

COUNTY: **BROWN**

- "COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (NCCS), 'BROWN' COUNTY,"

F

UTILITIES

ELECTRIC	WISCONSIN PUBLIC SERVICE CORPORATION 700 NORTH ADAMS STREET PO BOX 19001 GREEN BAY WI 54307-9001 ATTN: L.M. ALLEN TELEPHONE: 920-433-1703 LMALLEN@INTEGRYSGROUP.COM
TELEPHONE	NE TELEPHONE COMPANY LLC 122 S. AUGUSTINE ST P.O. BOX 860 PULASKI, WI 54162-0860 ATTN: DENNIS BAER TELEPHONE: 920-822-8895 DENNIS.BAER@NSIGHT.COM
GAS	WE ENERGIES - GAS / PETROLEUM 333 W. EVERETT STREET, A279 MILWAUKEE, WI 53203 ATTN: BILL GARSKI / DAN SANDE TELEPHONE: (414) 221-4578 BILL.GARSKI@WE-ENERGIES.COM DAN.SANDE@WE-ENERGIES.COM
COMMUNICATIONS	KDL INC 13935 BISHOPS DR BROOKFIELD, WI 53005 ATTN: DALE STROUSE TELEPHONE: (262) 792-7218 DALE.STROUSE@KDLINC.COM
WATER/SANITARY	VILLAGE OF PULASKI 335 N. FOURTH STREET PULASKI, WI 54162 ATTN: TOME ROGERS TELEPHONE: (920) 822-8618 PULASKIWATER@NETNET.NET

OTHER CONTACTS

VILLAGE OF PULASKI	DEPT OF PUBLIC WORKS 335 NORTH FOURTH AVE PULASKI, WI 54162 ATTN: LEE G. NOVAK, VILLAGE ENGINEER ROBERT E. LEE & ASSOCIATES TELEPHONE: (800) 986-6338
DNR LIAISON	WISCONSIN DEP. OF NATURAL RESOURCES NORTHEAST REGION 2984 SHAWANO AVE GREEN BAY, WI 54313 ATTN: JAMES DEPERALSKI JR. TELEPHONE: (920) 662-5119 JAMES.DOPERALSKI@WISCONSIN.GOV
COUNTY SURVEYOR	BROWN COUNTY 305 EAST WALNUT ST GREEN BAY, WI 54301 ATTN: PAT FORD TELEPHONE: (920) 448-4493 FORD-PJ@CO.BROWN.WI.US
DESIGN CONTACT	K. SINGH & ASSOCIATES 1135 LEGION DRIVE ELM GROVE, WI 53122 ATTN: JAMES E. KAMPA TELEPHONE: (262) 821-1171 EXT 107 JKAMPA@KSACONSULTANTS.COM

ORDER OF "SECTION 2" SHEETS

SHEET TITLE

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PAVING DETAILS
- EROSION CONTROL PLAN
- STROM SEWER
- LANDSCAPING
- EXISTING SIGN REMOVALS
- PERMANENT SIGNING
- LIGHTING
- PAVEMENT MARKING
- TRAFFIC CONTROL PLAN
- ALIGNMENT PLAN

GENERAL NOTES

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

THE ENGINEER SHALL FURNISH HORIZONTAL ALIGNMENT CONTROL POINTS.

CURVE DATA SHOWN IN THE PLAN IS "ARC DEFINITION".

CURB RADI SHOWN IN THE PLAN ARE TO THE FACE OF THE CURB, UNLESS OTHERWISE NOTED.

ALL EXPOSED CURB ENDS SHALL BE SLOPED FROM 6" HEIGHT TO 0" HEIGHT IN 6 FT

ALL MEDIAN ENDS AND ISLAND CORNERS SHALL BE CONSTRUCTED WITH A SLOPED NOSE PER CONSTRUCTION DETAIL, UNLESS OTHERWISE NOTED.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREA BETWEEN THE SUBGRADE SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND EROSION MATTED OR MULCHED AS DIRECTED BY THE ENGINEER.

EROSION CONTROL FEATURES SHOWN IN THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE. ENDWALL OFFSETS ARE GIVEN TO THE DISCHARGE POINT OF THE STRUCTURE.

WHEN PORTIONS OF THE EXISTING ROADWAY AND DRIVEWAYS ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT SUCH THAT REMOVAL OF THE PAVEMENT WILL BE ACCOMPLISHED WITHOUT DAMAGE TO THE REMAINING PORTIONS.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATION AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

