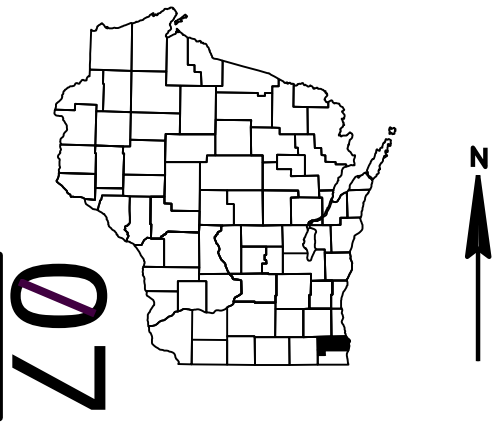


ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	2	Erosion Control and Drainage
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 = 226



DESIGN DESIGNATION

A.A.D.T.	2024	=	5,500
A.A.D.T.	2044	=	5,700
D.H.V.		=	
D.D.		=	
T.		=	18.5%
DESIGN SPEED		=	60 MPH
ESALS		=	1,700,000

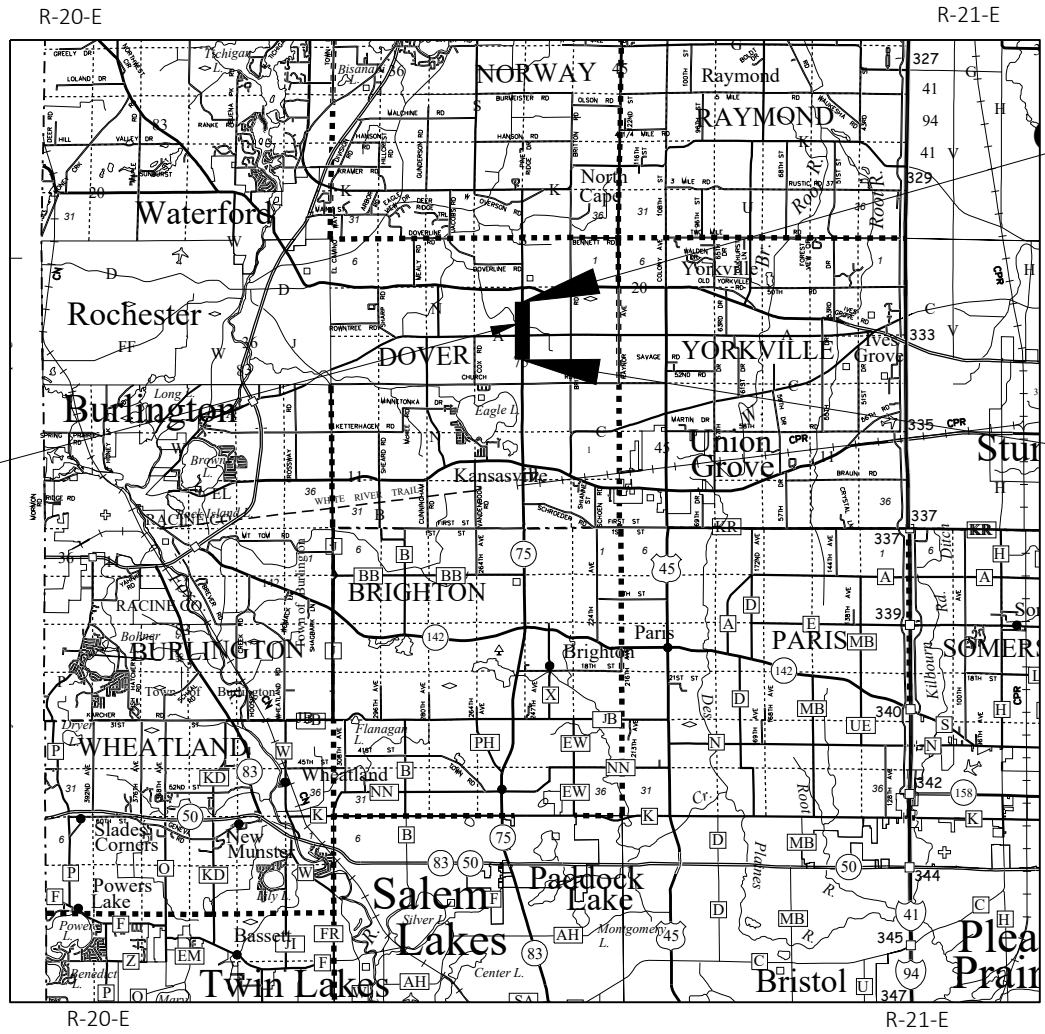
CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
PADDOCK LAKE - BEAUMONT
CTH A INTERSECTION
STH 75
RACINE COUNTY

STATE PROJECT NUMBER
2420-00-70



END PROJECT
STA 649+00 'NB'
X = 551854.6485
Y = 187600.0288

BEGIN PROJECT
STA 626+75 'NB'
X = 551845.3816
Y = 185399.3405

LAYOUT
SCALE 0 4 MI
TOTAL NET LENGTH OF CENTERLINE = 11.907 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WCSS), KENOSHA 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 SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2420-00-70	WISC 2023614	1

ORIGINAL PLANS PREPARED BY
KL Engineering
[A] Better Experience

DATE: 4/11/23
Bradley J. Cunningham
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT/KL ENGINEERING
Designer	BRAD CUNNINGHAM
Project Manager	MARK WILFERT
Regional Examiner	
Regional Supervisor	JOSHUA LEVEQUE

APPROVED FOR THE DEPARTMENT
DATE: 2/1/24 *Mark Wilfert*
(Signature)

E

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
A.E.W.	APRON ENDWALL
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
C.P.	CULVERT PIPE
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EX RW	EXISTING RIGHT OF WAY
FE	FIELD ENTRANCE
FO	FIBER OPTIC
INV.	INVERT
LB	POUND
LF	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MIN.	MINIMUM
NOR.	NORMAL
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
P.L.	PROPERTY LINE
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
REQ'D	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
RW	RIGHT OF WAY
S.D.D.	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
T.L.E.	TEMPORARY LIMITED EASEMENT
TYP.	TYPICAL
VAR.	VARIES

UTILITIES

COMMUNICATIONS

MIDWEST FIBER NETWORKS LLC
 CORY SCHMUKI
 6070 NORTH FLINT RD
 GLENDALE, WI 53209
 (414)459-3561
 cschmuki@midwestfibernetworks.com

ELECTRICITY

WE ENERGIES
 JAMES NELSON
 7815 NORTHWESTERN AVE
 RACINE, WI 53406
 (262)886-6734
 james.nelson@we-energies.com

GENERAL NOTES

RADIUS DIMENSIONS FOR CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

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

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLAN, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTACT DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO START OF WORK.

UTILITY LOCATION MARKERS ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

STATIONING AND OFFSETS TO APRON ENDWALLS FOR CULVERT PIPES ARE SHOWN TO THE END OF THE PIPE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND.

NUMBER, LOCATION, AND SPACING OF TRAFFIC CONTROL SIGNS AND DEVICES, AS SHOWN IN THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC), AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS:

ORDER OF DETAIL SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- EROSION CONTROL
- STORM SEWER PLAN
- SIGNING PLAN
- LIGHTING PLAN
- PAVEMENT MARKING PLAN
- TRAFFIC CONTROL
- ALIGNMENT DIAGRAM
- BENCH MARKS / CONTROL POINTS

LOCATION	TOTAL DEPTH	LAYERS	GRADATION	TRAFFIC	BINDER	DESIGNATION
STH 75 & CTH A ROUNDBOUT	7 1/2-INCHES	2" UPPER	4	MT	58-28	S
		2 3/4" MIDDLE	3	MT	58-28	S
		2 3/4" LOWER	3	MT	58-28	S

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
	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	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 5.0 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.0 ACRES



DESIGN CONTACT

BRAD CUNNINGHAM
 KL ENGINEERING
 5400 KING JAMES WAY, SUITE 200
 MADISON, WI 53719
 (608)663-1218
 bcunningham@klengineering.com

DNR LIASON

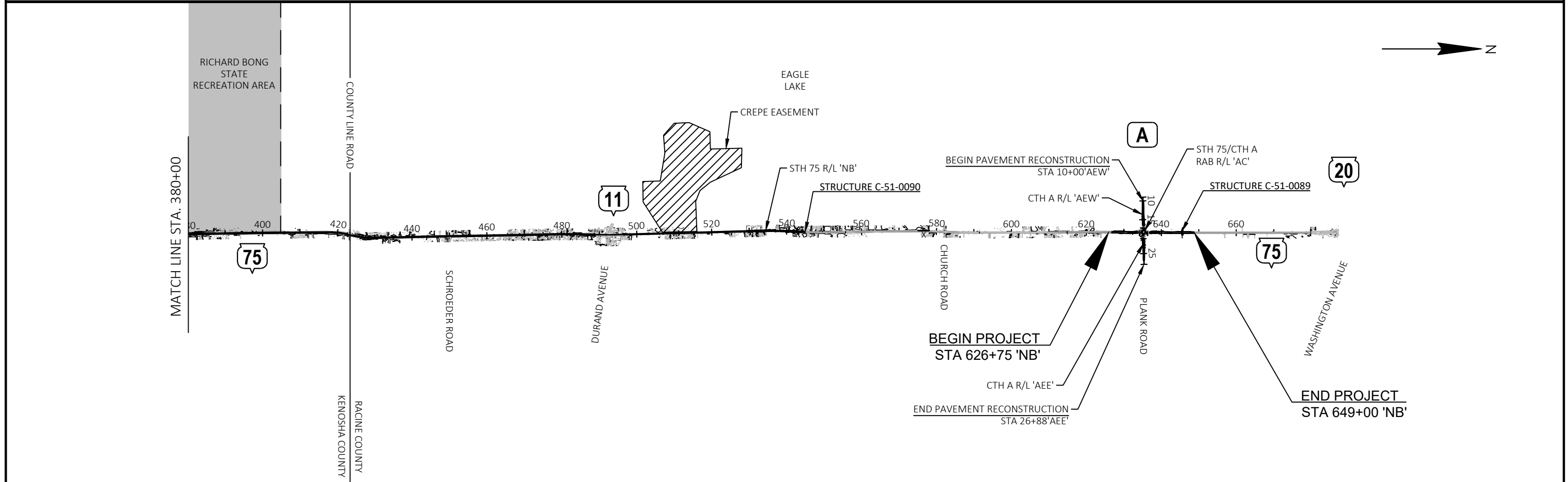
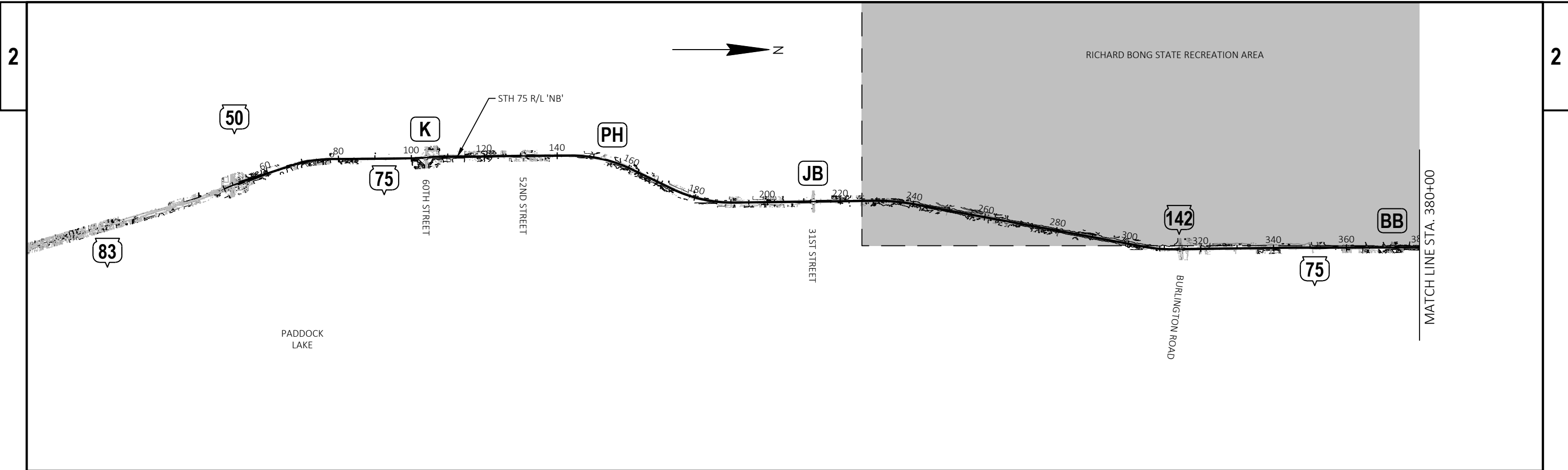
BENTON STELZEL
 DNR SERVICE CENTER
 141 NW BARSTOW ROOM 180
 WAUKESHA, WI 53188
 (262)548-5902
 benton.stelzel@dot.wi.gov

WISDOT

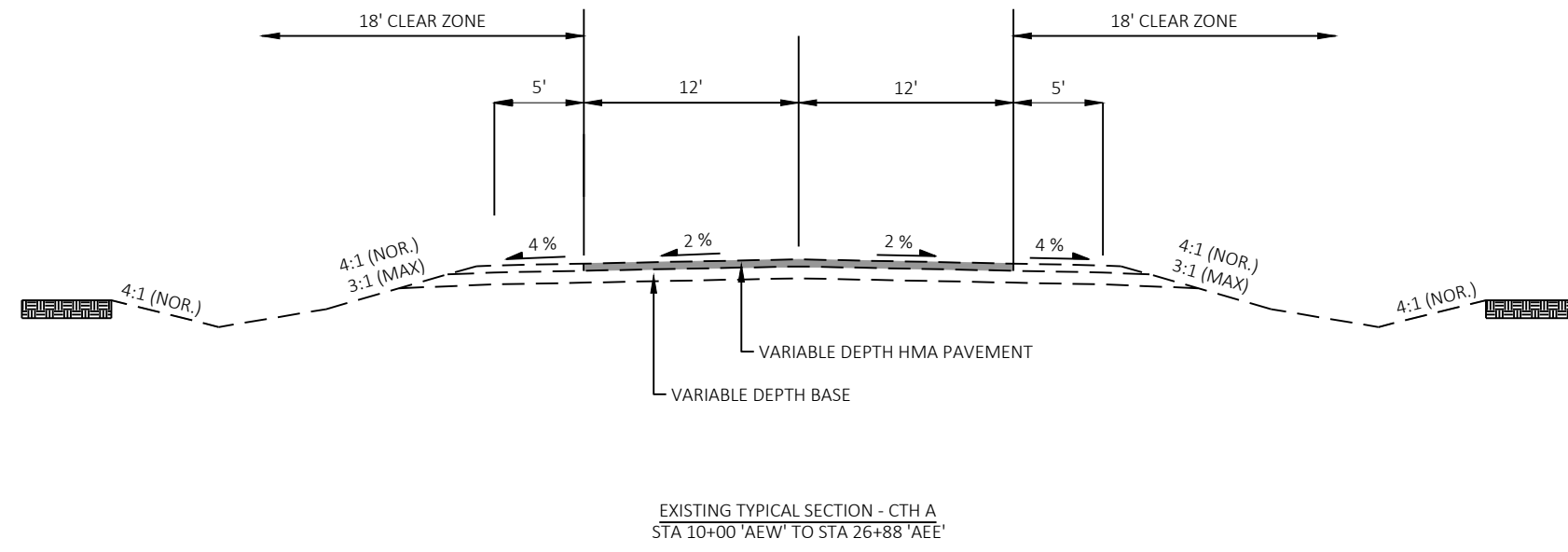
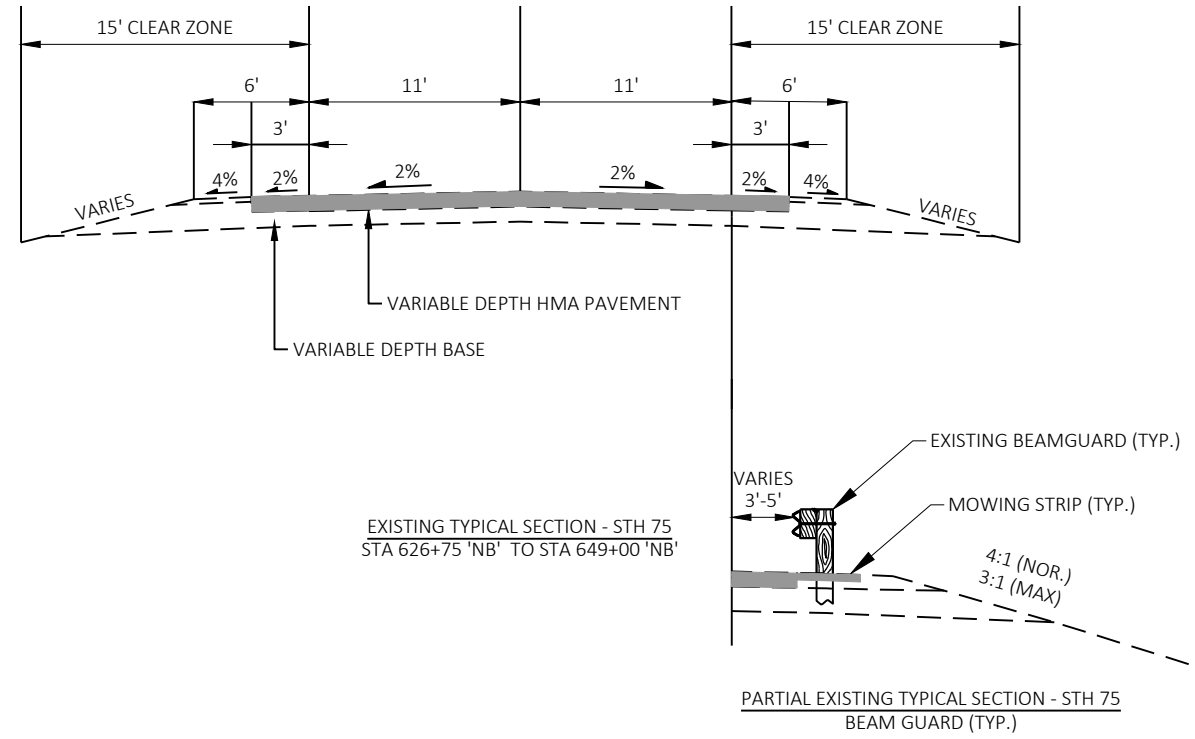
MARK WILFERT
 WISDOT PROJECT MANAGER
 WISDOT SOUTHEAST REGION
 141 NW BARSTOW STREET
 WAUKESHA, WI 53187
 (262)548-5936
 Mark.Wilfert@dot.wi.gov

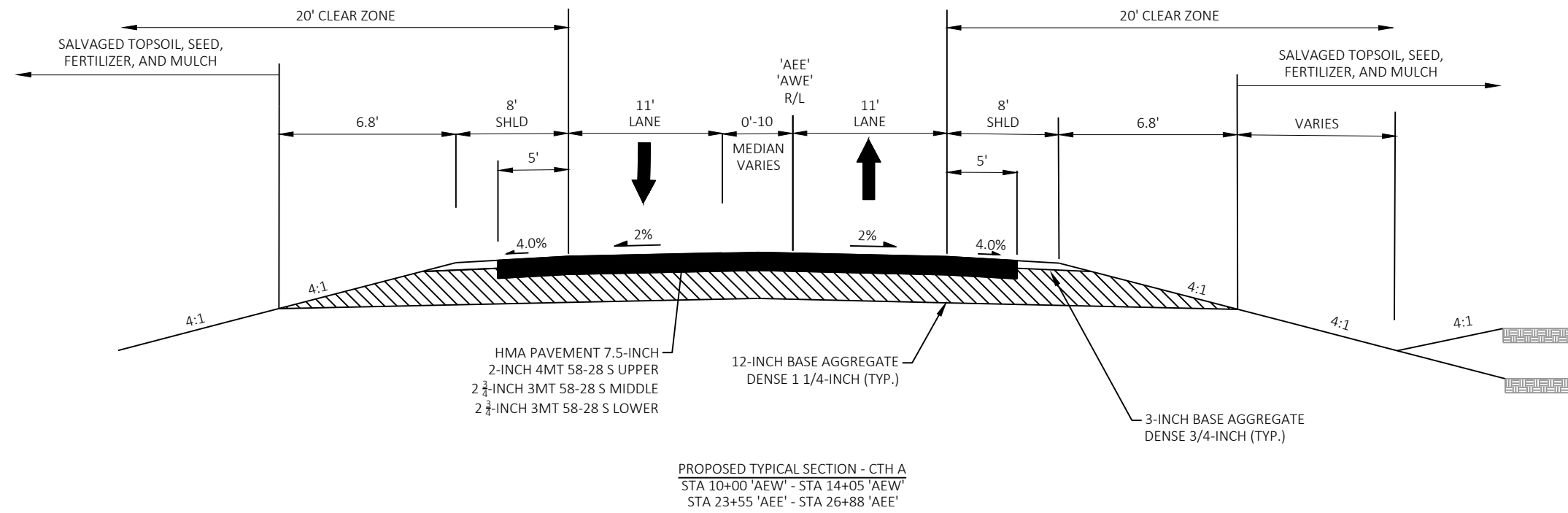
SEWRPC

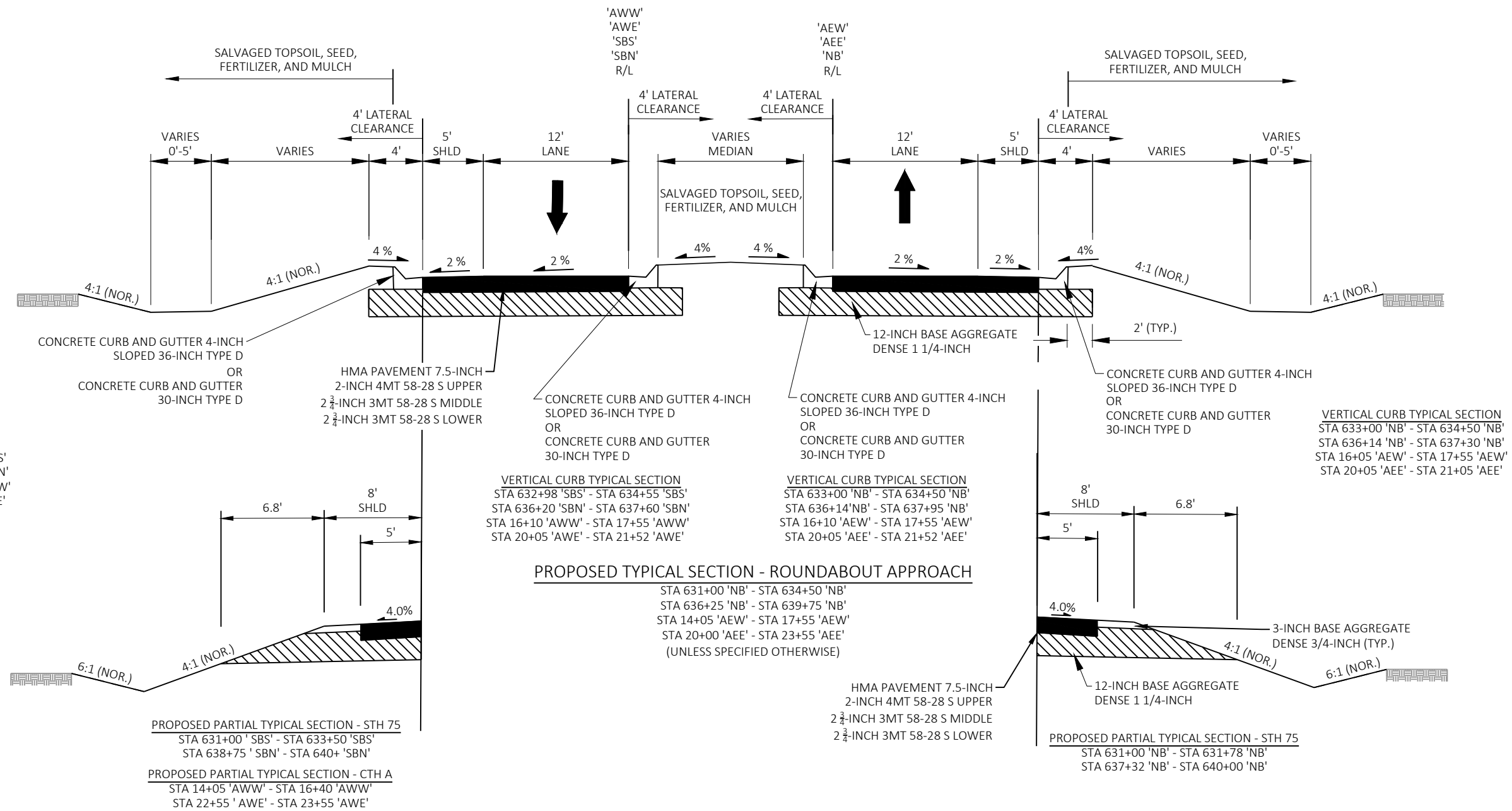
ROB MERRY
 SOUTHEASTERN WISCONSIN
 REGIONAL PLANNING COMMISSION
 PO BOX 1607
 WAUKESHA, WI 53187
 (262)953-4289
 rmerry@sewrpc.org



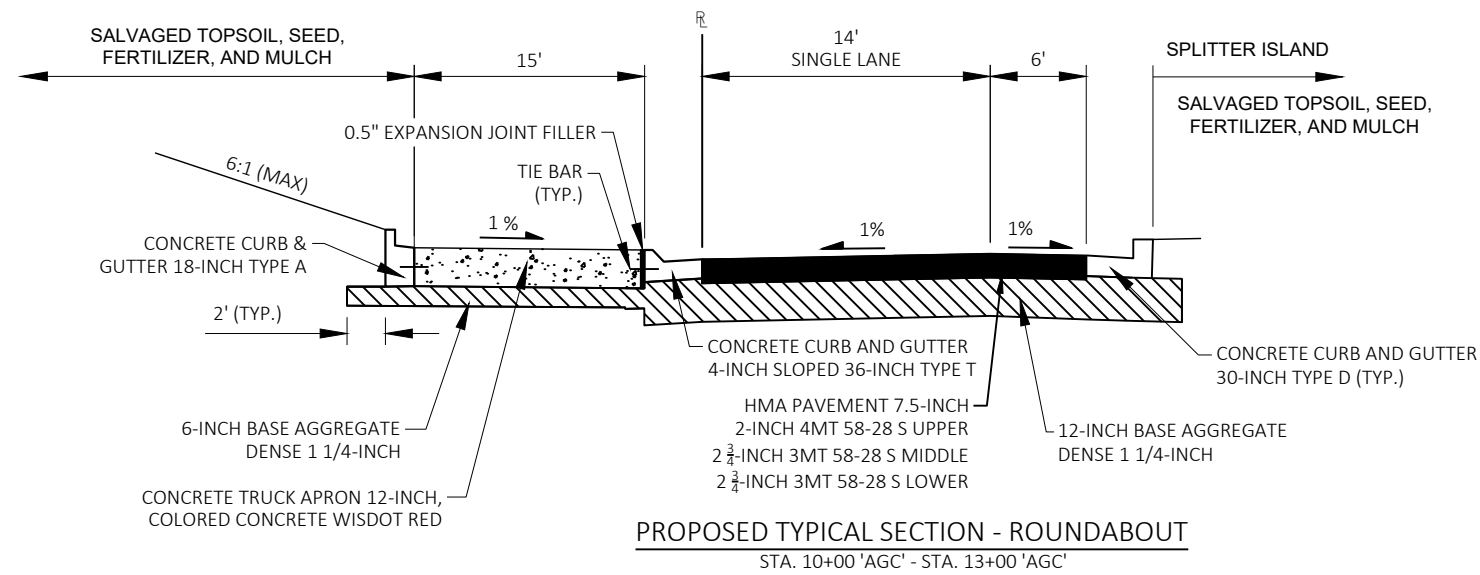
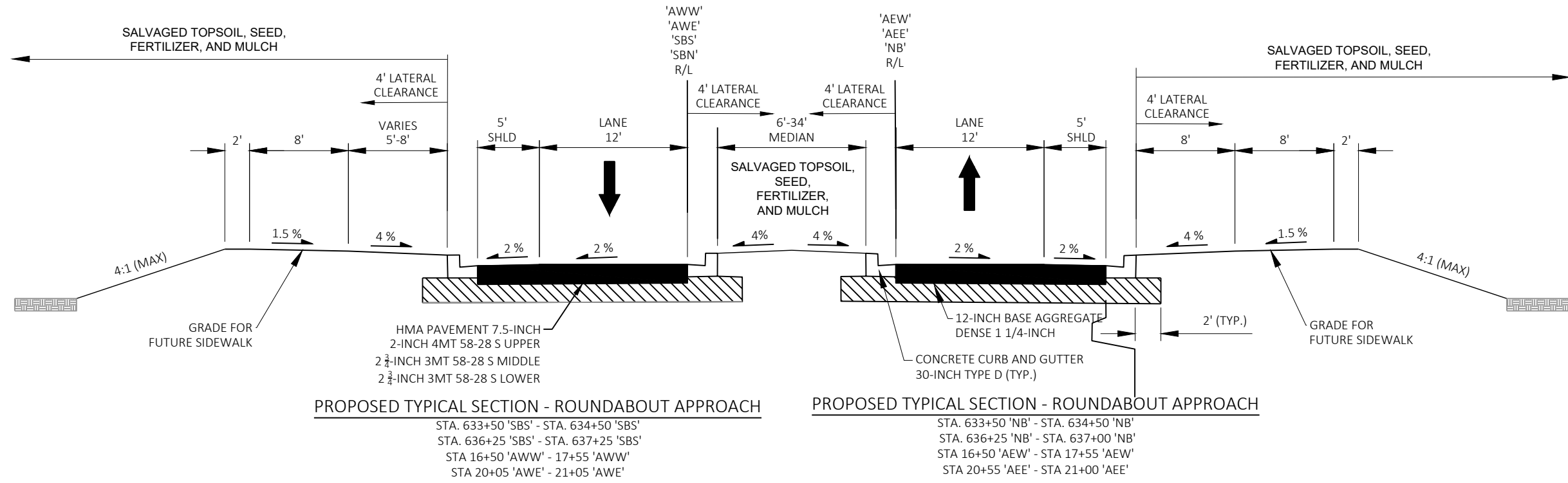
PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	PROJECT OVERVIEW	SHEET	E
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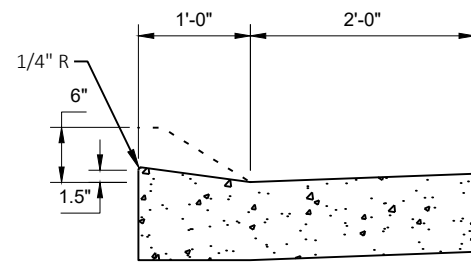


NOTE: PLACE SALVAGE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES IN MEDIANS

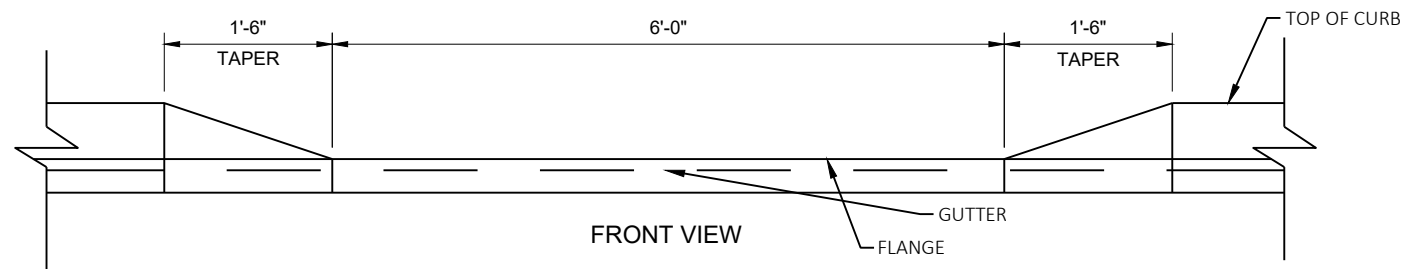


NOTE: PLACE SALVAGE TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES IN MEDIANS

MOWER ACCESS DETAIL

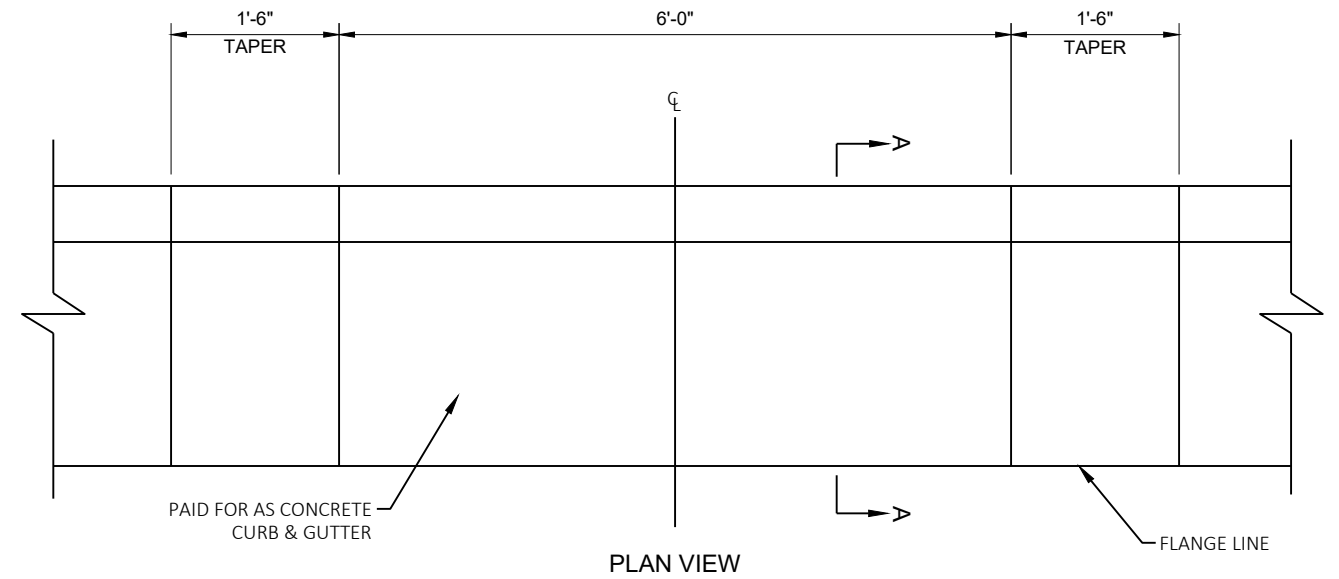


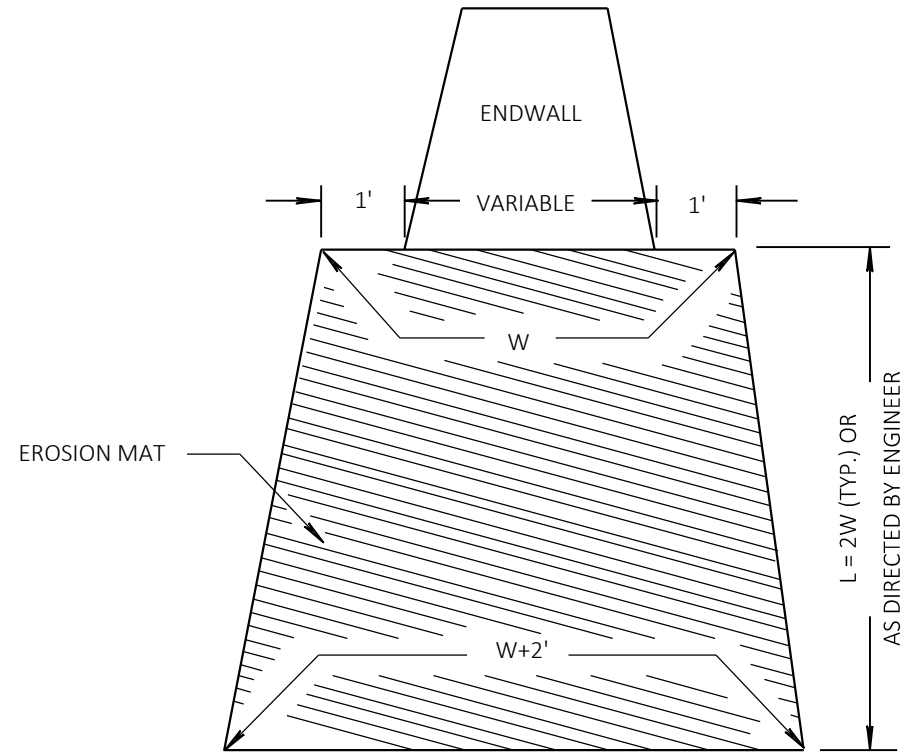
END VIEW
SECTION A-A



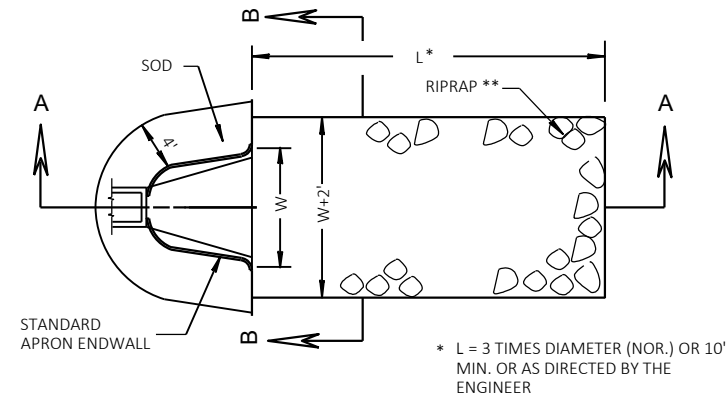
FRONT VIEW
MAINTENANCE OPENING DETAIL

LOCATIONS SHOWN ON PLAN DETAILS

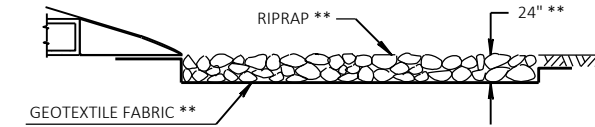




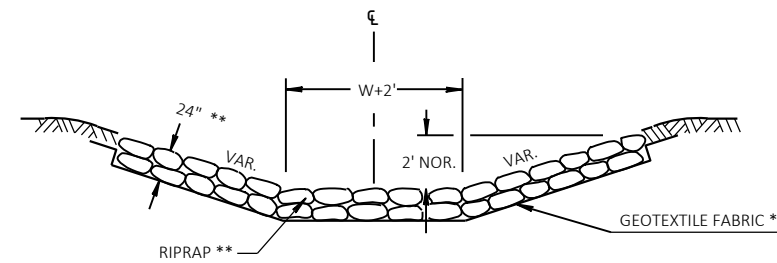
EROSION MAT TREATMENT AT CULVERTS



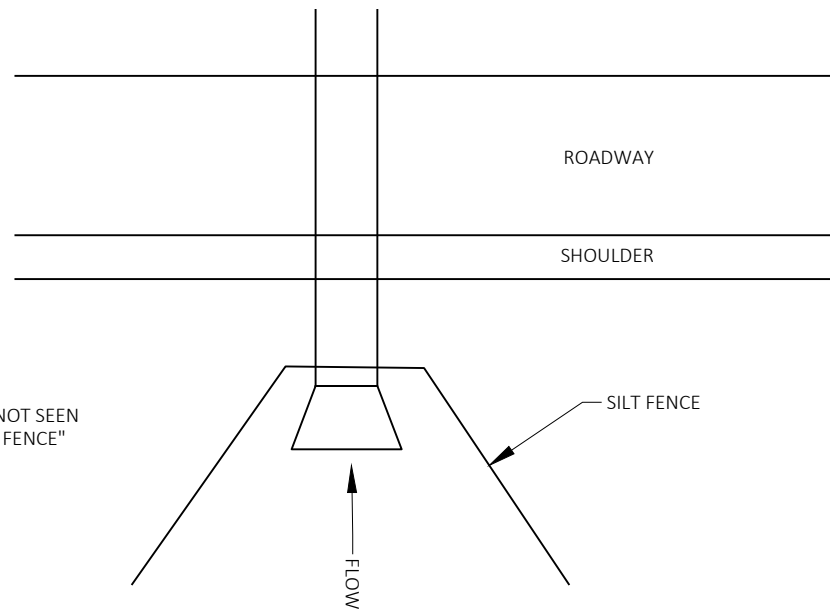
* L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER



** FOR RIPRAP MEDIUM, USE 18" DEPTH AND GEOTEXTILE FABRIC TYPE R

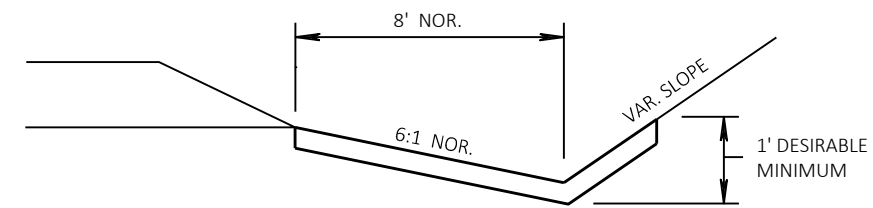


RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

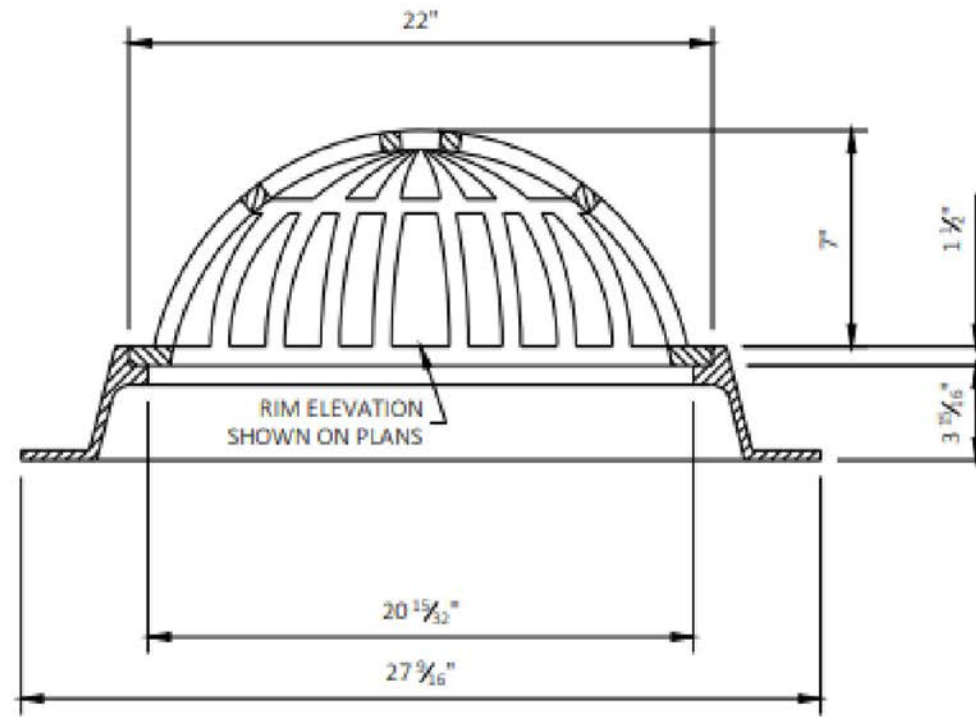


NOTE: FOR DETAILS NOT SEEN SEE SDD "SILT FENCE"

TYPICAL SILT FENCE DETAIL AT PIPE INLET
(SEE EROSION CONTROL PLAN FOR LOCATIONS)



EROSION MAT DETAIL FOR DITCHES

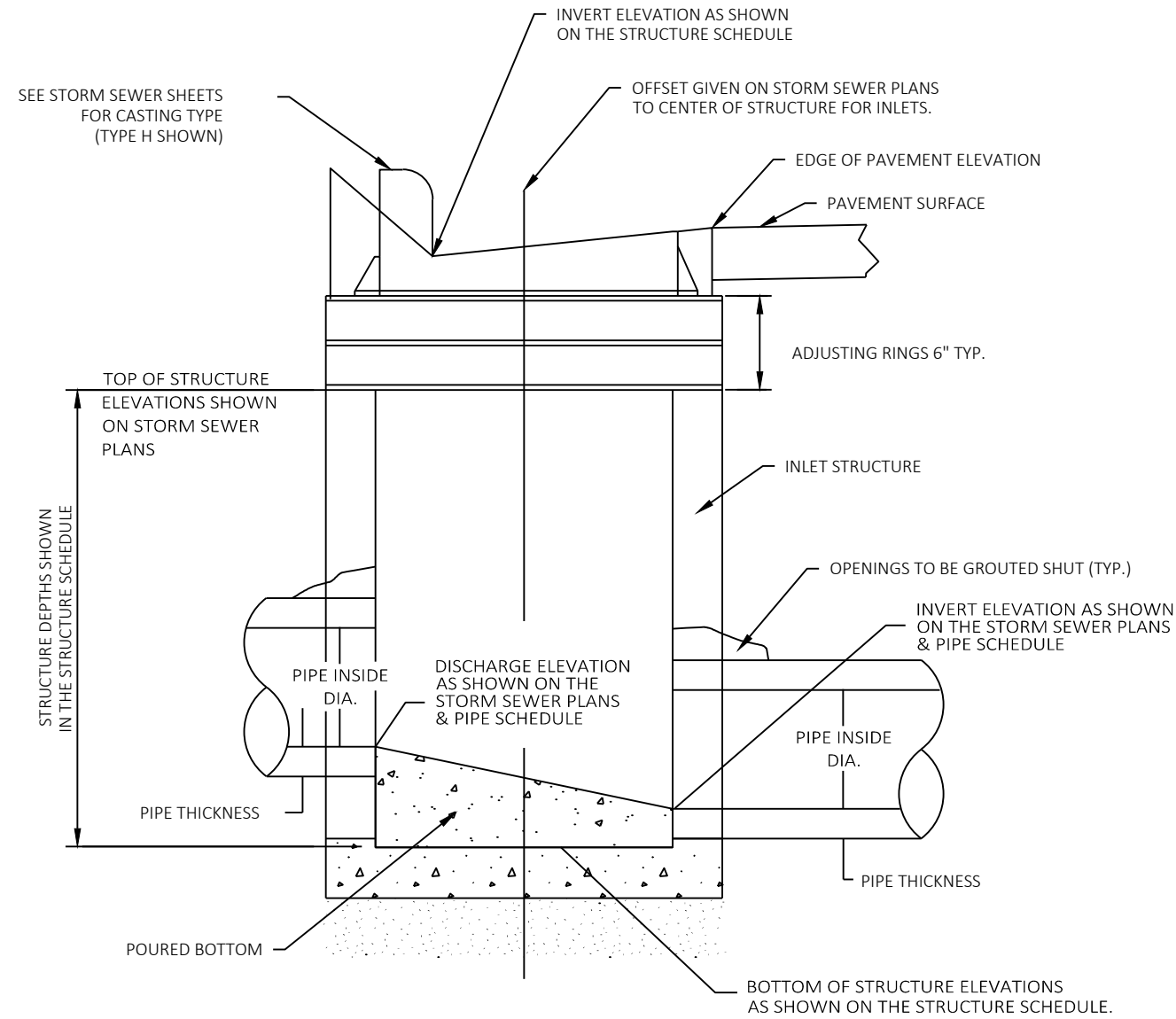


MANHOLE COVERS TYPE BEEHIVE

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

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



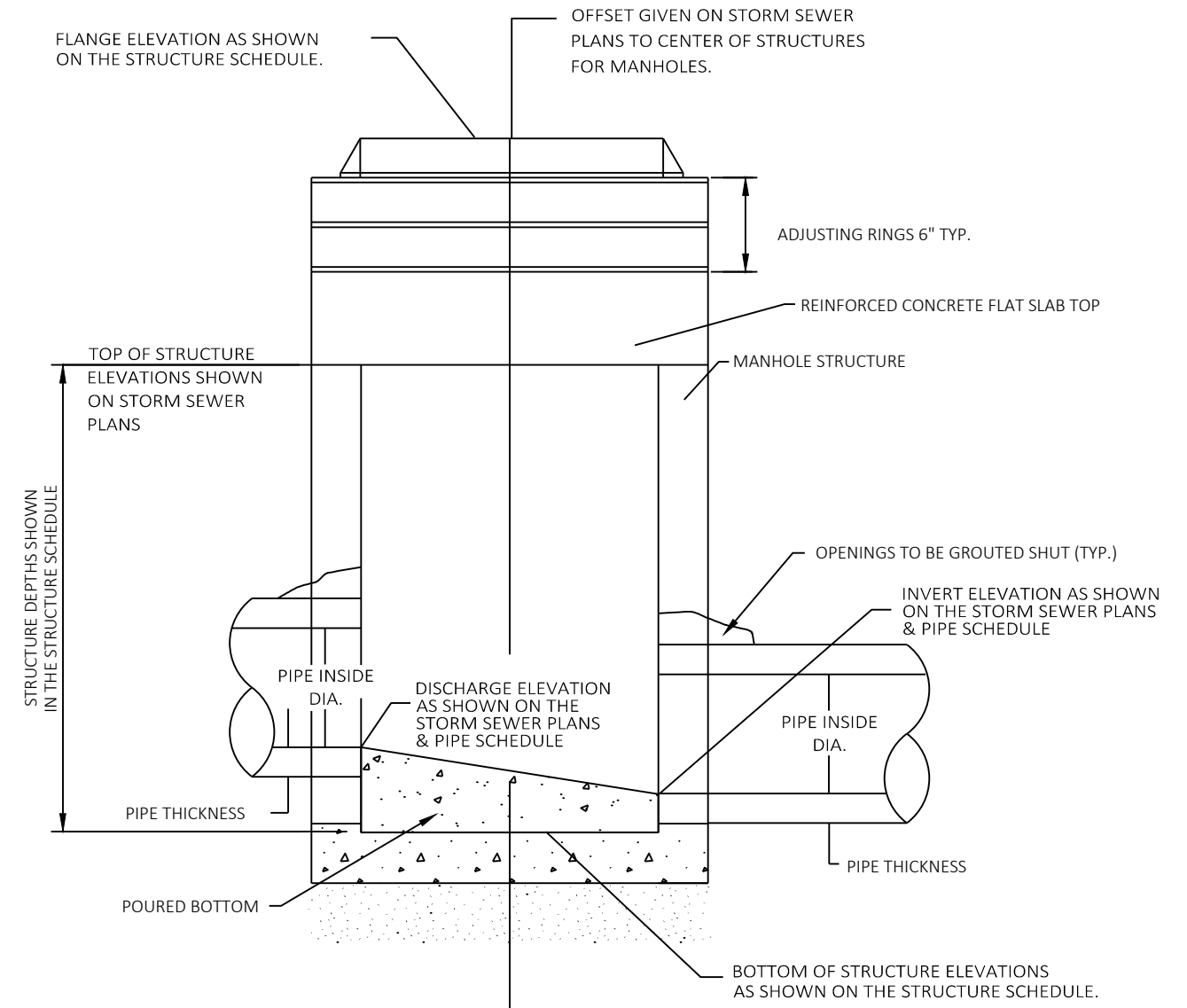
DETAIL OF INLET W/CASTING

(SEE STORM SEWER PLANS FOR LOCATIONS)

GENERAL NOTES:

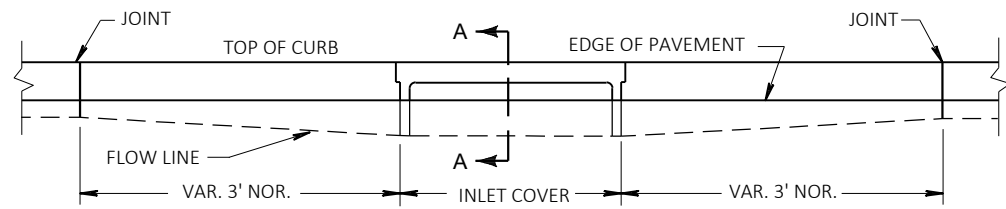
GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

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

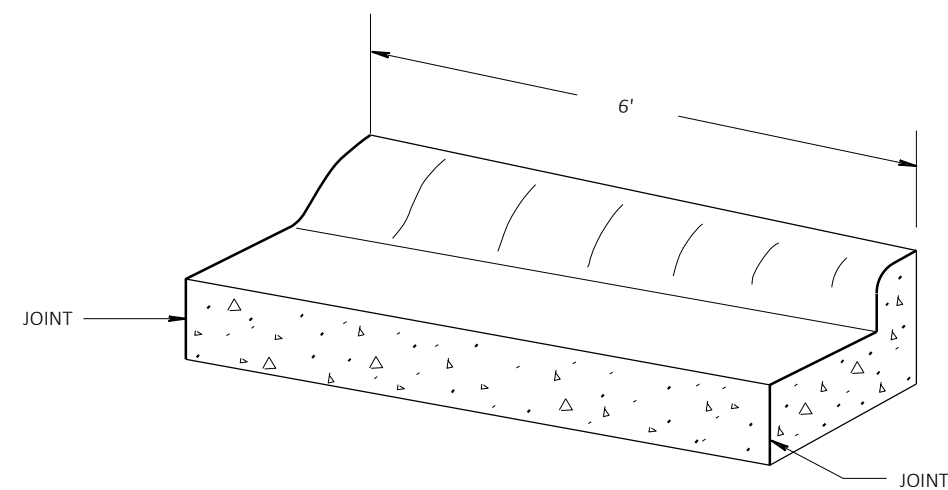
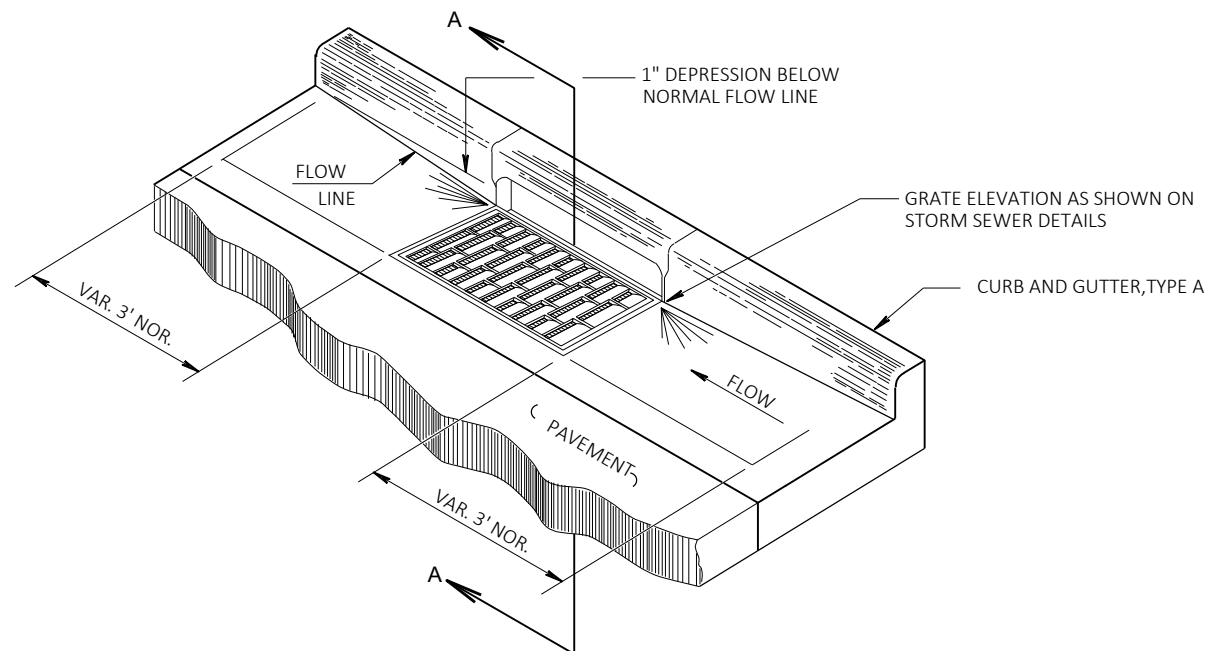


DETAIL OF MANHOLE W/CASTING

(SEE STORM SEWER PLANS FOR LOCATIONS)

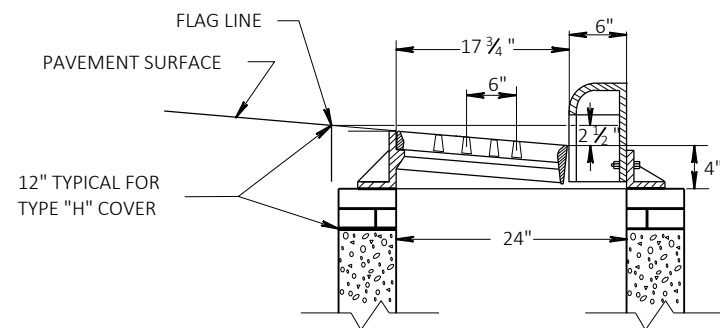


ELEVATION



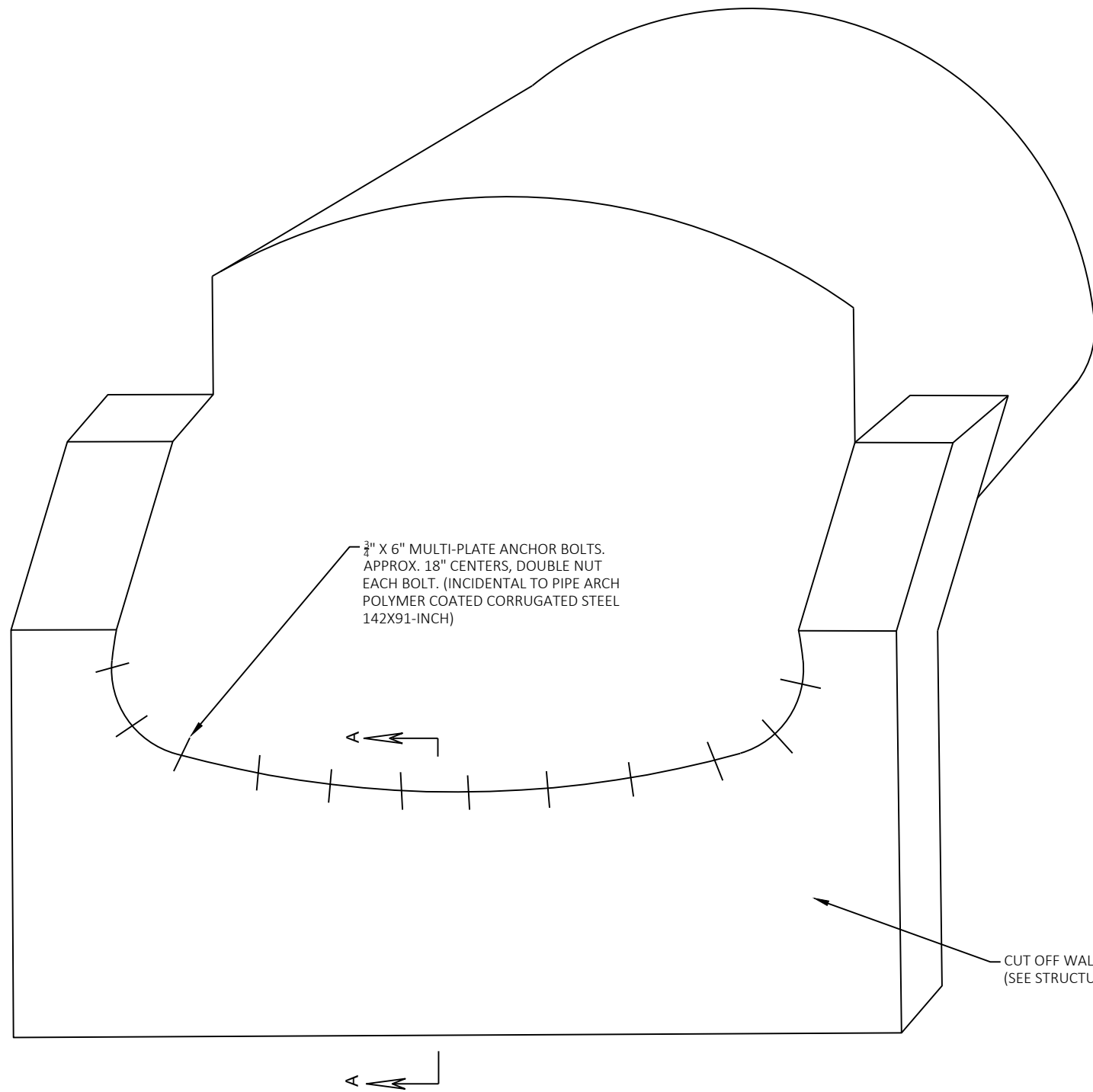
TRANSITION DETAIL

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

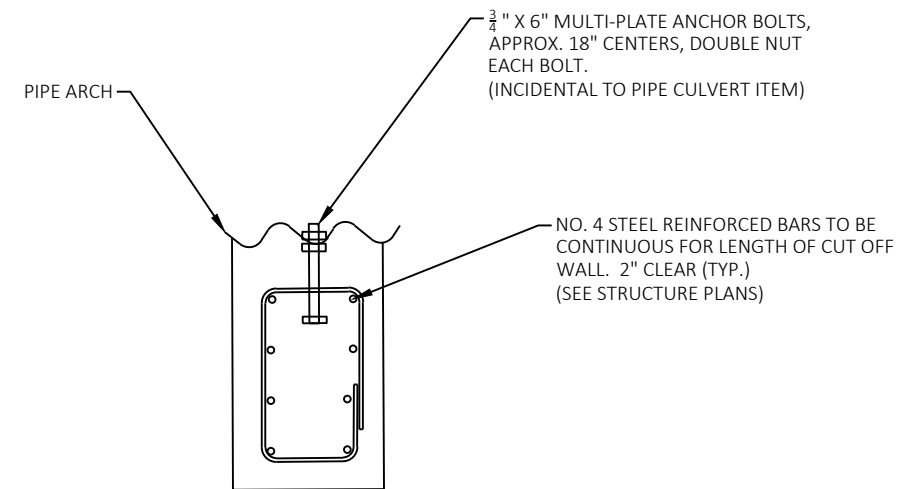
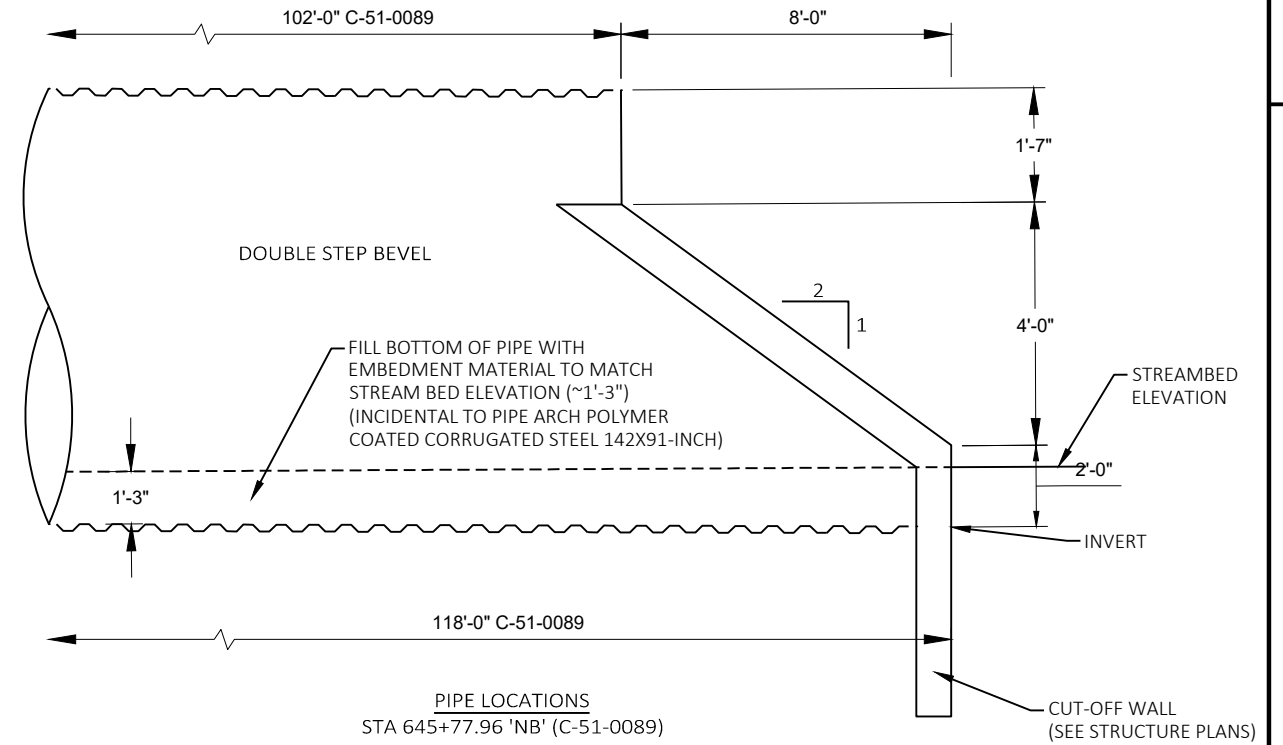


SECTION A-A

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

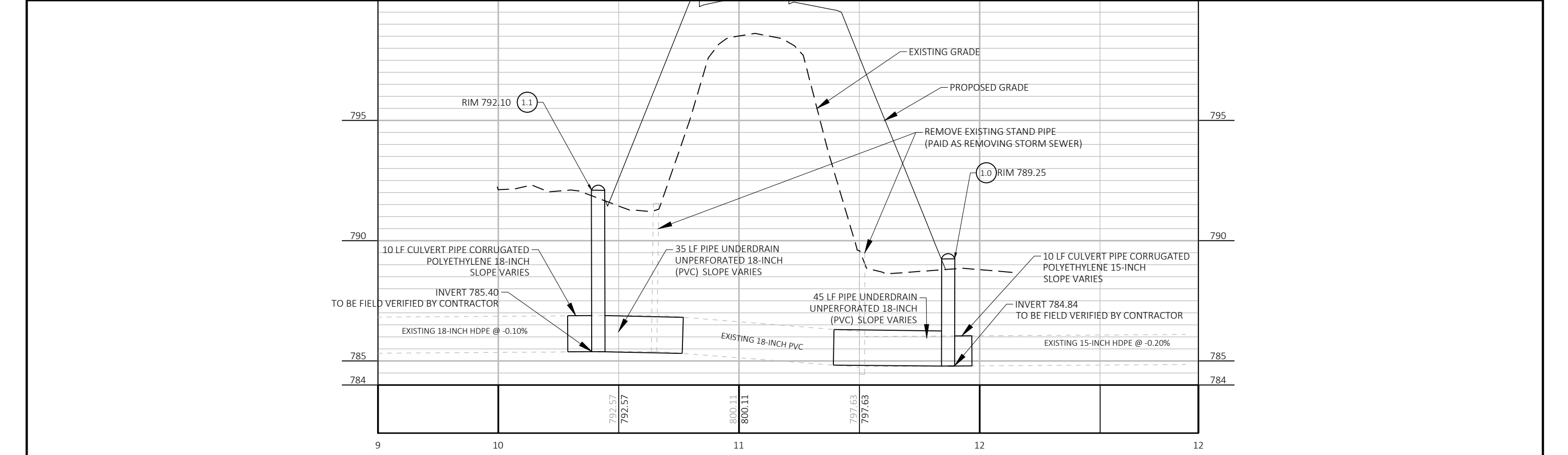
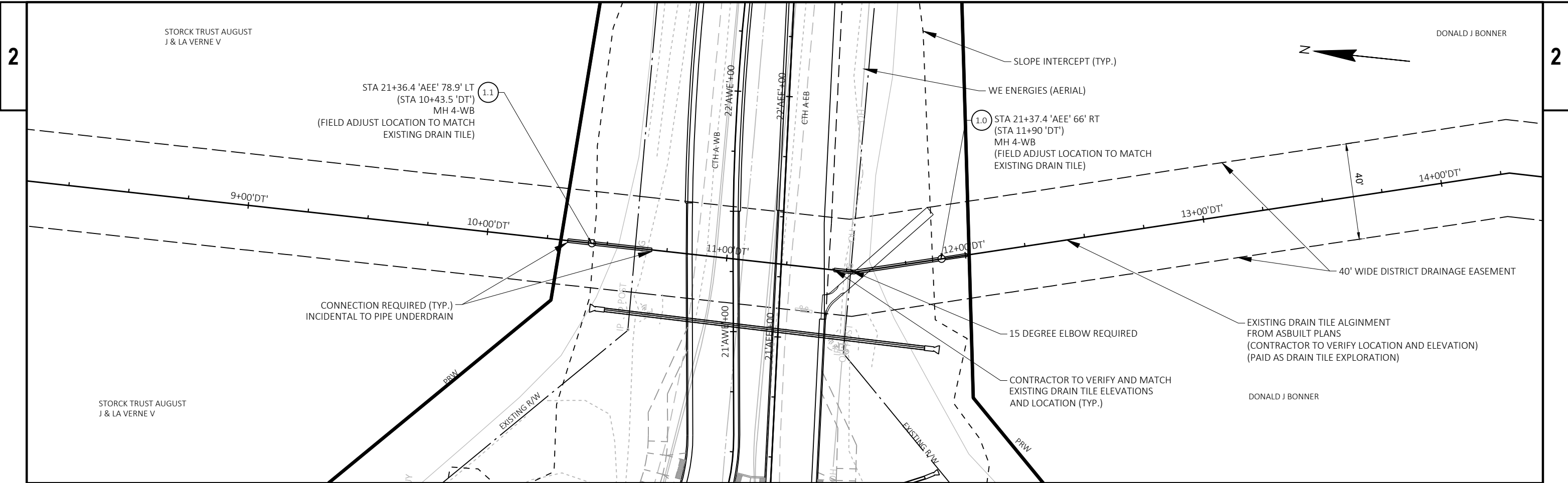


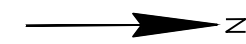
END OF PIPE ARCH DETAIL
(SEE PLAN AND PROFILES FOR LOCATIONS)



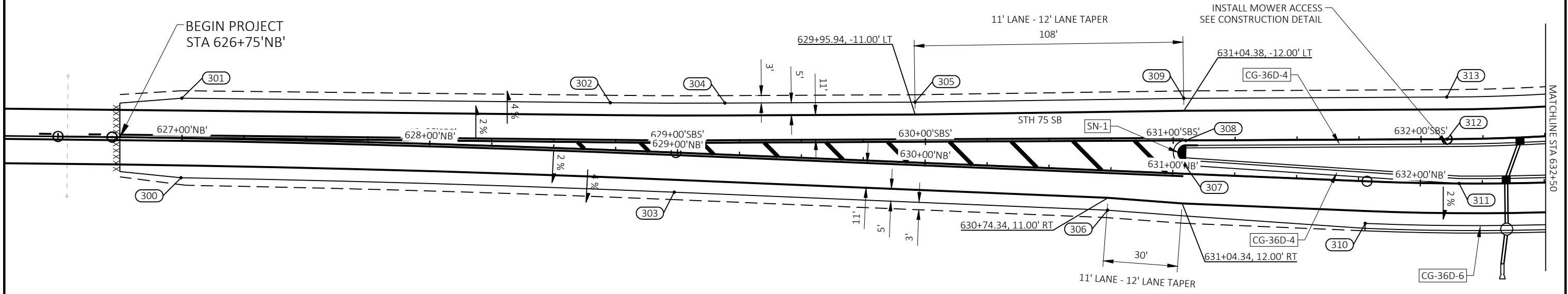
SECTION A-A

NOTE:
TEMPORARY WATER DIVERSION TO BE PAID UNDER
BID ITEM "TEMPORARY WATER DIVERSION, CULVERT
C-51-0089"





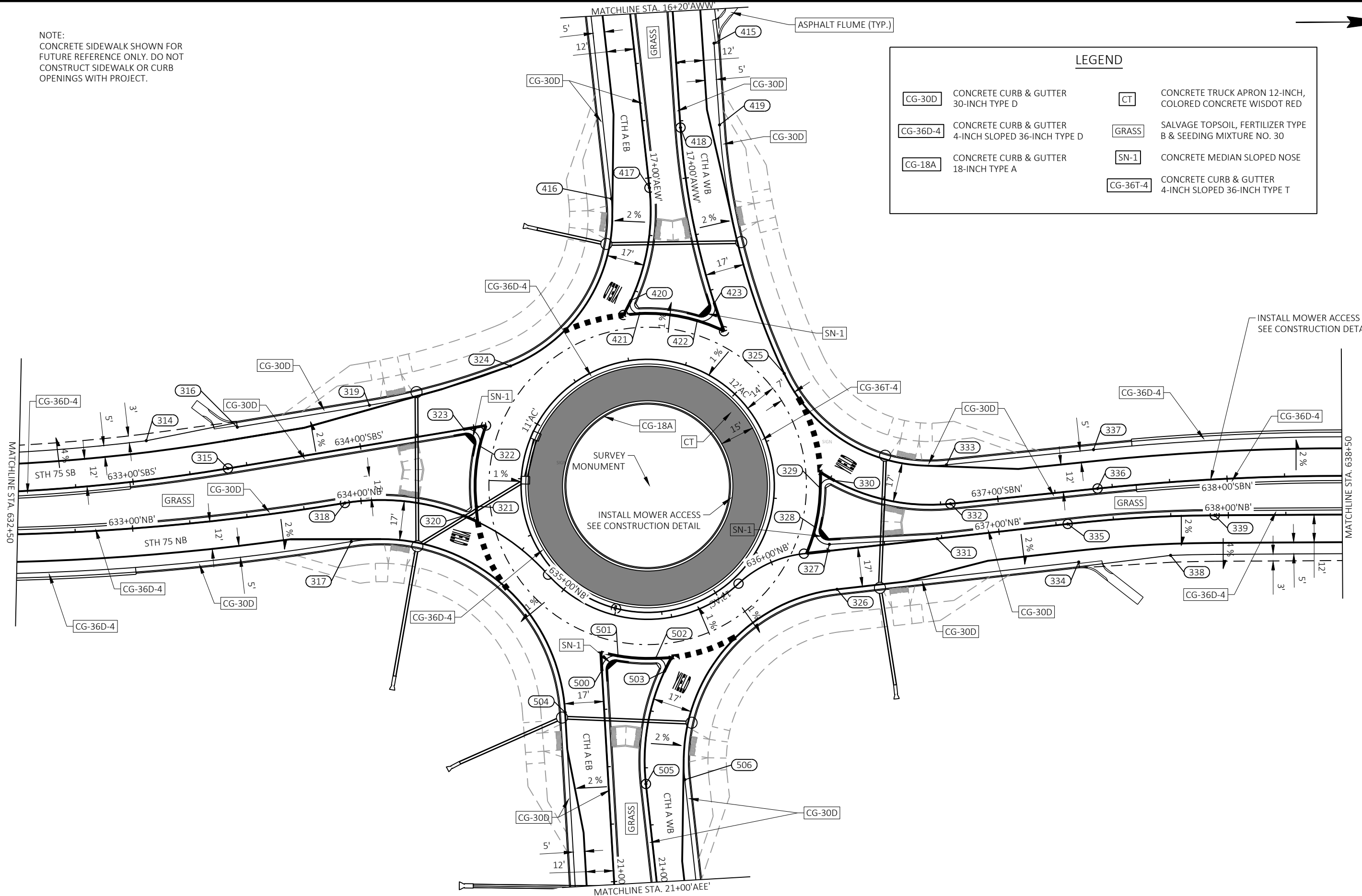
LEGEND			
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	CT	CONCRETE TRUCK APRON 12-INCH, COLORED CONCRETE WISDOT RED
CG-36D-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D	GRASS	SALVAGE TOPSOIL, FERTILIZER TYPE B & SEEDING MIXTURE NO. 30
CG-18A	CONCRETE CURB & GUTTER 18-INCH TYPE A	SN-1	CONCRETE MEDIAN SLOPED NOSE

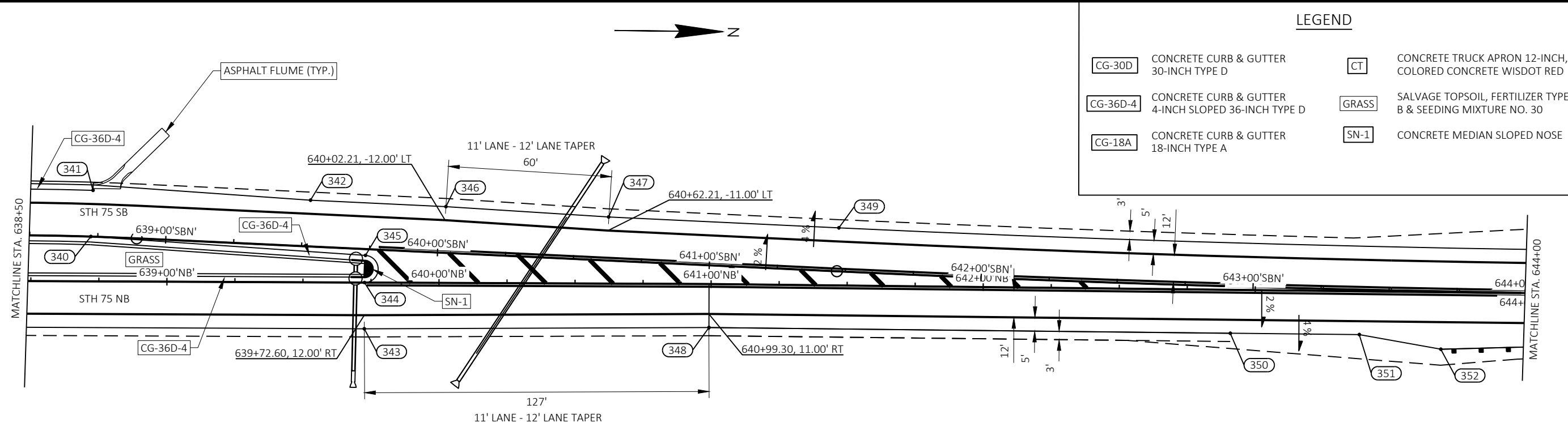


NOTE:
CONCRETE SIDEWALK SHOWN FOR
FUTURE REFERENCE ONLY. DO NOT
CONSTRUCT SIDEWALK OR CURB
OPENINGS WITH PROJECT.



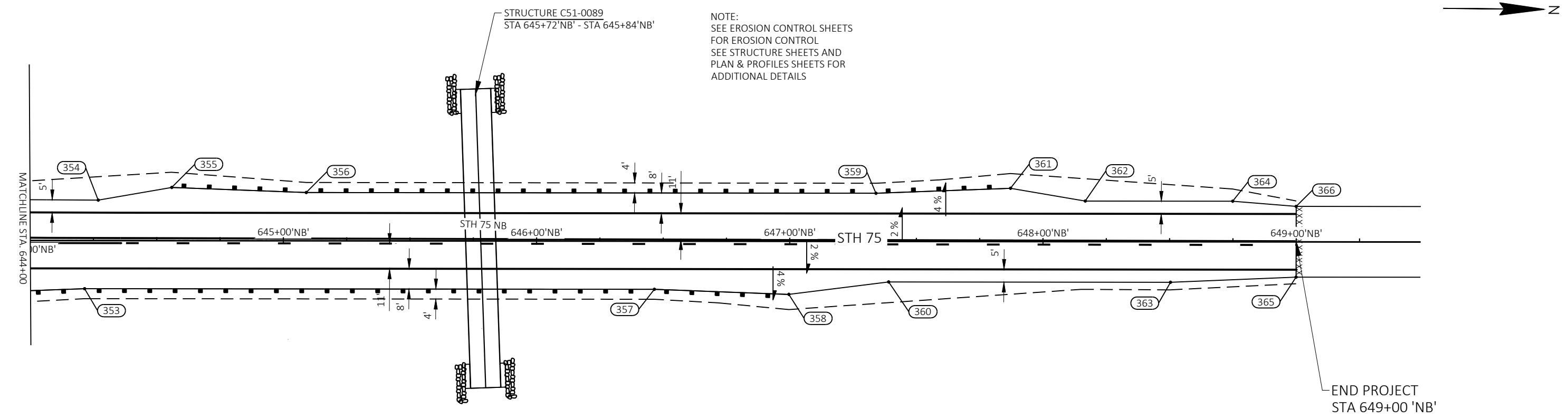
LEGEND			
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	CT	CONCRETE TRUCK APRON 12-INCH, COLORED CONCRETE WISDOT RED
CG-36D-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D	GRASS	SALVAGE TOPSOIL, FERTILIZER TYPE B & SEEDING MIXTURE NO. 30
CG-18A	CONCRETE CURB & GUTTER 18-INCH TYPE A	SN-1	CONCRETE MEDIAN SLOPED NOSE
		CG-36T-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T





LEGEND

CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D	CT	CONCRETE TRUCK APRON 12-INCH, COLORED CONCRETE WISDOT RED
CG-36D-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D	GRASS	SALVAGE TOPSOIL, FERTILIZER TYPE B & SEEDING MIXTURE NO. 30
CG-18A	CONCRETE CURB & GUTTER 18-INCH TYPE A	SN-1	CONCRETE MEDIAN SLOPED NOSE

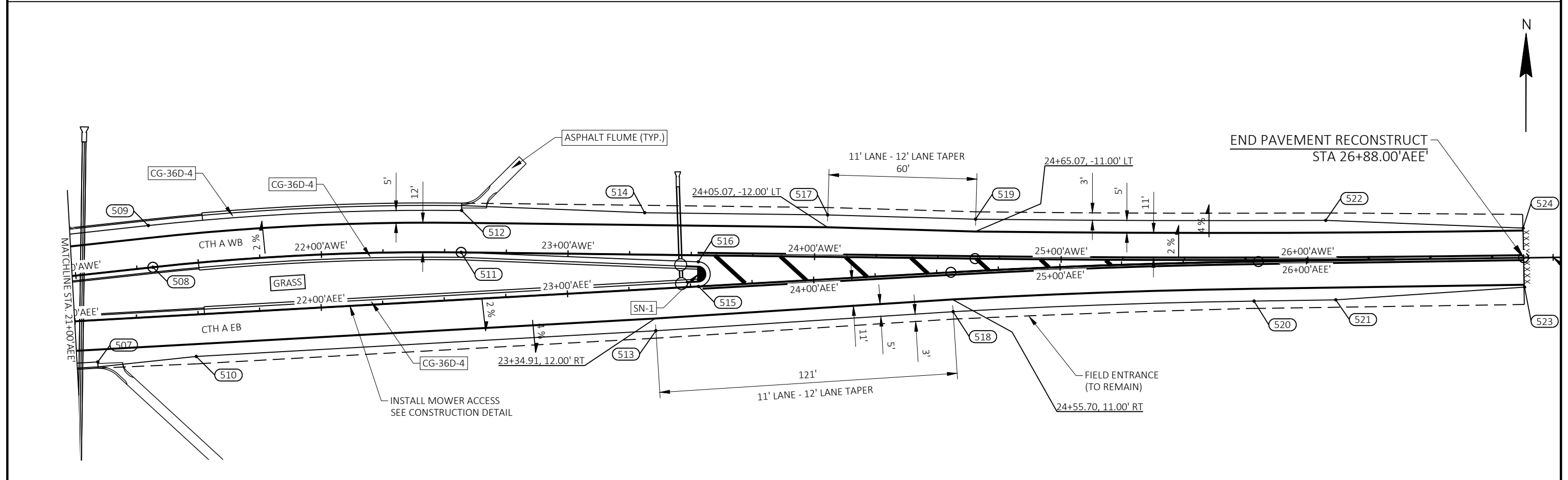
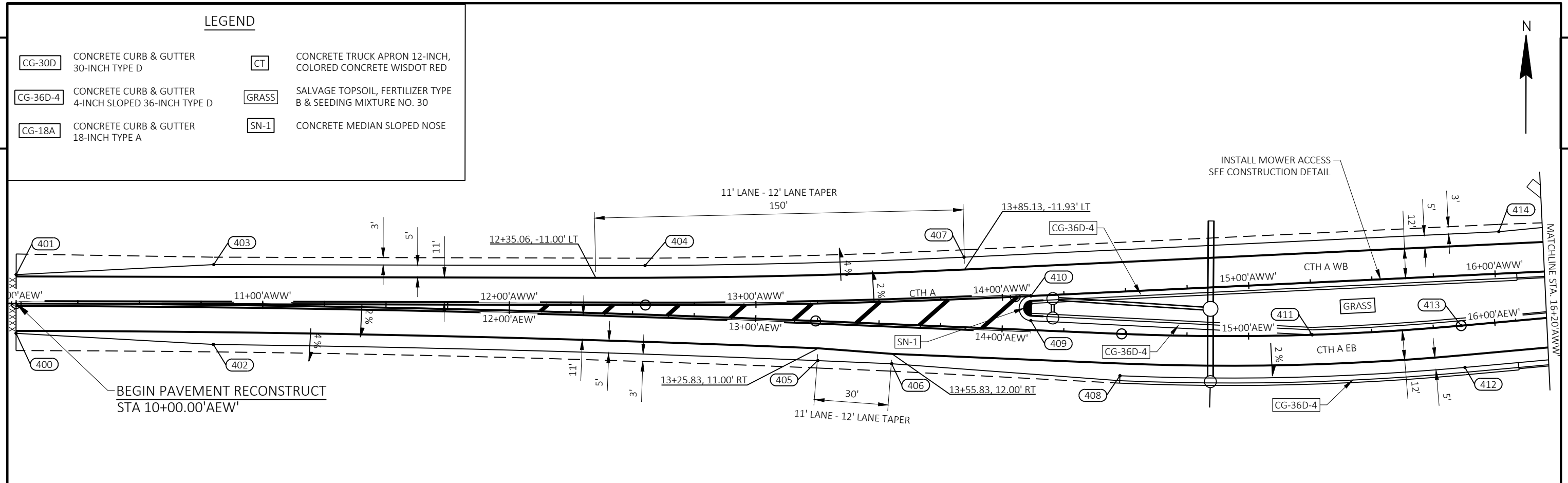


LEGEND

- | | |
|--|---|
| CG-30D CONCRETE CURB & GUTTER
30-INCH TYPE D | CT CONCRETE TRUCK APRON 12-INCH,
COLORED CONCRETE WISDOT RED |
| CG-36D-4 CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE D | GRASS SALVAGE TOPSOIL, FERTILIZER TYPE
B & SEEDING MIXTURE NO. 30 |
| CG-18A CONCRETE CURB & GUTTER
18-INCH TYPE A | SN-1 CONCRETE MEDIAN SLOPED NOSE |

2

2



PROJECT NO: 2420-00-70

HWY: STH 75

COUNTY: RACINE

PLAN DETAILS

SHEET

E

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
300	626+99.86	16.00' RT	798.74	551861.7699	185423.9207
301	626+99.64	16.15' LT	798.81	551829.6176	185424.2605
302	628+72.16	19.07' LT	798.89	551831.5312	185597.1596
303	628+99.35	16.00' RT	798.90	551867.6688	185622.9196
304	629+18.29	20.81' LT	799.05	551831.6847	185643.3922
305	629+94.94	24.37' LT	799.19	551831.3451	185720.1274
306	630+74.34	16.00' RT	798.98	551875.0178	185797.7567
307	631+04.78	3.46' LT	799.13	551856.8506	185828.9933
308	631+04.68	13.46' LT	799.29	551846.8620	185829.3071
309	631+03.23	30.41' LT	798.95	551829.8651	185828.5687
310	631+78.47	17.00' RT	798.64	551880.3899	185901.7504
311	632+15.67	0.00'	798.88	551864.3023	185939.6566
312	632+10.58	17.86' LT	798.95	551846.3952	185934.7620
313	632+10.30	34.86' LT	798.61	551829.3954	185934.6867
314	633+09.08	37.53' LT	798.73	551823.2935	186029.8282
315	633+44.20	22.01' LT	799.27	551835.3084	186065.3317
316	633+50.58	39.31' LT	798.98	551817.3974	186069.3972

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
317	633+92.92	17.00' RT	799.32	551867.1054	186118.9204
318	633+92.92	0.00'	799.66	551850.3340	186116.1415
319	634+05.18	41.28' LT	799.42	551807.8455	186126.7655
320	634+45.49	0.00'	800.06	551855.8674	186167.7721
321	634+48.81	5.96' LT	800.08	551851.6807	186173.2198
322	634+41.91	30.85' LT	800.09	551825.5348	186174.7394
323	634+35.43	35.75' LT	800.05	551818.2277	186167.9168
324	634+42.49	68.07' LT	800.13	551790.7828	186188.1060
325	636+14.98	78.80' LT	801.75	551794.0221	186307.0343
326	636+27.24	17.00' RT	801.55	551887.8446	186329.9760
327	636+26.15	2.82' LT	801.85	551868.2726	186326.6620
328	636+20.88	10.89' LT	802.08	551860.8446	186320.5229
329	636+24.94	27.47' LT	802.11	551843.9097	186322.6962
330	636+31.21	30.24' LT	802.03	551840.4534	186328.6133
331	636+72.93	0.00'	801.37	551865.8238	186373.4639
332	636+80.41	14.44' LT	801.43	551850.6371	186379.2812
333	636+80.57	31.44' LT	801.09	551833.7276	186377.5296

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
334	637+33.02	17.00' RT	800.34	551875.9869	186435.0071
335	637+30.03	0.00'	800.71	551859.4142	186430.2021
336	637+44.32	14.02' LT	800.69	551844.0175	186443.1826
337	637+44.08	31.01' LT	800.35	551827.1080	186441.4304
338	637+74.23	17.00' RT	799.87	551873.0611	186474.9310
339	637+94.06	0.00'	799.98	551855.6320	186494.0916
340	638+71.98	16.48' LT	799.20	551838.7056	186571.9182
341	638+72.70	33.46' LT	798.86	551821.7149	186572.5397
342	639+52.63	30.18' LT	797.94	551824.5350	186652.4879
343	639+72.60	17.00' RT	797.60	551871.6015	186672.7290
344	639+72.60	0.00'	797.94	551854.6017	186672.6309
345	639+72.93	9.99' LT	798.09	551844.6108	186672.9006
346	640+02.43	28.05' LT	797.43	551826.3762	186702.2946
347	640+62.25	24.50' LT	797.07	551829.5875	186762.1335
348	640+99.37	16.00' RT	796.86	551869.8704	186799.3866
349	641+46.71	21.20' LT	796.96	551832.7150	186846.7644
350	642+91.01	16.00' RT	797.28	551870.0572	186991.0191

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
351	643+38.38	15.93' RT	797.32	551870.0310	187038.3984
352	643+68.42	21.00' RT	797.17	551875.1324	187068.4275
353	644+21.54	19.00' RT	797.14	551873.1838	187121.5527
354	644+26.89	15.96' LT	797.19	551838.2264	187126.9364
355	644+55.91	20.99' LT	796.98	551833.2273	187155.9592
356	645+09.01	19.04' LT	796.88	551835.2291	187209.0592
357	646+46.54	19.00' RT	796.47	551873.4023	187346.5529
358	646+99.64	20.95' RT	796.30	551875.4041	187399.6526
359	647+34.01	19.00' LT	796.37	551835.4860	187434.0574
360	647+39.04	16.00' RT	796.44	551870.4922	187439.0555
361	647+87.13	21.00' LT	796.41	551833.5390	187487.1827
362	648+16.64	16.00' LT	796.66	551838.5662	187516.6802
363	648+50.35	16.00' RT	796.84	551870.6003	187550.3656
364	648+74.87	16.00' LT	796.99	551838.6228	187574.9145
365	648+99.94	13.92' RT	797.19	551868.5668	187599.9527
366	648+99.96	14.00' LT	797.19	551840.6485	187600.0000

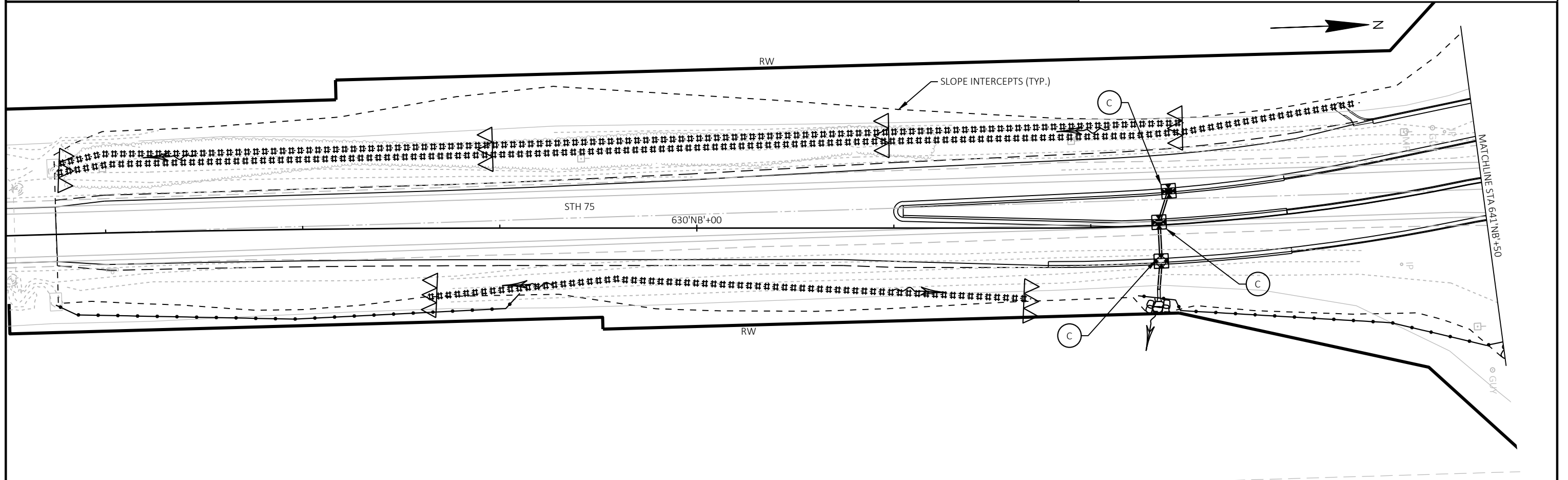
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POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
400	10+00.00	12.06' RT	799.61	551010.2002	186220.8297
401	10+00.01	11.72' LT	799.60	551009.7819	186244.6114
402	10+80.16	16.05' RT	799.29	551090.2647	186217.8844
403	10+79.95	16.34' LT	799.32	551089.7905	186250.2699
404	12+54.40	19.85' LT	798.87	551264.6425	186253.2881
405	13+25.83	16.00' RT	798.56	551335.4359	186216.1591
406	13+55.83	16.00' RT	798.47	551365.4285	186215.4908
407	13+83.33	28.38' LT	798.60	551393.9029	186259.2497
408	14+48.53	17.00' RT	798.45	551458.0761	186212.4263
409	14+11.46	3.83' LT	798.79	551421.4838	186234.0736
410	14+11.09	13.81' LT	798.95	551421.3330	186244.0590
411	15+25.78	0.00'	799.18	551535.6826	186230.5700

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
412	15+86.32	17.00' RT	799.29	551597.8827	186218.5773
413	15+86.32	0.00'	799.63	551596.0128	186235.4742
414	16+04.96	36.54' LT	799.76	551610.5251	186273.8425
415	16+44.93	34.82' LT	800.08	551650.4346	186276.5310
416	17+07.83	16.95' RT	800.20	551718.0152	186231.8716
417	17+04.32	0.00'	800.51	551713.2954	186248.4530
418	16+79.76	16.31' LT	800.71	551687.0916	186261.9619
419	16+80.49	33.29' LT	800.37	551685.9490	186278.9234
420	17+54.59	0.00'	800.89	551762.2884	186240.3949
421	17+57.92	5.92' LT	801.02	551767.9742	186244.2068
422	17+51.39	29.92' LT	801.31	551771.0500	186269.2355
423	17+44.16	34.18' LT	801.35	551763.4540	186276.6662

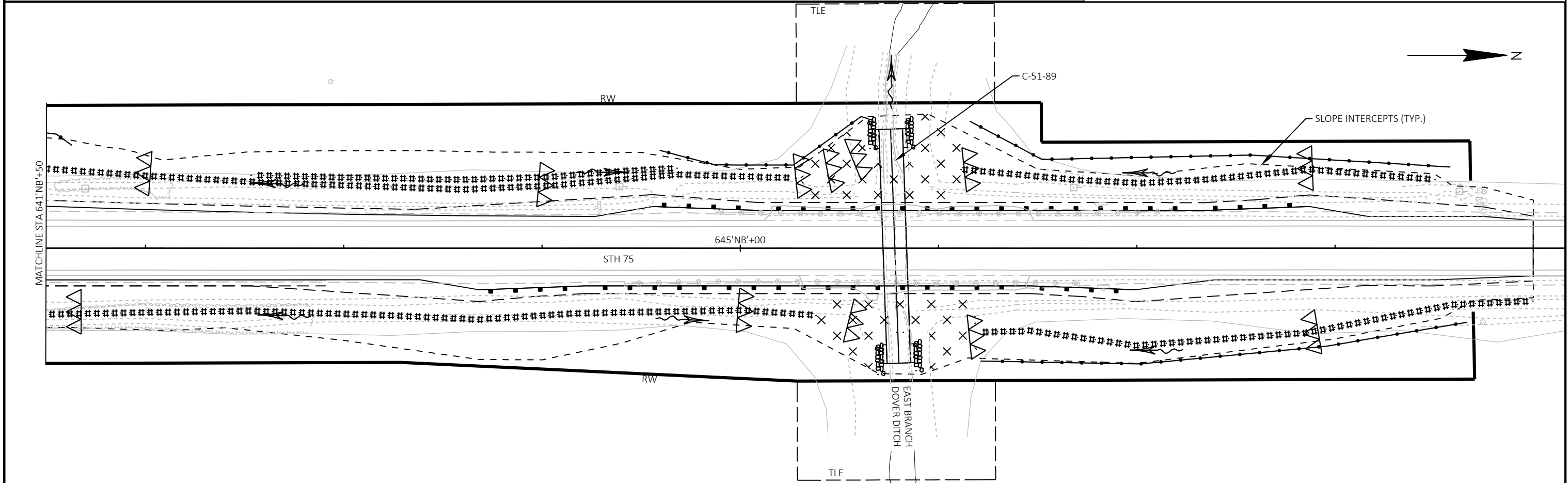
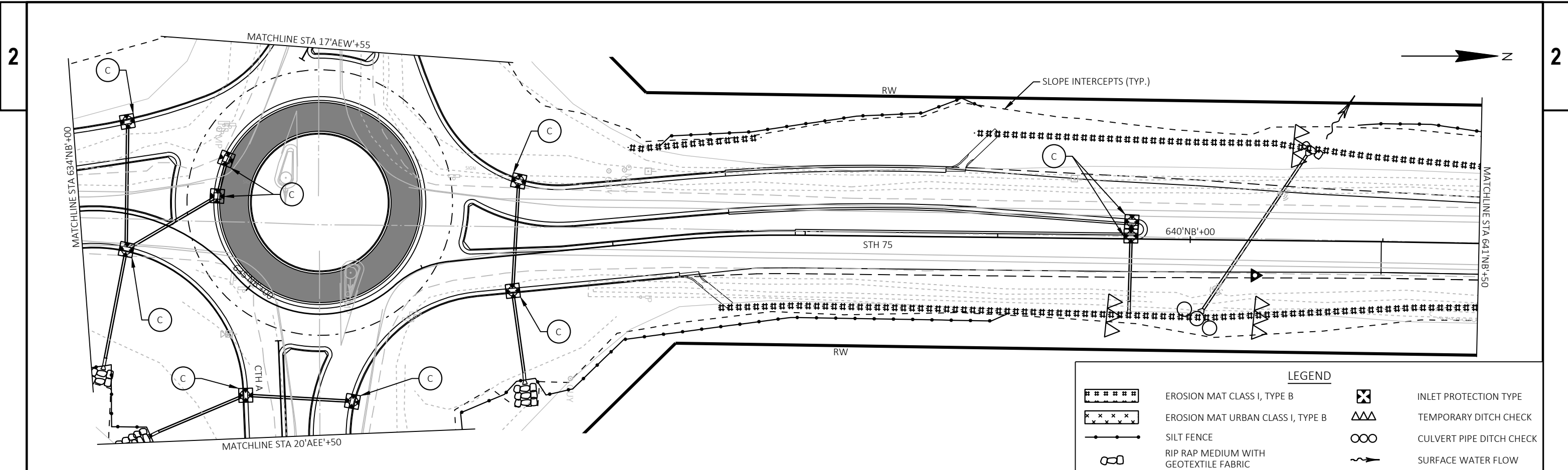
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POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
500	20+07.97	0.00'	801.02	551923.0404	186227.8302
501	20+02.13	7.37' LT	800.97	551916.7828	186234.8486
502	20+04.10	23.63' LT	801.15	551917.8111	186251.1995
503	20+09.99	27.11' LT	801.17	551923.4969	186255.0113
504	20+25.39	17.00' RT	800.37	551941.4117	186211.8640
505	20+58.44	16.24' LT	800.76	551972.4898	186246.9532
506	20+57.55	33.21' LT	800.42	551970.6200	186263.8500
507	21+08.29	17.00' RT	799.74	552024.1719	186216.6490
508	21+32.74	20.14' LT	800.15	552046.4362	186255.1363
509	21+31.84	37.11' LT	799.81	552044.5664	186272.0332
510	21+48.29	17.00' RT	799.44	552064.1053	186218.9578
511	22+57.87	19.17' LT	799.13	552171.4139	186261.3926
512	22+59.02	36.13' LT	798.79	552171.5869	186278.3918

RAB STA OFFSET POINTS					
POINT NO.	STATION	OFFSET	ELEVATION	X COORD	Y COORD
513	23+34.93	17.00' RT	798.24	552250.4399	186229.7312
514	23+33.07	31.09' LT	798.37	552245.8060	186277.6362
515	23+53.21	0.00'	798.53	552267.7088	186247.7580
516	23+53.69	9.98' LT	798.69	552267.6096	186257.7461
517	24+07.12	26.05' LT	798.24	552320.0250	186276.8807
518	24+55.74	16.00' RT	798.28	552370.9896	186237.7029
519	24+66.80	21.01' LT	798.38	552379.9701	186275.2704
520	25+78.47	16.00' RT	798.67	552492.9728	186242.2528
521	26+11.64	15.98' RT	798.77	552526.1203	186242.8081
522	26+07.99	16.35' LT	798.78	552521.9545	186275.0782
523	26+88.23	11.91' RT	799.08	552602.6420	186248.1120
524	26+88.01	12.06' LT	799.09	552602.0264	186272.0747

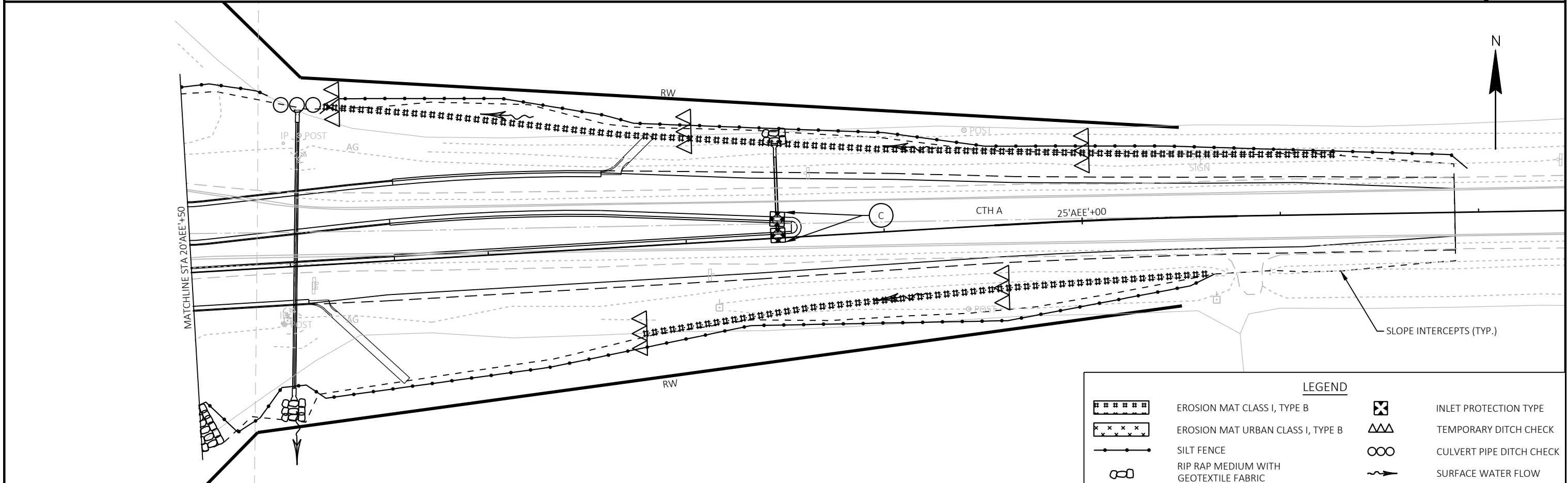
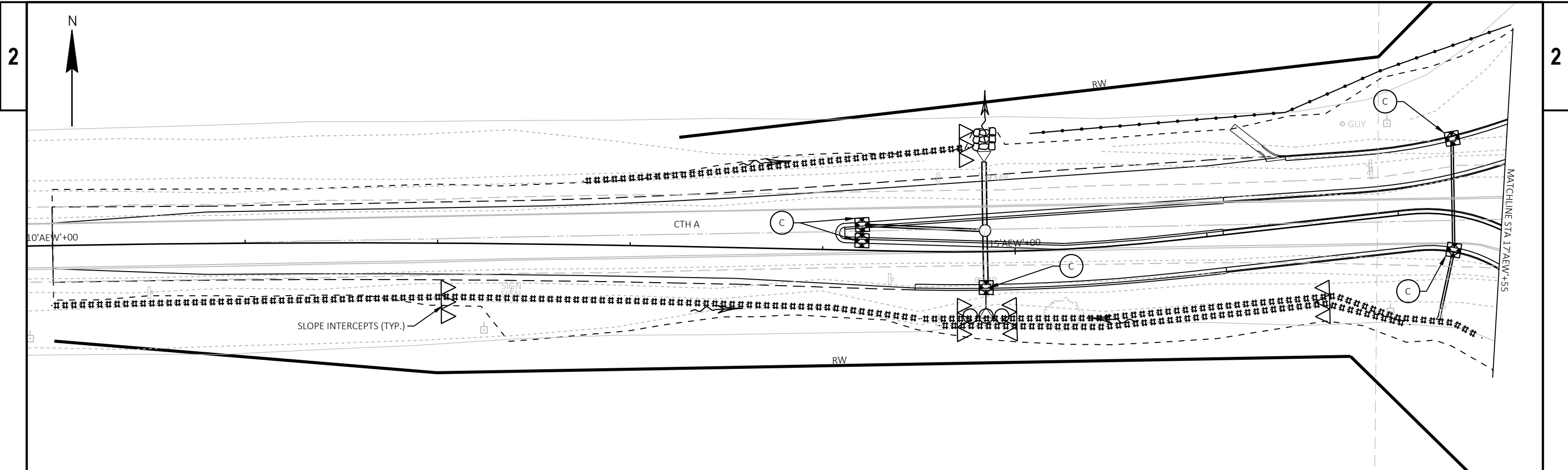
LEGEND			
	EROSION MAT CLASS I, TYPE B		INLET PROTECTION TYPE
	EROSION MAT URBAN CLASS I, TYPE B		TEMPORARY DITCH CHECK
	SILT FENCE		CULVERT PIPE DITCH CHECK
	RIP RAP MEDIUM WITH GEOTEXTILE FABRIC		SURFACE WATER FLOW



PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	EROSION CONTROL	SHEET	E
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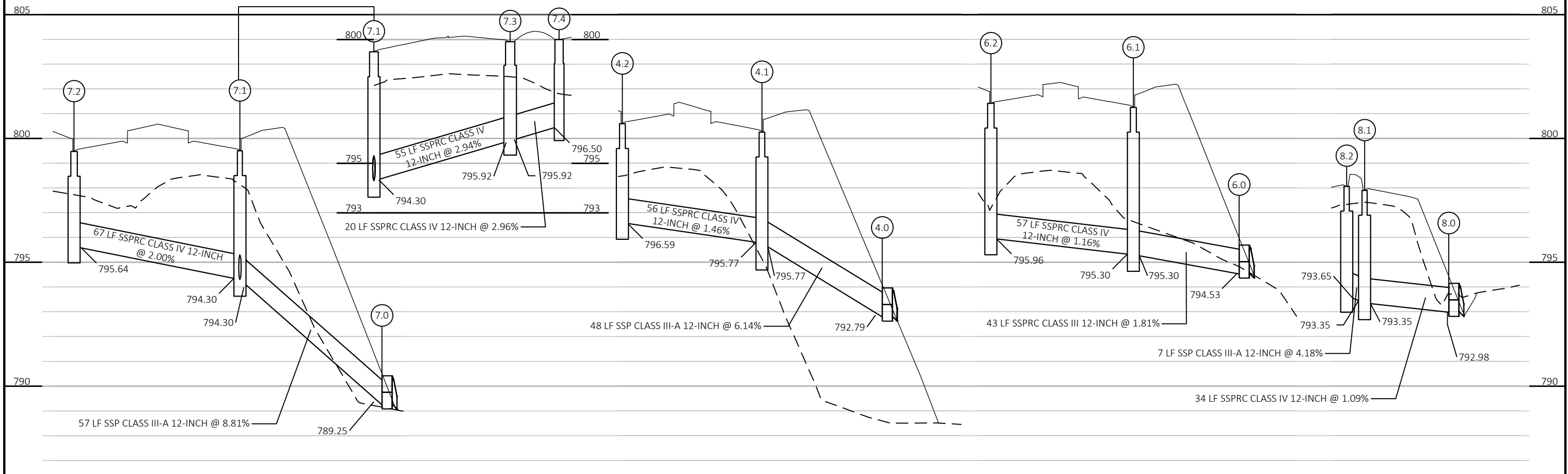
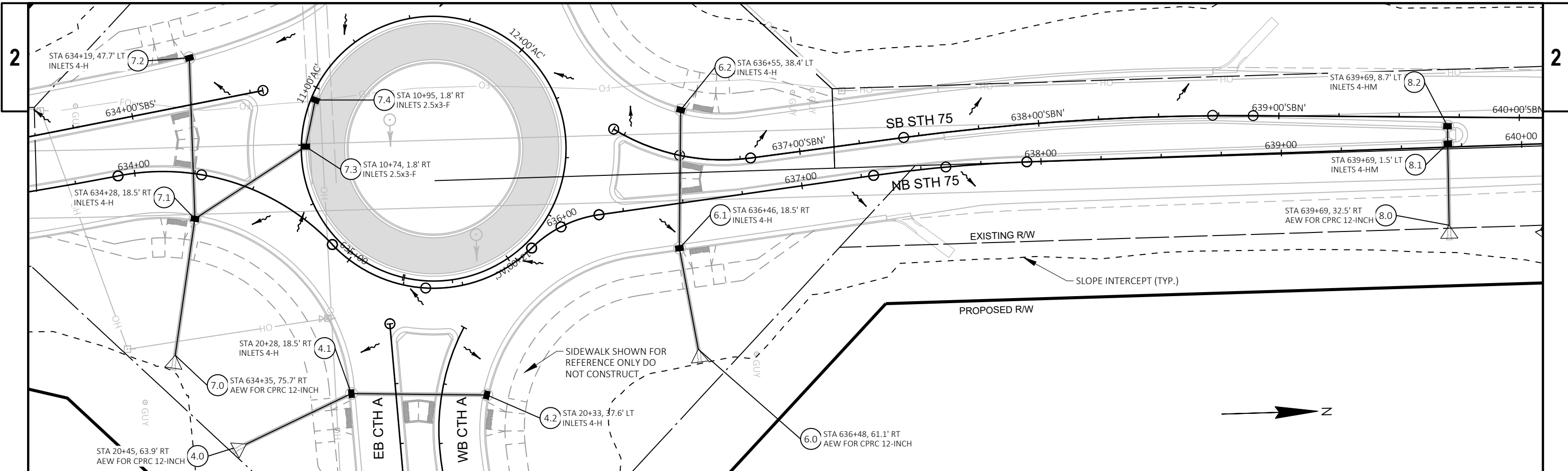


PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	EROSION CONTROL	SHEET	E
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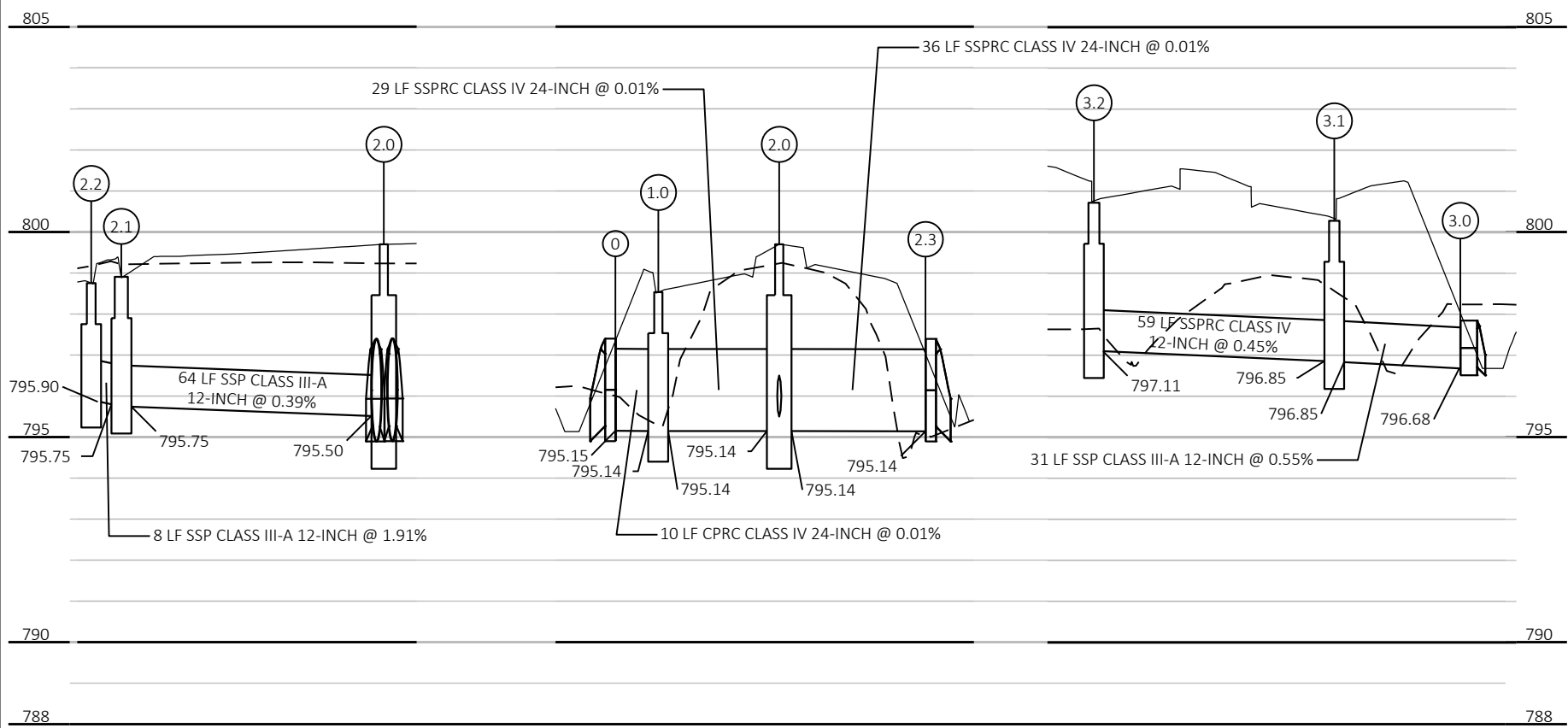
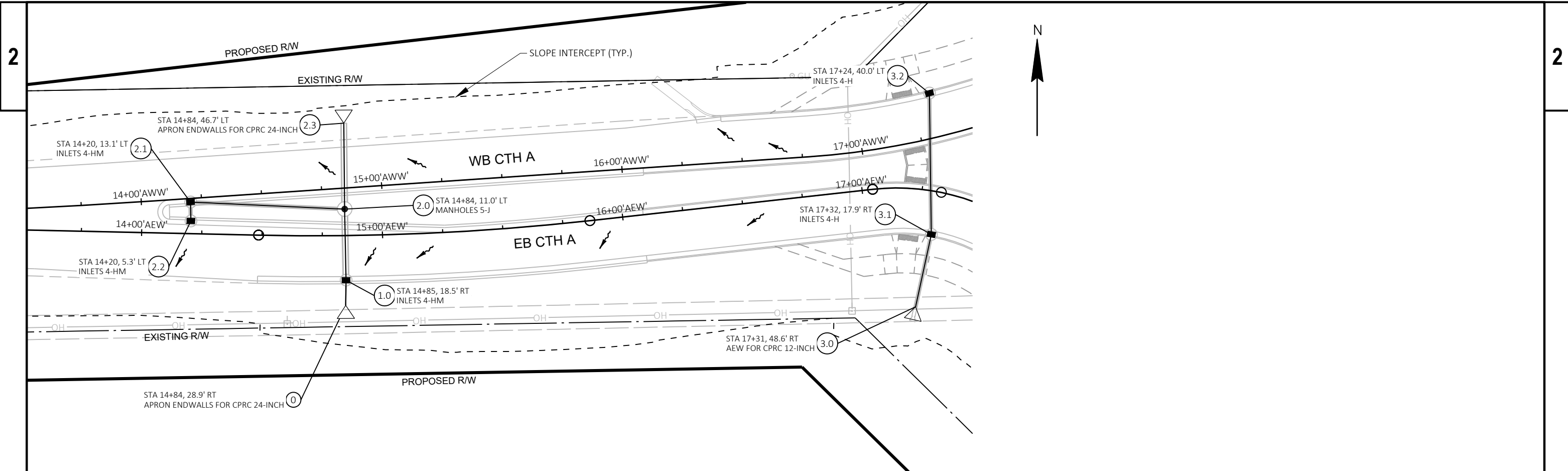


LEGEND	
	EROSION MAT CLASS I, TYPE B
	EROSION MAT URBAN CLASS I, TYPE B
	SILT FENCE
	RIP RAP MEDIUM WITH GEOTEXTILE FABRIC
	INLET PROTECTION TYPE
	TEMPORARY DITCH CHECK
	CULVERT PIPE DITCH CHECK
	SURFACE WATER FLOW

PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	EROSION CONTROL
SHEET			E

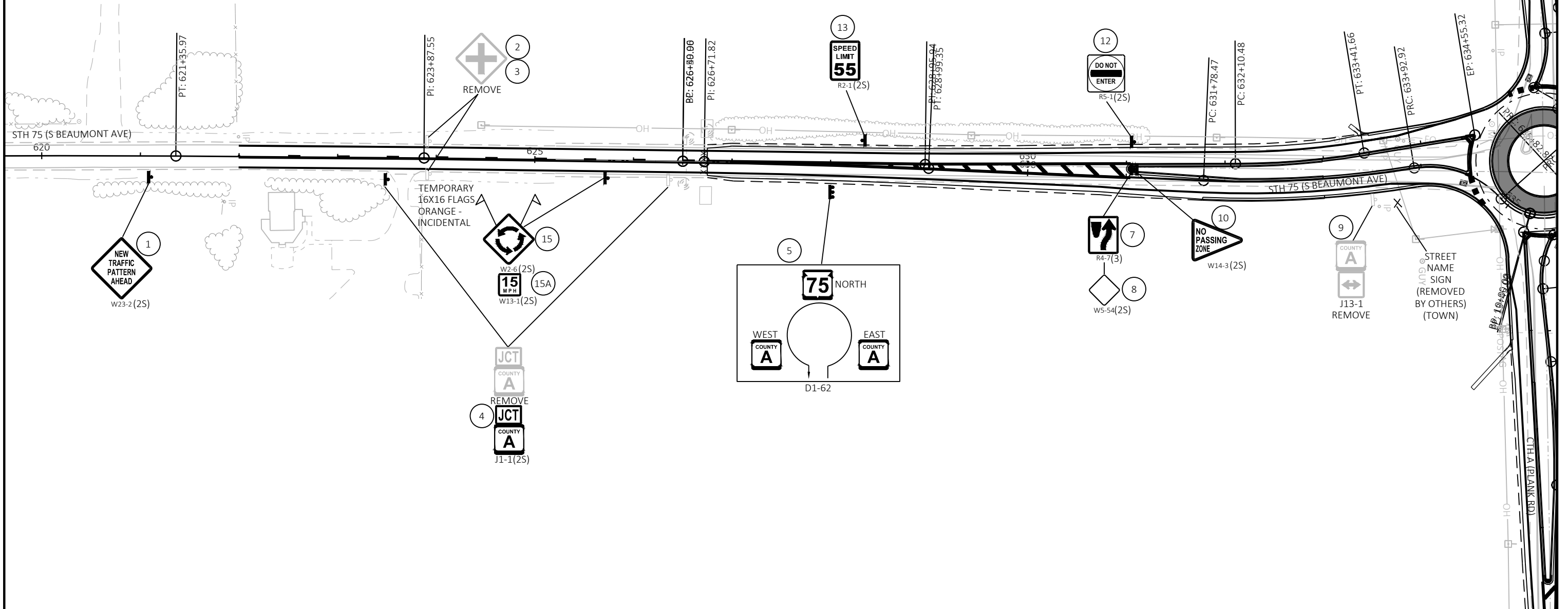
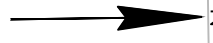


PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	STORM SEWER	SHEET	E
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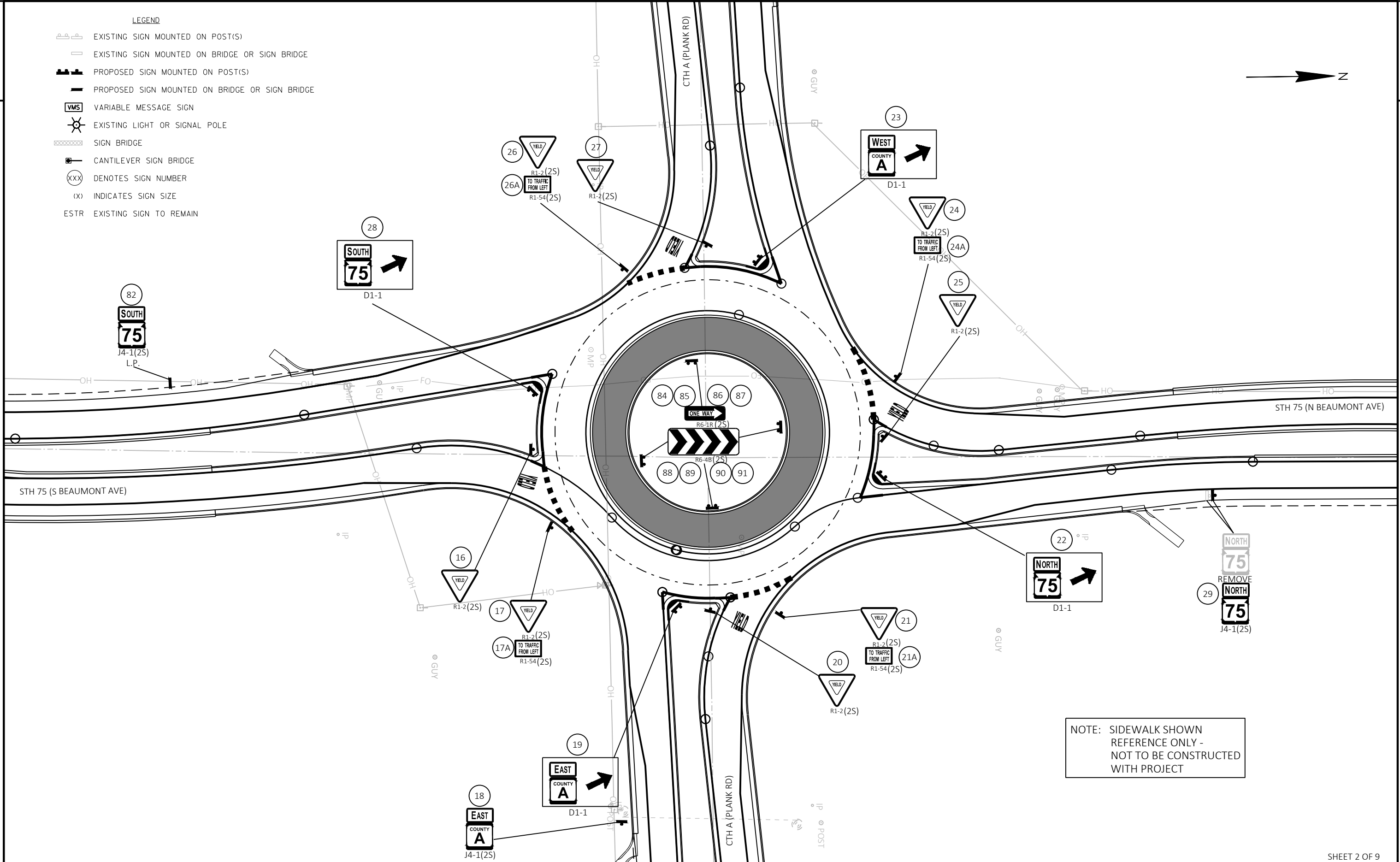
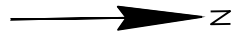
LEGEND

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- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE
- EXISTING SIGN TO REMAIN



LEGEND

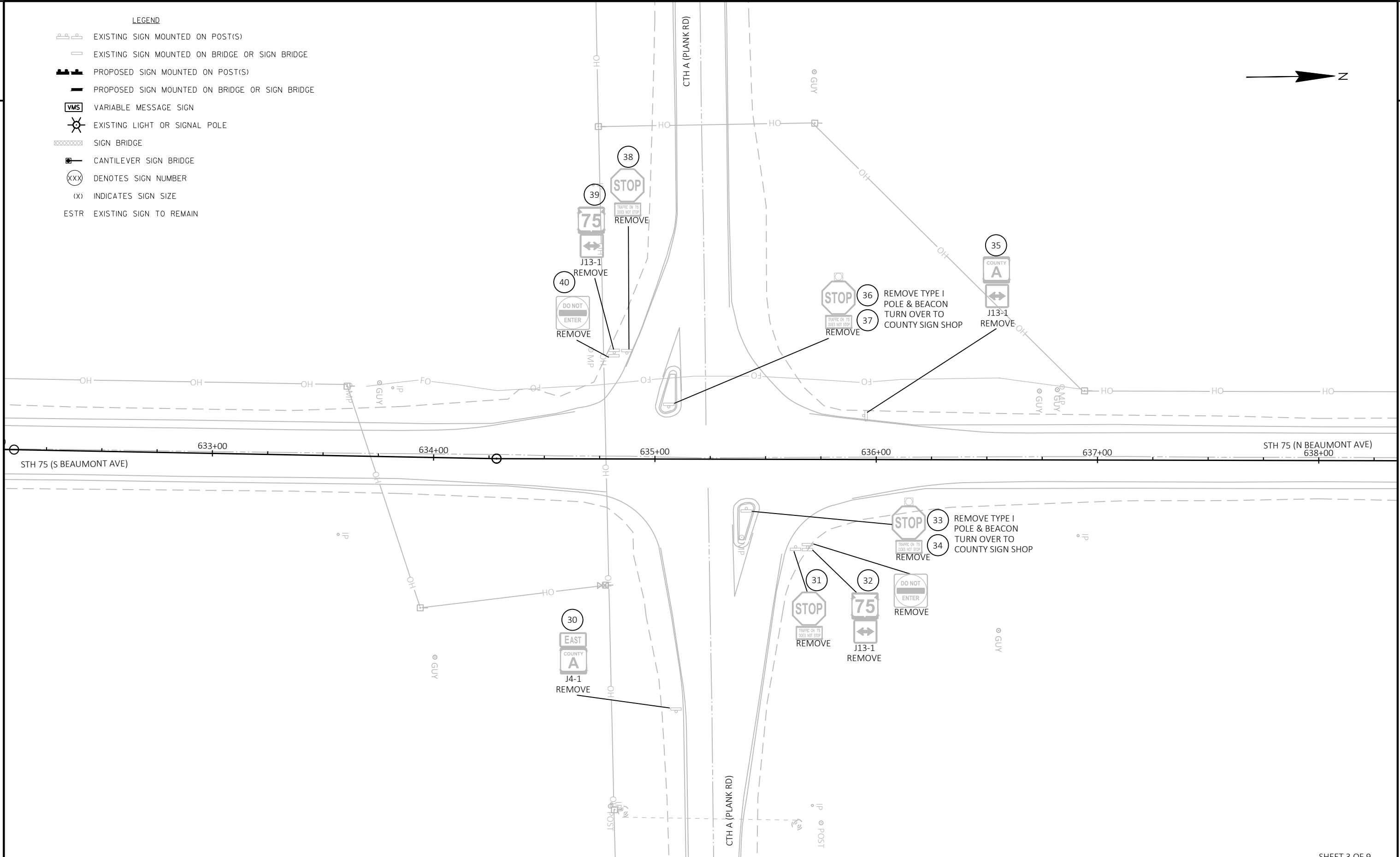
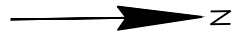
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NOTE: SIDEWALK SHOWN
REFERENCE ONLY -
NOT TO BE CONSTRUCTED
WITH PROJECT

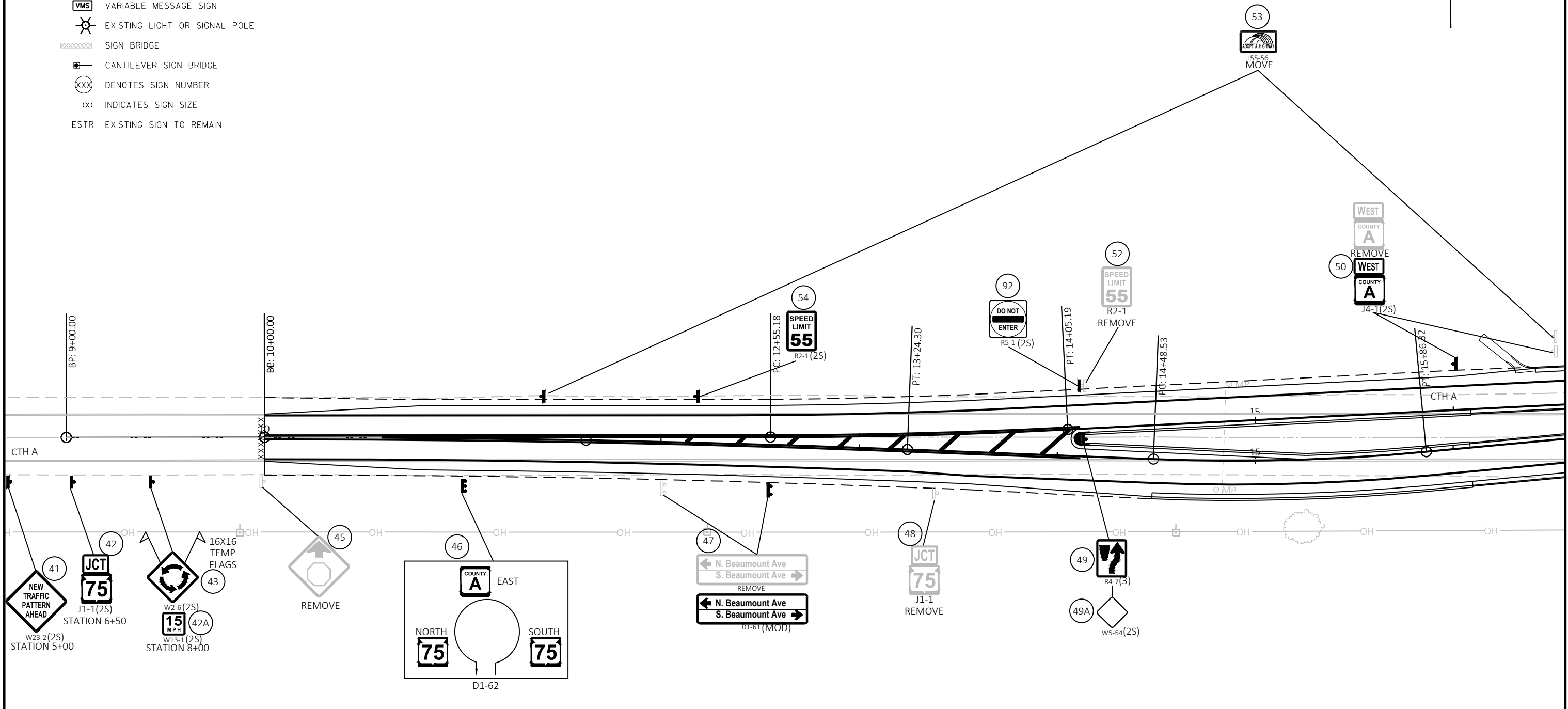
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






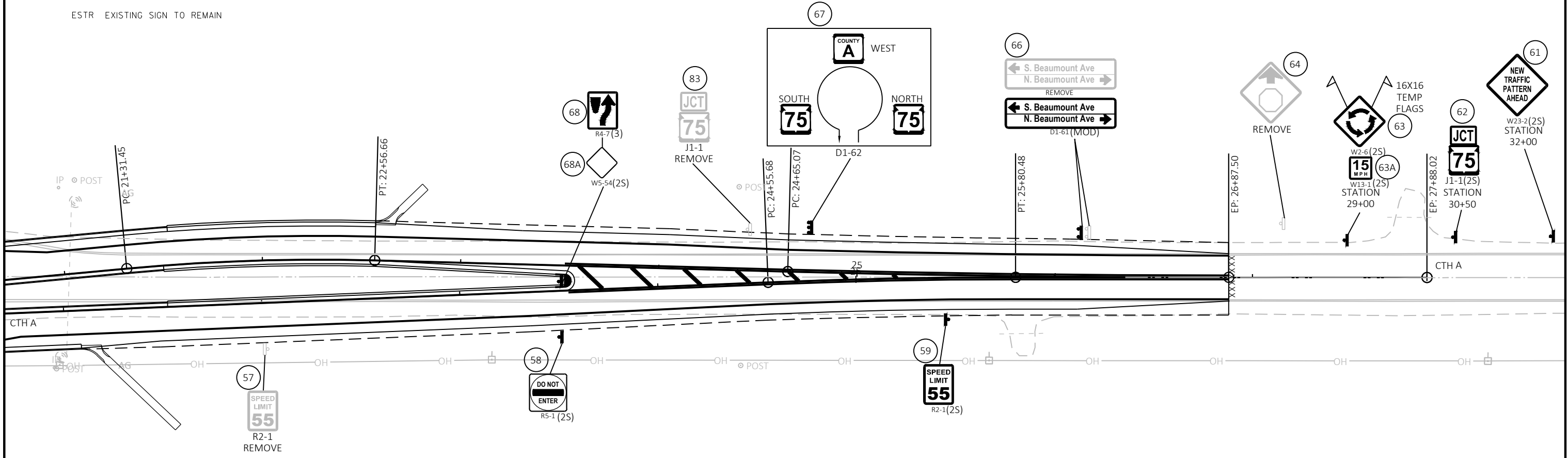
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
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- PROPOSED SIGN MOUNTED ON POST(S)
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- INDICATES SIGN SIZE
- EXISTING SIGN TO REMAIN














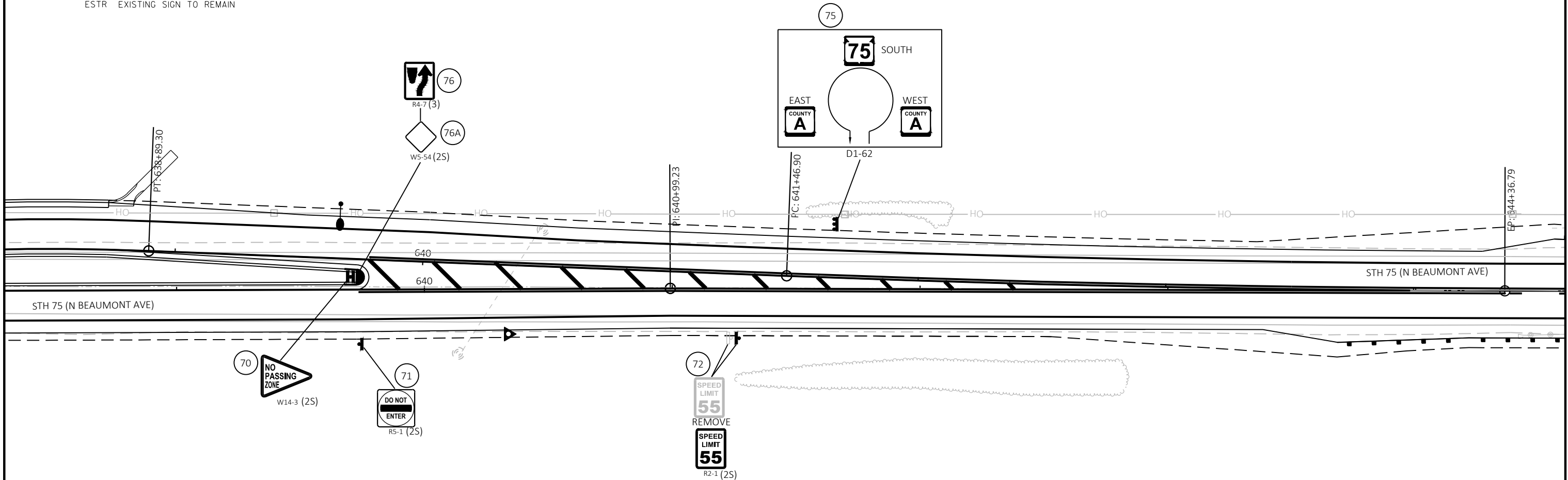
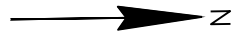
LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
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-  PROPOSED SIGN MOUNTED ON POST(S)
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-  CANTILEVER SIGN BRIDGE
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-  INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN













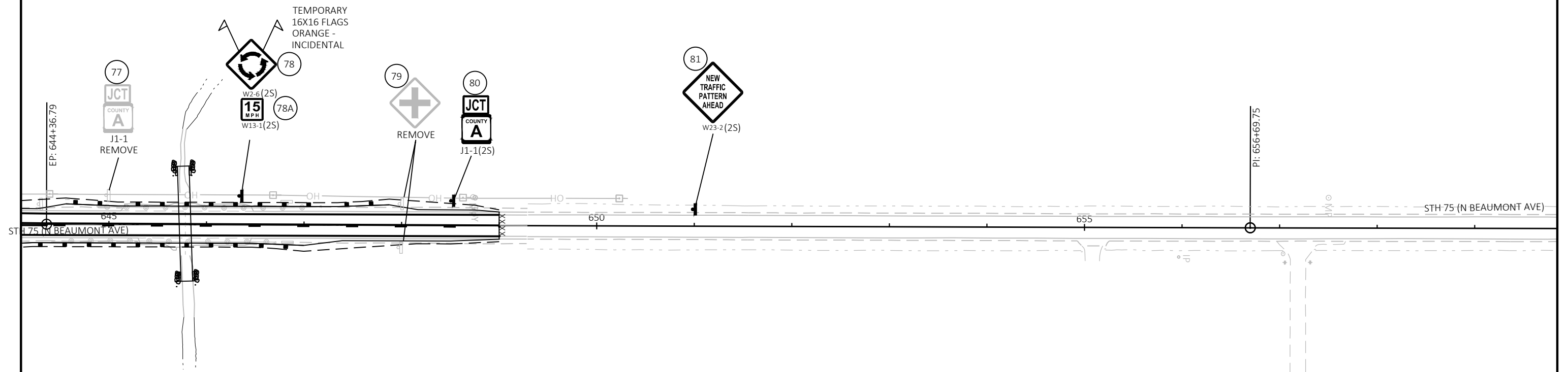
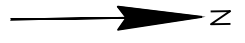
LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
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-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
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-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  (X) INDICATES SIGN SIZE
-  ESTR EXISTING SIGN TO REMAIN













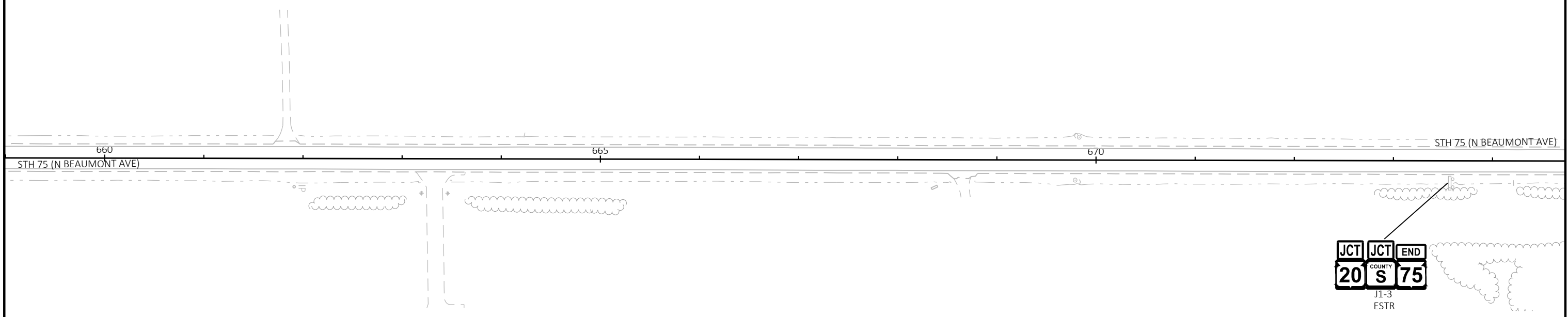
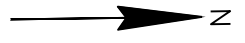
LEGEND

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-  INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN













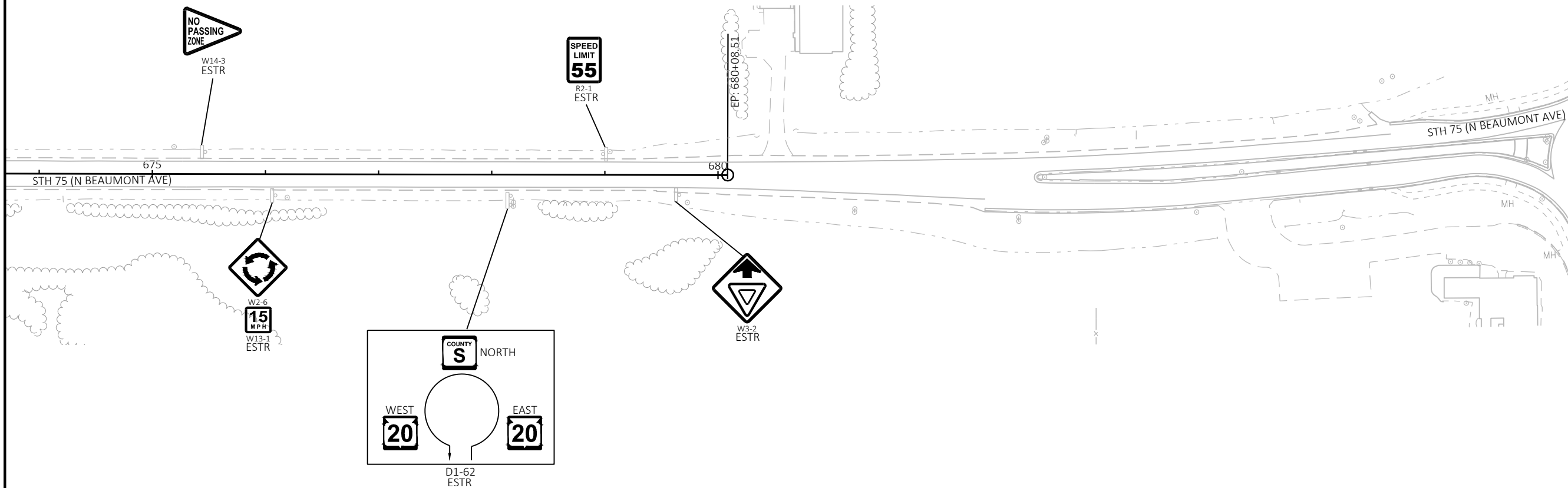
LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



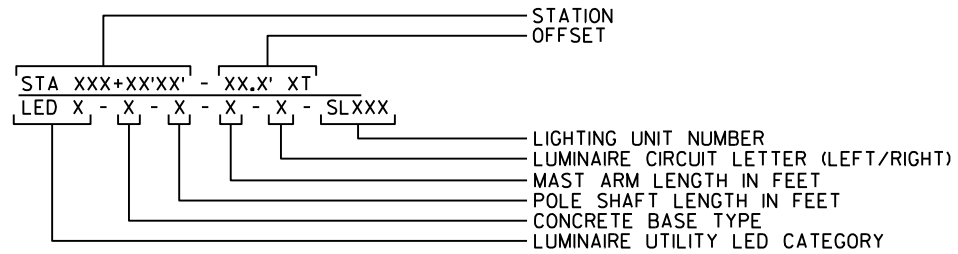
LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  (x) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



LIGHTING PLAN LEGEND:

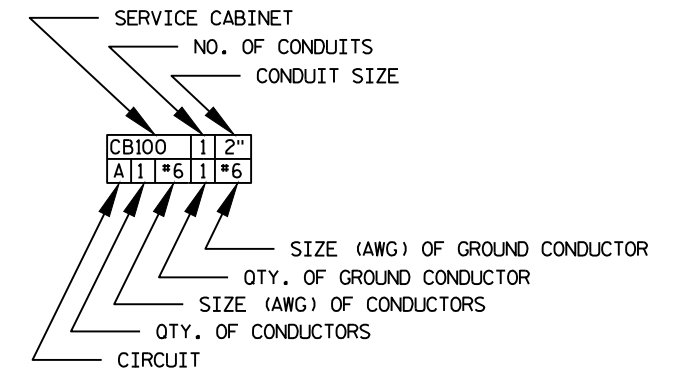
- SINGLE ARM LIGHTING UNIT
- ☒ CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE
- ⊗ PULL BOX NON-CONDUCTIVE (24"x42")
- LIGHTING CONDUIT SCHEDULE 40 (SIZED AS NOTED ON THE PLANS)



GENERAL STREET LIGHTING NOTES:

- 1) THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.
- 2) PITCH ALL CONDUITS TOWARD PULLBOXES. INSTALL A 2" DRAIN DUCT TO DITCH OR STORM SEWER AS REQUIRED FOR DRAINAGE. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM. DRAIN DUCT IS NOT SHOWN. DO NOT SPLICE IN PULLBOXES.
- 3) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 4) REFER TO STAKING DATA FOR EXACT OFFSET LOCATIONS, WITH ALL LOCATION APPROVED BY THE ENGINEER PRIOR TO INSTALL.

