

MAD

PROJECT ID:
WITH: 6085-02-78

6085-02-76

12

COUNTY:

DANE

MARCH 2026
ORDER OF SHEETS

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

TOTAL SHEETS = 308



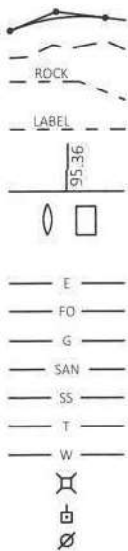
DESIGN DESIGNATION 6085-02-06

A.A.D.T.	2025	=	12,100
A.A.D.T.	2045	=	13,300
D.H.V.		=	1970
D.D.		=	50/50
T.		=	14.9%
DESIGN SPEED		=	50 MPH
ESALS		=	4,200,000

CONVENTIONAL SYMBOLS

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

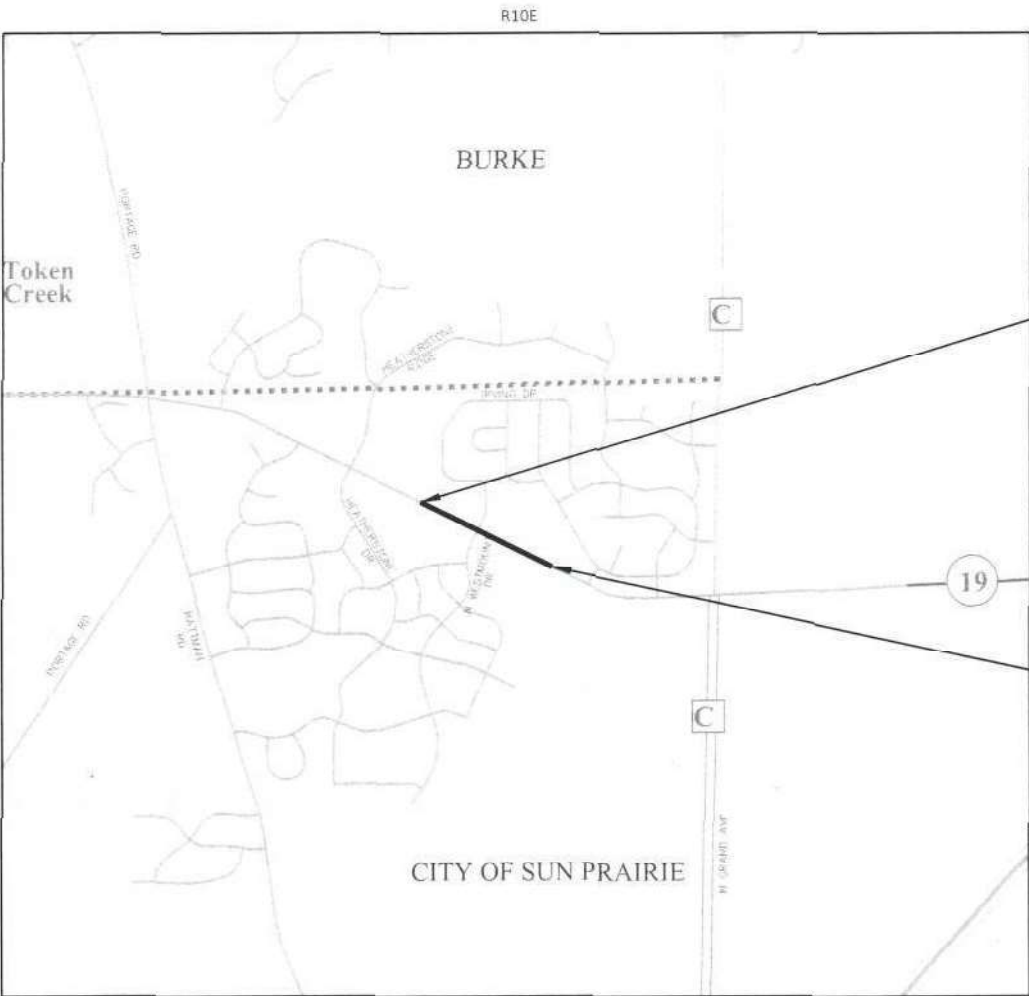
PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

MAZOMANIE - SUN PRAIRIE
WESTMOUNT DRIVE INTERSECTION
STH 19
DANE COUNTY

STATE PROJECT NUMBER
6085-02-76



BEGIN PROJECT
STA 109'EB'+10.00
Y = 524,967.536
X = 849,266.360

END PROJECT
STA 123'EB'+59.78

LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.275 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DANE COUNTY, NAD83 (2011), 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. GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6085-02-76		

ORIGINAL PLANS PREPARED BY

SRF



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	ONEIDA ENGINEERING SOLUTIONS
Designer	SRF CONSULTING GROUP, INC.
Project Manager	AMY COUGHLIN
Regional Examiner	SW REGION
Regional Supervisor	JIM SIMPSON

APPROVED FOR THE DEPARTMENT
DATE: 10/16/25
Signature: Amy Coughlin

E

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL DEPTH WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL BY THE ENGINEER IN THE FIELD.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

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

ALL WASTE MATERIAL RESULTING FROM THE VARIOUS CONSTRUCTION OPERATIONS SHALL BE ENTIRELY REMOVED AND PROPERLY DISPOSED OF IMMEDIATELY OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND RESTORATION (INCLUDING, BUT NOT LIMITED TO, SEED, FERTILIZER, MULCH, AND EROSION MAT) OF ANY DISTURBED AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AS DETERMINED BY THE ENGINEER.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, OR OTHER CONTROL POINTS MAY EXIST.

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 AREA NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

EROSION CONTROL FEATURES SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURES NOT LONGER NECESSARY.

DO NOT STORE EQUIPMENT OR MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS, OR WATERWAYS.

DO NOT PLACE FERTILIZER WITHIN 20 FEET OF WETLANDS OR WET DRAINAGE CHANNEL.

HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY

ADAM KROHN
6462 BLANCHAR'S CROSSING
WINDSOR, WI 53598
OFFICE: (608) 842-1705
CELL: (920) 290-5284
AdamKrohn@alliantenergy.com

ATC MANAGEMENT, INC.-
ELECTRICITY-TRANSMISSION

MATTHEW BROITZMAN
W234 N2000 RIDGEVIEW PKWY CT
WAUKESHA, WI 53188
CELL: (608) 322-0823
mbroitzman@atcllc.com

CITY OF SUN PRAIRIE - SEWER

TODD ANDERSON
300 EAST MAIN ST
SUN PRAIRIE, WI 53590
OFFICE: (608) 825-0864
CELL: (608) 235-6802
tanderson@cityofsunprairie.com

EVERSTREAM - COMMUNICATIONS

ABBY STEIN
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
(262) 442-9427
astein@everstream.net

FRONTIER COMMUNICATIONS OF WI LLC-
COMMUNICATIONS

CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
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christopher.pollack@ftr.com

MCI - COMMUNICATIONS

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NEW BERLIN, WI 53151
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randy.cicatello@verizon.com

SPECTRUM COMMUNICATIONS-
COMMUNICATIONS

BRAD WAGNER
2701 DANIELS ST
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brad.wagner@charter.com

SUN PRAIRIE UTILITIES - ELECTRICITY

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CELL: (608) 445-7035
ahirvela@myspu.org

SUN PRAIRIE UTILITIES - WATER

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TDS METROCOM LLC - COMMUNICATIONS

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WE ENERGIES - GAS/PETROLEUM

NICK WAGNER
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WEST ALLIS, WI 53214
OFFICE: (414) 944-5662
CELL: (262) 395-0666
nicholas.wagner@we-energies.com

DNR CONTACT

ERIC HEGGELUND
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
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eric.heggelund@wisconsin.gov

WISDOT CONTACT

AMY COUGHLIN
WISCONSIN DEPARTMENT OF TRANSPORTATION, SW REGION
2101 WRIGHT STREET
MADISON, WI 53704
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amy.coughlin@dot.wi.gov

DESIGN CONTACT

BRIAN GENSKOW
SRF CONSULTING GROUP
1600 ASPEN COMMONS, SUITE 650
MIDDLETON, WI 53562
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bgenskow@srfconsulting.com

OTHER FACILITY CONTACTS

SUN PRAIRIE UTILITIES - STREET LIGHTING

ANDREW HIRVELA
125 W. MAIN ST
SUN PRAIRIE, WI 53590
OFFICE: (608) 837-5500
CELL: (608) 445-7035
ahirvela@myspu.org

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
UNDERDRAIN PLAN
PERMANENT SIGNING
LIGHTING PLAN
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT DETAILS

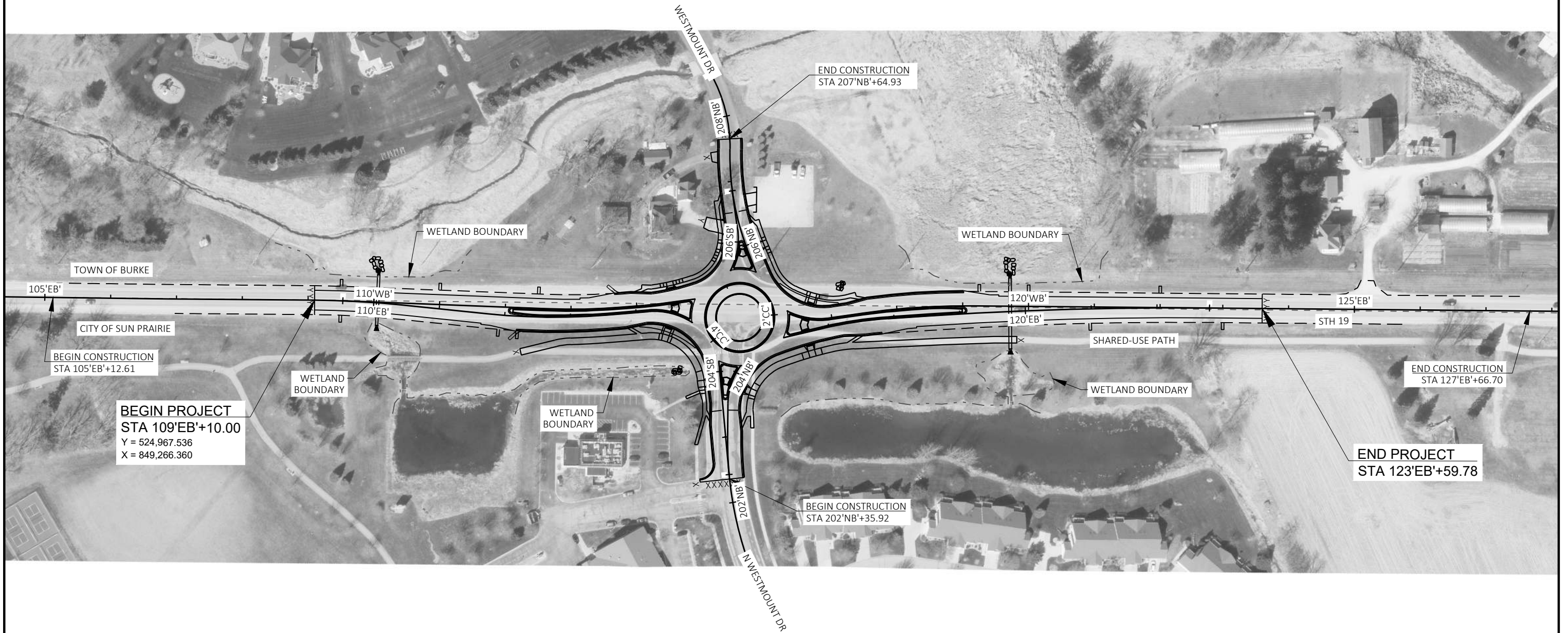
ROADWAY SOIL BORING SUMMARY TABLE						
BORING #	STATION	OFFSET	BITUMINOUS	CONCRETE	SAND/ GRAVEL	SUBGRADE
B1	113'EX'+24	20.5 LT	-	-	-	-
B2	118'EX'+64	30.2 LT	-	-	-	-
B3	206'NB'+79	17.0 LT	4	-	24	-

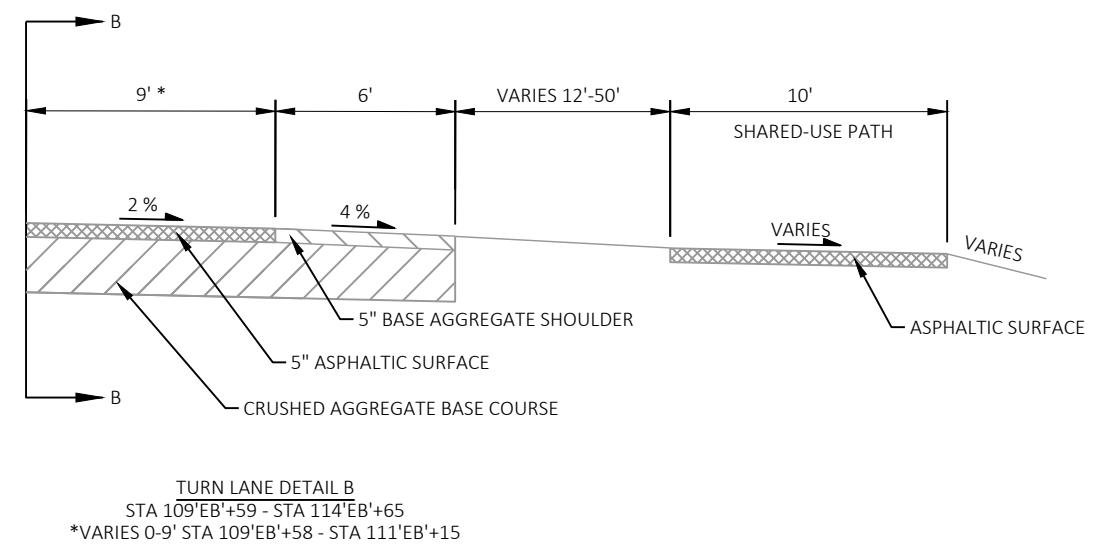
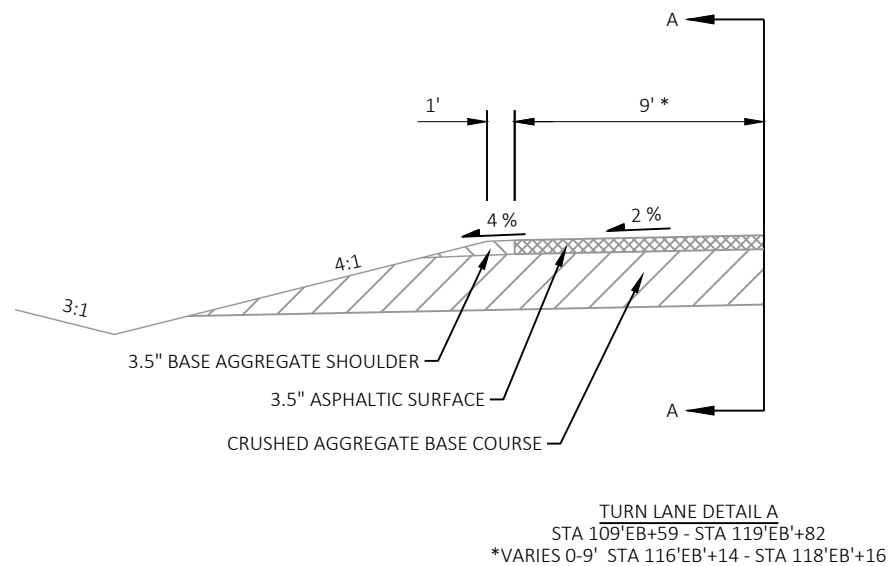
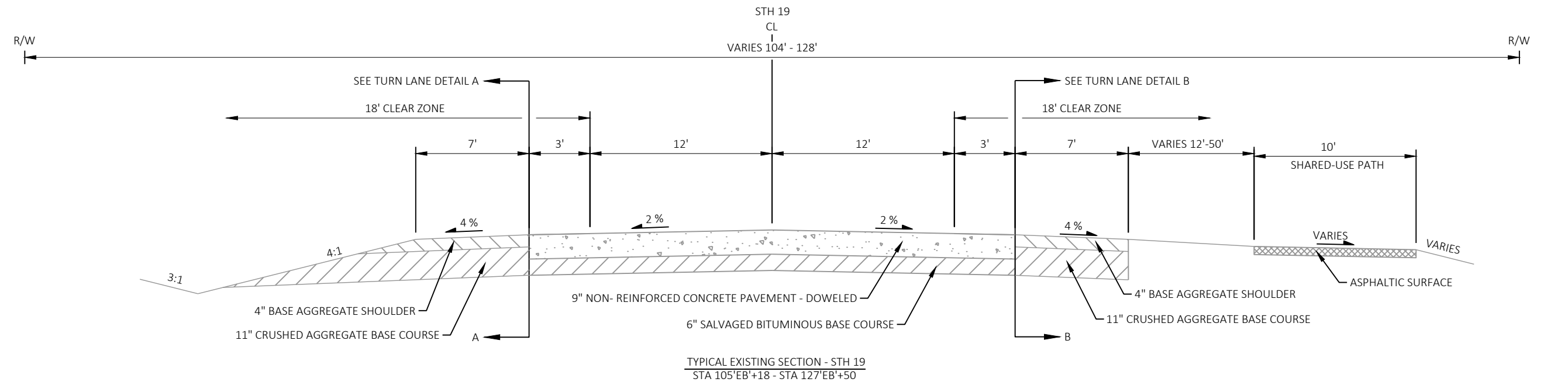
NOTES:
DATE BORINGS TAKEN: 3/21/2022 - 3/24/2022
FOR REFERENCE PURPOSES ONLY
ALL DEPTHS ARE IN INCHES

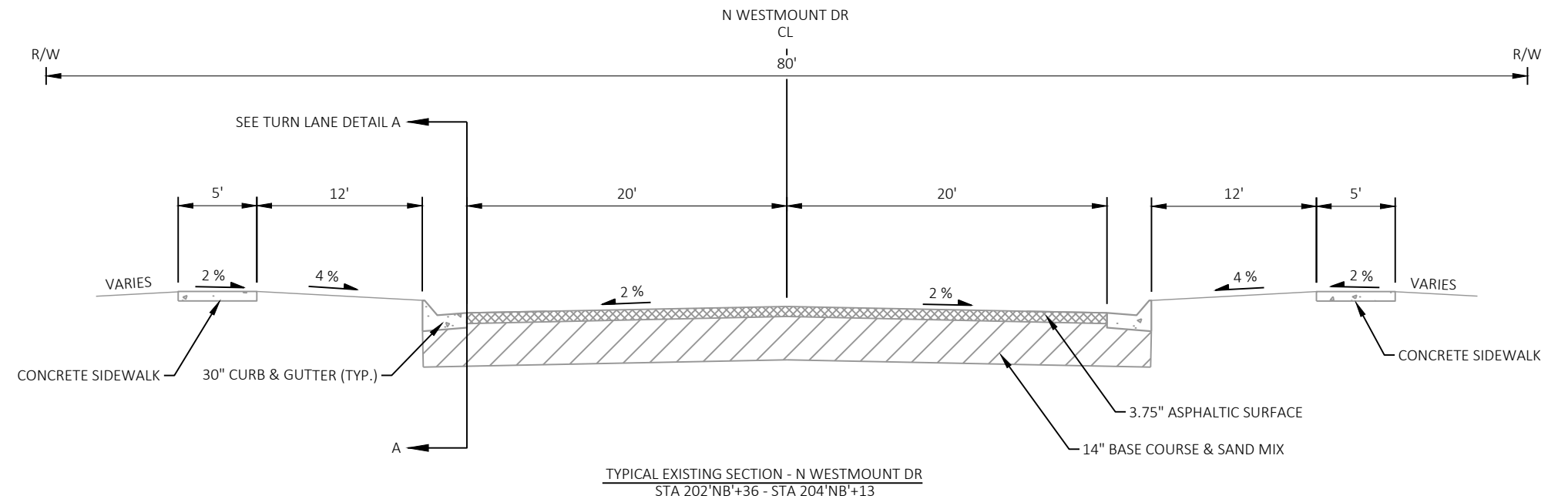
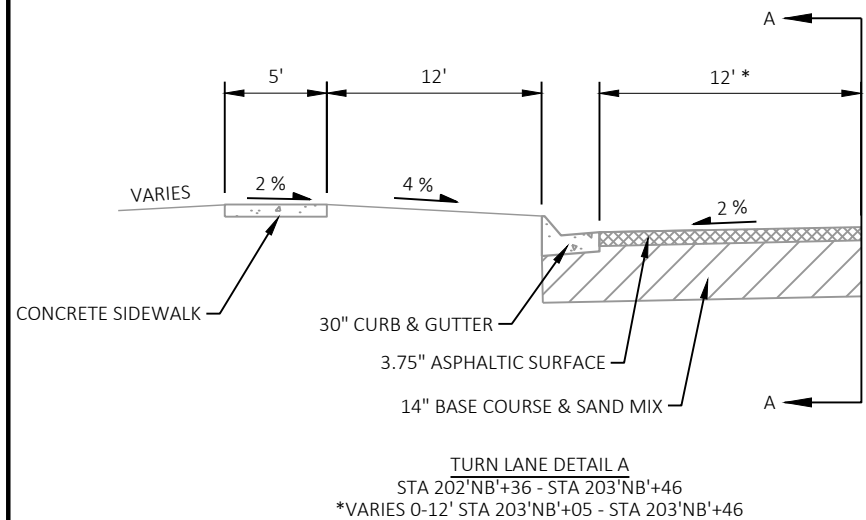
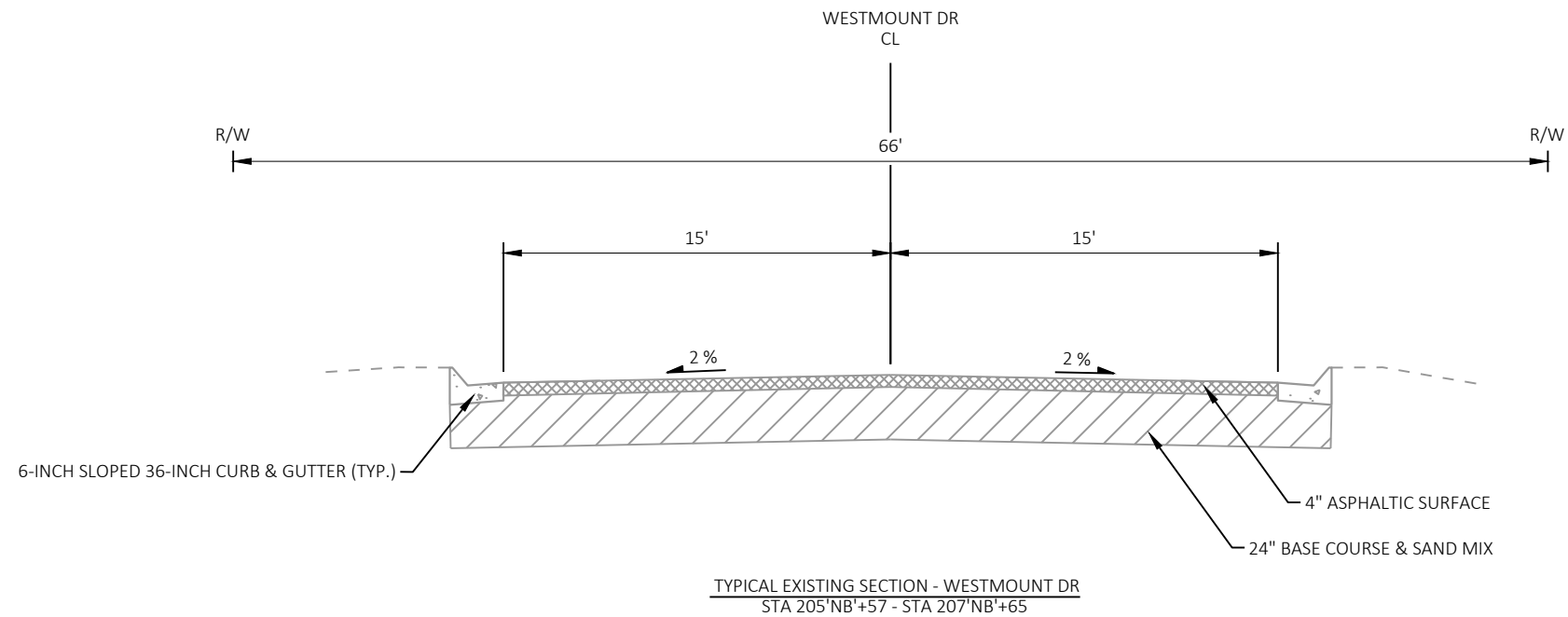
STANDARD ABBREVIATIONS

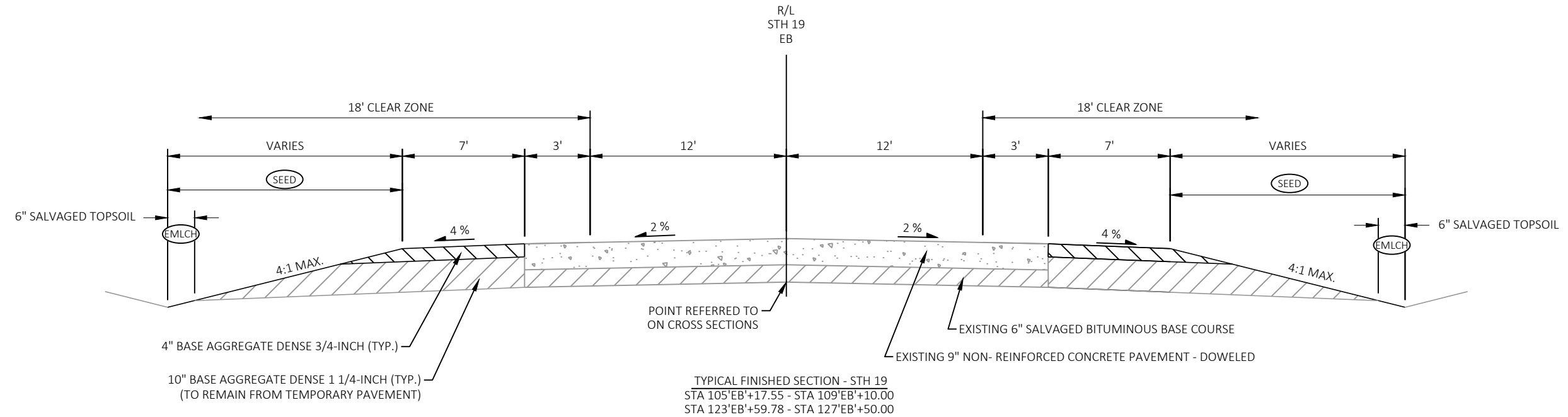
AP	Access Point	IP	Iron Pipe or Pin
AC	Acre	LT	Left
AGG	Aggregate	LF	Linear Foot
AADT	Annual Average Daily Traffic	ML or M/L	Match Line
ASPH	Asphaltic	MH	Manhole
BL	Base Line	MP	Marker Post
BM	Bench Mark	MB	Message Board
CE	Commercial Entrance	NOM	Nominal
CL	Center Line	NOR	Normal
CONC	Concrete	NC	Normal Crown
CO	County	NB	Northbound
CABC	Crushed Aggregate Base Course	PAVT	Pavement
CTH	County Trunk Highway	PERM	Permanent
CY	Cubic Yard	PE	Private Entrance
CULV	Culvert	PCC	Portland Cement Concrete
CP	Culvert Pipe	PLE	Permanent Limited Easement
C&G	Curb & Gutter	PROJ	Project
DIA	Diameter	PL	Property Line
DHV	Design Hour Volume	RL	Reference Line
DD	Directional	RT	Right
DWY	Driveway	R/W	Right-of-Way
EB	Eastbound	RD	Road
ELEC	Electric (al)	RDWY	Roadway
EL or ELEV	Elevation	SHLDR	Shoulder
EW	Endwall	SB	Southbound
ESALS	Equivalent Single Axle Loads	STH	State Trunk Highways
EXC	Excavation	STA	Station
EBS	Excavation Below Subgrade	SE	Superelevation
FP	Fence Post	SI	Slope Intercept
FERT	Fertilizer	SS	Storm Sewer
F	Fill	TEL	Telephone
FG	Finished Grade	TEMP	Temporary
FL or F/L	Flow Line	TLE	Temporary Limited Easement
FO	Fiber Optic	TV	Television
FT	Foot	UG	Underground
CWT	Hundredweight	USH	United States Highway
HYD	Hydrant	VOL	Volume
IN DIA	Inch Diameter	W	Water
INL	Inlet	WB	Westbound
INV	Invert		









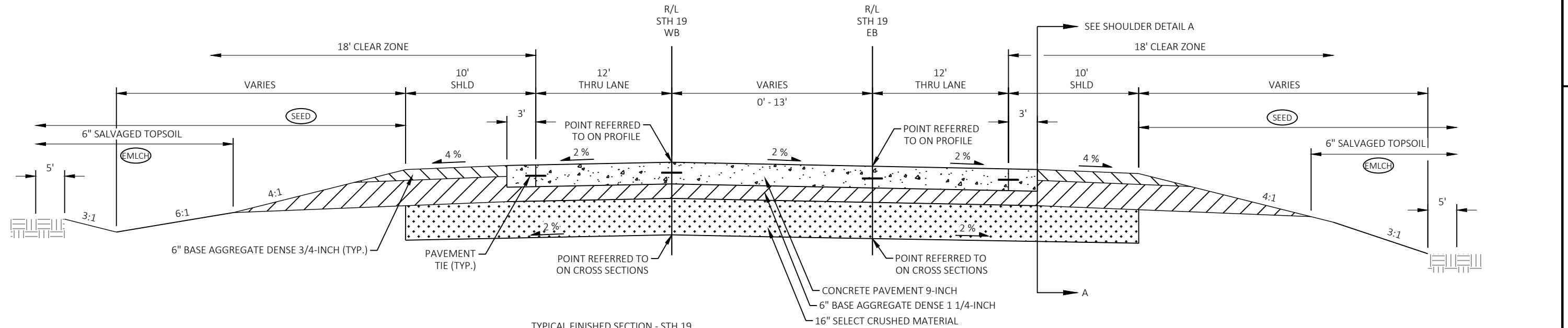


NOTES:

-  SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.
-  SEE MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLANS FOR MULCH AND EROSION MAT LOCATIONS.

2

2 |

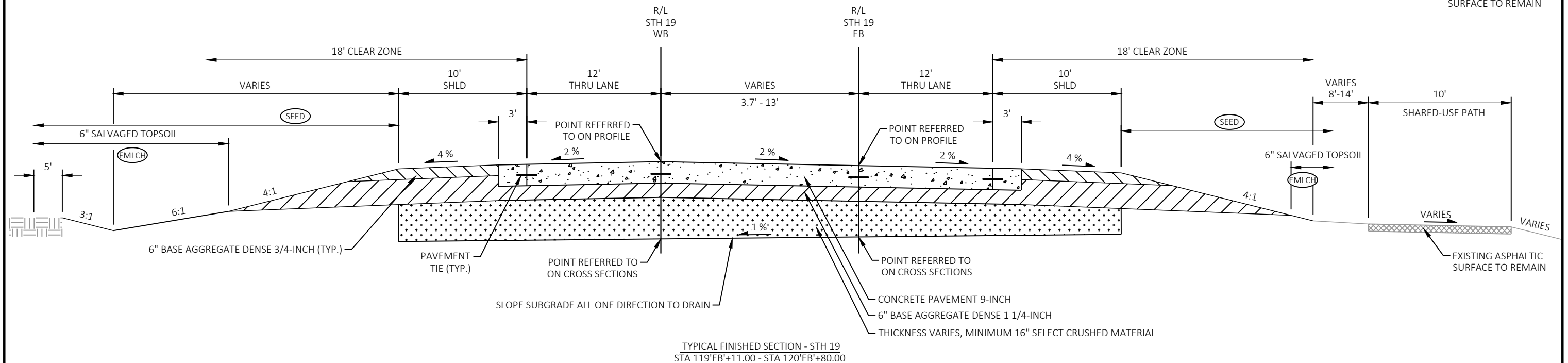
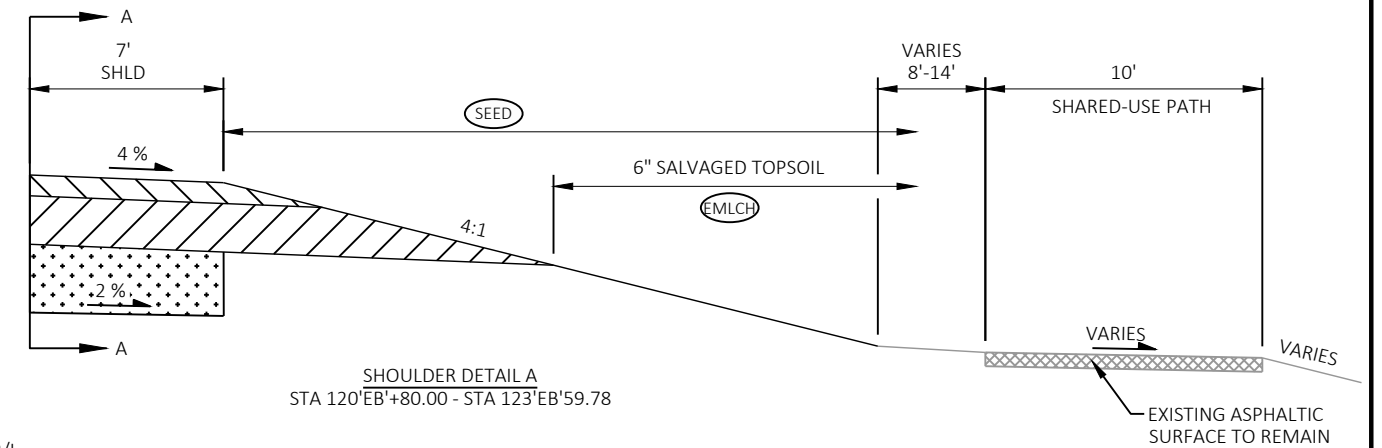


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SPECIFIC SEEDING, SEEDING TEMPORARY,
AND FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE MISCELLANEOUS QUANTITIES AND
EROSION CONTROL PLANS FOR MULCH AND
EROSION MAT LOCATIONS.

TYPICAL FINISHED SECTION - STH 19
STA 109'EB+10.00 - STA 112'EB'+04.99
STA 120'EB'+80.00 - STA 123'EB'+59.78



PROJECT NO:	6085-02-76
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HWY: STH 19

COUNTY: DANE

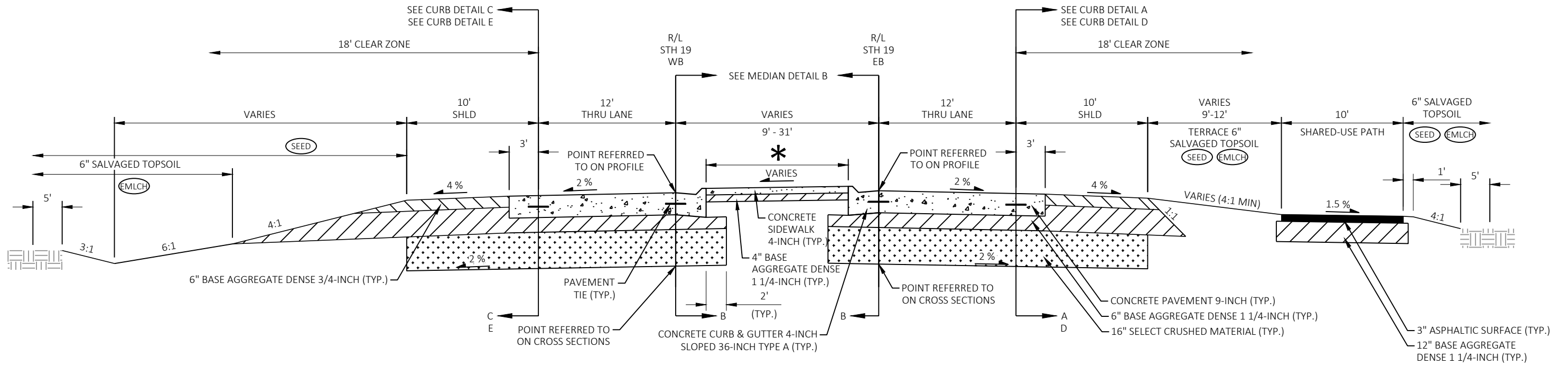
TYPICAL SECTIONS

SHEET

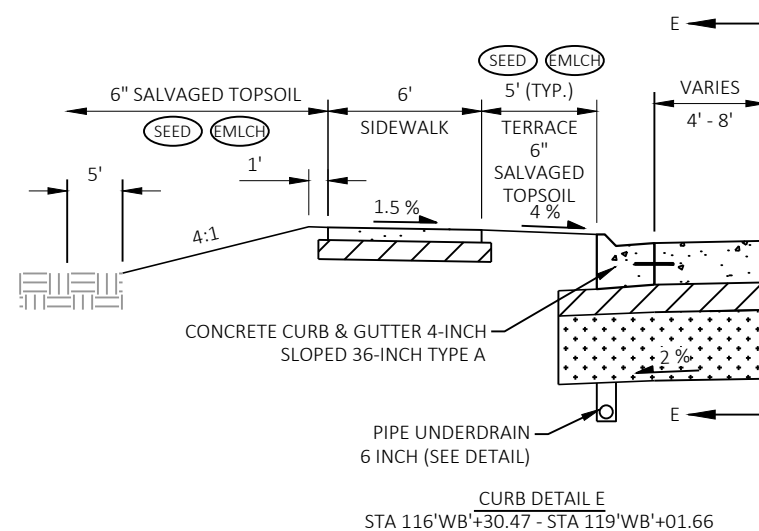
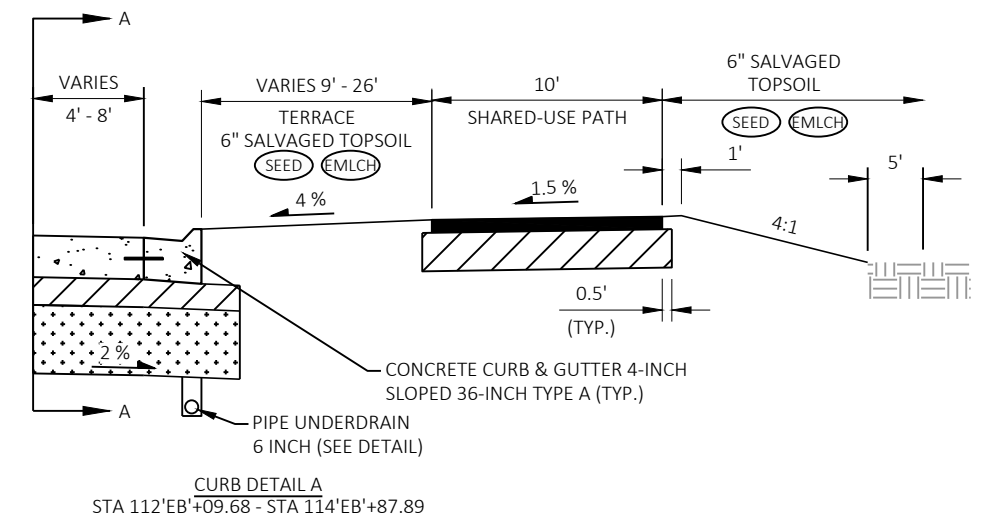
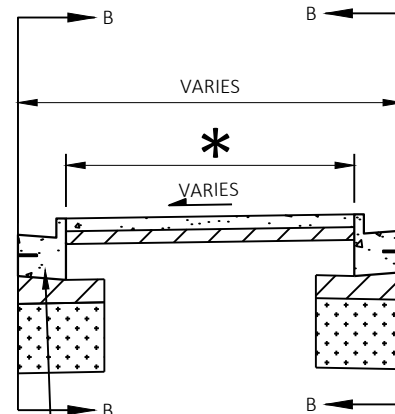
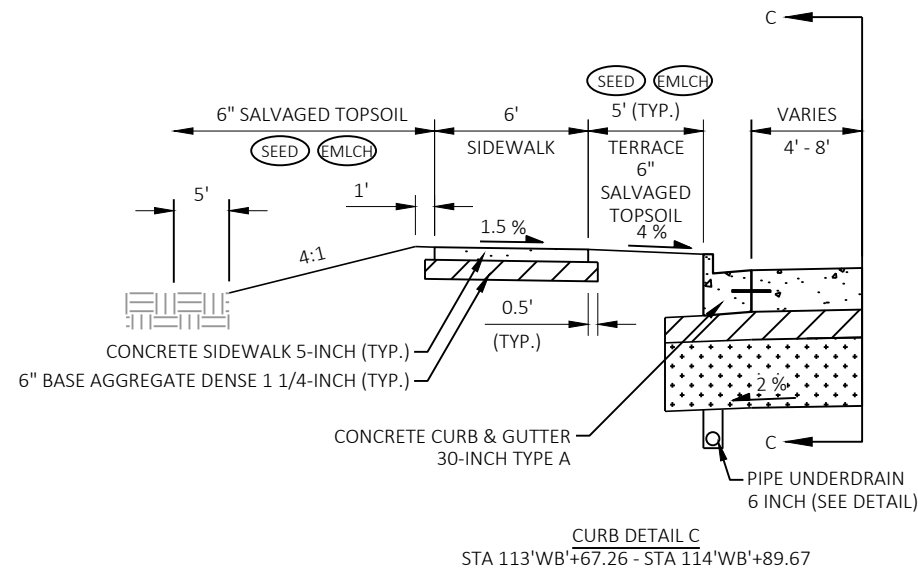
1

2

2 |



TYPICAL FINISHED SECTION - STH 19
STA 112'EB'+04.99 - STA 114'EB'+87.89
STA 112'WB'+04.89 - STA 114'WB'+89.67
STA 116'EB'+28.70 - STA 119'EB'+11.00
STA 116'WB'+30.47 - STA 119'WB'+06.27



CONCRETE CURB & GUTTER
30-INCH TYPE A (TYP.)

MEDIAN DETAIL B
STA 113'EB'+34.10 - STA 114'EB'+87.89
STA 113'WB'+32.80 - STA 114'WB'+89.67
STA 116'EB'+28.70 - STA 117'EB'+90.92
STA 116'WB'+30.47 - STA 117'WB'+83.59

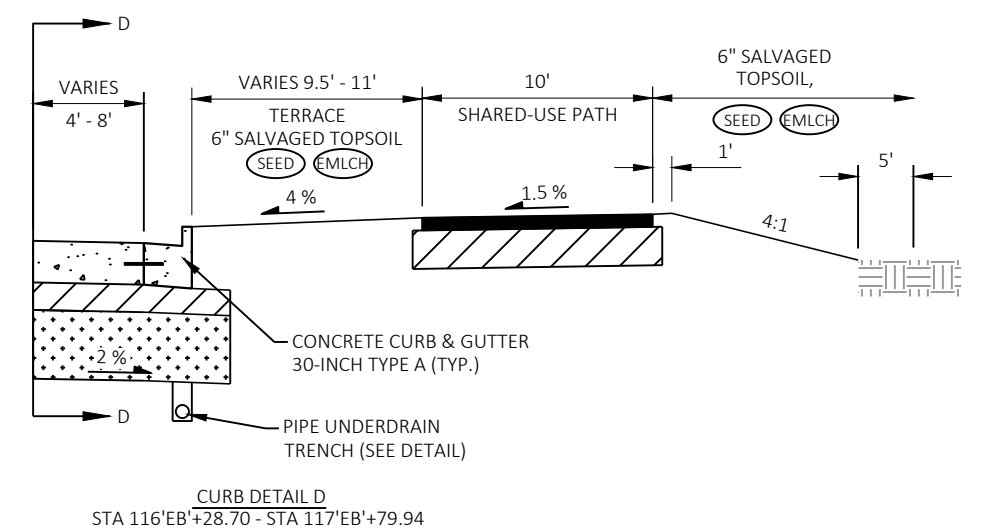
NOTES:

SEE PLAN DETAILS FOR LOCATIONS OF CONCRETE CURB & GUTTER

* WHEN 5' OR LESS PROVIDE BASE LAYERS ACROSS ENTIRE MEDIAN

SEED SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLANS FOR MULCH AND EROSION MAT LOCATIONS.



PROJECT NO:	6085-02-76
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HWY: STH 19

COUNTY: DANE

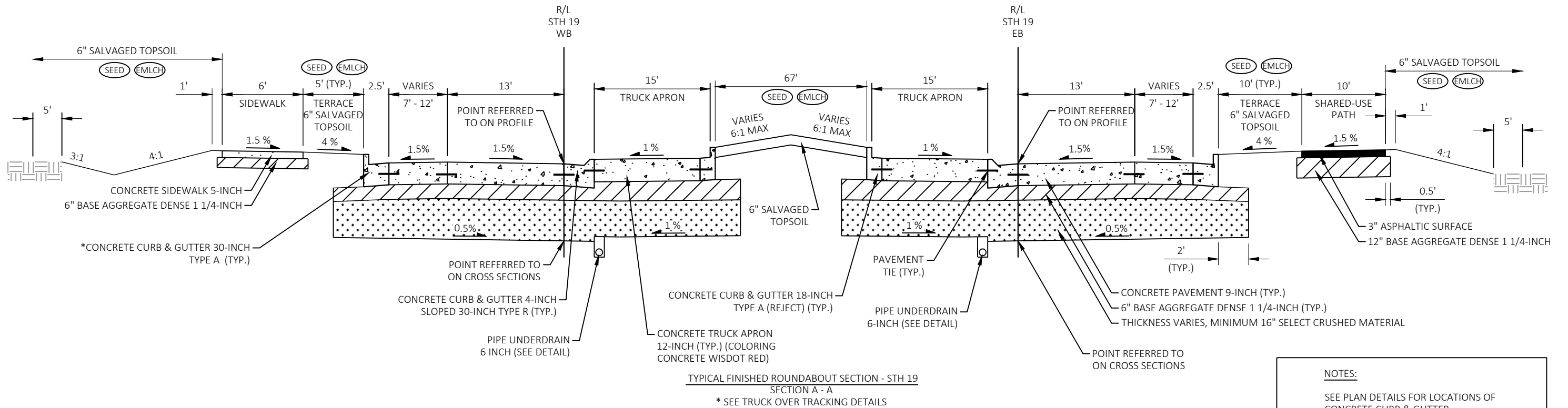
TYPICAL SECTIONS

SHEET

3

3

2



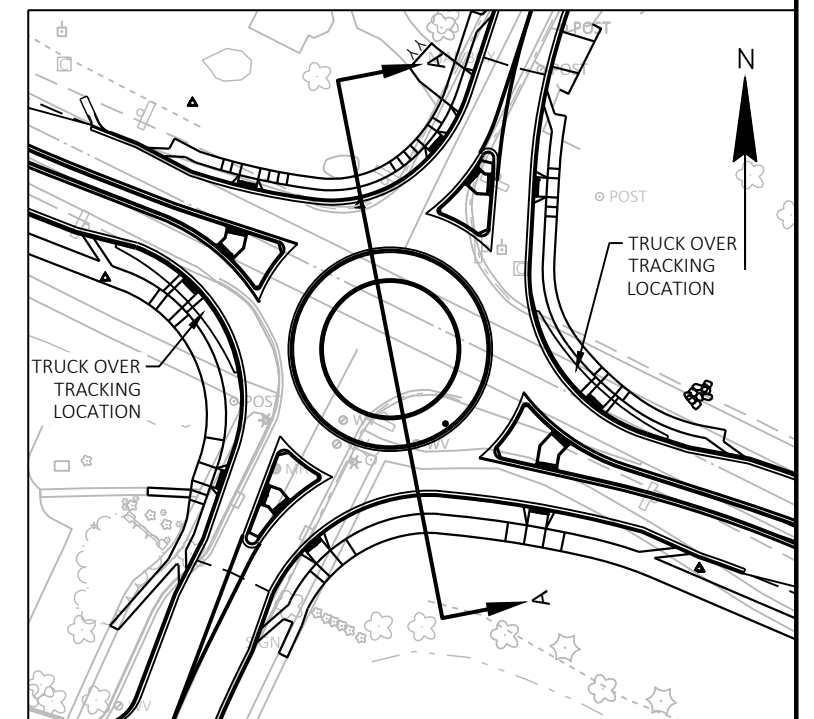
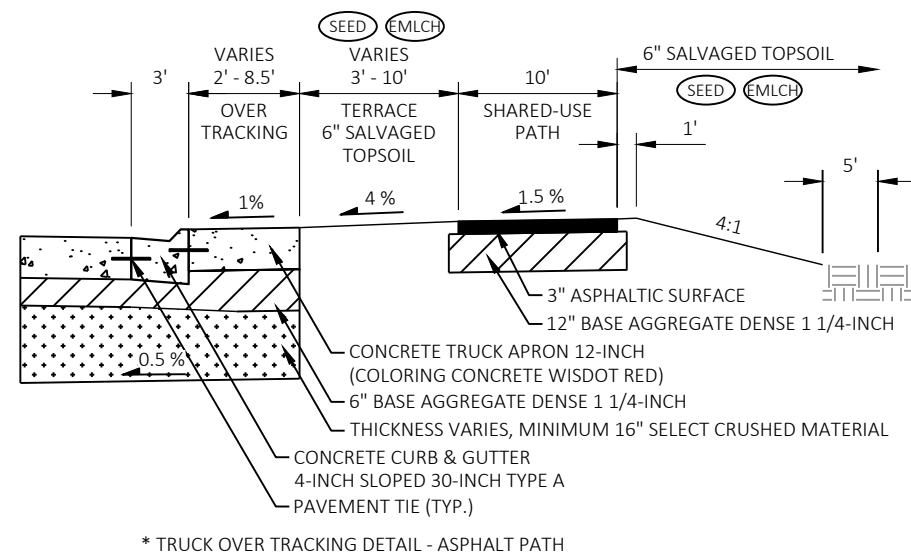
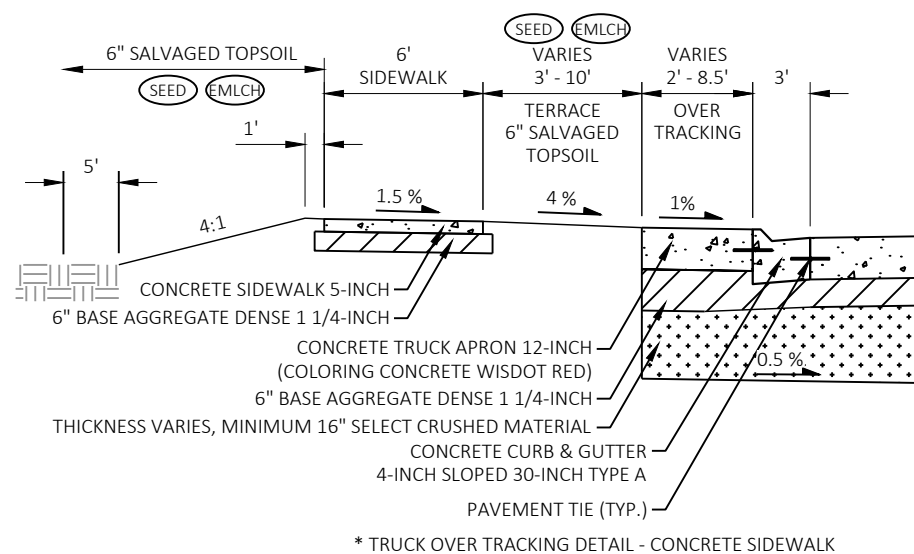
NOTES:

SEE PLAN DETAILS FOR LOCATIONS OF
CONCRETE CURB & GUTTER

SEE PLAN DETAILS FOR LOCATIONS OF
CONCRETE TRUCK APRONS 12-INCH FOR
TRUCK OVER TRACKING

SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.

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PROJECT NO:	6085-02-76
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HWY: STH 19

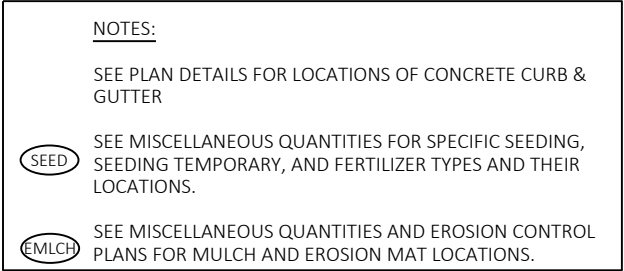
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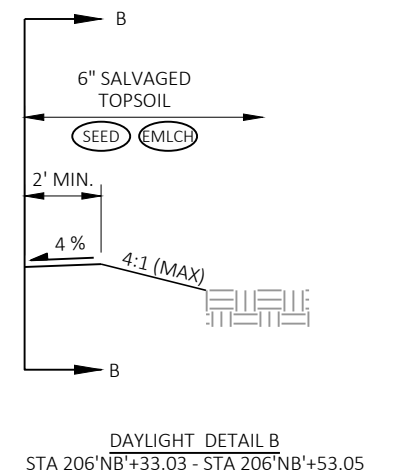
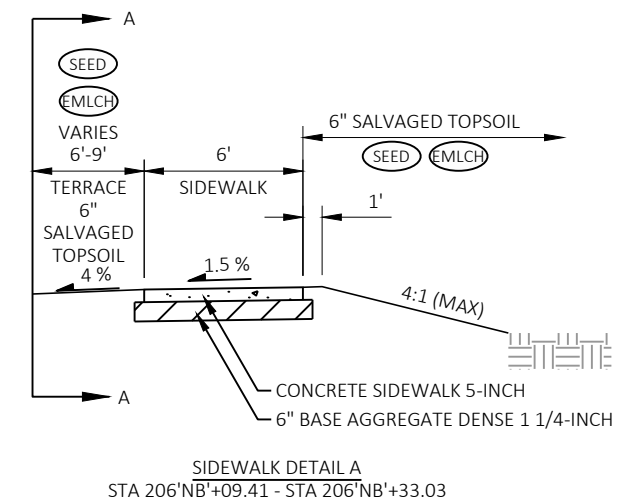
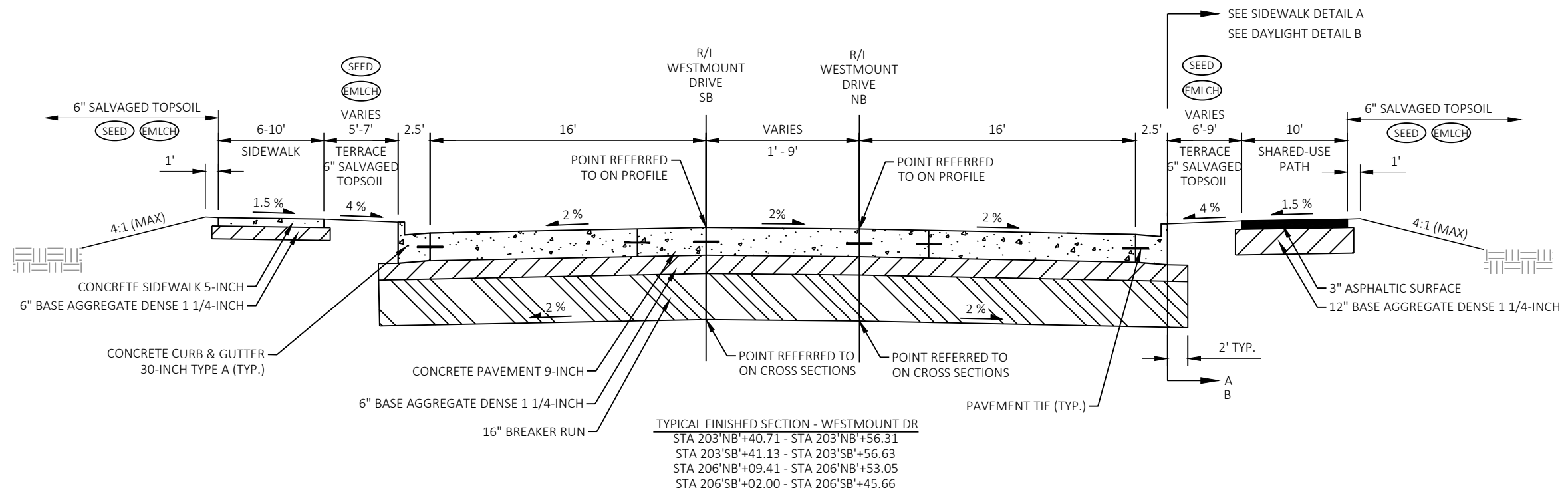
TYPICAL SECTIONS

SHEET

1

2



**NOTES:**

SEE PLAN DETAILS FOR LOCATIONS OF CONCRETE CURB & GUTTER

SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.

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HWY: STH 19

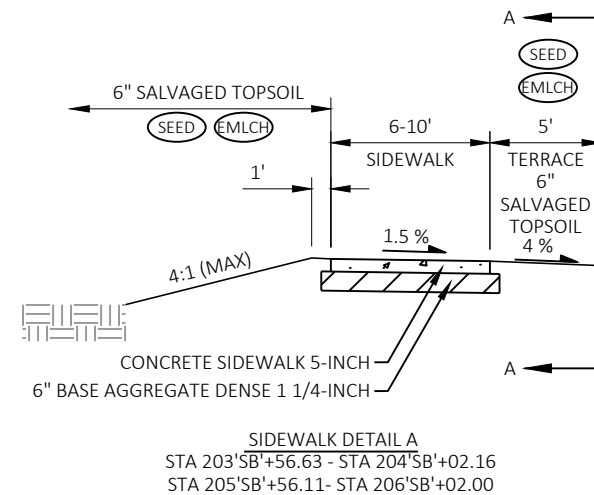
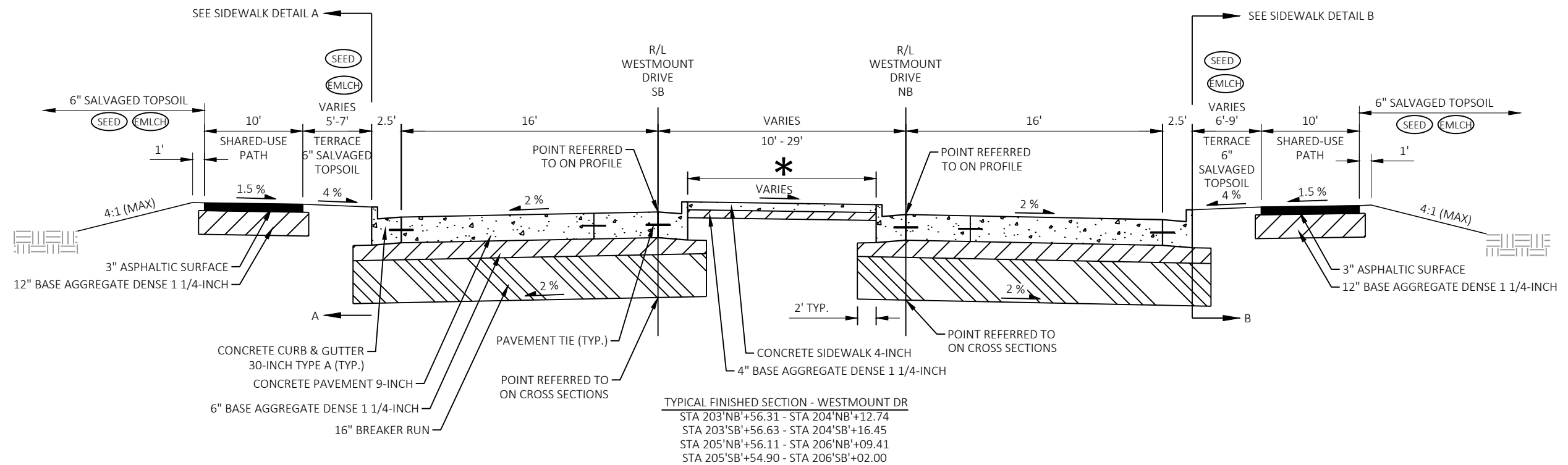
COUNTY: DANE

TYPICAL SECTIONS

SHEET

11

E



NOTES:

SEE PLAN DETAILS FOR LOCATIONS OF CONCRETE CURB & GUTTER



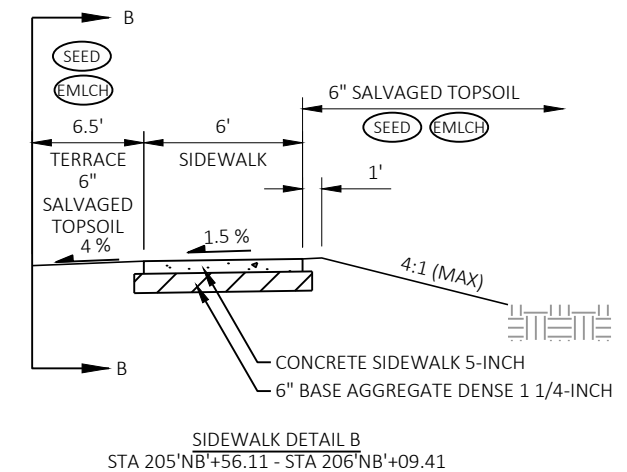
WHEN 5' OR LESS PROVIDE BASE LAYERS ACROSS ENTIRE MEDIAN

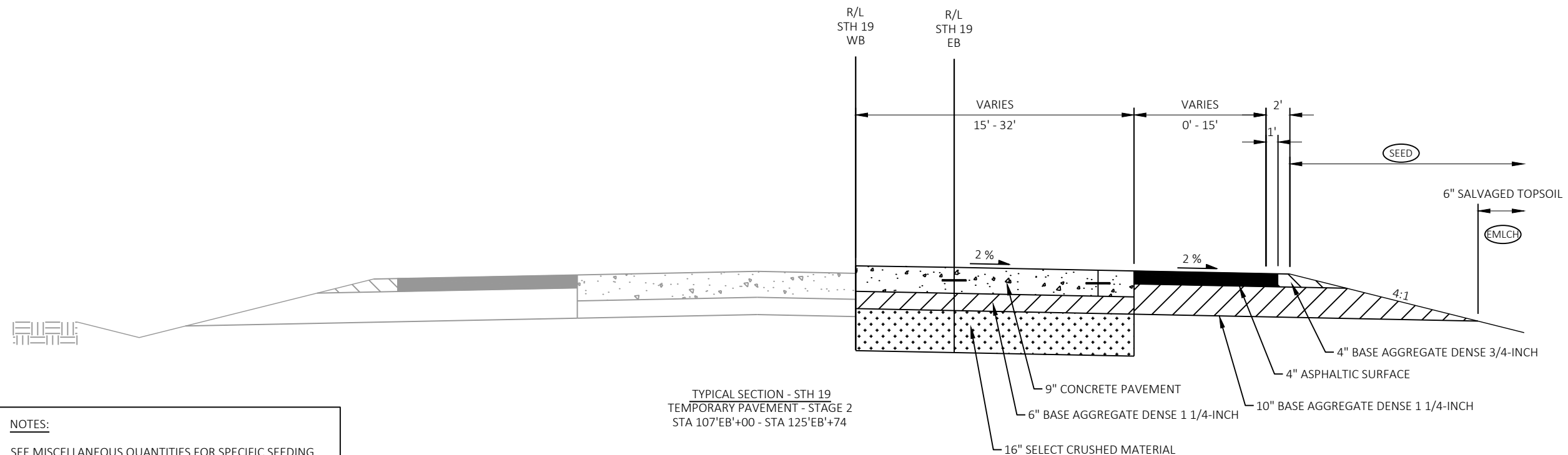
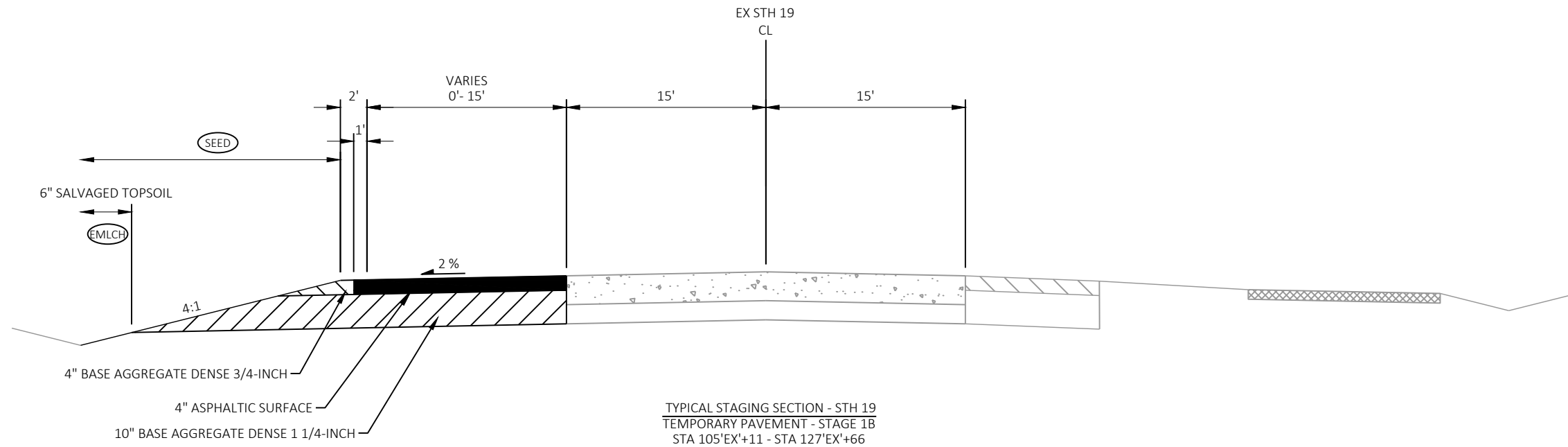


SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.



SEE MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLANS FOR MULCH AND EROSION MAT LOCATIONS.



**NOTES:**

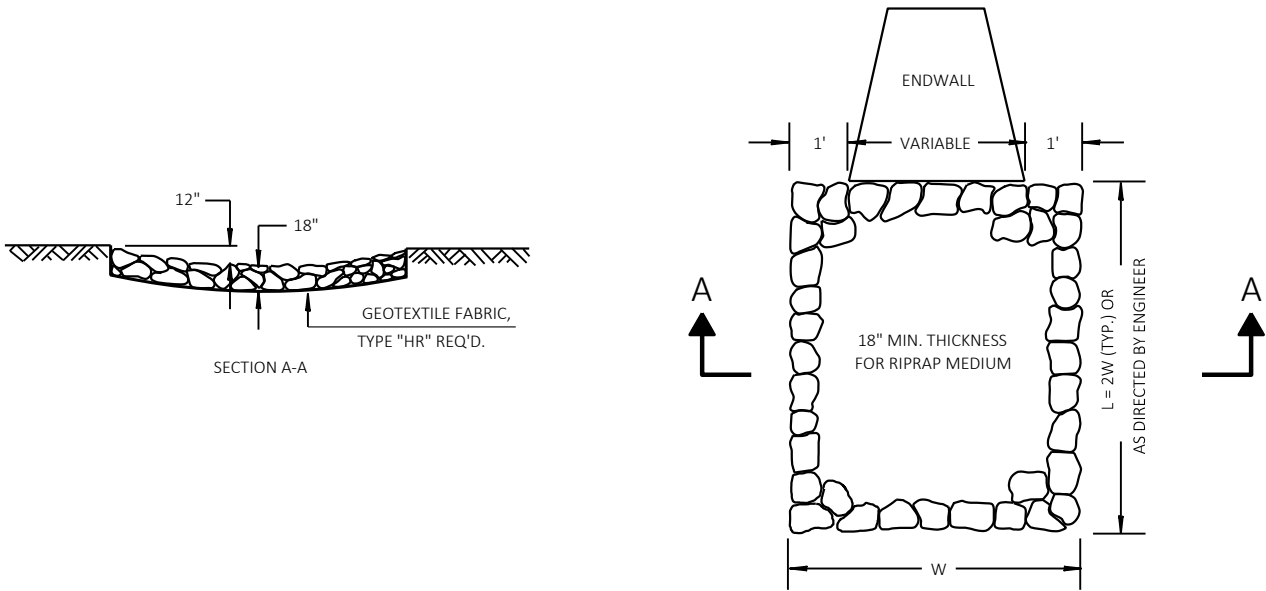
(SEED) SEE MISCELLANEOUS QUANTITIES FOR SPECIFIC SEEDING, SEEDING TEMPORARY, AND FERTILIZER TYPES AND THEIR LOCATIONS.

(EMLCH) SEE MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLANS FOR MULCH AND EROSION MAT LOCATIONS.

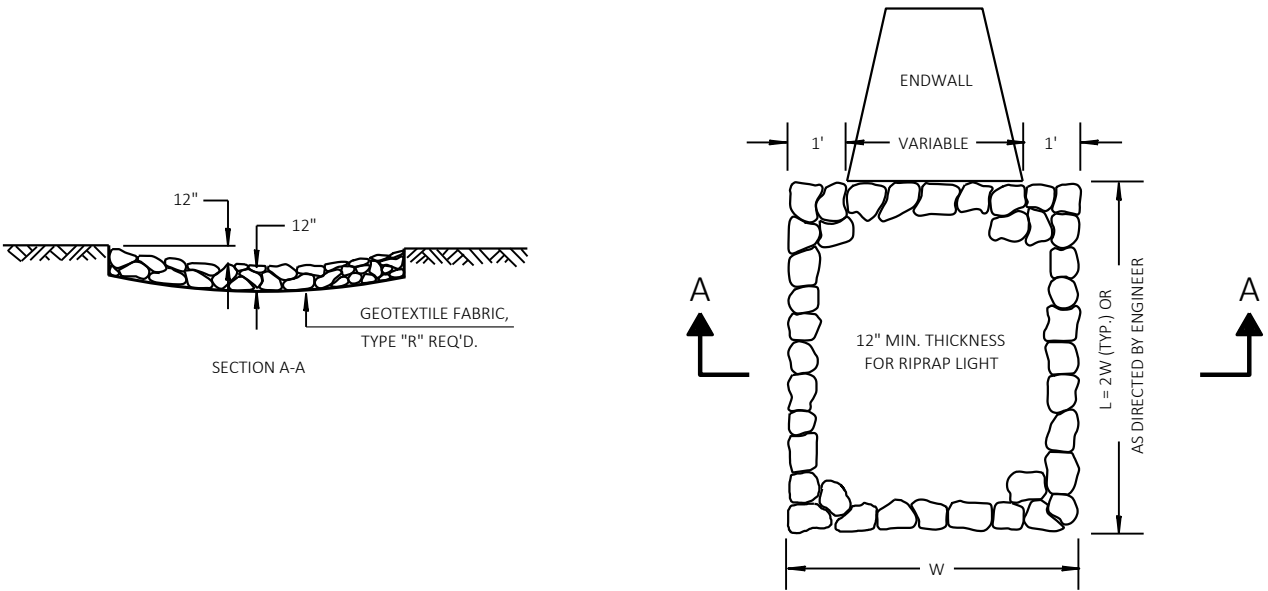
RUNOFF COEFFICIENT TABLE

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

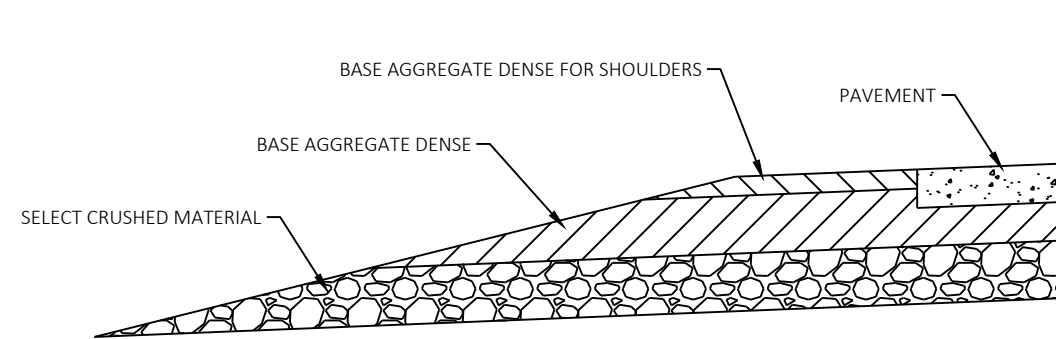
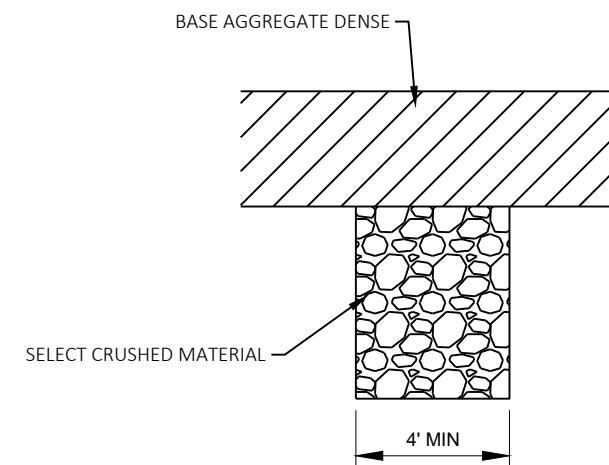
TOTAL PROJECT AREA = 5.37 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.81 ACRES



RIPRAP MEDIUM TREATMENT AT CULVERTS
SEE EROSION CONTROL PLANS FOR ADDITIONAL
DETAILS AND DIMENSIONS.

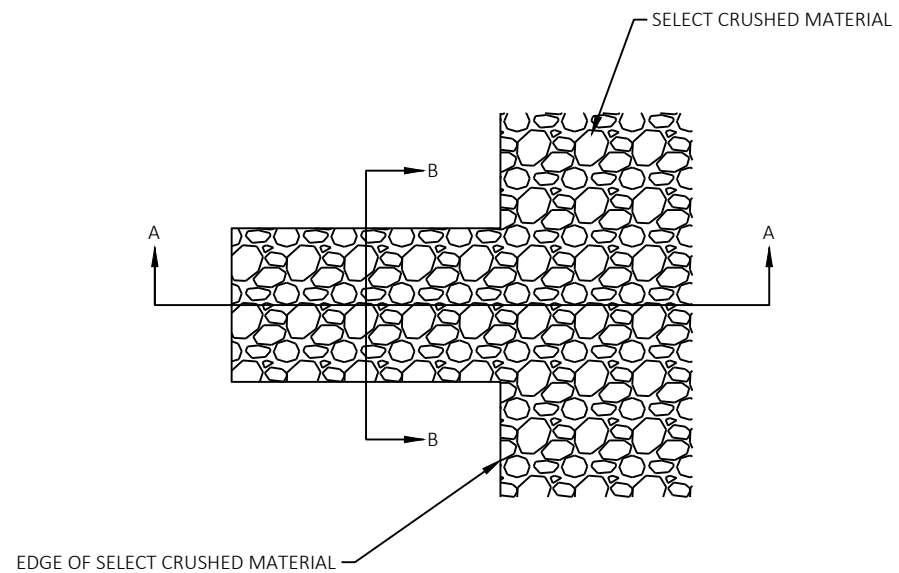


RIPRAP LIGHT TREATMENT AT ENDWALLS
SEE EROSION CONTROL PLANS FOR ADDITIONAL
DETAILS AND DIMENSIONS.

SECTION A-ASECTION B-BSUGGESTED RELIEF TRENCH LOCATIONS

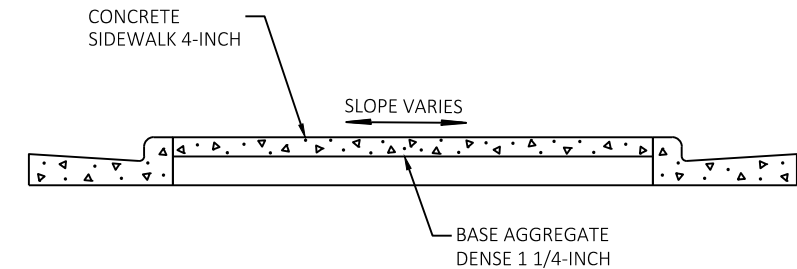
EXACT NUMBER AND LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

- 109+50 EB, RT & LT
- 111+00 WB, LT
- 11+92 EB, RT
- 112+20 EB, RT
- 112+50 WB, LT
- 119+25 WB, LT
- 120+00 WB, LT
- 120+98 EB, RT
- 122+00 WB, LT
- 123+00 EB, RT

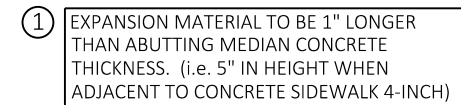
RELIEF TRENCH DETAIL

RELIEF TRENCHES ARE TO BE CONSTRUCTED AT LEAST EVERY 250' AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

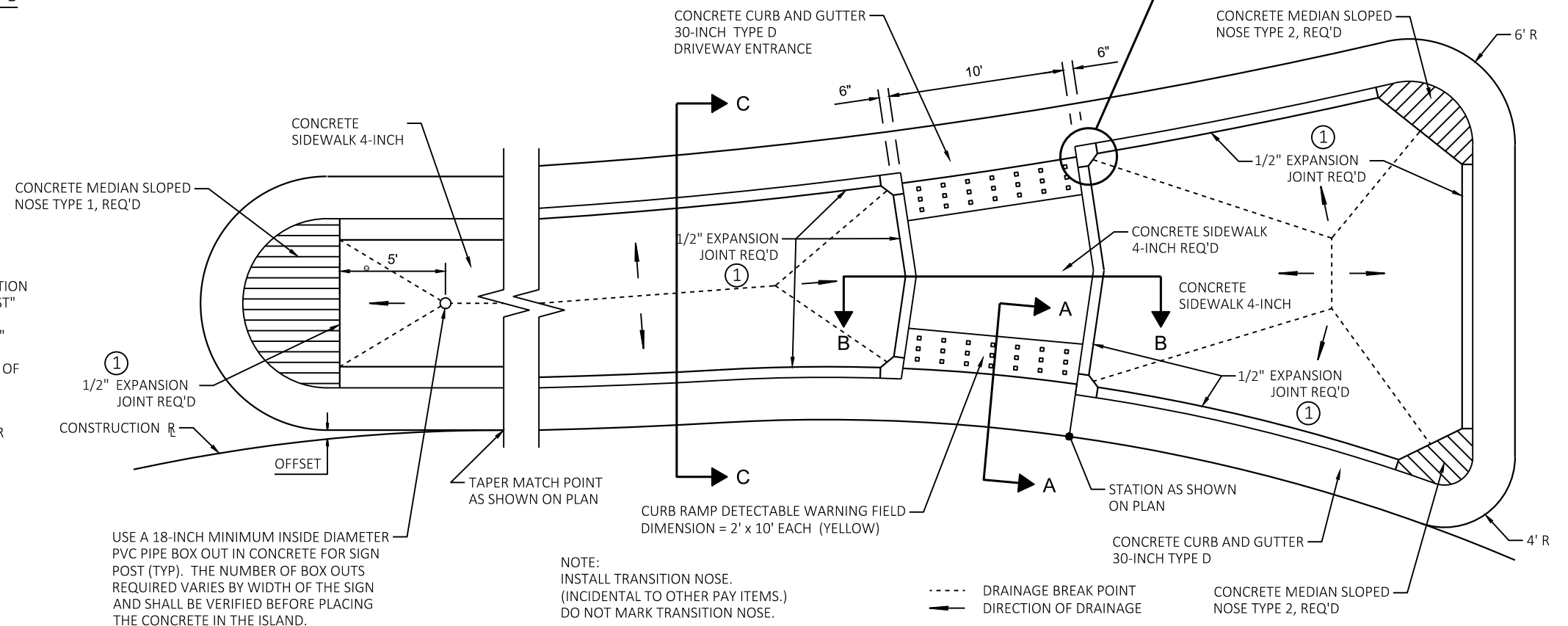
EXCAVATION REQUIRED TO CONSTRUCT RELIEF TRENCHES SHALL BE CONSIDERED INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL.



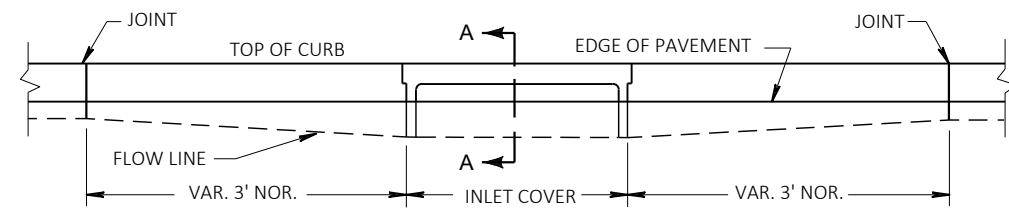
SECTION C-C



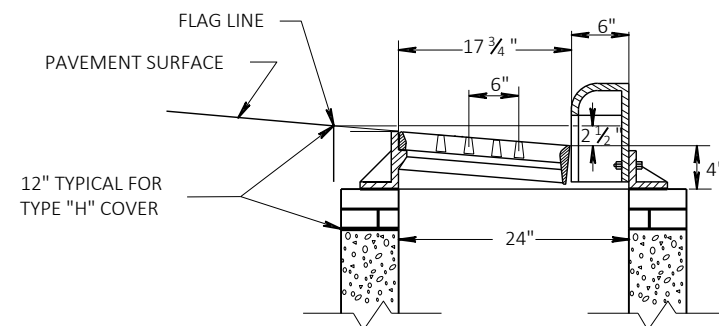
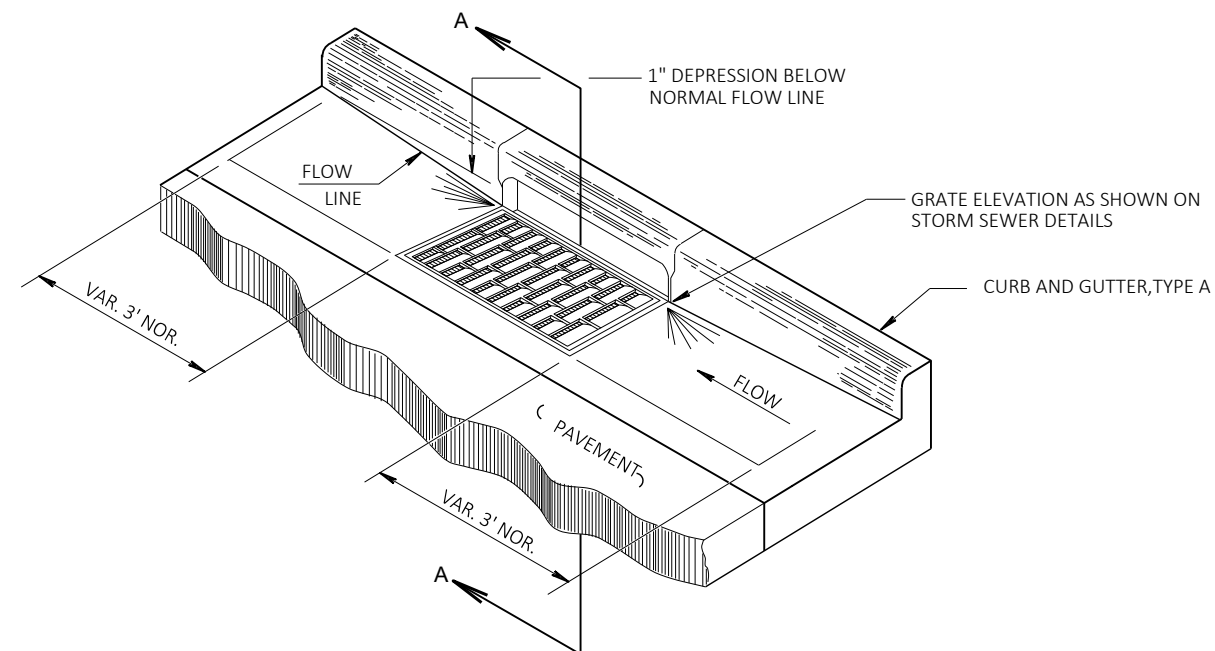
A circular diagram showing a crosswalk corner with a transition nose. The diagram includes two dimensions of 12" and a label: "TRANSITION NOSE TYPICAL AT 4 CROSSWALK CORNERS".



CONCRETE SPLITTER ISLAND DETAIL WITH CROSSWALK

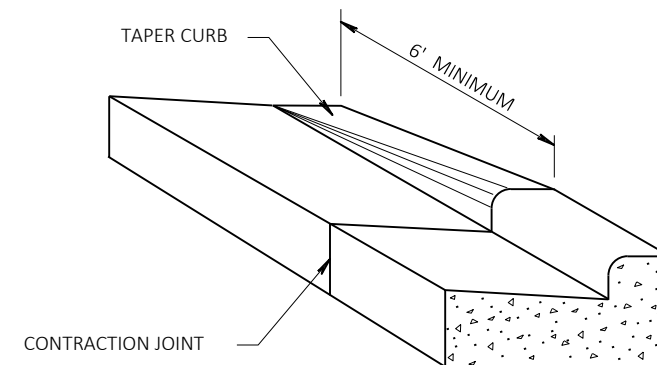
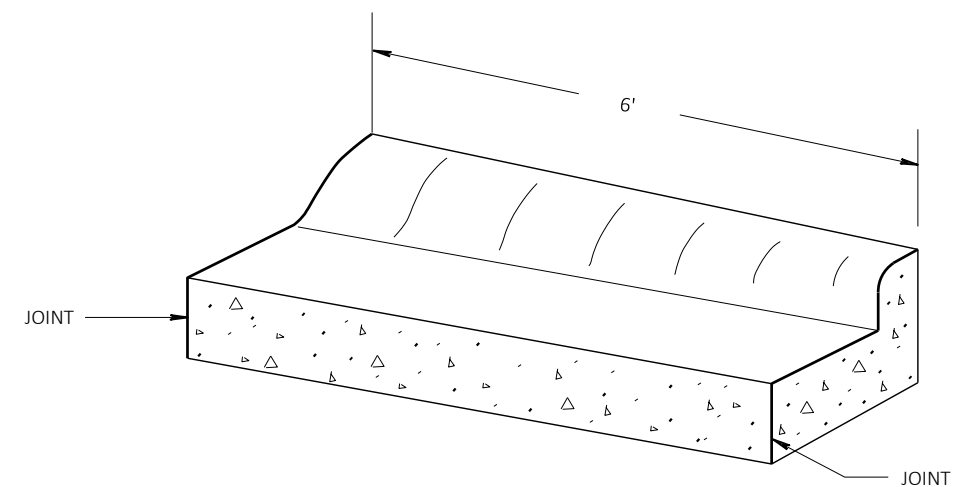


ELEVATION

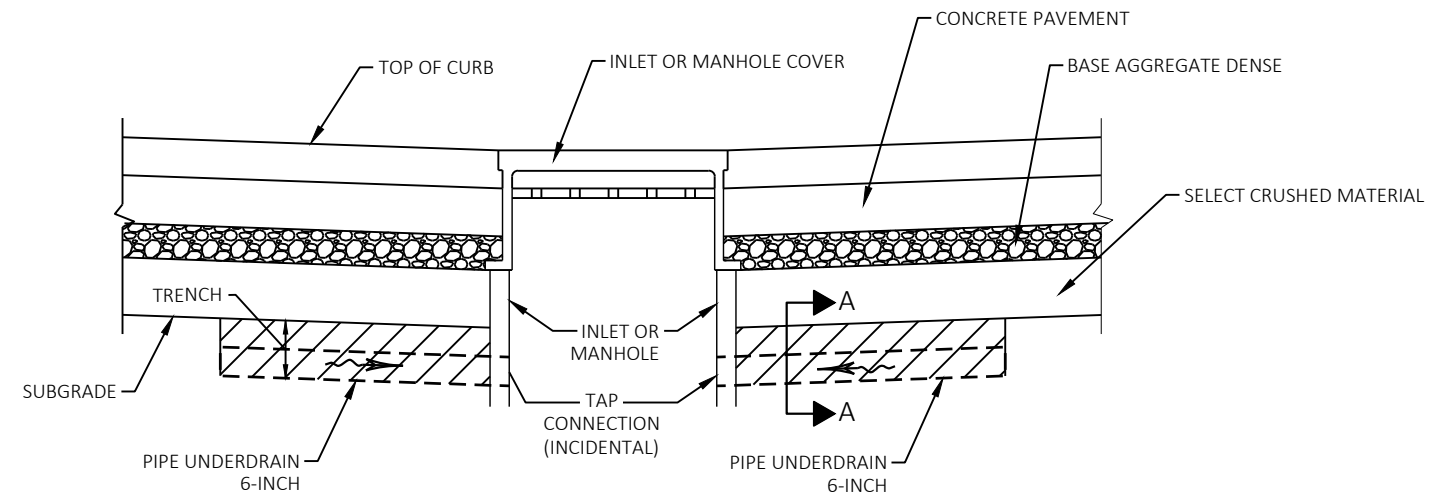


SECTION A-A

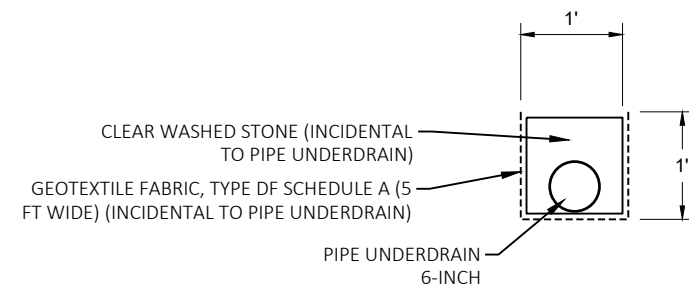
DETAIL OF CURB AND GUTTER AT INLETS
(TYPE 3-H INLET SHOWN)

DETAIL OF CURB & GUTTER TERMINITRANSITION DETAIL

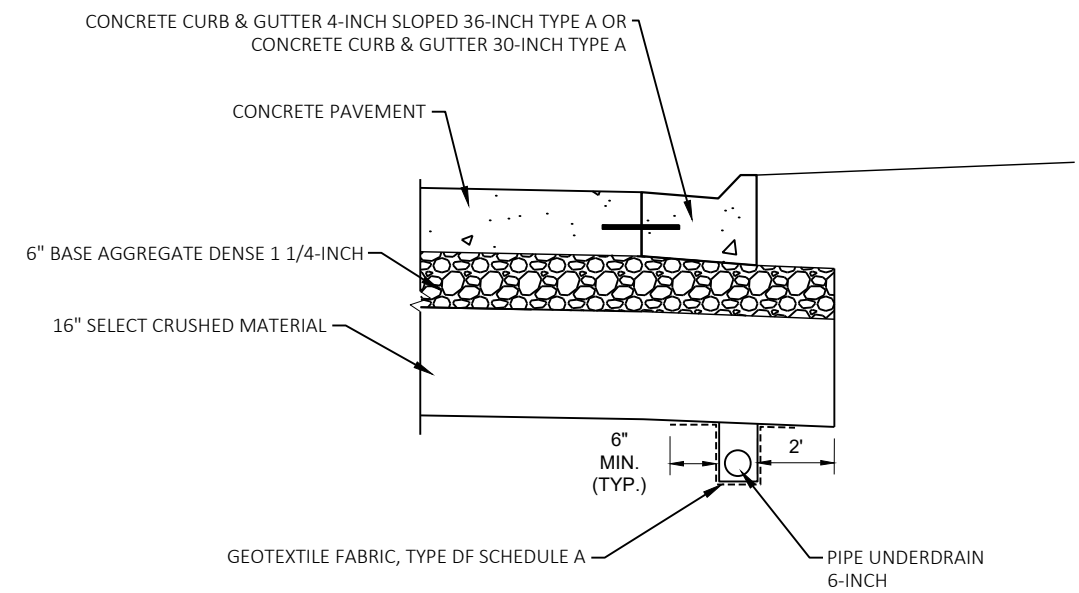
36" TYPE "A" CURB & GUTTER TO 30" TYPE "A" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



ELEVATION VIEW - CURB & GUTTER SECTION SHOWN
LOW POINT SHOWN

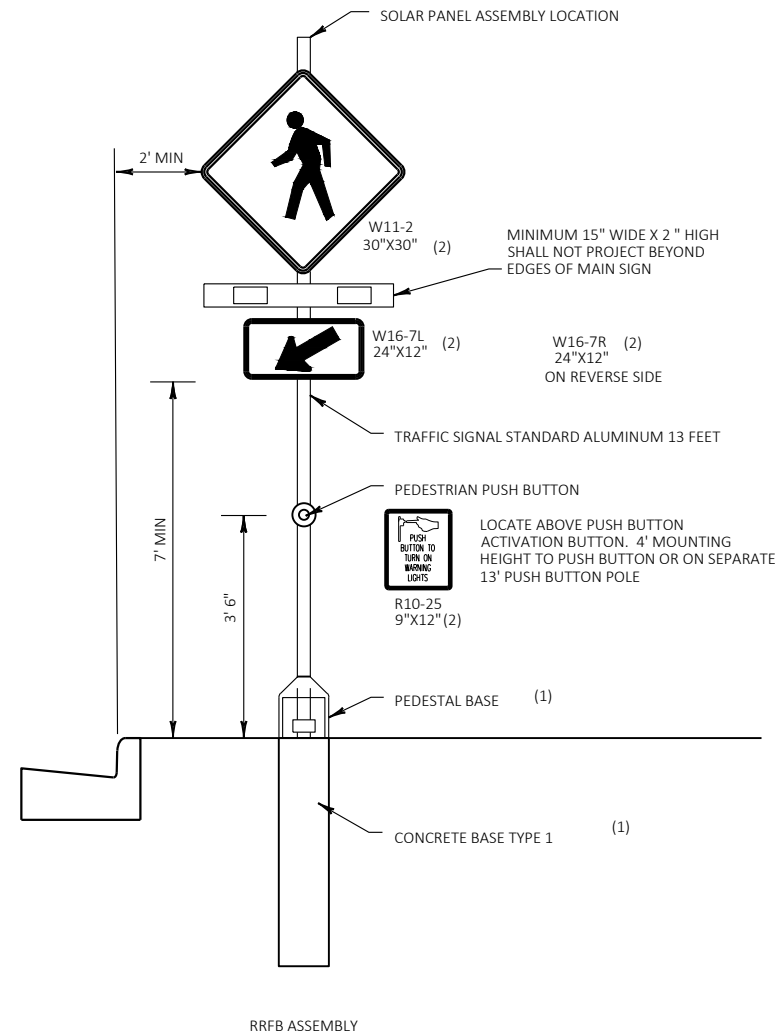


SECTION A-A
PIPE UNDERDRAIN TRENCH



UNDERDRAIN PLACEMENT UNDER CURB & GUTTER

PIPE UNDERDRAIN DETAIL

**GENERAL NOTES:**

- (1) ITEM TO MEET REQUIREMENTS OF SECTIONS 654 AND 657 OF THE CURRENT WISDOT STANDARD SPECIFICATIONS.
- (2) RRFB ASSEMBLIES REQUIRE ONE W11-2 30"x30" SIGN, ONE W16-7L 24"x12" SIGN OR W16-7R 24"x12" SIGN, AND ONE R10-25 9"x12" SIGN EACH.
- (3) RRFB ASSEMBLIES ARE TO BE CONSTRUCTED ACCORDING TO MANUFACTURERS INSTRUCTIONS.
- (4) LIGHT BAR, CONTROLS, SOLAR PANEL, RADIO, HARDWARE, WIRING, AND INCIDENTALS ARE INCLUDED IN THE RRFB SYSTEM BID ITEM. ALL OTHER ITEMS TO BE PAID FOR SEPARATELY.

RRFB LOCATION NOTES:

- SEE PERMANENT SIGNING PLAN FOR APPROXIMATE LOCATIONS OF RRFB ASSEMBLIES.
- FIELD LOCATE ALL BASES TO PROVIDE 1.5' MAX REACH FROM ACCESSIBLY SLOPED AREA.
- ONE RRFB SYSTEM CAN INCLUDE MULTIPLE RRFB ASSEMBLIES THAT ARE TO BE SYNCHRONIZED ACCORDING TO MANUFACTURES INSTRUCTION, UNLESS NOTED IN THE PLAN OR SPECIALS.

RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM

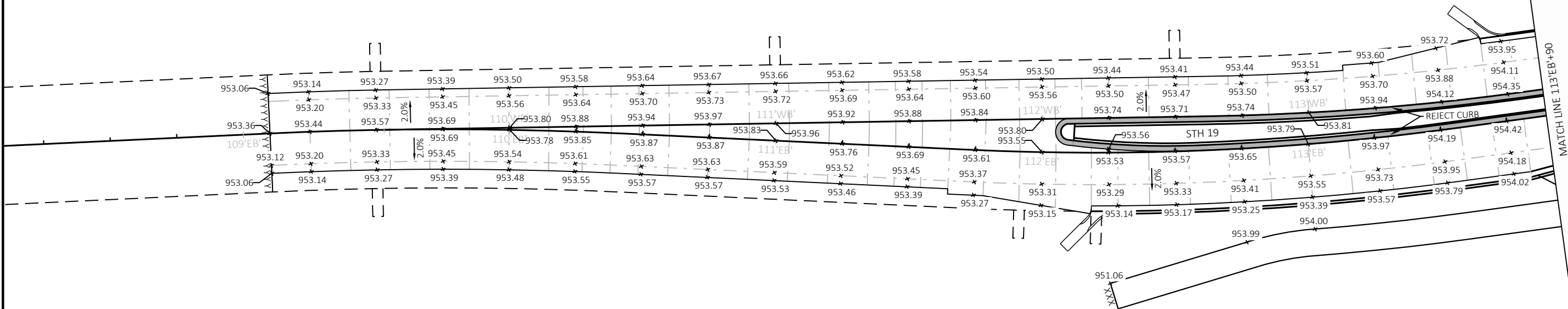
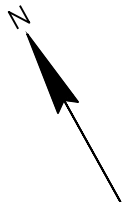
LEGEND

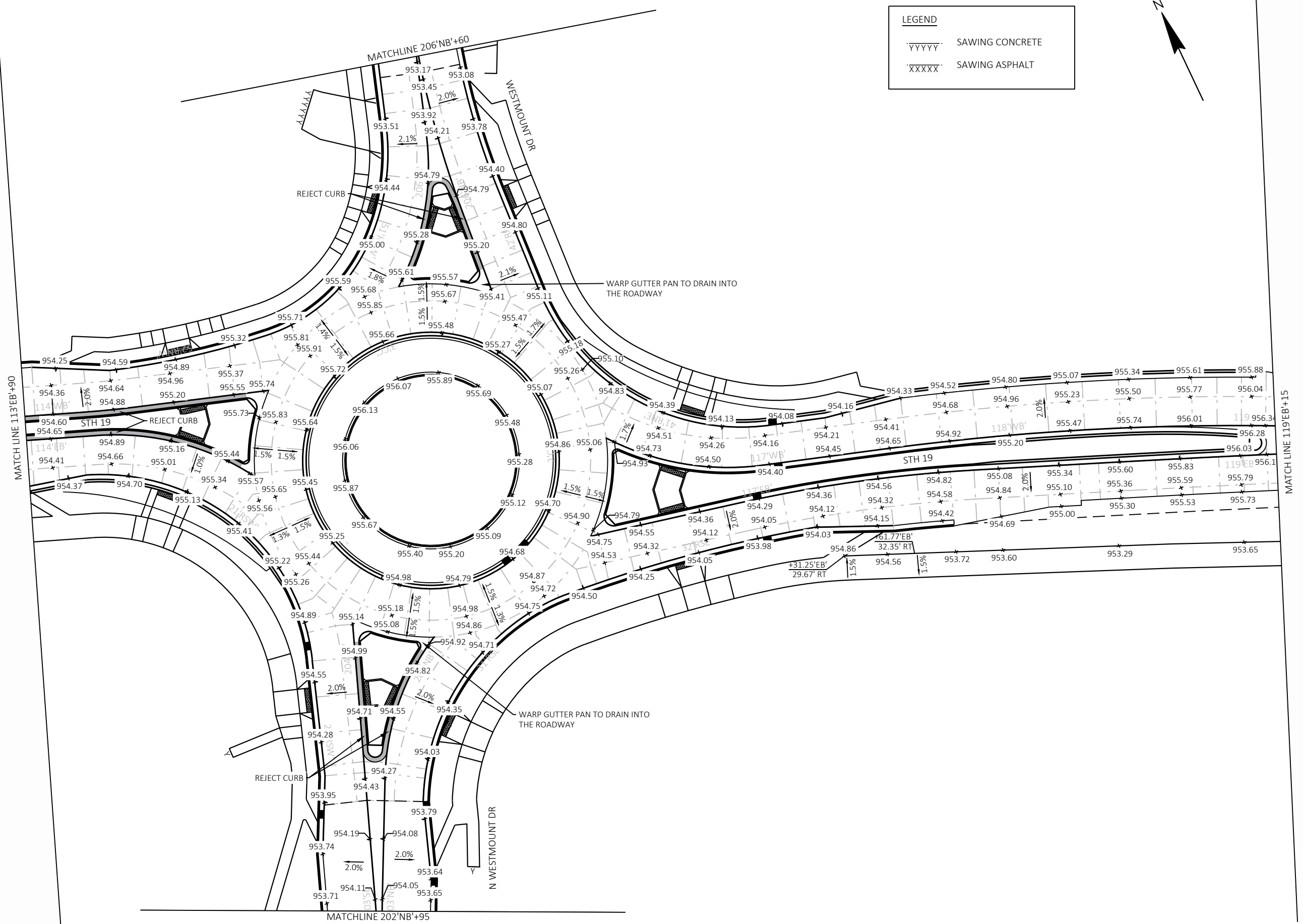
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SAWING CONCRETE

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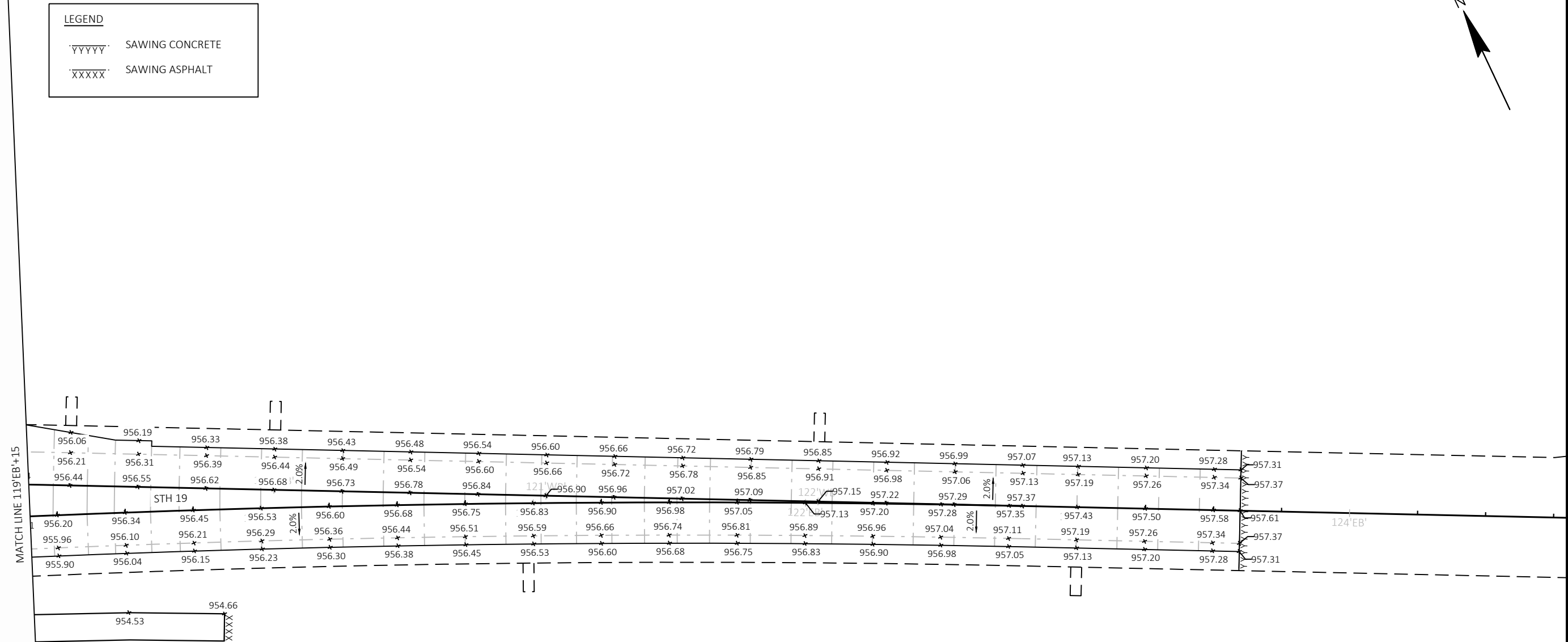
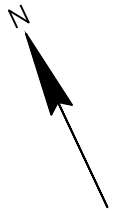
SAWING ASPHALT





2

2



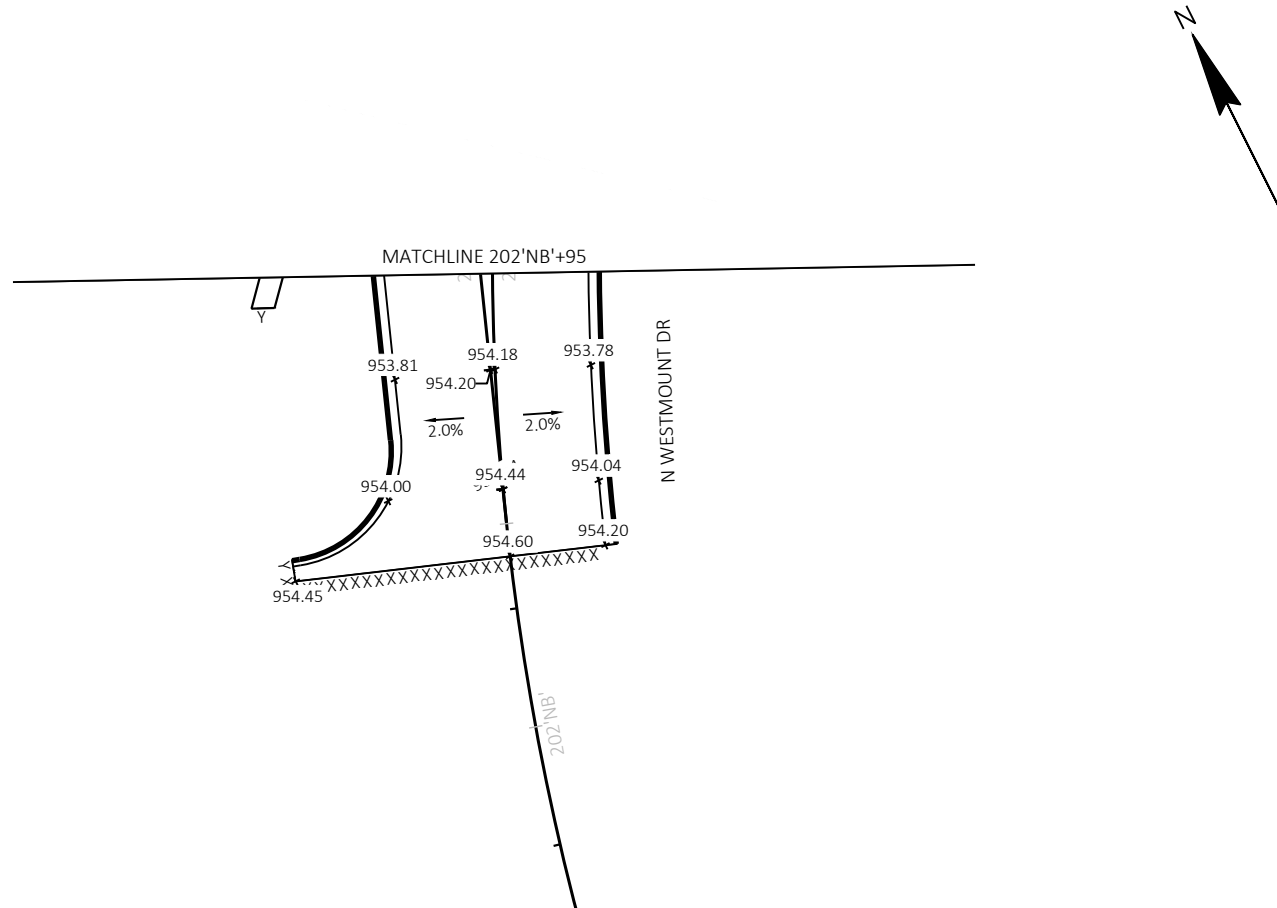
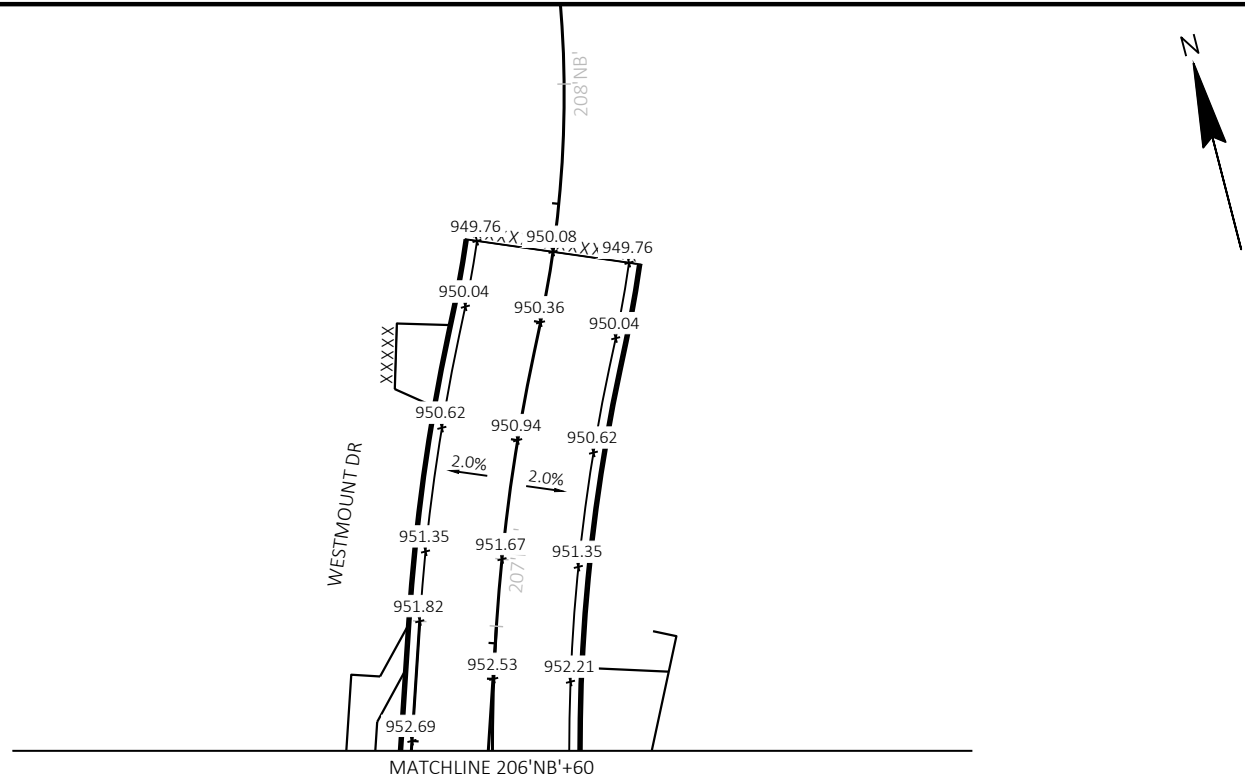
LEGEND

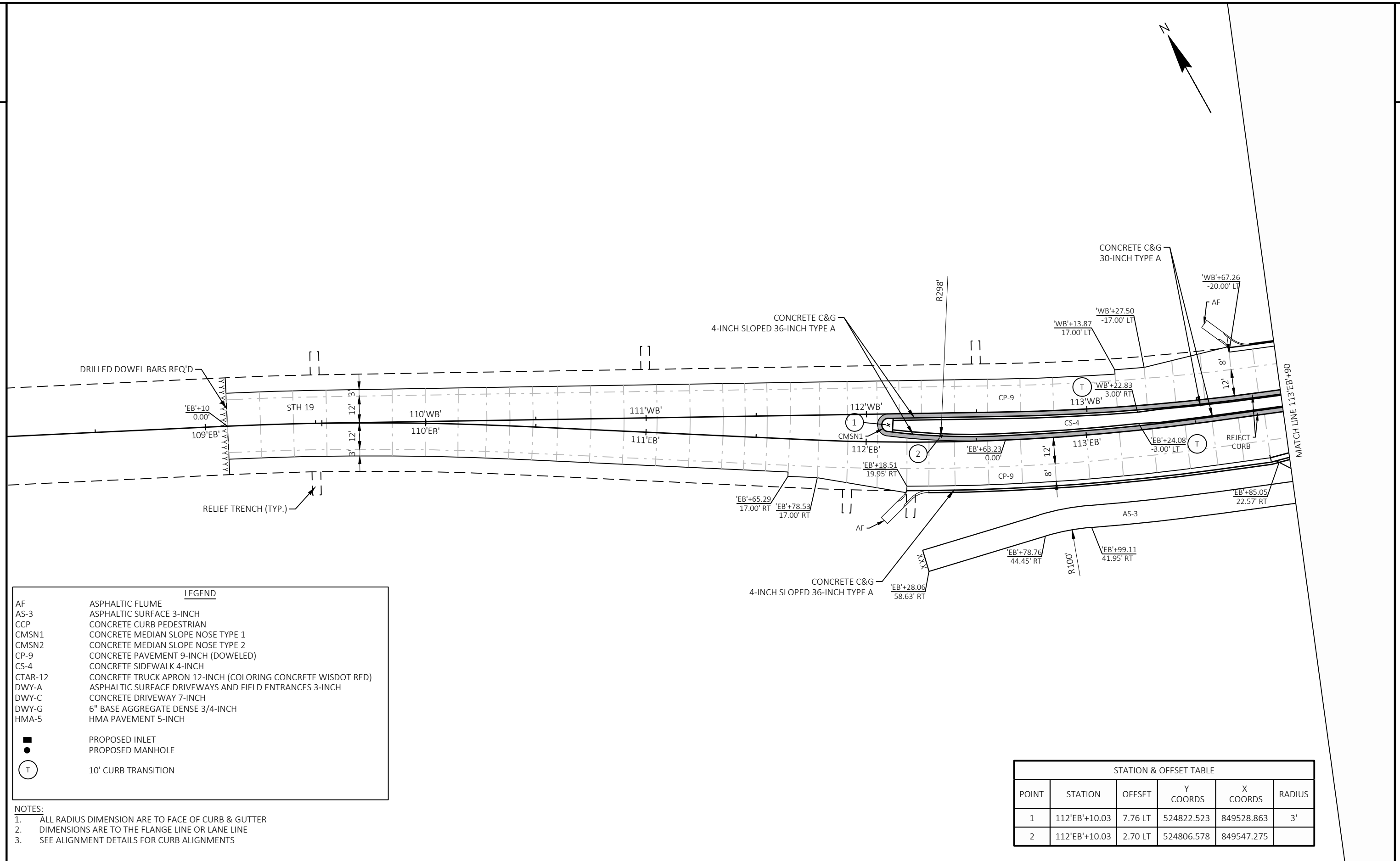
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SAWING CONCRETE

— — — — —

SAWING ASPHALT





AF

AS-3

CCP

CMSN1

CMSN2

CP-9

CS-4

CTAR-12

DWY-A

DWY-C

DWY-G

HMA-5

ASPHALTIC FLUME

ASPHALTIC SURFACE 3-INCH

CONCRETE CURB PEDESTRIAN

CONCRETE MEDIAN SLOPE NOSE TYPE 1

CONCRETE MEDIAN SLOPE NOSE TYPE 2

CONCRETE PAVEMENT 9-INCH (DOWELED)

CONCRETE SIDEWALK 4-INCH

CONCRETE TRUCK APRON 12-INCH (COLORING CONCRETE WISDOT RED)

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 3-INCH

CONCRETE DRIVEWAY 7-INCH

6" BASE AGGREGATE DENSE 3/4-INCH

HMA PAVEMENT 5-INCH

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T

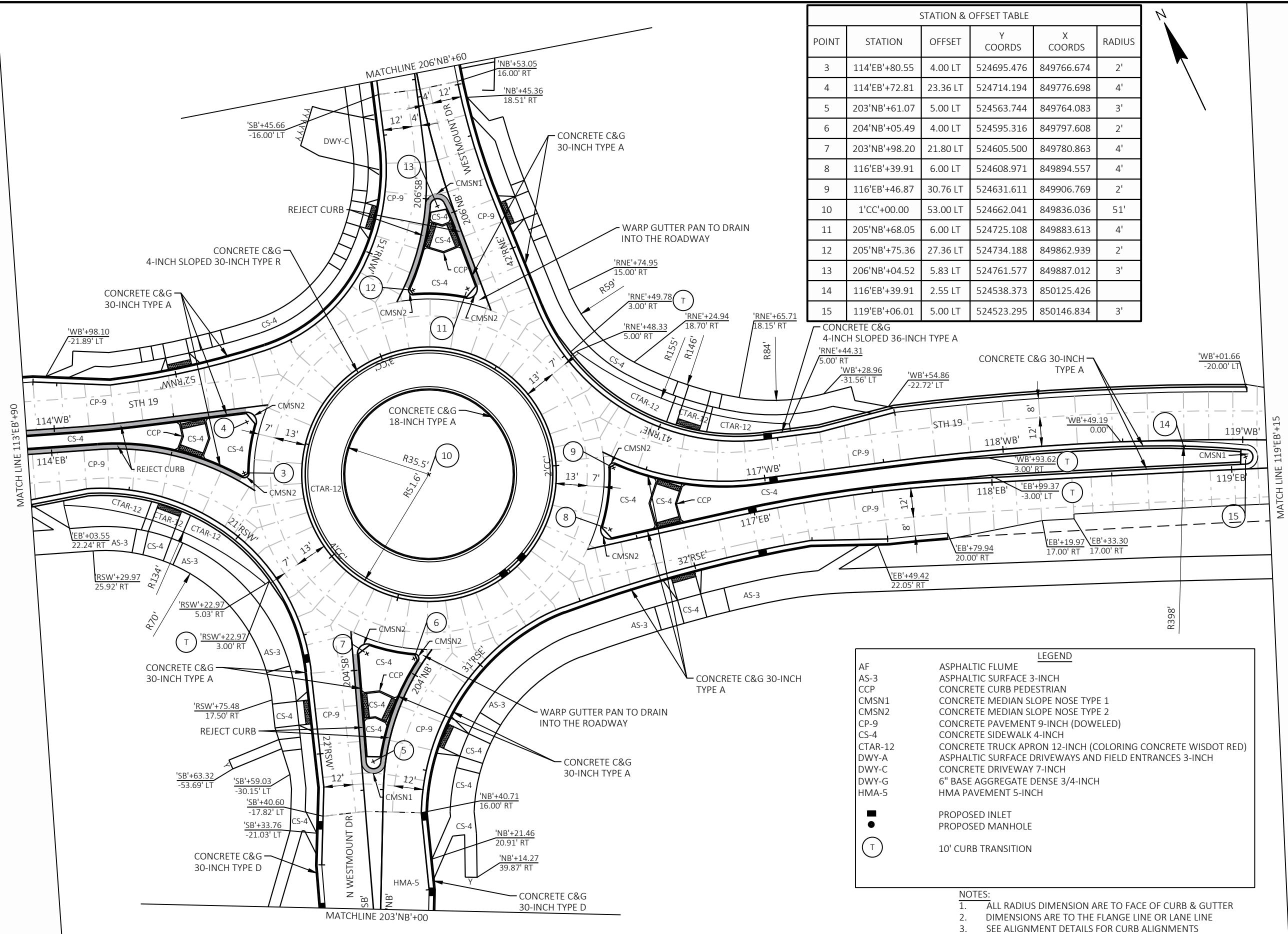
PROPOSED INLET

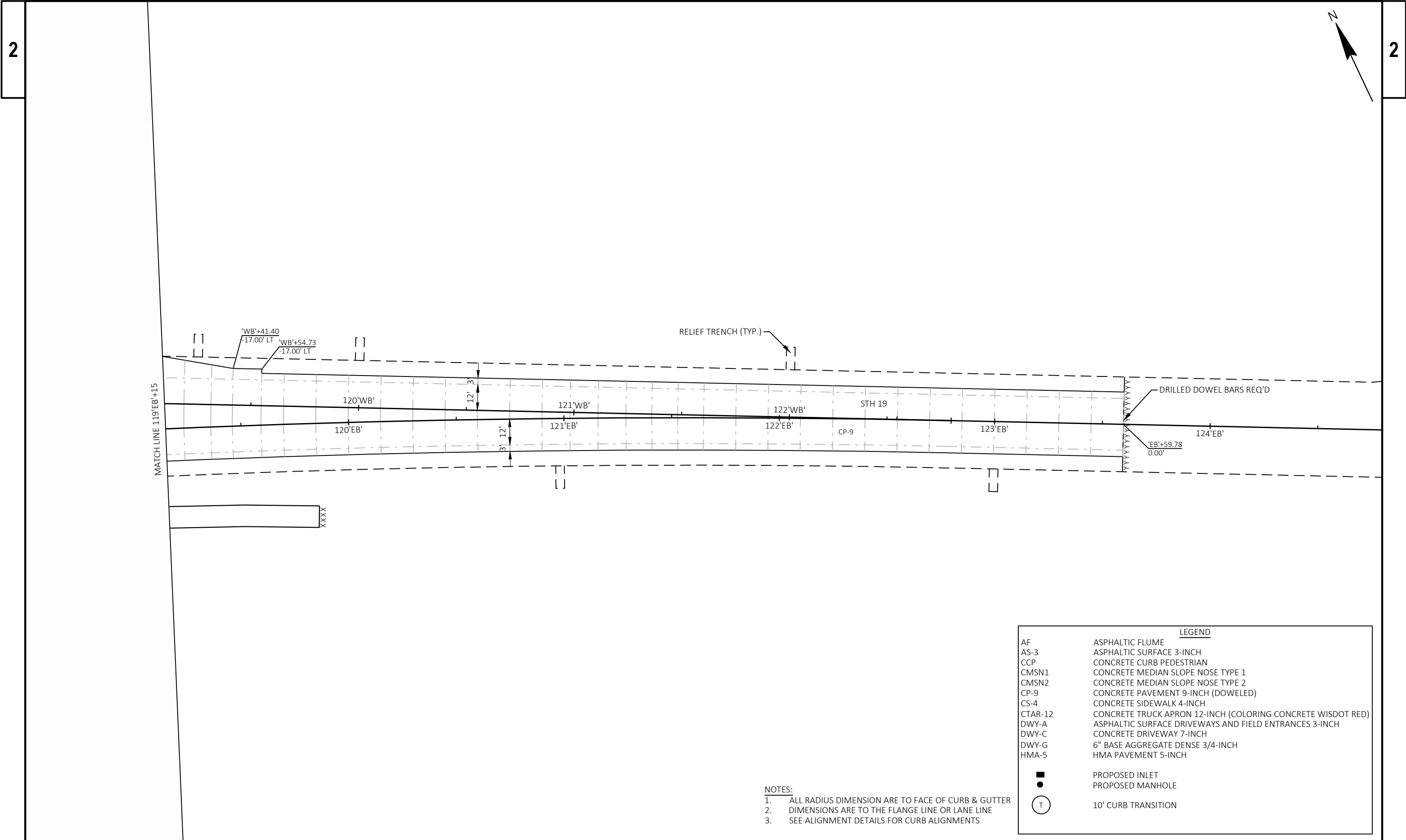
PROPOSED MANHOLE

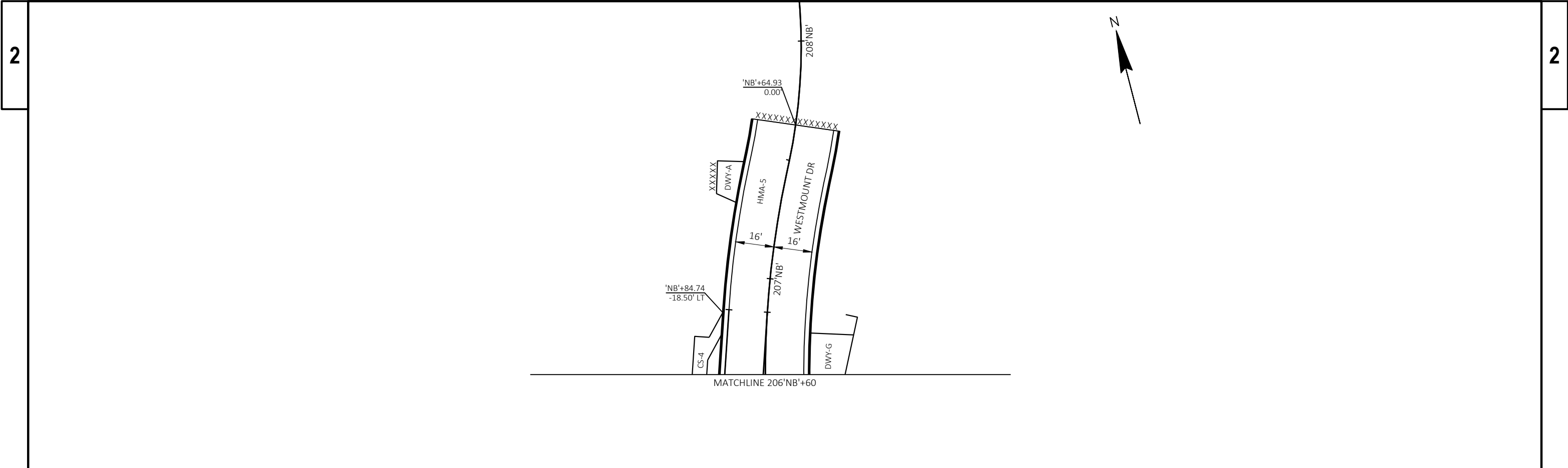
10' CURB TRANSITION

- NOTES:
- ALL RADIUS DIMENSION ARE TO FACE OF CURB & GUTTER
 - DIMENSIONS ARE TO THE FLANGE LINE OR LANE LINE
 - SEE ALIGNMENT DETAILS FOR CURB ALIGNMENTS

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
1	112'EB'+10.03	7.76 LT	524822.523	849528.863	3'
2	112'EB'+10.03	2.70 LT	524806.578	849547.275	

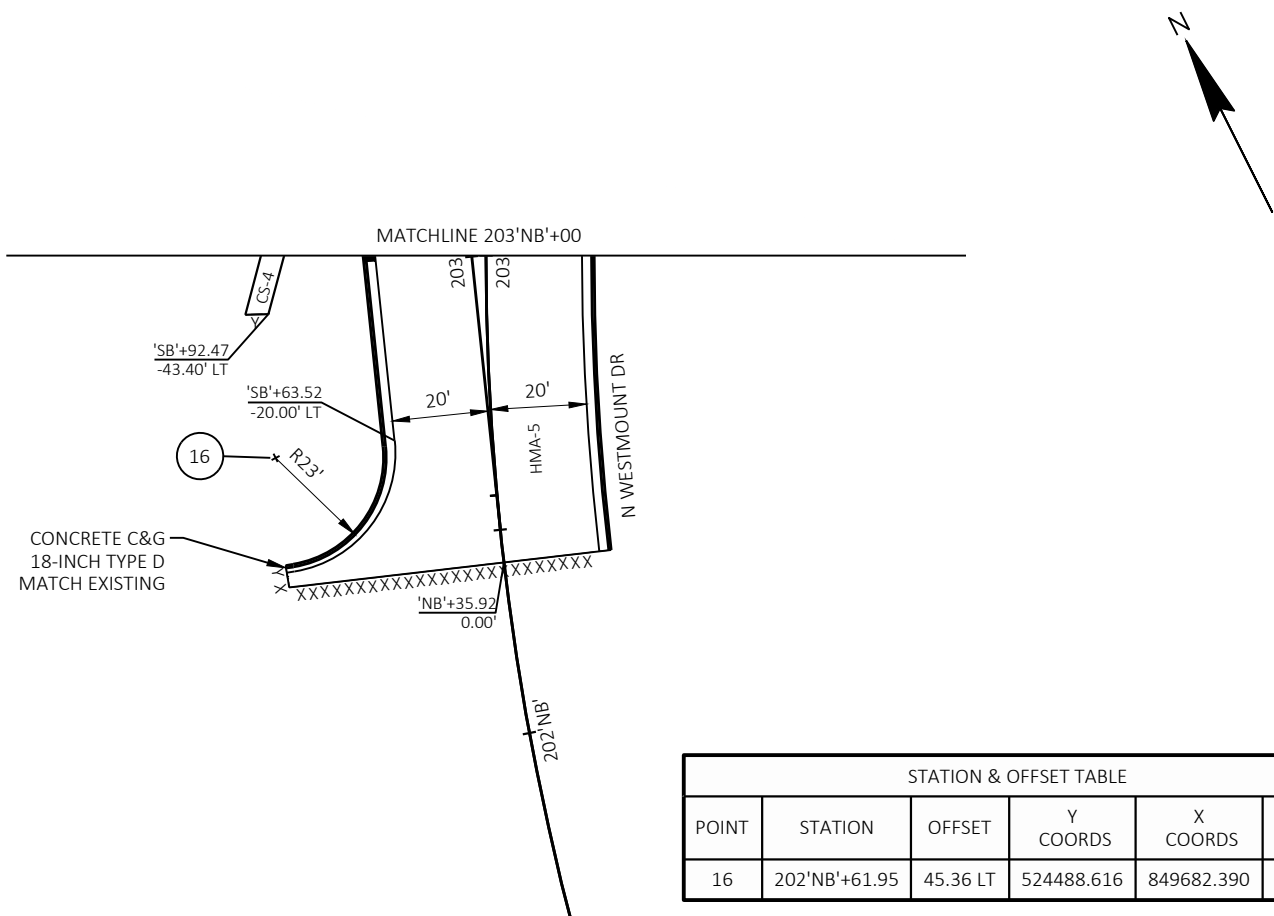




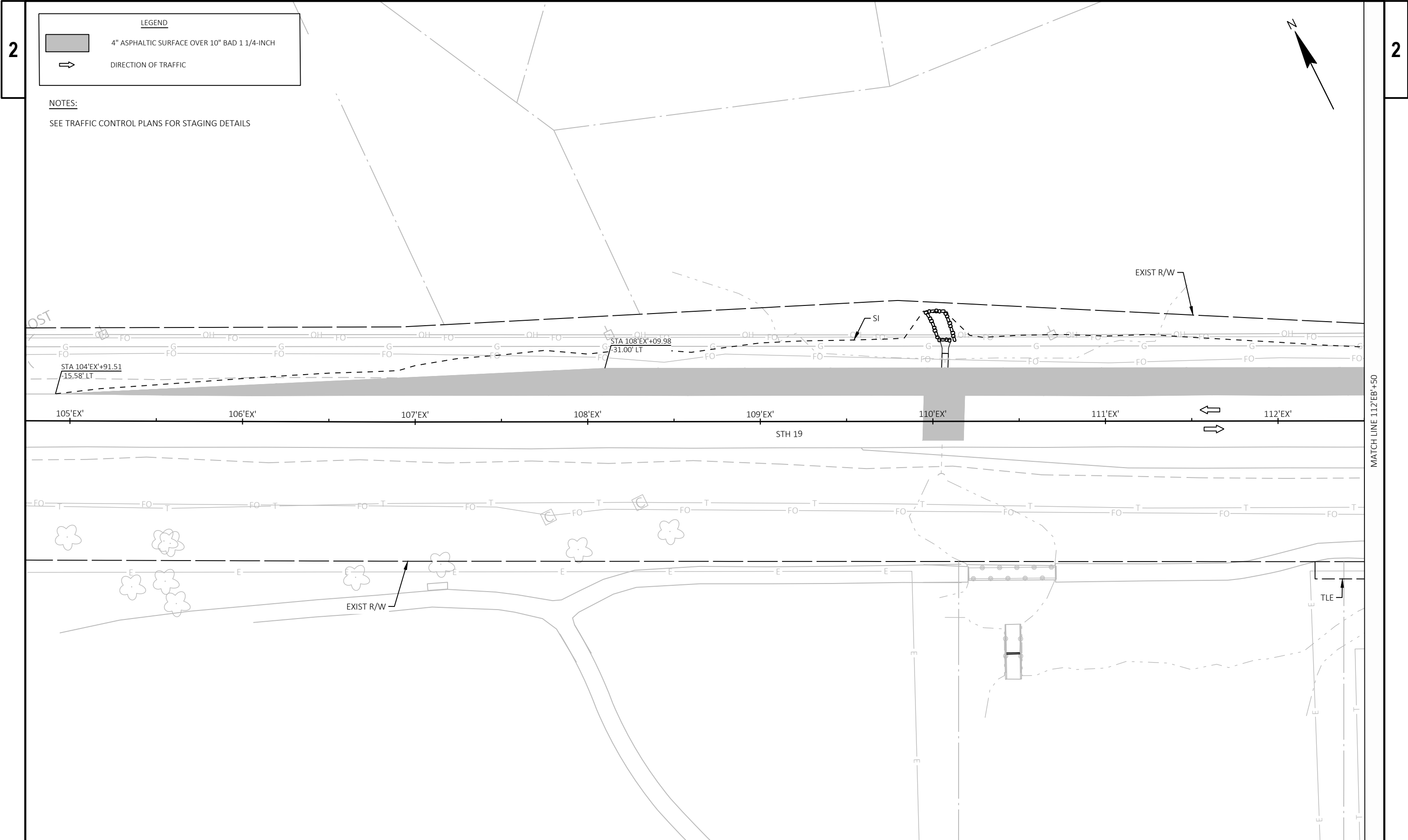


- NOTES:
- 1. ALL RADIUS DIMENSION ARE TO FACE OF CURB & GUTTER
 - 2. DIMENSIONS ARE TO THE FLANGE LINE OR LANE LINE
 - 3. SEE ALIGNMENT DETAILS FOR CURB ALIGNMENTS

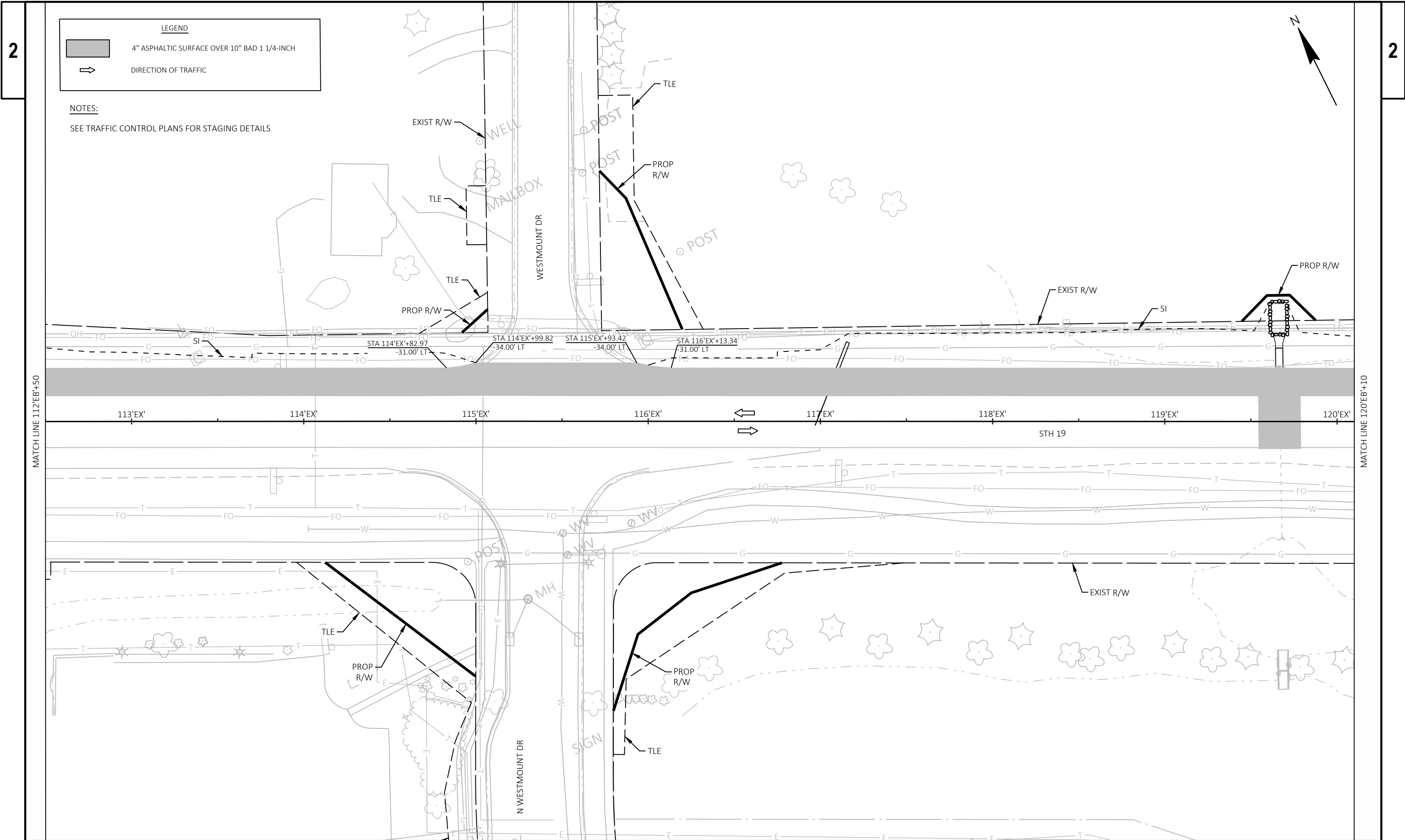
LEGEND	
AF	ASPHALTIC FLUME
AS-3	ASPHALTIC SURFACE 3-INCH
CCP	CONCRETE CURB PEDESTRIAN
CMSN1	CONCRETE MEDIAN SLOPE NOSE TYPE 1
CMSN2	CONCRETE MEDIAN SLOPE NOSE TYPE 2
CP-9	CONCRETE PAVEMENT 9-INCH (DOWELED)
CS-4	CONCRETE SIDEWALK 4-INCH
CTAR-12	CONCRETE TRUCK APRON 12-INCH (COLORING CONCRETE WISDOT RED)
DWY-A	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 3-INCH
DWY-C	CONCRETE DRIVEWAY 7-INCH
DWY-G	6" BASE AGGREGATE DENSE 3/4-INCH
HMA-5	HMA PAVEMENT 5-INCH
	PROPOSED INLET
	PROPOSED MANHOLE
	10' CURB TRANSITION

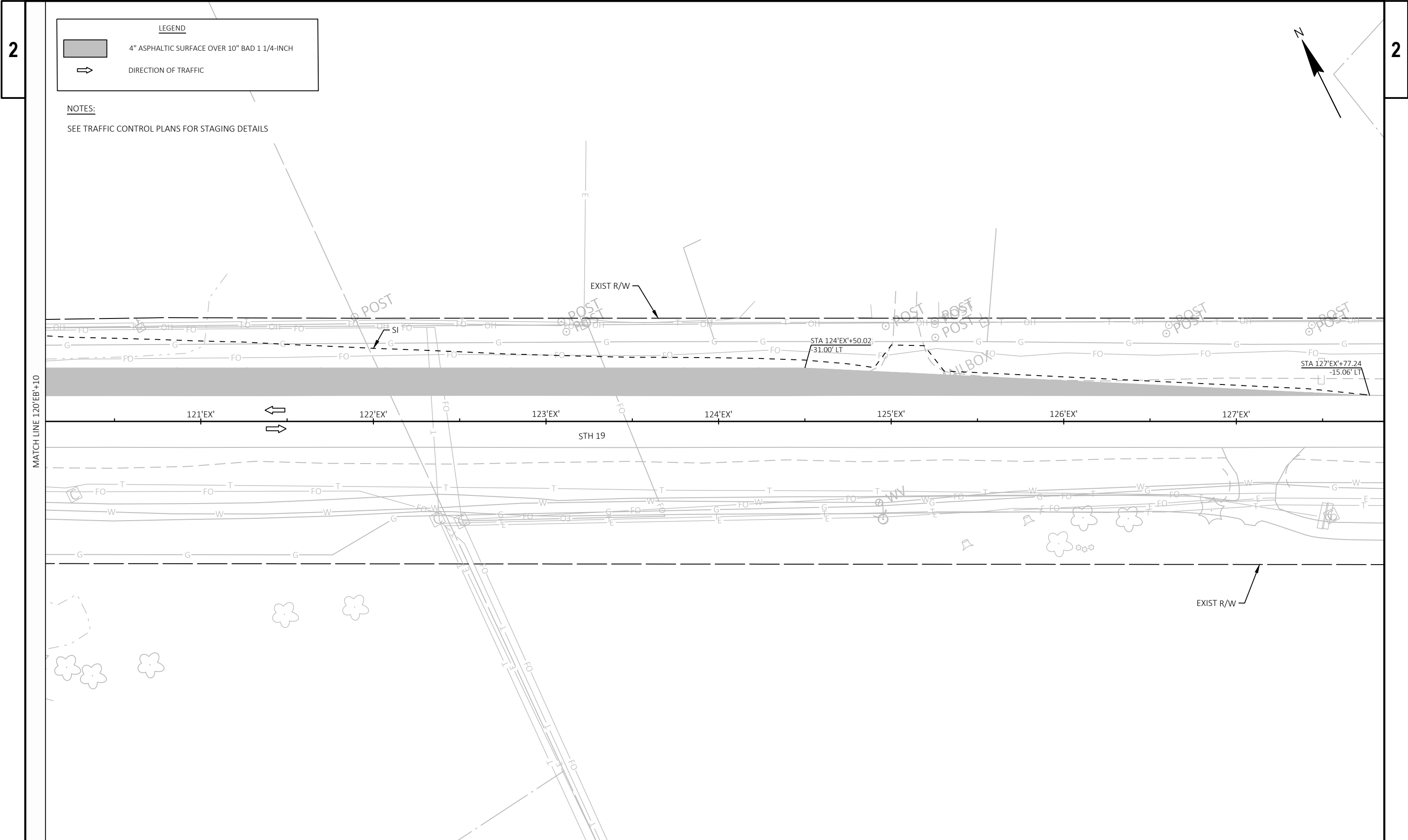


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
16	202'NB'+61.95	45.36 LT	524488.616	849682.390	23'



PROJECT NO: 6085-02-76	HWY: STH 19	COUNTY: DANE	TEMPORARY PAVEMENT - STAGE 1B	SHEET 28	E
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LEGEND

4" ASPHALTIC SURFACE OVER 10" BAD 1 1/4-INCH

DIRECTION OF TRAFFIC

NOTES:

SEE TRAFFIC CONTROL PLANS FOR STAGING DETAILS

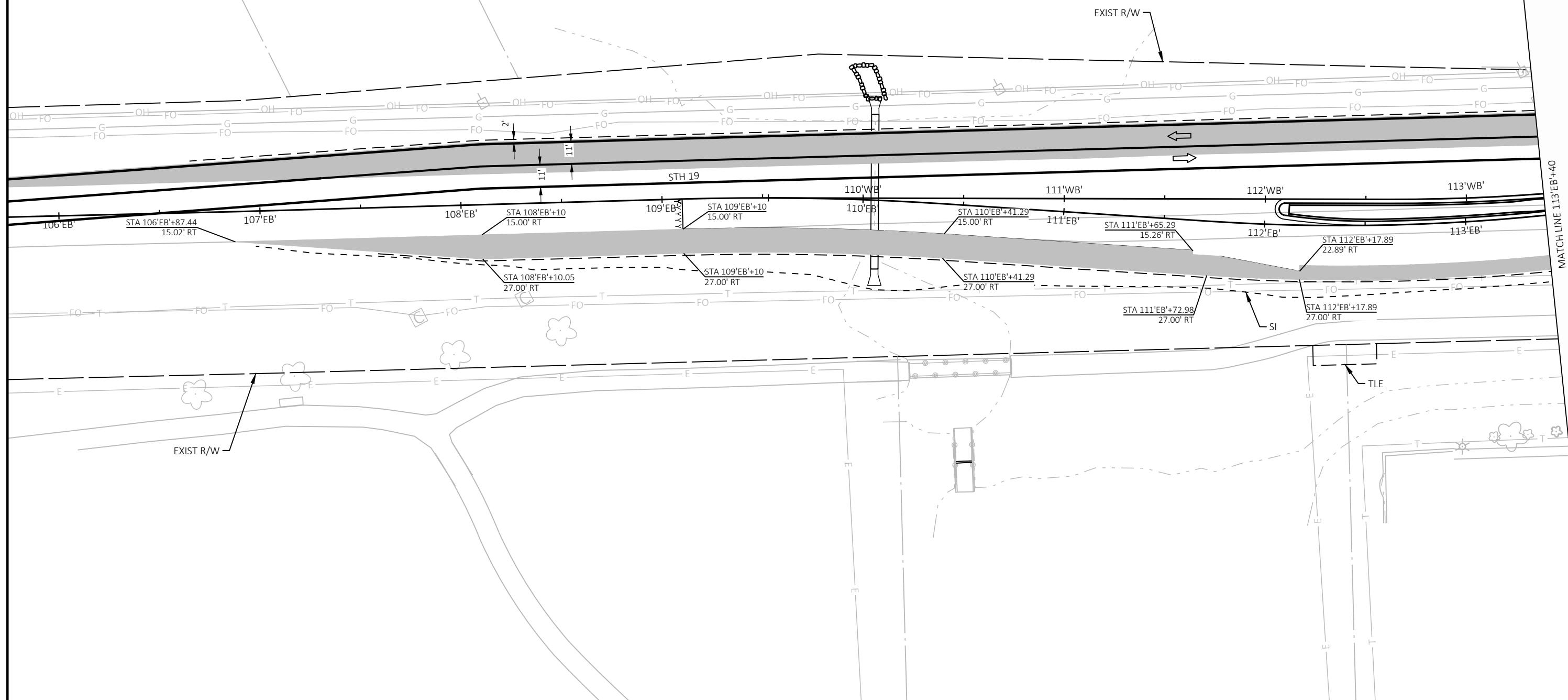
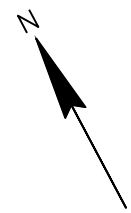
MATCH LINE 120'EB'+10'

LEGEND

4" ASPHALTIC SURFACE OVER 10" BAD 1 1/4-INCH

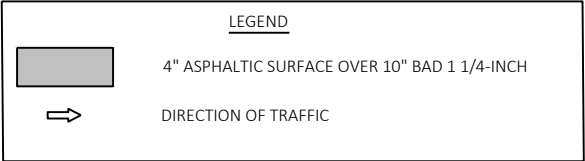
DIRECTION OF TRAFFIC

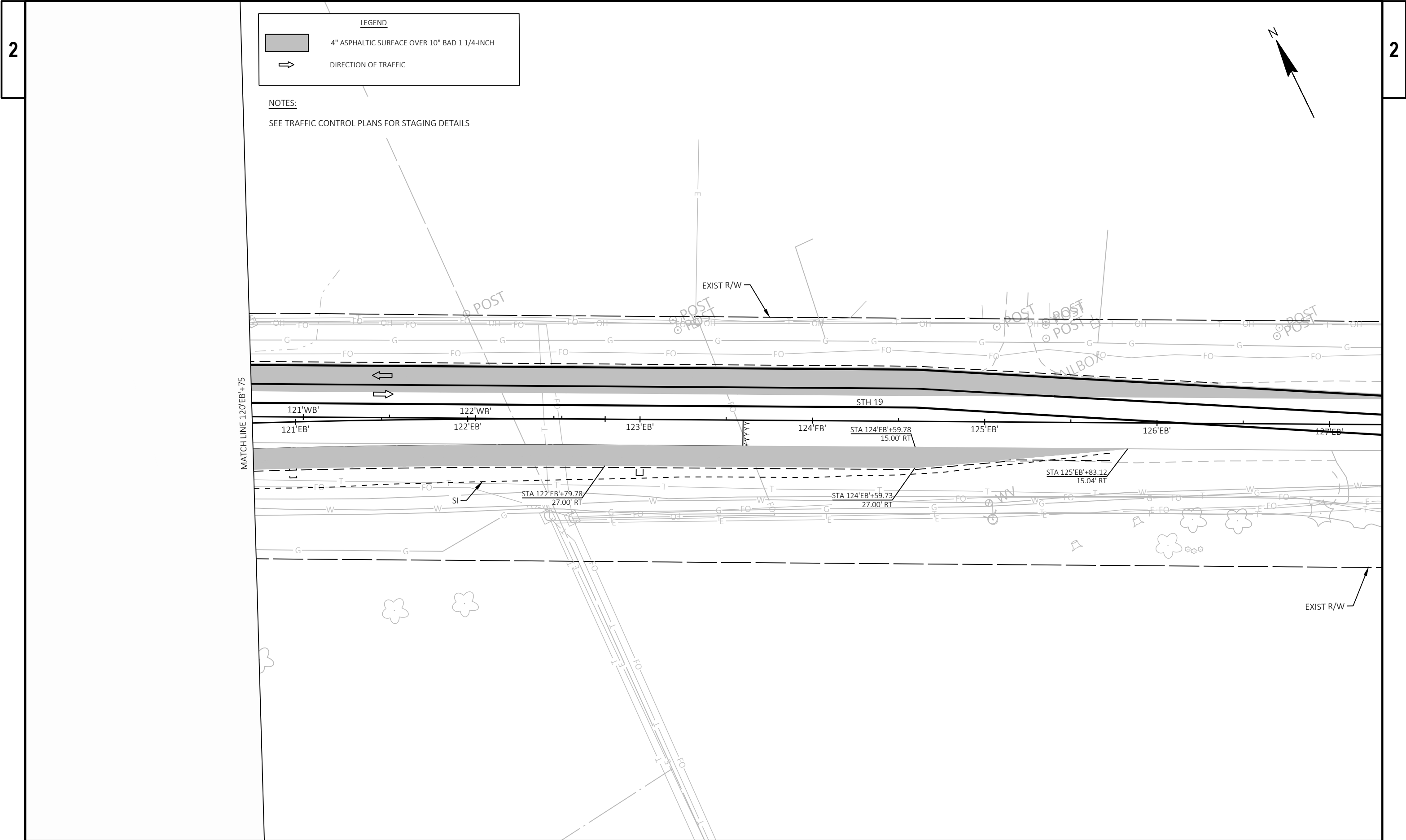
NOTES:
SEE TRAFFIC CONTROL PLANS FOR STAGING DETAILS

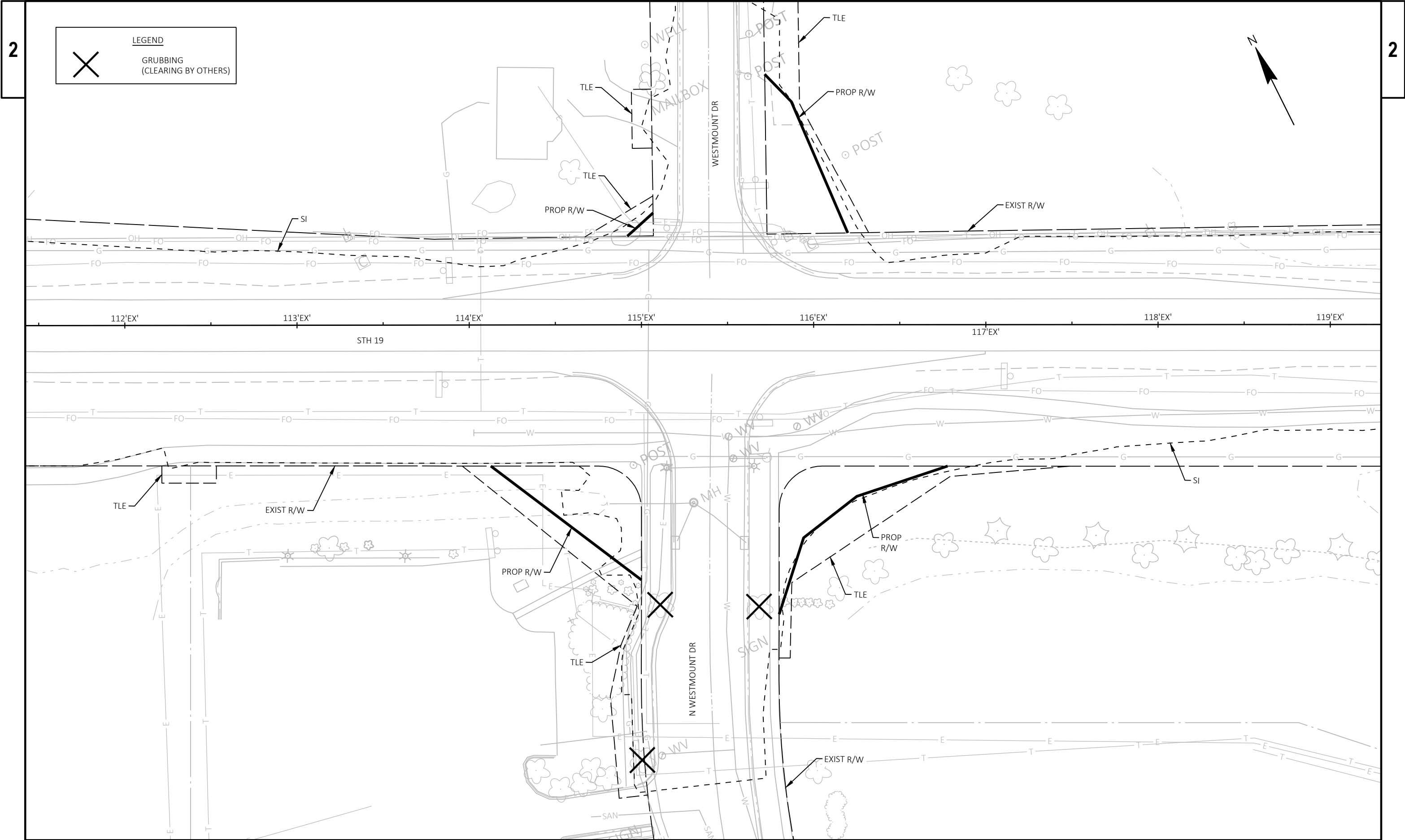


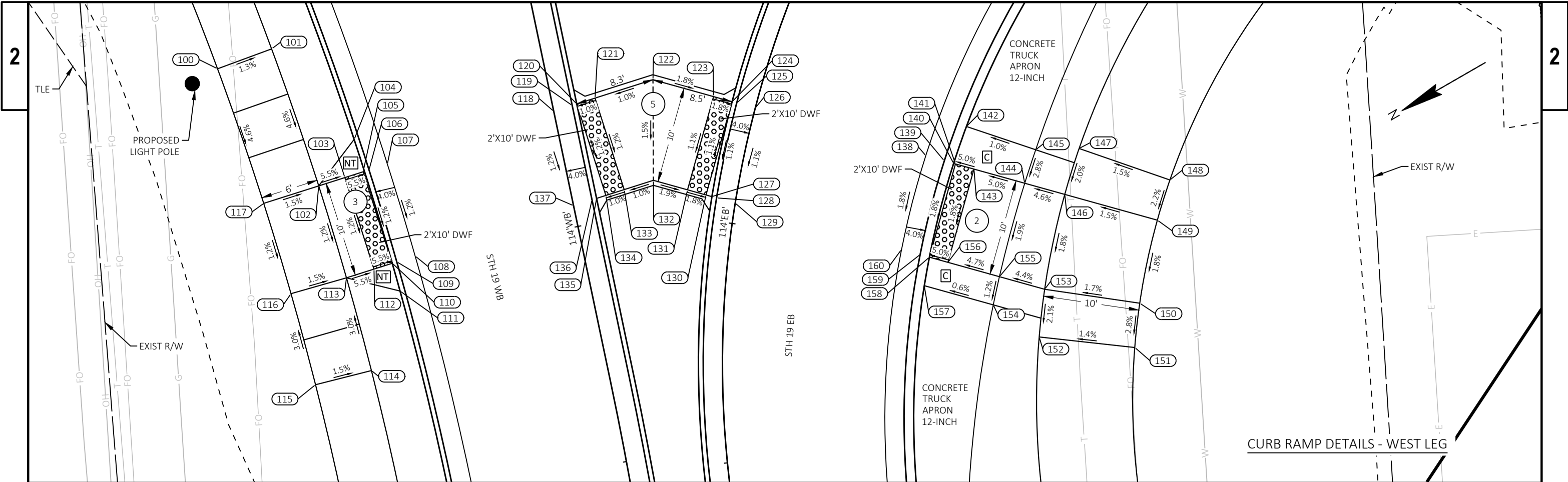
2

2









WEST LEG LT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	114+55.59	55.49' LT	955.94	524753.49	849783.10
101	114+57.70	50.39' LT	955.87	524747.57	849782.09
102	114+48.53	43.16' LT	955.17	524750.47	849767.28
103	114+49.39	40.58' LT	955.01	524747.68	849766.67
104	114+52.34	40.19' LT	955.45	524744.84	849769.63
105	114+50.01	38.77' LT	954.90	524745.73	849766.24
106	114+50.22	38.19' LT	954.90	524745.10	849766.10
107	114+50.86	36.39' LT	954.98	524743.14	849765.67
108	114+43.95	32.43' LT	954.86	524745.43	849755.93
109	114+43.37	34.28' LT	954.78	524747.38	849756.36
110	114+43.23	34.74' LT	954.78	524747.87	849756.47
111	114+41.10	33.74' LT	955.24	524748.61	849753.56
112	114+42.68	36.60' LT	954.89	524749.83	849756.90
113	114+41.88	39.40' LT	955.05	524752.76	849757.54
114	114+34.84	36.53' LT	955.35	524755.34	849747.88
115	114+33.81	42.36' LT	955.44	524761.11	849749.52
116	114+40.48	45.07' LT	955.14	524758.58	849759.00
117	114+46.81	48.63' LT	955.26	524756.33	849768.56

WEST LEG MEDIAN - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
118	114+57.55	20.33' LT	955.37	524725.40	849761.78
119	114+58.40	18.59' LT	955.45	524723.44	849761.35
120	114+58.62	18.15' LT	955.45	524722.95	849761.24
121	114+59.49	16.43' LT	955.47	524720.99	849760.82
122	114+62.42	11.04' LT	955.53	524714.82	849759.46
123	114+62.32	4.50' LT	955.41	524710.24	849754.79
124	114+62.29	2.50' LT	955.38	524708.84	849753.36
125	114+62.29	2.00' LT	955.38	524708.49	849753.00
126	114+62.25	0.00'	955.29	524707.09	849751.58
127	114+52.42	2.50' LT	955.26	524715.60	849745.85
128	114+52.37	2.00' LT	955.26	524715.24	849745.49
129	114+52.14	0.00'	955.18	524713.83	849744.05
130	114+52.49	3.13' LT	955.27	524716.04	849746.30
131	114+52.70	5.12' LT	955.31	524717.44	849747.73
132	114+53.06	8.79' LT	955.38	524720.02	849750.37
133	114+51.75	11.63' LT	955.35	524723.13	849751.05
134	114+50.95	13.42' LT	955.33	524725.09	849751.48
135	114+50.56	14.33' LT	955.31	524726.08	849751.69
136	114+50.37	14.79' LT	955.31	524726.57	849751.80
137	114+49.61	16.60' LT	955.23	524728.53	849752.23

WEST LEG RT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
138	114+61.89	18.43' RT	955.11	524694.19	849738.41
139	114+61.84	20.43' RT	955.03	524692.79	849736.98
140	114+61.81	21.43' RT	955.03	524692.09	849736.27
141	114+61.81	21.63' RT	955.03	524691.95	849736.13
142	114+66.93	21.67' RT	955.43	524689.01	849738.93
143	114+61.76	23.63' RT	955.16	524690.55	849734.70
144	114+61.60	29.11' RT	955.40	524686.71	849730.78
145	114+66.67	29.27' RT	955.51	524683.98	849733.23
146	114+61.45	33.44' RT	955.60	524683.68	849727.69
147	114+68.80	33.54' RT	955.70	524680.00	849731.08
148	114+68.52	43.53' RT	955.85	524673.46	849723.51
149	114+61.05	43.43' RT	955.75	524676.68	849720.55
150	114+46.00	43.11' RT	955.59	524682.59	849713.97
151	114+38.14	42.90' RT	955.46	524685.34	849710.23
152	114+39.36	32.91' RT	955.32	524693.41	849716.16
153	114+46.66	33.12' RT	955.43	524690.44	849720.18
154	114+43.68	27.95' RT	955.18	524695.88	849721.44
155	114+47.75	28.30' RT	955.21	524693.86	849723.67
156	114+48.85	22.79' RT	954.98	524697.75	849727.64
157	114+45.46	20.62' RT	955.13	524701.09	849726.76

WEST LEG RT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
158	114+49.20	20.81' RT	954.85	524699.15	849729.07
159	114+49.38	19.82' RT	954.85	524699.85	849729.78
160	114+49.71	17.83' RT	954.93	524701.26	849731.22

NOTES:
REFER TO SDD CURB RAMP DETAILS FOR ADDITIONAL DETAILS
CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, AND LENGTHS PRIOR TO CURB RAMP CONSTRUCTION
FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ARE SHOWN IN THE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES.
(MEF) - MAXIMUM EXTENT FEASIBLE

LEGEND

X

CURB RAMP TYPE

XX

POINT NUMBER ELEVATION

CURB RAMP DETECTABLE WARNING FIELD

NT

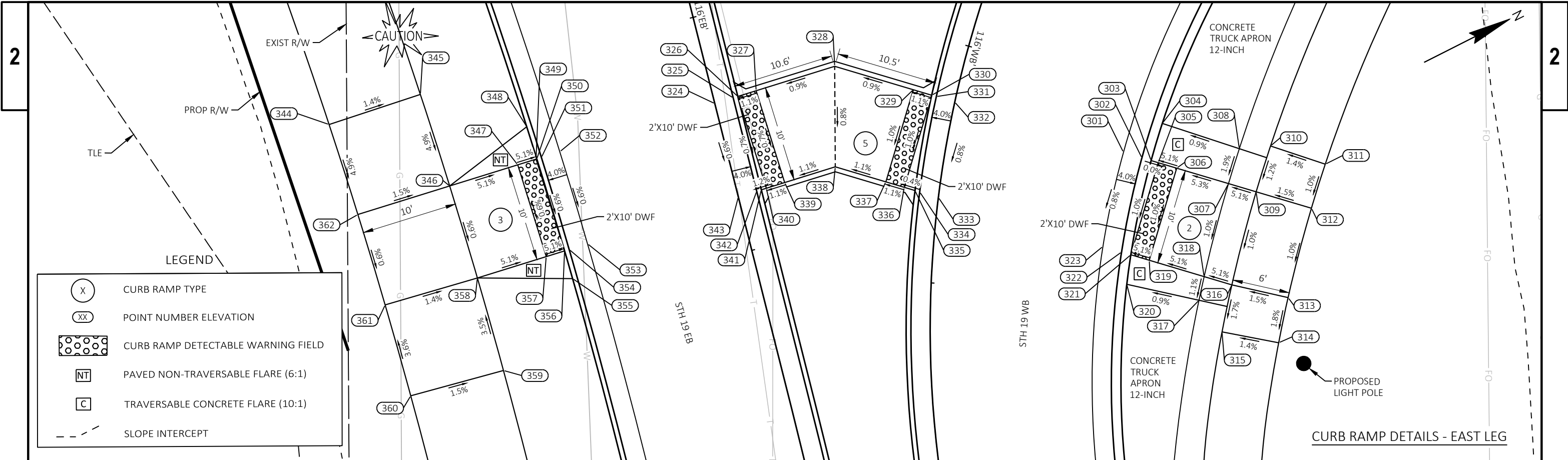
PAVED NON-TRAVERSABLE FLARE (6:1)

C

TRAVERSABLE CONCRETE FLARE (10:1)

- - -

SLOPE INTERCEPT



EAST LEG LT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
301	116+74.55	40.00' LT	954.28	524634.55	849935.80
302	116+75.58	41.72' LT	954.20	524636.01	849937.17
303	116+76.09	42.58' LT	954.20	524636.74	849937.86
304	116+72.62	44.65' LT	954.60	524639.52	849934.94
305	116+76.48	43.24' LT	954.20	524637.30	849938.40
306	116+77.51	44.96' LT	954.30	524638.75	849939.77
307	116+80.38	49.80' LT	954.60	524642.85	849943.63
308	116+77.13	51.78' LT	954.67	524645.49	849940.90
309	116+81.91	52.38' LT	954.75	524645.03	849945.69
310	116+77.65	55.00' LT	954.81	524648.51	849942.11
311	116+80.88	60.06' LT	954.90	524652.74	849946.37
312	116+84.97	57.54' LT	954.85	524649.39	849949.81
313	116+93.28	52.92' LT	954.75	524643.03	849957.02
314	116+97.27	50.84' LT	954.66	524640.04	849960.77
315	116+94.95	45.39' LT	954.57	524635.29	849957.10
316	116+90.68	47.56' LT	954.66	524638.41	849953.20
317	116+91.40	43.86' LT	954.48	524634.63	849953.08
318	116+89.15	44.98' LT	954.50	524636.22	849951.13
319	116+86.10	39.86' LT	954.20	524631.89	849947.04

EAST LEG LT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
320	116+87.95	36.98' LT	954.41	524628.68	849948.21
321	116+85.08	38.14' LT	954.10	524630.43	849945.67
322	116+84.57	37.27' LT	954.10	524629.70	849944.97
323	116+83.54	35.53' LT	954.18	524628.23	849943.59
EAST LEG MEDIAN - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
324	116+59.25	0.00'	954.46	524598.88	849912.11
325	116+59.14	2.00' LT	954.39	524600.86	849912.44
326	116+59.12	2.50' LT	954.39	524601.35	849912.52
327	116+59.01	4.50' LT	954.41	524603.32	849912.86
328	116+58.54	13.04' LT	954.49	524611.76	849914.27
329	116+62.90	20.37' LT	954.57	524617.96	849920.13
330	116+63.92	22.09' LT	954.59	524619.42	849921.50
331	116+64.18	22.52' LT	954.59	524619.78	849921.85
332	116+65.20	24.25' LT	954.66	524621.24	849923.23
333	116+74.41	20.17' LT	954.56	524615.24	849931.31
334	116+73.37	18.43' LT	954.49	524613.77	849929.92
335	116+73.11	17.99' LT	954.49	524613.40	849929.58
336	116+72.52	16.99' LT	954.48	524612.55	849928.77

EAST LEG MEDIAN - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
337	116+71.50	15.27' LT	954.49	524611.10	849927.40
338	116+68.69	10.55' LT	954.40	524607.10	849923.63
339	116+68.99	5.04' LT	954.35	524601.67	849922.72
340	116+69.10	3.04' LT	954.32	524599.70	849922.39
341	116+69.13	2.50' LT	954.31	524599.16	849922.30
342	116+69.16	2.00' LT	954.31	524598.66	849922.21
343	116+69.27	0.00'	954.39	524596.69	849921.88
EAST LEG RT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
344	116+51.57	39.46' RT	955.14	524562.07	849895.97
345	116+50.85	29.48' RT	955.00	524571.96	849897.45
346	116+60.83	28.85' RT	954.52	524570.39	849907.33
347	116+60.42	21.45' RT	954.14	524577.70	849908.55
348	116+56.81	19.56' RT	954.56	524580.33	849905.44
349	116+60.31	19.45' RT	954.04	524579.67	849908.89
350	116+60.31	19.36' RT	954.04	524579.76	849908.90
351	116+60.28	18.86' RT	954.04	524580.25	849908.98
352	116+60.17	16.87' RT	954.12	524582.22	849909.31
353	116+70.16	16.41' RT	954.06	524580.48	849919.16

EAST LEG RT - STA FROM STH 19 EB					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
354	116+70.27	18.41' RT	953.97	524578.51	849918.83
355	116+73.30	18.80' RT	954.46	524577.46	849921.70
356	116+70.30	18.90' RT	953.97	524578.02	849918.75
357	116+70.41	20.90' RT	954.07	524576.04	849918.42
358	116+70.82	28.39' RT	954.46	524568.65	849917.17
359	116+80.81	28.11' RT	954.81	524566.73	849926.99
360	116+81.01	38.11' RT	954.96	524556.93	849924.99
361	116+71.19	38.39' RT	954.60	524558.81	849915.35
362	116+61.37	38.83' RT	954.66	524560.53	849905.67

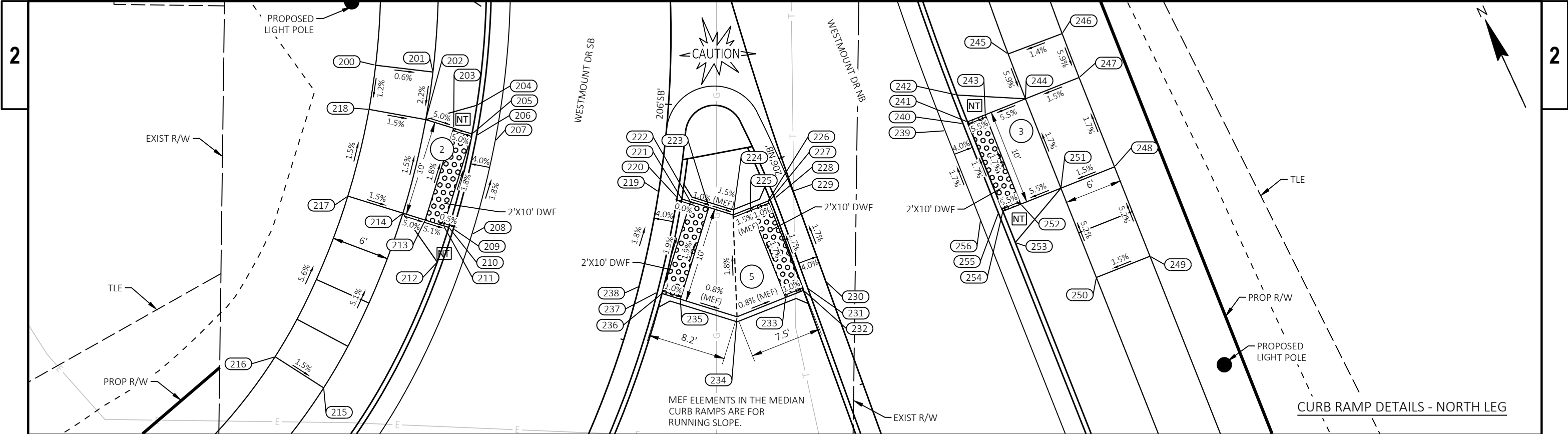
NOTES:

REFER TO SDD CURB RAMPS FOR ADDITIONAL DETAILS

CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, AND LENGTHS PRIOR TO CURB RAMP CONSTRUCTION

FINISHING ITEMS FOR TOPSOIL, SEED, FERTILIZER, AND EROSION MAT ARE SHOWN IN THE EROSION CONTROL PLANS AND MISCELLANEOUS QUANTITIES.