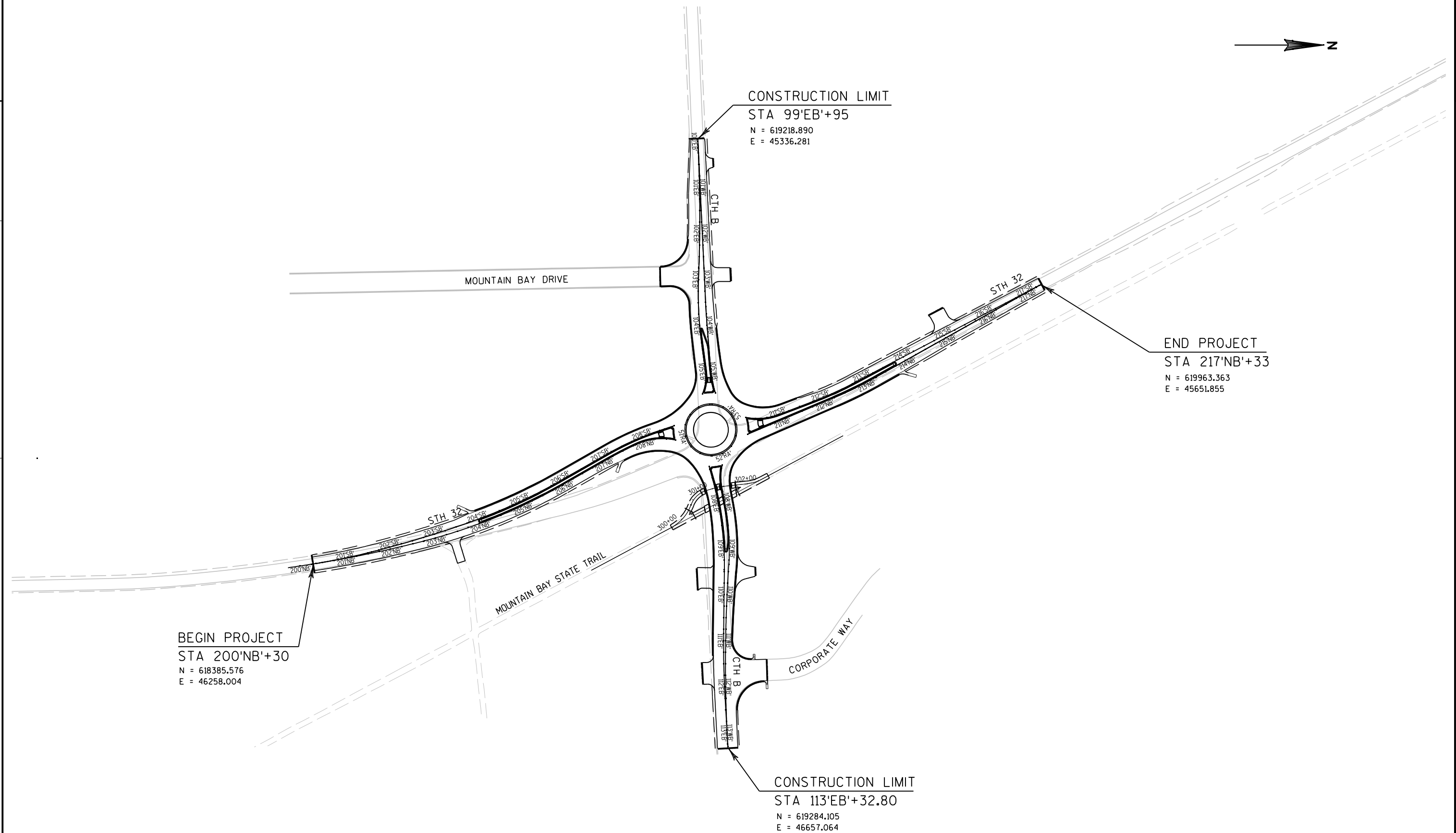
MAXIMUM SLOPE OF A DRIVEWAY APPROACH SHALL BE 10%.

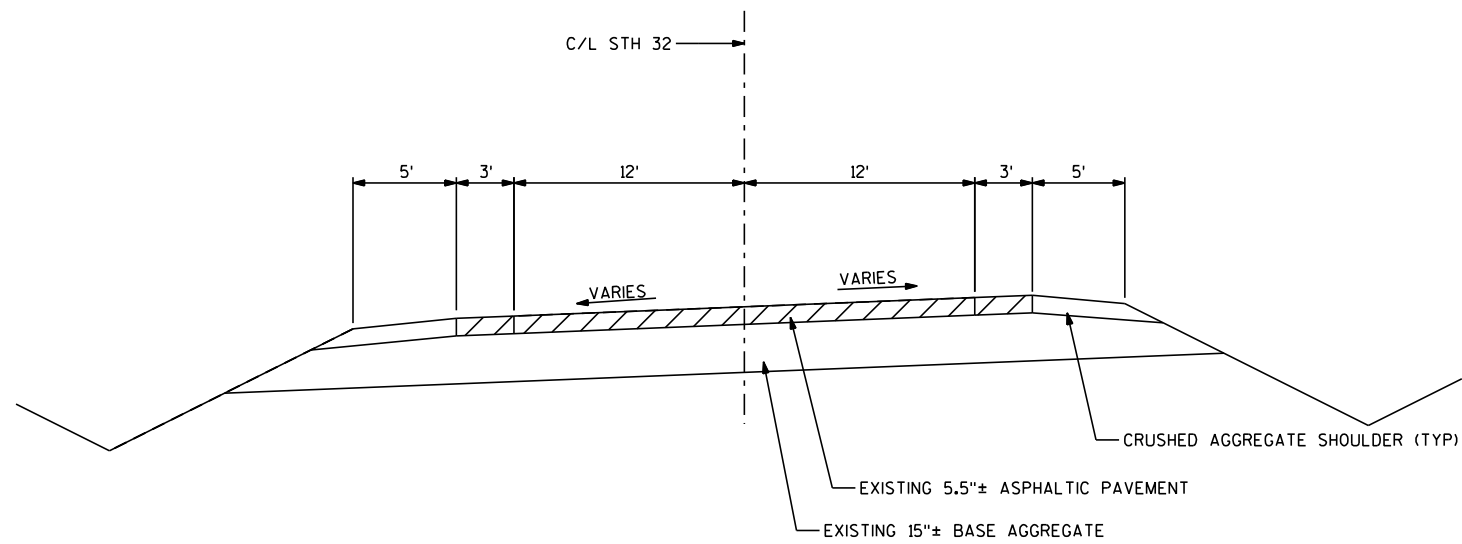
THE SURFACING OF DRIVEWAYS IS TO BE REPLACED IN KIND. MINIMUM OF 6" BASE AGGREGATE DENSE.

