

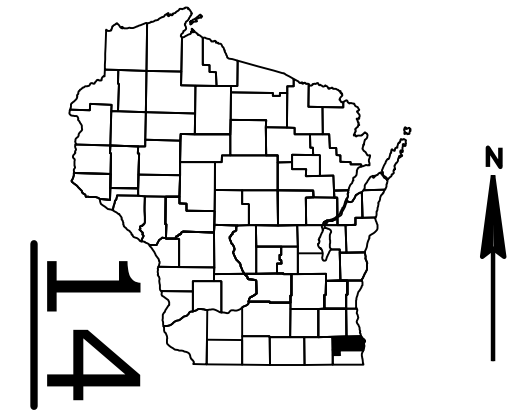
WKE
PROJECT ID: 2803-03-71
WITH: N/A
COUNTY: RACINE

MAY 2025

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 = 186



DESIGN DESIGNATION

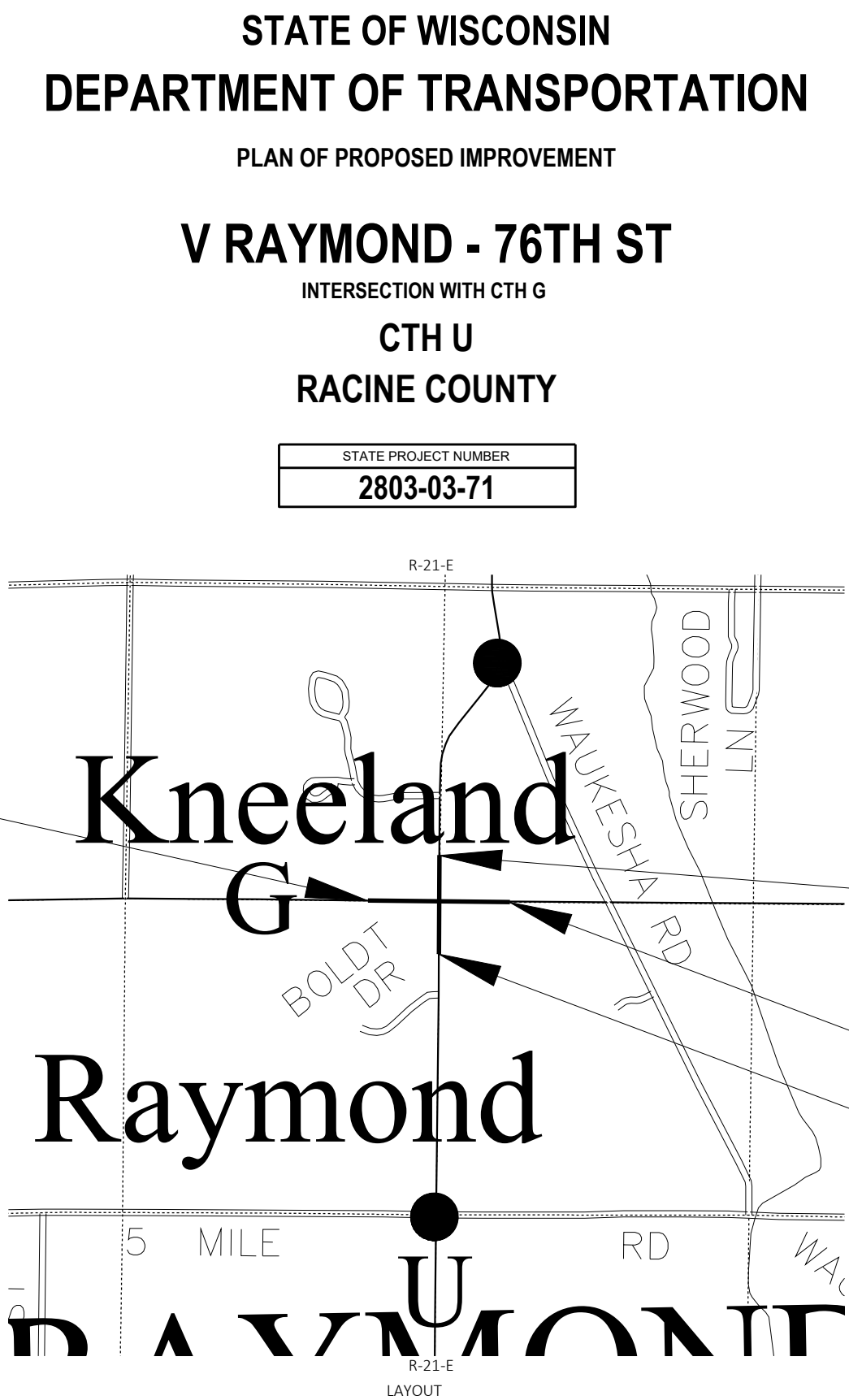
A.A.D.T.	2023	=	CTH U 1995	CTH G 1188
A.A.D.T.	2045	=	2873	1710
D.H.V.		=	119	119
D.D.		=	51/49	55/50
T.		=	26.5%	22.5%
DESIGN SPEED		=	50 MPH	60 MPH
ESALS		=	890,000	...

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	

	ROCK
	LABEL
	95.36
	300'EB
	E
	FO
	G
	SAN
	SS
	T
	W
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE



LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.222 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), RACINE 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 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
V RAYMOND - 76TH ST
INTERSECTION WITH CTH U
CTH U
RACINE COUNTY

STATE PROJECT NUMBER
2803-03-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2803-03-71	WISC 2025470	1

APPROVED FOR
RACINE COUNTY
DEPARTMENT OF PUBLIC WORKS
Date 1/30/2025
DIRECTOR
Date 1/30/2025
ENGINEERING SERVICES/MANAGER

1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.134

2/1/25
(Signature)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	MICHAEL BAIRD
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	AMY TAETSCH

APPROVED FOR THE DEPARTMENT
DATE: 1/30/2025
(Signature)

GENERAL NOTES

1.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.
2.

CROSS DRAIN PIPE LOCATIONS AND ELEVATIONS AS SHOWN ON THE CROSS SECTION SHEETS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.
3.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE EARTHWORK, EBS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EBS AREAS ARE DEPICTED BY THE 16-INCH SELECT CRUSHED MATERIAL AS SHOWN IN THE PLANS.
4.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.
5.

EXACT LOCATION OF ALL DRIVEWAY ENTRANCES TO BE REVIEWED AND APPROVED BY THE ENGINEER.
6.

THE LOCATION 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.
7.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.
8.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
9.

LOCATIONS OF DRAINTILE ON THE PLAN ARE BASED ON AS-BUILT OR PROPERTY OWNER INTERVIEWS. DRAINTILE EXPLORATION ITEM IS TO BE USED TO VERIFY THE EXACT SIZE AND LOCATION OF THE TILES. IF TILES ARE FOUND DISCHARGE TO DITCH.
12.

ALL STATIONS IN PLANS ARE BASED ON NORTHBOUND AND EASTBOUND ALIGNMENTS,UNLESS OTHERWISE NOTED. ALL STATIONS REFERENCED IN THE QUANTITIES ARE BASED OF OFF THE REFERENCED ALIGNMENT.
13.

ALL DISTURBED/GRADED/SOIL STOCKPILE AREAS SHALL BE PERMANENTLY RESTORED WITHIN 14 DAYS OF ANY CONTRACTOR DISTURBANCE. IF ANY DISTURBED/GRADED/STOCKPILE AREAS WILL NOT BE PERMANENTLY RESTORED WITHIN 14 DAYS THEY SHALL RECIEVE SEED AND MULCH WITHIN 4-DAYS OF THE INITIAL DISTURBANCE.

STANDARD ABBREVIATIONS

AGG	AGGREGATE	LT	LEFT
ASPH	ASPHALTIC	LF	LINEAR FOOT
BM	BENCH MARK	MH	MANHOLE
CL	CENTER LINE	NB	NORTHBOUND
CONC	CONCRETE	PAVT	PAVEMENT
CO	COUNTY	PU	PIPE UNDERDRAIN
CY	CUBIC YARD	PE	PRIVATE ENTRANCE
CULV	CULVERT	PROJ	PROJECT
CP	CULVERT PIPE	PL	PROPERTY LINE
C&G	CURB AND GUTTER	RL	REFERENCE LINE
DIA	DIAMETER	RT	RIGHT
DWY	DRIVEWAY	R/W	RIGHT OF WAY
EB	EASTBOUND	RDWY	ROADWAY
ELEV	ELEVATION	SHLDR	SHOULDER
EW	ENDWALL	SB	SOUTHBOUND
ENT	ENTRANCE	SS	STORM SEWER
EXC	EXCAVATION	TEL	TELEPHONE
F	FILL	TEMP	TEMPORARY
FL	FLOW LINE	UG	UNDERGROUND
FO	FIBER OPTIC	VOL	VOLUME
INL	INLET	W	WATER
INV	INVERT	WB	WESTBOUND
JT	JOINT		

DESIGN CONTACT

EMCS, INC.
KATIE NAKLES
PROJECT MANAGER
1300 W CANAL STREET, SUITE 200
MILWAUKEE, WI 53233
(414) 347-1607
KNAKLES@EMCSINC.COM

WDNR LIAISON

CRAIG WEBSTER
ENVIRONMENTAL ANALYST & REVIEW SPECIALIST
141 NW BARSTOW ST. ROOM 180
WAUKESHA, WI, 53187
(262) 623-0194
BENTONSTELZEL@WISCONSIN.GOV

RACINE COUNTY

CHRIS GALLAGHER
ENGINEERING MANAGER
14200 WASHINGTON AVE
STURTEVANT, WI, 53177
(262) 886-8440
CHRISTOPHER.GALLAGHER@RACINECOUNTY.COM

VILLAGE OF RAYMOND

BARBARA HILL
CLERK/ADMINISTRATOR
2255 - 76TH STREET
FRANKSVILLE, WI, 53126
(262) 835-4426
CLERK@RAYMONDWI.COM

UTILITIES

COMMUNICATIONS

AT&T DISTRIBUTION
MIKE VANBOVEN
OUTSIDE PLANT ENGINEER
411 7TH ST
RACINE, WI 53403
MV3658@ATT.COM

GAS UTILITIES

WE ENERGIES - GAS
CHRIS DEGRAVE
262-886-7018
CHRIS.DEGRAVE@WE-ENERGIES.COM

COMMUNICATIONS

E-VERGENT
NICK COUNTERMAN
2524 76TH ST
FRANKSVILLE, WI 53126
920-544-1086
NCOUNTERMAN@E-VERGENT.COM

ELECTRICITY

WE ENERGIES - ELEC
262-446-9822
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

COMMUNICATIONS

SPECTRUM
DOMINIC KATCHA
1320 N MARTIN LUTHER KING JR. DR
MILWAUKEE, WI 53212
414-430-9821
WIS.ENGINEERING@CHARTER.COM
DOMINIC.KATCHA@CHARTER.COM

ORDER OF SECTION 2 SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- PAVING GRADES
- EROSION CONTROL
- STORM SEWER
- SIGNING REMOVALS
- PERMANENT SIGNING AND MARKING
- LIGHTING PLAN
- TRAFFIC CONTROL
- DETOUR ROUTE
- ALIGNMENT DETAILS

TOTAL LAYER PAVEMENT THICKNESS	LAYERS	HMA PAVEMENT ITEMS
5"	2" (UPPER) 3" (LOWER)	4 LT 58-28 S (UPPER) 3 LT 58-28 S (LOWER)
2"	2" (UPPER)	4 LT 58-28 S (UPPER)



Dial 811 or (800)242-8511

www.DiggersHotline.com

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PROJECT NO:	2803-03-71
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HWY: CTH U

COUNTY: RACINE

PROJECT OVERVIEW

SHEET 3

E

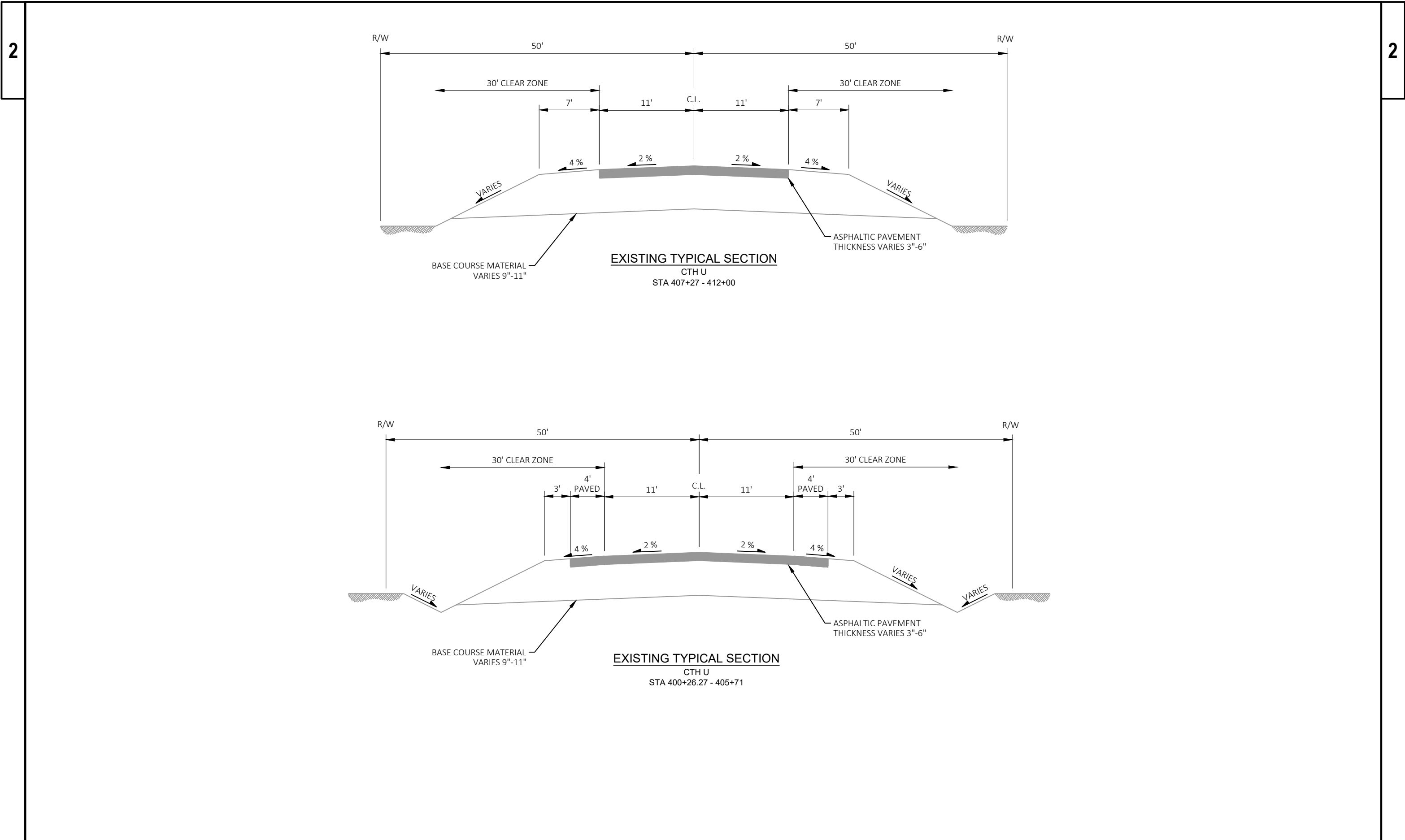
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LAYOUT NAME - 020201-po

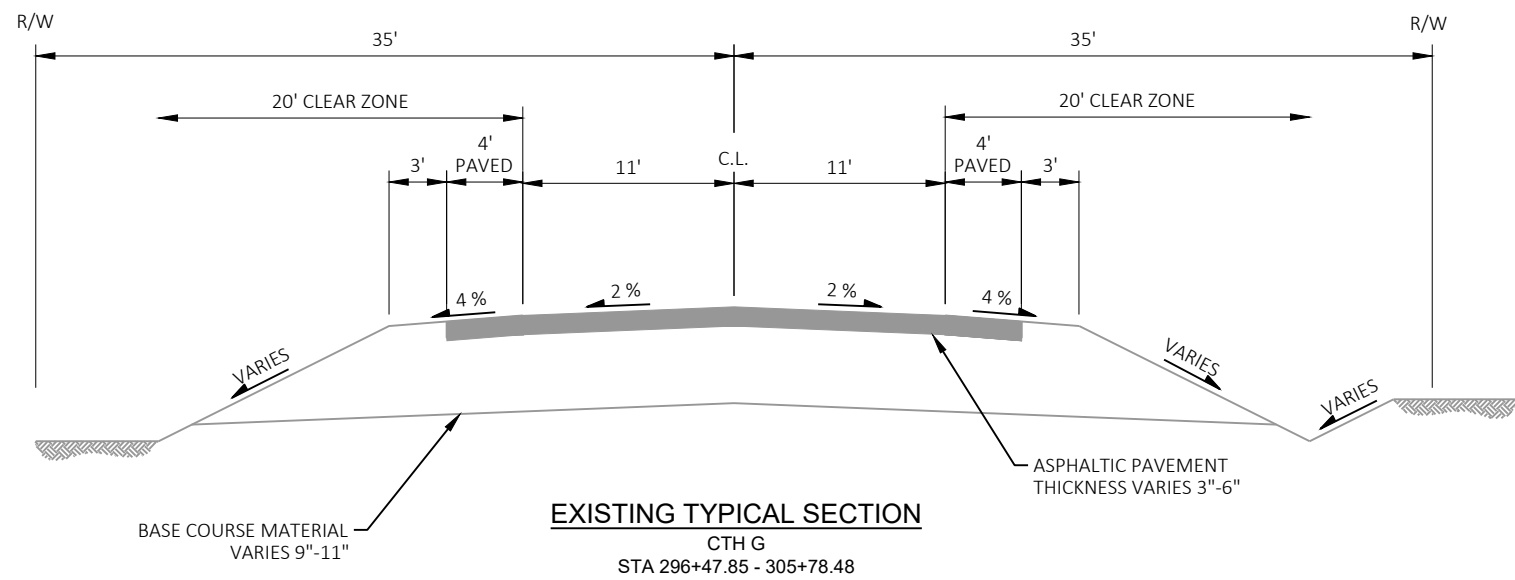
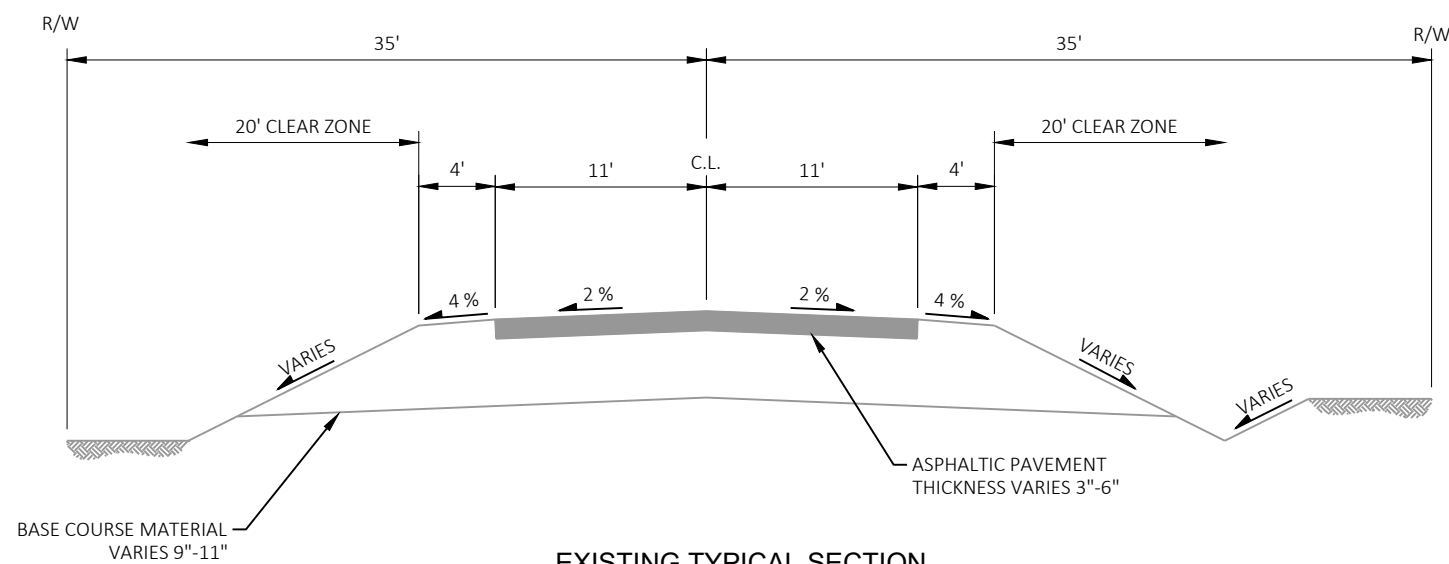
PLOT DATE : 1/23/2025 3:07 PM

PLOT BY : TANIA GARCIA GUARNEROS PLOT NAME :

PLOT SCALE : 1 IN:200 FT

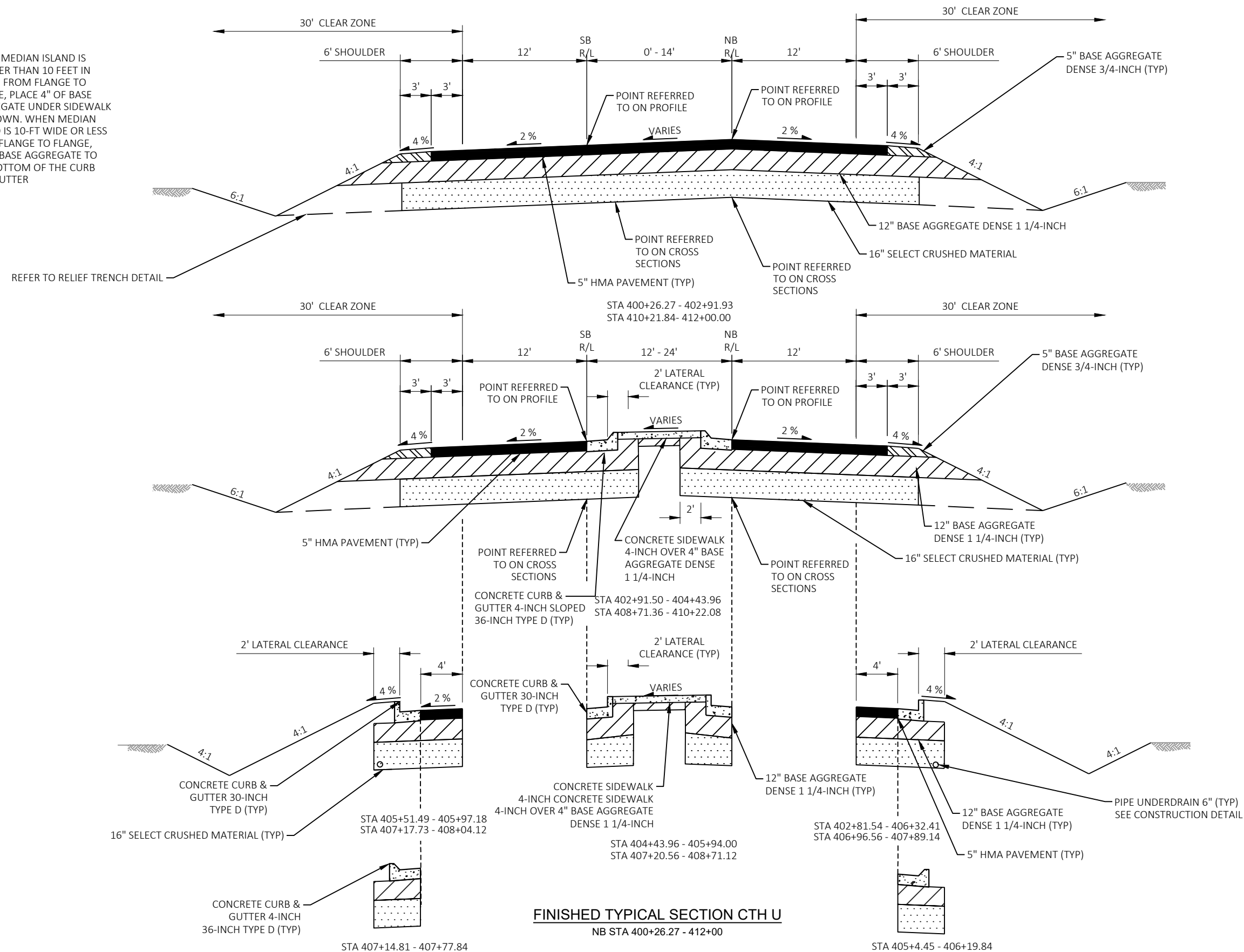
WISDOT/CADDS SHEET 42





NOTES

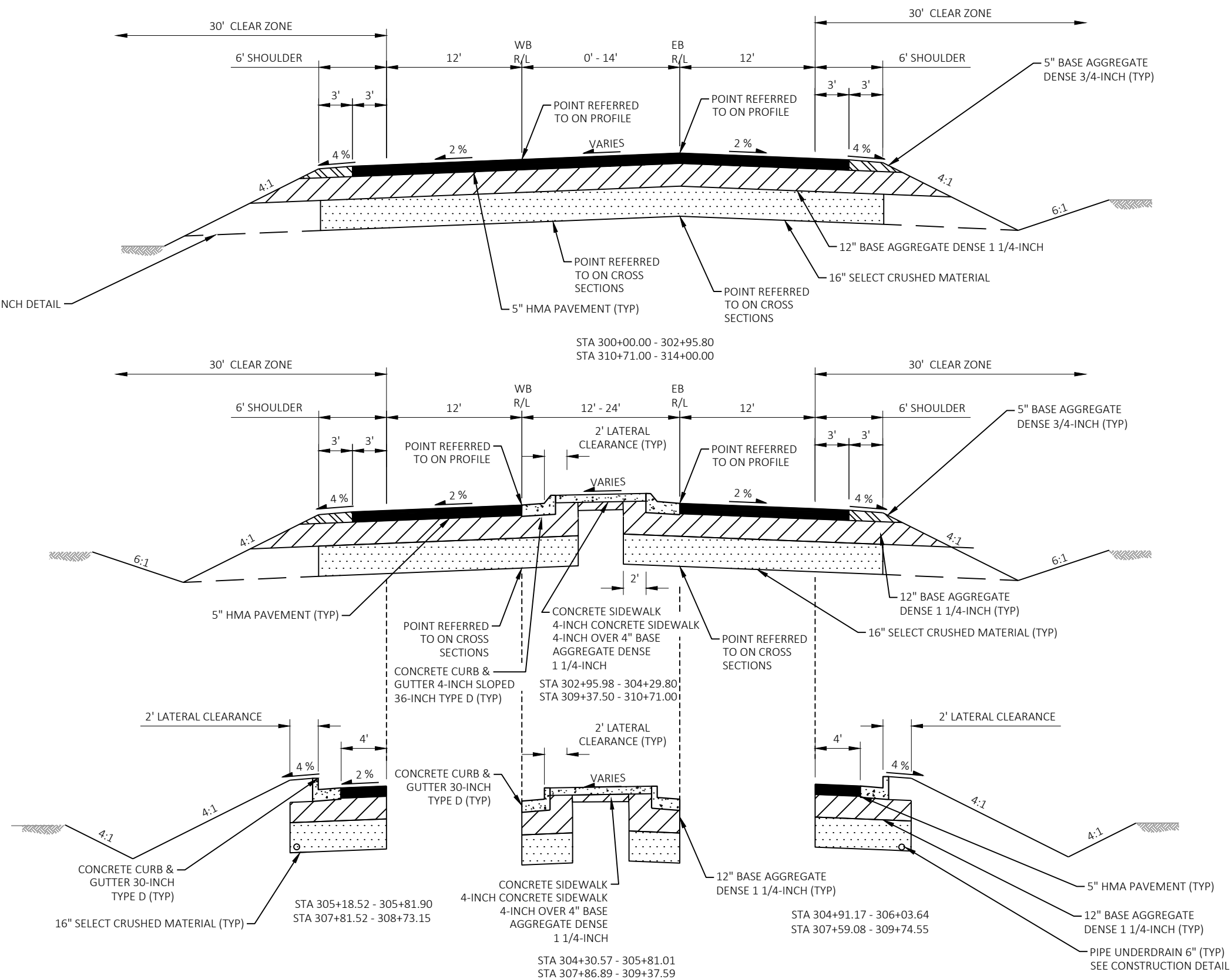
1. WHEN MEDIAN ISLAND IS GREATER THAN 10 FEET IN WIDTH FROM FLANGE TO FLANGE, PLACE 4" OF BASE AGGREGATE UNDER SIDEWALK AS SHOWN. WHEN MEDIAN ISLAND IS 10-FT WIDE OR LESS FROM FLANGE TO FLANGE, PLACE BASE AGGREGATE TO THE BOTTOM OF THE CURB AND GUTTER



NOTES

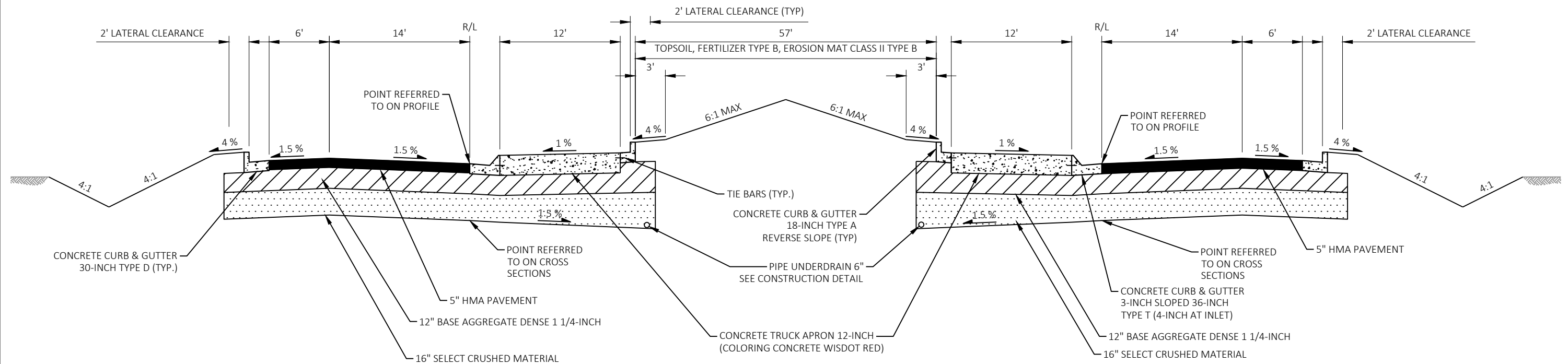
1. WHEN MEDIAN ISLAND IS GREATER THAN 10 FEET IN WIDTH FROM FLANGE TO FLANGE, PLACE 4" OF BASE AGGREGATE UNDER SIDEWALK AS SHOWN. WHEN MEDIAN ISLAND IS 10-FT WIDE OR LESS FROM FLANGE TO FLANGE, PLACE BASE AGGREGATE TO THE BOTTOM OF THE CURB AND GUTTER

REFER TO RELIEF TRENCH DETAIL



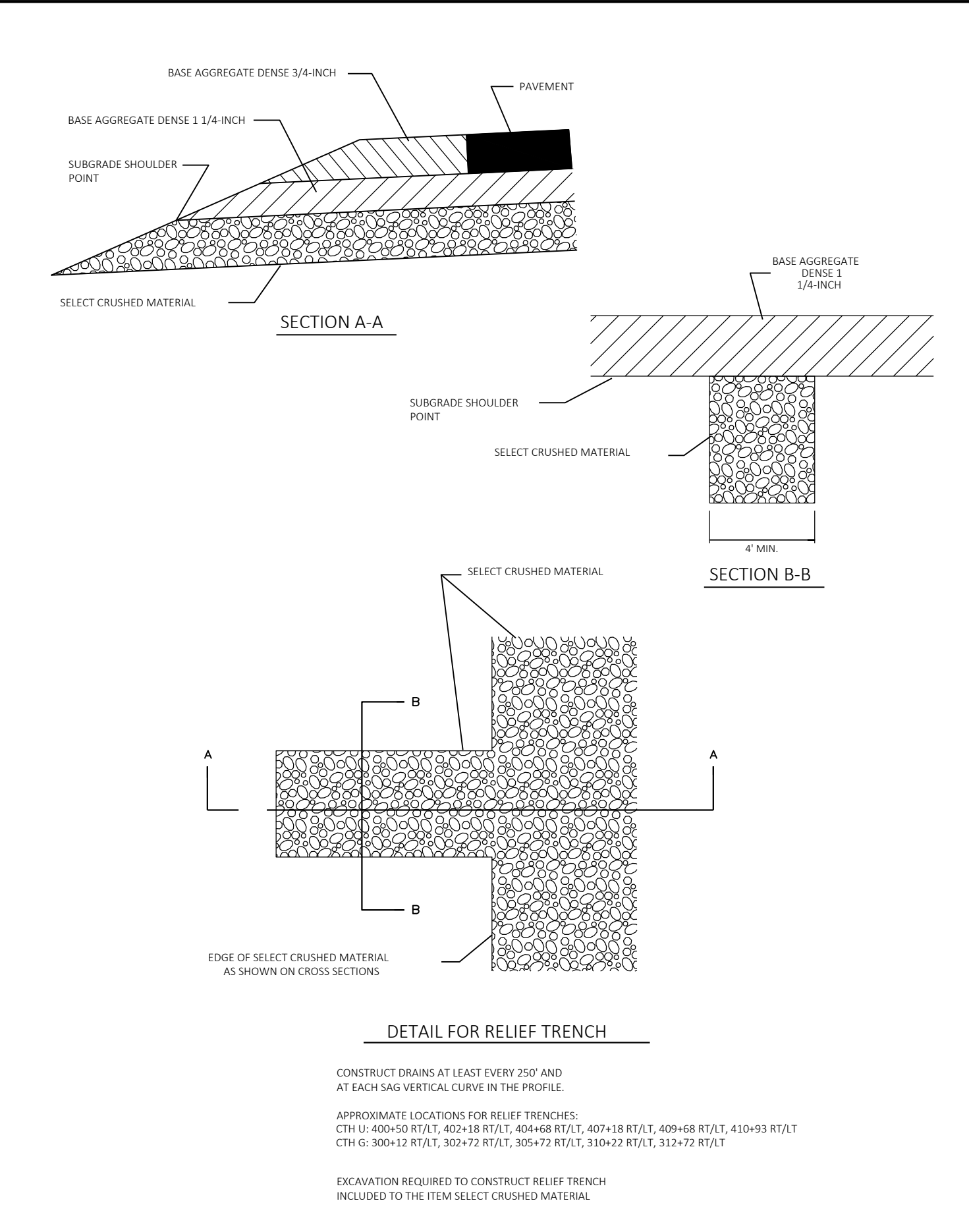
FINISHED TYPICAL SECTION CTH G

EB STA 300+00.00 - 314+00.00



FINISHED TYPICAL SECTION ROUNDABOUT
STA 0+00.00 - 2+70.20

2



APPROXIMATE LOCATIONS FOR RELIEF TRENCHES:
 CTH U: 400+50 RT/LT, 402+18 RT/LT, 404+68 RT/LT, 407+18 RT/LT, 409+68 RT/LT, 410+93 RT/LT
 CTH G: 300+12 RT/LT, 302+72 RT/LT, 305+72 RT/LT, 310+22 RT/LT, 312+72 RT/LT

PROJECT NO:	2803-03-71
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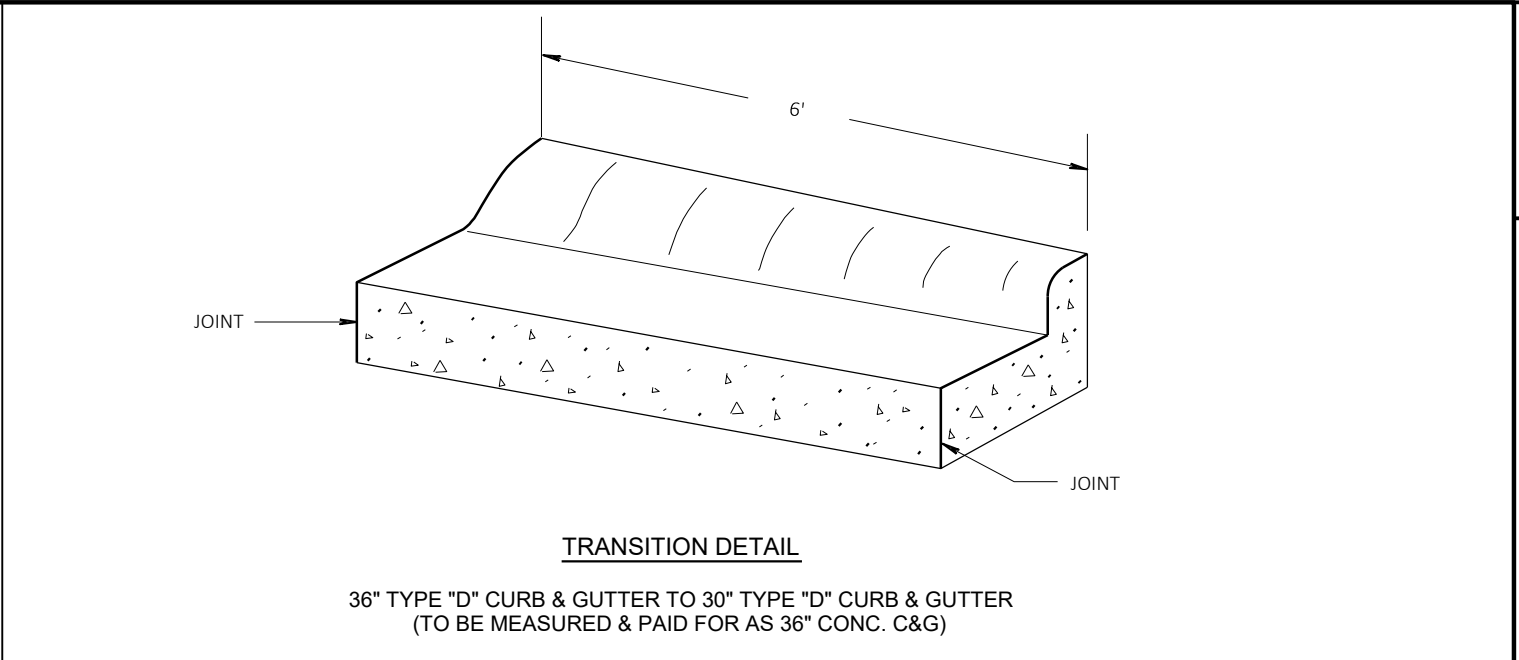
HWY: CTH U

COUNTY: RACINE

CONSTRUCTION DETAILS

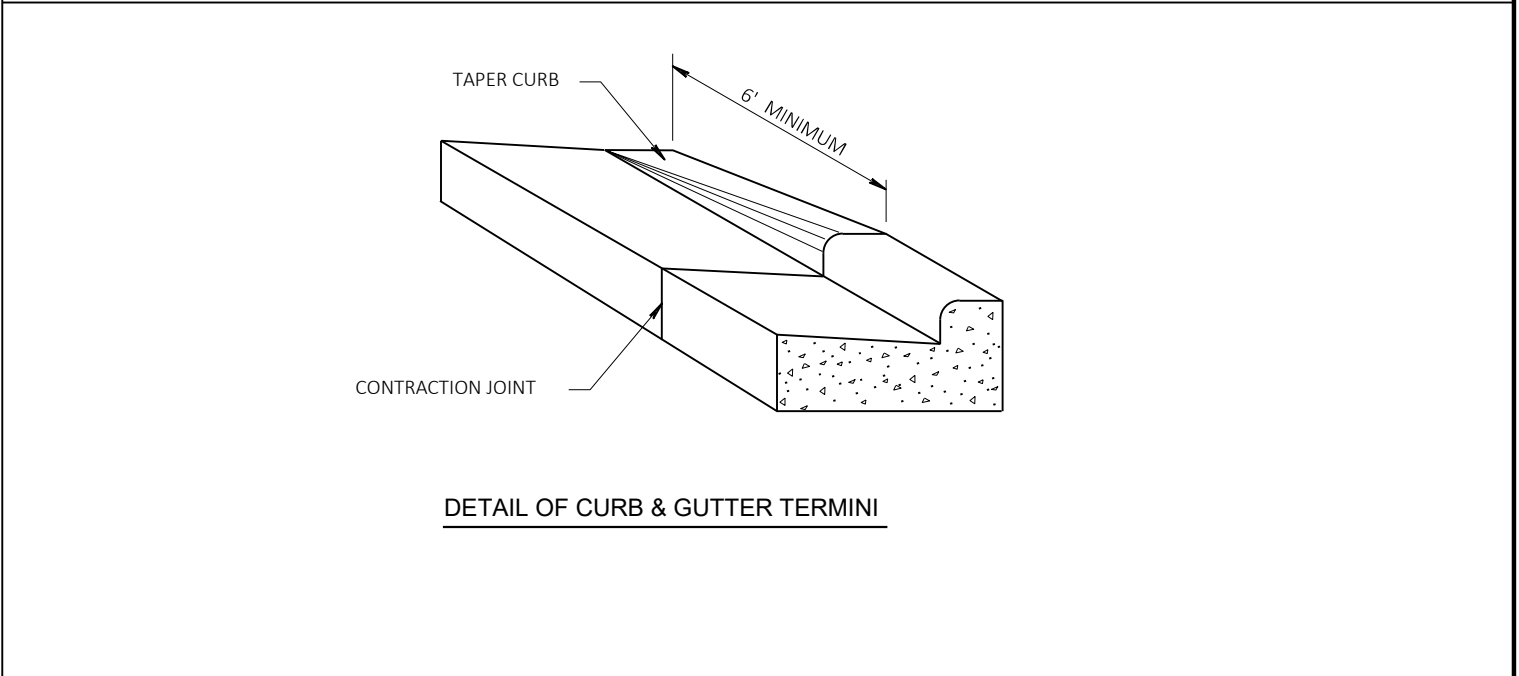
SHEET 9

1880

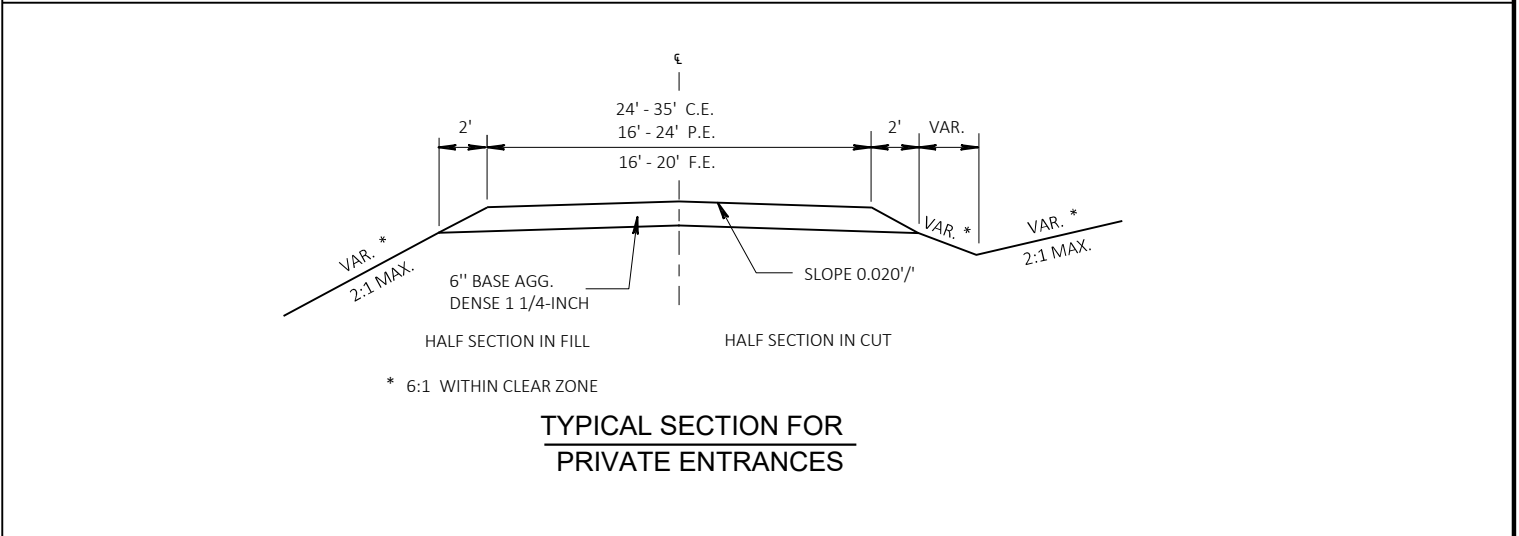


TRANSITION DETAIL

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

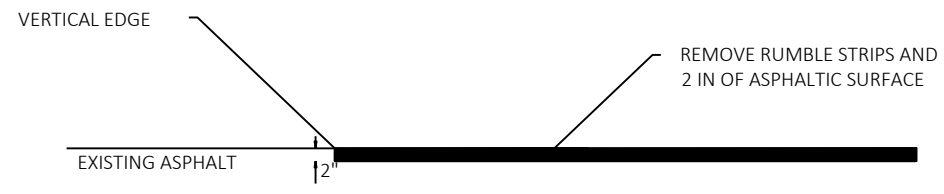


DETAIL OF CURB & GUTTER TERMINI

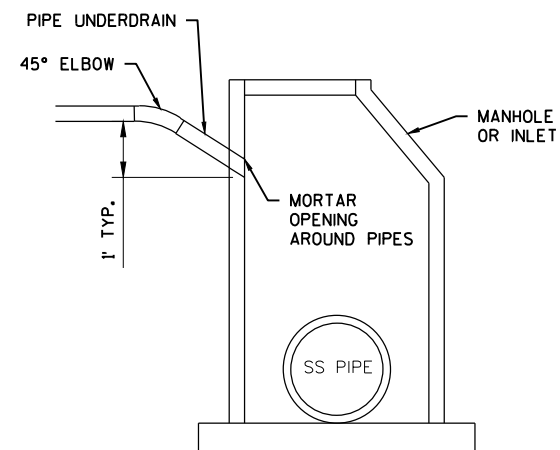


TYPICAL SECTION FOR PRIVATE ENTRANCES

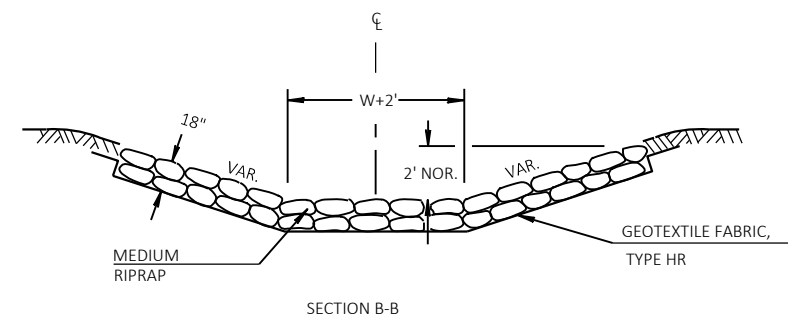
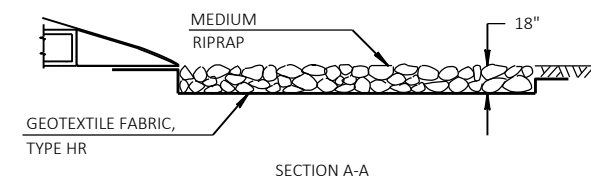
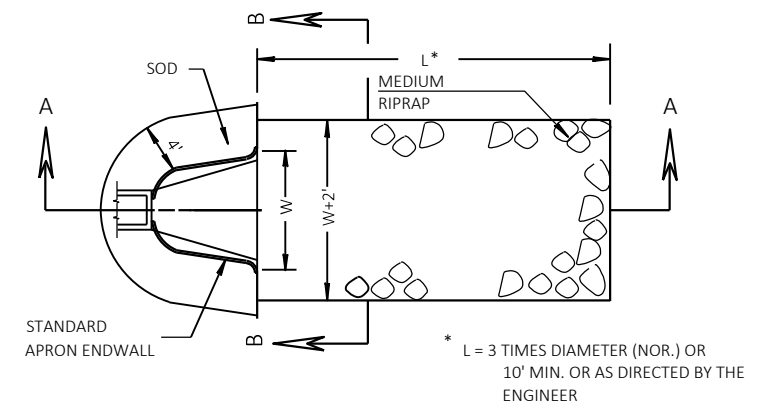
* 6:1 WITHIN CLEAR ZONE



REMOVING RUMBLE STRIPS DETAIL
REQUIRED AT STA 296+74 & STA 317+25



PIPE UNDERDRAIN CONNECTION
TO MANHOLES AND INLETS



SOD, MEDIUM RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALL

	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											

CONCRETE PAVEMENT 12-INCH
(COLORING CONCRETE WISDOT RED)

CONCRETE CURB & GUTTER 4-INCH SLOPED
36-INCH TYPE D MODIFIED

5" HMA PAVEMENT

12" BASE AGGREGATE DENSE, 1 1/4"
(SEE FINISHED TYPICAL SECTIONS)

16" BREAKER RUN

12"

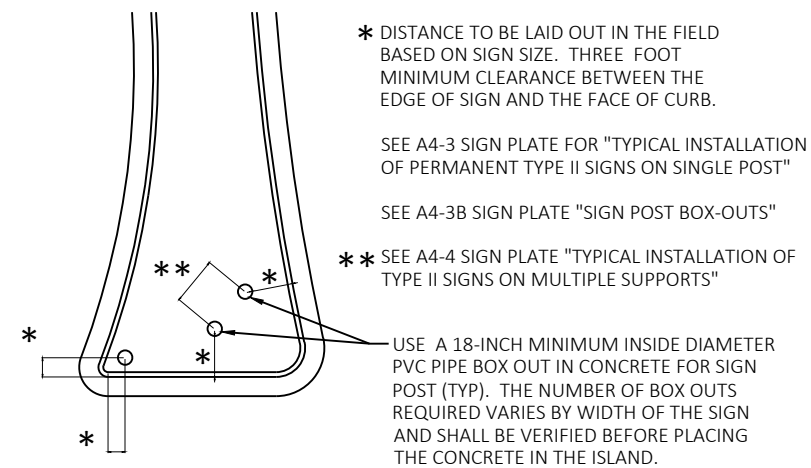
6" MIN

16"

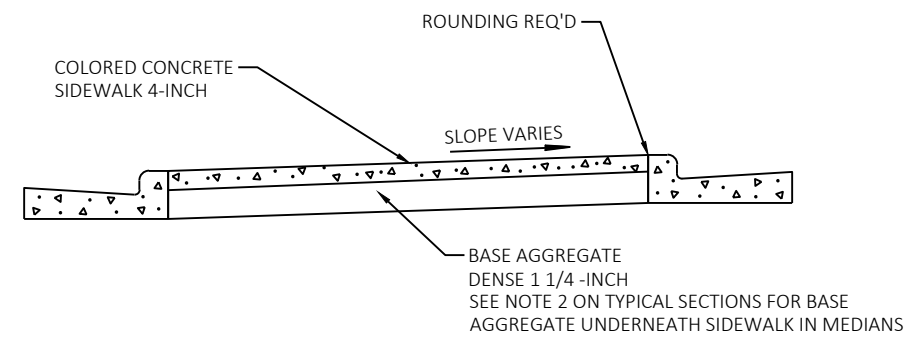
1%

4%

PROJECT NO: 2803-03-71	HWY: CTH U	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET 11	E
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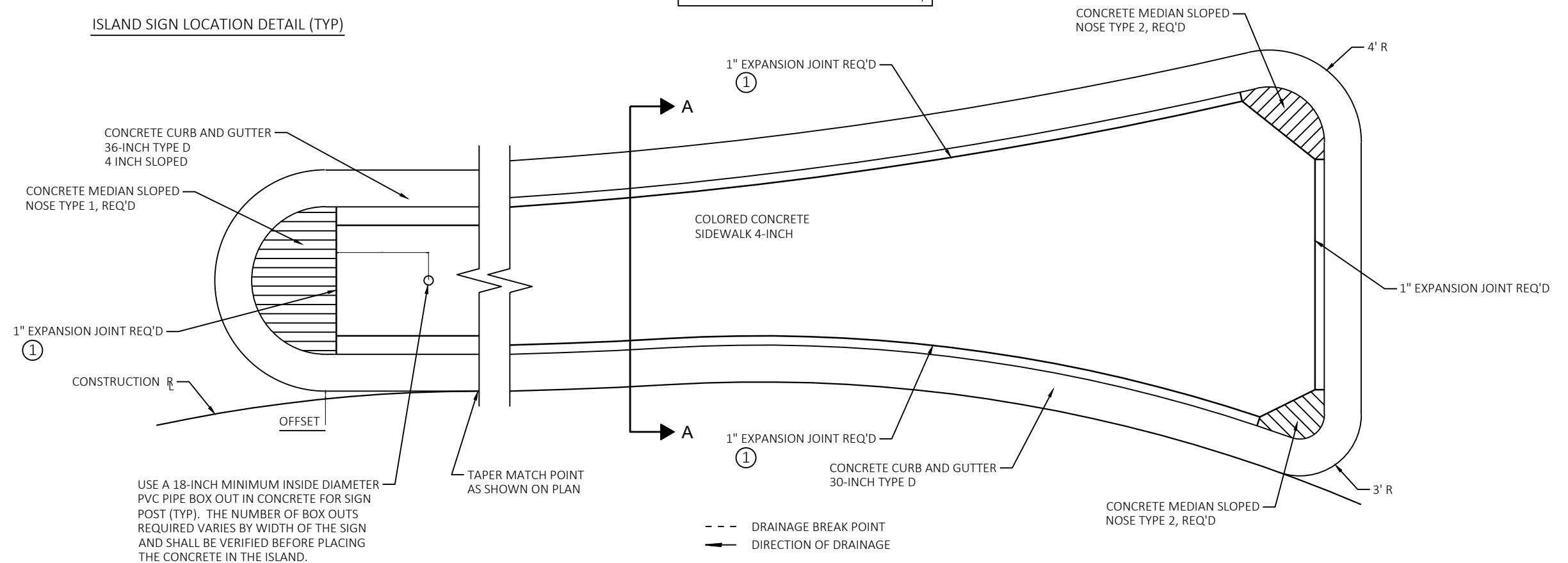


ISLAND SIGN LOCATION DETAIL (TYP)

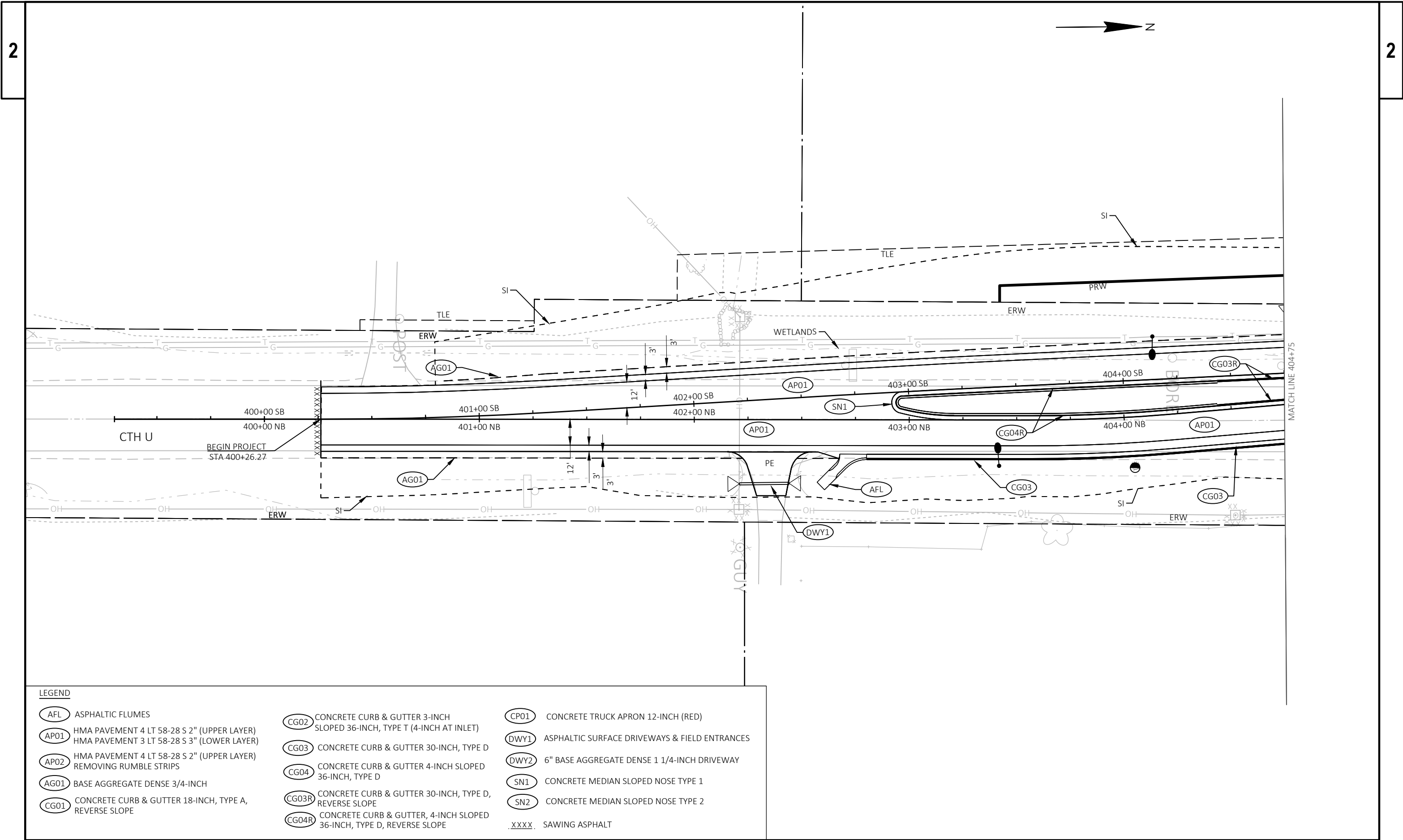


SECTION A-A

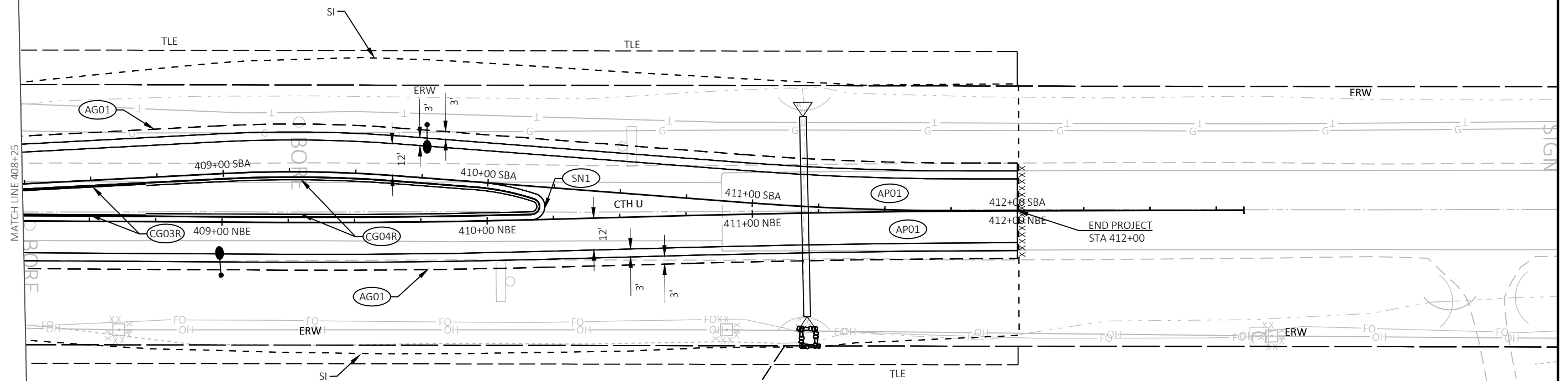
① EXPANSION MATERIAL TO BE 1" LONGER THAN ABUTTING MEDIAN CONCRETE THICKNESS. (i.e. 5" IN HEIGHT WHEN ADJACENT TO CONCRETE SIDEWALK 4-INCH)



CONCRETE SPLITTER ISLAND DETAIL WITHOUT CROSSWALK



LEGEND			
(AFL)	ASPHALTIC FLUMES	(CP01)	CONCRETE TRUCK APRON 12-INCH (RED)
(AP01)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)	(DWY1)	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
	HMA PAVEMENT 3 LT 58-28 S 3" (LOWER LAYER)	(DWY2)	6" BASE AGGREGATE DENSE 1 1/4-INCH DRIVEWAY
(AP02)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)	(SN1)	CONCRETE MEDIAN SLOPED NOSE TYPE 1
	REMOVING RUMBLE STRIPS	(SN2)	CONCRETE MEDIAN SLOPED NOSE TYPE 2
(AG01)	BASE AGGREGATE DENSE 3/4-INCH	.XXXX.	SAWING ASPHALT
(CG01)	CONCRETE CURB & GUTTER 18-INCH, TYPE A, REVERSE SLOPE		
(CG02)	CONCRETE CURB & GUTTER 3-INCH SLOPED 36-INCH, TYPE T (4-INCH AT INLET)		
(CG03)	CONCRETE CURB & GUTTER 30-INCH, TYPE D		
(CG04)	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH, TYPE D		
(CG03R)	CONCRETE CURB & GUTTER 30-INCH, TYPE D, REVERSE SLOPE		
(CG04R)	CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH, TYPE D, REVERSE SLOPE		



LEGEND

- | | | |
|---|---|--|
| (AFL) ASPHALTIC FLUMES | (CG02) CONCRETE CURB & GUTTER 3-INCH SLOPED 36-INCH, TYPE T (4-INCH AT INLET) | (CP01) CONCRETE TRUCK APRON 12-INCH (RED) |
| (AP01) HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)
HMA PAVEMENT 3 LT 58-28 S 3" (LOWER LAYER) | (CG03) CONCRETE CURB & GUTTER 30-INCH, TYPE D | (DWY1) ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES |
| (AP02) HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)
REMOVING RUMBLE STRIPS | (CG04) CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH, TYPE D | (DWY2) 6" BASE AGGREGATE DENSE 1 1/4-INCH DRIVEWAY |
| (AG01) BASE AGGREGATE DENSE 3/4-INCH | (CG03R) CONCRETE CURB & GUTTER 30-INCH, TYPE D, REVERSE SLOPE | (SN1) CONCRETE MEDIAN SLOPED NOSE TYPE 1 |
| (CG01) CONCRETE CURB & GUTTER 18-INCH, TYPE A, REVERSE SLOPE | (CG04R) CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH, TYPE D, REVERSE SLOPE | (SN2) CONCRETE MEDIAN SLOPED NOSE TYPE 2 |
| | | .XXXX. SAWING ASPHALT |

PROJECT NO: 2803-03-71

HWY: CTH U

COUNTY: RACINE

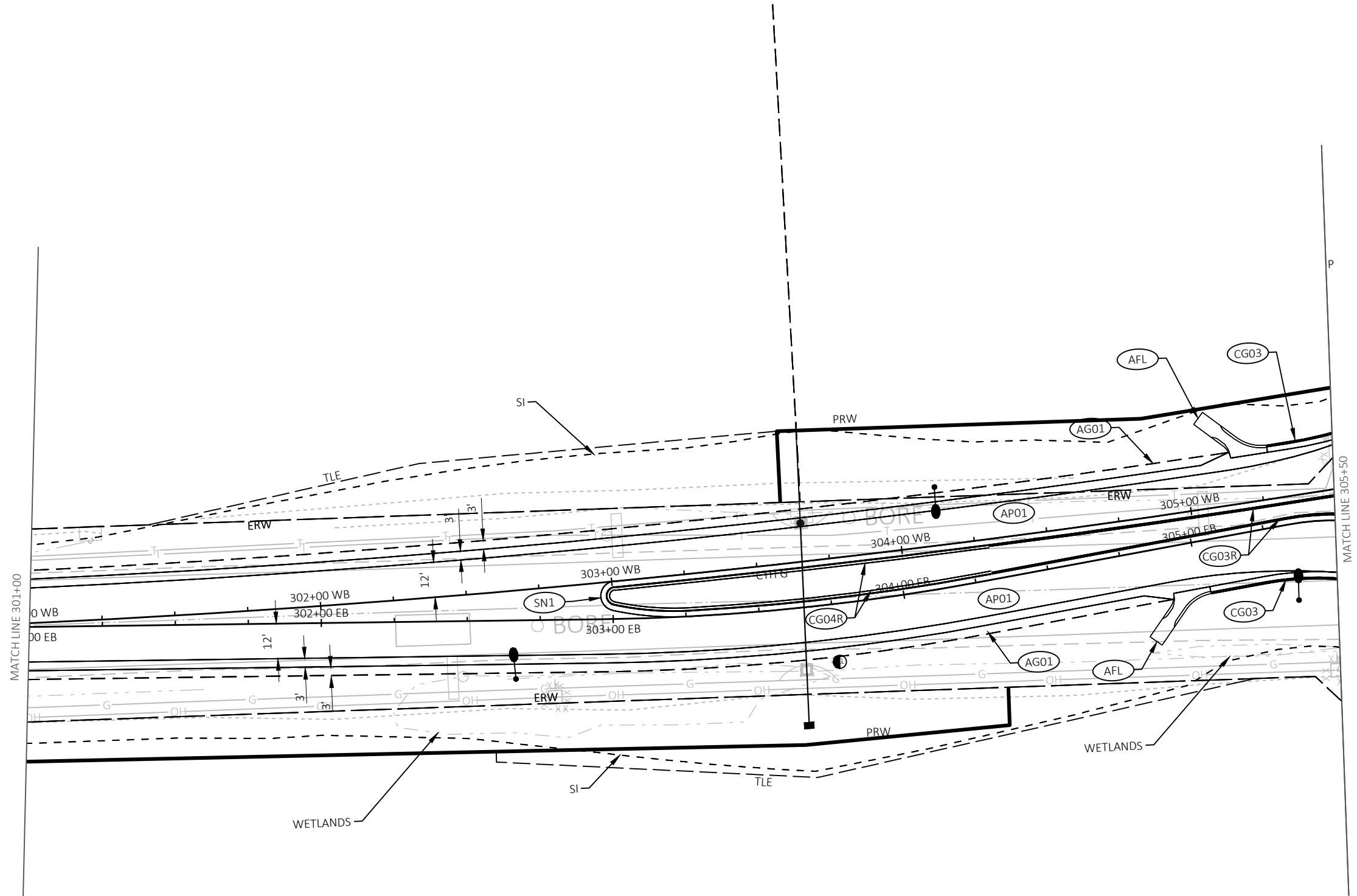
PLAN DETAILS- CTHU

SHEET

14

E

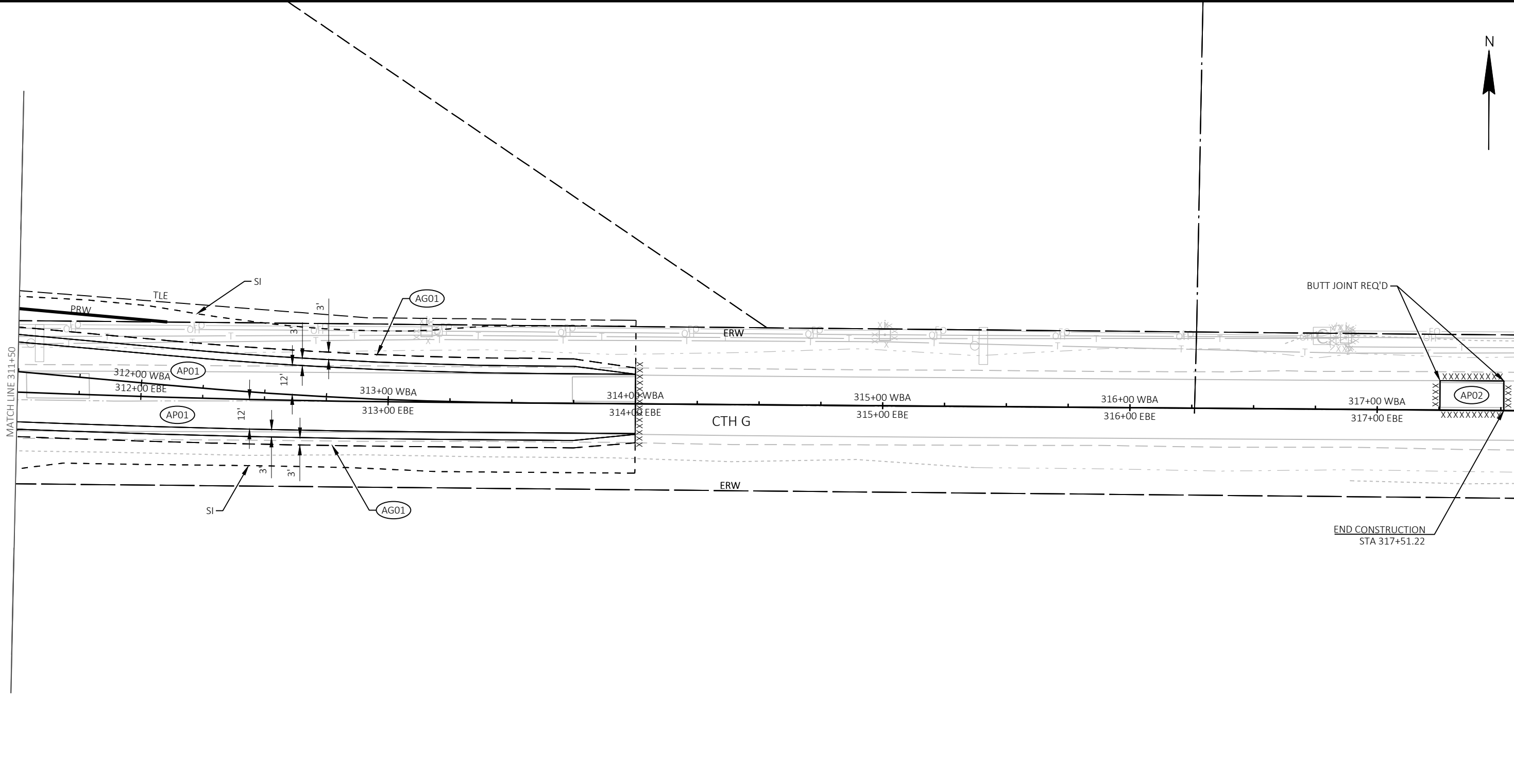




LEGEND			
(AFL)	ASPHALTIC FLUMES	(CP01)	CONCRETE TRUCK APRON 12-INCH (RED)
(AP01)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)	(DWY1)	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
	HMA PAVEMENT 3 LT 58-28 S 3" (LOWER LAYER)	(DWY2)	6" BASE AGGREGATE DENSE 1 1/4-INCH DRIVEWAY
(AP02)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER)	(SN1)	CONCRETE MEDIAN SLOPED NOSE TYPE 1
	REMOVING RUMBLE STRIPS	(SN2)	CONCRETE MEDIAN SLOPED NOSE TYPE 2
(AG01)	BASE AGGREGATE DENSE 3/4-INCH	.XXXX.	SAWING ASPHALT
(CG01)	CONCRETE CURB & GUTTER 18-INCH, TYPE A, REVERSE SLOPE		
(CG02)	CONCRETE CURB & GUTTER 3-INCH SLOPED 36-INCH, TYPE T (4-INCH AT INLET)		
(CG03)	CONCRETE CURB & GUTTER 30-INCH, TYPE D		
(CG04)	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH, TYPE D		
(CG03R)	CONCRETE CURB & GUTTER 30-INCH, TYPE D, REVERSE SLOPE		
(CG04R)	CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH, TYPE D, REVERSE SLOPE		

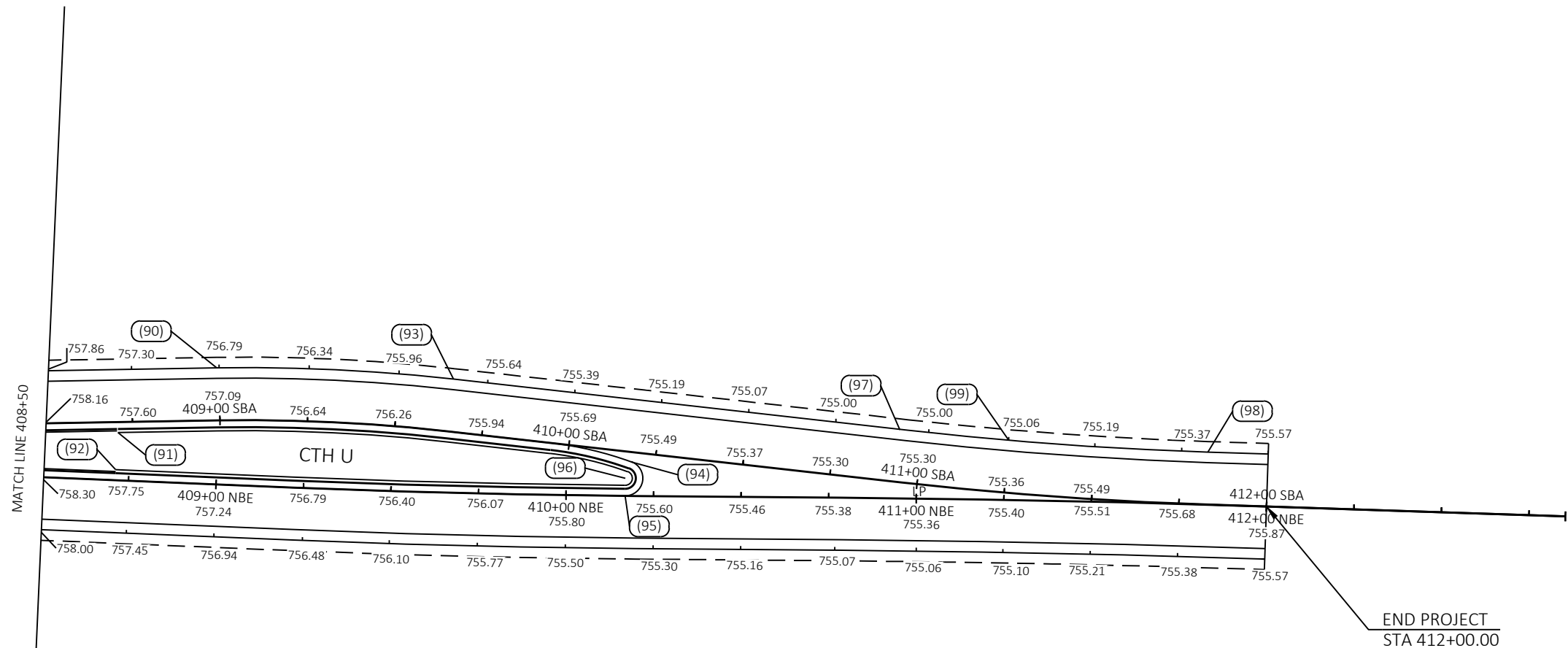
2

2



LEGEND			
(AFL)	ASPHALTIC FLUMES	(CP01)	CONCRETE TRUCK APRON 12-INCH (RED)
(AP01)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER) HMA PAVEMENT 3 LT 58-28 S 3" (LOWER LAYER)	(CG02)	CONCRETE CURB & GUTTER 3-INCH SLOPED 36-INCH, TYPE T (4-INCH AT INLET)
(AP02)	HMA PAVEMENT 4 LT 58-28 S 2" (UPPER LAYER) REMOVING RUMBLE STRIPS	(CG03)	CONCRETE CURB & GUTTER 30-INCH, TYPE D
(AG01)	BASE AGGREGATE DENSE 3/4-INCH	(CG04)	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH, TYPE D
(CG01)	CONCRETE CURB & GUTTER 18-INCH, TYPE A, REVERSE SLOPE	(CG03R)	CONCRETE CURB & GUTTER 30-INCH, TYPE D, REVERSE SLOPE
		(CG04R)	CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH, TYPE D, REVERSE SLOPE
		(DWP1)	ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES
		(DWP2)	6" BASE AGGREGATE DENSE 1 1/4-INCH DRIVEWAY
		(SN1)	CONCRETE MEDIAN SLOPED NOSE TYPE 1
		(SN2)	CONCRETE MEDIAN SLOPED NOSE TYPE 2
		.XXXX	SAWING ASPHALT





CTH U NB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(90)	408+98.87	33.23' LT	756.80	218520.64	578385.21
(91)	408+71.44	13.61' LT	758.06	218492.90	578404.39
(92)	408+71.22	3.00' LT	758.17	218492.52	578415.00
(93)	409+67.00	32.46' LT	755.76	218588.27	578386.72
(94)	410+18.50	9.71' LT	755.91	218639.58	578409.07
(95)	410+16.82	0.00'	755.65	218638.07	578418.81
(96)	410+16.86	5.00' LT	755.99	218638.02	578413.81

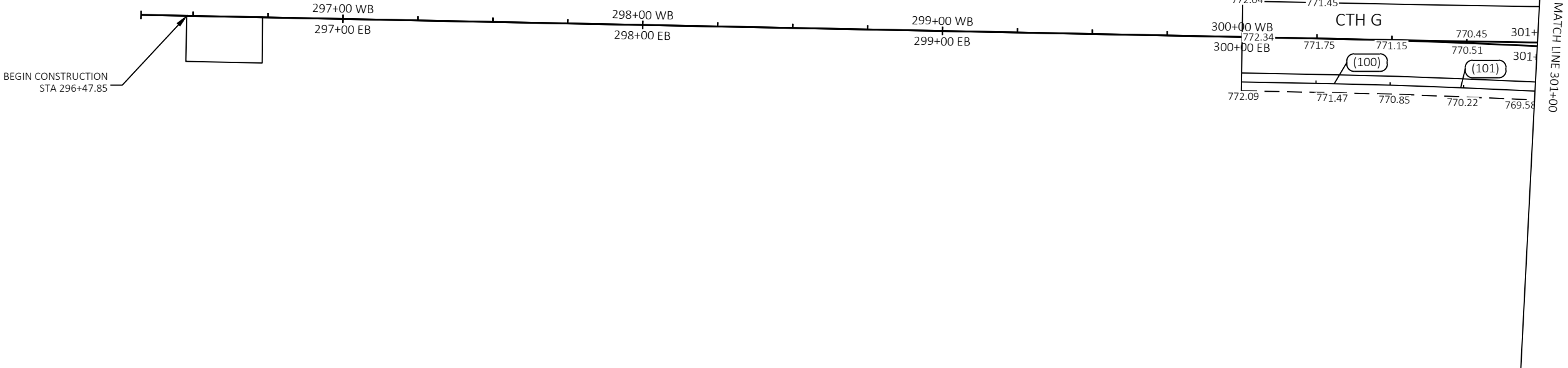
CTH U NB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(97)	410+95.07	19.49' LT	755.00	218716.04	578398.04
(98)	411+82.81	15.03' LT	755.43	218804.10	578402.10
(99)	411+26.06	17.04' LT	755.06	218747.17	578400.17



CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(100-A)	300+00.00	15.00' LT	772.04	218282.55	577755.34
(100-B)	300+01.88	20.27' LT	771.71	218287.81	577757.27
(100-C)	300+02.15	32.50' LT	770.48	218300.03	577757.67

CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(100-D)	300+21.81	32.47' LT	769.91	218299.80	577777.33
(100-E)	300+21.88	20.16' LT	771.24	218287.49	577777.27
(100-F)	300+23.69	15.00' LT	771.48	218282.31	577779.02

CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(100)	300+31.02	15.00' RT	771.32	218252.24	577786.04
(101)	300+73.63	15.00' RT	770.25	218251.30	577828.30
(102)	300+63.34	15.29' LT	770.46	218281.90	577818.94

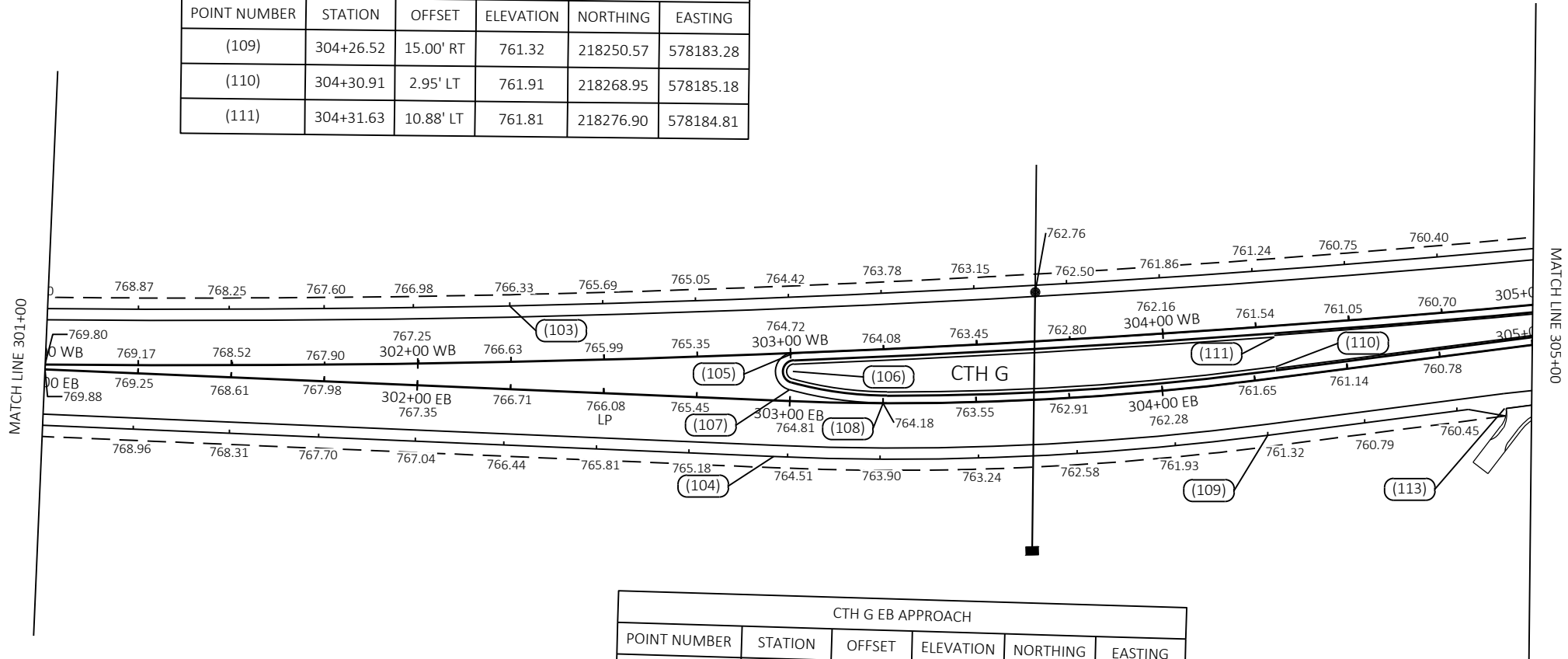




CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(103)	302+23.87	22.31' LT	766.33	218283.49	577979.71
(104)	302+96.33	15.00' RT	764.61	218243.74	578050.87
(105)	303+00.48	12.90' LT	764.70	218271.50	578055.89

CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(106)	303+00.49	8.01' LT	764.97	218266.61	578055.76
(107)	302+99.72	3.04' LT	765.10	218261.67	578054.85
(108)	303+25.00	0.00'	764.18	218258.30	578080.04

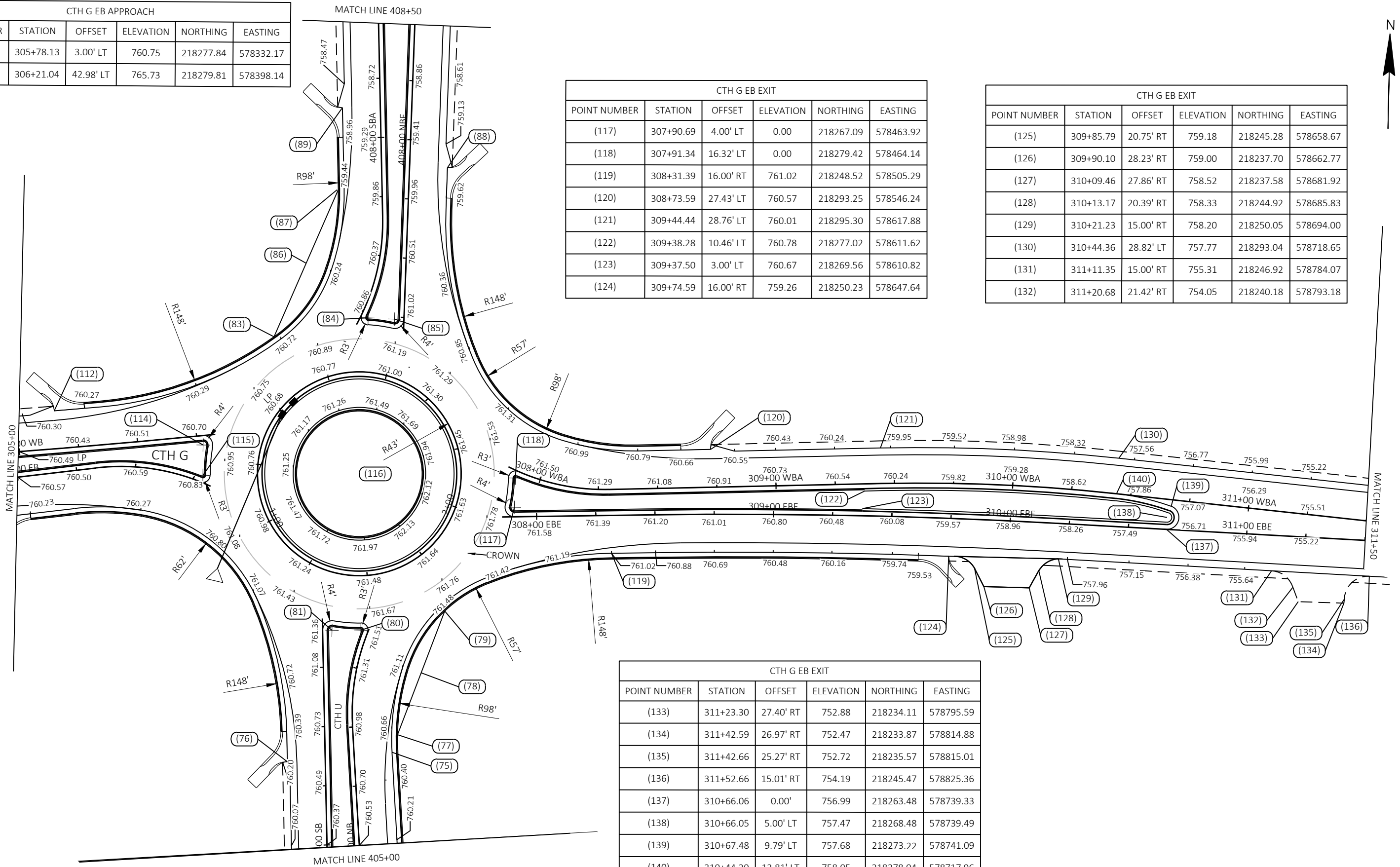
CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(109)	304+26.52	15.00' RT	761.32	218250.57	578183.28
(110)	304+30.91	2.95' LT	761.91	218268.95	578185.18
(111)	304+31.63	10.88' LT	761.81	218276.90	578184.81



CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(112)	305+18.56	26.00' LT	760.25	218303.74	578268.87
(113)	304+90.47	15.96' RT	760.31	218258.34	578246.76
(114)	305+74.14	15.01' LT	761.32	218290.62	578332.02

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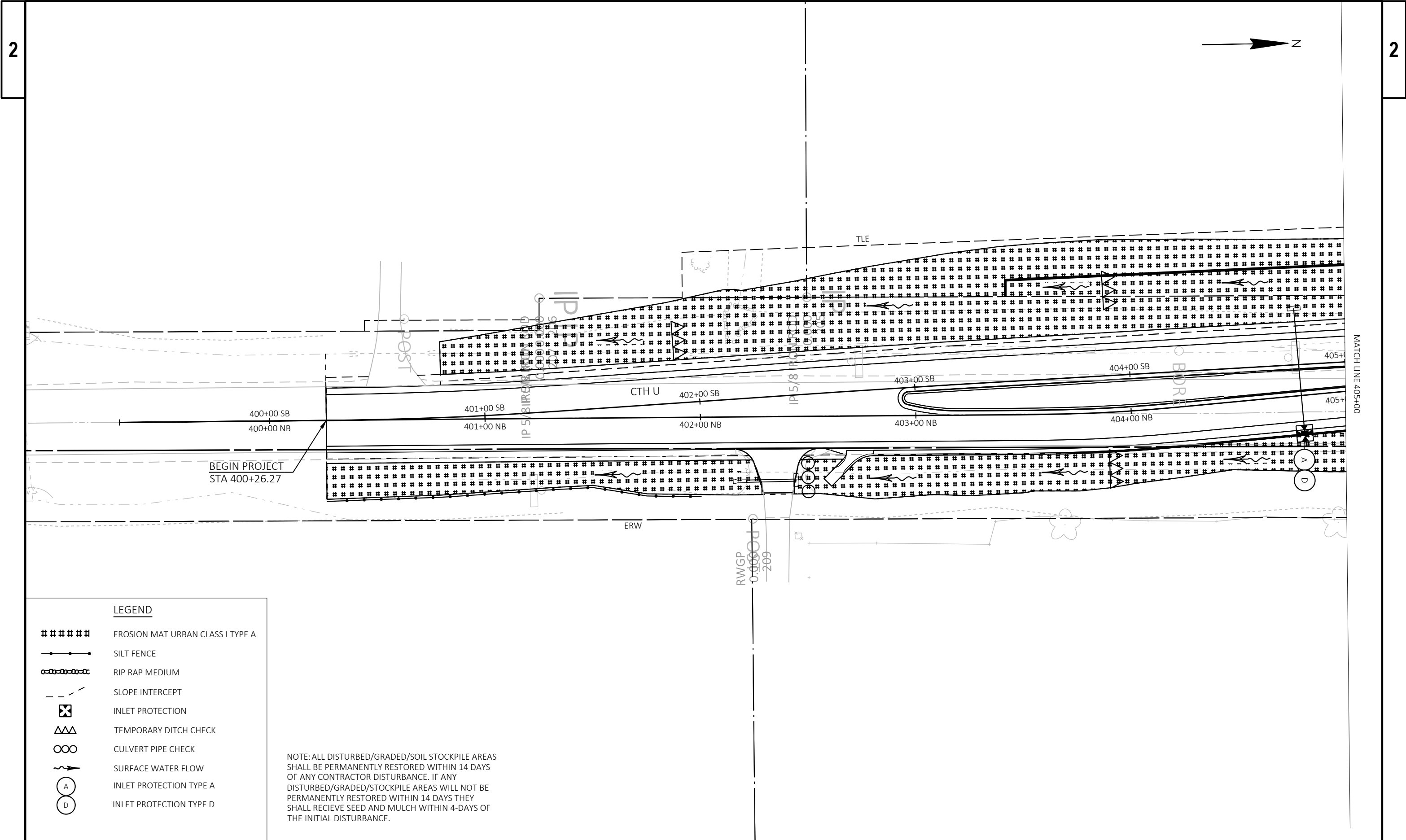
CTH G EB APPROACH					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(115)	305+78.13	3.00' LT	760.75	218277.84	578332.17
(116)	306+21.04	42.98' LT	765.73	218279.81	578398.14