(MEF) - MAXIMUM EXTENT FEASIBLE



NORTH LEG LT - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	206+20.89	37.39' LT	954.91	524782.85	849858.02
201	206+18.74	31.86' LT	954.87	524779.71	849863.13
202	206+14.56	33.99' LT	954.76	524775.53	849860.39
203	206+12.98	31.48' LT	954.61	524773.50	849862.64
204	206+14.44	28.47' LT	954.90	524774.66	849865.84
205	206+11.93	29.83' LT	954.51	524772.16	849864.13
206	206+11.66	29.41' LT	954.49	524771.83	849864.50
207	206+10.59	27.76' LT	954.57	524770.48	849866.00
208	206+02.71	33.08' LT	954.77	524762.67	849859.72
209	206+03.78	34.70' LT	954.69	524764.01	849858.24
210	206+04.05	35.11' LT	954.68	524764.35	849857.86
211	206+04.36	35.57' LT	954.69	524764.73	849857.44
212	206+01.27	37.40' LT	955.28	524761.58	849855.26
213	206+05.42	37.20' LT	954.79	524766.07	849855.95
214	206+06.71	39.18' LT	954.91	524767.69	849854.15
215	205+93.70	52.90' LT	955.94	524754.65	849839.04
216	205+97.87	56.57' LT	956.03	524759.71	849835.81
217	206+09.83	44.09' LT	955.00	524771.71	849849.69
218	206+17.05	39.33' LT	954.86	524778.98	849855.47

NORTH LEG MEDIAN - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
219	206+00.77	13.24' LT	954.97	524758.56	849879.24
220	205+99.61	11.61' LT	954.90	524757.21	849880.74
221	205+99.32	11.20' LT	955.06	524756.87	849881.11
222	205+98.78	10.44' LT	955.06	524756.24	849881.82
223	205+97.62	8.83' LT	954.87	524754.90	849883.30
224	205+96.07	6.72' LT	955.00	524753.13	849885.26
225	205+96.14	4.80' LT	954.82	524753.03	849887.18
226	205+96.21	2.80' LT	954.95	524752.92	849889.17
227	205+96.22	2.55' LT	954.95	524752.91	849889.43
228	205+96.24	2.05' LT	954.79	524752.88	849889.92
229	205+96.31	0.05' LT	954.87	524752.77	849891.92
230	205+86.31	0.00'	955.04	524742.80	849891.12
231	205+86.25	2.00' LT	954.96	524742.91	849889.13
232	205+86.24	2.50' LT	955.12	524742.94	849888.63
233	205+86.18	4.50' LT	954.99	524743.04	849886.63
234	205+86.02	9.94' LT	955.18	524743.34	849881.19
235	205+89.74	14.85' LT	955.08	524747.47	849876.61
236	205+90.95	16.45' LT	955.25	524748.81	849875.12
237	205+91.26	16.85' LT	955.09	524749.14	849874.75
238	205+92.47	18.44' LT	955.17	524750.48	849873.26

NORTH LEG RT - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
239	205+96.97	17.00' RT	954.51	524751.84	849908.97
240	205+97.05	19.00' RT	954.43	524751.73	849910.96
241	205+97.07	19.50' RT	954.43	524751.70	849911.46
242	206+00.22	19.39' RT	954.87	524754.70	849911.64
243	205+97.15	21.50' RT	954.54	524751.59	849913.46
244	205+97.34	26.00' RT	954.79	524751.35	849917.95
245	206+02.68	25.81' RT	955.08	524756.34	849918.27
246	206+02.91	31.81' RT	955.17	524755.90	849924.25
247	205+97.60	31.99' RT	954.88	524751.02	849923.94
248	205+87.26	32.31' RT	955.05	524741.03	849923.40
249	205+77.27	32.60' RT	955.57	524731.05	849922.85
250	205+77.09	26.60' RT	955.48	524731.38	849916.86
251	205+87.08	26.31' RT	954.96	524741.36	849917.41
252	205+86.95	21.81' RT	954.71	524741.61	849912.91
253	205+83.39	19.91' RT	955.15	524738.22	849910.72
254	205+86.89	19.81' RT	954.60	524741.72	849910.92
255	205+86.88	19.31' RT	954.60	524741.74	849910.42
256	205+86.82	17.31' RT	954.68	524741.85	849908.42

NOTES:

REFER TO SDD CURB RAMP DETAILS FOR ADDITIONAL DETAILS

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(MEF) - MAXIMUM EXTENT FEASIBLE

LEGEND

X

CURB RAMP TYPE

XX

POINT NUMBER ELEVATION

CURB RAMP DETECTABLE WARNING FIELD

NT

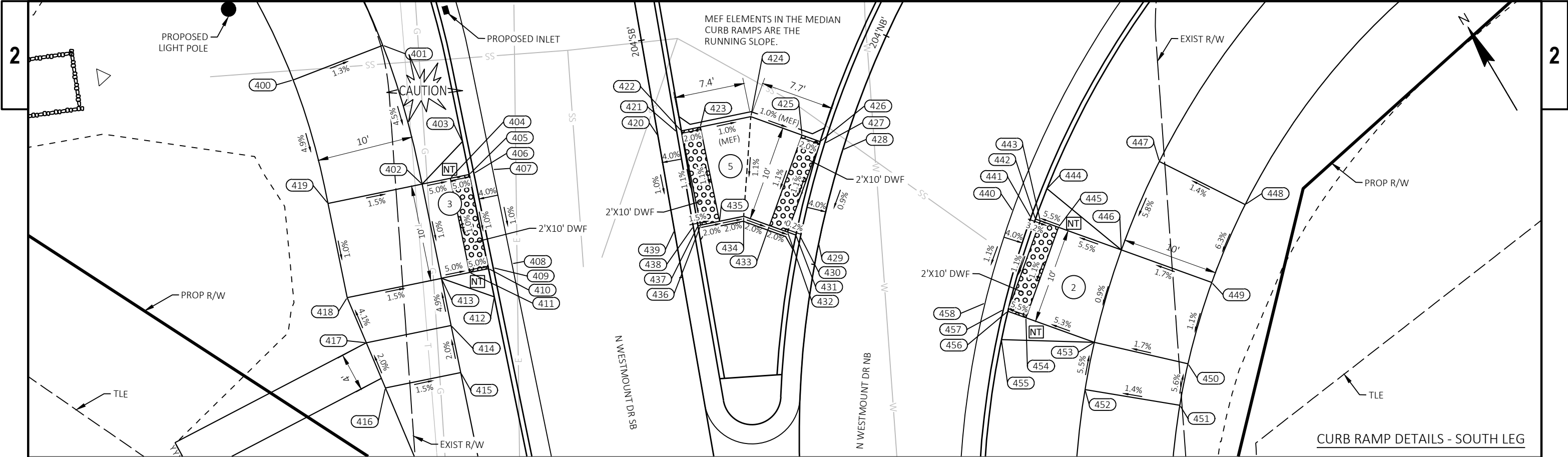
PAVED NON-TRAVERSABLE FLARE (6:1)

C

TRAVERSABLE CONCRETE FLARE (10:1)

- - -

SLOPE INTERCEPT



CURB RAMP DETAILS - SOUTH LEG

SOUTH LEG LT - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	203+80.89	57.08' LT	955.50	524616.28	849739.62
401	203+84.71	48.98' LT	955.37	524614.65	849749.49
402	203+75.69	41.69' LT	954.69	524600.14	849745.68
403	203+79.39	38.47' LT	954.99	524601.82	849751.55
404	203+76.50	38.91' LT	954.54	524599.17	849748.52
405	203+77.07	37.07' LT	954.44	524598.52	849750.41
406	203+77.21	36.61' LT	954.44	524598.35	849750.88
407	203+77.79	34.77' LT	954.52	524597.71	849752.78
408	203+70.79	31.12' LT	954.42	524588.25	849749.53
409	203+70.29	33.01' LT	954.34	524588.89	849747.64
410	203+70.17	33.48' LT	954.34	524589.06	849747.17
411	203+69.68	35.37' LT	954.44	524589.71	849745.28
412	203+68.03	32.53' LT	954.80	524586.22	849746.19
413	203+68.98	38.21' LT	954.59	524590.68	849742.44
414	203+65.51	36.72' LT	954.83	524585.94	849740.81
415	203+61.96	35.39' LT	954.93	524581.21	849739.19
416	203+60.58	43.15' LT	955.05	524583.81	849731.62
417	203+63.76	45.37' LT	954.95	524588.86	849732.30
418	203+66.85	47.74' LT	954.74	524593.92	849732.98
419	203+73.18	50.99' LT	954.84	524603.38	849736.22

SOUTH LEG MEDIAN - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
420	203+83.66	18.87' LT	954.88	524592.01	849769.38
421	203+84.43	17.09' LT	954.96	524591.36	849771.27
422	203+84.63	16.65' LT	954.96	524591.20	849771.74
423	203+85.43	14.87' LT	954.76	524590.55	849773.63
424	203+87.70	10.15' LT	954.86	524588.81	849778.71
425	203+87.49	4.50' LT	954.64	524584.46	849782.33
426	203+87.41	2.50' LT	954.76	524582.92	849783.61
427	203+87.39	2.00' LT	954.76	524582.53	849783.93
428	203+87.31	0.00'	954.68	524580.99	849785.21
429	203+77.26	0.00'	954.57	524573.88	849778.11
430	203+77.54	2.00' LT	954.65	524575.44	849776.82
431	203+77.61	2.50' LT	954.65	524575.82	849776.50
432	203+77.74	3.40' LT	954.65	524576.53	849775.92
433	203+78.00	5.38' LT	954.55	524578.06	849774.64
434	203+78.36	8.21' LT	954.75	524580.26	849772.81
435	203+77.42	10.56' LT	954.65	524581.09	849770.39
436	203+76.72	12.40' LT	954.84	524581.74	849768.50
437	203+76.62	12.68' LT	954.85	524581.84	849768.22
438	203+76.45	13.14' LT	954.85	524582.00	849767.75
439	203+75.78	14.99' LT	954.77	524582.65	849765.85

SOUTH LEG RT - STA FROM NB WESTMOUNT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
440	203+86.31	18.79' RT	954.30	524566.53	849797.23
441	203+86.18	20.78' RT	954.21	524564.99	849798.51
442	203+86.14	21.28' RT	954.21	524564.60	849798.83
443	203+86.11	21.83' RT	954.20	524564.19	849799.17
444	203+90.45	21.46' RT	954.77	524566.72	849801.47
445	203+85.96	23.82' RT	954.33	524562.65	849800.45
446	203+85.39	30.77' RT	954.69	524557.30	849804.90
447	203+99.91	31.27' RT	955.27	524563.22	849812.97
448	203+99.27	41.26' RT	955.41	524554.82	849818.39
449	203+84.35	40.75' RT	954.86	524549.60	849811.29
450	203+69.61	39.99' RT	954.76	524543.57	849804.86
451	203+62.35	39.52' RT	955.01	524540.29	849801.94
452	203+63.93	29.58' RT	954.87	524546.70	849794.27
453	203+71.03	30.03' RT	954.60	524550.44	849797.59
454	203+73.02	22.61' RT	954.20	524556.26	849792.76
455	203+69.70	20.41' RT	954.55	524555.59	849789.41
456	203+73.49	20.64' RT	954.09	524557.80	849791.48
457	203+73.60	20.15' RT	954.09	524558.18	849791.16
458	203+74.04	18.17' RT	954.17	524559.73	849789.87

NOTES:

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(MEF) - MAXIMUM EXTENT FEASIBLE

LEGEND

X

CURB RAMP TYPE

XX

POINT NUMBER ELEVATION

CURB RAMP DETECTABLE WARNING FIELD

NT

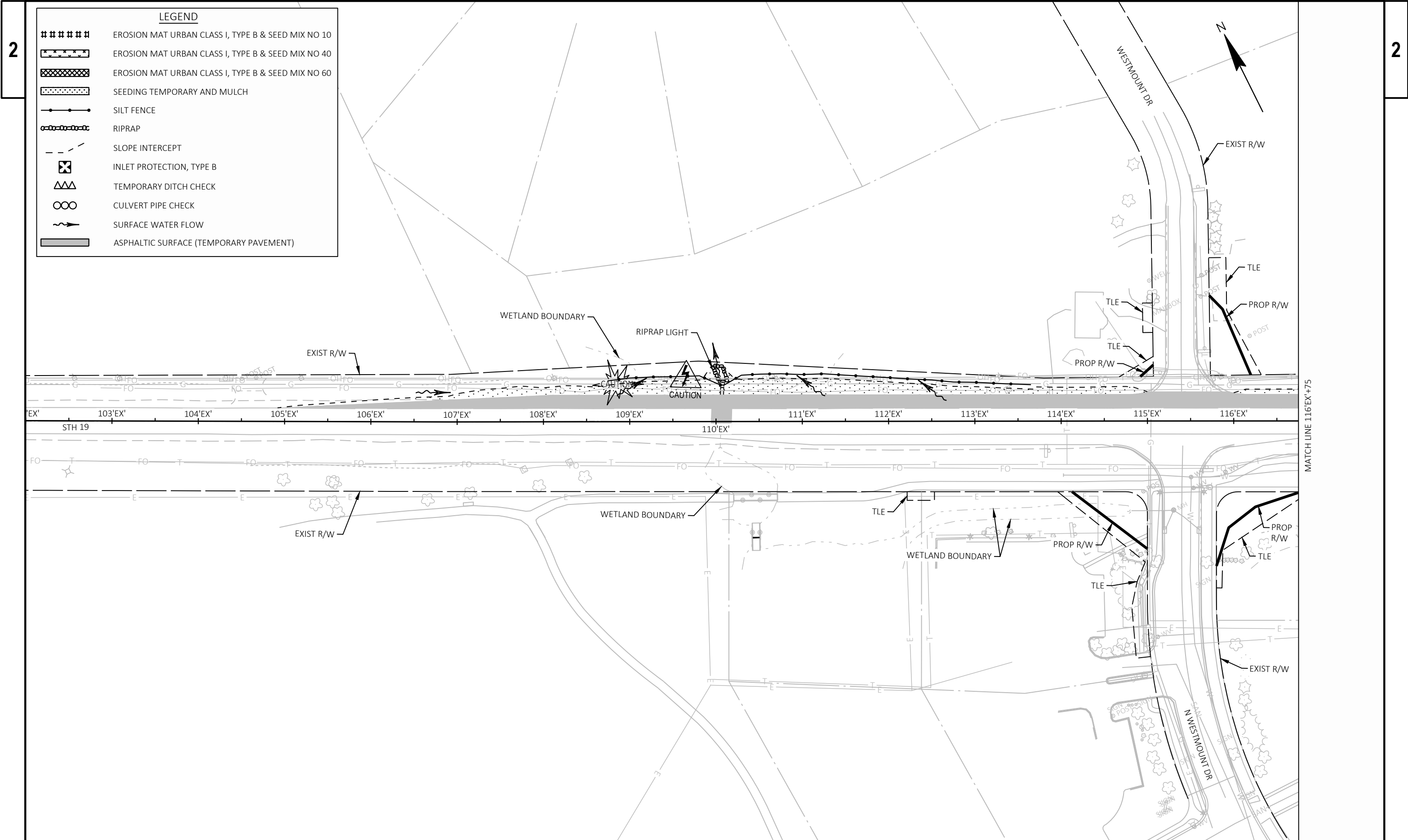
PAVED NON-TRAVERSABLE FLARE (6:1)

C

TRAVERSABLE CONCRETE FLARE (10:1)

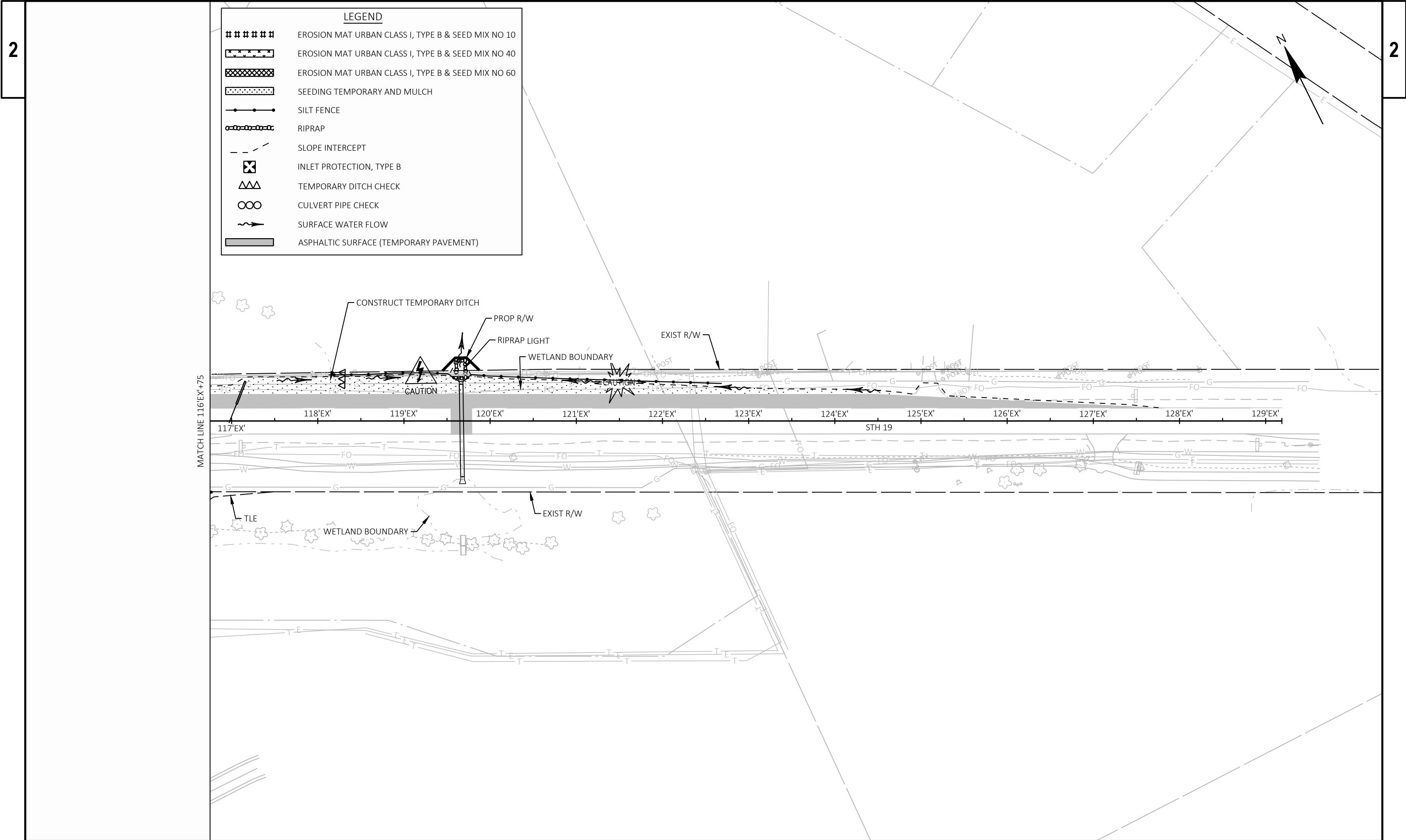
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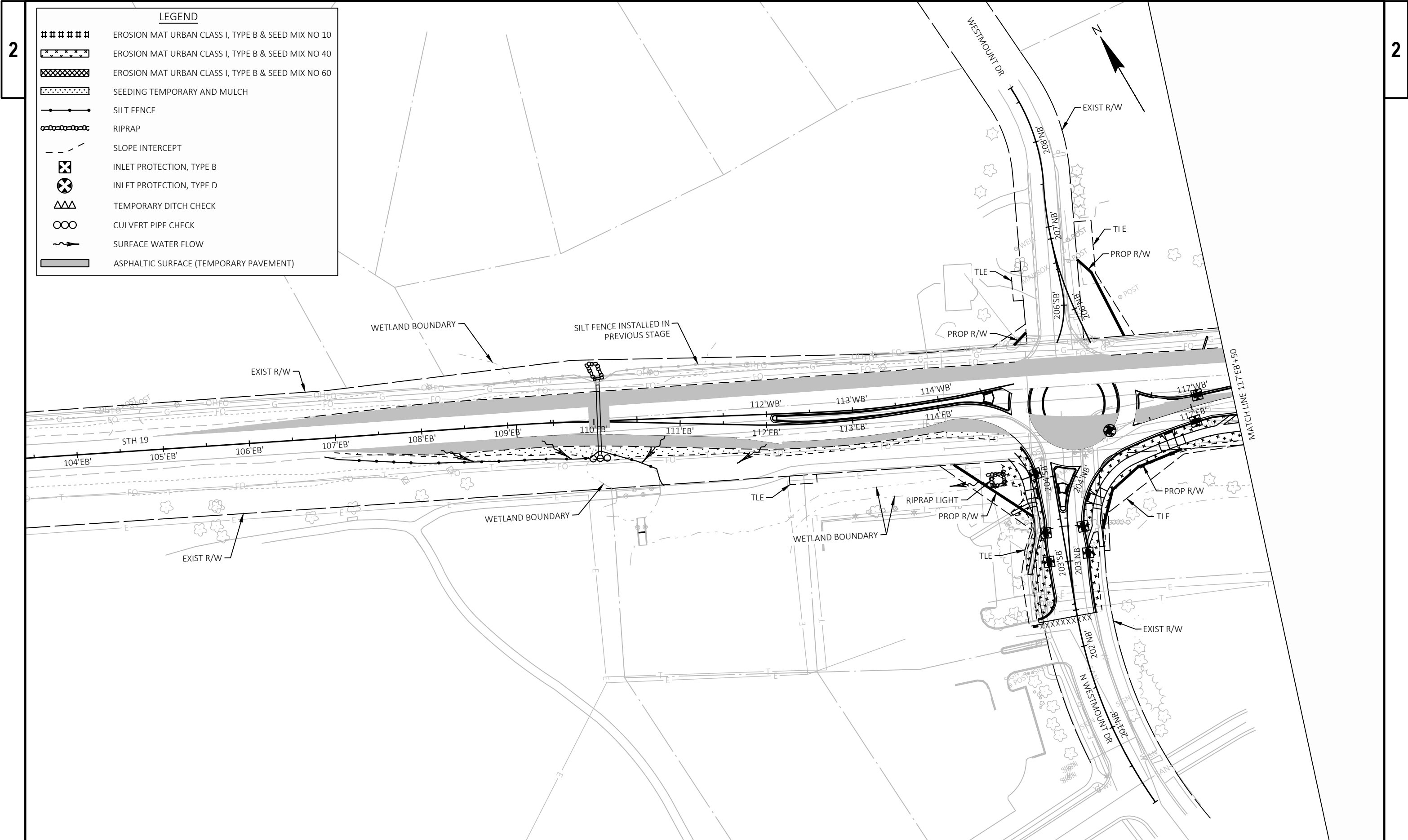
SLOPE INTERCEPT



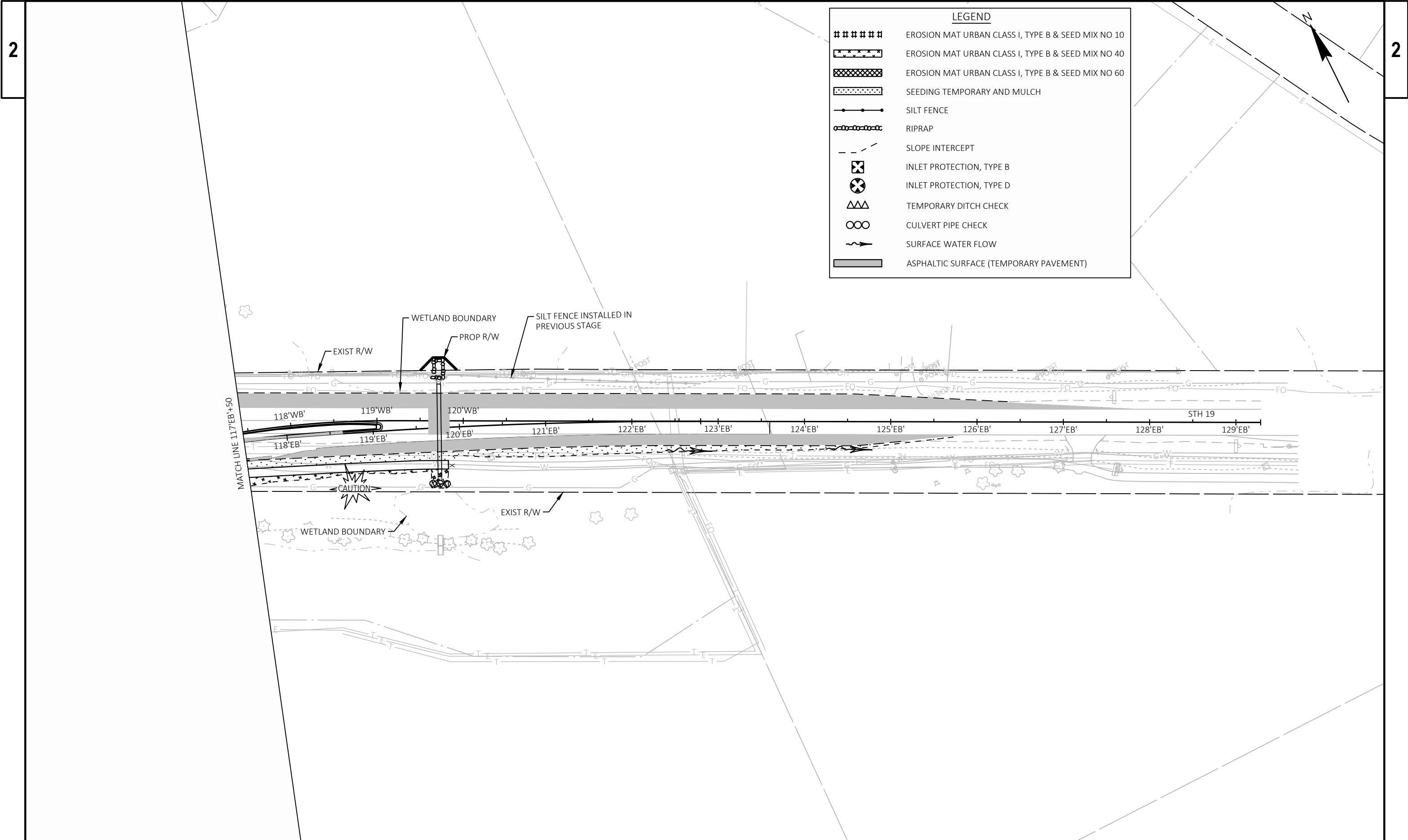
LEGEND	
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*****	EROSION MAT URBAN CLASS I, TYPE B & SEED MIX NO 40
*****	EROSION MAT URBAN CLASS I, TYPE B & SEED MIX NO 60
*****	SEEDING TEMPORARY AND MULCH
-----	SILT FENCE
-----	RIPRAP
- - - - -	SLOPE INTERCEPT
⊗	INLET PROTECTION, TYPE B
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECK
~~~~~	SURFACE WATER FLOW
=====	ASPHALTIC SURFACE (TEMPORARY PAVEMENT)

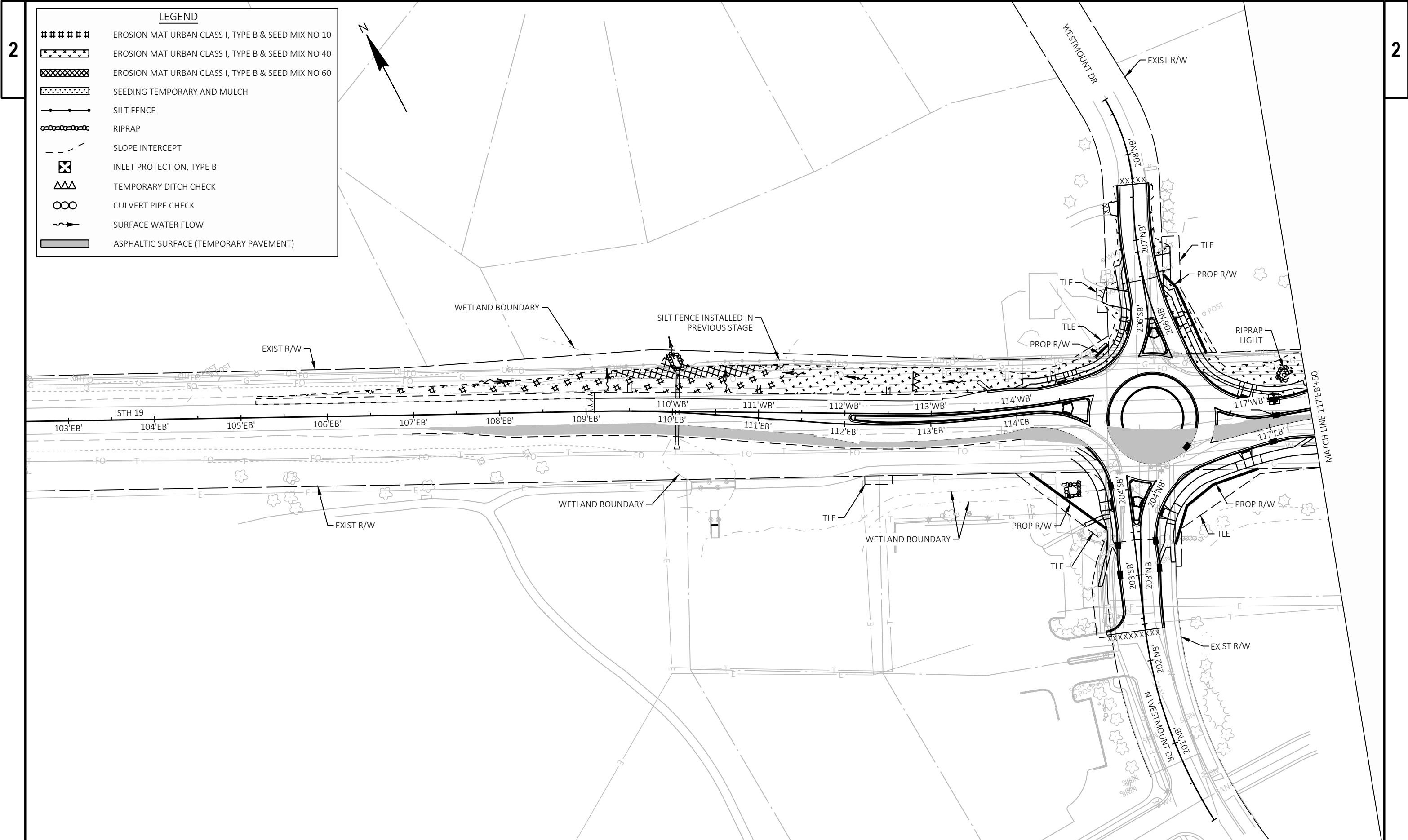


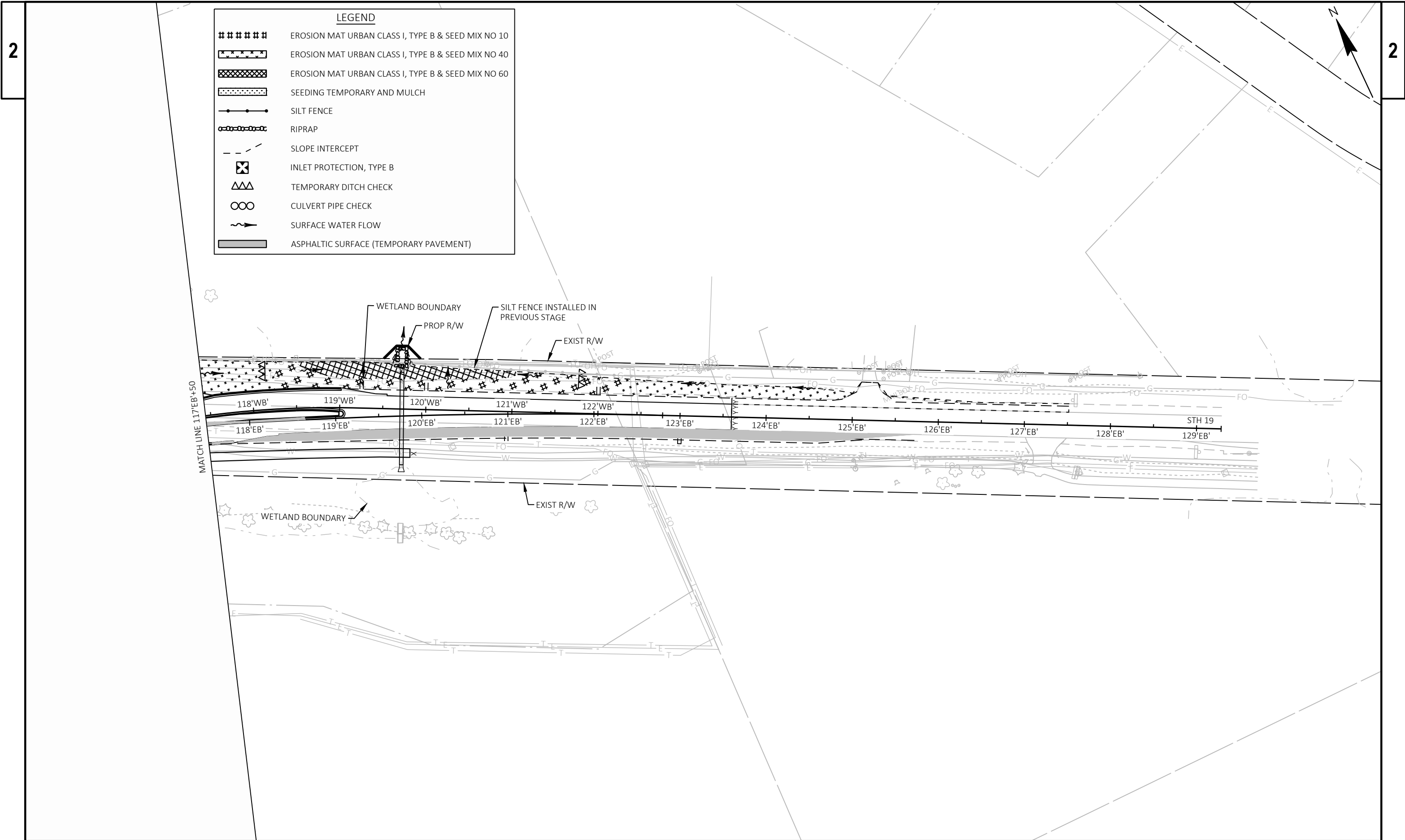


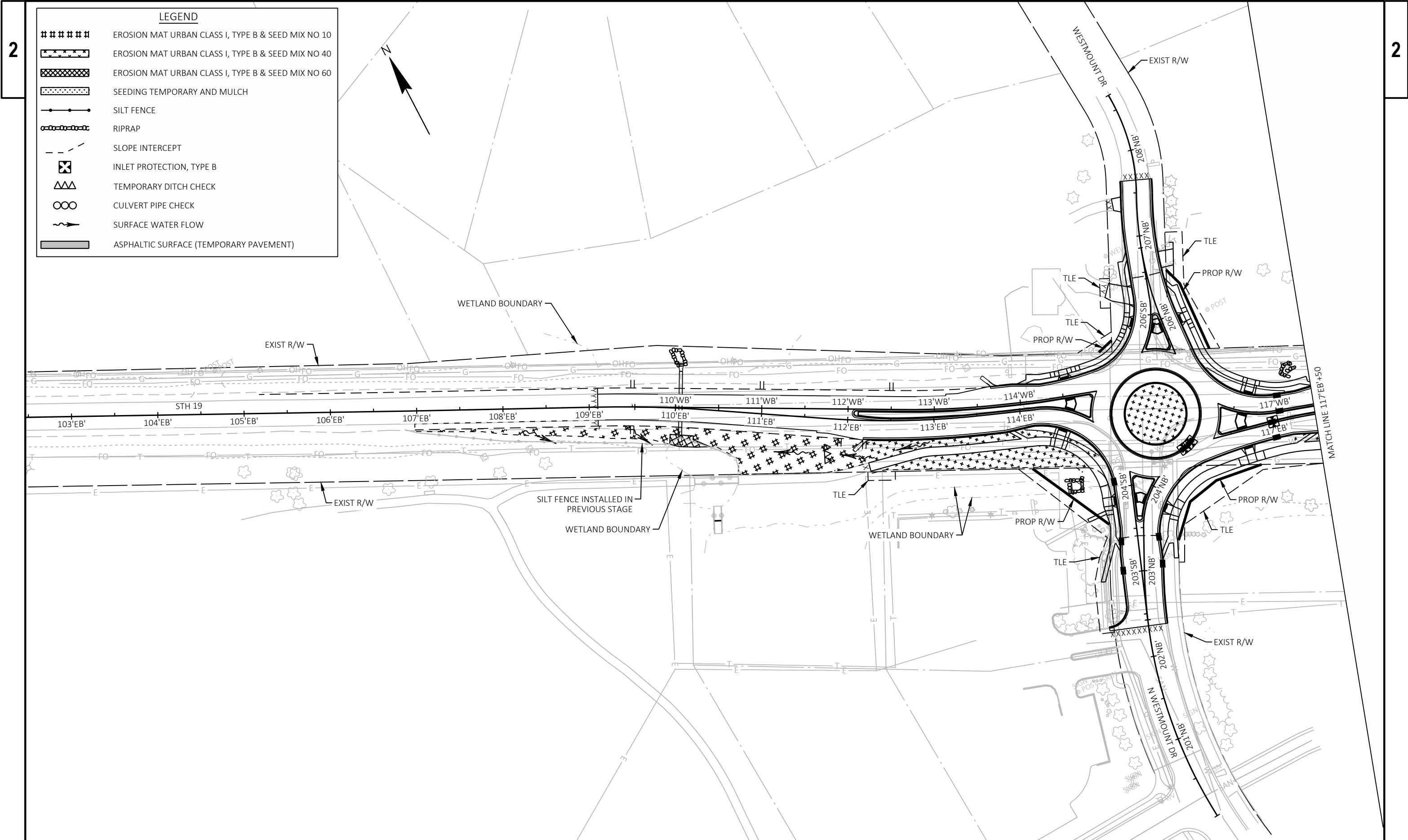


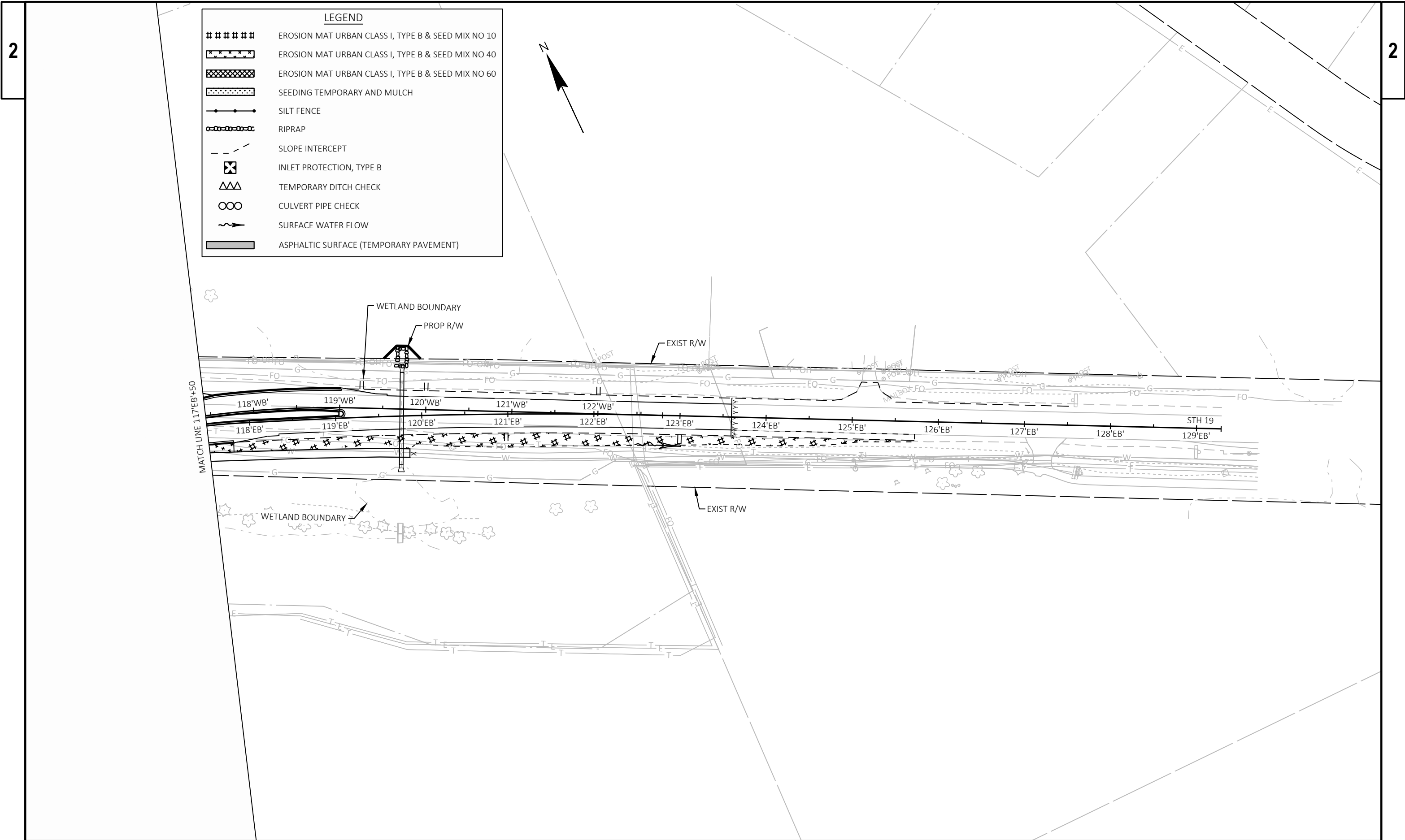
LEGEND	
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*****	EROSION MAT URBAN CLASS I, TYPE B & SEED MIX NO 40
*****	EROSION MAT URBAN CLASS I, TYPE B & SEED MIX NO 60
*****	SEEDING TEMPORARY AND MULCH
-----	SILT FENCE
-----	RIPRAP
-----	SLOPE INTERCEPT
⊗	INLET PROTECTION, TYPE B
⊗	INLET PROTECTION, TYPE D
ΔΔΔ	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECK
~~~~~	SURFACE WATER FLOW
=====	ASPHALTIC SURFACE (TEMPORARY PAVEMENT)

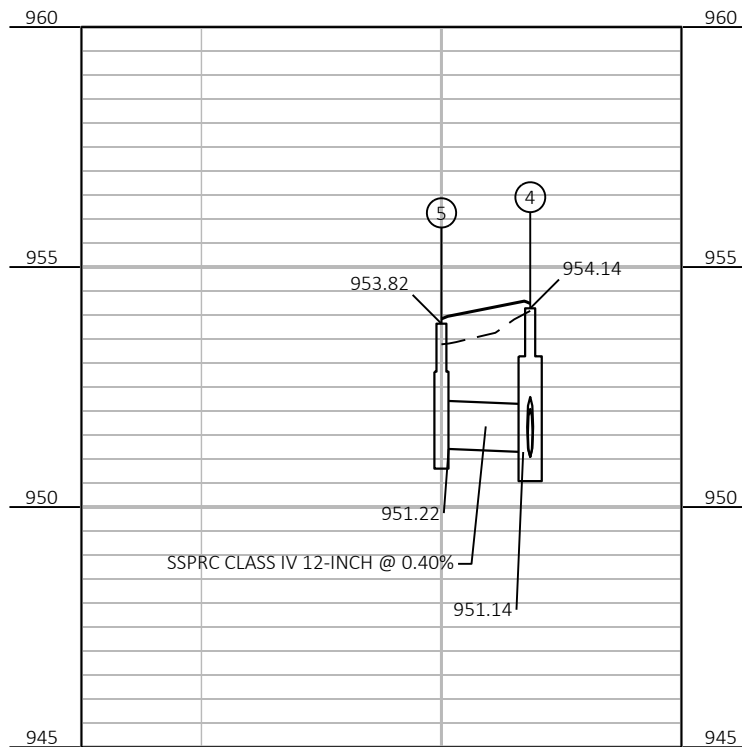
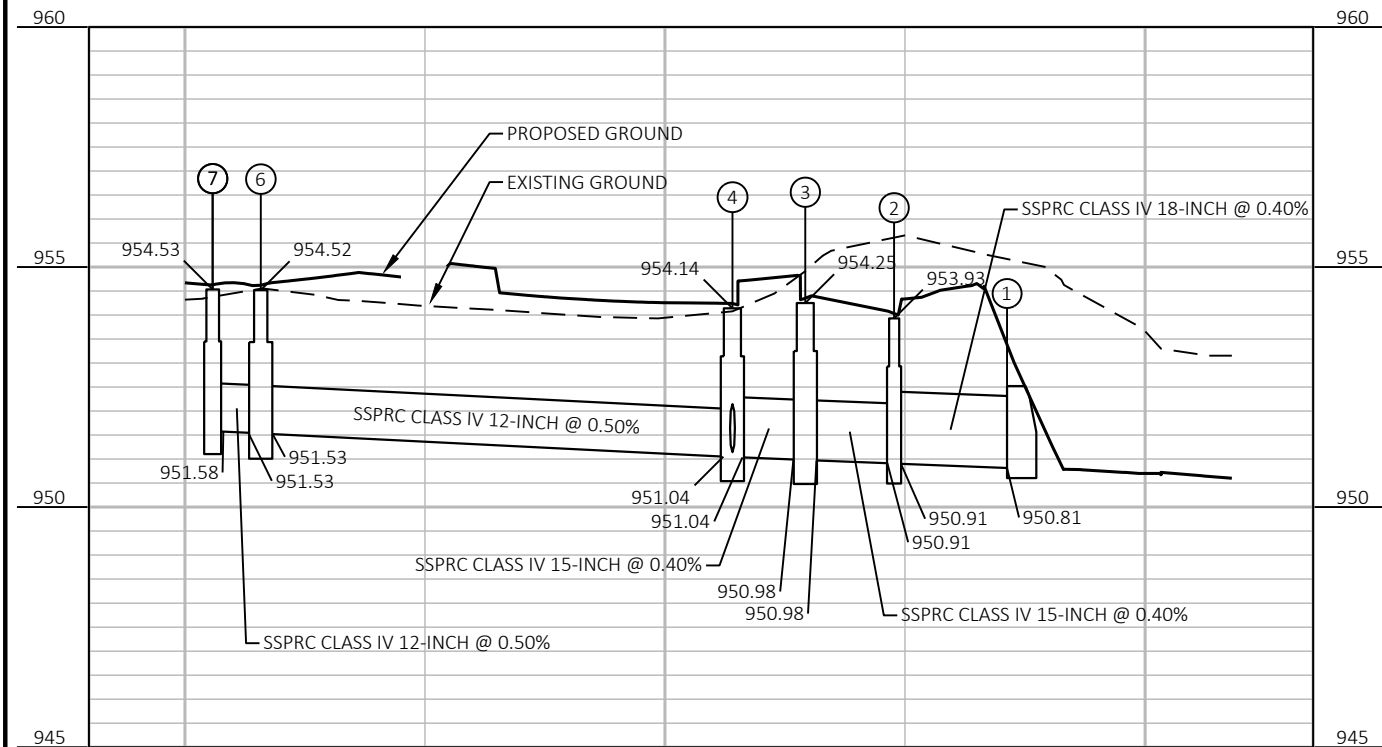
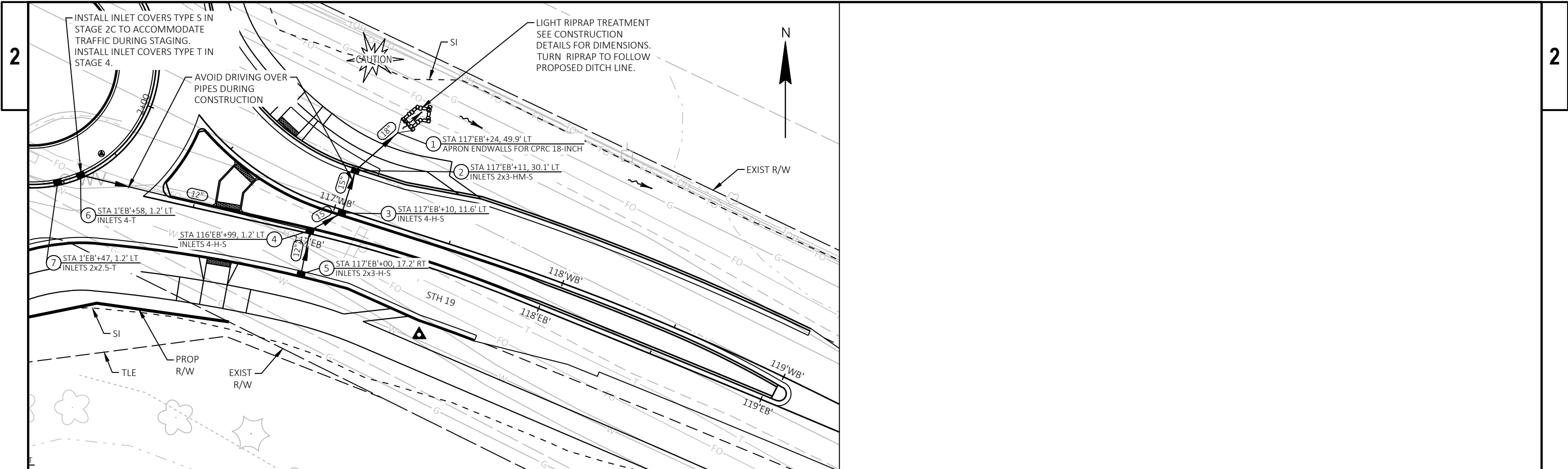


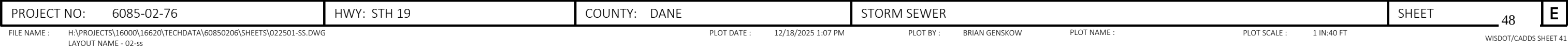
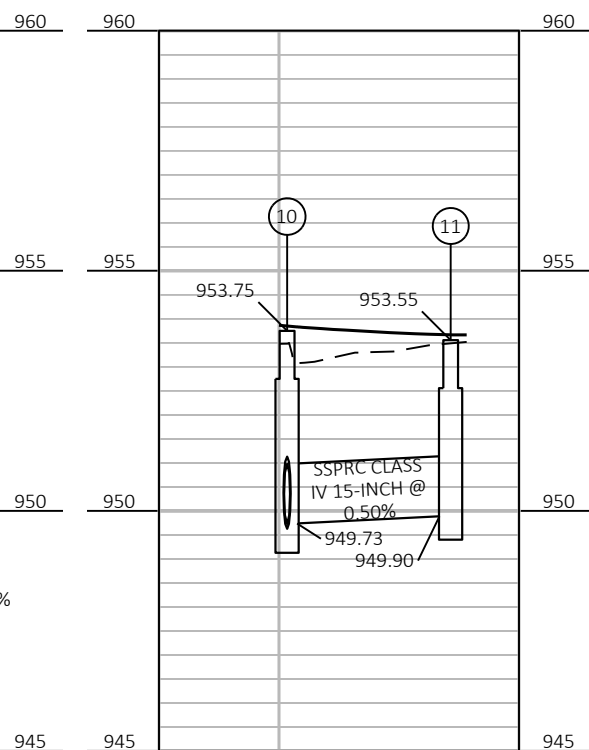


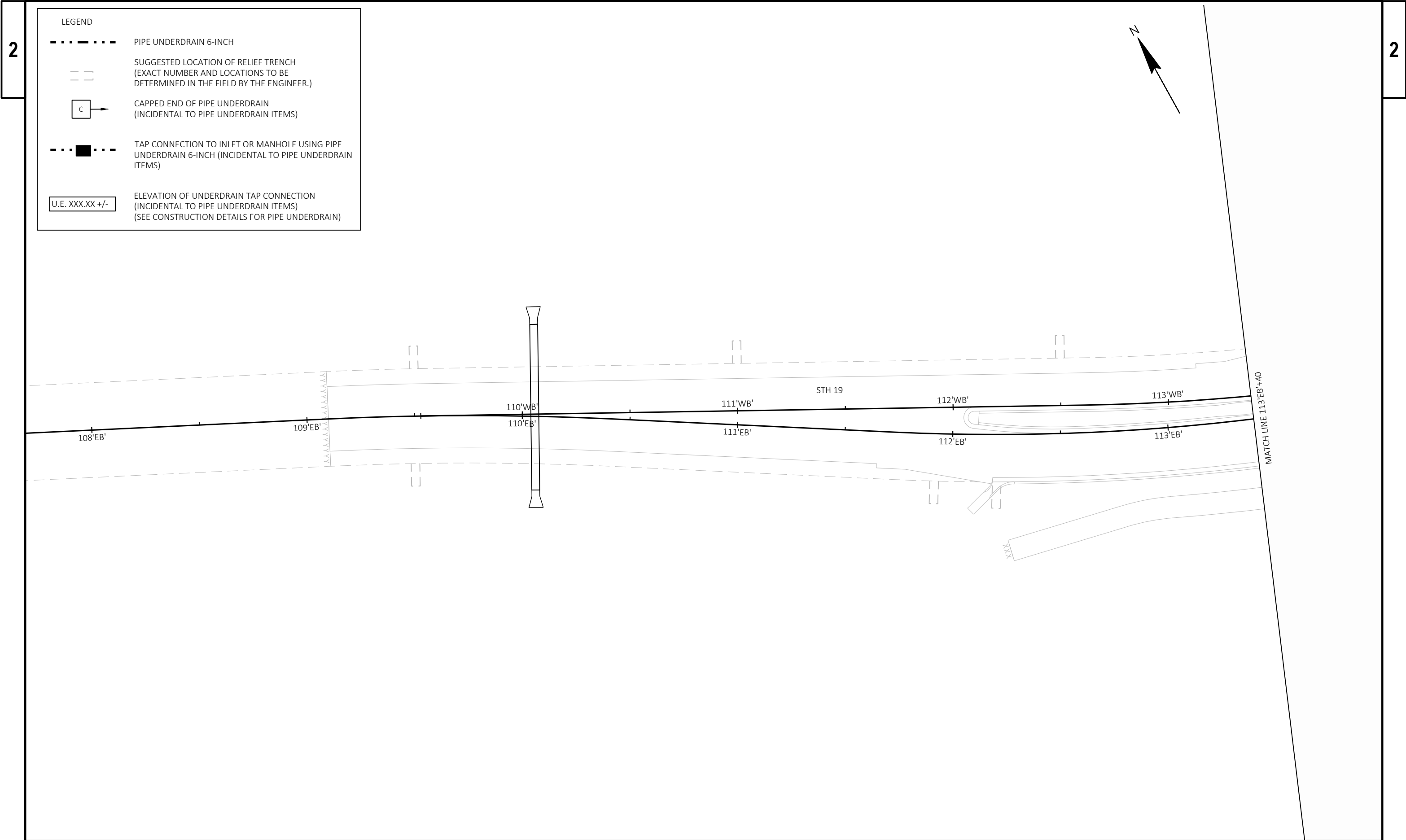


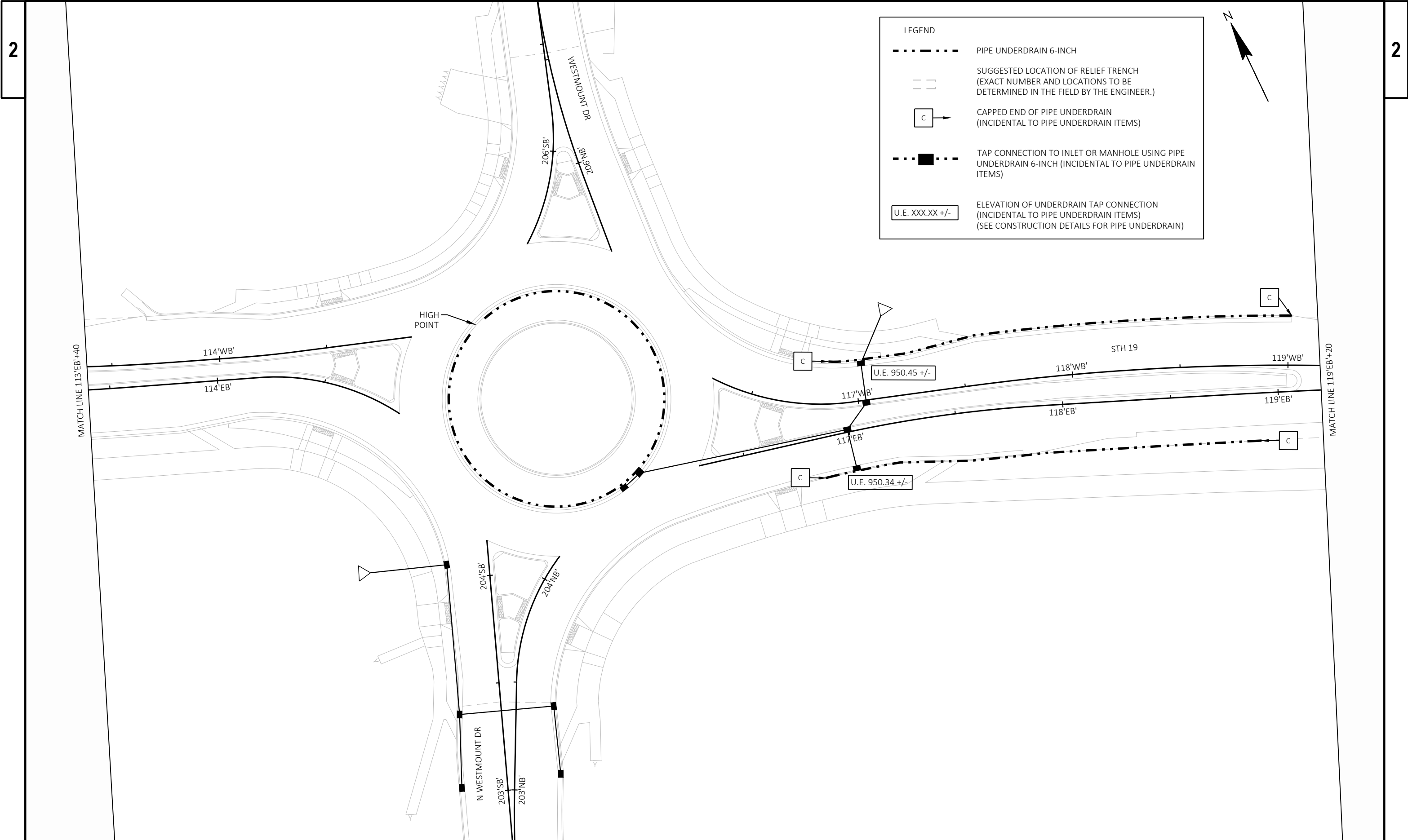


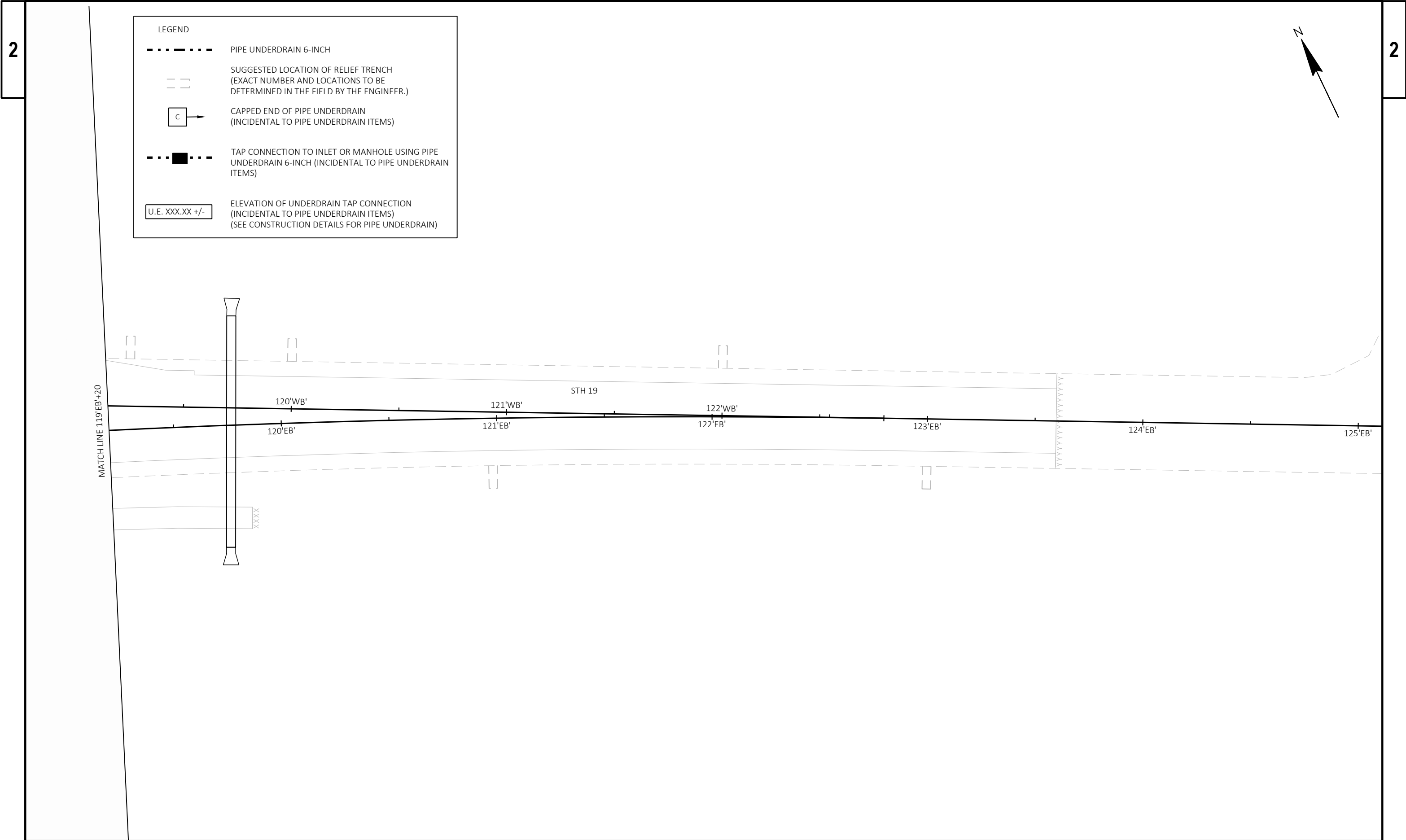


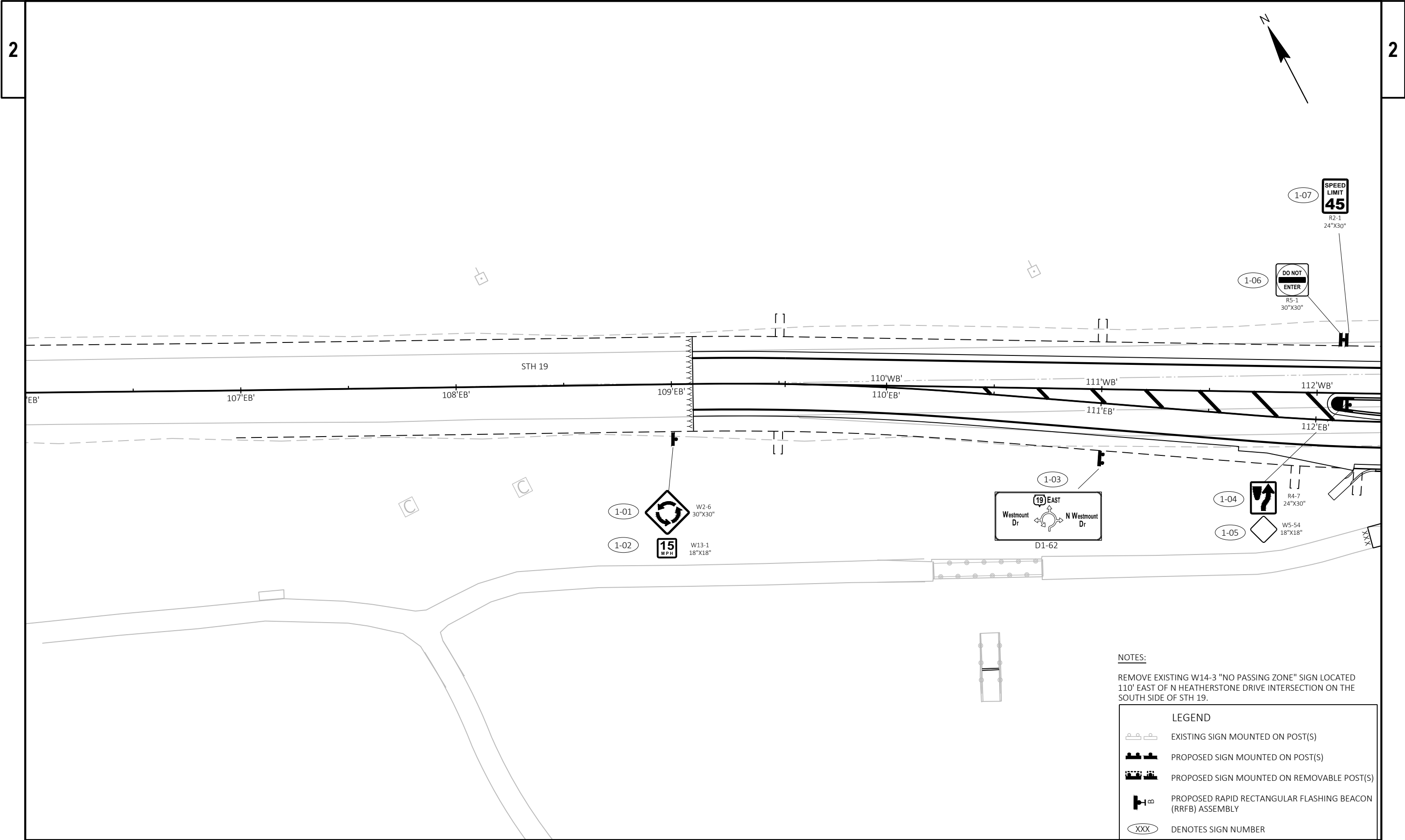


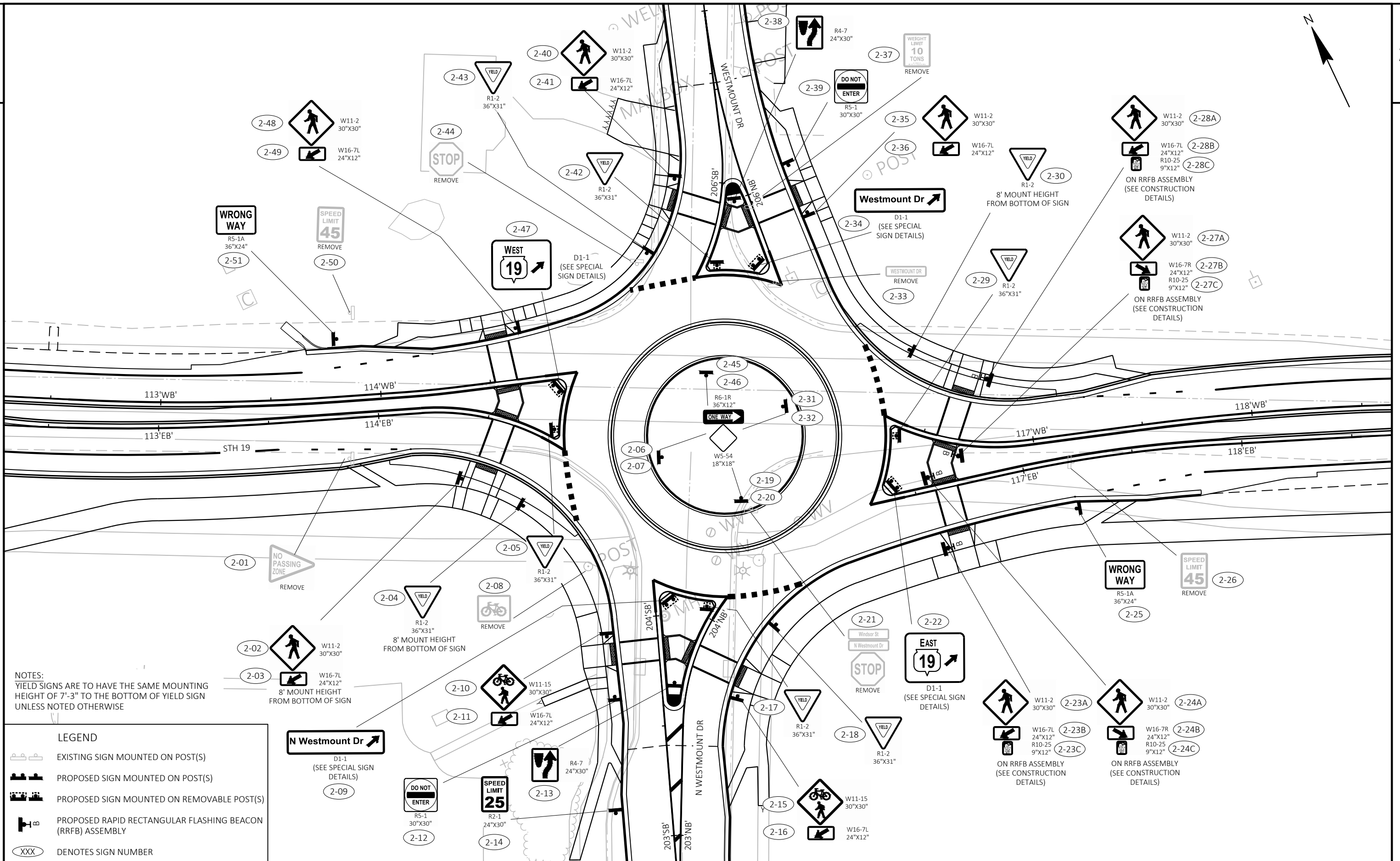
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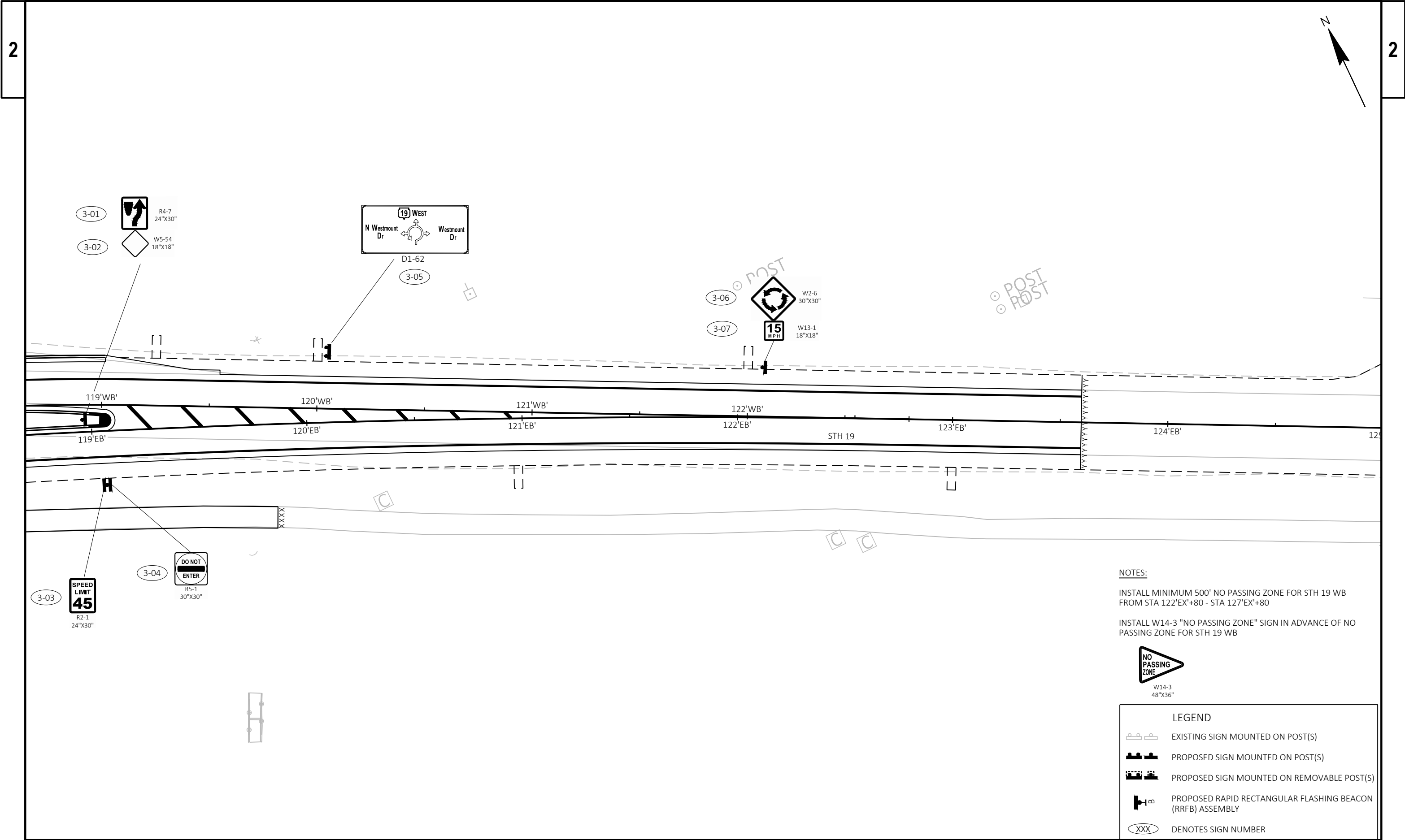


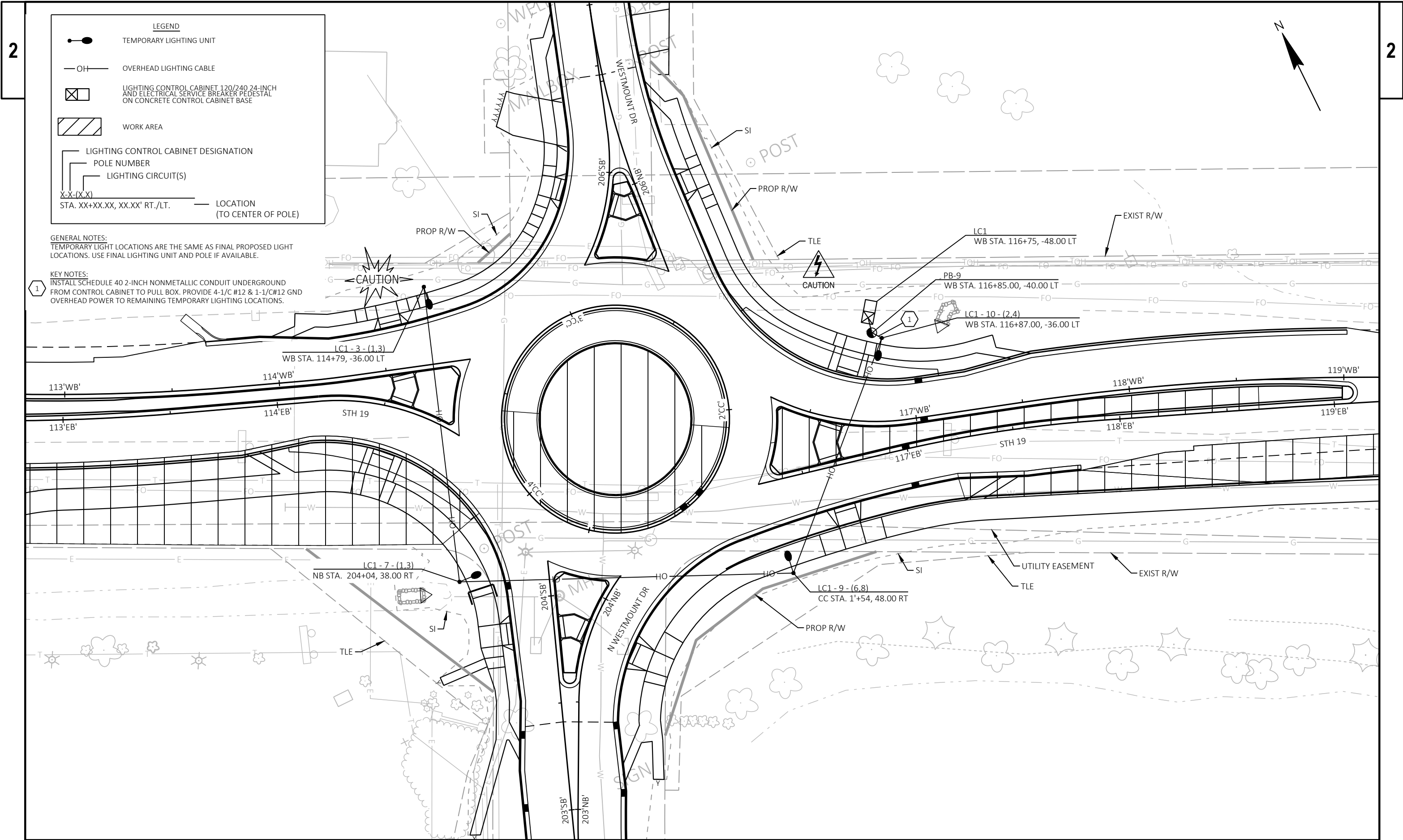


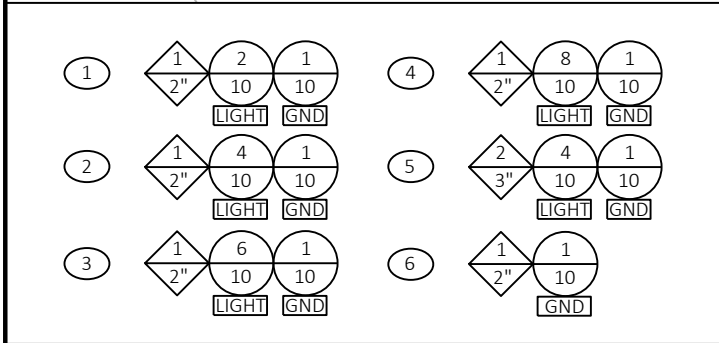
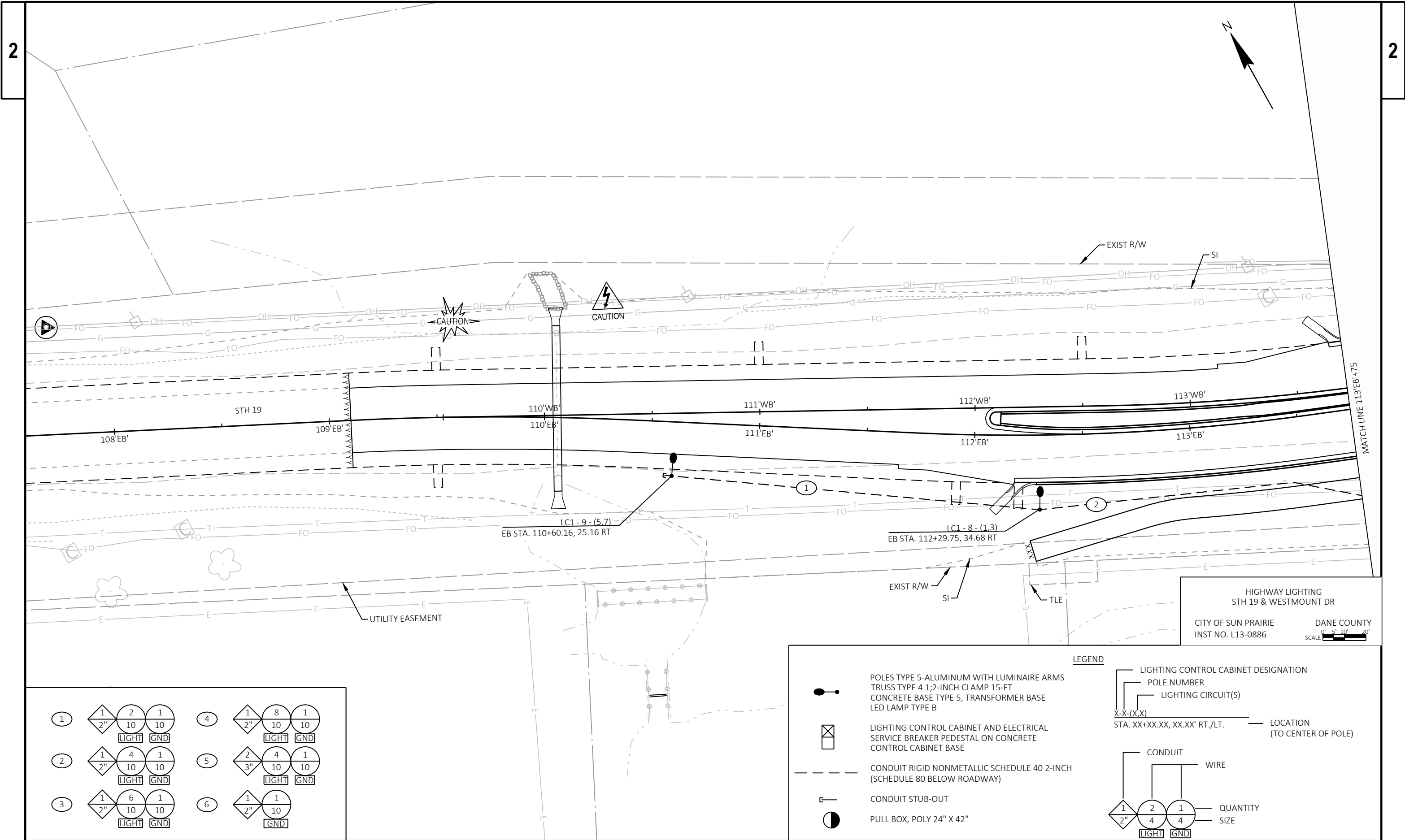












LEGEND

POLES TYPE 5-ALUMINUM WITH LUMINAIRE ARMS
TRUSS TYPE 4 1;2-INCH CLAMP 15-FT
CONCRETE BASE TYPE 5, TRANSFORMER BASE
LED LAMP TYPE B

LIGHTING CONTROL CABINET AND ELECTRICAL
SERVICE BREAKER PEDESTAL ON CONCRETE
CONTROL CABINET BASE

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(SCHEDULE 80 BELOW ROADWAY)

CONDUIT STUB-OUT

PULL BOX, POLY 24" X 42"

LIGHTING CONTROL CABINET DESIGNATION

POLE NUMBER

LIGHTING CIRCUIT(S)

X-X-(X,X)

STA. XX+XX.XX, XX.XX' RT./LT.

LOCATION
(TO CENTER OF POLE)

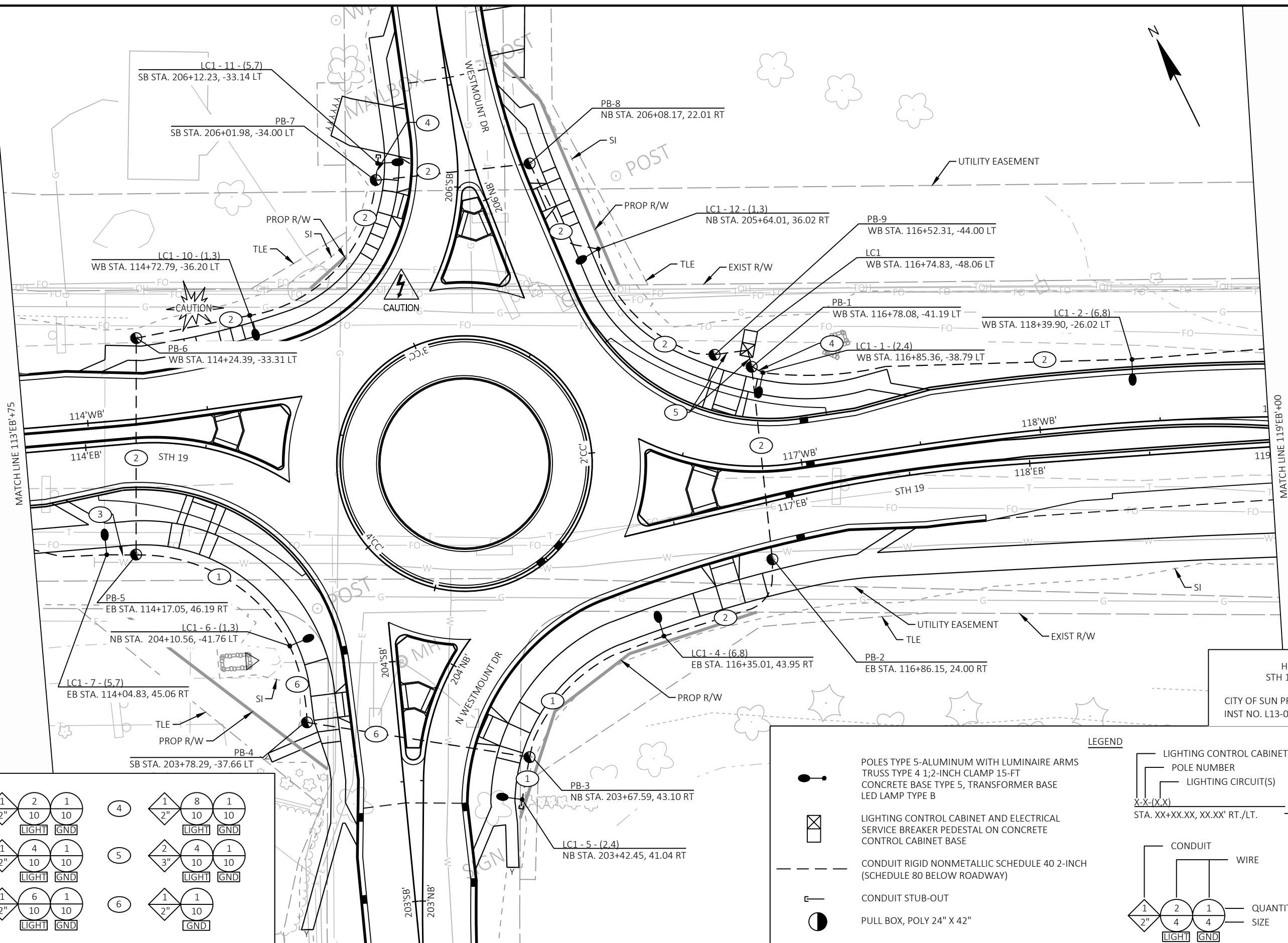
CONDUIT

WIRE

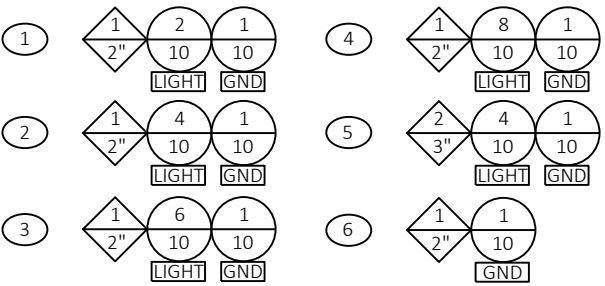
QUANTITY

SIZE

LIGHT GND



HIGHWAY LIGHTING
STH 19 & WESTMOUNT DR
CITY OF SUN PRAIRIE
INST NO. L13-0886
DANE COUNTY
SCALE 0' 5' 10' 20'



LEGEND

- POLES TYPE 5-ALUMINUM WITH LUMINAIRE ARMS
TRUSS TYPE 4 1/2-INCH CLAMP 15-FT
CONCRETE BASE TYPE 5, TRANSFORMER BASE
LED LAMP TYPE B
- LIGHTING CONTROL CABINET AND ELECTRICAL
SERVICE BREAKER PEDESTAL ON CONCRETE
CONTROL CABINET BASE
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
(SCHEDULE 80 BELOW ROADWAY)
- CONDUIT STUB-OUT
- PULL BOX, POLY 24" X 42"
- LIGHTING CONTROL CABINET DESIGNATION
POLE NUMBER
LIGHTING CIRCUIT(S)
X-X-(X,X)
STA. XX+XX.XX, XX.XX' RT./LT.
- LOCATION
(TO CENTER OF POLE)
- CONDUIT
WIRE
- QUANTITY
SIZE

PROJECT NO: 6085-02-76

HWY: STH 19

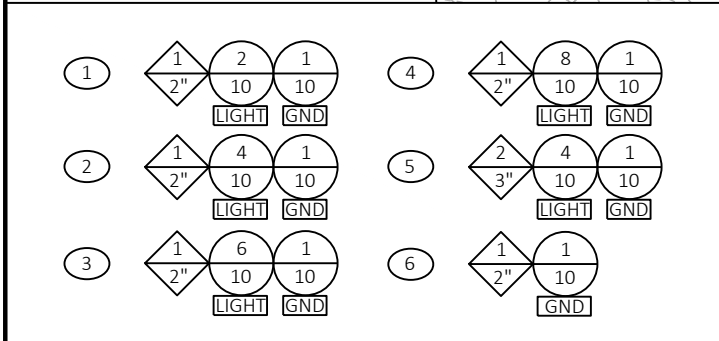
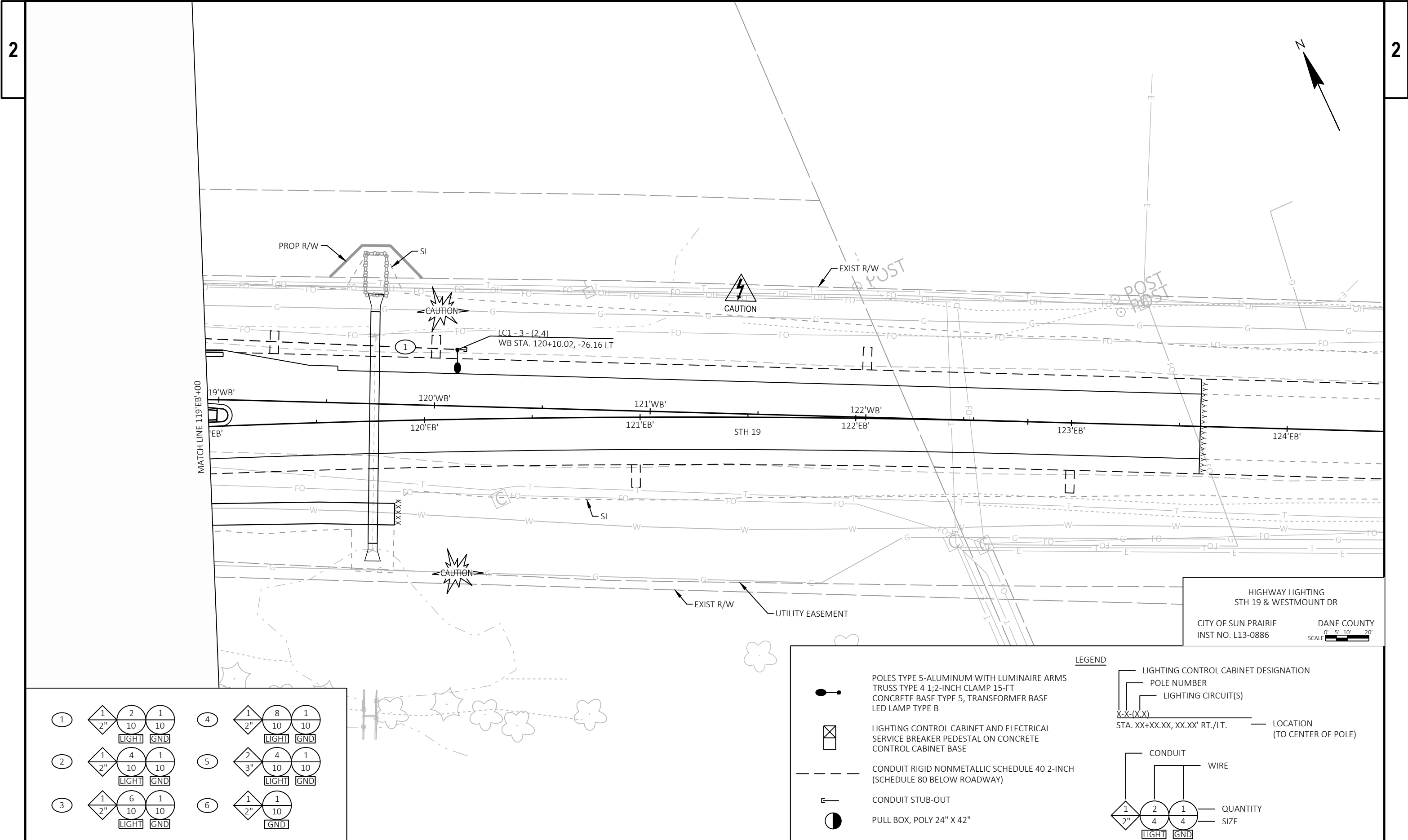
COUNTY: DANE

LIGHTING PLAN

SHEET

57

E



POLES TYPE 5-ALUMINUM WITH LUMINAIRE ARMS
TRUSS TYPE 4 1;2-INCH CLAMP 15-FT
CONCRETE BASE TYPE 5, TRANSFORMER BASE
LED LAMP TYPE B

LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH (SCHEDULE 80 BELOW ROADWAY)

CONDUIT STUB-OUT

PULL BOX, POLY 24" X 42"

LEGEND

LIGHTING CONTROL CABINET DESIGNATION
POLE NUMBER
LIGHTING CIRCUIT(S)
X-X-(X,X)
STA. XX+XX.XX, XX.XX' RT./LT.

LOCATION (TO CENTER OF POLE)

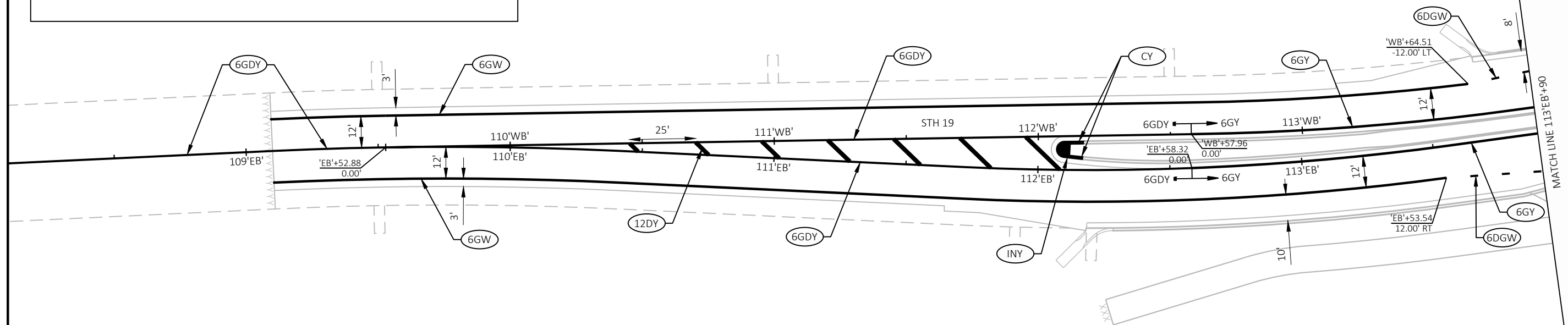
CONDUIT
WIRE

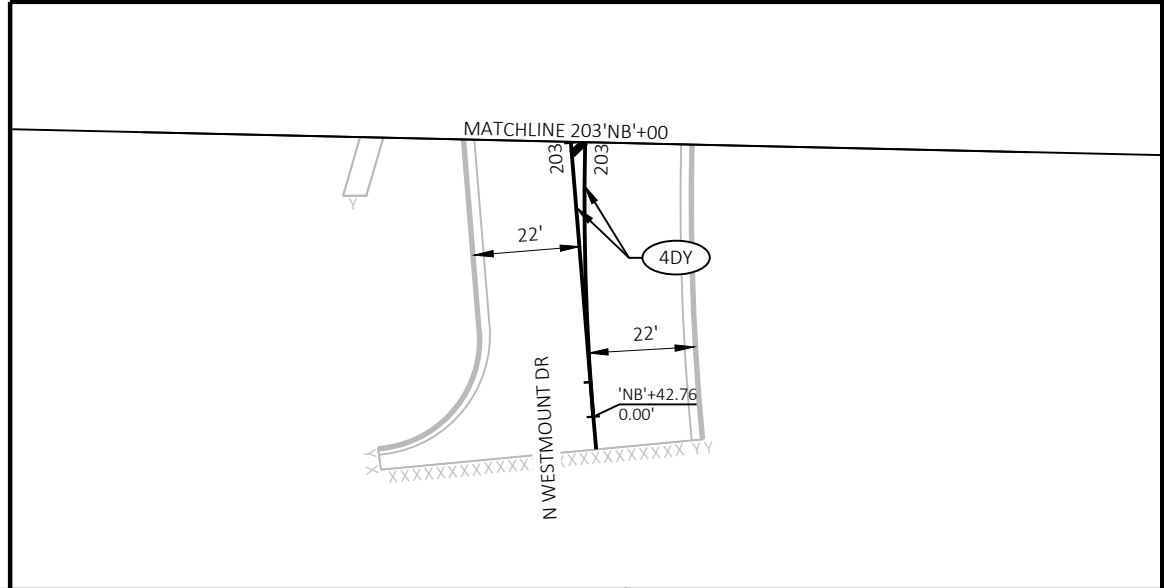
QUANTITY
SIZE

LEGEND

4Y	MARKING LINE EPOXY 4-INCH (YELLOW)
4DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6GW	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
6DGW	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (3' LINE, 9' GAP, WHITE)
6GDY	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
6GY	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
6C	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10W	MARKING LINE EPOXY 10-INCH (WHITE)
12DY	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18DW	MARKING DOTTED EDGE LINE EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
CY	MARKING CURB EPOXY (YELLOW)

NOTES:
INSTALL NO PASSING ZONE ON STH 19 FROM HEATHERSTONE DRIVE TO STA 109'EB'+53.
- 110' EAST OF HEATHERSTONE DR - STA 104'EB'+53:
MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- STA 104'EB'+53 - STA 109'EB'+53:
MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)



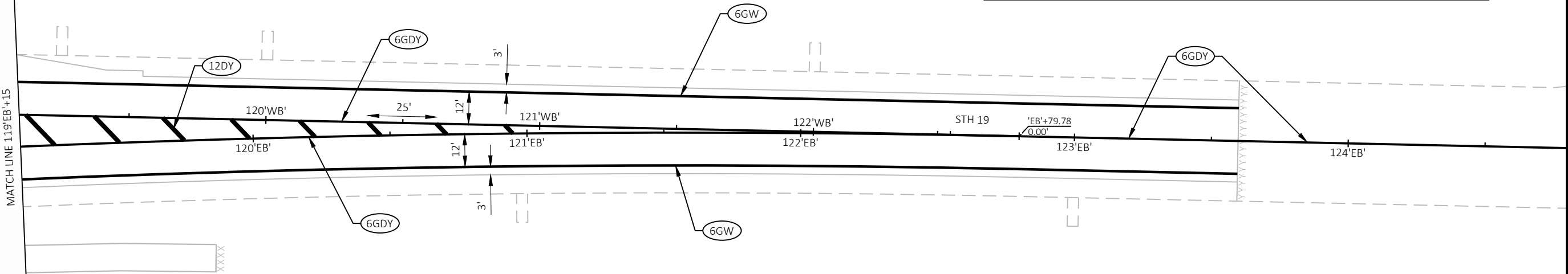
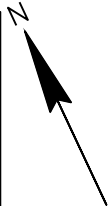


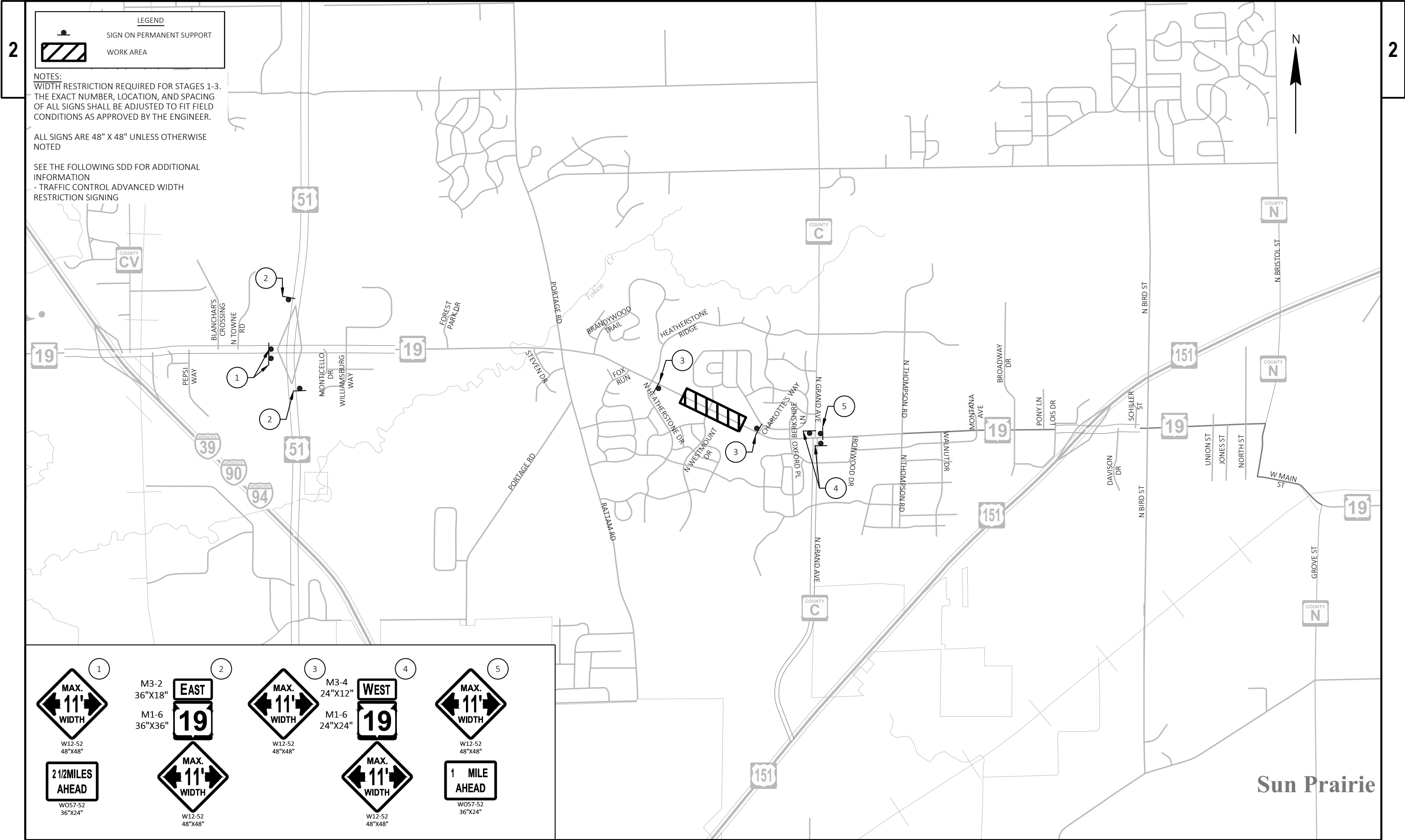
NOTES:
INSTALL MINIMUM 500' NO PASSING ZONE FOR
STH 19 FROM STA 122'EB'+80 - STA 127'EB'+80
(MARKING LINE GROOVED WET REFLECTIVE EPOXY
6-INCH (DOUBLE YELLOW))

LOCATE NO PASSING ZONE FROM STA 127'EB'+80
TO 400' EAST OF CHARLOTTE'S WAY
(MARKING LINE EPOXY 4-INCH (YELLOW) LINE)

LEGEND

4Y	MARKING LINE EPOXY 4-INCH (YELLOW)
4DY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6GW	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
6DGW	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (3' LINE, 9' GAP, WHITE)
6GDY	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (DOUBLE YELLOW)
6GY	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)
6C	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10W	MARKING LINE EPOXY 10-INCH (WHITE)
12DY	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18DW	MARKING DOTTED EDGE LINE EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
CY	MARKING CURB EPOXY (YELLOW)





1

MAX.
11'
WIDTH

W12-52
48"x48"

2 1/2 MILES
AHEAD

W057-52
36"x24"

2

M3-2
36"x18"

M1-6
36"x36"

EAST
19

MAX.
11'
WIDTH

W12-52
48"x48"

3

MAX.
11'
WIDTH

W12-52
48"x48"

4

M3-4
24"x12"

M1-6
24"x24"

WEST
19

MAX.
11'
WIDTH

W12-52
48"x48"

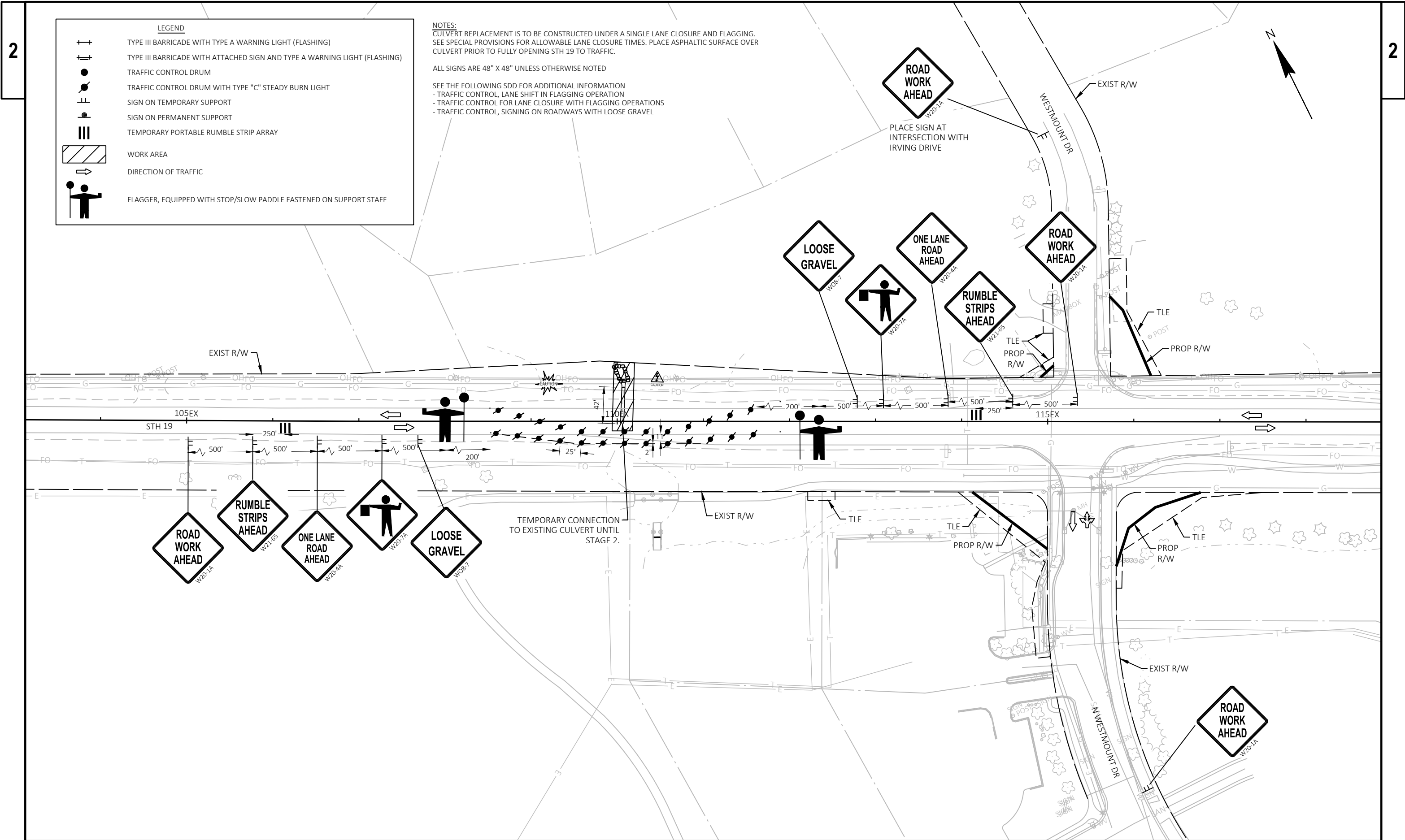
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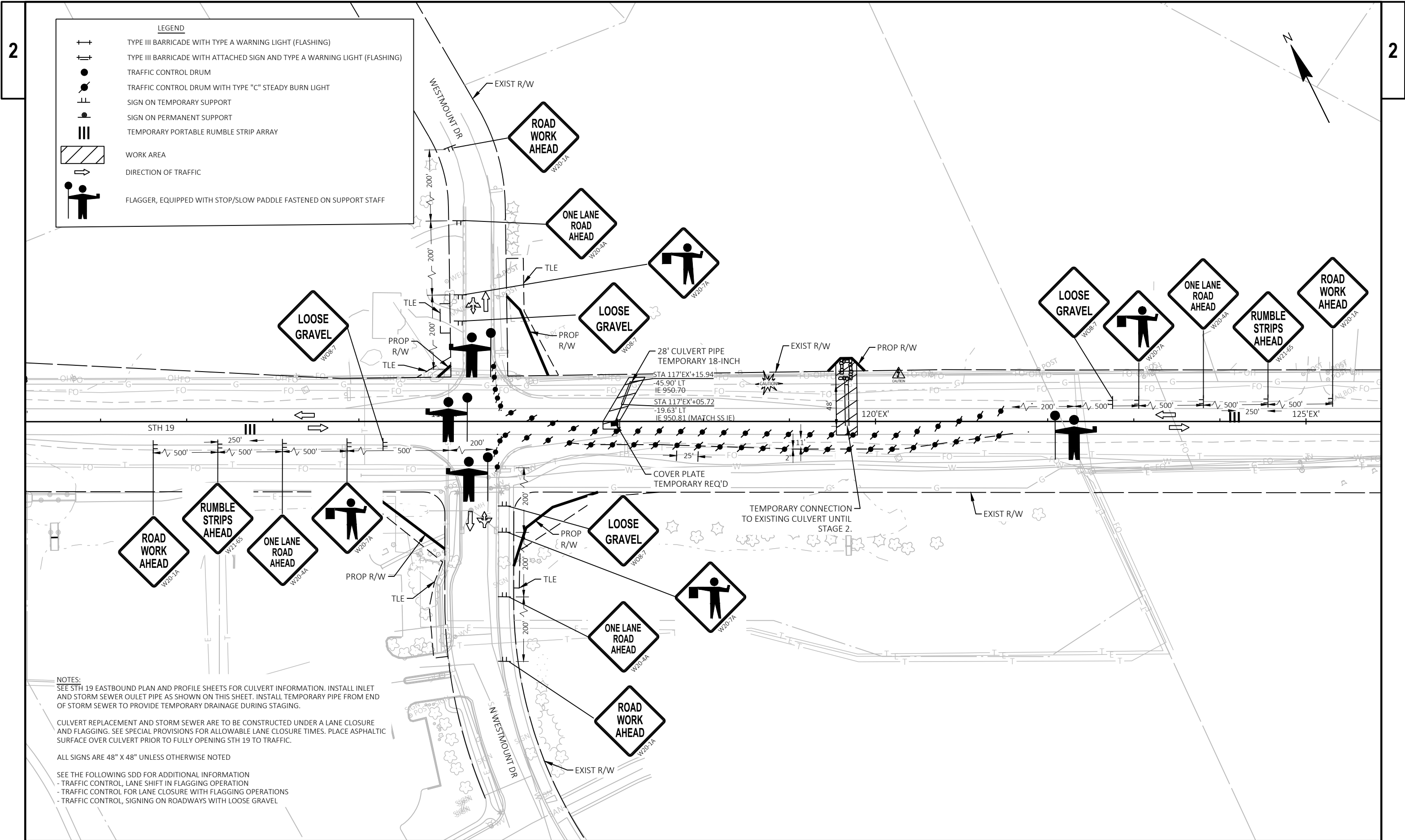
MAX.
11'
WIDTH

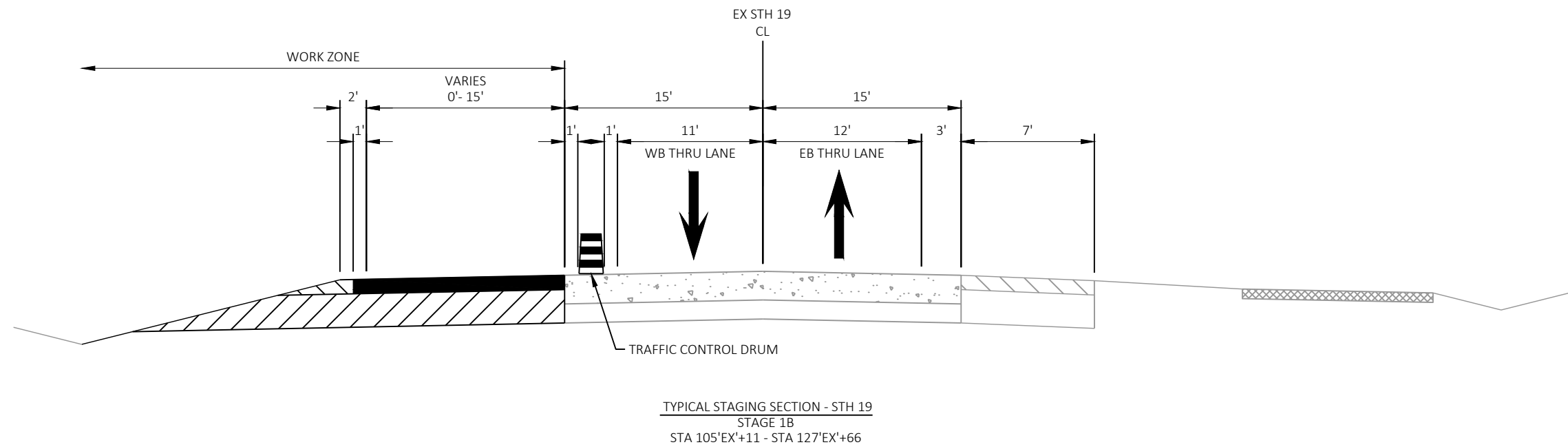
W12-52
48"x48"

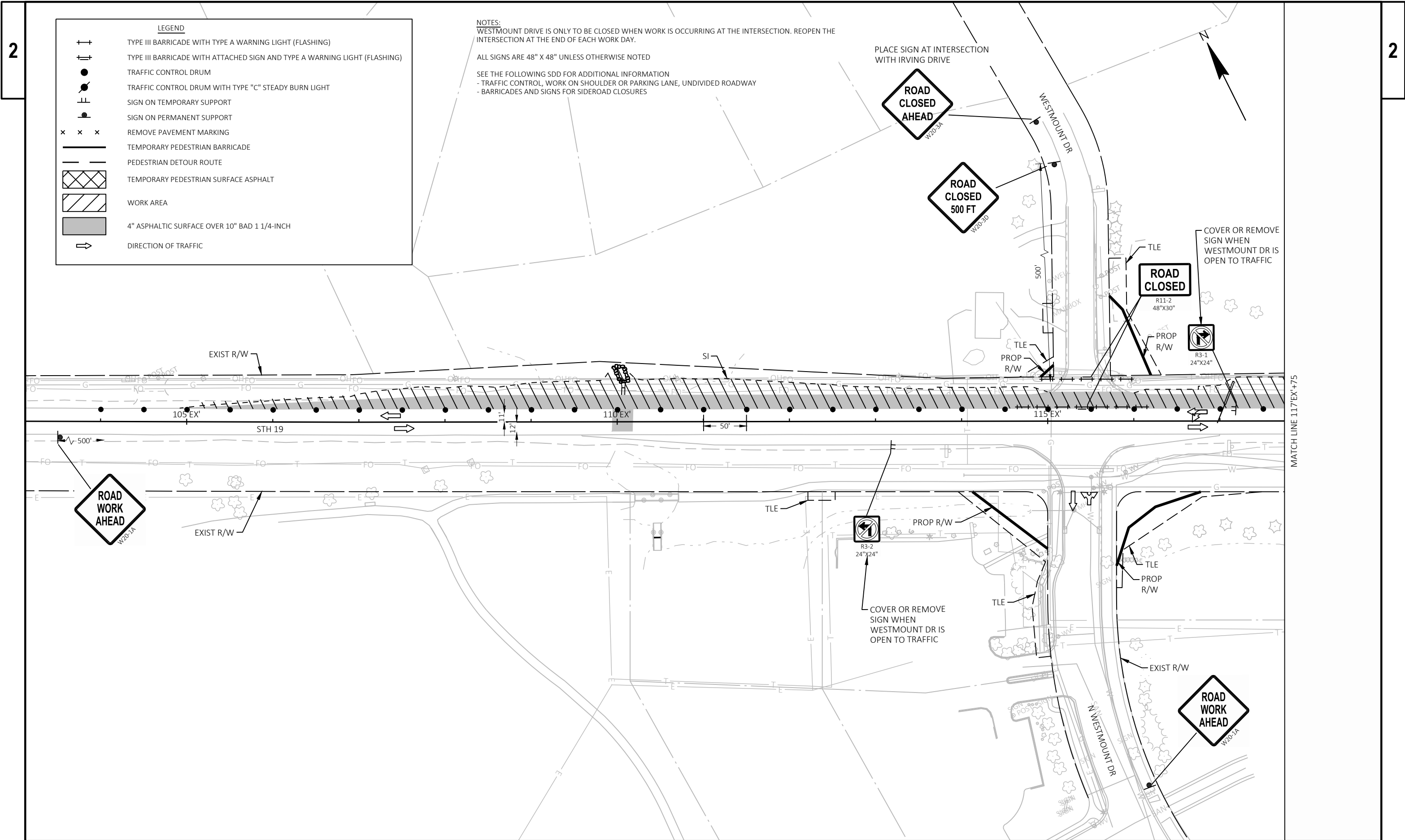
1 MILE
AHEAD

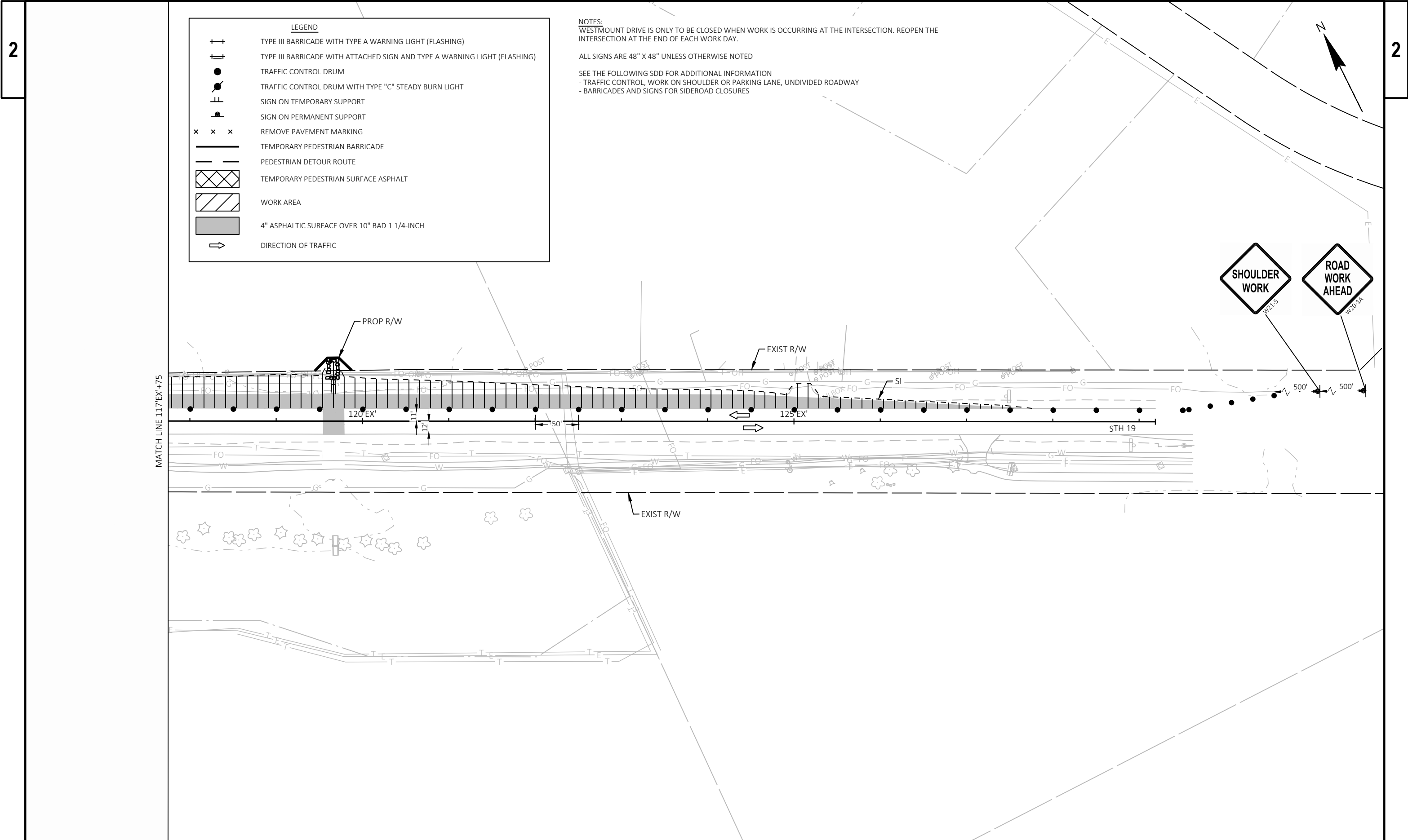
W057-52
36"x24"

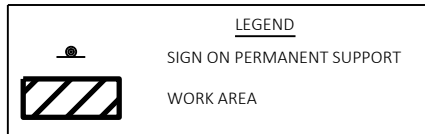












NOTES:
ADVANCE WARNING SIGNAGE APPLIES TO STAGES 2-4. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION

- TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
- TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

PORTABLE CHANGABLE MESSAGE SIGN MESSAGE:

1	PHASE 1	PHASE 2
	ROAD	XXXDAY
	WORK	{DATE}
	BEGINS	

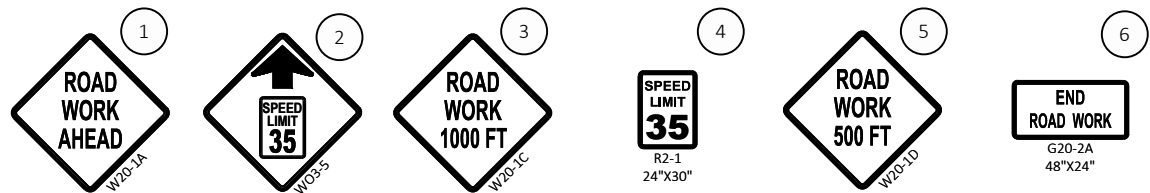
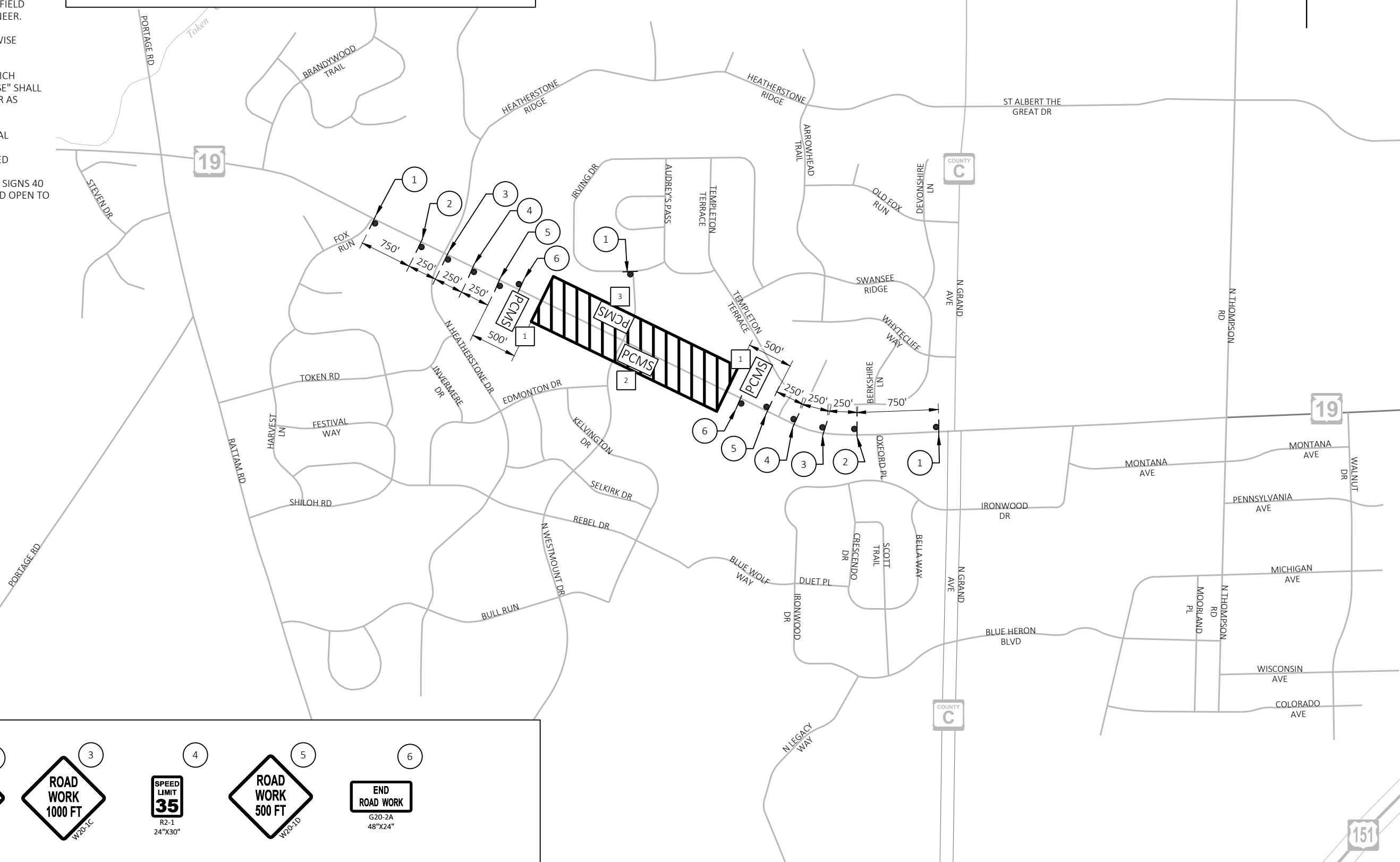
7 DAYS PRIOR TO CONSTRUCTION

2	PHASE 1	PHASE 2
	ROAD	XXXDAY
	TO	{DATE}
	CLOSE	

7 DAYS PRIOR TO CLOSURE OF N. WESTMOUNT DR.

3	PHASE 1	PHASE 2
	ROAD	XXXDAY
	TO	{DATE}
	CLOSE	

7 DAYS PRIOR TO CLOSURE OF WESTMOUNT DR.



PROJECT NO: 6085-02-76

HWY: STH 19

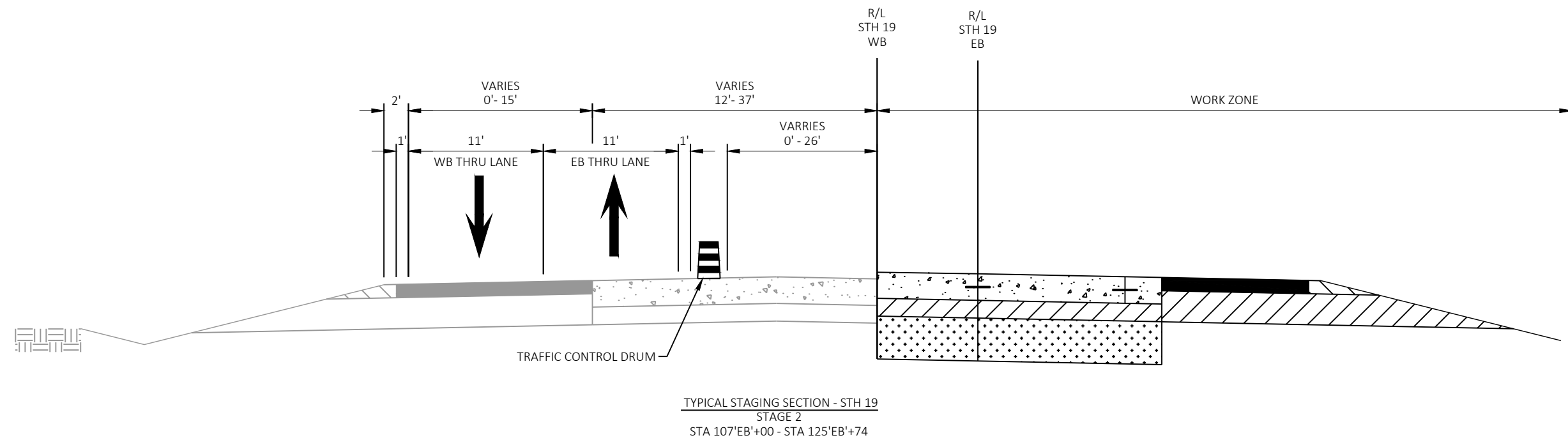
COUNTY: DANE

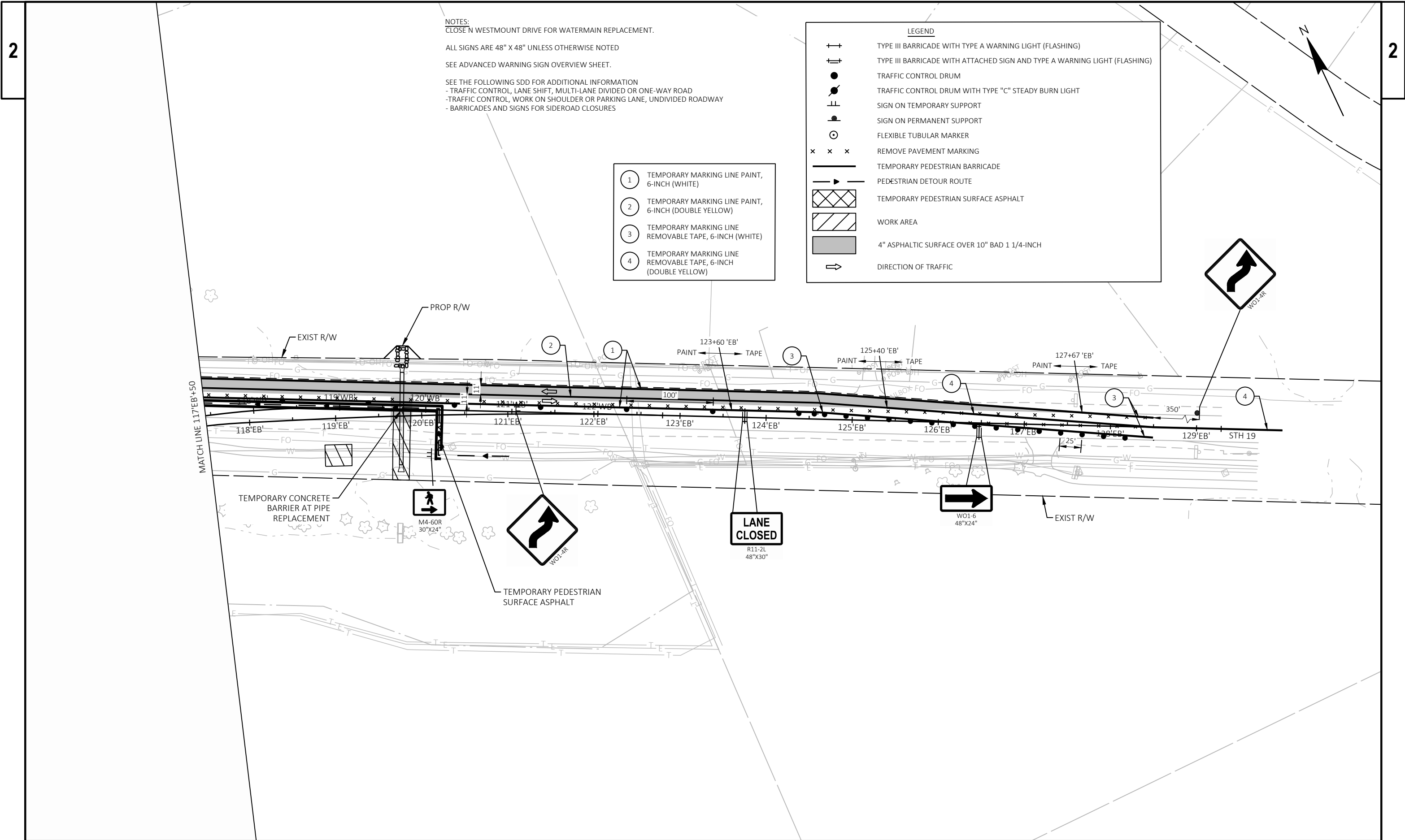
TRAFFIC CONTROL - ADVANCED WARNING SIGNS AND PCMS

SHEET

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E





NOTES:
CLOSE N WESTMOUNT DRIVE FOR WATERMAIN REPLACEMENT.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

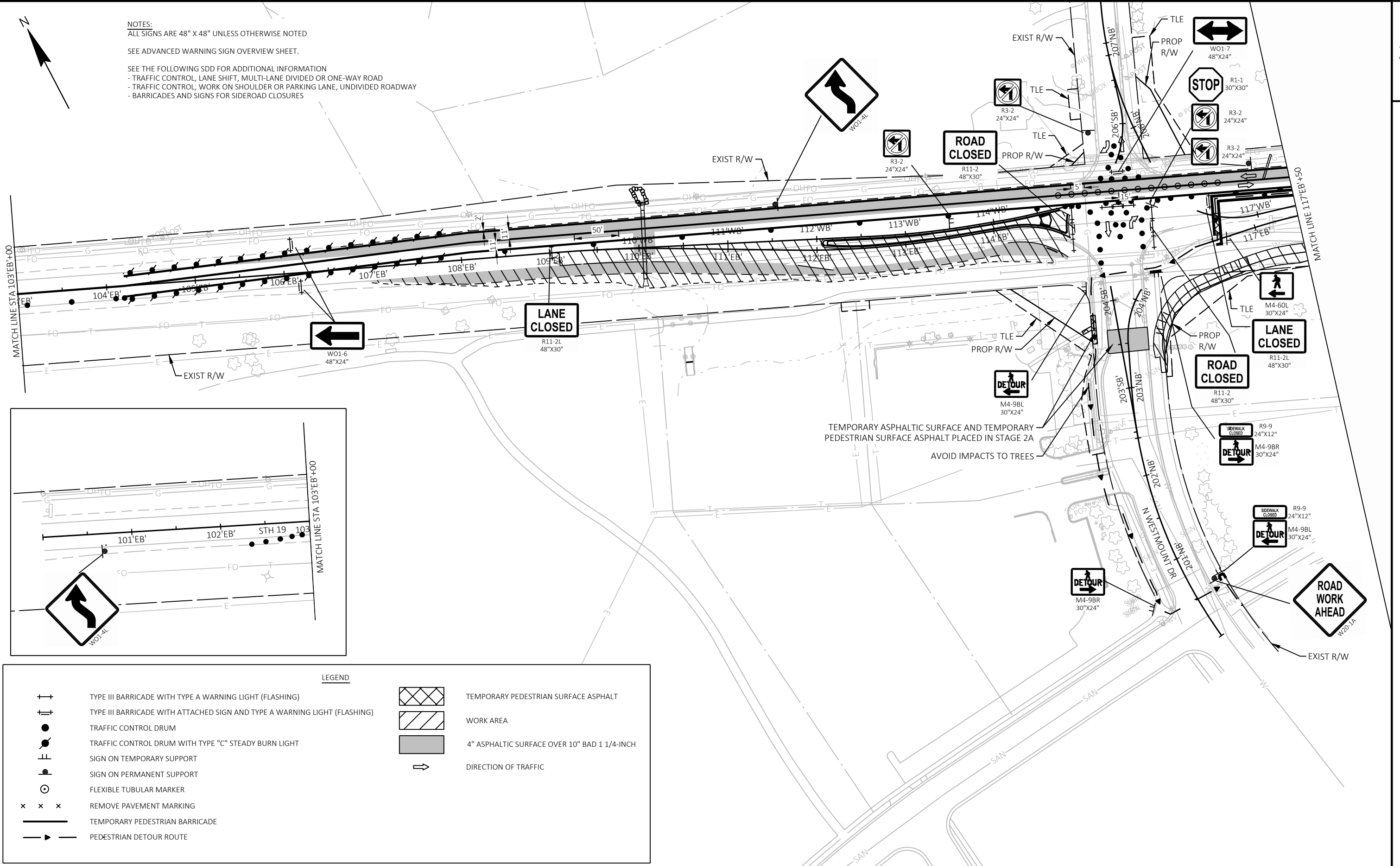
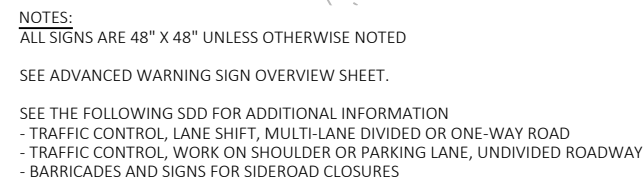
SEE ADVANCED WARNING SIGN OVERVIEW SHEET.

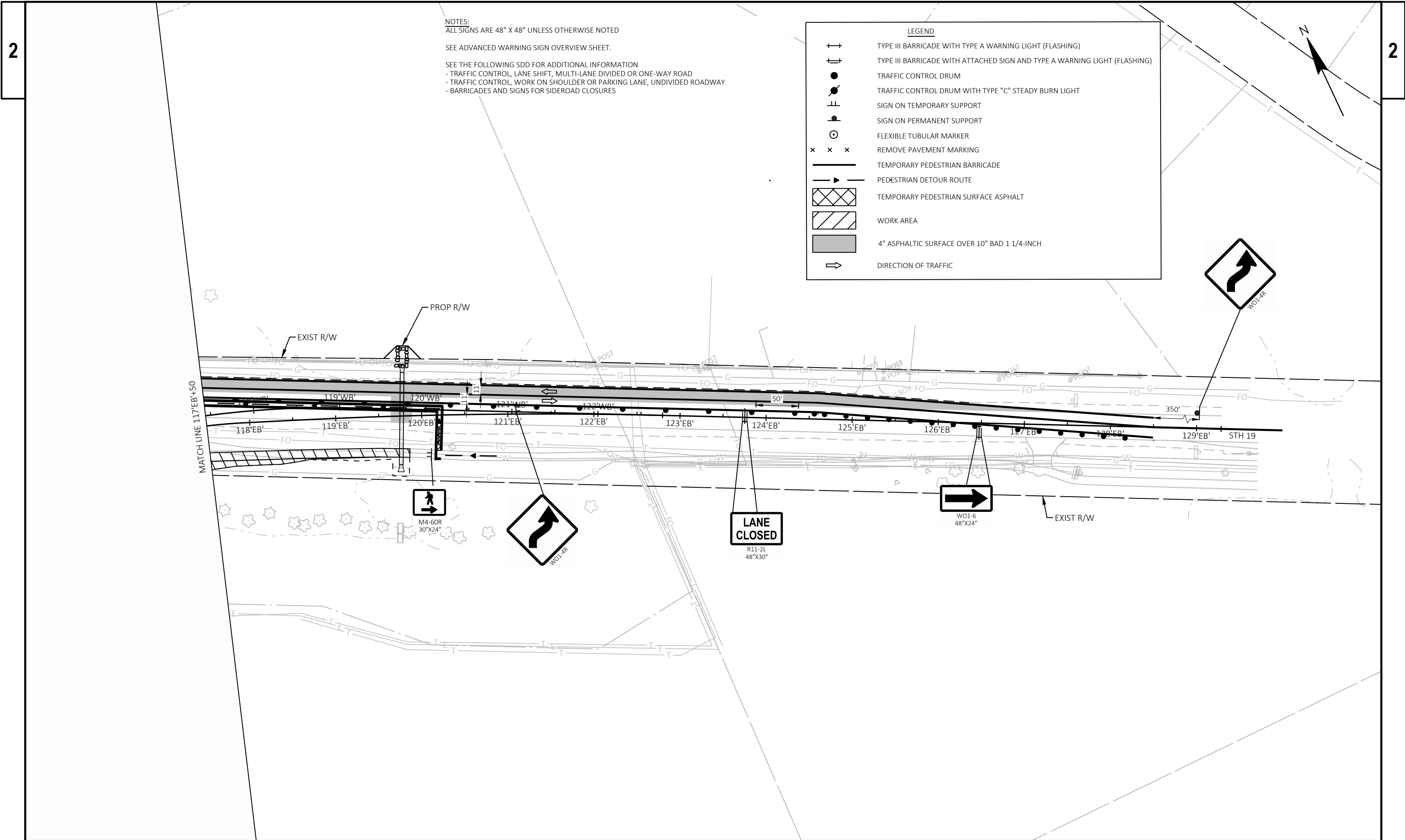
SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION
- TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD
- TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
- BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

- 1 TEMPORARY MARKING LINE PAINT, 6-INCH (WHITE)
- 2 TEMPORARY MARKING LINE PAINT, 6-INCH (DOUBLE YELLOW)
- 3 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH (WHITE)
- 4 TEMPORARY MARKING LINE REMOVABLE TAPE, 6-INCH (DOUBLE YELLOW)

LEGEND

- TYPE III BARRICADE WITH TYPE A WARNING LIGHT (FLASHING)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- FLEXIBLE TUBULAR MARKER
- REMOVE PAVEMENT MARKING
- TEMPORARY PEDESTRIAN BARRICADE
- PEDESTRIAN DETOUR ROUTE
- TEMPORARY PEDESTRIAN SURFACE ASPHALT
- WORK AREA
- 4" ASPHALTIC SURFACE OVER 10" BAD 1 1/4-INCH
- DIRECTION OF TRAFFIC





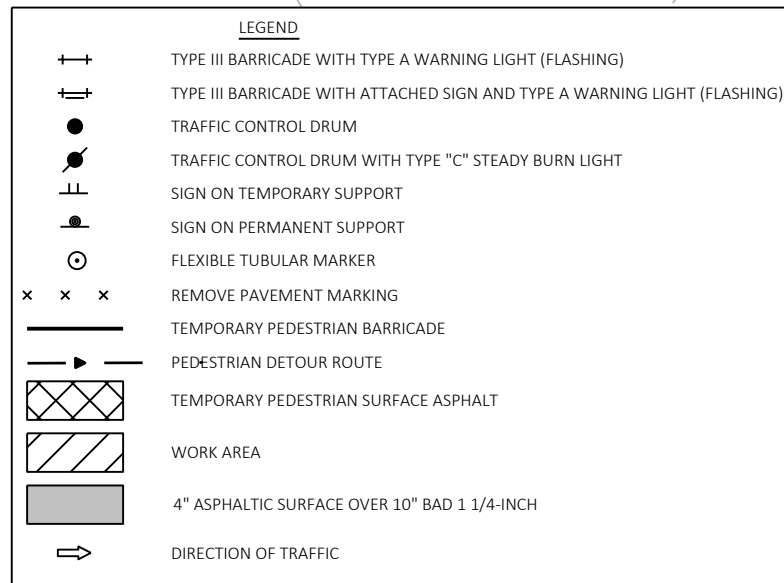
NOTES:
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

SEE ADVANCED WARNING SIGN OVERVIEW SHEET.

SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION

- TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD
- TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
- BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

LEGEND	
	TYPE III BARRICADE WITH TYPE A WARNING LIGHT (FLASHING)
	TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	SIGN ON TEMPORARY SUPPORT
	SIGN ON PERMANENT SUPPORT
	FLEXIBLE TUBULAR MARKER
	REMOVE PAVEMENT MARKING
	TEMPORARY PEDESTRIAN BARRICADE
	PEDESTRIAN DETOUR ROUTE
	TEMPORARY PEDESTRIAN SURFACE ASPHALT
	WORK AREA
	4" ASPHALTIC SURFACE OVER 10" BAD 1 1/4-INCH
	DIRECTION OF TRAFFIC



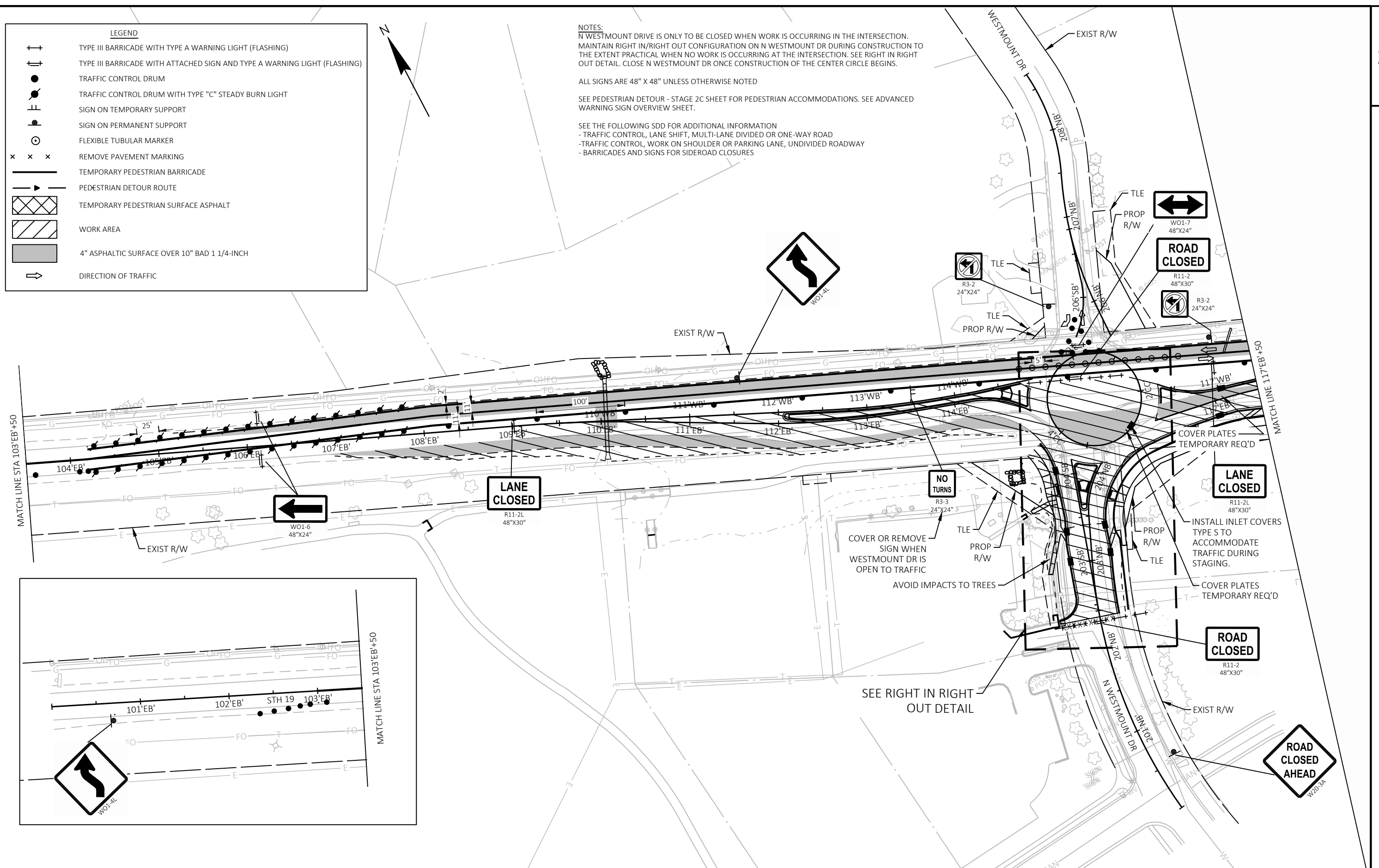
NOTES:
N WESTMOUNT DRIVE IS ONLY TO BE CLOSED WHEN WORK IS OCCURRING IN THE INTERSECTION.
MAINTAIN RIGHT IN/RIGHT OUT CONFIGURATION ON N WESTMOUNT DR DURING CONSTRUCTION TO
THE EXTENT PRACTICAL WHEN NO WORK IS OCCURRING AT THE INTERSECTION. SEE RIGHT IN RIGHT
OUT DETAIL. CLOSE N WESTMOUNT DR ONCE CONSTRUCTION OF THE CENTER CIRCLE BEGINS.

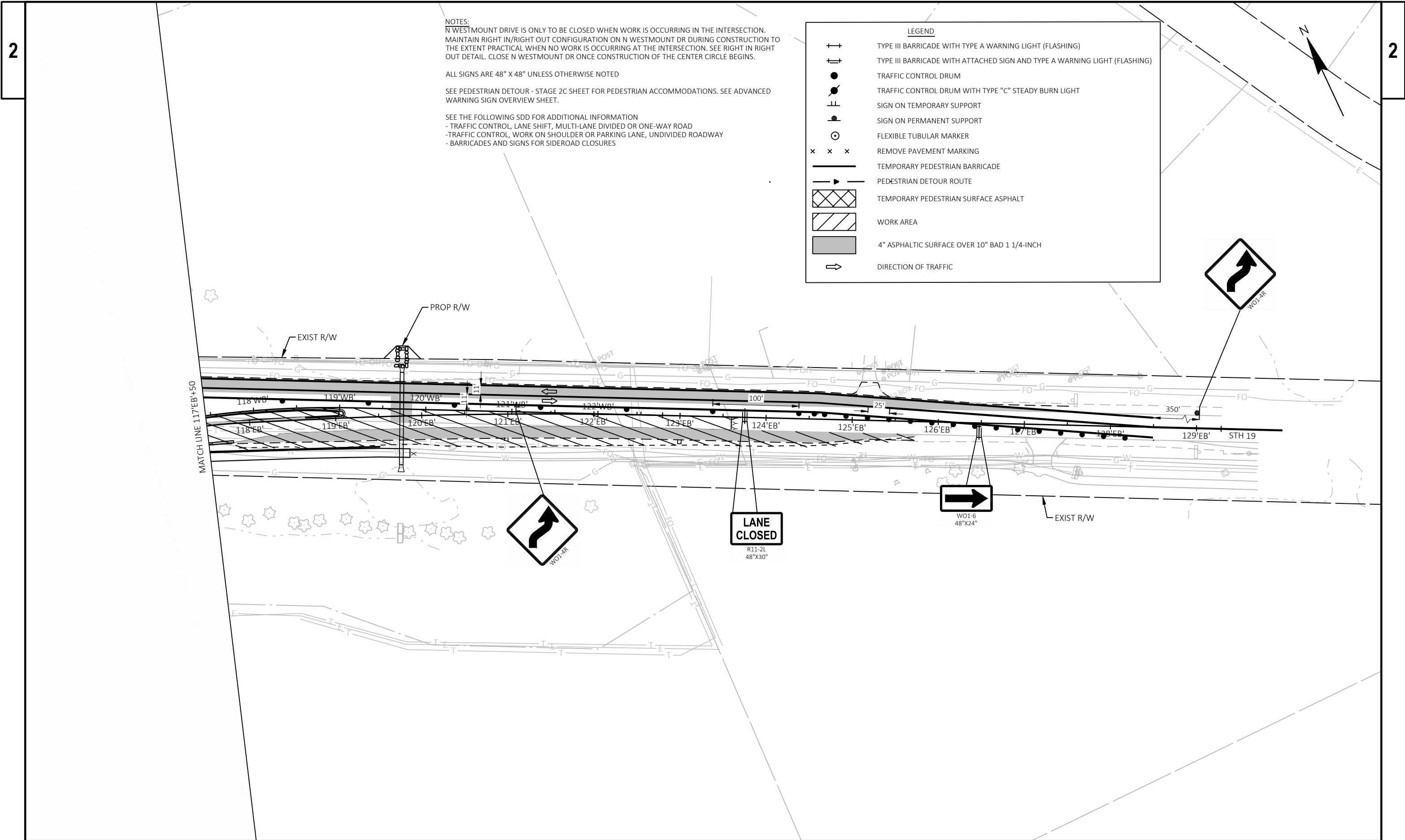
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

SEE PEDESTRIAN DETOUR - STAGE 2C SHEET FOR PEDESTRIAN ACCOMMODATIONS. SEE ADVANCED
WARNING SIGN OVERVIEW SHEET.

SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION

- TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD
- TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
- BARRICADES AND SIGNS FOR SIDEROAD CLOSURES





NOTES:
N WESTMOUNT DRIVE IS ONLY TO BE CLOSED WHEN WORK IS OCCURRING IN THE INTERSECTION.
MAINTAIN RIGHT IN/RIGHT OUT CONFIGURATION ON N WESTMOUNT DR DURING CONSTRUCTION TO THE EXTENT PRACTICAL WHEN NO WORK IS OCCURRING AT THE INTERSECTION. SEE RIGHT IN RIGHT OUT DETAIL. CLOSE N WESTMOUNT DR ONCE CONSTRUCTION OF THE CENTER CIRCLE BEGINS.

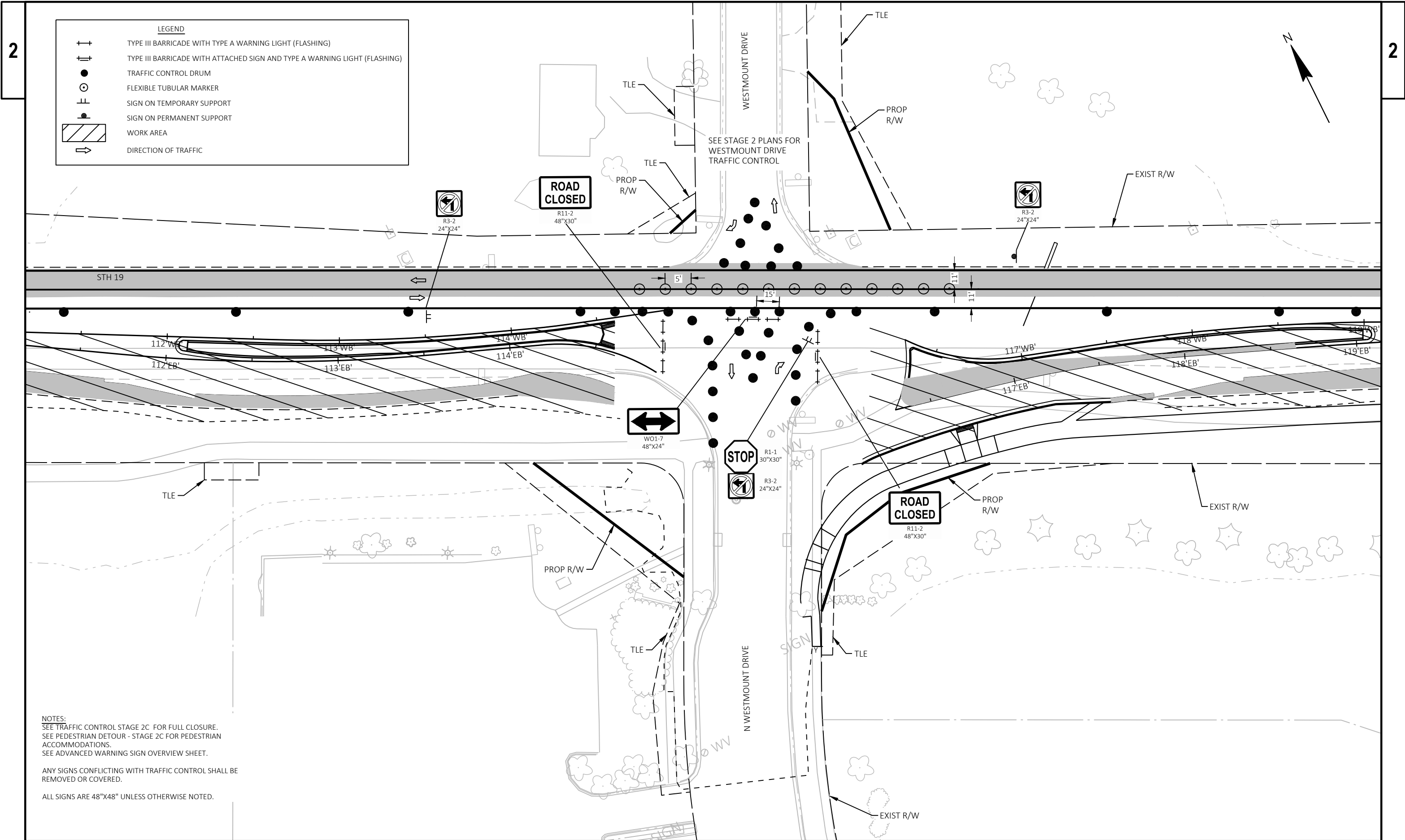
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

SEE PEDESTRIAN DETOUR - STAGE 2C SHEET FOR PEDESTRIAN ACCOMMODATIONS. SEE ADVANCED WARNING SIGN OVERVIEW SHEET.

SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION

- TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD
- TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
- BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

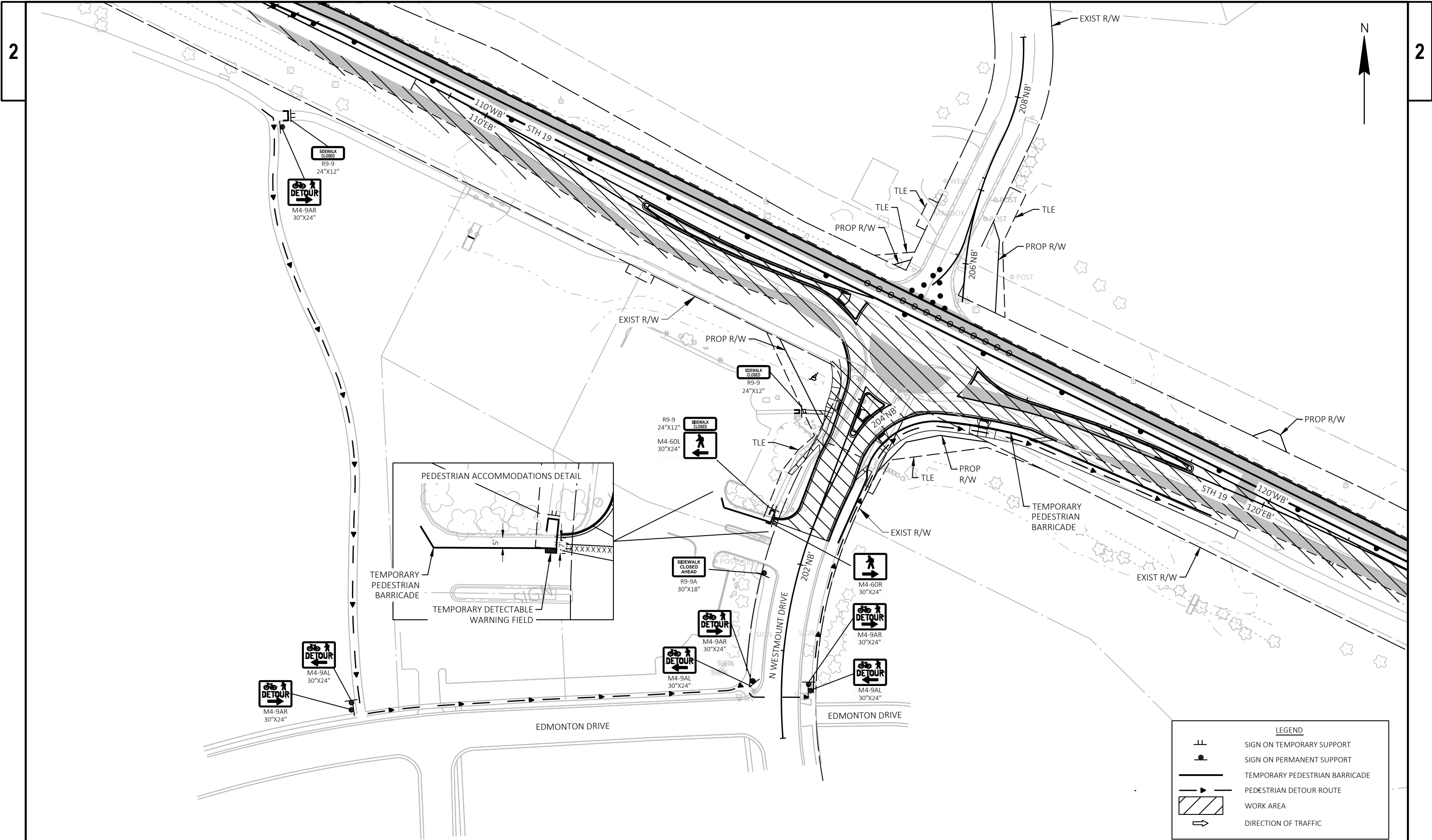
LEGEND	
	TYPE III BARRICADE WITH TYPE A WARNING LIGHT (FLASHING)
	TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	SIGN ON TEMPORARY SUPPORT
	SIGN ON PERMANENT SUPPORT
	FLEXIBLE TUBULAR MARKER
	REMOVE PAVEMENT MARKING
	TEMPORARY PEDESTRIAN BARRICADE
	PEDESTRIAN DETOUR ROUTE
	TEMPORARY PEDESTRIAN SURFACE ASPHALT
	WORK AREA
	4" ASPHALTIC SURFACE OVER 10" BAD 1 1/4-INCH
	DIRECTION OF TRAFFIC

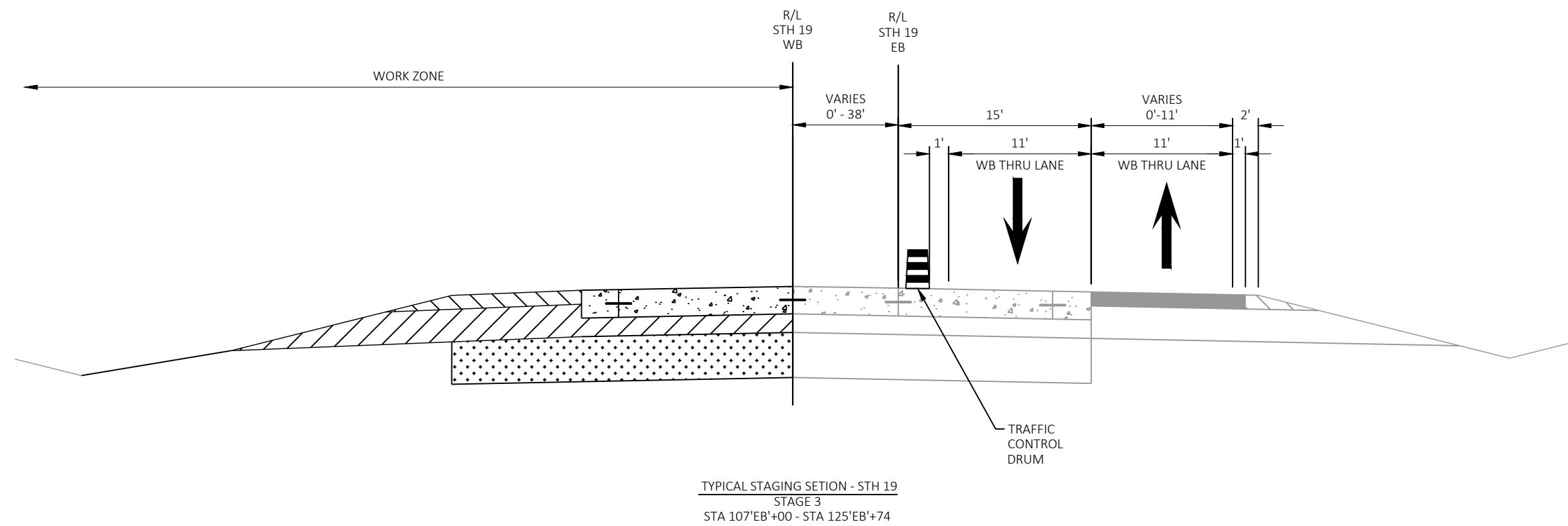


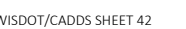
NOTES:
SEE TRAFFIC CONTROL STAGE 2C FOR FULL CLOSURE.
SEE PEDESTRIAN DETOUR - STAGE 2C FOR PEDESTRIAN ACCOMMODATIONS.
SEE ADVANCED WARNING SIGN OVERVIEW SHEET.

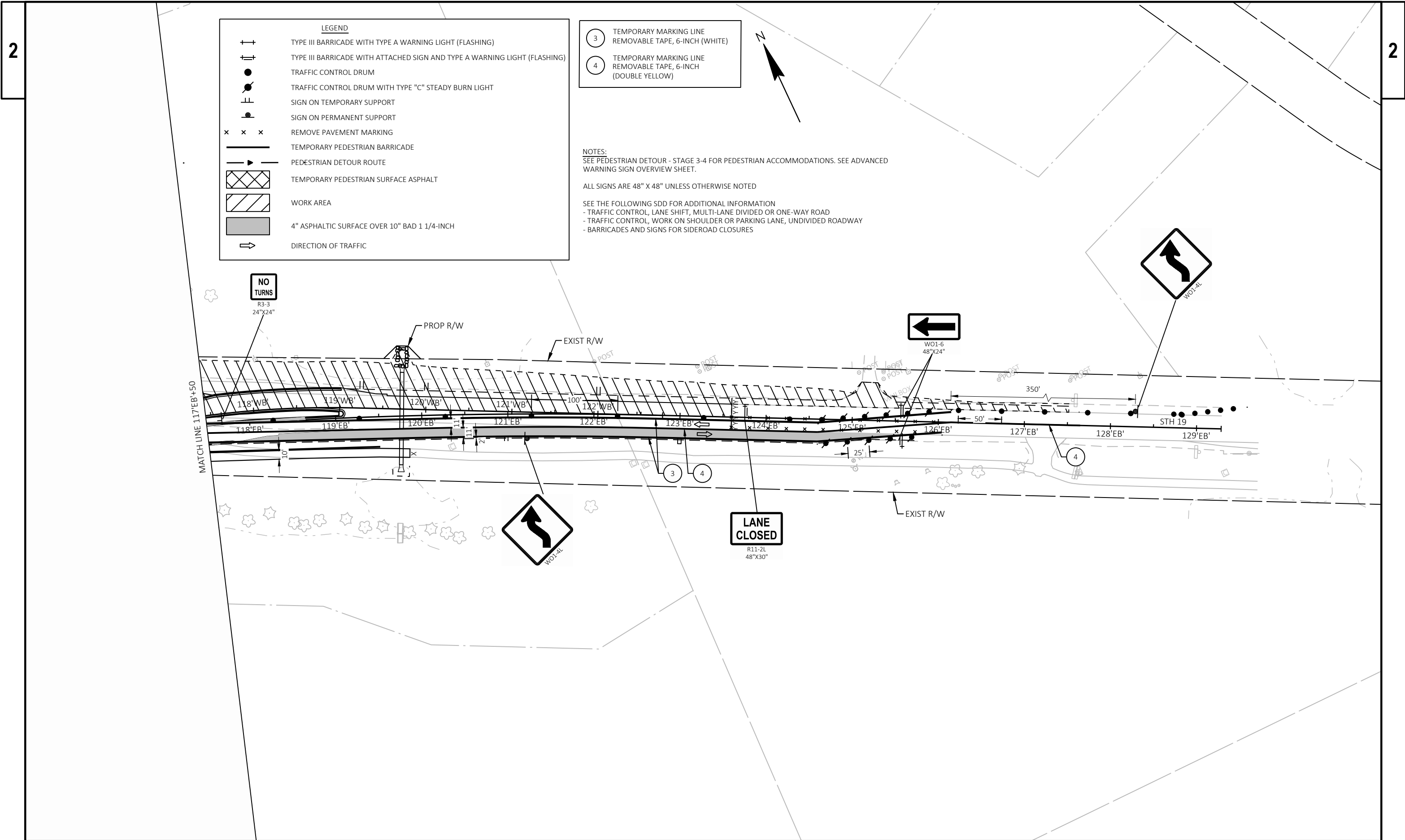
ANY SIGNS CONFLICTING WITH TRAFFIC CONTROL SHALL BE REMOVED OR COVERED.