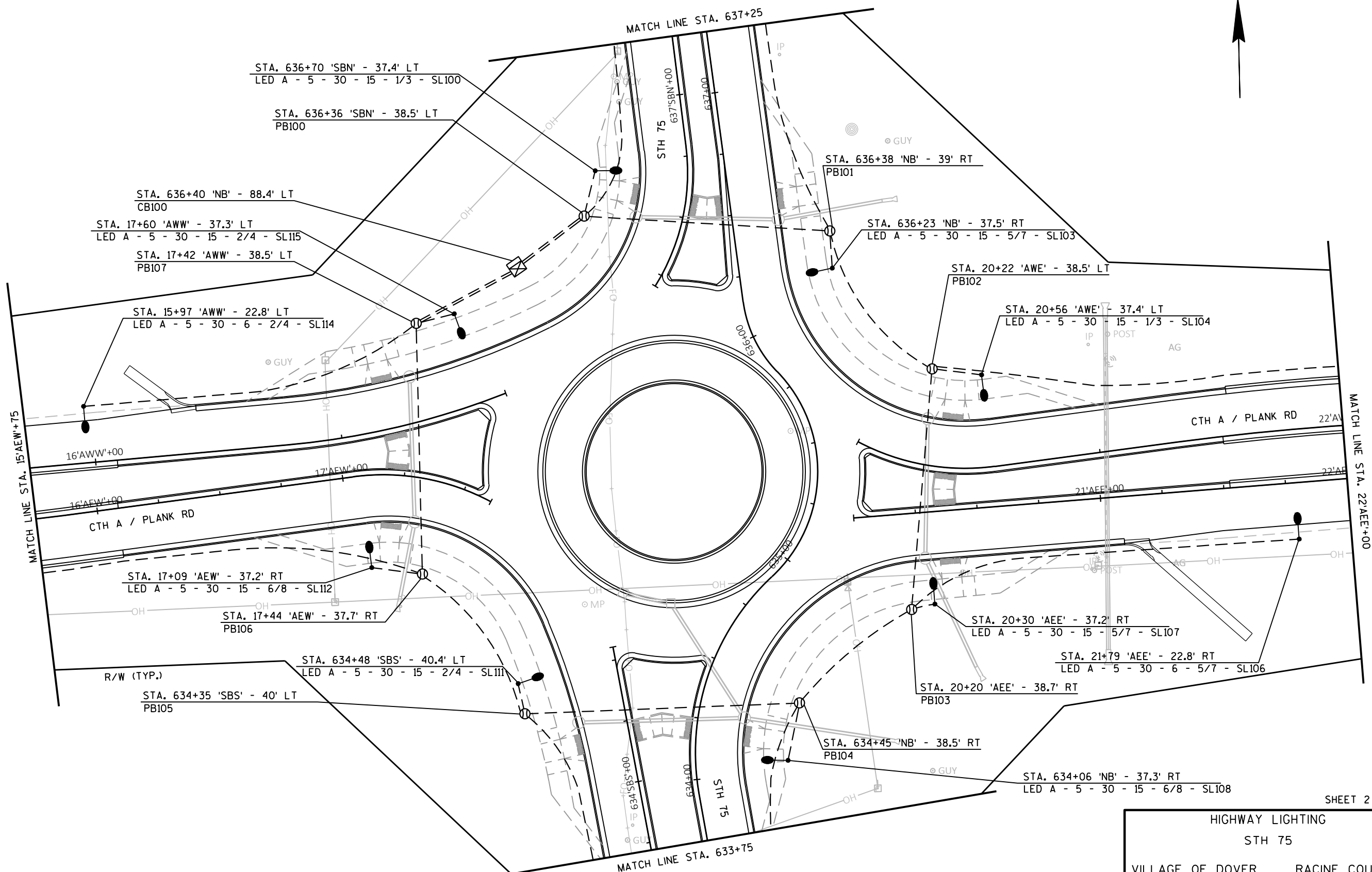
CONDUIT/CONDUCTOR LEGEND



PWO = PULL WIRE ONLY
 NEU = NEUTRAL

CONDUCTOR COLOR LEGEND

CB100	
<u>LIGHTING CONDUCTORS</u>	
1/3	- BLACK
2/4	- BLACK
5/7	- RED
6/8	- RED
240V PHASE TO PHASE	



SHEET 2 OF 5

HIGHWAY LIGHTING	
STH 75	
VILLAGE OF DOVER	RACINE COUNTY
LIGHTING NO. L-51-NK	
REGION CONTACT: SE REGION	

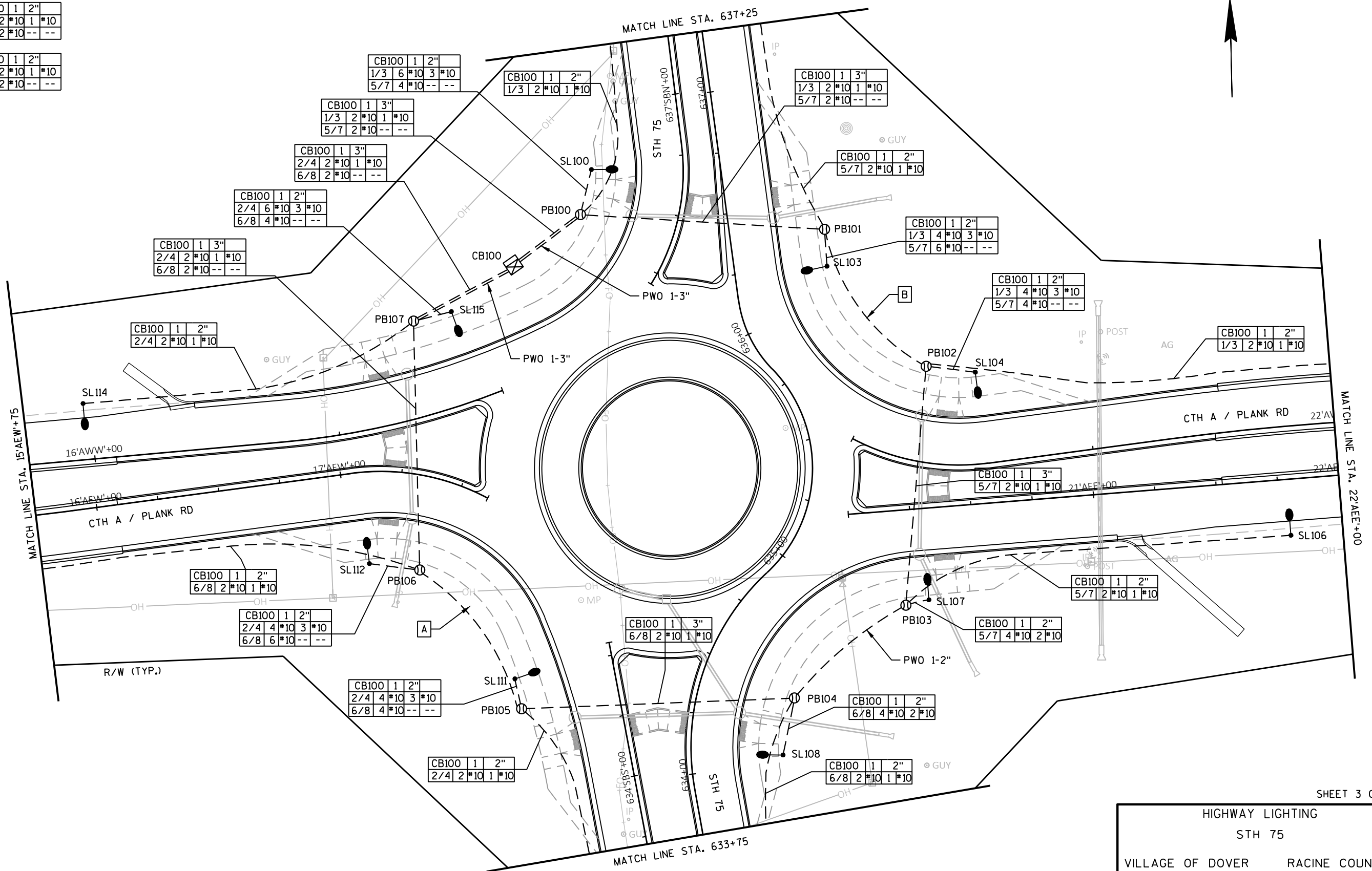


A =

CB100	1	2"
2/4	2	#10 1 #10
6/8	2	#10-- --

B =

CB100	1	2"
1/3	2	#10 1 #10
5/7	2	#10-- --



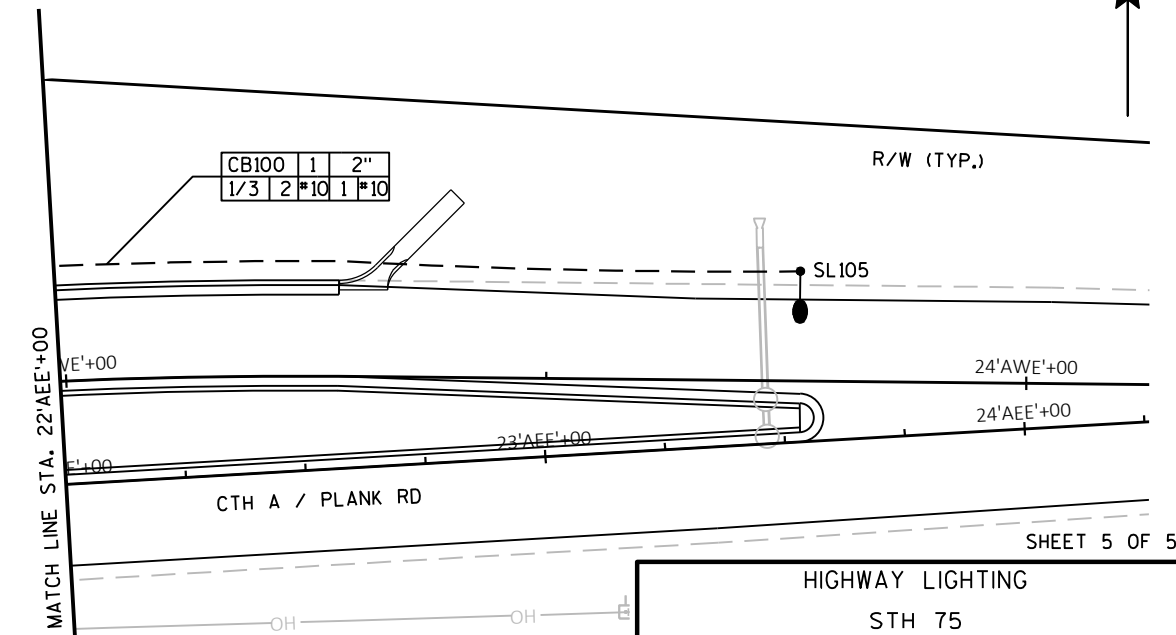
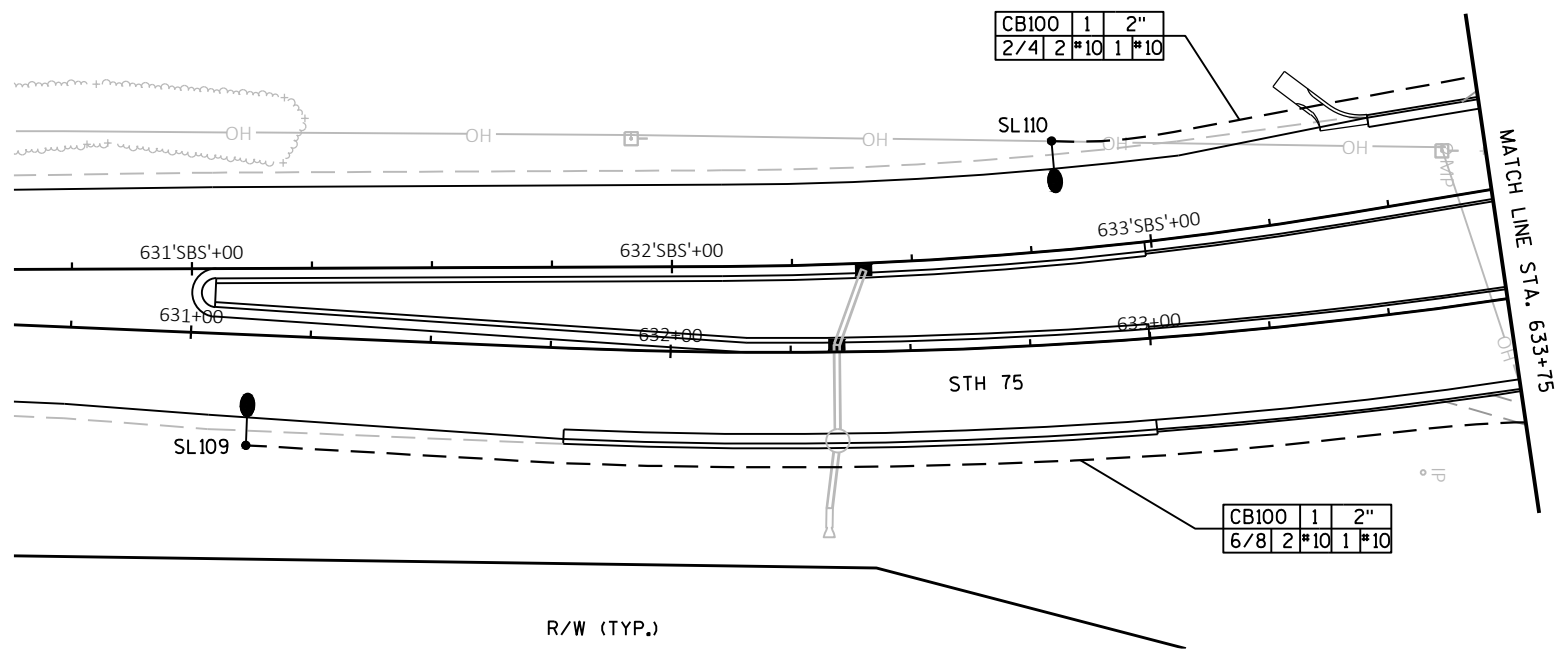
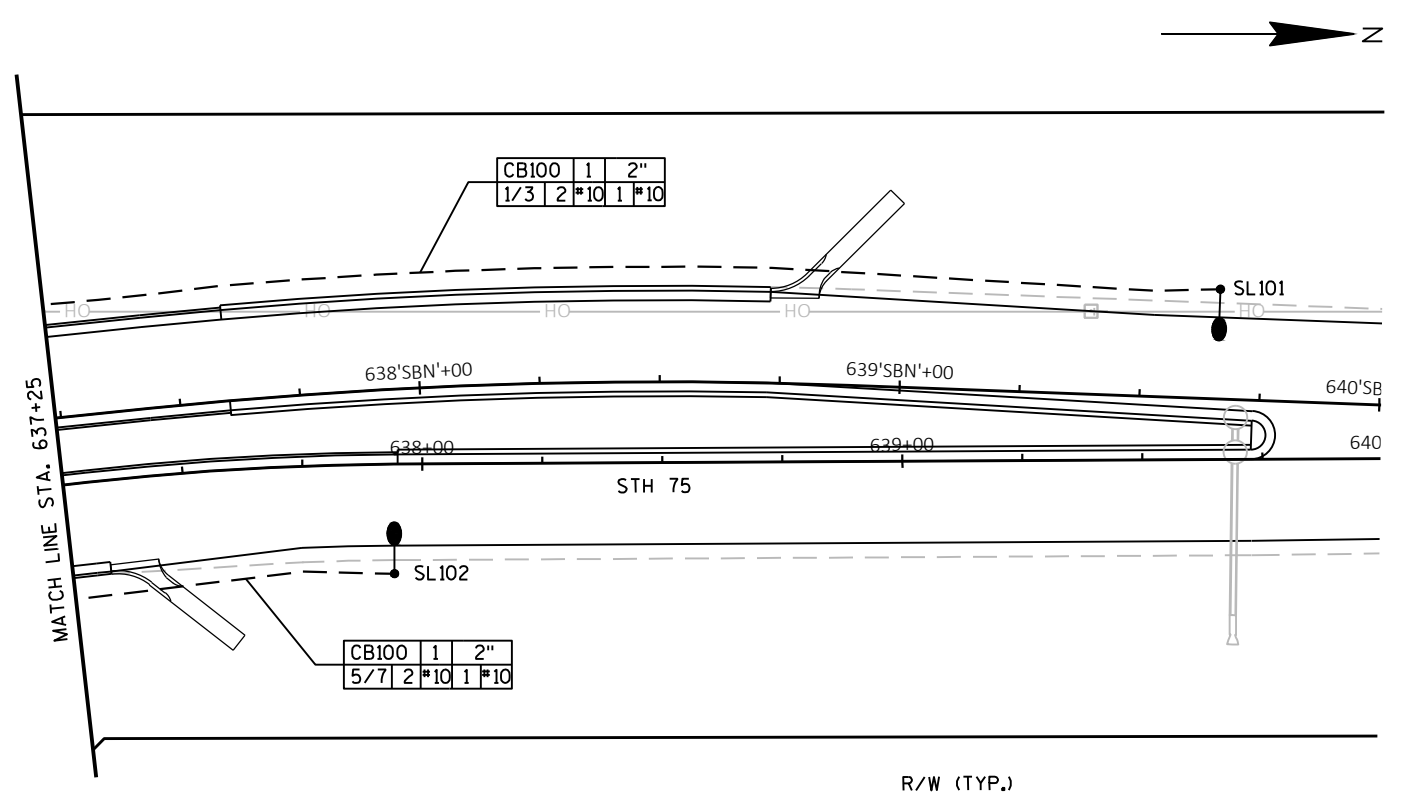
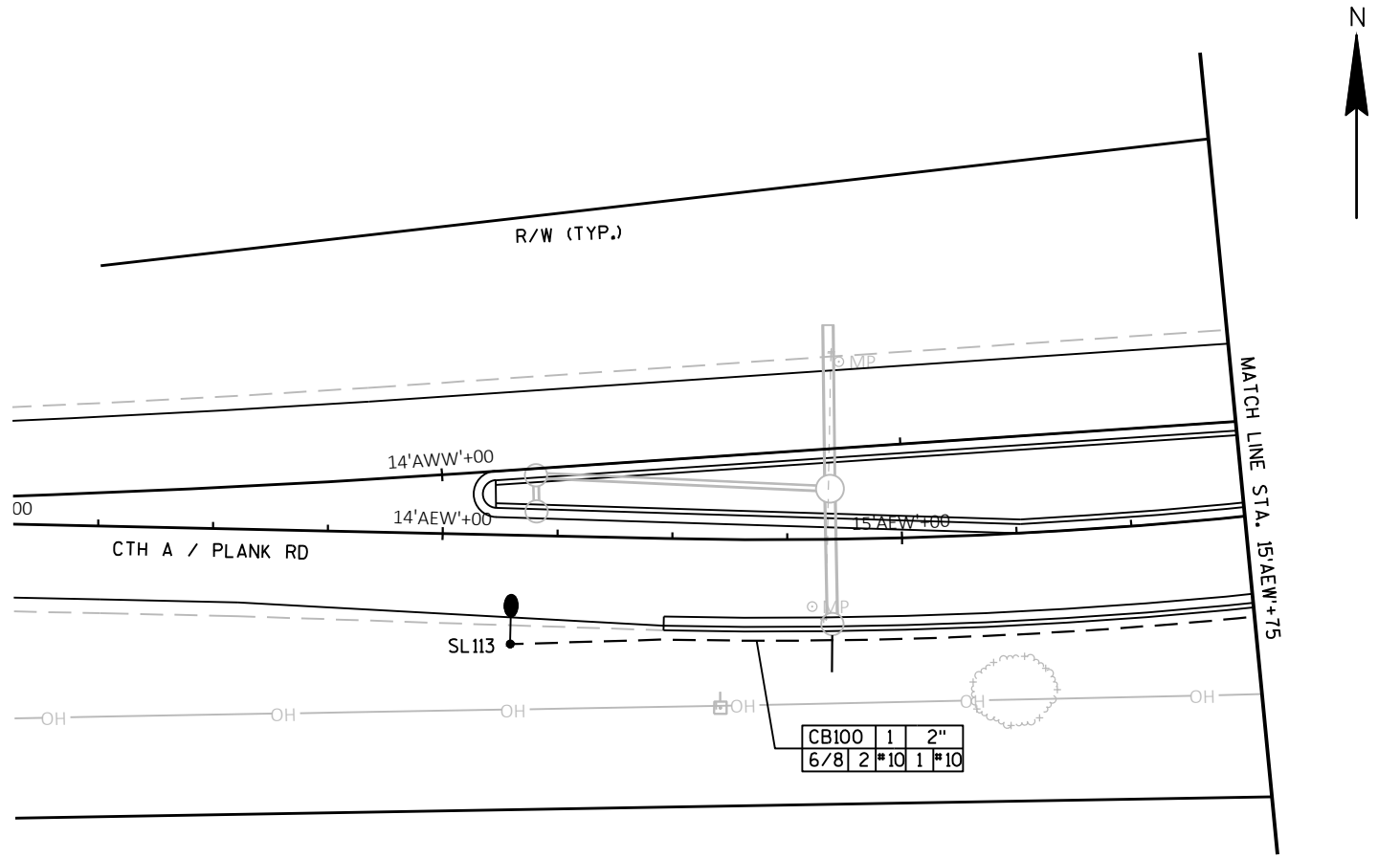
SHEET 3 OF 5

HIGHWAY LIGHTING
STH 75

VILLAGE OF DOVER RACINE COUNTY

LIGHTING NO. L-51-NK

REGION CONTACT: SE REGION



SHEET 5 OF 5

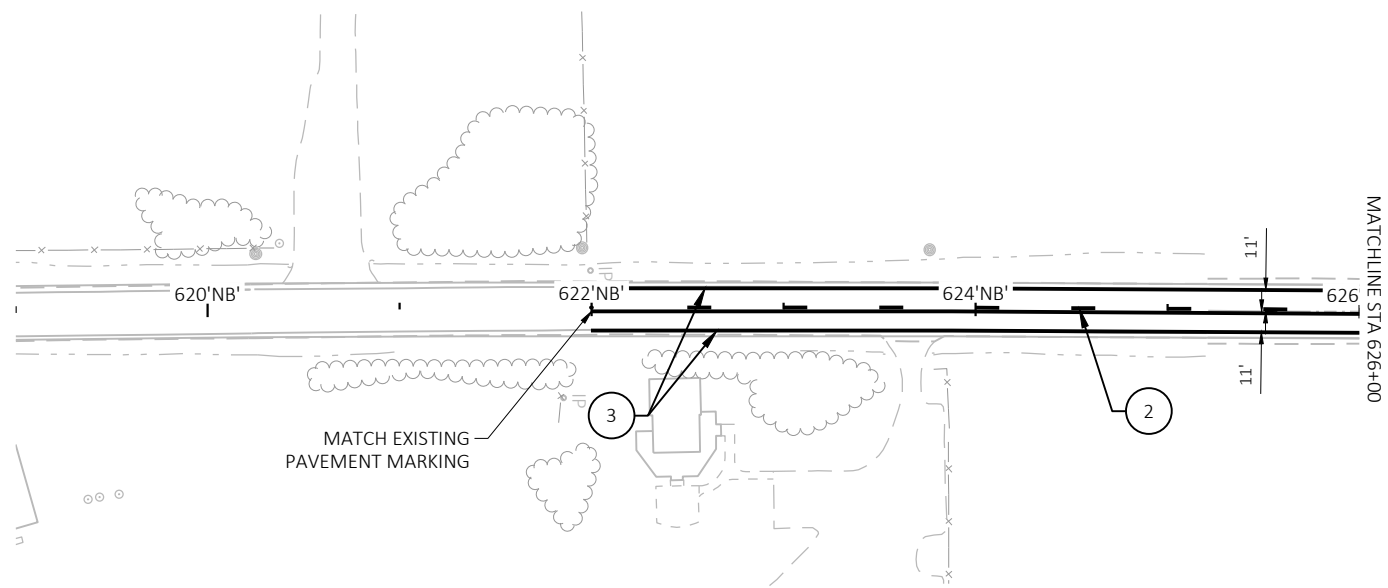
HIGHWAY LIGHTING
STH 75

VILLAGE OF DOVER RACINE COUNTY

LIGHTING NO. L-51-NK

REGION CONTACT: SE REGION

NOTE: ALIGNMENT AND PAVEMENT MARKING LOCATIONS ARE APPROXIMATE IN MILL AND OVERLAY AREAS. ALL LOCATIONS SHOULD BE FIT TO FIELD CONDITIONS, AND VERIFIED BY THE PROJECT ENGINEER.

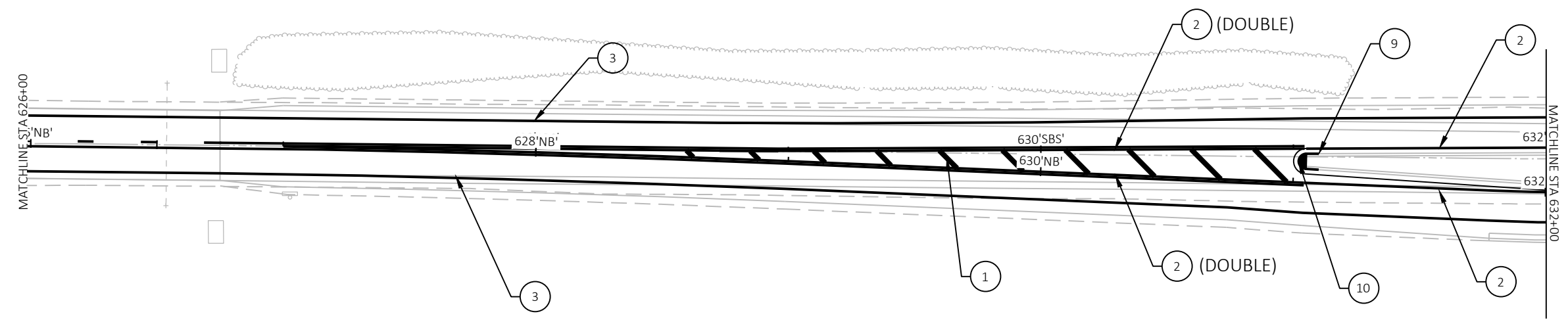


LEGEND

- ① MARKING DIAGONAL EPOXY 12-INCH
- ② MARKING LINE EPOXY 6-INCH (YELLOW)
- ③ MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- ⑤ MARKING LINE EPOXY 10-INCH
- ⑦ MARKING WORD EPOXY
- ⑨ MARKING CURB EPOXY
- ⑩ MARKING ISLAND NOSE EPOXY

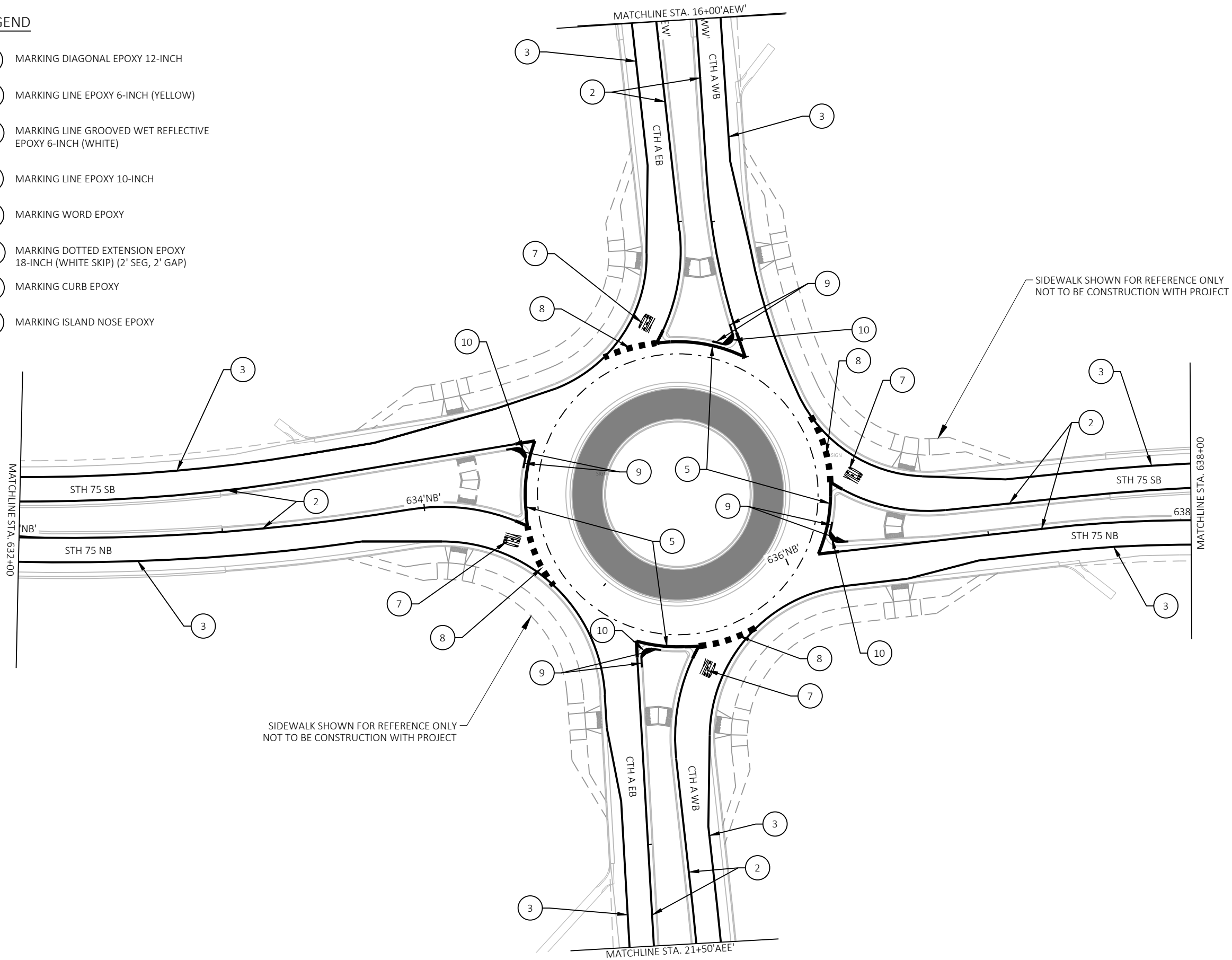
5

5



LEGEND

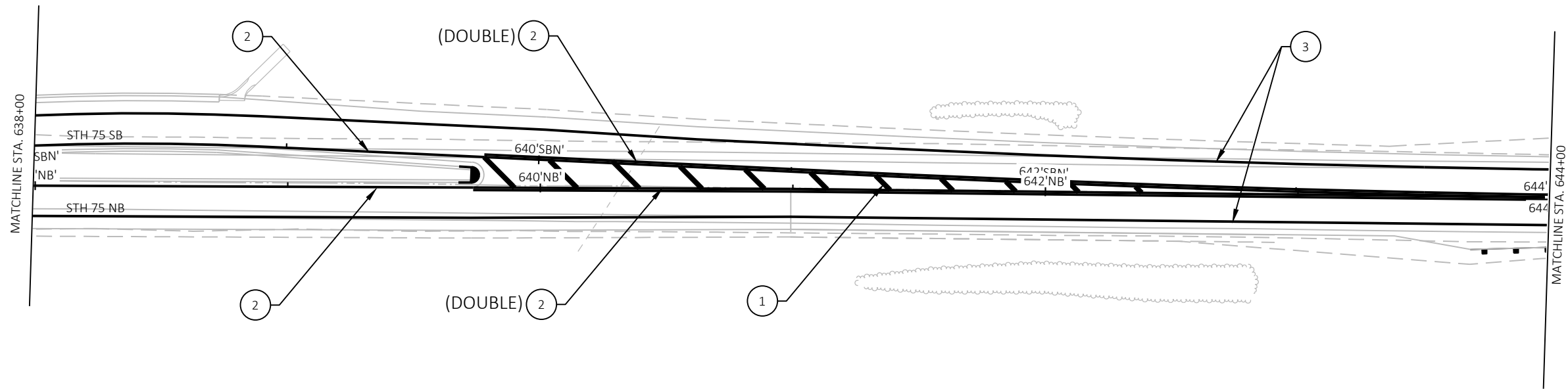
- ① MARKING DIAGONAL EPOXY 12-INCH
- ② MARKING LINE EPOXY 6-INCH (YELLOW)
- ③ MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- ⑤ MARKING LINE EPOXY 10-INCH
- ⑦ MARKING WORD EPOXY
- ⑧ MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE SKIP) (2' SEG, 2' GAP)
- ⑨ MARKING CURB EPOXY
- ⑩ MARKING ISLAND NOSE EPOXY



5

5

PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E
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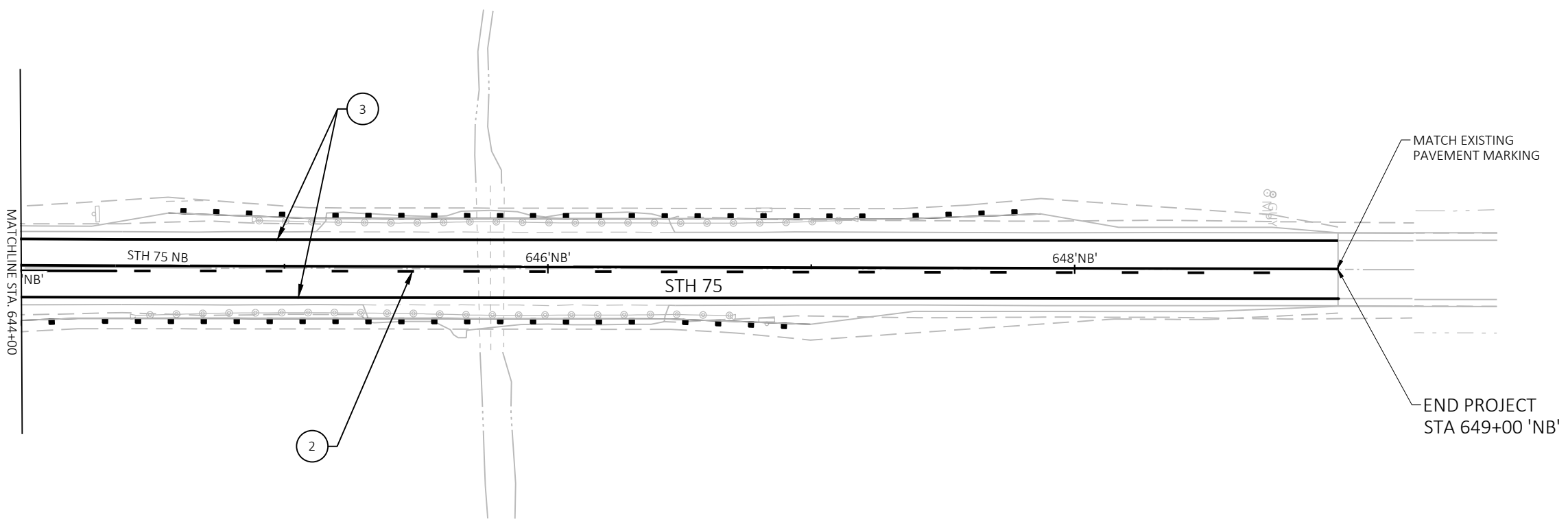


5

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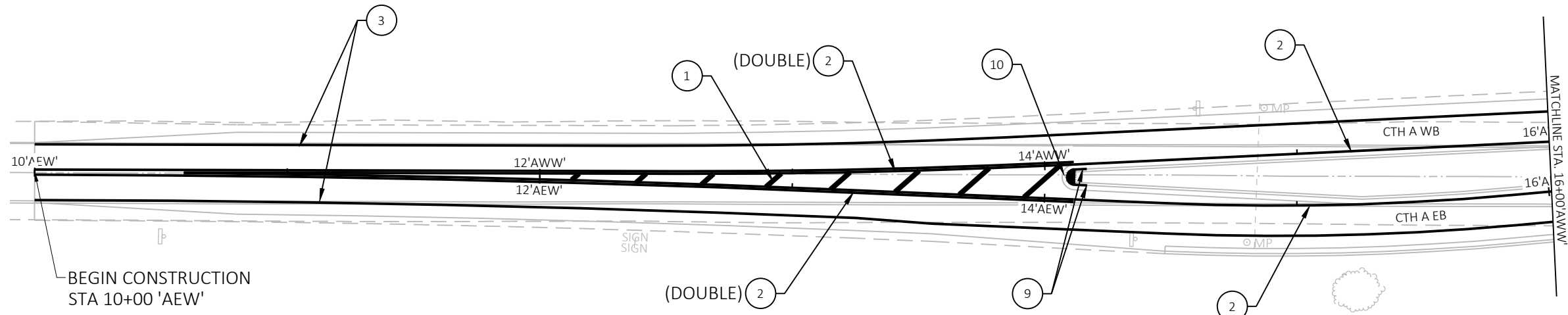
LEGEND

- 1 MARKING DIAGONAL EPOXY 12-INCH
- 2 MARKING LINE EPOXY 6-INCH (YELLOW)
- 3 MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- 5 MARKING LINE EPOXY 10-INCH
- 7 MARKING WORD EPOXY
- 9 MARKING CURB EPOXY
- 10 MARKING ISLAND NOSE EPOXY



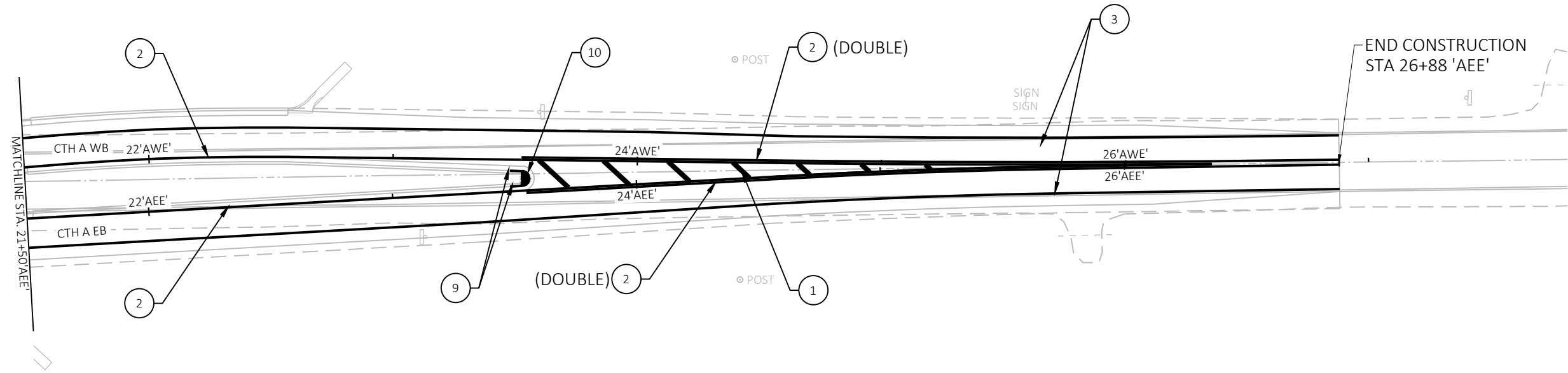
LEGEND

- ① MARKING DIAGONAL EPOXY 12-INCH
- ② MARKING LINE EPOXY 6-INCH (YELLOW)
- ③ MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)
- ⑤ MARKING LINE EPOXY 10-INCH
- ⑦ MARKING WORD EPOXY
- ⑨ MARKING CURB EPOXY
- ⑩ MARKING ISLAND NOSE EPOXY







5

5



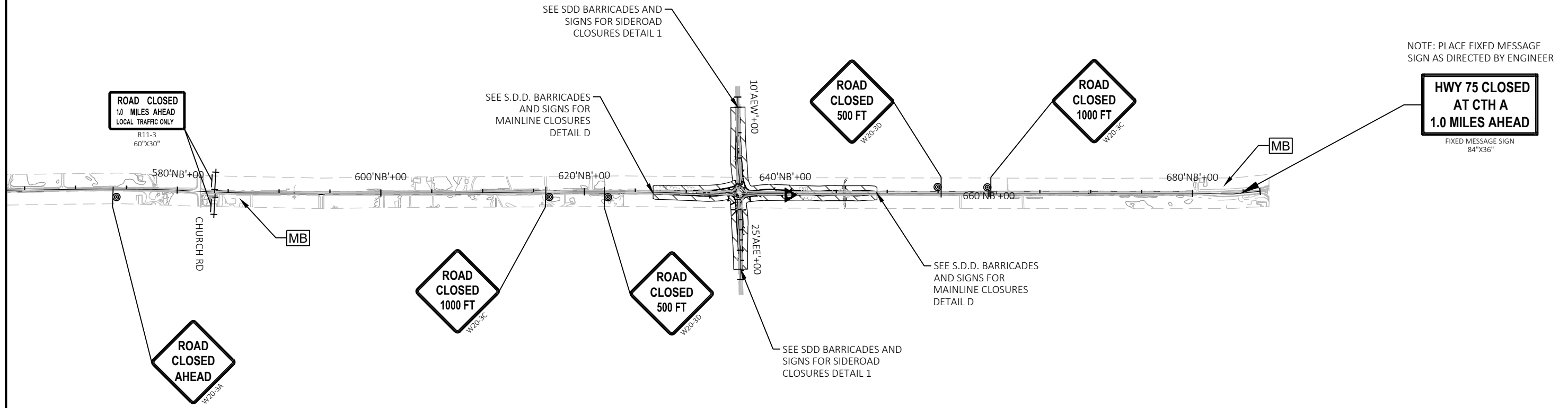
LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  WORK AREA
-  PORTABLE CHANGEABLE MESSAGE BOARD

NOTE:
SEE SDD BARRICADES AND SIGNS FOR
MAINLINE CLOSURES DETAIL B AND
DETOUR PLANS FOR ADDITIONAL
INFORMATION NOT SHOWN.



PCMS (7 DAYS PRIOR TO DETOUR)		
EVENT	PHASE 1	PHASE 2
ROAD	ROAD	(DAY)
CLOSED	CLOSED	(DATE)
	STARTING	



NOTE: PLACE FIXED MESSAGE SIGN AS DIRECTED BY ENGINEER

NOTES

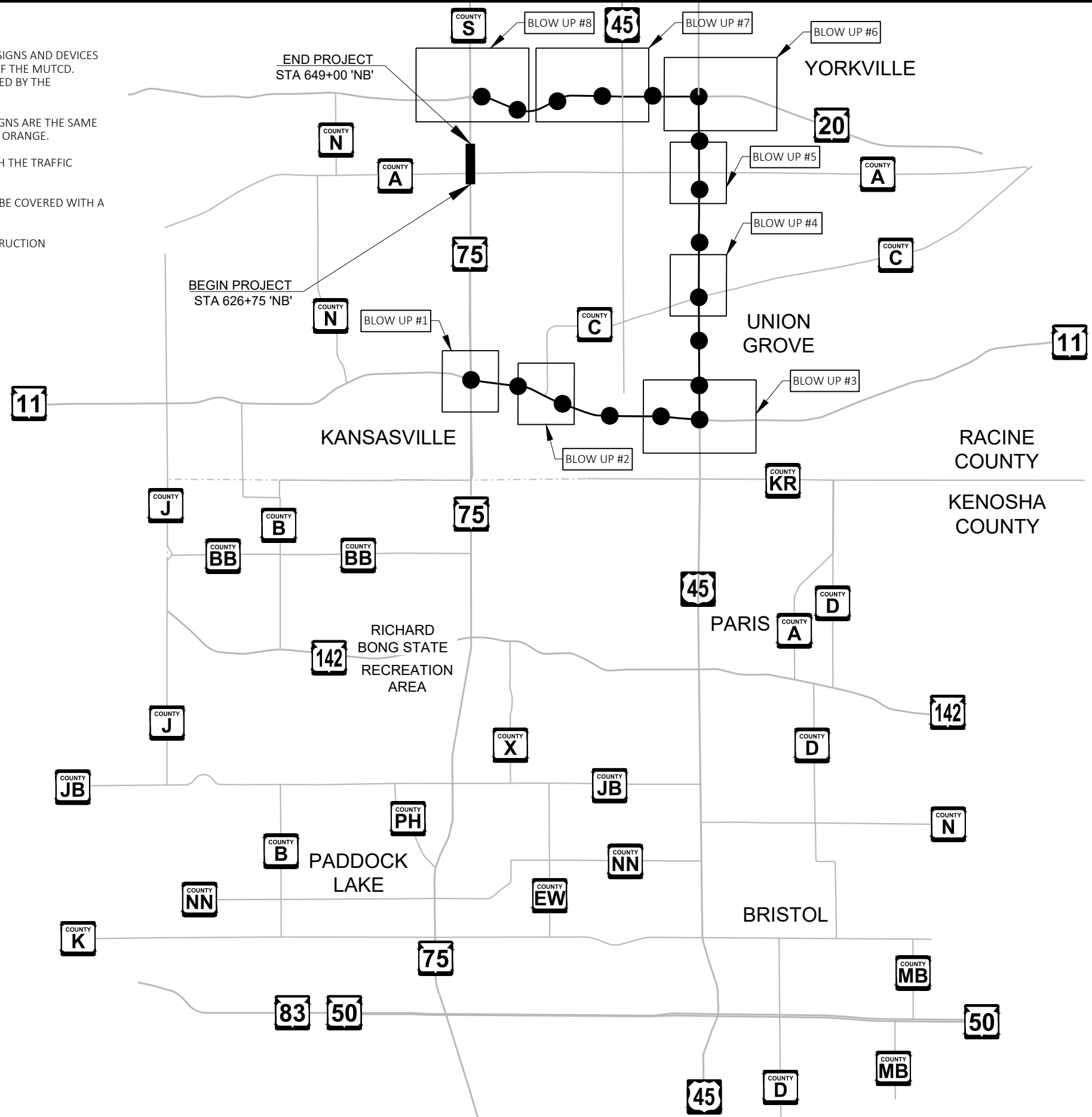
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. ADJUSTMENTS TO FIELD CONDITONS SHALL BE APPROVED BY THE ENGINEER.

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

ALL SIGNS, TEMPORARY OR EXISTING, IN CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED.



ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL.

ANY "STOP" SIGNS WHICH ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.



 COVER EXISTING SIGNS

LEGEND

-  DETOUR ROUTE
-  PROJECT LOCATION

PROJECT NO: 2420-00-70

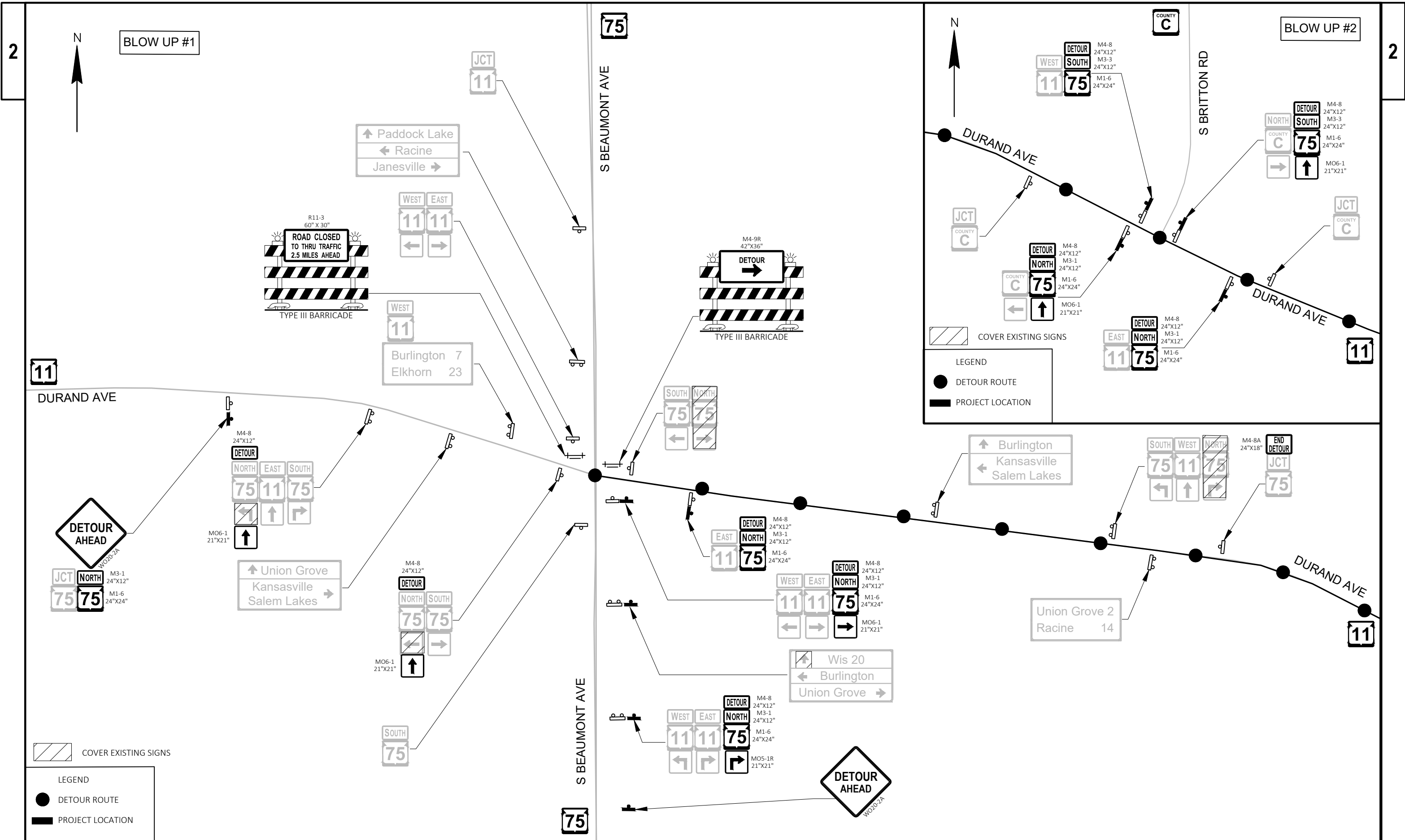
HWY: STH 75

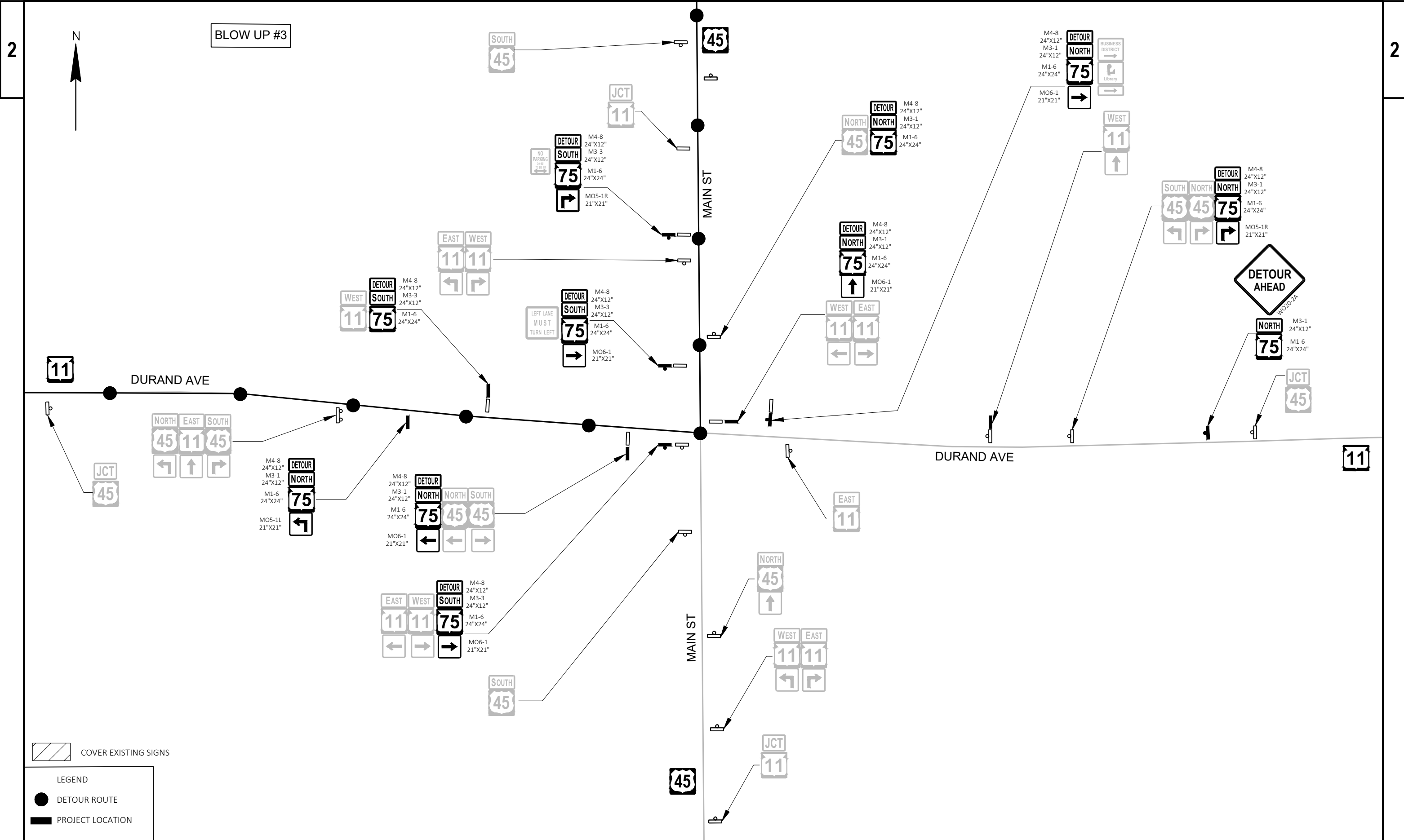
COUNTY: RACINE

DETOUR ROUTE - OVERVIEW

SHEET

E



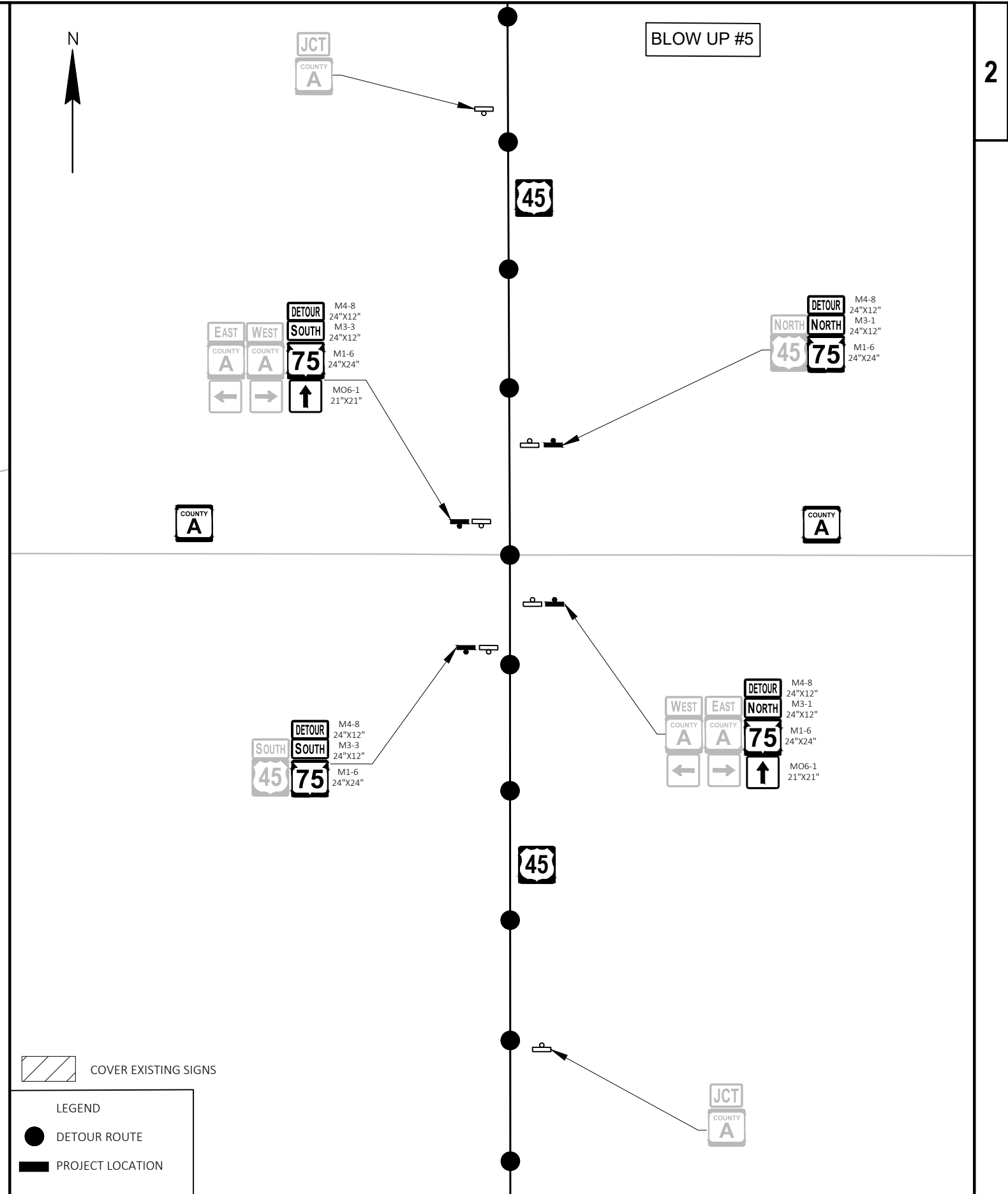
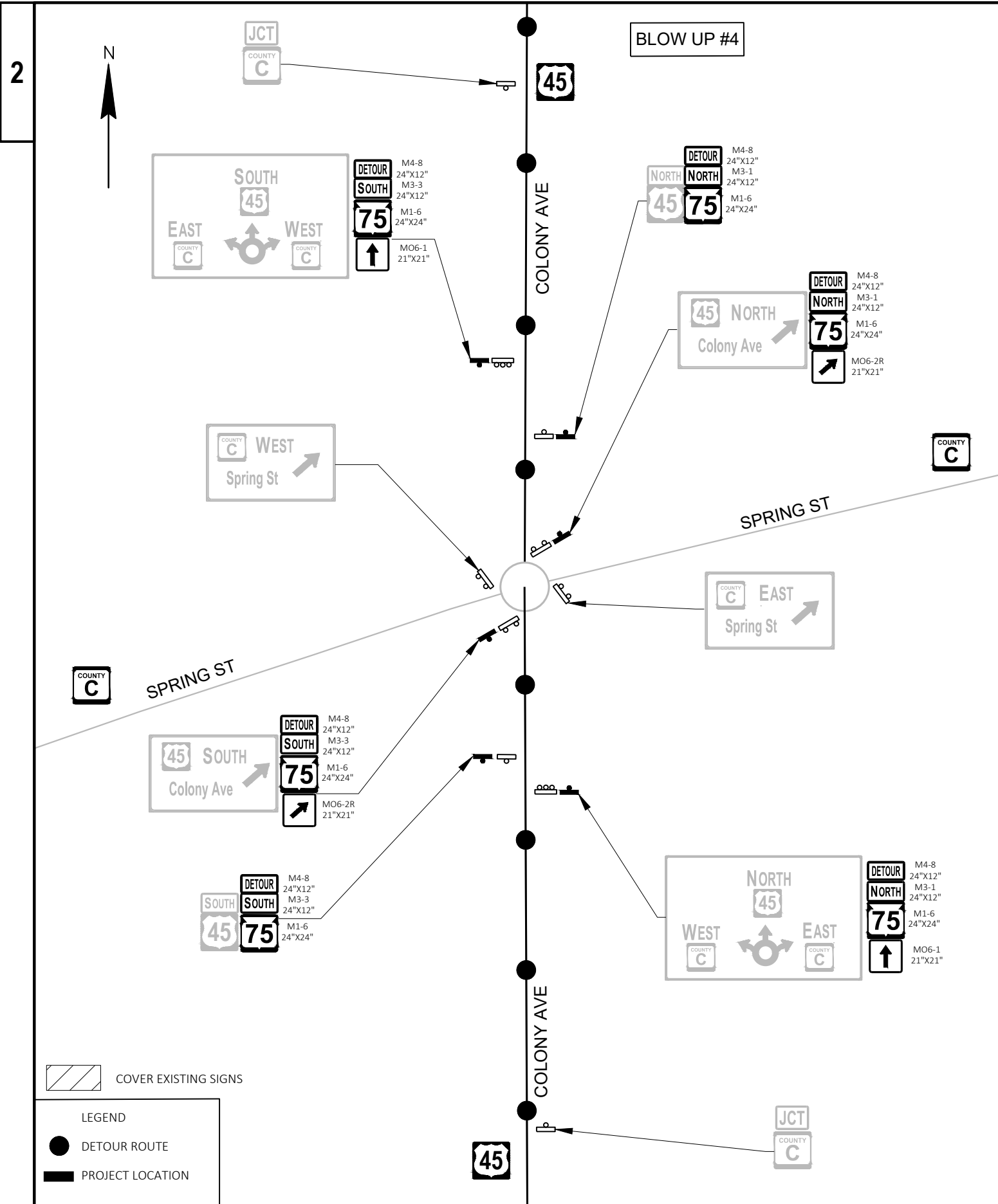


COVER EXISTING SIGNS

LEGEND

- DETOUR ROUTE
- ▬ PROJECT LOCATION

PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE DETOUR ROUTE - BLOW UP #3 SHEET E



PROJECT NO: 2420-00-70

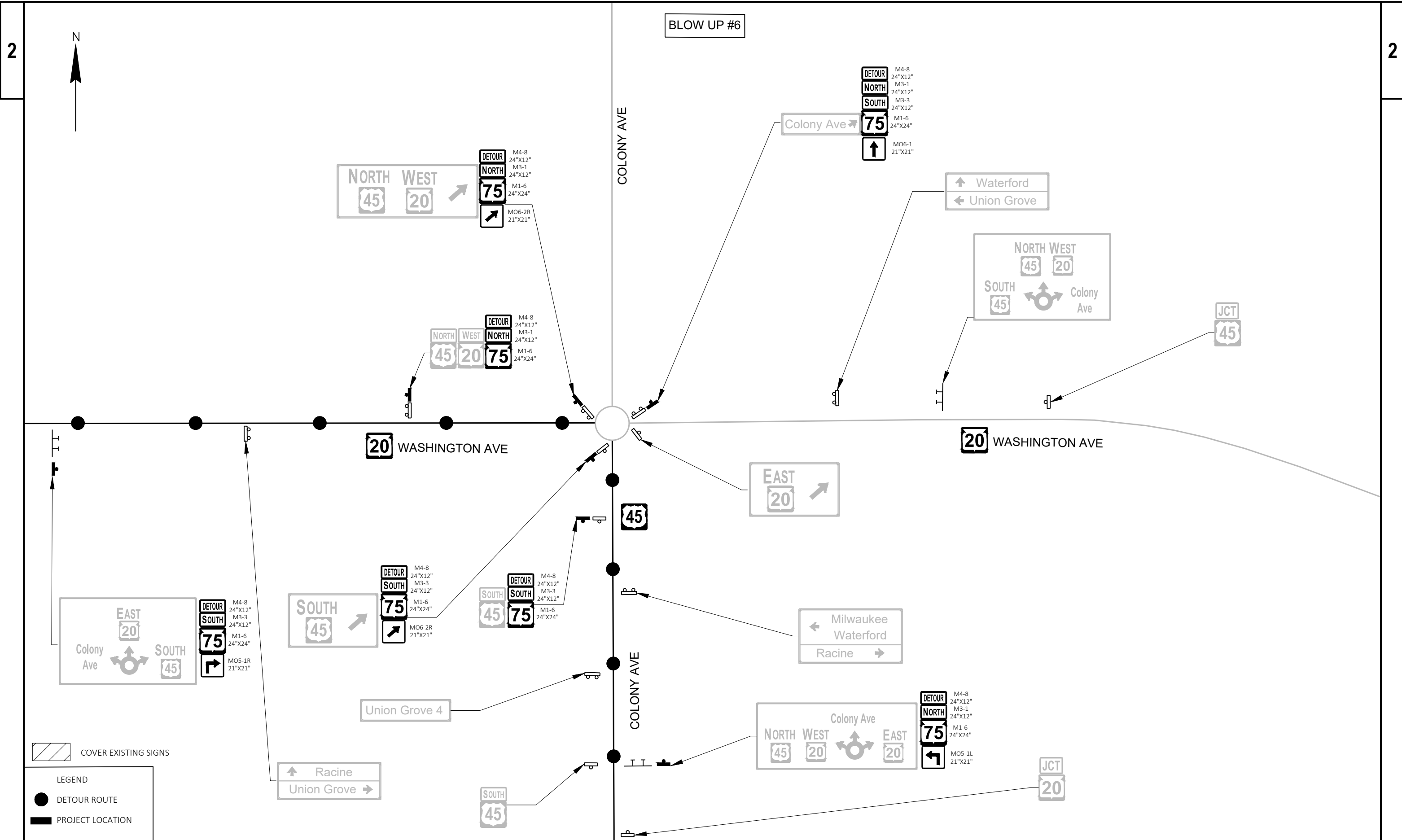
HWY: STH 75

COUNTY: RACINE

DETOUR ROUTE - BLOW UP #4 - 5

SHEET

E



BLOW UP #6

2

2

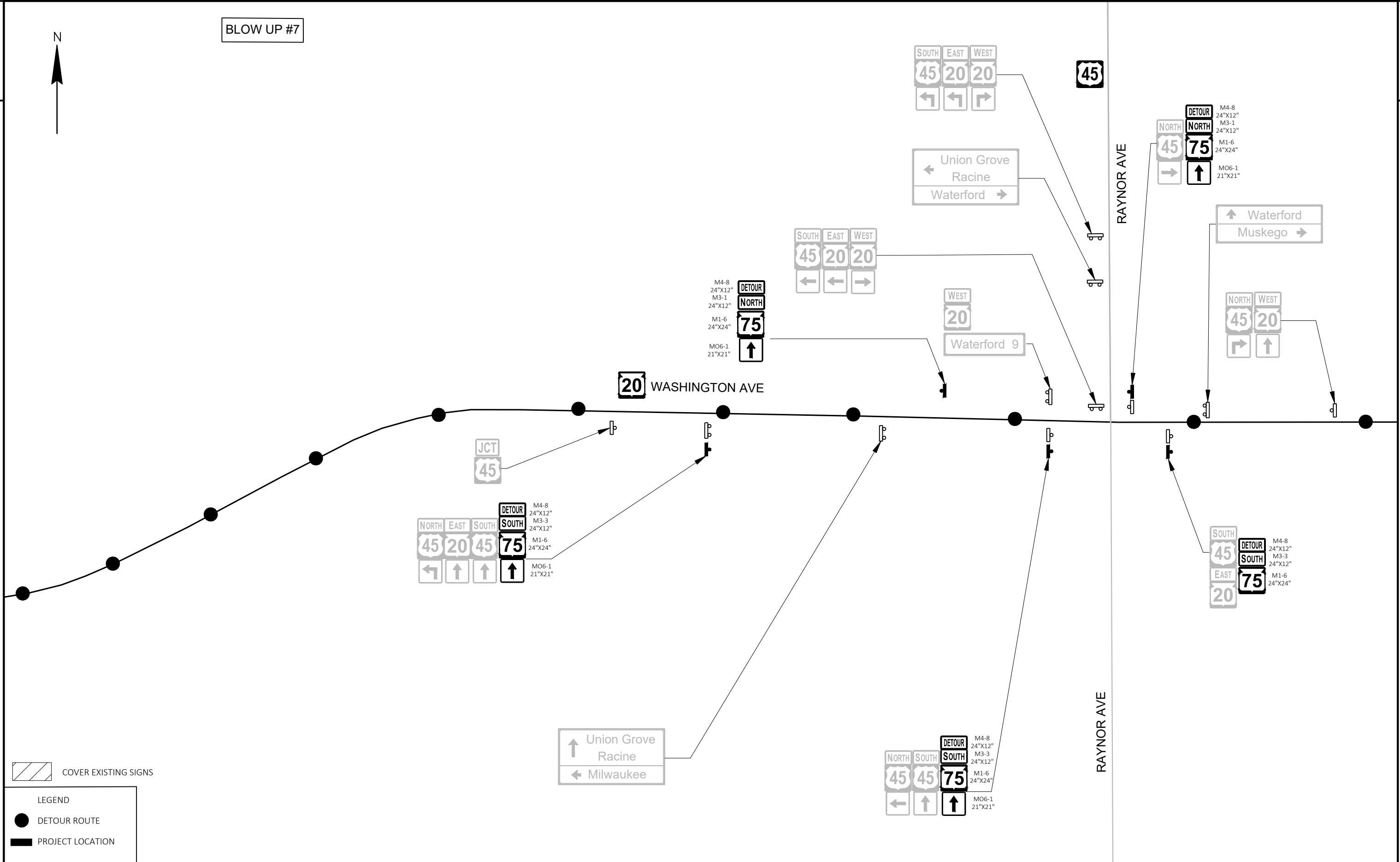
COVER EXISTING SIGNS


LEGEND
 ● DETOUR ROUTE
 ■ PROJECT LOCATION

PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE DETOUR ROUTE - BLOW UP #6 SHEET E


FILE NAME : G:\WDOTSE\20066-000 (STH 75)\CIVIL 3D\SHEETS\PLAN\027002-DT.DWG PLOT DATE : 11/14/2023 8:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1in:1.5Mi WISDOT/CADDs SHEET 42


BLOW UP #7



 COVER EXISTING SIGNS

LEGEND

 DETOUR ROUTE

 PROJECT LOCATION

PROJECT NO: 2420-00-70

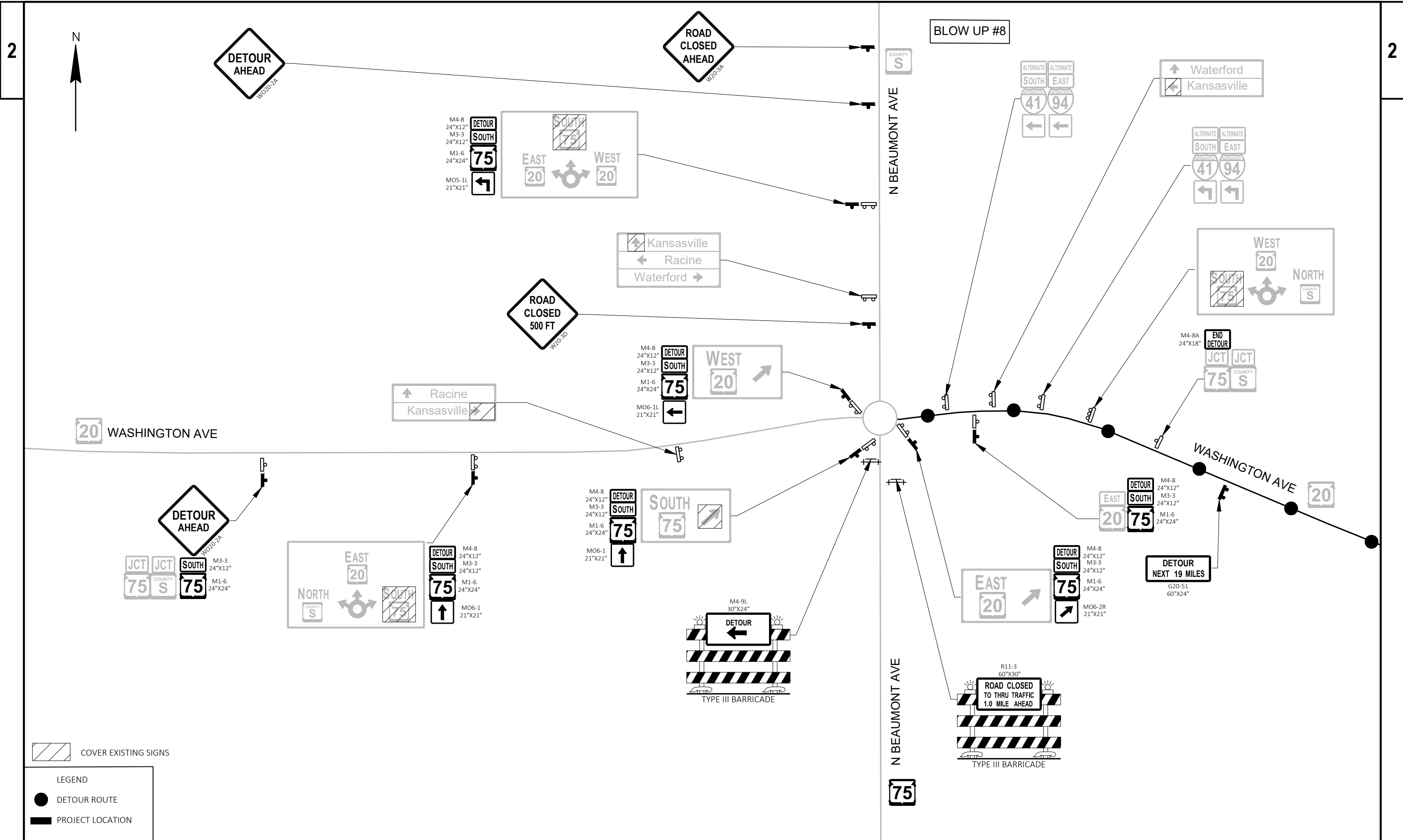
HWY: STH 75

COUNTY: RACINE

DETOUR ROUTE - BLOW UP #7

SHEET

E



 COVER EXISTING SIGNS
LEGEND
 DETOUR ROUTE
 PROJECT LOCATION

PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE DETOUR ROUTE - BLOW UP #8 SHEET **E**

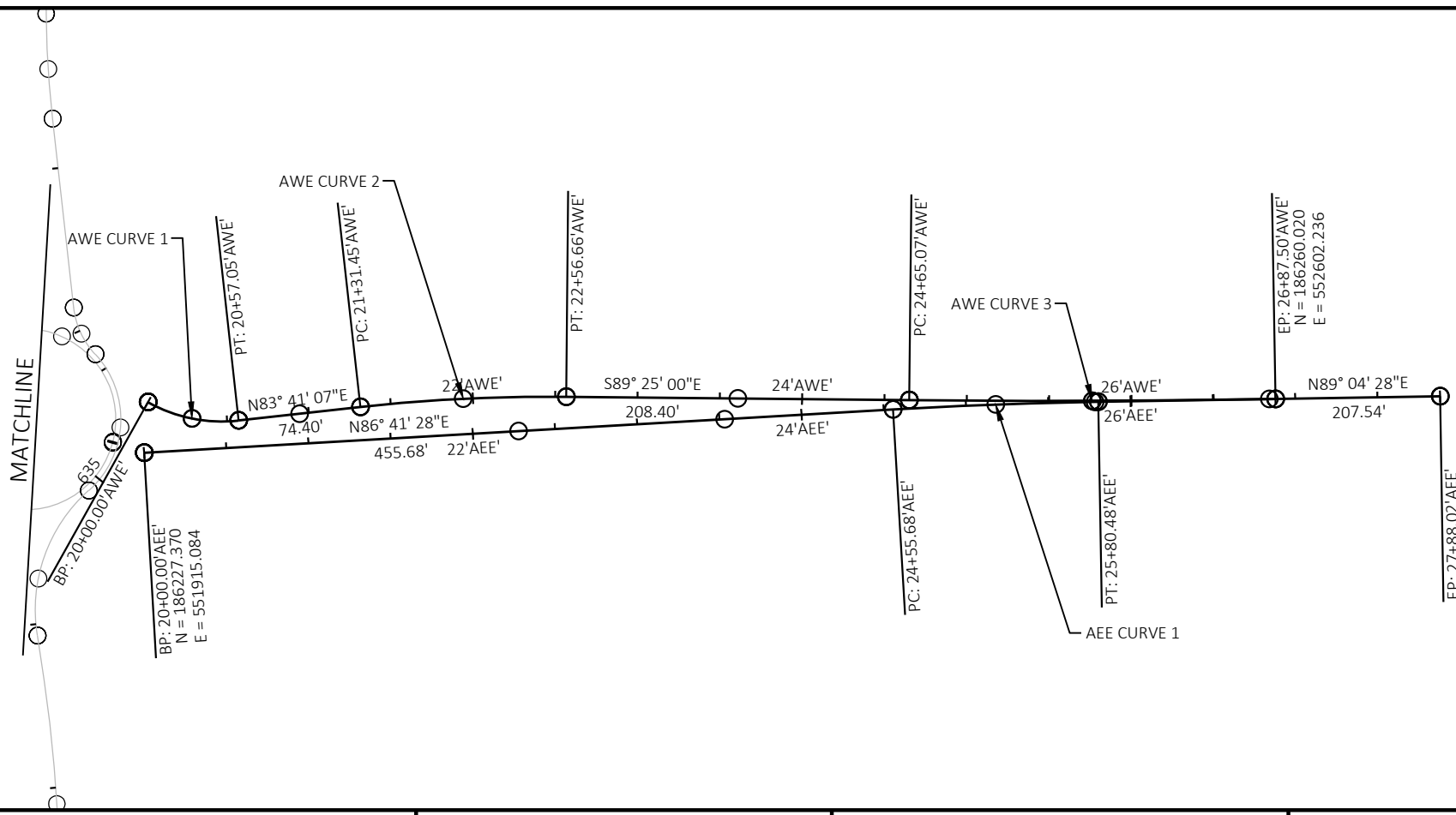
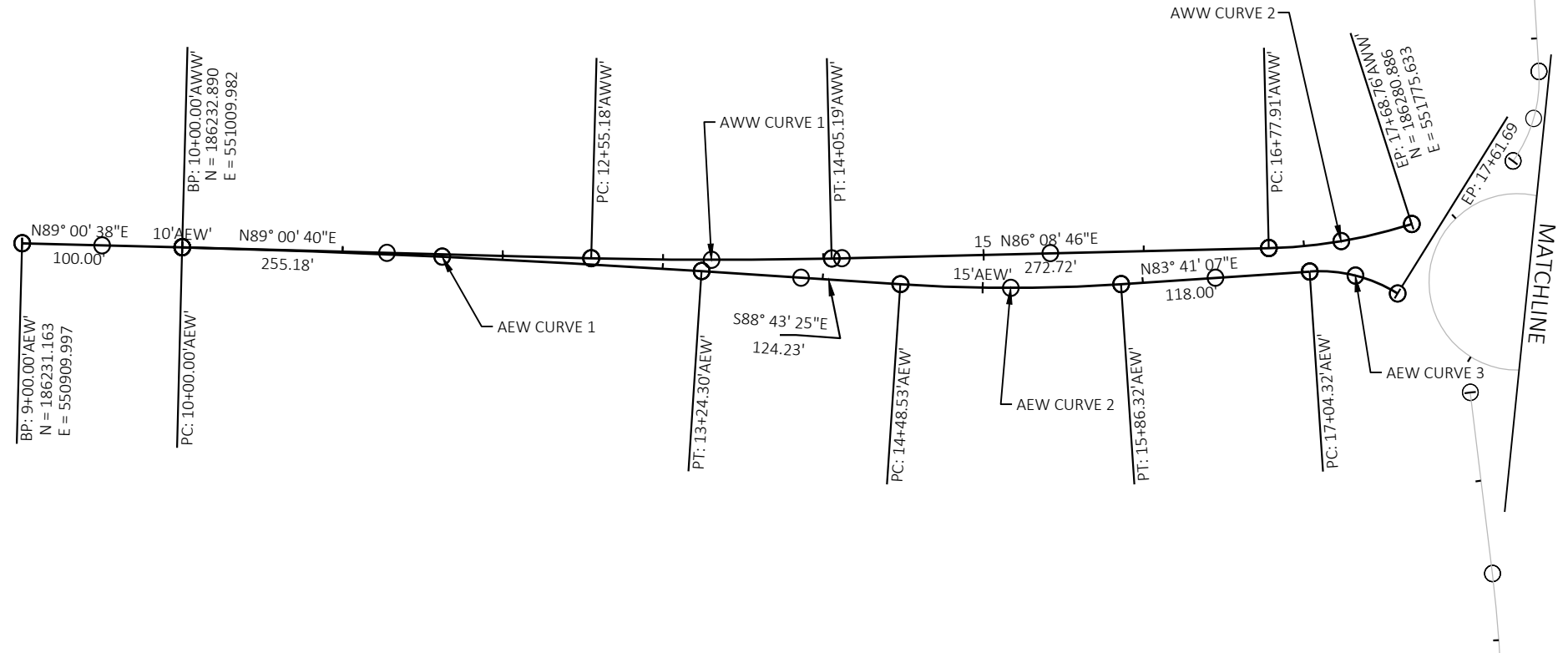
AWW CURVE 1
 PI STA = 13+30.20
 Y = 186238.589
 X = 551340.136
 DELTA = 2°51'54"
 D = 1°54'35"
 T = 75.02'
 L = 150.01'
 R = 3000.00'
 PC STA = 12+55.18
 PT STA = 14+05.19

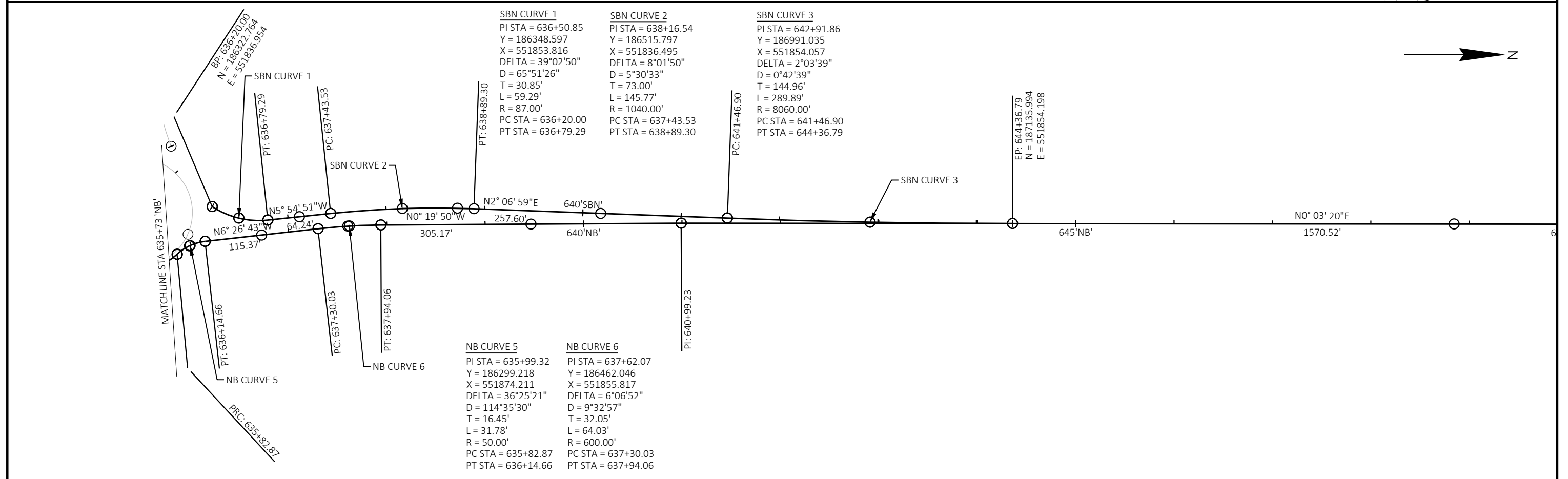
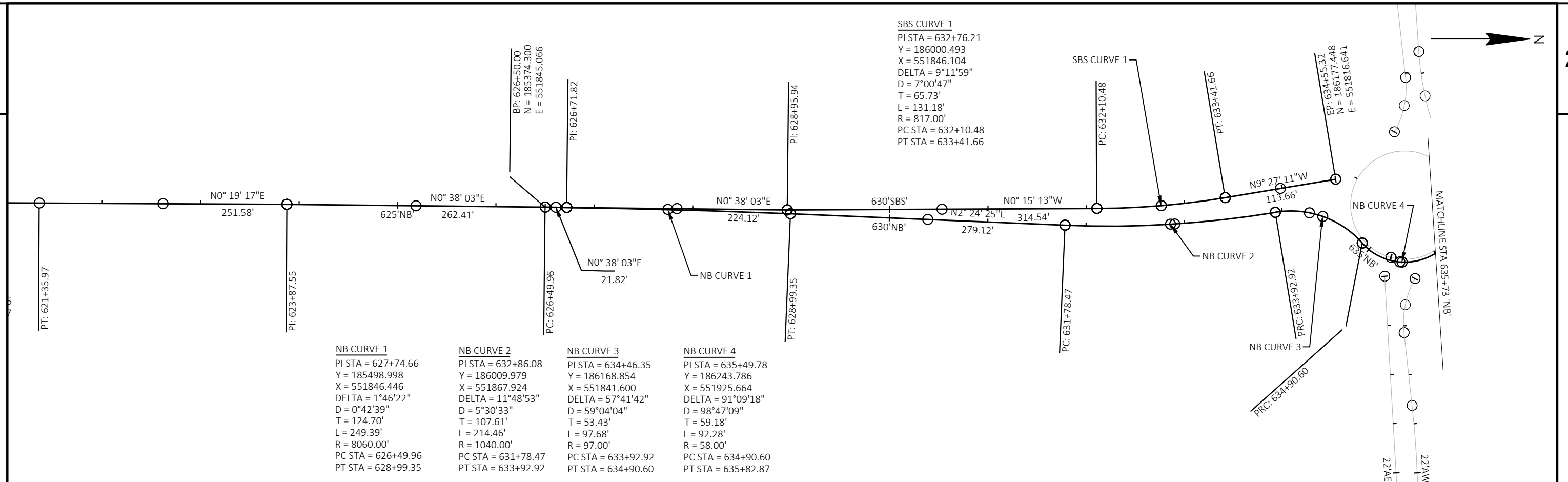
AWW CURVE 2
 PI STA = 17+23.65
 Y = 186265.036
 X = 551732.727
 DELTA = 16°25'15"
 D = 18°04'28"
 T = 45.74'
 L = 90.85'
 R = 317.00'
 PC STA = 16+77.91
 PT STA = 17+68.76

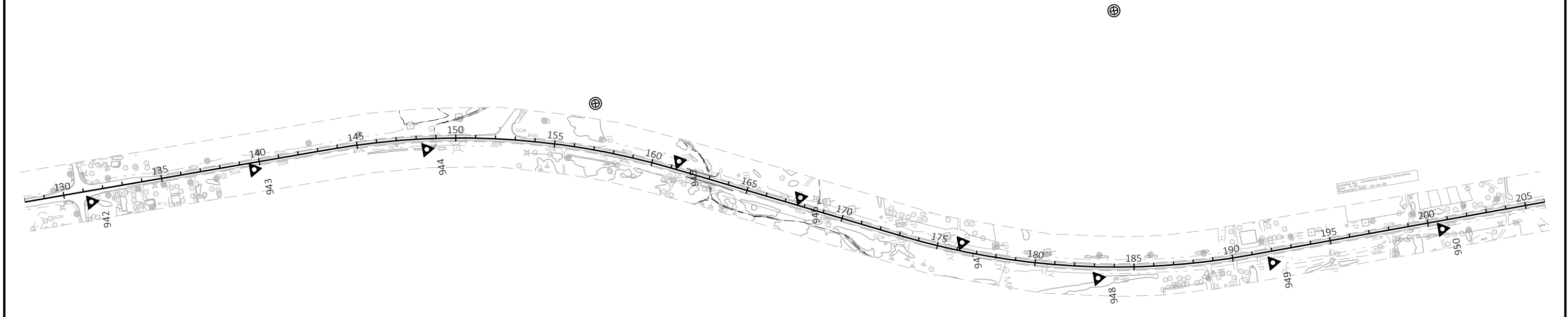
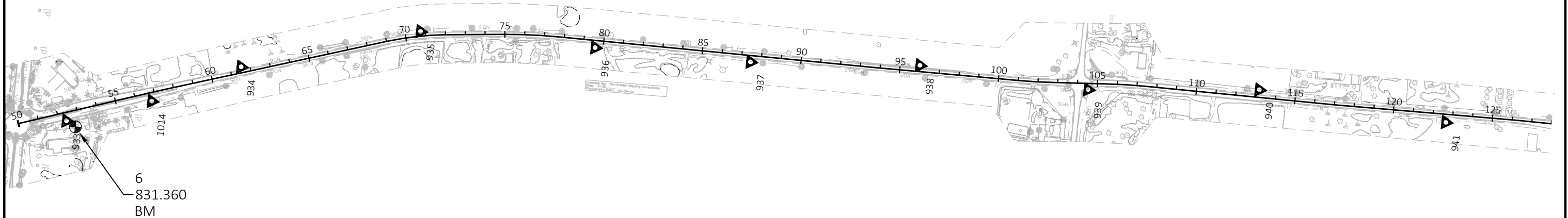
AEW CURVE 1
 PI STA = 11+62.17
 Y = 186235.802
 X = 551172.126
 DELTA = 2°18'19"
 D = 0°42'39"
 T = 162.17'
 L = 324.30'
 R = 8060.00'
 PC STA = 10+00.00
 PT STA = 13+24.30

AEW CURVE 2
 PI STA = 15+17.52
 Y = 186227.885
 X = 551527.435
 DELTA = 7°35'28"
 D = 5°30'33"
 T = 69.00'
 L = 137.79'
 R = 1040.00'
 PC STA = 14+48.53
 PT STA = 15+86.32

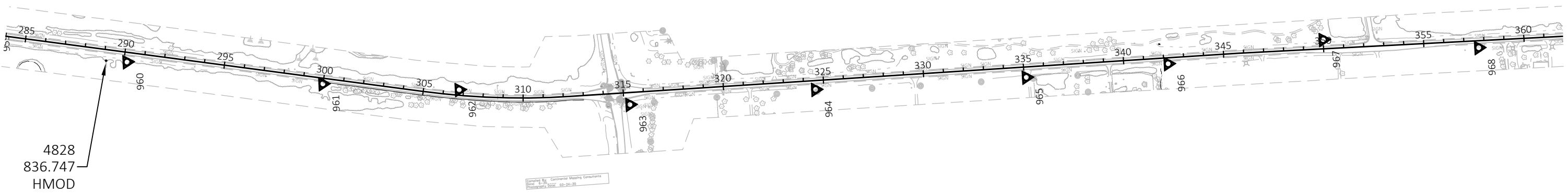
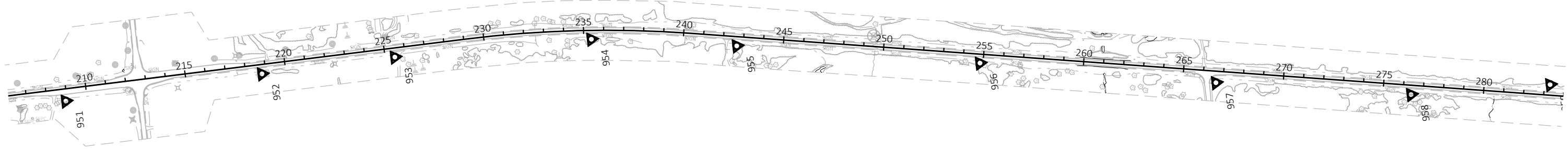
AEW CURVE 3
 PI STA = 17+33.97
 Y = 186251.715
 X = 551742.771
 DELTA = 35°43'57"
 D = 62°16'41"
 T = 29.66'
 L = 57.38'
 R = 92.00'
 PC STA = 17+04.32
 PT STA = 17+61.69



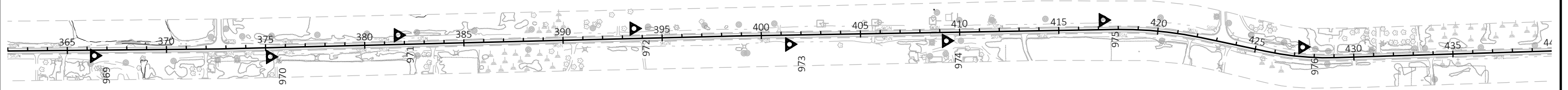




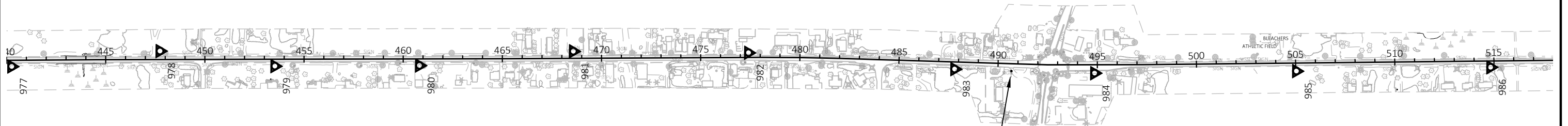
PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CONTROL POINTS & BENCHMARKS	SHEET E
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PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CONTROL POINTS & BENCHMARKS	SHEET E
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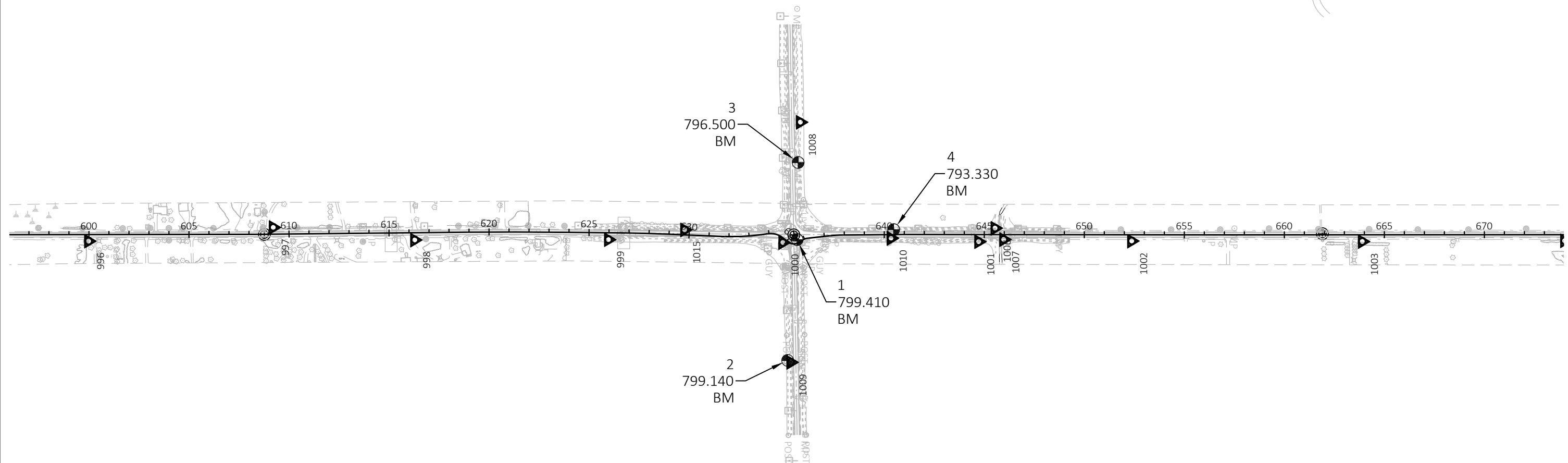
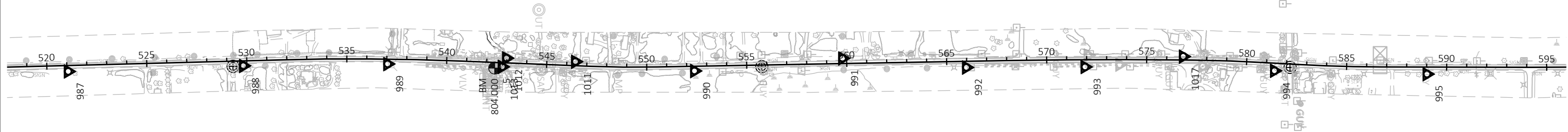


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 Date: 08/20/2022
 Project: 2420-00-70

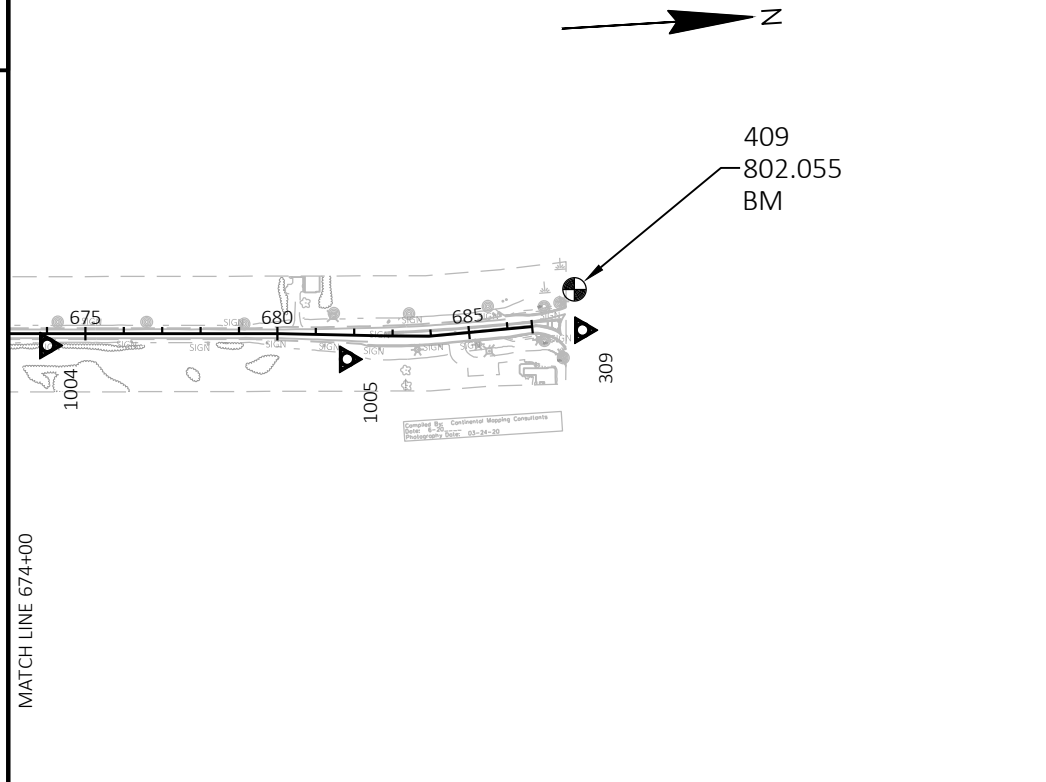


9480
 818.450
 HMOD

PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CONTROL POINTS & BENCHMARKS	SHEET	E
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PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CONTROL POINTS & BENCHMARKS	SHEET	E
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BENCH MARK POINTS					
POINT	Y COORDS	X COORDS	ELEVATION		DESCRIPTION
1	186264.413	551879.378	799.41	BM	CUT SQ CONC SGN BASE
2	186216.811	552482.302	799.14	BM	RR SPIKE PPOL
3	186269.715	551494.621	796.5	BM	CUT X TOP 24IN CMCP
4	186746.963	551829.588	793.33	BM	CUT X TOP 24IN CMCP
5	176965.569	551856.145	804	BM	CUT X MH RIM
6	128491.915	550186.811	831.36	BM	CUT SQ CONC LPOL BASE
409	191473.245	551739.567	802.055	BM	CAP

HMOD					
POINT	Y COORDS	X COORDS	ELEVATION		DESCRIPTION
4828	151675.278	551660.135	836.747	HMOD	DISK IN CONC (DG4828 BRIGHTON C GPS)
9480	171795.311	551947.844	818.45	HMOD	DISK IN CONC (DF9480 1K78)

HORIZONTAL CONTROL POINTS					
POINT	Y COORDS	X COORDS	ELEVATION		DESCRIPTION
309	191494.573	551845.666	804.543	CP	FENO
901	101866.724	556141.714	829.851	CP	BERNSTEN FENO MON W/ ALUM CAP
902	102764.02	556028.375	813.885	CP	BERNSTEN FENO MON W/ ALUM CAP
903	103348.195	555880.301	811.718	CP	BERNSTEN FENO MON W/ ALUM CAP
904	104107.119	555774.543	816.165	CP	BERNSTEN FENO MON W/ ALUM CAP
905	105165.721	555707.269	804.572	CP	BERNSTEN FENO MON W/ ALUM CAP
906	105988.709	555513.767	806.928	CP	BERNSTEN FENO MON W/ ALUM CAP
907	106930.061	555446.606	811.663	CP	BERNSTEN FENO MON W/ ALUM CAP
908	107734.401	555350.776	811.448	CP	BERNSTEN FENO MON W/ ALUM CAP
909	108594.867	555225.705	818.842	CP	BERNSTEN FENO MON W/ ALUM CAP
910	109333.462	555110.563	803.42	CP	BERNSTEN FENO MON W/ ALUM CAP
911	110202.104	554973.759	824.494	CP	BERNSTEN FENO MON W/ ALUM CAP
912	110980.409	554762.36	841.395	CP	BERNSTEN FENO MON W/ ALUM CAP
913	111897.569	554723.267	821.731	CP	BERNSTEN FENO MON W/ ALUM CAP
914	112709.069	554612.323	806.479	CP	BERNSTEN FENO MON W/ ALUM CAP
915	113560.924	554435.758	817.099	CP	BERNSTEN FENO MON W/ ALUM CAP
916	114422.017	554307.59	841.114	CP	BERNSTEN FENO MON W/ ALUM CAP
917	115256	554134.529	833.148	CP	BERNSTEN FENO MON W/ ALUM CAP
918	116047.144	553828.986	823.372	CP	BERNSTEN FENO MON W/ ALUM CAP
919	116906.894	553652.289	808.283	CP	BERNSTEN FENO MON W/ ALUM CAP
920	117841.067	553299.294	798.693	CP	BERNSTEN FENO MON W/ ALUM CAP
921	118554.132	553079.427	802.03	CP	BERNSTEN FENO MON W/ ALUM CAP
922	119369.698	552841.616	808.55	CP	BERNSTEN FENO MON W/ ALUM CAP
923	120200.478	552710.191	797.811	CP	BERNSTEN FENO MON W/ ALUM CAP
924	121052.619	552442.593	785.259	CP	BERNSTEN FENO MON W/ ALUM CAP
925	121934.679	552063.594	775.32	CP	BERNSTEN FENO MON W/ ALUM CAP
926	122854.795	551896.693	775.352	CP	BERNSTEN FENO MON W/ ALUM CAP
927	123619.858	551602.836	779.246	CP	BERNSTEN FENO MON W/ ALUM CAP
928	124320.005	551414.083	784.997	CP	BERNSTEN FENO MON W/ ALUM CAP
929	125142.714	551145.794	798.51	CP	BERNSTEN FENO MON W/ ALUM CAP
930	125995.559	550894.103	811.434	CP	BERNSTEN FENO MON W/ ALUM CAP
931	126742.961	550680.039	825.396	CP	BERNSTEN FENO MON W/ ALUM CAP
932	127622.69	550479.815	830.01	CP	BERNSTEN FENO MON W/ ALUM CAP
933	128443.959	550161.594	829.909	CP	BERNSTEN FENO MON W/ ALUM CAP
934	129291.898	549799.149	831.748	CP	BERNSTEN FENO MON W/ ALUM CAP
935	130173.082	549526.534	835.202	CP	BERNSTEN FENO MON W/ ALUM CAP
936	131058.072	549516.548	846.982	CP	BERNSTEN FENO MON W/ ALUM CAP
937	131844.903	549507.121	845.206	CP	BERNSTEN FENO MON W/ ALUM CAP
938	132696.428	549435.845	845.951	CP	BERNSTEN FENO MON W/ ALUM CAP
939	133552.741	549489.056	831.49	CP	BERNSTEN FENO MON W/ ALUM CAP
940	134411.796	549380.846	830.777	CP	BERNSTEN FENO MON W/ ALUM CAP
941	135364.582	549446.307	826.294	CP	BERNSTEN FENO MON W/ ALUM CAP
942	136228.333	549453.039	836.296	CP	BERNSTEN FENO MON W/ ALUM CAP
943	137064.603	549426.123	831.025	CP	BERNSTEN FENO MON W/ ALUM CAP
944	137939.824	549469.143	824.37	CP	BERNSTEN FENO MON W/ ALUM CAP
945	139185.851	549736.828	823.109	CP	BERNSTEN FENO MON W/ ALUM CAP
946	139758.721	550018.426	822.509	CP	BERNSTEN FENO MON W/ ALUM CAP
947	140526.329	550375.887	822.654	CP	BERNSTEN FENO MON W/ ALUM CAP
948	141173.531	550665.008	828.156	CP	BERNSTEN FENO MON W/ ALUM CAP
949	142056.461	550732.896	825.826	CP	BERNSTEN FENO MON W/ ALUM CAP
950	142927.099	550706.211	826.552	CP	BERNSTEN FENO MON W/ ALUM CAP
951	143753.42	550714.115	823.777	CP	BERNSTEN FENO MON W/ ALUM CAP
952	144741.068	550686.644	822.996	CP	BERNSTEN FENO MON W/ ALUM CAP
953	145408.658	550676.437	825.072	CP	BERNSTEN FENO MON W/ ALUM CAP
954	146392.606	550695.61	827.42	CP	BERNSTEN FENO MON W/ ALUM CAP
955	147109.804	550808.926	825.095	CP	BERNSTEN FENO MON W/ ALUM CAP
956	148305.77	551028.093	810.753	CP	BERNSTEN FENO MON W/ ALUM CAP
957	149464.907	551255.256	800.547	CP	BERNSTEN FENO MON W/ ALUM CAP
958	150425.728	551421.386	821.141	CP	BERNSTEN FENO MON W/ ALUM CAP

HORIZONTAL CONTROL POINTS					
POINT	Y COORDS	X COORDS	ELEVATION		DESCRIPTION
959	151120.465	551448.826	832.212	CP	BERNSTEN FENO MON W/ ALUM CAP
960	151778.688	551672.629	835.911	CP	BERNSTEN FENO MON W/ ALUM CAP
961	152748.634	551831.266	837.506	CP	BERNSTEN FENO MON W/ ALUM CAP
962	153426.034	551895.323	837.73	CP	BERNSTEN FENO MON W/ ALUM CAP
963	154272.677	552012.415	838.568	CP	BERNSTEN FENO MON W/ ALUM CAP
964	155201.4	551984.919	834.576	CP	BERNSTEN FENO MON W/ ALUM CAP
965	156254.26	551978.015	818.507	CP	BERNSTEN FENO MON W/ ALUM CAP
966	156964.138	551946.6	814.456	CP	BERNSTEN FENO MON W/ ALUM CAP
967	157742.222	551866.354	813.353	CP	BERNSTEN FENO MON W/ ALUM CAP
968	158514.756	551945.979	807.321	CP	BERNSTEN FENO MON W/ ALUM CAP
969	159378.843	551937.678	804.095	CP	BERNSTEN FENO MON W/ ALUM CAP
970	160265.541	551950.014	806.71	CP	BERNSTEN FENO MON W/ ALUM CAP
971	160911.259	551846.164	811.596	CP	BERNSTEN FENO MON W/ ALUM CAP
972	162100.272	551823.192	816.724	CP	BERNSTEN FENO MON W/ ALUM CAP
973	162883.793	551908.822	828.913	CP	BERNSTEN FENO MON W/ ALUM CAP
974	163674.4	551897.649	835.472	CP	BERNSTEN FENO MON W/ ALUM CAP
975	164466.138	551799.7	834.245	CP	BERNSTEN FENO MON W/ ALUM CAP
976	165470.909	551943.919	826.868	CP	BERNSTEN FENO MON W/ ALUM CAP
977	166754.246	552004.576	817.926	CP	BERNSTEN FENO MON W/ ALUM CAP
978	167500.732	551914.752	818.832	CP	BERNSTEN FENO MON W/ ALUM CAP
979	168081.012	551981.825	821.321	CP	BERNSTEN FENO MON W/ ALUM CAP
980	168809.83	551967.175	822.292	CP	BERNSTEN FENO MON W/ ALUM CAP
981	169584.588	551883.247	824.773	CP	BERNSTEN FENO MON W/ ALUM CAP
982	170467.691	551876.946	818.321	CP	BERNSTEN FENO MON W/ ALUM CAP
983	171508.575	551942.652	816.909	CP	BERNSTEN FENO MON W/ ALUM CAP
984	172214.123	551952.066	820.93	CP	BERNSTEN FENO MON W/ ALUM CAP
985	173231.927	551925.808	806.168	CP	BERNSTEN FENO MON W/ ALUM CAP
986	174210.684	551890.71	805.051	CP	BERNSTEN FENO MON W/ ALUM CAP
987	174833.617	551871.936	806.809	CP	BERNSTEN FENO MON W/ ALUM CAP
988	175709.022	551844.49	816.089	CP	BERNSTEN FENO MON W/ ALUM CAP
989	176429.776	551835.23	816.58	CP	BERNSTEN FENO MON W/ ALUM CAP
990	177963.884	551870.652	805.041	CP	BERNSTEN FENO MON W/ ALUM CAP
991	178704.297	551807.806	805.122	CP	BERNSTEN FENO MON W/ ALUM CAP
992	179323.209	551853.558	806.982	CP	BERNSTEN FENO MON W/ ALUM CAP
993	179916.234	551851.078	807.452	CP	BERNSTEN FENO MON W/ ALUM CAP
994	180863.099	551870.368	818.739	CP	BERNSTEN FENO MON W/ ALUM CAP
995	181625.43	551887.619	811.519	CP	BERNSTEN FENO MON W/ ALUM CAP
996	182721.694	551885.68	811.532	CP	BERNSTEN FENO MON W/ ALUM CAP
997	183644.852	551817.411	804.19	CP	BERNSTEN FENO MON W/ ALUM CAP
998	184352.14	551880.606	800.526	CP	BERNSTEN FENO MON W/ ALUM CAP
999	185321.094	551878.909	798.071	CP	BERNSTEN FENO MON W/ ALUM CAP
1000	186192.741	551893.421	796.637	CP	BERNSTEN FENO MON W/ ALUM CAP
1001	187171.786	551889.308	796.05	CP	BERNSTEN FENO MON W/ ALUM CAP
1002	187936.544	551886.712	797.763	CP	BERNSTEN FENO MON W/ ALUM CAP
1003	189059.847	551889.479	802.487	CP	BERNSTEN FENO MON W/ ALUM CAP
1004	190101.102	551885.762	802.797	CP	BERNSTEN FENO MON W/ ALUM CAP
1005	190881.63	551921.488	804.189	CP	BERNSTEN FENO MON W/ ALUM CAP
1006	187253.443	551822.078	794.42	CP	5/8IN RB KL CAP
1007	187296.823	551878.675	793.6	CP	5/8IN RB KL CAP
1008	186280.332	551292.658	798.79	CP	5/8IN RB KL CAP
1009	186232.644	552492.036	798.62	CP	5/8IN RB KL CAP
1010	186733.923	551872.45	796.28	CP	5/8IN RB KL CAP
1011	177369.419	551823.965	807.78	CP	5/8IN RB KL CAP
1012	177024.181	551806.332	804.26	CP	5/8IN RB KL CAP
1013	177002.882	551849.499	804.91	CP	5/8IN RB KL CAP
1014	128861.72	550018.006	833.13	CP	5/8IN RB KL CAP
1015	185702.048	551830.054	798.79	CP	5/8IN RB KL CAP
1017	180407.116	551799.048	816.15	CP	5/8IN RB KL CAP

Estimate Of Quantities

2420-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0004	203.0220	Removing Structure (structure) 01. C-51-0039	EACH	1.000	1.000
0006	204.0110	Removing Asphaltic Surface	SY	3,250.000	3,250.000
0008	204.0150	Removing Curb & Gutter	LF	90.000	90.000
0010	204.0165	Removing Guardrail	LF	450.000	450.000
0012	204.0245	Removing Storm Sewer (size) 01. 18-INCH	LF	110.000	110.000
0014	205.0100	Excavation Common	CY	9,630.000	9,630.000
0016	206.4001	Excavation for Structures Structural Plate Pipe or Pipe Arches (structure) 01. STA 645+78	EACH	1.000	1.000
0018	208.0100	Borrow	CY	6,562.000	6,562.000
0020	210.2500	Backfill Structure Type B	TON	20.000	20.000
0022	213.0100	Finishing Roadway (project) 01. 2420-00-70	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	353.000	353.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	15,789.000	15,789.000
0028	312.0110	Select Crushed Material	TON	1,170.000	1,170.000
0030	405.0100	Coloring Concrete WisDOT Red	CY	155.000	155.000
0032	415.2010	Concrete Truck Apron 12-inch	SY	466.000	466.000
0034	455.0605	Tack Coat	GAL	2,251.000	2,251.000
0036	460.2000	Incentive Density HMA Pavement	DOL	4,250.000	4,250.000
0038	460.6223	HMA Pavement 3 MT 58-28 S	TON	4,869.000	4,869.000
0040	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,771.000	1,771.000
0042	465.0315	Asphaltic Flumes	SY	93.000	93.000
0044	504.0100	Concrete Masonry Culverts	CY	9.000	9.000
0046	505.0400	Bar Steel Reinforcement HS Structures	LB	320.000	320.000
0048	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	160.000	160.000
0050	522.0415	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	88.000	88.000
0052	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	126.000	126.000
0054	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	7.000	7.000
0056	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0058	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0060	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0062	530.1115	Culvert Pipe Corrugated Polypropylene 15-Inch	LF	10.000	10.000
0064	530.1118	Culvert Pipe Corrugated Polypropylene 18-Inch	LF	10.000	10.000
0066	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	226.000	226.000
0068	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,600.000	2,600.000
0070	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	2,084.000	2,084.000
0072	601.0582	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type T	LF	333.000	333.000
0074	606.0200	Riprap Medium	CY	46.000	46.000
0076	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	343.000	343.000
0078	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	75.000	75.000
0080	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	353.000	353.000
0082	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0084	611.0615	Inlet Covers Type F	EACH	2.000	2.000
0086	611.0624	Inlet Covers Type H	EACH	8.000	8.000
0088	611.0627	Inlet Covers Type HM	EACH	7.000	7.000
0090	611.0636	Inlet Covers Type HM-S	EACH	3.000	3.000
0092	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000
0094	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0096	611.3004	Inlets 4-FT Diameter	EACH	18.000	18.000
0098	611.3253	Inlets 2.5x3-FT	EACH	2.000	2.000

Estimate Of Quantities

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Line	Item	Item Description	Unit	Total	Qty
0100	612.0218	Pipe Underdrain Unperforated 18-Inch	LF	80.000	80.000
0102	612.0700	Drain Tile Exploration	LF	100.000	100.000
0104	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	258.000	258.000
0106	614.2300	MGS Guardrail 3	LF	450.000	450.000
0108	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0110	618.0100	Maintenance and Repair of Haul Roads (project) 01. 2420-00-70	EACH	1.000	1.000
0112	619.1000	Mobilization	EACH	1.000	1.000
0114	620.0300	Concrete Median Sloped Nose	SF	148.000	148.000
0116	624.0100	Water	MGAL	245.000	245.000
0118	625.0500	Salvaged Topsoil	SY	19,300.000	19,300.000
0120	627.0200	Mulching	SY	14,150.000	14,150.000
0122	628.1504	Silt Fence	LF	3,550.000	3,550.000
0124	628.1520	Silt Fence Maintenance	LF	7,100.000	7,100.000
0126	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0128	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0130	628.2004	Erosion Mat Class I Type B	SY	6,093.000	6,093.000
0132	628.2008	Erosion Mat Urban Class I Type B	SY	532.000	532.000
0134	628.7015	Inlet Protection Type C	EACH	24.000	24.000
0136	628.7504	Temporary Ditch Checks	LF	350.000	350.000
0138	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0140	628.7560	Tracking Pads	EACH	2.000	2.000
0142	629.0210	Fertilizer Type B	CWT	12.000	12.000
0144	630.0130	Seeding Mixture No. 30	LB	350.000	350.000
0146	630.0200	Seeding Temporary	LB	500.000	500.000
0148	630.0300	Seeding Borrow Pit	LB	10.000	10.000
0150	630.0500	Seed Water	MGAL	440.000	440.000
0152	633.5100	Markers ROW	EACH	31.000	31.000
0154	633.5200	Markers Culvert End	EACH	13.000	13.000
0156	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	24.000	24.000
0158	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	12.000	12.000
0160	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	36.000	36.000
0162	637.2210	Signs Type II Reflective H	SF	495.750	495.750
0164	637.2230	Signs Type II Reflective F	SF	88.250	88.250
0166	638.2102	Moving Signs Type II	EACH	3.000	3.000
0168	638.2602	Removing Signs Type II	EACH	26.000	26.000
0170	638.3000	Removing Small Sign Supports	EACH	27.000	27.000
0172	642.5201	Field Office Type C	EACH	1.000	1.000
0174	643.0300	Traffic Control Drums	DAY	200.000	200.000
0176	643.0420	Traffic Control Barricades Type III	DAY	2,000.000	2,000.000
0178	643.0705	Traffic Control Warning Lights Type A	DAY	2,700.000	2,700.000
0180	643.0900	Traffic Control Signs	DAY	15,200.000	15,200.000
0182	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0184	643.1000	Traffic Control Signs Fixed Message	SF	21.000	21.000
0186	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0188	643.5000	Traffic Control	EACH	1.000	1.000
0190	645.0120	Geotextile Type HR	SY	29.000	29.000
0192	645.0130	Geotextile Type R	SY	125.000	125.000
0194	646.2020	Marking Line Epoxy 6-Inch	LF	10,220.000	10,220.000
0196	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	8,190.000	8,190.000
0198	646.4020	Marking Line Epoxy 10-Inch	LF	224.000	224.000

Estimate Of Quantities

2420-00-70

Line	Item	Item Description	Unit	Total	Qty
0200	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0202	646.5520	Marking Outfall Epoxy	EACH	4.000	4.000
0204	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	63.000	63.000
0206	646.7120	Marking Diagonal Epoxy 12-Inch	LF	369.000	369.000
0208	646.8120	Marking Curb Epoxy	LF	80.000	80.000
0210	646.8220	Marking Island Nose Epoxy	EACH	8.000	8.000
0212	650.4000	Construction Staking Storm Sewer	EACH	30.000	30.000
0214	650.4500	Construction Staking Subgrade	LF	3,682.000	3,682.000
0216	650.5000	Construction Staking Base	LF	3,682.000	3,682.000
0218	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	5,243.000	5,243.000
0220	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0222	650.6501	Construction Staking Structure Layout (structure) 01. C-51-0089	EACH	1.000	1.000
0224	650.8501	Construction Staking Electrical Installations (project) 01. 2420-00-70	EACH	1.000	1.000
0226	650.9911	Construction Staking Supplemental Control (project) 01. 2420-00-70	EACH	1.000	1.000
0228	650.9920	Construction Staking Slope Stakes	LF	3,682.000	3,682.000
0230	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,280.000	2,280.000
0232	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	565.000	565.000
0234	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	8.000	8.000
0236	654.0105	Concrete Bases Type 5	EACH	16.000	16.000
0238	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0240	655.0610	Electrical Wire Lighting 12 AWG	LF	2,664.000	2,664.000
0242	655.0615	Electrical Wire Lighting 10 AWG	LF	12,186.000	12,186.000
0244	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. CB100	EACH	1.000	1.000
0246	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	16.000	16.000
0248	657.0322	Poles Type 5-Aluminum	EACH	16.000	16.000
0250	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	8.000	8.000
0252	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	8.000	8.000
0254	659.1115	Luminaires Utility LED A	EACH	16.000	16.000
0256	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
0258	690.0150	Sawing Asphalt	LF	104.000	104.000
0260	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,000.000	1,000.000
0262	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,300.000	1,300.000
0264	SPV.0060	Special 01. Removing Solar Flashing Beacon and Pole STH 75 at A Eastbound	EACH	1.000	1.000
0266	SPV.0060	Special 02. Removing Solar Flashing Beacon and Pole STH 75 at A Westbound	EACH	1.000	1.000
0268	SPV.0060	Special 03. Manhole Covers Type Beehive	EACH	2.000	2.000
0270	SPV.0060	Special 04. Temporary Water Diversion, Culvert C-51-89	EACH	1.000	1.000
0272	SPV.0060	Special 05. Section Corner Monuments	EACH	1.000	1.000
0274	SPV.0090	Special 01. Pipe Arch Polymer Coated Corrugated Steel 142x91-Inch	LF	118.000	118.000

3

REMOVING SMALL PIPE CULVERTS

203.0100 REMOVING SMALL PIPE CULVERTS					
CATEGORY	STATION	SIDE	LOCATION	EACH	REMARKS
0010	640+30 'NB'	LT/RT	CTH A RAB N LEG	1	15" CMCP
0010	14+83 'AEW'	LT/RT	CTH A RAB W LEG	1	24" CMCP
0010	21+00 'AEE'	LT/RT	CTH A RAB E LEG	1	18" CMCP
PROJECT TOTAL				3	

REMOVING STRUCTURE

203.0220.01 REMOVING STRUCTURE C-51-0039				
CATEGORY	STATION	STRUCTURE	EACH	REMARKS
0010	645+75 'NB'	C-51-89	1	11'X7.5' 65-FT CMCP ARCH
PROJECT TOTAL			1	

3

REMOVING ASPHALTIC SURFACE

204.0110 REMOVING ASPHALTIC SURFACE						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	634+00 'NB'	-	639+00 'NB'	STH 75	2,130	
0010	17+00 'AWE'	-	22+50 'AEE'	CTH A	1,120	
PROJECT TOTAL					3,250	

REMOVING CURB & GUTTER

204.0150 REMOVING CURB & GUTTER						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	634+75 'NB'	-	636+00 'NB'	CTH A - STH 75 INTERSECTION	90	
PROJECT TOTAL					90	

REMOVING GUARDRAIL

204.0165 REMOVING GUARDRAIL						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	644+50 'NB'	-	647+25 'NB'	STH 75	450	
PROJECT TOTAL					450	

EXCAVATION FOR STRUCTURES

206.4001.01 EXCAVATION FOR STRUCTURES STRUCTURAL PLATE PIPE OR PIPE ARCHES (STRUCTURE) (01. STA 645+78)				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0020	645+78 'NB'	C-51-89	1	
PROJECT TOTAL			1	

PROJECT NO: 2420-00-70

HWY: STH 75

COUNTY: RACINE

MISCELLANEOUS QUANTITIES

SHEET

E

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (6)	EXPANDED EBS BACKFILL (7)	UNEXPANDED FILL	EXPANDED FILL (8)	MASS ORDINATE +/- (9)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION (3)			FACTOR 1.00	FACTOR 1.30		FACTOR 1.30				
CAT 0010														
QR-STH 75	626+75-649+00	STH 75	6,189	500	0	6,189	500	650	8,280	10,114	-3,925	0		
QR-CTH A WEST LEG	10+00/17+00		1,564	0	0	1,564	0	0	905	1,177	388	388		
QR-CTH A EAST LEG	20+50/27+00		1,377	0	0	1,377	0	0	3,386	4,402	-3,025	0		
CAT 0010 TOTAL			9,130	500	0	9,130	500	650	12,571	15,692	-6,562	388	6,562	
GRAND TOTAL			9,130	500	0	9,130	500	650	12,571	15,692	-6,562	388	6,562	
TOTAL COMMON EXC			9,630											

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 SELECT CRUSH MATERIAL
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (6) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 1.0
- (7) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSH MATERIAL. EBS BACKFILL FACTOR = 1.0. ITEM NUMBER 312.0110
- (8) EXPANDED FILL FACTOR = 1.30
- (9) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

3

BASE AGGREGATE DENSE

CATEGORY	STATION	TO	STATION	LOCATION	305.0110	305.0120	312.0110	624.0100	REMARKS
					BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON	SELECT CRUSHED MATERIAL TON	WATER MGAL	
0010	626+75 'NB'	-	634+50 'NB'	CTH A RAB S LEG	63	3,432	--	53	
0010				TRUCK APRON	--	466	--	7	
0010	636+25 'NB'	-	643+50 'NB'	CTH A RAB N LEG	65	3,281	--	51	
0010	643+50 'NB'	-	649+00 'NB'	STH 75	99	2,336	--	37	
0010	20+00 'AEE'	-	26+88 'AEE'	CTH A RAB E LEG	60	2,984	--	46	
0010	10+00 'AEW'	-	17+61 'AEW'	CTH A RAB W LEG	66	3,290	--	51	
0010				UNDISTRIBUTED EBS	--	--	1,170	--	
PROJECT TOTAL					353	15,789	1,170	245	

TRUCK APRON ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	405.0100	416.0512	REMARKS
					COLORING CONCRETE WISDOT RED CY	CONCRETE TRUCK APRON 12-INCH SY	
0010	634+50 'NB'	-	636+25 'NB'	CTH A RAB	155	466	
PROJECT TOTAL					155	466	

3

HMA PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605	460.6223	460.6224	REMARKS
					TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	
0010	626+75 'NB'	-	649+00 'NB'	CTH A RAB	2,251	4,869	1,771	
PROJECT TOTAL					2,251	4,869	1,771	

ASPHALTIC FLUMES

CATEGORY	STATION	TO	STATION	LOCATION	465.0315	REMARKS
					ASPHALTIC FLUMES SY	
0010	631+00 'NB'	-	634+50 'NB'	CTH A RAB S LEG	9	
0010	636+25 'NB'	-	639+75 'NB'	CTH A RAB N LEG	28	
0010	14+00 'AEW'	-	17+61 'AEW'	CTH A RAB W LEG	14	
0010	20+00 'AEE'	-	23+50 'AEE'	CTH A RAB E LEG	42	
PROJECT TOTAL					93	

CULVERT PIPE

CATEGORY	STATION	SIDE	LOCATION	522.0415	522.0418	522.1015	522.1018	633.5200	650.6000	INLET ELEVATION	OUTLET ELEVATION	SLOPE FT/FT
				CULVERT PIPE REINFORCED CONCRETE 15-INCH LF	CULVERT PIPE APRON ENDWALLS FOR CULVERT PIPE 18-INCH LF	CULVERT PIPE 15-INCH EACH	CULVERT PIPE 18-INCH EACH	MARKERS CULVERT END EACH	CONSTRUCTION STAKING PIPE CULVERTS EACH			
				0010	640+30 'NB'	LT/RT	CTH A RAB N LEG	88	--			
0010	21+00 'AEE'	LT/RT	CTH A RAB E LEG	--	126	--	2	2	1	790.44	788.91	0.012
PROJECT TOTAL				88	126	2	2	4	2			

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0405	601.0411	601.0553	601.0582	620.0300	650.5500	REMARKS
					CONCRETE CURB & GUTTER 18-INCH TYPE A LF	CONCRETE CURB & GUTTER 30-INCH TYPE D LF	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T LF	CONCRETE MEDIAN SLOPED NOSE SF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	
0010	631+00 'NB'	-	634+50 'NB'	RAB S LEG	--	669	513	--	37	1,182	
0010	634+50 'NB'	-	636+25 'NB'	CTH A RAB	226	--	--	333	--	559	
0010	636+25 'NB'	-	639+75 'NB'	RAB N LEG	--	671	506	--	37	1,177	
0010	14+05 'AEW'	-	17+55 'AEW'	RAB W LEG	--	633	556	--	37	1,189	
0010	20+00 'AEE'	-	23+55 'AEE'	RAB E LEG	--	627	509	--	37	1,136	
PROJECT TOTAL					226	2,600	2,084	333	148	5,243	

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET	LOCATION	APRON ENDWALLS FOR CULVERT PIPE												CONSTRUCTION STAKING STORM SEWER		
					REINFORCED CONCRETE		MANHOLE COVERS TYPE J EACH	INLET COVERS TYPE				MANHOLE 5-FT DIAMETER EACH	INLETS 4-FT DIAMETER EACH	INLETS 2.5X3-FT EACH	MARKERS CULVERT END EACH	RIM	INVERT	DEPTH***	
					12-INCH EACH	24-INCH EACH		F EACH	H EACH	HM EACH	HM-S EACH								
0010	0	14+81 'AWW'	56.5' RT	CTH A	--	1	--	--	--	--	--	--	--	--	1	1	795.15		
0010	1.0	14+82 'AWW'	38.7' RT	CTH A	--	--	--	--	1	--	--	1	--	--	1	798.53	795.14	2.63	
0010	2.0	14+84 'AWW'	8.7' RT	CTH A	--	--	1	--	--	--	1	--	--	--	1	799.70	795.14	3.56	
0010	2.1	14+20 'AWW'	2.0' RT	CTH A	--	--	--	--	1	--	--	1	--	--	1	798.91	795.75	2.32	
0010	2.2	14+20 'AEW'	5.7' LT	CTH A	--	--	--	--	1	--	--	1	--	--	1	798.75	795.90	2.02	
0010	2.3	14+84 'AEW'	50.7' LT	CTH A	--	1	--	--	--	--	--	--	--	1	1	795.14			
0010	3.0	17+31 'AEW'	51.8' RT	CTH A	1	--	--	--	--	--	--	--	--	1	1	796.68			
0010	3.1	17+32 'AEW'	17.9' RT	CTH A	--	--	--	1	--	--	--	1	--	--	1	800.28	796.85	2.60	
0010	3.2	17+33 'AWW'	18.5' LT	CTH A	--	--	--	1	--	--	--	1	--	--	1	800.72	797.11	2.78	
0010	4.0	20+47 'AWE'	80.2' RT	CTH A	1	--	--	--	--	--	--	--	--	1	1	792.79			
0010	4.1	20+28 'AEE'	18.0' RT	CTH A	--	--	--	1	--	--	--	1	--	--	1	800.25	795.77	3.65	
0010	4.2	20+26 'AWE'	18.5' LT	CTH A	--	--	--	1	--	--	--	1	--	--	1	800.59	796.59	3.16	
0010	5.0	23+44 'AWE'	29.7' LT	CTH A	1	--	--	--	--	--	--	--	--	1	1	794.80			
0010	5.2	23+46 'AWE'	4.4' RT	CTH A	--	--	--	--	1	--	--	1	--	--	1	798.65	794.92	2.89	
0010	5.3	13+31 'AC'	362.9' LT	CTH A	--	--	--	--	1	--	--	1	--	--	1	798.48	795.21	2.43	
0010	6.0	636+48 'NB'	61.1' RT	STH 75	1	--	--	--	--	--	--	--	--	1	1	794.53			
0010	6.1	636+46 'NB'	18.5' RT	STH 75	--	--	--	1	--	--	--	1	--	--	1	801.25	795.30	5.11	
0010	6.2	636+45 'SBN'	18.6' LT	STH 75	--	--	--	1	--	--	--	1	--	--	1	801.42	795.96	4.62	
0010	7.0	634+34 'NB'	72.5' RT	STH 75	1	--	--	--	--	--	--	--	--	1	1	789.25			
0010	7.1	634+28 'NB'	18.5' RT	STH 75	--	--	--	--	1	--	--	1	--	--	1	799.50	794.30	4.37	
0010	7.2	634+28 'NB'	19.3' LT	STH 75	--	--	--	1	--	--	--	1	--	--	1	799.47	795.64	3.00	
0010	7.3	10+74 'AC'	1.8' RT	CENTER ISLAND	--	--	--	1	--	--	--	--	1	--	1	799.92	795.92	3.21	
0010	7.4	10+95 'AC'	1.8' RT	CENTER ISLAND	--	--	--	1	--	--	--	--	1	--	1	800.00	796.50	2.71	
0010	8.0	639+69 'NB'	29.1' RT	STH 75	1	--	--	--	--	--	--	--	--	1	1	792.98			
0010	8.1	639+69 'NB'	2.0' LT	STH 75	--	--	--	--	1	--	--	1	--	--	1	797.90	793.35	3.72	
0010	8.2	639+70 'SBN'	4.2' RT	STH 75	--	--	--	--	1	--	--	1	--	--	1	798.06	793.65	3.58	
0010	10.0	632+33 'NB'	32.5' RT	STH 75	1	--	--	--	--	--	--	--	--	1	1	794.90			
0010	10.1	632+35 'NB'	19.0' RT	STH 75	--	--	--	--	--	1	--	1	--	--	1	798.47	795.12	2.52	
0010	10.2	632+35 'NB'	2.0' LT	STH 75	--	--	--	--	--	1	--	1	--	--	1	798.81	795.31	2.67	
0010	10.3	632+40 'SBS'	1.9' RT	STH 75	--	--	--	--	--	1	--	1	--	--	1	798.86	795.42	2.60	
PROJECT TOTAL					7	2	1	2	8	7	3	1	18	2	9	30			

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER PIPE

CATEGORY	FROM	TO	LOCATION	608.0412 608.0424 608.3012			INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
				STORM SEWER PIPE REINFORCED CONCRETE CLASS IV		STORM SEWER PIPE CLASS III A			
				12-INCH LF	24-INCH LF	12-INCH LF			
0010	0	2.0	CTH A RAB W LEG	--	10	--	795.15	795.15	0.000
0010	1.0	2.0	CTH A RAB W LEG	--	29	--	795.15	795.14	0.000
0010	2.0	2.3	CTH A RAB W LEG	--	36	--	795.14	795.14	0.000
0010	2.1	2.0	CTH A RAB W LEG	--	--	64	795.75	795.50	0.004
0010	2.2	2.2	CTH A RAB W LEG	--	--	8	795.90	795.75	0.019
0010	3.1	3.0	CTH A RAB W LEG	--	--	31	796.85	796.68	0.006
0010	3.2	3.1	CTH A RAB W LEG	59	--	--	797.11	796.85	0.005
0010	4.1	4.0	CTH A RAB F LEG	--	--	48	795.77	792.79	0.061
0010	4.2	4.1	CTH A RAB E LEG	56	--	--	796.59	795.77	0.015
0010	5.3	5.2	CTH A RAB E LEG	--	--	8	795.21	794.92	0.038
0010	5.2	5.0	CTH A RAB E LEG	32	--	--	794.92	794.80	0.004
0010	6.1	6.0	CTH A RAB N LEG	--	--	43	795.30	794.53	0.018
0010	6.2	6.1	CTH A RAB N LEG	--	--	57	795.96	795.30	0.012
0010	7.1	7.0	CTH A RAB S LEG	--	--	57	794.30	789.25	0.088
0010	7.2	7.1	CTH A RAB S LEG	67	--	--	795.64	794.30	0.020
0010	7.3	7.1	CTH A RAB S LEG	55	--	--	795.92	794.30	0.029
0010	7.4	7.3	CTH A RAB S LEG	20	--	--	796.50	795.92	0.030
0010	8.1	8.0	CTH A RAB N LEG	34	--	--	793.35	792.98	0.011
0010	8.2	8.1	CTH A RAB N LEG	--	--	7	793.65	793.35	0.042
0010	10.1	10.0	CTH A RAB S LEG	--	--	14	795.12	794.90	0.016
0010	10.2	10.1	CTH A RAB S LEG	20	--	--	795.31	795.12	0.009
0010	10.3	10.2	CTH A RAB S LEG	--	--	16	795.42	795.31	0.007
PROJECT TOTAL				343	75	353			

DRAIN TILE CONNECTION

CATEGORY	STATION	TO	STATION	LOCATION	204.0245.01 530.1115 530.1118			611.2004 612.0218 612.0700		SPV.0060.03		RIM ELEVATION	INVERT ELEVATION	DEPTH	REMARKS
					REMOVING STORM SEWER 18-INCH LF	CULVERT PIPE CORRUGATED POLYPROPYLENE 15-INCH LF	CULVERT PIPE CORRUGATED POLYPROPYLENE 18-INCH LF	MANHOLES 4-FT DIAMETER EACH	PIPE UNDERDRAIN UNPERFORATED 18-INCH (PVC) LF	DRAIN TILE EXPLORATION LF	SPECIAL (03. MANHOLE COVERS TYPE BEEHIVE) EACH				
0010	21+37.4 'AEE'		66.0' RT	MH 1.0	60	10	--	1	45	55	1	789.25	784.84	4.41	INVERT TO BE VERIFIED IN FIELD
0010	21+36.4 'AEE'		78.9' LT	MH 1.1	50	--	10	1	35	45	1	792.10	785.40	6.70	INVERT TO BE VERIFIED IN FIELD
PROJECT TOTAL					110	10	10	2	80	100	2				

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	643+68 'NB'	-	647+00 'NB'	STH 75 RT	129	225	2	
0010	644+56 'NB'	-	647+87 'NB'	STH 75 LT	129	225	2	
PROJECT TOTAL					258	450	4	

FINISHING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL	REMARKS
0010	626+75 'NB'	-	634+50 'NB'	CTH A RAB S LEG	4,319	2,946	2.72	78	117	--	97	
0010	634+50 'NB'	-	636+00 'NB'	CTH A RAB CENTER ISLAND	440	440	0.28	8	12	--	10	
0010	636+00 'NB'	-	643+50 'NB'	CTH A RAB N LEG	4,081	3,077	2.57	74	111	--	92	
0010	10+00 'AEW'	-	17+61 'AEW'	CTH A RAB W LEG	2,918	1,857	1.84	53	79	--	66	
0010	20+00 'AEE'	-	26+87 'AEE'	CTH A RAB E LEG	3,726	3,009	2.35	68	101	--	84	
0010	UNDISTRIBUTED				3,816	2,821	2.24	69	80	10	91	
PROJECT TOTAL					19,300	14,150	12.00	350	500	10	440	

EROSION CONTROL

CATEGORY	STATION	TO	STATION	LOCATION	* 606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	645.0130 GEOTEXTILE TYPE R SY	REMARKS
0010	626+75 'NB'	-	635+00 'NB'	CTH A RAB S LEG	7	440	880	1,373	--	7	60	--	21	
0010	636+00 'NB'	-	643+50 'NB'	CTH A RAB N LEG	7	555	1,110	1,004	--	4	50	2	21	
0010	643+50 'NB'	-	649+00 'NB'	STH 75	--	500	1,000	893	532	--	100	--	--	
0010	10+00 'AEW'	-	17+61 'AEW'	CTH A RAB W LEG	3	260	520	1,061	--	5	50	3	11	
0010	20+00 'AEE'	-	26+88 'AEE'	CTH A RAB E LEG	15	1,190	2,380	717	--	4	50	2	45	
0010	UNDISTRIBUTED				8	605	1,210	1,045	--	4	40	3	27	
PROJECT TOTAL					40	3,550	7,100	6,093	532	24	350	10	125	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

TRACKING PADS

628.7560

TRACKING PADS						
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	626+75 'NB'	-	649+00 'NB'	PROJECT	2	
PROJECT TOTAL					2	

