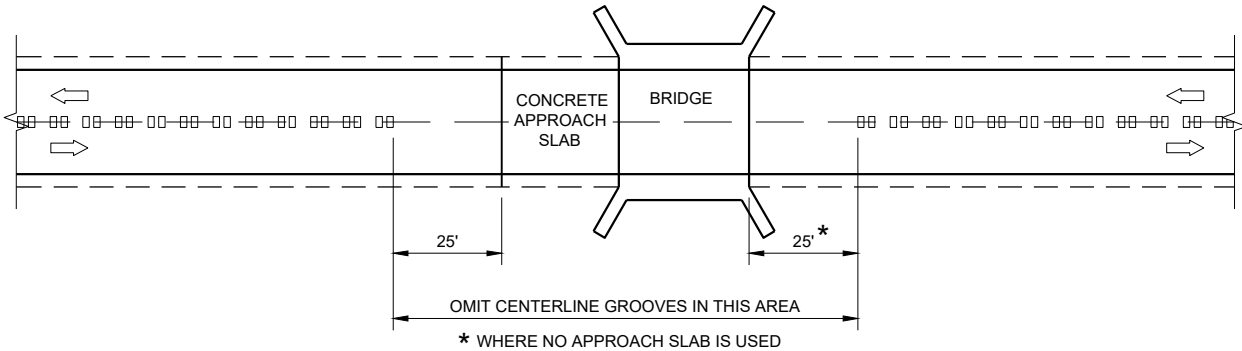
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



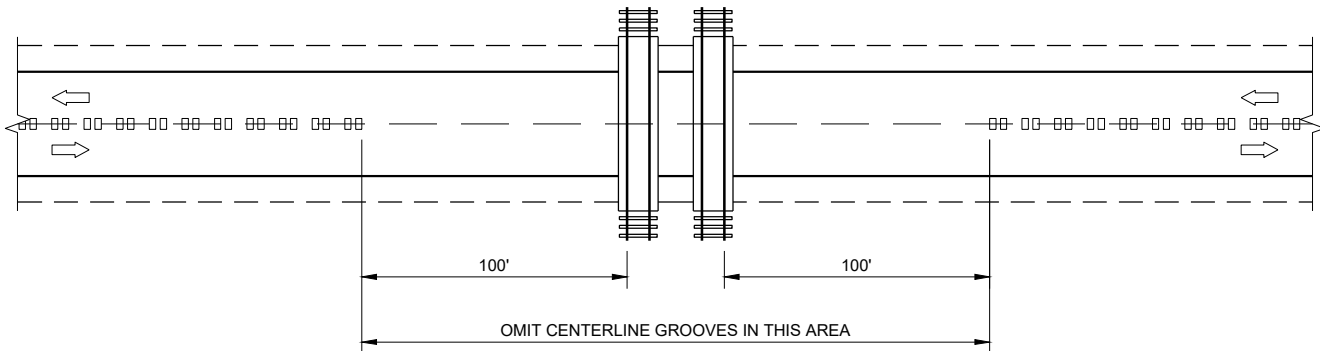
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES

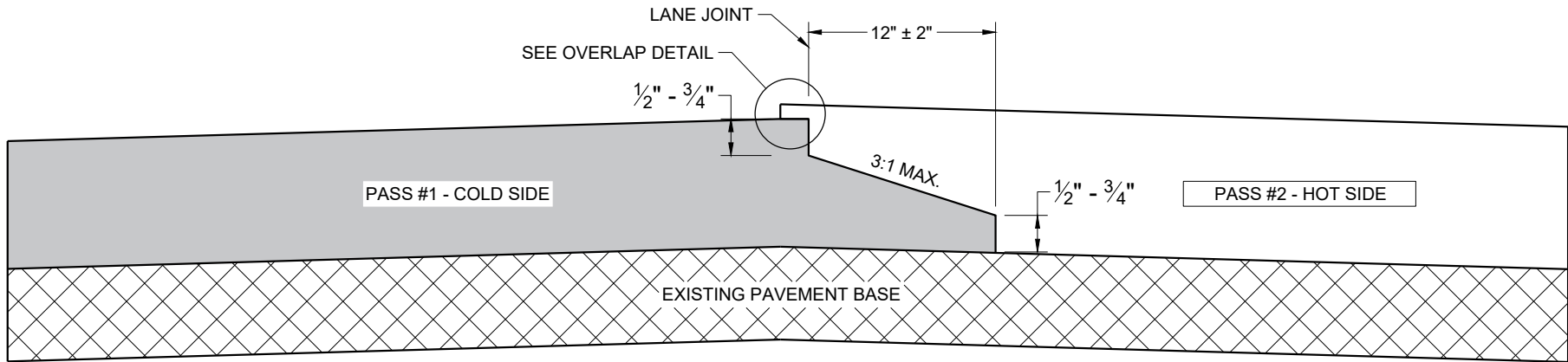


CENTERLINE GROOVES AT RAILROADS

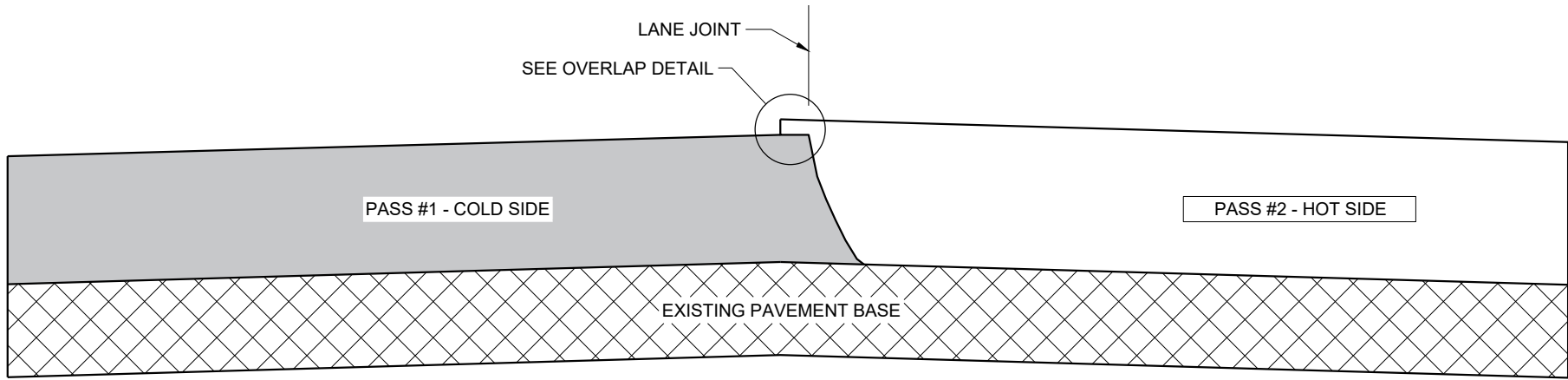
CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

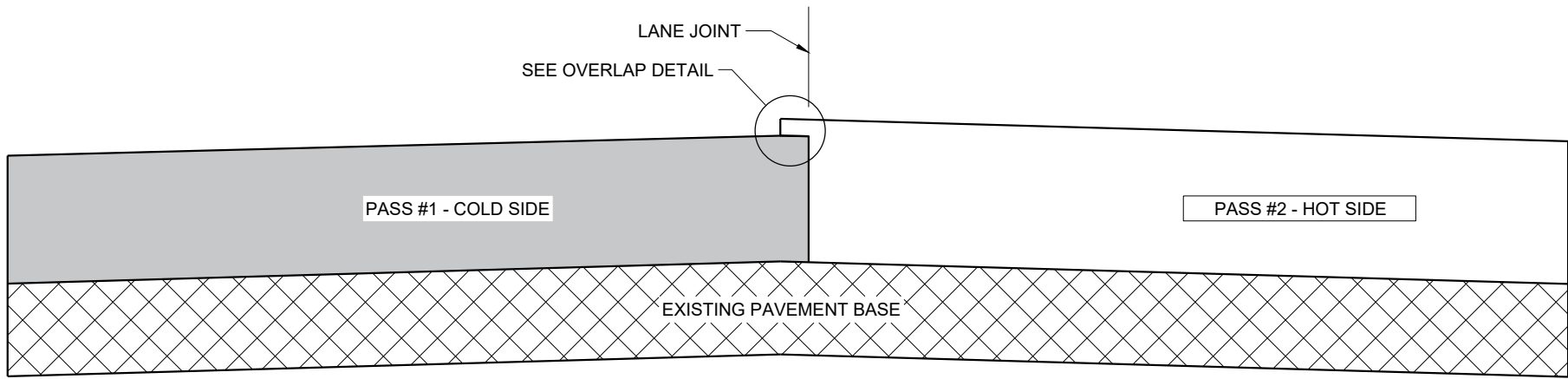
APPROVED
May 2023
DATE
/S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT ENGINEER
57
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

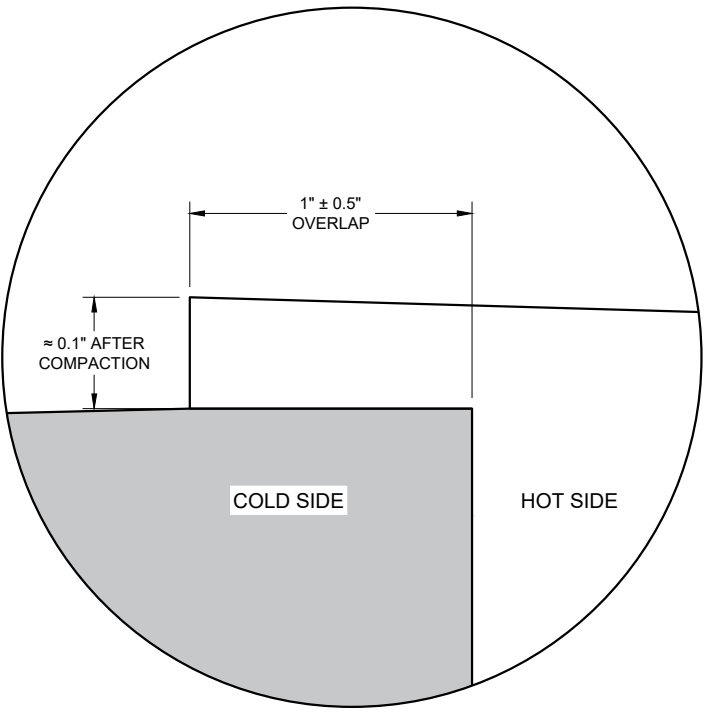
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

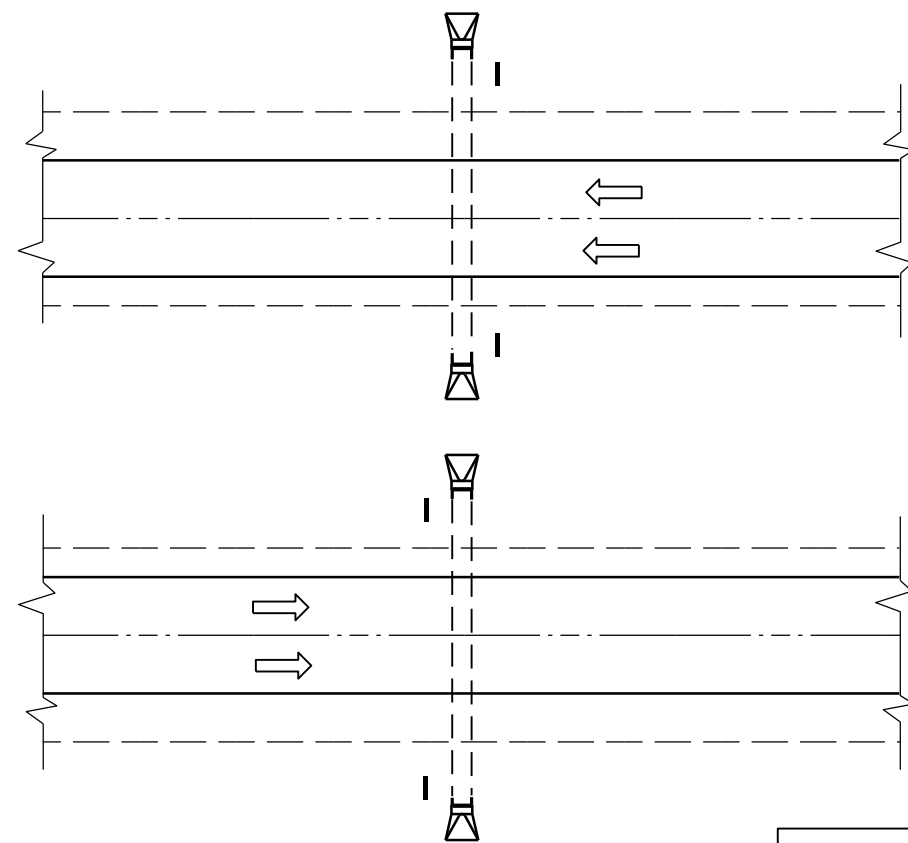


OVERLAP DETAIL (TYPICAL)

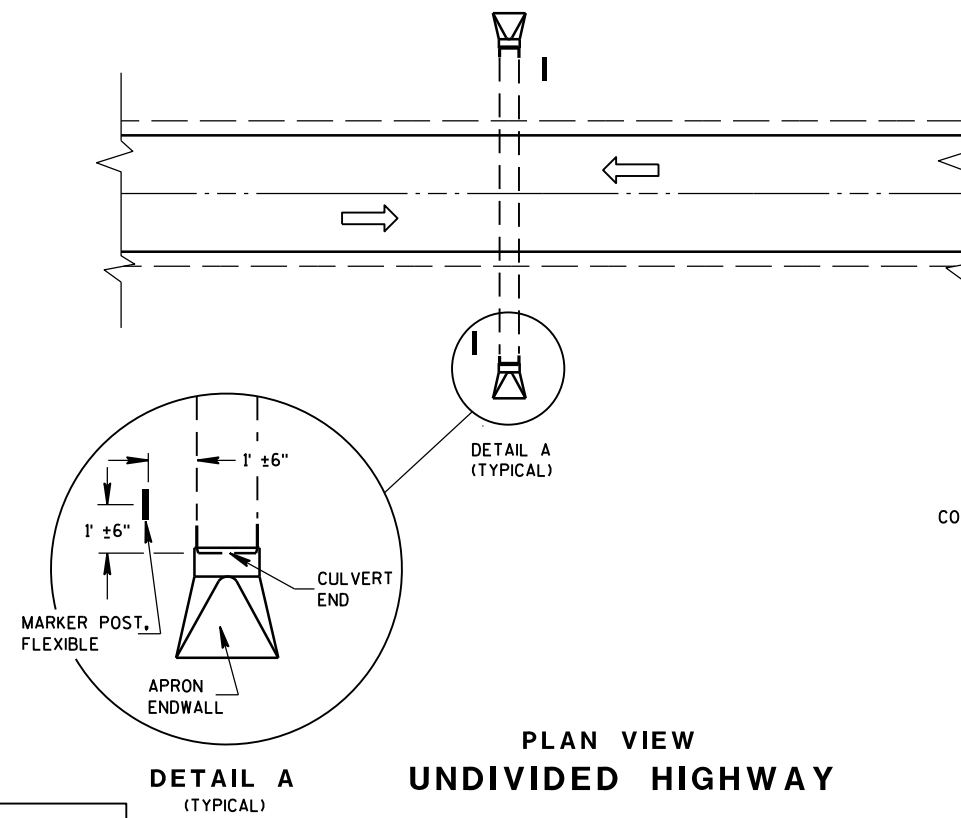
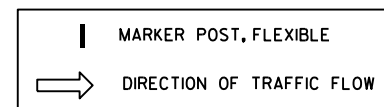
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 58
FHWA



PLAN VIEW
DIVIDED HIGHWAY

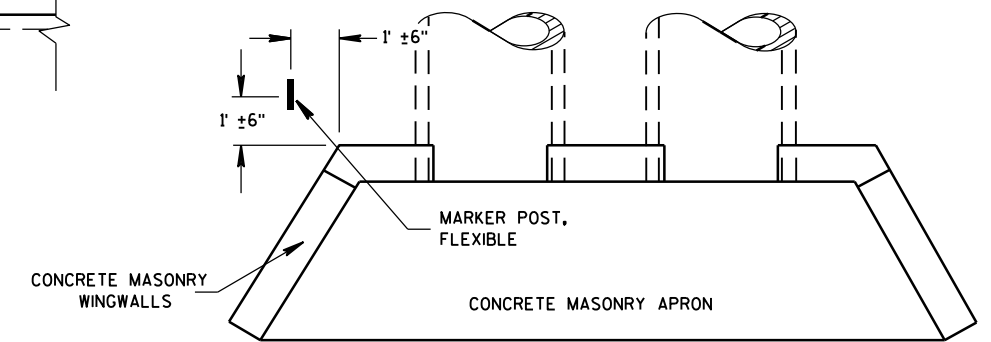


PLAN VIEW
UNDIVIDED HIGHWAY

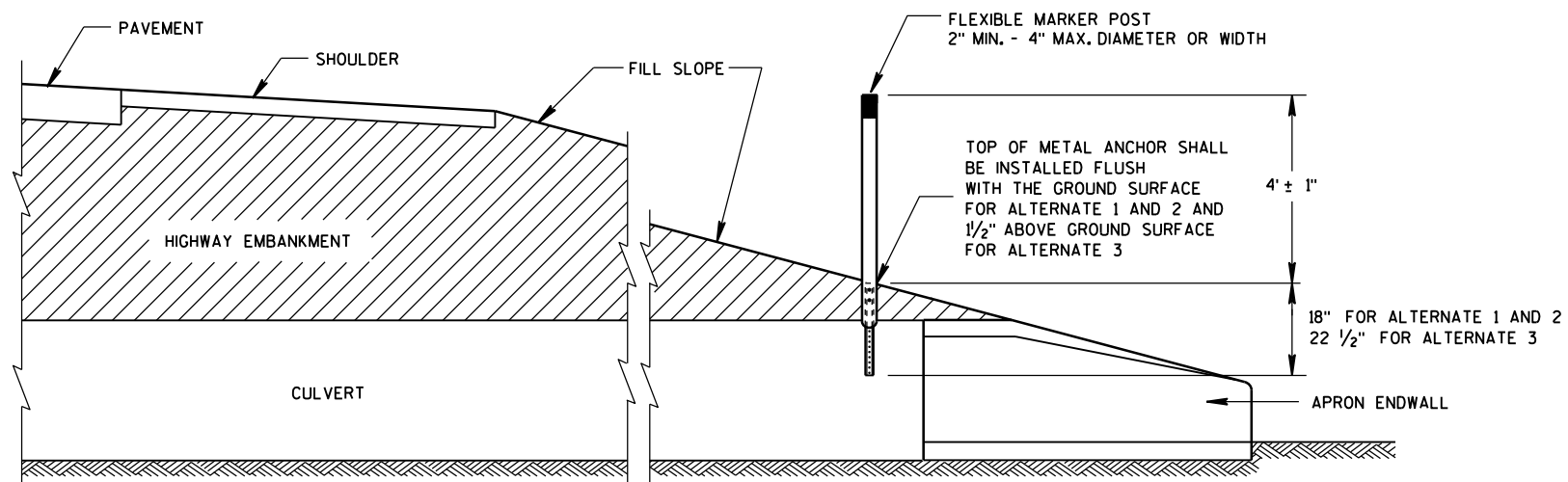
FLEXIBLE MARKER POST LOCATION

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.



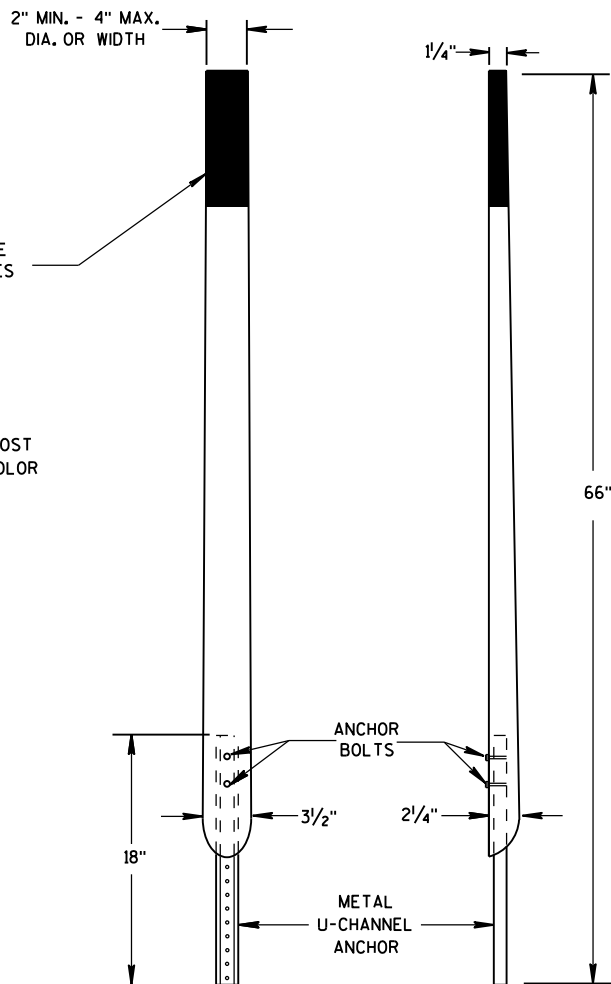
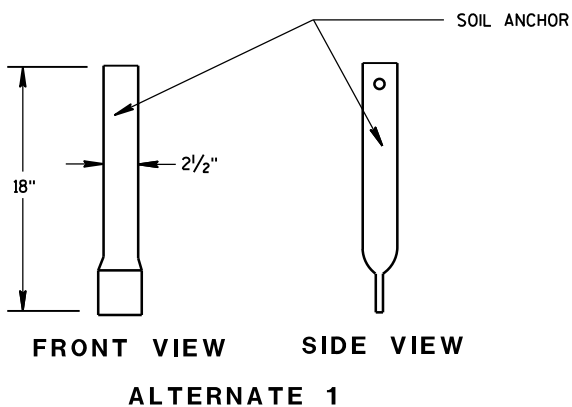
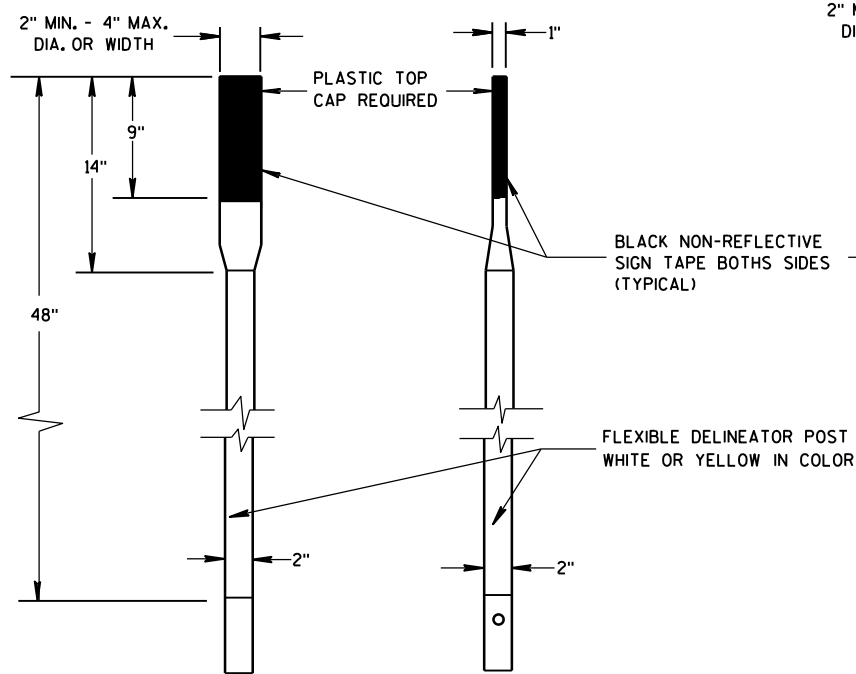
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

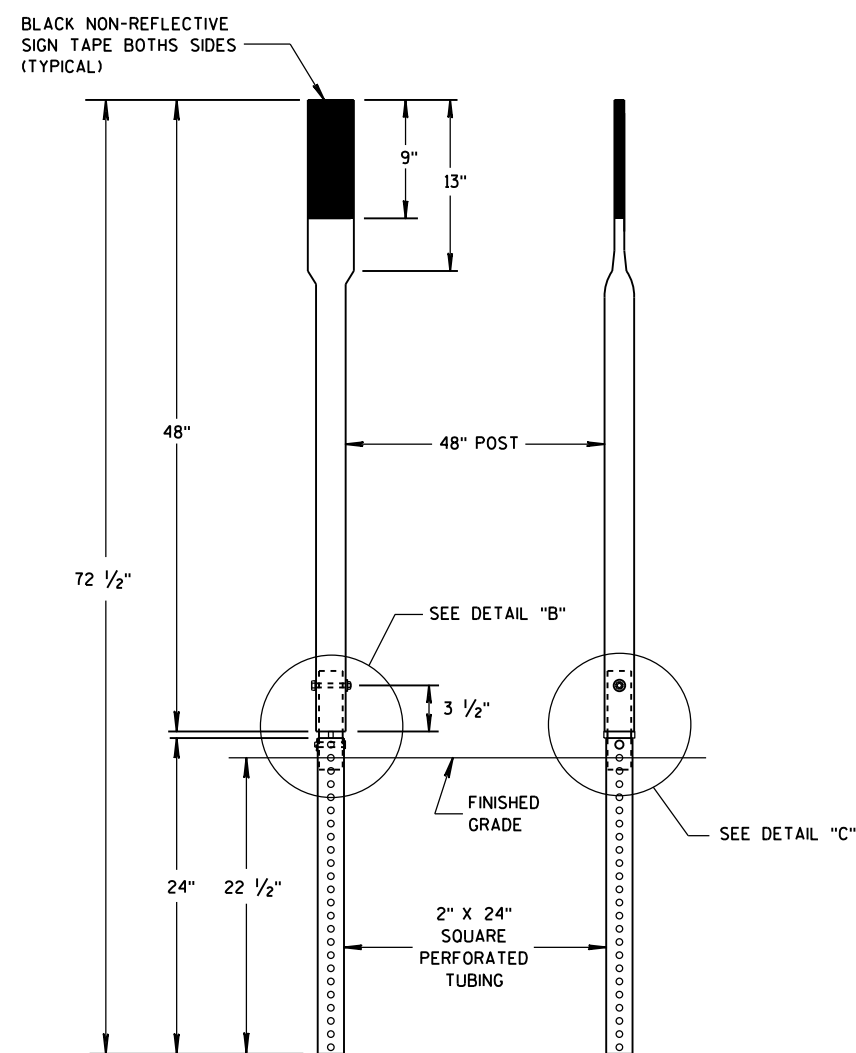
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