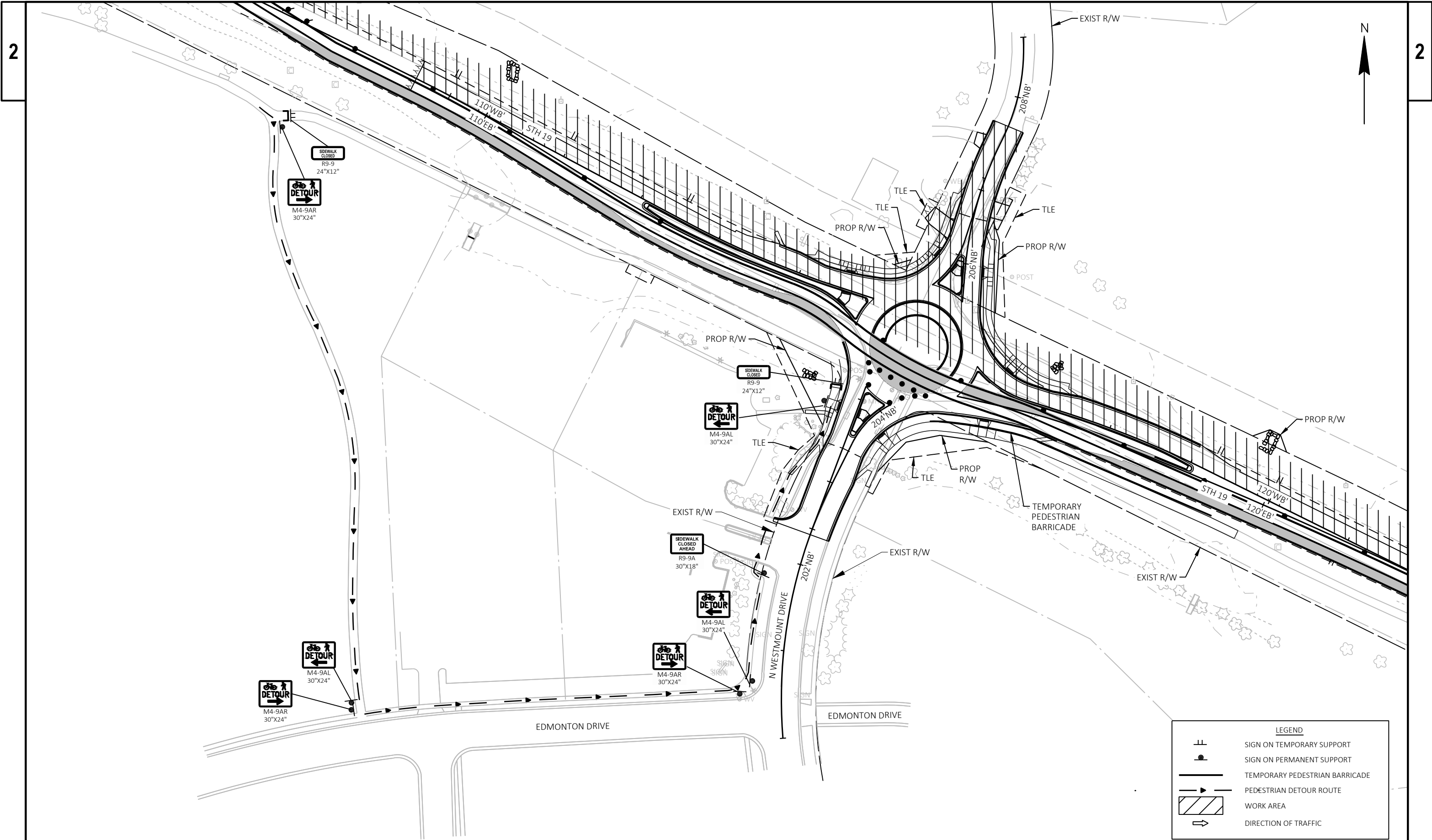
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

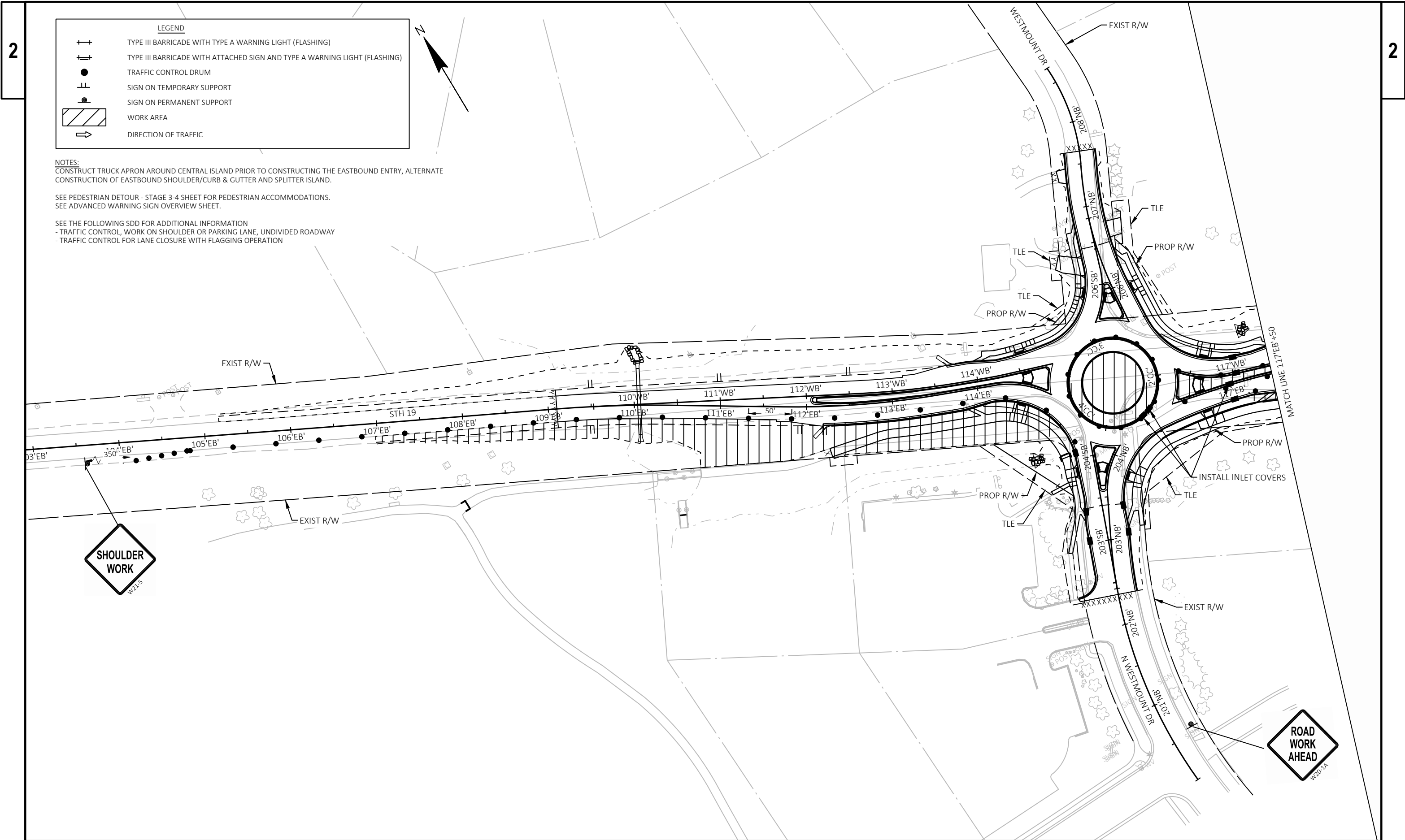


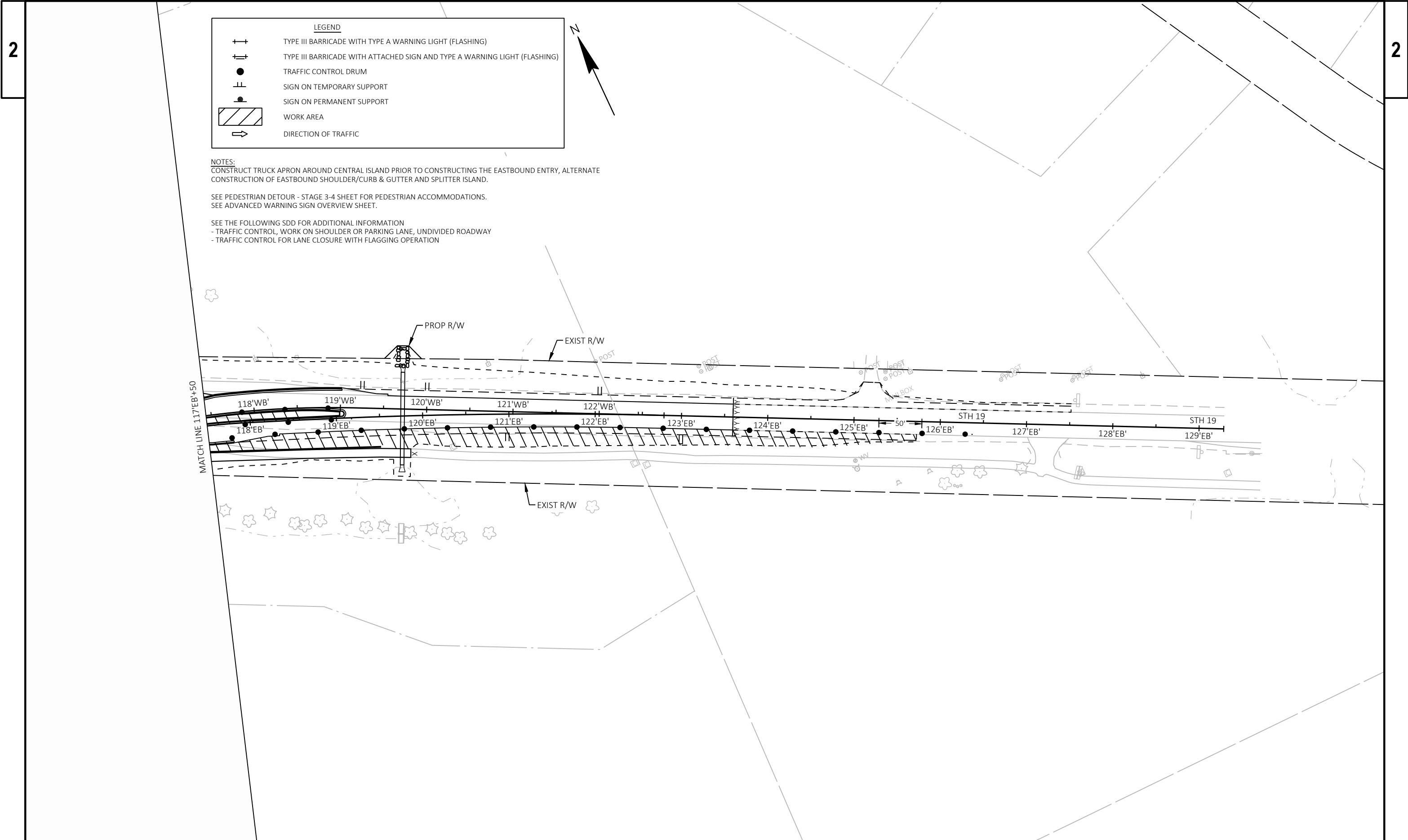












2

LEGEND

TYPE III BARRICADE WITH TYPE A WARNING LIGHT (FLASHING)

TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE A WARNING LIGHT (FLASHING)

TRAFFIC CONTROL DRUM

SIGN ON TEMPORARY SUPPORT

SIGN ON PERMANENT SUPPORT

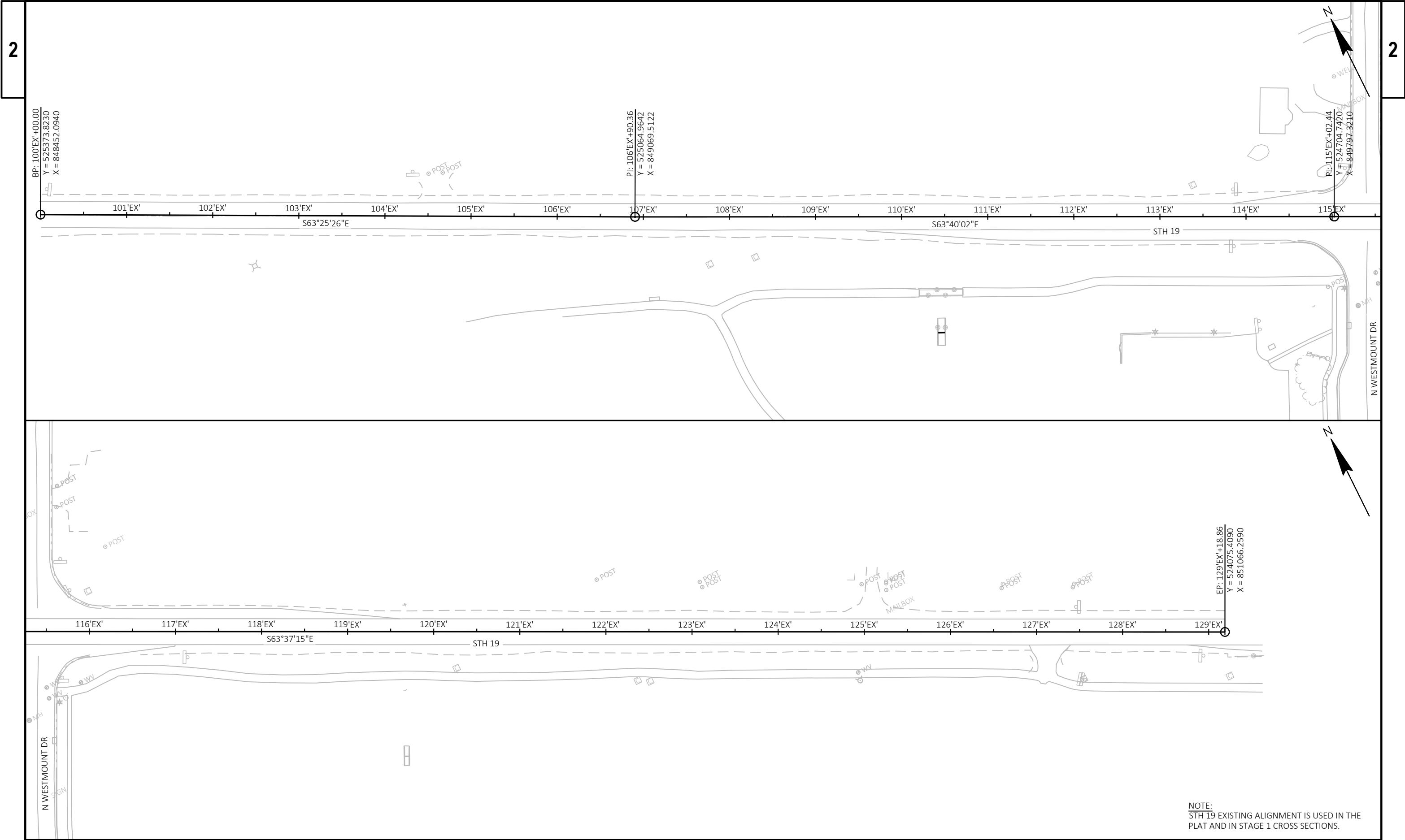
WORK AREA

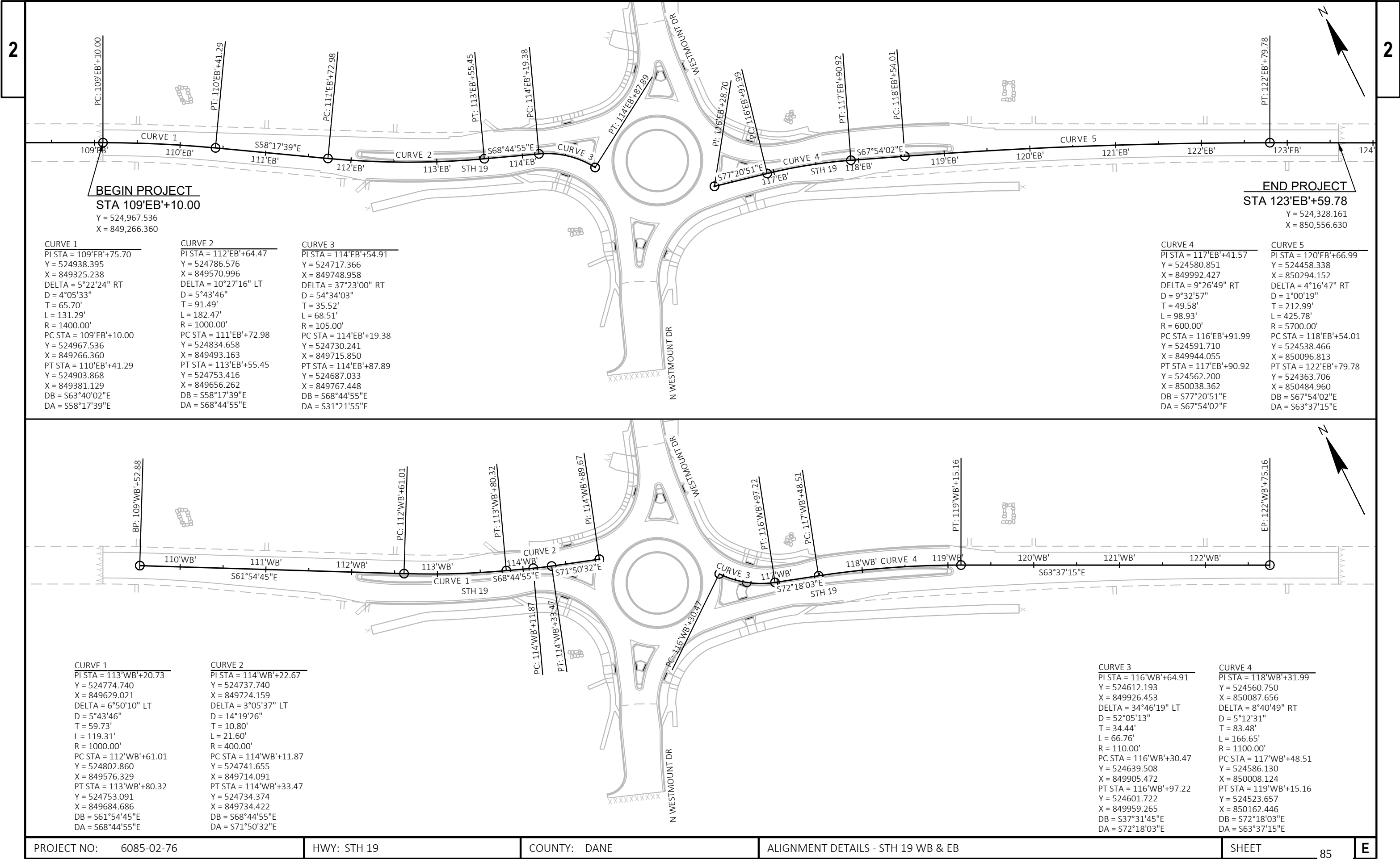
DIRECTION OF TRAFFIC

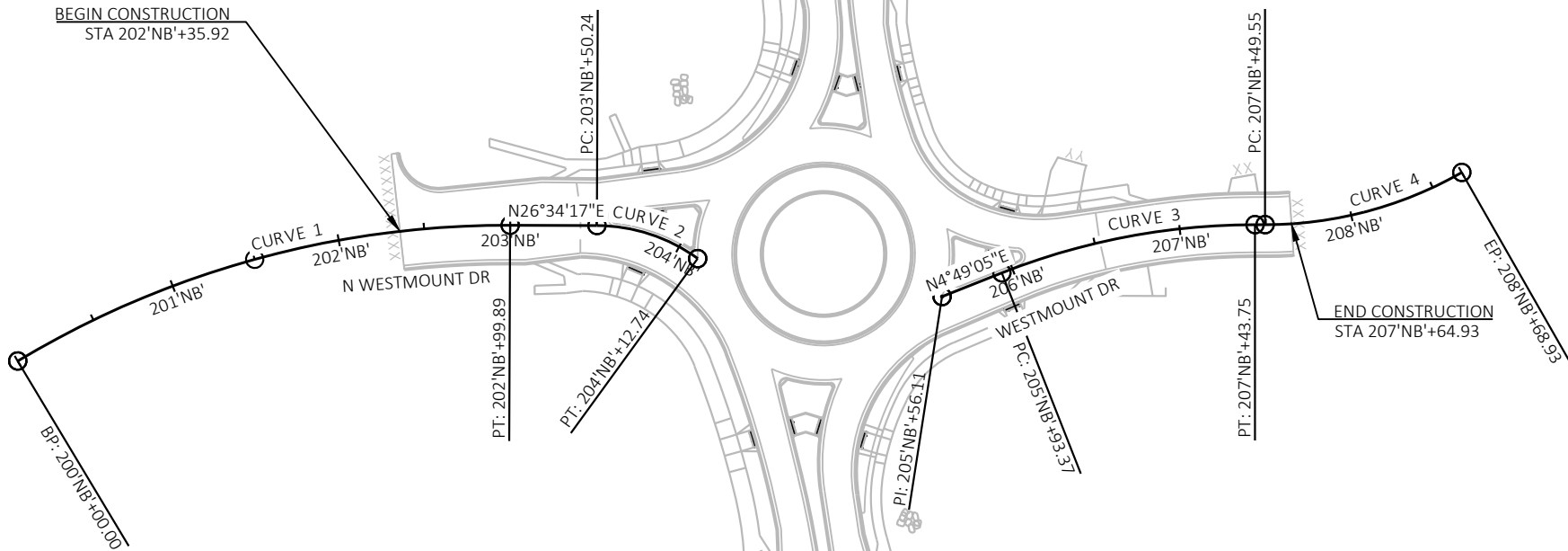
NOTES:
CONSTRUCT TRUCK APRON AROUND CENTRAL ISLAND PRIOR TO CONSTRUCTING THE EASTBOUND ENTRY, ALTERNATE CONSTRUCTION OF EASTBOUND SHOULDER/CURB & GUTTER AND SPLITTER ISLAND.

SEE PEDESTRIAN DETOUR - STAGE 3-4 SHEET FOR PEDESTRIAN ACCOMMODATIONS.
SEE ADVANCED WARNING SIGN OVERVIEW SHEET.

SEE THE FOLLOWING SDD FOR ADDITIONAL INFORMATION
- TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
- TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

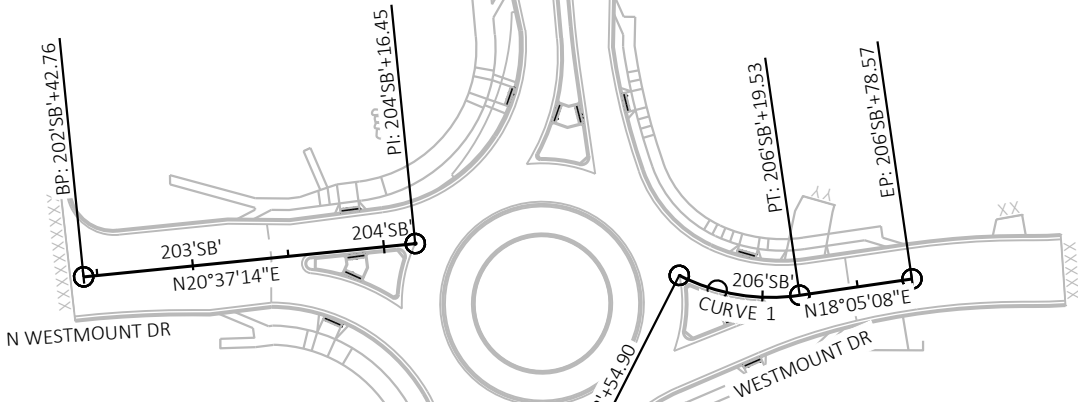






CURVE 1	CURVE 2
PI STA = 201'NB'+53.77	PI STA = 203'NB'+82.55
Y = 524369.067	Y = 524580.526
X = 849671.620	X = 849777.378
DELTA = 31°14'25" RT	DELTA = 35°48'39" RT
D = 10°25'03"	D = 57°17'45"
T = 153.77'	T = 32.31'
L = 299.89'	L = 62.50'
R = 550.00'	R = 100.00'
PC STA = 200'NB'+00.00	PC STA = 203'NB'+50.24
Y = 524215.806	Y = 524551.629
X = 849684.136	X = 849762.926
PT STA = 202'NB'+99.89	PT STA = 204'NB'+12.74
Y = 524506.597	Y = 524595.504
X = 849740.403	X = 849806.006
DB = N04°40'08"W	DB = N26°34'17"E
DA = N26°34'17"E	DA = N62°22'56"E

CURVE 3	CURVE 4
PI STA = 206'NB'+69.46	PI STA = 208'NB'+10.61
Y = 524825.652	Y = 524953.742
X = 849898.108	X = 849961.577
DELTA = 21°32'25" RT	DELTA = 29°44'20" LT
D = 14°19'26"	D = 24°54'40"
T = 76.09'	T = 61.07'
L = 150.38'	L = 119.38'
R = 400.00'	R = 230.00'
PC STA = 205'NB'+93.37	PC STA = 207'NB'+49.55
Y = 524749.832	Y = 524899.024
X = 849891.718	X = 849934.464
PT STA = 207'NB'+43.75	PT STA = 208'NB'+68.93
Y = 524893.829	Y = 525014.703
X = 849931.890	X = 849957.976
DB = N04°49'05"E	DB = N26°21'30"E
DA = N26°21'30"E	DA = N03°22'50"W



CURVE 1
PI STA = 205'SB'+88.28
Y = 524752.561
X = 849881.377
DELTA = 35°15'48" LT
D = 54°34'03"
T = 33.37'
L = 64.62'
R = 105.00'
PC STA = 205'SB'+54.90
Y = 524732.640
X = 849854.604
PT STA = 206'SB'+19.53
Y = 524784.284
X = 849891.737
DB = N53°20'56"E
DA = N18°05'08"E

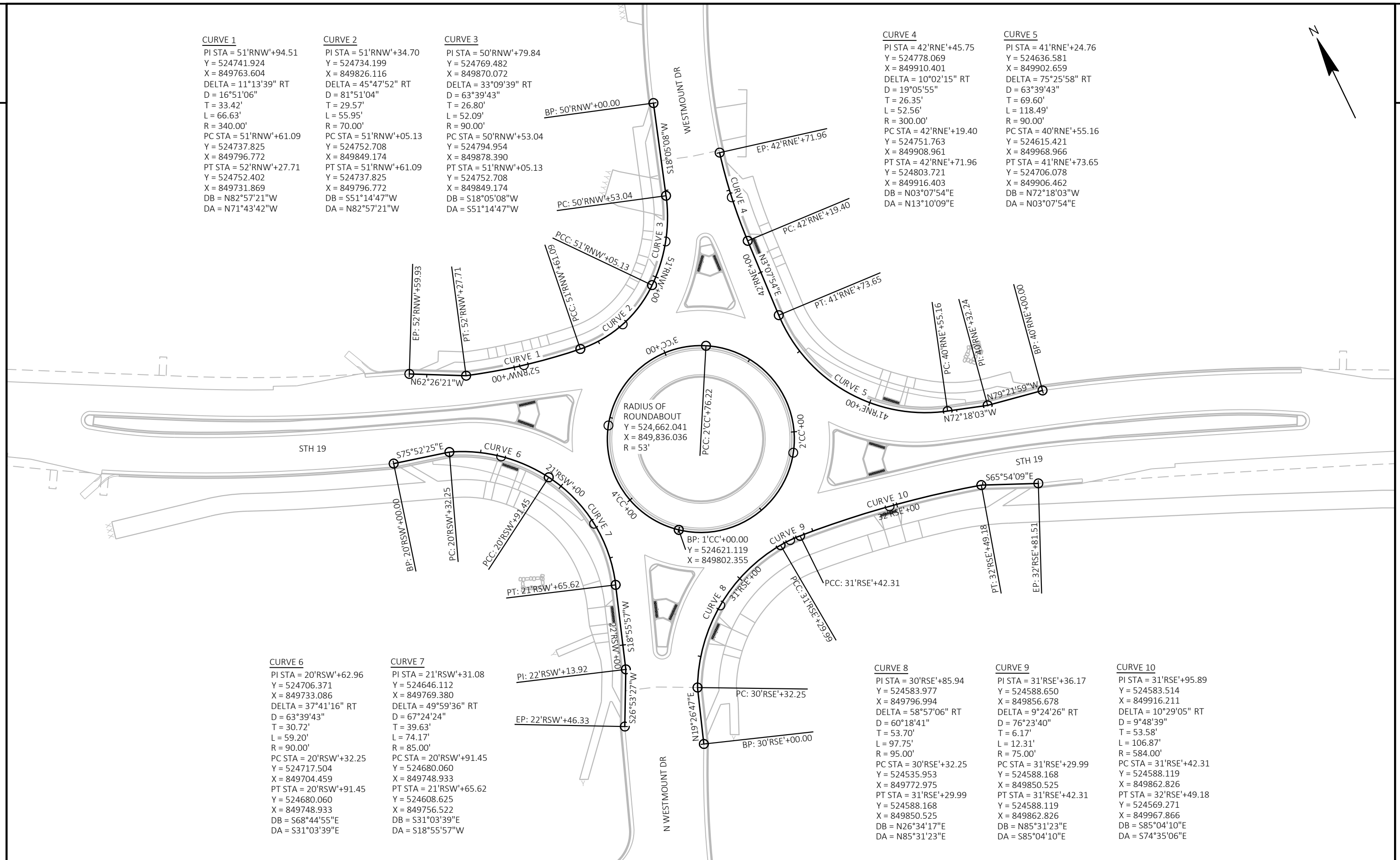
CURVE 1
PI STA = 51'RNW'+94.51
Y = 524741.924
X = 849763.604
DELTA = 11°13'39" RT
D = 16°51'06"
T = 33.42'
L = 66.63'
R = 340.00'
PC STA = 51'RNW'+61.09
Y = 524737.825
X = 849796.772
PT STA = 52'RNW'+27.71
Y = 524752.402
X = 849731.869
DB = N82°57'21"W
DA = N71°43'42"W

CURVE 2
PI STA = 51'RNW'+34.70
Y = 524734.199
X = 849826.116
DELTA = 45°47'52" RT
D = 81°51'04"
T = 29.57'
L = 55.95'
R = 70.00'
PC STA = 51'RNW'+05.13
Y = 524752.708
X = 849849.174
PT STA = 51'RNW'+61.09
Y = 524737.825
X = 849796.772
DB = S51°14'47"W
DA = N82°57'21"W

CURVE 3
PI STA = 50'RNW'+79.84
Y = 524769.482
X = 849870.072
DELTA = 33°09'39" RT
D = 63°39'43"
T = 26.80'
L = 52.09'
R = 90.00'
PC STA = 50'RNW'+53.04
Y = 524794.954
X = 849878.390
PT STA = 51'RNW'+05.13
Y = 524752.708
X = 849849.174
DB = S18°05'08"W
DA = S51°14'47"W

CURVE 4
PI STA = 42'RNE'+45.75
Y = 524778.069
X = 849910.401
DELTA = 10°02'15" RT
D = 19°05'55"
T = 26.35'
L = 52.56'
R = 300.00'
PC STA = 42'RNE'+19.40
Y = 524751.763
X = 849908.961
PT STA = 42'RNE'+71.96
Y = 524803.721
X = 849916.403
DB = N03°07'54"E
DA = N13°10'09"E

CURVE 5
PI STA = 41'RNE'+24.76
Y = 524636.581
X = 849902.659
DELTA = 75°25'58" RT
D = 63°39'43"
T = 69.60'
L = 118.49'
R = 90.00'
PC STA = 40'RNE'+55.16
Y = 524615.421
X = 849968.966
PT STA = 41'RNE'+73.65
Y = 524706.078
X = 849906.462
DB = N72°18'03"W
DA = N03°07'54"E



Estimate Of Quantities By Plan Sets

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Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	1.000	1.000
0004	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0006	204.0150	Removing Curb & Gutter	LF	1,036.000	1,036.000
0008	204.0210	Removing Manholes	EACH	1.000	1.000
0010	204.0220	Removing Inlets	EACH	2.000	2.000
0012	204.0245	Removing Storm Sewer (size) 01. 15-Inch	LF	64.000	64.000
0014	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	52.000	52.000
0016	205.0100	Excavation Common	CY	13,014.000	13,014.000
0018	208.0100	Borrow	CY	55.000	55.000
0020	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	2.000	2.000
0022	213.0100	Finishing Roadway (project) 01. 6085-02-76	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	899.000	899.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,959.000	9,959.000
0028	311.0110	Breaker Run	TON	1,818.000	1,818.000
0030	312.0110	Select Crushed Material	TON	9,614.000	9,614.000
0032	405.0100	Coloring Concrete WisDOT Red	CY	185.000	185.000
0034	415.0090	Concrete Pavement 9-Inch	SY	6,878.000	6,878.000
0036	415.2010	Concrete Truck Apron 12-Inch	SY	552.000	552.000
0038	416.0620	Drilled Dowel Bars	EACH	40.000	40.000
0040	455.0605	Tack Coat	GAL	350.000	350.000
0042	460.2000	Incentive Density HMA Pavement	DOL	170.000	170.000
0044	460.5224	HMA Pavement 4 LT 58-28 S	TON	254.000	254.000
0046	465.0105	Asphaltic Surface	TON	1,503.000	1,503.000
0048	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	2.000	2.000
0050	465.0310	Asphaltic Curb	LF	51.000	51.000
0052	465.0315	Asphaltic Flumes	SY	19.000	19.000
0054	520.2018	Culvert Pipe Temporary 18-Inch	LF	28.000	28.000
0056	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	77.000	77.000
0058	522.0442	Culvert Pipe Reinforced Concrete Class IV 42-Inch	LF	108.000	108.000
0060	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0062	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0064	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	2.000	2.000
0066	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	221.000	221.000
0068	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,557.000	1,557.000
0070	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	440.000	440.000
0072	601.0551	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	LF	1,074.000	1,074.000
0074	601.0581	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type R	LF	322.000	322.000
0076	601.0600	Concrete Curb Pedestrian	LF	120.000	120.000
0078	602.0405	Concrete Sidewalk 4-Inch	SF	11,196.000	11,196.000
0080	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	320.000	320.000
0082	602.0815	Concrete Driveway 7-Inch	SY	68.000	68.000
0084	606.0100	Riprap Light	CY	6.000	6.000
0086	606.0200	Riprap Medium	CY	19.000	19.000
0088	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	127.000	127.000
0090	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	144.000	144.000
0092	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	130.000	130.000
0094	611.0624	Inlet Covers Type H	EACH	1.000	1.000
0096	611.0636	Inlet Covers Type HM-S	EACH	1.000	1.000
0098	611.0639	Inlet Covers Type H-S	EACH	7.000	7.000

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Line	Item	Item Description	Unit	Total	Qty
0100	611.0651	Inlet Covers Type S	EACH	1.000	1.000
0102	611.0652	Inlet Covers Type T	EACH	2.000	2.000
0104	611.3004	Inlets 4-FT Diameter	EACH	8.000	8.000
0106	611.3225	Inlets 2x2.5-FT	EACH	1.000	1.000
0108	611.3230	Inlets 2x3-FT	EACH	2.000	2.000
0110	611.8120.S	Cover Plates Temporary	EACH	3.000	3.000
0112	612.0106	Pipe Underdrain 6-Inch	LF	522.000	522.000
0116	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6085-02-76	EACH	1.000	1.000
0118	619.1000	Mobilization	EACH	1.000	1.000
0120	620.0300	Concrete Median Sloped Nose	SF	157.000	157.000
0122	624.0100	Water	MGAL	202.000	202.000
0124	625.0500	Salvaged Topsoil	SY	14,044.000	14,044.000
0126	627.0200	Mulching	SY	4,086.000	4,086.000
0128	628.1504	Silt Fence	LF	1,374.000	1,374.000
0130	628.1520	Silt Fence Maintenance	LF	1,374.000	1,374.000
0132	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000
0134	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0136	628.2008	Erosion Mat Urban Class I Type B	SY	10,834.000	10,834.000
0138	628.7010	Inlet Protection Type B	EACH	11.000	11.000
0140	628.7020	Inlet Protection Type D	EACH	1.000	1.000
0142	628.7504	Temporary Ditch Checks	LF	46.000	46.000
0144	628.7555	Culvert Pipe Checks	EACH	13.000	13.000
0146	629.0210	Fertilizer Type B	CWT	8.300	8.300
0148	630.0110	Seeding Mixture No. 10	LB	152.000	152.000
0150	630.0140	Seeding Mixture No. 40	LB	280.000	280.000
0152	630.0160	Seeding Mixture No. 60	LB	14.000	14.000
0154	630.0200	Seeding Temporary	LB	113.000	113.000
0156	630.0500	Seed Water	MGAL	196.000	196.000
0158	633.5200	Markers Culvert End	EACH	4.000	4.000
0160	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	14.000	14.000
0162	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	25.000	25.000
0164	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	1.000	1.000
0166	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	4.000	4.000
0168	637.2210	Signs Type II Reflective H	SF	291.040	291.040
0170	637.2230	Signs Type II Reflective F	SF	120.500	120.500
0172	638.2602	Removing Signs Type II	EACH	11.000	11.000
0174	638.3000	Removing Small Sign Supports	EACH	9.000	9.000
0176	642.5001	Field Office Type B	EACH	1.000	1.000
0178	643.0300	Traffic Control Drums	DAY	11,813.000	11,813.000
0180	643.0420	Traffic Control Barricades Type III	DAY	2,444.000	2,444.000
0182	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	50.000	50.000
0184	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	50.000	50.000
0186	643.0705	Traffic Control Warning Lights Type A	DAY	4,888.000	4,888.000
0188	643.0715	Traffic Control Warning Lights Type C	DAY	2,702.000	2,702.000
0190	643.0900	Traffic Control Signs	DAY	8,223.000	8,223.000
0192	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0194	643.1050	Traffic Control Signs PCMS	DAY	35.000	35.000
0196	643.3165	Temporary Marking Line Paint 6-Inch	LF	7,285.000	7,285.000
0198	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	11,871.000	11,871.000

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Line	Item	Item Description	Unit	Total	Qty
0200	643.5000	Traffic Control	EACH	1.000	1.000
0202	644.1410	Temporary Pedestrian Surface Asphalt	SF	543.000	543.000
0204	644.1605	Temporary Pedestrian Detectable Warning Field	SF	10.000	10.000
0206	644.1810	Temporary Pedestrian Barricade	LF	1,758.000	1,758.000
0208	645.0120	Geotextile Type HR	SY	55.000	55.000
0210	645.0130	Geotextile Type R	SY	23.000	23.000
0212	646.1020	Marking Line Epoxy 4-Inch	LF	3,508.000	3,508.000
0214	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	7,797.000	7,797.000
0216	646.4020	Marking Line Epoxy 10-Inch	LF	267.000	267.000
0218	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	56.000	56.000
0220	646.7120	Marking Diagonal Epoxy 12-Inch	LF	178.000	178.000
0222	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	251.000	251.000
0224	646.8120	Marking Curb Epoxy	LF	38.000	38.000
0226	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0228	646.9000	Marking Removal Line 4-Inch	LF	3,893.000	3,893.000
0230	648.0100	Locating No-Passing Zones	MI	0.200	0.200
0232	650.4000	Construction Staking Storm Sewer	EACH	11.000	11.000
0234	650.4500	Construction Staking Subgrade	LF	1,021.000	1,021.000
0236	650.5000	Construction Staking Base	LF	217.000	217.000
0238	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0240	650.7000	Construction Staking Concrete Pavement	LF	804.000	804.000
0242	650.9500	Construction Staking Sidewalk (project) 01. 6085-02-76	EACH	1.000	1.000
0244	650.9911	Construction Staking Supplemental Control (project) 01. 6085-02-76	EACH	1.000	1.000
0246	650.9920	Construction Staking Slope Stakes	LF	1,805.000	1,805.000
0248	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,387.000	1,387.000
0250	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	26.000	26.000
0252	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	185.000	185.000
0254	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	9.000	9.000
0256	654.0101	Concrete Bases Type 1	EACH	4.000	4.000
0258	654.0105	Concrete Bases Type 5	EACH	12.000	12.000
0260	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0262	655.0615	Electrical Wire Lighting 10 AWG	LF	6,201.000	6,201.000
0264	657.0100	Pedestal Bases	EACH	4.000	4.000
0266	657.0322	Poles Type 5-Aluminum	EACH	12.000	12.000
0268	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
0270	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	12.000	12.000
0272	658.0500	Pedestrian Push Buttons	EACH	4.000	4.000
0274	659.1120	Luminaires Utility LED B	EACH	12.000	12.000
0276	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0278	690.0150	Sawing Asphalt	LF	253.000	253.000
0280	690.0250	Sawing Concrete	LF	1,707.000	1,707.000
0282	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	2,230.000	2,230.000
0286	SPV.0060	Special 01. Temporary Lighting System	EACH	1.000	1.000
0288	SPV.0060	Special 02. Construction Staking Roundabout	EACH	1.000	1.000
0290	SPV.0060	Special 03. Research and Locate Existing Land Parcel Monuments	EACH	11.000	11.000
0292	SPV.0060	Special 04. Verify and Replace Existing Land Parcel Monuments	EACH	11.000	11.000
0294	SPV.0060	Special 05. Rectangular Rapid Flashing Beacon (RRFB) System	EACH	1.000	1.000

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GRUBBING					
STATION		-	STATION	LOCATION	201.0205 GRUBBING STA
CAT 0010					
STAGE 2					
WESTMOUNT DRIVE NB					
202'NB'+49		-	203'NB'+49	RT/LT	1
ITEM TOTALS					1

REMOVING SMALL PIPE CULVERTS		
STATION	203.0100 EACH	REMARKS
CAT 0010		
STAGE 1		
STH 19 EB		
110'EB'+06	1	36" CPRC
119'EB'+77	1	42" CPRC
ITEM TOTAL		2

REMOVING STORM SEWER ITEMS					
STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 15-INCH LF	204.0245.02 REMOVING STORM SEWER 24-INCH LF
CAT 0010					
STAGE 2					
WESTMOUNT DR NB					
203'NB'+72 - 203'NB'+92	LT	--	1	26	--
203'NB'+81 - 203'NB'+92	RT/LT	--	1	38	--
203'NB'+92	LT	1	--	--	52
ITEM TOTAL		1	2	64	52

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REMOVING CURB & GUTTER		
STATION - STATION	LOCATION	204.0150 LF
CAT 0010		
STAGE 1		
WESTMOUNT DRIVE NB		
205'NB'+23 - 205'NB'+30	LT	20
205'NB'+43 - 205'NB'+44	RT	24
STAGE 1 SUBTOTAL		44
STAGE 2		
WESTMOUNT DRIVE NB		
202'NB'+36 - 204'NB'+83	RT	258
202'NB'+39 - 204'NB'+62	LT	279
STAGE 2 SUBTOTAL		537
STAGE 3		
WESTMOUNT DRIVE NB		
205'NB'+30 - 207'NB'+65	LT	223
205'NB'+44 - 207'NB'+65	RT	232
STAGE 3 SUBTOTAL		455
ITEM TOTAL		1036

TEMPORARY LANE SHIFT DURING CULVERT WORK		
STATION	LOCATION	208.1500.S EACH
CAT 0010		
STAGE 1		
STH 19 EB		
110'EB'+06	RT	1
119'EB'+77	RT	1
ITEM TOTAL		2

EARTHWORK												
DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (6)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION (3)				FACTOR 1.25				
CAT 0010												
DIVISION 1												
STH 19 EB	105+17.55/127+50.00		6,224	0	1,276	4,948	511	639	4,309			
STH 19 WB	112+12.02/119+00.00		2,639	0	510	2,129	53	66	2,063			
DIVISION 1 SUBTOTAL			8,863	0	1,786	7,077	564	705	6,372	6,372	0	
DIVISION 2												
WESTMOUNT DR NB	202+35.92/207+64.93		1,358	0	130	1,228	132	165	1,063			
WESTMOUNT DR SB	203+61.61/206+32.15		180	0	33	147	85	106	41			
DIVISION 2 SUBTOTAL			1,538	0	163	1,375	217	271	1,104	1,104	0	
DIVISION 3												
ROUNDAABOUT CC	1+00.00/4+32.99		1,284	0	375	909	1,637	2,046	-1,137			
DIVISION 3 SUBTOTAL			1,284	0	375	909	1,637	2,046	-1,137	0	0	
DIVISION 4												
STH 19 EX - STAGE 1B WIDENING	105+50.00/127+00.00		1,024	0	79	945	800	1,000	-55			
DIVISION 4 SUBTOTAL			1,024	0	79	945	800	1,000	-55	0	55	
DIVISION 5												
STH 19 EB - STAGE 2 WIDENING	107+00.00/125+50.00		305	0	0	305	202	253	53			
DIVISION 5 SUBTOTAL			305	0	0	305	202	253	53	53	0	
GRAND TOTAL			13,014	0	2,403	10,611	3,420	4,275	6,336	7,528	55	
TOTAL COMMON EXC			13,014									

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

BASE AGGREGATE DENSE					
STATION - STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	312.0110 SELECT CRUSHED MATERIAL TON	REMARKS
CAT 0010					
STAGE 1					
STH 19 EX					
105'EX'+10 - 127'EX'+42	80	2401	--	--	
109'EX'+94 - 110'EX'+18	--	39	--	--	CULVERT REPLACEMENT
119'EX'+55 - 119'EX'+79	--	47	--	--	CULVERT REPLACEMENT
STAGE 1 - SUBTOTAL	80	2487	0	0	
STAGE 2					
STH 19 EB					
106'EB'+98 - 114'EB'+89	28	1151	--	1541	
116'EB'+29 - 125'EB'+73	33	1686	--	1881	
WESTMOUNT DR NB					
202'NB'+36 - 204'NB'+13	--	714	916	--	
ROUNABOUT CC					
1'CC'+00 - 2'CC'+17	--	440	--	1059	
3'CC'+39 - 4'CC'+33					
STAGE 2 - SUBTOTAL	61	3991	916	4481	
STAGE 3					
STH 19 EB					
109'EB'+10 - 112'EB'+00	198	349	--	611	
119'EB'+06 - 127'EB'+50	133	567	--	1175	
STH 19 WB					
112'WB'+00 - 114'WB'+90	44	342	--	636	
116'WB'+30 - 119'WB'+01	--	299	--	660	
WESTMOUNT DR NB					
205'NB'+56 - 207'NB'+65	8	633	902	--	
ROUNABOUT CC					
2'CC'+17 - 3'CC'+39	--	210	--	934	
STAGE 3 - SUBTOTAL	383	2400	902	4016	
STAGE 4					
STH 19 EB					
106'EB'+98 - 114'EB'+88	145	503	--	190	
116'EB'+29 - 125'EB'+73	230	462	--	255	
ROUNABOUT CC					
1'CC'+00 - 2'CC'+17	--	94	--	--	
3'CC'+39 - 4'CC'+33					
STAGE 4 - SUBTOTAL	375	1059	0	445	
UNDISTRIBUTED	--	--	--	672	TEMPORARY WIDENING
ITEM TOTALS	899	9937	1818	9614	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE PAVEMENT ITEMS					
STATION - STATION	405.0100 COLORING CONCRETE WISDOT RED CY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.2010 CONCRETE TRUCK APRON 12-INCH SY	602.0815 CONCRETE DRIVEWAY 7-INCH SY	REMARKS
CAT 0010					
STAGE 2					
STH 19 EB					
109'EB'+10 - 114'EB'+89	--	1272	--	--	
116'EB'+28 - 123'EB'+60	--	1482	--	--	
WESTMOUNT DRIVE NB					
203'NB'+41 - 204'NB'+13	--	338	--	--	
ROUNABOUT CC					
2'CC'+17 - 3'CC'+46	--	564	--	--	
STAGE 2 - SUBTOTAL	0	3656	0	0	
STAGE 3					
STH 19 EB					
109'EB'+10 - 112'EB'+00	--	491	--	--	
119'EB'+06 - 123'EB'+60	--	784	--	--	
STH 19 WB					
112'WB'+00 - 114'WB'+90	--	578	--	--	
116'WB'+30 - 119'WB'+01	23	579	68	--	
WESTMOUNT DRIVE NB					
205'NB'+56 - 206'NB'+53	--	411	--	68	
ROUDNABOUT CC					
1'CC'+82 - 3'CC'+70	83	379	248	--	
STAGE 3 - SUBTOTAL	106	3222	316	68	
STAGE 4					
STH 19 EB					
114'EB'+04 - 115'EB'+01	21	--	62	--	
ROUNABOUT CC					
1'CC'+82 - 3'CC'+70	58	--	174	--	
STAGE 4 - SUBTOTAL	79	0	236	0	
ITEM TOTALS	185	6878	552	68	

DRILLED DOWEL BARS		
STATION - STATION	LOCATION	416.0620 DRILLED DOWEL BARS EACH
CAT 0010		
109'EB'+10 123'EB'+60	RT/LT RT/LT	20 20
ITEM TOTAL		40

CULVERT PIPE ITEMS								
STATION	LOCATION	520.2018 CULVERT PIPE TEMPORARY 18-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	633.5200 MARKERS CULVERT END EACH	REMARKS
CAT 0010								
STH 19 EB								
110'EB'+06	RT/LT	--	77	--	2	--	2	STAGE 1A & 2
117'EB'+24	LT	28	--	--	--	--	--	STAGE 1A
119'EB'+77	RT/LT	--	--	108	--	2	2	STAGE 1A & 2
ITEM TOTALS		28	77	108	2	2	4	

ASPHALTIC PAVEMENT ITEMS							
STATION - STATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0310 ASPHALTIC CURB LF	465.0315 ASPHALTIC FLUMES SY	REMARKS
CAT 0010							
STAGE 1							
STH 19 EX							
109'EX'+95 - 110'EX'+18	4	--	16	--	--	--	STAGE 1A
119'EX'+54 - 119'EX'+79	7	--	30	--	--	--	STAGE 1A
105'EX'+10 - 127'EX'+57	177	--	791	--	--	--	STAGE 1B
STAGE 1 - SUBTOTAL	188	0	837	0	0	0	
STAGE 2							
STH 19 EB							
106'EB'+97 - 114'EB'+88	43	--	191	--	--	--	
116'EB'+30 - 125'EB'+73	56	--	318	--	--	--	
WESTMOUNT DRIVE NB							
202'NB'+36 - 203'NB'+66	26	142	30	--	51	--	
ROUNDABOUT CC							
1'CC'+81 - 3'CC'+70	17	--	75	--	--	--	
STAGE 2 - SUBTOTAL	142	142	614	0	51	0	
STAGE 3							
STH 19 WB							
113'WB'+74	--	--	--	--	--	9	
WESTMOUNT DRIVE NB							
206'NB'+53 - 207'NB'+65	20	112	--	2	--	--	
STAGE 3- SUBTOTAL	20	112	0	2	0	9	
STAGE 4							
STH 19 EB							
112'EB'+22	--	--	--	--	--	10	
112'EB'+25 - 115'EB'+16	--	--	52	--	--	--	
STAGE 4 - SUBTOTAL	0	0	52	0	0	10	
ITEM TOTALS		350	254	1503	2	51	19

CONCRETE CURB & GUTTER									
STATION - STATION	LOCATION	601.0405	601.0409	601.0411	601.0551	601.0581	601.0600	620.0300	
		18-INCH TYPE A LF	30-INCH TYPE A LF	30-INCH TYPE D LF	4-INCH SLOPED 36-INCH TYPE A LF	4-INCH SLOPED 30-INCH TYPE R LF	CONCRETE CURB PEDESTRIAN LF	CONCRETE MEDIAN SLOPED NOSE TYPE 1 SF	TYPE 2 SF
CAT 0010									
STAGE 2									
STH 19 EB									
112'EB'+05 - 114'EB'+80	LT	--	315	--	243	--	30	27	11
116'EB'+08 - 117'EB'+54	RT	--	159	--	--	--	--	--	--
116'EB'+39 - 119'EB'+11	LT	--	163	--	155	--	--	27	3
WESTMOUNT DR NB									
202'NB'+36 - 204'NB'+26	RT/LT	--	180	217	--	--	--	--	--
203'NB'+56 - 204'NB'+05	MEDIAN	--	104	--	--	--	26	27	11
STAGE 2 - SUBTOTAL		0	921	217	398	0	56	81	25
STAGE 3									
STH 19 WB									
113'WB'+67 - 115'WB'+02	LT	--	145	--	--	--	--	--	--
116'WB'+05 - 119'WB'+02	LT	--	--	--	304	--	--	--	--
WESTMOUNT DR NB									
205'NB'+50 - 207'NB'+65	RT/LT	--	218	223	--	--	--	--	--
205'NB'+65 - 206'NB'+09	MEDIAN	--	89	--	--	--	26	28	13
CENTER CIRCLE									
1'CC'+80 - 3'CC'+71		138	--	--	--	184	--	--	--
STAGE 3 - SUBTOTAL		138	452	223	304	184	26	28	13
STAGE 4									
STH 19 EB									
112'EB'+18 - 115'EB'+08	RT	--	--	--	297	--	--	--	--
116'EB'+36 - 118'EB'+65	MEDIAN	--	159	--	75	--	38	--	10
117'EB'+54 - 117'EB'+80	RT	--	25	--	--	--	--	--	--
ROUNDAABOUT CC									
3'CC'+71 - 4'CC'+33; 1'CC'+00 - 1'CC'+80		83	--	--	--	138	--	--	--
STAGE 4 - SUBTOTAL		83	184	0	372	138	38	0	10
ITEM TOTALS		221	1557	440	1074	322	120	109	48
								TOTAL	
								157	

CONCRETE SIDEWALK ITEMS			
		602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
STATION - STATION	LOCATION	SF	SF
CAT 0010			
STAGE 2			
STH 19 EB			
112'EB'+12 - 114'EB'+82	LT	1981	40
116'EB'+51 - 117'EB'+81	RT	501	20
WESTMOUNT DR NB			
202'NB'+89 - 204'NB'+00	RT/LT	1756	40
203'NB'+63 - 204'NB'+07	MEDIAN	609	40
STAGE 2 - SUBTOTAL		4847	140
STAGE 3			
STH 19 WB			
113'WB'+98 - 115'WB'+02	LT	731	20
116'WB'+16 - 117'WB'+55	LT	803	20
WESTMOUNT DR NB			
205'NB'+50 - 206'NB'+85	RT/LT	1392	40
205'NB'+65 - 206'NB'+02	MEDIAN	574	40
STAGE 3 - SUBTOTAL		3500	120
STAGE 4			
STH 19 EB			
113'EB'+85 - 114'EB'+67	RT	320	20
116'EB'+36 - 119'EB'+04	MEDIAN	2529	40
STAGE 4 - SUBTOTAL		2849	60
ITEM TOTALS		11196	320

STORM SEWER PIPES													
									608.0412	608.0415	608.0418		
FROM			TO			INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	JOINT TIES*	
STRUCTURE	STATION	OFFSET	-	STRUCTURE	STATION				OFFSET	LF	LF	LF	EACH
CAT 0010													
2	117'EB'+11.47	30.06' LT	-	1	117'EB'+23.59	49.88' LT	950.91	950.81	0.0040	--	--	24	2
3	117'EB'+10.48	11.58' LT	-	2	117'EB'+11.47	30.06' LT	950.98	950.91	0.0040	--	19	--	--
4	116'EB'+99.48	1.25' LT	-	3	117'EB'+10.48	11.58' LT	951.04	950.98	0.0040	--	15	--	--
5	117'EB'+00.05	17.25' RT	-	4	116'EB'+99.48	1.25' LT	951.22	951.14	0.0040	19	--	--	--
6	1'CC'+57.66	1.25' LT	-	4	116'EB'+99.48	1.25' LT	951.53	951.04	0.0050	98	--	--	--
7	1'CC'+47.39	1.25' LT	-	6	1'CC'+57.66	1.25' LT	951.58	951.53	0.0050	10	--	--	--
9	203'NB'+88.41	43.78' LT	-	8	203'NB'+78.59	75.70' LT	949.21	949.03	0.0050	--	--	36	2
10	203'NB'+34.48	26.13' LT	-	9	203'NB'+88.41	43.78' LT	949.63	949.28	0.0050	--	--	70	--
11	203'NB'+00.45	24.40' LT	-	10	203'NB'+34.48	26.13' LT	949.90	949.73	0.0050	--	34	--	--
12	203'NB'+39.23	17.41' RT	-	10	203'NB'+34.48	26.13' LT	949.95	949.73	0.0050	--	44	--	--
14	203'NB'+07.86	21.30' RT	-	12	203'NB'+39.23	17.41' RT	950.20	950.05	0.0050	--	32	--	--
ITEM TOTALS									127	144	130	4	

*NON-BID ITEM: FOR INFORMATION ONLY

STORM SEWER STRUCTURES																		
			522.1018		611.0624	611.0636	611.0639	611.0651	611.0652	611.3004	611.3225	611.3230	611.8120.S	650.4000				
			APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH		INLET COVERS TYPE H	INLET COVERS TYPE HM-S	INLET COVERS TYPE H-S	INLET COVERS TYPE S	INLET COVERS TYPE T	INLETS 4-FT DIAMETER	INLETS 2X2.5-FT	INLETS 2X3-FT	COVER PLATES TEMPORARY	CONSTRUCTION STAKING STORM SEWER				
STRUCTURE	STATION	OFFSET*	LOCATION	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	REMARKS
CAT 0010																		
1	117'EB'+23.59	49.88' LT	STH 19	--	950.81	--	1	--	--	--	--	--	--	--	--	--	--	
2	117'EB'+11.47	30.06' LT	STH 19	953.92	950.91	2.22	--	--	1	--	--	--	--	1	1	--	1	
3	117'EB'+10.48	11.58' LT	STH 19	954.24	950.98	2.44	--	--	--	1	--	--	--	--	--	--	1	
4	116'EB'+99.48	1.25' LT	STH 19	954.13	951.04	2.27	--	--	--	1	--	--	--	1	1	--	1	
5	117'EB'+00.05	17.25' RT	STH 19	953.81	951.22	1.76	--	--	--	1	--	--	--	1	--	--	1	
6	1'CC'+57.66	1.25' LT	CENTER CIRCLE	954.51	951.53	2.06	--	--	--	--	1	1	1	--	--	--	1	TYPE S COVER USED DURING STAGING
7	1'CC'+47.39	1.25' LT	CENTER CIRCLE	954.52	951.58	2.02	--	--	--	--	--	1	--	1	--	1	1	
8	203'NB'+78.59	75.70' LT	WESTMOUNT DR NB	--	949.03	--	1	--	--	--	--	--	--	--	--	--	--	
9	203'NB'+88.41	43.78' LT	WESTMOUNT DR NB	955.28	949.19	5.07	--	1	--	--	--	1	--	--	--	--	1	
10	203'NB'+34.48	26.13' LT	WESTMOUNT DR NB	953.73	949.63	3.32	--	--	--	1	--	--	--	--	--	--	1	
11	203'NB'+00.45	24.40' LT	WESTMOUNT DR NB	953.54	949.90	2.83	--	--	--	1	--	--	--	--	--	--	1	
12	203'NB'+39.23	17.41' RT	WESTMOUNT DR NB	953.68	949.95	2.92	--	--	--	1	--	--	--	--	--	--	1	
14	203'NB'+07.86	21.30' RT	WESTMOUNT DR NB	953.47	950.20	2.46	--	--	--	1	--	--	--	--	--	--	1	
ITEM TOTALS							2	1	1	7	1	2	8	1	2	3	11	

NOTES:
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

3

UNDERDRAIN			
STATION	-	STATION	LOCATION
CAT 0010			
STH 19 EB			
116'EB'+85	-	118'EB'+91	RT
116'EB'+98	-	119'EB'+08	LT
ROUDNABOUT CC			
1'CC'+00	-	4'CC'+33	LT
ITEM TOTALS			522

612.0106
PIPE
UNDERDRAIN
6-INCH
LF

MOBILIZATIONS EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CAT 0010		
6085-02-76	7	4
ITEM TOTALS	7	4

3

WATER	
STATION - STATION	624.0100 MGAL
CAT 0010	
STAGE 1	
STH 19 EX	
105'EX'+10 - 127'EX'+42	48
STAGE 1 - SUBTOTAL	48
STAGE 2	
STH 19 EB	
106'EB'+98 - 125'EB'+73	54
WESTMOUNT DR NB	
203'NB'+41 - 204'NB'+13	13
CENTER CIRCLE	
1'CC'+00 - 4'CC'+33	8
STAGE 2 - SUBTOTAL	75
STAGE 3	
STH 19 EB	
105'EB'+17 - 127'EB'+50	23
STH 19 WB	
112'WB'+00 - 119'WB'+01	13
WESTMOUNT DR NB	
205'NB'+56 - 206'NB'+53	12
CENTER CIRCLE	
2'CC'+02 - 3'CC'+39	4
STAGE 3 - SUBTOTAL	52
STAGE 4	
STH 19 EB	
106'EB'+98 - 125'EB'+73	25
ROUNABOUT CC	
1'CC'+00 - 4'CC'+33	2
STAGE 4 - SUBTOTAL	27
ITEM TOTALS	202

EROSION CONTROL ITEMS														
STATION	-	STATION	LOCATION	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS 1 TYPE B SY	628.7010 INLET PROTECTION TYPE B LF	628.7020 INLET PROTECTION TYPE D LF	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0120 GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY
CAT 0010														
STAGE 1														
STH 19 EX														
105'EX'+53	-	115'EX'+00	LT	--	9	497	497	--	--	--	--	--	26	--
116'EX'+00	-	126'EX'+41	LT	--	10	463	463	--	--	--	6	--	29	--
STAGE 1 SUBTOTAL				0	19	960	960	0	0	0	6	0	55	0
STAGE 2														
STH 19 EB														
106'EB'+86	-	114'EB'+88	RT	--	--	414	414	--	--	--	--	6	--	--
116'EB'+29	-	119'EB'+85	RT	--	--	--	--	407	2	1	--	7	--	--
WESTMOUNT DRIVE NB														
202'NB'+36	-	204'NB'+16	LT	3	--	--	--	377	3	--	--	--	--	12
202'NB'+36	-	204'NB'+13	RT	--	--	--	--	244	2	--	--	--	--	--
STAGE 2 SUBTOTAL				3	0	414	414	1028	7	1	0	13	0	12
STAGE 3														
STH 19 EB														
105'EB'+46	-	114'EB'+77	LT	--	--	--	--	2743	--	--	10	--	--	--
116'EB'+44	-	122'EB'+36	LT	3	--	--	--	3085	1	--	20	--	--	11
WESTMOUNT DRIVE NB														
206'NB'+45	-	207'NB'+65	RT/LT	--	--	--	--	119	--	--	--	--	--	--
STAGE 3 SUBTOTAL				3	0	0	0	5947	1	0	30	0	0	11
STAGE 4														
STH 19 EB														
107'EB'+13	-	115'EB'+00	RT	--	--	--	--	2075	--	--	10	--	--	--
117'EB'+21	-	125'EB'+66	RT	--	--	--	--	1368	1	--	--	--	--	--
ROUNABOUT CC														
1'CC'+00	-	4'CC'+33		--	--	--	--	416	2	--	--	--	--	--
STAGE 4 SUBTOTAL				0	0	0	0	3859	3	0	10	0	0	0
ITEM TOTALS				6	19	1374	1374	10834	11	1	46	13	55	23

PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

98

E

FINISHING ITEMS												
STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
CAT 0010												
STAGE 1												
STH 19 EX												
105'EX'+53	-	115'EX'+00	LT	1069	1069	--	--	--	--	29	13	
116'EX'+00	-	126'EX'+41	LT	1260	1260	--	--	--	--	35	15	
STAGE 1 SUBTOTAL				2329	2329	0	0	0	0	64	28	
STAGE 2												
STH 19 EB												
106'EB'+86	-	114'EB'+88	RT	538	538	--	--	--	--	15	7	
116'EB'+71	-	125'EB'+66	RT	1061	686	0.3	1	17	1	19	12	
WESTMOUNT DRIVE NB												
202'NB'+36	-	204'NB'+16	LT	377	--	--	--	17	--	--	5	
202'NB'+36	-	204'NB'+13	RT	244	--	--	--	11	--	--	3	
STAGE 2 SUBTOTAL				2220	1224	0.3	1	45	1	34	27	
STAGE 3												
STH 19 EB												
105'EB'+46	-	111'EB'+25	LT	1418	--	0.9	32	--	4	--	16	
111'EB'+25	-	114'EB'+77	LT	1326	--	0.9	--	60	--	--	15	
116'EB'+44	-	118'EB'+27	LT	965	--	0.7	--	44	--	--	11	
118'EB'+27	-	122'EB'+36	LT	1454	--	1.0	28	--	6	--	17	
122'EB'+36	-	126'EB'+51	LT	698	--	0.5	--	32	--	--	8	
WESTMOUNT DRIVE NB												
206'NB'+45		207'NB'+65	LT	63	--	0.1	--	3	--	--	1	
206'NB'+78		207'NB'+65	RT	56	--	0.1	--	3	--	--	1	
STAGE 3 SUBTOTAL				5980	0	4.2	60	142	10	0	69	
STAGE 4												
STH 19 EB												
107'EB'+13		112'EB'+26	RT	1337	--	0.9	35	--	1	--	16	
112'EB'+26		115'EB'+01	RT	739	--	0.5	--	34	--	--	9	
117'EB'+21		117'EB'+80	RT	54	--	0.1	--	3	--	--	1	
117'EB'+80		125'EB'+66	RT	1315	--	0.9	36	--	--	--	15	
ROUNDAABOUT CC												
1'CC'+00		4'CC'+33	LT	70	--	0.3	--	19	--	--	5	
STAGE 4 SUBTOTAL				3515	0	2.7	71	56	1	0	46	
UNDISTRIBUTED				--	533	1.1	20	37	2	15	26	
ITEM TOTALS				14044	4086	8.3	152	280	14	113	196	

PERMANENT SIGNING ITEMS													
SIGN NO.	STATION	OFFSET	LOCATION	SIGN CODE	SIGN SIZE (WXH) IN X IN*	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH 18-FT EACH	634.0620 POSTS WOOD 4X6-INCH 20-FT EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
CAT 0010													
1-01	109'EB'+02	25.5' RT	STH 19 EB	W2-6	30X30	--	6.25	1	--	--	--	1-02	--
1-02	109'EB'+02	25.5' RT	STH 19 EB	W13-1	18X18	--	2.25	--	--	--	--	1-01	15 MPH ADVISORY
1-03	111'EB'+03	25.7' RT	STH 19 EB	D1-62	144X66	66	--	--	--	--	2	--	--
1-04	112'EB'+15	7.4' LT	STH 19 EB	R4-7	24X30	5	--	--	1	--	--	1-05	--
1-05	112'EB'+15	7.4' LT	STH 19 EB	W5-54	18X18	--	2.25	--	--	--	--	1-04	--
1-06	112'WB'+12	24.7' LT	STH 19 EB	R5-1	30X30	6.25	--	1	--	--	--	1-07	--
1-07	112'WB'+12	24.7' LT	STH 19 WB	R2-1	24X30	5	--	--	--	--	--	1-06	45 MPH
2-02	114'EB'+42	29.2' RT	STH 19 EB	W11-2	30X30	--	2	--	--	1	--	2-03	--
2-03	114'EB'+42	29.2' RT	STH 19 EB	W16-7L	24X12	--	7.75	--	--	--	--	2-02	--
2-04	114'EB'+85	31.2' RT	STH 19 EB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-05	114'EB'+79	5.8' LT	STH 19 EB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-06	3'CC'+80	22.7 LT'	ROUNDABOUT CC	R6-1R	36X12	3	--	1	--	--	--	2-07	--
2-07	3'CC'+80	22.7 LT'	ROUNDABOUT CC	W5-54	18X18	2.25	--	--	--	--	--	2-06	--
2-09	204'SB'+06	6.7' RT	WESTMOUNT SB	D1-1	84X15	8.75	--	2	--	--	--	--	--
2-10	203'SB'+92	23.1' LT	WESTMOUNT SB	W11-15	30X30	--	6.25	--	1	--	--	2-11	--
2-11	203'SB'+92	23.1' LT	WESTMOUNT SB	W16-7L	24X12	--	2	--	--	--	--	2-10	--
2-12	203'NB'+65	21.7' LT	WESTMOUNT NB	R5-1	30X30	6.25	--	--	1	--	--	--	--
2-13	203'NB'+64	5.2' LT	WESTMOUNT NB	R4-7	24X30	5	--	--	1	--	--	--	--
2-14	203'SB'+12	25.5' LT	WESTMOUNT SB	R2-1	24X30	5	--	--	1	--	--	--	25 MPH
2-15	203'NB'+68	23.3' RT	WESTMOUNT NB	W11-15	30X30	--	6.25	--	1	--	--	2-16	--
2-16	204'NB'+04	5.2' LT	WESTMOUNT NB	W16-7L	24X12	--	2	--	--	--	--	2-15	--
2-17	204'NB'+04	5.2' LT	WESTMOUNT NB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-18	1'CC'+27	35.7' RT	WESTMOUNT NB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-19	1'CC'+26	23.7' LT	ROUNDABOUT CC	R6-1R	36X12	3	--	1	--	--	--	2-20	--
2-20	1'CC'+26	23.7' LT	ROUNDABOUT CC	W5-54	18X18	2.25	--	--	--	--	--	2-19	--
2-22	116'EB'+42	6.7' LT	STH 19 EB	D1-1	42X30	8.75	--	--	2	--	--	--	--
2-23A	116'EB'+59	26.9' RT	STH 19 EB	W11-2	30X30	--	6.25	--	--	--	--	--	MOUNTED ON RRFB
2-23B	116'EB'+59	26.9' RT	STH 19 EB	W16-7L	24X12	--	2	--	--	--	--	2-23A	--
2-23C	116'EB'+59	26.9' RT	STH 19 EB	R10-25	9X12	--	0.75	--	--	--	--	2-23A	--
2-24A	116'EB'+57	6.4' LT	STH 19 EB	W11-2	30X30	--	6.25	--	--	--	--	--	MOUNTED ON RRFB
2-24B	116'EB'+58	6.4' LT	STH 19 EB	W16-7R	24X12	--	2	--	--	--	--	2-24A	--
2-24C	116'EB'+59	6.4' LT	STH 19 EB	R10-25	9X12	--	0.75	--	--	--	--	2-24A	--
2-25	117'WB'+21	21.4' RT	STH 19 WB	R5-1A	36X24	6	--	1	--	--	--	--	--
2-27A	116'WB'+67	7.5' RT	STH 19 WB	W11-2	30X30	--	6.25	--	--	--	--	--	MOUNTED ON RRFB
2-27B	116'WB'+67	7.5' RT	STH 19 WB	W16-7R	24X12	--	2	--	--	--	--	2-27A	--
2-27C	116'WB'+67	7.5' RT	STH 19 WB	R10-25	9X12	--	0.75	--	--	--	--	2-27A	--
2-28A	116'WB'+78	28.6' LT	STH 19 WB	W11-2	30X30	--	6.25	--	--	--	--	--	MOUNTED ON RRFB
2-28B	116'WB'+78	28.6' LT	STH 19 WB	W16-7L	24X12	--	2	--	--	--	--	2-28A	--
2-28C	116'WB'+78	28.6' LT	STH 19 WB	R10-25	9X12	--	0.75	--	--	--	--	2-28A	--
2-29	116'WB'+39	6.2' RT	STH 19 WB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-30	2'CC'+19	39.3' RT	ROUNDABOUT CC	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-31	2'CC'+21	23.4' LT	ROUNDABOUT CC	R6-1R	36X12	3	--	1	--	--	--	2-32	--
2-32	2'CC'+21	23.4' LT	ROUNDABOUT CC	W5-54	18X18	2.25	--	--	--	--	--	2-31	--
2-34	205'NB'+70	7.4' LT	WESTMOUNT NB	D1-1	84X15	8.75	--	2	--	--	--	--	--
2-35	205'NB'+83	22.3' RT	WESTMOUNT NB	W11-2	30X30	--	6.25	--	1	--	--	2-36	--
2-36	205'NB'+83	22.3' RT	WESTMOUNT NB	W16-7L	24X12	--	2	--	--	--	--	2-35	--
2-38	206'NB'+02	6.3' LT	WESTMOUNT NB	R4-7	24X30	5	--	--	1	--	--	--	--
2-39	206'NB'+07	21.7' RT	WESTMOUNT NB	R5-1	30X30	6.25	--	--	1	--	--	--	--
2-40	206'SB'+01	21.7' LT	WESTMOUNT SB	W11-2	30X30	--	6.25	--	1	--	--	2-41	--
2-41	205'SB'+64	6.3' RT	WESTMOUNT SB	W16-7L	24X12	--	2	--	--	--	--	2-40	--
2-42	205'SB'+64	6.3' RT	WESTMOUNT SB	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-43	3'CC'+01	37.2' RT	ROUNDABOUT CC	R1-2	36X31	3.88	--	--	1	--	--	--	--
2-45	2'CC'+96	24.2' LT	ROUNDABOUT CC	R6-1R	36X12	3	--	1	--	--	--	2-46	--
2-46	2'CC'+96	24.2' LT	ROUNDABOUT CC	W5-54	18X18	2.25	--	--	--	--	--	2-45	--
2-47	114'WB'+79	6.5' RT	STH 19 WB	D1-1	42X30	8.75	--	--	2	--	--	--	--
2-48	114'WB'+64	23.2' LT	STH 19 WB	W11-2	30X30	--	6.25	--	1	--	--	2-49	--
2-49	114'WB'+64	23.2' LT	STH 19 WB	W16-7L	24X12	--	2	--	--	--	--	2-48	--
2-51	113'WB'+82	26.2' LT	STH 19 WB	R5-1A	36X24	6	--	1	--	--	--	--	--
3-01	119'EB'+02	5.2' LT	STH 19 EB	R4-7	24X30	5	--	--	1	--	--	3-02	--
3-02	119'EB'+02	5.2' LT	STH 19 EB	W5-54	18X18	--	2.25	--	--	--	--	3-01	--
3-03	119'EB'+06	25.0' RT	STH 19 EB	R2-1	24X30	5	--	1	--	--	--	3-04	45 MPH
3-04	119'EB'+06	25.0' RT	STH 19 EB	R5-1	30X30	6.25	--	--	--	--	--	3-03	--
3-05	120'WB'+04	26.4' LT	STH 19 WB	D1-62	144X66	66	--	--	--	--	2	--	--
3-06	122'WB'+07	22.9' LT	STH 19 WB	W2-6	30X30	--	6.25	1	--	--	--	3-07	--
3-07	122'WB'+07	22.9' LT	STH 19 WB	W13-1	18X18	--	2.25	--	--	--	--	3-06	15 MPH ADVISORY
IN ADVANCE OF NO PASSING ZONE			STH 19 WB	W14-3	48X36	--	12.00	--	1	--	--	--	NO PASSING ZONE
ITEM TOTALS						291.04	120.50	14	25	1	4		

3

SIGN REMOVALS

SIGN NO.	STATION	OFFSET	LOCATION	SIGN CODE	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.2602 REMOVING SIGNS TYPE II EACH	REMARKS
CAT 0010							
110' EAST OF HEATHERSTONE DRIVE							
2-01	113'EB'+87	18.5 RT	STH 19	W14-3	1	1	
2-08	115'EB'+08	49.9 RT	STH 19	R2-1	1	1	--
2-21	115'EB'+76	13.0 RT	SUP AT WESTMOUNT INTERSECTION	D11-1A	1	1	--
2-26	117'EB'+21	0.1 LT	WESTMOUNT INTERSECTION - SE CORNER	R1-1	1	3	D3-1 (X2)
			STH 19	R2-1	1	1	--
2-33	205'NB'+55	3.1 LT	WESTMOUNT INTERSECTION - NE CORNER	D3-1	1	1	--
2-37	205'NB'+94	0.7 LT	WESTMOUNT INTERSECTION - NE CORNER	R12-1	1	1	--
2-44	115'WB'+09	54.4 LT	WESTMOUNT INTERSECTION - NW CORNER	R1-1	1	1	--
2-50	113'WB'+91	37.6 LT	STH 19	R2-1	1	1	--
ITEM TOTALS					9	11	

COVERING SIGNS ITEMS

643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II					
STATION	OFFSET	EACH	NUMBER OF CYCLES	NUMBER OF SIGNS	REMARKS
CAT 0010					
STAGE 2		4	1	4	SPEED LIMIT SIGNS
SUBTOTAL STAGE 2		4			
ITEM TOTALS		4			

3

TRAFFIC CONTROL ITEMS

		APPROX. SERVICE PERIOD	643.0300 DRUMS		643.0420 BARRICADES TYPE III		643.0500 FLEXIBLE TUBULAR MARKER POSTS		643.0600 FLEXIBLE TUBULAR MARKER BASES		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0900 SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS		644.1810 TEMPORARY PEDESTRIAN BARRICADE	
STAGE		DAYS	NO.	DAYS	NO.	DAYS	EACH	EACH	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	LF	REMARKS		
CAT 0010																				
PRECONSTRUCTION		7	--	--	--	--	--	--	--	--	--	--	--	--	2	14	--			
PRECONSTRUCTION SUBTOTAL				0		0	0	0		0		0		0		14	0			
STAGE 1	1A-EAST	1	58	58	--	--	--	--	--	--	58	58	34	34	--	--	--			
	1A-WEST	1	26	26	--	--	--	--	--	--	26	26	28	28	--	--	--			
	1B	9	57	513	12	108	--	--	24	216	--	--	26	234	--	--	--			
STAGE 1 SUBTOTAL				597		108	0	0		216		84		296		0	0			
STAGE 2	STAGE 2A	4	80	320	16	64	43	43	32	128	30	120	67	268	1	7		1,092		
	STAGE 2B	7	109	763	12	84	--	--	24	168	30	210	58	406	--	--	--			
	STAGE 2C	39	85	3,315	26	1,014	--	--	52	2,028	30	1,170	67	2,613	1	7		642		
STAGE 2 SUBTOTAL				4,398		1,162	43	43		2,324		1,500		3,287		14		1,734		
STAGE 3		45	59	2,655	19	855	--	--	38	1,710	17	765	59	2,655	1	7		24		
STAGE 3 SUBTOTAL				2,655		855	0	0		1,710		765		2,655		7		24		
STAGE 4		38	69	2,622	--	--	--	--	--	--	--	--	24	912	--	--	--			
STAGE 4 SUBTOTAL				2,622		0	0	0		0		0		912		0		0		
UNDISTRIBUTED				1,541		319	7	7		638		353		1,073		--		--		
ITEM TOTAL				11,813		2,444	50	50		4,888		2,702		8,223		35		1,758		

PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

101

E

TEMPORARY PAVEMENT MARKING						
STATION - STATION		643.3165 TEMPORARY MARKING LINE PAINT 6-INCH		643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH		646.9000 MARKING REMOVAL LINE 4-INCH
		WHITE LF	YELLOW LF	WHITE LF	YELLOW LF	LF
CAT 0010						
STAGE 2						
STH 19 EB						
103'EB'+00	- 130'EB'+00	3685	3600	1157	2322	2883
STAGE 2 SUBTOTAL		3685	3600	1157	2322	2883
STAGE 3						
STH 19 EB						
105'EB'+05	- 127'EB'+65	-	-	3880	4512	1010
STAGE 3 SUBTOTAL		0	0	3880	4512	1010
ITEM TOTALS		7285		11871		3893

TEMPORARY PEDESTRIAN ITEMS			
STATION - STATION	644.1410 TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH TON
CAT 0010			
STAGE 2			
STH 19 EB			
116'EB'+30 - 125'EB'+73	338	--	11
WESTMOUNT DRIVE NB			
202'NB'+32 - 203'NB'+75	205	10	7
STAGE 2 - SUBTOTAL	543	10	18
UNDISTRIBUTED	--	--	4
ITEM TOTALS	543	10	22

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT MARKING ITEMS												
STATION - STATION		646.1020 MARKING LINE EPOXY 4-INCH	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH		646.4020 MARKING LINE EPOXY 10-INCH	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH	646.7120 MARKING DIAGONAL EPOXY 12-INCH	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	646.8120 MARKING CURB EPOXY	646.8220 MARKING ISLAND NOSE EPOXY		
		YELLOW LF	WHITE LF	YELLOW LF	3' LINE, 9' GAP, WHITE LF	WHITE LF	2' LINE, 2' GAP, WHITE LF	YELLOW LF	WHITE LF	YELLOW LF	YELLOW EACH	REMARKS
CAT 0010												
STAGE 4												
STH 19 EB												
110' EAST OF HEATHERSTONE DR	- 109+10'EB'	1471	--	914	--	--	--	--	--	--	--	NO PASSING ZONE EB & WB
109+10'EB'	- 114+90'EB'	--	855	1721	30	64	14	81	72	10	1	
116+29'EB'	- 123+60'EB'	--	1148	2258	30	70	14	75	70	10	1	
123+60'EB'	- 127+80'EB'	--	--	841	--	--	--	--	--	--	--	NO PASSING ZONE EB & WB
127+80'EB'	- 400' EAST OF CHARLOTTE'S WAY	1109	--	--	--	--	--	--	--	--	--	WB DASHES, EB SOLID
WESTMOUNT DRIVE NB												
202+43'NB'	- 204+16'NB'	547	-	-	-	63	14	22	72	10	1	
205+55'NB'	- 206+86'NB'	381	-	-	-	70	14	-	37	8	1	
STAGE 4 SUBTOTAL		3508	2003	5734	60	267	56	178	251	38	4	
ITEM TOTALS		3508		7797		267	56	178	251	38	4	

3

LOCATING NO PASSING ZONES	
PROJECT	648.0100 MI
CAT 0010	
6085-02-76	0.2
ITEM TOTAL	0.2

SAWING ITEMS

STATION - STATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
CAT 0010			
STAGE 1			
STH 19 EX			
109'EX'+95 - 110'EX'+19	--	76	
115'EX'+00 - 115'EX'+93	94	--	
119'EX'+54 - 119'EX'+79	--	87	
STAGE 1 - SUBTOTAL	94	163	
STAGE 2			
STH 19 EB			
109'EB'+10 - 123'EB'+60	40	1483	
WESTMOUNT DR NB			
202'NB'+36 - 203'NB'+57	68	14	
STAGE 2 - SUBTOTAL	108	1497	
STAGE 3			
STH 19 EB			
109'EB'+10	--	15	
123'EB'+60	--	15	
WESTMOUNT DR NB			
206'NB'+42 - 207'NB'+65	51	17	
STAGE 3- SUBTOTAL	51	47	
ITEM TOTALS	253	1707	

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	650.7000 CONCRETE PAVEMENT LF	650.9500.01 SIDEWALK (6085-02-76) EACH	650.9911.01 SUPPLEMENTAL CONTROL (6085-02-76) EACH	650.9920 SLOPE STAKES LF	SPV.0060.02 CONSTRUCTION STAKING ROUNDBOUT EACH
CAT 0010									
PROJECT 6085-02-76		--	--	--	--	1	1	--	1
STH 19 EB									
105'EB'+17 - 109'EB'+10		--	--	--	--	--	--	393	--
109'EB'+10 - 114'EB'+88		295	--	1	295	--	--	295	--
116'EB'+00 - 123'EB'+60		449	--	1	449	--	--	449	--
123'EB'+60 - 127'EB'+51		--	--	--	--	--	--	391	--
WESTMOUNT DR NB									
202'NB'+36 - 204'NB'+13		120	105	--	15	--	--	120	--
205'NB'+56 - 207'NB'+65		157	112	--	45	--	--	157	--
ITEM TOTALS		1021	217	2	804	1	1	1805	1

TEMPORARY LIGHTING AND ELECTRICAL ITEMS

LOCATION	SPV.0060.01 TEMPORARY LIGHTING SYSTEM EACH
CAT 0010	
STAGE 4	
STH 19 & WESTMOUNT DR INTERSECTION	1
STAGE 4 SUBTOTAL	1
ITEM TOTALS	1

PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

E

LIGHTING AND ELECTRICAL ITEMS														
				652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	653.0164 PULL BOXES NONCONDUCTIVE 24X42-INCH EACH	654.0105 CONCRETE BASE TYPE 5 EACH	654.0224 CONCRETE CONTROL CABINETS BASE TYPE L24 EACH	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	657.0322 POLES TYPE-5 ALUMINUM EACH	657.0715 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 15-FT EACH	659.1120 LUMINAIRES UTILITY TYPE B EACH	659.2124 LIGHTING CONTROL CABINETS 120/240 24-INCH EACH
NO.	STATION	OFFSET	LOCATION											
CAT 0010														
LC1	116'WB+75	-48.1' LT	STH 19 WB	--	--	--	--	--	1	--	--	--	--	1
--	116'WB+75 - 116'WB+78	--	--	--	9	--	--	--	--	75	--	--	--	--
PB-1	116'WB+78	-41.4'LT	STH 19 WB	--	--	--	1	--	--	--	--	--	--	--
--	116'WB+78 - 116'WB+85	--	--	6	--	--	--	--	--	108	--	--	--	--
LP-1	116'WB+85	-38.8'LT	STH 19 WB	--	--	--	--	1	--	--	1	1	1	--
--	116'WB+85 - 118'WB+40	--	--	154	--	--	--	--	--	800	--	--	--	--
LP-2	118'WB+40	-26.0'LT	STH 19 WB	--	--	--	--	1	--	--	1	1	1	--
--	118'WB+40 - 120'WB+10	--	--	173	--	--	--	--	--	537	--	--	--	--
LP-3	120'WB+10	-26.2'LT	STH 19 WB	--	--	--	--	1	--	--	1	1	1	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-1	116'WB+78	-41.4'LT	STH 19 WB	--	--	--	--	--	--	--	--	--	--	--
--	116'WB+78 - 116'WB+86	--	--	22	--	59	--	--	--	435	--	--	--	--
PB-2	116'WB+86	24.0'RT	STH 19 EB	--	--	--	1	--	--	--	--	--	--	--
--	116'WB+86 - 116'WB+35	--	--	62	--	--	--	--	--	340	--	--	--	--
LP-4	116'WB+35	44.0'RT	STH 19 EB	--	--	--	--	1	--	--	1	1	1	--
--	116'WB+35 - 206'NB+68	--	--	80	--	--	--	--	--	258	--	--	--	--
PB-3	206'NB+68	43.1'RT	WESTMOUNT DR NB	--	--	--	1	--	--	--	--	--	--	--
--	206'NB+68 - 203'NB+42	--	--	21	--	--	--	--	--	81	--	--	--	--
LP-5	203'NB+42	41.0'RT	WESTMOUNT DR NB	--	--	--	--	1	--	--	1	1	1	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-3	206'NB+68	43.1'RT	WESTMOUNT DR NB	--	--	--	--	--	--	--	--	--	--	--
--	206'NB+68 - 203'SB+78	--	--	94	--	--	--	--	--	100	--	--	--	--
PB-4	203'SB+78	-37.7'LT	WESTMOUNT DR SB	--	--	--	1	--	--	--	--	--	--	--
--	203'SB+78 - 204'SB+11	--	--	33	--	--	--	--	--	39	--	--	--	--
LP-6	204'SB+11	-41.8'LT	WESTMOUNT DR SB	--	--	--	--	1	--	--	1	1	1	--
--	204'SB+11 - 114'EB+17	--	--	79	--	--	--	--	--	255	--	--	--	--
PB-5	114'EB+17	16.2'RT	STH 19 EB	--	--	--	1	--	--	--	--	--	--	--
--	114'EB+17 - 114'EB+05	--	--	13	--	--	--	--	--	133	--	--	--	--
LP-7	114'EB+05	45.1'RT	STH 19 EB	--	--	--	--	1	--	--	1	1	1	--
--	114'EB+05 - 112'EB+30	--	--	182	--	--	--	--	--	--	--	--	--	--
LP-8	112'EB+30	34.7'RT	STH 19 EB	--	--	--	--	1	--	--	1	1	1	--
--	112'EB+30 - 110'EB+60	--	--	176	--	--	--	--	--	546	--	--	--	--
LP-9	110'EB+60	25.2'RT	STH 19 EB	--	--	--	--	1	--	--	1	1	1	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-5	114'EB+17	16.2'RT	STH 19 EB	--	--	--	--	--	--	--	--	--	--	--
--	114'EB+17 - 114'WB+24	--	--	14	--	76	--	--	--	480	--	--	--	--
PB-6	114'WB+24	-33.3'LT	ST 19 WB	--	--	--	1	--	--	--	--	--	--	--
--	114'WB+24 - 114'WB+73	--	--	49	--	--	--	--	--	275	--	--	--	--
LP-10	114'WB+73	-36.2'LT	STH 19 WB	--	--	--	--	1	--	--	1	1	1	--
--	114'WB+73 - 206'SB+02	--	--	83	--	--	--	--	--	445	--	--	--	--
PB-7	206'SB+02	-34.0'LT	WESTMOUNT DR SB	--	--	--	1	--	--	--	--	--	--	--
--	206'SB+02 - 206'SB+12	--	--	10	--	--	--	--	--	144	--	--	--	--
LP-11	206'SB+12	-33.1'LT	WESTMOUNT DR SB	--	--	--	--	1	--	--	1	1	1	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB-7	206'SB+02	-34.0'LT	WESTMOUNT DR SB	--	--	--	--	--	--	--	--	--	--	--
--	206'SB+02 - 206'NB+08	--	--	15	--	50	--	--	--	355	--	--	--	--
PB-8	206'NB+08	22.0'RT	WESTMOUNT DR NB	--	--	--	1	--	--	--	--	--	--	--
--	206'NB+08 - 205'NB+64	--	--	50	--	--	--	--	--	280	--	--	--	--
LP-12	205'NB+64	36.0'RT	WESTMOUNT DR NB	--	--	--	--	1	--	--	1	1	1	--
--	205'NB+64 - 116'WB+52	--	--	71	--	--	--	--	--	385	--	--	--	--
PB-9	116'WB+52	-41.2'LT	STH 19 WB	--	--	--	1	--	--	--	--	--	--	--
--	116'WB+52 - 116'WB+75	--	--	--	17	--	--	--	--	130	--	--	--	--
LC1	116'WB+75	-48.1'LT	STH 19 WB	--	--	--	--	--	--	--	--	--	--	--
ITEM TOTALS				1387	26	185	9	12	1	6201	12	12	12	1

SURVEY SUMMARY

PROJECT	SPV.0060.03 RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS EACH	SPV.0060.04 VERIFY AND REPLACE EXISTING LAND PARCEL MONUMENTS EACH
CAT 0010		
6085-02-76	11	11
ITEM TOTAL	11	11

RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM

STATION	OFFSET	LOCATION	654.0101 CONCRETE BASES TYPE 1 EA	657.0100 PEDESTAL BASES EA	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EA	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.05 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM EACH
CAT 0020							
116'EB'+59	26.9' RT	STH 19 EB	1	1	1	1	
116'EB'+57	-6.4' LT	STH 19 EB	1	1	1	1	
116'WB'+67	7.5' RT	STH 19 WB	1	1	1	1	1
116'WB'+78	-28.6' LT	STH 19 WB	1	1	1	1	
ITEM TOTALS			4	4	4	4	1

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

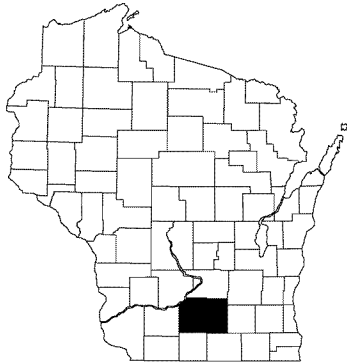
6085-02-26

MAZOMANIE - SUN PRAIRIE

WESTMOUNT DRIVE INTERSECTION

STH 19

DANE COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	NON-MONUMENTED R/W POINT	○		
SIXTEENTH LINE	---	FOUND IRON PIN (1-INCH UNLESS NOTED)	IP		
NEW REFERENCE LINE	---				
NEW R/W LINE	---				
EXISTING R/W OR HE LINE	---				
PROPERTY LINE	---				
LOT, TIE & OTHER MINOR LINES	---				
SLOPE INTERCEPT	---				
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING	---				
TO BE REMOVED	---				
BRIDGE	---				
CULVERT	---				
PARALLEL OFFSETS	---				

CONVENTIONAL ABBREVIATIONS

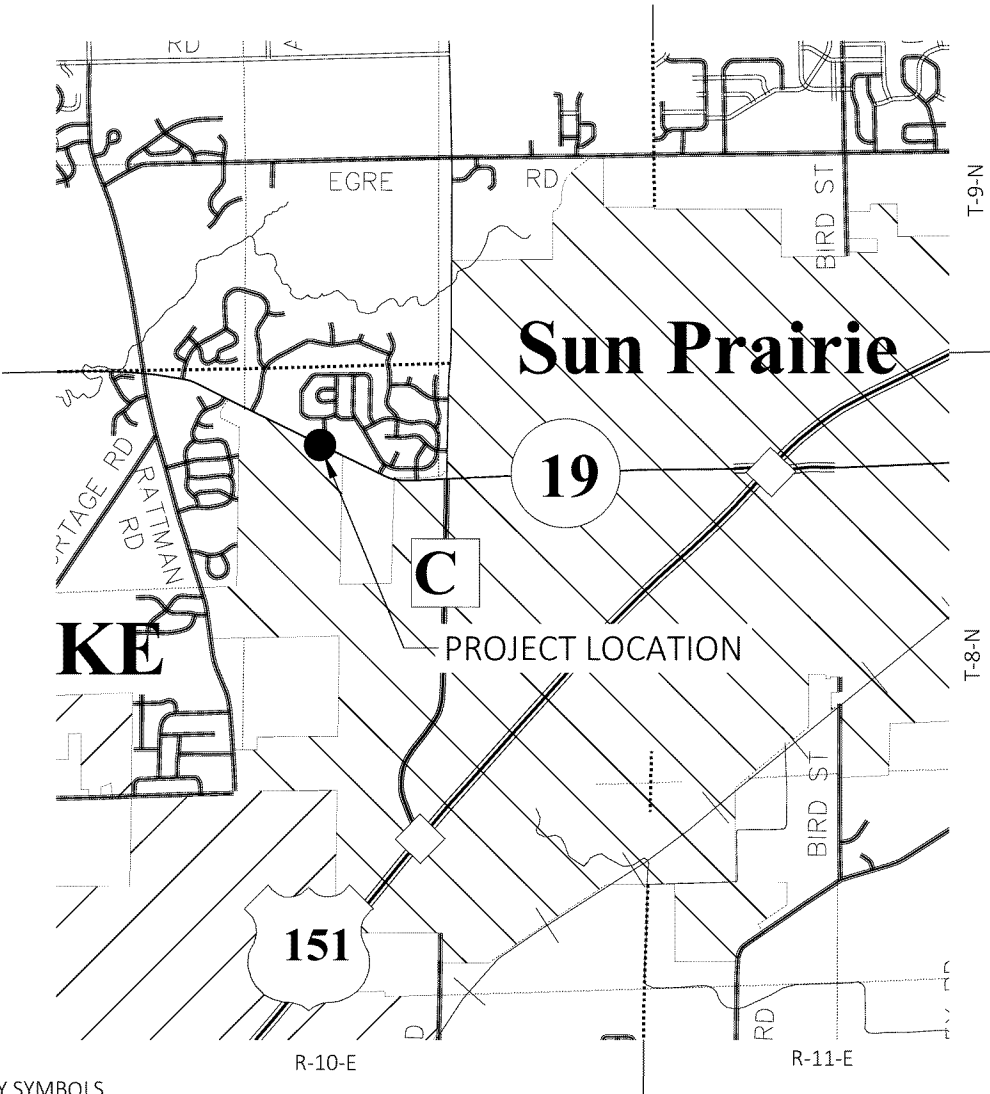
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	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

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6085-02-26

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

SCHEDULE OF LANDS AND INTEREST REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
1	SALLY A. REDFERN	FEE, TLE	0.070		0.070	0.056
4	CITY OF SUN PRAIRIE	FEE, TLE	0.049		0.049	0.053
5	DINER PROPERTY, LLC	FEE, TLE	0.063		0.063	0.073

TRANSPORTATION PROJECT PLAT NO: 6085-02-26 - 4.01

PART OF LOTS 1 AND 2 OF CERTIFIED SURVEY MAP NUMBER 11118 RECORDED IN VOLUME 67 PAGE 40 AS DOCUMENT NUMBER 3938904 IN THE TOWN OF BURKE, AND PART OF LOT 1, OUTLOTS 1 AND 4 OF WYNDHAM HILLS IN THE CITY OF SUN PRAIRIE, ALL LOCATED IN THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SECTION 2, TOWN 8 NORTH, RANGE 10 EAST, DANE COUNTY, WISCONSIN.

RELOCATION ORDER STH 19, MAZOMANIE - SUN PRAIRIE (WESTMOUNT DRIVE INTERSECTION) DANE COUNTY TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT. TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

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

NGS CONTROL POINTS UTILIZED: PID: DF9805 DESIGNATION - BURKE N GPS, PID: DG4837 DESIGNATION - BURKE E GPS, PID: DH5449 DESIGNATION - SUN PRAIRIE GPS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

EXISTING ACCESS RESTRICTIONS SHOWN HEREIN IS BASED ON WYNDHAM HILLS AND PREVIOUS PROJECT 6085-02-21

EXISTING RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT OF WAY FOR STH. 19 (WINDSOR ST) ESTABLISHED FROM PREVIOUS PROJECT 6085-02-21, WYNDHAM HILLS AND CERTIFIED SURVEY MAP 15460.

EXISTING HIGHWAY RIGHT OF WAY FOR WESTMOUNT DRIVE ESTABLISHED FROM CERTIFIED SURVEY MAP 11118.

EXISTING HIGHWAY RIGHT OF WAY FOR NORTH WESTMOUNT DRIVE ESTABLISHED FROM WYNDHAM HILLS

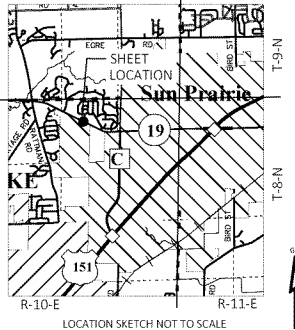
FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2.

KRISTI CHLEBOWSKI
DANE COUNTY
REGISTER OF DEEDS

DOCUMENT #
5981803
08/26/2024 08:48 AM
Trans Fee:
Exempt #:
Rec. Fee: 25.00
Pages:

The above recording information verifies that this document has been electronically recorded and returned to the submitter.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6085-02-26 - 4.01
SHEET 1 OF 2



TLE POINT TABLE			R/W POINT TABLE		
POINT	STATION	OFFSET	POINT	STATION	OFFSET
T1000	117+48.78	82.21'	100	122+54.93	82.60'
T1001	116+79.28	88.14'	101	116+77.74	82.16'
T1002	115+87.25	149.77'	102	116+25.01	99.65'
T1003	115+86.26	193.56'	103	115+94.08	123.71'
T1004	115+79.84	193.54'	104	115+79.86	168.15'
T1005	115+03.54	273.12'	105	114+99.76	148.19'
T1006	114+86.71	274.99'	106	114+12.35	81.88'
T1007	114+81.61	215.59'	107	112+21.36	81.58'
T1008	114+87.81	186.04'	108	112+21.36	0.00'
T1009	114+97.23	163.39'	109	112+21.36	-57.89'
T1010	113+95.77	81.85'	110	113+79.77	-49.88'
T1011	112+53.06	81.63'	111	114+91.82	-51.45'
T1012	112+53.04	91.63'	112	115+06.76	-65.06'
T1013	112+21.35	91.58'	113	115+05.70	-136.89'
T1014	114+67.25	-51.18'	114	115+71.58	-145.55'
T1015	115+06.62	-74.83'	115	115+87.06	-129.60'
T1016	115+06.21	-102.68'	116	116+19.82	-53.34'
T1017	114+94.79	-102.52'	117	119+44.69	-58.16'
T1018	114+94.31	-136.73'	118	119+59.26	-73.22'
T1019	115+70.93	-189.26'	119	119+72.46	-73.42'
T1020	115+90.93	-189.55'	120	119+87.52	-58.79'
T1021	115+91.84	-128.31'	121	120+79.39	-60.16'
T1022	116+31.95	-53.52'	IP5044	121+89.24	-59.80'
T1023	114+99.66	206.61'	123	122+16.84	0.00'



I, DAVID J YOUNGER PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: DATE: 8/22/2024

PRINT NAME: DAVID J YOUNGER

REGISTRATION NUMBER: S-2816

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION

SIGNATURE: DATE: 8/22/2024

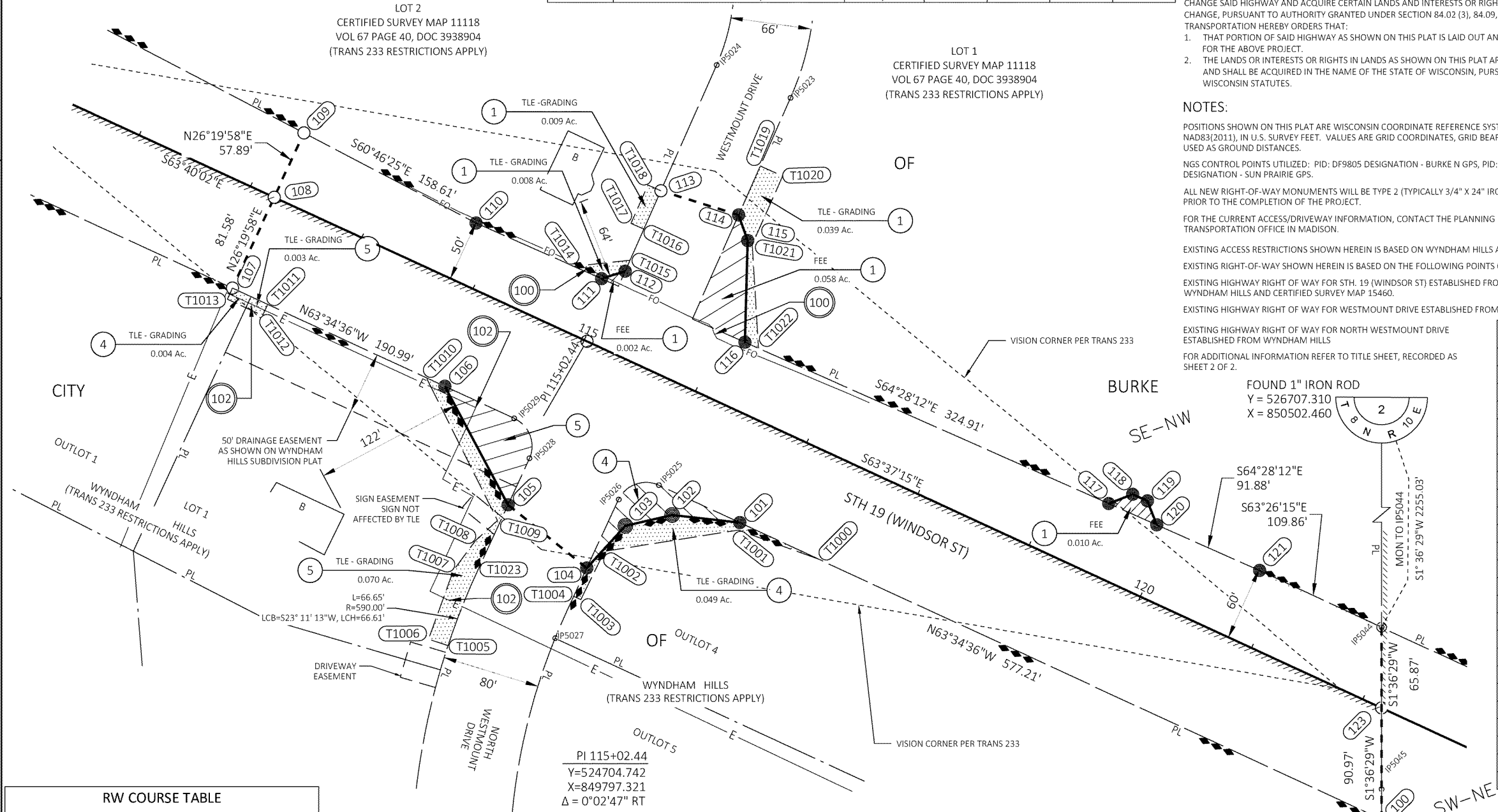
PRINT NAME: EMILY HEMLING



TOWN

LOT 2
CERTIFIED SURVEY MAP 11118
VOL 67 PAGE 40, DOC 3938904
(TRANS 233 RESTRICTIONS APPLY)

LOT 1
CERTIFIED SURVEY MAP 11118
VOL 67 PAGE 40, DOC 3938904
(TRANS 233 RESTRICTIONS APPLY)



RW COURSE TABLE

COURSE	BEARING	DISTANCE
101 - 102	N81° 58' 04"W	55.56'
102 - 103	578° 29' 51"W	39.19'
103 - 104	544° 07' 09"W	46.65'
104 - 105	N49° 36' 37"W	82.44'
105 - 106	N26° 28' 57"W	109.71'
110 - 111	564° 28' 12"E	112.07'
111 - 112	N74° 07' 24"E	20.25'
112 - 113	N25° 31' 48"E	71.84'
113 - 114	571° 06' 45"E	66.45'
114 - 115	517° 45' 43"E	22.23'
115 - 116	503° 07' 54"W	83.00'
117 - 118	N70° 25' 01"E	20.95'
118 - 119	564° 28' 12"E	13.20'
119 - 120	519° 28' 12"E	20.99'

EXISTING MONUMENTS

POINT	Y COORD	X COORD	DESCRIPTION
5023	524898.873	849969.005	3/4" IR
5024	524927.282	849909.511	3/4" IR
5025	524585.730	849852.650	3/4" IR
5026	524574.869	849839.623	3/4" IR BENT NE
5027	524463.106	849764.595	1/2" IR
5028	524610.573	849747.650	1" IR
5029	524643.406	849736.145	3/4" IR
5044	524453.157	850439.180	3/4" IR
5045	524320.937	850435.527	3/4" IR

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

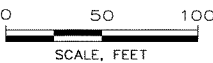
- 100 FRONTIER NORTH, INC - FIBER OPTIC
NO RECORD EASEMENT - PARCEL 1
- 101 ATC MANAGEMENT, INC - OVERHEAD ELECTRIC
DOCUMENT NO. 2144854 & 2142935 - PARCEL 1
- 102 SUN PRAIRIE UTILITIES - ELECTRIC
NO RECORD EASEMENT - PARCEL 5

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	FRONTIER NORTH, INC - FIBER OPTIC	RELEASE OF RIGHTS
101	AMERICAN TRANSMISSION COMPANY LLC - OVERHEAD ELECTRIC	RELEASE OF RIGHTS
102	SUN PRAIRIE UTILITIES - ELECTRIC	RELEASE OF RIGHTS

SUN PRAIRIE

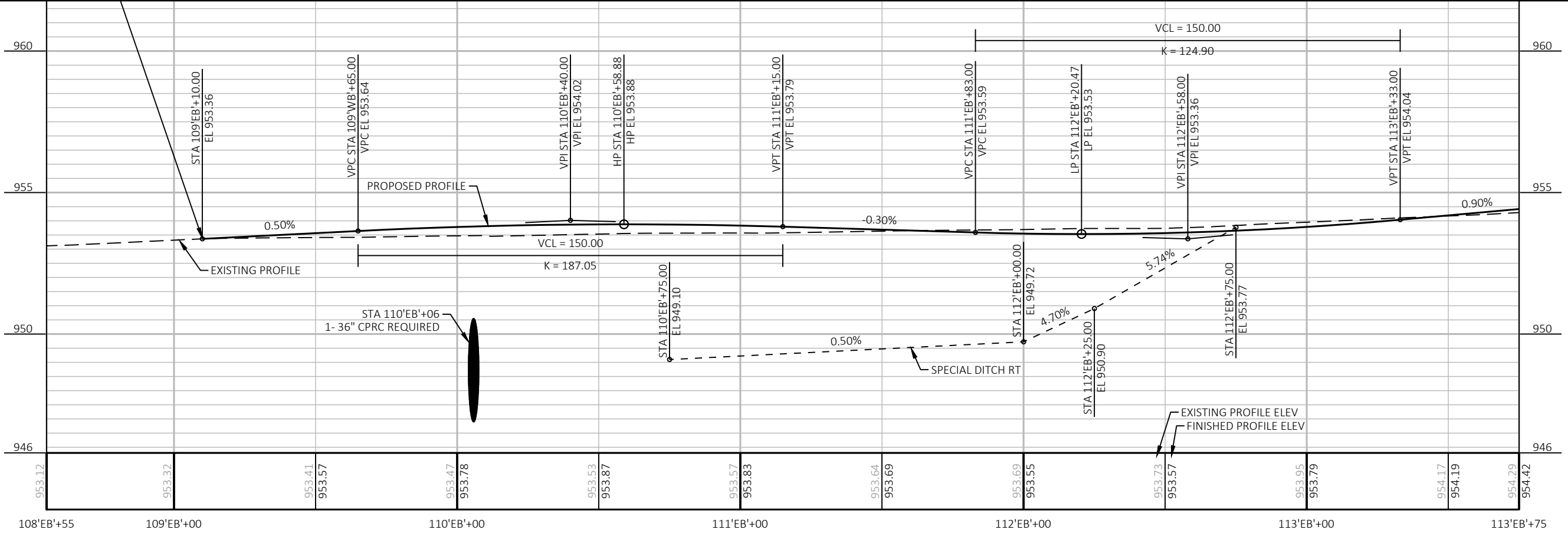
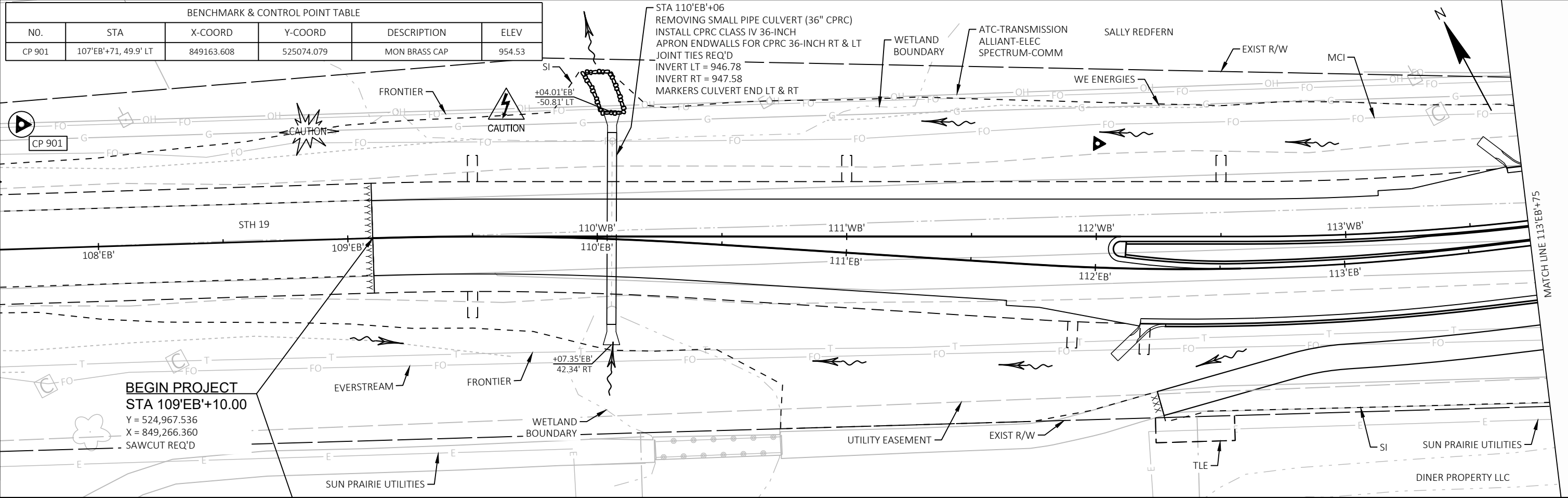
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LOT 1
CERTIFIED SURVEY
MAP 15460
VOL 11 PAGE 131,
DOC 5620225

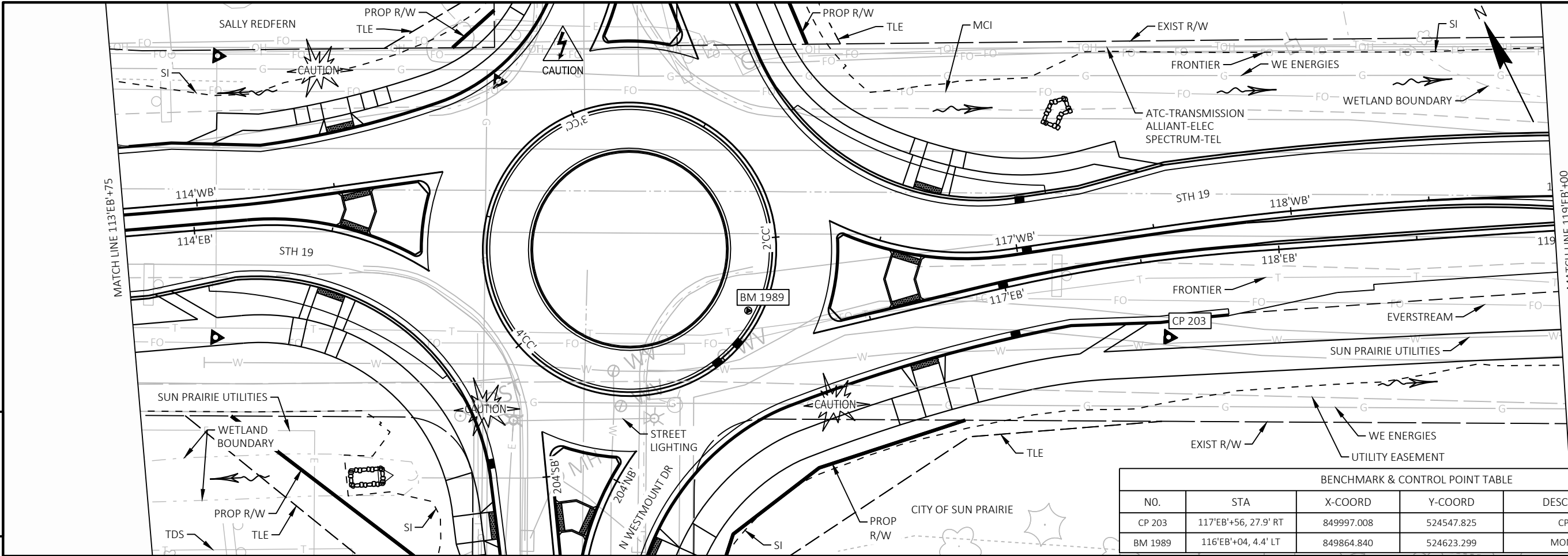
FOUND BRASS CAP
Y = 523730.910
X = 850418.910

BENCHMARK & CONTROL POINT TABLE					
NO.	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
CP 901	107'EB'+71, 49.9' LT	849163.608	525074.079	MON BRASS CAP	954.53



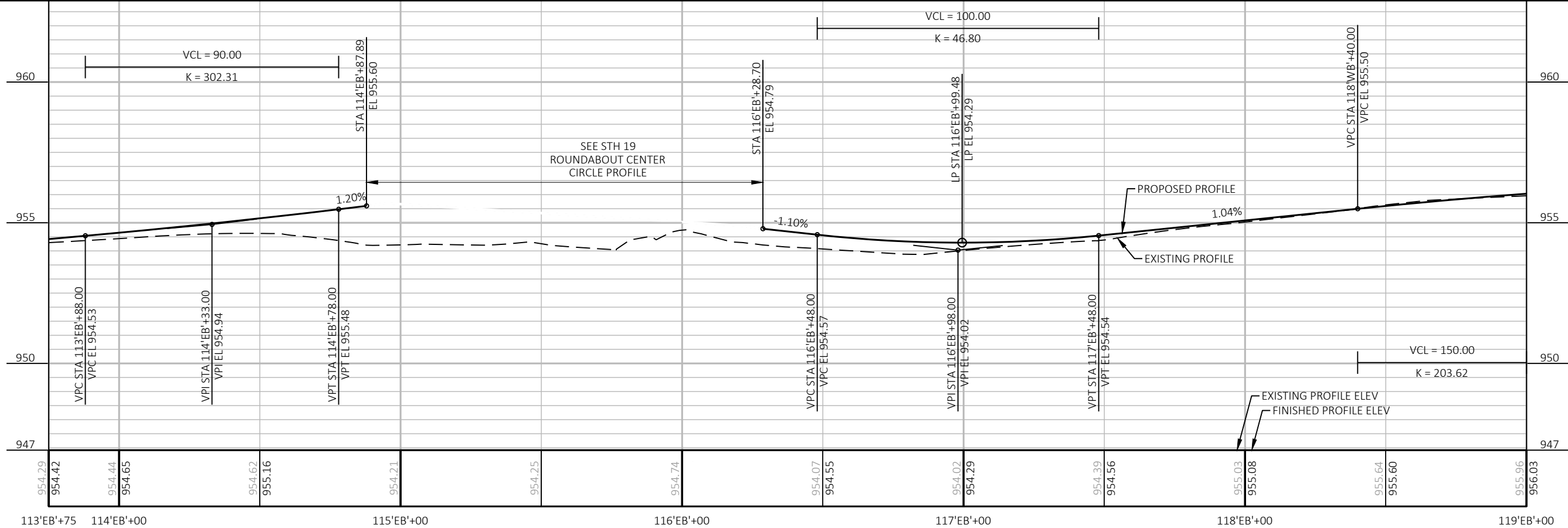
PROJECT NO: 6085-02-76	HWY: STH 19	COUNTY: DANE	PLAN AND PROFILE: STH 19 EASTBOUND	SHEET 108	E
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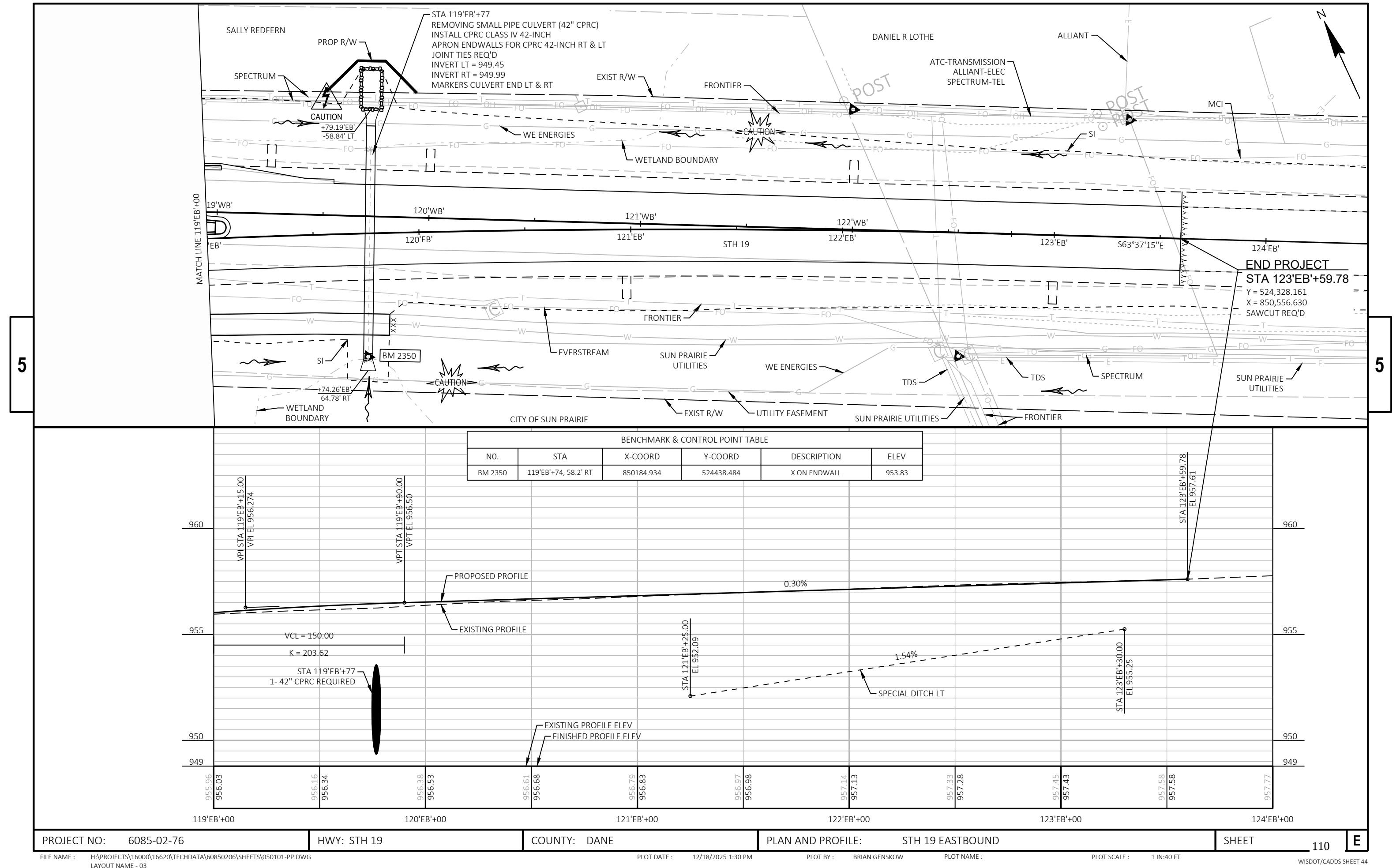
5



5

BENCHMARK & CONTROL POINT TABLE					
NO.	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
CP 203	117'EB'+56, 27.9' RT	849997.008	524547.825	CP MAG	952.85
BM 1989	116'EB'+04, 4.4' LT	849864.840	524623.299	MON / DOT	954.76





PROJECT NO: 6085-02-76

HWY: STH 19

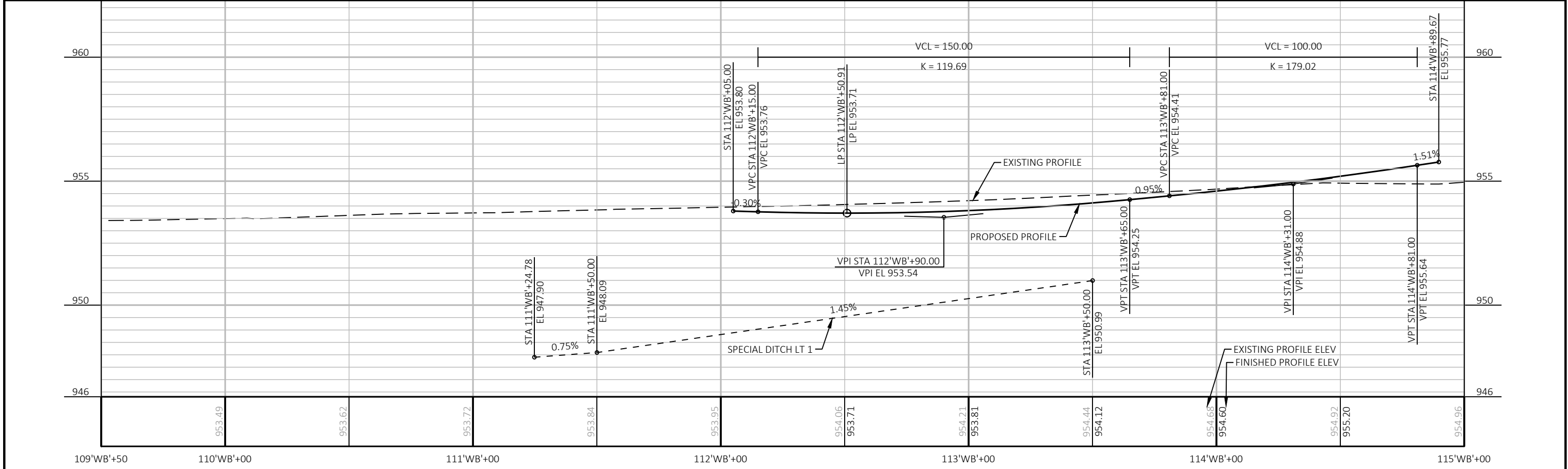
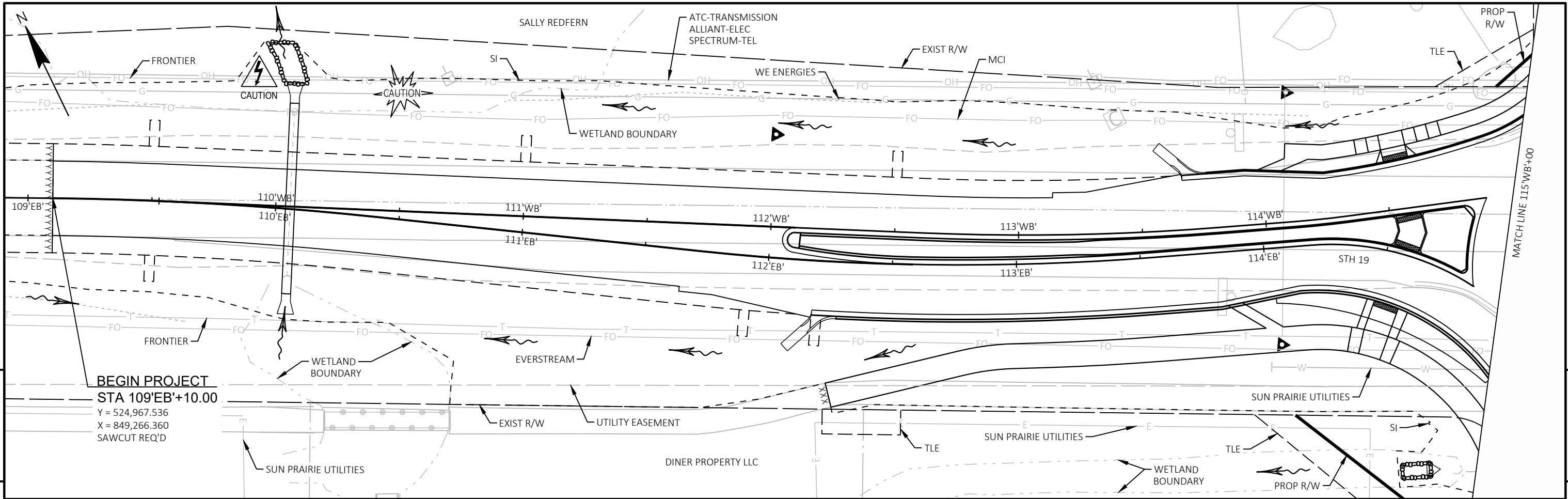
COUNTY: DANE

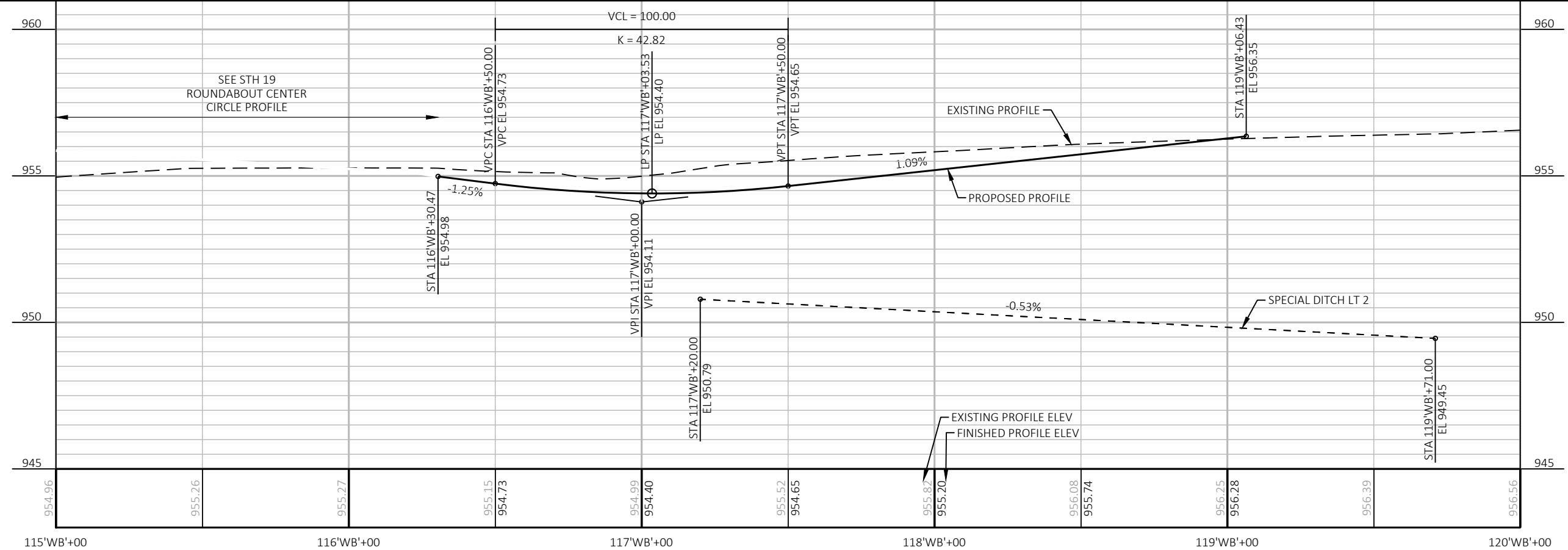
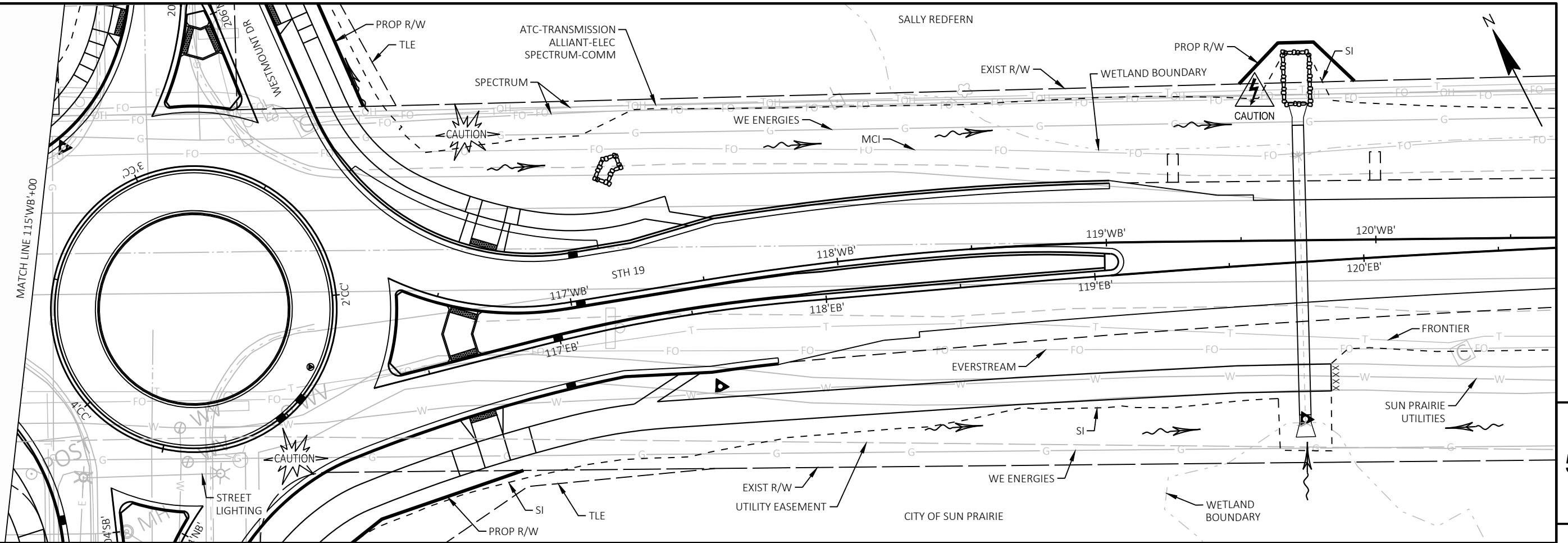
PLAN AND PROFILE: STH 19 EASTBOUND

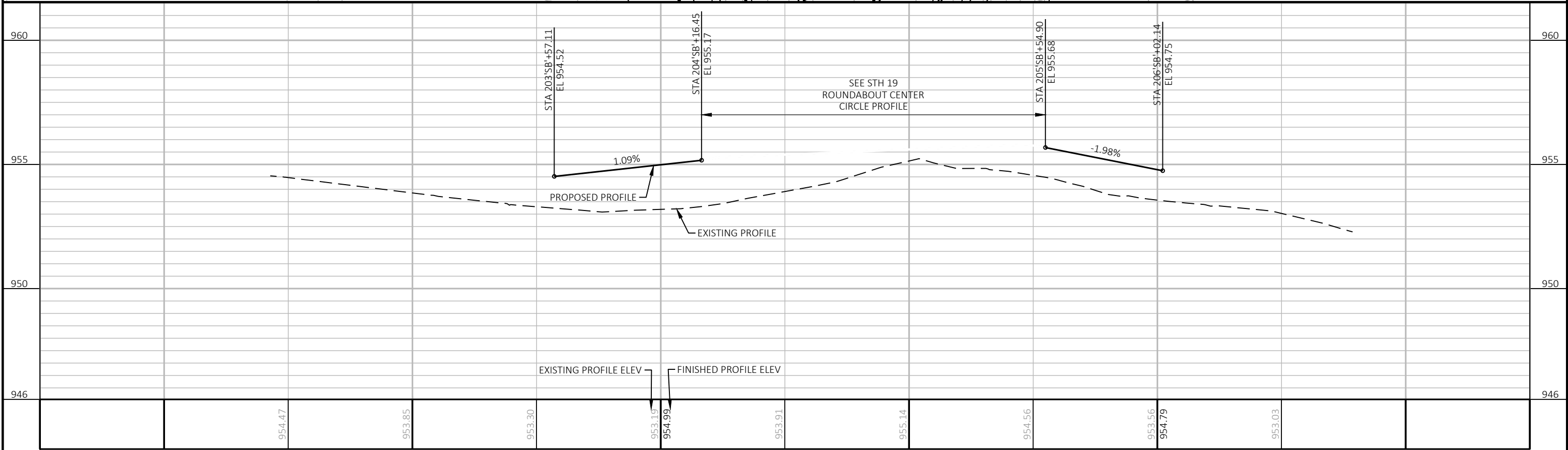
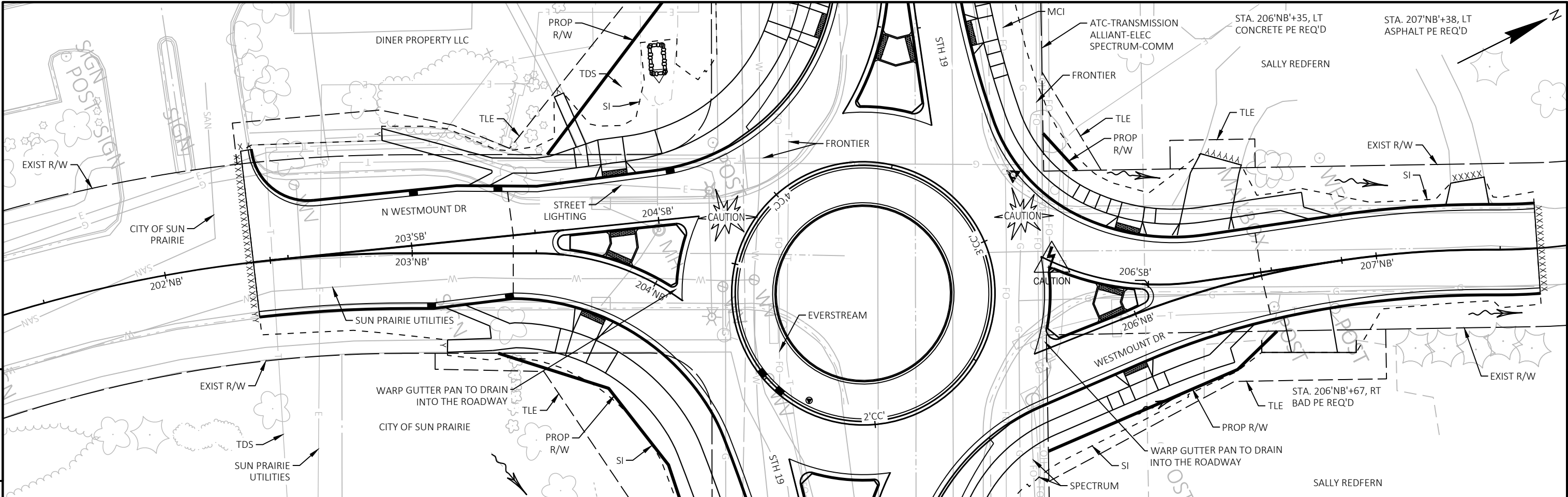
SHEET

110

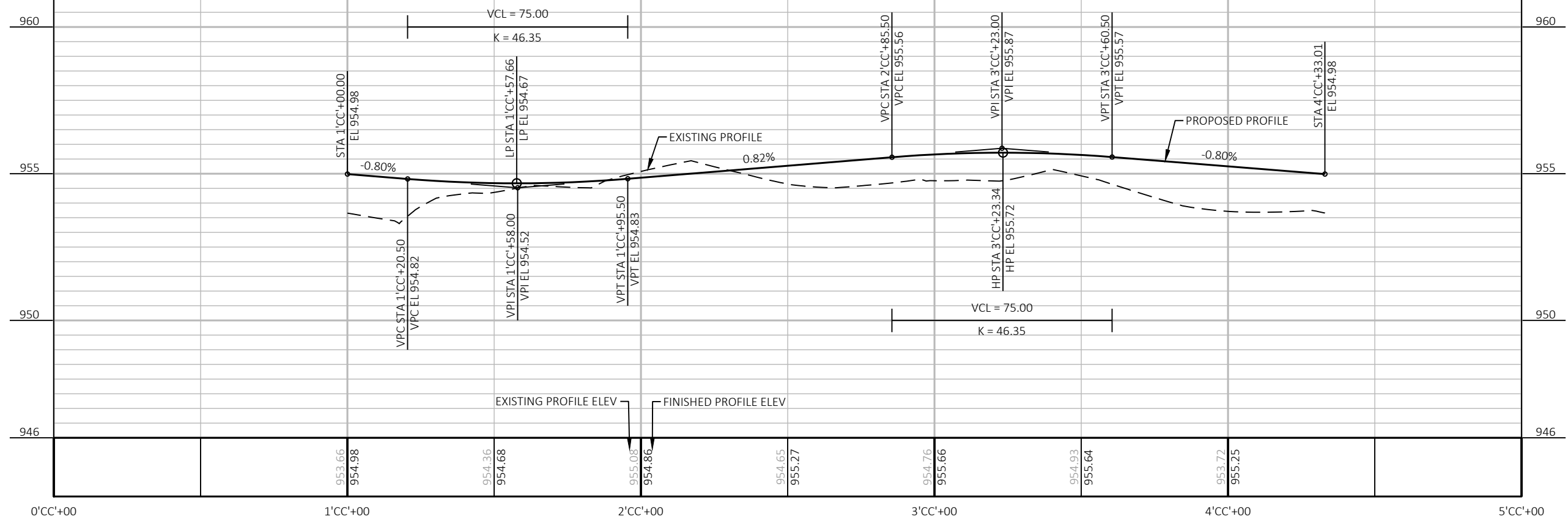
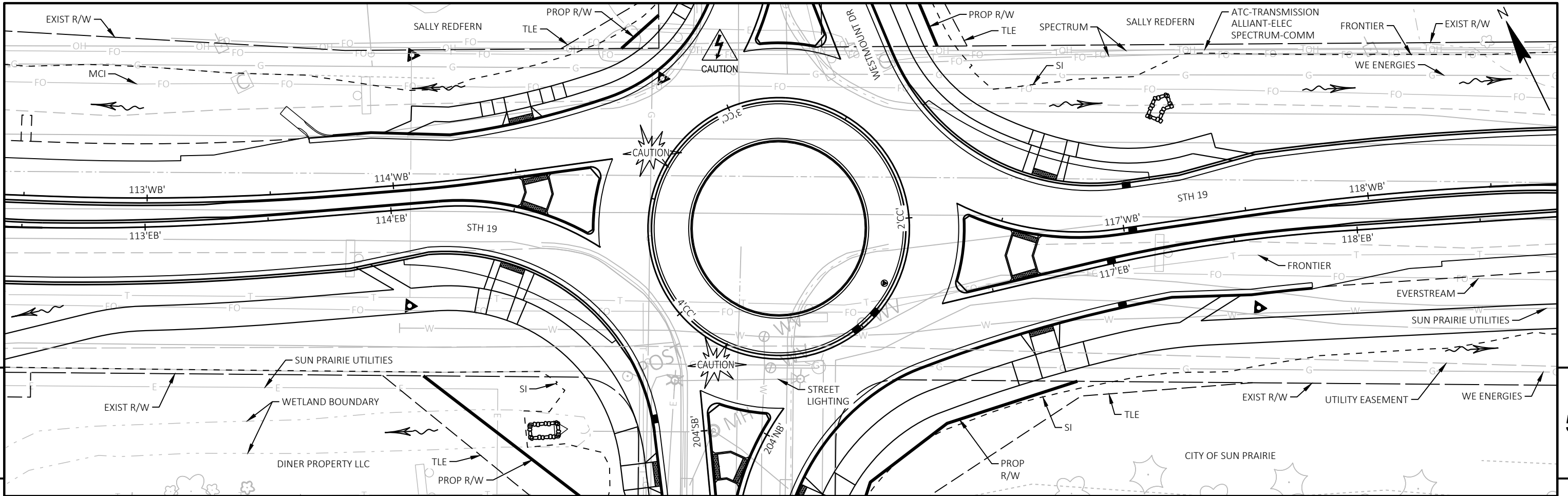
E

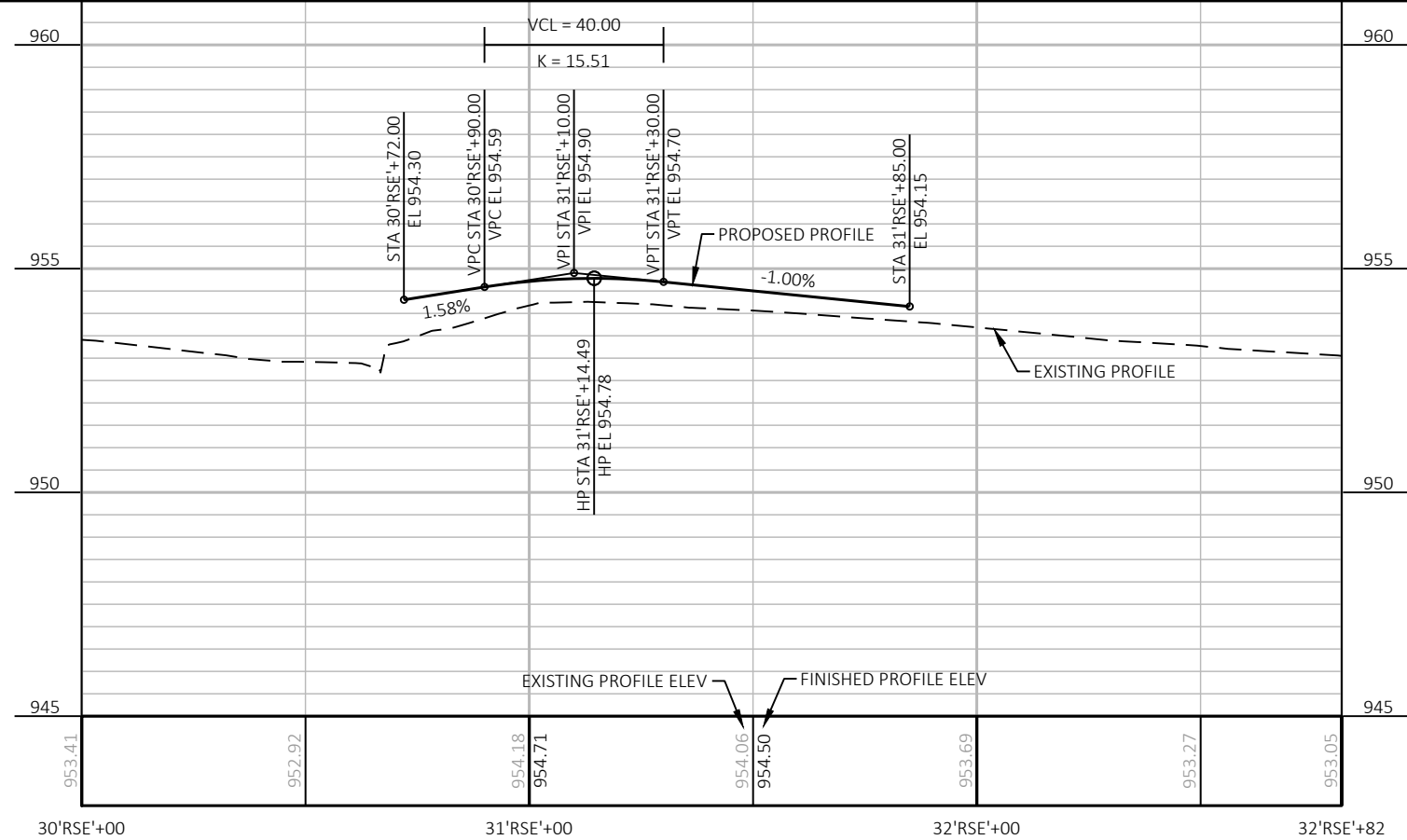
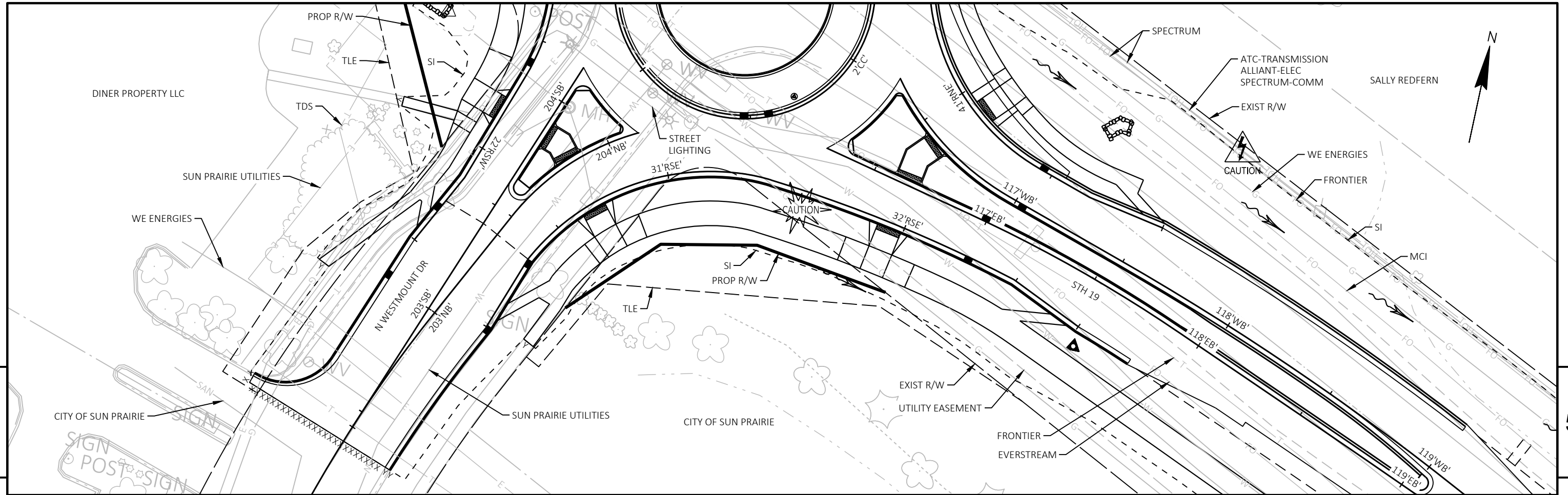






201'SB'+50		202'SB'+00		203'SB'+00		204'SB'+00		205'SB'+00		206'SB'+00		207'SB'+00		207'SB'+50	
PROJECT NO: 6085-02-76			HWY: STH 19			COUNTY: DANE			PLAN AND PROFILE: WESTMOUNT DR SOUTHBOUND			SHEET 114		E	





PROJECT NO: 6085-02-76

HWY: STH 19

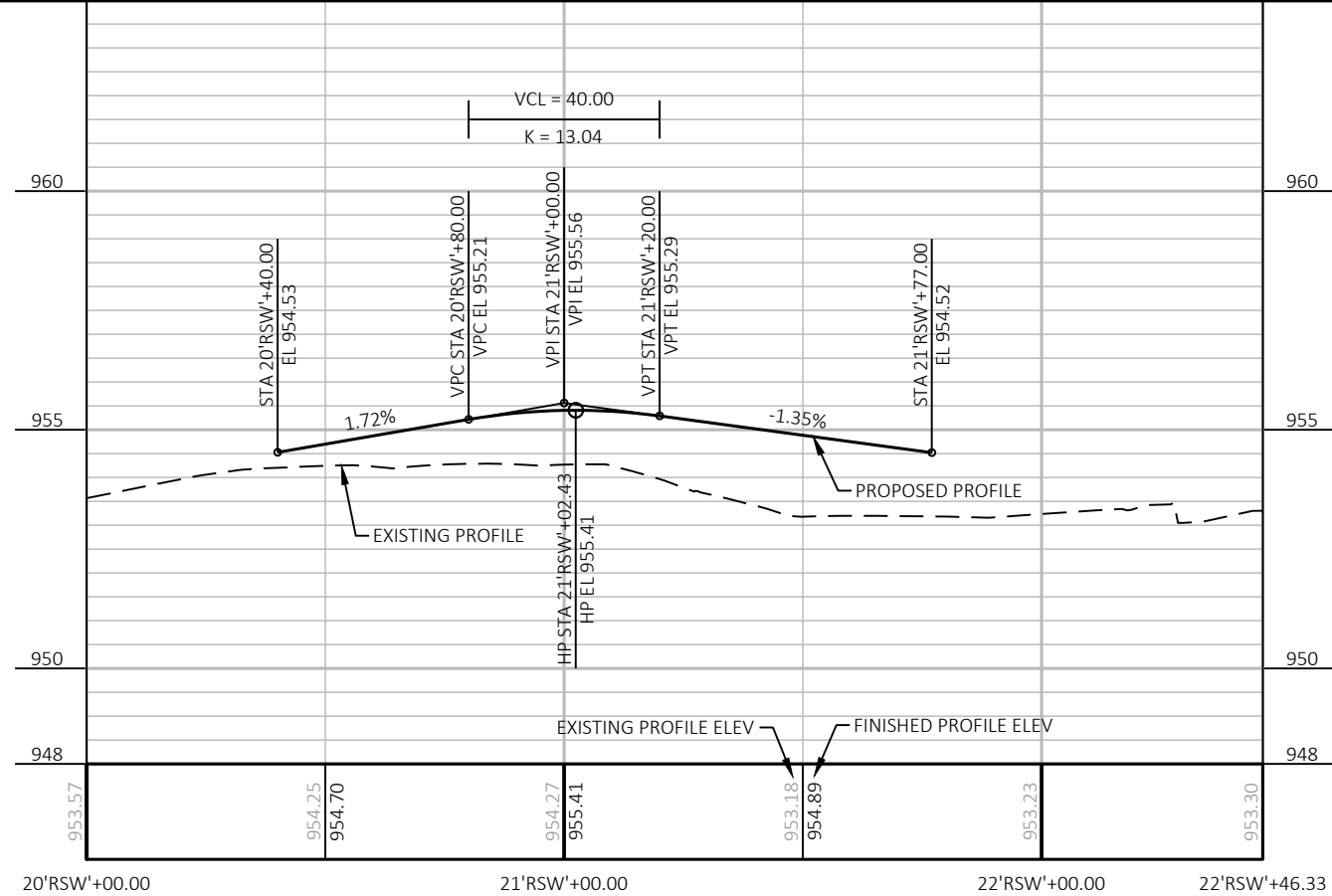
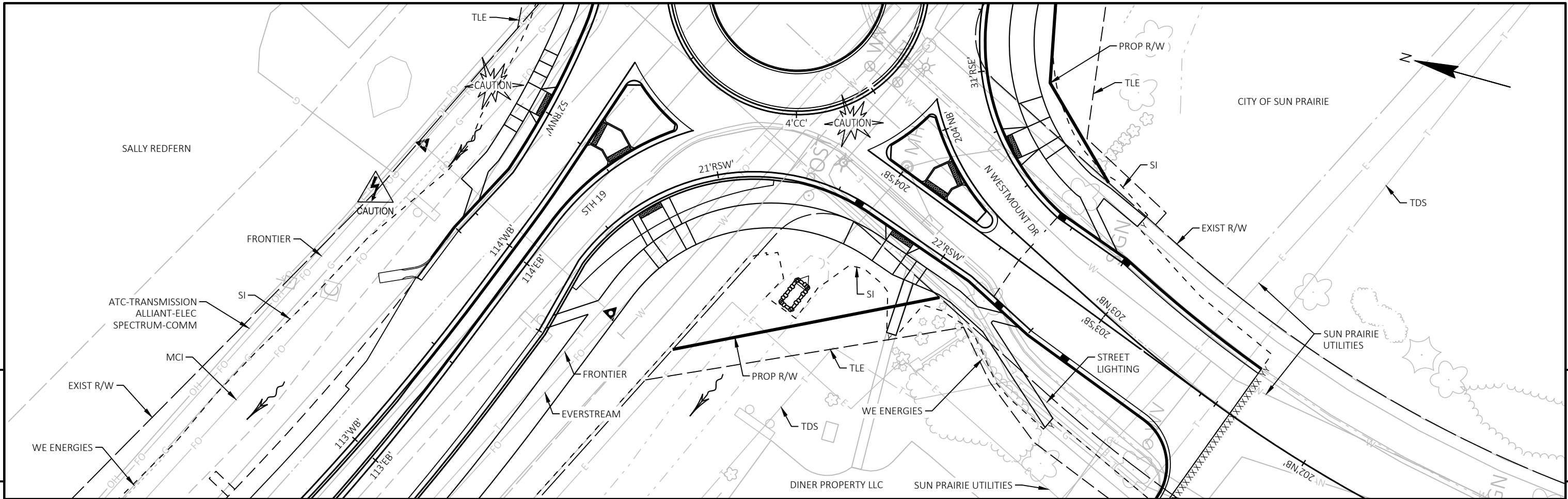
COUNTY: DANE

PLAN AND PROFILE: SE CURB RETURN

SHEET

117

E



PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

PLAN AND PROFILE: SW CURB RETURN

SHEET

118

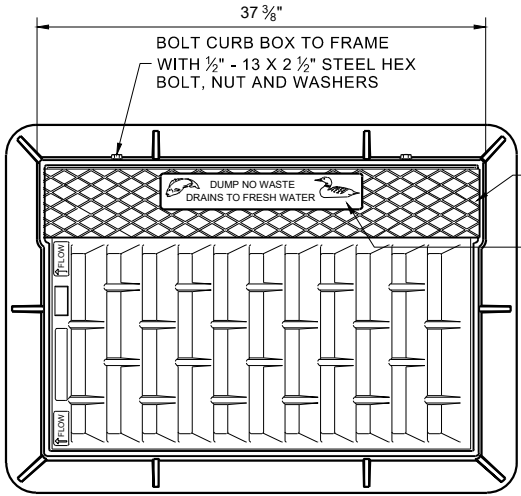
E

Standard Detail Drawing List

08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-03	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
11B02-02	CONCRETE MEDIAN NOSE
13A03-07	CONCRETE PAVEMENT SHOULDERS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL DOWELED CONCRETE PAVEMENT
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08E	CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS
13C19-03	HMA LONGITUDINAL JOINTS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
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
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-09C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C22-01	DOTTED EXTENSION FOR ROUNDABOUT
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

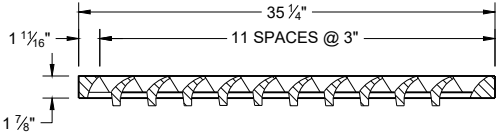
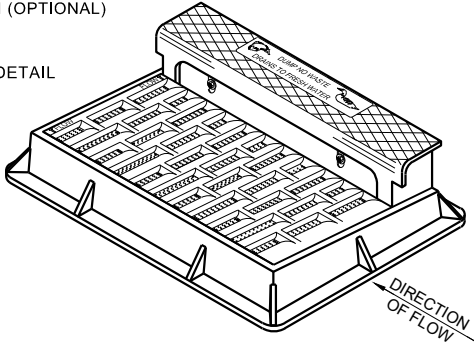
Standard Detail Drawing List

15D30-11F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-06A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-06C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
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

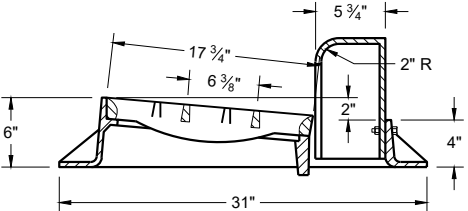
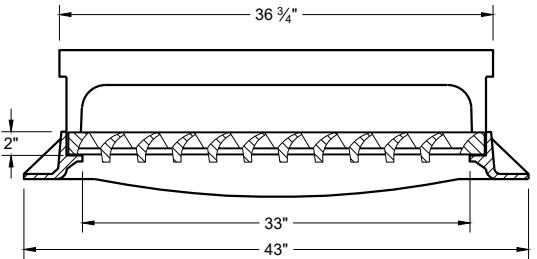
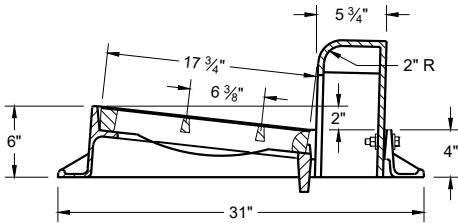
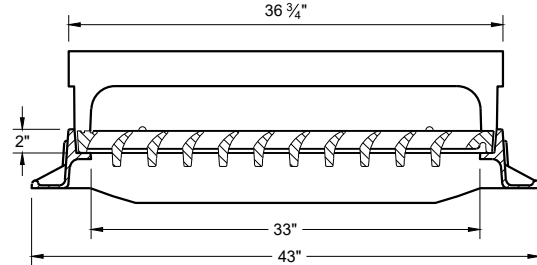


NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)
SEE LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

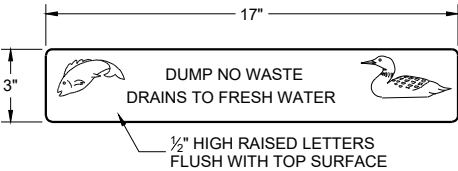


TYPE "H"

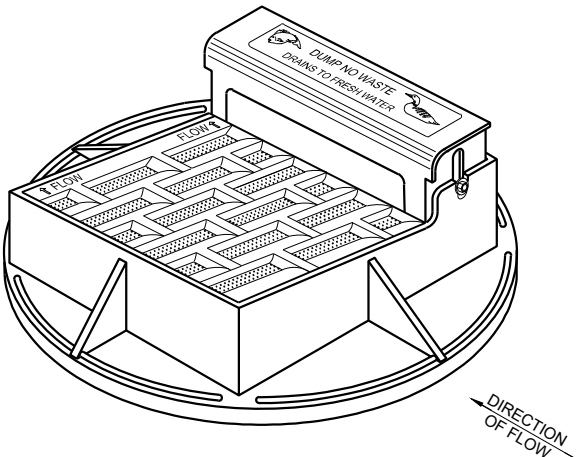
NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

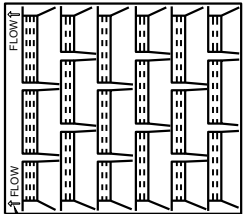


LOGO DETAIL

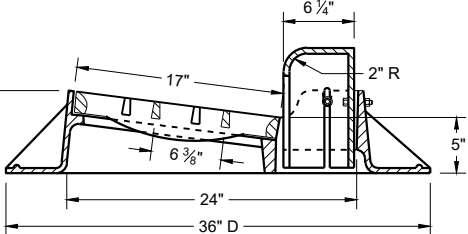
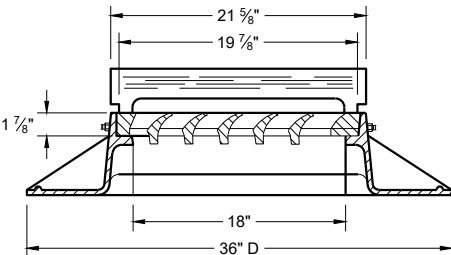
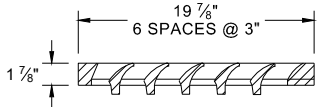


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

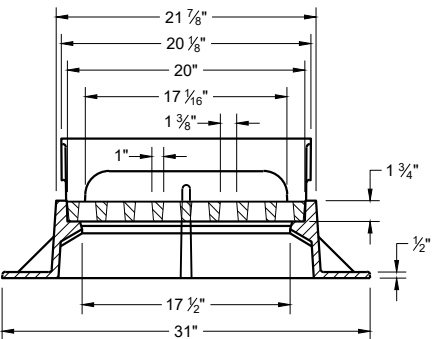
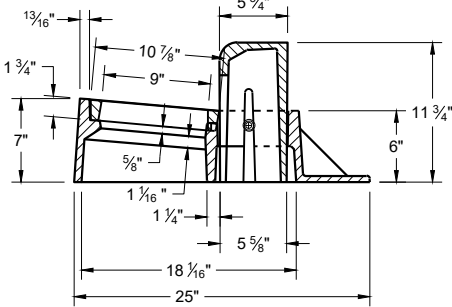
NOTE: EITHER CASTING IS ACCEPTABLE



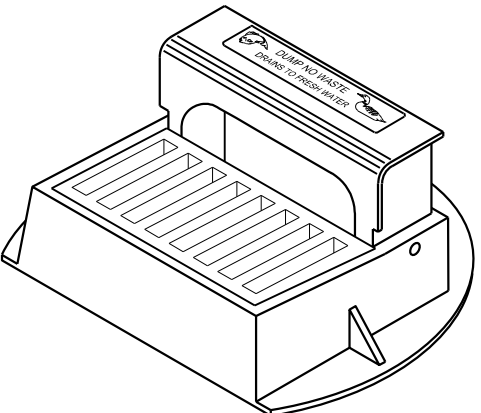
DIRECTION OF FLOW ARROWS



TYPE "A"



TYPE "Z"



**INLET COVERS
TYPES A, H, A-S, H-S AND Z**

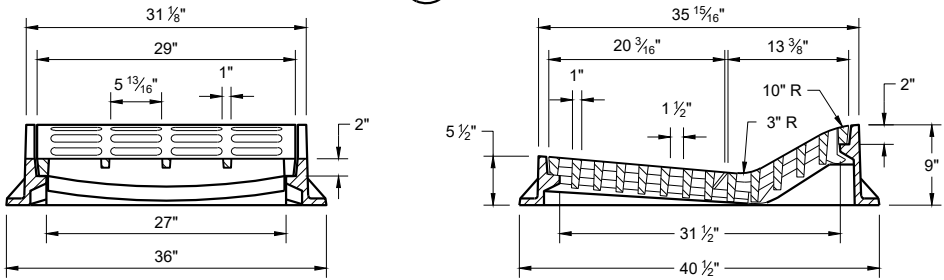
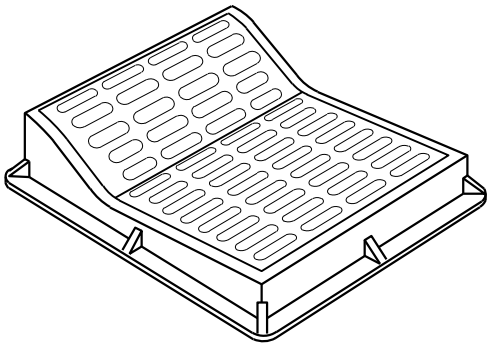
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

GENERAL NOTES

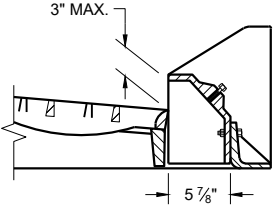
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

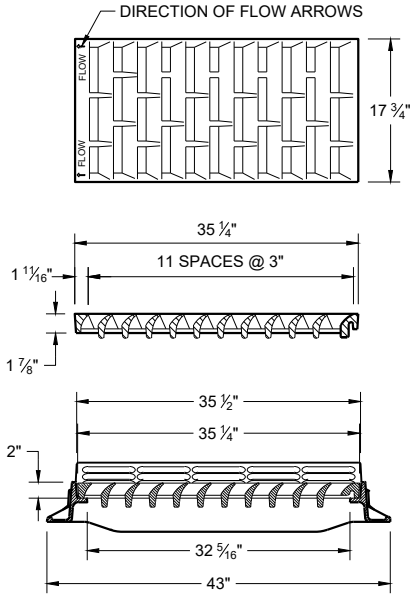


ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

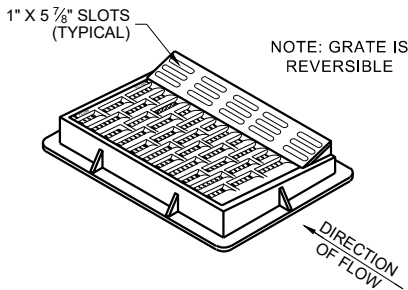
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.

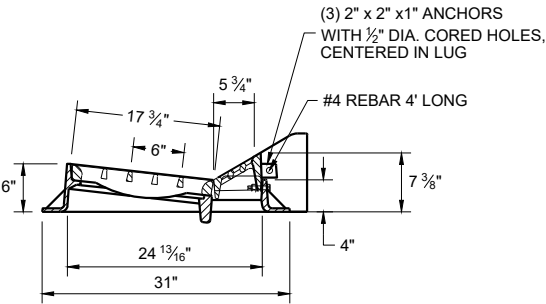


TYPE "HM"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

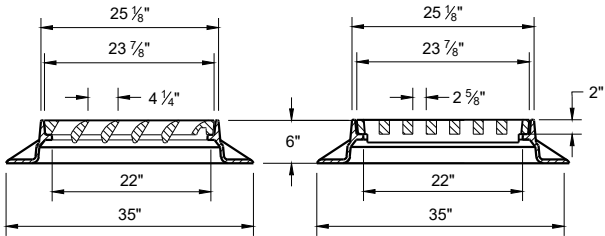
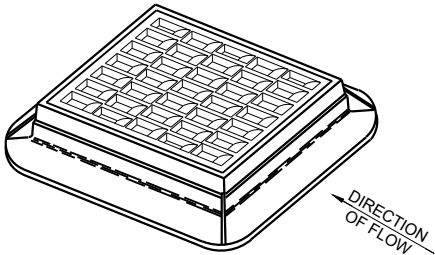


NOTE: GRATE IS REVERSIBLE

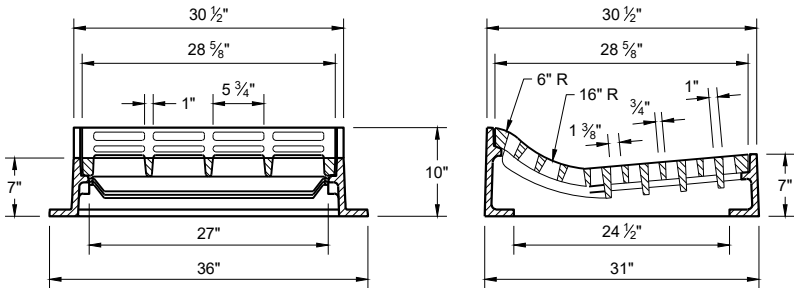
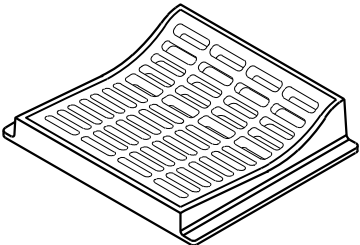


NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



TYPE "S"



TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

INLET COVERS
TYPES F, HM, HM-S, S, T,
HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2025
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

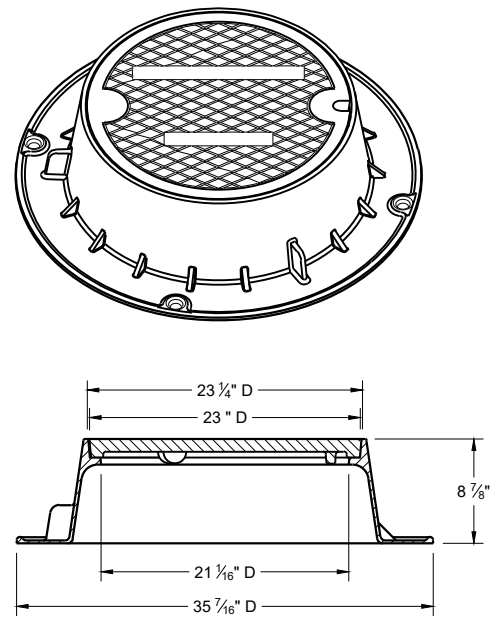
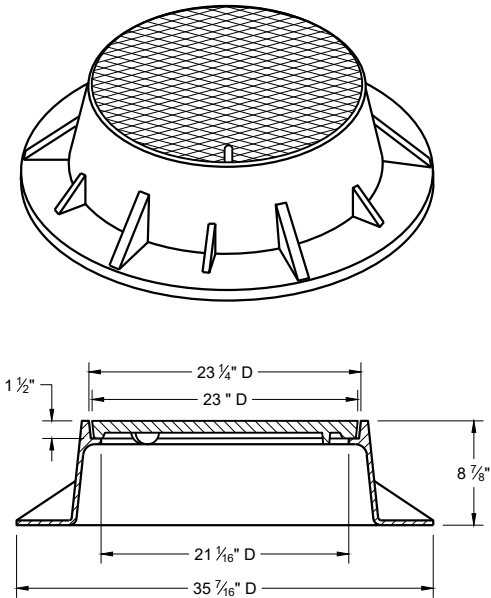
123

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.

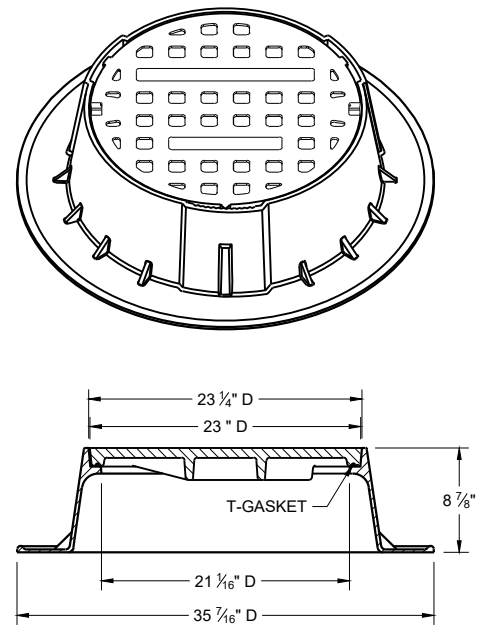
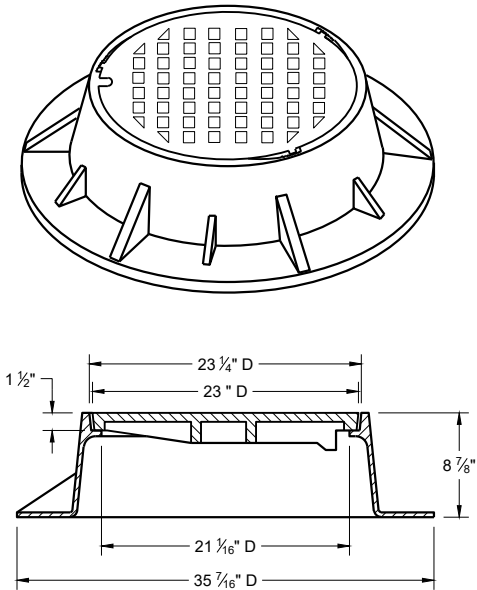
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



TYPE "J"

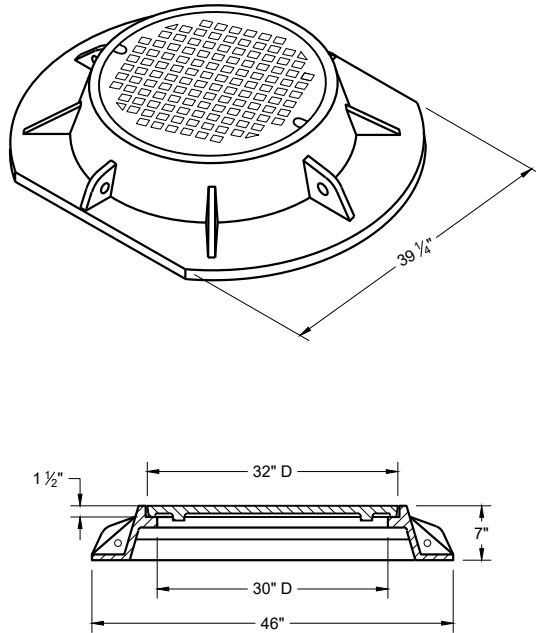
NOTE: EITHER CASTING IS ACCEPTABLE



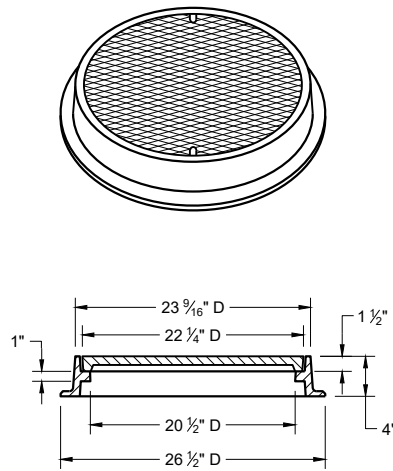
TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

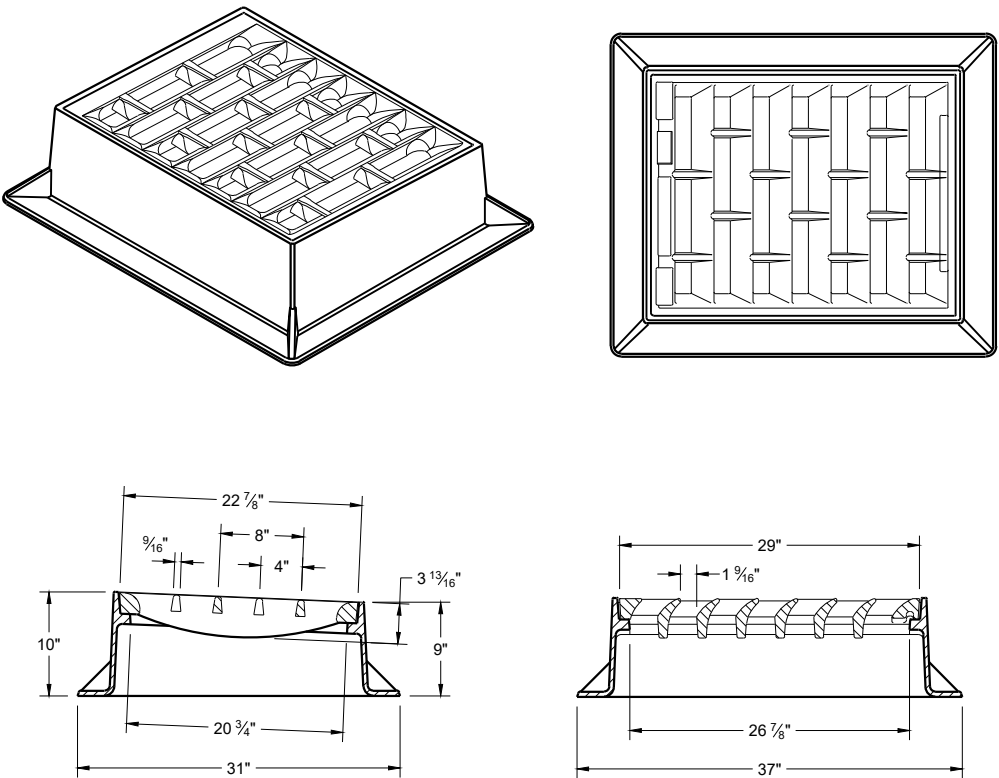
NOTE: EITHER CASTING IS ACCEPTABLE



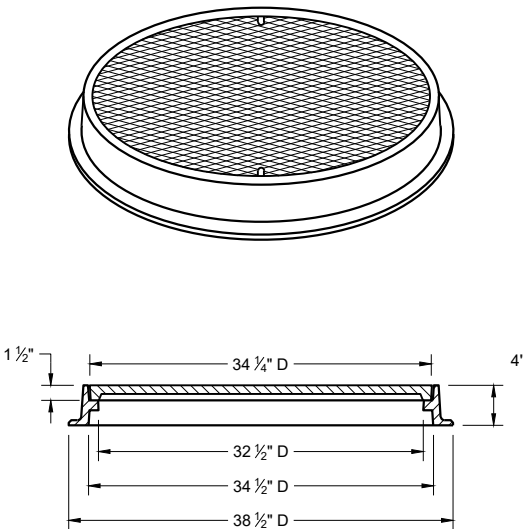
TYPE "K"



TYPE "L"



INLET COVER TYPE "BW"

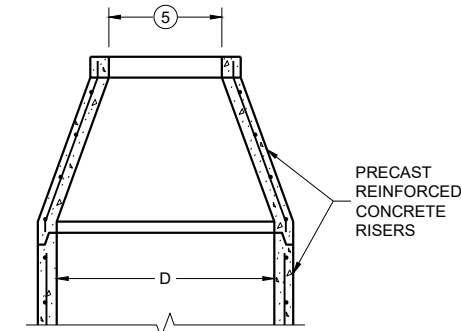
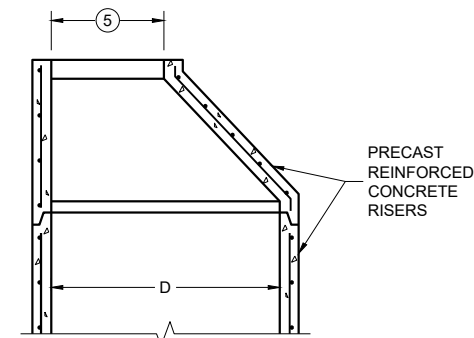
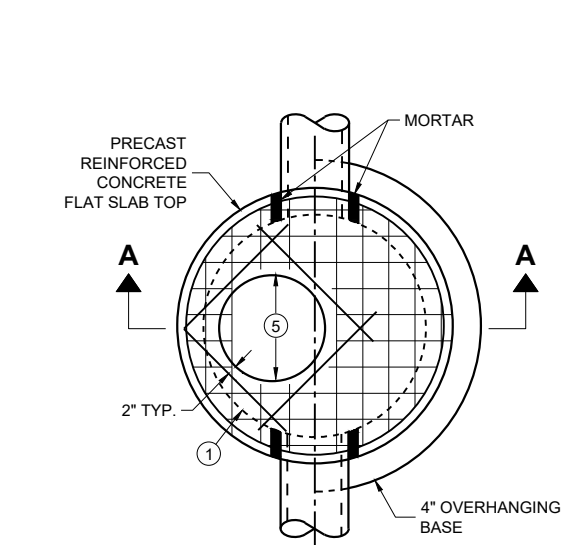


TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



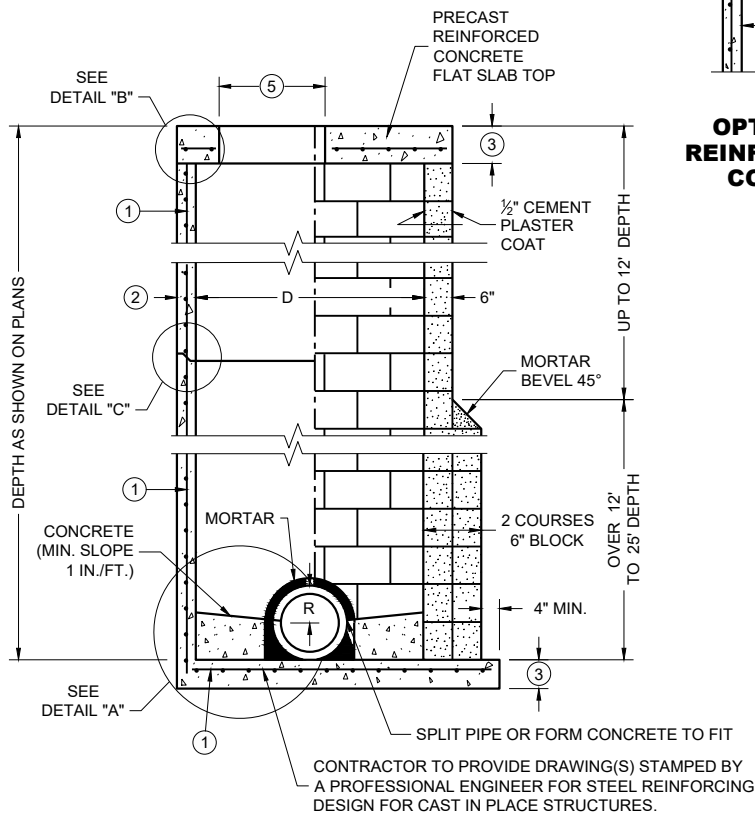
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	C	ALL JS	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

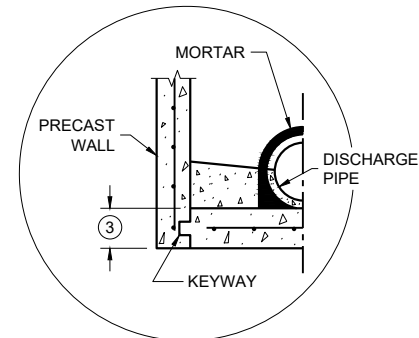
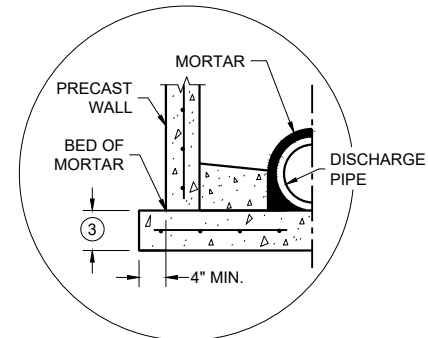
MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

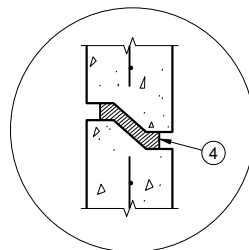
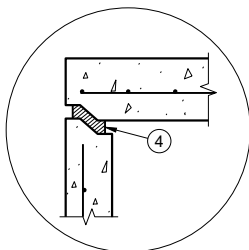
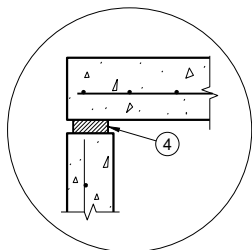


PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

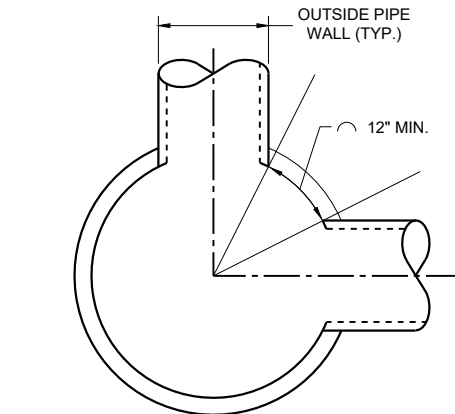


DETAIL "A"



DETAIL "B"

DETAIL "C"



DETAIL "D"

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 3/8 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

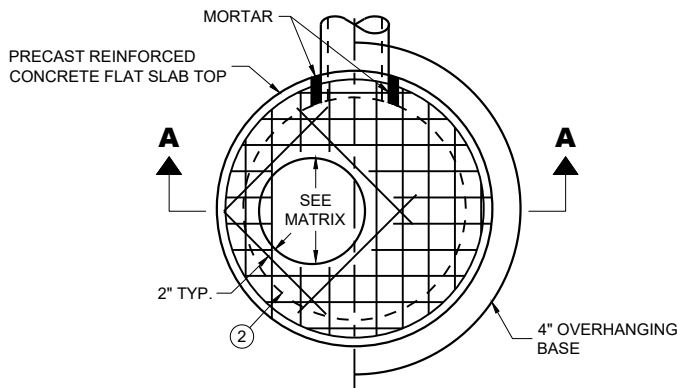
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- SEE MANHOLE COVER OPENING MATRIX.