MARKERS ROW

633.5100

MARKERS ROW				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	626+50 'NB'	35' RT	1	
0010	626+50 'NB'	50' RT	1	
0010	626+50 'NB'	35' LT	1	
0010	626+50 'NB'	64' LT	1	
0010	628+17 'NB'	65' LT	1	
0010	628+17 'NB'	75' LT	1	
0010	629+52 'NB'	45' RT	1	
0010	629+52 'NB'	51' RT	1	
0010	630+57 'NB'	82' LT	1	
0010	630+62 'NB'	48' RT	1	
0010	632+42 'NB'	45' RT	1	
0010	633+57 'NB'	87' RI	1	
0010	633+66 'NB'	74' LT	1	
0010	634+24 'NB'	168' LT	1	
0010	635+07 'NB'	126' RT	1	
0010	635+64 'NB'	137' RT	1	
0010	636+49 'NB'	171' LT	1	
0010	637+25 'NB'	78' LT	1	
0010	637+28 'NB'	53' RT	1	
0010	638+84 'NB'	57' RT	1	
0010	638+84 'NB'	73' LT	1	
0010	643+29 'NB'	58' RT	1	
0010	645+28 'NB'	73' LT	1	
0010	646+28 'NB'	73' LT	1	
0010	646+52 'NB'	73' LT	1	
0010	646+52 'NB'	53' LT	1	
0010	648+68 'NB'	54' LT	1	
0010	648+68 'NB'	34' LT	1	
0010	648+70 'NB'	32' RI	1	
0010	648+70 'NB'	66' RT	1	
0010	649+00 'AEW'	67' RT	1	
PROJECT TOTAL			31	

TRAFFIC CONTROL

CATEGORY	# OF DAY	643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0900 TRAFFIC CONTROL SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE	643.1050 TRAFFIC CONTROL SIGNS PCMS	REMARKS
0010	70	140	1,820	2,520	14,490	10	21	14	ONE CYCLE FOR ALL SIGN COVERINGS
0010	UNDISTRIBUTED	60	180	180	710	--	--	--	
PROJECT TOTAL		200	2,000	2,700	15,200	10	21	14	

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.4020 MARKING LINE EPOXY 10-INCH LF	646.5120 MARKING WORD EPOXY EACH	646.5520 MARKING OUTFALL EPOXY** EACH	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH	REMARKS
0010	622+00 'NB'	-	635+00 'NB'	CTH A RAB S LEG	2,920	2,580	60	1	--	17	109	20	2	
0010	636+00 'NB'	-	643+50 'NB'	CTH A RAB N LEG	2,200	1,530	53	1	2	17	109	20	2	
0010	643+50 'NB'	-	649+00 'NB'	STH 75	730	1,100	--	--	--	--	--	--	--	
0010	20+00 'AEW'	-	26+88 'AEW'	CTH A RAB E LEG	2,030	1,430	46	1	2	15	69	20	2	
0010	10+00 'AEW'	-	17+61 'AEW'	CTH A RAB W LEG	2,340	1,550	65	1	--	14	82	20	2	
PROJECT TOTAL					10,220	8,190	224	4	4	63	369	80	8	

**PAVEMENT MARKING OUTFALL EPOXY TO BE MARKED AT ALL CULVERT LOCATIONS

PROJECT NO: 2420-00-70

HWY: STH 75

COUNTY: RACINE

MISCELLANEOUS QUANTITIES

SHEET

E

3

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.9920	REMARKS
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING SLOPE STAKES LF	
0010	626+75 'NB'	-	643+50 'NB'	CTH A RAB S-N LEGS	1,675	1,675	1,675	
0010	643+50 'NB'	-	649+00 'NB'	STH 75	550	550	550	
0010	10+00 'AWW'	-	17+69 'AWW'	CTH A RAB W LEG WB	769	769	769	
0010	20+00 'AEE'	-	26+88 'AEE'	CTH A RAB E LEG EB	688	688	688	
PROJECT TOTAL					3,682	3,682	3,682	

SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150	REMARKS
					SAWING ASPHALT LF	
0010	626+75 'NB'	-	649+00 'NB'	STH 75	104	
PROJECT TOTAL					104	

3

TEMPORARY WATER DIVERSION CULVERT

CATEGORY	STATION	LOCATION	SPV.0060.04	REMARKS
			SPECIAL (04. TEMPORARY WATER DIVERSION, CULVERT (C-51-89)) EACH	
0010	645+77.96 'NB'	C-51-89	1	
PROJECT TOTAL			1	

SECTION CORNER MONUMENTS

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0060.05	REMARKS
					SPECIAL (05. SECTION CORNER MONUMENTS) EACH	
0010	626+75 'NB'	-	649+00 'NB'	STH 75	1	
PROJECT TOTAL					1	

PIPE ARCH POLYMER COATED CORRUGATED STEEL

CATEGORY	STATION	LOCATION	SPV.0090.01	INLET ELEVATION	OUTLET ELEVATION	SLOPE FT/FT	REMARKS
			SPECIAL (01. PIPE ARCH POLYMER COATED CORRUGATED STEEL 142X91-INCH) LF				
0020	645+78 'NB'	STH 75	118	782.23	781.62	0.01	C-51-89
PROJECT TOTAL			118				

3

LIGHTING CONDUIT AND WIRE

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 3-INCH LF	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	REMARKS
ALL ITEMS ARE CATEGORY 0010						
CB 100	- PB 100	--	35	--	265	--
CB 100	- PB 100	--	35	53	--	PULL WIRE ONLY
PB 100	- SL 100	20	--	--	429	--
PB 100	- SL 101	325	--	--	1,014	--
PB 100	- PB 101	--	100	--	580	--
PB 101	- SL 102	160	--	--	519	--
PB 101	- SL 103	20	--	--	429	--
PB 101	- PB 102	75	--	--	455	--
PB 102	- SL 104	20	--	--	363	--
PB 102	- SL 105	325	--	--	1,014	--
PB 102	- PB 103	--	95	--	333	--
PB 103	- SL 106	165	--	--	534	--
PB 103	- SL 107	10	--	--	138	--
PB 103	- PB 104	60	--	76	--	PULL WIRE ONLY
PB 104	- SL 108	25	--	--	228	--
PB 104	- SL 109	325	--	--	1,014	--
PB 104	- PB 105	--	110	--	378	--
PB 105	- SL 110	160	--	--	519	--
PB 105	- SL 111	15	--	--	308	--
PB 105	- PB 106	75	--	--	455	--
PB 106	- SL 112	20	--	--	429	--
PB 106	- SL 113	320	--	--	999	--
PB 106	- PB 107	--	100	--	580	--
PB 107	- SL 114	140	--	--	459	--
PB 107	- SL 115	20	--	--	429	--
PB 107	- CB 100	--	45	--	315	--
PB 107	- CB 100	--	45	63	--	PULL WIRE ONLY
PRJOECT TOTALS		2280	565	192	12186	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

LIGHTING CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH	656.0201.001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CB100) EACH	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH
ALL ITEMS ARE CATEGORY 0010						
CB100	636+40 'NB'	88.4'	LT	1	1	1
PROJECT TOTALS				1	1	1

LIGHTING PULLBOXES

PULLBOX NUMBER	STATION	OFFSET	R/L	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
ALL ITEMS ARE CATEGORY 0010				
PB 100	636+36 'SBN'	38.5'	LT	1
PB 101	636+38 'NB'	39.0'	RT	1
PB 102	20+22 'AWE'	38.5'	LT	1
PB 103	20+20 'AEE'	38.7'	RT	1
PB 104	634+45 'NB'	38.5'	RT	1
PB 105	634+35 'SBS'	40.0'	LT	1
PB 106	17+44 'AEW'	37.7'	RT	1
PB 107	17+42 'AWW'	38.5'	LT	1
PROJECT TOTALS				8

STREET LIGHTING

LIGHT NUMBER	STATION	OFFSET	R/L	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/12-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	659.1115 LUMINAIRES UTILITY LED A EACH	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
ALL ITEMS ARE CATEGORY 0010										
SL 100	636+70 'SBN'	37.4'	LT	1	1	1	--	1	1	168
SL 101	639+66 'SBN'	22.8'	LT	1	1	1	1	--	1	141
SL 102	637+94 'NB'	22.8'	RT	1	1	1	1	--	1	141
SL 103	636+23 'NB'	37.5'	RT	1	1	1	--	1	1	168
SL 104	20+56 'AWE'	37.4'	LT	1	1	1	--	1	1	168
SL 105	23+53 'AWE'	22.8'	LT	1	1	1	1	--	1	141
SL 106	21+79 'AEE'	22.8'	RT	1	1	1	1	--	1	141
SL 107	20+30 'AEE'	37.2'	RT	1	1	1	--	1	1	168
SL 108	634+06 'NB'	37.3'	RT	1	1	1	--	1	1	168
SL 109	631+12 'NB'	23.1'	RT	1	1	1	1	--	1	141
SL 110	632+81 'SBS'	22.8'	LT	1	1	1	1	--	1	141
SL 111	634+48 'SBS'	40.4'	LT	1	1	1	--	1	1	168
SL 112	17+09 'AEW'	37.2'	RT	1	1	1	--	1	1	168
SL 113	14+15 'AWE'	23.8'	RT	1	1	1	1	--	1	141
SL 114	15+97 'AWW'	22.8'	LT	1	1	1	1	--	1	141
SL 115	17+60 'AWW'	37.3'	LT	1	1	1	--	1	1	168
PROJECT TOTALS				16	16	16	8	8	16	2472

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

Beacon Removal - Misc Quantities

2420-00-70 STH 75

LOCATION	REMOVING SOLAR FLASHING BEACON AND POLE STH 75 AT A EASTBOUND EACH SPV.0060.01	REMOVING SOLAR FLASHING BEACON AND POLE STH 75 AT A WESTBOUND EACH SPV.0060.02
STH 75 at CTH A Eastbound	1	
STH 75 at CTH A Westbound		1
TOTAL	1	1

3

3

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			637.2210	637.2230	638.2602	638.3000	634.0618	634.0622	634.0814	638.2102	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
				W [IN.]	X	H [IN.]	SIGNS TYPE II REFLC H [SF]	SIGNS TYPE II REFLC F [SF]	REMOVING SIGNS TYPE II [EA]	REMOVING SMALL SIGN SUPPORTS [EA]	POSTS WOOD 4"X 6"X18' [EA]	POSTS WOOD 4" X 6" X 22' (EA)	POSTS TUBULAR STEEL 2X 2-INCH X 14 FT (EA)	MOVING SIGNS TYPE II [EA]		
1	W23-2(2S)			36	X	36		9.000			1					SHEET 48
2	W2-1								1	1						
3	W2-1								1	1						
4	J1-1(2S)			24	X	36	6.000		1	1	1					
5	M2-1 M1-5A D1-62		CTH A DIAGRAMMATIC	24 24 96	X	12 24 66	44.000					3				
6	NOT USED												2			
7	R4-7(3)			36	X	48	12.000								7	
8	W5-54(2S)			18	X	18		2.250								
9	J13-1								1	1						
10	W14-3(2S)			48	X	36		6.000							7	
11	NOT USED															
12	R5-1(2S)			30	X	30	6.250					1				
13	R2-1(2S)		SPEED LIMIT 55	24	X	30	5.000				1					
14	NOT USED															
15	W2-6(2S)			30	X	30		6.250			1					
15A	W13-1(2S)		15 MPH	18	X	18		2.250							15	
16	R1-2(2S)			36	X	31	3.875						1			
17	R1-2(2S)			36	X	31	3.875						1			
17A	R1-54(2S)			24	X	15	2.500								17	
18	J4-1(2S)			24	X	36	6.000				1					SHEET 49
	M3-2 M1-5A		CTH A	24 24	X	12 24										
19	D1-1		EAST A (TILT ARROW RIGHT)	36	X	30	7.500						2			
20	R1-2(2S)			36	X	31	3.875						1			
21	R1-2(2S)			36	X	31	3.875						1			
21A	R1-54(2S)			24	X	15	2.500								21	
22	D1-1		NORTH 75 (TILT ARROW RIGHT)	42	X	30	8.750						2			
23	D1-1		WEST A (TILT ARROW RIGHT)	42	X	30	8.750						2			
24	R1-2(2S)			36	X	31	3.875						1			
24A	R1-54(2S)			24	X	15	2.500								24	
25	R1-2(2S)			36	X	31	3.875						1			
26	R1-2(2S)			36	X	31	3.875						1			
26A	R1-54(2S)			24	X	15	2.500								26	
27	R1-2(2S)			36	X	31	3.875						1			
28	D1-1		SOUTH 75 (TILT ARROW RIGHT)	42	X	30	8.750						2			
29	J4-1(2S)			24	X	36	6.000						1			
	M3-1			12	X	24										
30	M1-6 J4-1		STH 75	24	X	24			1	1						

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			637.2210	637.2230	638.2602	638.3000	634.0618	634.0622	634.0814	638.2102	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
				W [IN.]	x	H [IN.]	SIGNS TYPE II REFLC H [SF]	SIGNS TYPE II REFLC F [SF]	REMOVING SIGNALS TYPE II [EA]	REMOVING SMALL SIGNAL SUPPORTS [EA]	POSTS WOOD 4"X 6"X18' [EA]	POSTS WOOD 4" X 6" X 22' (EA)	POSTS TUBULAR STEEL 2X 2-INCH X 14 FT (EA)	MOVING SIGNALS TYPE II [EA]		
31	R1-1								1	1						REMOVE W4-4C INCIDENTAL
32	J13-1								1	1						REMOVING OF POLE AND BEACON UNDER SEPARATE QTY - TURN OVER BEACON TO WISDOT ELECTRICAL UNIT
33	R1-1								1							
34	W4-4C								1							REMOVING OF POLE AND BEACON UNDER SEPARATE QTY - TURN OVER BEACON TO WISDOT ELECTRICAL UNIT
35	J13-1								1	1						
36	R1-1								1							
37	W4-4C								1							REMOVAL OF W4-4C INCIDENTAL
38	R1-1								1	1						REMOVAL OF W4-4C INCIDENTAL
39	J13-1								1	1						
40	R5-1								1	1						
41	W2-6(2S)				30	X	30				1					
42	J1-1(2S)				24	X	39	6.500			1					
	M2-1				24	X	15									
	M1-6		STH 75		24	X	24									
43	W2-6(2S)				30	X	30				1					16 X 16 TEMPORARY FLAGS INCIDENTAL
43A	W13-1(2S)				18	X	18								43	
44	NOT USED															
45	W3-1								1	1						
46	D1-62		DIAGRAMMATIC		102	X	66	46.750								
47	D1-61		N. BEAUMONT AVE (ARROW LEFT)		108	X	30	22.500			1	2	2	3		
48	J1-1		S. BEAUMONT AVE (ARROW RIGHT)						1	1						
49	R4-7(3)				36	X	48	12.000					2			
49A	W5-54(2S)				18	X	18			2.250					49	
50	J4-1(2S)				24	X	36	6.000					1			
51	M3-4				24	X	12									
	M1-5A		CTH A		24	X	24									
52	NOT USED															
53	R2-1								1	1						
54	NONE		ADOPT A HIGHWAY							1				1		
54	R2-1(2S)		SPEED LIMIT 55		24	X	30	5.000								
55	NOT USED															
56	NOT USED															
57	R2-1								1	1						
58	R5-1(2S)				30	X	30	6.250					1			
59	R2-1(2S)		SPEED LIMIT 55		24	X	30	5.000								
60	NOT USED															

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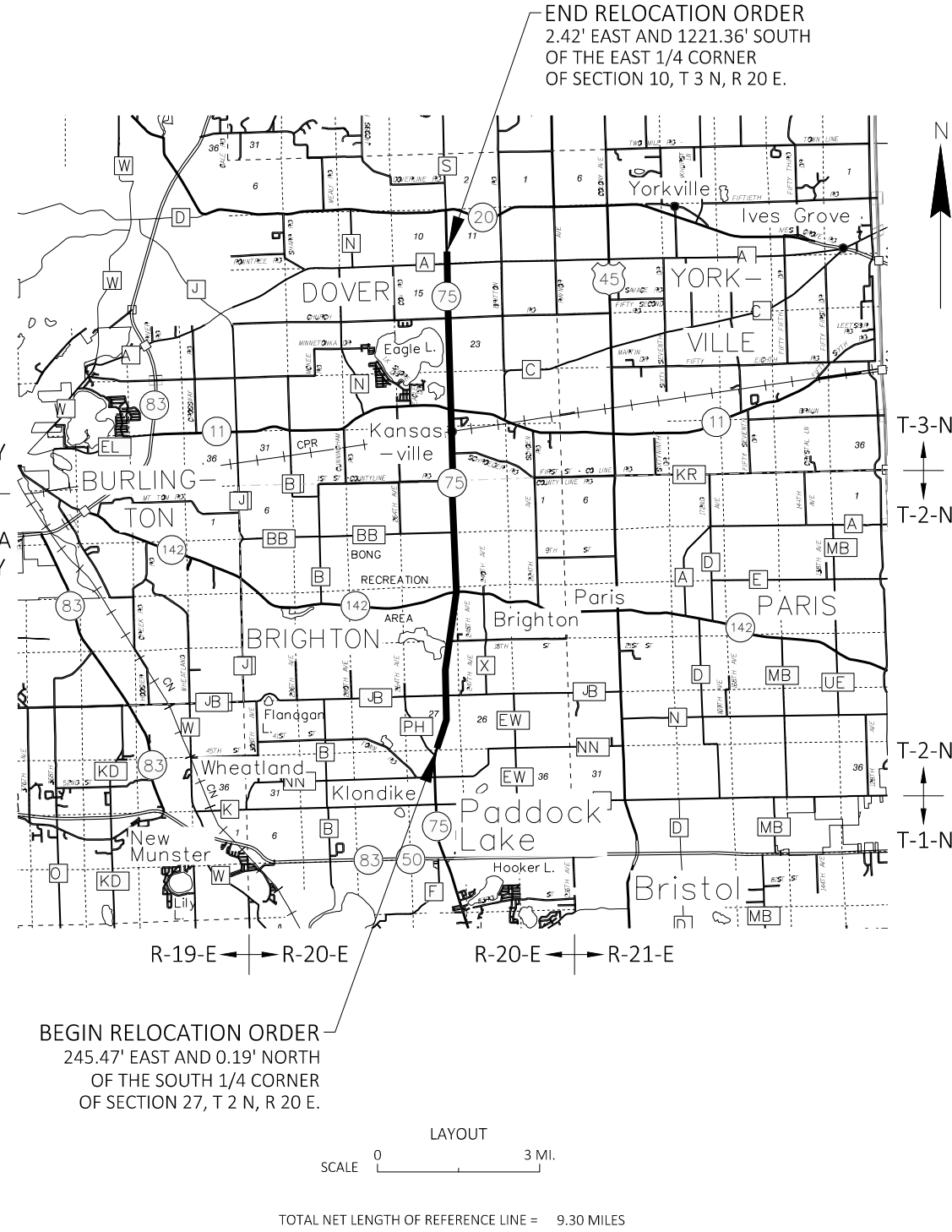
SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			637.2210	637.2230	638.2602	638.3000	634.0618	634.0622	634.0814	638.2102	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
				W [IN.]	x	H [IN.]	SIGNS TYPE II REFLC H [SF]	SIGNS TYPE II REFLC F [SF]	REMOVING SIGNS TYPE II [EA]	REMOVING SMALL SIGN SUPPORTS [EA]	POSTS WOOD 4"X 6"X18' [EA]	POSTS WOOD 4" X 6" X 22' (EA)	POSTS TUBULAR STEEL 2X 2-INCH X 14 FT (EA)	MOVING SIGNS TYPE II [EA]		
61	W2-6(2S)			36	X	36		9.000								
62	J1-1(2S) M2-1 M1-6		STH 75	24	X	39	6.500			1						
63	W2-6(2S)			30	X	30		6.250								
63A	W13-1(2S)			18	X	18		2.250						63	16 X 16 TEMPORARY FLAGS INCIDENTAL	
64	W3-1								1	1						
65	NOT USED															
66	D1-61		S. BEAUMONT AVE (ARROW LEFT N. BEAUMONT AVE (ARROW RIGHT)	108	X	30	22.500		1	2	2					
67	D1-62		DIAGRAMMATIC	102	X	66	46.750					3				
68	R4-7(3)			36	X	48	12.000					2				
68A	W5-54(2S)			18	X	18		2.250						68		
69	NOT USED															
70	W14-3(2S)			48	X	36		6.000						76		
71	R5-1(2S)			30	X	30	6.250				1					
72	R2-1(2S)		SPEED LIMIT 55	24	X	30	5.000		1	1	1					
73	NOT USED															
74	NOT USED															
75	D1-62		DIAGRAMMATIC	96	X	66	44.000					3				
76	R4-7(3)			36	X	48	12.000					2				
76A	W5-54(2S)			18	X	18		2.250						76		
77	J1-1								1	1						
78	W2-6(2S)			30	X	30		6.250			1				16 X 16 TEMPORARY FLAGS INCIDENTAL	
78A	W13-1(2S)			18	X	18		2.250						78		
79	W2-1								1	1						
80	J1-1(2S)			24	X	39	6.500				1					
81	M2-1 M1-5A		CTH A	24	X	15										
82	W23-2(2S) J4-1(2S) M3-3			24	X	24		9.000			1				LIGHT POLE	
83	M1-6 J1-1		STH 75	24	X	24				1	1				SHEET 5	
84	R6-1R(2S)			36	X	12	3.000							88	SHEET 2	
85	R6-1R(2S)			36	X	12	3.000							89	SHEET 2	
86	R6-1R(2S)			36	X	12	3.000							90	SHEET 2	
87	R6-1R(2S)			36	X	12	3.000							91	SHEET 2	
88	R6-4B(2S)			60	X	24	10.000					2			SHEET 2	
89	R6-4B(2S)			60	X	24	10.000					2			SHEET 2	
90	R6-4B(2S)			60	X	24	10.000					2			SHEET 2	
91	R6-4B(2S)			60	X	24	10.000					2			SHEET 2	
92	R5-1(2S)			30	X	30	6.250				1				SHEET 4	
UNDISTRIBUTED				--	x	--	--	--	2		2			--	--	
TOTALS							495.750	88.250	26	27	24	12	36	3		

R/W PROJECT NUMBER 2420-00-20	SHEET NUMBER 4.01	TOTAL SHEETS 10
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT OF WAY REQUIRED FOR S BEAUMONT AVE - TOWN OF DOVER STH 50 TO STH 20		
STH 75	RACINE & KENOSHA COUNTIES	
CONSTRUCTION PROJECT NUMBER 2420-00-70		

CONVENTIONAL SYMBOLS			
SECTION LINE	---	PARCEL NUMBER 25	UTILITY NUMBER 40
QUARTER LINE	---	SECTION CORNER	R/W MONUMENT ●
SIXTEENTH LINE	---	NOTATION FOR COMBUSTIBLE FLUIDS	NON-MONUMENTED ○
NEW REFERENCE LINE	---	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	R/W POINT
NEW R/W LINE	---	CAUTION	FOUND IRON PIN (1-INCH UNLESS NOTED) IP
EXISTING R/W LINE	---	CAUTION	VALVE (GAS, WATER, ETC.) (TYPE)
PROPERTY LINE	---	CAUTION	SIGN
LOT, TIE, AND OTHER MINOR LINES	---	CAUTION	OFF-PREMISE SIGN
SLOPE INTERCEPT	---	CAUTION	
CORPORATE LIMITS	---	CAUTION	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---	CAUTION	
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	---	CAUTION	
TEMP. LIMITED EASEMENT AREA	---	CAUTION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	---	CAUTION	
TRANSMISSION STRUCTURES	---	CAUTION	
BUILDING	---	CAUTION	
BUILDING (TO BE REMOVED)	---	CAUTION	
BRIDGE	---	CAUTION	

CONVENTIONAL UTILITY SYMBOLS		CURVE DATA ABBREVIATIONS	
WATER	---	LONG CHORD	LCH
GAS	---	LONG CHORD BEARING	LCB
TELEPHONE	---	RADIUS	R
OVERHEAD TRANSMISSION LINES	---	DEGREE OF CURVE	D
ELECTRIC	---	CENTRAL ANGLE	Δ / DELTA
CABLE TELEVISION	---	LENGTH OF CURVE	L
FIBER OPTIC	---	TANGENT	T
SANITARY SEWER	---	DIRECTION AHEAD	DA
STORM SEWER	---	DIRECTION BACK	DB
ELECTRIC TOWER	---		

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



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCCS) RACINE AND KENOSHA COUNTIES, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN 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 MONUMENTS (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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 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.

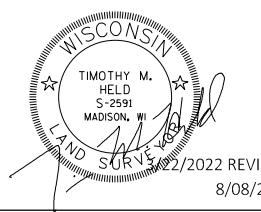
FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

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

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.



I HEREBY CERTIFY THAT THIS PLAT WAS CREATED FOR WISCONSIN DEPARTMENT OF TRANSPORTATION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
 DATE: 3/22/2022 *Robert Duffeck*
 (Signature)
 Robert Duffeck
 (Printed Name)

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

4

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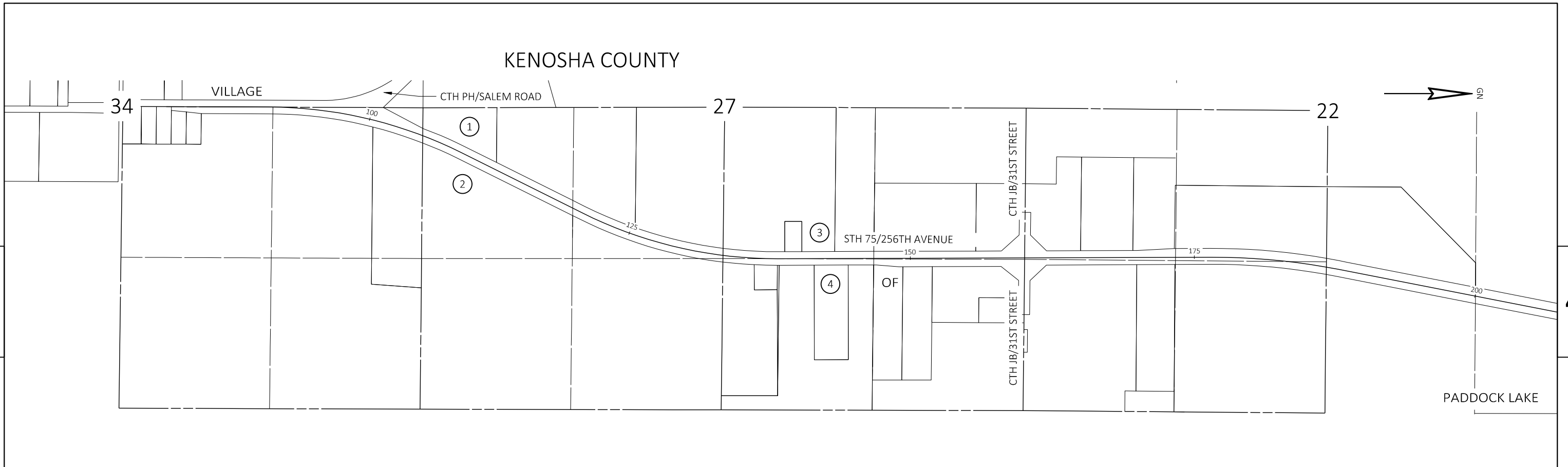
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W REQUIRED ACRES			TLE ACRES
				NEW	EXISTING	TOTAL	
1	4.04	ERIC D. LUTSCH	TLE	----	----	----	0.04
2	4.04	HERSCHEL R. THOMAS, JR. AND JUDITH C. THOMAS	TLE	----	----	----	0.04
3	4.05	MARIE A. TERRY - VENDOR, JAMES R. TERRY - PURCHASER	FEE	0.03	----	0.03	----
4	4.05	JOHN R. HUSENICA	FEE	0.03	----	0.03	----
6	4.06	GREGORY B. LAVIN	FEE	0.02	0.08	0.10	----
7	4.06	JAMES L. LAVIN AND THEA LAVIN	FEE	0.05	0.08	0.13	----
8	4.06	MICHAEL J. ARMGARDT, DANIEL R. DILL AND TIMOTHY J. DILL	FEE/TLE	0.01	0.12	0.13	0.09
9	4.06	LAWRENCE R. AND NANCY J. NEAU REVOCABLE TRUST	FEE/TLE	0.07	----	0.07	0.04
11	4.06	BERNARD E. LAVIN	FEE/TLE	0.03	0.01	0.04	0.04
12 (2)	4.06	TOWN OF DOVER	FEE	0.01	0.01	0.02	----
13	4.06	BERNARD E. LAVIN AND HARRIET N. LAVIN	FEE/TLE	0.03	0.02	0.05	0.01
14	4.07	MILLS FAMILY FARM, LLC AND EUGENE A. MILLS AND MARY B. MILLS	FEE	0.11	0.08	0.19	----
16	4.08 & 4.09	THE LAVERNE V. STORCK SURVIVOR'S TRUST	FEE	0.98	0.64	1.62	----
17	4.08 & 4.09	DONALD J. BONNER	FEE	0.76	0.42	1.18	----
18	4.09 & 4.10	DONALD J. BONNER REVOCABLE TRUST	FEE/TLE	1.21	0.87	2.08	0.11
19	4.09 & 4.10	AUGUST J. STORCK AND LAVERNE V. STORCK JOINT LIVING FAMILY REVOCABLE TRUST	FEE/TLE	1.01	0.86	1.87	0.11

UTILITY INTERESTS REQUIRED

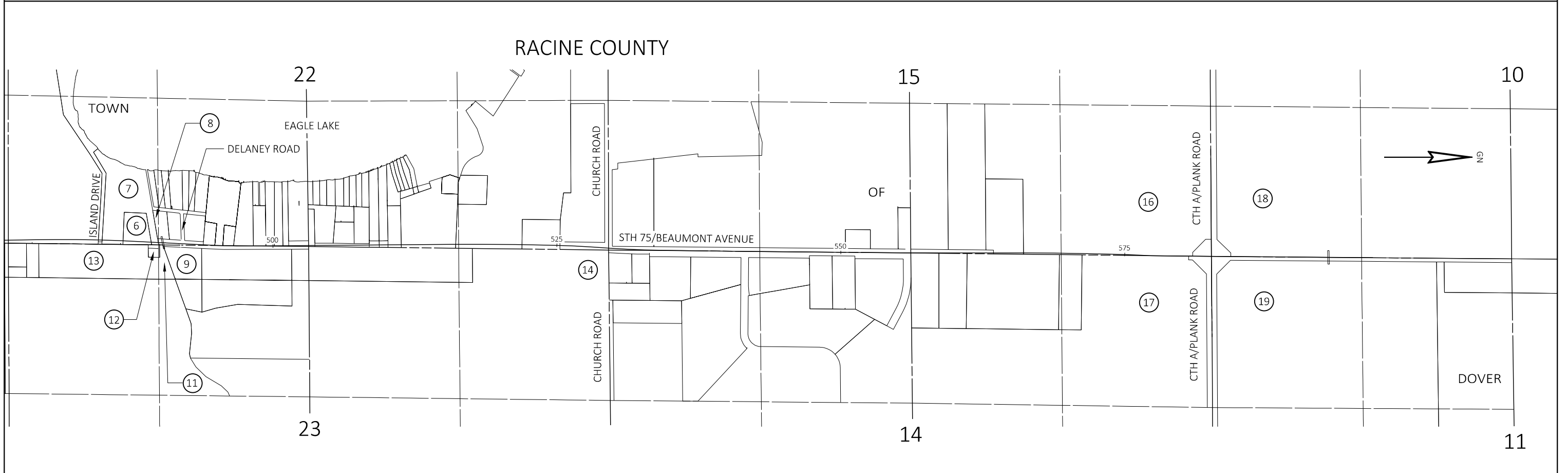
UTILITY NUMBER	SHEET NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	4.06, 4.07, 4.08, 4.09	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
101	4.07	AT&T - WISCONSIN	RELEASE OF RIGHTS
103	4.07	TDS TELECOM	RELEASE OF RIGHTS

REVISION DATE 08/08/2022	DATE 03/22/2022	HWY: STH 75	STATE R/W PROJECT NUMBER 2420-00-20	PLAT SHEET 4.02
GRID FACTOR	COUNTY: RACINE/KENOSHA	CONSTRUCTION PROJECT NUMBER 2420-00-70	PS&E SHEET	E

KENOSHA COUNTY



RACINE COUNTY



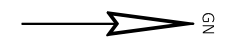
REVISION DATE 08/08/2022	DATE 03/22/2022
_____	GRID FACTOR _____

DATE 03/22/2022	HWY: STH 75
GRID FACTOR _____	COUNTY: RACINE/KENOSHA

STATE R/W PROJECT NUMBER 2420-00-20	CONSTRUCTION PROJECT NUMBER 2420-00-70
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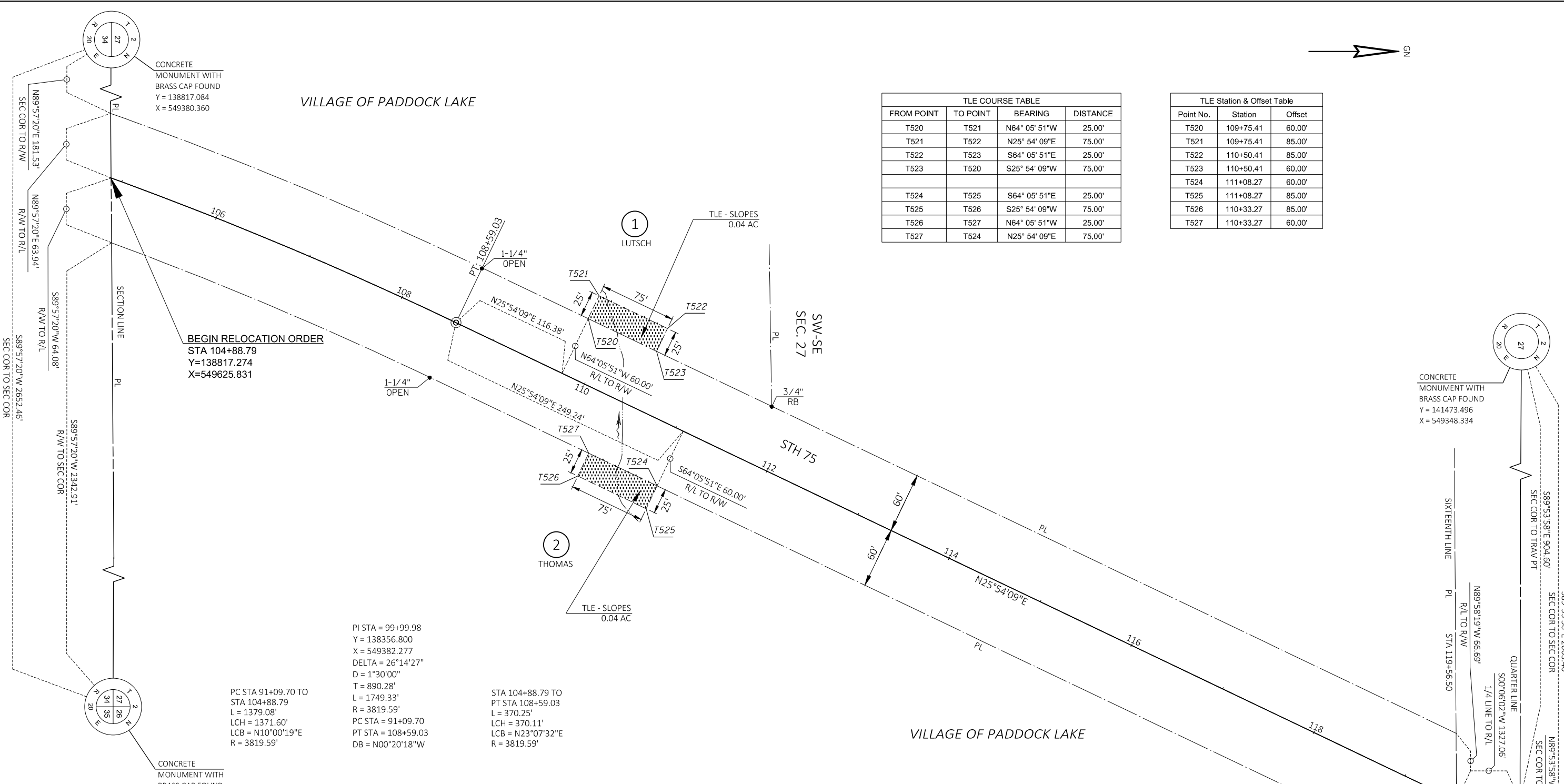
PLAT SHEET 4.03	PS&E SHEET _____
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PLAT SHEET 4.03	PS&E SHEET _____	E
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TLE COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
T520	T521	N64° 05' 51"W	25.00'
T521	T522	N25° 54' 09"E	75.00'
T522	T523	S64° 05' 51"E	25.00'
T523	T520	S25° 54' 09"W	75.00'
T524	T525	S64° 05' 51"E	25.00'
T525	T526	S25° 54' 09"W	75.00'
T526	T527	N64° 05' 51"W	25.00'
T527	T524	N25° 54' 09"E	75.00'

TLE Station & Offset Table		
Point No.	Station	Offset
T520	109+75.41	60.00'
T521	109+75.41	85.00'
T522	110+50.41	85.00'
T523	110+50.41	60.00'
T524	111+08.27	60.00'
T525	111+08.27	85.00'
T526	110+33.27	85.00'
T527	110+33.27	60.00'



BEGIN RELOCATION ORDER
 STA 104+88.79
 Y=138817.274
 X=549625.831

PI STA = 99+99.98
 Y = 138356.800
 X = 549382.277
 DELTA = 26°14'27"
 D = 1°30'00"
 T = 890.28'
 L = 1749.33'
 R = 3819.59'
 PC STA = 91+09.70
 PT STA = 108+59.03
 DB = N00°20'18"W

STA 104+88.79 TO
 PT STA 108+59.03
 L = 370.25'
 LCH = 370.11'
 LCB = N23°07'32"E
 R = 3819.59'

PC STA 91+09.70 TO
 STA 104+88.79
 L = 1379.08'
 LCH = 1371.60'
 LCB = N10°00'19"E
 R = 3819.59'

CONCRETE
 MONUMENT WITH
 BRASS CAP FOUND
 Y = 138819.141
 X = 552032.820

CONCRETE
 MONUMENT WITH
 BRASS CAP FOUND
 Y = 141473.496
 X = 549348.334

CONCRETE
 MONUMENT WITH
 BRASS CAP FOUND
 Y = 141468.827
 X = 552011.734

NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCSS), KENOSHA COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN 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" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
 FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY PREVIOUS R/W PROJECT TO484(5), PLAT OF SURVEY BY MARK R. MADSEN S-2271 DATED AND SIGNED ON 10/29/2020, PLAT OF SURVEY BY JEFFREY K. RAMPART S-2141 DATED AND SIGNED ON 08/08/2003 AND REVISED ON 04/08/2010, COPIES OF WHICH ARE ON FILE WITH THE KENOSHA COUNTY SURVEYOR'S OFFICE.

REVISION DATE 08/08/2022	DATE 03/22/2022	SCALE, FEET 0 50 100	HWY: STH 75	STATE R/W PROJECT NUMBER 2420-00-20	PLAT SHEET 4.04
	GRID FACTOR		COUNTY: KENOSHA	CONSTRUCTION PROJECT NUMBER 2420-00-70	PS&E SHEET

FROM POINT	TO POINT	BEARING	DISTANCE
100	101	S89° 14' 34"W	25.00'
101	102	N00° 45' 26"W	50.00'
102	103	N89° 14' 34"E	25.00'
103	100	S00° 45' 26"E	50.00'
104	105	N89° 14' 34"E	25.00'
105	106	S00° 45' 26"E	50.00'
106	107	S89° 14' 34"W	25.00'
107	104	N00° 45' 26"W	50.00'

VILLAGE OF PADDOCK LAKE

PC STA 120+53.12 TO STA 133+49.87
L = 1296.76'
LCH = 1290.54'
LCB = N16°10'37"E
R = 3819.71'

PI STA = 129+58.16
Y = 141045.888
X = 550688.180
DELTA = 26°39'35"
D = 1°30'00"
T = 905.04'
L = 1777.31'
R = 3819.71'
PC STA = 120+53.12
PT STA = 138+30.43
DB = N25°54'09"E

STA 133+49.87 TO PT STA 138+30.43
L = 480.55'
LCH = 480.24'
LCB = N02°50'49"E
R = 3819.71'

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY PREVIOUS R/W PROJECT T0484(S), PLAT OF SURVEY BY GARY B. FOAT S-1598 DATED AND SIGNED ON 06/20/2005, PLAT OF SURVEY BY ROBERT L. SMITH S-190 DATED AND SIGNED ON 08/15/1986, COPIES OF WHICH ARE ON FILE WITH THE KENOSHA COUNTY SURVEYOR'S OFFICE.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCSS), KENOSHA COUNTY, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN 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" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

Point No.	Station	Offset
100	142+05.73	60.00'
101	142+05.73	85.00'
102	142+55.73	85.00'
103	142+55.73	60.00'
104	142+54.56	60.00'
105	142+54.56	85.00'
106	142+04.56	85.00'
107	142+04.56	60.00'

CONCRETE MONUMENT WITH BRASS CAP FOUND
Y = 141468.827
X = 552011.734

CONCRETE MONUMENT WITH BRASS CAP FOUND
Y = 141473.496
X = 549348.334

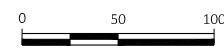
CONCRETE MONUMENT WITH BRASS CAP FOUND
Y = 144126.344
X = 549330.226

CONCRETE MONUMENT WITH BRASS CAP FOUND
Y = 144126.198
X = 551991.332

REVISION DATE 08/08/2022

DATE 03/22/2022

SCALE, FEET



HWY: STH 75

STATE R/W PROJECT NUMBER 2420-00-20

PLAT SHEET 4.05

GRID FACTOR

COUNTY: KENOSHA

CONSTRUCTION PROJECT NUMBER 2420-00-70

PS&E SHEET

E

TOWN OF DOVER

GN

TLE COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
T500	T501	S79° 40' 59"W	35.94'
T501	T502	N02° 22' 09"E	110.18'
T502	114	N84° 26' 59"E	35.34'
114	113	S02° 22' 09"W	102.55'
113	T500	S01° 34' 33"W	4.61'
118	T503	S87° 37' 51"E	35.00'
T503	T504	S02° 22' 09"W	102.74'
T504	119	S89° 03' 24"W	35.06'
119	118	N02° 22' 09"E	104.76'
122	T506	S09° 50' 16"W	62.63'
T506	123	N01° 34' 33"E	61.98'
123	122	S88° 25' 27"E	9.00'

TLE Station & Offset Table		
Point No.	Station	Offset
T500	489+76.41	65.65'
T501	489+68.55	100.72'
T502	490+78.73	100.62'
T503	491+11.10	97.42'
T504	490+08.37	97.32'
T506	487+57.34	35.04'

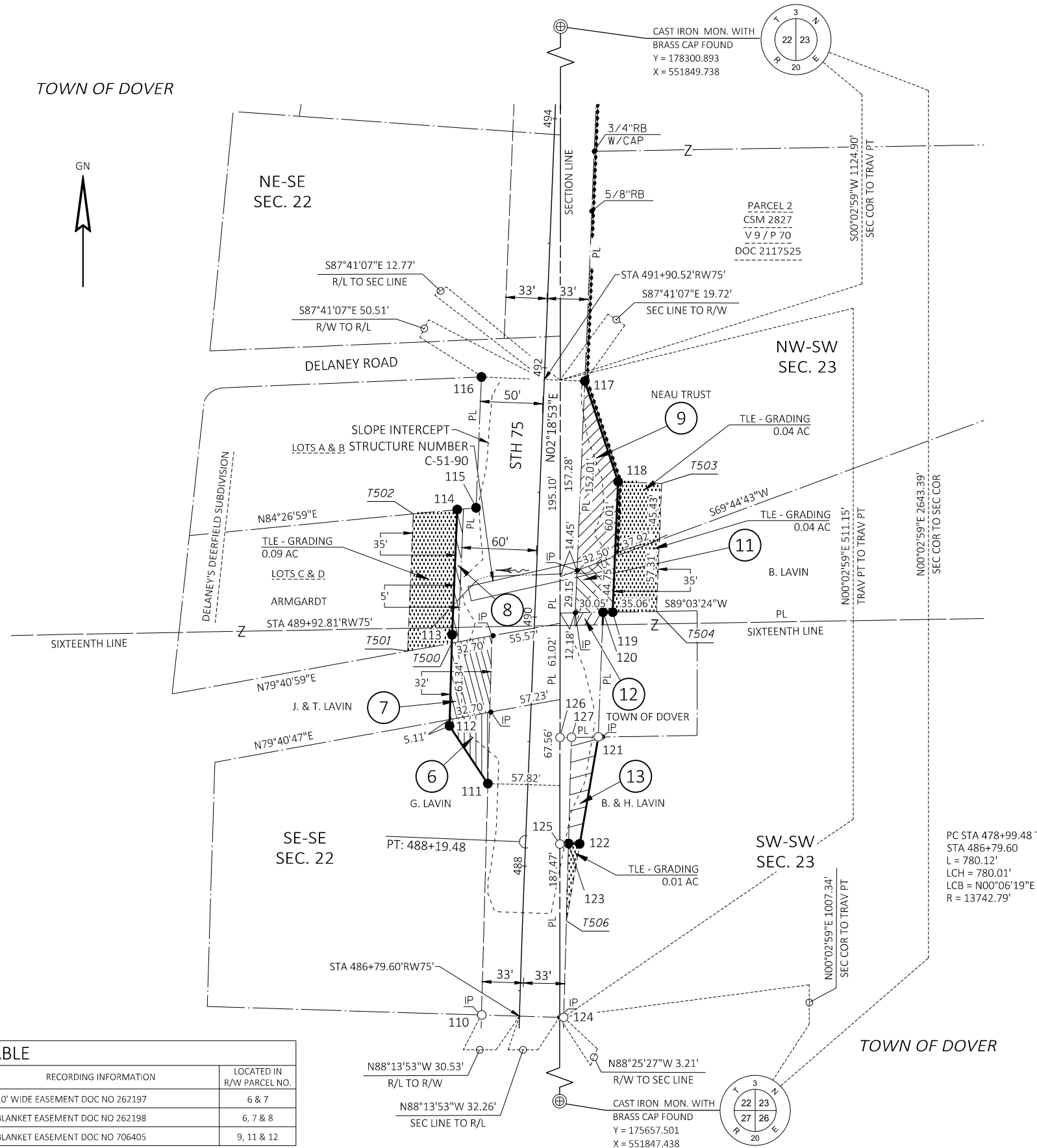
R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
110	111	N01° 34' 33"E	185.65'
111	112	N33° 35' 01"W	55.57'
112	113	N01° 34' 33"E	71.06'
113	114	N02° 22' 09"E	102.55'
114	115	N84° 26' 59"E	15.14'
115	116	N02° 22' 09"E	105.02'
117	118	S18° 18' 26"E	84.96'
118	119	S02° 22' 09"W	104.76'
119	120	S89° 03' 24"W	7.75'
120	121	S02° 12' 18"W	100.13'
121	122	S09° 50' 16"W	86.96'
122	123	N88° 25' 27"W	9.00'
123	124	S01° 34' 33"W	139.54'
SW COR SEC 23	125	N00° 02' 59"E	1146.94'
125	126	N00° 02' 59"E	84.74'
126	127	N89° 03' 50"E	9.19'
127	121	N89° 03' 50"E	21.52'
123	125	N88° 25' 27"W	6.93'

R/W Station & Offset Table		
Point No.	Station	Offset
110	486+79.62	30.53'
111	488+64.94	32.21'
112	489+09.96	64.79'
113	489+81.02	65.71'
114	490+83.56	65.61'
115	490+85.63	50.61'
116	491+90.66	50.51'
117	491+90.66	32.49'
118	491+11.14	62.42'
119	490+06.38	62.32'
120	490+05.94	54.58'
121	489+05.81	54.77'
122	488+19.60	43.38'
123	488+19.48	34.38'
124	486+79.58	35.47'
125	488+19.39	27.46'
126	489+04.07	24.11'
127	489+04.59	33.29'

NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCOS), RACINE COUNTY, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
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 FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY PREVIOUS R/W PROJECT 0051-93-90, DELANEY'S DEERFIELD SUBDIVISION, CERTIFIED SURVEY MAP NO. 2073 RECORDED IN VOLUME 6, PAGE 346 AS DOCUMENT NUMBER 1640967, CERTIFIED SURVEY MAP NO. 2827 RECORDED IN VOLUME 9, PAGE 70 AS DOCUMENT NUMBER 2117525 AND PLAT OF SURVEY FILE NUMBER 14302 A COPY OF WHICH IS ON FILE WITH THE RACINE COUNTY SURVEYOR'S OFFICE.
DELANEY ROAD	EXISTING R/W LINE WAS ESTABLISHED BY PREVIOUS R/W PROJECT 0051-93-90 AND DELANEY'S DEERFIELD SUBDIVISION.

EASEMENT TABLE				
UTILITY NUMBER	OWNER	INTEREST REQUIRED	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	WE ENERGIES	RELEASE OF RIGHTS	10' WIDE EASEMENT DOC NO 262197	6 & 7
100	WE ENERGIES	RELEASE OF RIGHTS	BLANKET EASEMENT DOC NO 262198	6, 7 & 8
100	WE ENERGIES	RELEASE OF RIGHTS	BLANKET EASEMENT DOC NO 706405	9, 11 & 12



PC STA 478+99.48 TO STA 486+79.60
 L = 780.12'
 LCH = 780.01'
 LCB = N00°06'19"E
 R = 13742.79'

PI STA = 483+59.65
 Y = 176345.841
 X = 551802.421
 DELTA = 3°50'08"
 D = 0°25'01"
 T = 460.17'
 L = 920.00'
 R = 13742.79'
 PC STA = 478+99.48
 PT STA = 488+19.48

STA 486+79.60 TO PT STA 488+19.48
 L = 139.88'
 LCH = 139.88'
 LCB = N02°01'23"E
 R = 13742.79'

REVISION DATE 08/08/2022	DATE 03/22/2022	SCALE, FEET 0 50 100	HWY: STH 75	STATE R/W PROJECT NUMBER 2420-00-20	PLAT SHEET 4.06
GRID FACTOR			COUNTY: RACINE	CONSTRUCTION PROJECT NUMBER 2420-00-70	PS&E SHEET



TOWN OF DOVER

PI STA = 526+56.04
 Y = 180641.262
 X = 551819.655
 DELTA = 2°33'19"
 D = 0°43'56"
 T = 174.51'
 L = 348.96'
 R = 7824.35'
 PC STA = 524+81.53
 PT STA = 528+30.49
 DB = N00°44'57"E

NE-NE
 SEC. 22

SE-SE
 SEC. 15

PI STA = 532+04.37
 Y = 181188.744
 X = 551851.267
 DELTA = 3°11'05"
 D = 0°45'50"
 T = 208.49'
 L = 416.88'
 R = 7500.00'
 PC STA = 529+95.88
 PT STA = 534+12.76
 DA = N00°17'11"E

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
130	131	N88° 47' 40"E	100.66'
131	132	S46° 30' 09"W	138.93'
132	130	N00° 05' 20"E	93.51'

R/W Station & Offset Table		
Point No.	Station	Offset
130	529+24.49	18.69'
131	529+32.41	119.03'
132	528+31.13	23.93'

NOTES:

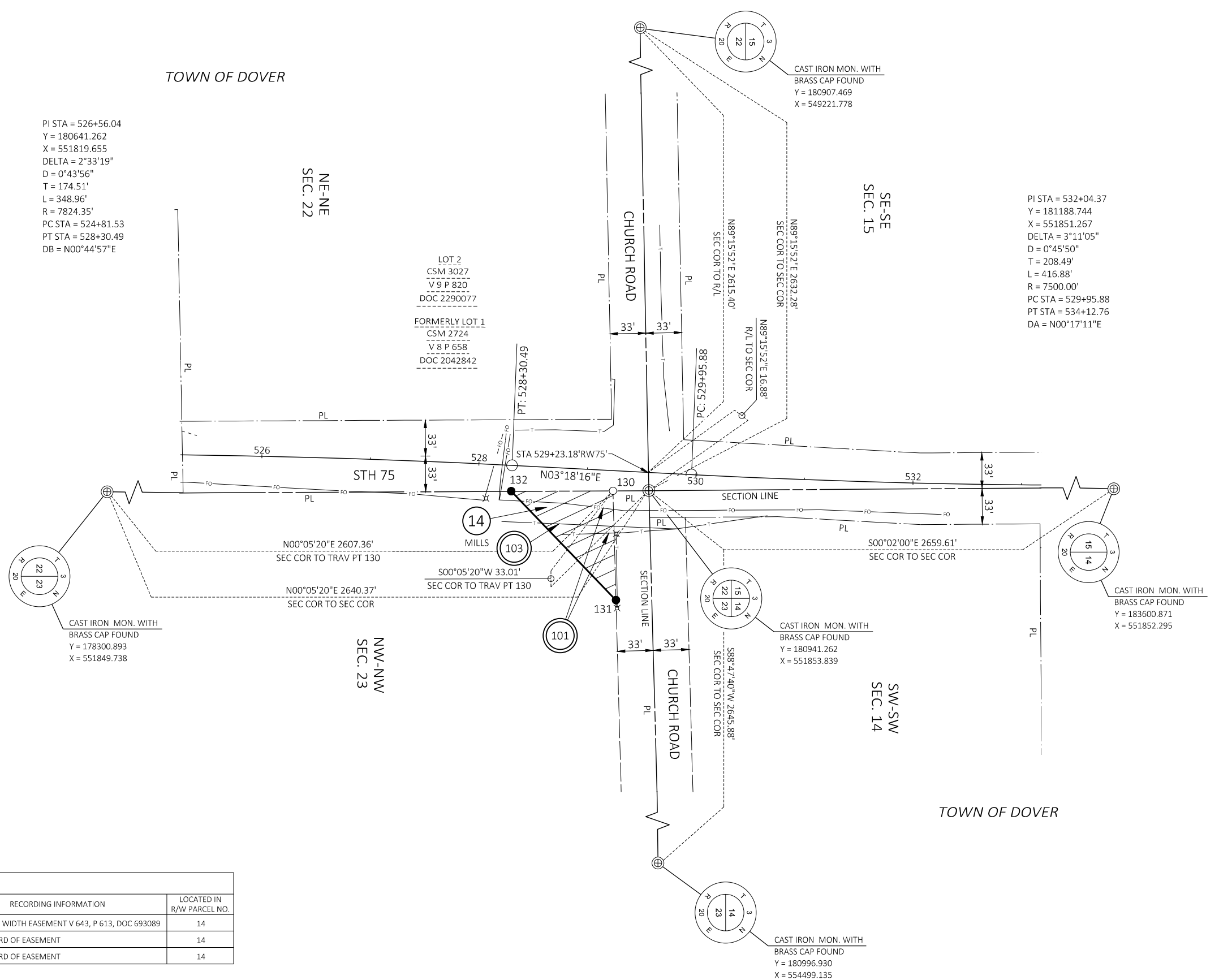
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCCS), RACINE COUNTY, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT. FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY CERTIFIED SURVEY MAP NO. 3027, RECORDED IN VOLUME 9, PAGE 820 AS DOCUMENT 2290077, CERTIFIED SURVEY MAP NO. 2724, RECORDED IN VOLUME 8, PAGE 658, AS DOCUMENT NUMBER 2042842, TOWN OF DOVER BOOK 1, PAGE 4, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 505 AND R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 511.
CHURCH ROAD	EXISTING R/W LINE WAS ESTABLISHED BY CERTIFIED SURVEY MAP NO. 3027, RECORDED IN VOLUME 9, PAGE 820 AS DOCUMENT 2290077, CERTIFIED SURVEY MAP NO. 2724, RECORDED IN VOLUME 8, PAGE 658, AS DOCUMENT NUMBER 2042842, RACINE COUNTY ROAD RECORDS, PAGE 359.

EASEMENT TABLE

UTILITY NUMBER	OWNER	INTEREST REQUIRED	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	WE ENERGIES	RELEASE OF RIGHTS	VARIABLE WIDTH EASEMENT V 643, P 613, DOC 693089	14
101	AT&T WISCONSIN	RELEASE OF RIGHTS	NO RECORD OF EASEMENT	14
103	TDS TELECOM	RELEASE OF RIGHTS	NO RECORD OF EASEMENT	14



REVISION DATE 08/08/2022

DATE 03/22/2022

SCALE, FEET
 0 50 100

HWY: STH 75
 COUNTY: RACINE

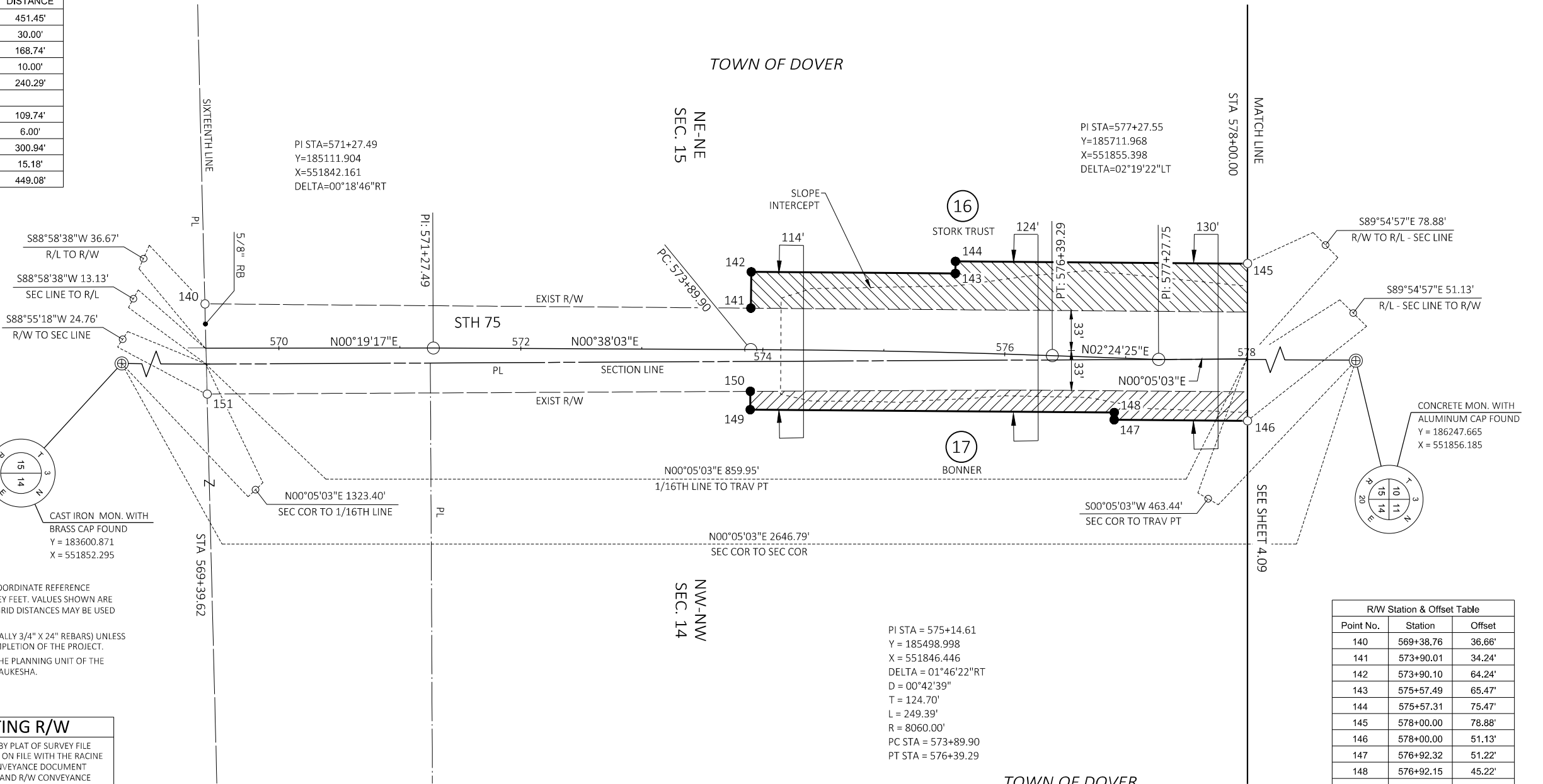
STATE R/W PROJECT NUMBER 2420-00-20
 CONSTRUCTION PROJECT NUMBER 2420-00-70

PLAT SHEET 4.07
 PS&E SHEET

E



RW COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
140	141	N00° 48' 40"E	451.45'
141	142	N89° 11' 20"W	30.00'
142	143	N00° 48' 40"E	168.74'
143	144	N89° 11' 20"W	10.00'
144	145	N00° 48' 40"E	240.29'
146	147	S00° 48' 40"W	109.74'
147	148	N89° 11' 20"W	6.00'
148	149	S00° 48' 40"W	300.94'
149	150	N89° 11' 20"W	15.18'
150	151	S00° 05' 03"W	449.08'



NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCCS), RACINE COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
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 FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY PLAT OF SURVEY FILE NUMBER F-36098 A COPY OF WHICH IS ON FILE WITH THE RACINE COUNTY SURVEYOR'S OFFICE, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 515 AND R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 316, PAGE 509.

EASEMENT TABLE				
UTILITY NUMBER	OWNER	INTEREST REQUIRED	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	WE ENERGIES	RELEASE OF RIGHTS	BLANKET EASEMENT V 333, P 485, DOC 425355	17

R/W Station & Offset Table		
Point No.	Station	Offset
140	569+38.76	36.66'
141	573+90.01	34.24'
142	573+90.10	64.24'
143	575+57.49	65.47'
144	575+57.31	75.47'
145	578+00.00	78.88'
146	578+00.00	51.13'
147	576+92.32	51.22'
148	576+92.15	45.22'
149	573+89.75	49.76'
150	573+89.80	34.59'
151	569+40.53	37.88'

PI STA = 575+14.61
 Y = 185498.998
 X = 551846.446
 DELTA = 01°46'22"RT
 D = 00°42'39"
 T = 124.70'
 L = 249.39'
 R = 8060.00'
 PC STA = 573+89.90
 PT STA = 576+39.29

PI STA=571+27.49
 Y=185111.904
 X=551842.161
 DELTA=00°18'46"RT

PI STA=577+27.55
 Y=185711.968
 X=551855.398
 DELTA=02°19'22"LT

4

4

REVISION DATE 08/08/2022	DATE 03/22/2022	SCALE, FEET 0 50 100	HWY: STH 75	STATE R/W PROJECT NUMBER 2420-00-20	PLAT SHEET 4.08
GRID FACTOR			COUNTY: RACINE	CONSTRUCTION PROJECT NUMBER 2420-00-70	PS&E SHEET

HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY PLAT OF SURVEY FILE NUMBER F-36098 A COPY OF WHICH IS ON FILE WITH THE RACINE COUNTY SURVEYOR'S OFFICE, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 515, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 316, PAGE 509, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 819, PAGE 81 AS DOCUMENT NUMBER 769129, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 1087, PAGE 453 AS DOCUMENT NUMBER 882919, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 501, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 503, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 817, PAGE 117 AS DOCUMENT NUMBER 768236, AND R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 1087, PAGE 29.
PLANK ROAD	EXISTING R/W LINE WAS ESTABLISHED BY PLAT OF SURVEY FILE NUMBER F-36098 A COPY OF WHICH IS ON FILE WITH THE RACINE COUNTY SURVEYOR'S OFFICE, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 819, PAGE 81 AS DOCUMENT NUMBER 769129, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 1087, PAGE 453 AS DOCUMENT NUMBER 882919, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 501, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 503, R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 817, PAGE 117 AS DOCUMENT NUMBER 768236, AND R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 1087, PAGE 29.

NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCCS), RACINE COUNTY, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
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 FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

TOWN OF DOVER

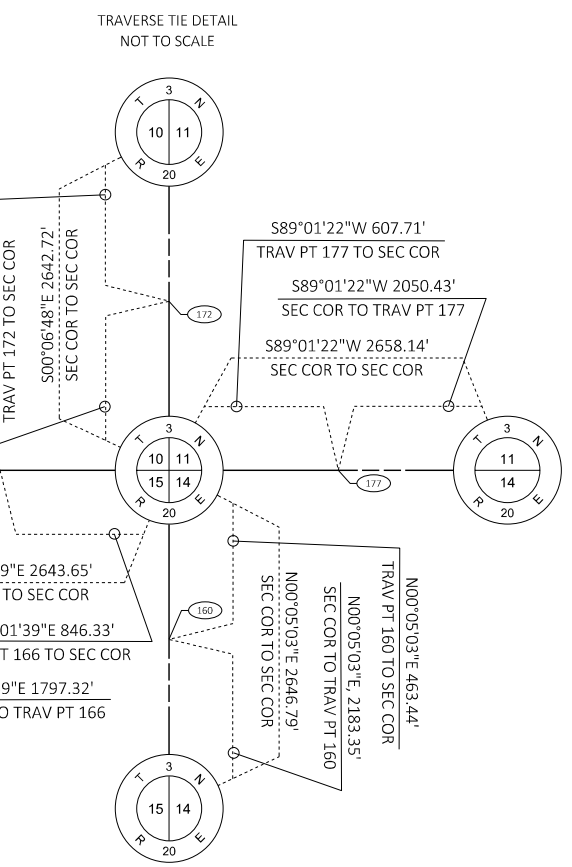
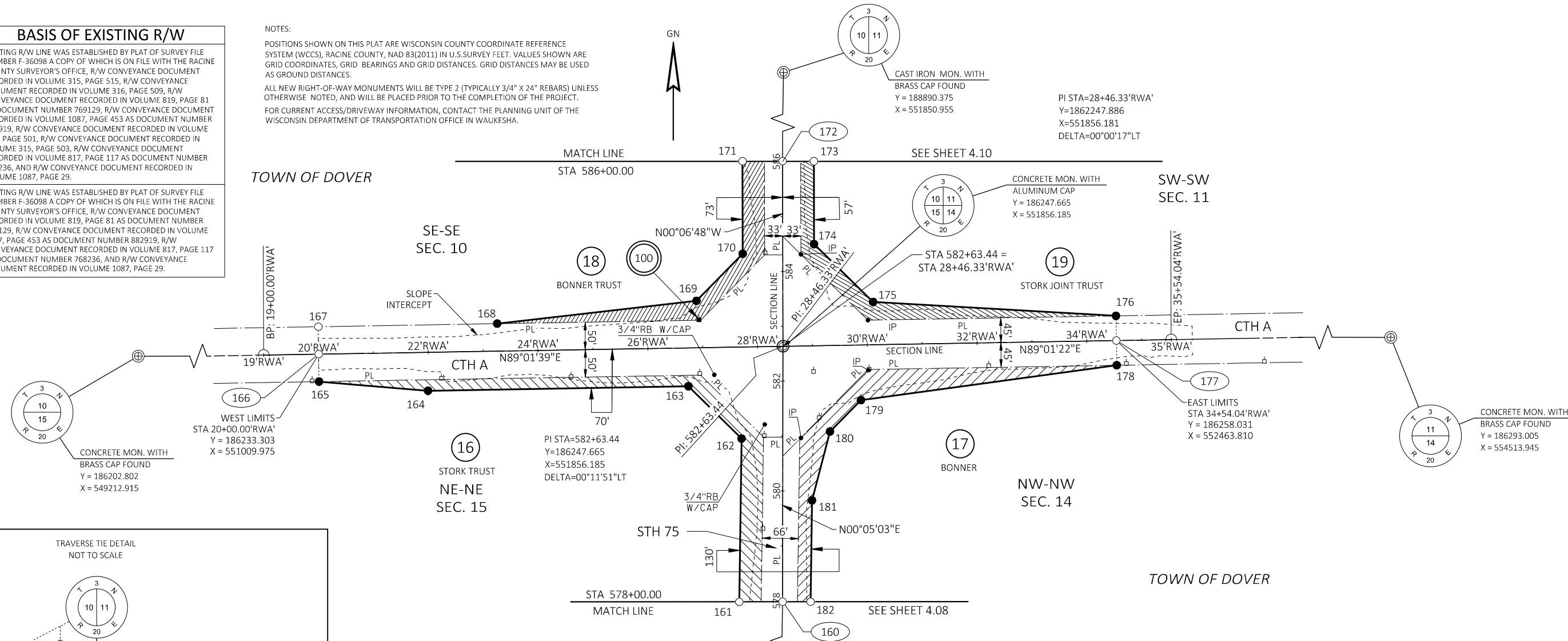
SW-SW SEC. 11

SE-SE SEC. 10

NE-NE SEC. 15

NW-NW SEC. 14

TOWN OF DOVER



UTILITY NUMBER	OWNER	INTEREST REQUIRED	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	WE ENERGIES	RELEASE OF RIGHTS	NO RECORD OF EASEMENT	18
100	WE ENERGIES	RELEASE OF RIGHTS	10' WIDE EASEMENT V 333, P 484, DOC 425354	16
100	WE ENERGIES	RELEASE OF RIGHTS	BLANKET EASEMENT V 333, P 485, DOC 425355	17
100	WE ENERGIES	RELEASE OF RIGHTS	10' WIDE EASEMENT V 333, P 438, DOC 425308	19

Point No.	Station	Offset
160	578+00.00	0.00'
161	578+00.00	78.88'
162	580+95.16	75.13'
163	26+73.00'RWA'	70.00'
164	21+98.34'RWA'	70.00'
165	20+00.00'RWA'	50.00'
166	20+00.00'RWA'	0.00'
167	20+00.00'RWA'	50.00'
168	23+26.44'RWA'	50.00'
169	26+90.24'RWA'	85.37'
170	584+32.09	73.00'
171	586+00.00	73.00'
172	586+00.00	0.00'
173	586+00.00	57.00'
174	584+49.41	57.00'
175	30+11.67'RWA'	77.94'
176	34+54.04'RWA'	45.00'
177	34+54.04'RWA'	45.00'
178	34+54.04'RWA'	45.00'
179	29+86.81'RWA'	100.47'
180	581+08.26	86.03'
181	579+82.72	53.45'
182	578+00.00	51.13'

FROM POINT	TO POINT	BEARING	DISTANCE	COURSE DESCRIPTION
160	161	N89° 54' 57"W	78.88'	R/L-SEC LINE TO R/W
161	162	N00° 48' 40"E	295.18'	
162	163	N45° 26' 42"W	135.76'	
163	164	S89° 01' 39"W	474.66'	
164	165	N85° 12' 52"W	199.35'	
165	166	N00° 58' 21"W	50.00'	R/W TO R/L-SEC LINE
166	167	N00° 58' 21"W	50.00'	R/L-SEC LINE TO R/W
167	168	N89° 01' 39"E	326.44'	
168	169	N83° 28' 28"E	365.52'	
169	170	N44° 27' 32"E	120.20'	
170	171	N00° 06' 48"W	167.91'	
171	172	N89° 53' 12"E	73.00'	R/W TO R/L-SEC LINE
172	173	N89° 53' 12"E	57.00'	R/L-SEC LINE TO R/W
173	174	S00° 06' 48"E	150.59'	
174	175	S45° 32' 43"E	150.40'	
175	176	S86° 43' 09"E	443.60'	
176	177	S00° 58' 38"E	45.00'	R/W TO R/L-SEC LINE
177	178	S00° 58' 38"E	45.00'	R/L-SEC LINE TO R/W
178	179	S82° 15' 10"W	470.51'	
179	180	S44° 33' 12"W	80.35'	
180	181	S14° 37' 55"W	129.69'	
181	182	S00° 48' 40"W	182.74'	
182	160	N89° 54' 57"W	51.13'	R/W TO R/L-SEC LINE

REVISION DATE 08/08/2022

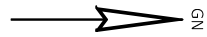
DATE 03/22/2022

SCALE, FEET
 0 100 200

HWY: STH 75
 COUNTY: RACINE

STATE R/W PROJECT NUMBER 2420-00-20
 CONSTRUCTION PROJECT NUMBER 2420-00-70

PLAT SHEET 4.09
 PS&E SHEET E

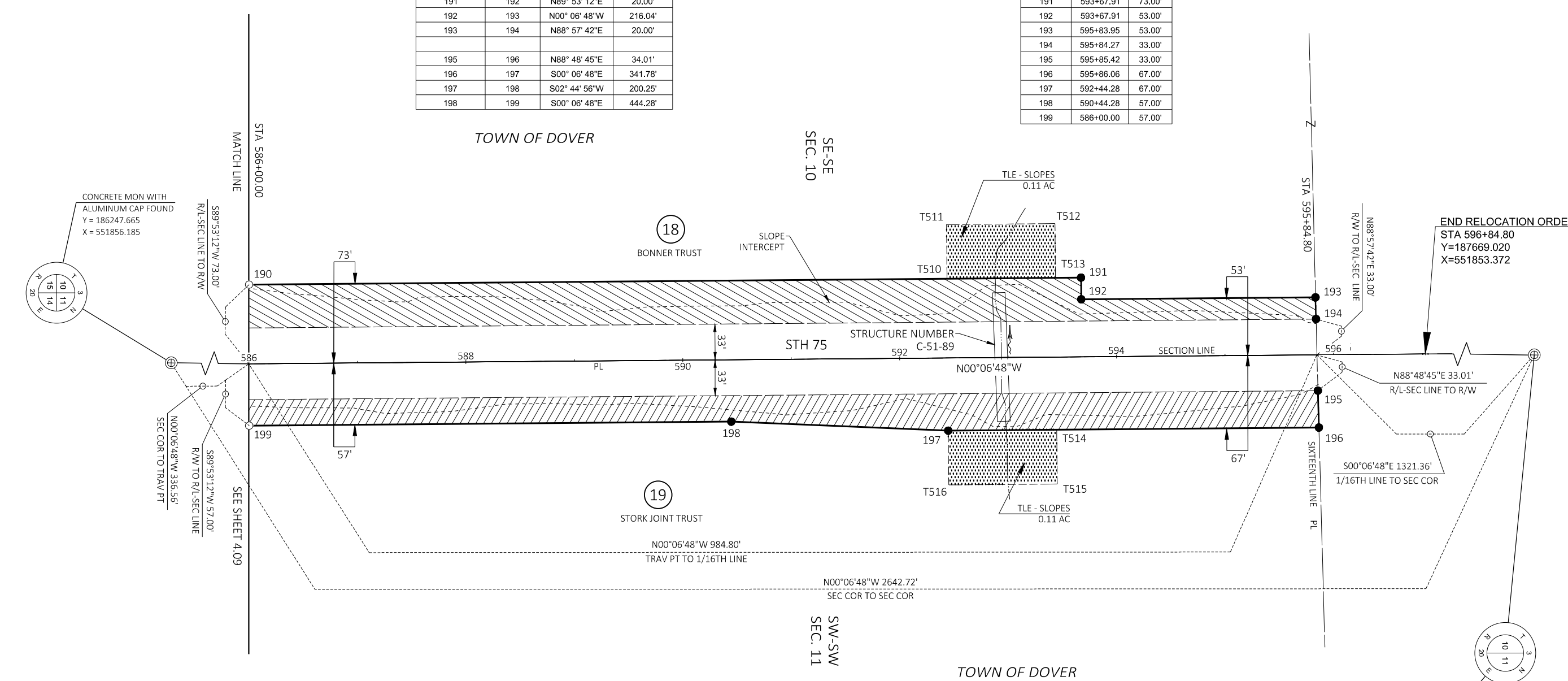


R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
190	191	N00° 06' 48"W	767.91'
191	192	N89° 53' 12"E	20.00'
192	193	N00° 06' 48"W	216.04'
193	194	N88° 57' 42"E	20.00'
195	196	N88° 48' 45"E	34.01'
196	197	S00° 06' 48"E	341.78'
197	198	S02° 44' 56"W	200.25'
198	199	S00° 06' 48"E	444.28'

R/W Station & Offset Table		
Point No.	Station	Offset
190	586+00.00	73.00'
191	593+67.91	73.00'
192	593+67.91	53.00'
193	595+83.95	53.00'
194	595+84.27	33.00'
195	595+85.42	33.00'
196	595+86.06	67.00'
197	592+44.28	67.00'
198	590+44.28	57.00'
199	586+00.00	57.00'

4

4



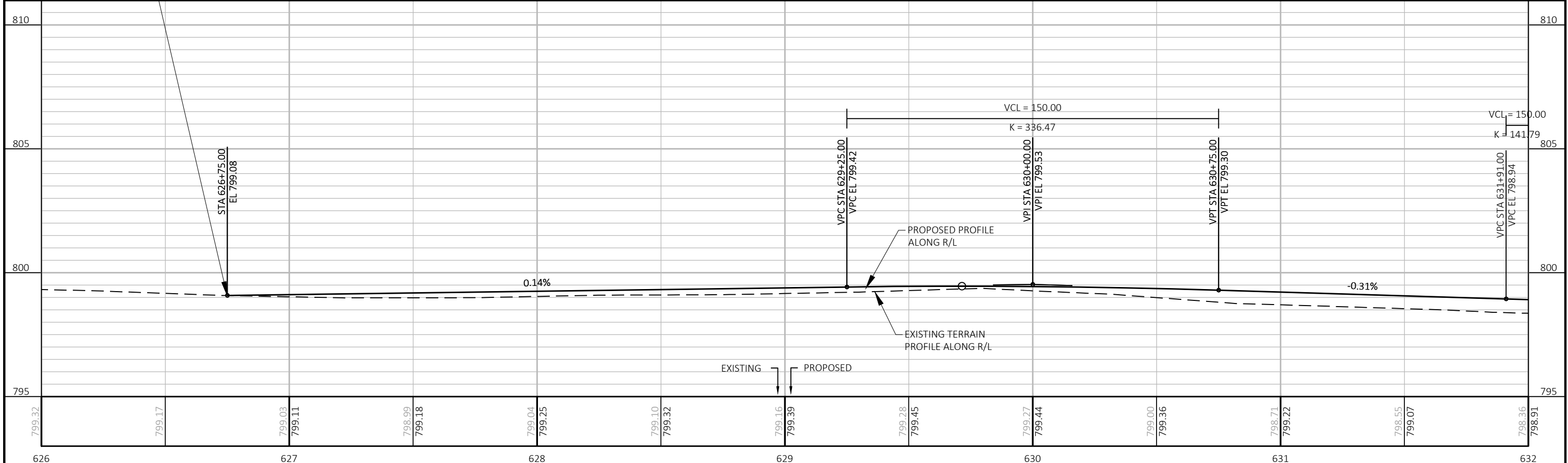
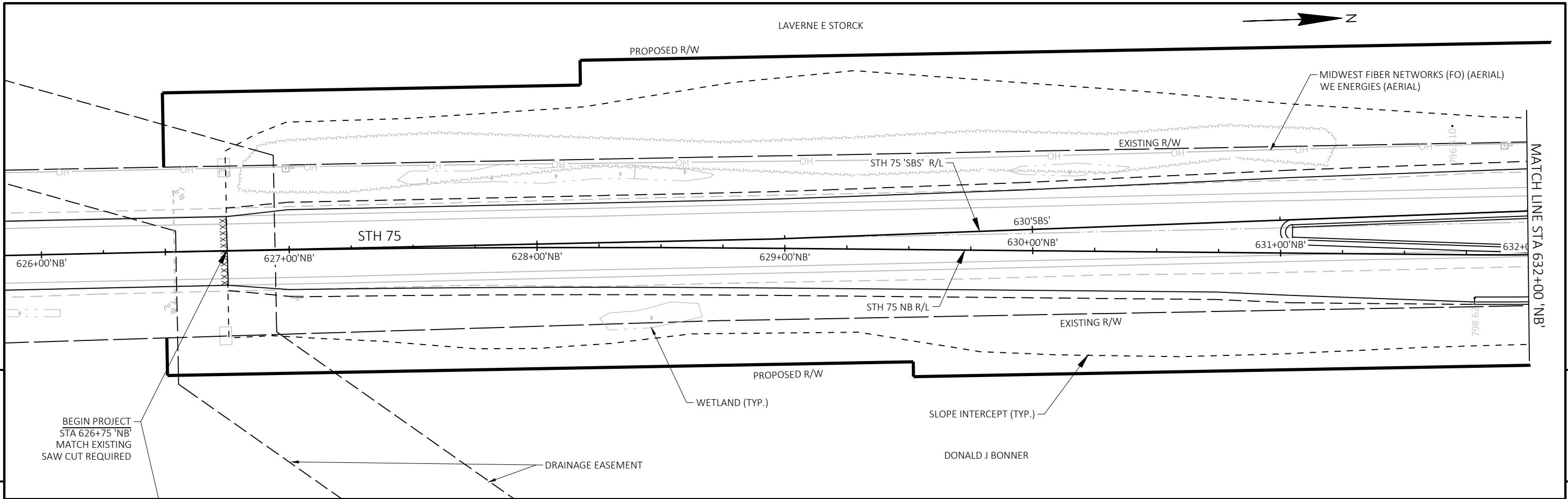
NOTES:
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE REFERENCE SYSTEM (WCCS), RACINE COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
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HIGHWAY	BASIS OF EXISTING R/W
STH 75	EXISTING R/W LINE WAS ESTABLISHED BY R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 501, AND R/W CONVEYANCE DOCUMENT RECORDED IN VOLUME 315, PAGE 503.

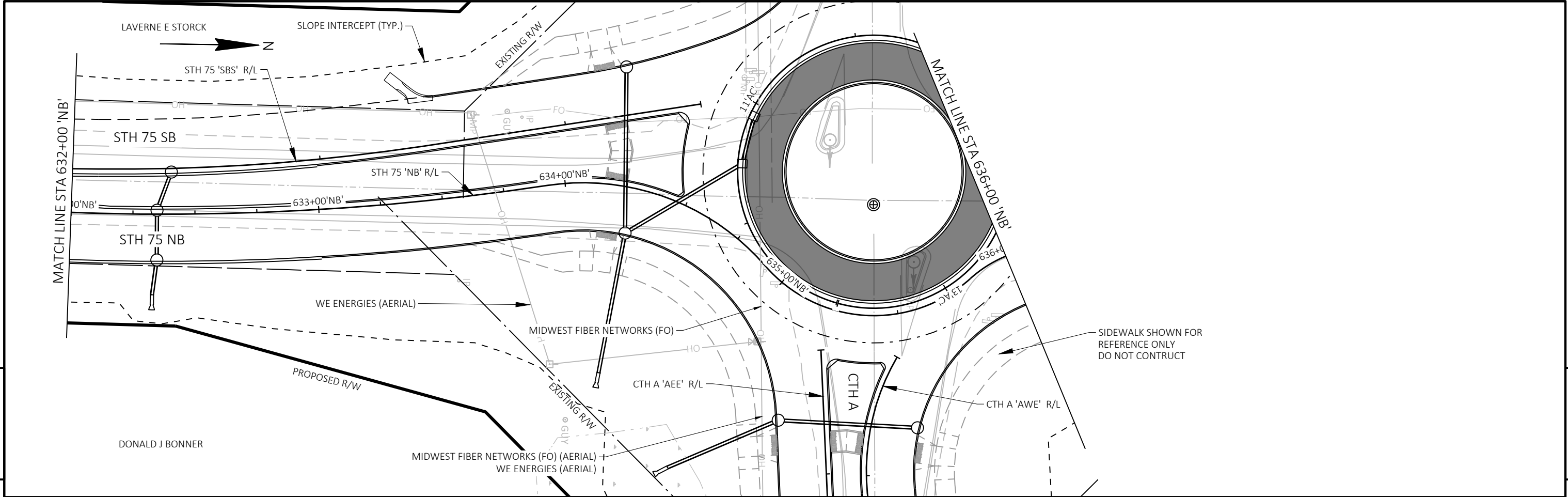
TLE COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
T510	T511	S89° 53' 12"W	50.00'
T511	T512	N00° 06' 48"W	100.00'
T512	T513	N89° 53' 12"E	50.00'
T513	T510	S00° 06' 48"E	100.00'
T514	T515	N89° 53' 12"E	50.00'
T515	T516	S00° 06' 48"E	100.00'
T516	197	S89° 53' 12"W	50.00'
197	T514	N00° 06' 48"W	100.00'

TLE Station & Offset Table		
Point No.	Station	Offset
T510	592+44.28	73.00'
T511	592+44.28	123.00'
T512	593+44.28	123.00'
T513	593+44.28	73.00'
T514	593+44.28	67.00'
T515	593+44.28	117.00'
T516	592+44.28	117.00'

REVISION DATE 08/08/2022	DATE 03/22/2022	SCALE, FEET 0 50 100	HWY: STH 75	STATE R/W PROJECT NUMBER 2420-00-20	PLAT SHEET 4.10
GRID FACTOR			COUNTY: RACINE	CONSTRUCTION PROJECT NUMBER 2420-00-70	PS&E SHEET

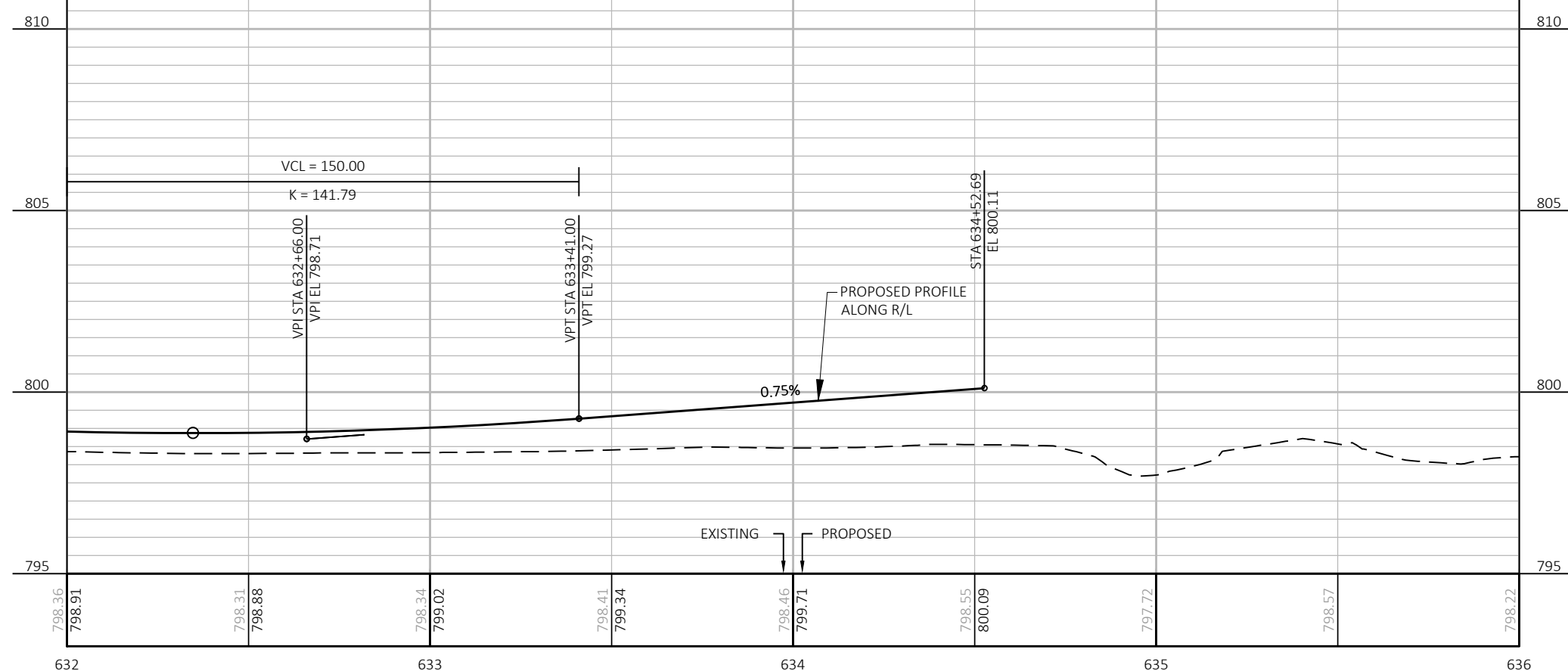


PROJECT NO:	2420-00-70	HWY:	STH 75	COUNTY:	RACINE	PLAN AND PROFILE:	STH 75 NB	SHEET	E
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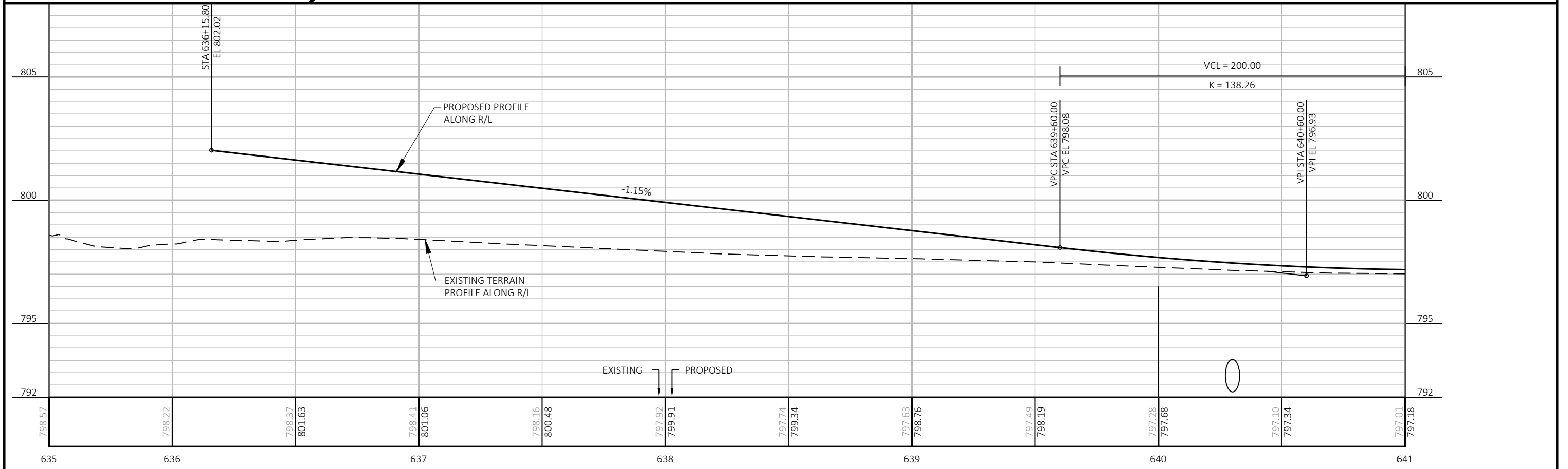
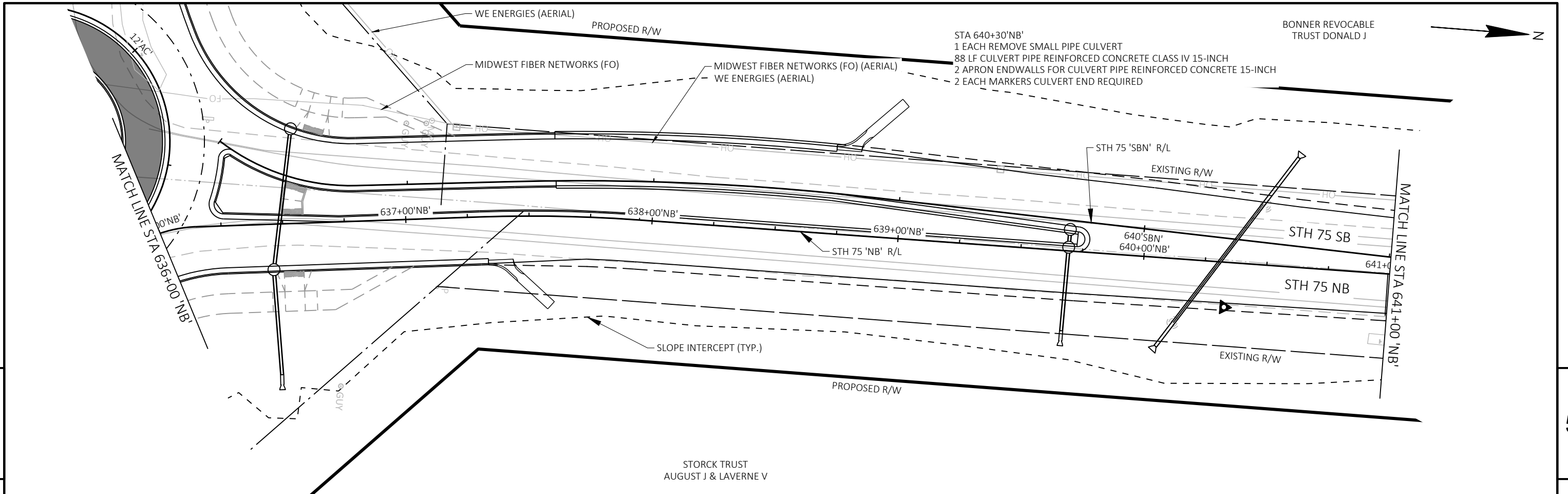


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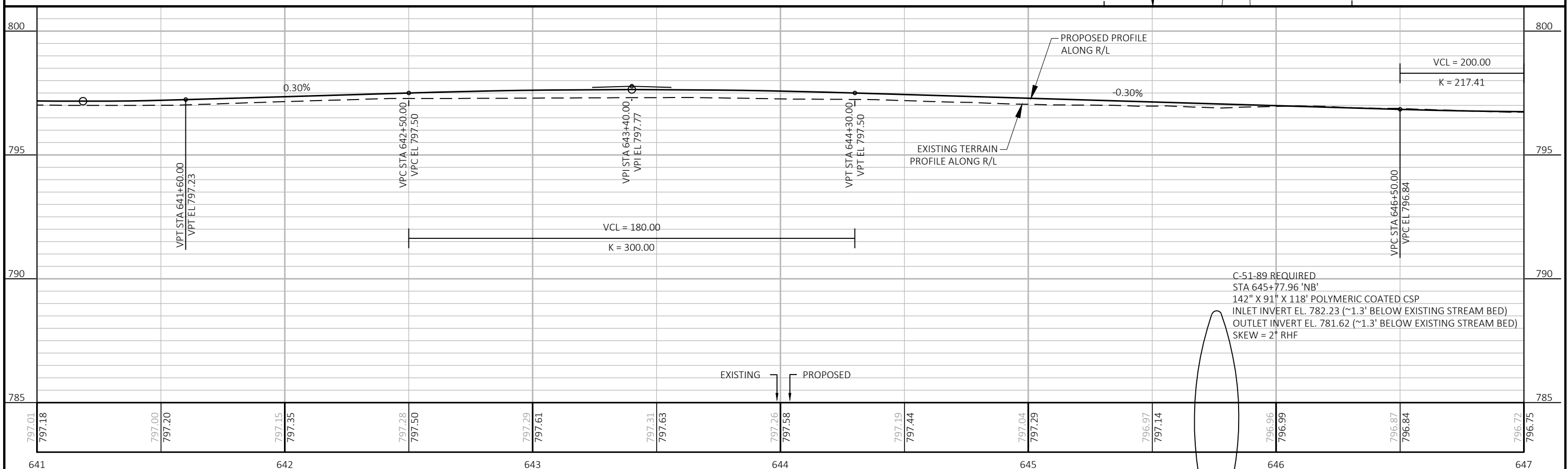
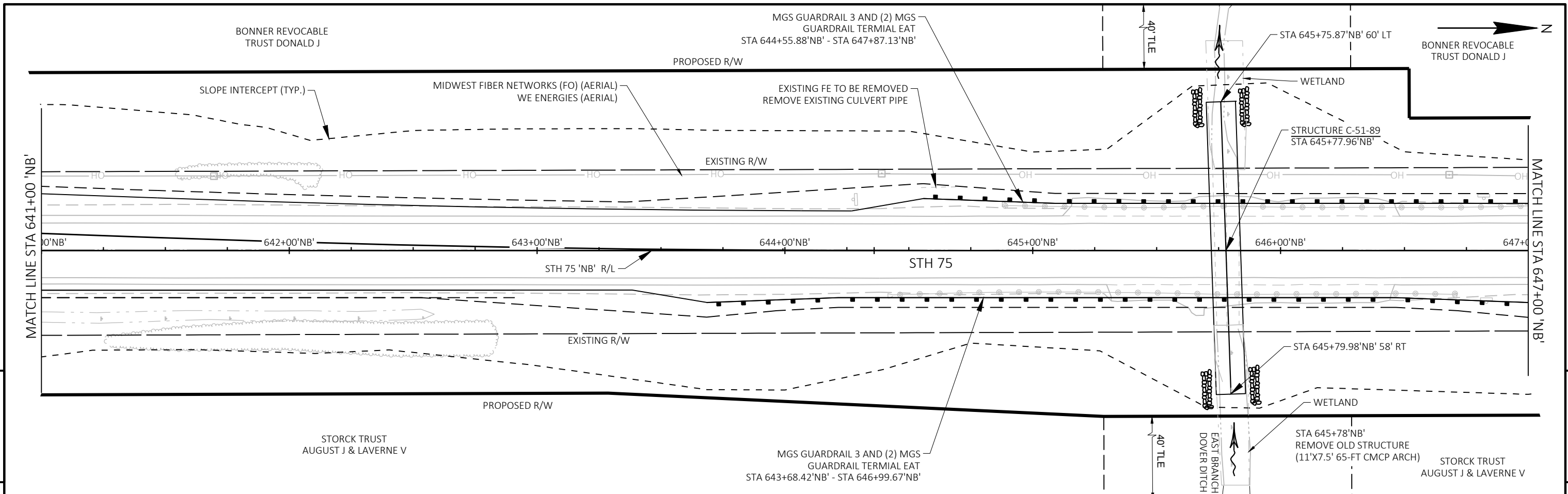
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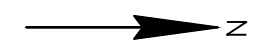
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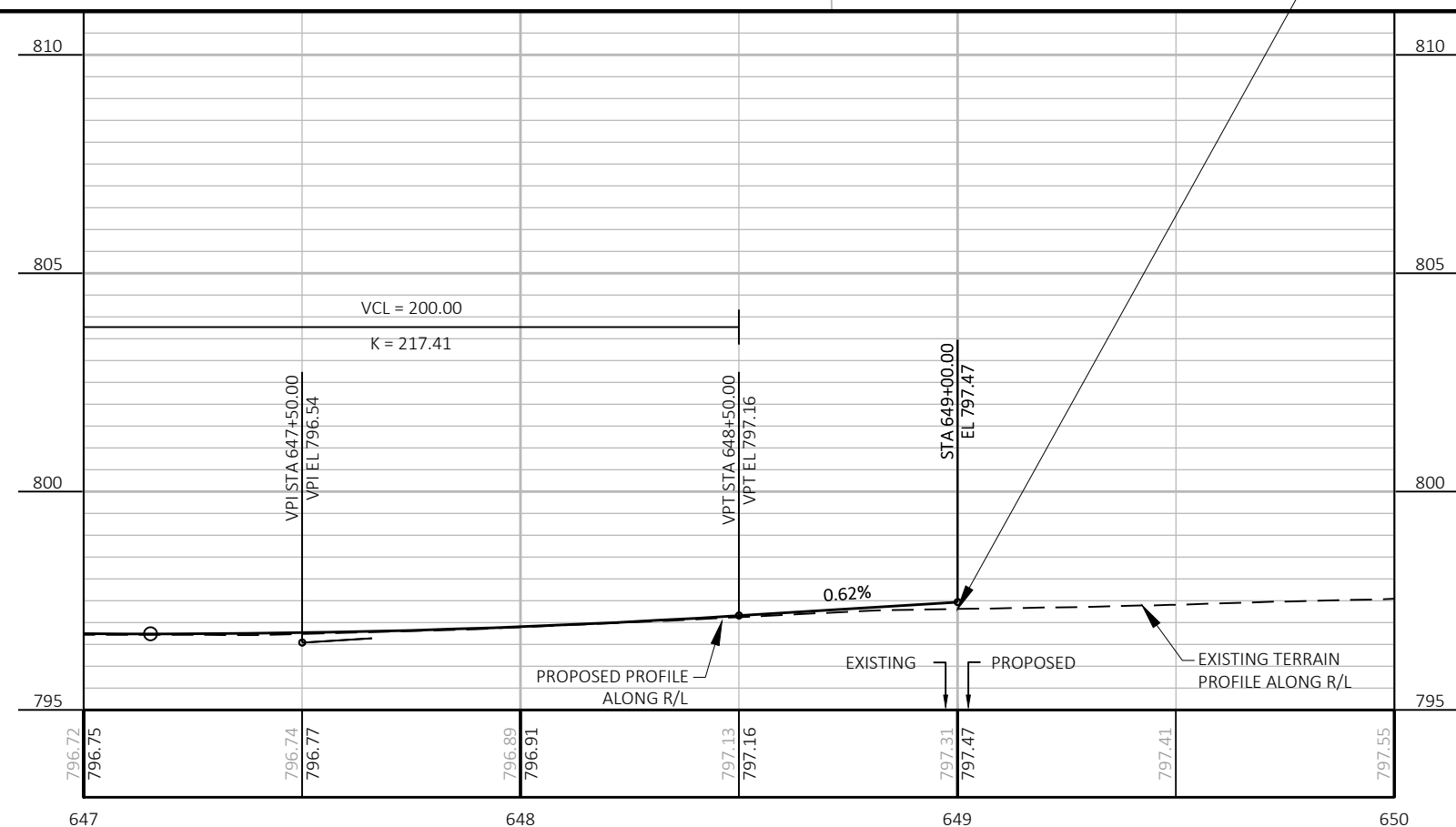
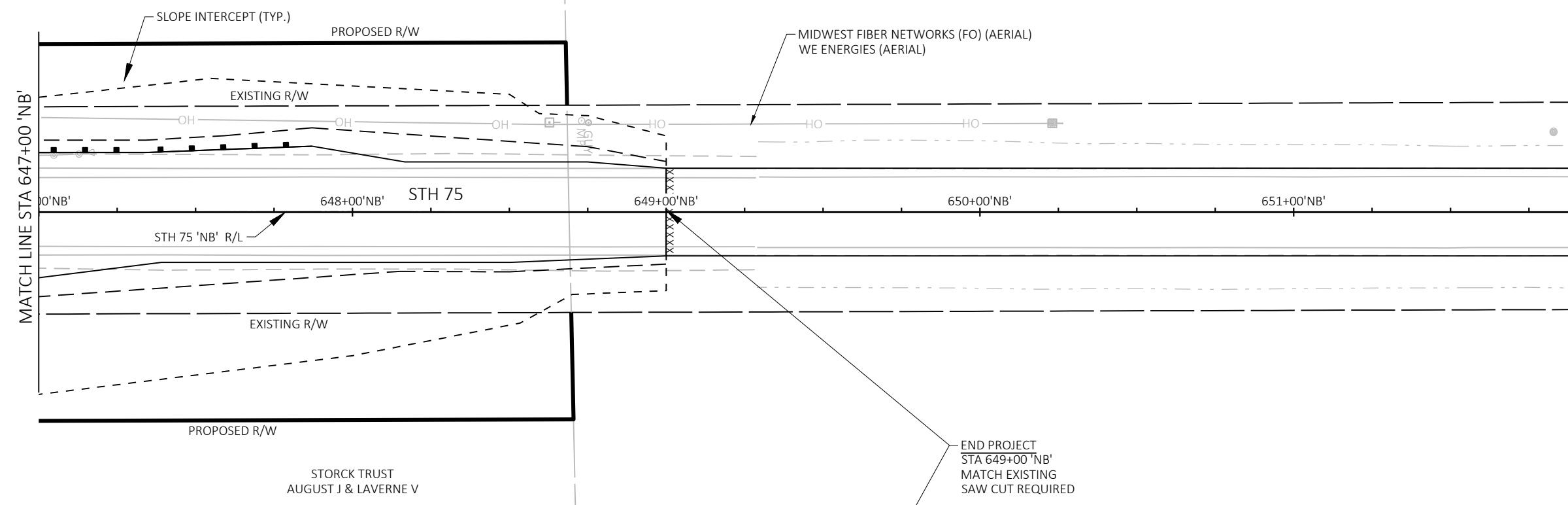
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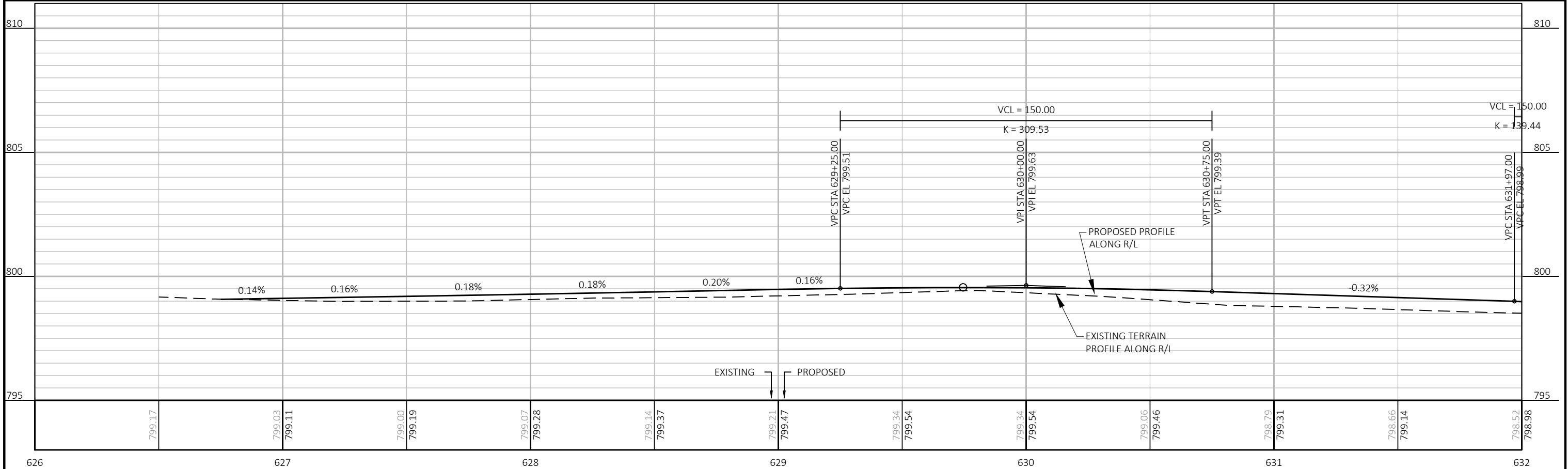
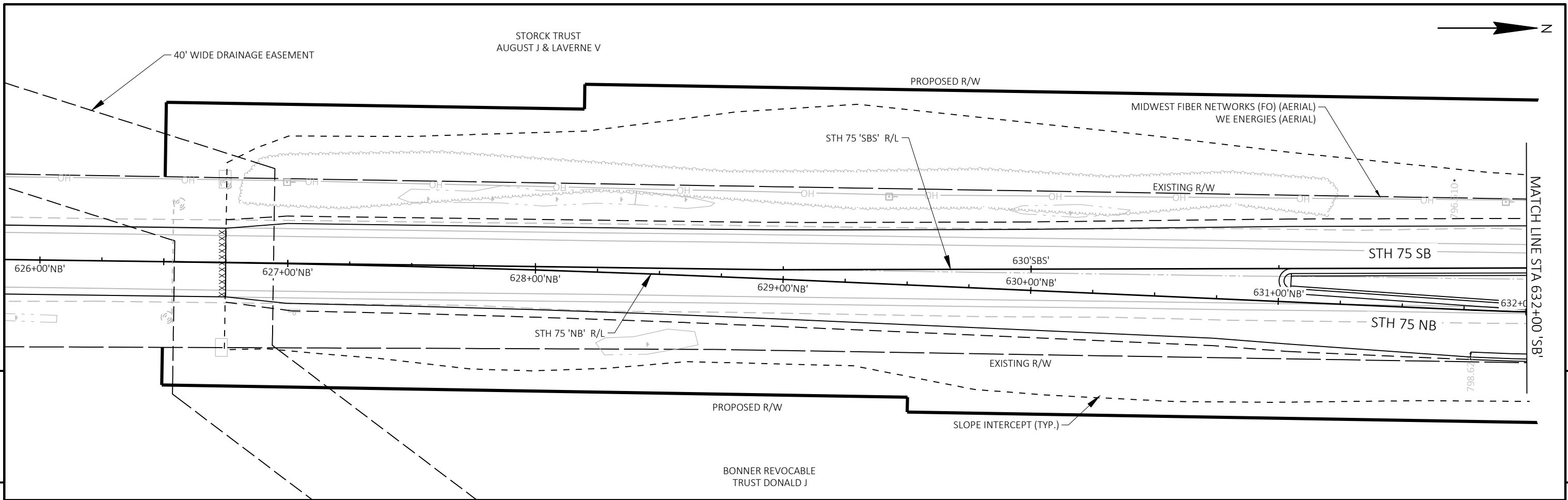
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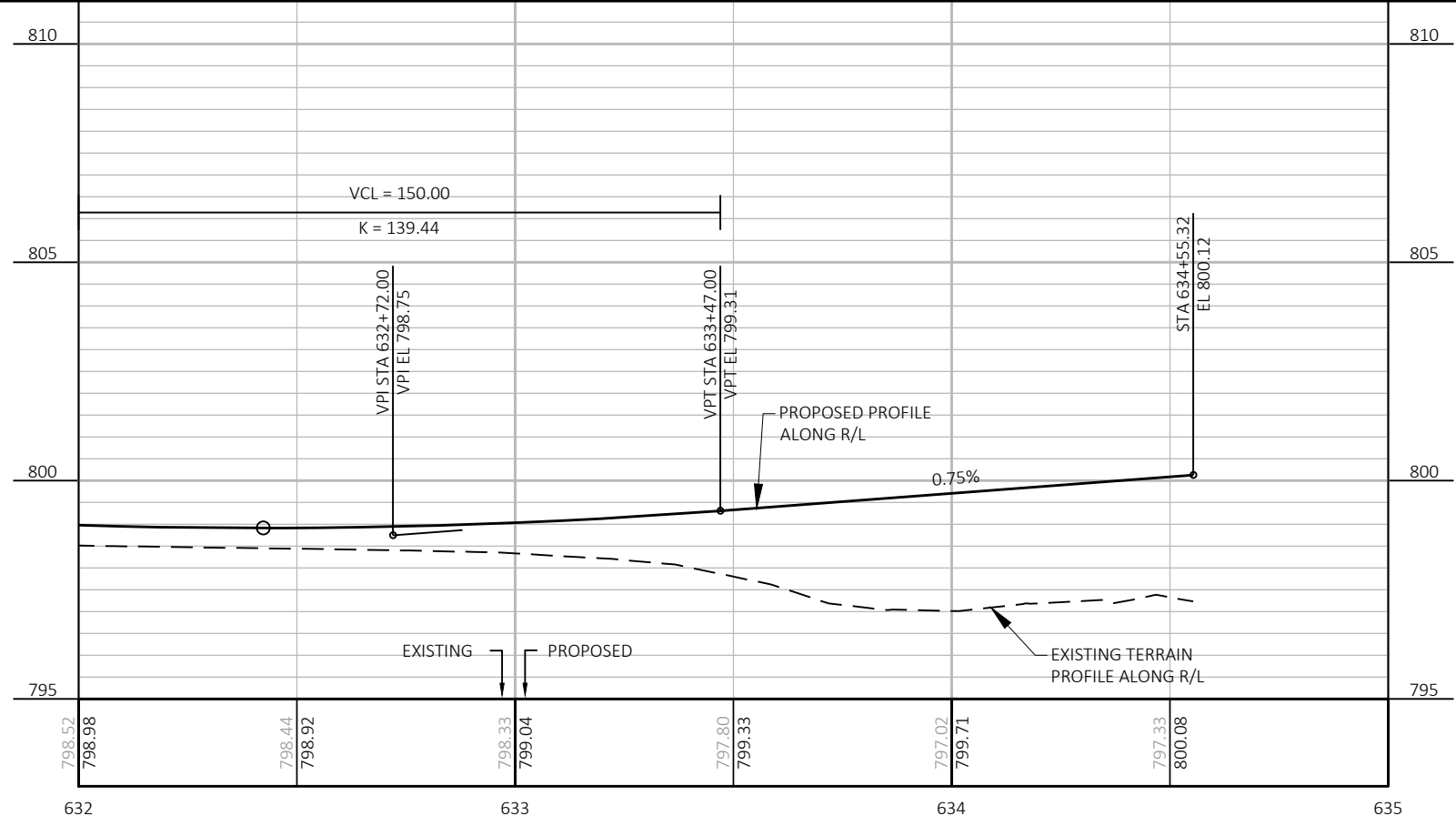
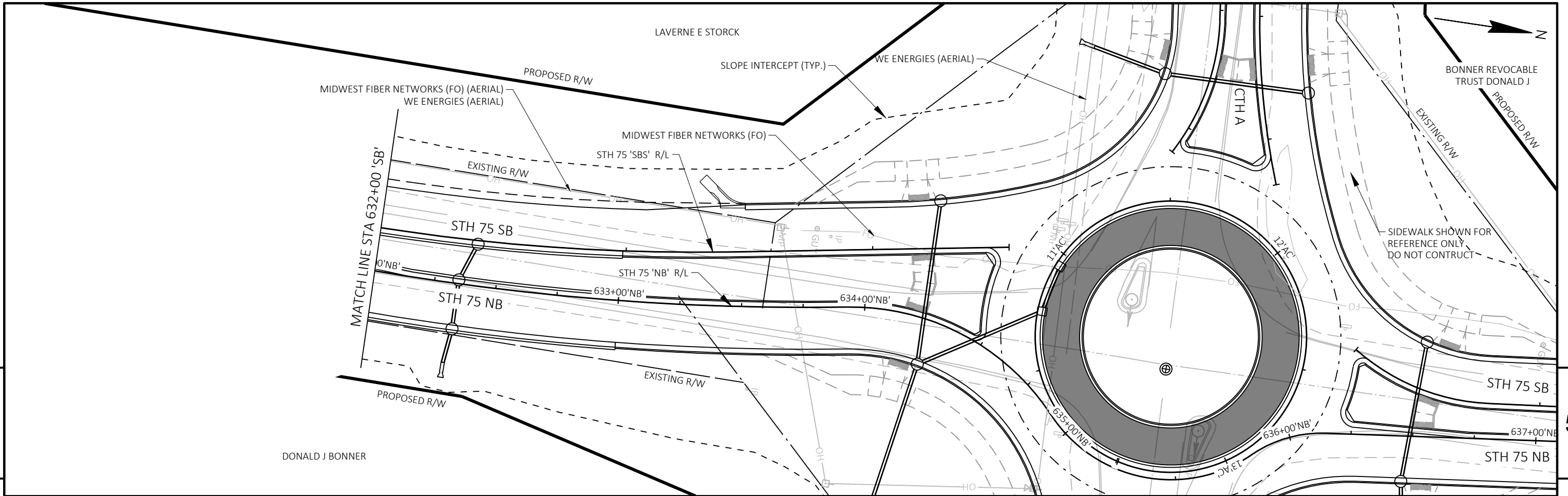
BONNER REVOCABLE TRUST DONALD J



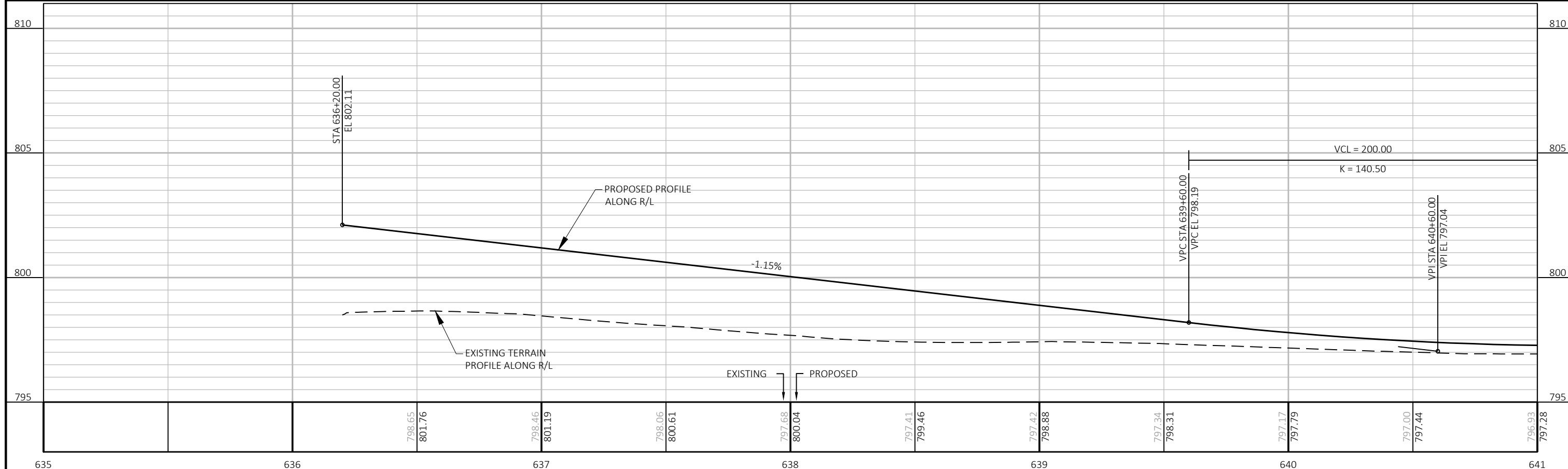
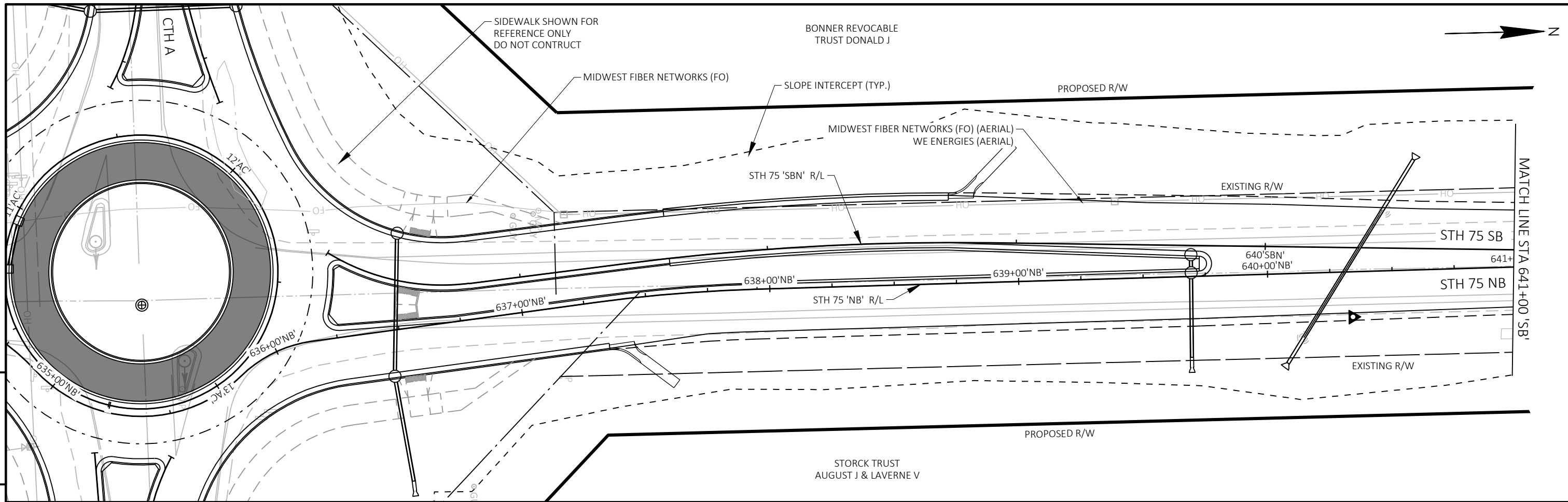
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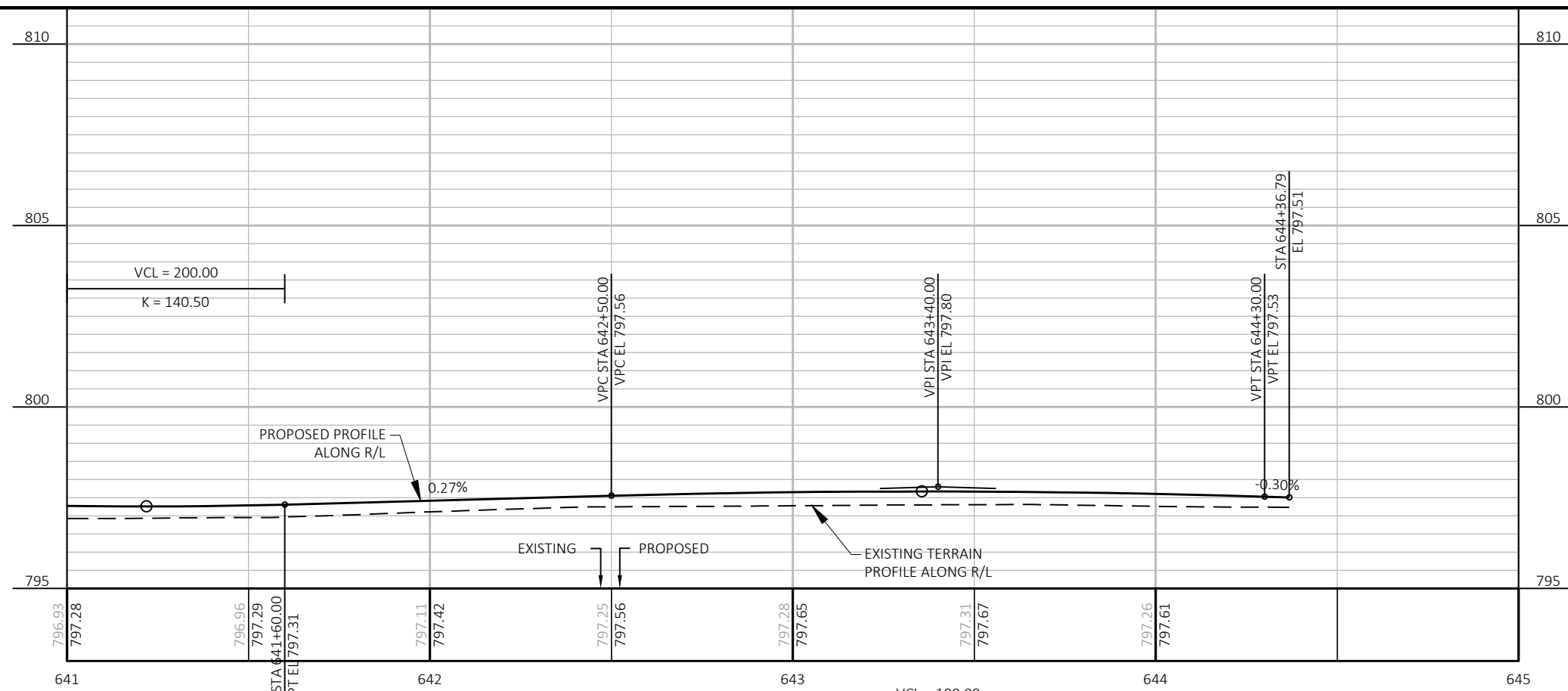
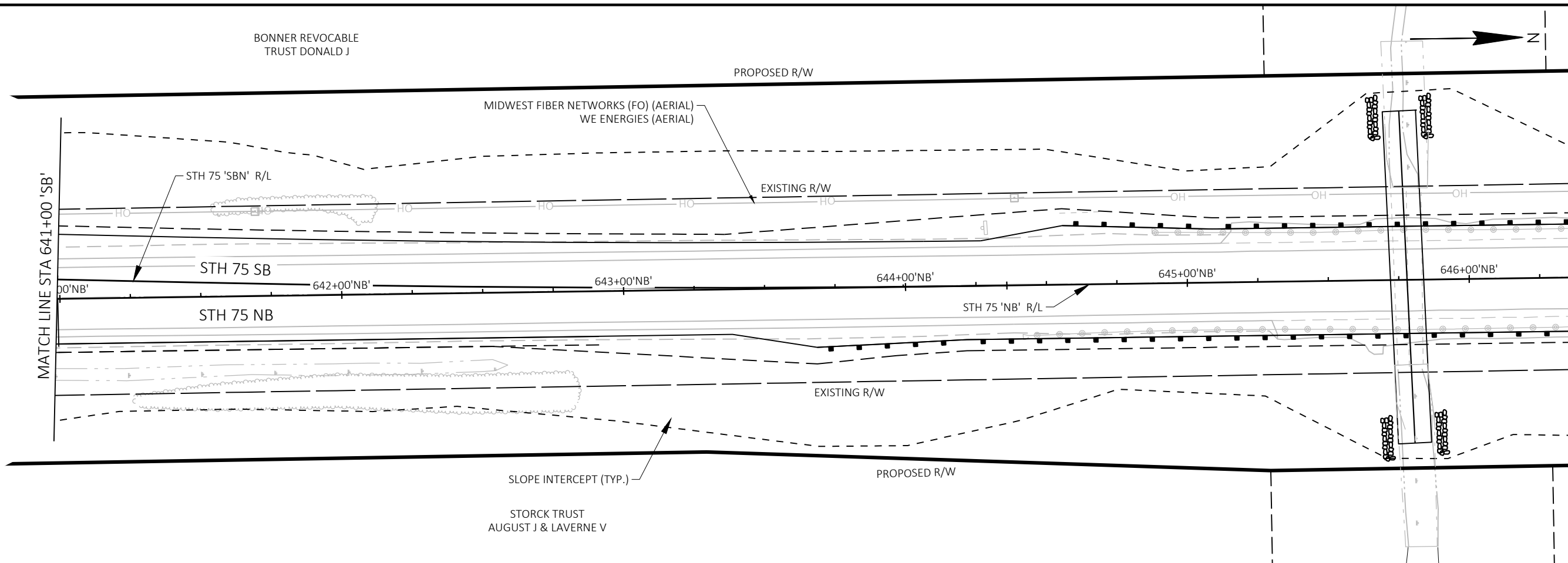
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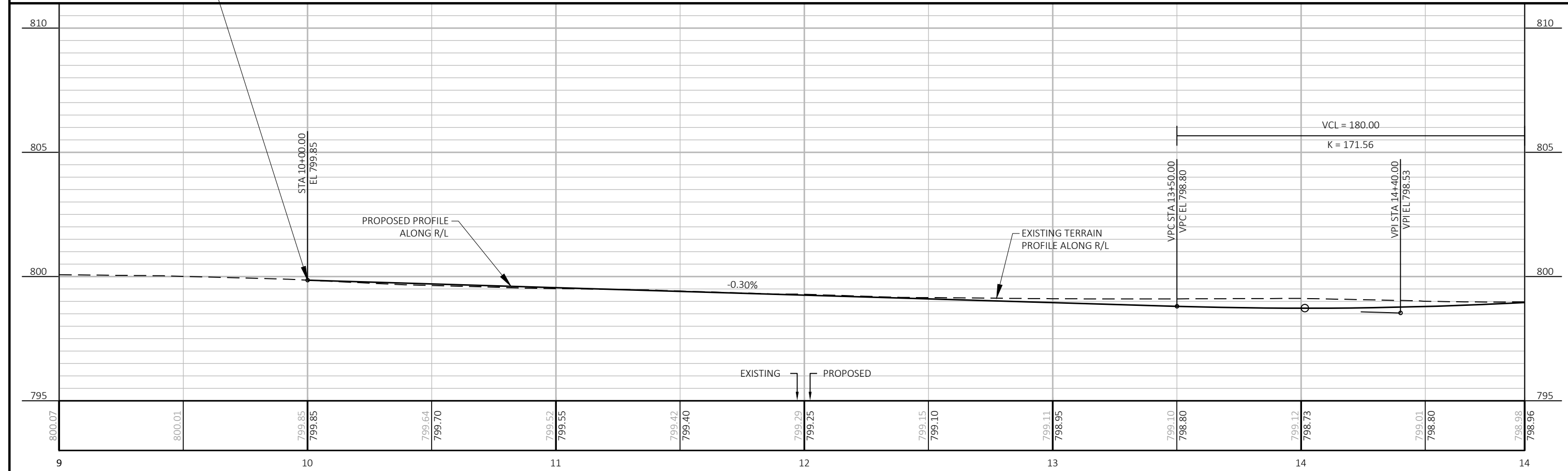
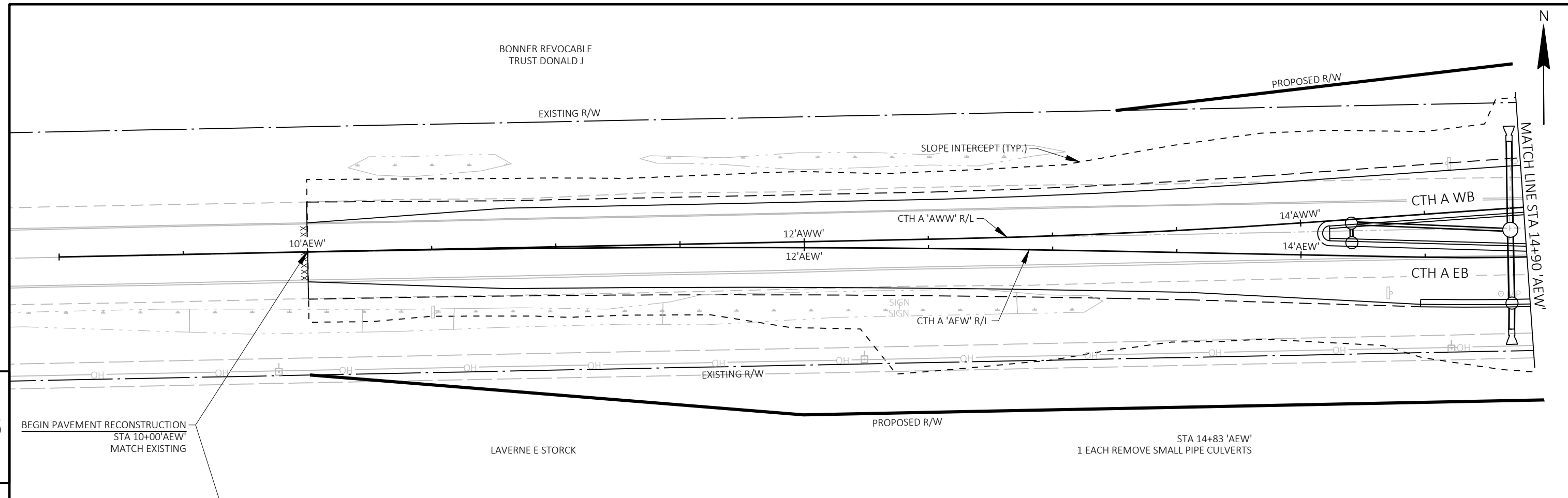
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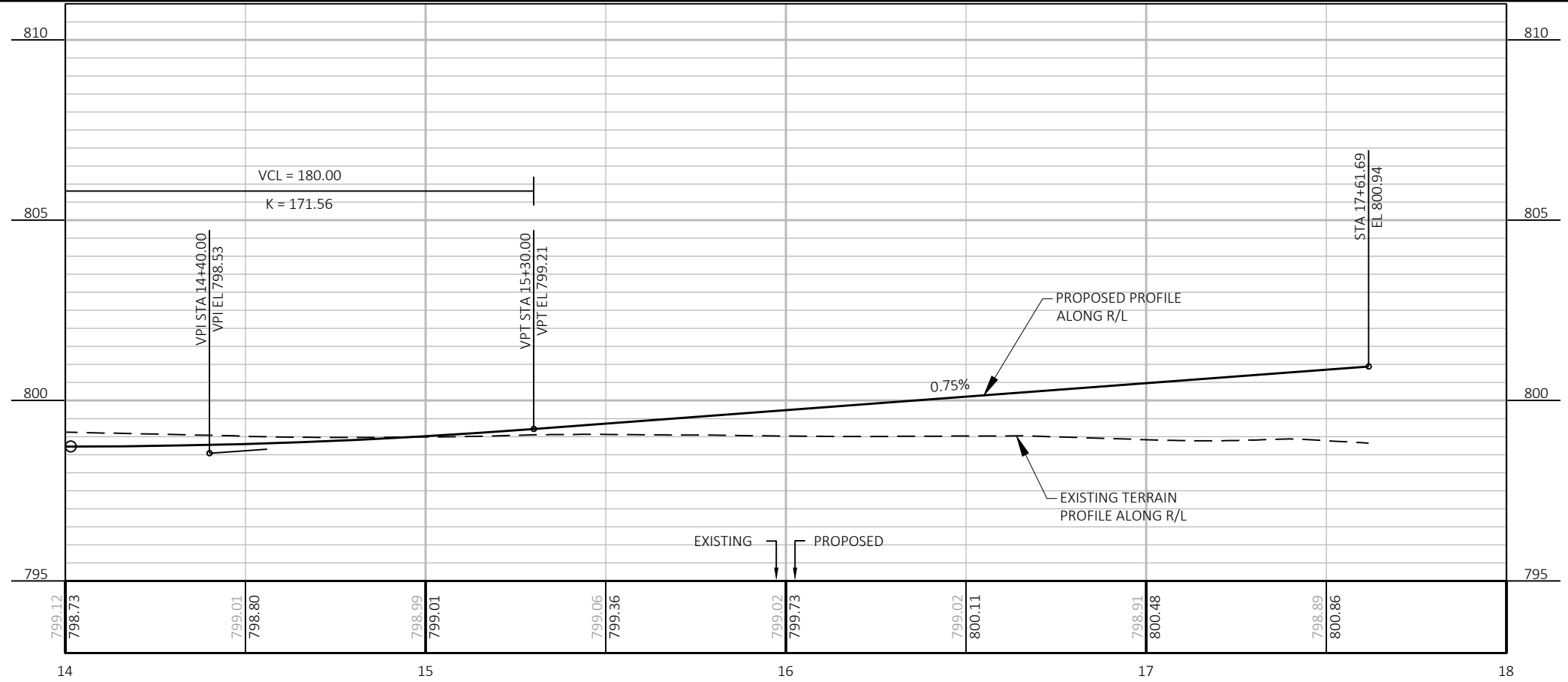
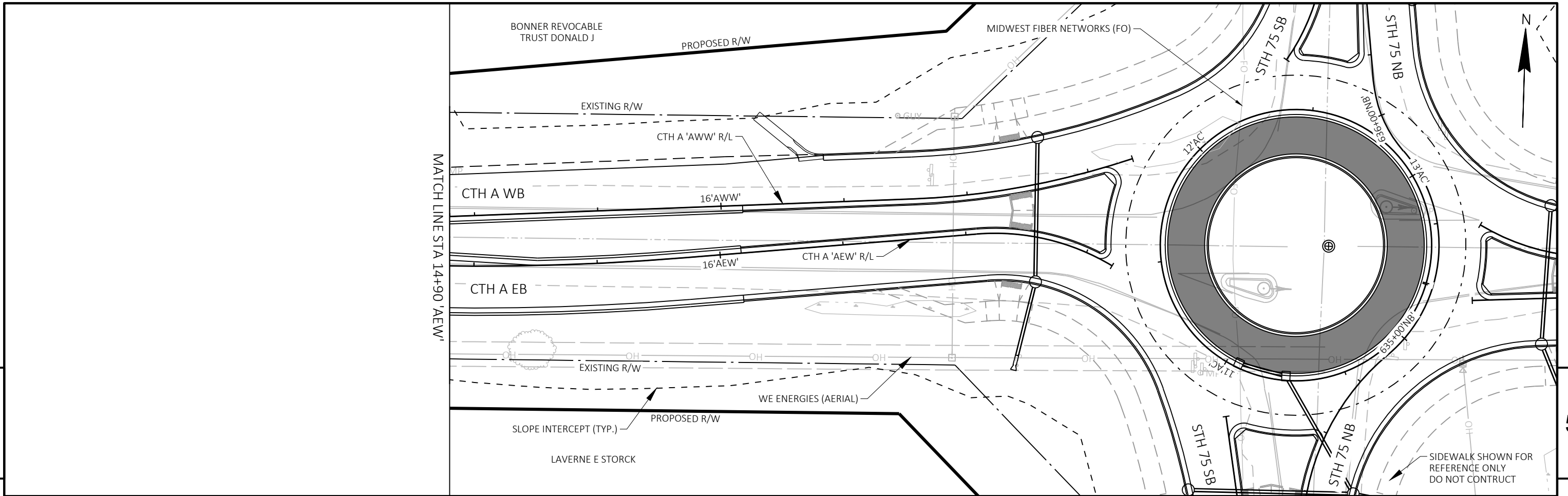
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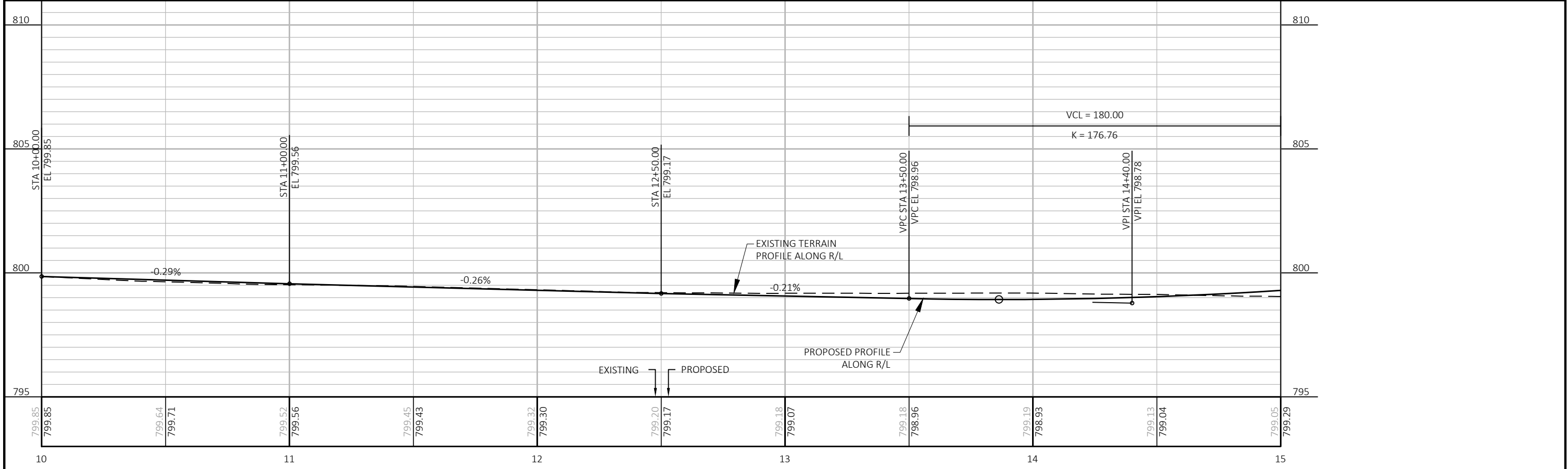
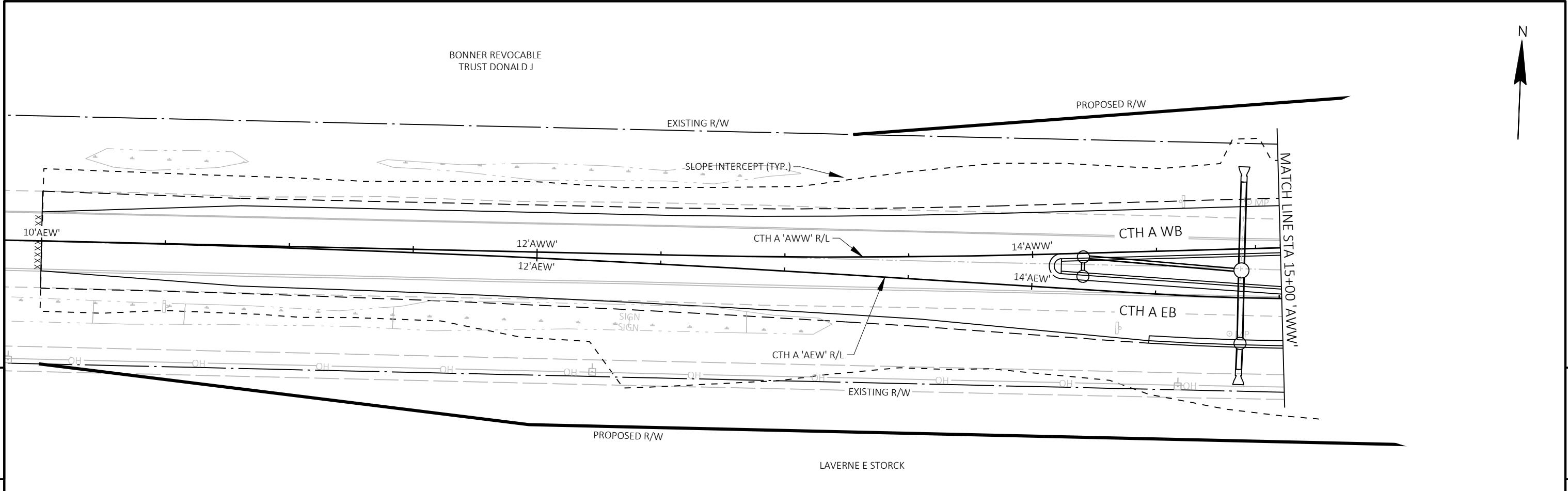
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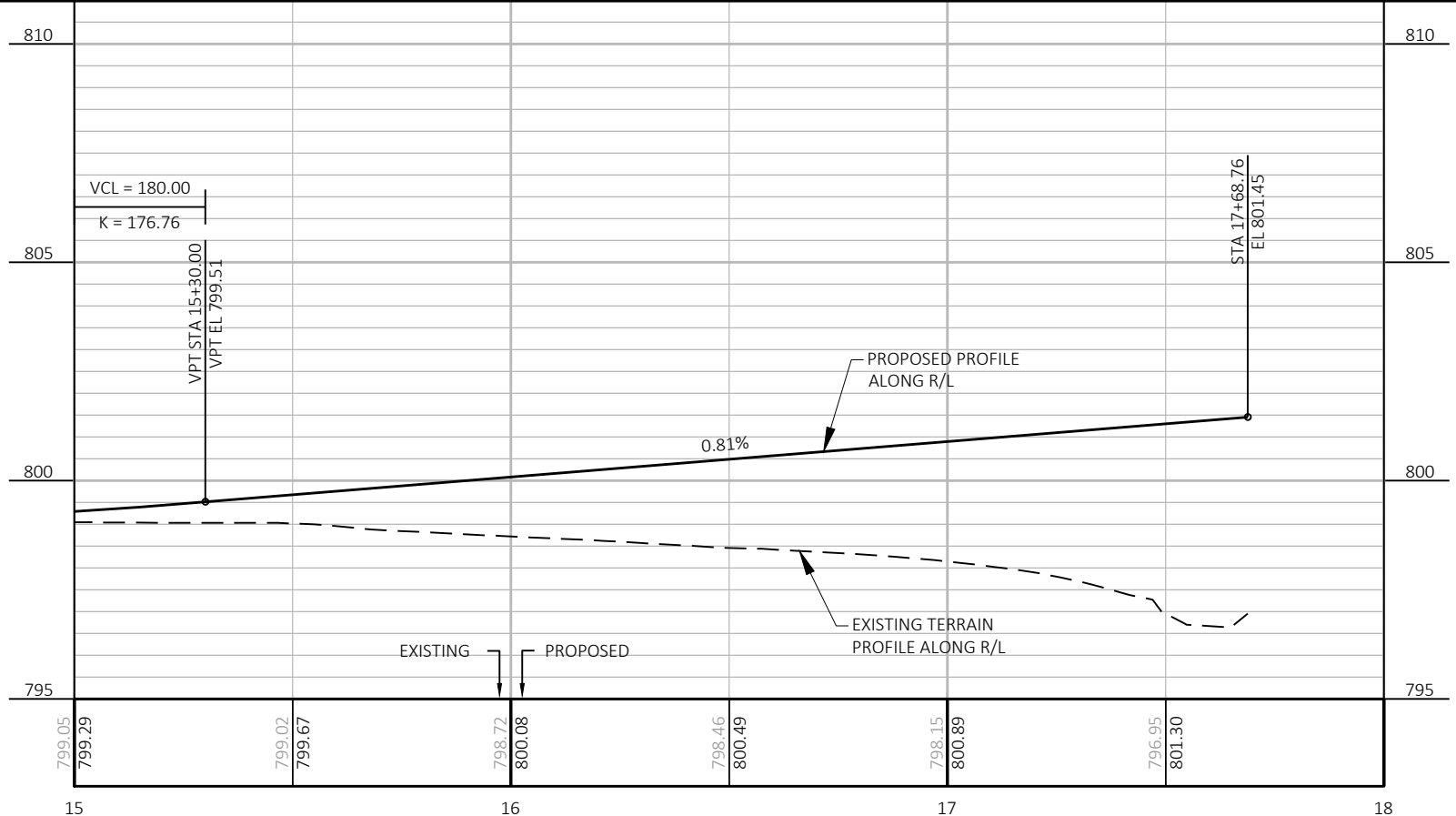
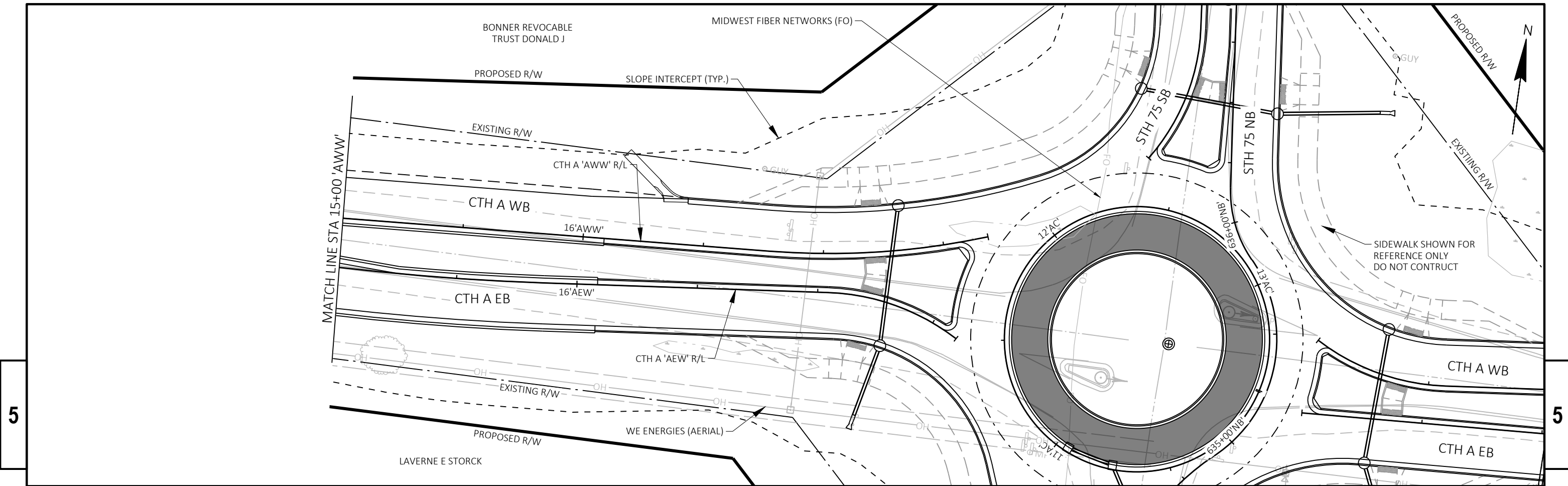
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PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE PLAN AND PROFILE: CTH A EB 'AEW' SHEET: E