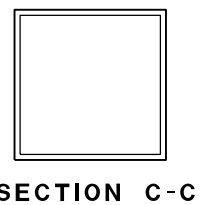


FRONT VIEW SIDE VIEW
ALTERNATE 2

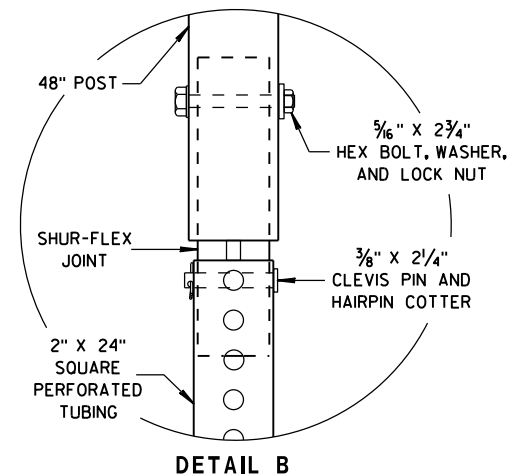
FLEXIBLE MARKER POSTS



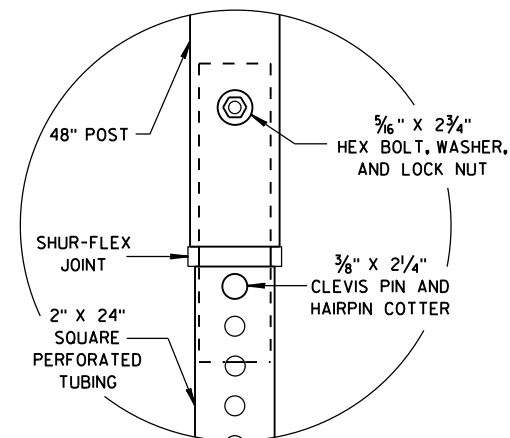
FRONT VIEW SIDE VIEW
ALTERNATE 3



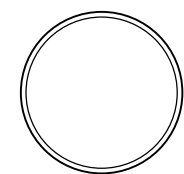
SECTION C-C



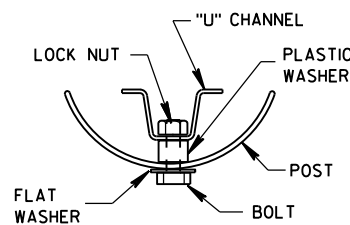
DETAIL B



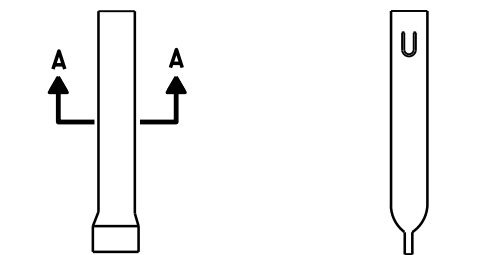
DETAIL C



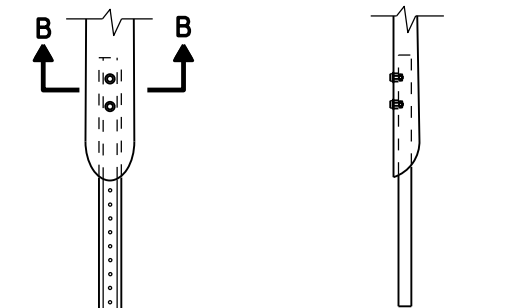
SECTION A-A



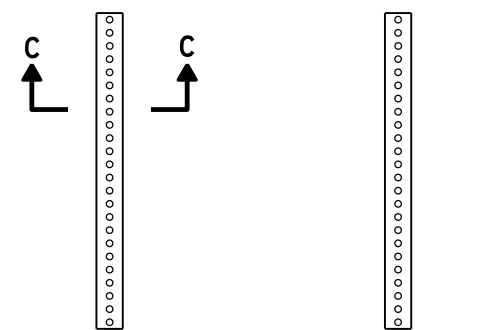
SECTION B-B



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER 60 IGN
FHWA

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 MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

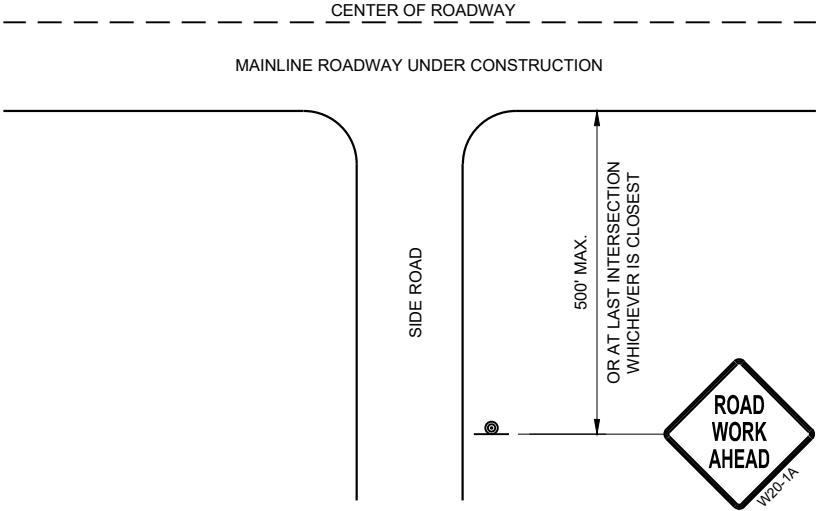
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 REESTABLISHED.

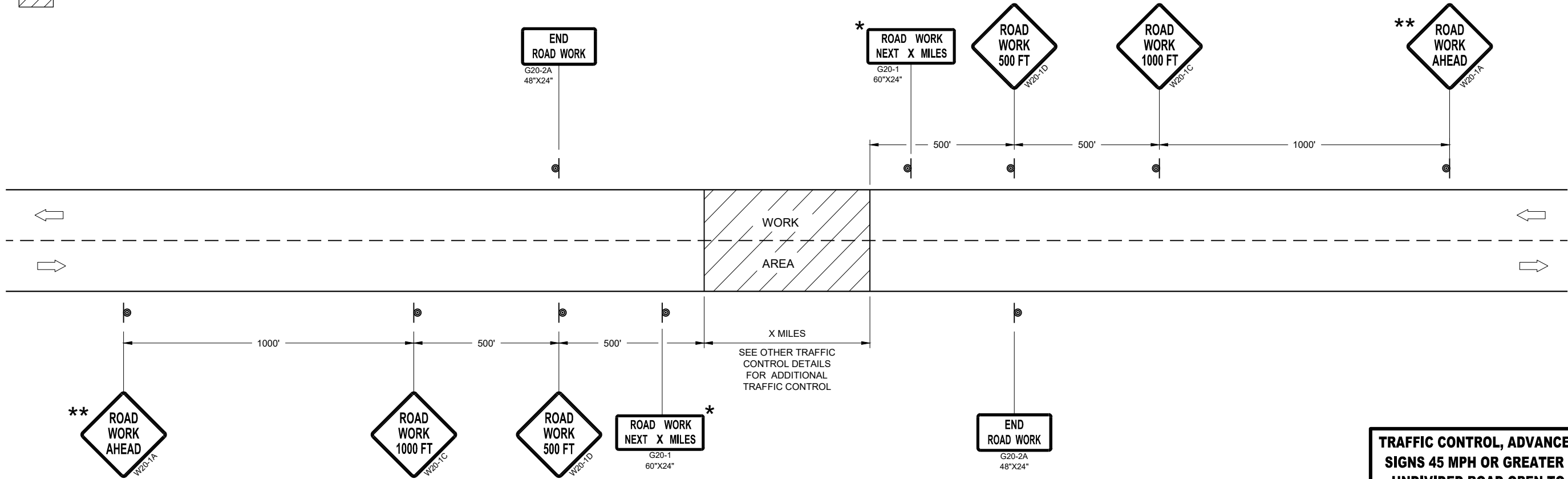
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

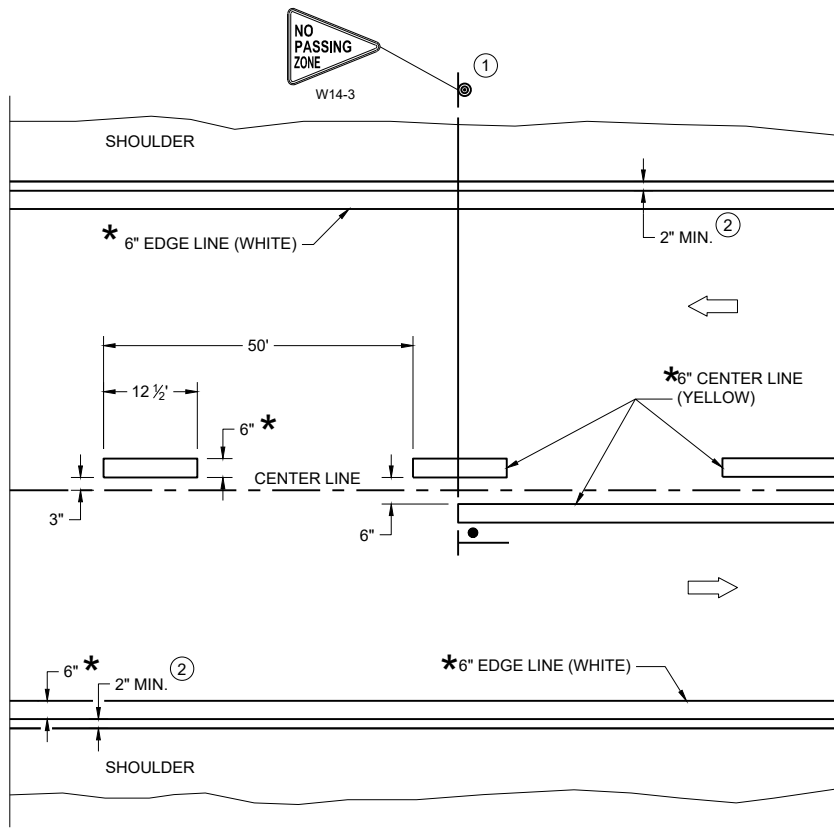


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

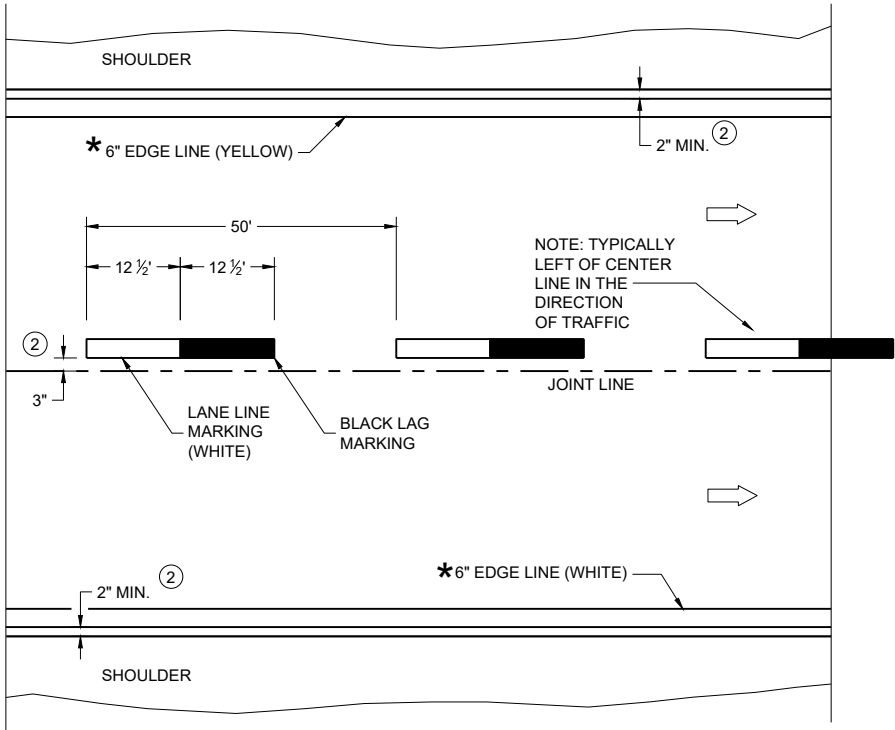
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 61
FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

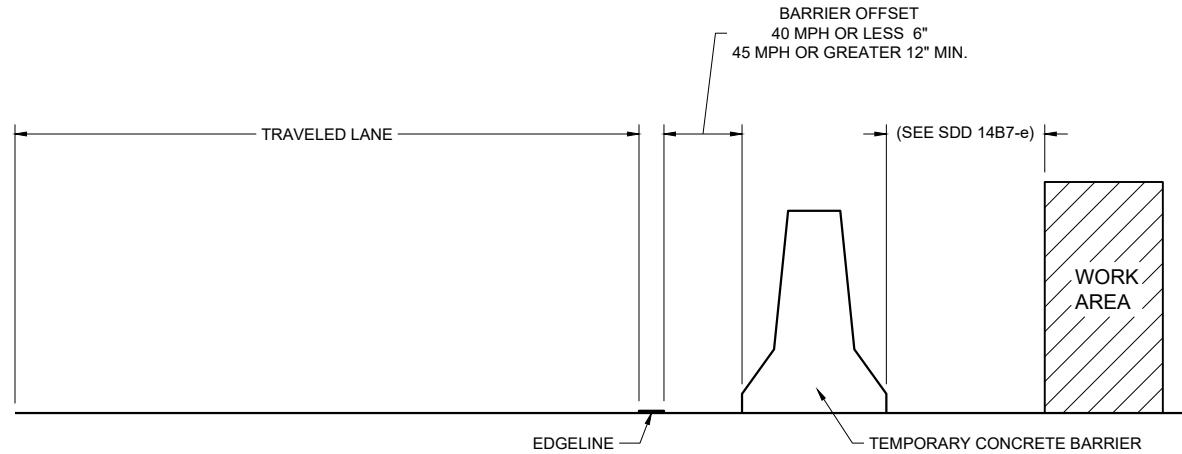
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 62	



TEMPORARY BARRIER OFFSET FROM EDGE LINE

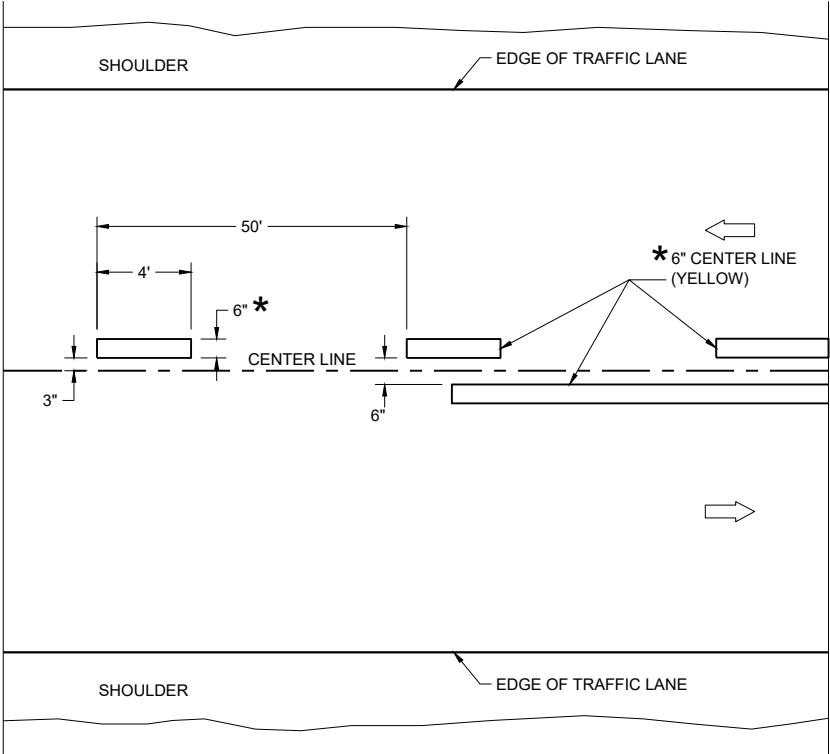
GENERAL NOTES

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

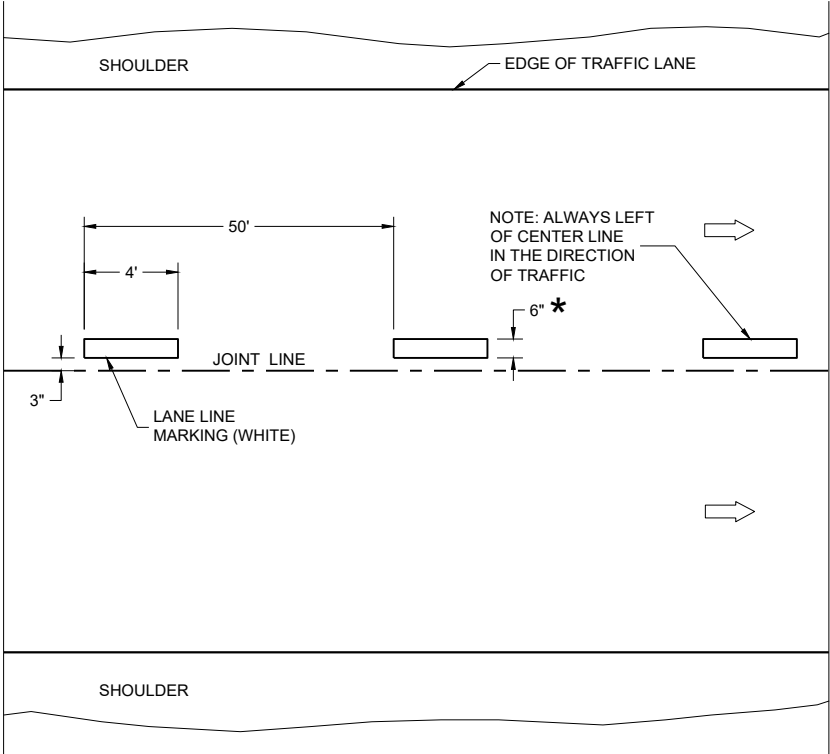
LEGEND

DIRECTION OF TRAFFIC

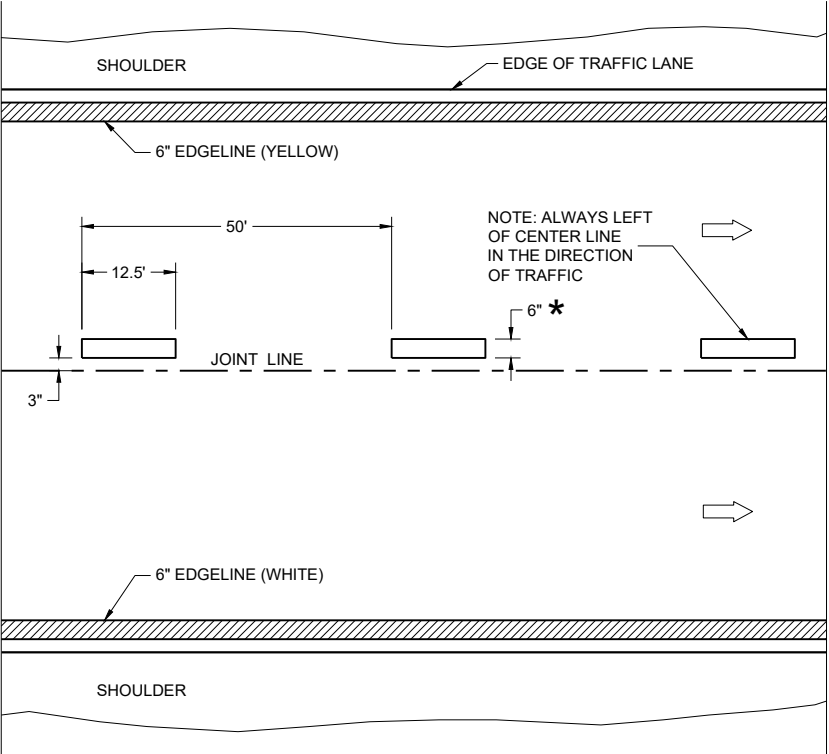
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



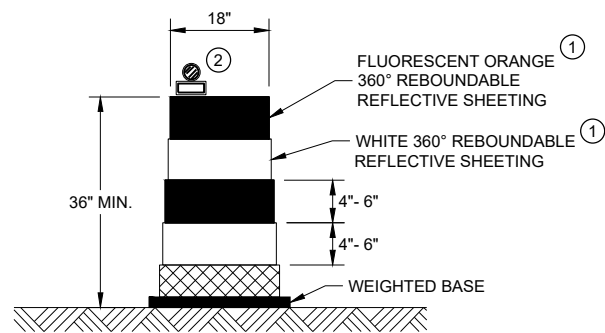
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

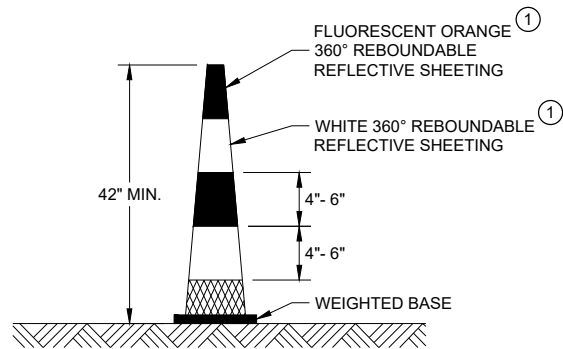
TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



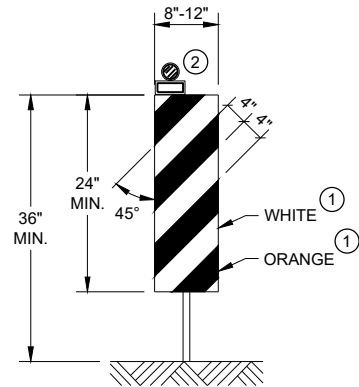
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



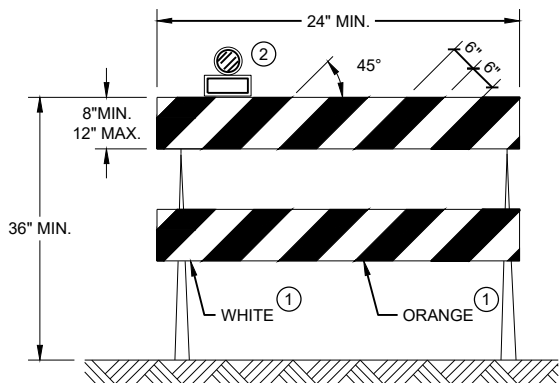
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



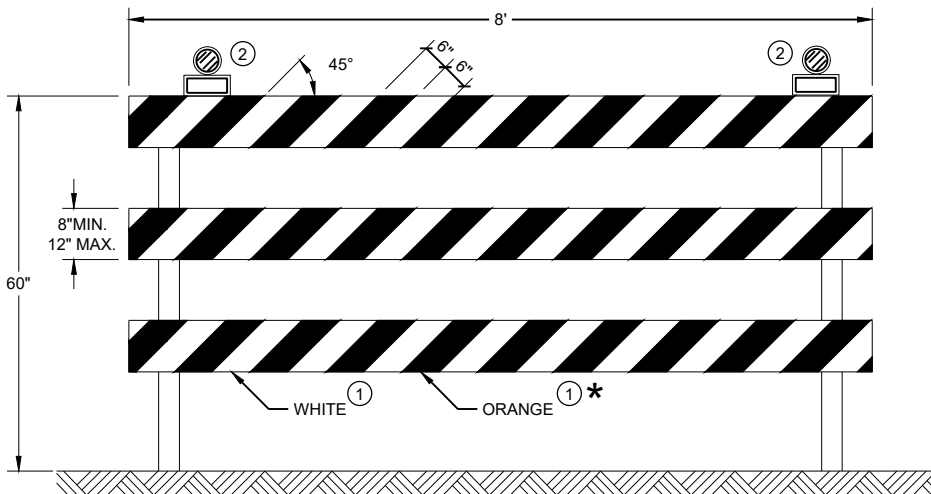
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 64

FHWA

LEGEND

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

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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

FLAGGING

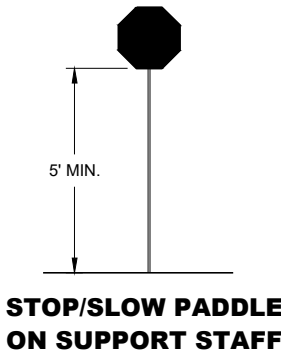
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