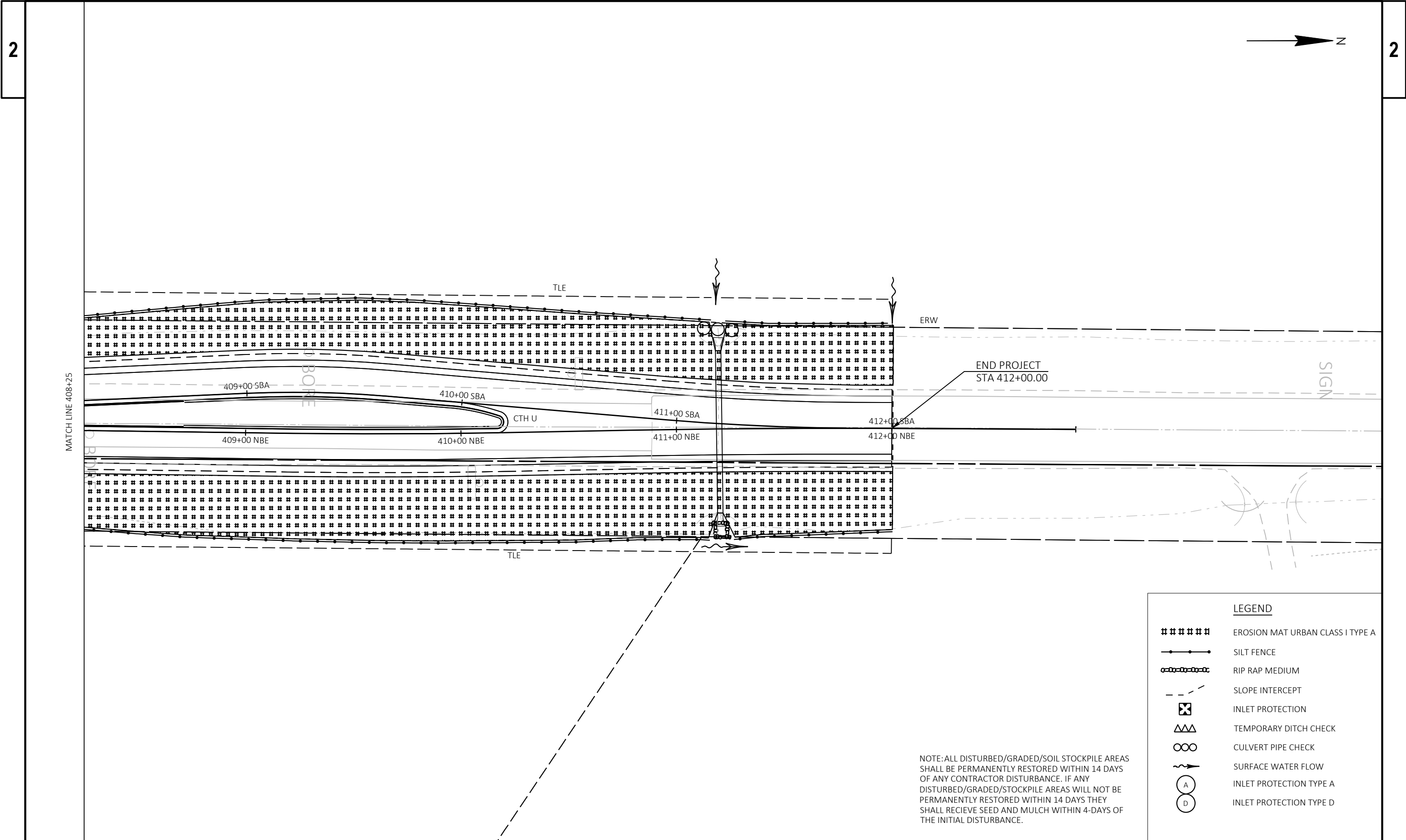


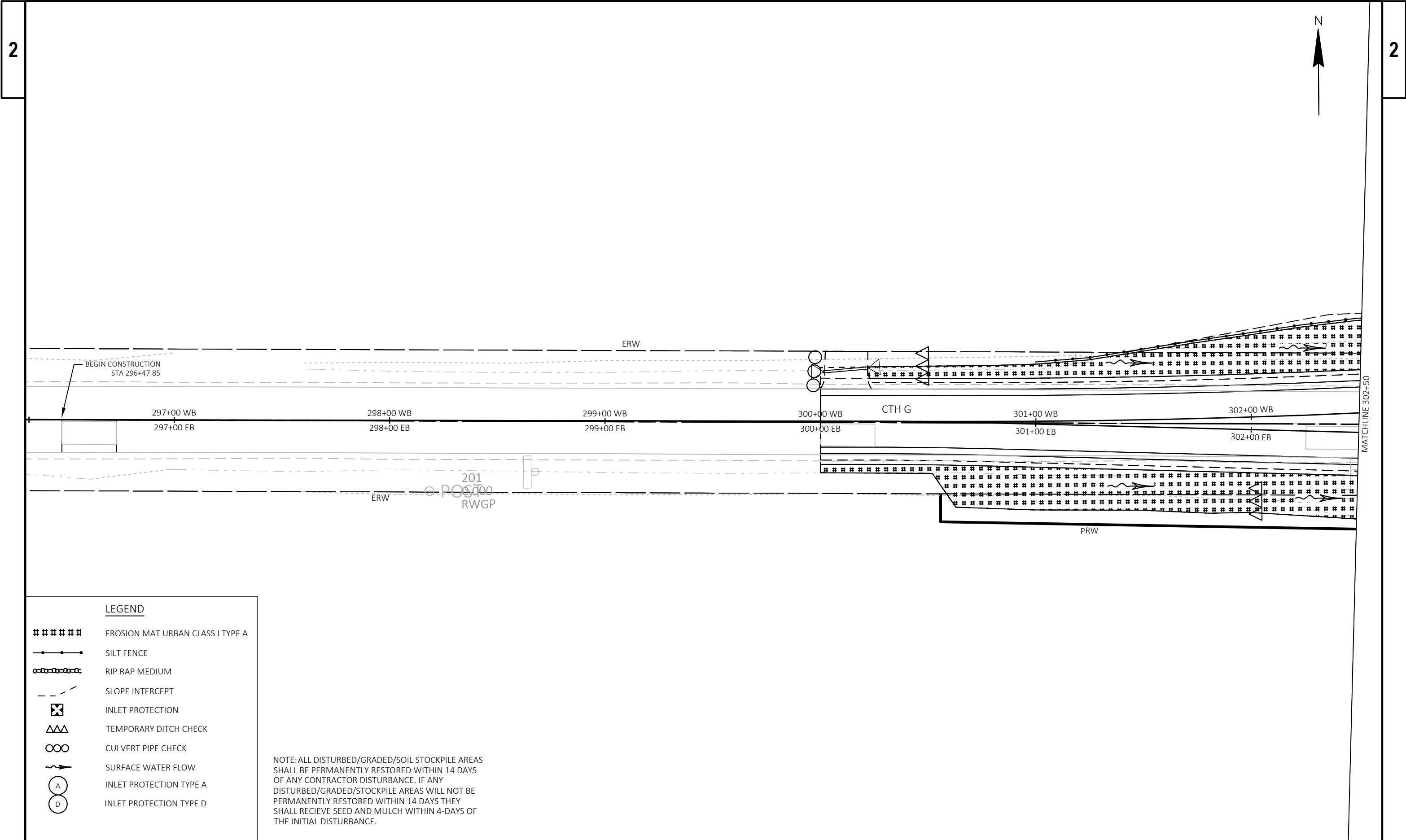
CTH G EB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(117)	307+90.69	4.00' LT	0.00	218267.09	578463.92
(118)	307+91.34	16.32' LT	0.00	218279.42	578464.14
(119)	308+31.39	16.00' RT	761.02	218248.52	578505.29
(120)	308+73.59	27.43' LT	760.57	218293.25	578546.24
(121)	309+44.44	28.76' LT	760.01	218295.30	578617.88
(122)	309+38.28	10.46' LT	760.78	218277.02	578611.62
(123)	309+37.50	3.00' LT	760.67	218269.56	578610.82
(124)	309+74.59	16.00' RT	759.26	218250.23	578647.64

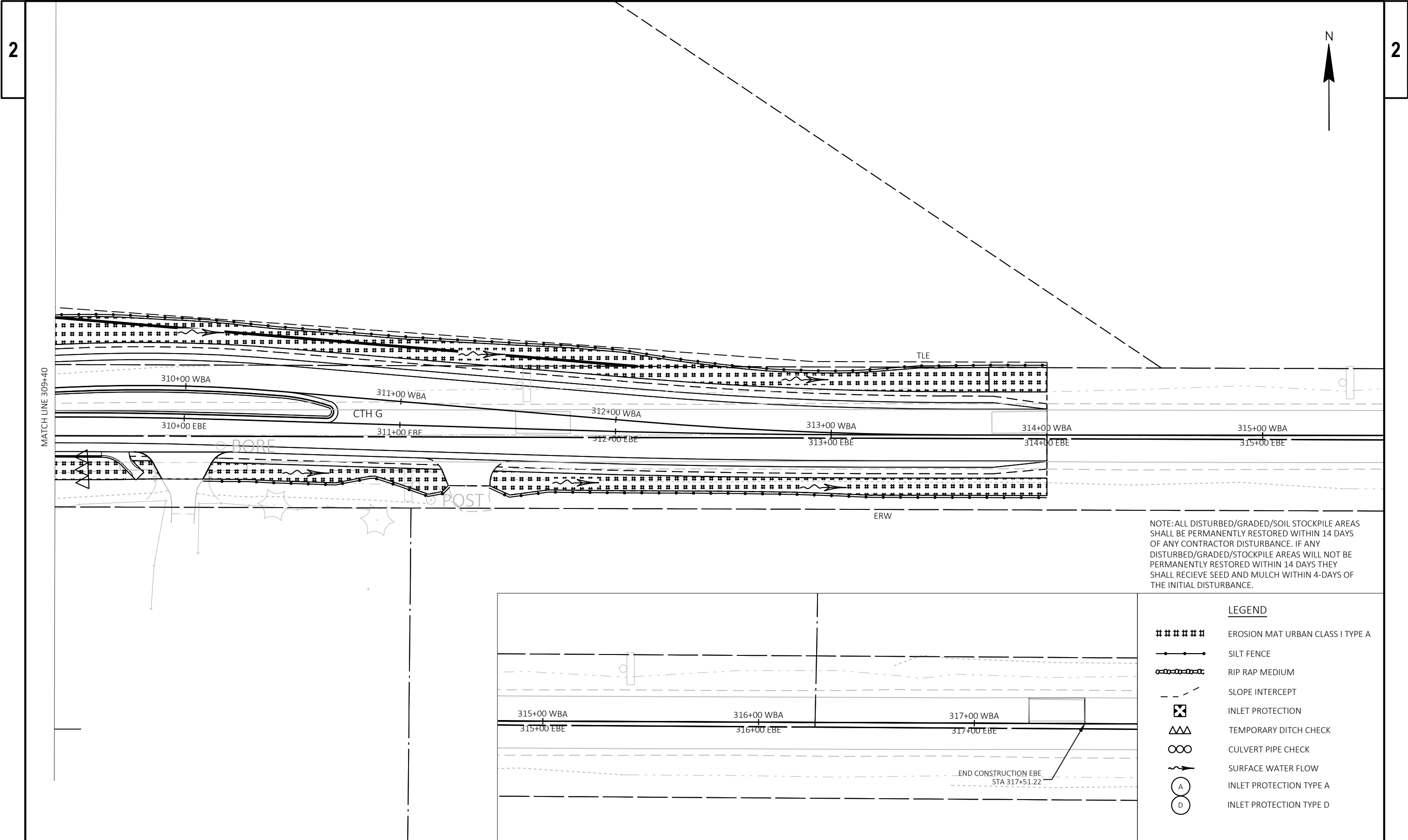
CTH G EB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(125)	309+85.79	20.75' RT	759.18	218245.28	578658.67
(126)	309+90.10	28.23' RT	759.00	218237.70	578662.77
(127)	310+09.46	27.86' RT	758.52	218237.58	578681.92
(128)	310+13.17	20.39' RT	758.33	218244.92	578685.83
(129)	310+21.23	15.00' RT	758.20	218250.05	578694.00
(130)	310+44.36	28.82' LT	757.77	218293.04	578718.65
(131)	311+11.35	15.00' RT	755.31	218246.92	578784.07
(132)	311+20.68	21.42' RT	754.05	218240.18	578793.18

CTH G EB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(133)	311+23.30	27.40' RT	752.88	218234.11	578795.59
(134)	311+42.59	26.97' RT	752.47	218233.87	578814.88
(135)	311+42.66	25.27' RT	752.72	218235.57	578815.01
(136)	311+52.66	15.01' RT	754.19	218245.47	578825.36
(137)	310+66.06	0.00'	756.99	218263.48	578739.33
(138)	310+66.05	5.00' LT	757.47	218268.48	578739.49
(139)	310+67.48	9.79' LT	757.68	218273.22	578741.09
(140)	310+44.20	13.81' LT	758.05	218278.04	578717.96





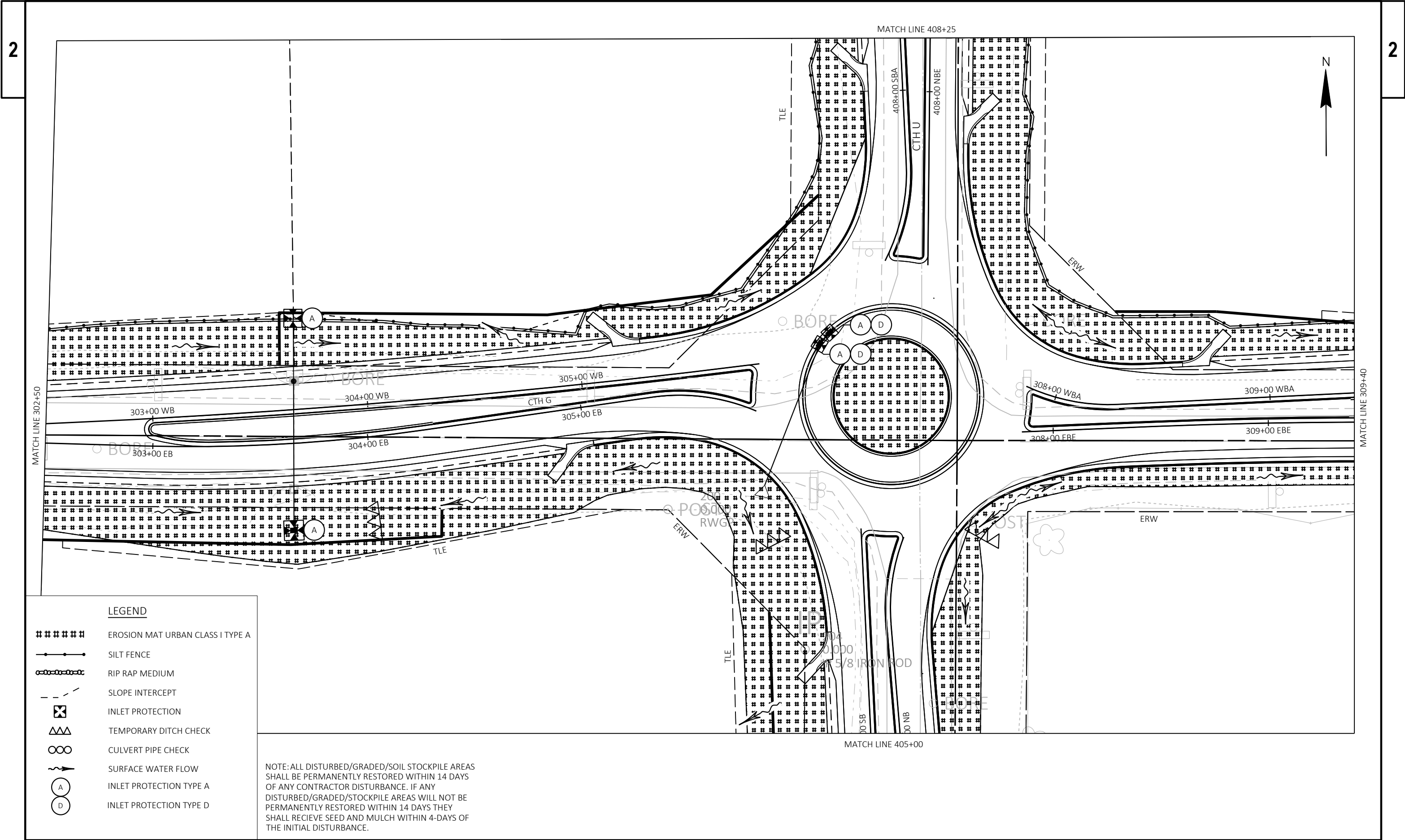




NOTE: ALL DISTURBED/GRADED/SOIL STOCKPILE AREAS SHALL BE PERMANENTLY RESTORED WITHIN 14 DAYS OF ANY CONTRACTOR DISTURBANCE. IF ANY DISTURBED/GRADED/STOCKPILE AREAS WILL NOT BE PERMANENTLY RESTORED WITHIN 14 DAYS THEY SHALL RECIEVE SEED AND MULCH WITHIN 4-DAYS OF THE INITIAL DISTURBANCE.

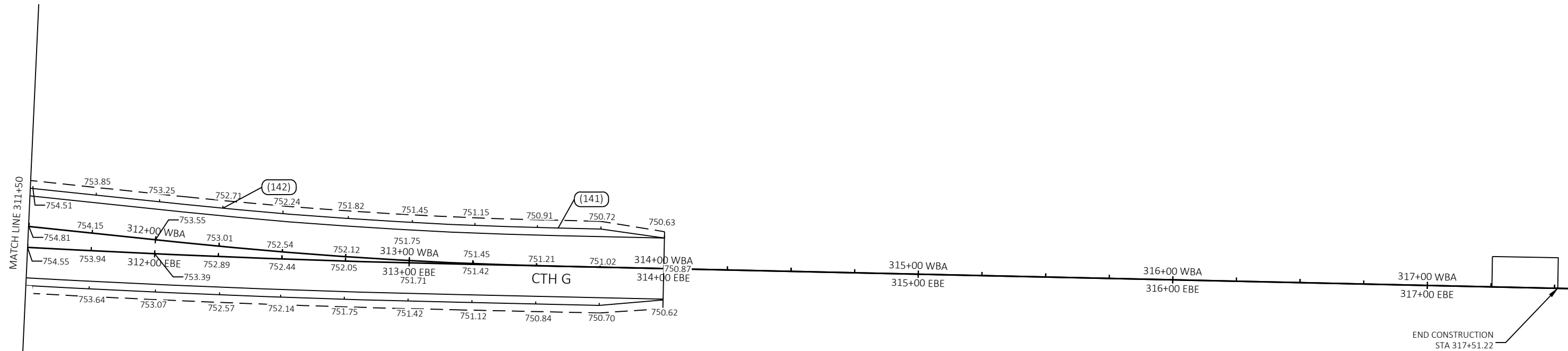
LEGEND

- ##### EROSION MAT URBAN CLASS I TYPE A
- SILT FENCE
- RIP RAP MEDIUM
- - - SLOPE INTERCEPT
- ⊗ INLET PROTECTION
- △△△ TEMPORARY DITCH CHECK
- ∞∞ CULVERT PIPE CHECK
- ~> SURFACE WATER FLOW
- ⊙ A INLET PROTECTION TYPE A
- ⊙ D INLET PROTECTION TYPE D

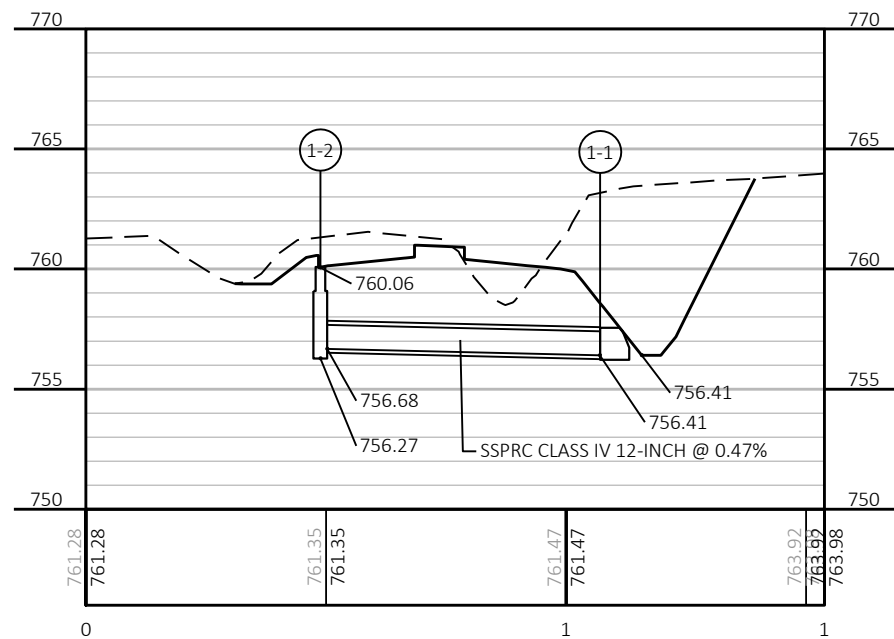
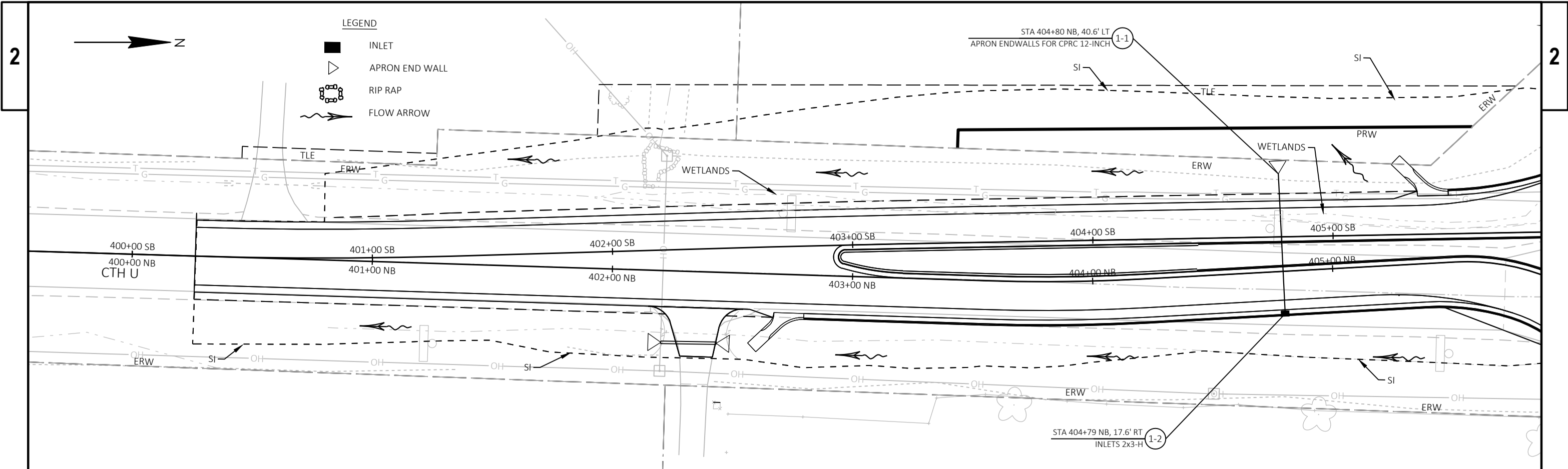


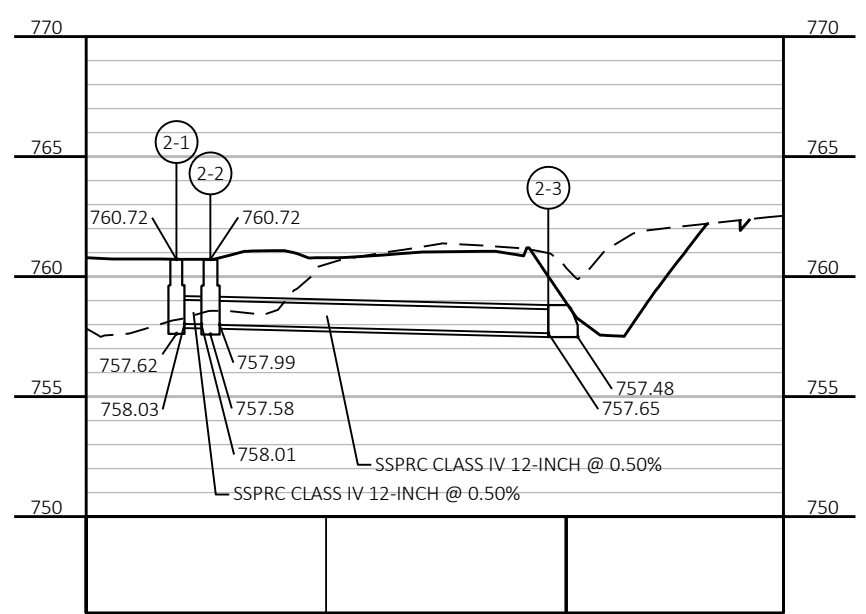
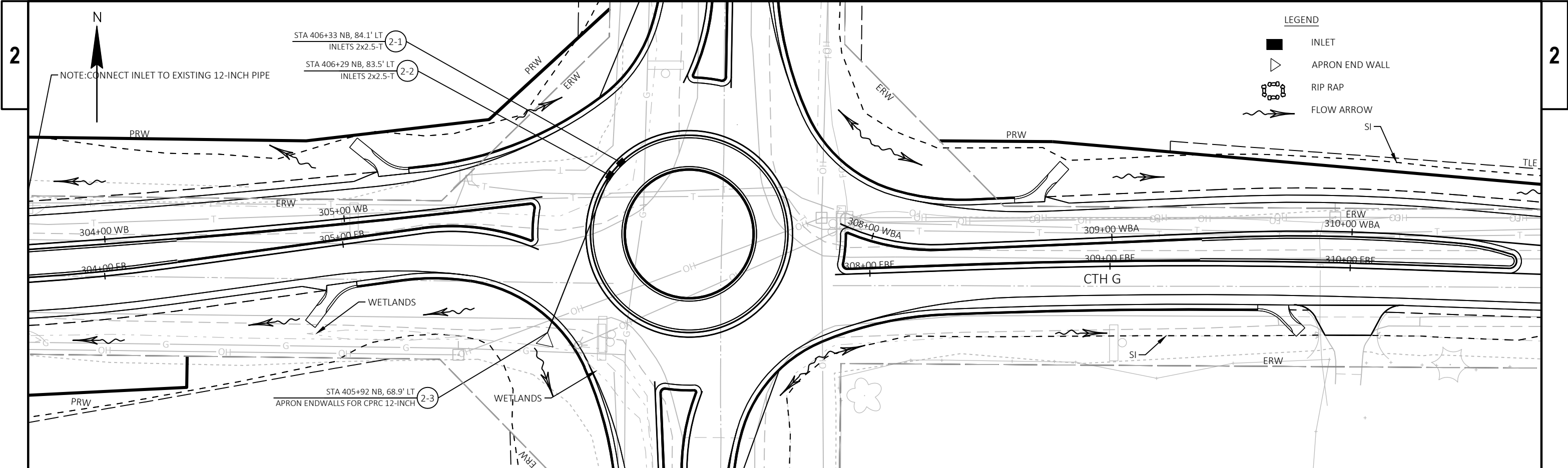
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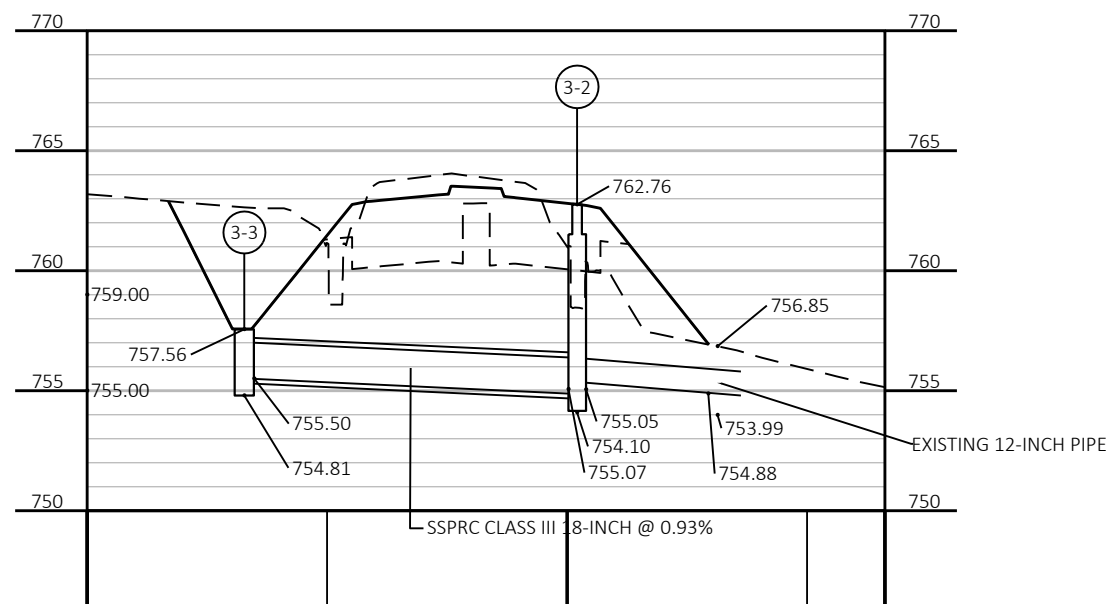
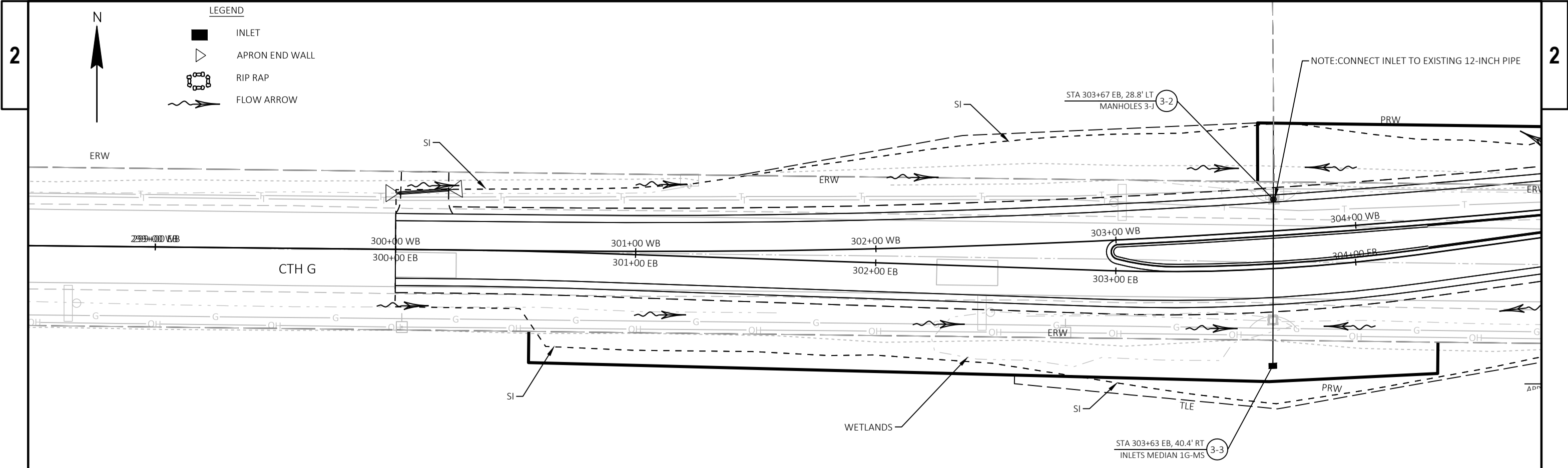
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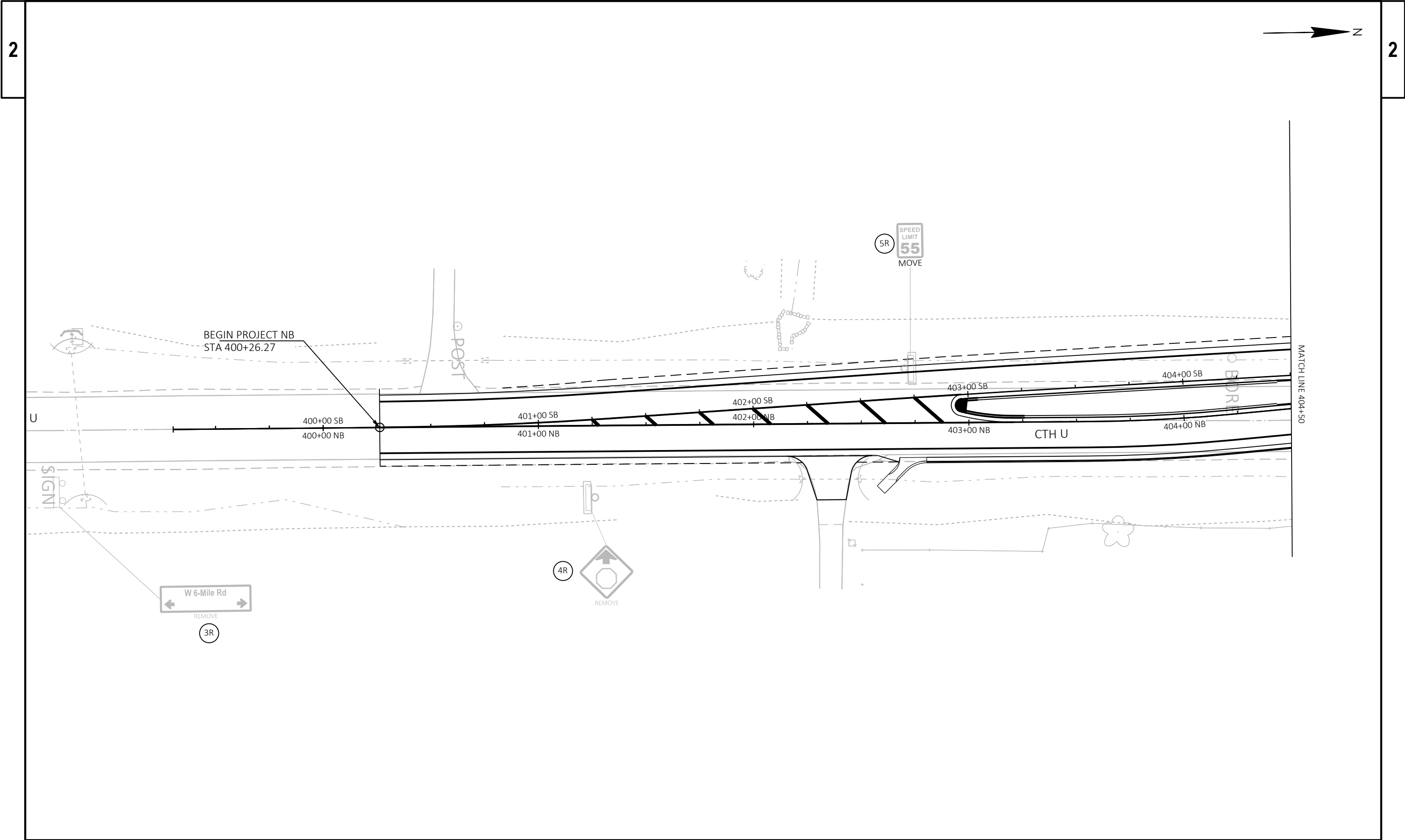


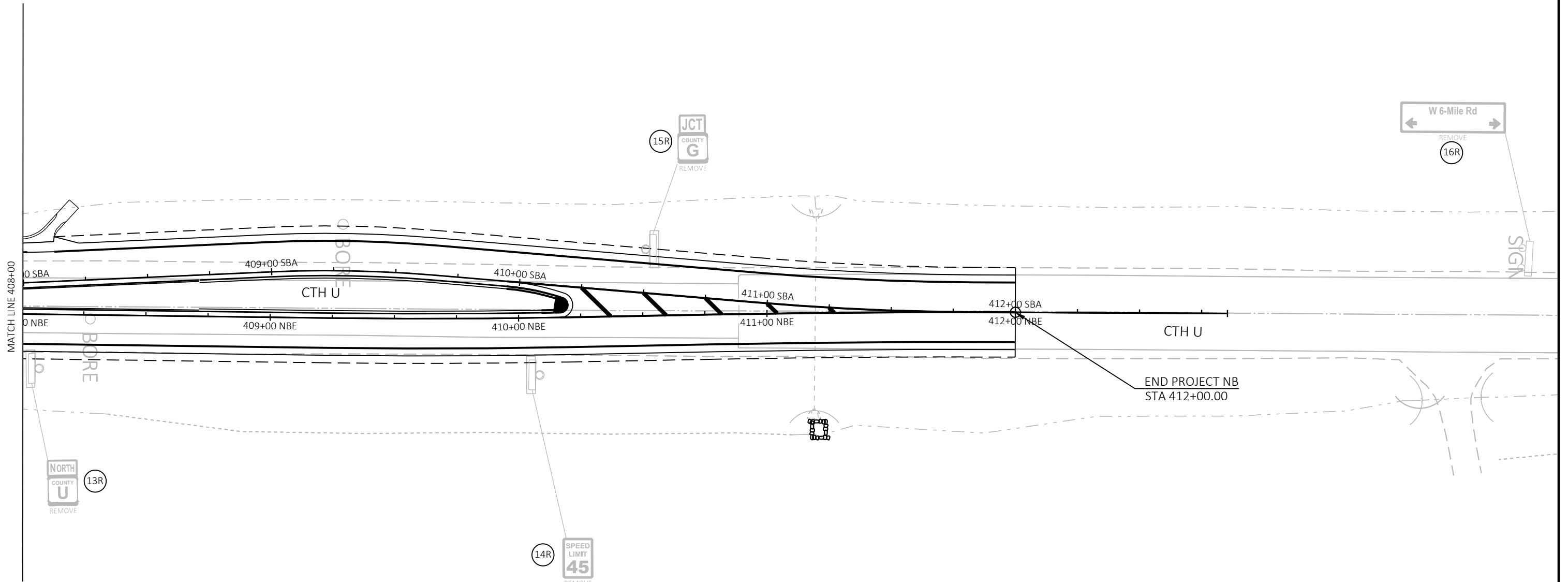
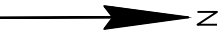
CTH G EB EXIT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
(141)	313+58.19	15.00' LT	750.84	218271.77	579031.43
(142)	312+26.05	19.01' LT	752.71	218277.26	578899.68

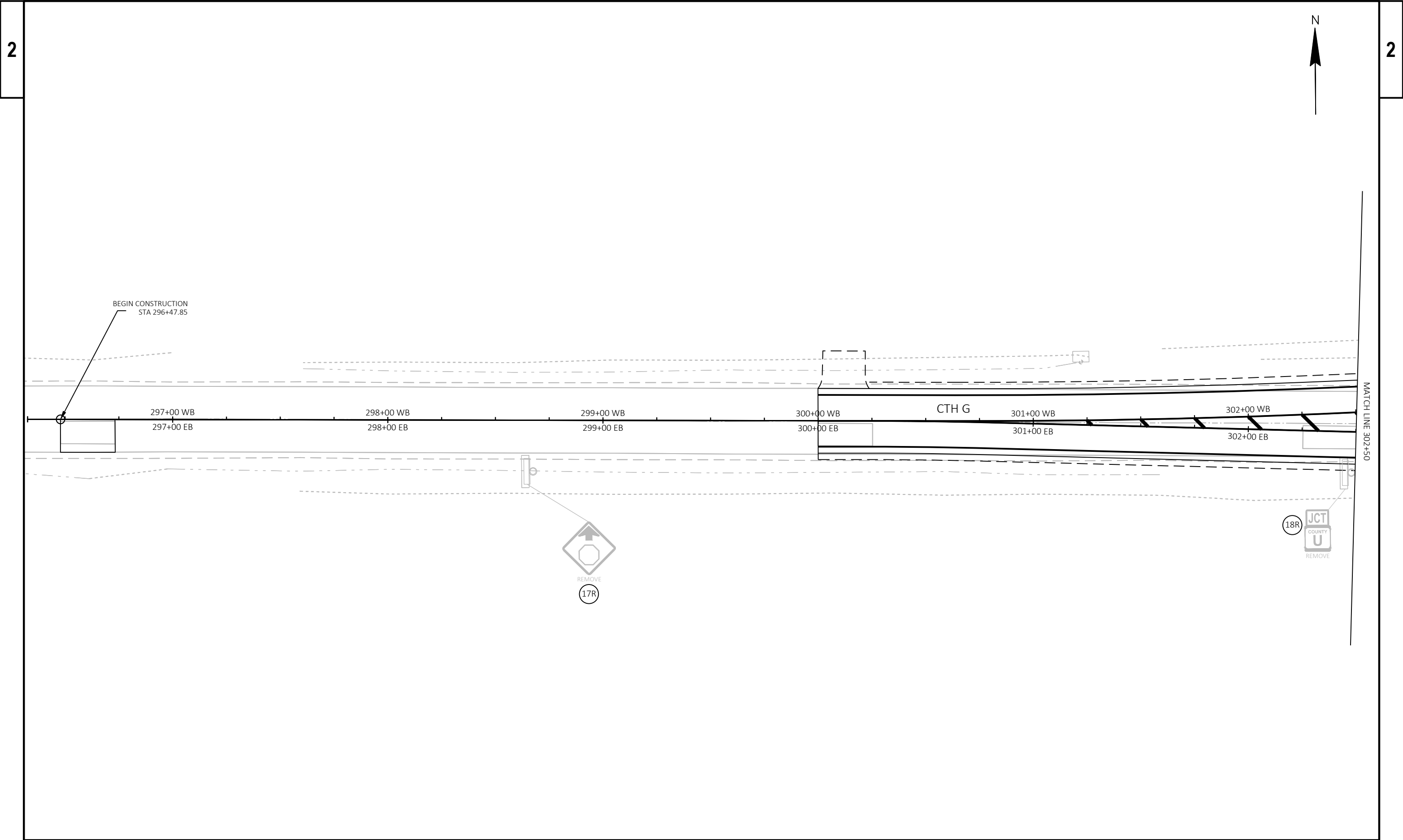


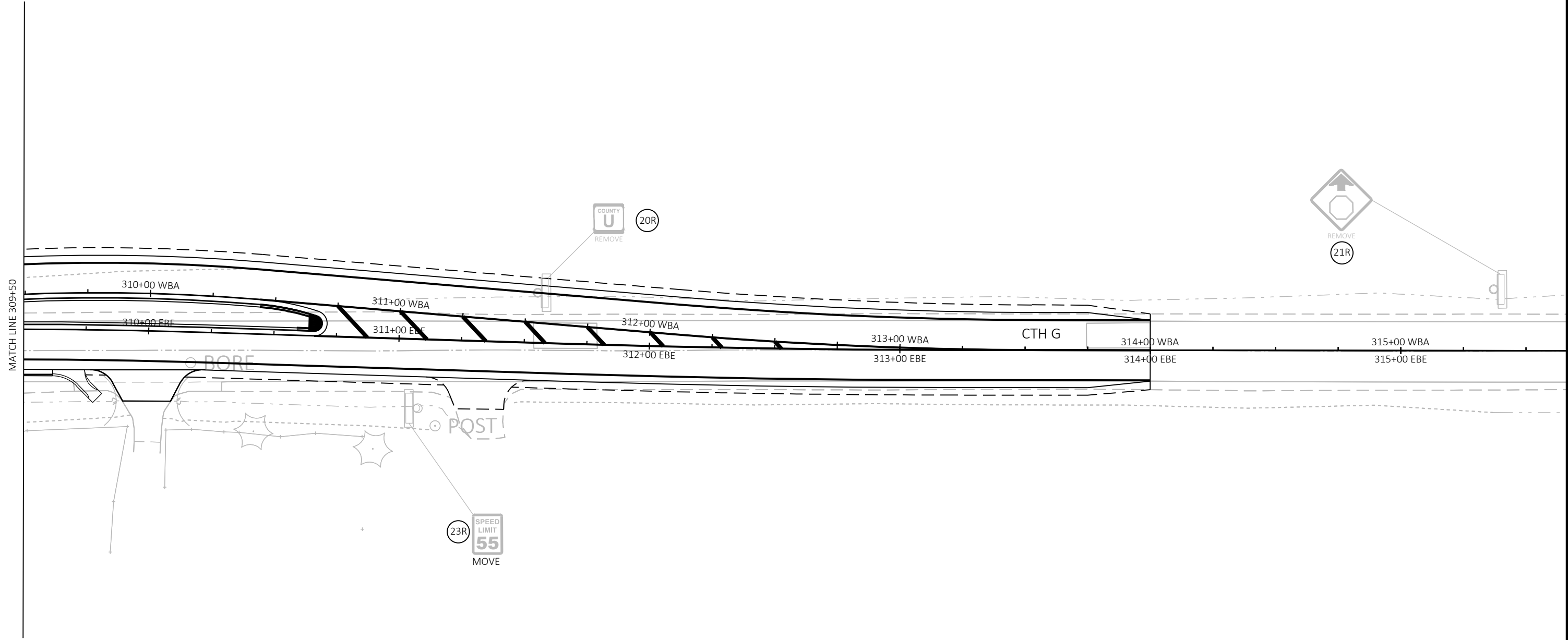


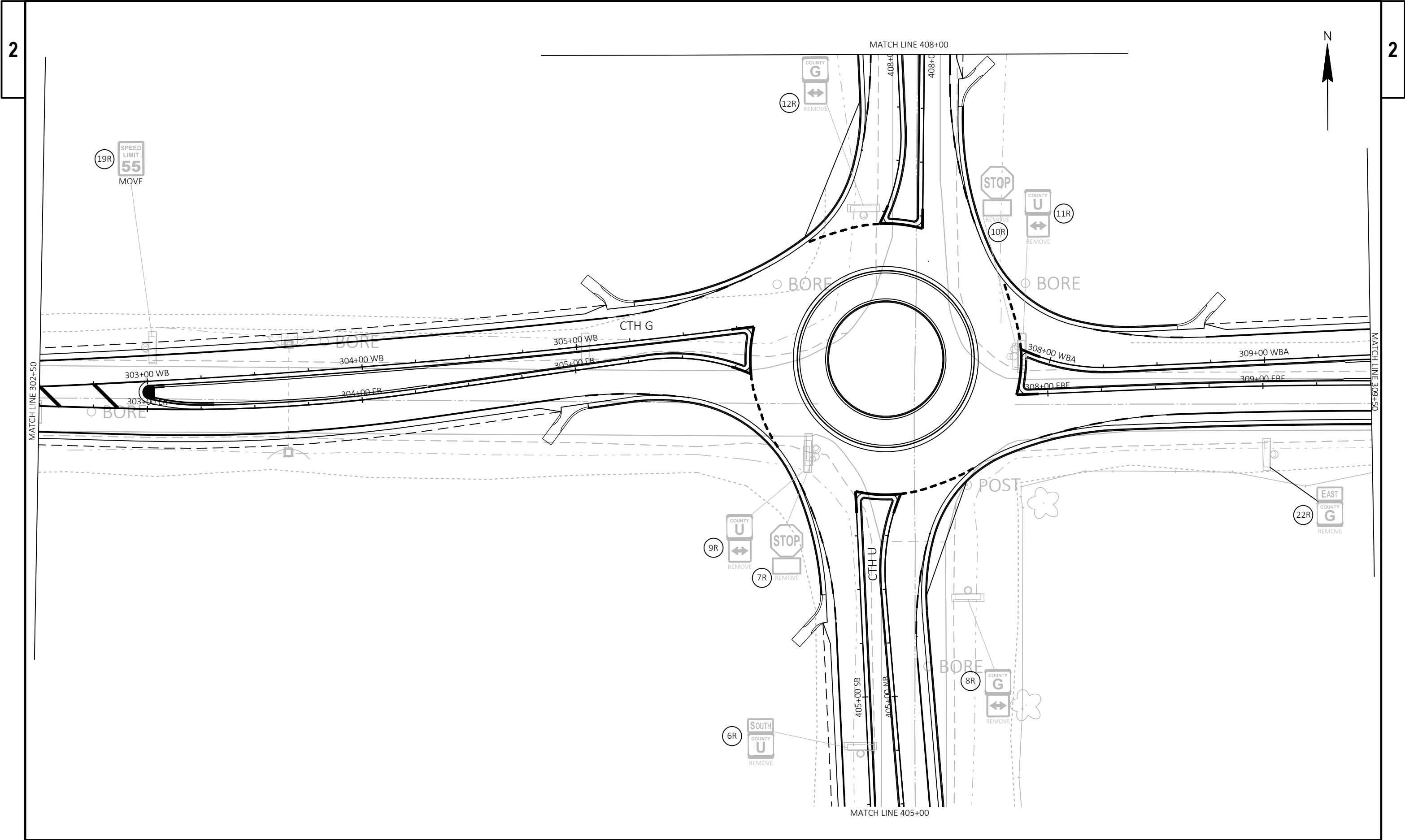






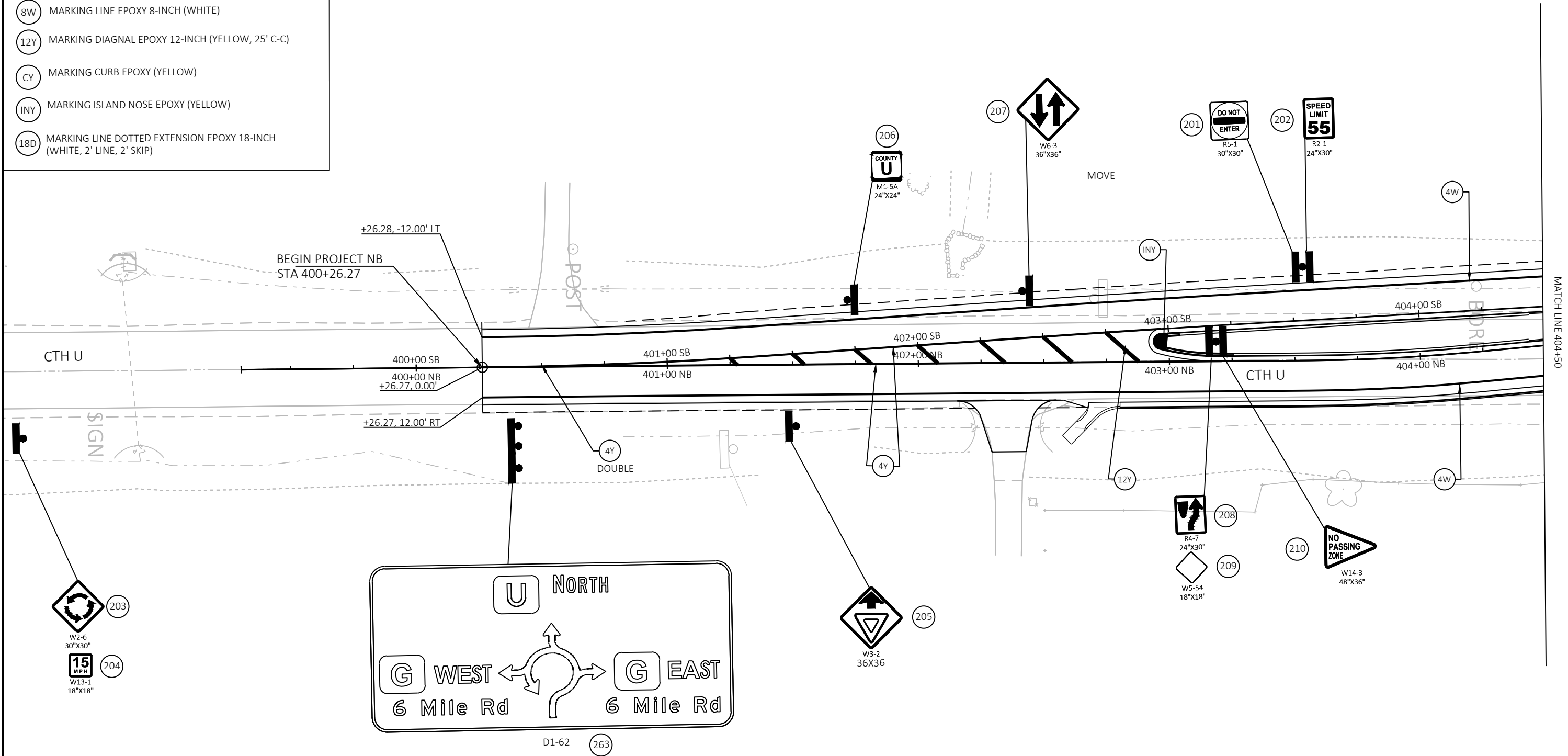


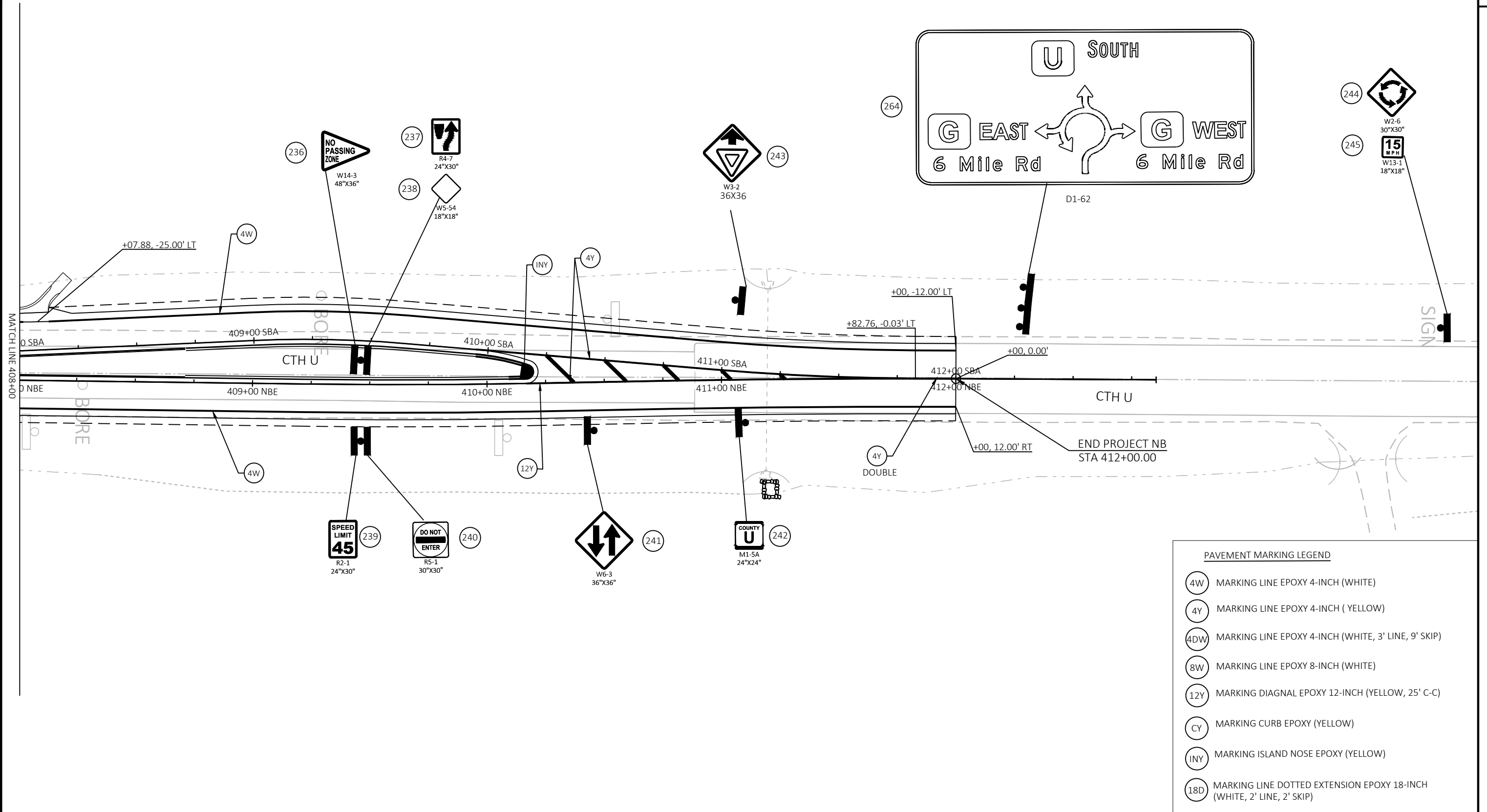


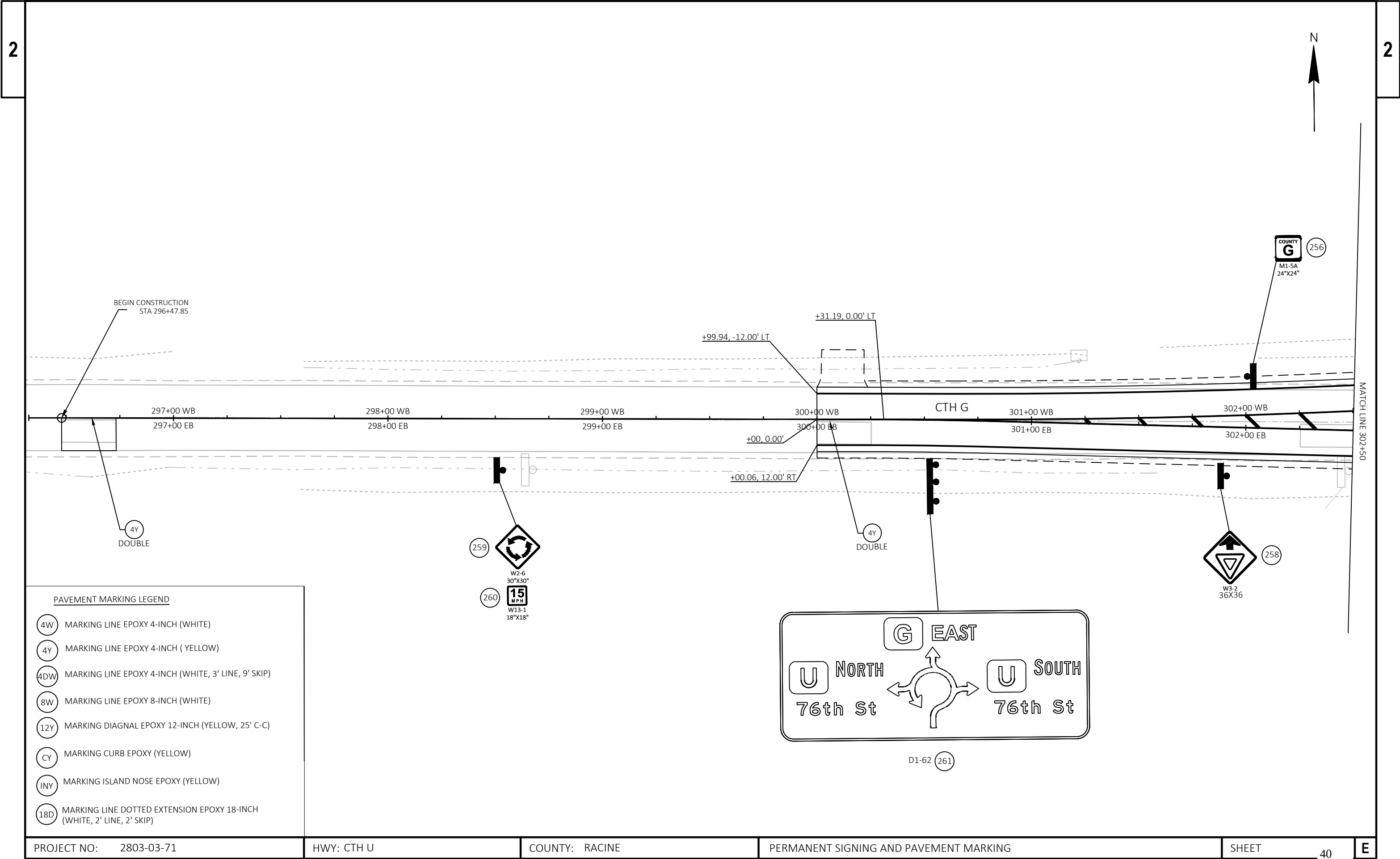


PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4DW) MARKING LINE EPOXY 4-INCH (WHITE, 3' LINE, 9' SKIP)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (12Y) MARKING DIAGNAL EPOXY 12-INCH (YELLOW, 25' C-C)
- (CY) MARKING CURB EPOXY (YELLOW)
- (INY) MARKING ISLAND NOSE EPOXY (YELLOW)
- (18D) MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (WHITE, 2' LINE, 2' SKIP)

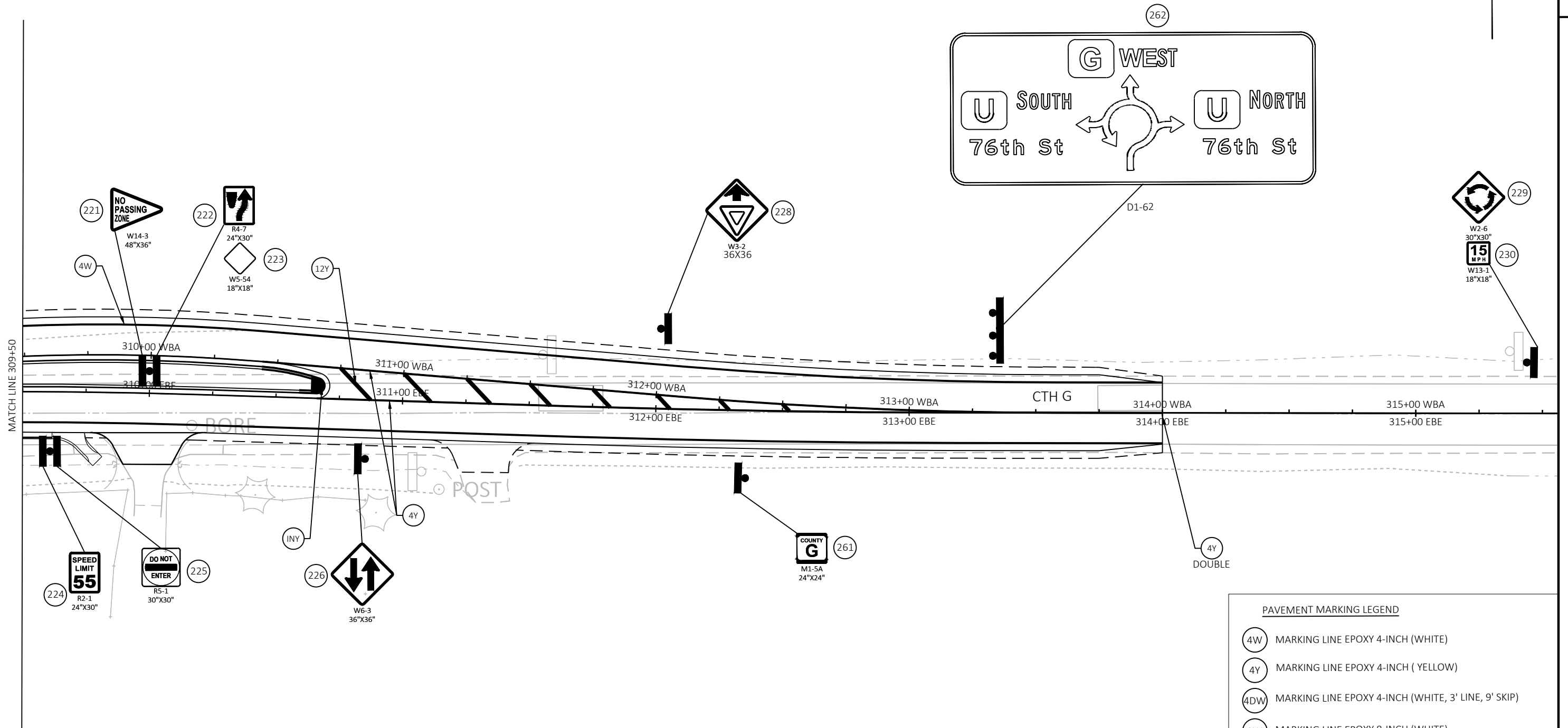


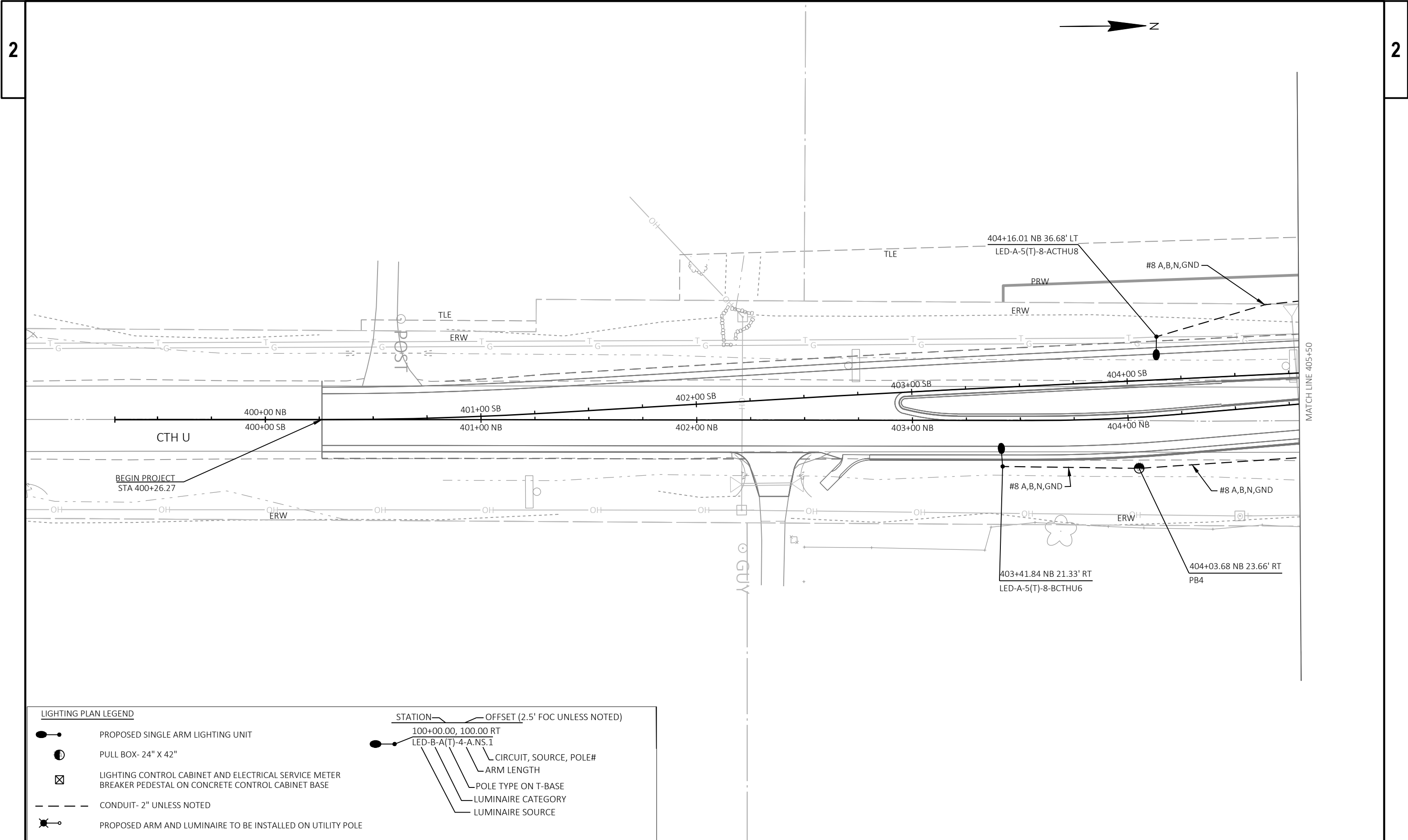




PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4DW) MARKING LINE EPOXY 4-INCH (WHITE, 3' LINE, 9' SKIP)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (12Y) MARKING DIAGNAL EPOXY 12-INCH (YELLOW, 25' C-C)
- (CY) MARKING CURB EPOXY (YELLOW)
- (INY) MARKING ISLAND NOSE EPOXY (YELLOW)
- (18D) MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (WHITE, 2' LINE, 2' SKIP)





LIGHTING PLAN LEGEND

- PROPOSED SINGLE ARM LIGHTING UNIT
- PULL BOX- 24" X 42"
- LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER
BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE
- CONDUIT- 2" UNLESS NOTED
- PROPOSED ARM AND LUMINAIRE TO BE INSTALLED ON UTILITY POLE

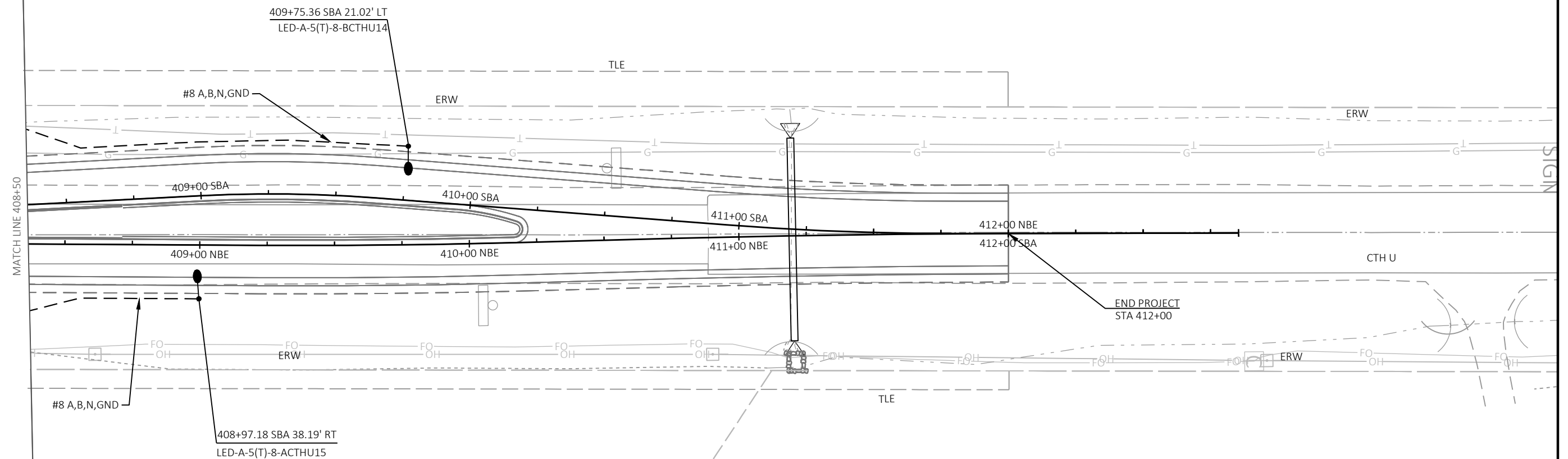
STATION

100+00.00, 100.00 RT

LED-B-A(T)-4-A.NS.1

OFFSET (2.5' FOC UNLESS NOTED)

- CIRCUIT, SOURCE, POLE#
- ARM LENGTH
- POLE TYPE ON T-BASE
- LUMINAIRE CATEGORY
- LUMINAIRE SOURCE



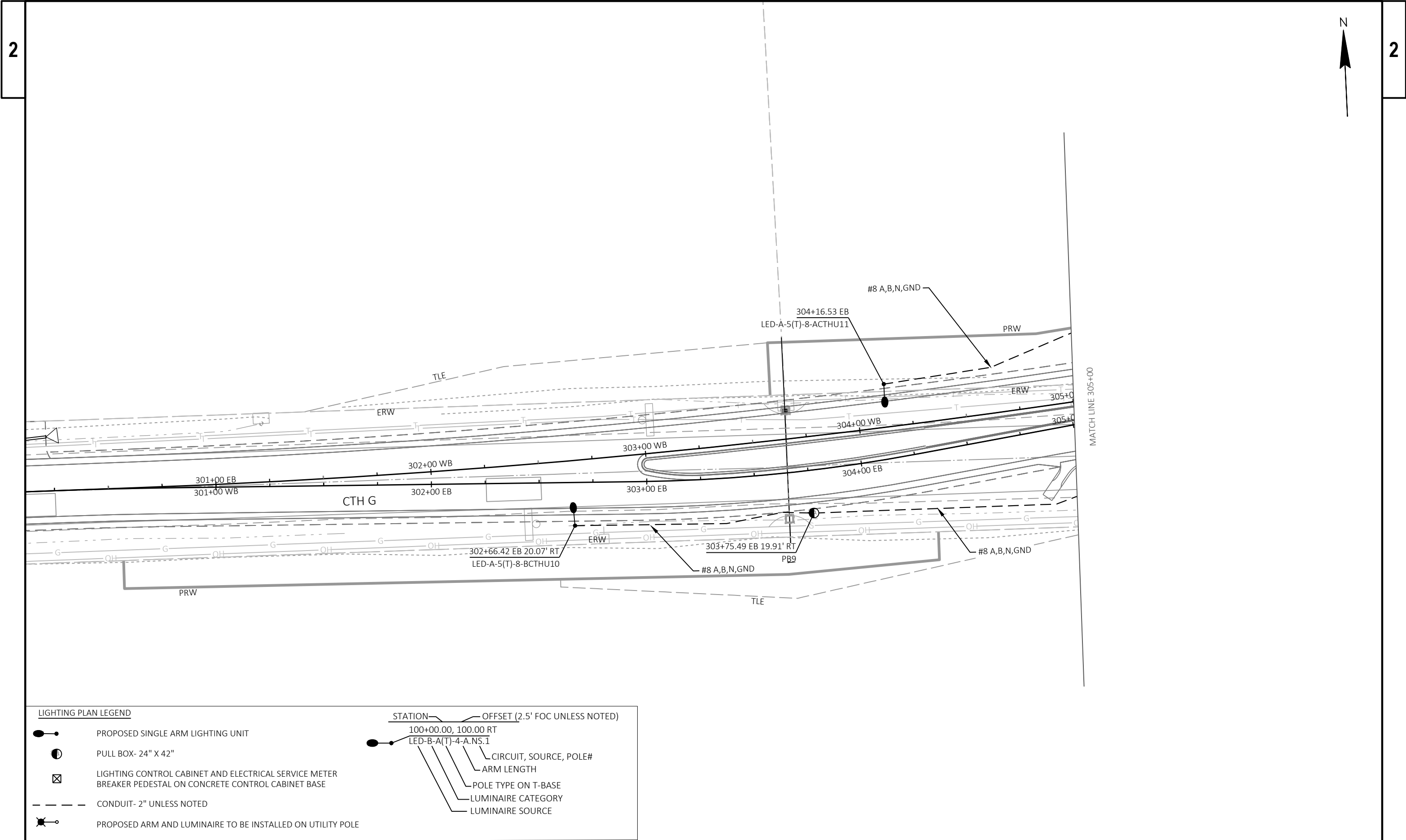
LIGHTING PLAN LEGEND

- PROPOSED SINGLE ARM LIGHTING UNIT
- ⦿ PULL BOX- 24" X 42"
- ⊠ LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE
- CONDUIT- 2" UNLESS NOTED
- ⦿ PROPOSED ARM AND LUMINAIRE TO BE INSTALLED ON UTILITY POLE

STATION **OFFSET (2.5' FOC UNLESS NOTED)**

100+00.00, 100.00 RT
LED-B-A(T)-4-A.NS.1

- CIRCUIT, SOURCE, POLE#
- ARM LENGTH
- POLE TYPE ON T-BASE
- LUMINAIRE CATEGORY
- LUMINAIRE SOURCE



LIGHTING PLAN LEGEND

PROPOSED SINGLE ARM LIGHTING UNIT

PULL BOX- 24" X 42"

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

CONDUIT- 2" UNLESS NOTED

PROPOSED ARM AND LUMINAIRE TO BE INSTALLED ON UTILITY POLE

STATION

100+00.00, 100.00 RT

LED-B-A(T)-4-A.NS.1

OFFSET (2.5' FOC UNLESS NOTED)

CIRCUIT, SOURCE, POLE#

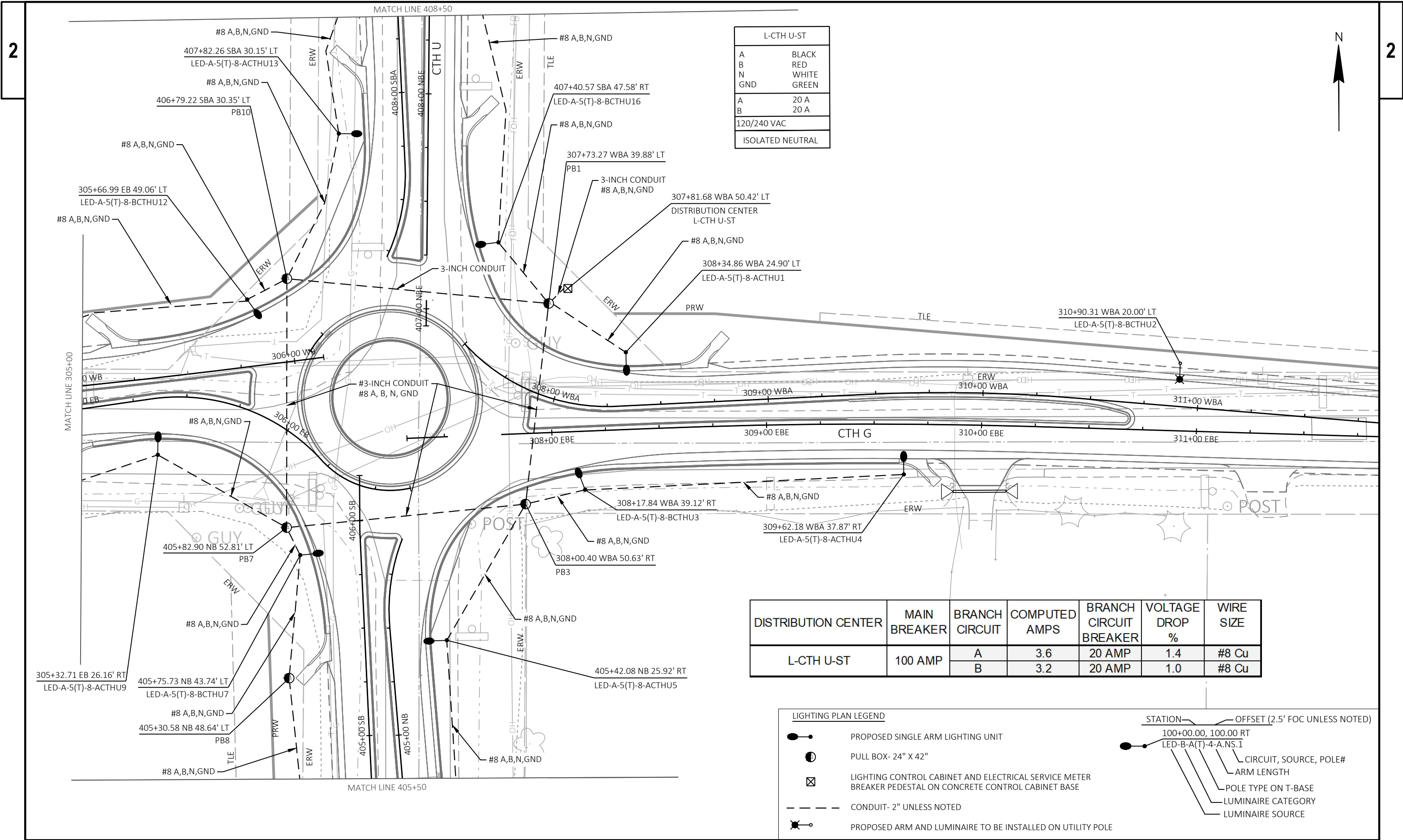
ARM LENGTH

POLE TYPE ON T-BASE

LUMINAIRE CATEGORY

LUMINAIRE SOURCE

PROJECT NO: 2803-03-71	HWY: CTH U	COUNTY: RACINE	LIGHTING PLAN	SHEET 45	E
FILE NAME : Y:\55XX\5589_DP_CTH U-CTH G_RACINE COUNTY\CADD\28030301\SHEETS\023601-LP.DWG LAYOUT NAME - 023603-lp		PLOT DATE : 1/23/2025 11:08 AM	PLOT BY : SAM FLINT	PLOT NAME :	PLOT SCALE : 1 IN=40 FT
WISDOT/CADD SHEET 42					

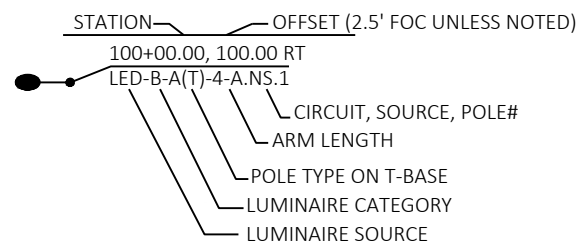


L-CTH U-ST	
A	BLACK
B	RED
N	WHITE
GND	GREEN
A	20 A
B	20 A
120/240 VAC	
ISOLATED NEUTRAL	

DISTRIBUTION CENTER	MAIN BREAKER	BRANCH CIRCUIT	COMPUTED AMPS	BRANCH CIRCUIT BREAKER	VOLTAGE DROP %	WIRE SIZE
L-CTH U-ST	100 AMP	A	3.6	20 AMP	1.4	#8 Cu
		B	3.2	20 AMP	1.0	#8 Cu

LIGHTING PLAN LEGEND

- PROPOSED SINGLE ARM LIGHTING UNIT
- PULL BOX- 24" X 42"
- LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE
- CONDUIT- 2" UNLESS NOTED
- PROPOSED ARM AND LUMINAIRE TO BE INSTALLED ON UTILITY POLE

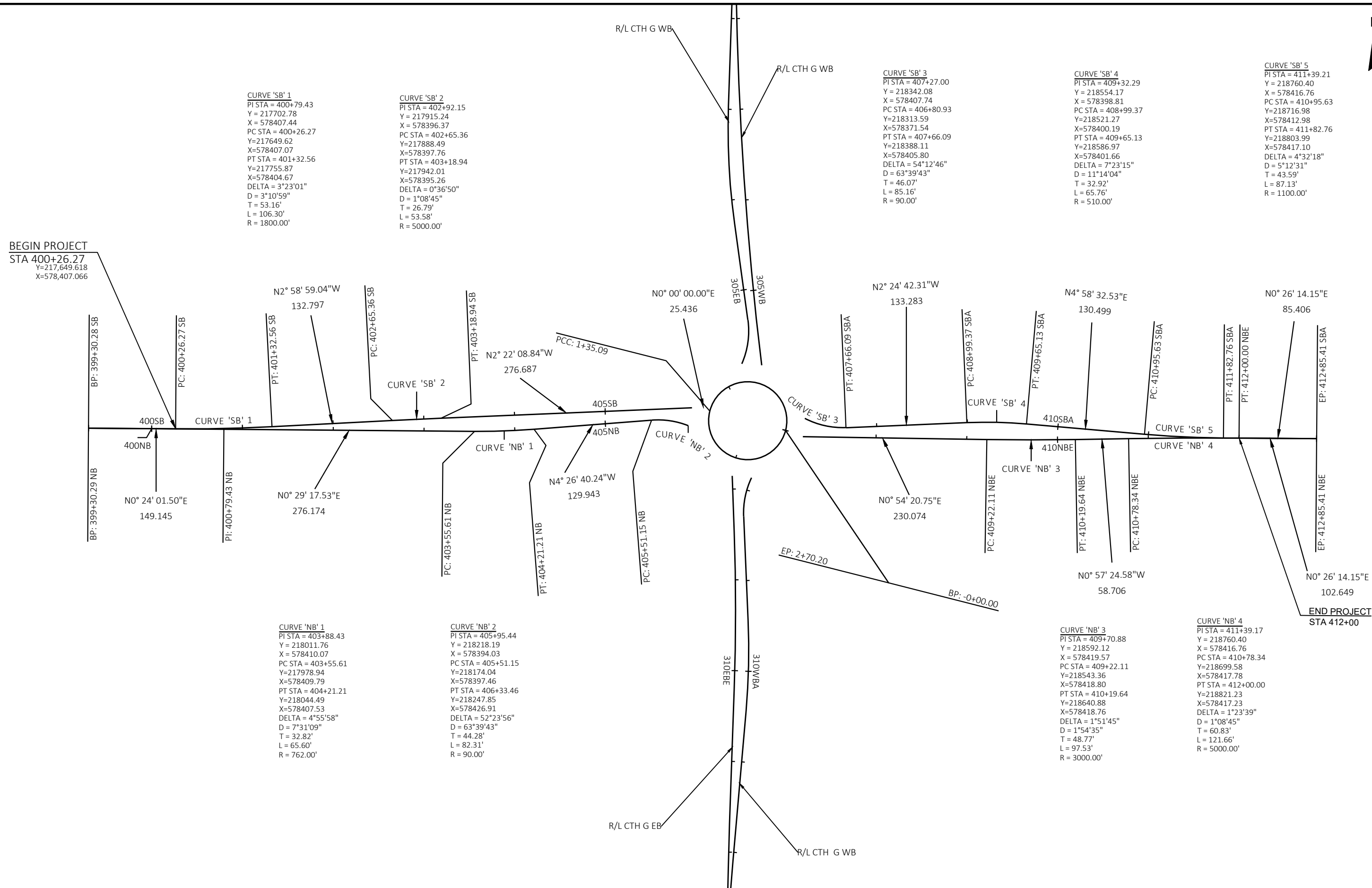


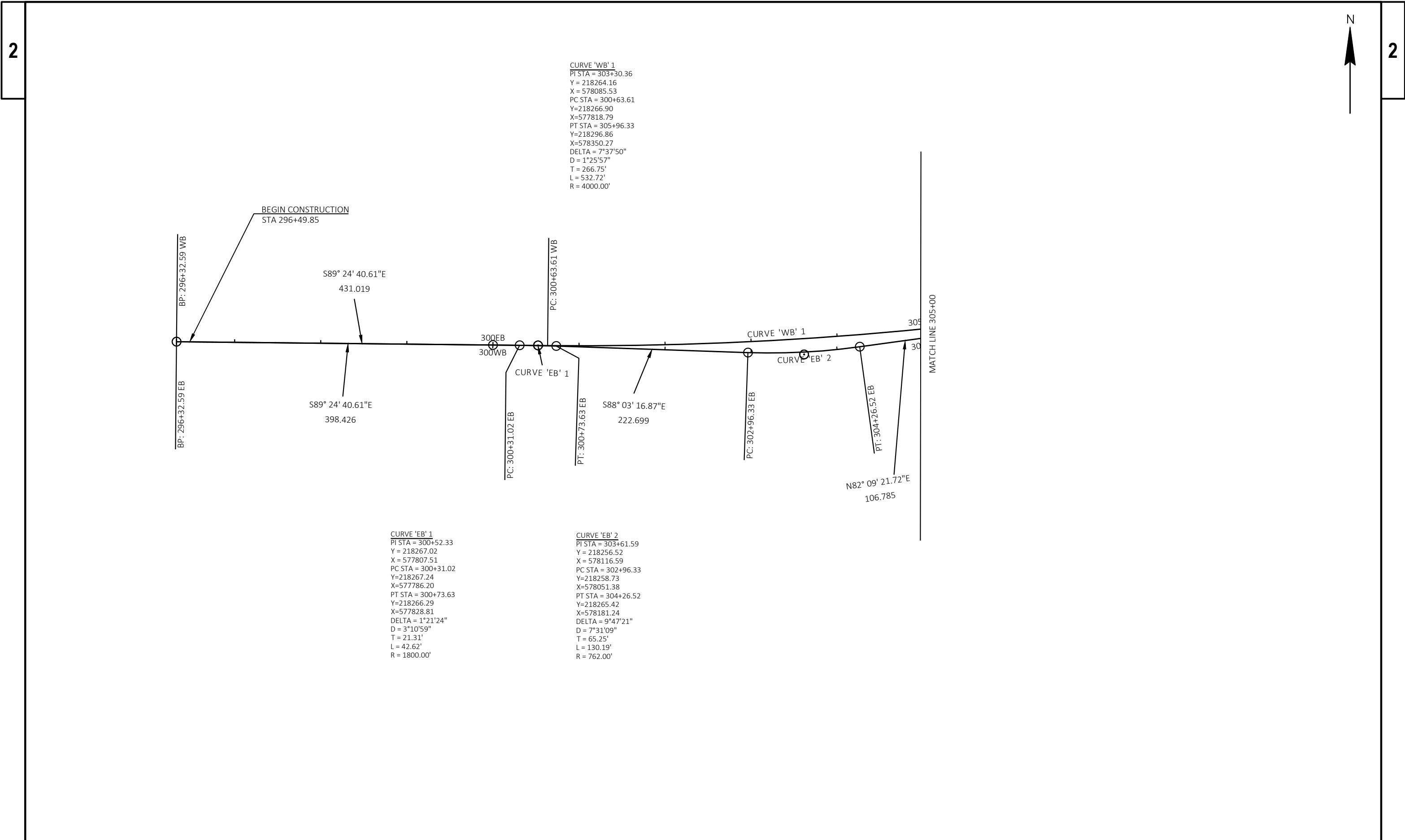


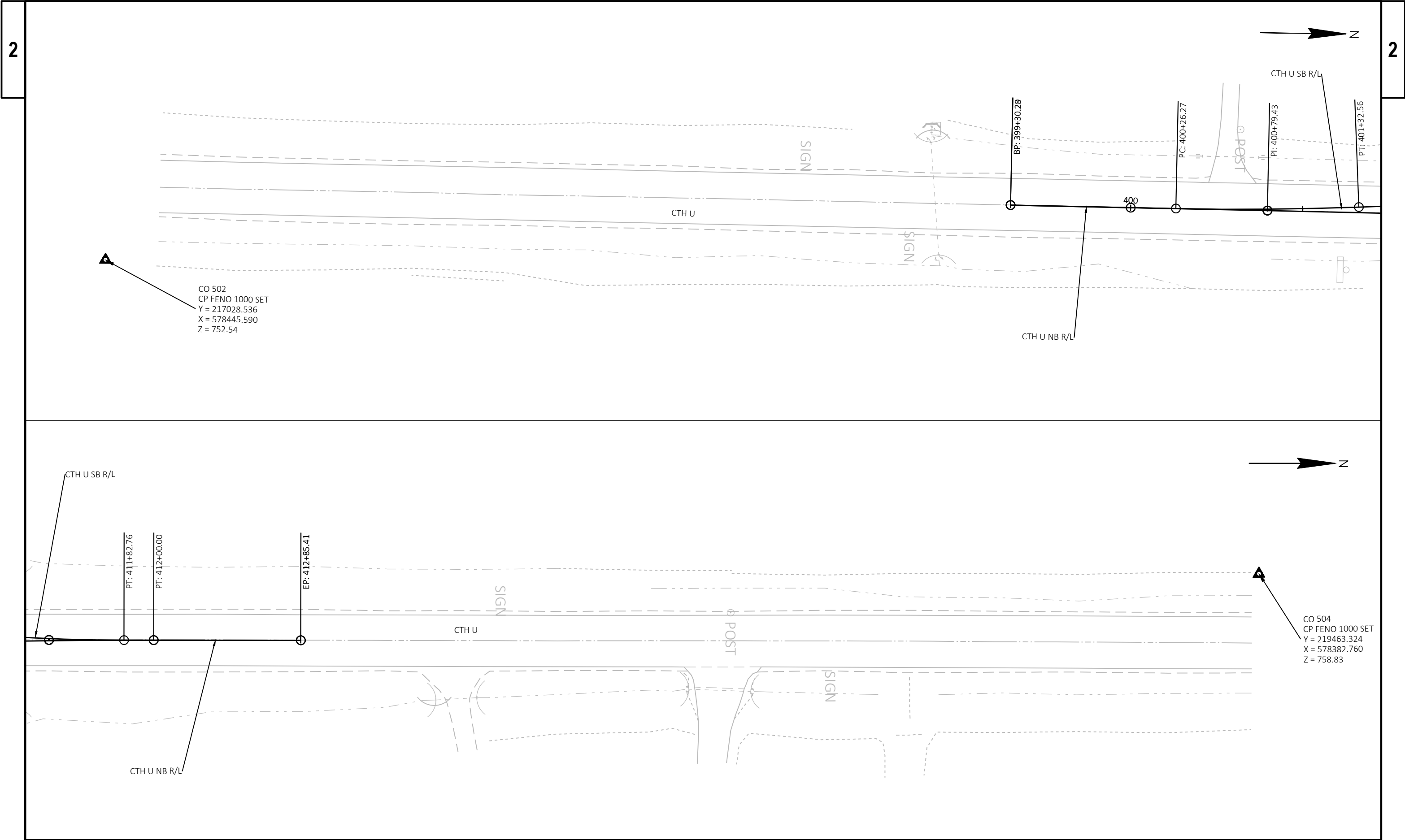
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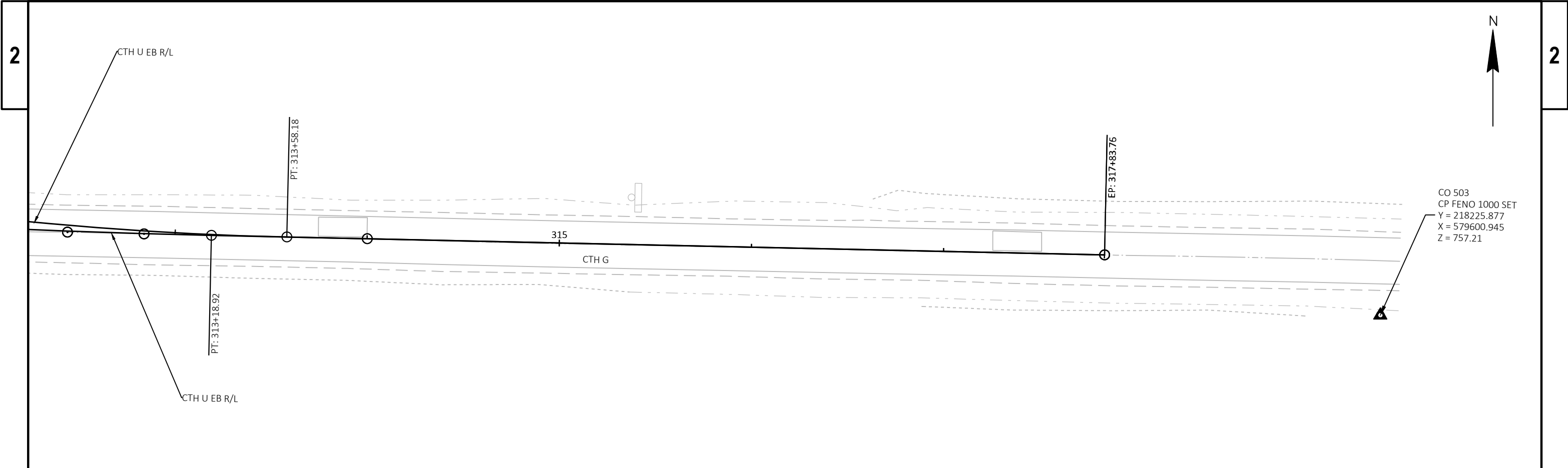
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Estimate Of Quantities

2803-03-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0004	204.9180.S	Removing (item description) 001. Removing Rumble Strips	SY	77.000	77.000
0006	205.0100	Excavation Common	CY	17,900.000	17,900.000
0008	213.0100	Finishing Roadway (project) 001. 2803-03-71	EACH	1.000	1.000
0010	305.0110	Base Aggregate Dense 3/4-Inch	TON	340.000	340.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,660.000	9,660.000
0014	305.0130	Base Aggregate Dense 3-Inch	TON	10,170.000	10,170.000
0016	312.0110	Select Crushed Material	TON	11,200.000	11,200.000
0018	405.0100	Coloring Concrete WisDOT Red	CY	117.000	117.000
0020	415.2010	Concrete Truck Apron 12-inch	SY	352.000	352.000
0022	455.0605	Tack Coat	GAL	650.000	650.000
0024	460.2000	Incentive Density HMA Pavement	DOL	1,800.000	1,800.000
0026	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,780.000	1,780.000
0028	460.5224	HMA Pavement 4 LT 58-28 S	TON	1,030.000	1,030.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	20.000	20.000
0032	465.0315	Asphaltic Flumes	SY	112.000	112.000
0034	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	4.000	4.000
0036	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	18.000	18.000
0038	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	76.000	76.000
0040	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0042	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0044	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	170.000	170.000
0046	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,165.000	2,165.000
0048	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	1,267.000	1,267.000
0050	602.0405	Concrete Sidewalk 4-Inch	SF	9,880.000	9,880.000
0052	606.0200	Riprap Medium	CY	2.000	2.000
0054	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	70.000	70.000
0056	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	136.000	136.000
0058	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0060	611.0624	Inlet Covers Type H	EACH	1.000	1.000
0062	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0064	611.0652	Inlet Covers Type T	EACH	2.000	2.000
0066	611.2003	Manholes 3-FT Diameter	EACH	1.000	1.000
0068	611.3225	Inlets 2x2.5-FT	EACH	2.000	2.000
0070	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0072	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0074	612.0106	Pipe Underdrain 6-Inch	LF	1,050.000	1,050.000
0076	612.0700	Drain Tile Exploration	LF	400.000	400.000
0078	618.0100	Maintenance and Repair of Haul Roads (project) 001. 2803-03-71	EACH	1.000	1.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	620.0300	Concrete Median Sloped Nose	SF	156.000	156.000
0084	624.0100	Water	MGAL	240.000	240.000
0086	625.0500	Salvaged Topsoil	SY	11,820.000	11,820.000
0088	628.1504	Silt Fence	LF	3,140.000	3,140.000
0090	628.1520	Silt Fence Maintenance	LF	3,140.000	3,140.000
0092	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0096	628.2006	Erosion Mat Urban Class I Type A	SY	11,700.000	11,700.000
0098	628.7005	Inlet Protection Type A	EACH	4.000	4.000

Estimate Of Quantities

2803-03-71

Line	Item	Item Description	Unit	Total	Qty
0100	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0102	628.7504	Temporary Ditch Checks	LF	114.000	114.000
0104	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0106	628.7560	Tracking Pads	EACH	4.000	4.000
0108	628.7570	Rock Bags	EACH	7.000	7.000
0110	629.0210	Fertilizer Type B	CWT	6.000	6.000
0112	630.0130	Seeding Mixture No. 30	LB	220.000	220.000
0114	630.0200	Seeding Temporary	LB	320.000	320.000
0116	630.0500	Seed Water	MGAL	260.000	260.000
0118	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	8.000	8.000
0120	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	25.000	25.000
0122	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	13.000	13.000
0124	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	12.000	12.000
0126	637.2210	Signs Type II Reflective H	SF	527.000	527.000
0128	637.2230	Signs Type II Reflective F	SF	150.000	150.000
0130	638.2102	Moving Signs Type II	EACH	3.000	3.000
0132	638.2602	Removing Signs Type II	EACH	27.000	27.000
0134	638.3000	Removing Small Sign Supports	EACH	21.000	21.000
0136	642.5001	Field Office Type B	EACH	1.000	1.000
0138	643.0300	Traffic Control Drums	DAY	990.000	990.000
0140	643.0420	Traffic Control Barricades Type III	DAY	1,386.000	1,386.000
0142	643.0705	Traffic Control Warning Lights Type A	DAY	2,772.000	2,772.000
0144	643.0900	Traffic Control Signs	DAY	18,414.000	18,414.000
0146	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0148	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0150	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	9.000	9.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	6,700.000	6,700.000
0158	646.3020	Marking Line Epoxy 8-Inch	LF	2,440.000	2,440.000
0160	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	147.000	147.000
0162	646.7120	Marking Diagonal Epoxy 12-Inch	LF	273.000	273.000
0164	646.8120	Marking Curb Epoxy	LF	171.000	171.000
0166	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0168	650.4000	Construction Staking Storm Sewer	EACH	5.000	5.000
0170	650.4500	Construction Staking Subgrade	LF	3,216.000	3,216.000
0172	650.5000	Construction Staking Base	LF	3,216.000	3,216.000
0174	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,860.000	3,860.000
0176	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0178	650.8501	Construction Staking Electrical Installations (project) 001. 2801-03-70	EACH	1.000	1.000
0180	650.9500	Construction Staking Sidewalk (project) 001. 2801-03-70	EACH	1.000	1.000
0182	650.9911	Construction Staking Supplemental Control (project) 001. 2801-03-70	EACH	1.000	1.000
0184	650.9920	Construction Staking Slope Stakes	LF	3,216.000	3,216.000
0186	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,624.000	1,624.000
0188	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	515.000	515.000
0190	653.0140	Pull Boxes Steel 24x42-Inch	EACH	7.000	7.000
0192	654.0105	Concrete Bases Type 5	EACH	15.000	15.000
0194	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0196	655.0610	Electrical Wire Lighting 12 AWG	LF	645.000	645.000

Estimate Of Quantities

2803-03-71

Line	Item	Item Description	Unit	Total	Qty
0198	655.0620	Electrical Wire Lighting 8 AWG	LF	2,104.000	2,104.000
0200	656.0201	Electrical Service Meter Breaker Pedestal (location) 001. 2803-03-71	EACH	1.000	1.000
0202	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	15.000	15.000
0204	657.0322	Poles Type 5-Aluminum	EACH	15.000	15.000
0206	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	15.000	15.000
0208	659.1115	Luminaires Utility LED A	EACH	15.000	15.000
0210	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
0212	690.0150	Sawing Asphalt	LF	260.000	260.000
0214	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	320.000	320.000
0216	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	350.000	350.000
0218	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	900.000	900.000
0220	SPV.0090	Special 001. Concrete Curb & Gutter 3-Inch Sloped 36-Inch Type T	LF	258.000	258.000

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						204.9180.S
						REMOVING RUMBLE STRIPS
CATEGORY	STAGE	LOCATION	STATION	TO STATION	ALIGNMENT	SY
0010	1	PROJECT				
		CTH G-WEST	296+48	- 196+73	CTH G EB	43
		CTH G-EAST	317+25	- 317+52	CTH G EB	34
		PROJECT TOTAL				77

										203.0100	
										REMOVING SMALL PIPE CULVERTS	
CATEGORY	STAGE	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	ALIGNMENT	EACH	COMMENTS	
0010	1										
		CTH U	402+16.23	31' RT	-	402+46.56	31' RT	NB	1	15" X 26' CMCP	
		CTH U	411+19	23' RT		411+19	32' LT	NB	1	18" X 30" X 78' RCCP	
		CTH G	303+66.24	20' RT	-	303+69.40	26 'LT	EB	1	18" X 47' CMCP	
PROJECT TOTAL									3		

3

						638.2102	638.2602	638.3000					
						MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH					
CATEGORY	STAGE	LOCATION	SIGN NUMBER	SIGN CODE	SIGN MESSAGE				COMMENTS				
0010	1	CTH U & CTH G	3R	D1-60	W 6-Mile Rd	--	1	2	MOVE TO 202				
			4R	W3-1		--	1	1					
			5R	R2-1	SPEED LIMIT 55	1	1	1					
			6R	M3-3 & M1-5A	SOUTH & COUNTY U	--	2	1					
			7R	R1-1	STOP & TRAFFIC ON U DOES NOT STOP	--	1	1					
			8R	M1-5A & M6-4	COUNTY G	--	2	1					
			9R	M1-5A & M6-4	COUNTY U	--	2	1					
			10R	R1-1	STOP & TRAFFIC ON U DOES NOT STOP	--	1	1					
			11R	M1-5A & M6-4	COUNTY U	--	2	1					
			12R	M1-5A & M6-4	COUNTY G	--	2	1					
			13R	M3-1 & M1-5A	NORTH & COUNTY U	--	2	1					
			14R	R2-1	SPEED LIMIT 45	--	1	1					
			15R	M2-1	M1-5A	--	1	1					
			16R	D1-60	W 6-Mile Rd	--	1	2					
			17R	W3-1		--	1	1					
			18R	M2-1 & M1-5A	JCT & COUNTY U	--	2	1	MOVE TO 254				
			19R	R2-1	SPEED LIMIT 55	1	1	1					
			20R	M1-5A	COUNTY U	--	1	1					
			21R	W3-1		--	1	1					
			22R	M1-5A & M3-2	EAST COUNTY G	--	1	--	MOVE TO 224				
			23R	R2-1	SPEED LIMIT 55	1	--	--					
			PROJECT TOTAL						3	27	21		

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1000000

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	305.0130 BASE AGGREGATE DENSE 3-INCH (3) TON	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)
		CUT (2)	EBS EXCAVATION (3)					FACTOR 1.15		
DIVISION 1										
CENTER CIRCLE	00+00/02+50	1,645	499	309	1,336	948	1,568	1,803	-467	-467
EB APPROACH	300+00/305+50	3,330	1,204	308	3,022	2,287	390	449	2,574	2,574
EB EXIT	308+50/314+00	1,629	1,294	221	1,408	2,459	275	316	1,092	1,092
NB APPROACH	400+26.27/405+50	4,470	1,294	293	4,177	2,459	136	156	4,021	4,021
NB EXIT	407+50/412+00	1,451	1,063	180	1,271	2,019	1,428	1,642	-371	-371
DIVISION 1 SUBTOTAL		12,525	5,354	1,311	11,214		3,797	4,367	6,847	6,847
GRAND TOTAL		12,525	5,354	1,311	11,214	10,170	3,797	4,367	6,847	6,847
TOTAL COMMON EXC		17,900								

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.15
(14) THE MASS ORDINATE = CUT - SALVAGED PAVT - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR). PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY. DOES NOT INCLUDE EBS QUANTITY.
WASTE FROM ONE AREA OF THE INTERSECTION CAN BE USED AS FILL FOR OTHER AREAS WITHIN THE DIVISION

BASE AGGREGATE ITEMS

CATEGORY	STAGE	LOCATION	305.0110	305.0120*	312.0110
			BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	SELECT CRUSHED MATERIAL TON
0010	1	CTH U NORTH LEG	80	1,940	2,200
		CTH U SOUTH LEG	70	2,320	2,700
		CTH G EAST LEG	90	2,410	2,800
		CTH G WEST LEG	100	2,270	2,600
		CENTER CIRCLE	--	690	900
		PROJECT TOTAL	340	9,630	11,200

*INFORMATION NOT LIMITED TO THESE LOCATIONS.