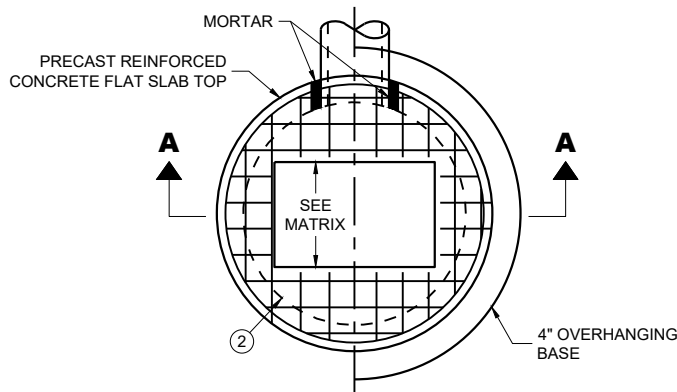
MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

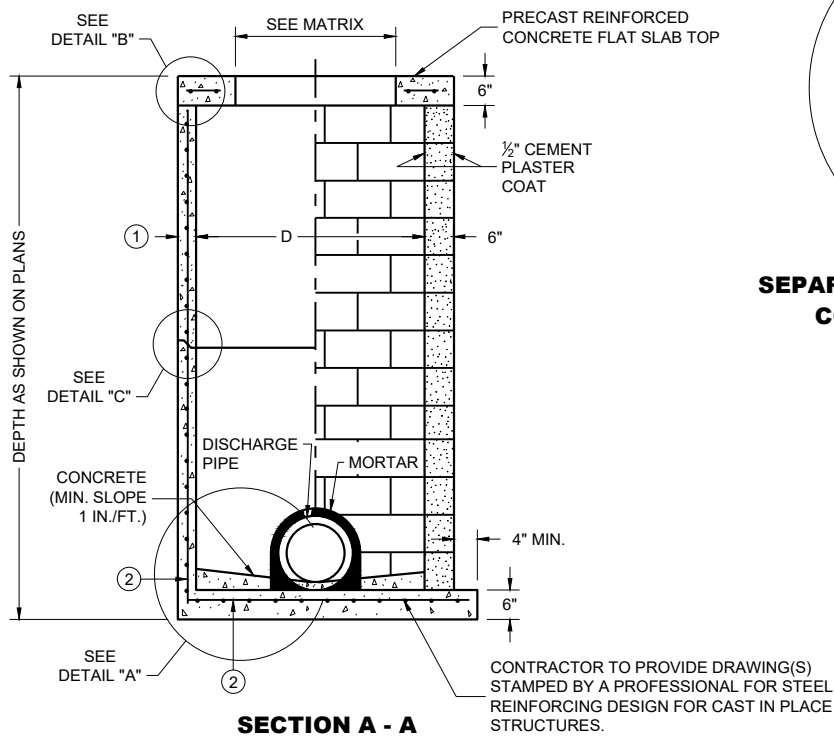
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December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

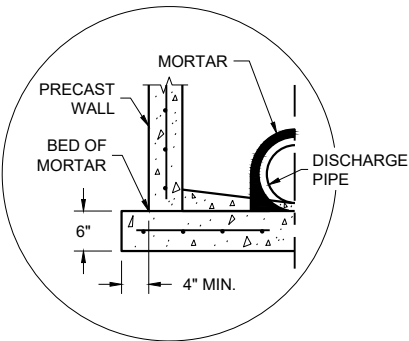
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

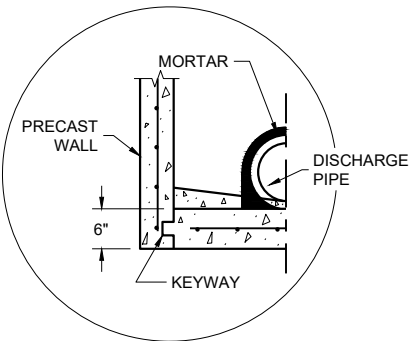
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

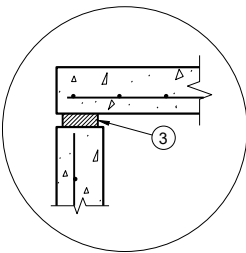


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

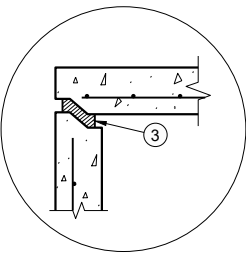


PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION

DETAIL "A"

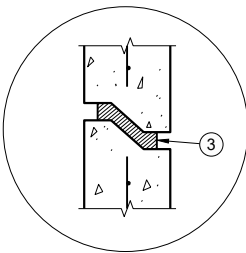


TOP WITH PLAIN
END JOINT



TOP WITH TONGUE
AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE
AND GROOVE JOINT

DETAIL "C"

INLETS 3-FT AND 4-FT DIAMETER

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

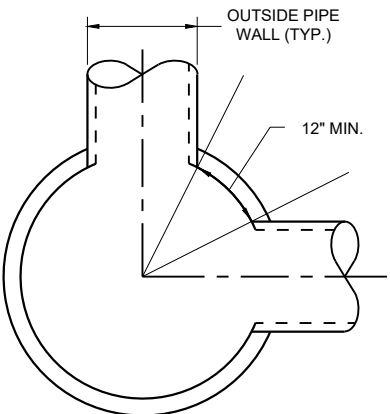
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 1 MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMETER PRECAST INLETS.
- 2 FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- 3 JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

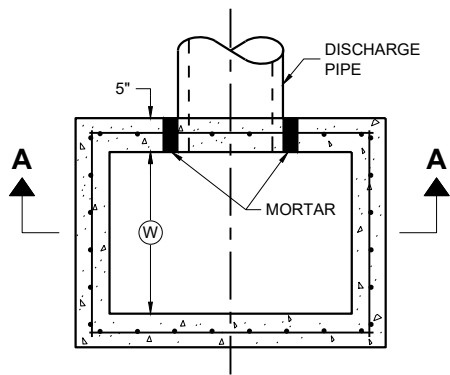


MINIMUM HORIZONTAL PIPE
SEPARATION
DETAIL "D"

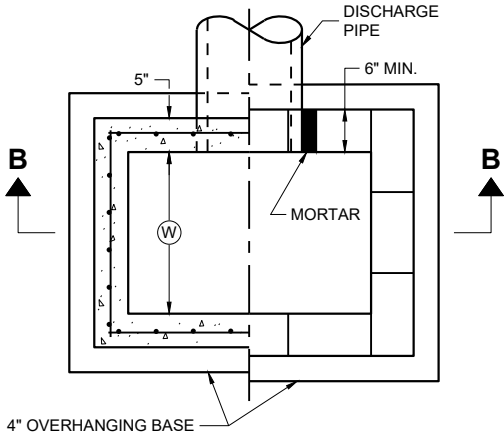
INLETS 3-FT
AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

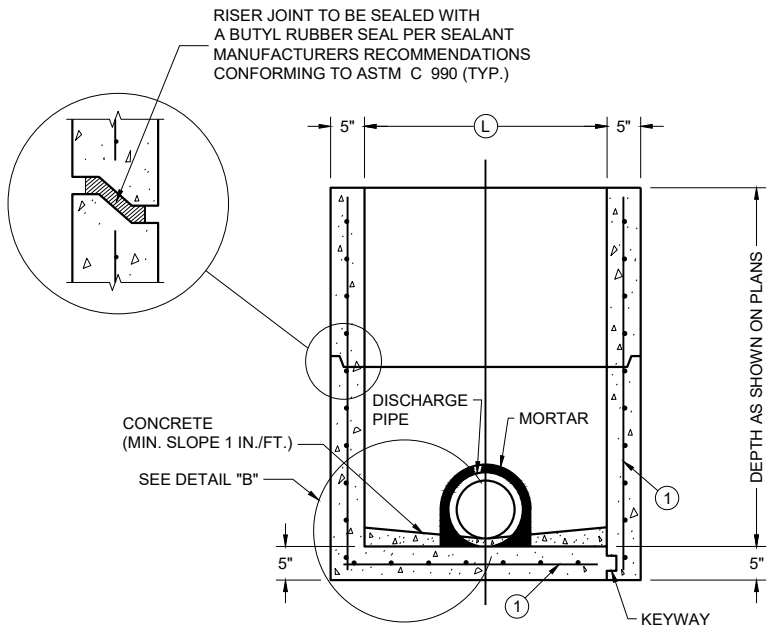
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW



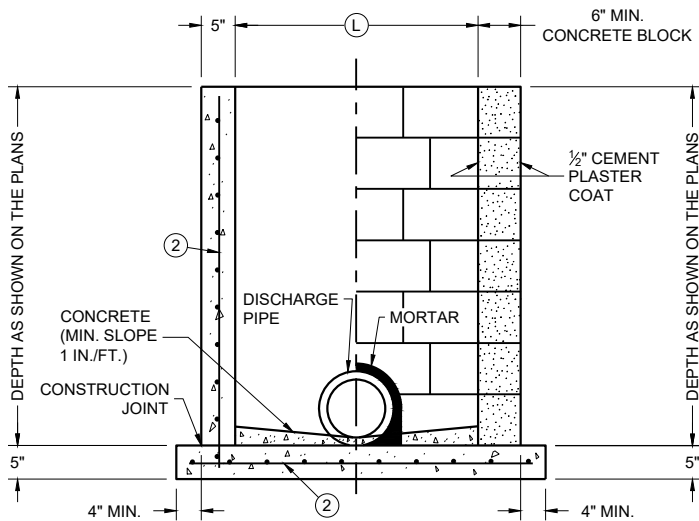
PLAN VIEW



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

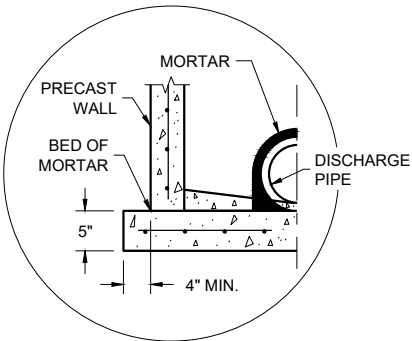
SECTION A - A



CAST IN PLACE
REINFORCED
CONCRETE

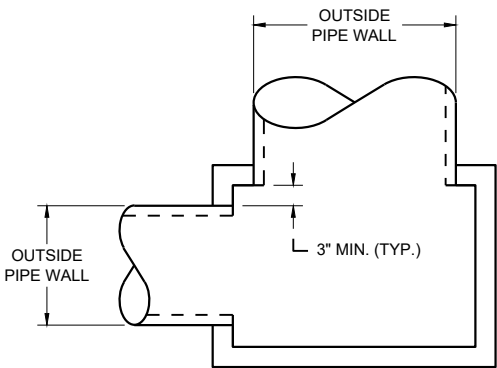
CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

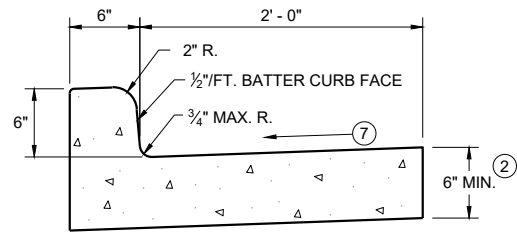
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

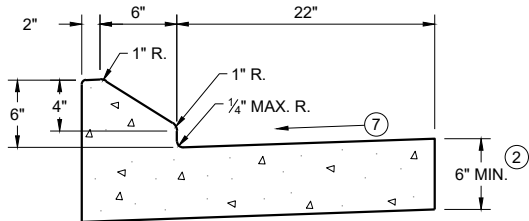
INLETS 2 X 2-FT, 2 X 2.5-FT,
2 X 3-FT, 2.5 X 3-FT
AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

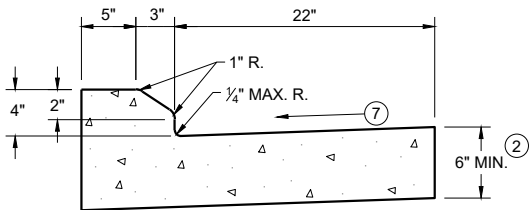
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



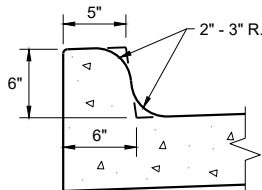
TYPES A^① & D



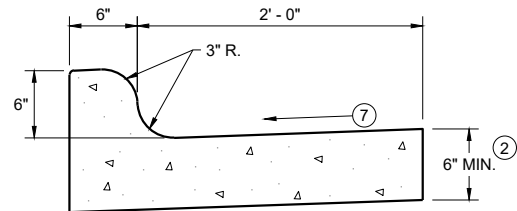
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

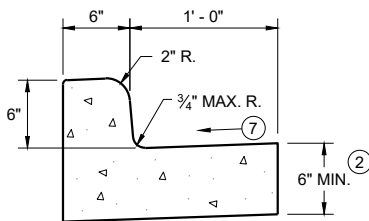


TYPES K^① & L
(OPTIONAL CURB SHAPE)



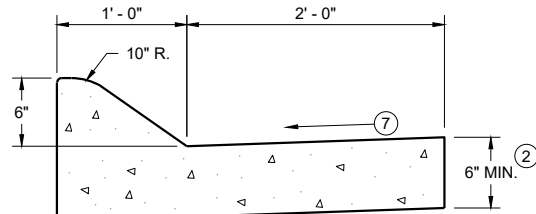
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

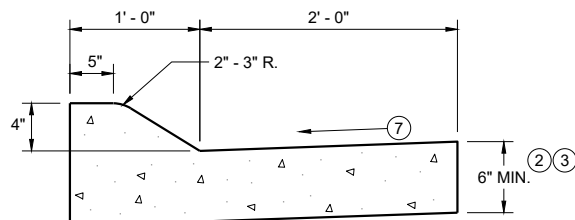


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

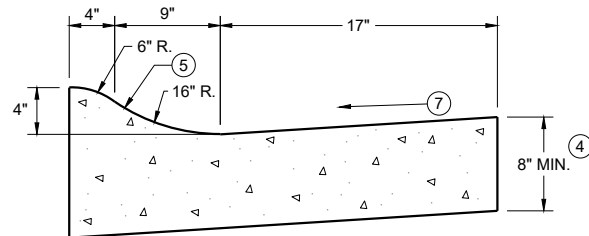


6" SLOPED CURB TYPES A^① & D



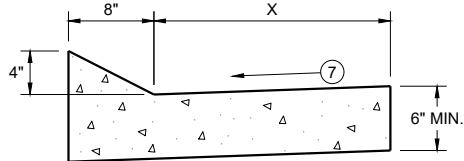
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

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

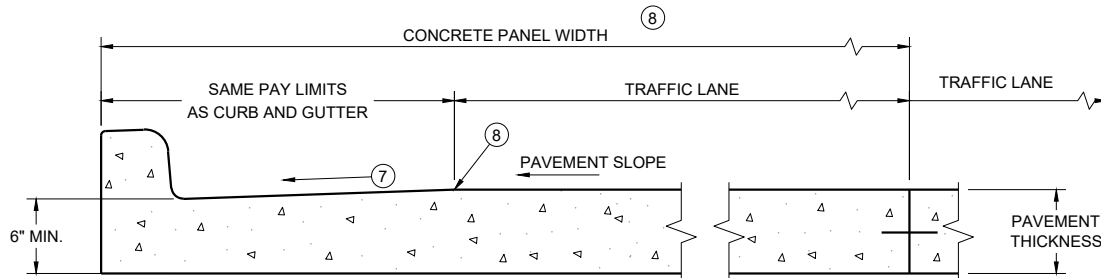


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

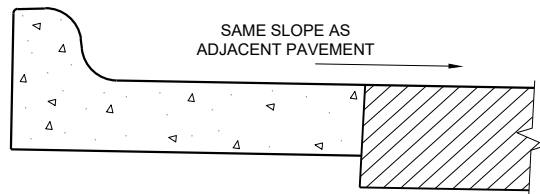
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

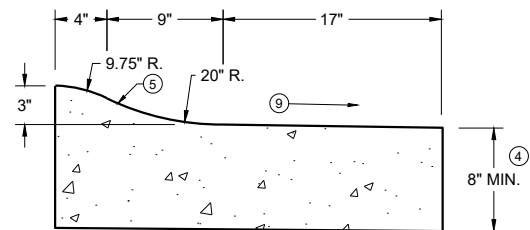


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

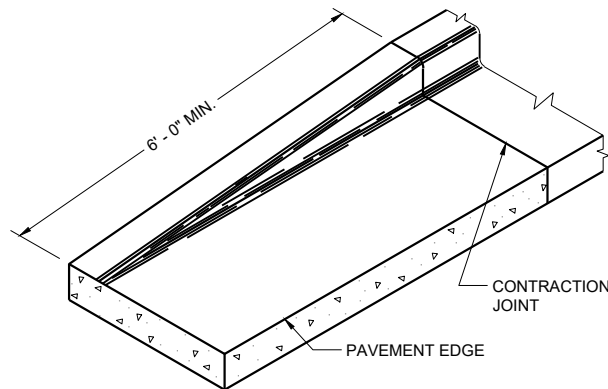
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

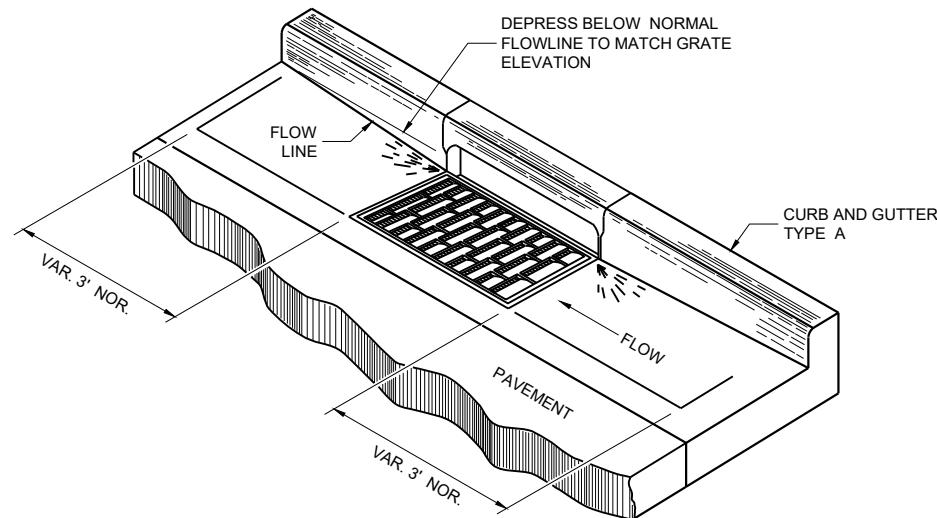
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

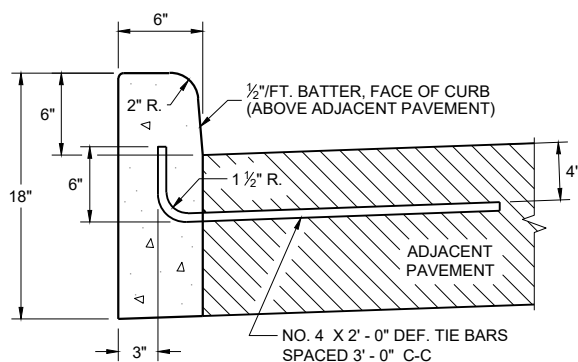


END SECTION CURB AND GUTTER

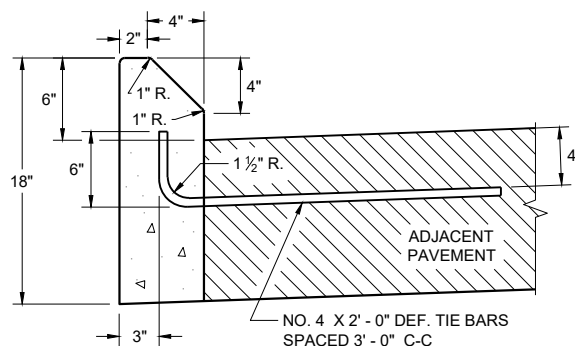


DETAIL OF CURB AND GUTTER AT INLETS

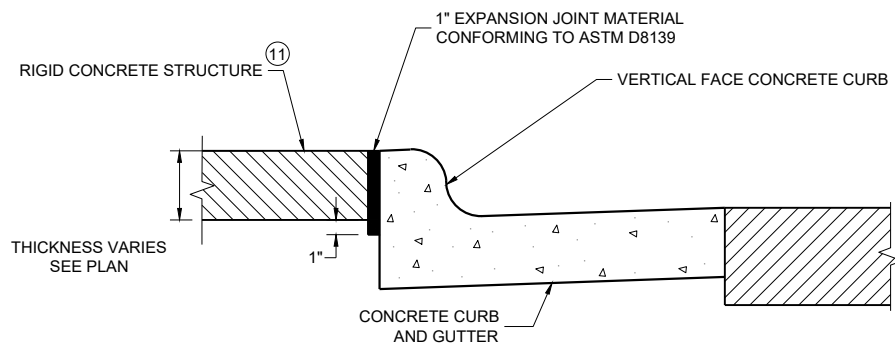
(TYPICAL H INLET COVER SHOWN)



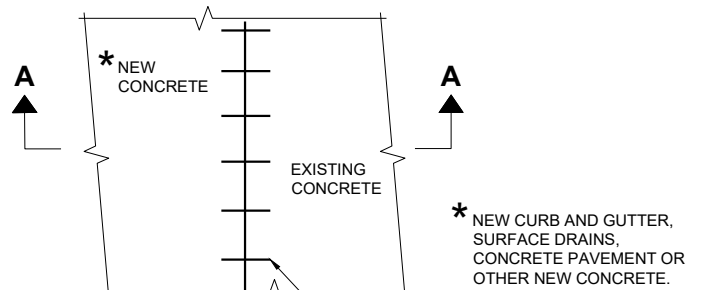
TYPES A^① & D



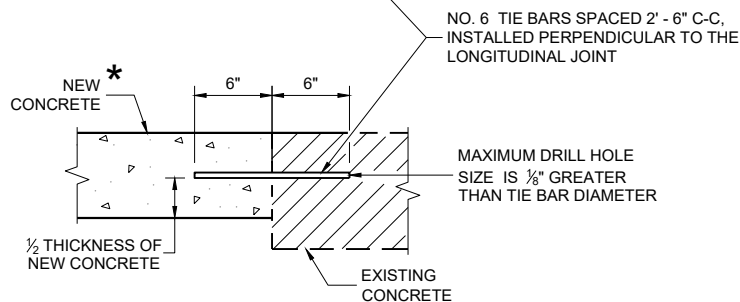
TYPES G^① & J
CONCRETE CURB



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



PLAN VIEW



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

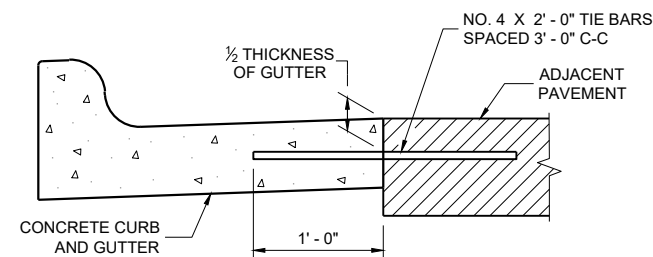
GENERAL NOTES

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

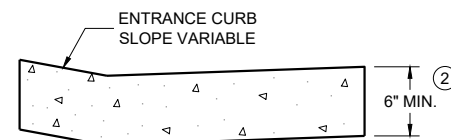
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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
February 2025
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

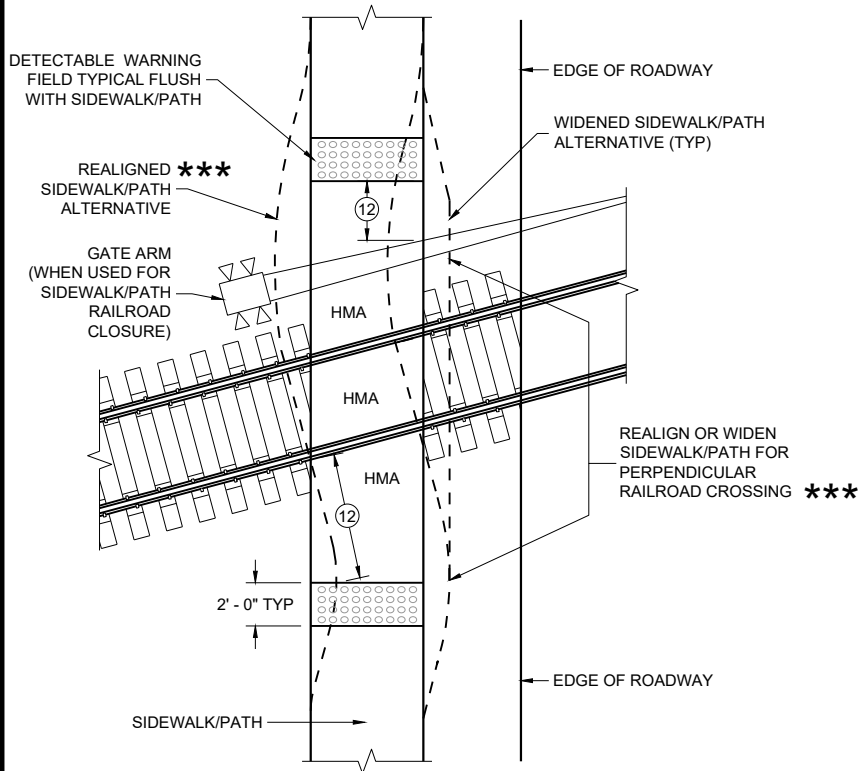
FHWA



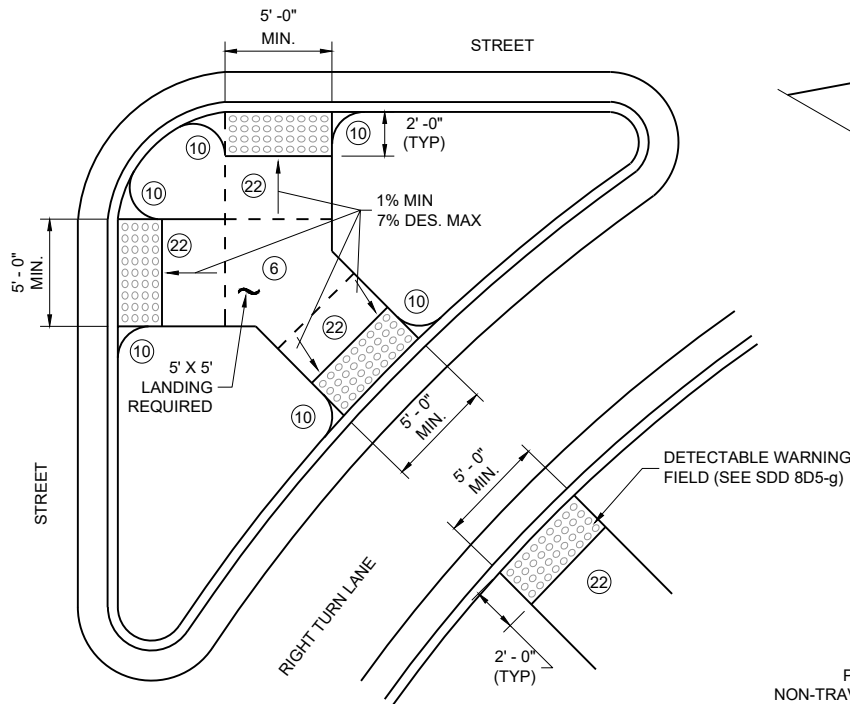
	1/2" EXPANSION JOINT SIDEWALK
	CONTRACTION JOINT SIDEWALK
	PAVEMENT MARKING CROSSWALK (WHITE)
	MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
	WIDTH SHOWN ELSEWHERE IN THE PLANS
	CONSTRUCT 6" WEDGE TO AVOID CONCRETE BRAKEAGE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑬ PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑭ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ⑮ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

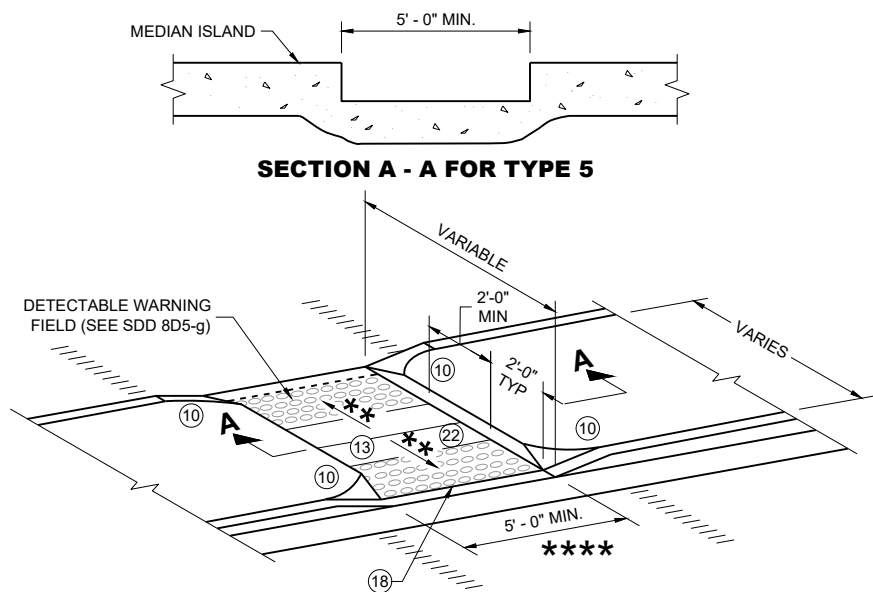


CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS

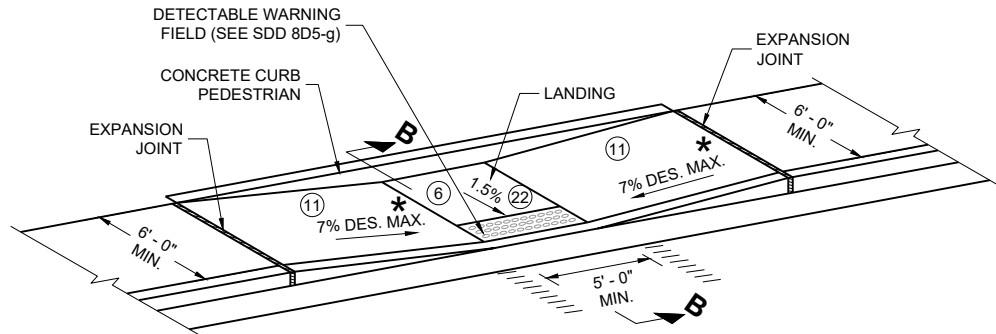


CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

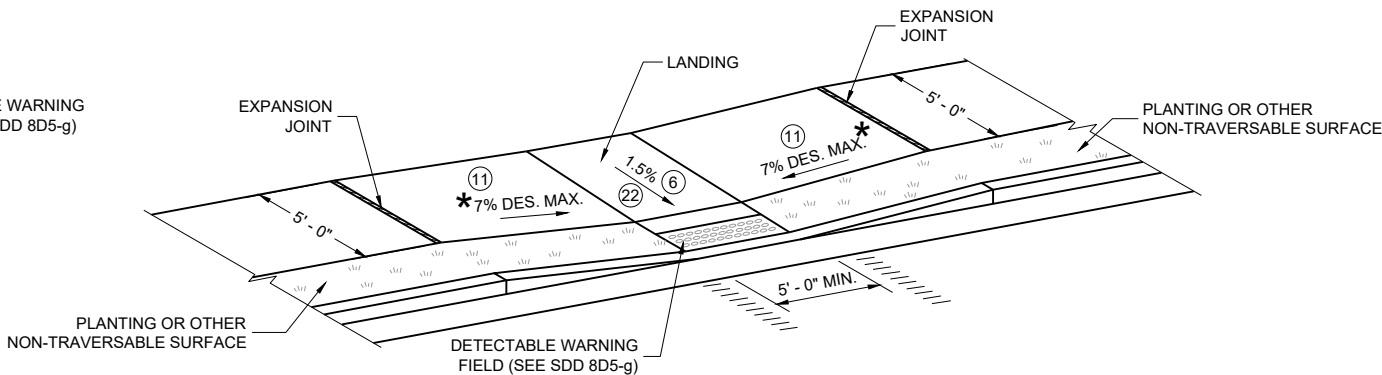
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 7B
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

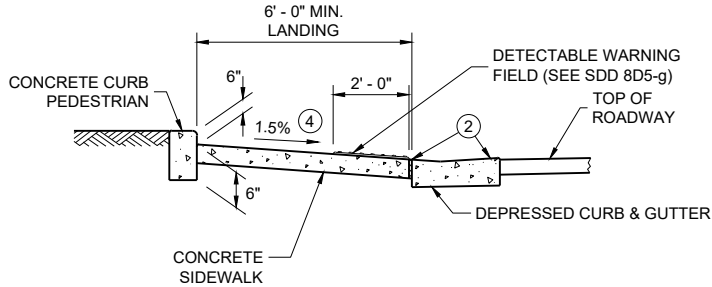
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

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

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑱ WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.
- ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- MAXIMUM 8.3%
- 1% MINIMUM (PROVIDE DRAINAGE)
- DETAILS TO BE DETERMINED BY ENGINEER
- FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK

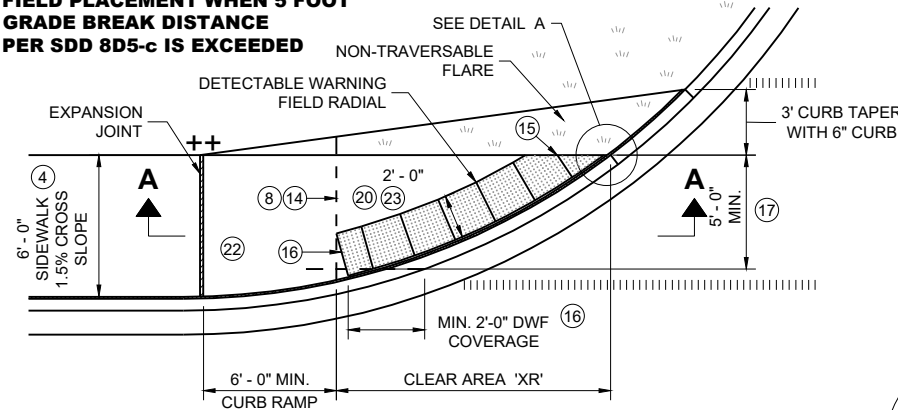


SECTION B - B FOR TYPE 7A

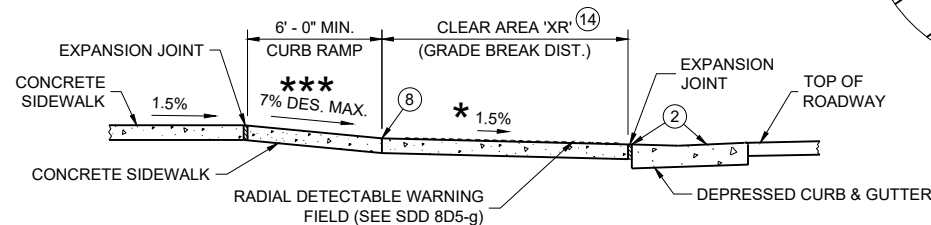
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

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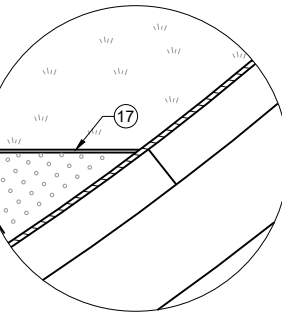
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



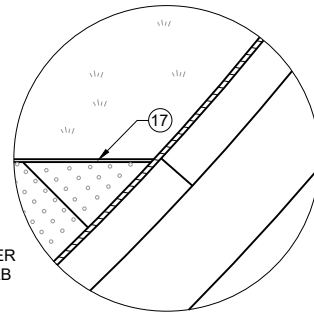
PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



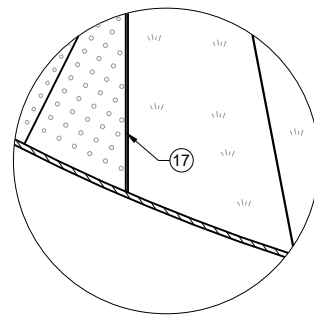
SECTION A - A FOR TYPE 4A1



DETAIL A

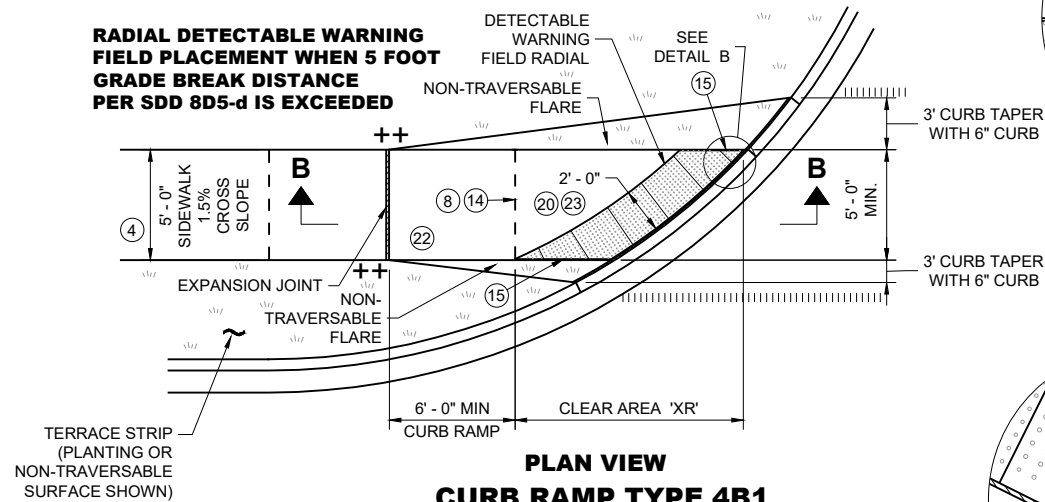


DETAIL B

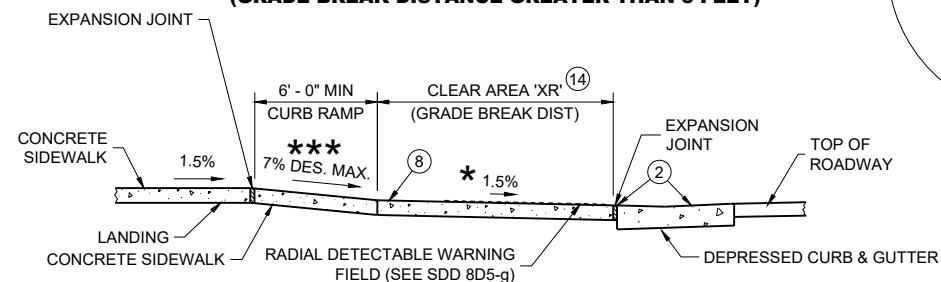


DETAIL C

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B - B FOR TYPE 4B1

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

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.

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

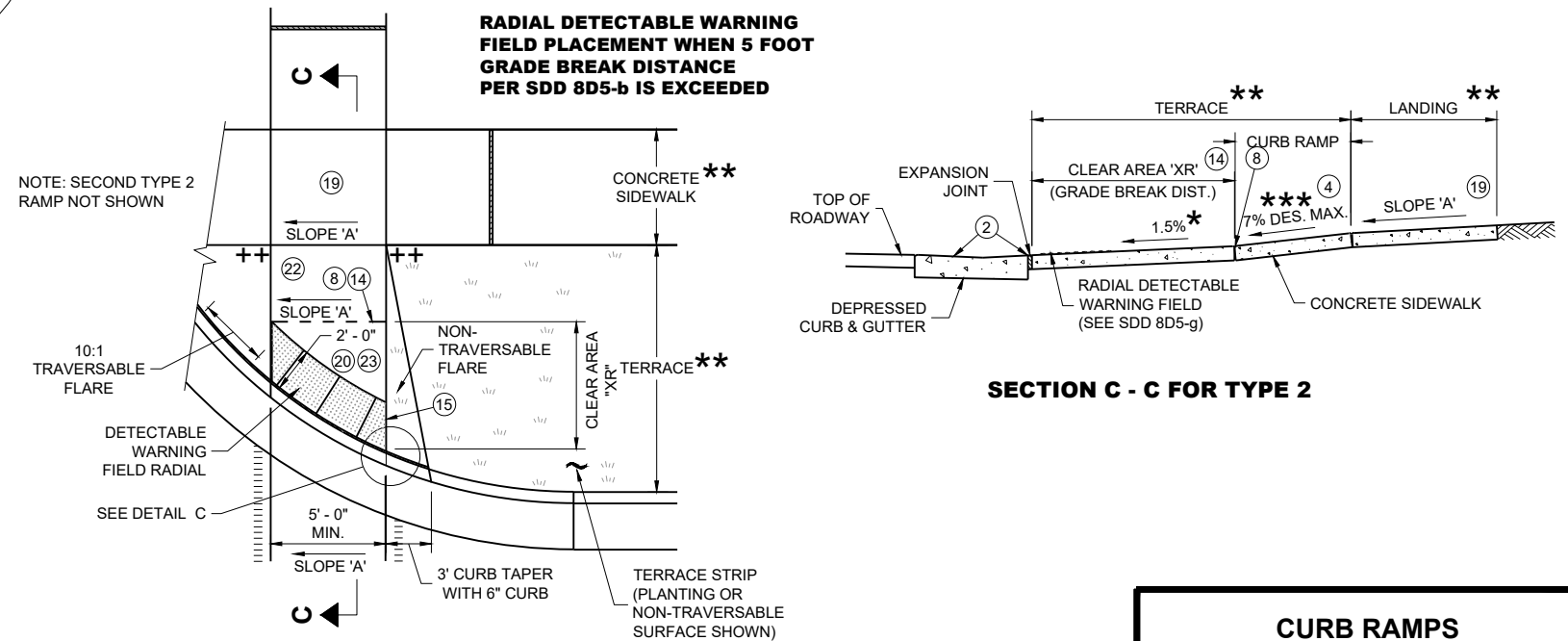
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑭ CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- ⑮ FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN $\frac{1}{8}$ " DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- ⑮ USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑰ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑳ MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- ㉒ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ㉓ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED



PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

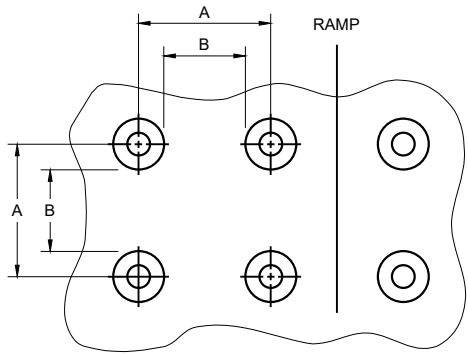
SECTION C - C FOR TYPE 2

CURB RAMPS
RADIAL DETECTABLE WARNING

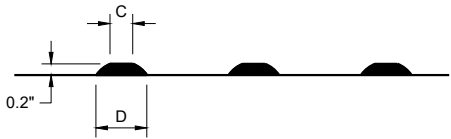
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

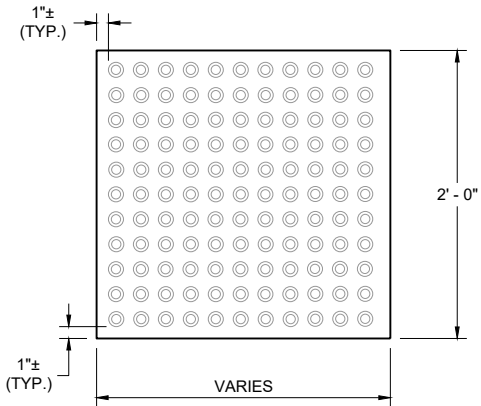


PLAN VIEW

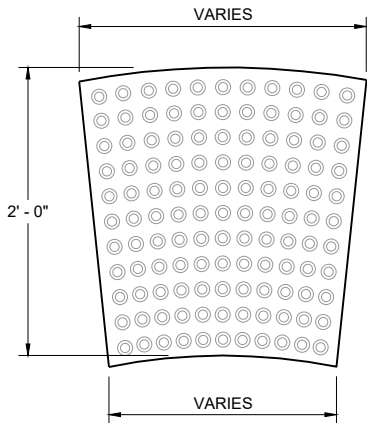


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

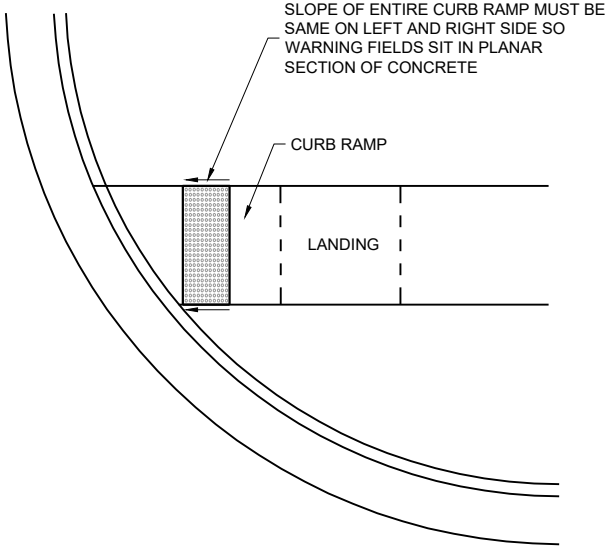


RECTANGULAR
PLATES

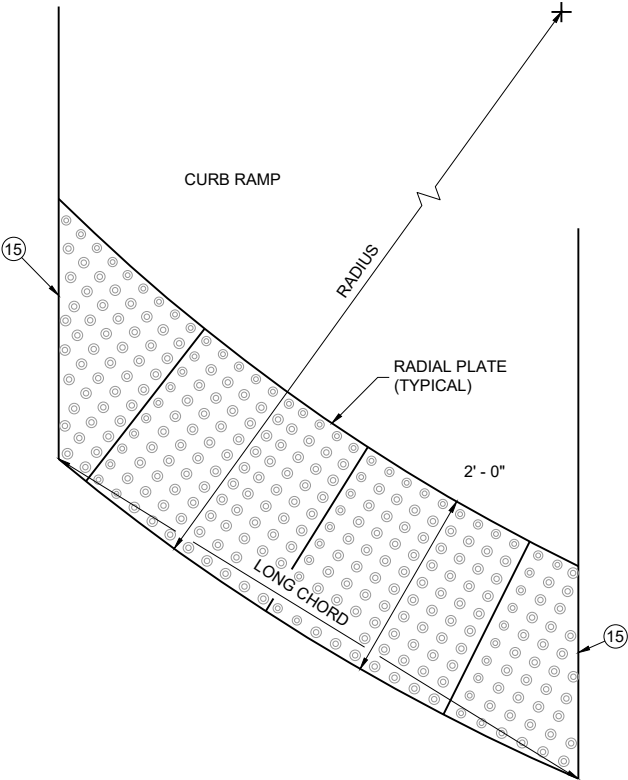


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

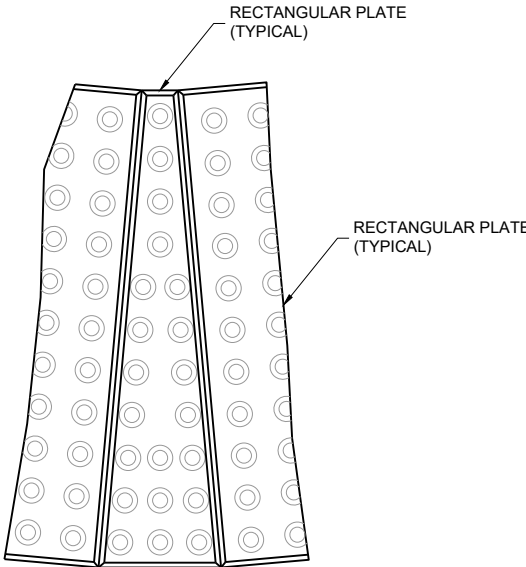
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



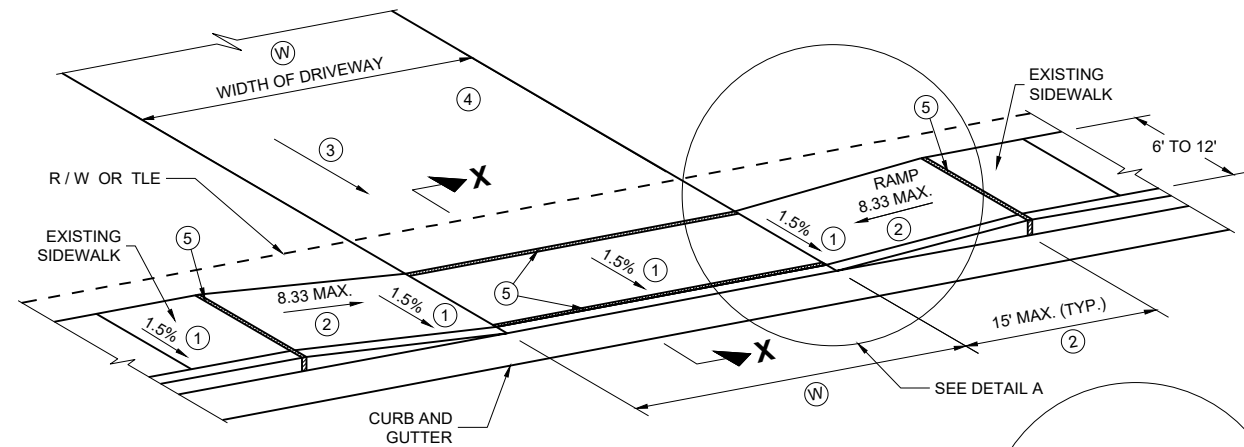
PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

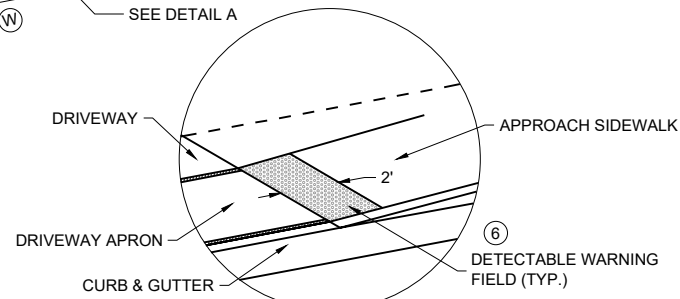
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE <position>

FHWA

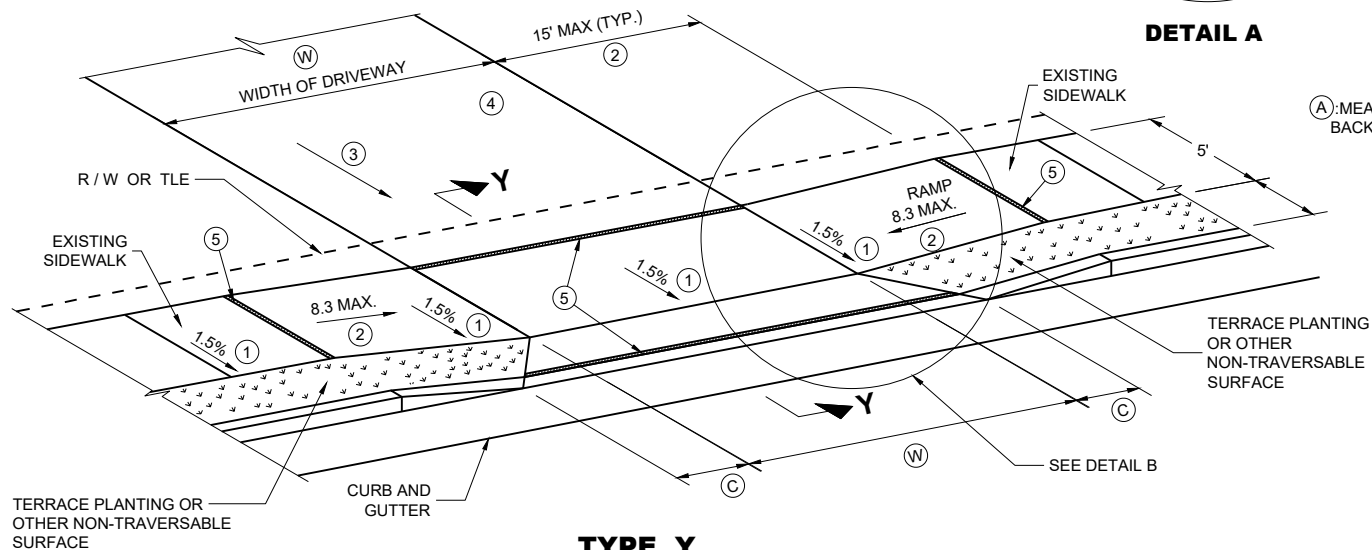


TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



DETAIL A

(A): MEASURE FROM
BACK OF CURB



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

TERRACE PLANTING OR
OTHER NON-TRAVERSABLE
SURFACE

CURB AND
GUTTER

SEE DETAIL B

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

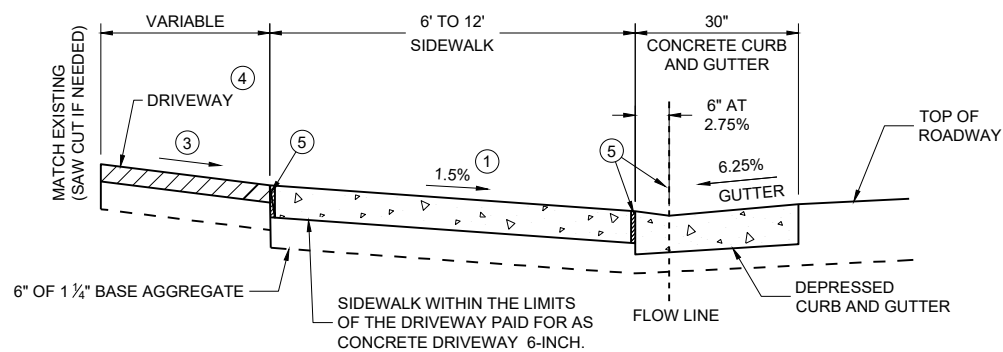
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ **DRIVEWAY SLOPES: DESIRABLE MAXIMUM**
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

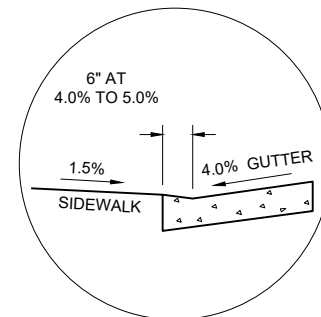
④ **DRIVEWAY TYPES**
* 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
* 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
* 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ 1/2" EXPANSION JOINT FILLER

⑥ DETECTABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECTABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



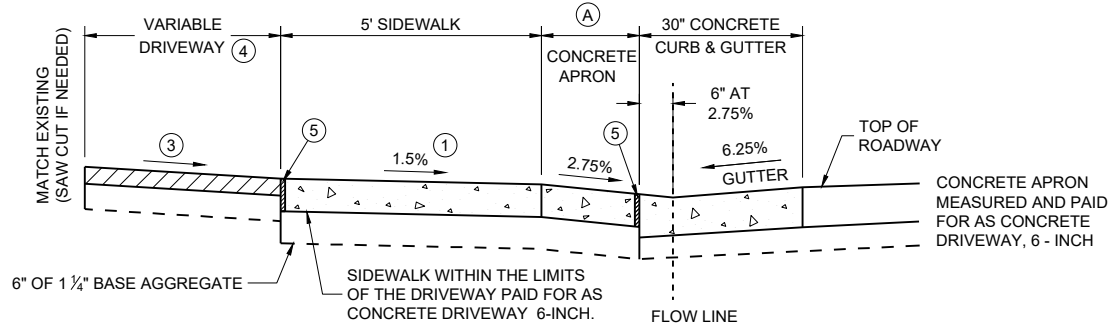
SECTION X - X



SECTION X - X
4% GUTTER SLOPE

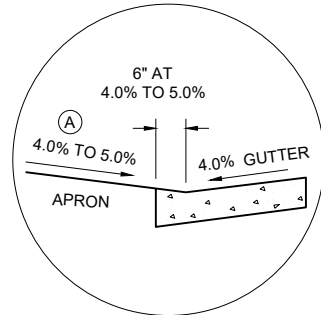
TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

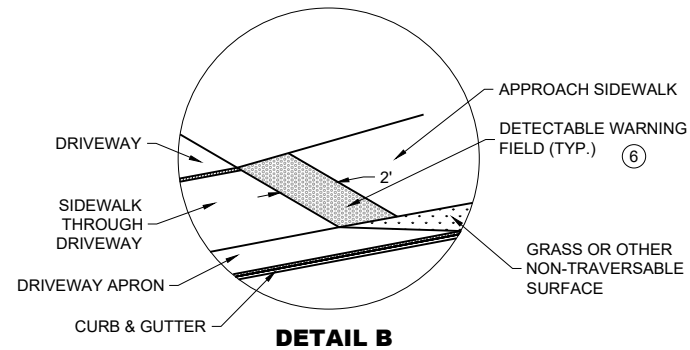


NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y
DRIVEWAY DETAIL WITH CONCRETE
CURB AND GUTTER
(URBAN AND SUBURBAN)



SECTION Y - Y
4% GUTTER SLOPE



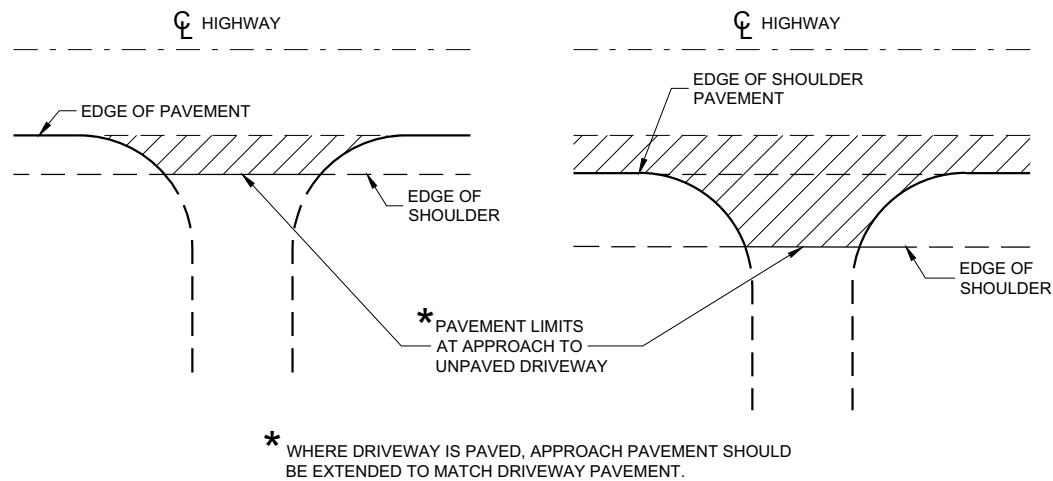
DETAIL B

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE

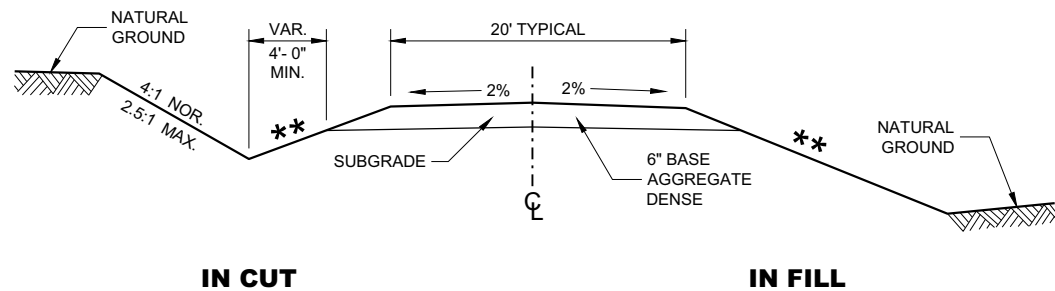
FHWA



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

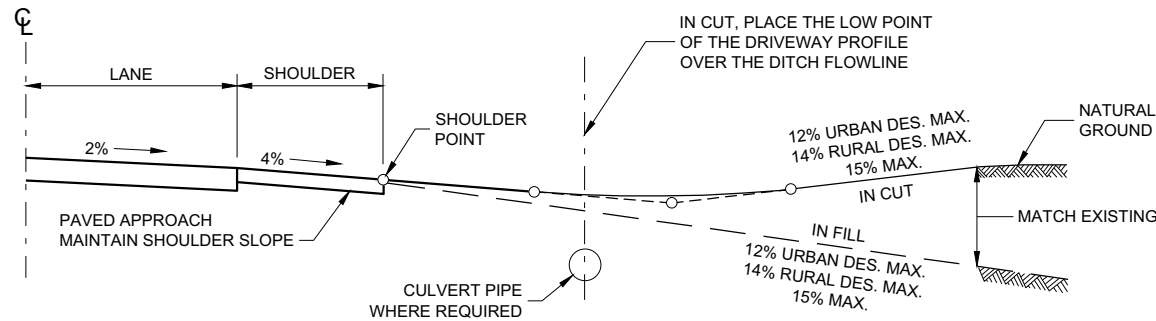
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



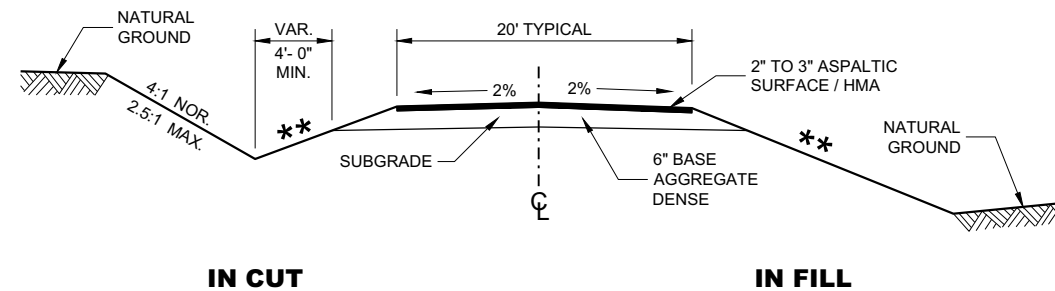
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** 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



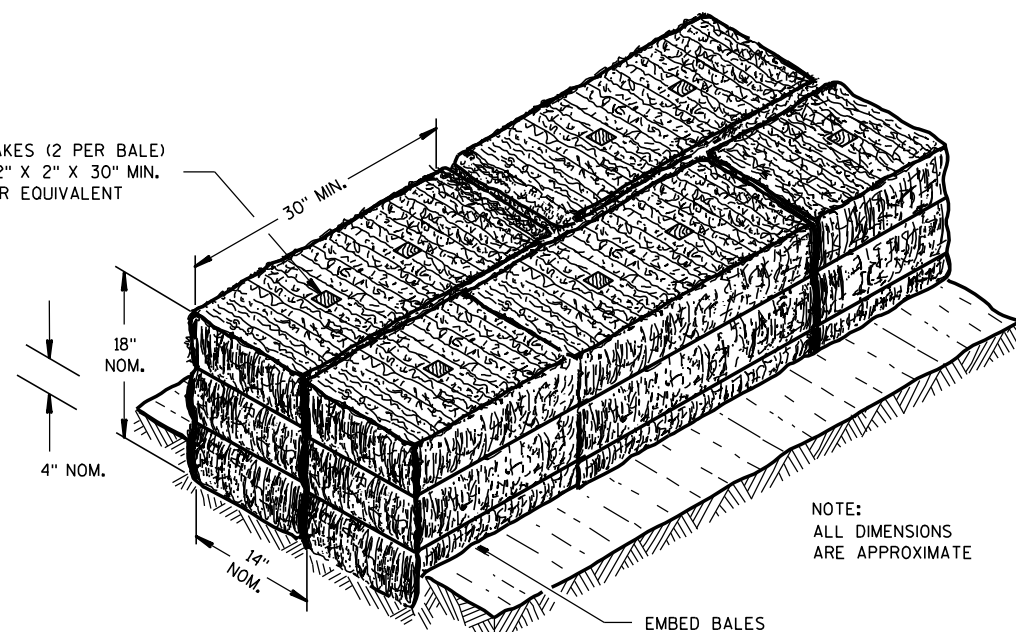
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 135

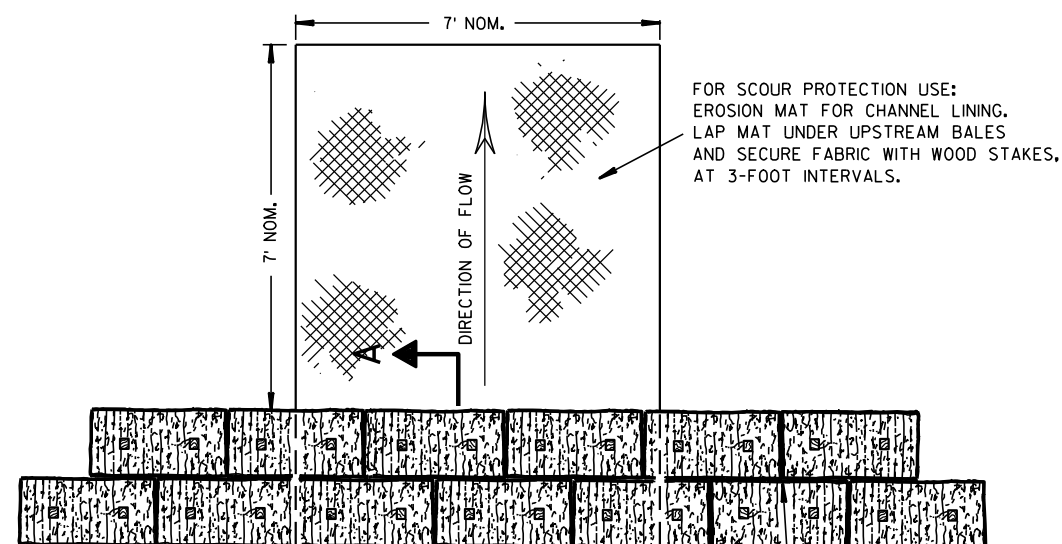
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

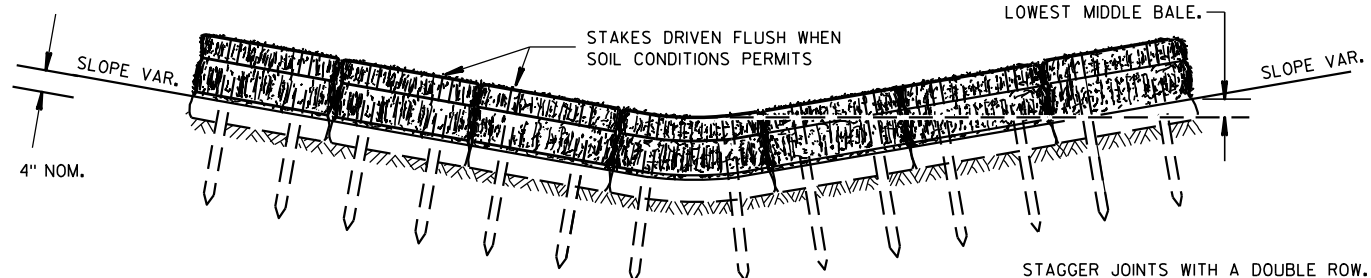
SECTION A-A



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

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



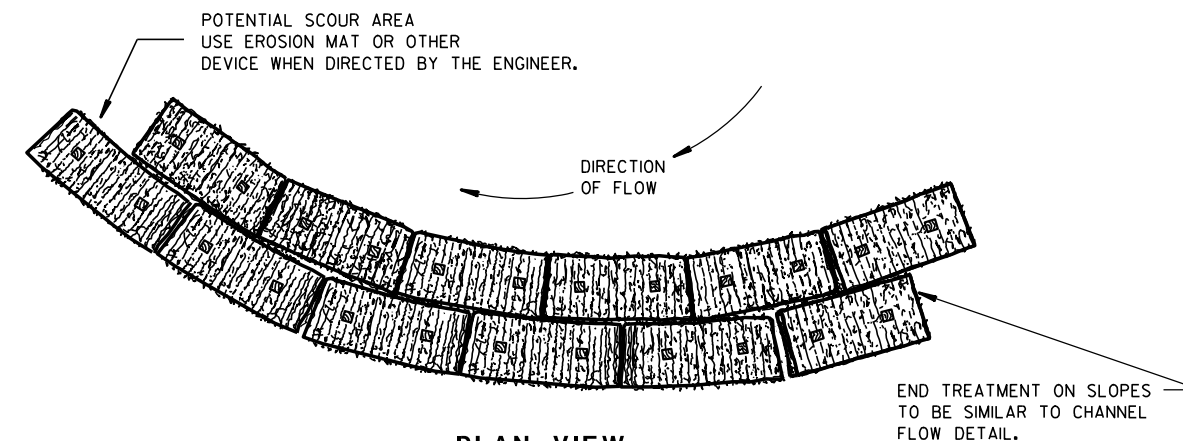
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

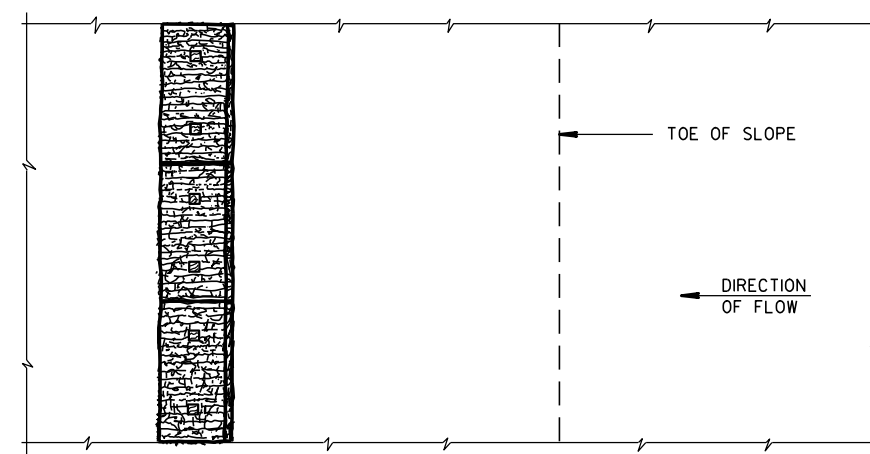
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

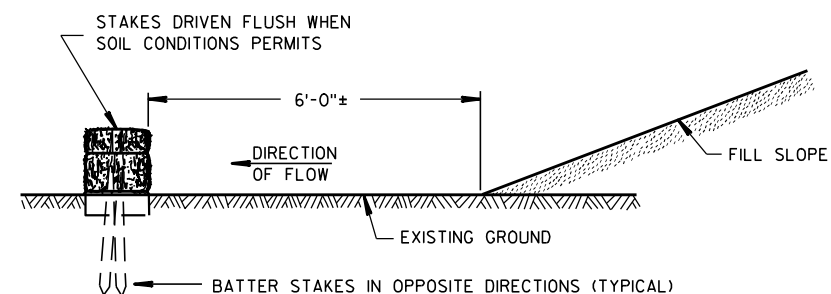


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

/S/ Beth Conn-----
CHIEF ROADWAY DEVELOPER 136 ENGINEER

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.



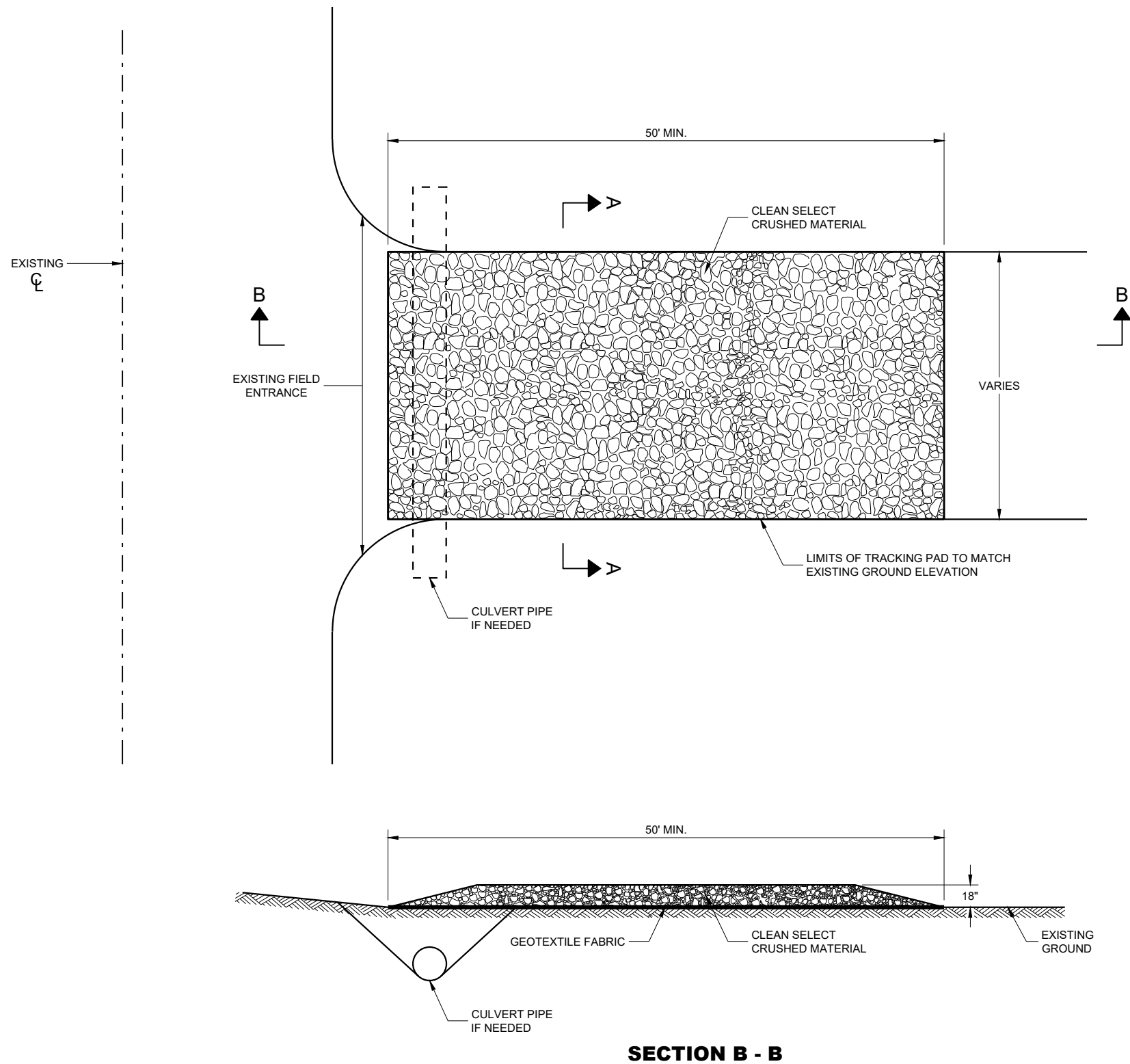
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOPMENT 137 JINEER

FHWA

S.D.D. 8 E 10-2



GENERAL NOTES

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

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

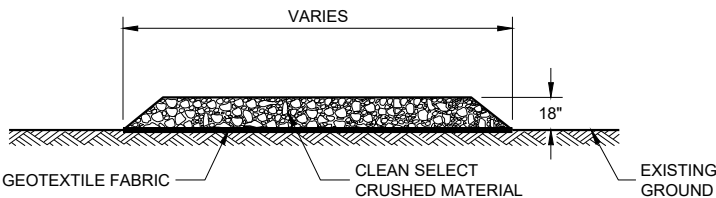
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

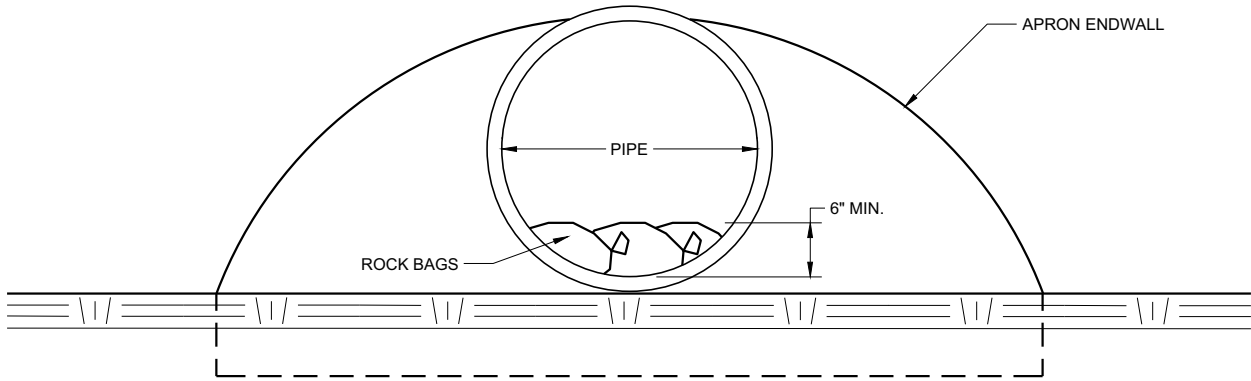
3/24/2011

DATE

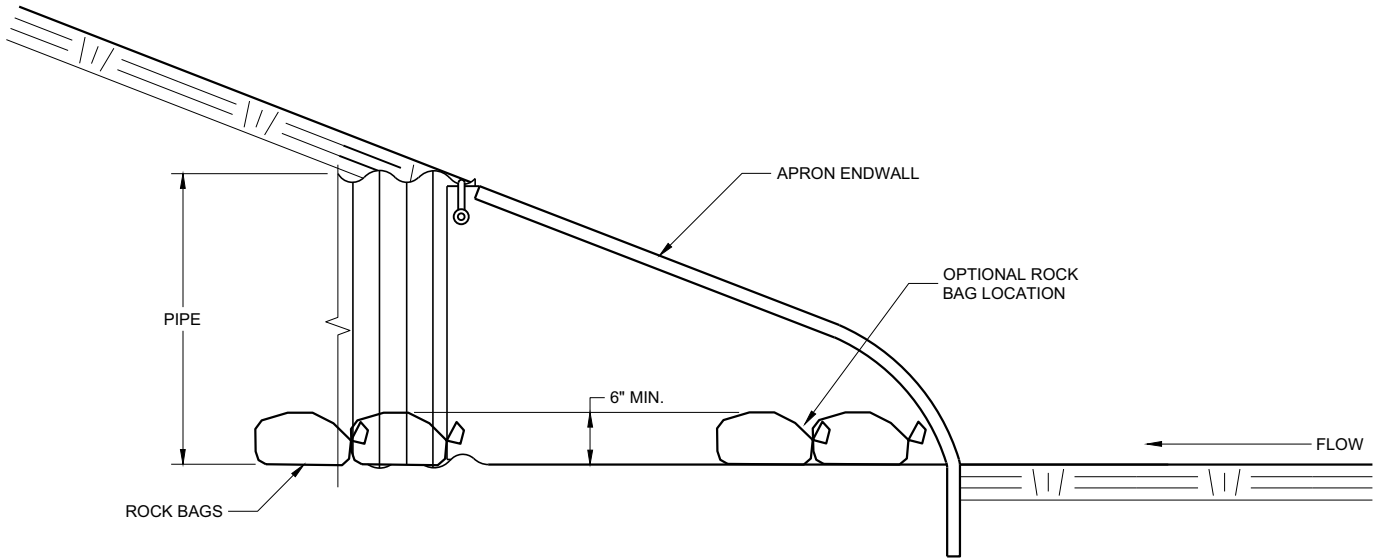
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE
ENGINEER

139



END VIEW



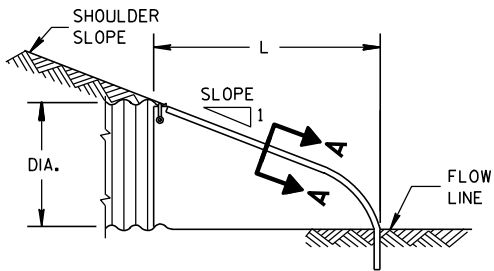
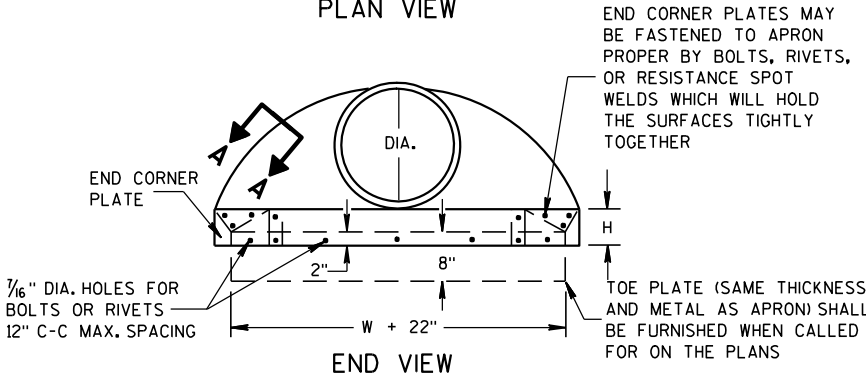
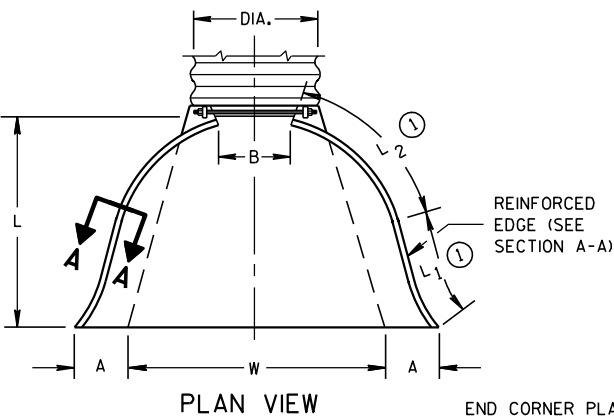
SIDE VIEW

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 140
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	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	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.

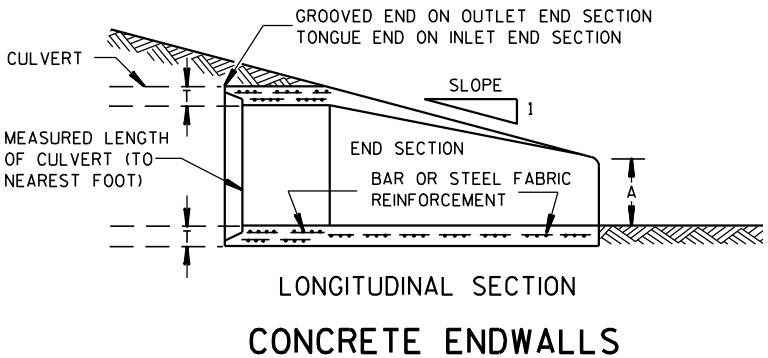
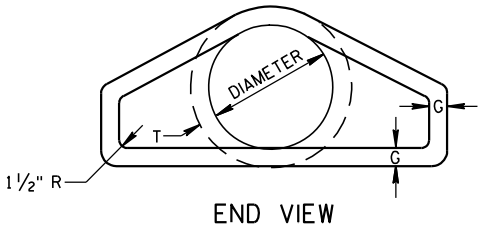
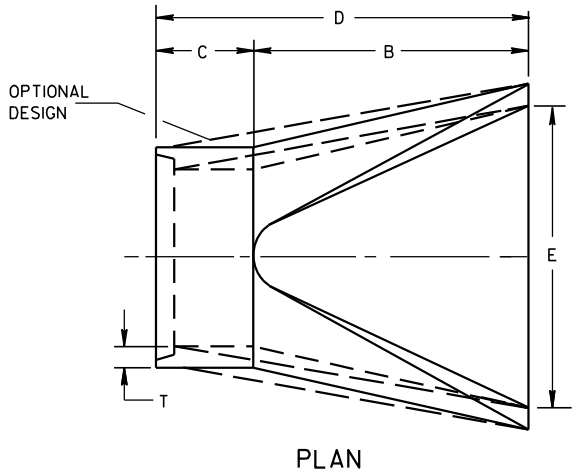
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



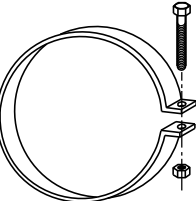
METAL ENDWALLS

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

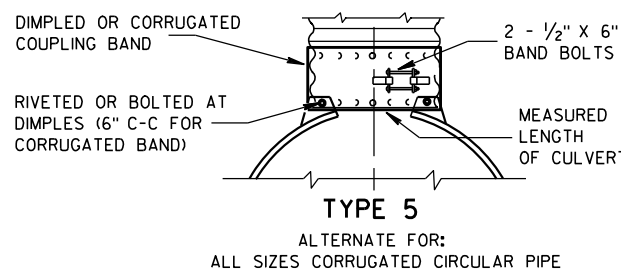
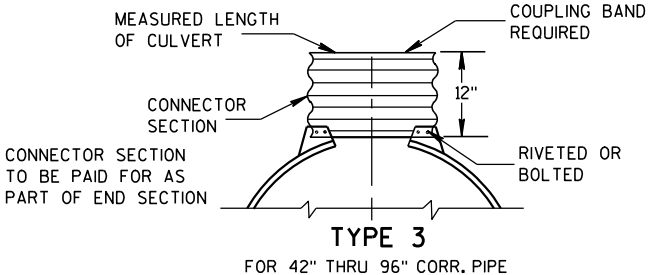
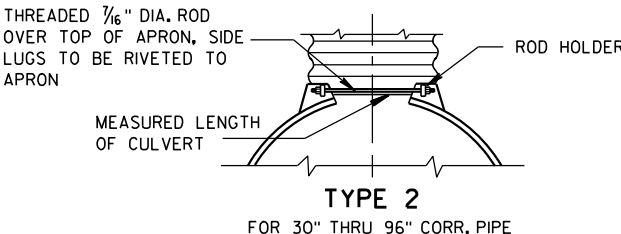
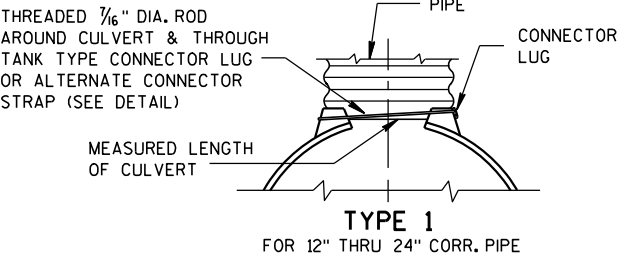
* MINIMUM
** MAXIMUM



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



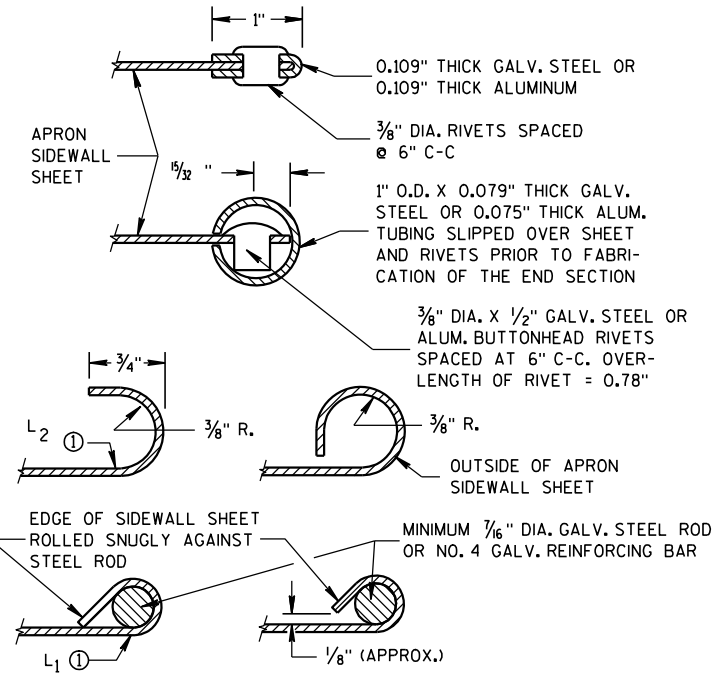
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

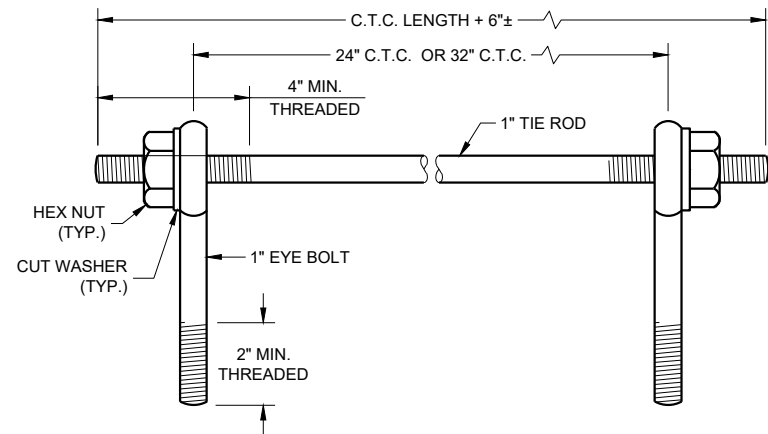
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

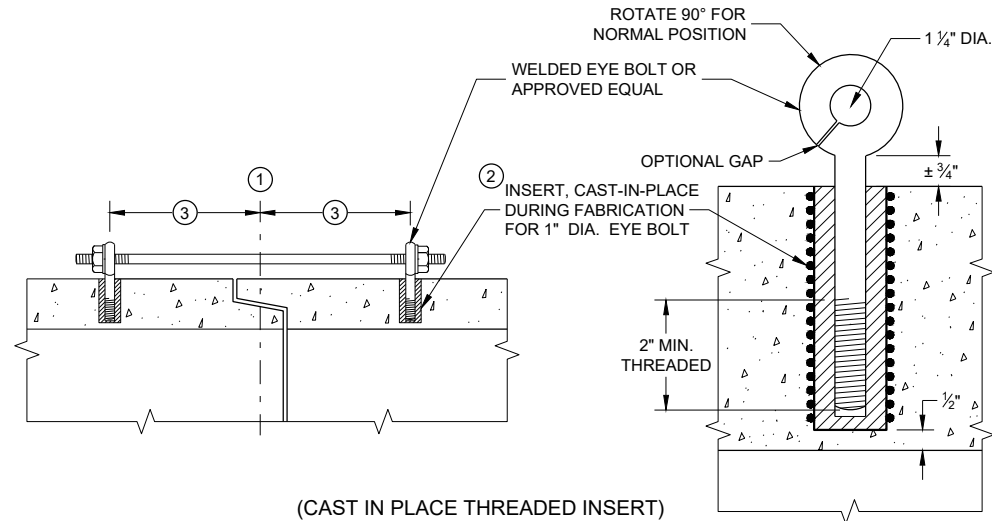
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP 141	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

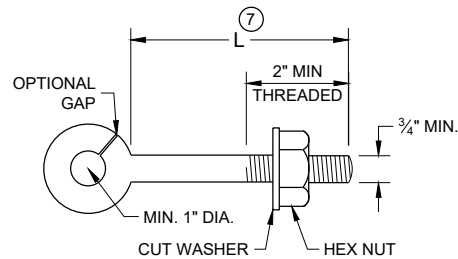
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

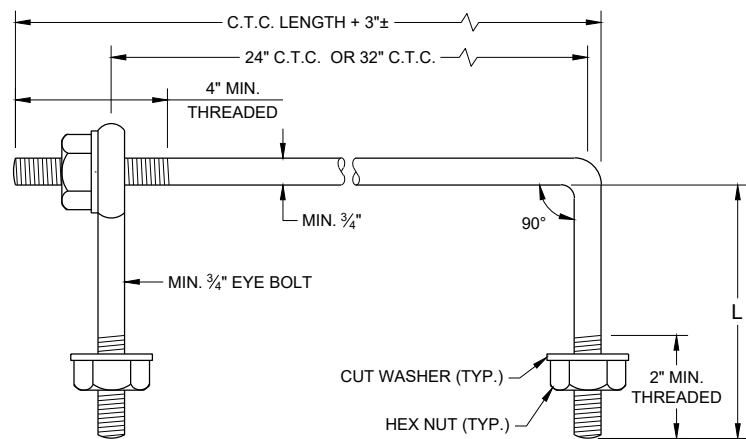
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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.

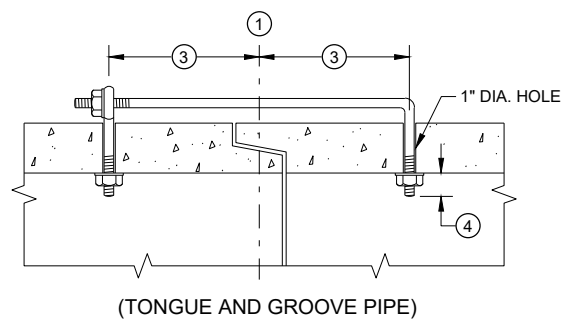


EYE BOLT 7

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



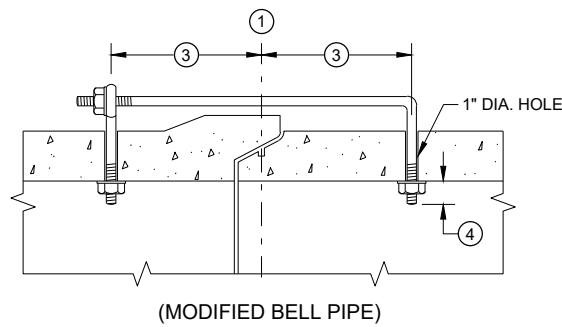
EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)

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

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

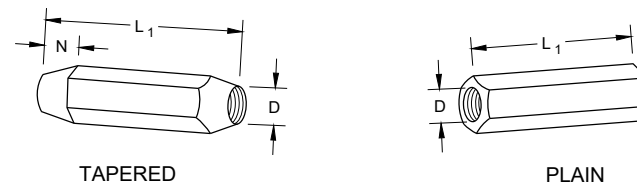


(MODIFIED BELL PIPE)

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

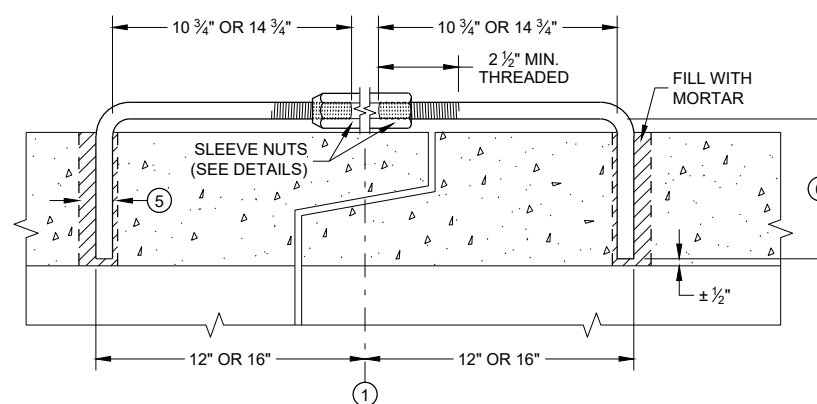
DIMENSIONS SHOWN ARE IN INCHES



TAPERED

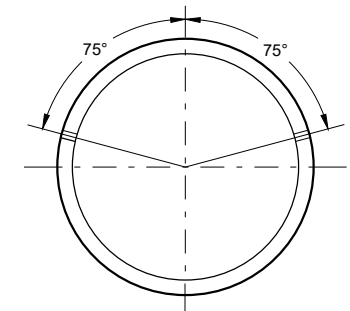
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



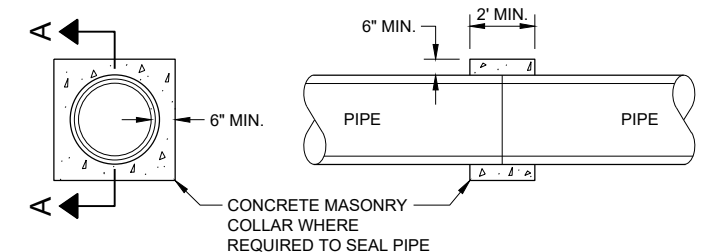
LONGITUDINAL SECTION

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

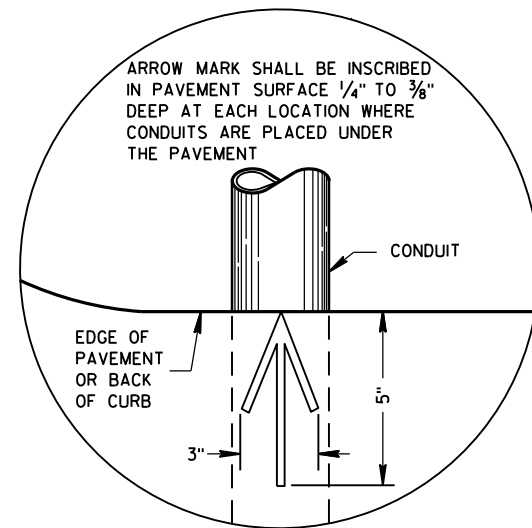


SECTION A - A
CONCRETE COLLAR DETAIL

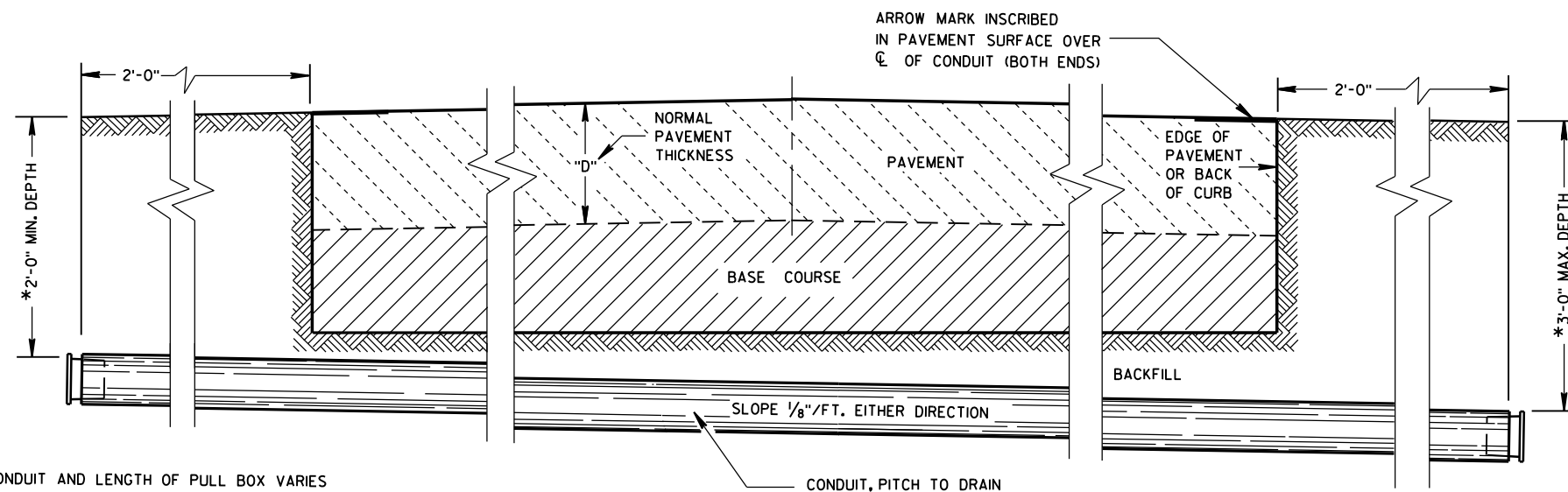
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 142
FHWA



PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES
WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

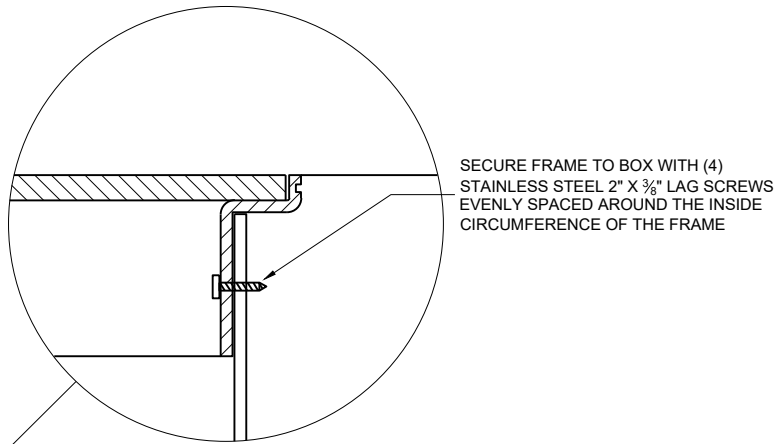
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 143
FHWA

DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

DIAMETER VARIES FROM TOP TO BOTTOM WITH THE
DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST
HEAVE.



NOTCH FOR PAVEMENT ADHESION

DO NOT SECURE FRAME TO BOX.
ALLOW FRAME ADHESION TO SIDEWALK
FOR UNIFORM COVER/PAVEMENT
VERTICAL MOVEMENT.

NON-CONDUCTIVE FRAME AND COVER

ELECTRIC

B

FINAL GRADE

D

A

3"

6" MIN. (TYP.)

6"

2" PVC PIPE CAP ON BOTH ENDS WITH 7 OR 8 1/4" HOLES DRILLED IN EACH END. INSTALL BELOW ALL OTHER PIPES.

INSTALL ELECTRICAL END BELLS ON ALL NON-METALLIC CONDUIT BEFORE INSTALLATION OF WIRE AND/OR CABLE. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CUT OPENINGS AS REQUIRED IN THE FIELD

ALL CONDUIT PITCHED TO DRAIN TO PULL BOXES

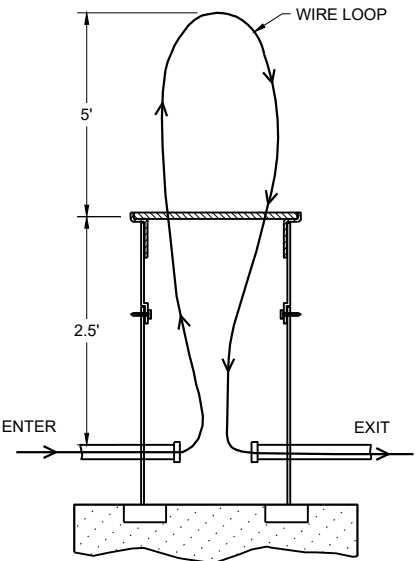
12"

2" DRAIN DUCT TO DITCH OR SEWER WHEN SPECIFIED

NO. 2 COARSE AGGREGATE (SEE SECTION 501 OF THE STANDARD SPECIFICATIONS)

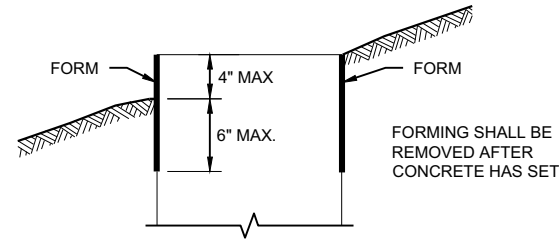
NO. 2 COARSE AGGREGATE
(SEE SECTION 501 OF THE
STANDARD SPECIFICATIONS)

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS,
"WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



PULL BOXES NON-CONDUCTIVE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>November 2024</u> DATE	<u>/S/ Ahmet Demirbilek</u> STATE ELECTRICAL ENGINEER

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

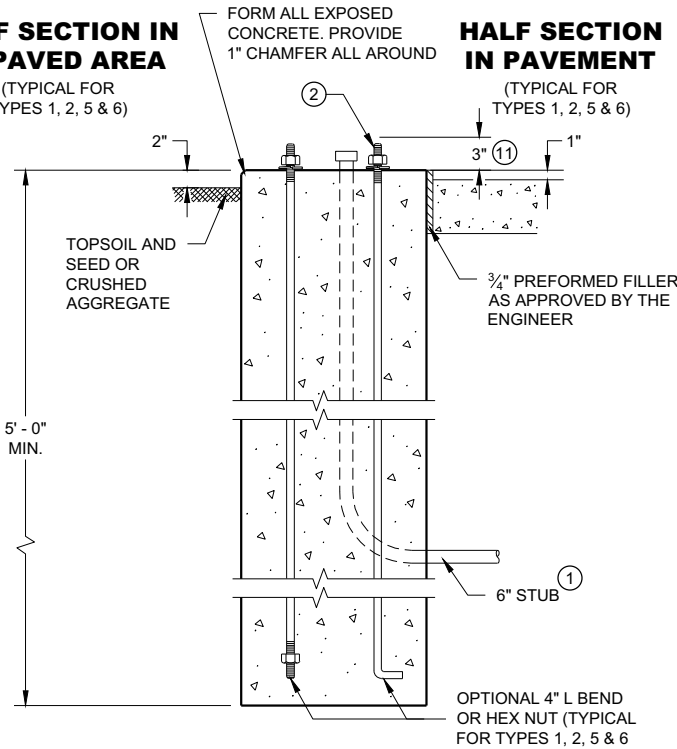
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

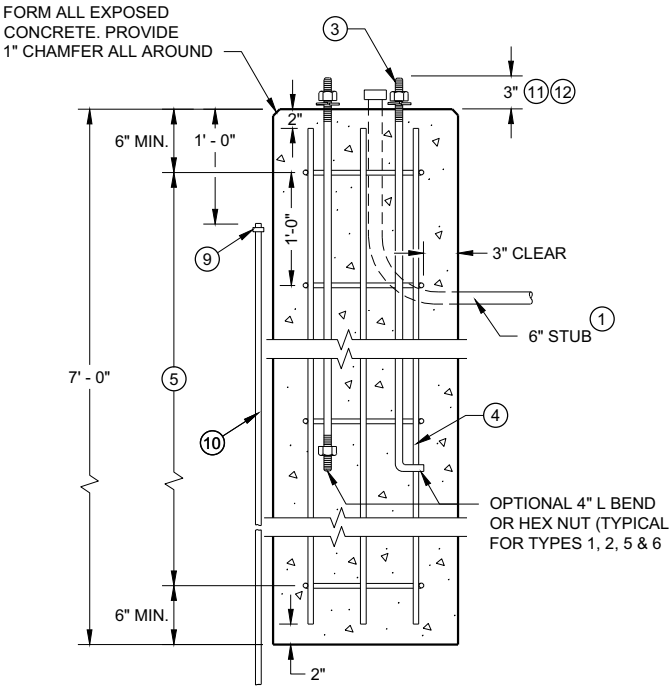
- THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/2" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA



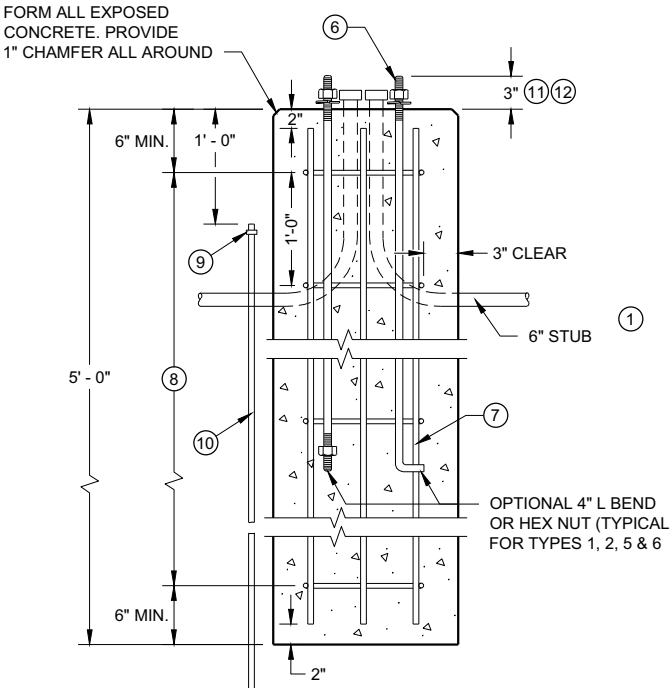
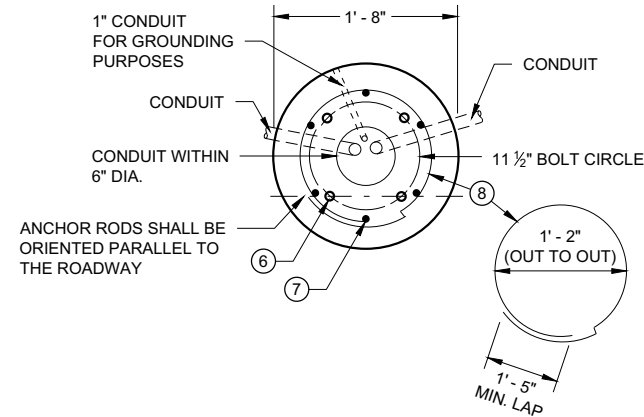
TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2

CONCRETE BASES



TYPE 5 & 6

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

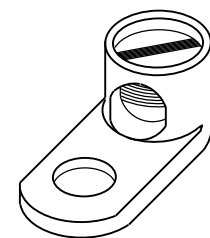
LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

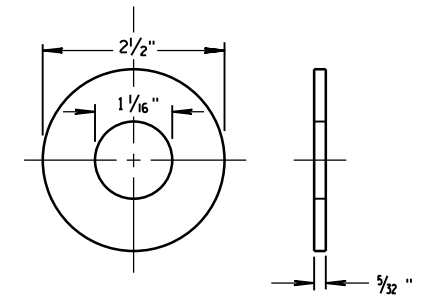
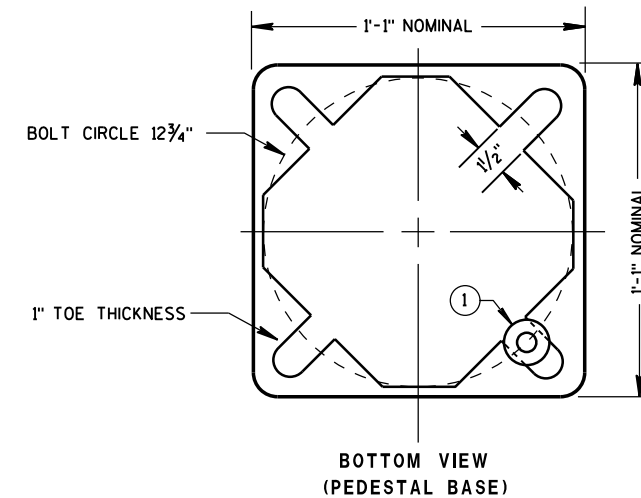
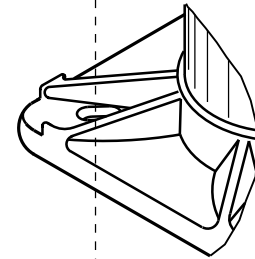
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TO BE FURNISHED WITH EACH BASE



ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

ISOMETRIC VIEW

1'-5" NOMINAL

1'-1" NOMINAL

6 1/2" MIN.

1"

HEX NUT

1'-0" NOMINAL

SLOTTED FOR 1" DIA. BOLTS ON 10" THROUGH 12" BOLT CIRCLE

HEX HEAD STAINLESS STEEL BOLT 1/4" X 3/4" - 20 (TPI)

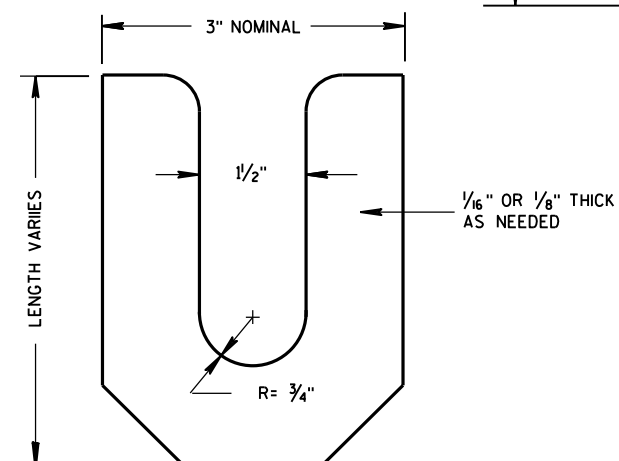
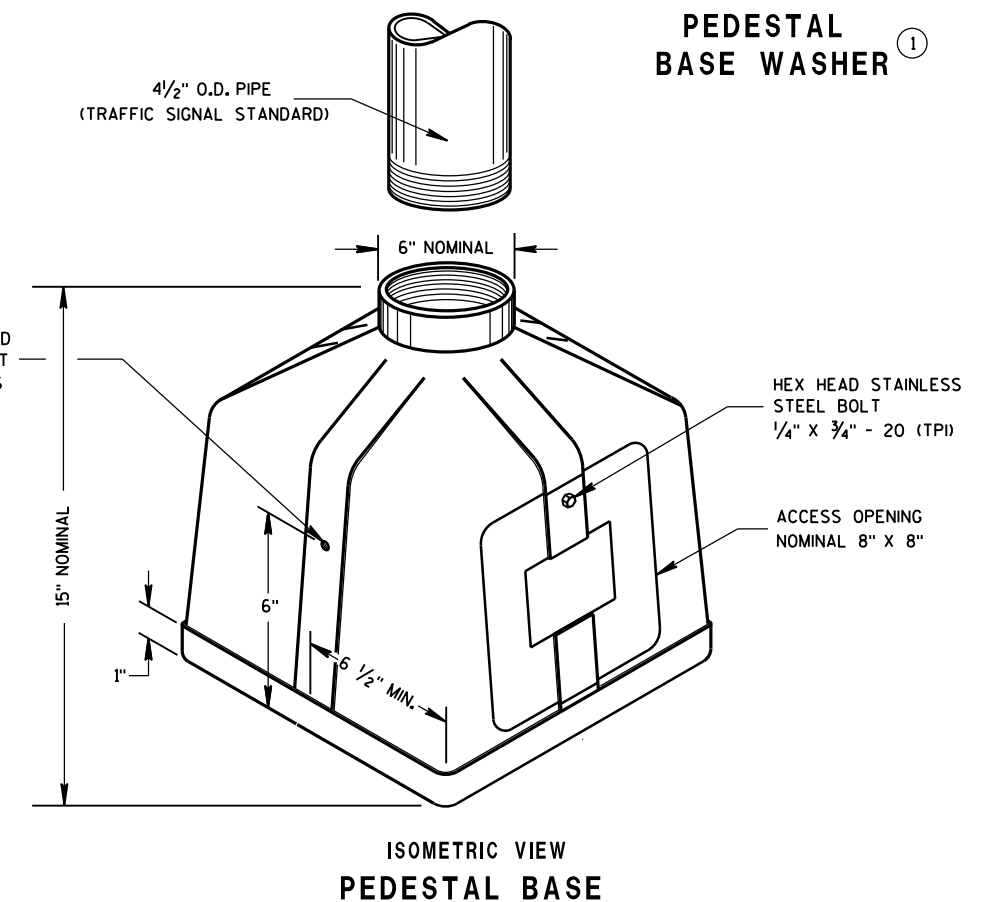
HOLE DRILLED AND TAPPED FOR A 1/4" - 20 (TPI) BOLT FOR GROUNDING PURPOSES (SEE DETAIL)

ACCESS OPENING NOMINAL 11 3/4" X 9 3/4" X 9 1/4"

3" NOMINAL

1 1/2"

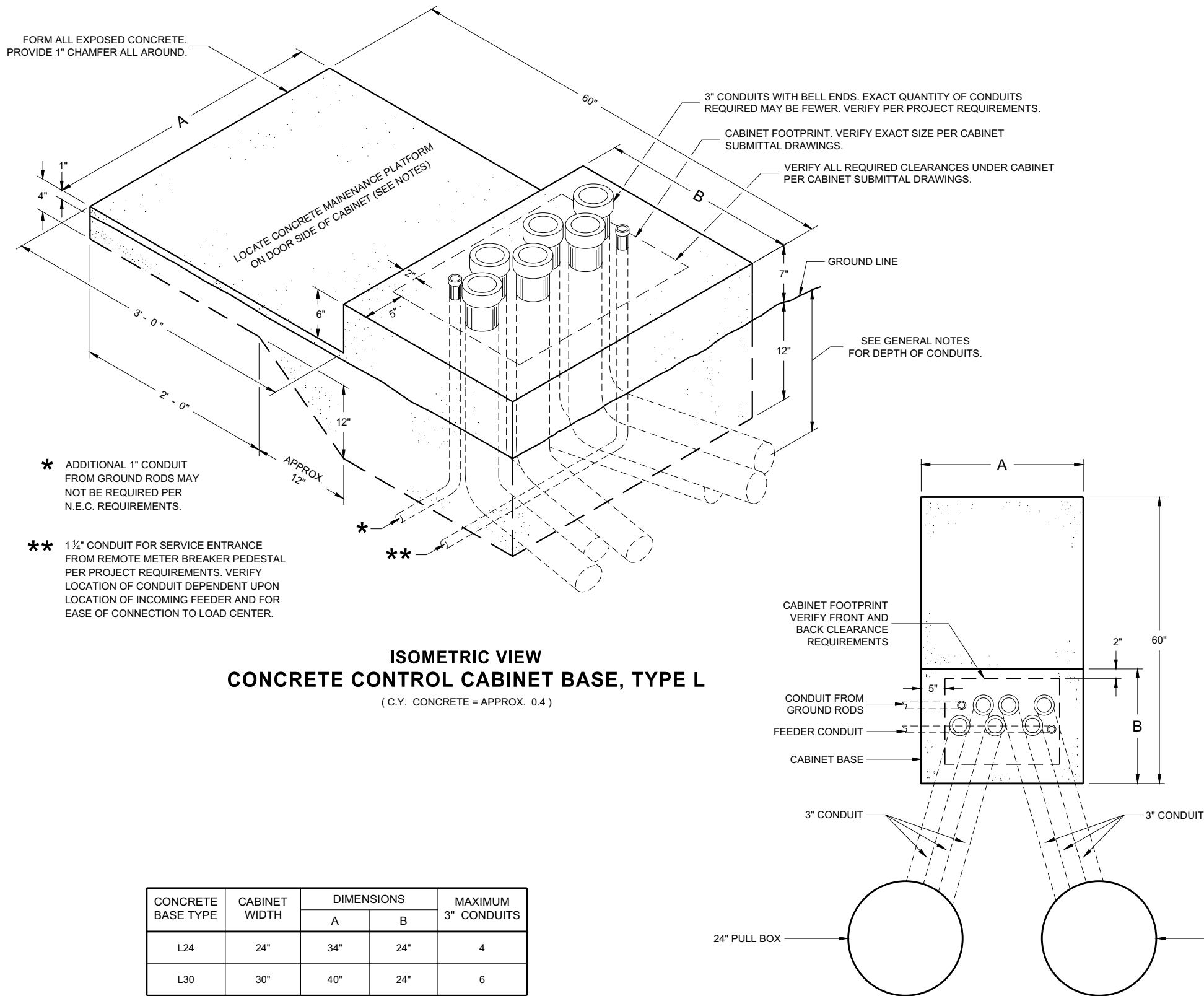
ED AND TAPPED - 20 (TPI) BOLT ENDING PURPOSES



LEVELING SHIM

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 146
FHWA	



GENERAL NOTES

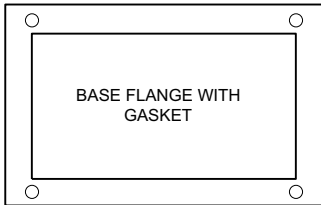
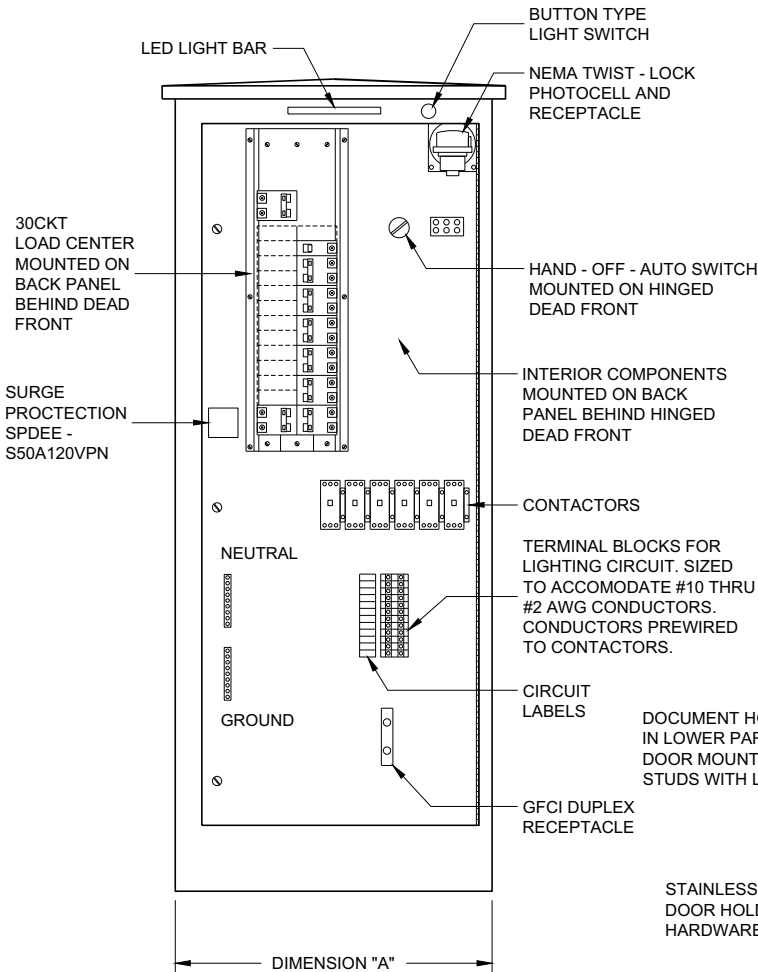
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.
- WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
- CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.
- DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.
- CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.
- MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.
- MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
- MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.
- ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
- CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL
CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 147
FHWA

FRONT INTERIOR
ELEVATION



LIGHTING CONTROL CABINET

SIDE VIEW

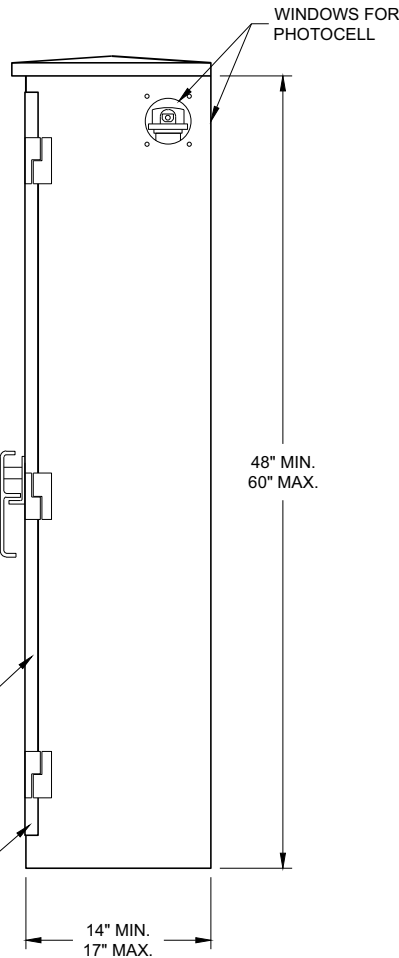
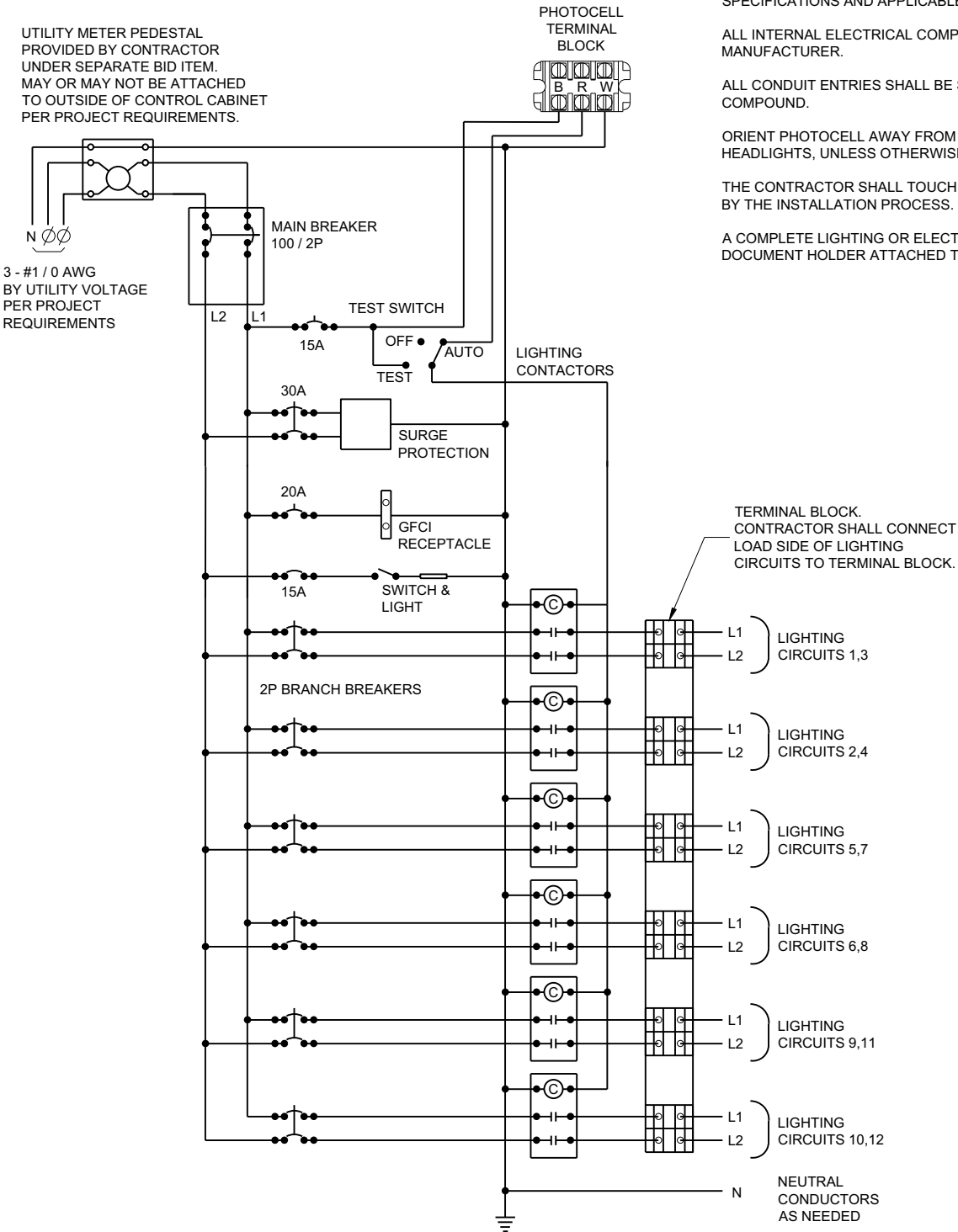


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

UTILITY METER PEDESTAL
PROVIDED BY CONTRACTOR
UNDER SEPARATE BID ITEM.
MAY OR MAY NOT BE ATTACHED
TO OUTSIDE OF CONTROL CABINET
PER PROJECT REQUIREMENTS.



CONTROL CABINET SCHEMATIC

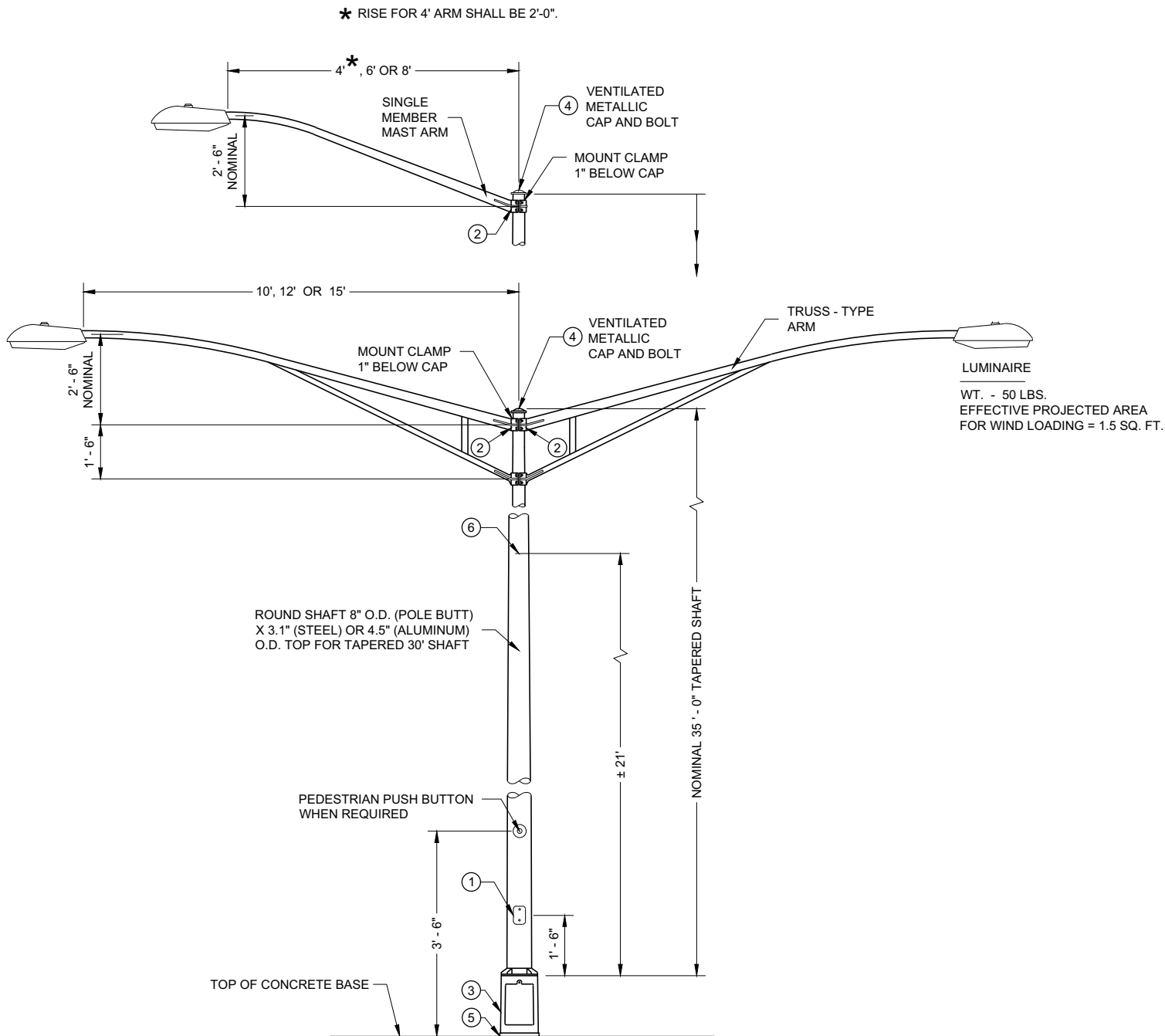
GENERAL NOTES

- 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.
- ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINET MANUFACTURER.
- ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.
- ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.
- THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.
- A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET
120 / 240 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 148
FHWA



**TYPE 6 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY**

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVEING INSIDE THE POLE IS NOT ACCEPTABLE.

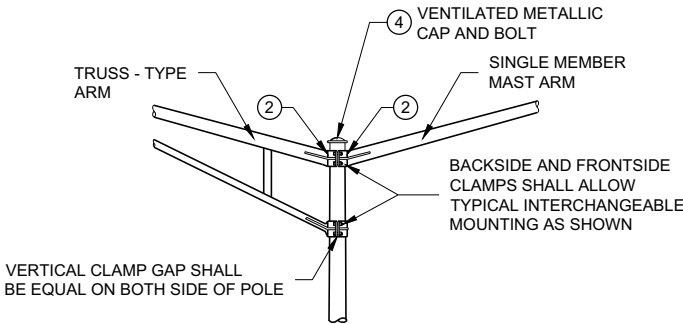
TYPE 6 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

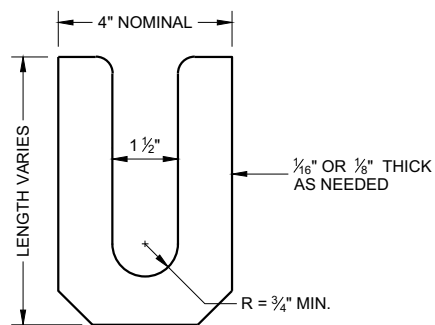
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 3/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 3/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑥ INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



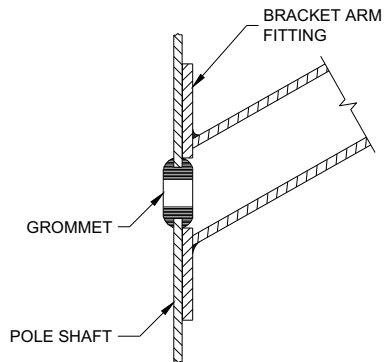
INTERCHANGEABLE MOUNTING DETAIL

**POLE MOUNTINGS FOR
LIGHTING UNITS, TYPE 6
(35 FEET)**

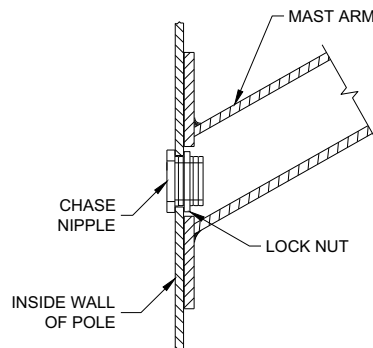
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 149



LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



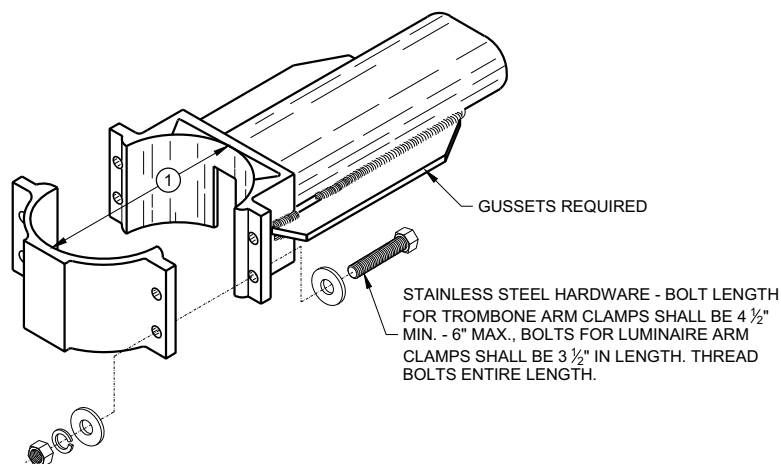
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

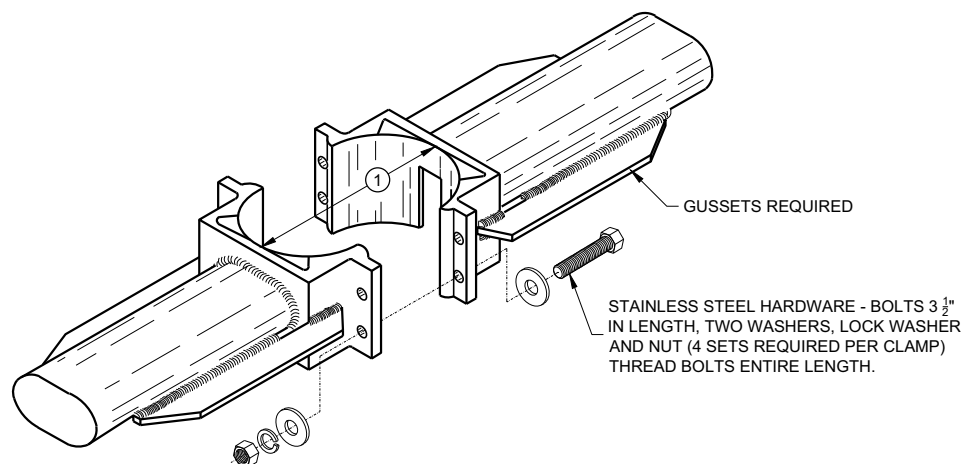
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- ① 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- ② INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- ③ BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- ④ LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

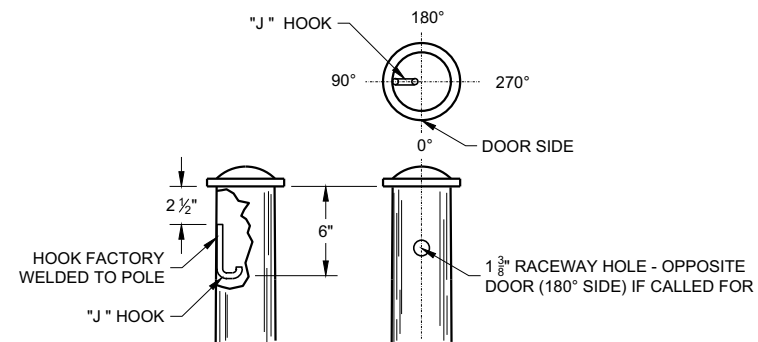
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



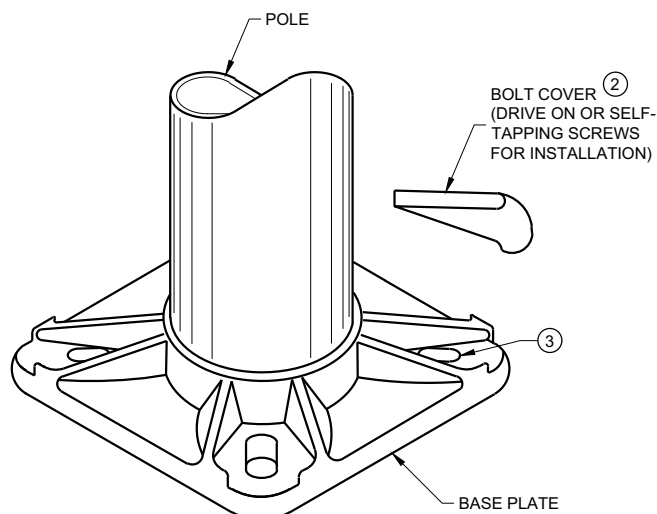
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



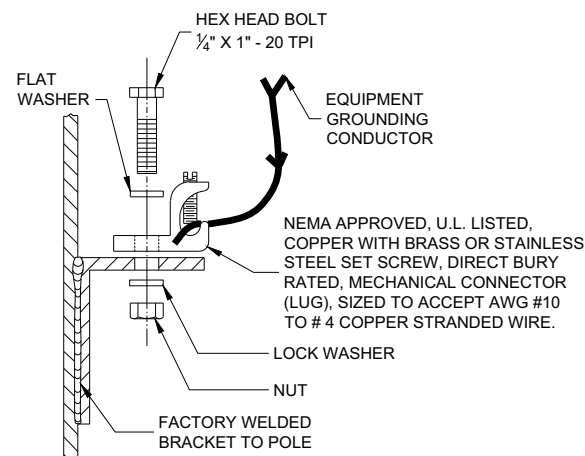
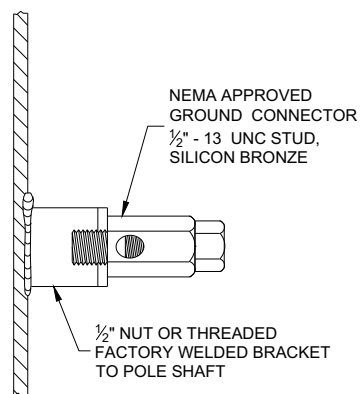
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



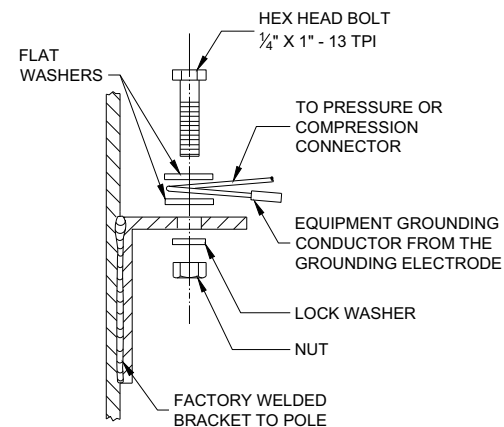
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

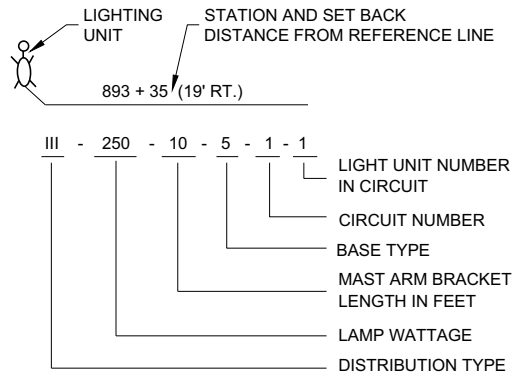
APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 150
FHWA

GENERAL NOTES

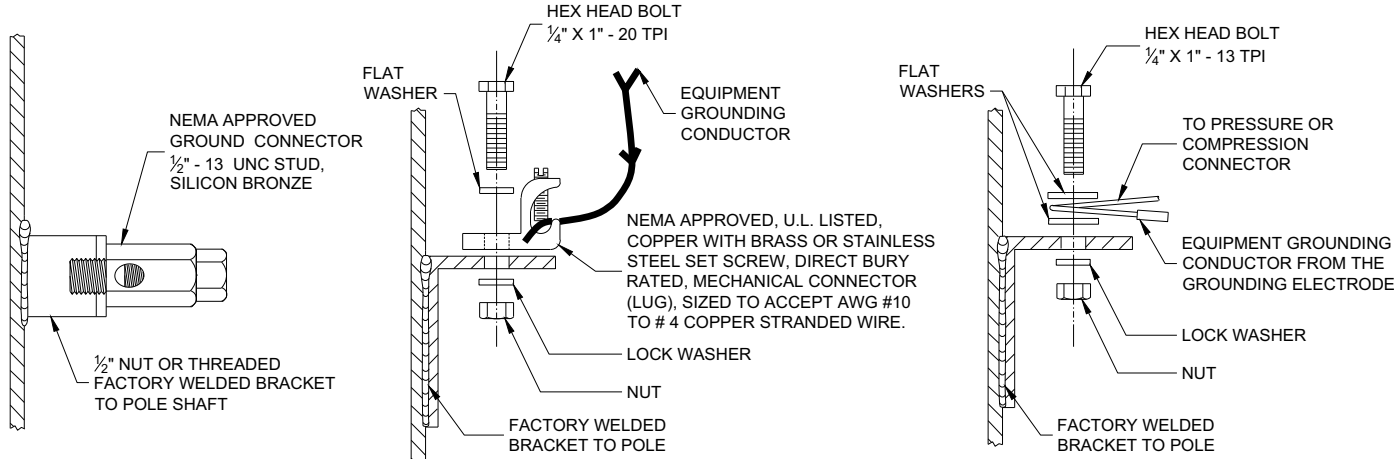
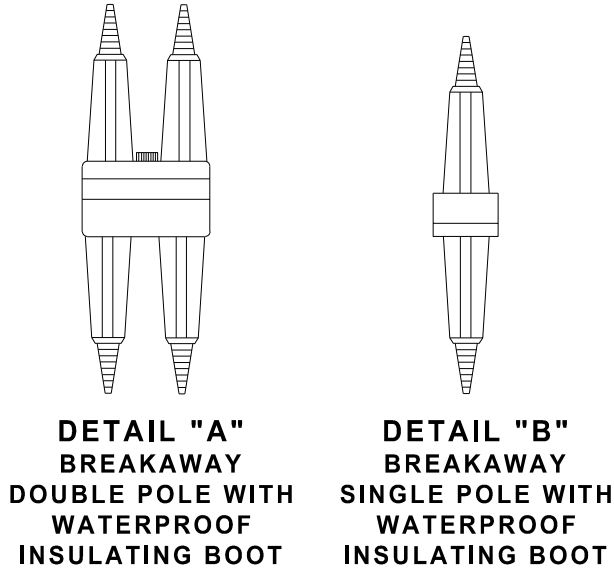
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

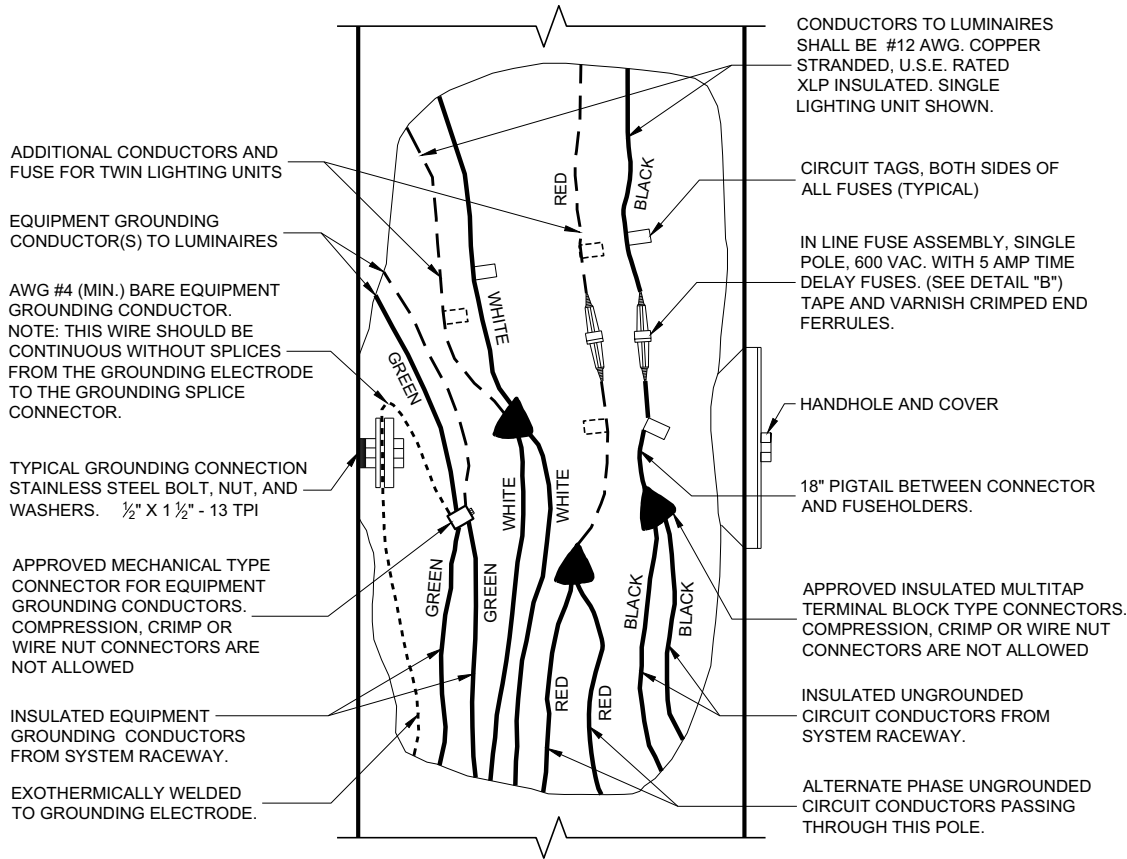


LIGHTING UNIT CODE
(TYPICAL)



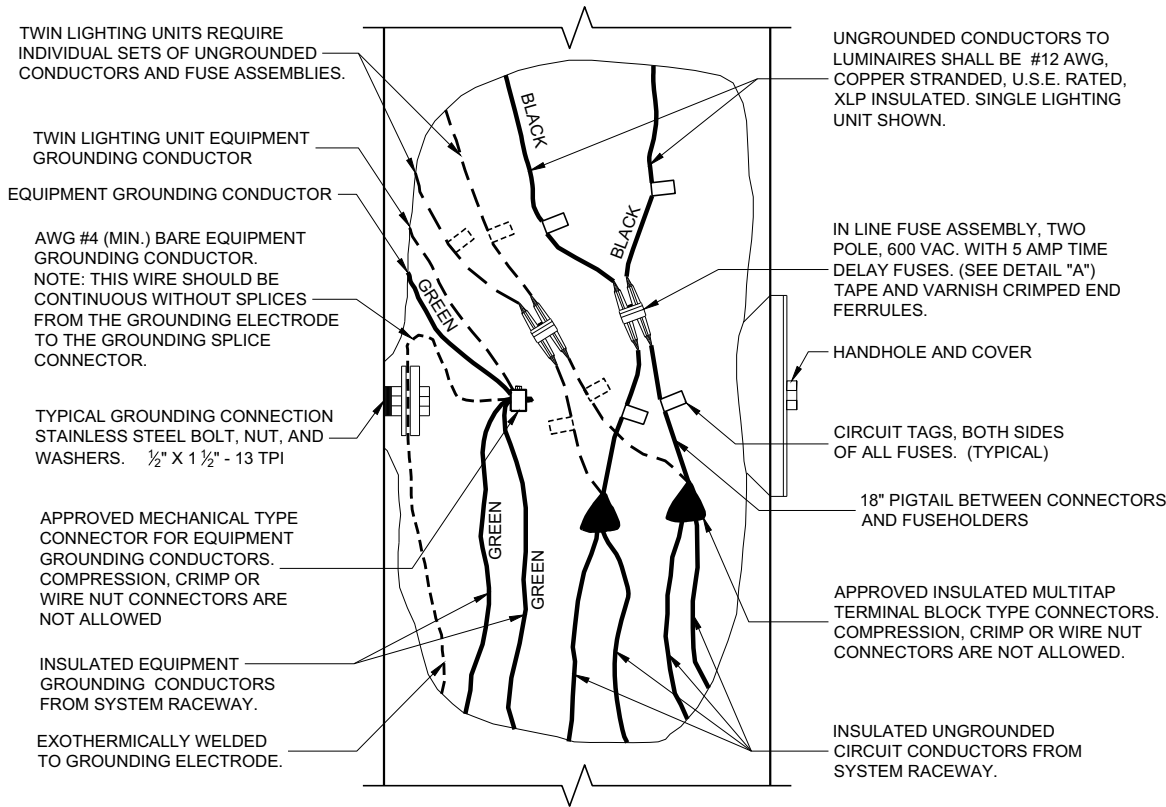
TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

6



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR

6



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT
POLE WIRING

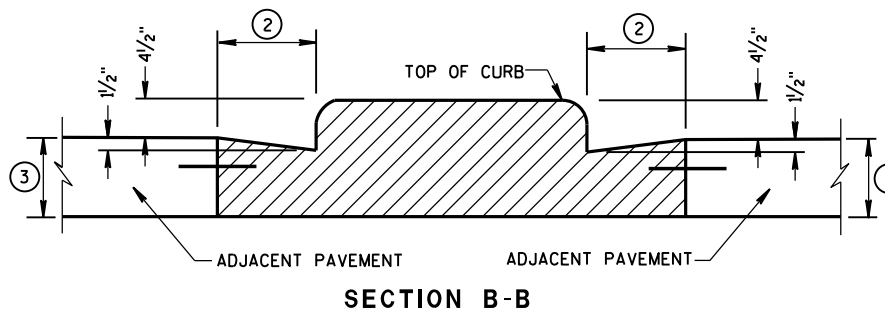
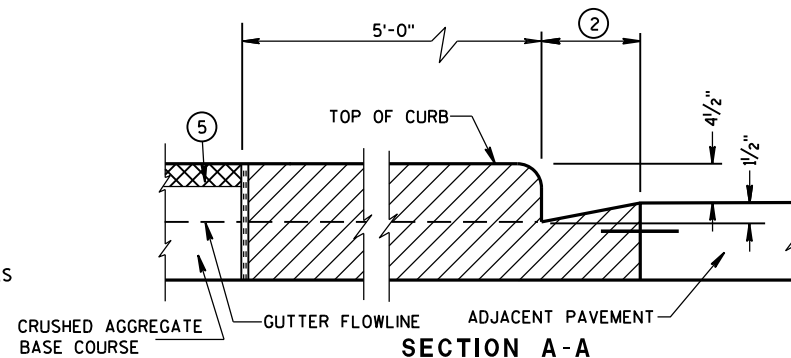
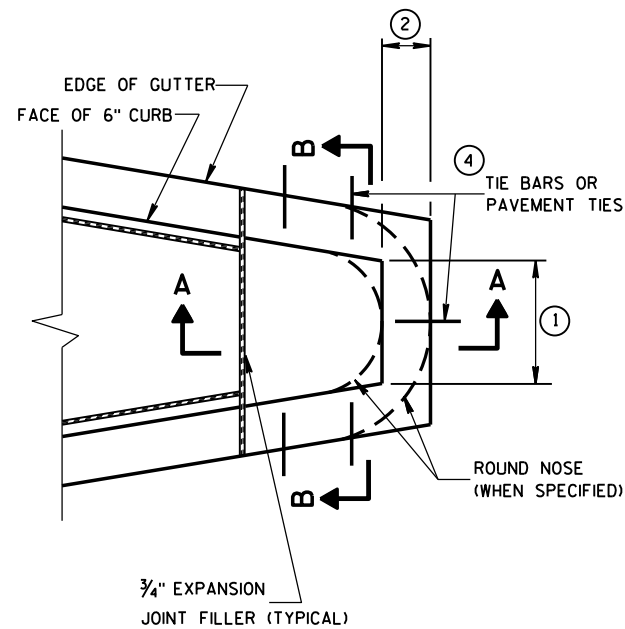
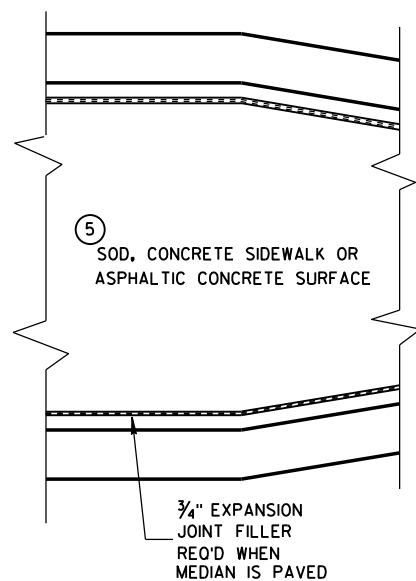
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGI 151

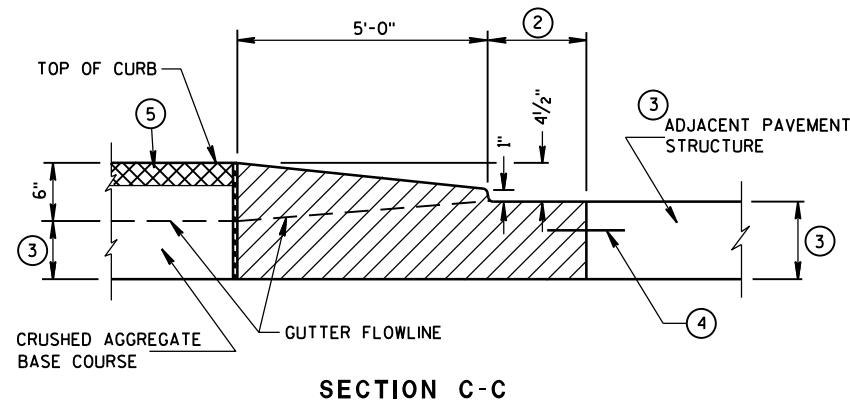
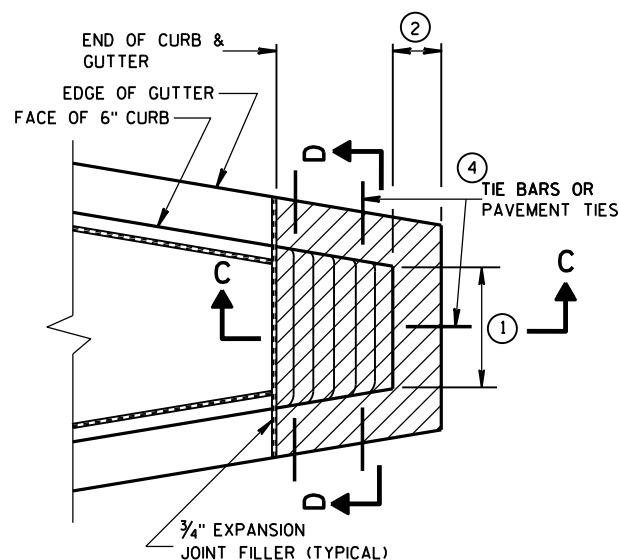
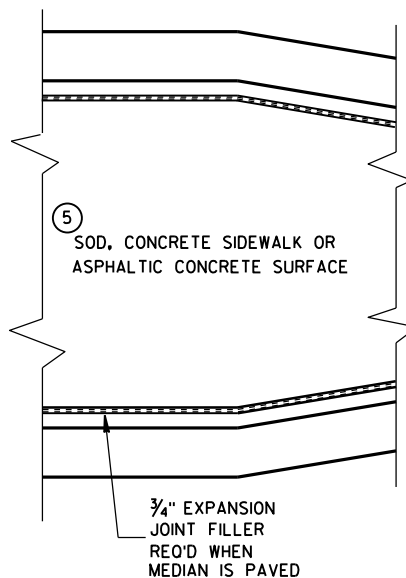
FHWA

SDD 09E03 - 06

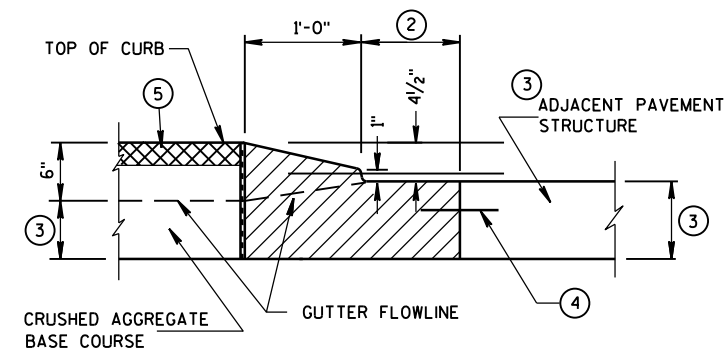
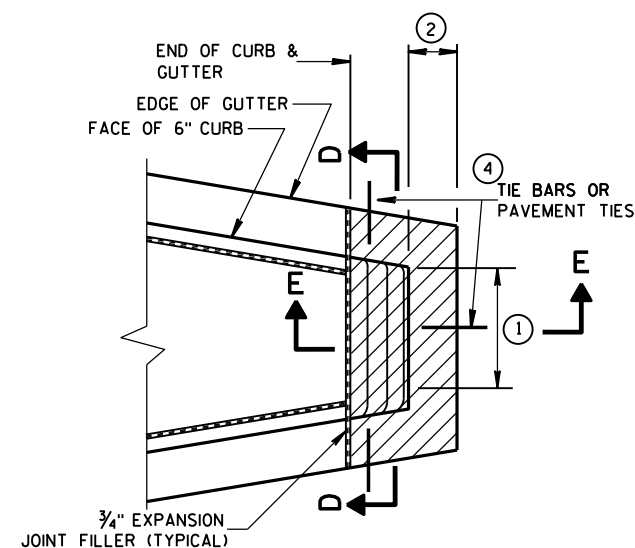
SDD 09E03 - 06



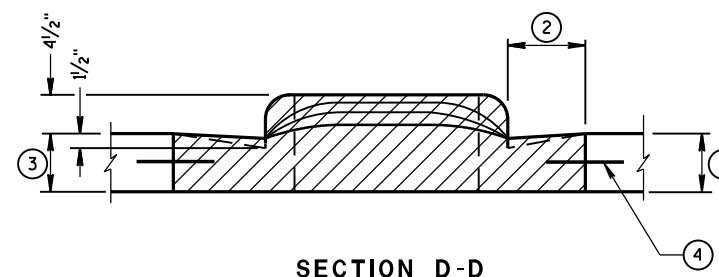
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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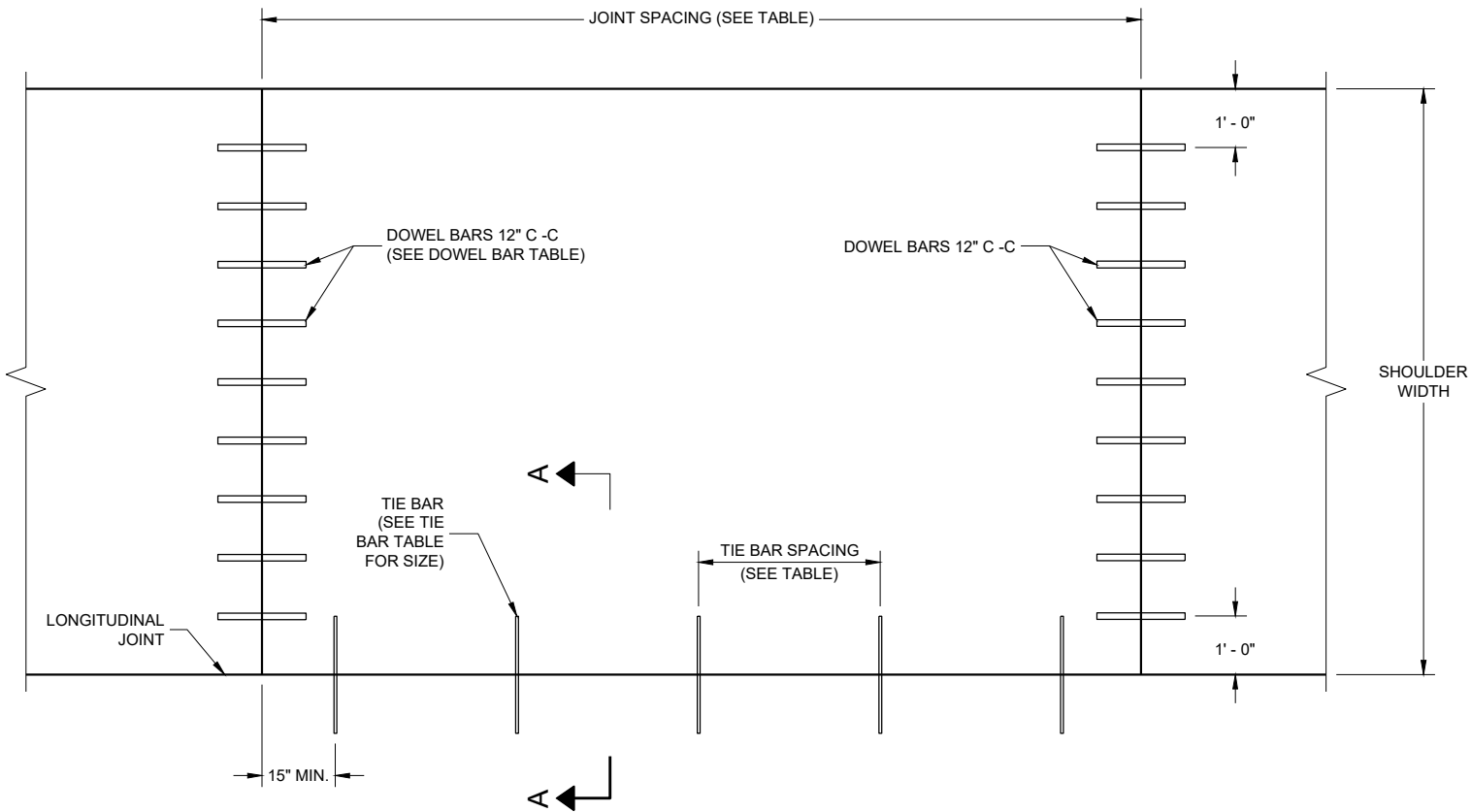
6/8/2006

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS & 152
ENGINEER

4T



PLAN VIEW
CONCRETE PAVEMENT SHOULDER

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 1/2"	NO. 4	30"	36"
>10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BATS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES).