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



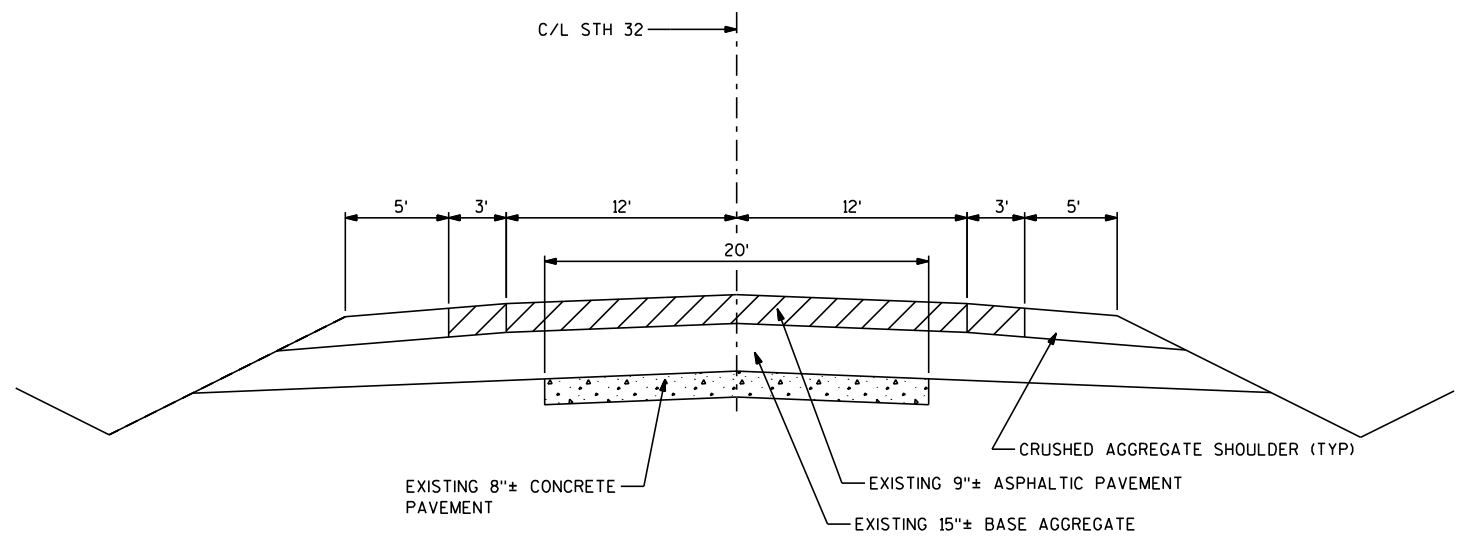
Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com