CONCRETE PAVEMENT ITEMS

CATEGORY	STAGE	LOCATION	405.0100	415.2010
			COLORING CONCRETE WISDOT RED CY	CONCRETE TRUCK APRON 12-INCH SY
0010	1	SE QUAD	8	24
		NW QUAD	14	43
		CENTER CIRCLE	95	285
		PROJECT TOTAL	117	352

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DRIVEWAYS					
		305.0120*		465.0120	
CATEGORY	STAGE	LOCATION	STATION	BASE AGGREGATE DENSE 1 1/4-INCH TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010	1	CTH U SOUTH LEG	402+25	10	10
		CTH G EAST	310+00	10	10
		CTH G EAST	311+25	10	--
		CTH G WESY	300+12		10
PROJECT TOTAL				30	20
*INFORMATION NOT LIMITED TO THESE LOCATIONS.					

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ASPHALTIC ITEMS					
		455.0605	460.5223	460.5224	465.0315
		TACK COAT	HMA	HMA	ASPHALTIC
CATEGORY	STAGE	GAL	PAVEMENT 3 LT 58-28 S TON	PAVEMENT 4 LT 58-28 S TON	FLUMES SY
0010	1				
		CTH U SOUTH	160	440	250
		CTH U NORTH	130	350	200
		CTH G WEST	150	430	250
		CTH G EAST	170	460	270
		CENTER CIRCLE	40	100	60
PROJECT TOTAL		650	1,780	1,030	112

CONCRETE CURB & GUTTER

		601.0405	601.0411	601.0553	SPV.0090.001		
		CONCRETE CURB & GUTTER 18-INCH TYPE A	CONCRETE CURB & GUTTER 30-INCH TYPE D	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D	CONCRETE CURB & GUTTER 3-INCH SLOPED 36-INCH TYPE T		
CATEGORY	STAGE	LOCATION	LF	LF	LF	COMMENTS	
0010	1	CTH U SOUTH LEG	--	312	303	--	4-INCH CURB AT INLET (REFER TO PLAN DETAILS)
		CTH U NORTH LEG	--	311	301	--	
		CTH G WEST LEG	--	314	268	--	
		CTH G EAST LEG	--	313	267	--	
		SE QUAD	--	459	71	--	
		SW QUAD	--	165	--	--	
		NW QUAD	--	122	57	--	
		NE QUAD	--	169	--	--	
		CENTER CIRCLE	170			258	
	PROJECT TOTAL		170	2,165	1,267	258	

CONCRETE MEDIAN NOSE

			620.0300	
			CONCRETE MEDIAN	
			SLOPED NOSE	
			TYPE 1	TYPE 2
CATEGORY	STAGE	LOCATION	SF	
0010	1	CTH U NORTH LEG	27	12
		CTH U SOUTH LEG	27	12
		CTH G EAST LEG	27	12
		CTH G WEST LEG	27	12
PROJECT TOTAL			156	

CONCRETE SIDEWALK

		602.0405	
CATEGORY	STAGE	LOCATION	CONCRETE SIDEWALK 4-INCH SF
0010	1	CTH U SOUTH LEG	2,720
		CTH U NORTH LEG	2,850
		CTH G WEST LEG	2,160
		CTH G EAST LEG	2,150
PROJECT TOTAL			9,880

CROSS DRAINS																			
CATEGORY	STAGE	LOCATION	STATION	OFFSET	TO	STATION	OFFSET	ALIGNMENT	MINIMUM	INLET	DISCHARGE	SLOPE	521.1012	522.1012	522.1024	521.3112	522.0424	608.0318	608.0412
									THICKNESS				APRON ENDWALLS	APRON ENDWALLS FOR	APRON ENDWALLS FOR	CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	STORM SEWER PIPE
									INCHES	ELEVATION	ELEVATION		FOR CULVERT	REINFORCED CONCRETE	REINFORCED	CORRUGATED	REINFORCED	REINFORCED	REINFORCED
													PIPE STEEL	PIPE	CONCRETE 24-INCH	STEEL 12-INCH	CONCRETE CLASS	CONCRETE CLASS III	CONCRETE CLASS IV
													12-INCH	12-INCH	12-INCH	12-INCH	IV 24-INCH	18-INCH	12-INCH
													EACH	EACH	EACH	LF	LF	LF	LF
0010	1	CTH U NORTH	411+19.78	36.3'LT		411+19.97	39.'RT	NBE	--	747.85	746.66	1.58%	--	--	2	--	76	--	--
		CTH U SOUTH	404+80	40.6'LT		404+79	17.6'RT	NB	--	756.68	756.41	0.47%	--	1	--	--	--	--	58
		CENTER CIRCLE	406+33	84.1'LT		405+92	68.9'LT	NB	--	758.03	757.48	0.50%	--	1	--	--	--	--	78
		CTH U SOUTH DRIVEWAY-E	402+21	29.9'RT		402+47	29.5'LT	NB	0.064	756.60	755.84	3.05%	2	--	--	17	--	--	--
		CTH G	303+69	28.8'LT		303+64	40.4'RT	EB	--	755.50	754.88	0.66%	--	--	--	--	--	70	--
		CTH G	300+01	23.5'LT		300+22	25'LT	WBE	0.064	770.06	769.56	2.42%	2	--	--	1	--	--	--
PROJECT TOTAL													4	2	2	18	76	70	136

NOTE
1) STATION OFFSETS SHOWN ARE TO THE CENTER OF INLET STRUCTURES OR END OF PIPE AT APRON ENDWALLS (NOT INCLUDING LENGTH OF ENDWALL).

STORM SEWER STRUCTURES																				
											611.2003	611.3225	611.3230 INLETS	611.3901	611.0530 MANHOLE COVERS	611.0652	611.0624 INLET COVERS	611.0642	650.4000	
CATEGORY	STAGE	LOCATION	STATION	OFFSET	ALIGNMENT	STRUCTURE NUMBER	RIM ELEVATION	STRUCTURE ELEVATION	BOTTOM OF STRUCTURE ELEVATION	DEPTH	MANHOLES 3-FT DIAMETER EACH	INLETS 2X2.5- FT EACH	INLETS 2X3-FT EACH	INLETS MEDIAN 1 GRATE EACH	MANHOLE COVERS TYPE J EACH	INLET COVERS TYPE T EACH	INLET COVERS TYPE H EACH	INLET COVERS TYPE MS EACH	CONSTRUCTION STAKING STORM SEWER EACH	
0010	1	CENTER CIRCLE	406+33	84.1'LT	NB	2-1	760.72	760.72	757.62	3.10	--	1	--	--	--	2	--	--	1	
		CENTER CIRCLE	406+29	88.5' LT	NB	2-2	760.72	760.72	757.99	2.73	--	1	--	--	--	--	--	--	1	
		CTH U	404+79	17.6' LT	NB	1-2	760.09	760.09	756.68	3.41	--	--	1	--	--	--	1	--	1	
		CTH G	303+67	28.8'LT	EB	3-2	762.76	762.76	755.05	7.71	1	--	--	--	1	--	--	--	1	
		CTH G	303+63	40.4'RT	EB	3-3	756.85	756.85	755.50	1.35	--	--	--	1	--	--	--	1	1	
PROJECT TOTAL											1	2	1	1	--	1	2	1	1	5

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RIPRAP ITEMS							
					606.0200	645.0120	
CATEGORY	STAGE	LOCATION	STATION	OFFSETALIGNMENT	RIPRAP MEDIUM CY	GEOTEXTILE TYPE HR SY	
0010	1	CHT U NORTH	411+19.97	39' RT NBE	2	9	
PROJECT TOTAL					2	9	

EROSION CONTROL MOBILIZATION					
				628.1905	628.1910
				MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CATEGORY	STAGE	LOCATION			
0010	1	UNDISTRIBUTED		5	4
PROJECT TOTAL				5	4

3

EROSION CONTROL ITEMS								
		628.1504	628.1520	628.2006	628.7504	628.7555	628.7570	
CATEGORY	STAGE	LOCATION	SILT FENCE	SILT FENCE	EROSION MAT	TEMPORARY	CULVERT PIPE	ROCK BAGS
			LF	MAINTENANCE	URBAN CLASS I	DITCH CHECKS	CHECKS	
			LF	LF	TYPE A	LF	EACH	EACH
					SY			
0010	1							
		NW QUAD	980	980	2,200	13	2	5
		NE QUAD	1,090	1,090	2,300	--	--	--
		SW QUAD	--	--	3,500	63	1	1
		SE QUAD	550	550	1,500	38	1	1
		CIRCLE	--	--	200	--	--	--
		UNDISTRIBUTED	520	520	2,000	--	--	--
		PROJECT TOTAL	3,140	3,140	11,700	114	4	7

NOTE:
1. ROCK BAGS TO BE USED FOR SILT FENCE RELIEF AND AS DIRECTED BY THE ENGINEER

FOR INFORMATION ONLY	
ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NUMBER OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5

RESTORATION ITEMS							
		625.0500	629.0210	630.0130	630.0200	630.0500	
CATEGORY	STAGE	LOCATION	SALVAGED	FERTILIZER	SEEDING	SEEDING	SEED WATER
			TOPSOIL	TYPE B	MIXTURE NO.	TEMPORARY	WATER
			SY	CWT	30	LB	MGAL
0010	1	CTH U AND G	9,850	5	180	270	220
			--	--	--	--	--
		UNDISTRIBUTED	1,970	1	40	50	40
		PROJECT TOTAL	11,820	6	220	320	260

<u>INLET PROTECTION</u>				
			628.7005	628.7020
			INLET PROTECTION TYPE A EACH	INLET PROTECTION TYPE D EACH
CATEGORY	STAGE	LOCATION		
0010	1			
		CTH G WEST LEG-NORTH	1	--
		CTH G EAST LEG-SOUTH	--	--
		CTH U SOUTH LEG-EAST	1	1
		CIRCLE	2	2
PROJECT TOTAL			4	3

TRACKING PADS				
CATEGORY		STAGE	LOCATION	628.7560 EACH
0010	1	UNDISTRIBUTED		4
PROJECT TOTAL				4

TYPE II SIGNS AND SUPPORTS																
									634.0614	634.0616	634.0618	634.0622	637.2230	637.2210		
CATEGORY	SIGN NUMBER	SIGN CODE	SIGN SIZE	SIGN TYPE	SIGN DIMENSION W X H			DESCRIPTION	POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	SIGNS TYPE II REFLECTIVE F SF	SIGNS TYPE II REFLECTIVE H SF	SIGN MOUNTED ON SAME POST AS SIGN NO.	
					IN	X	IN		4X6-INCH X 14-FT EACH	4X6-INCH X 16-FT EACH	4X6-INCH X 18-FT EACH	4X6-INCH X 22-FT EACH				
0010	201	R5-1	2S	II	30	X	30	DO NOT ENTER	--	1	--	--	--	6.25	202	
	202	R2-1	2S	II	24	X	30	SPEED LIMIT _ MPH	--	--	--	--	--	--		
	203	W2-6	2S	II	30	X	30	ROUNDABOUT AHEAD	--	--	1	--	6.25	--	204	
	204	W13-1	2S	II	18	X	18	ADVISORY SPEED PLATE (YELLOW BACK)	--	--	--	--	2.25	--		
	205	W3-2	2S	II	36	X	36	YIELD AHEAD	--	1	--	--	9.00	--		
	206	M1-5A	2S	II	24	X	24	COUNTY MARKER	--	1	--	--	--	4.00		
	207	W6-3	2S	II	36	X	36	TWO-WAY TRAFFIC SYMBOL	--	1	--	--	9.00	--		
	208	R-4-7	2S	II	24	X	30	KEEP RIGHT	--	1	--	--	--	5.00	210	
	209	W5-54	2S	II	18	X	18	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING	--	--	--	--	2.25	--	210	
	210	W14-3	2S	II	48	X	36	NO PASSING ZONE	--	--	--	--	12.00	--		
	211	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	212	
	212	R1-54	2S	II	24	X	15	TO TRAFFIC FROM LEFT	--	--	--	--	--	2.50		
	213	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	214	
	214	R6-2R	2S	II	24	X	30	ONE WAY RIGHT ARROW	--	--	--	--	--	5.00		
	215	D1-68	2S	II	66	X	30	U SOUTH 76TH STREET	--	2	--	--	--	13.75		
	216	D1-68	2S	II	72	X	30	G EAST 6 MILE RD	--	2	--	--	--	15.00		
	217	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	218	
	218	R6-2R	2S	II	24	X	30	ONE WAY RIGHT ARROW	--	--	--	--	--	5.00		
	219	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	220	
	220	R1-54	2S	II	24	X	15	TO TRAFFIC FROM LEFT	--	--	--	--	--	2.50		
	221	W14-3	2S	II	48	X	36	NO PASSING ZONE	--	1	--	--	12.00	--	223	
	222	R4-7	2S	II	24	X	30	KEEP RIGHT	--	--	--	--	--	5.00	223	
	223	W5-54	2S	II	18	X	18	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING	--	--	--	--	2.25	--		
	224	R2-1	2S	II	24	X	30	SPEED LIMIT _ MPH	--	1	--	--	--	--	225	
	225	R5-1	2S	II	30	X	30	DO NOT ENTER	--	--	--	--	--	6.25		
	226	W6-3	2S	II	36	X	36	TWO-WAY TRAFFIC SYMBOL	--	1	--	--	9.00	--		
	228	W3-2	2S	II	36	X	36	YIELD AHEAD	--	1	--	--	9.00	--		
	229	W2-6	2S	II	30	X	30	ROUNDABOUT AHEAD	--	--	1	--	6.25	--	230	
	230	W13-1	2S	II	18	X	18	ADVISORY SPEED PLATE (YELLOW BACK)	--	--	--	--	2.25	--		
	231	D1-68	2S	II	72	X	30	G WEST 6 MILE RD	--	2	--	--	--	15.00		
	232	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	233	
	233	R6-2R	2S	II	24	X	30	ONE WAY RIGHT ARROW	--	--	--	--	--	5.00		
	234	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	235	
	235	R1-54	2S	II	24	X	15	TO TRAFFIC FROM LEFT	--	--	--	--	--	2.50		
	236	W14-3	2S	II	48	X	36	NO PASSING ZONE	--	1	--	--	12.00	--	238	
	237	R4-7	2S	II	24	X	30	KEEP RIGHT	--	--	--	--	--	5.00	238	
	238	W5-54	2S	II	18	X	18	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING	--	--	--	--	2.25	--		
	239	R2-1	2S	II	24	X	30	SPEED LIMIT _ MPH	--	1	--	--	--	5.00	240	
	240	R5-1	2S	II	30	X	30	DO NOT ENTER	--	--	--	--	--	6.25		
	241	W6-3	2S	II	36	X	36	TWO-WAY TRAFFIC SYMBOL	--	1	--	--	9.00	--		
	242	M1-5A	2S	II	24	X	24	COUNTY MARKER	--	1	--	--	--	4.00		
	243	W3-2	2S	II	36	X	36	YIELD AHEAD	--	1	--	--	9.00	--		
	244	W2-6	2S	II	30	X	30	ROUNDABOUT AHEAD	--	--	1	--	6.25	--	245	
	245	W13-1	2S	II	18	X	18	SPEED LIMIT _ MPH	--	--	--	--	--	2.25		
	247	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	248	
	248	R6-2R	2S	II	24	X	30	ONE WAY RIGHT ARROW	--	--	--	--	--	5.00		
	249	R1-2	2S	II	36	X	31	YIELD	--	--	1	--	--	7.75	250	
	250	R1-54	2S	II	24	X	15	TO TRAFFIC FROM LEFT	--	--	--	--	--	2.50		
	251	W14-3	2S	II	48	X	36	NO PASSING ZONE	--	1	--	--	12.00	--	253	
	252	R4-7	2S	II	24	X	30	KEEP RIGHT	--	--	--	--	--	5.00	253	
	253	W5-54	2S	II	18	X	18	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING	--	--	--	--	2.25	--		
	254	R2-1	2S	II	24	X	30	SPEED LIMIT _ MPH	--	--	1	--	--	--	255	
	255	R5-1	2S	II	30	X	30	DO NOT ENTER	--	--	--	--	--	6.25		
	256	M1-5A	2S	II	24	X	24	COUNTY MARKER	--	1	--	--	--	4.00		
	257	D1-68	2S	II	66	X	30	U NORTH 76TH ST	--	2	--	--	--	13.75		
	258	W3-2	2S	II	36	X	36	YIELD AHEAD	--	1	--	--	9.00	--		
	259	W2-6	2S	II	30	X	30	ROUNDABOUT AHEAD	--	--	1	--	6.25	--	260	
	260	W13-1	2S	II	18	X	18	SPEED LIMIT _ MPH	--	--	--	--	--	2.25		
	261	D1-62	2S	II	144	X	66		--	--	--	3	--	66.00		
	262	D1-62	2S	II	144	X	66		--	--	--	3	--	66.00		
	263	D1-62	2S	II	138	X	66		--	--	--	3	--	63.25		
	264	D1-62	2S	II	138	X	66		--	--	--	3	--	63.25		
	265	R6-4B	2S	II	60	X	24	ROUNDABOUT CHEVRON BANK	2	--	--	--	--	10.00		
		R6-1R	2S	II	36	X	12	ONE WAY ROUNDABOUT	--	--	--	--	--	3.00		
	266	R6-4B	2S	II	60	X	24	ROUNDABOUT CHEVRON BANK	2	--	--	--	--	10.00		
		R6-1R	2S	II	36	X	12	ONE WAY ROUNDABOUT	--	--	--	--	--	3.00		
	267	R6-4B	2S	II	60	X	24	ROUNDABOUT CHEVRON BANK	2	--	--	--	--	10.00		
		R6-1R	2S	II	36	X	12	ONE WAY ROUNDABOUT	--	--	--	--	--	3.00		
	268	R6-4B	2S	II	60	X	24	ROUNDABOUT CHEVRON BANK	2	--	--	--	--	10.00		
		R6-1R	2S	II	36	X	12	ONE WAY ROUNDABOUT	--	--	--	--	--	3.00		
PROJECT TOTAL									8	25	13	12	150.00	527.00		

TRAFFIC CONTROL			
			643.5000
CATEGORY	STAGE	LOCATION	TRAFFIC CONTROL EACH
0010	ALL	PROJECT	1
PROJECT TOTAL			1

TRAFFIC CONTROL ITEMS											
			643.0300		643.0420		643.0705		643.0900*		
			TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		
CATEGORY	STAGE	LOCATION	DURATION DAYS	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY
0010	1	CTH U	99							8	792
		CTH G		--	--	--	--	--	--	8	792
UNDISTRIBUTED				10	990	14	1,386	28	2,772		
				990		1,386		2,772			
PROJECT TOTAL				990		1,386		2,772		1,584	
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE											

TRAFFIC CONTROL ITEMS-DETOUR													
			643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I				643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II		643.1050 TRAFFIC CONTROL SIGNS PCMS		643.0900 TRAFFIC CONTROL SIGNS		
CATEGORY	STAGE	LOCATION	DURATION DAYS	NO. CYCLES	NO.	EACH	NO.	EACH	NO.	DAY	NO.	DAY	COMMENTS
0010	1		99	--	--	--	--	--	--	--	35	3,465	
		CTH G	--	--	--	--	--	--	--	--	9	891	
		51ST ST	--	--	--	--	--	--	--	--	57	5,643	
		I-41	--	--	--	--	--	--	--	--	36	3,564	
		CTH K	--	--	--	--	--	--	--	--	24	2,376	
		USH 45	--	--	--	--	--	--	--	--	9	891	
		92ND ST	--	--	--	--	--	--	--	--	--	--	
		CTH U & CTH G	7	1	4	4	4	4	4	28	--	--	PRIOR TO CONSTRUCTION
PROJECT TOTAL						4	4	28	16,830				

LONG LINE PAVEMENT MARKING ITEMS																
			646.1020			646.3020			646.7120		646.8120		646.8220		646.6320	
			MARKING LINE EPOXY 4-INCH			MARKING LINE EPOXY 8-INCH		MARKING DIAGONAL EPOXY 12-INCH		MARKING CURB EPOXY		MARKING ISLAND NOSE EPOXY		MARKING DOTTED EXTENSION EPOXY 18-INCH		
CATEGORY	STAGE	LOCATION	STATION	TO STATION	ALIGNMENT	SOLID	3' LINE 9'	SOLID	SOLID WHITE	25' C-C YELLOW	SOLID YELLOW	YELLOW	EACH	2' LINE, 2'SKIP SOLID WHITE		
						YELLOW	SKIP WHITE	WHITE		LF	LF				LF	LF
0010	1	NORTH LEG	406+97.97	412+00	NBE	390	140	800	390	45	39	1	--			
		SOUTH LEG	400+26.27	406+31.17	NB	570	130	1,000	570	78	46	1	--			
		EAST LEG	307+63.92	314+00	EBE	690	130	1,070	690	86	39	1	--			
		WEST LEG	300+00	306+46.39	EB	630	140	1,010	630	64	47	1	--			
		CIRCLE				--	--	--	160	--	--	--	147			
PROJECT TOTAL							6,700		2,440	273	171	4	147			

3

SAWING

690.0150

CATEGORY	STAGE	LOCATION	SAWING ASPHALT LF
0010	1	CTH G WEST LEG	90
		CTH G EAST LEG	90
		CTH U NORTH LEG	30
		CTH U SOUTH LEG	50
		PROJECT TOTAL	260

WATER

624.0100
MGAL

CATEGORY	STAGE	LOCATION	
0010	ALL	PROJECT-BASE COMPACTION	110
		PROJECT-COMMON EXCAVATION	70
		DUST CONTROL	50
		PROJECT TOTAL	240

MOBILIZATION

619.1000

CATEGORY	STAGE	LOCATION	MOBILIZATION EACH
0010	ALL	PROJECT	1
		PROJECT TOTAL	1

PIPE UNDERDRAIN ITEMS

612.0106

CATEGORY	STAGE	LOCATION	PIPE UNDERDRAIN 6-INCH LF
0010	1	NW QUAD	180
		NE QUAD	170
		SE QUAD	530
		SW QUAD	170
		PROJECT TOTAL	1,050

3

FIELD OFFICE

642.5001

CATEGORY	STAGE	LOCATION	FIELD OFFICE TYPE B EACH
0010	ALL	PROJECT	1
		PROJECT TOTAL	1

FINISHING ROADWAY

213.0100

CATEGORY	STAGE	LOCATION	FINISHING ROADWAY (2803-03-71) EACH
0010	ALL	PROJECT	1
		PROJECT TOTAL	1

MAINTENANCE AND REPAIR OF HAUL ROADS

618.0100

CATEGORY	STAGE	LOCATION	MAINTENANCE AND REPAIR OF HAUL ROADS (2803-03-71) EACH
0020	ALL	PROJECT	1
		PROJECT TOTAL	1

DRAINTILE EXPLORATION

612.0700

CATEGORY	STAGE	LOCATION	DRAIN TILE EXPLORATION LF
0010	ALL	CTH U NORTH LEG	200
		CTH G EAST LEG	200
		PROJECT TOTAL	400

PROJECT NO: 2803-03-71

HWY: CTH U

COUNTY: RACINE

MISCELLANEOUS QUANTITIES

SHEET

64

E

LIGHTING-POLES

	657.0255	657.0322	654.0105
POLE I.D. OR LOCATION	TRANSFORMER BASES BREAKAWAY 11.5-INCH BOLT CIRCLE	POLES TYPE 5 ALUMINUM	CONCRETE BASES TYPE 5
	EACH	EACH	EACH
AXX1	1	1	1
BXX2	-	-	-
BXX3	1	1	1
AXX4	1	1	1
AXX6	1	1	1
BXX6	1	1	1
BXX7	1	1	1
AXX8	1	1	1
AXX9	1	1	1
BXX10	1	1	1
AXX11	1	1	1
BXX12	1	1	1
AXX13	1	1	1
BXX14	1	1	1
AXX15	1	1	1
BXX16	1	1	1
TOTALS	15	15	15

LIGHTING-ARMS AND LUMINAIRES

	655.0610	657.0615	659.1115	
POLE I.D. OR LOCATION	ELECTRICAL WIRE LIGHTING 12 AWG	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	LUMINAIRES UTILITY LED A	COMMENTS
	LF	EACH	EACH	
AXX1	129	1	1	INSTALLED BY UTILITY
BXX2	-	-	-	
BXX3	129	1	1	
AXX4	129	1	1	
AXX6	129	1	1	
BXX6	129	1	1	
BXX7	129	1	1	
AXX8	129	1	1	
AXX9	129	1	1	
BXX10	129	1	1	
AXX11	129	1	1	
BXX12	129	1	1	
AXX13	129	1	1	
BXX14	129	1	1	
AXX15	129	1	1	
BXX16	129	1	1	
TOTALS	645	15	15	

LIGHTING-PULL BOXES

				653.0140
DESCRIPTION	STATION	OFFSET	ALIGNMENT	PULL BOXES STEEL 24X42- INCH
				EACH
PB1	307+73.27	39.88'LT	WBA	1
PB3	308+00.40	50.63'LT	WBA	1
PB4	404+03.68	23.66'LT	NB	1
PB7	405+82.90	52.81'LT	NB	1
PB8	405+30.58	48.64'LT	NB	1
PB9	303+75.49	19.91'RT	EB	1
PB10	406+79.22	30.35'LT	SBA	1
TOTAL				7

LIGHTING-WIRE AND CONDUIT

		652.0225	652.0235	655.0620
FROM	TO	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	ELECTRICAL WIRE LIGHTING 8 AWG
		LF	LF	LF
DC	PB1	-	25	40
PB1	AXX1	46	-	164
PB1	PB3	-	105	360
PB3	BXX3	32	-	108
BXX3	AXX4	155	-	600
PB3	AXX5	76	-	284
AXX5	PB4	152	-	548
PB4	BXX6	66	-	244
PB3	PB7	-	123	432
PB7	BXX7	17	-	48
BXX7	PB8	71	-	224
PB8	AXX8	118	-	452
PB7	AXX9	82	-	268
AXX9	PB9	174	-	636
PB9	BXX10	115	-	440
PB7	PB10	-	129	456
PB10	BXX12	24	-	76
BXX12	AXX12	175	-	680
PB10	AXX13	75	-	280
AXX13	BXX14	204	-	796
PB10	PB1	-	133	472
PB1	BXX16	42	-	148
BXX16	AXX15	-	-	684
TOTALS		1,624	515	2,104

LIGHTING-MISCELLANEOUS

	654.0224	656.0201	659.2124
DESCRIPTION	CONCRETE CONTROL CABINET BASES TYPE L24	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 2803-03-71	LIGHTING CONTROL CABINETS 120/240 24-INCH
	EACH	EACH	EACH
DISTRIBUTION CENTER L-CTHU-ST	1	1	1
TOTALS	1	1	1

3

3

CONSTRUCTION STAKING										
			650.4500	650.5000	650.5500	650.6000	650.8501	650.9911	650.9920	650.9500
CATEGORY	STAGE	LOCATION	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING PIPE CULVERTS EACH	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (2803-03-71) EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (2803-03-71) EACH	CONSTRUCTION STAKING SLOPE STAKES LF	CONSTRUCTION STAKING SIDEWALK (2803-03-71) EACH
0010	1	CTH G APPROACH	933	933	755	--			933	
		CTH G EXIT	966	966	957	--	--	--	966	--
		CTH U APPROACH	566	566	963	--	--	--	566	--
		CTH U EXIT	481	481	757	1	--	--	481	--
		CENTER CIRCLE	270	270	428	--	--	--	270	--
		CTH A & CTH J	--	--	--	--	1	1	--	1
		PROJECT TOTAL	3,216	3,216	3,860	1	1	1	3,216	1

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TRANSPORTATION PROJECT PLAT NO: 2803-03-01 - 4.01

LOCATED IN PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 9, AND PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 10,
ALL IN TOWNSHIP 4 NORTH, RANGE 21 EAST, VILLAGE OF RAYMOND, RACINE COUNTY, WISCONSIN

RELOCATION ORDER - CTH U, V RAYMOND CTH U (INTERSECTION WITH CTH G), RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,
RACINE COUNTY 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 83.08 (1), WISCONSIN STATUTES, RACINE COUNTY

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 RACINE COUNTY, PURSUANT TO THE PROVISIONS OF SECTION 83.08 (1), WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS),
RACINE 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. ALL (TLEs) ON
THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS
GIVEN.

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 RACINE COUNTY
HIGHWAY DEPARTMENT.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR
CTH U AND CTH G: R/W PLAT S 0344 (8) AND EXISTING CENTERLINE.

VILLAGE

SE/SE

OF

SW/SW

NE/NE

NW/NW

RAYMOND

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SF REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
1	STEINKREUZ LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	5717	18018	23735	9329
2	SHERYL L. MICHEL	FEE/TLE	5423	19475	24898	5739

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS REMAINING	ROR
ACCESS RIGHTS	AR	RIGHT-OF-WAY	REM
ACRES	AC	SECTION	R/W
AND OTHERS	ET AL	STATION	SEC
CENTERLINE	C/L	TEMPORARY LIMITED EASEMENT	STA
CERTIFIED SURVEY MAP	CSM	VOLUME	TLE
CORNER	COR		V
DOCUMENT	DOC	CURVE DATA	
EASEMENT	EASE	LONG CHORD	LCH
HIGHWAY EASEMENT	HE	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON	DEGREE OF CURVE	D
PAGE	P	CENTRAL ANGLE OR DELTA	Δ/DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CONVENTIONAL SYMBOLS

PROPOSED R/W LINE	---
EXISTING R/W OR HE LINE	---
PROPERTY LINE	---
LOT & TIE LINES	---
SLOPE INTERCEPTS	---
CORPORATE LIMITS	---
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
ACCESS RESTRICTED (BY ACQUISITION)	---
ACCESS RESTRICTED (BY STATUTORY AUTHORITY)	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
EXISTING CENTERLINE	---
PROPOSED REFERENCE LINE	---
PARALLEL OFFSET	---

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD	---
TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
NON COMPENSABLE	---
COMPENSABLE	---
POWER POLE	---
TELEPHONE POLE	---
TELEPHONE PEDESTAL	---
ELECTRIC TOWER	---

(200) AT&T (COMMUNICATIONS)
NO RECORD OF EASEMENT - PAR. 1

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	AT&T (COMMUNICATIONS)	RELEASE OF RIGHTS

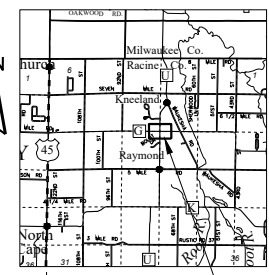
SCALE, FEET



GN



LOCATION SKETCH NOT TO SCALE



SHEET
LOCATION

Document # **2678457**
RACINE COUNTY REGISTER OF DEEDS
June 11, 2024 9:14 AM

Karin C. Pope

KARIE POPE
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: \$25.00

Pages: 1

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER : 2803-03-01-4.01
AMENDMENT NO: _____

COURSE TABLE		
COURSE	BEARING	DISTANCE
1013-1014	N89° 19' 14"W	617.69'
1014-1015	N00° 40' 46"E	33.00'
1015-PRW1000	S89° 19' 14"E	302.65'
PRW1000-PRW1017	N00° 08' 29"W	24.47'
PRW1017-PRW1001	S89° 13' 49"E	124.71'
PRW1001-PRW1002	N83° 21' 06"E	76.62'
PRW1002-PRW1003	N47° 25' 43"E	68.18'
PRW1003-1004	N00° 39' 53"E	448.02'
1004-1016	S89° 37' 43"E	63.24'
1016-1005	S89° 37' 43"E	1.76'
1005-1006	S89° 37' 43"E	33.00'
1006-1007	S00° 39' 53"W	462.18'
1007-PRW1008	S44° 29' 28"E	56.38'
PRW1008-PRW1009	S89° 37' 21"E	47.04'
PRW1009-PRW1010	S85° 00' 28"E	335.59'
PRW1010-1011	S89° 37' 21"E	189.58'
1011-1012	S00° 22' 39"W	33.00'
1012-1013	N89° 37' 21"W	644.39'

STATION & OFFSET TABLE (CTH G)		
POINT NO.	STATION	OFFSET
TLE1100	31+28.50	-33.00'
TLE1101	32+22.00	-50.74'
TLE1110	38+29.50	-56.05'
TLE1111	38+29.50	-60.50'
TLE1112	41+96.00	-35.50'
TLE1113	43+04.58	-35.50'

STATION & OFFSET TABLE (CTH U)		
POINT NO.	STATION	OFFSET
TLE1104	107+11.80	-78.00'
TLE1105	111+72.05	-78.00'
TLE1108	111+72.55	40.00'
TLE1109	107+03.41	40.00'

STATION & OFFSET TABLE (CTH U)		
POINT NO.	STATION	OFFSET
PRW1003	107+24.02	-65.00'
1004	111+72.05	-65.00'
1016	111+72.37	-1.76'
1005	111+72.38	0.00'
1006	111+72.55	33.00'
1007	107+10.37	33.00'
1013	106+10.25	0.00'

Vol 1 Pg 351
TRANSPORTATION PROJECT PLAT NO: 2803-03-01 - 4.02

LOCATED IN PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 16, TOWNSHIP 4 NORTH, RANGE 21 EAST
VILLAGE OF RAYMOND, RACINE COUNTY, WISCONSIN

RELOCATION ORDER - CTH U, V RAYMOND CTH U (INTERSECTION WITH CTH G), RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE,
RACINE COUNTY 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 83.08 (1), WISCONSIN STATUTES, RACINE COUNTY
HEREBY ORDERS THAT:
1. 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.
2. 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 RACINE COUNTY, PURSUANT TO THE PROVISIONS OF SECTION 83.08 (1), WISCONSIN STATUTES.

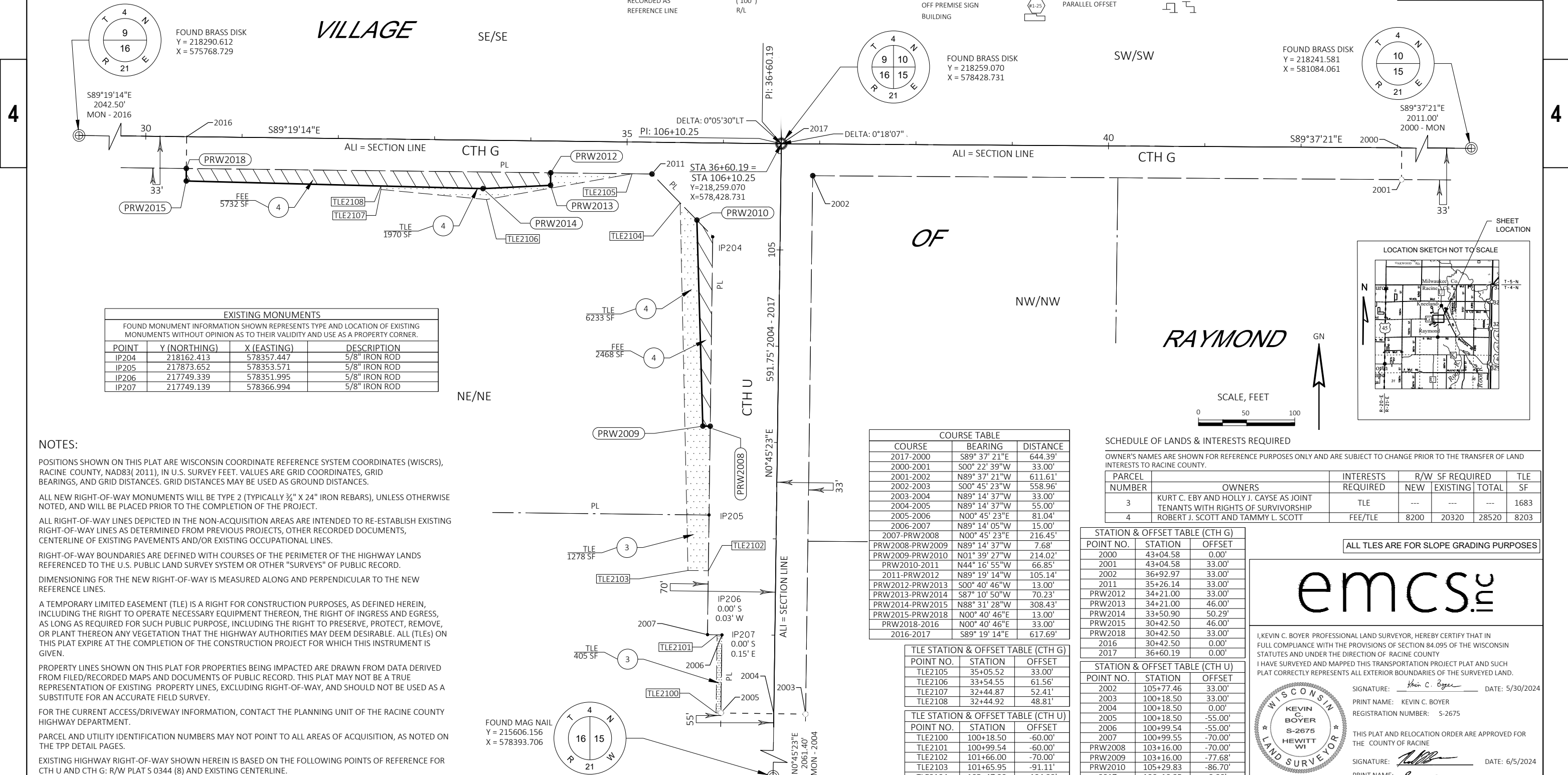
CONVENTIONAL ABBREVIATIONS	
ACCESS POINT/ DRIVEWAY CONNECTION	AP
ACCESS RIGHTS	AR
ACRES	AC
AND OTHERS	ET AL
CENTERLINE	C/L
CERTIFIED SURVEY MAP	CSM
CORNER	COR
DOCUMENT	DOC
EASEMENT	EASE
HIGHWAY EASEMENT	HE
LAND CONTRACT	LC
MONUMENT	MON
PAGE	P
PERMANENT LIMITED EASEMENT	PLE
PROPERTY LINE	PL
RECORDED AS	(100')
REFERENCE LINE	R/L
RELEASE OF RIGHTS	ROR
REMAINING	REM
RIGHT-OF-WAY	R/W
SECTION	SEC
STATION	STA
TEMPORARY LIMITED EASEMENT	TLE
VOLUME	V
CURVE DATA	
LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS	
PROPOSED R/W LINE	---
EXISTING R/W OR HE LINE	---
PROPERTY LINE	---
LOT & TIE LINES	---
SLOPE INTERCEPTS	---
CORPORATE LIMITS	---
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
ACCESS RESTRICTED (BY STATUTORY AUTHORITY)	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
EXISTING CENTERLINE	---
PROPOSED REFERENCE LINE	---
PARALLEL OFFSET	---
FOUND IRON PIPE/PIN	---
R/W MONUMENT	---
R/W STANDARD	---
SIGN	---
SECTION CORNER MONUMENT	---
SECTION CORNER SYMBOL	---
FEE (HATCH VARIES)	---
TEMPORARY LIMITED EASEMENT	---
PERMANENT LIMITED EASEMENT	---
R/W BOUNDARY POINT	---
PARCEL NUMBER	---
UTILITY PARCEL NUMBER	---
OFF PREMISE SIGN	---
BUILDING	---

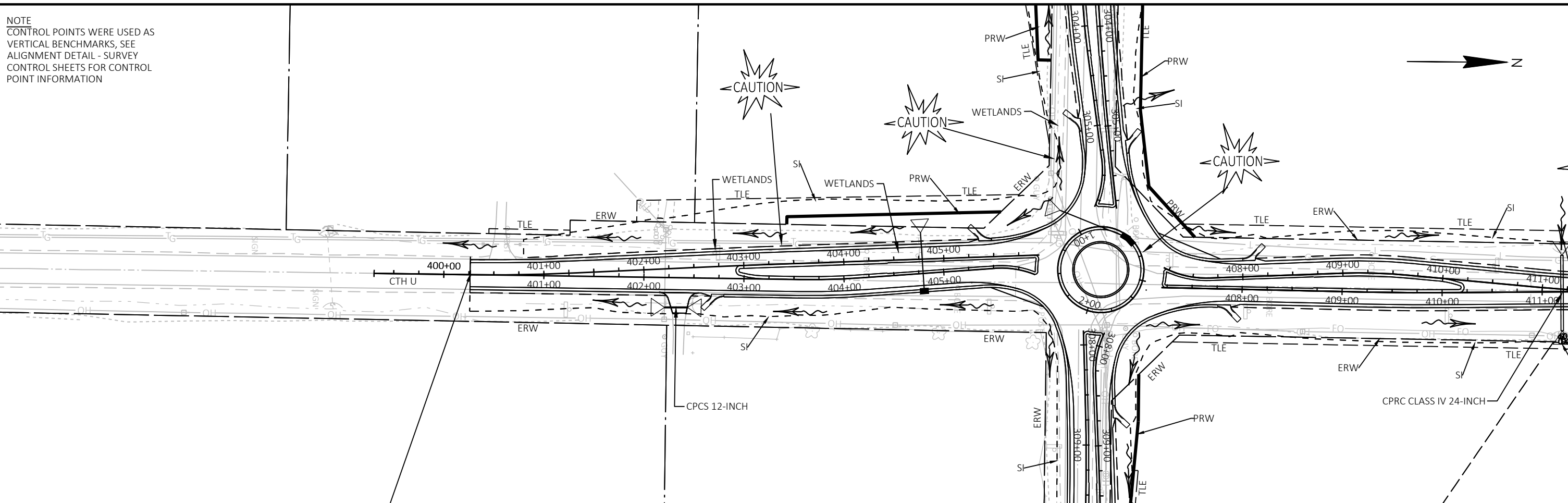
CONVENTIONAL UTILITY SYMBOLS	
WATER	---
GAS	---
TELEPHONE	---
OVERHEAD	---
TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
POWER POLE	---
TELEPHONE POLE	---
TELEPHONE PEDESTAL	---
ELECTRIC TOWER	---

Document # **2678458**
RACINE COUNTY REGISTER OF DEEDS
June 11, 2024 9:53 AM
Karin C. Pope
KARIE POPE
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: \$25.00
Pages: 1

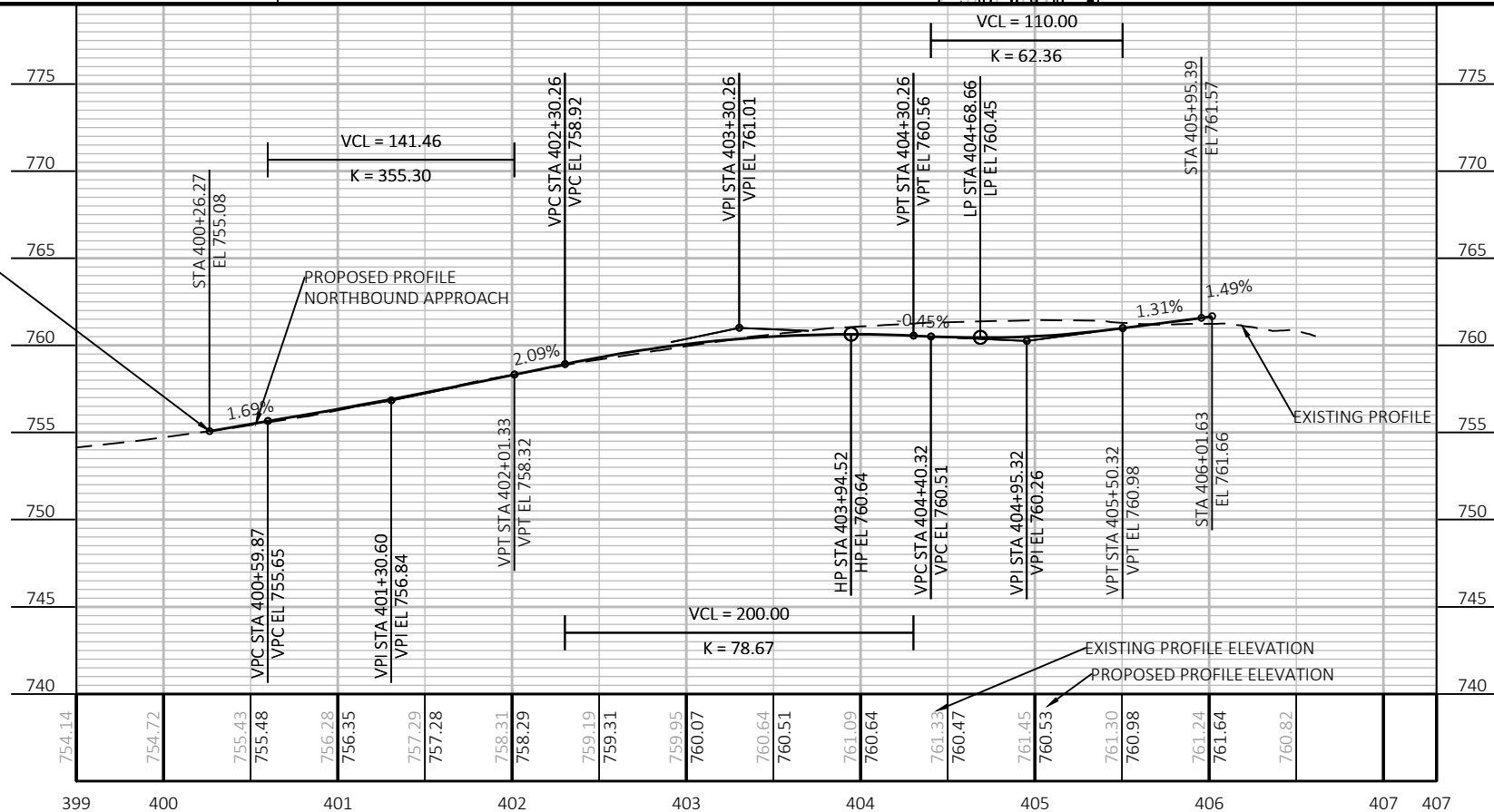
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER : 2803-03-01-4.02
AMENDMENT NO: _____



NOTE
CONTROL POINTS WERE USED AS
VERTICAL BENCHMARKS, SEE
ALIGNMENT DETAIL - SURVEY
CONTROL SHEETS FOR CONTROL
POINT INFORMATION



BEGIN PROJECT
STATION 400+26.27



PROJECT NO: 2803-03-71

HWY: CTH U

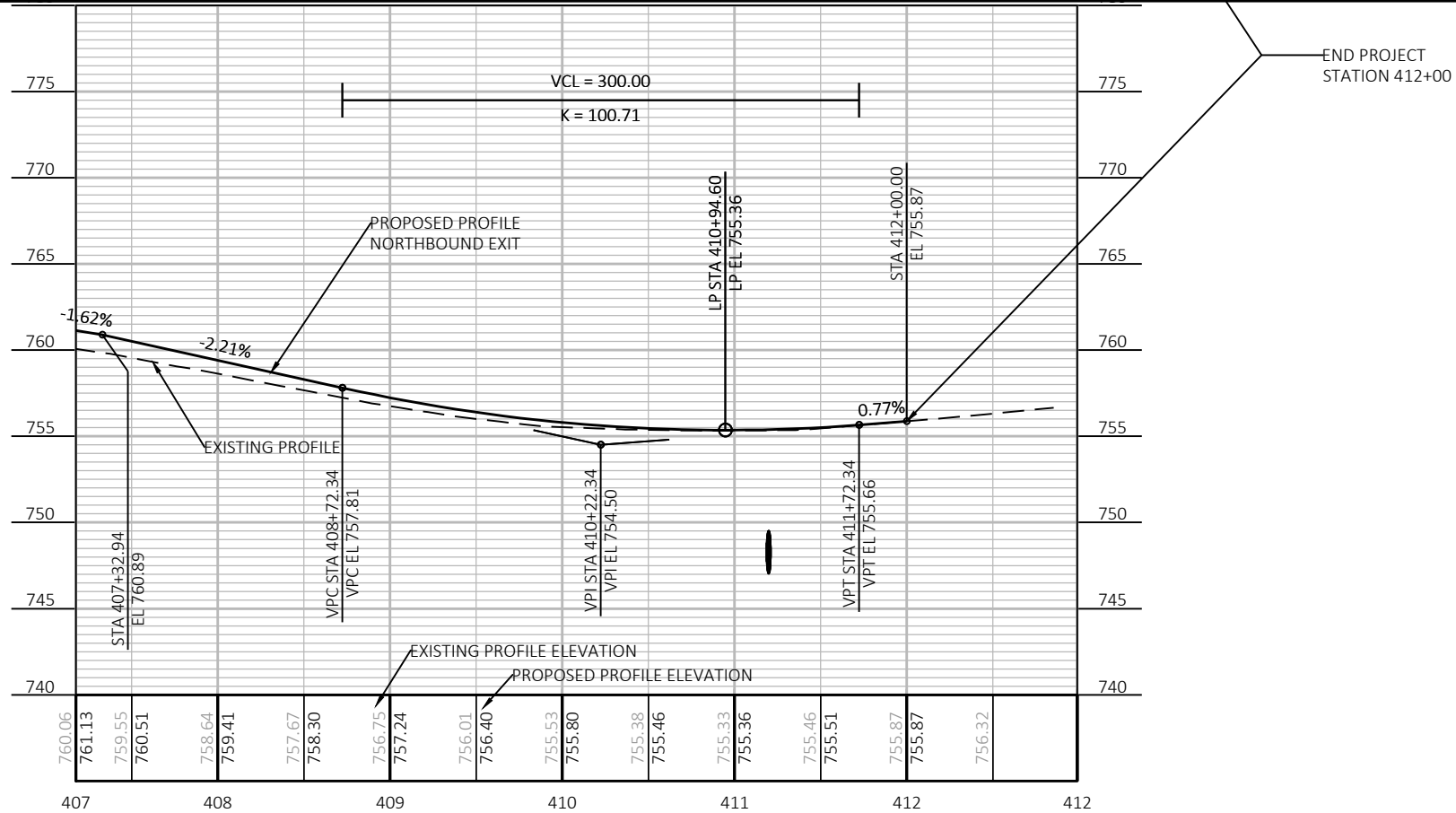
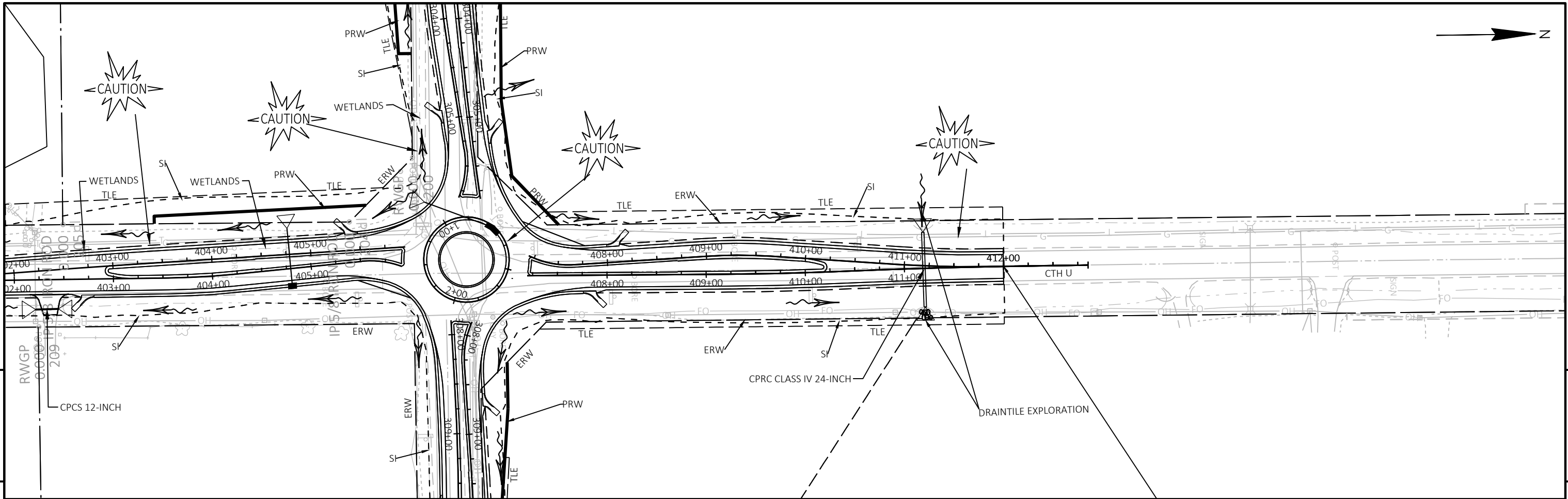
COUNTY: RACINE

PLAN AND PROFILE: NB APPROACH

SHEET

69

E



PROJECT NO: 2803-03-71

HWY: CTH U

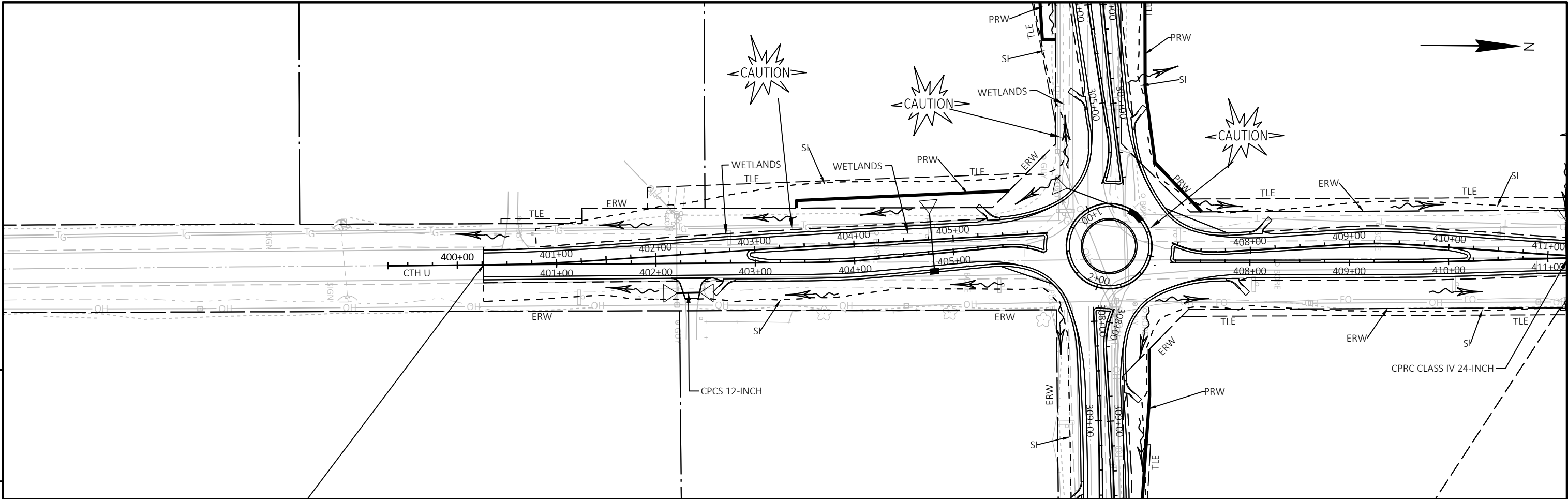
COUNTY: RACINE

PLAN AND PROFILE: NB EXIT

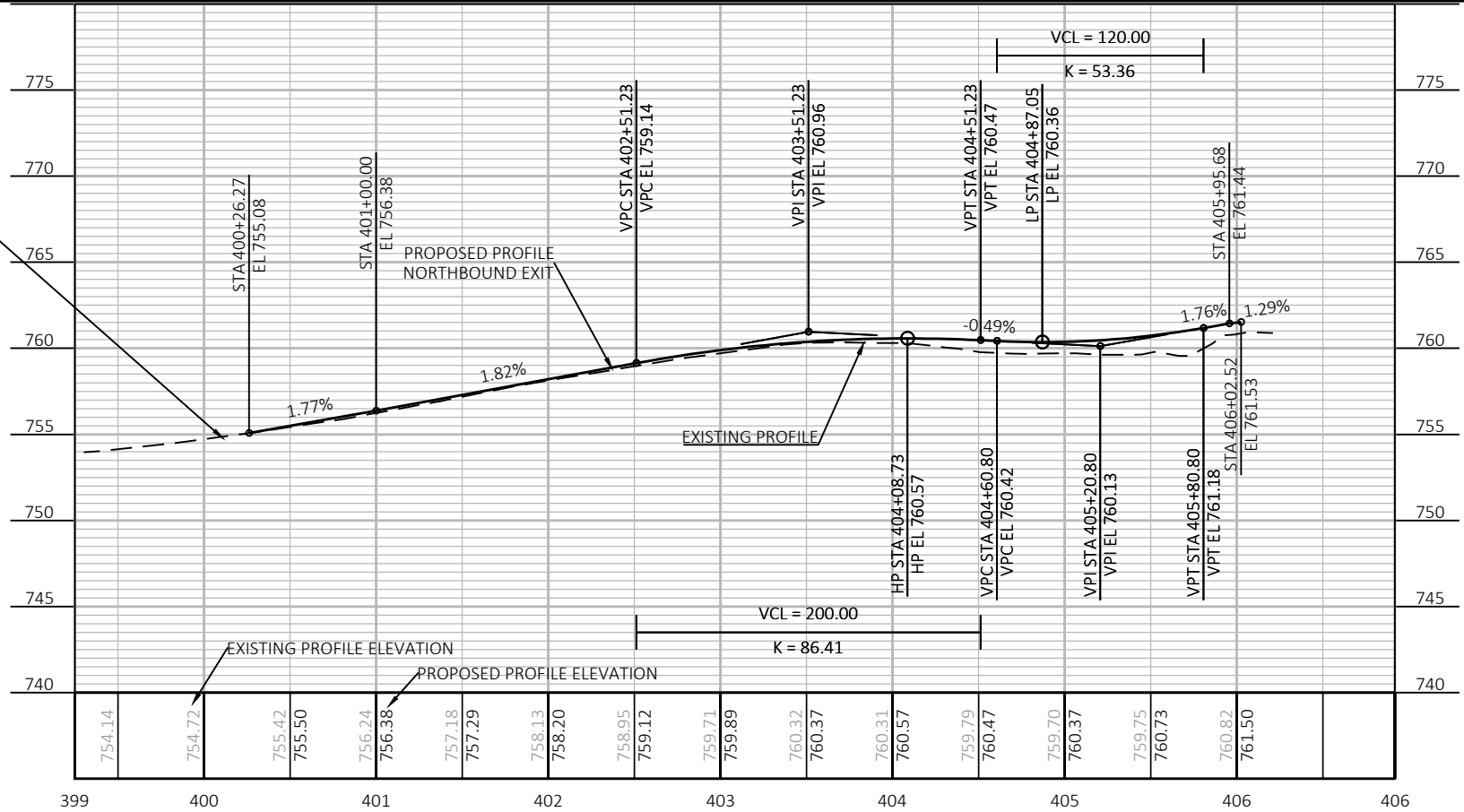
SHEET

70

E



BEGIN PROJECT
STATION 400+26.27



PROJECT NO: 2803-03-71

HWY: CTH U

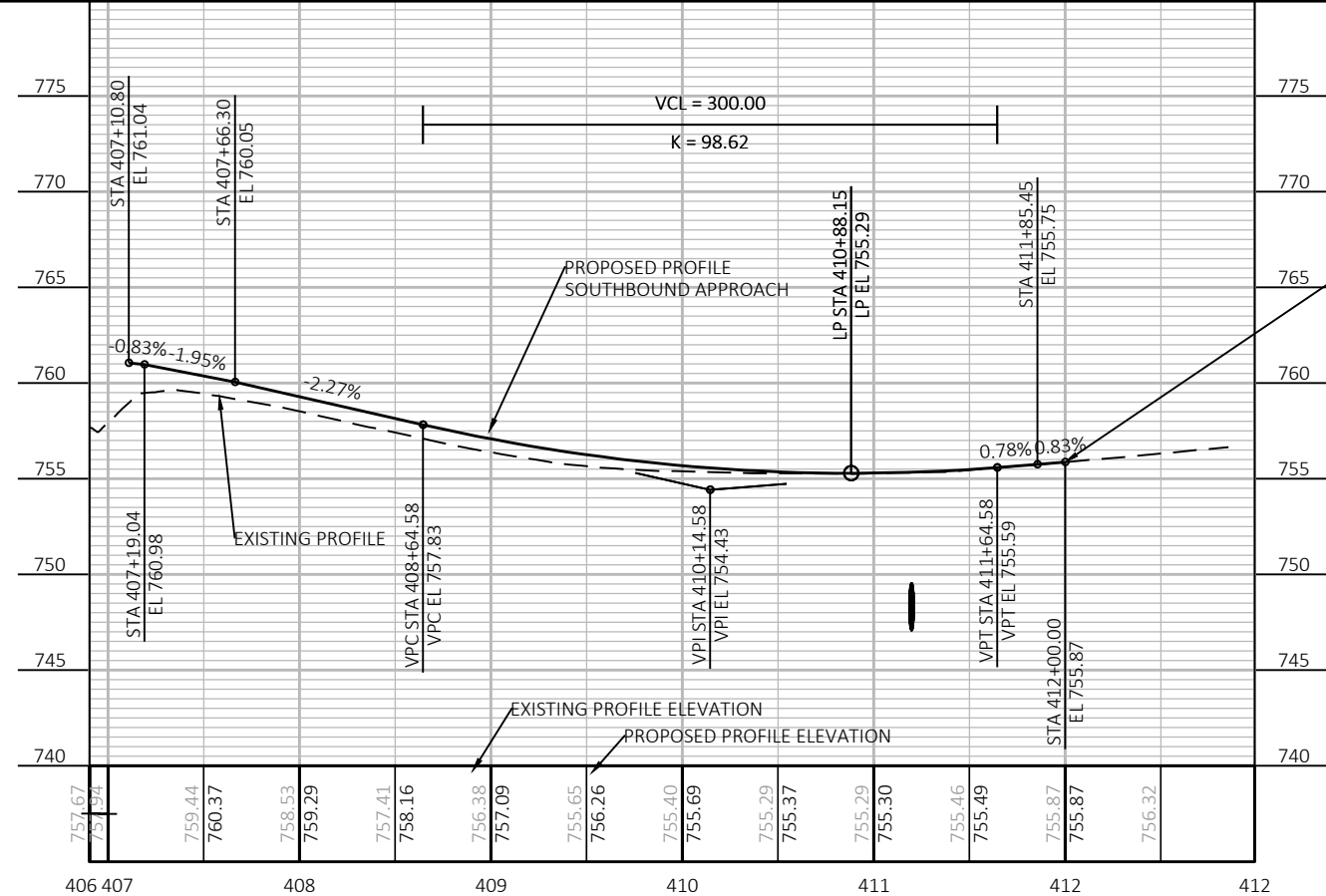
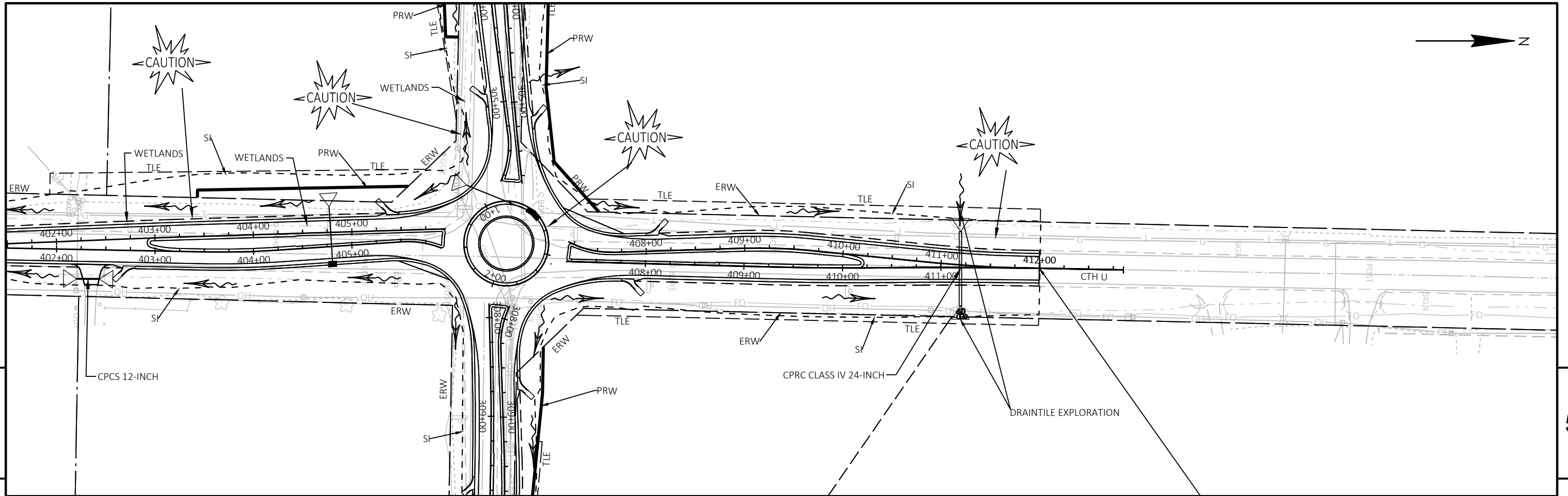
COUNTY: RACINE

PLAN AND PROFILE: SB EXIT

SHEET

71

E



PROJECT NO: 2803-03-71

HWY: CTH U

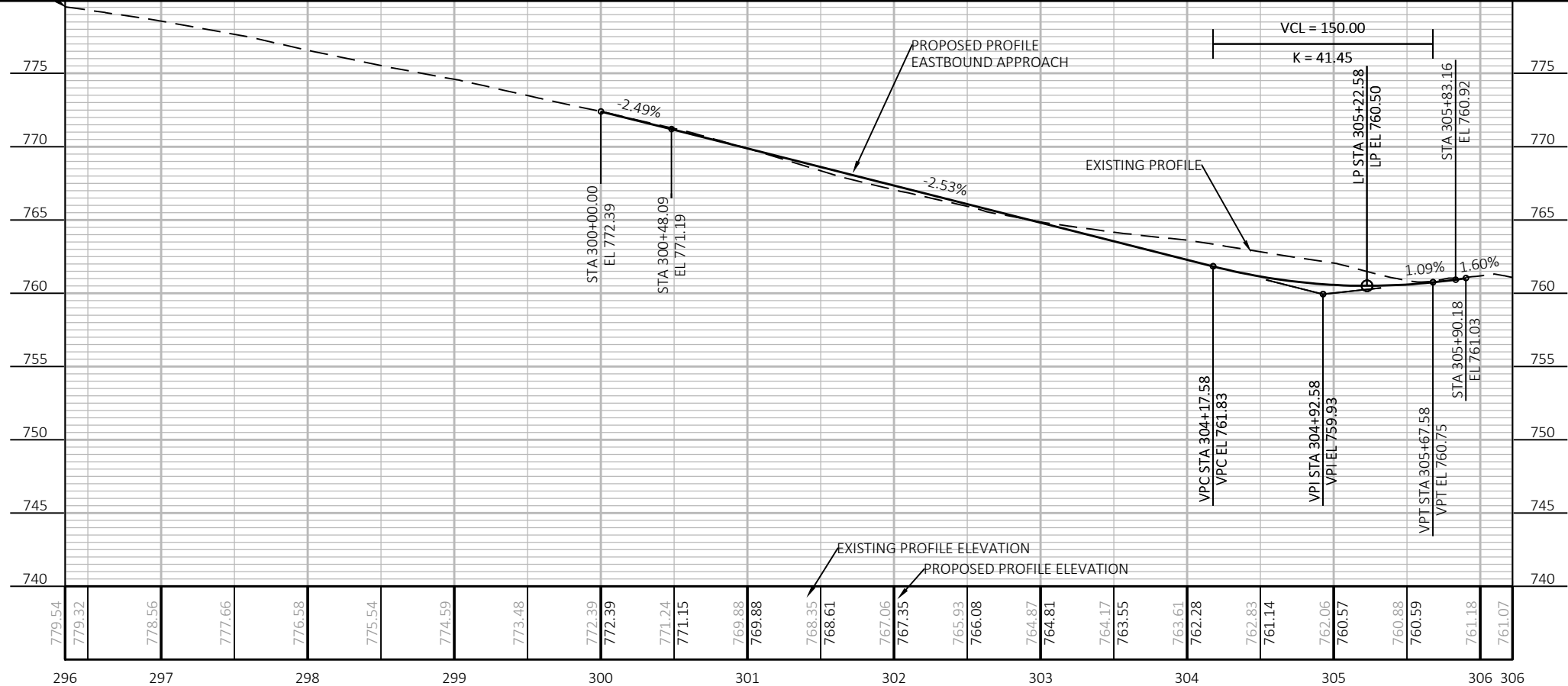
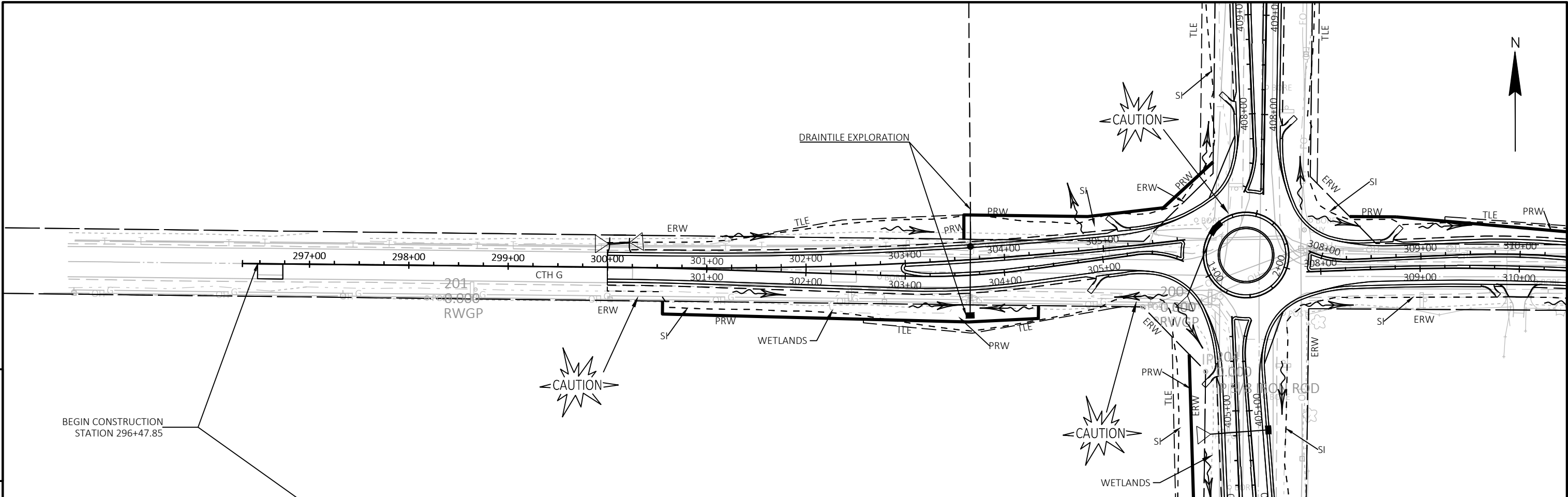
COUNTY: RACINE

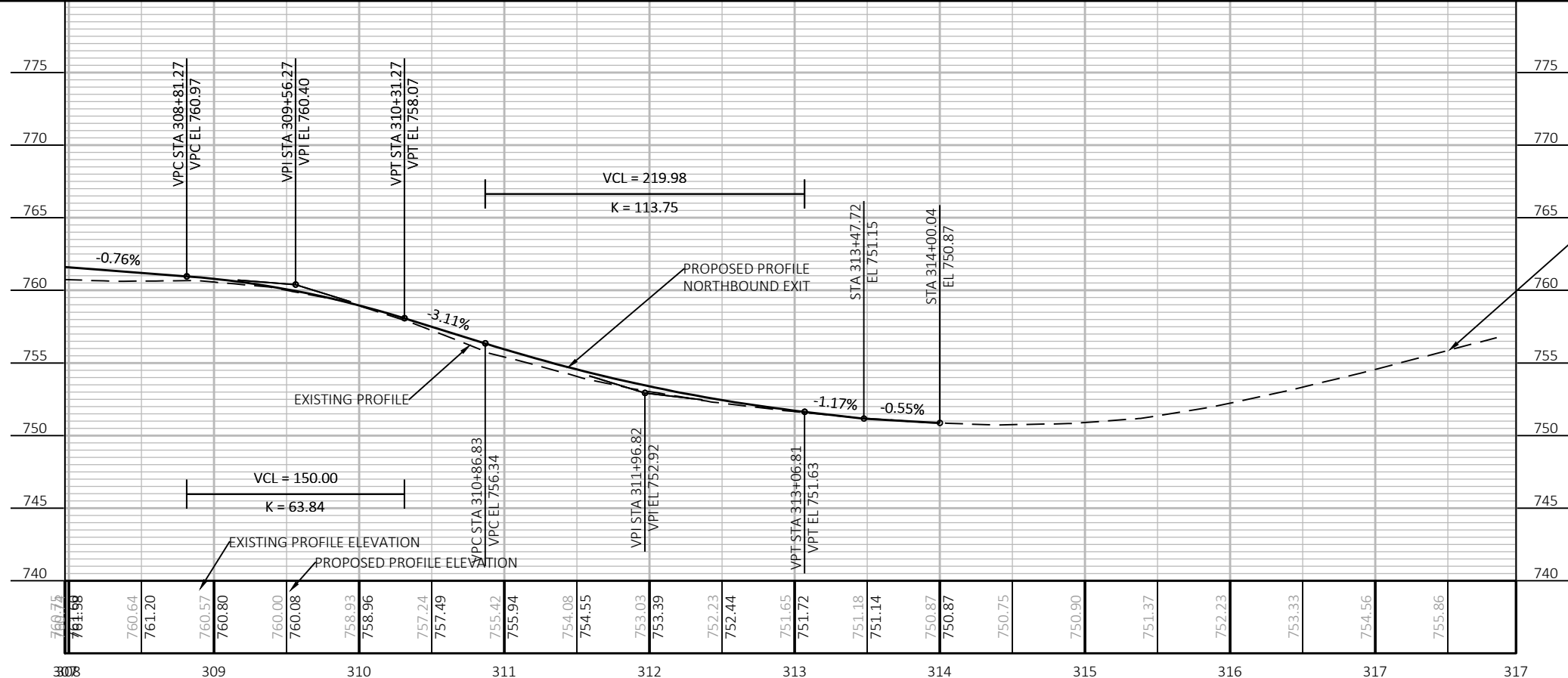
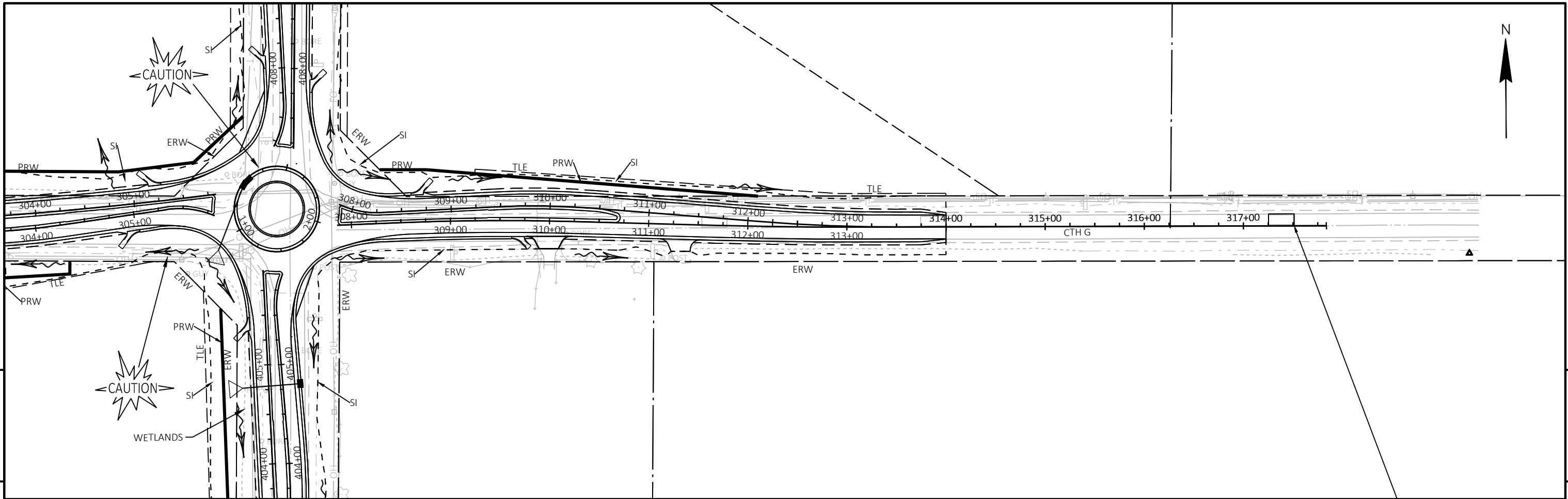
PLAN AND PROFILE: SB APPROACH

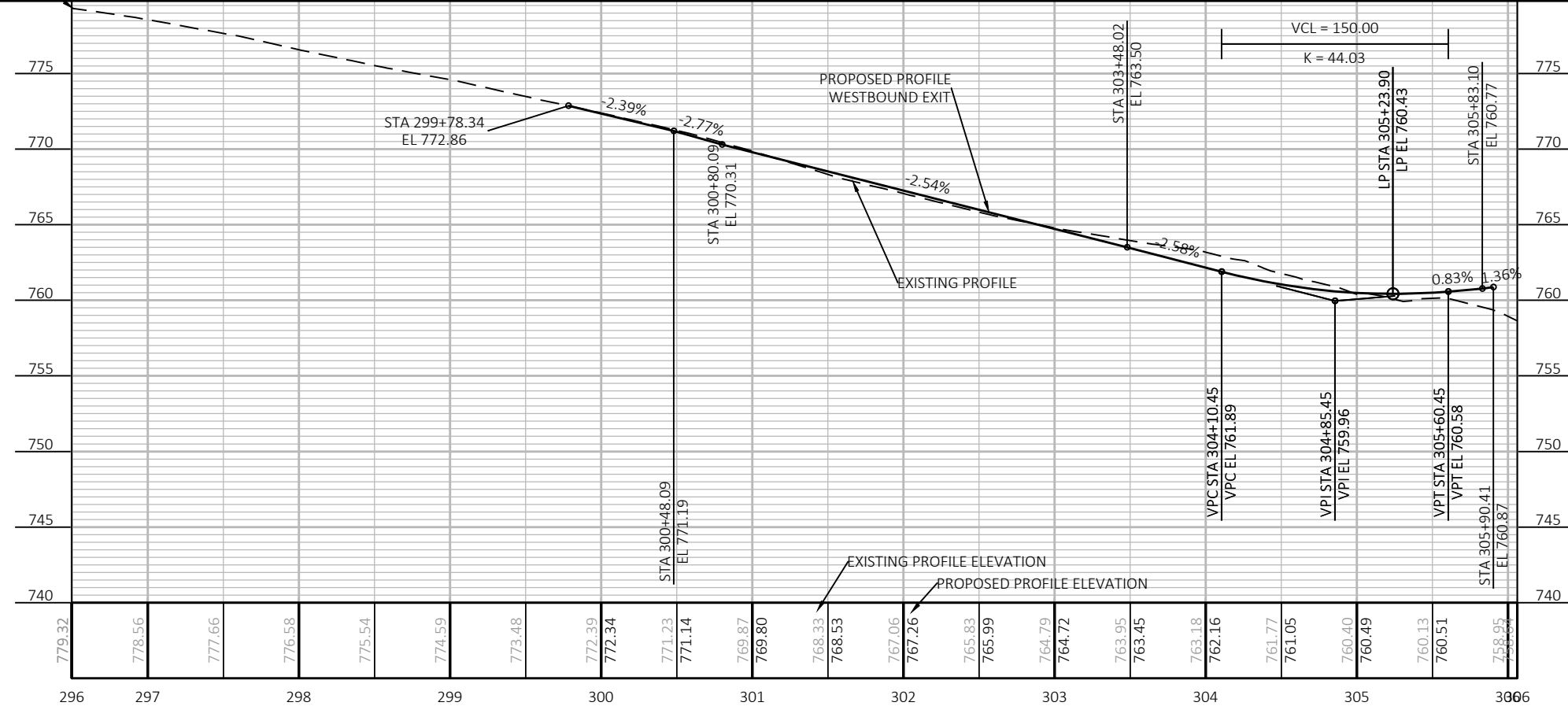
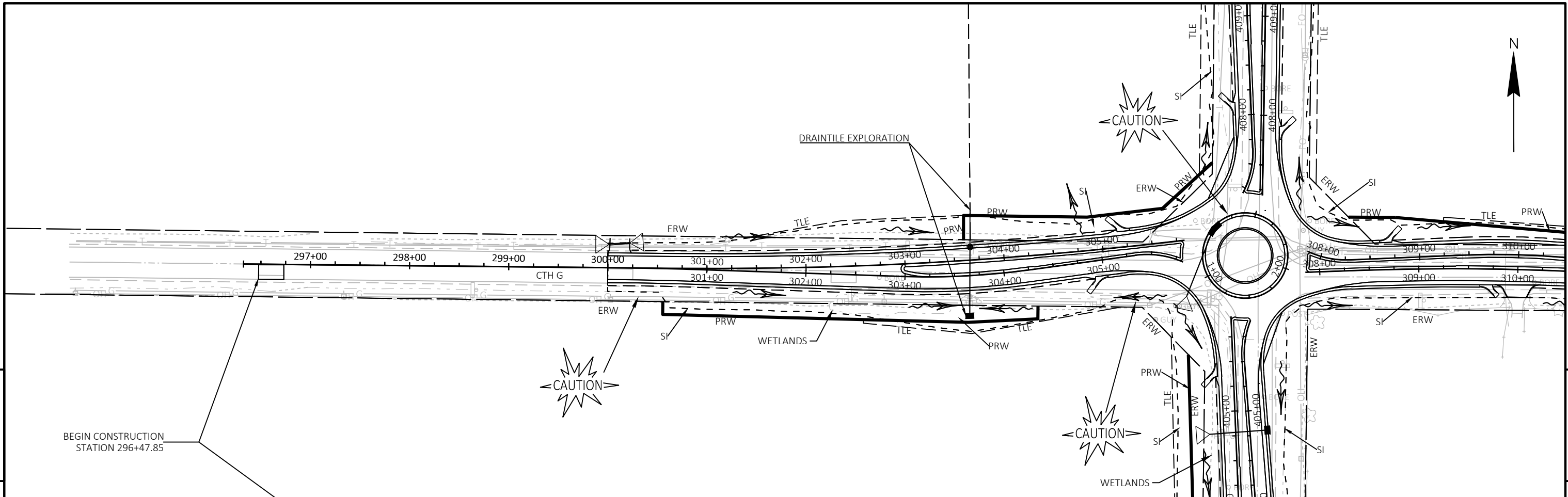
SHEET