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER ***	CONTRACTION JOINT SPACING
6", 6 1/2"	NONE	12"
7", 7 1/2"	1"	14"
8" & ABOVE	1 1/4"	15"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

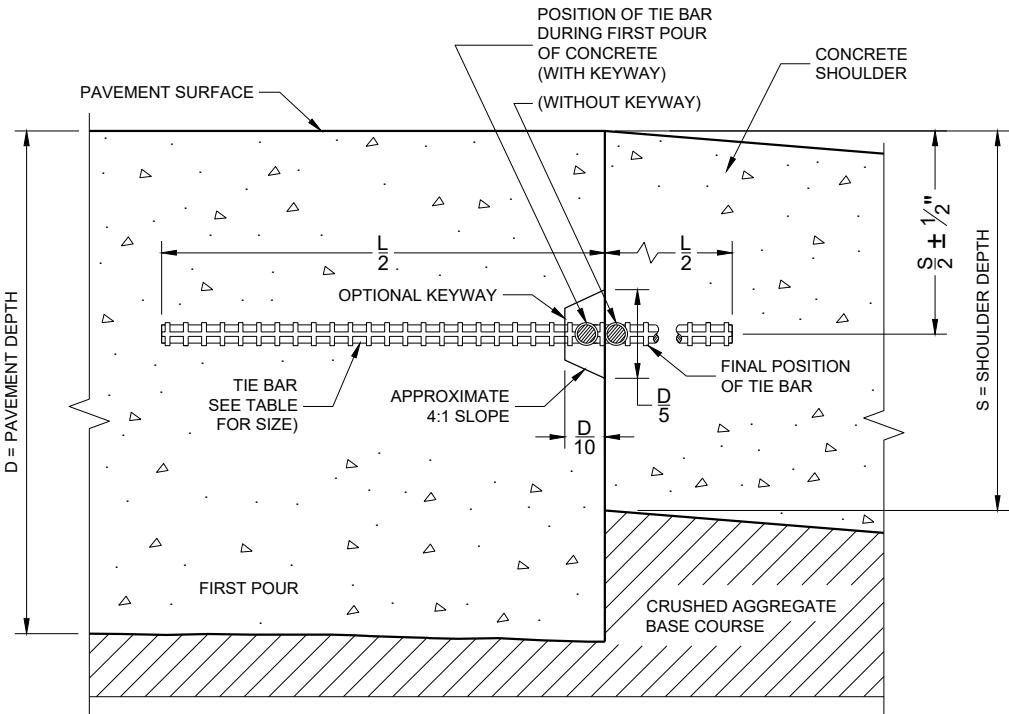
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

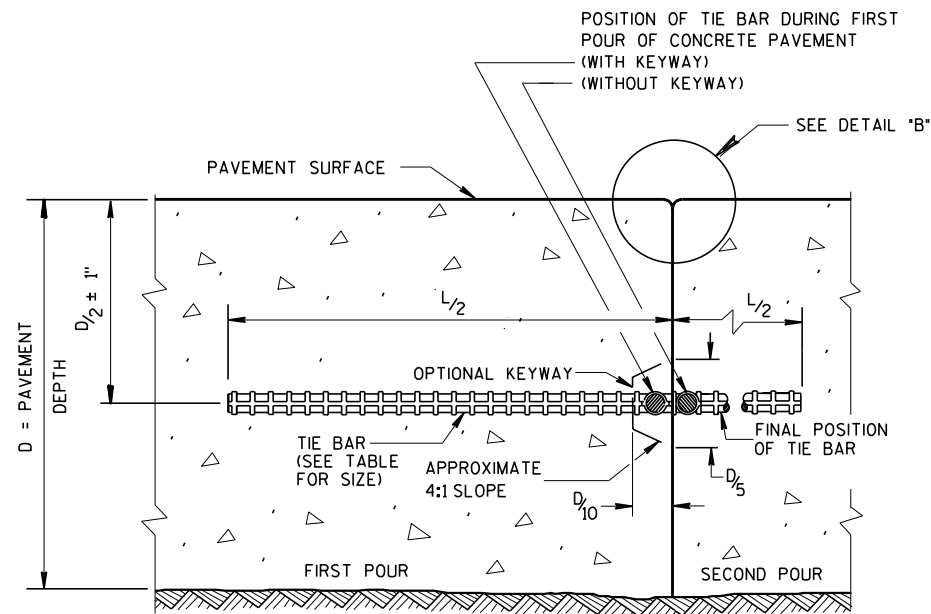


SECTION A - A
LONGITUDINAL CONSTRUCTION JOINT

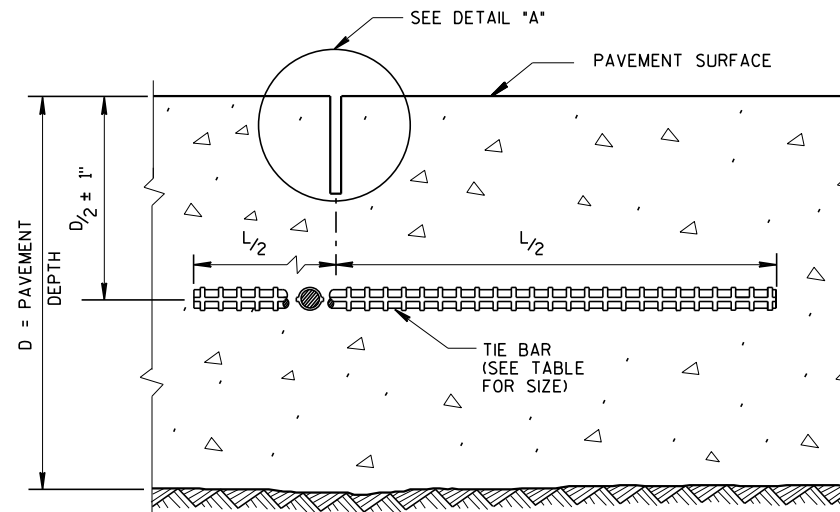
CONCRETE PAVEMENT
SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2022 /S/ Peter Kemp
DATE PAVEMENT SUPERVISOR 153
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CONSTRUCTION JOINT



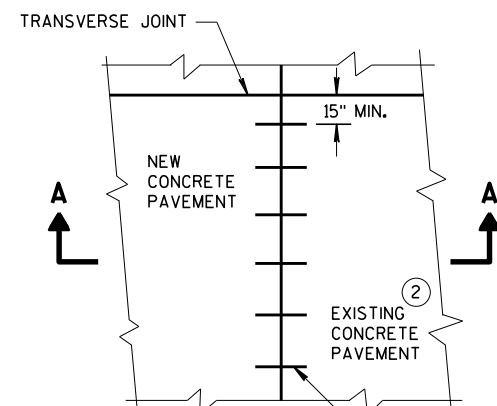
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

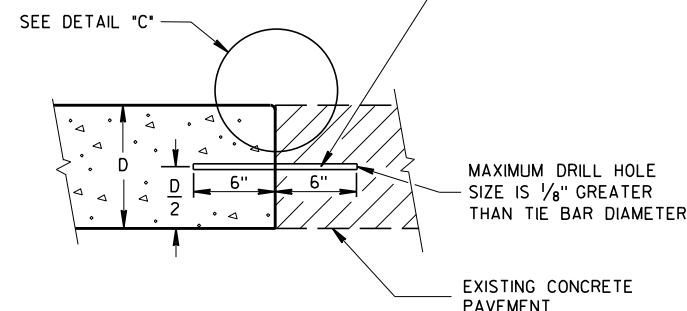
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

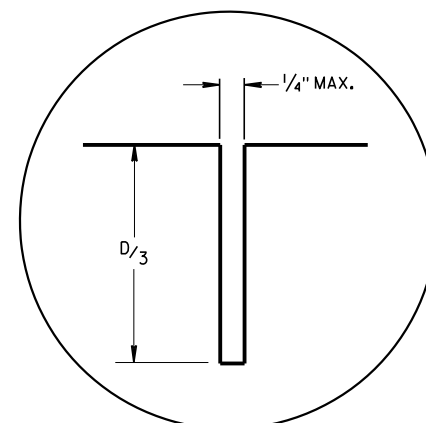


PLAN VIEW

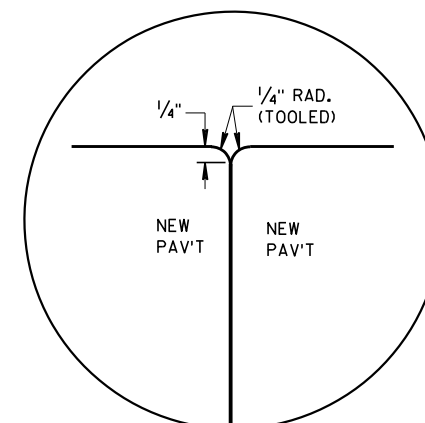
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



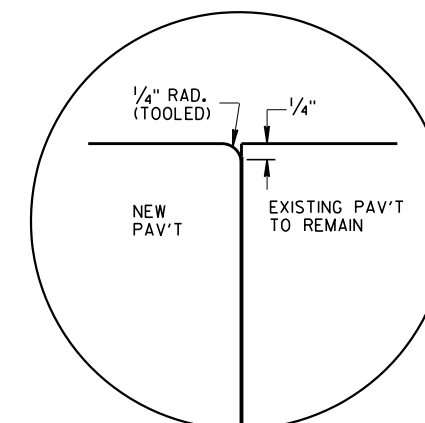
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



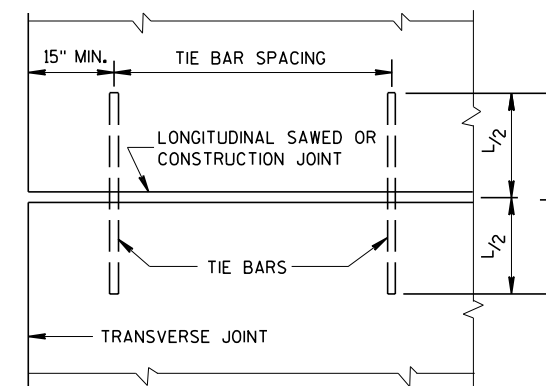
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

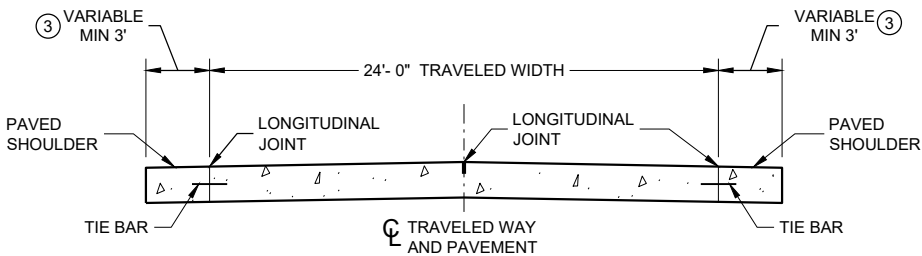


PLAN VIEW
SHOWING LOCATION OF TIE BARS

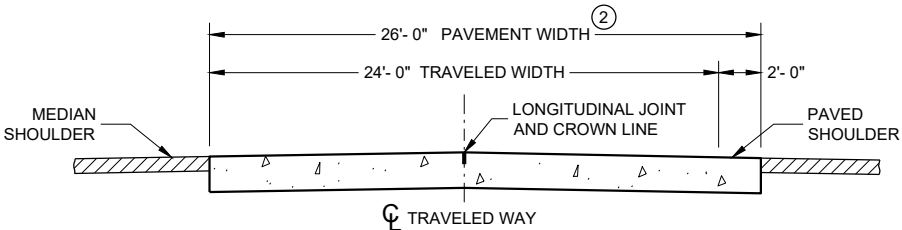
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

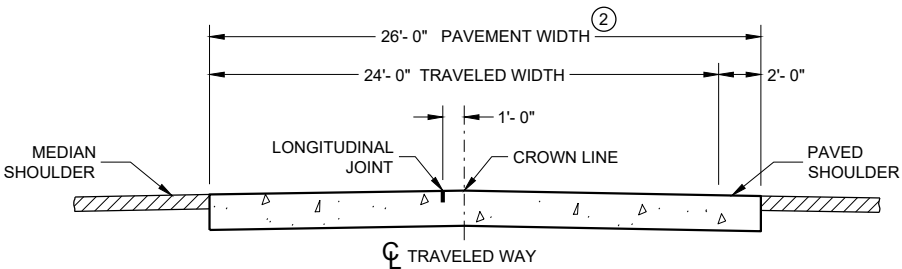
APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 154
FHWA



SECTION A - A
TWO-LANE TWO-WAY HIGHWAY ①



SECTION B - B



ALTERNATIVE SECTION B - B
DIVIDED HIGHWAY ①

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

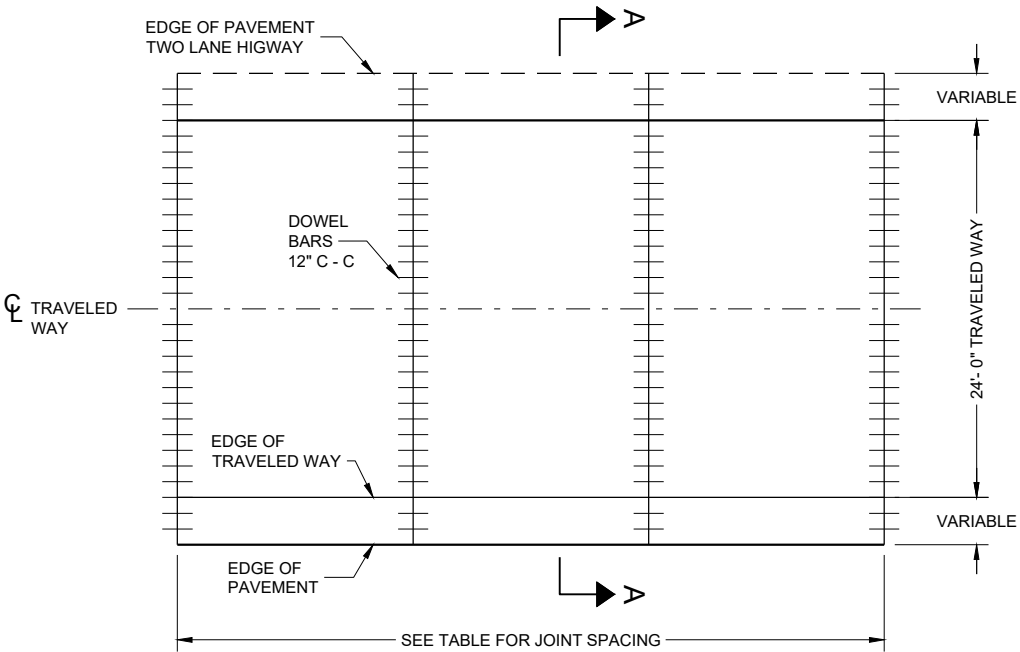
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

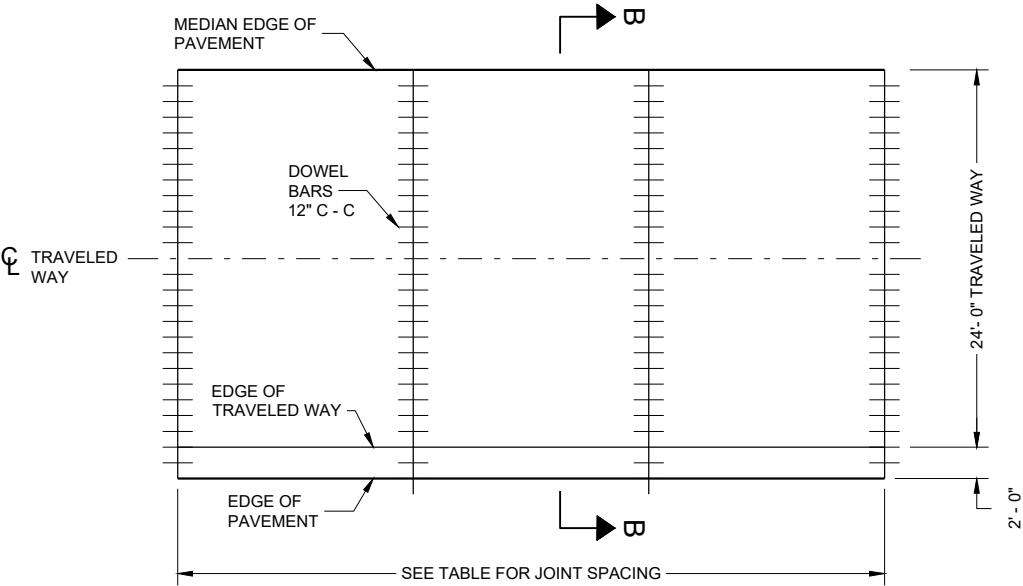
- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.
- ③ SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



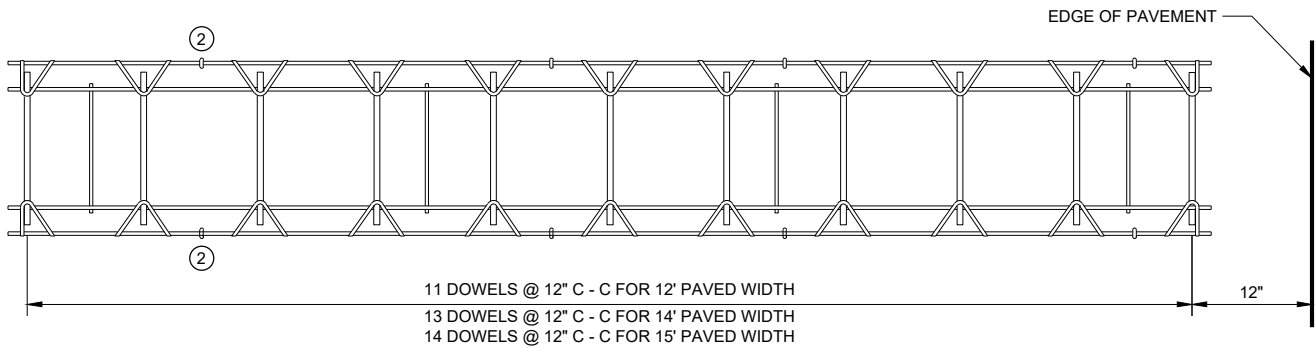
CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



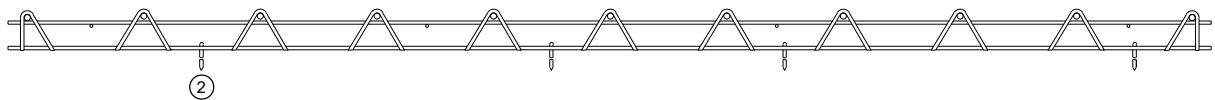
CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

**RURAL DOWELED
CONCRETE PAVEMENT**

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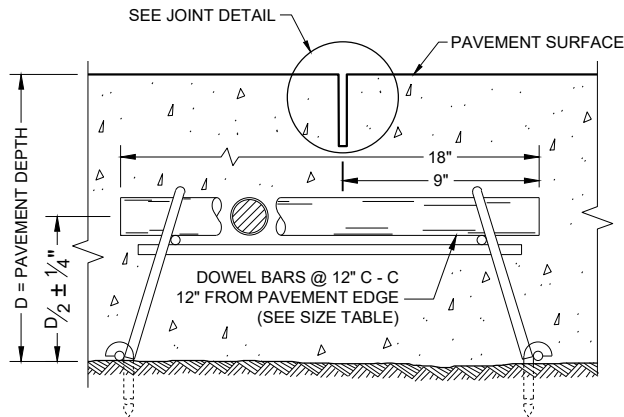


PLAN VIEW

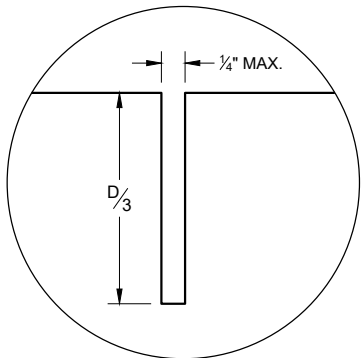


SIDE VIEW
(NORMAL TO CENTERLINE)

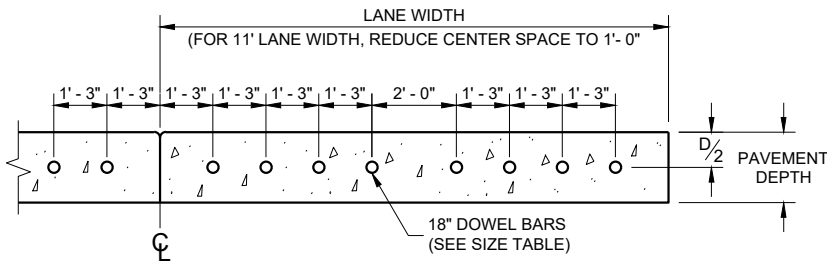
CONTRACTION JOINT DOWEL ASSEMBLY ①



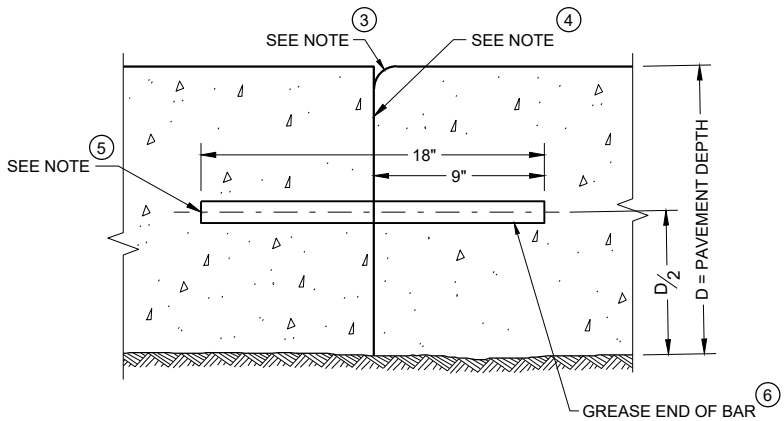
DOWELED CONTRACTION JOINT



JOINT DETAIL



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

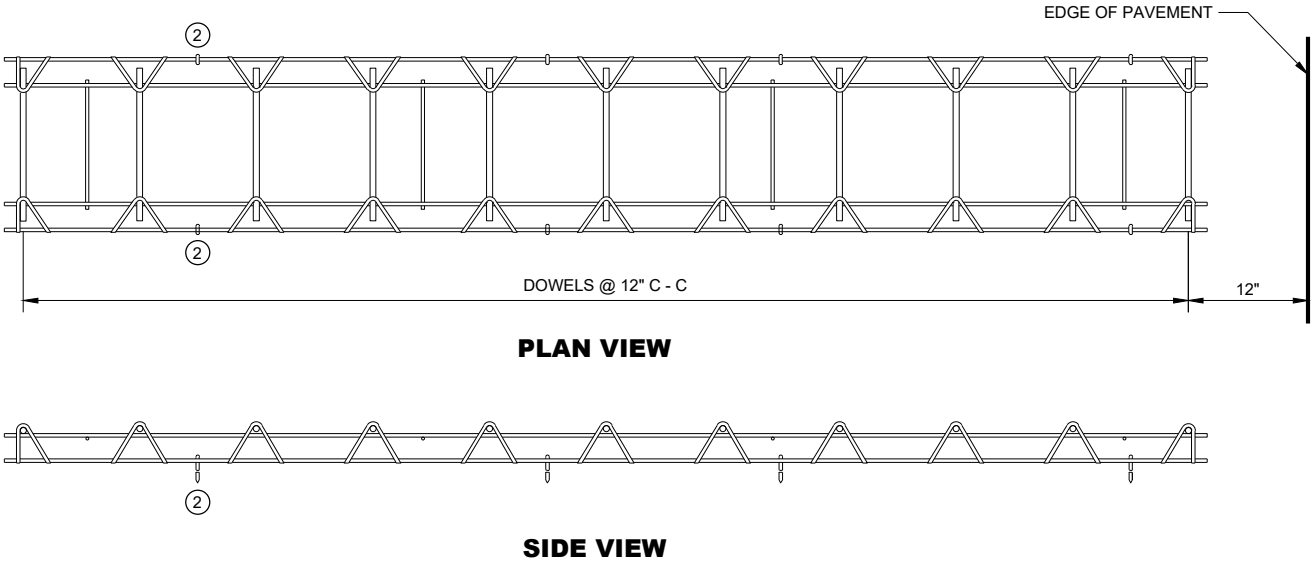
- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A $1/4"$ RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS $1/8"$ GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

RURAL DOWELED
CONCRETE PAVEMENT

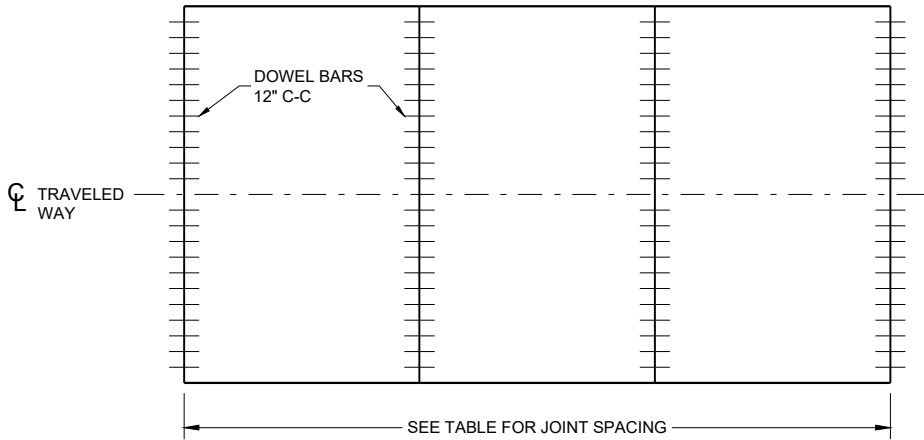
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 156

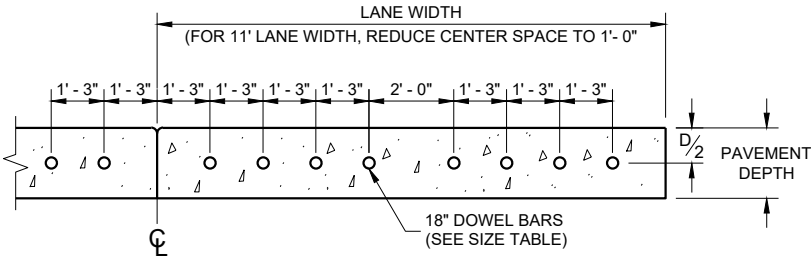
FHWA



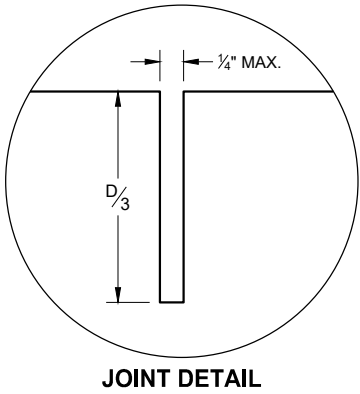
CONTRACTION JOINT DOWEL ASSEMBLY ①



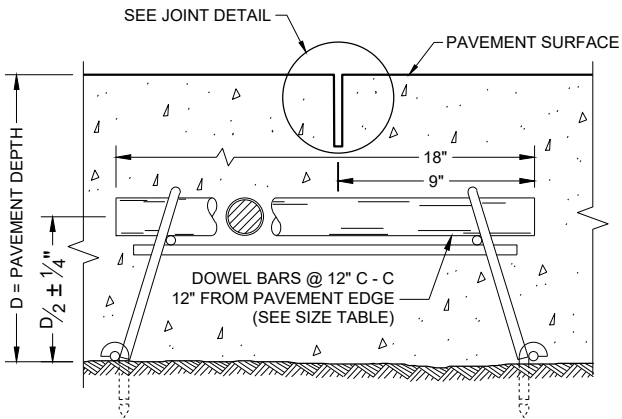
CONTRACTION JOINT LOCATIONS



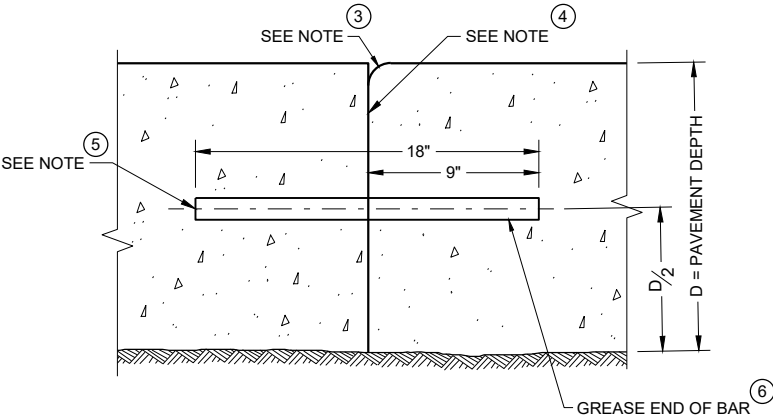
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A $1/4"$ RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS $1/8"$ GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

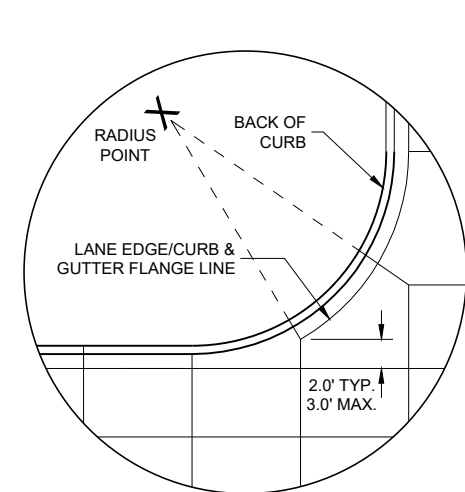
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8" & ABOVE	1 1/4"	15'

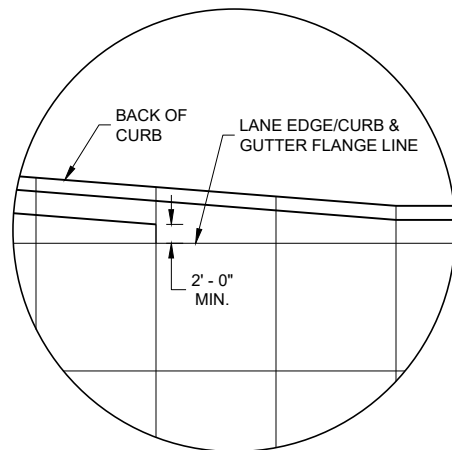
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

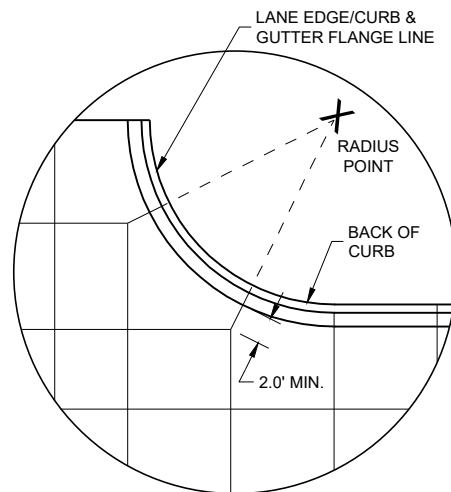
APPROVED
November 2022 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 157
FHWA



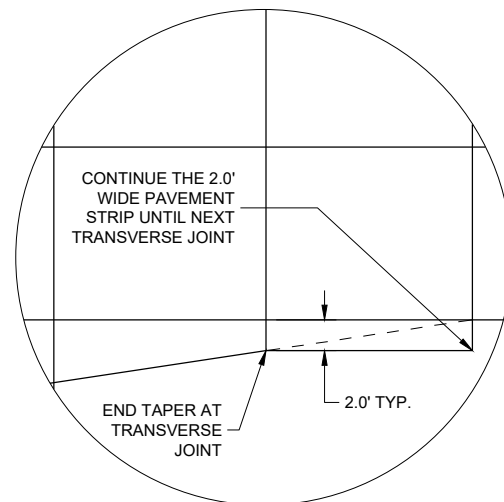
DETAIL "A"



DETAIL "B"



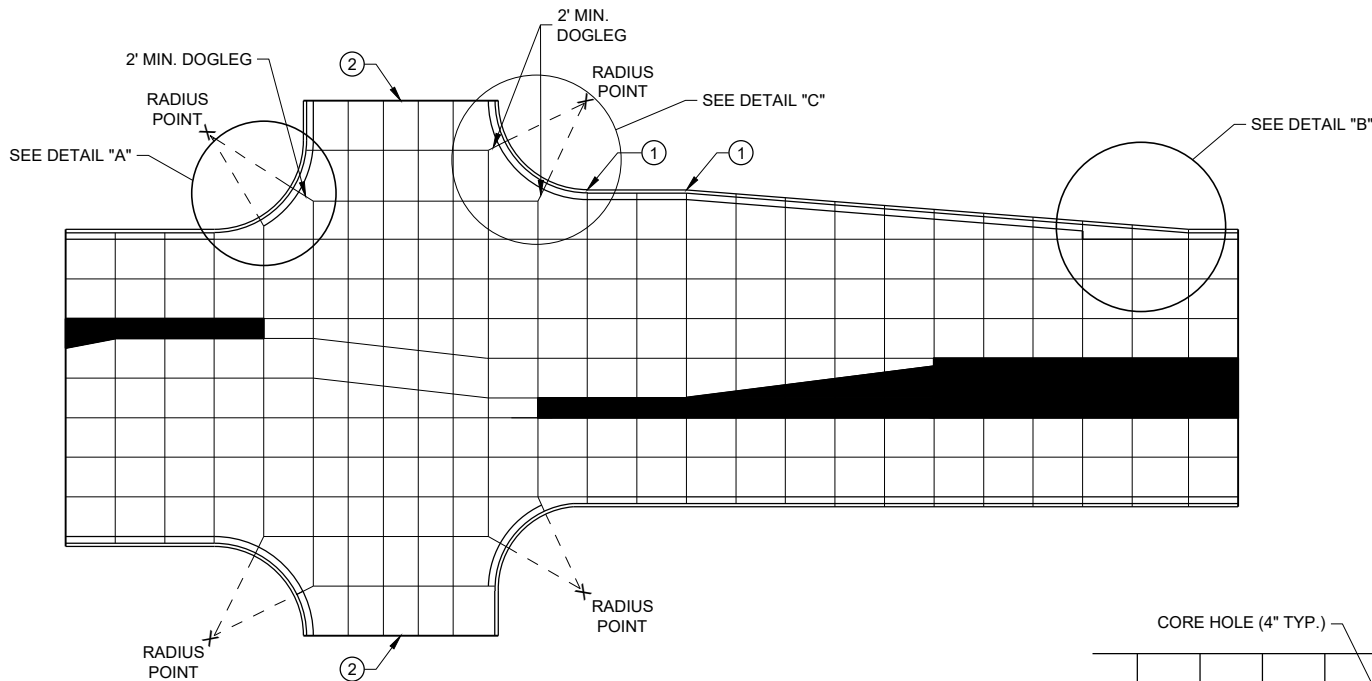
DETAIL "C"



DETAIL "D"

GENERAL NOTES

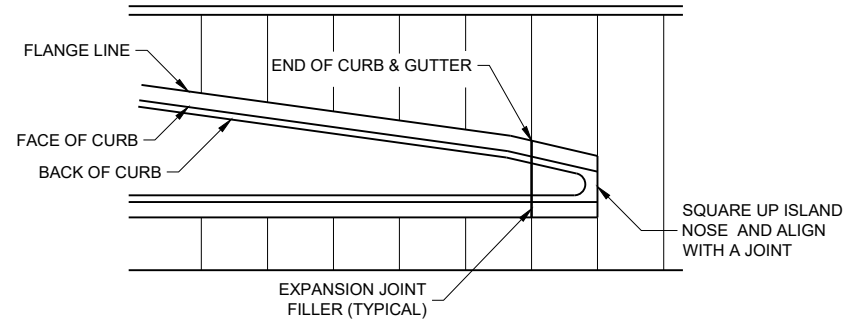
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- 1 PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
 - 2 CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
 - 3 THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



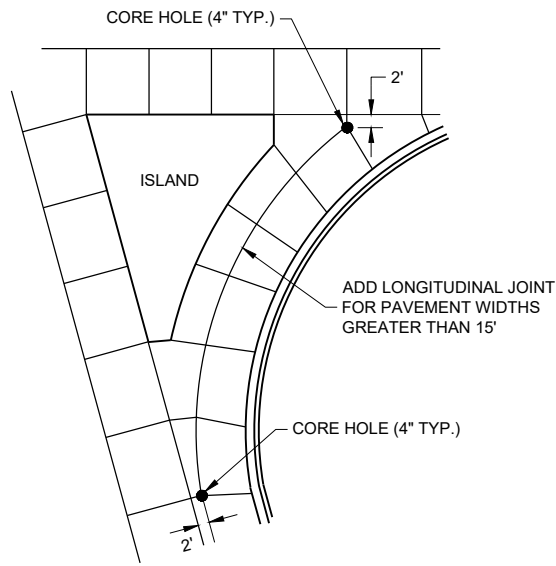
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

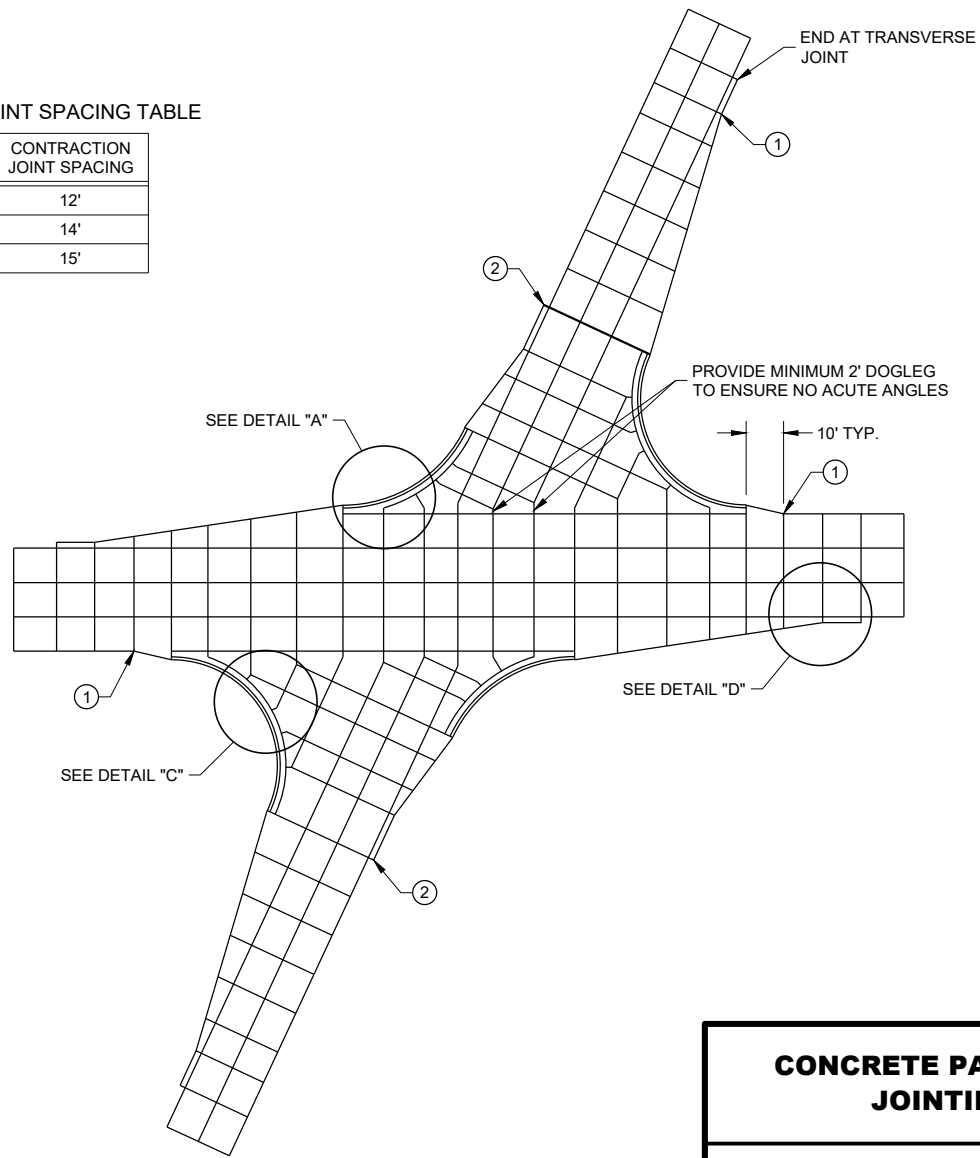
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



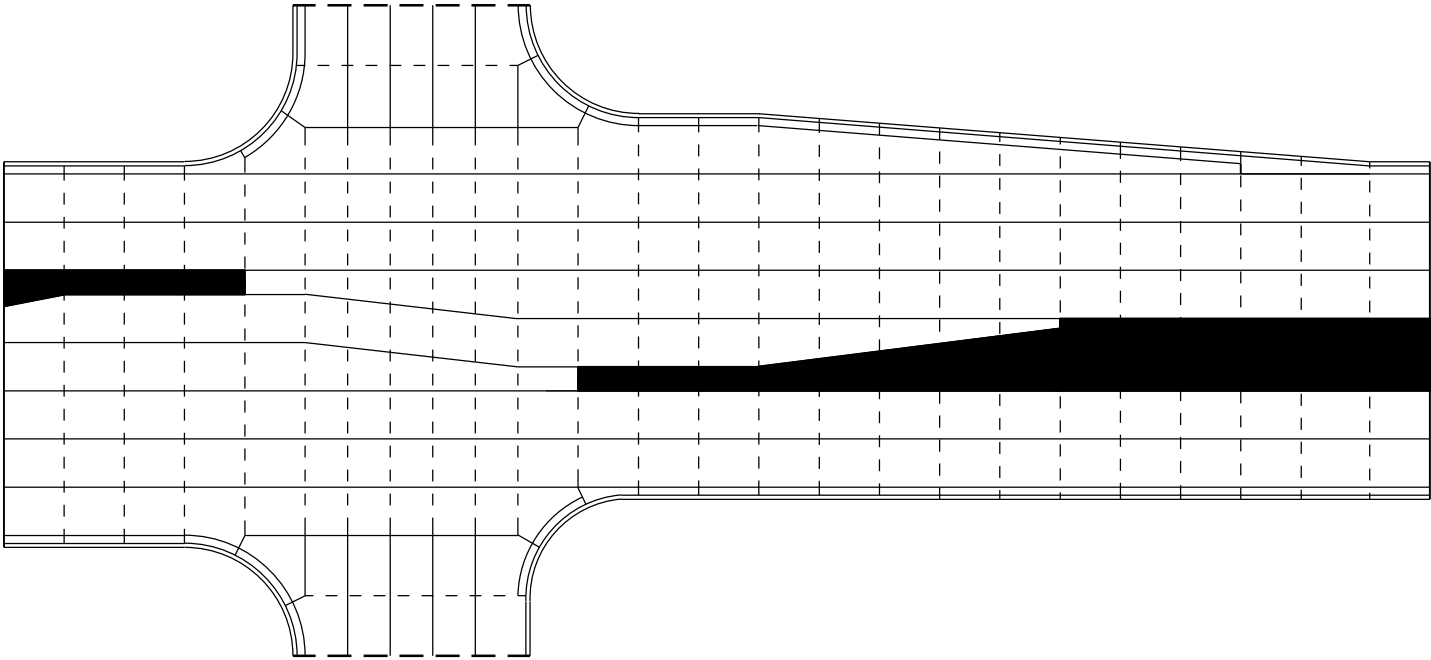
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

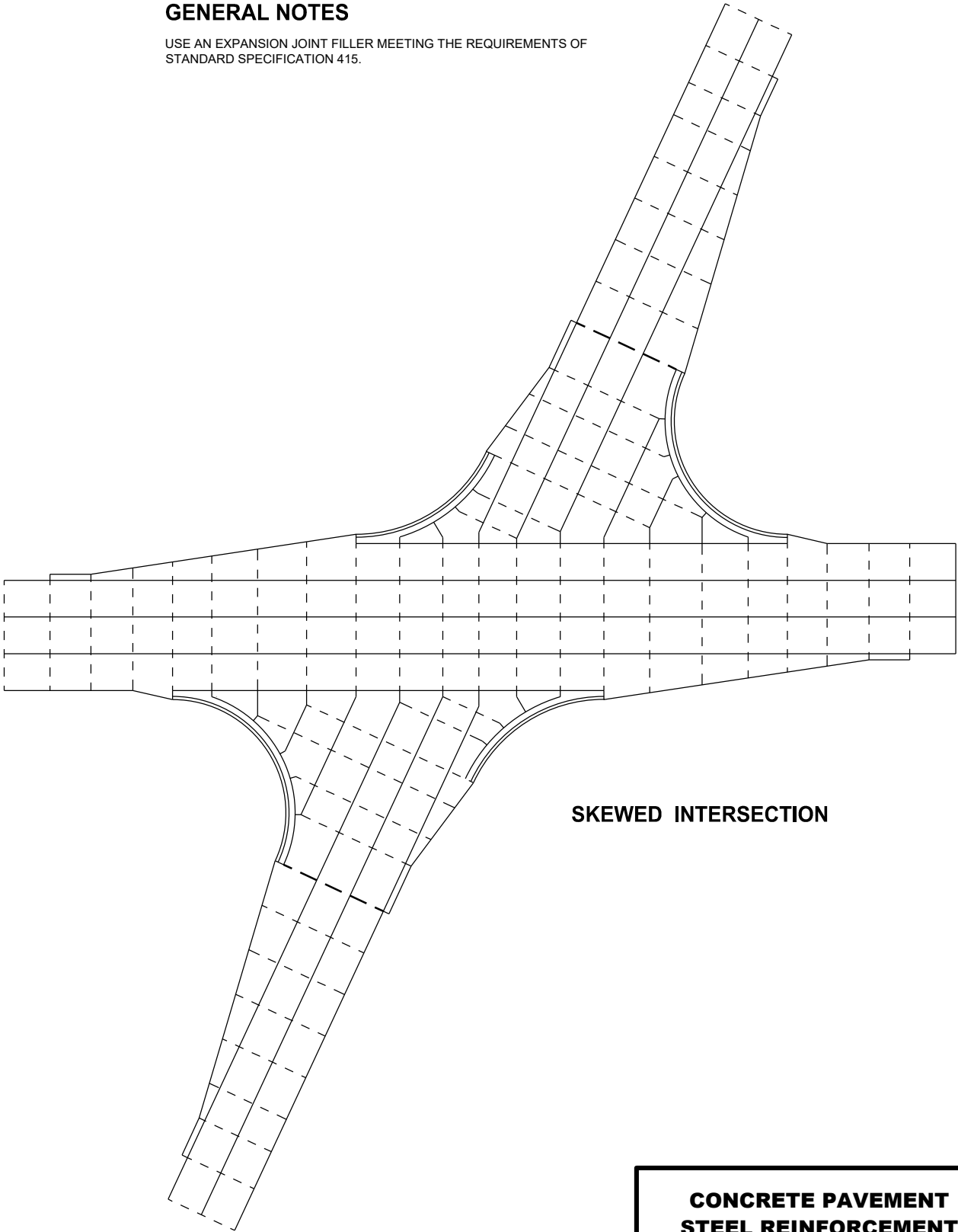
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

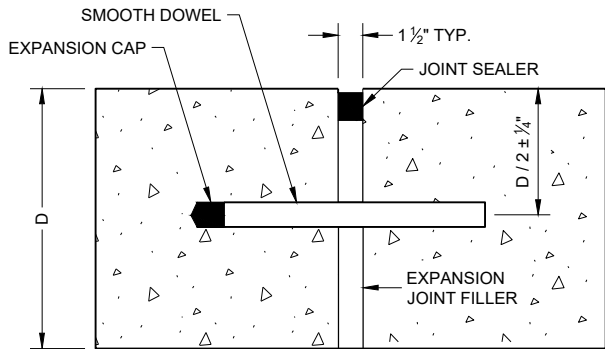
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



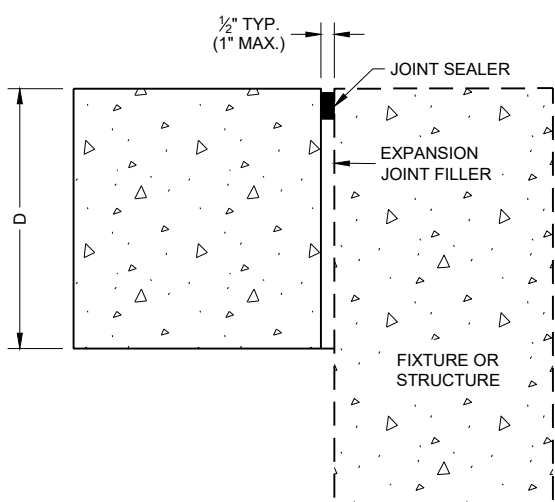
SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

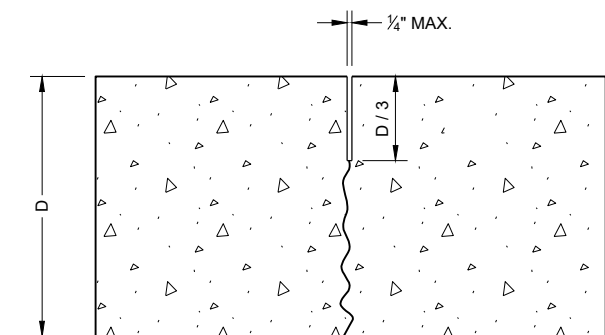


DOWELED TRANSVERSE ①

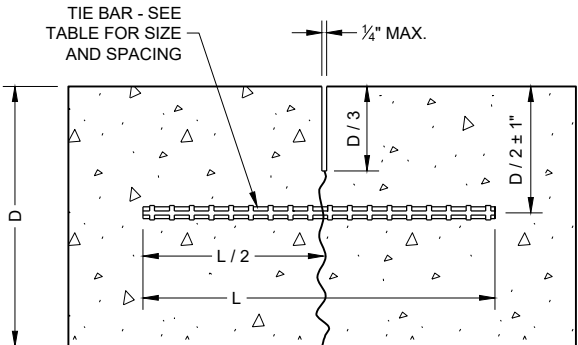


UNTIED - LONGITUDINAL

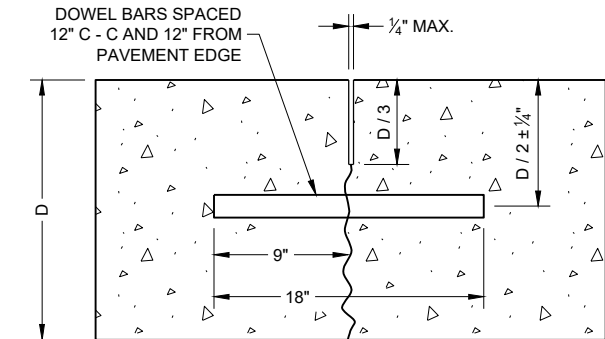
EXPANSION JOINTS



UNDOWELED TRANSVERSE



TIED LONGITUDINAL



DOWELED TRANSVERSE

CONTRACTION JOINTS ②

TIE BAR TABLE

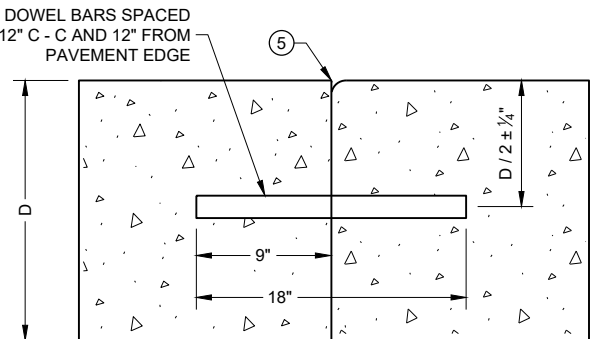
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

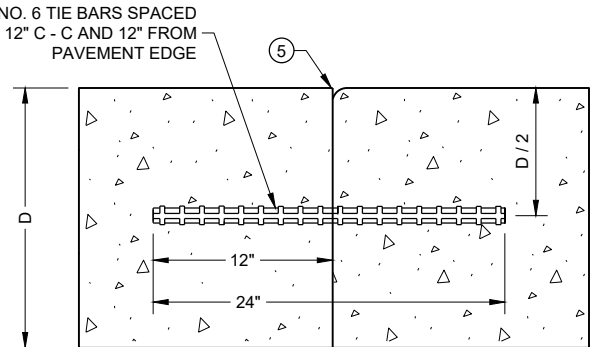
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

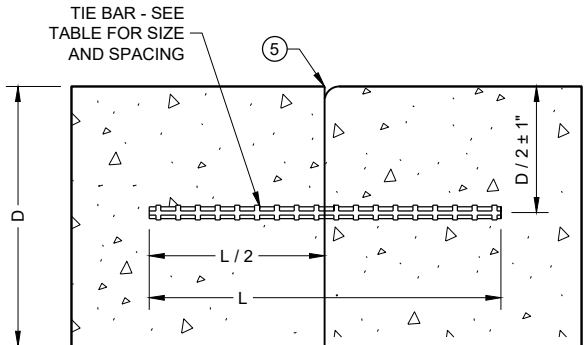
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



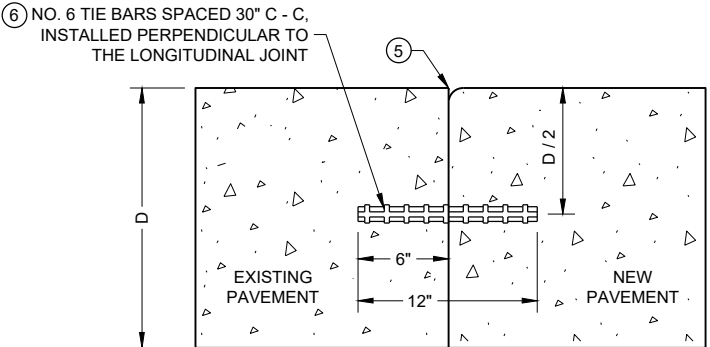
DOWELED TRANSVERSE ③



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL

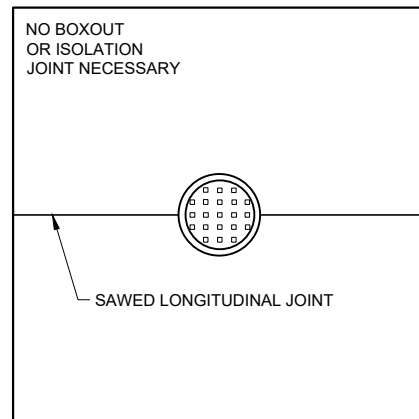


TIED LONGITUDINAL TO EXISTING

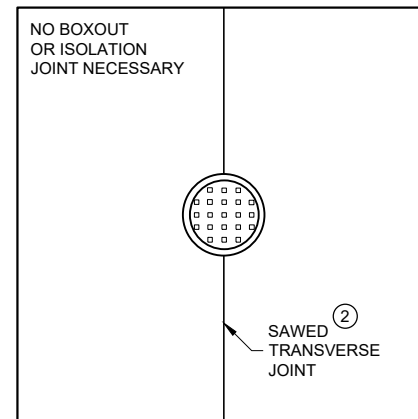
CONSTRUCTION JOINTS ④

**CONCRETE PAVEMENT
JOINT TYPES**

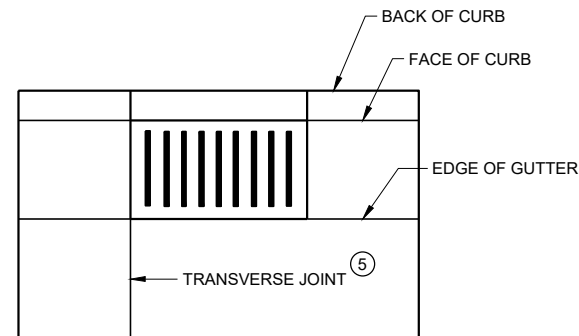
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 160



MANHOLE WITH
LONGITUDINAL JOINT



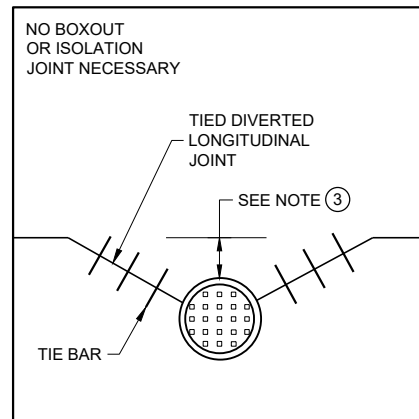
MANHOLE WITH
TRANSVERSE JOINT



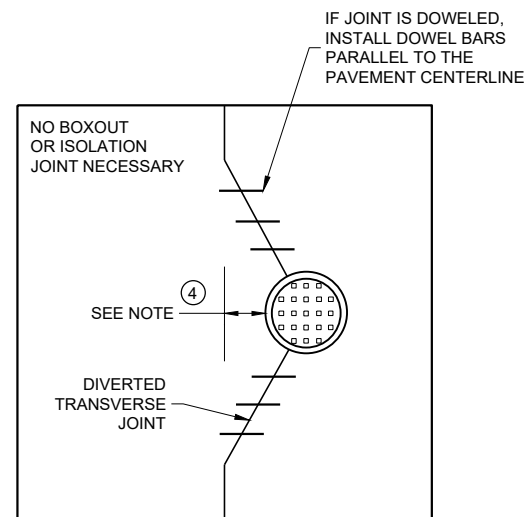
INLET WITH
TRANSVERSE JOINT

GENERAL NOTES

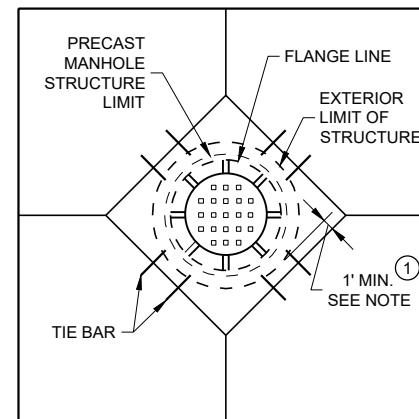
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT



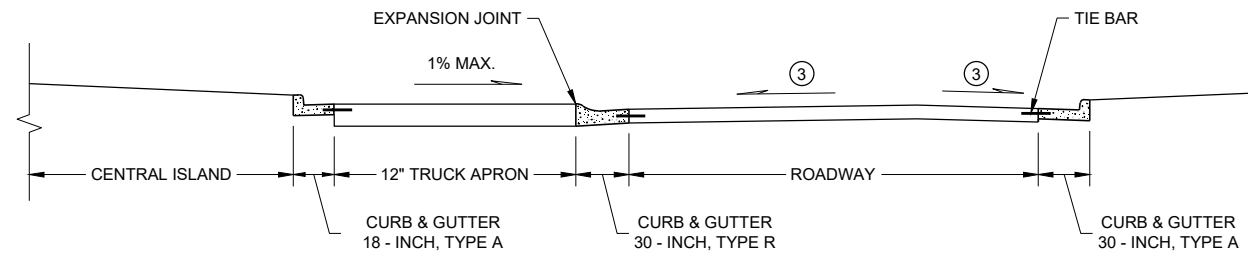
DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

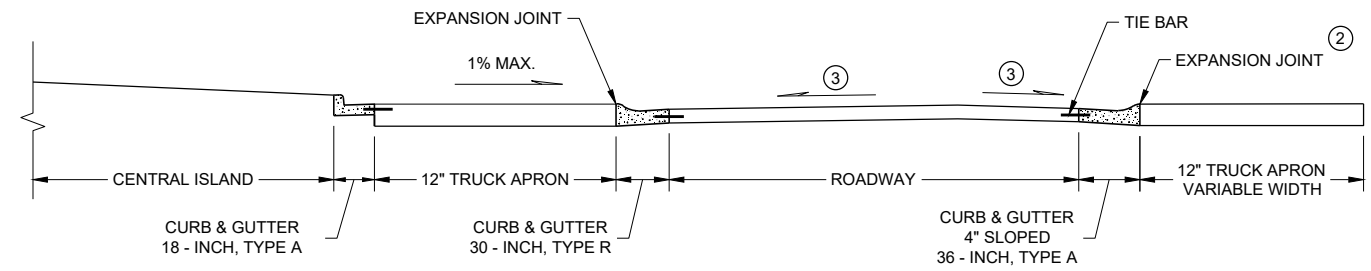
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 161

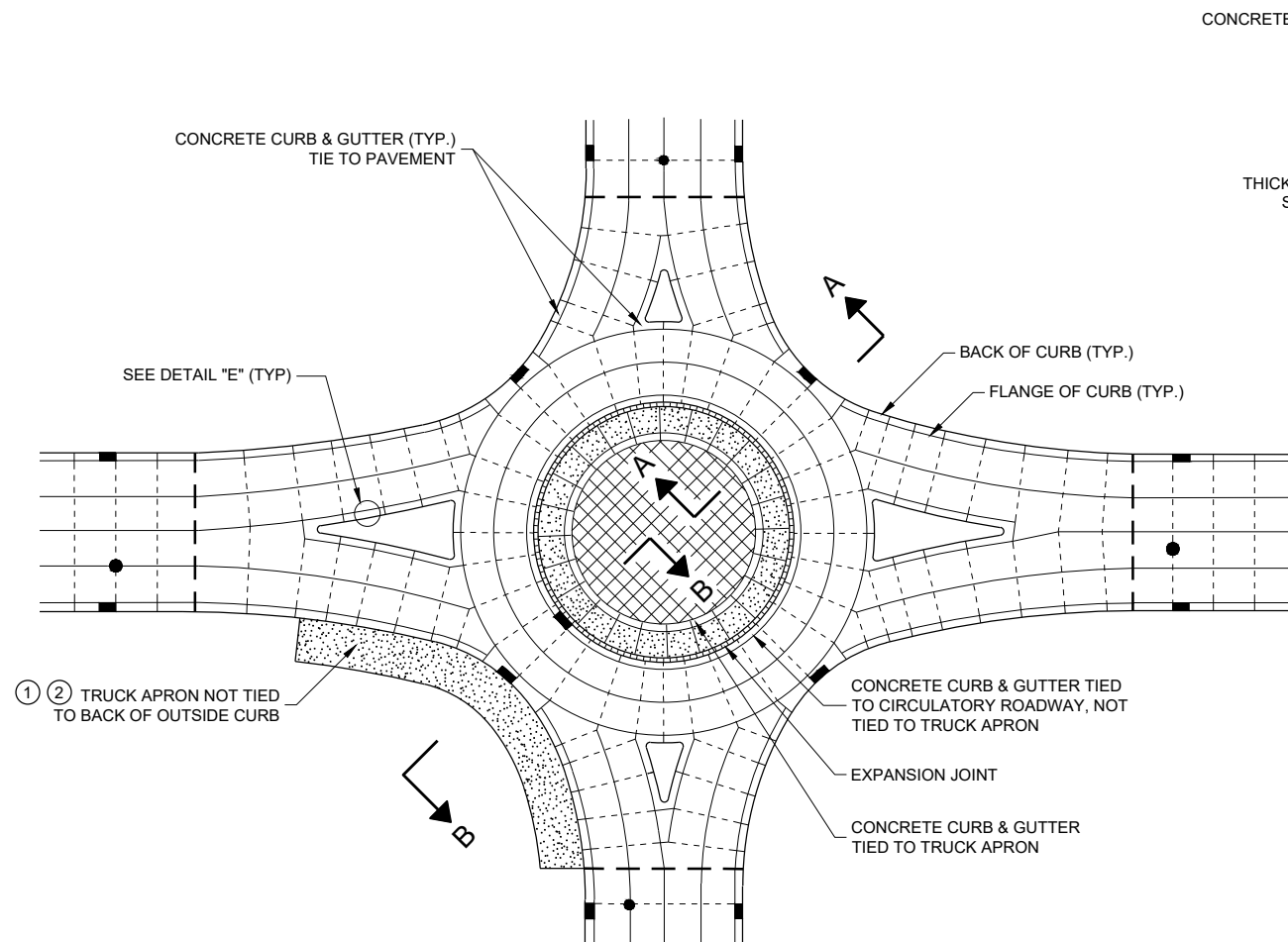
FHWA



SECTION A - A



SECTION B - B

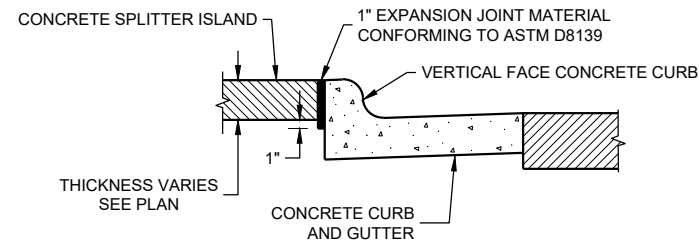


ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS

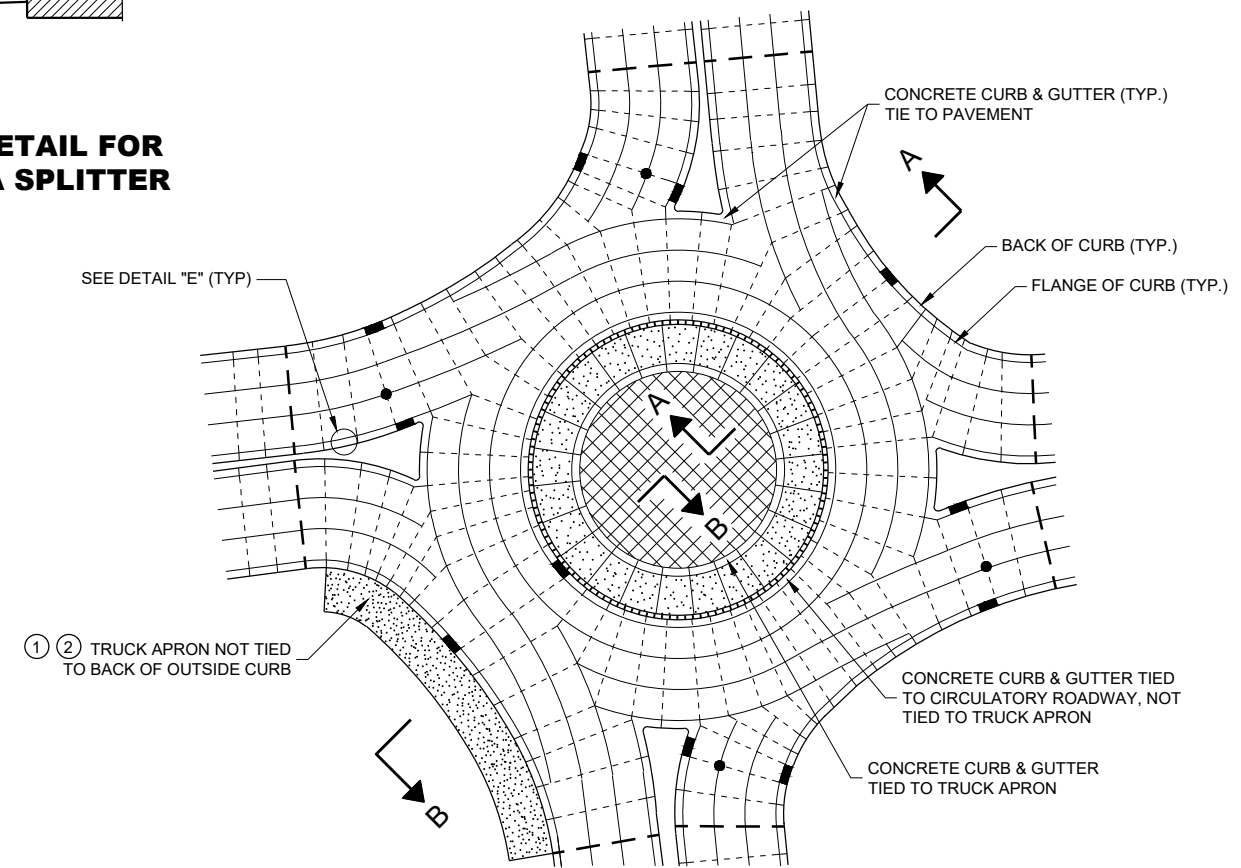
GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"
 USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.
 DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

- ① DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.
- ② TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.
- ③ CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.



**DETAIL 'E'
EXPANSION JOINT DETAIL FOR
VERTICAL CURB AT A SPLITTER
ISLAND**



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

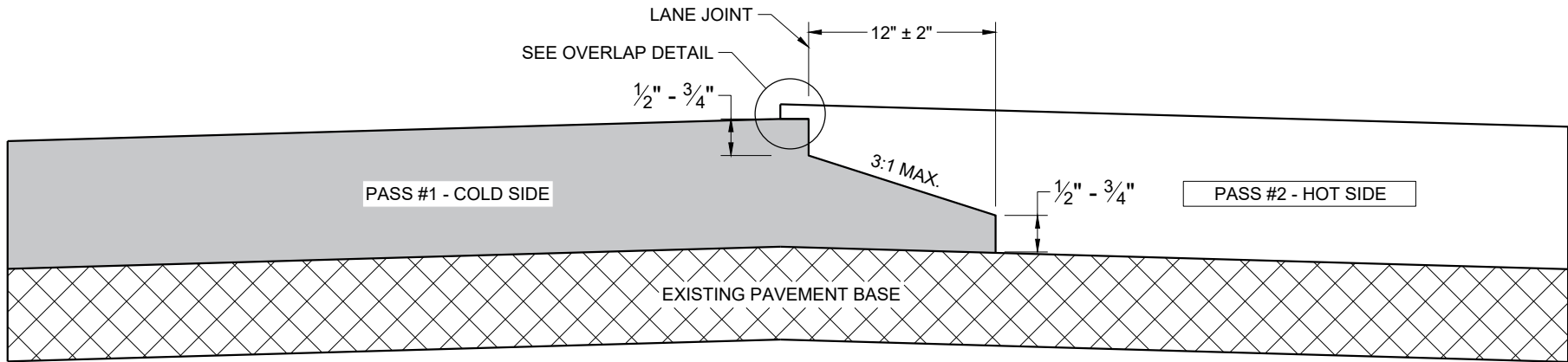
LEGEND

- DOWELED JOINT
- TIED JOINT
- ===== EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- [Pattern] TRUCK APRON
- [Pattern] CENTRAL ISLAND
- ● UTILITY STRUCTURES

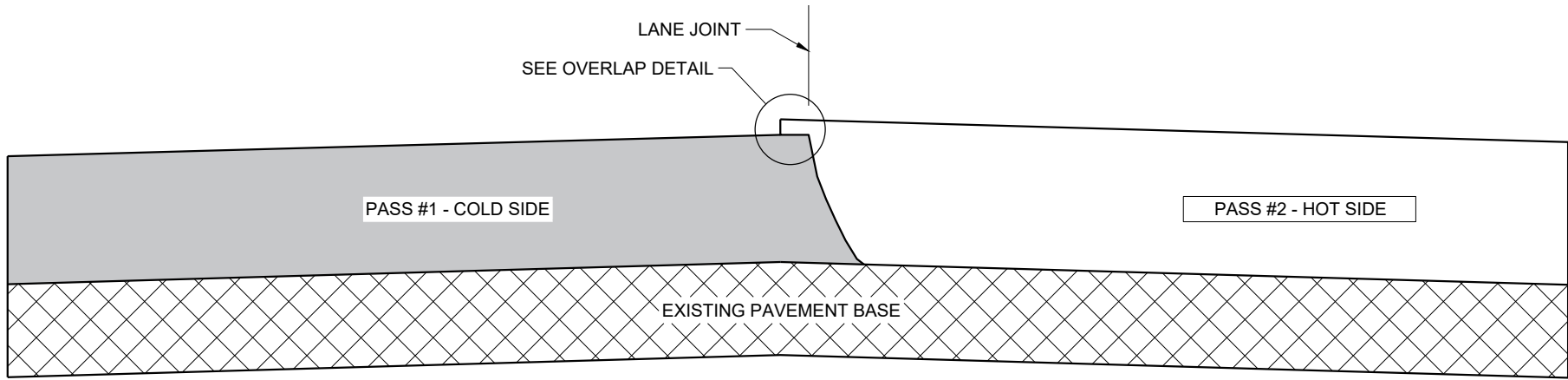
**CONCRETE PAVEMENT JOINTING
AND STEEL REINFORCEMENT
IN ROUNDABOUTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

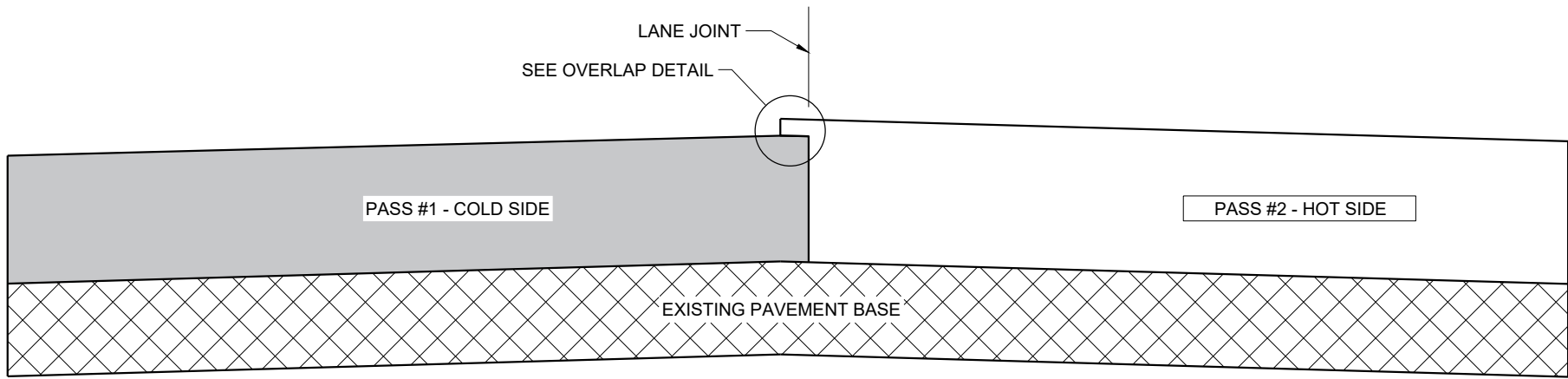
APPROVED
May 2023 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 162
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

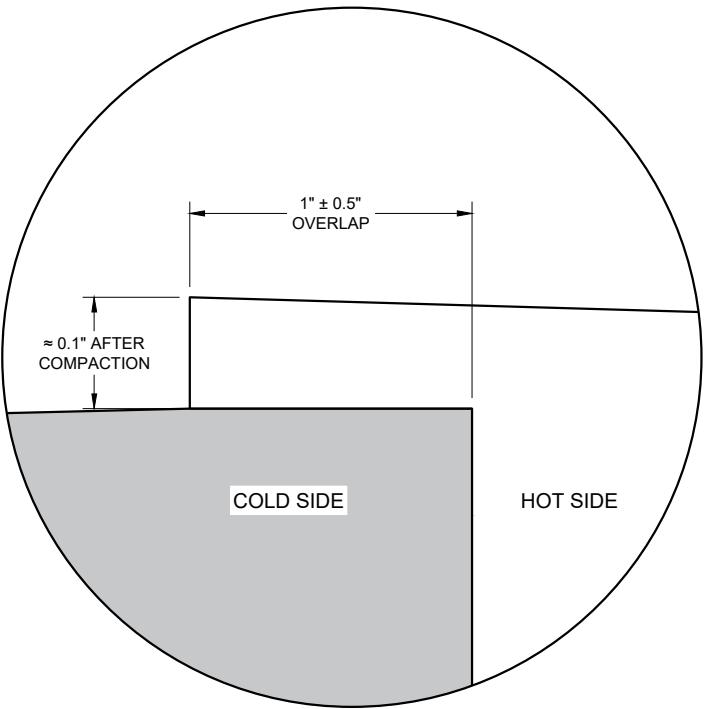
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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.



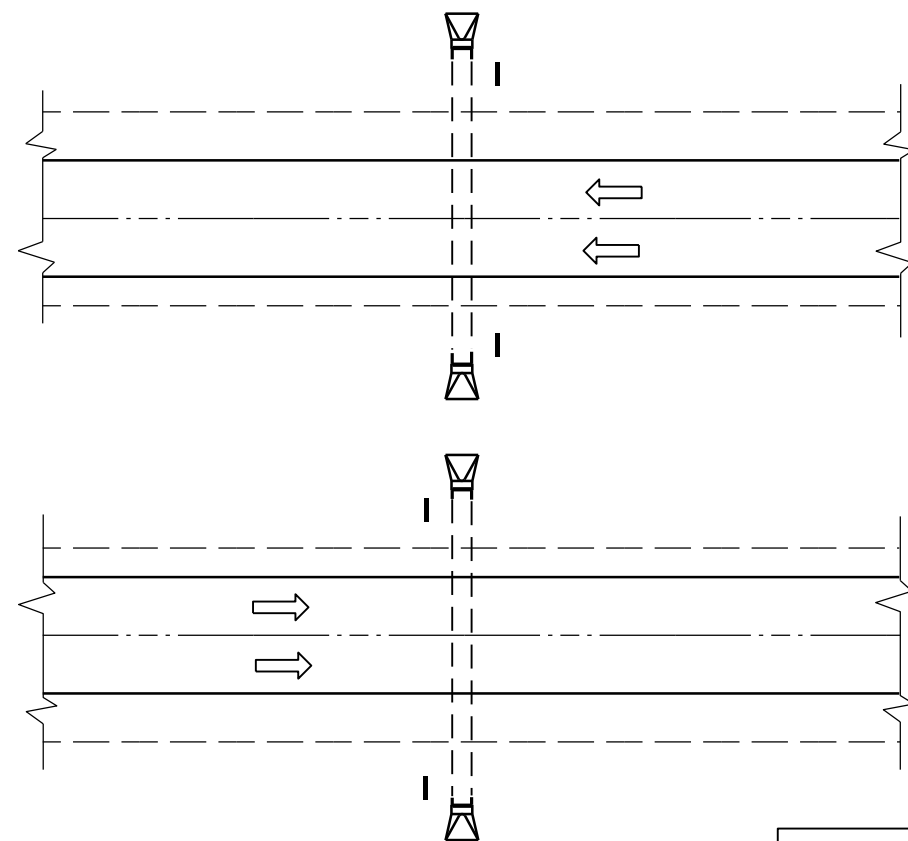
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

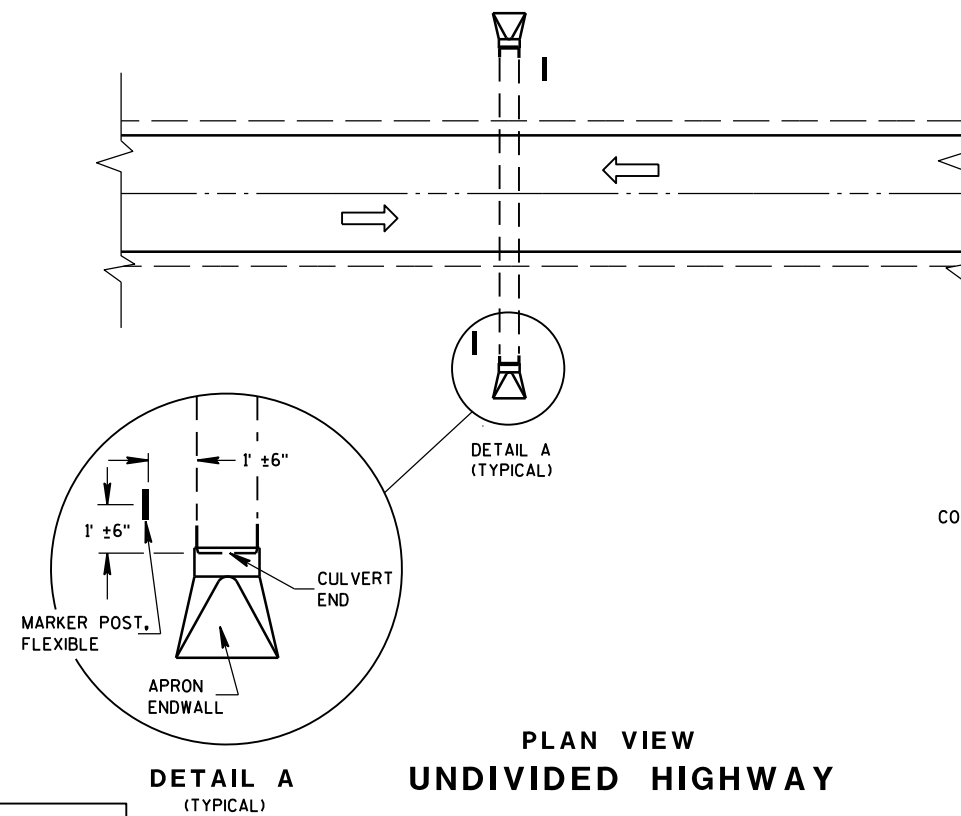
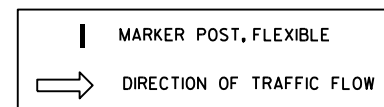
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 163

FHWA



PLAN VIEW
DIVIDED HIGHWAY

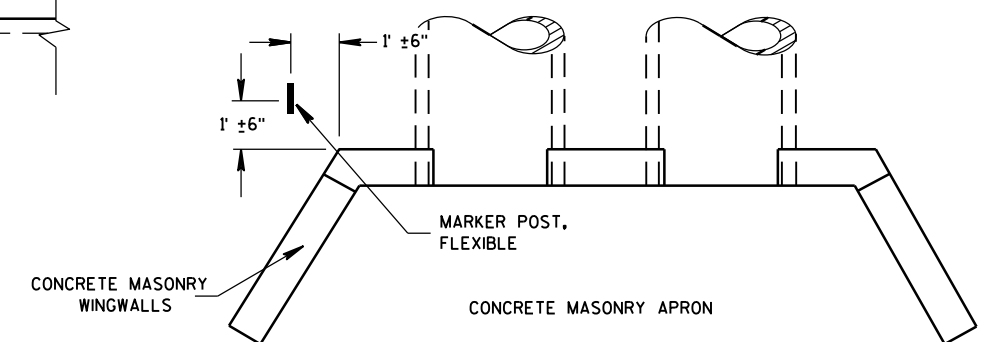


PLAN VIEW
UNDIVIDED HIGHWAY

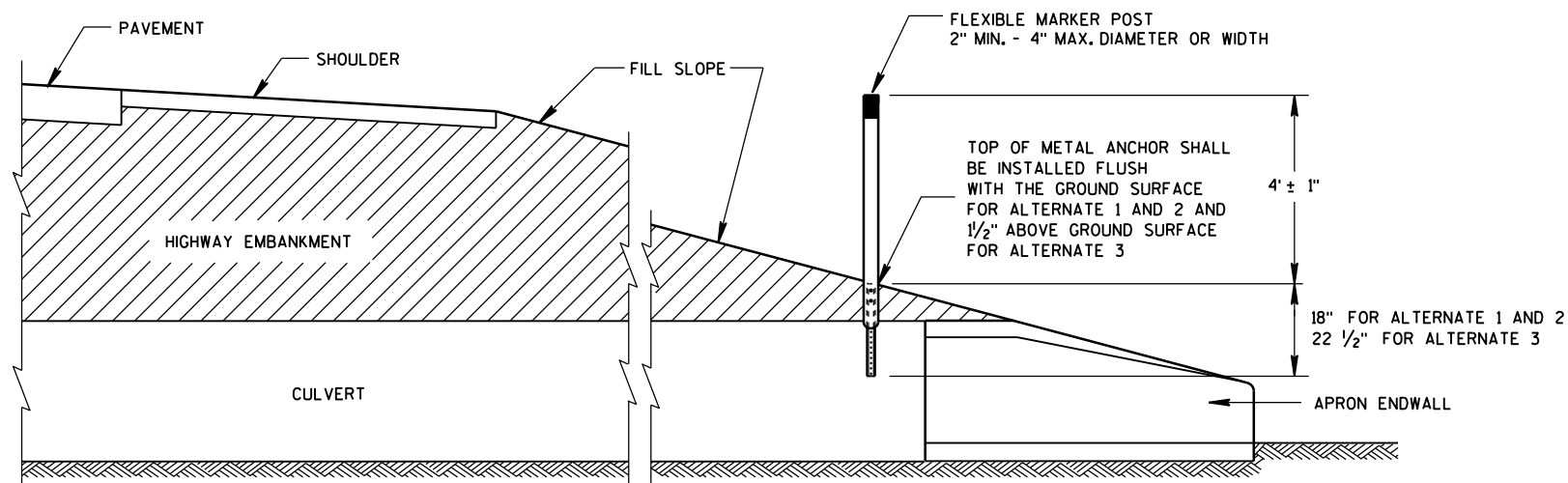
FLEXIBLE MARKER POST LOCATION

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.



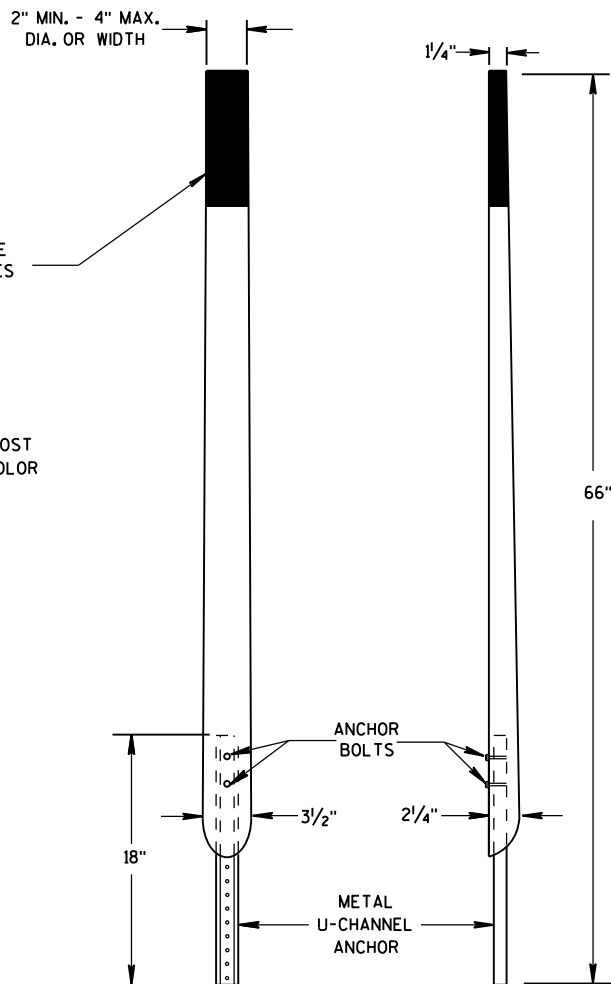
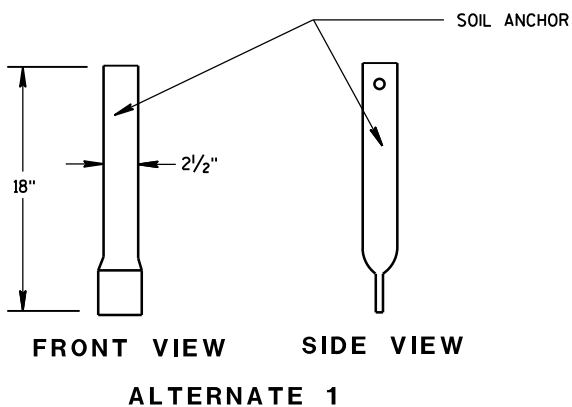
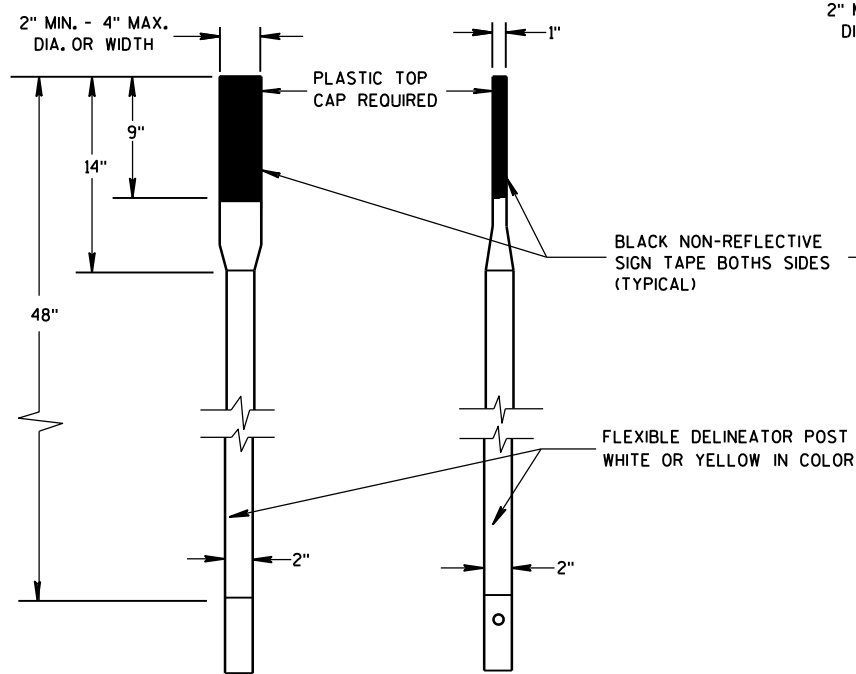
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

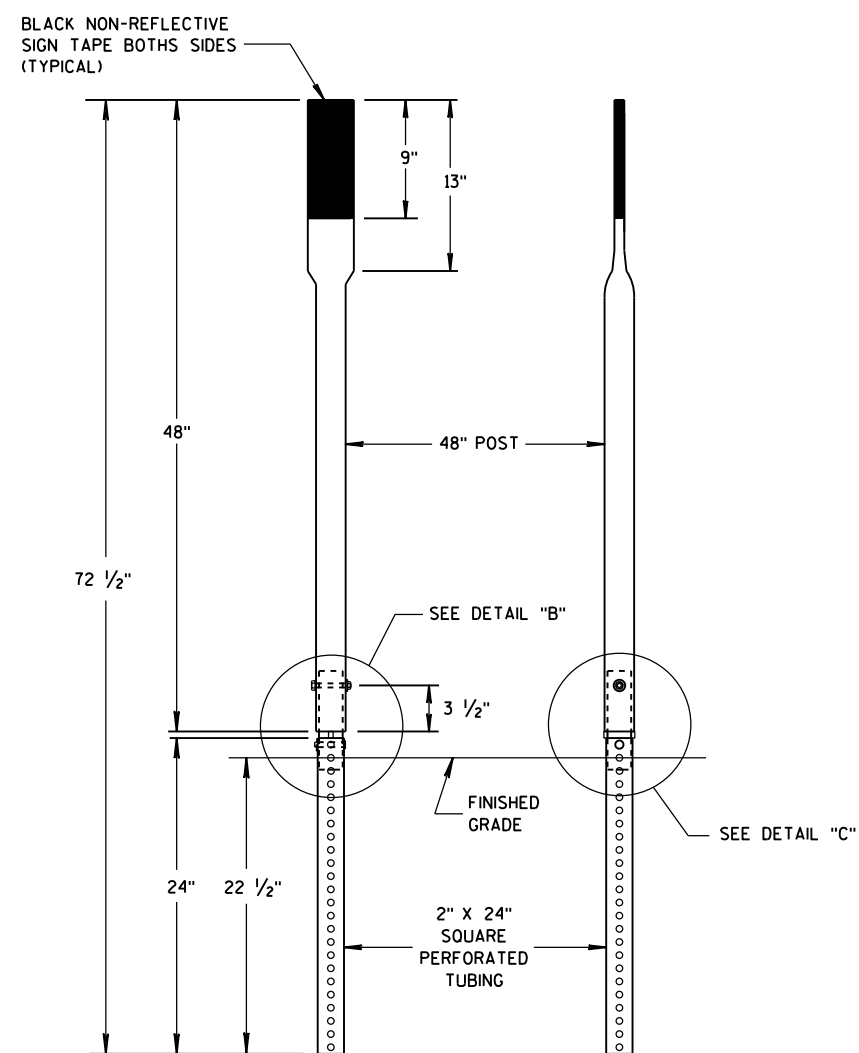
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 164

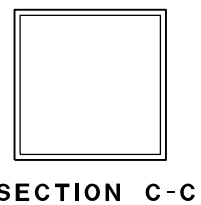


FRONT VIEW SIDE VIEW
ALTERNATE 2

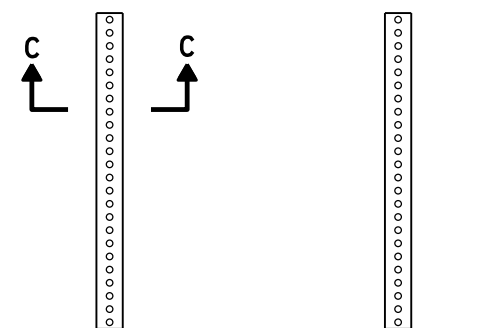
FLEXIBLE MARKER POSTS



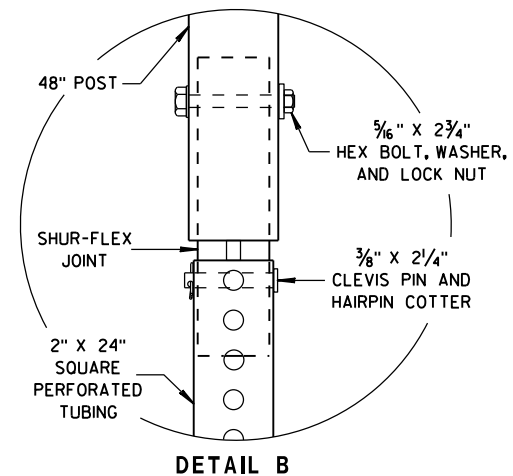
FRONT VIEW SIDE VIEW
ALTERNATE 3



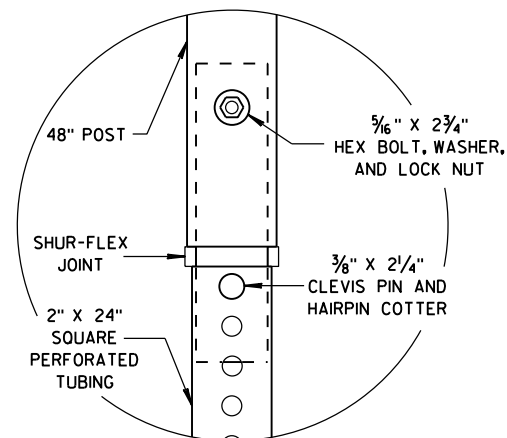
SECTION C-C



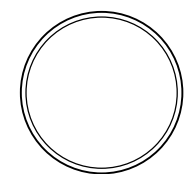
FRONT VIEW SIDE VIEW
ALTERNATE 3



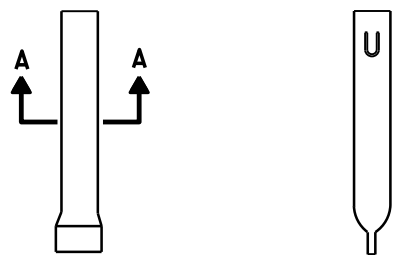
DETAIL B



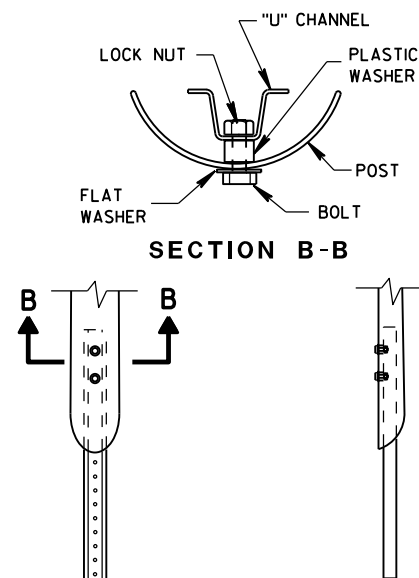
DETAIL C



SECTION A-A



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

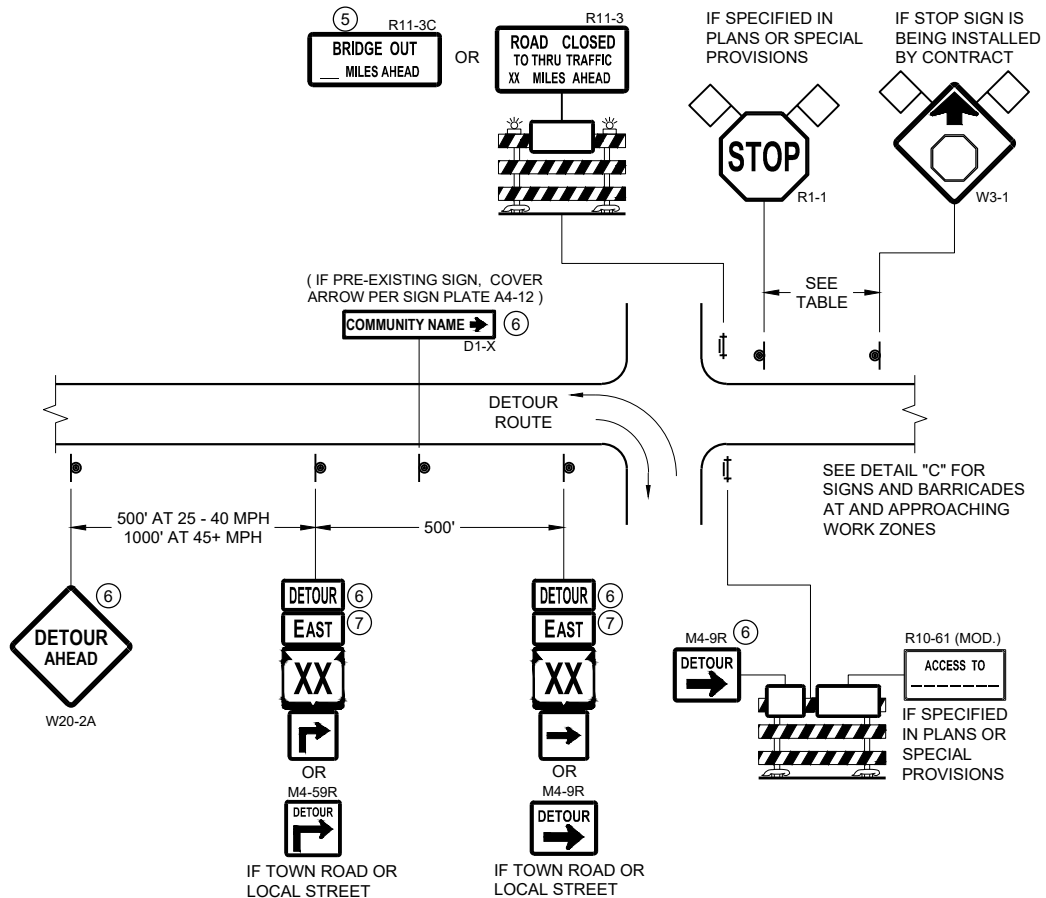
10/1/2012

DATE

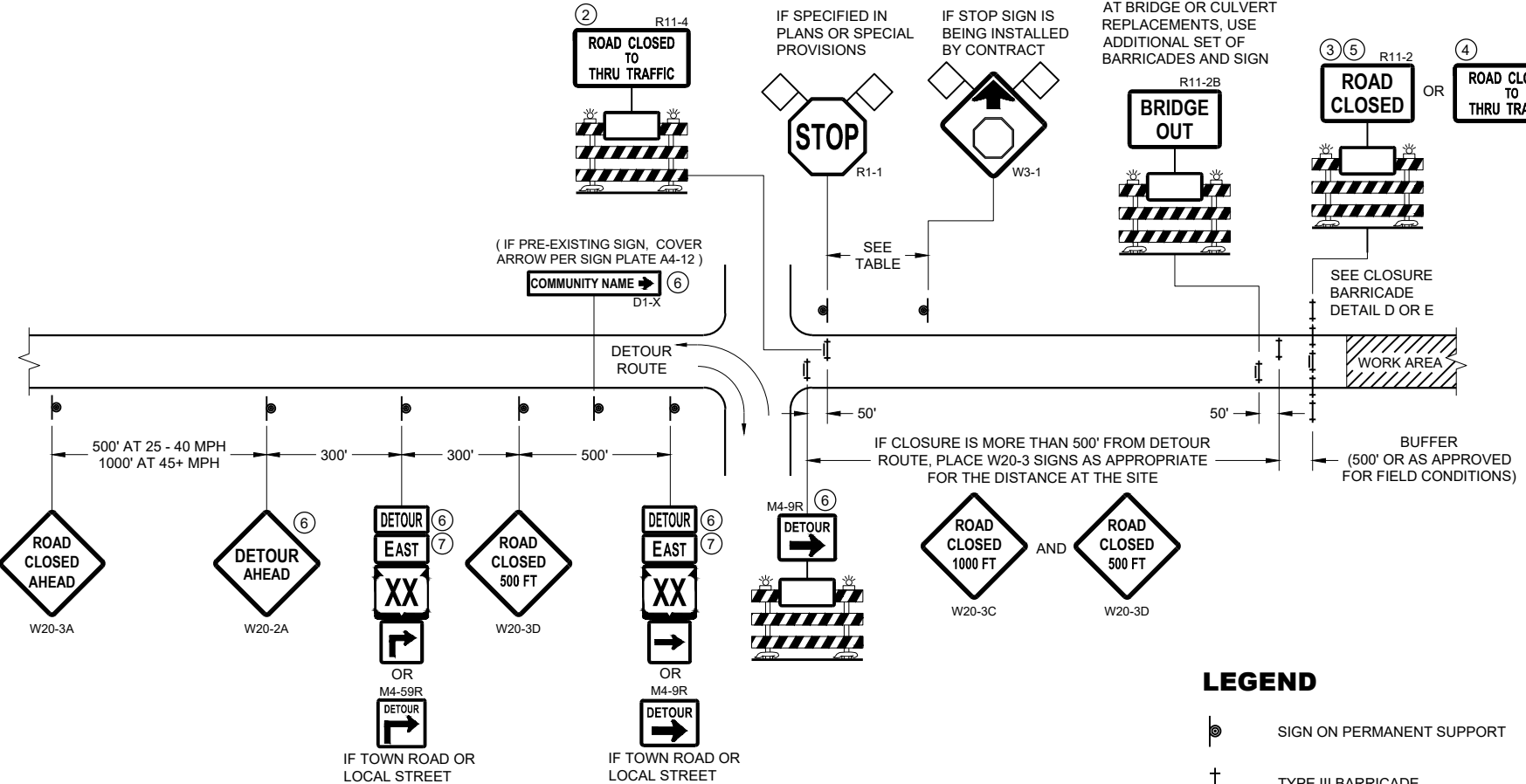
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 165

IGN



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



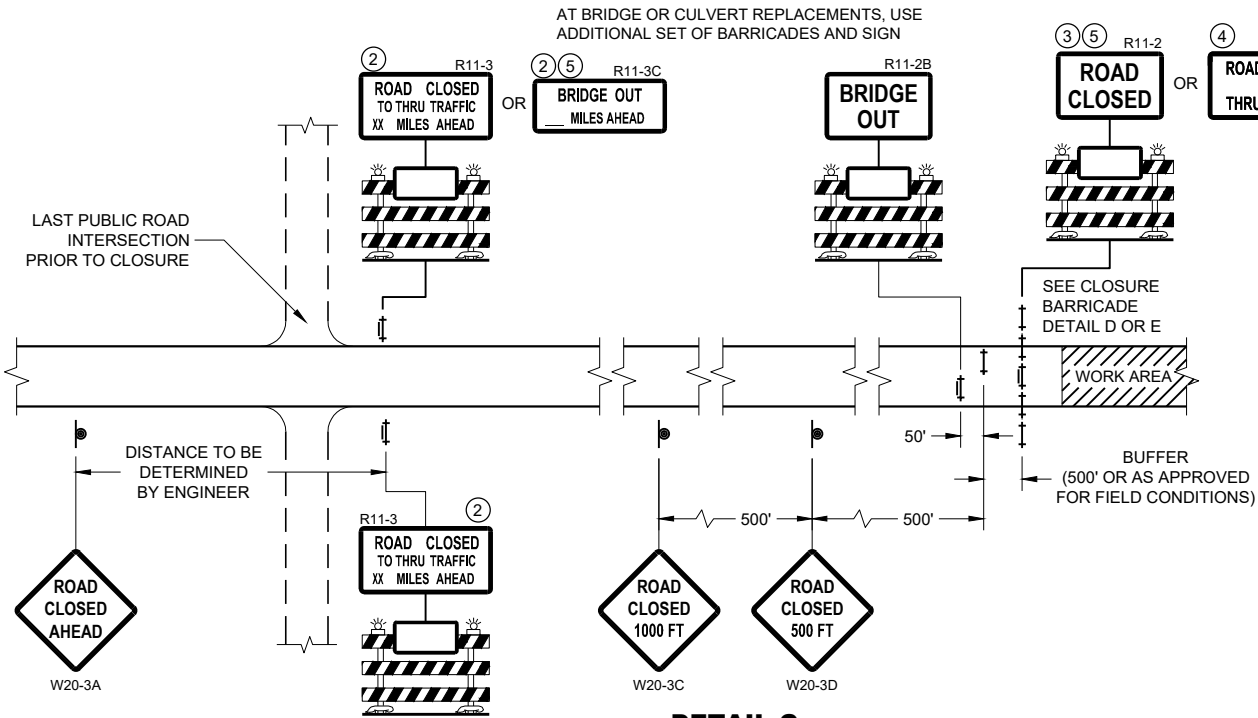
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- M05 - 1 OR M06 - 1

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

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



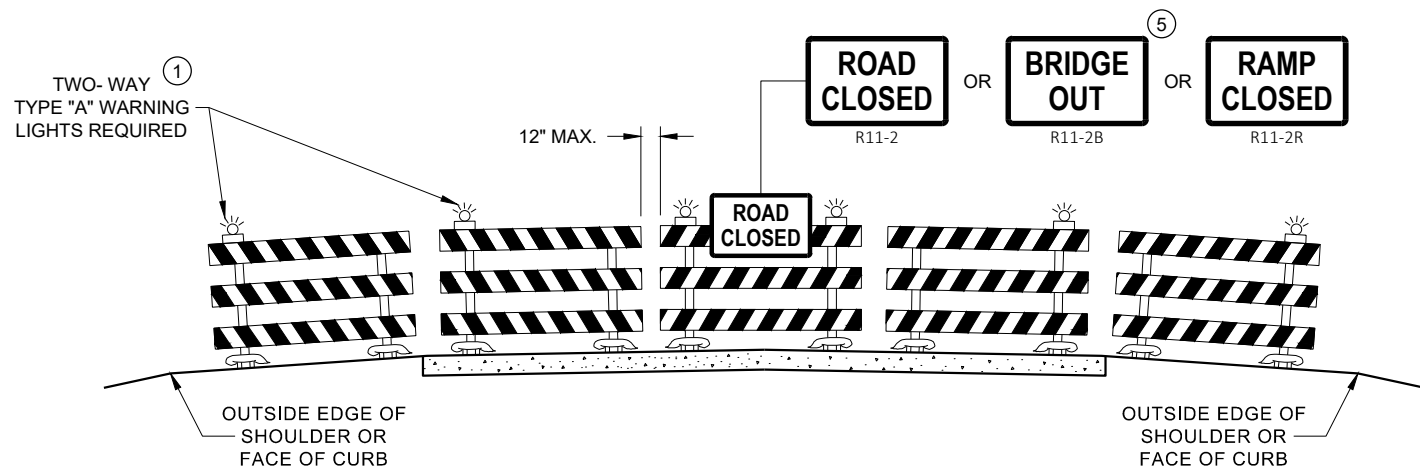
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

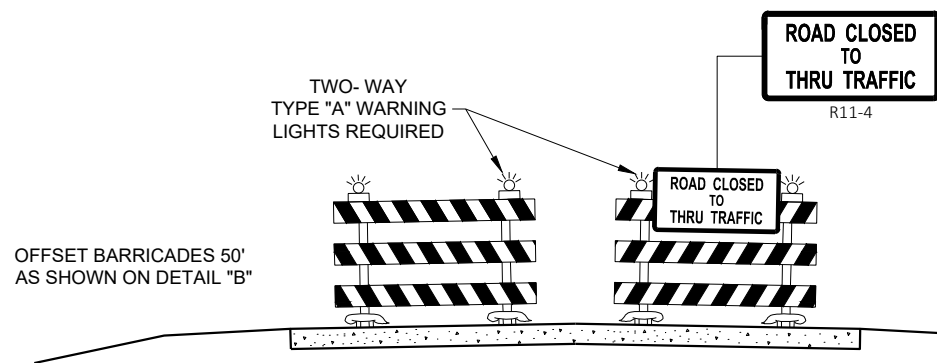
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 166

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

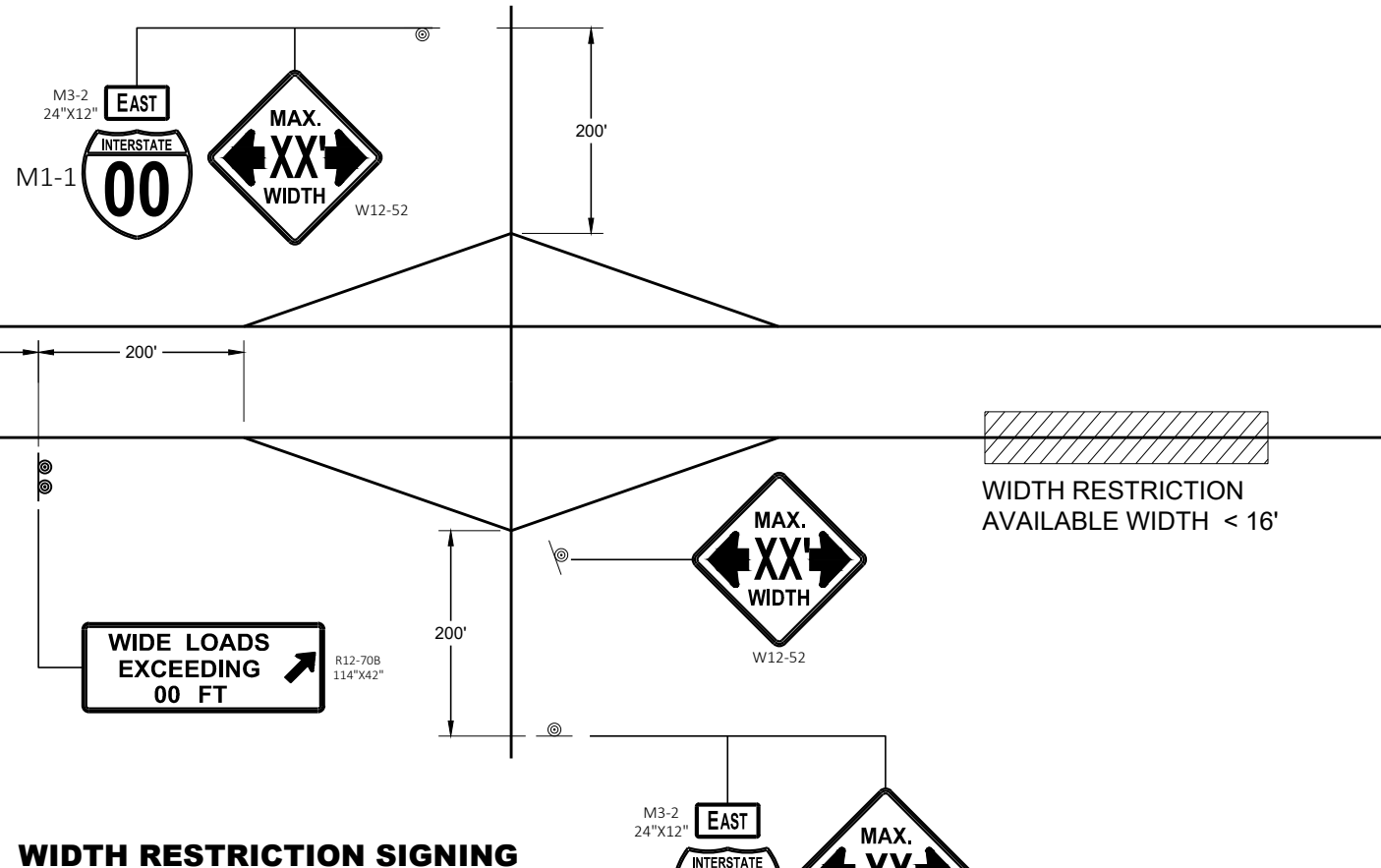
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 167
FHWA



LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

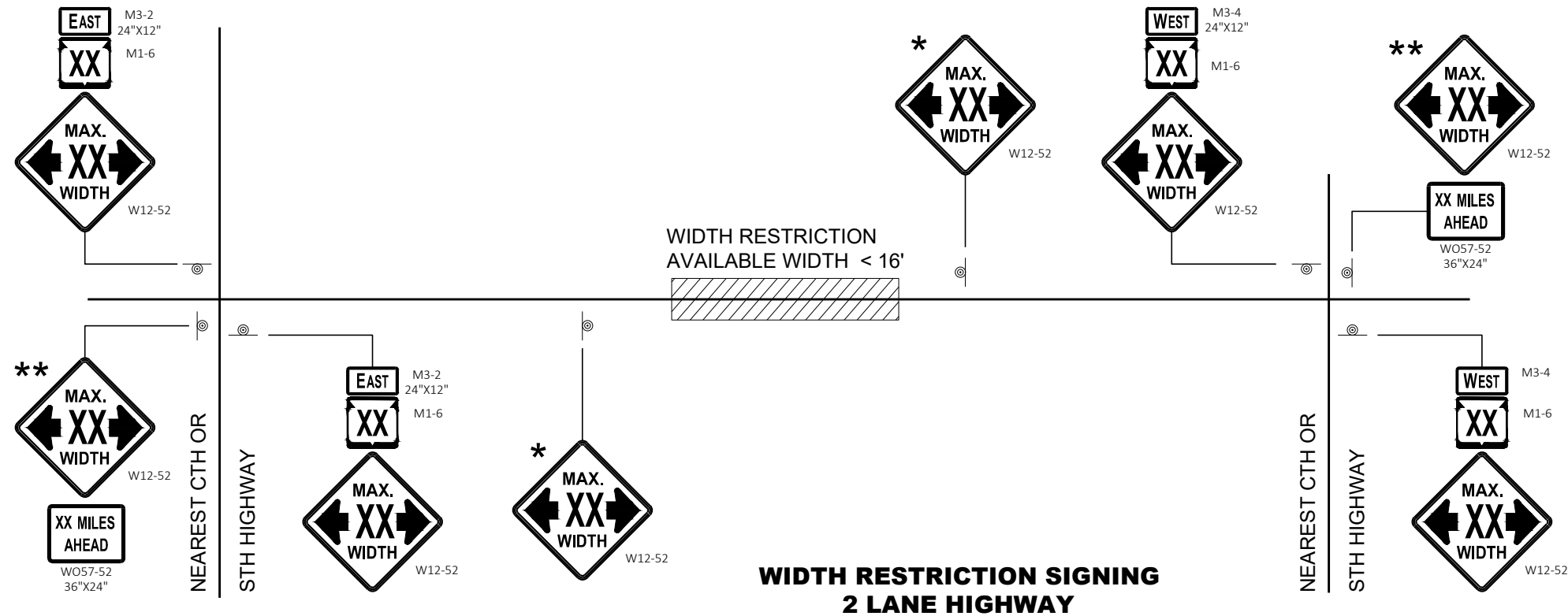
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

- * PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- ** SIGN SHALL BE VISIBLE FROM ROADWAY.
- *** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



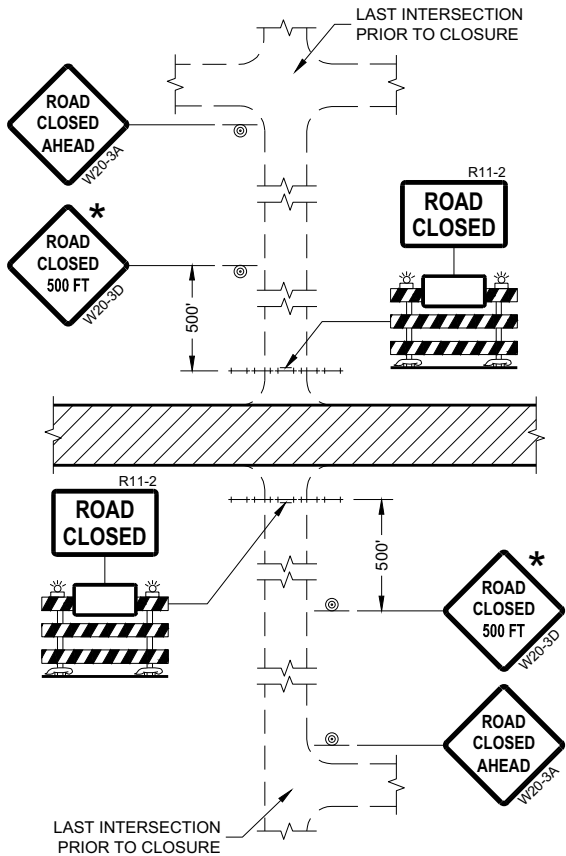
WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



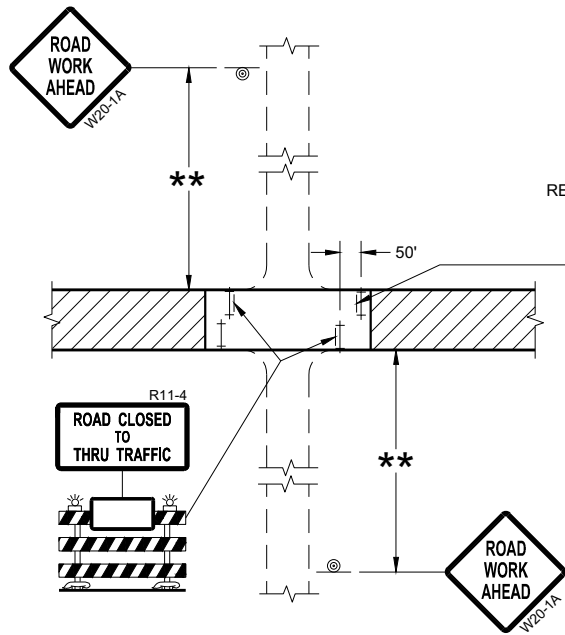
ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

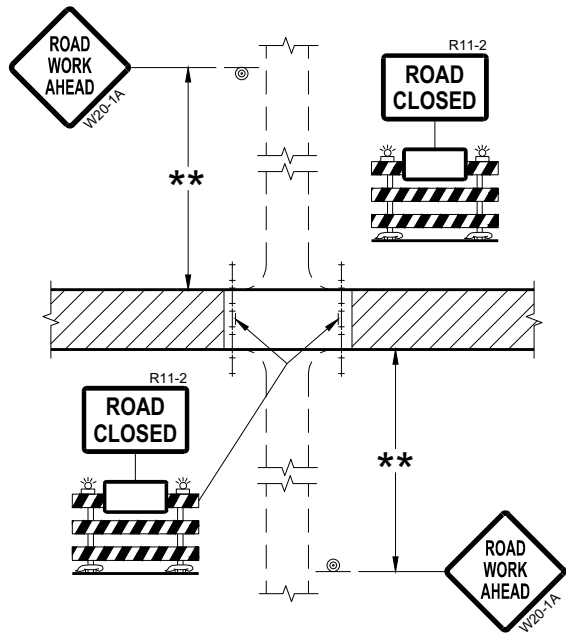
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 168
FHWA



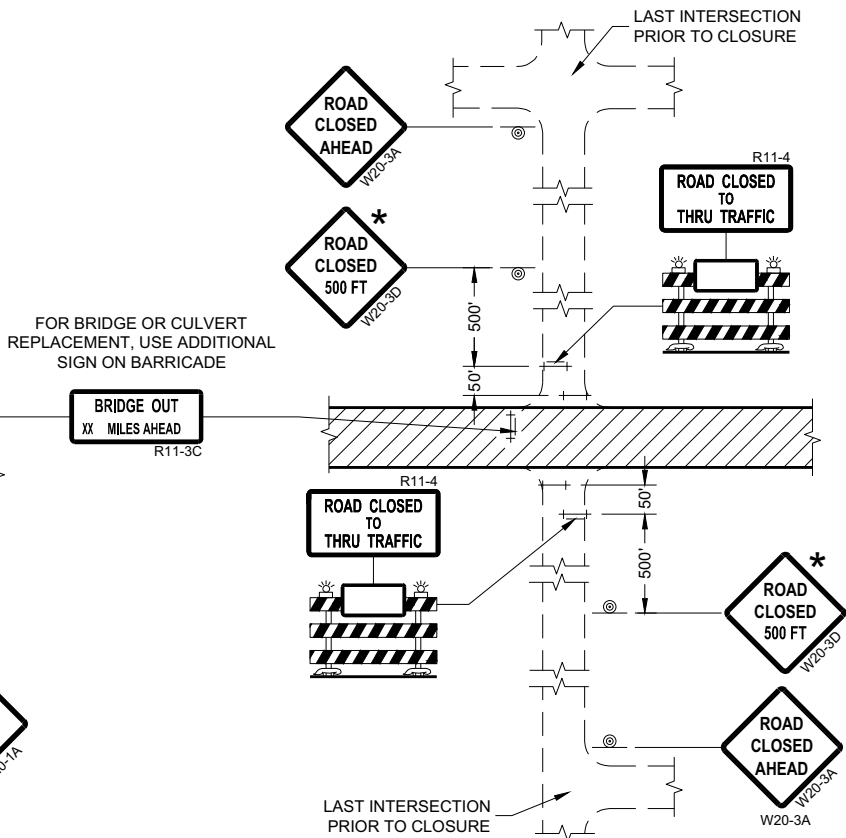
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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.

BARRICADES 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.

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 169

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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.

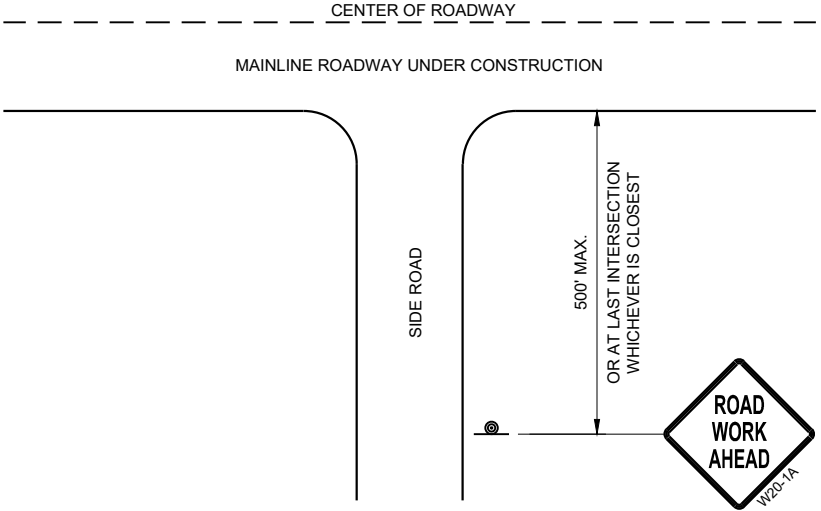
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

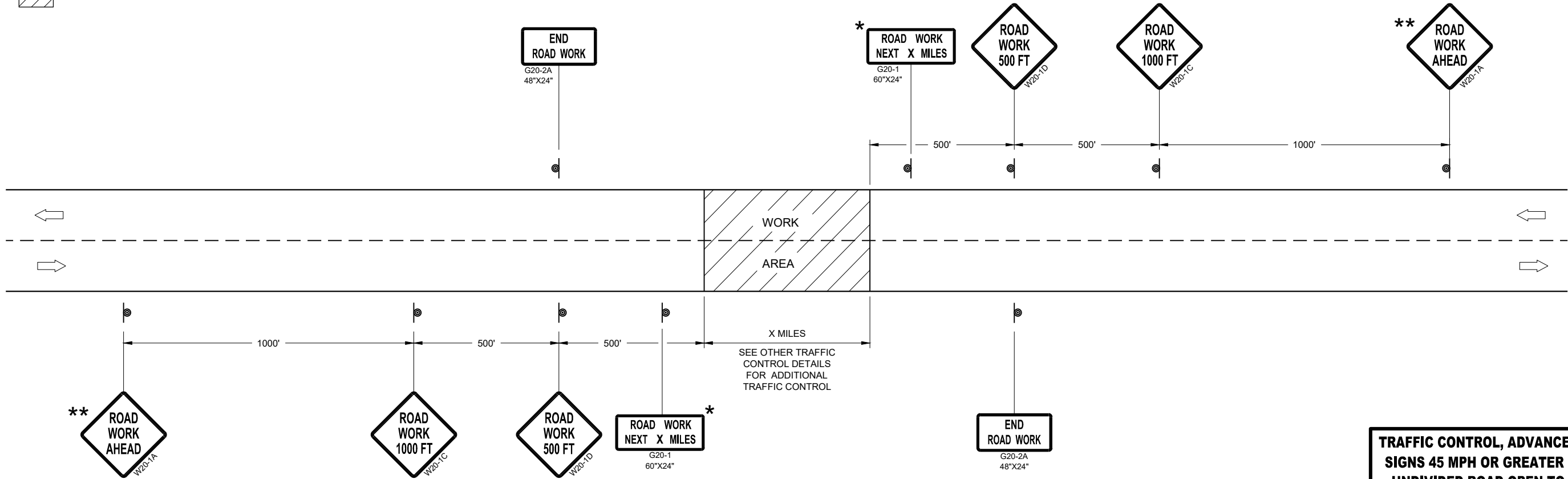
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

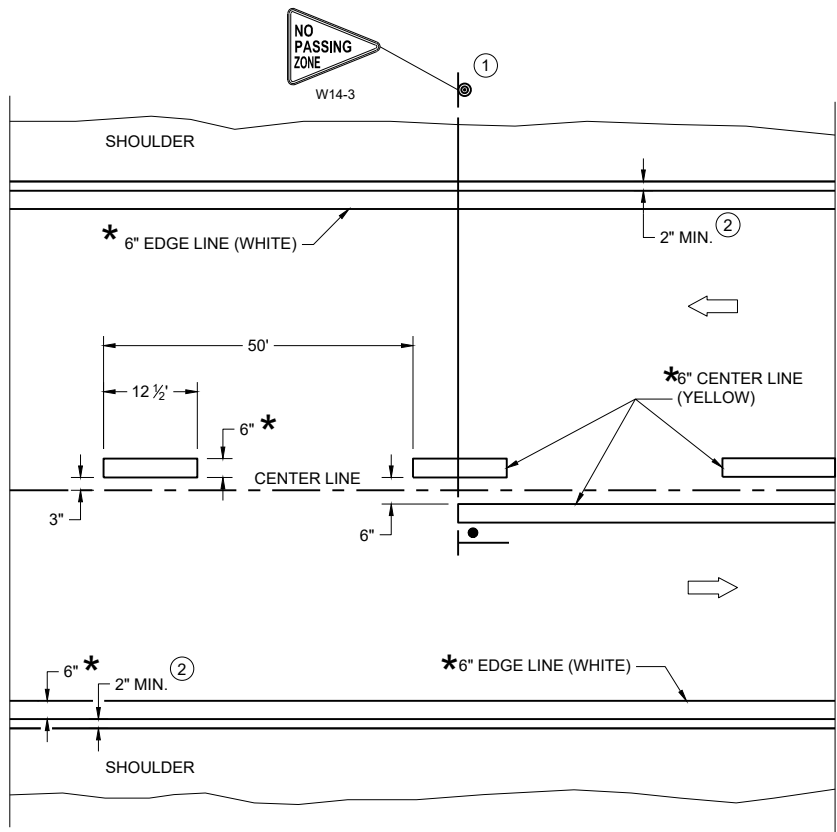


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

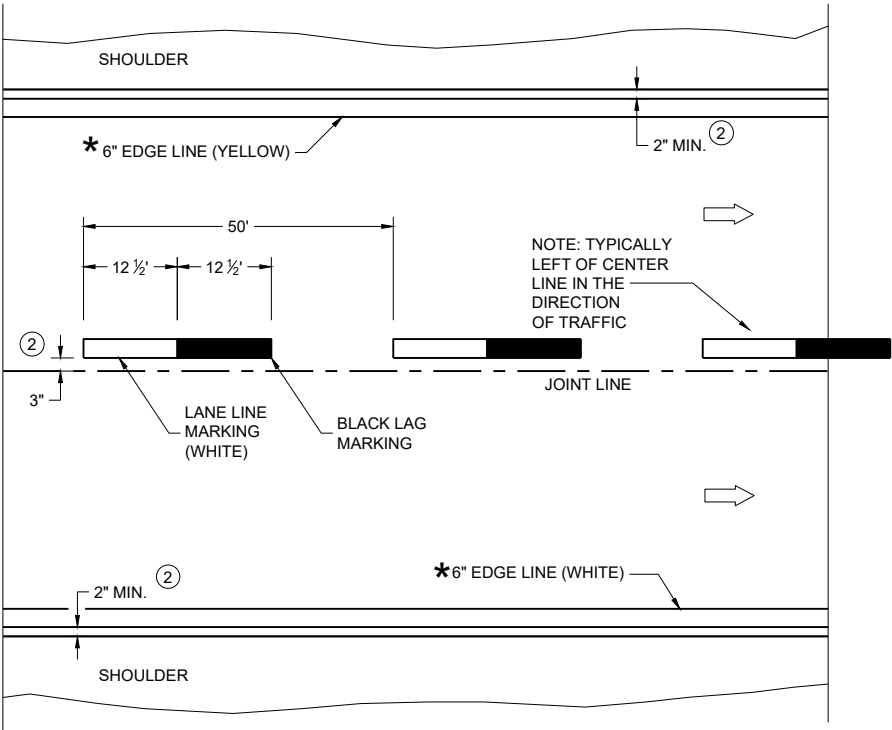
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
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TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

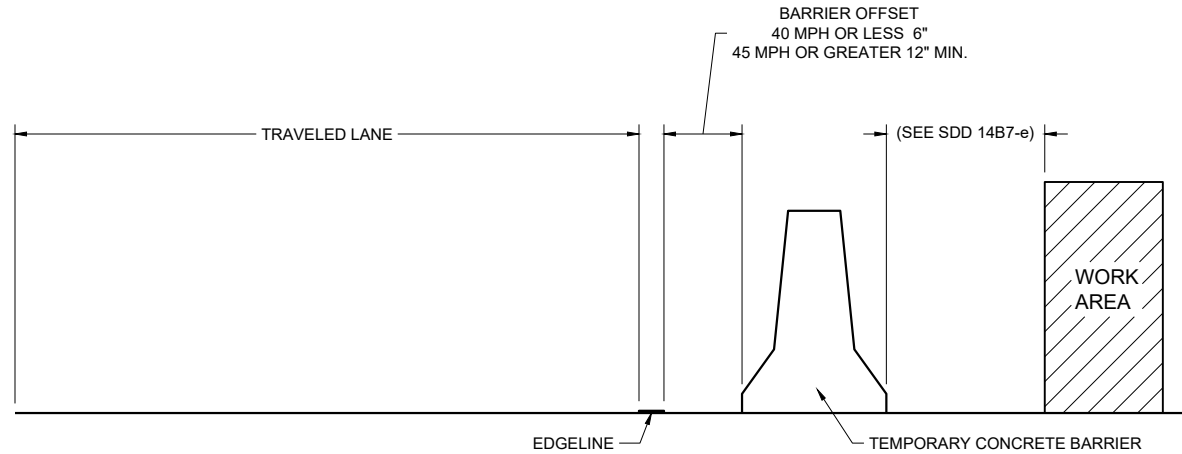
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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 December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer



TEMPORARY BARRIER OFFSET FROM EDGE LINE

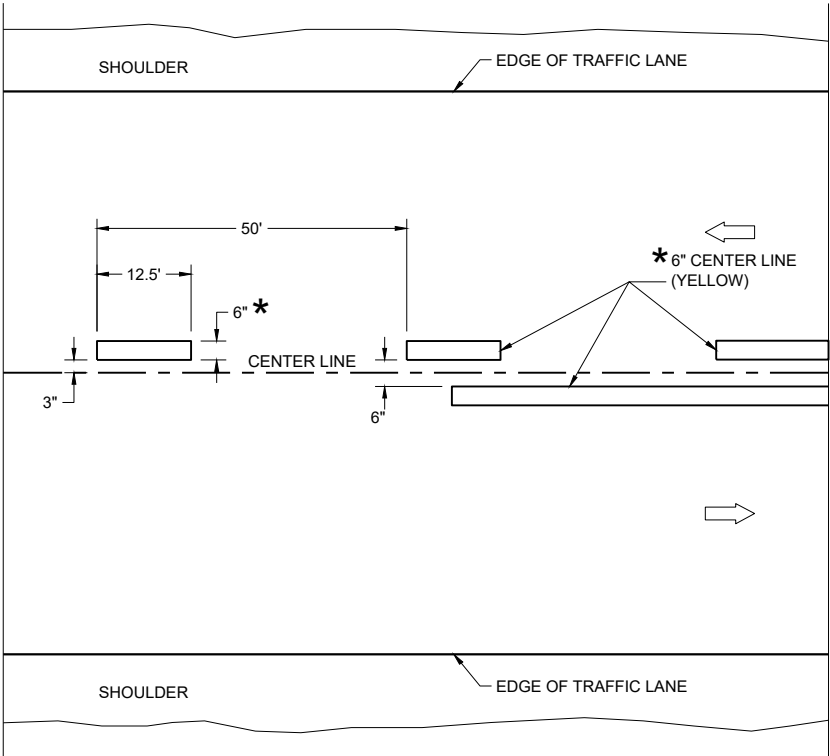
GENERAL NOTES

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

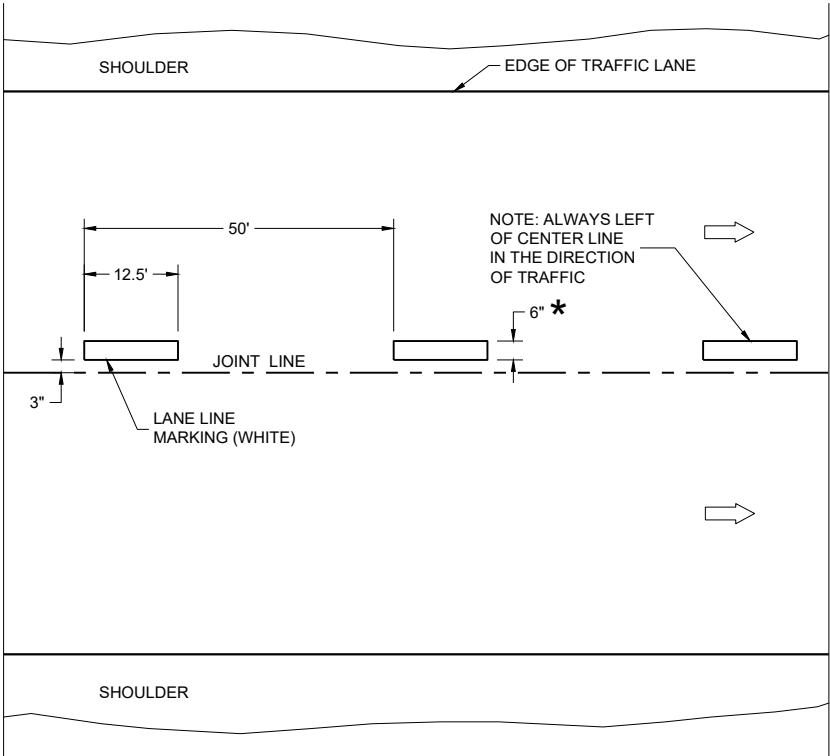
LEGEND

DIRECTION OF TRAFFIC

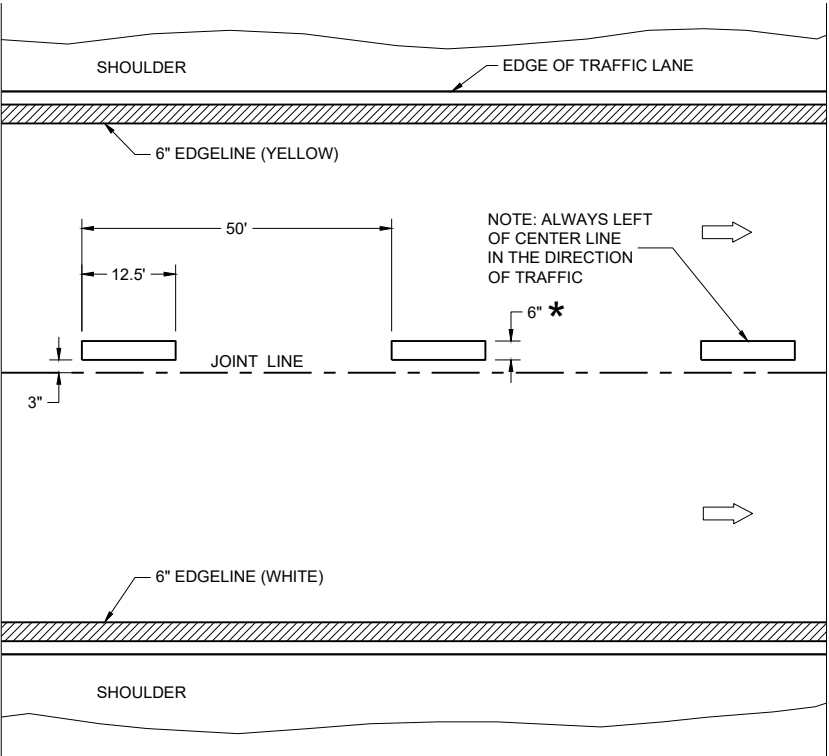
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



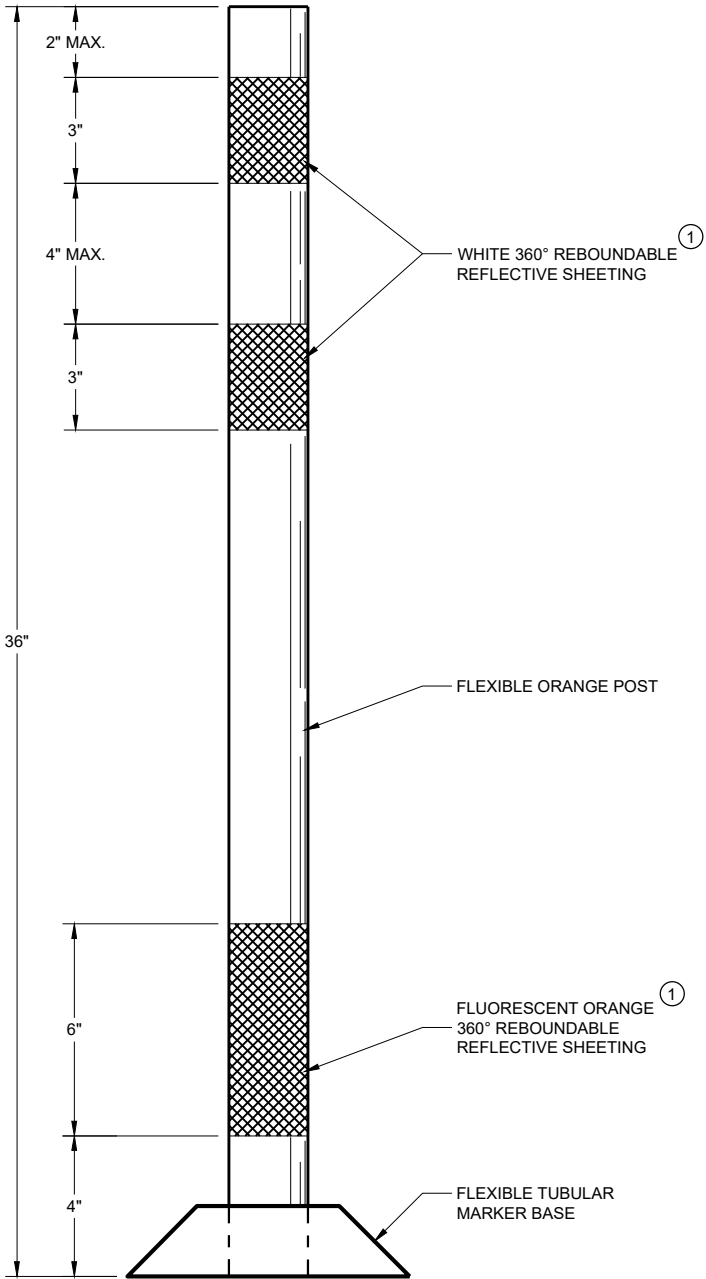
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	172



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

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

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

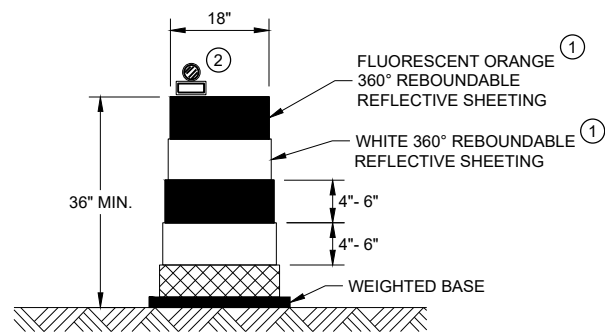
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

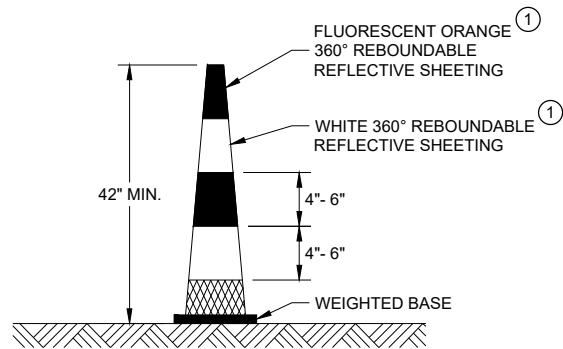
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 173

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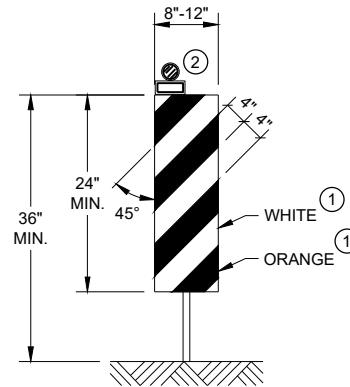
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



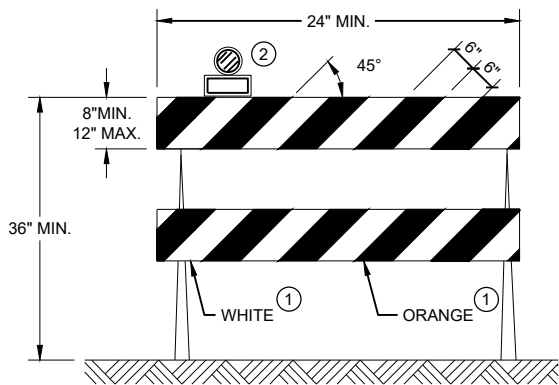
42" CONE

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



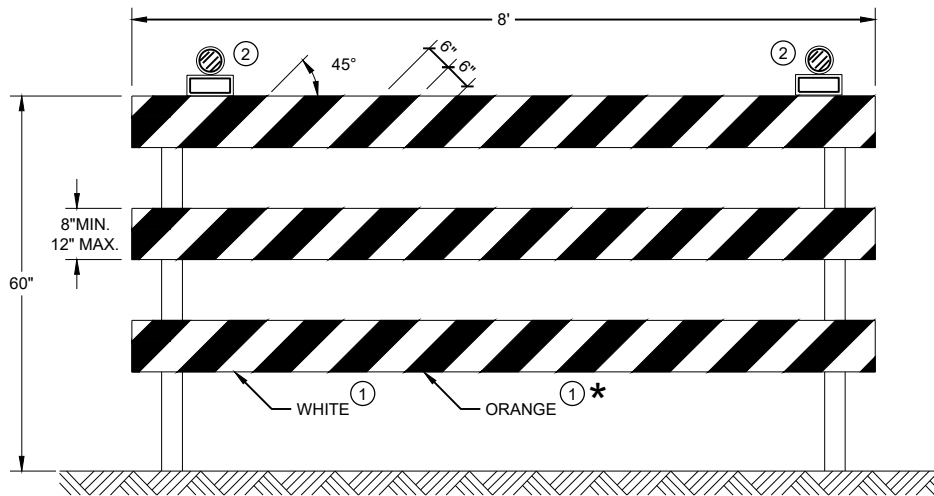
VERTICAL PANEL

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 174
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

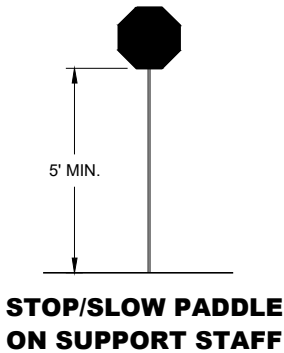
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- 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.

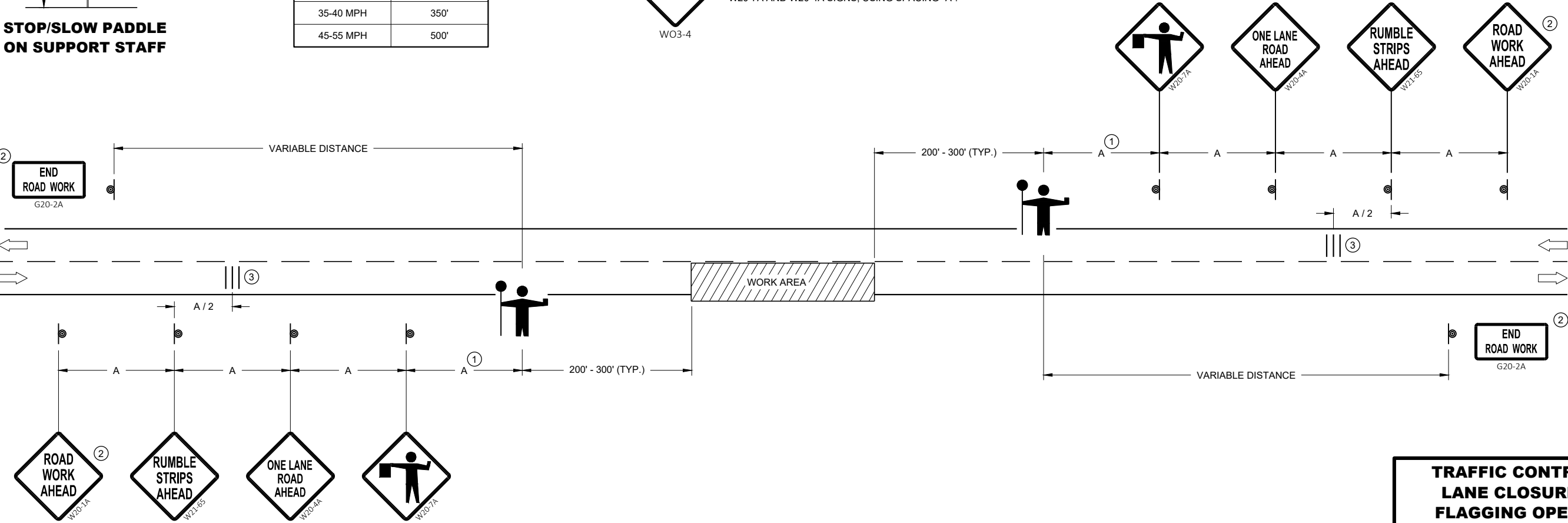


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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".



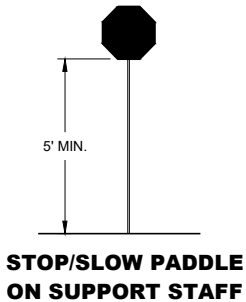
**TRAFFIC CONTROL FOR
LANE CLOSURE WITH
FLAGGING OPERATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 175

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.

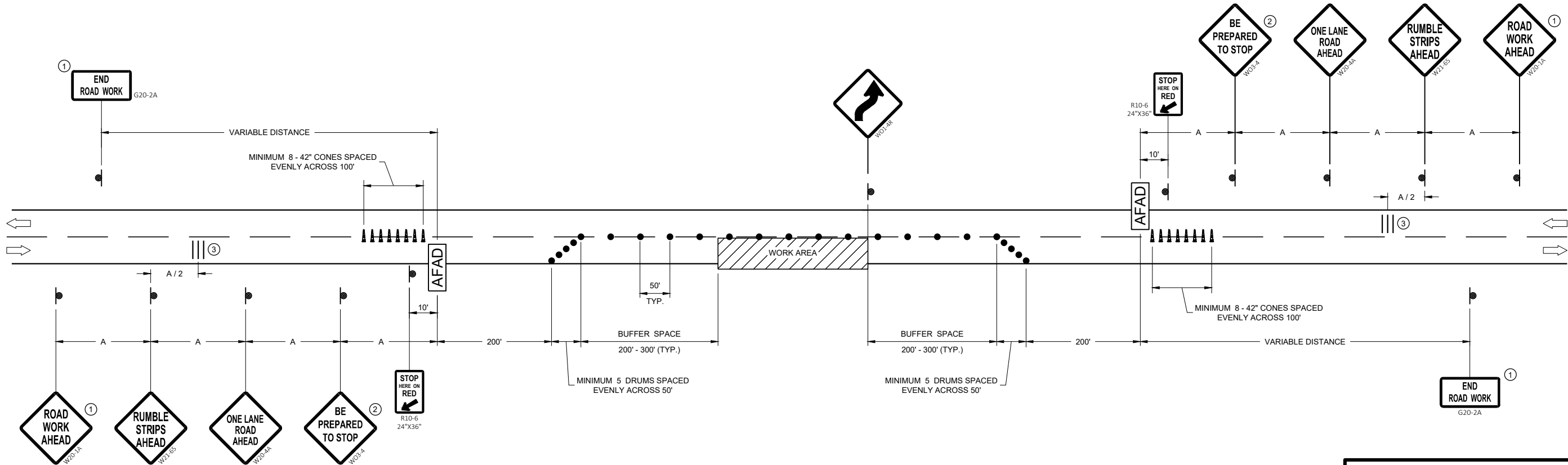
ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

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.

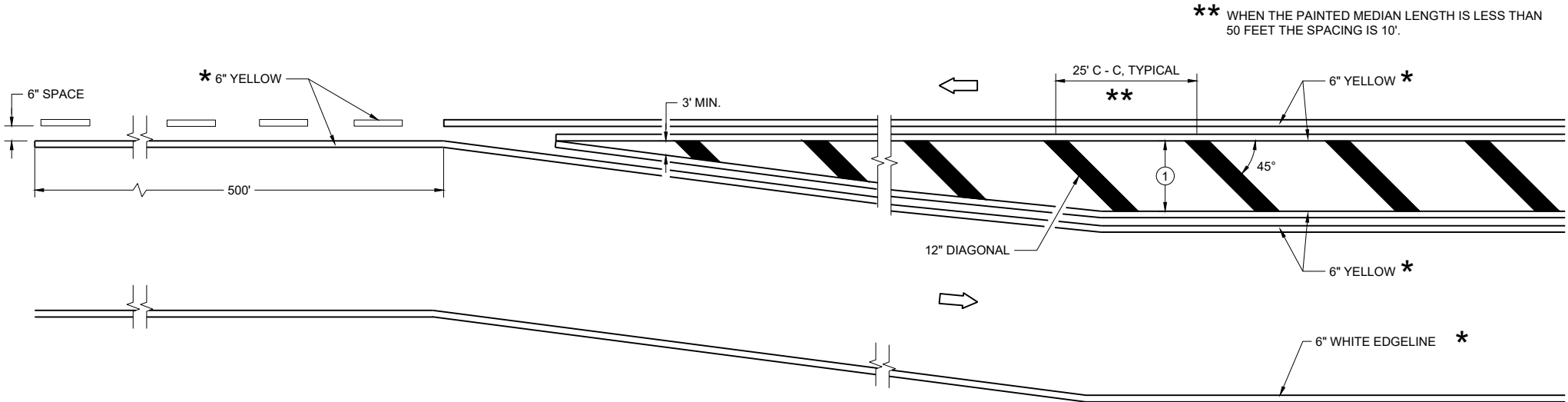


**TRAFFIC CONTROL, LANE
CLOSURE WITH AUTOMATED
FLAGGER ASSISTANCE DEVICE**

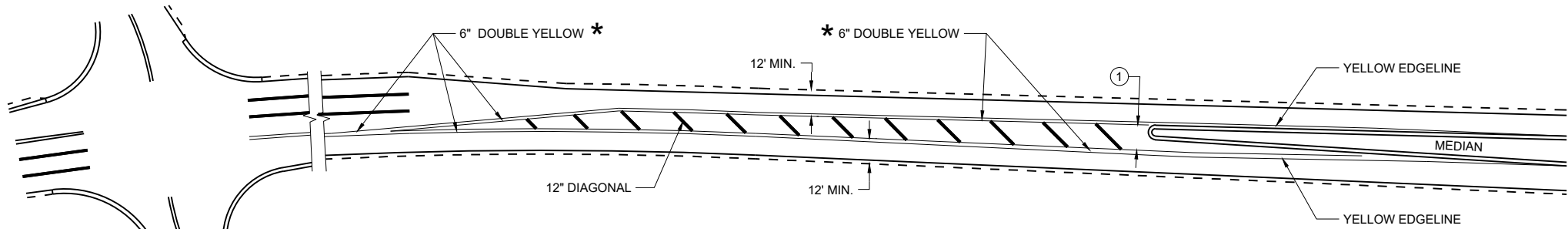
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 176

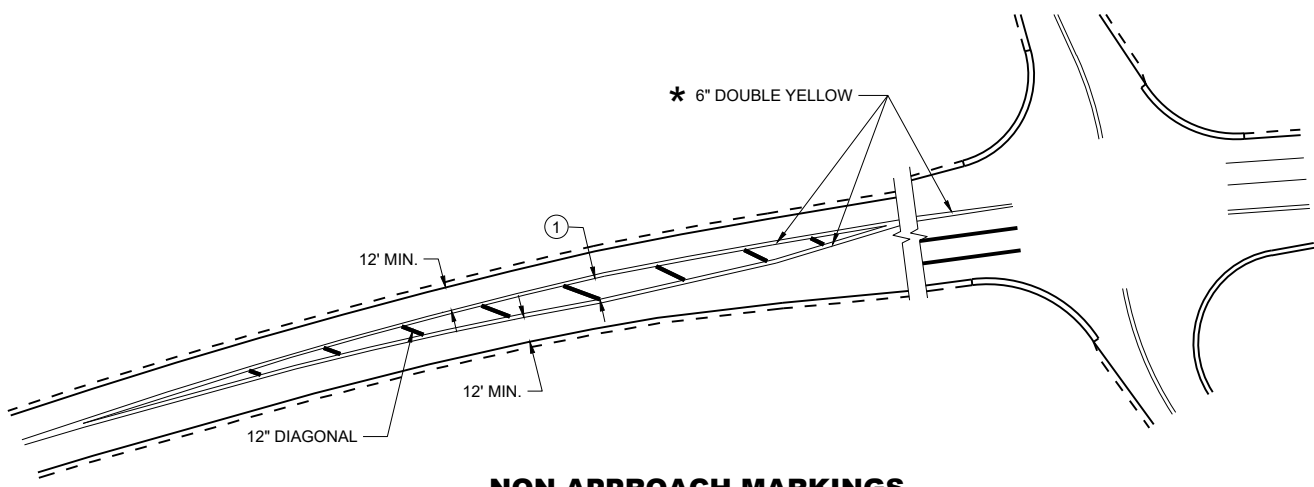
FHWA



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

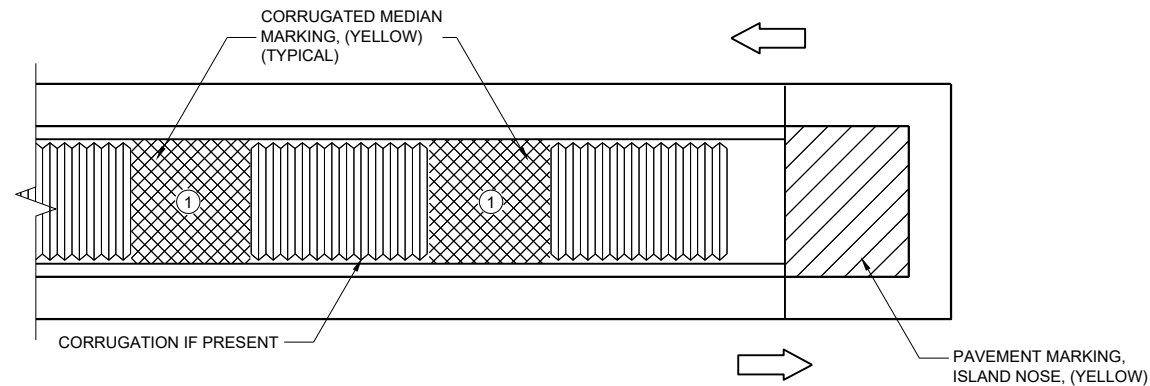
GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

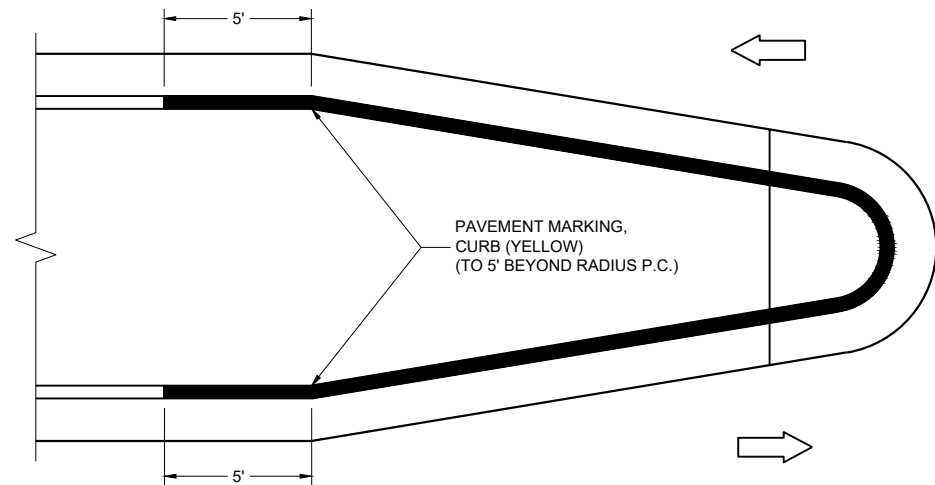
➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

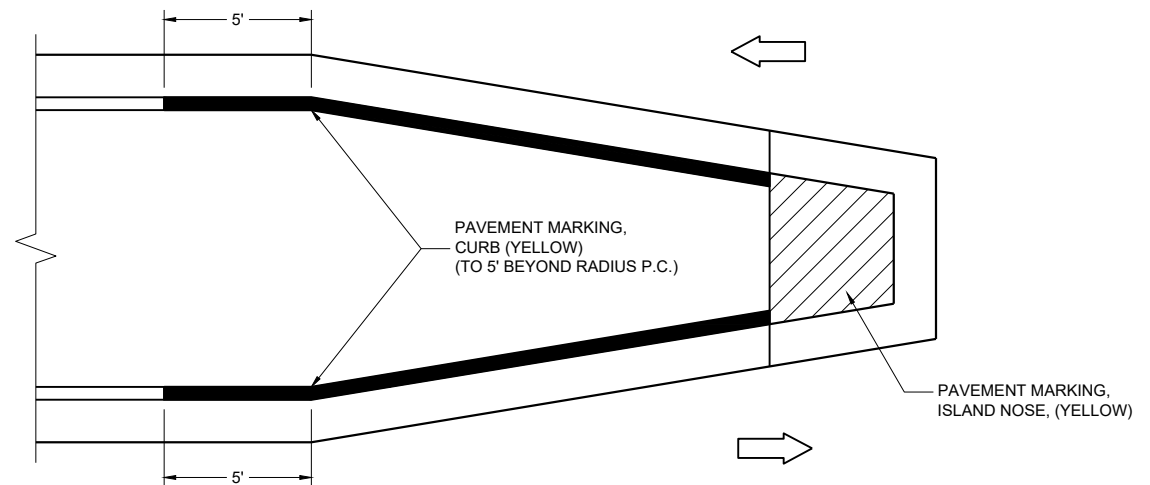
MEDIAN ISLAND PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	177



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

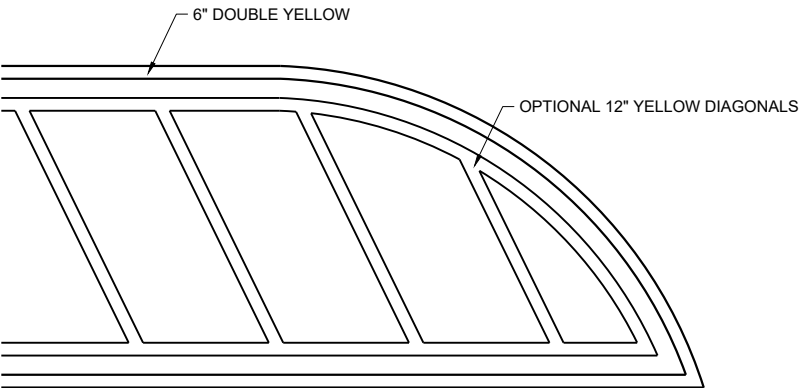
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED August 2024 /S/ Jeannie Silver DATE Statewide Pavement Marking Engineer

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED

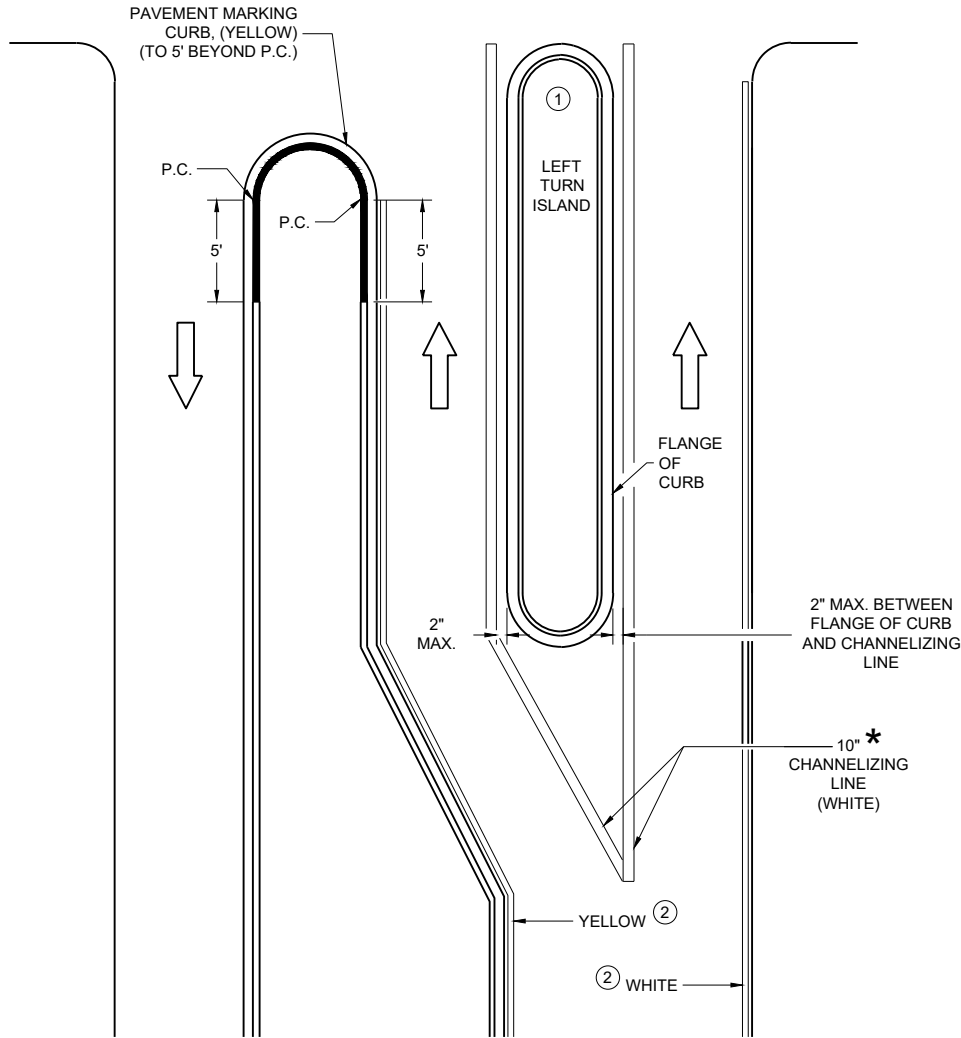
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

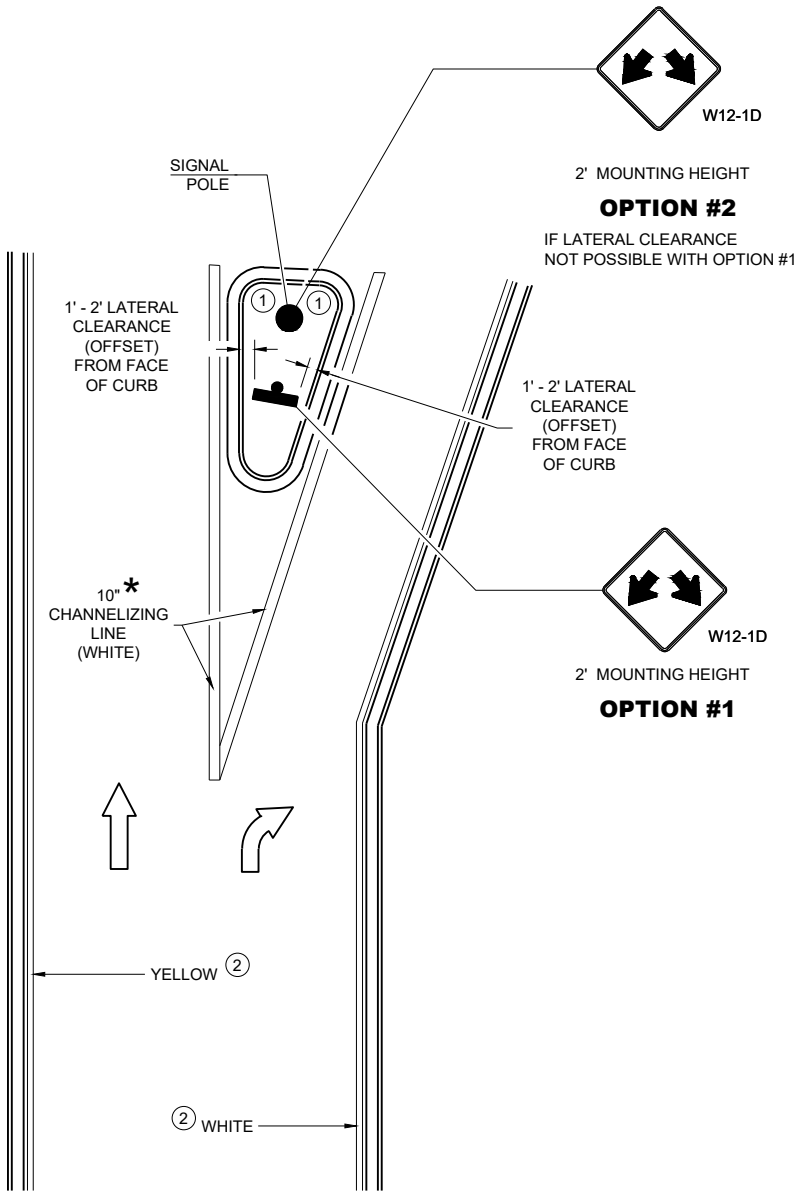
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.
- ③ CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

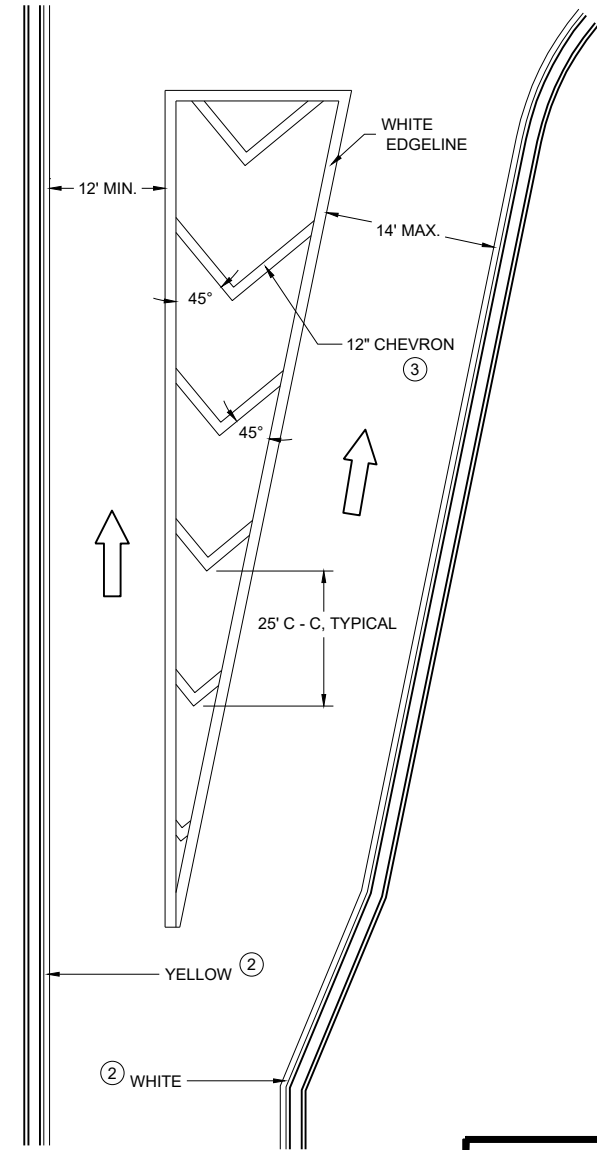
➡ DIRECTION OF TRAVEL



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



TURN LANE DETAIL

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

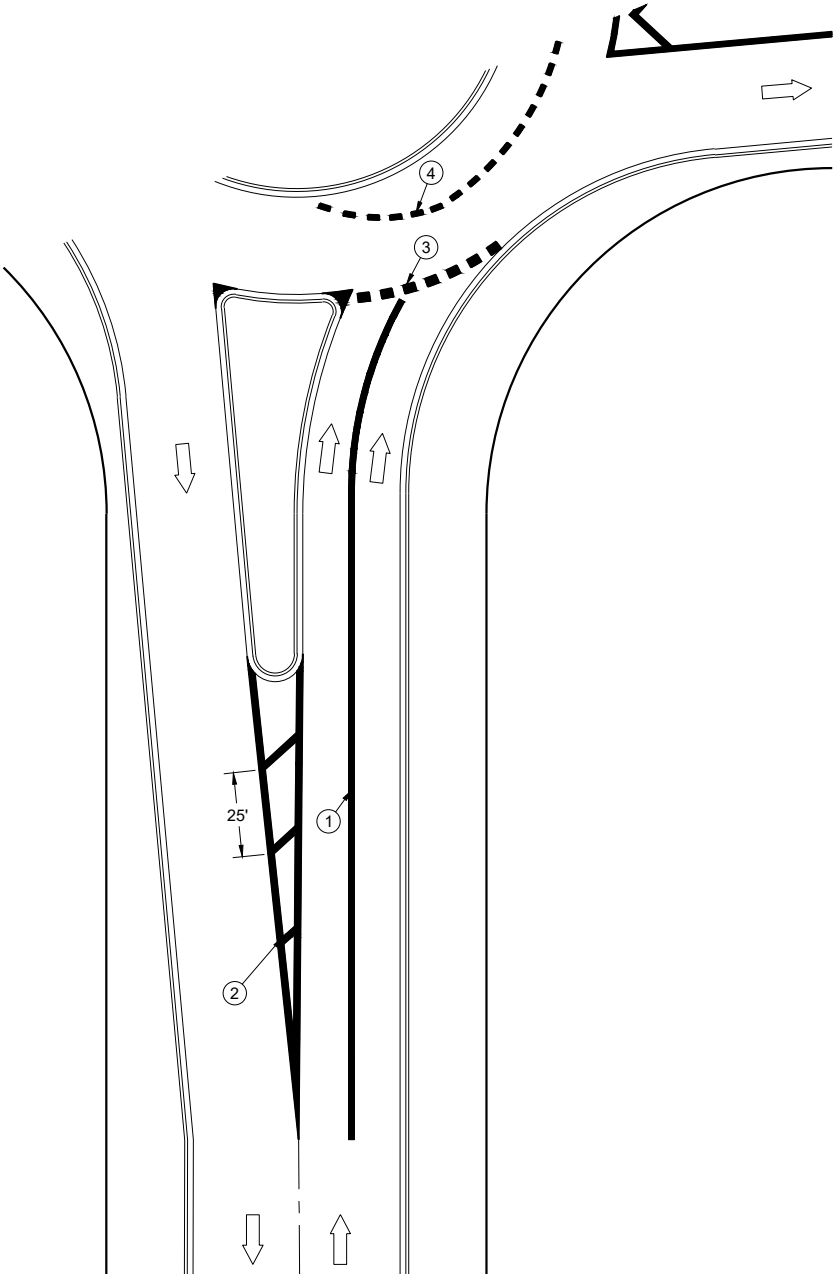
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA 179

LEGEND

- ① 10" WHITE
- ② 12" DIAGONALS AT 25' SPACING.
(CAN BE OMITTED IF LESS THAN 6')
- ③ 18" WHITE, 2' LINE, 2" GAP
- ④ 6" LINE (6 FT LINE, 3'GAP)
- DIRECTION OF TRAFFIC
- CURB AND GUTTER
- RIGHT OF WAY



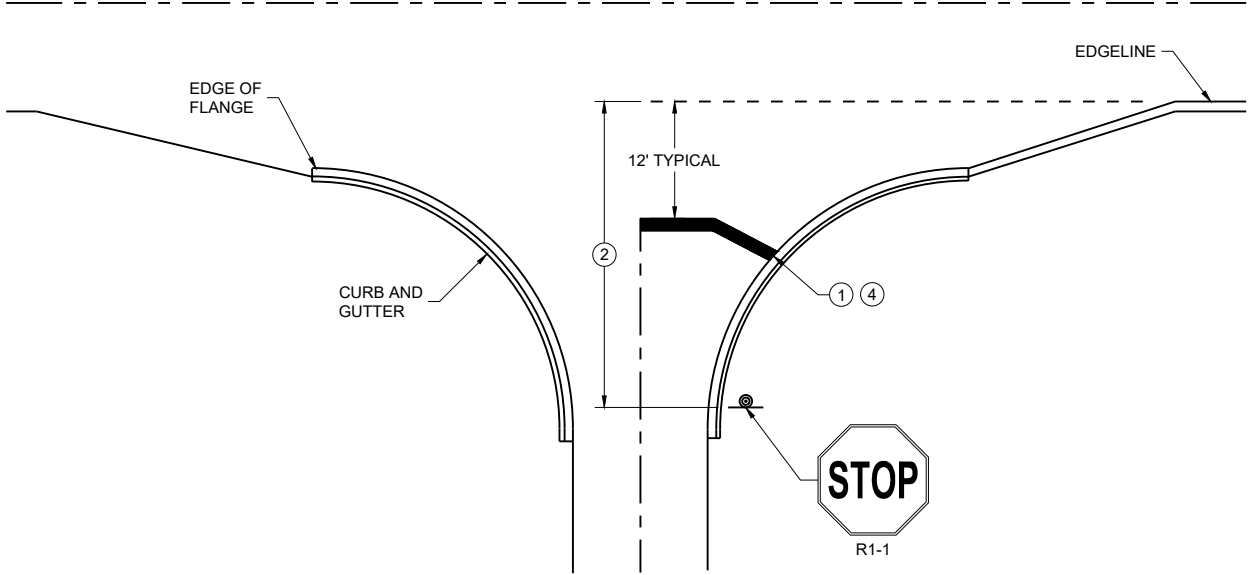
DOTTED EXTENSION FOR
ROUNDAABOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

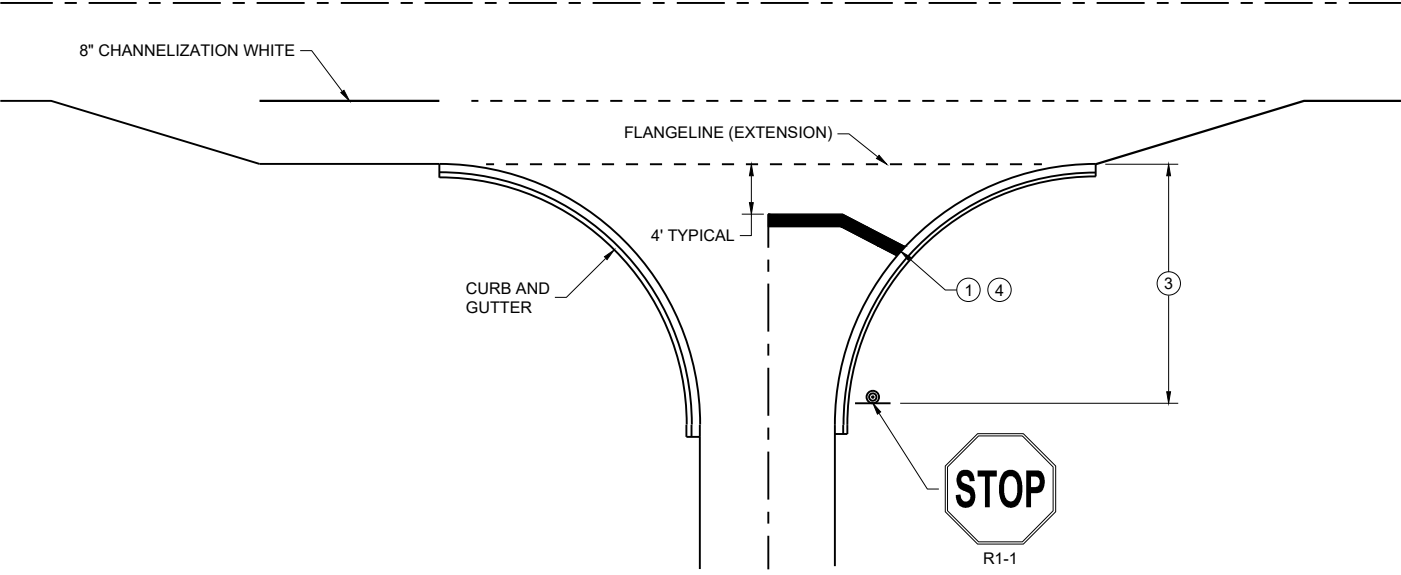
APPROVED
August 2024
DATE

/S/ Matthew Rauch
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

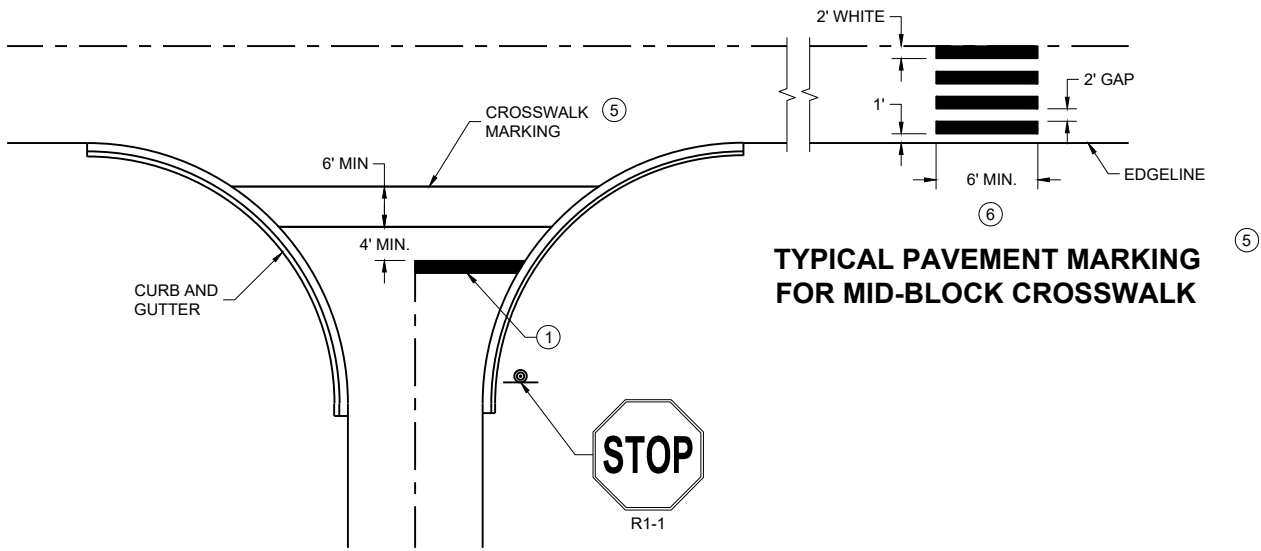
FHWA



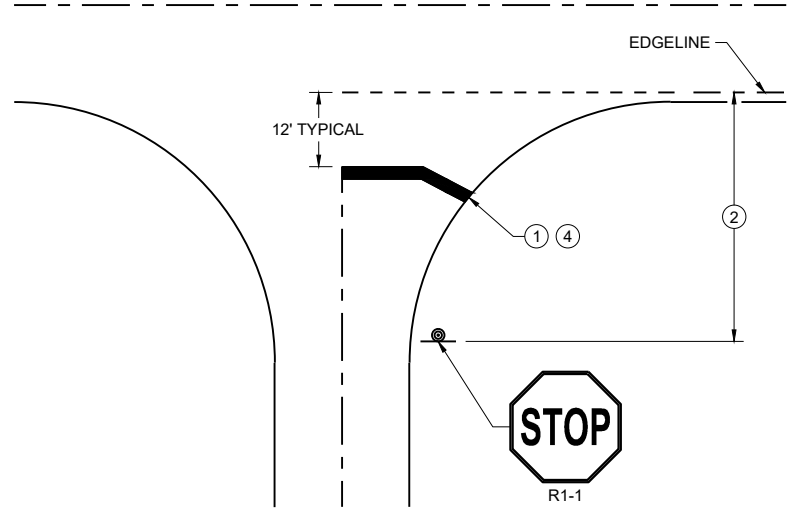
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



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 EDGELINE 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 EDGELINE.
- 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.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

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.

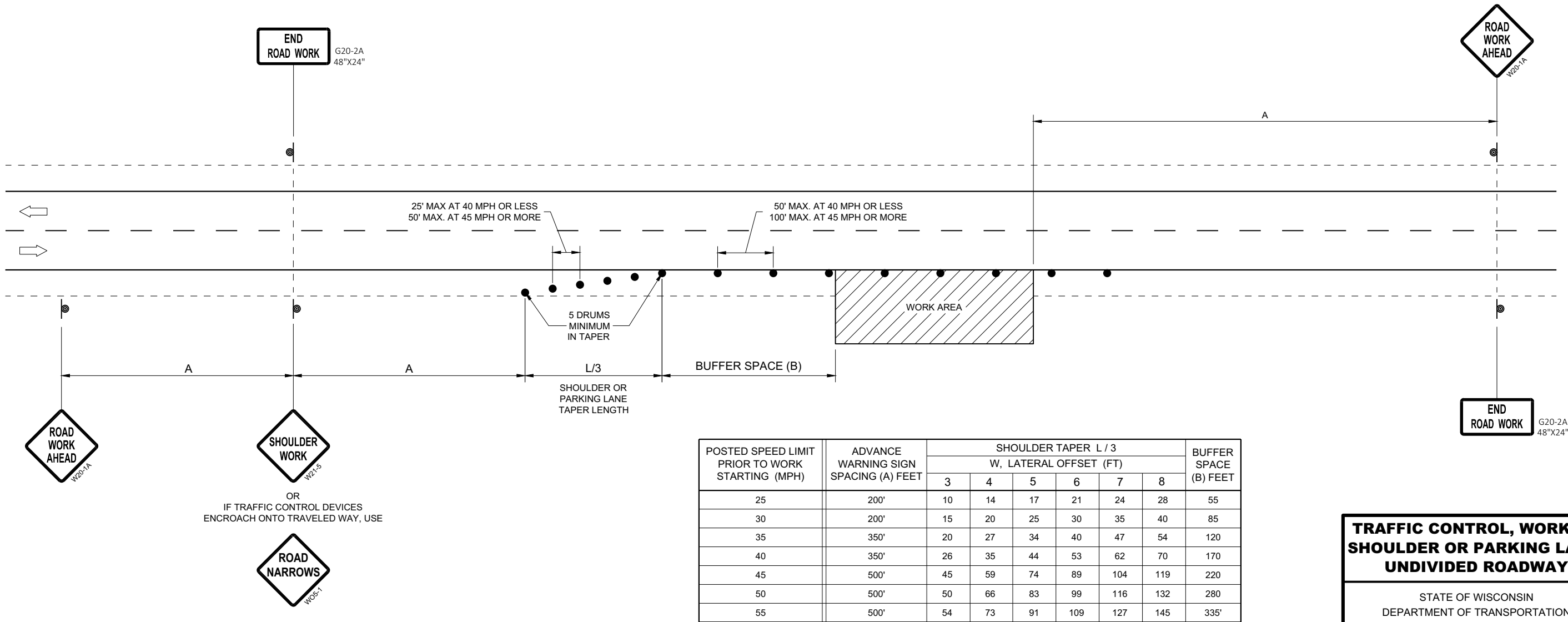
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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.