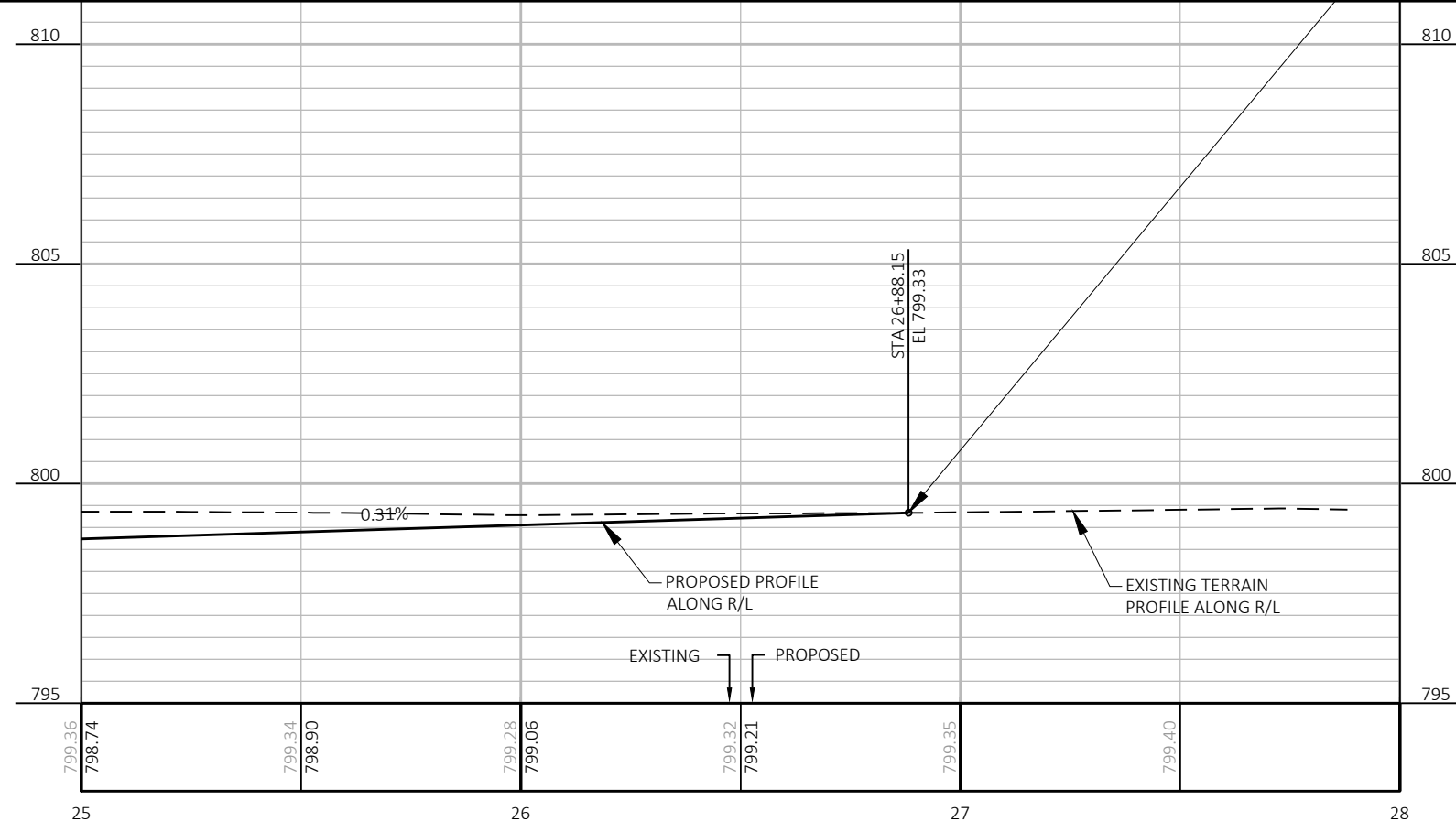
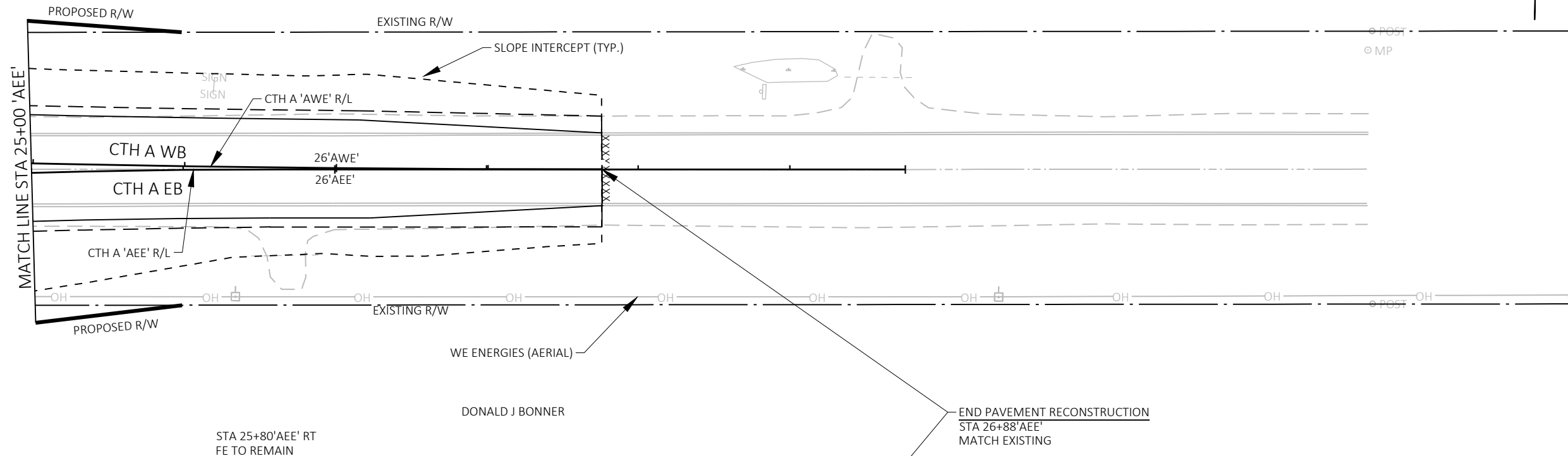
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PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE PLAN AND PROFILE: CTH A WB 'AWW' SHEET: 5



STORCK TRUST
AUGUST J & LAVERNE V



PROJECT NO: 2420-00-70

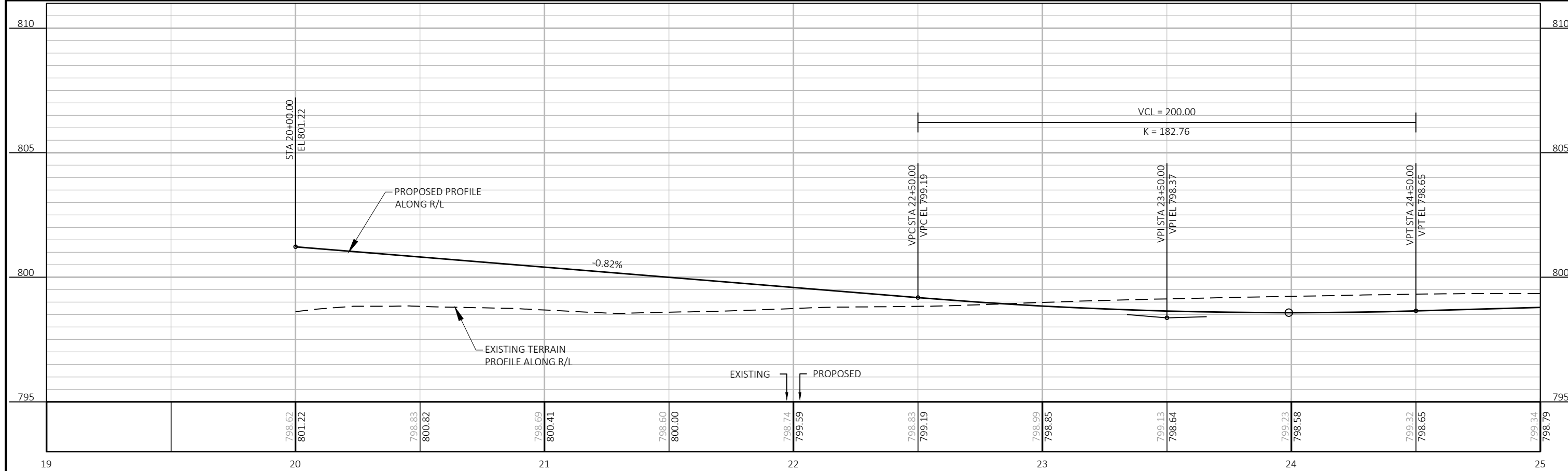
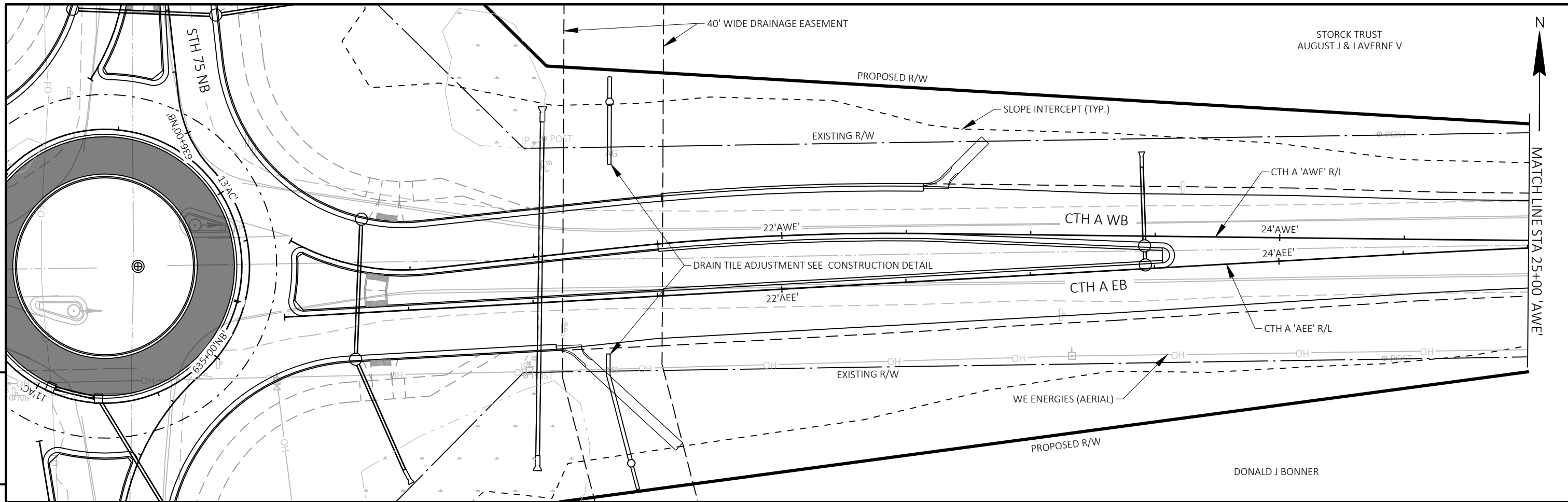
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COUNTY: RACINE

PLAN AND PROFILE: CTH A EB 'AEE'

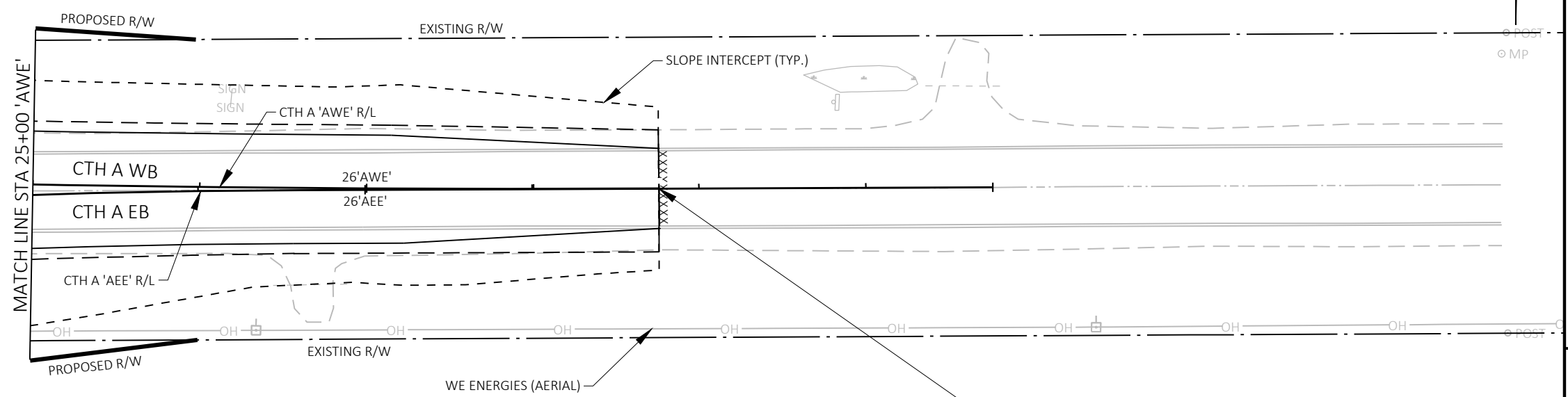
SHEET

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PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	PLAN AND PROFILE: CTH A WB 'AWE'	SHEET	E
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STORCK TRUST
AUGUST J & LAVERNE V

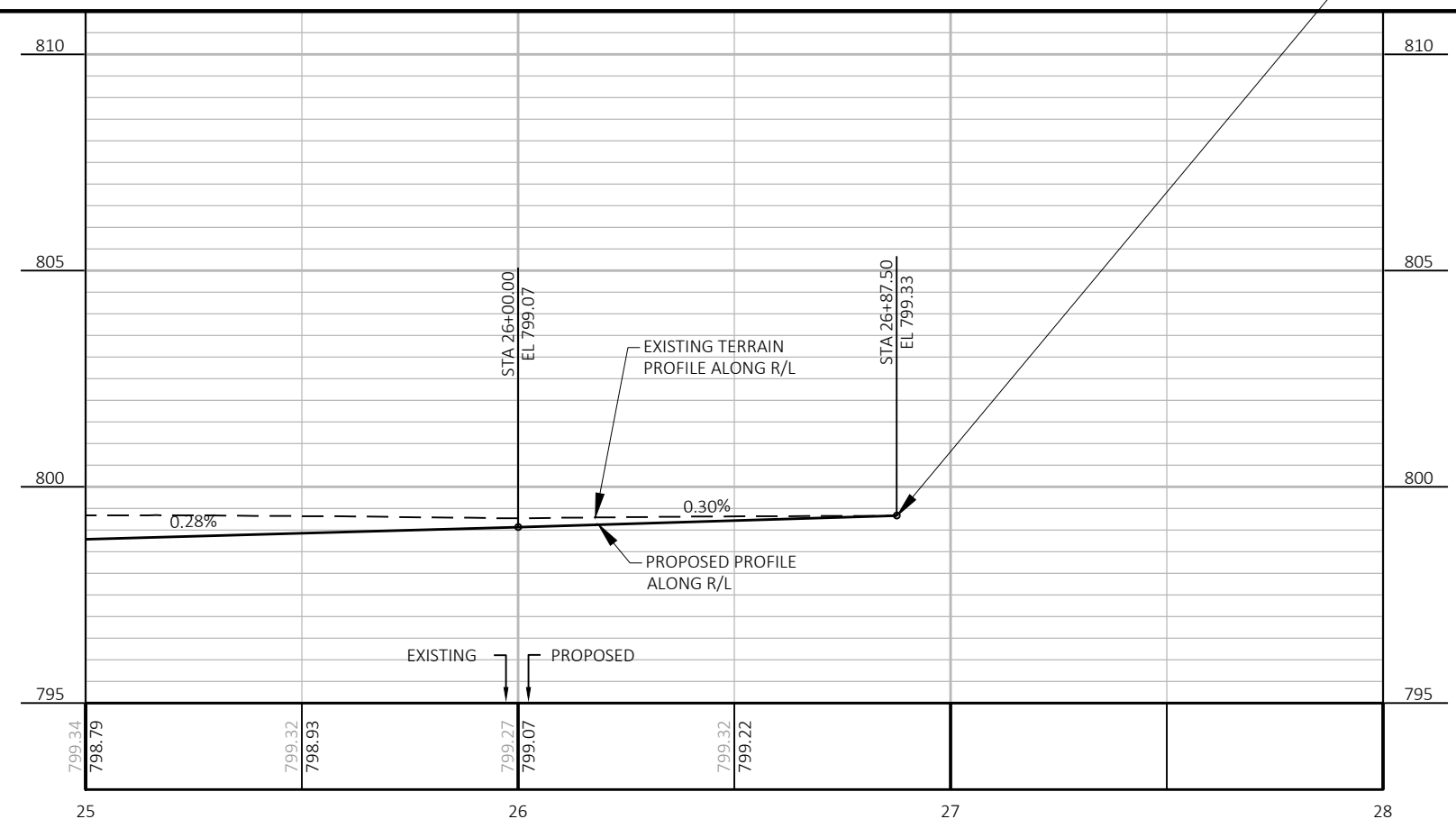


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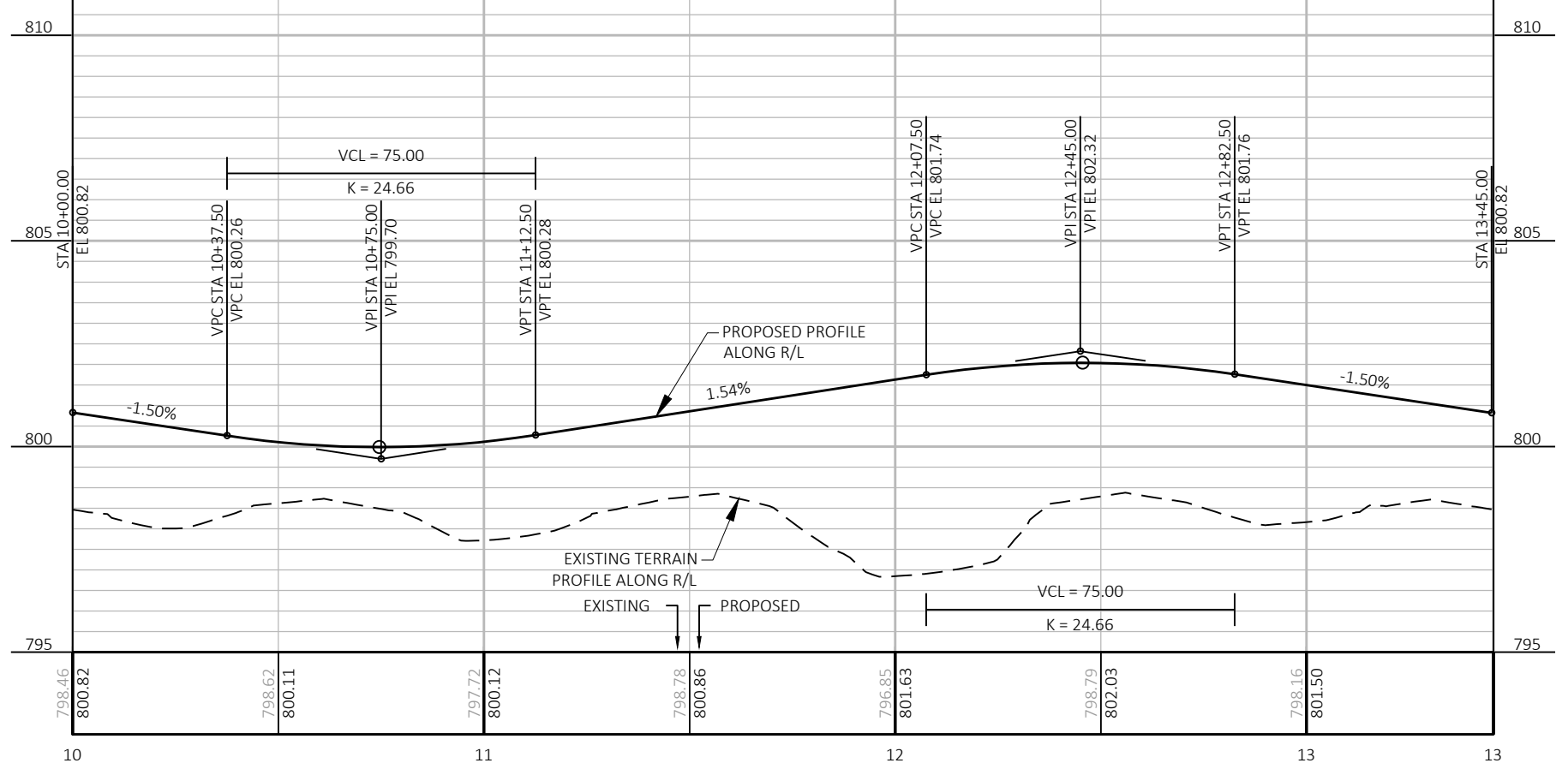
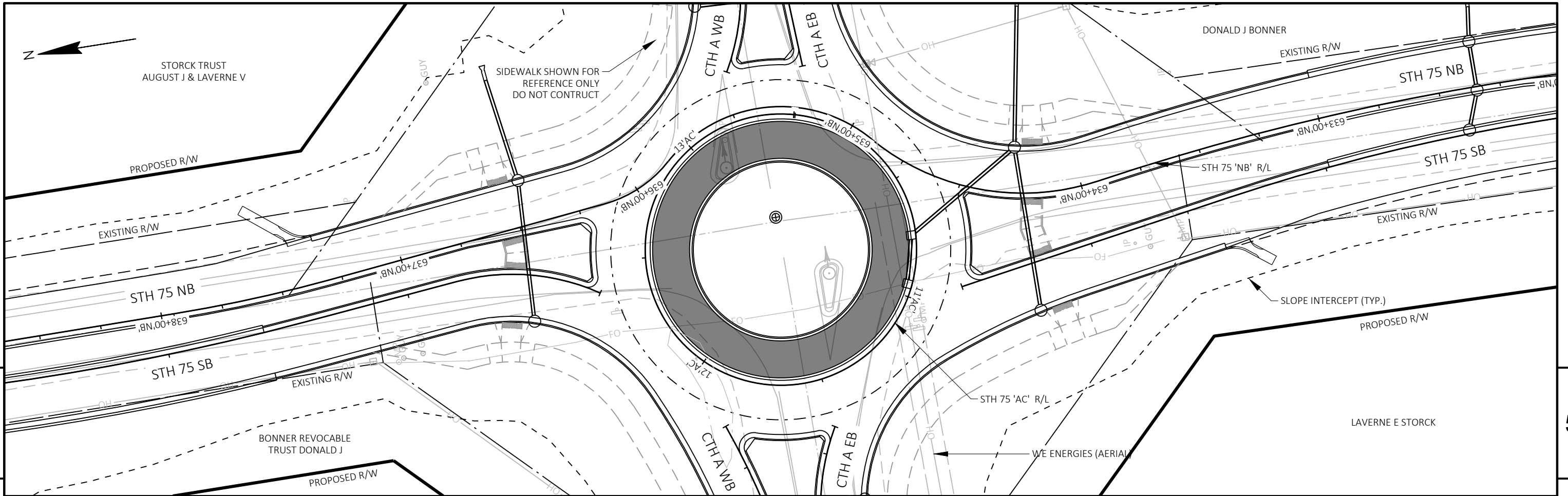
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DONALD J BONNER

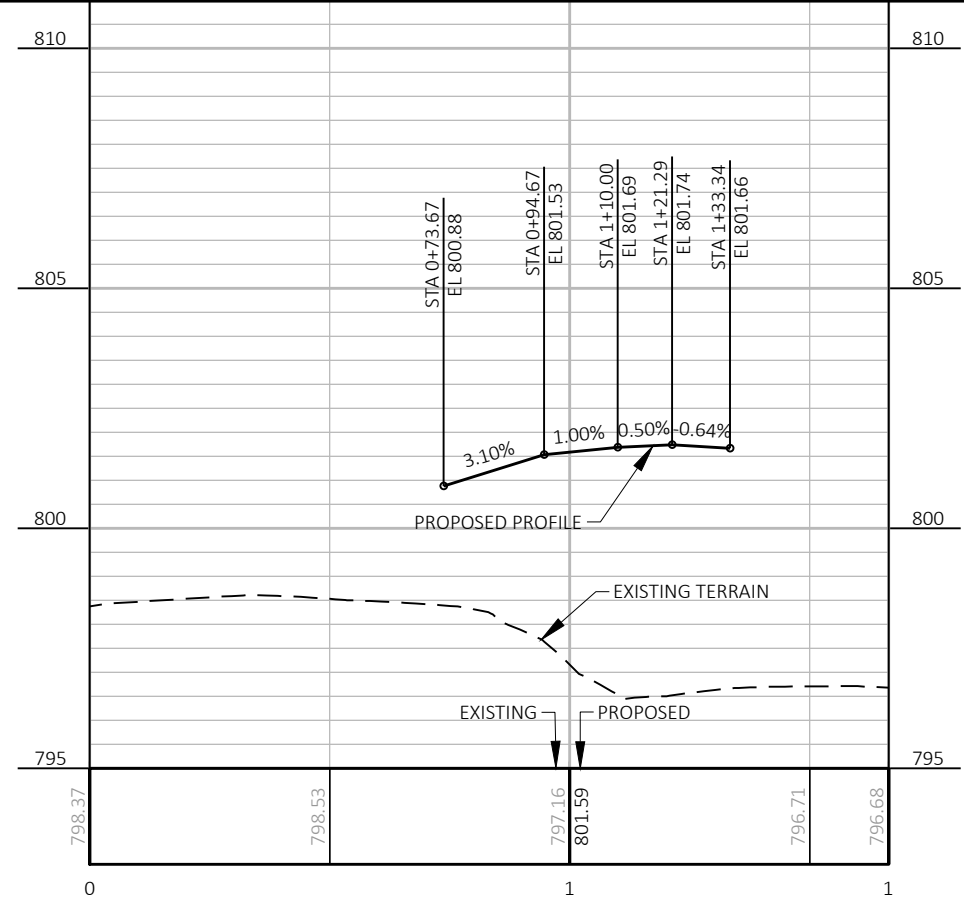
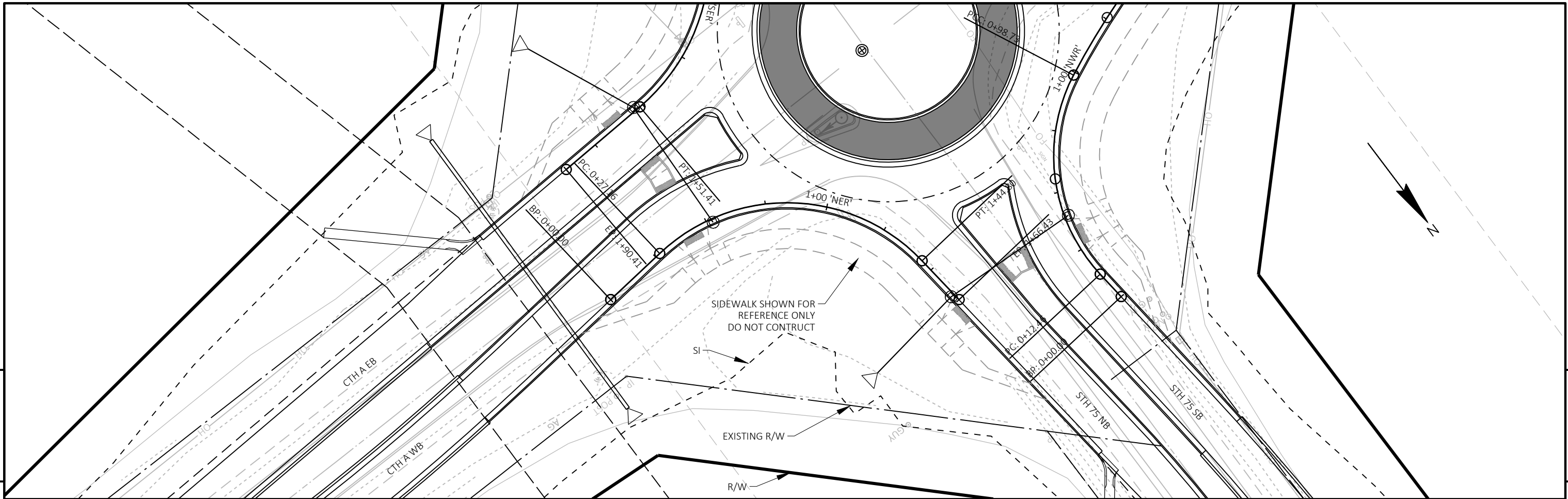
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STA 26+88 'AEE'
MATCH EXISTING



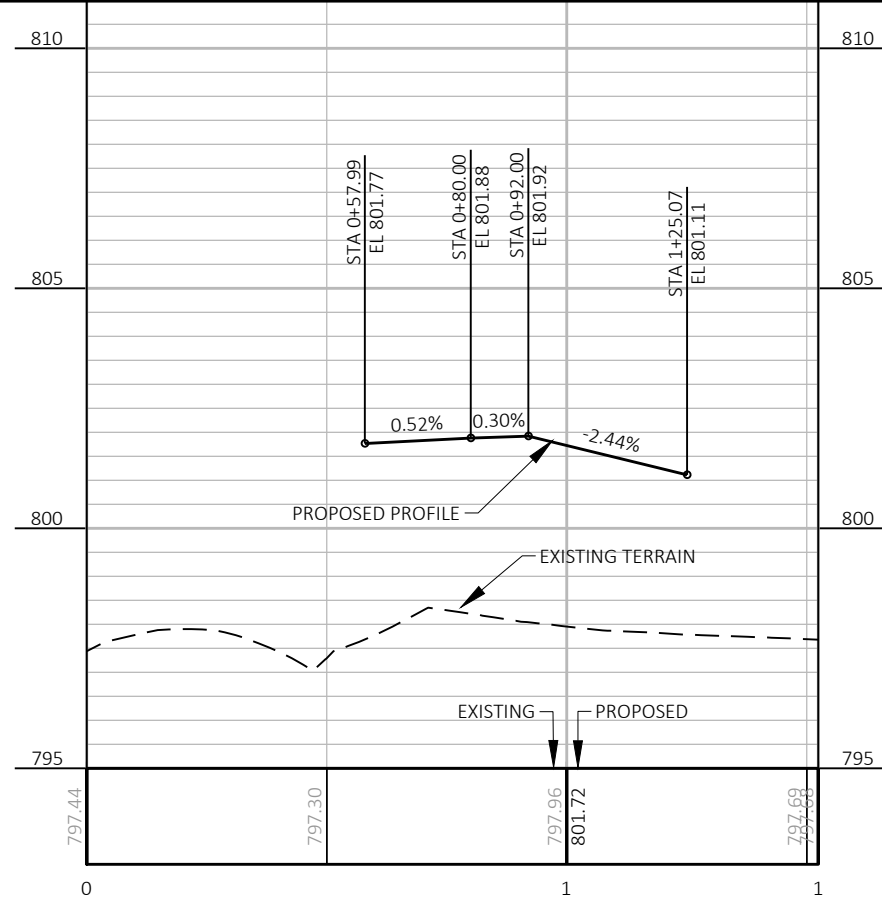
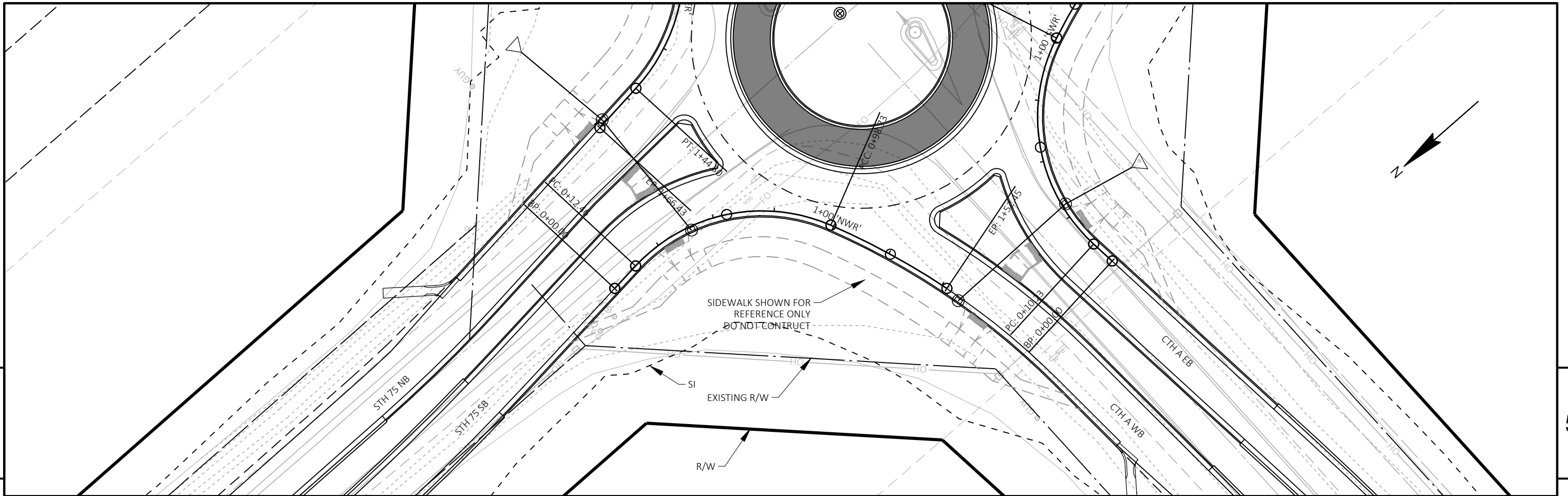
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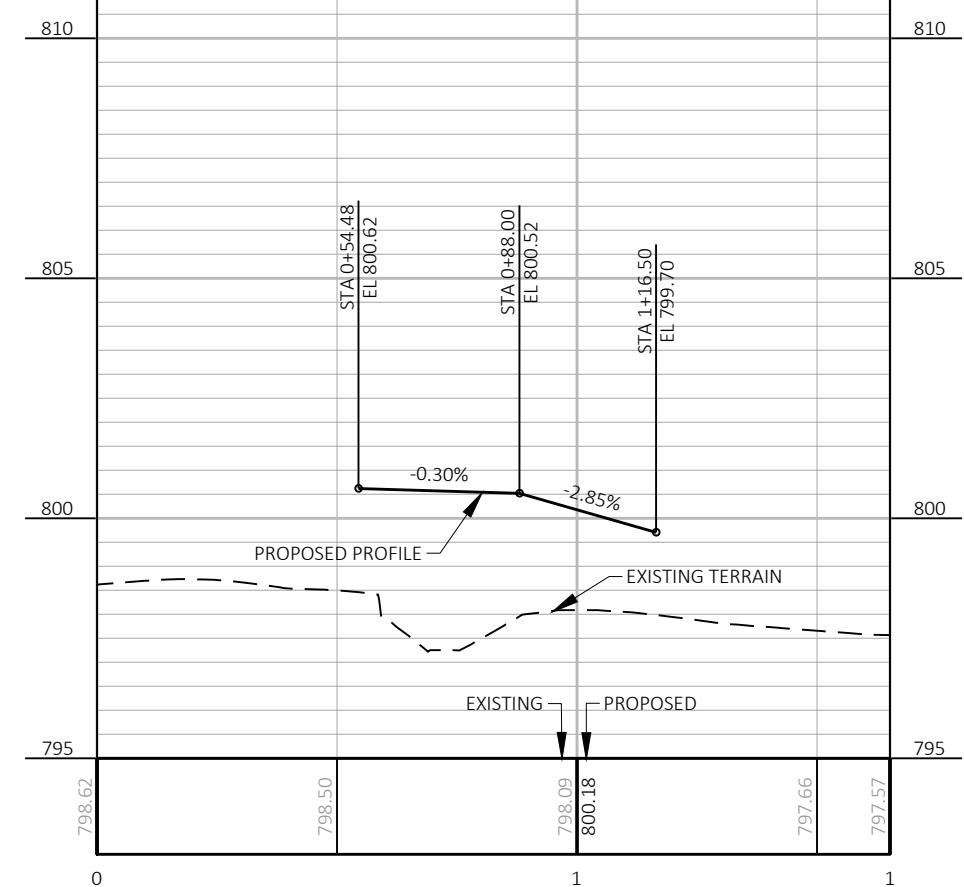
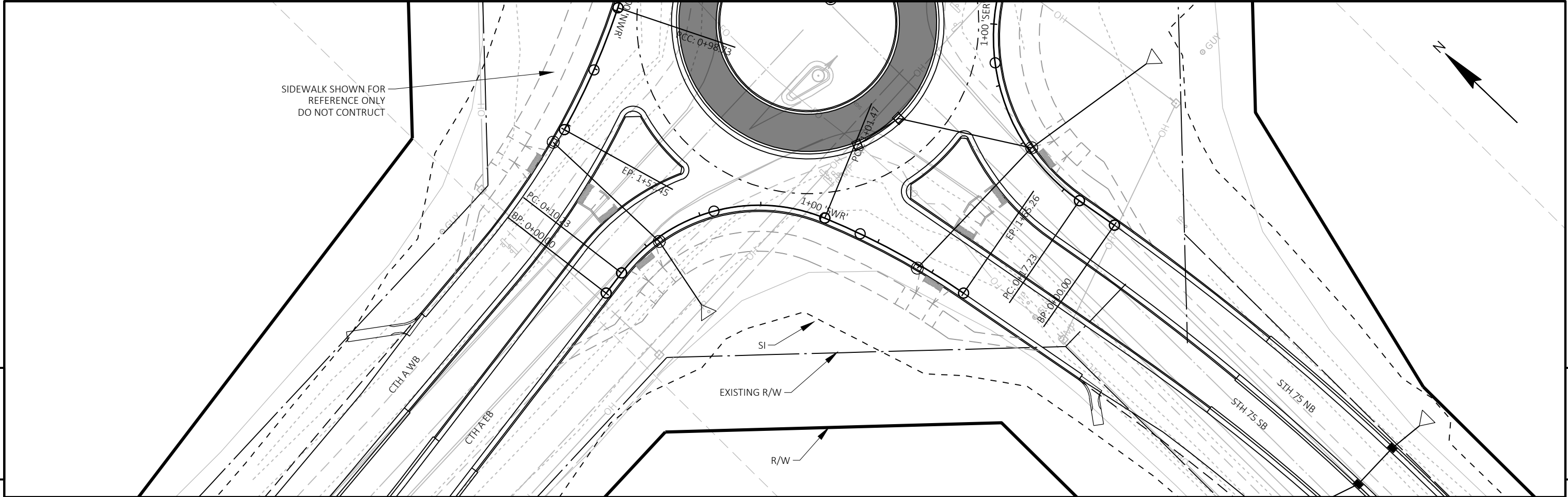
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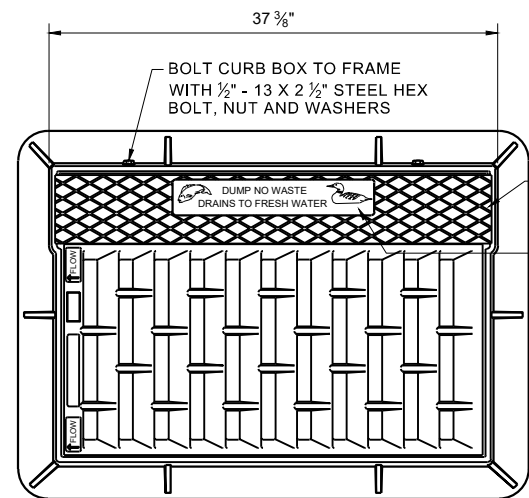
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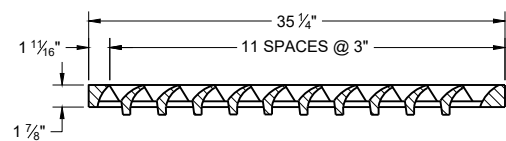
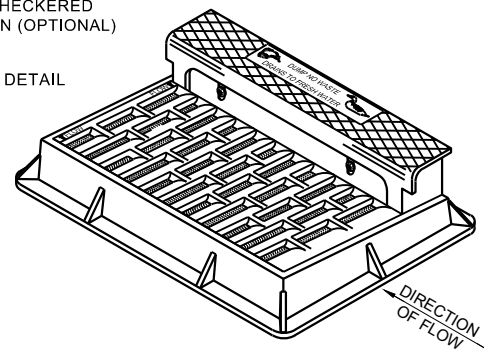
PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE PLAN AND PROFILE: SW RADIUS SHEET **E**

Standard Detail Drawing List

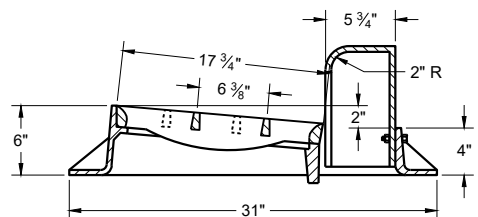
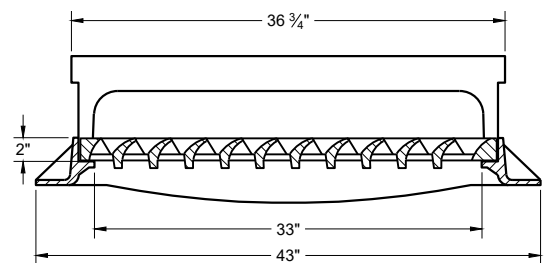
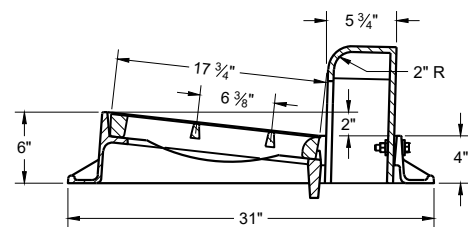
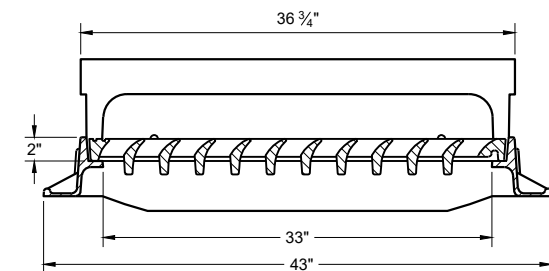
08A05-20A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-20D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
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
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-12	PULL BOX
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



NOTE: EITHER CASTING IS ACCEPTABLE



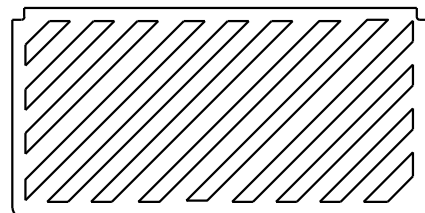
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



TYPE "H"

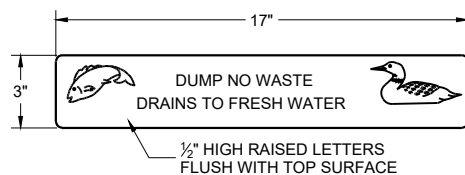
NOTE: EITHER CASTING IS ACCEPTABLE

1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



SPECIAL GRATE FOR TYPE "H" COVER

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



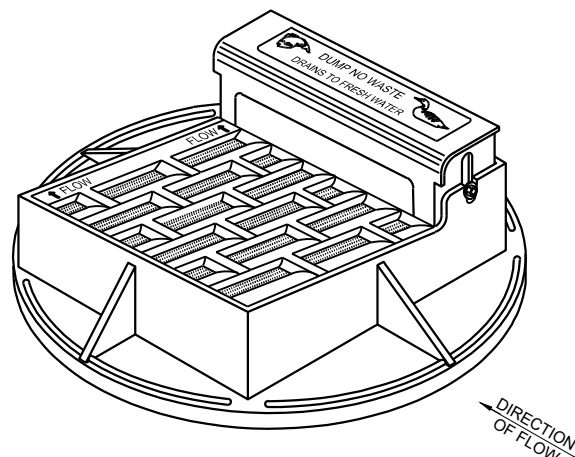
LOGO DETAIL

GENERAL NOTES

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

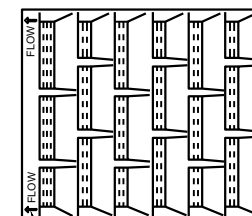
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

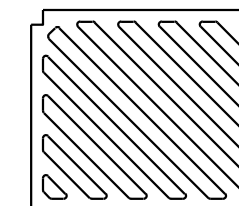


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE

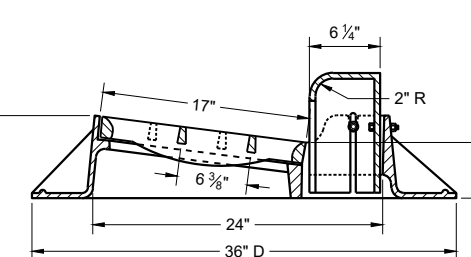
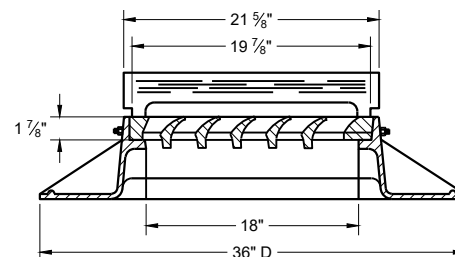
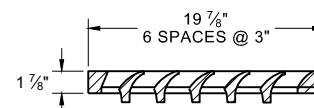


1" DIAGONAL BARS WITH 1 1/2" OPENINGS

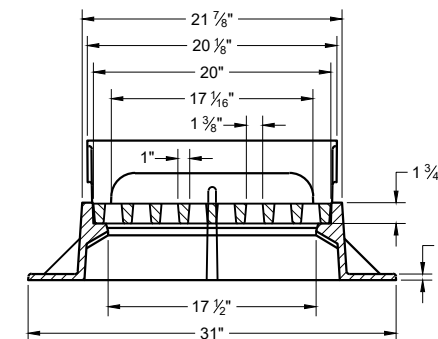
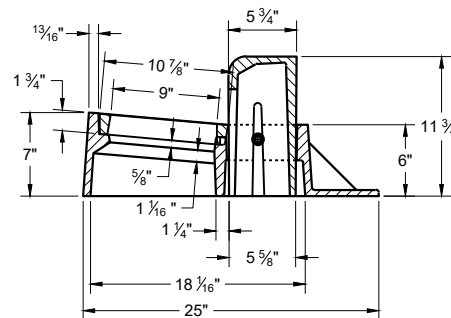


SPECIAL GRATE FOR TYPE "A" COVER

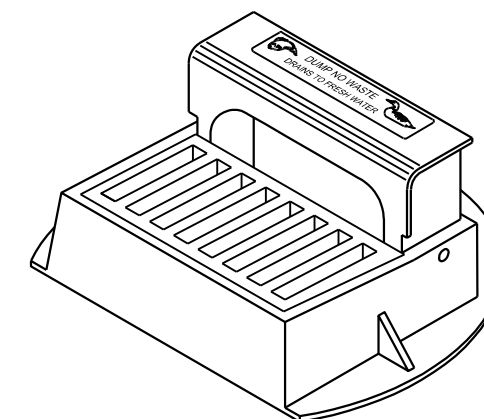
(MEASURES 19 3/4" X 17" X 1 7/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

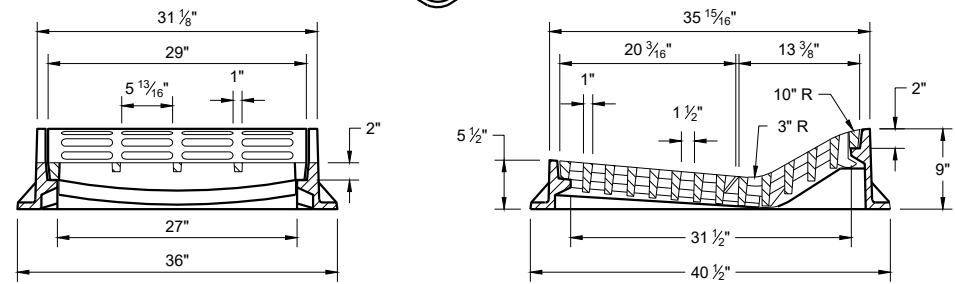
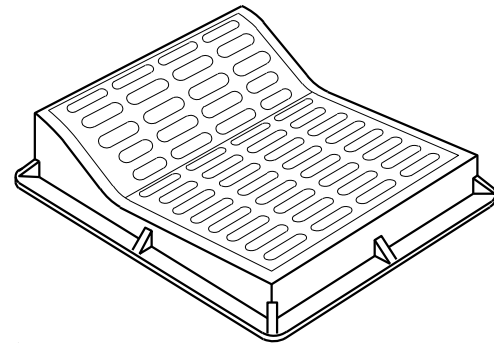
APPROVED
July 2023 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

GENERAL NOTES

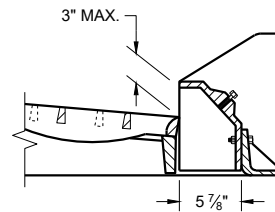
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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



TYPE "F"

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

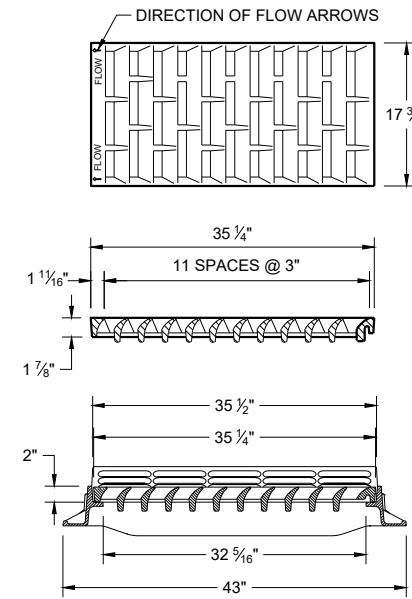


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

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

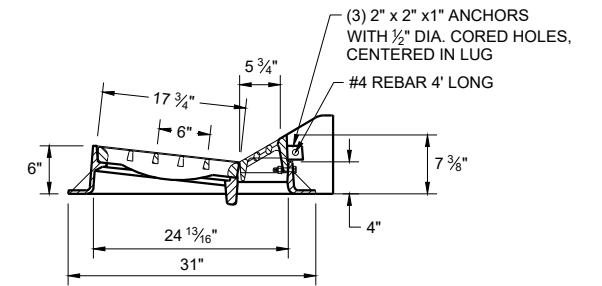
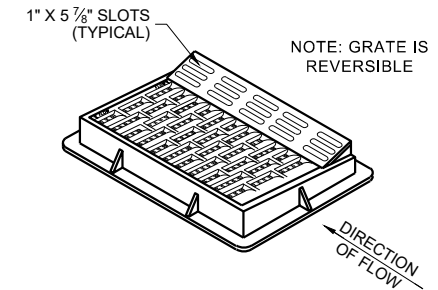
NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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



TYPE "HM"

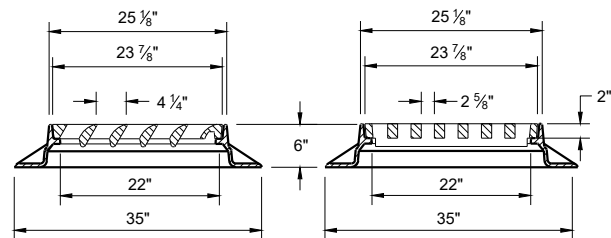
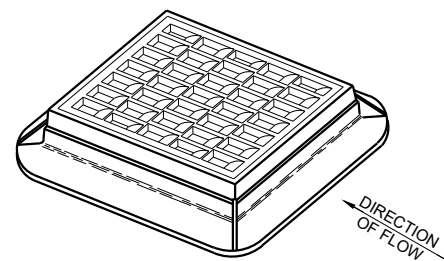
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



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

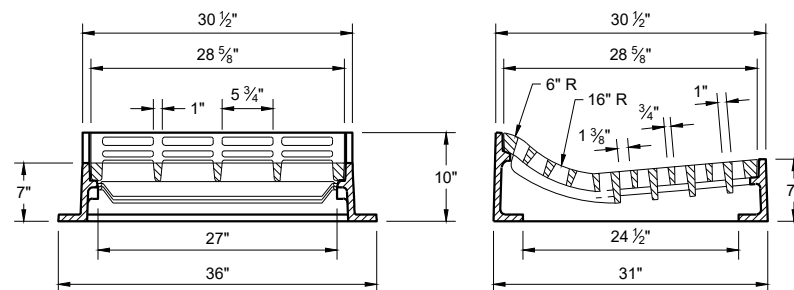
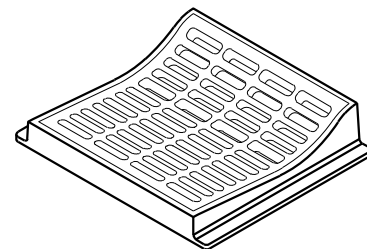
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.

6



TYPE "S"

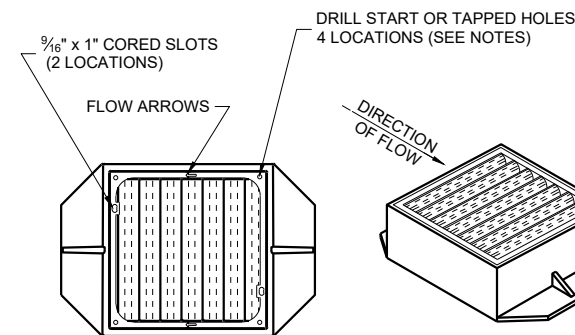
SDD 08A05-20C



TYPE "T"

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

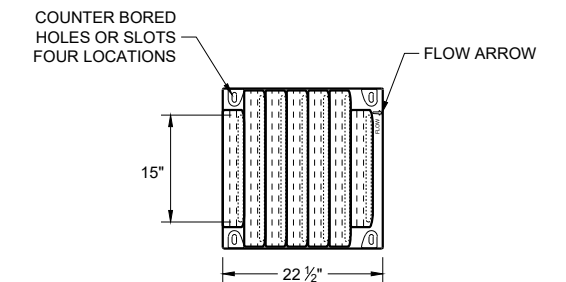
6



TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
 FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
 3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
 GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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

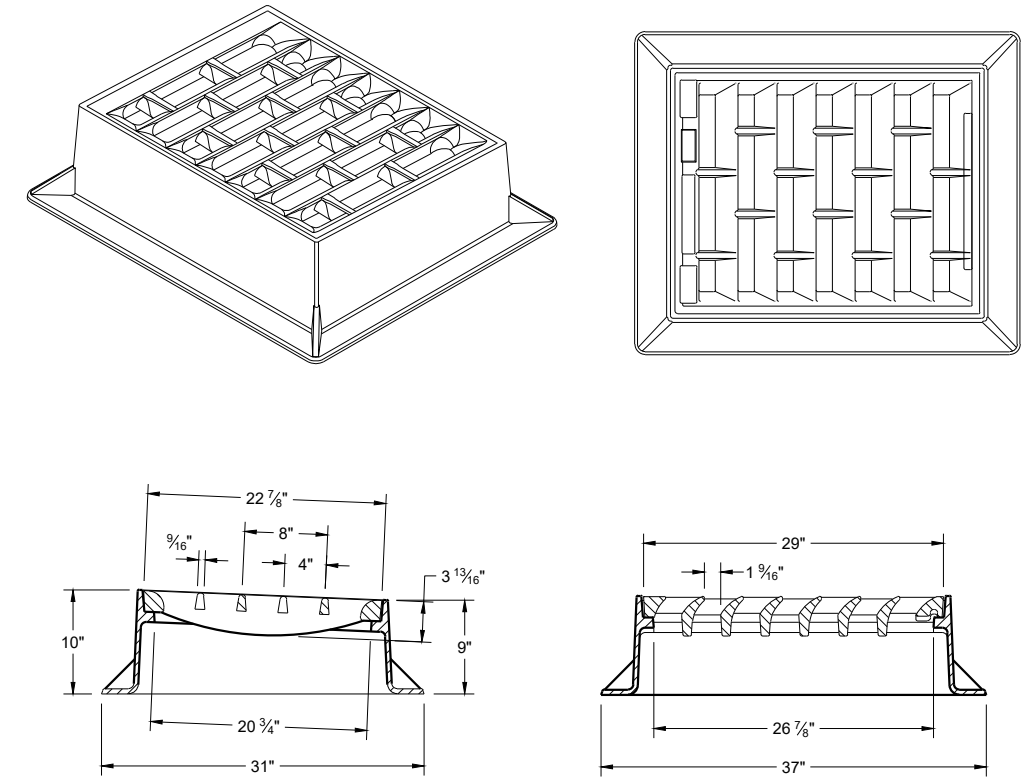
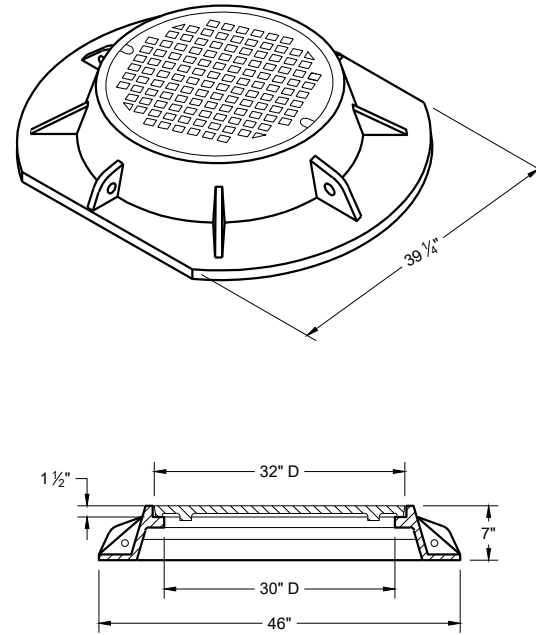
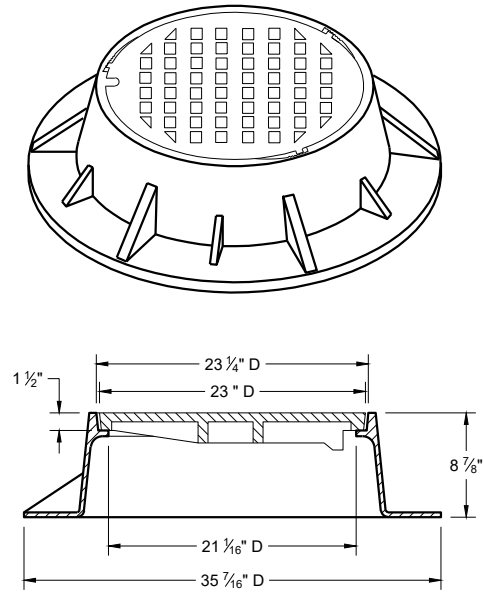
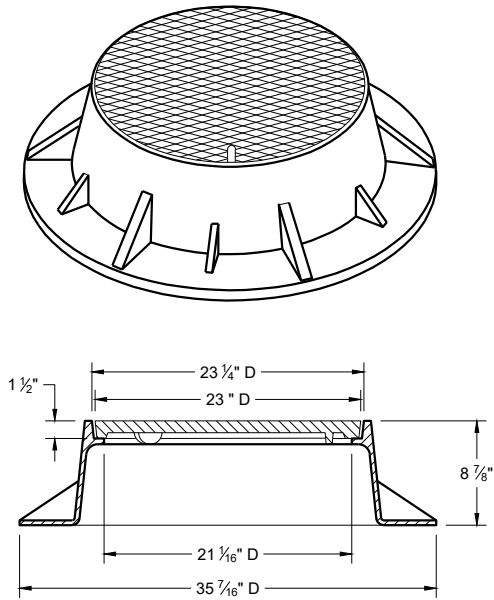
SDD 08A05-20C

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.

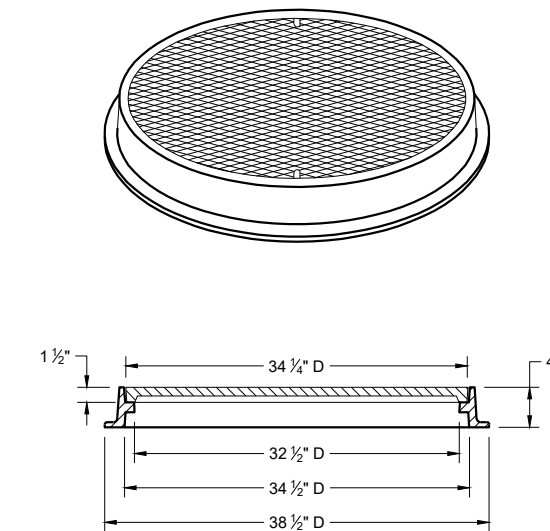
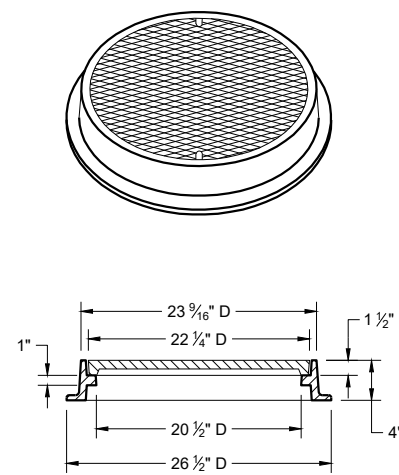
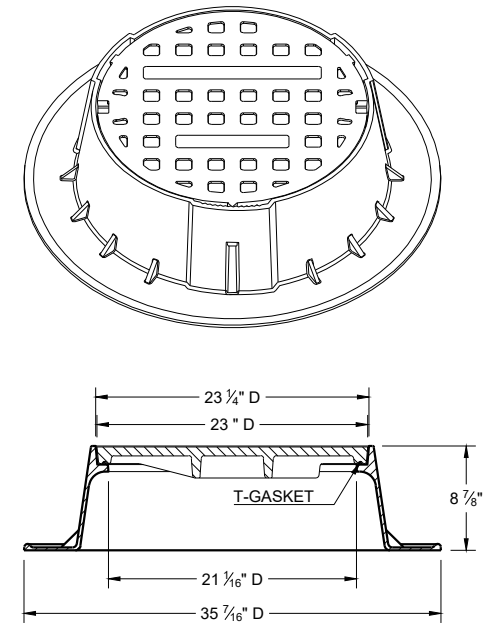
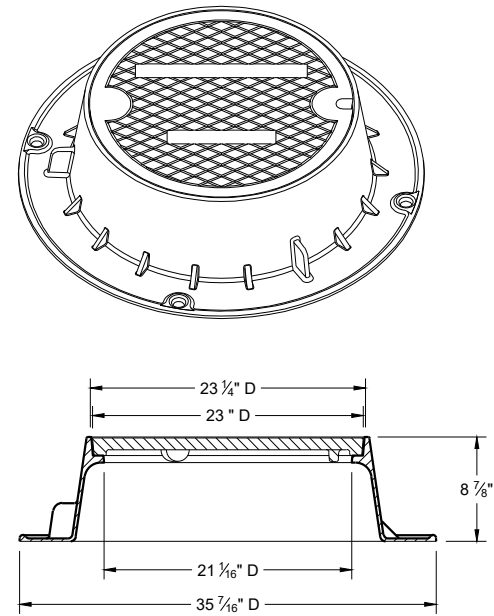
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

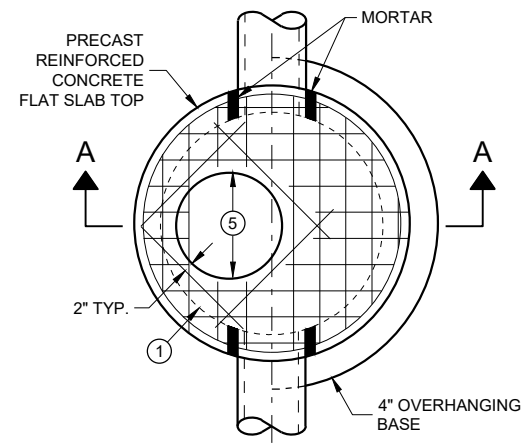
TYPE "L"

TYPE "M"

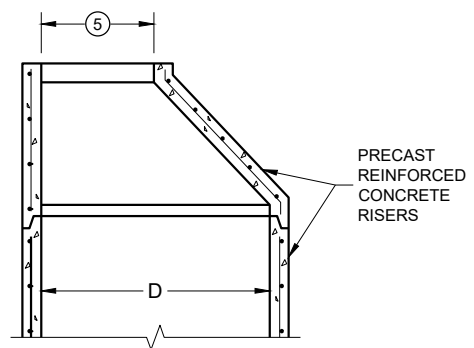
**INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

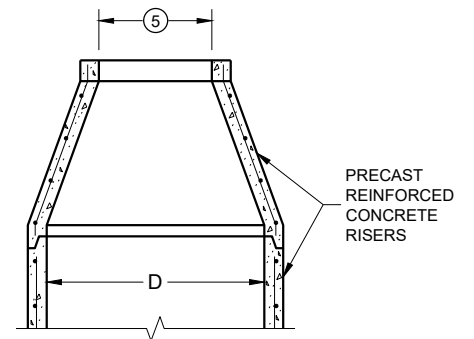
APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



**PLAN VIEW
CIRCULAR OPENING**



**OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP**



**OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP**

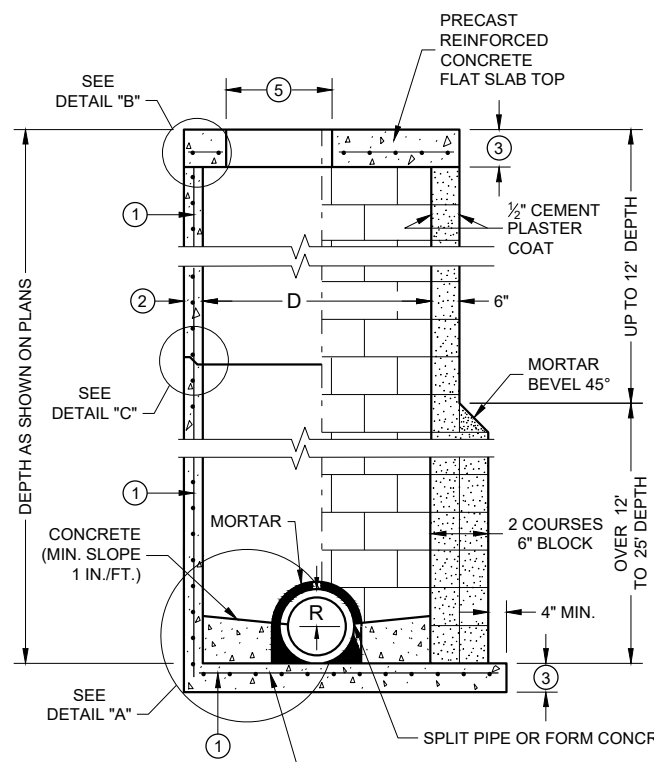
MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE OPENING SIZE (FT.)	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

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

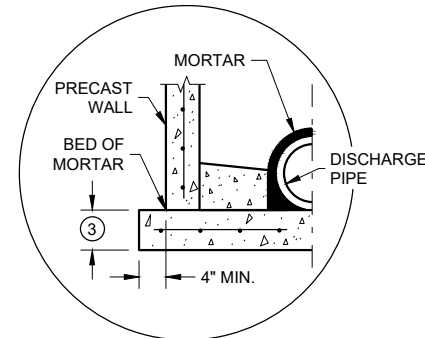
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



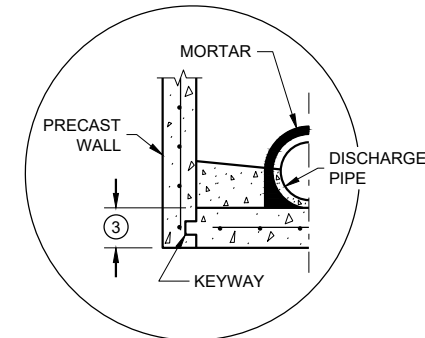
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

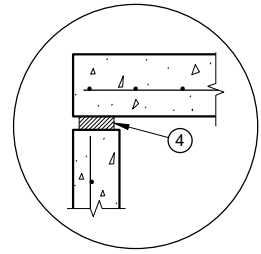


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

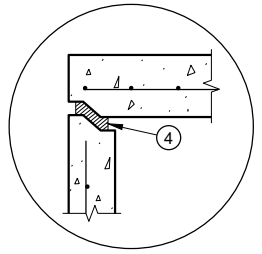


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

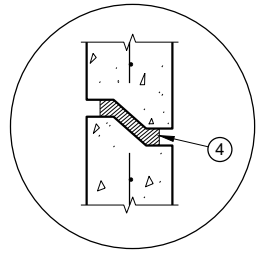
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

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 DIMENSION 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.

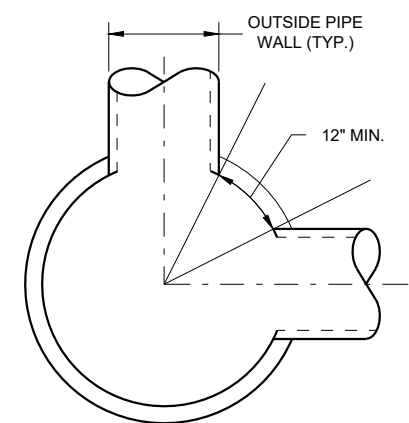
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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 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 (TYP.).
- ⑤ SEE MANHOLE COVER OPENING MATRIX.

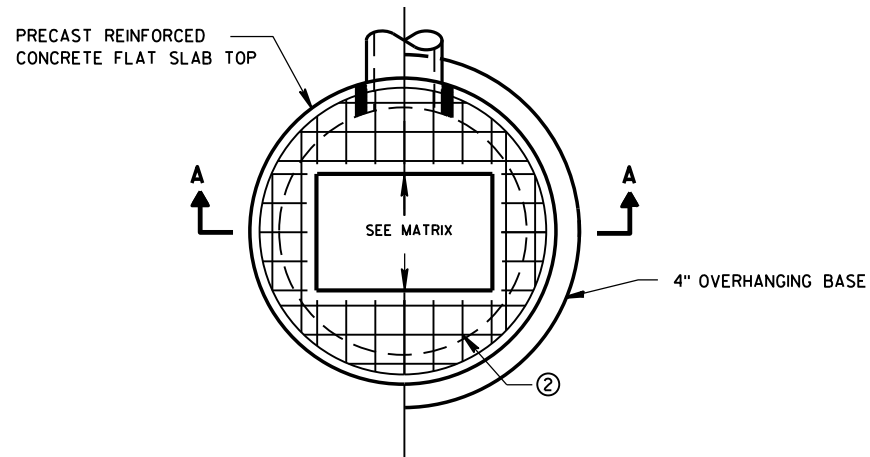


MINIMUM HORIZONTAL PIPE SEPARATION

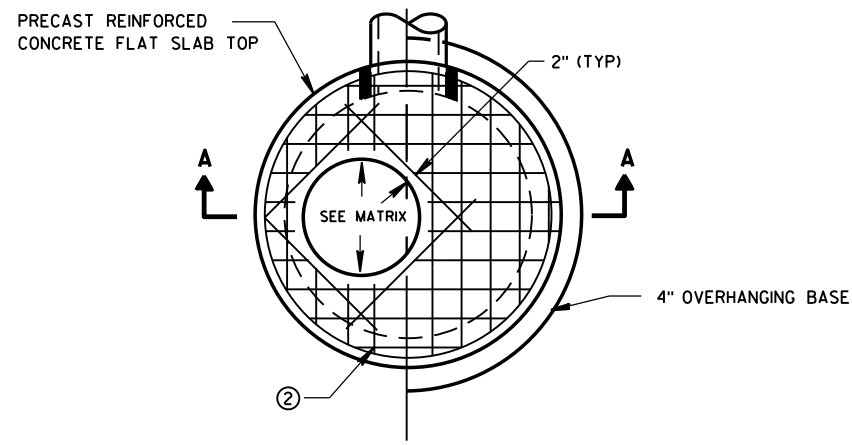
**MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

GENERAL NOTES

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

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

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

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

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

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

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

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

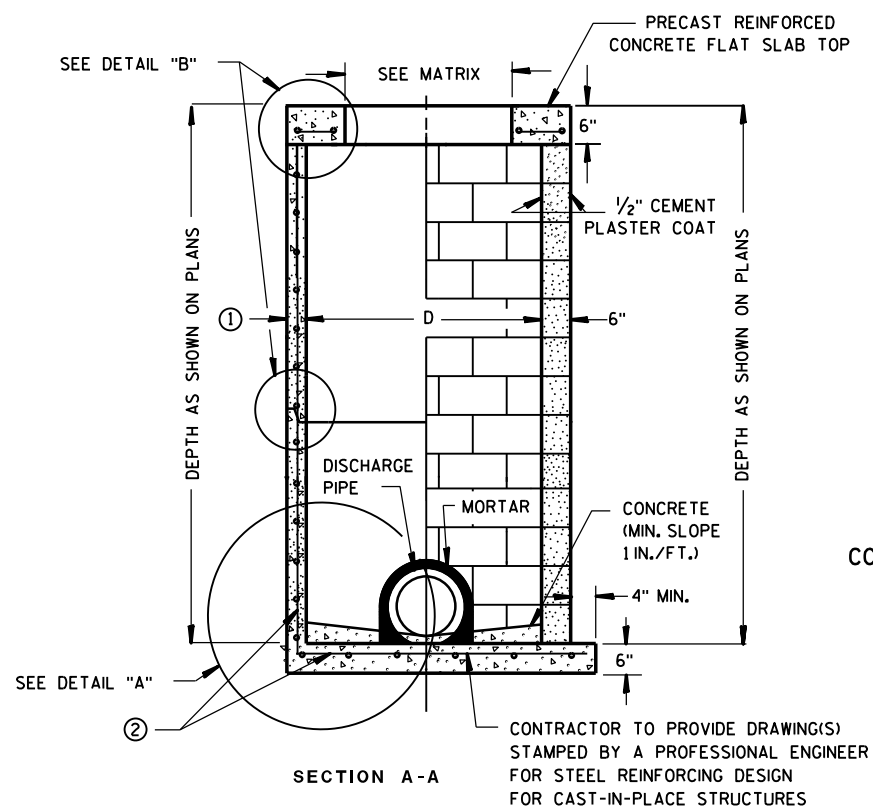
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X	X	
	2X2.5			X								
	2X3						X					
	2.5X3					X						

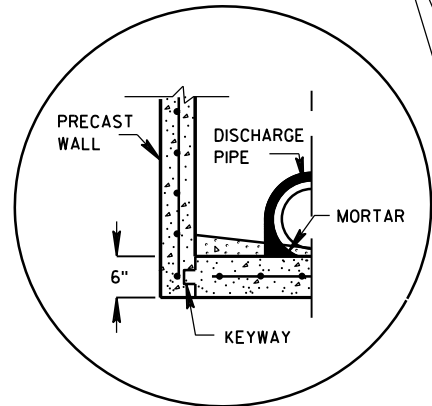


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE **CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②**

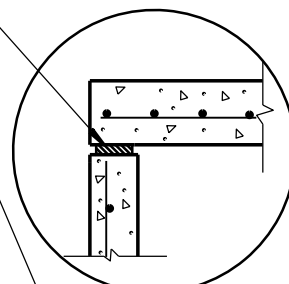
CIRCULAR INLETS W/ FLAT TOP

CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

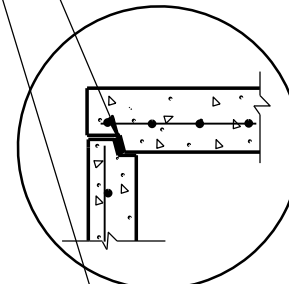
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)



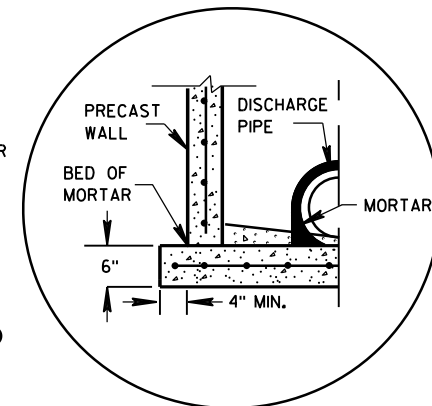
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



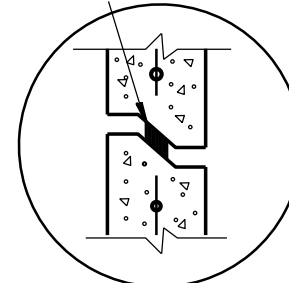
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

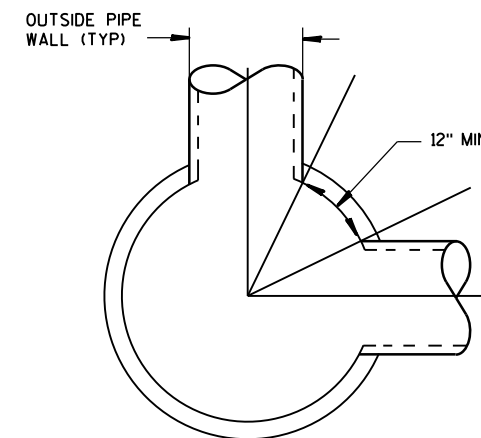


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER



DETAIL "C"

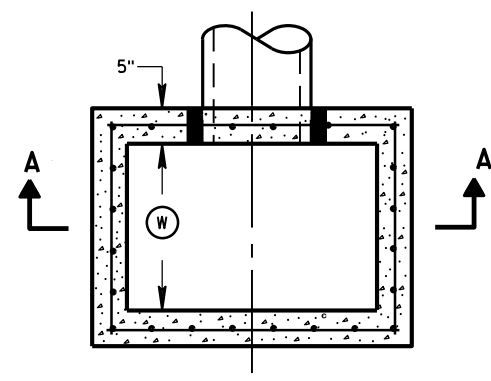
PIPE MATRIX

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

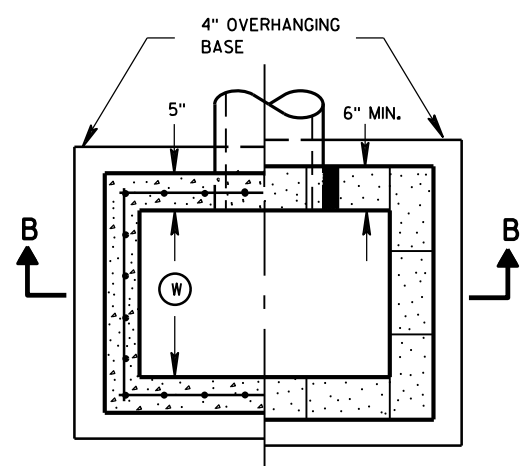
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

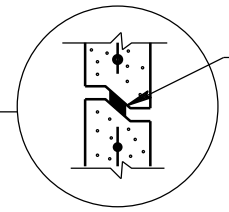
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



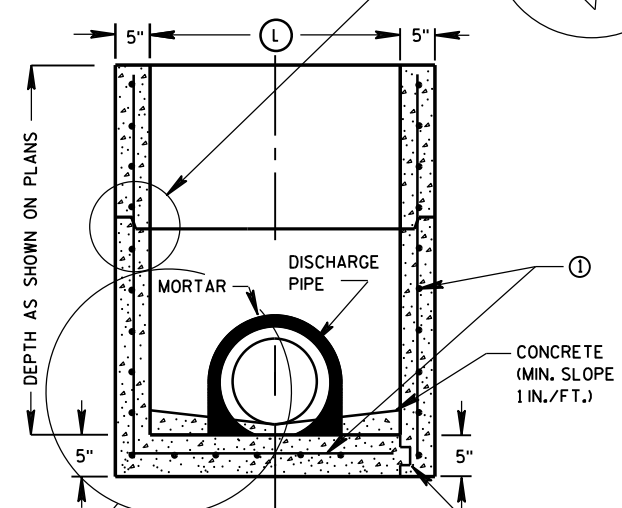
PLAN VIEW



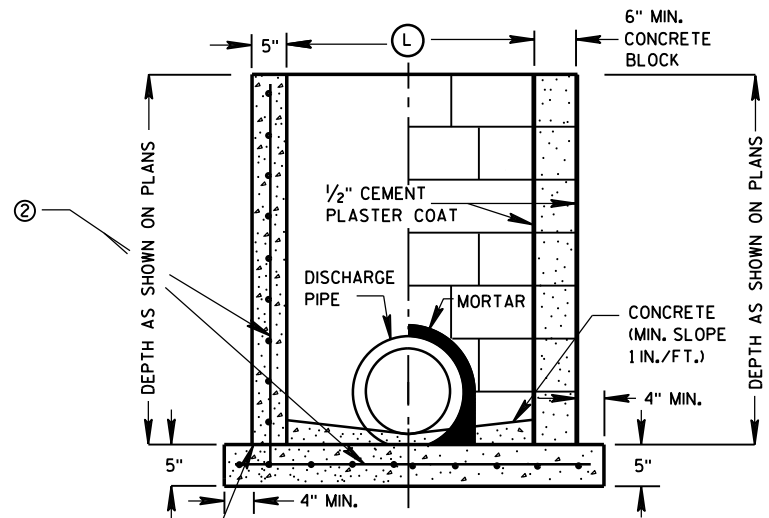
PLAN VIEW



RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



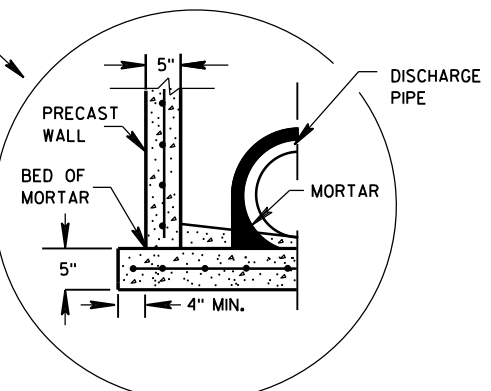
SECTION A-A



SECTION B-B

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE
 PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE
 KEYWAY

CONSTRUCTION JOINT
 CAST-IN-PLACE REINFORCED CONCRETE
 CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ①



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 INCH 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 PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

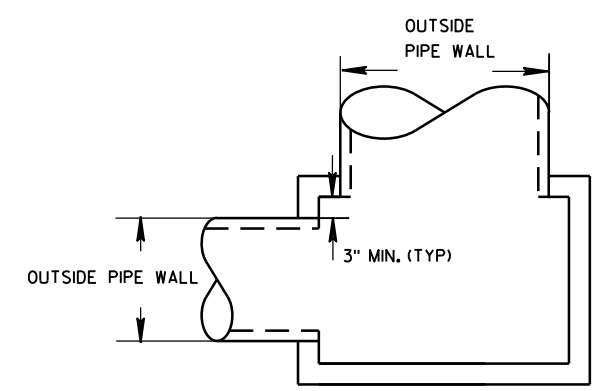
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	INLET COVER TYPE		ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH ① (FT)	LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



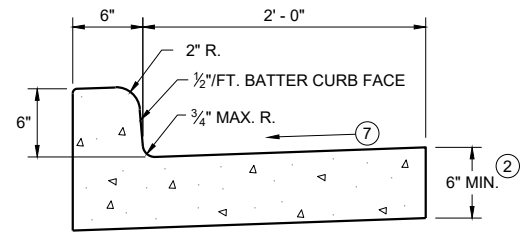
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

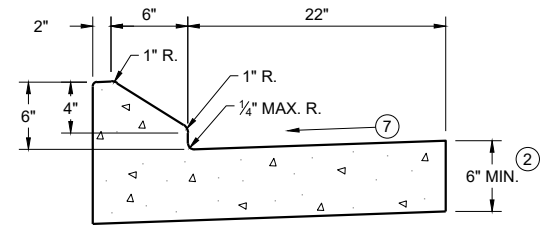
**INLETS 2X2-FT, 2X2.5-FT,
2X3-FT AND 2.5X3-FT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

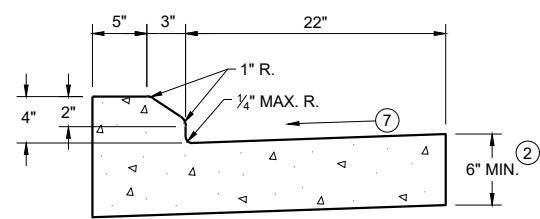
APPROVED
 Sept., 2016 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT
 FHWA UNIT SUPERVISOR



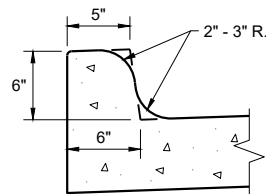
TYPES A¹ & D



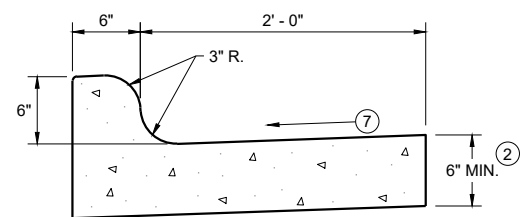
6" SLOPED CURB TYPES G¹ & J



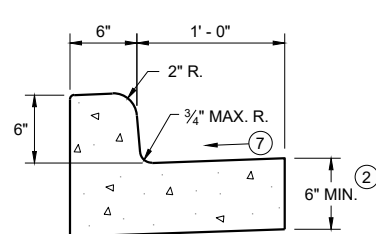
4" SLOPED CURB TYPES G¹ & J



TYPES K¹ & L
(OPTIONAL CURB SHAPE)

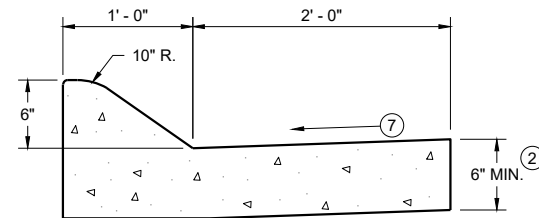


TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"

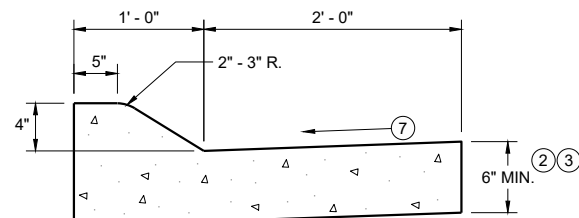


TYPES A¹ & D

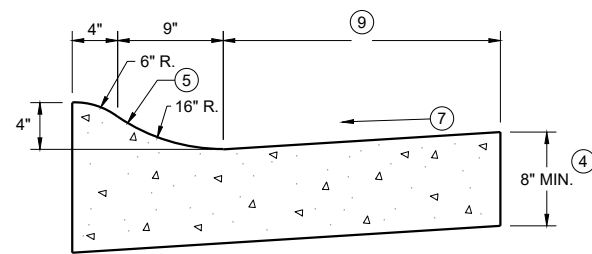
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

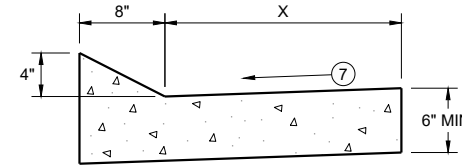


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

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

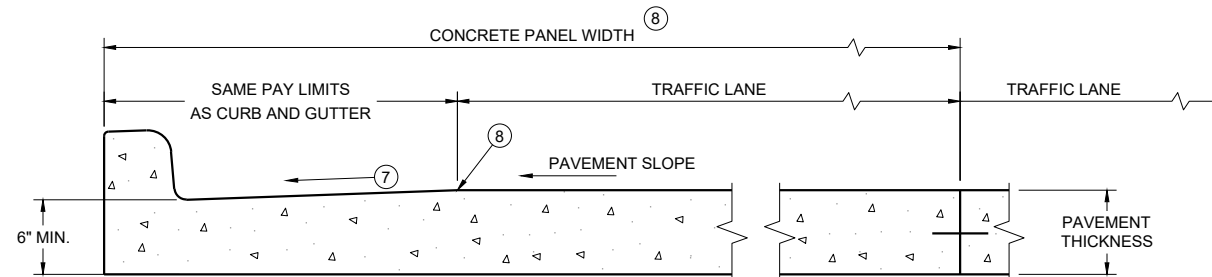


TYPES TBT & TBTT¹

CONCRETE CURB AND GUTTER

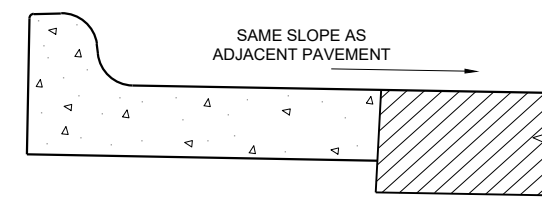
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

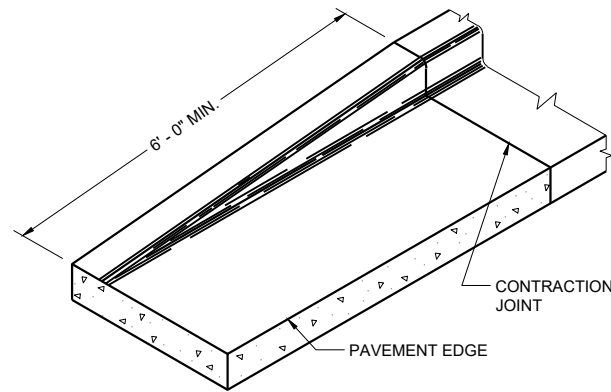
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

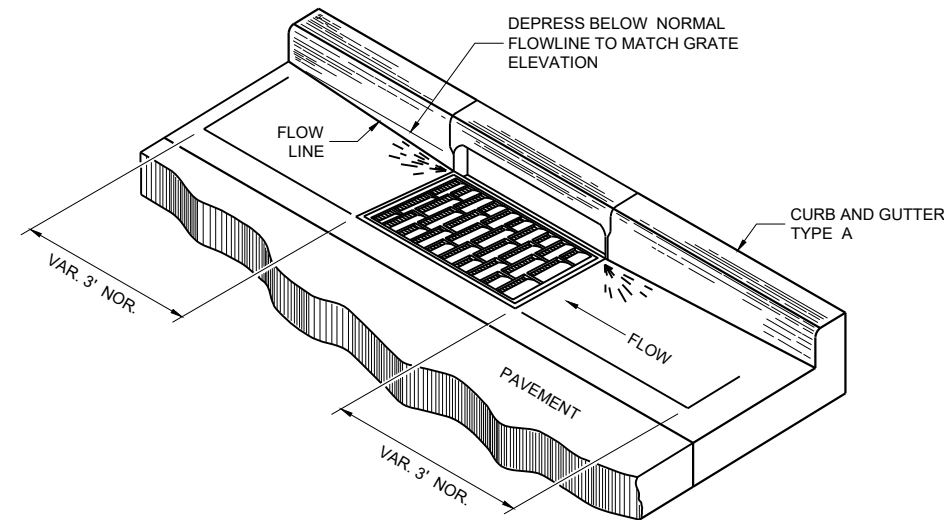
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

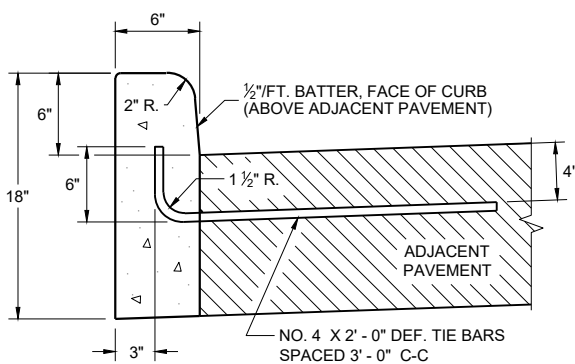
GENERAL NOTES

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

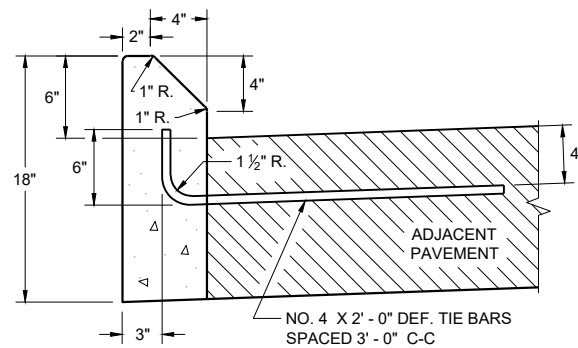
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

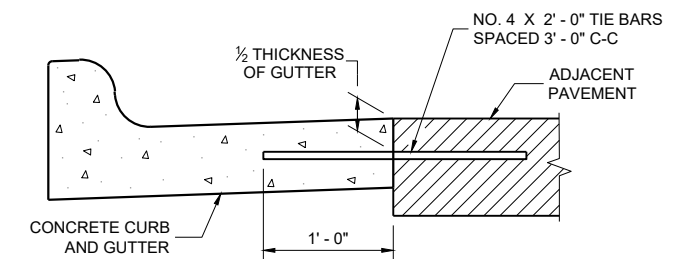
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL 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.



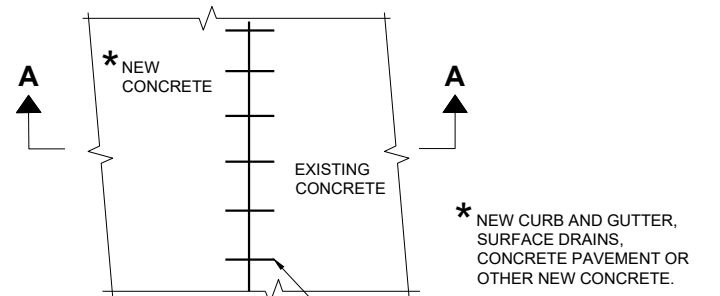
TYPES A ① & D



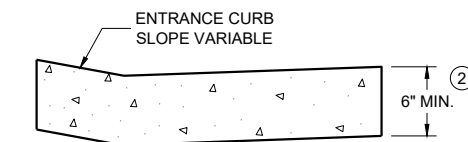
**TYPES G ① & J
CONCRETE CURB**



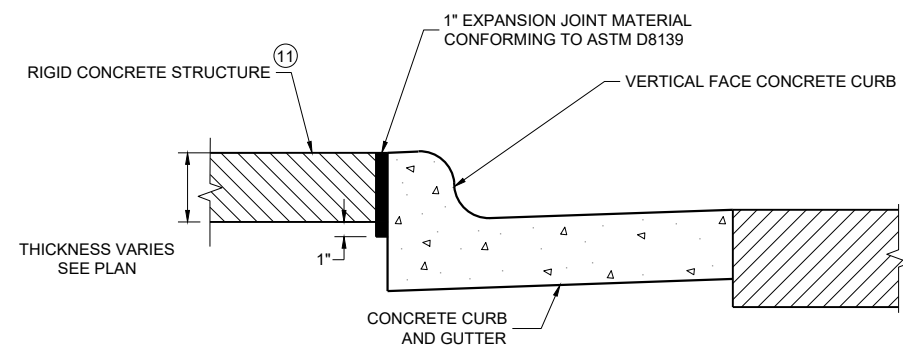
TYPICAL TIE BAR LOCATION ①



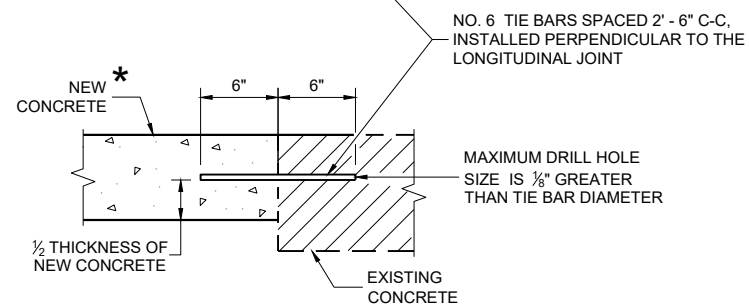
PLAN VIEW



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



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE ⑪

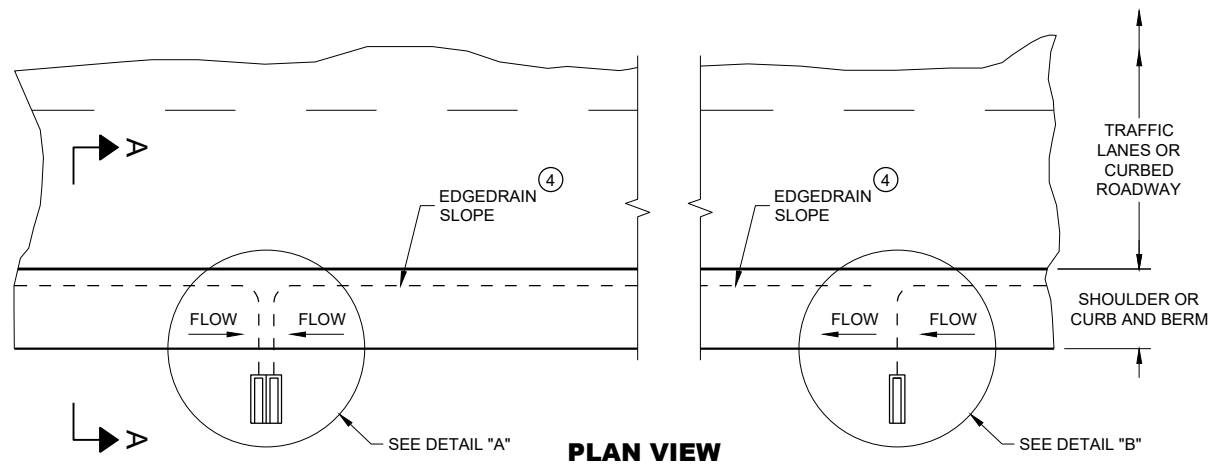


**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

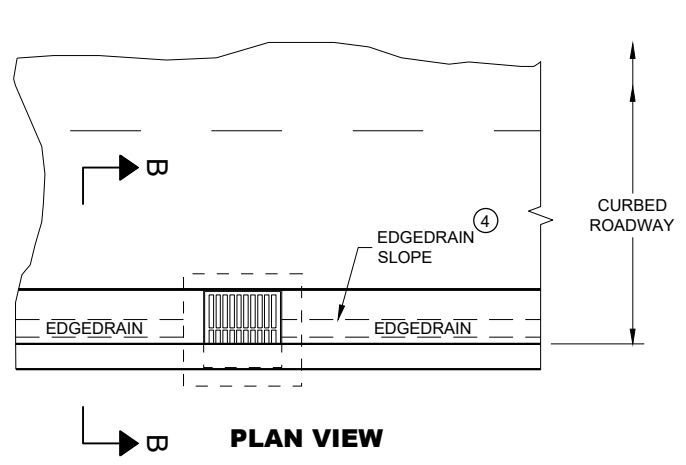
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) ②**



**ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)**

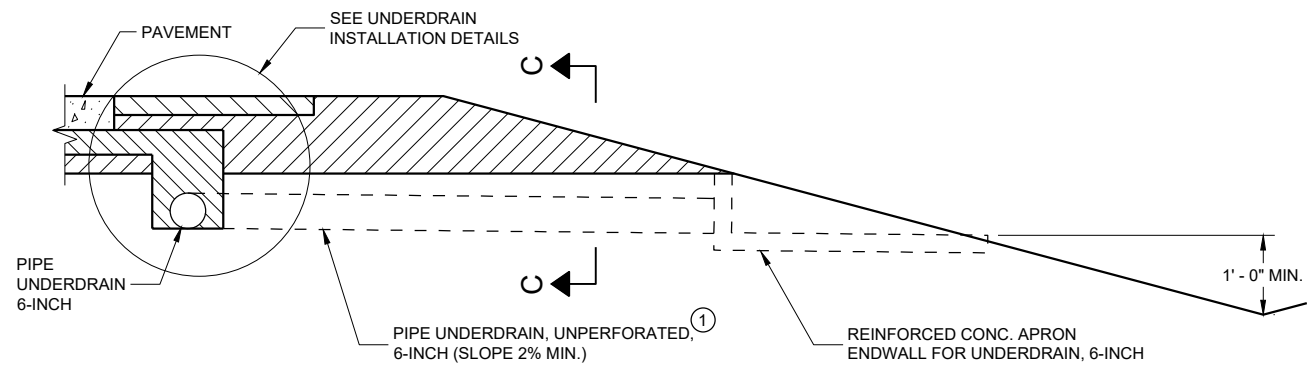
GENERAL NOTES

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.

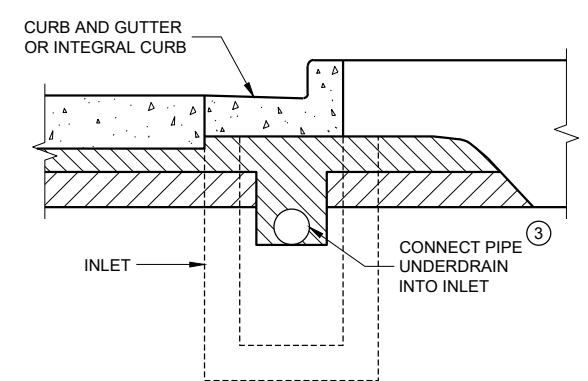
- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

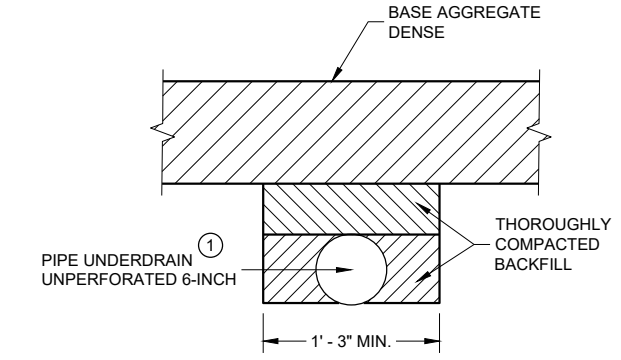
TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



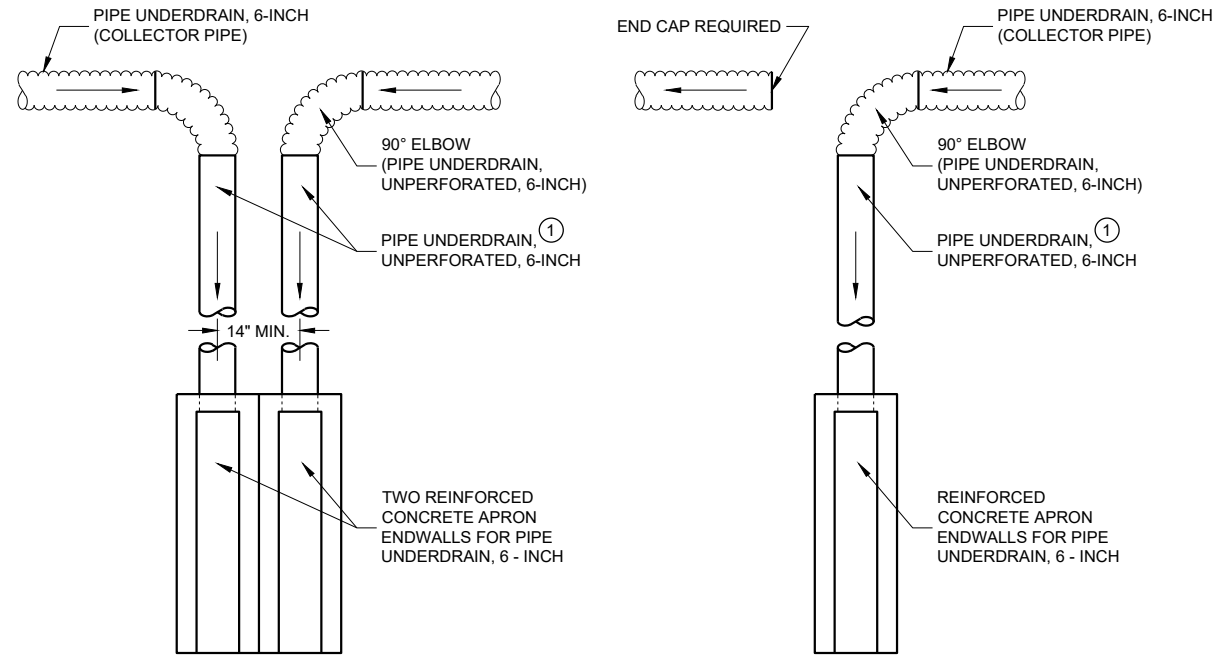
**SECTION A - A
RURAL CROSS SECTION**



**SECTION B - B
URBAN CROSS SECTION**



**SECTION C - C
TRENCH FOR OUTFALL PIPE**



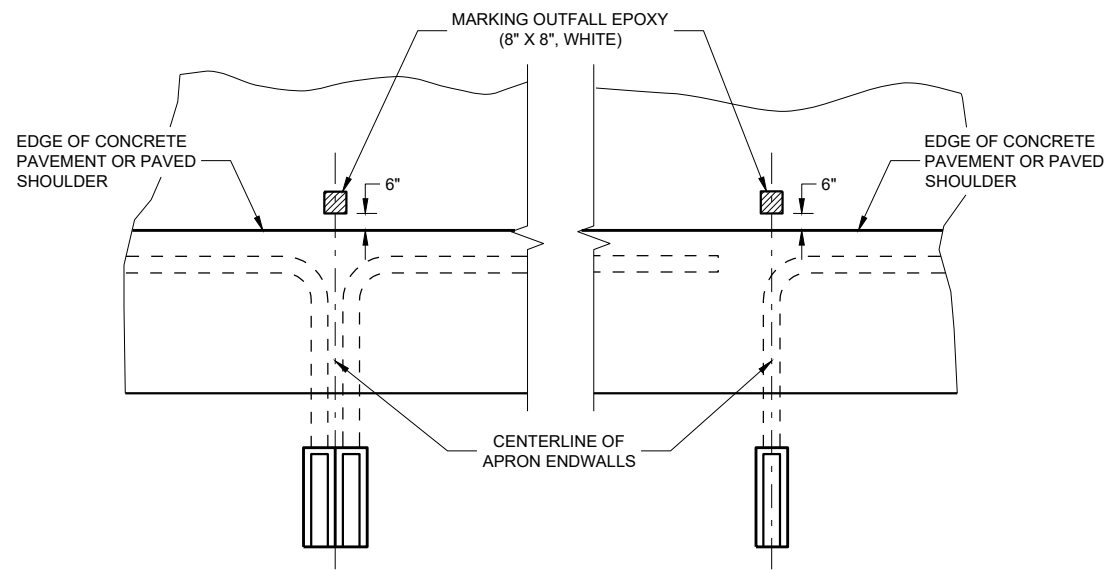
DETAIL "A"

TO BE USED AT LOW POINT LOCATIONS

DETAIL "B"

TO BE USED AT INTERMEDIATE LOCATIONS

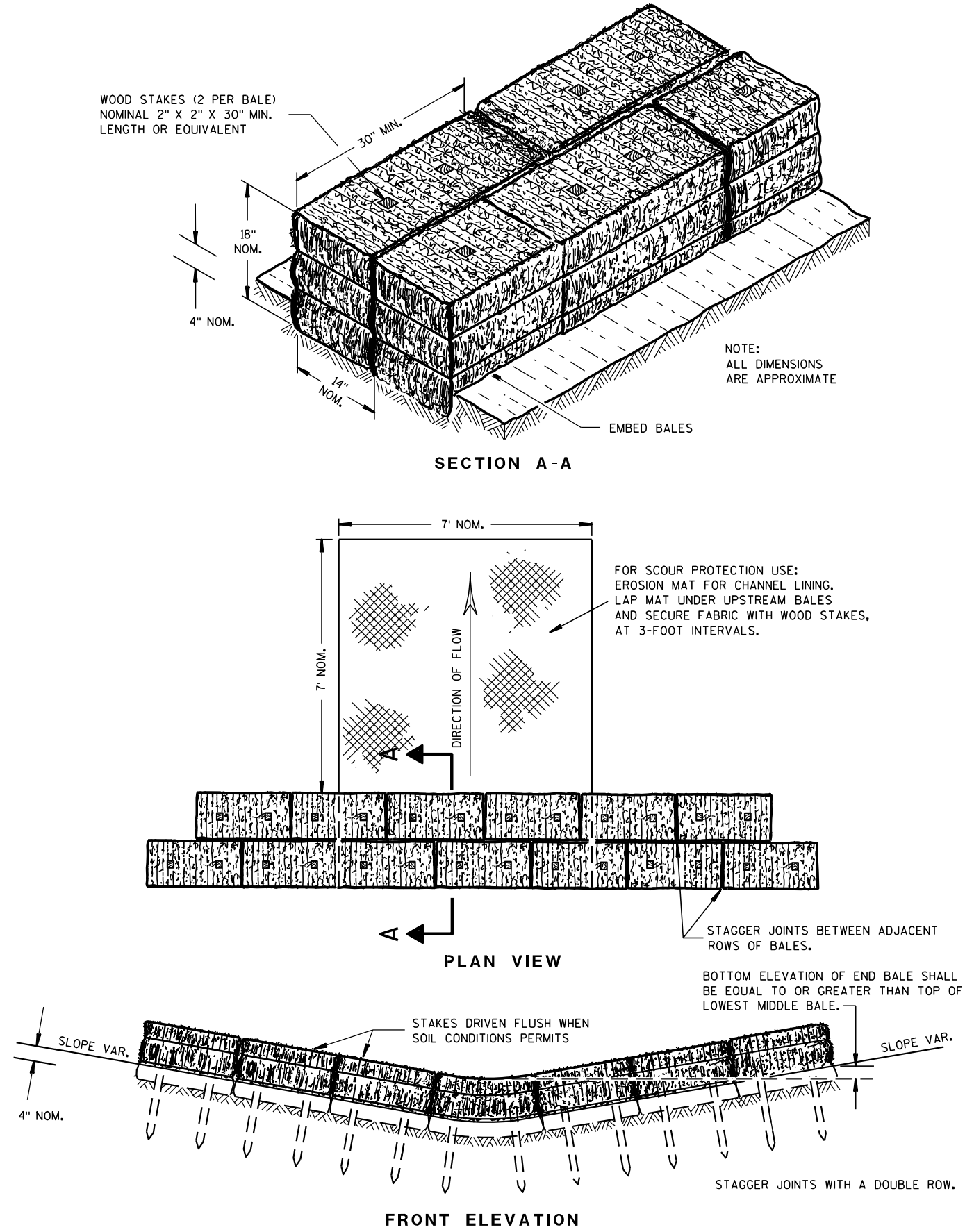
TYPICAL DRAIN OUT DETAILS



PAVEMENT MARKINGS FOR OUTFALL MARKERS

**EDGEDRAIN OUTLET
AND OUTFALL MARKERS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

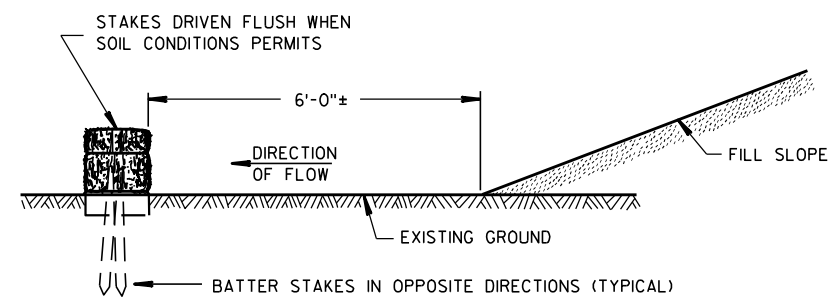
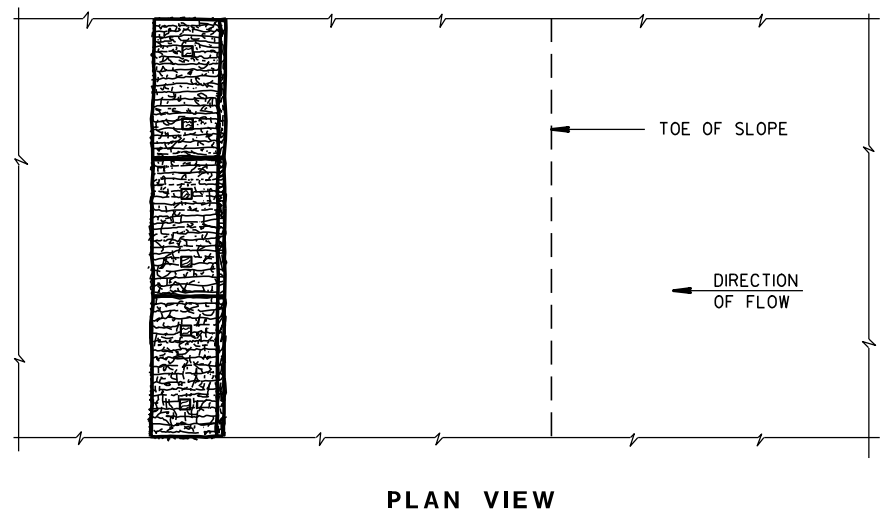
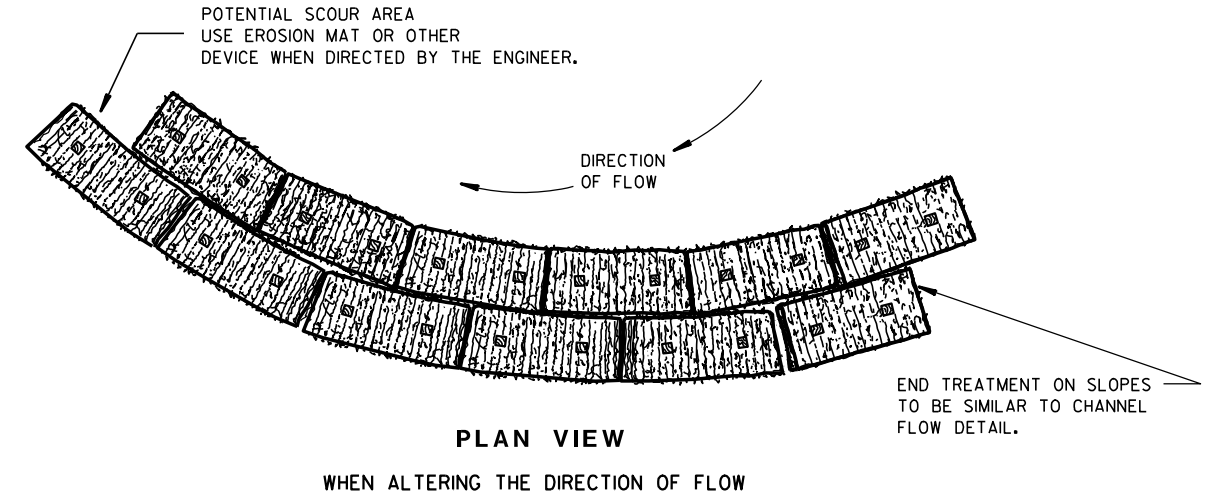


TEMPORARY DITCH CHECK USING EROSION BALES ①

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.

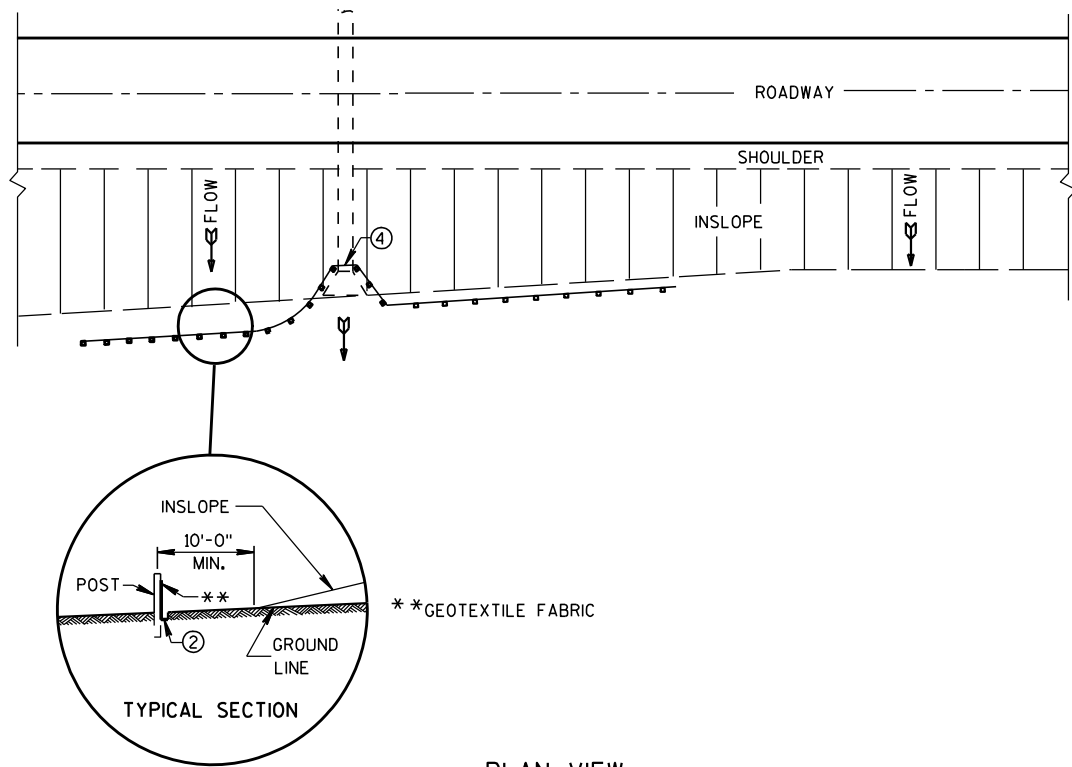


EROSION BALES FOR SHEET FLOW

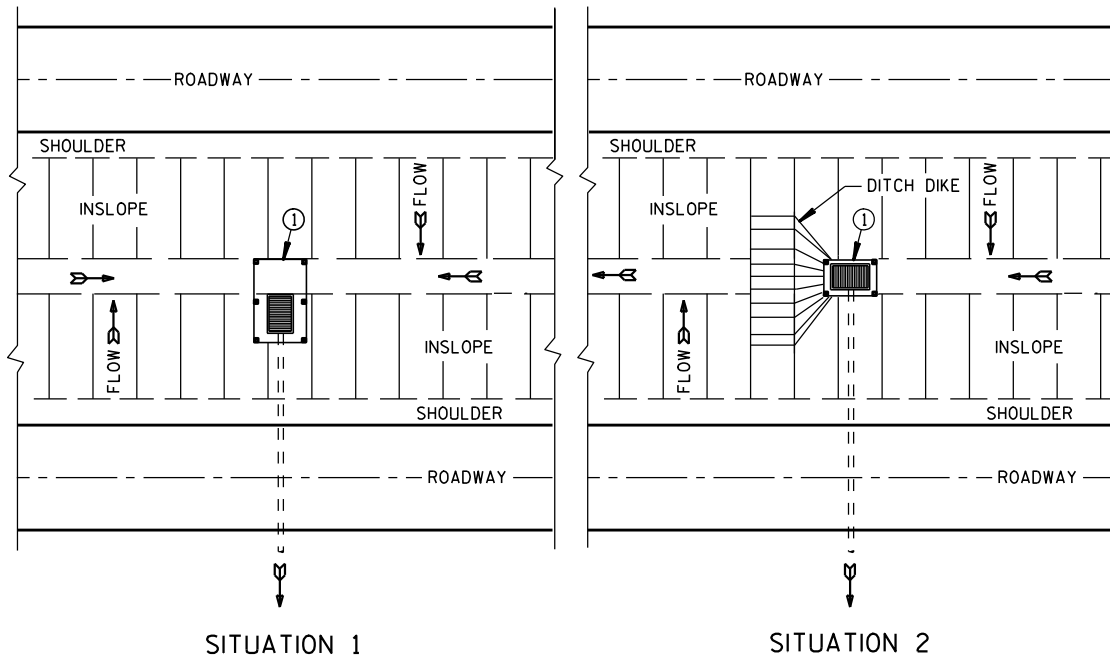
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

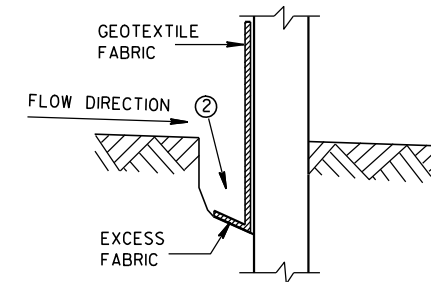


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

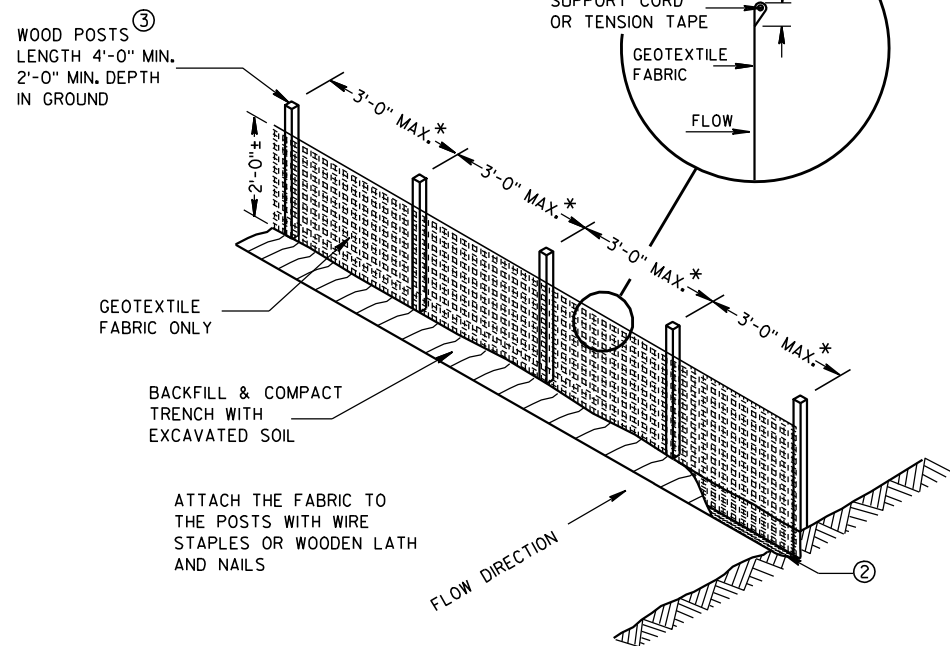
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

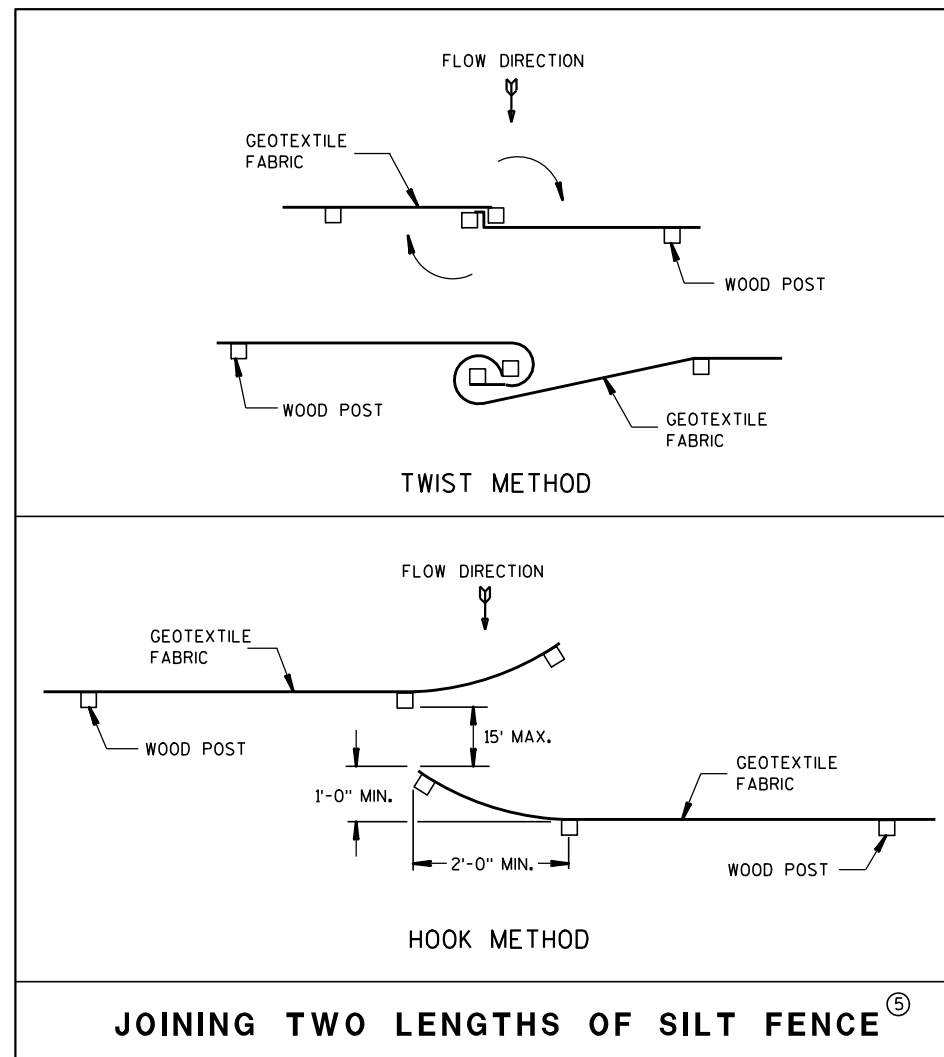


TRENCH DETAIL

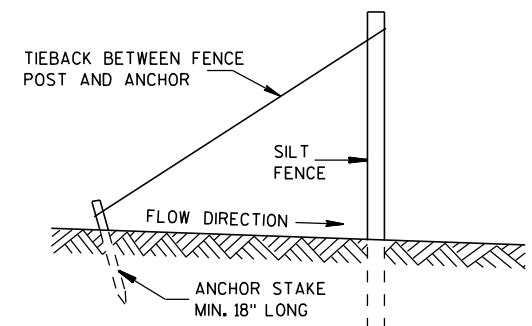
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

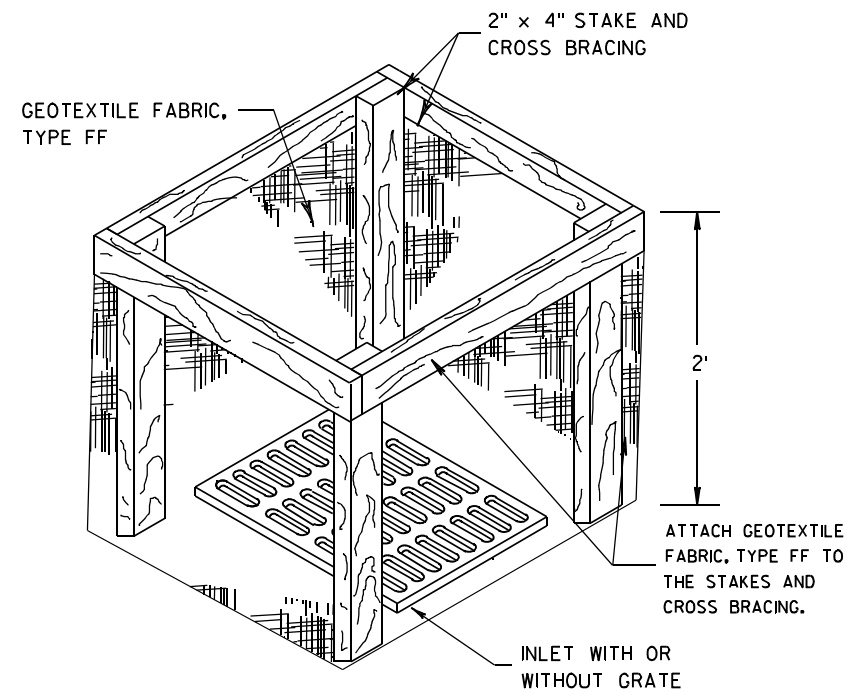
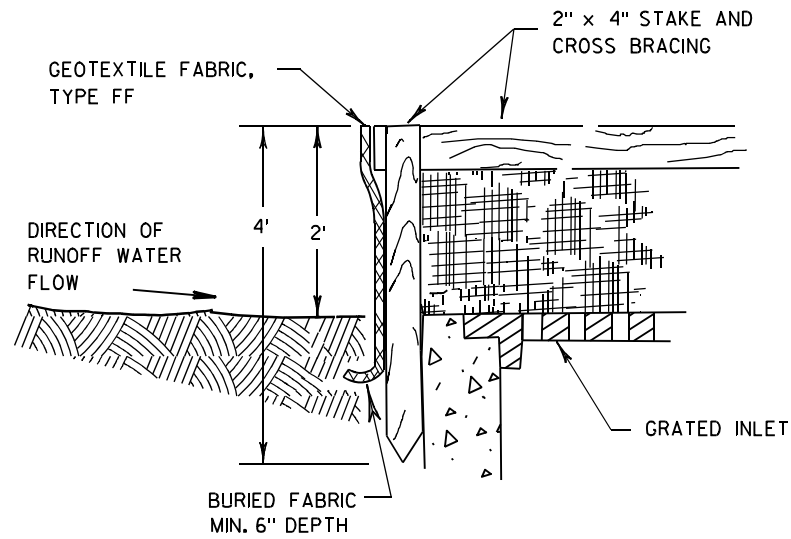


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

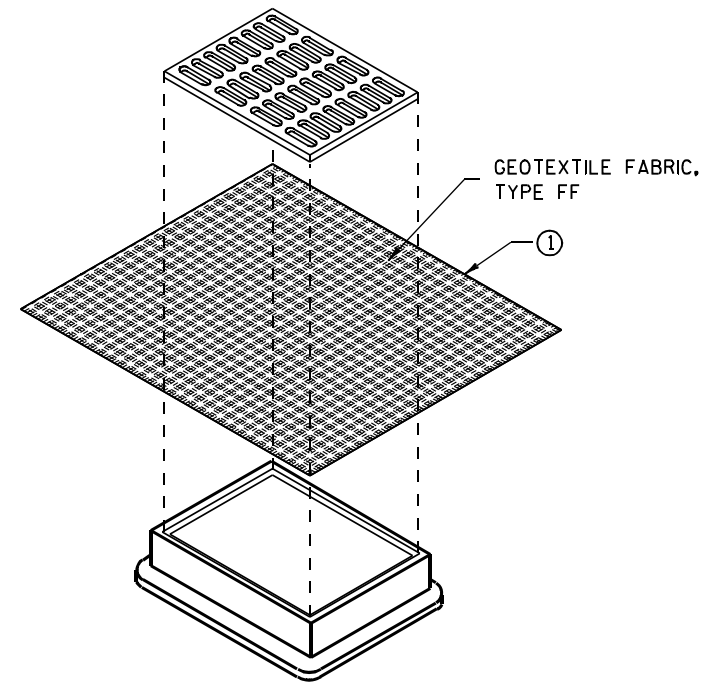
GENERAL NOTES

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.