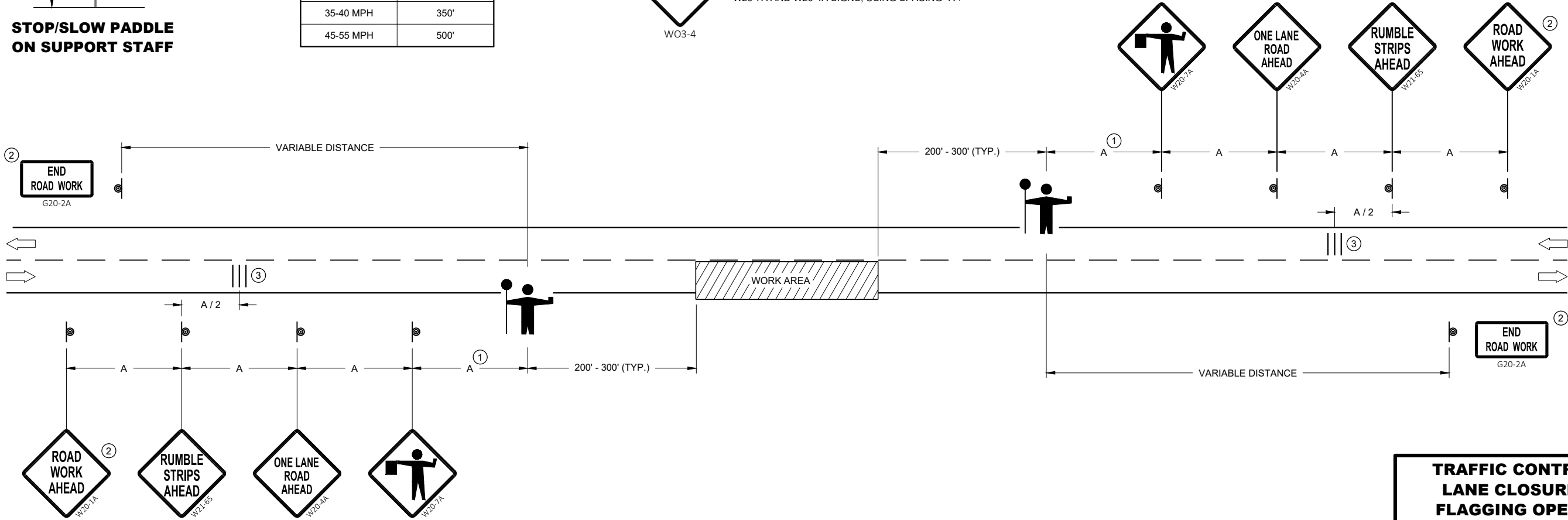


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



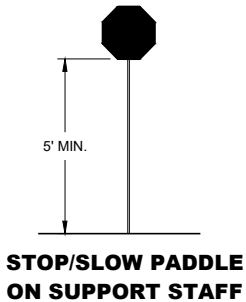
**TRAFFIC CONTROL FOR
LANE CLOSURE WITH
FLAGGING OPERATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 65

FHWA

- **GENERAL NOTES**
SIGN ON PERMANENT SUPPORT
- 
TRAFFIC CONTROL CONE 42-INCH
- 
TRAFFIC CONTROL DRUM
- 
TEMPORARY PORTABLE RUMBLE STRIP ARRAY
- 
DIRECTION OF TRAFFIC
- 
WORK AREA
- 
AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)



- 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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

- FLAGGING**
IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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 REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.
- ①

SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ②

IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

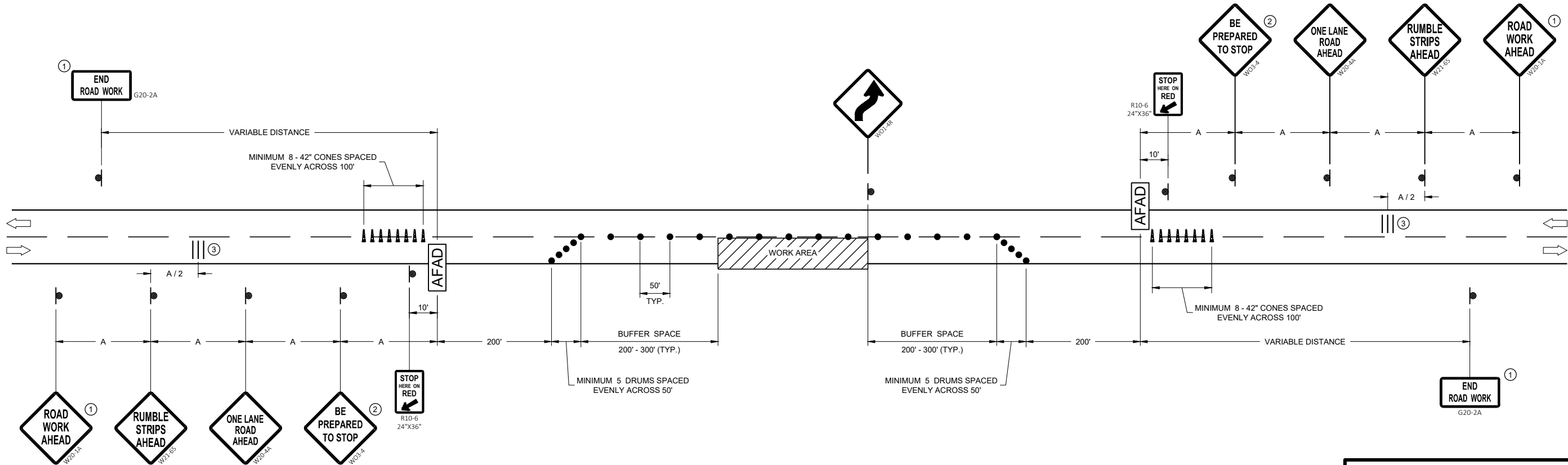
ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

③

EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



**TRAFFIC CONTROL, LANE
CLOSURE WITH AUTOMATED
FLAGGER ASSISTANCE DEVICE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 66

FHWA

LEGEND

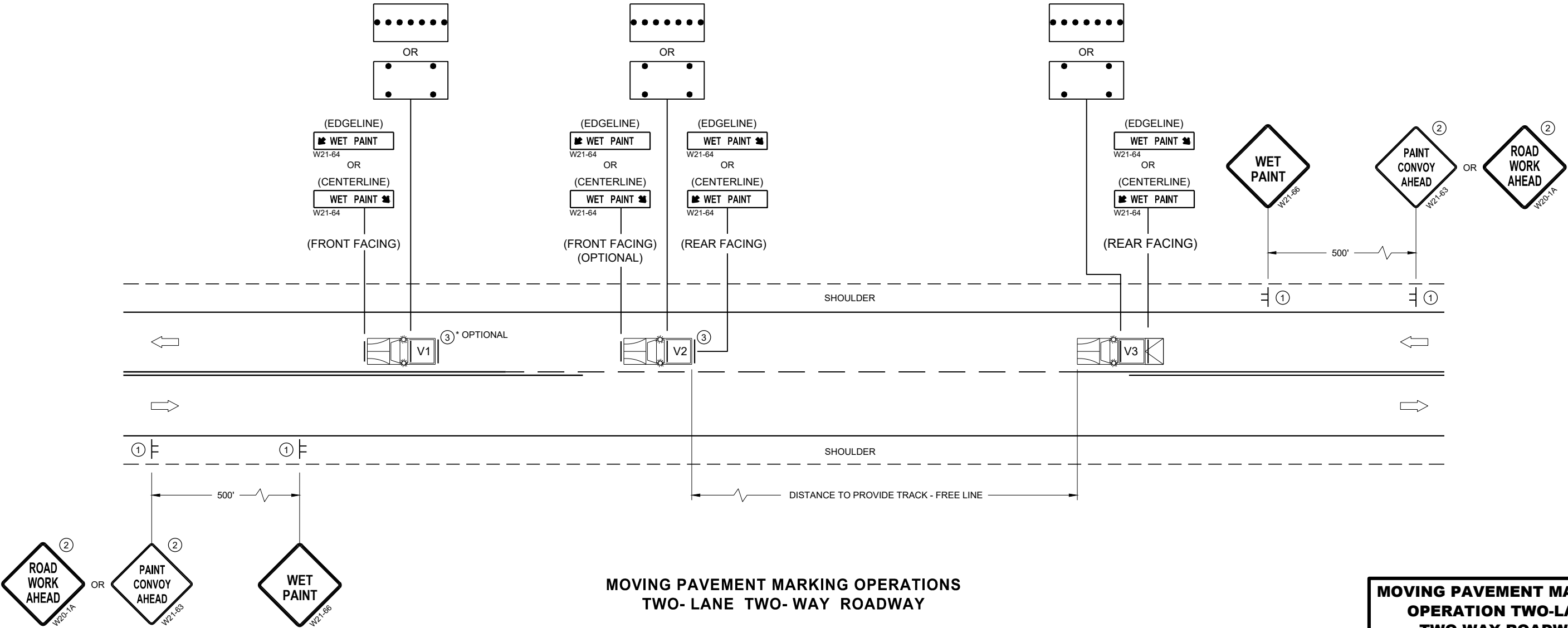
- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.
- CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

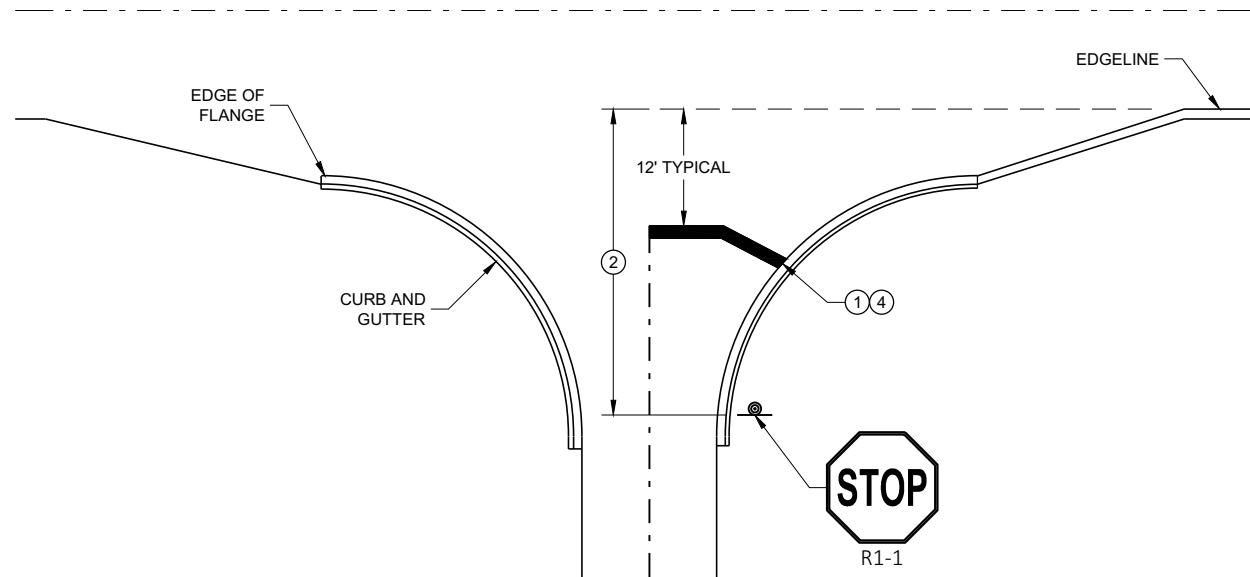


MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

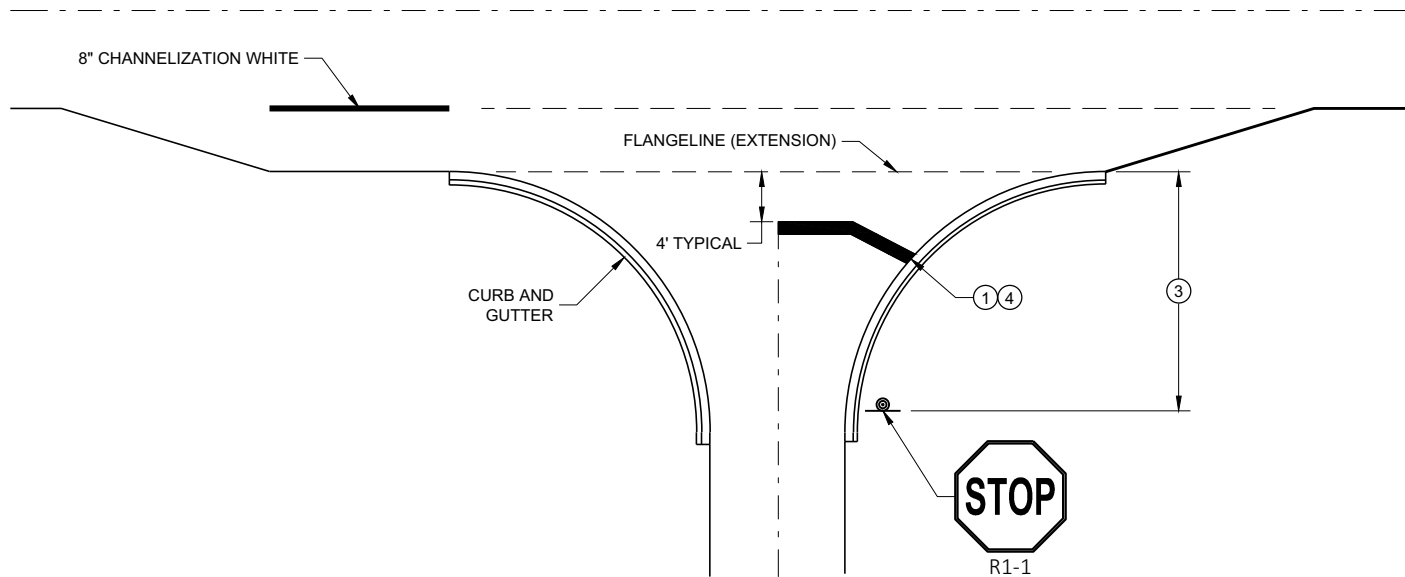
MOVING PAVEMENT MARKING
OPERATION TWO-LANE
TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

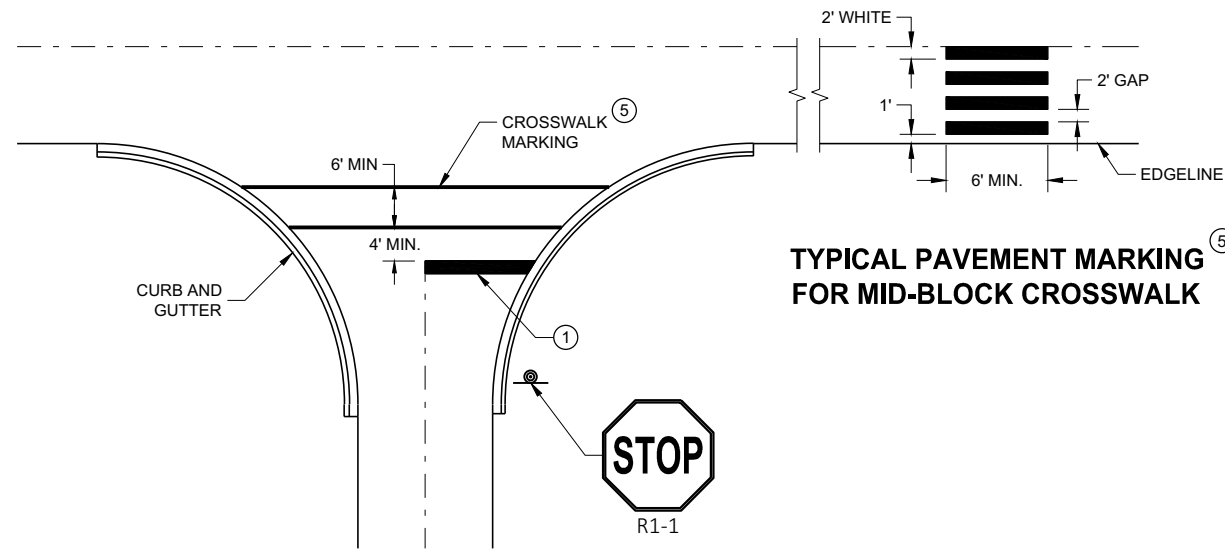
APPROVED
February 2023 /S/ Andrew J. ...
DATE WORK ZONE EN 67
FHWA



TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER

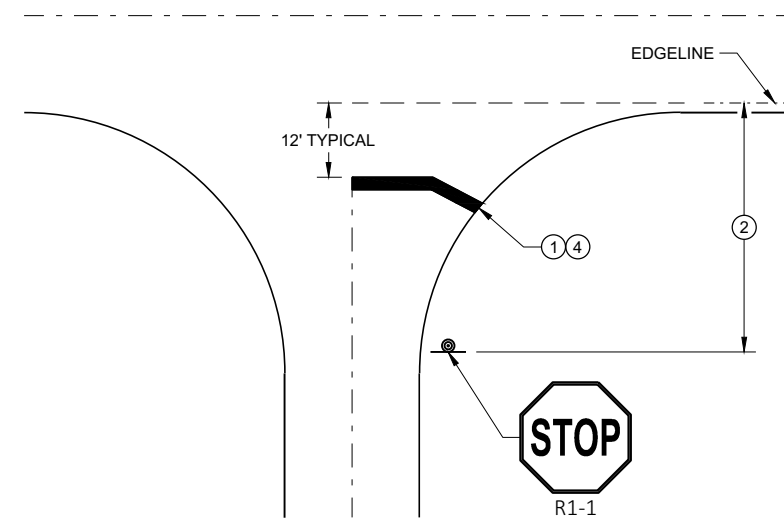


TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING
FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

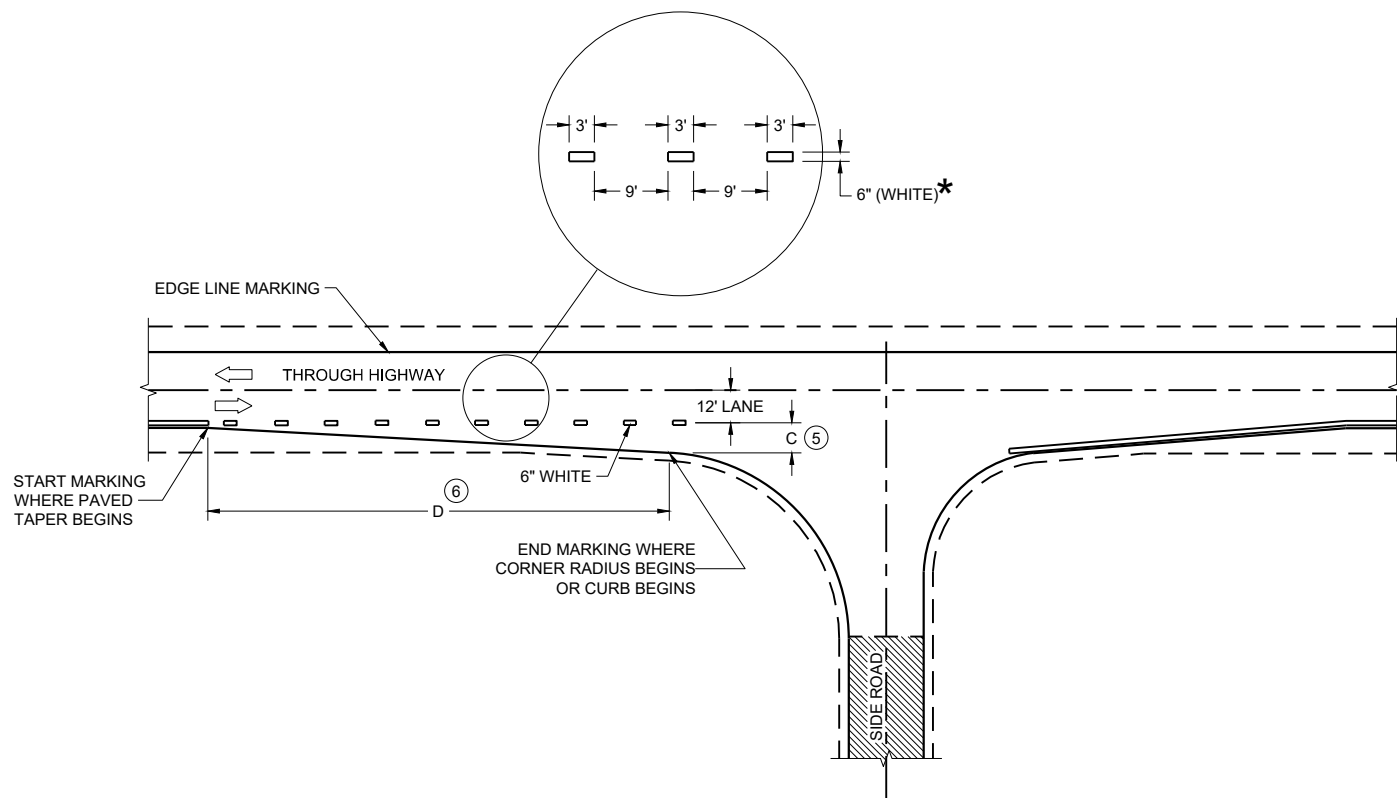
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.

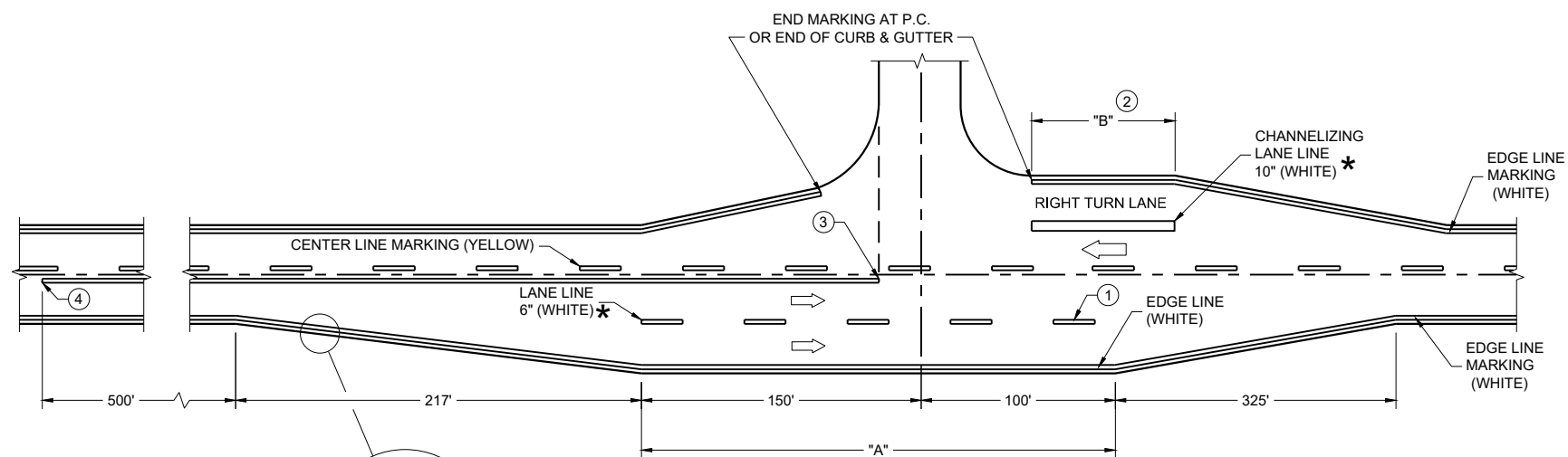
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 68
FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

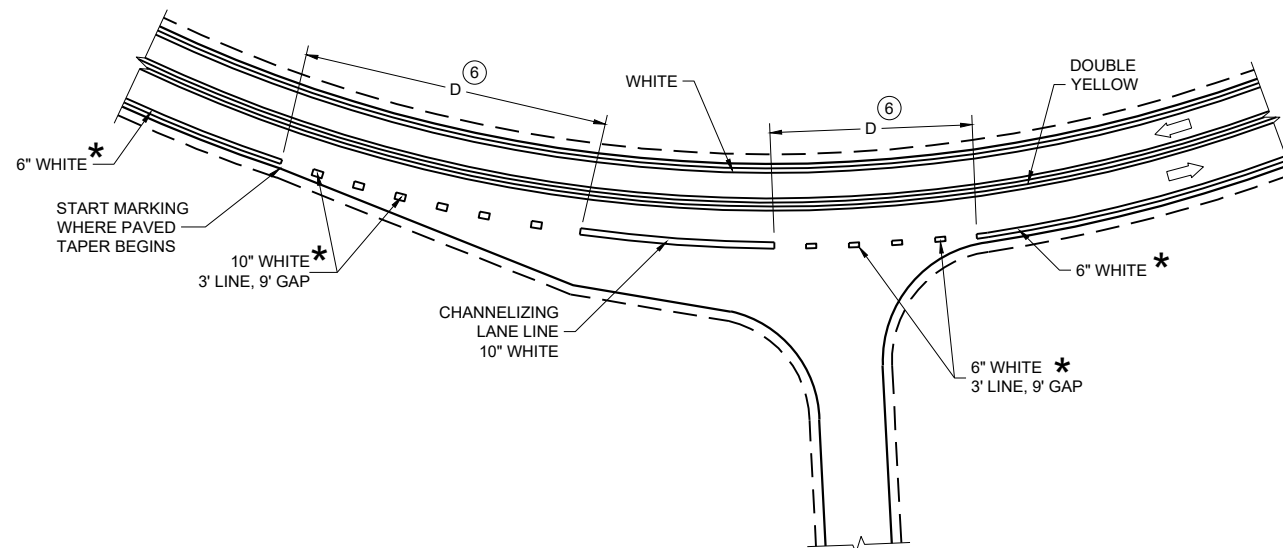
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