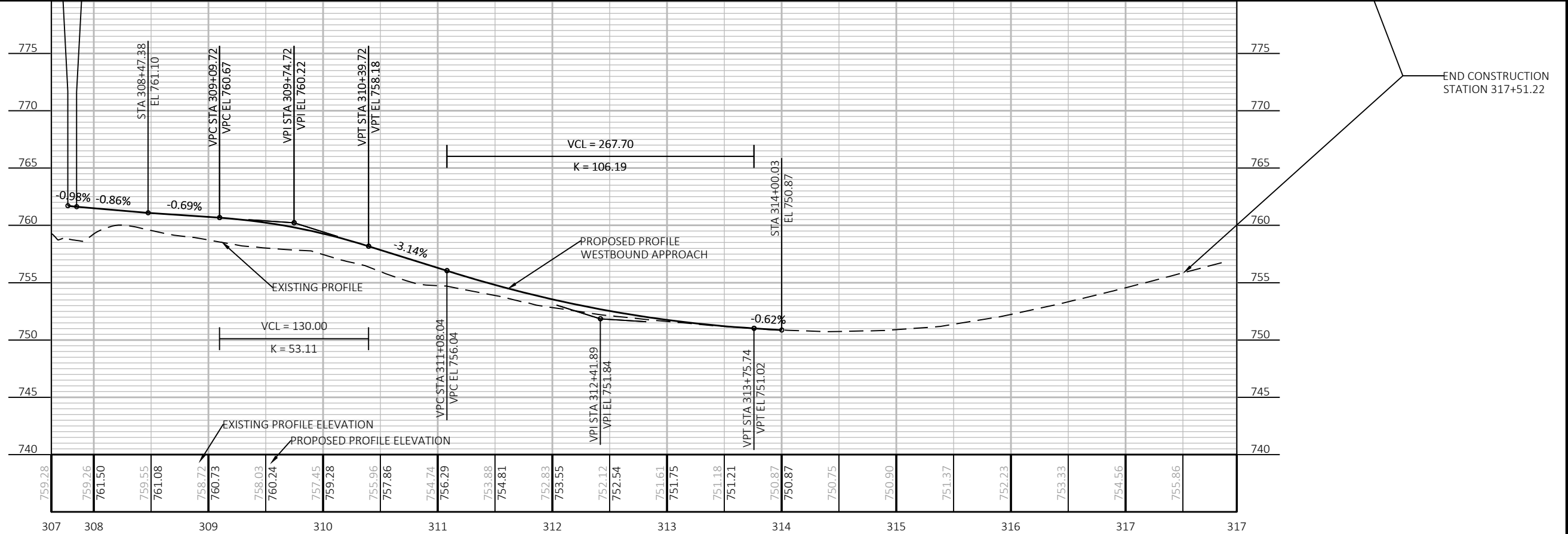
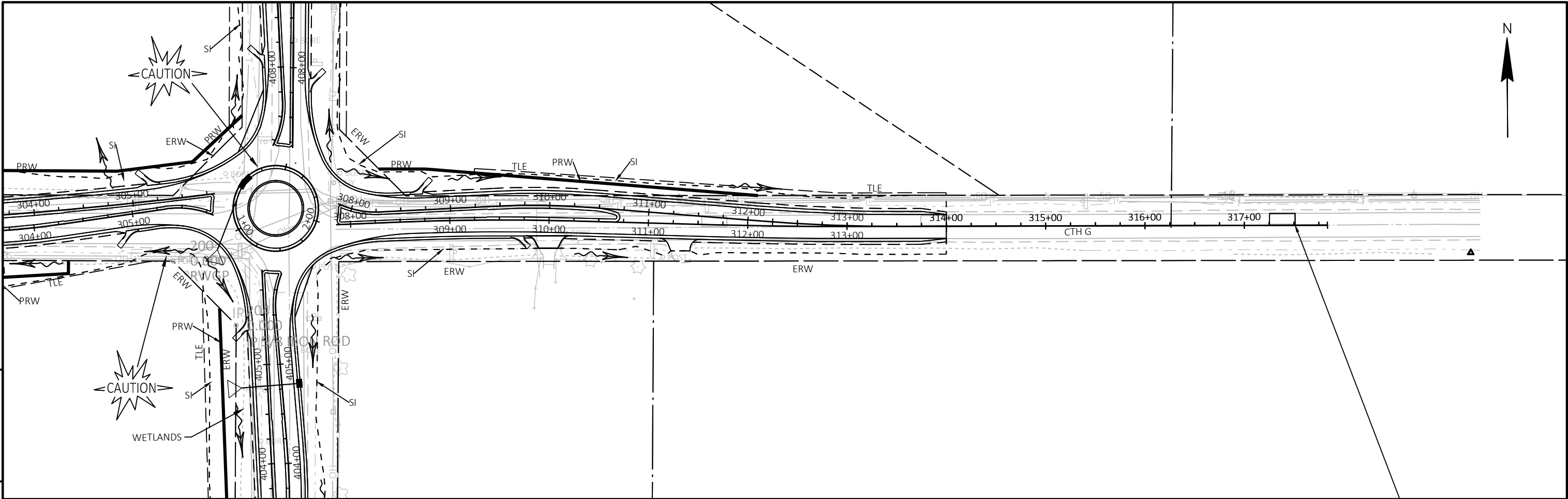
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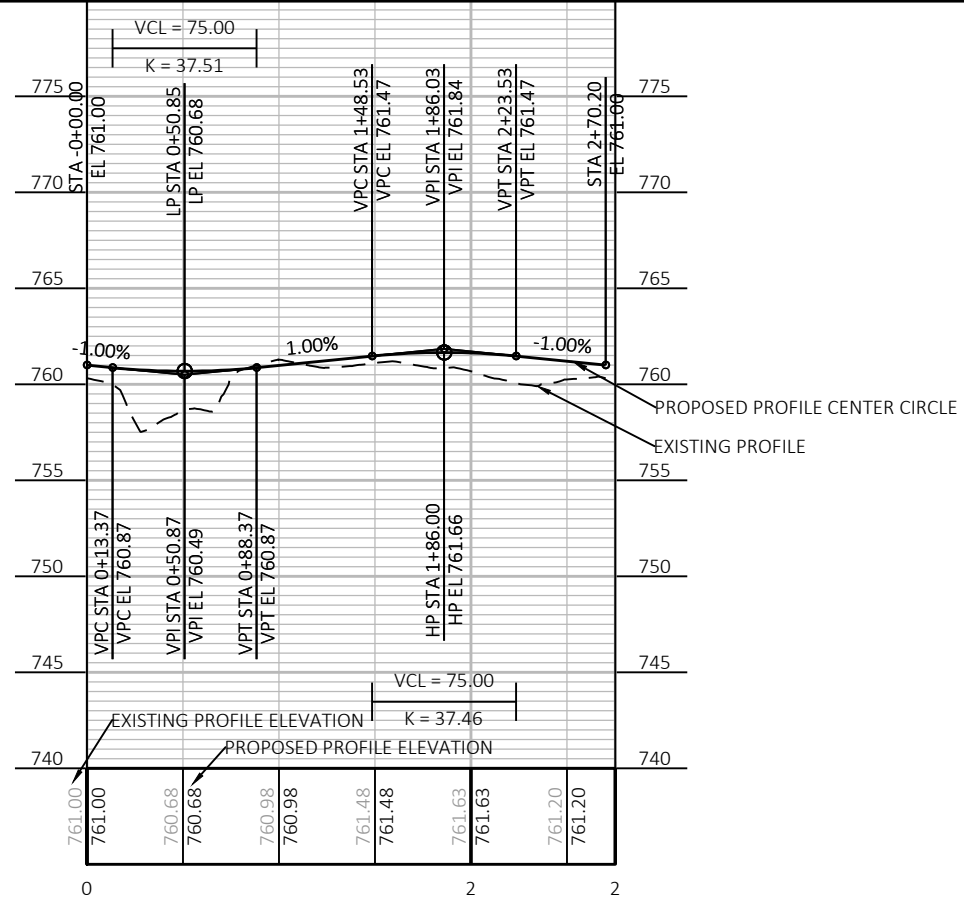
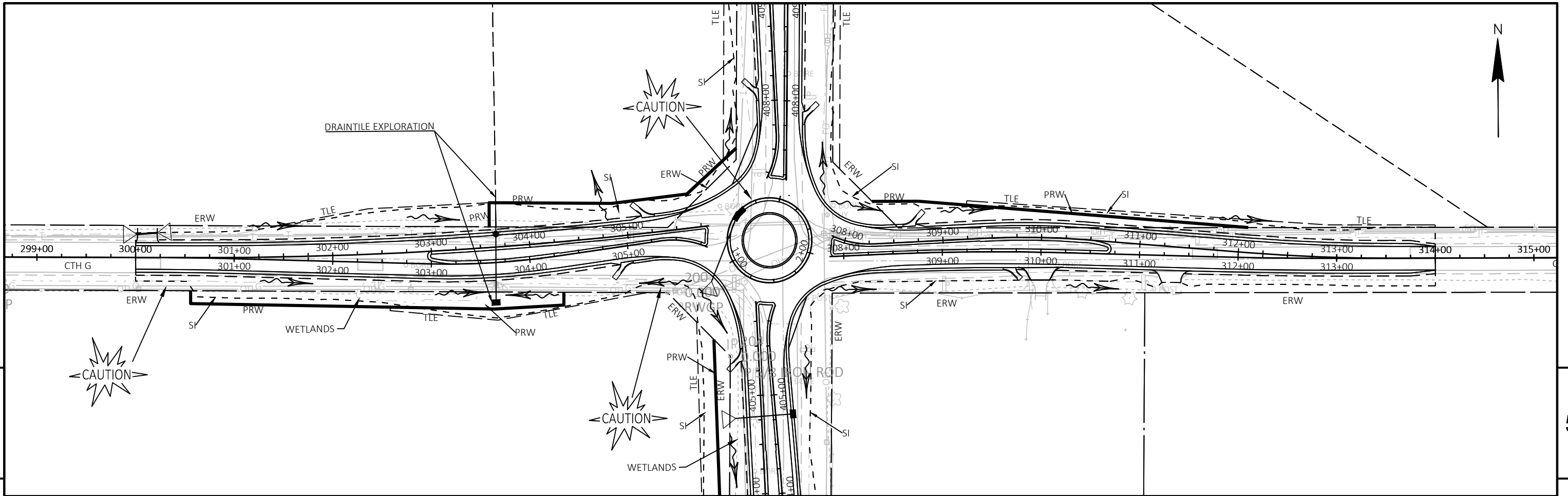
E





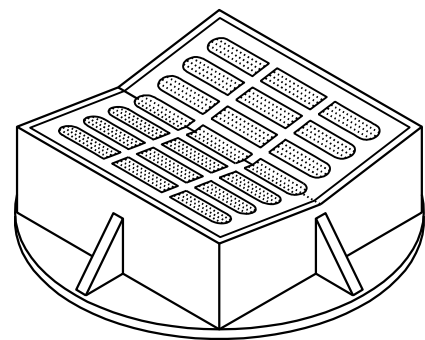
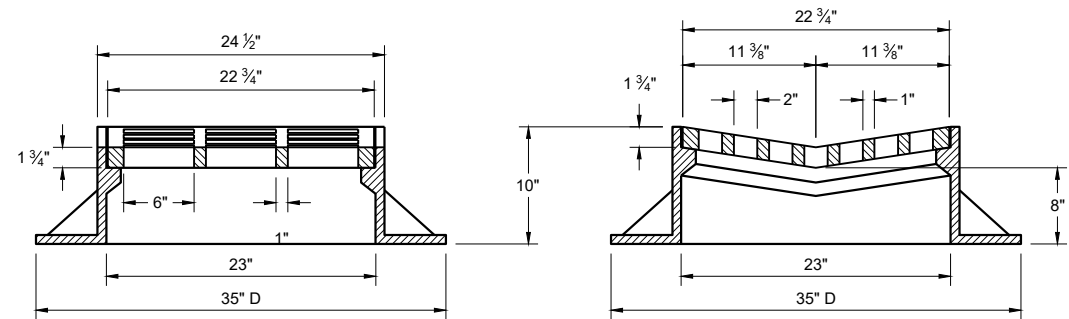






Standard Detail Drawing List

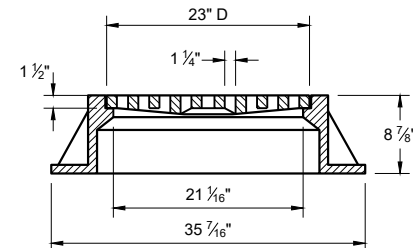
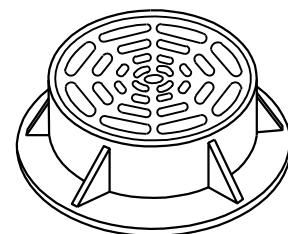
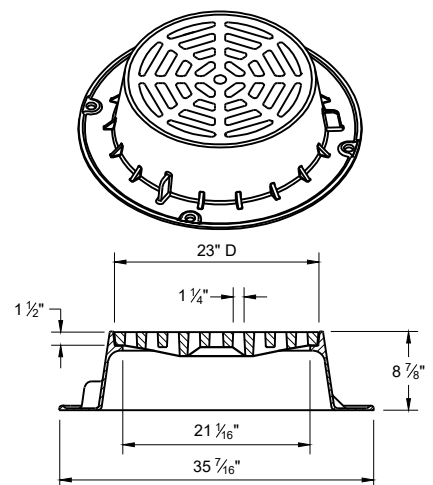
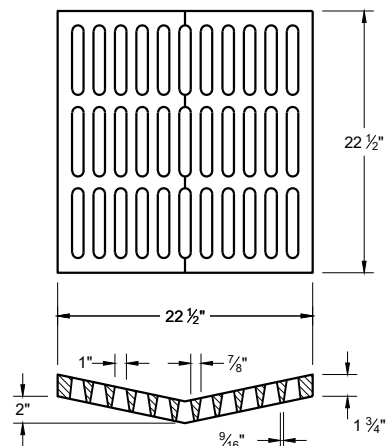
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
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
09B02-10	CONDUIT
09B04-13	PULL BOX
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-10	CONCRETE CONTROL CABINET BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
11B02-02	CONCRETE MEDIAN NOSE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09A	MEDIAN ISLAND MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C22-01	DOTTED EXTENSION FOR ROUNDABOUT



TYPE "B"

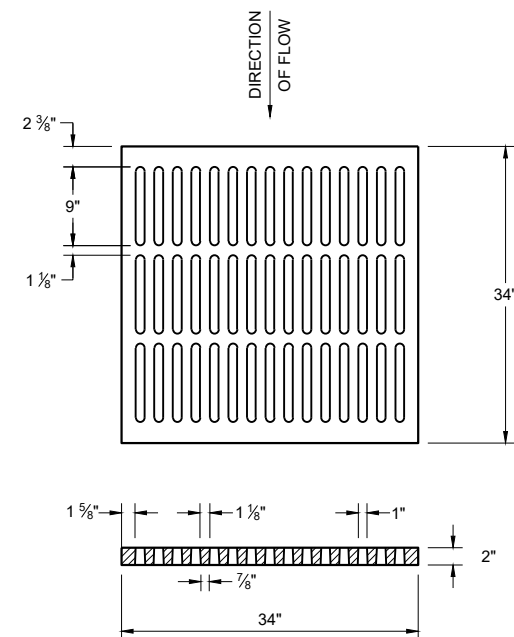
**ALTERNATIVE GRATE FOR
TYPE "B" COVER**

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE
NOTED AS TYPE B - A ON THE DRAINAGE TABLE



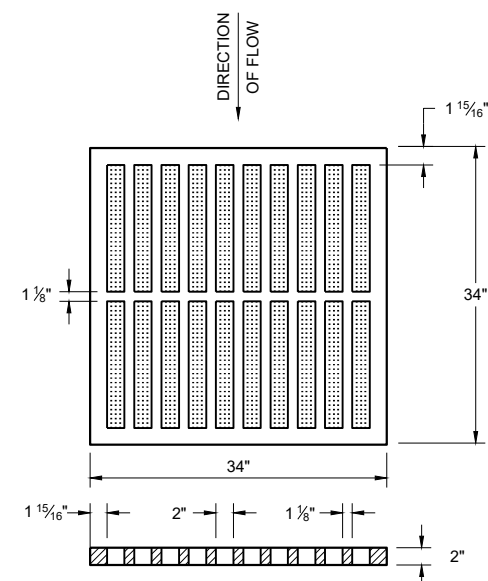
TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



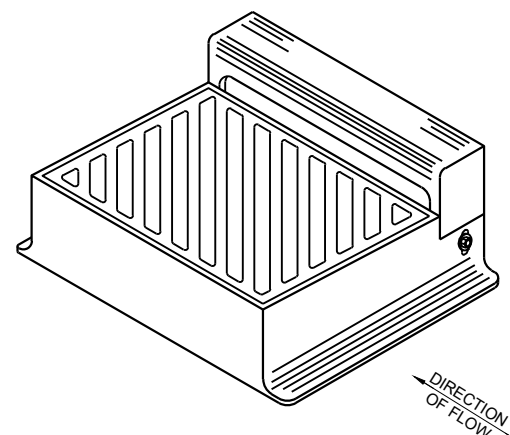
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

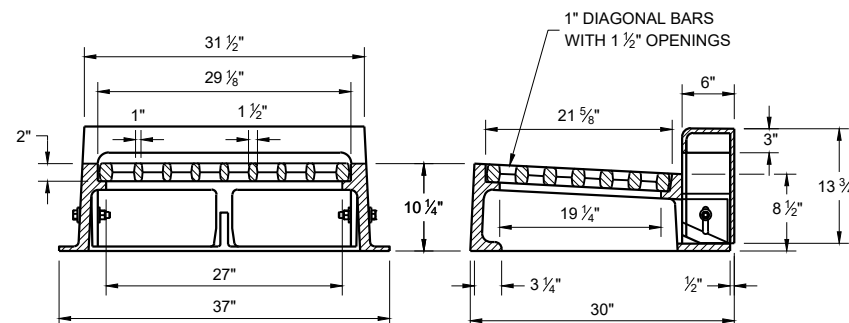


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTED TO THE
DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

**INLET COVERS
TYPES B, B-A, C,
MS, MS-A AND WM**

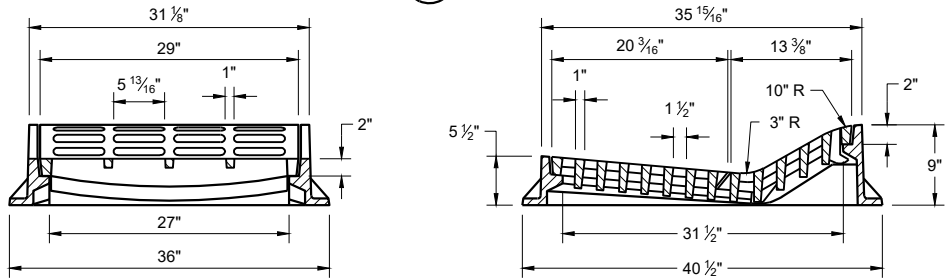
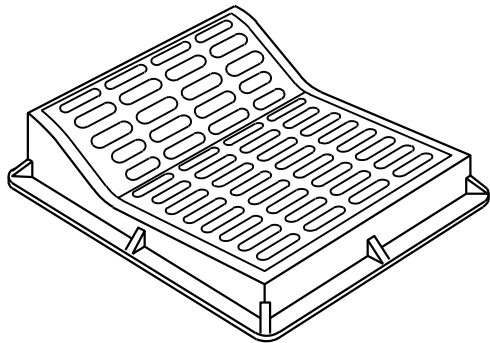
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

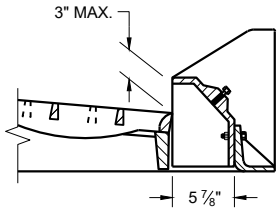
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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"

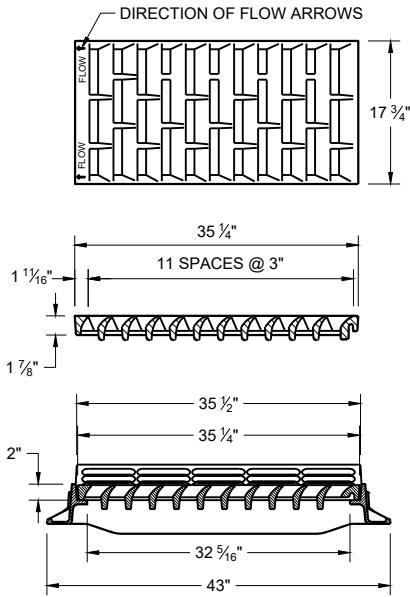


ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

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

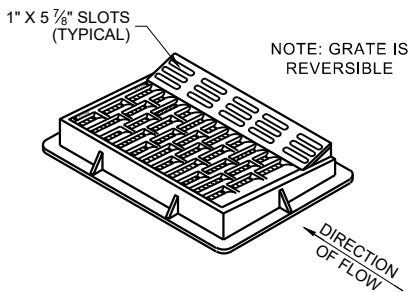
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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

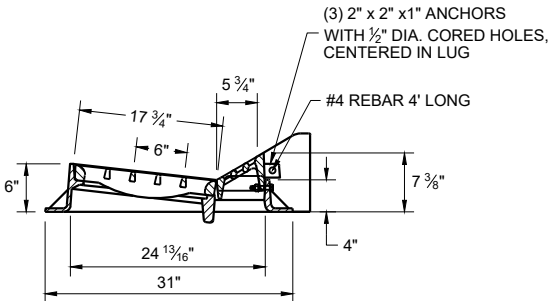


TYPE "HM"

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

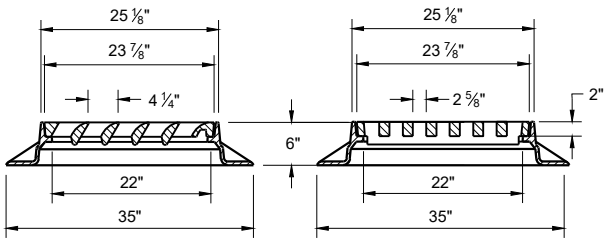
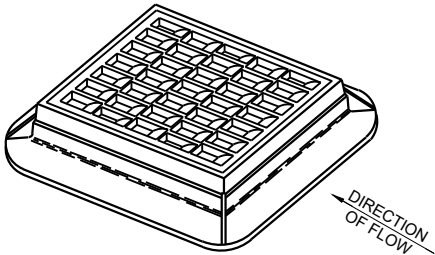


NOTE: GRATE IS REVERSIBLE

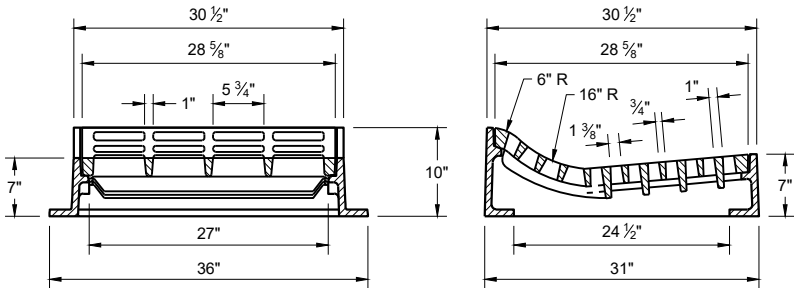
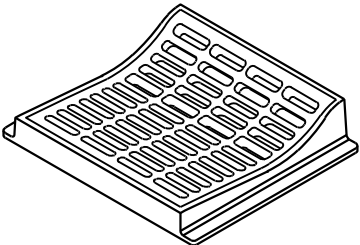


NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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

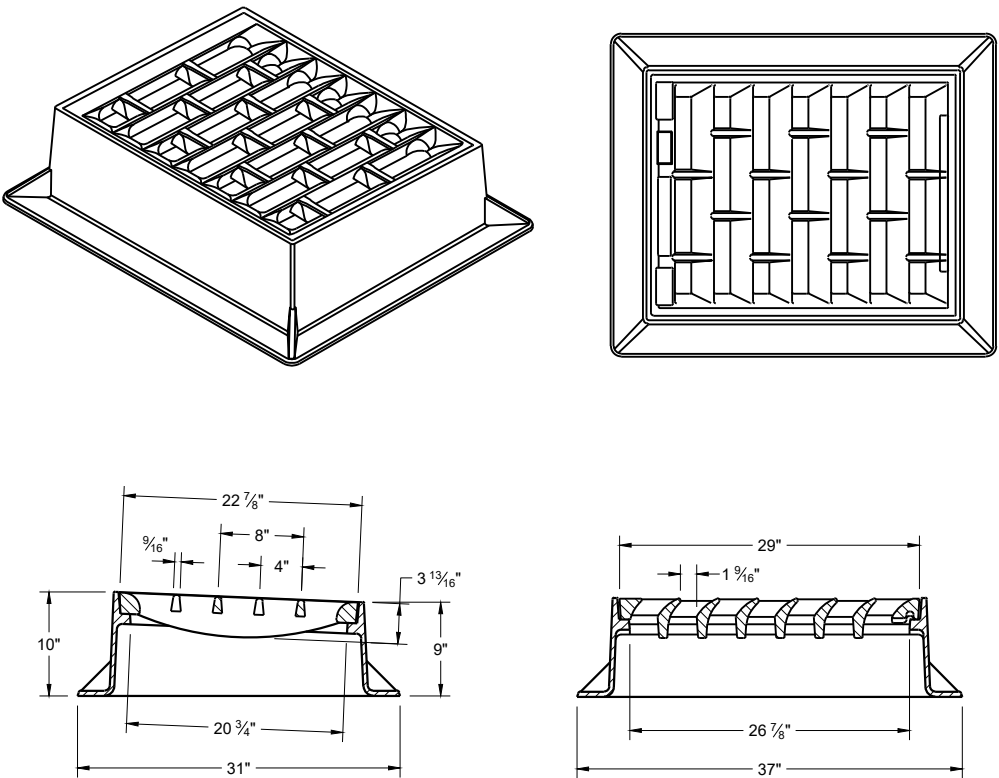
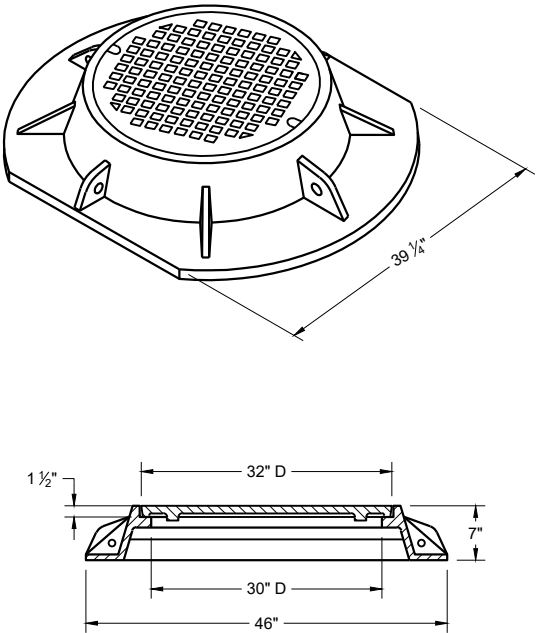
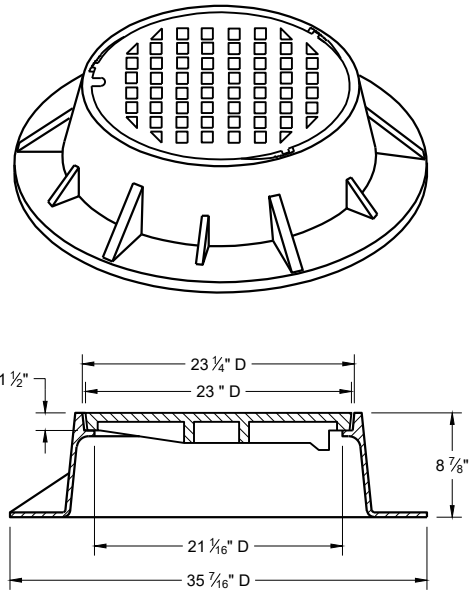
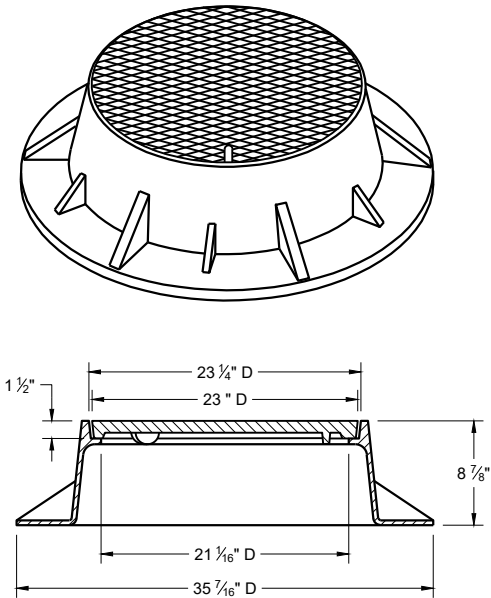
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

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.

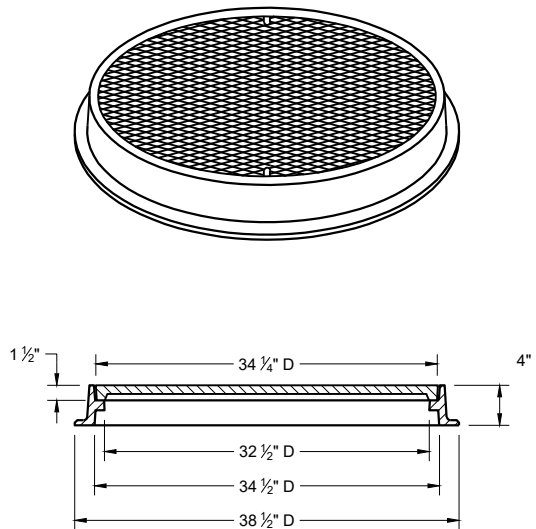
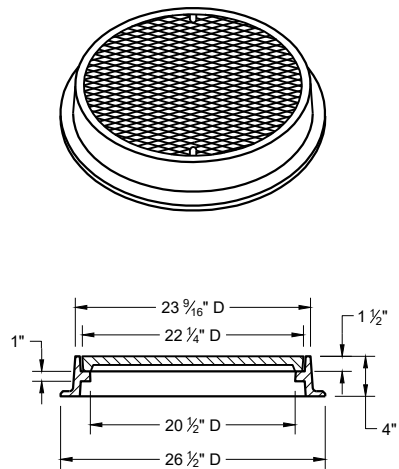
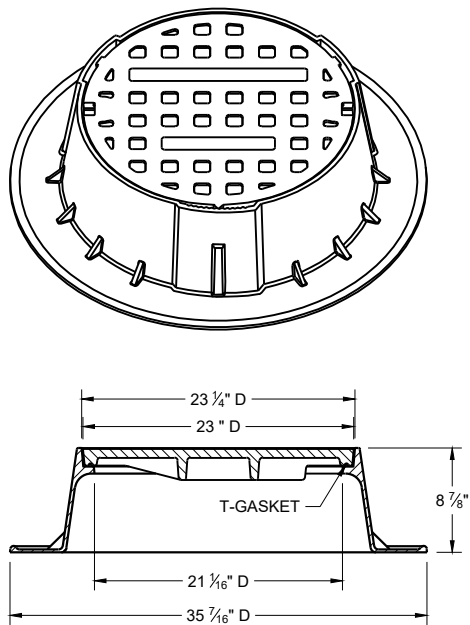
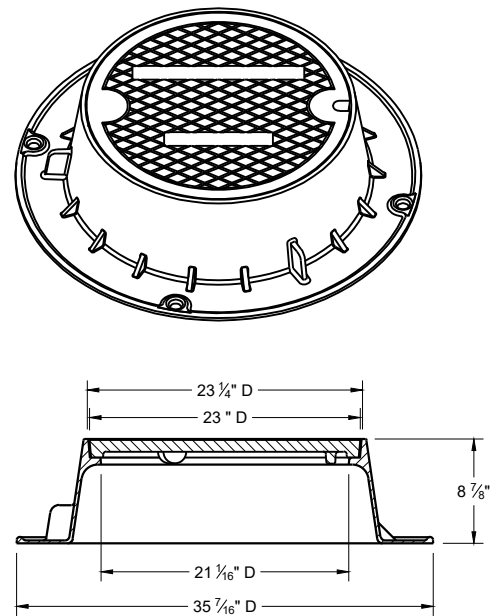
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



TYPE "K"

INLET COVER TYPE "BW"



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

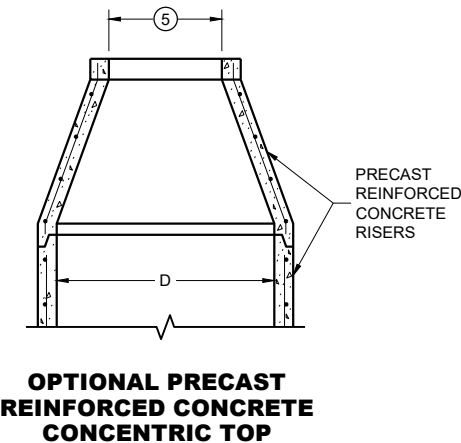
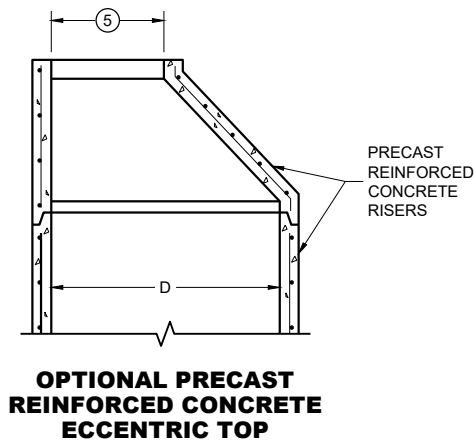
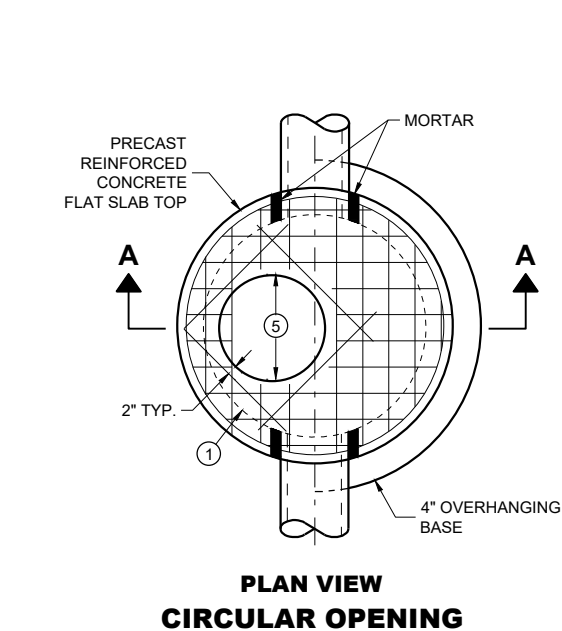
TYPE "L"

TYPE "M"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



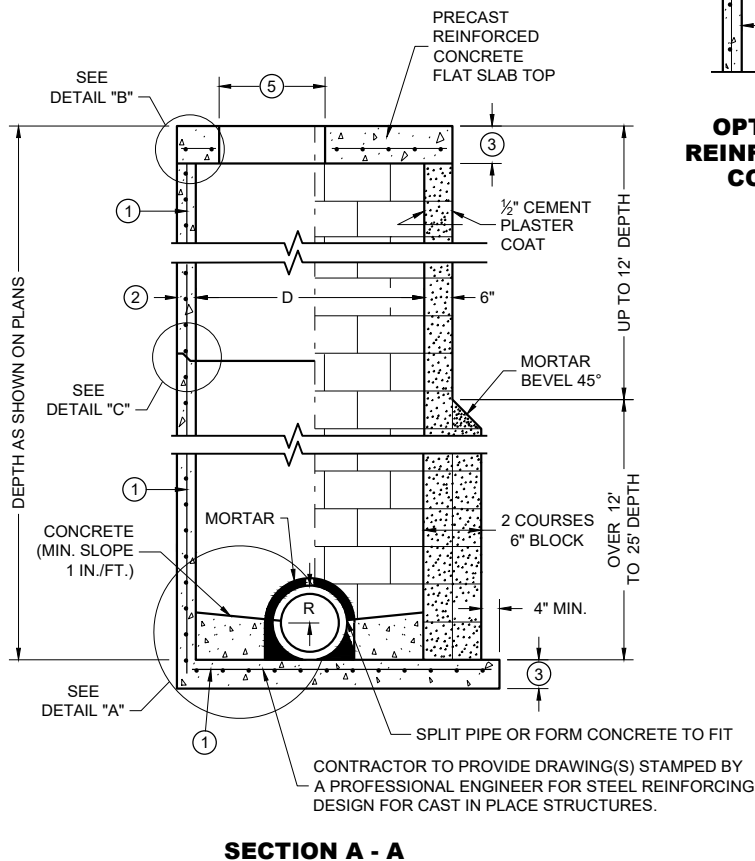
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	MANHOLE COVER TYPE	C	ALL JS	K	L	M
2 DIA.	5	X	X		X	
3 DIA.				X		X

PIPE MATRIX

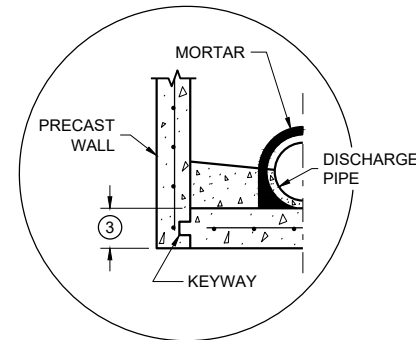
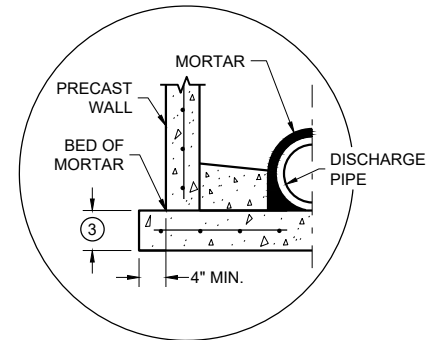
MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT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

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

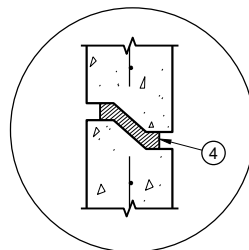
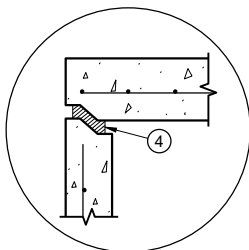
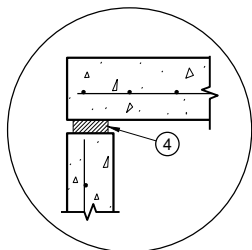


PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

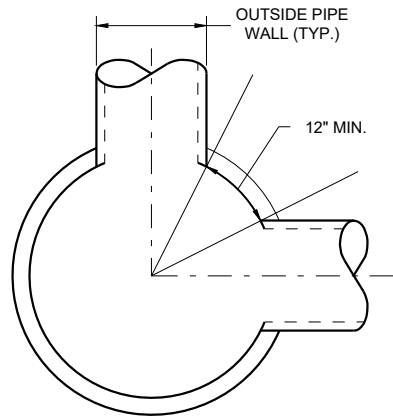


DETAIL "A"



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 1/2 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.

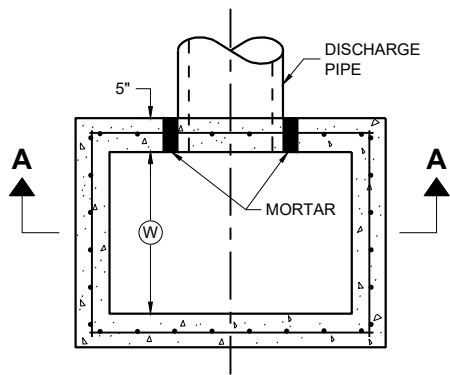
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 1 FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- 2 SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- 3 SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- 4 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.
- 5 SEE MANHOLE COVER OPENING MATRIX.

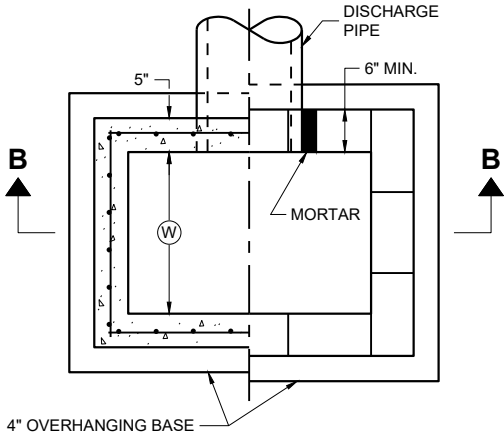
**MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

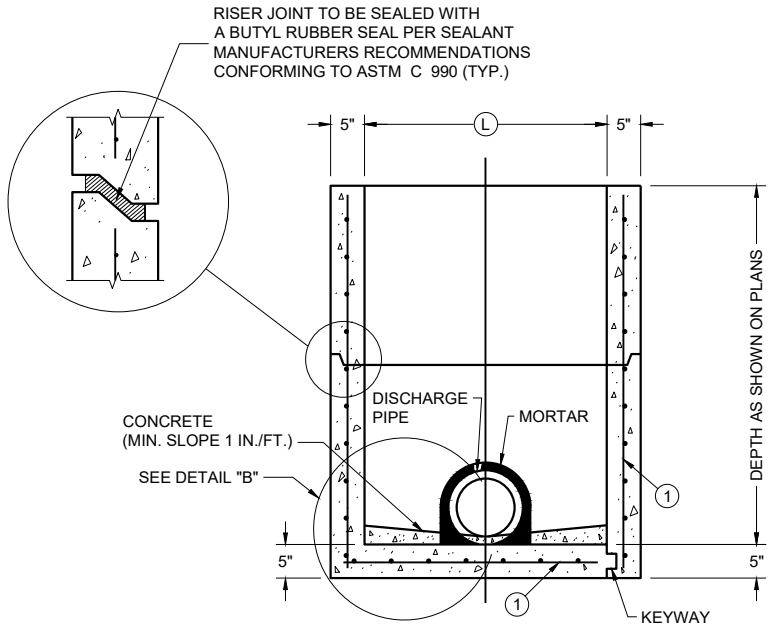
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PLAN VIEW



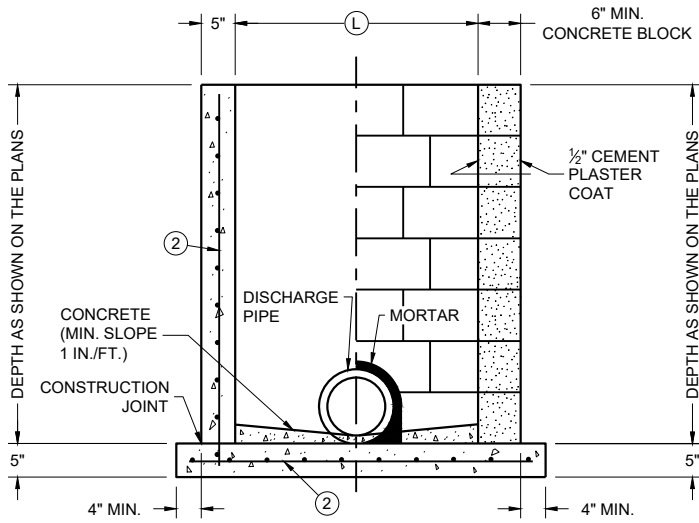
PLAN VIEW



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

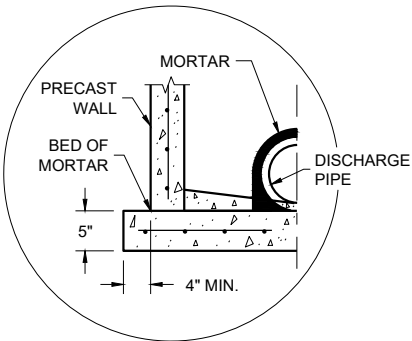
SECTION A - A



CAST IN PLACE
REINFORCED
CONCRETE

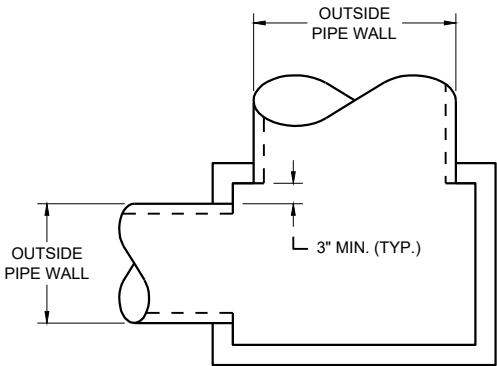
CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

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

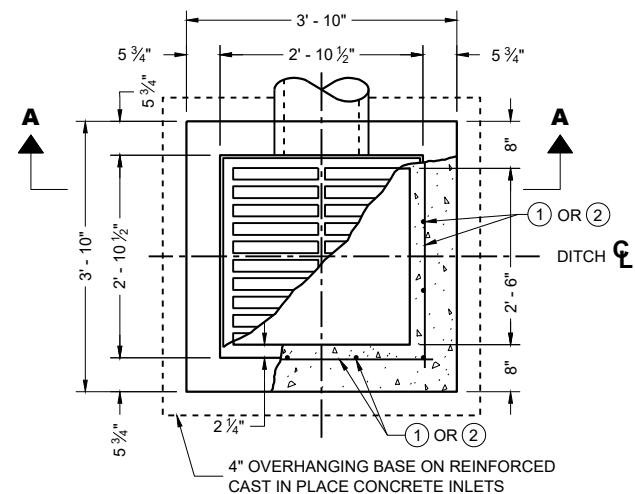
PIPE MATRIX

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

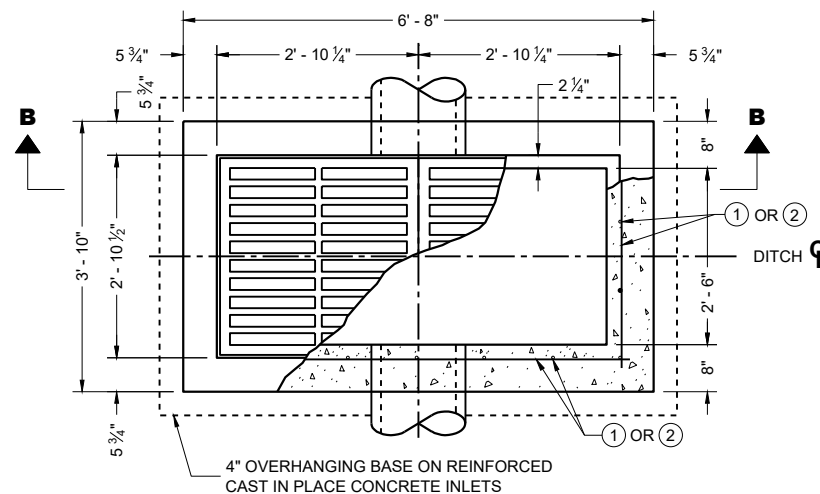
INLETS 2 X 2-FT, 2 X 2.5-FT,
2 X 3-FT, 2.5 X 3-FT
AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

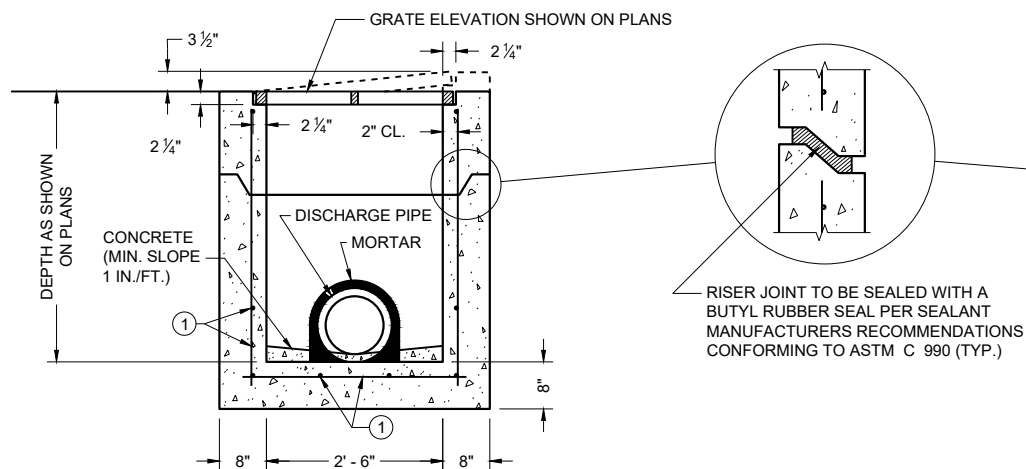
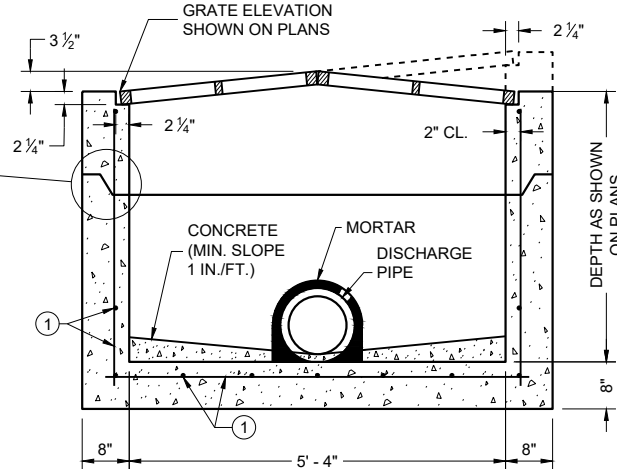
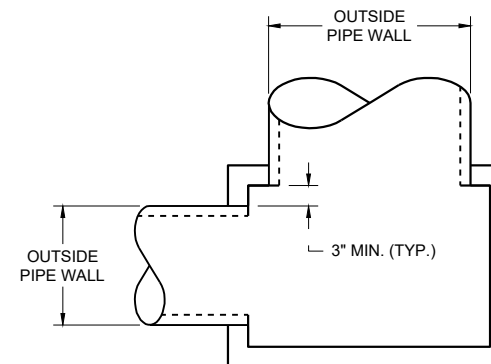
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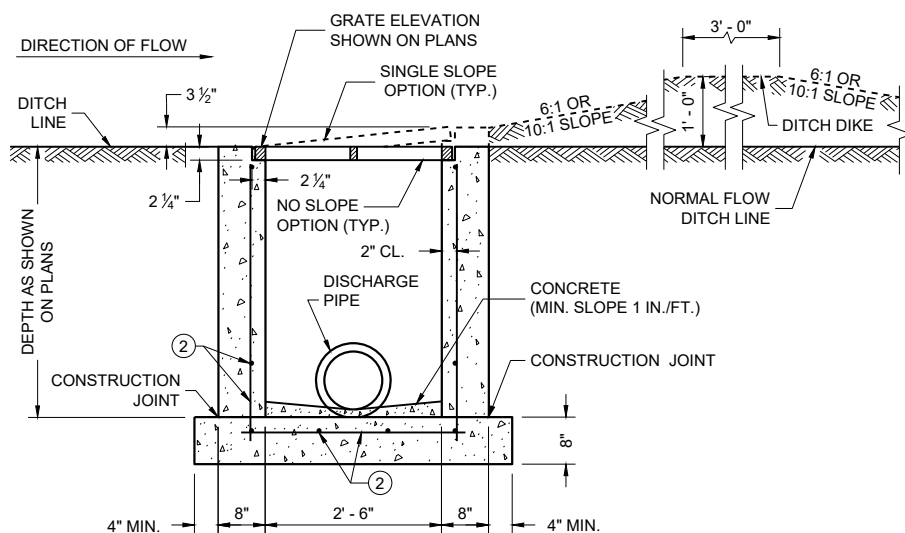
PLAN VIEW



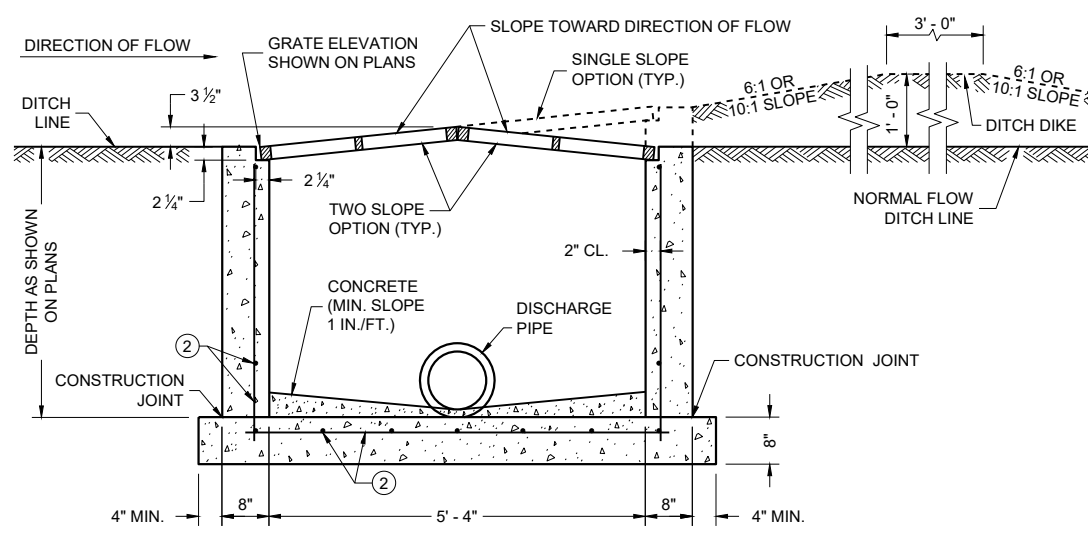
PLAN VIEW

PRECAST REINFORCED CONCRETE
SECTION A - APRECAST REINFORCED CONCRETE
SECTION B - B

DETAIL "A"

REINFORCED CAST IN PLACE CONCRETE
SECTION A - A

INLETS MEDIAN 1 GRATE

REINFORCED CAST IN PLACE CONCRETE
SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

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.

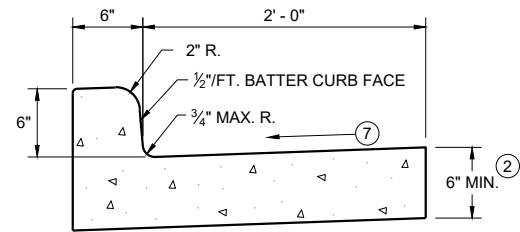
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

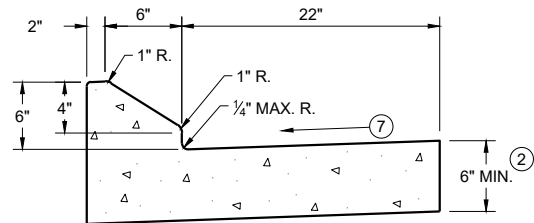
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

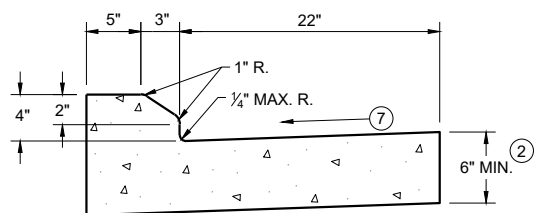
APPROVED
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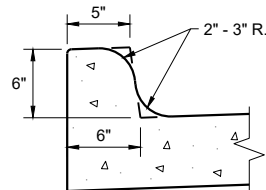
TYPES A^① & D



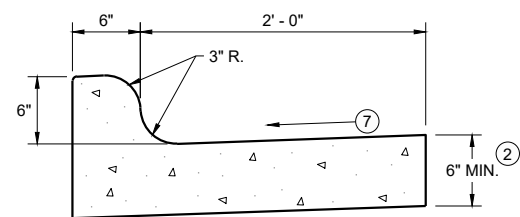
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

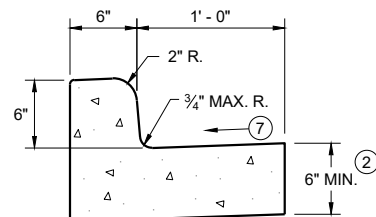


TYPES K^① & L
(OPTIONAL CURB SHAPE)



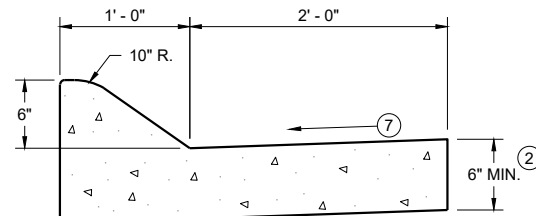
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

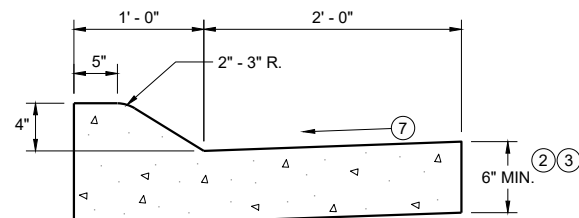


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

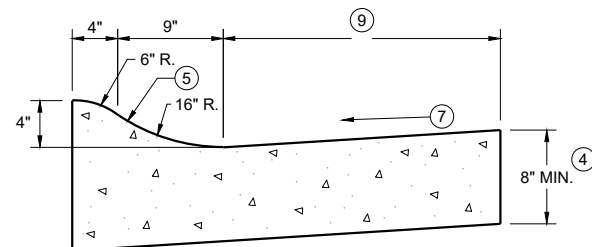


6" SLOPED CURB TYPES A^① & D



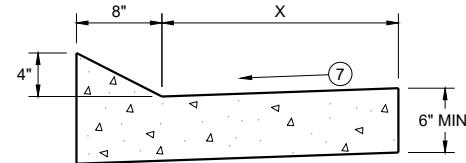
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

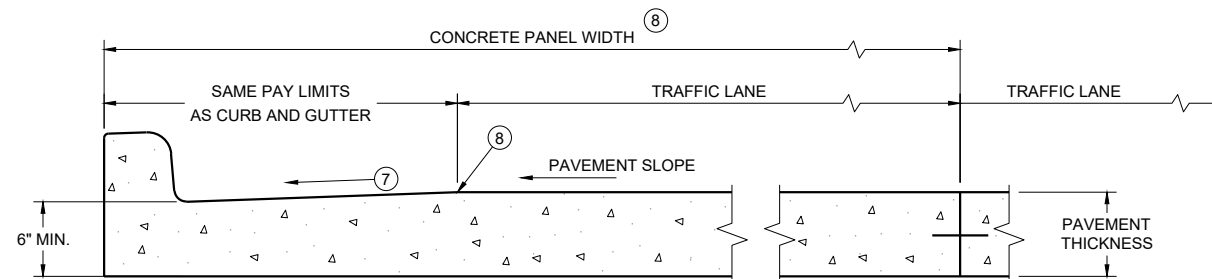


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

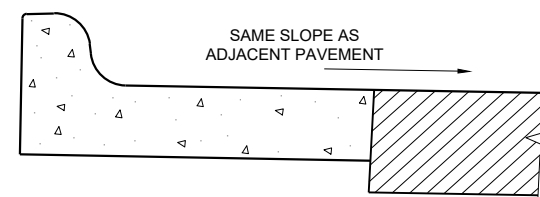
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

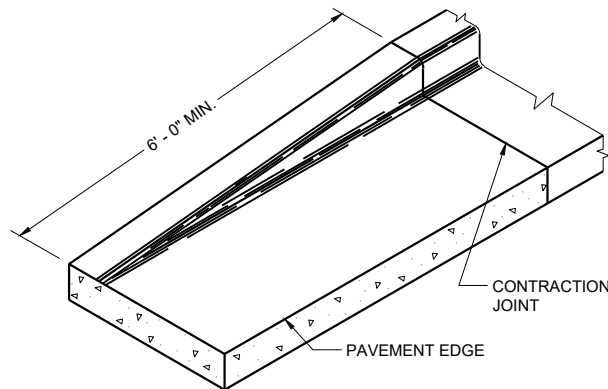
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

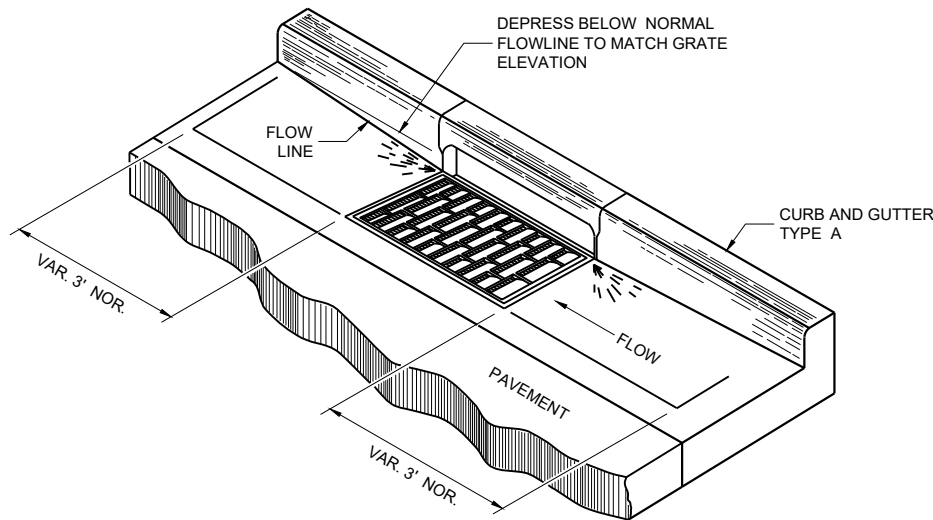
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH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

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

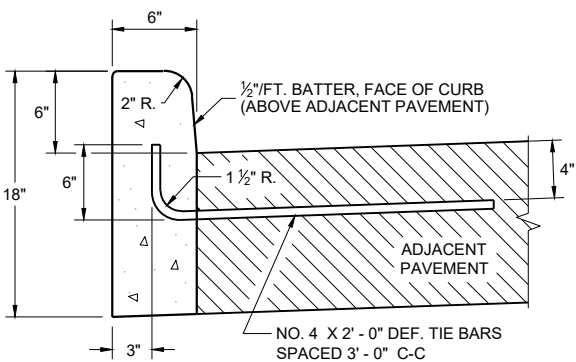


END SECTION CURB AND GUTTER

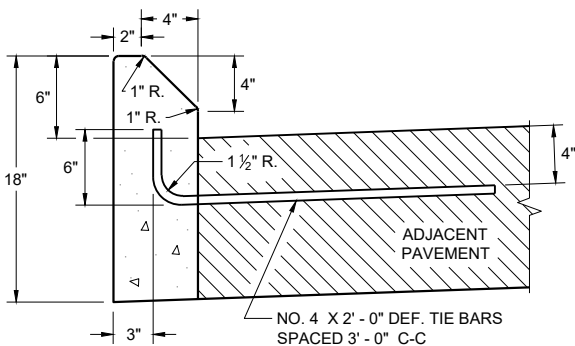


DETAIL OF CURB AND GUTTER AT INLETS

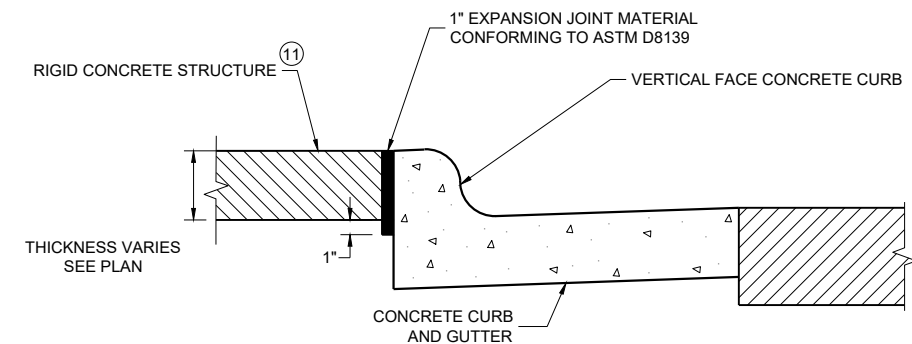
(TYPICAL H INLET COVER SHOWN)



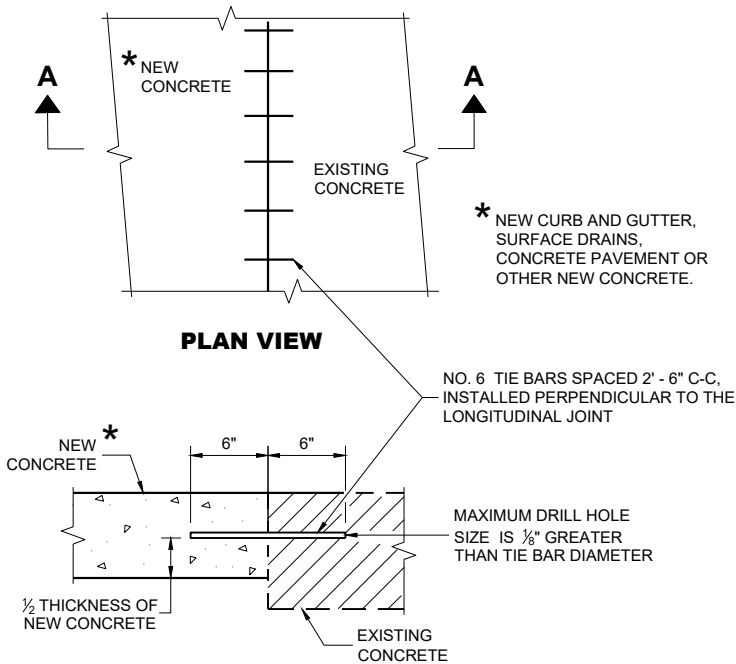
TYPES A^① & D



TYPES G^① & J
CONCRETE CURB



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



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

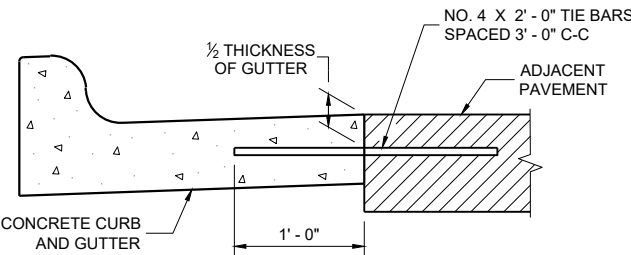
GENERAL NOTES

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

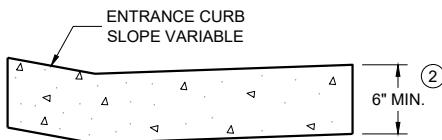
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION^①



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

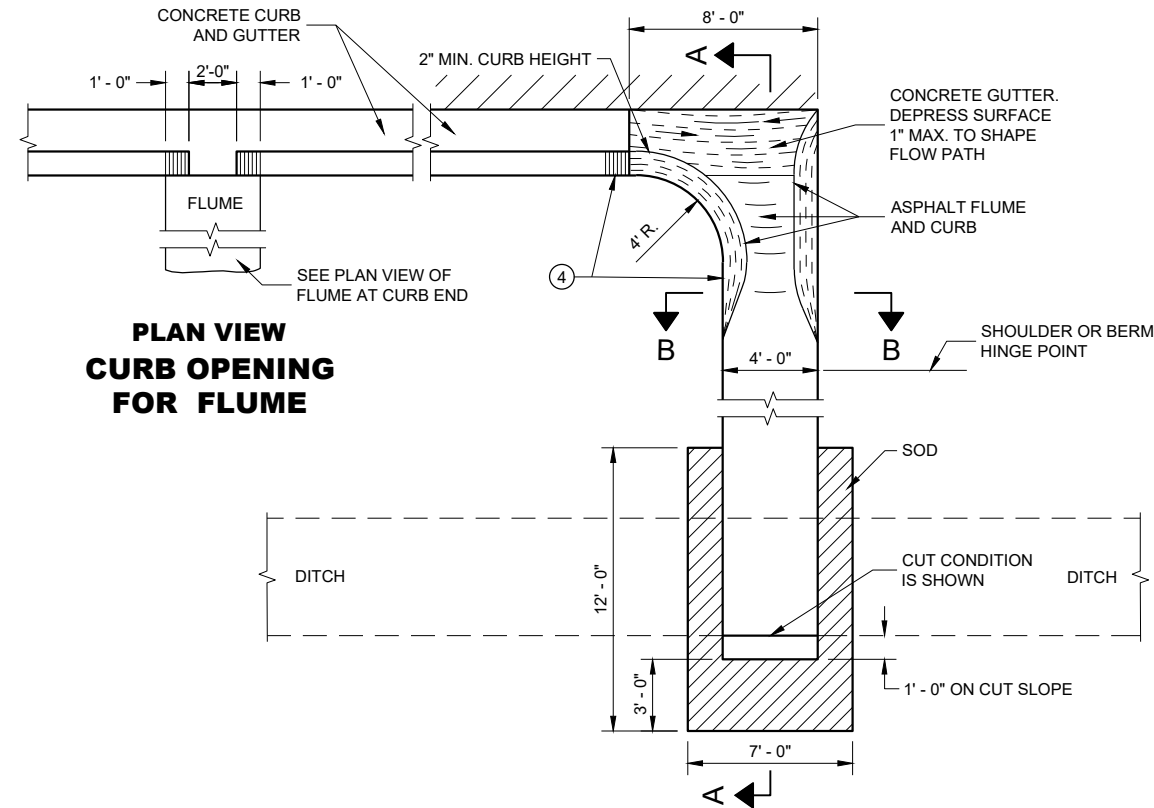
CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

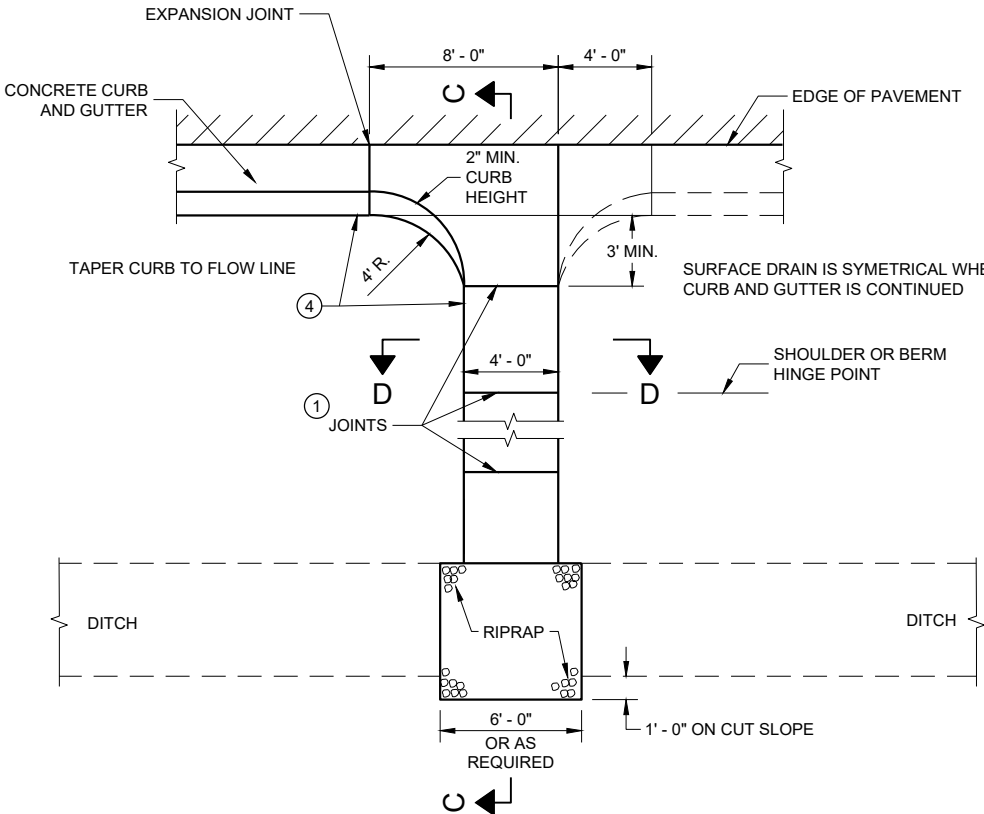
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



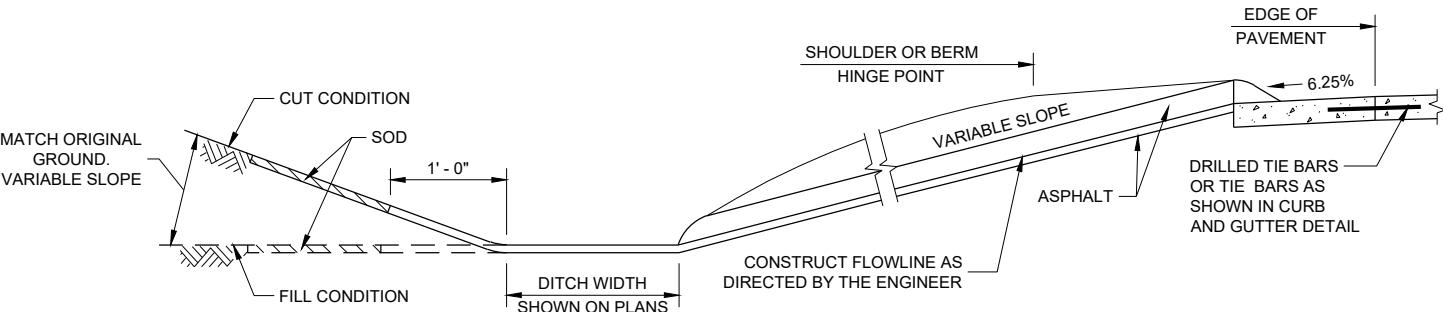
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

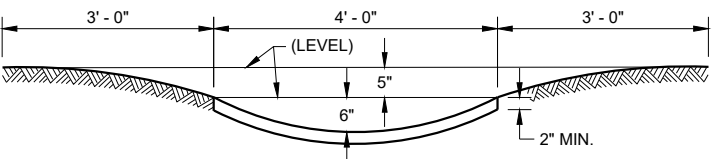
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

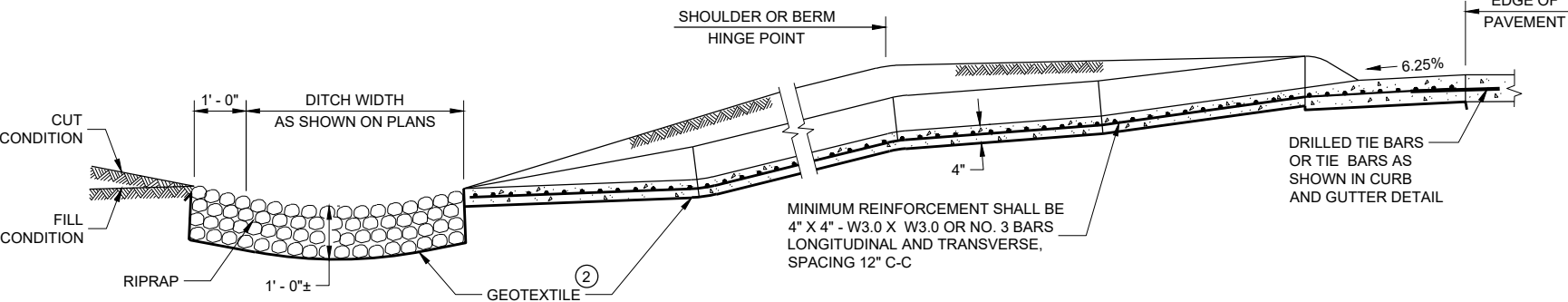
- JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.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



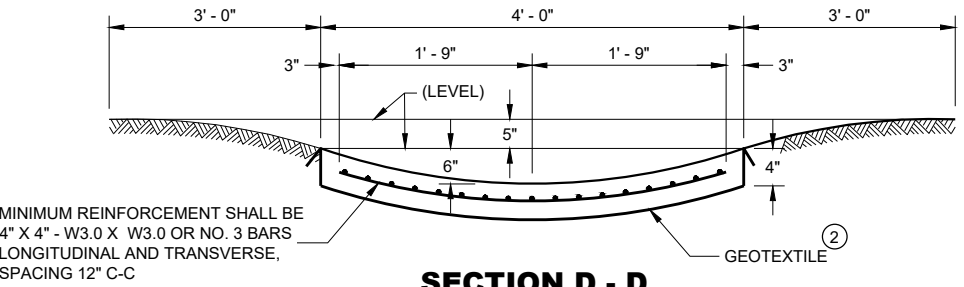
SECTION A - A



SECTION B - B



SECTION C - C

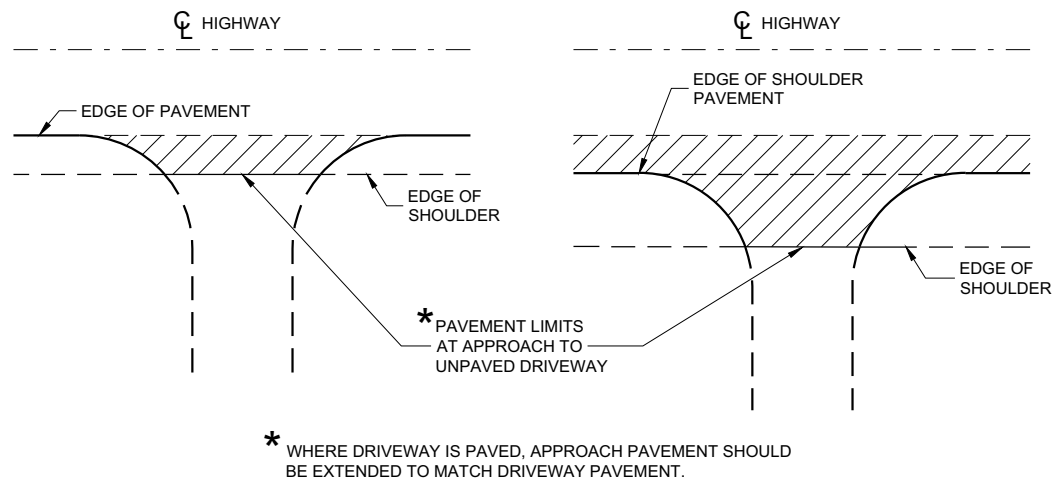


SECTION D - D

CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

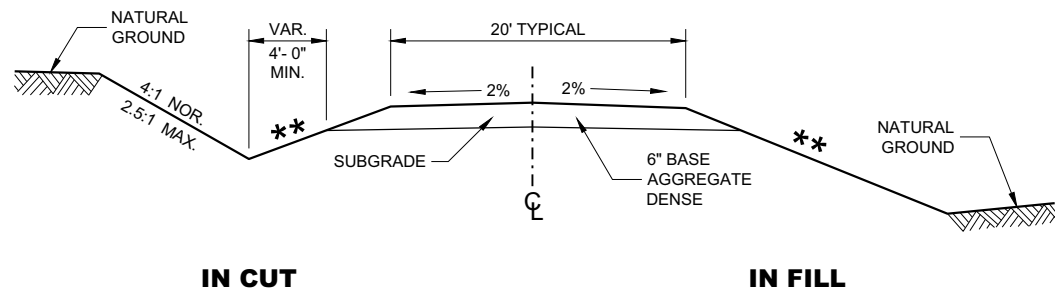
APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER
87
FHWA



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

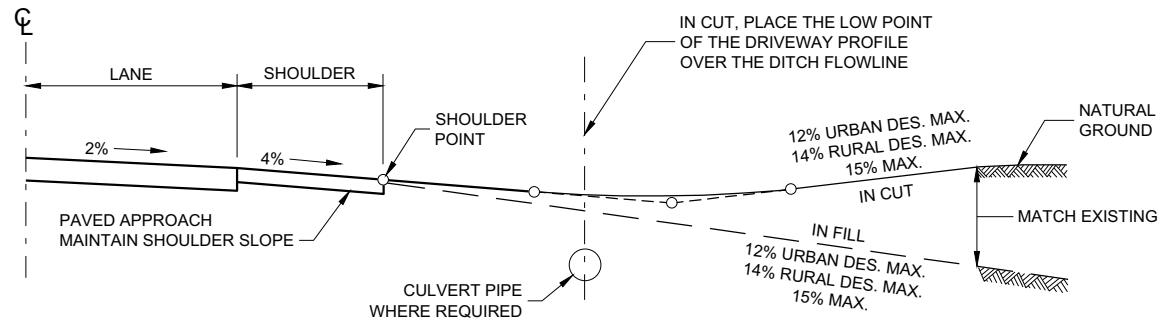
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



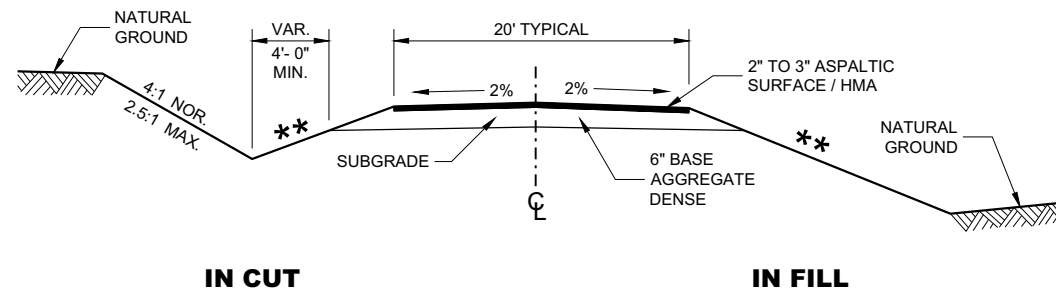
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** 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



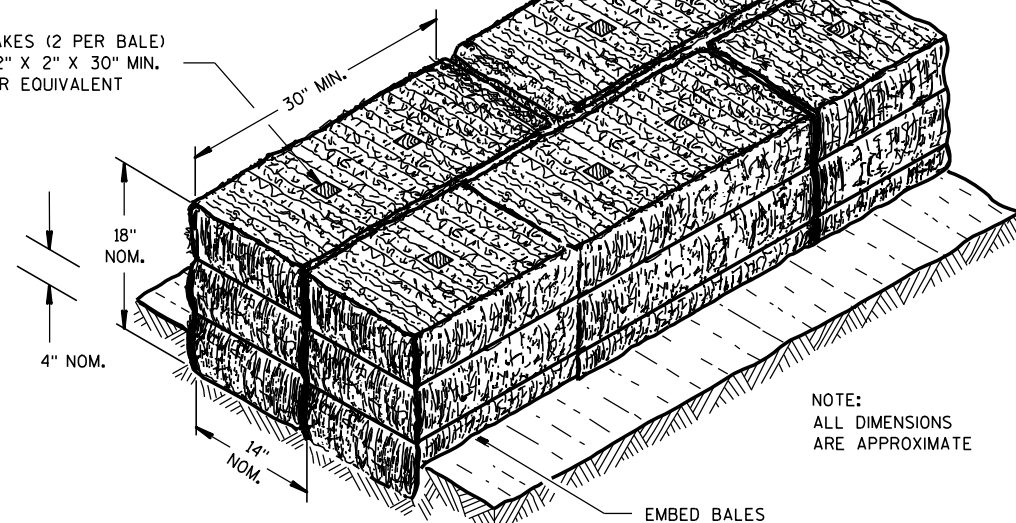
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

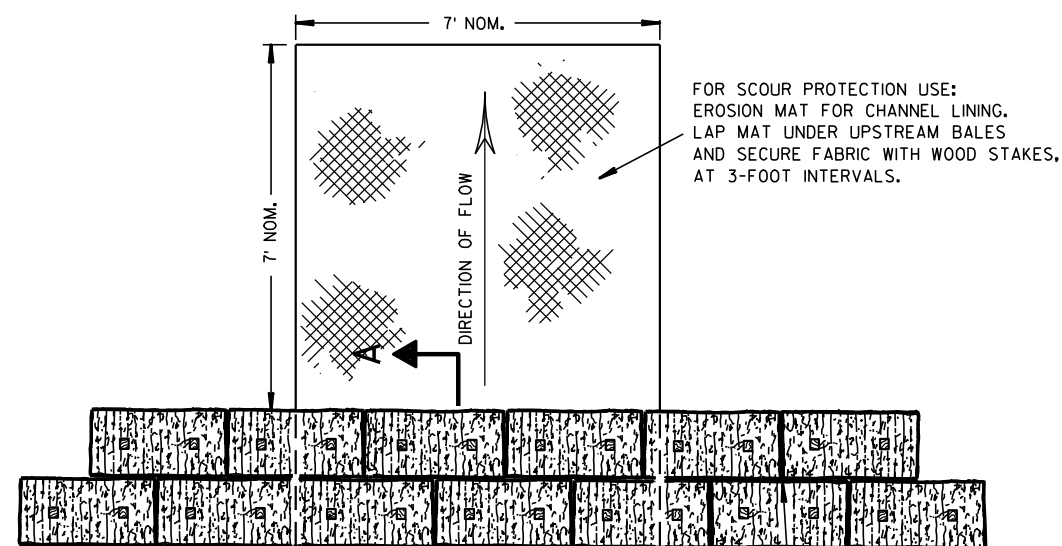
APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 88

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

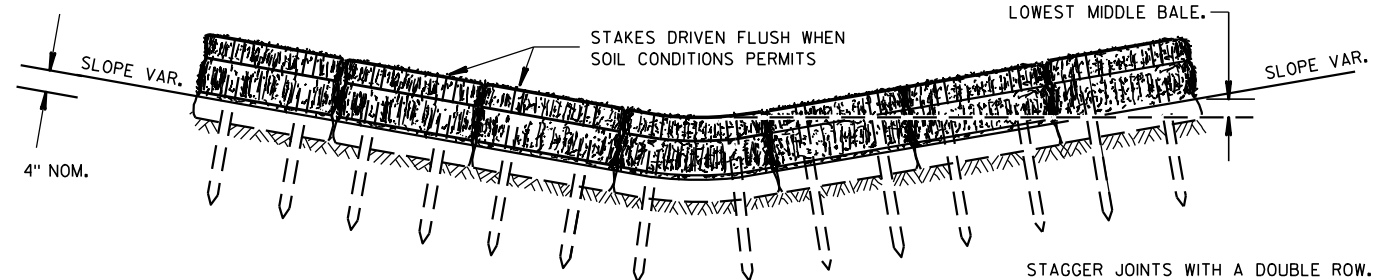


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



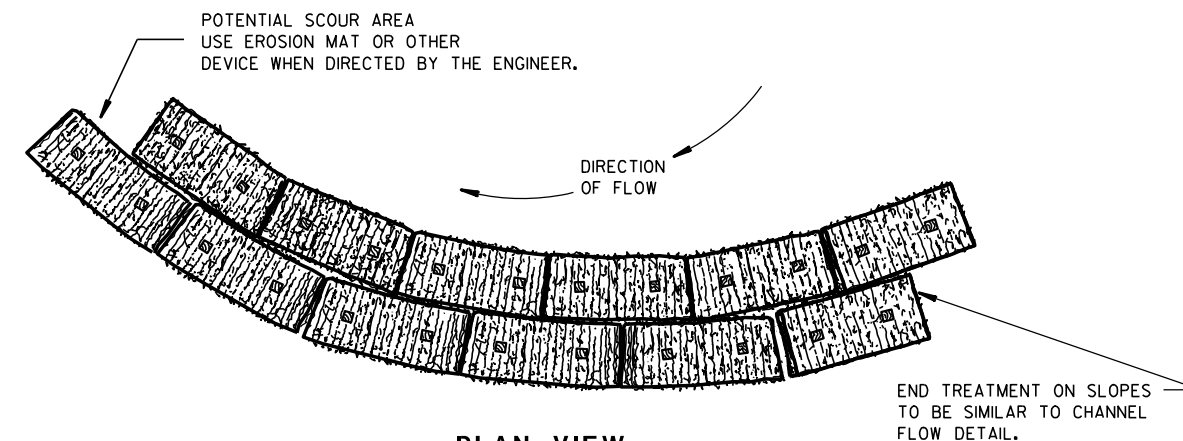
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

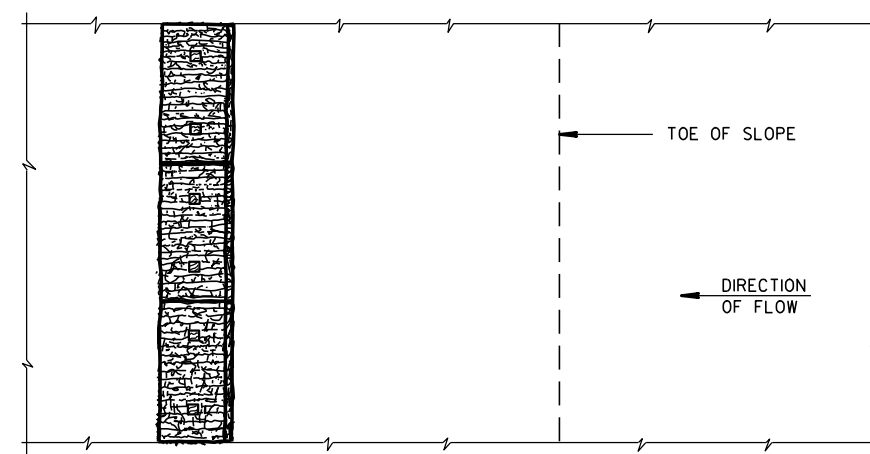
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

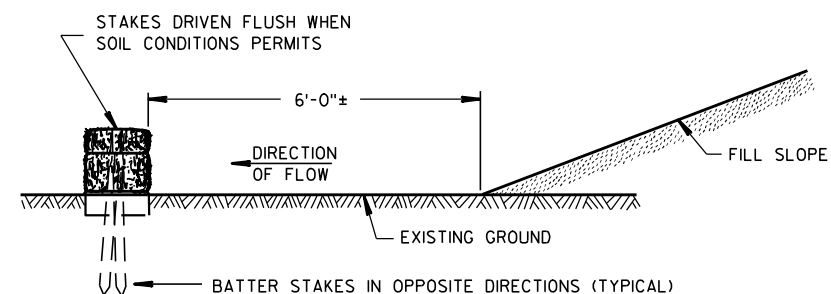


PLAN VIEW

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

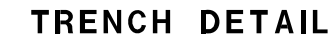
6/04/02
DATE

/S/ Beth Conn-----
CHIEF ROADWAY DEVELOPER 89 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.