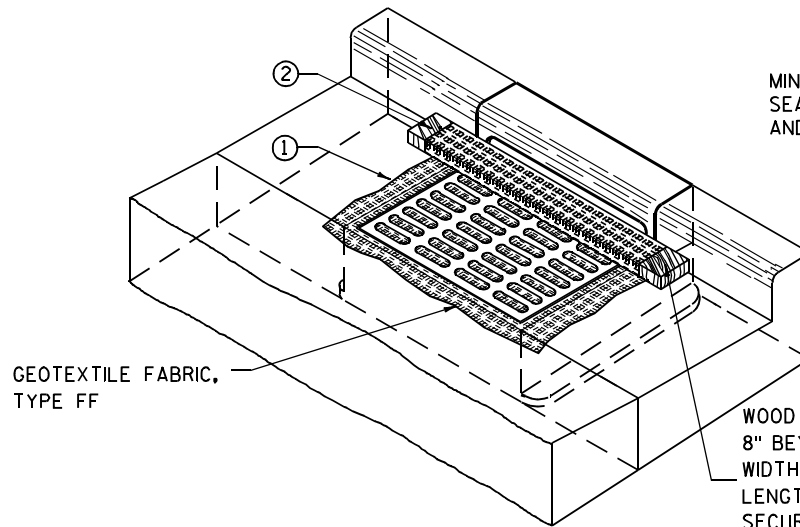
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

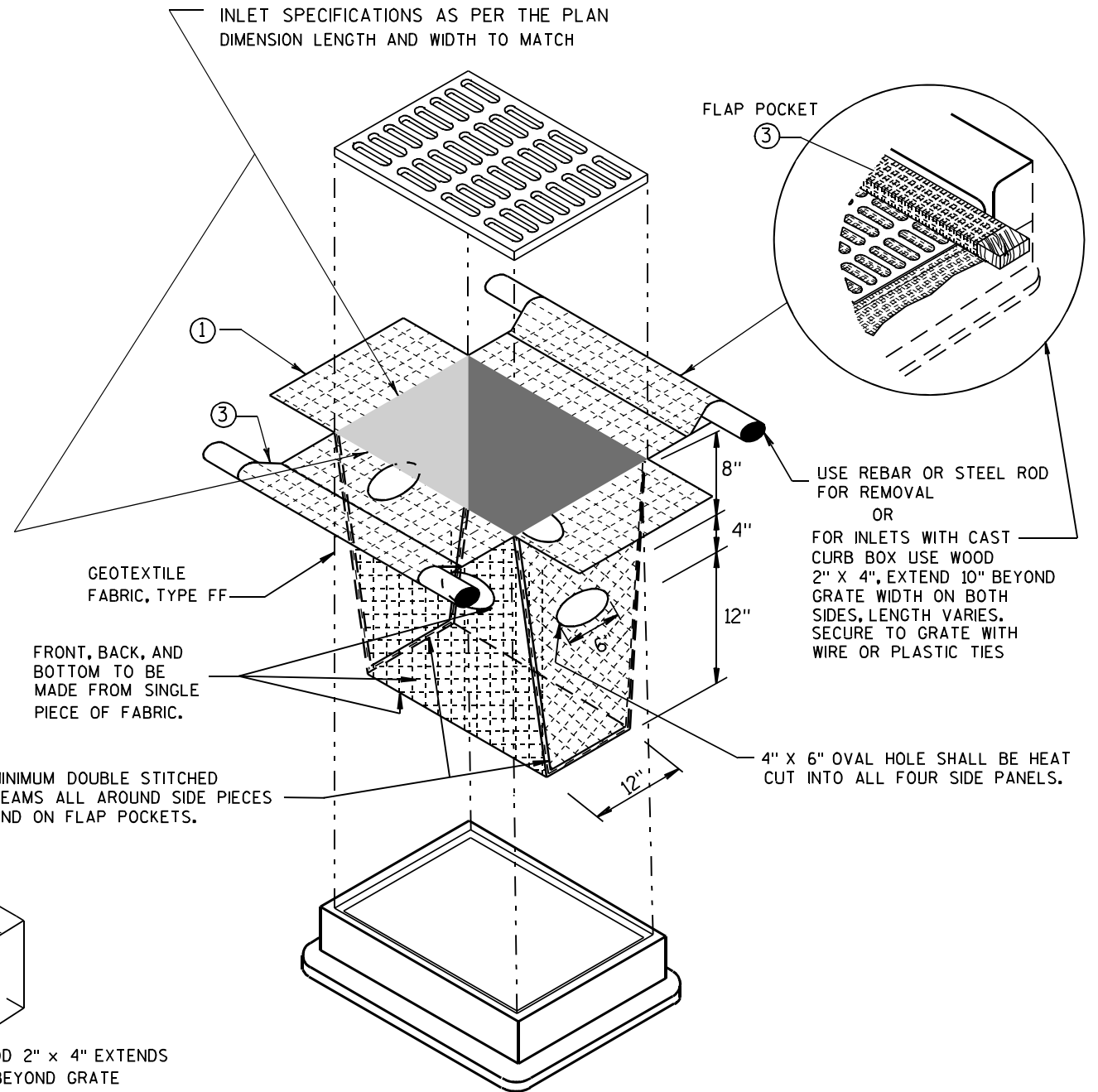
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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 DATE	/S/ Beth Conestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

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

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

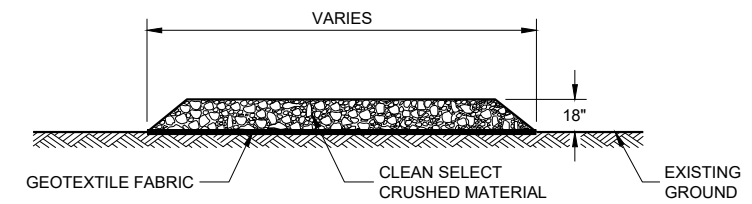
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

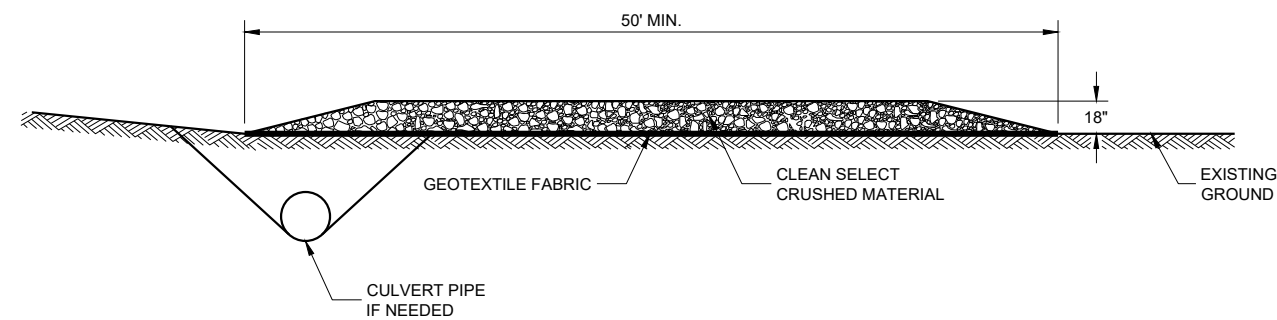
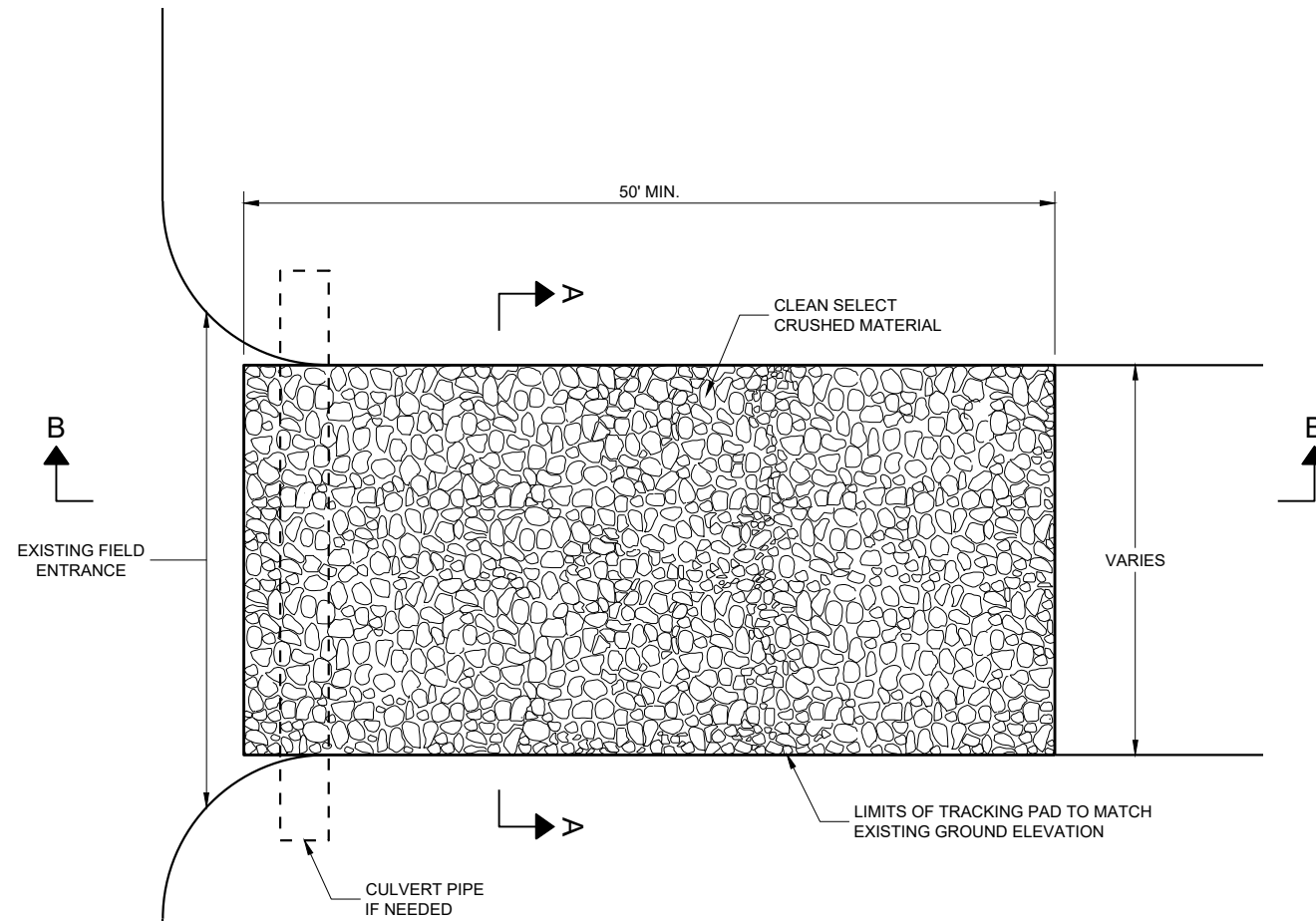
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

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



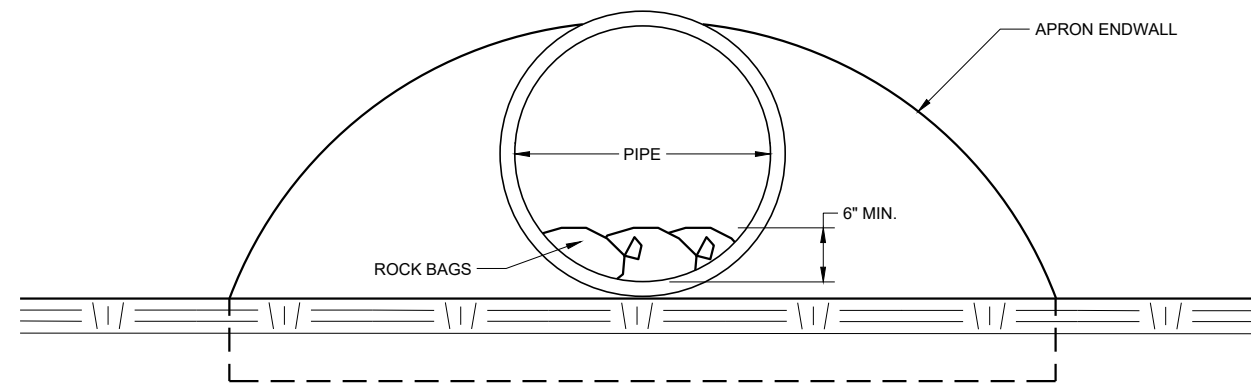
SECTION B - B

TRACKING PAD

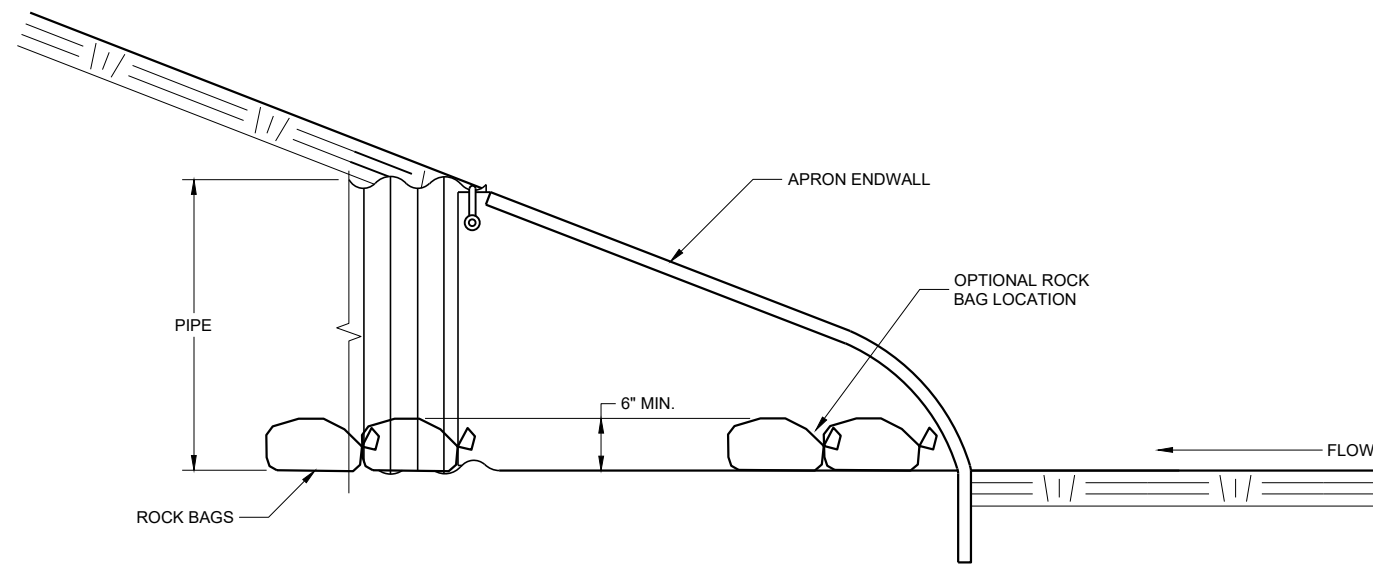
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Daniel Schave
DATE EROSION CONTROL ENGINEER

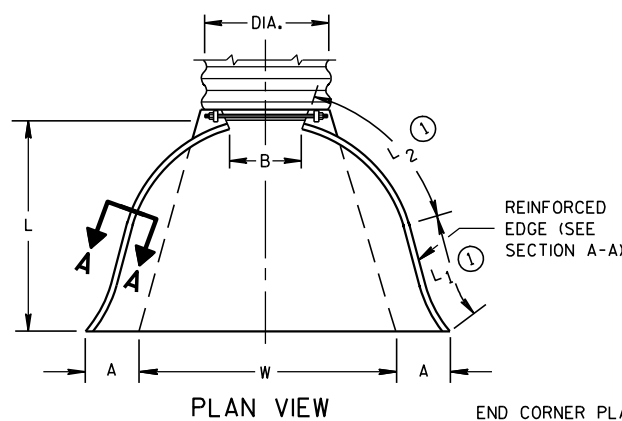
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1	L2	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.

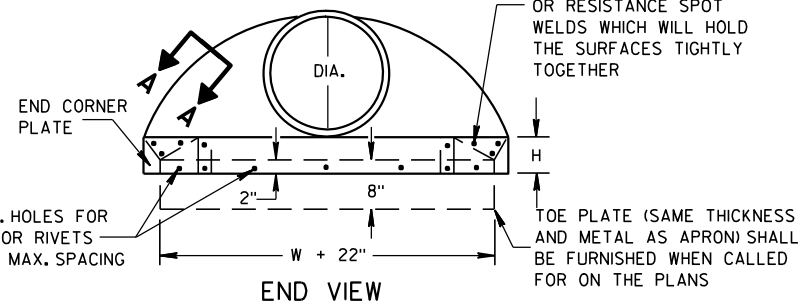
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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	30-35	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	30-35	78	21	99	108	6	2 to 1	
78	7 1/2	30-35	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	

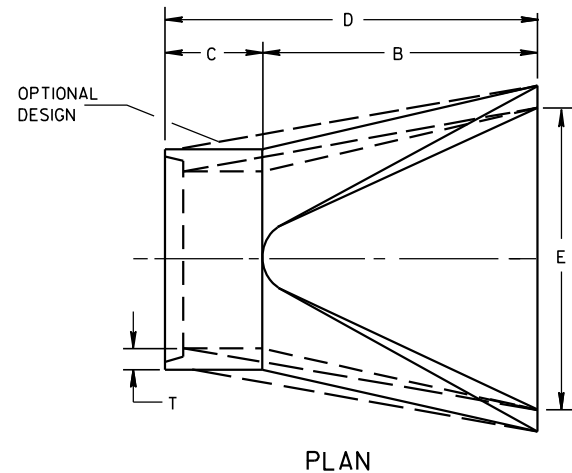
* MINIMUM
** MAXIMUM



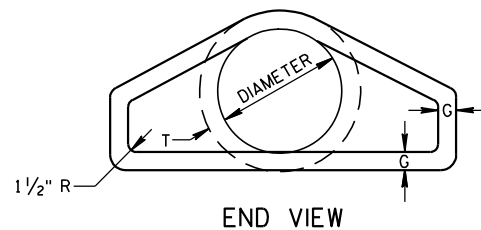
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



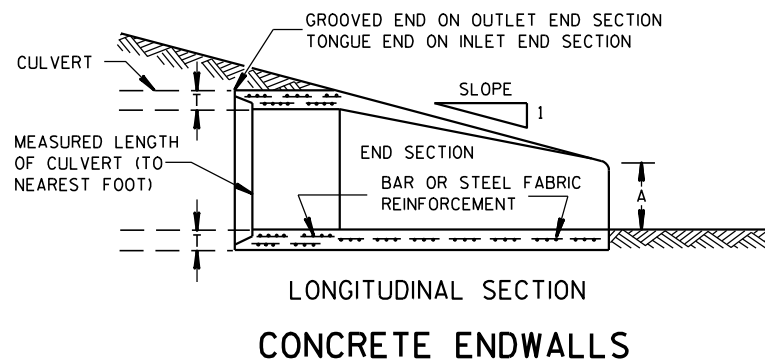
SIDE ELEVATION
METAL ENDWALLS



PLAN

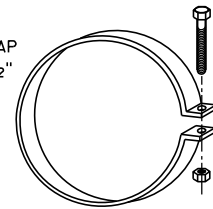


END VIEW

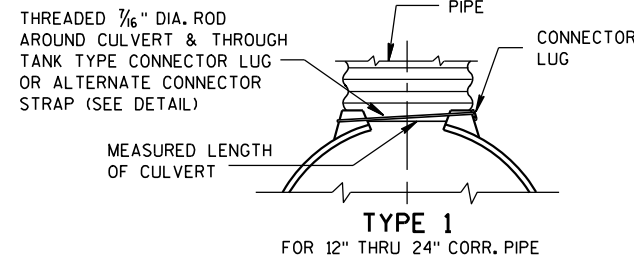


LONGITUDINAL SECTION
CONCRETE ENDWALLS

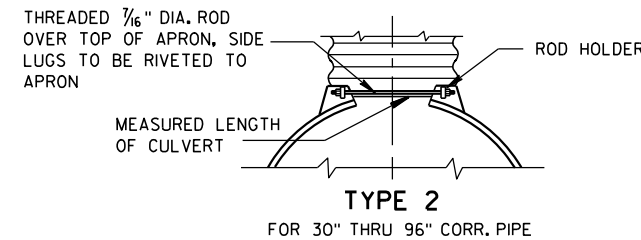
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



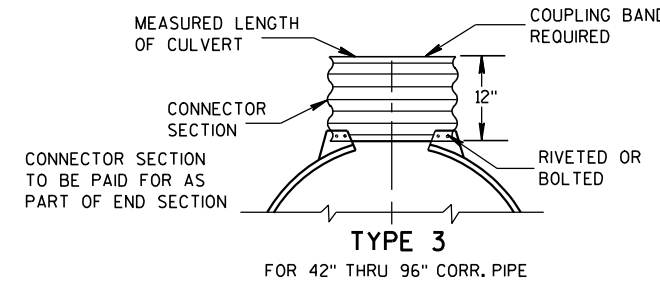
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



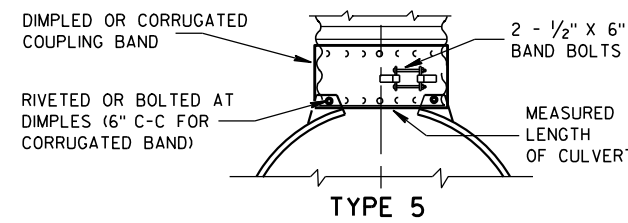
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

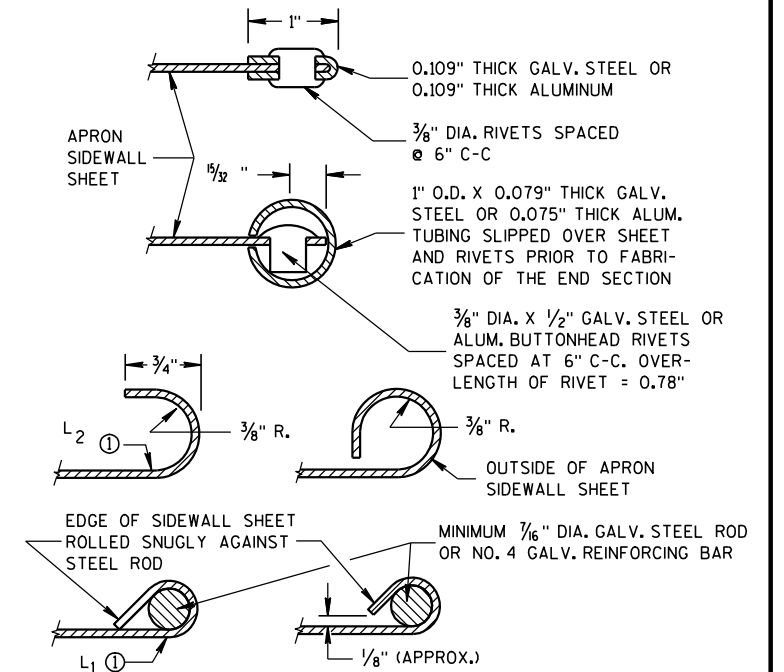
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VICE 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.

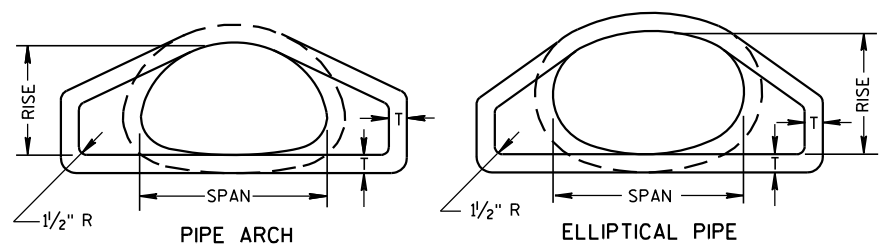
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

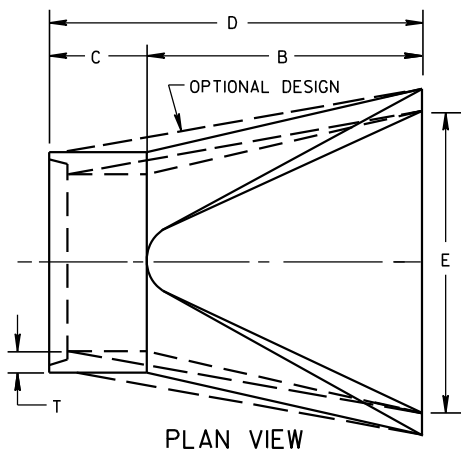
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

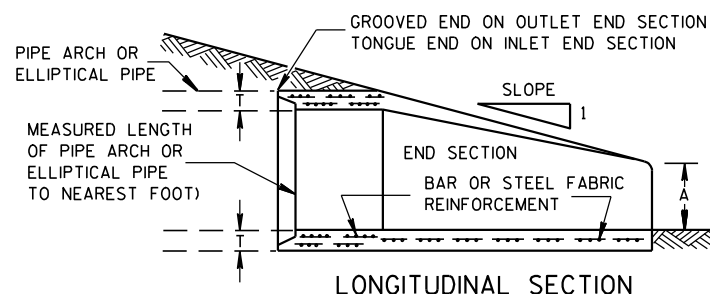
APPROVED
11/30/94 DATE /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



END VIEW

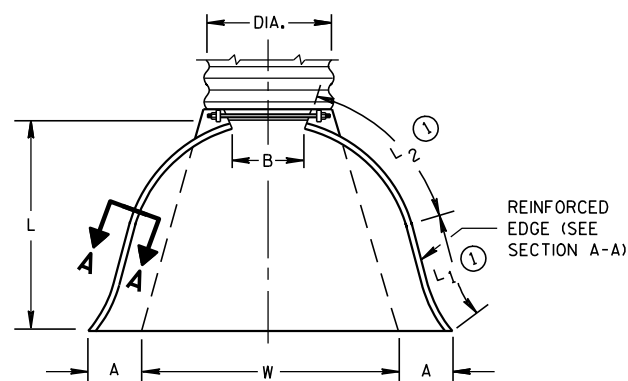


PLAN VIEW



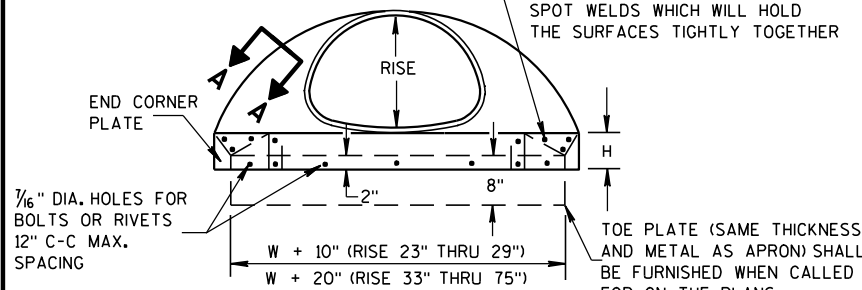
LONGITUDINAL SECTION

CONCRETE ENDWALLS

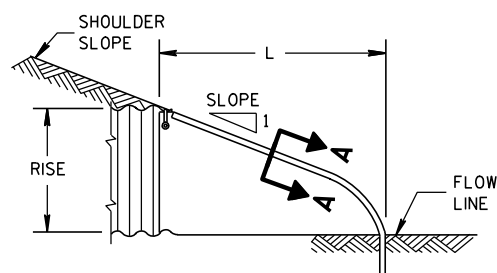


PLAN VIEW

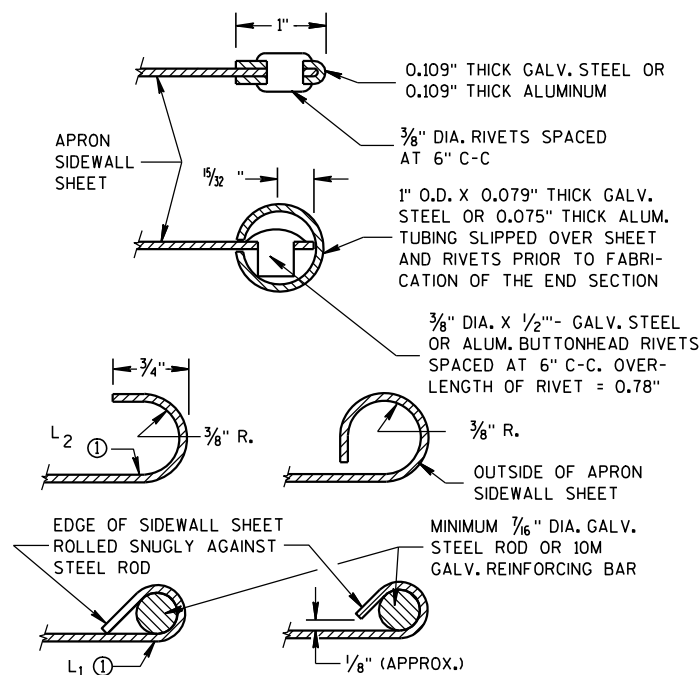
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW



SIDE ELEVATION
METAL ENDWALLS



SECTION A-A

2- 2 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (±1")	L2 (±1")	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (±1")	L2 (±1")	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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.

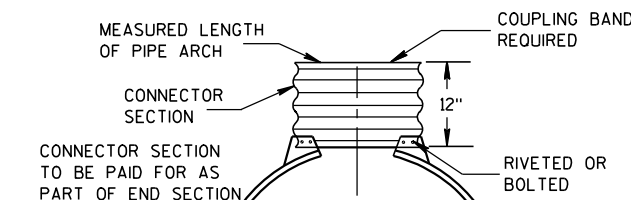
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



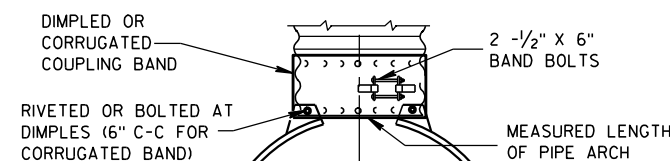
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHES

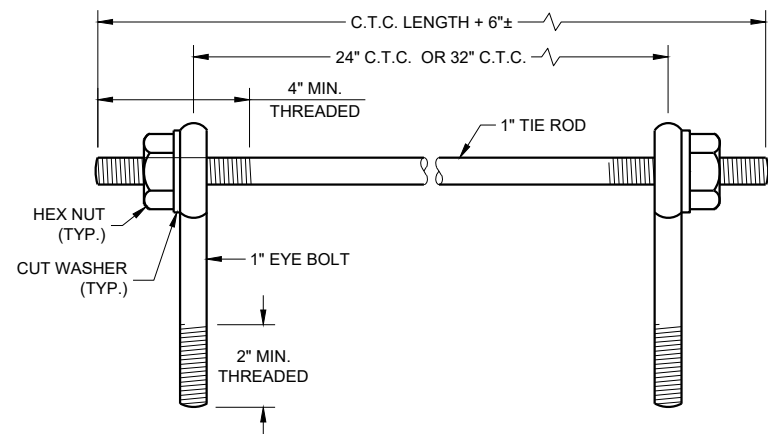
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

**APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE**

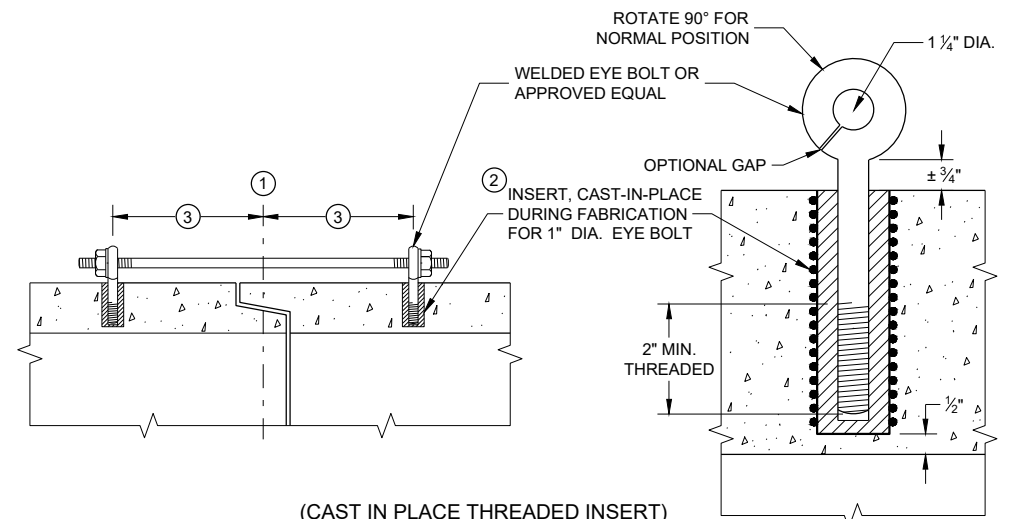
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

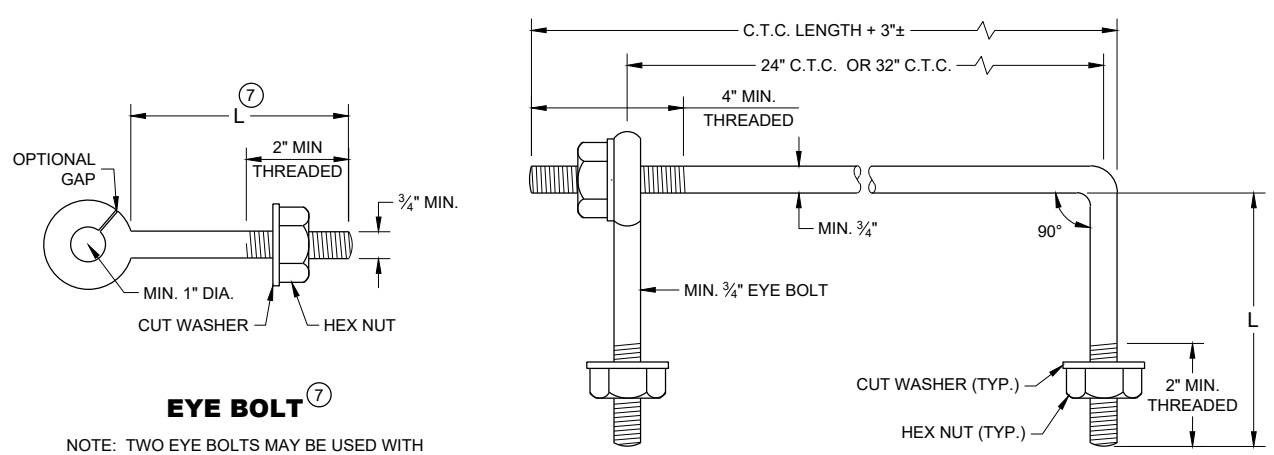
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

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

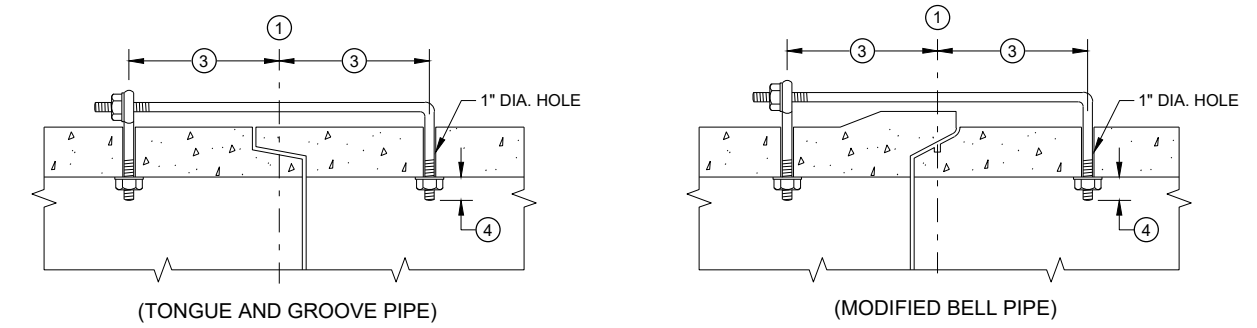
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION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



EYE BOLT AND TIE ROD

EYE BOLT

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



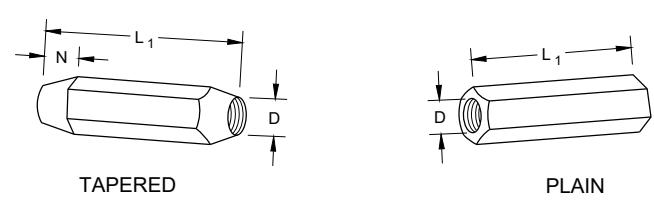
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

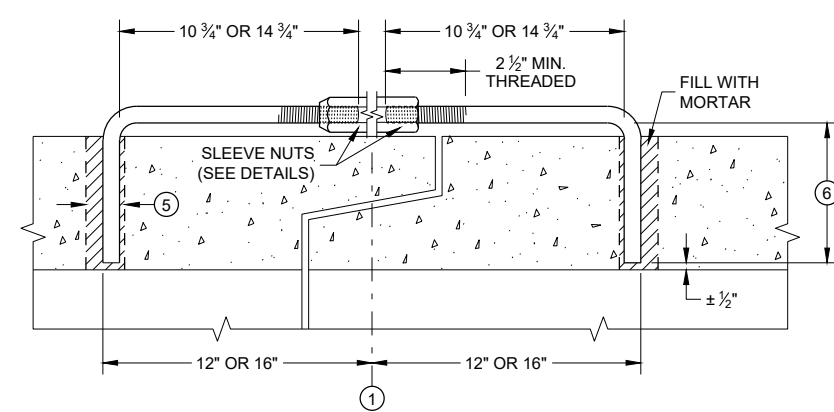
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

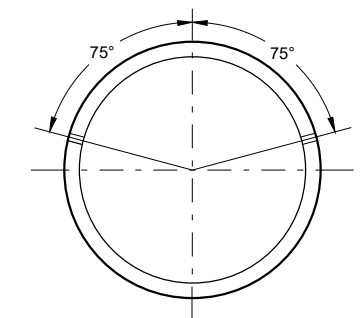


RIGHT AND LEFT THREADS SLEEVE NUTS



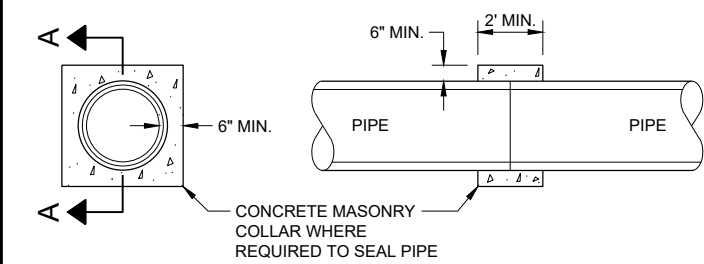
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION

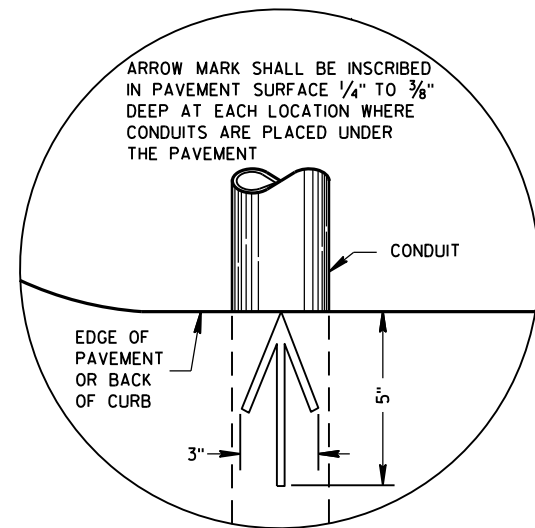


SECTION A - A
CONCRETE COLLAR DETAIL

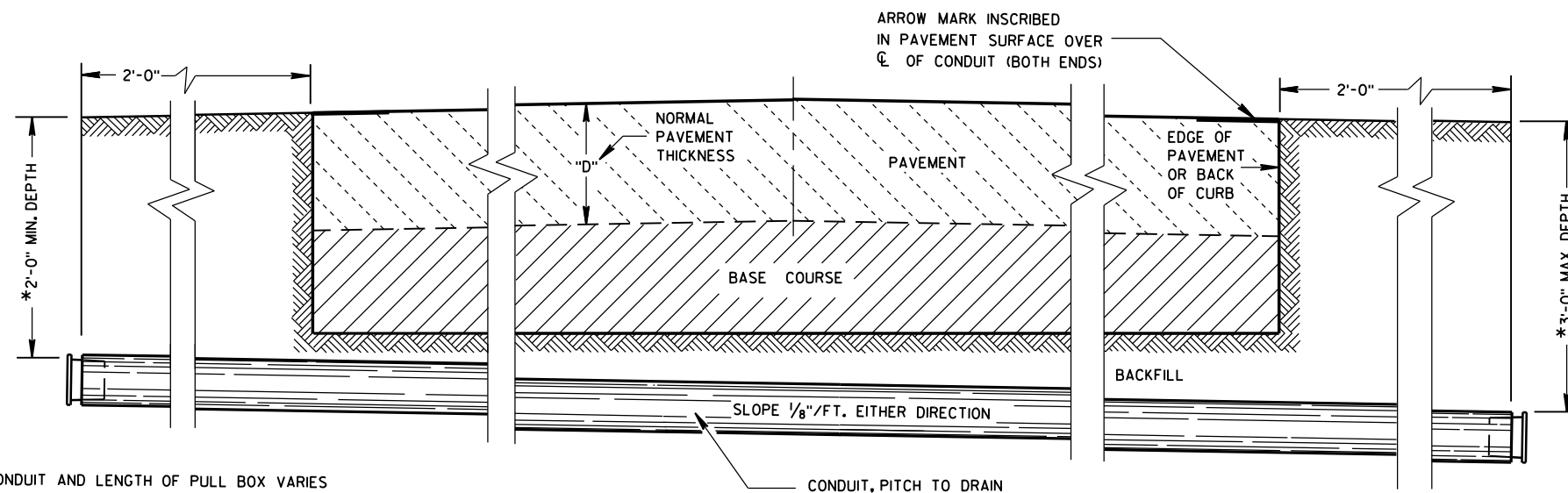
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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 EMERSON 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.

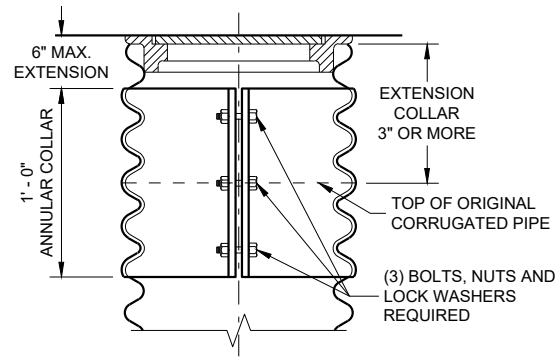
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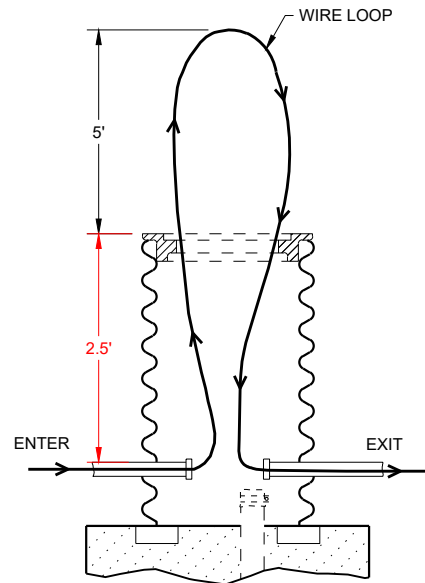
S.D.D. 9 B 2-10

S.D.D. 9 B 2-10

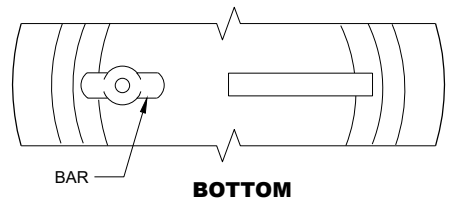
CONDUIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March, 2017 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	



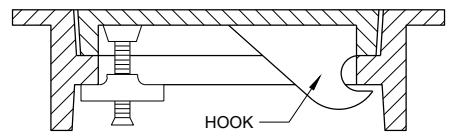
CORRUGATED PIPE EXTENDER



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.

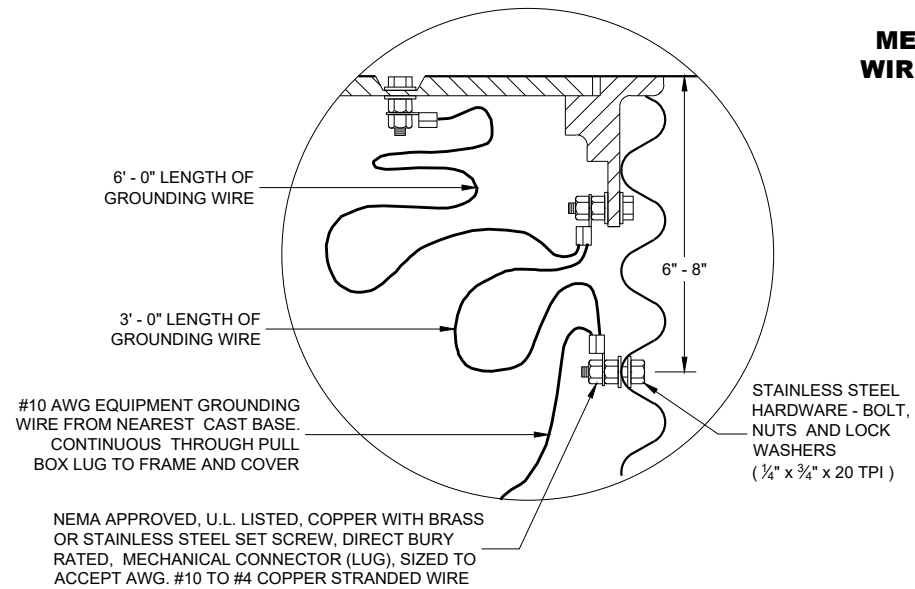
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

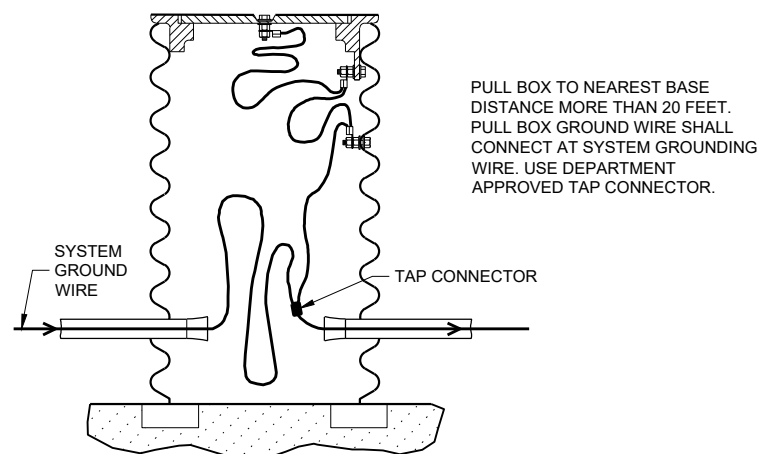
DIMENSION IN INCHES	CORRUGATED STEEL PIPE									
	PIPE DIAMETER (INSIDE)	12	12	12	18	18	18	24	24	24
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	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.

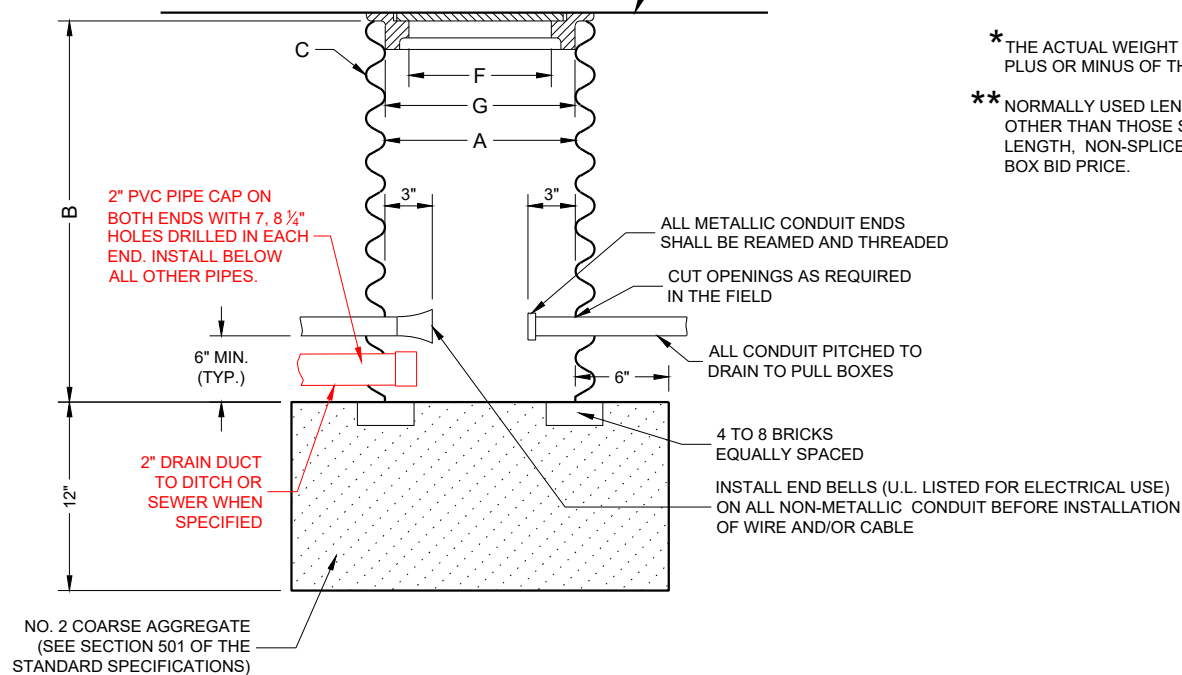
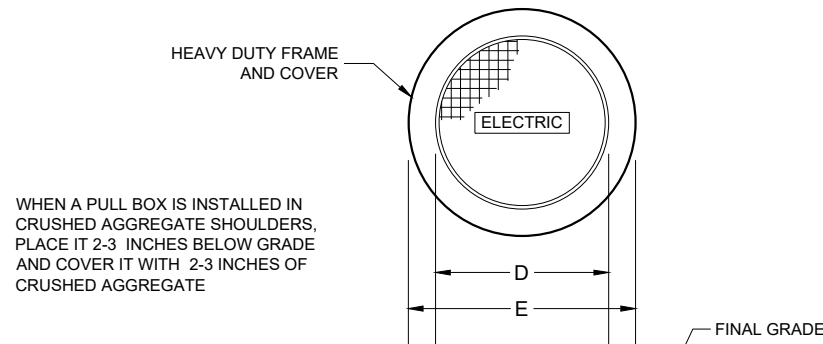
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

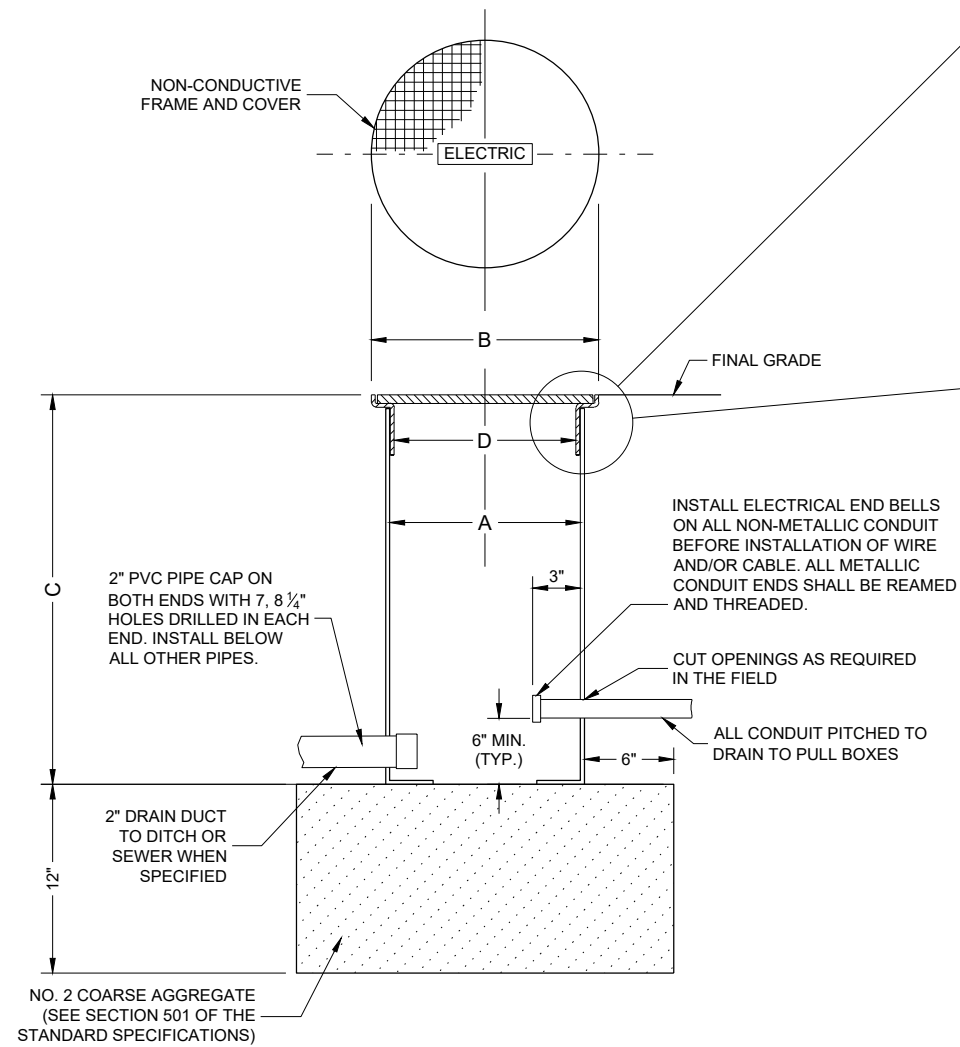
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

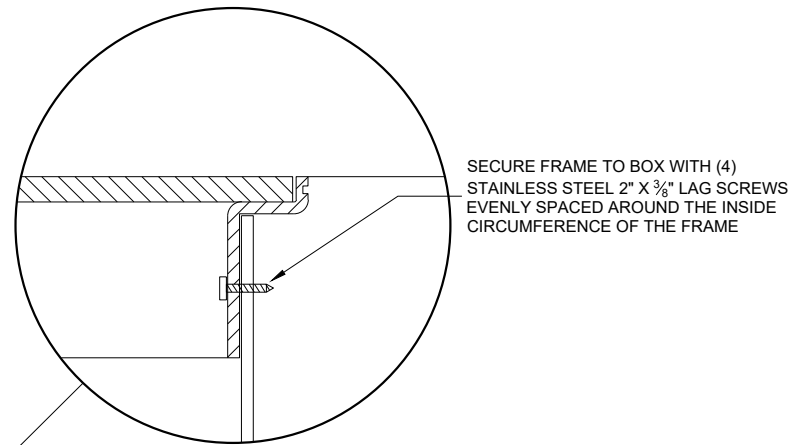
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

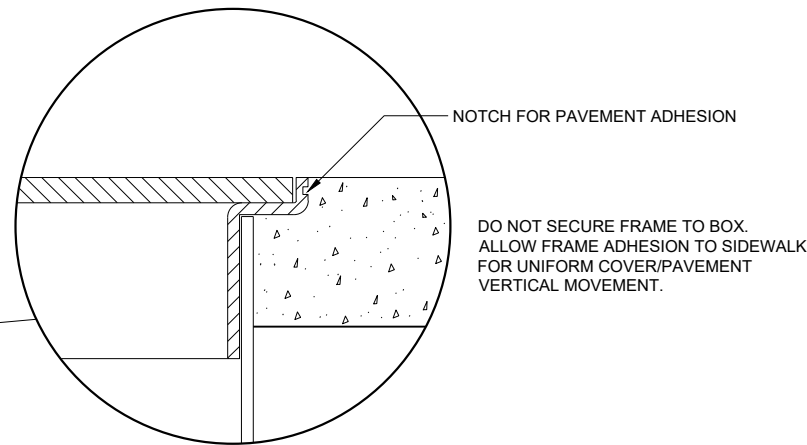
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



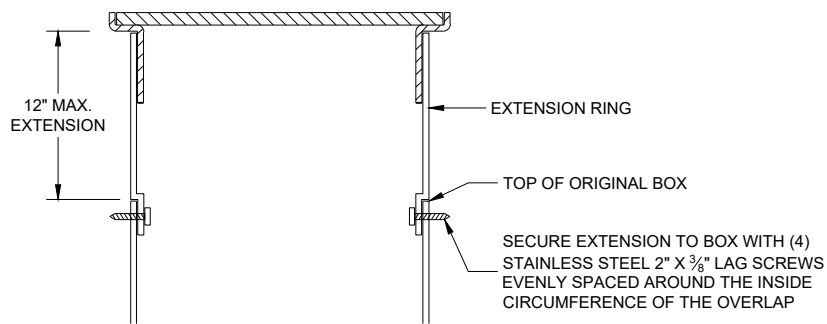
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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".

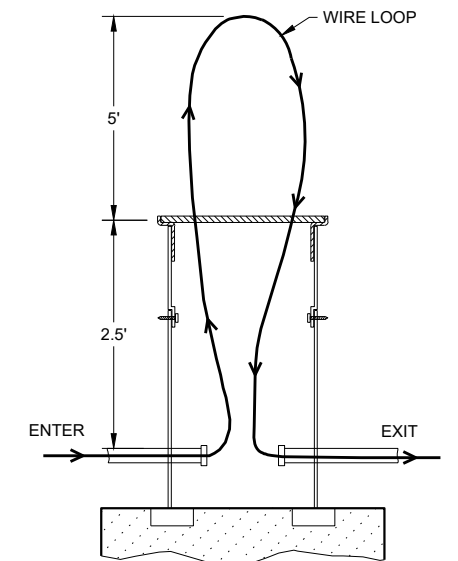
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

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.

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



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

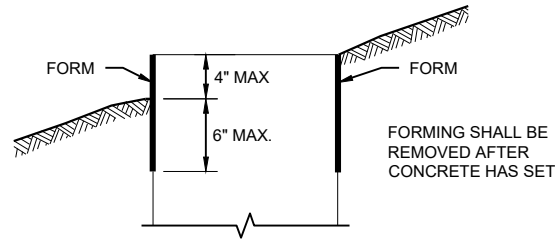
PULL BOXES NON-CONDUCTIVE

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED May 2022 /S/ Ahmet Demirelek DATE STATE ELECTRICAL ENGINEER

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

GENERAL NOTES

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.

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.

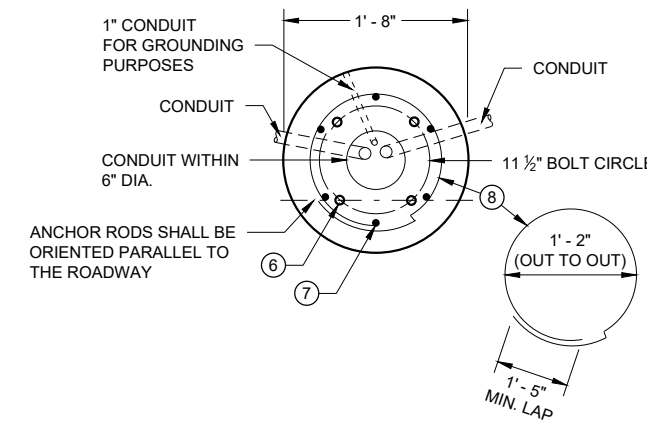
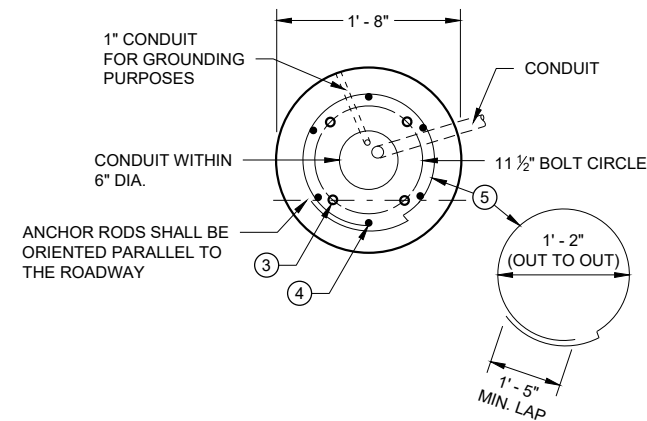
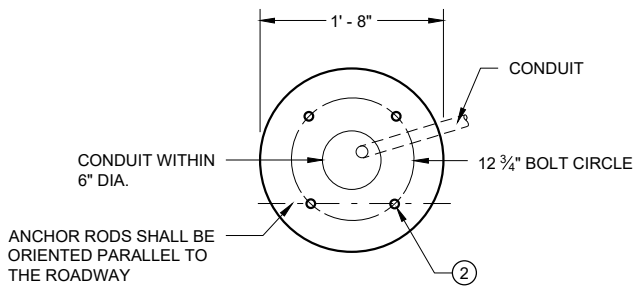
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

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

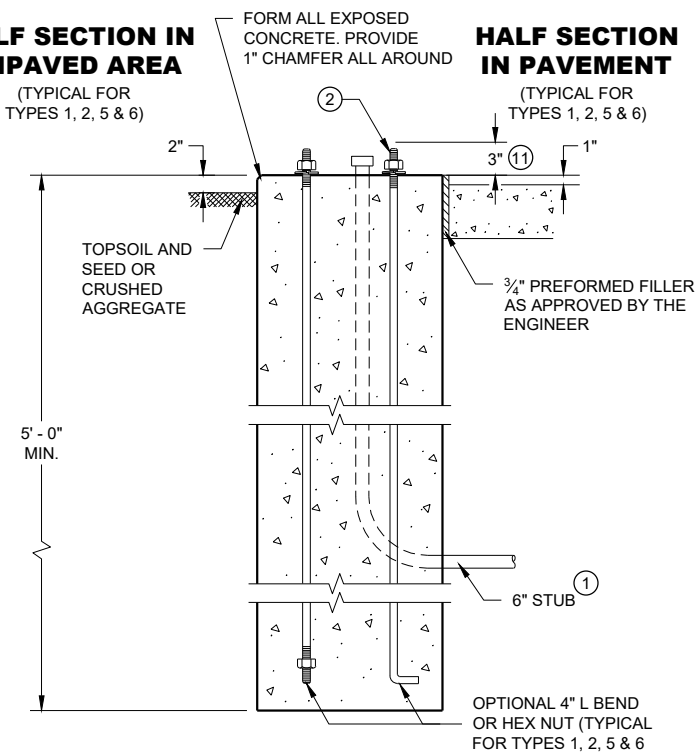
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑫ FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

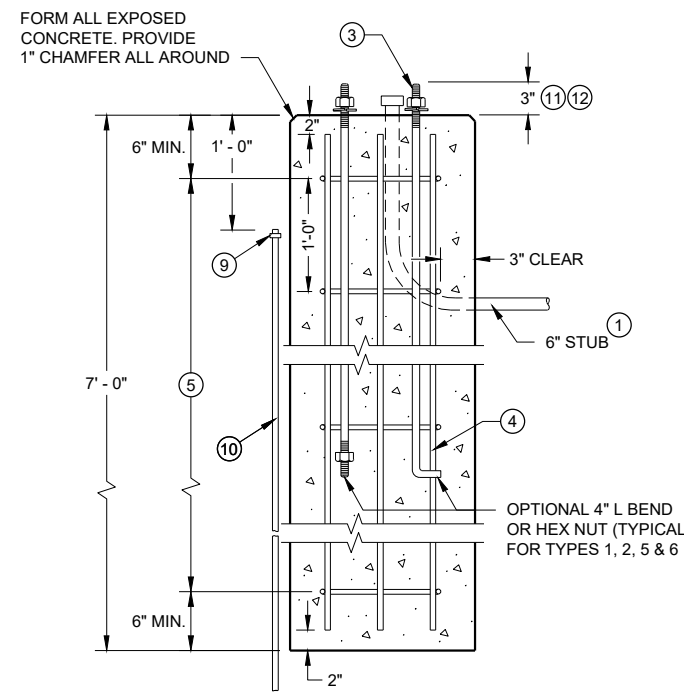


HALF SECTION IN UNPAVED AREA

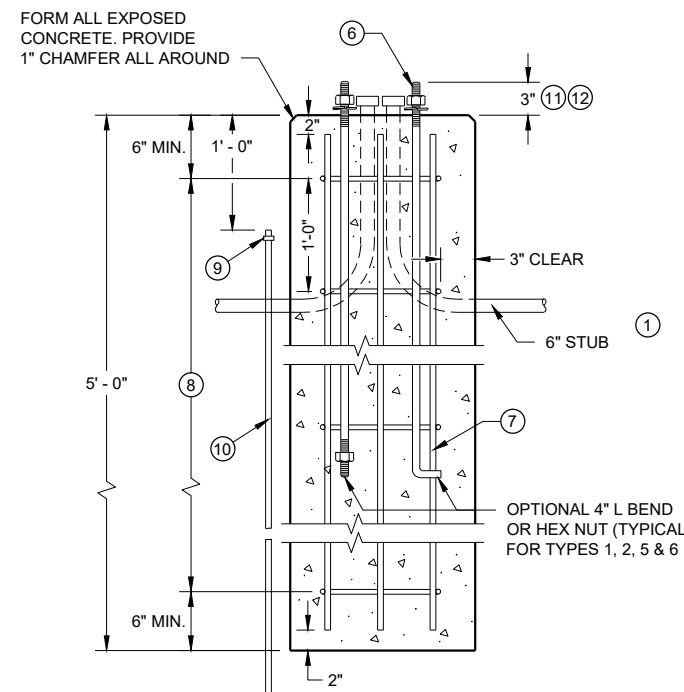


TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2



TYPE 5 & 6

CONCRETE BASES

**CONCRETE BASES
TYPES 1, 2, 5, & 6**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA

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.

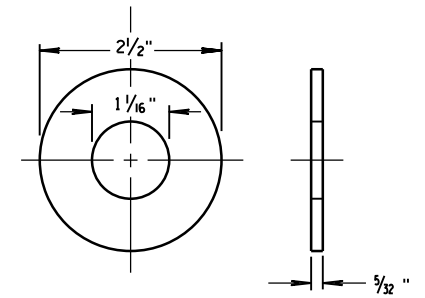
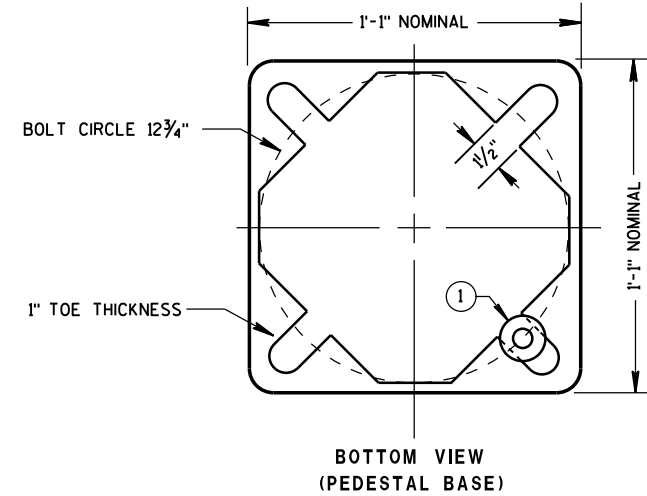
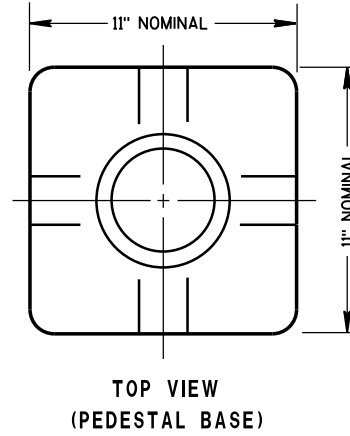
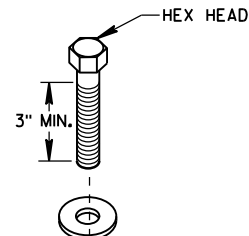
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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.

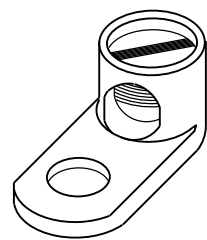
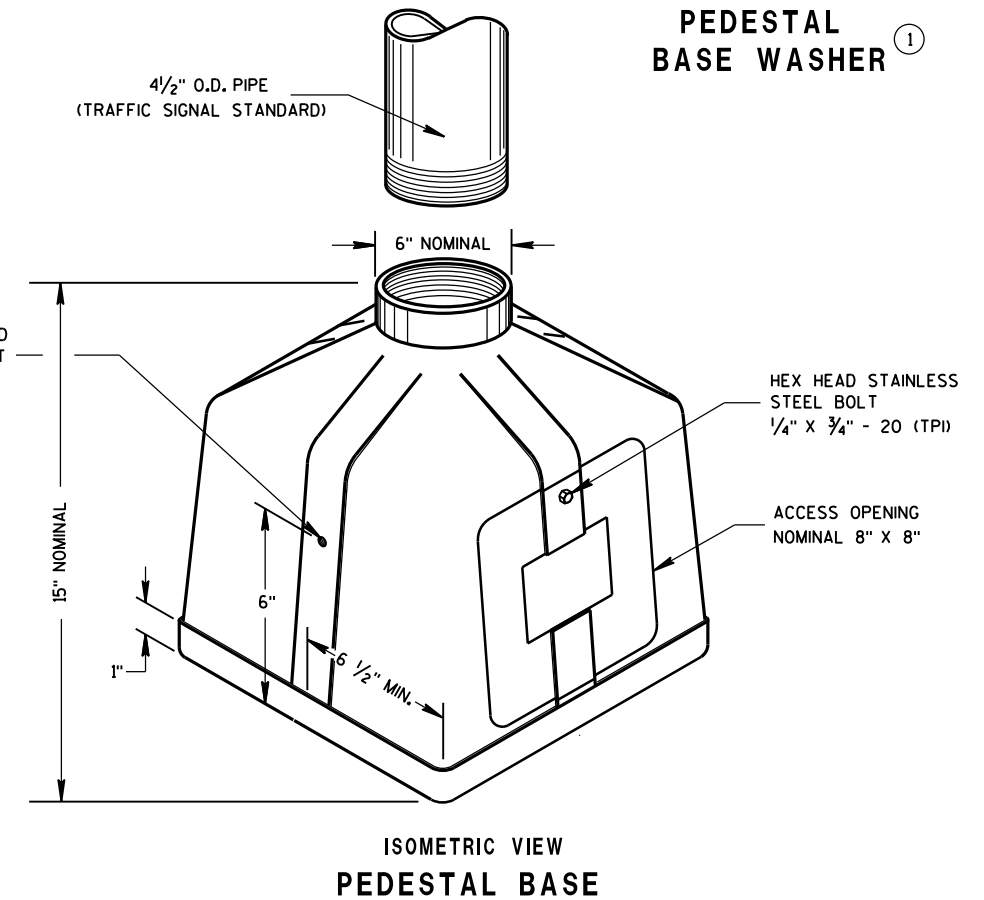
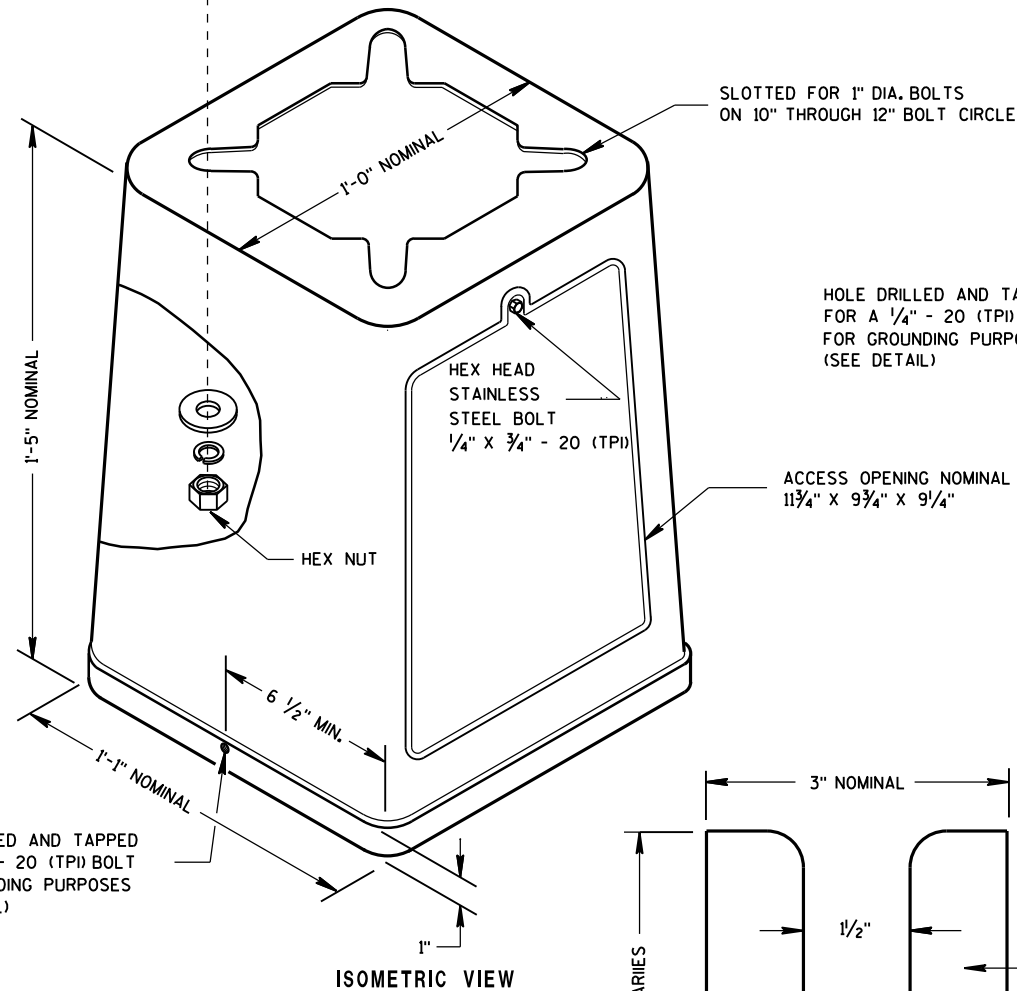
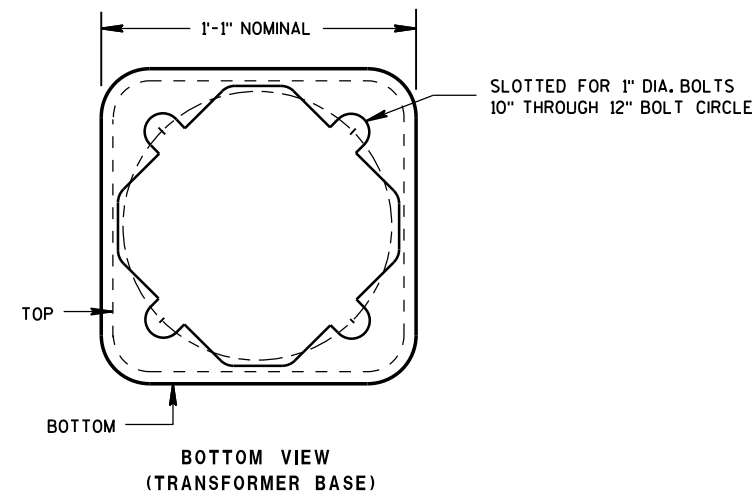
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

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.

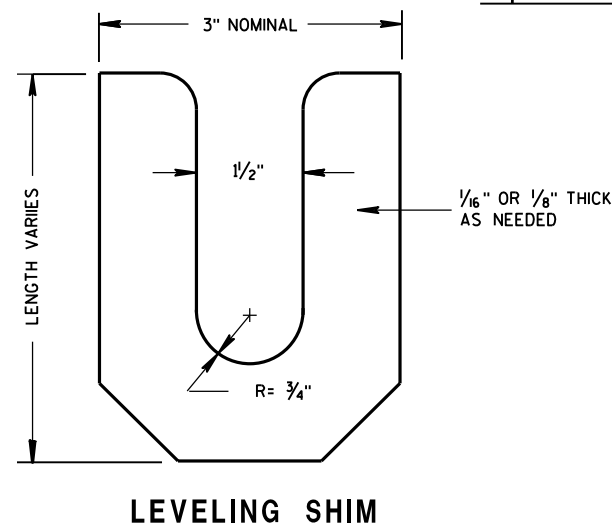


ZINC COATED STEEL WASHER TO BE PROVIDED BY THE CONTRACTOR
PEDESTAL BASE WASHER ①



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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



LEVELING SHIM

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

6

6

S.D.D. 9 C 3-4

S.D.D. 9 C 3-4

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 1/2" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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.

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

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

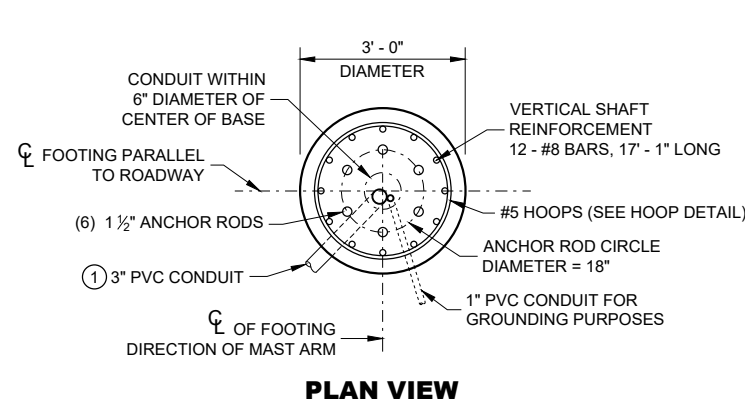
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE 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.

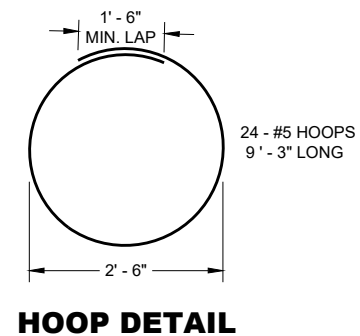
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

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 (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

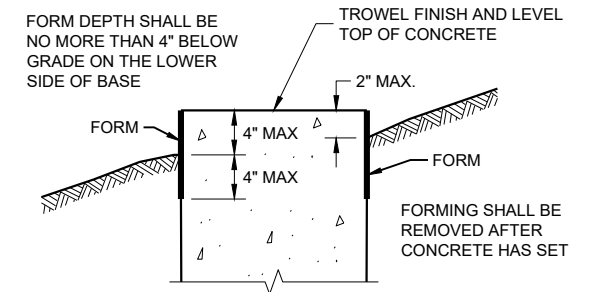
CONCRETE MASONRY.....fc = 3,500 p.s.i.
 HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
 ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
 TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



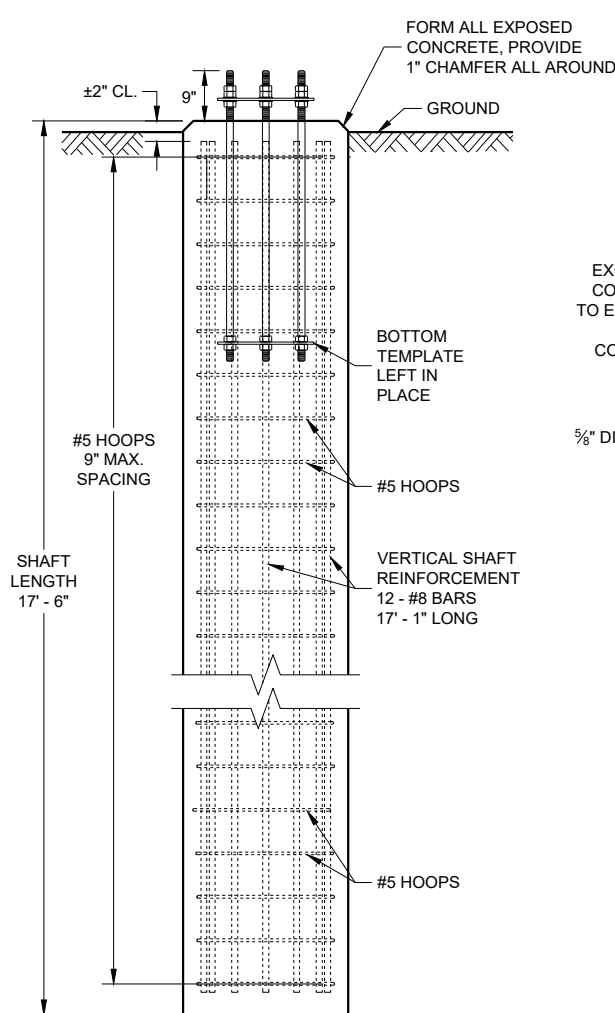
PLAN VIEW



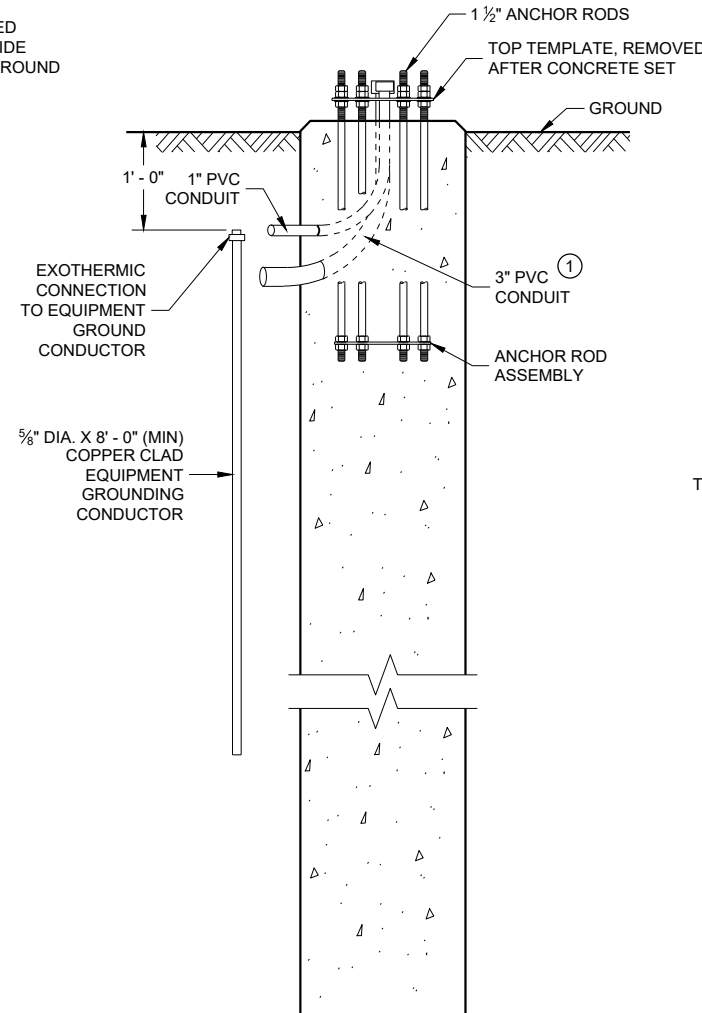
HOOP DETAIL



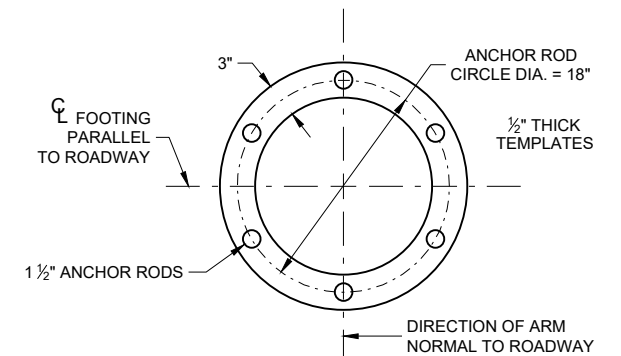
FORMING DETAIL



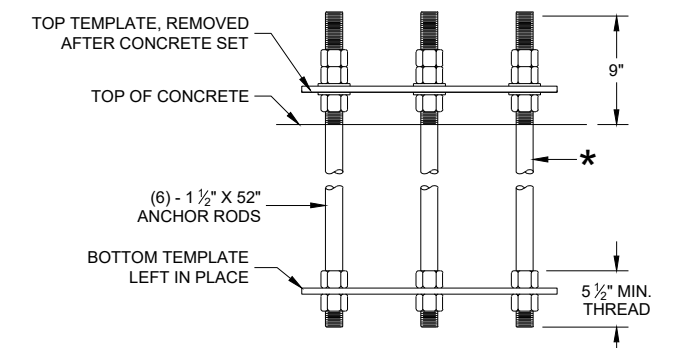
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 1/2" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

**CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)**

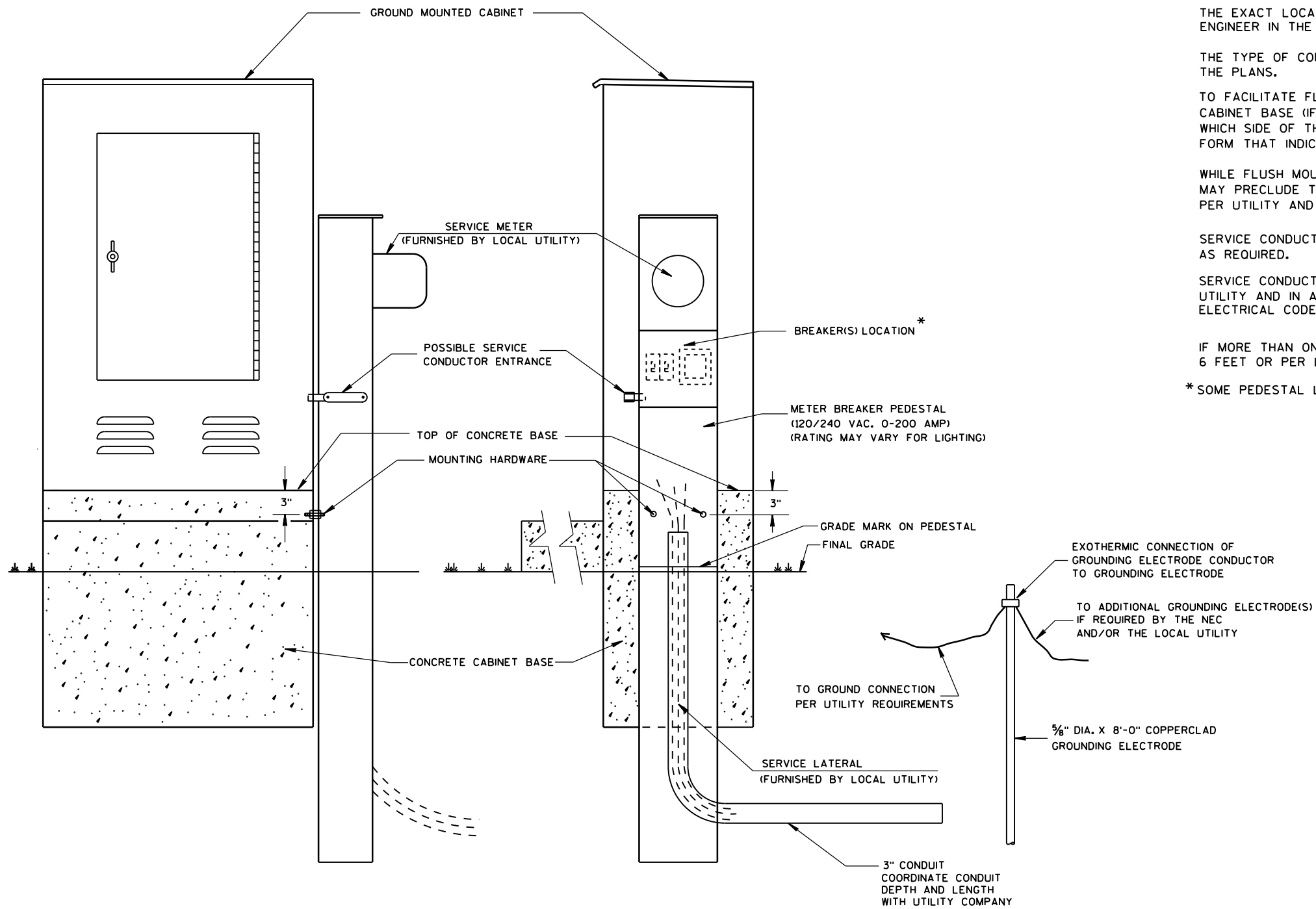
CONCRETE = 4.6 CUBIC YARD
 H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

**CONCRETE BASE
TYPE 10 SPECIAL**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 August 2020 /S/ Alex Crabtree
 DATE WIND LOADED STRUCTURES PROGRAM LEADER
 FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

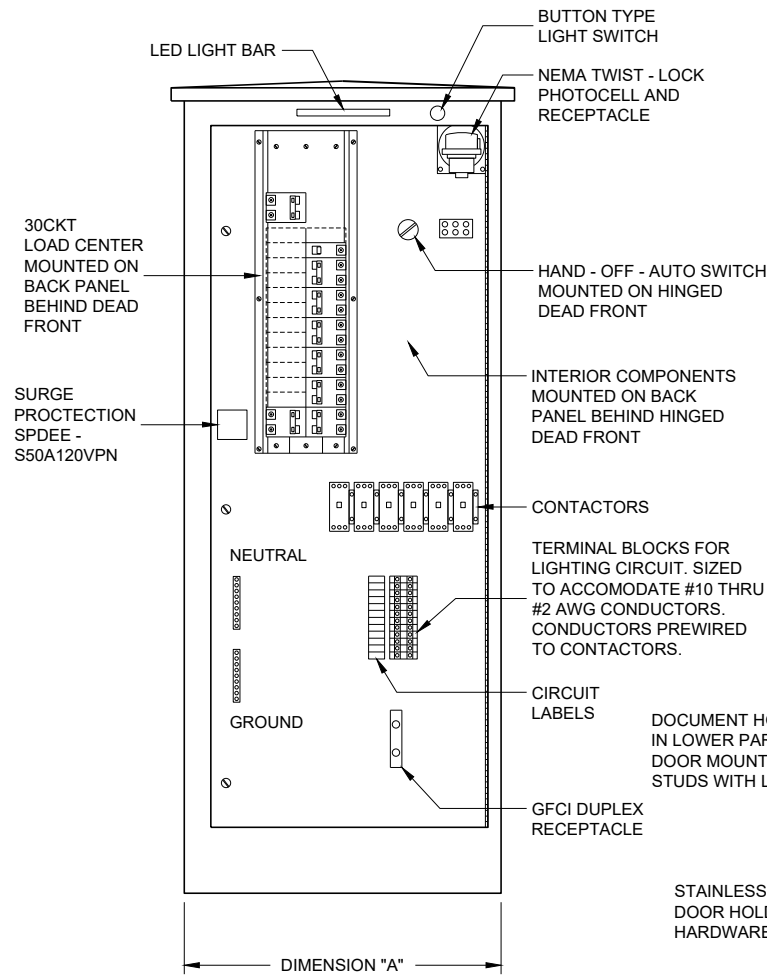
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER

FRONT INTERIOR ELEVATION



SIDE VIEW

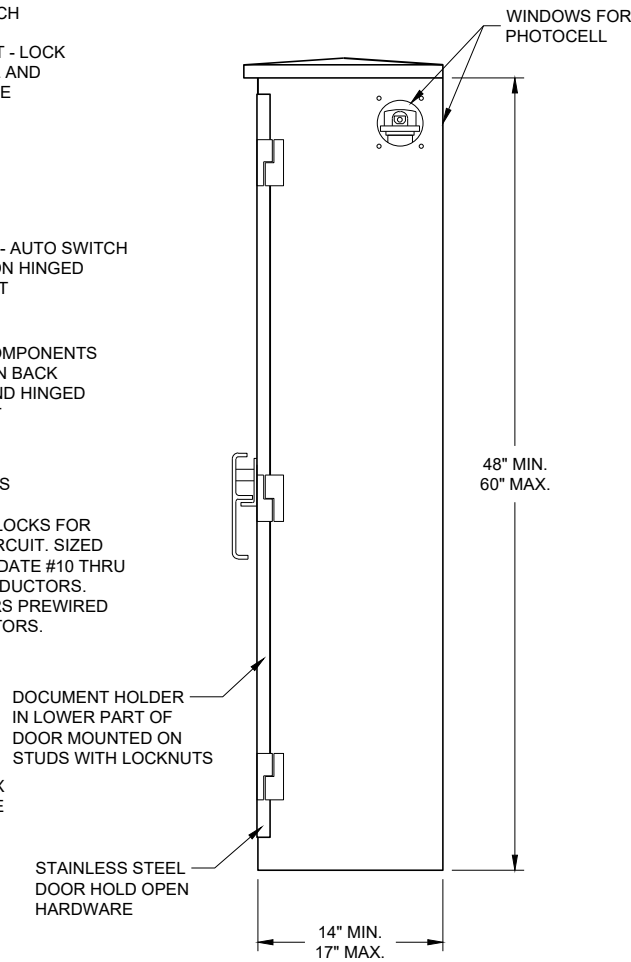
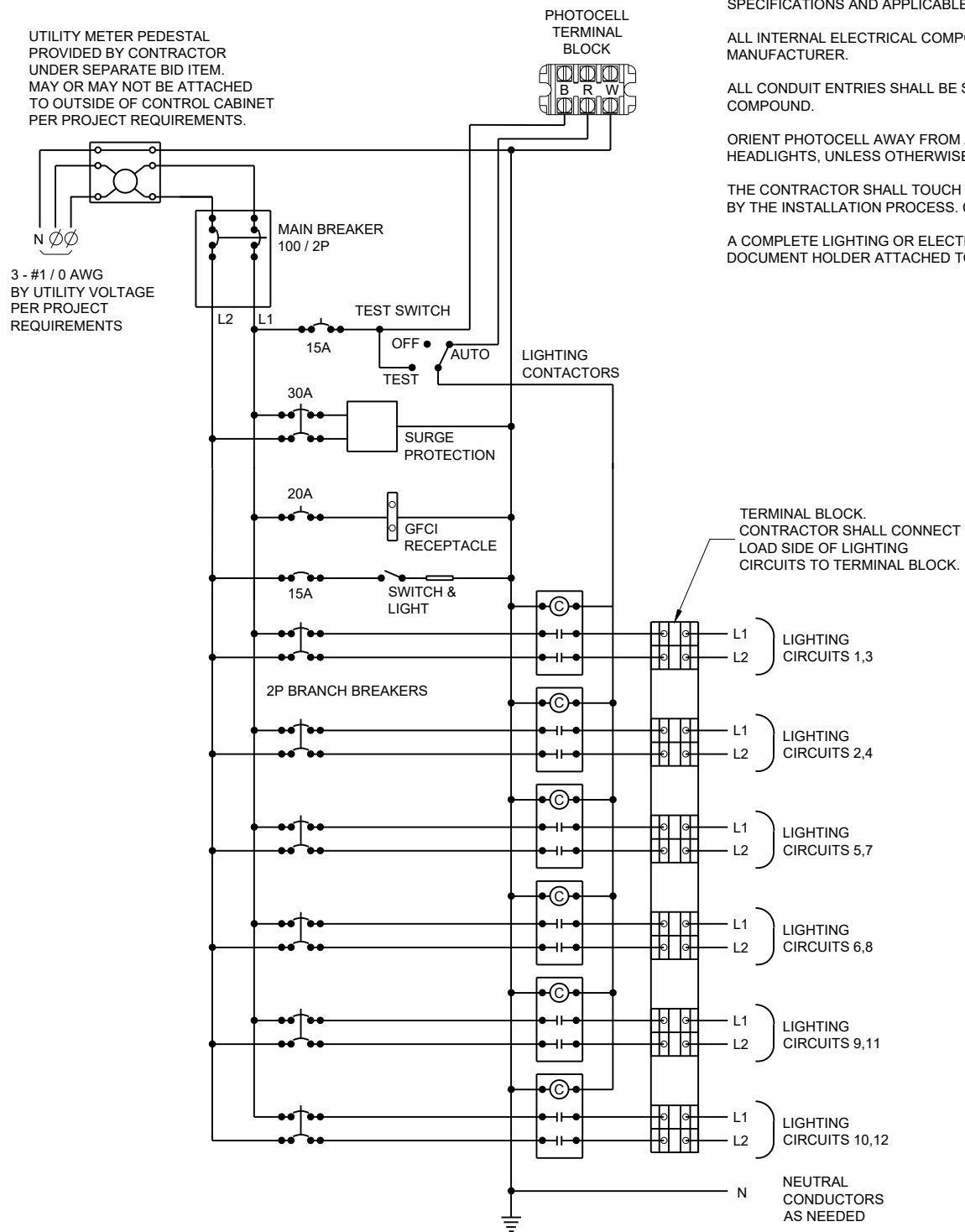


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET

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.

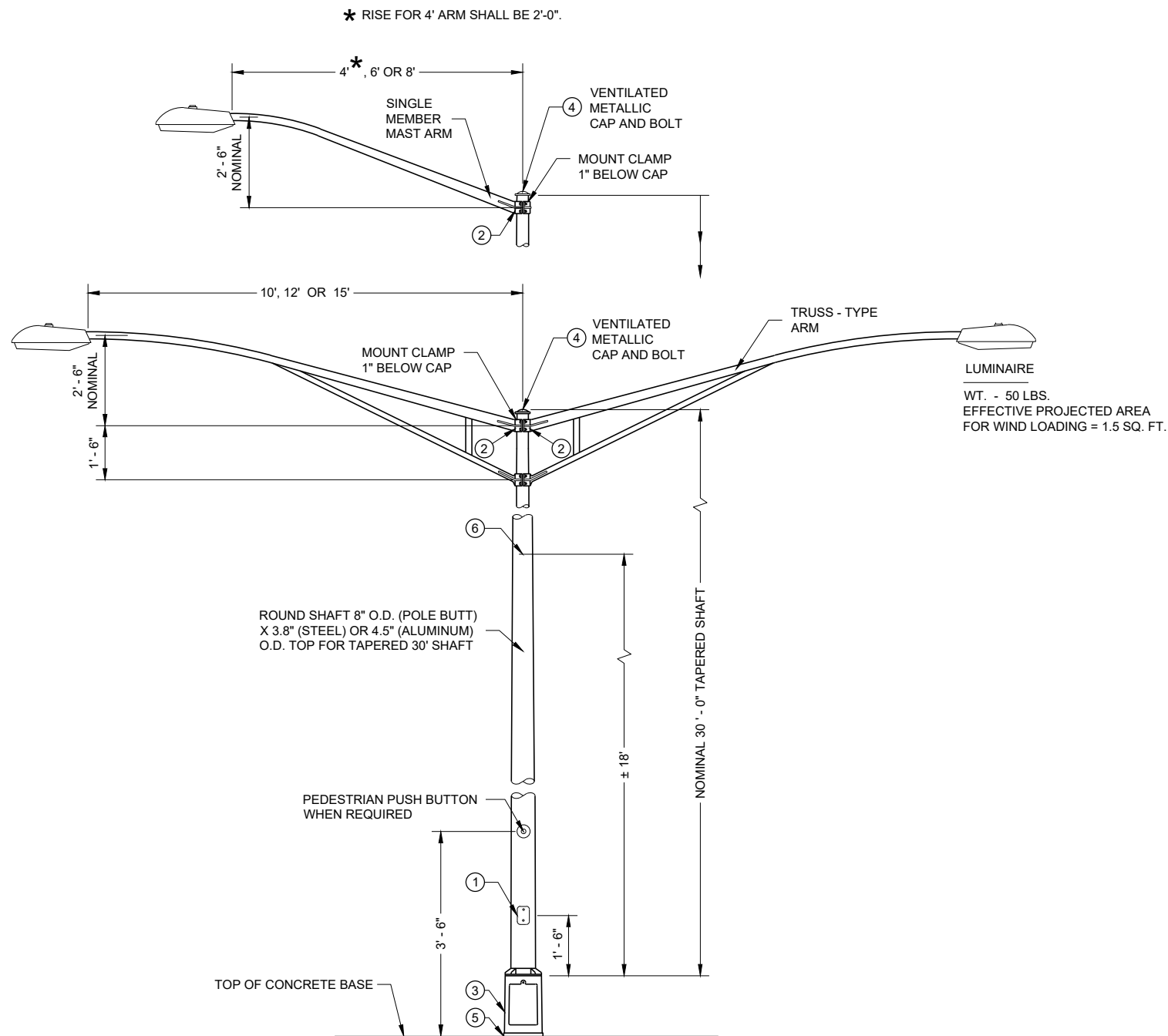
THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

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 ENGINEER
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. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

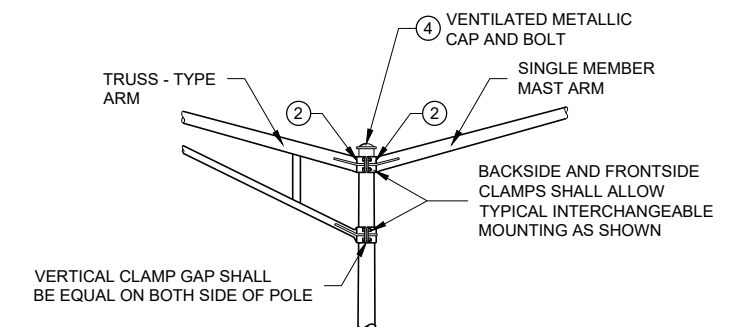
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

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) 1/4" 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) 1/4" 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)**

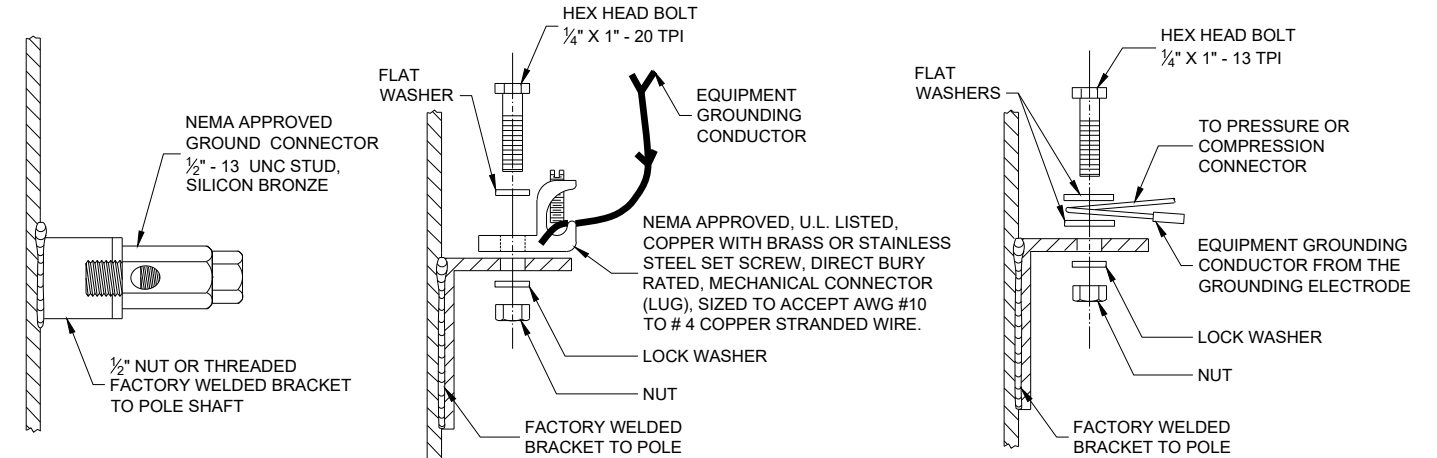
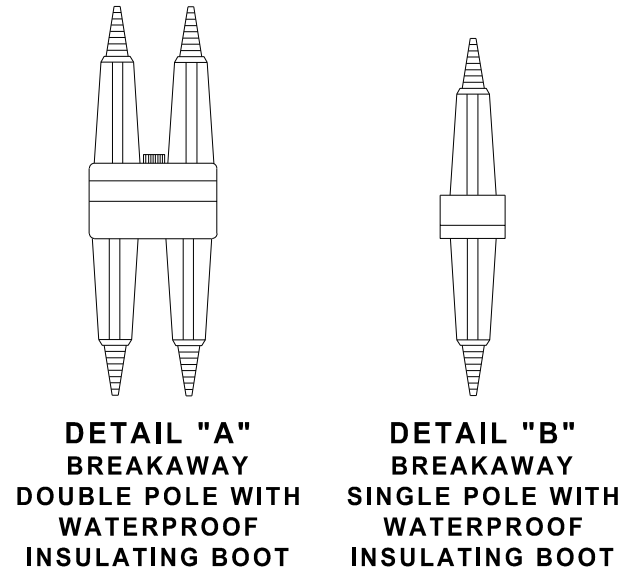
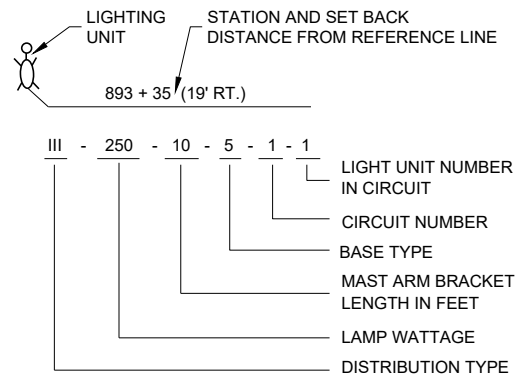
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

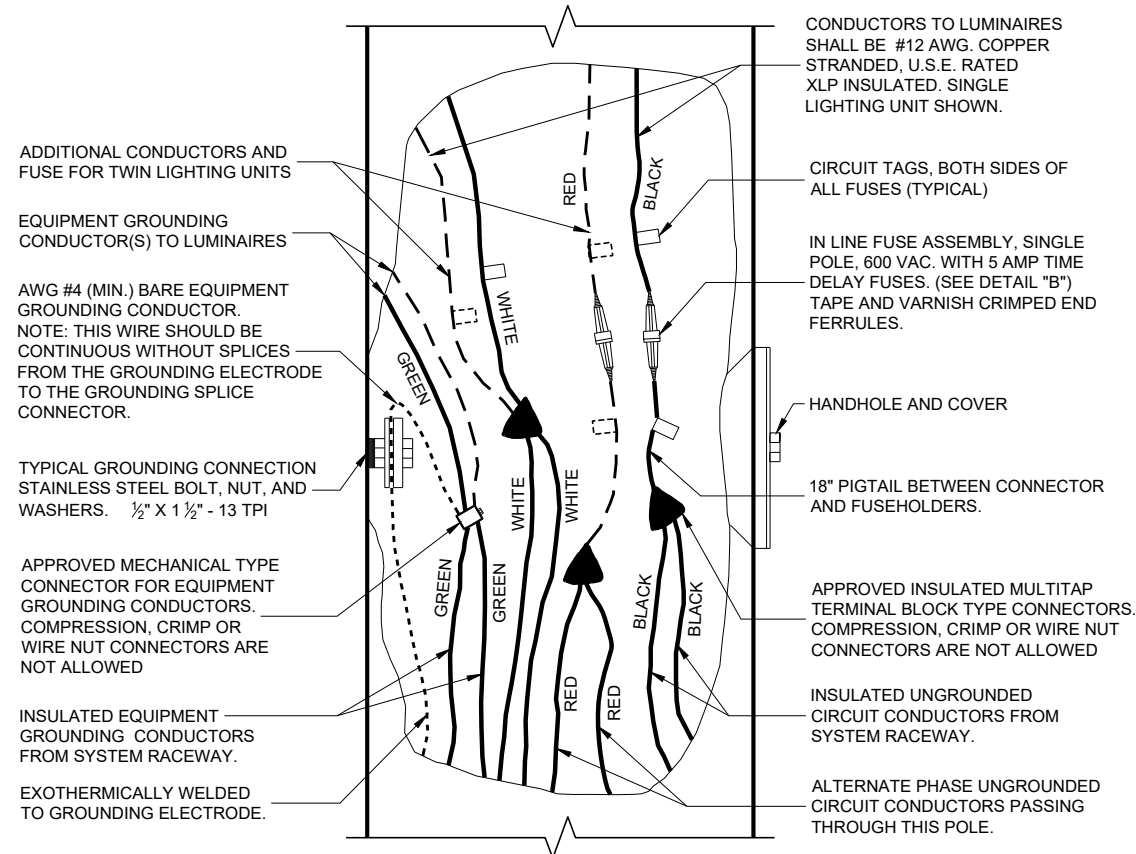
THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

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

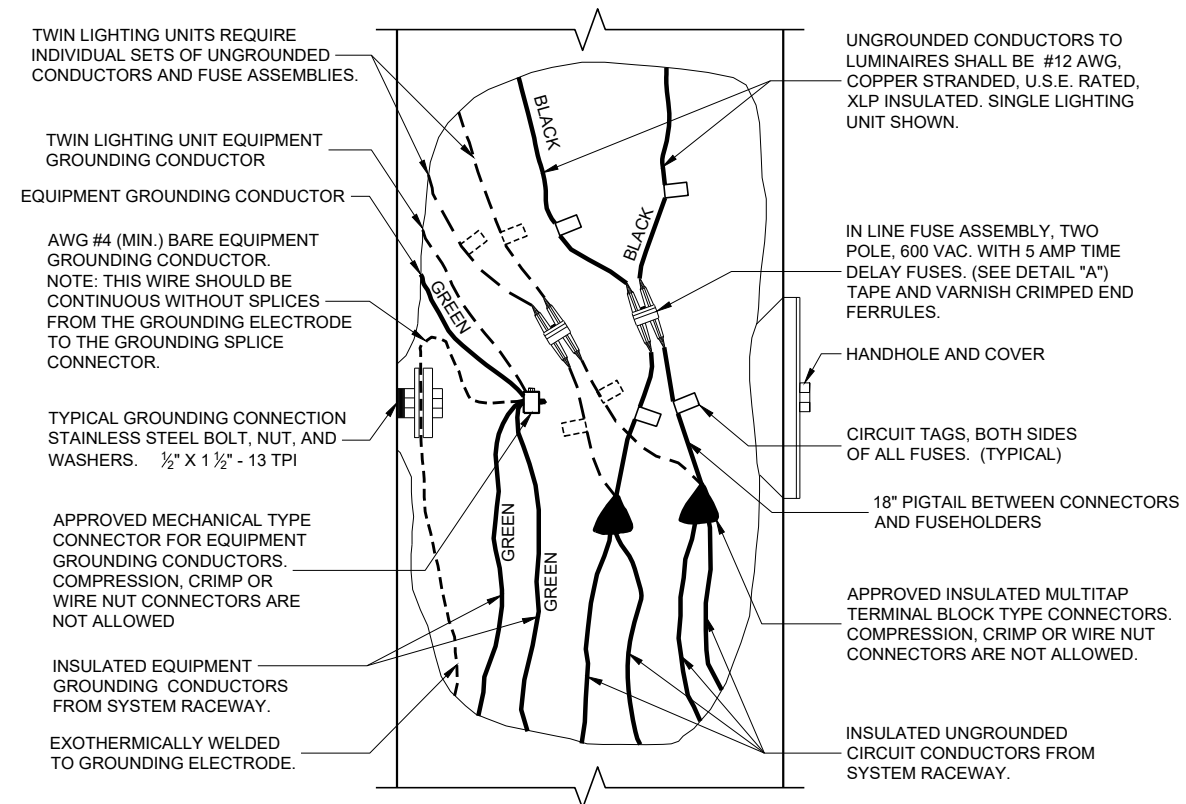


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

LIGHTING UNIT CODE (TYPICAL)



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



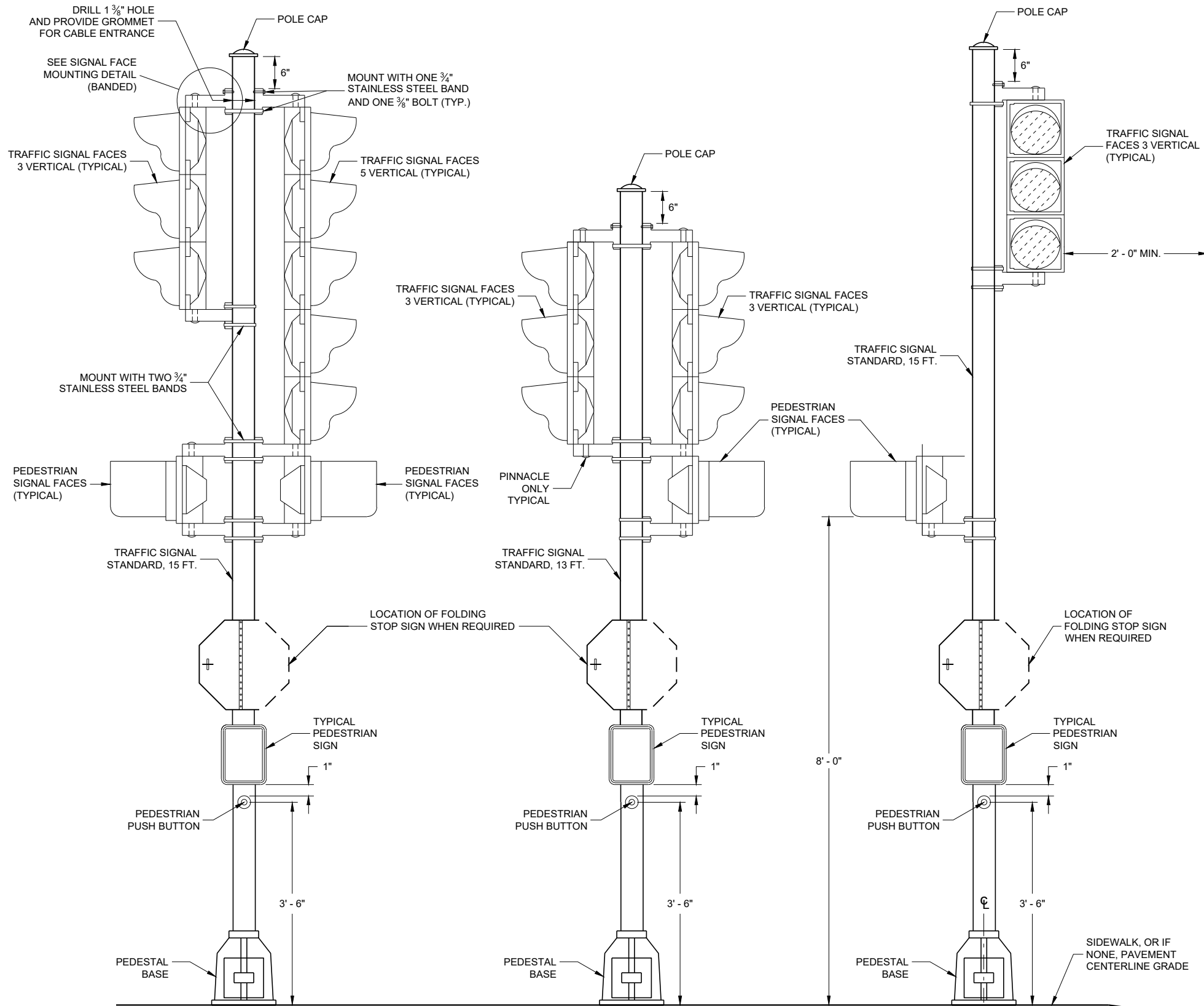
2 WIRE - 240 OR 480 VAC (UNGROUNDING CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA



TRAFFIC SIGNAL STANDARD - 15 FT.

TRAFFIC SIGNAL STANDARD - 13 FT.

TRAFFIC SIGNAL STANDARD - 15 FT. 3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

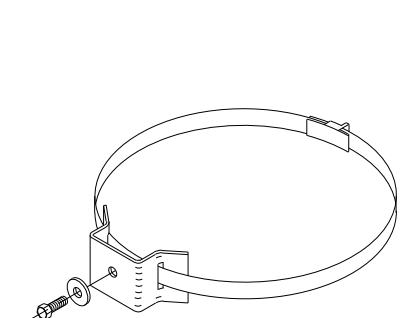
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

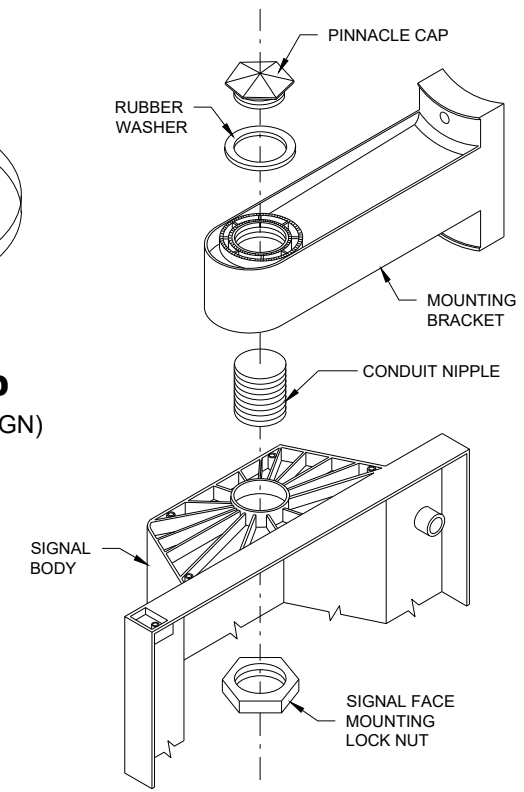
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND (TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 DATE /S/ Ahmet Demirelek
STATE ELECTRICAL ENGINEER

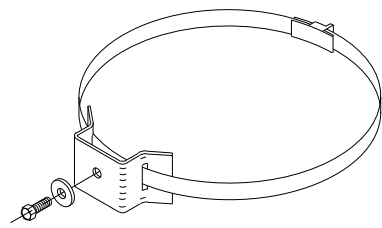
FHWA

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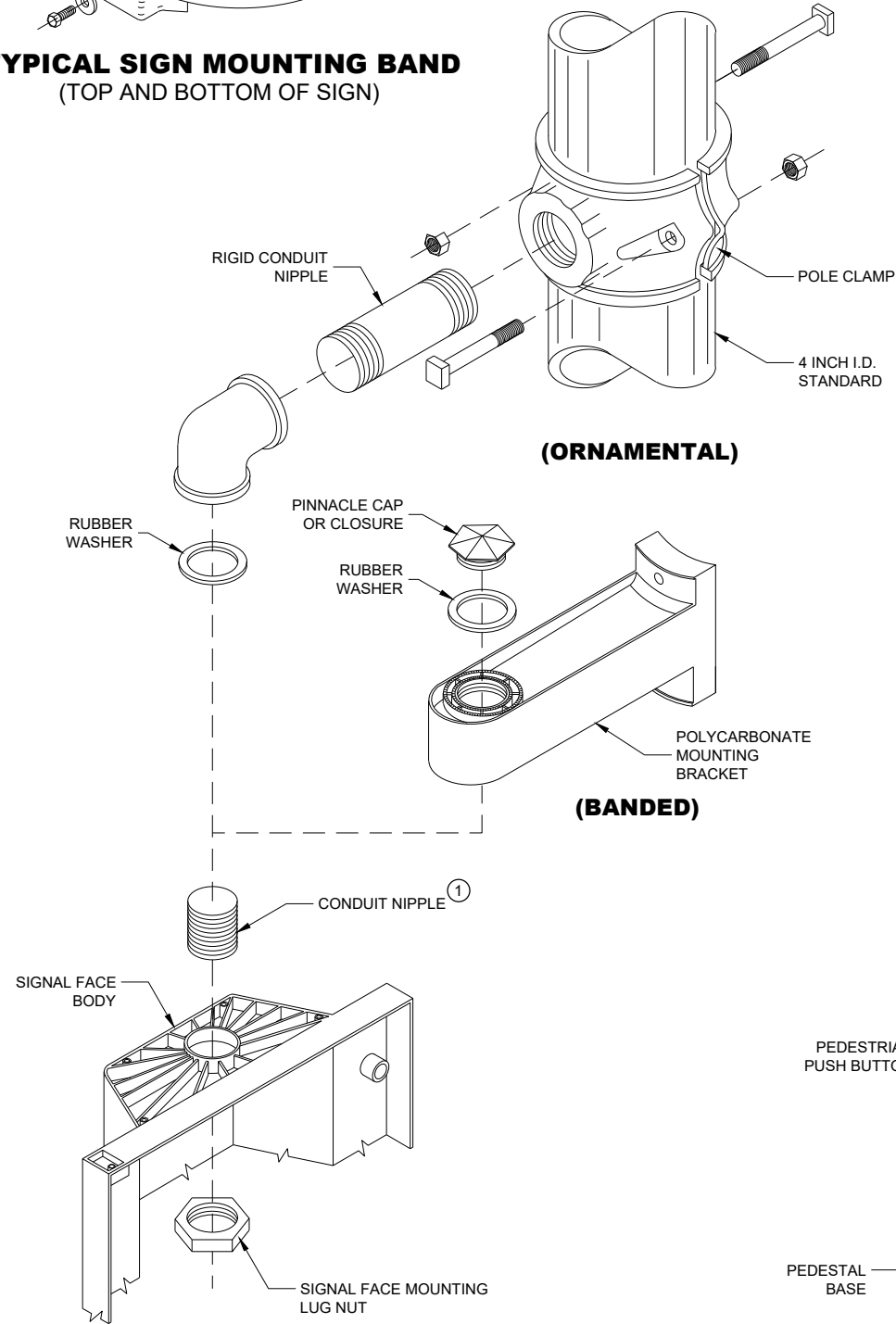
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SDD 09E06 - 05

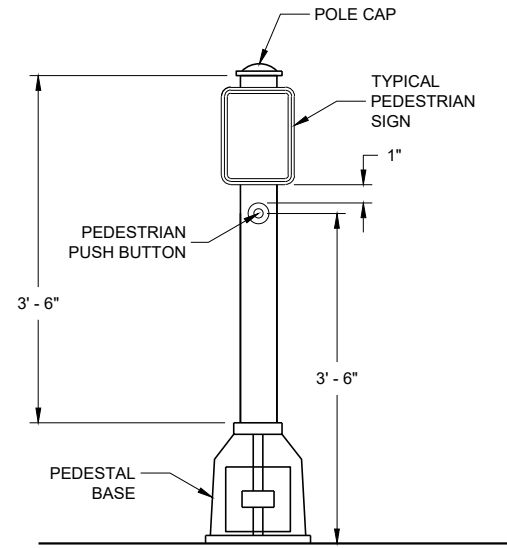
SDD 09E06 - 05



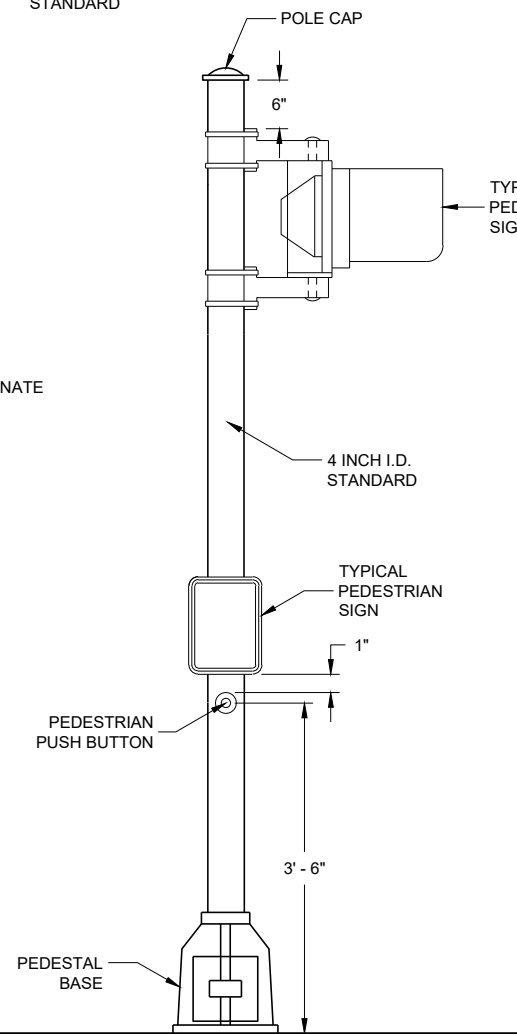
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



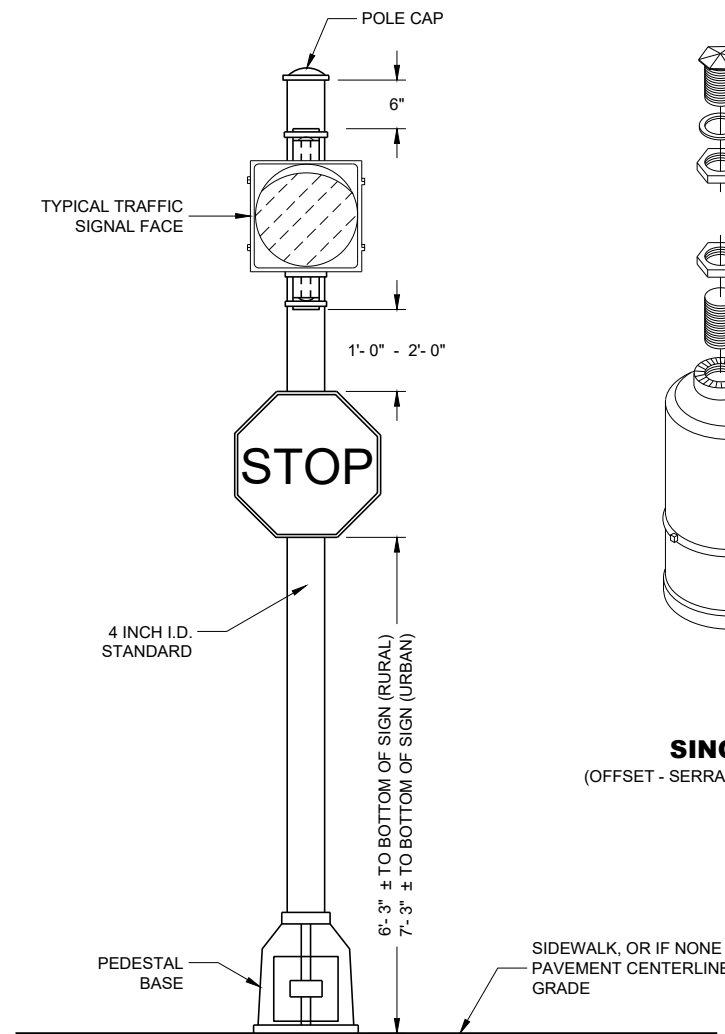
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON
TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

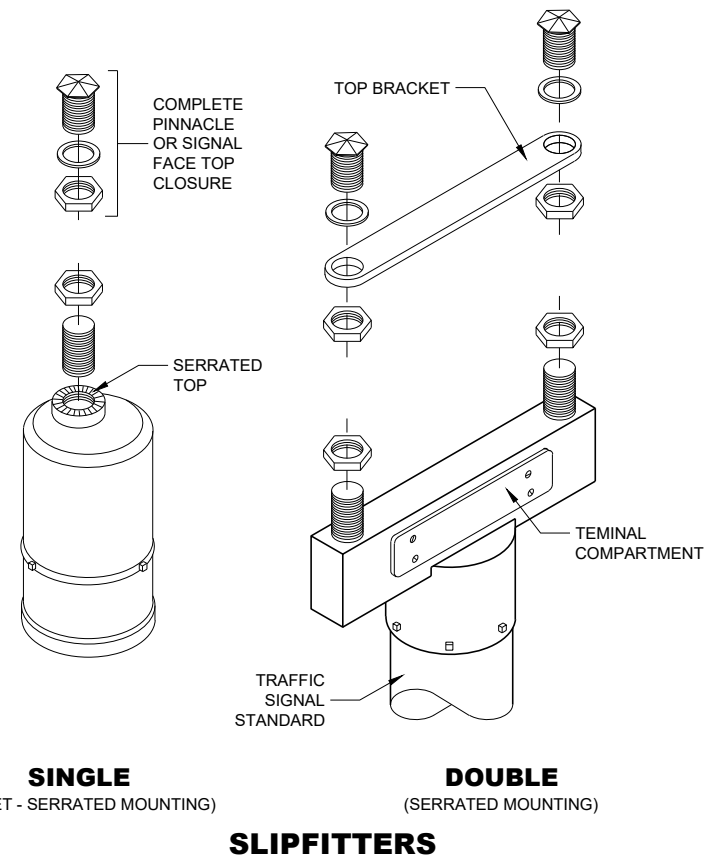
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

① USE 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

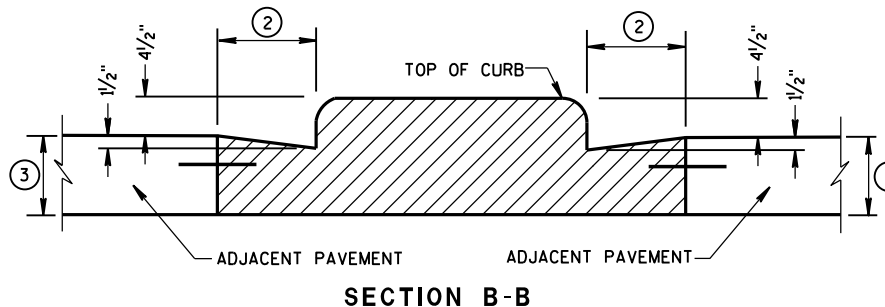
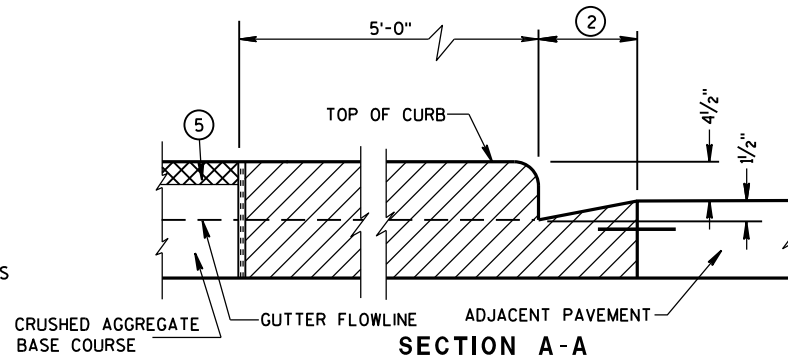
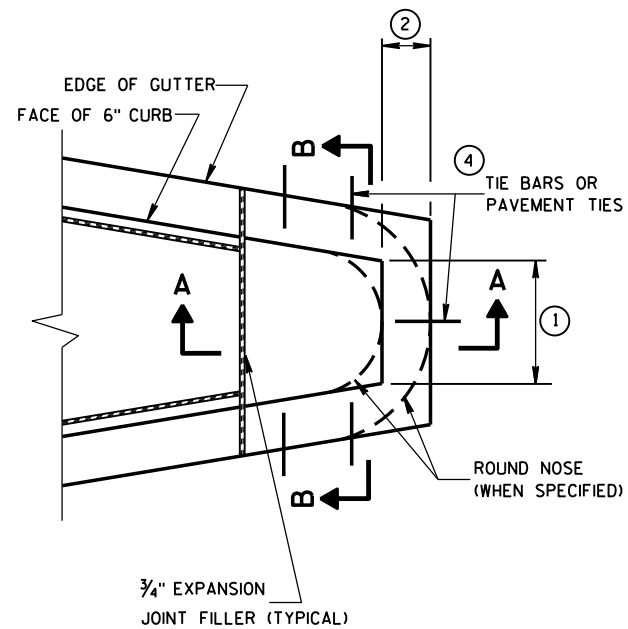
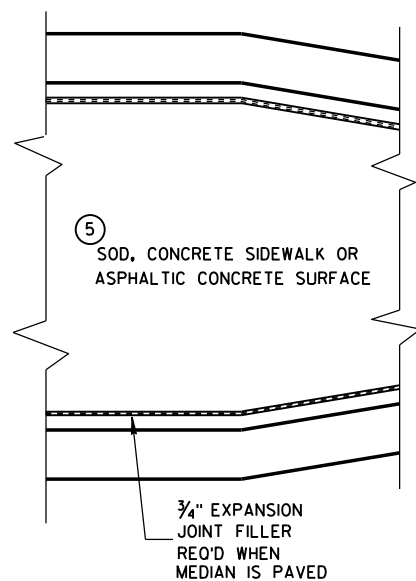
DOUBLE
(SERRATED MOUNTING)

SLIPFITERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER
FHWA

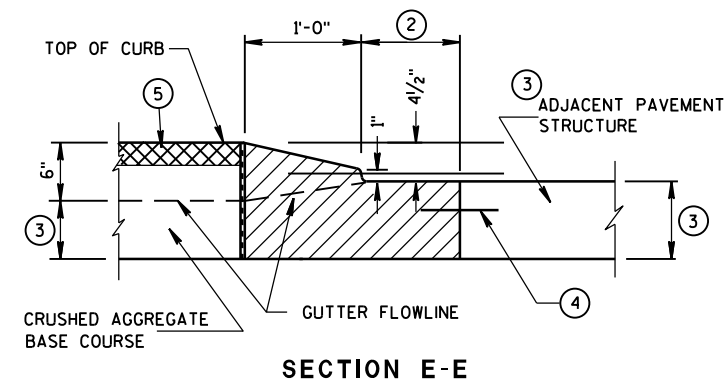
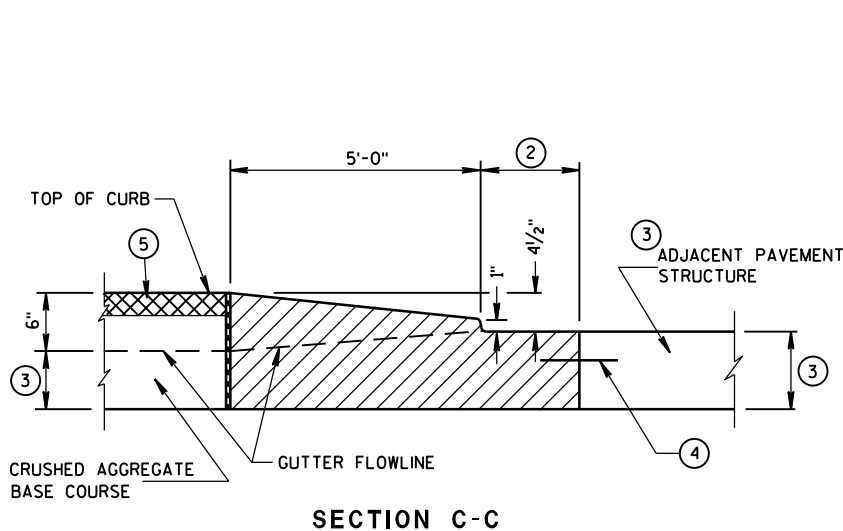
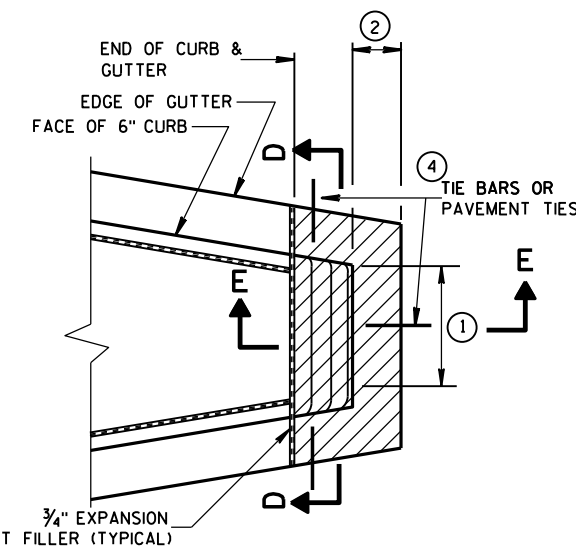


CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

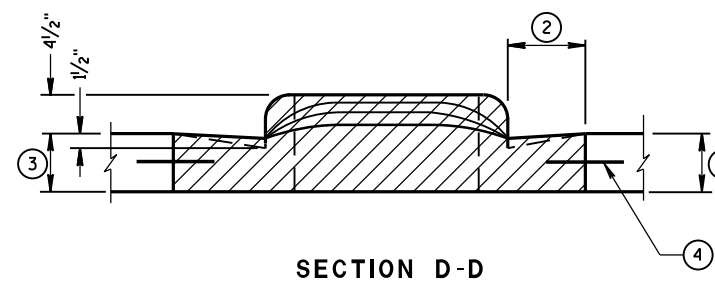
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① 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 SLOPED NOSE TYPE 2

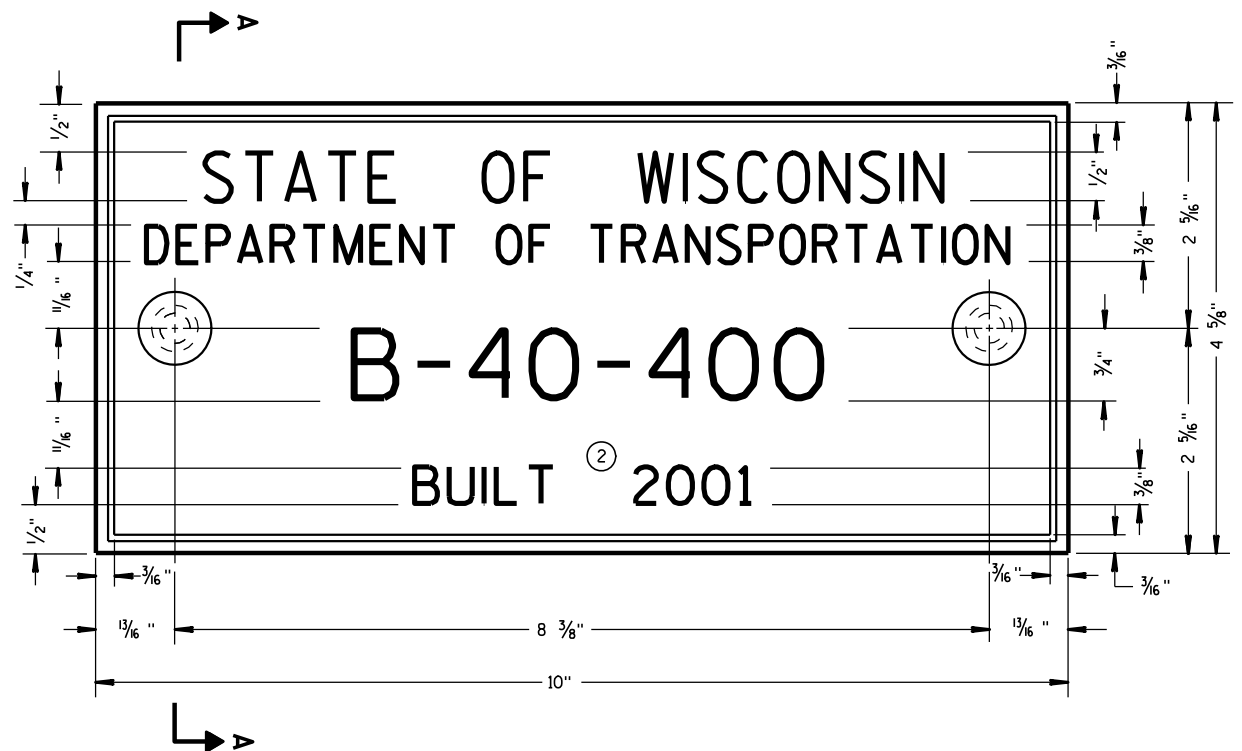
CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 /s/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



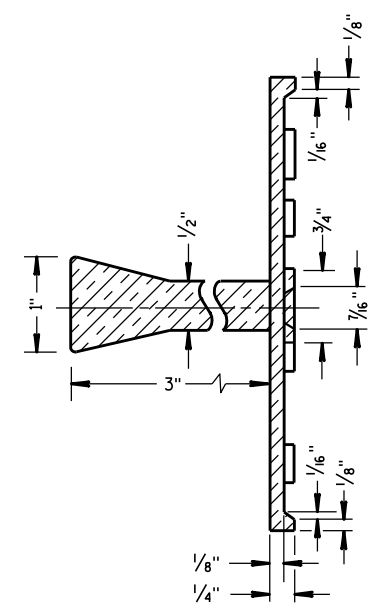
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

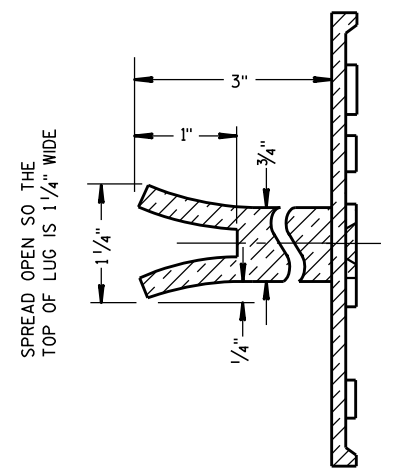
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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



SECTION A-A



ALTERNATE LUG

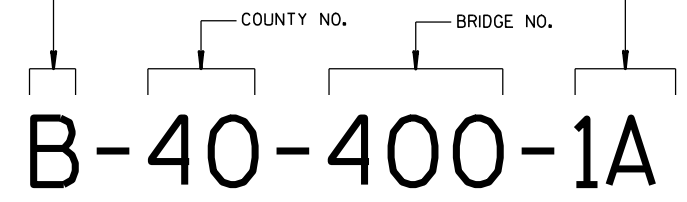
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FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

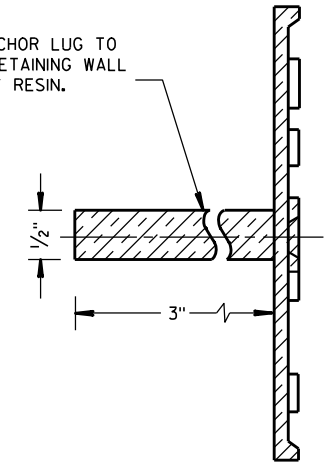
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

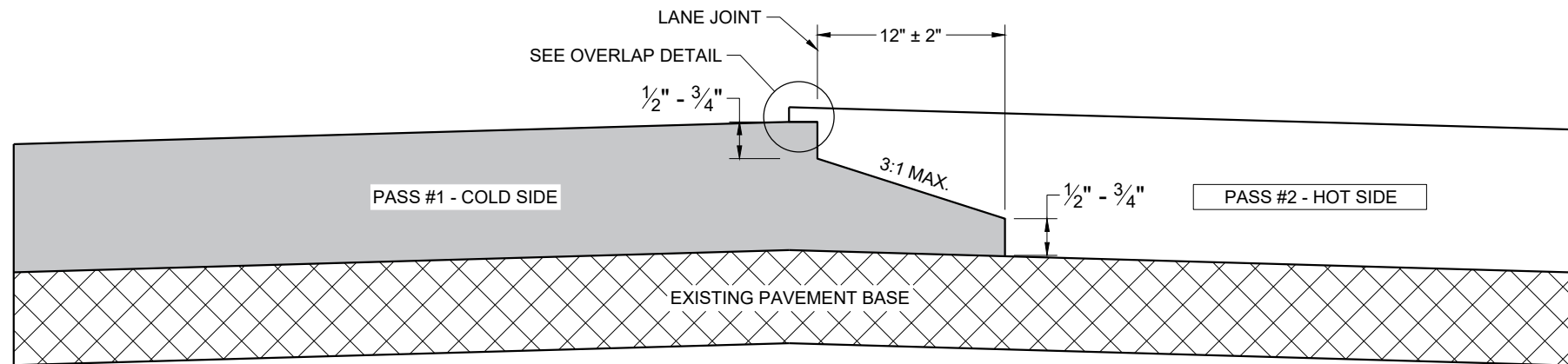


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

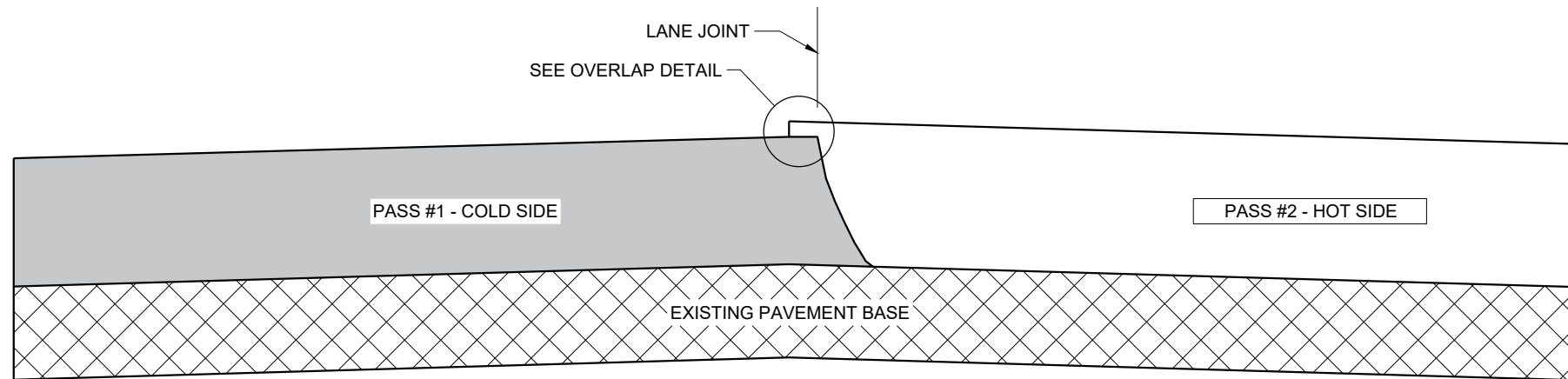
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

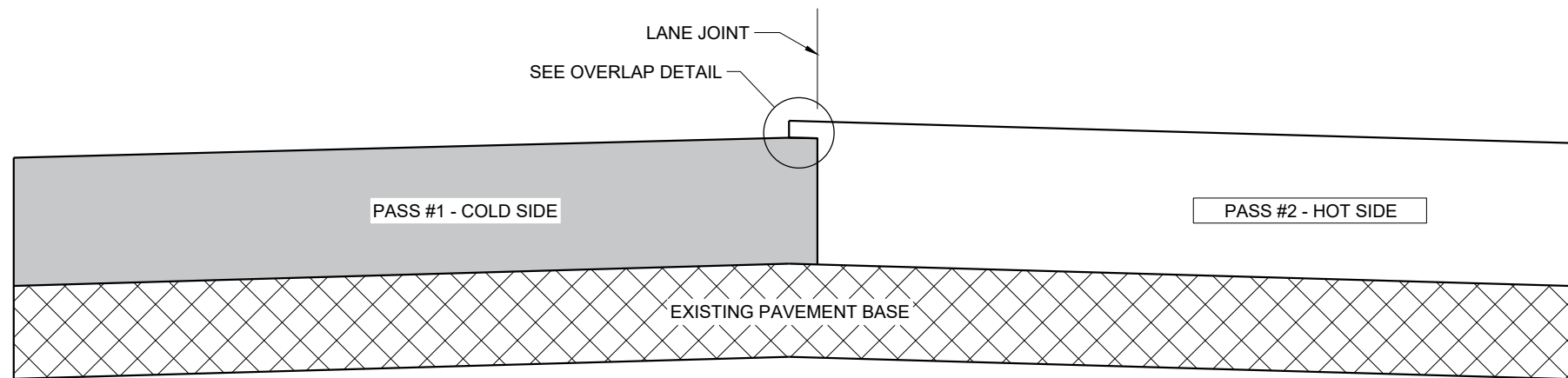
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

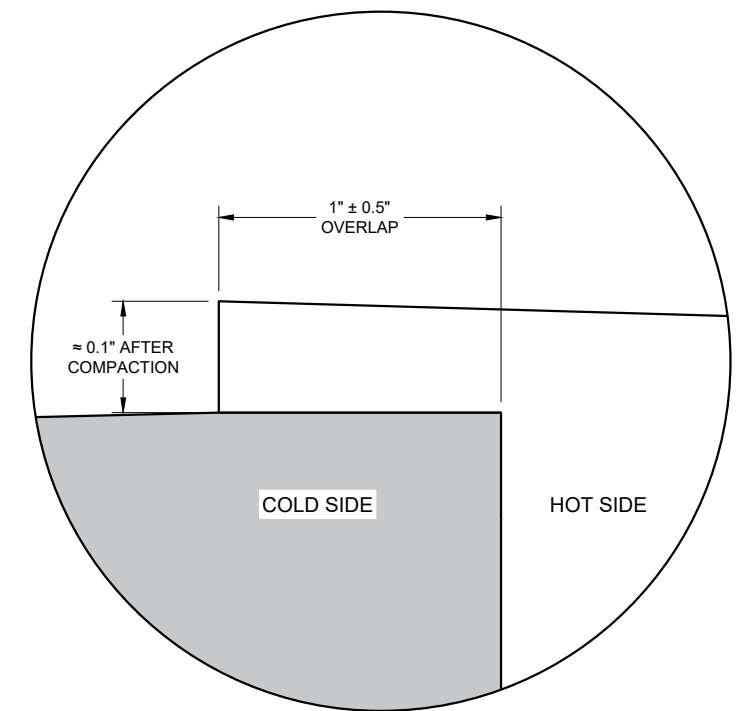
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