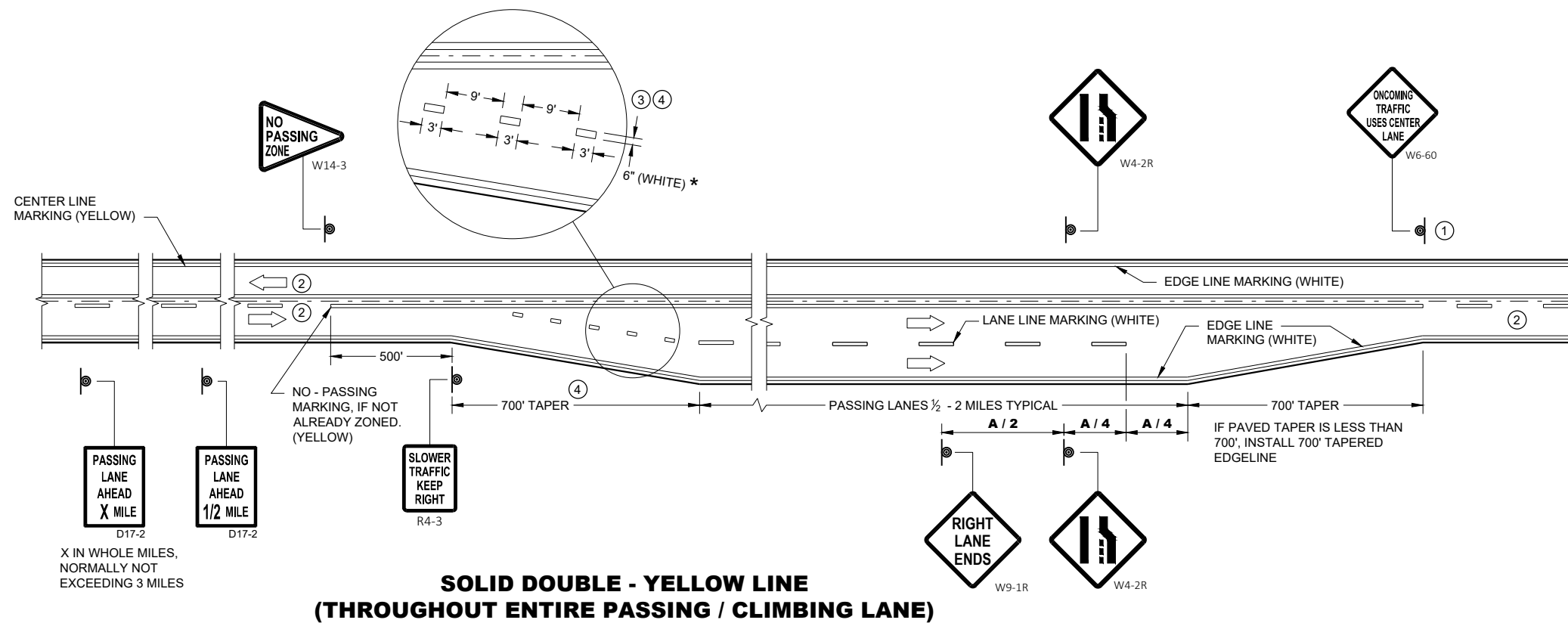
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

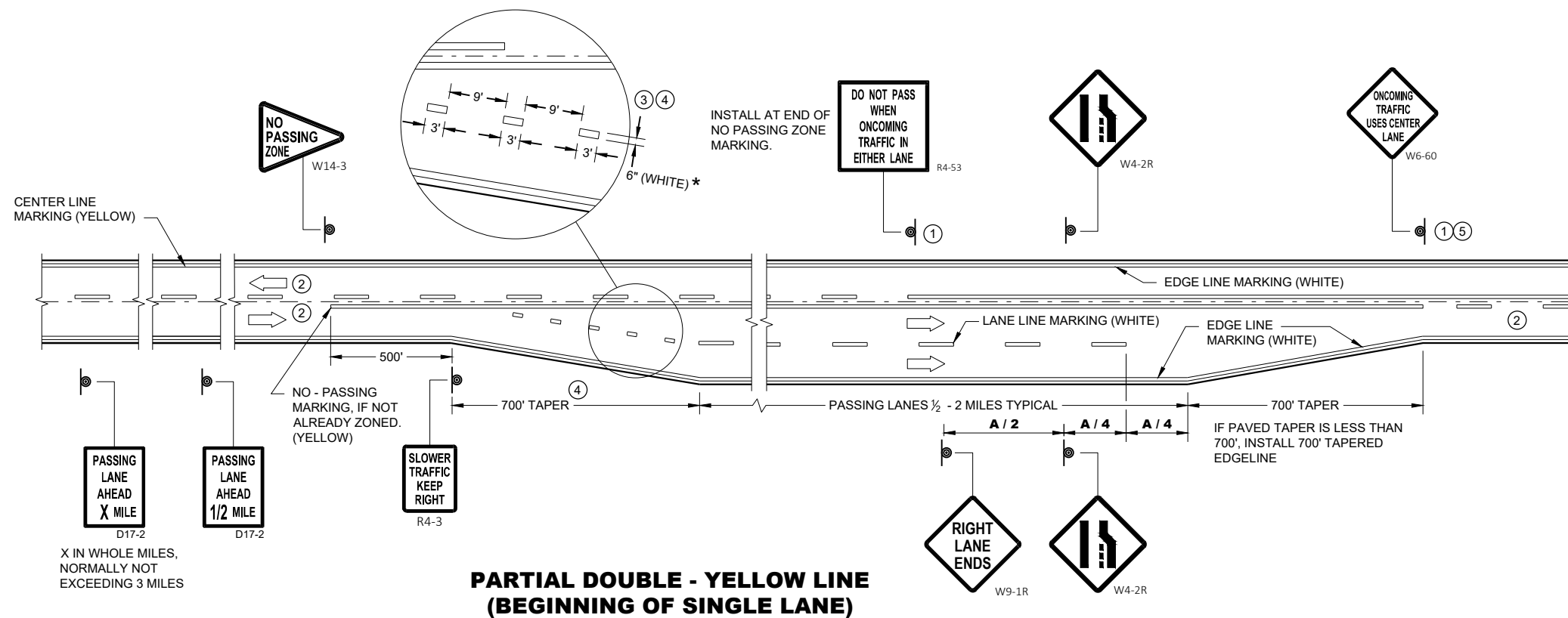


GENERAL NOTES

- ① SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ④ WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- ⑤ REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

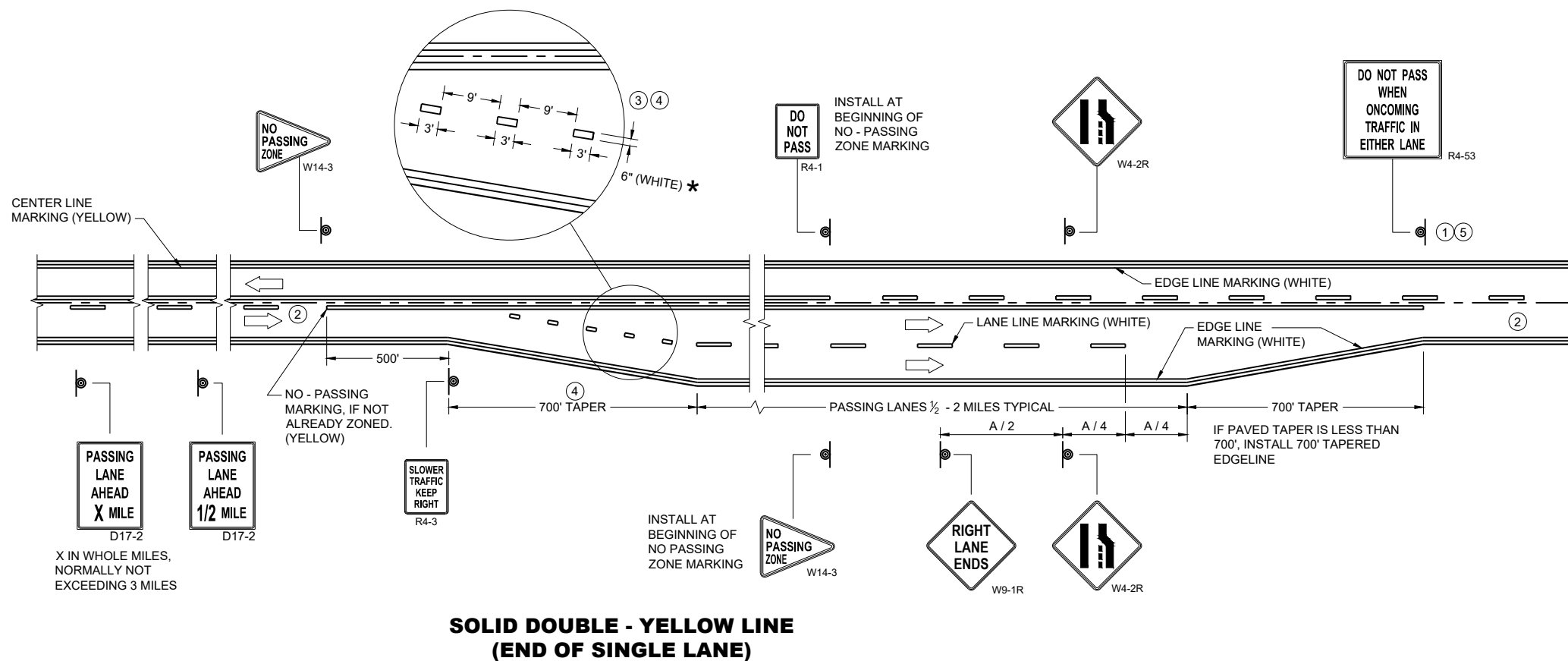
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 70



GENERAL NOTES

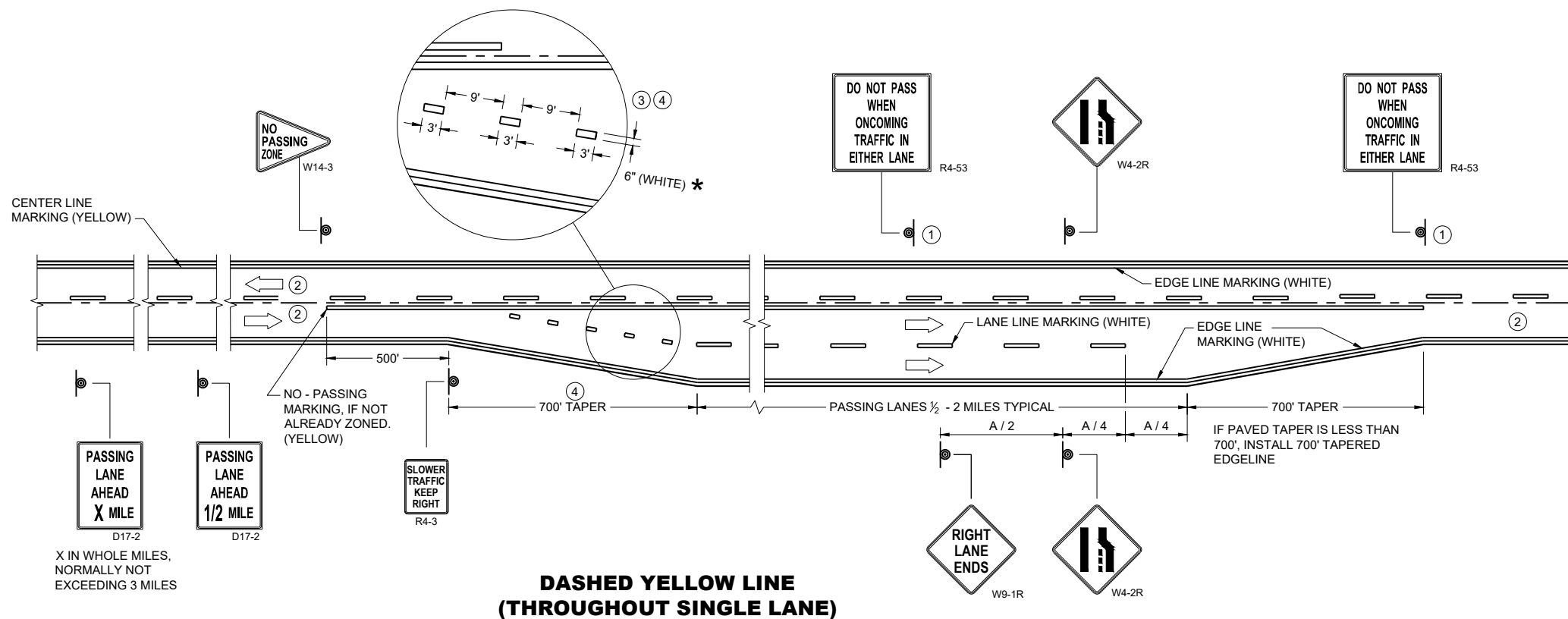
- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4 WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- 5 REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE
Statewide Pavement Marking Engineer

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

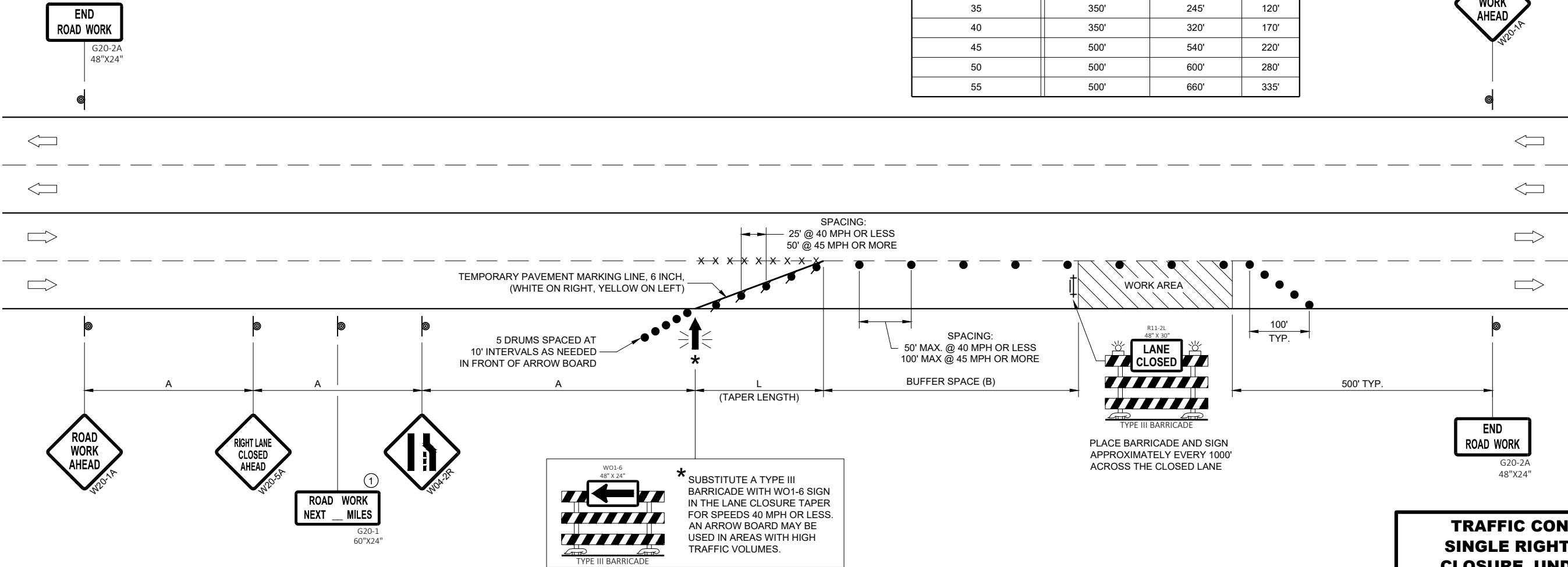
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.



TRAFFIC CONTROL,
SINGLE RIGHT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 72
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

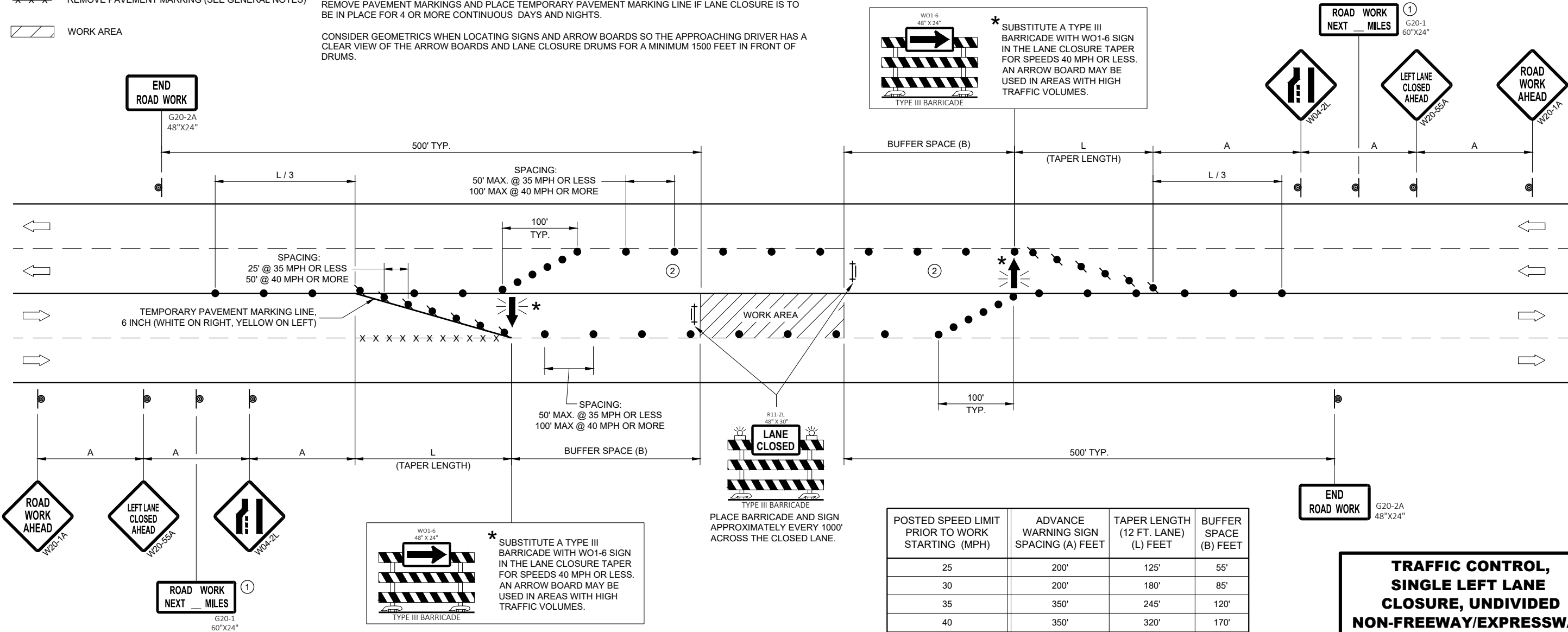
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

**TRAFFIC CONTROL,
SINGLE LEFT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 73

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

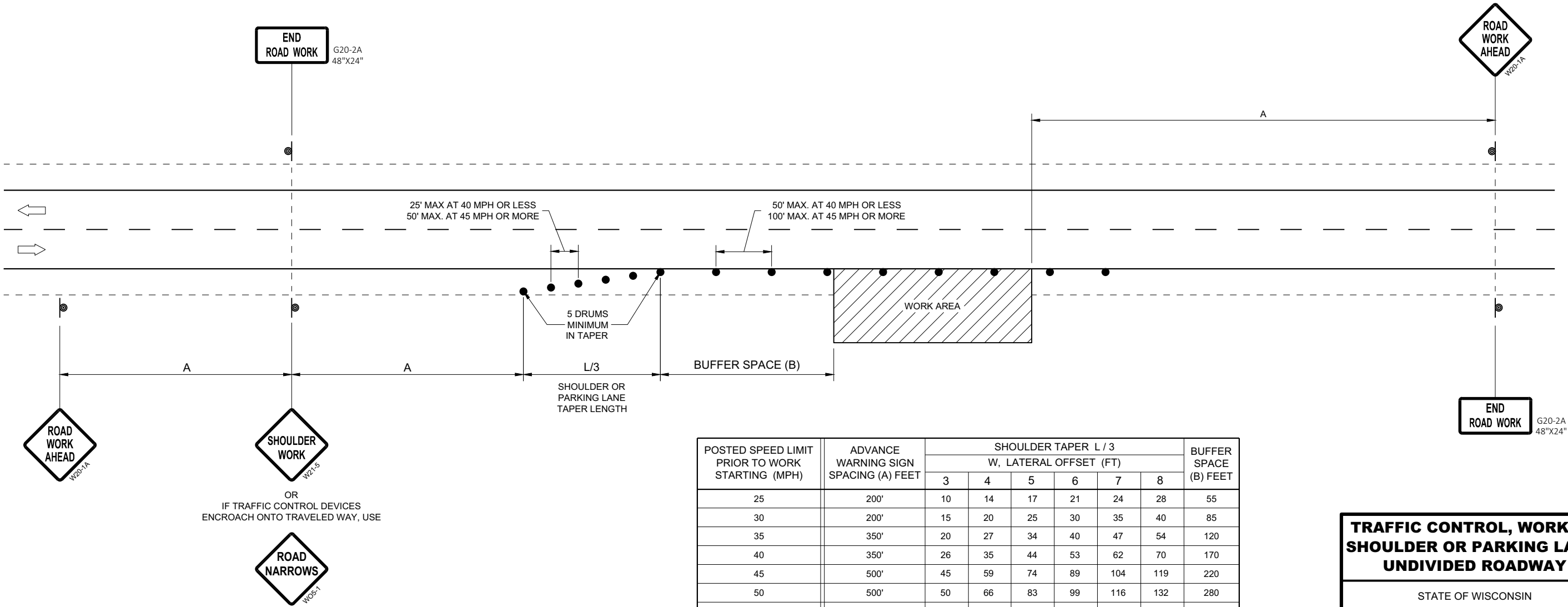
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

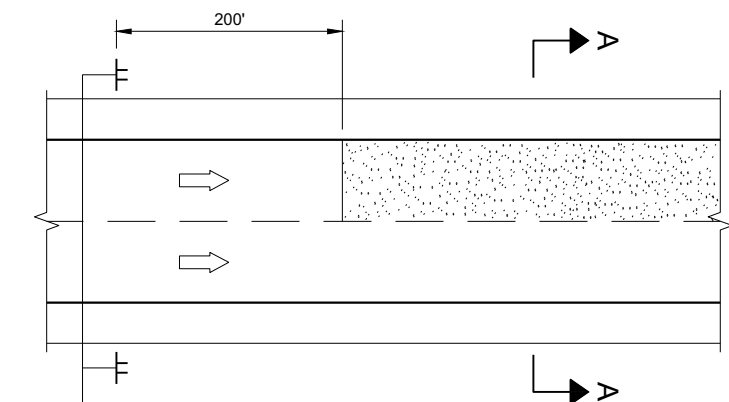


POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

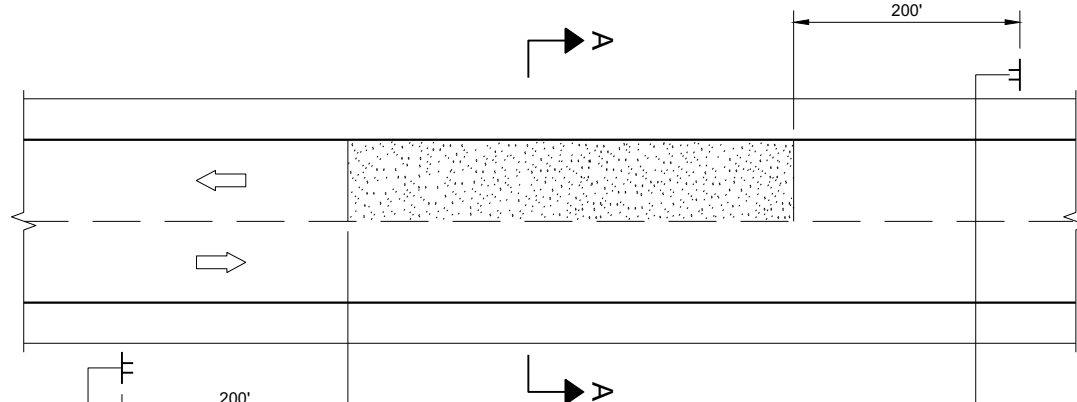
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

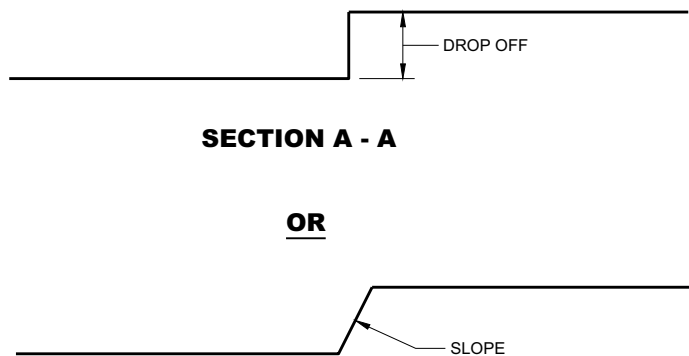
APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T
SAFETY ENGINEER 74
FHWA



MULTI-LANE



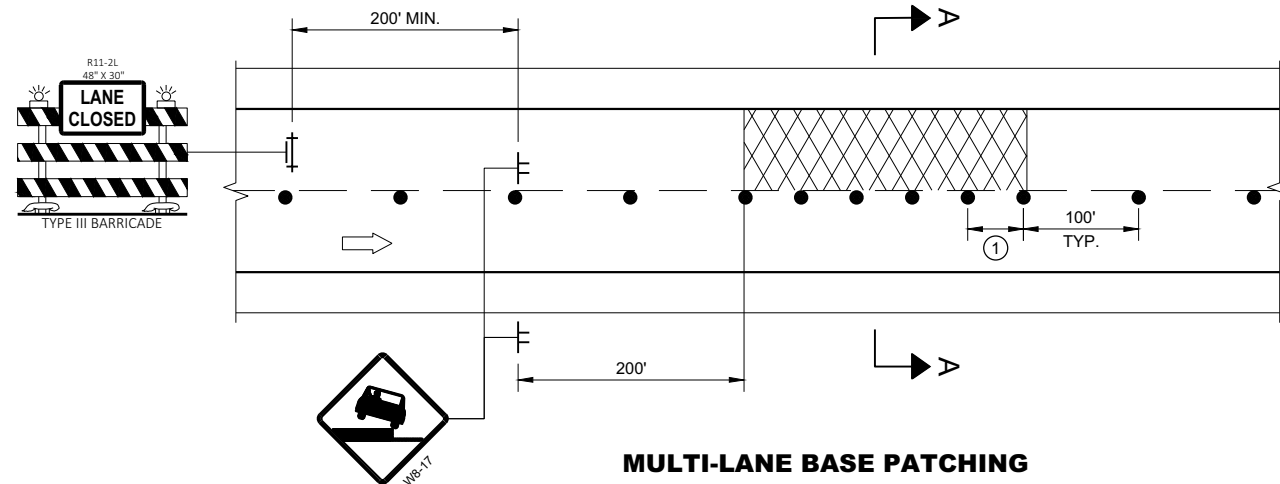
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