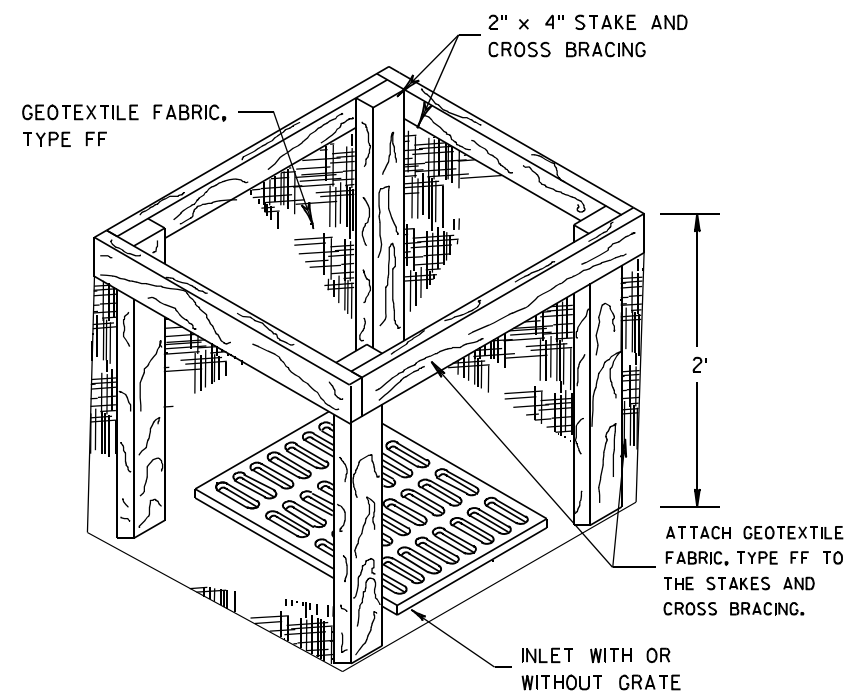
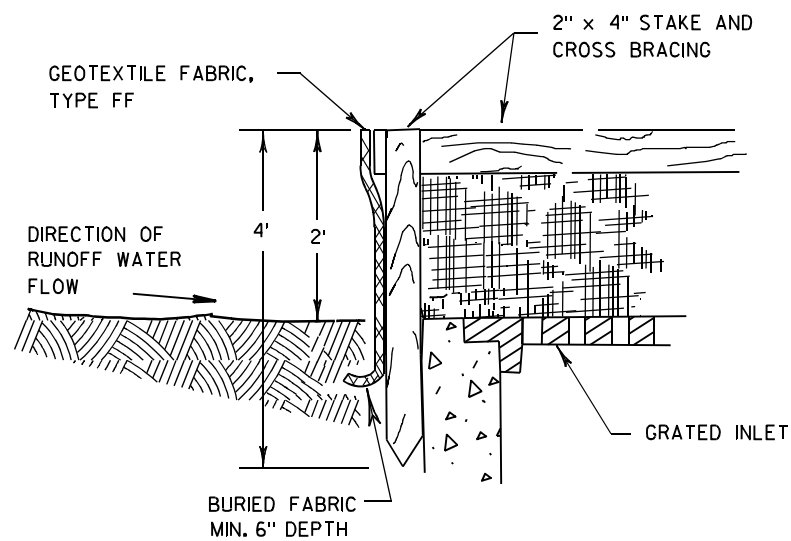


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



INLET PROTECTION, TYPE A

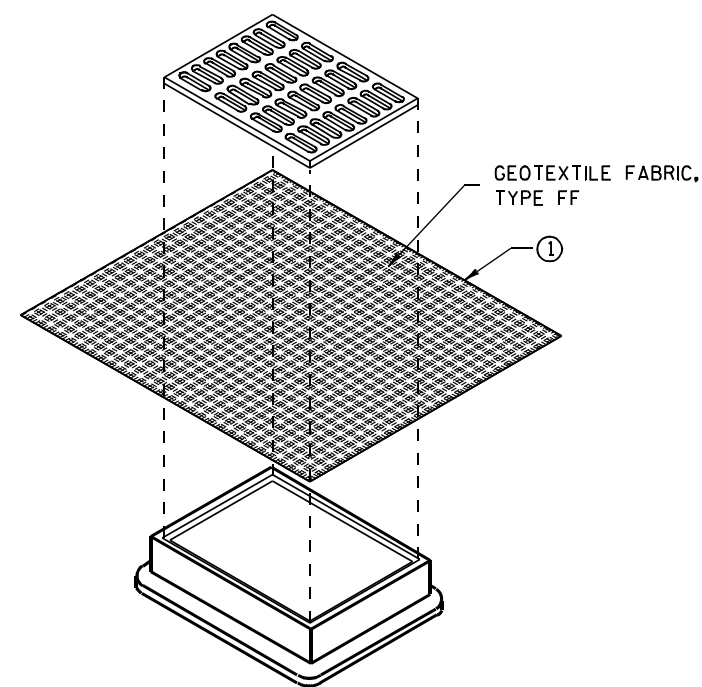
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

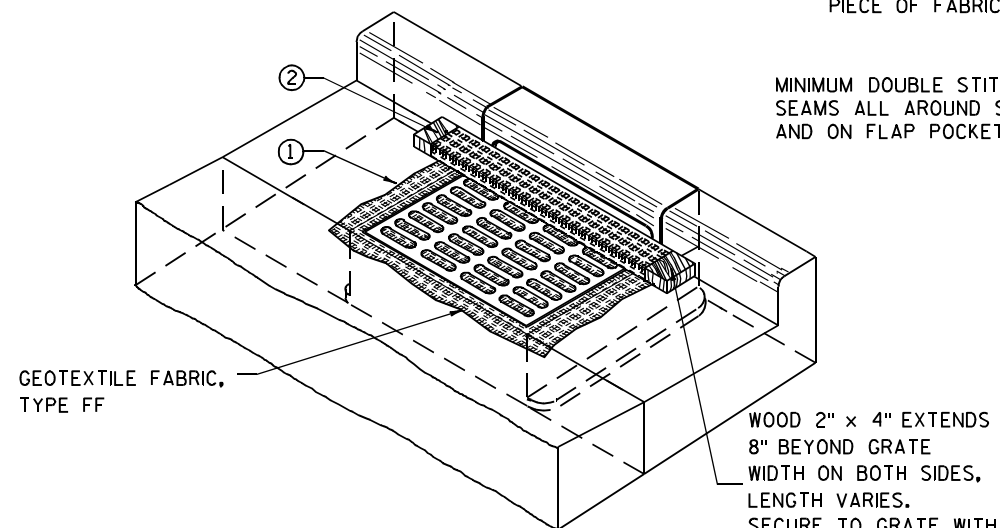
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

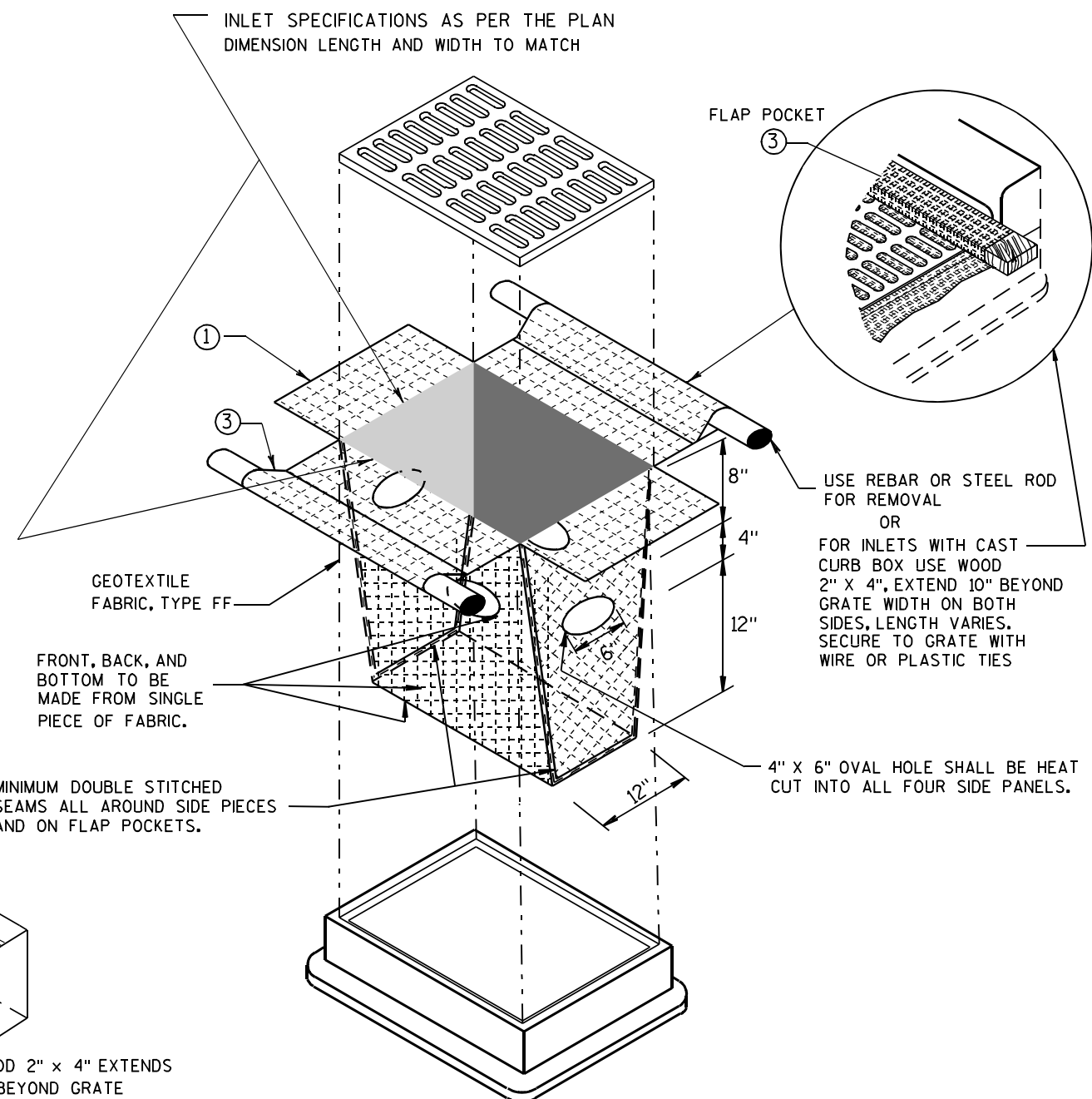
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLower THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



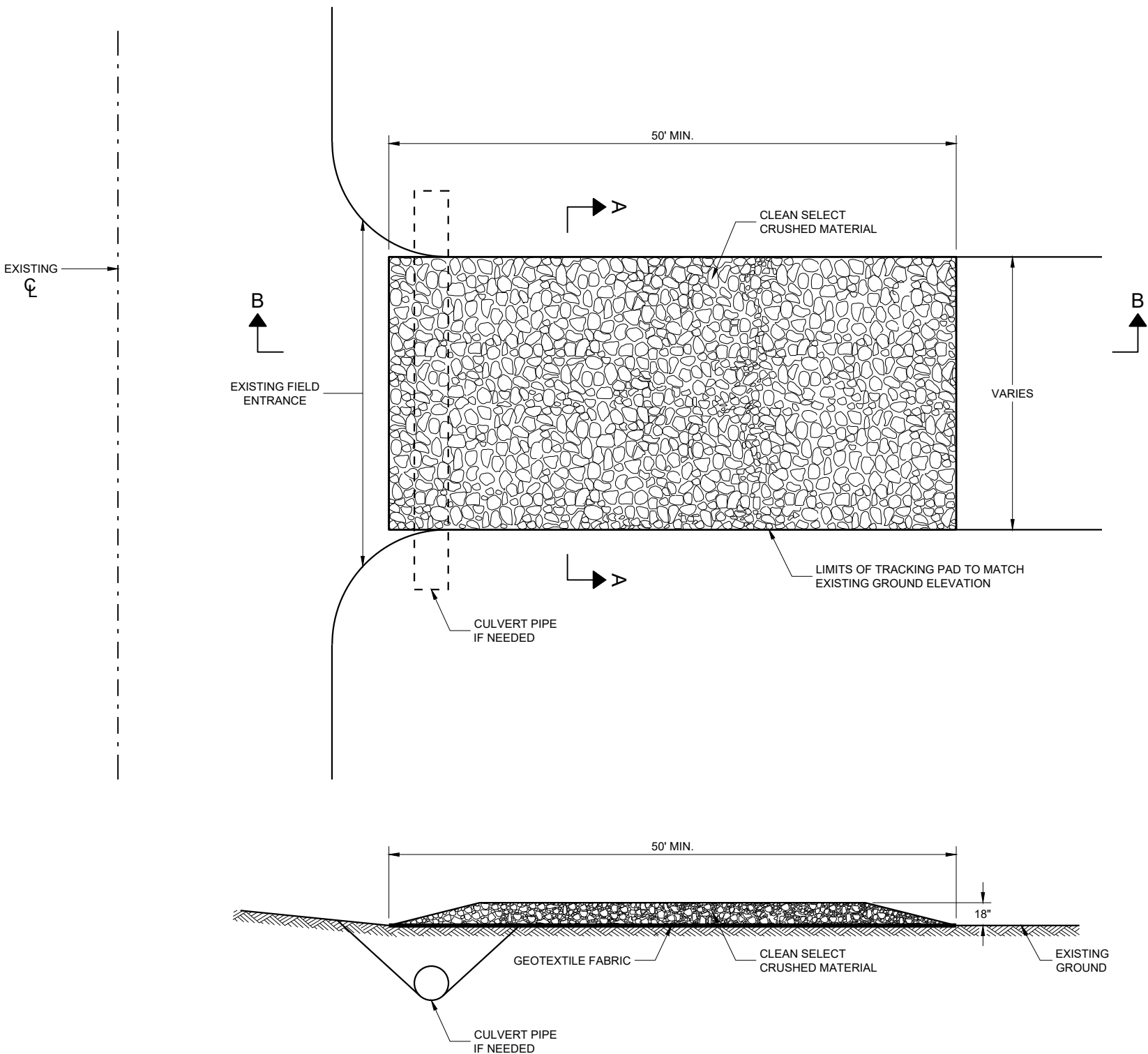
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 91
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



SECTION B - B

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.

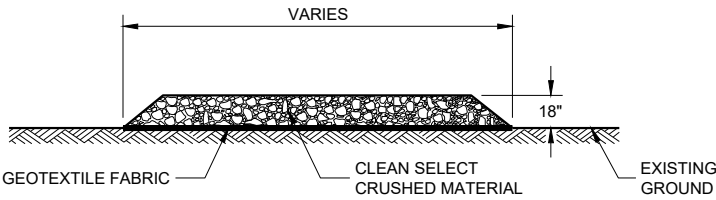
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

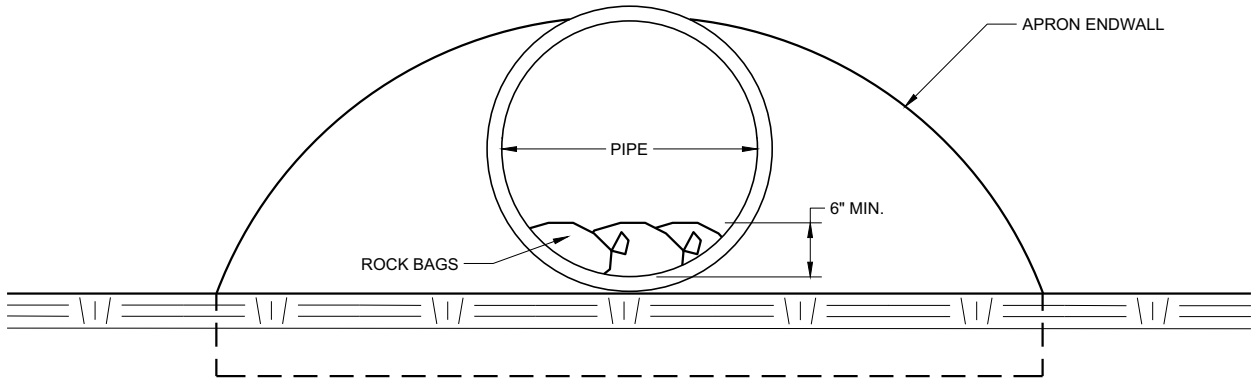
FHWA

/S/ Jerry H. Zogg

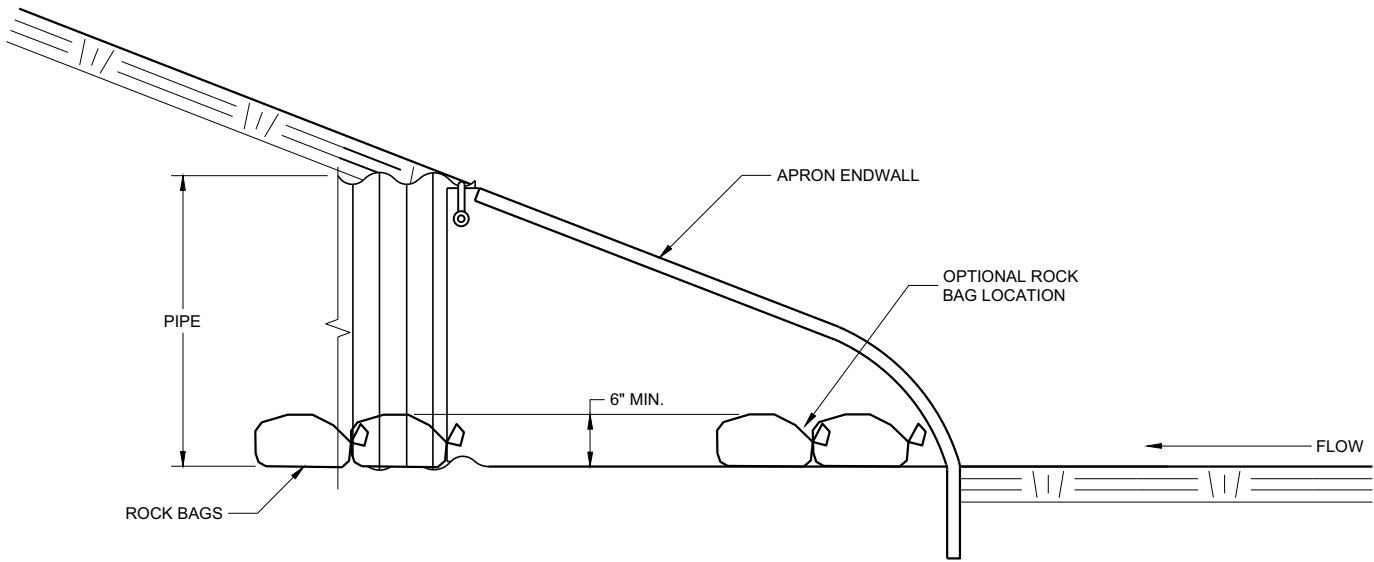
ROADWAY STANDARDS DEVELOPMENT

ENGINEER

92



END VIEW



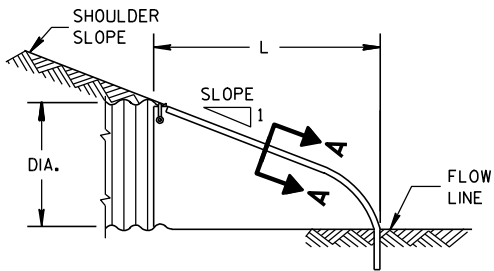
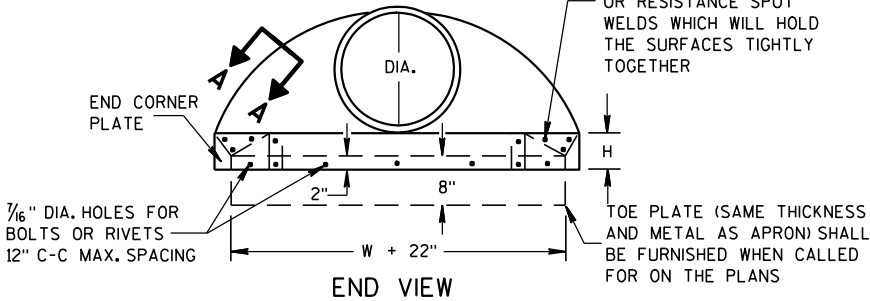
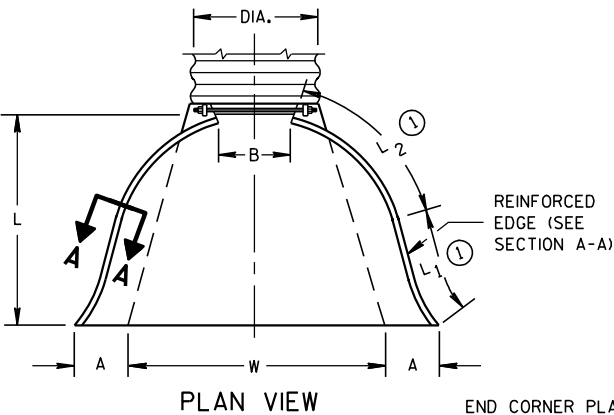
SIDE VIEW

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 ENGR	93

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

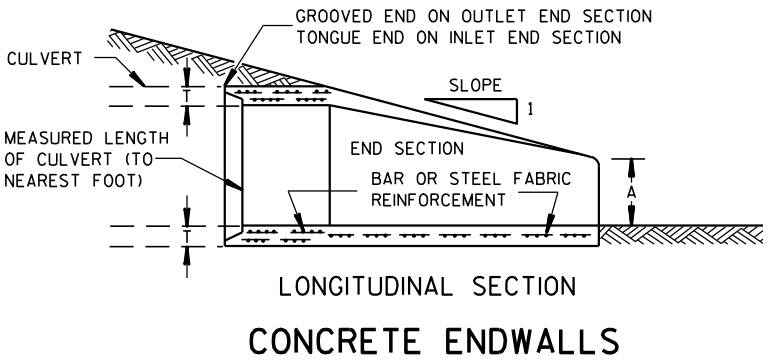
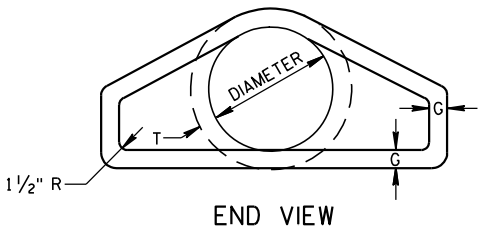
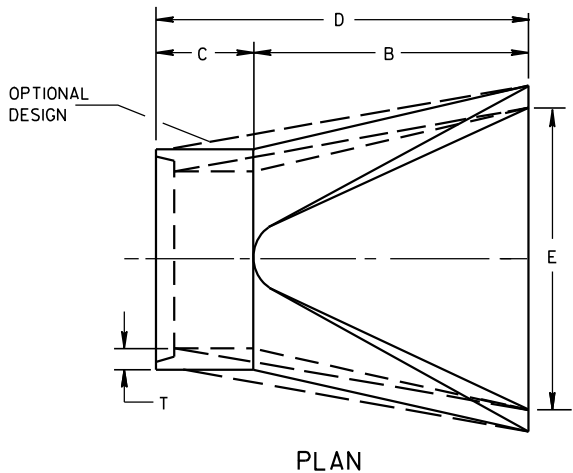
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

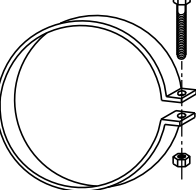
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9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

* MINIMUM
** MAXIMUM

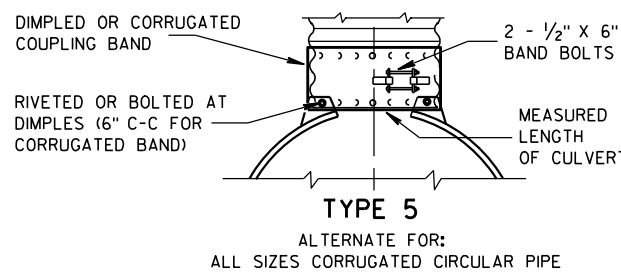
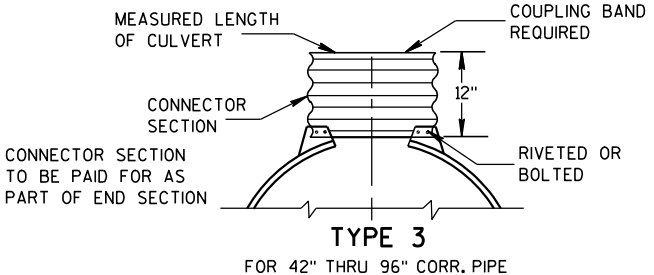
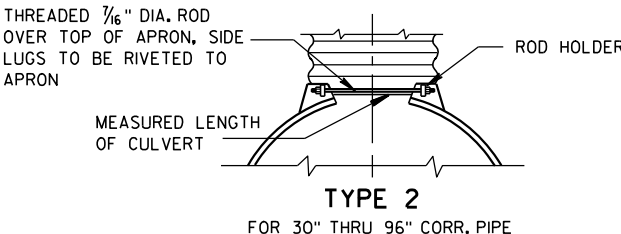
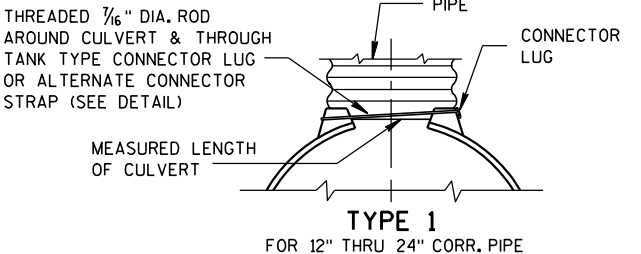


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



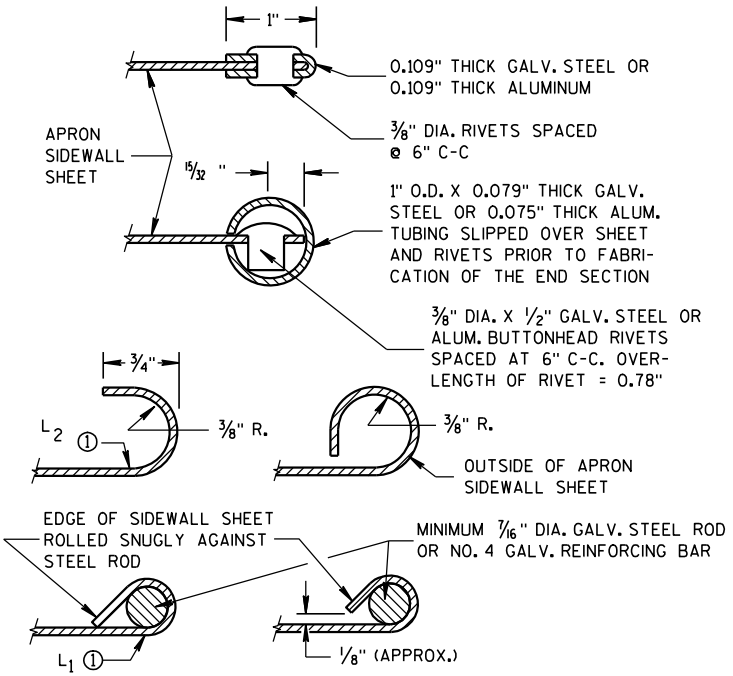
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

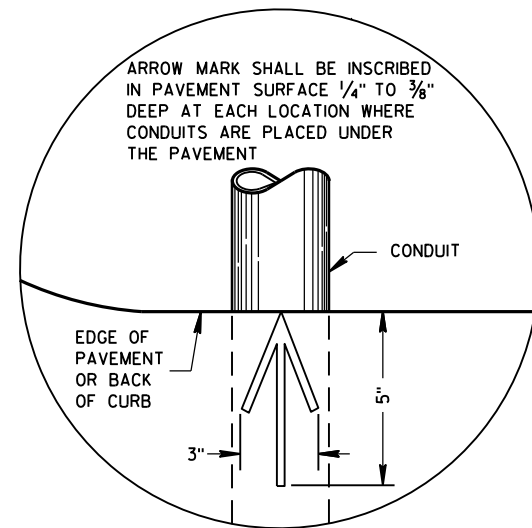
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

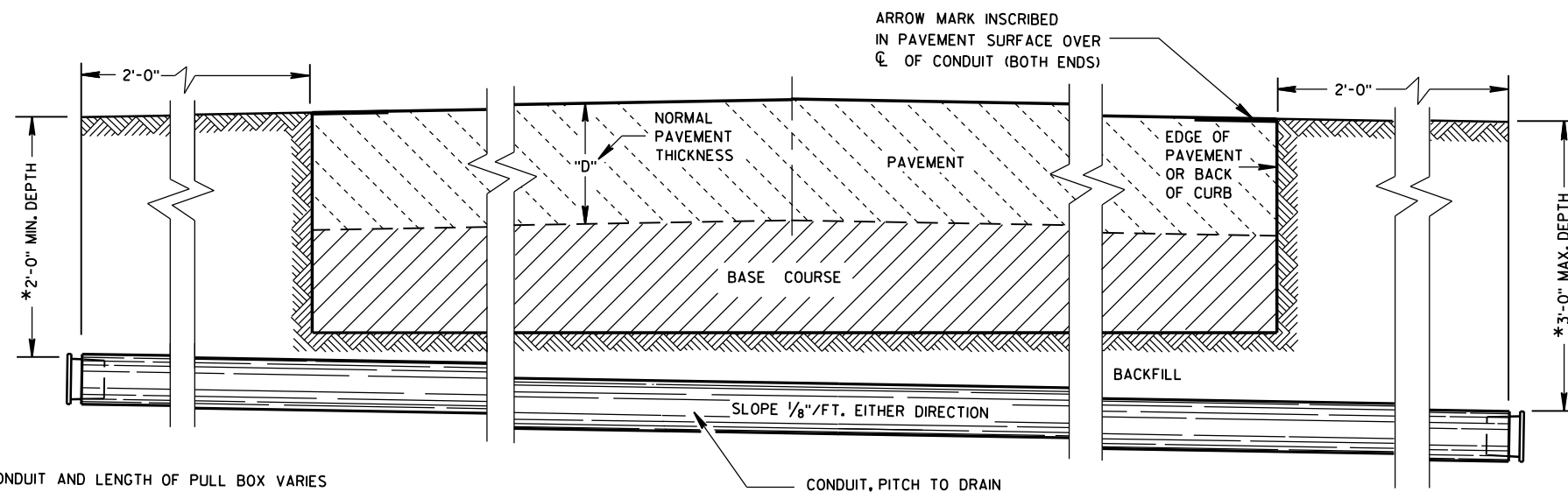
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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 94	NEER	
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.

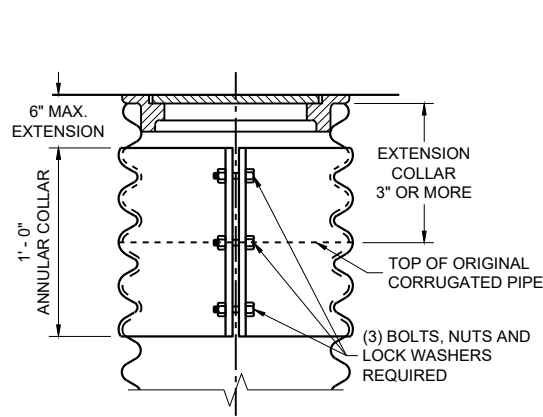
ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

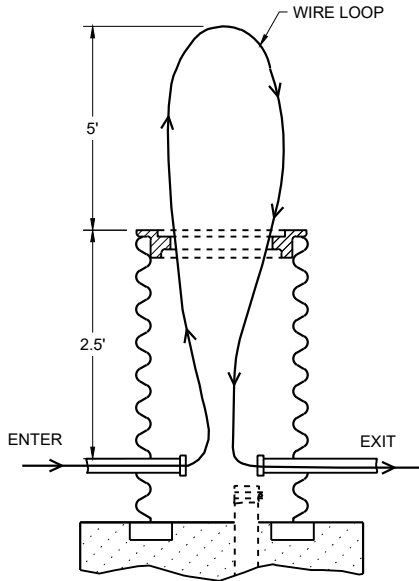
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 95
FHWA

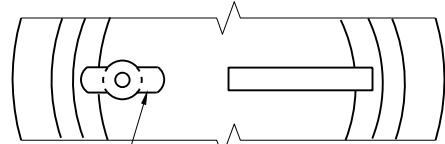
CORRUGATED PIPE EXTENDER



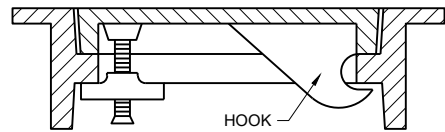
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



BOTTOM



SECTION



ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

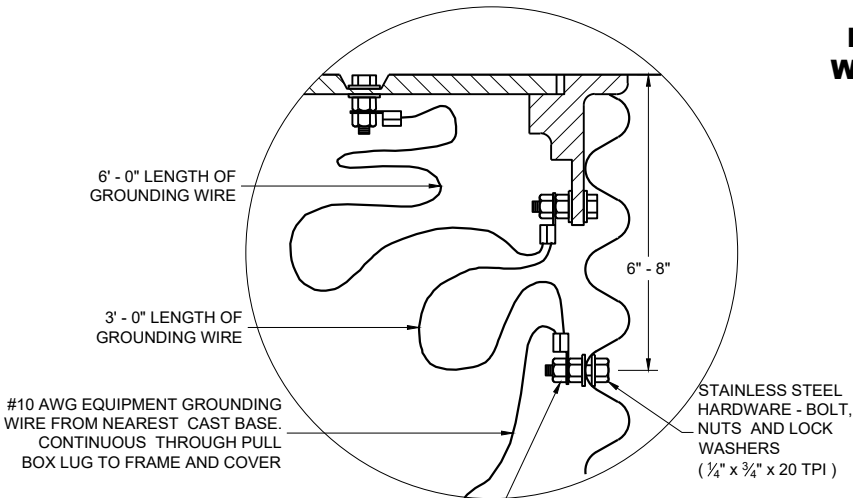
TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
		12	12	12	18	18	18	24	24	24
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

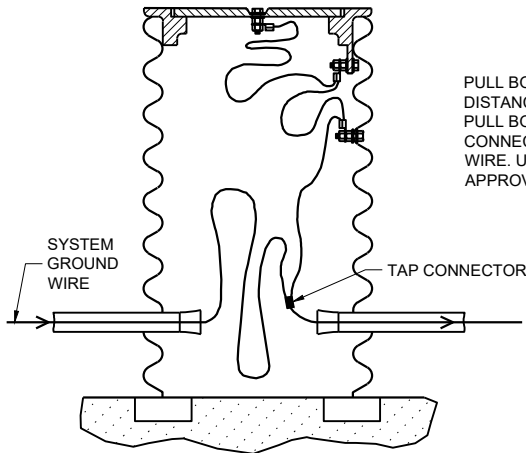
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

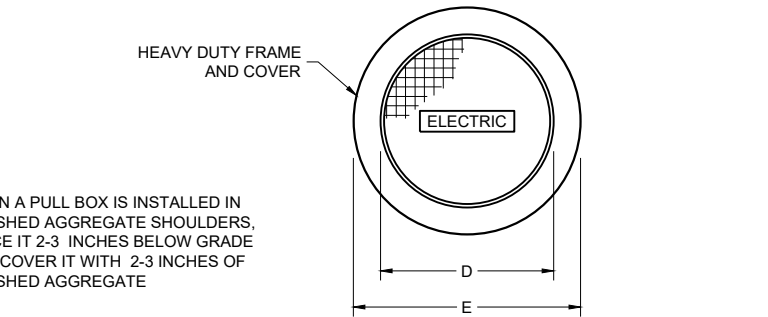


NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE

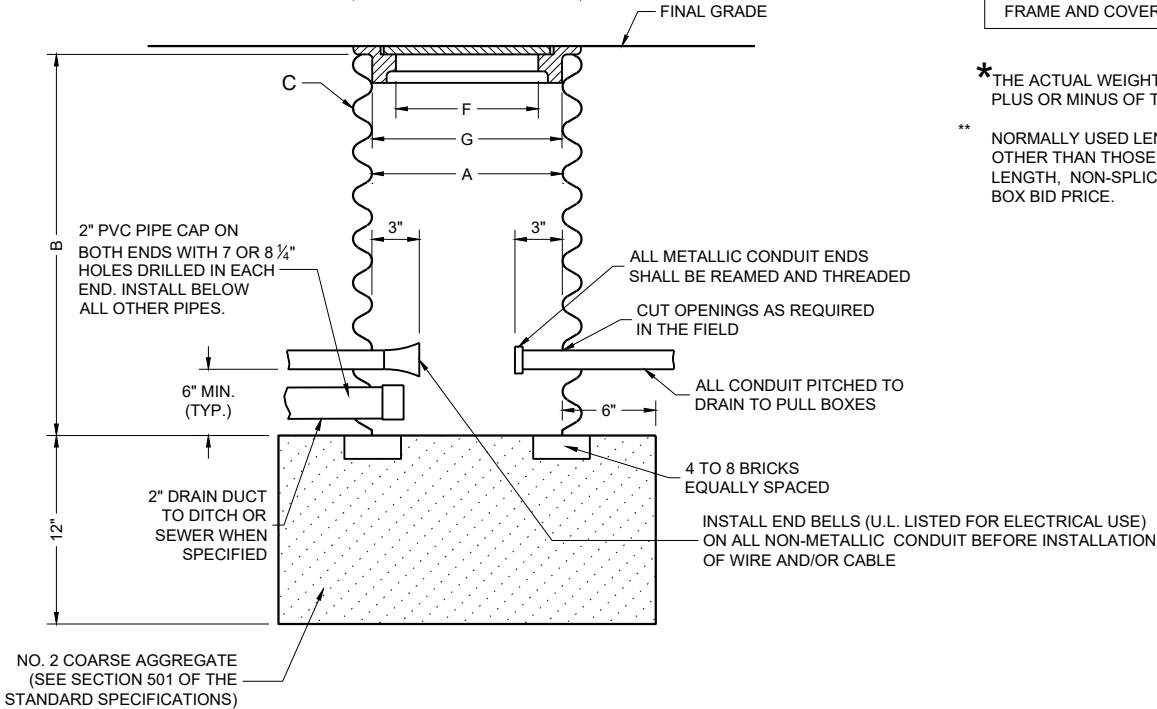
EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

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.**



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

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

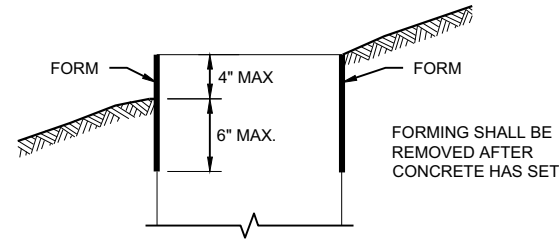


APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 97

FHWA

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.

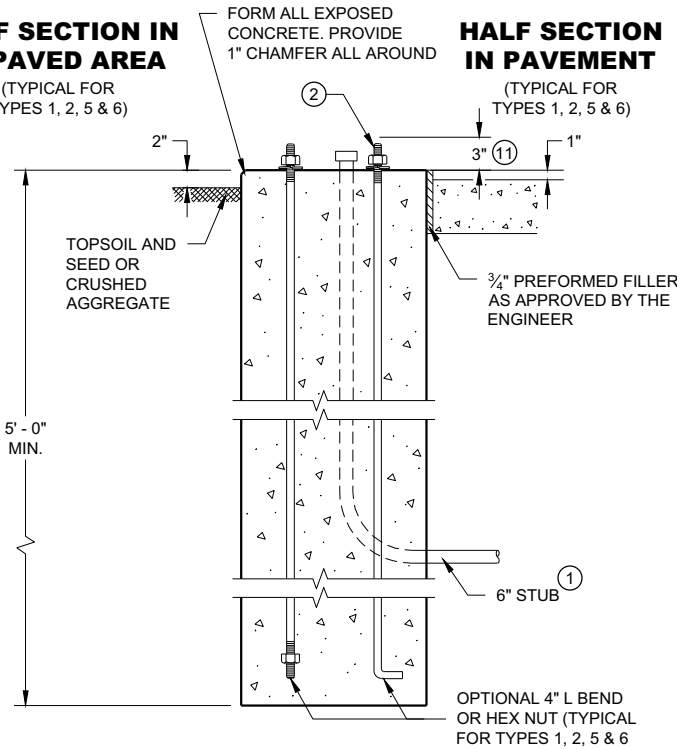
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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).

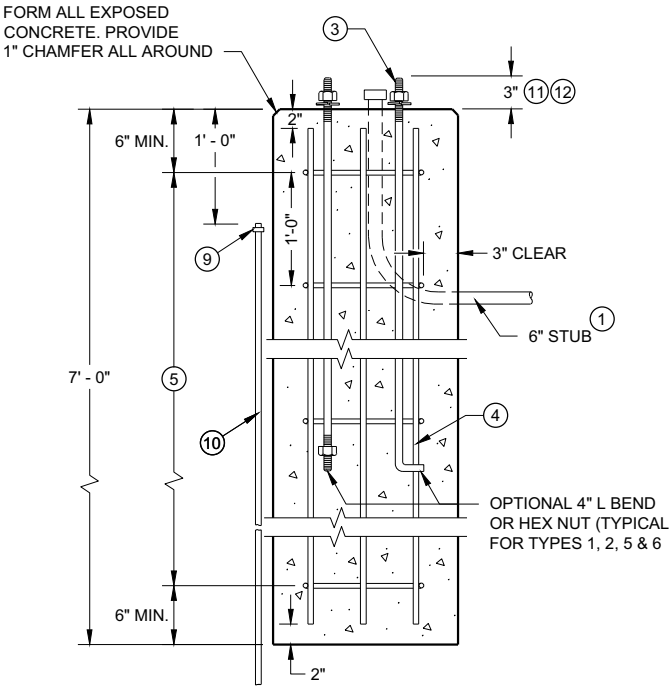
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- 4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 9 EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- 10 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- 11 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.
- 12 FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA



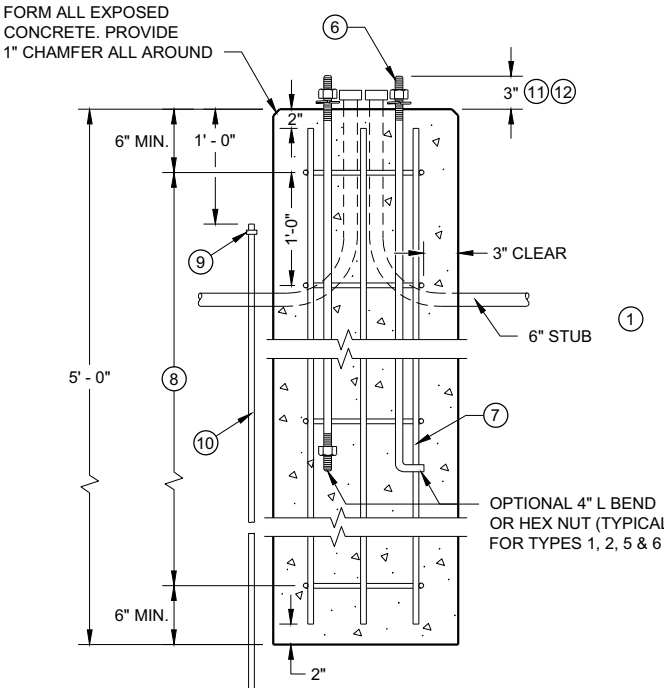
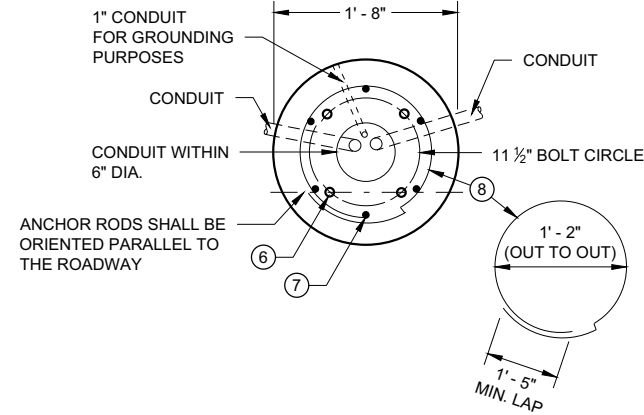
TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2

CONCRETE BASES



TYPE 5 & 6

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

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.

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

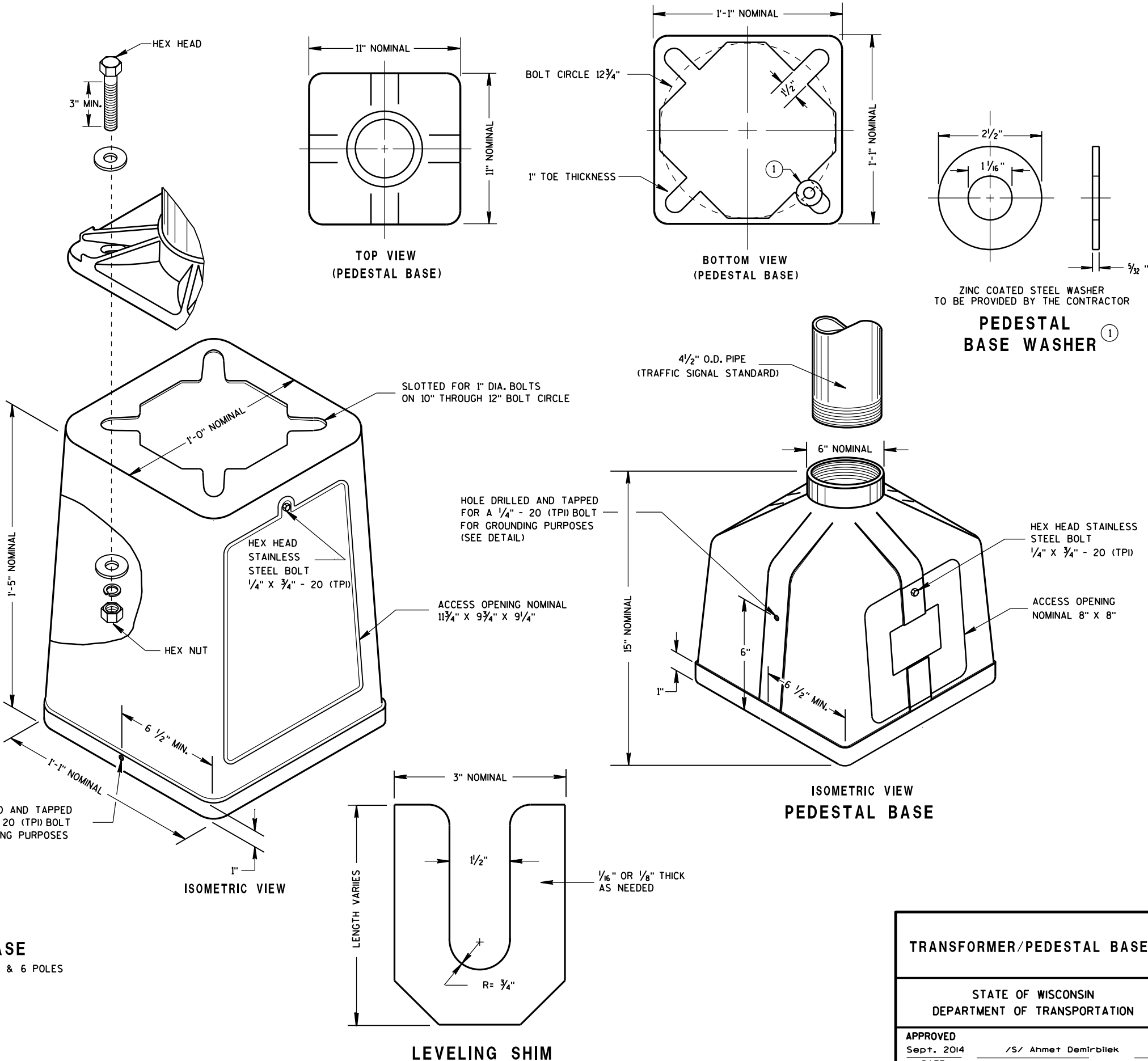
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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



TYPICAL MECHANICAL CONNECTOR LUG TO BE FURNISHED WITH EACH BASE

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

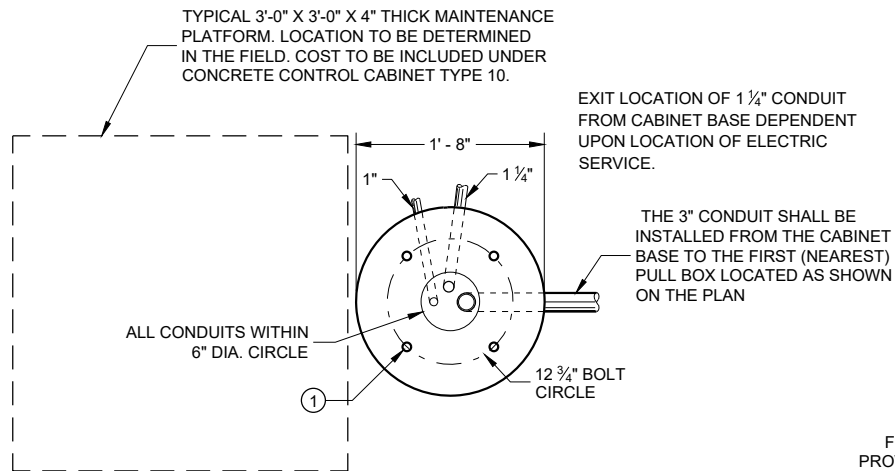
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED Sept. 2014 DATE /S/ Ahmet Demirbilek STATE ELECTRICAL 99 FHWA

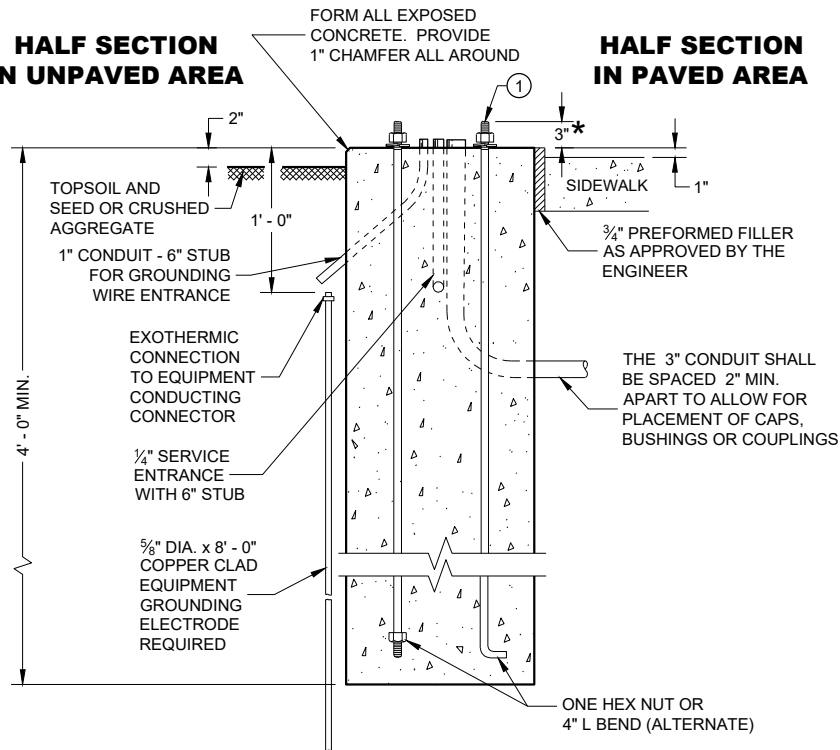
CONTROL CABINET BASE TYPE	DIMENSIONS				CUBIC YARD CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65*

* INCLUDES MAINTENANCE PLATFORM.



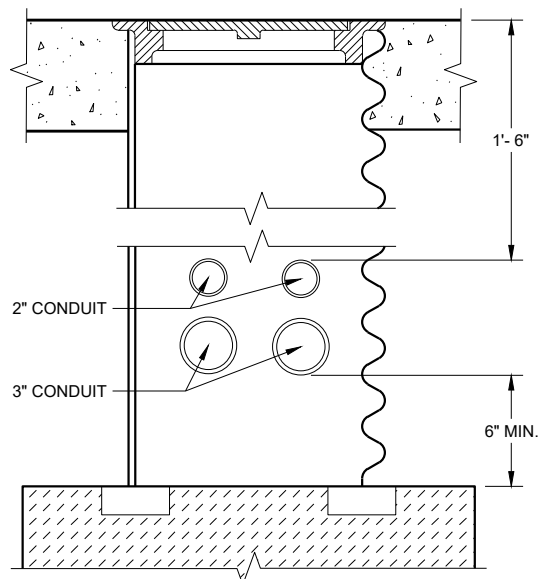
HALF SECTION IN UNPAVED AREA

HALF SECTION IN PAVED AREA



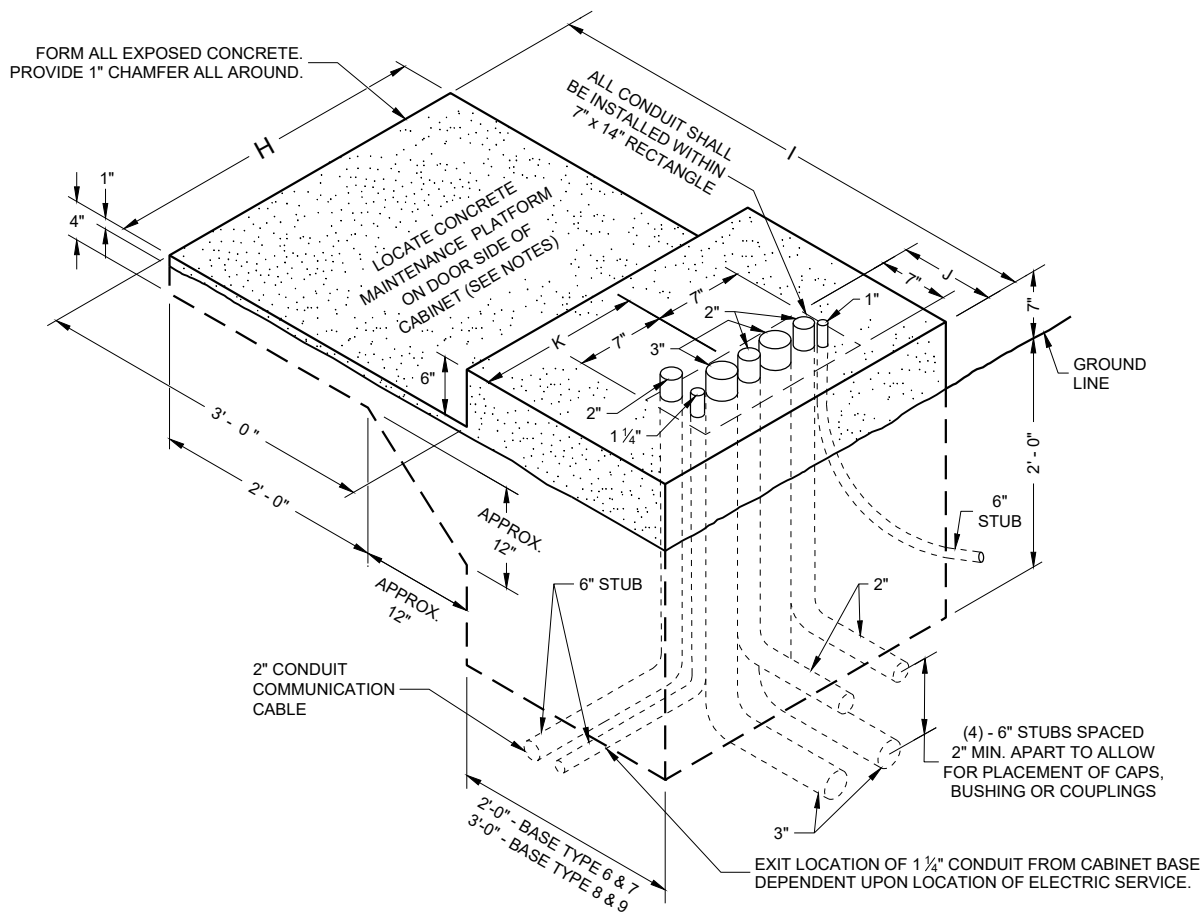
TYPE 10

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.



CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



ISOMETRIC VIEW

TYPE 6, 7, 8 AND 9

GENERAL NOTES

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

INSTALL FOUR (4) 1/2" INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS 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.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE 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.

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.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

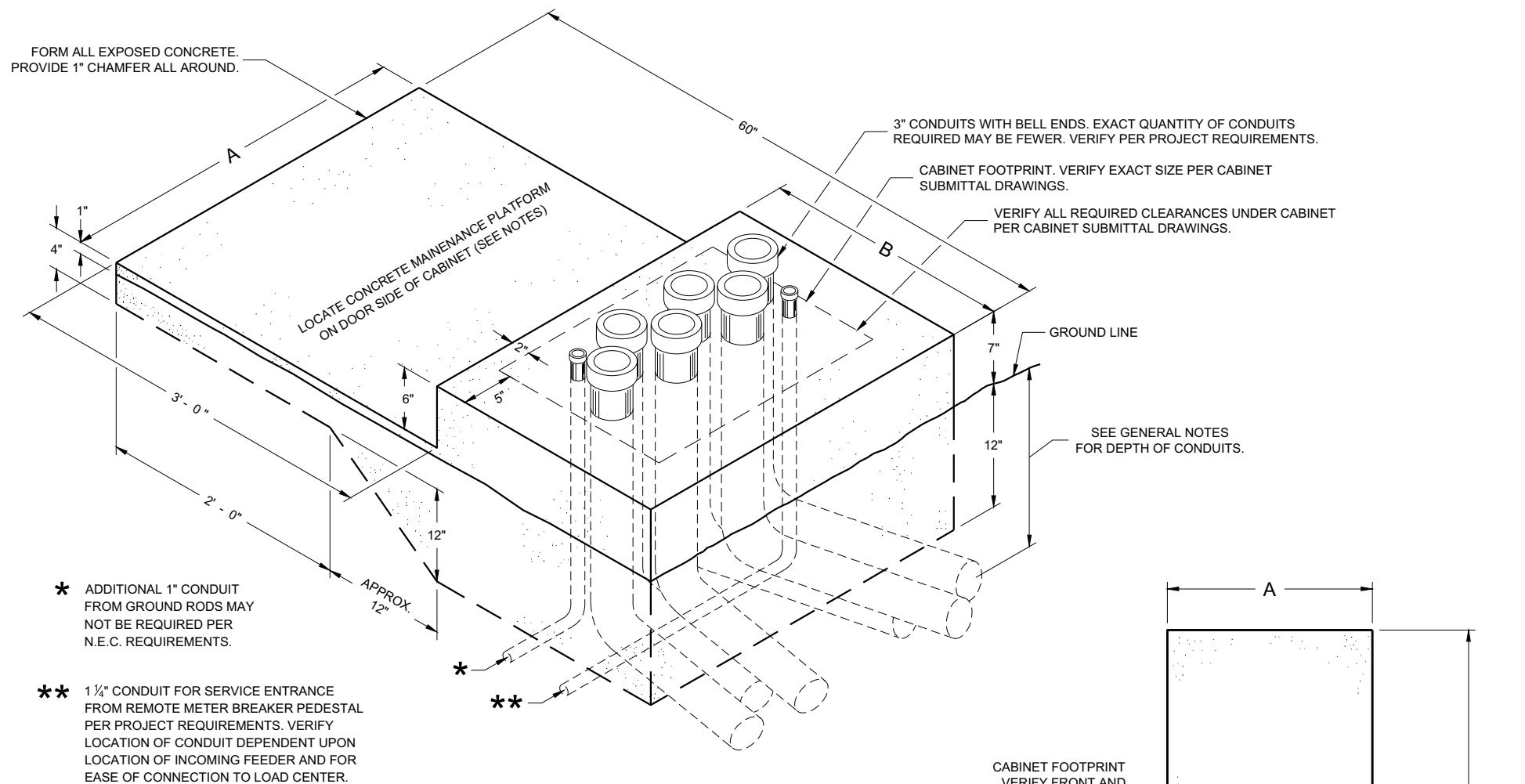
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

① FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CABINET CONTROL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

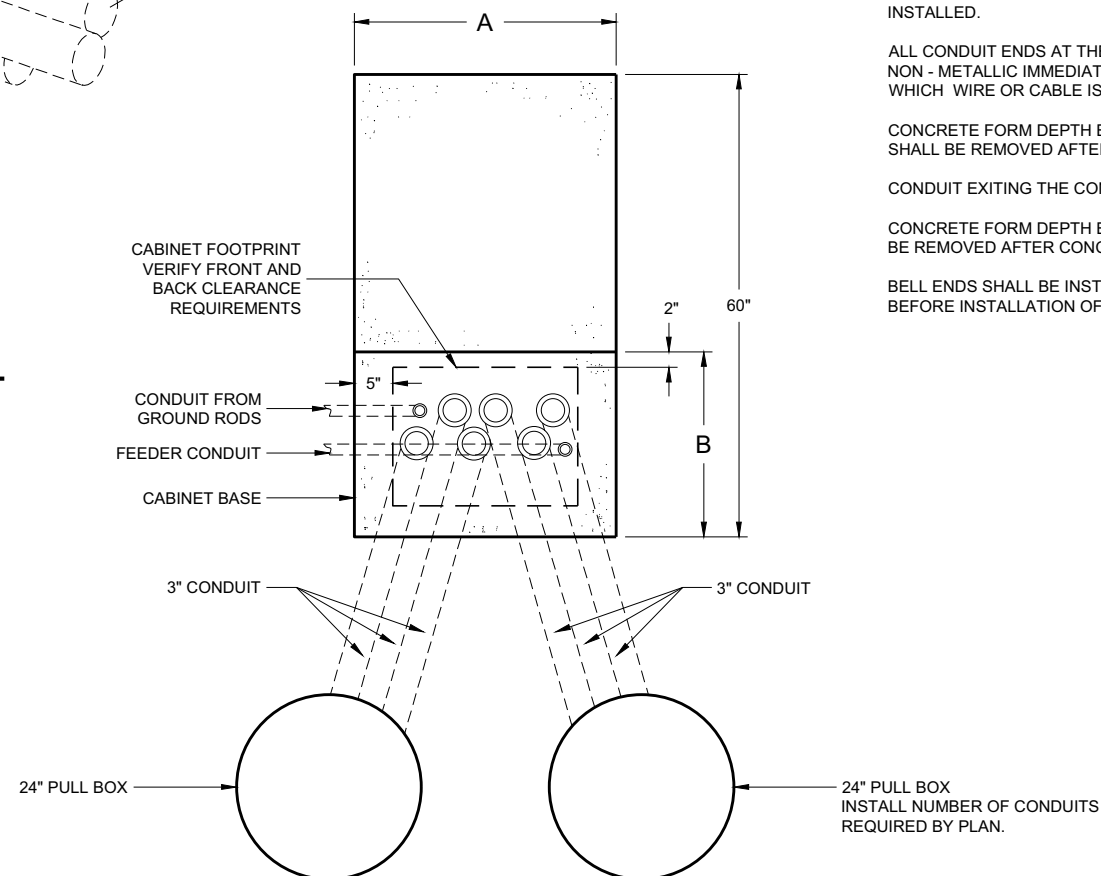
APPROVED
September 2016 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI 100
FHWA



ISOMETRIC VIEW CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW CONCRETE CONTROL CABINET BASE, TYPE L

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.

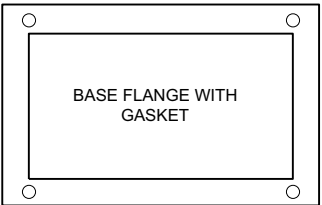
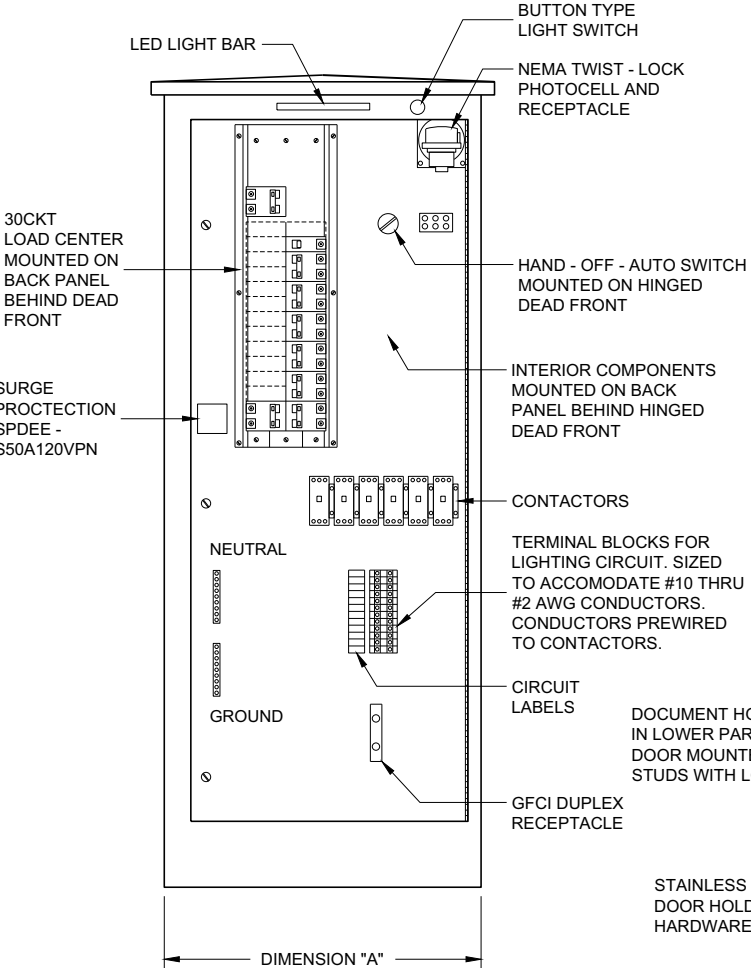
BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE
STATE ELECTRICAL ENGI 101
FHWA

FRONT INTERIOR
ELEVATION



LIGHTING CONTROL CABINET

SIDE VIEW

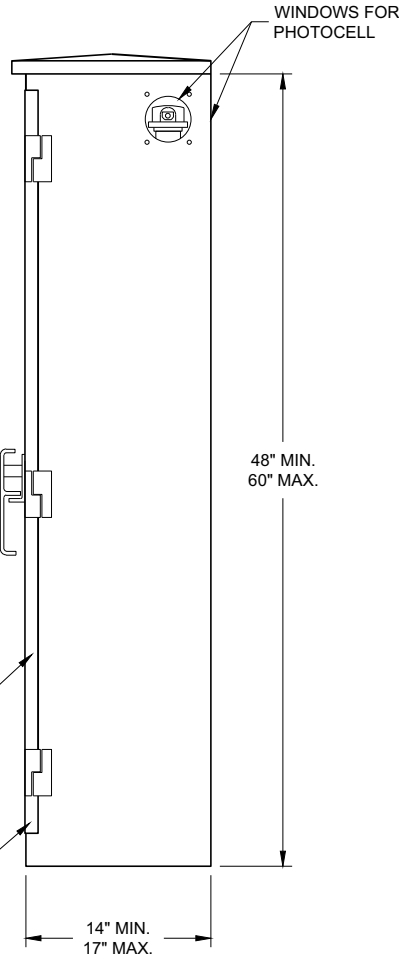
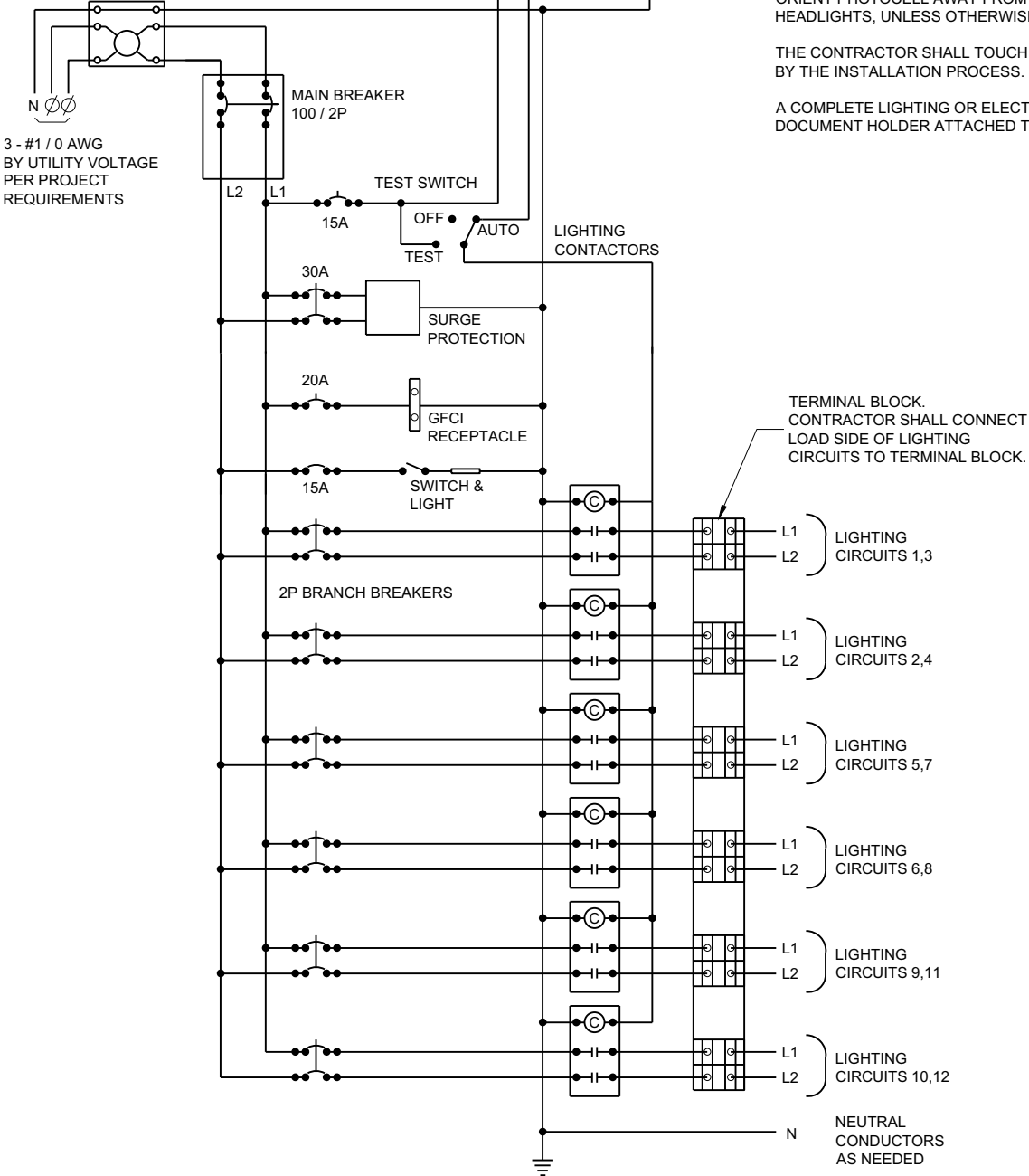


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

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

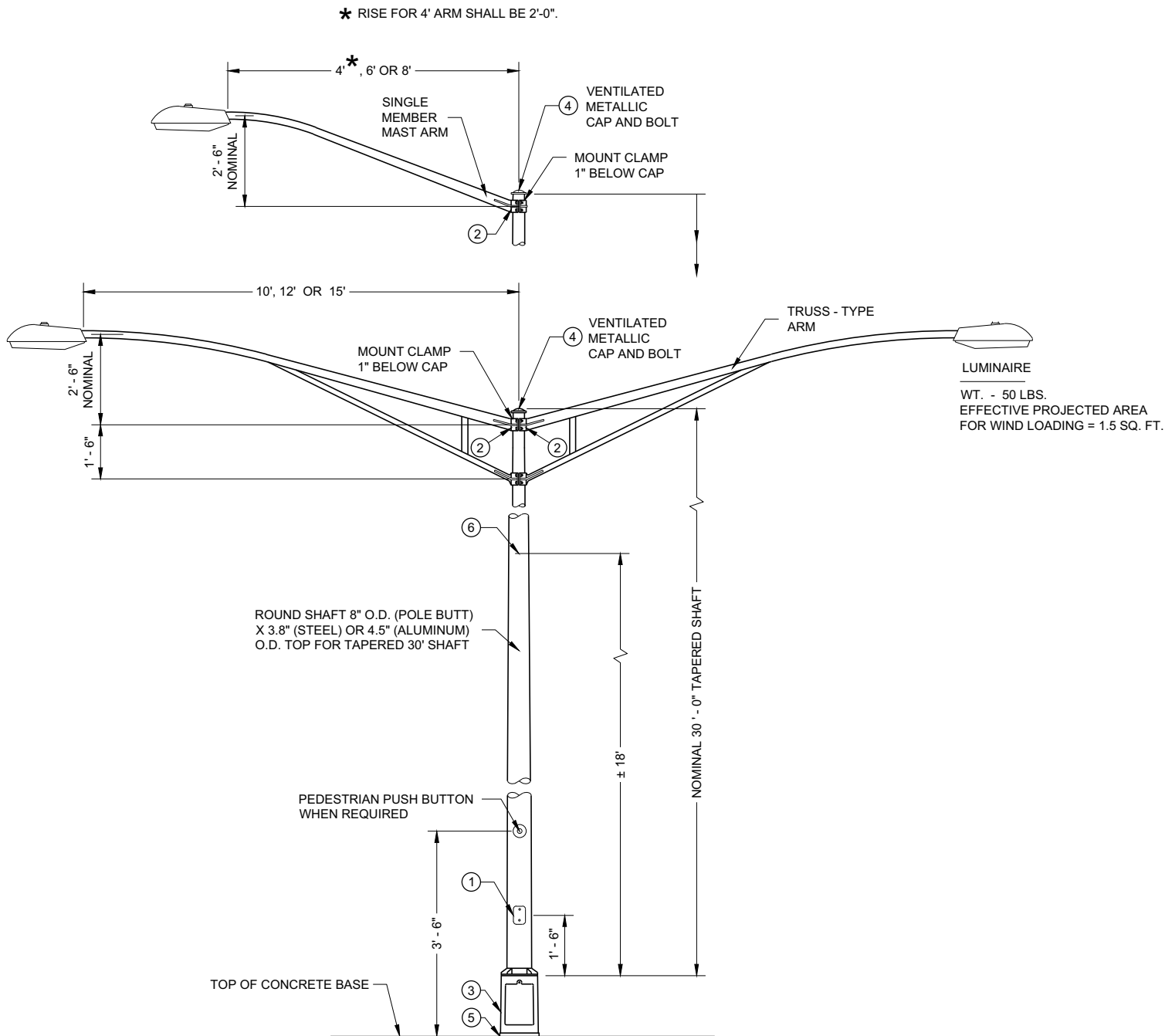
GENERAL NOTES

- 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 Demirelek
DATE STATE ELECTRICAL ENGI 102
FHWA



TYPE 5 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 5 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 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVEING INSIDE THE POLE IS NOT ACCEPTABLE.

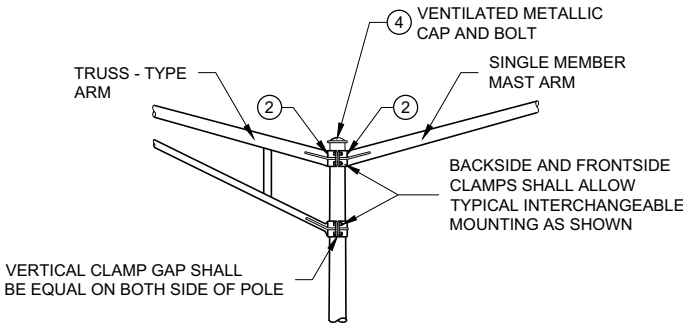
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 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.

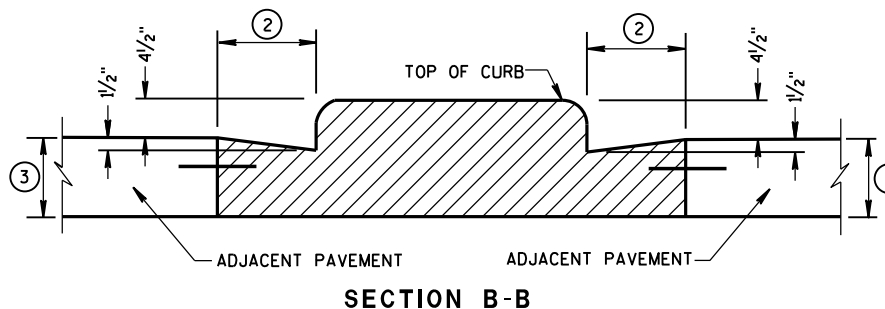
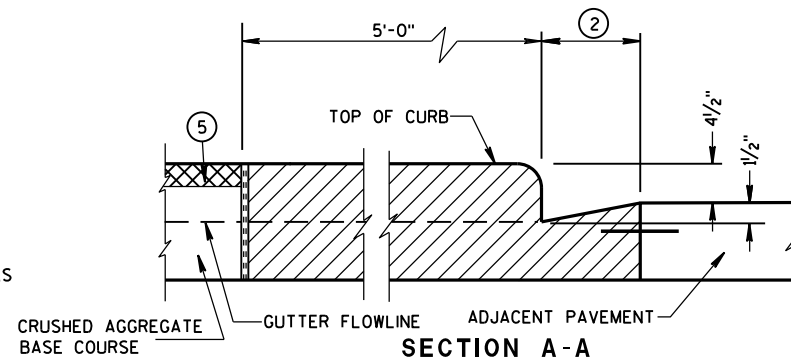
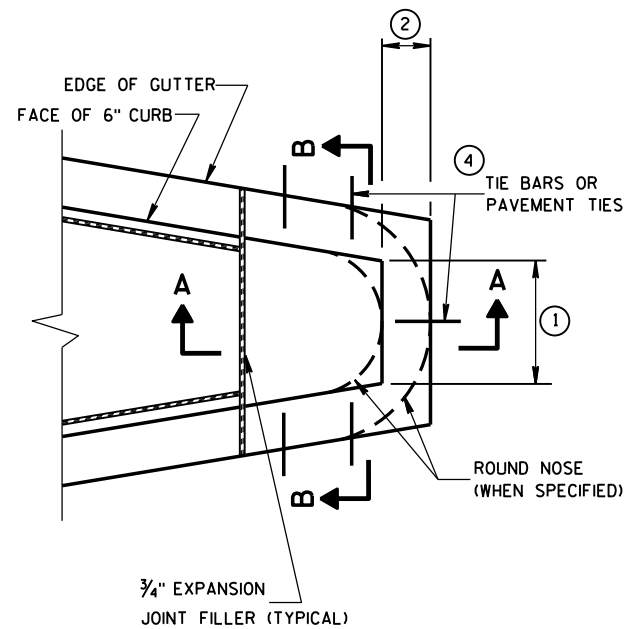
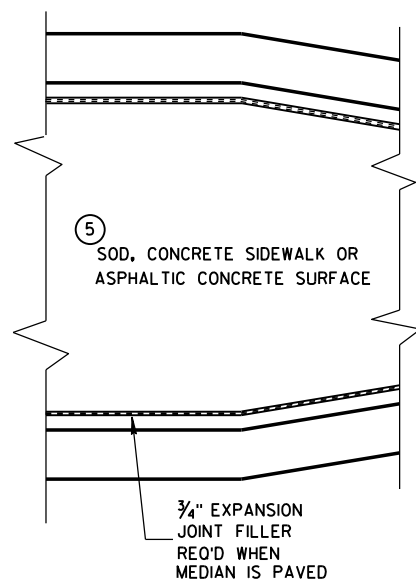
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 3/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- 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.



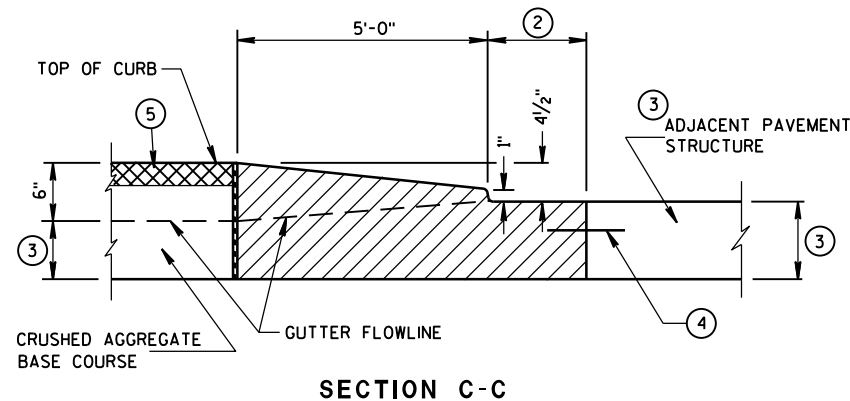
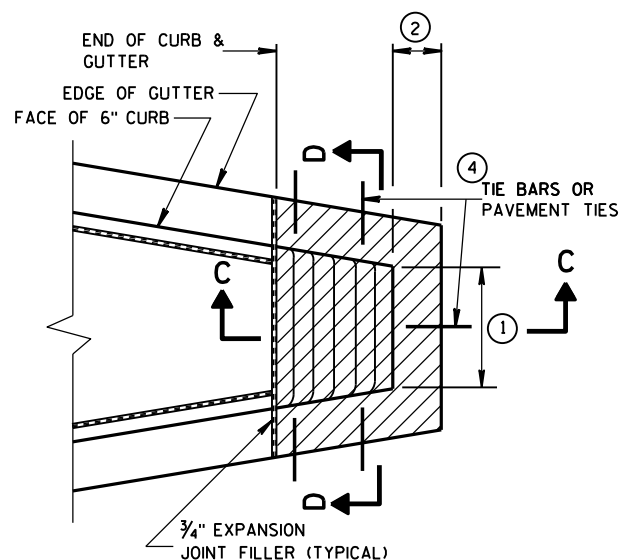
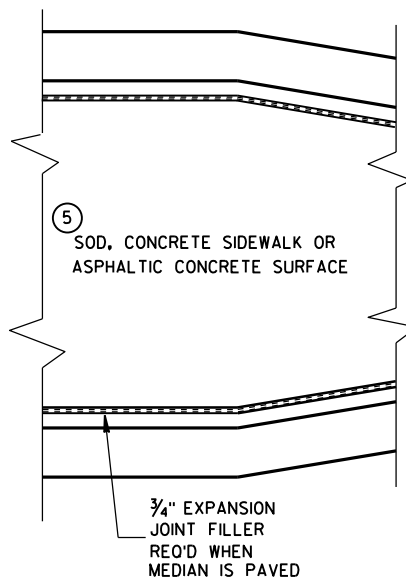
INTERCHANGEABLE MOUNTING DETAIL

**POLE MOUNTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)**

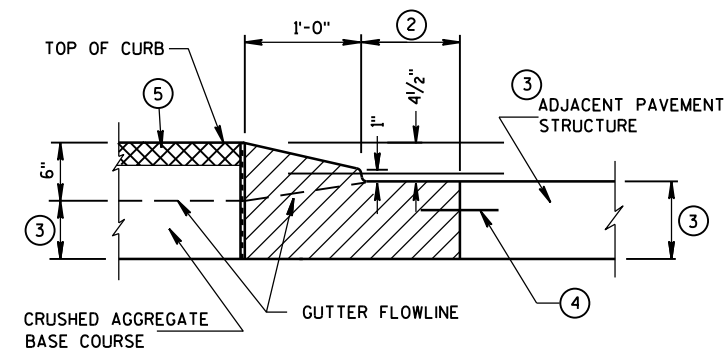
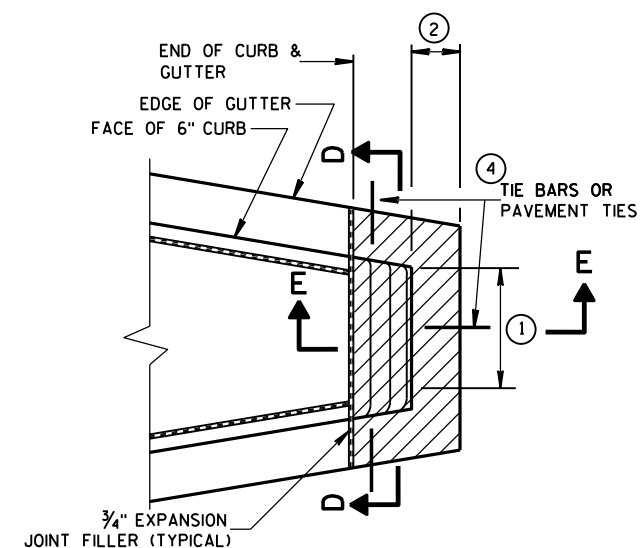
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 103



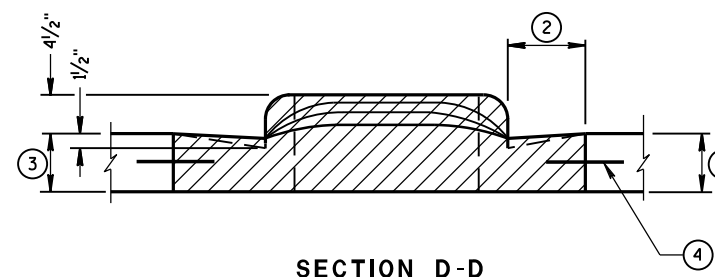
CONCRETE MEDIAN BLUNT NOSE DETAIL



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

APPROVED

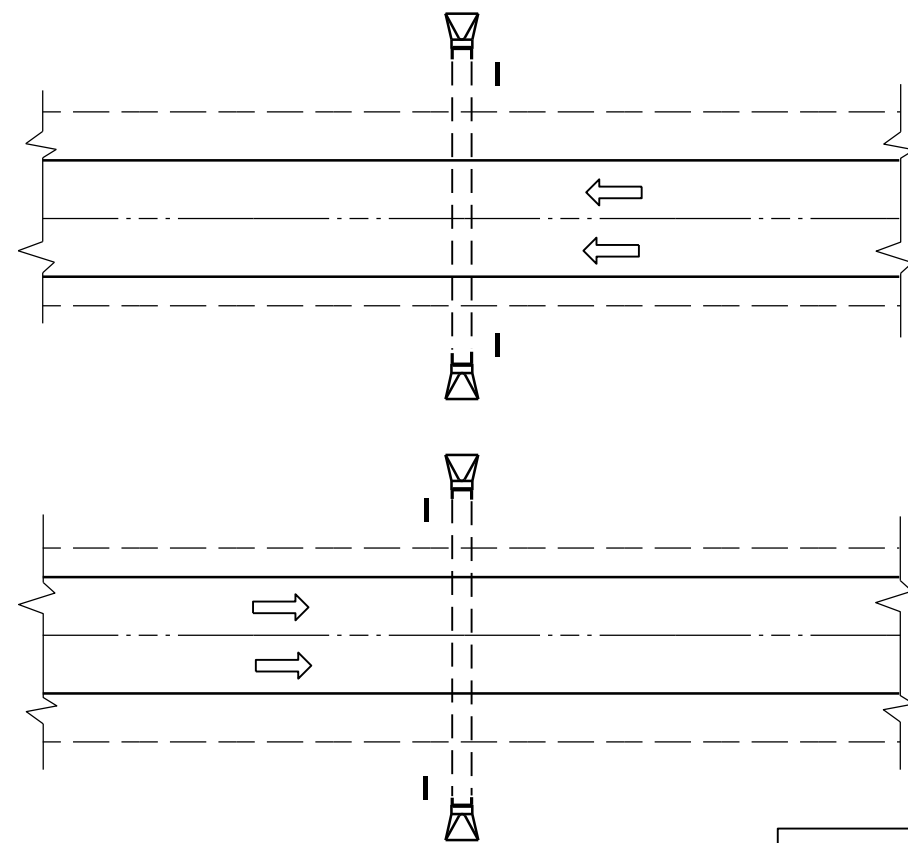
6/8/2006

DATE

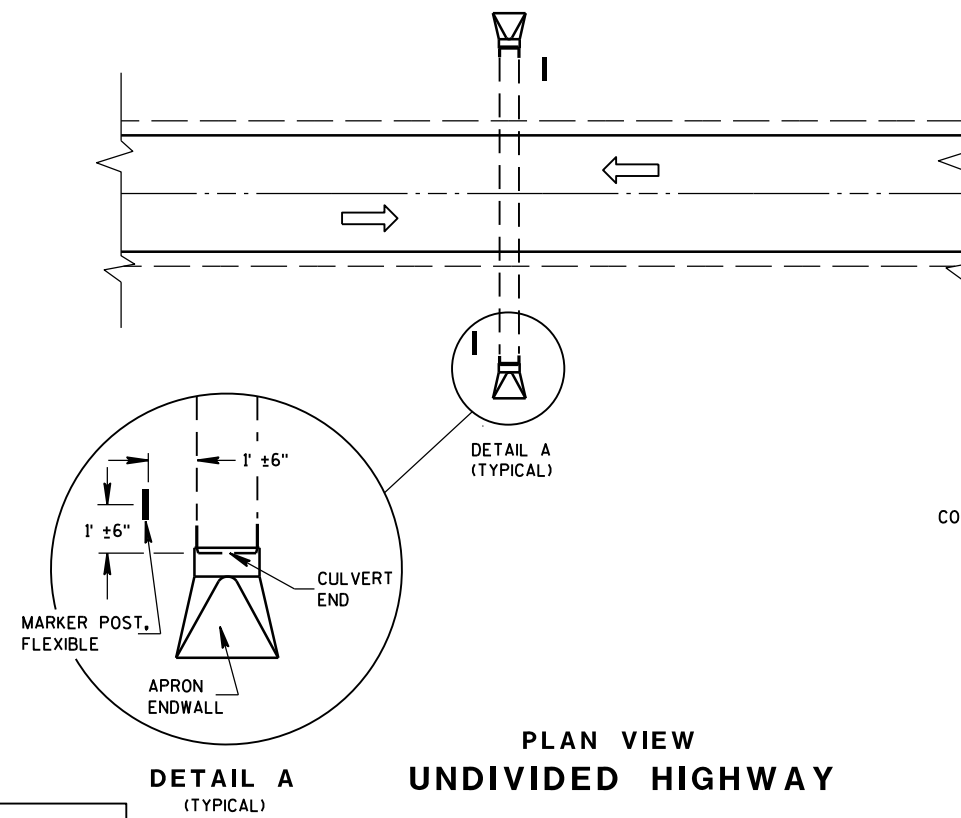
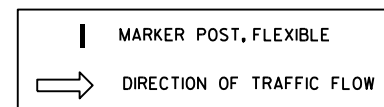
FHWA

/S/ Jerry H. Zoag
ROADWAY STANDARDS & ENGINEER

104



PLAN VIEW
DIVIDED HIGHWAY

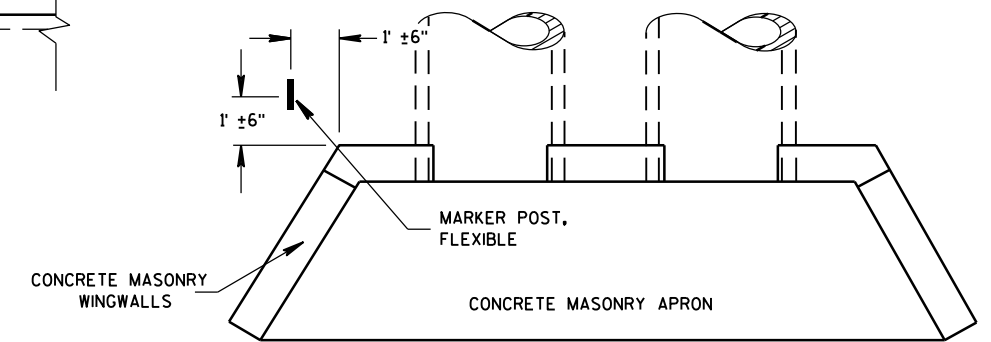


PLAN VIEW
UNDIVIDED HIGHWAY

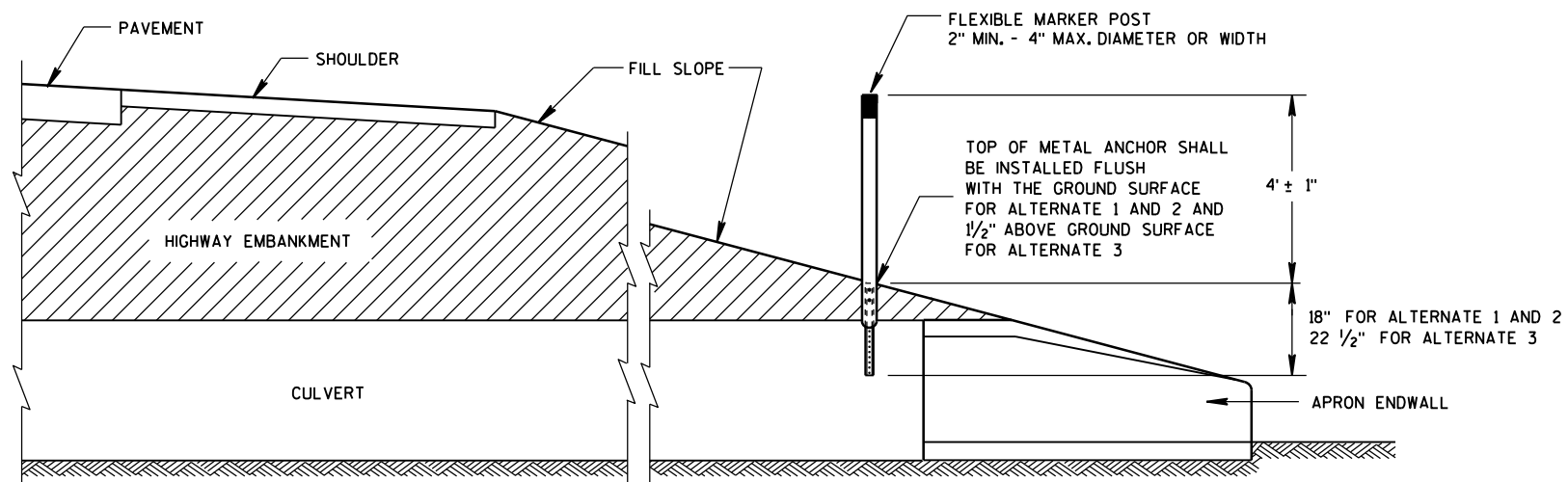
FLEXIBLE MARKER POST LOCATION

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.