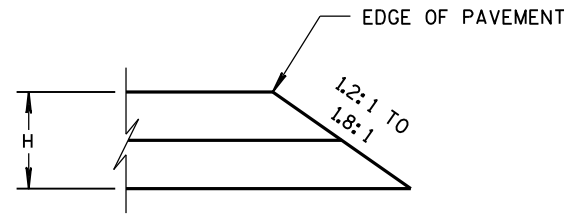
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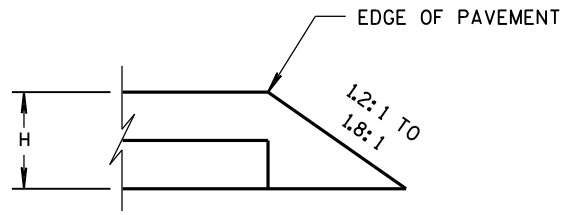
SDD 13C19 - 03

SDD 13C19 - 03

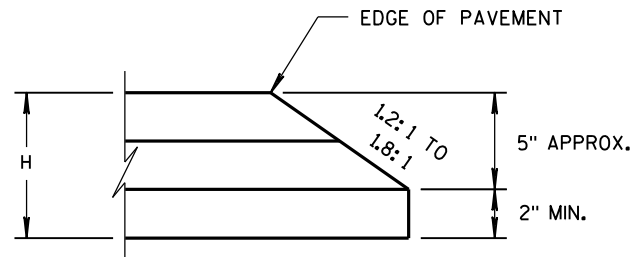
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



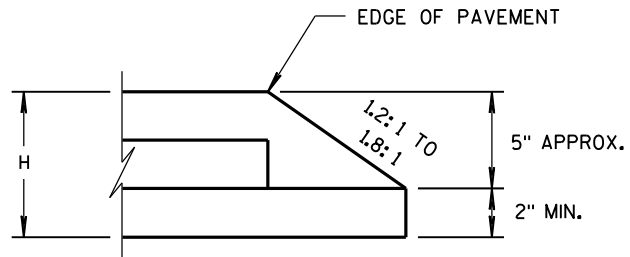
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

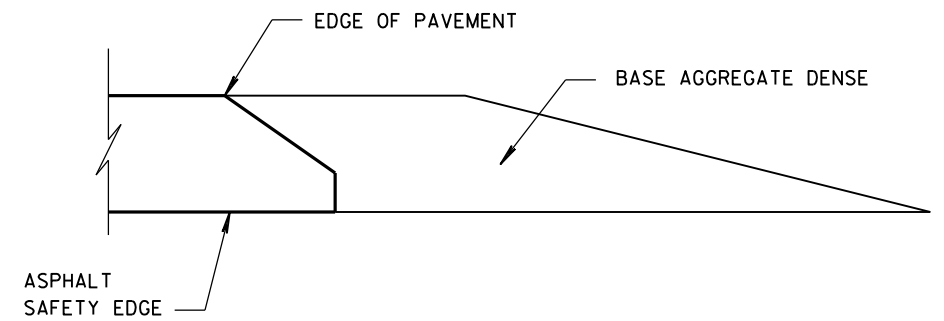


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

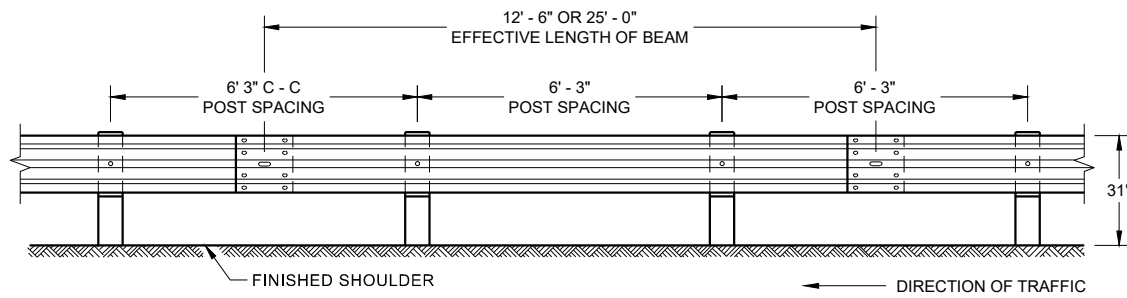
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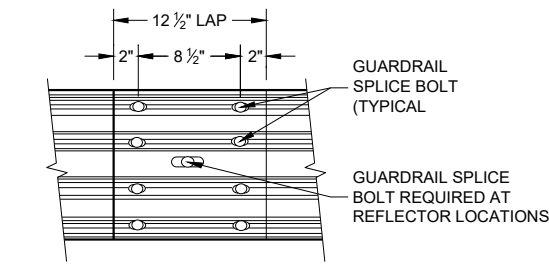
S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



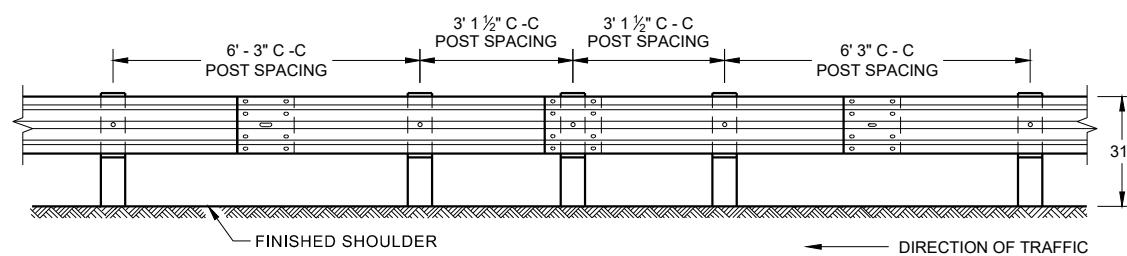
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



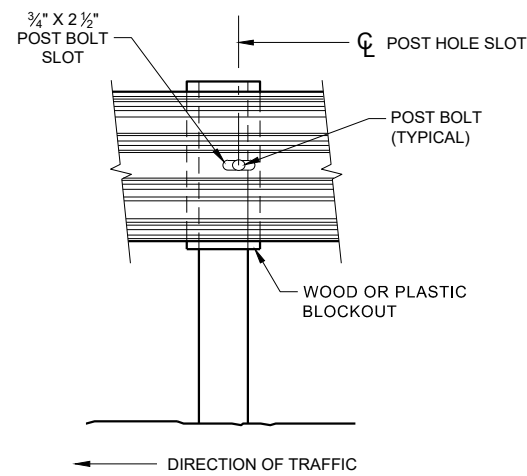
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

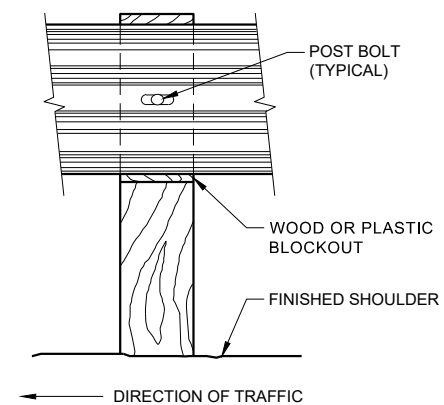
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



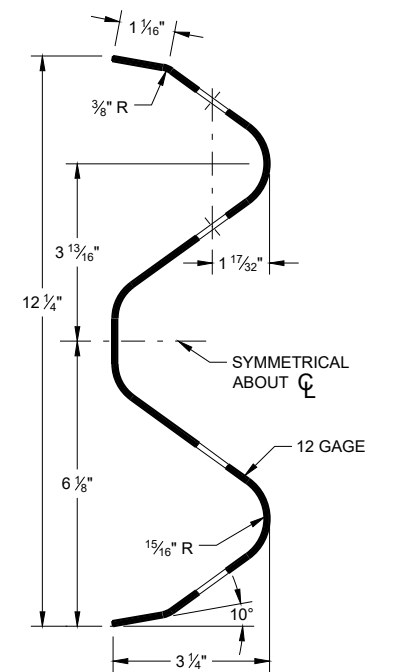
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



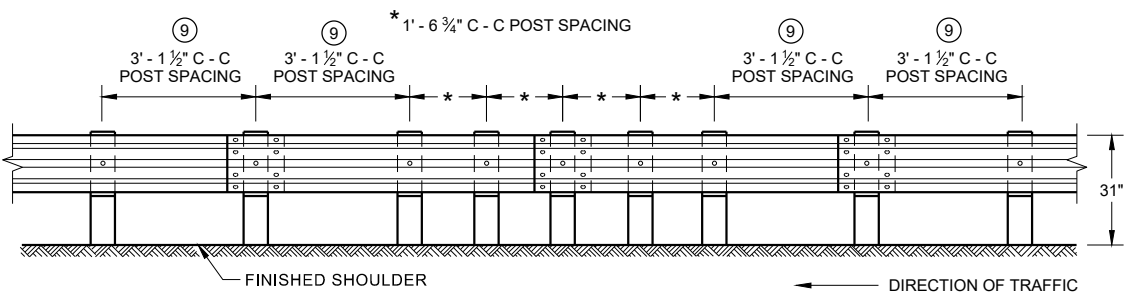
FRONT VIEW AT STEEL POST



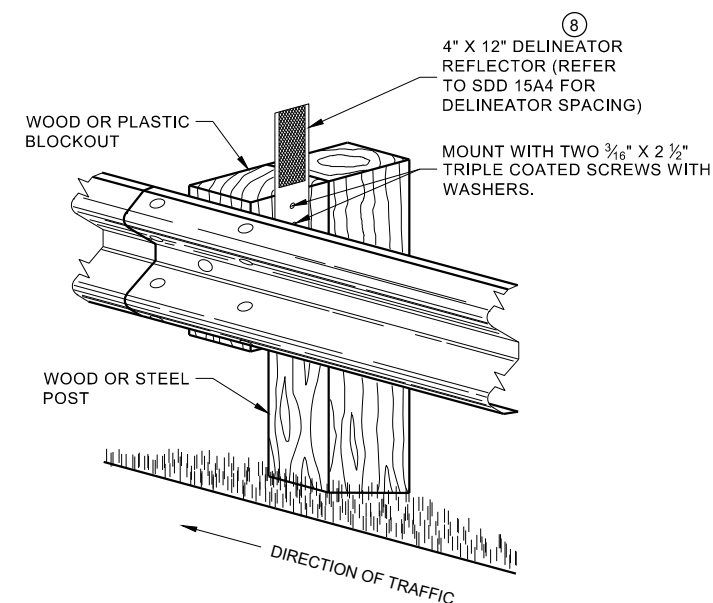
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



**FRONT VIEW
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

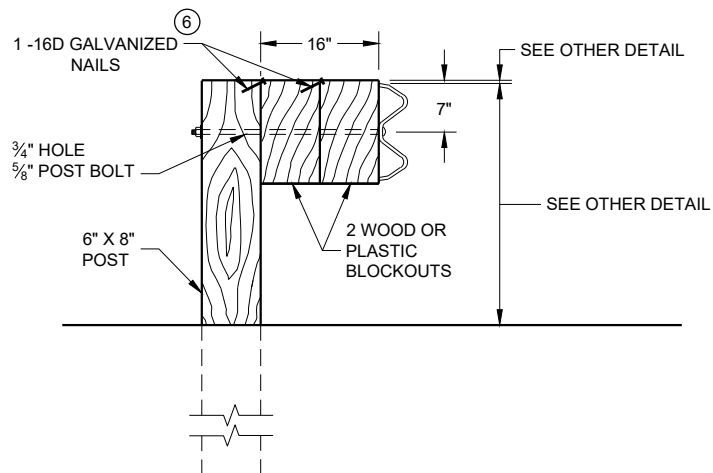
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 14B42 - 07b

SDD 14B42 - 07b

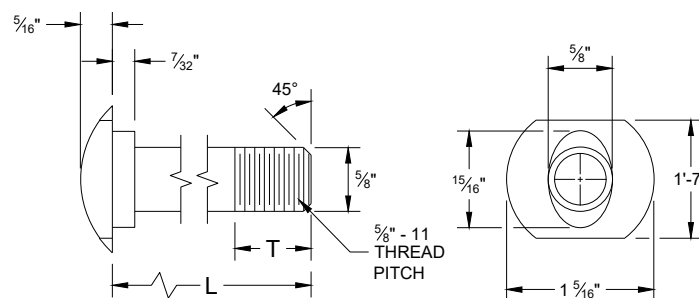


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

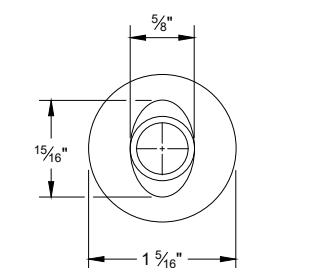
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

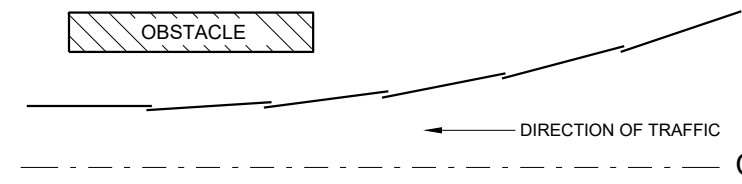


POST BOLT TABLE

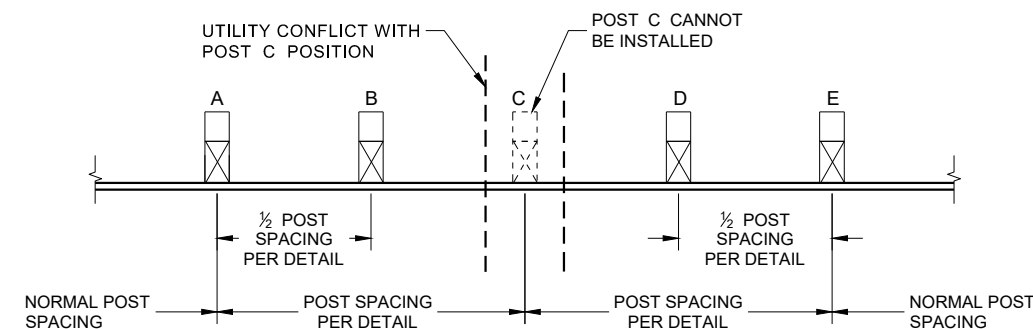
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



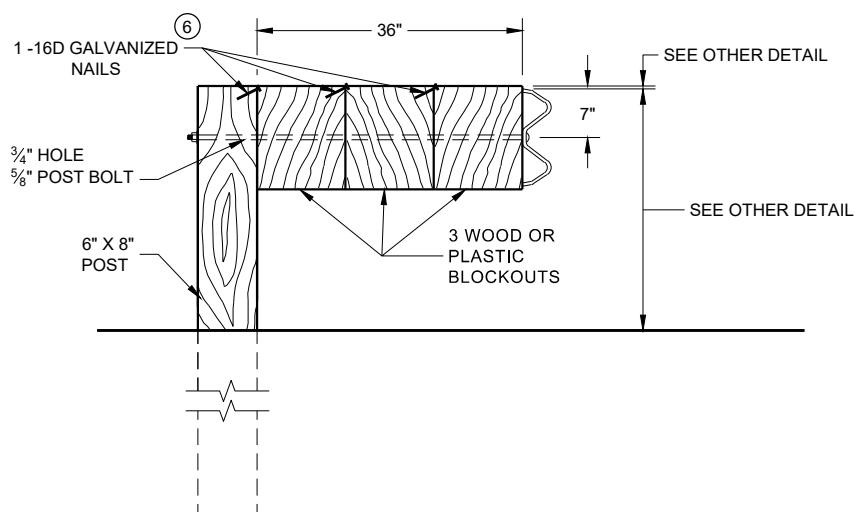
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

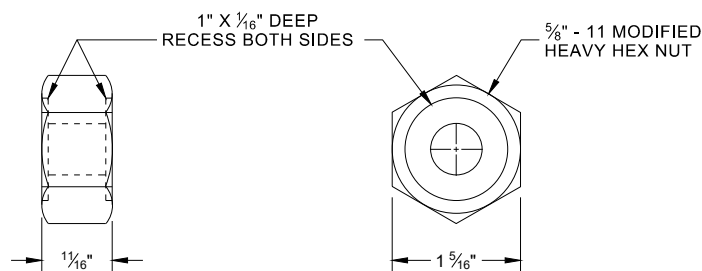


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

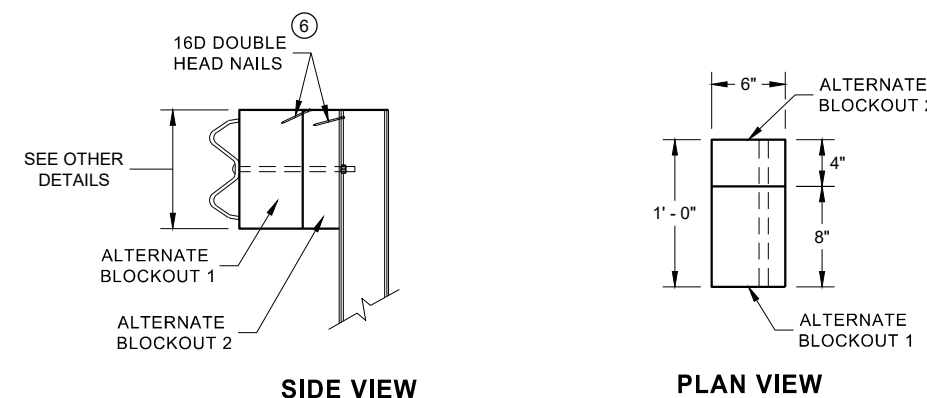


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**POST BOLT, SPLICE BOLT
AND RECESS NUT**

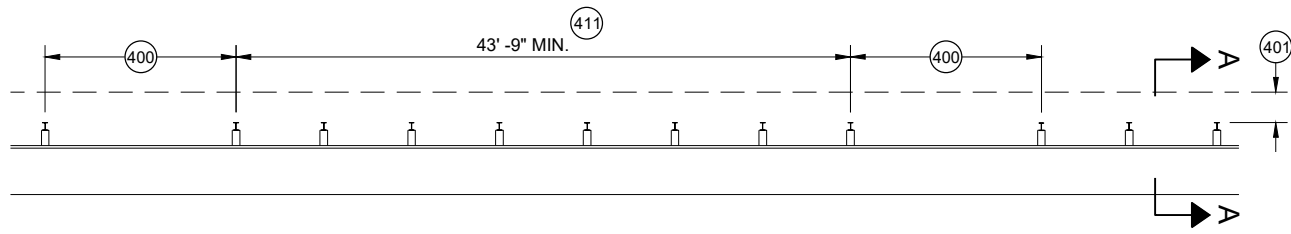


**ALTERNATE WOOD
BLOCKOUT DETAIL**

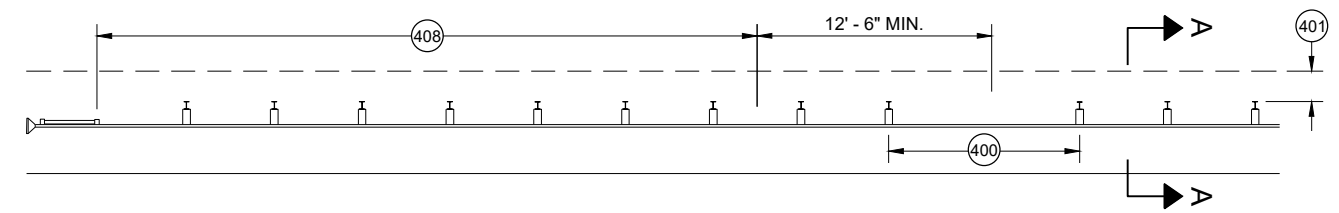
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

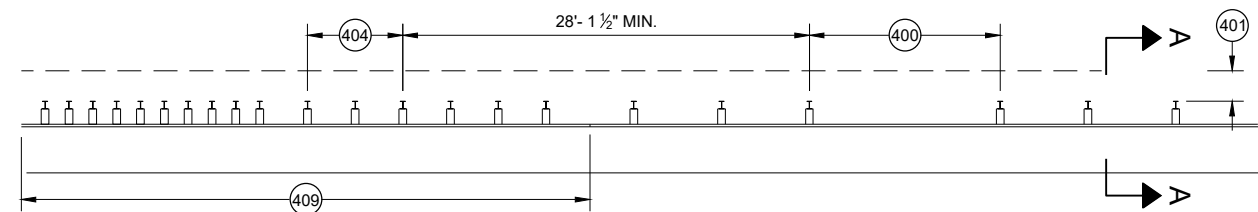
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



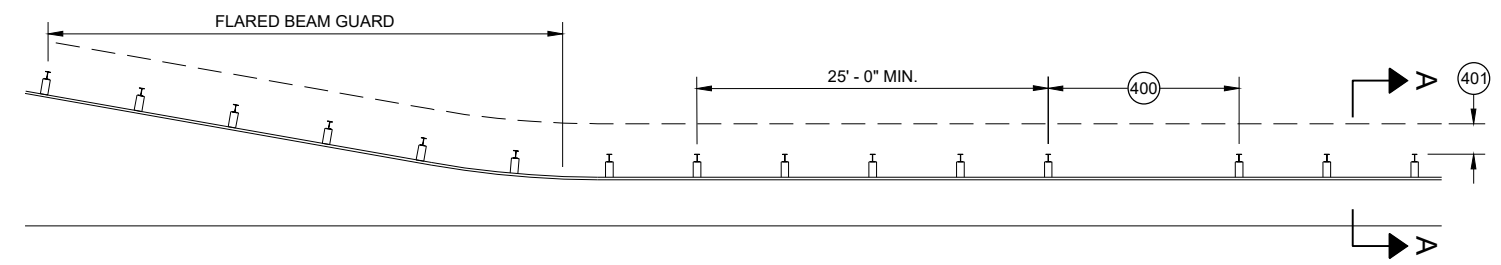
MISSING POST IN MGS GUARDRAIL



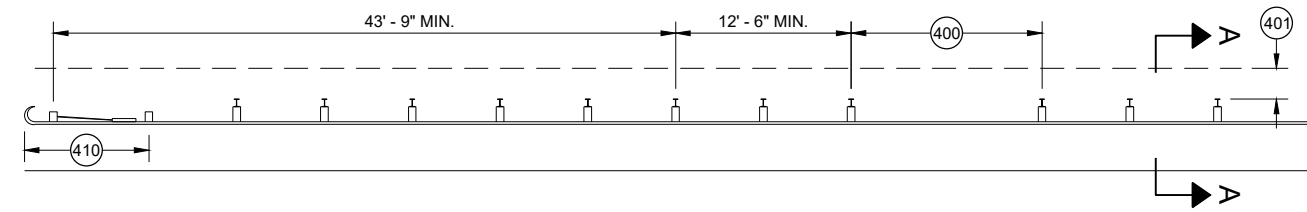
MISSING POST IN MGS GUARDRAIL NEAR EAT



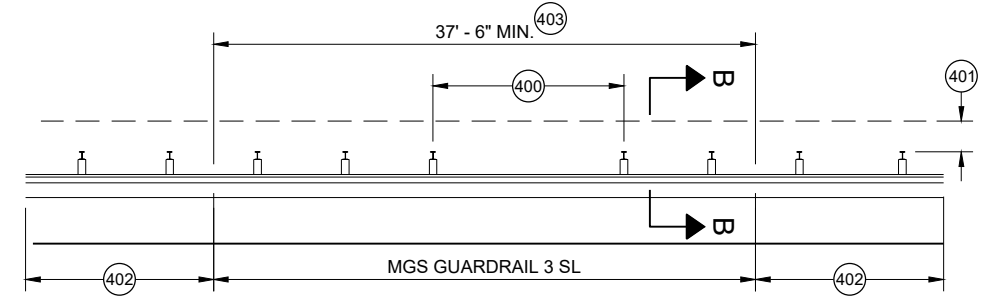
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

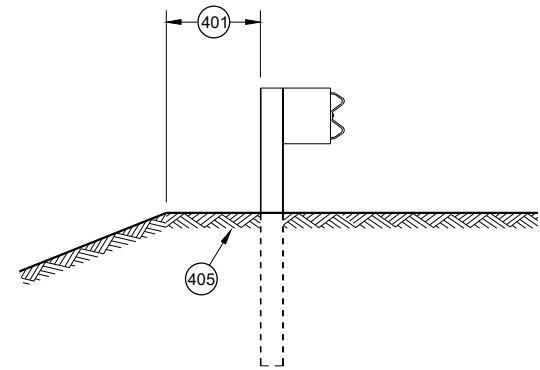


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

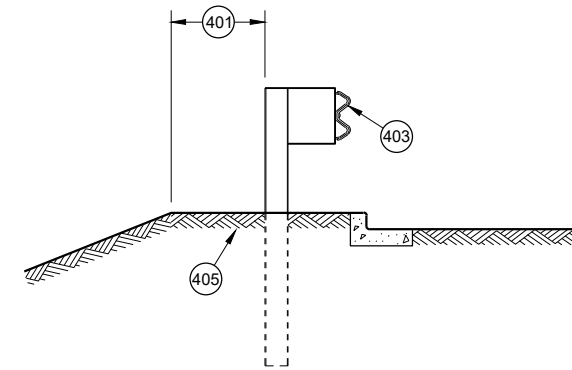


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- 400 MAX SPAN 12' - 6"
- 401 2' MIN.
- 402 MGS GUARDRAIL 3
- 403 NESTING BEAM GUARD
- 404 ASYMMETRIC TRANSITION
- 405 SOIL WELL DRAINED AND COMPACTED
- 406 SEE OTHER DRAWINGS IN THIS SDD
- 407 SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- 408 SEE SDD 14B44
- 409 SEE SDD 14B45
- 410 SEE SDD 14B47
- 411 MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
 - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
 - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
 - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
 - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

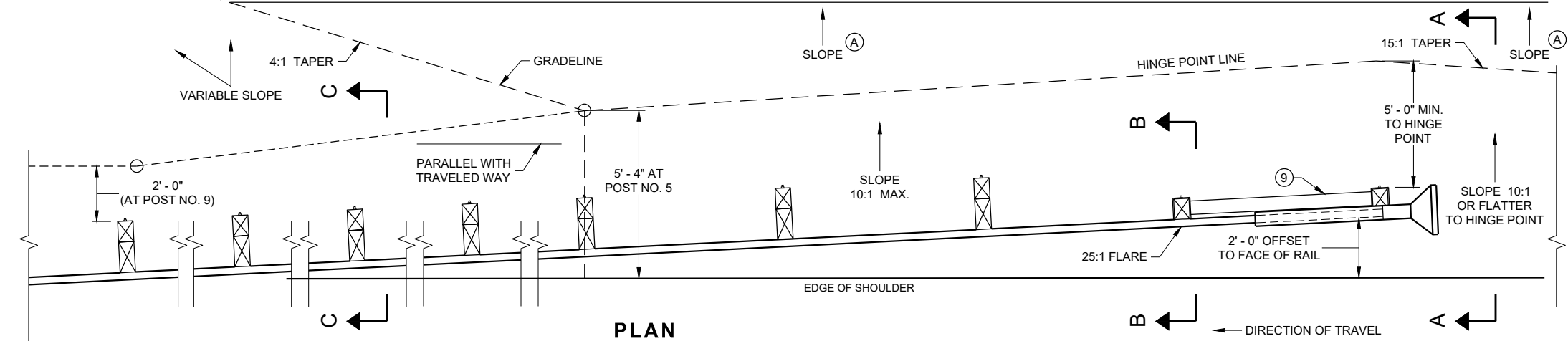
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

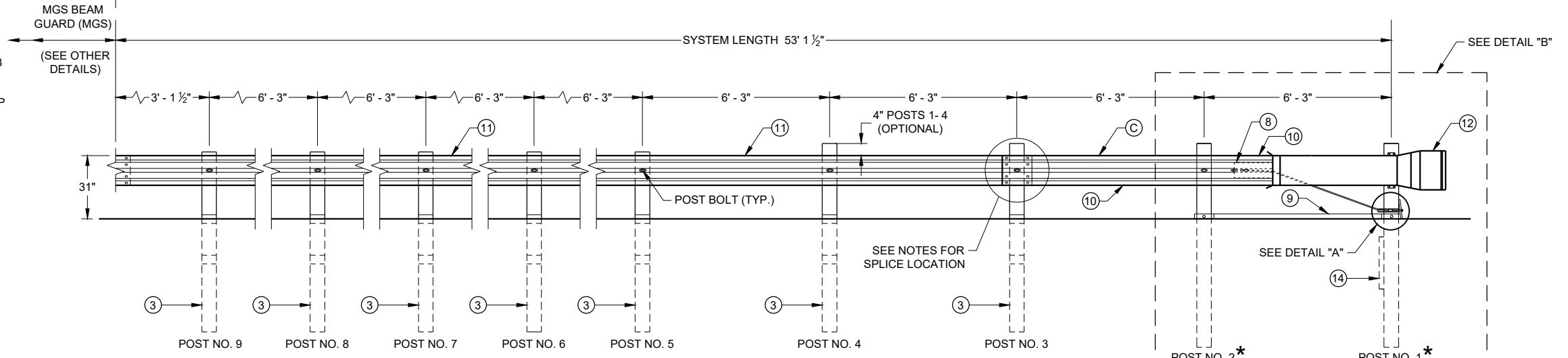
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

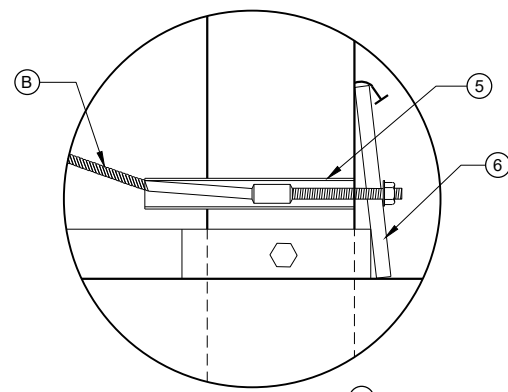
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



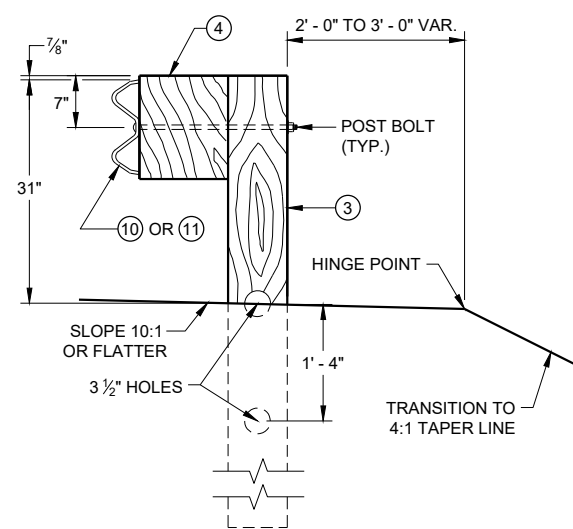
PLAN



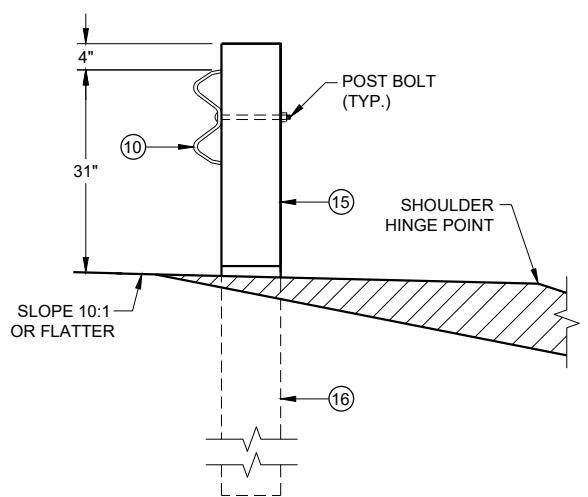
ELEVATION



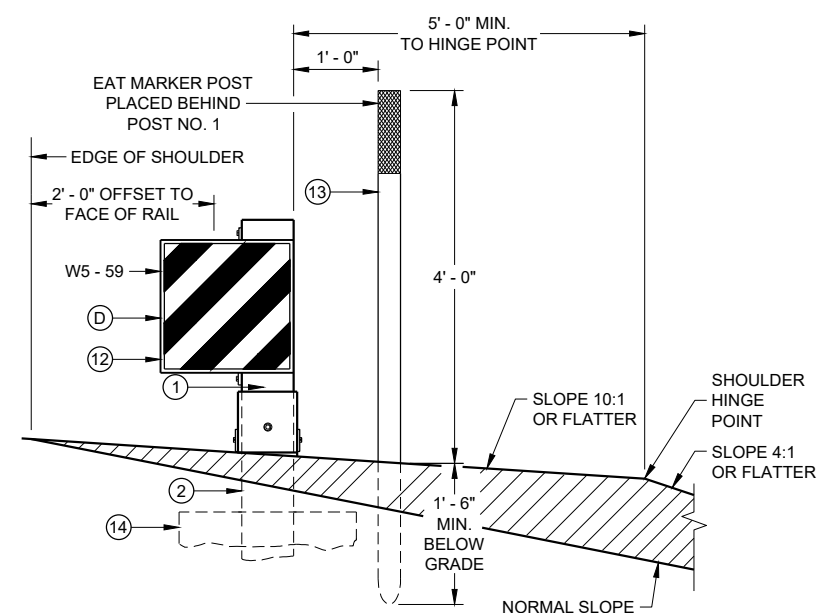
DETAIL "A"



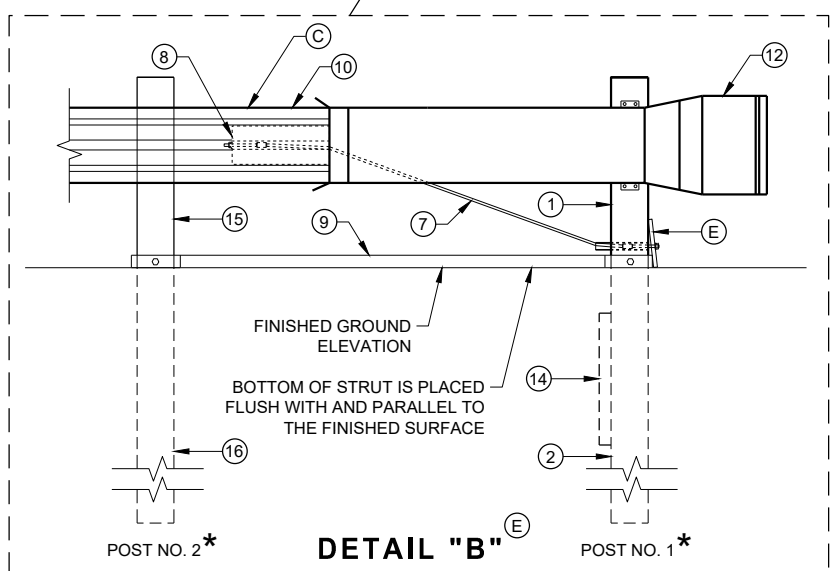
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

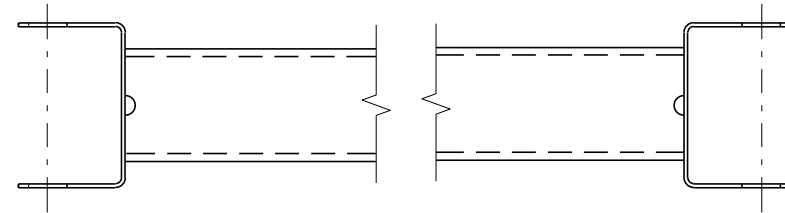
6

SDD 14B44 - 04a

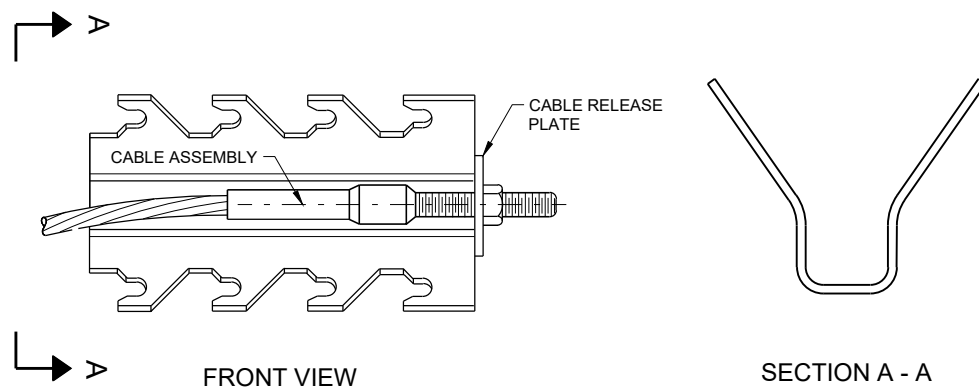
SDD 14B44 - 04a

BILL OF MATERIALS

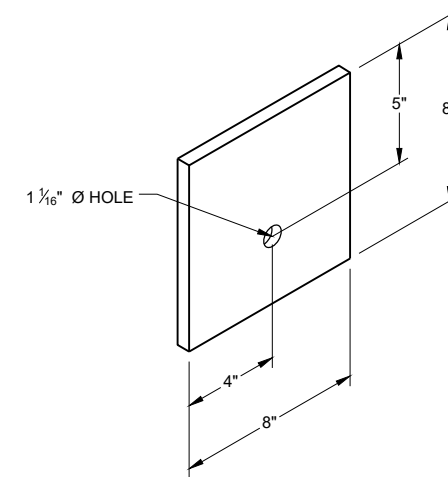
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC GROUND STRUT ⑨ ⑤



GENERIC ANCHOR CABLE BOX ⑨ ⑤



BEARING PLATE ⑥ ⑤

6

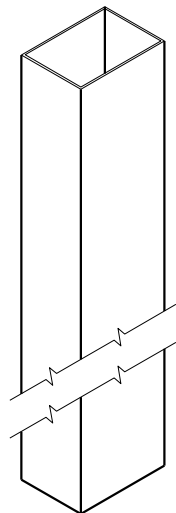
6

SDD 14B44 - 04b

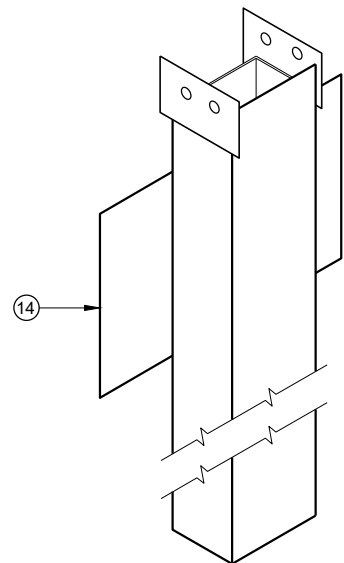
SDD 14B44 - 04b

**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

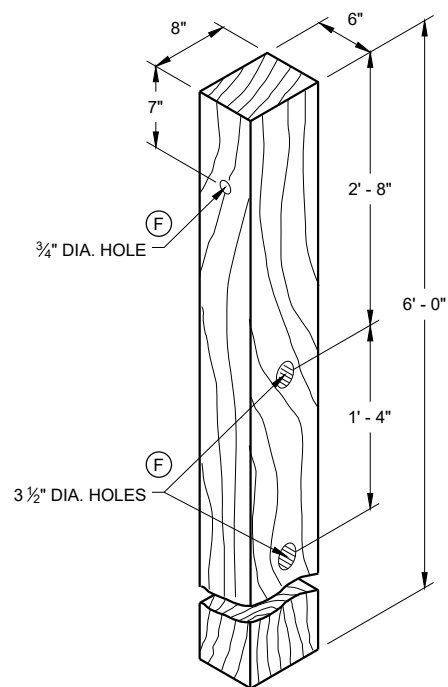
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



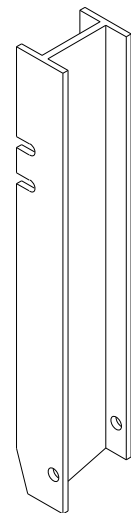
UPPER POST NO. 1 ⁽¹⁾ (E)



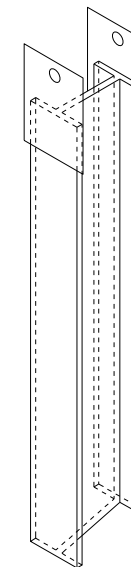
LOWER POST NO. 1 ⁽²⁾ (E)



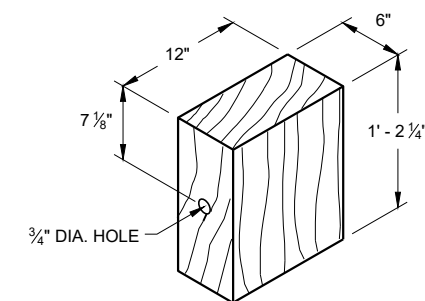
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

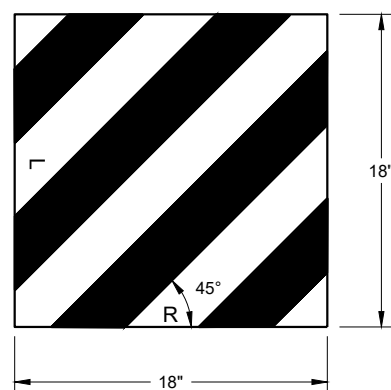


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

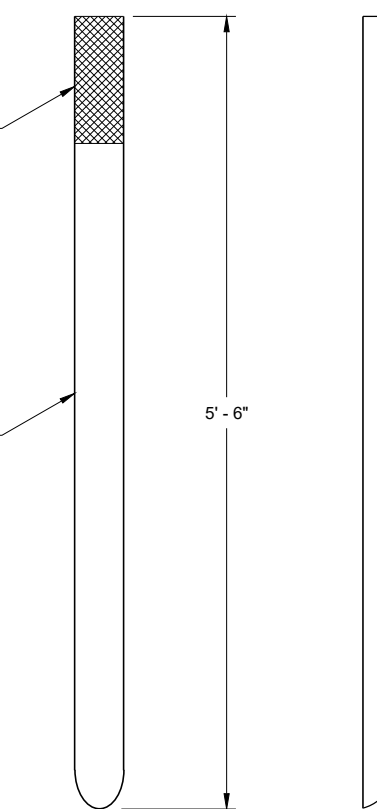
6



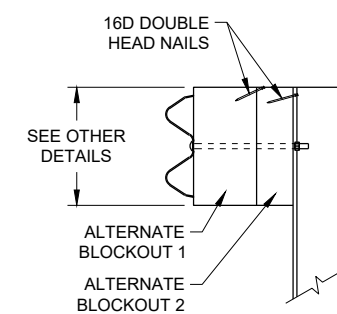
W5 - 59
REFLECTIVE SHEETING DETAIL ^(E)

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

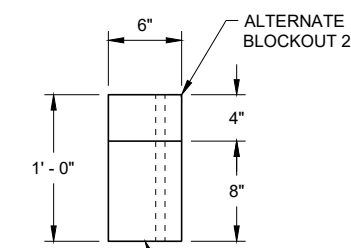
E.A.T. MARKER
POST (YELLOW)



FRONT VIEW SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

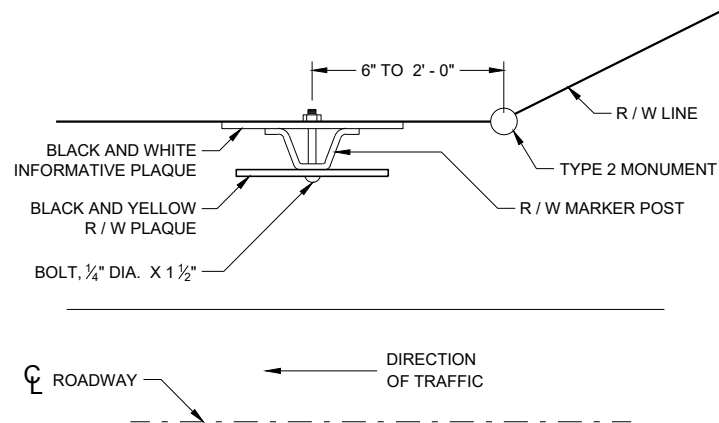
ALTERNATE WOOD
BLOCKOUT DETAIL

6

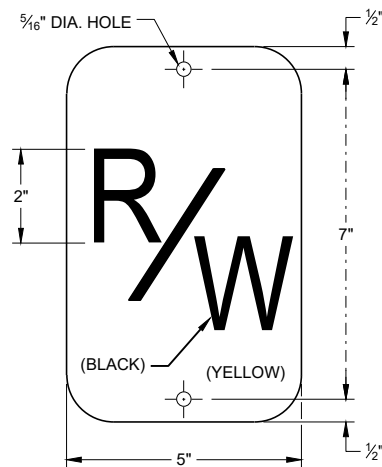
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

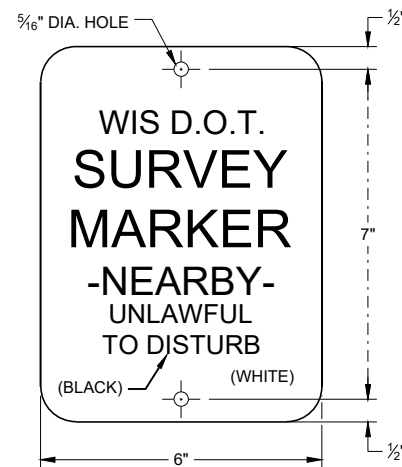


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

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



INFORMATIVE PLAQUE

GENERAL NOTES

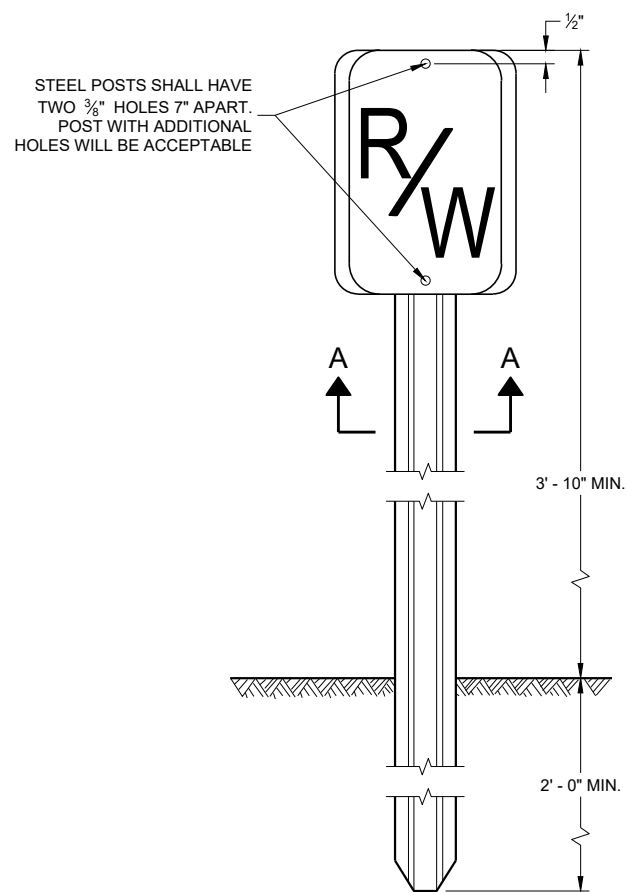
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

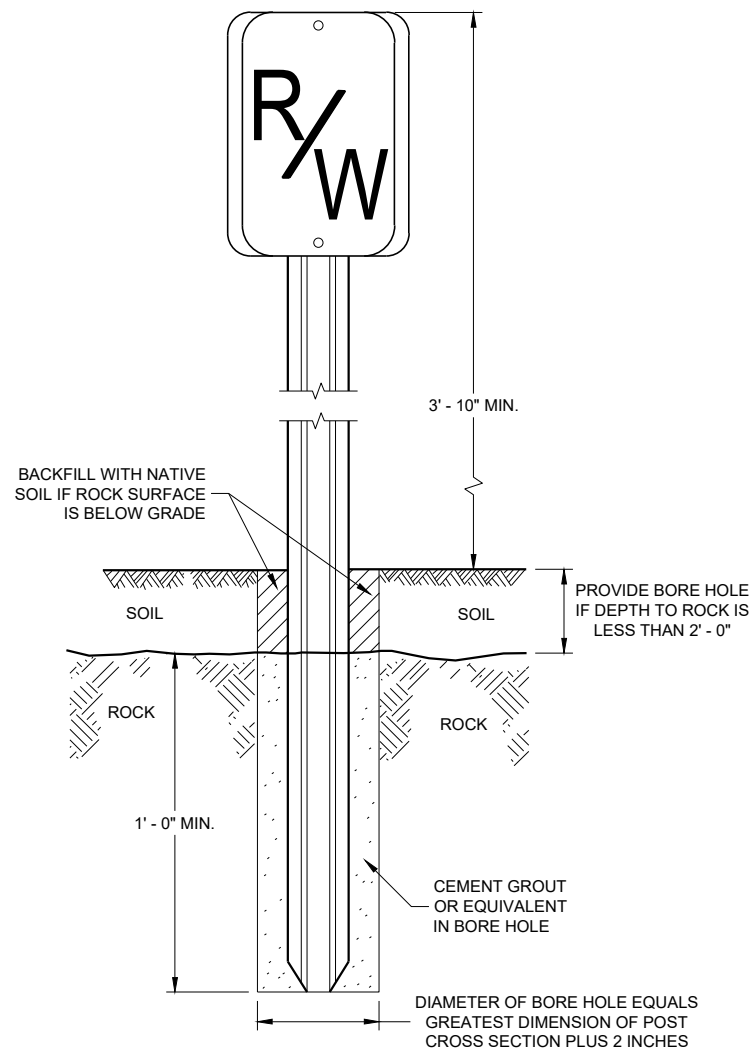
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

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

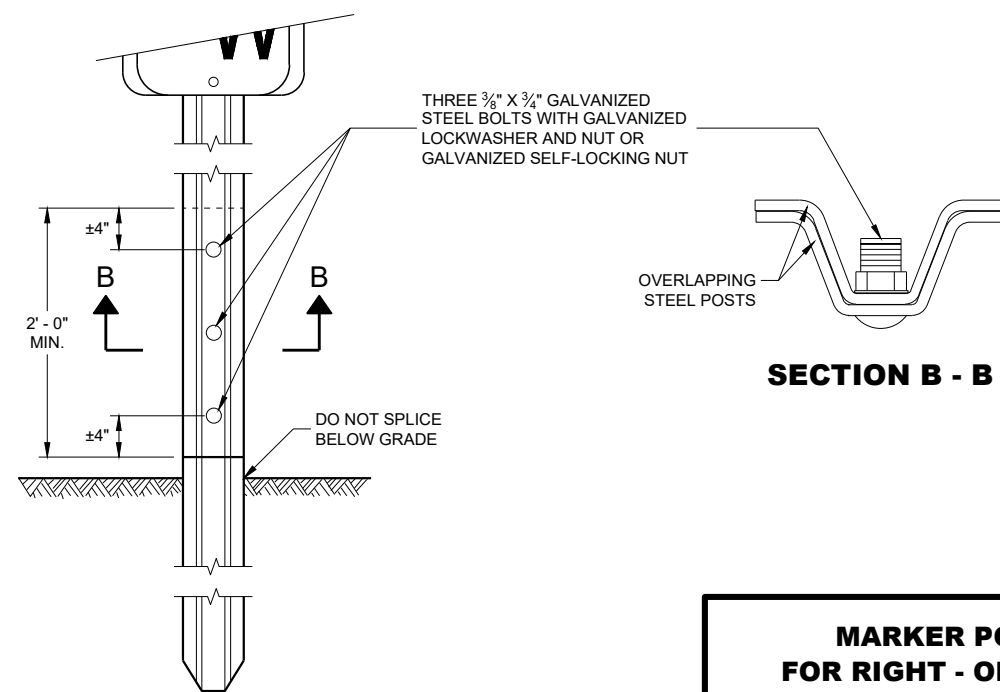
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL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



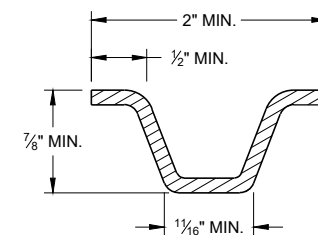
**FRONT VIEW
STEEL MARKER POST**



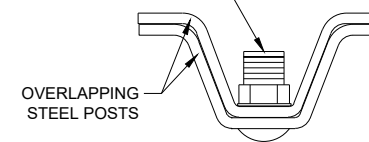
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



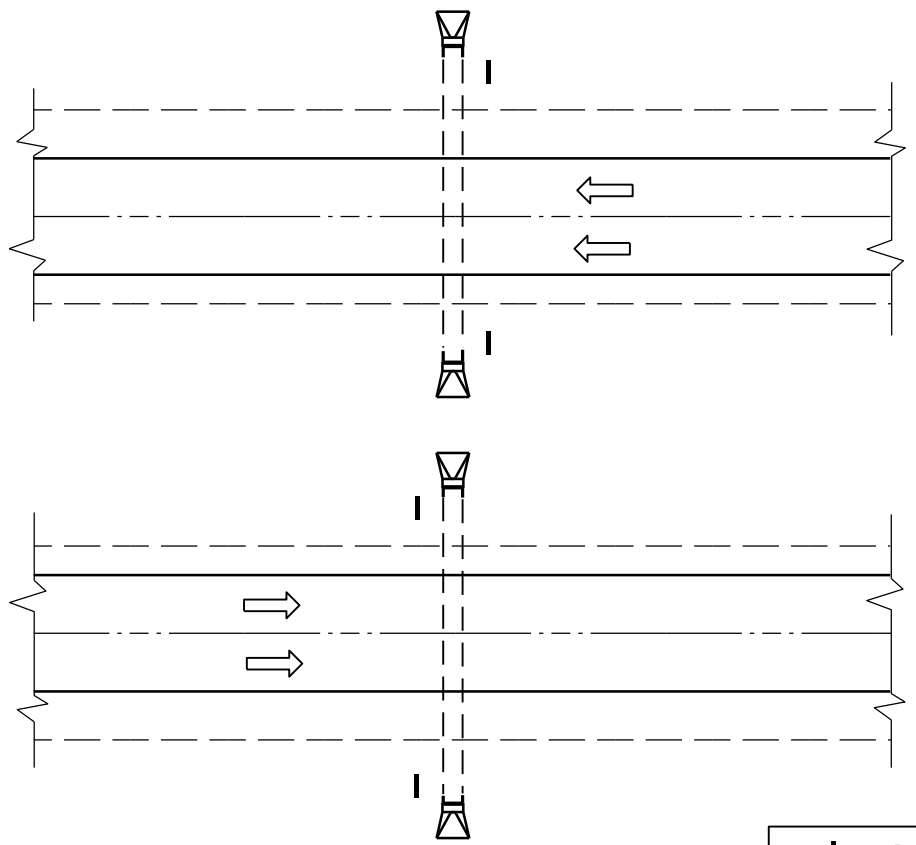
SECTION B - B

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

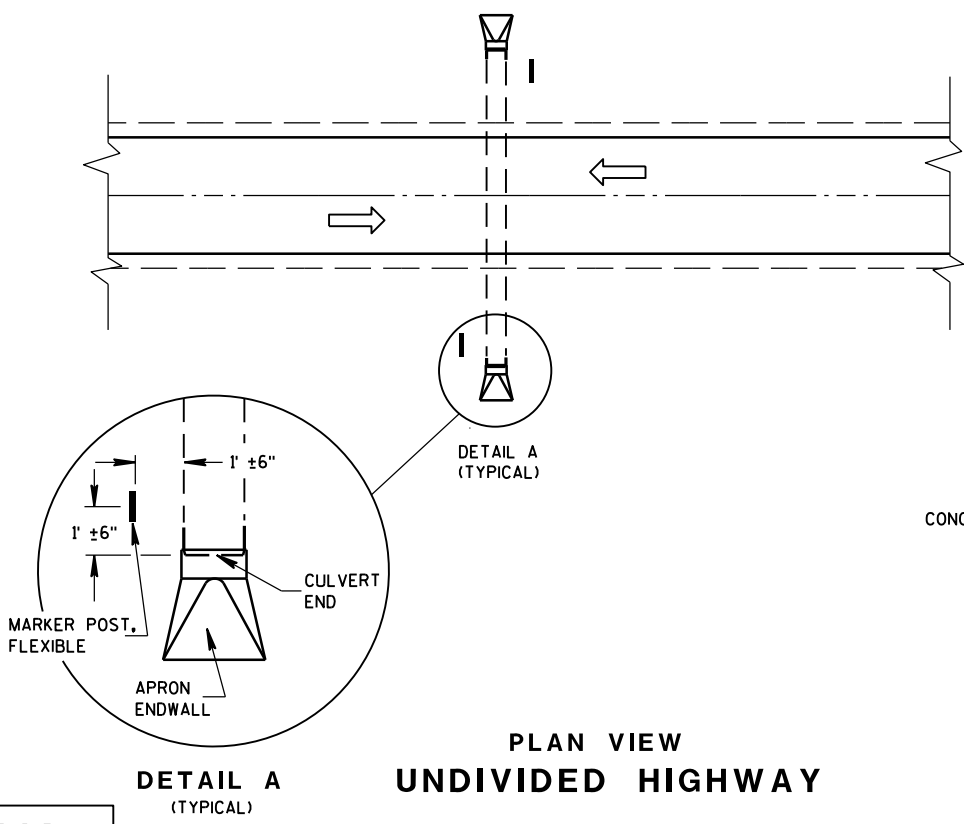
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

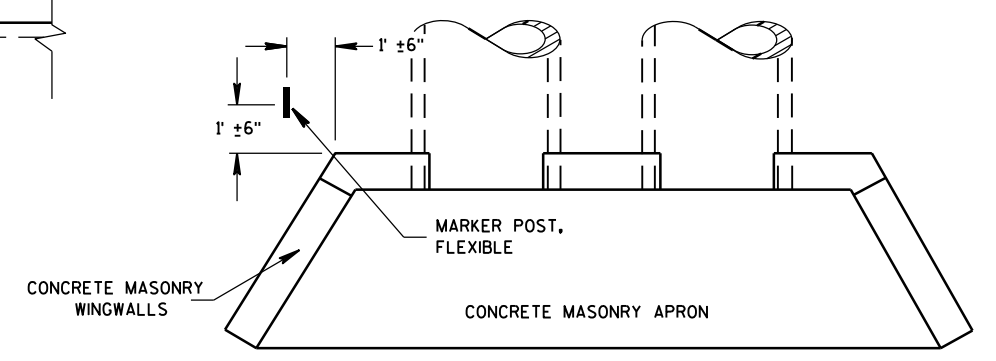
MARKER POST, FLEXIBLE
DIRECTION OF TRAFFIC FLOW

DETAIL A
(TYPICAL)

FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

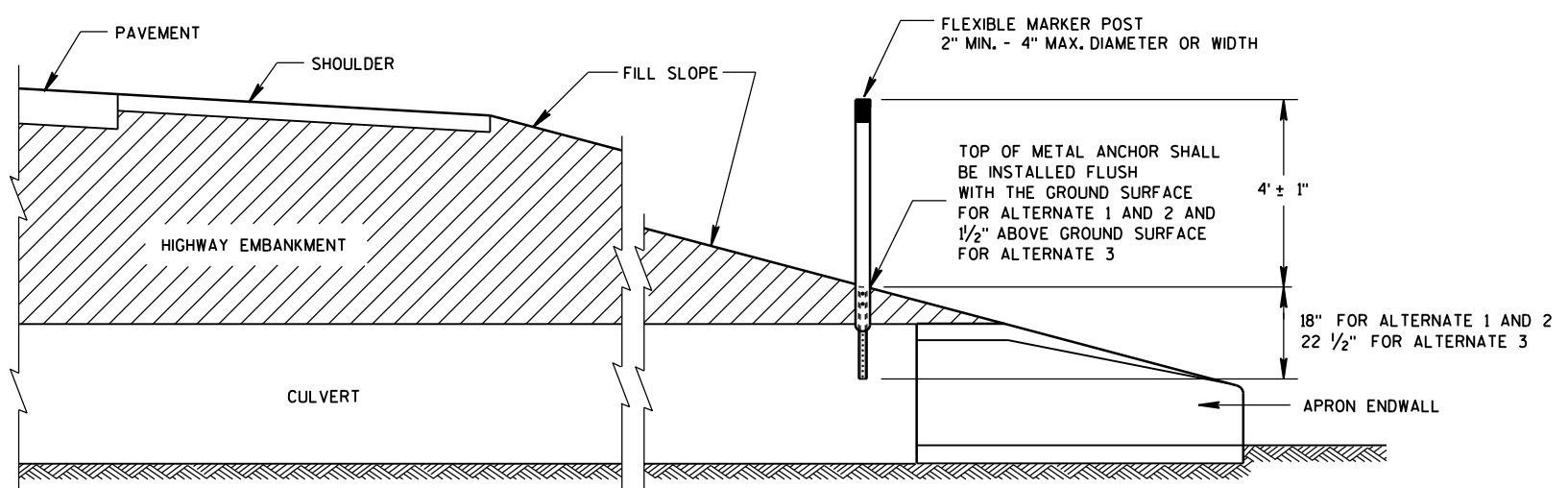
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

6

6



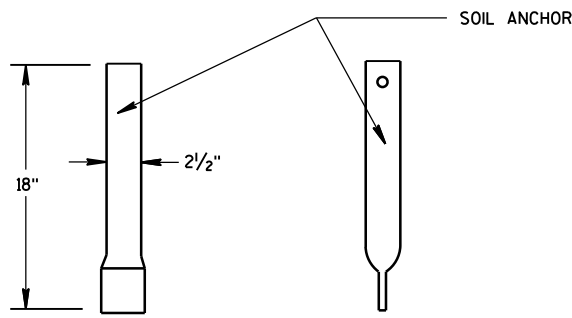
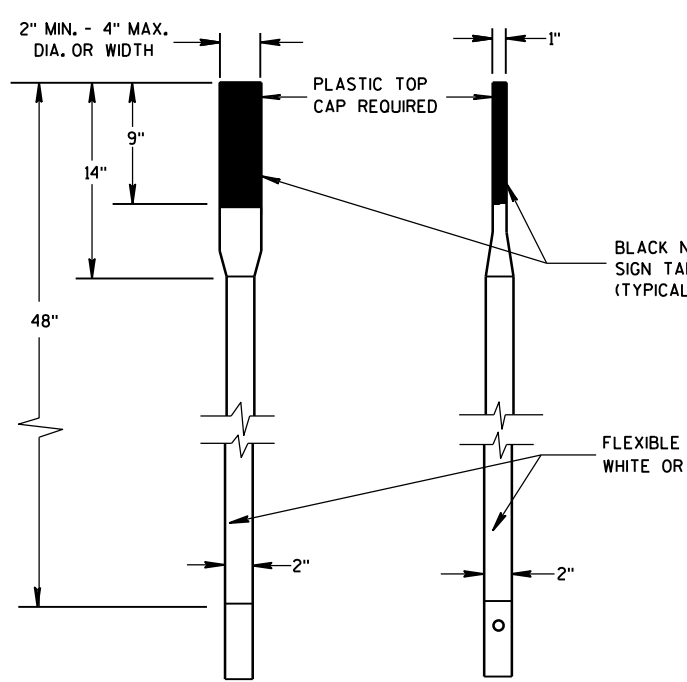
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

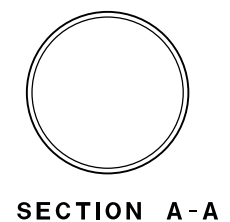
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 15 A 3-2a

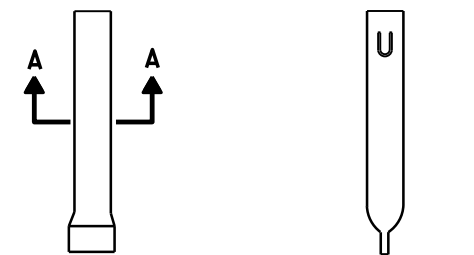
S.D.D. 15 A 3-2a



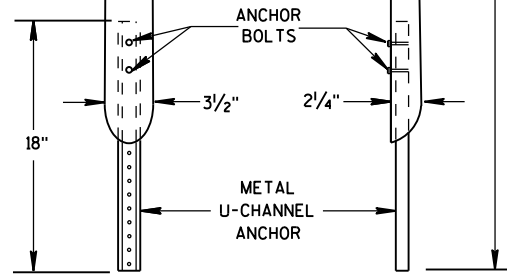
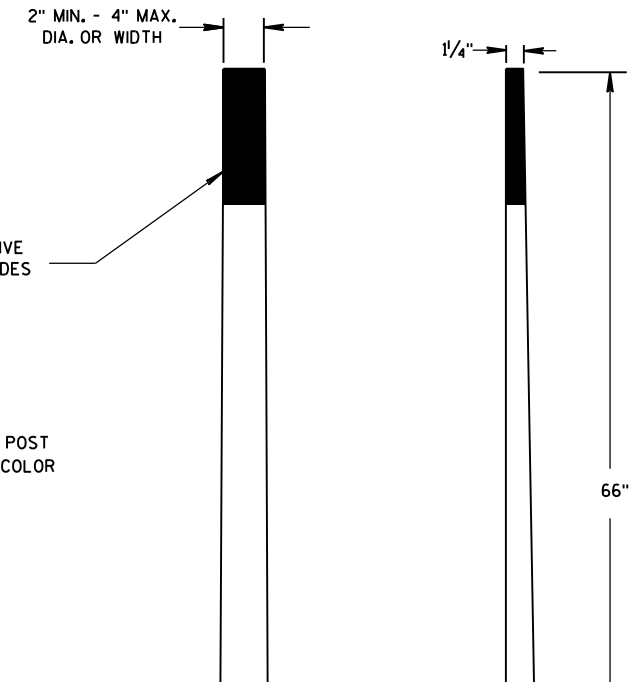
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

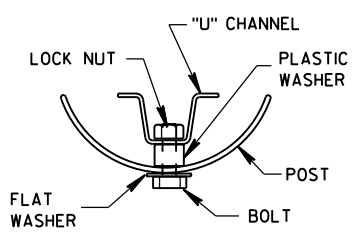


FRONT VIEW SIDE VIEW
ALTERNATE 1

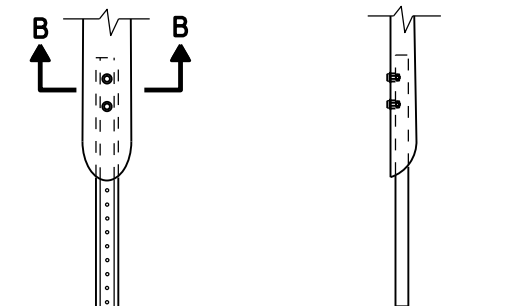


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

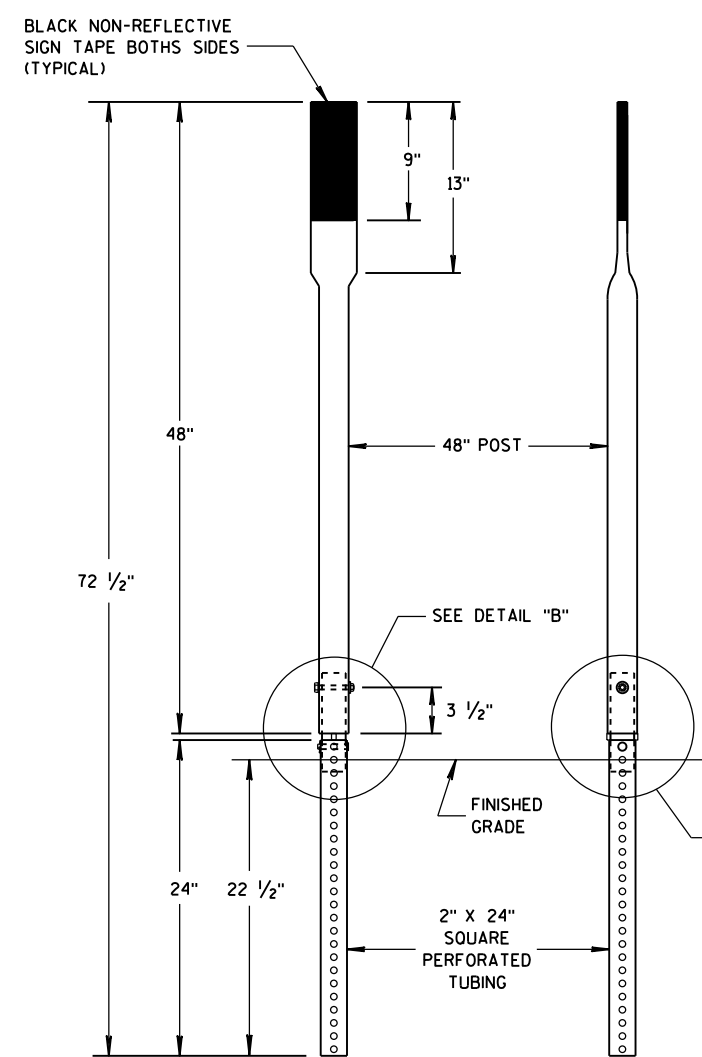


SECTION B-B

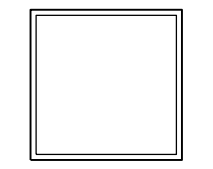


FRONT VIEW SIDE VIEW
ALTERNATE 2

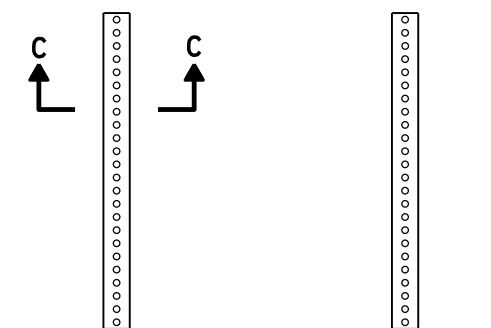
FLEXIBLE MARKER POST ANCHORS



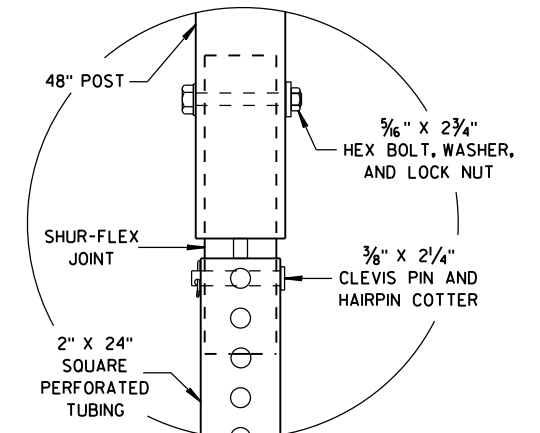
FRONT VIEW SIDE VIEW
ALTERNATE 3



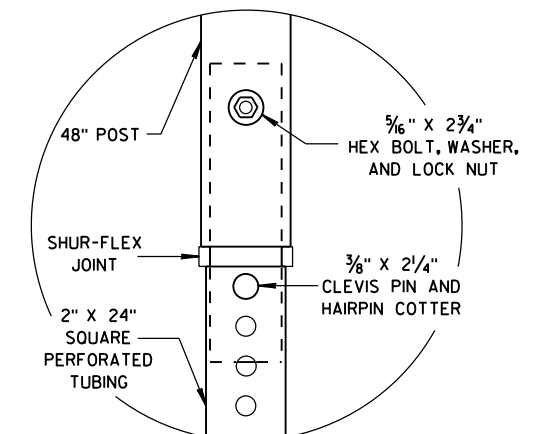
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

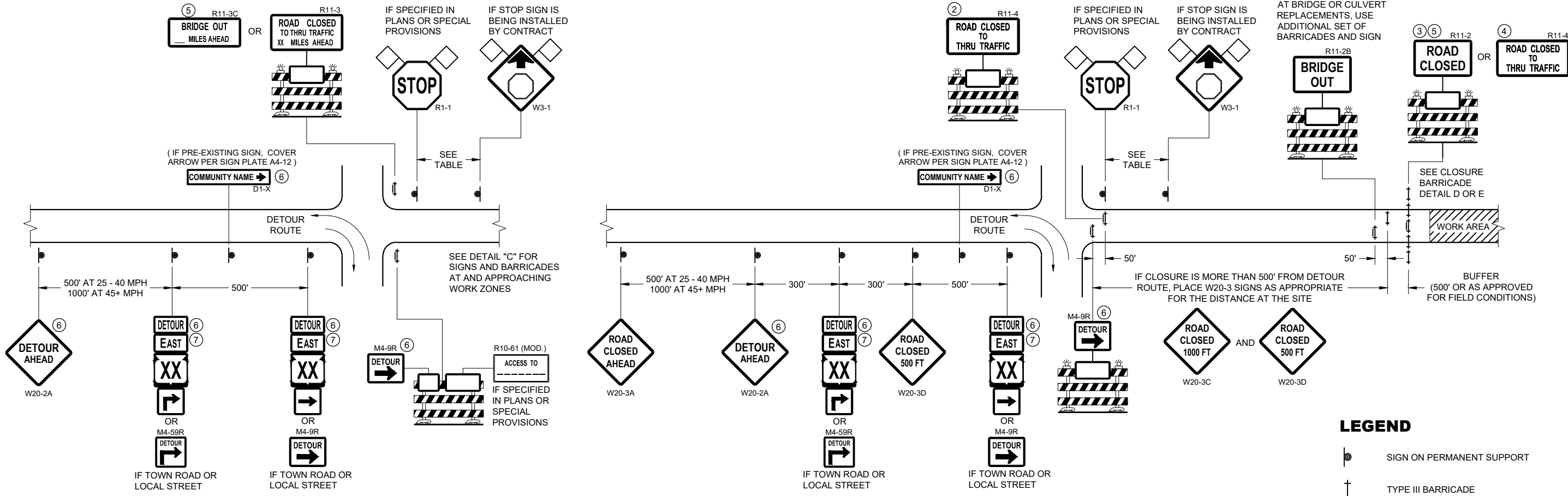


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

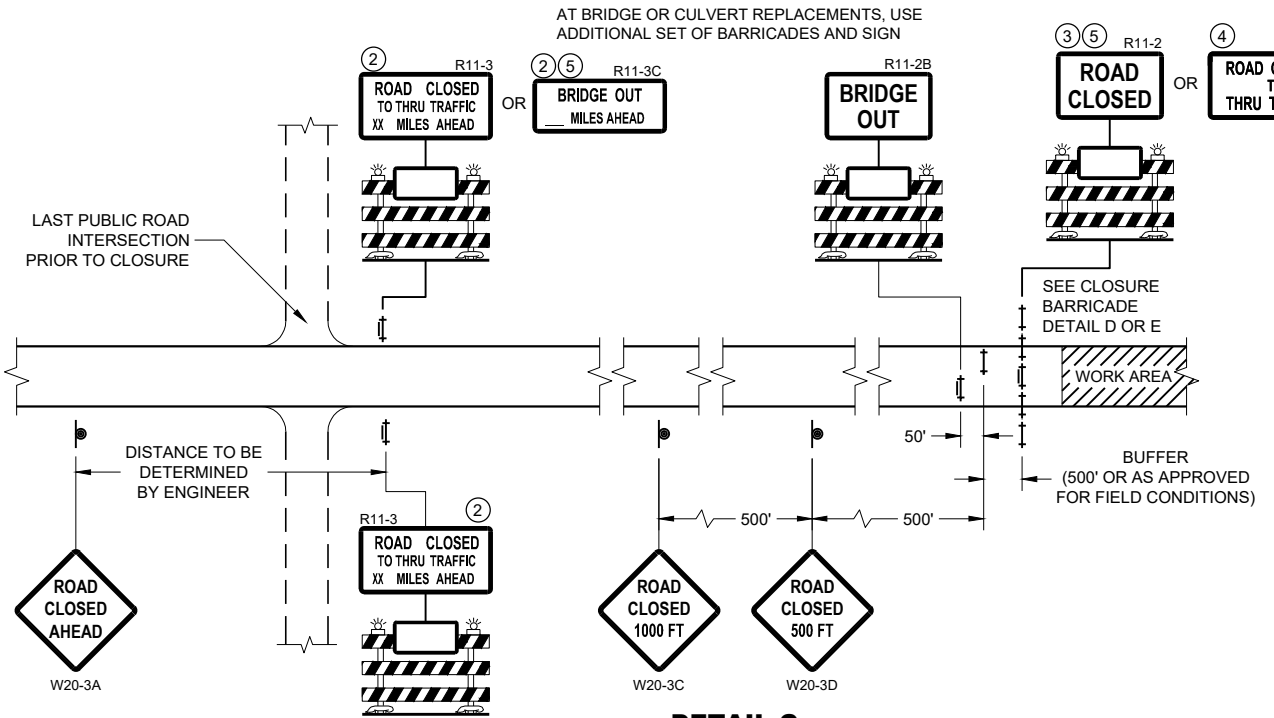
**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

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

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

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

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



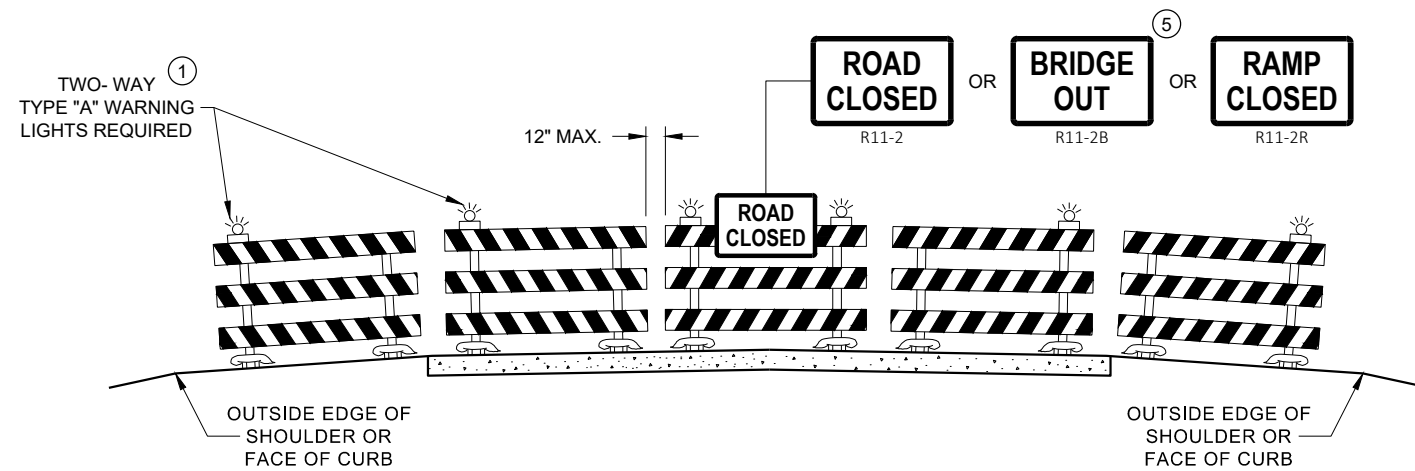
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

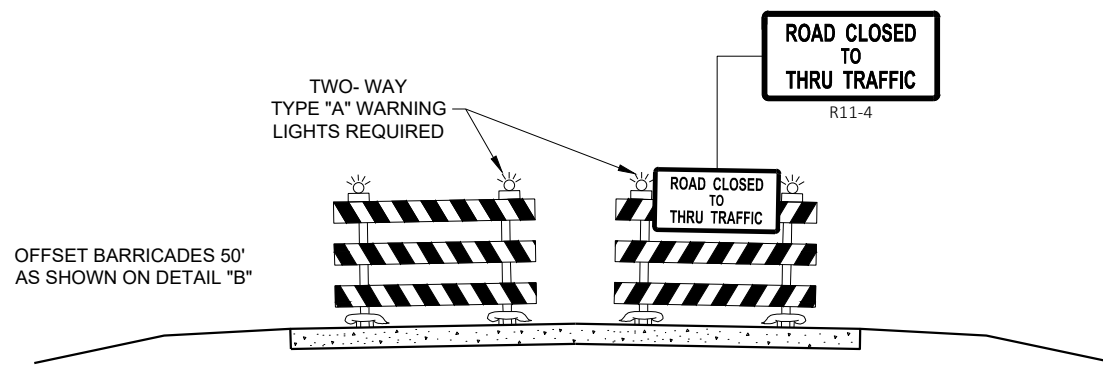
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

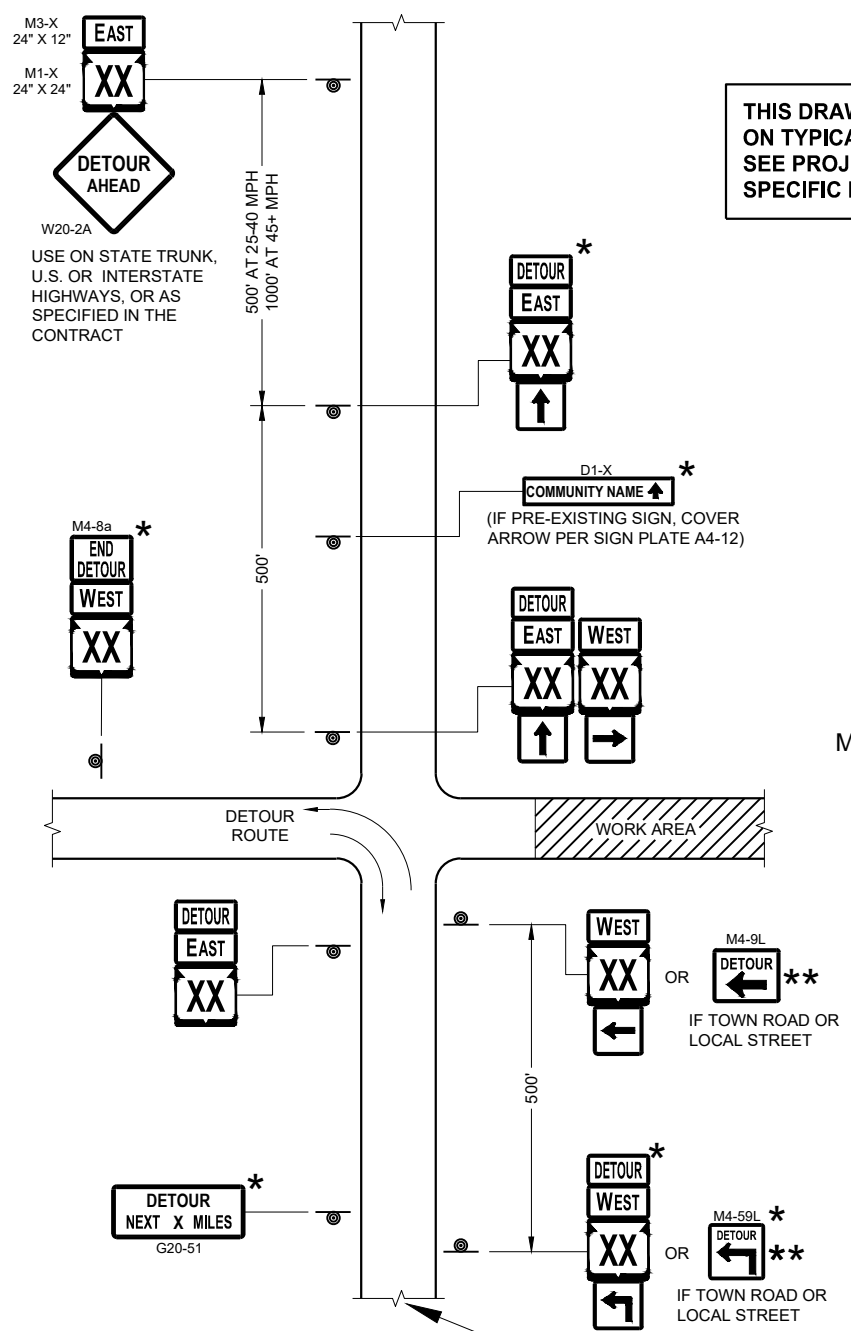
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

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.

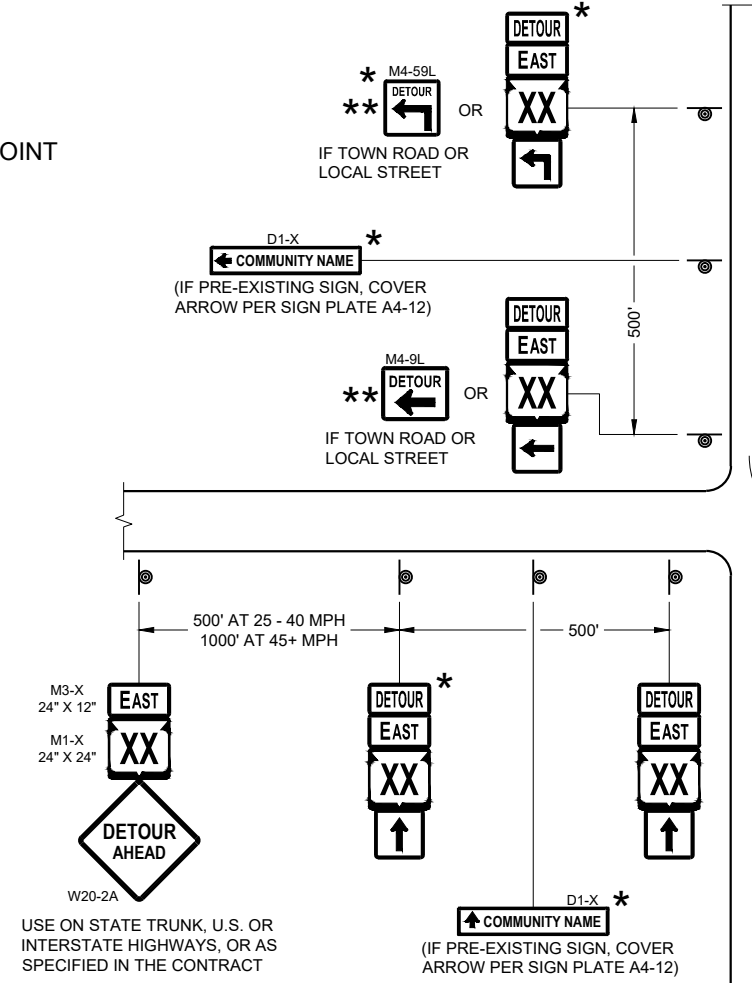
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

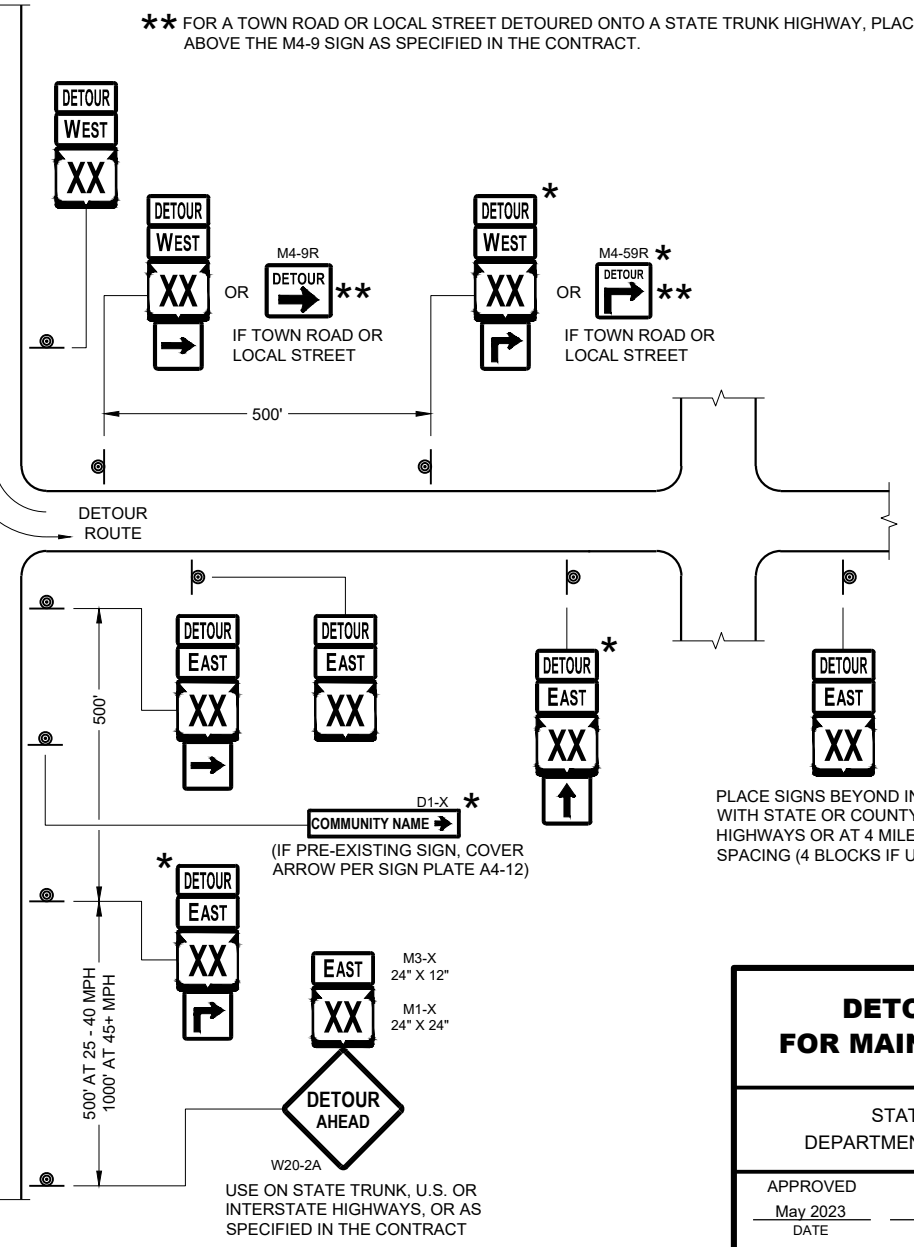
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-9R 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.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



**DETOUR SIGNING
FOR MAINLINE CLOSURES**

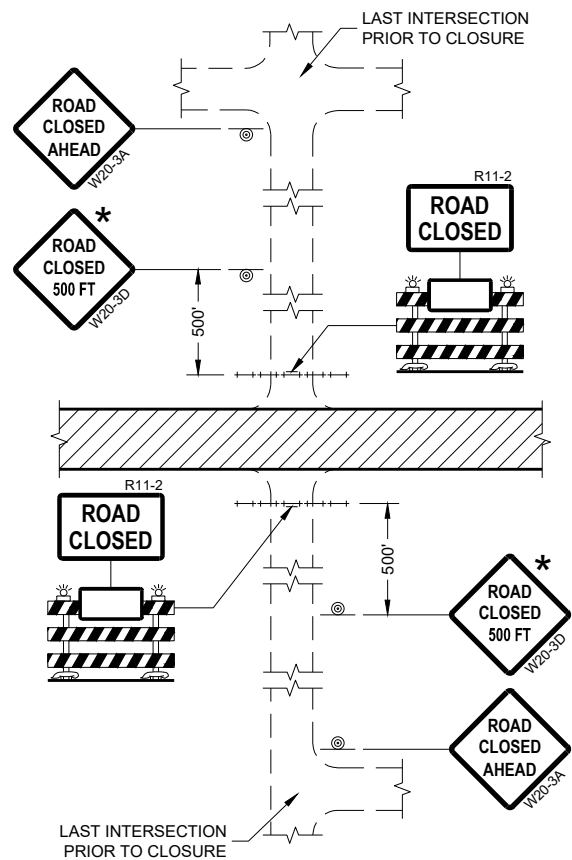
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

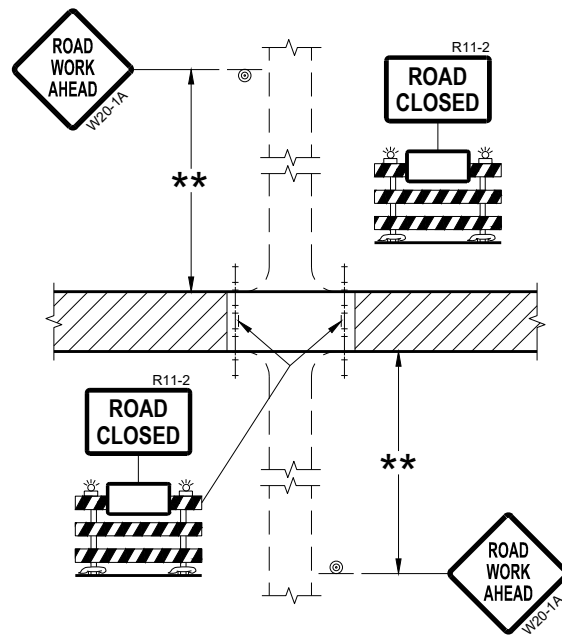
FHWA

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

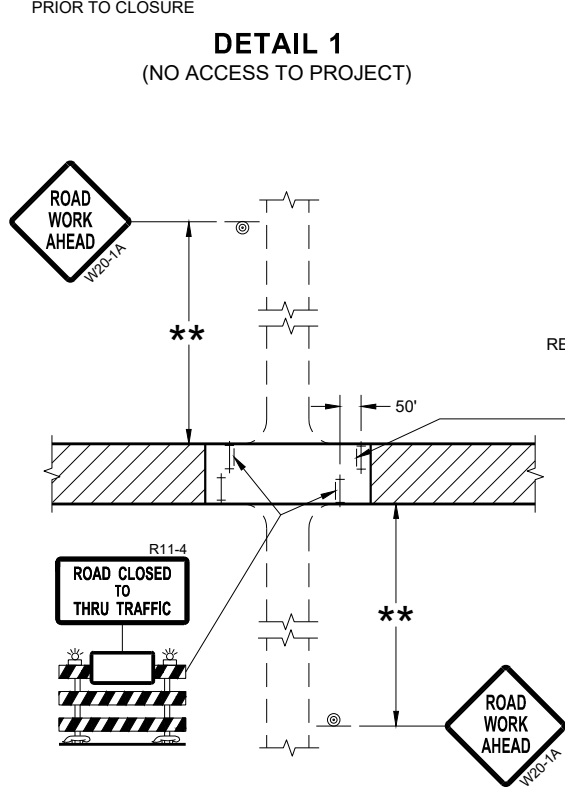
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)



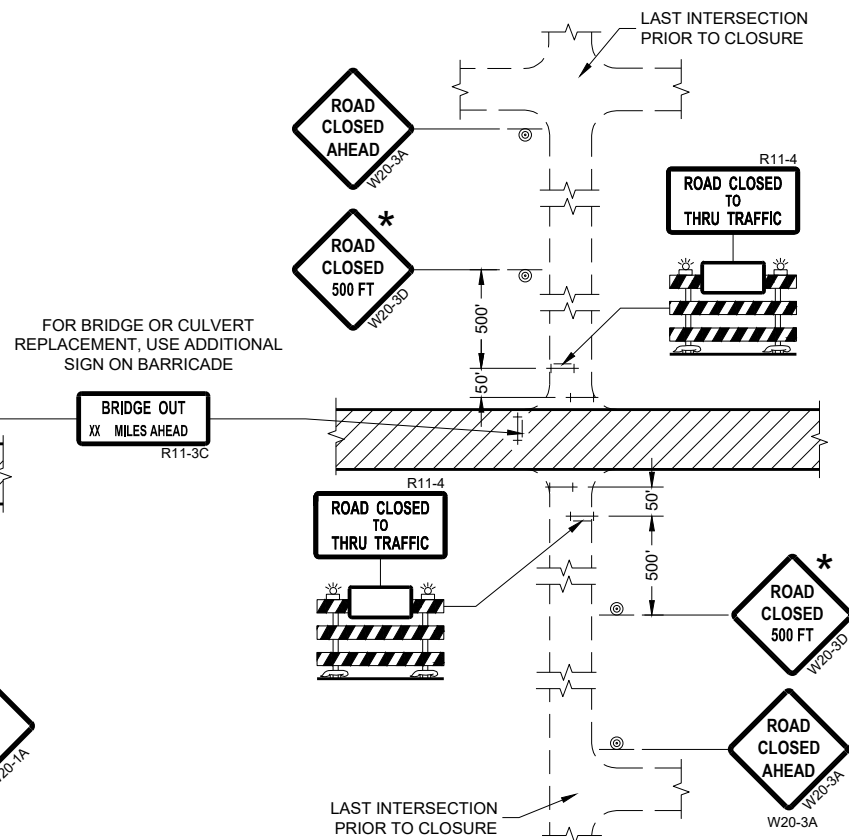
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

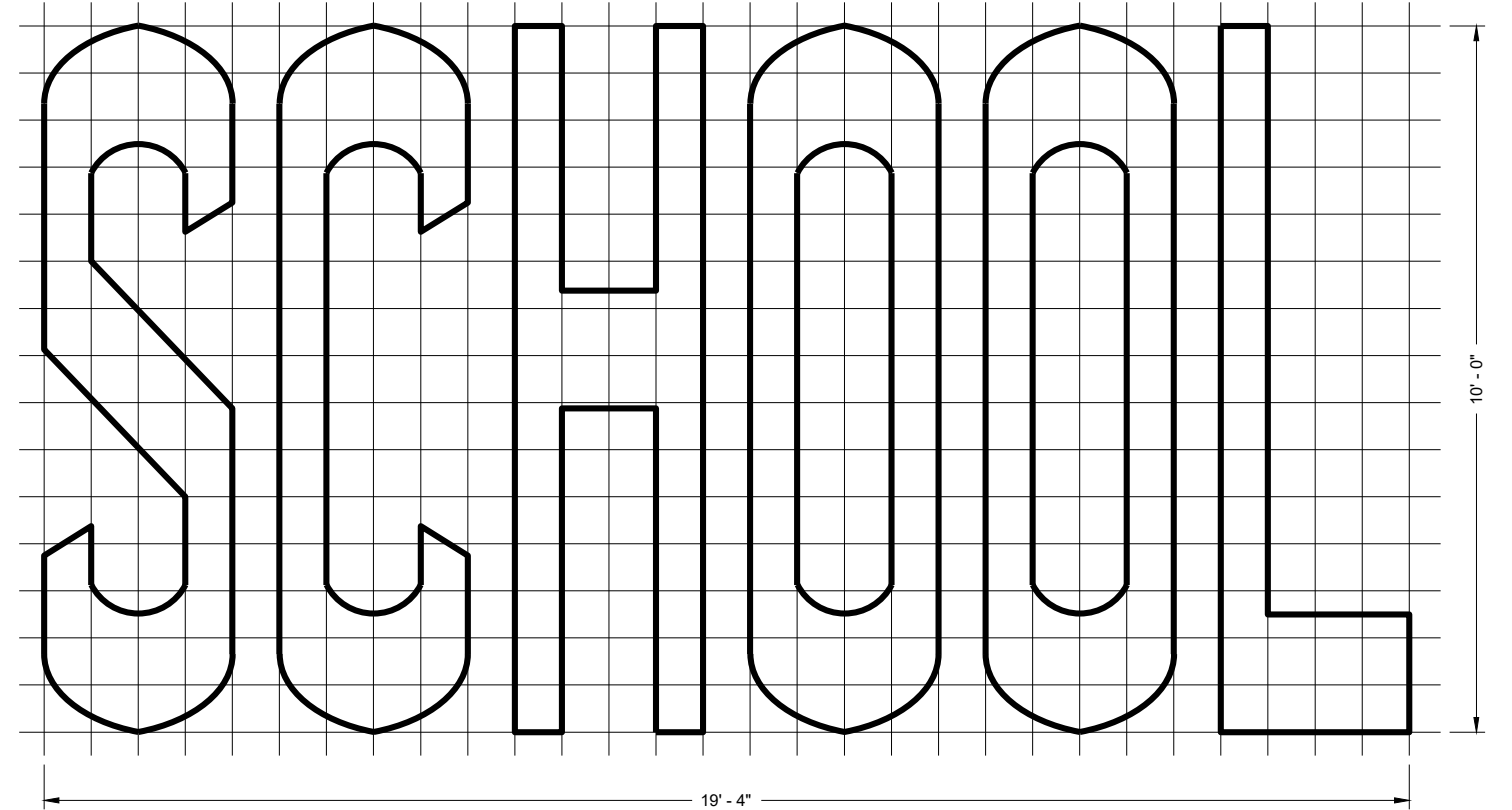
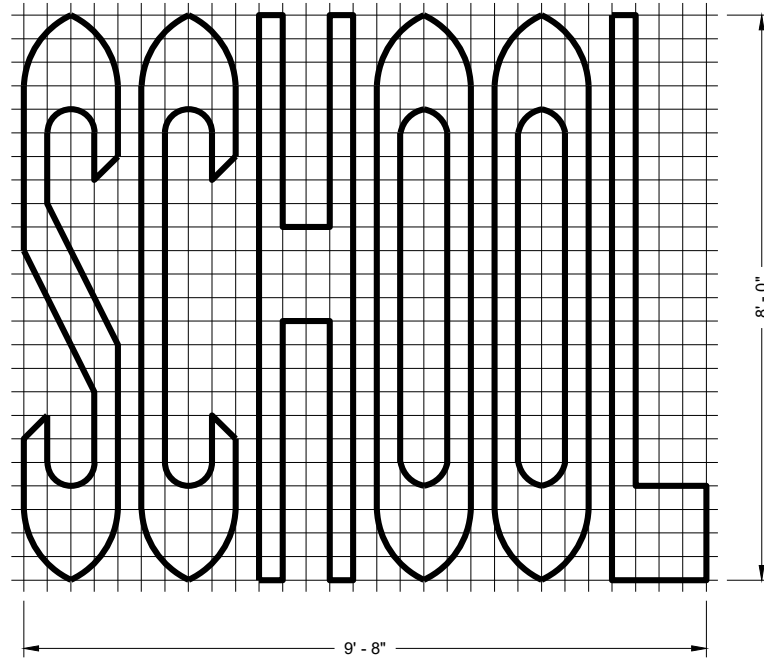
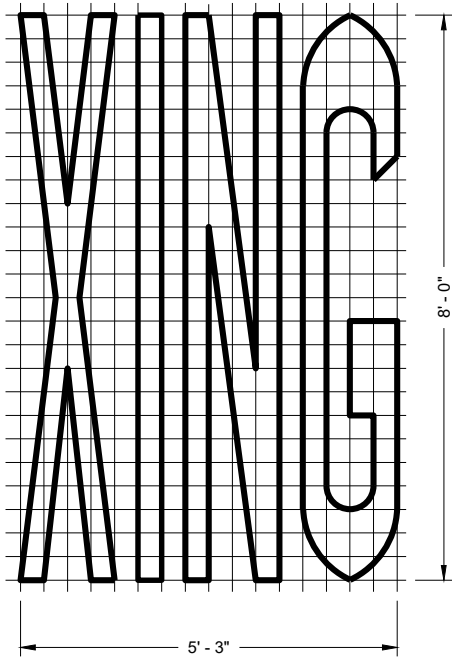
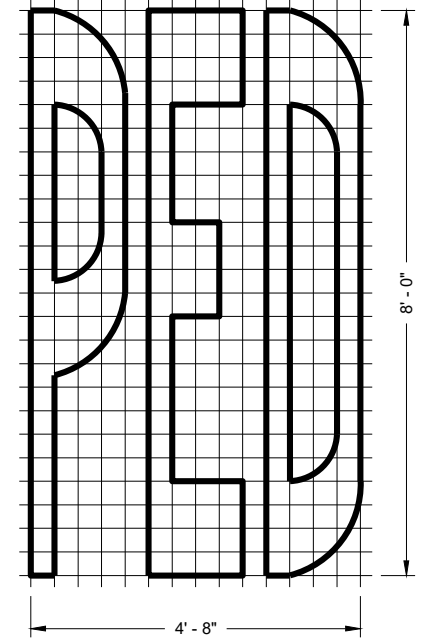
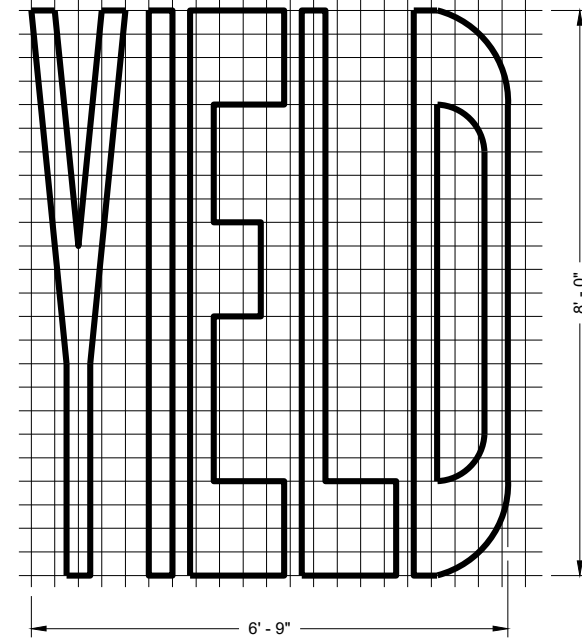
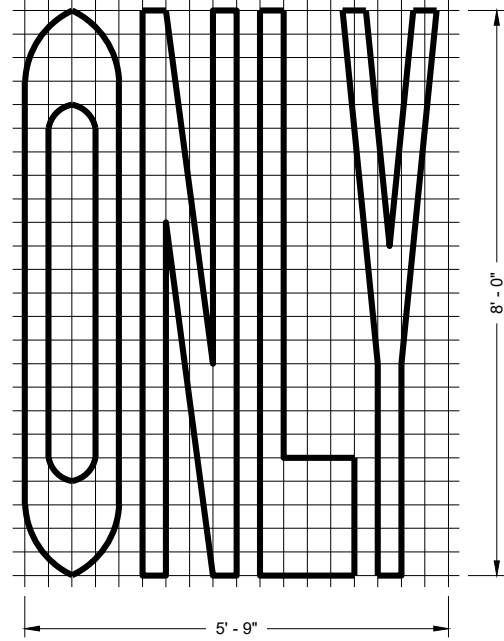
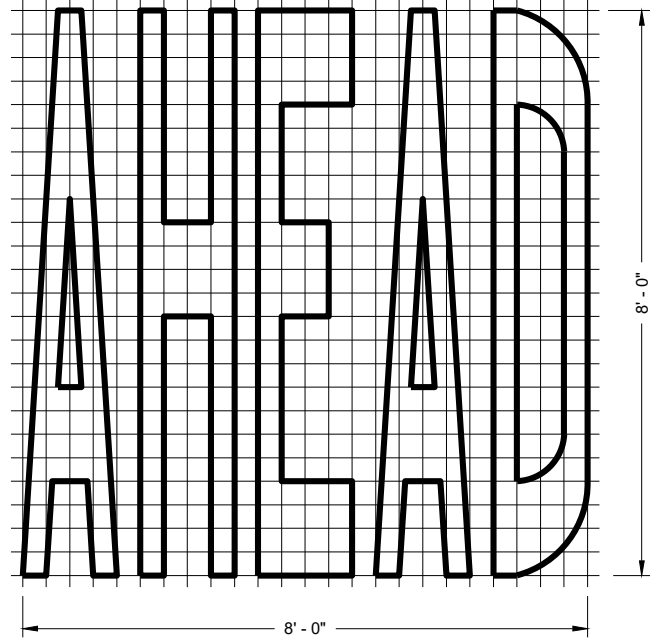
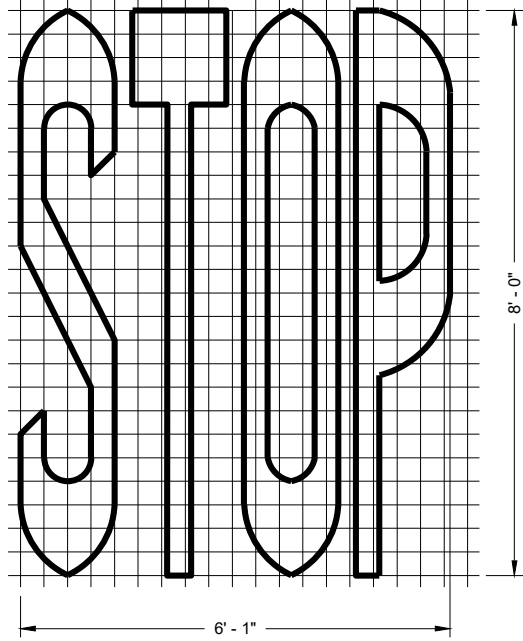
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



SINGLE LANE

TWO - LANE

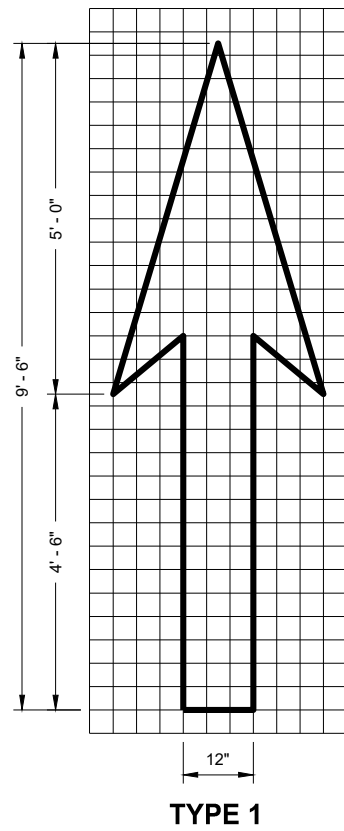
GENERAL NOTES

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

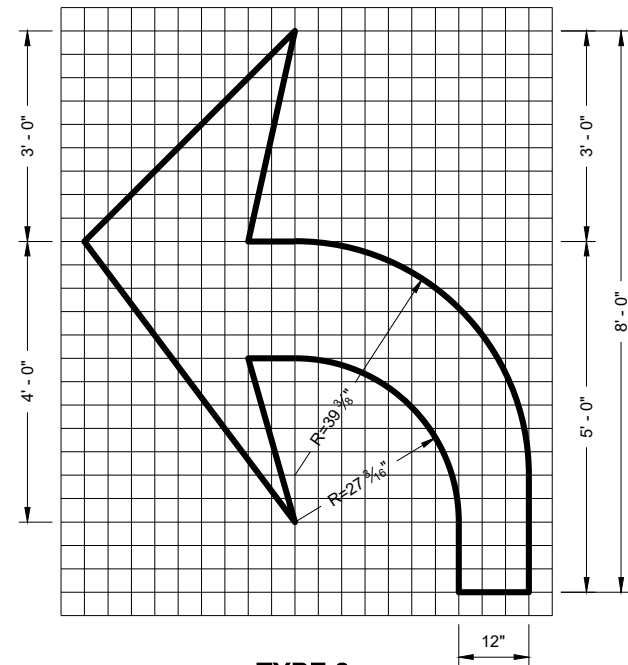
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

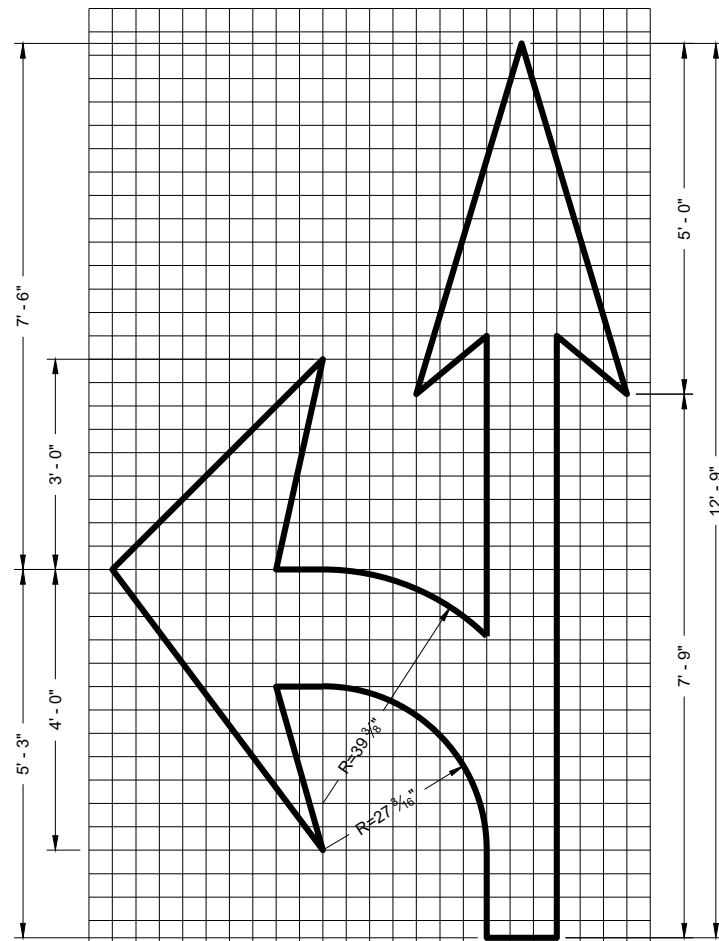
APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER



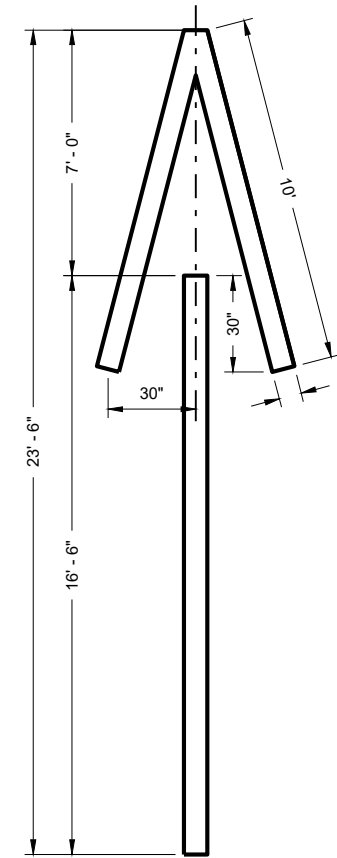
TYPE 1



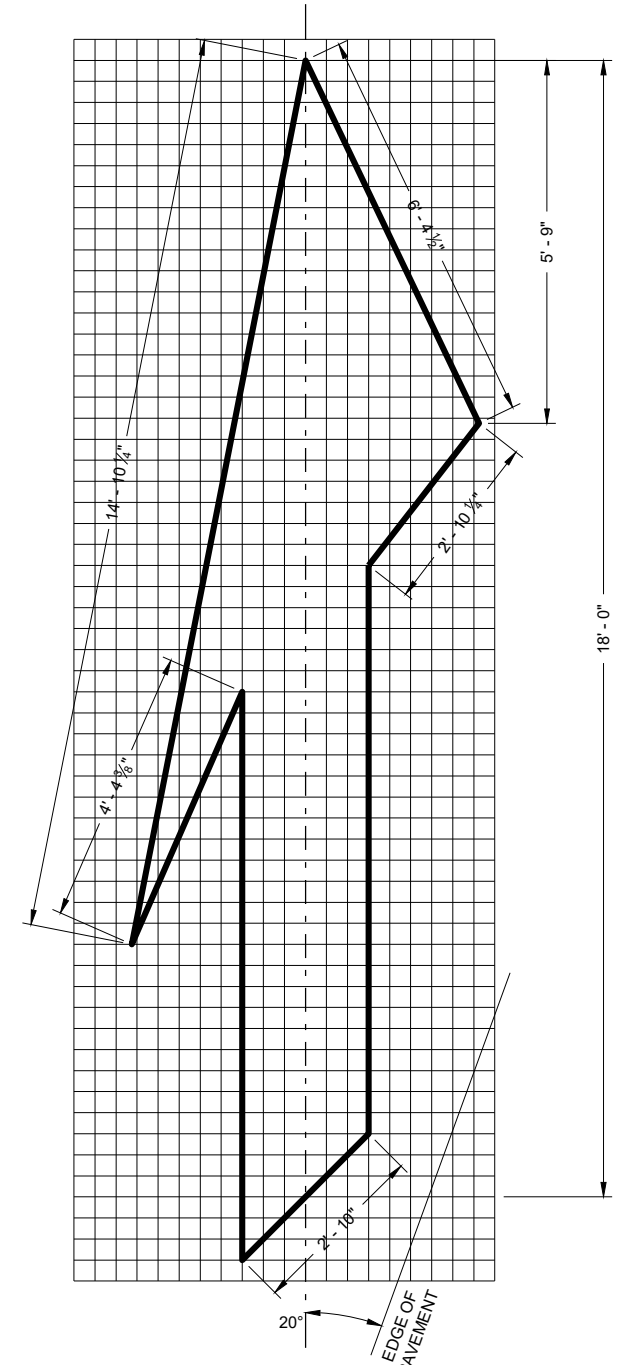
TYPE 2



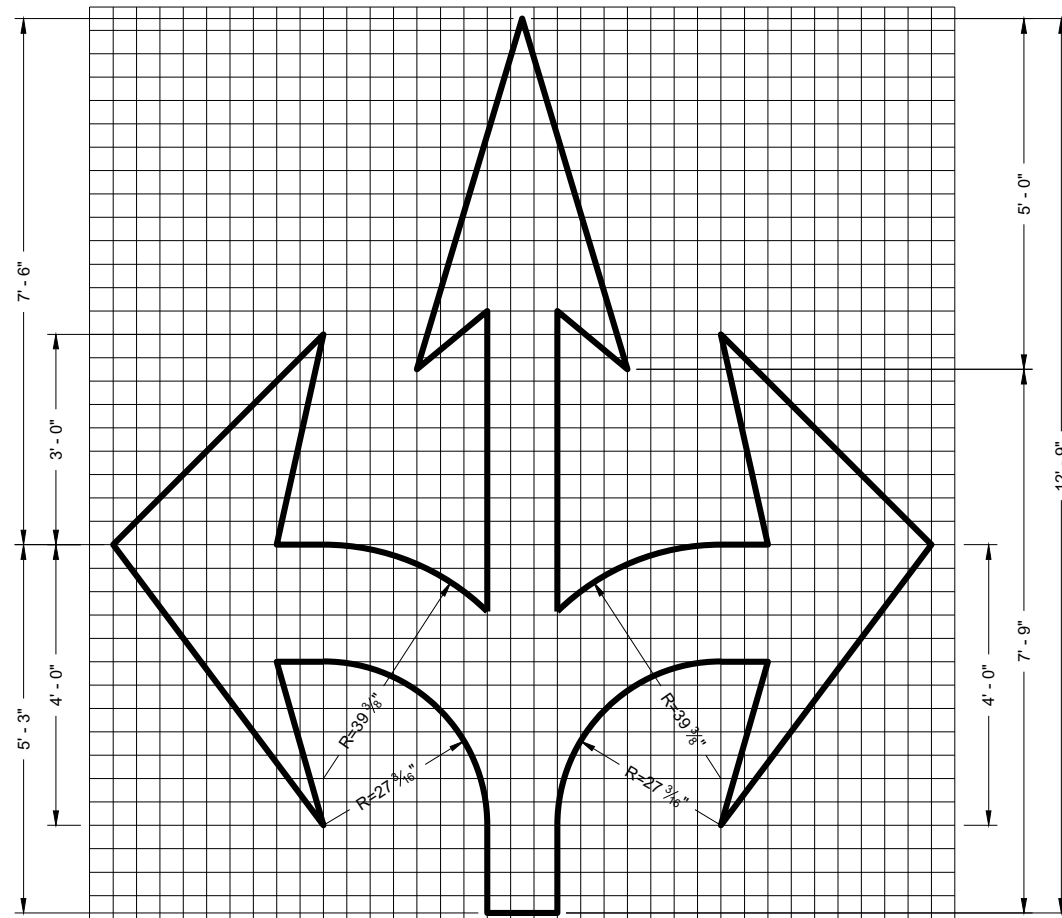
TYPE 3



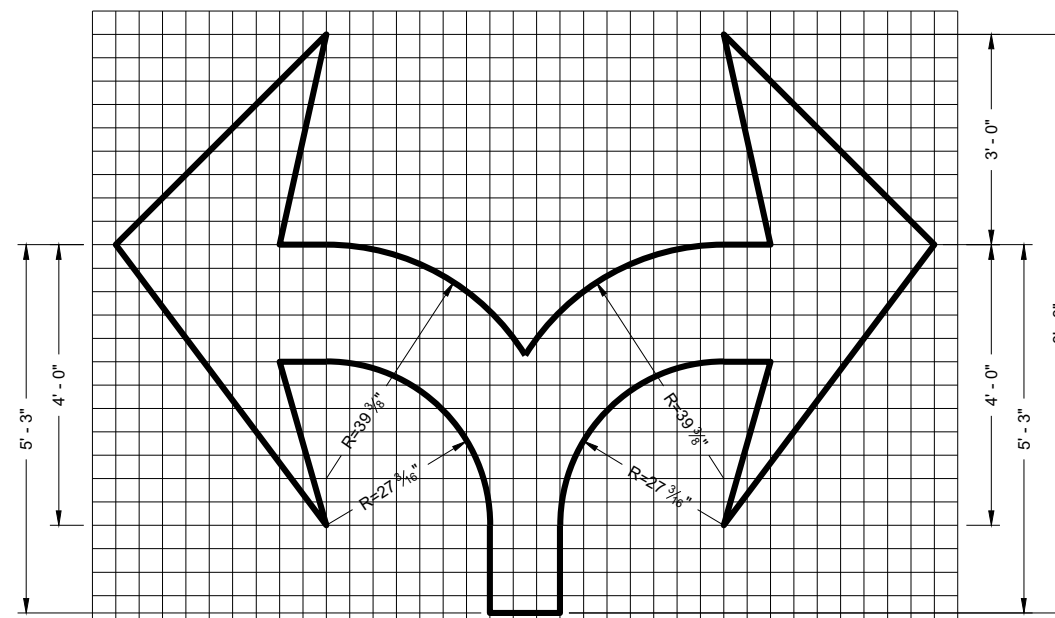
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

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

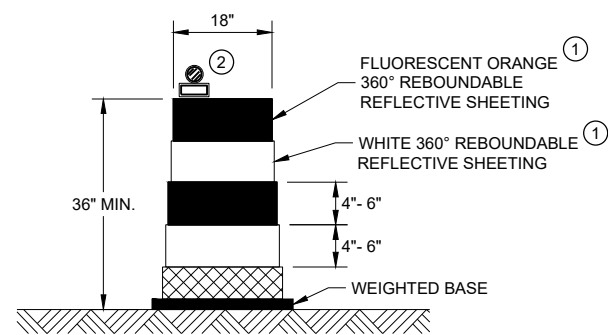
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

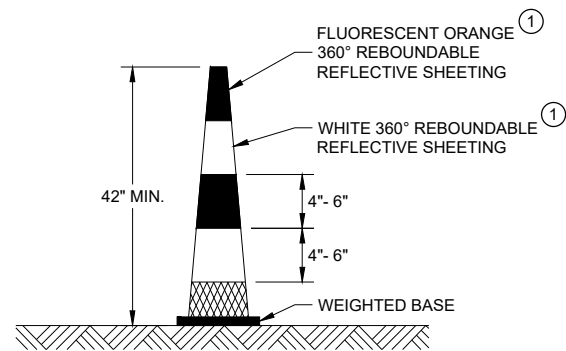
/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

FHWA



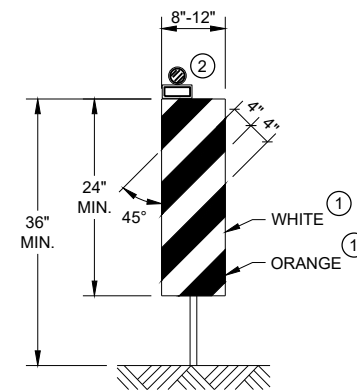
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

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

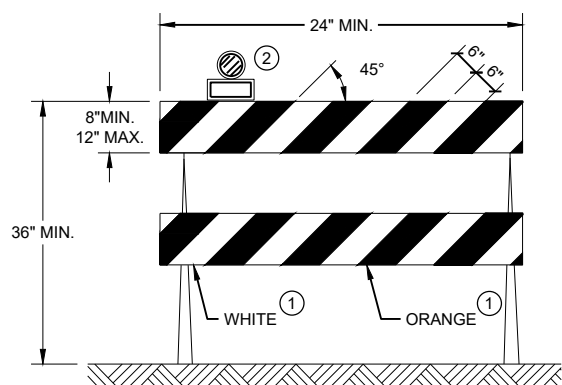


VERTICAL PANEL

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

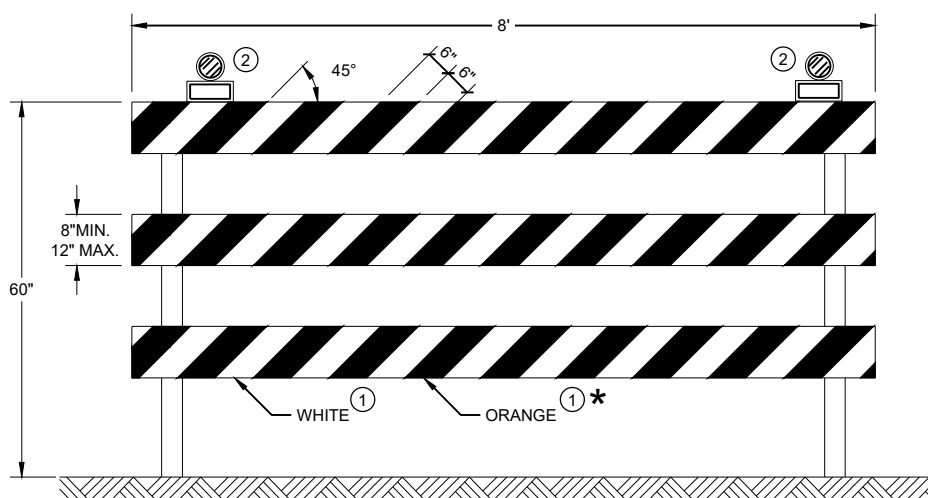
GENERAL NOTES

- 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.



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.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

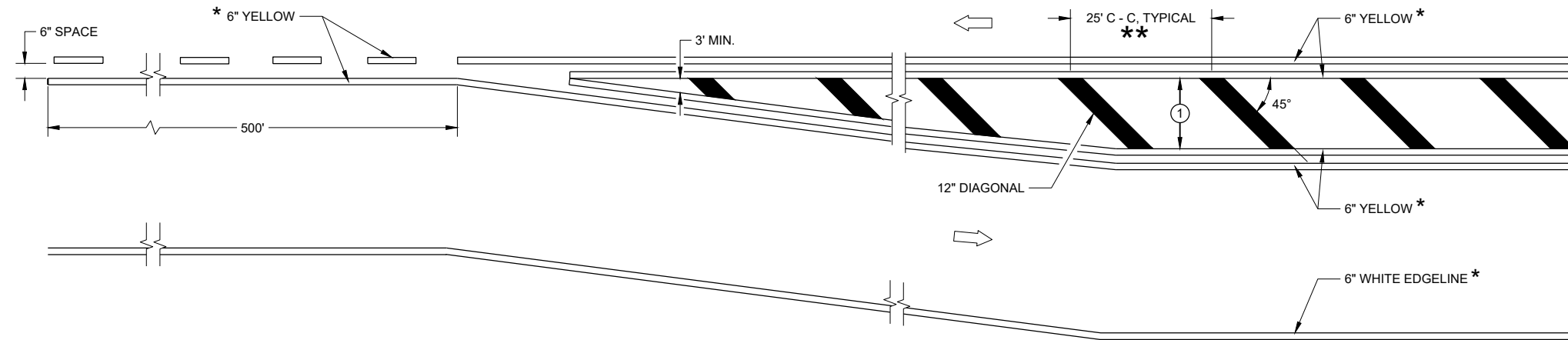
- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

➔ DIRECTION OF TRAVEL

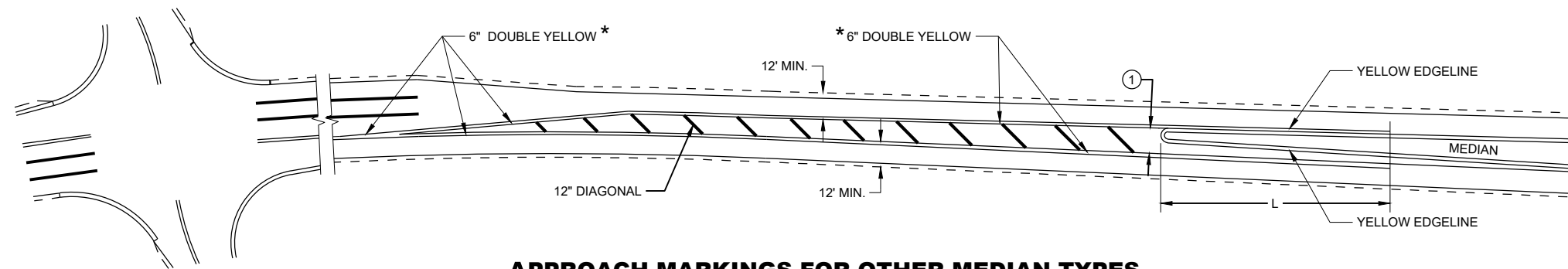
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'

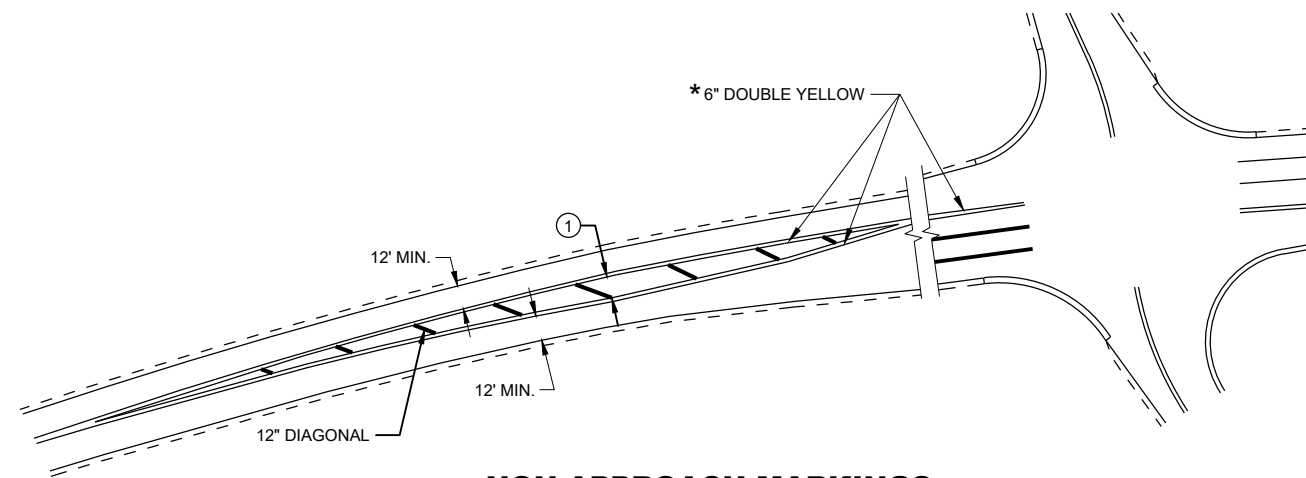
** WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

6

6

SDD 15C18-08a

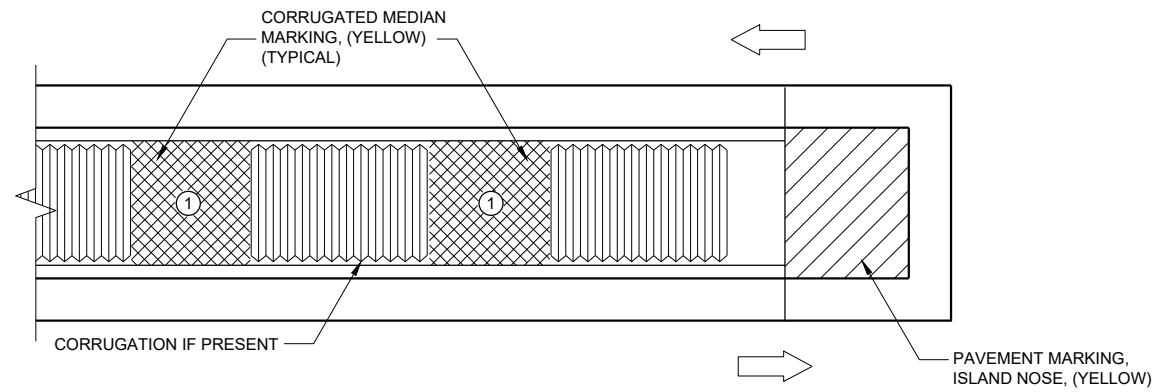
SDD 15C18-08a

MEDIAN ISLAND PAVEMENT MARKINGS

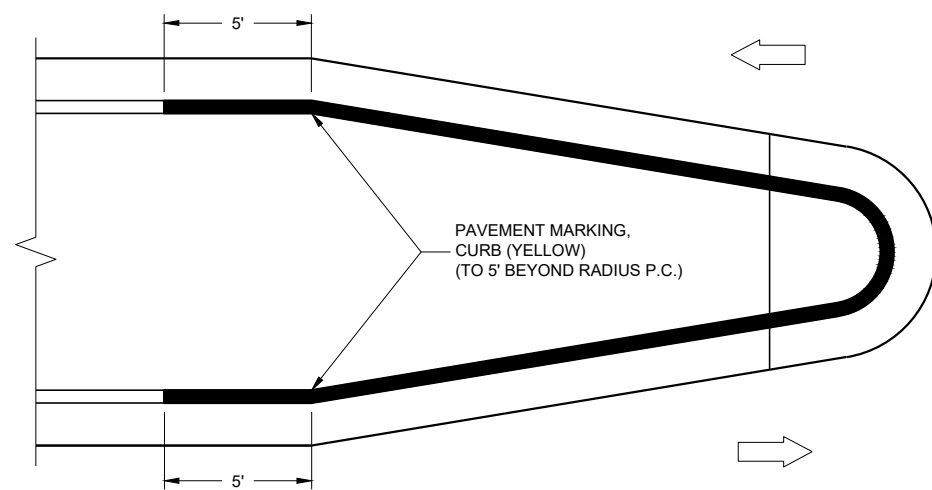
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE /S/ Jeannie Silver
STATE SIGNING AND MARKING ENGINEER

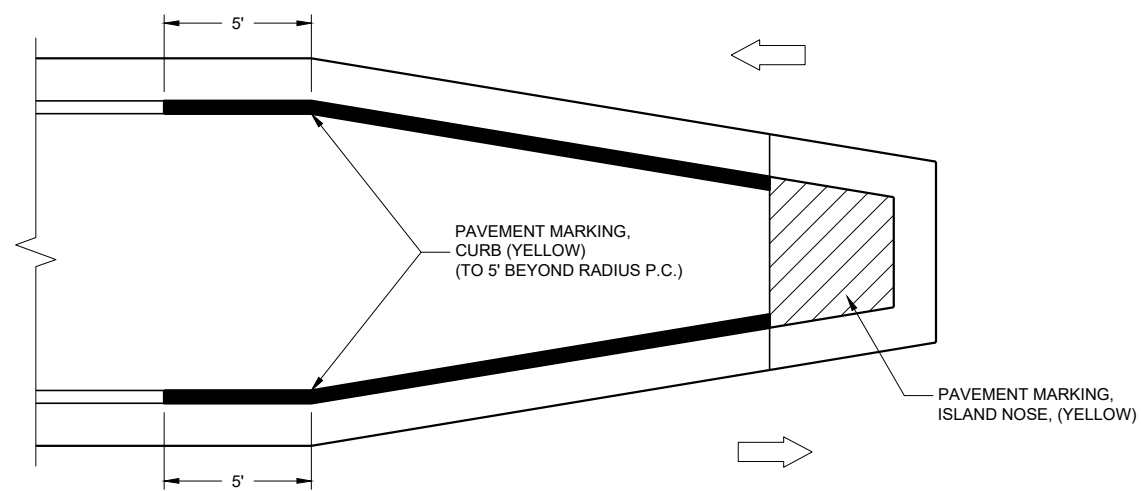
FHWA



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

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

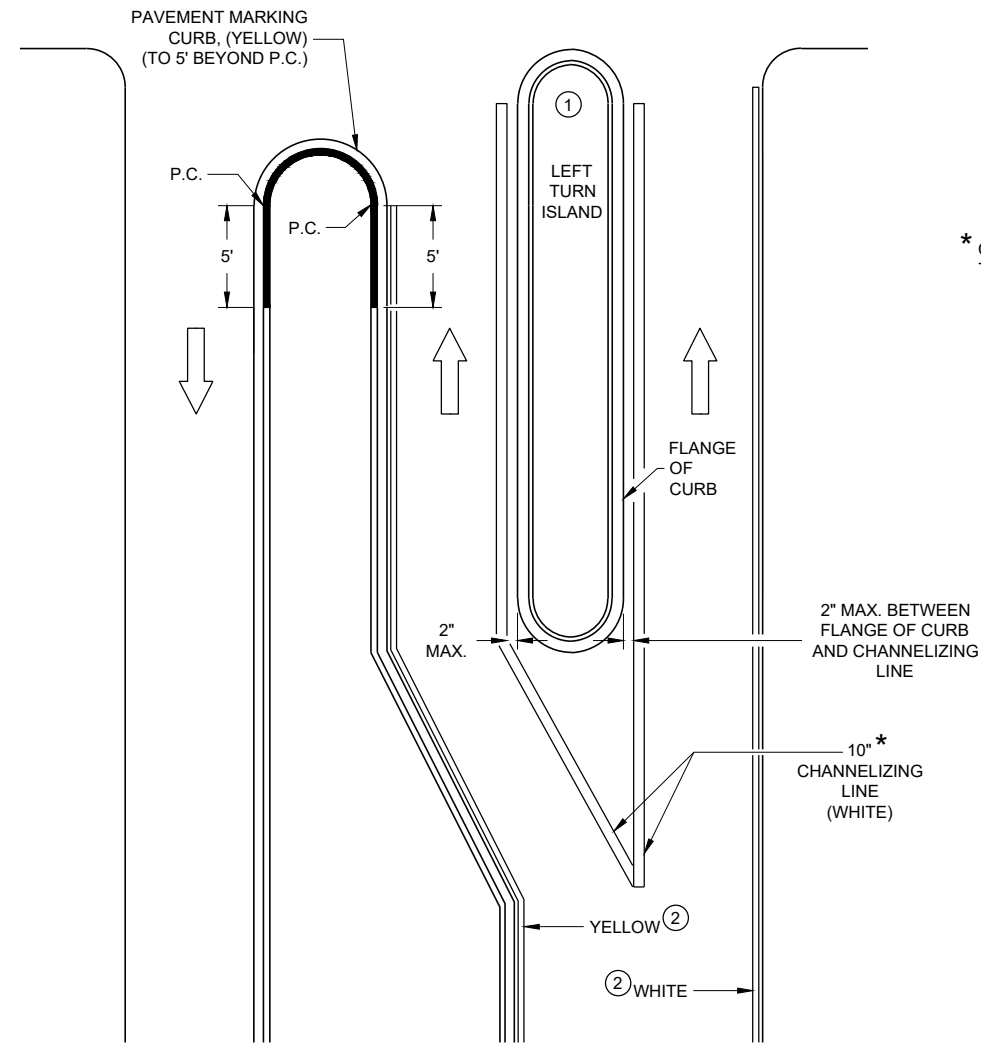
APPROVED
May 2023 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING
ENGINEER

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

GENERAL NOTES

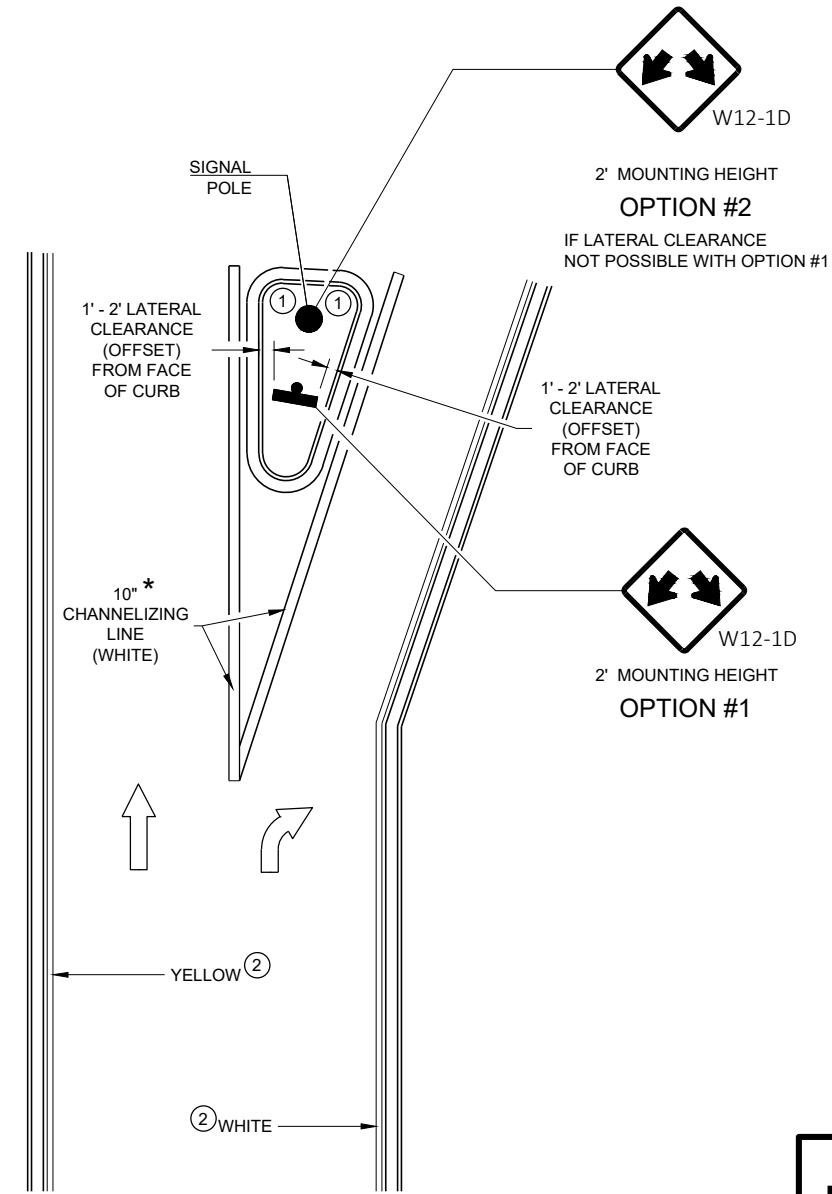
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.