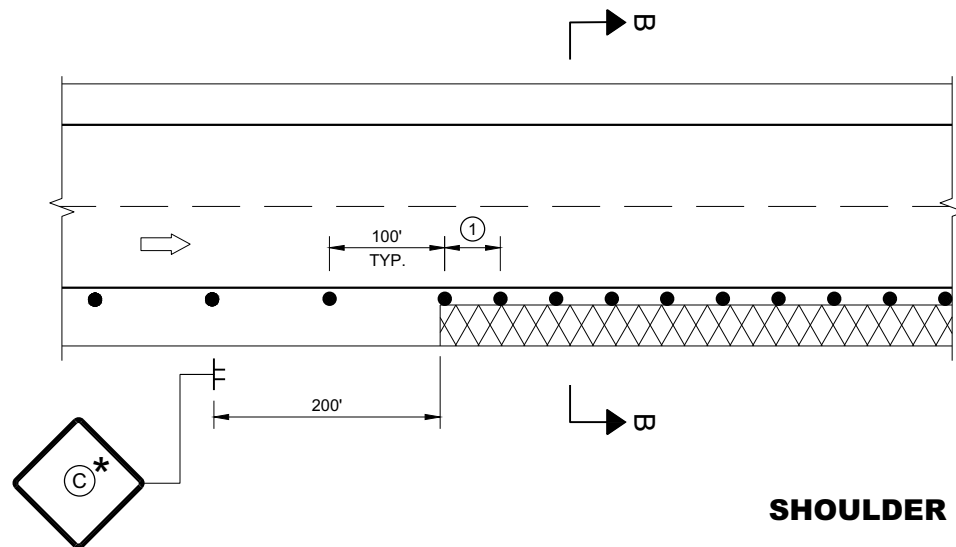
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

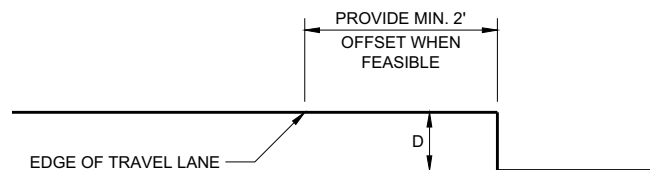
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER 75

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

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

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

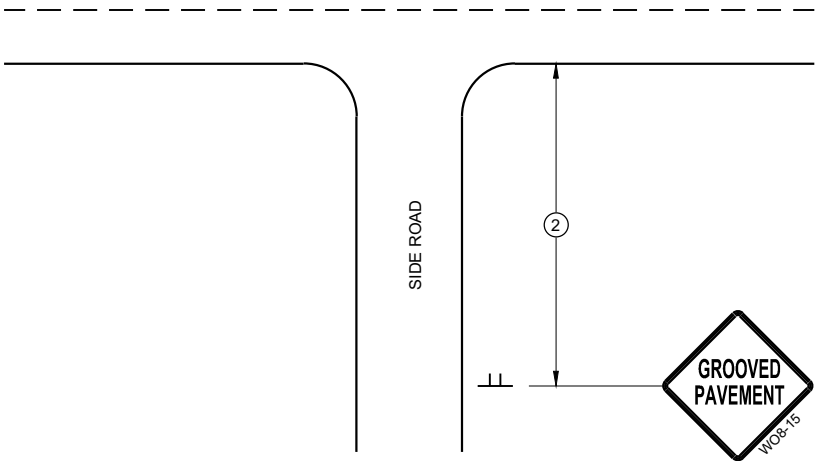
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

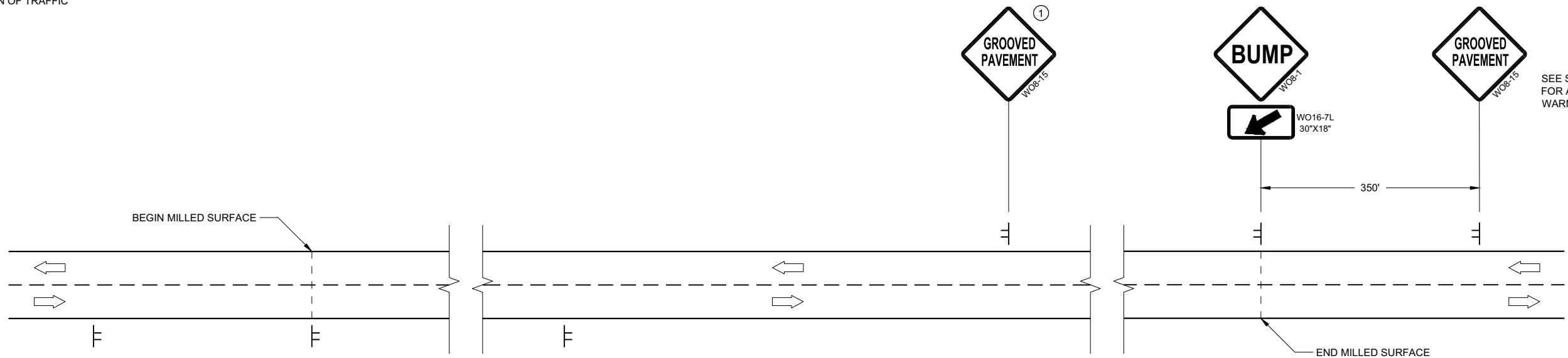
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 76

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

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

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

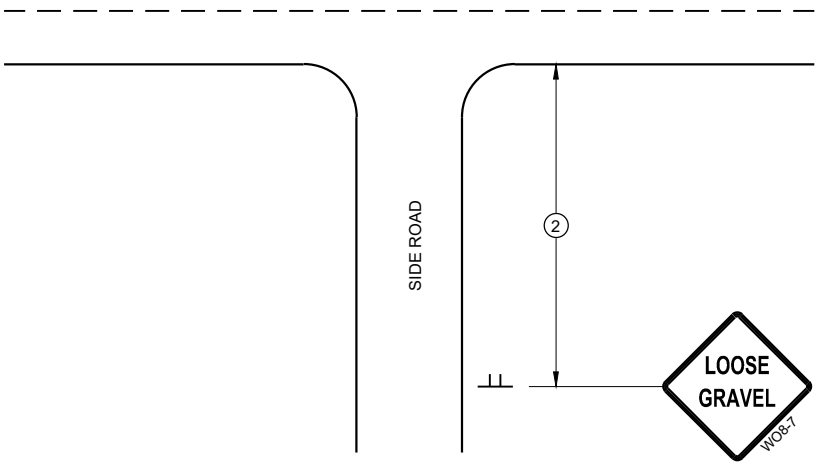
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

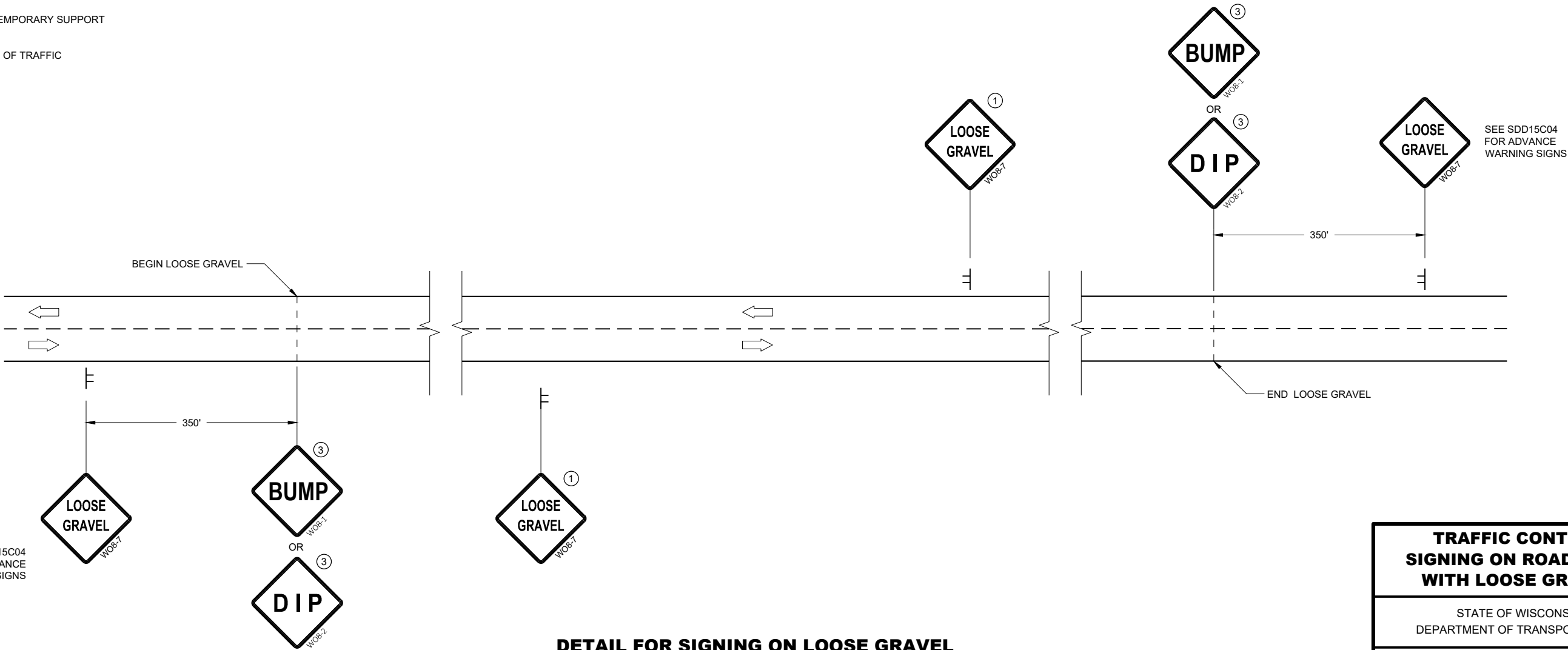
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL

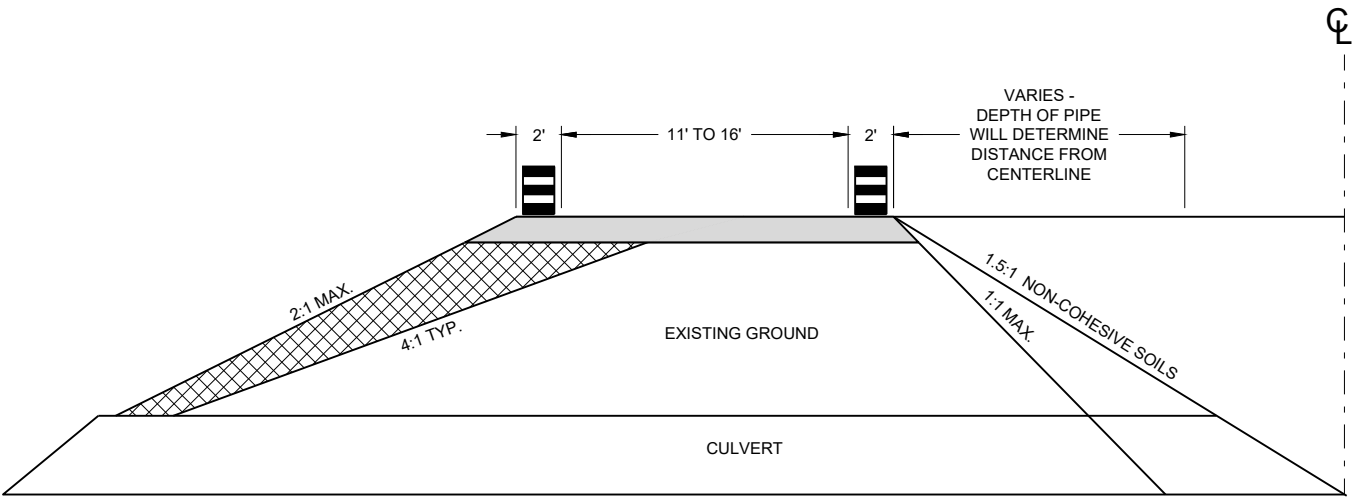


DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 77
FHWA



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

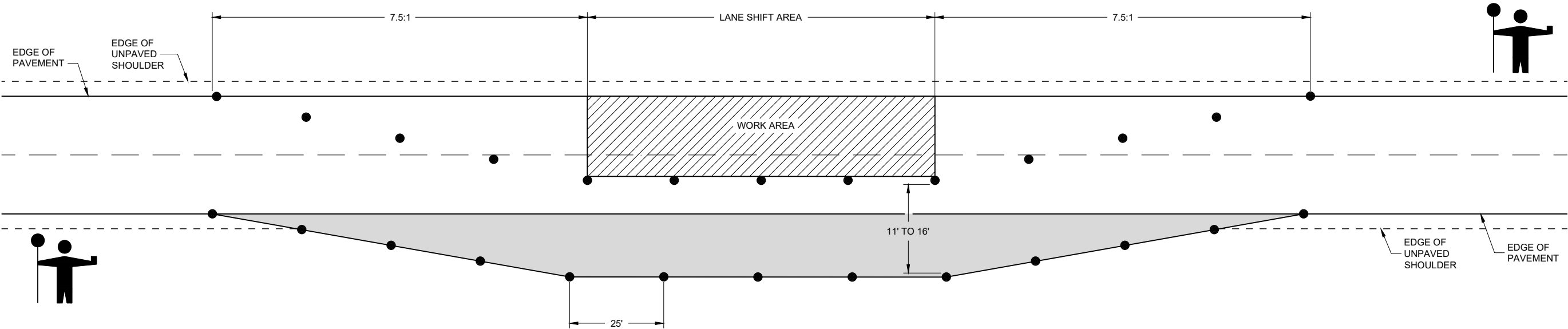
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 1/4" - INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL,
TEMPORARY LANE SHIFT
DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 78

FHWA

LEGEND

- V1

WORK VEHICLE
- V2

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

FLASHING ARROW PANEL (CAUTION)
- 

WORK AREA
- 

DIRECTION OF TRAFFIC

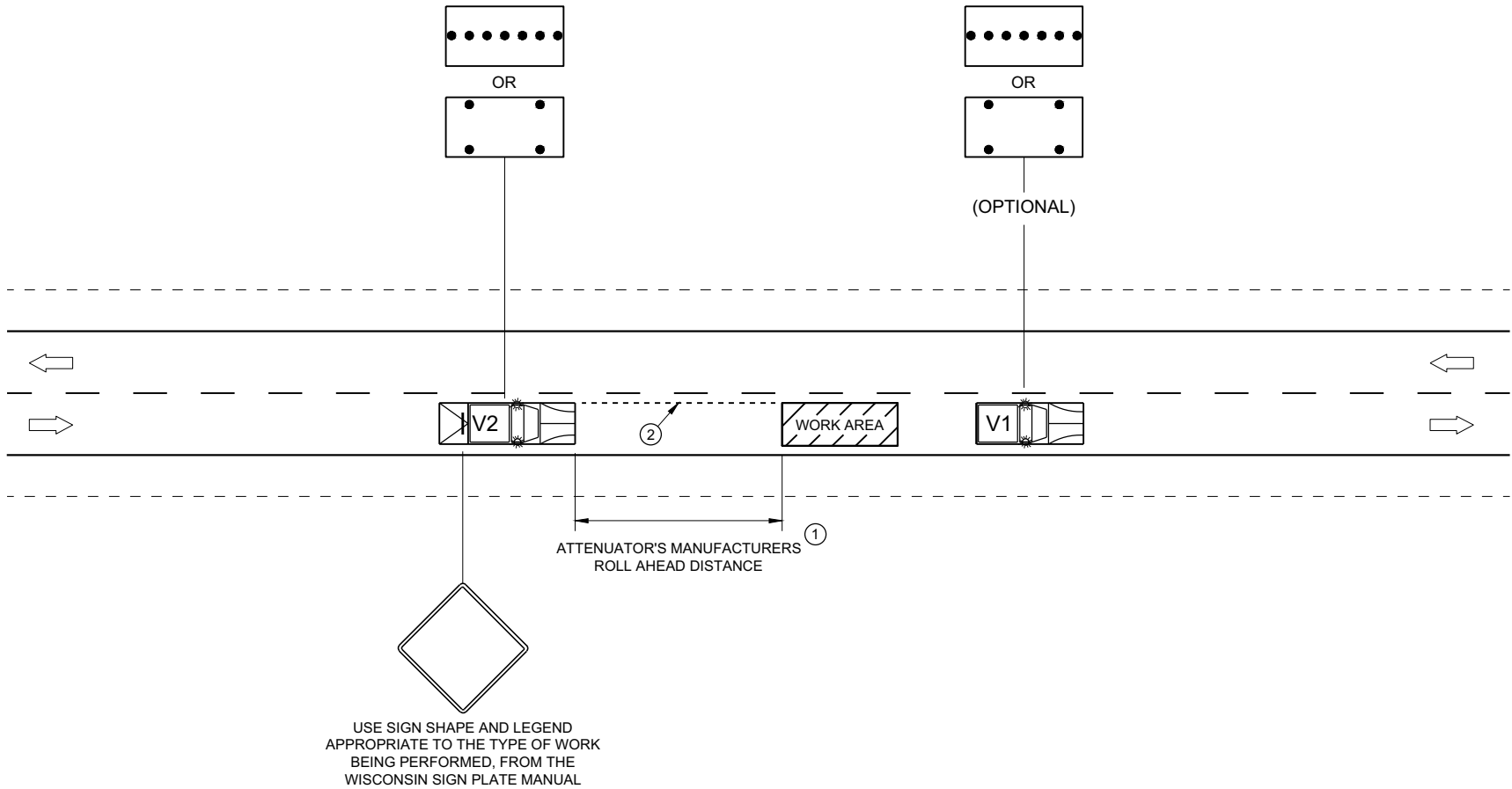
POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- ①

DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ②

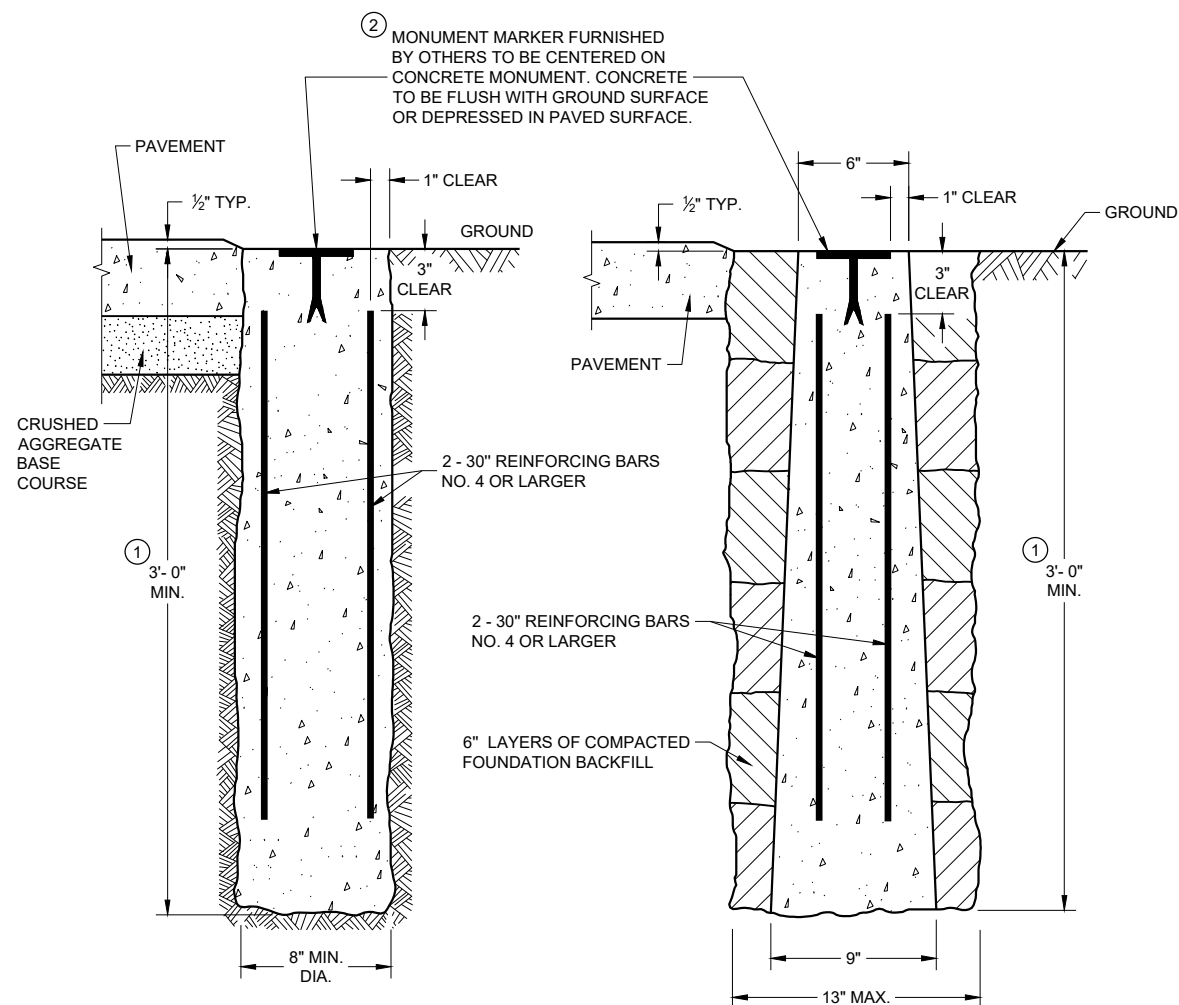
ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

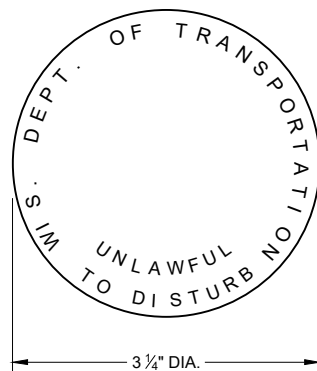
APPROVED
February 2021 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 79
FHWA



CAST-IN-PLACE

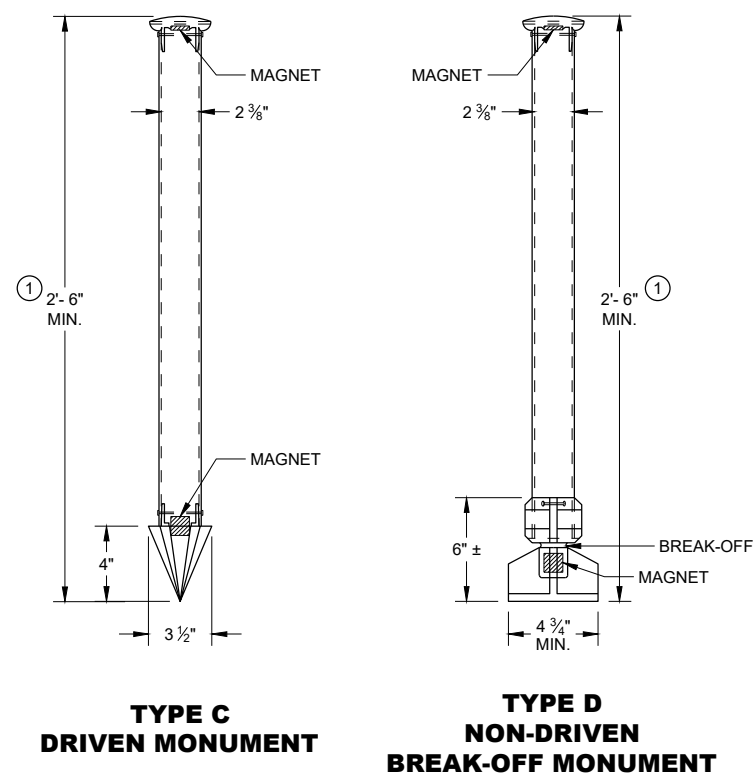
CONCRETE MONUMENTS

TYPE A

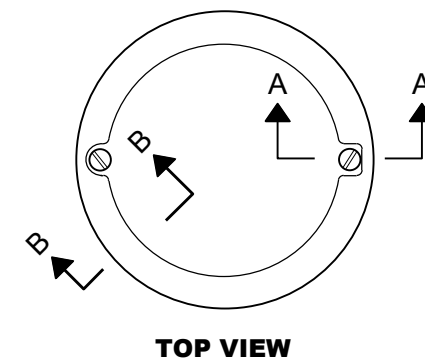


② **WIS DOT MONUMENT
MARKER LOGO**

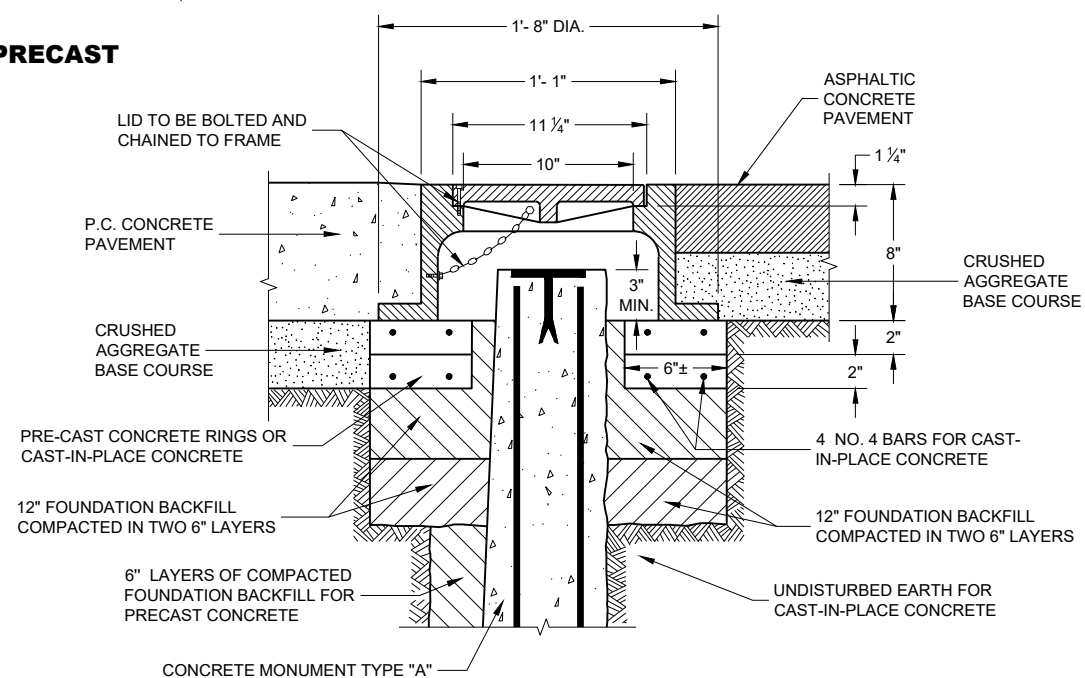
FOR TYPES "A", "C" & "D"