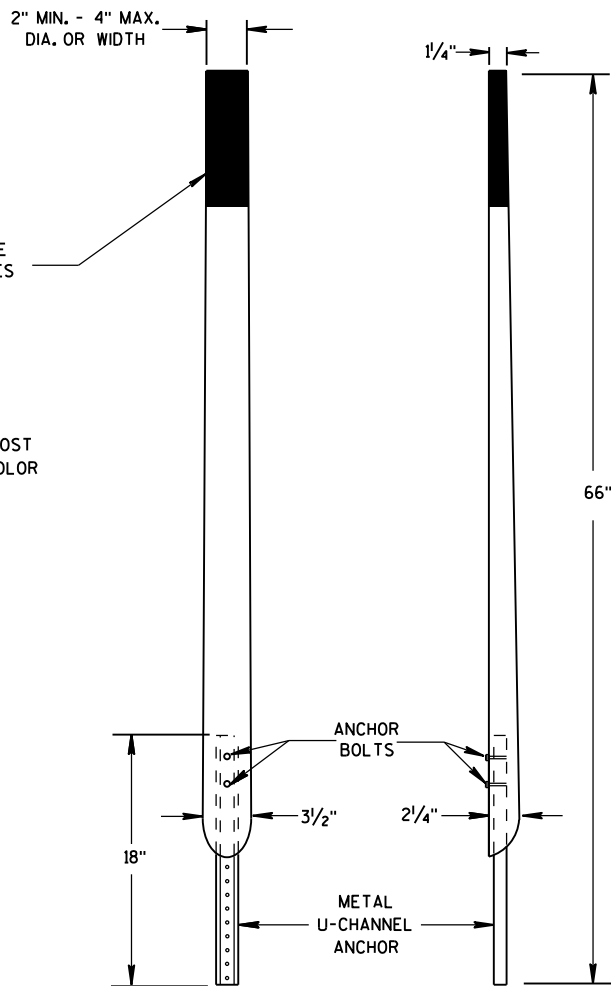
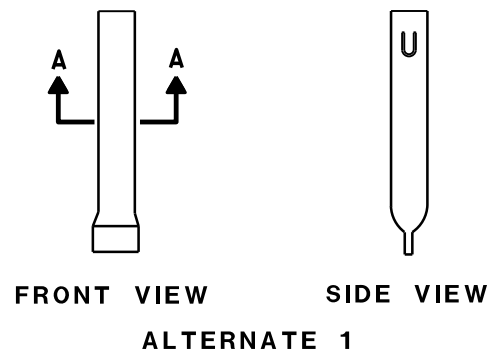
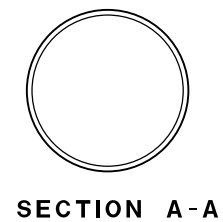
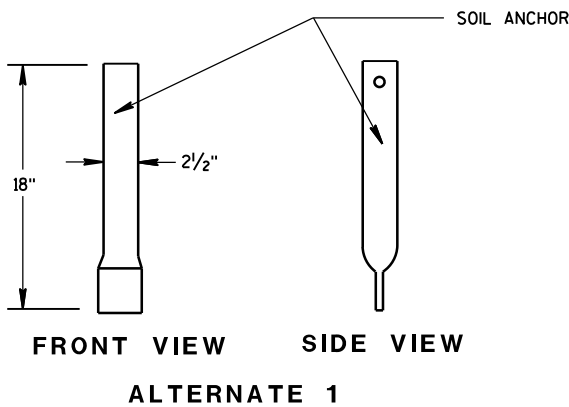
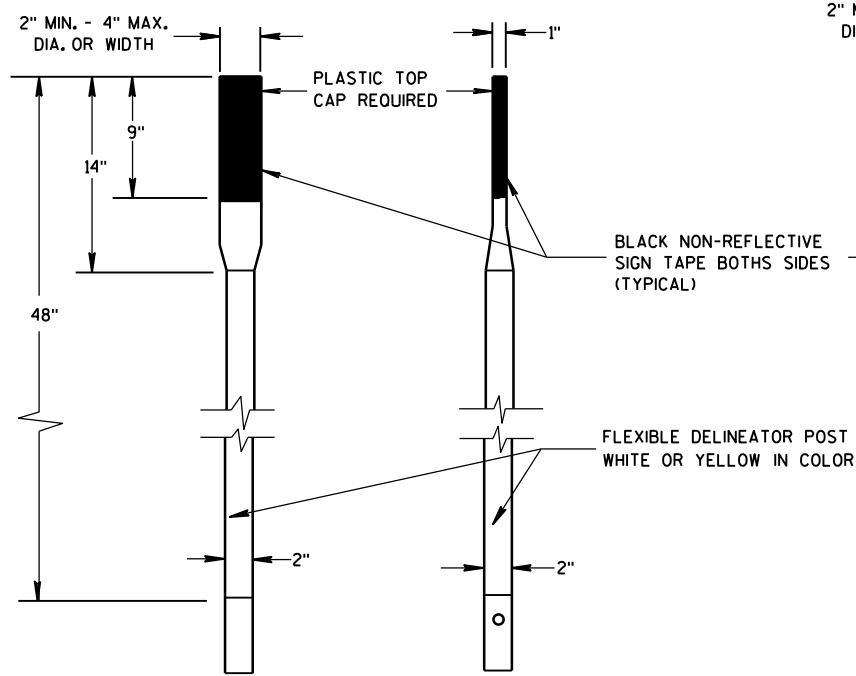
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

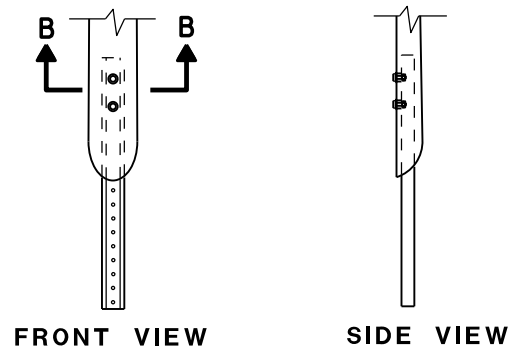
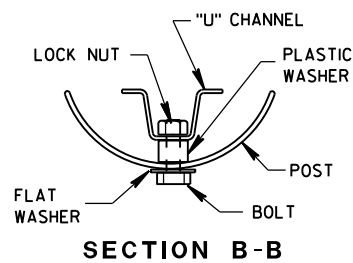
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 105

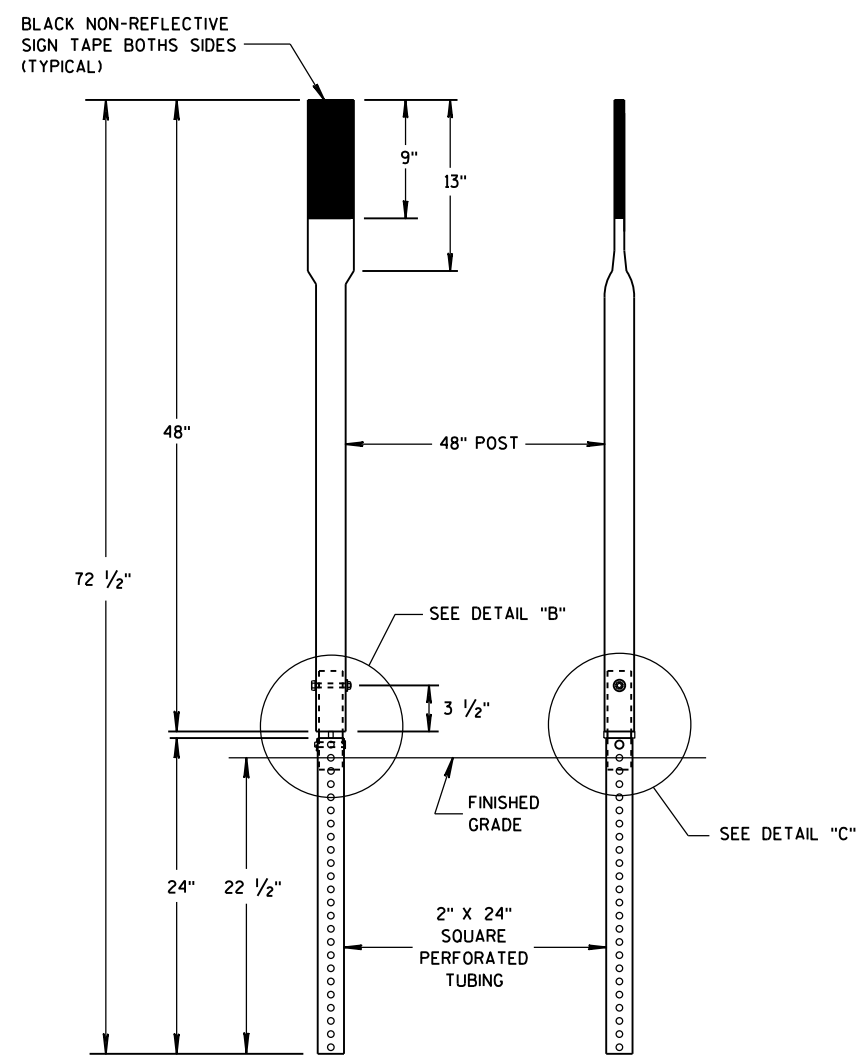


FRONT VIEW SIDE VIEW
ALTERNATE 2

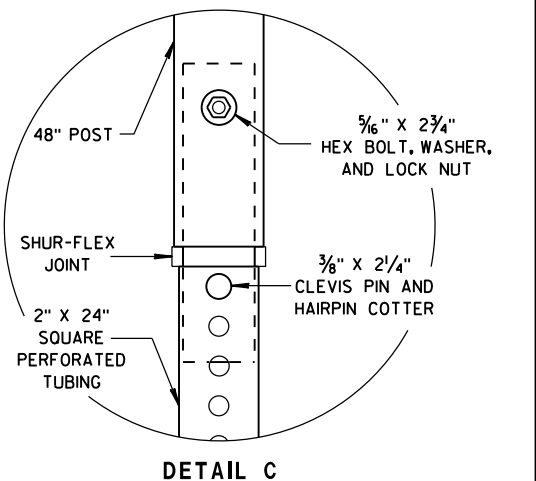
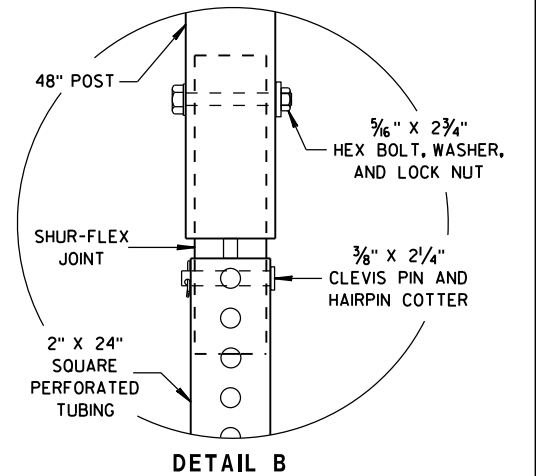
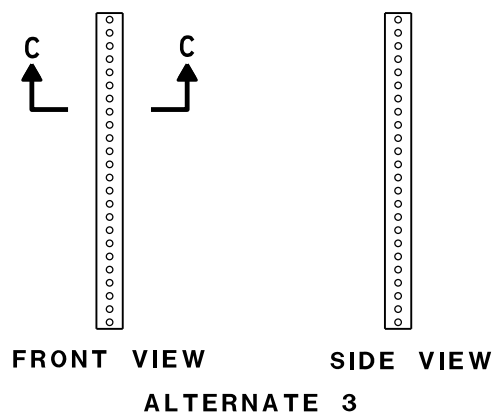
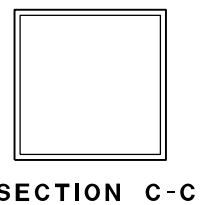
FLEXIBLE MARKER POSTS



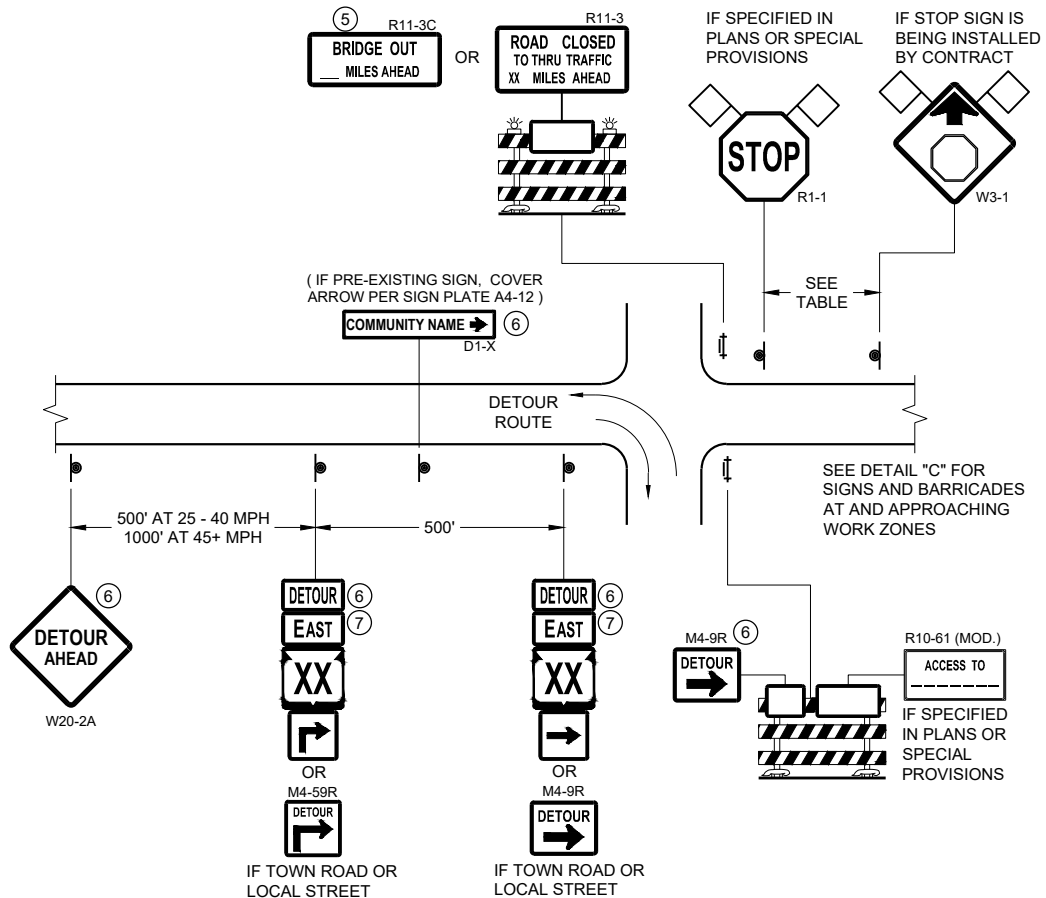
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



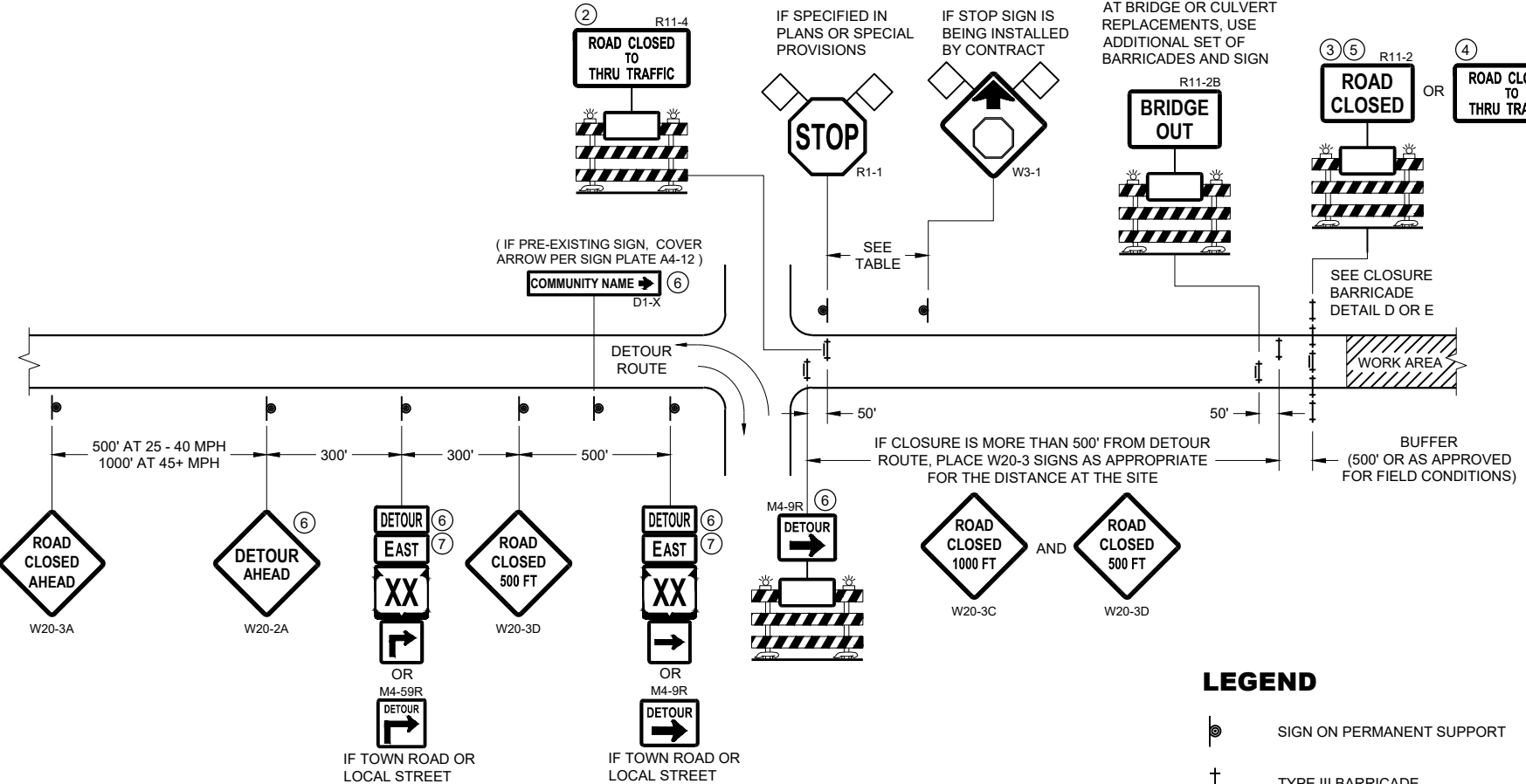
FRONT VIEW SIDE VIEW
ALTERNATE 3



FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER 106
FHWA	



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



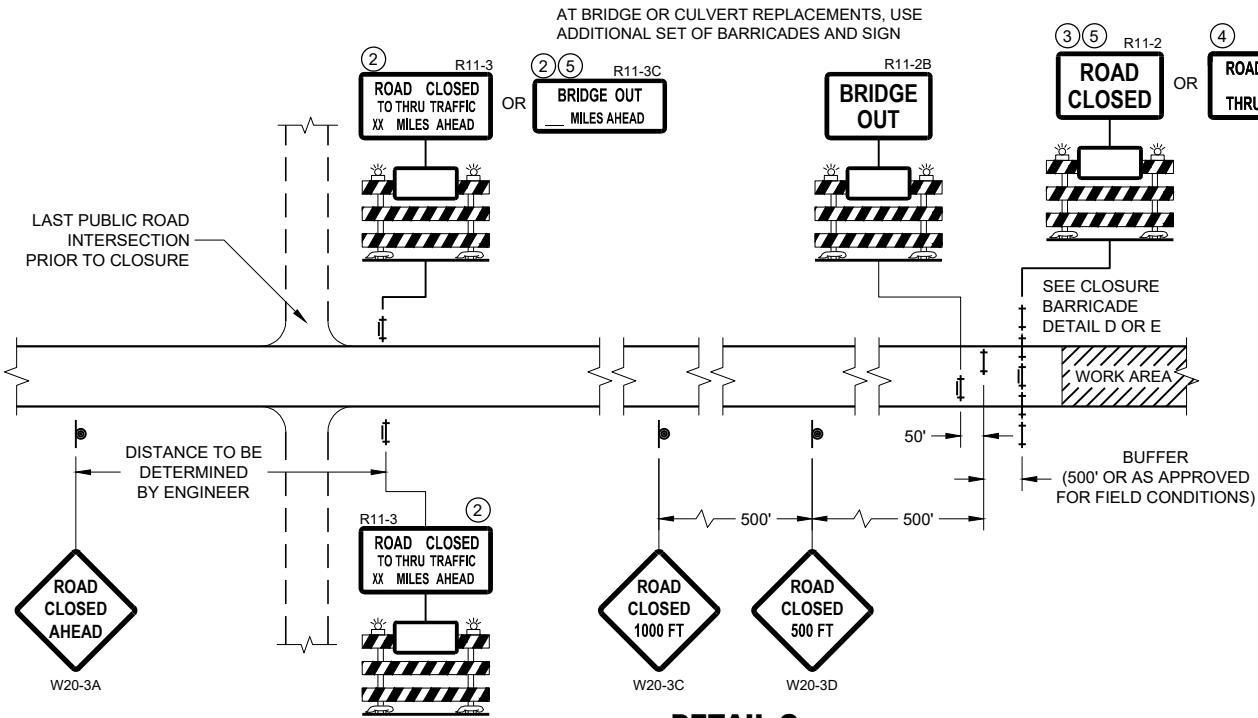
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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 X M1 - 5A
- OR 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



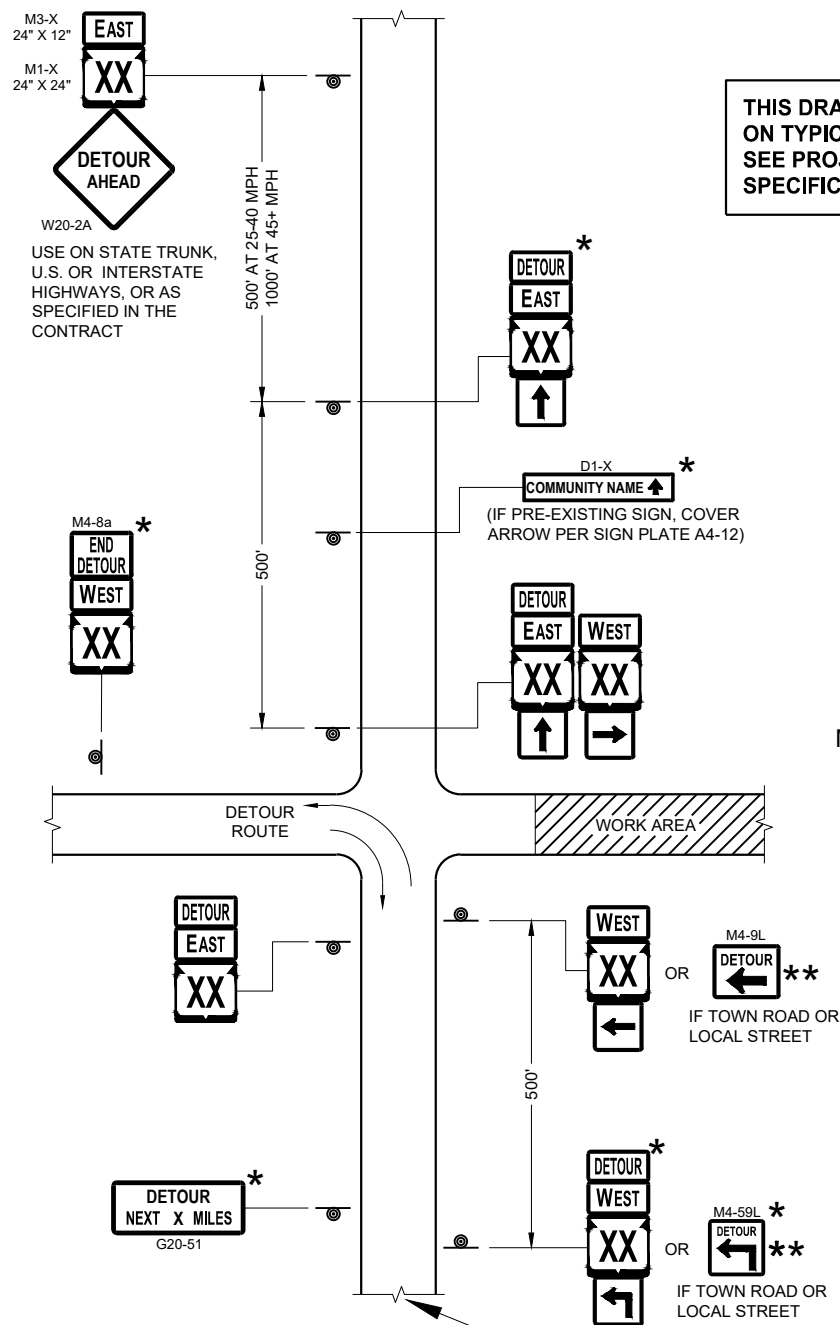
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 107

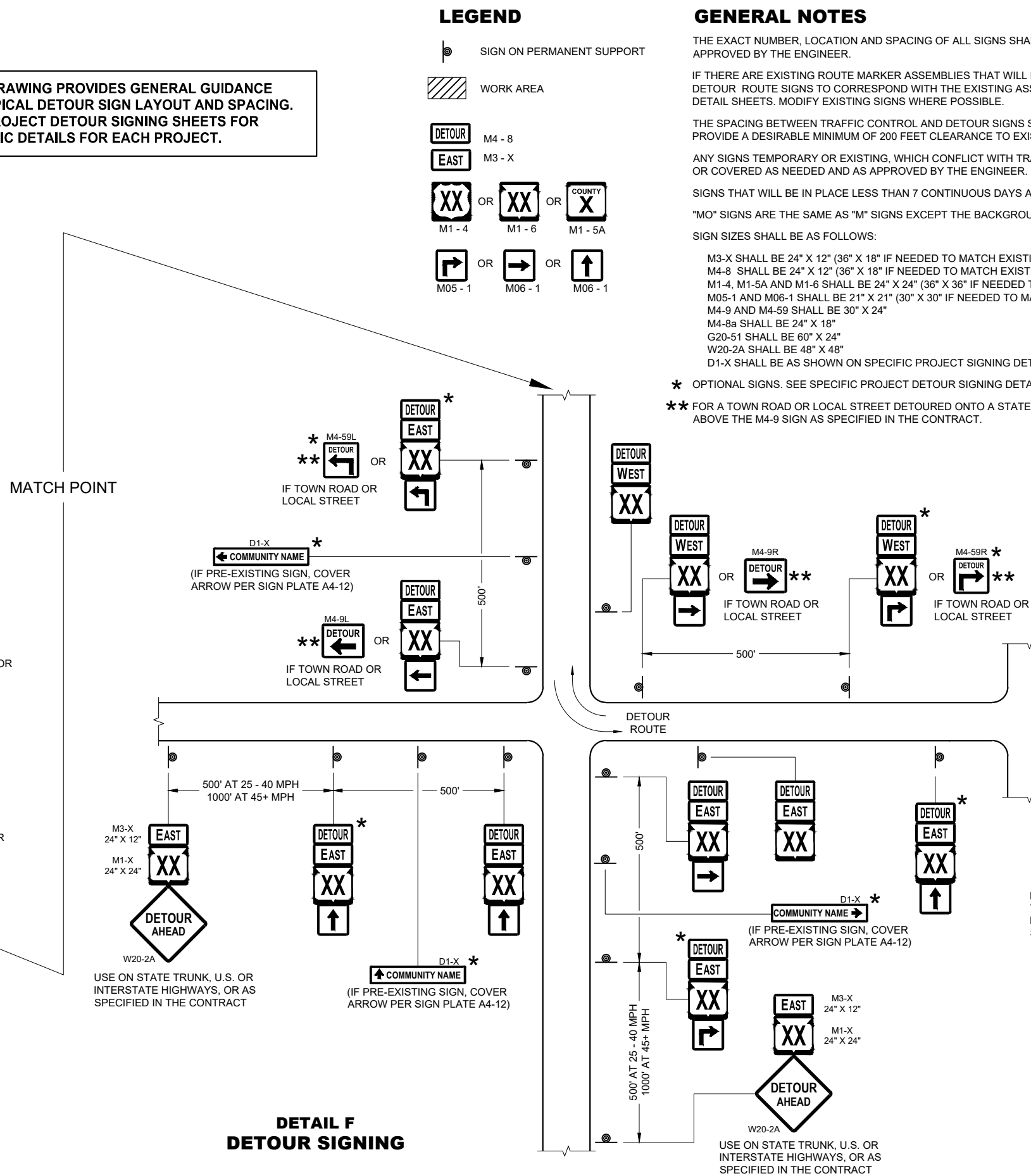
FHWA



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

SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

SDD 15C02 - 09c



DETAIL F DETOUR SIGNING

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (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)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

**** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.**

PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

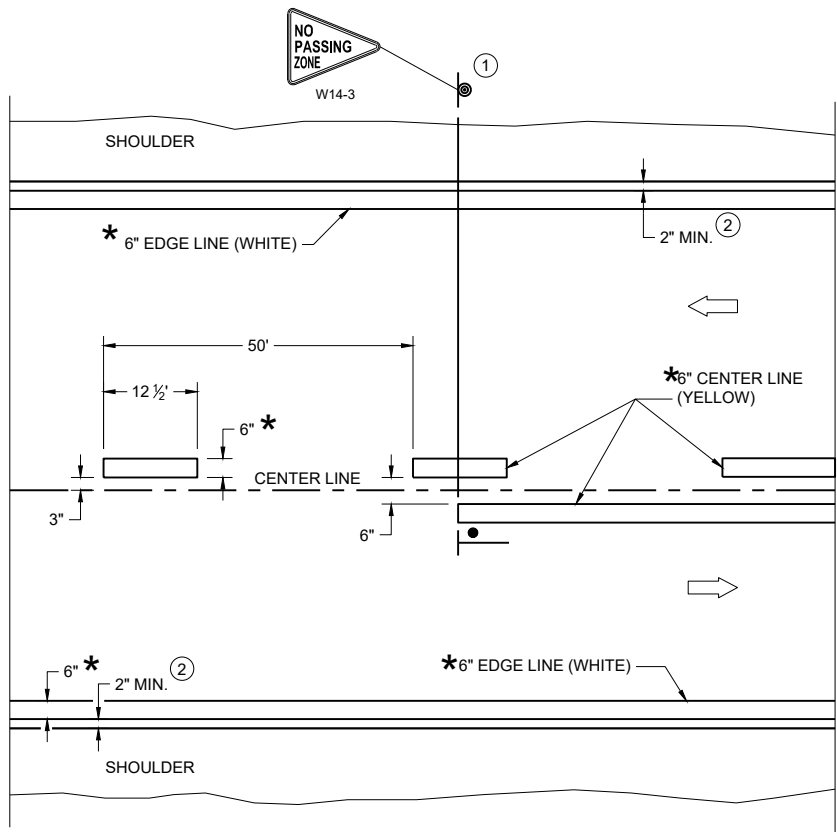
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

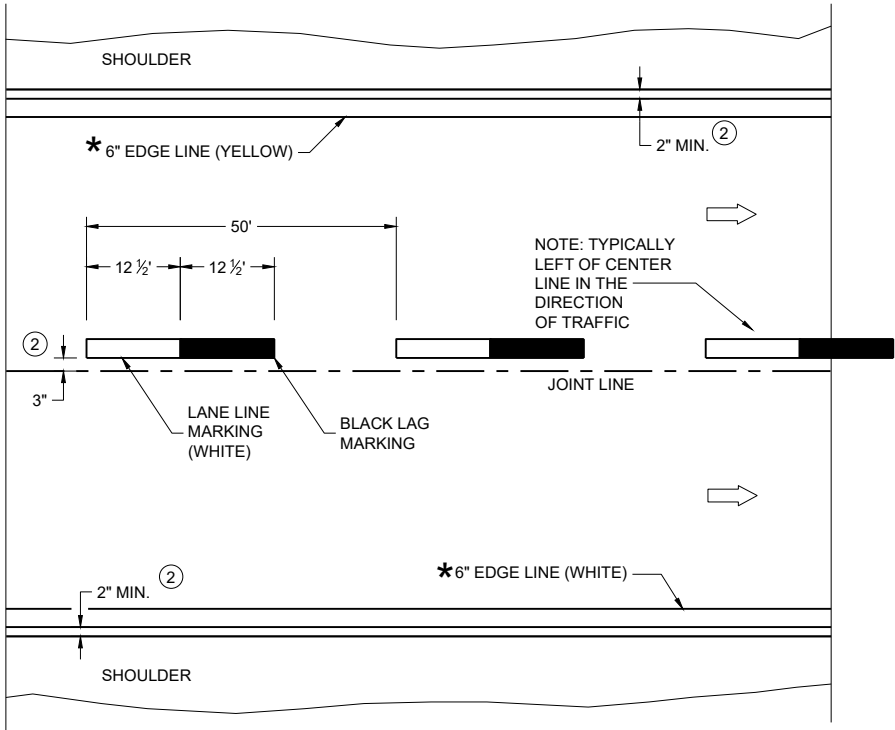
108

FHWA

SDD15C02 - 09c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

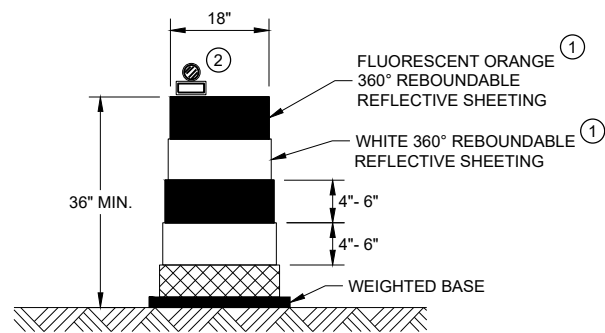
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

LEGEND

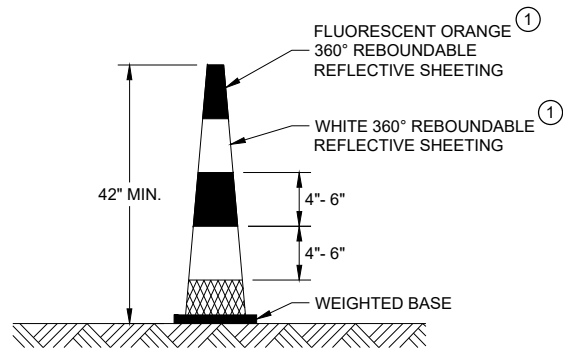
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

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



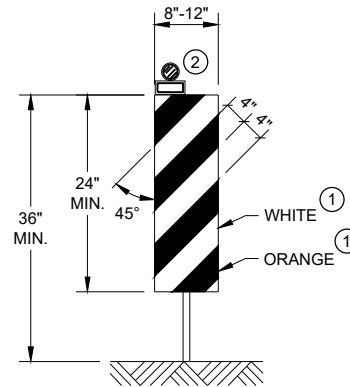
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



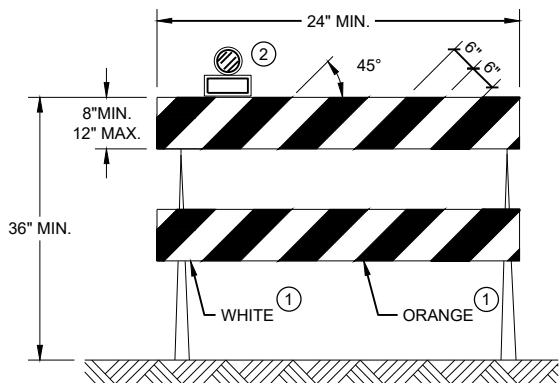
42" CONE

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



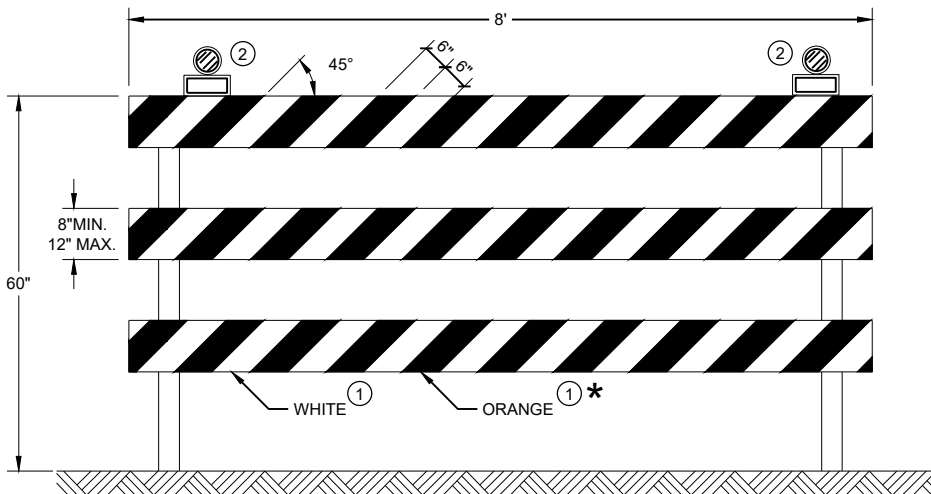
VERTICAL PANEL

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.

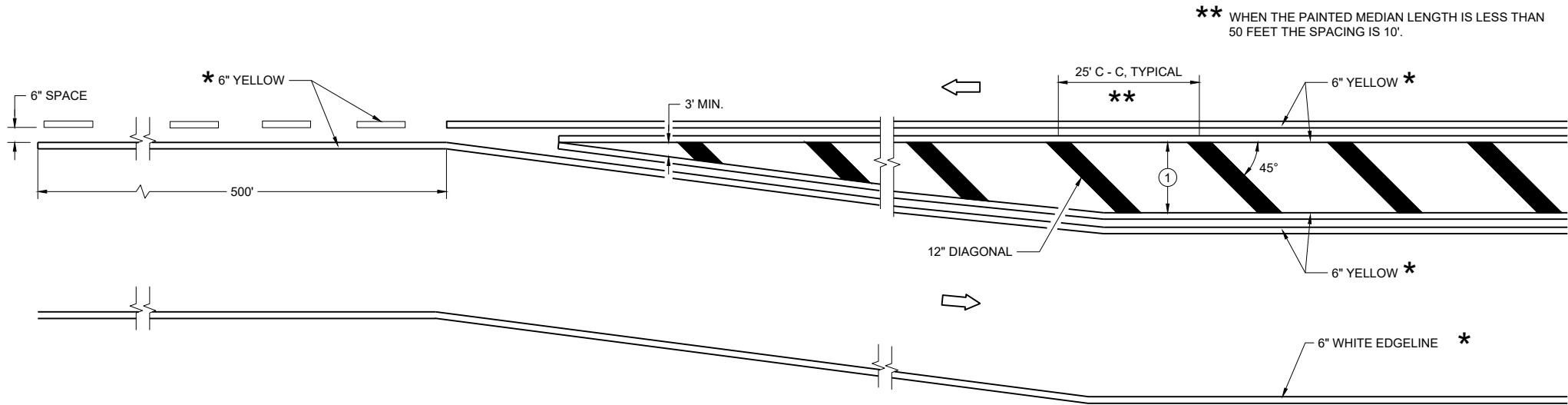
GENERAL NOTES

- 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.

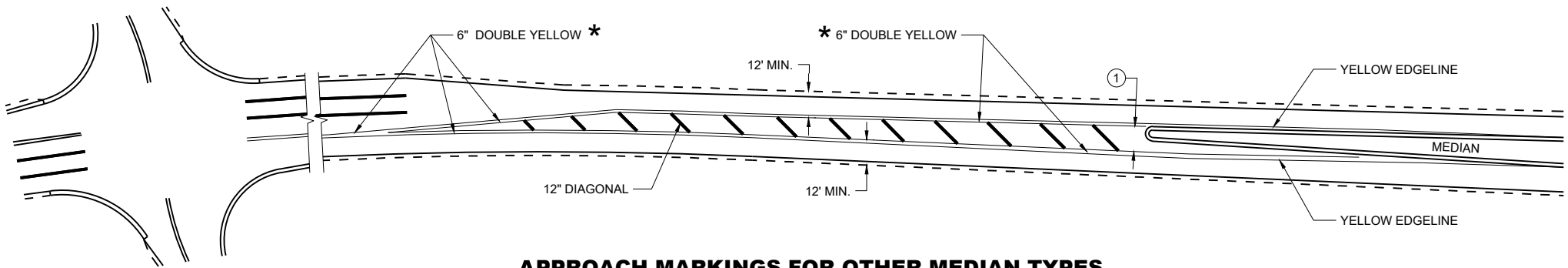
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

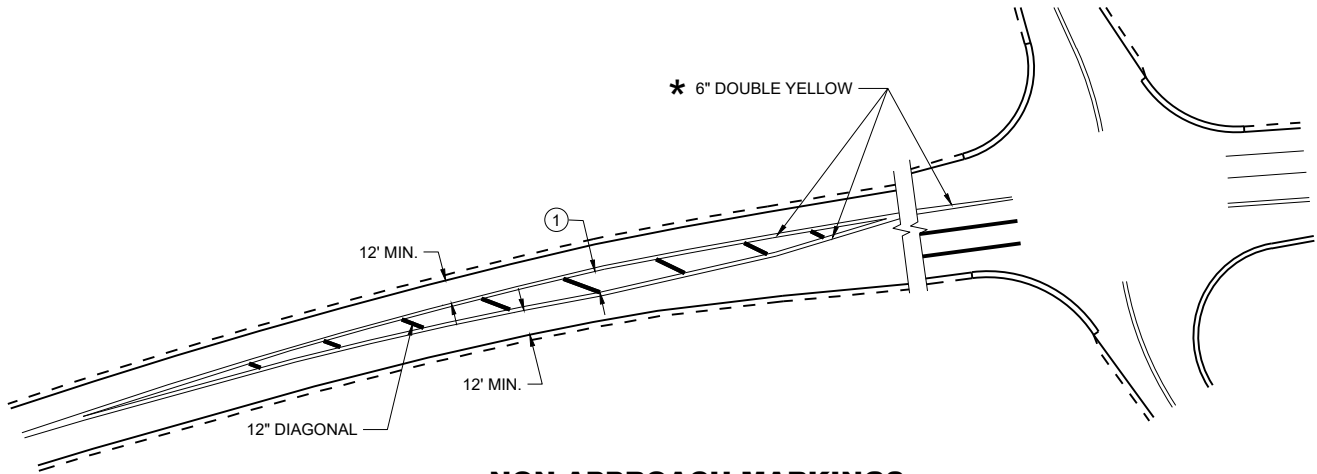
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 110
FHWA



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.

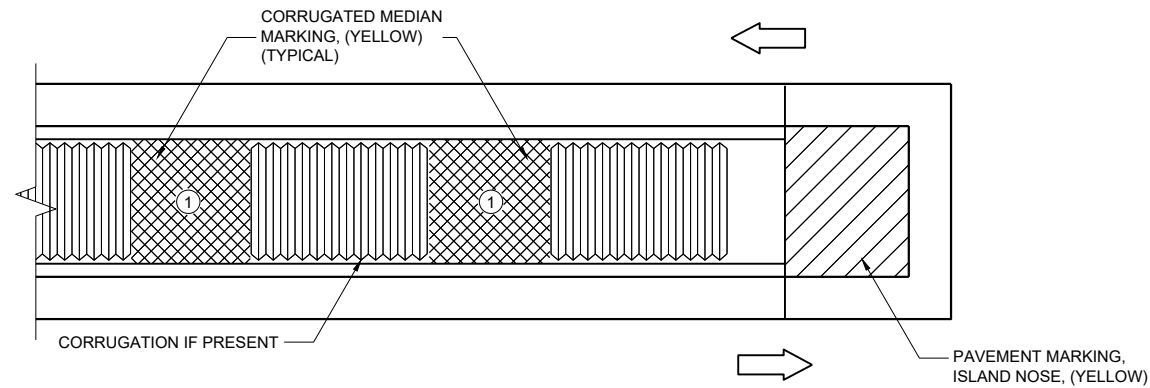
➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

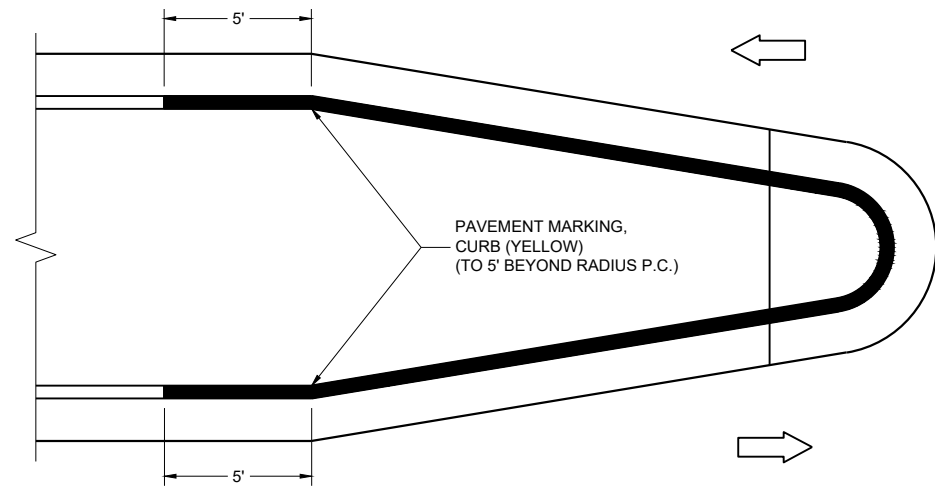
MEDIAN ISLAND
PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

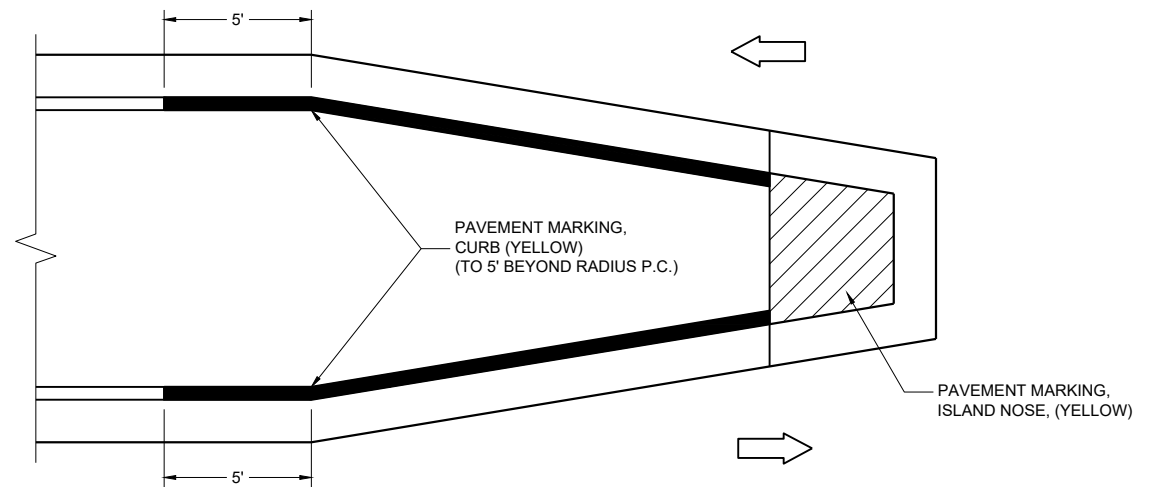
APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

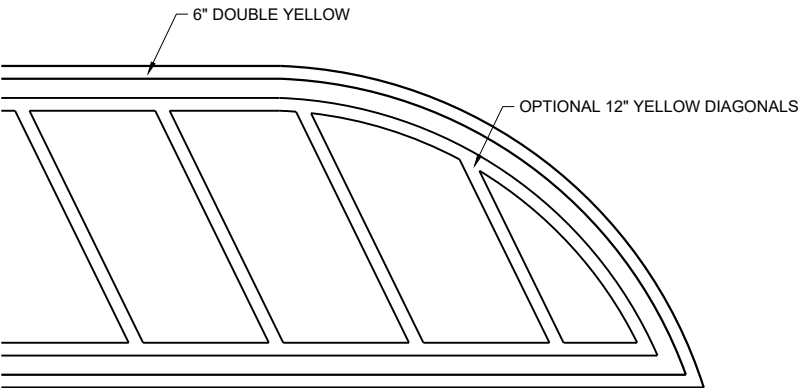
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

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

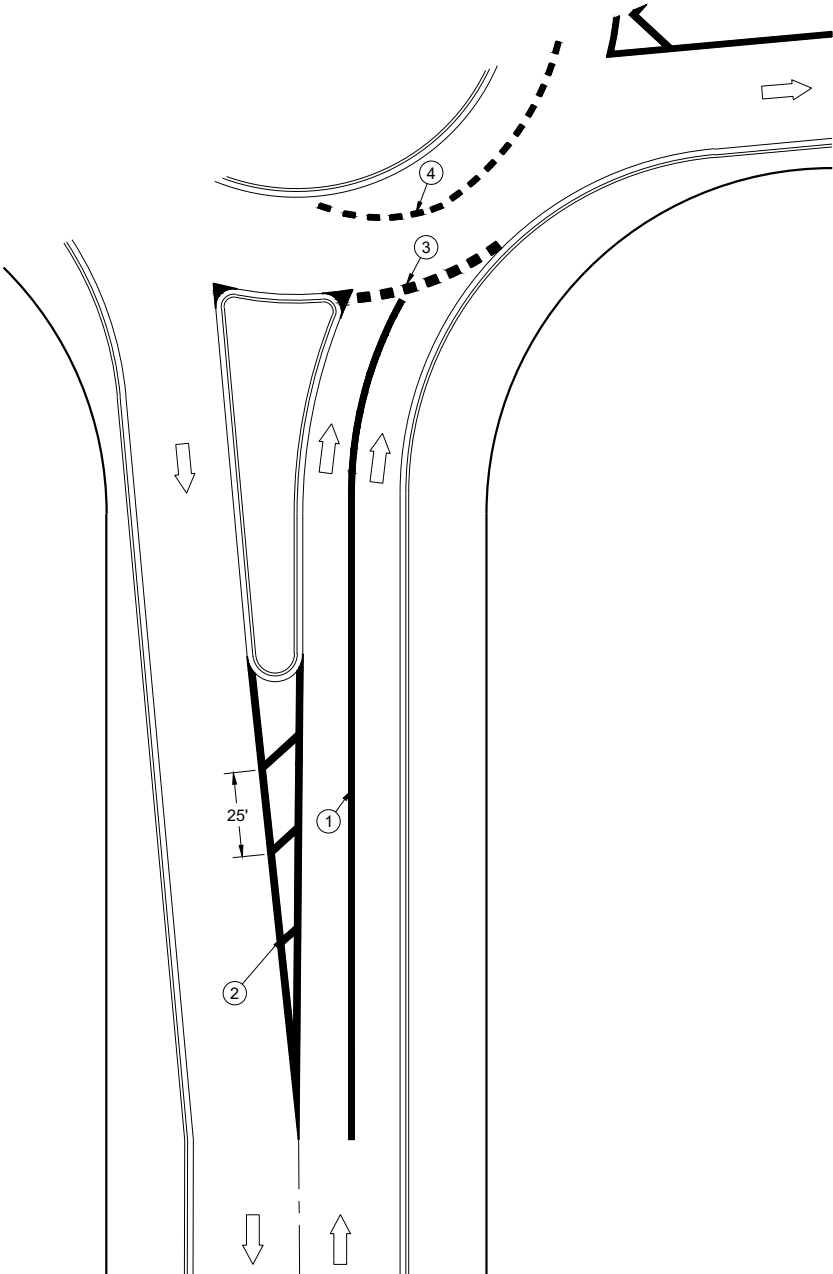


FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	112

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

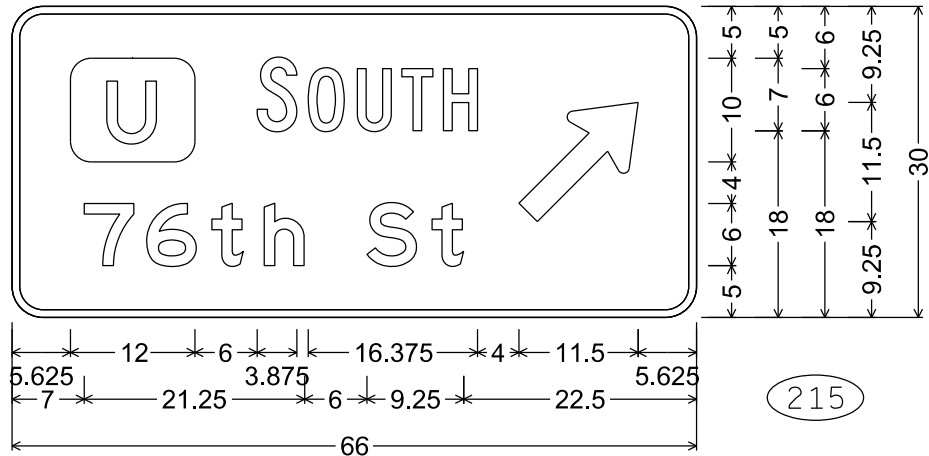


DOTTED EXTENSION FOR ROUNDAABOUT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Matthew Rauch ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

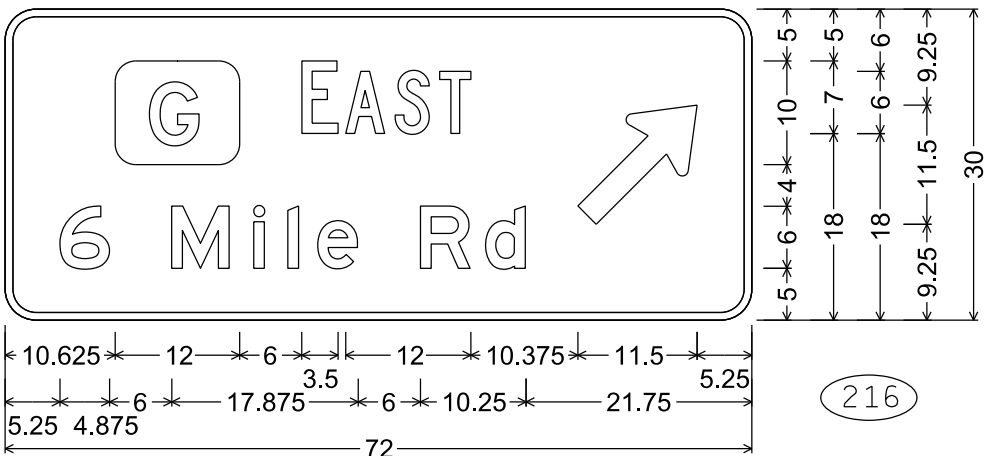
FHWA

NOTES

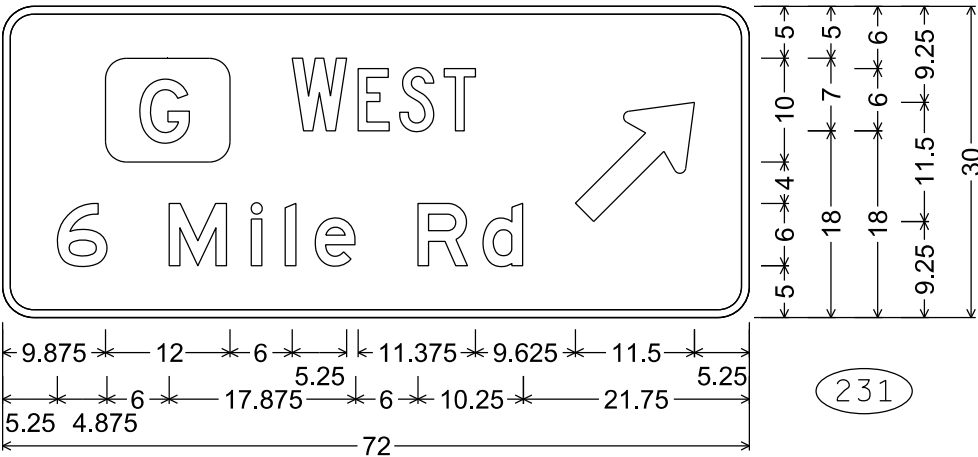
1. Signs are Type II - Type H Reflective
2. Color:
 Background - Green
 Message - White
3. Message Series - E or as noted



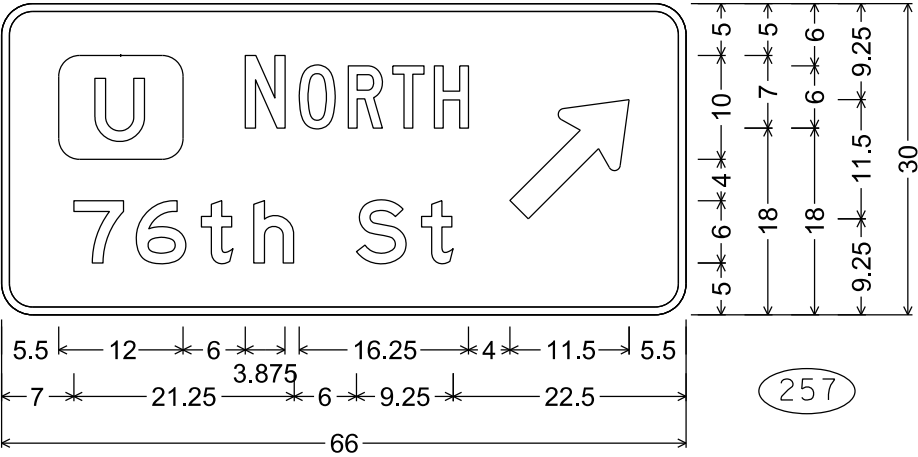
D1-68; 3.000" Radius, 0.750" Border
"SOUTH", C; "76th", E; "St", E



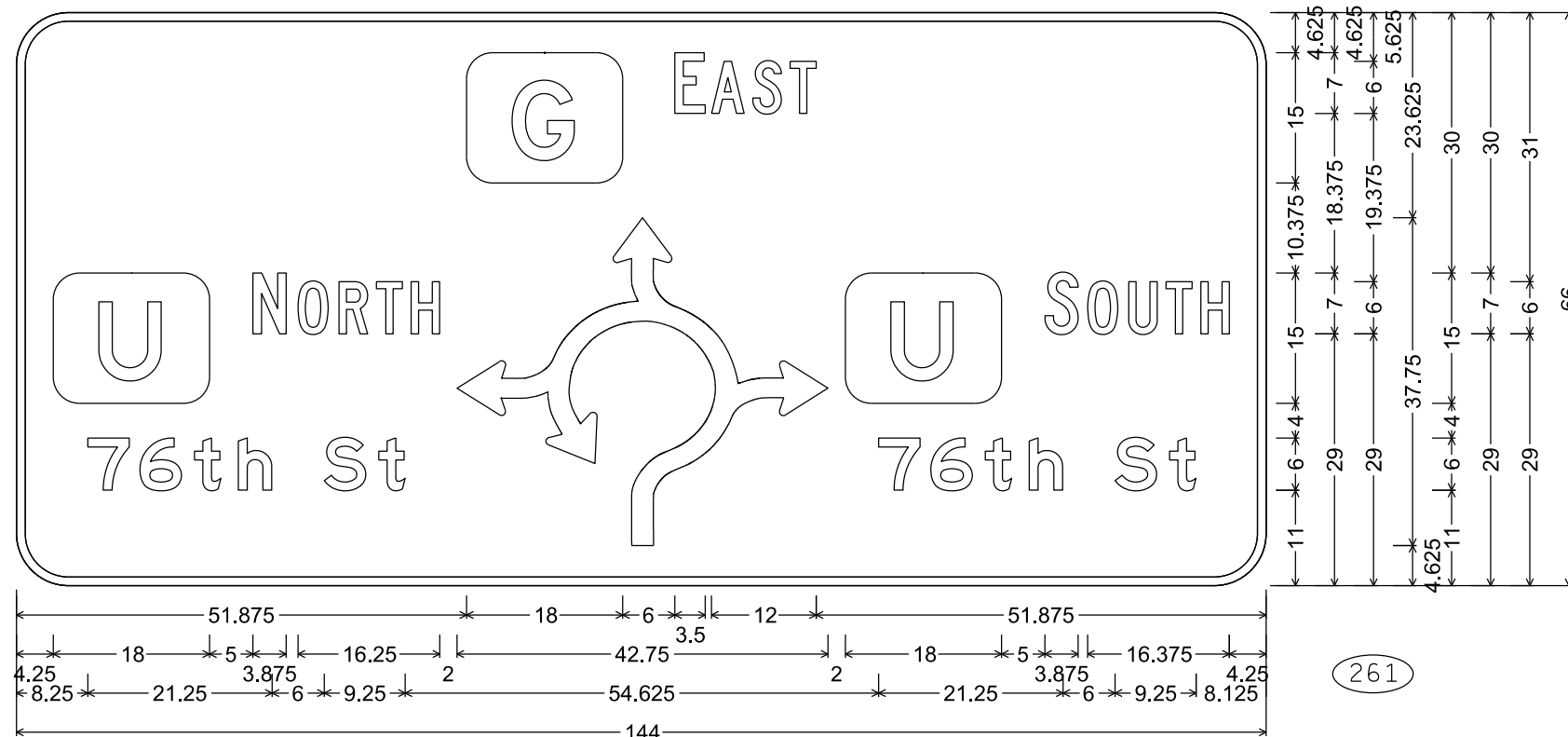
D1-68; 3.000" Radius, 0.750" Border
"EAST", C; "6", E; "Mile", E; "Rd", E



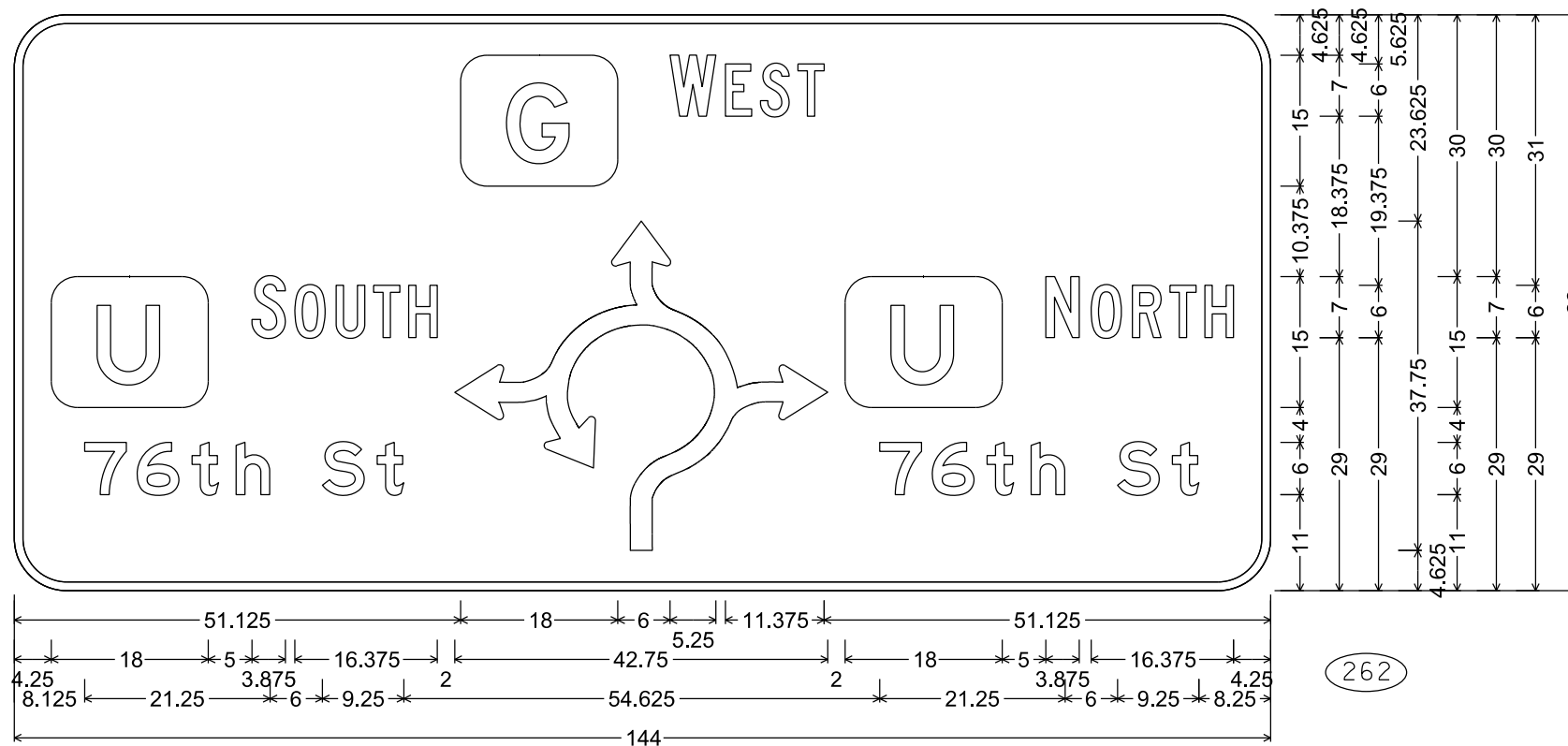
D1-68; 3.000" Radius, 0.750" Border
"WEST", C; "6", E; "Mile", E; "Rd", E

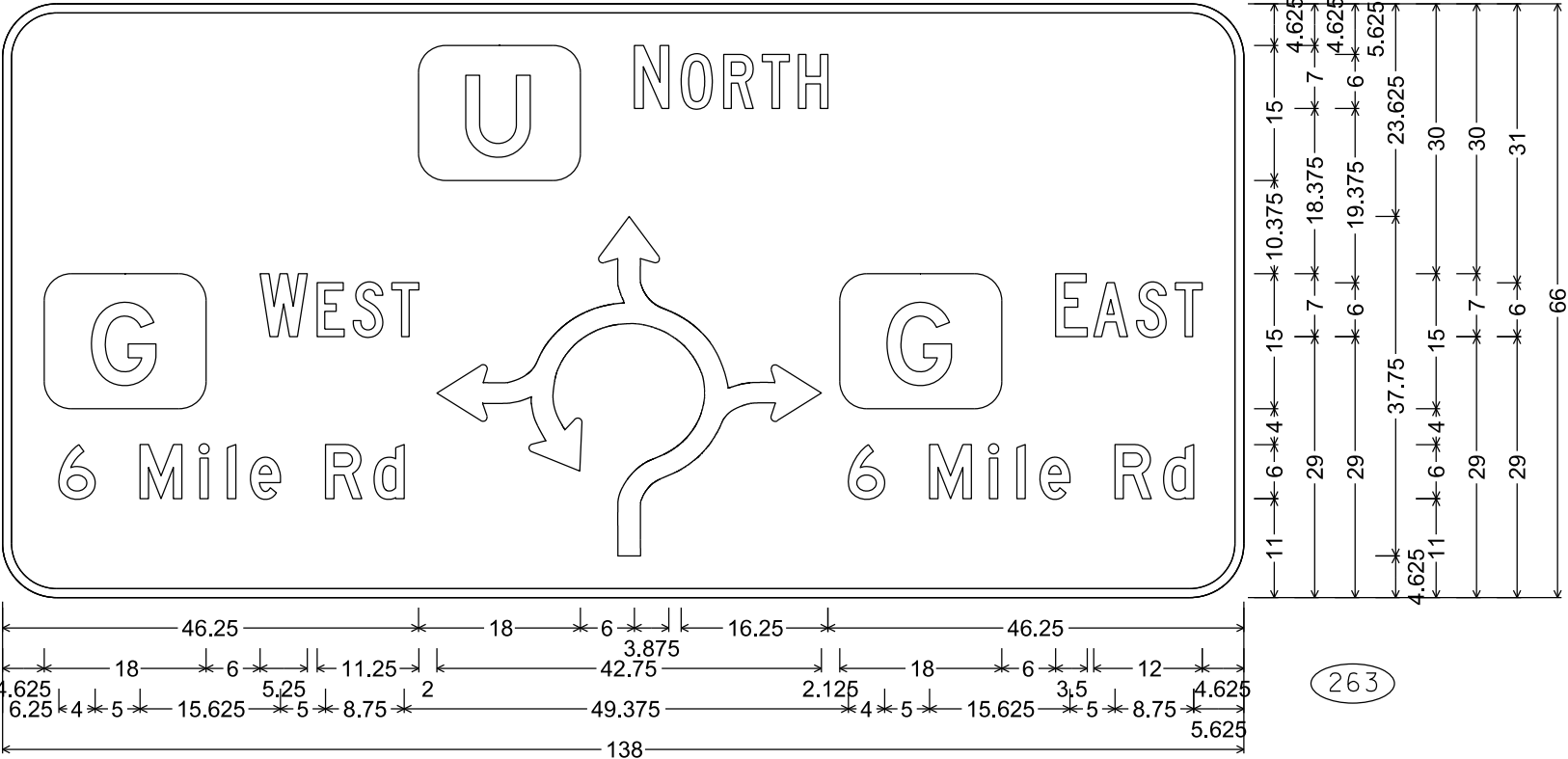


D1-68; 3.000" Radius, 0.750" Border
"NORTH", C; "76th", E; "St", E



- ### NOTES
1. Signs are Type II - Type H Reflective
 2. Color:
 - Background - Green
 - Message - White
 3. Message Series - E or as noted



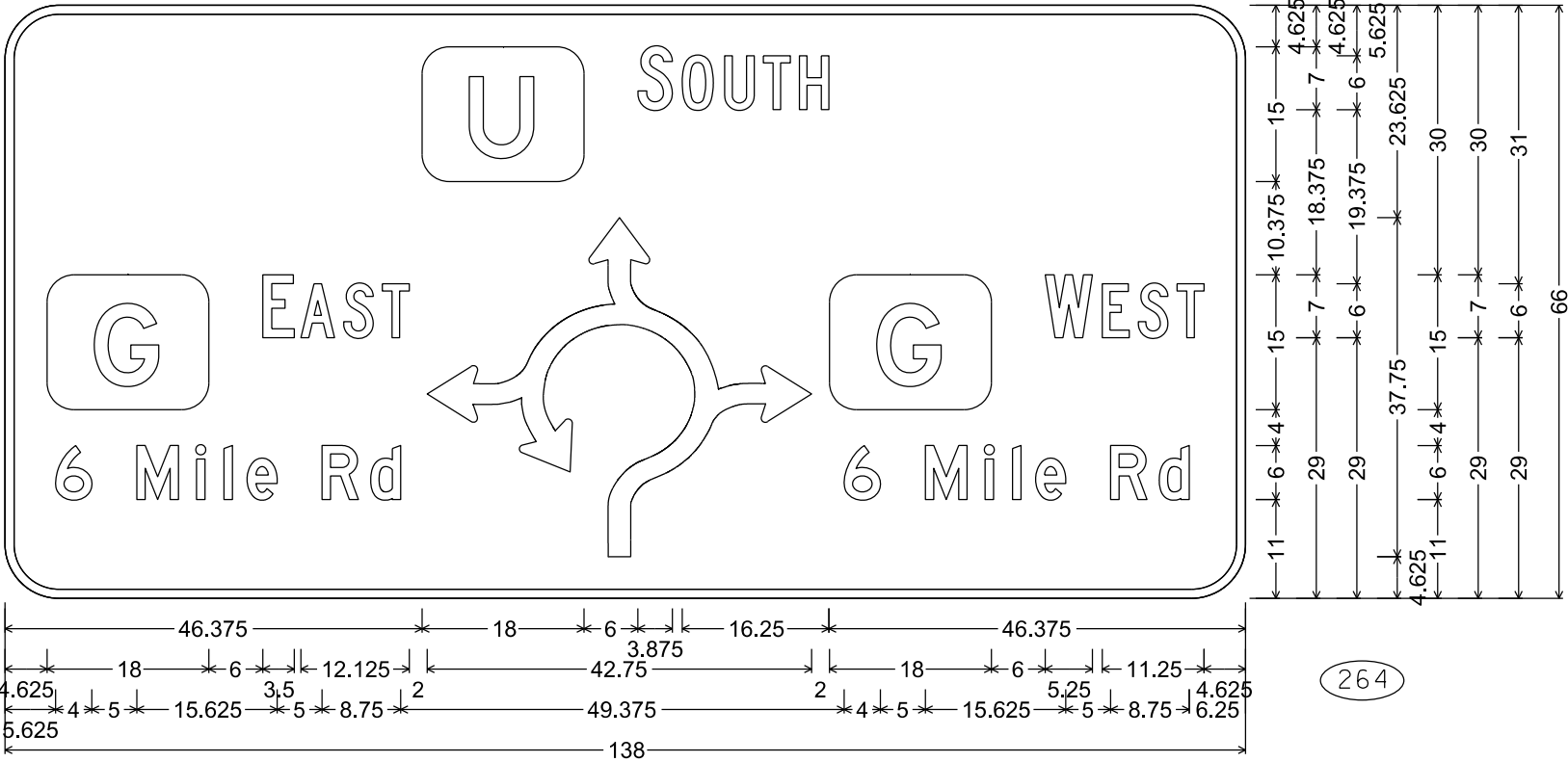


D1-62; 6.000" Radius, 1.000" Border
"NORTH", C; "WEST", C; "6", D; "Mile", D; "Rd", D; "EAST", C; "6", D; "Mile", D; "Rd", D

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NOTES

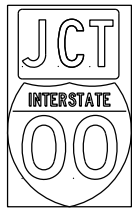
- 1. Signs are Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - C or as noted



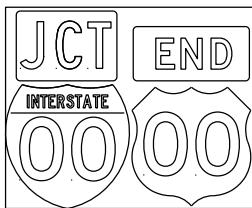
D1-62; 6.000" Radius, 1.000" Border
"SOUTH", C; "EAST", C; "6", D; "Mile", D; "Rd", D; "WEST", C; "6", D; "Mile", D; "Rd", D

264

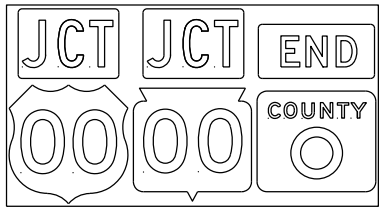
TYPICAL ASSEMBLIES



J1-1



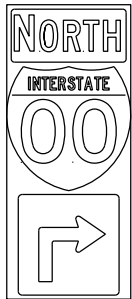
J1-2



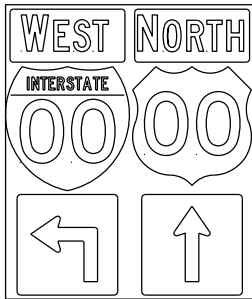
J1-3



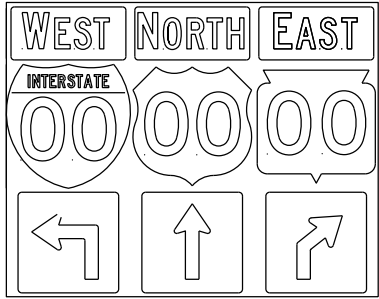
JR1-1



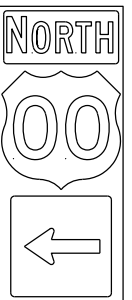
J2-1



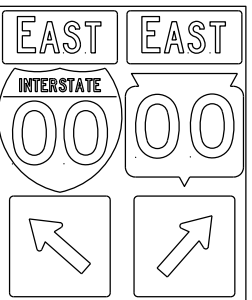
J2-2



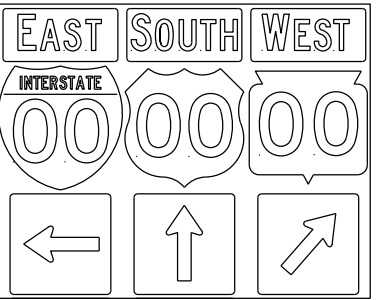
J2-3



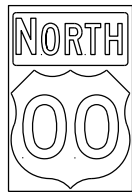
J3-1



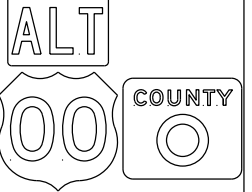
J3-2



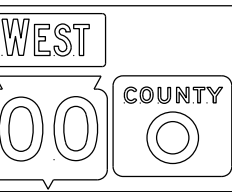
J3-3



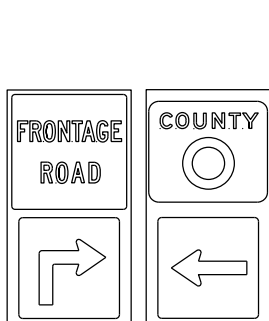
J4-1



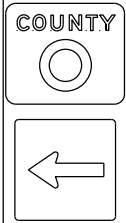
J4-2



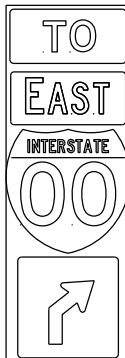
J4-2



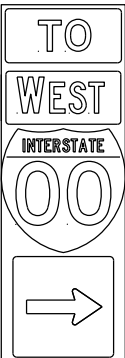
J12-1



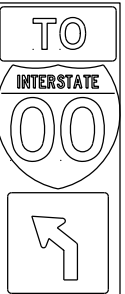
J13-1



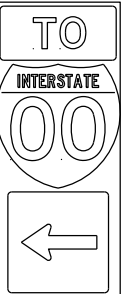
J32-1



J33-1



J22-1



J23-1



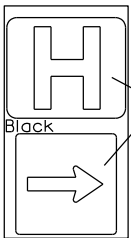
JR13-1



JR23-1



JR99-1

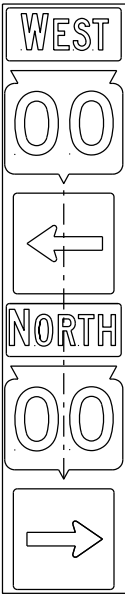
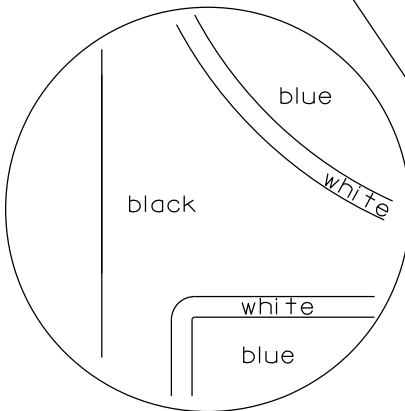


JH-1

Blue Background

Black

blue background with interstate

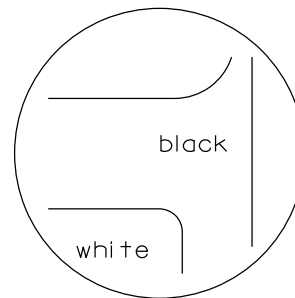
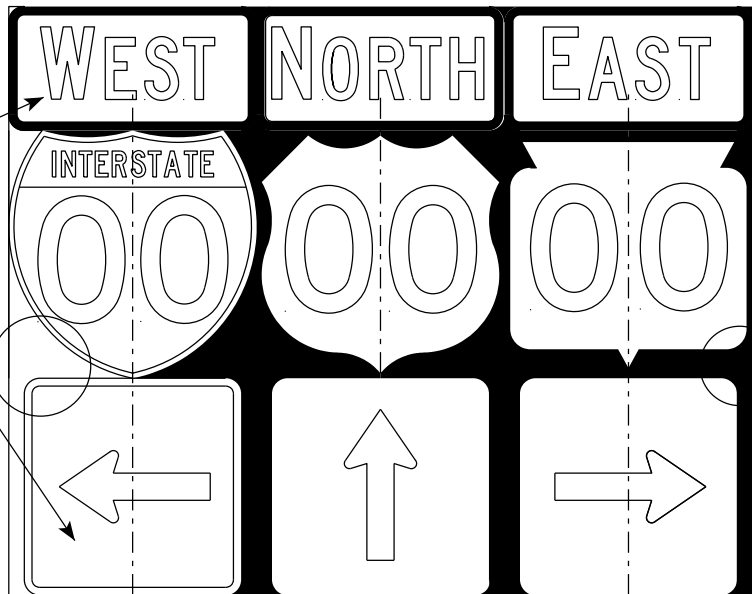


JV

(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 *Matthew R. Rauch*
for State Traffic Engineer

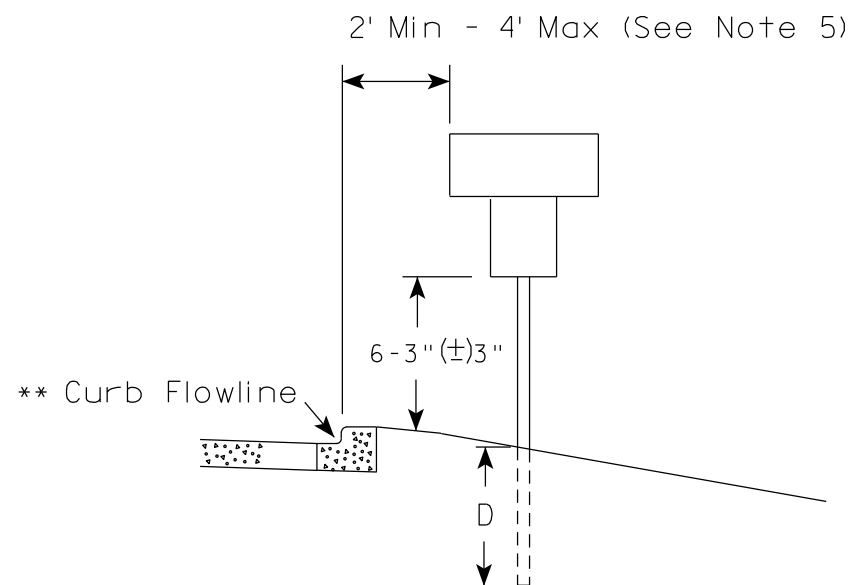
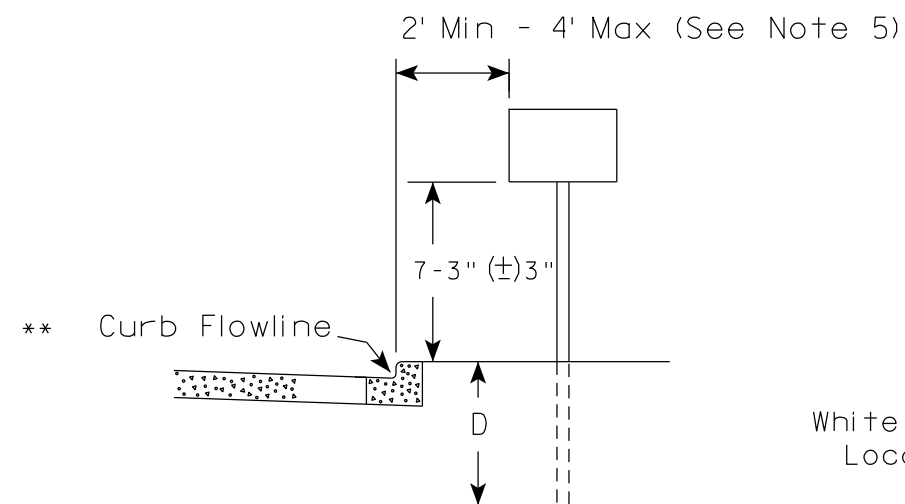
DATE 6/7/23 PLATE NO. A2-1S.10

PROJECT NO:

SHEET NO: 117

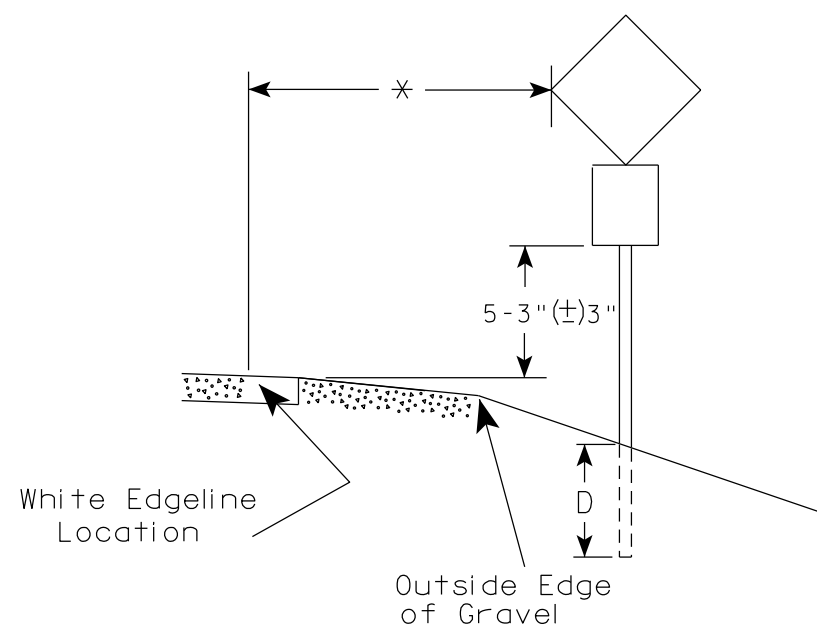
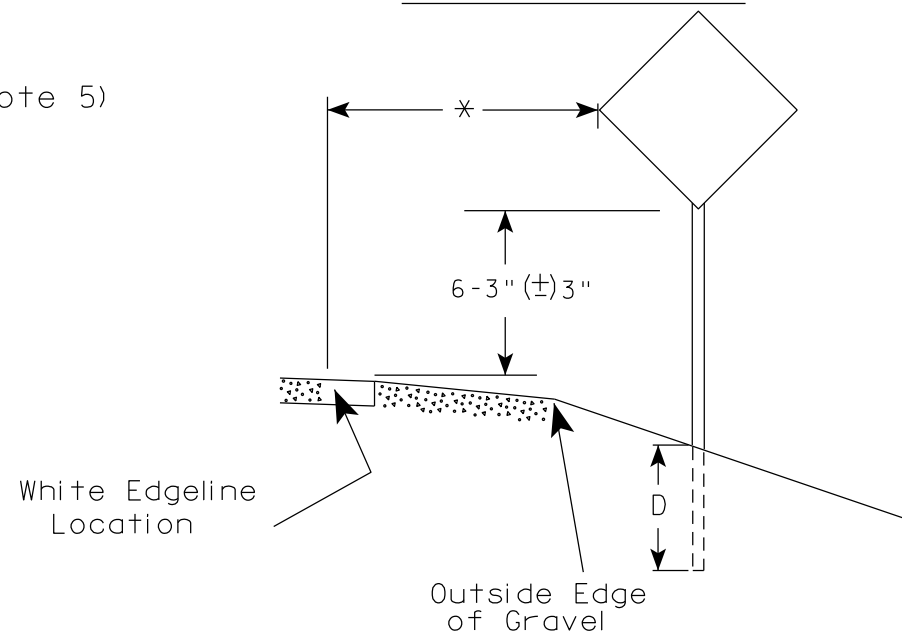
E

URBAN AREA



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

RURAL AREA (See Note 2)



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

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'

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

PROJECT NO:

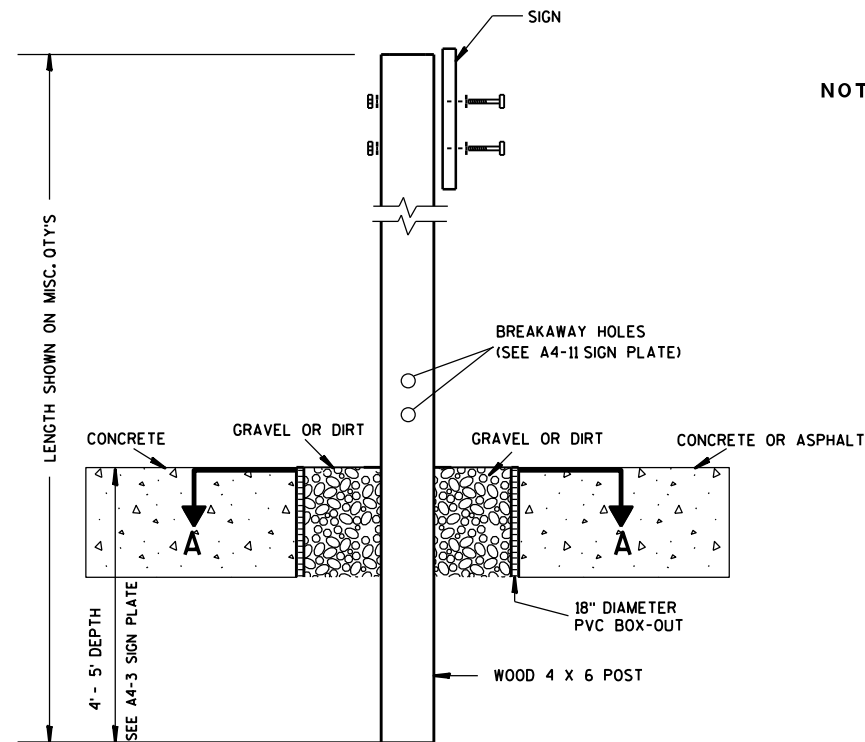
HWY:

COUNTY:

SHEET NO:

118

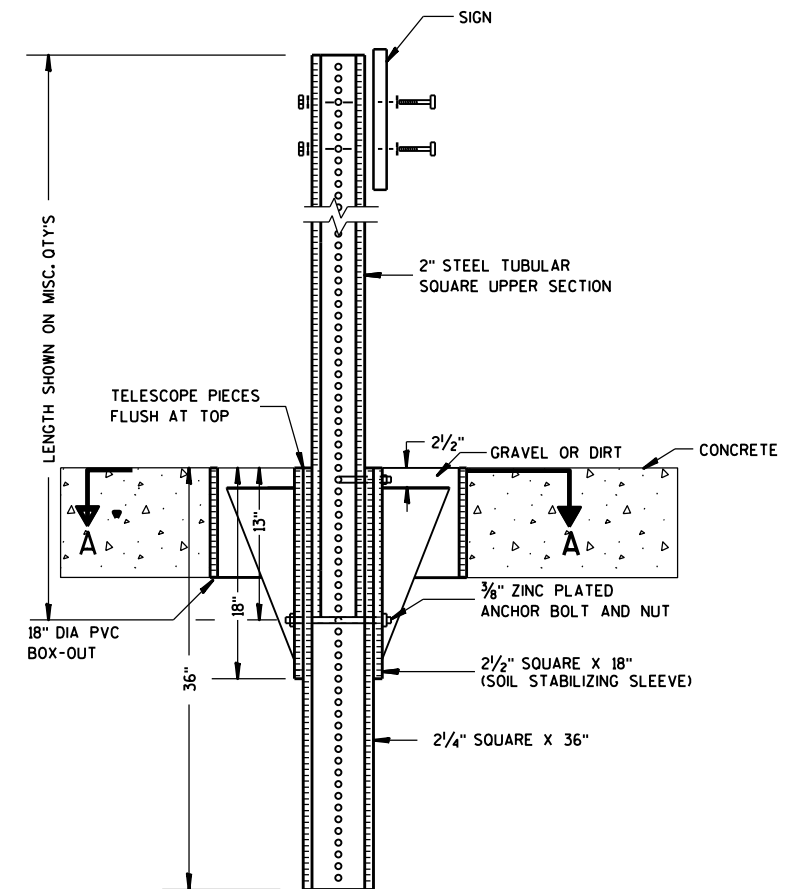
E



ELEVATION VIEW

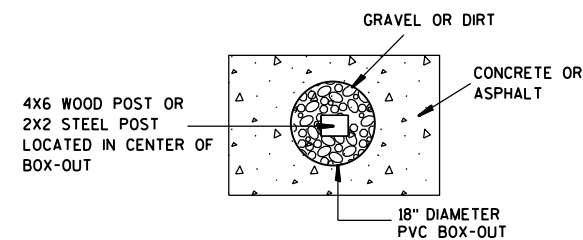
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 119 A4-3B.1

PROJECT NO:

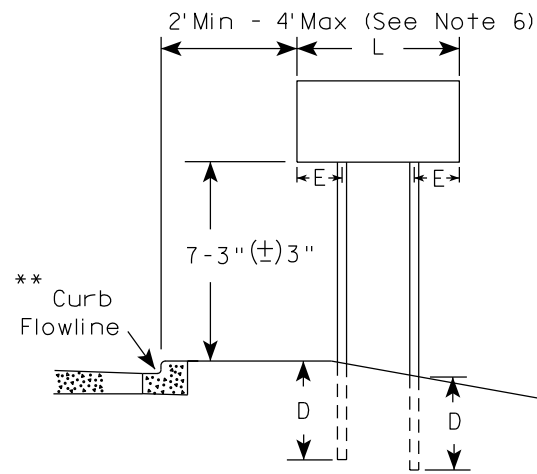
HWY:

COUNTY:

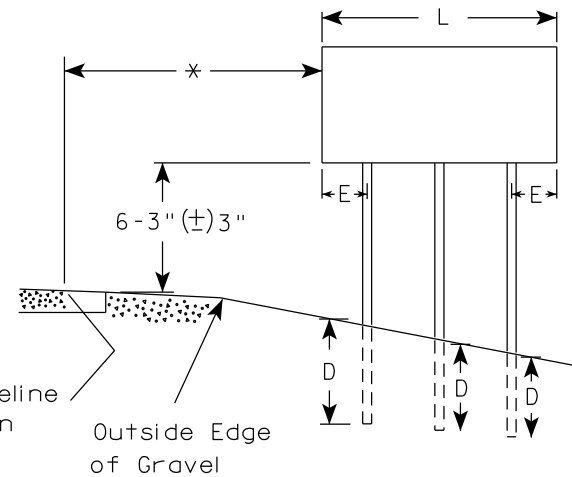
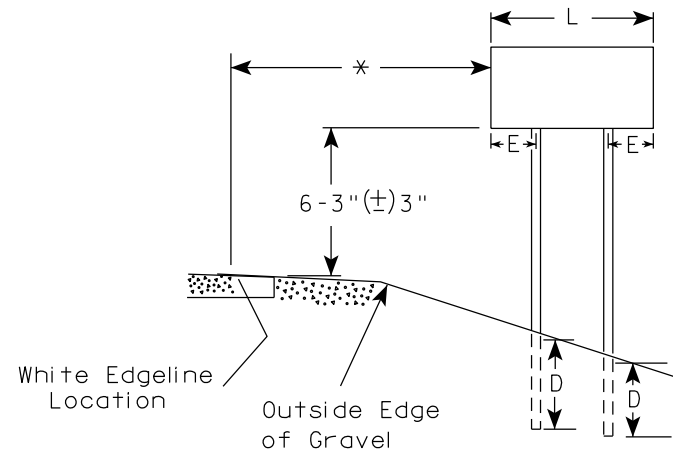
SHEET NO:

E

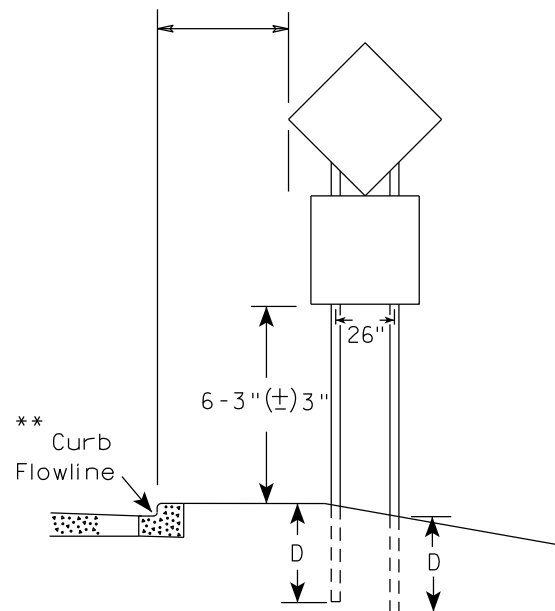
URBAN AREA



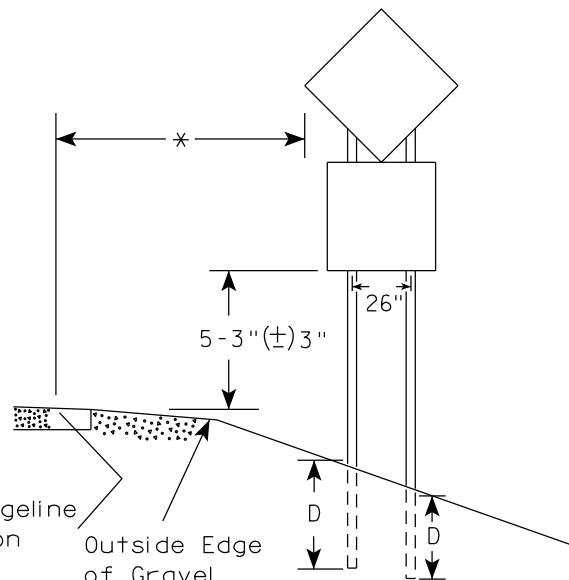
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

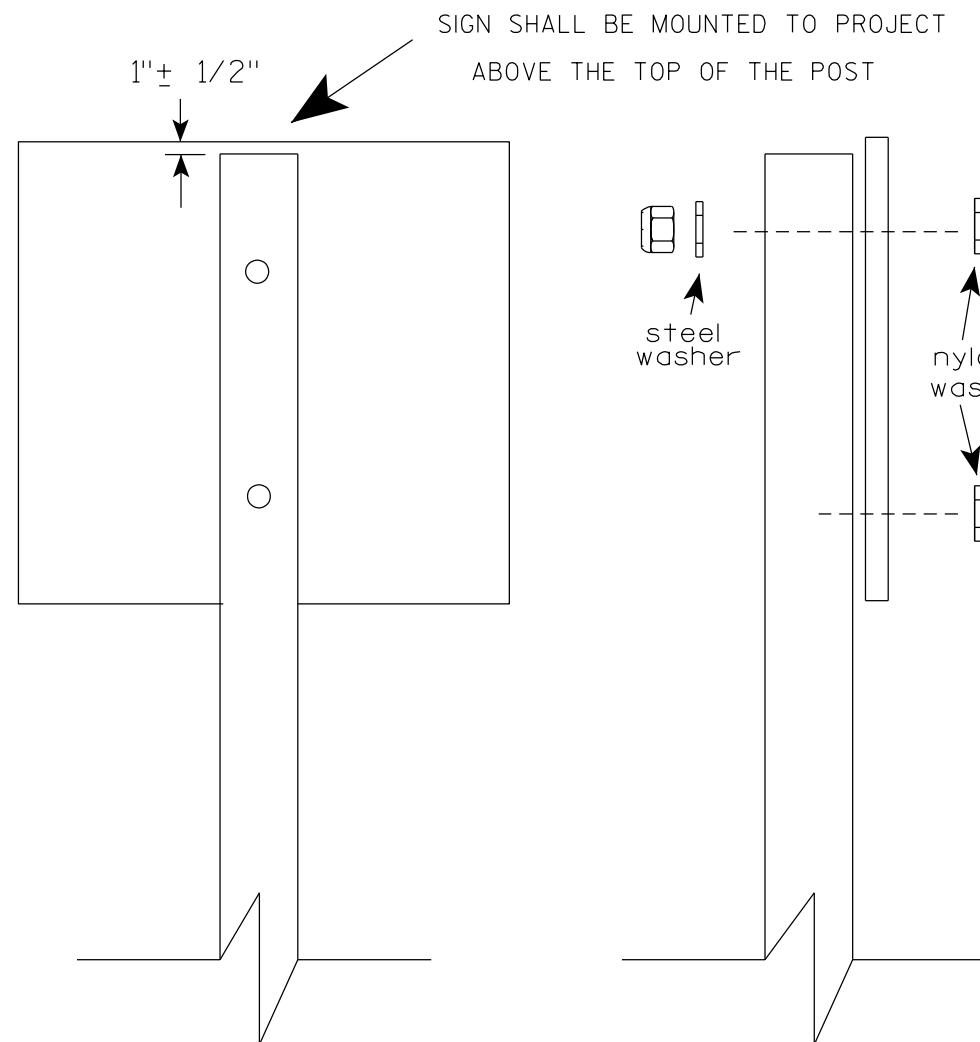
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 120

E



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

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

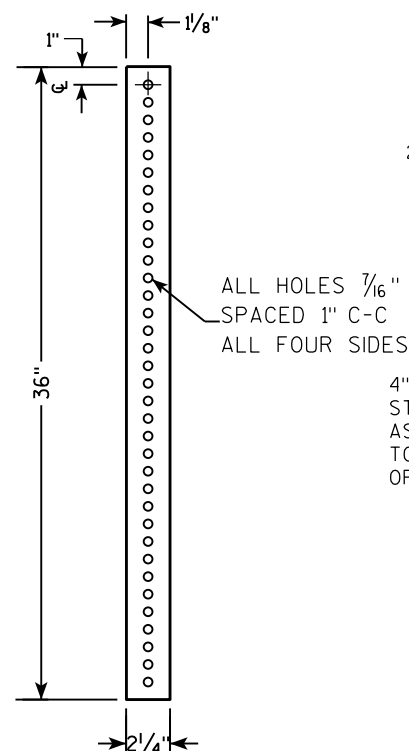
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

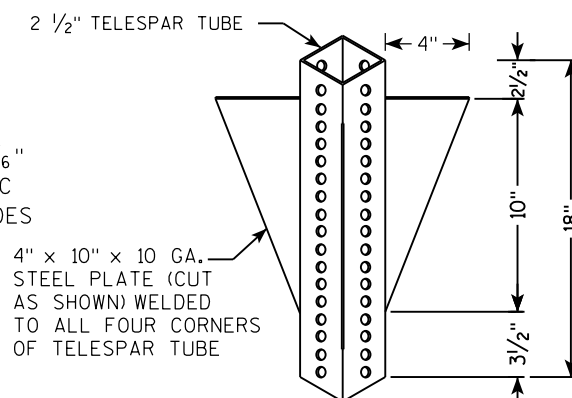
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View Dimensions:

- Overall height: 36"
- Section A-A: 18" (top section), 12" (bottom section)
- Section B-B: 18" (top section), 12" (bottom section)

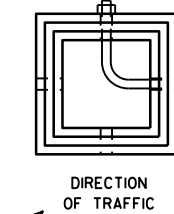
End View Dimensions:

- Overall width: 2 1/4" SQUARE X 36"
- Section A-A: 18" (top section), 12" (bottom section)
- Section B-B: 18" (top section), 12" (bottom section)

Material and Assembly Specifications:

- 2" STEEL TUBULAR SQUARE UPPER SECTION
- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- TELESCOPE PIECES FLUSH AT TOP
- SIGN

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



SECTION A-A

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 Matthaeus R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLAT 122 14-9.9

SHEET NO:

E

PROJECT NO:

HWY:

COUNTY:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN

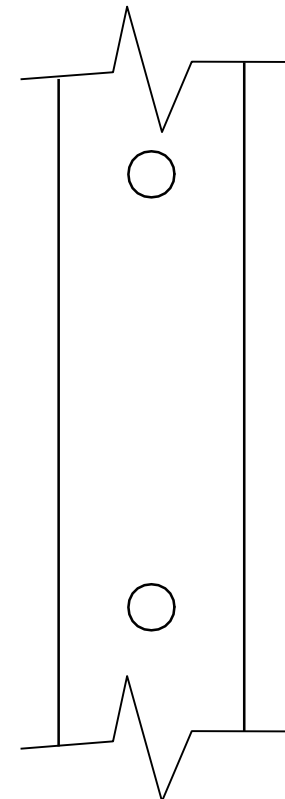
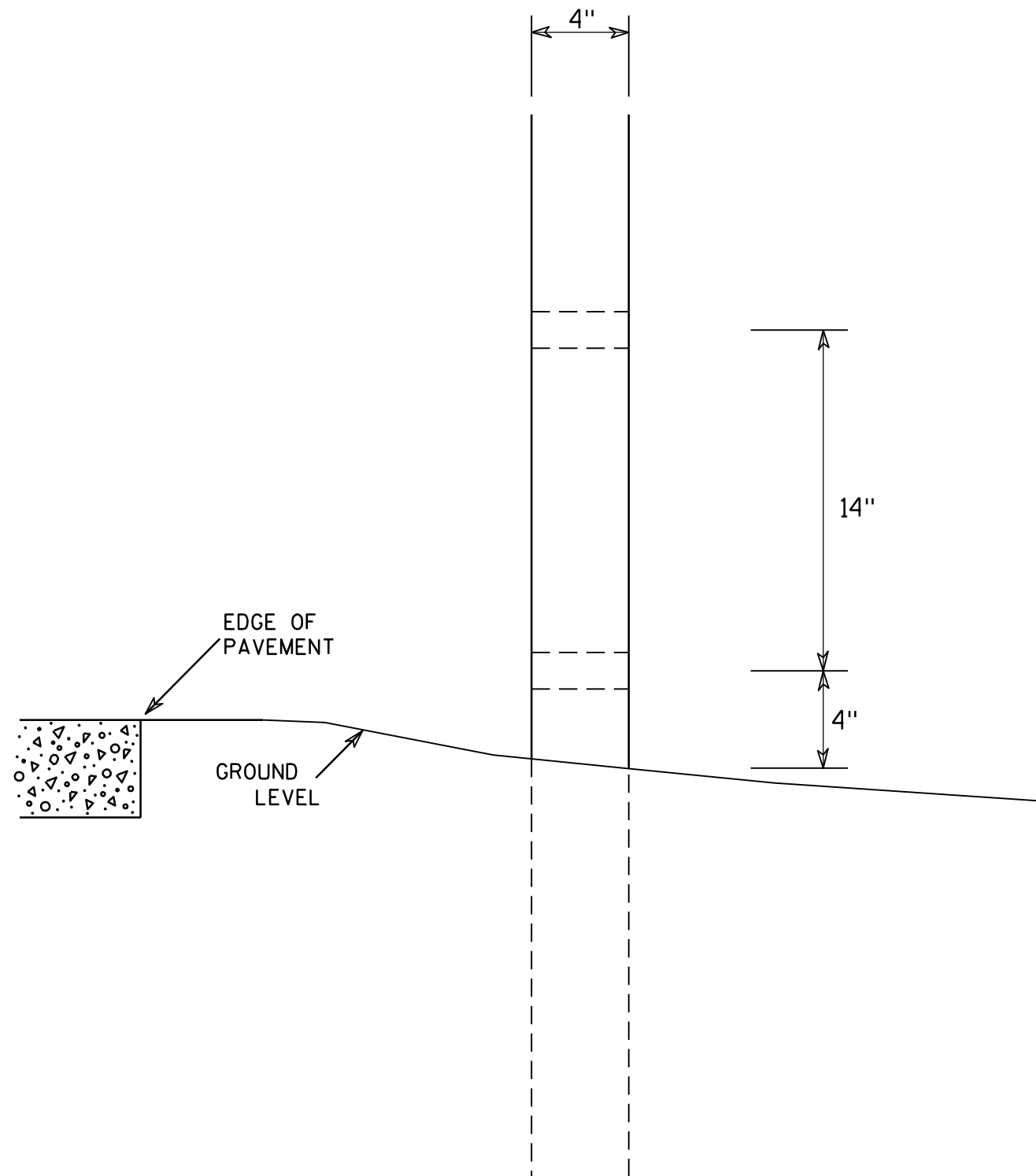
PLOT DATE : 05-FEB-2015 17:09

PLOT BY : mscs_ja

PLOT NAME :

PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" 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

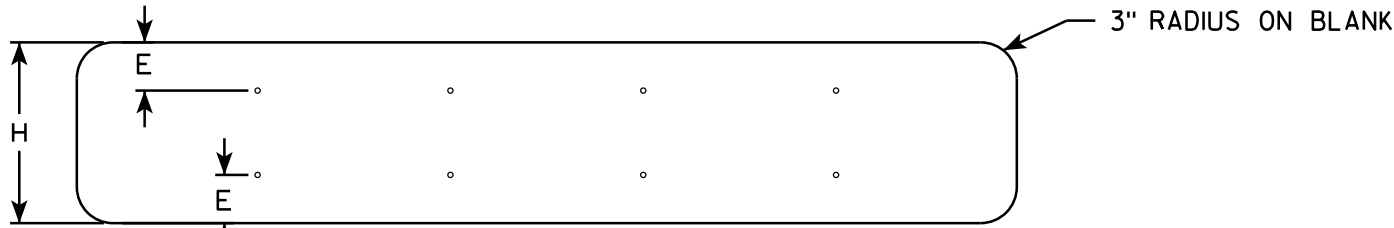
PROJECT NO:

HWY:

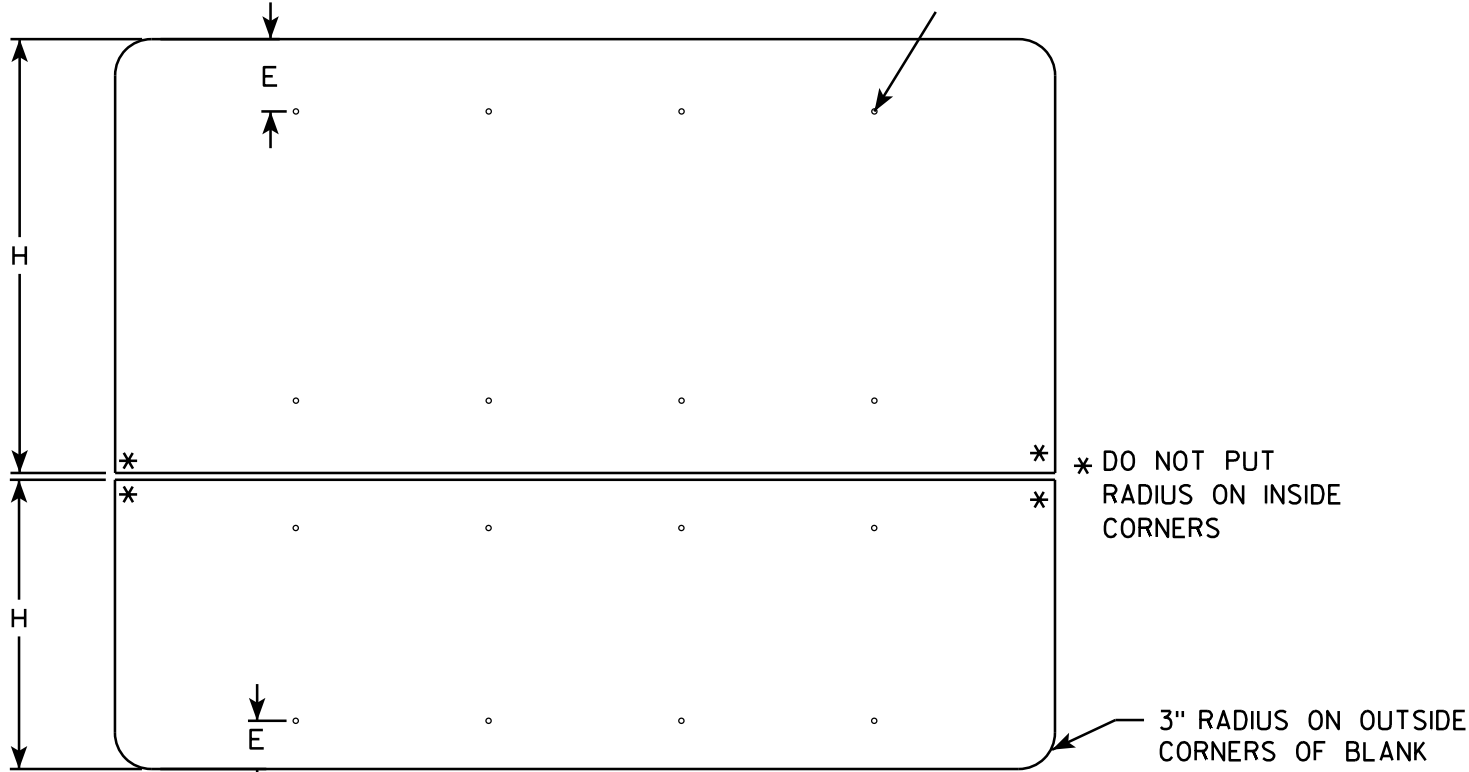
COUNTY:

SHEET NO: 123

E



SINGLE PIECE ALUMINUM SIGN 1/16" MOUNTING HOLES

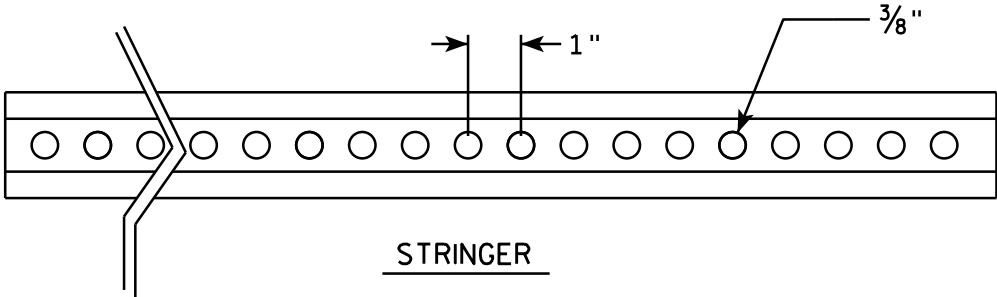


MULTI-PIECE ALUMINUM SIGN

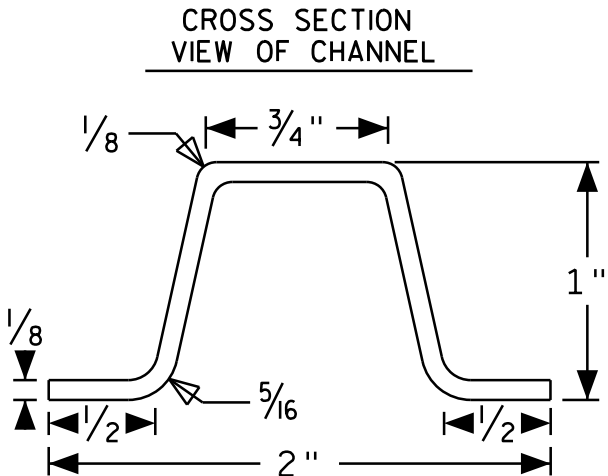
GENERAL NOTES

- 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.

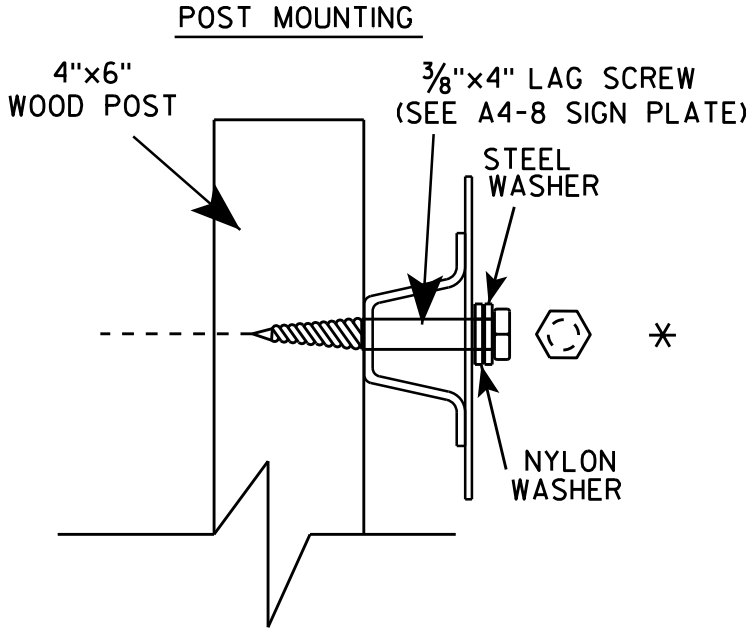
SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	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"



STRINGER



CROSS SECTION VIEW OF CHANNEL



POST MOUNTING

SIGN STRINGER
MOUNTING REQUIREMENTS

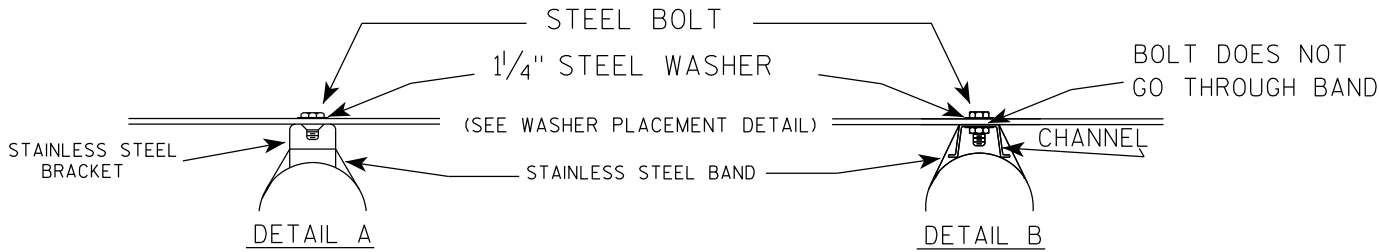
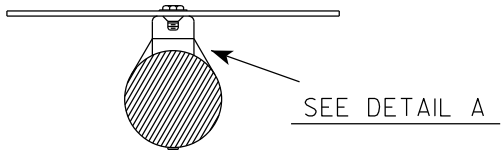
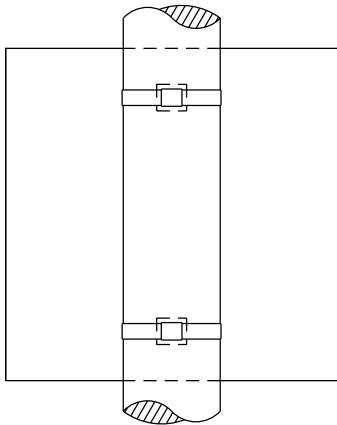
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

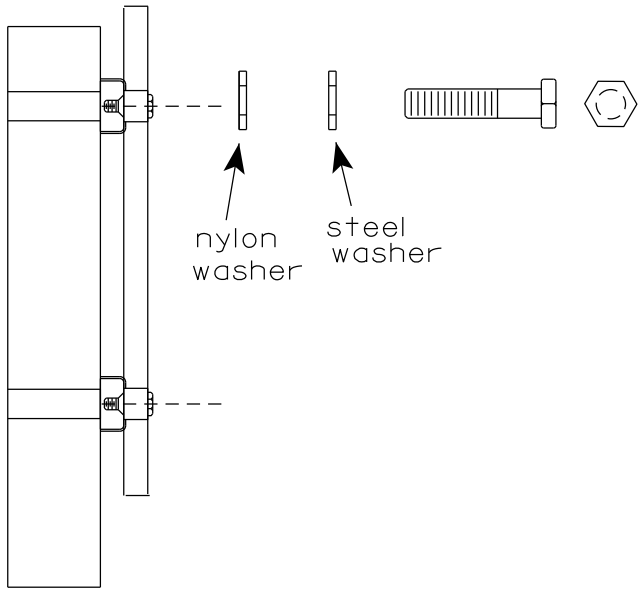
DATE 4/26/16 PLATE No A4-18.1
124

BANDING

SINGLE SIGN



WASHER PLACEMENT

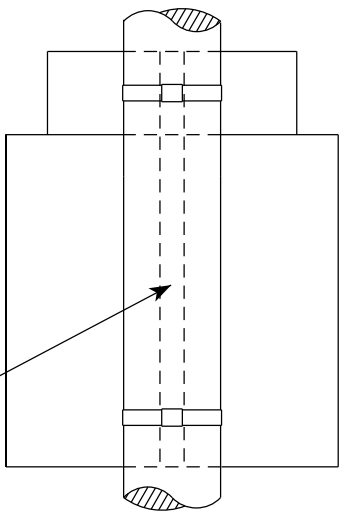


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

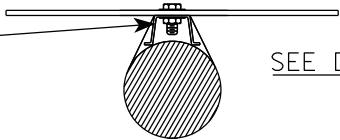
GENERAL NOTES

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



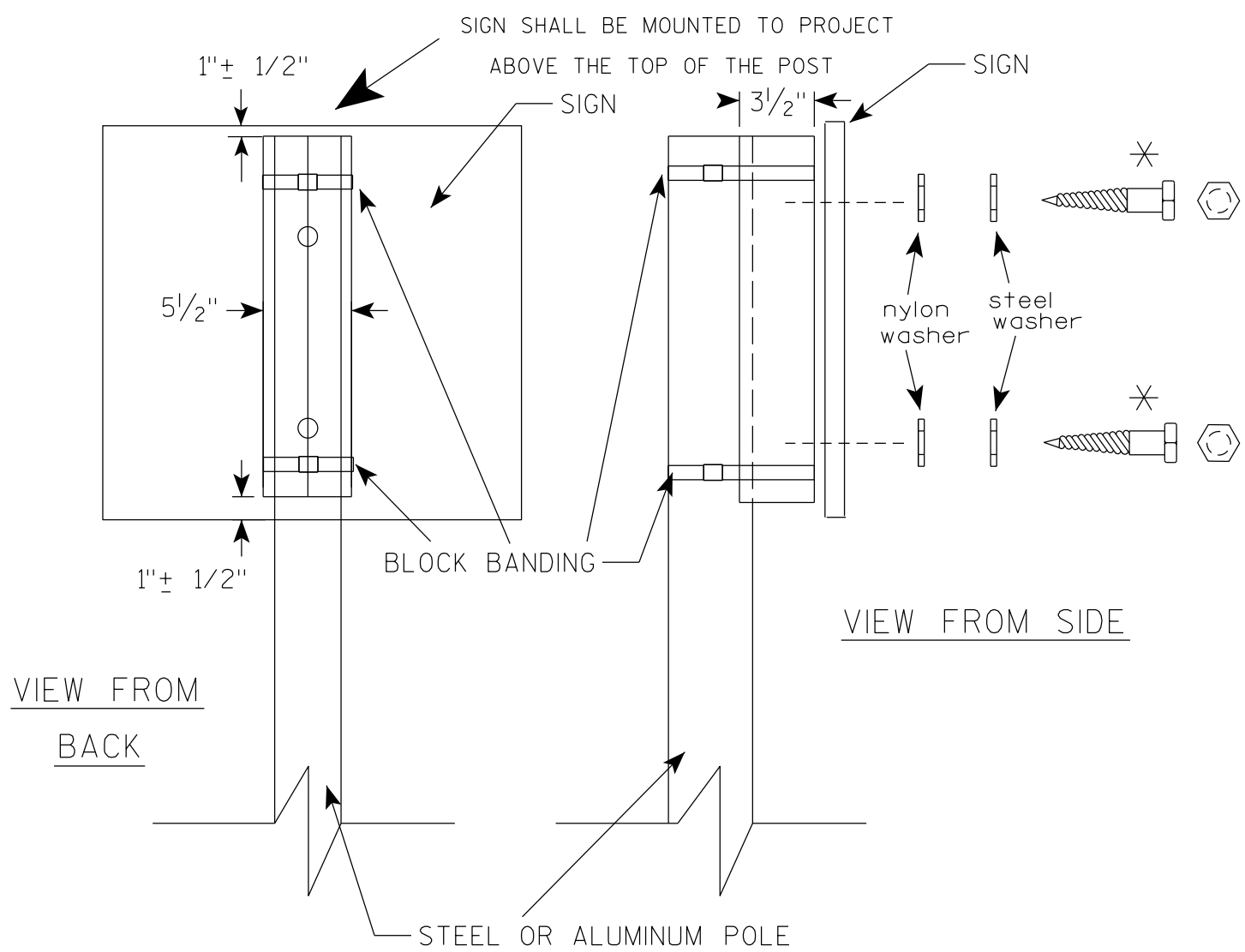
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

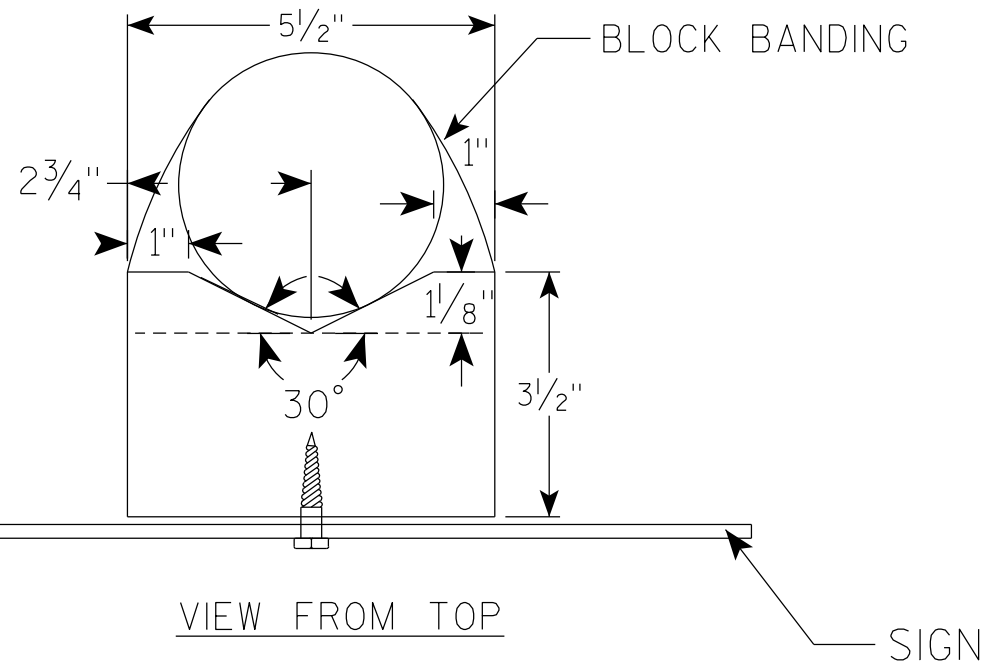
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

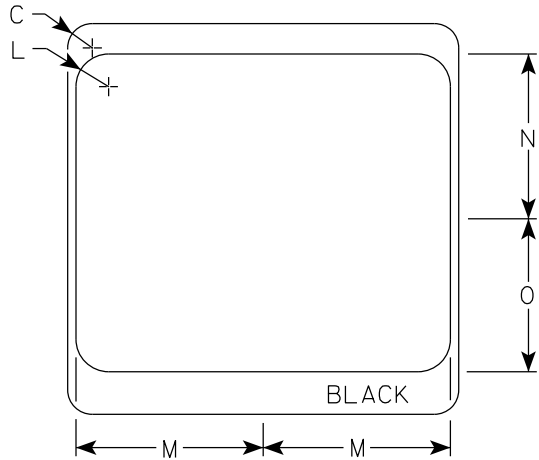
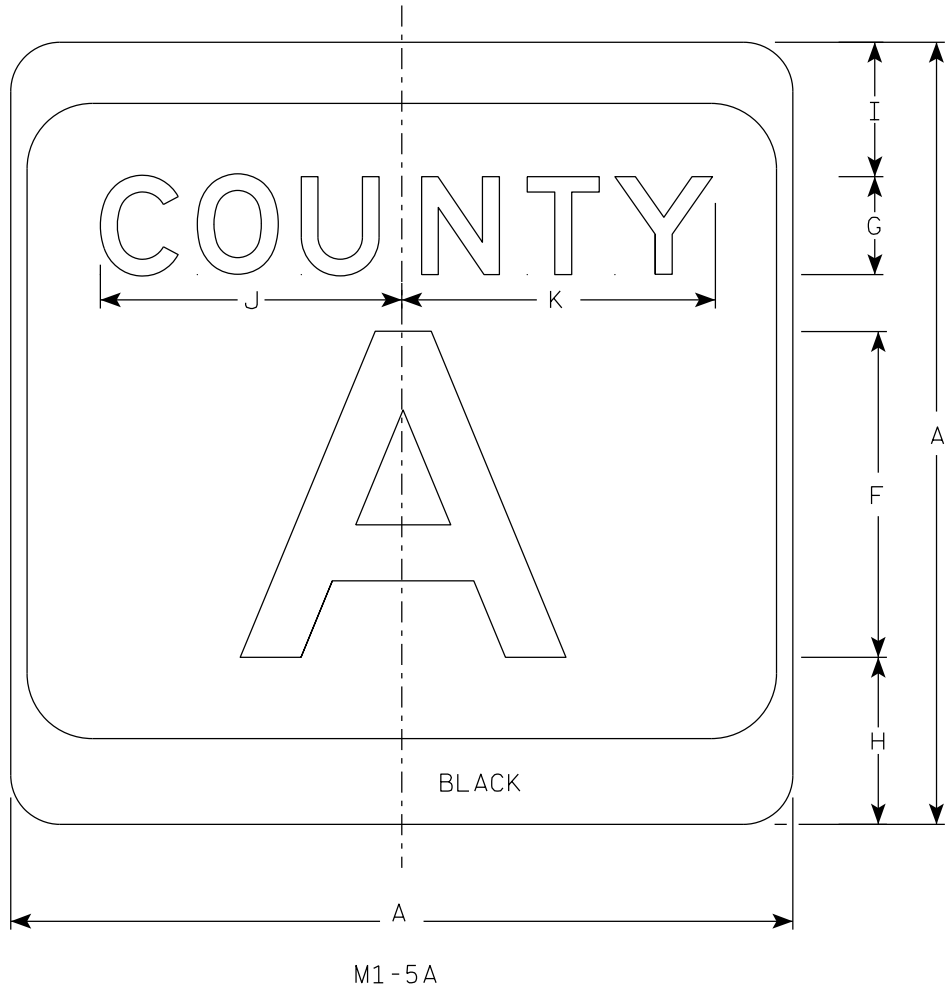
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 126

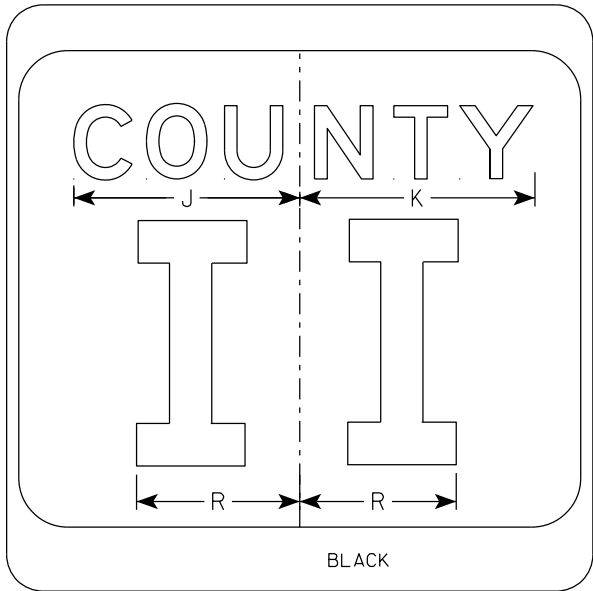
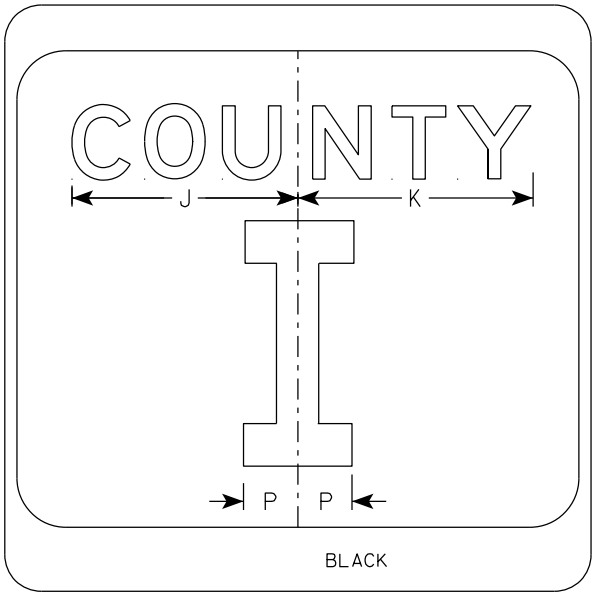
E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless
message is too big then Series C.
Message Series C for 3 letters unless
message is too big then Series B.
5. Substitute appropriate letters & optically
center to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

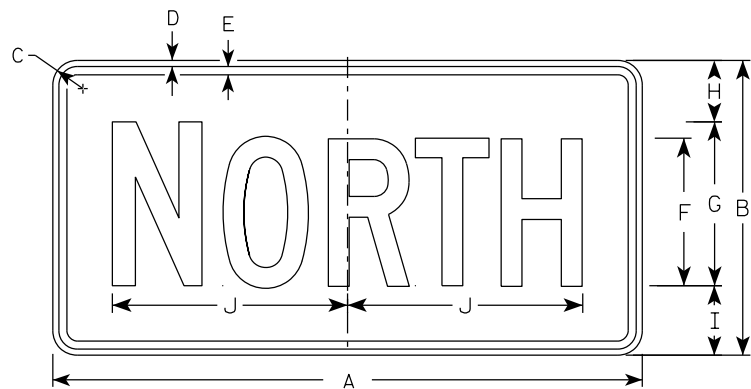
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

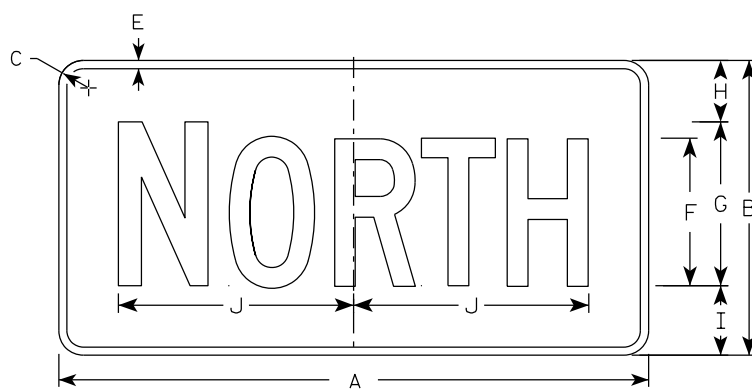
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

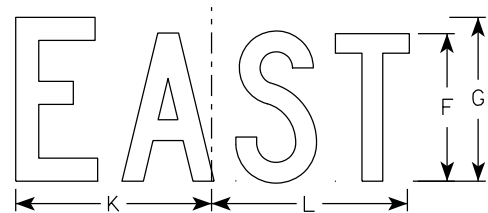
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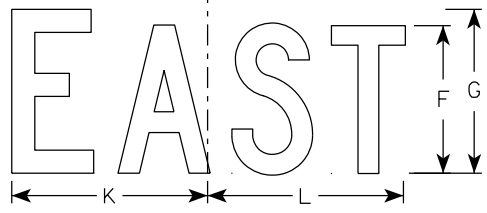
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MM3-1
MP3-1



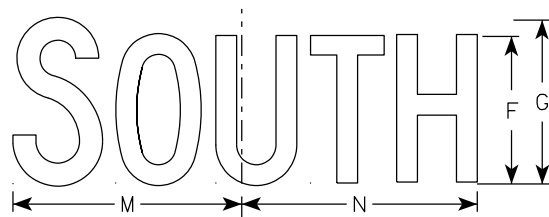
MB3-1
MK3-1
MN3-1



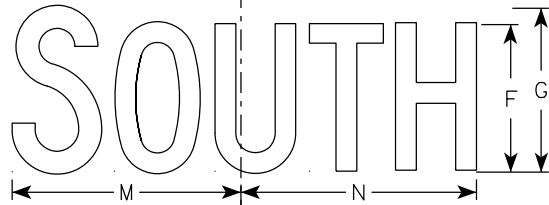
M3-2
MM3-2
MP3-2



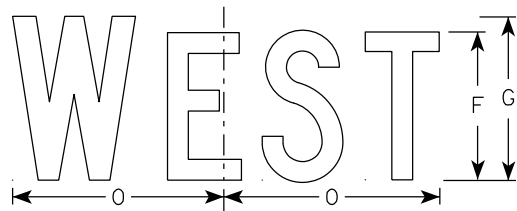
MB3-2
MK3-2
MN3-2



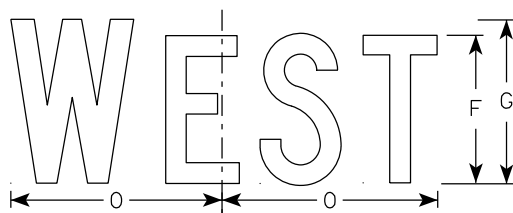
M3-3
MM3-3
MP3-3



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.

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

STANDARD SIGNS M3-1 THRU M3-4 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: HWY: COUNTY: SHEET NO: 128 E

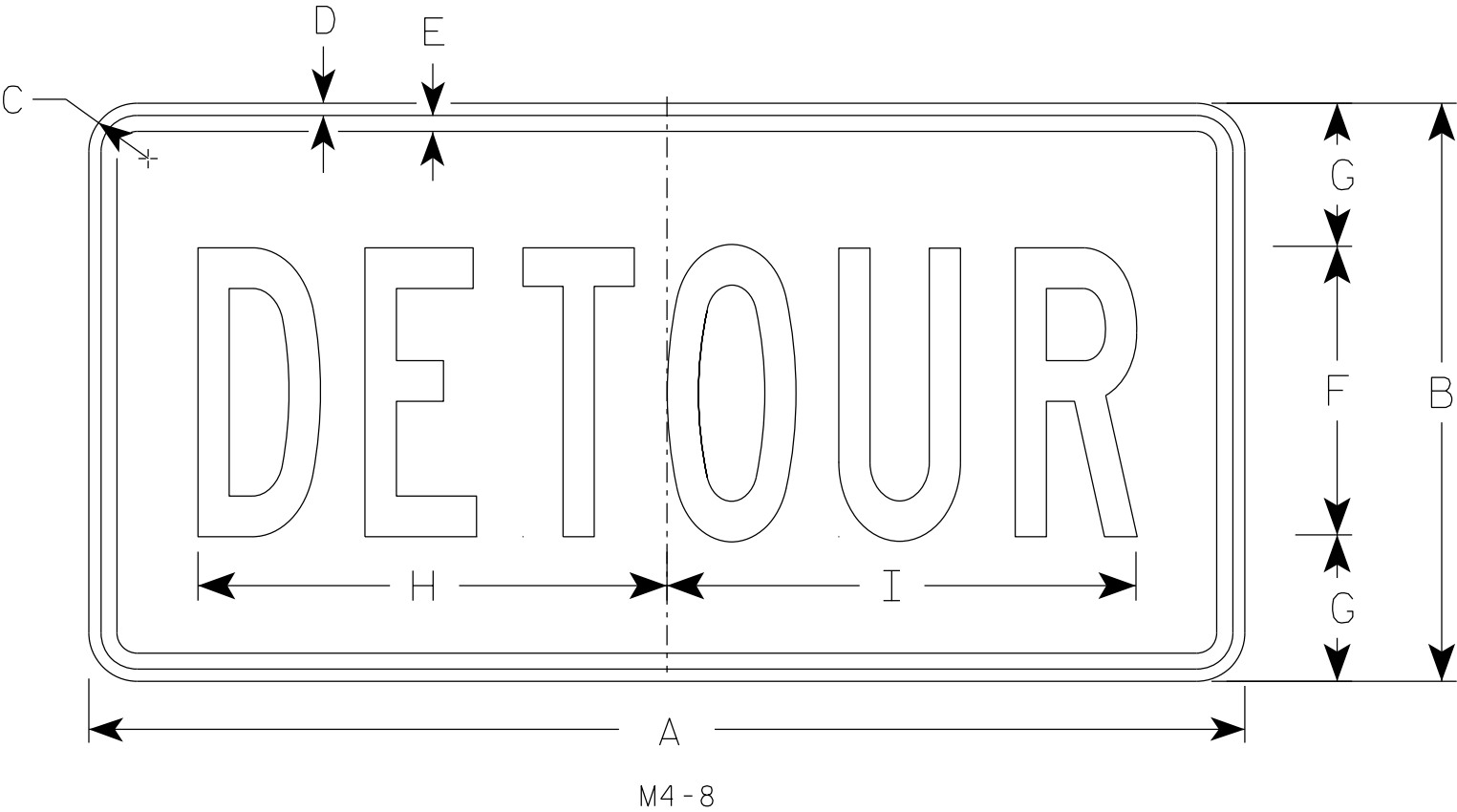
FILE NAME : C:\CAEfiles\Projects\tr_stdplate-M31.dgn PLOT DATE : 8-FEB 2023 11:00 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : \$\$.....plotscale.....\$\$WISDOT/CADDs SHEET 42

7

7

NOTES

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



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	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

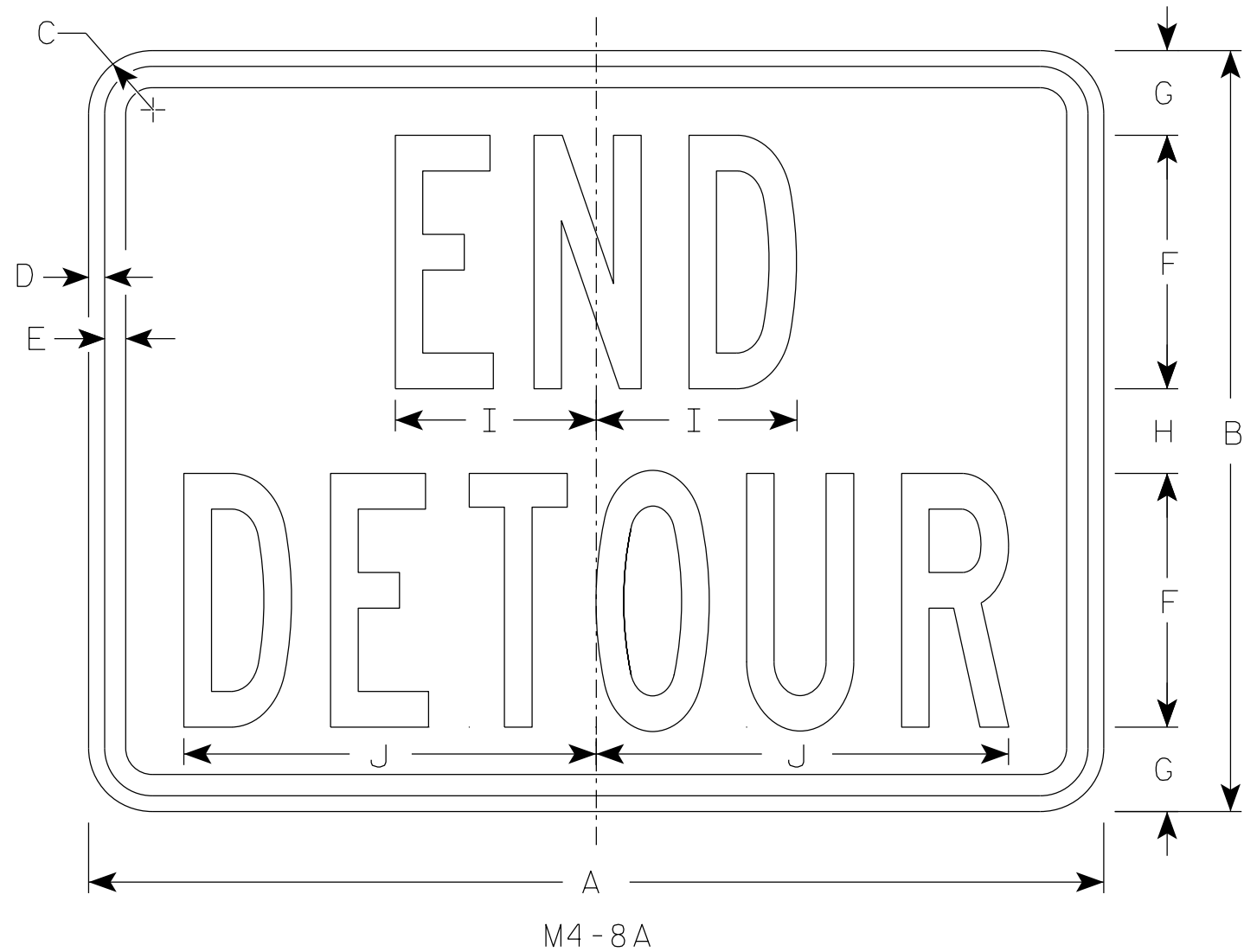
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

7



NOTES

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

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	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

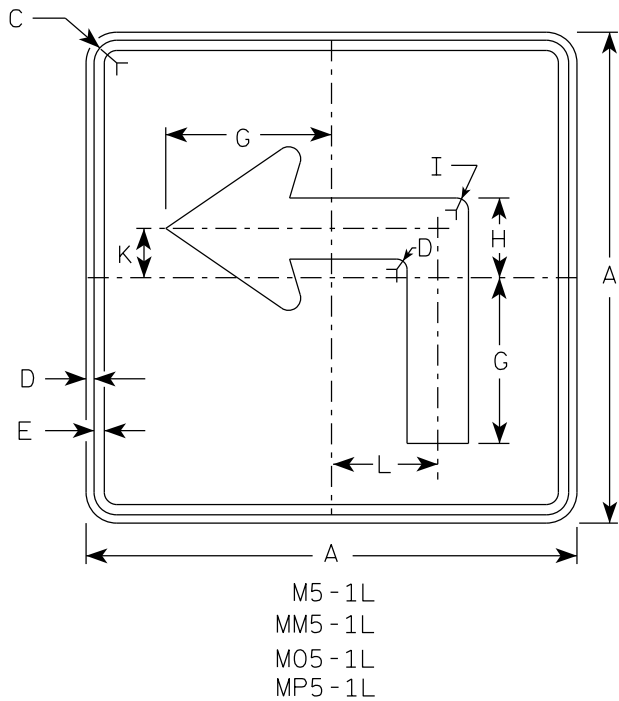
STANDARD SIGN

M4-8A

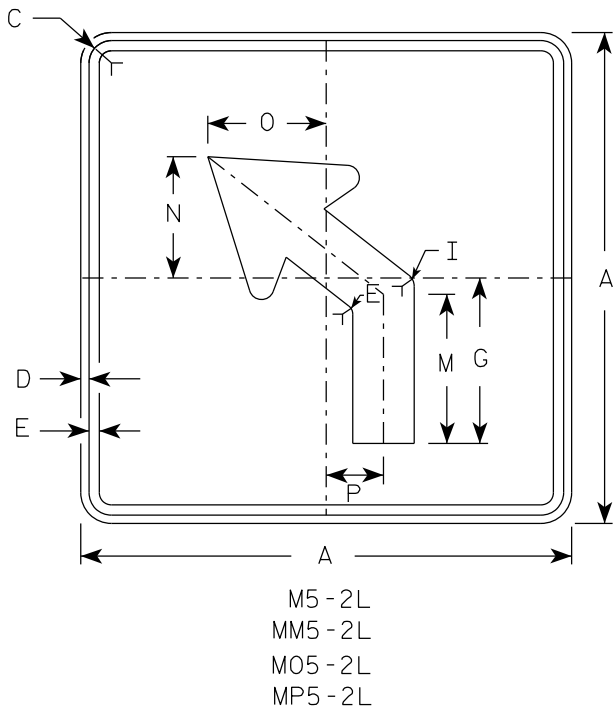
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

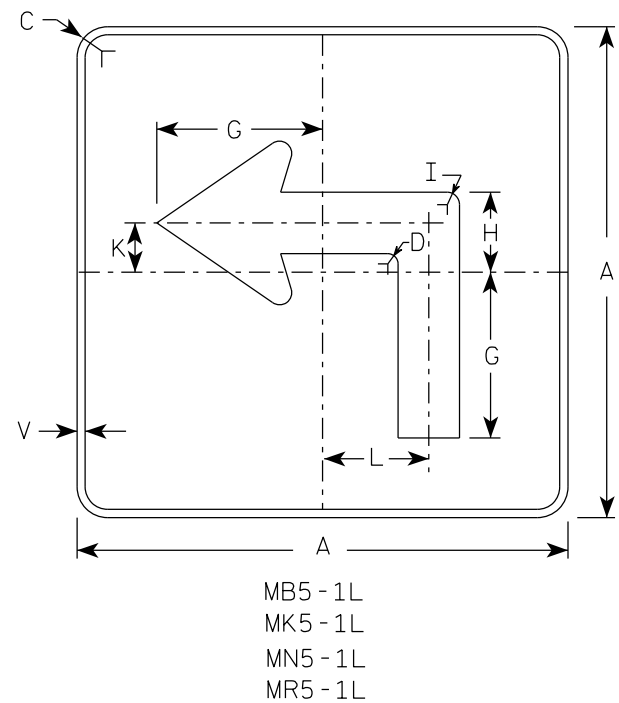
DATE 2/9/2023 PLATE NO. M4-8A.4



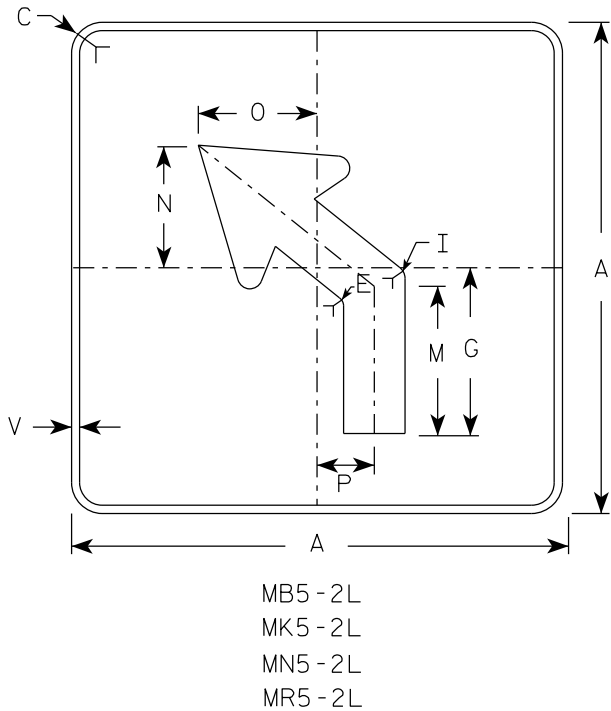
M5-1L
MM5-1L
M05-1L
MP5-1L



M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

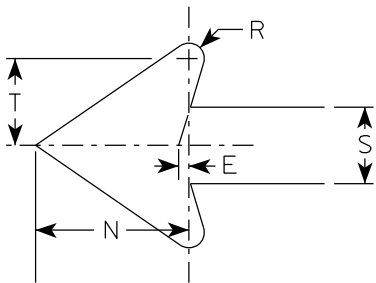


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

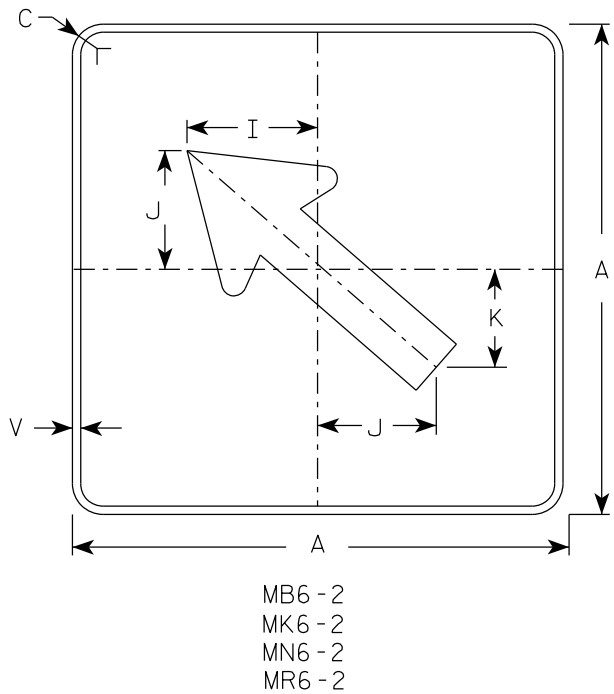
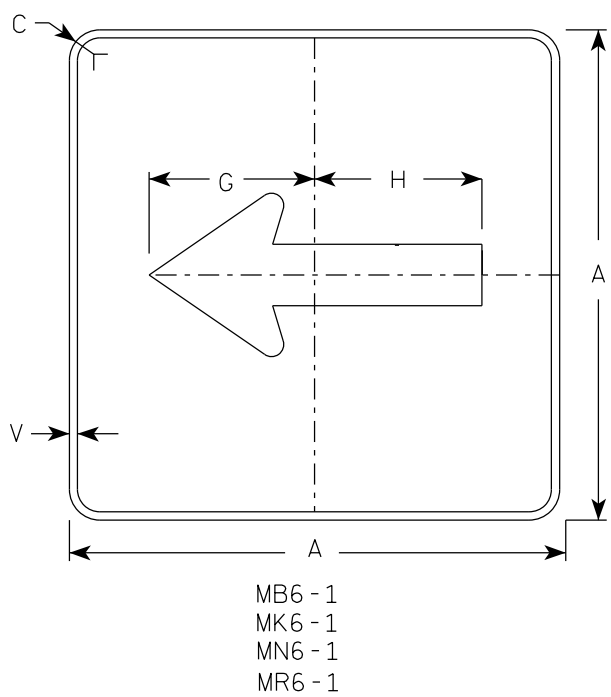
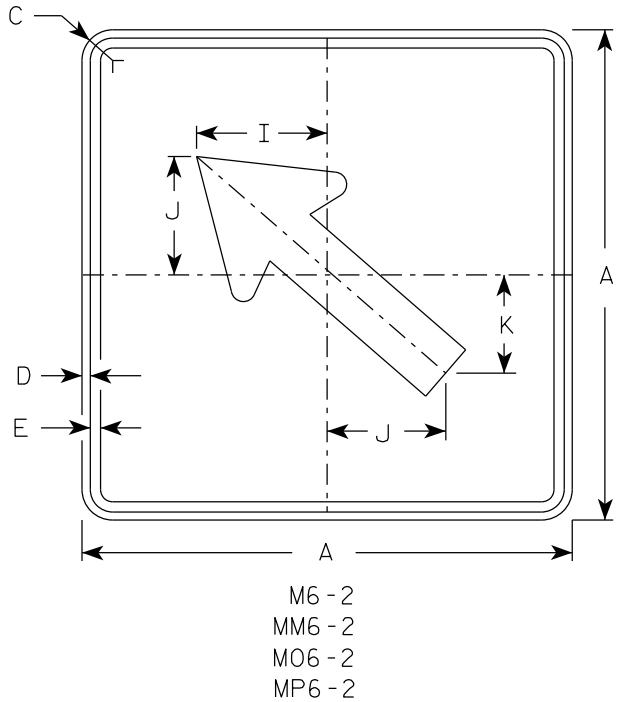
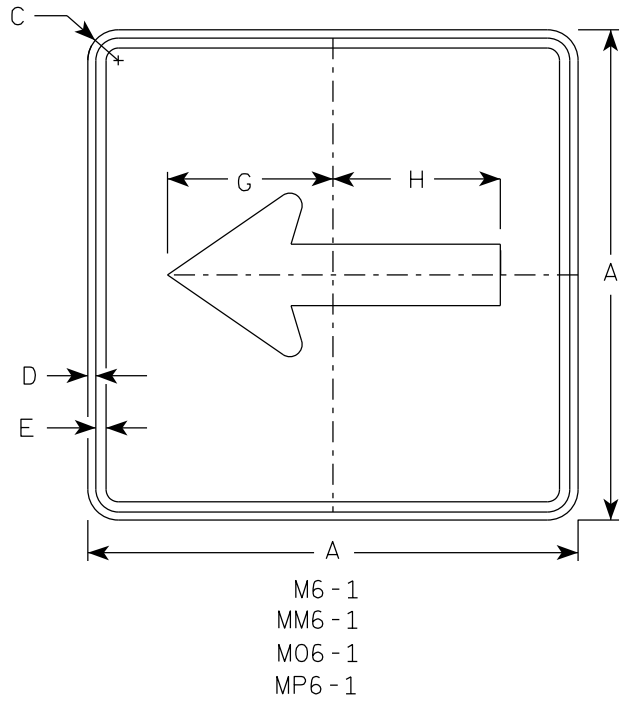
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

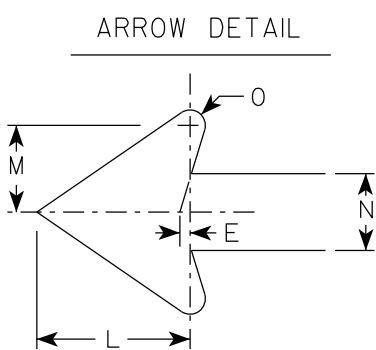


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 131	E
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- NOTES**
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 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.
 - M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



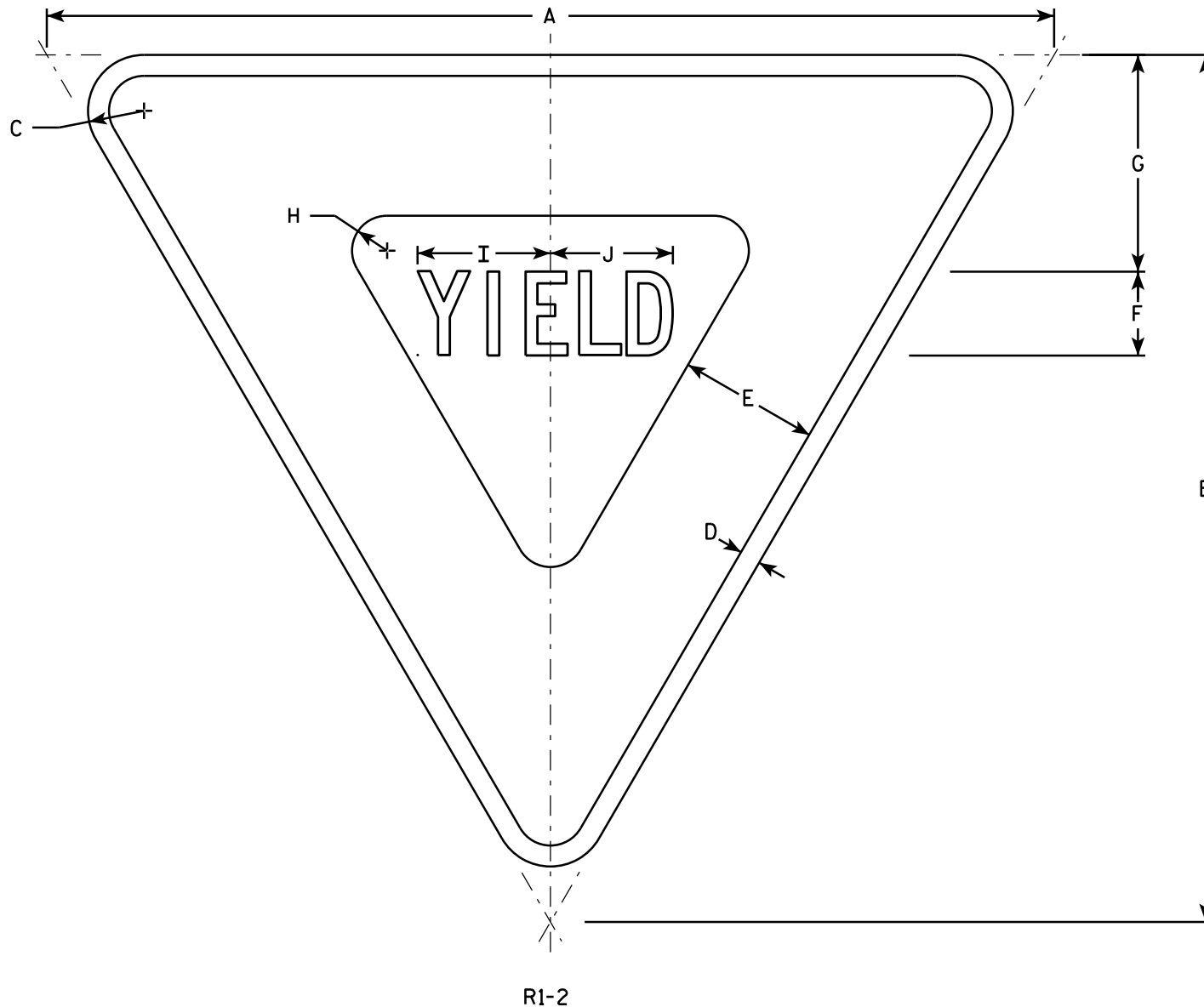
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 5
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. The border strip and word message are reflectorized red.

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	1 1/2	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

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

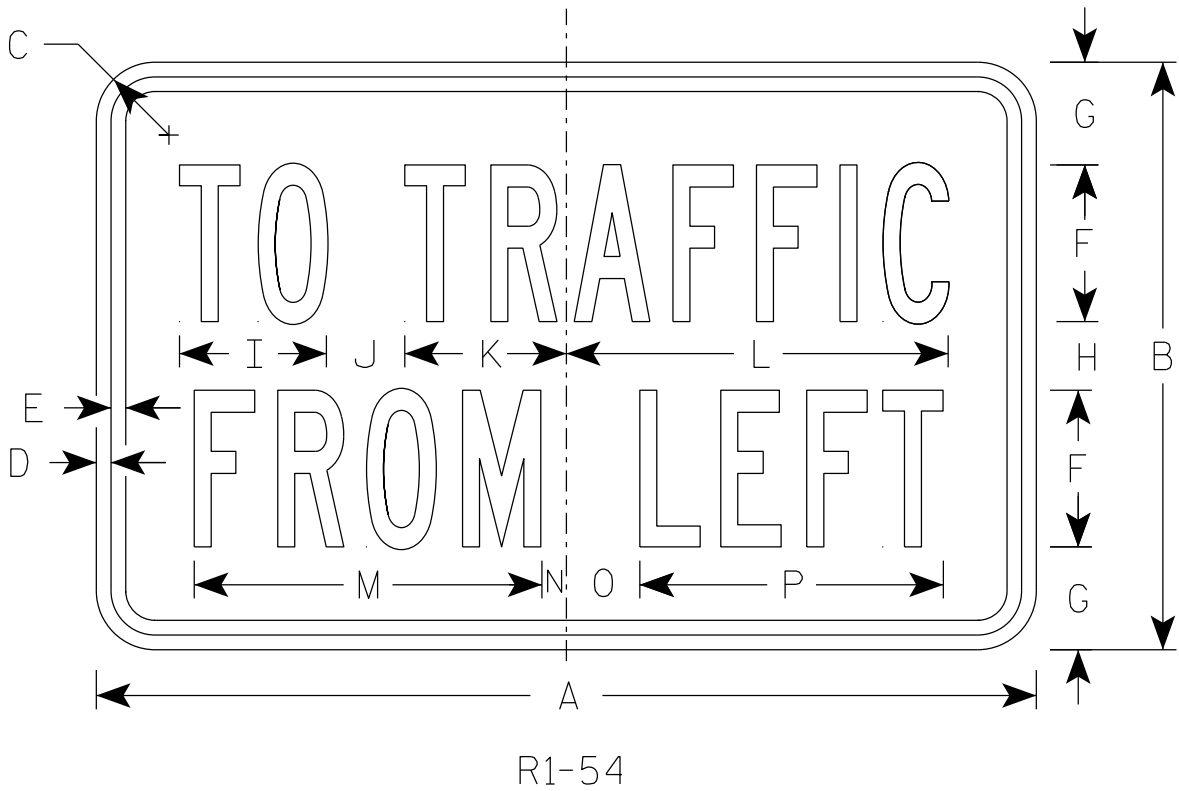
DATE 10/13/14 PLATE 133 P1-2.12

7

7

NOTES

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



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	Areq sq. ft.
1																											
2S	24	15	1 1/2	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
2M	24	15	1 1/2	3/8	3/8	4	2 5/8	1 3/4	3 3/4	2	4 1/8	9 3/4	8 7/8	5/8	1 7/8	7 3/4											2.5
3																											
4																											
5																											

PROJECT NO:

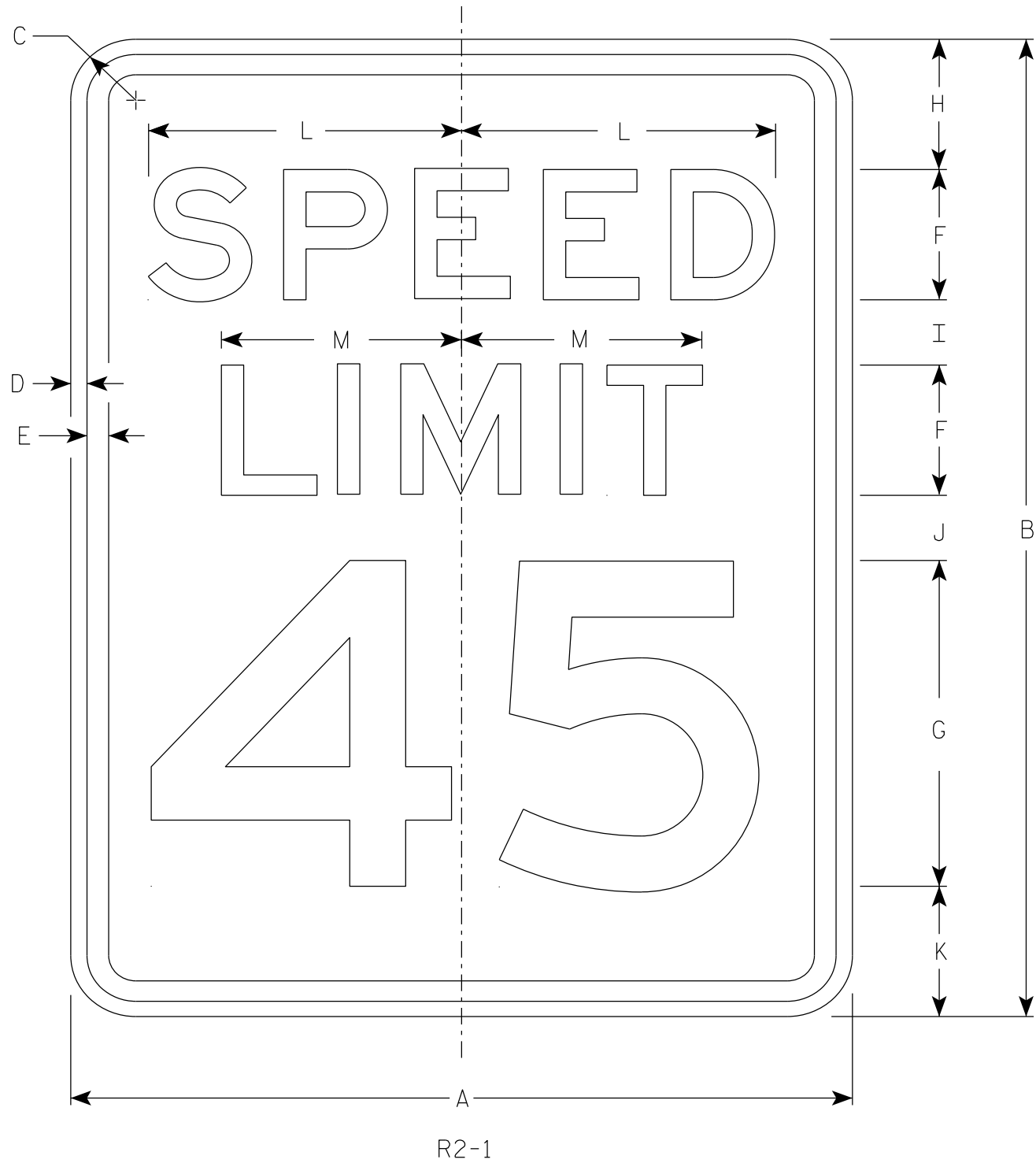
HWY:

COUNTY:

SHEET NO: 134

E

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

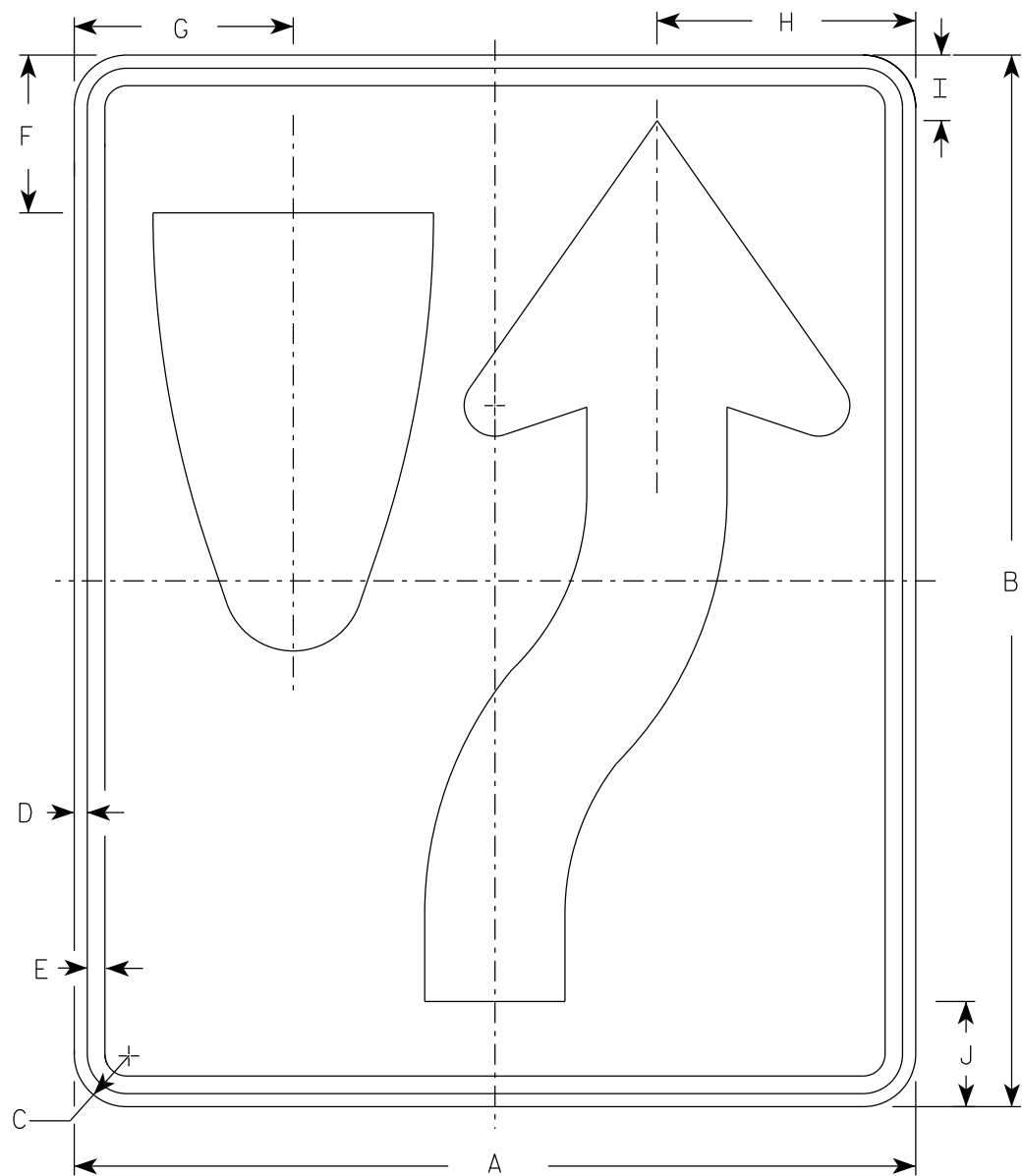
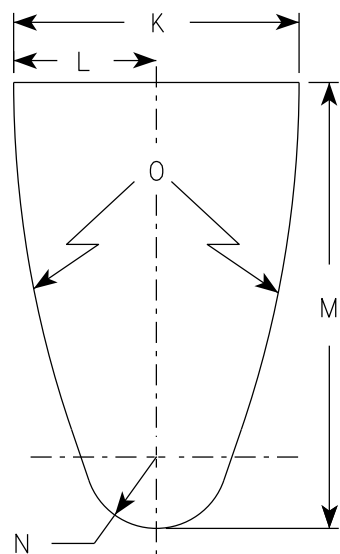
STANDARD SIGN
R2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

DIVIDER DETAIL

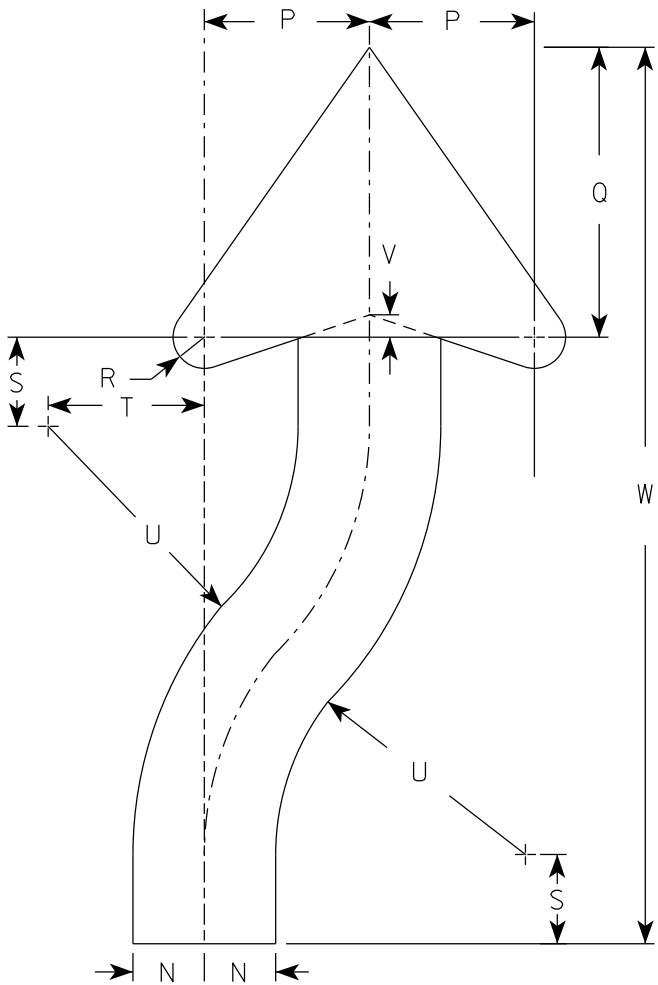


R4-7

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:

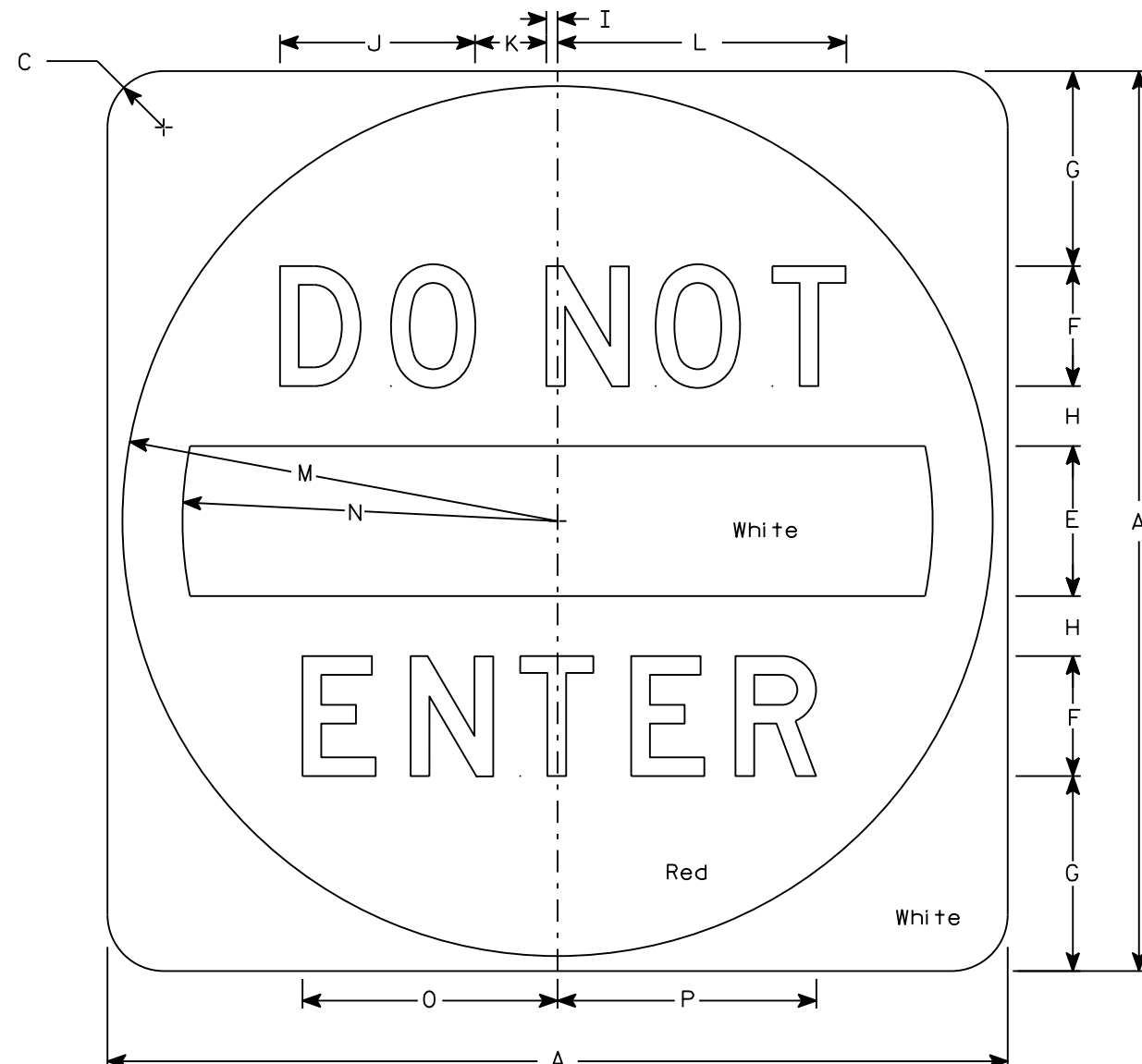
COUNTY:

SHEET NO: 136

E

NOTES

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



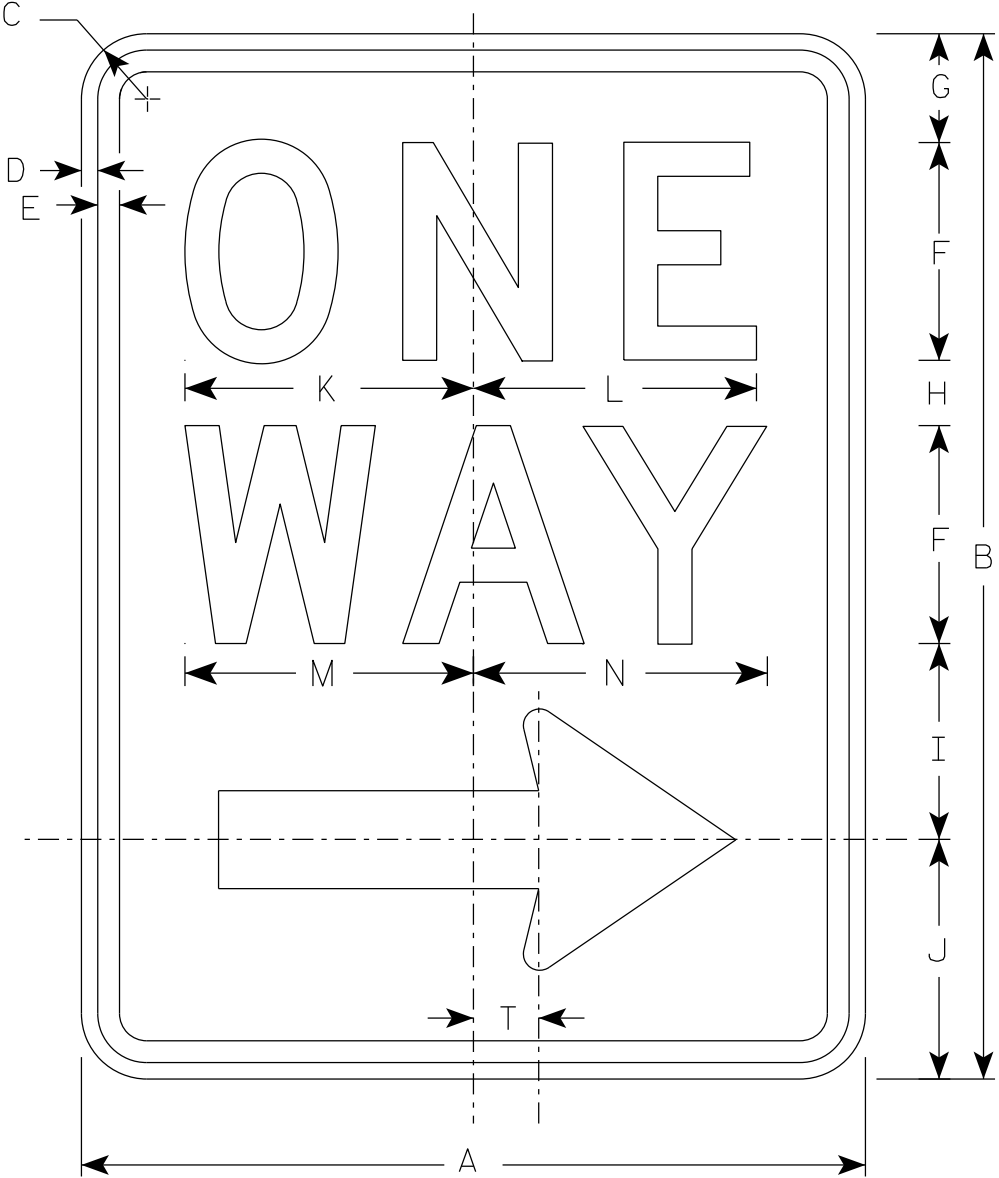
R5 - 1

[illegible]

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 137	E
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7

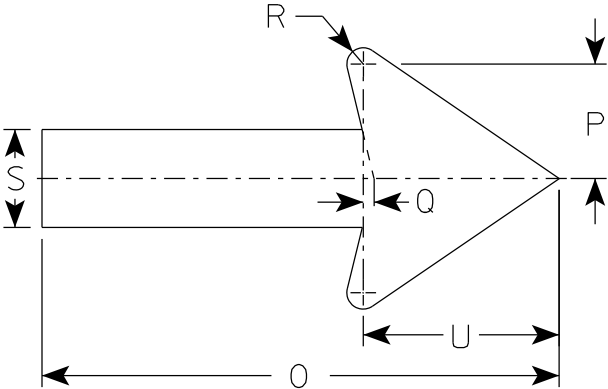


R6 - 2R

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. R6-2L same as R6-2R except arrow points to the left.