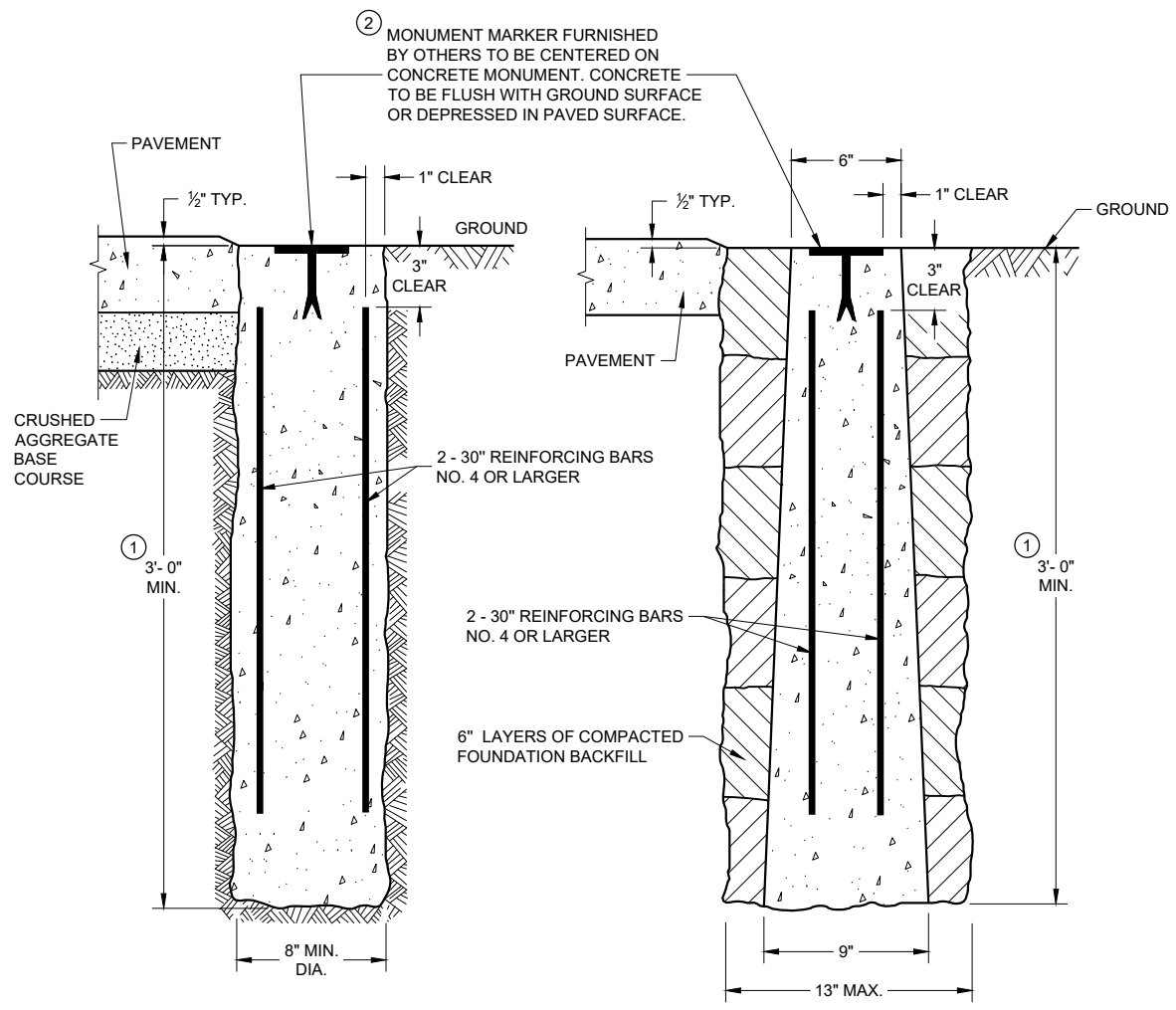
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEFT TURN & MEDIAN ISLAND

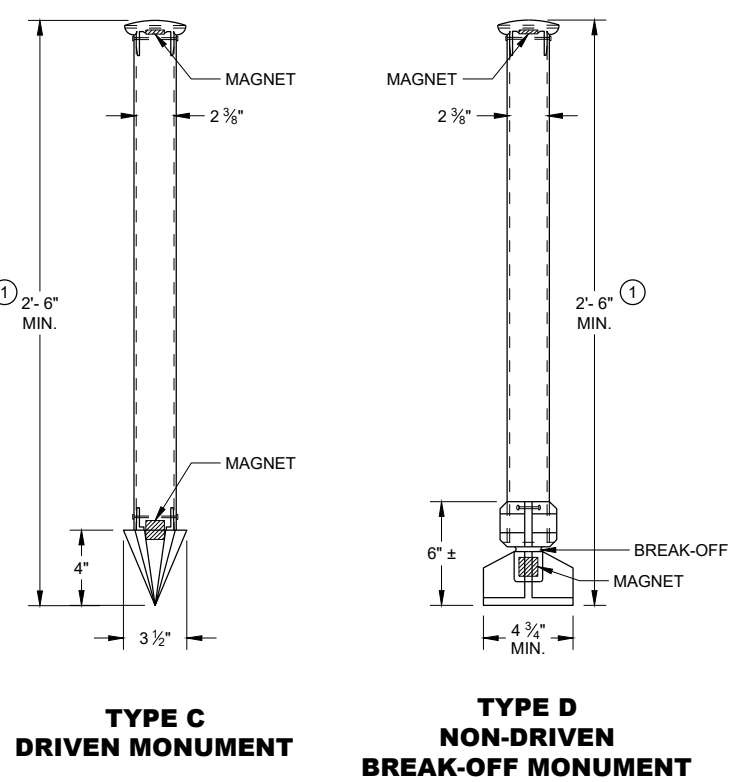


RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver STATE SIGNING AND MARKING ENGINEER
FHWA	



**CAST-IN-PLACE
CONCRETE MONUMENTS
TYPE A**



**TYPE C
DRIVEN MONUMENT**
**TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT**
**ALUMINUM MONUMENTS
(INCLUDES MARKER)**

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

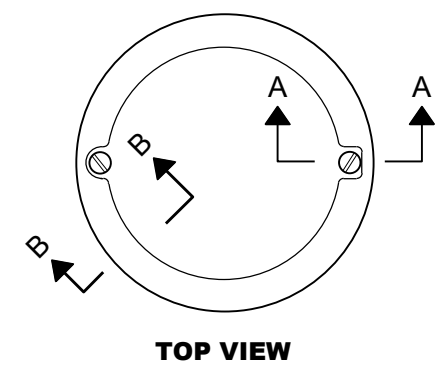
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

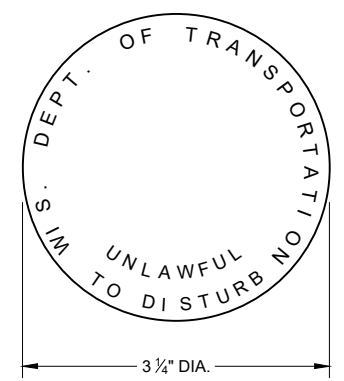
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

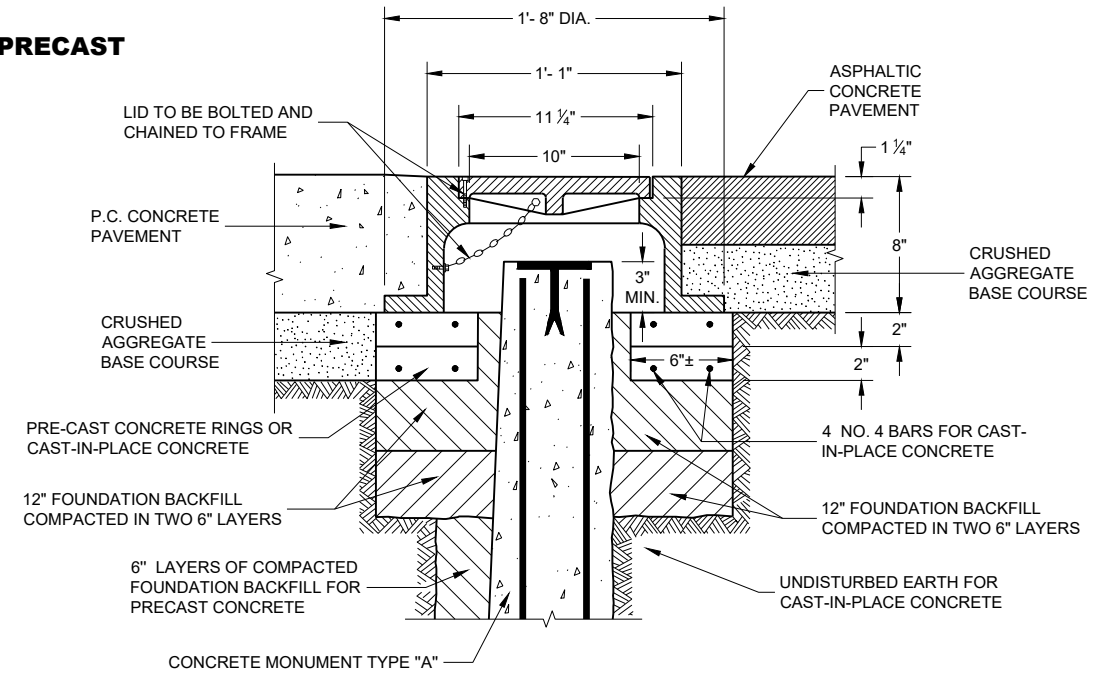
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



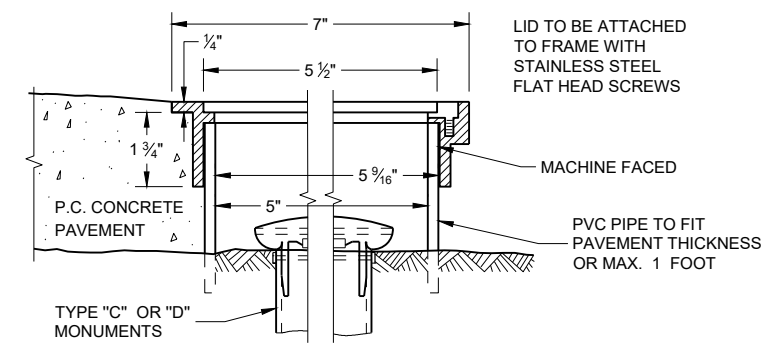
TOP VIEW



② **WIS DOT MONUMENT MARKER LOGO**
FOR TYPES "A", "C" & "D"



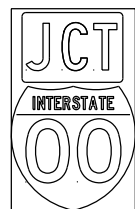
CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)



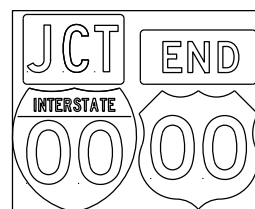
**SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER**
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Raymond A. Kumapayil CHIEF SURVEYING AND MAPPING ENGINEER
<small>FHWA</small>	

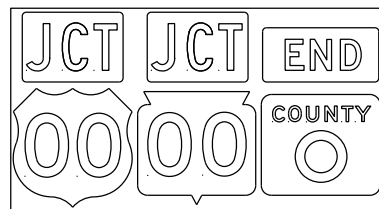
TYPICAL ASSEMBLIES



J1-1



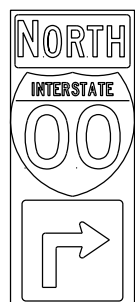
J1-2



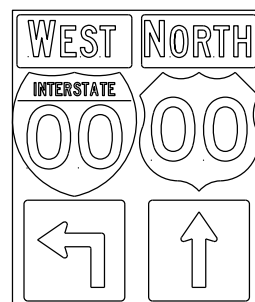
J1-3



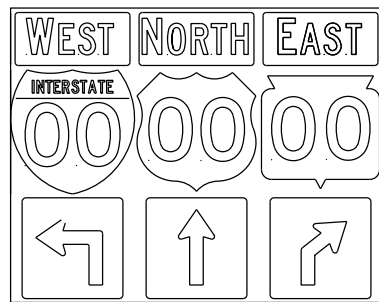
JR1-1



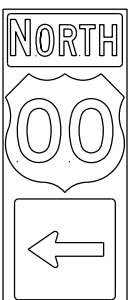
J2-1



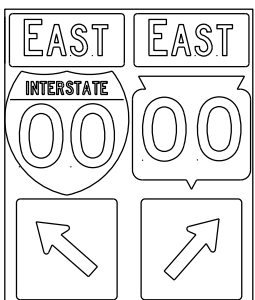
J2-2



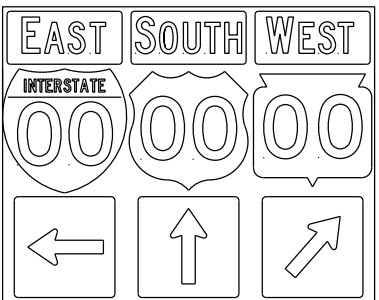
J2-3



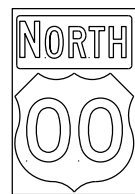
J3-1



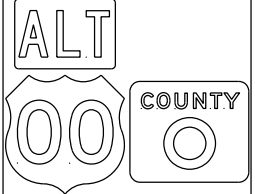
J3-2



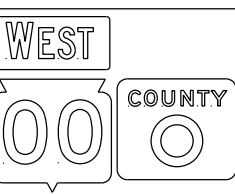
J3-3



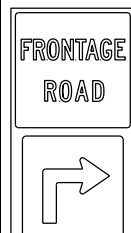
J4-1



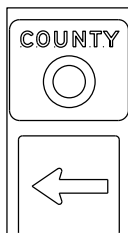
J4-2



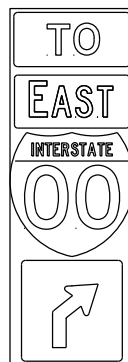
J4-2



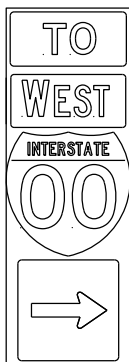
J12-1



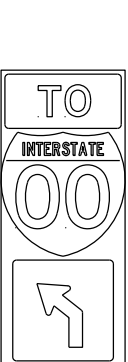
J13-1



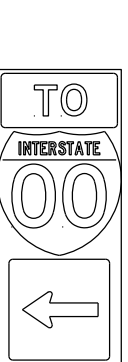
J32-1



J33-1



J22-1



J23-1



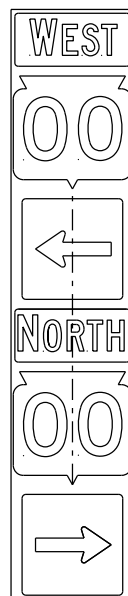
JR13-1



JR23-1

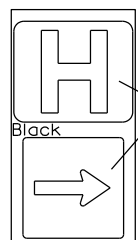


JR99-1



JV

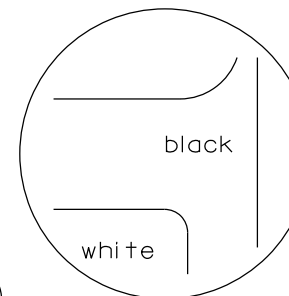
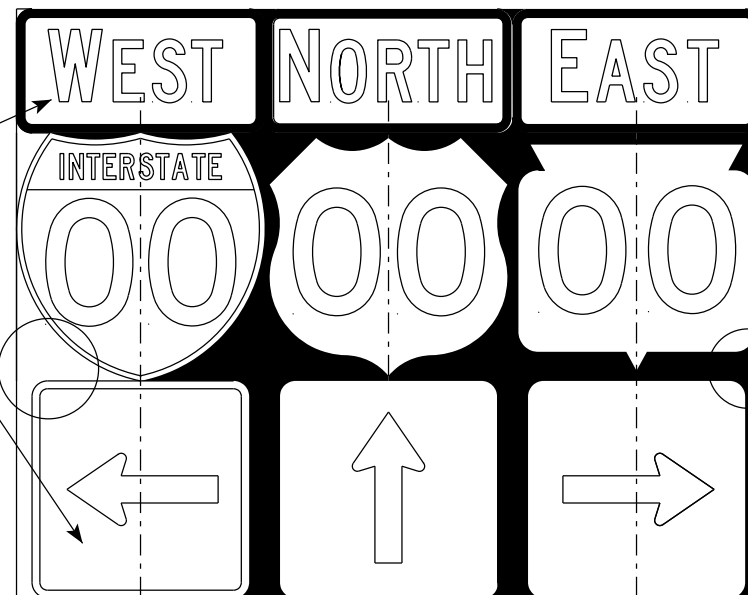
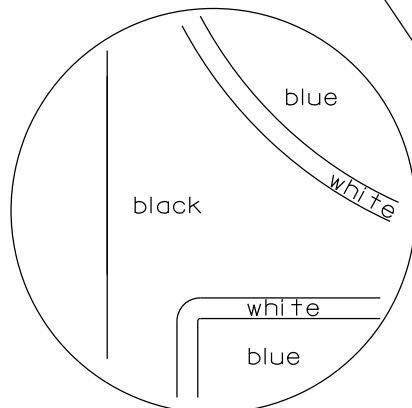
(Typical Vertical J-Assembly See Note 10 and 11)



JH-1

Blue Background

blue background with interstate



black background

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Black Non-reflective
 - Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
- 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.
- 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.
- 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.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/18/21

PLATE NO. A2-1S.9

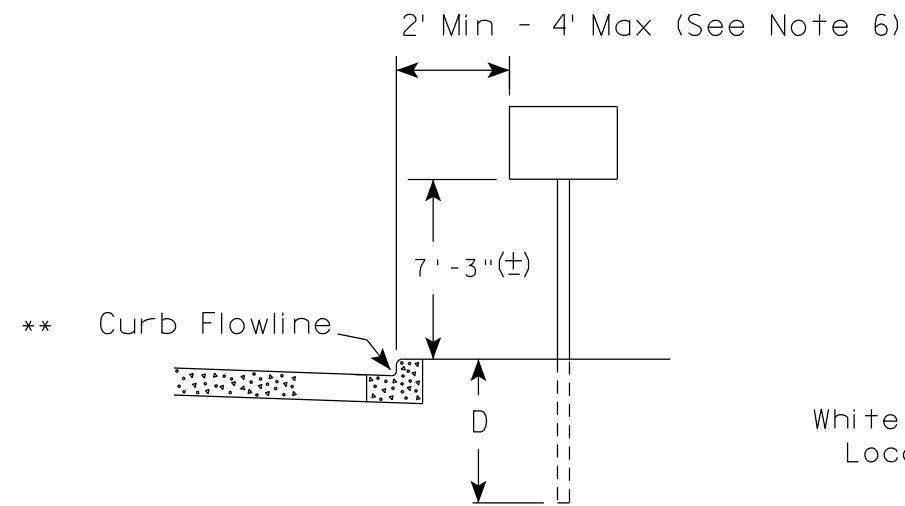
PROJECT NO:

SHEET NO:

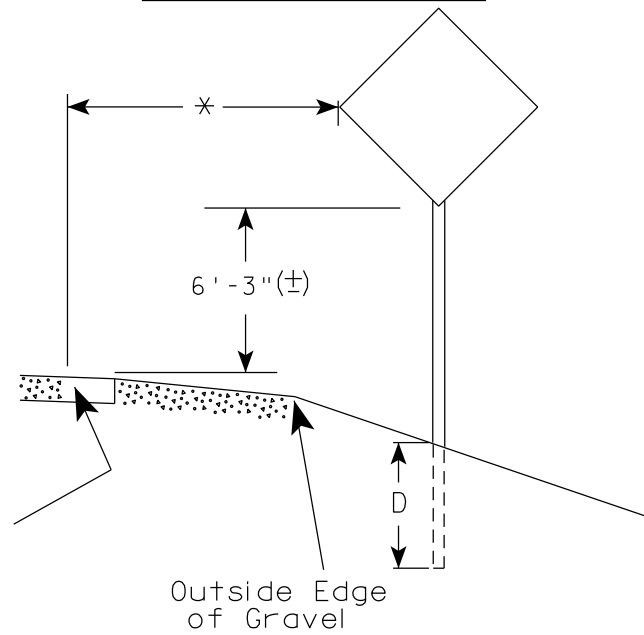
E

URBAN AREA

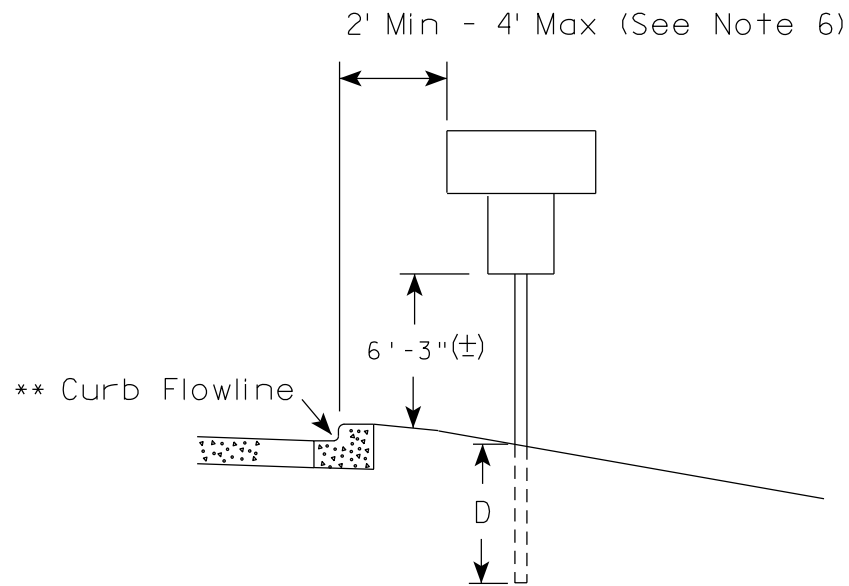
RURAL AREA (See Note 2)



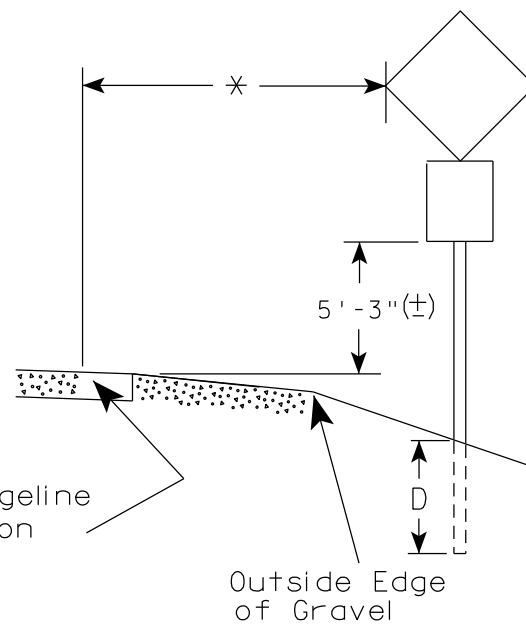
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

7

7

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

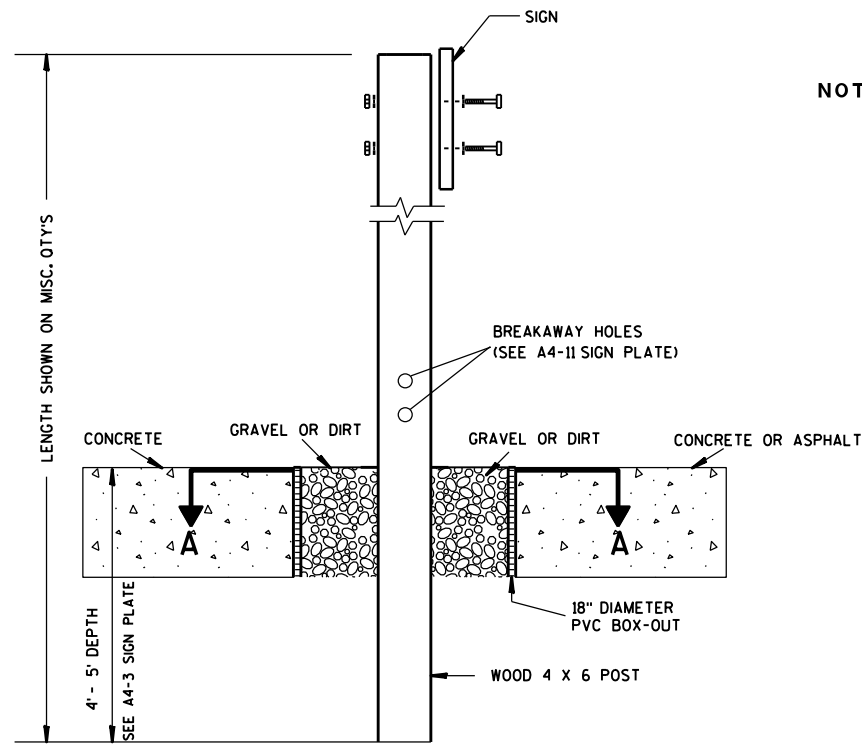
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

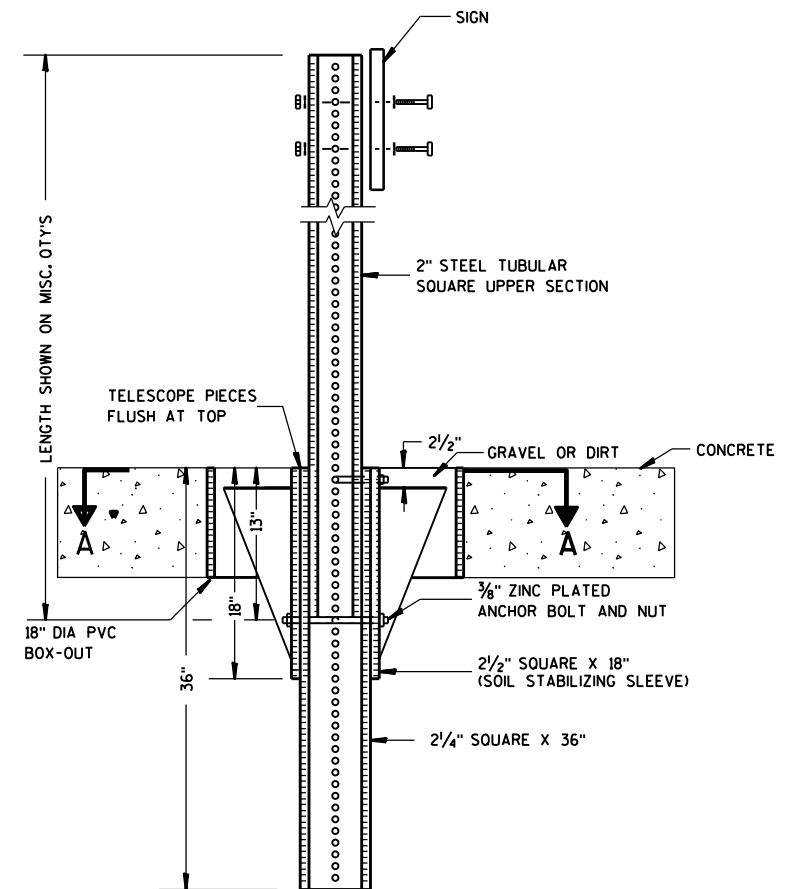
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

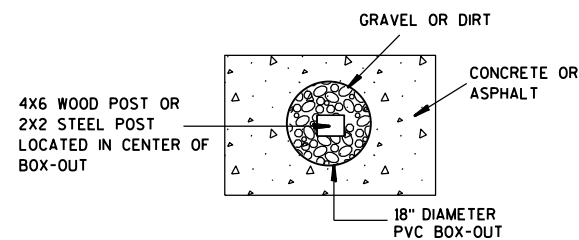
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

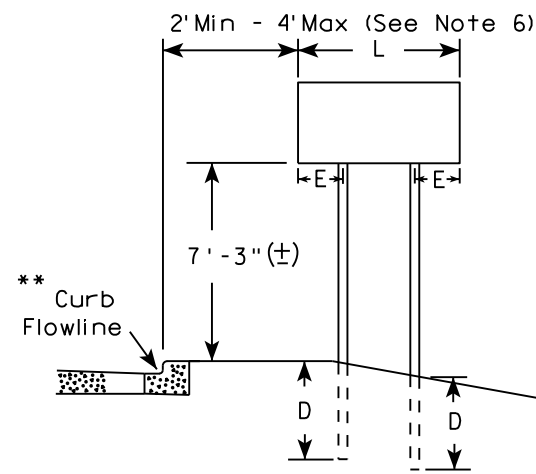
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

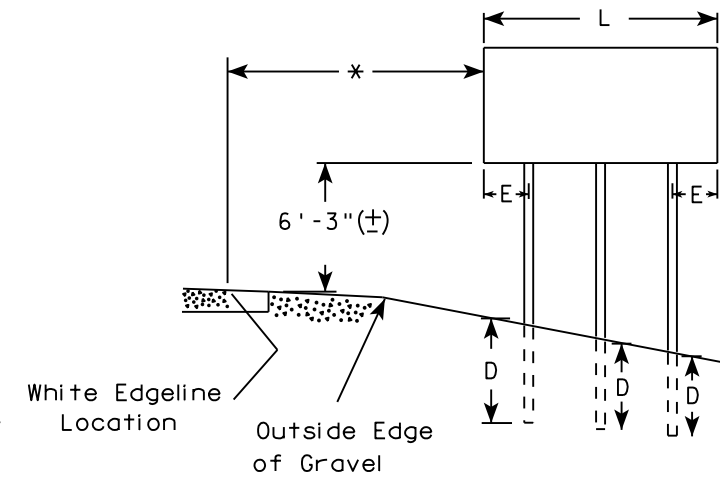
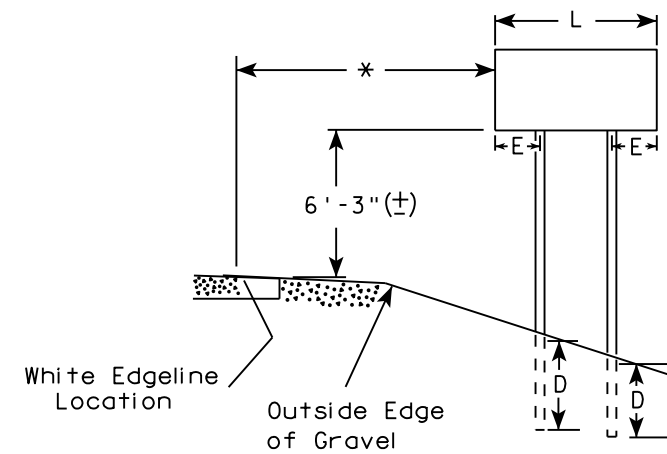
GENERAL NOTES

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" (±) or 6'-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" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-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" (±).

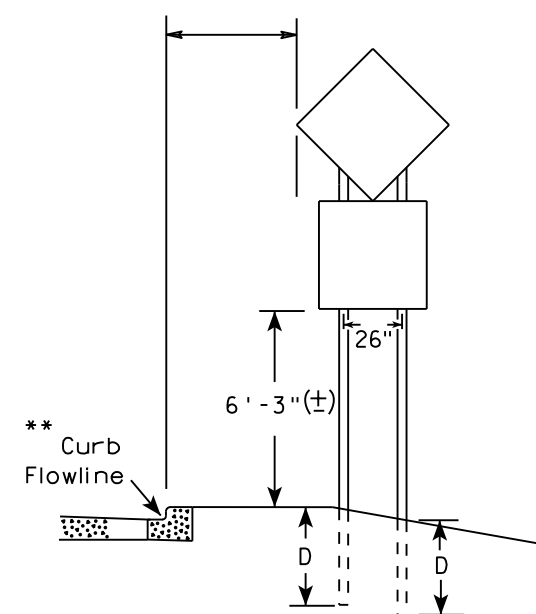
URBAN AREA



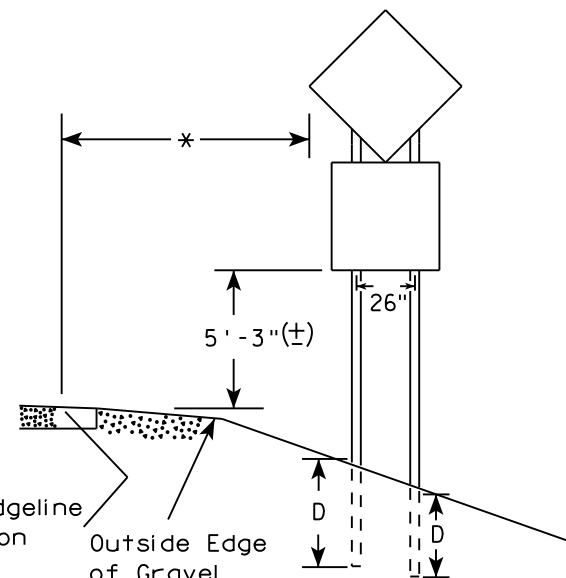
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

* 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

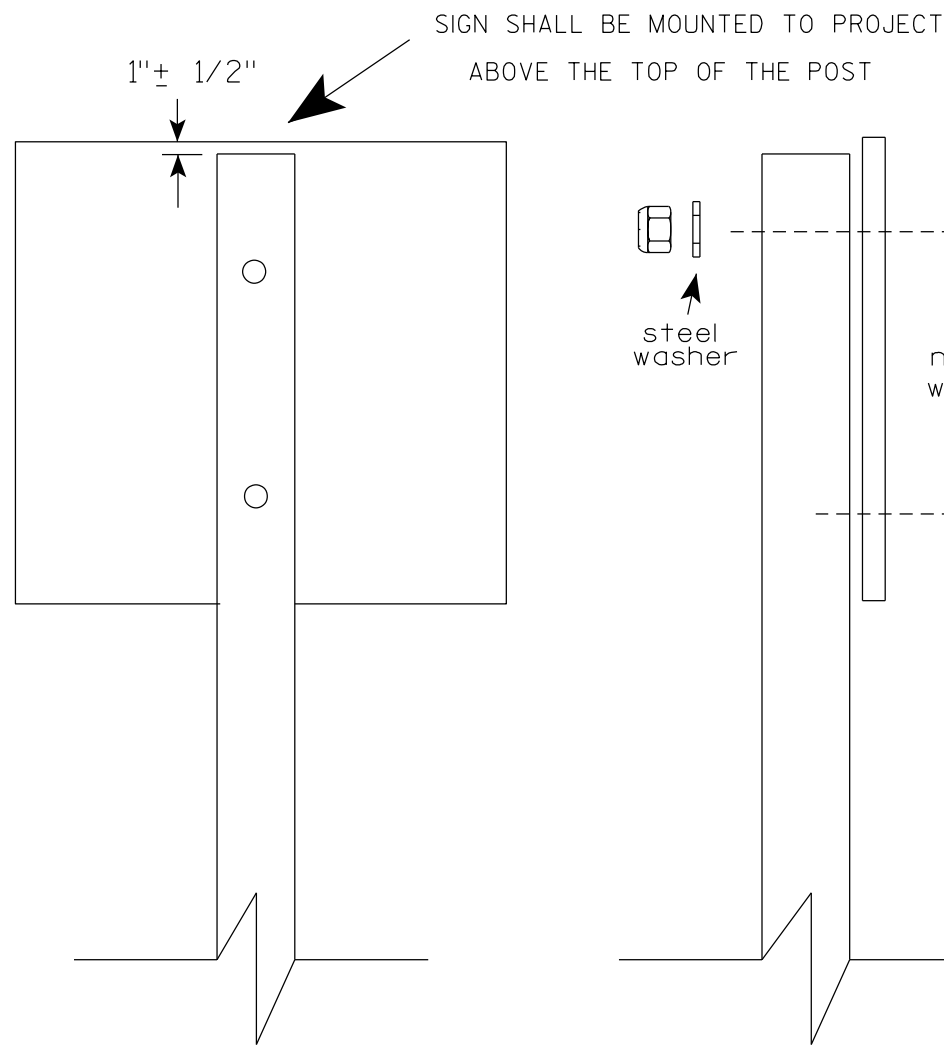
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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 8/21/17 PLATE NO. A4-4.15



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

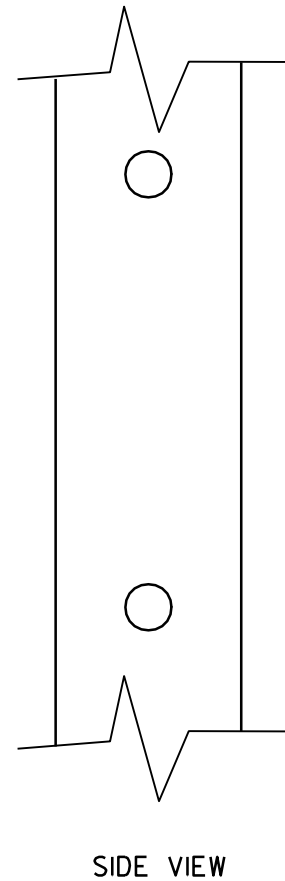
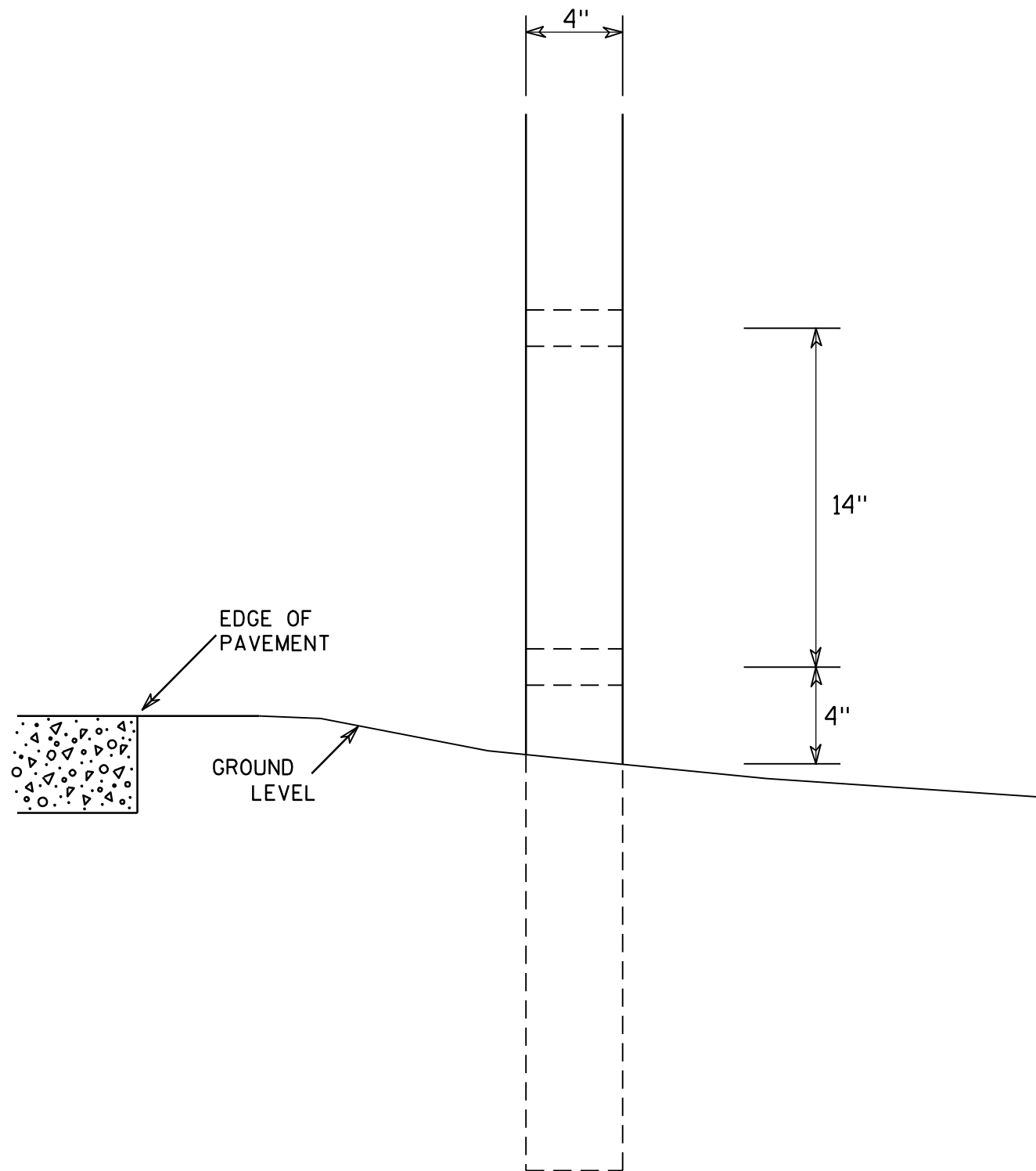
- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " 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



GENERAL NOTES

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

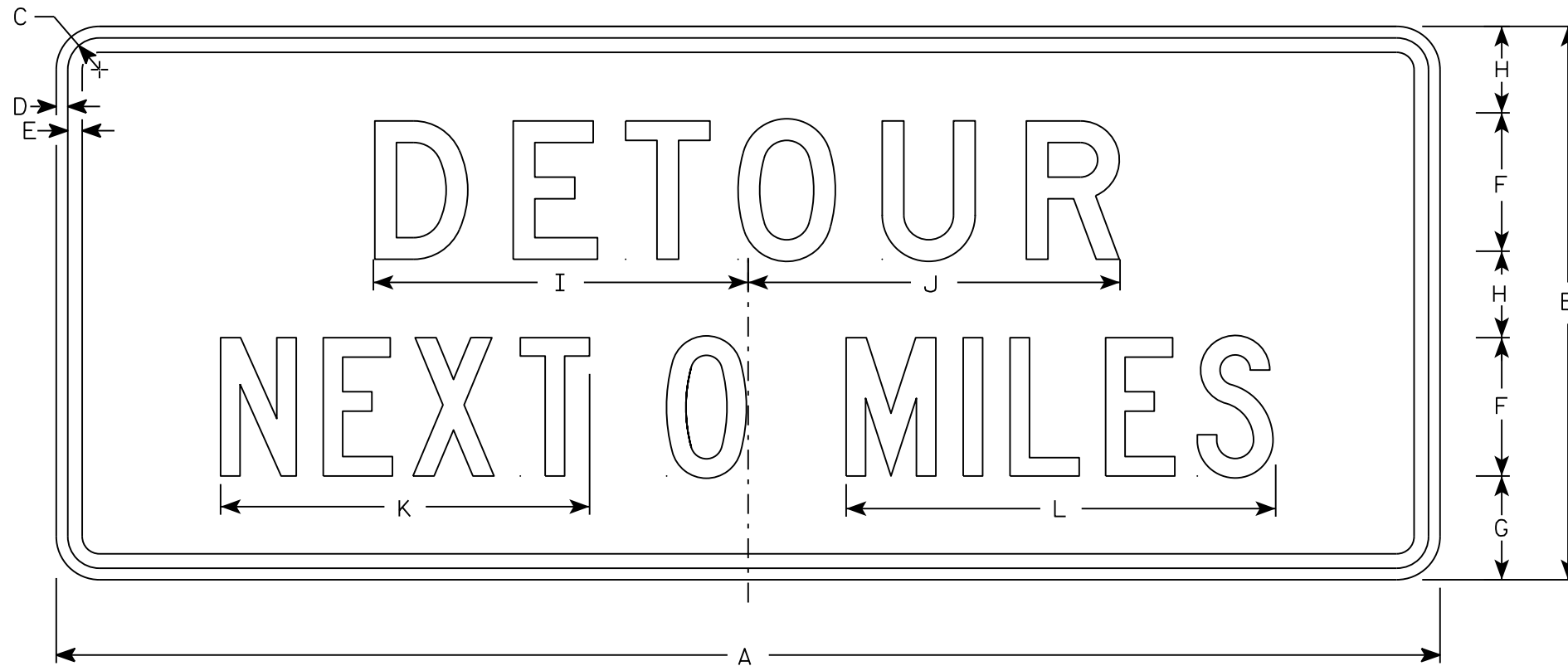
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

NOTES

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



G20-51

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

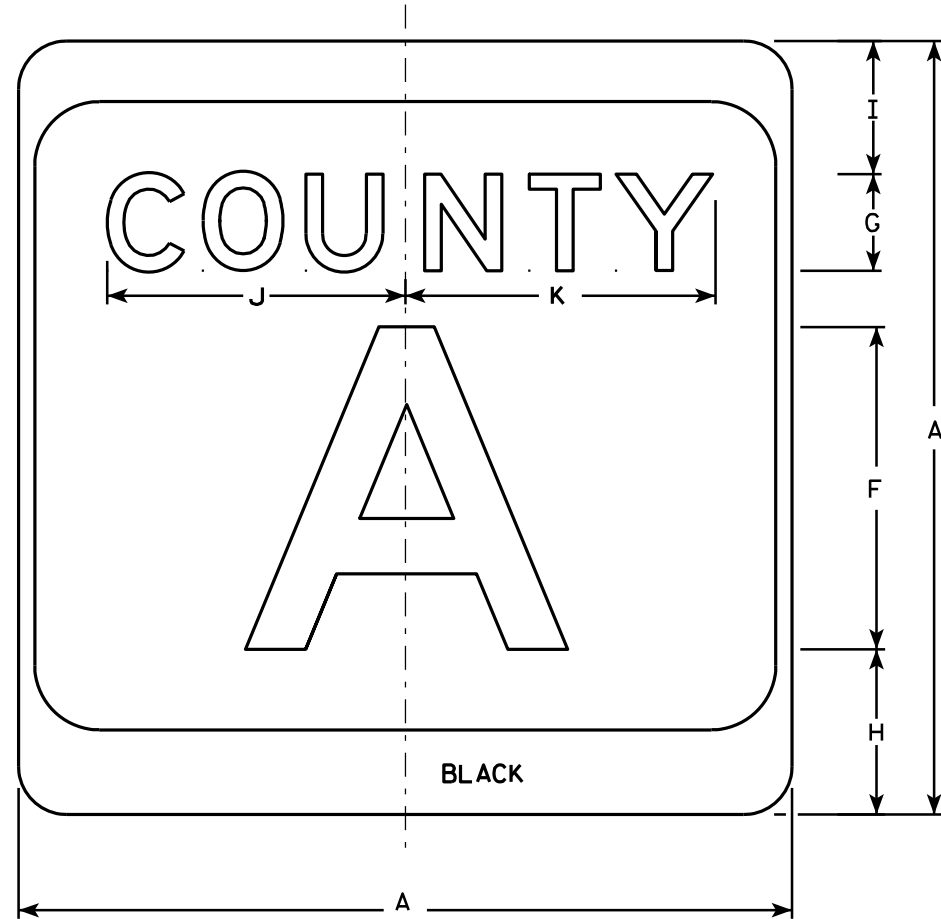
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

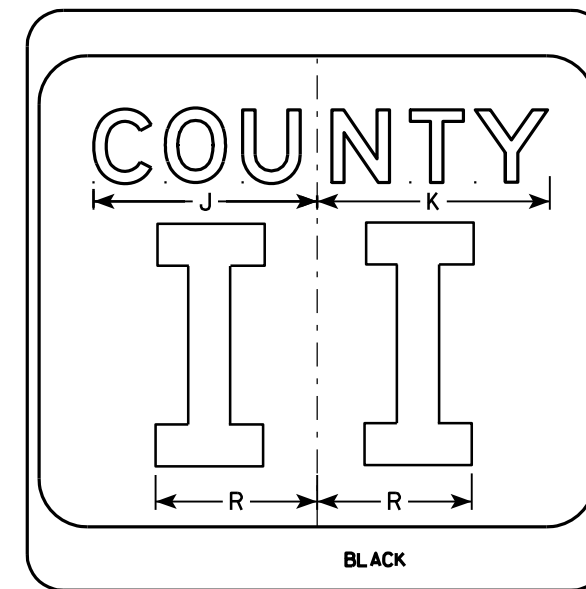
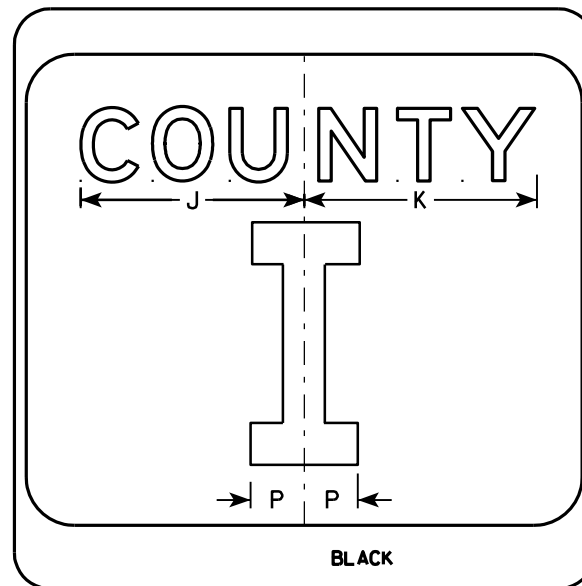
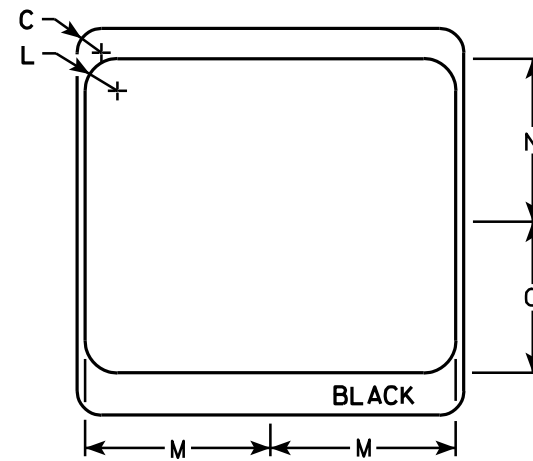
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
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. 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.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



M1-5A



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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
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

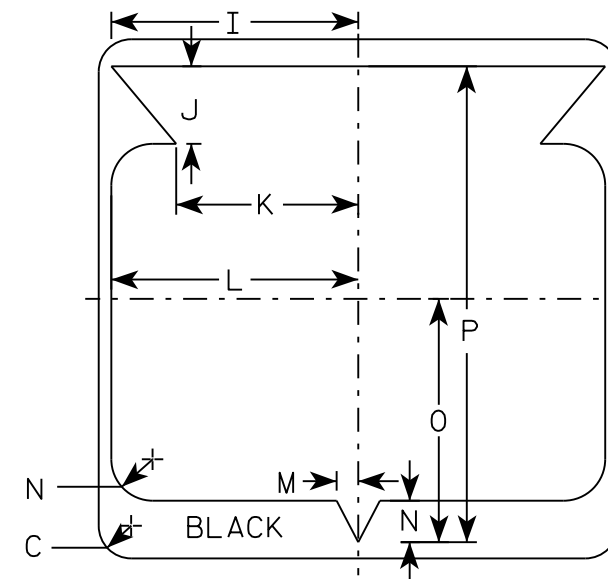
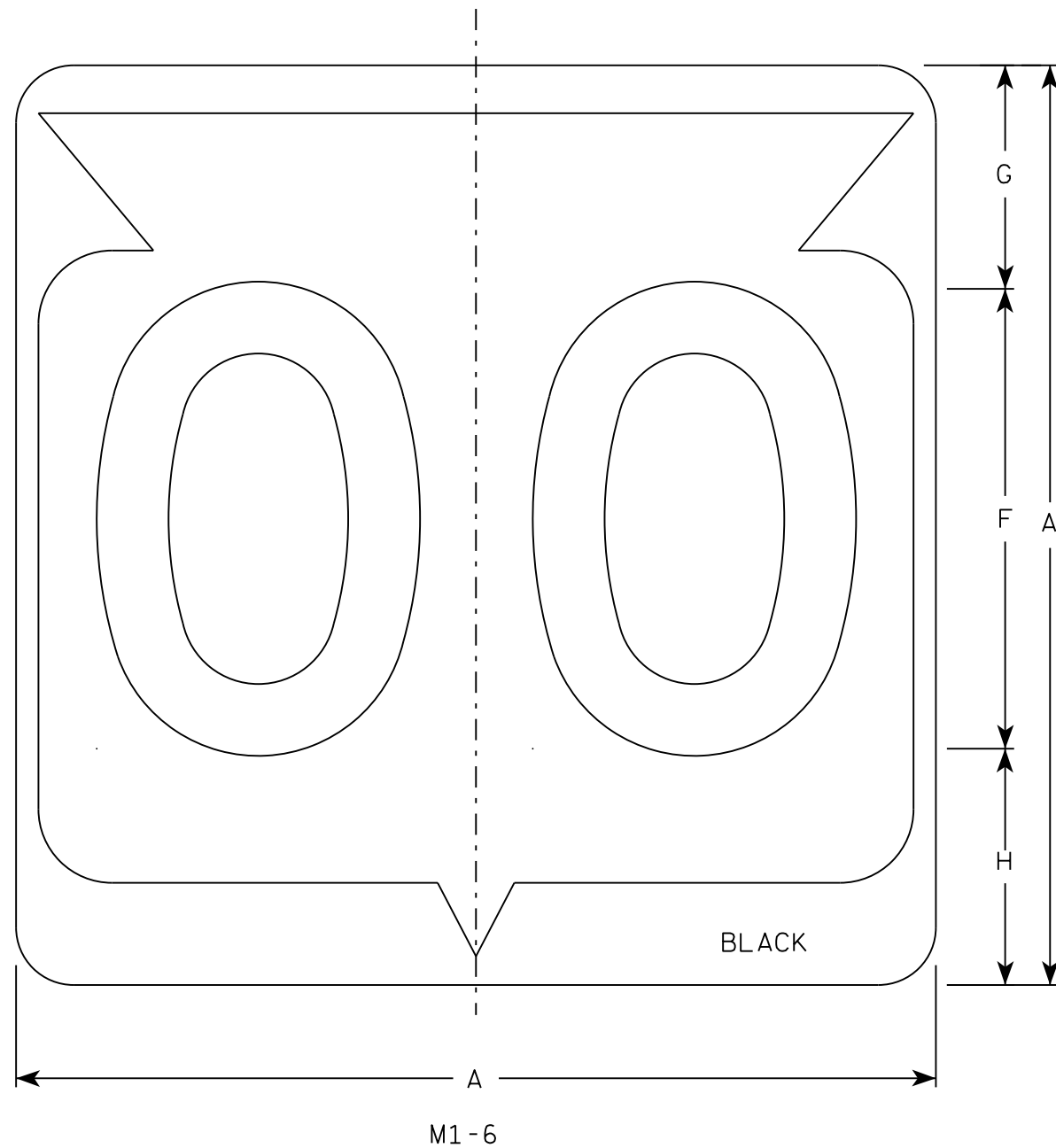
APPROVED *Matthew R. Raub*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. MI-5A.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



7

7

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

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

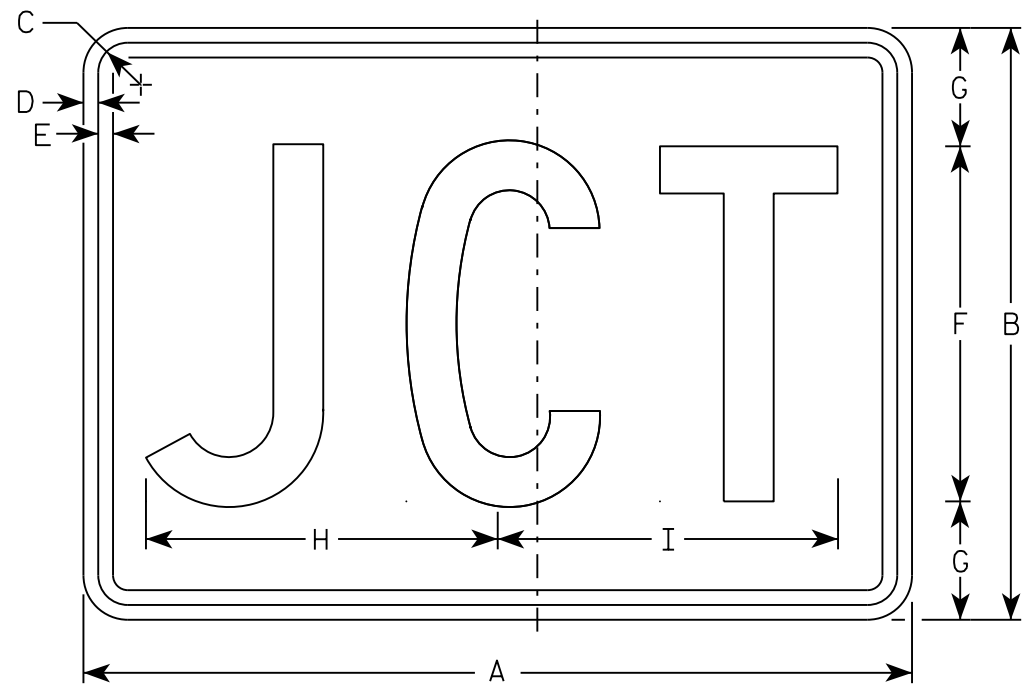
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

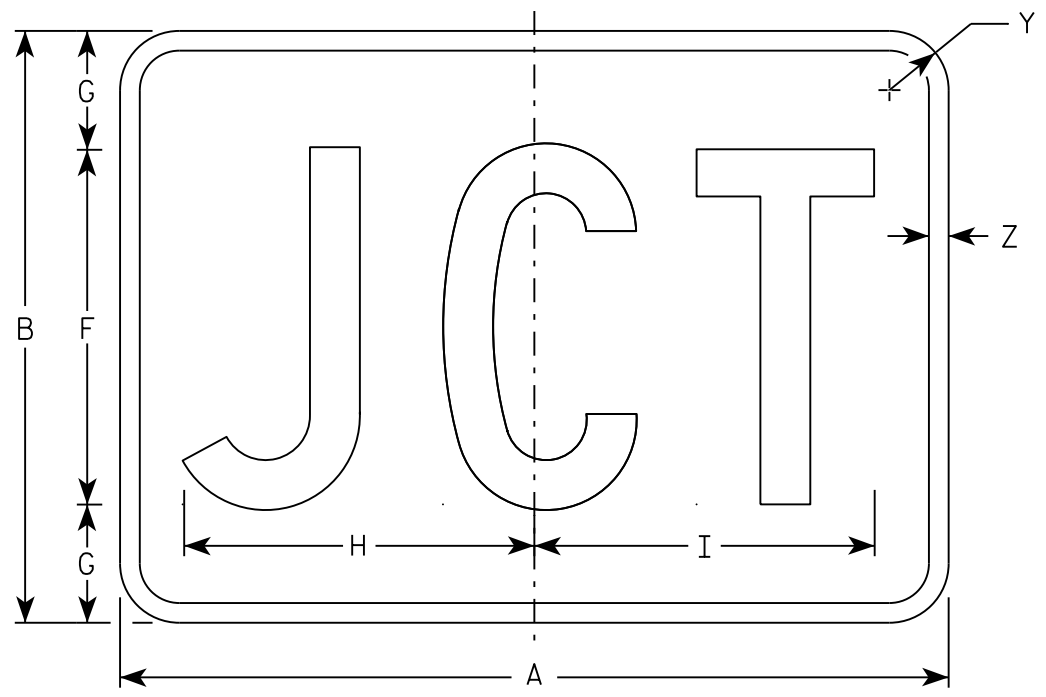
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type H
2. Color:
 - Background - See note 5
 - 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. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

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	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

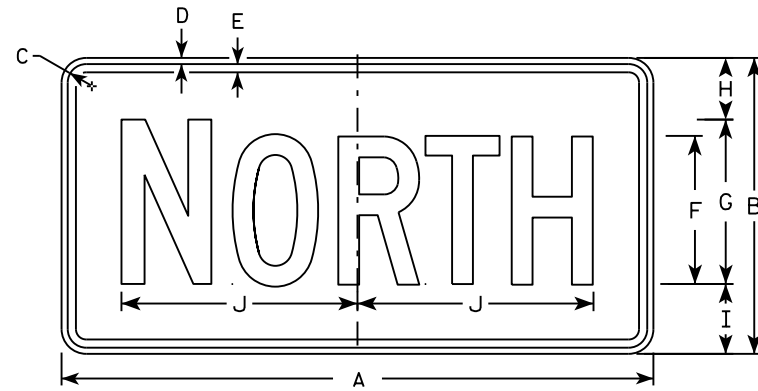
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

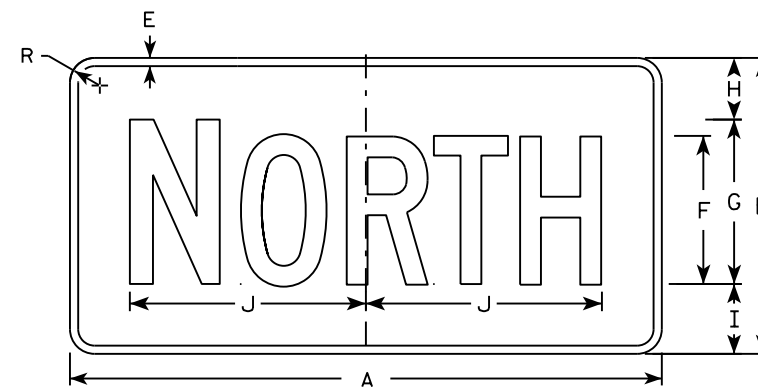
DATE 10/15/15 PLATE NO. M2-1.12

NOTES

- All Signs Type II - Type H
- 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.



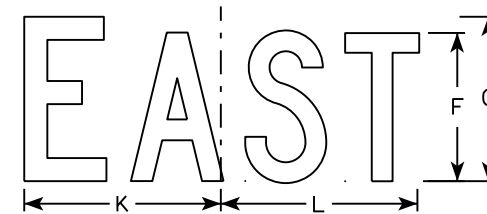
M3-1
MM3-1
MP3-1



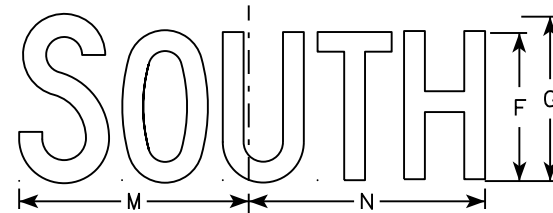
MB3-1
MK3-1
MN3-1



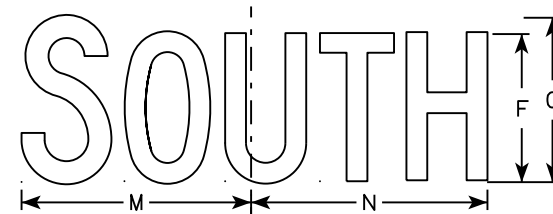
M3-2
MM3-2
MP3-2



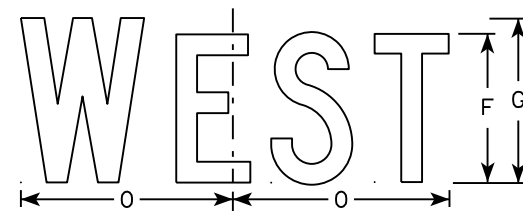
MB3-2
MK3-2
MN3-2



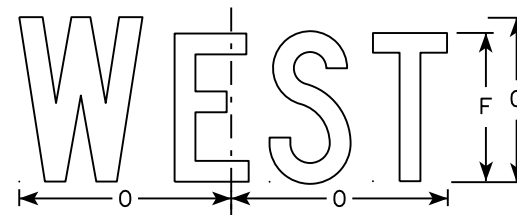
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

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	12	1 1/8	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			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

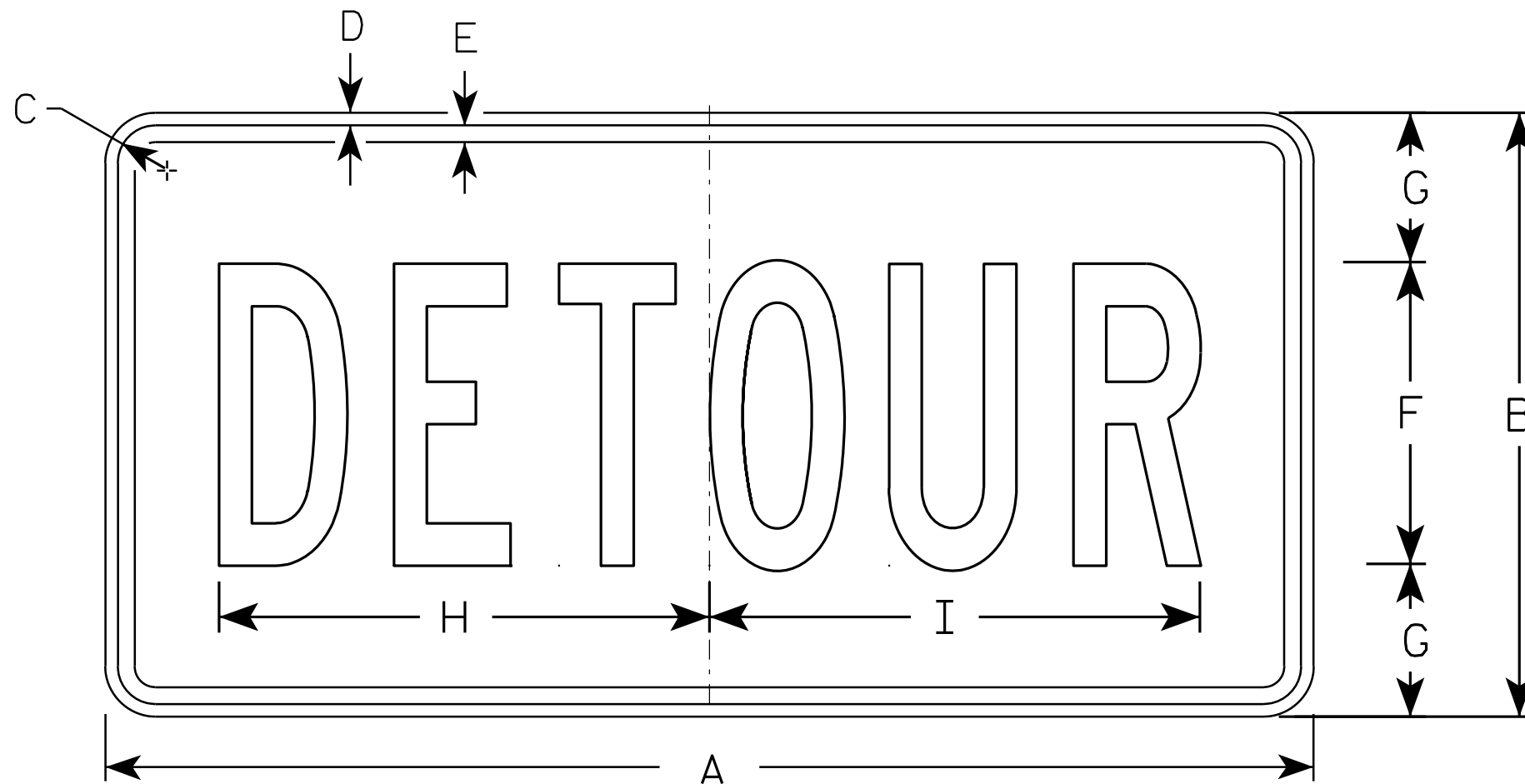
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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.



M4-8

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

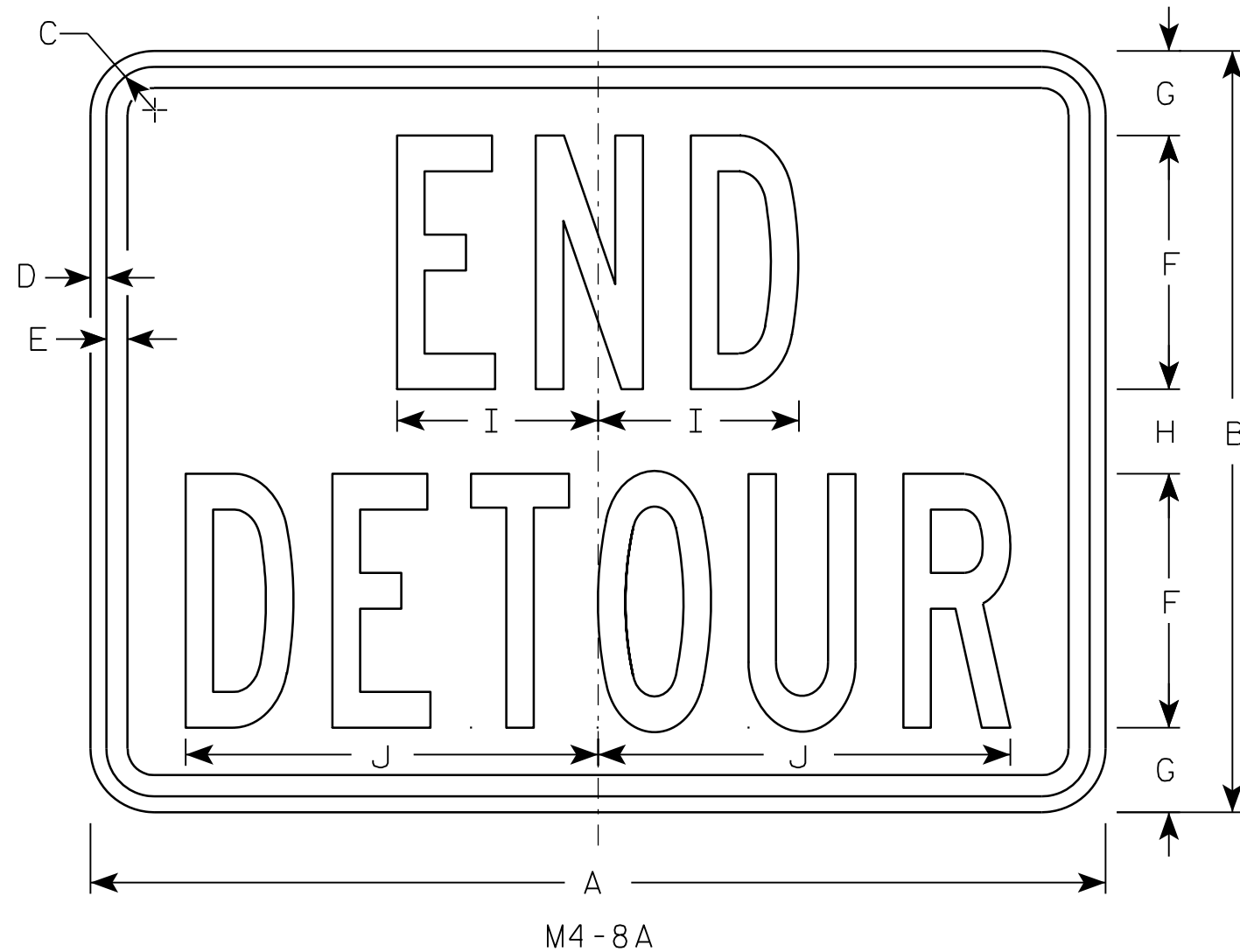
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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

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

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

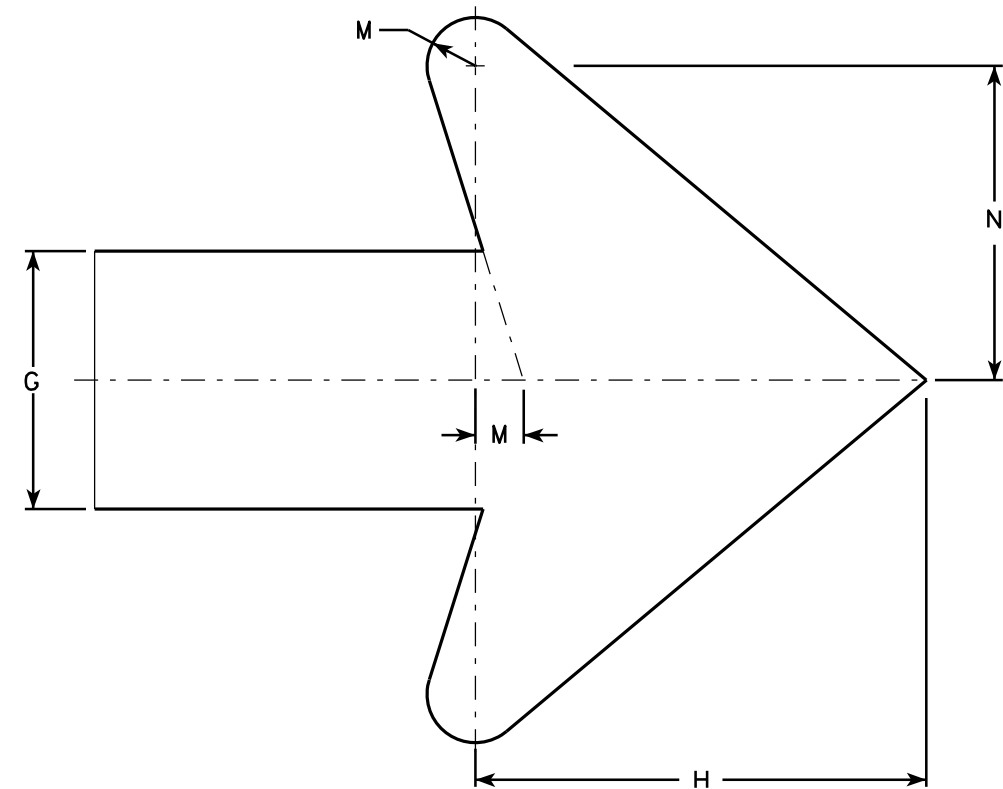
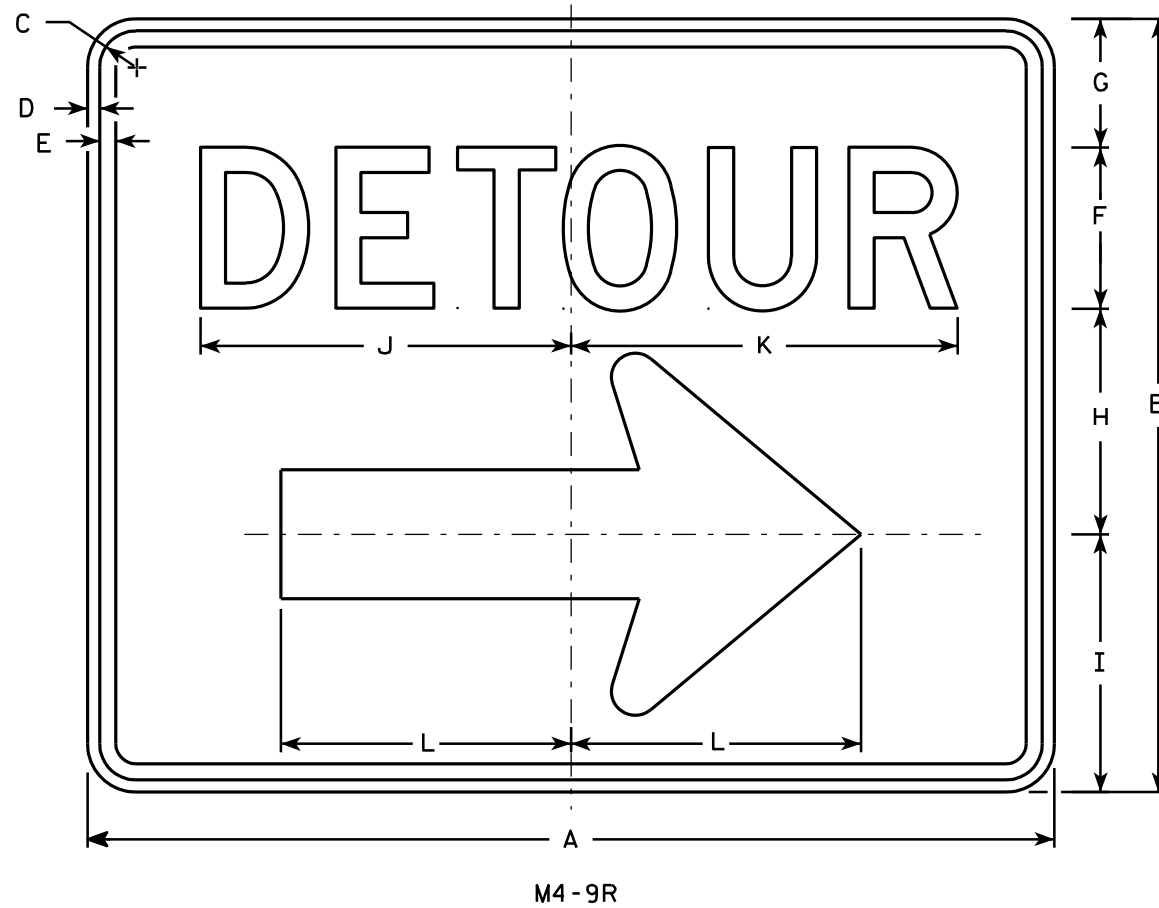
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

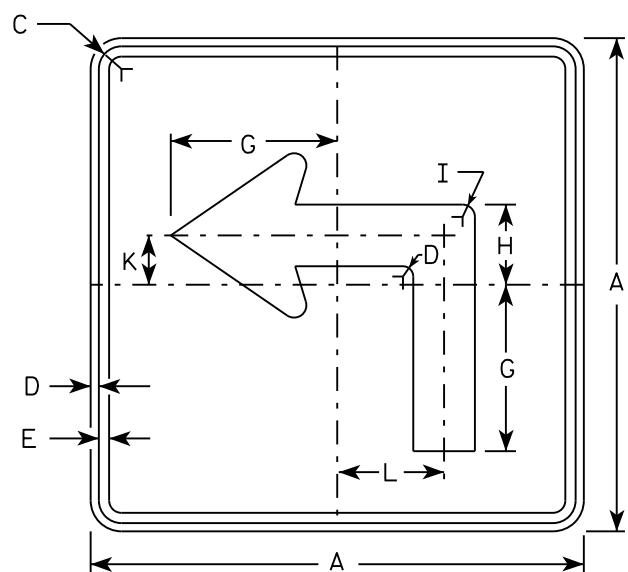
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

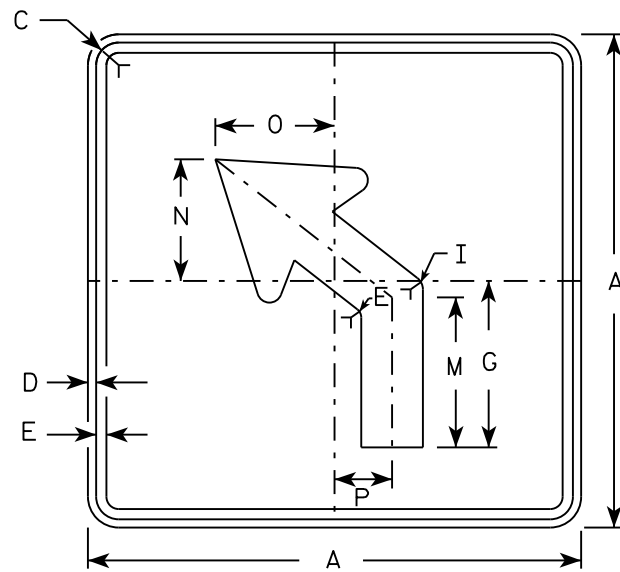
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

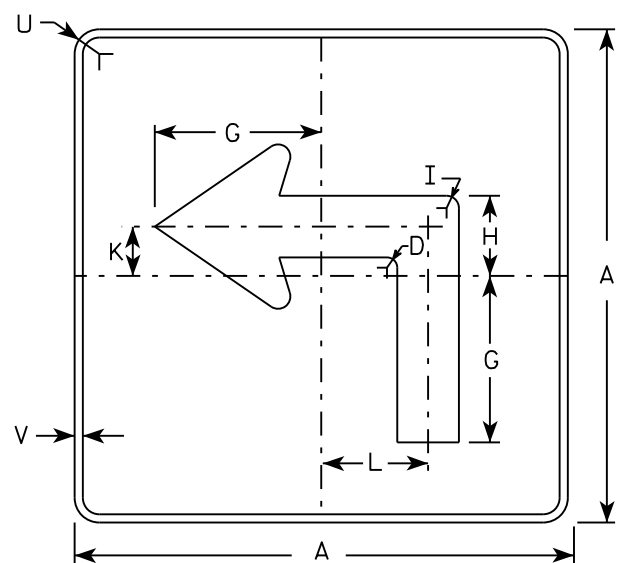
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



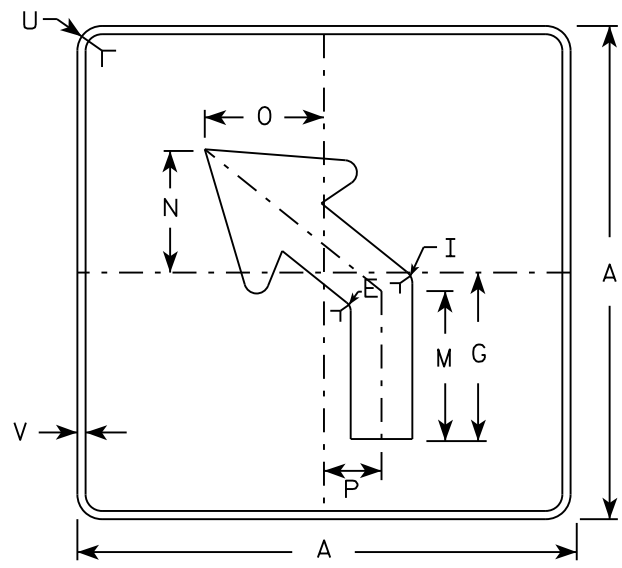
M5-1L
MM5-1L
M05-1L
MP5-1L



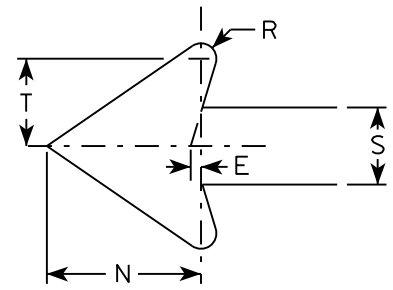
M5-2L
MM5-2L
M05-2L
MP5-2L



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 - Type H Reflective |
| | 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.

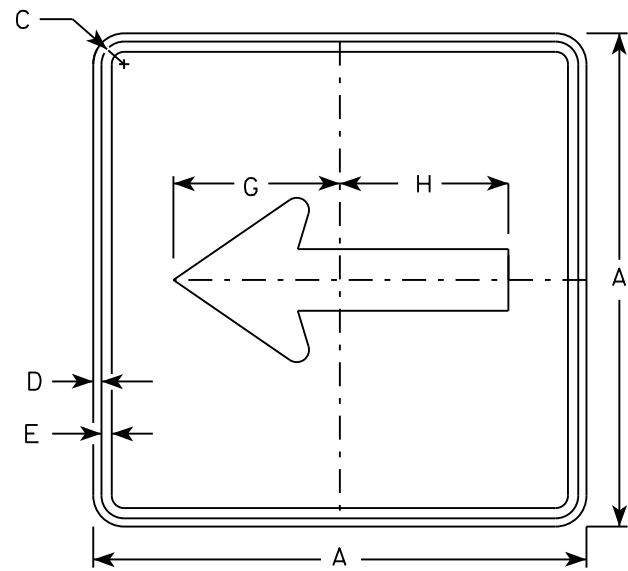
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

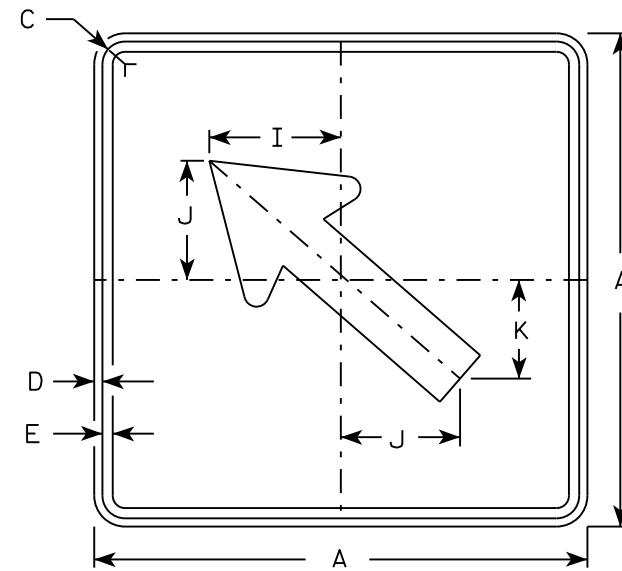
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

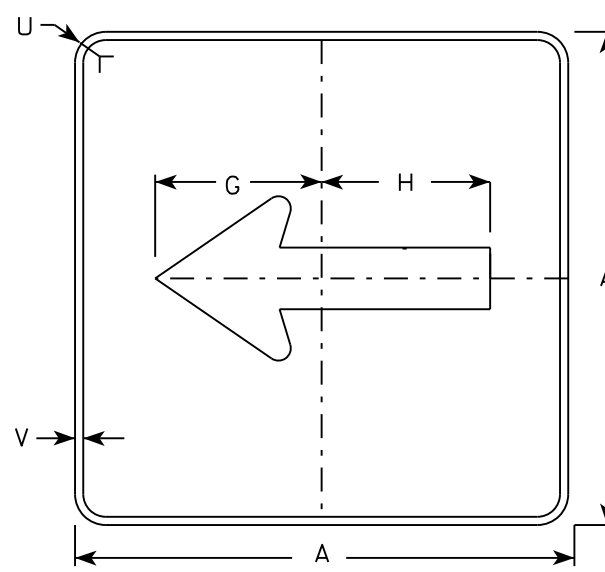
DATE 10/15/15 PLATE NO. M5-1.13



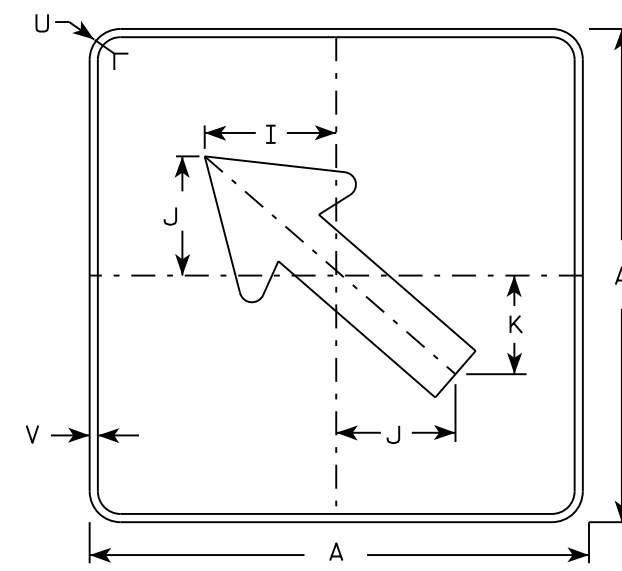
M6-1
MM6-1
M06-1
MP6-1



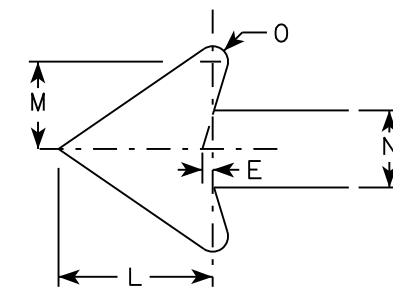
M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



NOTES

- Signs are Type II - Type H 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

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	21		1 1/8	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 1/2	1/2					3.06
3	30		1 3/8	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 7/8	1/2					6.25
4	30		1 3/8	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 7/8	1/2					6.25
5	30		1 3/8	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 7/8	1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

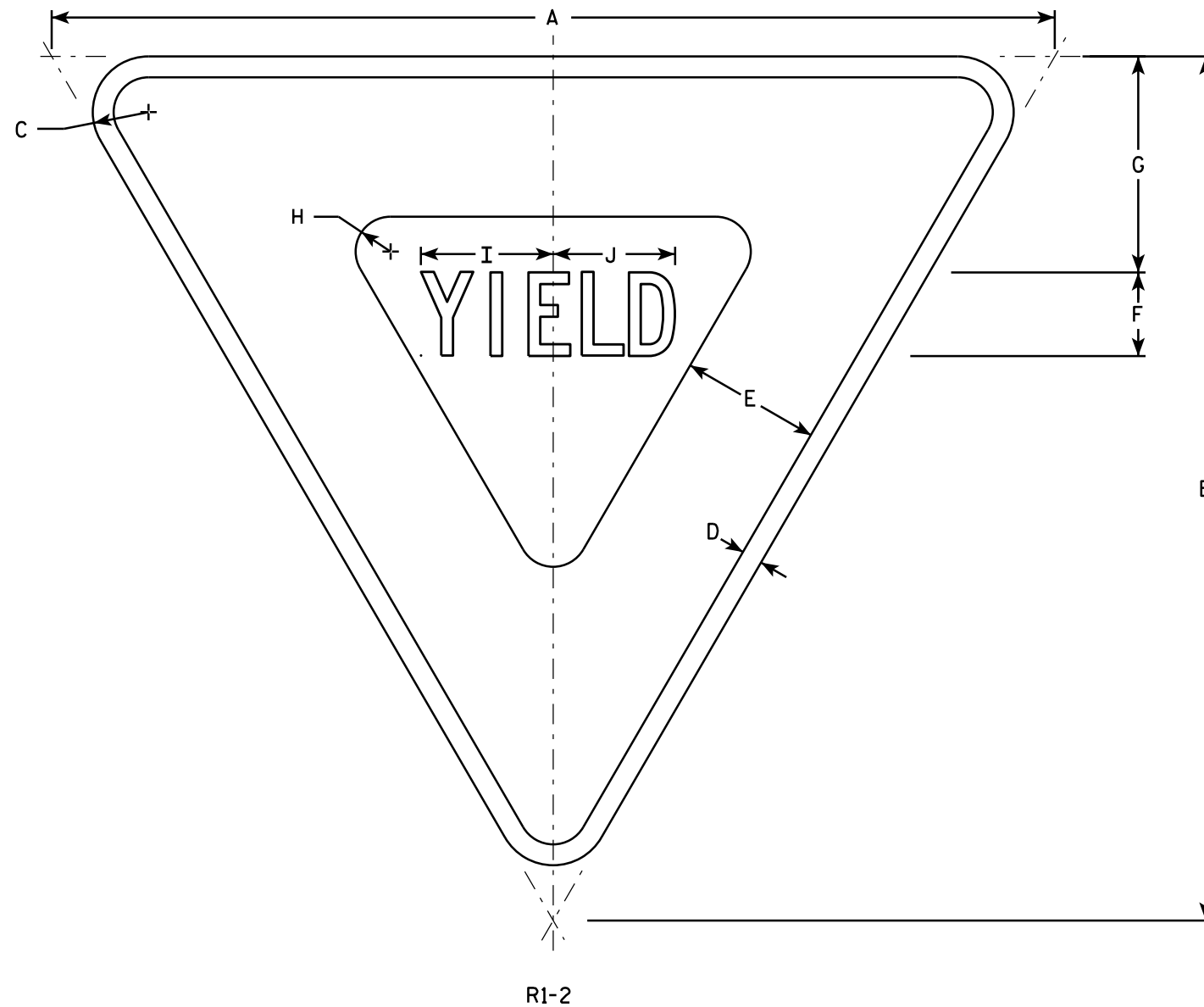
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

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.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	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 NO. R1-2.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R1-54

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 - Black
3. Message Series - B

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	15	1 1/8	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 1/8	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																											

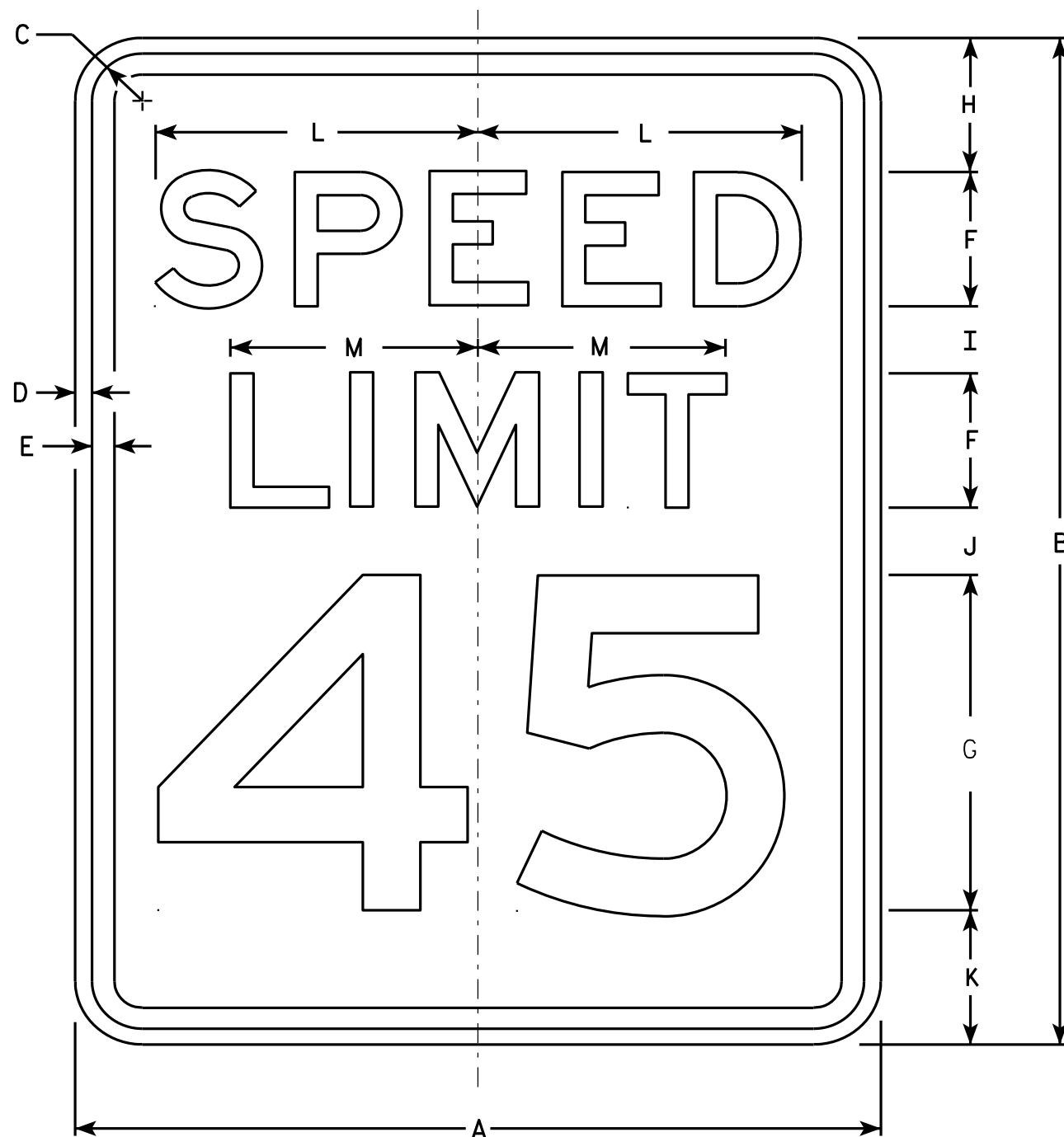
STANDARD SIGN
R1-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-54.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R2-1

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 - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	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 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	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

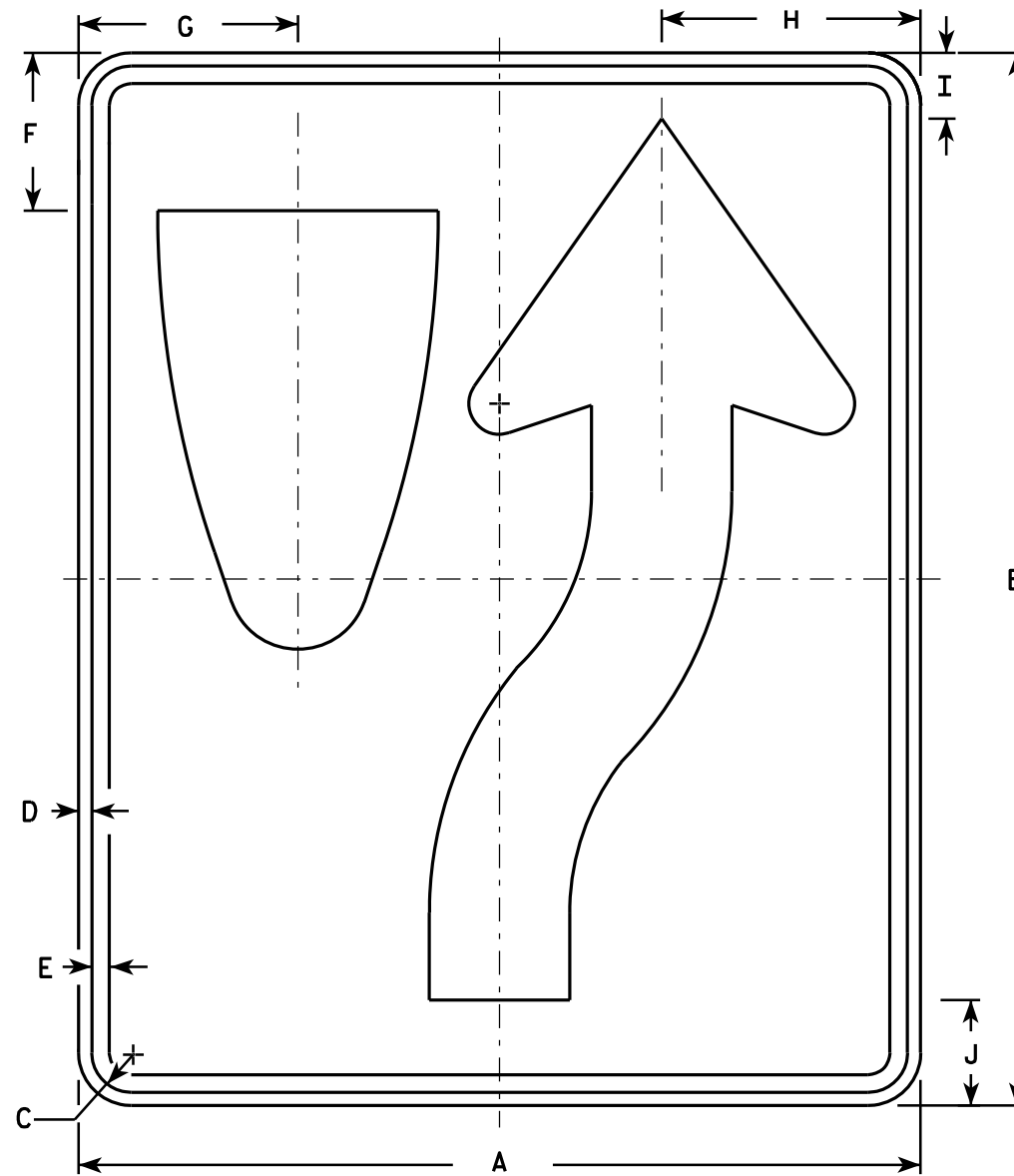
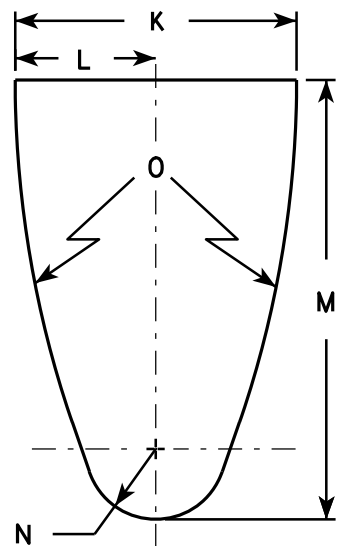
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

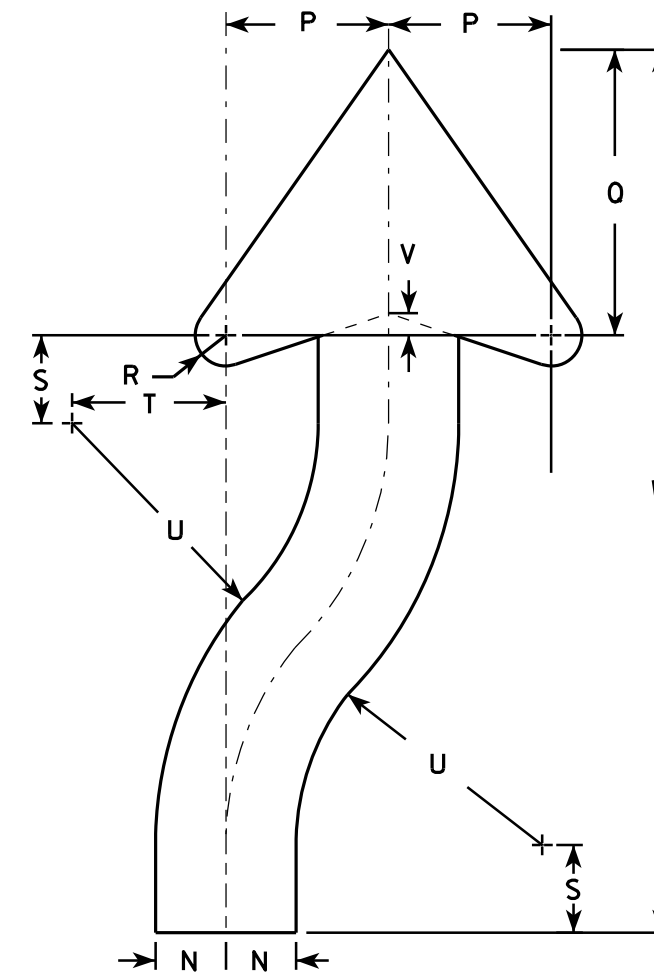
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
Background - White
Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



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 1/8	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 1/8	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 1/8	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 3/4	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 3/4	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	2 1/4	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

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

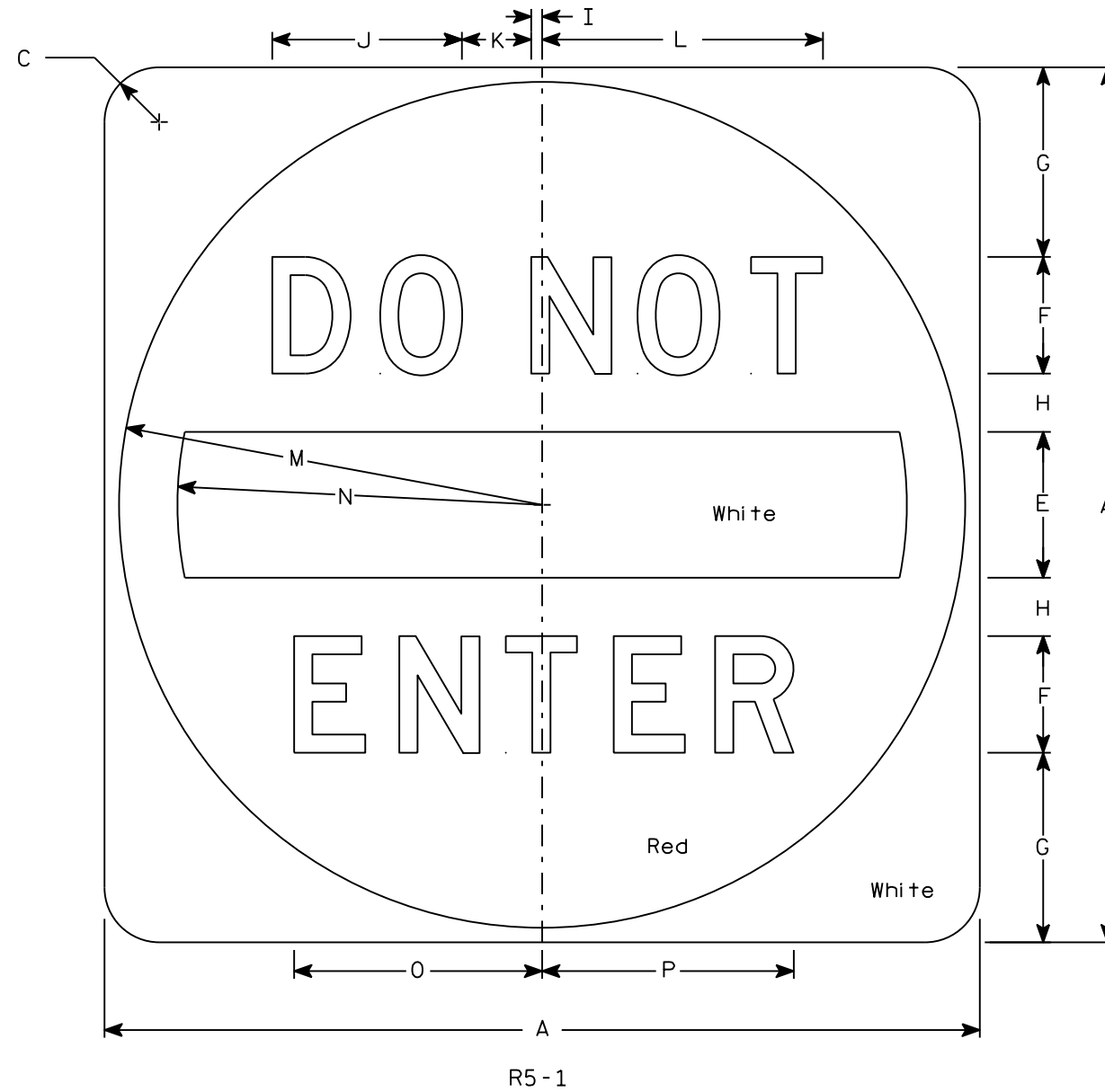
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

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



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

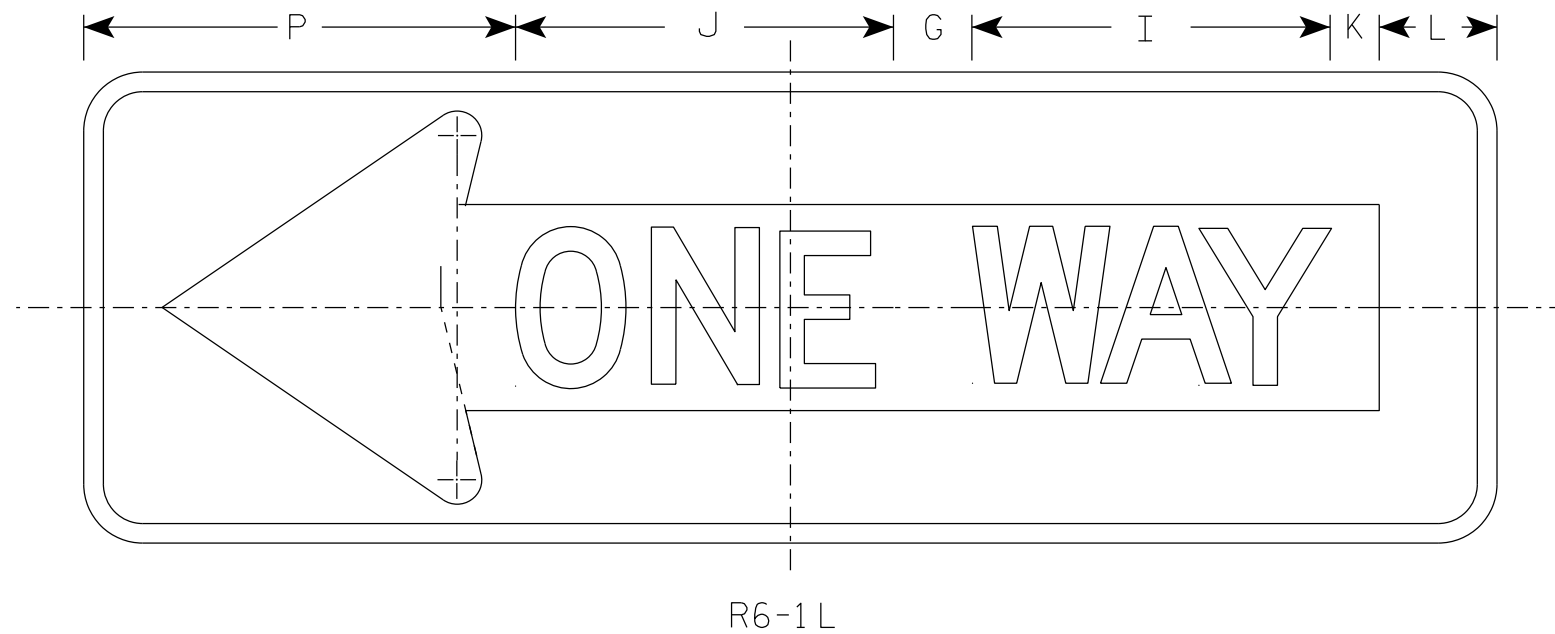
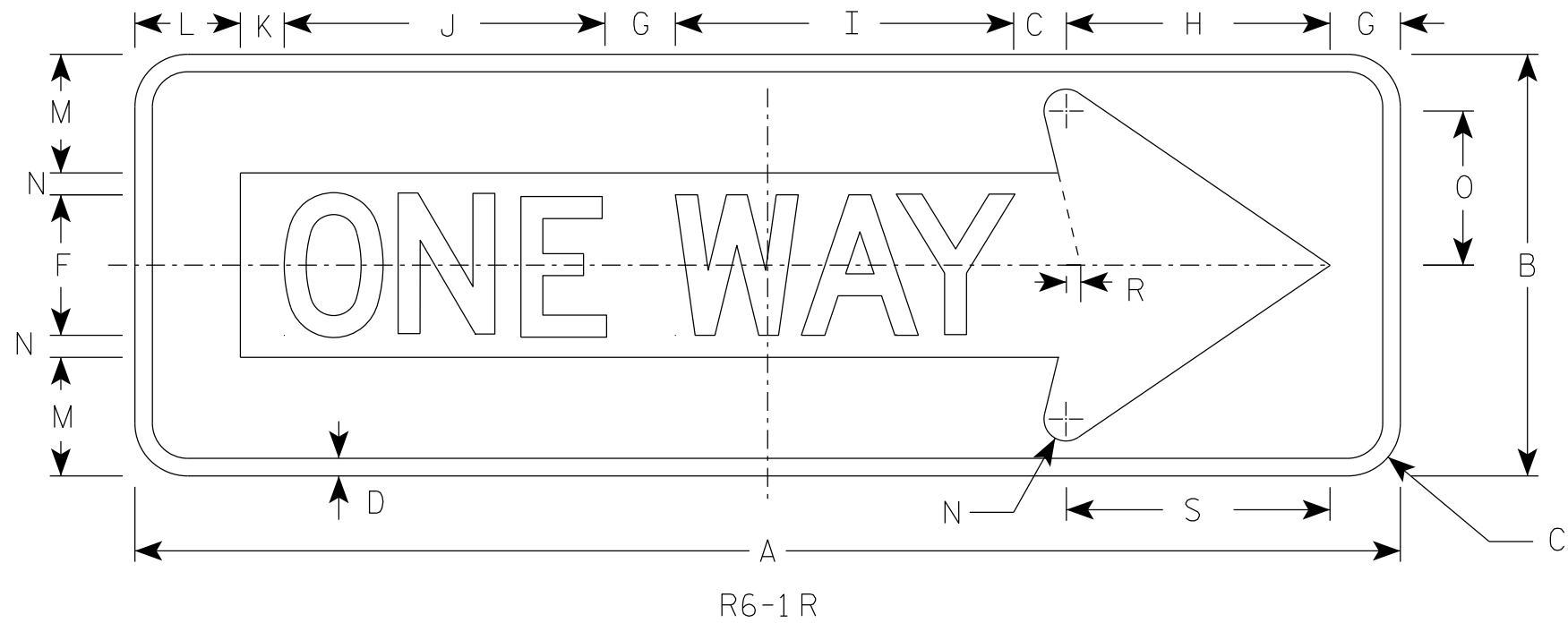
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - BLACK
Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

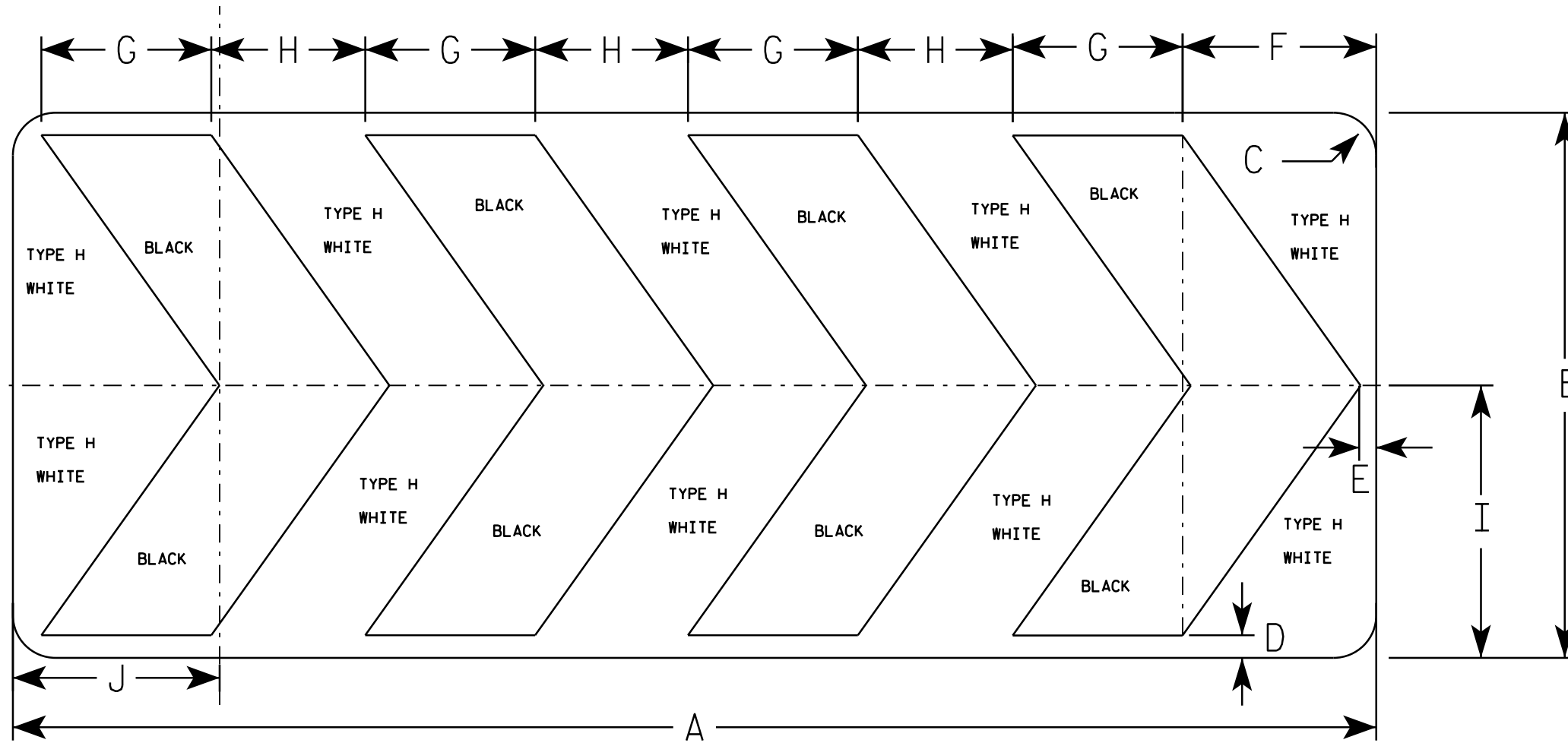
DATE 07/11/18 PLATE NO. R6-1.3

7

7

NOTES

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



R6-4B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	24	1 7/8	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
2M	60	24	1 7/8	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
3																											
4																											
5																											

STANDARD SIGN
R6-4B

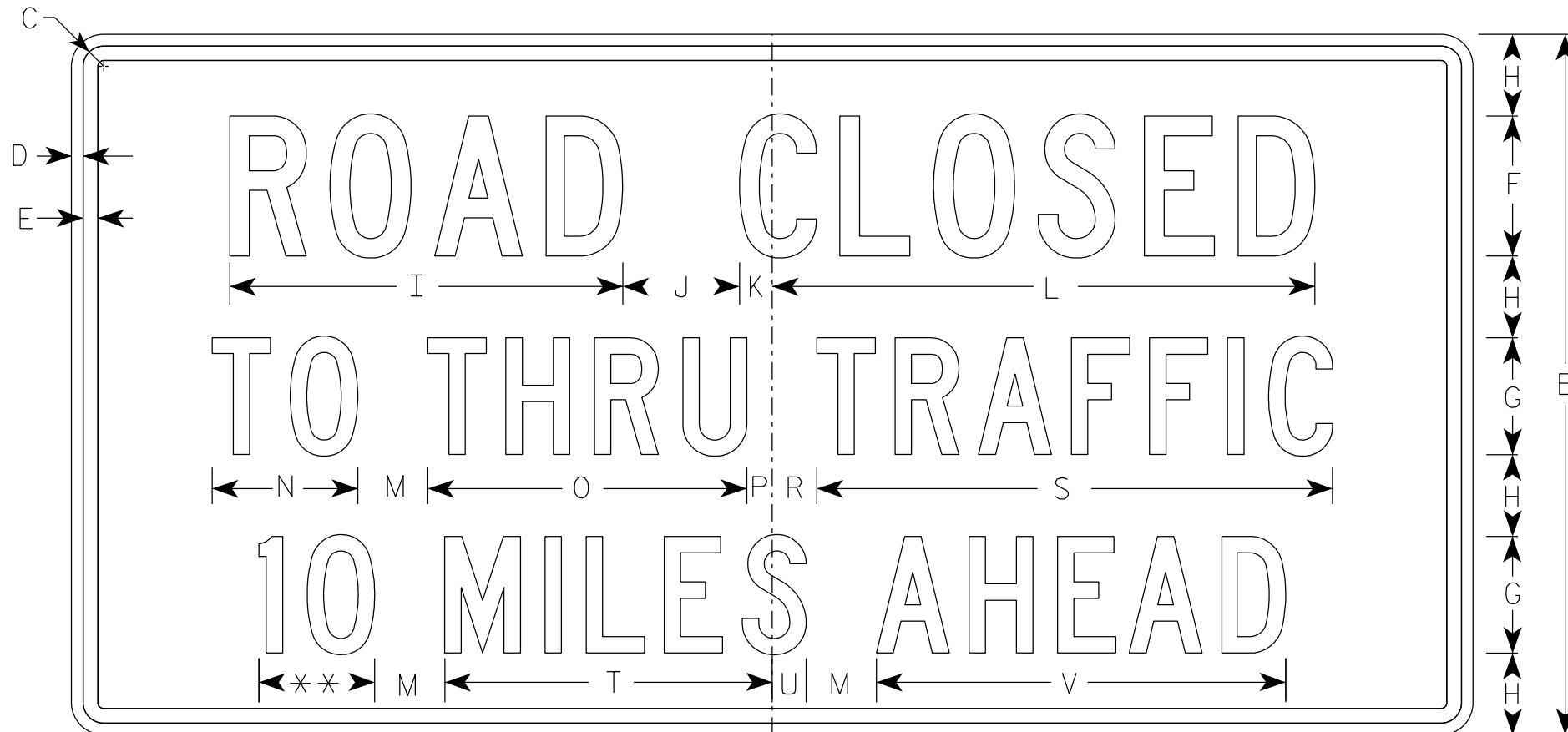
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/14 PLATE NO. R6-4.3

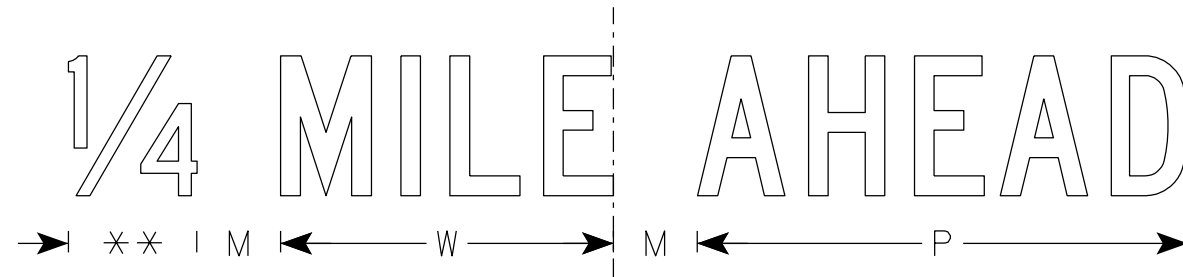
NOTES

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.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

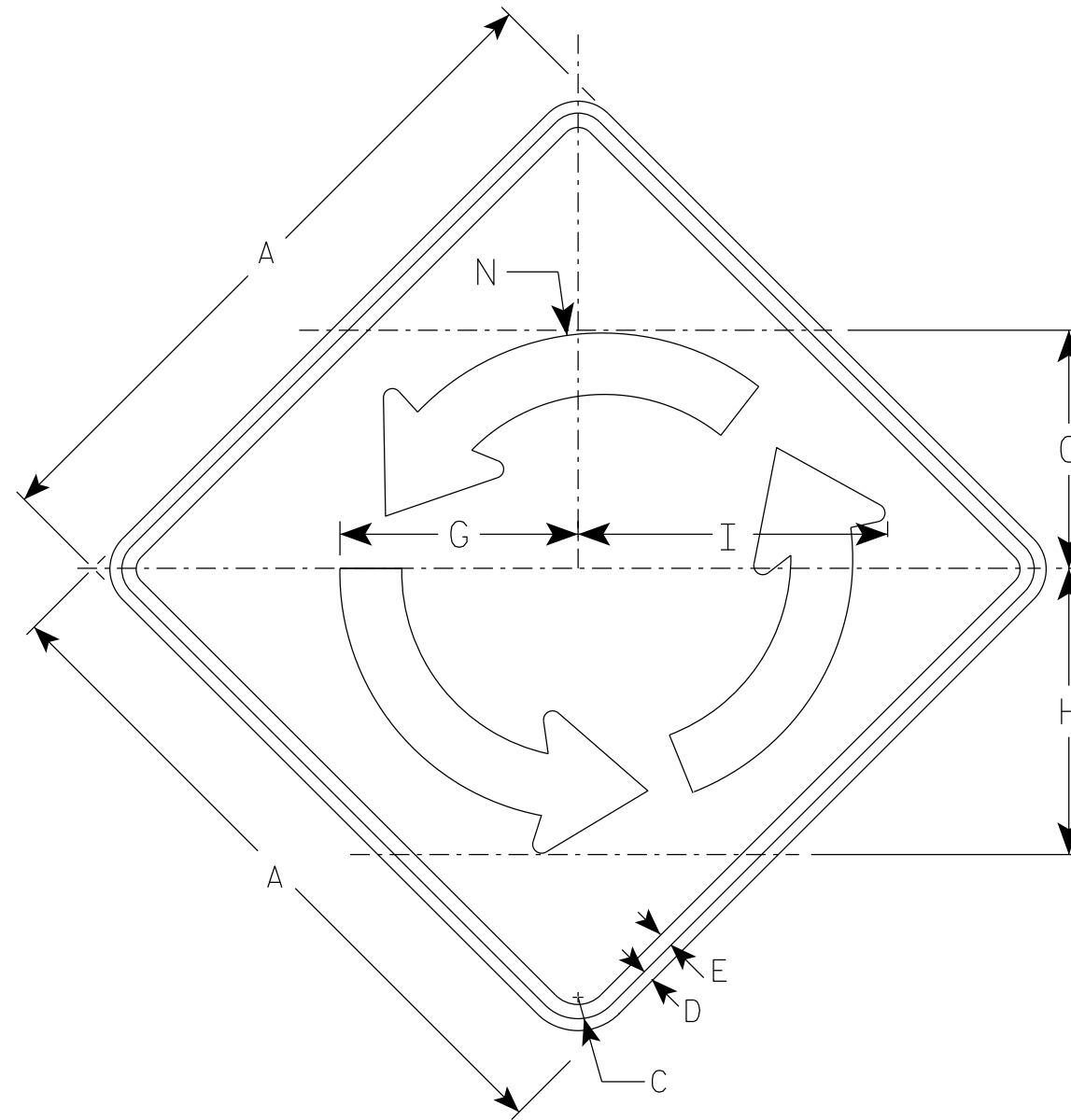
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

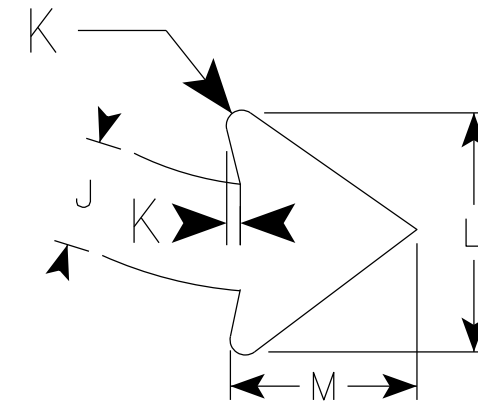
NOTES

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



W2-6

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 3/8	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 3/8	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		1 5/8	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		2 1/4	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																									

STANDARD SIGN
W2-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

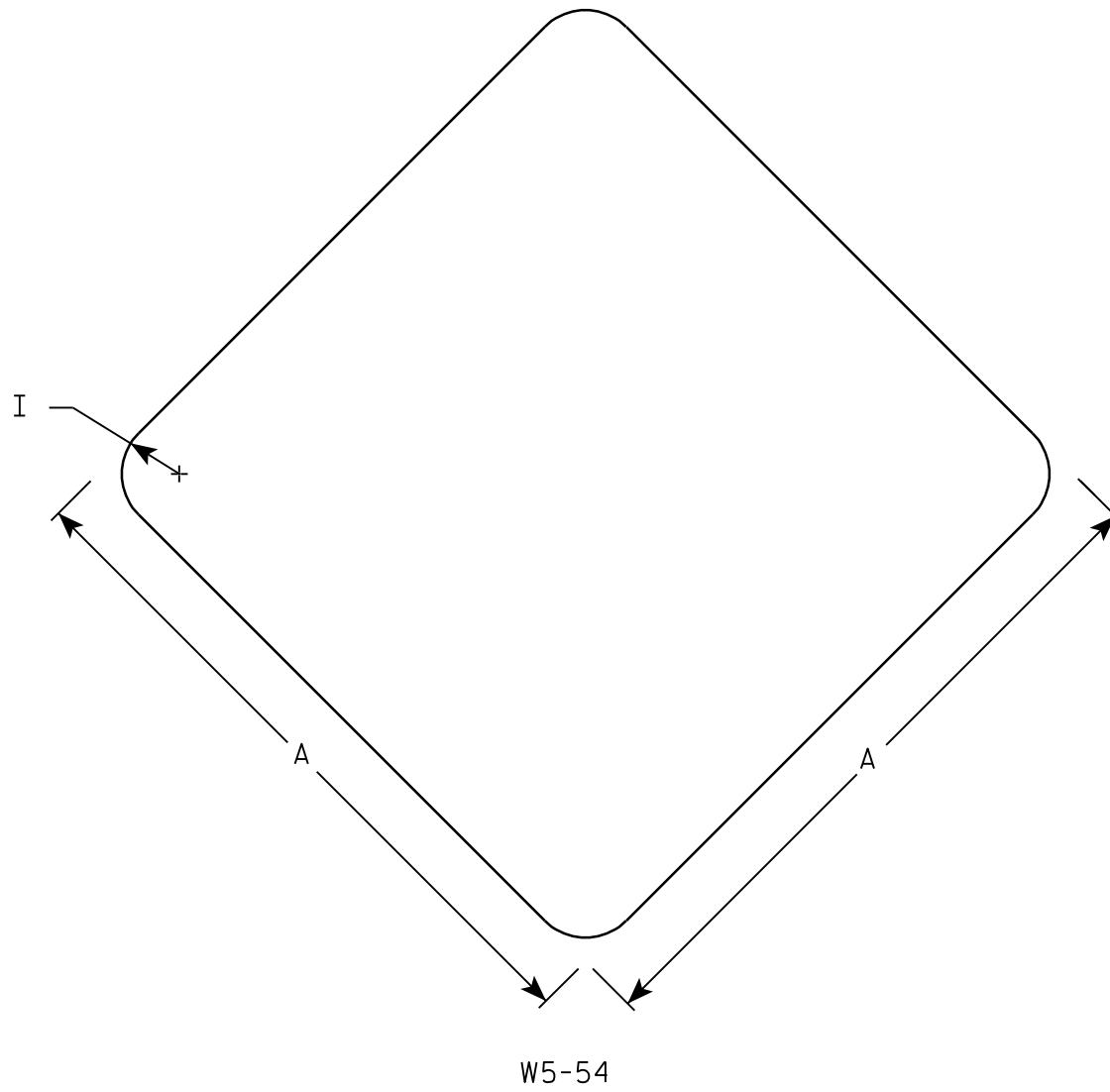
DATE 3/24/21 PLATE NO. W2-6.7

7

7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.



7

7

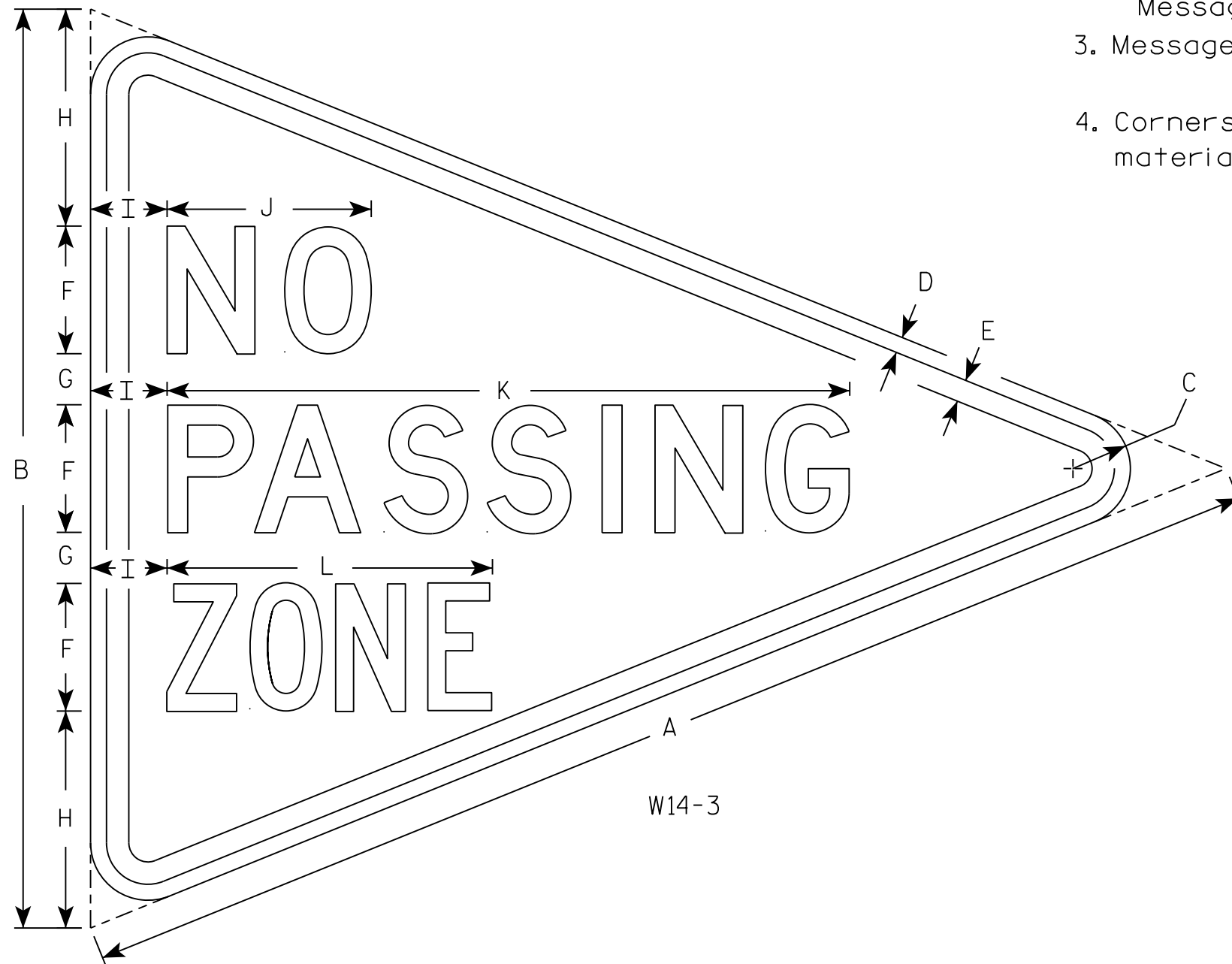
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 1/2																		2.25
2M	18								1 1/2																		2.25
3																											
4																											
5																											

STANDARD SIGN	
W5-54	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 11/3/10	PLATE NO. W5-54.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO: E
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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.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	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																											

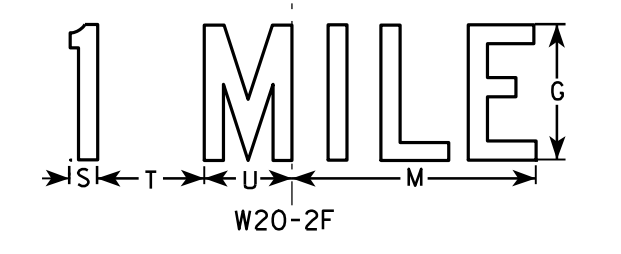
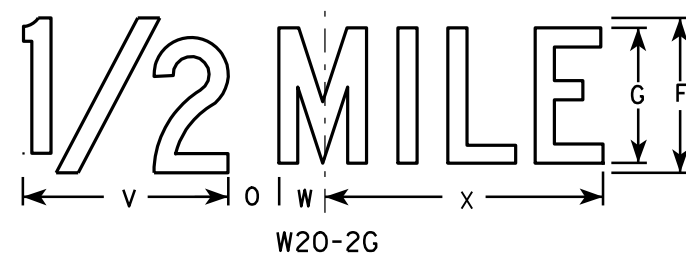
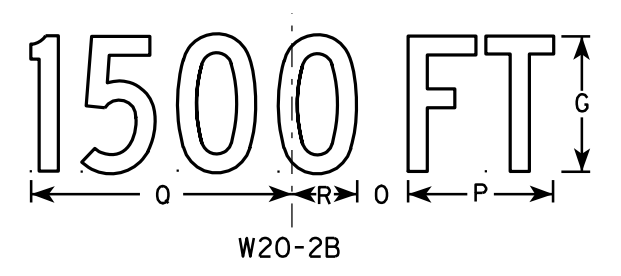
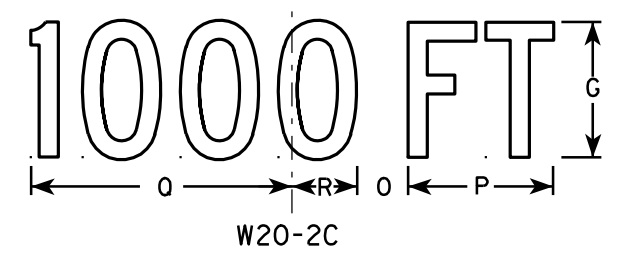
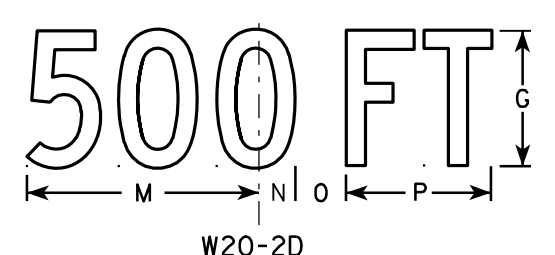
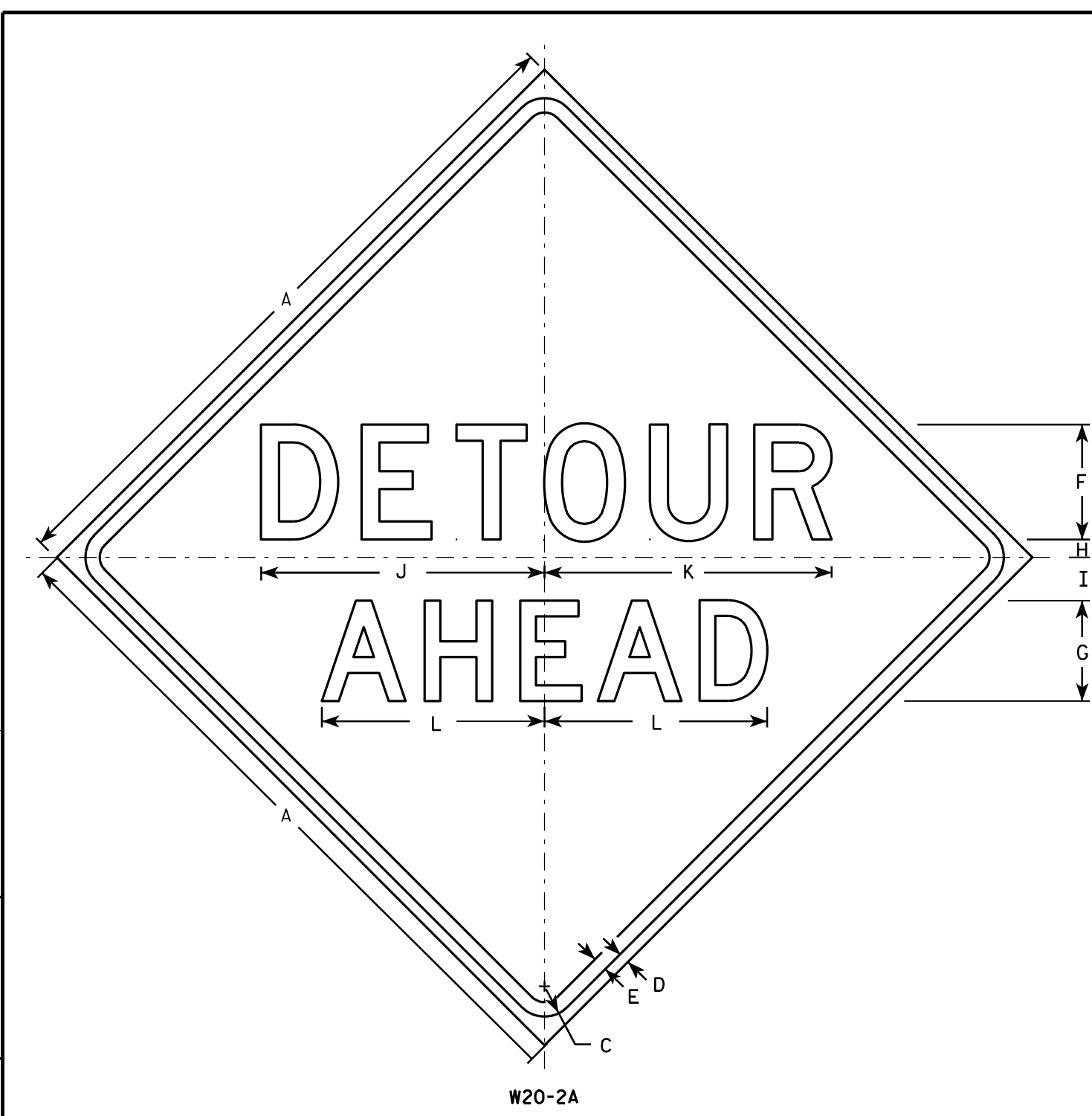
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

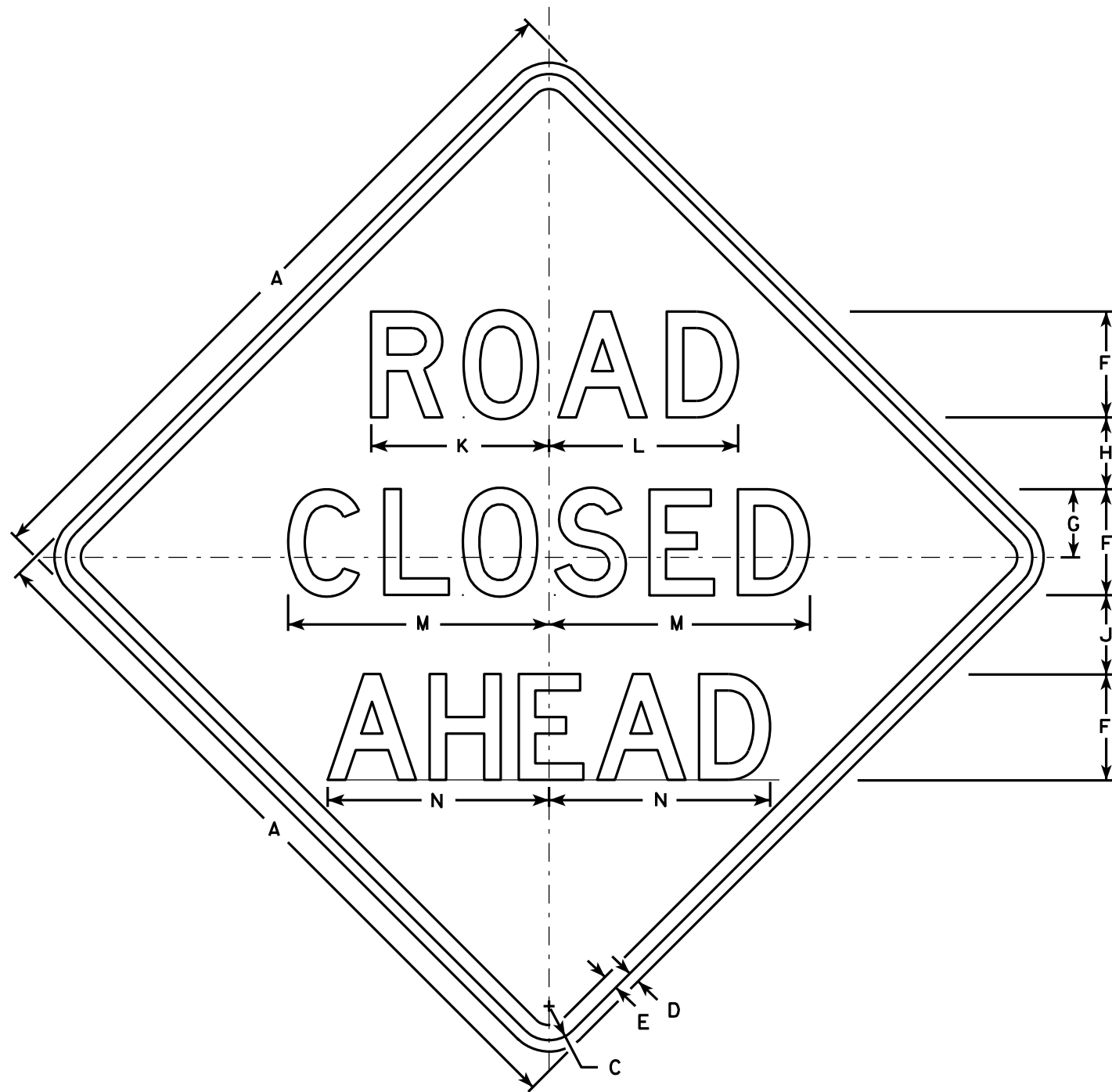
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

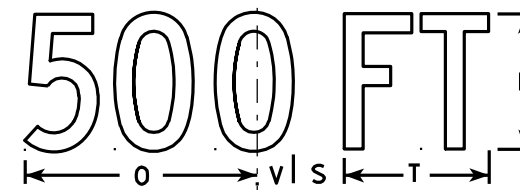
APPROVED *Matthew R. Raub*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

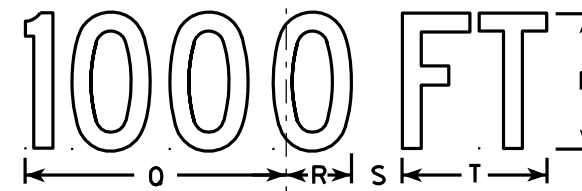
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



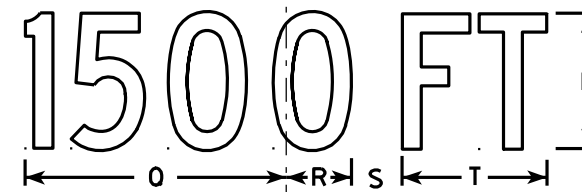
W20-3A



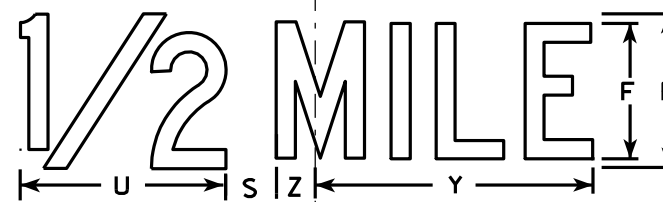
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

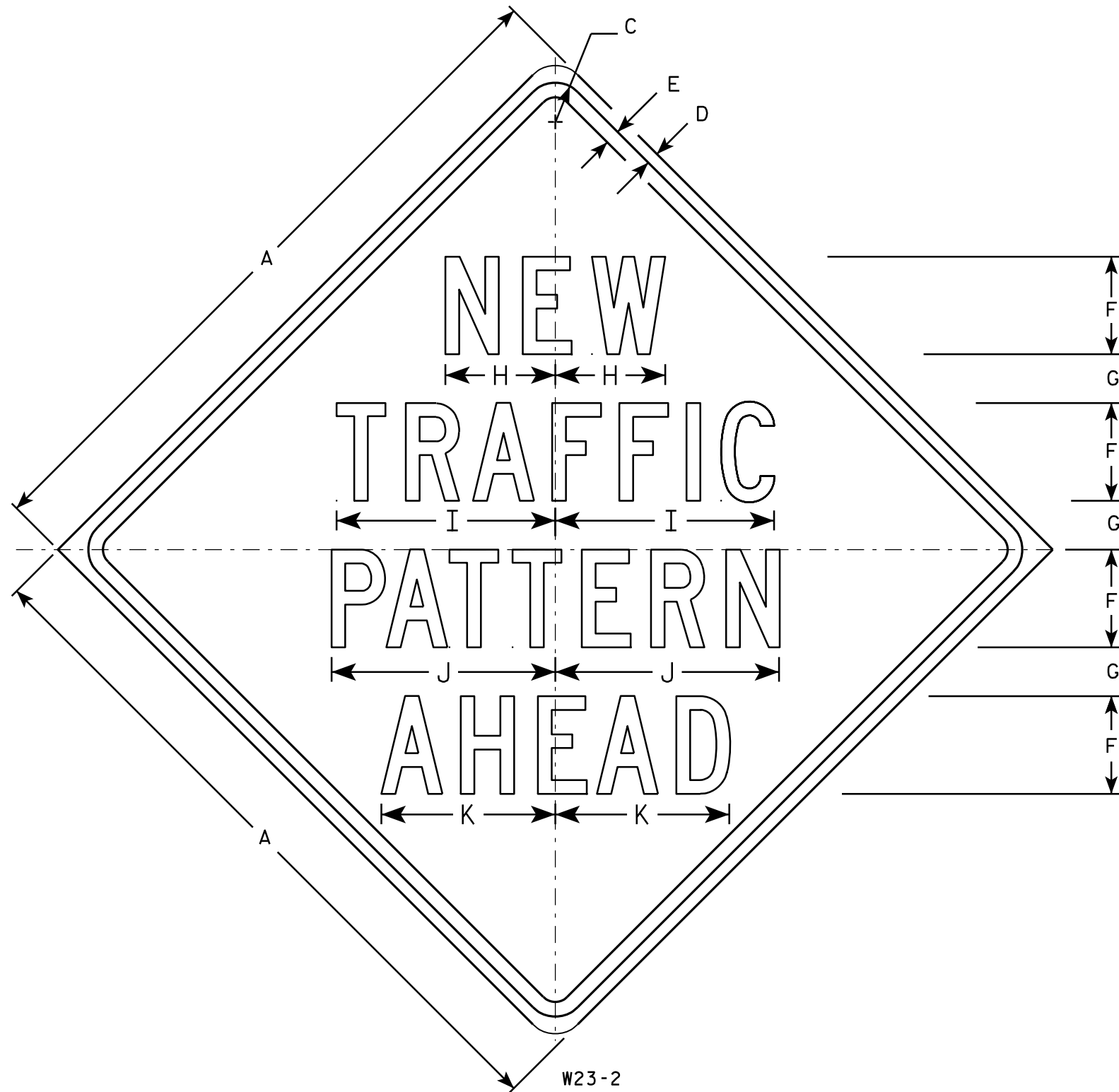
STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. 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.