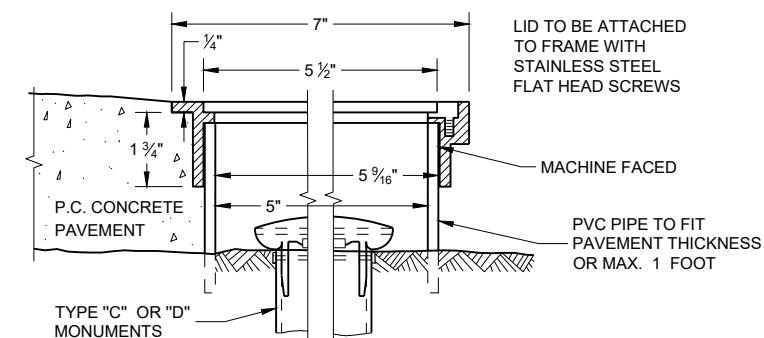
ALUMINUM MONUMENTS
(INCLUDES MARKER)



TOP VIEW



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B **SECTION A-A**
ALUMINUM MONUMENT COVER
 (APPROXIMATE WEIGHT 2 LBS)
 (FOR CONCRETE PAVEMENT ONLY)

**LANDMARK REFERENCE
MONUMENTS AND COVERS**

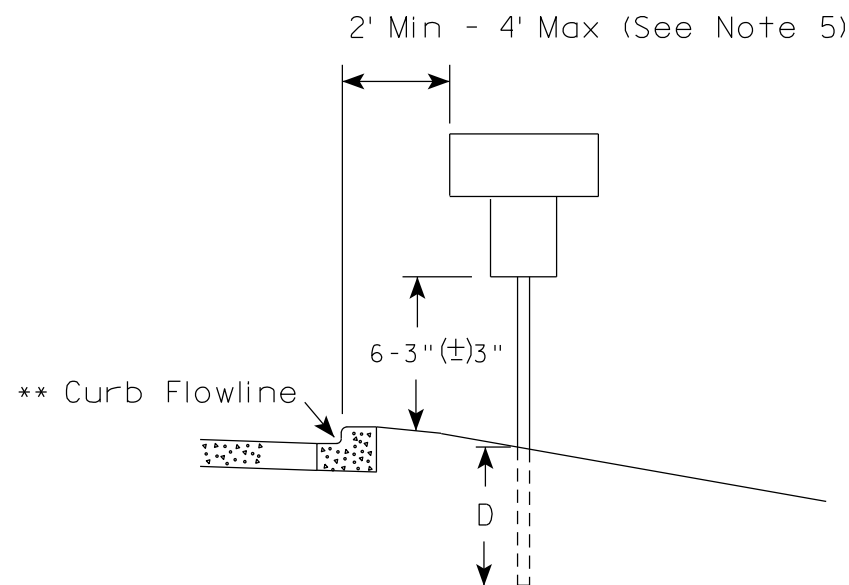
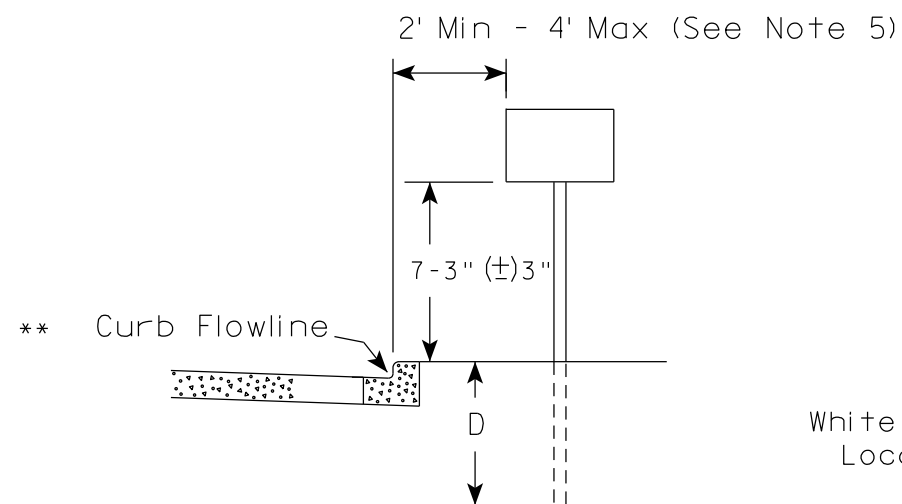
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018

DATE /S/ Raymond A. Kumapavi
CHIEF SURVEYING AND MAPPING ENGINEER **80**

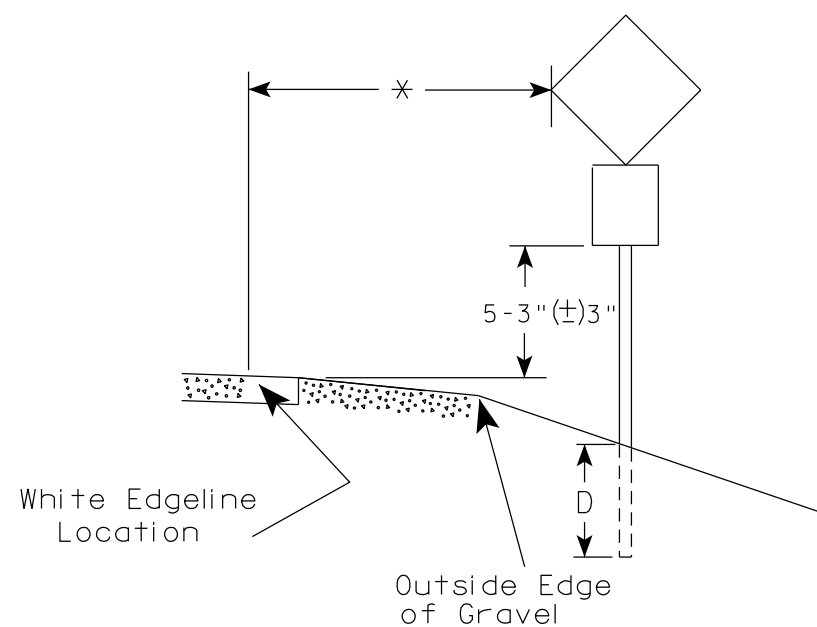
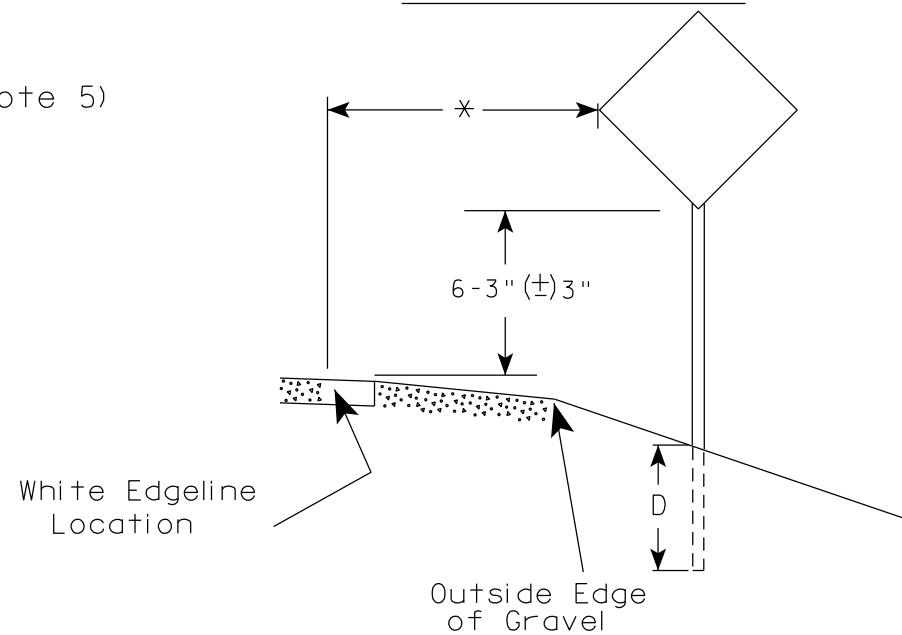
FWHA

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

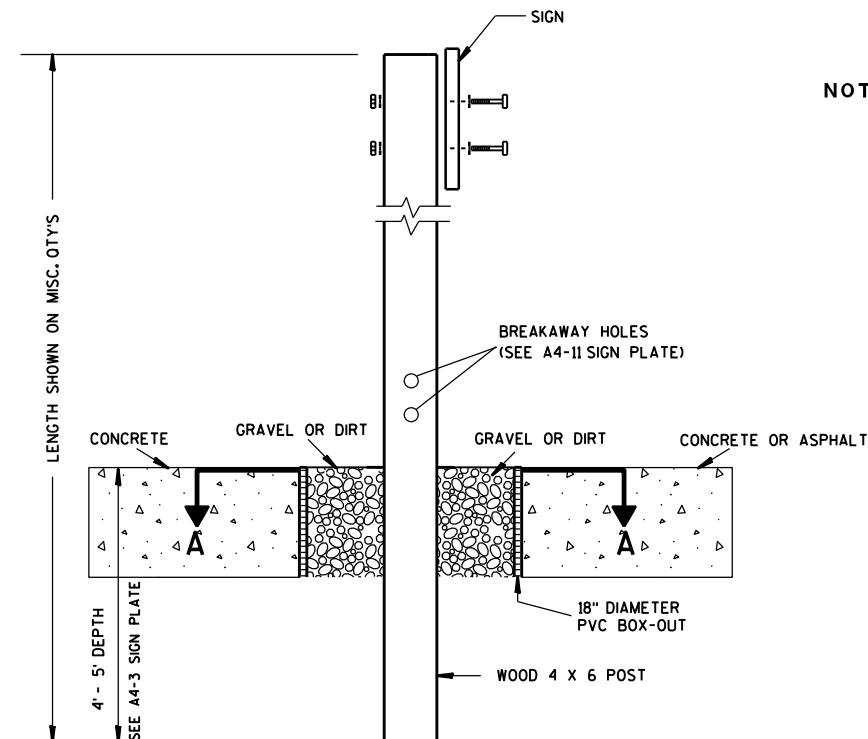
- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

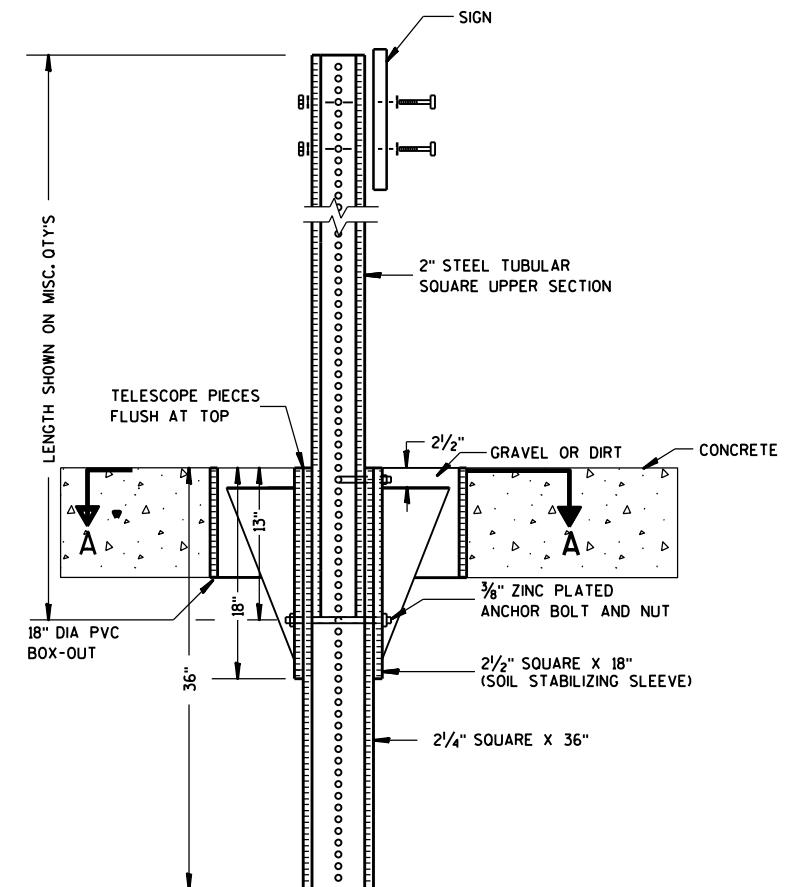
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

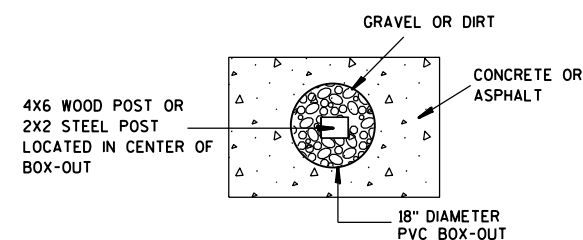
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 82 A4-3B.1

PROJECT NO:

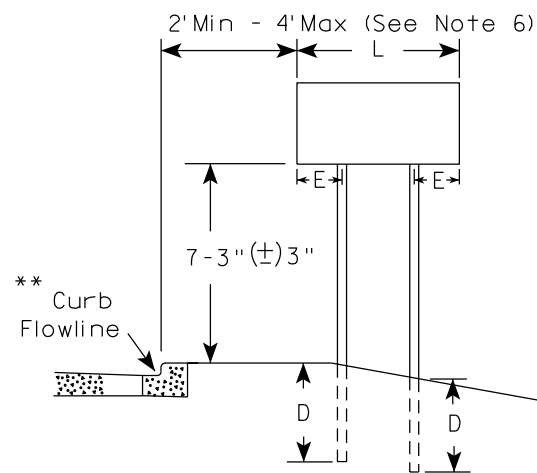
HWY:

COUNTY:

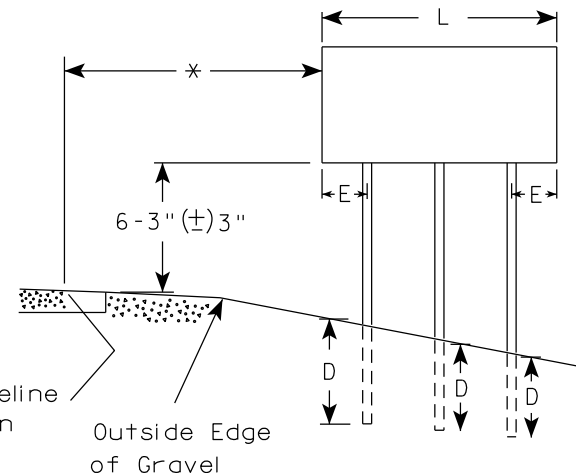
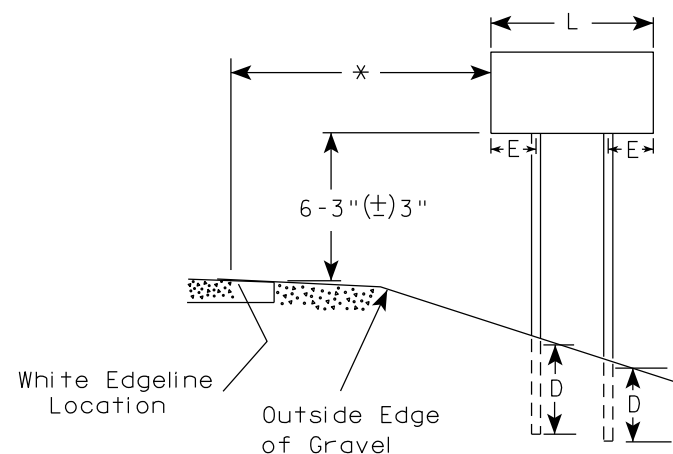
SHEET NO:

E

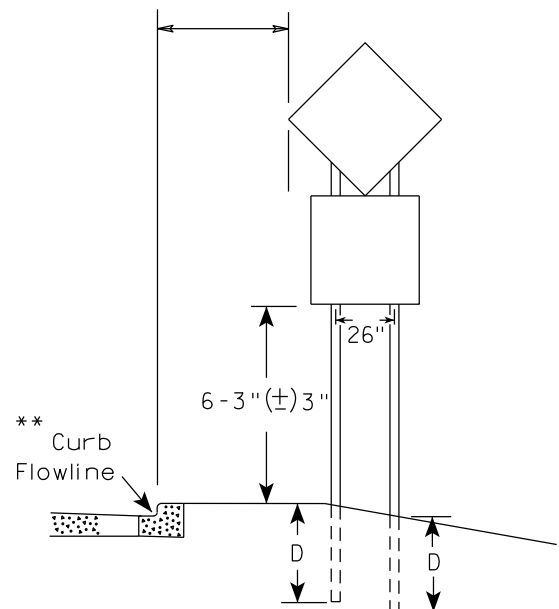
URBAN AREA



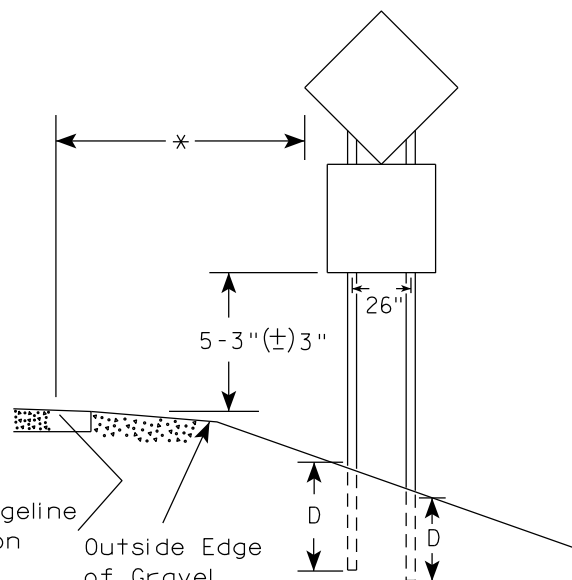
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 12/6/23 PLATE NO. A4-4.16

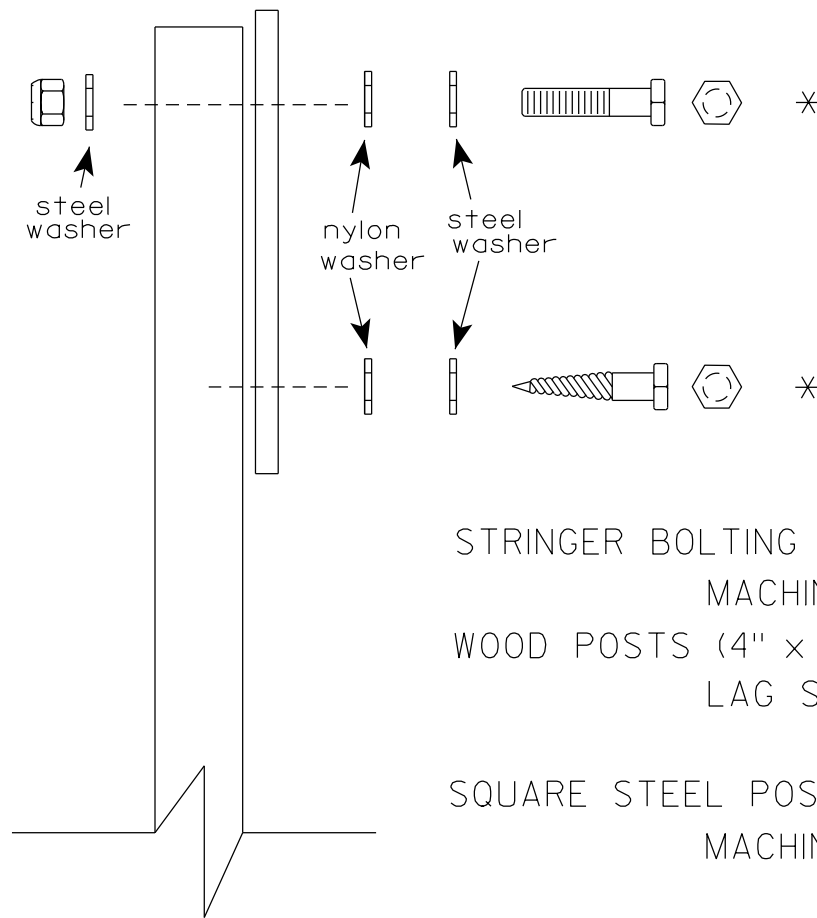
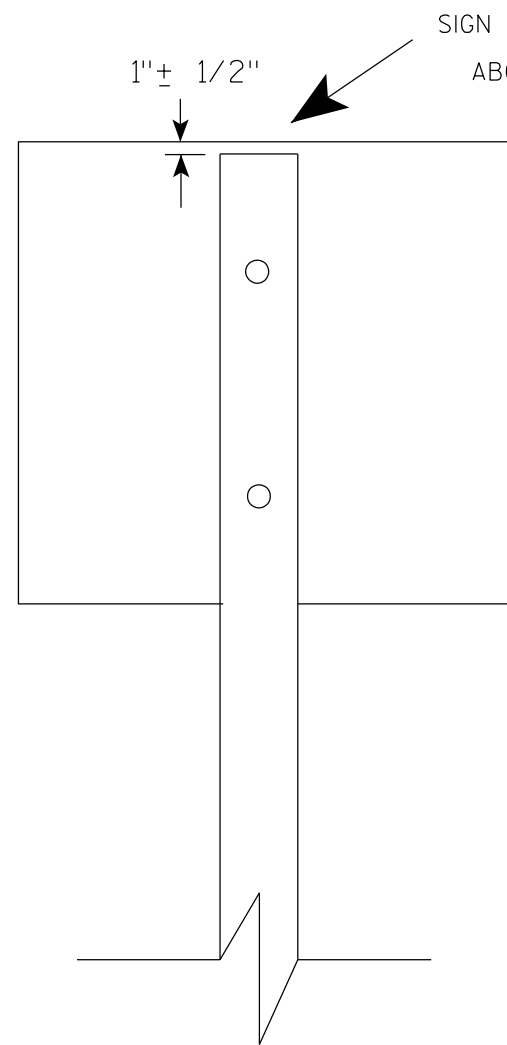
GENERAL NOTES

- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



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

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

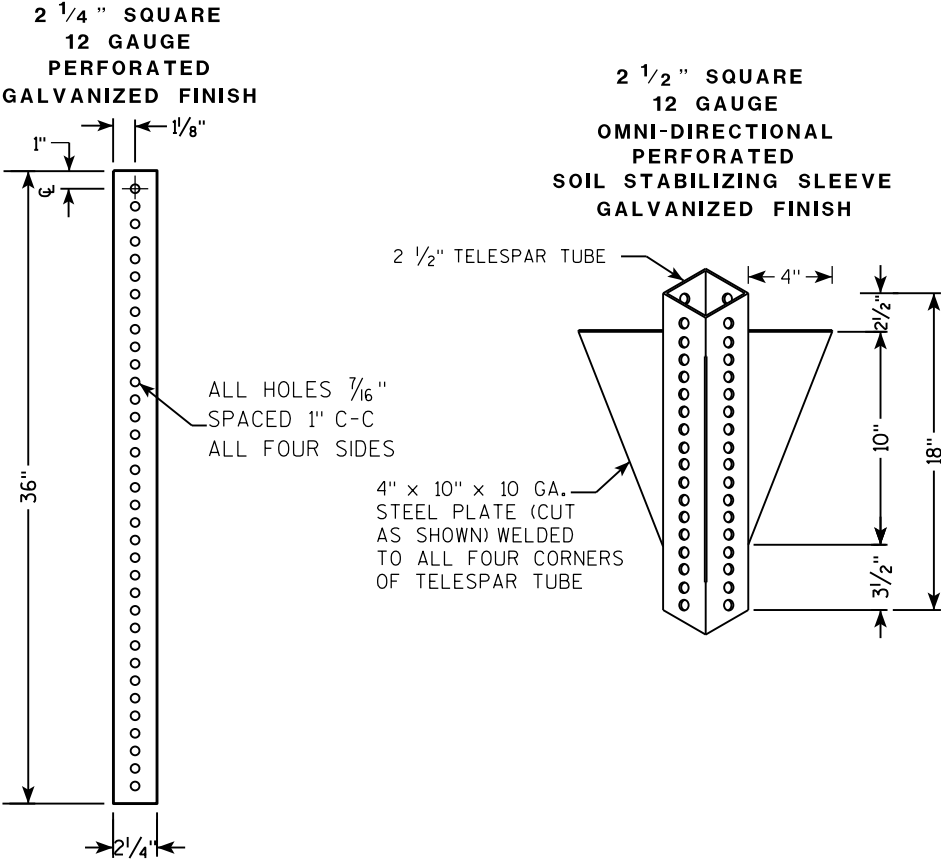
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