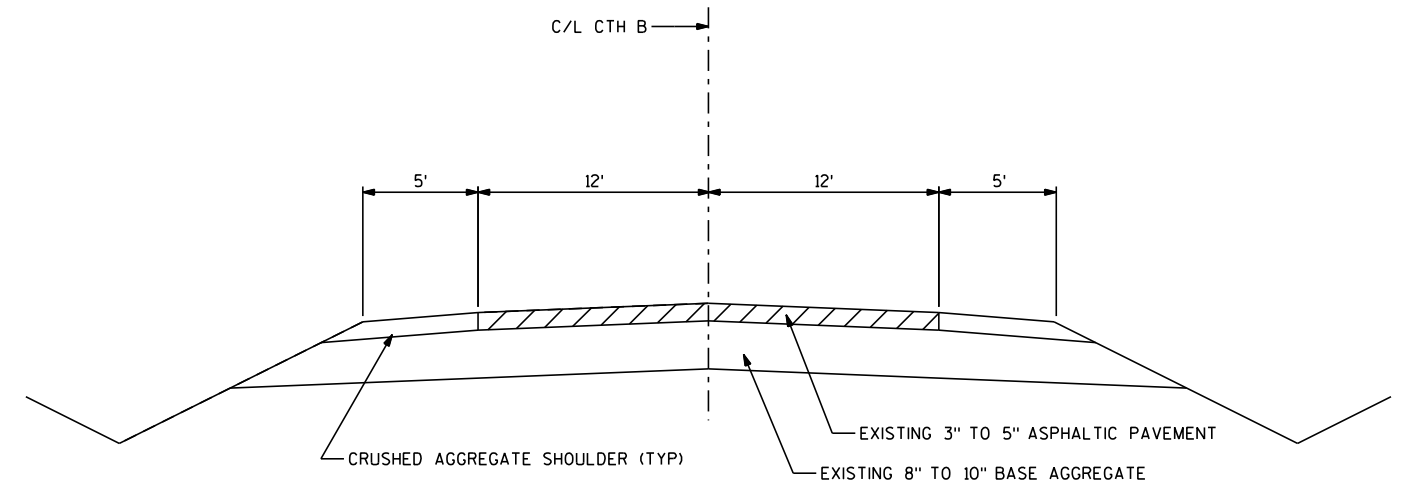
EXISTING TYPICAL SECTION STH 32

STA 200+00 TO STA 208+50

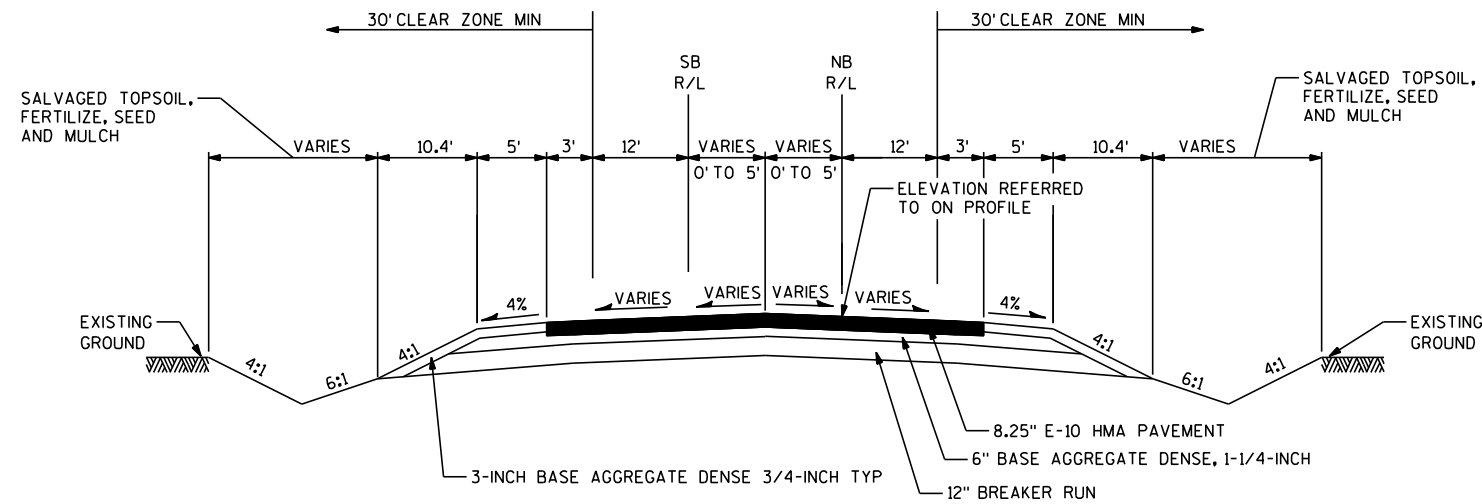


EXISTING TYPICAL SECTION STH 32

STA 208+50 TO STA 217+33

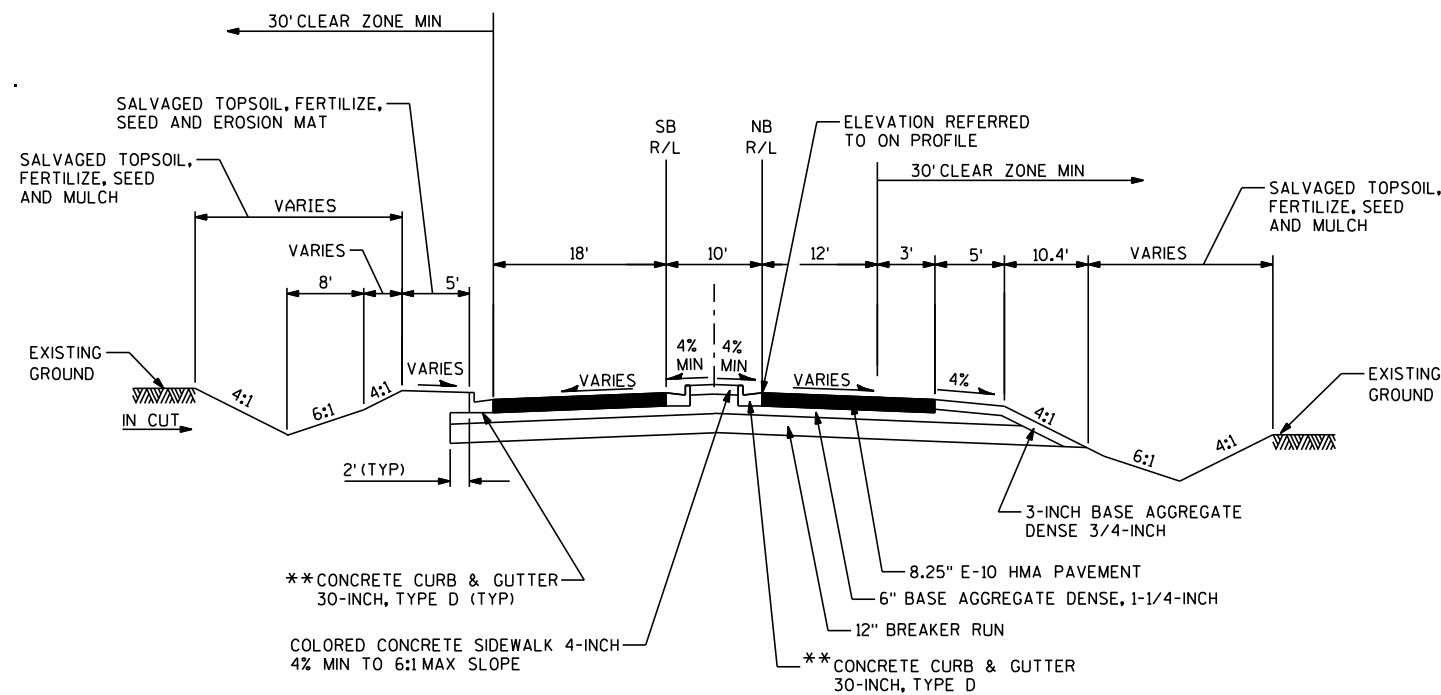


EXISTING TYPICAL SECTION CTH B