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W23-2

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

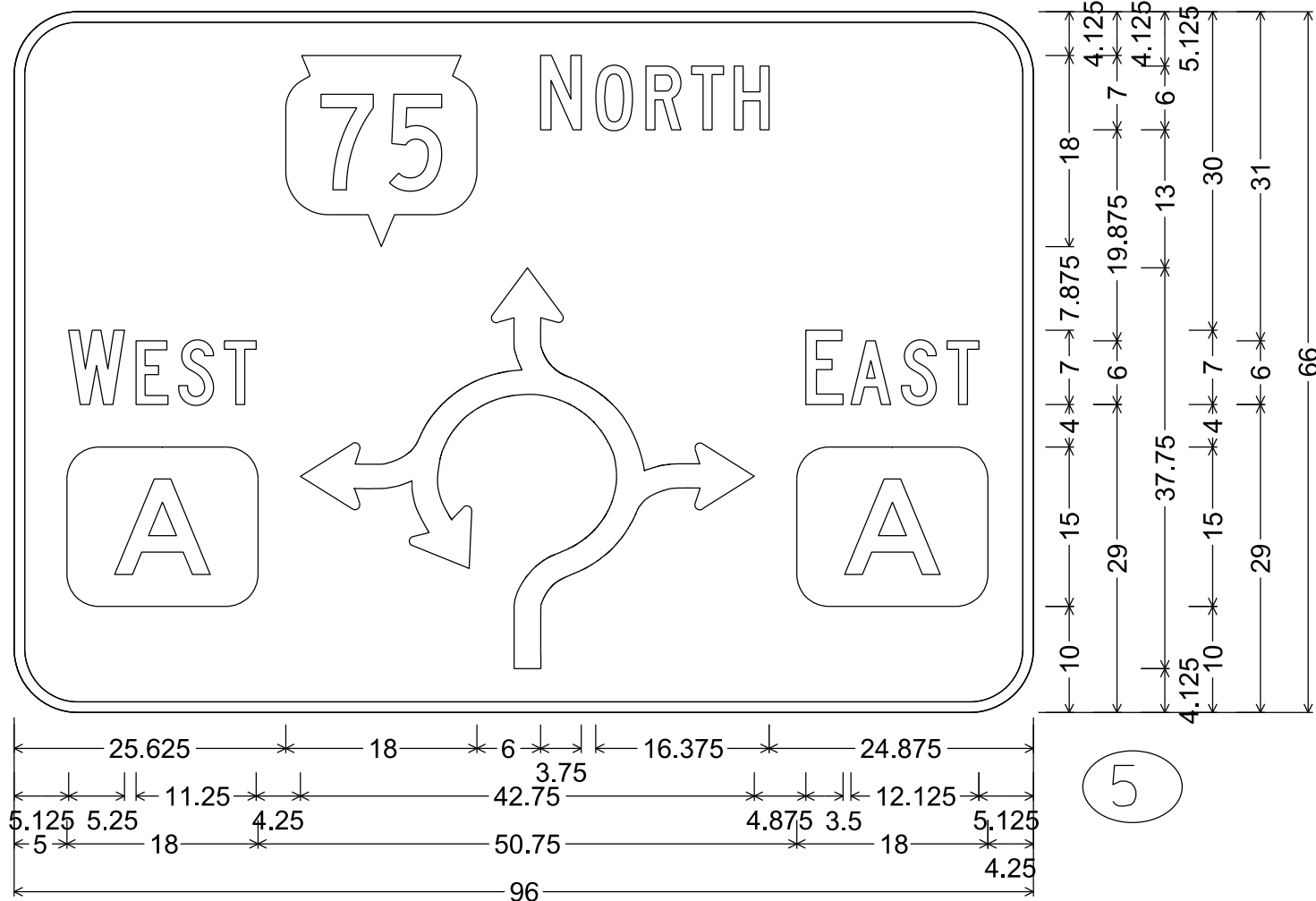
STANDARD SIGN
W23-2

WISCONSIN DEPT OF TRANSPORTATION

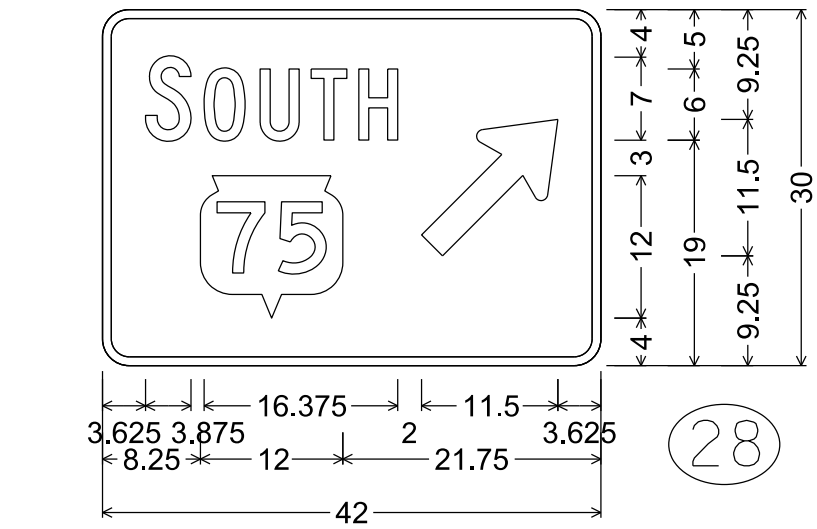
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/13/13 PLATE NO. W23-2.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



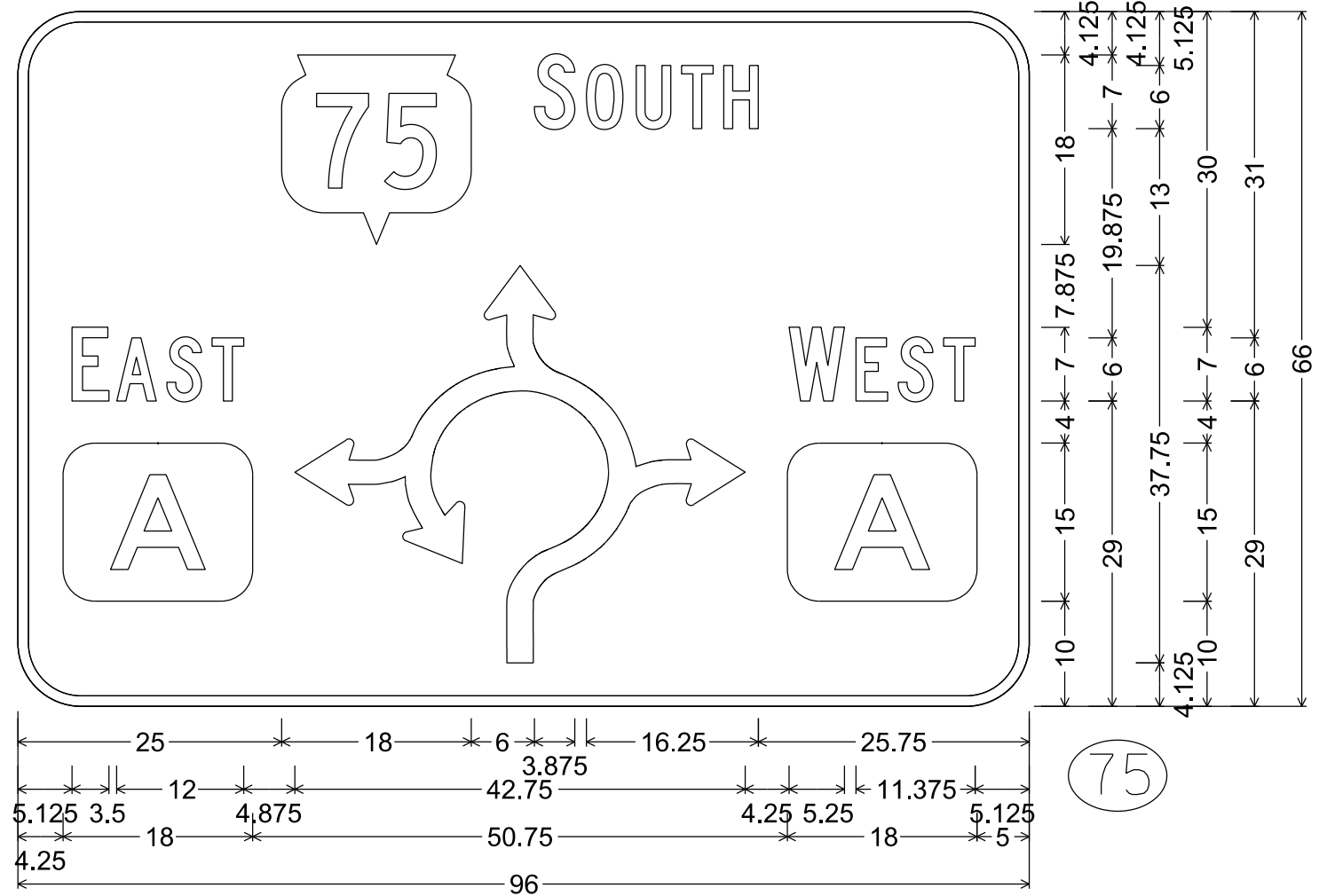
D1-62; 6.000" Radius, 1.000" Border



D1-1; 2.250" Radius, 0.750" Border

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Green
 - Message - White
- Message Series - C



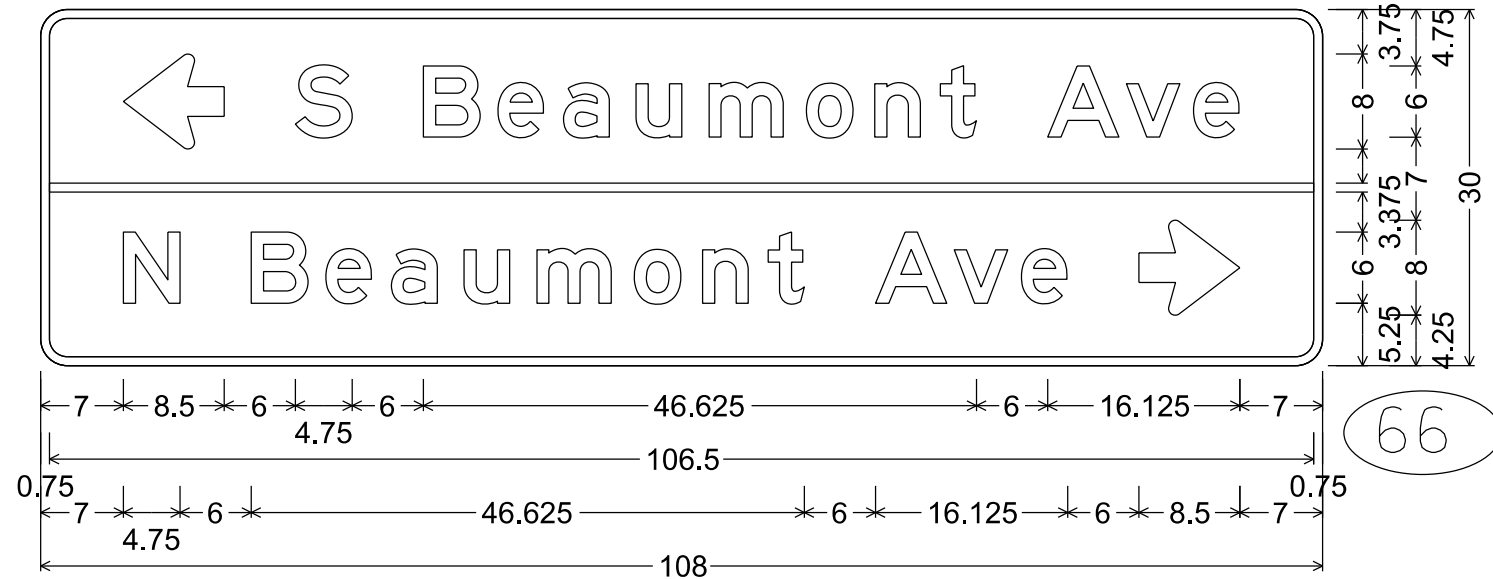
D1-62; 6.000" Radius, 1.000" Border

7

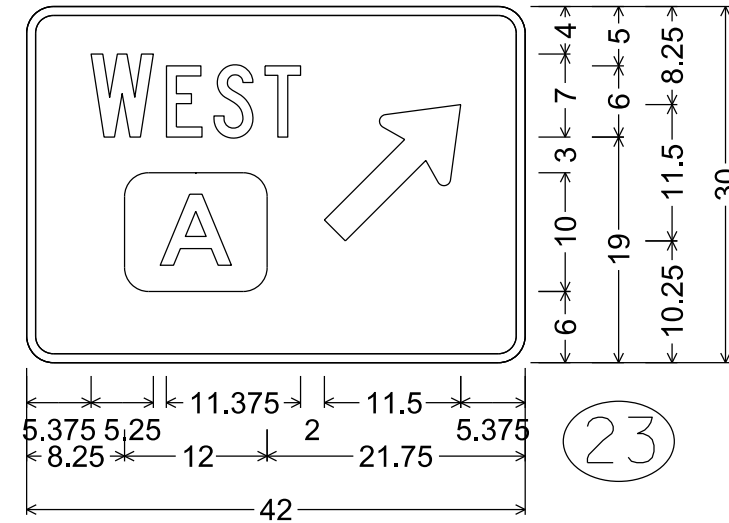
7

NOTES

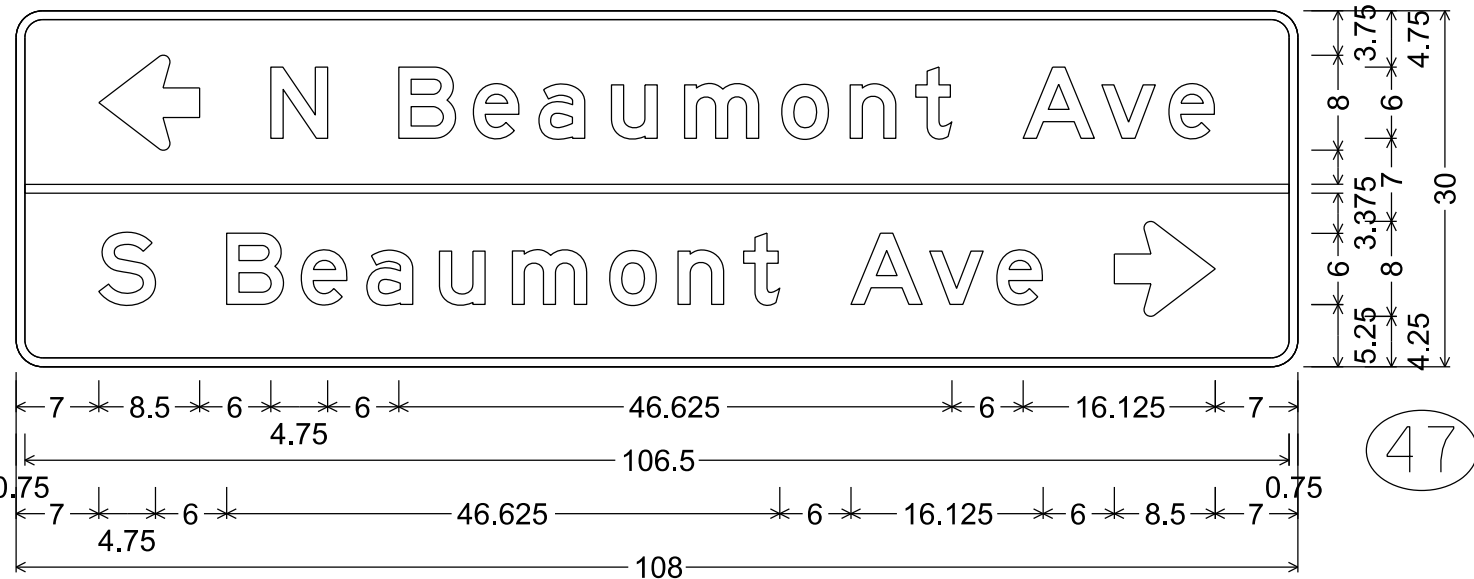
1. Signs are Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - C except as noted



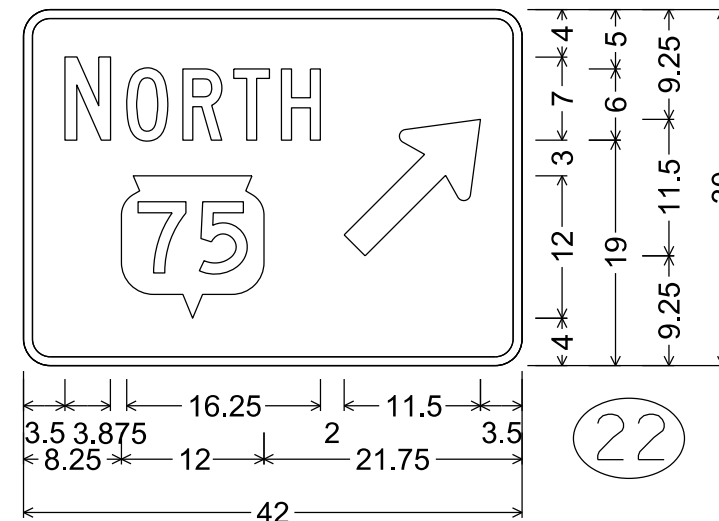
D1-2; 2.250" Radius, 0.750" Border,
"S", E; "Beaumont", E; "Ave", E; "N", E; "Beaumont", E; "Ave", E



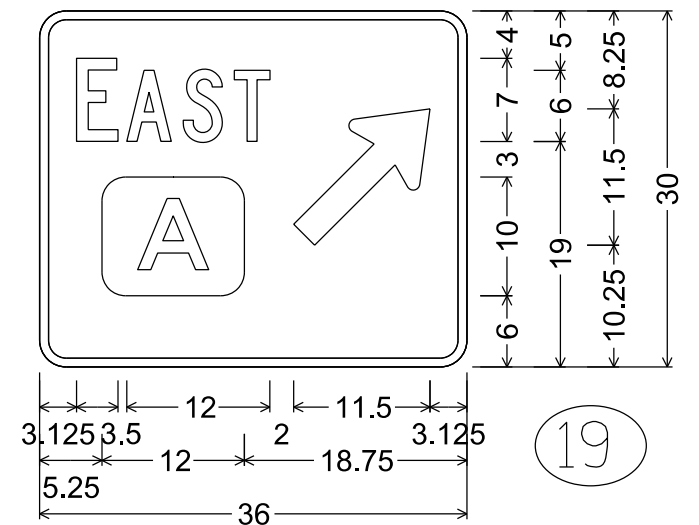
D1-1; 2.250" Radius, 0.750" Border



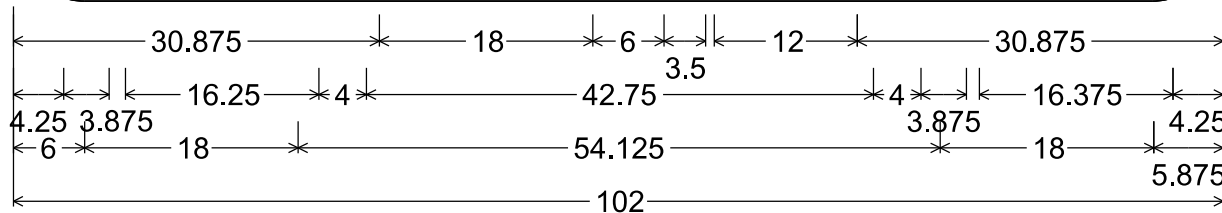
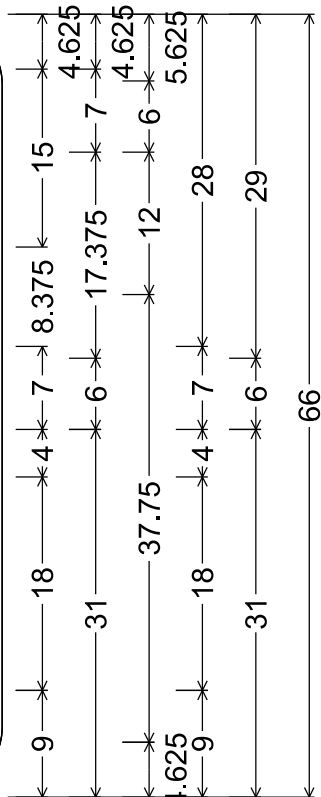
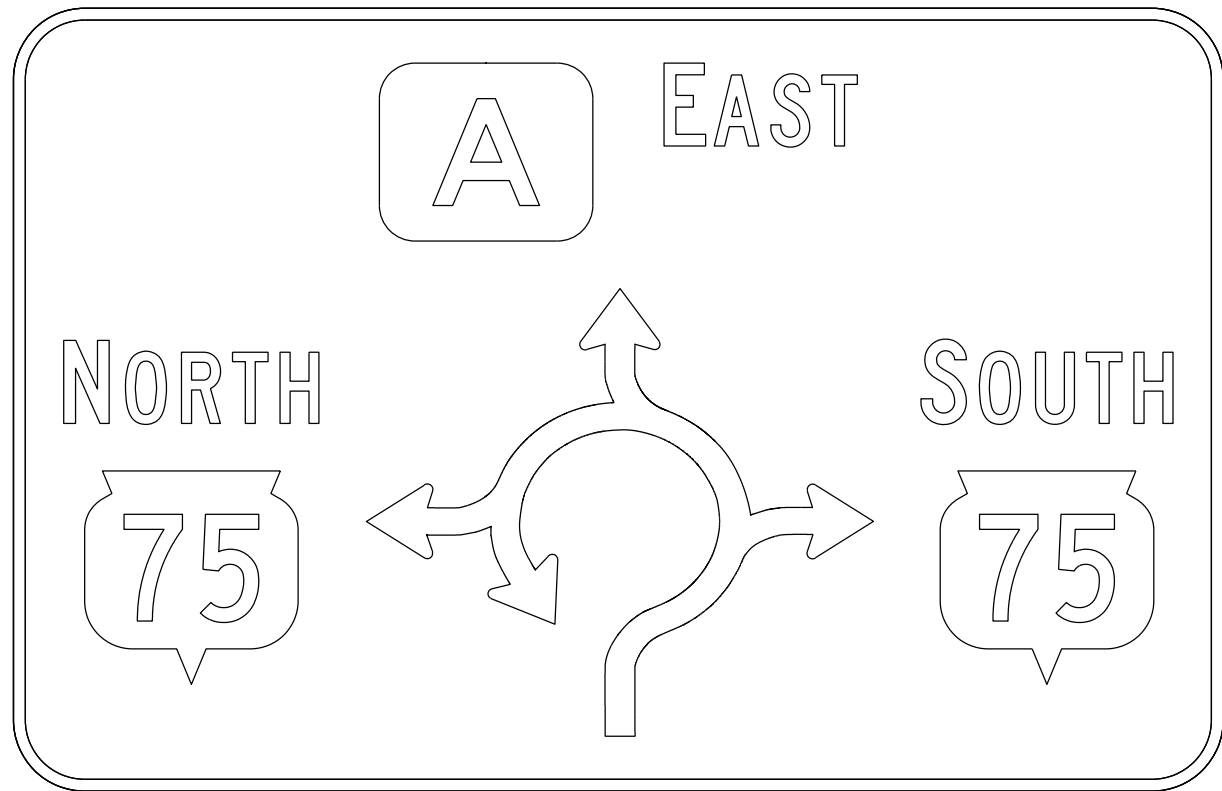
D1-2; 2.250" Radius, 0.750" Border,
"N", E; "Beaumont", E; "Ave", E; "S", E; "Beaumont", E; "Ave", E



D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border

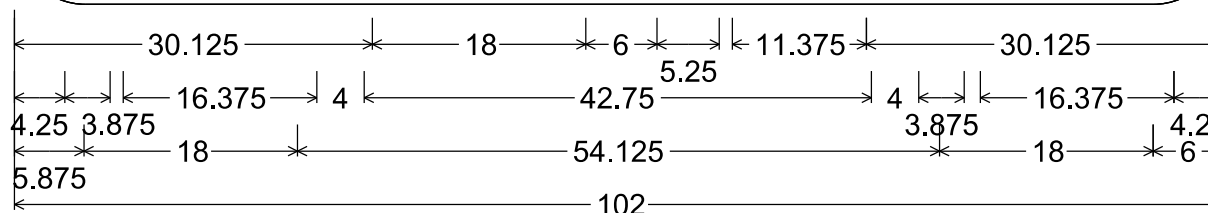
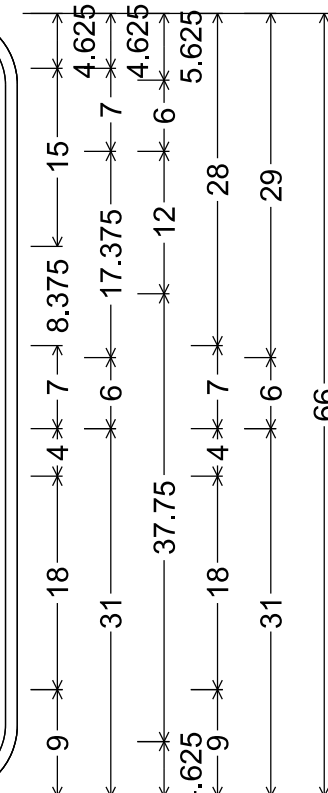
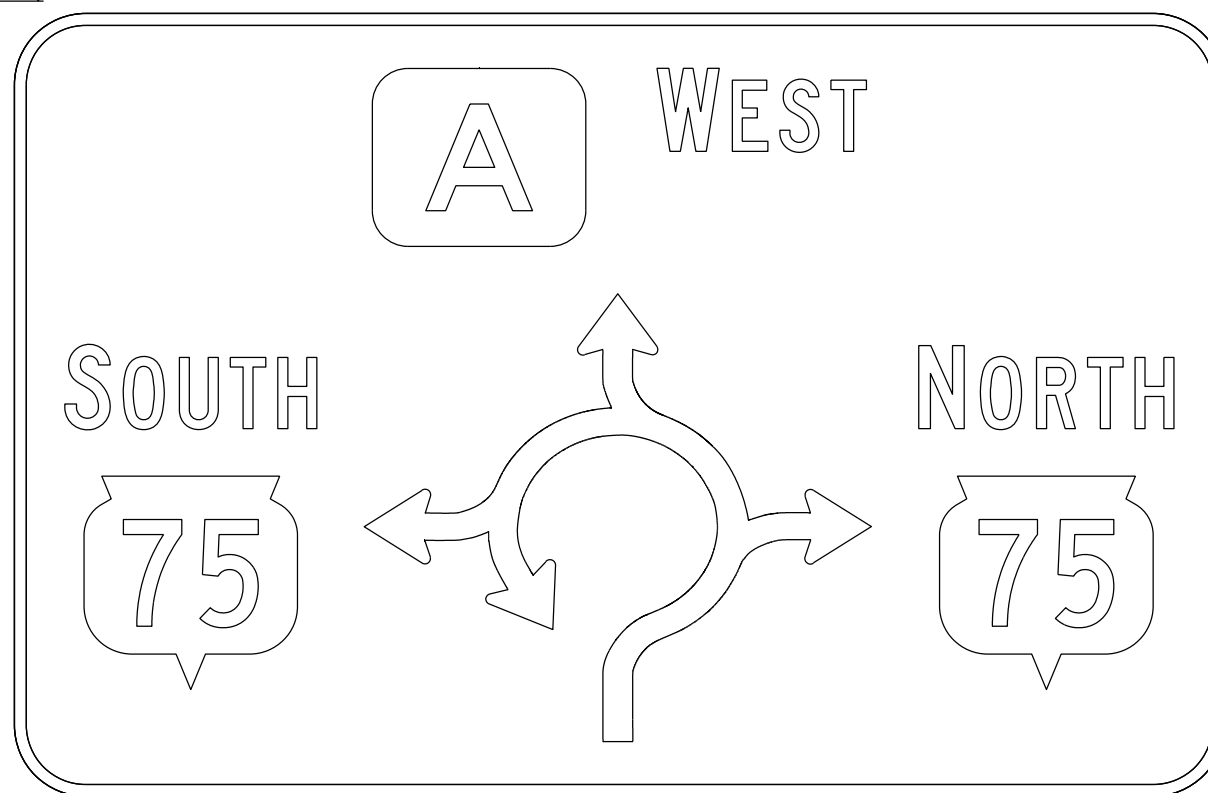


D1-62; 6.000" Radius, 1.000" Border

46

NOTES

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



D1-62; 6.000" Radius, 1.000" Border

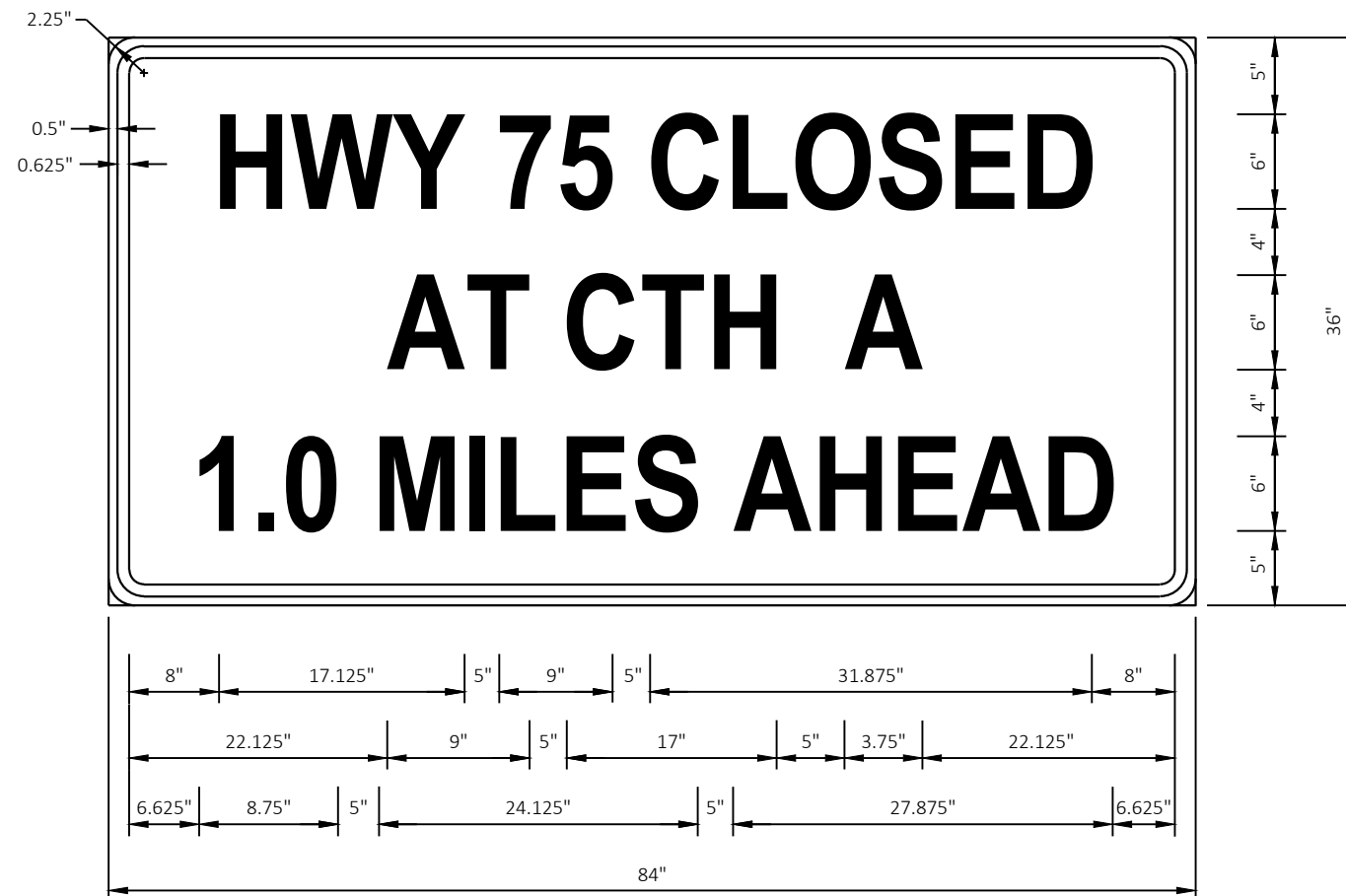
67

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NOTES:

- 1. SIGNS ARE TYPE II - TYPE F REFLECTIVE
- 2. COLOR:
 - BACKGROUND - ORANGE
 - MESSAGE - BLACK
- 3. MESSAGE SERIES - D



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DESIGN DATA

MATERIAL PROPERTIES:
 CONCRETE MASONRY $f'_c = 3,500$ PSI
 BAR STEEL REINFORCEMENT $f_y = 60,000$ PSI

HYDRAULIC DATA

Q100 = 160 CFS
 HW 100 = 787.36
 VEL. 100 = 3.71 FPS
 DRAINAGE AREA = 2.05 SQ. MI.
 ROAD OVERTOPPING = N/A
 SCOUR CRITICAL CODE = 5
 Q2 = 46 CFS
 HW 2 = 785.15
 VEL. 2 = 2.00 FPS

TRAFFIC DATA

A.A.D.T. 2024 = 5,500
 A.A.D.T. 2044 = 5,700
 T. = 18.5%
 DESIGN SPEED = 60 MPH

LIST OF DRAWINGS

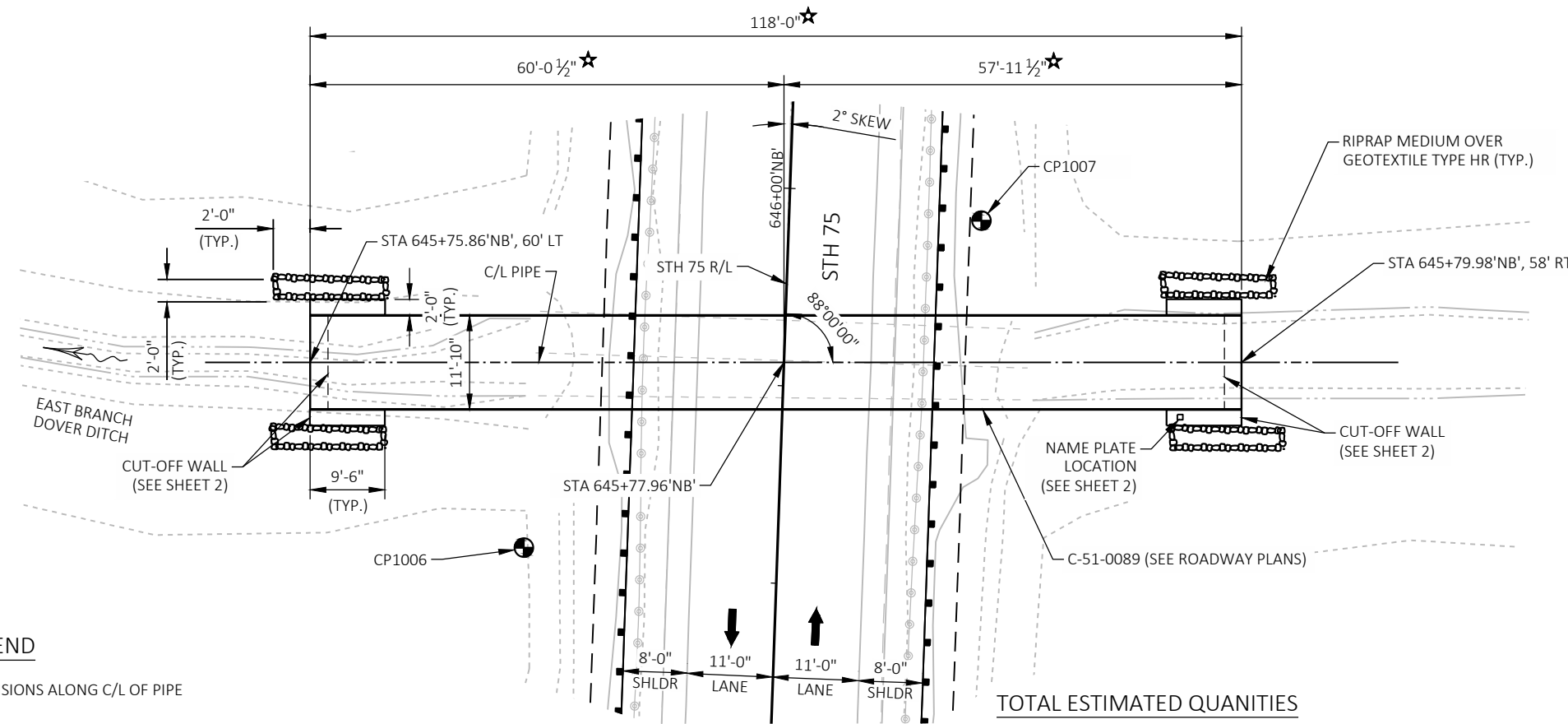
1. GENERAL PLAN
2. REINFORCEMENT DETAILS

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- EMBANKMENT FILL AND FINISHED GROUND AT THE CUT-OFF WALL SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENTS SHOWN ON SHEET 1 AND SHEET 2
- LOCATE NAME PLATE AS SHOWN ON SHEET 1 AND SHEET 2.
- BACKFILL WITH "STRUCTURE BACKFILL TYPE B" TO LIMITS AS SHOWN ON SHEET 2.
- TEMPORARY WATER DIVERSION TO BE PAID AS SPV. ITEM "TEMPORARY WATER DIVERSION, CULVERT C-51-89".
- EXCAVATION FOR CUT-OFF WALLS TO BE INCLUDED IN ROADWAY ITEM "EXCAVATION FOR STRUCTURES STRUCTURAL PLATE PIPE OR PIPE ARCHES (STA 542+90)".

LEGEND

★ DIMENSIONS ALONG C/L OF PIPE



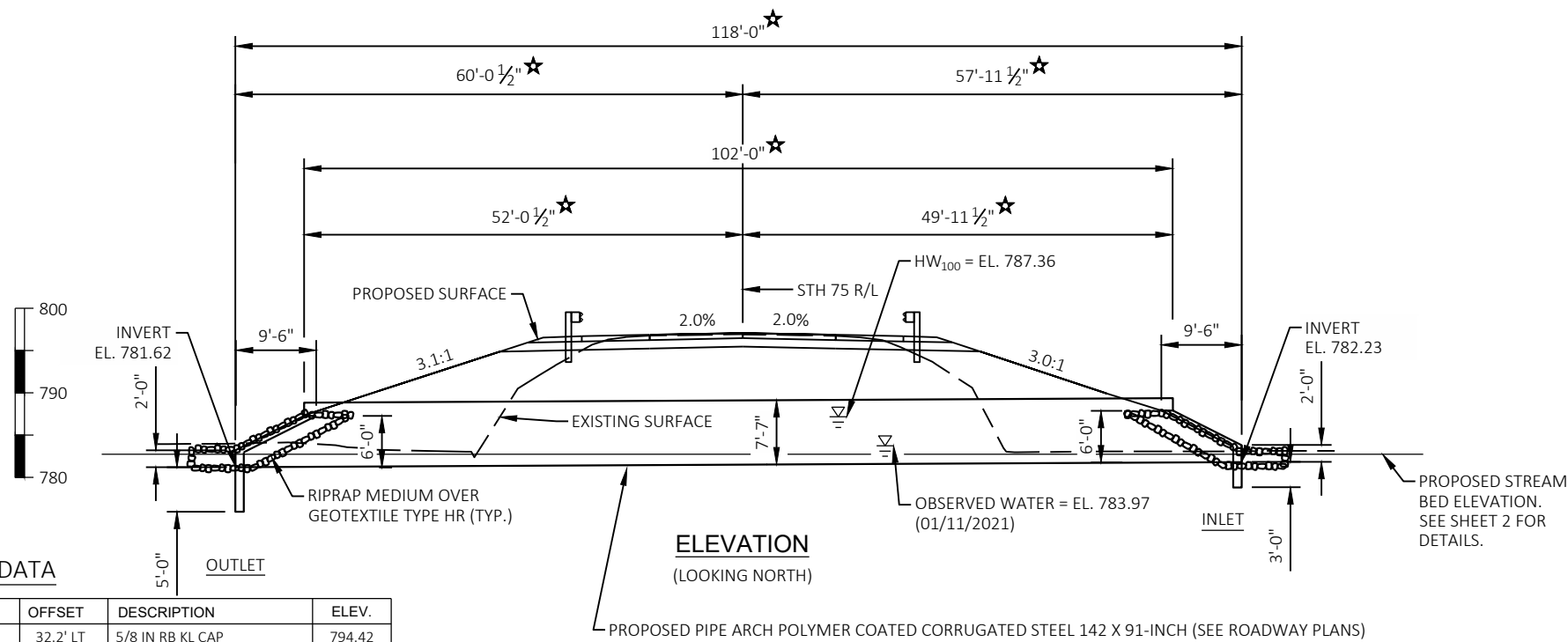
PLAN

(PIPE ARCH POLYMER COATED CORRUGATED STEEL 142 X 91-INCH)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL
210.2500	BACKFILL STRUCTURE TYPE B	TON	20
504.0100	CONCRETE MASONRY CULVERTS	CY	9
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	320
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	160
606.0200	RIPRAP MEDIUM	CY	6
645.0120	GEOTEXTILE TYPE HR	SY	29

NOTE: QUANTITIES INCLUDE INLET AND OUTLET APRON



ELEVATION

(LOOKING NORTH)

PROPOSED PIPE ARCH POLYMER COATED CORRUGATED STEEL 142 X 91-INCH (SEE ROADWAY PLANS)

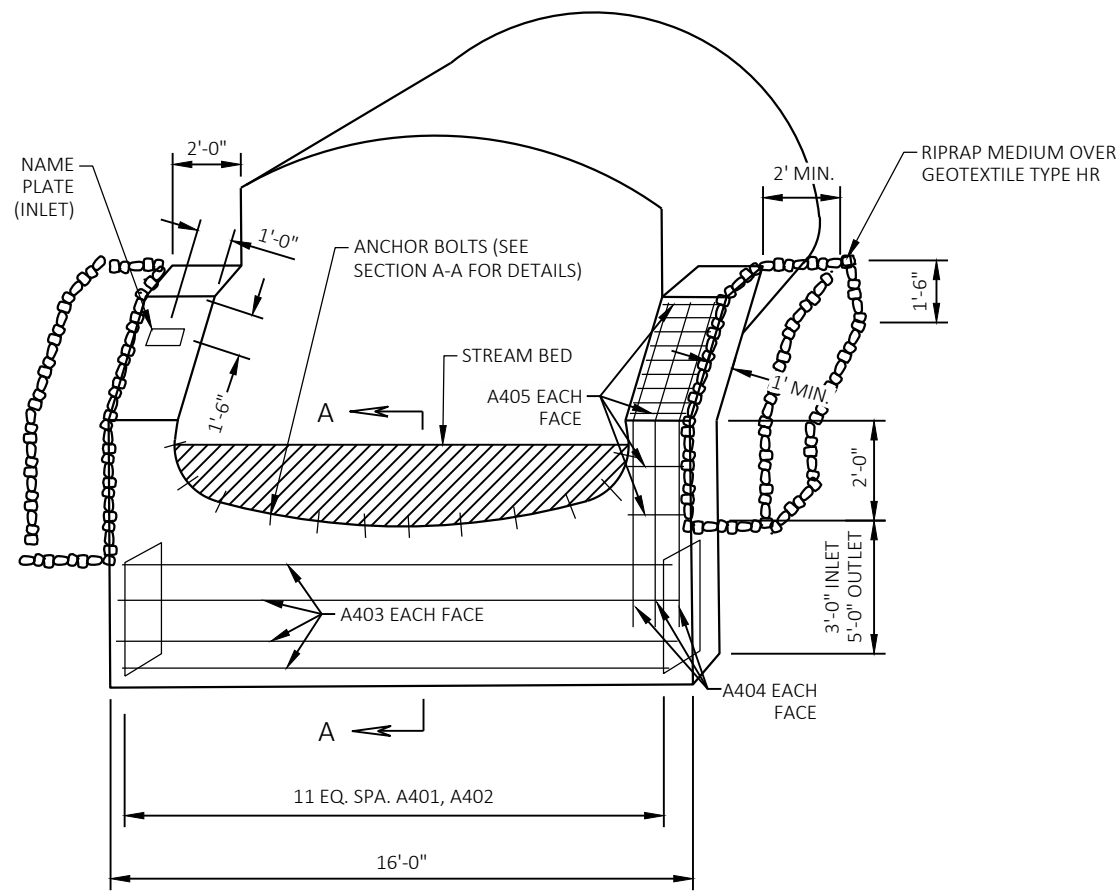
BENCHMARK DATA

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
CP1006	645+53.38'NB'	32.2' LT	5/8 IN RB KL CAP	794.42
CP1007	645+96.82'NB'	24.3' RT	5/8 IN RB KL CAP	793.60
BM 4	640+47.13'NB'	24.6' LT	CUT X TOP 24 IN CMCP	793.33

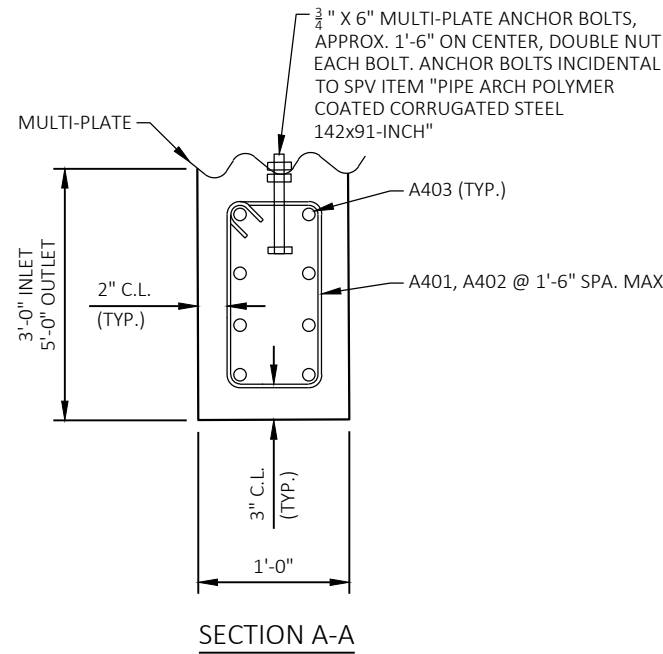


January 30, 2023

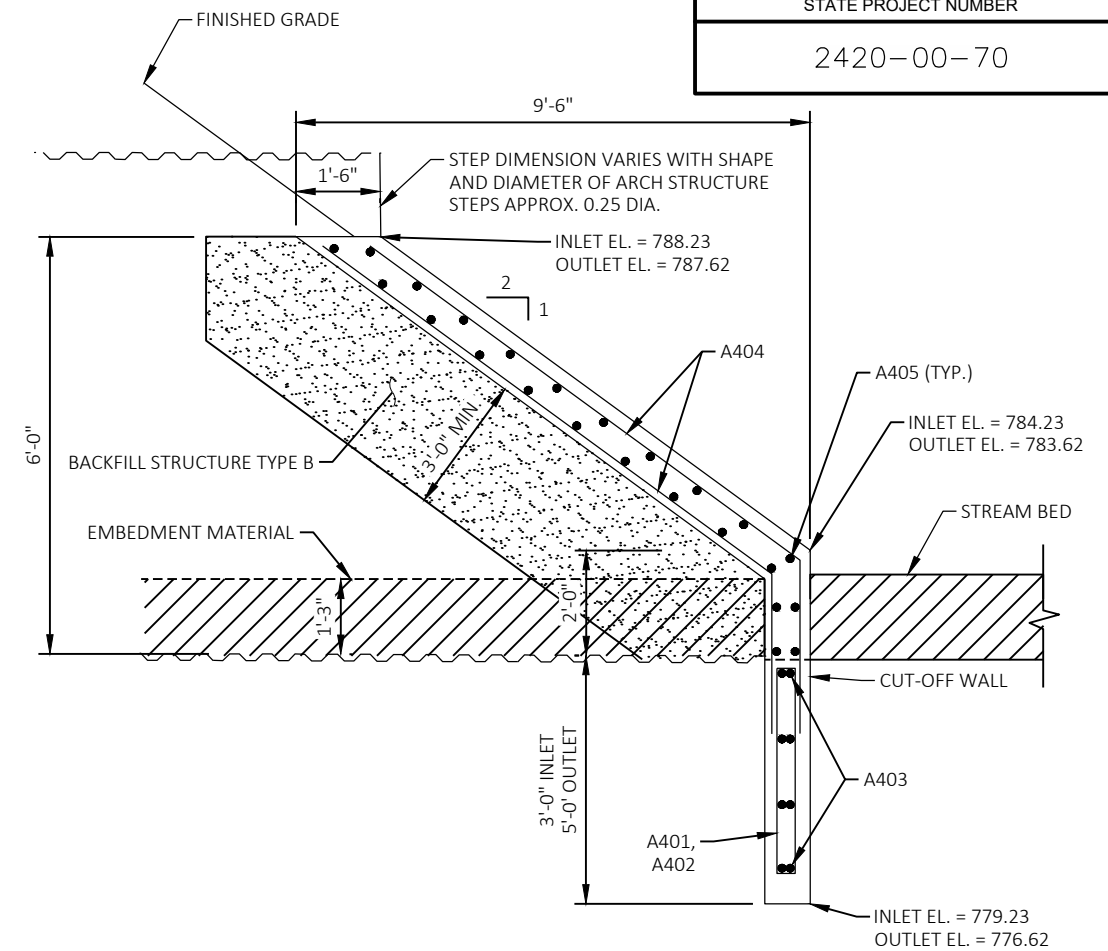
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED			SDR 05/16/23 DATE
STRUCTURE C-51-0089			
STH 75 OVER EAST BRANCH DOVER DITCH			
COUNTY	RACINE	TOWN/CITY/VILLAGE	DOVER
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECS.			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CAH	CDH	STD	CDH
GENERAL PLAN			SHEET 1 OF 2



CONCRETE CUT-OFF WALL DETAIL



SECTION A-A

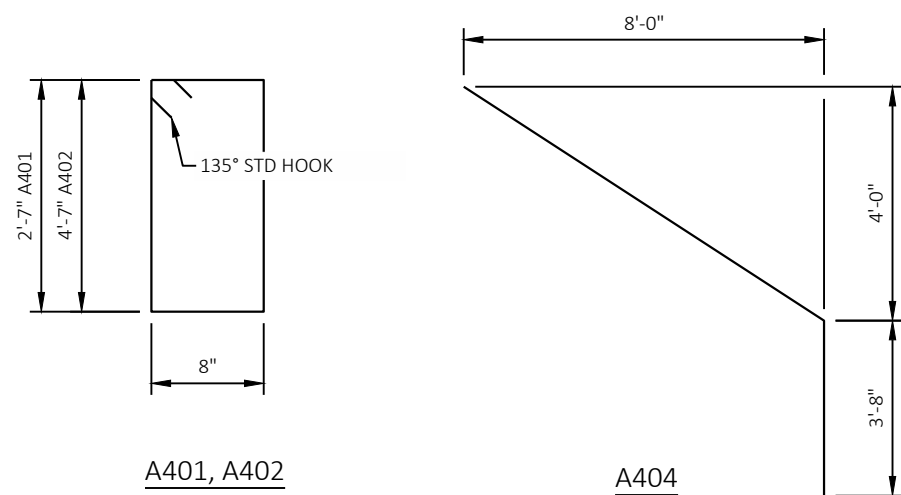


SECTION THRU CUT-OFF WALL

BILL OF BARS

COATED TOTAL = 160 LBS
UNCOATED TOTAL = 320 LBS

BAR MARK	NO. REQ'D.	LENGTH	COAT	BENT	LOCATION
A401	12	7'-0"		X	INLET CUTOFF WALL STIRRUP
A402	12	11'-0"		X	OUTLET CUTOFF WALL STIRRUP
A403	16	15'-8"			CUTOFF WALL LONG.
A404	12	12'-2"	X	X	WING LONG.
A405	48	1'-8"	X		WING TRANS.



A401, A402

A404

NO.	DATE	REVISION	BY
STRUCTURE C-51-0089			
DRAWN BY		STD	PLANS CK'D. CDH
REINFORCEMENT DETAILS		SHEET 2 OF 2	

SCALE =

STH 75 NB

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	EXPANDED FILL	MASS ORDINATE
626+75	62675.00	0.00	57.49	0.00	3.80	0	0	0	0	0	0	0
627+00	62700.00	25.00	90.41	0.00	26.69	68	0	14	0	68	18	50
627+50	62750.00	50.00	98.51	0.00	39.97	175	0	62	0	243	99	144
628+00	62800.00	50.00	107.04	0.00	45.65	190	0	79	0	433	202	232
628+50	62850.00	50.00	136.29	0.00	28.55	225	0	69	0	658	291	367
629+00	62900.00	50.00	203.60	0.00	9.56	315	0	35	0	973	337	636
629+50	62950.00	50.00	234.90	0.00	2.35	406	0	11	0	1,379	351	1,028
630+00	63000.00	50.00	203.70	0.00	2.69	406	0	5	0	1,785	358	1,428
630+50	63050.00	50.00	152.72	0.00	3.88	330	0	6	0	2,115	365	1,750
631+00	63100.00	50.00	108.85	0.00	4.40	242	0	8	0	2,357	376	1,981
631+50	63150.00	50.00	73.01	0.00	9.16	168	0	13	0	2,525	393	2,132
632+00	63200.00	50.00	49.25	0.00	30.34	113	0	37	0	2,638	441	2,197
632+50	63250.00	50.00	43.78	0.00	57.53	86	0	81	0	2,724	546	2,178
633+00	63300.00	50.00	29.45	0.00	103.51	68	0	149	0	2,792	740	2,052
633+50	63350.00	50.00	14.52	0.00	149.76	41	0	235	0	2,833	1,045	1,788
634+00	63400.00	50.00	14.39	0.00	317.27	27	0	432	0	2,860	1,607	1,253
635+50	63550.00	150.00	0.00	0.00	577.74	40	0	2,486	0	2,900	4,839	-1,939
636+50	63650.00	100.00	8.13	0.00	464.11	15	0	1,929	0	2,915	7,346	-4,431
637+00	63700.00	50.00	8.11	0.00	181.45	15	0	598	0	2,930	8,124	-5,194
637+50	63750.00	50.00	1.90	0.00	100.47	9	0	261	0	2,939	8,463	-5,524
638+00	63800.00	50.00	2.49	0.00	119.32	4	0	204	0	2,943	8,728	-5,785
638+50	63850.00	50.00	2.09	0.00	148.53	4	0	248	0	2,947	9,051	-6,104
639+00	63900.00	50.00	13.72	0.00	92.63	15	0	223	0	2,962	9,341	-6,379
639+50	63950.00	50.00	38.45	0.00	43.28	48	0	126	0	3,010	9,504	-6,494
640+00	64000.00	50.00	56.57	0.00	53.20	88	0	89	0	3,098	9,620	-6,522
640+50	64050.00	50.00	67.70	0.00	49.39	115	0	95	0	3,213	9,744	-6,531
641+00	64100.00	50.00	59.41	0.00	64.28	118	0	105	0	3,331	9,880	-6,549
641+50	64150.00	50.00	55.68	0.00	54.86	107	0	110	0	3,438	10,023	-6,585
642+00	64200.00	50.00	66.78	0.00	18.86	113	0	68	0	3,551	10,111	-6,560
642+50	64250.00	50.00	89.64	0.00	14.20	145	0	31	0	3,696	10,152	6,456
643+00	64300.00	50.00	128.21	0.00	8.37	202	0	21	0	3,898	10,179	-6,281
643+50	64350.00	50.00	154.18	0.00	2.84	261	0	10	0	4,159	10,192	-6,033
644+00	64400.00	50.00	172.53	0.00	0.96	303	0	4	0	4,462	10,197	-5,735
644+50	64450.00	50.00	101.88	0.00	3.95	254	0	5	0	4,716	10,204	-5,488
645+00	64500.00	50.00	59.27	0.00	17.84	149	0	20	0	4,865	10,230	-5,365
645+50	64550.00	50.00	119.94	0.00	22.78	166	0	38	0	5,031	10,279	-5,248
646+00	64600.00	50.00	157.35	0.00	54.02	257	0	71	0	5,288	10,371	-5,083
646+50	64650.00	50.00	98.49	0.00	29.74	237	0	78	0	5,525	10,473	-4,948
647+00	64700.00	50.00	78.95	0.00	34.09	164	0	59	0	5,689	10,550	-4,861
647+50	64750.00	50.00	67.90	0.00	32.09	136	0	61	0	5,825	10,629	-4,804
648+00	64800.00	50.00	67.11	0.00	27.06	125	0	55	0	5,950	10,700	4,750
648+50	64850.00	50.00	67.74	0.00	11.14	125	0	35	0	6,075	10,746	-4,671
649+00	64900.00	50.00	55.44	0.00	3.51	114	0	14	0	6,189	10,764	-4,575

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PROJECT NO: 2420-00-70

HWY: STH 75

COUNTY: RACINE

EARTHWORK DATA

SHEET

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CTH A EB_RAB LEG WEST

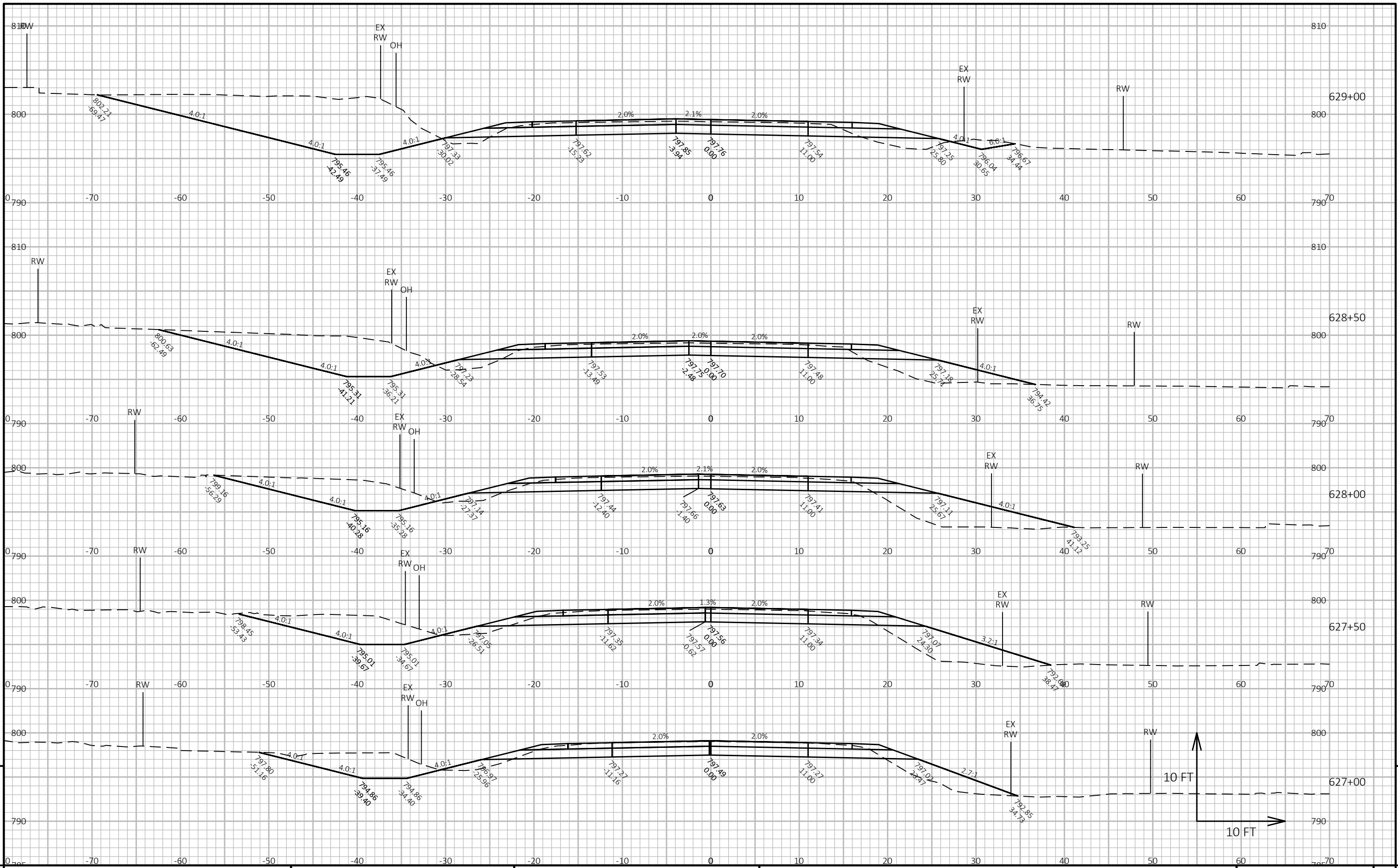
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			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
10+00	1000.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
10+50	1050.00	50.00	59.66	0.00	1.16	55	0	1	55	1	54
11+00	1100.00	50.00	60.53	0.00	1.18	111	0	2	166	4	162
11+50	1150.00	50.00	64.88	0.00	1.15	116	0	2	282	7	276
12+00	1200.00	50.00	64.27	0.00	2.51	120	0	3	402	10	392
12+50	1250.00	50.00	73.91	0.00	0.96	128	0	3	530	14	516
13+00	1300.00	50.00	84.10	0.00	0.68	146	0	2	676	17	659
13+50	1350.00	50.00	80.33	0.00	4.47	152	0	5	828	23	805
14+00	1400.00	50.00	84.07	0.00	9.97	152	0	13	980	40	940
14+50	1450.00	50.00	67.38	0.00	36.37	140	0	43	1,120	96	1,024
15+00	1500.00	50.00	55.53	0.00	58.48	114	0	88	1,234	211	1,023
15+50	1550.00	50.00	55.21	0.00	63.50	103	0	113	1,337	358	980
16+00	1600.00	50.00	51.35	0.00	73.93	99	0	127	1,436	523	913
16+50	1650.00	50.00	32.34	0.00	115.46	77	0	175	1,513	750	763
17+00	1700.00	50.00	22.87	0.00	239.01	51	0	328	1,564	1,177	388

CTH A FB_RAB LEG EAST

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
20+50	2050.00	0.00	0.00	0.00	731.13	0	0	0	0	0	0
21+00	2100.00	50.00	0.00	0.00	490.61	0	0	1,131	0	1,470	-1,470
21+50	2150.00	50.00	4.16	0.00	384.17	4	0	810	4	2,523	-2,519
22+00	2200.00	50.00	28.80	0.00	257.83	31	0	594	35	3,296	-3,261
22+50	2250.00	50.00	45.97	0.00	150.23	69	0	378	104	3,787	-3,683
23+00	2300.00	50.00	64.00	0.00	73.78	102	0	207	206	4,056	-3,850
23+50	2350.00	50.00	89.03	0.00	39.81	142	0	105	348	4,193	-3,845
24+00	2400.00	50.00	101.11	0.00	25.15	176	0	60	524	4,271	-3,747
24+50	2450.00	50.00	97.90	0.00	16.38	184	0	38	708	4,320	-3,612
25+00	2500.00	50.00	96.63	0.00	11.46	180	0	26	888	4,354	-3,466
25+50	2550.00	50.00	78.63	0.00	7.14	162	0	17	1,050	4,376	-3,326
26+00	2600.00	50.00	73.66	0.00	4.11	141	0	10	1,191	4,389	-3,198
26+50	2650.00	50.00	63.93	0.00	2.91	127	0	7	1,318	4,398	-3,080
27+00	2700.00	50.00	0.00	0.00	0.00	59	0	3	1,377	4,402	-3,025

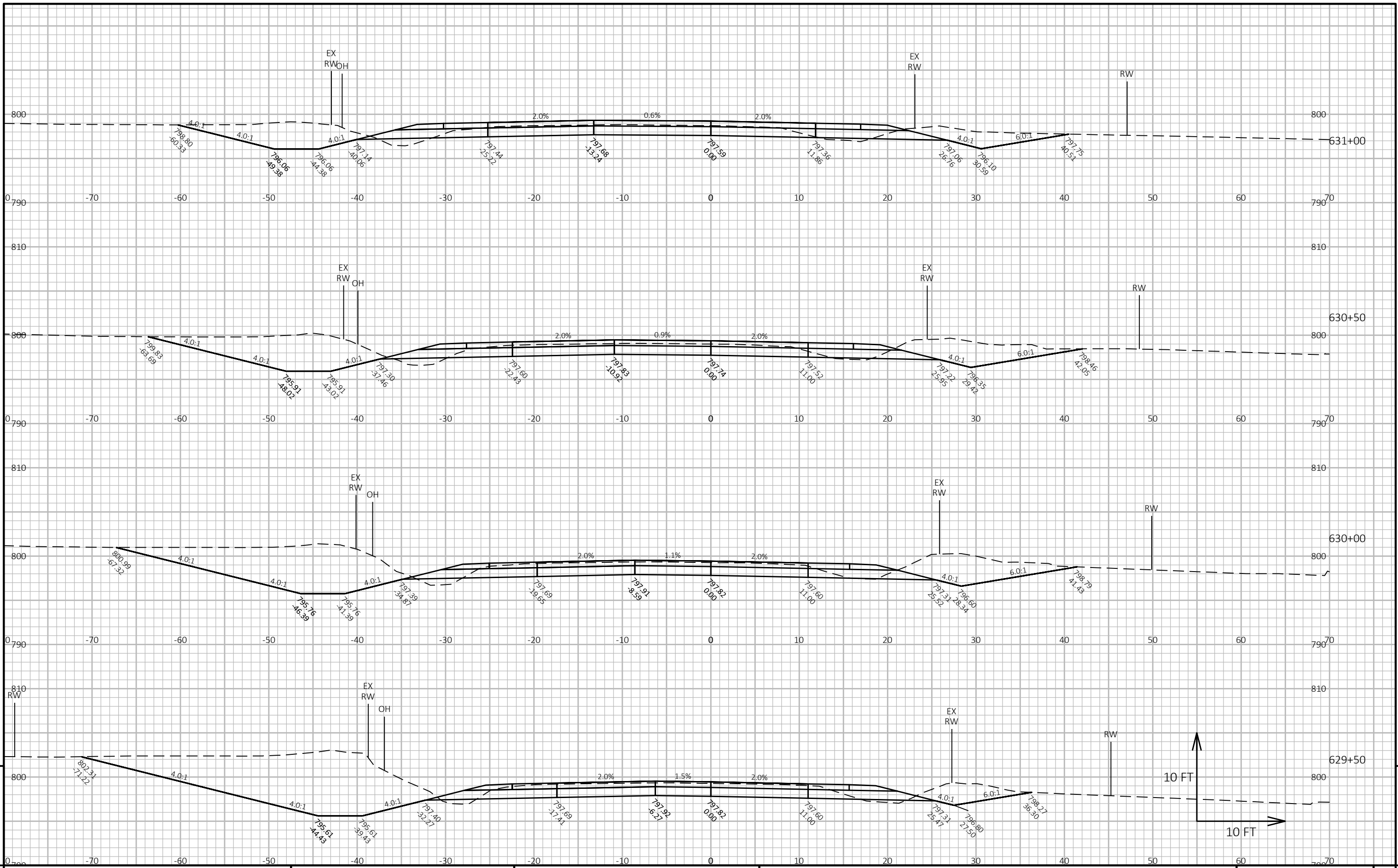
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10 FT
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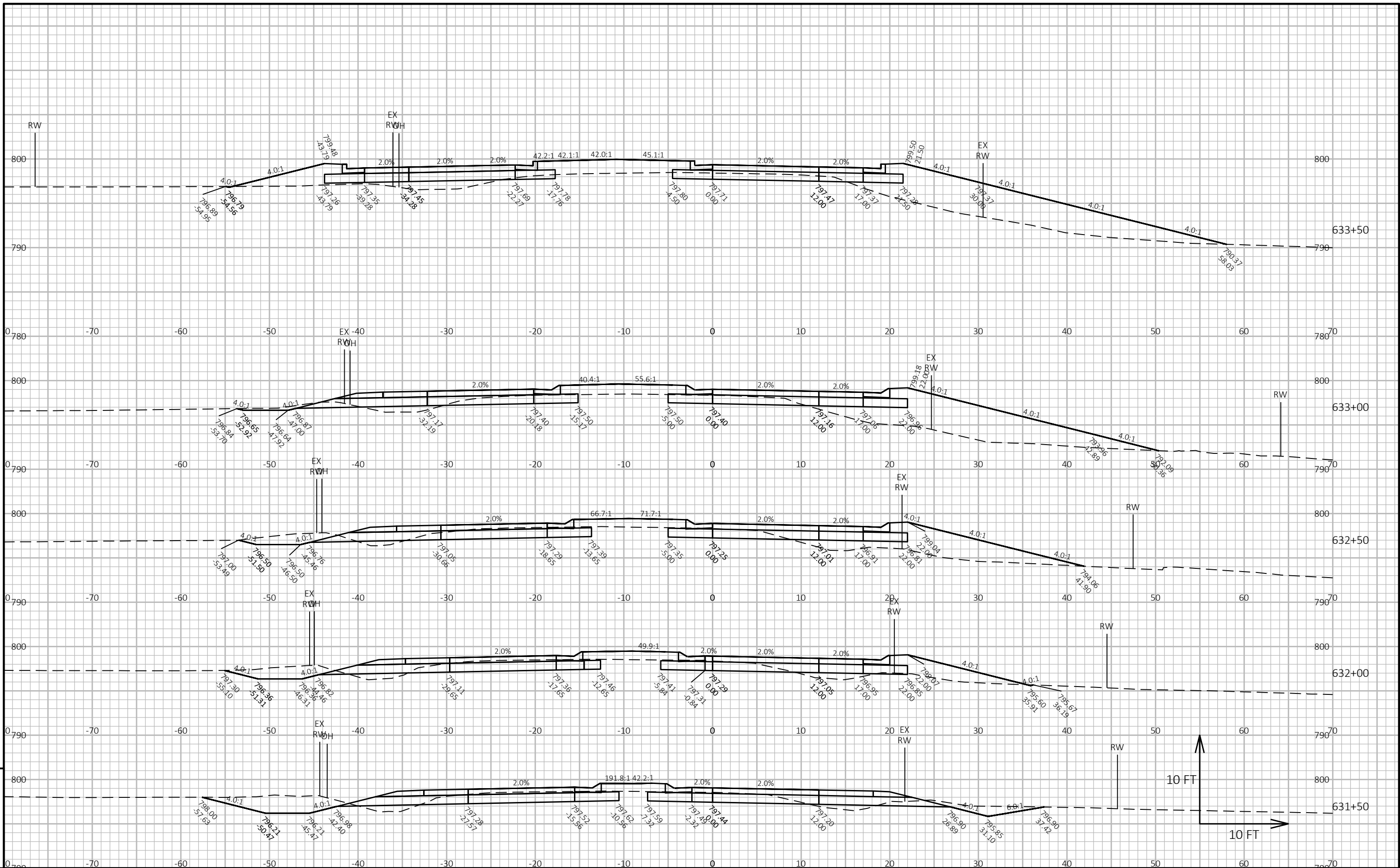
PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: STH 75 NB	SHEET
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PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: STH 75 NB
SHEET			E

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PROJECT NO: 2420-00-70

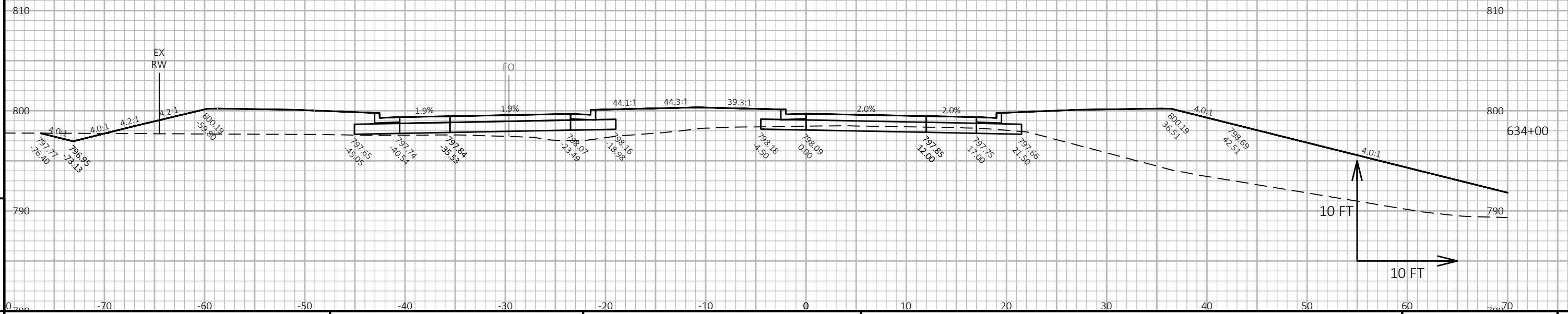
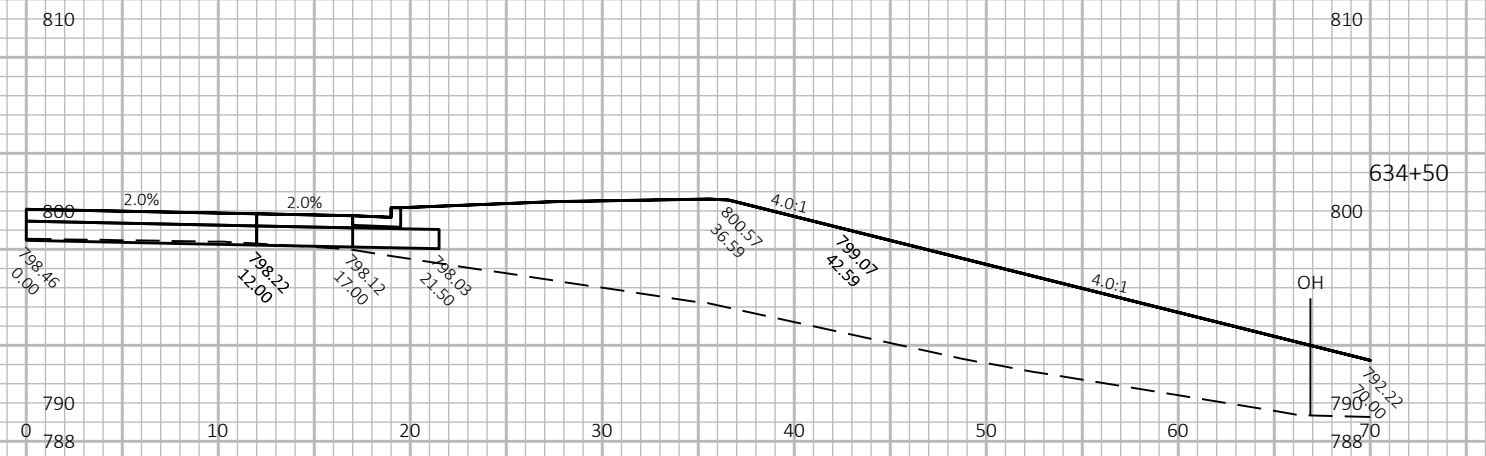
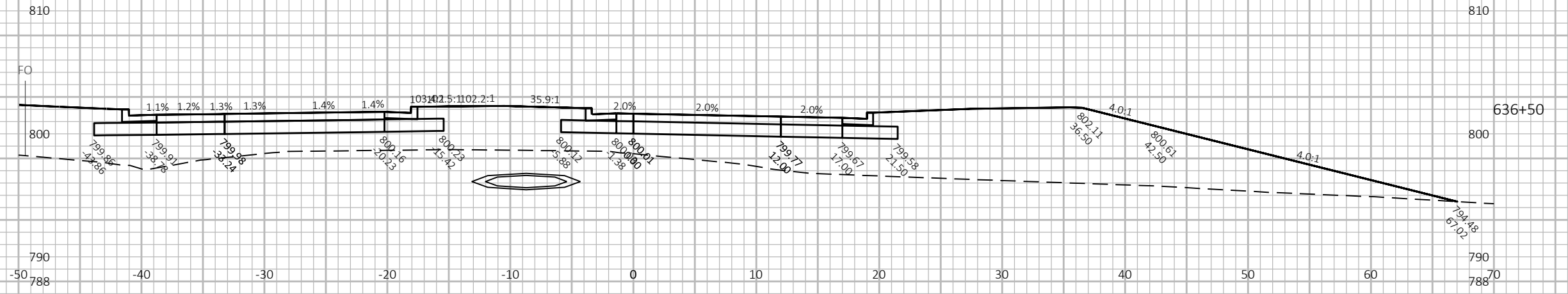
HWY: STH 75

COUNTY: RACINE

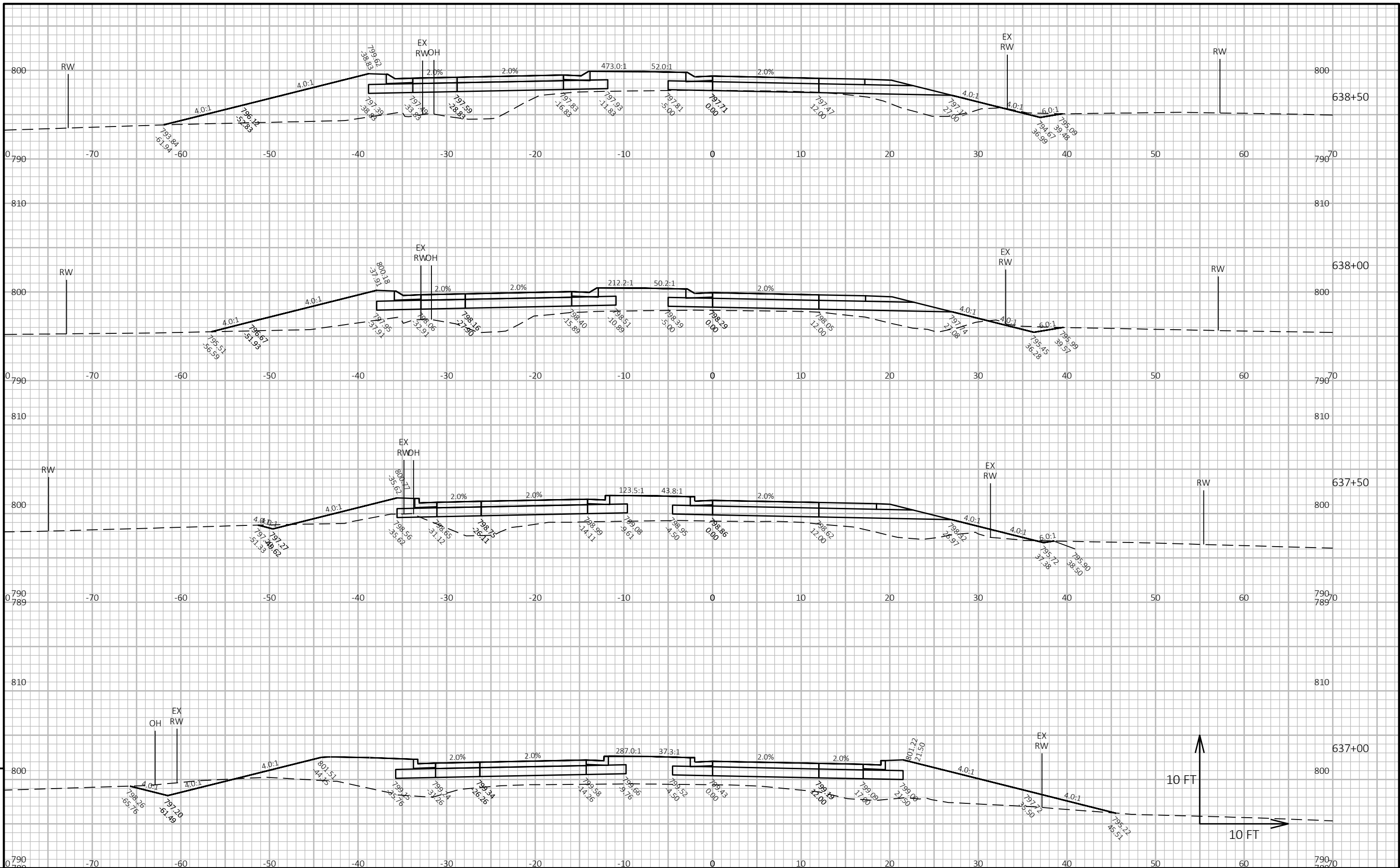
CROSS SECTIONS: STH 75 NB

SHEET

E



PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: STH 75 NB	SHEET	E
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PROJECT NO: 2420-00-70

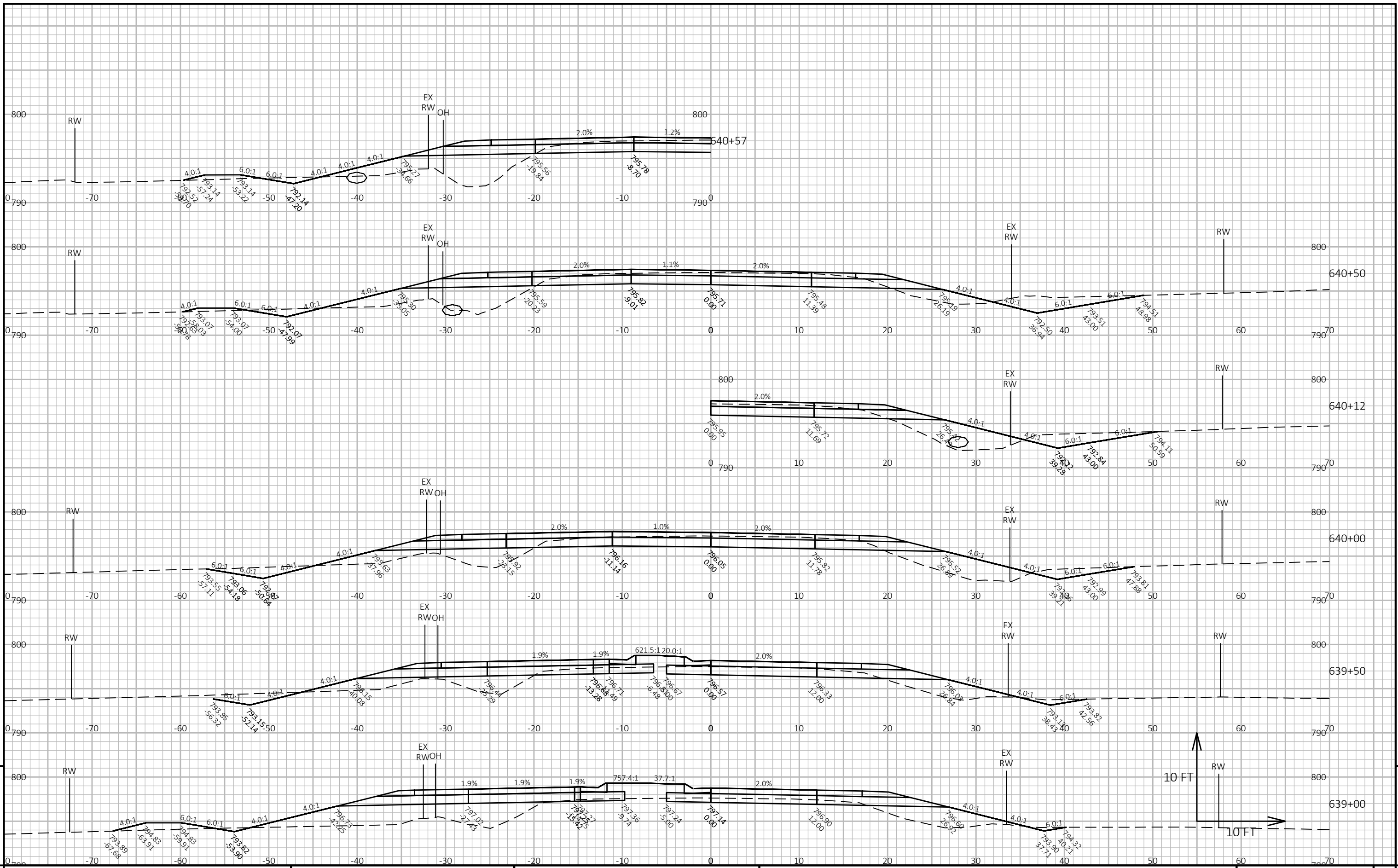
HWY: STH 75

COUNTY: RACINE

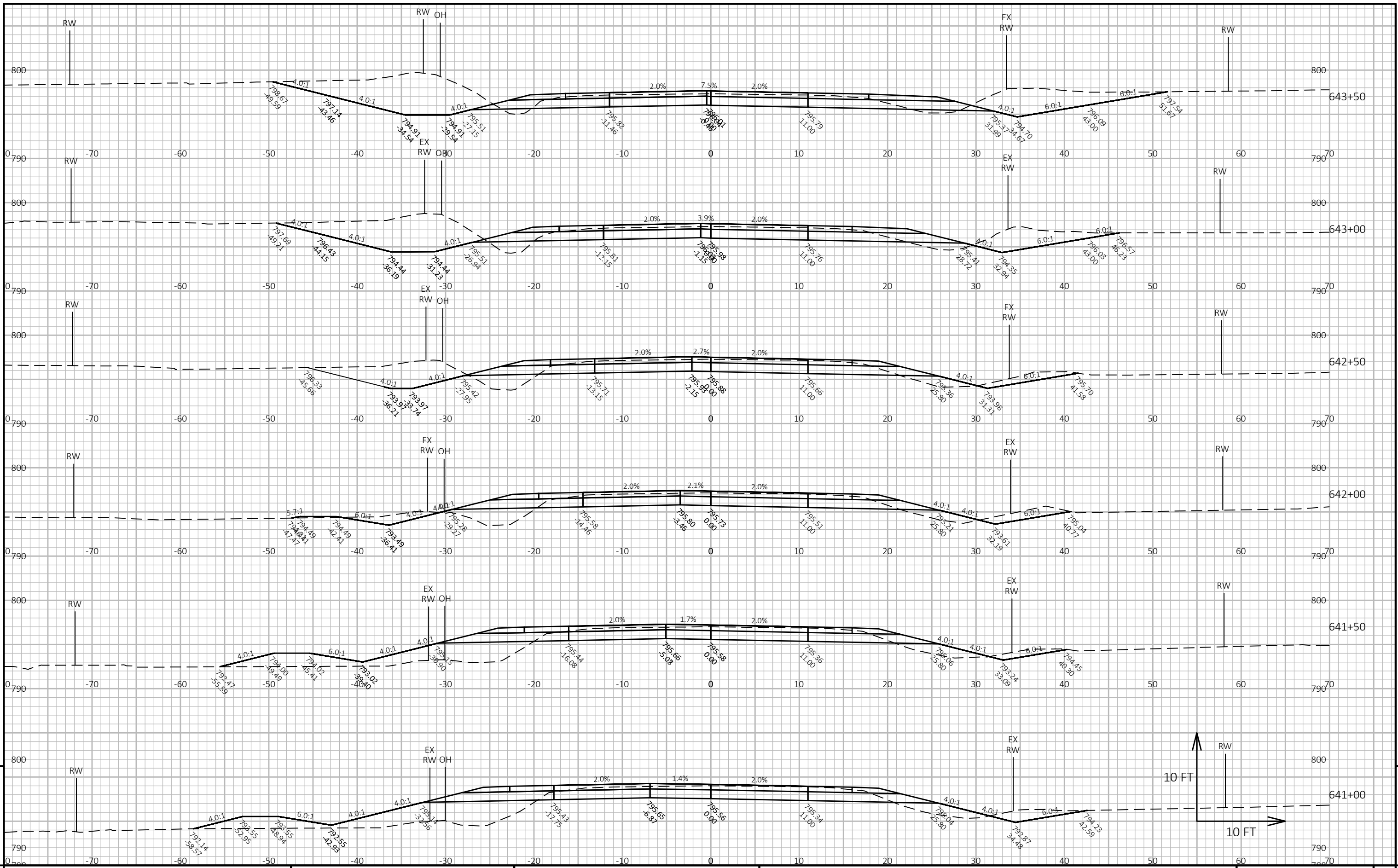
CROSS SECTIONS: STH 75 NB

SHEET

E



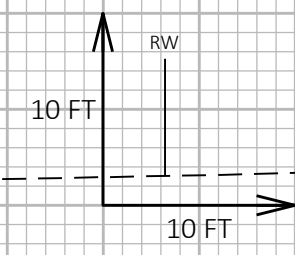
PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: STH 75 NB	SHEET	E
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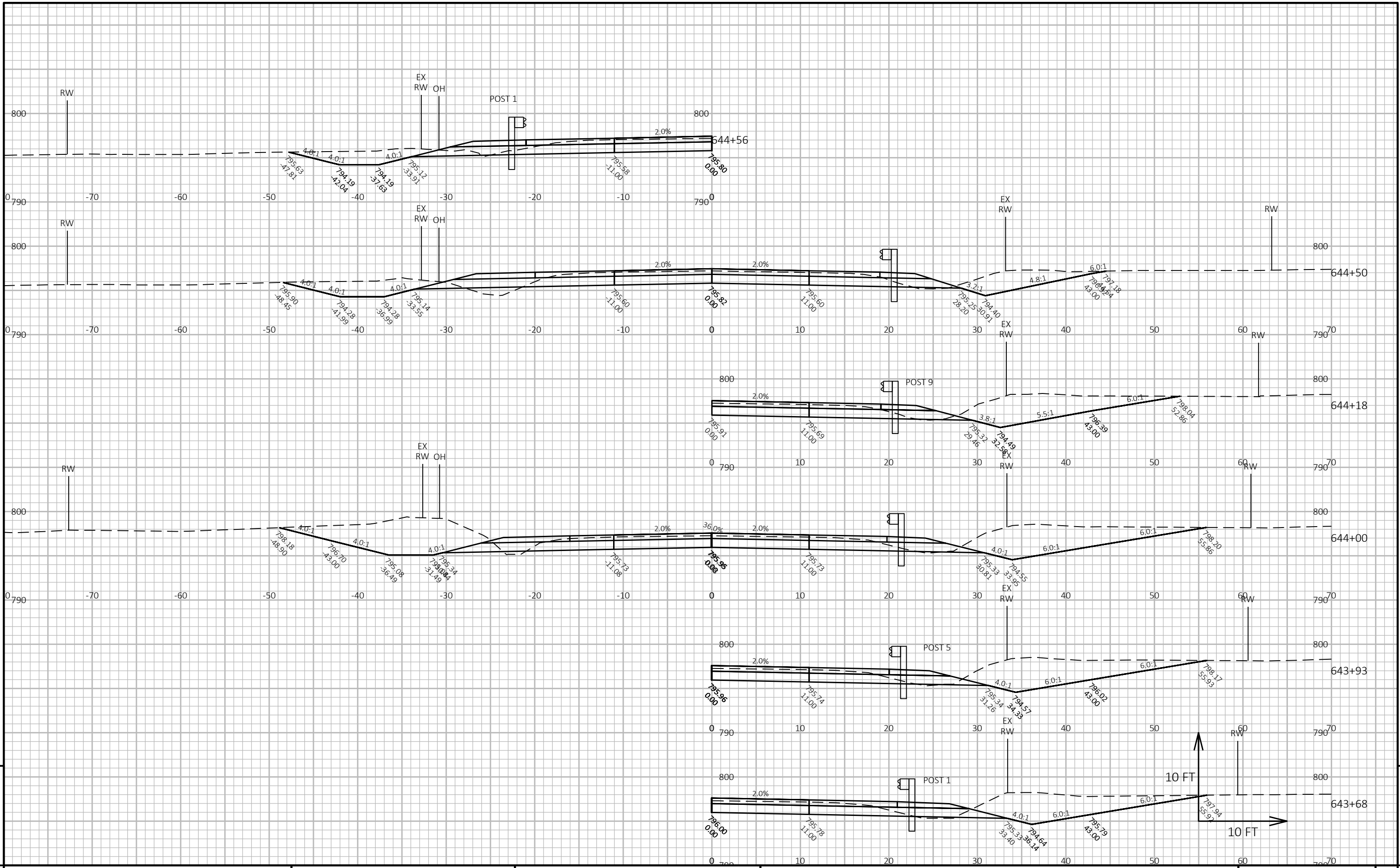


PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: STH 75 NB SHEET E

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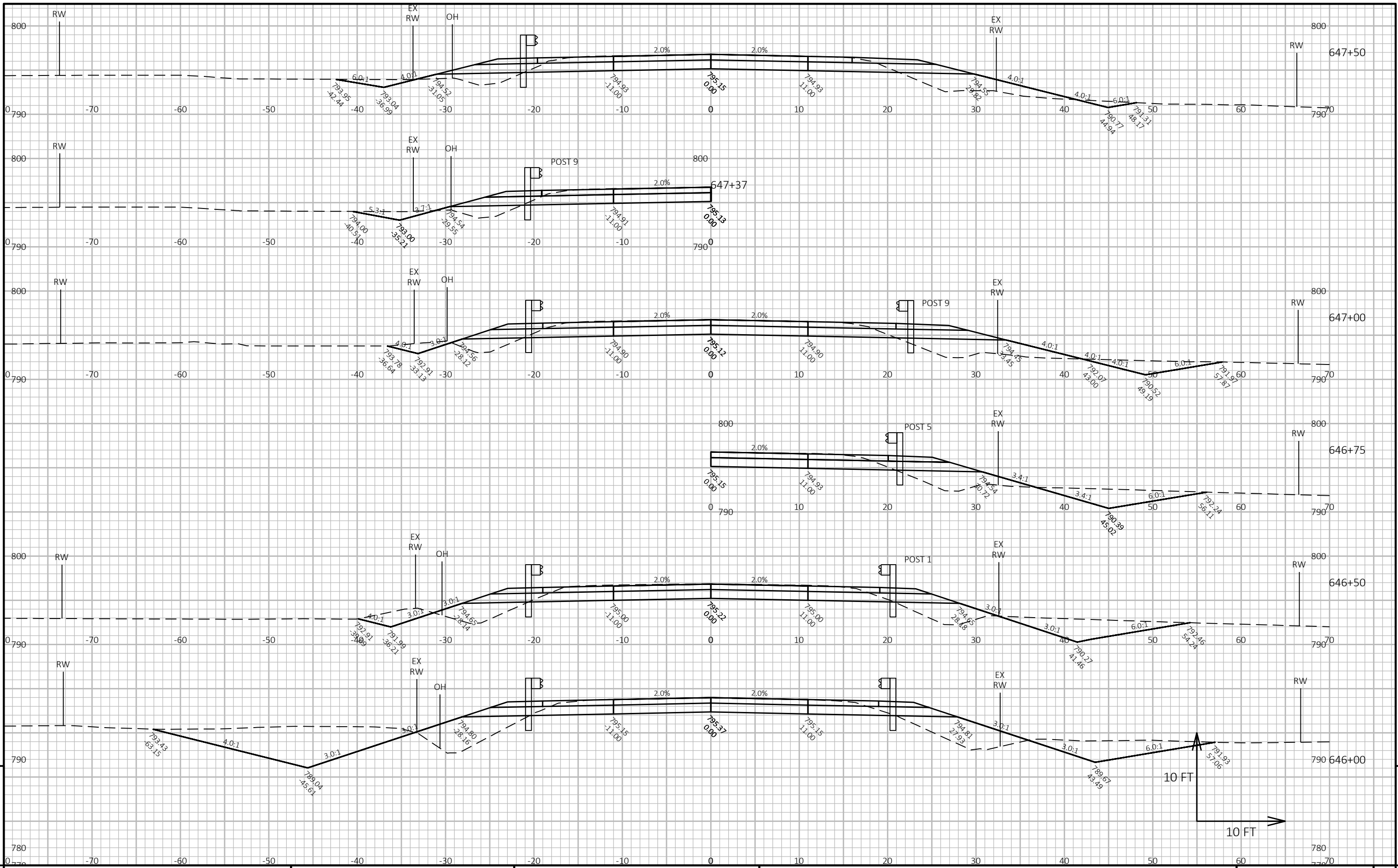




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PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: STH 75 NB	SHEET	E
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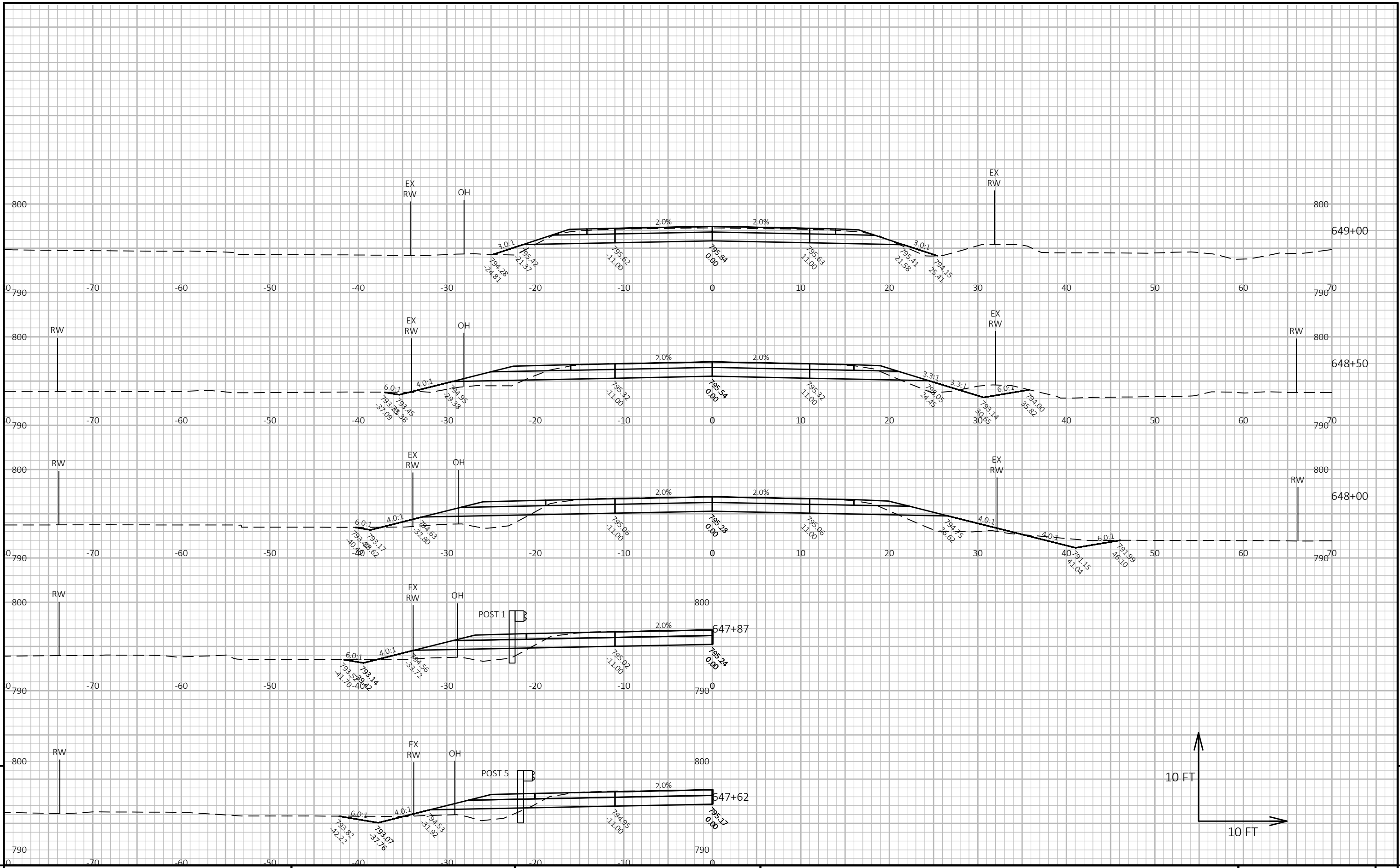
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PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: STH 75 NB SHEET E

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LAYOUT NAME - 10



PROJECT NO: 2420-00-70

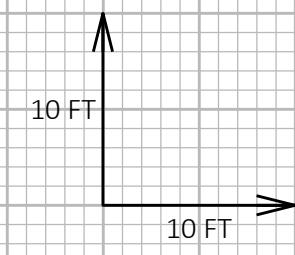
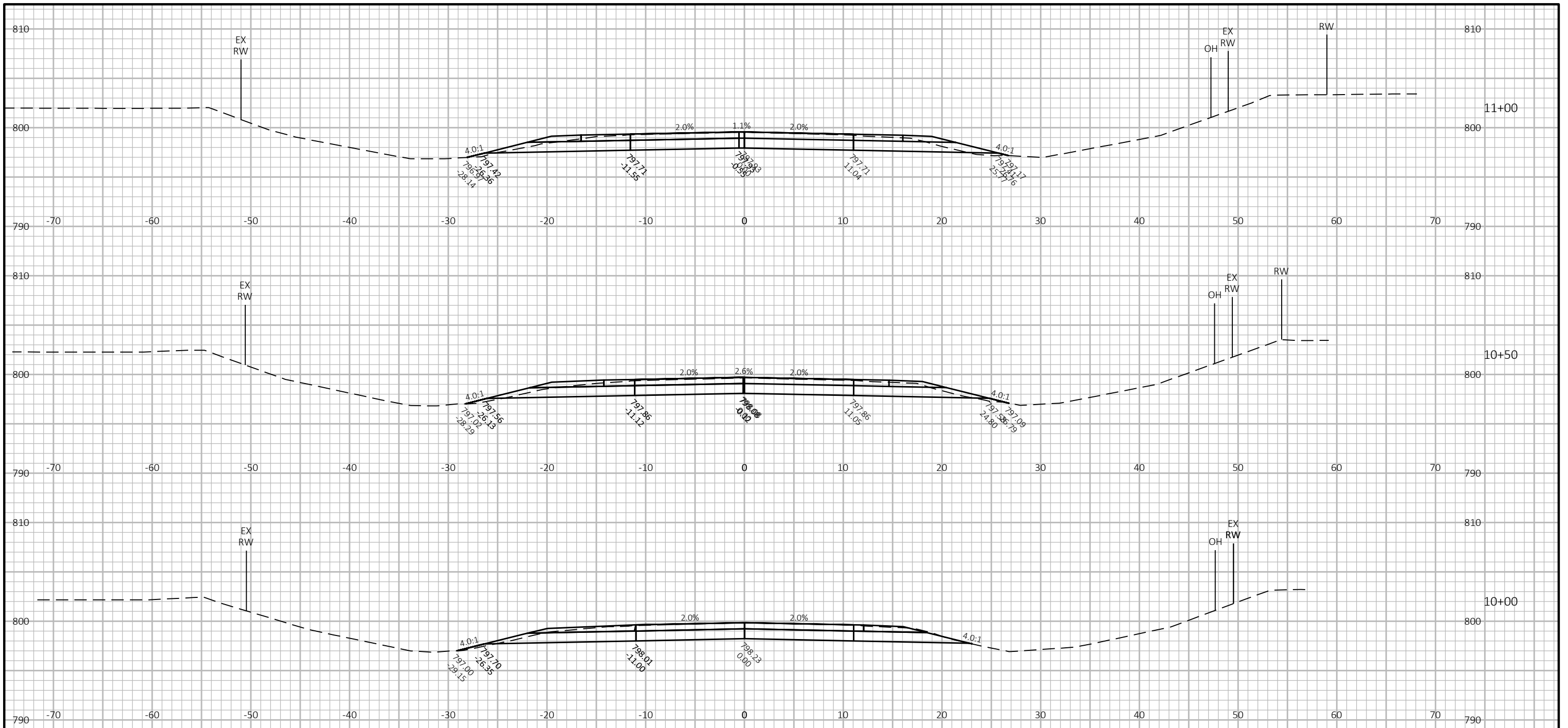
HWY: STH 75

COUNTY: RACINE

CROSS SECTIONS: STH 75 NB

SHEET

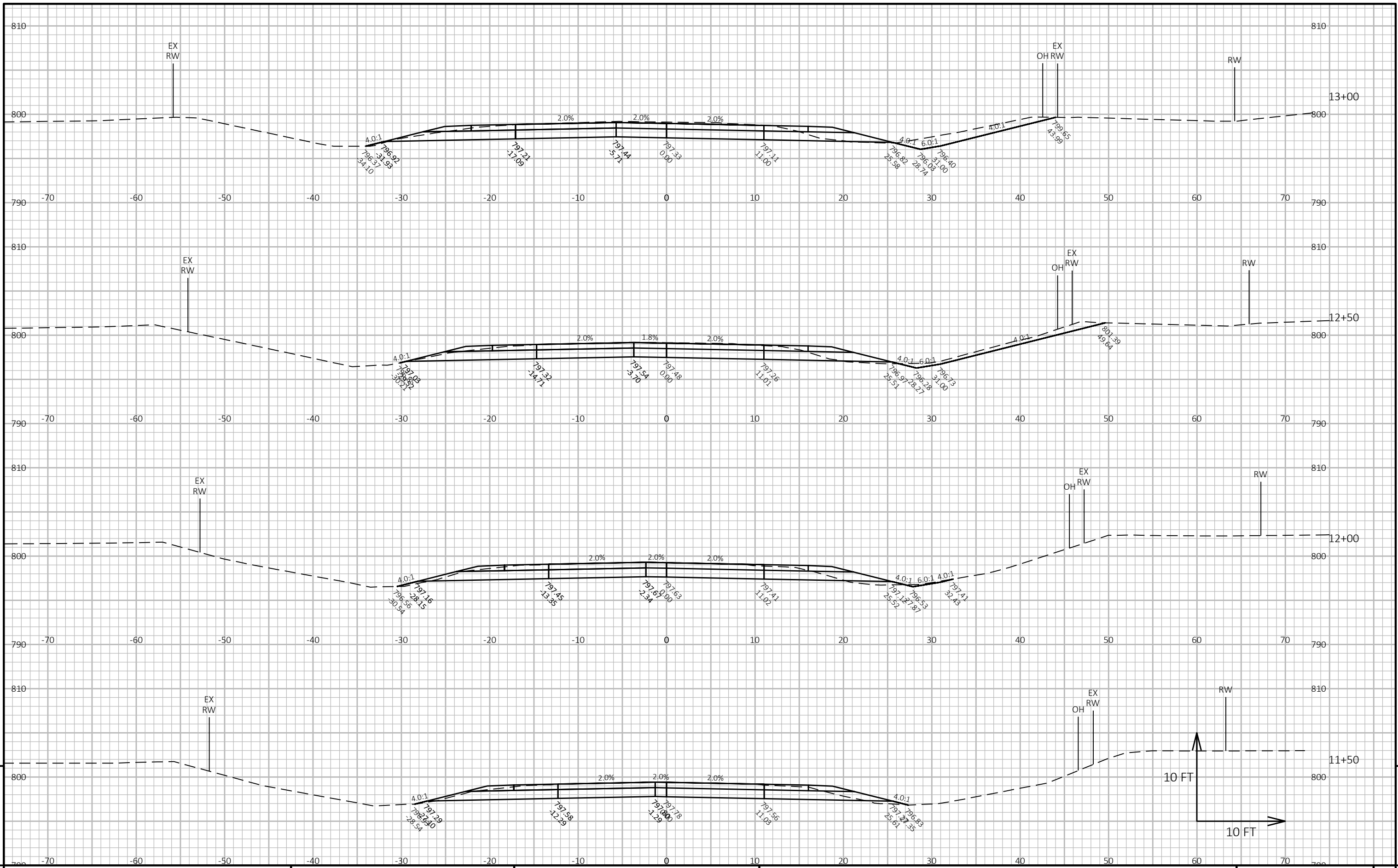
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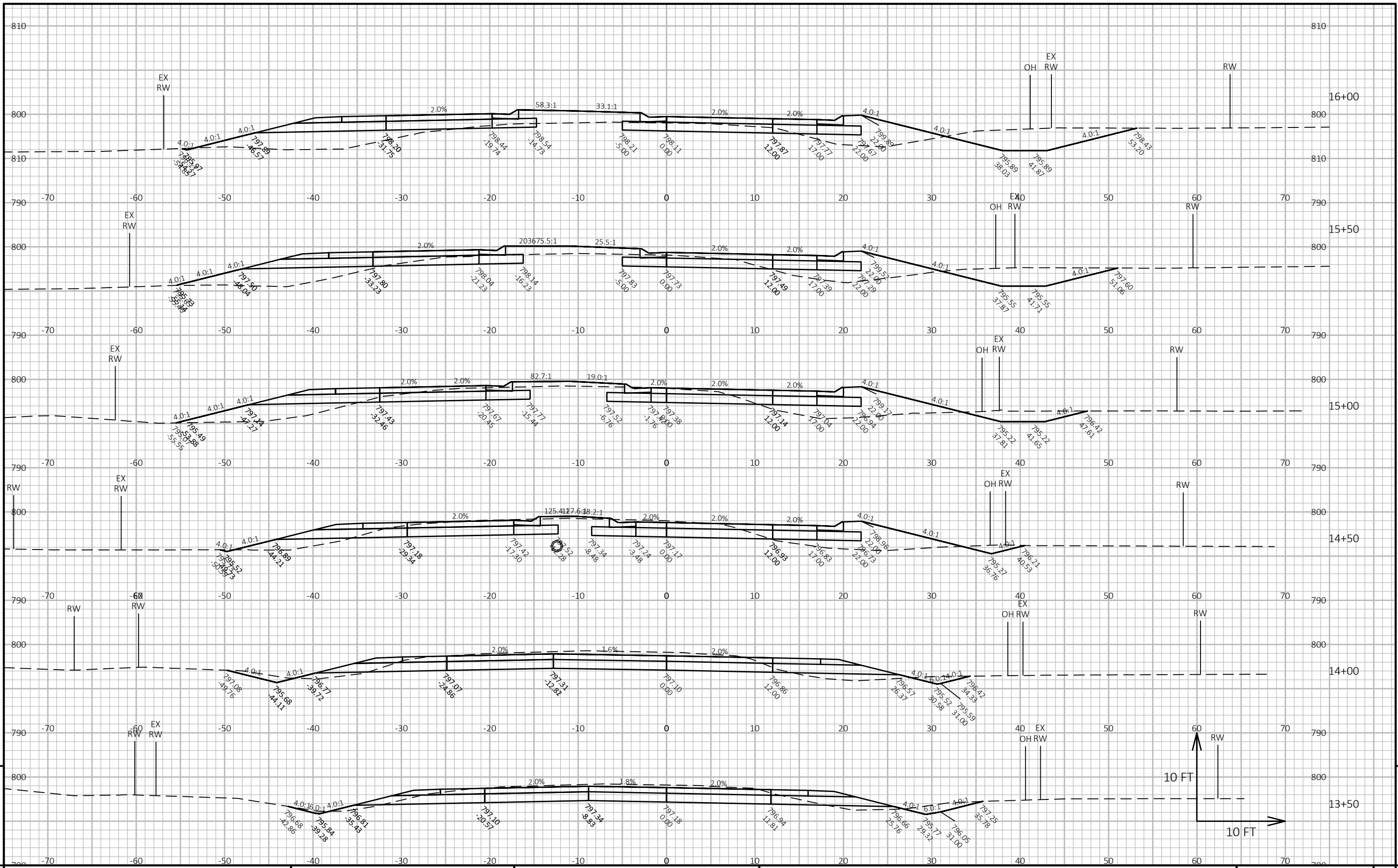
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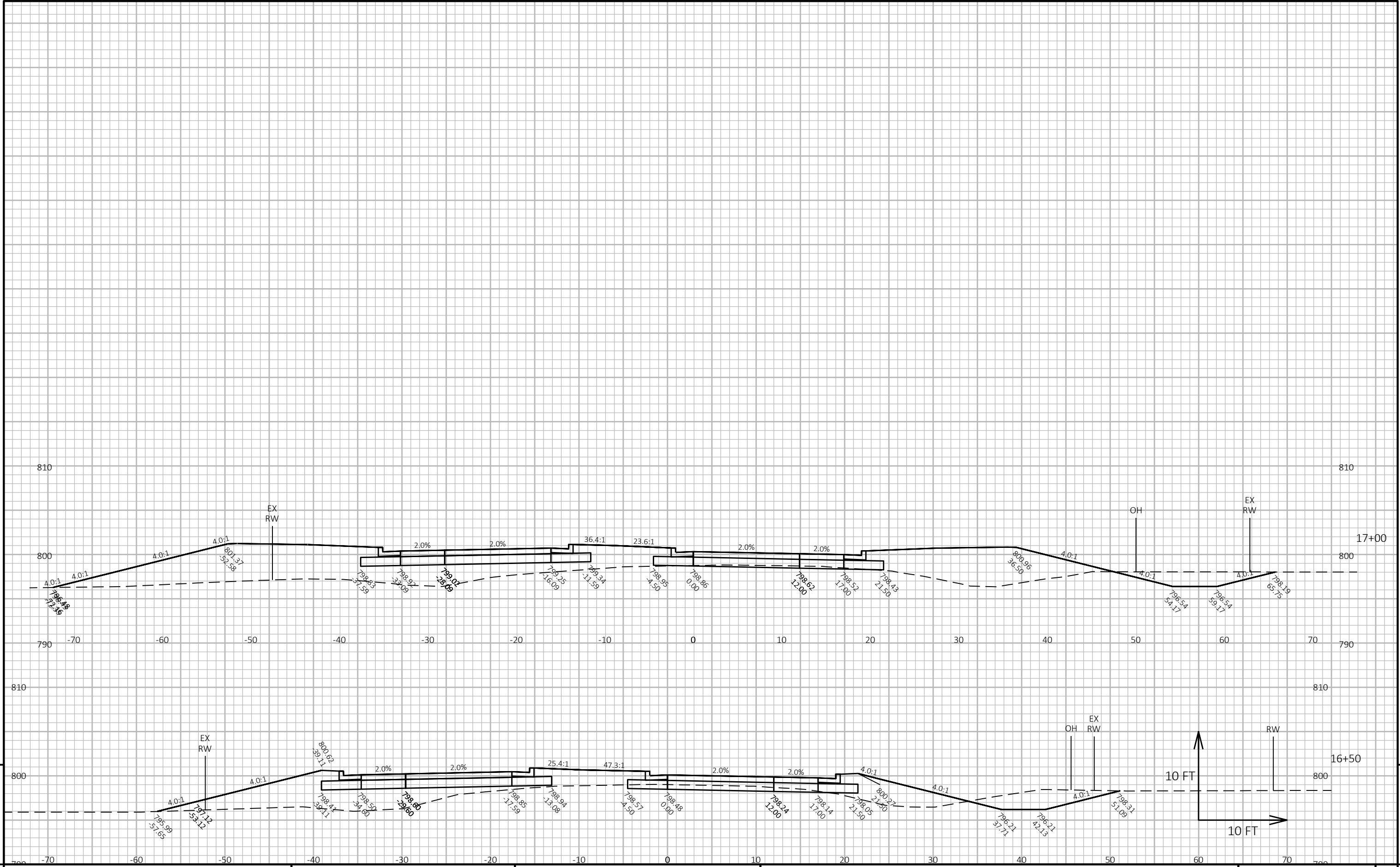
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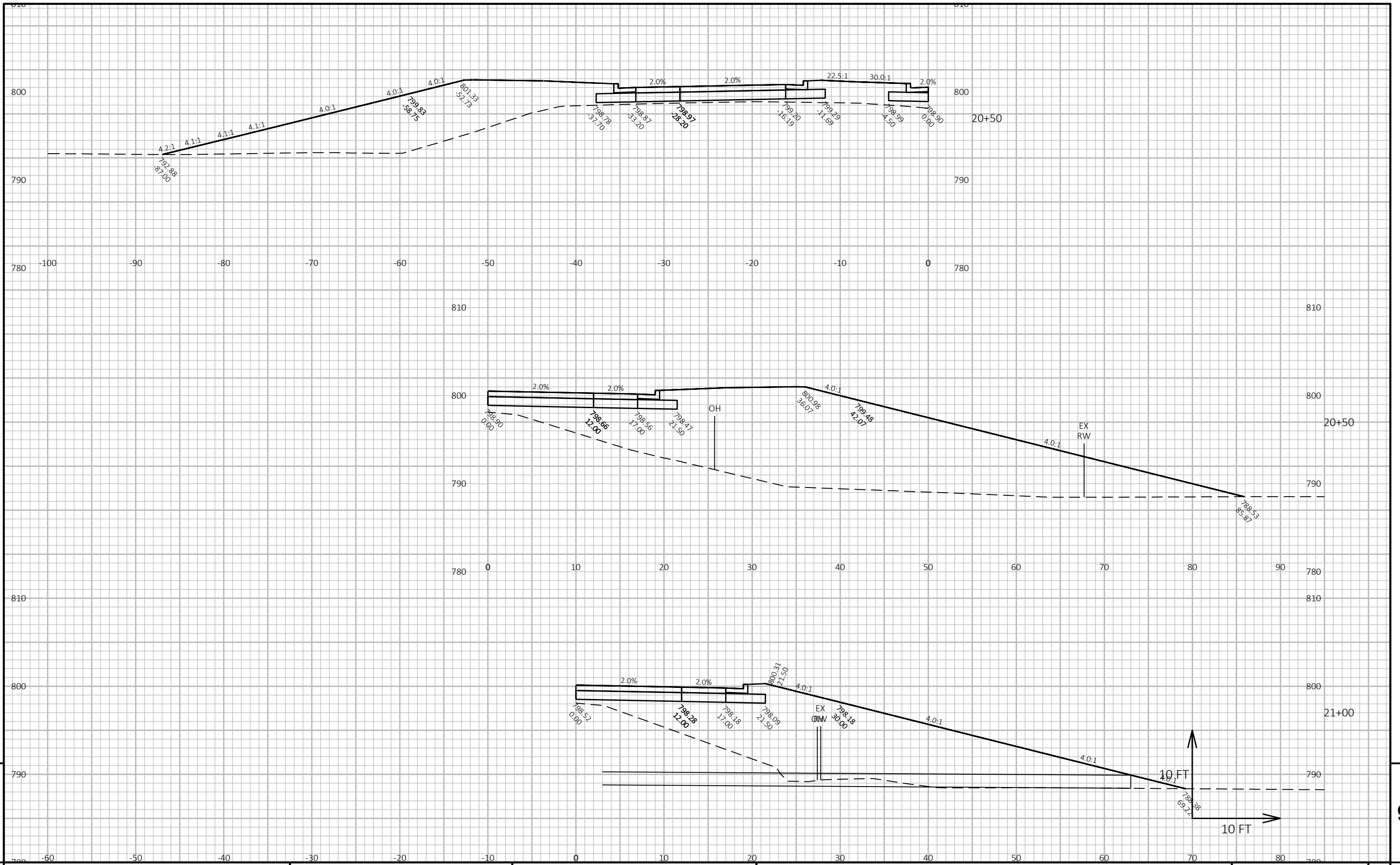
PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET E



PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET E



PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET 9



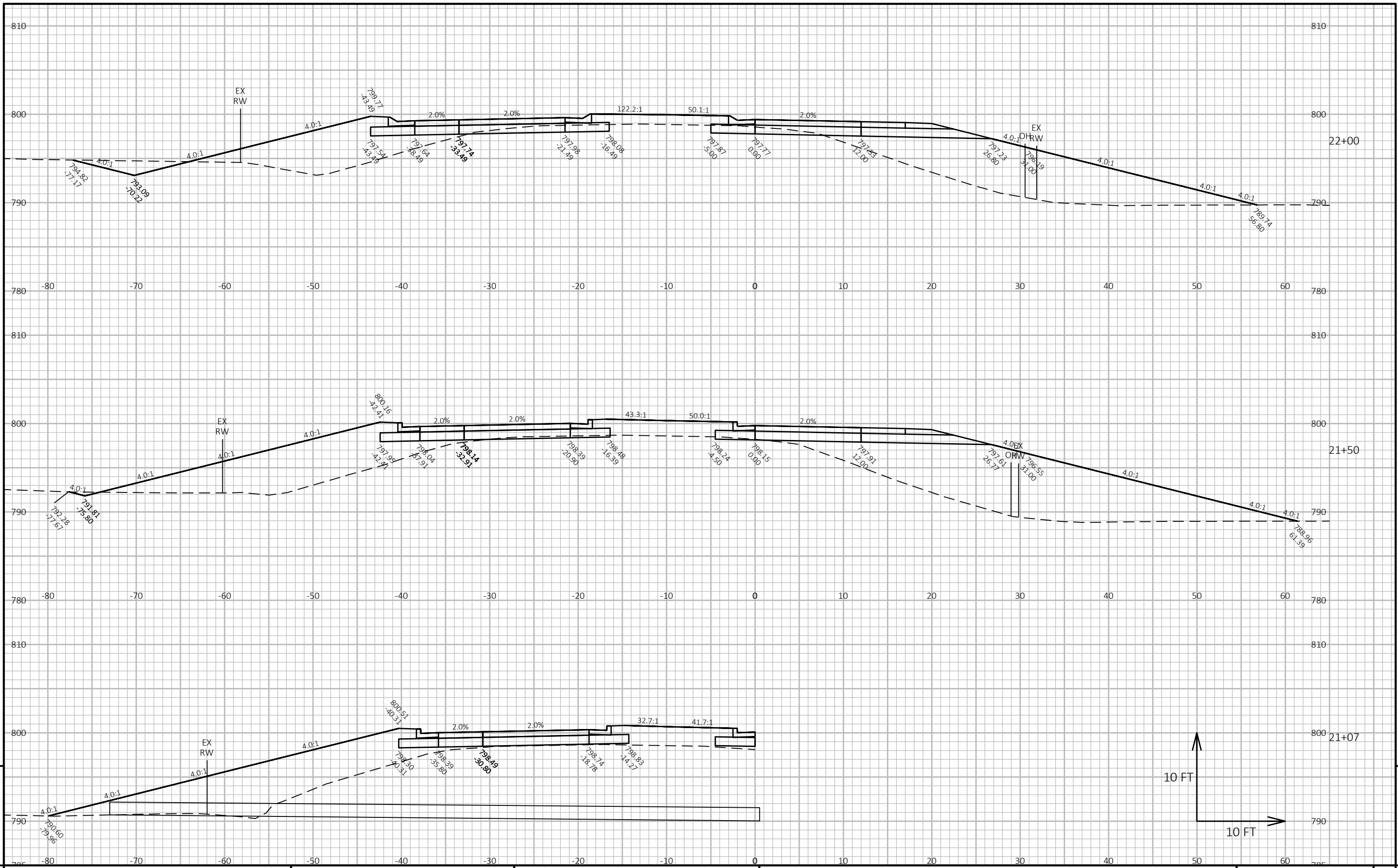
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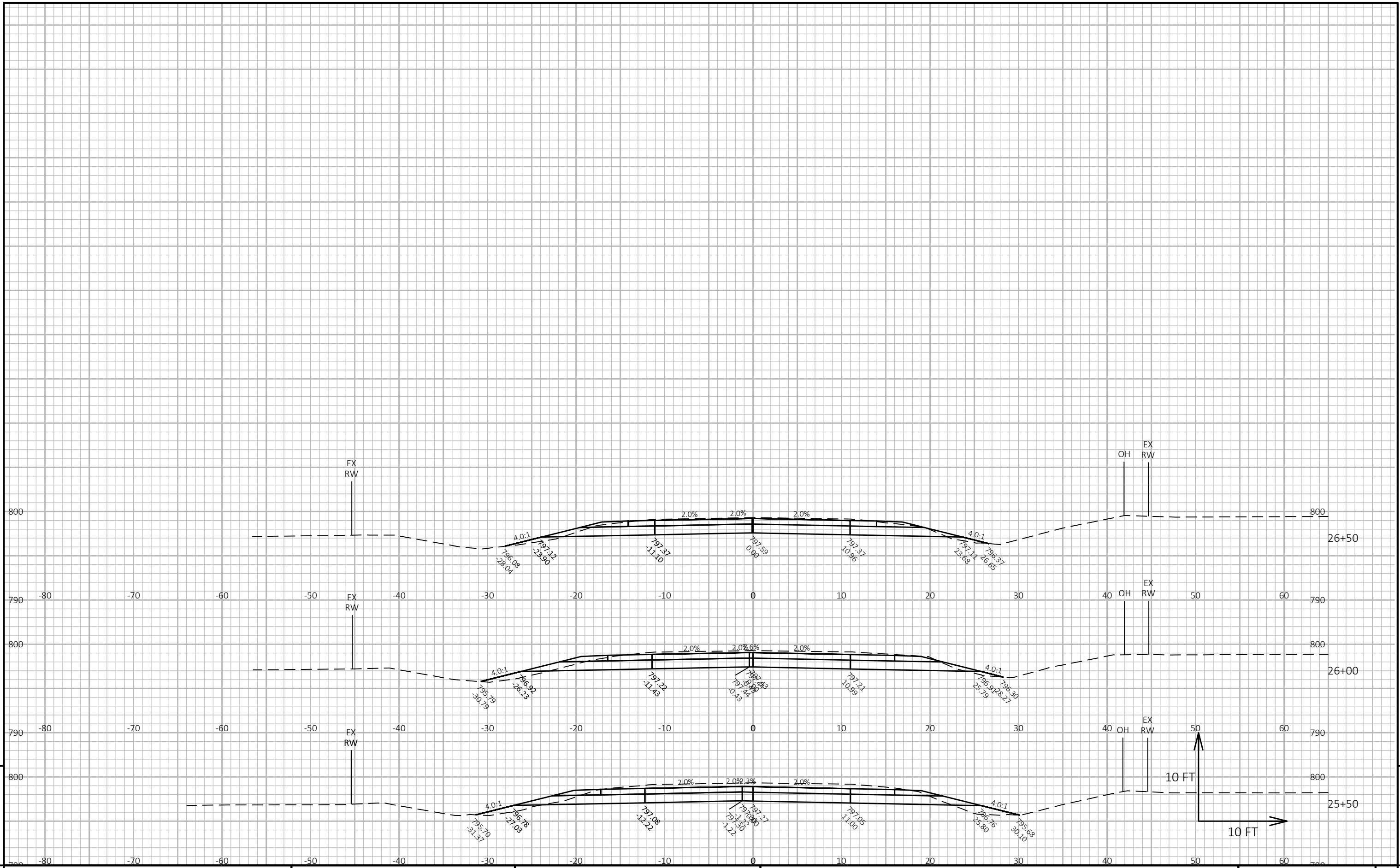
PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET E

FILE NAME : G:\WDOTSE\20066-000 (STH 75)\CIVIL 3D\SHEETSPLAN\090201-XS_CTH A.DWG PLOT DATE : 10/3/2023 10:05 AM PLOT BY : NATHAN RULLMAN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

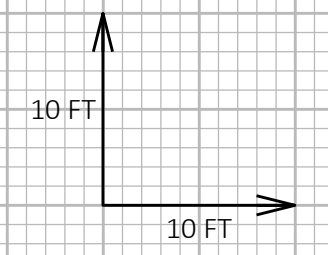
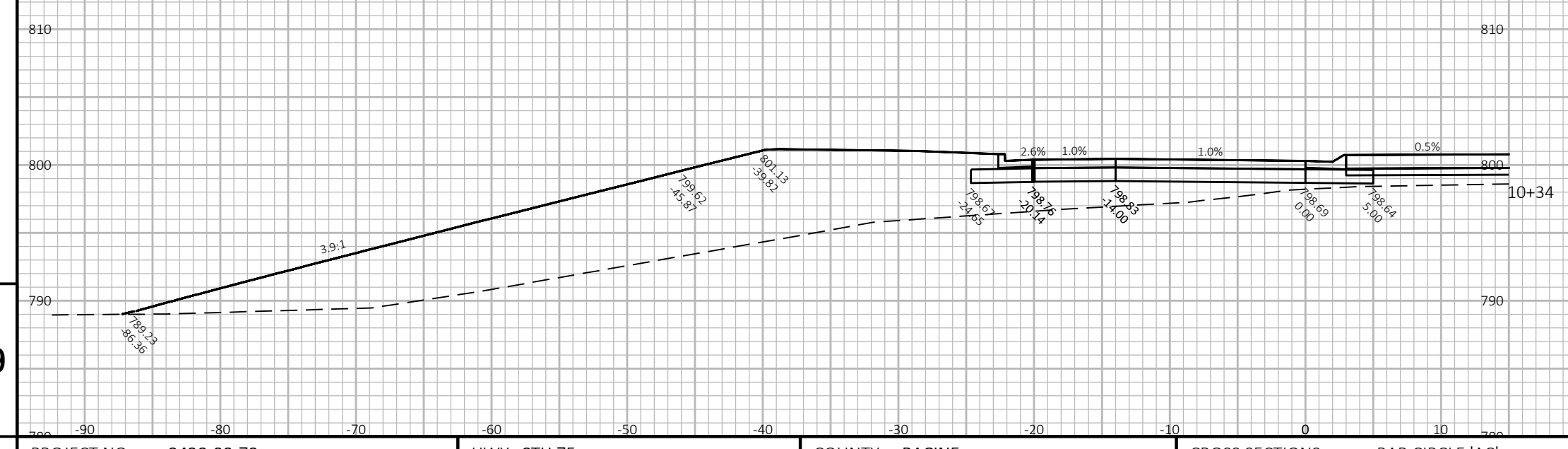
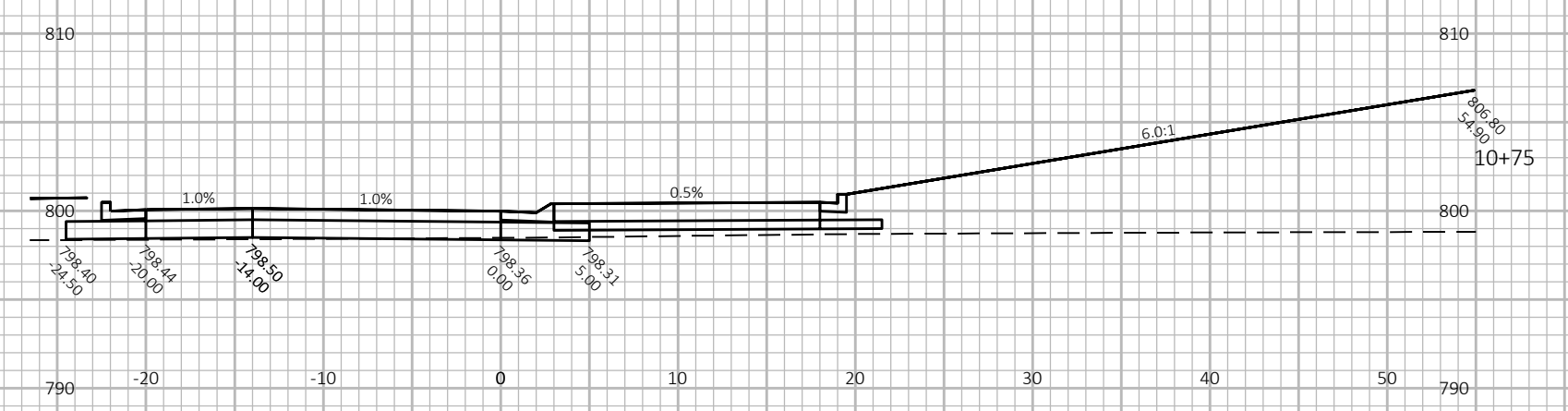
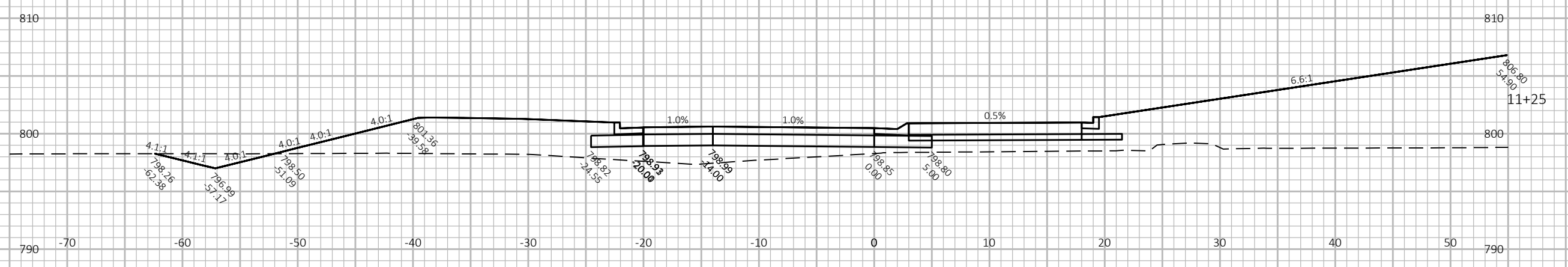
LAYOUT NAME - 7



PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET 9



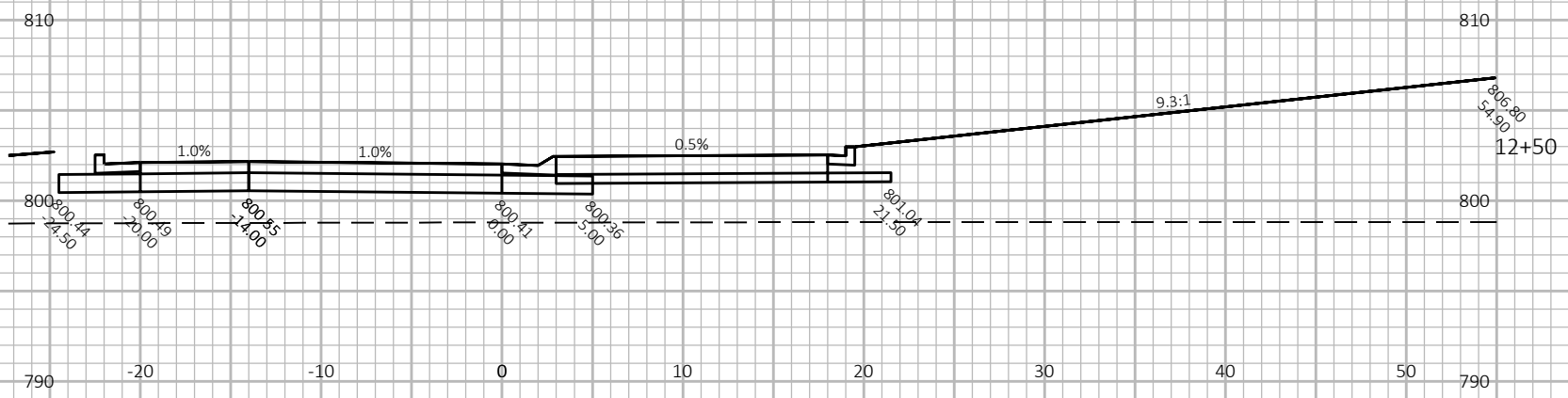
PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: CTH A EB SHEET E



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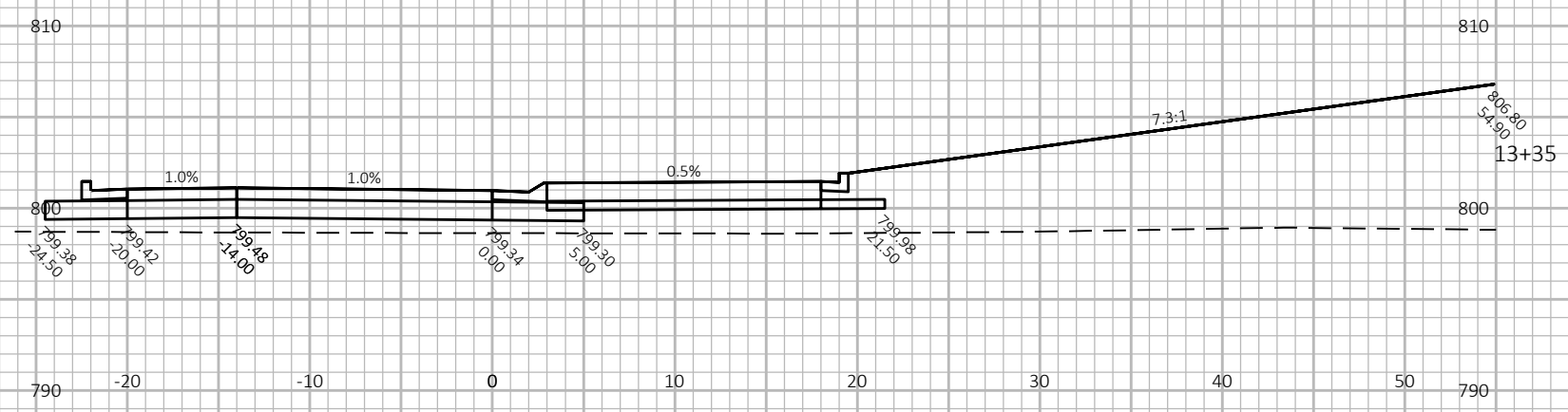
PROJECT NO: 2420-00-70	HWY: STH 75	COUNTY: RACINE	CROSS SECTIONS: RAB CIRCLE 'AC'	SHEET	E
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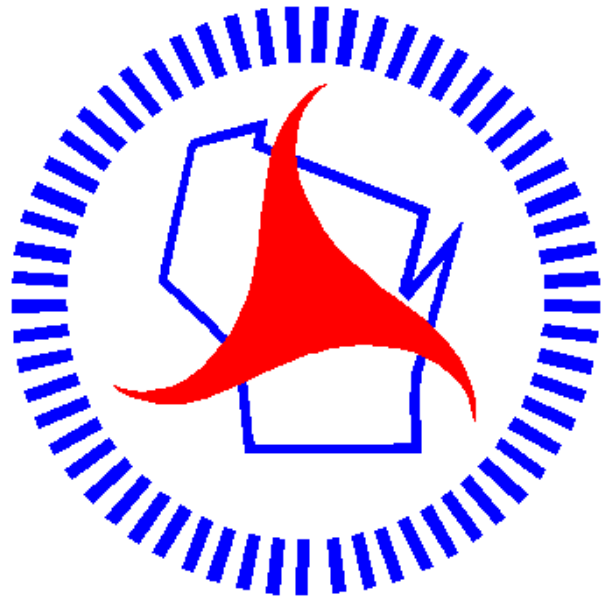
PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: RAB CIRCLE 'AC' SHEET E

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PROJECT NO: 2420-00-70 HWY: STH 75 COUNTY: RACINE CROSS SECTIONS: RAB CIRCLE 'AC' SHEET E



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