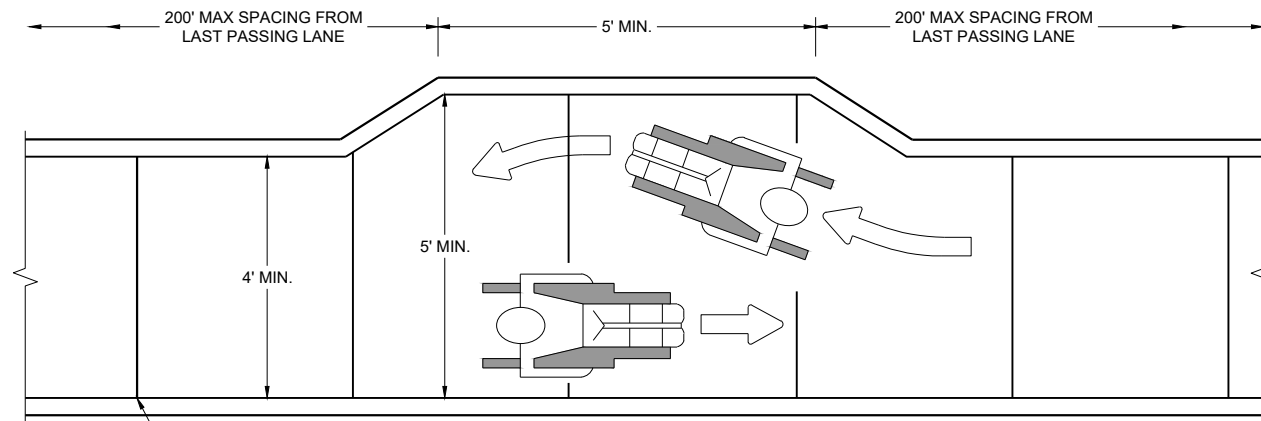
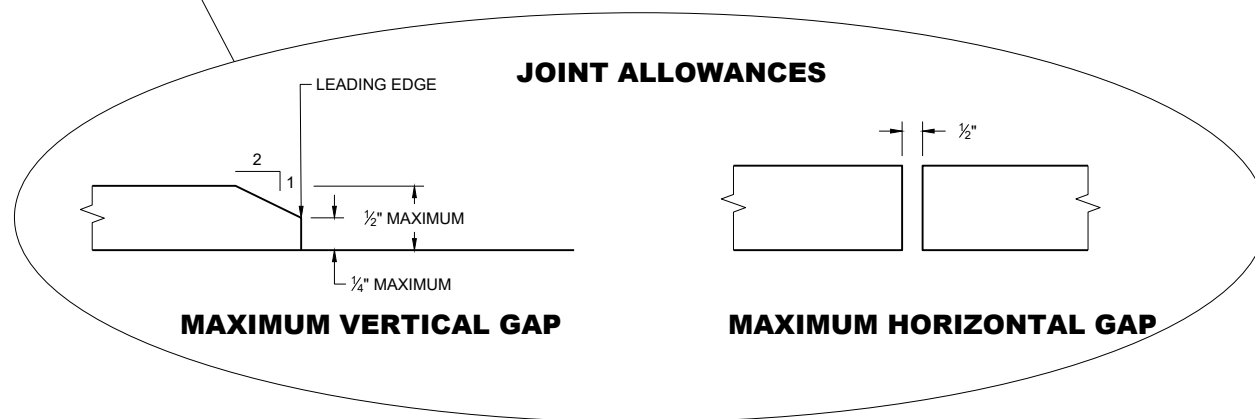
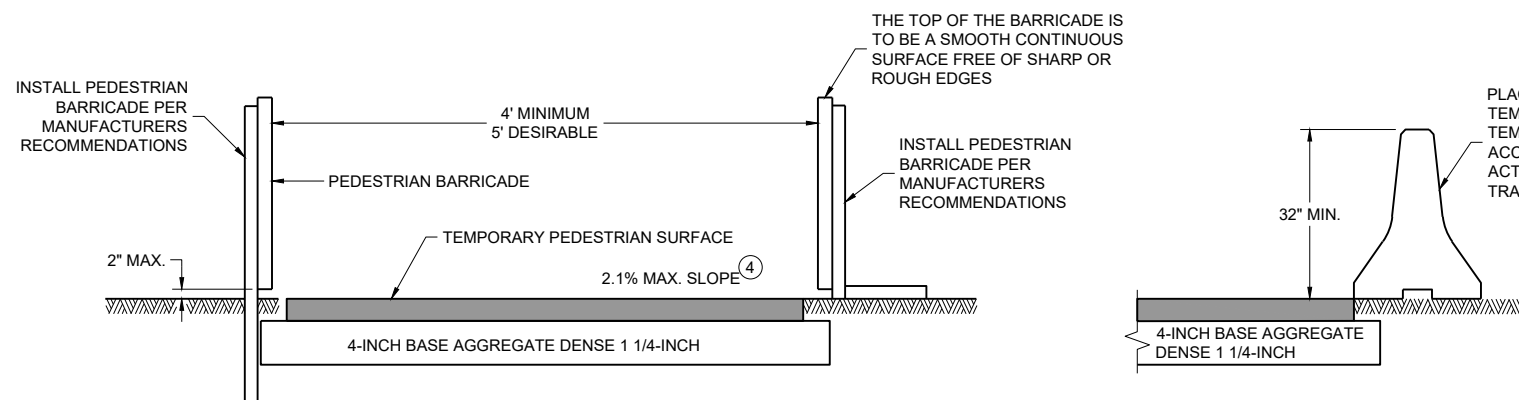
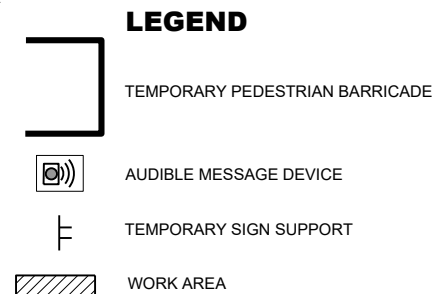
W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



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 182
FHWA

**NARROW SIDEWALK PASSING DETAIL****MAXIMUM VERTICAL GAP****MAXIMUM HORIZONTAL GAP****TEMPORARY PEDESTRIAN ACCESS****GENERAL NOTES**

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

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

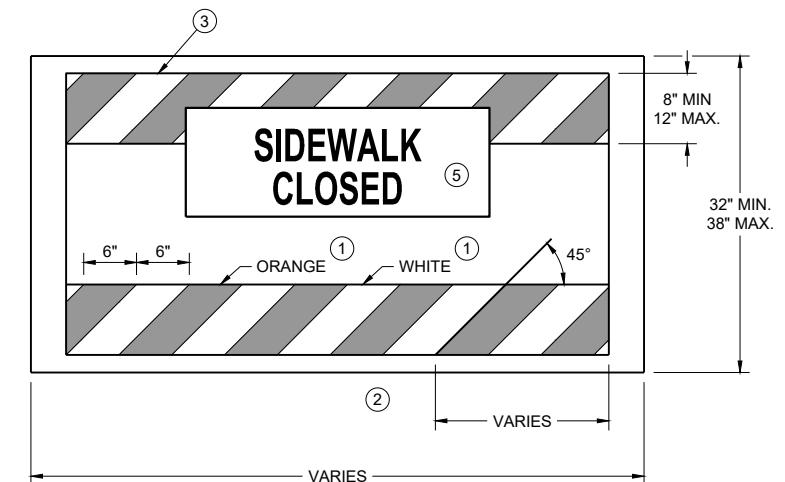
② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

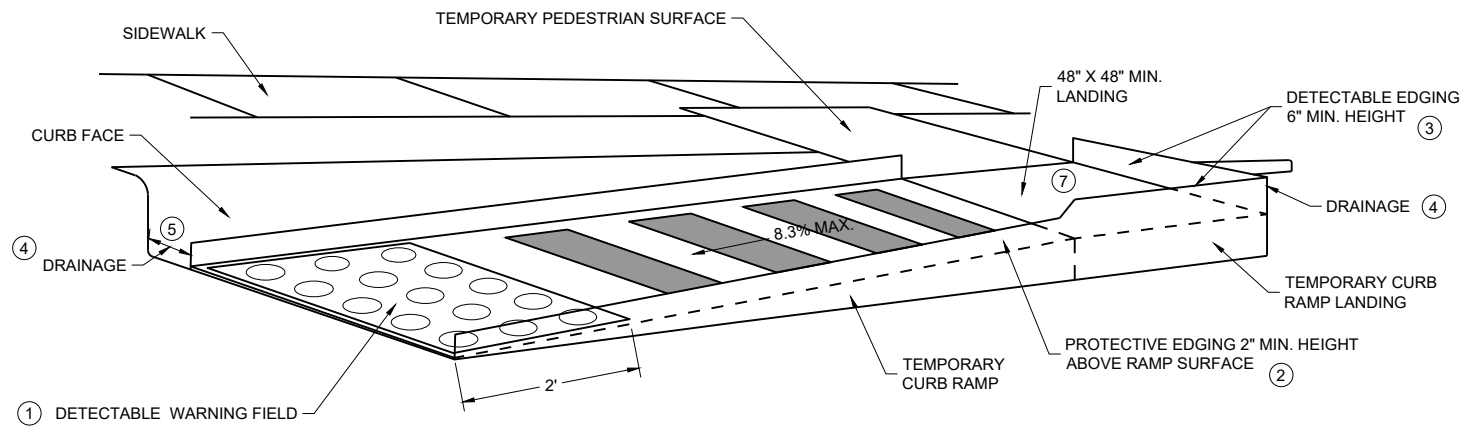
③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

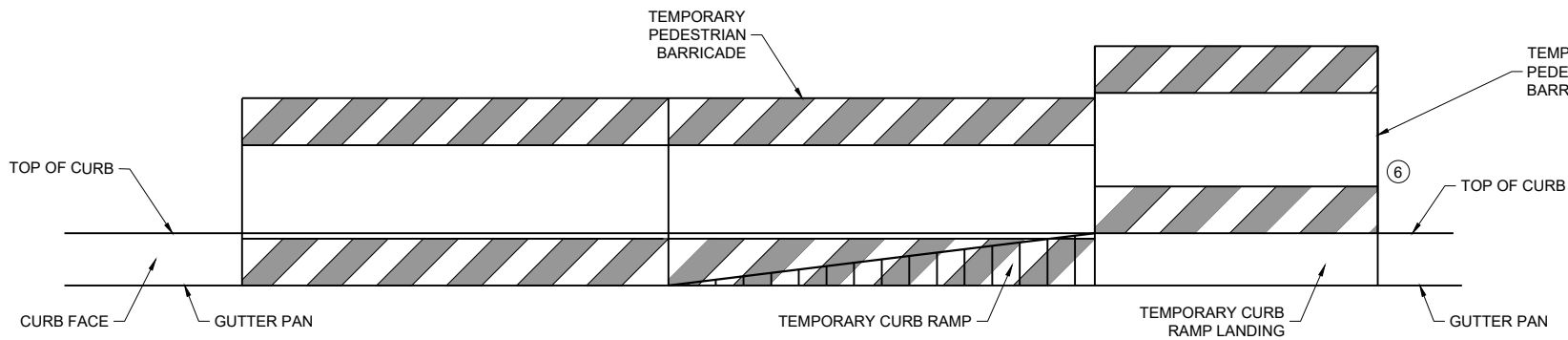
④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

⑤ WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

**TEMPORARY PEDESTRIAN BARRICADE *****TEMPORARY PEDESTRIAN FLAGGING****TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

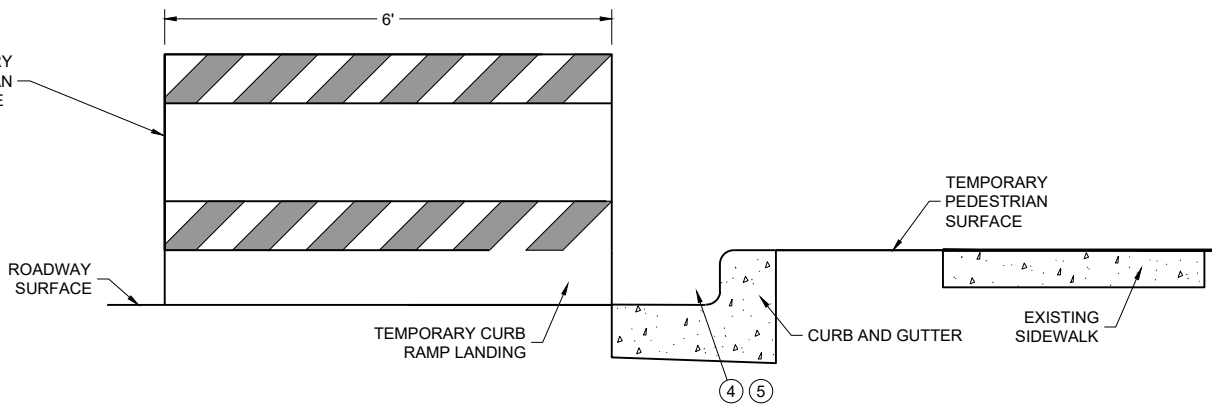


PERSPECTIVE VIEW



FRONT VIEW

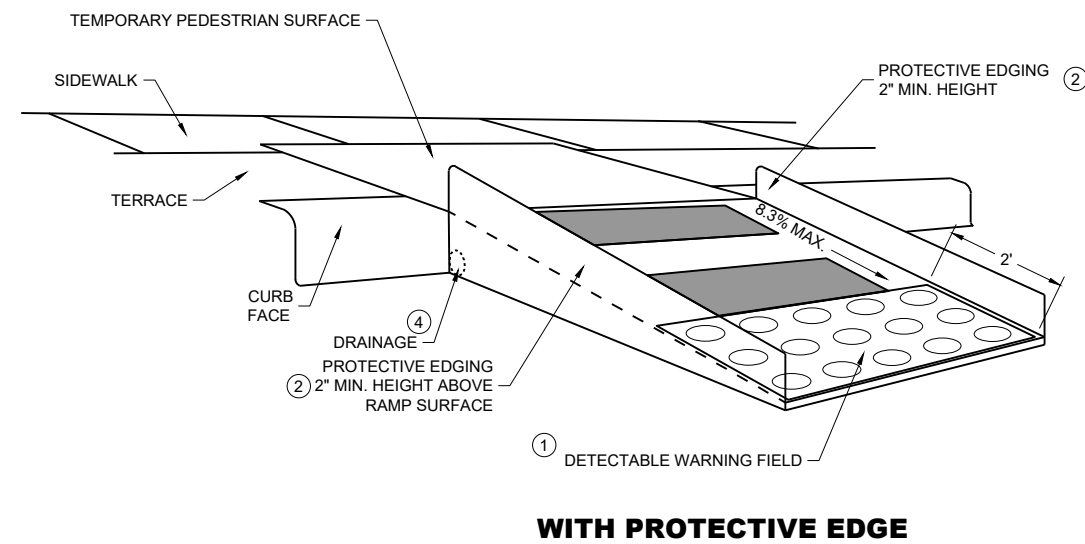
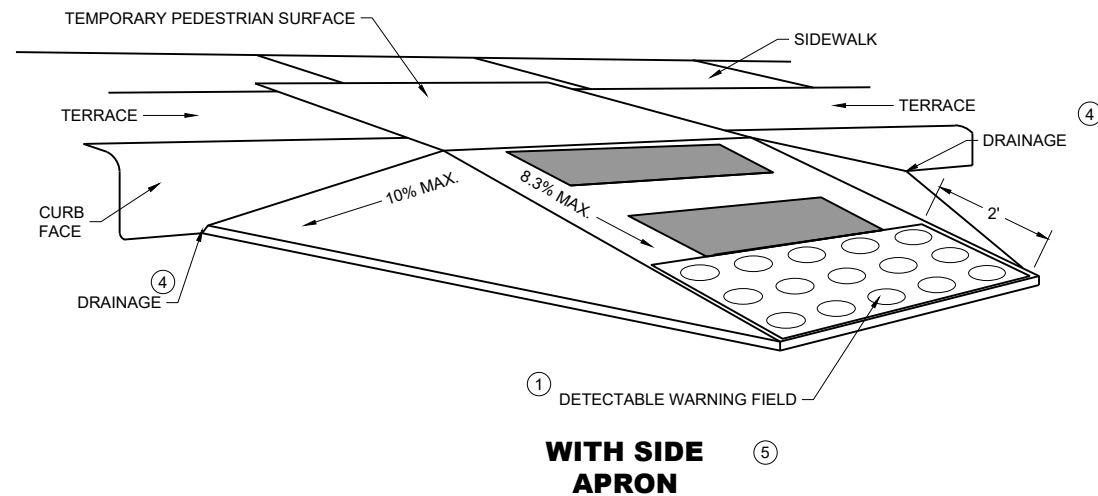
TEMPORARY CURB RAMP PARALLEL TO CURB



SIDE VIEW

GENERAL NOTES

- CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.
- CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
 - ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
 - ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
 - ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
 - ⑦ LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

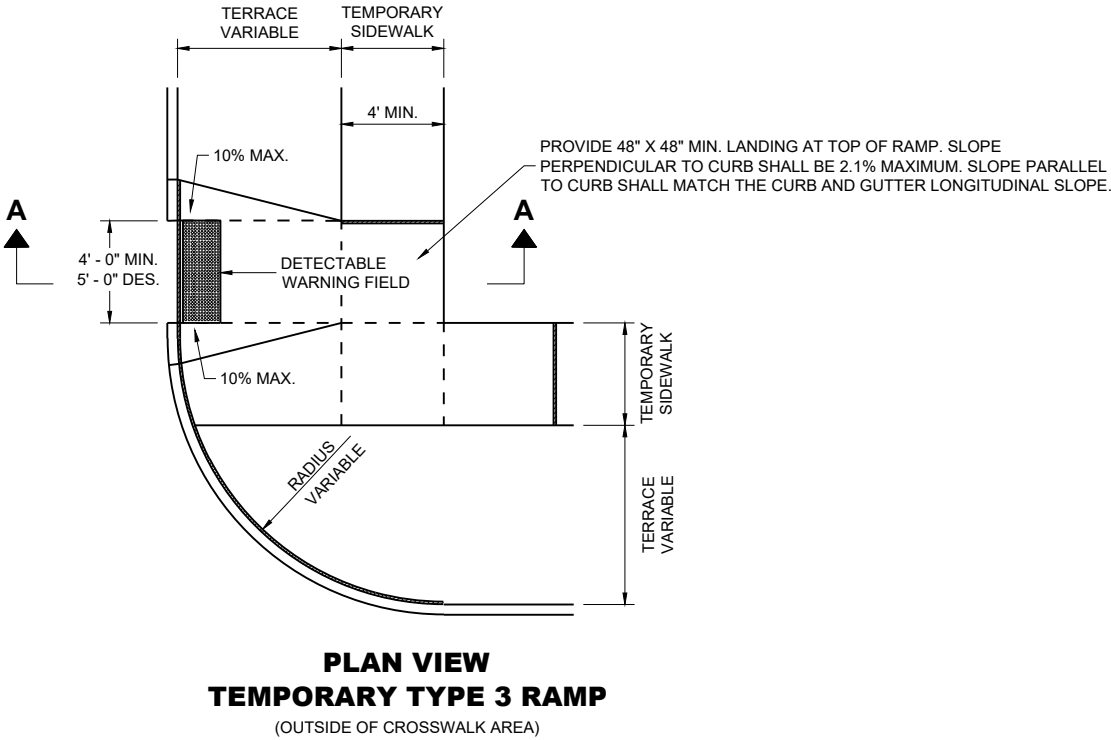
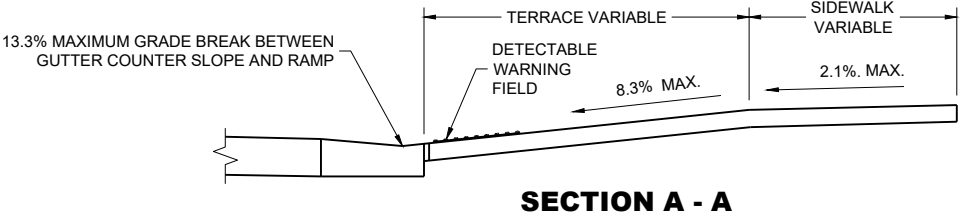
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

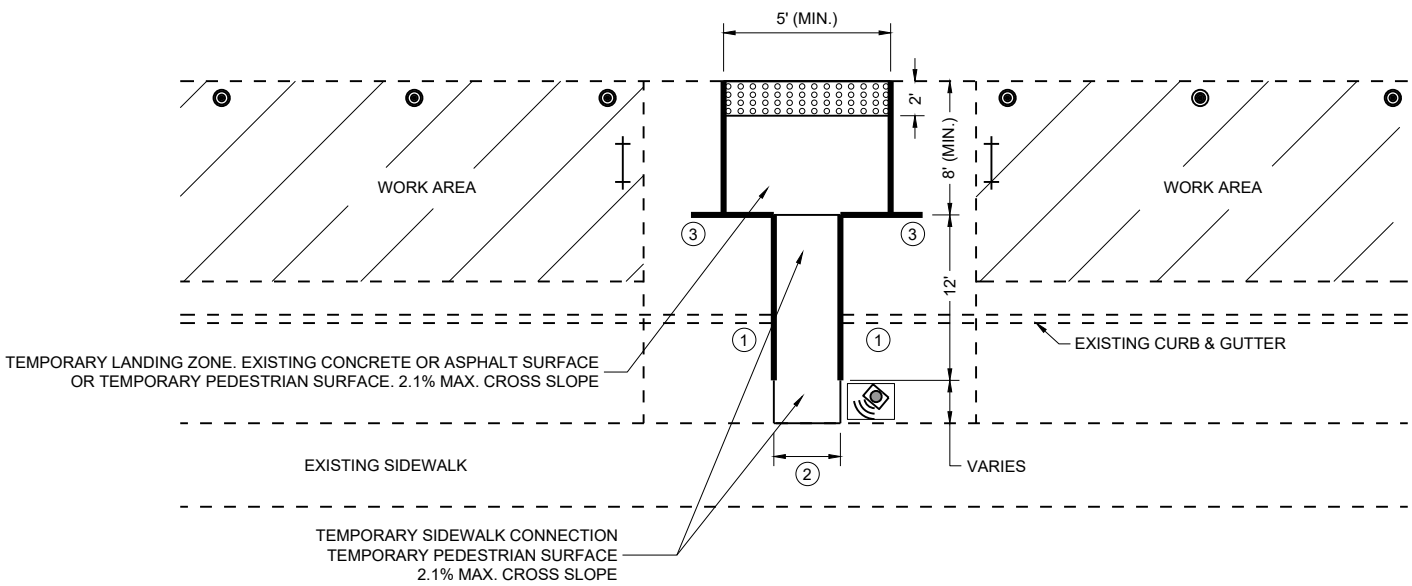
- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES

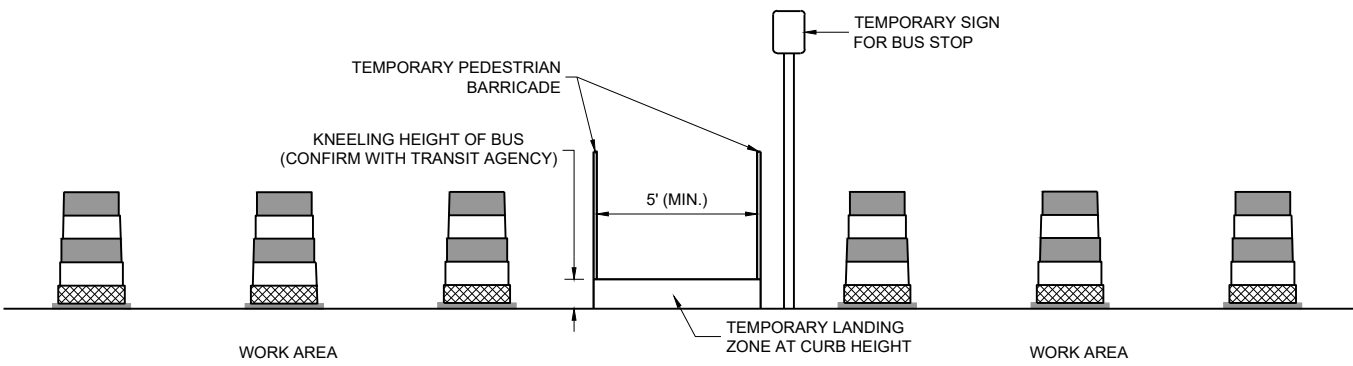


TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

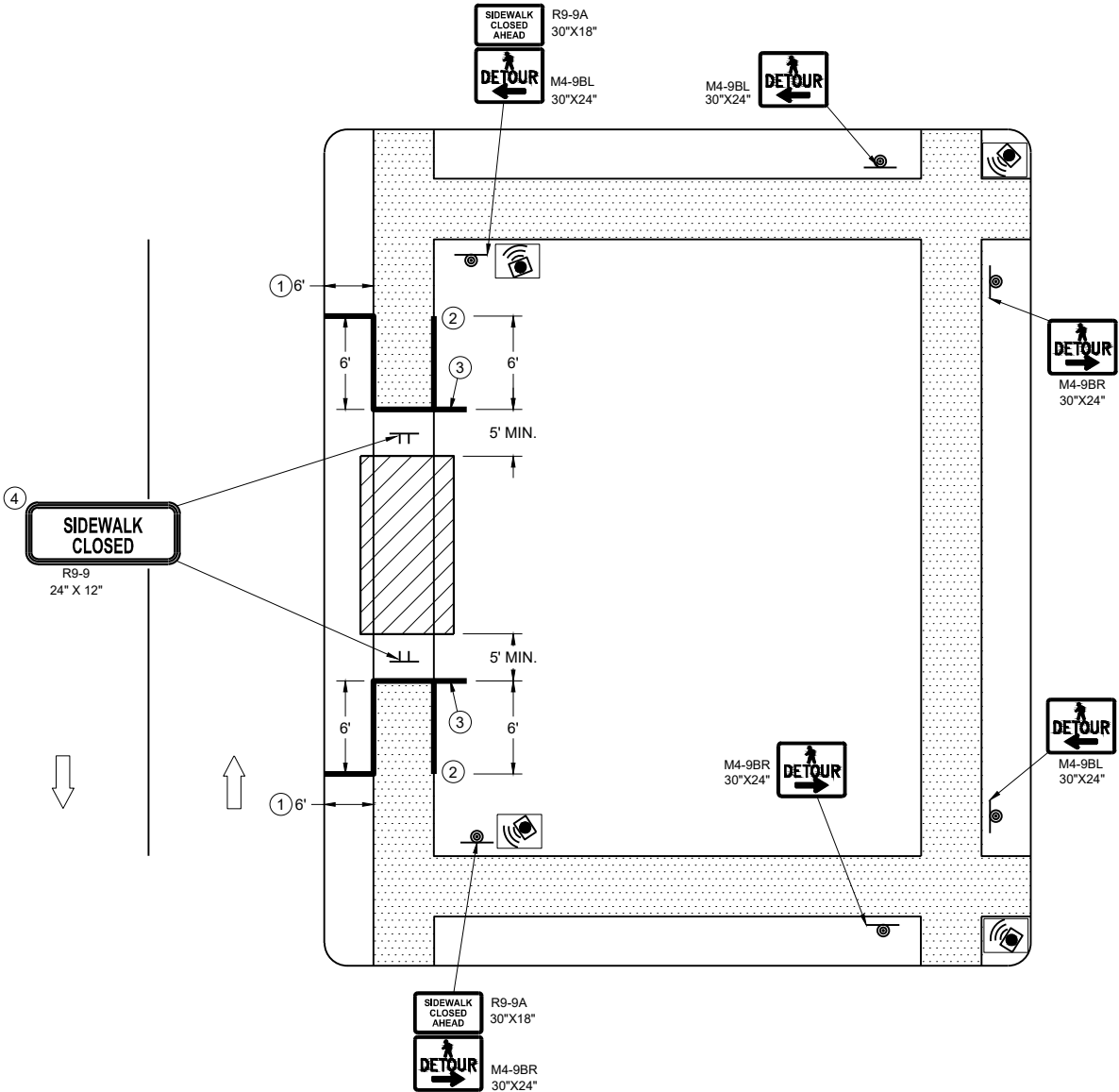
- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊢ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ⊞ TEMPORARY DETECTABLE WARNING FIELD
- ▨ WORK AREA
- 🔊 TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC
-  TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

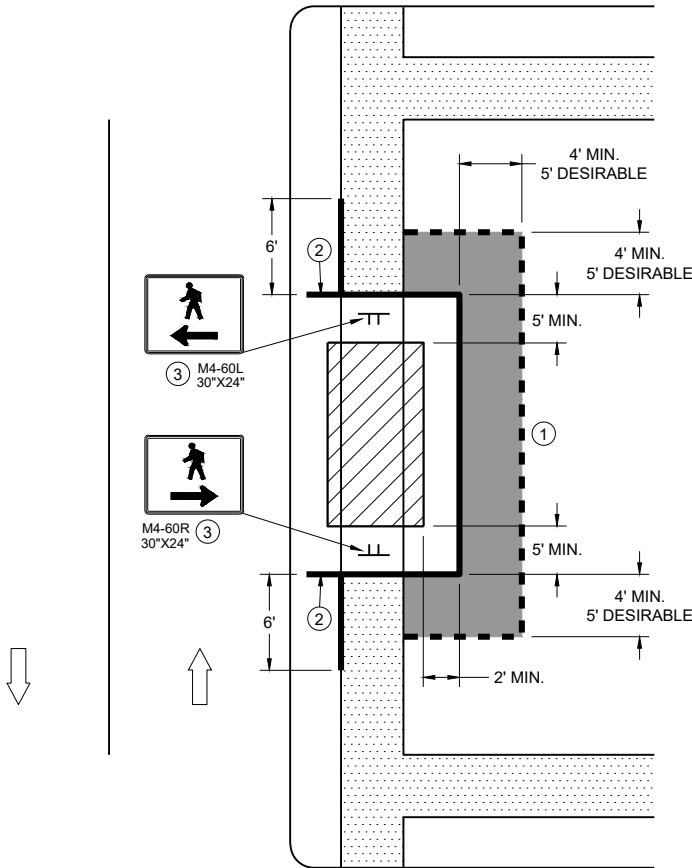
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- 1 USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
 - 2 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
 - 3 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



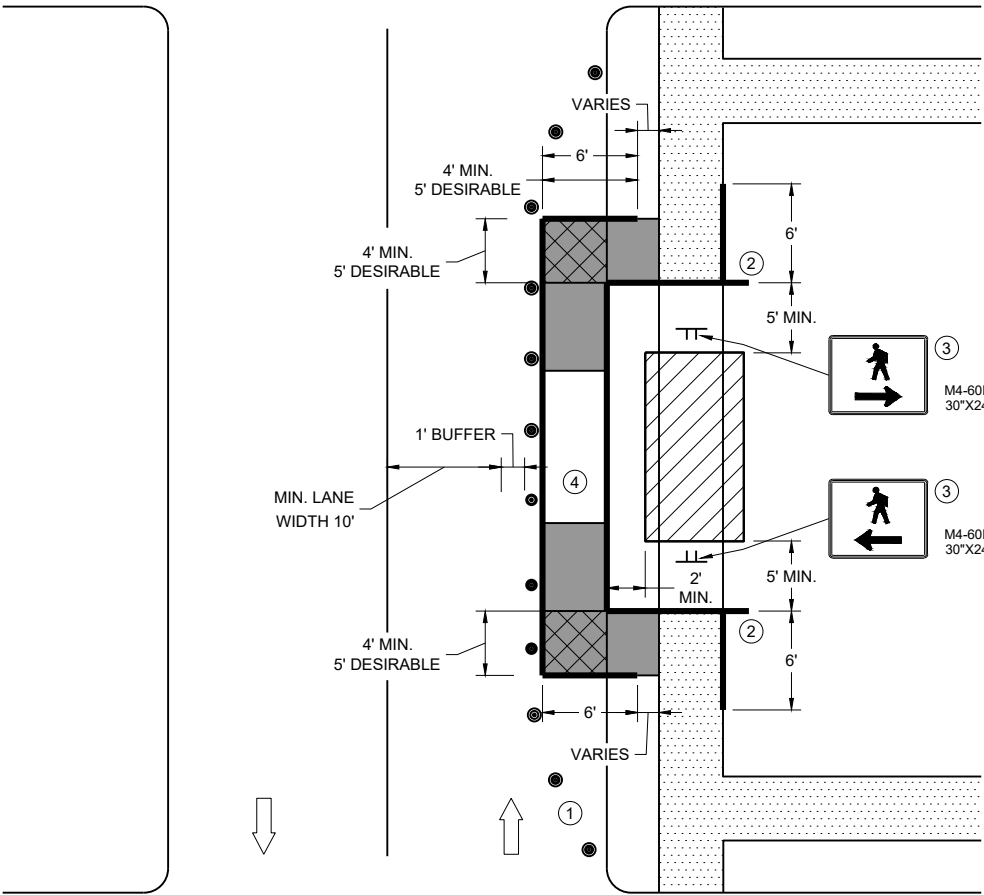
SIDEWALK BYPASS
SINGLE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

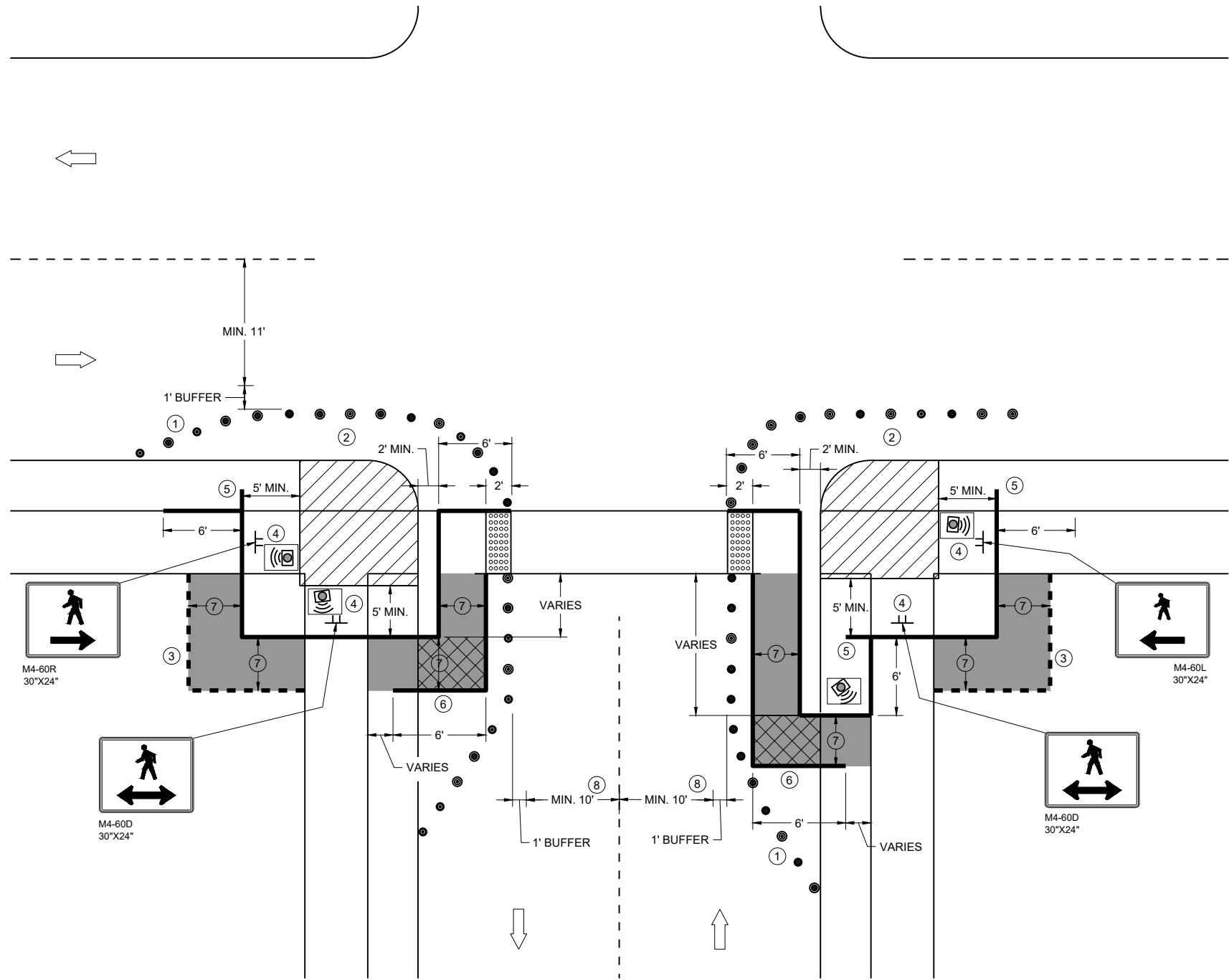
- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
 - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
 - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
 - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



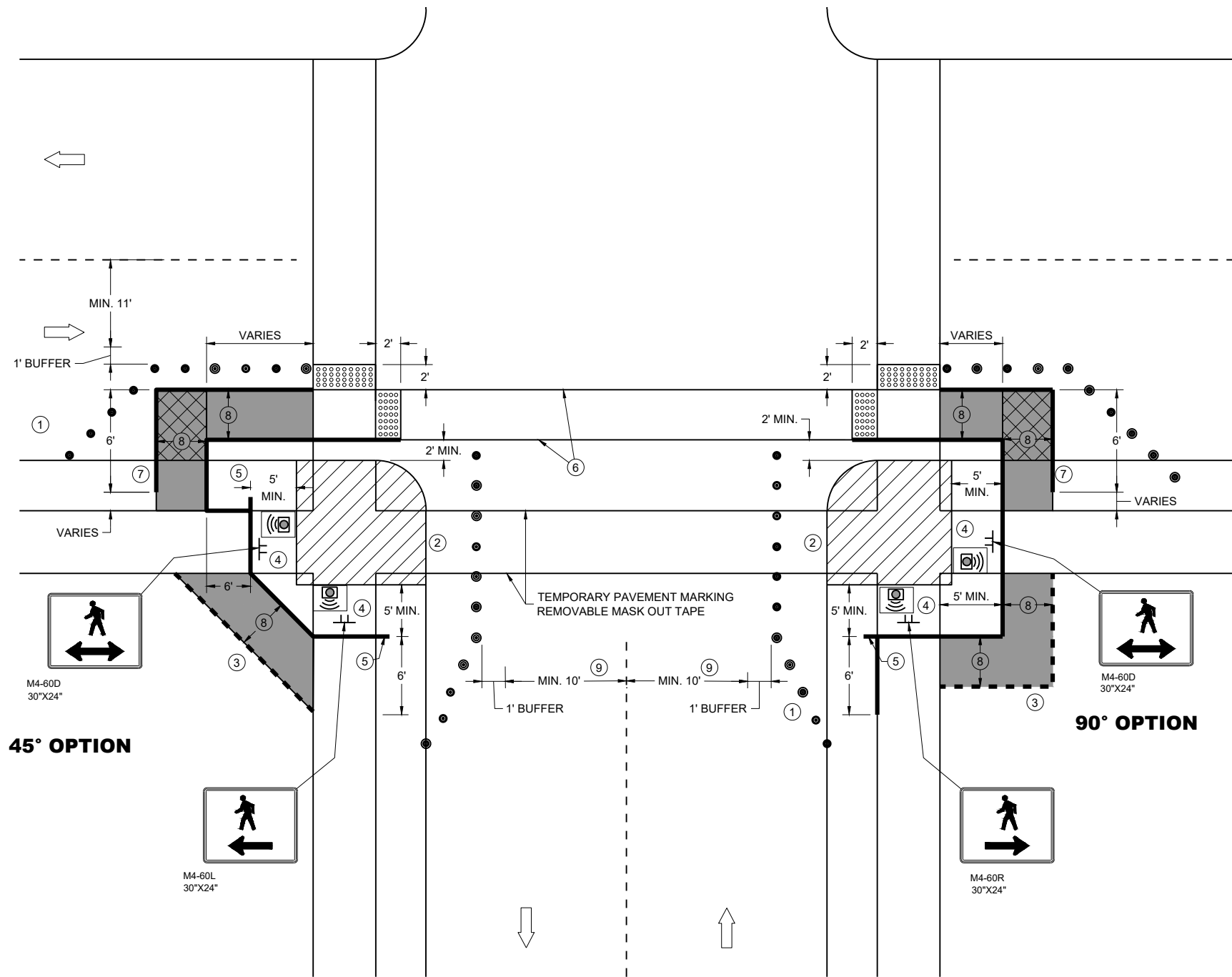
CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

- IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.
- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG
- WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
 - ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
 - ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
 - ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
 - ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
 - ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
 - ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
 - ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

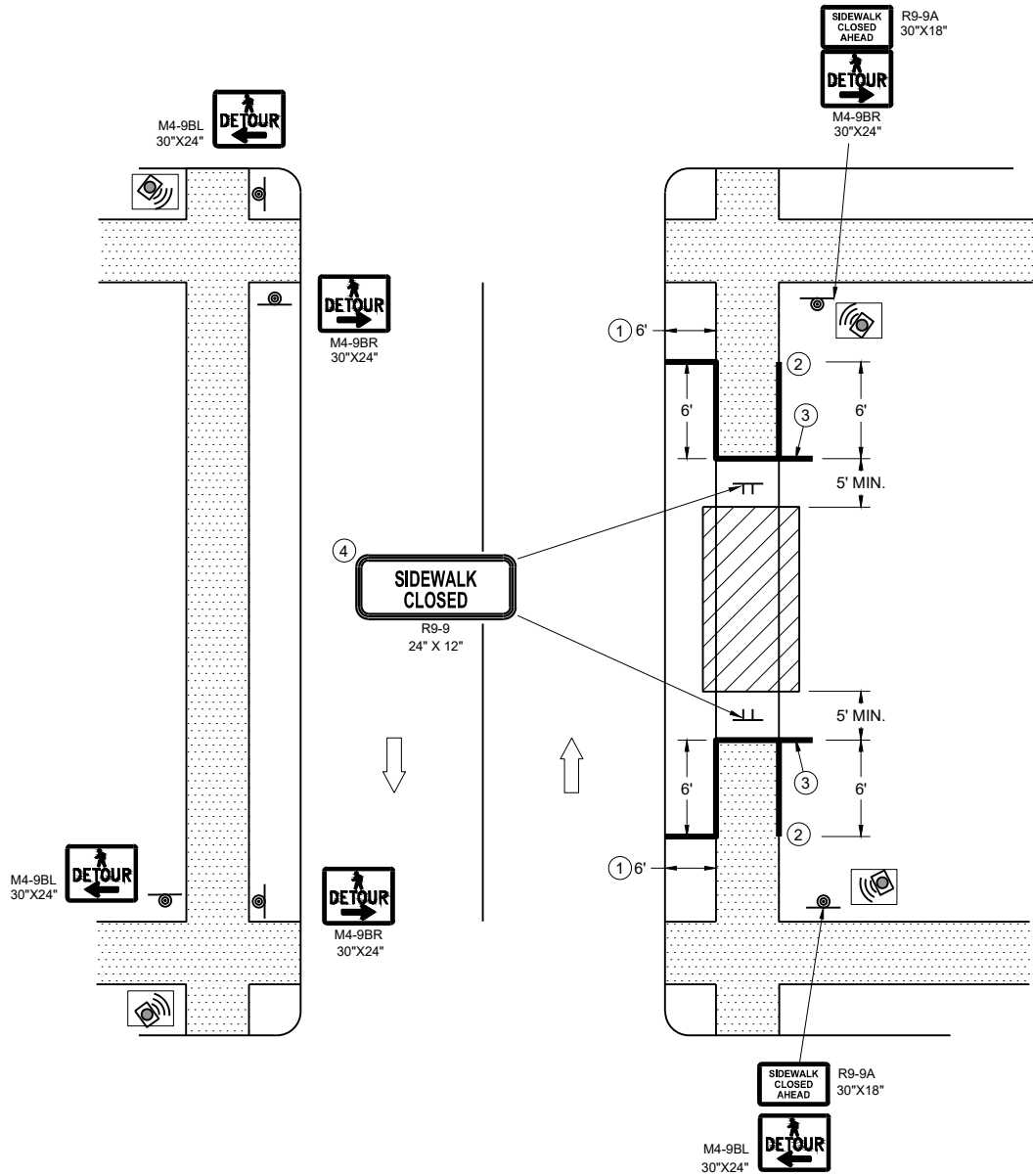
- 1 SHOULDERS OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- 3 USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- 4 MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- 5 PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- 6 WHITE 6" TEMPORARY PAVEMENT MARKING
- 7 IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- 8 4 FEET MINIMUM, 5 FEET DESIRABLE
- 9 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE
(EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

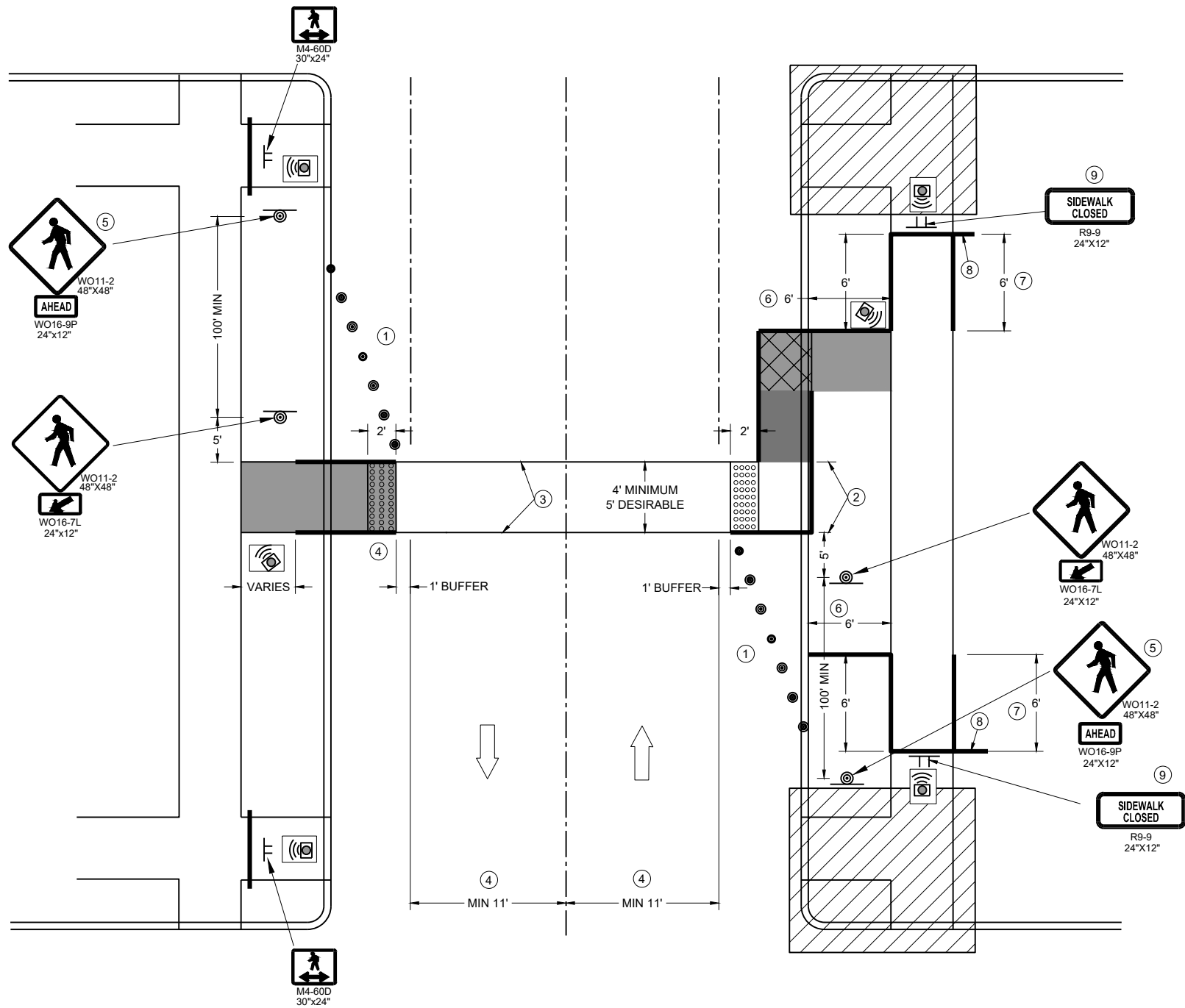
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
 - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
 - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
 - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- ① SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② 4 FEET MINIMUM, 5 FEET DESIRABLE.
- ③ WHITE 6" TEMPORARY PAVEMENT MARKING.
- ④ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMP MAY NEED TO BE UTILIZED.
- ⑤ IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- ⑥ IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ⑦ PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ⑧ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ⑨ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON TEMPORARY SUPPORT
- ▬ TEMPORARY CURB RAMP
- ▬ TEMPORARY DETECTABLE WARNING FIELD
- ▬ TEMPORARY PEDESTRIAN SURFACE "A"
- ▬ TEMPORARY PEDESTRIAN SURFACE "B"
- ▬ WORK AREA
- ▬ TEMPORARY PEDESTRIAN BARRICADE
- ➡ DIRECTION OF TRAFFIC
- 🔊 TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

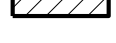
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

- 
- TYPE III BARRICADE WITH ATTACHED SIGN



GENERAL NOTES

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

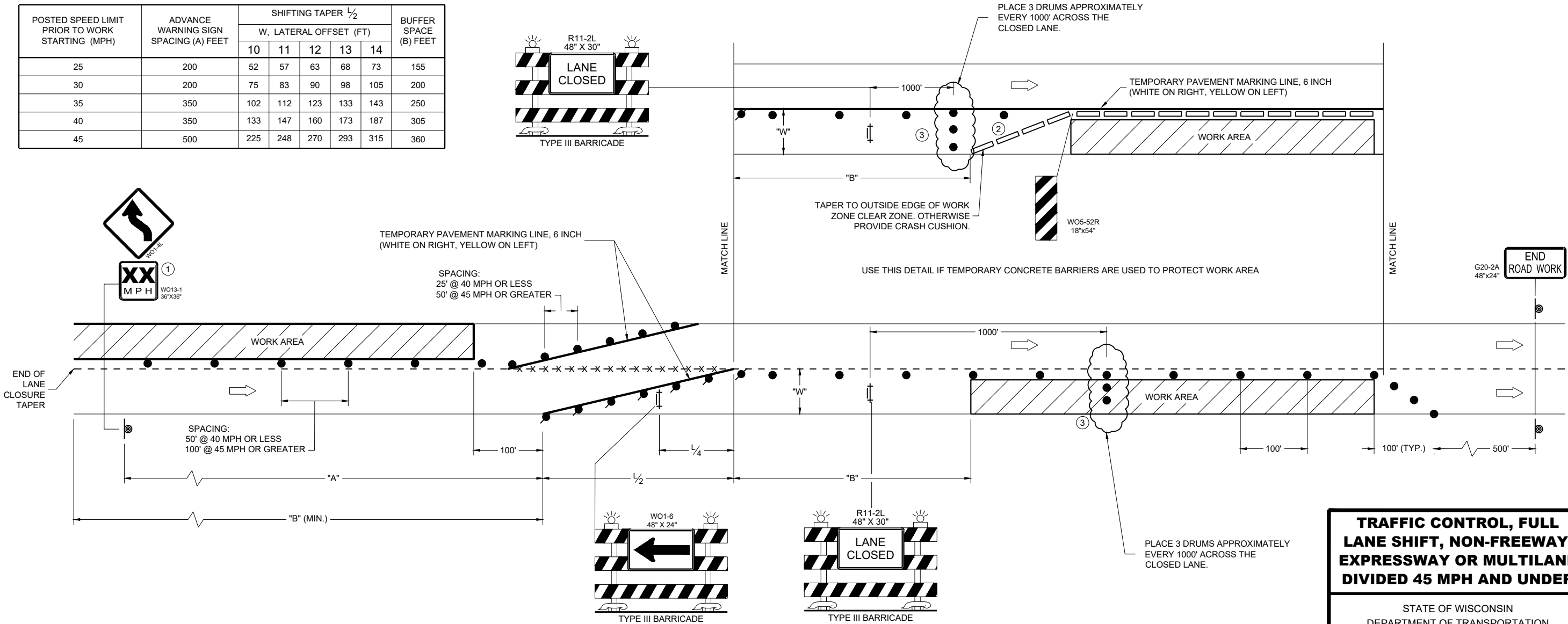
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER

SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- 1 USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 2 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER
- 3 DRUMS 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$					BUFFER SPACE (B) FEET
		W, LATERAL OFFSET (FT)					
		10	11	12	13	14	
25	200	52	57	63	68	73	155
30	200	75	83	90	98	105	200
35	350	102	112	123	133	143	250
40	350	133	147	160	173	187	305
45	500	225	248	270	293	315	360



TRAFFIC CONTROL, FULL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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DATE WORK ZONE ENGINEER
FHWA

LEGEND

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

GENERAL NOTES

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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

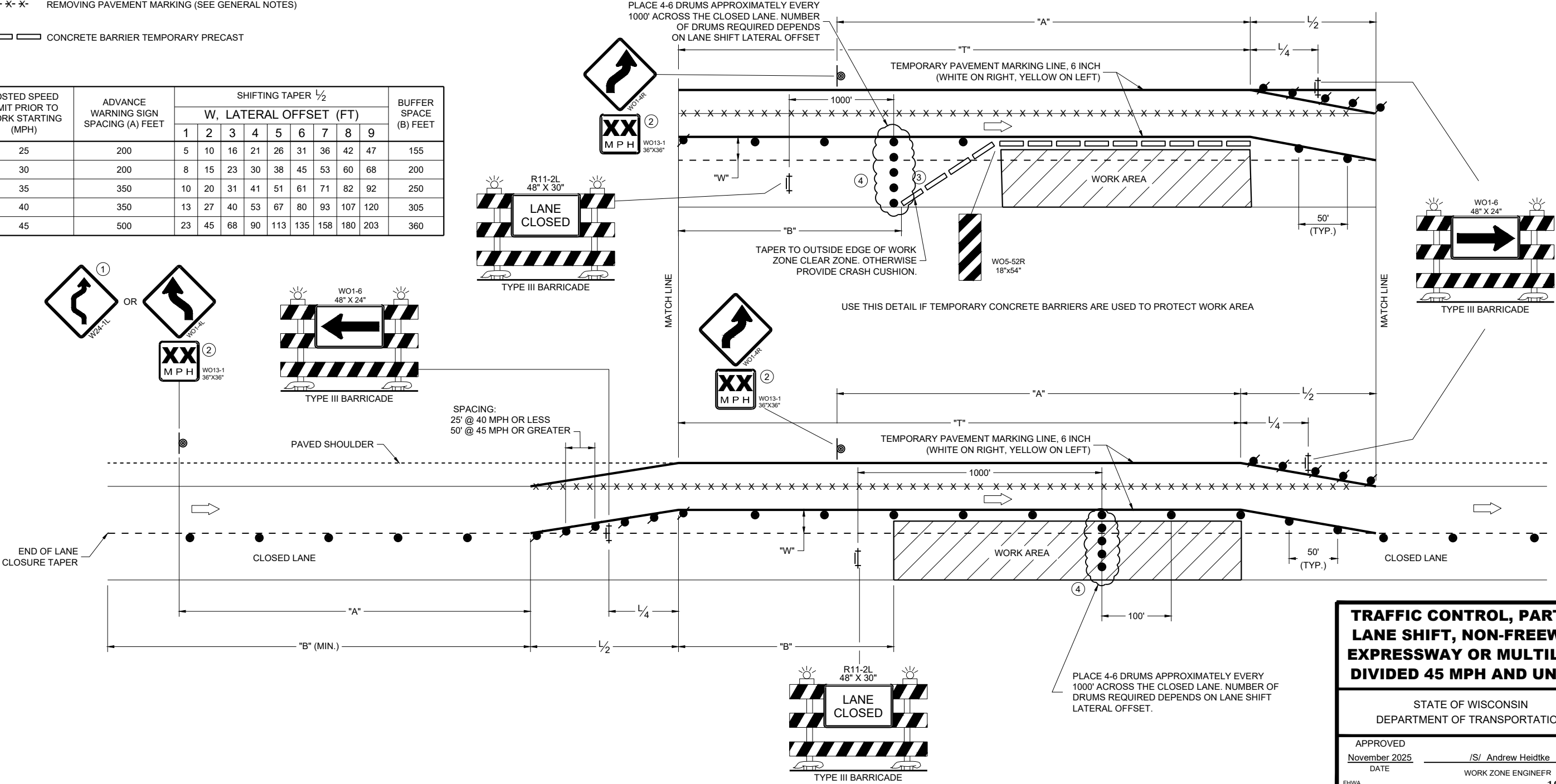
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- 1 USE ONLY WHEN T<600', OMIT WO1-4R.
- 2 IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 3 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER
- 4 DRUMS 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.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER ½									BUFFER SPACE (B) FEET
		W, LATERAL OFFSET (FT)									
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	155
30	200	8	15	23	30	38	45	53	60	68	200
35	350	10	20	31	41	51	61	71	82	92	250
40	350	13	27	40	53	67	80	93	107	120	305
45	500	23	45	68	90	113	135	158	180	203	360



TRAFFIC CONTROL, PARTIAL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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.

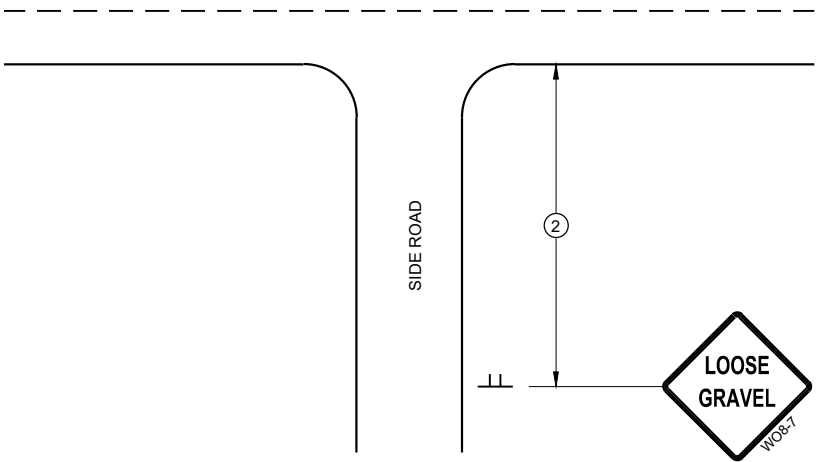
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

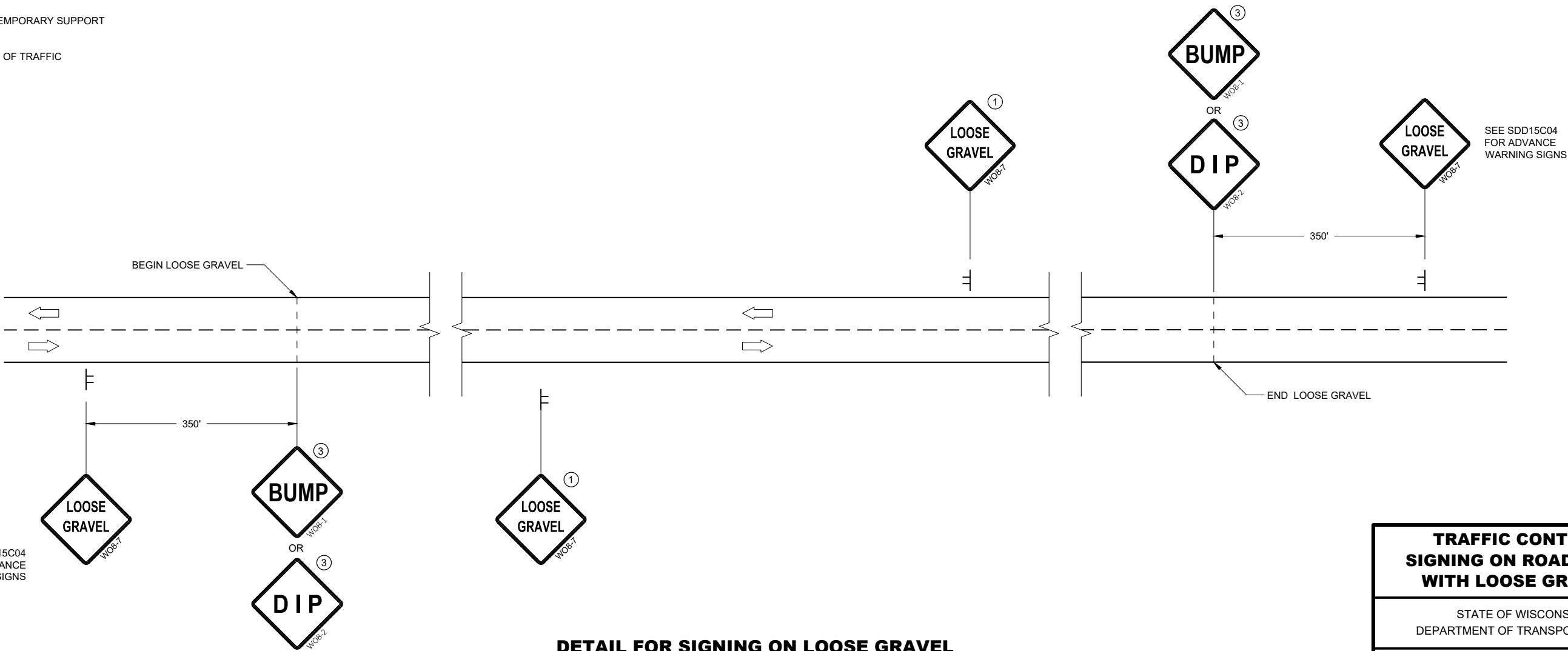
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

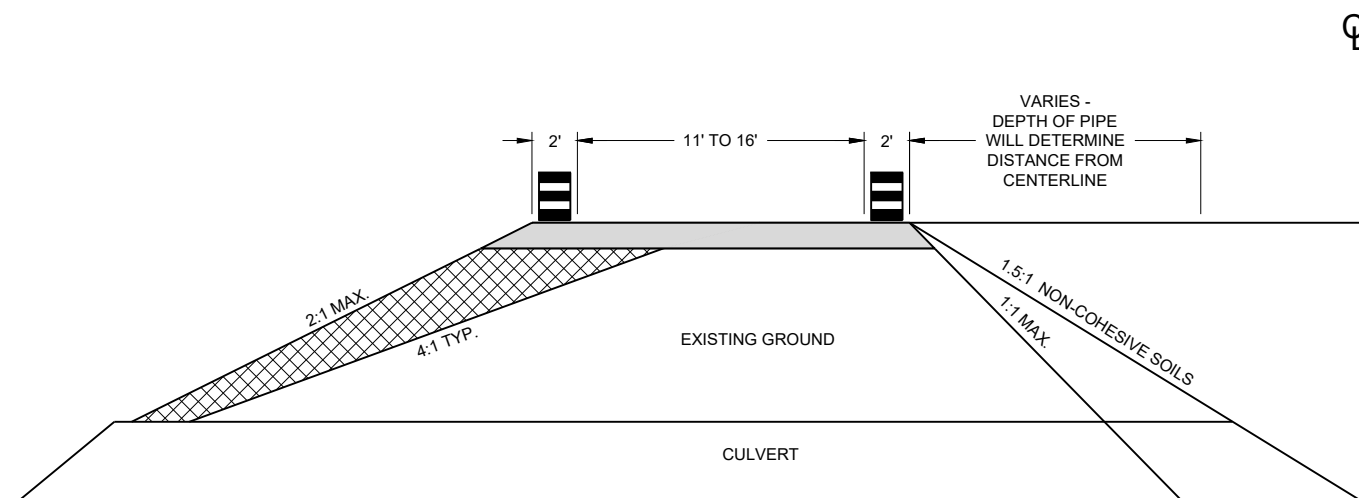
SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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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.

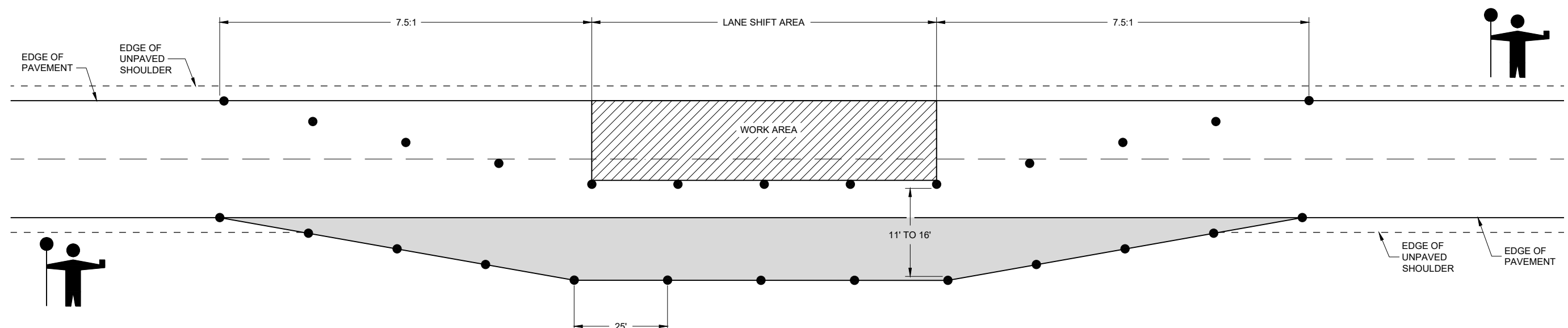
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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 <u>February 2021</u> DATE	<u>/S/ Andrew Heidtke</u> WORK ZONE ENGINEER 198

LEGEND

- V1

WORK VEHICLE
- V2

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

FLASHING ARROW PANEL (CAUTION)
- 

WORK AREA
- 

DIRECTION OF TRAFFIC

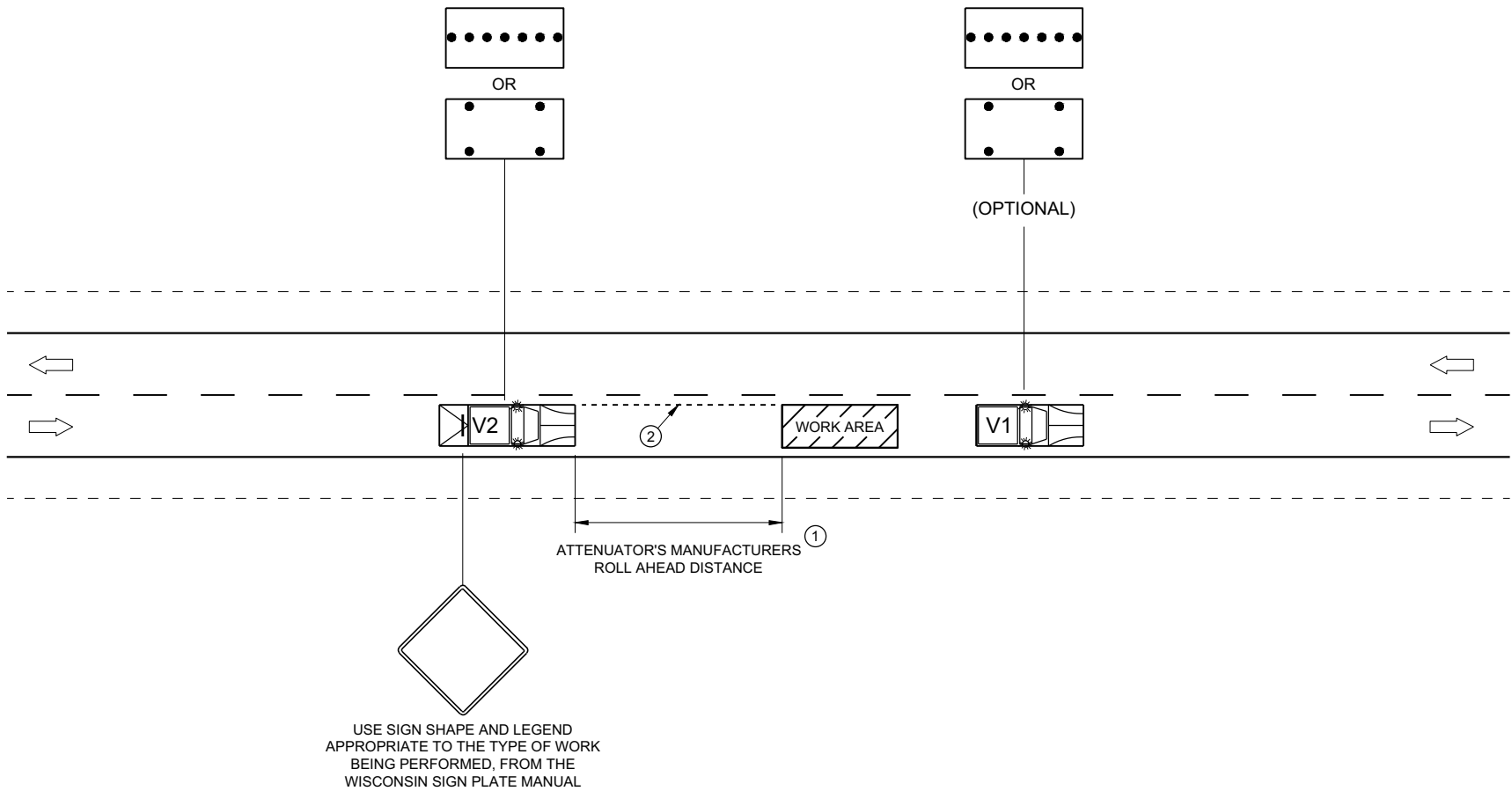
POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

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

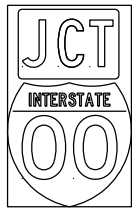
STATE OF WISCONSIN
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APPROVED
February 2021
DATE

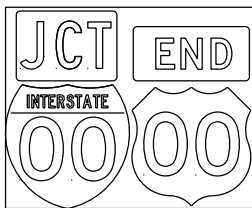
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T
SAFETY ENGINEER 199

FHWA

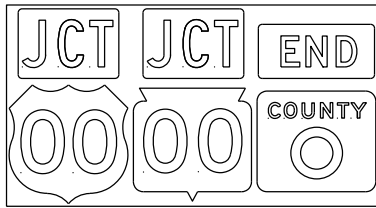
TYPICAL ASSEMBLIES



J1-1



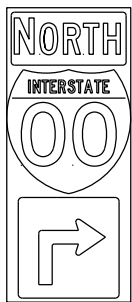
J1-2



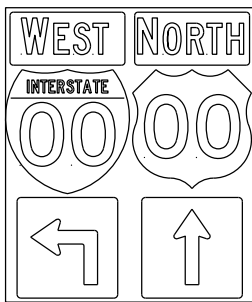
J1-3



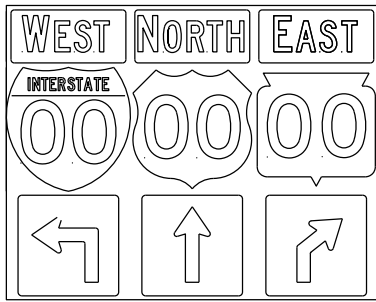
JR1-1



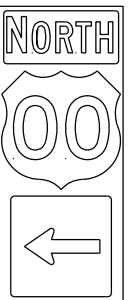
J2-1



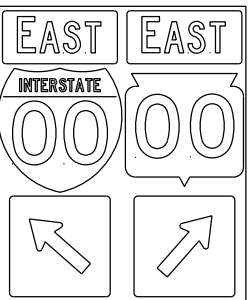
J2-2



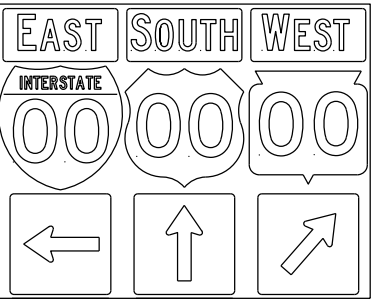
J2-3



J3-1



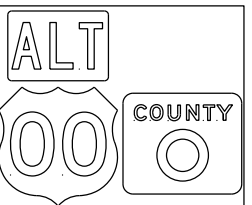
J3-2



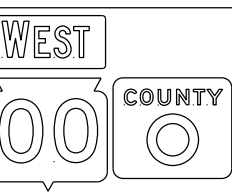
J3-3



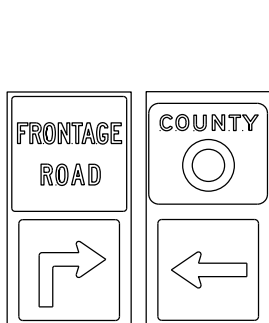
J4-1



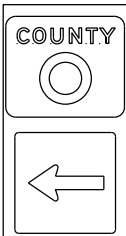
J4-2



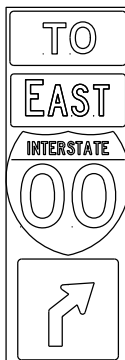
J4-2



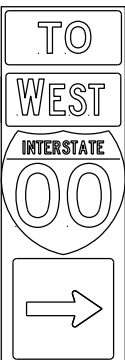
J12-1



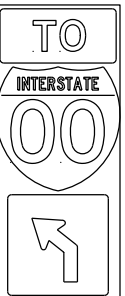
J13-1



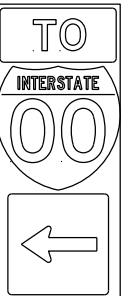
J32-1



J33-1



J22-1



J23-1



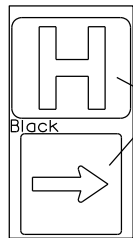
JR13-1



JR23-1



JR99-1

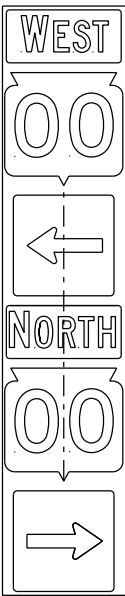
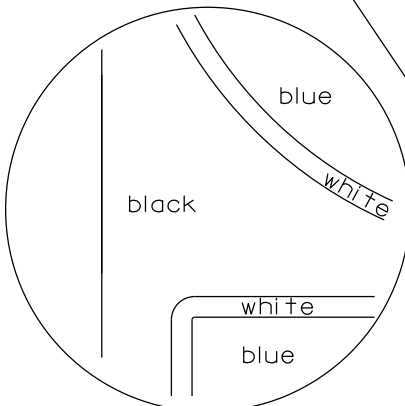


JH-1

Blue Background

Black

blue background with interstate

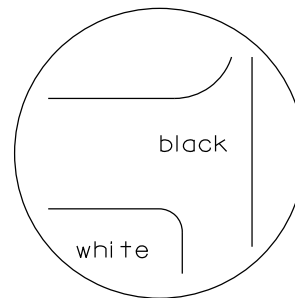
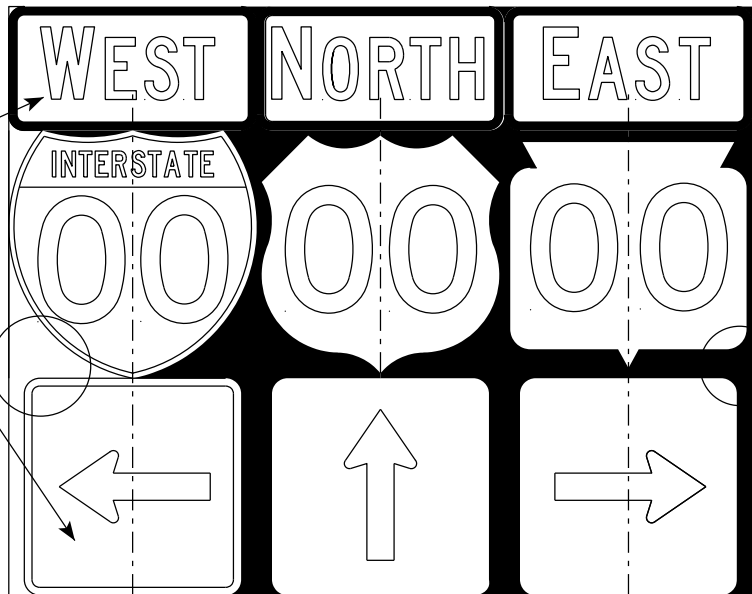


JV

(Typical Vertical J-Assembly See Note 10 and 11)

NOTES

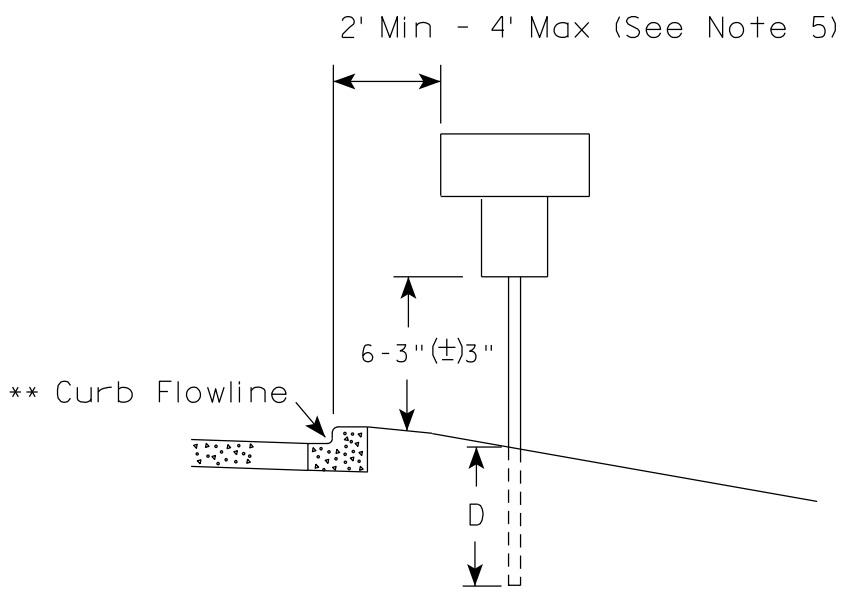
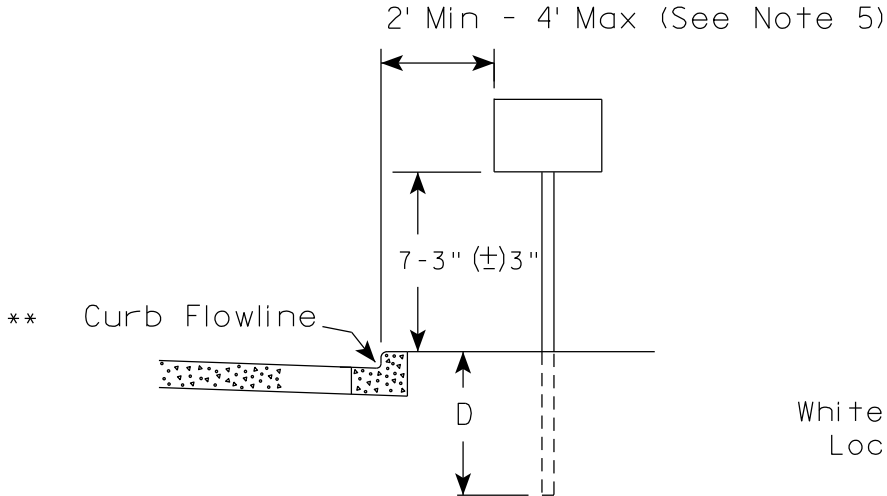
1. Signs are Type II - Type H Reflective
2. Color:
Background - Black Non-reflective
Message - see Note 4
3. Message Series - See Note 4
4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
5. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
6. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
7. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
8. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. All Vertical J Assemblies are given a Sign Code of JV
10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.



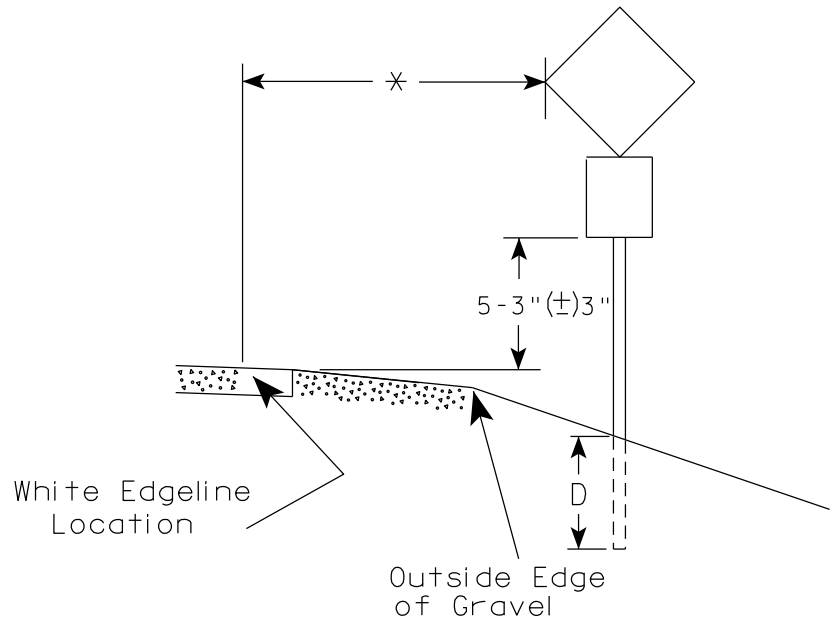
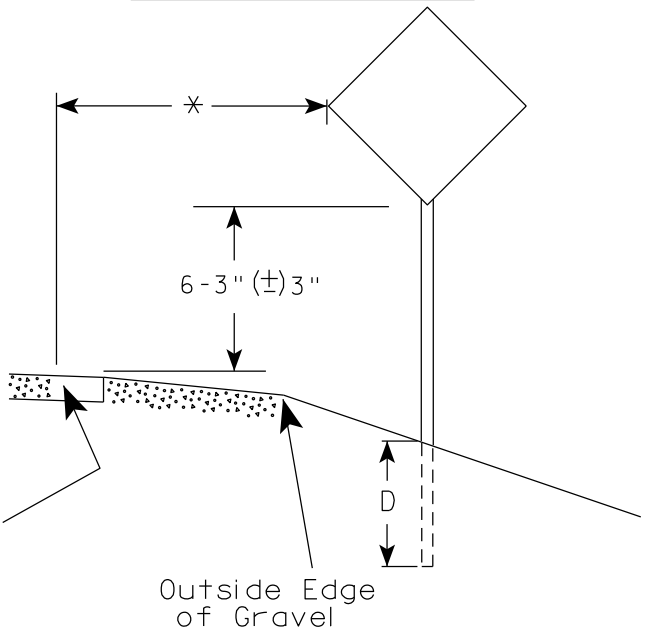
black background

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/7/23	PLATE NO. A2-1S.10

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

POST EMBEDMENT DEPTH

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

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

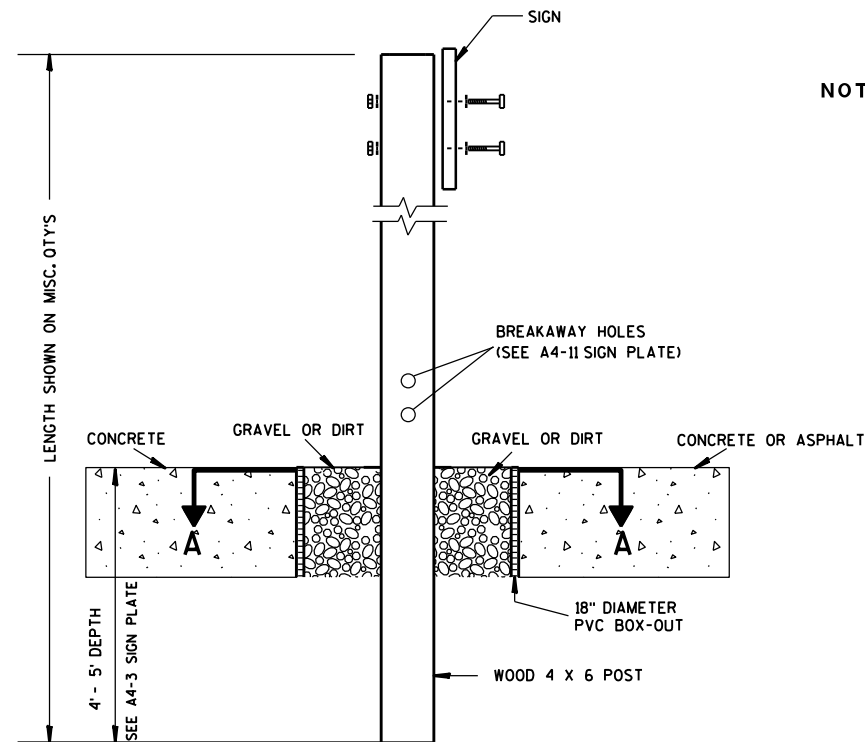
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

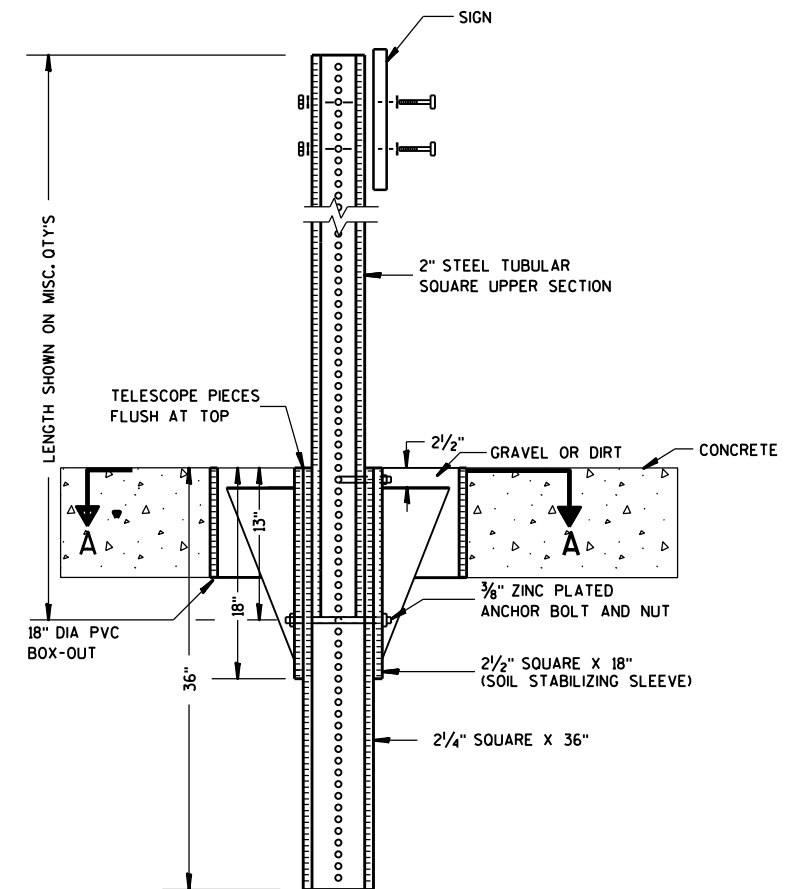
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

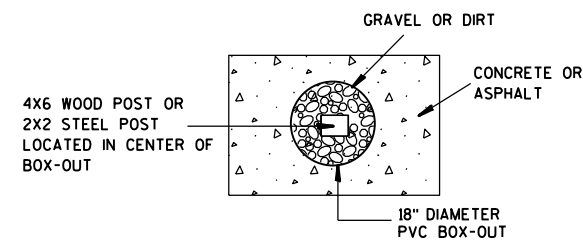
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 202 A4-3B.1

PROJECT NO:

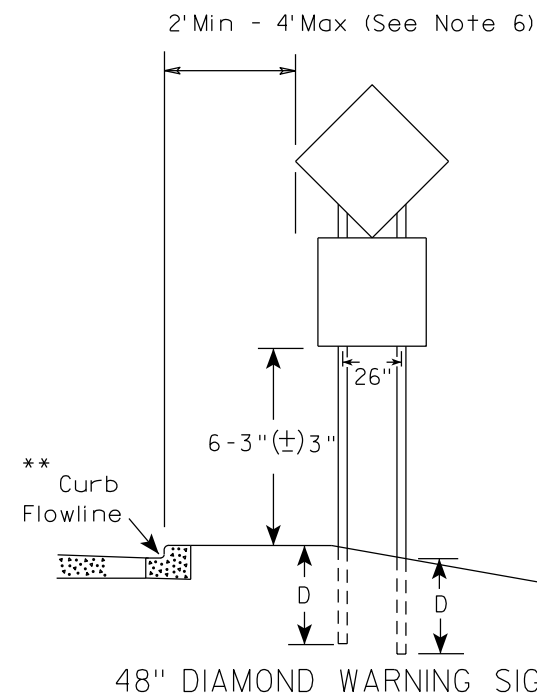
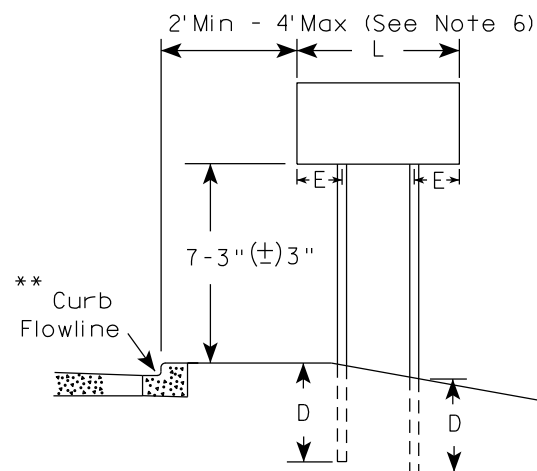
HWY:

COUNTY:

SHEET NO:

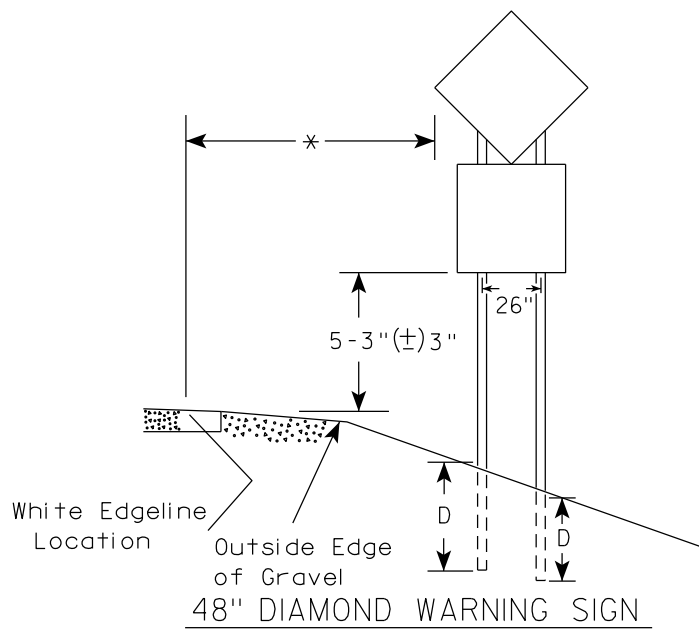
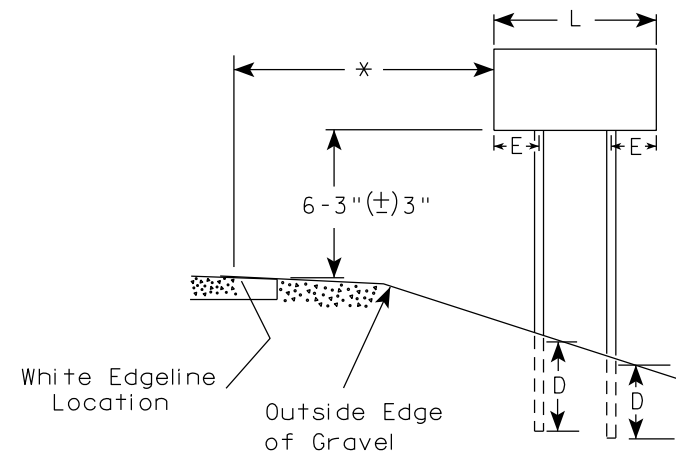
E

URBAN AREA

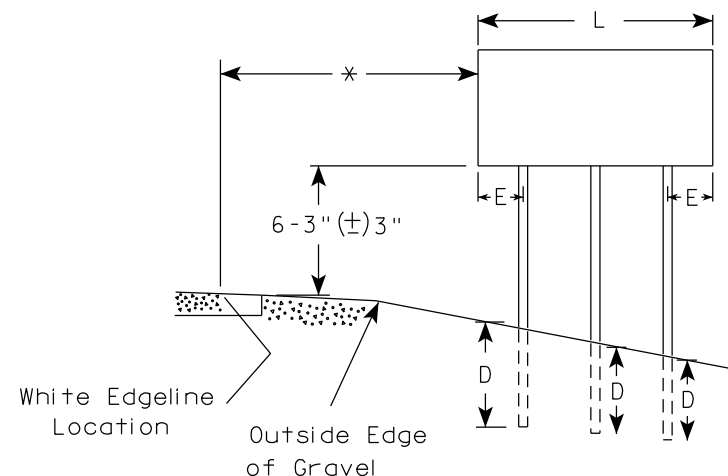


SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

RURAL AREA (See Note 3)



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



* 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.

POST EMBEDMENT DEPTH

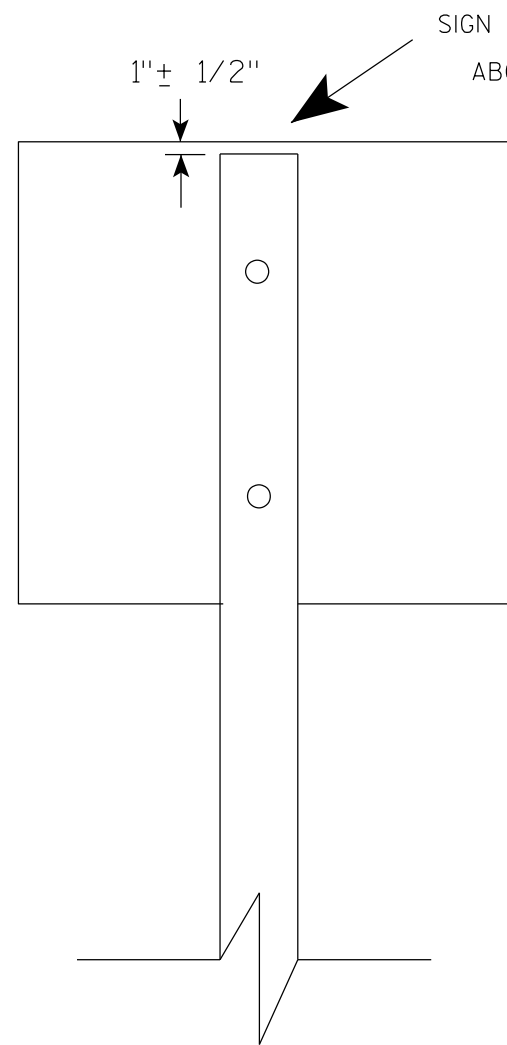
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

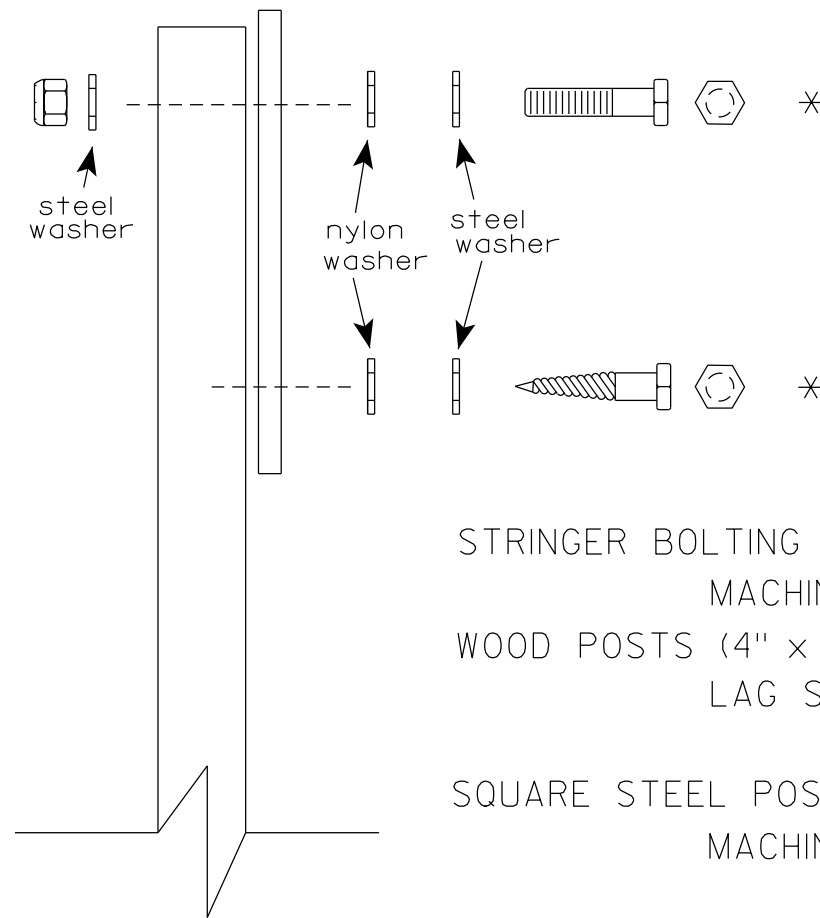
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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



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

- 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.

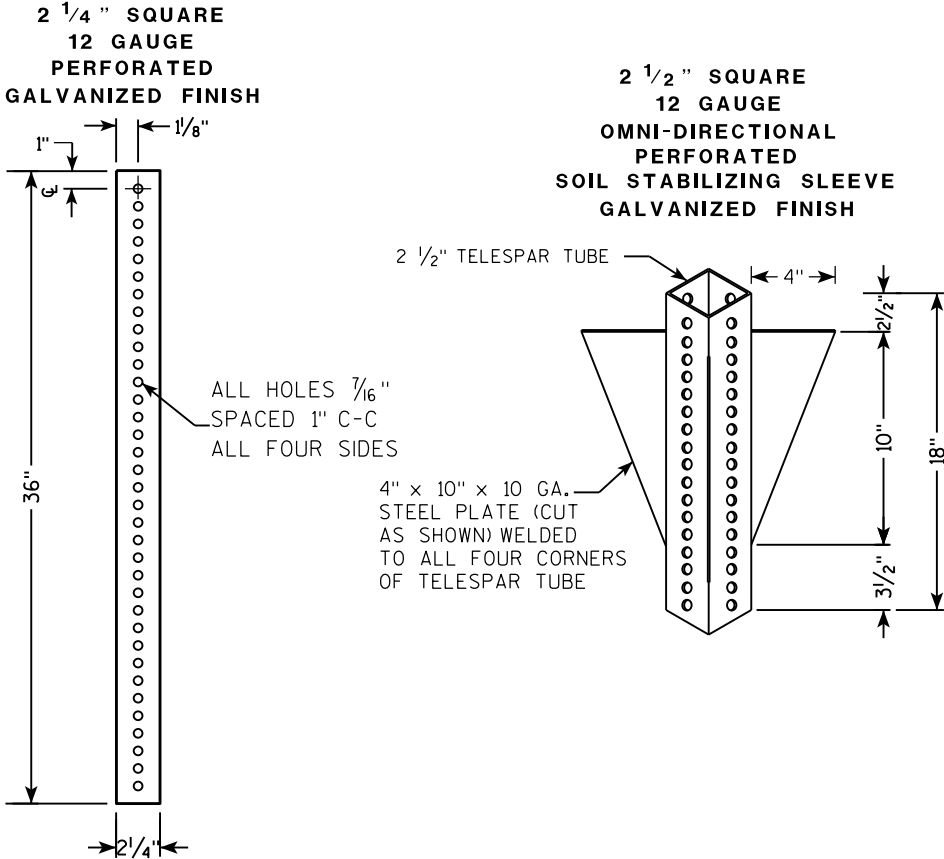
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

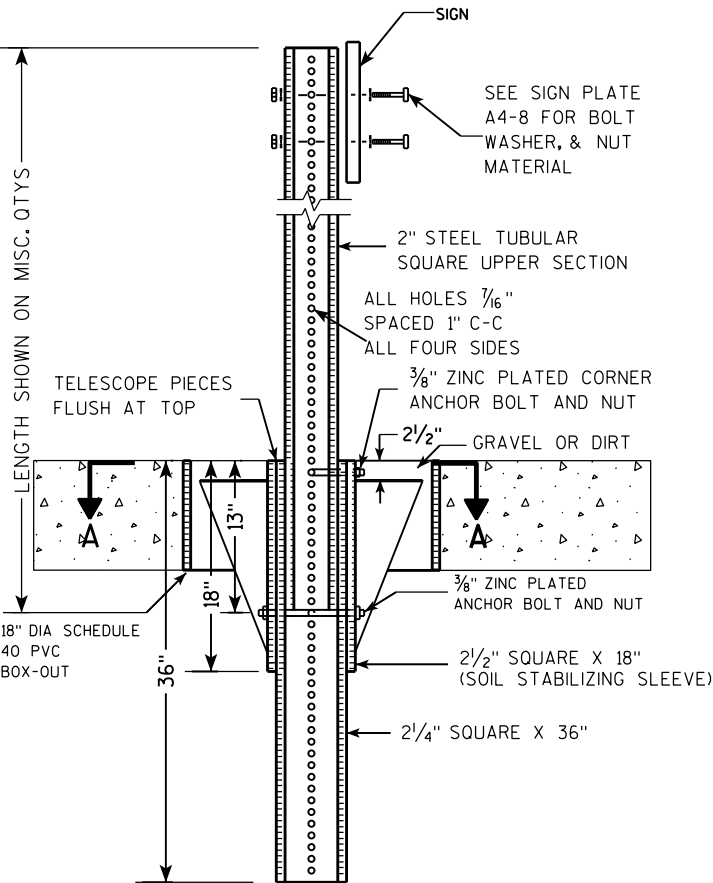
APPROVED Matthew R. Rauch
For State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

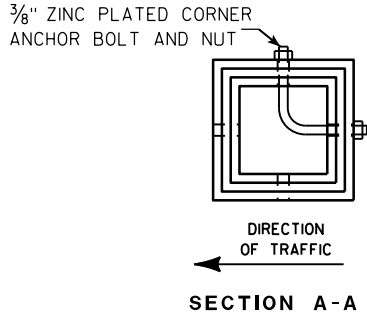
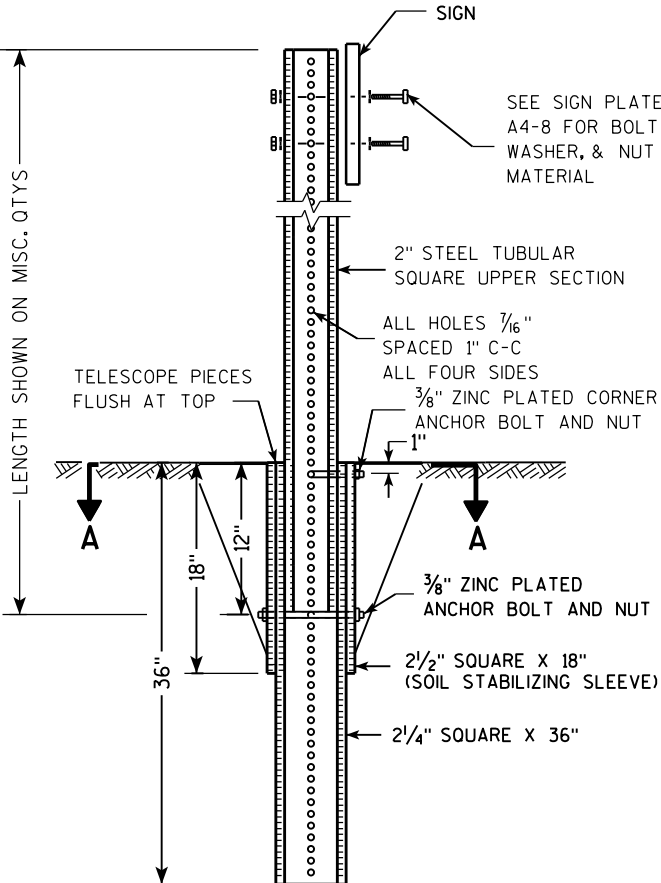
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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

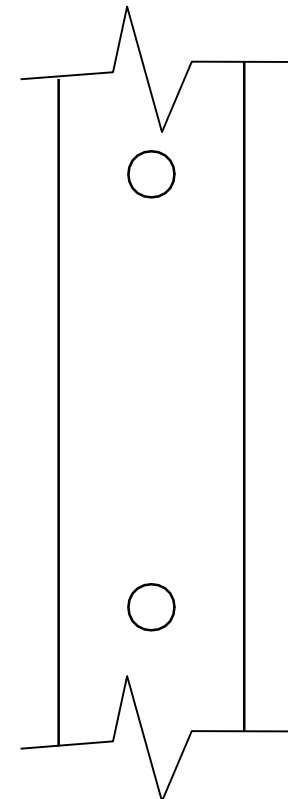
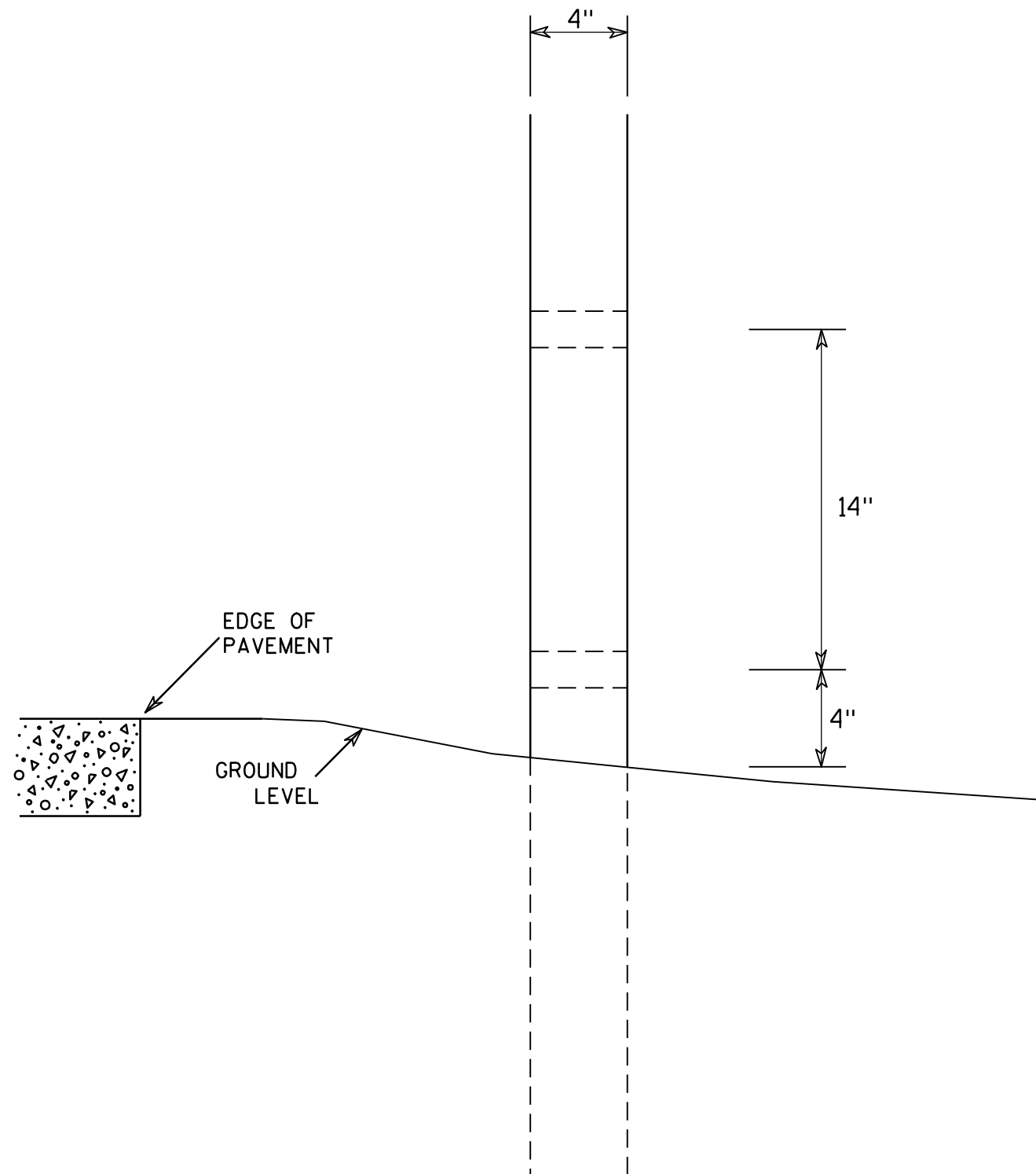
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 205 14-9.9



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

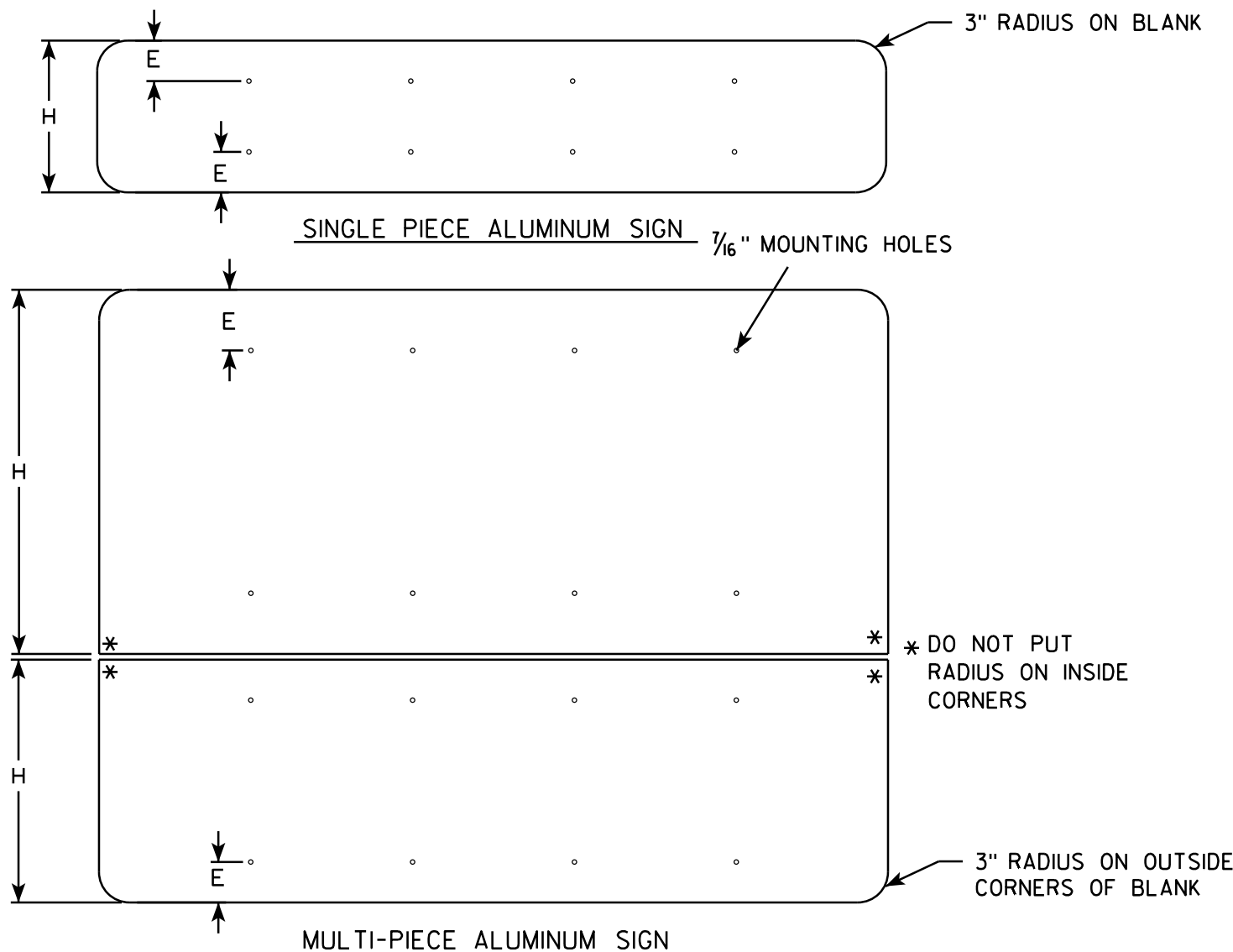
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 206

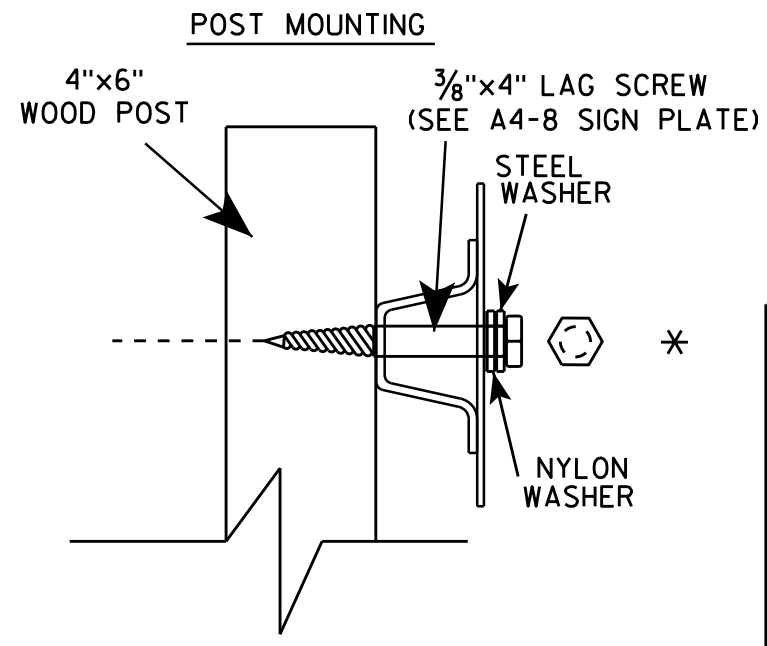
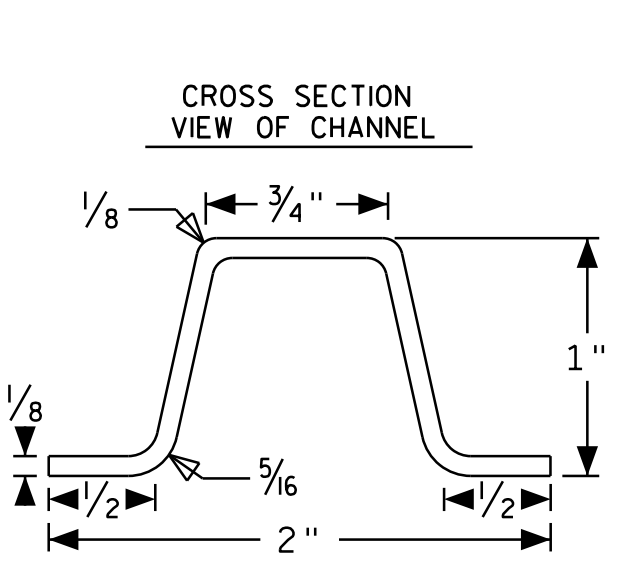
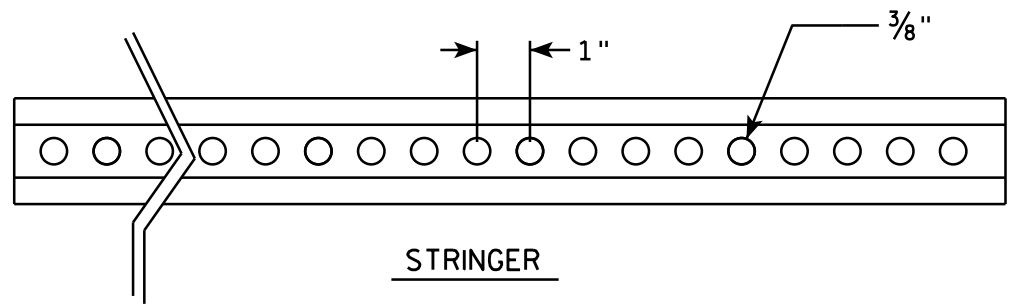
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER MOUNTING REQUIREMENTS

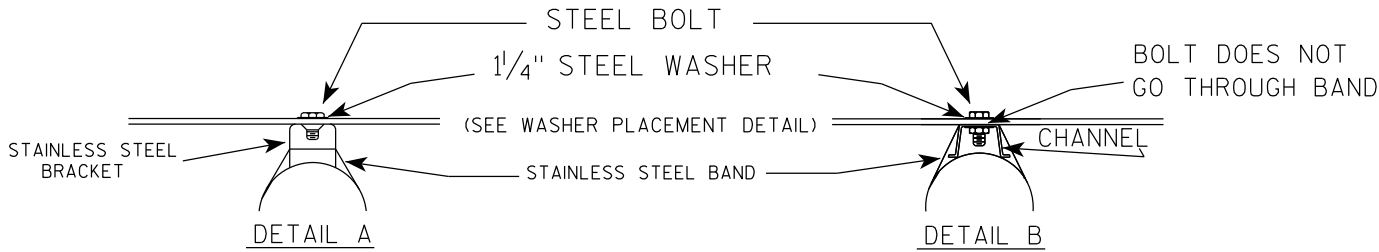
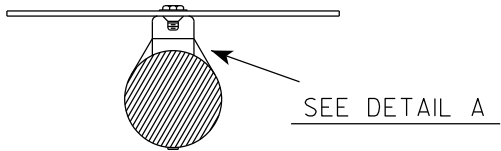
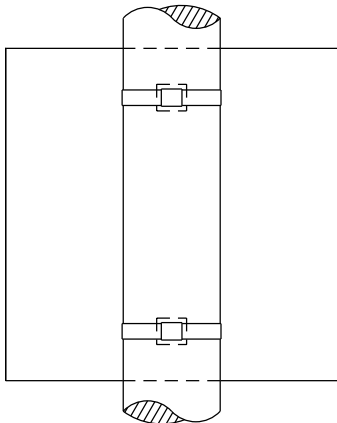
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

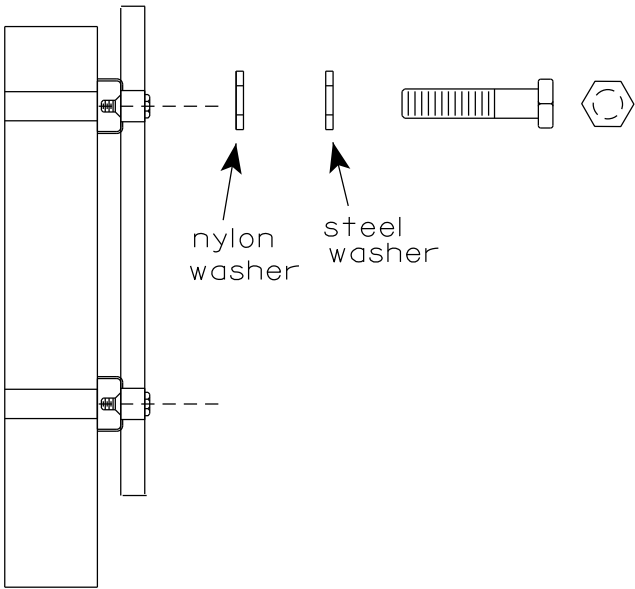
DATE 4/26/16 PLATE No A4-18.1
207

BANDING

SINGLE SIGN



WASHER PLACEMENT

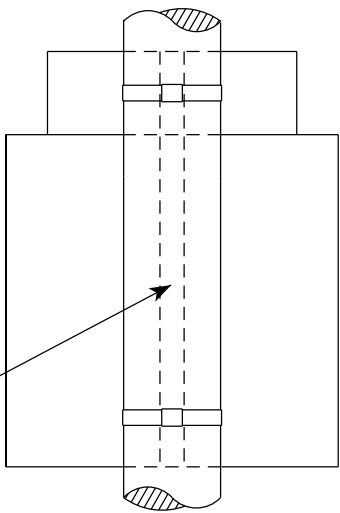


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

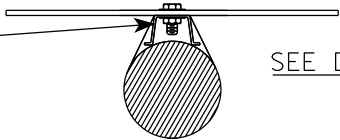
GENERAL NOTES

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

"J" ASSEMBLY



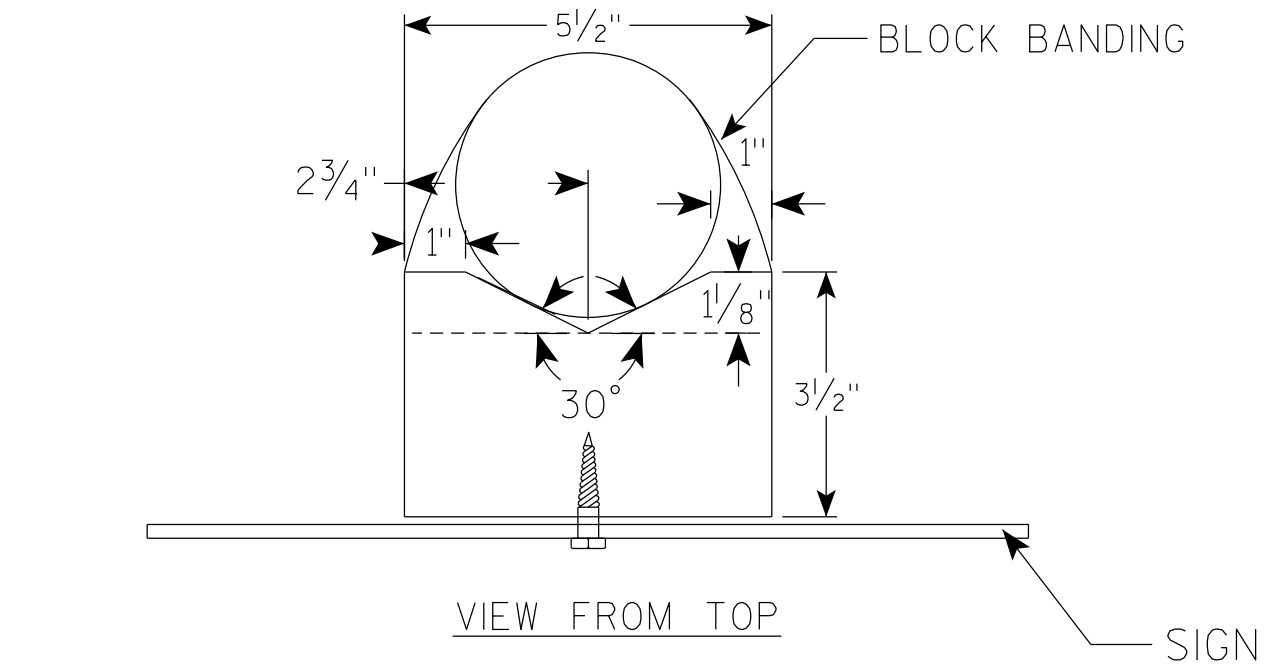
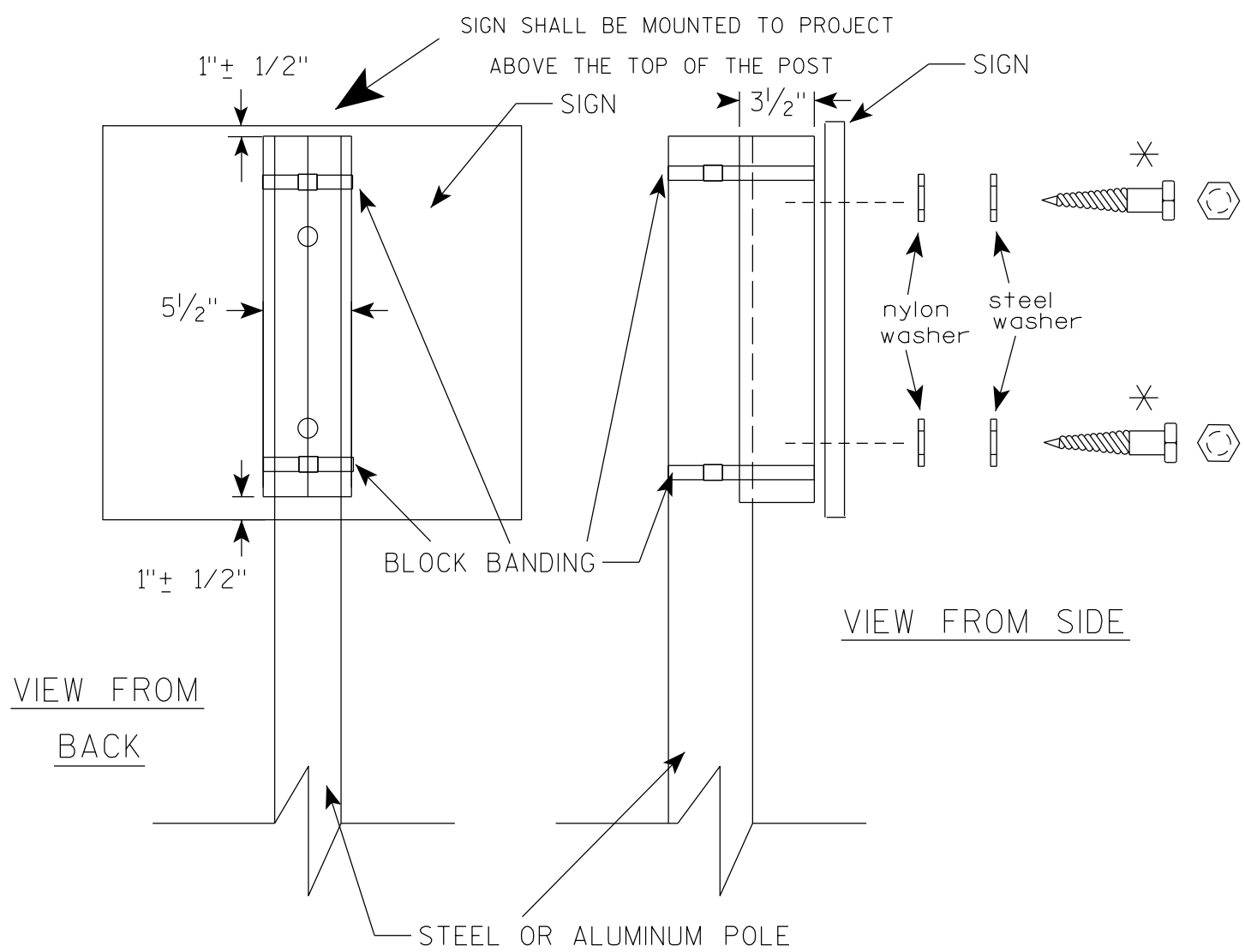
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



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



GENERAL NOTES

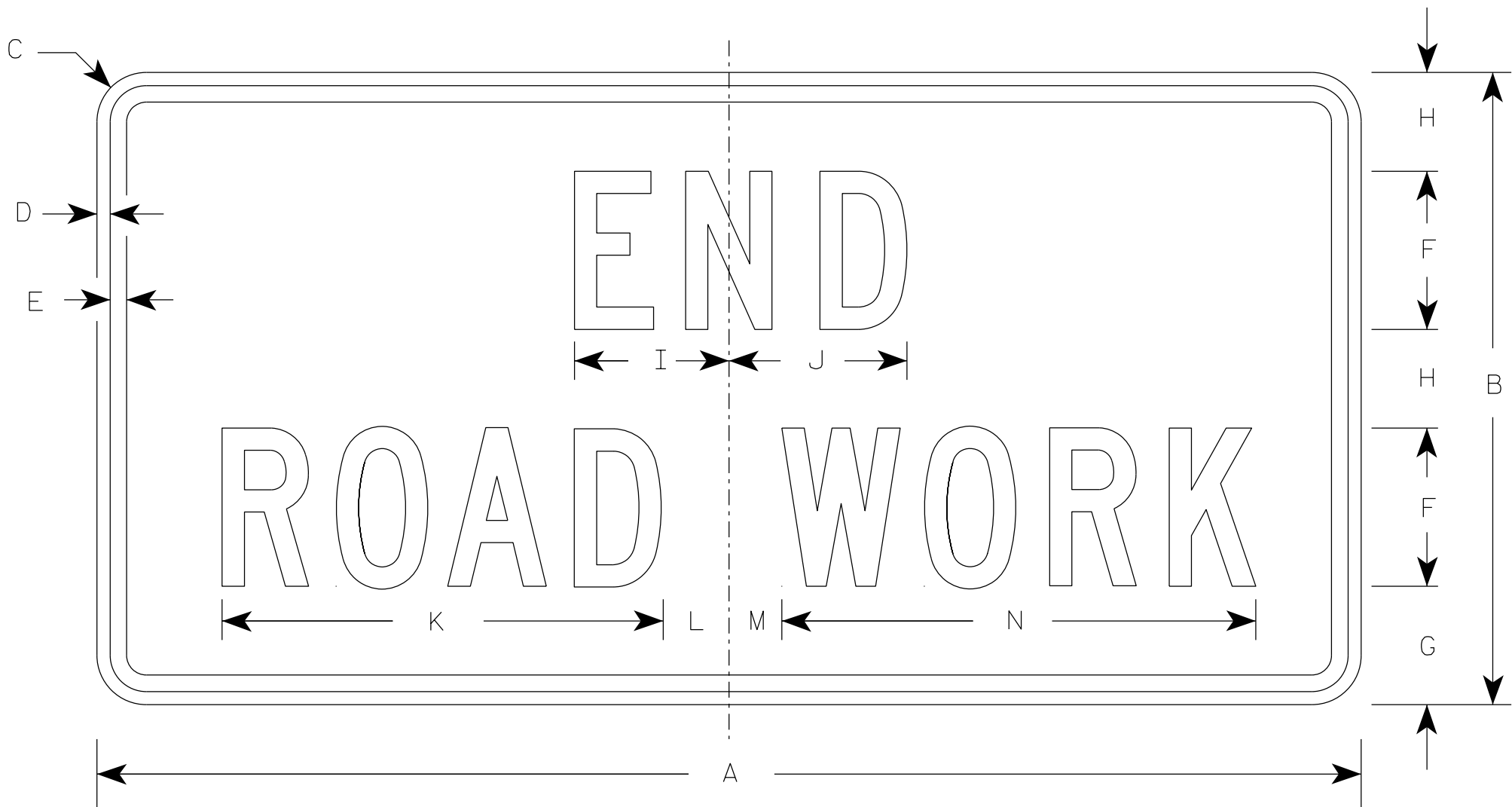
1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

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:

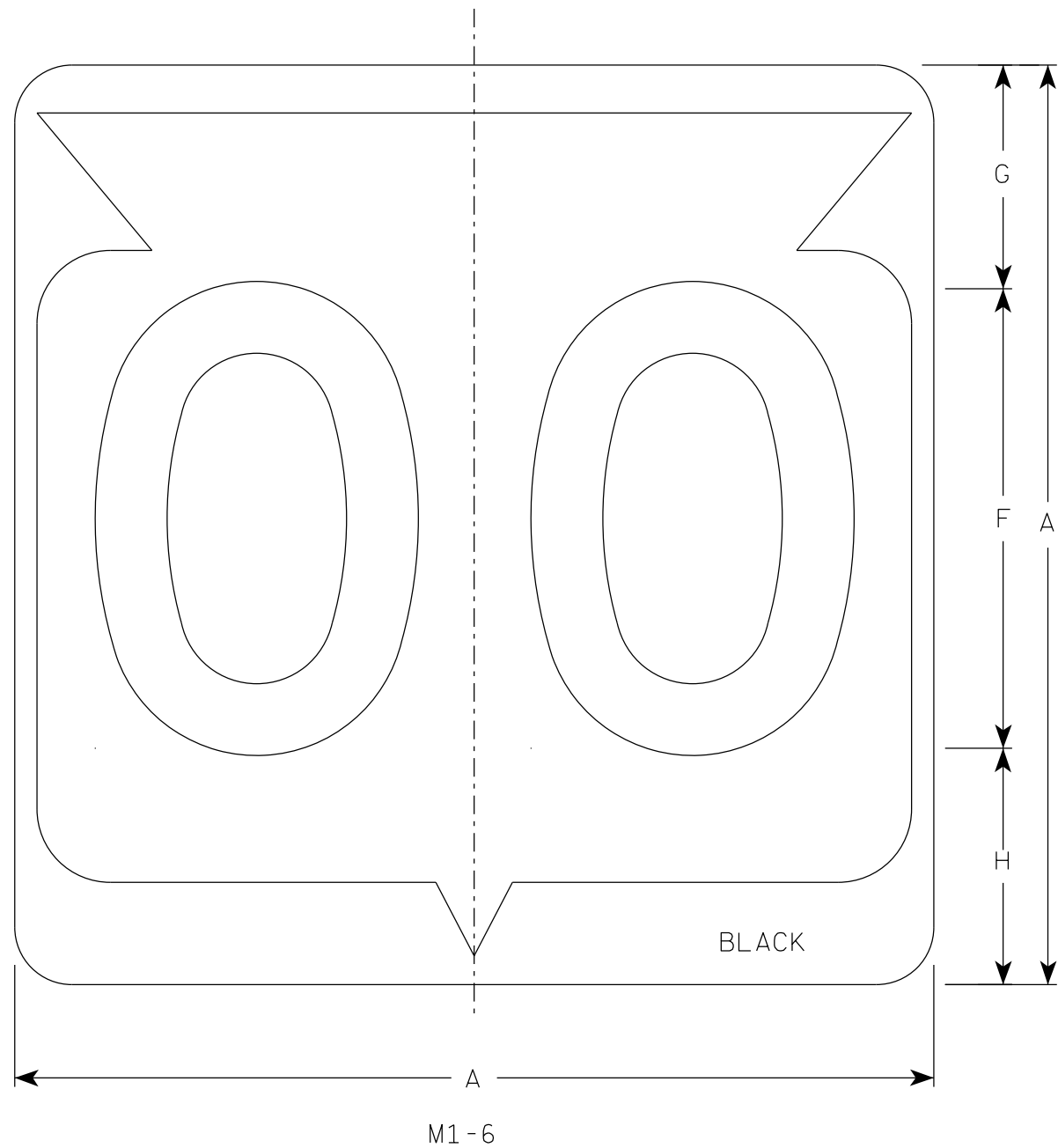
HWY:

COUNTY:

SHEET NO: 210

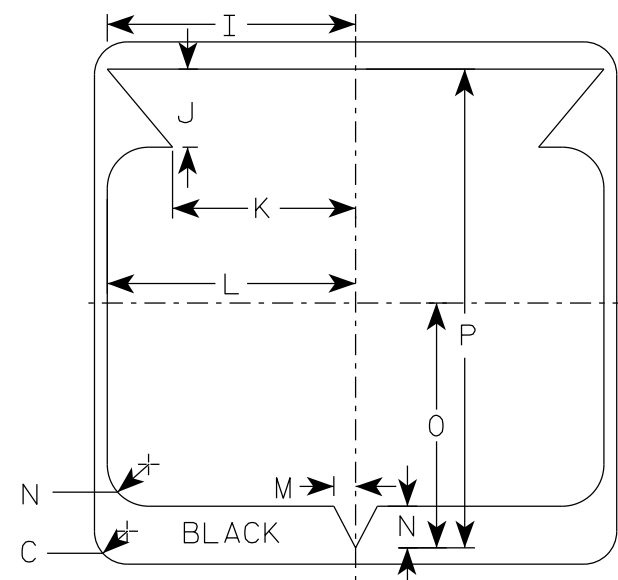
E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

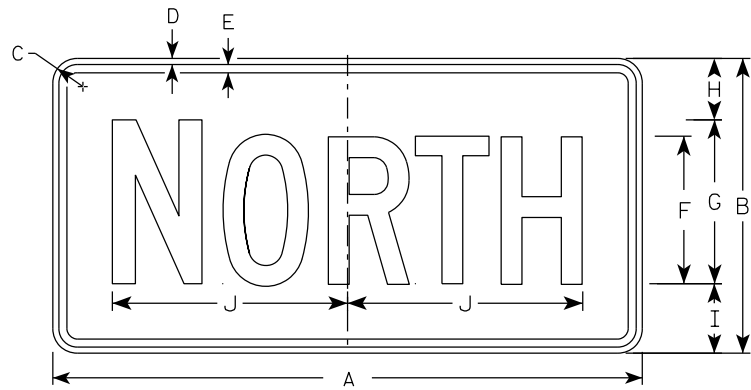
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

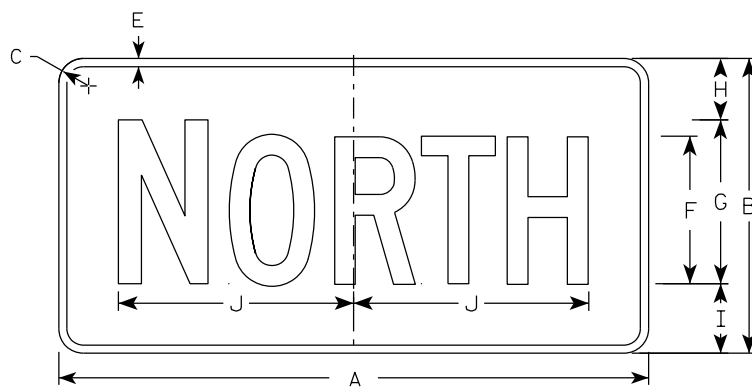
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

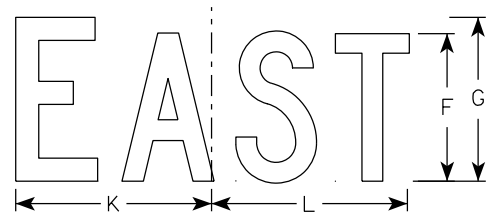
7



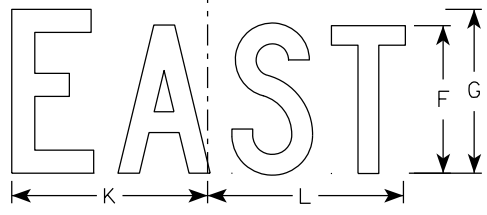
M3-1
MM3-1
MP3-1



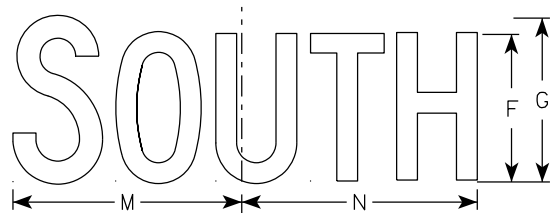
MB3-1
MK3-1
MN3-1



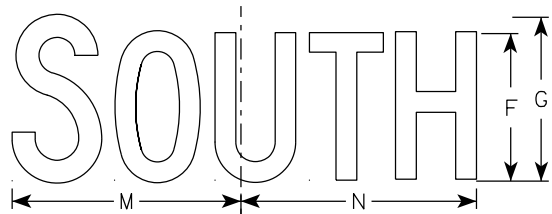
M3-2
MM3-2
MP3-2



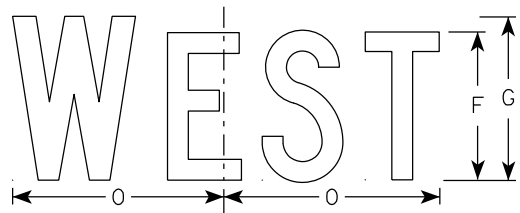
MB3-2
MK3-2
MN3-2



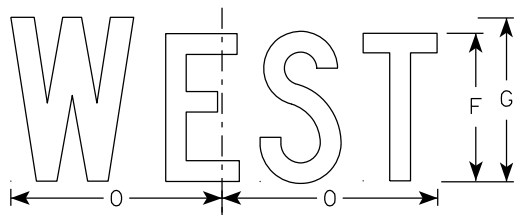
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- 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.
- M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.

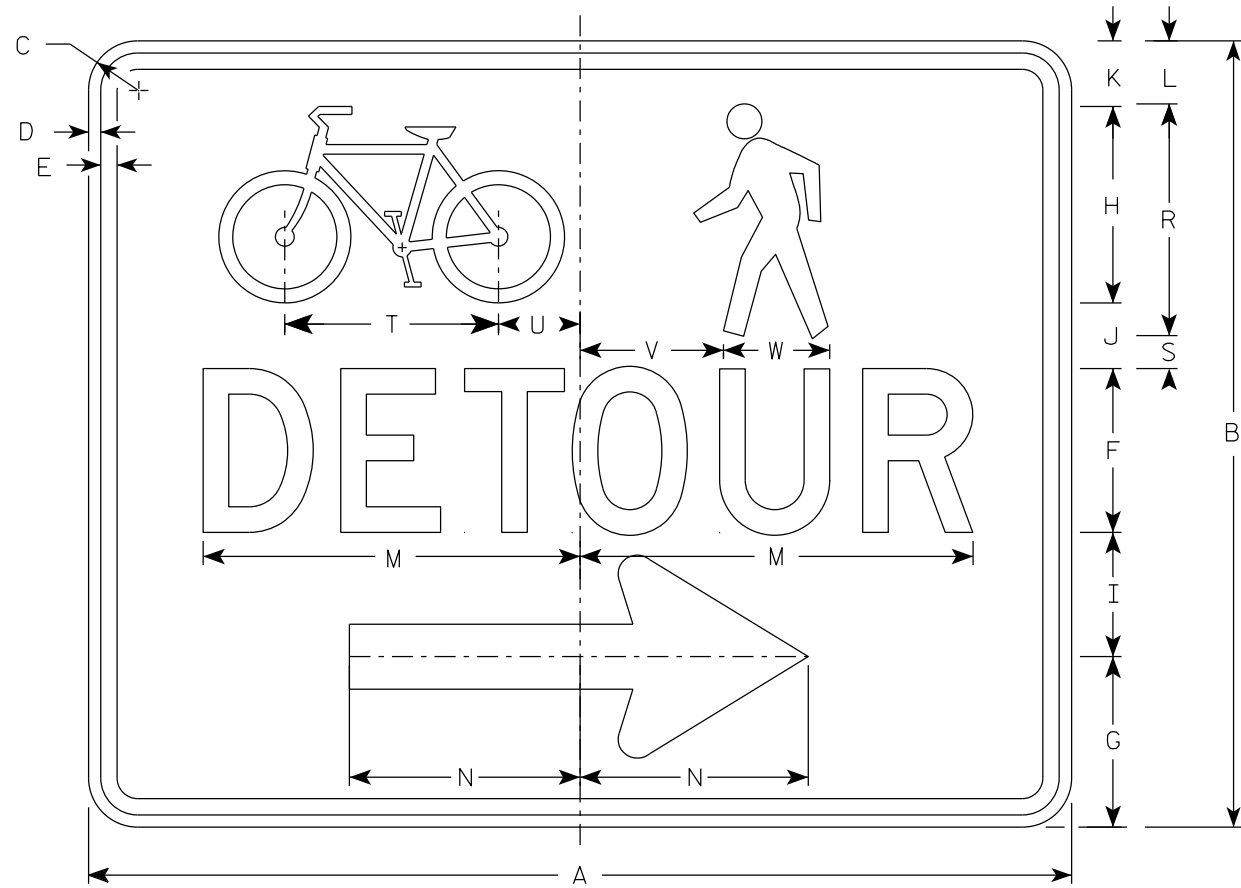
7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

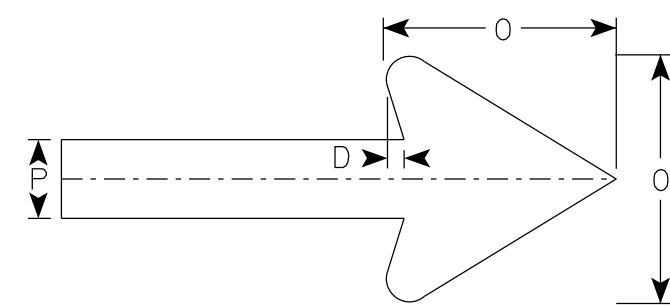
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 212	E
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7



M4-9AR

- NOTES
- 1. Sign is Type II-Type F Reflective
 - 2. Color:
Background - Orange
Message - Black
 - 3. Message Series - D
 - 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. M4-9AL is the same as M4-9AR except the arrow is reversed.



Arrow Detail

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	30	24	1 1/2	3/8	1/2	5	5 1/4	6	3 3/4	2	2	1 7/8	11 3/4	7	6	2		7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	6	3 3/4	2	2	1 7/8	11 3/4	7	6	2		7 1/8	1	6 1/2	2 1/2	4 3/8	3 1/4				5.00
3																											
4																											
5																											

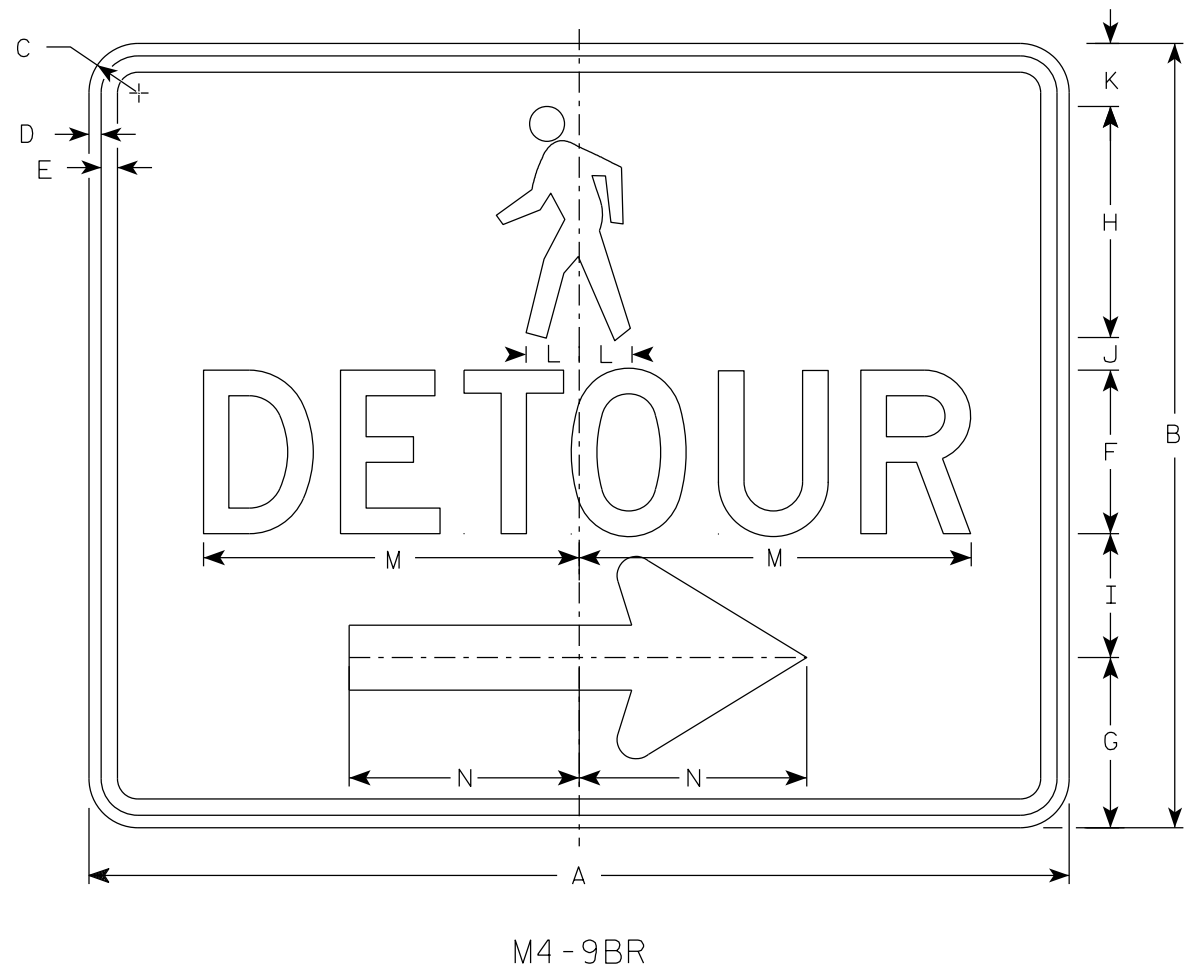
STANDARD SIGN
M4-9A L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

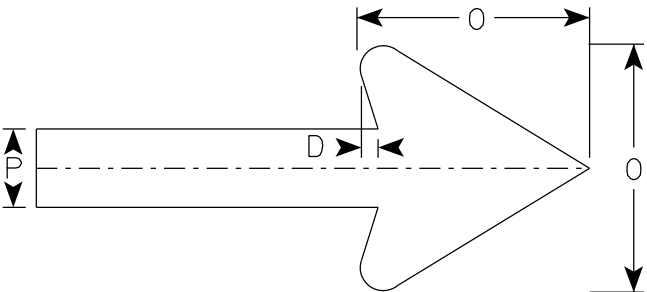
DATE 2/9/2023 PLATE NO. M4-9A.3

7



M4-9BR

- NOTES
1. Sign is Type II-Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 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. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

7

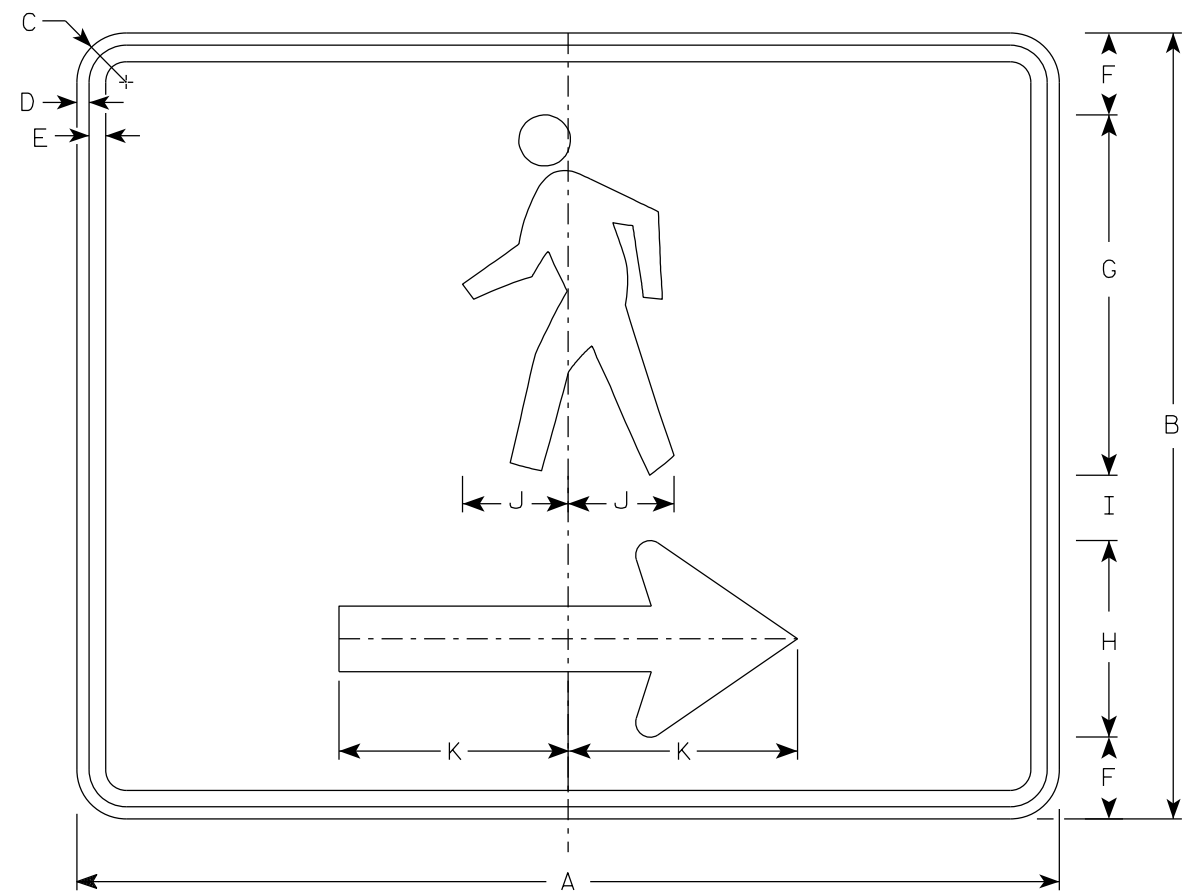
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

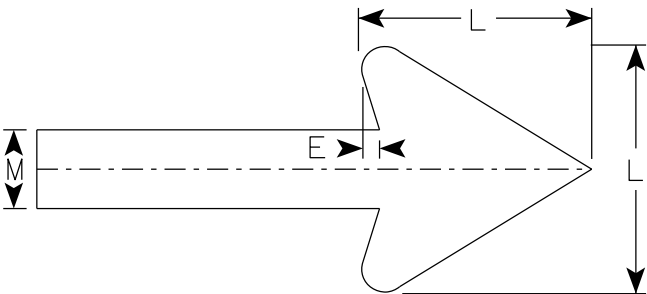
DATE 2/9/2023 PLATE NO. M4-9B.4



M4-60R

NOTES

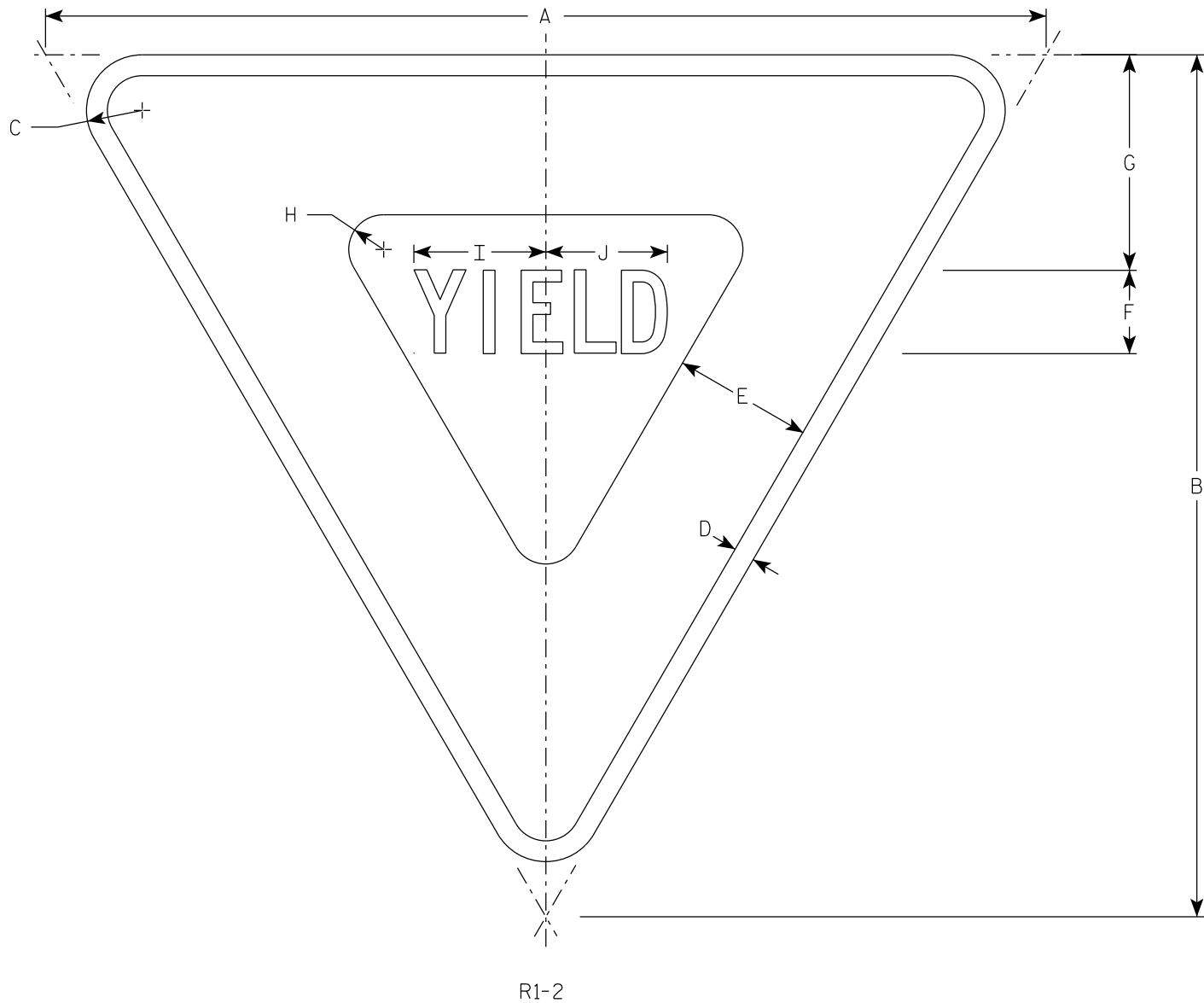
1. Sign is Type II- Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



Arrow Detail

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	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - See note 4
- 3. Message Series - C
- 4. The border strip and word message are reflectorized red.

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	30	26	2	5⁄8	4	2 1⁄2	6 3⁄8	7⁄8	4	3 5⁄8																	2.71
2S	36	31	2	3⁄4	5	3	7 3⁄4	1 1⁄4	4 3⁄4	4 3⁄8																	3.88
2M	48	42	3	1	6	4	9 3⁄4	2	6 1⁄4	5 7⁄8																	7.00
3	48	42	3	1	6	4	9 3⁄4	2	6 1⁄4	5 7⁄8																	7.00
4	48	42	3	1	6	4	9 3⁄4	2	6 1⁄4	5 7⁄8																	7.00
5	60	52	3	1 1⁄2	8	5	13	2 1⁄2	7 7⁄8	7 1⁄4																	10.83
6																											
7	18	15 1⁄2	1	3⁄8	2 1⁄2	1 1⁄2	3 7⁄8	5⁄8	2 3⁄8	2 1⁄4																	0.97

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 216

E

STANDARD SIGN

R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

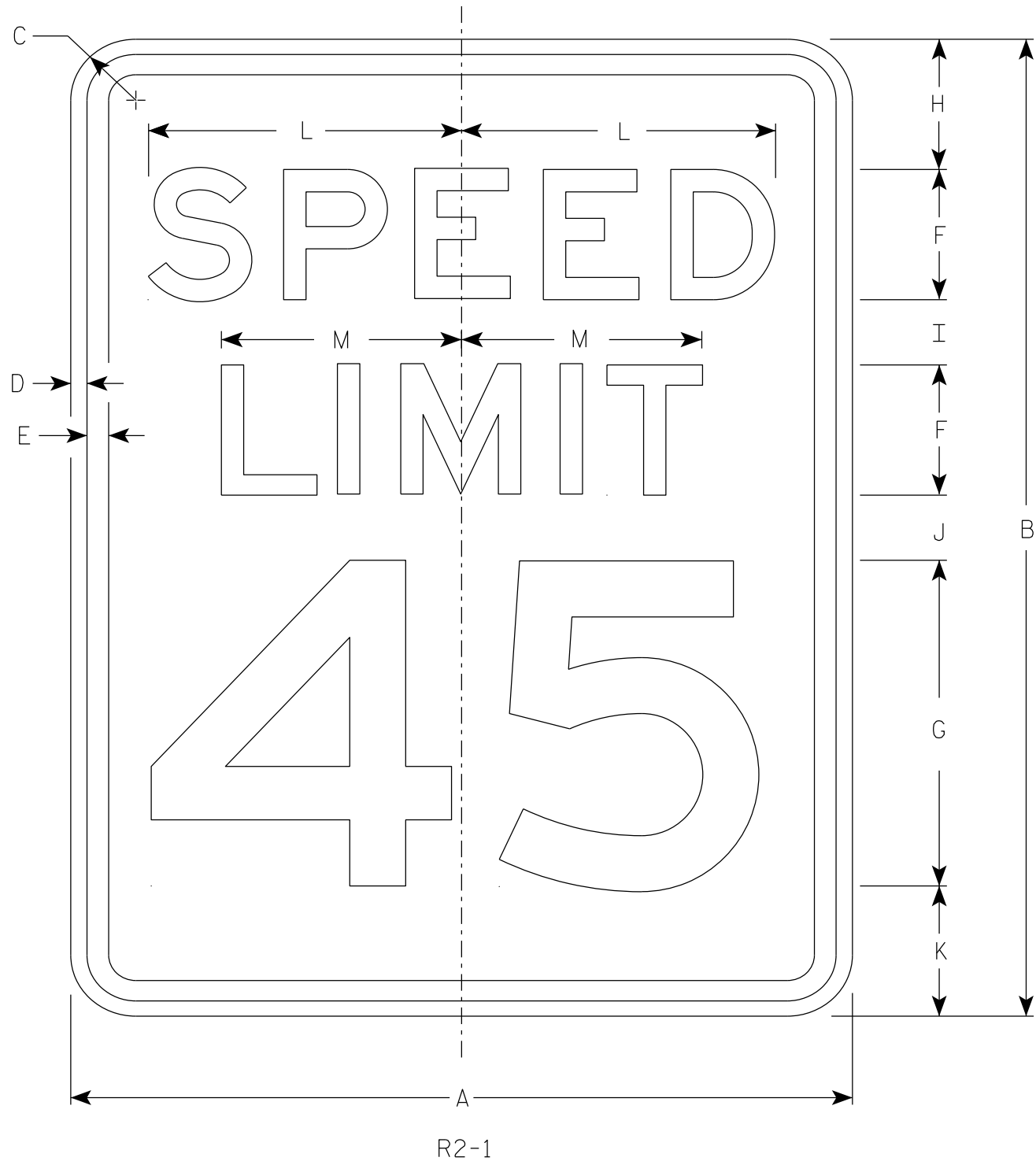
Matthew R. Rauch

for State Traffic Engineer

DATE 9/10/2024

PLATE NO. R1-2.13

7



NOTES

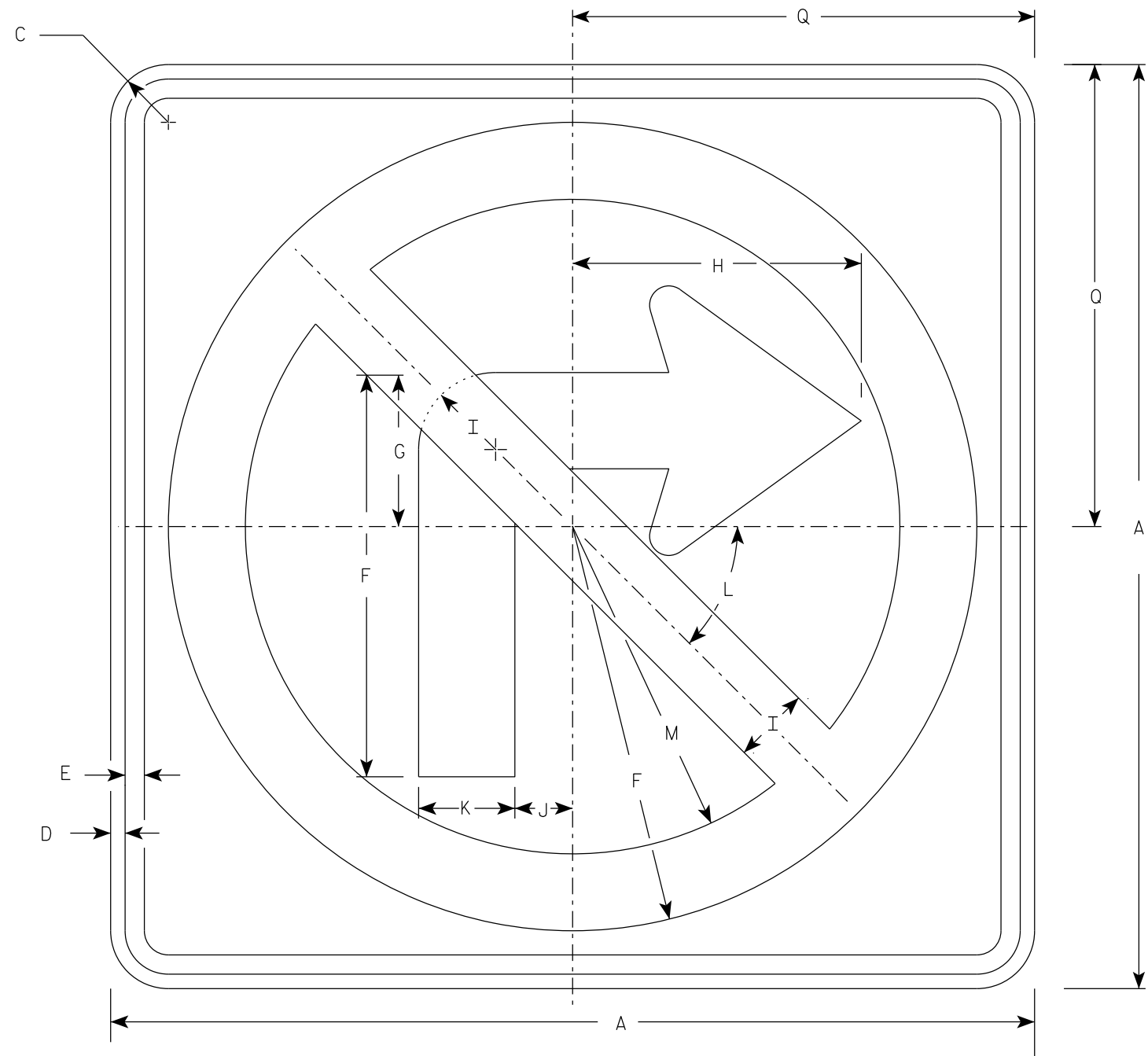
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN R2 - 1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE <u>2/1/23</u>	PLATE NO. <u>R2-1.14</u>

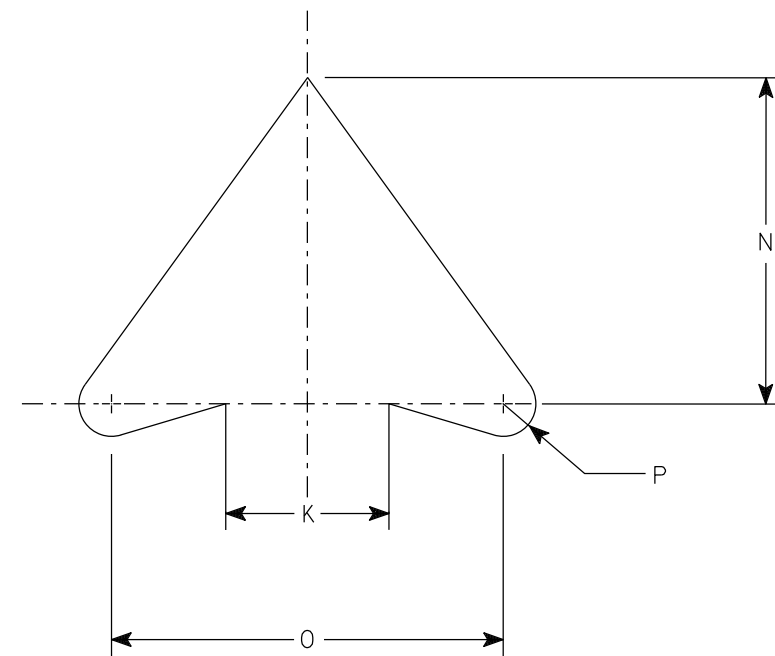
7



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

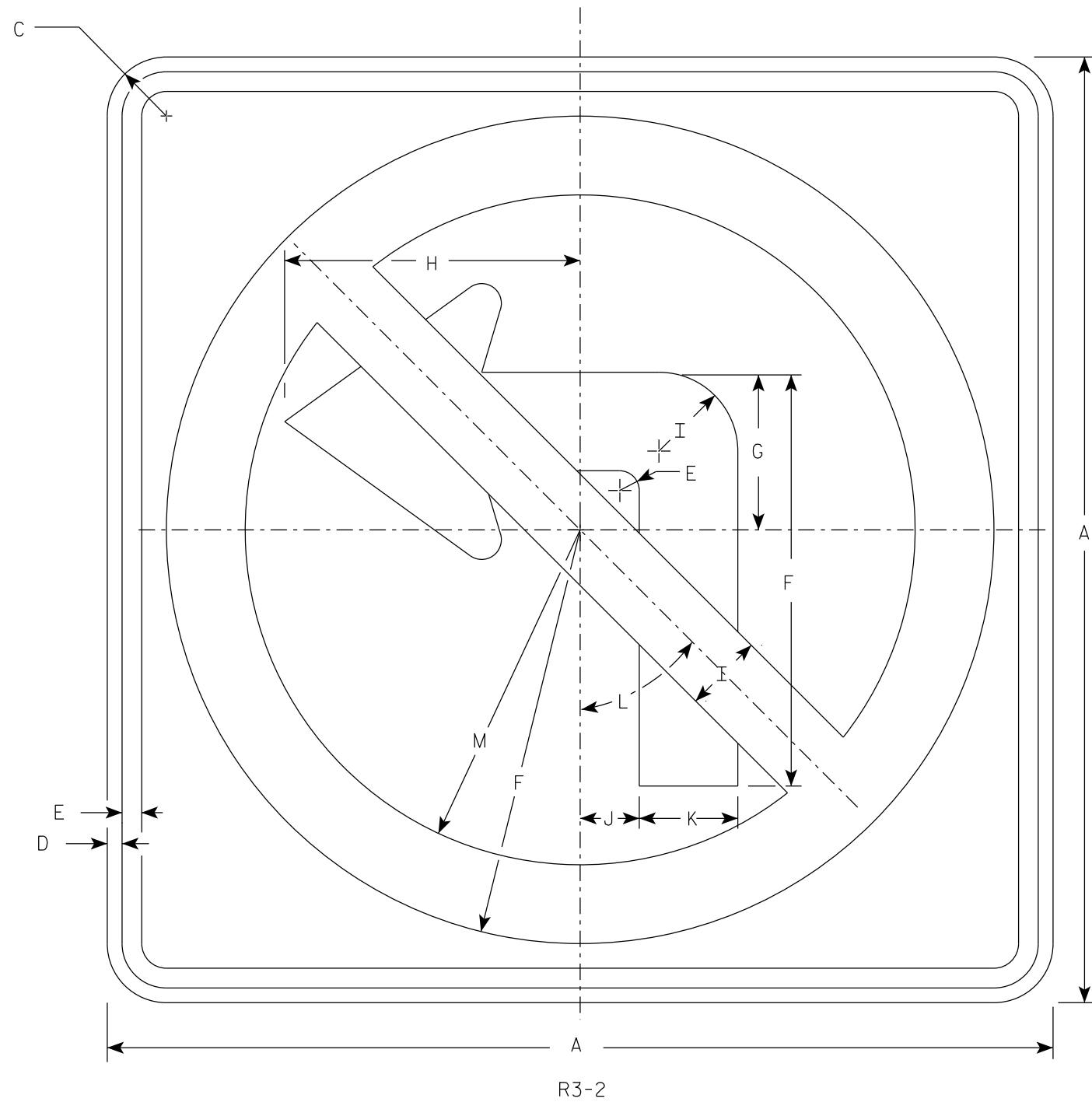


ARROW DETAIL

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	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

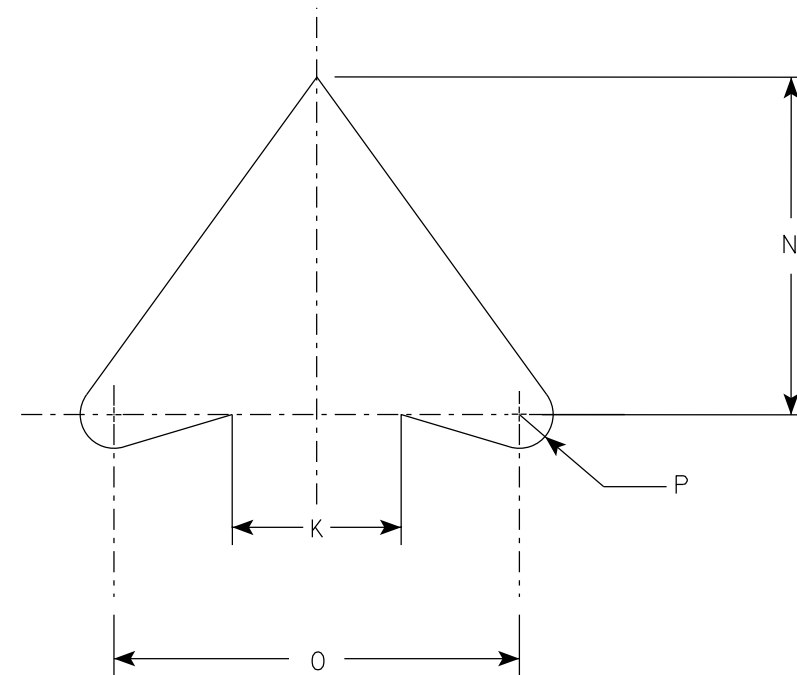
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 218												E
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7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

PROJECT NO:

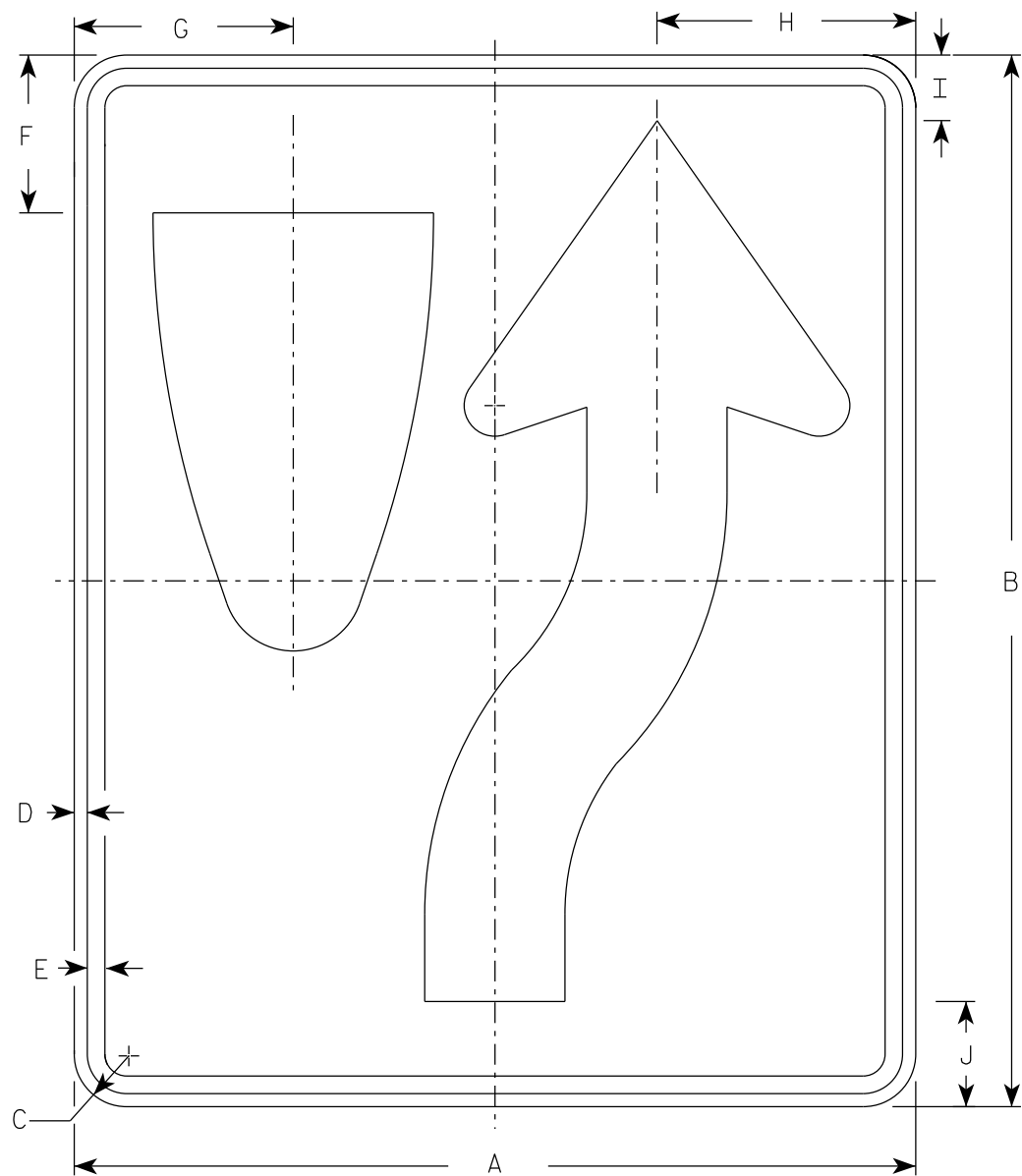
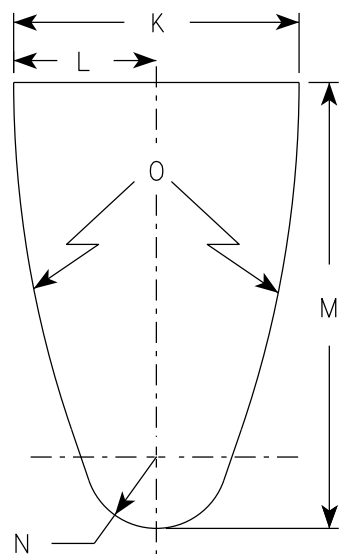
HWY:

COUNTY:

SHEET NO: 219

E

DIVIDER DETAIL

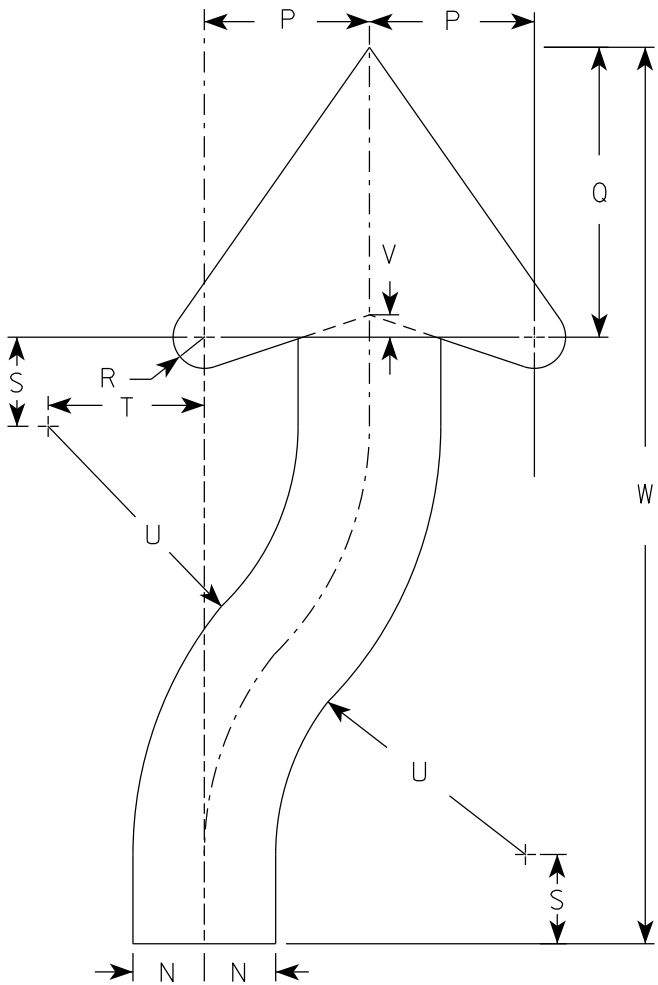


R4-7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. R4-8 is the same as R4-7 except Legend is reversed.