PROPOSED TYPICAL SECTION STH 32

STA 200+30 TO STA 204+00
STA 213+75 TO STA 217+37

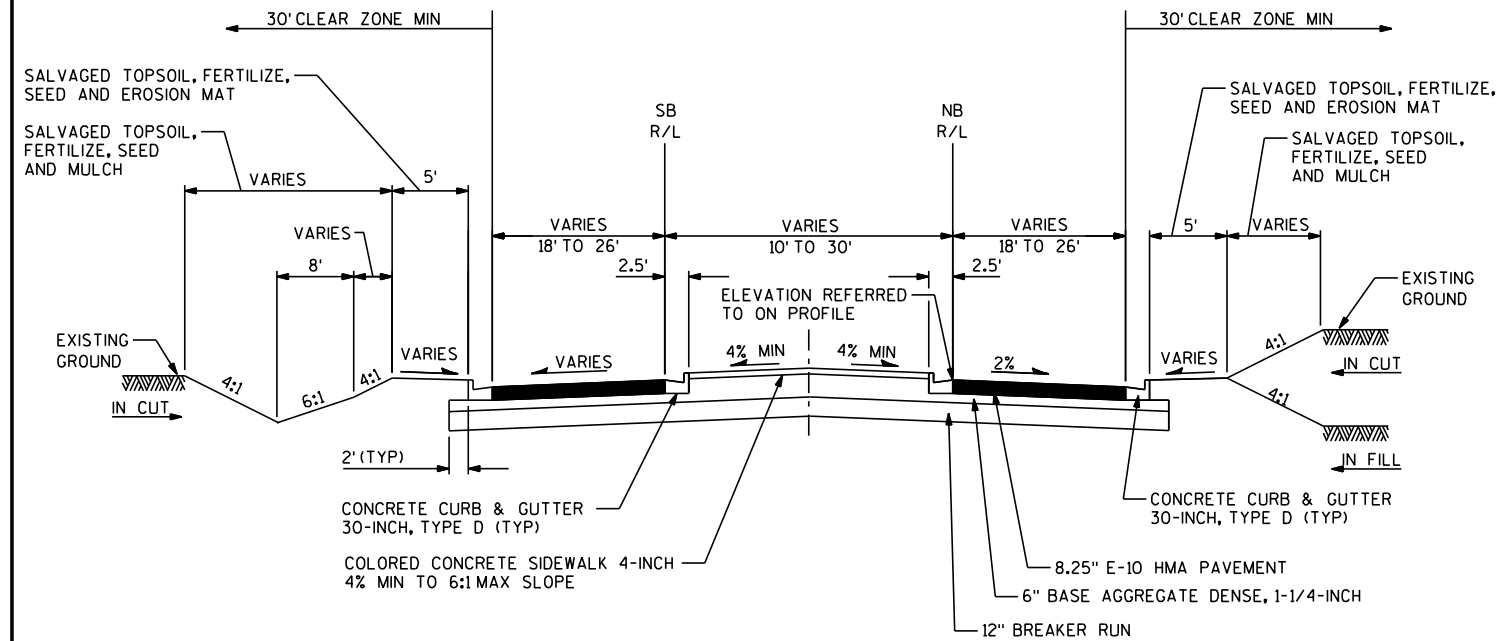


PROPOSED TYPICAL SECTION STH 32

STA 204+00 TO STA 207+44

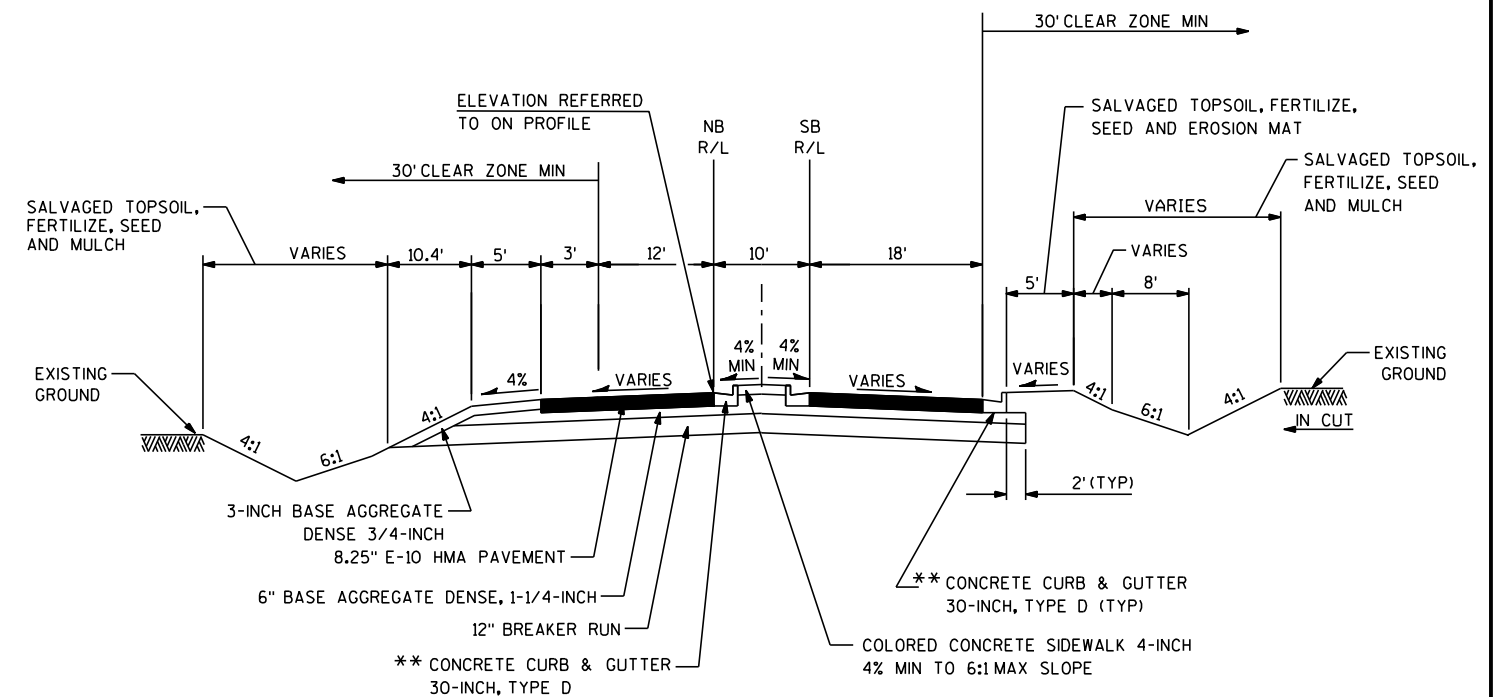
HMA PAVEMENT E-10			
UPPER	1.75"	12.5mm	PG 64-28