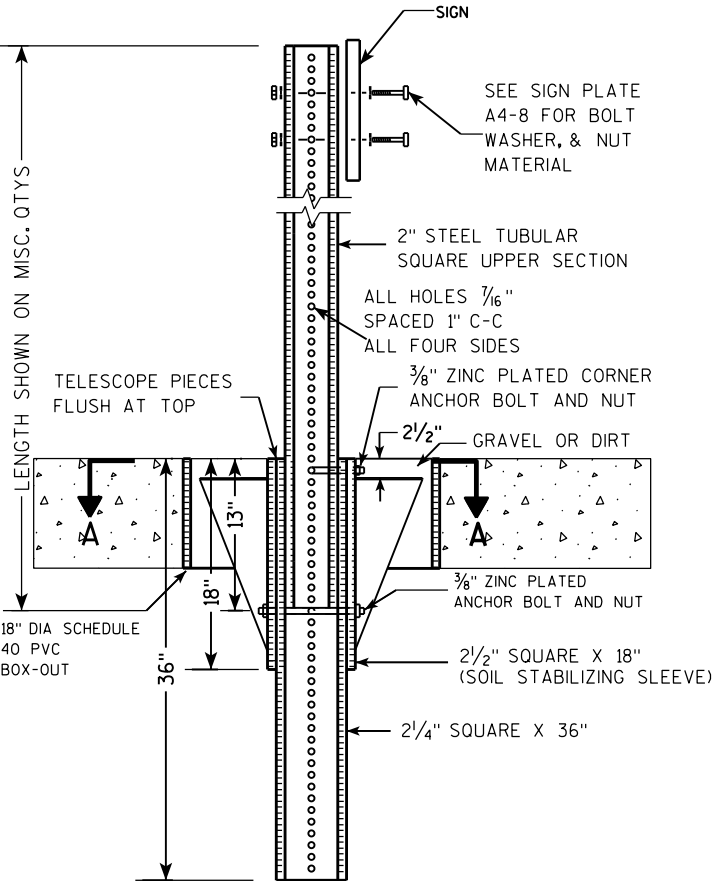
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

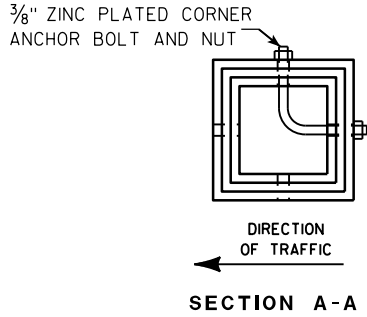
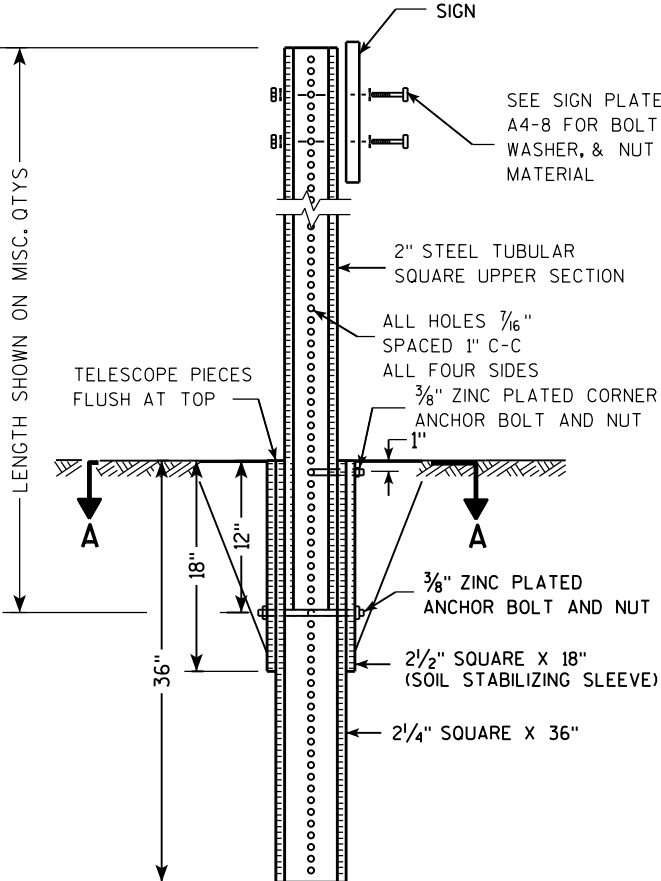
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

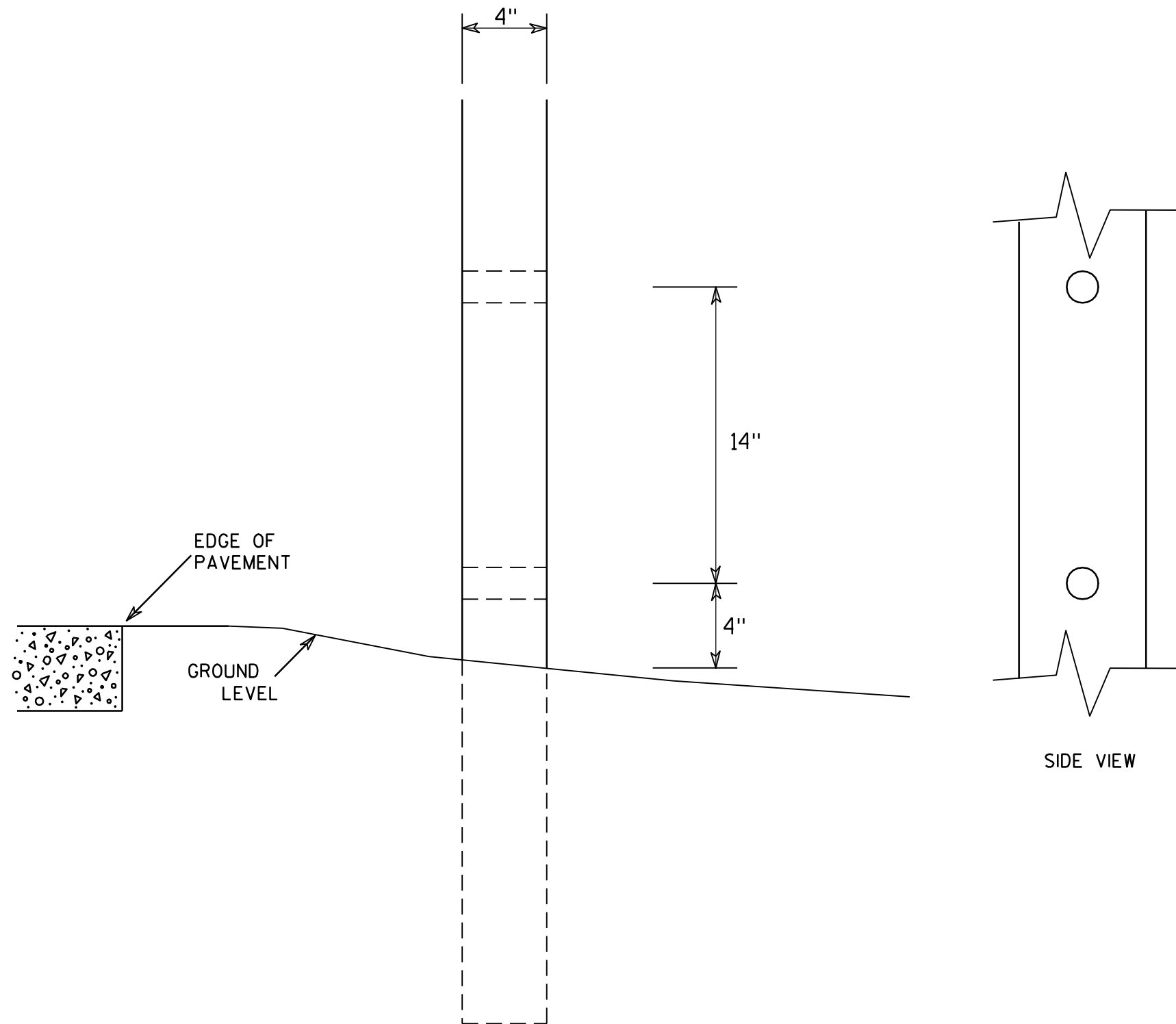
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 85 14-9.9

7



GENERAL NOTES

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

7

4 X 6 WOOD POST
MODIFICATIONS

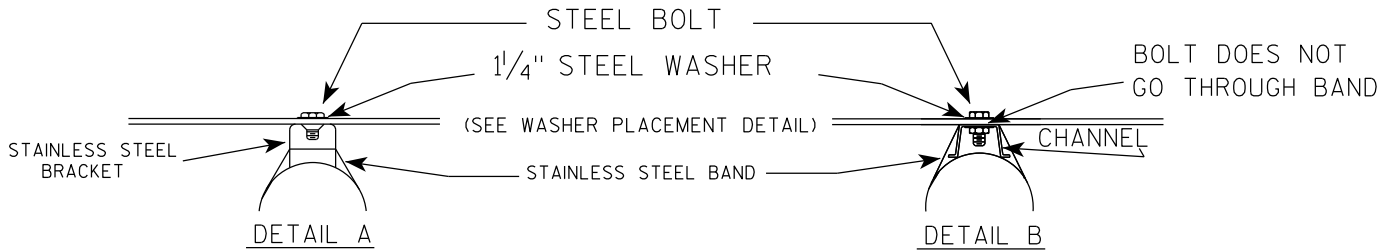
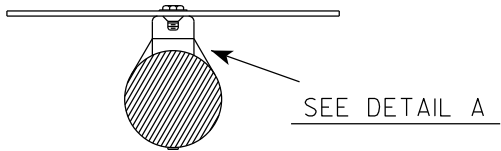
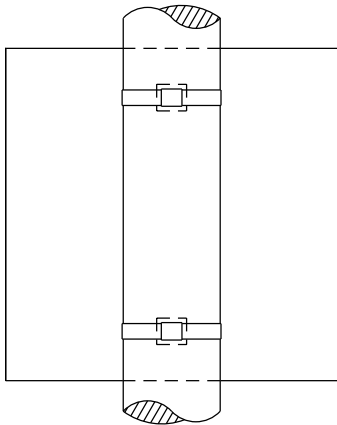
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J. Spang*
for State Traffic Engineer

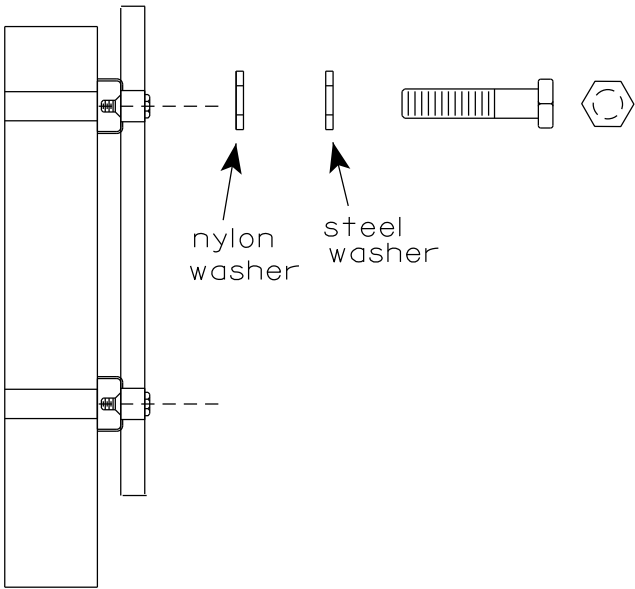
DATE 3/27/97 PLATE NO. A4-11.2

BANDING

SINGLE SIGN



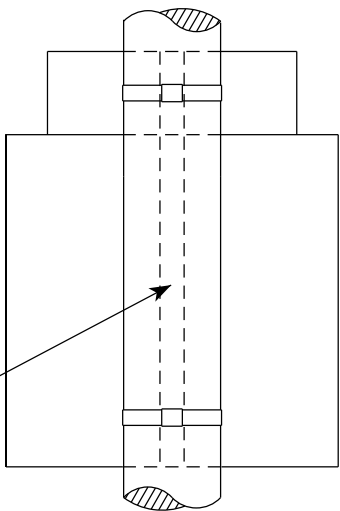
WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

"J" ASSEMBLY



SEE DETAIL B

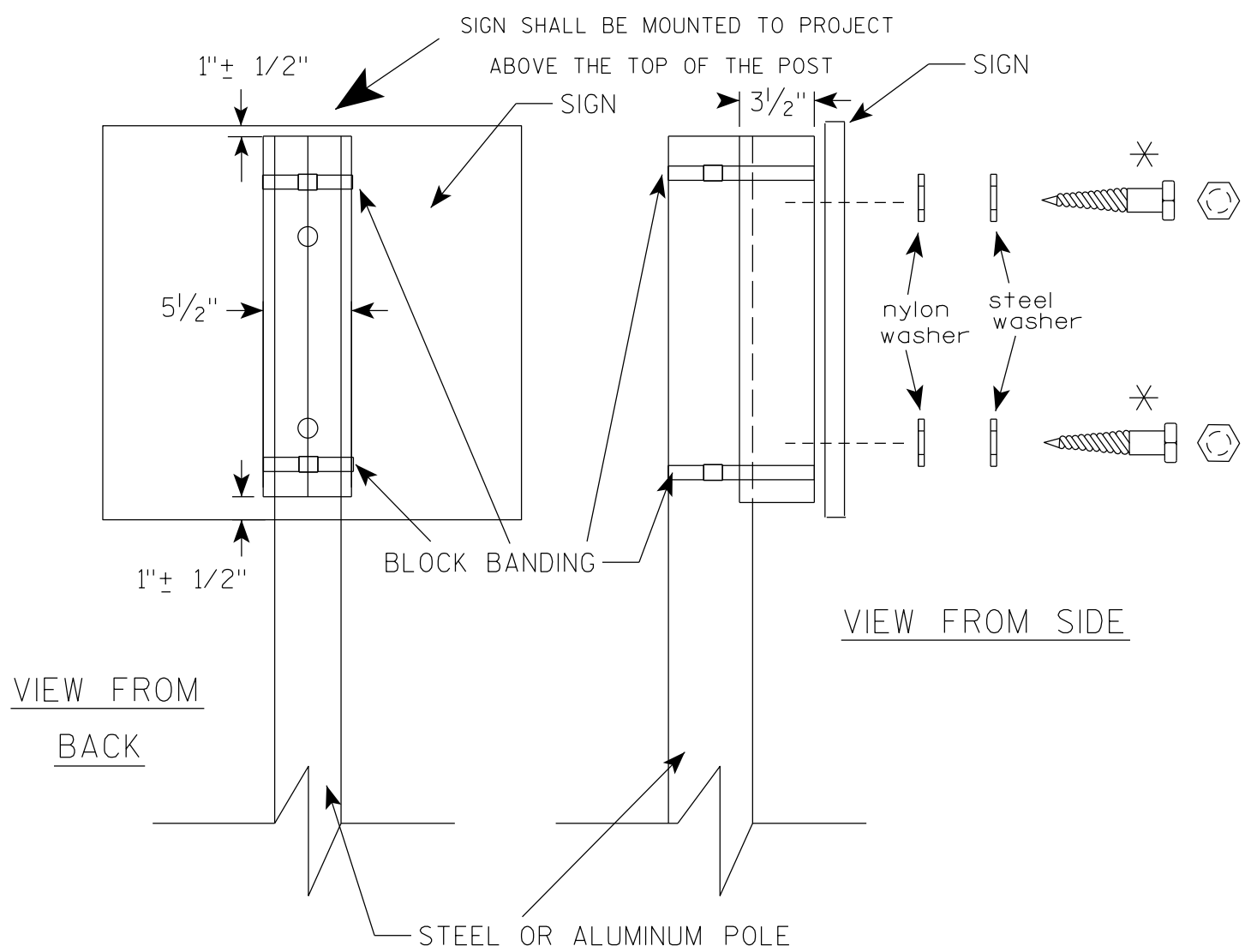
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

STANDARD SIGN
SIGN BANDING DETAILS

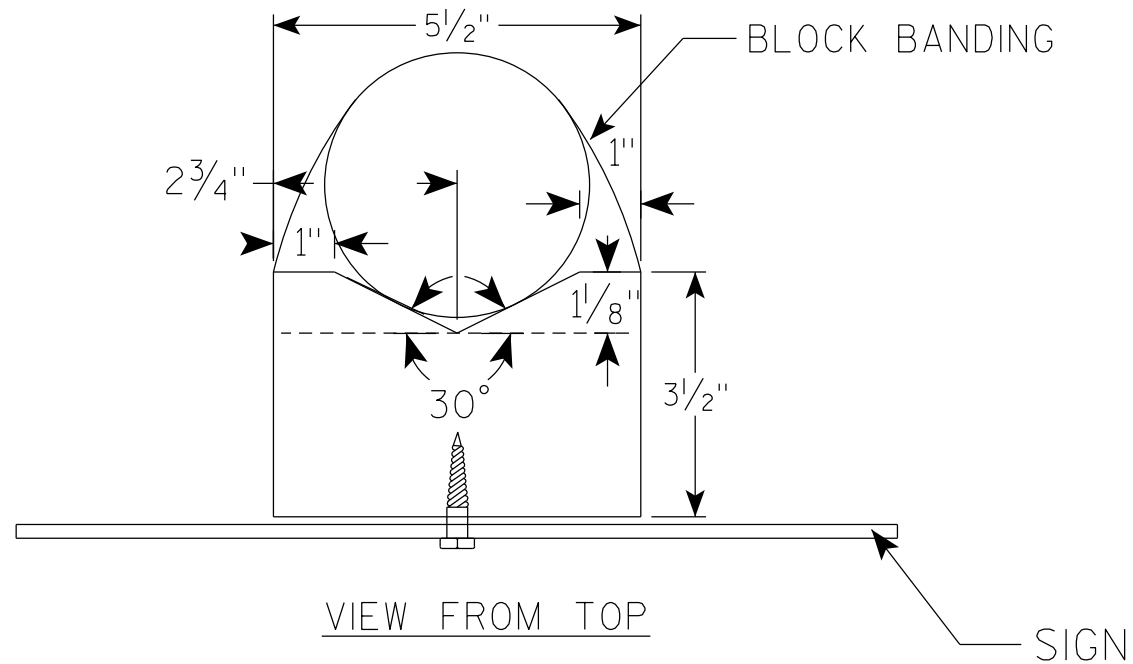
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

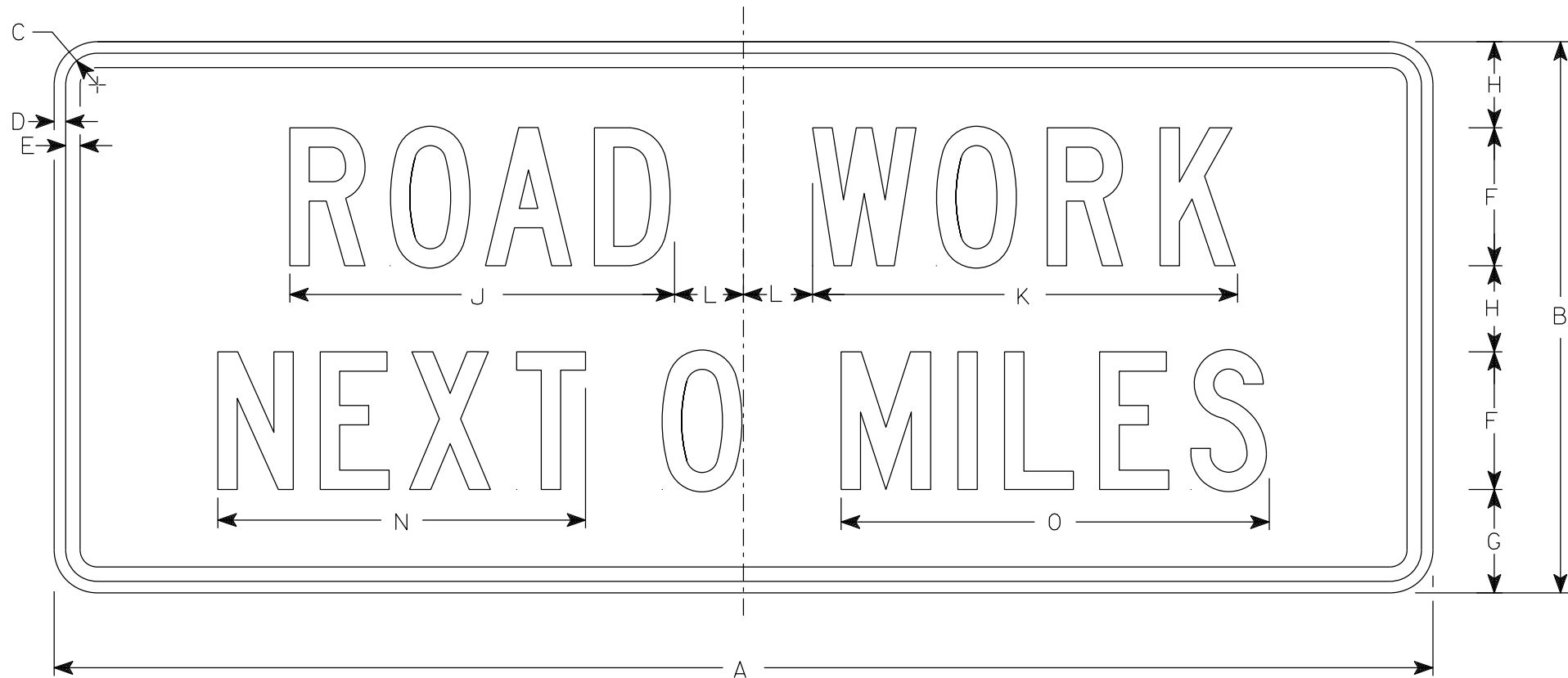
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 88

E

7



G20-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
2M	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
3	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
4	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
5	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0

STANDARD SIGN

G20-1

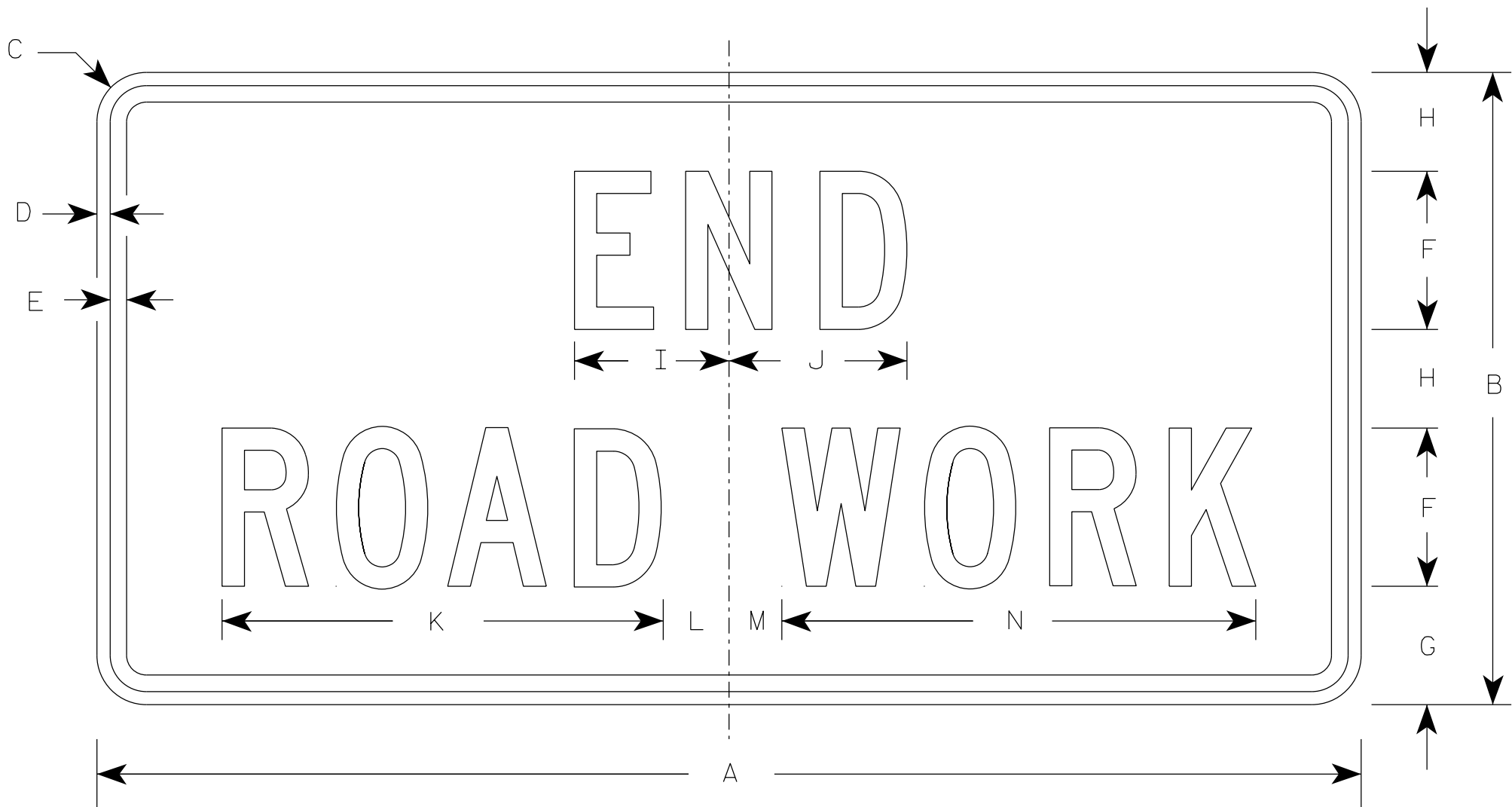
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-1.9

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 90

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D
- 4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