ARROW DETAIL



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	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

PROJECT NO:

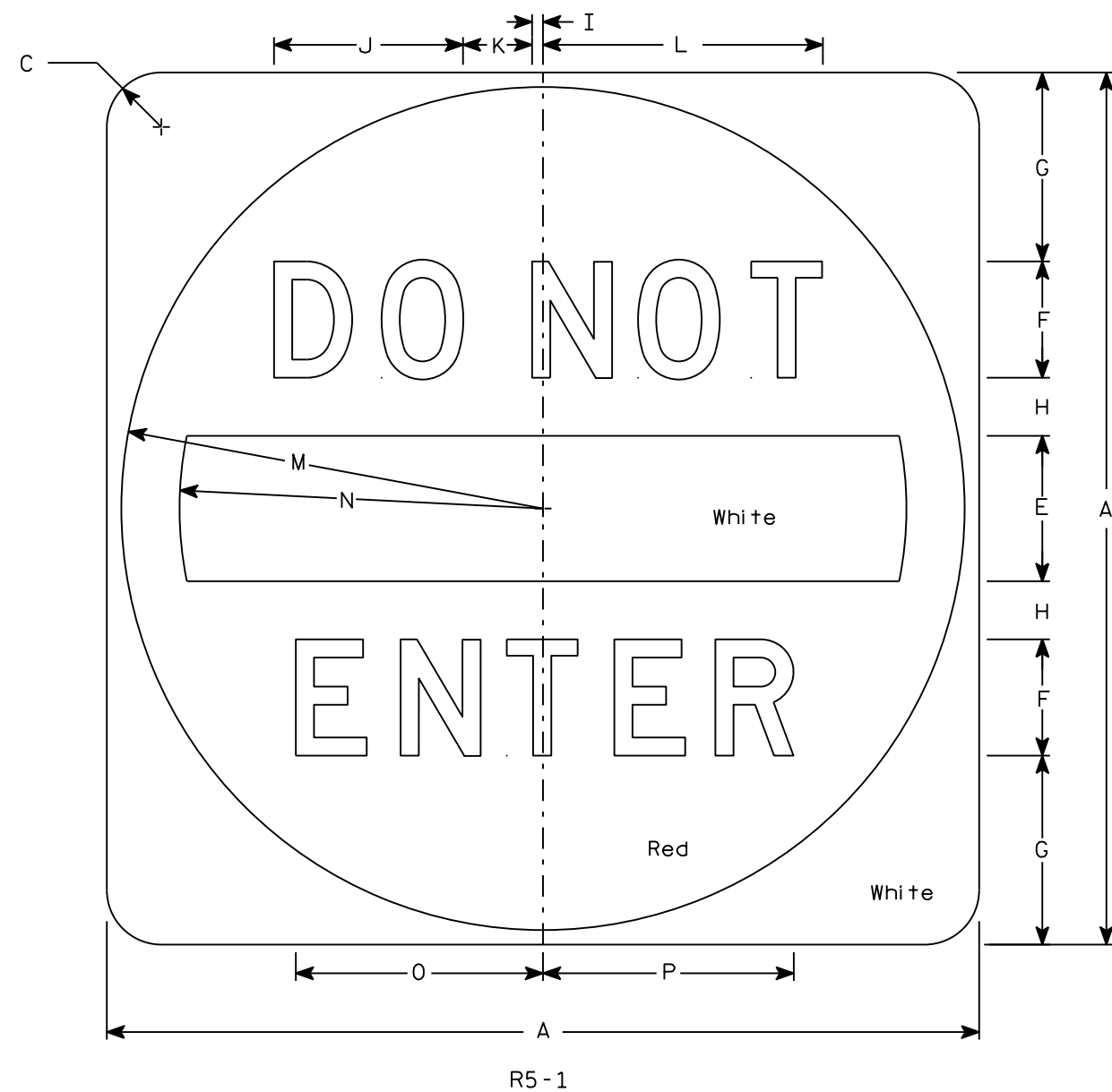
HWY:

COUNTY:

SHEET NO: 220

E

7



NOTES

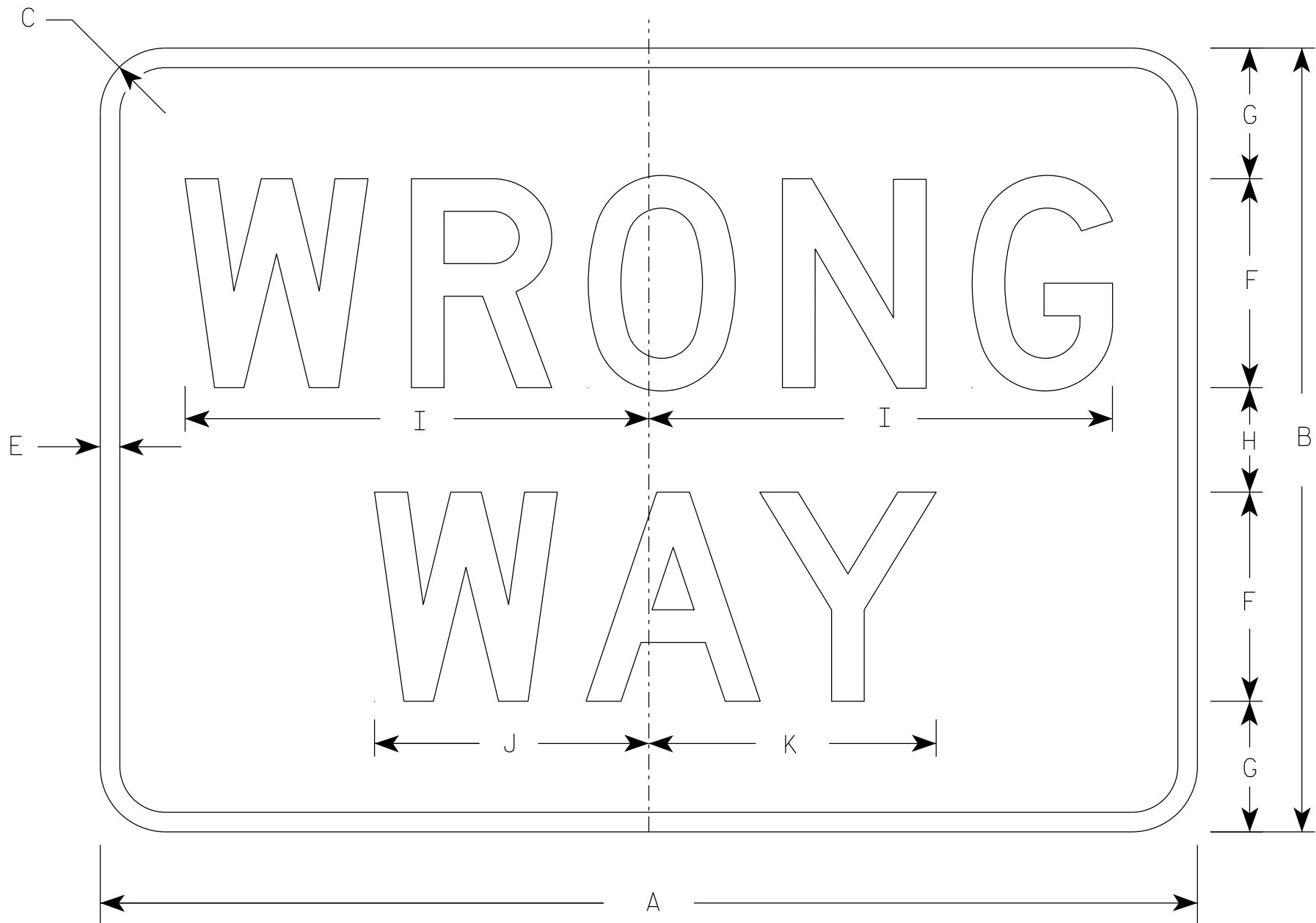
1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

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	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.25
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN R5-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16

7



R5-1A

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - Red
 - Message - White
- 3. Message Series - D

7

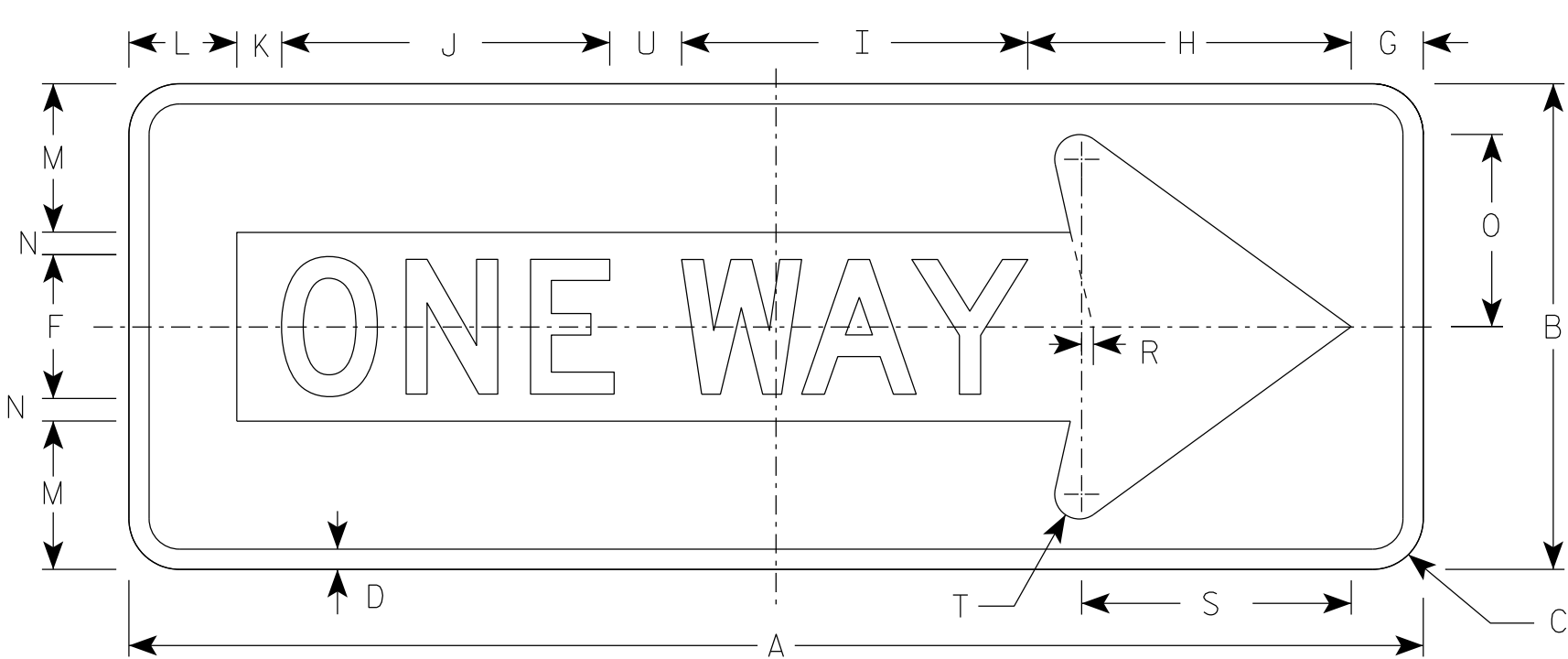
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	1 1/2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

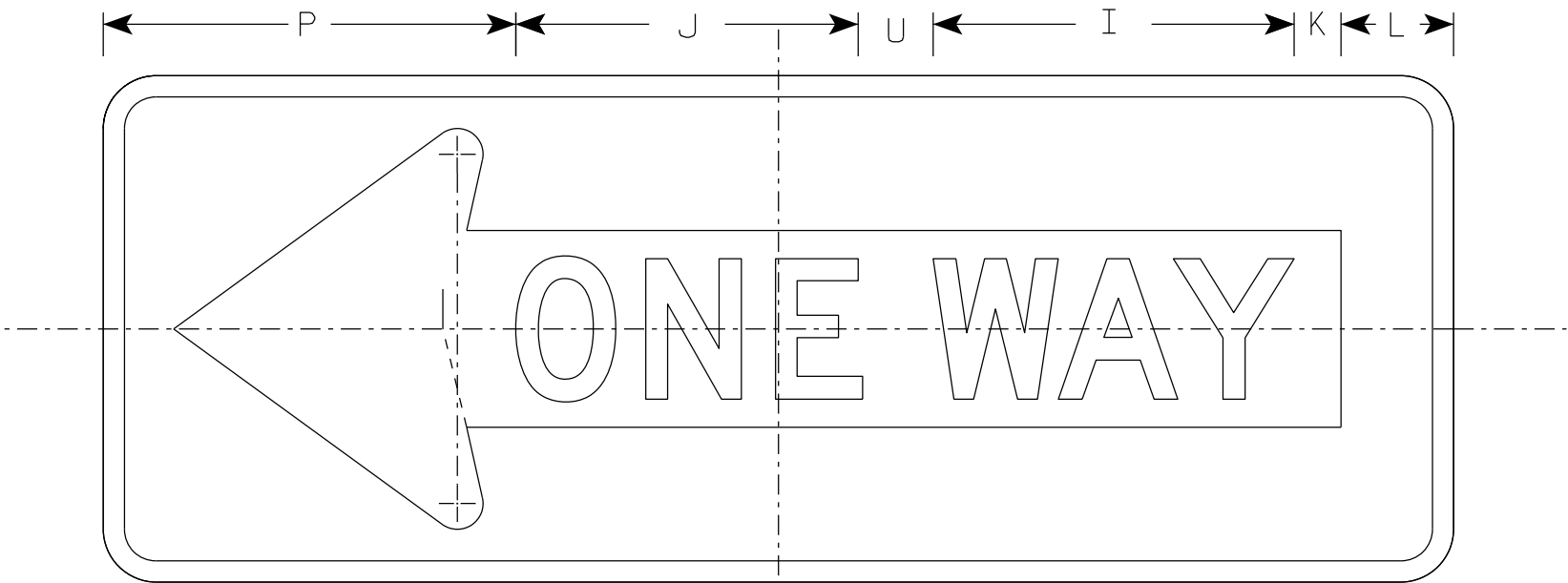
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/17/23 PLATE NO. R5-1A.3



R6-1 R



R6-1 L

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - Black
Message - Black Legend & White Arrow & Border
- 3. Message Series - D

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2	3/4	2						3.0
2M	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
3	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
4	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
5																											

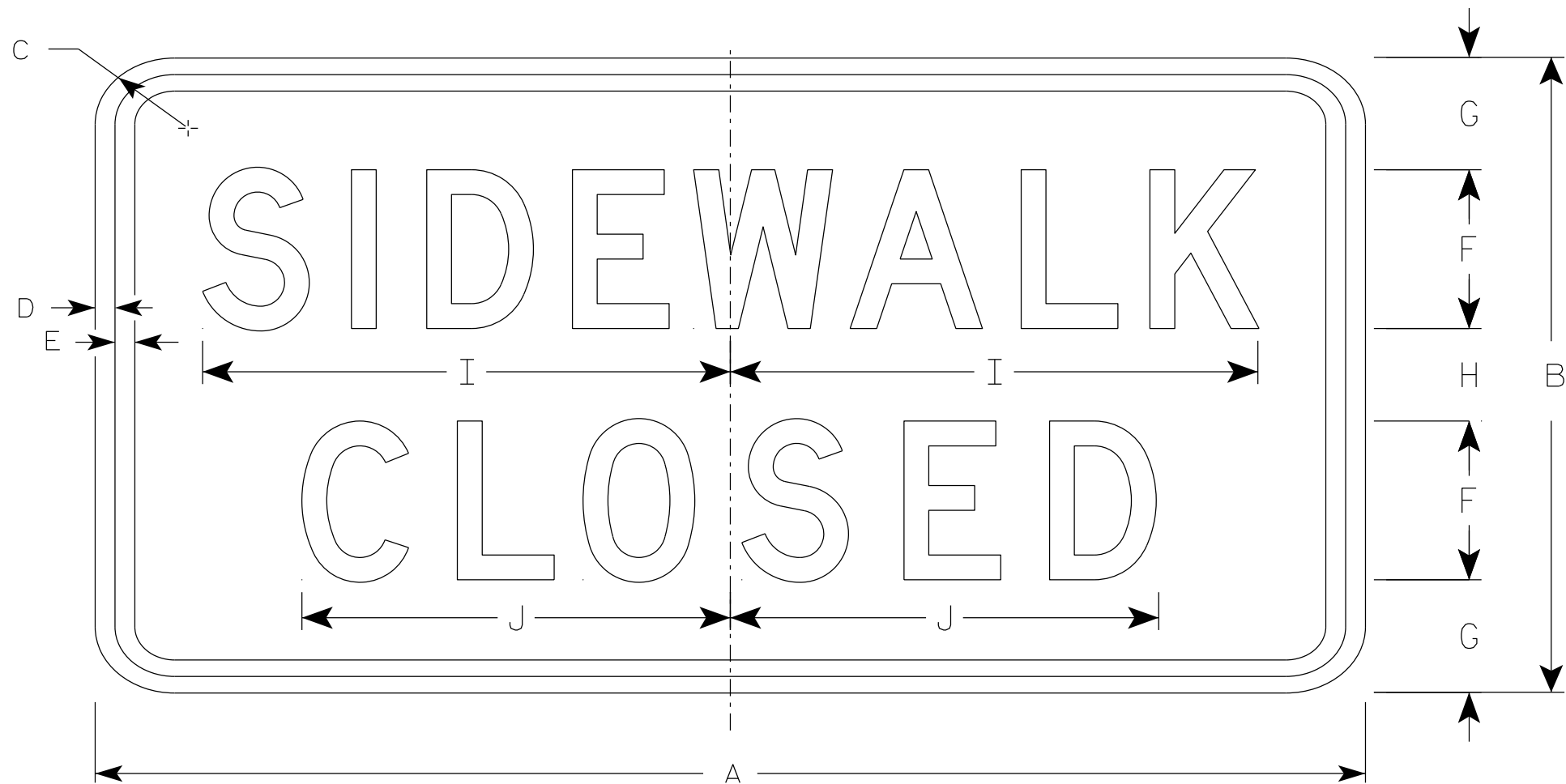
STANDARD SIGN
R6-1 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/7/2025 PLATE NO. R6-1.5

7



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 224

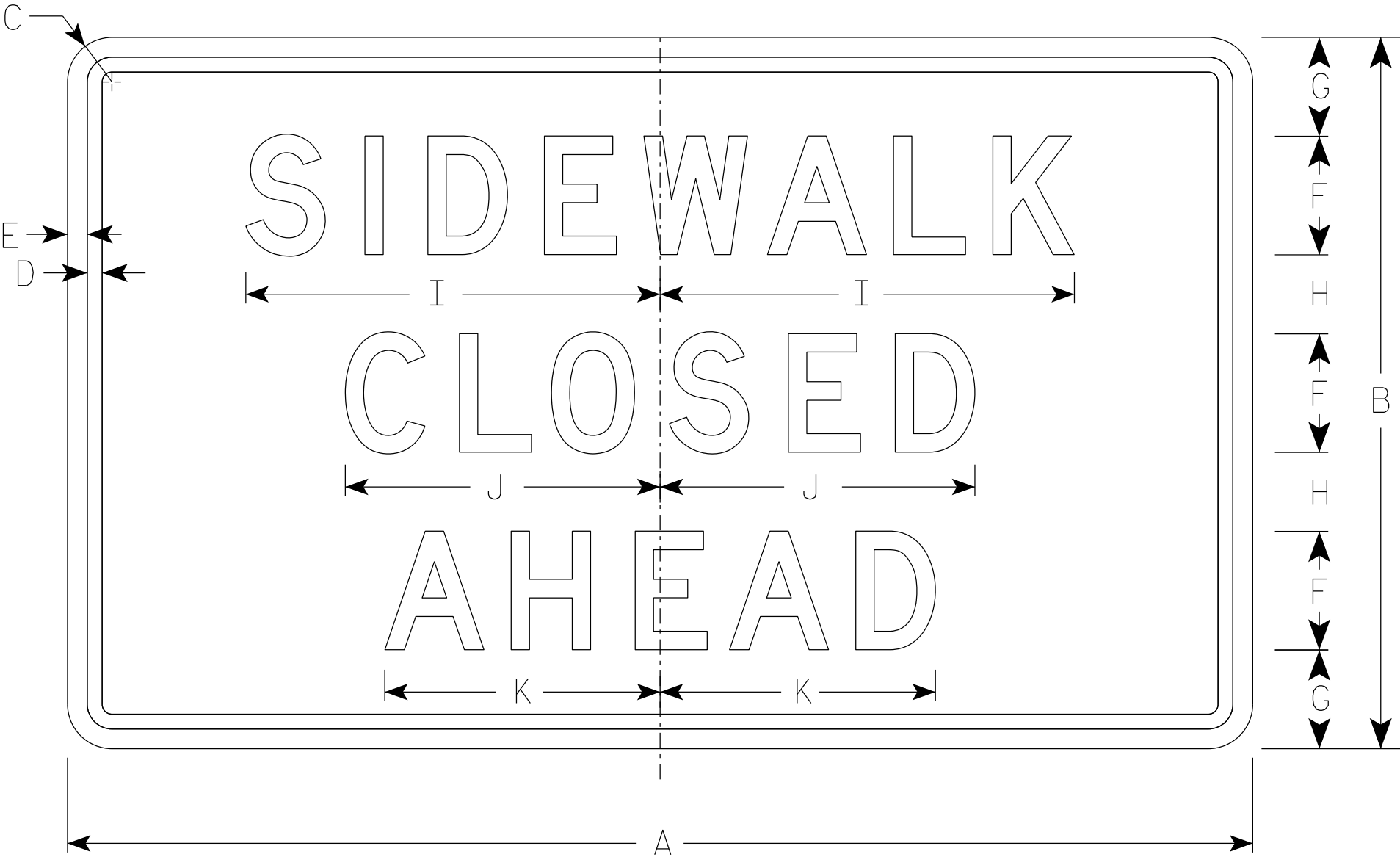
E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - D



R9-9A

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	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

PROJECT NO:

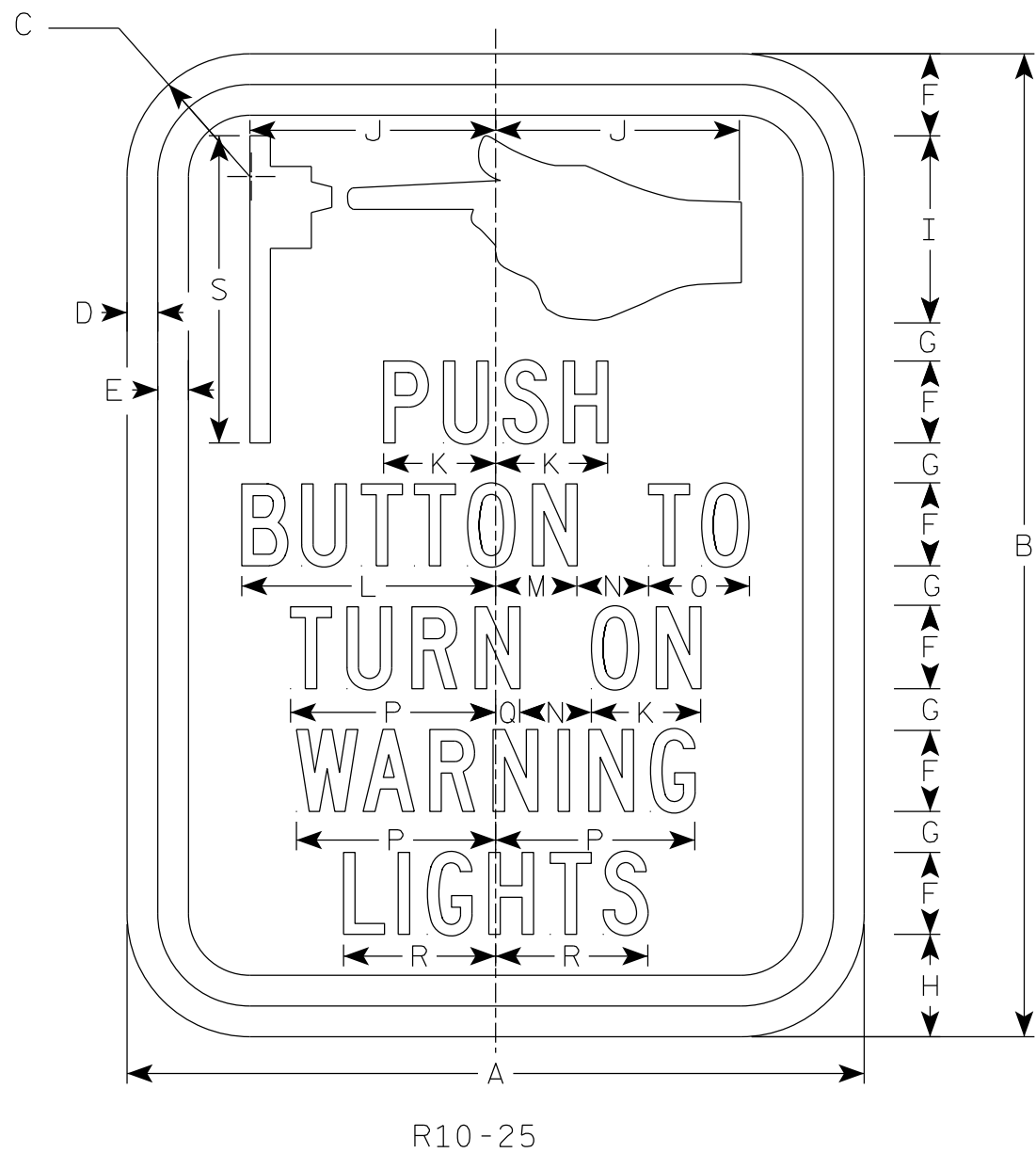
HWY:

COUNTY:

SHEET NO: 225

E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Size (1) comes as a decal only.

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	6	9	1 1/2	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/2	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/2	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

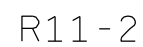
PROJECT NO:

HWY:

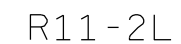
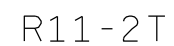
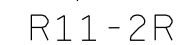
COUNTY:

SHEET NO: 226

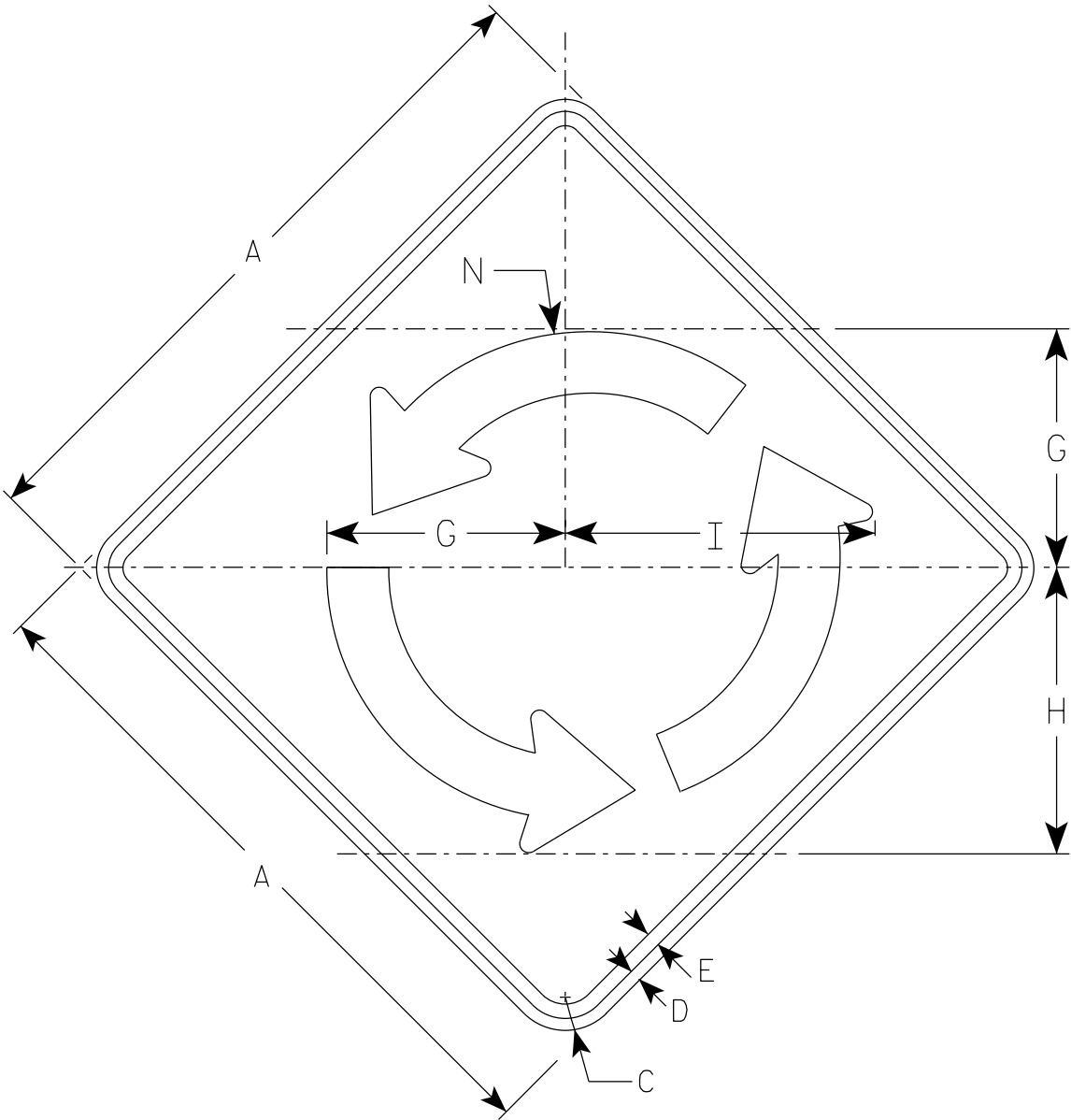
E



1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - Black
3. Message Series - D
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. Modify the message as required.



STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>2/5/24</u>	PLATE NO. <u>R11-2.12</u>

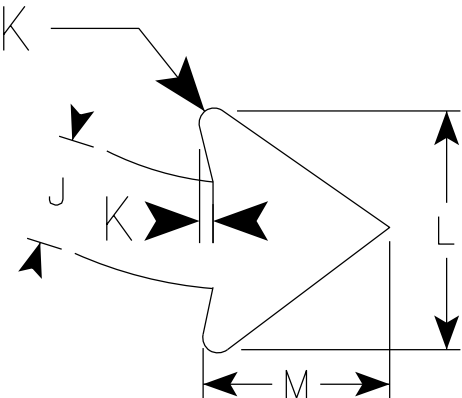


W2-6

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black

Arrow Detail

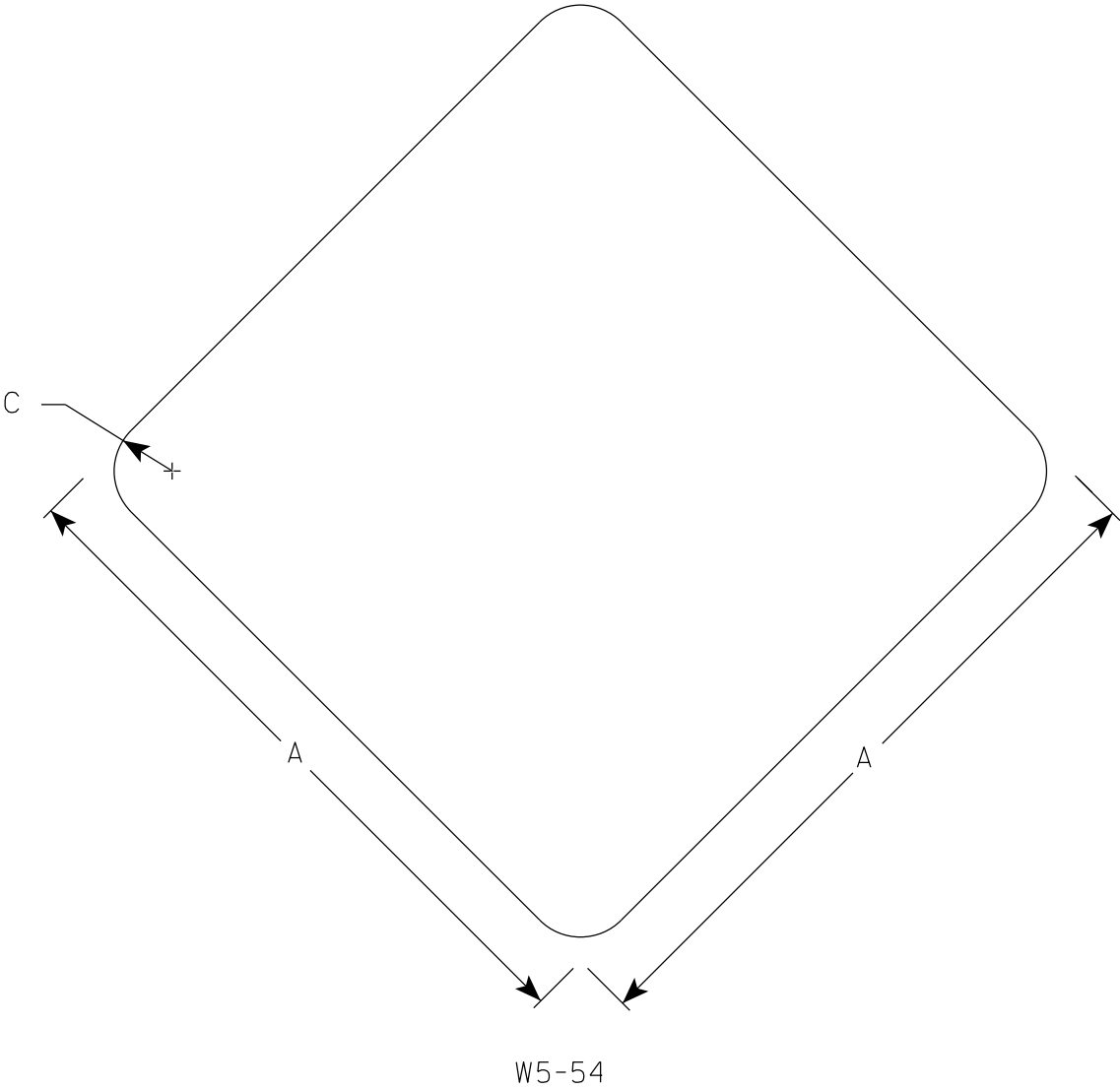


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Area sq. ft.
1																									
2S	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
2M	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
3	36		2 1/4	5/8	3/4		12 1/2	15	16 1/4	3 1/4	1/2	7 3/8	5 3/4	13 3/8											9.00
4	48		3	3/4	1		16 5/8	20	16 1/4	4 3/8	5/8	9 3/4	7 5/8	17 7/8											16.0
5																									

NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - Yellow



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	12		1 1/2																								1.0
2S	18		1 1/2																								2.25
2M	18		1 1/2																								2.25
3																											
4																											
5																											

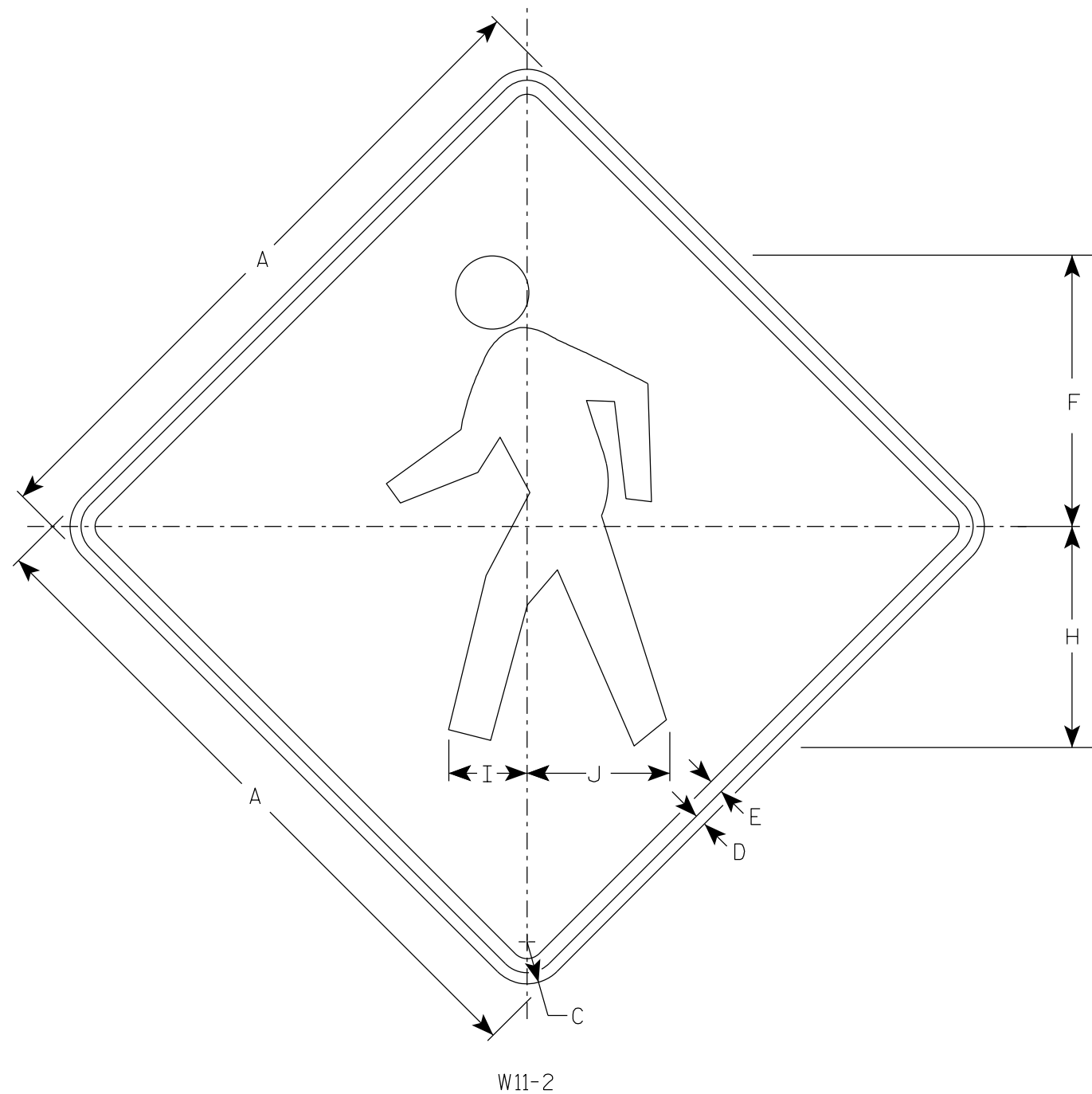
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/5/2024 PLATE NO. W5-54.9

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black

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	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

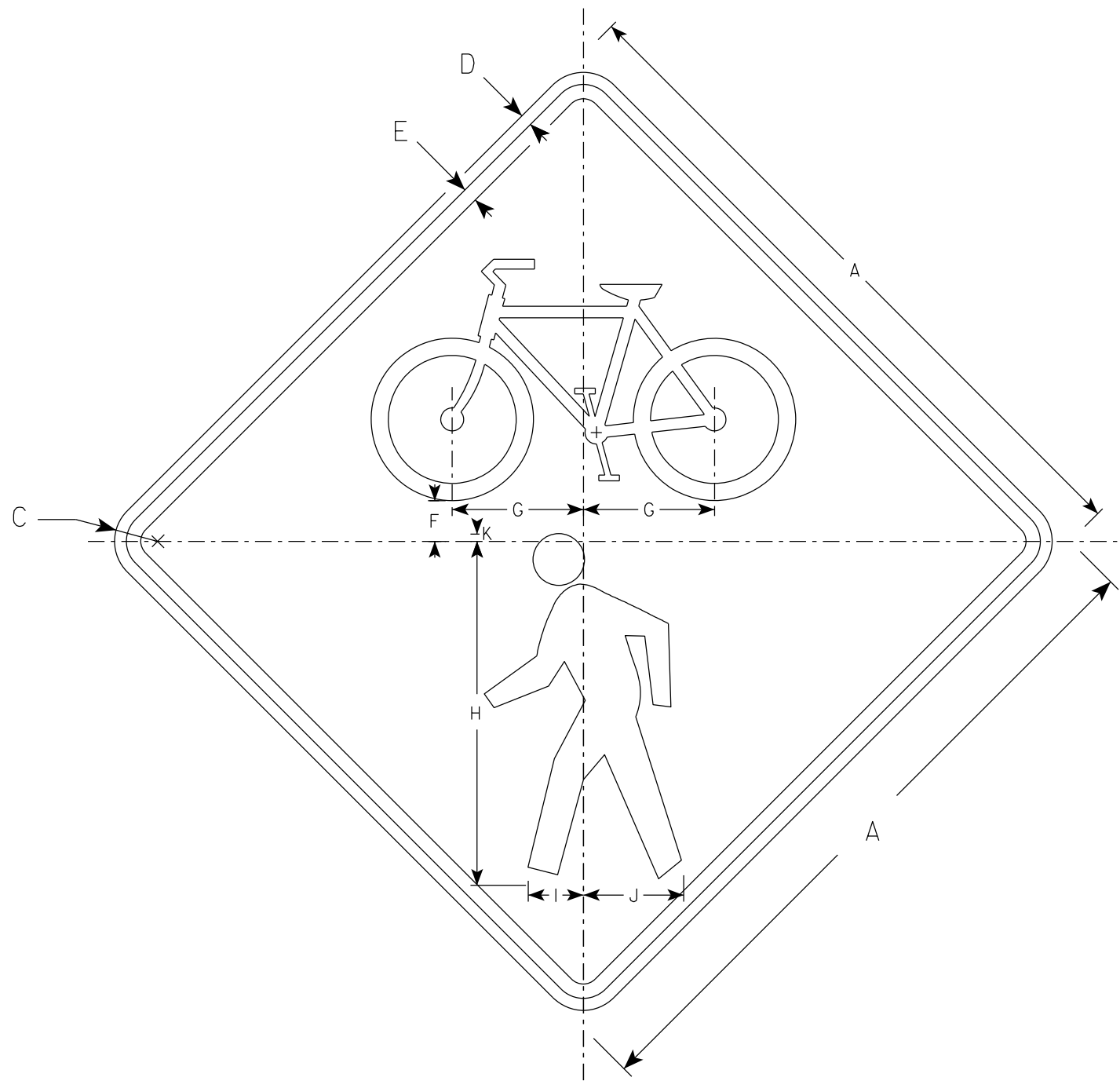
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 230		E
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7



W11-15

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black

7

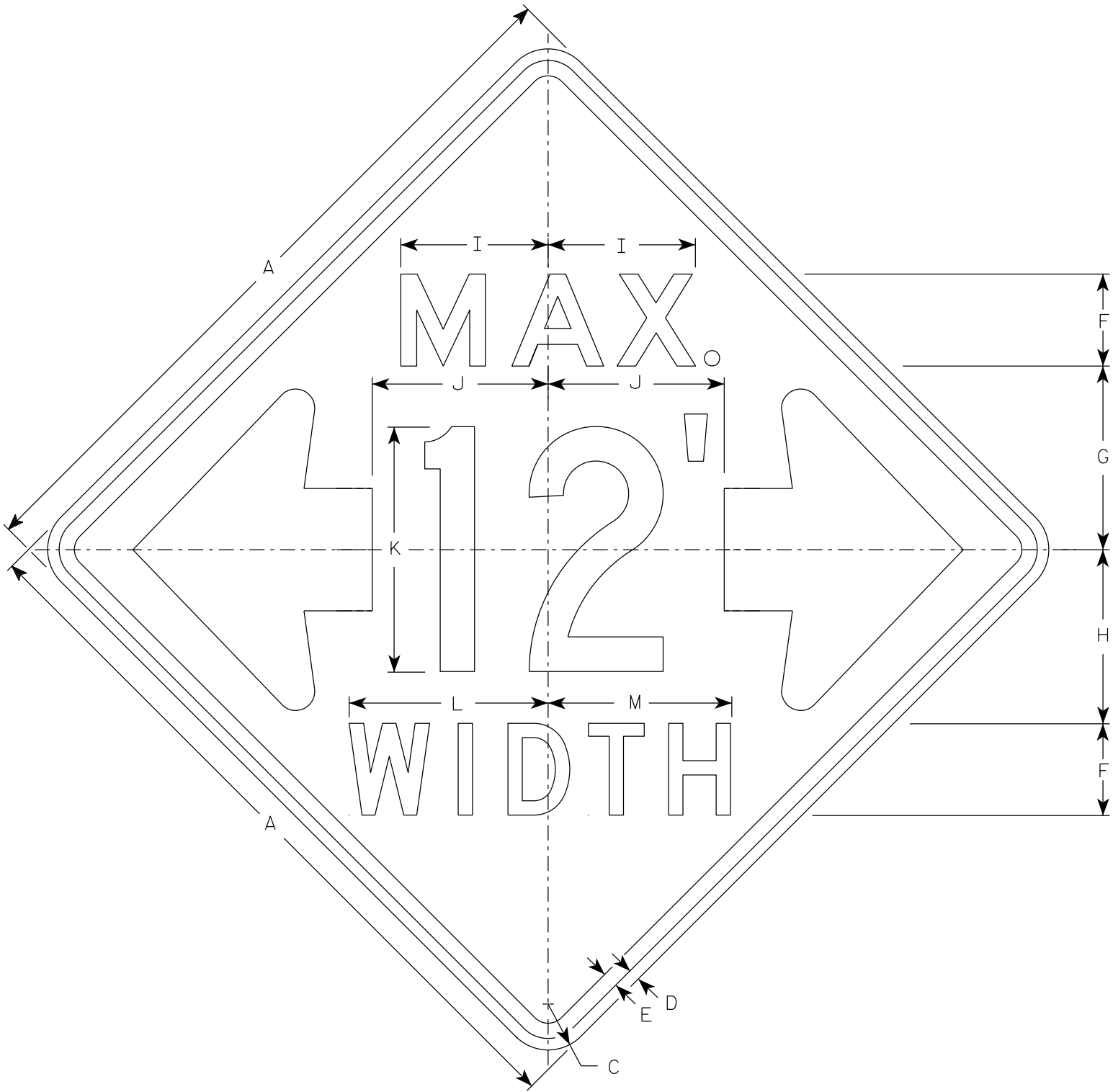
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 7/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		2 1/4	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
4	48		3	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN
W11-15

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

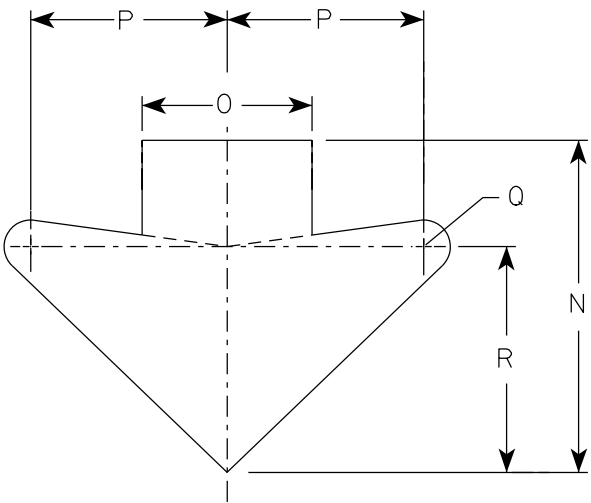
DATE 11/21/2023 PLATE NO. W11-15.5



W12-52

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - See note 5
- 4. The top line is series E, the numerals are series C, and the bottom line is series D.
- 5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
2M	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
3																											
4																											
5																											

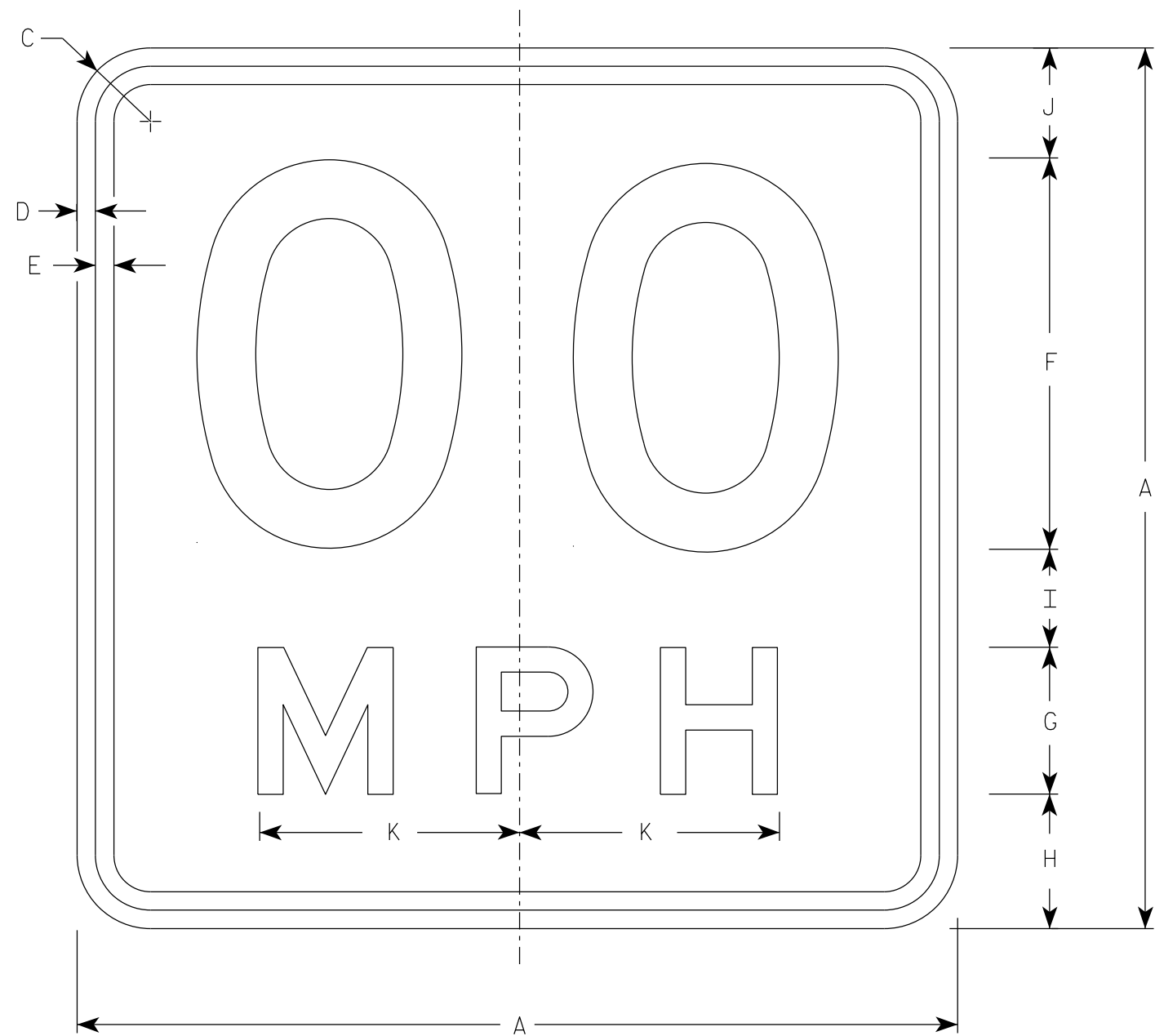
STANDARD SIGN

W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See Note 5
- 4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
- 5. Line 1 is Series D
Line 2 is Series E

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

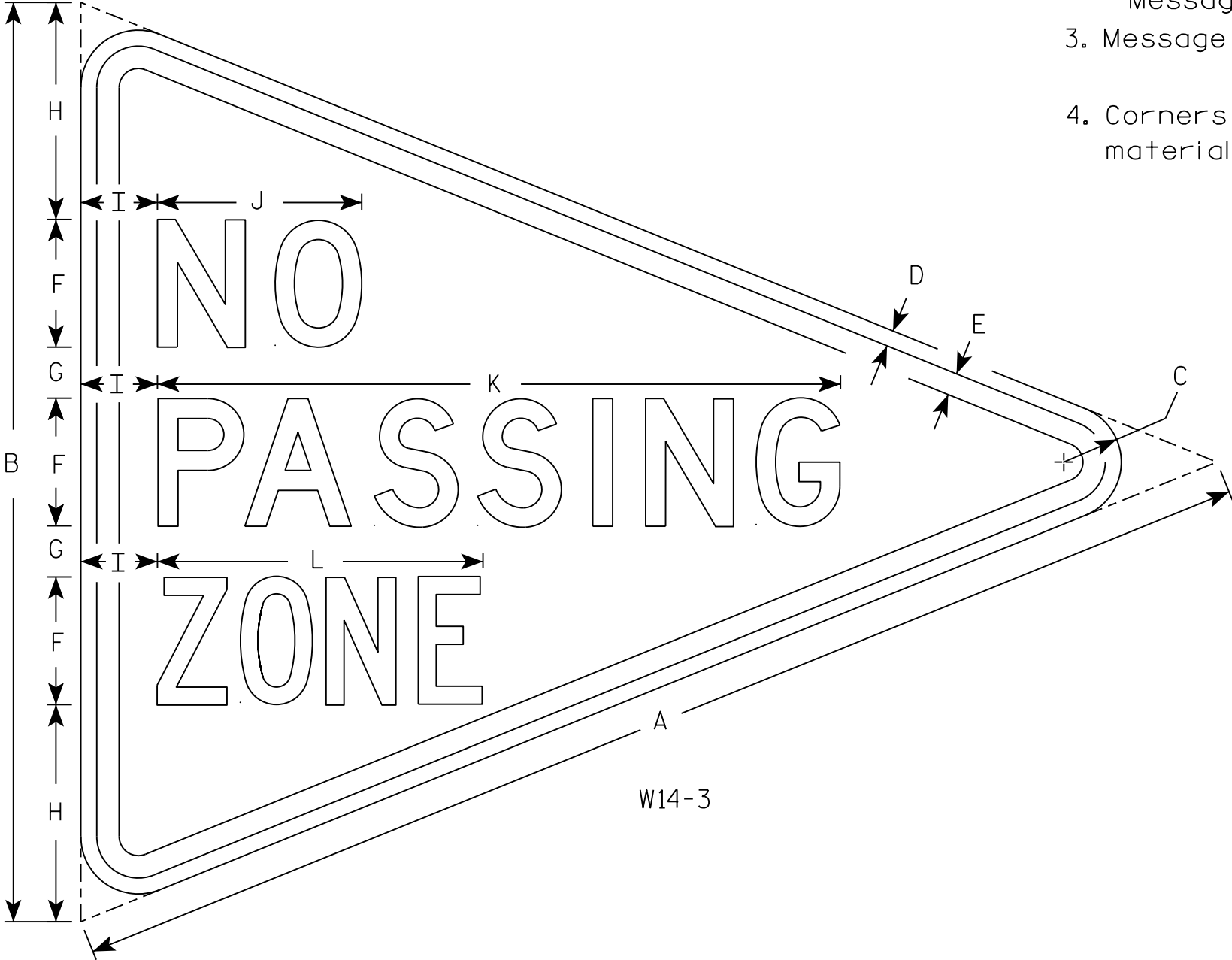
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
* * * * *	1	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
	2S	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
	2M	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
	3	24		1 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8															4.00
	4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00
	5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - Lines 1 and 2 are Series D.
Line 3 is series C.
- 4. Corners and borders shall be rounded on all base materials for this sign.

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	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 234

E

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

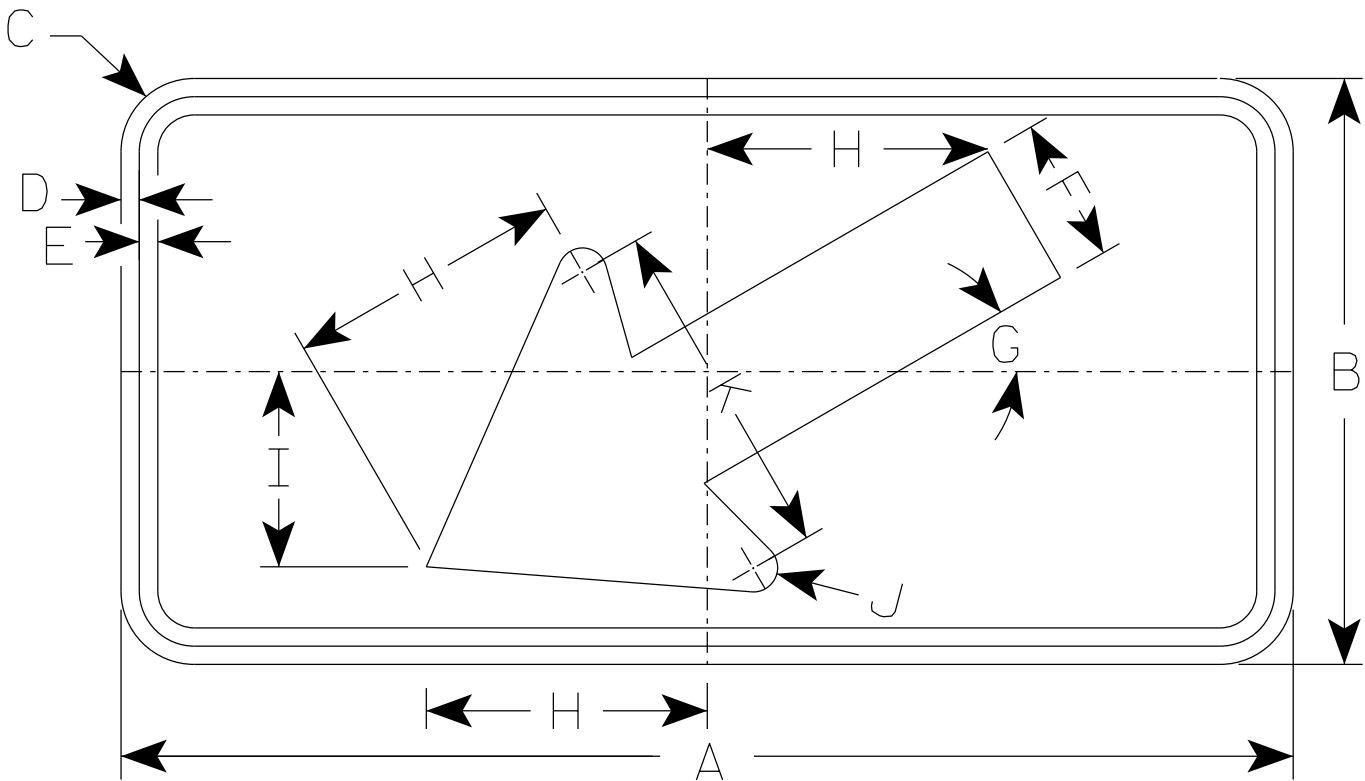
DATE 3/21/17 PLATE NO. W14-3.10

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W16-7R is the same as W16-7L
except the arrow is reversed along
the vertical centerline.



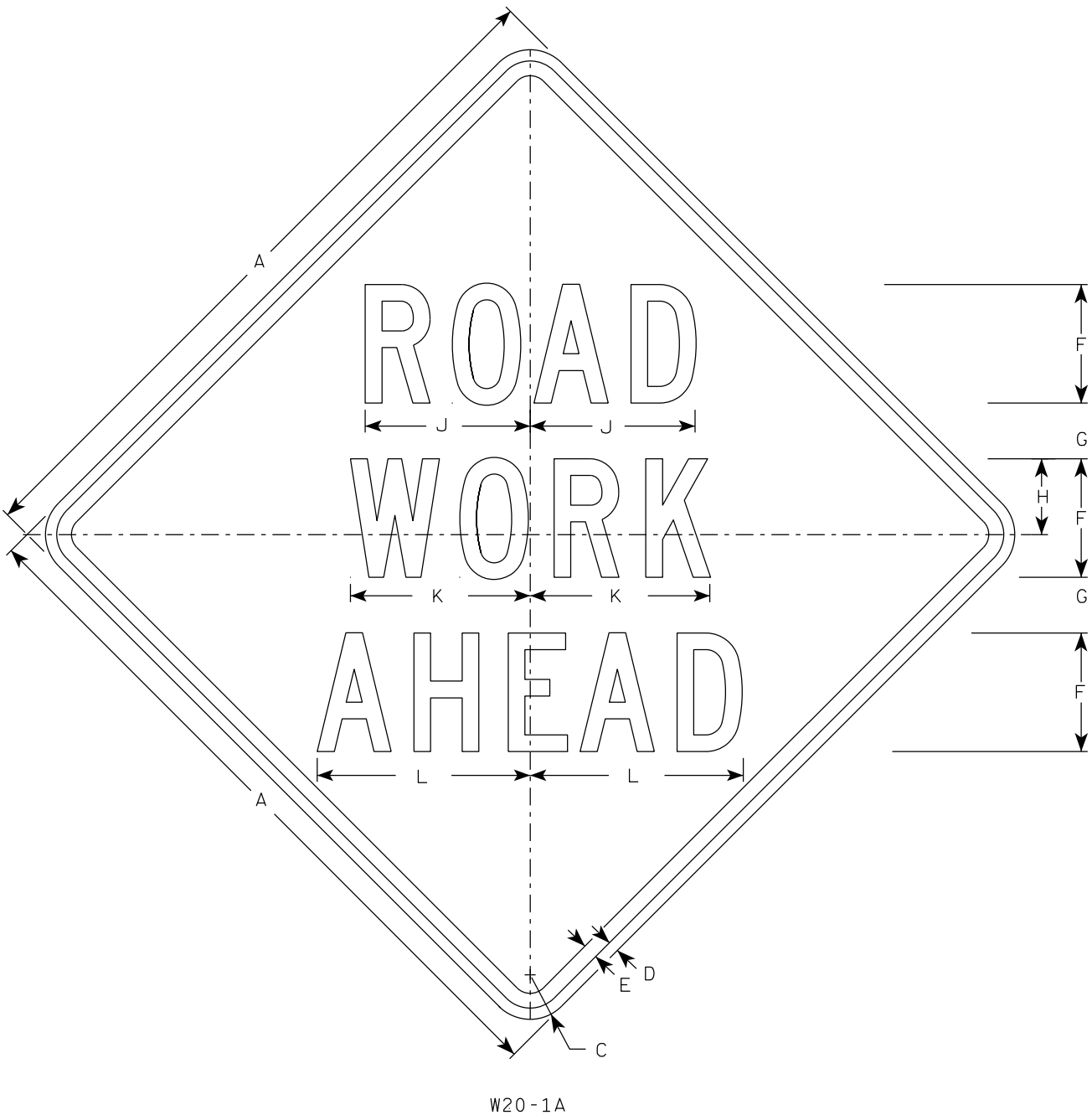
W16-7L

- * For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

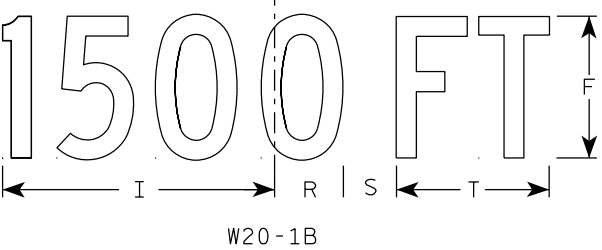
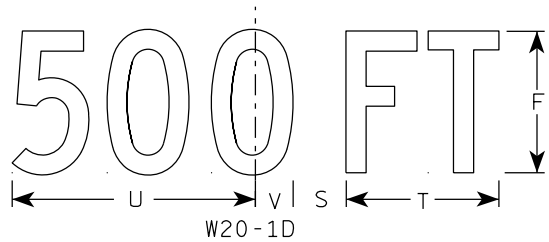
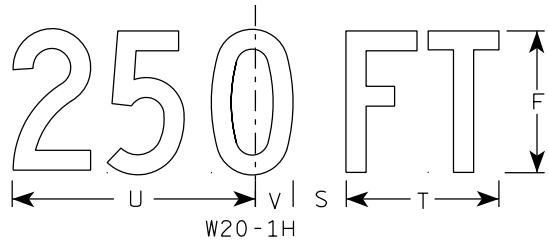
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN	
W16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 1/9/2024	PLATE NO. W16-7.9

7

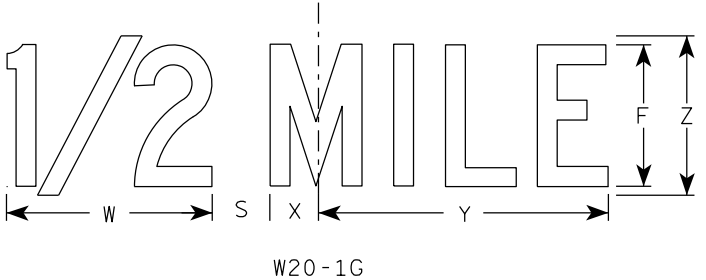


W20-1A

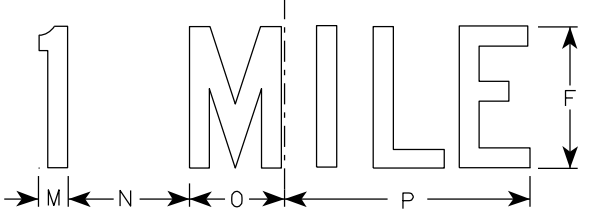


W20-1B

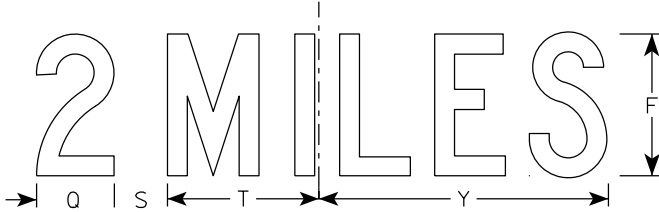
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F

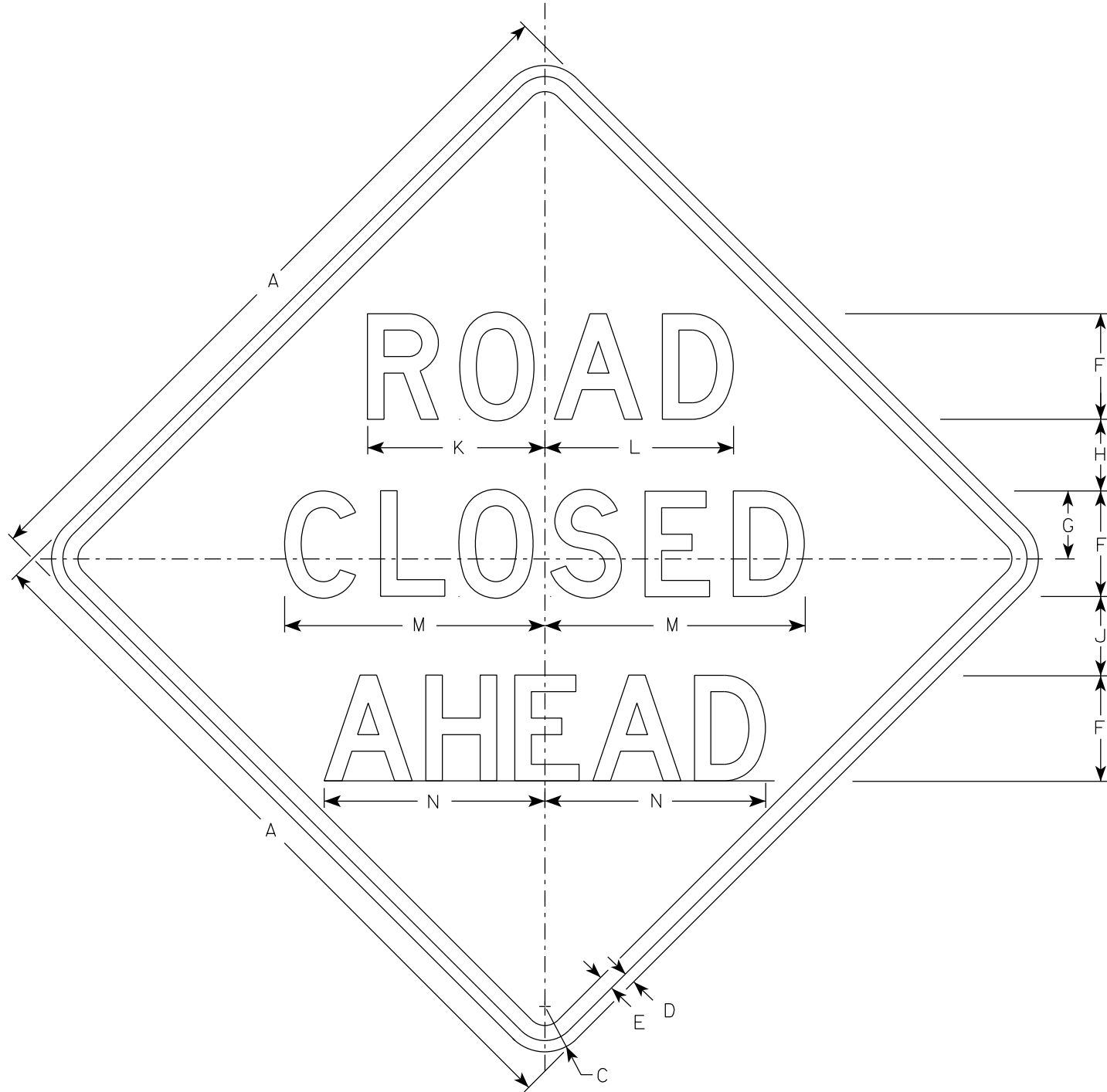


W20-1E

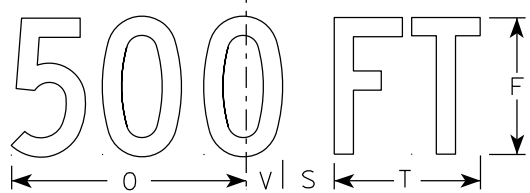
7

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	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

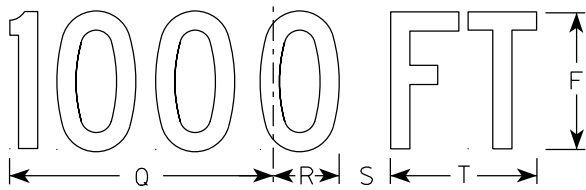
7



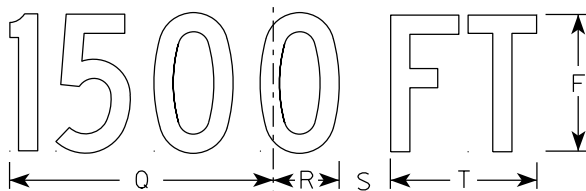
W20-3A



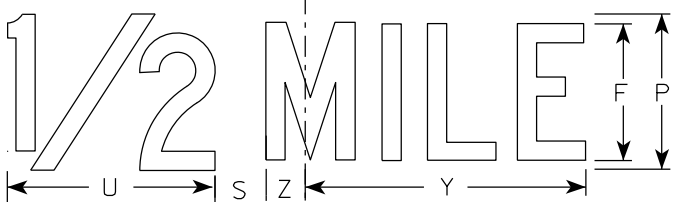
W20-3D



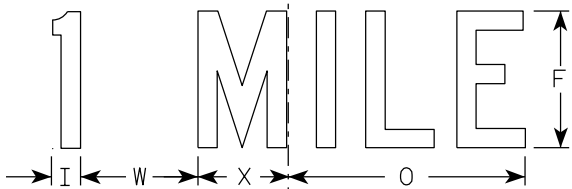
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - see note 5
- 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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

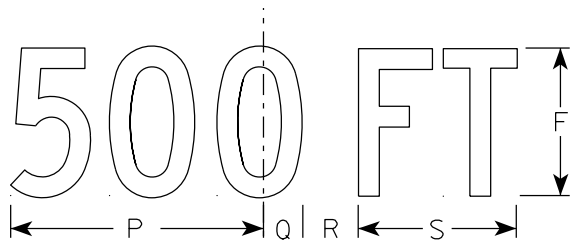
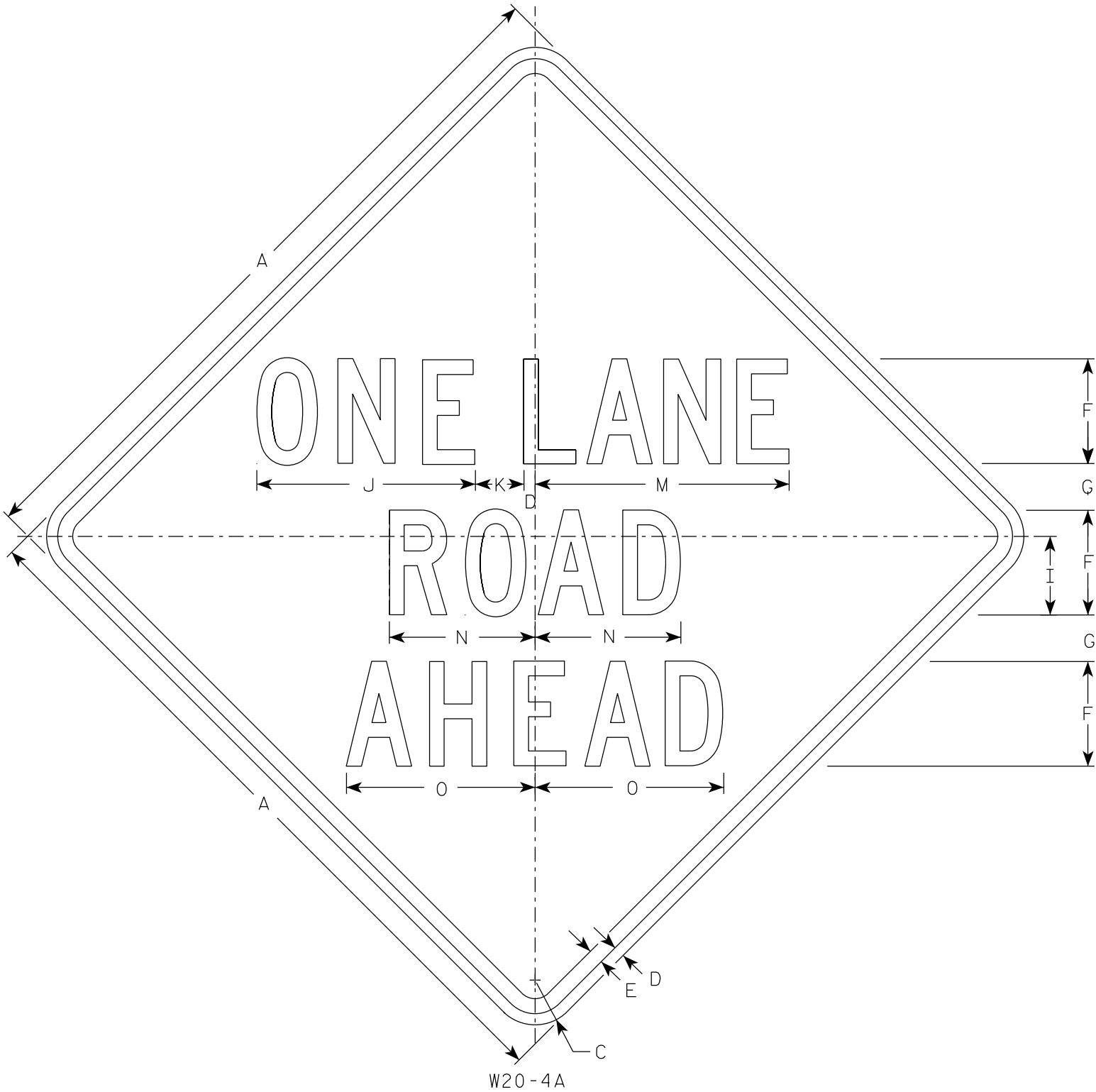
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

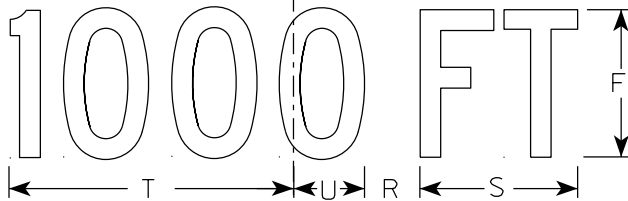
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

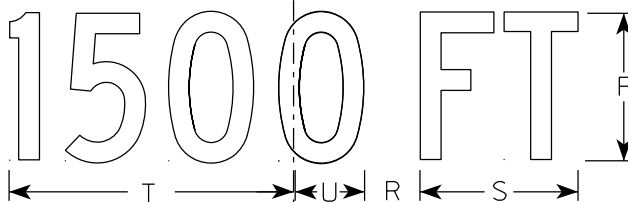
DATE 1/10/2024 PLATE NO. W20-3.8



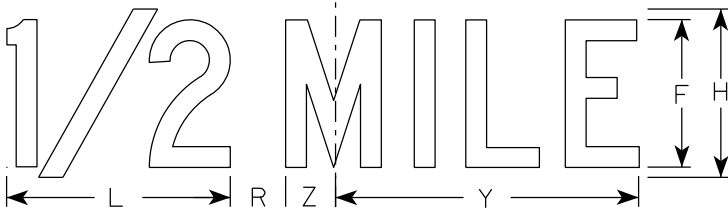
W20-4D



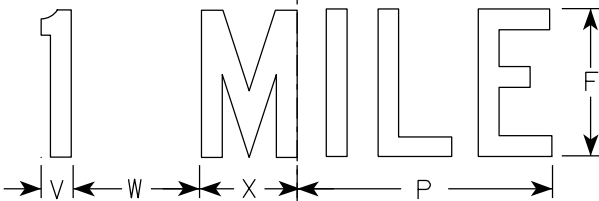
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - C
- 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.

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 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

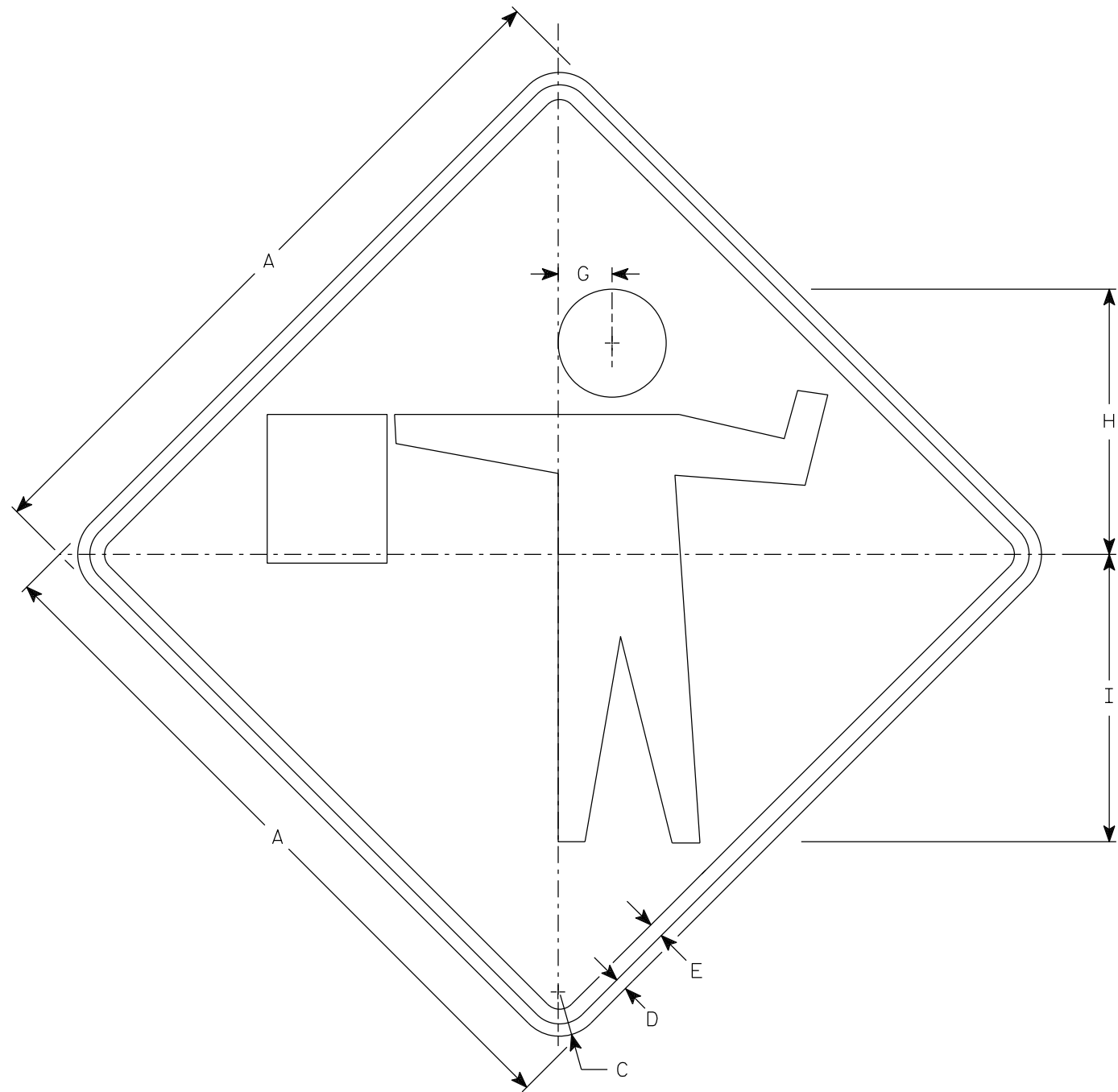
DATE 1/10/2024 PLATE NO. W20-4.10

PROJECT NO:

SHEET NO:

238

E



W20-7A

NOTES

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

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		2 3/4	13 1/2	14 5/8																		9.0
2S	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
2M	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
3	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
4	48		3	3/4	1		3 3/4	18	19 1/2																		16.0
5	48		3	3/4	1		3 3/4	18	19 1/2																		16.0

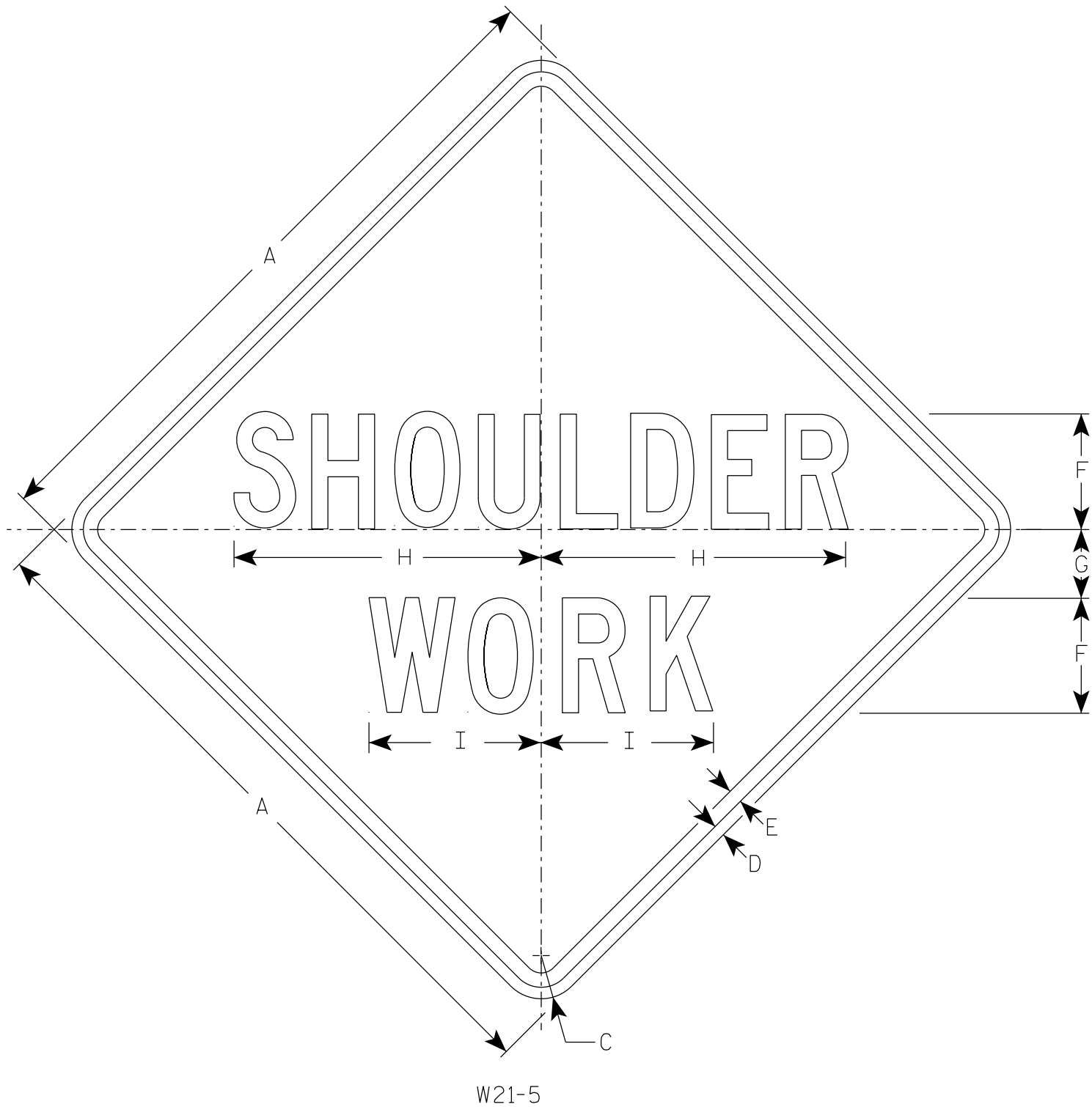
STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-7A.6

7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C

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	36		2 1/4	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/11/2024 PLATE NO. W21-5.7

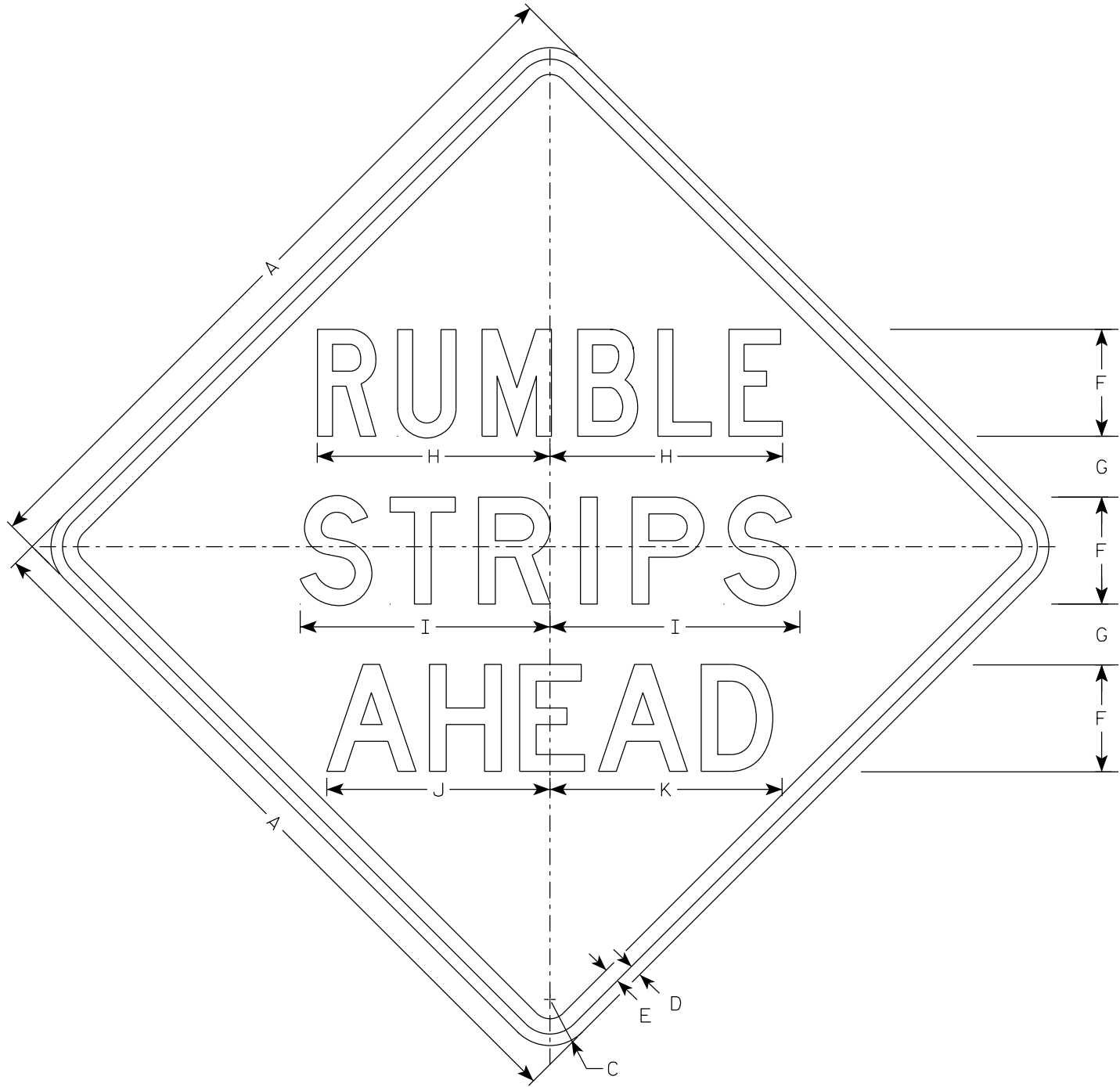
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 240

E



W21-65

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - see note 4
- 4. Line 1 is Series C
 - Lines 2 and 3 are Series D

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	3 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		3	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

STANDARD SIGN
W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/17/2024 PLATE NO. W21-65.2

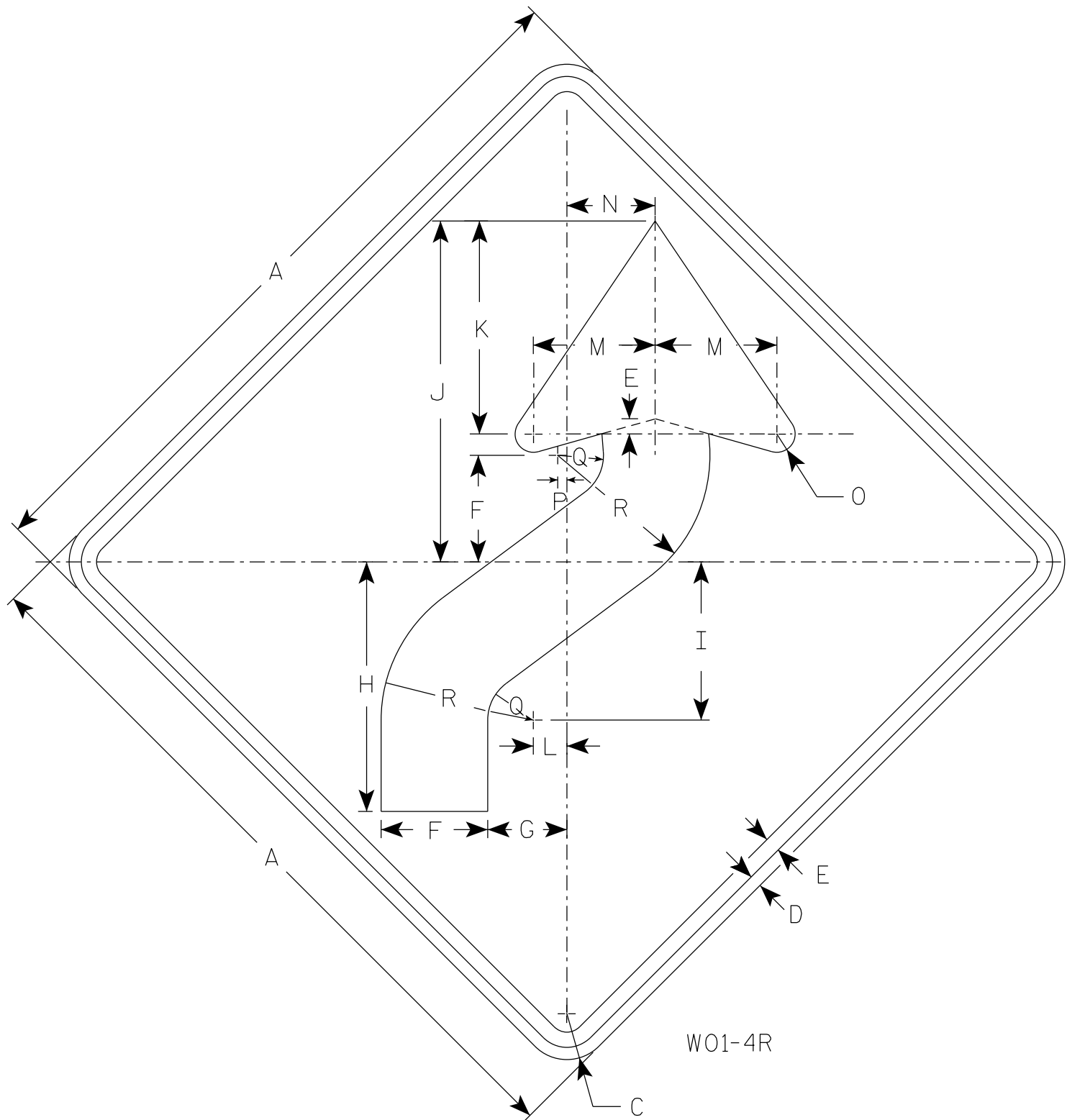
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 241

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

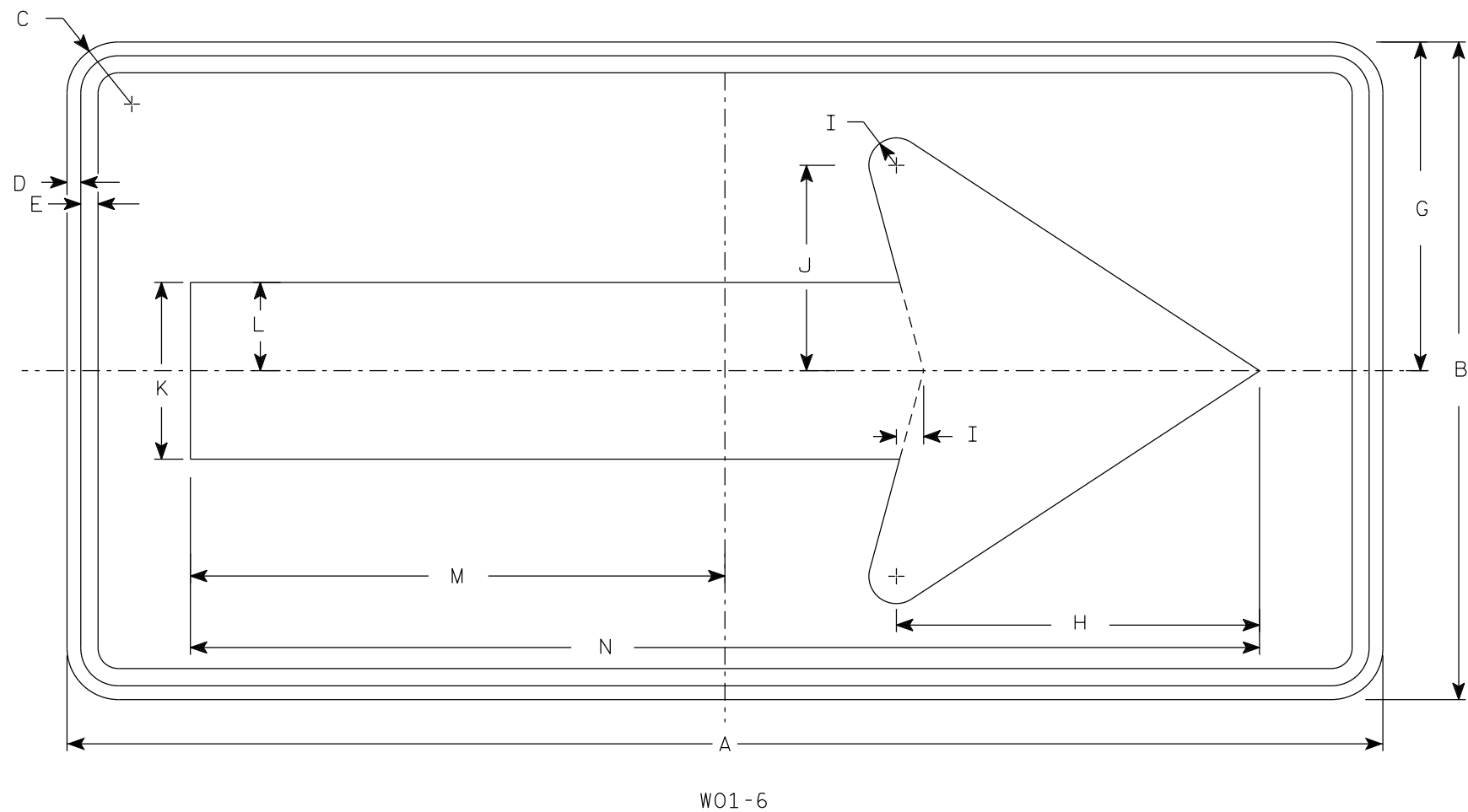
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

7



NOTES

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

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	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN

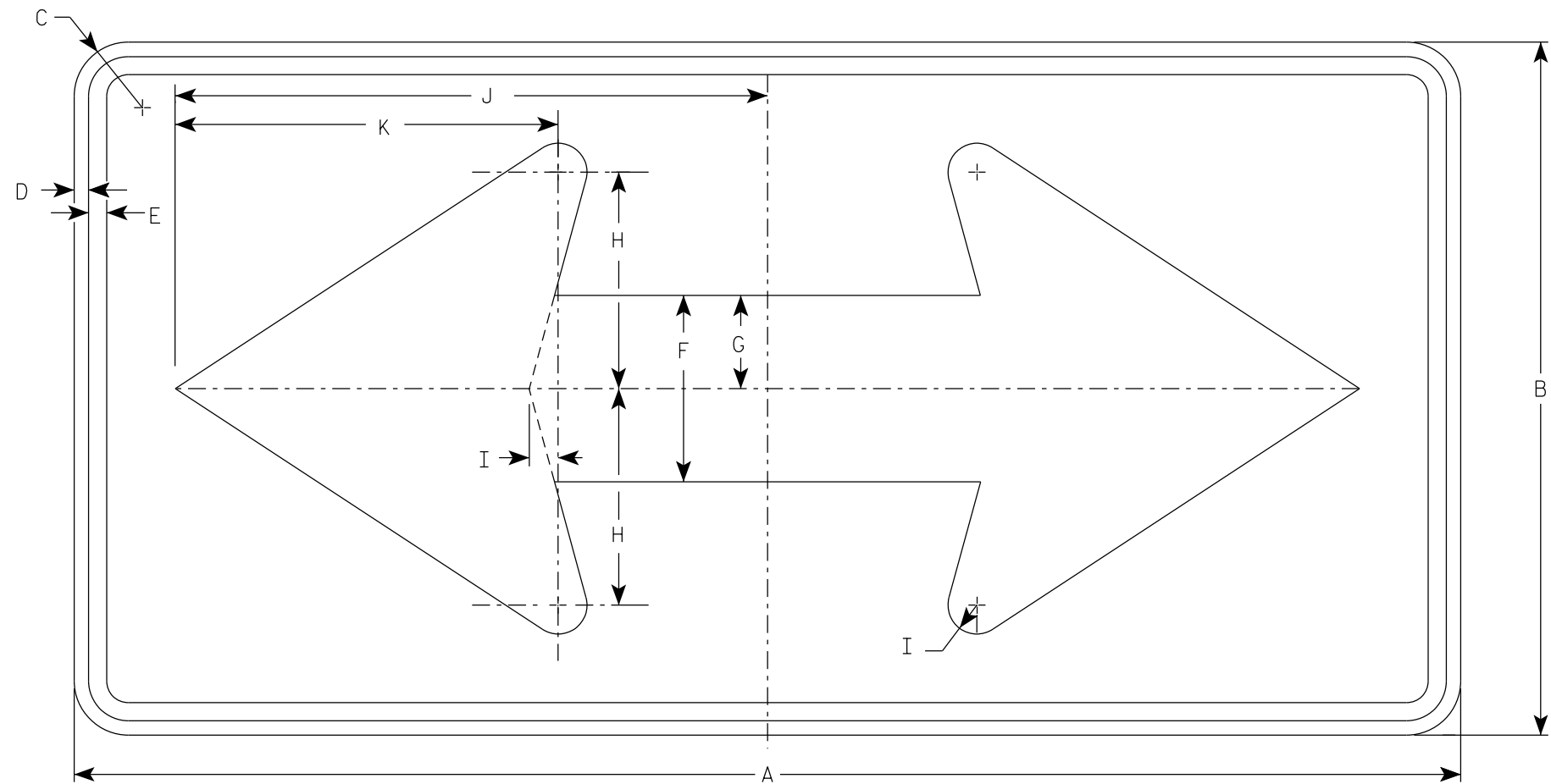
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-6.2

7



W01-7

NOTES

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

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	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

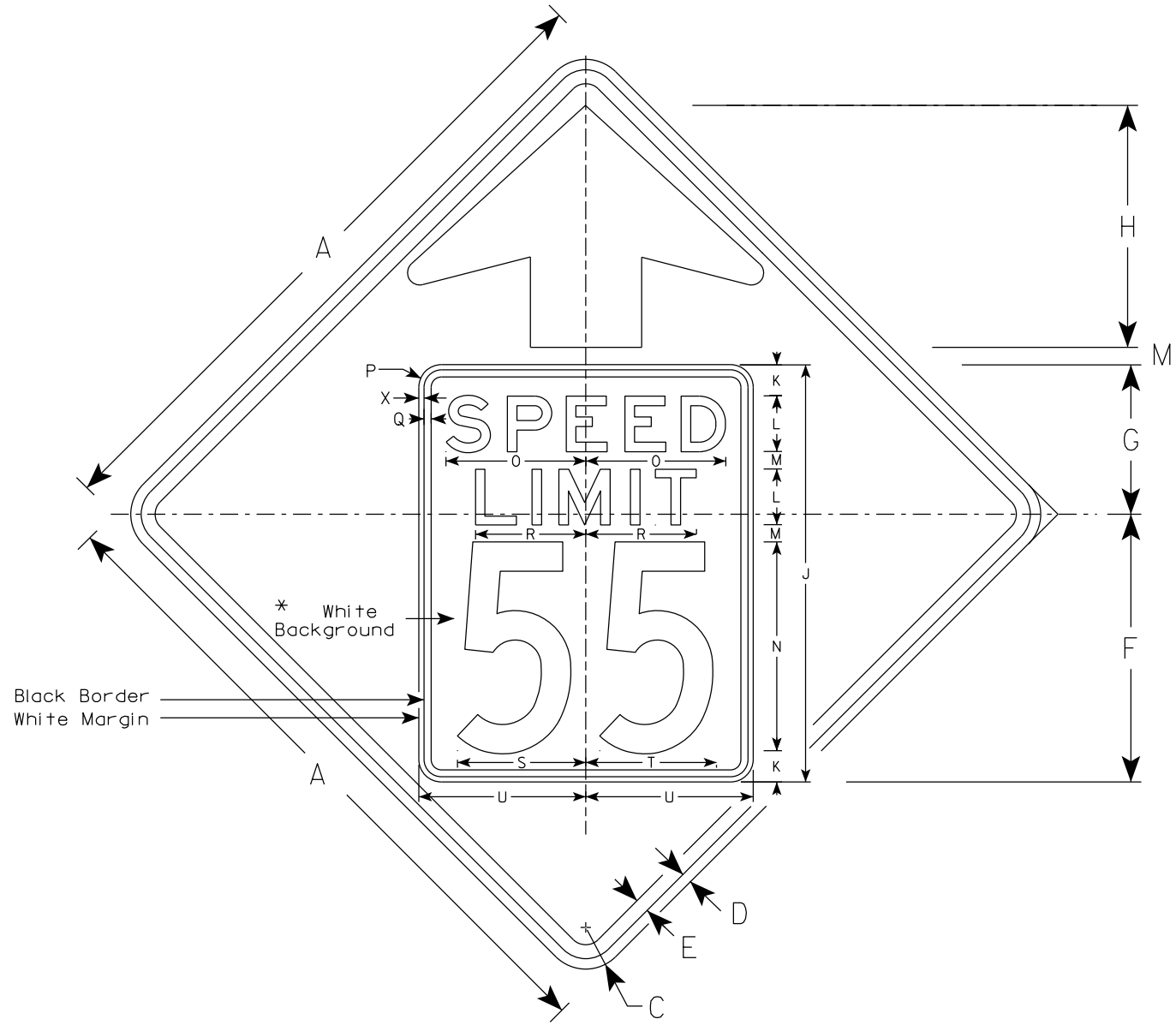
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 244

E

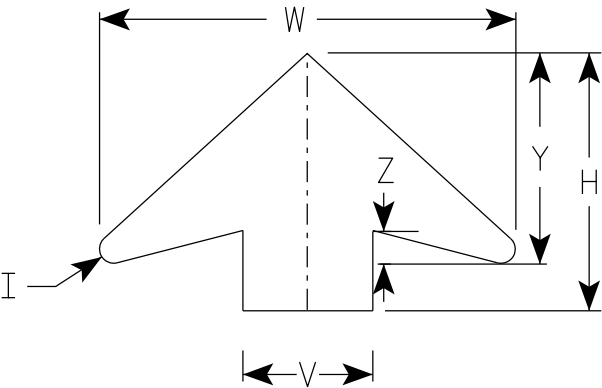


W03-5

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color: *
Background - ORANGE*
Message - BLACK
- 3. Message Series - C for numbers Series E for wording
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

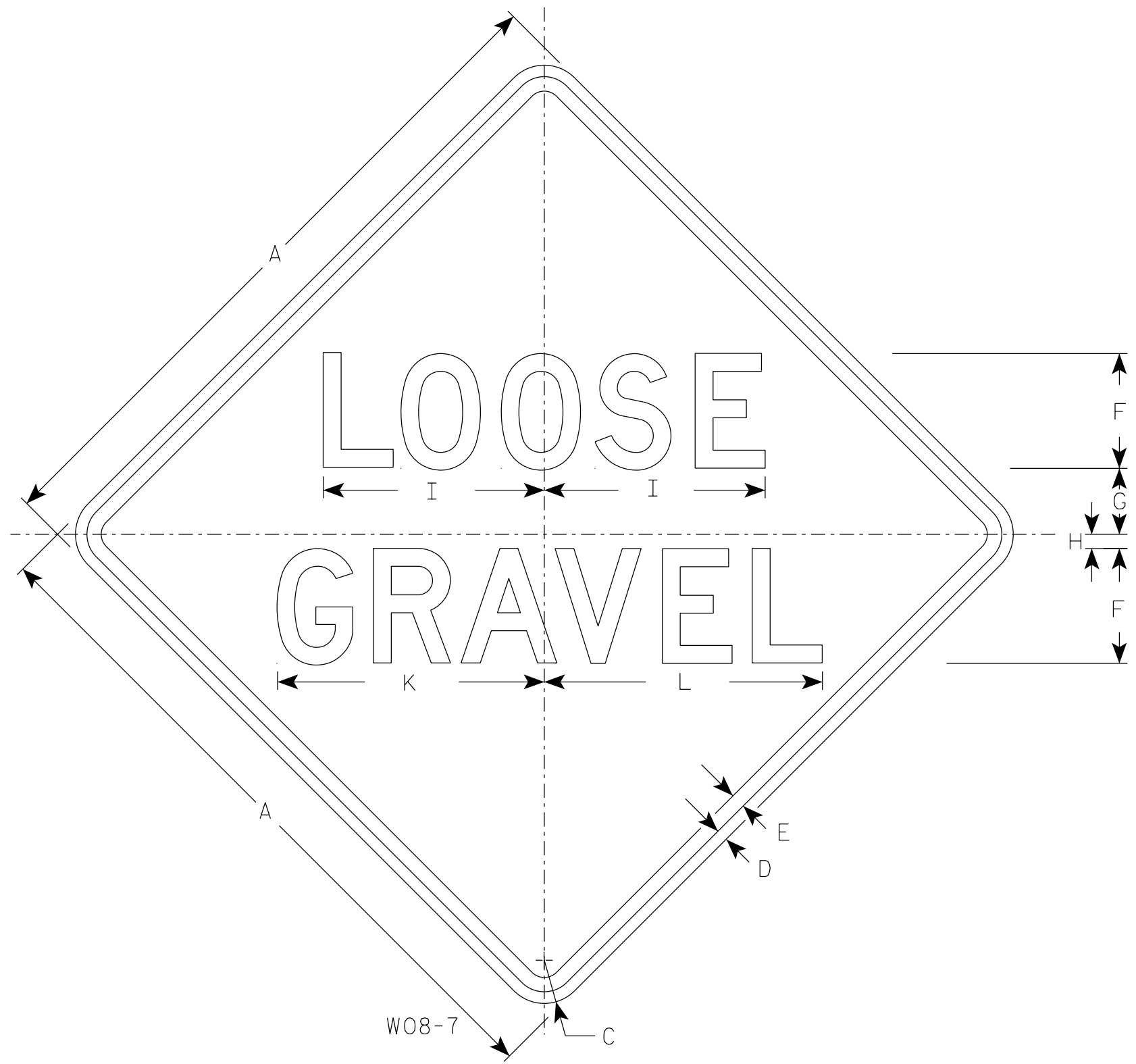
DATE 1/24/2024 PLATE NO. W03-5.2

PROJECT NO:

SHEET NO:

245

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - D
- 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.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2S	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
2M	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
3	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
4	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0
5	48		3	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

STANDARD SIGN

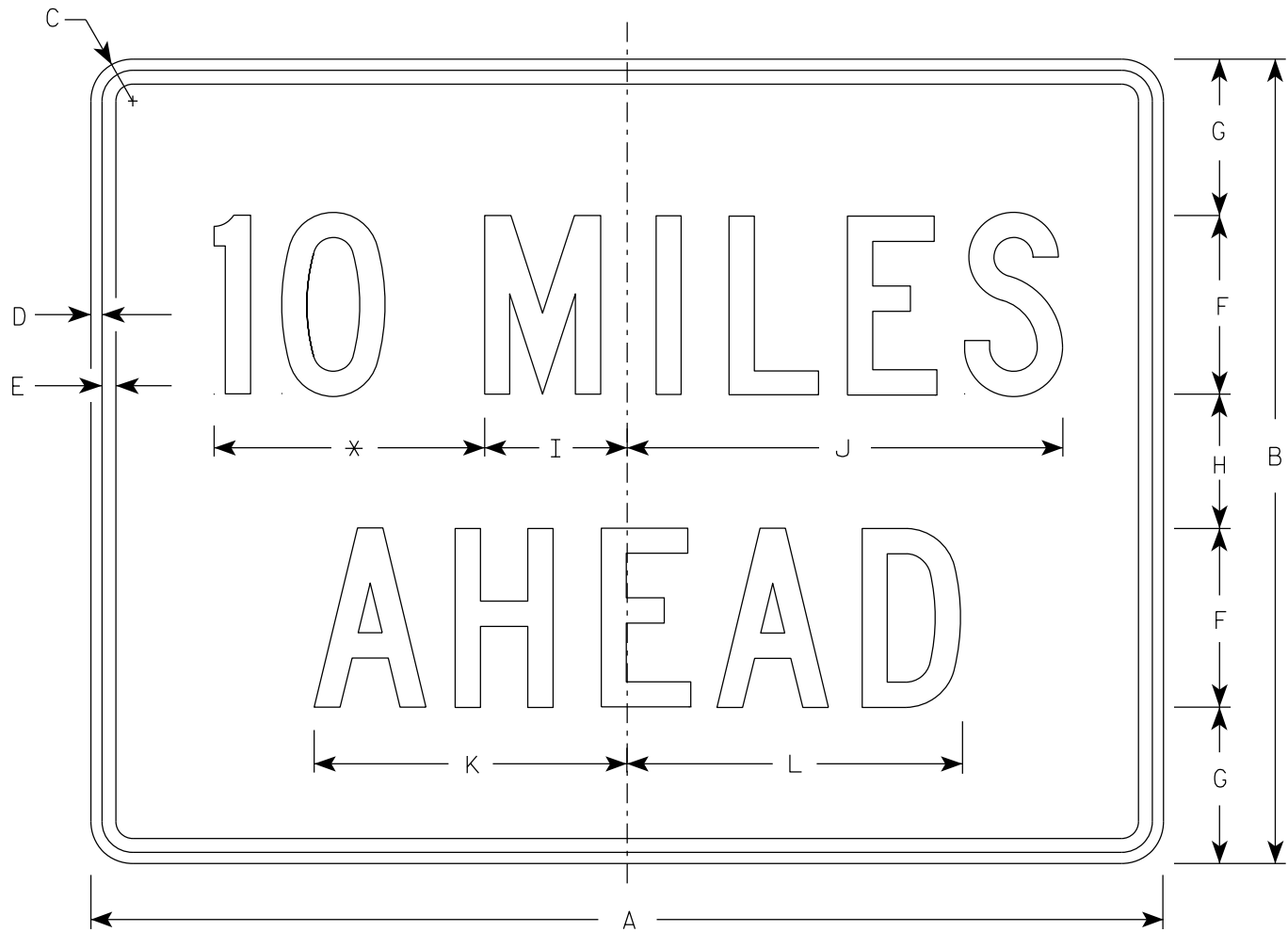
W08-7

WISCONSIN DEPT OF TRANSPORTATION

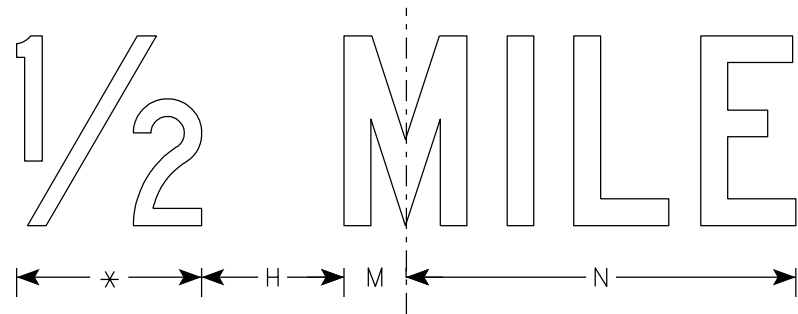
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/31/2024 PLATE NO. W08-7.9

7



W057-52



* See note 5

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. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

7

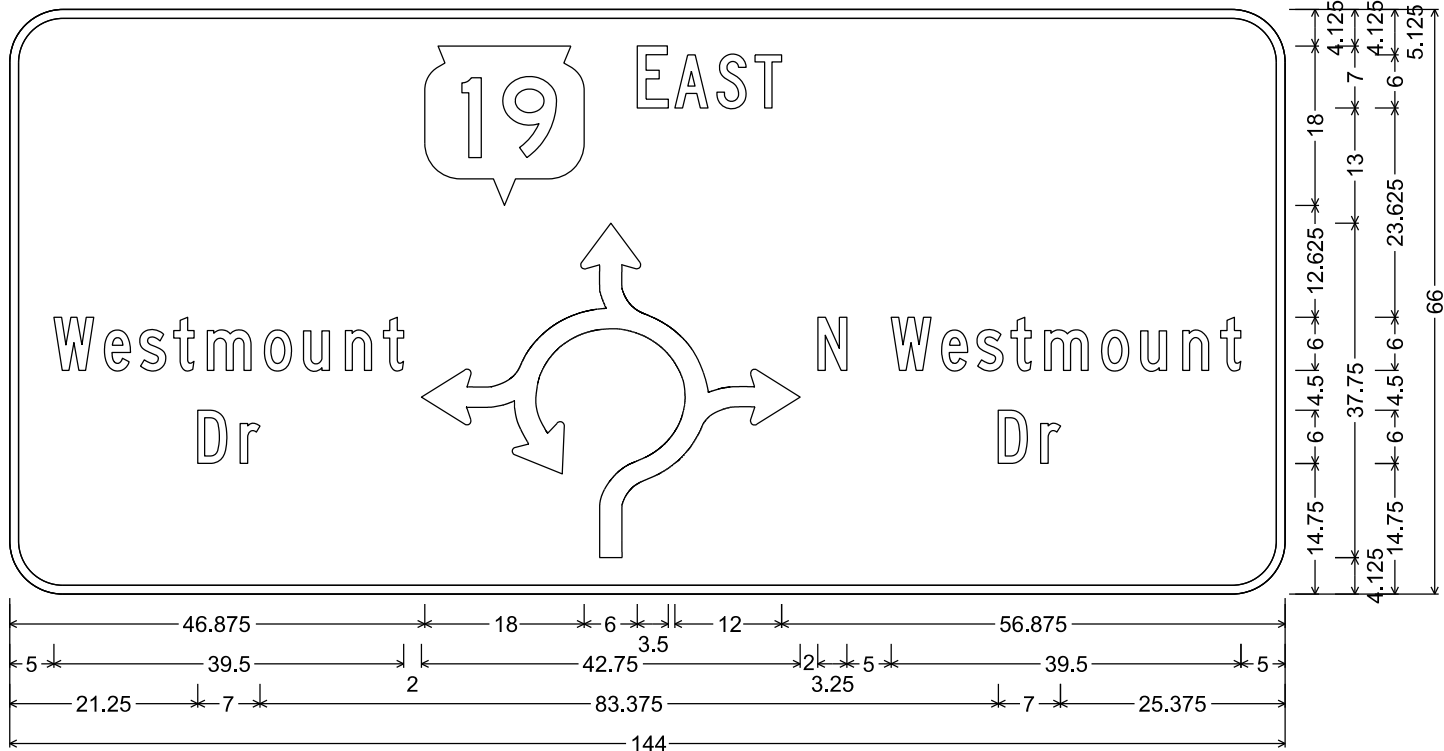
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/2	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

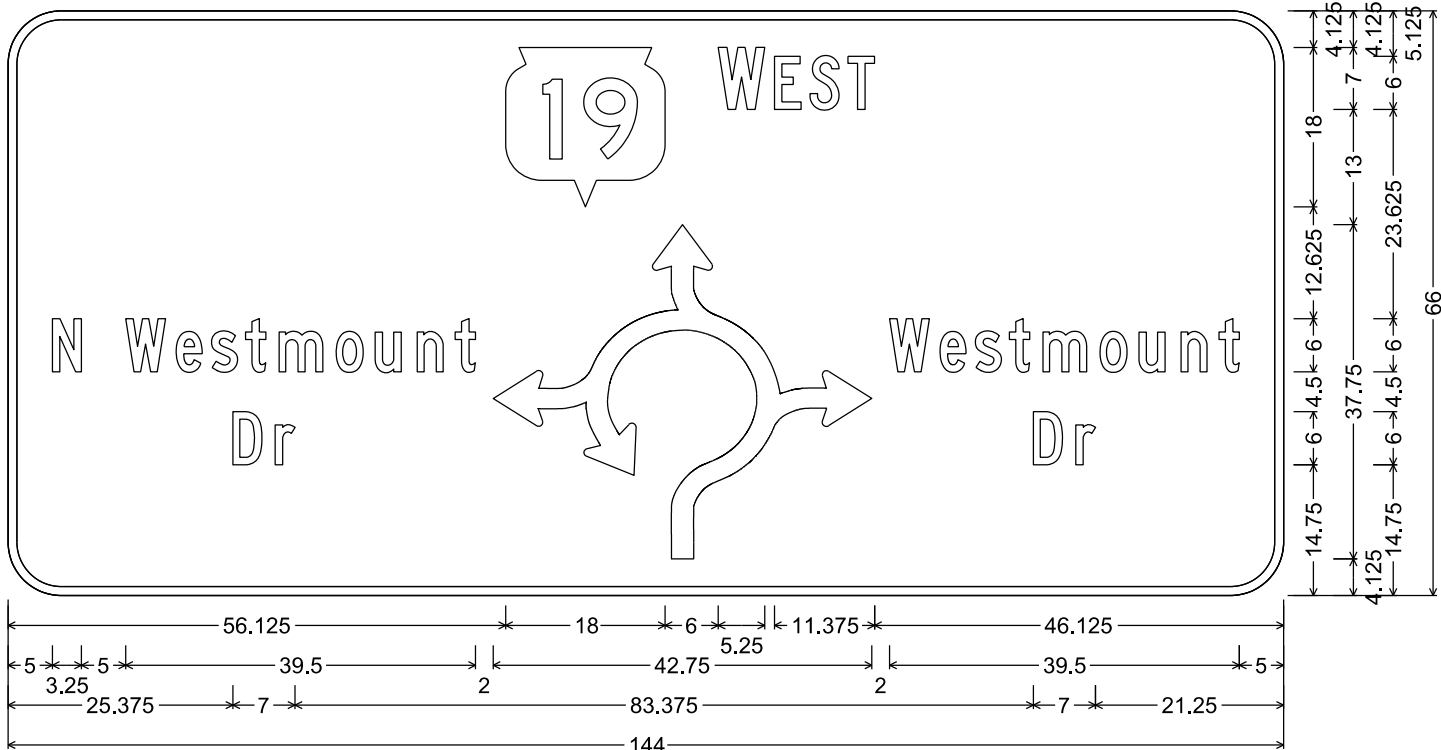
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W057-52.3



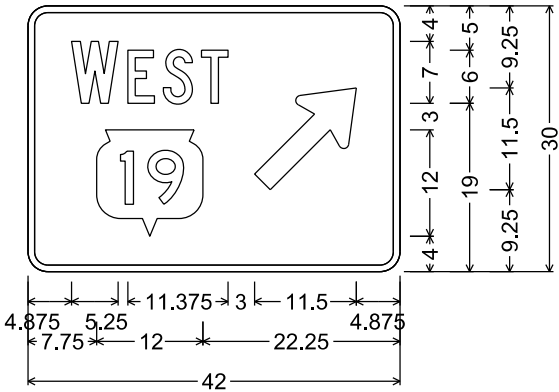
D1-62; 6.000" Radius, 1.000" Border



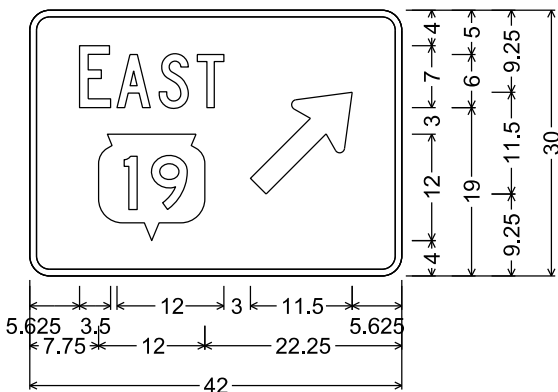
D1-62; 6.000" Radius, 1.000" Border

NOTES

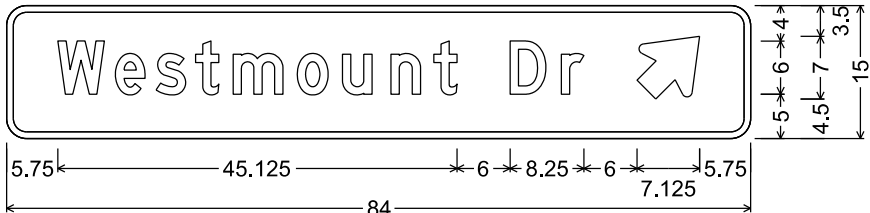
- 1. Signs are Type II - Type H Reflective
- 2. Color:
 - Background - Green
 - Message - White
- 3. Message Series - C except as noted



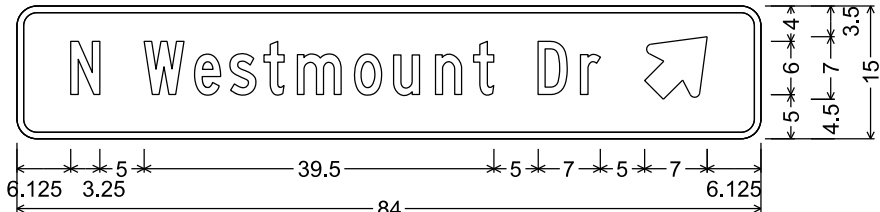
D1-67; 2.250" Radius, 0.750" Border



D1-67; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border
"Westmount", D; "Dr", D



D1-1; 2.250" Radius, 0.750" Border

DIVISION 1 - 19EB

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
105+17.55	10517.55	0.00	1.46	0.00	0.37	0	0	0	0	0	0
105+50.00	10550.00	32.45	2.03	0.77	0.29	2	0	0	2	0	2
106+00.00	10600.00	50.00	2.95	1.67	0.25	5	2	0	7	0	5
106+50.00	10650.00	50.00	4.16	2.50	0.07	7	4	0	14	0	8
107+00.00	10700.00	50.00	8.38	3.27	0.13	12	5	0	26	0	15
107+50.00	10750.00	50.00	9.94	5.73	0.30	17	8	0	43	0	24
108+00.00	10800.00	50.00	10.09	8.07	0.83	19	13	1	62	1	29
108+50.00	10850.00	50.00	13.90	8.50	1.75	22	15	2	84	4	33
109+00.00	10900.00	50.00	25.18	8.57	3.45	36	16	5	120	10	47
109+10.00	10910.00	10.00	132.96	31.07	0.00	29	7	1	149	11	68
109+50.00	10950.00	40.00	130.81	31.13	0.00	195	46	0	344	11	217
110+00.00	11000.00	50.00	136.63	32.93	12.03	248	59	11	592	25	392
110+05.50	11005.50	5.50	120.02	33.05	23.77	26	7	4	618	30	406
110+50.00	11050.00	44.50	149.52	34.48	3.63	222	56	23	840	59	543
111+00.00	11100.00	50.00	176.13	35.82	0.58	302	65	4	1142	64	775
111+50.00	11150.00	50.00	251.39	36.58	0.00	396	67	1	1538	65	1103
112+00.00	11200.00	50.00	254.25	34.58	0.00	468	66	0	2006	65	1505
112+50.00	11250.00	50.00	74.75	8.65	20.56	305	40	19	2311	89	1746
113+00.00	11300.00	50.00	72.43	8.24	26.45	136	16	44	2447	144	1811
113+50.00	11350.00	50.00	69.46	9.75	25.98	131	17	49	2578	205	1864
114+00.00	11400.00	50.00	63.60	14.18	34.92	123	22	56	2701	275	1895
114+50.00	11450.00	50.00	54.13	17.47	33.38	109	29	63	2810	354	1896
114+87.89	11487.89	37.89	33.84	2.73	36.79	62	14	49	2872	415	1883
116+28.71	11628.71	0.00	50.23	0.00	14.82	0	0	0	2872	415	1883
116+50.00	11650.00	21.29	63.54	11.08	15.06	45	4	12	2917	430	1909
117+00.00	11700.00	50.00	55.53	6.10	22.89	110	16	35	3027	474	1959
117+50.00	11750.00	50.00	59.02	4.00	30.31	106	9	49	3133	535	1995
118+00.00	11800.00	50.00	57.16	8.47	8.26	108	12	36	3241	580	2046
118+50.00	11850.00	50.00	67.31	13.83	4.85	115	21	12	3356	595	2125
119+00.00	11900.00	50.00	73.76	17.08	0.46	131	29	5	3487	601	2221
119+50.00	11950.00	50.00	202.87	34.47	2.52	256	48	3	3743	605	2425
119+76.74	11976.74	26.74	180.13	33.73	1.83	190	34	2	3933	608	2579
120+00.00	12000.00	23.26	176.99	31.17	0.03	154	28	1	4087	609	2703
120+50.00	12050.00	50.00	171.42	31.27	1.53	323	58	1	4410	610	2967
121+00.00	12100.00	50.00	143.92	31.37	0.90	292	58	2	4702	613	3199
121+50.00	12150.00	50.00	146.28	31.27	1.93	269	58	3	4971	616	3406
122+00.00	12200.00	50.00	141.93	31.20	1.24	267	58	3	5238	620	3611
122+50.00	12250.00	50.00	138.96	31.23	0.48	260	58	2	5498	623	3811
123+00.00	12300.00	50.00	134.77	31.07	0.07	253	58	1	5751	624	4004
123+50.00	12350.00	50.00	132.36	31.17	0.00	247	58	0	5998	624	4193
123+59.78	12359.78	9.78	132.43	31.17	0.00	48	11	0	6046	624	4230
124+00.00	12400.00	40.22	11.68	8.67	0.58	107	30	0	6153	624	4307
124+50.00	12450.00	50.00	10.35	8.67	0.48	20	16	1	6173	625	4310
125+00.00	12500.00	50.00	5.40	6.73	1.04	15	14	1	6188	626	4310
125+19.43	12519.43	19.43	10.75	5.73	0.16	6	4	0	6194	626	4312
125+50.00	12550.00	30.57	4.83	4.23	1.14	9	6	1	6203	628	4314
126+00.00	12600.00	50.00	3.42	2.73	0.39	8	6	1	6211	629	4314
126+50.00	12650.00	50.00	2.90	2.00	0.42	6	4	1	6217	630	4315
127+00.00	12700.00	50.00	1.94	1.10	1.87	4	3	2	6221	633	4314
127+50.00	12750.00	50.00	1.04	0.00	3.02	3	1	5	6224	639	4309

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - 19WB

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
112+12.02	11212.02	0.00	163.09	26.41	0.00	0	0	0	0	0	0
112+50.00	11250.00	37.98	164.36	27.28	0.00	230	38	0	230	0	192
113+00.00	11300.00	50.00	159.78	27.50	0.00	300	51	0	530	0	441
113+50.00	11350.00	50.00	135.16	26.26	0.00	273	50	0	803	0	664
114+00.00	11400.00	50.00	85.21	23.29	2.27	204	46	2	1007	3	820
114+50.00	11450.00	50.00	58.25	19.01	6.34	133	39	8	1140	13	904
114+89.67	11489.67	39.67	39.78	11.71	33.73	72	23	29	1212	49	916
116+30.47	11630.47	0.00	94.54	26.72	0.72	0	0	0	1212	49	916
116+50.00	11650.00	19.53	126.26	33.78	0.00	80	22	0	1292	49	974
117+00.00	11700.00	50.00	144.70	28.04	0.00	251	57	0	1543	49	1168
117+50.00	11750.00	50.00	177.82	27.88	3.38	299	52	3	1842	53	1412
118+00.00	11800.00	50.00	158.39	24.58	1.92	311	49	5	2153	59	1667
118+50.00	11850.00	50.00	128.91	21.49	0.99	266	43	3	2419	63	1887
119+00.00	11900.00	50.00	108.40	21.73	2.05	220	40	3	2639	66	2063

DIVISION 2 - LCL-WESTMOUNTDR-NB

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
202+35.92	20235.93	0.00	190.03	21.53	0.35	0	0	0	0	0	0
202+50.00	20250.00	14.07	145.93	17.63	4.51	88	10	1	88	1	77
203+00.00	20300.00	50.00	137.74	17.27	10.18	263	32	14	351	19	290
203+50.00	20350.00	50.00	83.91	13.20	17.98	205	28	26	556	51	435
204+00.00	20400.00	50.00	37.24	4.47	13.16	112	16	29	668	88	495
204+12.74	20412.74	12.74	36.57	0.43	14.55	17	1	7	685	96	502
205+56.12	20556.12	0.00	42.29	0.00	23.77	0	0	0	685	96	502
206+00.00	20600.00	43.88	47.11	0.00	19.77	73	0	35	758	140	531
206+50.00	20650.00	50.00	55.67	1.87	0.38	95	2	19	853	164	600
206+65.20	20665.20	15.20	128.14	10.03	0.99	52	3	0	905	164	649
207+00.00	20700.00	34.80	127.81	9.87	0.00	165	13	1	1070	165	800
207+37.30	20737.30	37.30	120.77	9.87	0.00	172	14	0	1242	165	958
207+50.00	20750.00	12.70	114.39	9.90	0.18	55	5	0	1297	165	1008
207+64.93	20764.93	14.93	107.88	10.63	1.44	61	6	0	1358	165	1063

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - LCL-WESTMOUNTDR-SB

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 1	NOTE 8
203+61.61	20361.61	0.00	34.13	5.03	11.06	0	0	0	0	0	0
204+00.00	20400.00	38.39	25.40	3.77	35.61	42	6	33	42	41	-5
204+16.45	20416.45	16.45	21.27	1.77	37.77	14	2	22	56	69	-21
205+54.90	20554.91	0.00	31.97	6.97	15.73	0	0	0	56	69	-21
206+00.00	20600.00	45.09	37.99	9.40	11.84	58	14	23	114	98	-6
206+32.15	20632.15	32.15	73.60	8.63	0.00	66	11	7	180	106	41

DIVISION 3 - RDBT-19-WM-CIRC

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 1	NOTE 4
1+00.00	100.00	0.00	71.38	25.87	70.75	0	0	0	0	0	0
1+25.00	125.00	25.00	118.66	10.50	69.62	88	17	65	88	81	-10
1+50.00	150.00	25.00	121.22	8.03	80.65	111	9	70	199	169	4
1+75.00	175.00	25.00	109.16	9.43	57.91	107	8	64	306	249	23
2+00.00	200.00	25.00	123.14	24.30	50.88	108	16	50	414	311	53
2+25.00	225.00	25.00	150.78	60.53	50.55	127	39	47	541	370	82
2+50.00	250.00	25.00	130.97	38.89	47.85	130	46	46	671	428	109
2+75.00	275.00	25.00	87.56	37.57	49.56	101	35	45	772	484	118
3+00.00	300.00	25.00	97.54	44.63	52.39	86	38	47	858	543	108
3+25.00	325.00	25.00	102.31	51.23	74.06	93	44	59	951	616	83
3+50.00	350.00	25.00	97.57	47.04	59.86	93	45	62	1044	694	53
3+75.00	375.00	25.00	85.44	22.17	65.83	85	32	58	1129	766	34
4+00.00	400.00	25.00	73.10	19.33	127.15	73	19	89	1202	878	-24
4+25.00	425.00	25.00	61.74	24.37	70.27	62	20	91	1264	991	-95
4+32.99	432.99	7.99	71.39	25.87	70.75	20	7	21	1284	1018	-109

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 4 - 19-EX STAGE 1B WIDENING

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	1.00 NOTE 1	1.25	NOTE 8
105+50.00	10550.00	0.00	5.57	0.00	0.02	0	0	0	0	0	0
106+00.00	10600.00	50.00	7.16	0.00	0.23	12	0	0	12	0	12
106+50.00	10650.00	50.00	8.70	0.00	0.54	15	0	1	27	1	26
107+00.00	10700.00	50.00	11.29	0.00	0.50	19	0	1	46	3	44
107+50.00	10750.00	50.00	12.52	0.00	0.71	22	0	1	68	4	64
108+00.00	10800.00	50.00	12.03	0.00	0.28	23	0	1	91	5	86
108+50.00	10850.00	50.00	10.11	0.00	2.13	21	0	2	112	8	105
109+00.00	10900.00	50.00	9.03	0.00	11.82	18	0	13	130	24	106
109+50.00	10950.00	50.00	8.93	0.00	16.79	17	0	26	147	56	91
110+05.85	11005.85	55.85	8.84	0.00	34.33	18	0	53	165	123	43
110+50.00	11050.00	44.15	7.91	0.00	26.68	14	0	50	179	185	-6
111+00.00	11100.00	50.00	7.98	0.00	30.15	15	0	53	194	251	-57
111+50.00	11150.00	50.00	8.27	0.00	24.45	15	0	51	209	315	-106
112+00.00	11200.00	50.00	10.04	0.00	14.33	17	0	36	226	360	-134
112+50.00	11250.00	50.00	13.14	0.00	3.79	21	0	17	247	381	-134
113+00.00	11300.00	50.00	13.60	0.00	1.61	25	0	5	272	388	-116
113+50.00	11350.00	50.00	12.90	0.00	0.20	25	0	2	297	390	-93
114+00.00	11400.00	50.00	14.33	0.90	0.26	25	1	0	322	390	-69
114+50.00	11450.00	50.00	22.97	3.40	0.08	35	4	0	357	390	-38
115+00.00	11500.00	50.00	20.33	5.37	0.00	40	8	0	397	390	-6
115+50.00	11550.00	50.00	23.86	6.40	0.00	41	11	0	438	390	24
116+00.00	11600.00	50.00	18.85	4.57	0.00	40	10	0	478	390	54
116+50.00	11650.00	50.00	20.45	4.00	0.08	36	8	0	514	390	82
117+00.00	11700.00	50.00	19.05	4.00	1.66	37	7	2	551	393	110
117+50.00	11750.00	50.00	22.82	4.10	7.27	39	8	8	590	403	131
118+00.00	11800.00	50.00	20.33	4.00	13.13	40	8	19	630	426	139
118+50.00	11850.00	50.00	16.20	3.20	23.64	34	7	34	664	469	123
119+00.00	11900.00	50.00	13.96	1.87	30.26	28	5	50	692	531	84
119+66.98	11966.98	66.98	8.94	0.00	64.34	28	2	117	720	678	-37
120+00.00	12000.00	33.02	8.89	0.00	34.07	11	0	60	731	753	-101
120+50.00	12050.00	50.00	7.76	0.00	29.87	15	0	59	746	826	-159
121+00.00	12100.00	50.00	8.74	0.00	20.09	15	0	46	761	884	-202
121+50.00	12150.00	50.00	8.49	0.00	16.43	16	0	34	777	926	-228
122+00.00	12200.00	50.00	8.47	0.00	11.84	16	0	26	793	959	-245
122+50.00	12250.00	50.00	9.36	0.00	6.03	17	0	17	810	980	-249
123+00.00	12300.00	50.00	10.63	0.00	1.80	19	0	7	829	989	-239
123+50.00	12350.00	50.00	11.19	0.00	1.64	20	0	3	849	993	-223
124+00.00	12400.00	50.00	11.89	0.00	1.67	21	0	3	870	996	-205
124+50.00	12450.00	50.00	14.20	0.00	0.53	24	0	2	894	999	-184
125+09.68	12509.68	59.68	25.11	0.00	0.00	43	0	1	937	1000	-142
125+50.00	12550.00	40.32	15.65	0.00	0.00	30	0	0	967	1000	-112
126+00.00	12600.00	50.00	11.11	0.00	0.00	25	0	0	992	1000	-87
126+50.00	12650.00	50.00	8.65	0.00	0.00	18	0	0	1010	1000	-69
127+00.00	12700.00	50.00	6.10	0.00	0.00	14	0	0	1024	1000	-55

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

EARTHWORK DATA

SHEET

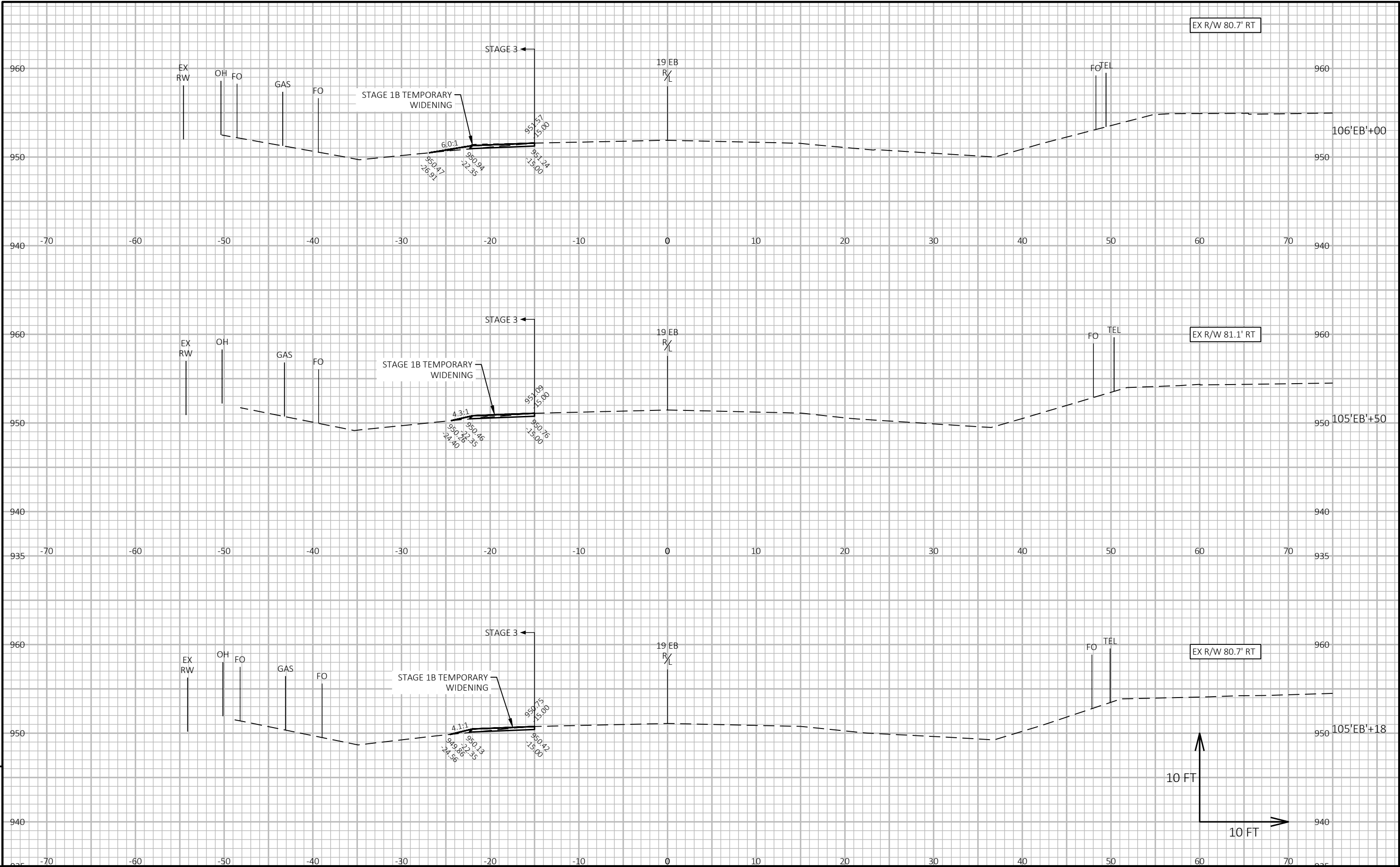
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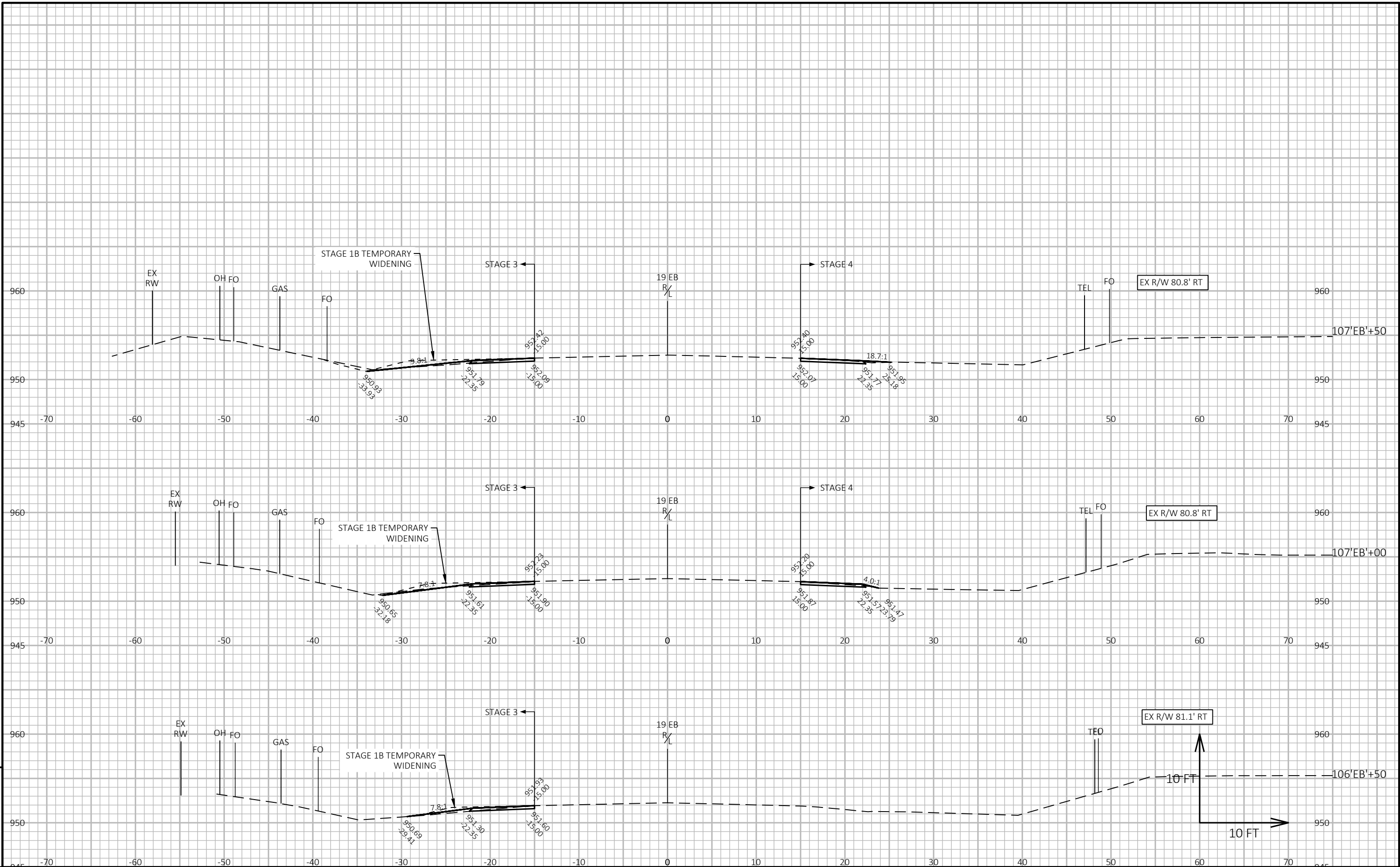
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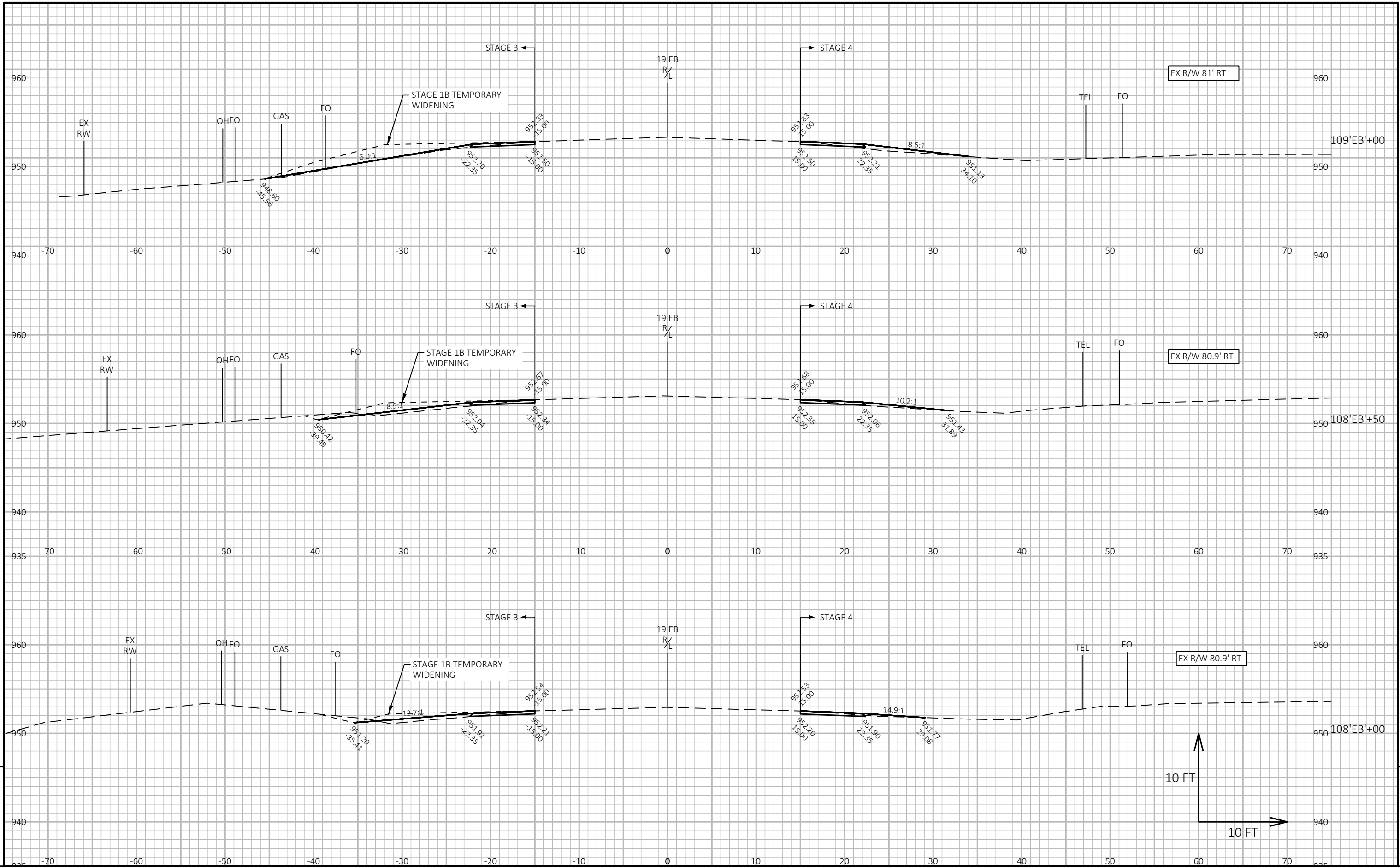
DIVISION 5 - 19 EB STAGE 2 WIDENING

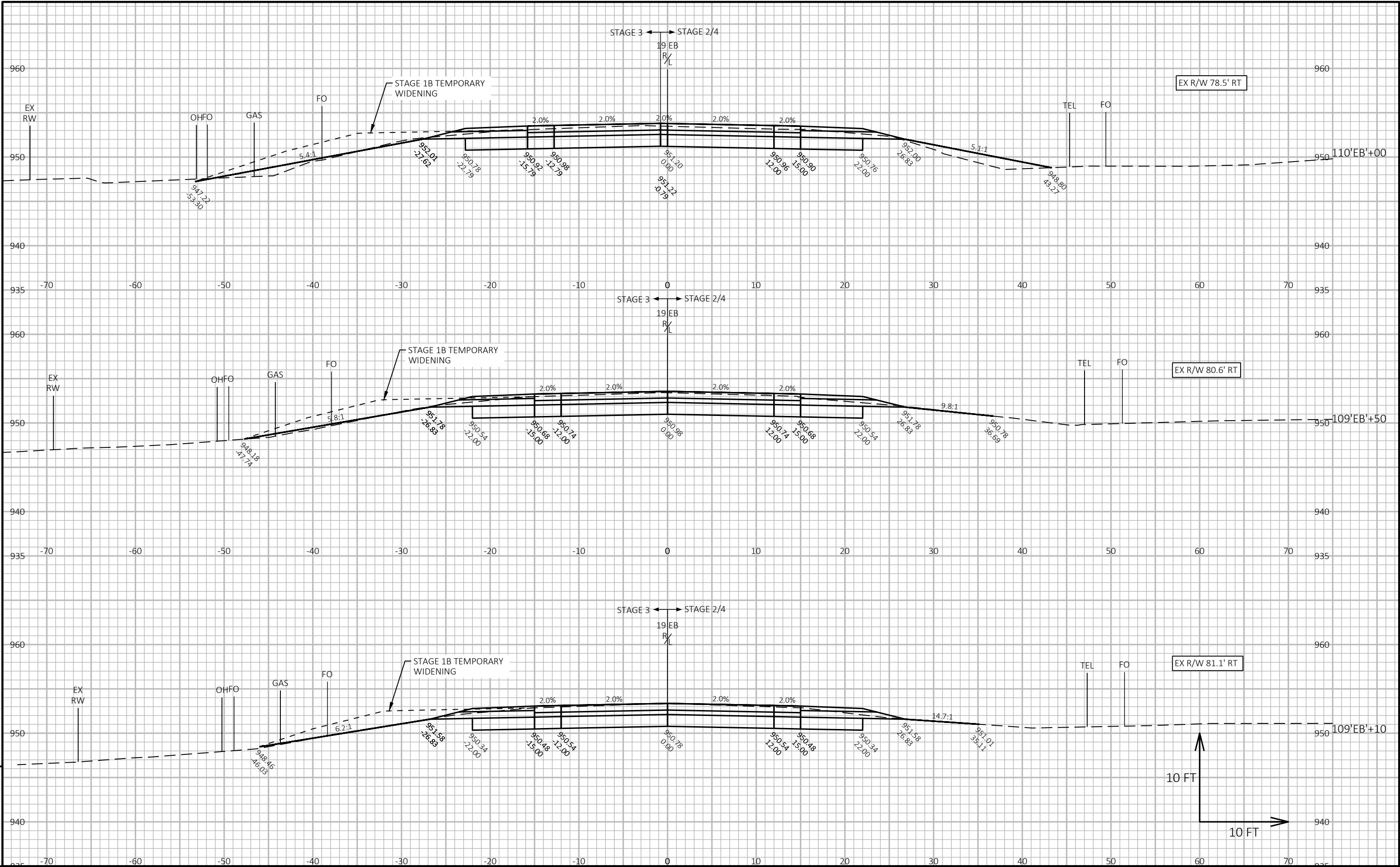
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
107+00.00	10700.00	0.00	2.80	0.00	0.00	0	0	0	0	0	0
107+50.00	10750.00	50.00	8.26	0.00	0.00	10	0	0	10	0	10
108+00.00	10800.00	50.00	12.09	0.00	0.00	19	0	0	29	0	29
108+50.00	10850.00	50.00	11.20	0.00	0.00	22	0	0	51	0	51
109+00.00	10900.00	50.00	8.22	0.00	0.11	18	0	0	69	0	69
109+50.00	10950.00	50.00	4.59	0.00	2.87	12	0	3	81	4	77
110+05.81	11005.81	55.81	5.50	0.00	37.83	10	0	42	91	56	35
110+50.00	11050.00	44.19	4.73	0.00	10.36	8	0	39	99	105	-6
111+00.00	11100.00	50.00	3.37	0.00	5.33	8	0	15	107	124	-17
111+50.00	11150.00	50.00	3.93	0.00	0.55	7	0	5	114	130	-16
112+00.00	11200.00	50.00	1.28	0.00	0.94	5	0	1	119	131	-12
112+50.00	11250.00	50.00	0.67	0.00	2.18	2	0	3	121	135	-14
113+00.00	11300.00	50.00	1.41	0.00	0.64	2	0	3	123	139	-16
113+50.00	11350.00	50.00	2.56	0.00	0.29	4	0	1	127	140	-13
114+00.00	11400.00	50.00	7.11	0.00	0.00	9	0	0	136	140	-4
114+50.00	11450.00	50.00	3.05	0.00	0.43	9	0	0	145	140	5
118+00.00	11800.00	0.00	0.00	0.00	10.05	0	0	0	145	140	5
118+50.00	11850.00	50.00	0.13	0.00	9.94	0	0	19	145	164	-19
119+00.00	11900.00	50.00	0.86	0.00	2.96	1	0	12	146	179	-33
119+76.74	11976.74	76.74	0.40	0.00	4.83	2	0	11	148	193	-45
120+00.00	12000.00	23.26	0.45	0.00	0.35	0	0	2	148	195	-47
120+50.00	12050.00	50.00	1.90	0.00	5.70	2	0	6	150	203	-53
121+00.00	12100.00	50.00	4.36	0.00	6.22	6	0	11	156	216	-60
121+50.00	12150.00	50.00	5.47	0.00	6.01	9	0	11	165	230	-65
122+00.00	12200.00	50.00	5.86	0.00	4.45	10	0	10	175	243	-68
122+50.00	12250.00	50.00	7.46	0.00	2.02	12	0	6	187	250	-63
123+00.00	12300.00	50.00	9.85	0.00	0.26	16	0	2	203	253	-50
123+50.00	12350.00	50.00	11.95	0.00	0.00	20	0	0	223	253	-30
124+00.00	12400.00	50.00	12.12	0.00	0.00	22	0	0	245	253	-8
124+50.00	12450.00	50.00	13.01	0.00	0.00	23	0	0	268	253	16
125+00.00	12500.00	50.00	10.43	0.00	0.00	22	0	0	290	253	38
125+50.00	12550.00	50.00	5.62	0.00	0.00	15	0	0	305	253	53

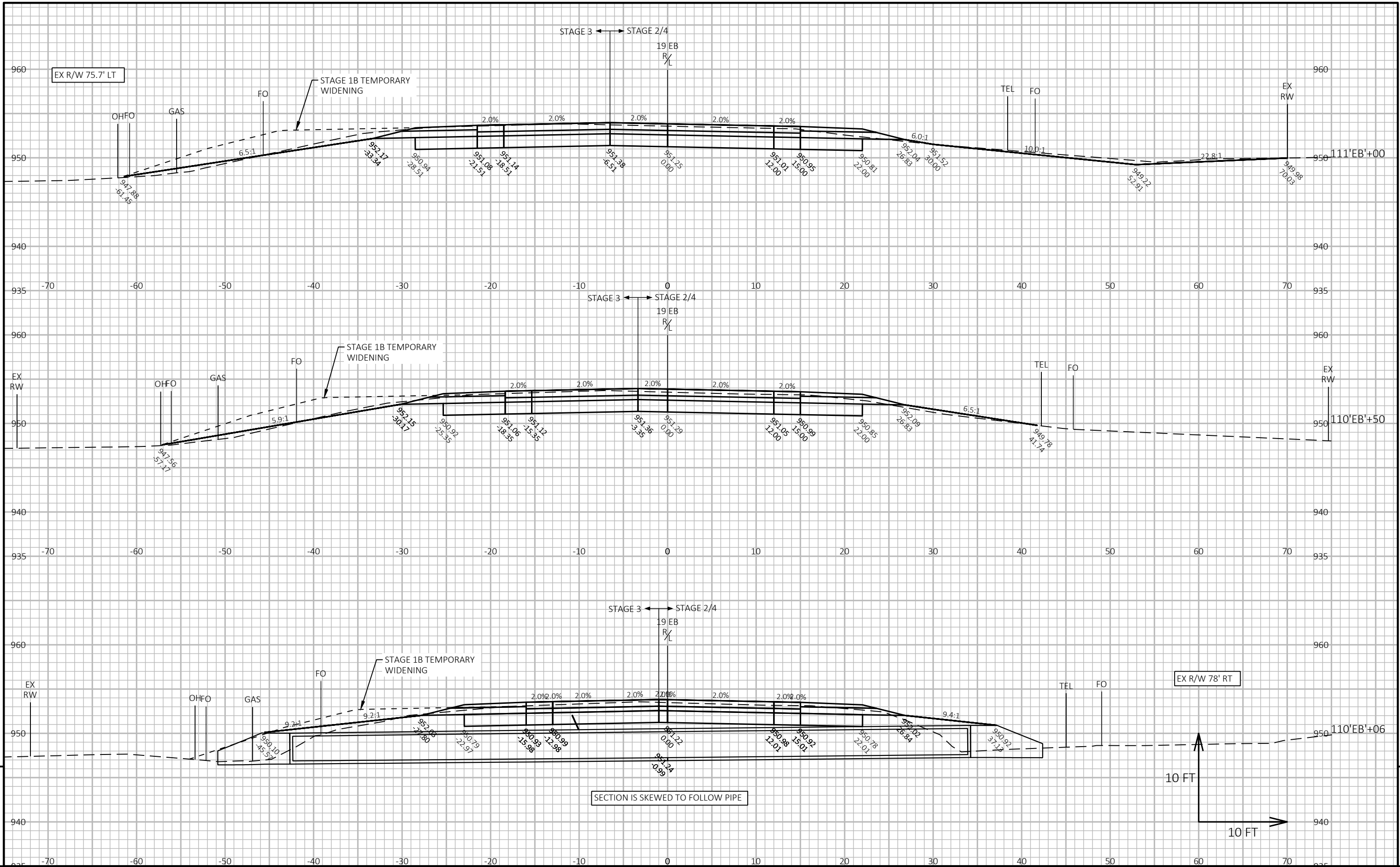
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
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4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - EXPANDED ROCK) * FILL FACTOR)]
4 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - EXPANDED ROCK) * FILL FACTOR)]