LOWER	3.25"	19mm	PG 64-22
LOWER	3.25"	19mm	PG 64-22

** CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH, TYPE D
STA 204+00 TO 205+60



PROPOSED TYPICAL SECTION STH 32

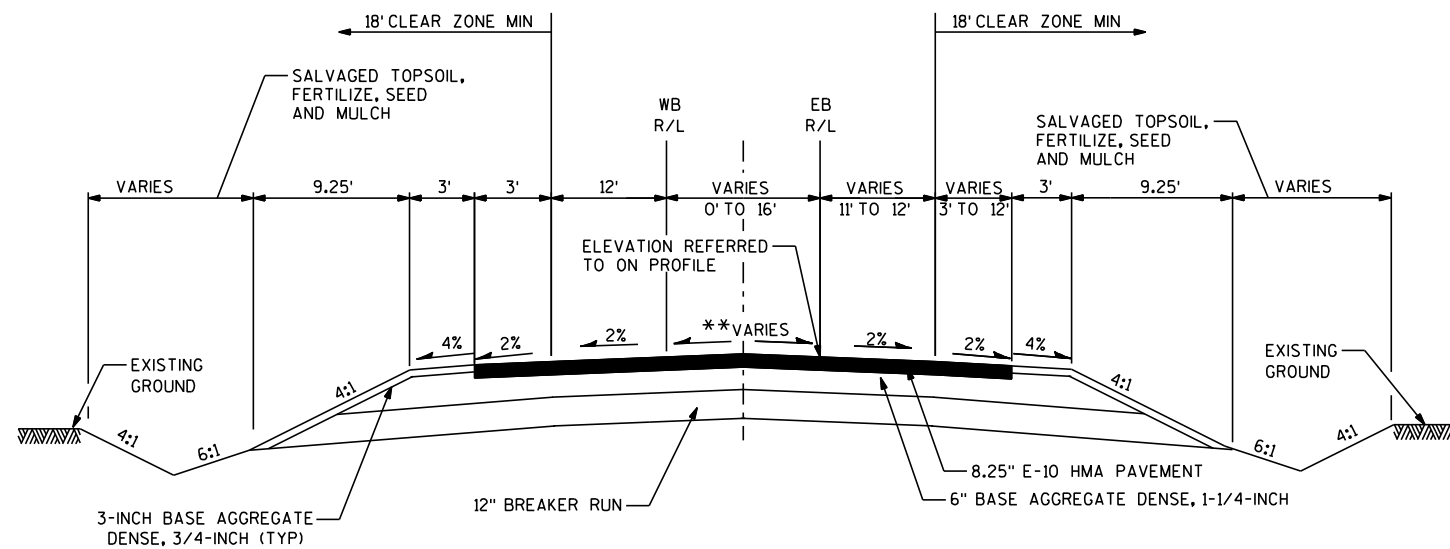
STA 207+44 TO STA 208+69
STA 210+21 TO STA 211+50