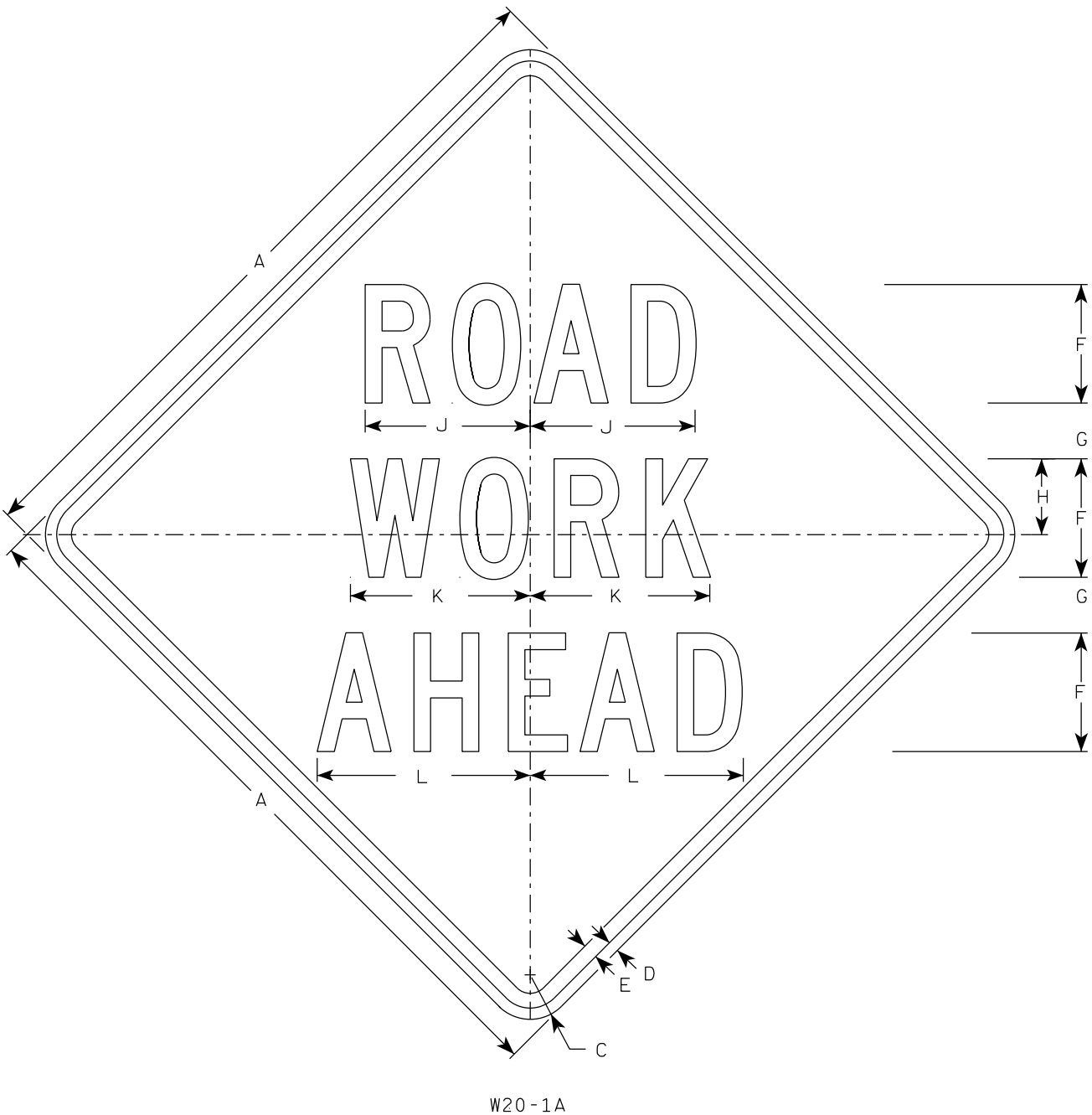
PROJECT NO:

HWY:

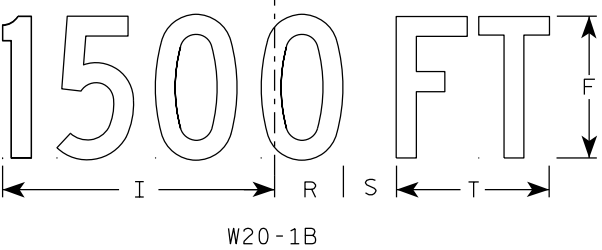
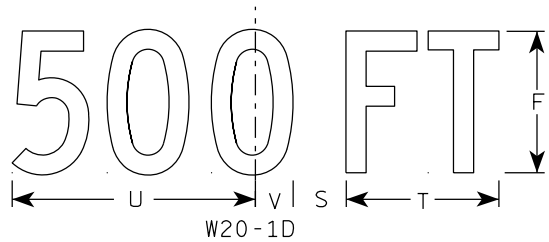
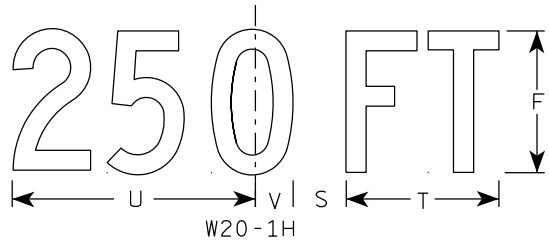
COUNTY:

SHEET NO: 91

E

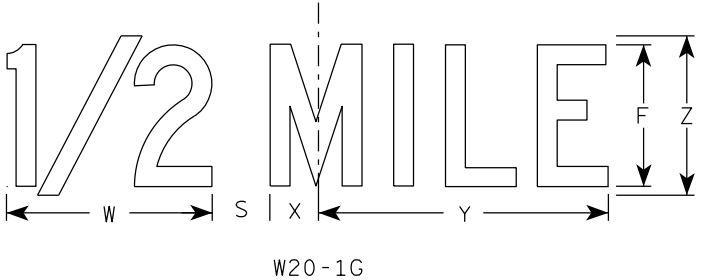


W20-1A

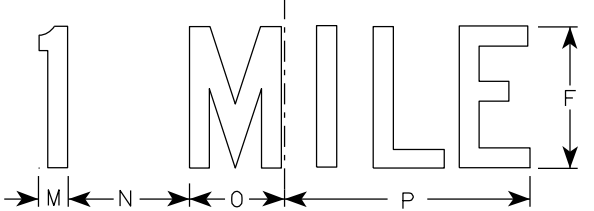


W20-1B

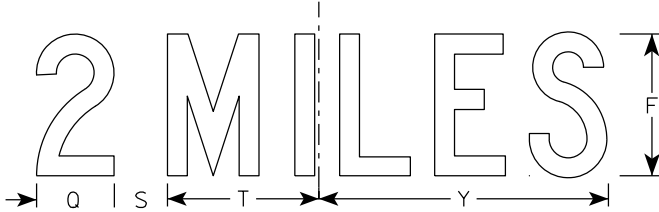
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

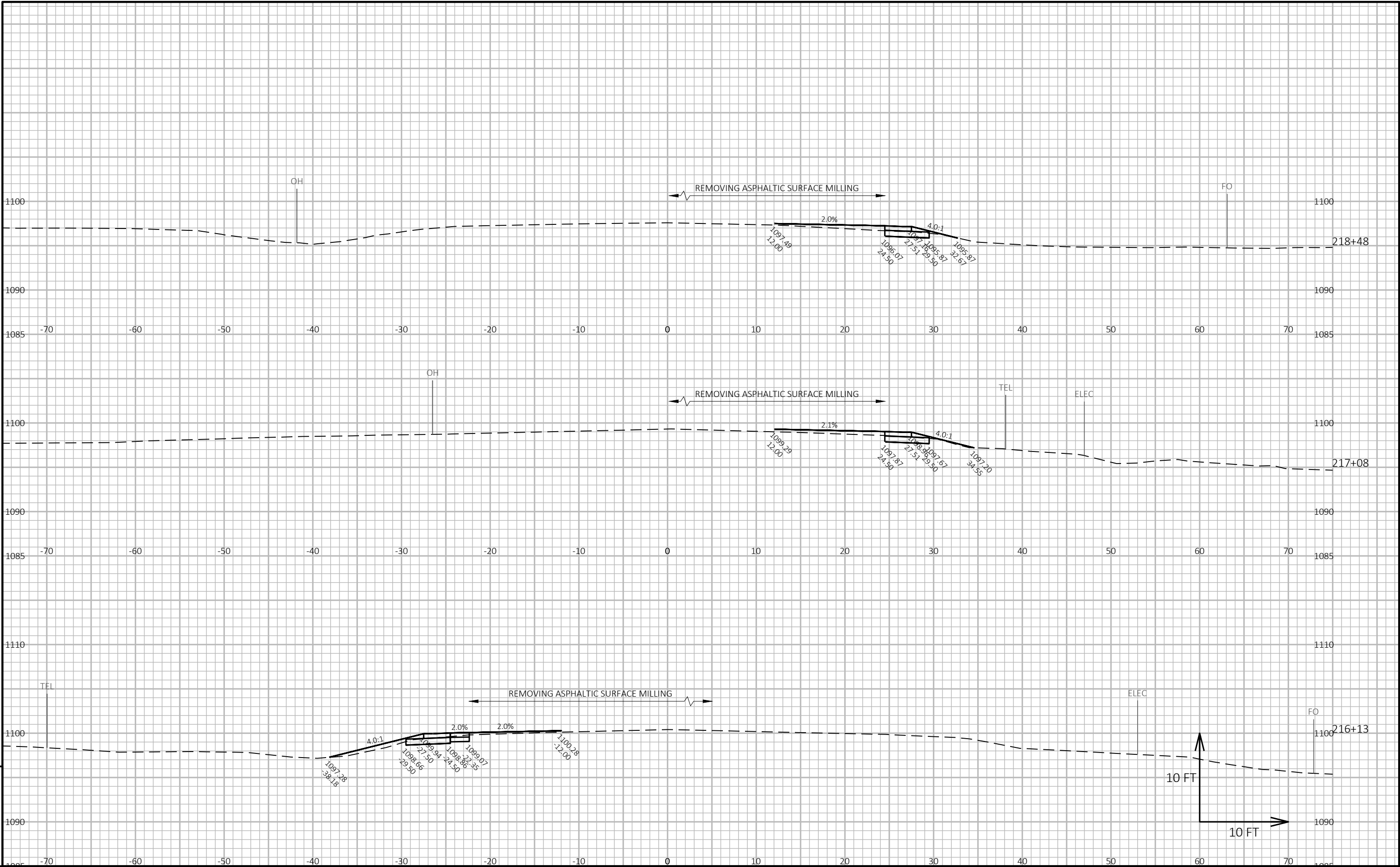
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

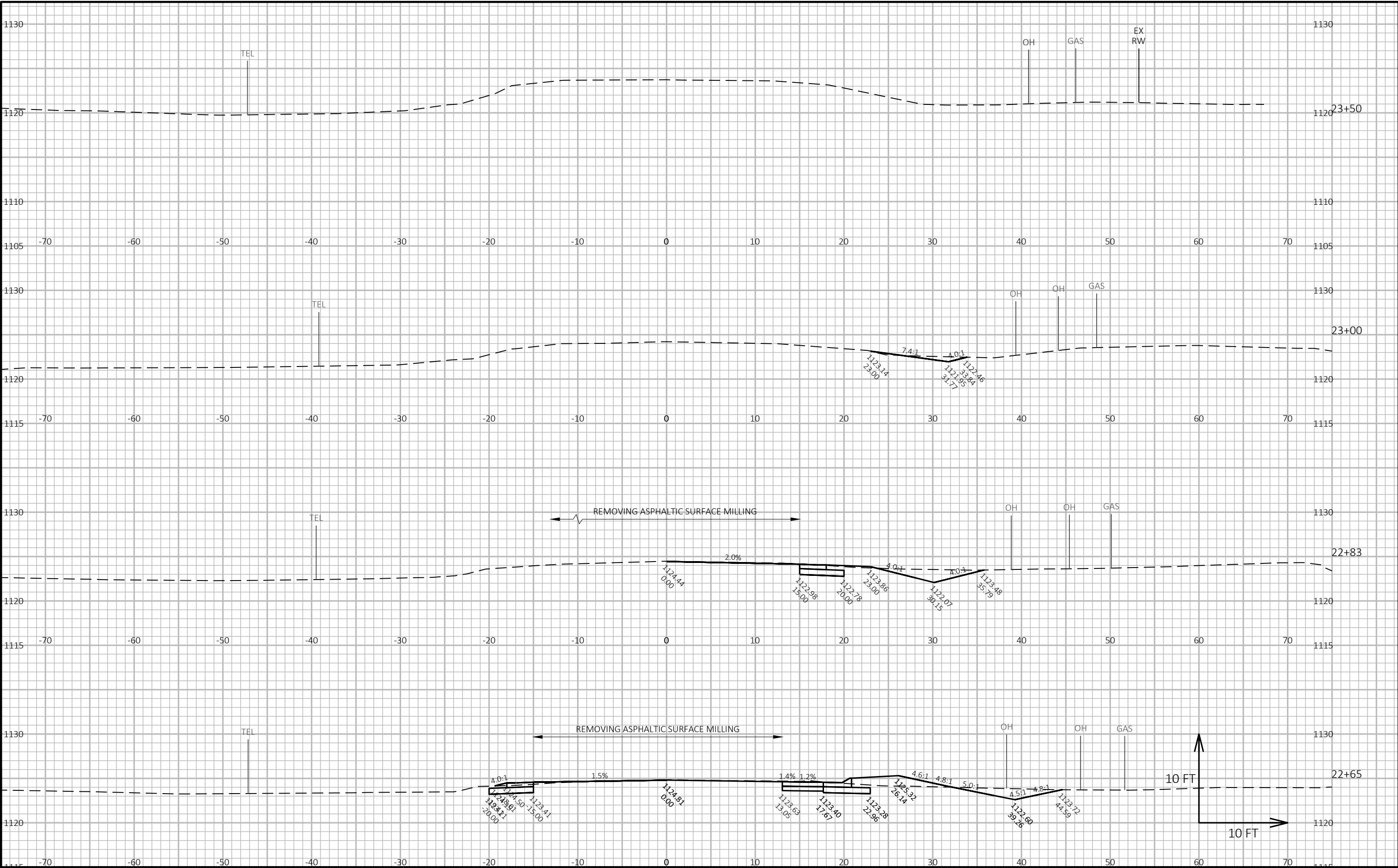
STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

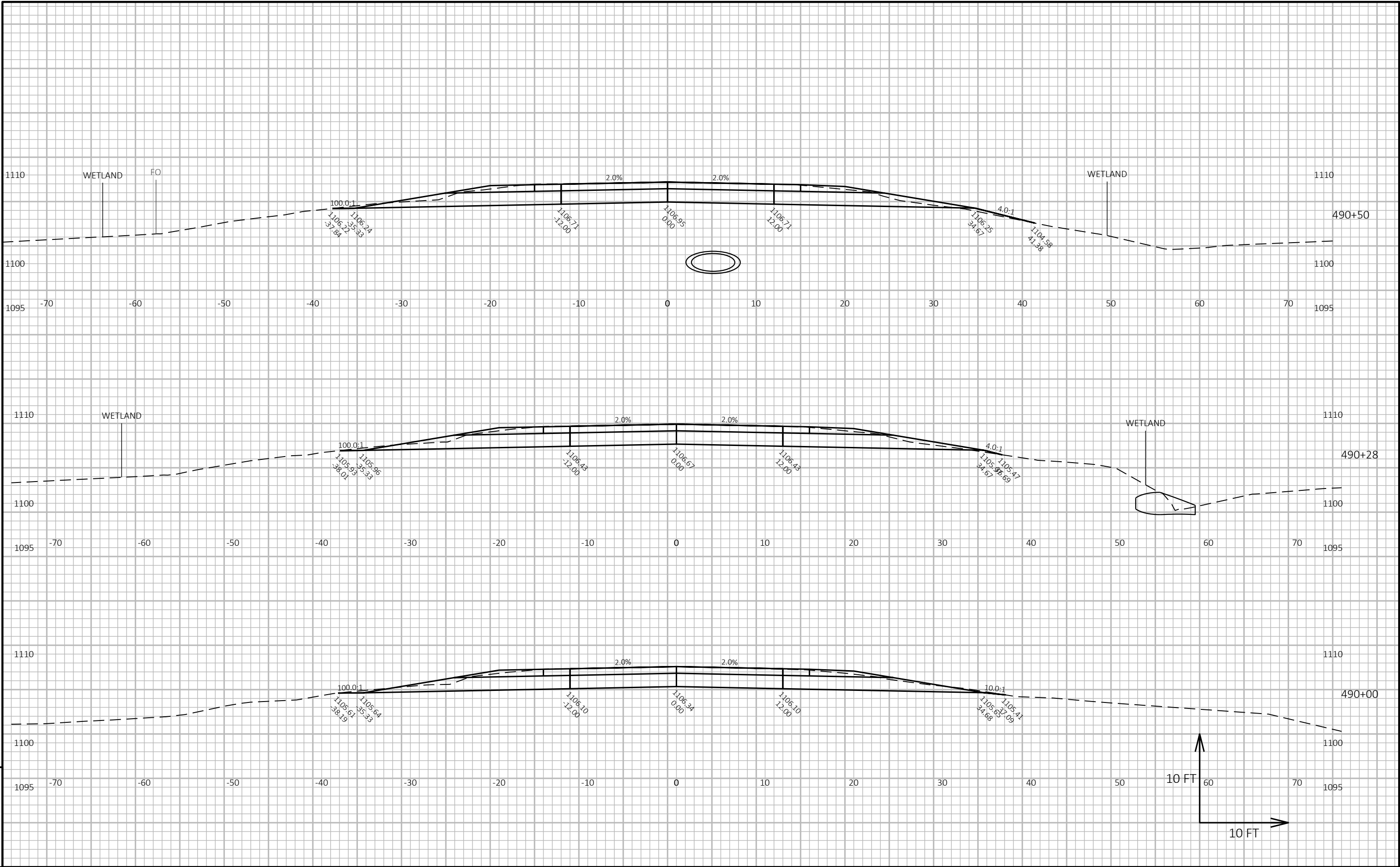
WISCONSIN DEPT OF TRANSPORTATION

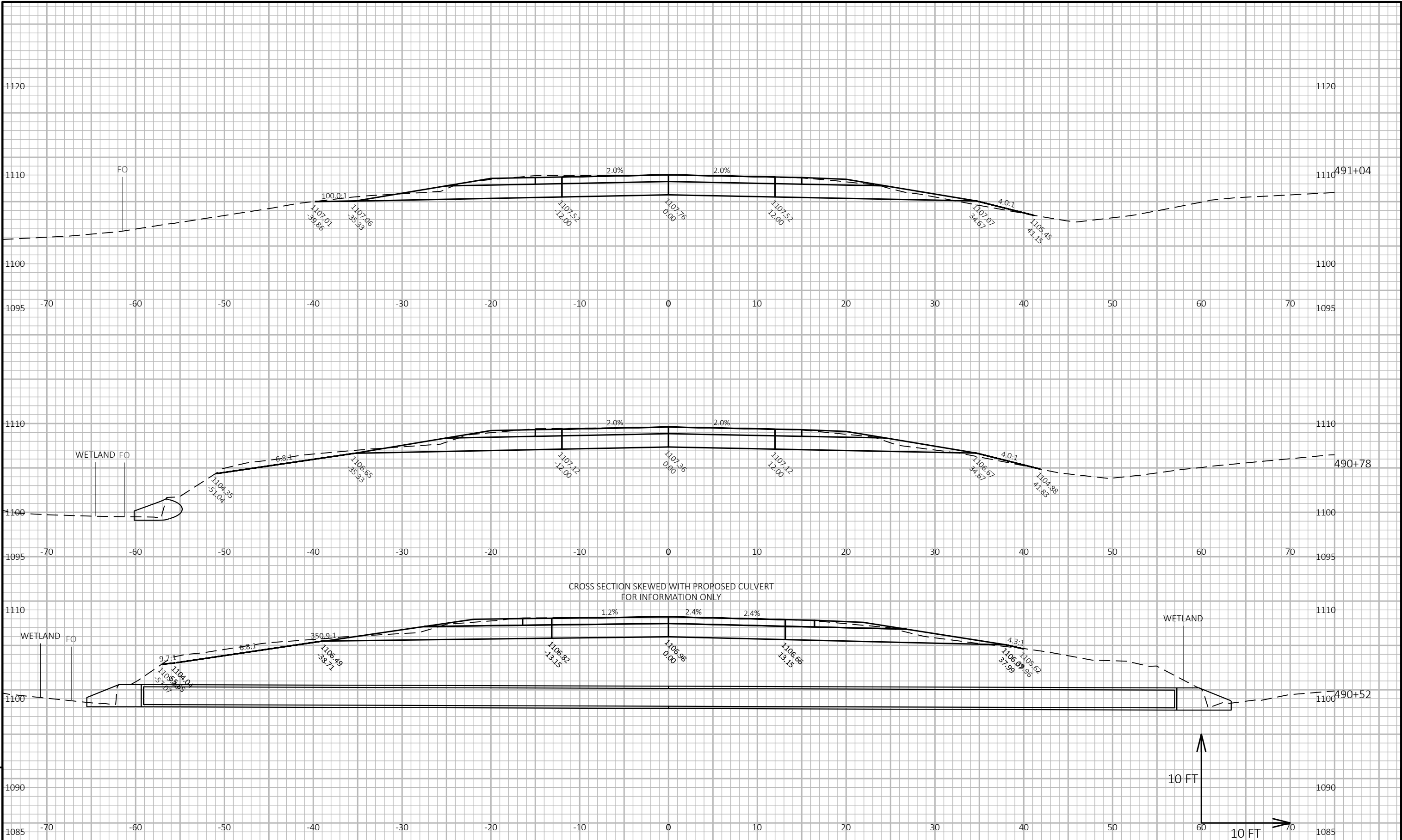
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

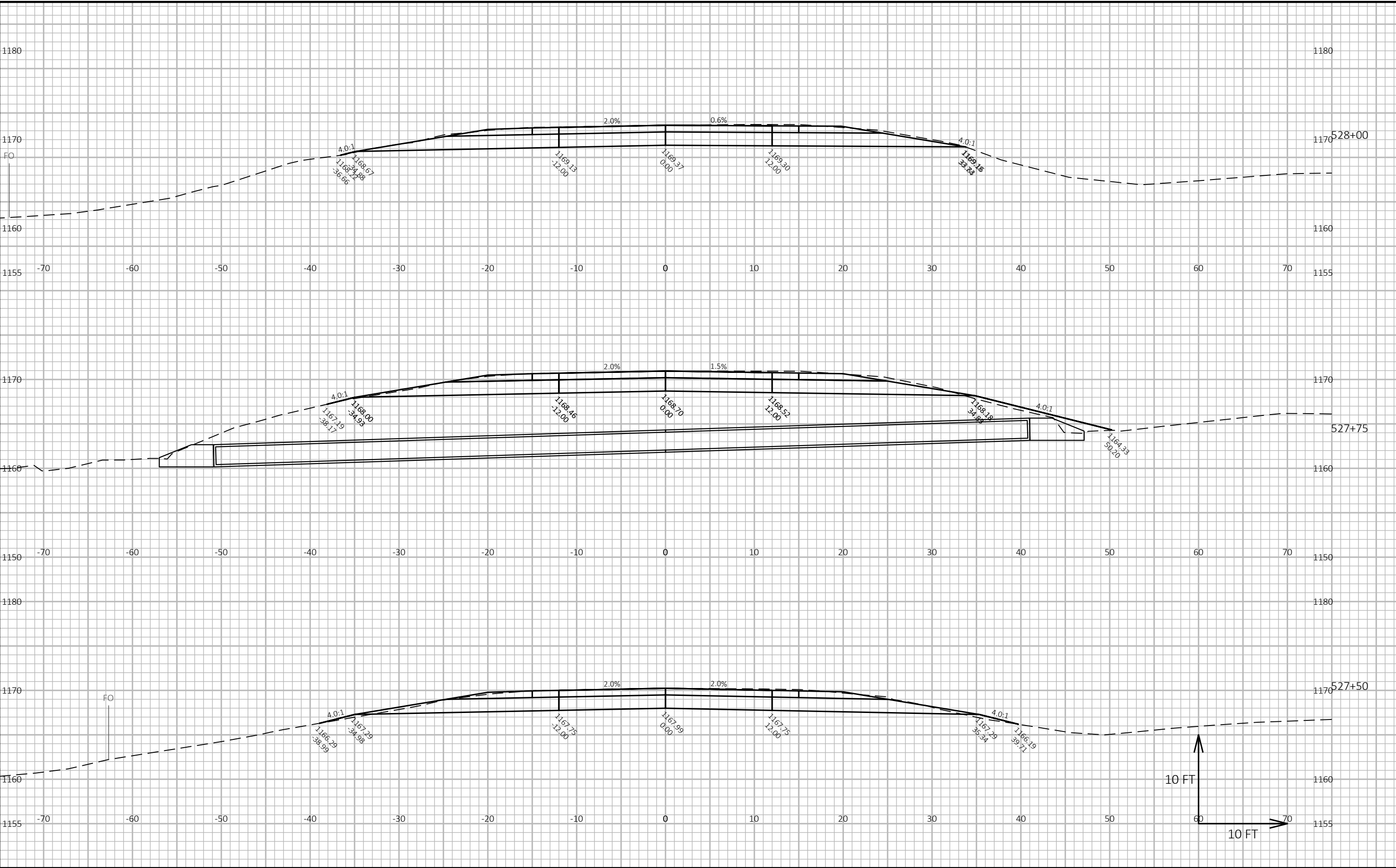
DATE 1/10/2024 PLATE NO. W20-1.12



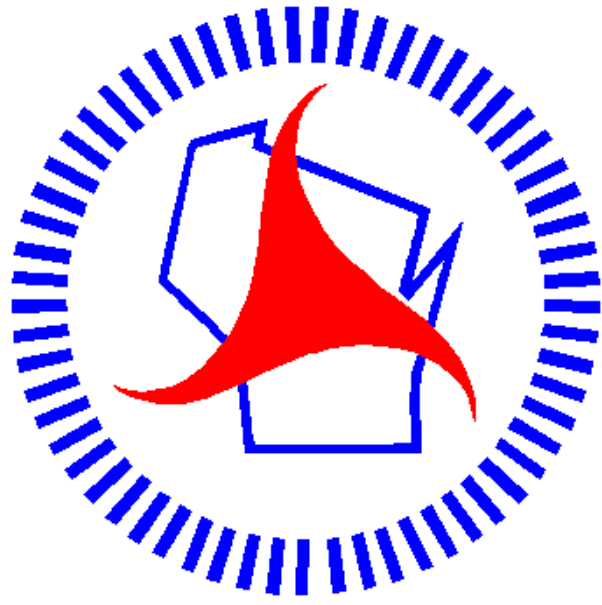








Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>