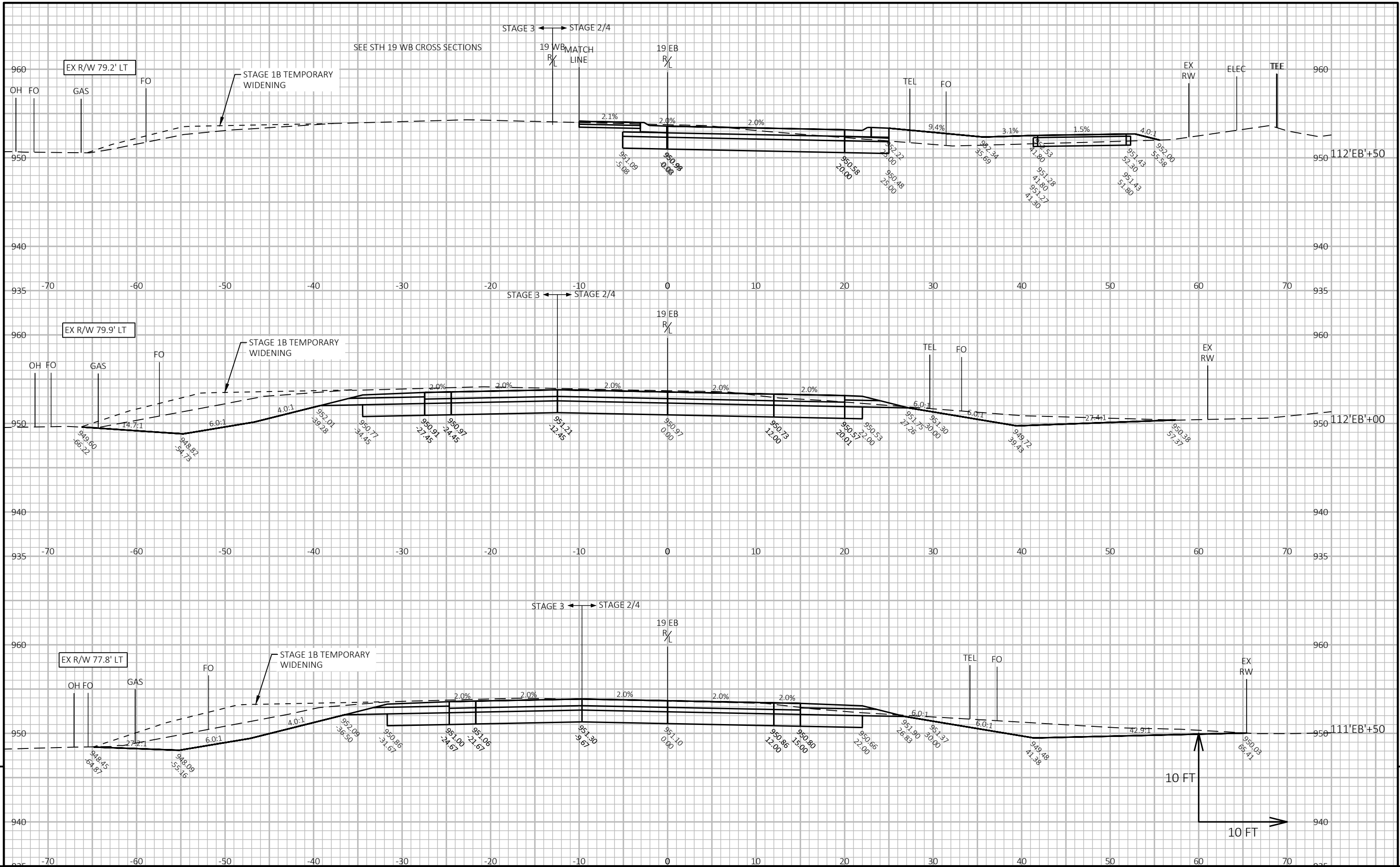


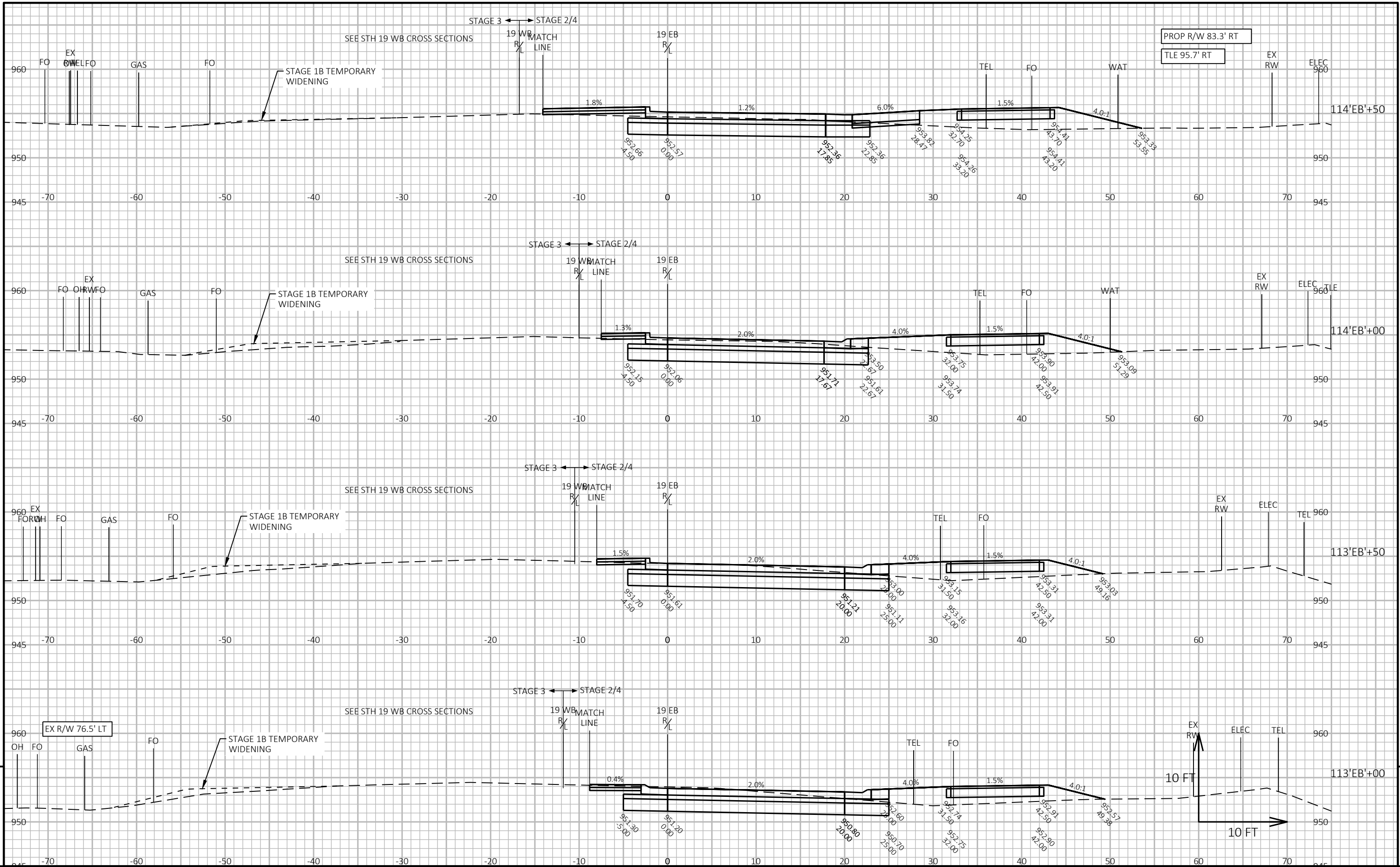


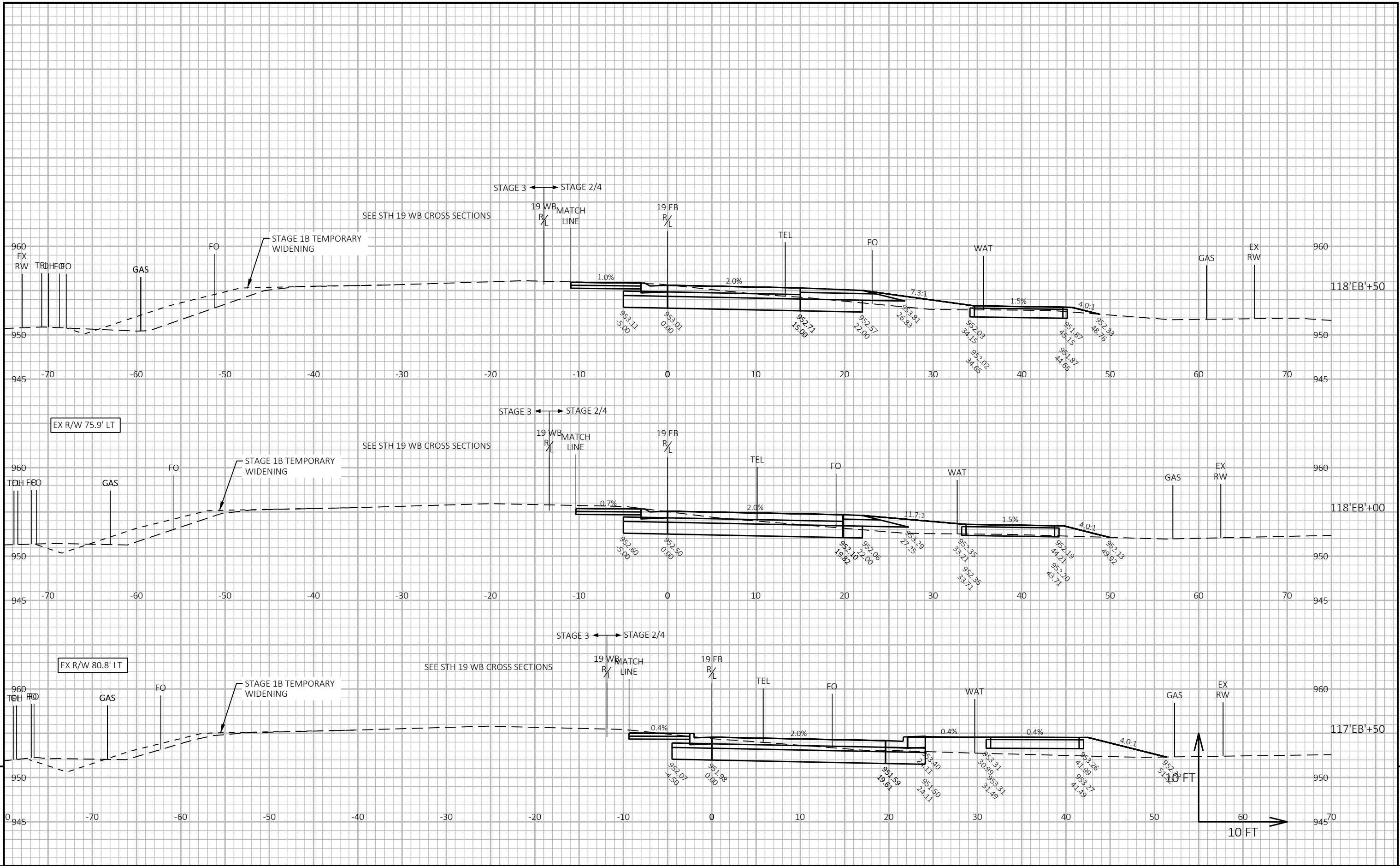


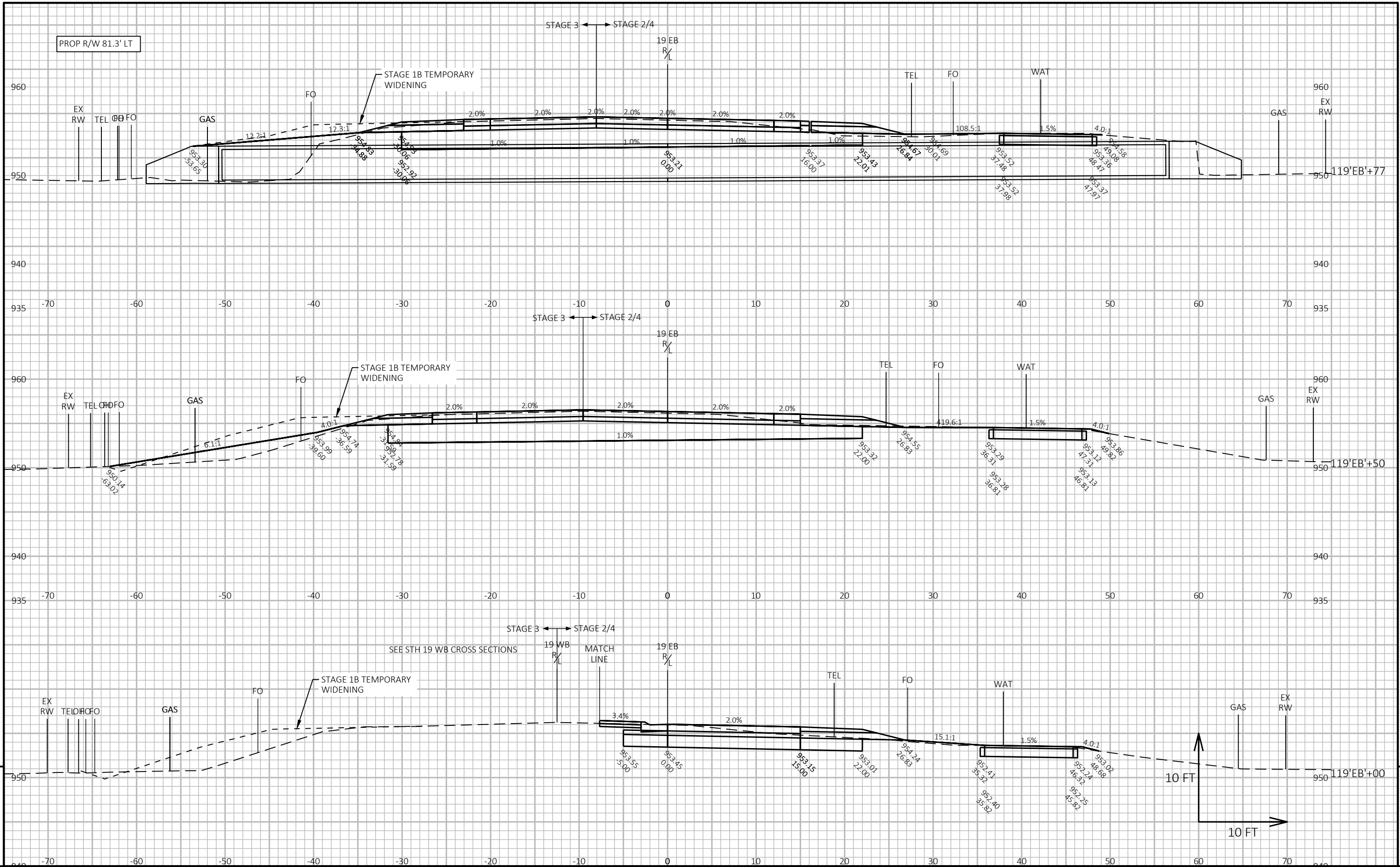


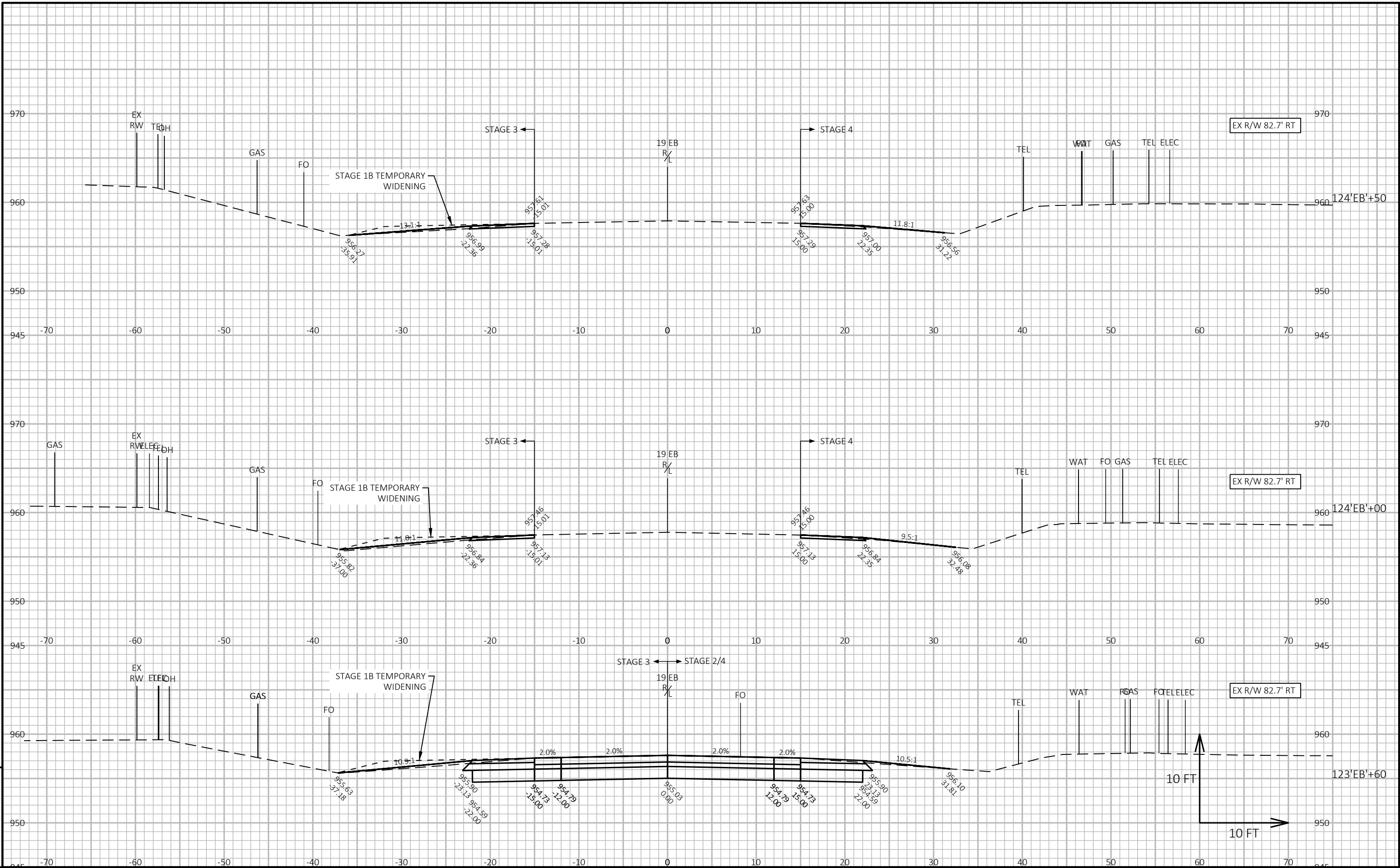


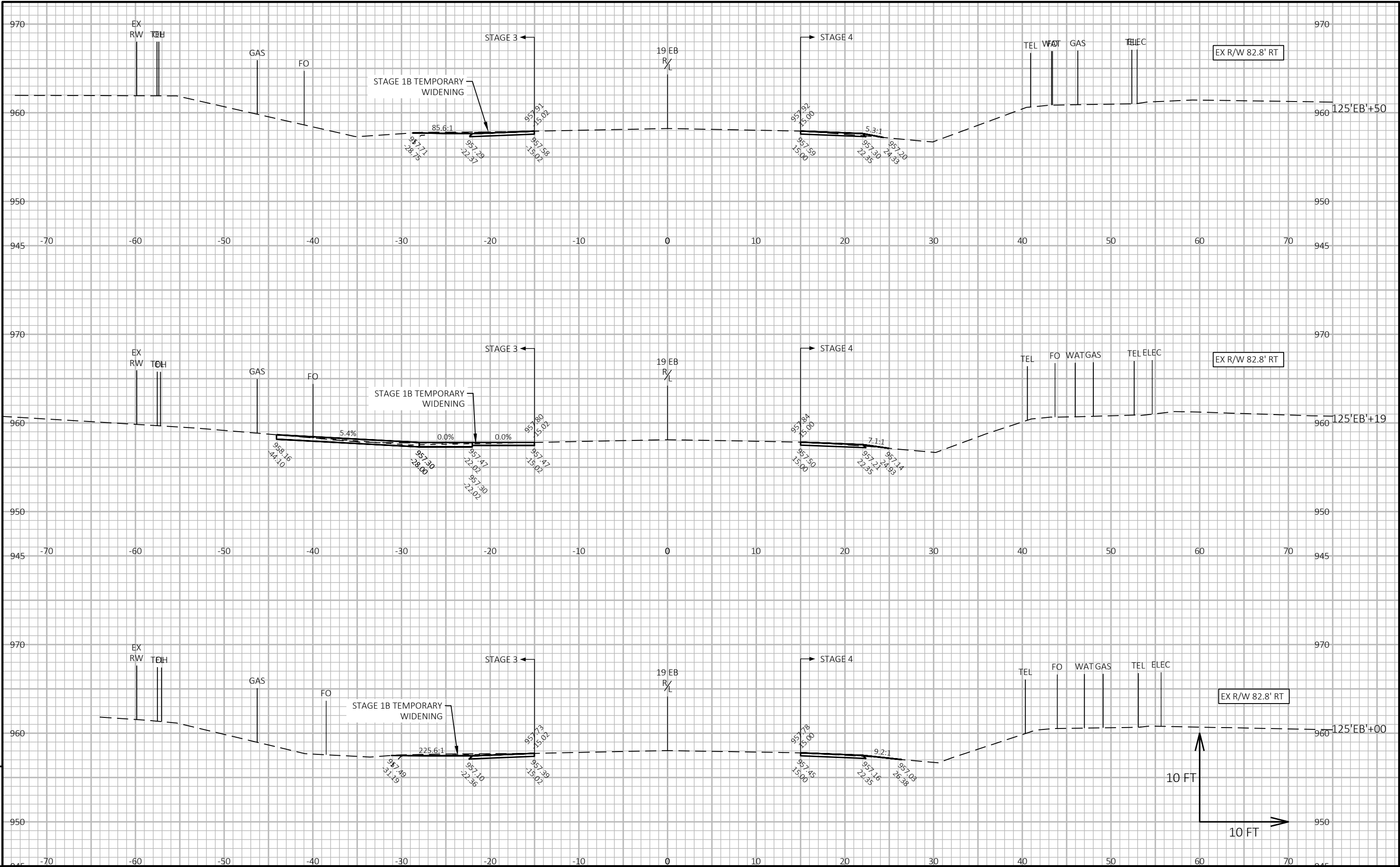


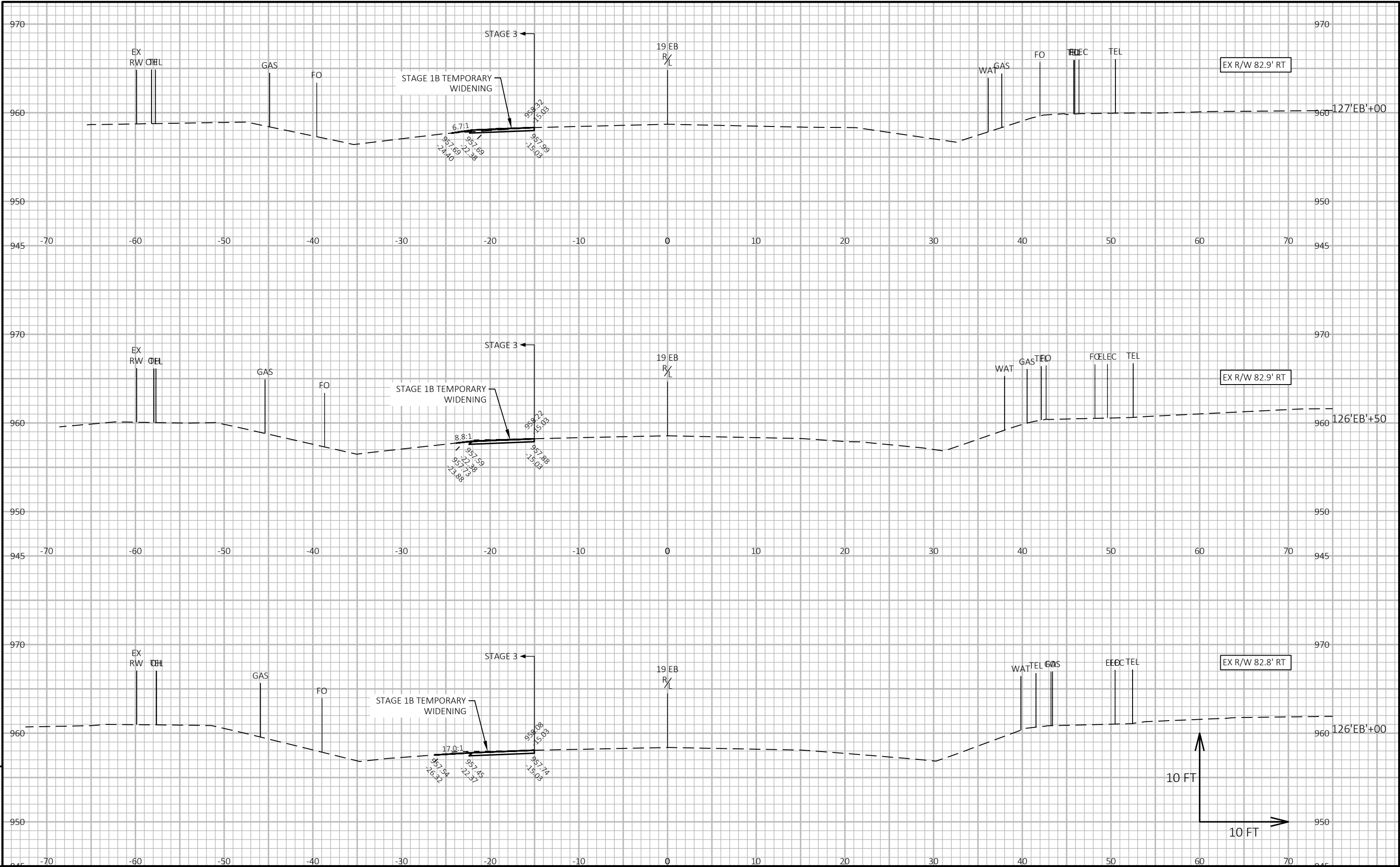




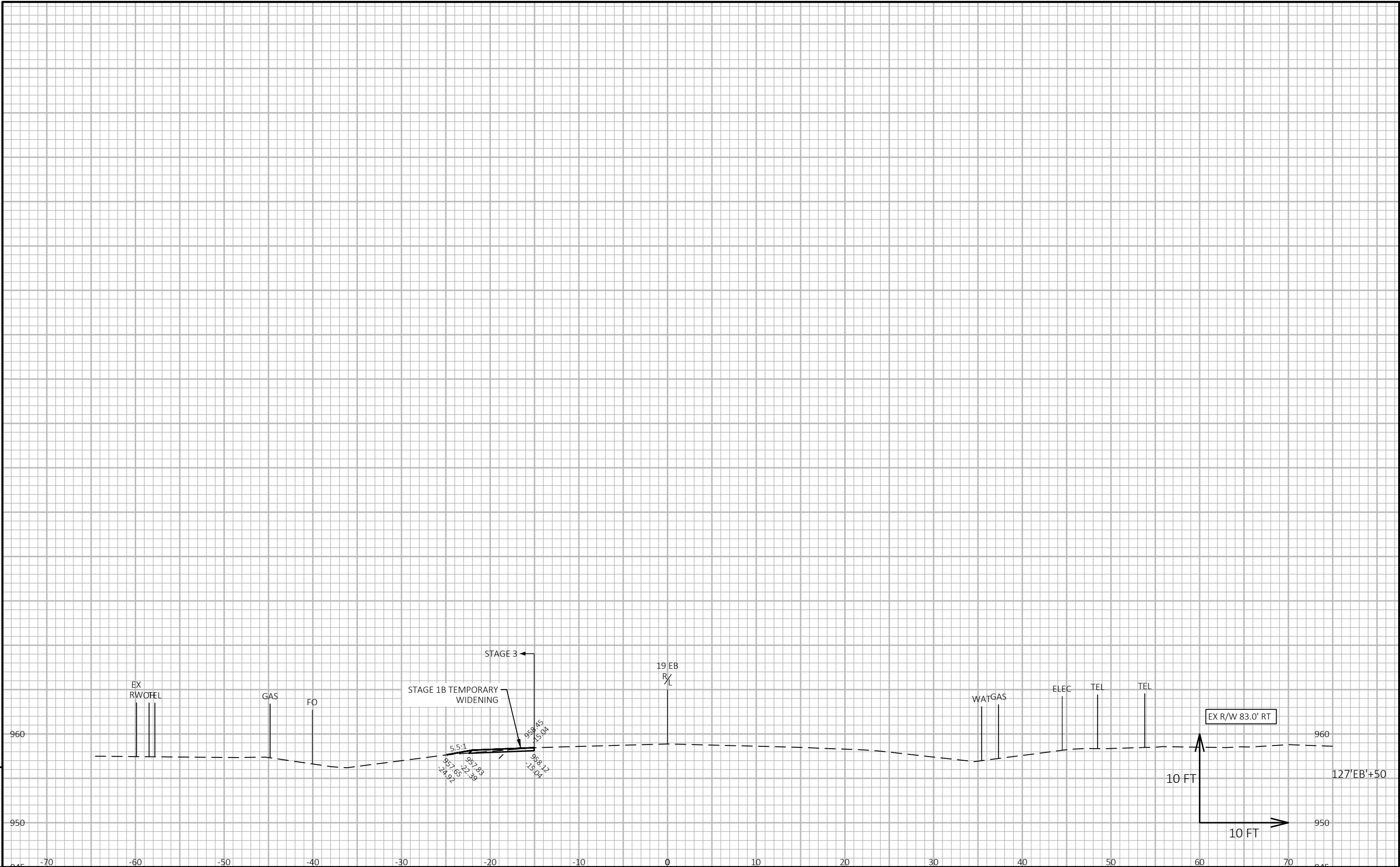




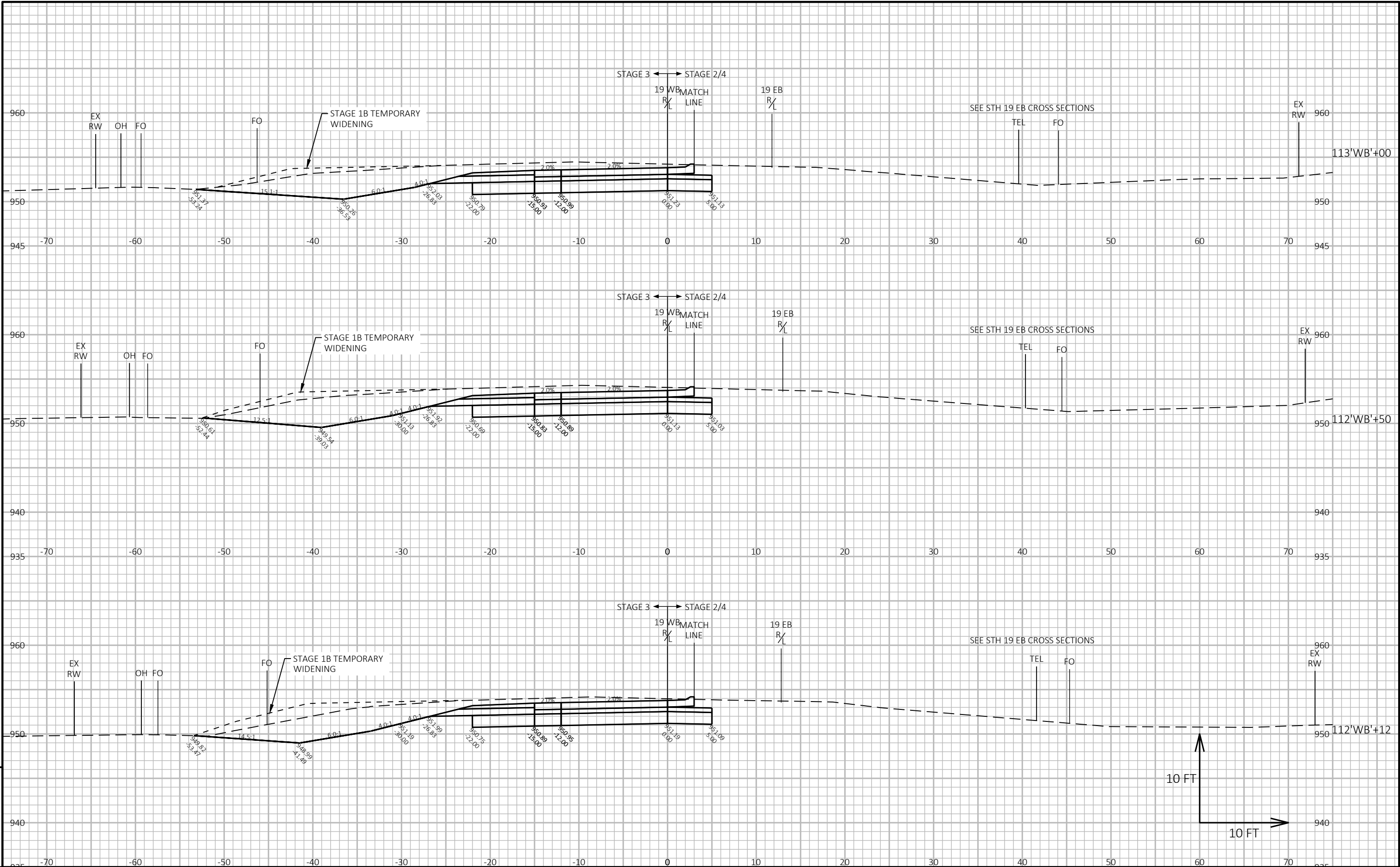


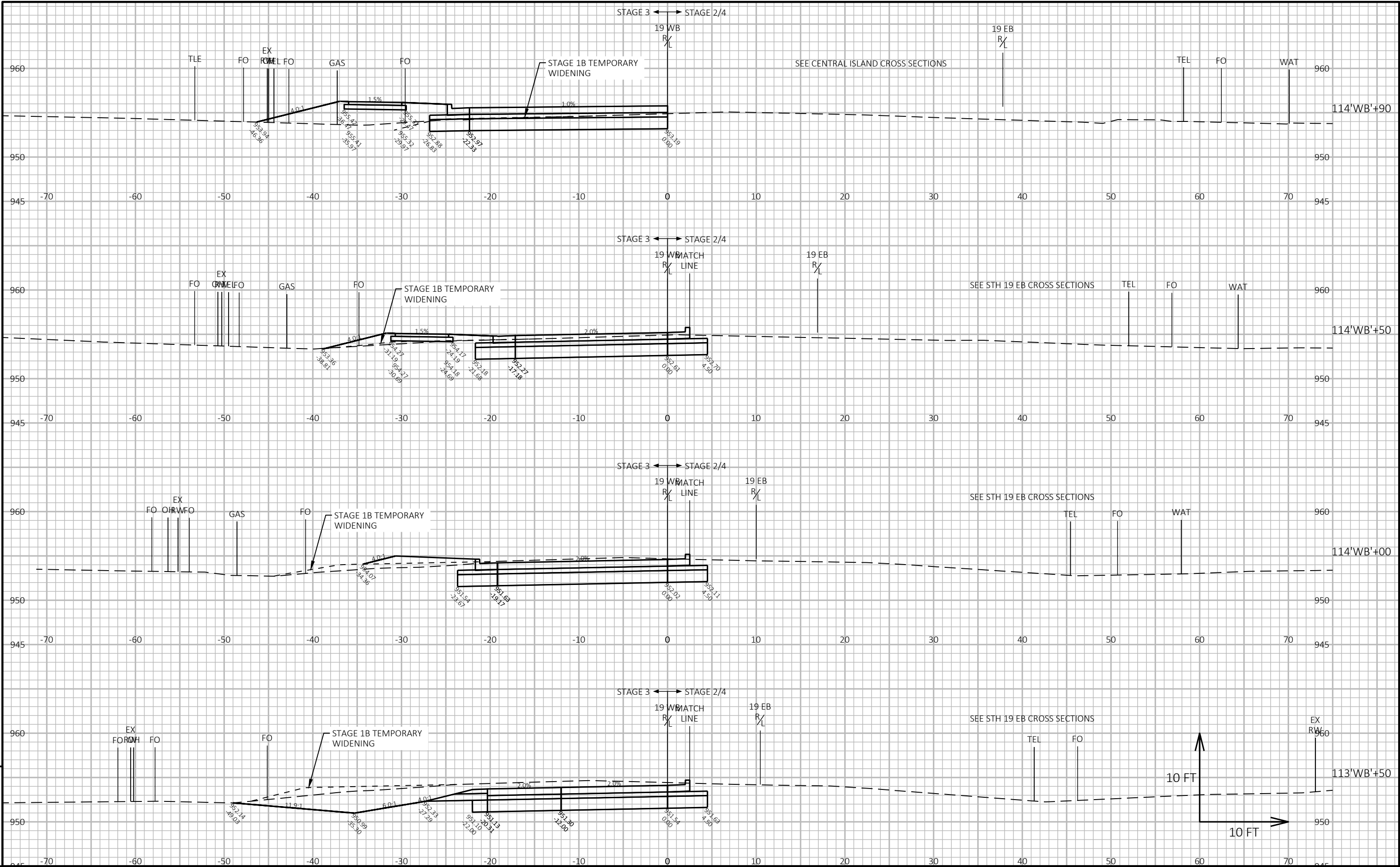


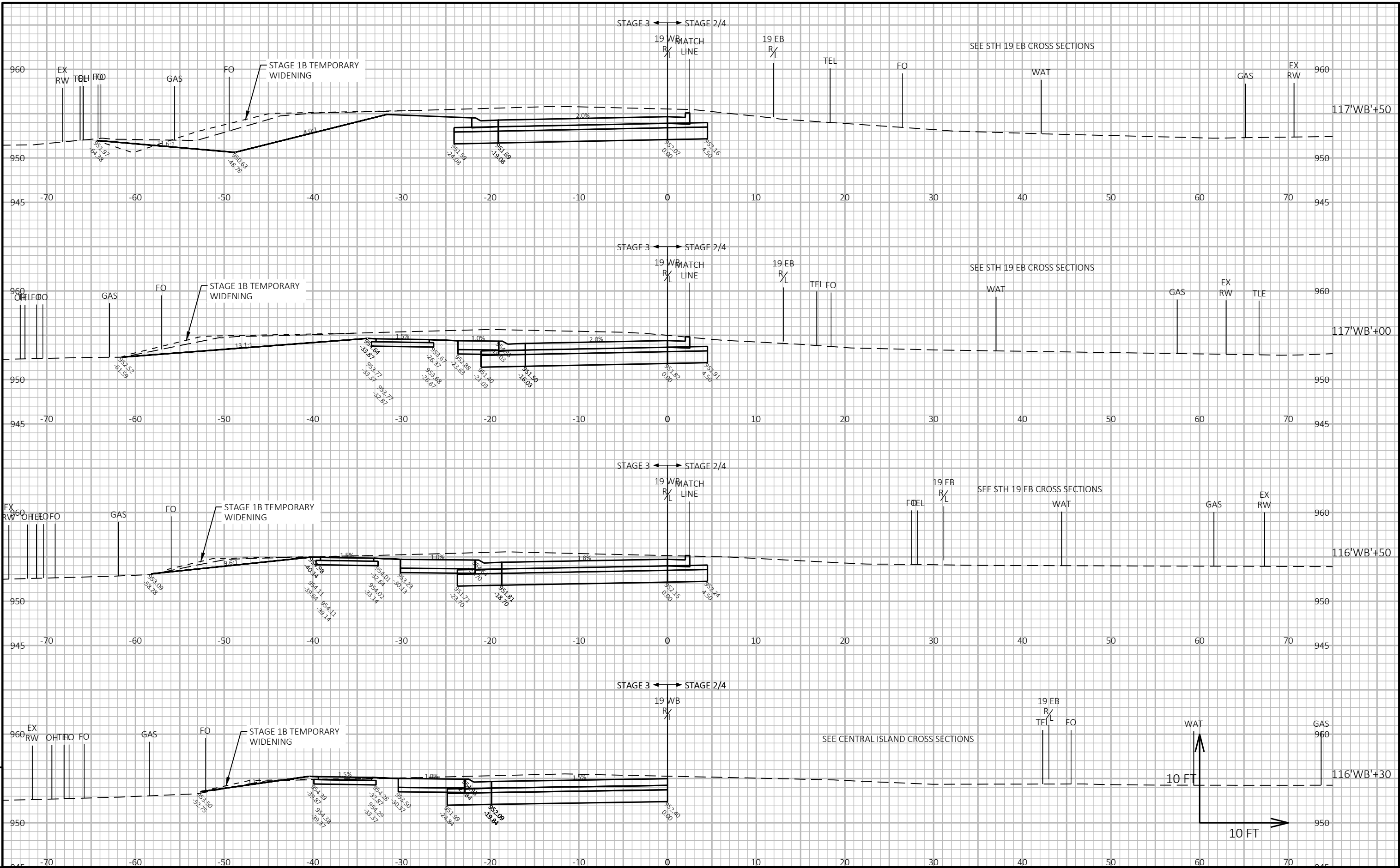
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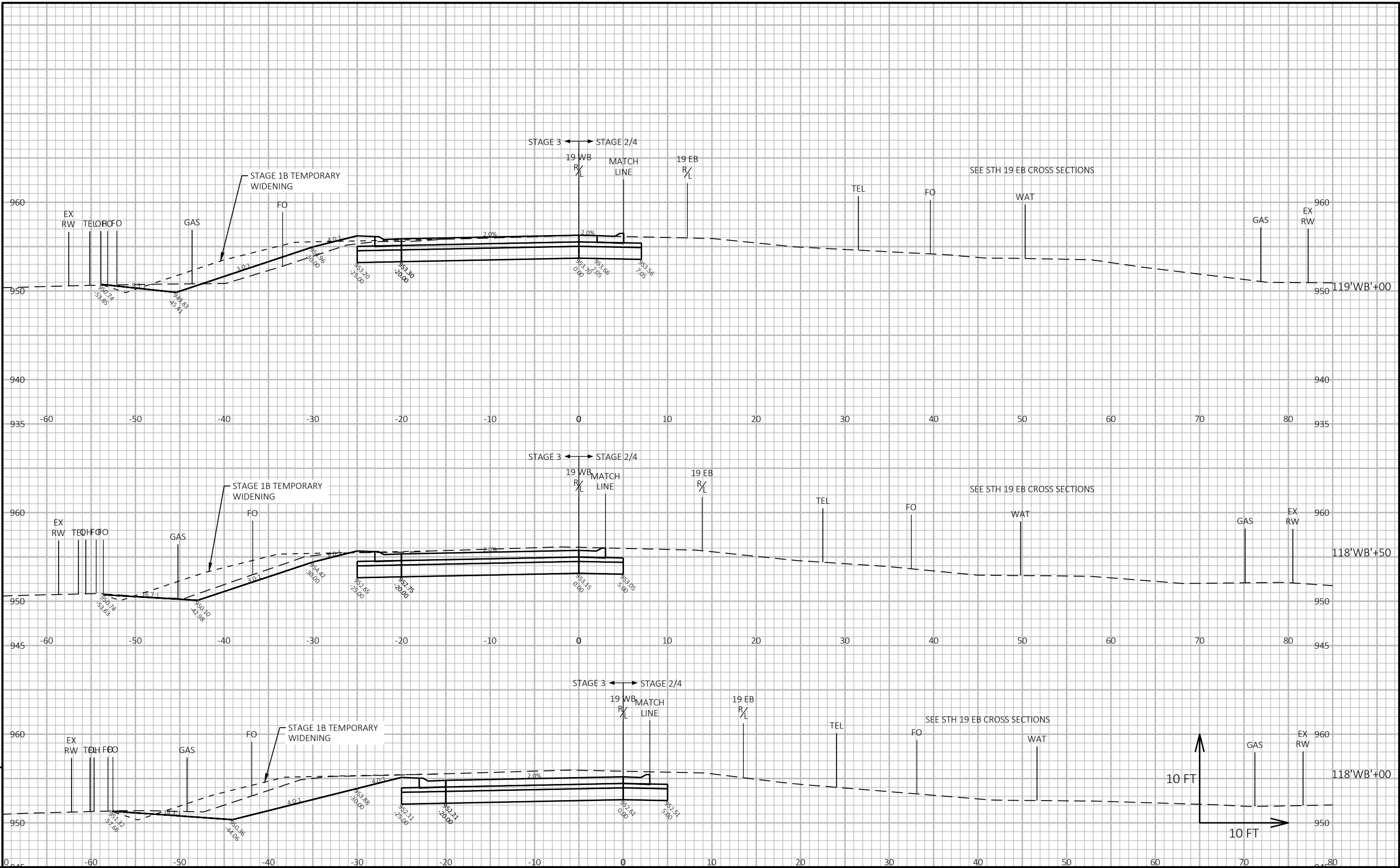


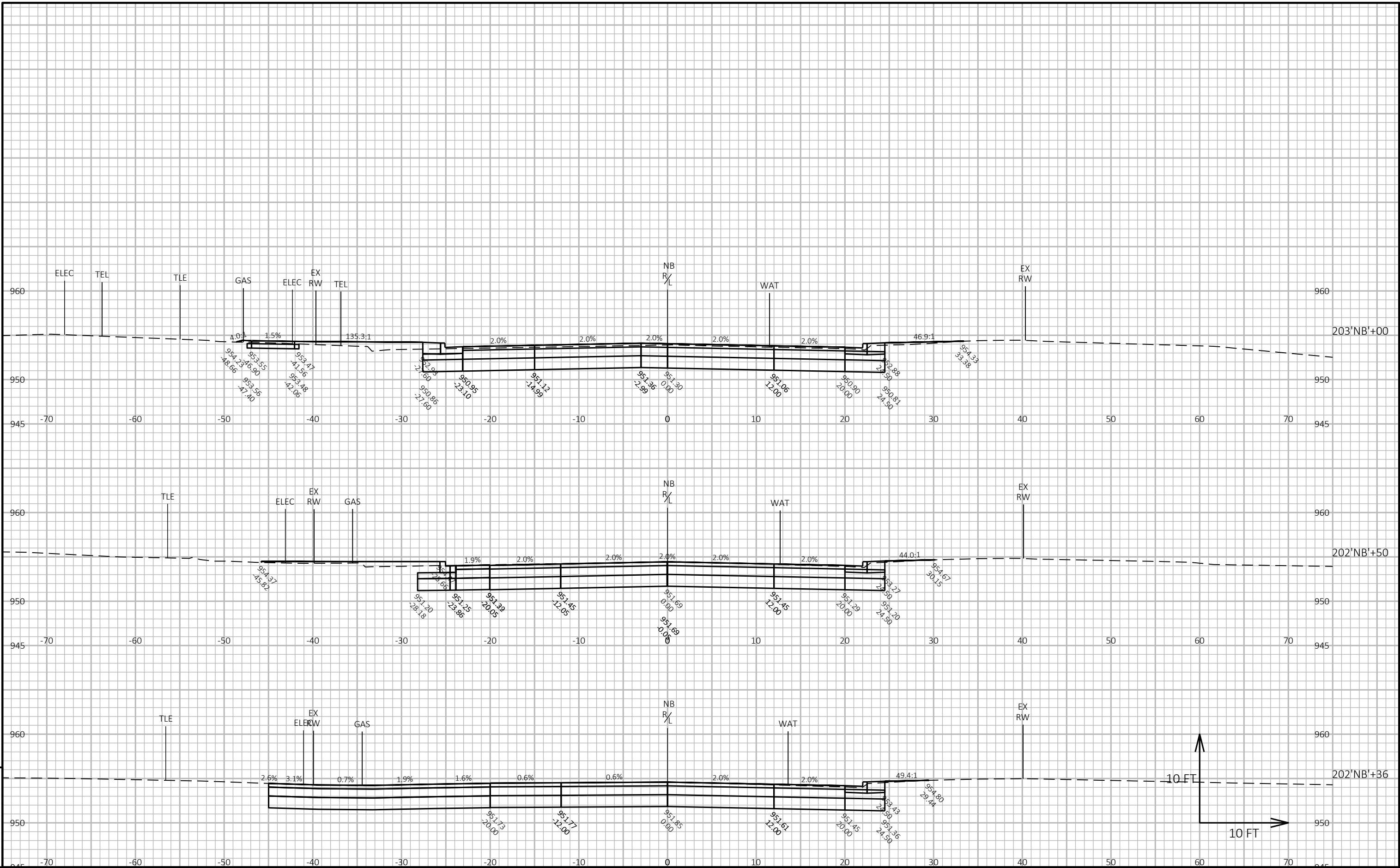
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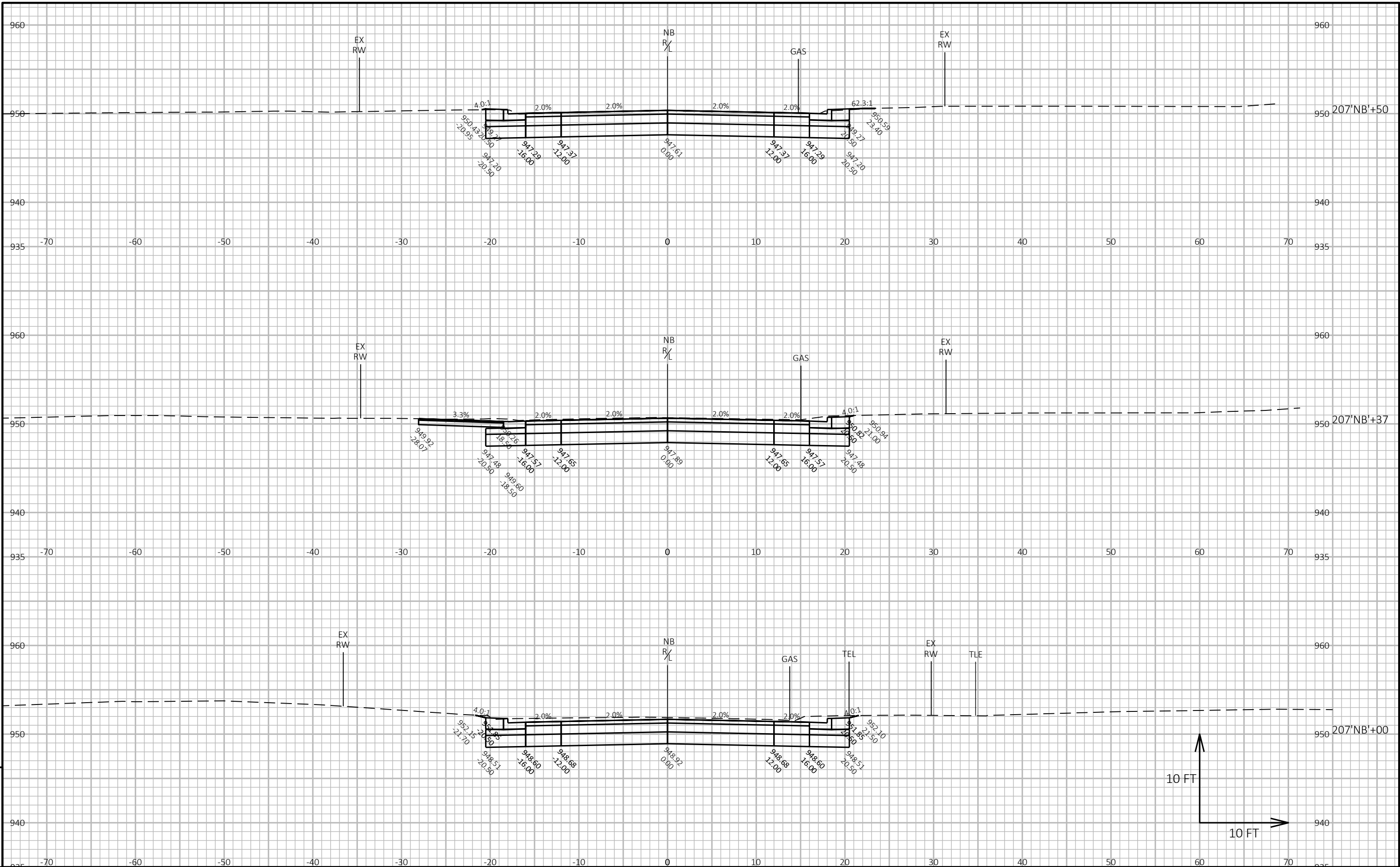


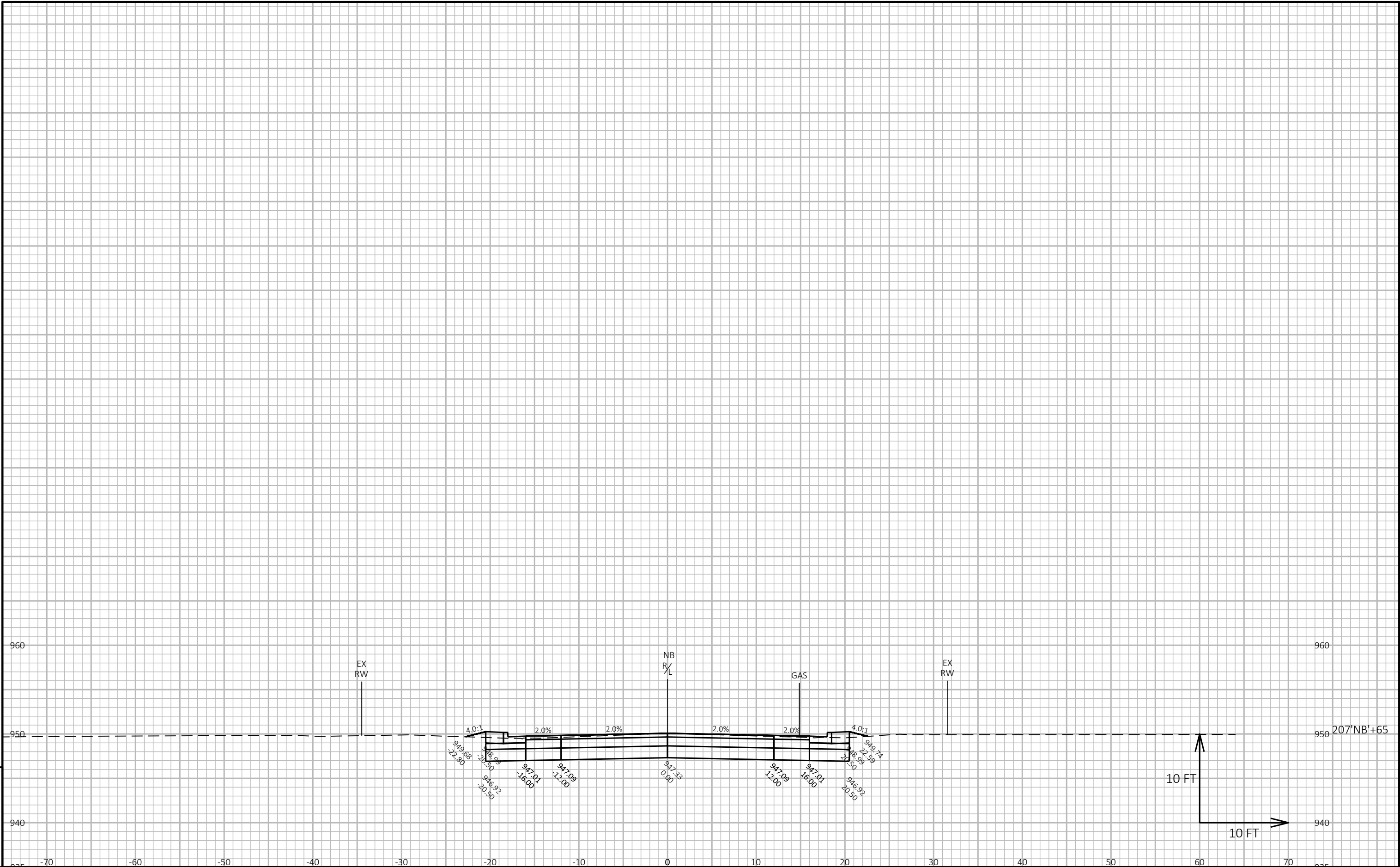


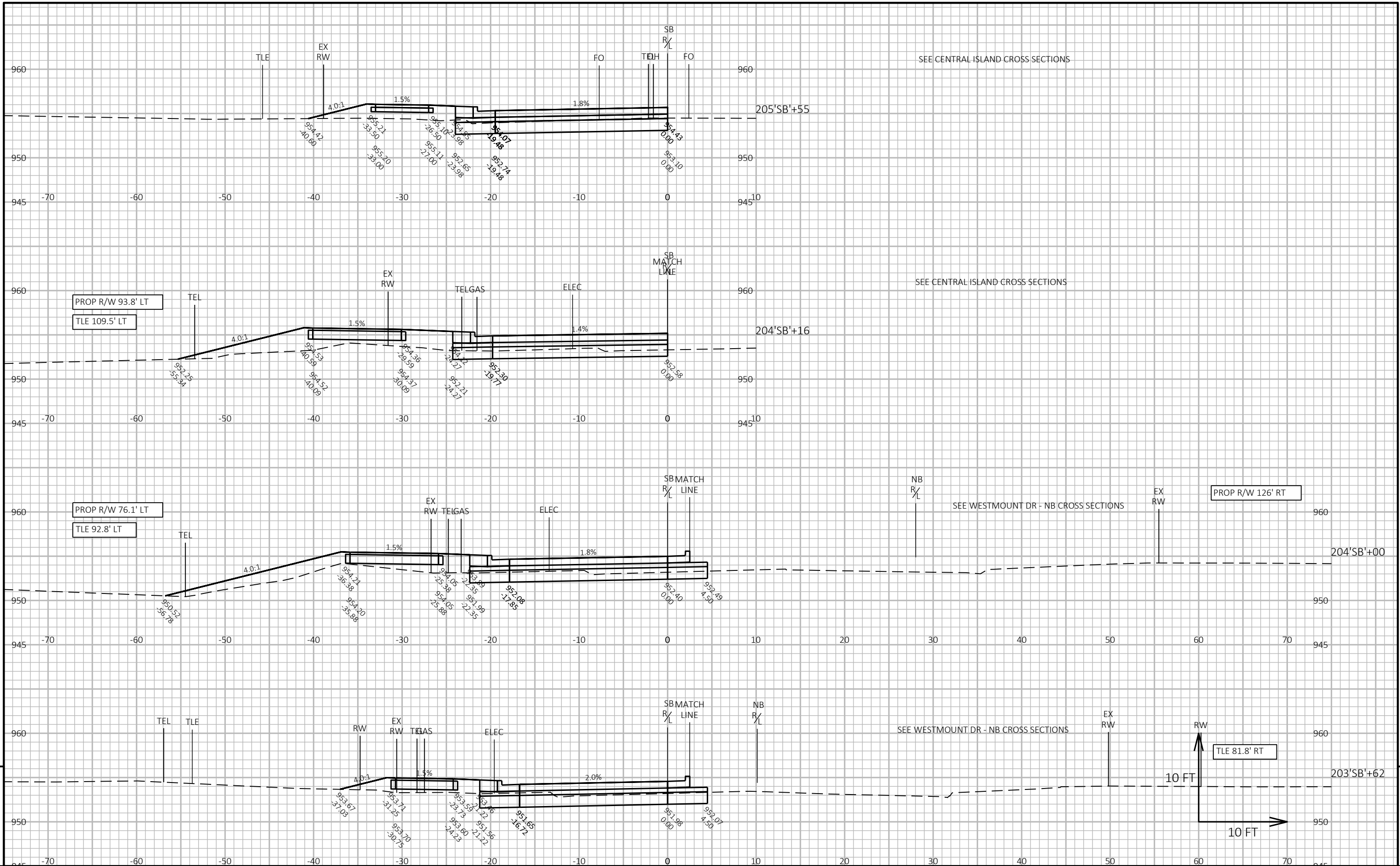


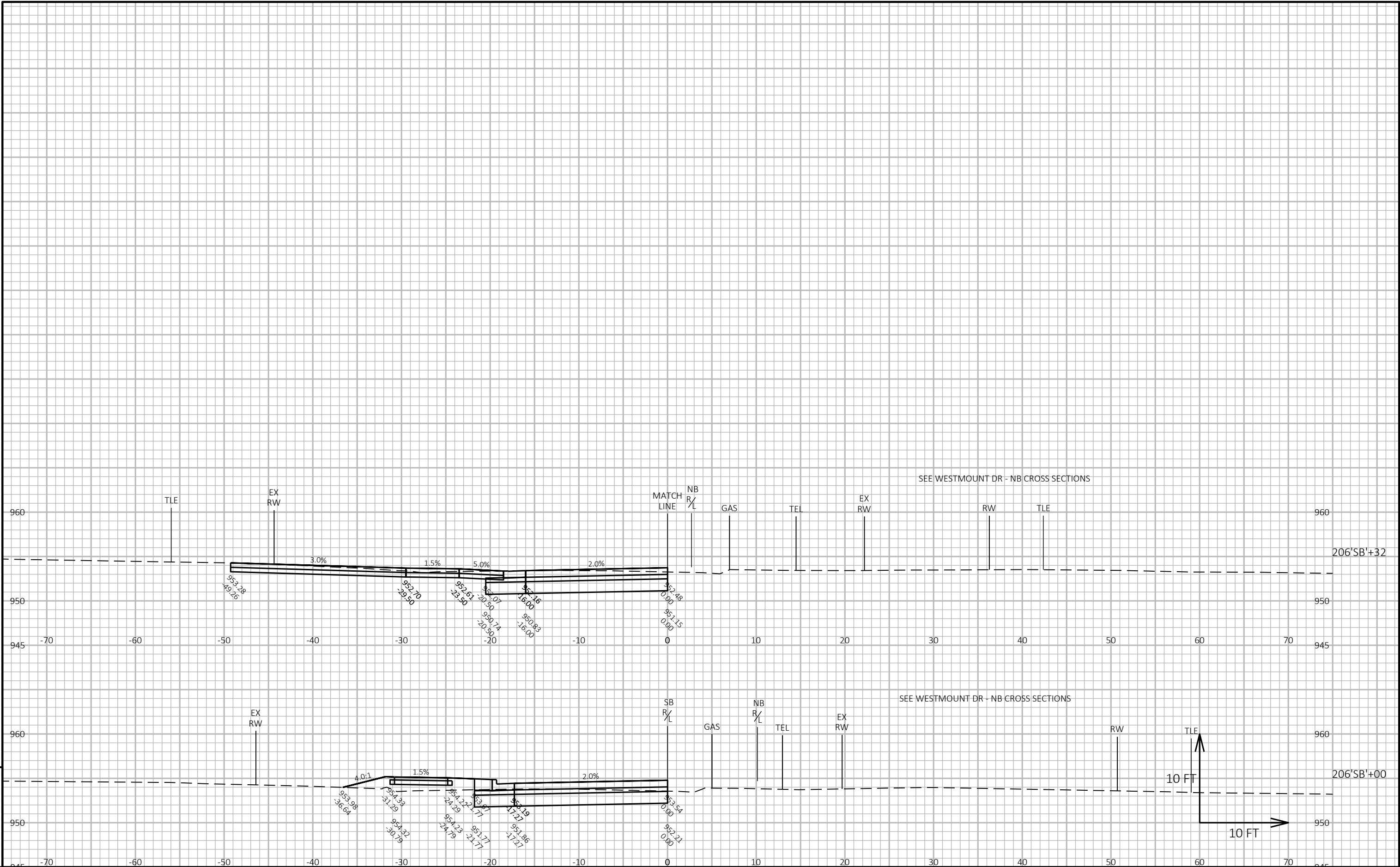


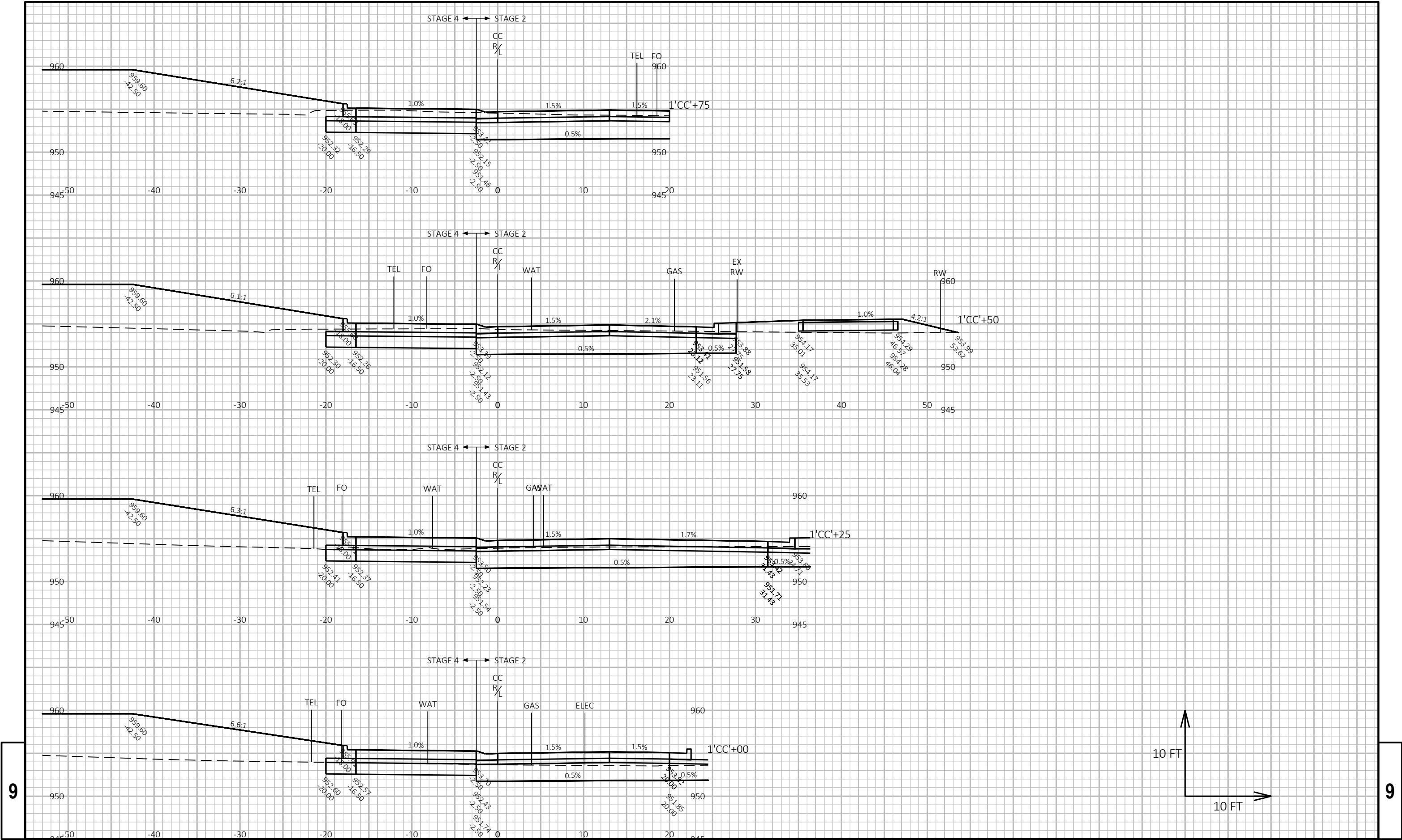












9

9

PROJECT NO: 6085-02-76

HWY: STH 19

COUNTY: DANE

CROSS SECTIONS: CENTER CIRCLE

SHEET

281

E

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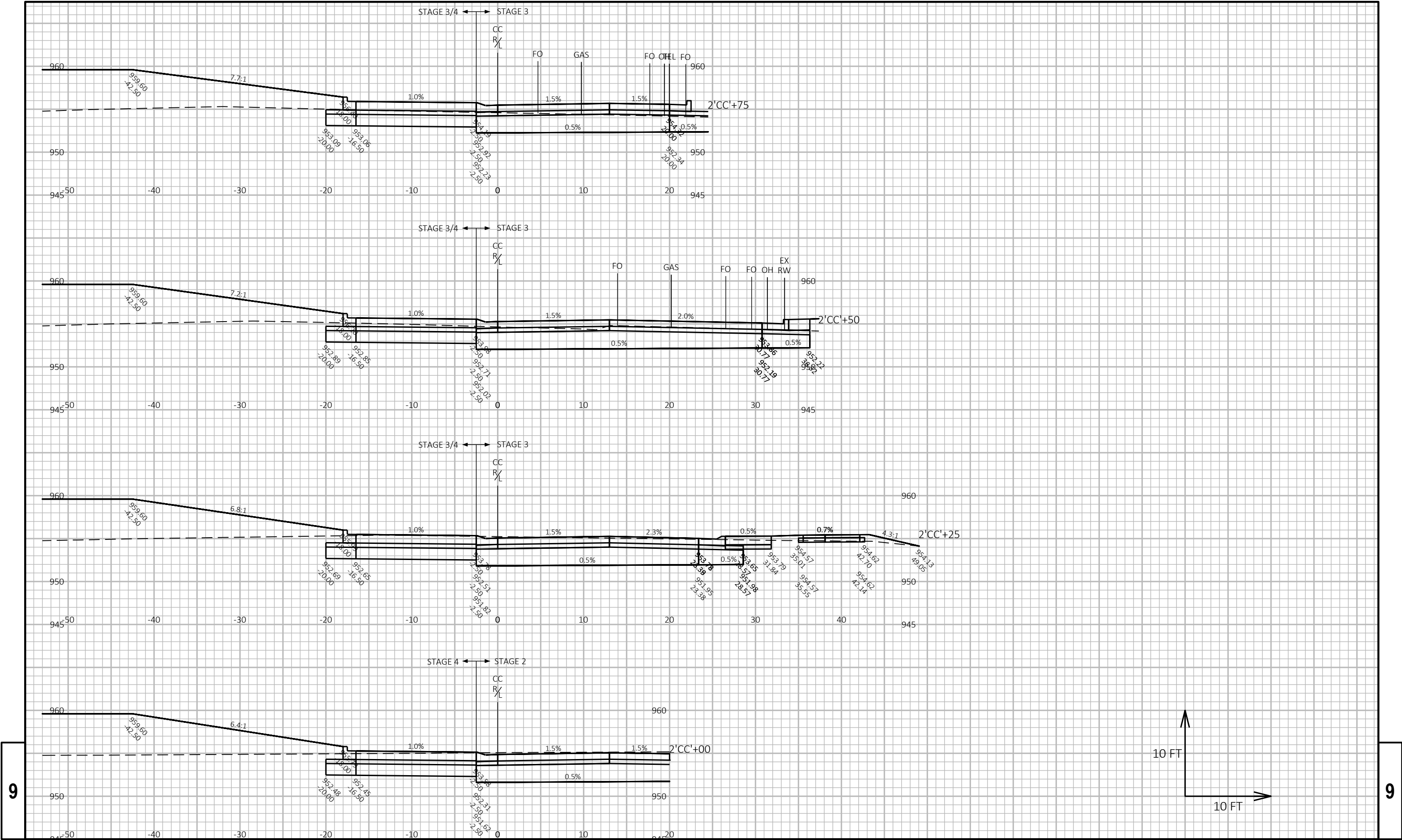
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PLOT BY : BRIAN GENSKOW

PLOT NAME :

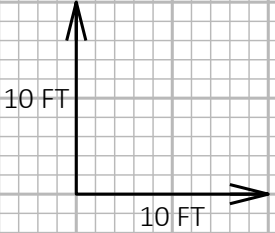
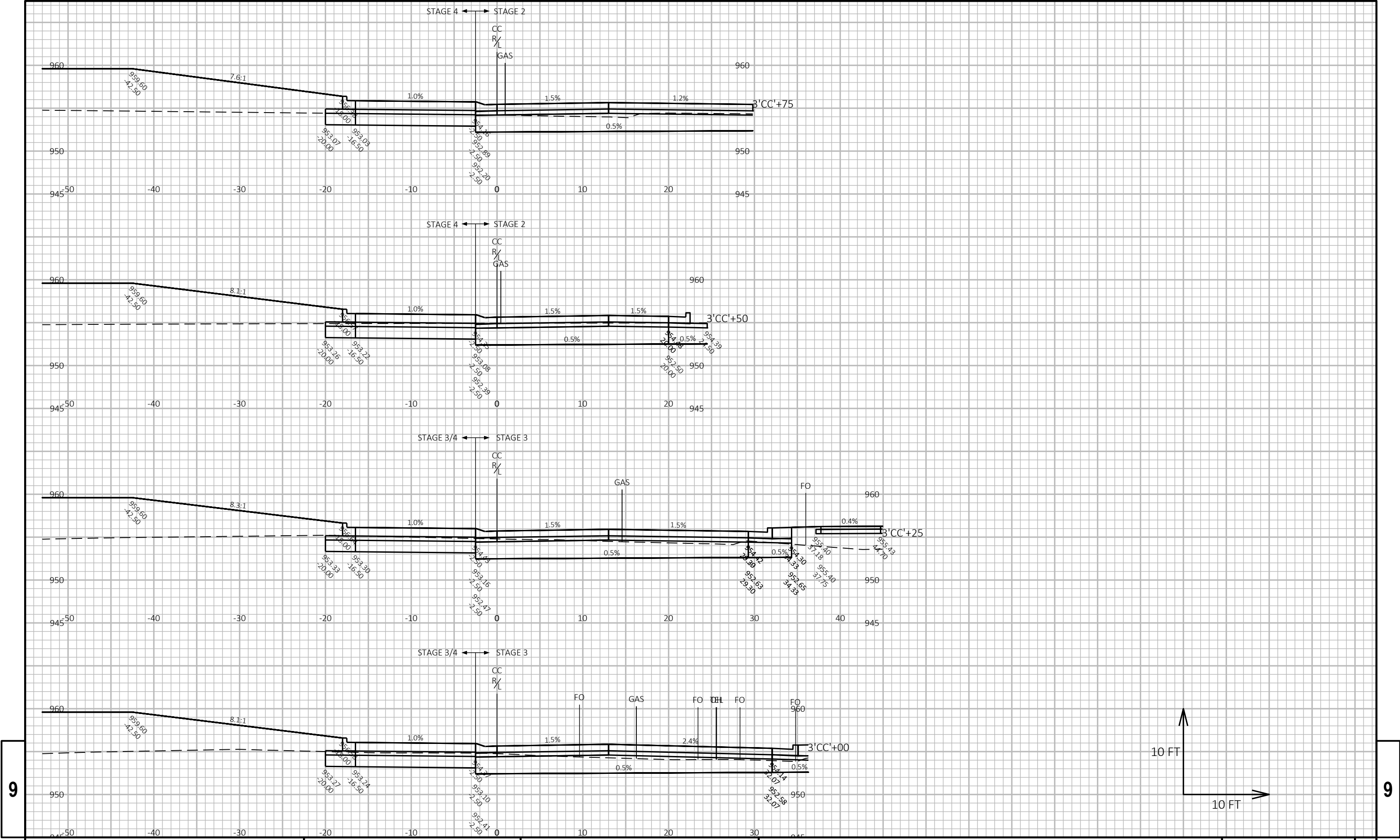
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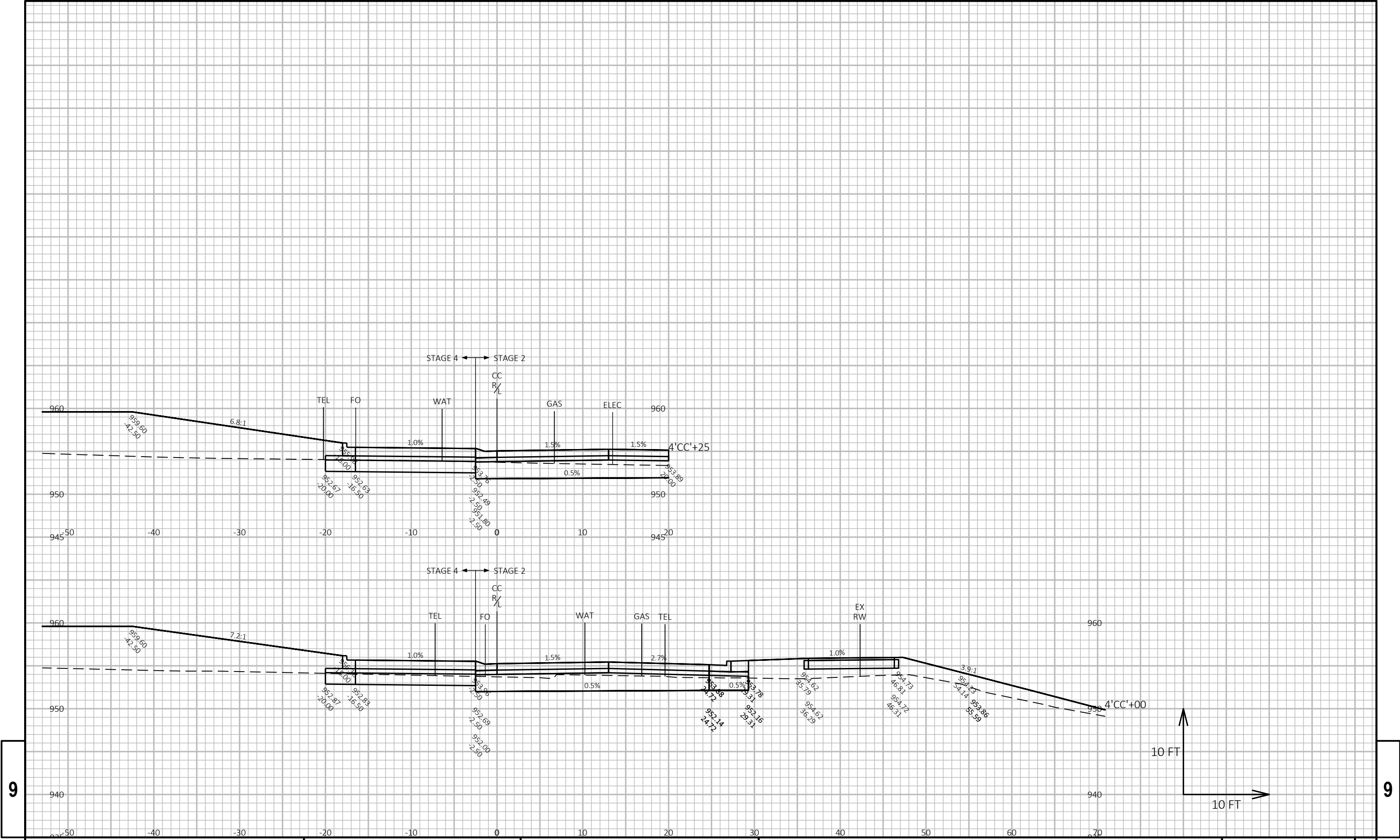
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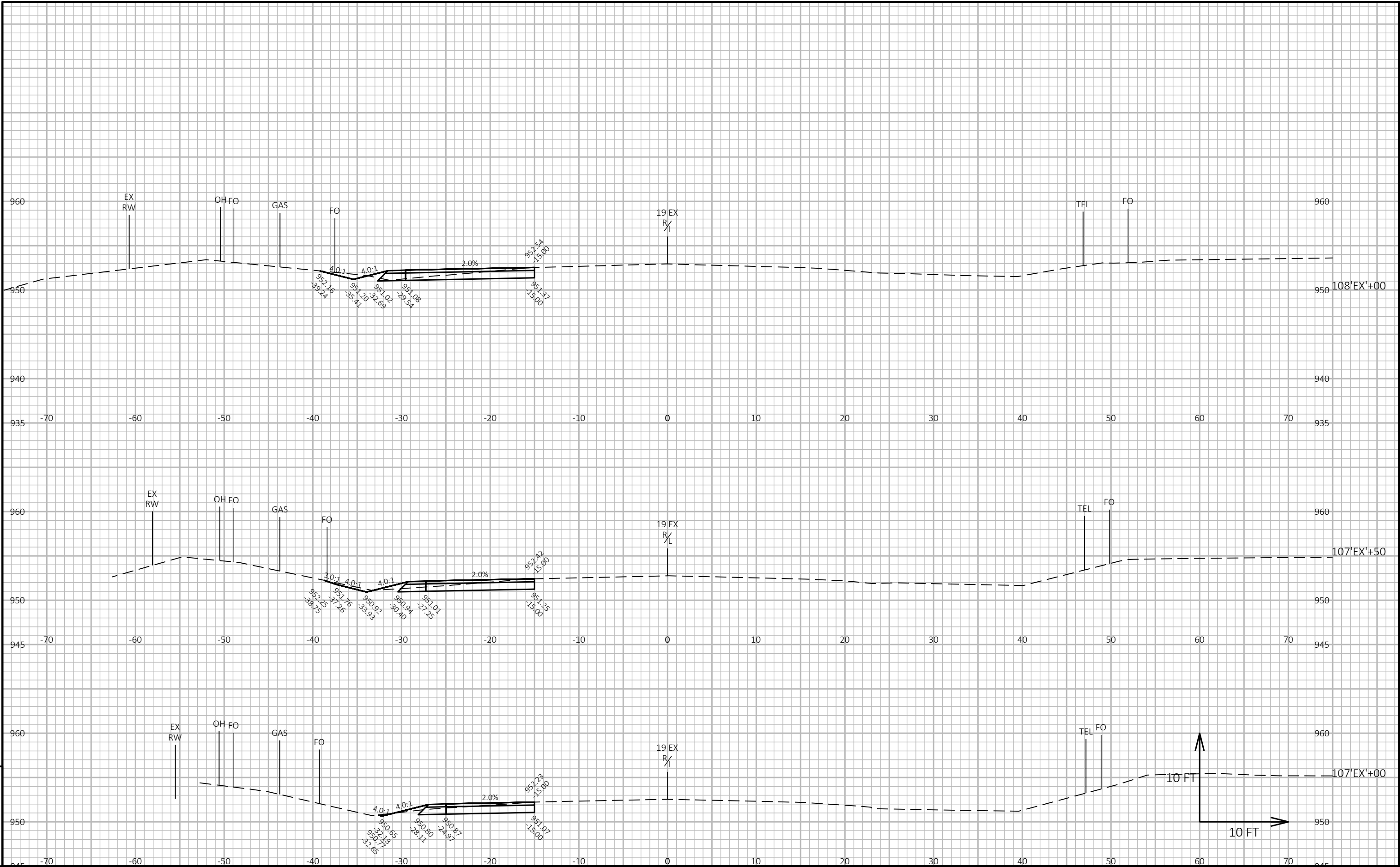


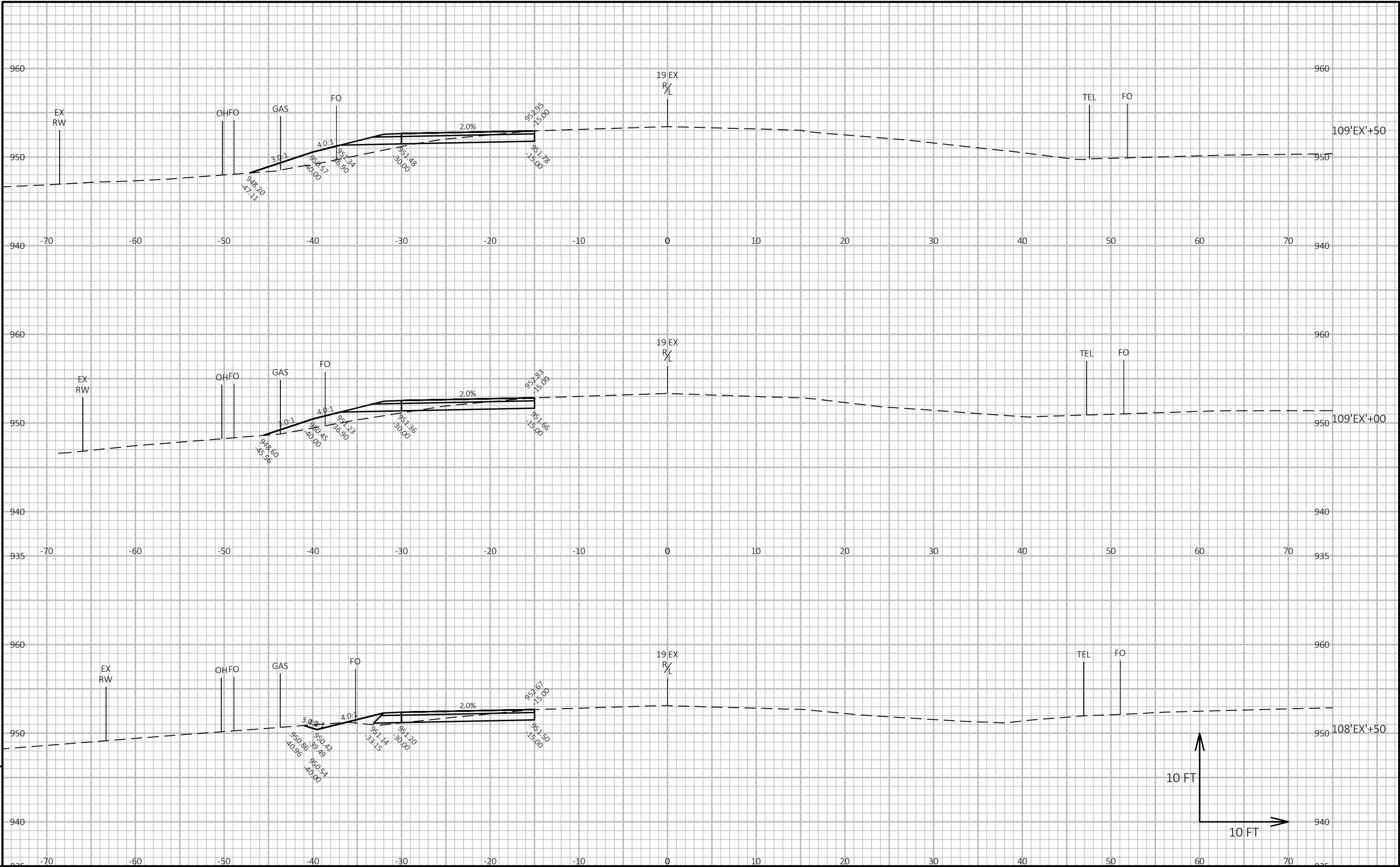
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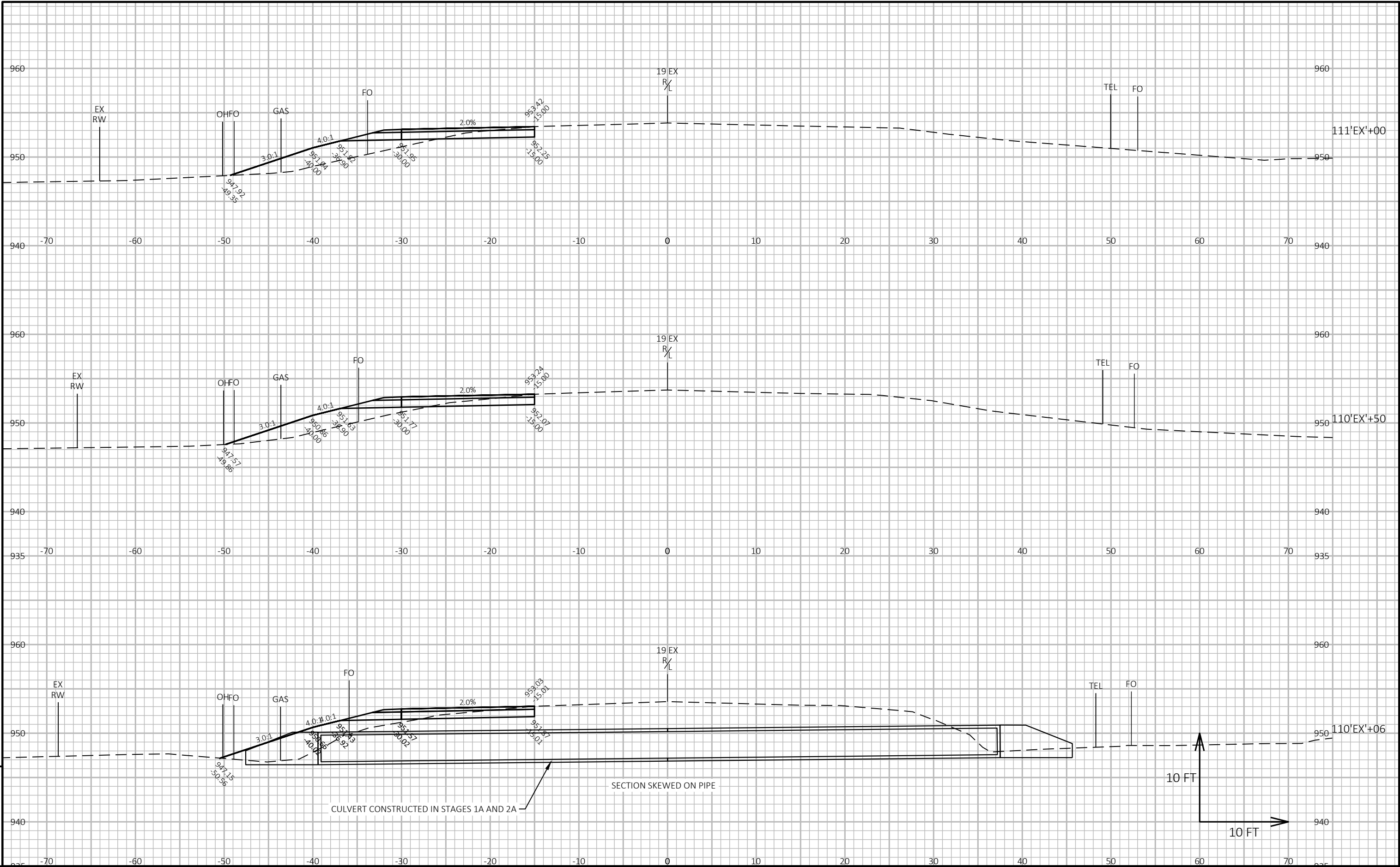
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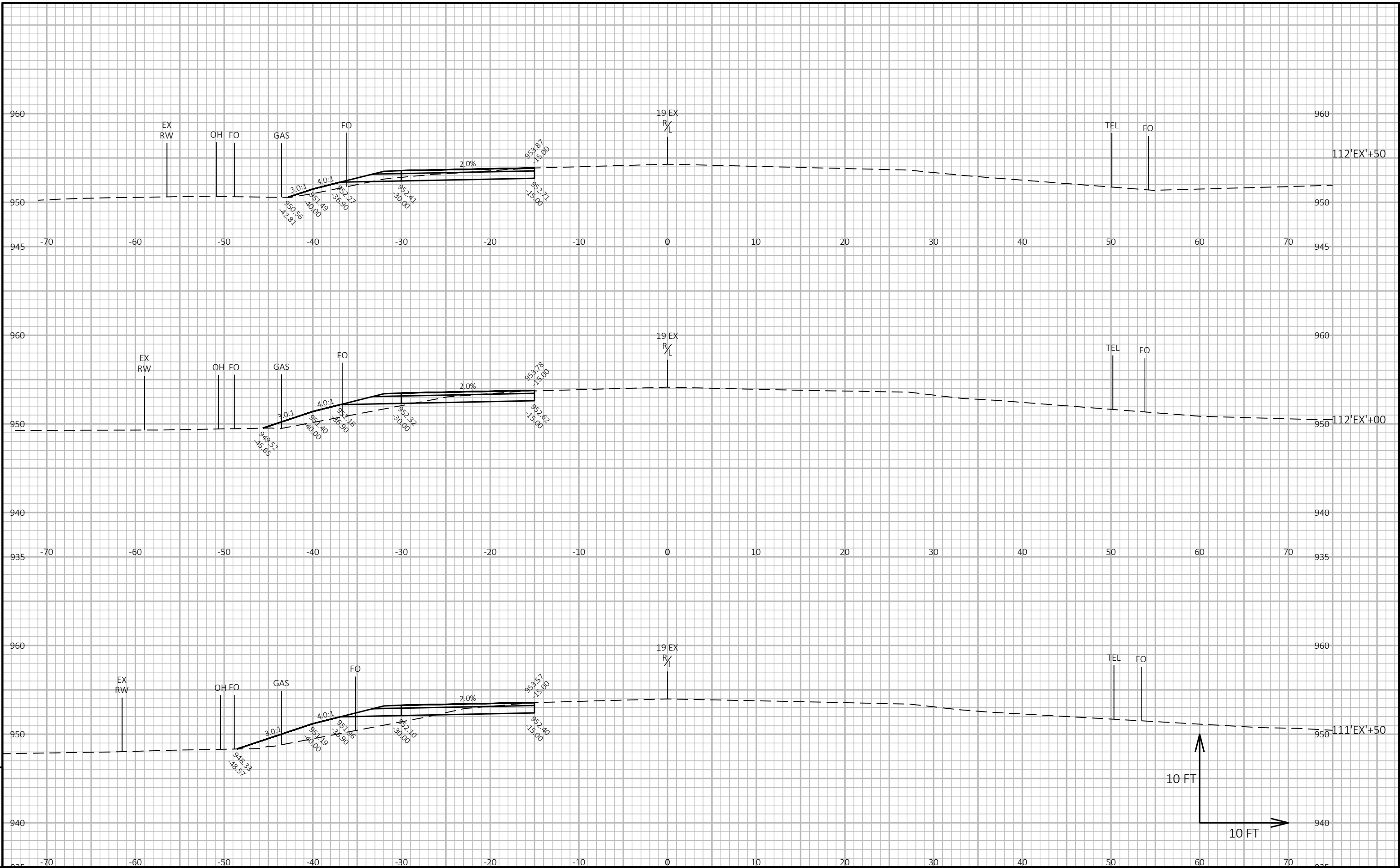


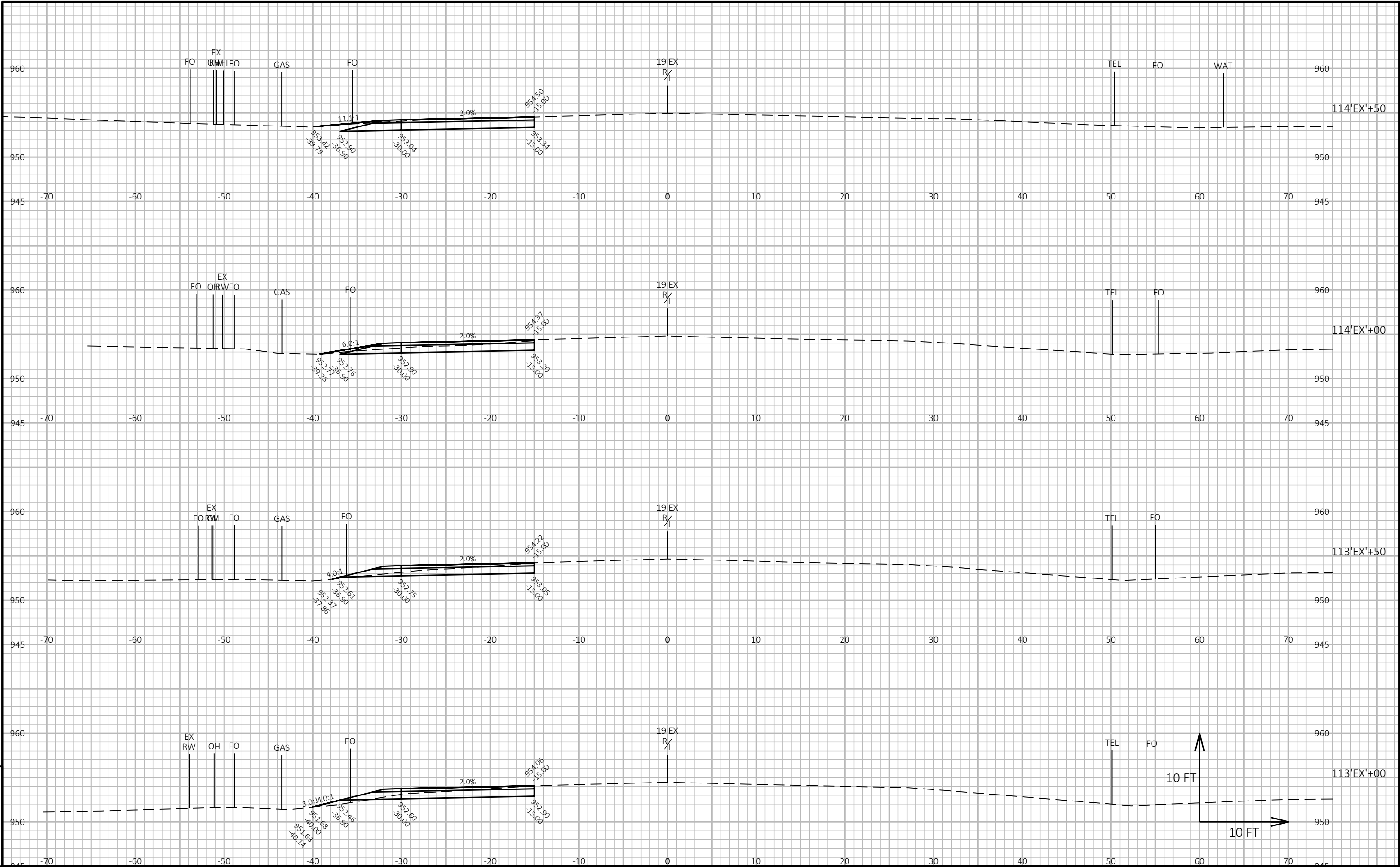


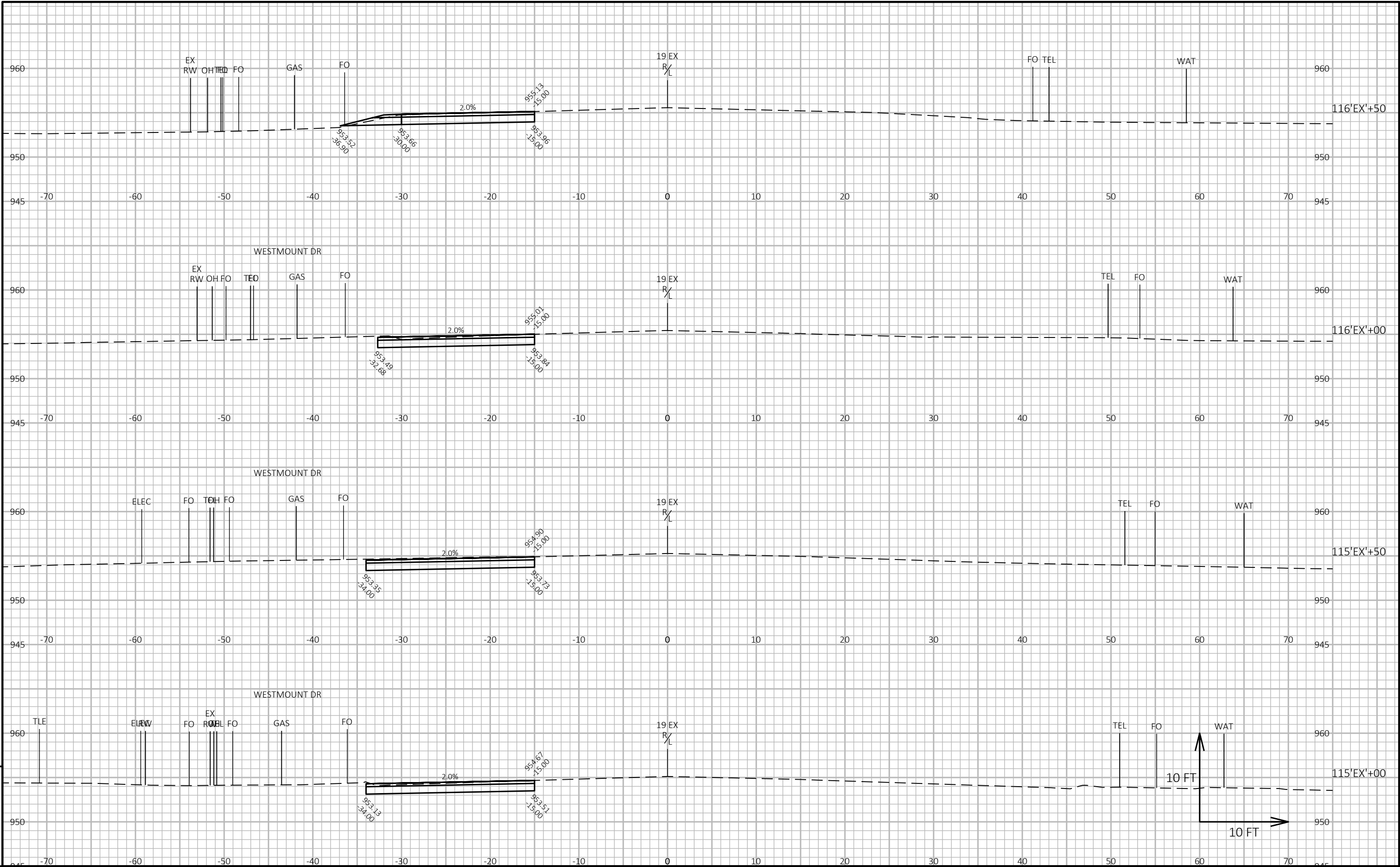


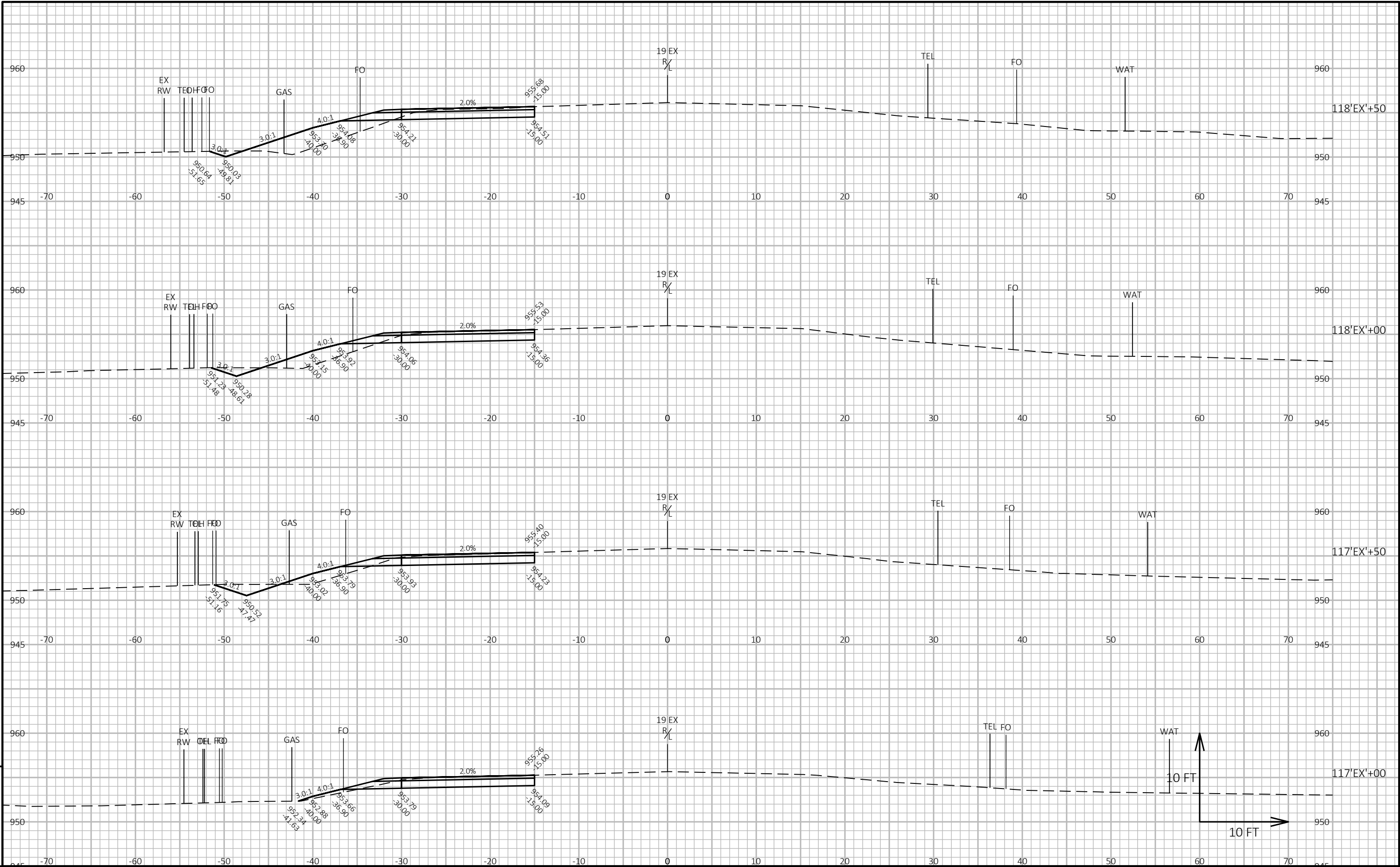
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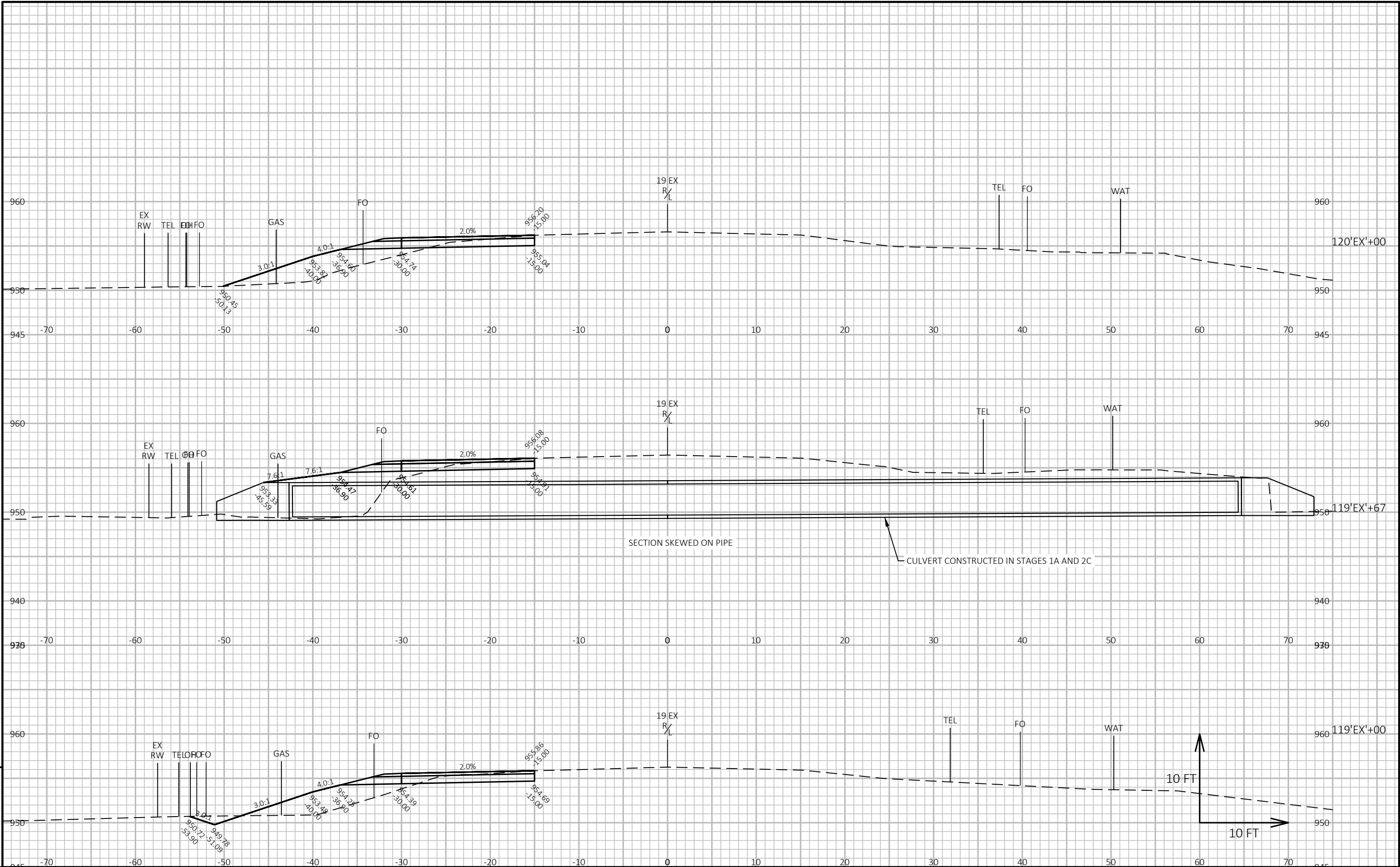
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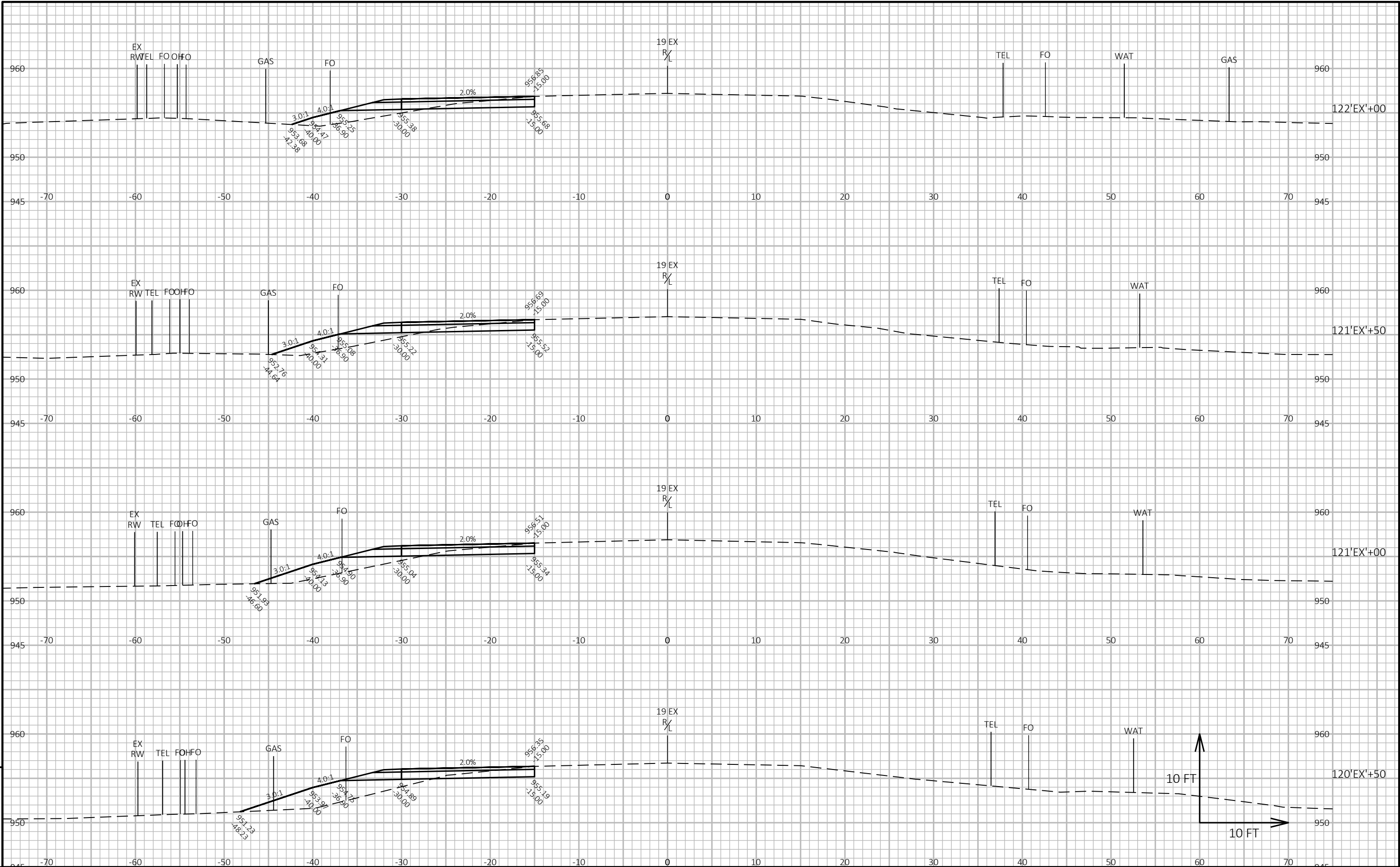


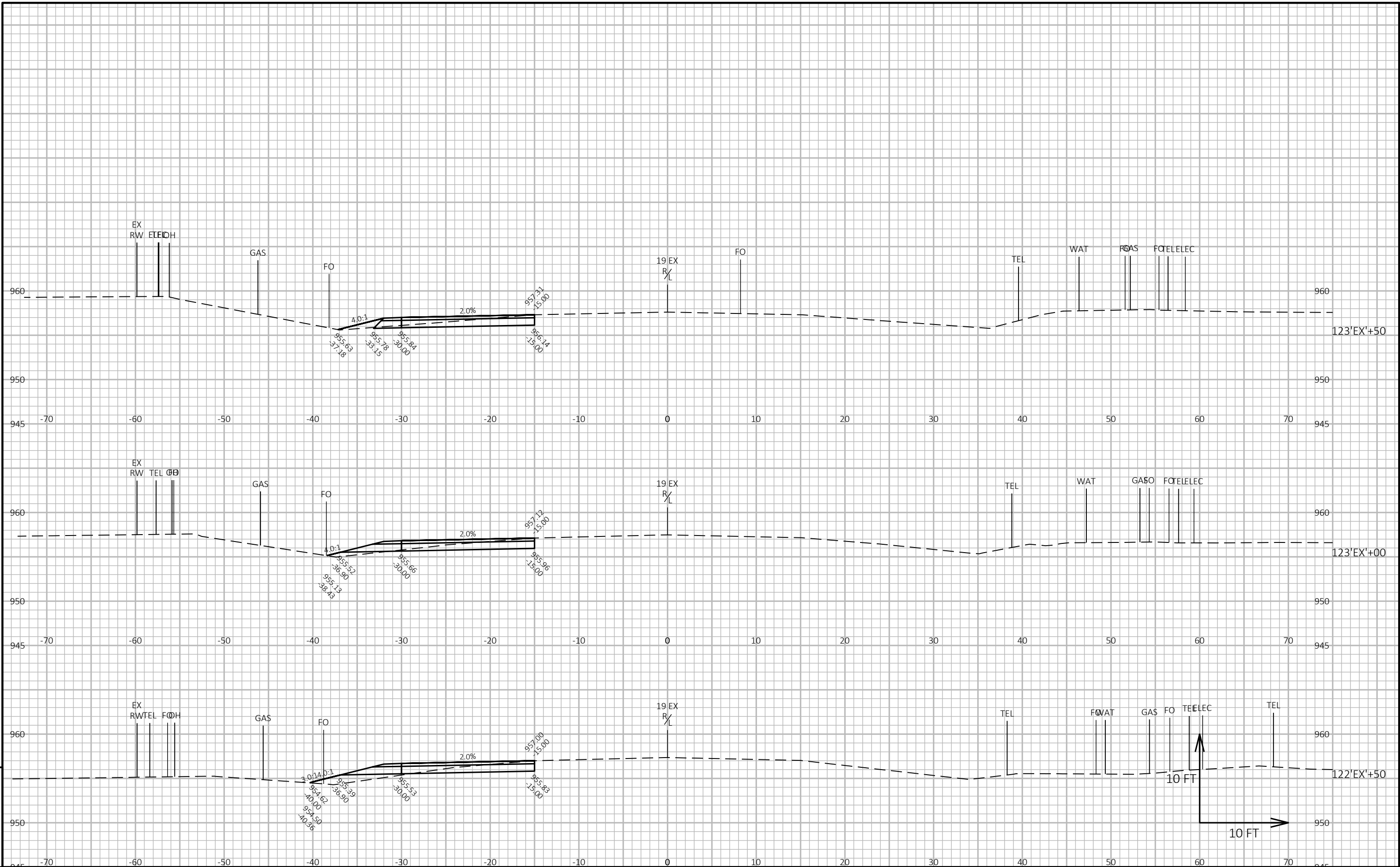


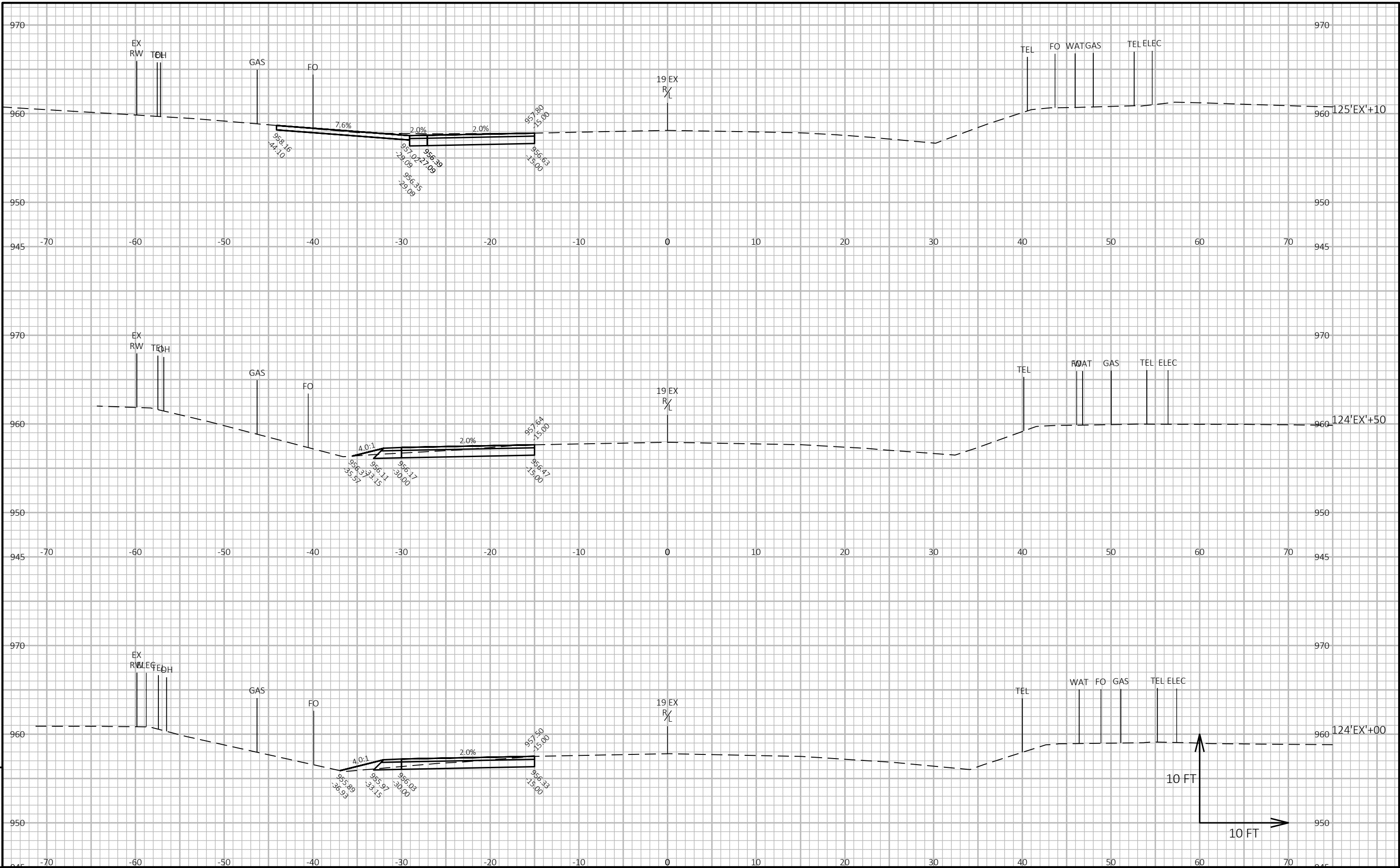


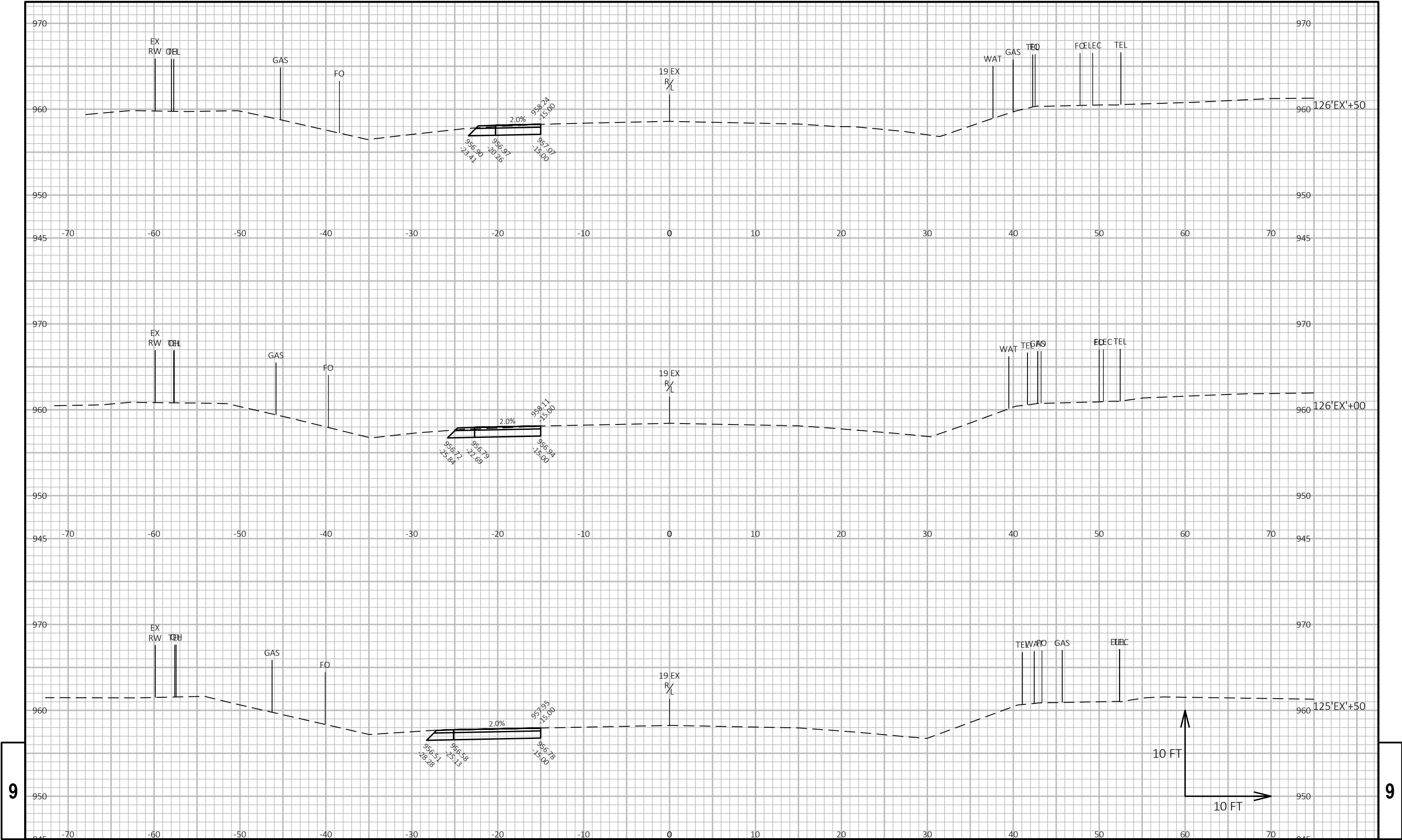








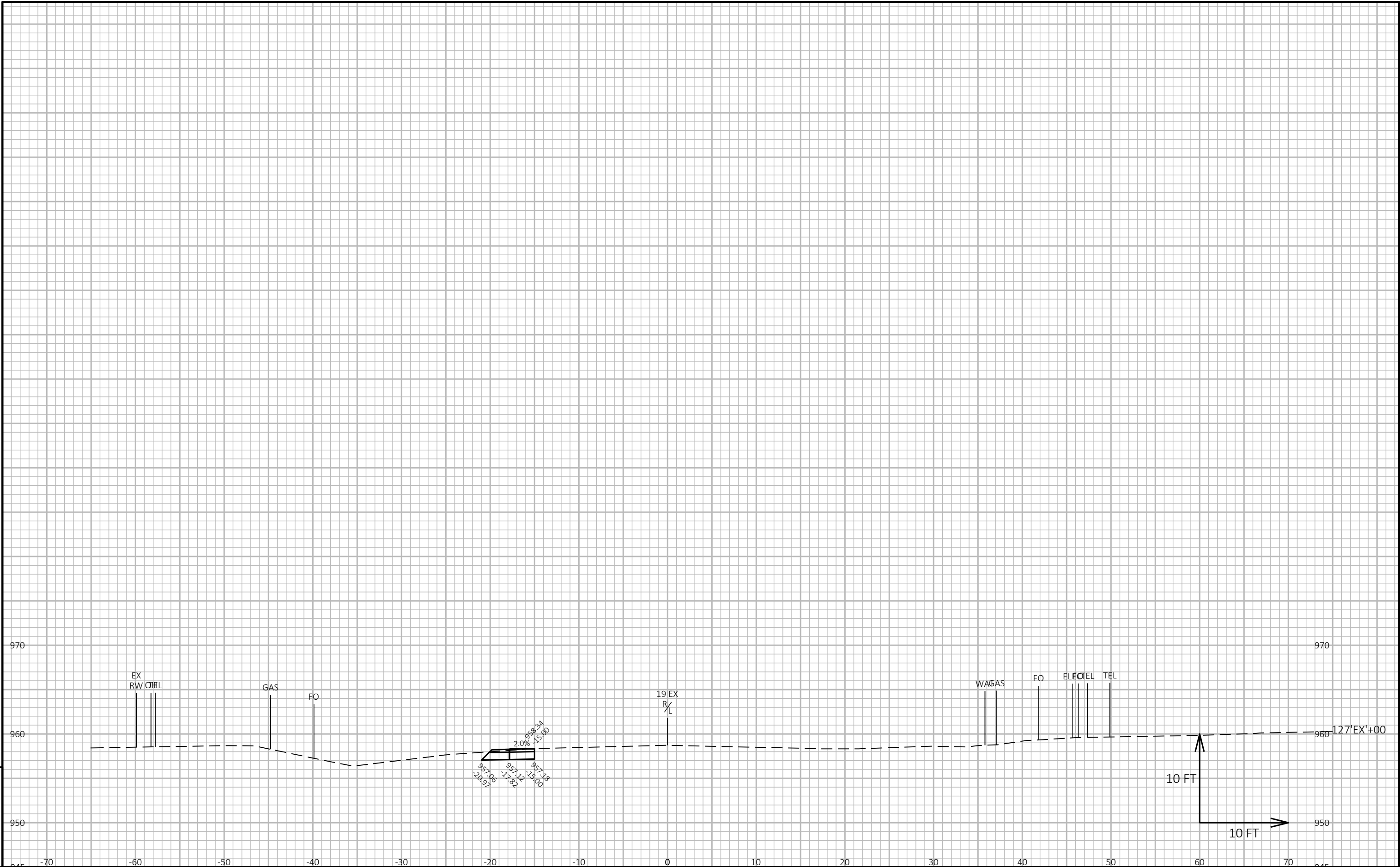




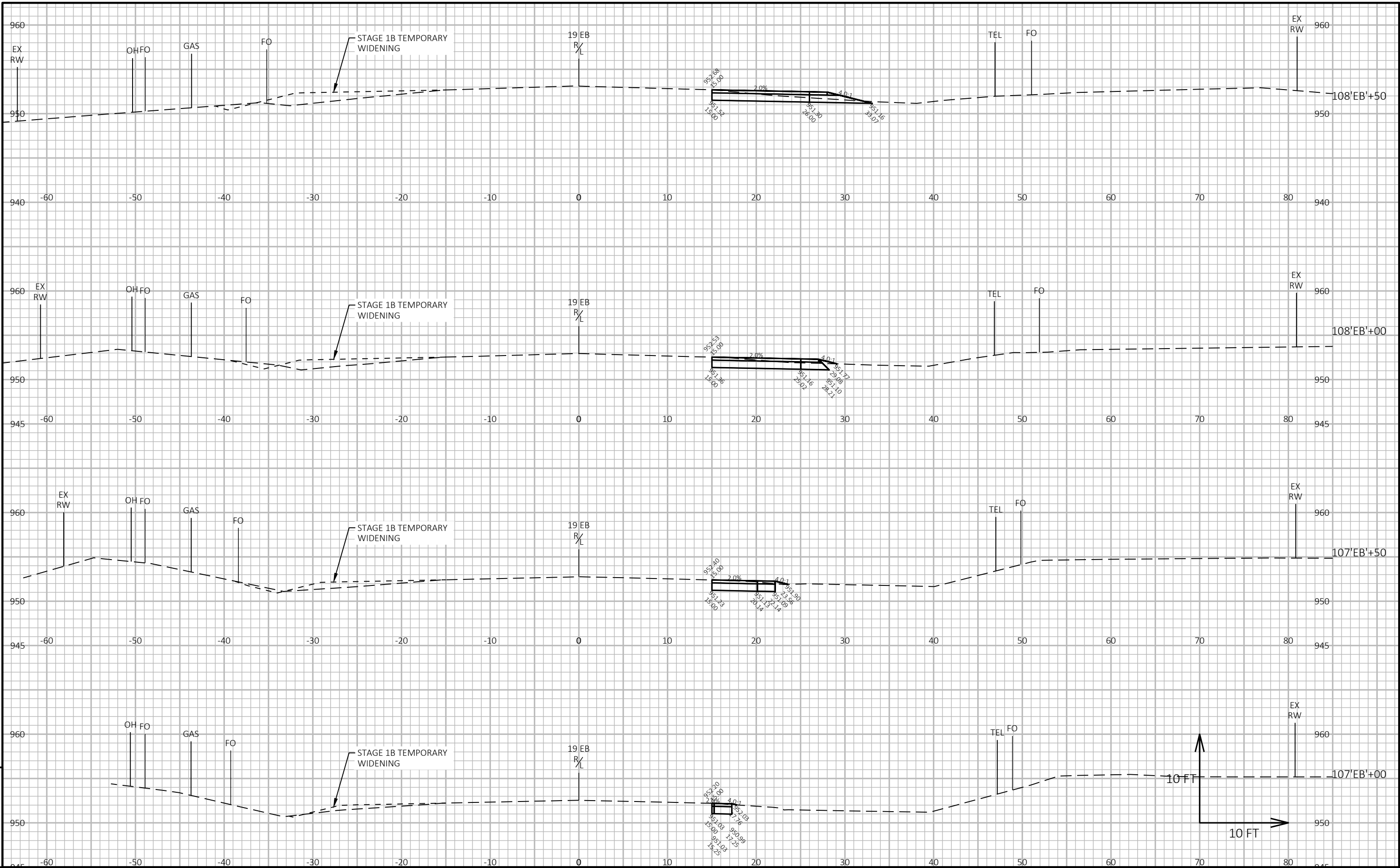
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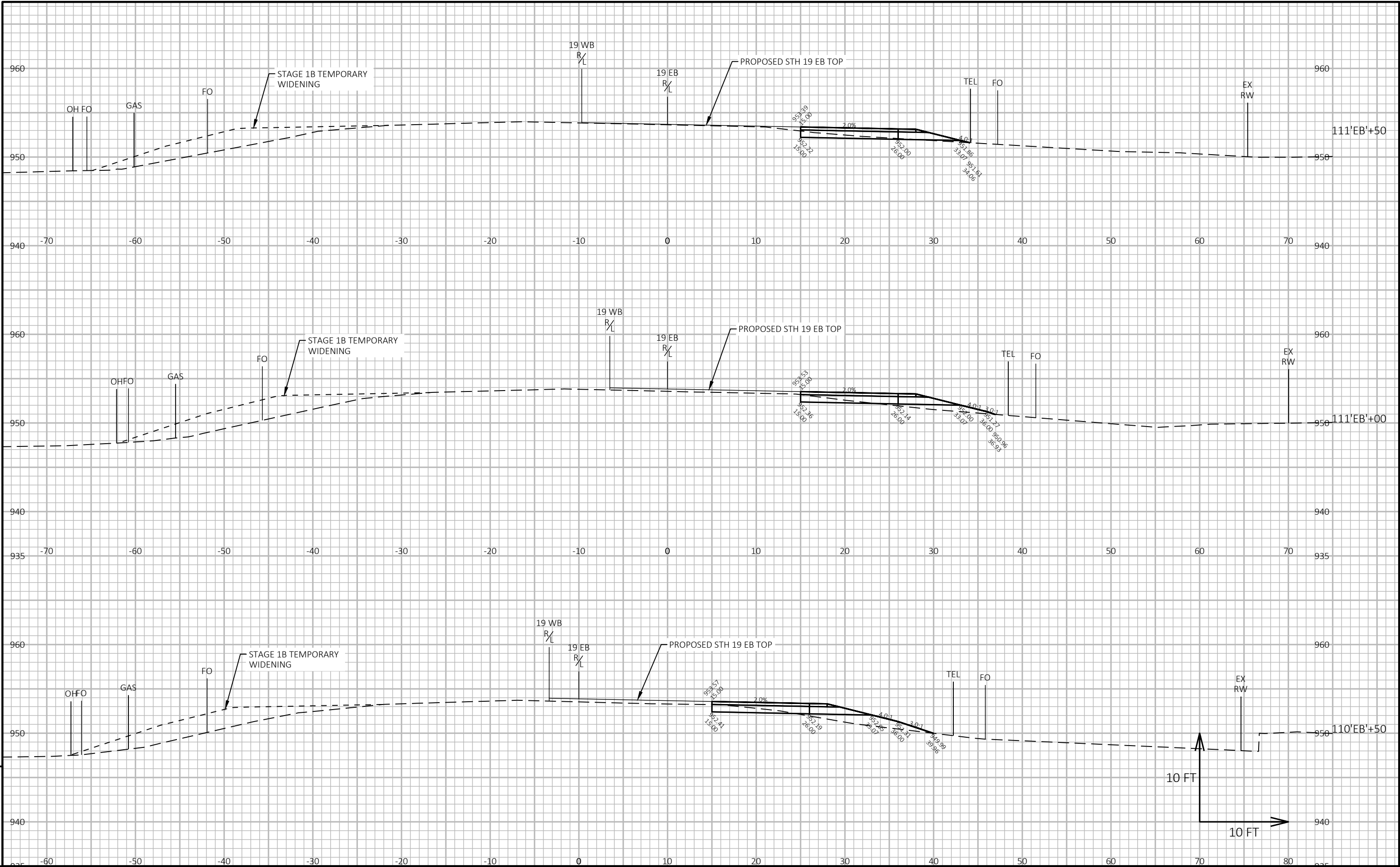
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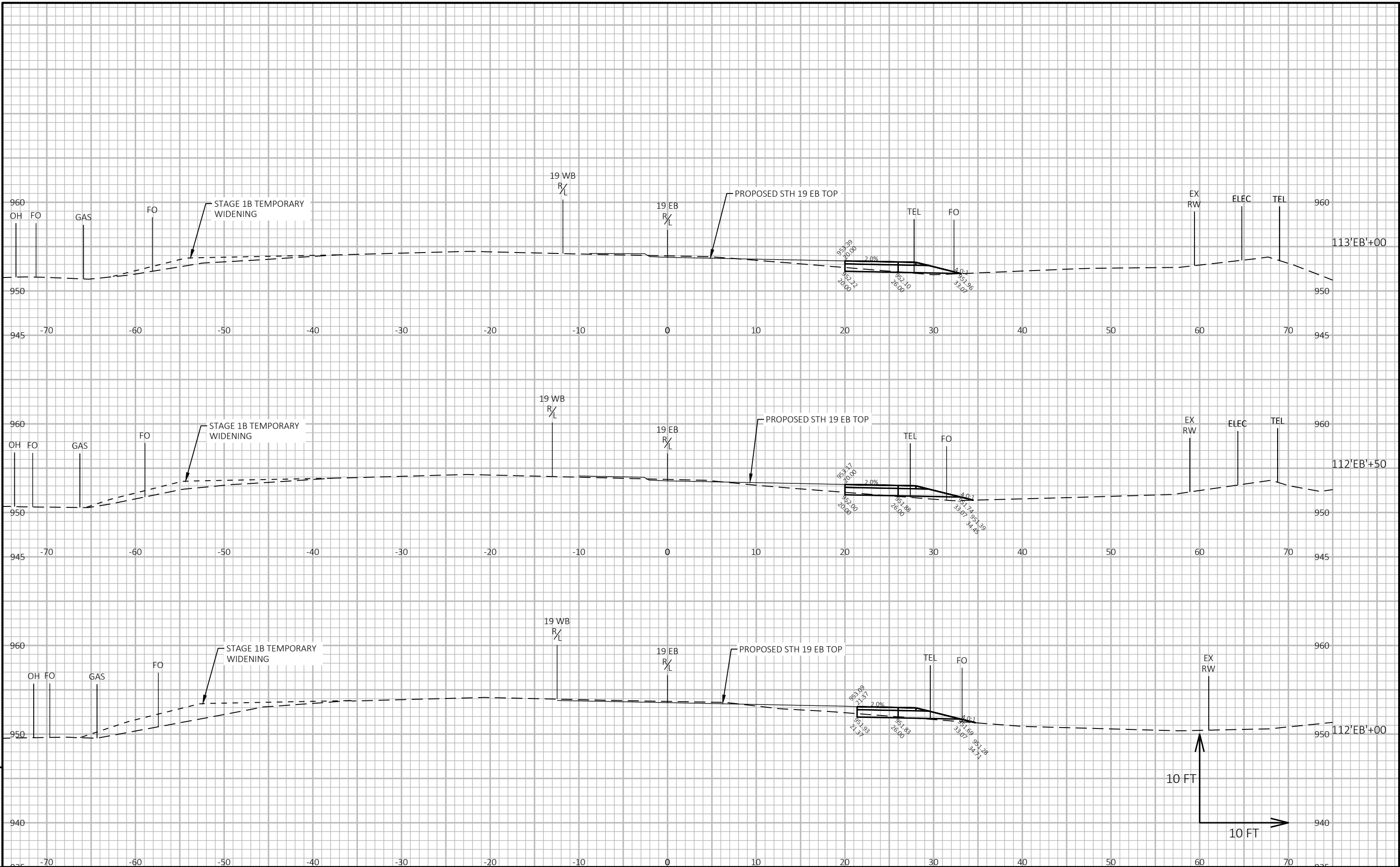
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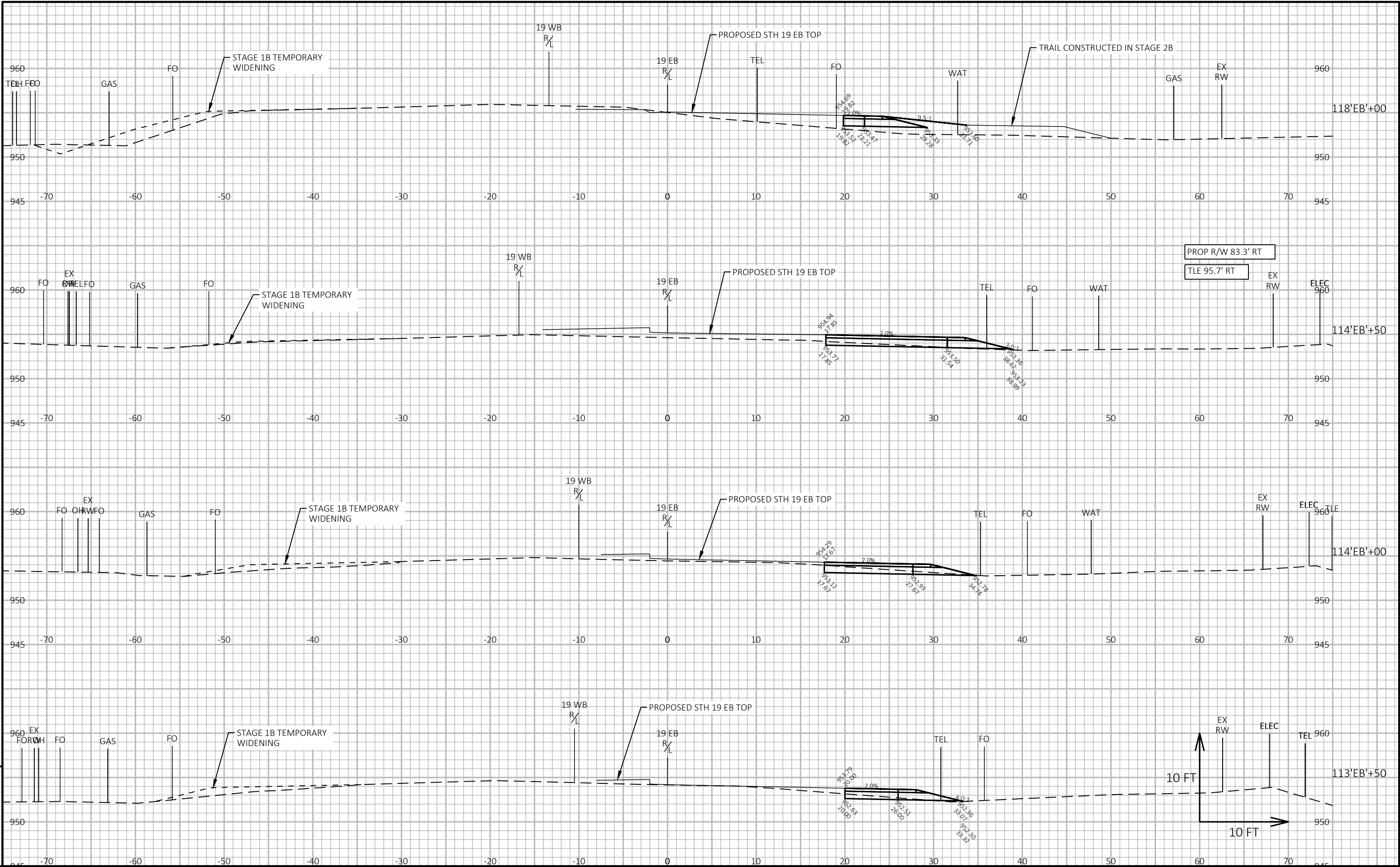


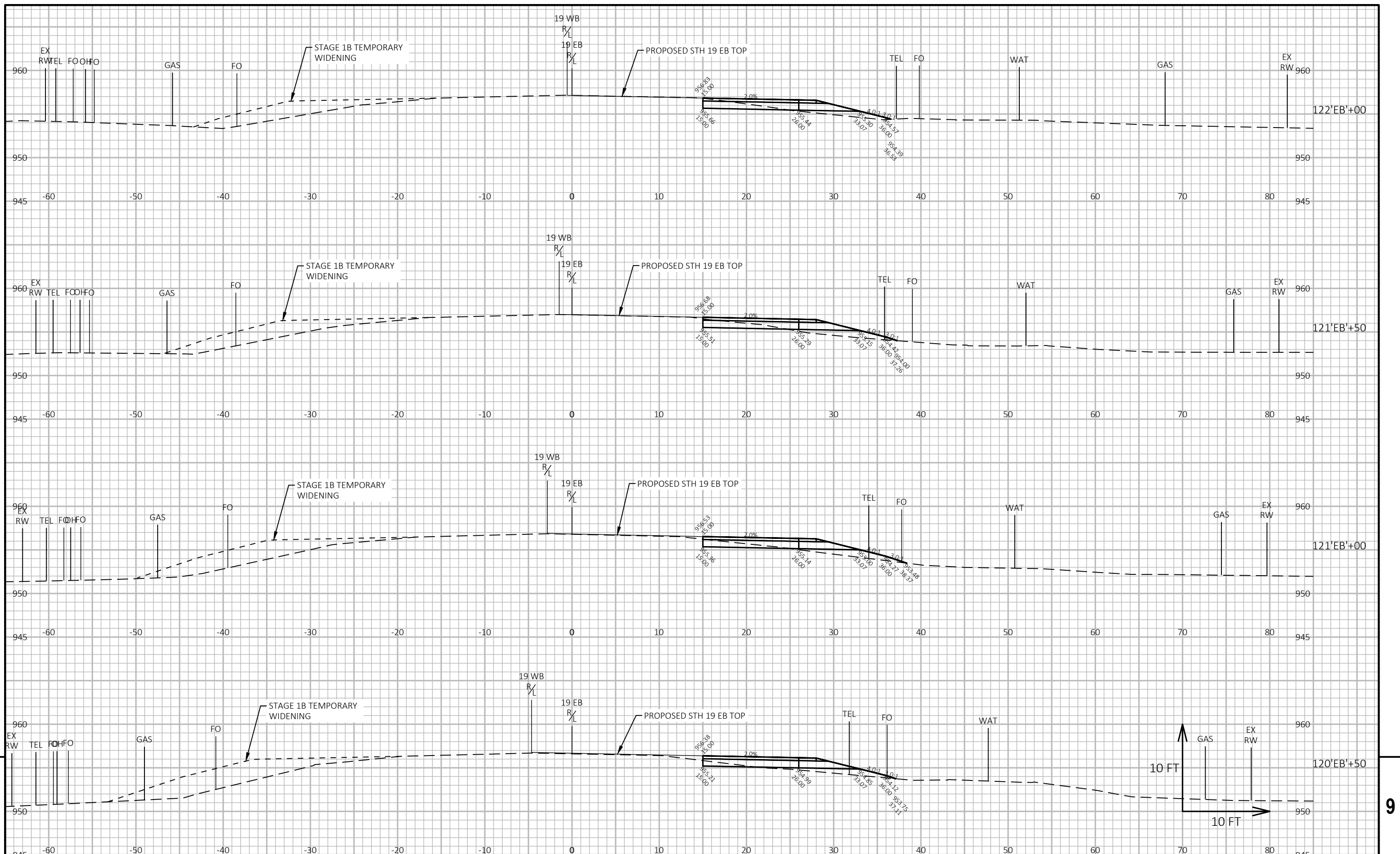
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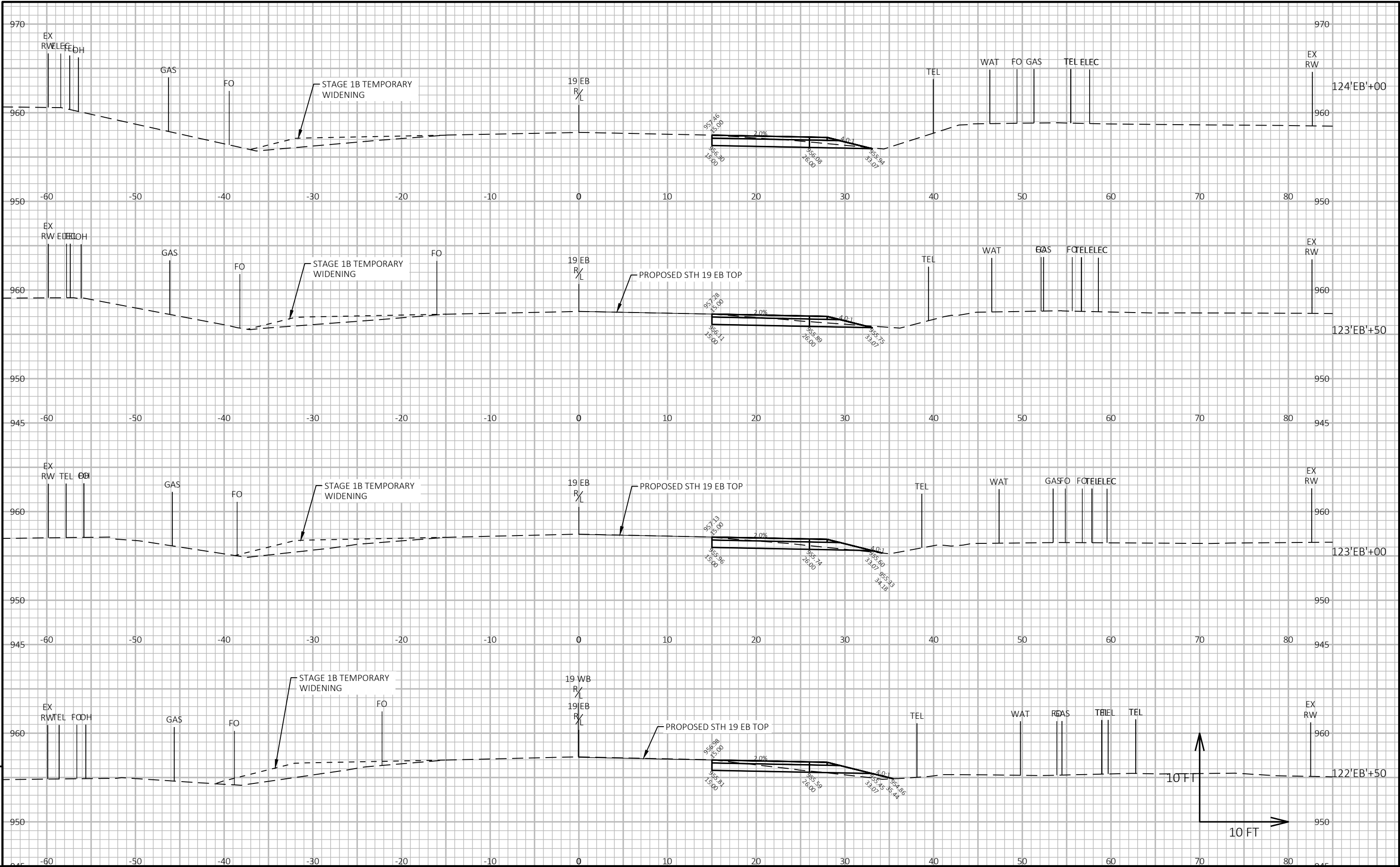


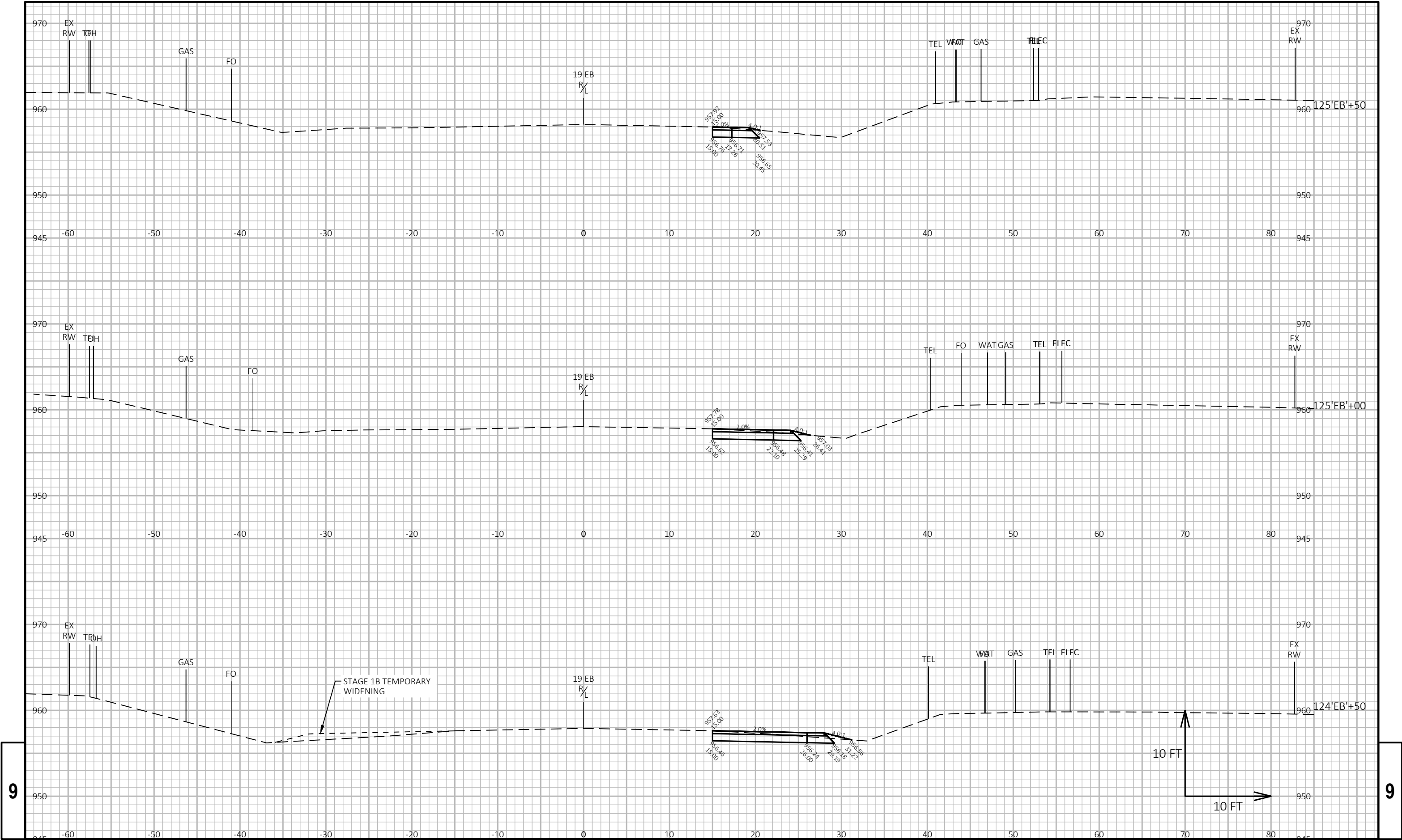








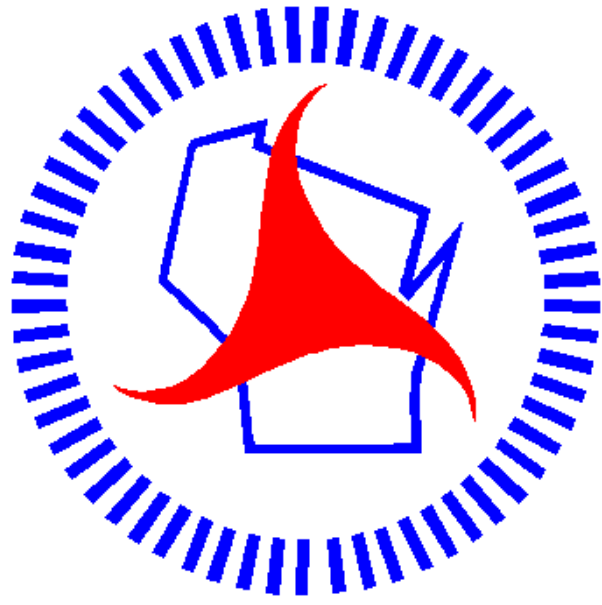




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PROJECT NO: 6085-02-76	HWY: STH 19	COUNTY: DANE	CROSS SECTIONS: STAGE 2	SHEET 307	E
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GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

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.

ALL FITTINGS USED FOR WATER MAIN INSTALLATION SHALL BE DUCTILE CAST IRON IN ACCORDANCE WITH AWWA C-110. STAINLESS STEEL OR COR-TEN BOLTS ARE TO BE USED ON ALL WATER MAIN FITTINGS. ALL JOINTS SHALL BE MEGA-LUG CLAMPS. MATERIAL SHALL BE INCIDENTAL AND PAID FOR ON THE SPECIFIC BID ITEM.

ALL DUCTILE IRON PIPE, FITTINGS, AND HYDRANT LEADS SHALL BE ENCASED IN 6 MIL POLYETHYLENE. POLYETHYLENE SHALL BE TAPED AT INTERVALS SUFFICIENT TO PREVENT SOIL FROM CONTACTING PIPE. MATERIAL SHALL BE INCIDENTAL TO THE PIPE AND FITTINGS PAID FOR ON SPECIFIC BID ITEMS.

ALL WATER MAIN SHALL BE DISINFECTED, TESTED, AND FLUSHED ACCORDING TO THE STANDARD SPECIFICATIONS. TESTING AND DISINFECTING SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE PIPE AND SHALL NOT BE PAID FOR SEPARATELY. REPEATING TESTING NECESSARY TO OBTAIN A CONFORMING TEST SHALL NOT BE CONSIDERED JUSTIFICATION FOR ANY EXTRA EXPENSE, CHANGE ORDER, OR CONTRACT TIME DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL TESTS WITHIN NORMAL WORKING HOURS, AND NO HYDROSTATIC PRESSURE TEST SHALL BE STARTED AFTER 4:00 PM.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK, ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

SEE PROJECT 6085-02-76 FOR EROSION CONTROL AND TRAFFIC CONTROL PLANS AND DETAILS.

WHERE MENTIONED ELSEWHERE IN THE SPECIFICATIONS OR PLANS, THE "STANDARD SPECIFICATION" SHALL REFER TO THE LATEST EDITION OF THE STATE OF WISCONSIN: "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION," AND THE LATEST AMENDMENTS (STATE SPECIFICATIONS) AND THE "CITY OF SUN PRAIRIE STANDARD SPECIFICATIONS FOR PUBLIC WORKS IMPROVEMENTS" LAST REVISED IN JANUARY 2025, (CITY SPECIFICATIONS). IN INSTANCES WHERE THE STATE AND CITY SPECIFICATION CONFLICT, THE STATE SPECIFICATION SHALL SUPERSEDE.

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHES	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPSS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT

UTILITY CONTACTS

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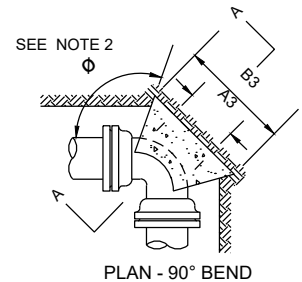
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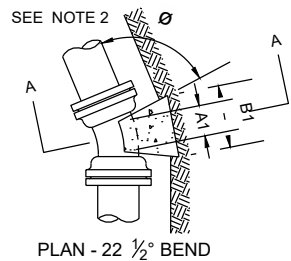
PLAN - 90° BEND

CONCRETE SHALL BE IN CONTACT WITH THIS QUADRANT OF PIPE MINIMUM

BEDDING MATERIAL

APPROX. 1:1 SLOPE WHERE DEPTH BELOW PIPE EXCEEDS 6 INCHES

SECTION A-A



PLAN - 22 1/2° BEND

CONCRETE SHALL BE IN CONTACT WITH THIS QUADRANT OF PIPE MINIMUM

BEDDING MATERIAL

APPROX. 1:1 SLOPE WHERE DEPTH BELOW PIPE EXCEEDS 6 INCHES

SECTION A-A

PLAN - 45° BEND

NOTES:

- DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 P.S.I. AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FT. INFORM THE ENGINEER IF PRESSURES EXCEED 150 PSI, OR ON-SITE SOIL DOES NOT MEET THIS CONDITION.
- DIMENSION C1 C2 C3 SHOULD BE LARGE ENOUGH TO MAKE ANGLE θ EQUAL TO OR LARGER THAN 45°.
- DIMENSION A1 A2 A3 SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH THE MECHANICAL JOINT.
- BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
- ALL BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
- CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
- IN ADDITION TO BUTTRESS, ALL JOINTS SURROUNDING BENDS SHALL BE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS.
- ALL JOINT RESTRAINTS TO BE MEGALUG ONLY.

BUTTRESS DIMENSIONS

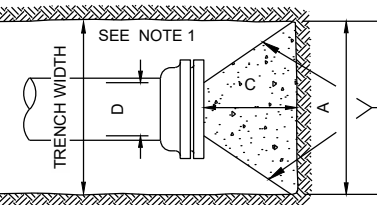
PIPE SIZE	22 1/2° BENDS		45° BENDS		90° BENDS	
	B1	D1	B2	D2	B3	D3
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
10"	1'-2"	1'-2"	1'-7"	1'-7"	2'-3"	1'-10"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"

BUTTRESS FOR BENDS DETAIL

NO SCALE

CAP ON SPIGOT END, PLUG ON BELL END. (PLUG SHOWN)

BEDDING MATERIAL



TYPICAL BELL END

BEDDING MATERIAL

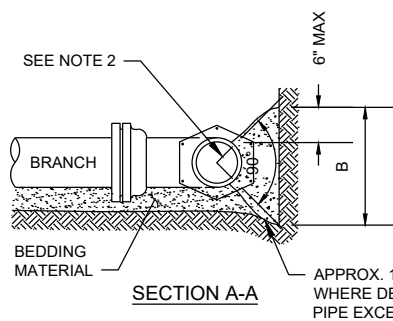
APPROXIMATE 1:1 SLOPE WHERE DEPTH BELOW PIPE EXCEEDS 6 INCHES.

NOTES:

- DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE θ EQUAL TO OR LARGER THAN 45°.
- DIMENSION 'D' EQUALS APPROX. I.D. OF PIPE LESS 2 INCHES. THE CONCRETE SHOULD NOT INTERFERE WITH THE MECHANICAL JOINTS.
- WHERE BUTTRESSES ARE NOT POSSIBLE BECAUSE OF POOR SOIL CONDITIONS OR LACK OF ROOM, WEDGE ACTION RESTRAINING GLANDS SHALL BE PERMITTED.
- BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES EXCEED 150 PSI.
- BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
- CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
- ALL POURED BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
- NO WOOD BUTTRESS ALLOWED.
- JOINT RESTRAINTS TO BE MEGALUG ONLY.

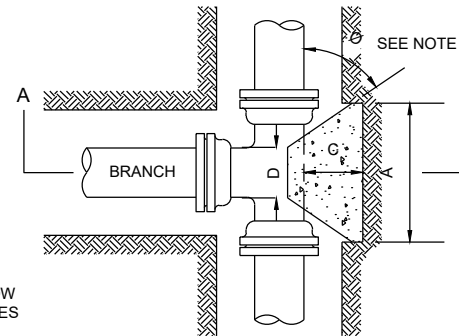
BUTTRESS FOR PLUGS DETAIL

NO SCALE



SECTION A-A

APPROX. 1:1 SLOPE WHERE DEPTH BELOW PIPE EXCEEDS 6 INCHES



PLAN

NOTES:

- DIMENSION 'C' SHOULD BE LARGE ENOUGH TO MAKE ANGLE θ GREATER THAN OR EQUAL TO 45°.
- CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AT A MINIMUM.
- DIMENSION 'D' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
- BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES EXCEED 150 PSI.
- BUTTRESS TO BE PLACED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM D1557.
- CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
- ALL POURED BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.
- IN ADDITION TO BUTTRESSES, ALL JOINTS SURROUNDING TEES SHALL BE RESTRAINED WITH WEDGE ACTION RESTRAINING GLANDS.
- ALL JOINT RESTRAINTS TO BE MEGALUG ONLY.

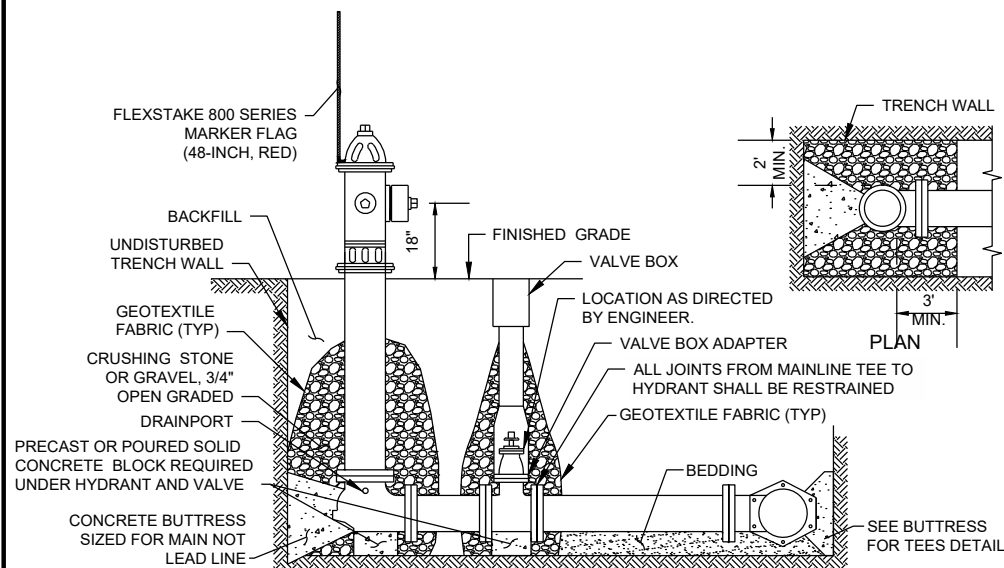
BUTTRESS DIMENSIONS

DIA.	A	B	C	D
6"	1'-3"	1'-0"	SEE NOTE NO. 1	SEE NOTE NO. 3
8"	1'-6"	1'-4"		
10"	1'-10"	1'-8"		
12"	2'-3"	2'-0"		
16"	3'-2"	2'-6"	SEE NOTE NO. 1	SEE NOTE NO. 3
20"	4'-0"	3'-0"		
24"	5'-3"	3'-4"		

DIA. = BRANCH DIAMETER

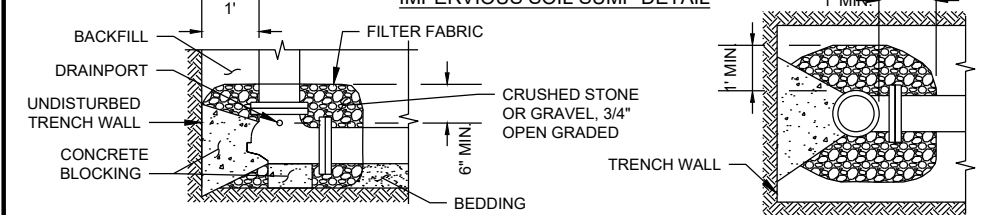
BUTTRESS FOR TEES DETAIL

NO SCALE



ELEVATION

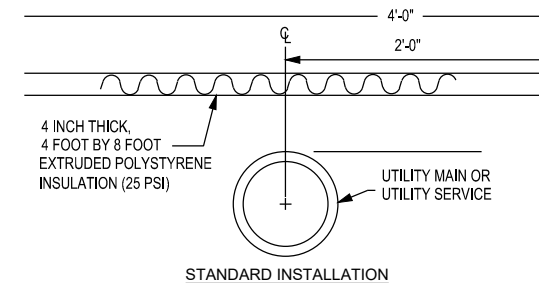
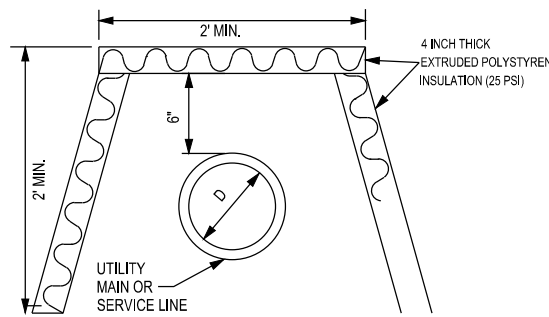
IMPERVIOUS SOIL SUMP DETAIL



PERVIOUS SOIL SUMP DETAIL

HYDRANT AND LEAD CONNECTION DETAIL

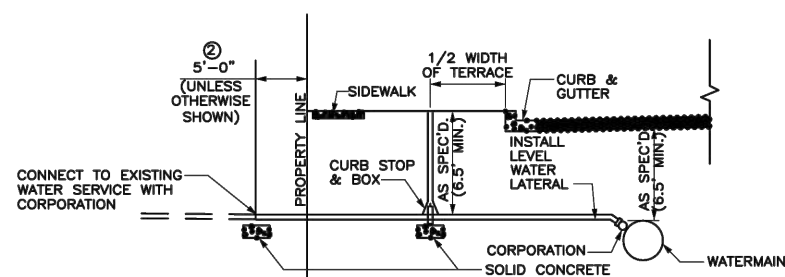
NO SCALE



GENERAL NOTES:

- STANDARD PIPE INSULATION SHALL BE USED WHERE PIPE BURY DEPTH IS LESS THAN 6.5-FT. FROM FINISHED GRADE.
- THE SIDE PROTECTION INSTALLATION SHALL BE USED WHERE DEPTH TO INVERT IS LESS THAN 6.5-FT.
- STAGGER ALL INSULATION JOINTS.
- CONTRACTOR TO RECORD AREAS AND DIMENSIONS OF INSULATION INSTALLED.

PIPE INSULATION DETAIL

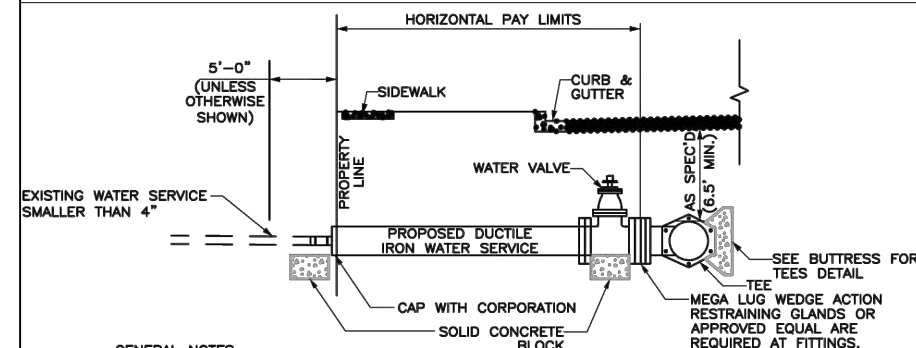


GENERAL NOTES:

- SEE PLANS AND SPECIFICATIONS FOR SIZE AND TYPE OF CURB STOP AND BOX CORPORATION AND SERVICE LINE.
- ADDITIONAL CORPORATION MAY BE REQUIRED TO KEEP WATER SERVICE LIVE DURING STAGED CONSTRUCTION.

WATER SERVICE DETAIL - CONNECT TO EXISTING

SCALE: NONE



GENERAL NOTES:

- IF PROPOSED WATER SERVICE IS STUBBED FOR FUTURE USE, CAP END WITH A CORPORATION.

WATER SERVICE DETAIL (DIAMETER GREATER THAN 2")

SCALE: NONE

Estimate Of Quantities By Plan Sets

6085-02-78					
Line	Item	Item Description	Unit	Total	Qty
0114	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-inch	SY	32.000	32.000
0284	SPV.0035	Special 01. Trench Backfill - Water Main	CY	365.000	365.000
0296	SPV.0060	Special 06. Abandon Existing Water Main (Slurry Fill)	EACH	1.000	1.000
0298	SPV.0060	Special 07. Remove Existing Hydrant	EACH	1.000	1.000
0300	SPV.0060	Special 08. Abandon Existing Valve & Box	EACH	3.000	3.000
0302	SPV.0060	Special 09. Valve and Road Box 6-Inch	EACH	1.000	1.000
0304	SPV.0060	Special 10. Valve and Road Box 12-Inch	EACH	4.000	4.000
0306	SPV.0060	Special 11. Fire Hydrant	EACH	2.000	2.000
0308	SPV.0060	Special 12. Tee 12-Inch x 6-Inch	EACH	1.000	1.000
0310	SPV.0060	Special 13. Tee 12-Inch x 12-Inch	EACH	1.000	1.000
0312	SPV.0060	Special 14. 22.5 Degree Bend 12-Inch	EACH	2.000	2.000
0314	SPV.0060	Special 15. 45 Degree Bend 12-Inch	EACH	2.000	2.000
0316	SPV.0060	Special 16. Reducer 12-Inch x 6-Inch	EACH	1.000	1.000
0318	SPV.0060	Special 17. Connect to Existing Water Main	EACH	4.000	4.000
0320	SPV.0060	Special 18. Utility Line Opening (ULO)	EACH	1.000	1.000
0322	SPV.0060	Special 19. Dewatering	EACH	1.000	1.000
0324	SPV.0060	Special 20. Fire Hydrant Extension 6-Inch	EACH	1.000	1.000
0326	SPV.0090	Special 01. Remove Existing Water Main	LF	48.000	48.000
0328	SPV.0090	Special 02. Ductile Iron Water Main 6-Inch	LF	16.000	16.000
0330	SPV.0090	Special 03. Ductile Iron Water Main 12-Inch	LF	282.000	282.000

3

REMOVE EXISTING WATER STRUCTURES							
		(SPV.0060.06)		(SPV.0090.01)		(SPV.0060.07)	
		ABANDON EXISTING		REMOVE		REMOVE	
		WATER MAIN		EXISTING		EXISTING	
		(SLURRY FILL)		WATER MAIN		HYDRANT	
CATEGORY	FROM STATION	LOCATION	TO STATION	LOCATION	EACH	LF	EACH
0010	115+59.6	25.0' RT			-	-	1
	115+64.3	37.1' RT			-	-	1
	115+73.6	118.1' RT	115+71.4	105.6' RT	-	12	-
	115+83.5	33.5' RT			-	1	-
	115+98.0	13.0' RT			-	-	1
	116+86.8	20.4' RT	117+12.3	25.1' RT	-	25	-
	118+96.1	37.8' RT	119+07.1	38.2' RT	-	11	-
		PROJECT	6085-02-78	RT	1	-	-
PROJECT 6085-02-78 TOTALS					1	48	1
							3

WATER APPURTENANCES SUMMARY							
		(SPV.0060.12)	(SPV.0060.13)	(SPV.0060.14)	(SPV.0060.15)	(SPV.0060.16)	(SPV.0060.17)
		TEE	TEE	22.5 DEGREE	45 DEGREE	REDUCER	CONNECT TO
		12-INCH	12-INCH	BEND	BEND	12-INCH	EXISTING
		x 6-INCH	x 12-INCH	12-INCH	12-INCH	x 6-INCH	WATER MAIN
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	EACH	EACH
0010	115+05.7	89.5' RT	-	-	-	-	-
	115+08.9	91.6' RT	-	-	-	1	-
	115+45.5	116.1' RT	-	-	1	-	-
	115+57.5	113.7' RT	-	-	-	-	-
	115+72.5	110.8' RT	-	1	-	-	-
	115+72.9	113.8' RT	-	-	-	-	-
	115+73.6	118.1' RT	-	-	-	-	1
	115+84.4	108.4' RT	-	-	1	-	-
	116+25.5	47.0' RT	-	-	1	-	-
	117+03.5	23.4' RT	-	-	1	-	-
	117+09.2	24.5' RT	-	-	-	-	-
	117+12.3	25.1' RT	-	-	-	-	1
	118+96.1	37.8' RT	-	-	-	-	-
	118+96.1	37.8' RT	-	-	-	-	1
	119+01.3	50.5' RT	-	-	-	-	-
	119+01.4	47.4' RT	-	-	-	-	-
	119+01.8	38.0' RT	1	-	-	-	-
	119+07.1	38.2' RT	-	-	-	-	1
PROJECT 6085-02-78 TOTALS			1	1	2	2	1
							4

GATE VALVE WITH VALVE BOX				
			(SPV.0060.09)	(SPV.0060.10)
			VALVE AND	VALVE AND
			ROAD BOX, 6-INCH	ROAD BOX, 12-INCH
CATEGORY	STATION	LOCATION	EACH	EACH
0010	115+57.5	113.7' RT	-	1
	115+72.9	113.8' RT	-	1
	117+09.2	24.5' RT	-	1
	118+96.1	37.8' RT	-	1
	119+01.4	47.4' RT	1	-
PROJECT 6085-02-78 TOTALS			1	4

NEW HYDRANT AND GATE VALVE WITH VALVE BOX			
(SPV.0060.11)			
FIRE HYDRANT			
CATEGORY	STATION	LOCATION	EACH
0010	115+05.7	89.5' RT	1
	119+01.3	50.5' RT	1
PROJECT 6085-02-78 TOTAL			2

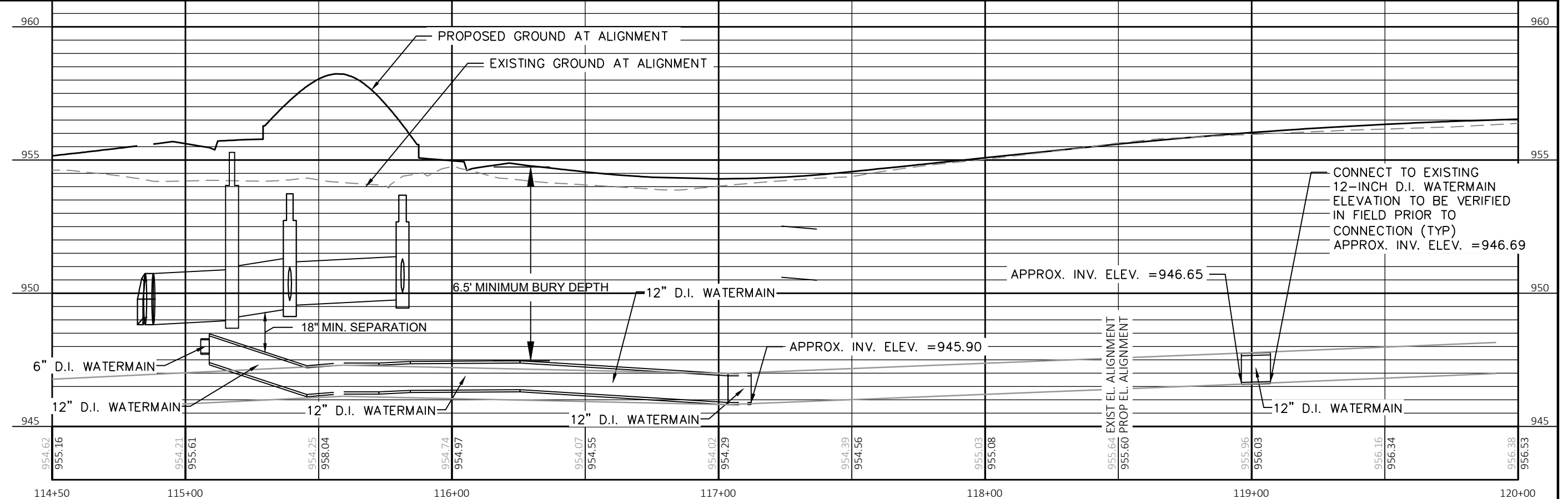
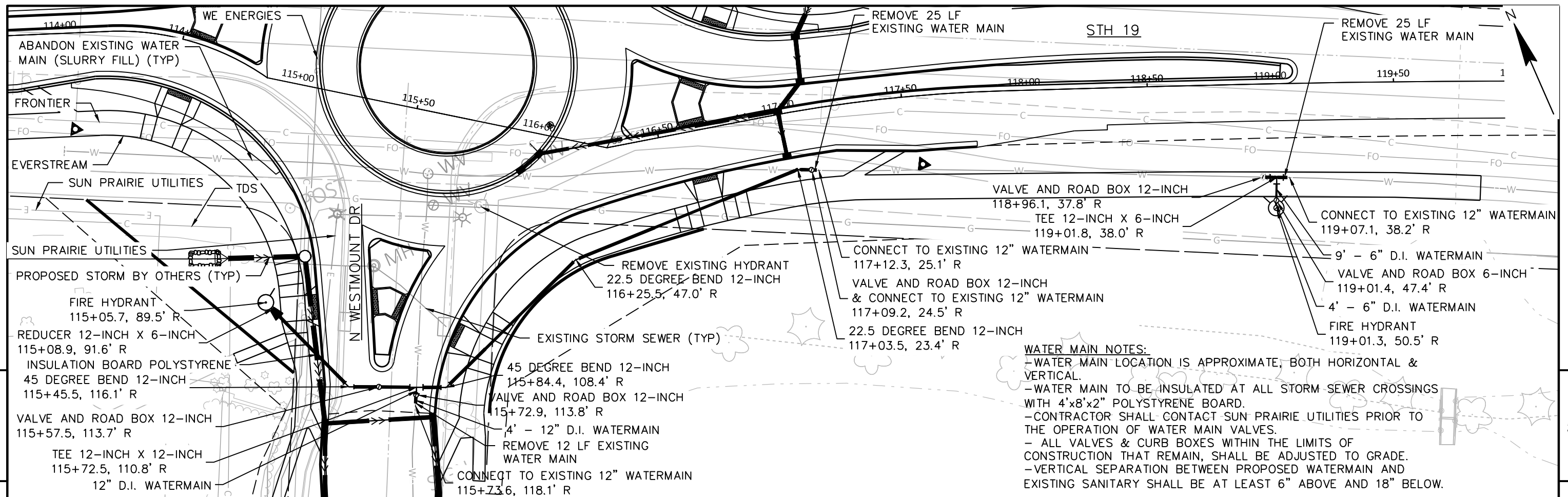
3

DUCTILE IRON WATER MAIN						
(SPV.0090.02) (SPV.0090.03)						
DUCTILE IRON DUCTILE IRON						
WATER MAIN WATER MAIN						
6-INCH 12-INCH						
CATEGORY	FROM STATION	TO STATION	LOCATION	LF	LF	COMMENTS
0010	115+05.7	115+08.9	RT	4	-	HYDRANT TO REDUCER
	115+08.9	115+45.5	RT	-	44	
	115+45.5	115+72.5	RT	-	28	
	115+72.5	115+73.6	RT	-	7	12"x12" TEE TO CONNECT
	115+72.5	115+84.4	RT	-	12	
	115+84.4	116+25.5	RT	-	74	
	116+25.5	117+03.5	RT	-	97	
	117+03.5	117+12.3	RT	-	9	22.5 BEND TO CONNECT
	118+96.1	119+01.8	RT	-	6	CONNECT TO 12"x6" TEE
	119+01.8	119+07.1	RT	-	5	12"x6" TEE TO CONNECT
	119+01.3	119+01.8	RT	12	-	HYDRANT LEAD
PROJECT 6085-02-78 TOTALS				16	282	

WATERMAIN GRANULAR BACKFILL SPECIAL		
(SPV.0035.01)		
WATERMAIN GRANULAR		
BACKFILL SPECIAL		
CATEGORY	DESCRIPTION	CY
0010	PROJECT 6085-02-78	365
PROJECT 6085-02-78 TOTAL		365

WATER MISCELLANEOUS						
(SPV.0060.18) (SPV.0060.19) (SPV.0060.20) (612.0902.S)						
UTILITY LINE DEWATERING FIRE INSULATION						
OPENING EXTENSION POLYSTYRENE						
(ULO) 6-INCH						
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	SF
0010	PROJECT 6085-02-78		-	-	-	-
	PROJECT 6085-02-78		1	-	-	-
	PROJECT 6085-02-78		-	1	-	-
	PROJECT 6085-02-78		-	-	1	-
	115+30		-	-		32
PROJECT 6085-02-78 TOTALS			1	1	1	32

3



PROJECT NO: 6085-02-78

HWY: STH 19

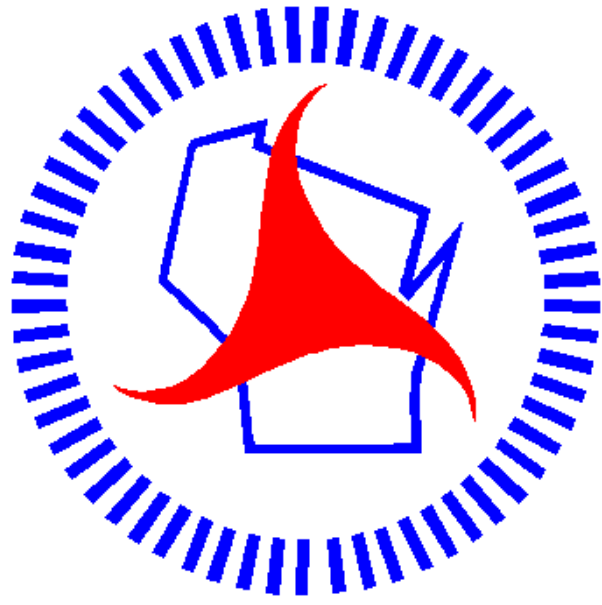
COUNTY: DANE

PLAN AND PROFILE: STH 19

SHEET

7

E



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