PROPOSED TYPICAL SECTION STH 32

STA 211+50 TO STA 213+75

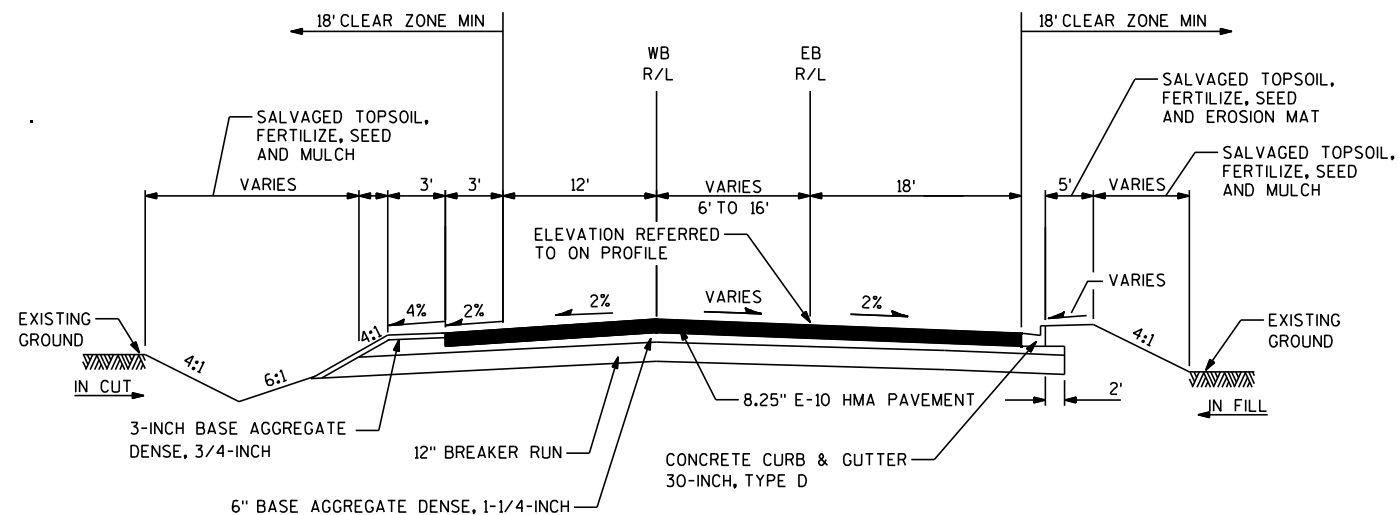
** CONCRETE CURB & GUTTER 6-INCH
SLOPED 36-INCH, TYPE D
STA 212+20 TO 213+75



PROPOSED TYPICAL SECTION CTH B

STA 99+95 TO STA 102+75
STA 111+32 TO STA 113+33

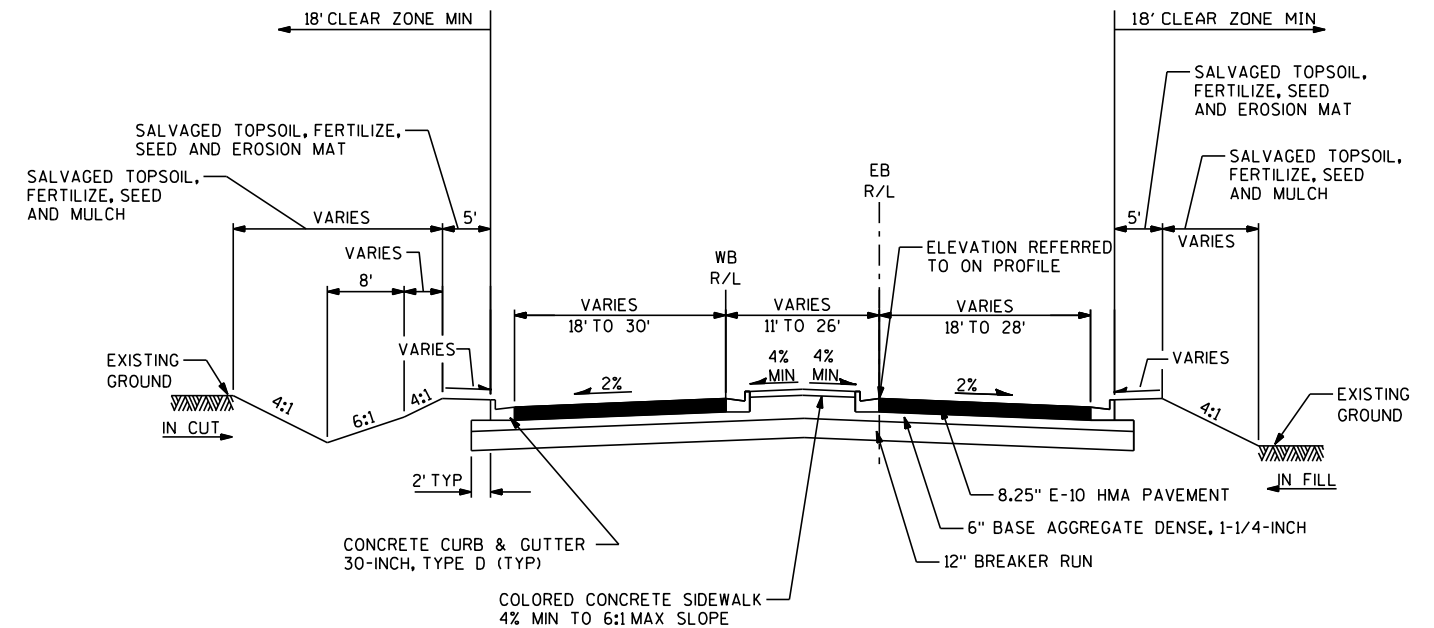
** - STA 99+95 - 102+75 CROWNED AT EB R/L
- STA 111+32 - 113+33 CROWNED AT WB R/L