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
1	18	24	1 1/2	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	36	1 1/2	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 7/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

PROJECT NO:

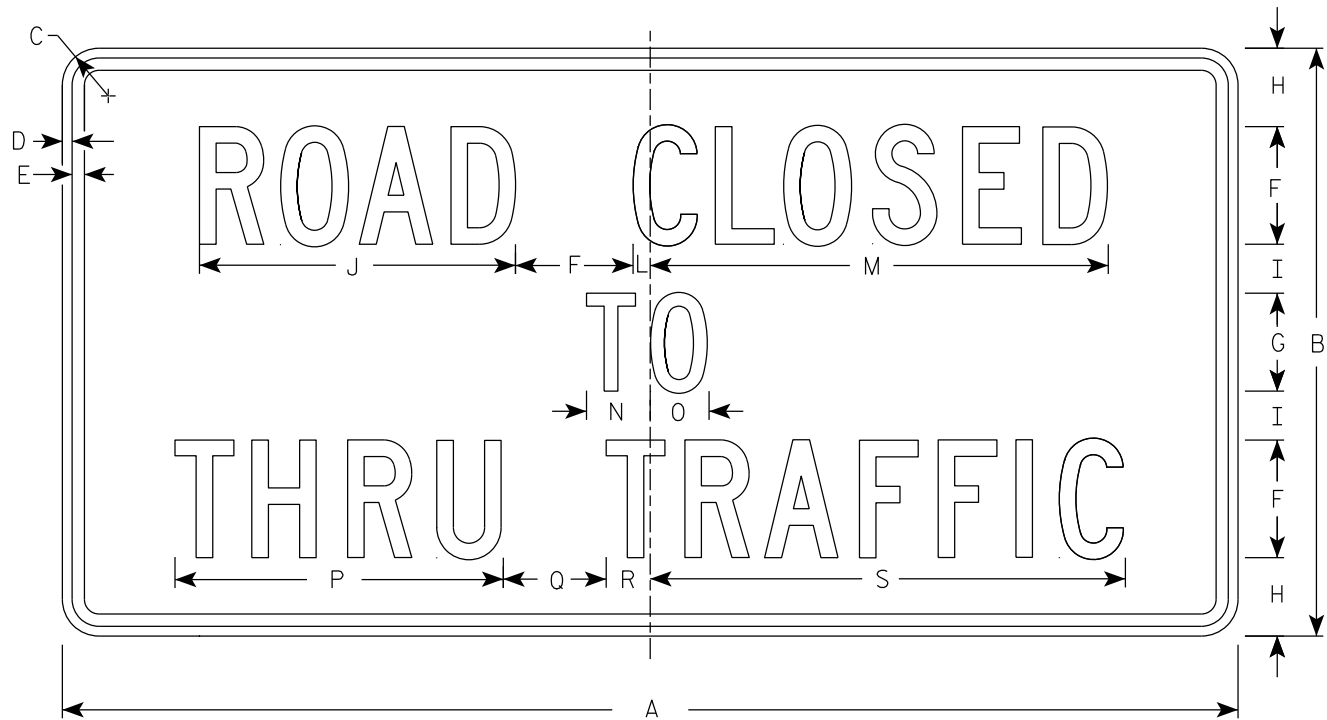
HWY:

COUNTY:

SHEET NO: 138

E

7



R11-4

NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 139

E

STANDARD SIGN

R11 - 4

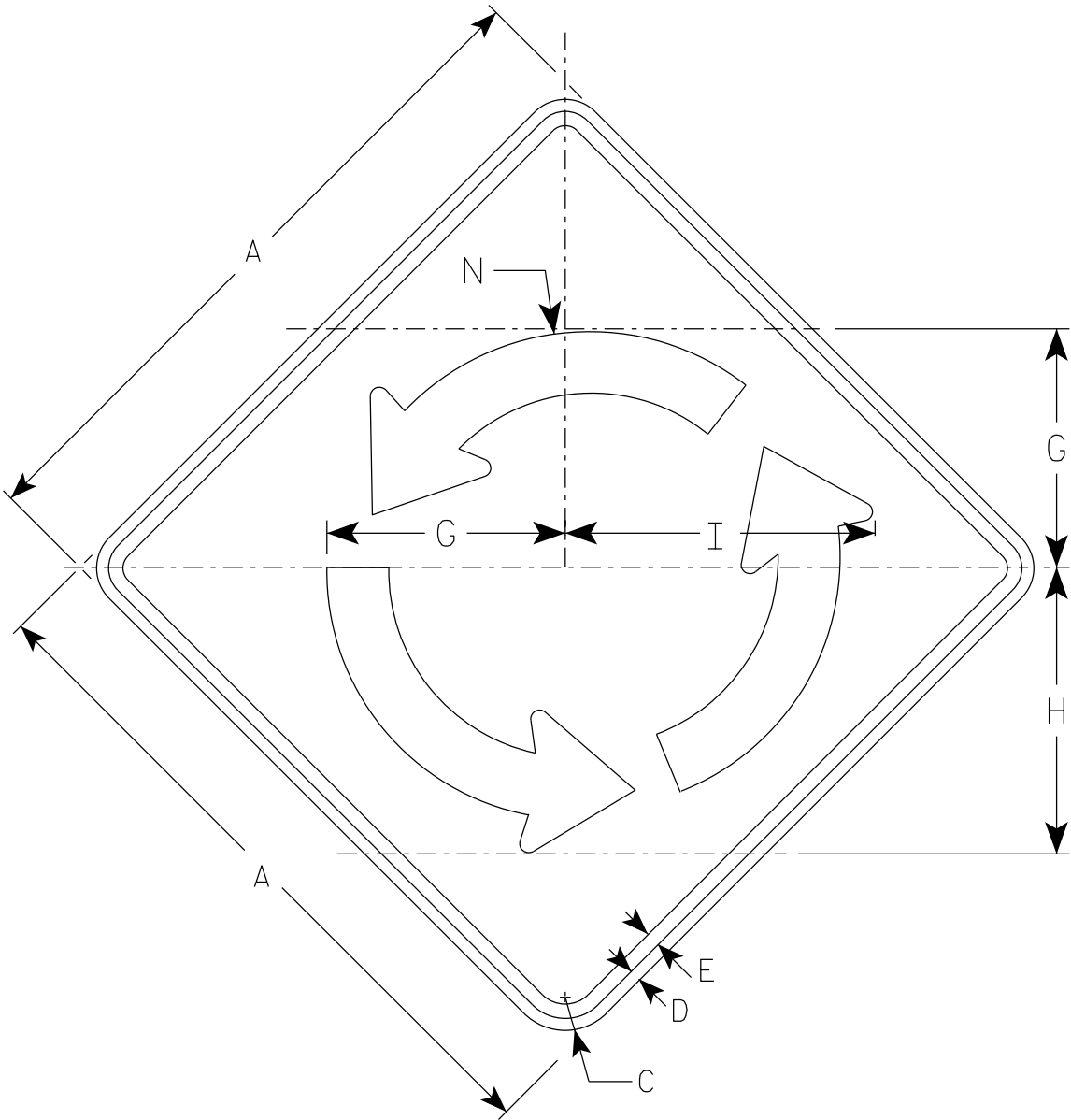
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 2/5/24

PLATE NO. R11-4.4

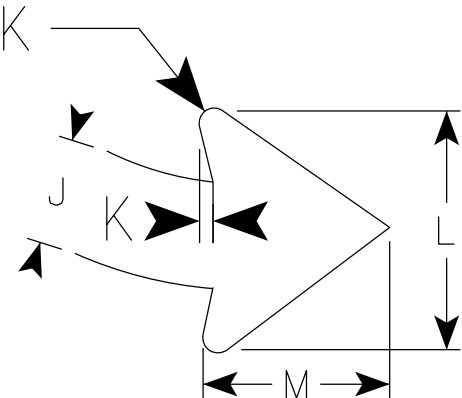


W2-6

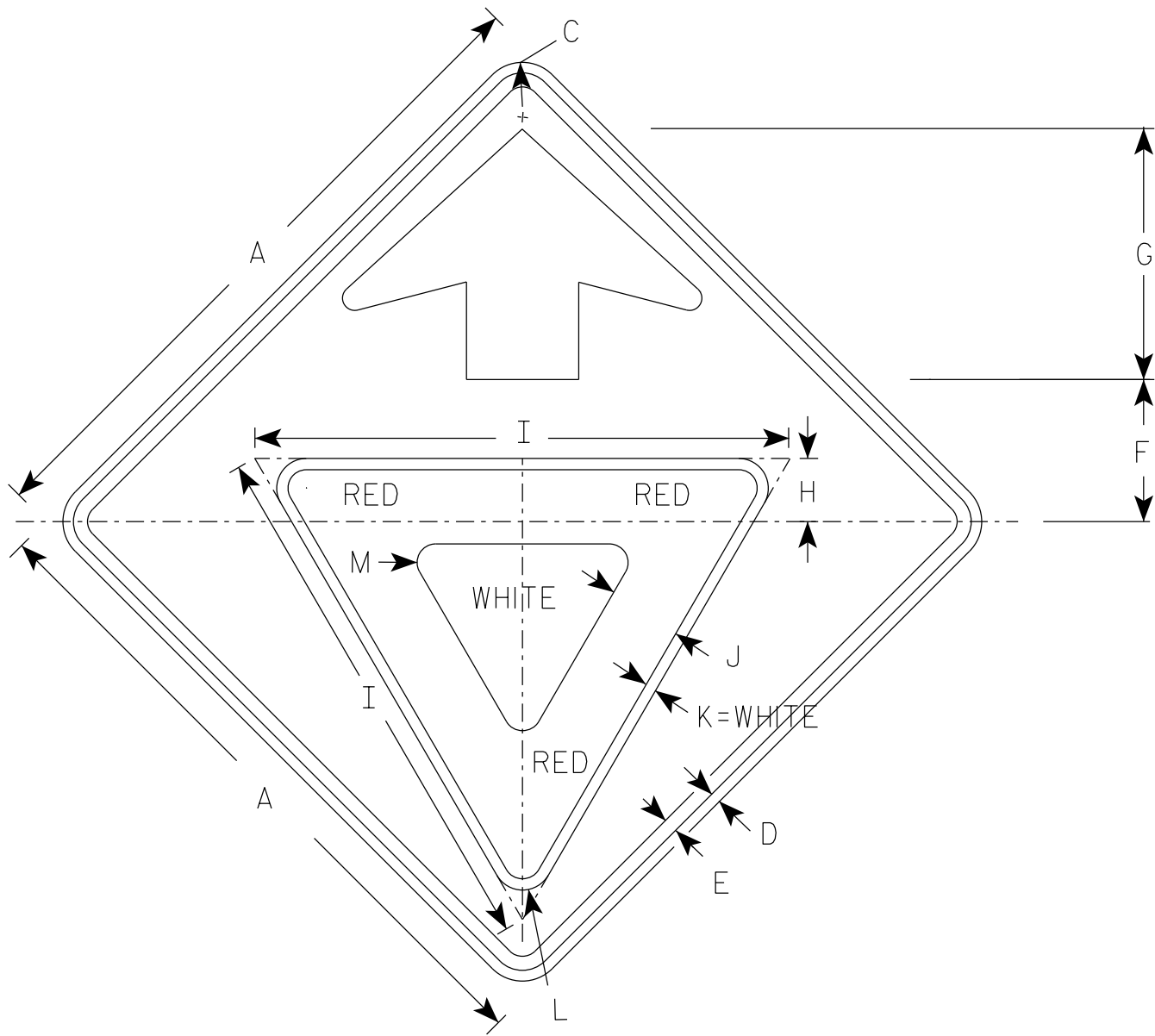
NOTES

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

Arrow Detail



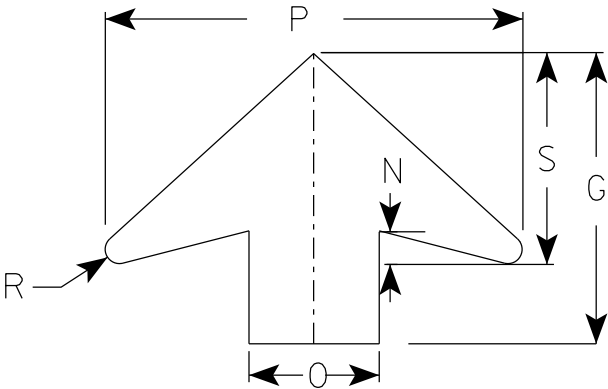
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Area sq. ft.
1																									
2S	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
2M	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
3	36		2 1/4	5/8	3/4		12 1/2	15	16 1/4	3 1/4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



W3-2

NOTES

- 1. Sign is Type II- Type F Reflective
- 2. Color:
 - Background - Yellow
 - Arrow & Border - Black
 - Yield Symbol - White Border on Red 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	30		1 7/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

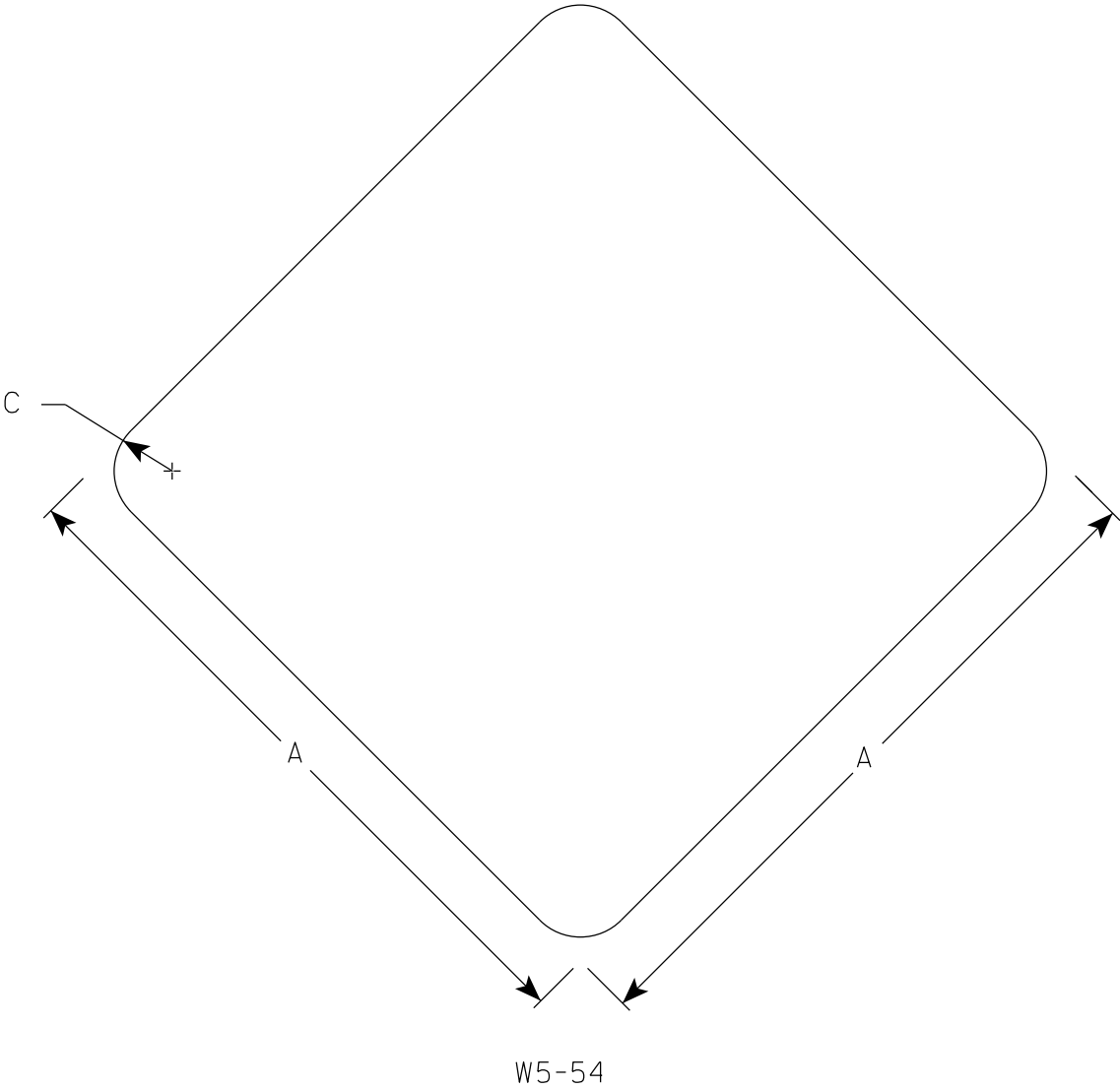
DATE 8/17/2023 PLATE NO. W3-2.10

PROJECT NO:

SHEET NO: 141

E

7



NOTES

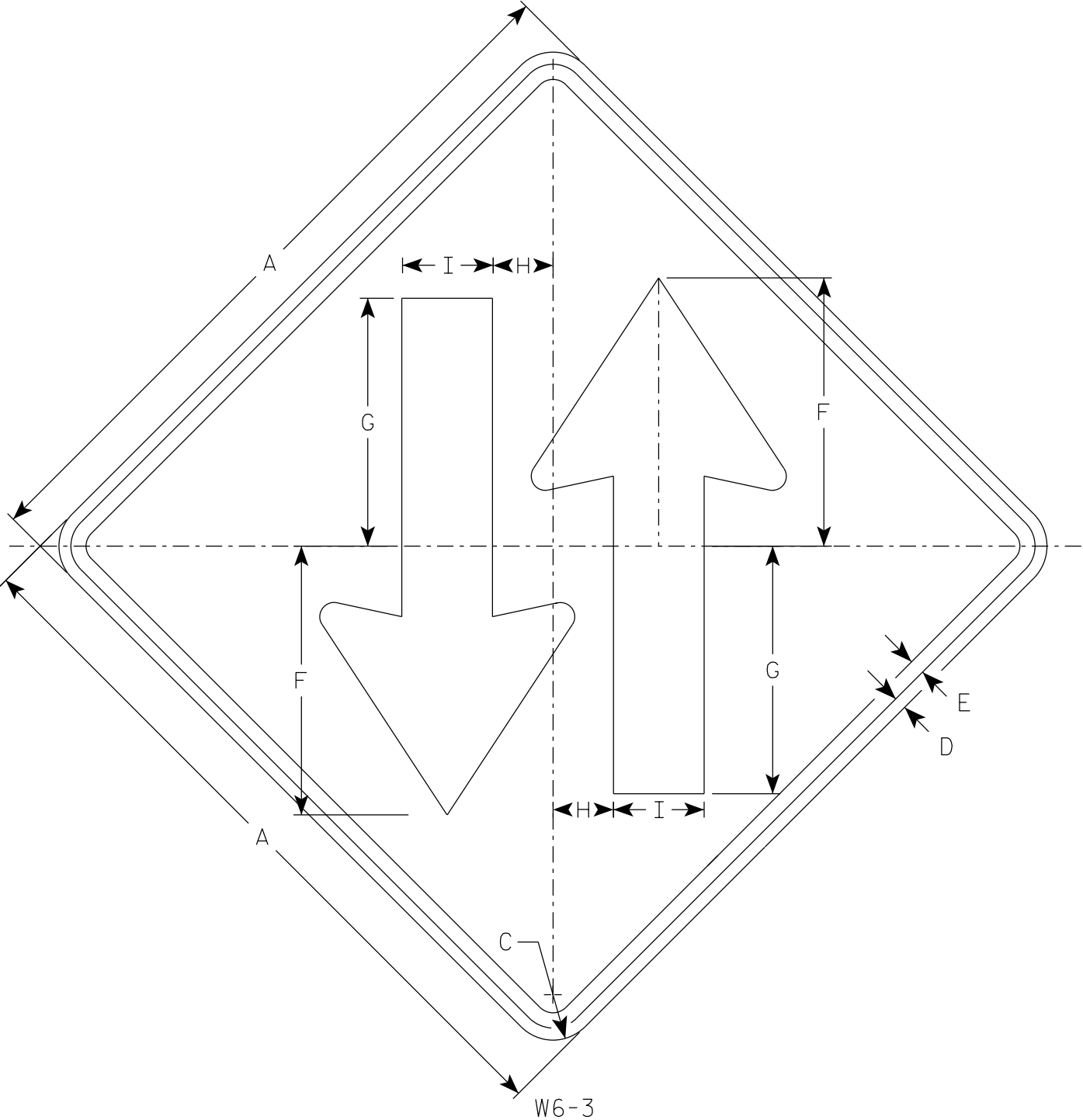
- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow

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	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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/5/2024	PLATE NO. W5-54.9

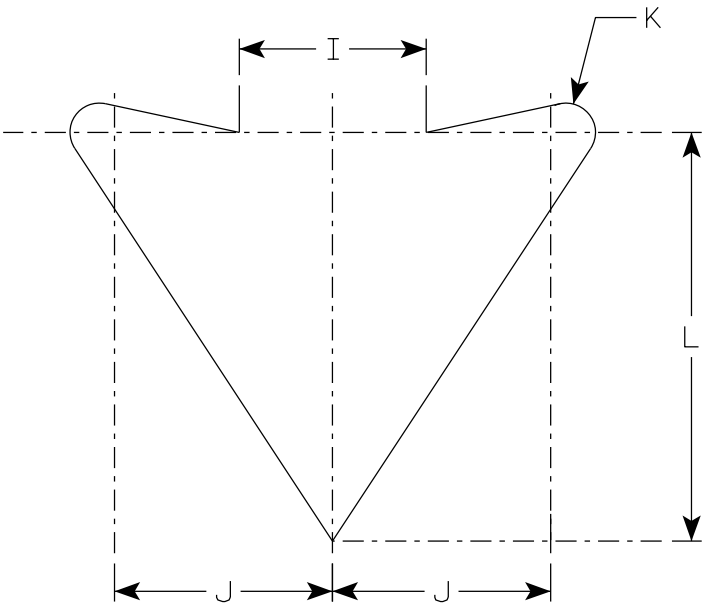
7



W6-3

NOTES

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



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	30		1 7/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		2 1/4	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		2 1/4	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3	36		2 1/4	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
4	48		3	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		3	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

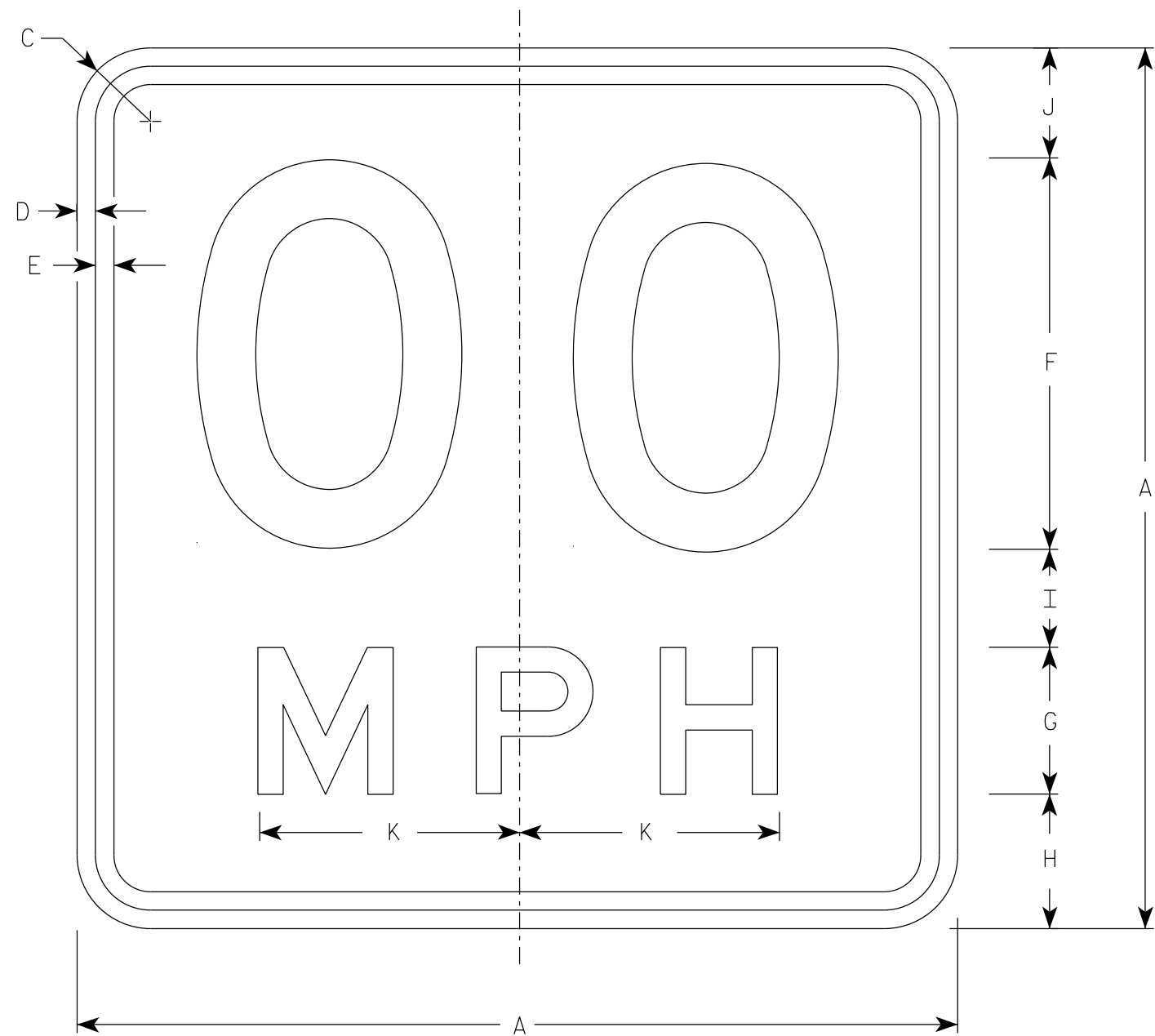
STANDARD SIGN

W6-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/6/2023 PLATE NO. W6-3.12



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.
✱ 2S	1	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
	2	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
✱ 2M	3	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25
	4	24		1 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8															4.00
	5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00
	6	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

PROJECT NO:

HWY:

COUNTY:

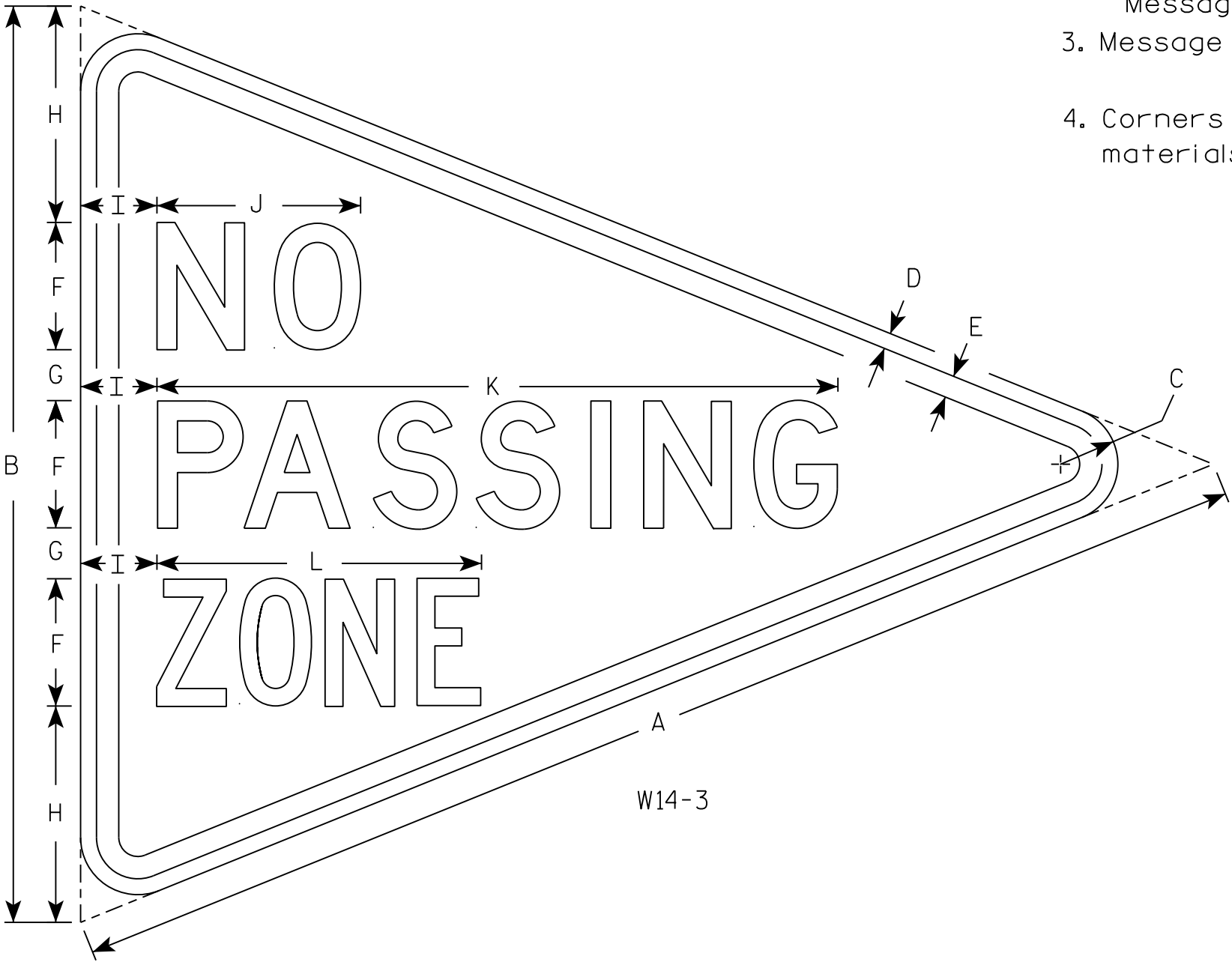
SHEET NO:

144

E

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																											

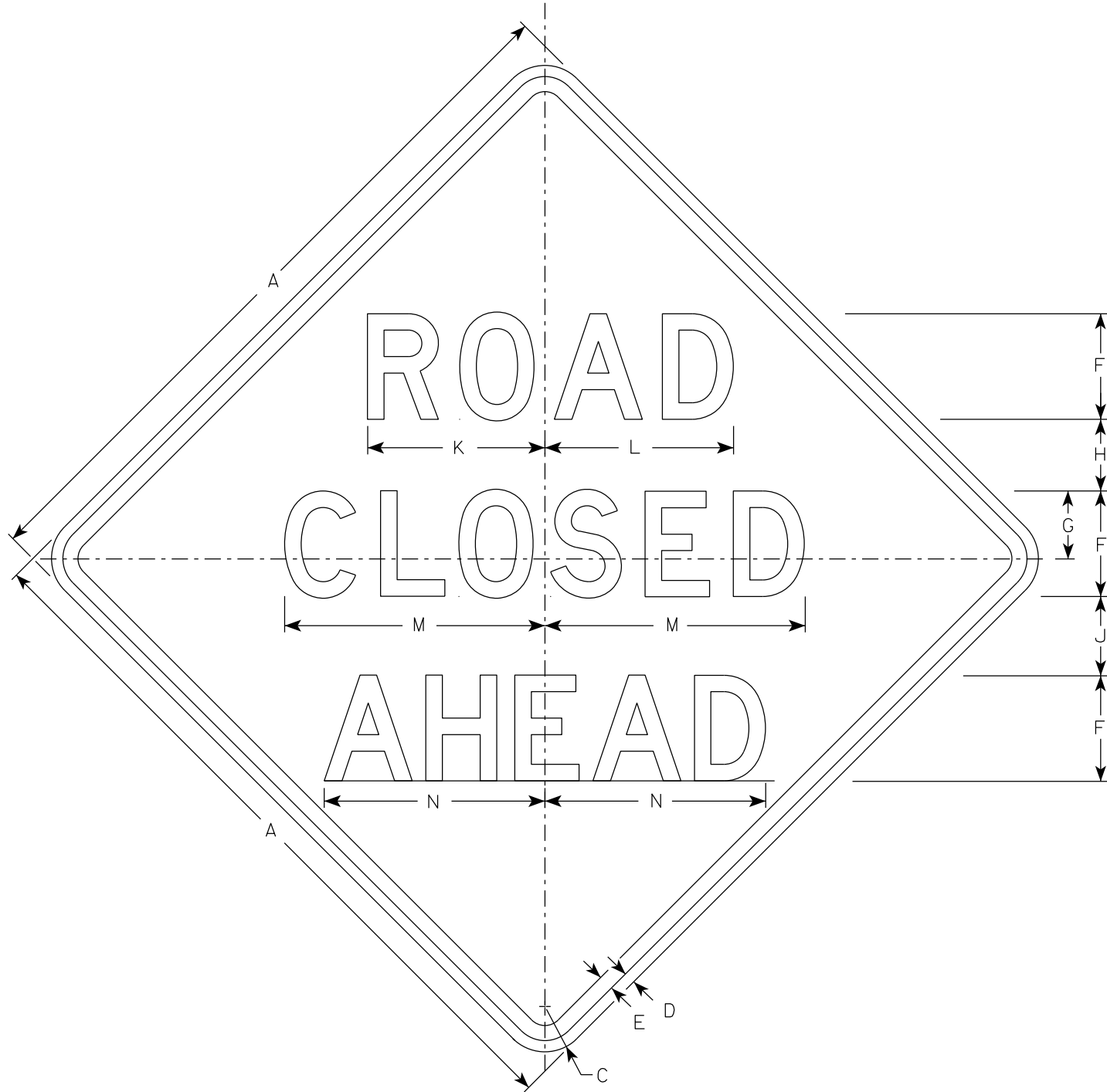
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

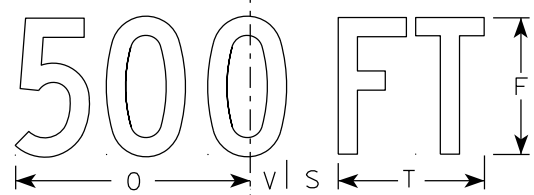
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

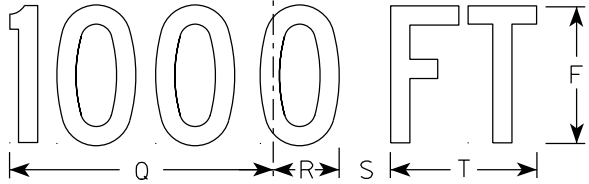
7



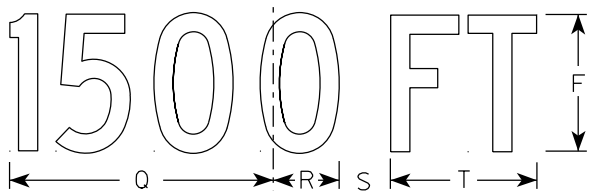
W20-3A



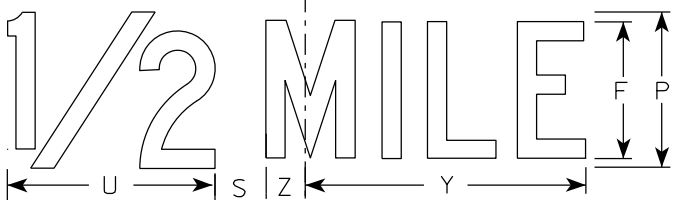
W20-3D



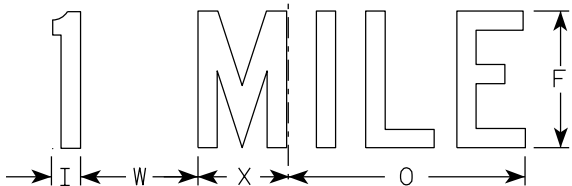
W20-3C



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.

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

DIVISION 1 - CTH U-CTH G-RAB CENTER CIRCLE

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 ORDNATE
								1.00	1.15	
		NOTE 1			NOTE 2		NOTE 3	NOTE 1		NOTE 8
00+00	0.00	187.16	30.00	161.80	0	0	0	0	0	0
00+50	50.00	80.03	11.00	164.34	247	38	302	247	347	-138
01+00	50.00	199.66	36.50	159.91	259	44	300	506	692	-268
01+50	50.00	278.24	56.50	163.47	442	86	299	948	1,036	-256
02+00	50.00	197.31	21.50	164.42	440	72	304	1,388	1,386	-238
02+50	50.00	80.27	53.50	228.13	257	69	363	1,645	1,803	-467

DIVISION 1 - CTH U - NB APPROACH

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 ORDNATE
								1.00	1.15	
		NOTE 1			NOTE 2		NOTE 3	NOTE 1		NOTE 8
400+26.27	0.00	102.36	15.00	0	0	0	0	0	0	0
400+50	23.73	103.06	15.00	11	90	13	5	90	6	71
401+00	50.00	101.81	15.00	20	190	28	28	280	38	201
401+50	50.00	119.81	15.00	17	205	28	34	485	77	339
402+00	50.00	154.93	15.00	8	254	28	23	739	104	539
402+30	30.00	176.20	15.00	3	184	17	6	923	110	699
402+50	20.00	196.11	15.00	5	138	11	3	1,061	114	822
403+00	50.00	254.29	15.00	9	417	28	13	1,478	129	1,196
403+50	50.00	310.13	15.00	6	523	28	13	2,001	144	1,676
404+00	50.00	328.26	15.00	3	591	28	8	2,592	153	2,230
404+50	50.00	342.93	15.00	0	621	28	3	3,213	156	2,820
405+00	50.00	347.47	15.00	0	639	28	0	3,852	156	3,431
405+50	50.00	320.19	15.00	0	618	28	0	4,470	156	4,021

DIVISION 1 - CTH U - NB EXIT

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 ORDNATE
								1.00	1.15	
		NOTE 1			NOTE 2		NOTE 3	NOTE 1		NOTE 8
407+50	0.00	57.13	11.00	63.29	0	0	0	0	0	0
408+00	50.00	71.55	11.00	95.34	119	20	147	119	169	-70
408+50	50.00	69.66	11.00	102.85	131	20	184	250	381	-171
409+00	50.00	73.21	11.00	119.90	132	20	206	382	618	-296
409+50	50.00	78.61	11.00	122.45	141	20	224	523	875	-432
410+00	50.00	92.85	11.00	109.57	159	20	215	682	1,122	-540
410+50	50.00	107.54	11.00	86.48	186	20	182	868	1,332	-584
411+00	50.00	108.79	11.00	53.55	200	20	130	1,068	1,481	-553
411+19.534	19.53	106.35	11.00	47.26	78	8	36	1,146	1,523	-525
411+50	30.47	101.74	11.00	33.09	117	12	45	1,263	1,574	-471
412+00	50.00	101.44	11.00	30.99	188	20	59	1,451	1,642	-371

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
8 - MASS ORDNATE	EBS TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH: [(CUT - SALVAGED PAVT - EXPANDED EBS) - ((FILL * FILL FACTOR)]

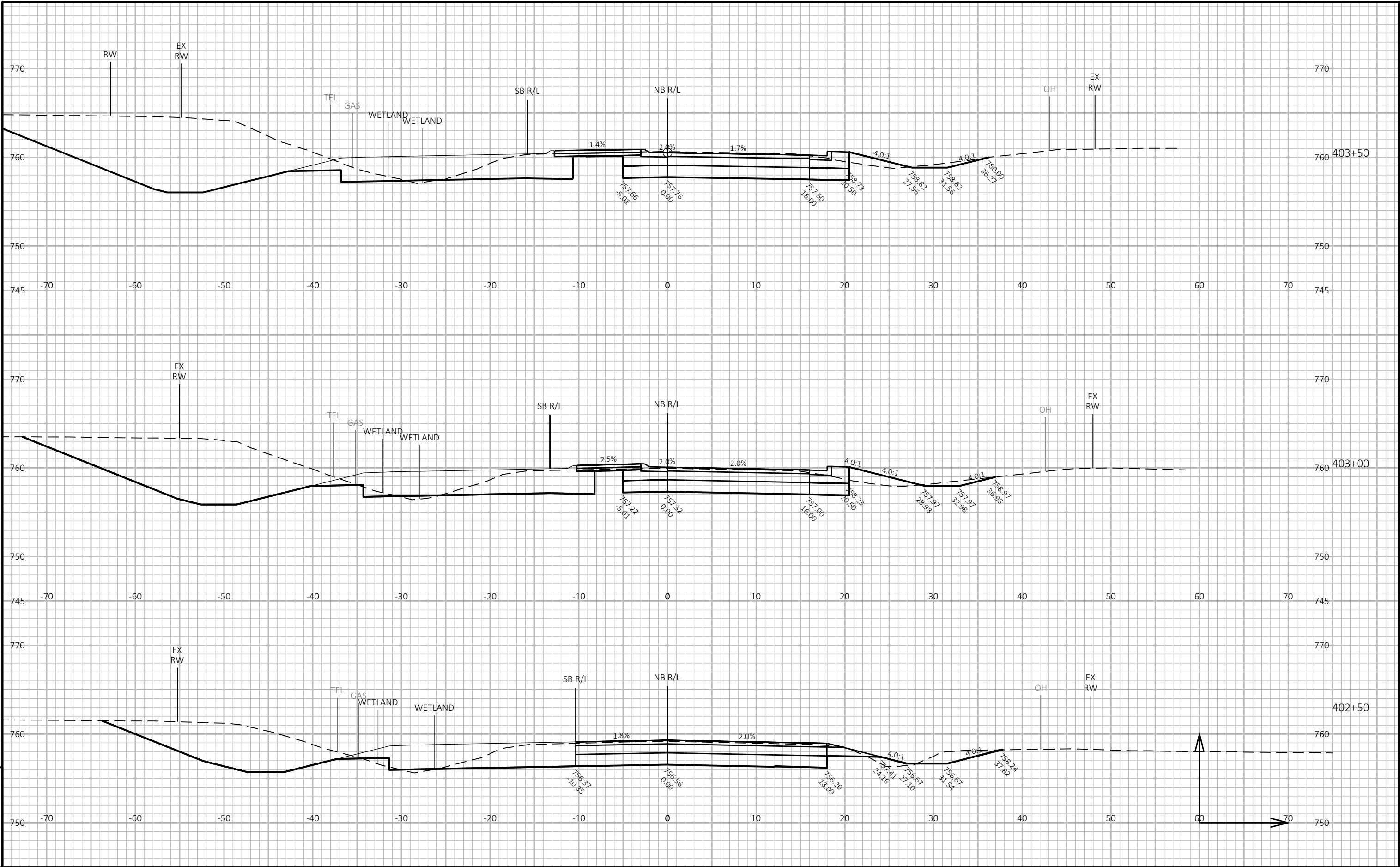
DIVISION 1 - CTH G - EB APPROACH

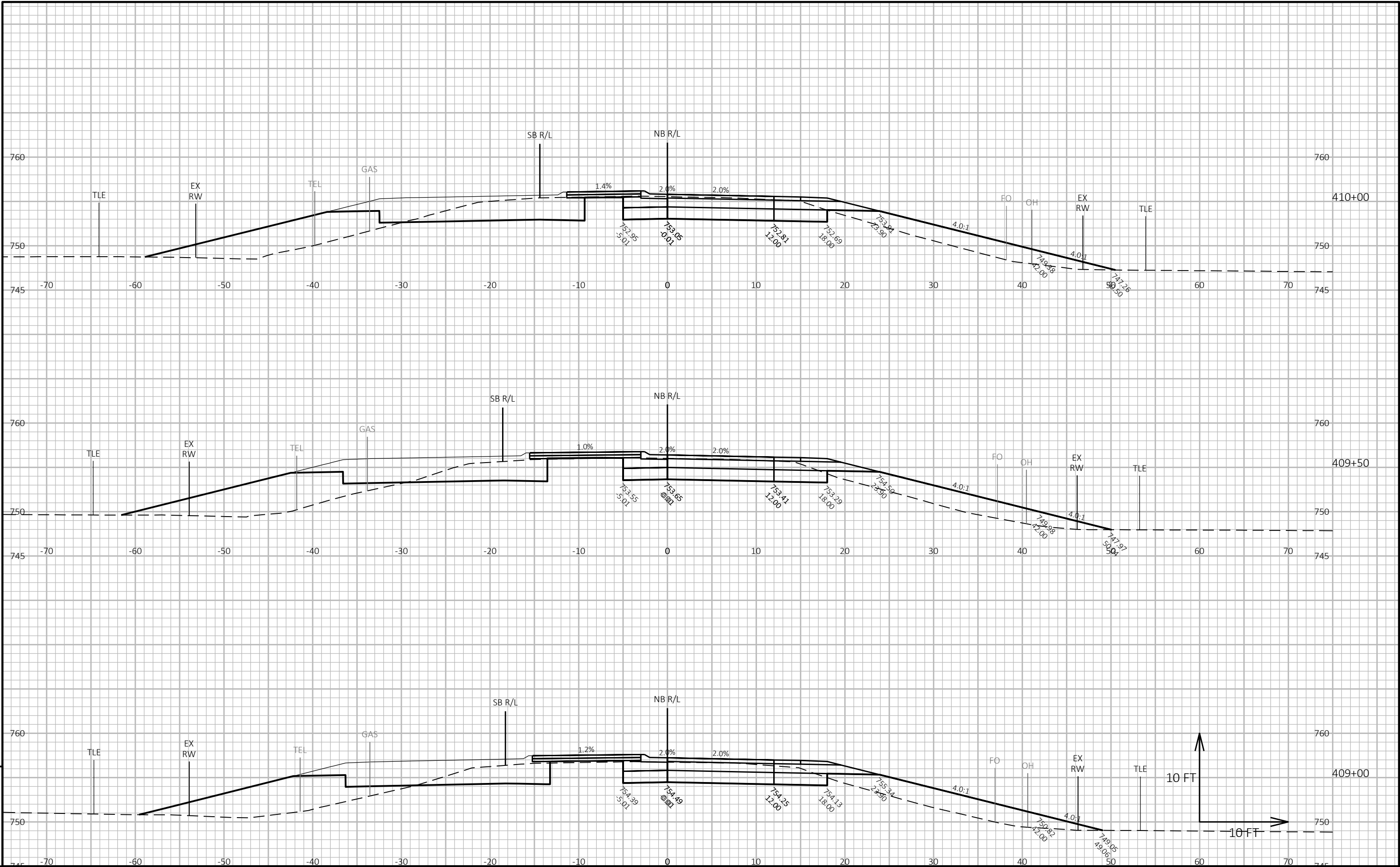
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1	1.15	NOTE 8
300+00	0.00	84.22	15.00	1.12	0	0	0	0	0	0
300+50	50.00	104.79	15.00	2.51	175	28	3	175	3	144
301+00	50.00	117.48	15.00	4.57	206	28	7	381	12	314
301+50	50.00	105.87	15.00	8.47	207	28	12	588	25	479
302+00	50.00	103.03	15.00	21.74	193	28	28	781	58	612
302+50	50.00	113.96	15.00	35.58	201	28	53	982	118	724
303+00	50.00	149.58	15.00	43.21	244	28	73	1,226	202	856
303+50	50.00	210.21	15.00	39.63	333	28	77	1,559	291	1,072
303+65.647	15.65	228.95	15.00	51.04	127	9	26	1,686	321	1,160
304+00	34.35	253.88	15.00	31.29	307	19	52	1,993	381	1,388
304+50	50.00	254.62	15.00	13.75	471	28	42	2,464	429	1,783
305+00	50.00	231.87	15.00	0.00	450	28	13	2,914	444	2,190
305+50	50.00	217.69	15.00	4.17	416	28	4	3,330	449	2,574

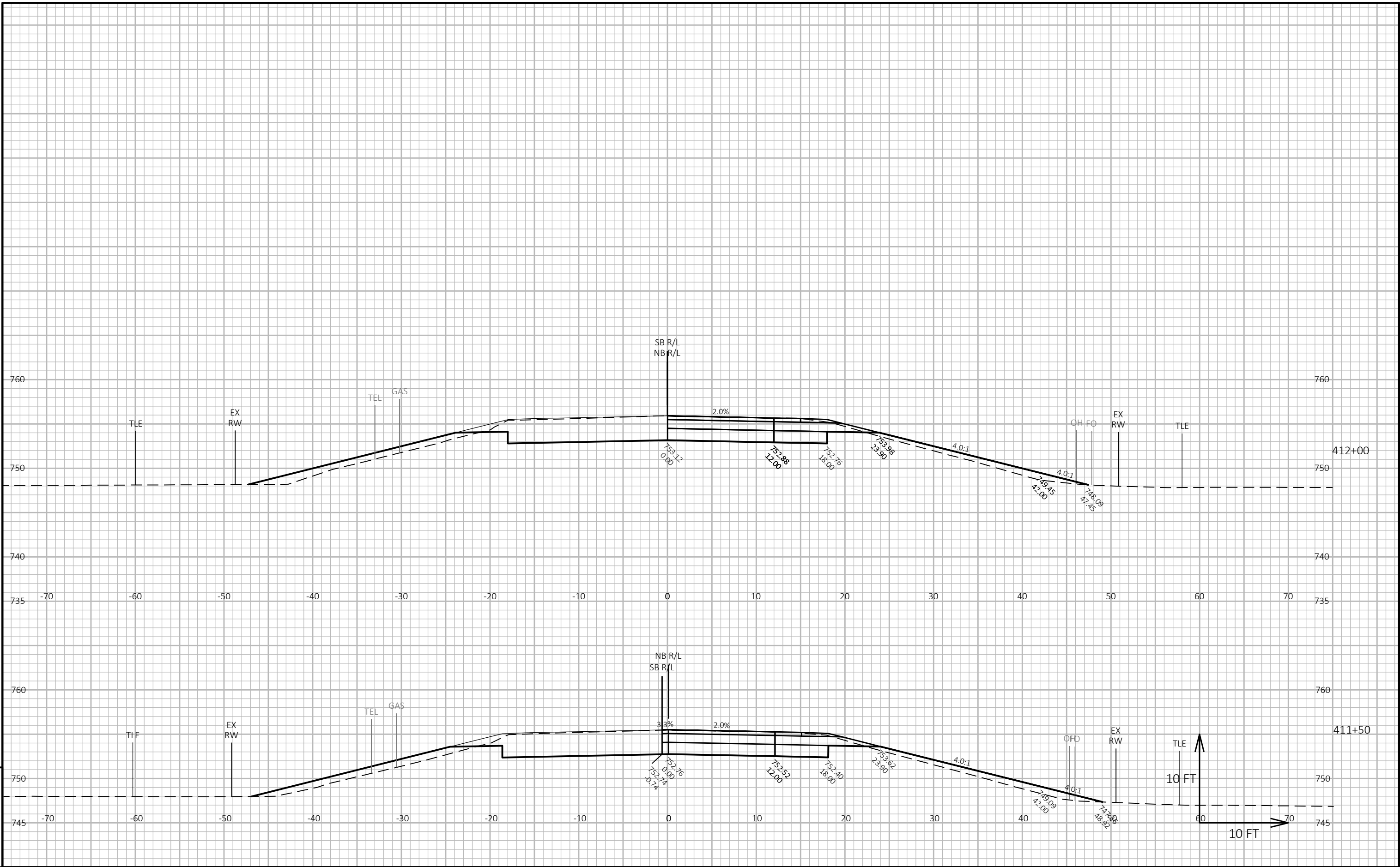
DIVISION 1 - CTH G - EB EXIT

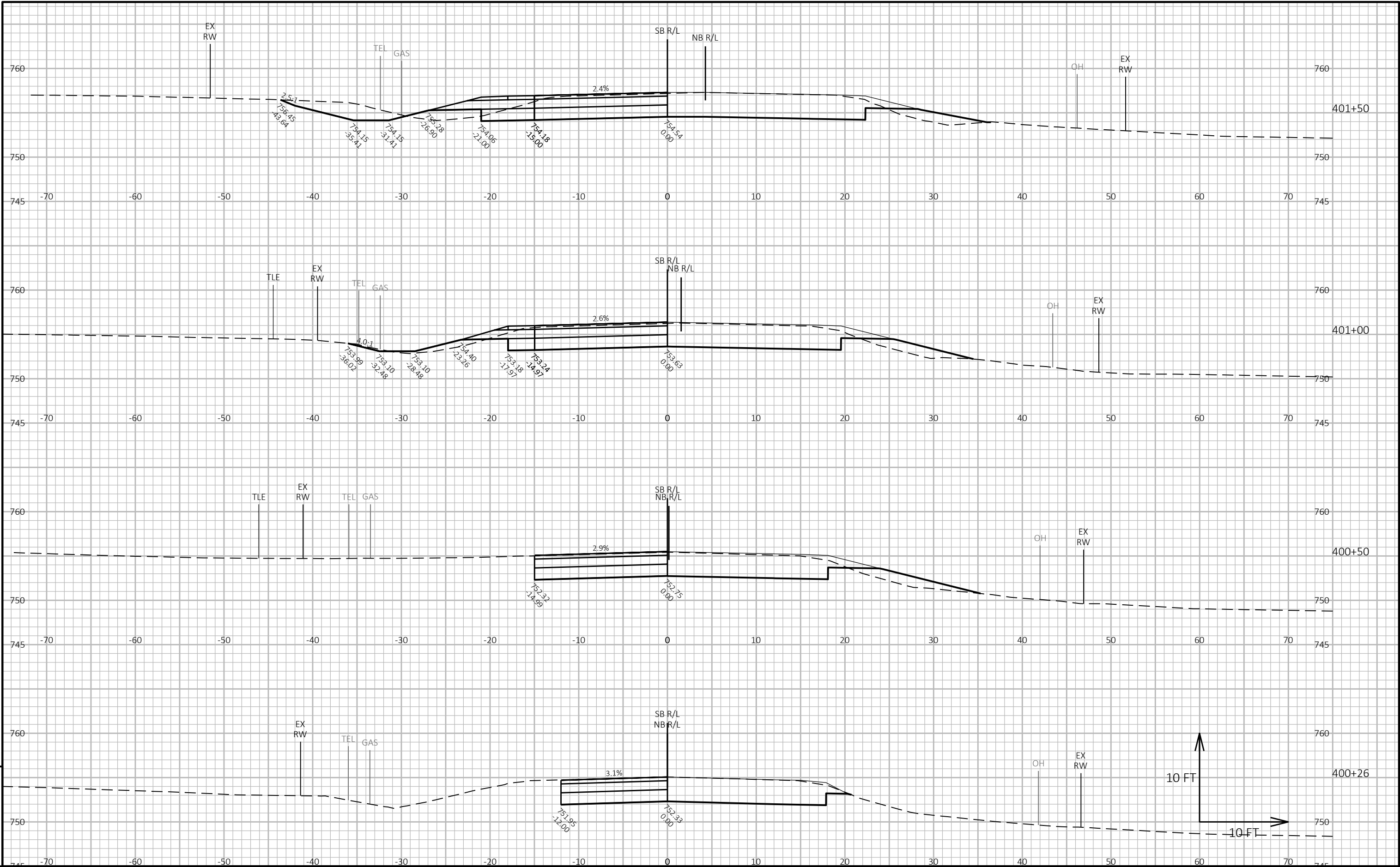
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDNATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1	1.15	NOTE 8
308+50	0.00	72.44	11.00	13.36	0	0	0	0	0	0
309+00	50.00	77.72	11.00	22.25	139	20	33	139	38	81
309+50	50.00	82.74	11.00	19.25	149	20	38	288	82	166
310+00	50.00	74.38	11.00	12.59	145	20	29	433	115	258
310+50	50.00	86.41	11.00	10.73	149	20	22	582	140	362
311+00	50.00	76.46	11.00	9.05	151	20	18	733	161	472
311+50	50.00	70.58	11.00	15.20	136	20	22	869	186	563
311+81	31.00	72.51	11.00	17.23	82	13	19	951	208	610
312+00	19.00	75.20	11.00	15.15	52	8	11	1,003	221	641
312+50	50.00	81.97	11.00	10.43	146	20	24	1,149	248	740
313+00	50.00	86.87	11.00	11.57	156	20	20	1,305	271	853
313+50	50.00	90.41	11.00	14.44	164	20	24	1,469	299	969
314+00	50.00	82.64	11.00	1.39	160	20	15	1,629	316	1,092

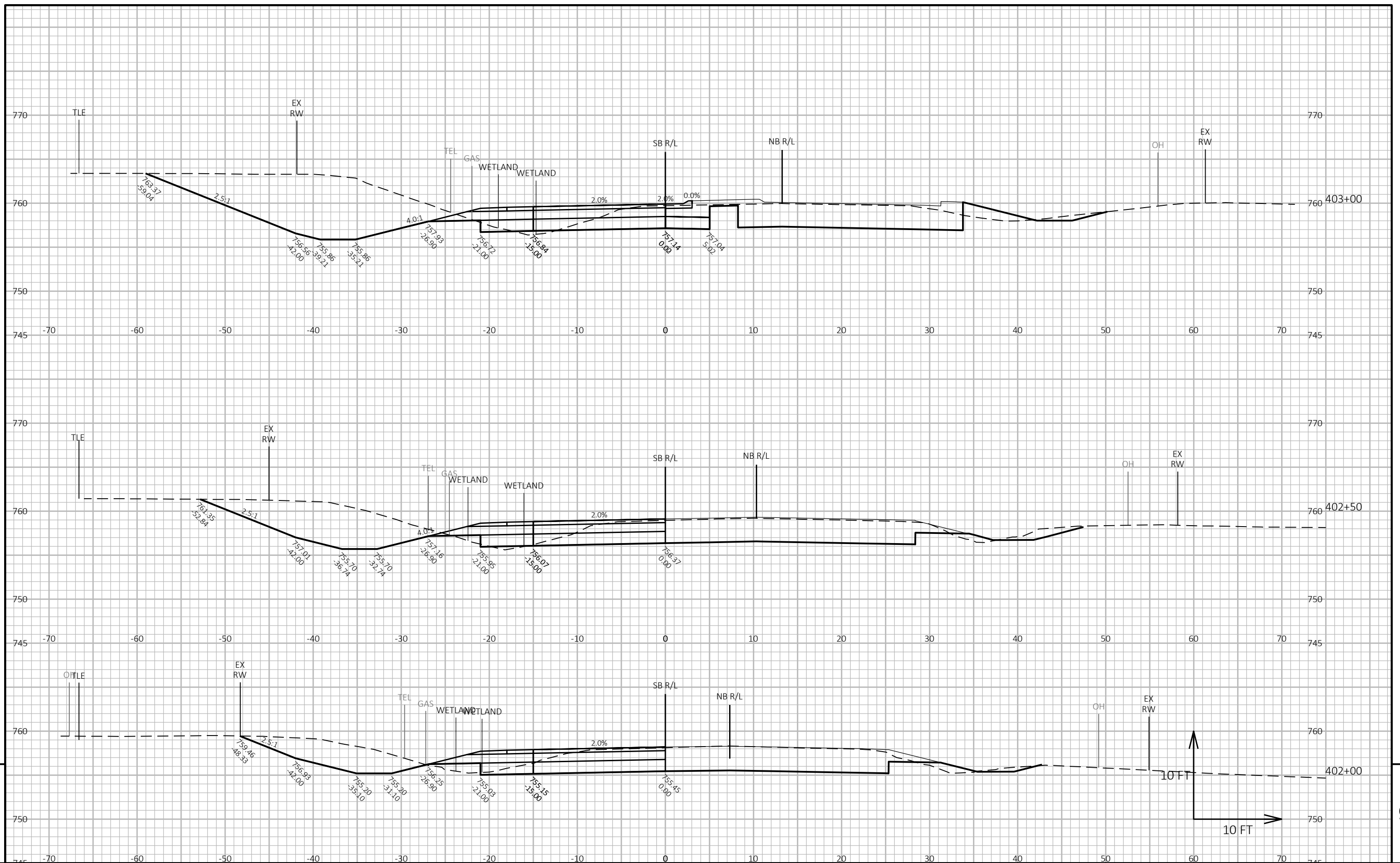
Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDNATE	EBS TO BE BACKFILLED WITH BASE AGGREGATE DENSE 3-INCH: [(CUT - SALVAGED PAVT - EXPANDED EBS) - ((FILL * FILL FACTOR))]

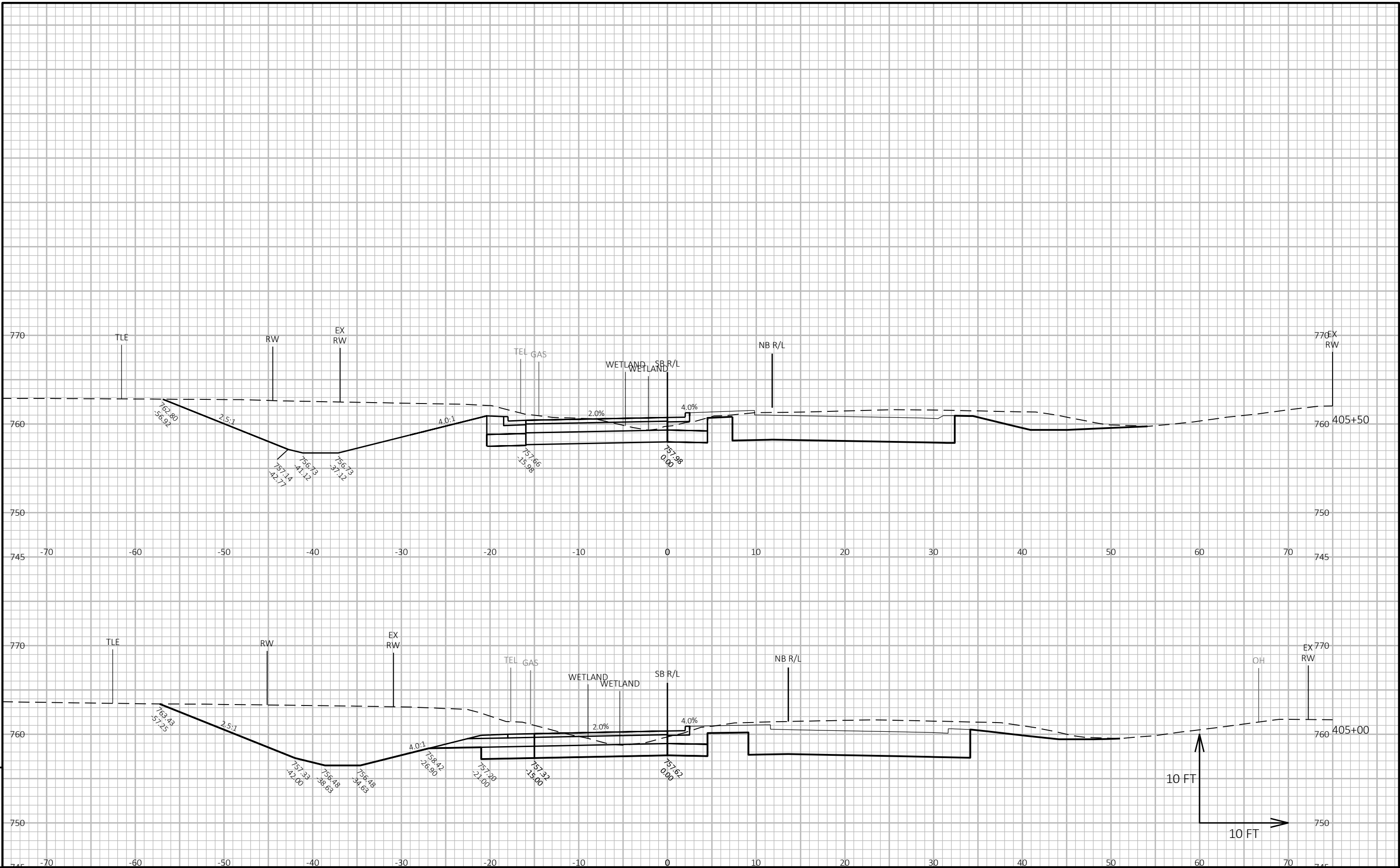


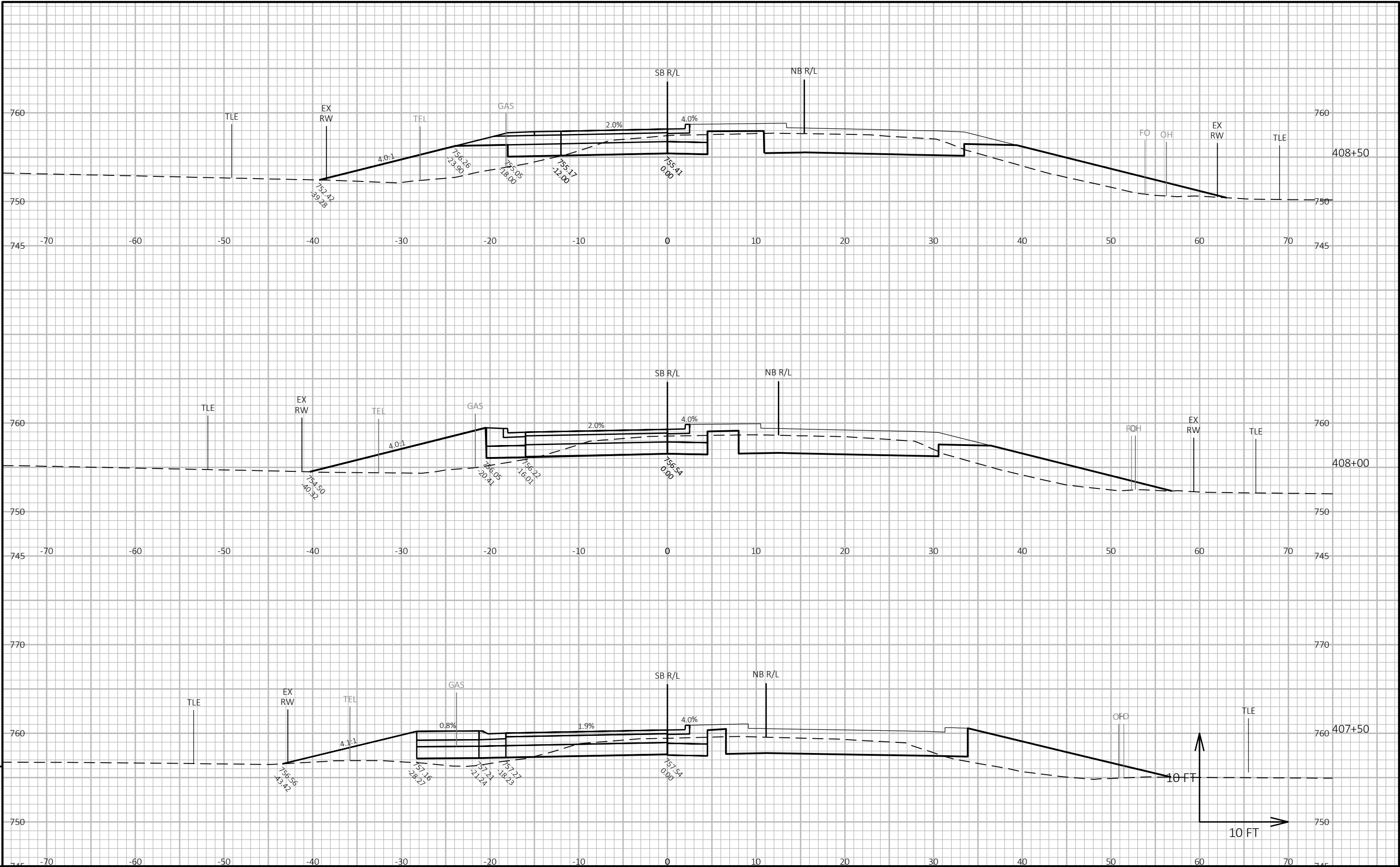


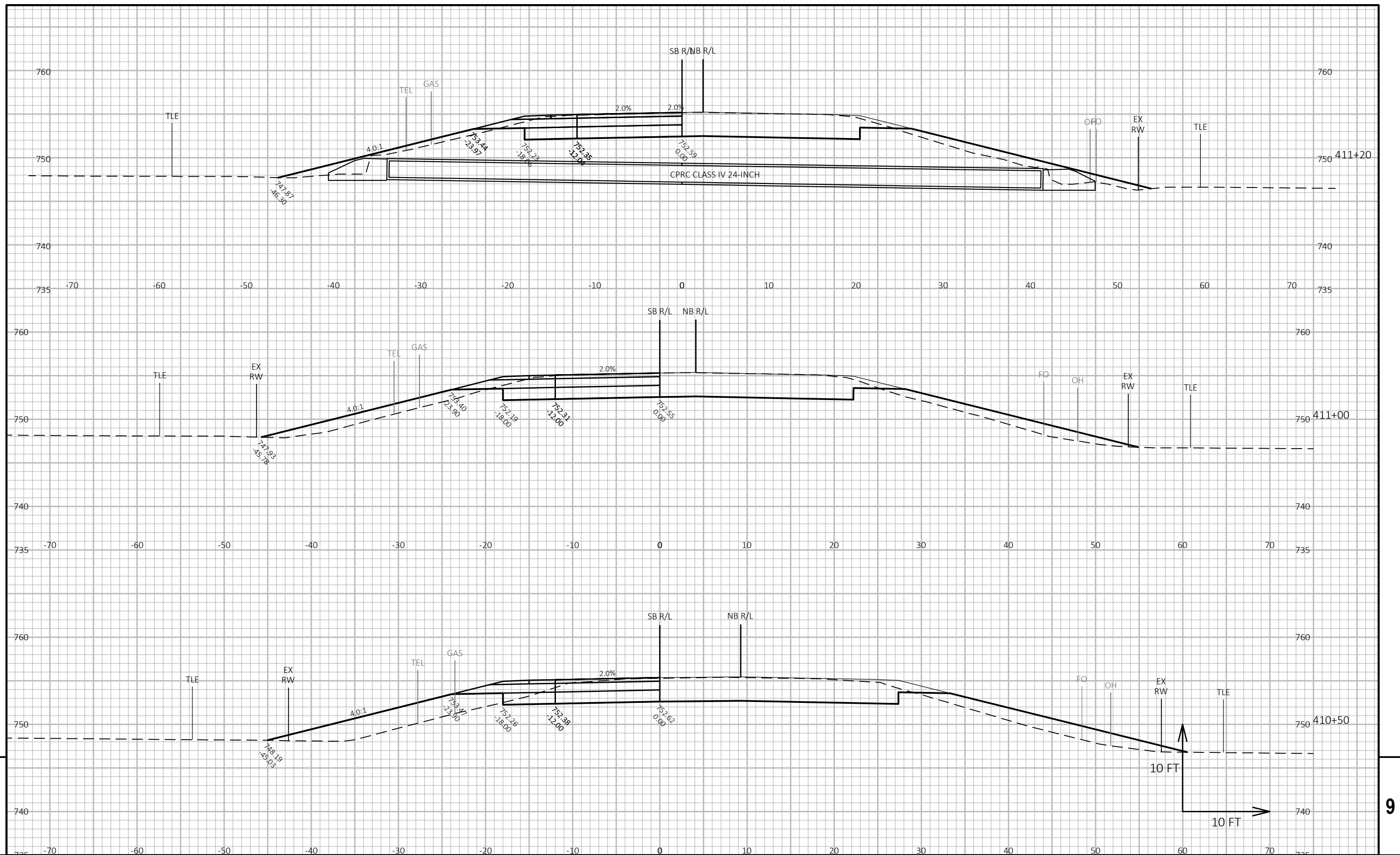












PROJECT NO:	2803-03-71
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HWY: CTH U

COUNTY: RACINE

CROSS SECTIONS: CTH U SB APPROACH

SHEET 163

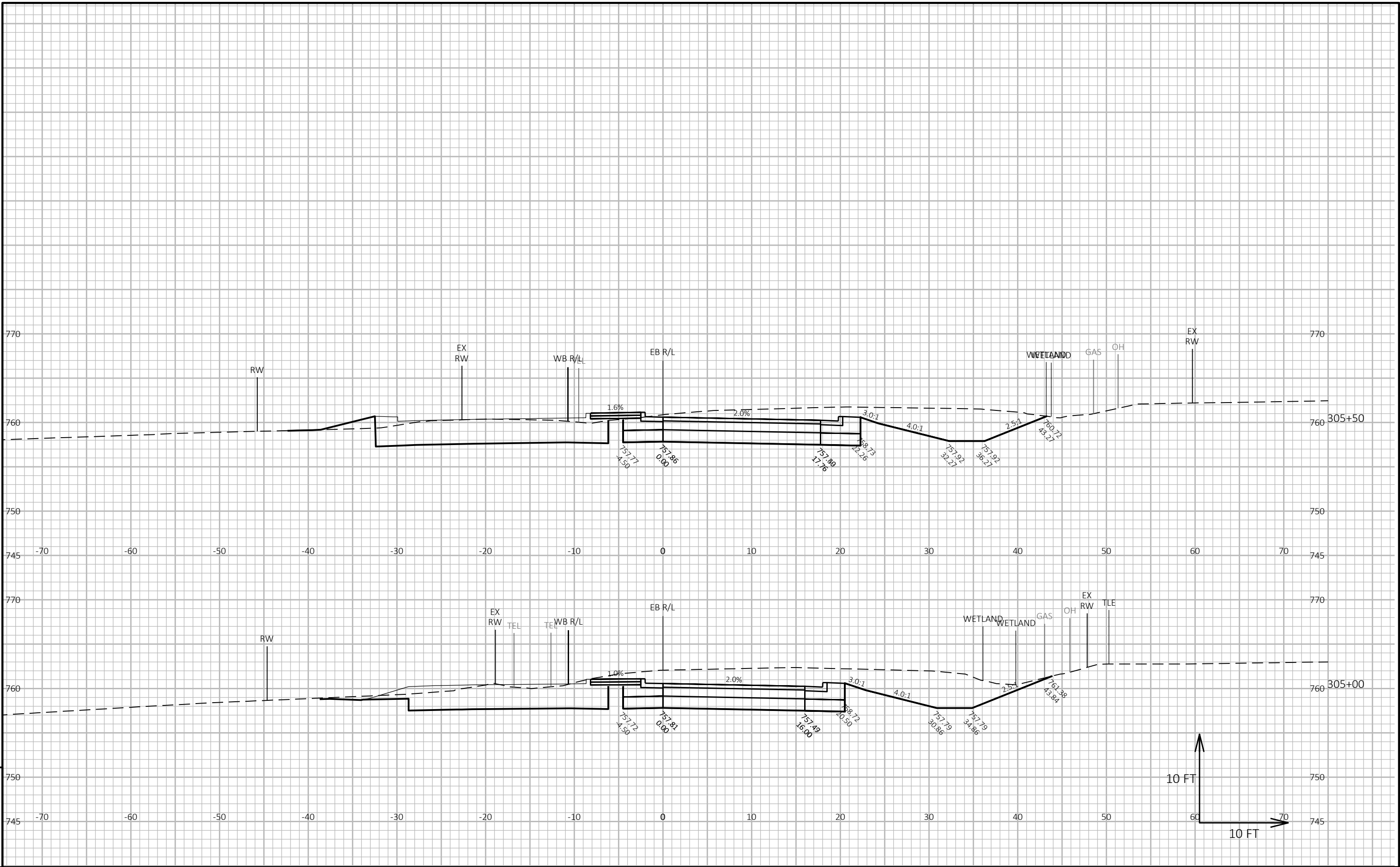
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LAYOUT NAME - SBA-3

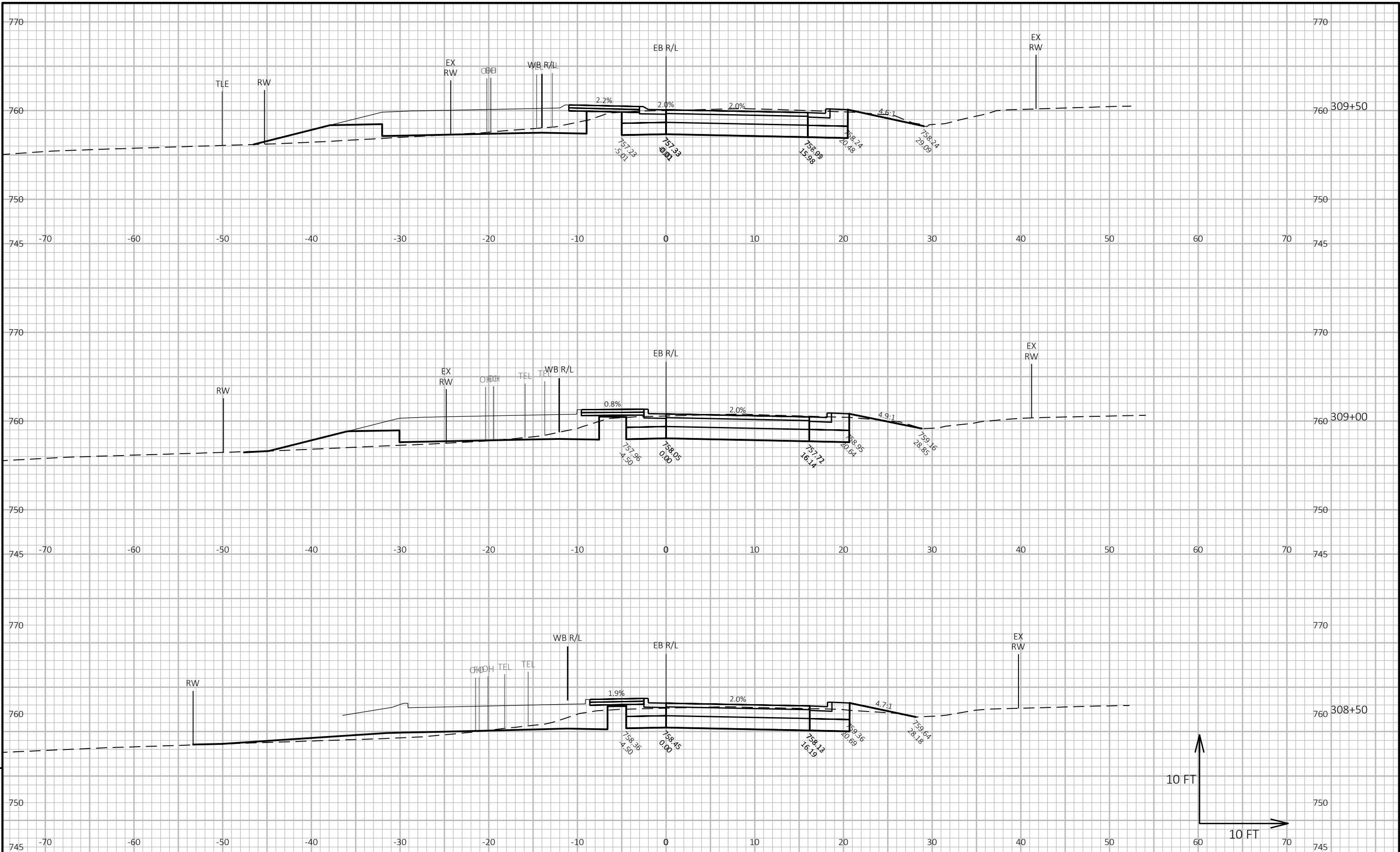
PLOT DATE : 1/29/2025 2:46 PM

PLOT BY : TANIA GARCIA GUARNEROS PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





PROJECT NO: 2803-03-71

HWY: CTH U

COUNTY: RACINE

CROSS SECTIONS: CTH G EB EXIT

SHEET 170

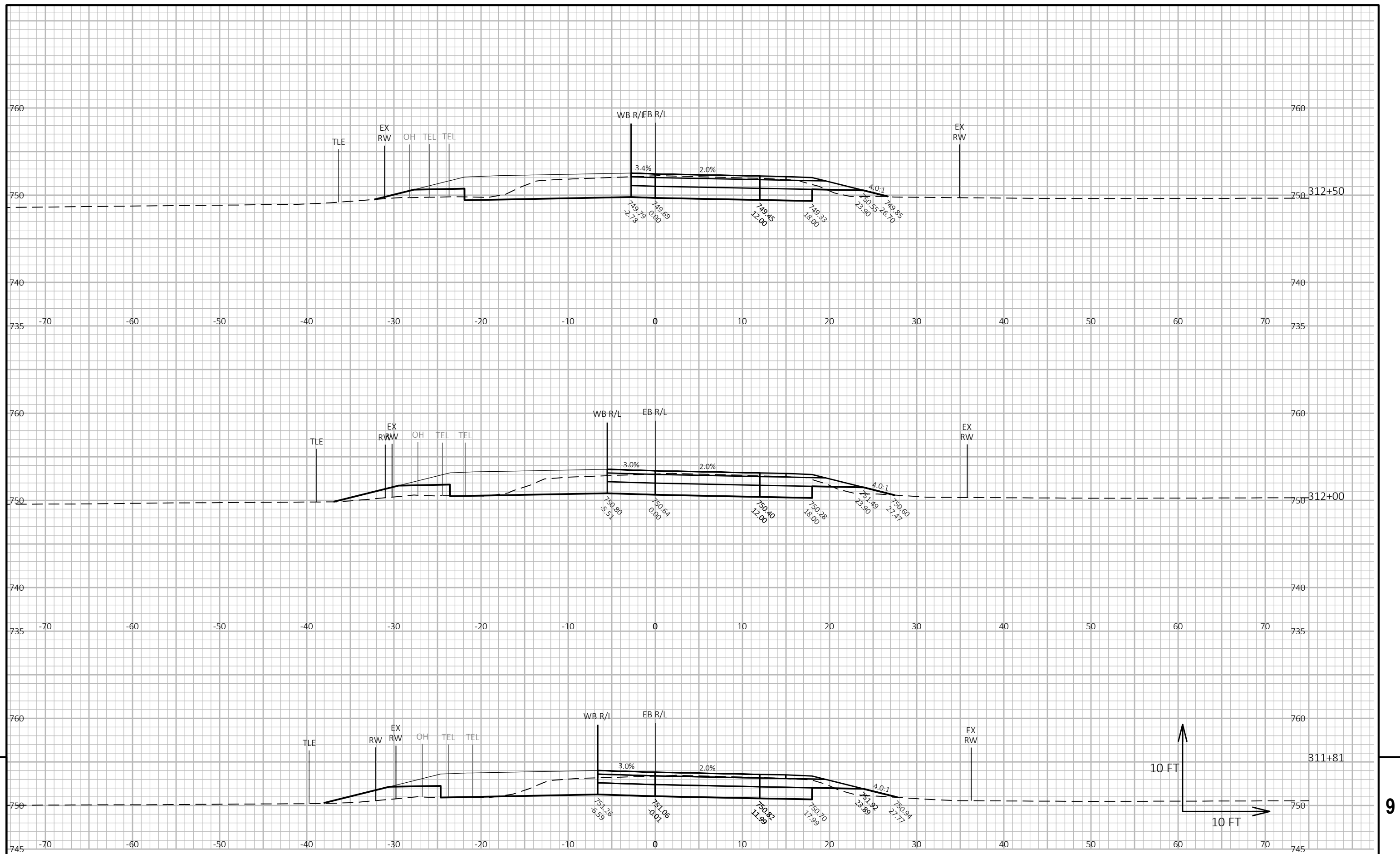
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LAYOUT NAME - EBE-2

PLOT DATE : 1/29/2025 2:47 PM

PLOT BY : TANIA GARCIA GUARNEROS PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49



PROJECT NO:	2803-03-71
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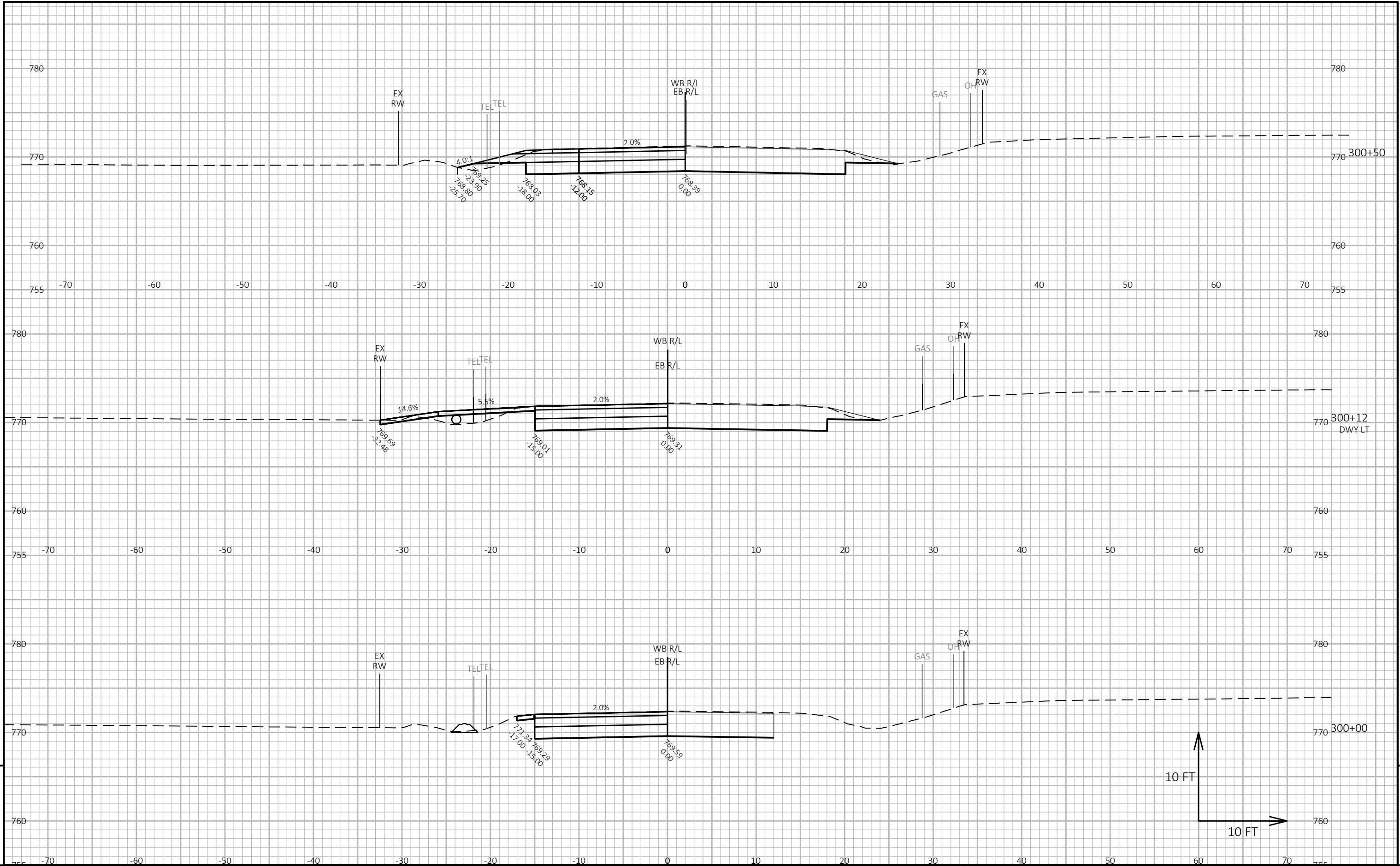
HWY: CTH U

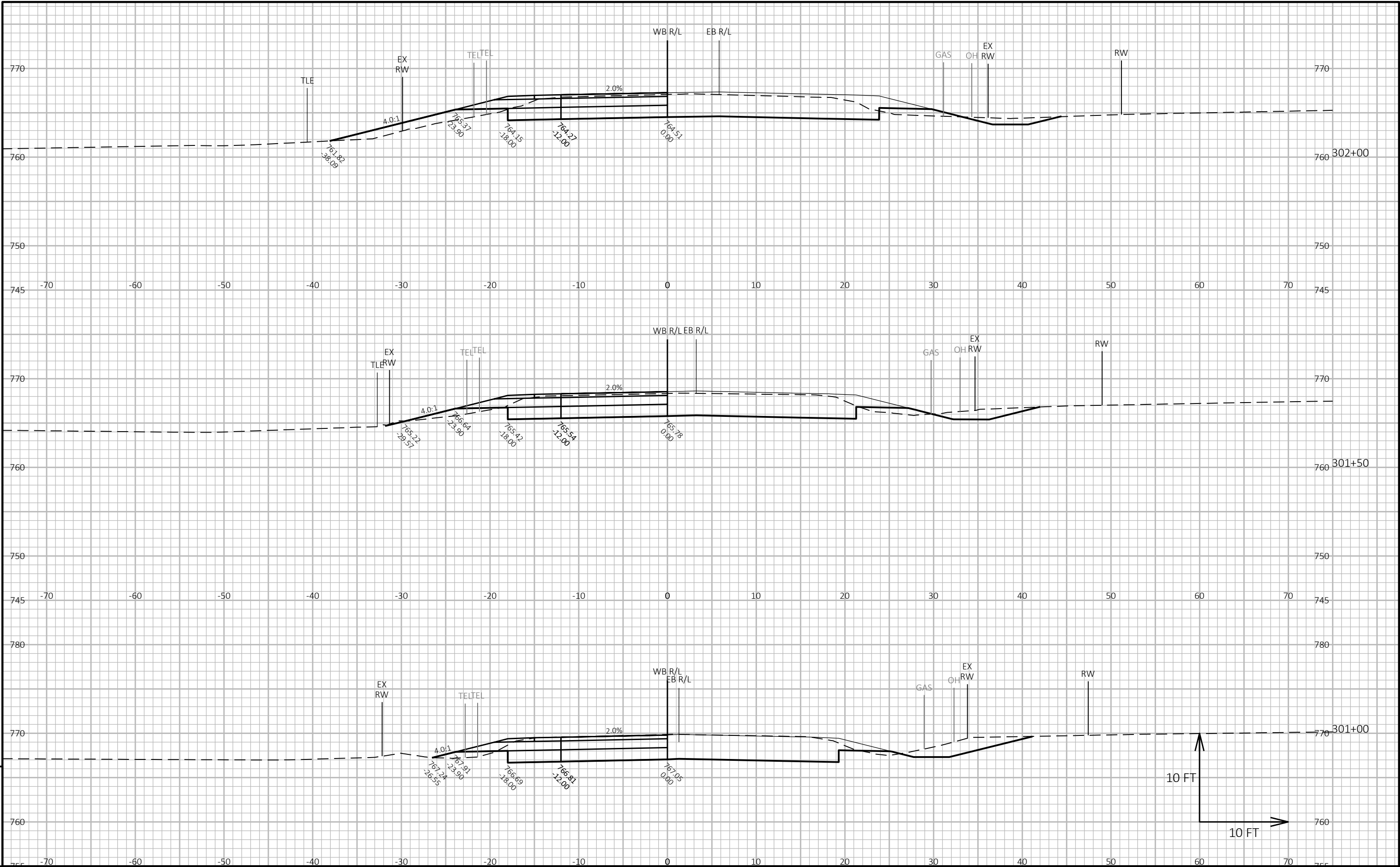
COUNTY: RACINE

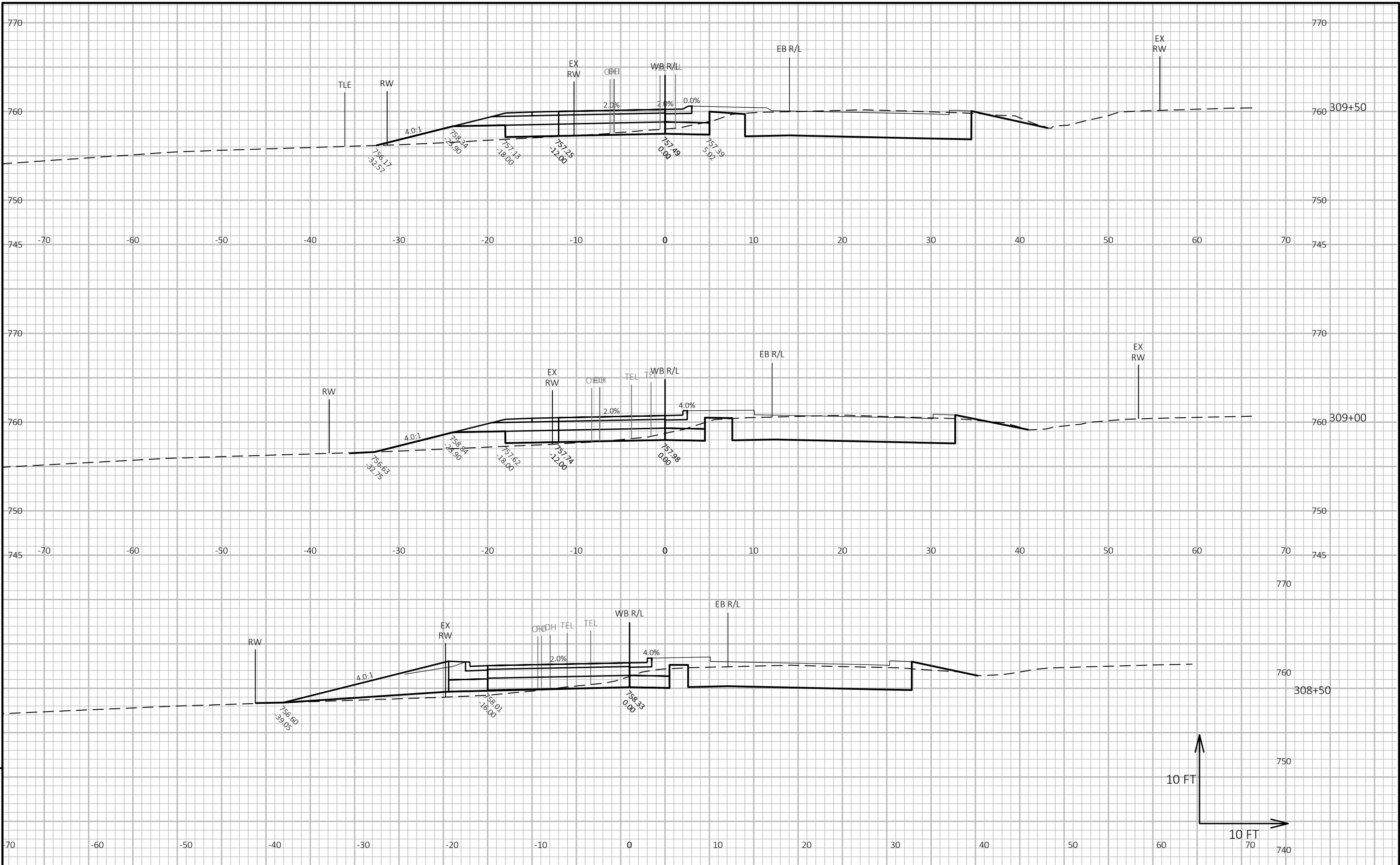
CROSS SECTIONS: CTH G EB EXIT

SHEET
173

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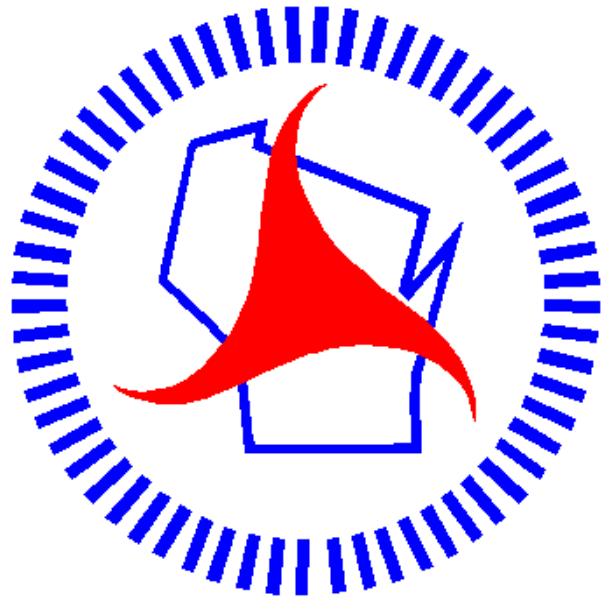








Notes



Wisconsin Department of Transportation

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