PROPOSED TYPICAL SECTION CTH B

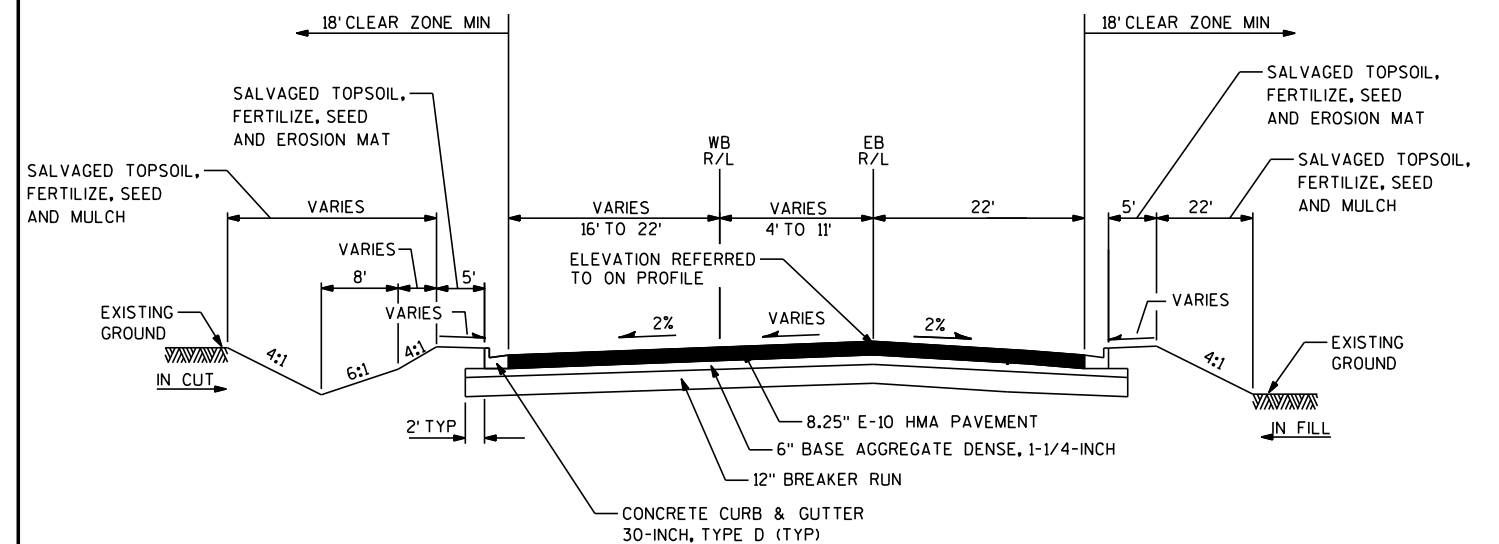
STA 102+75 TO STA 104+00

HMA PAVEMENT E-10			
UPPER	1.75"	12.5mm	PG 64-28
LOWER	3.25"	19mm	PG 64-22
LOWER	3.25"	19mm	PG 64-22



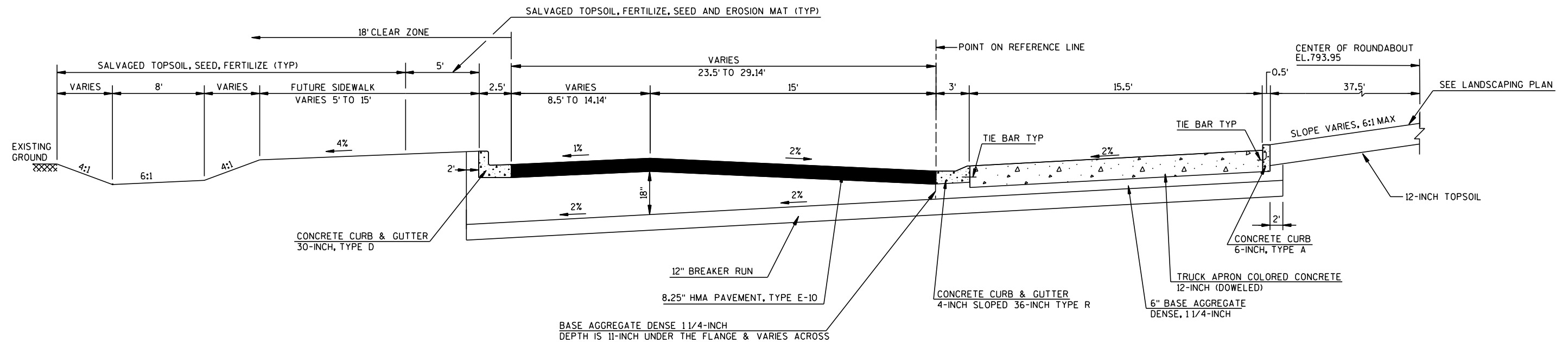
PROPOSED TYPICAL SECTION CTH B

STA 104+00 TO STA 105+50
STA 107+19 TO STA 109+08



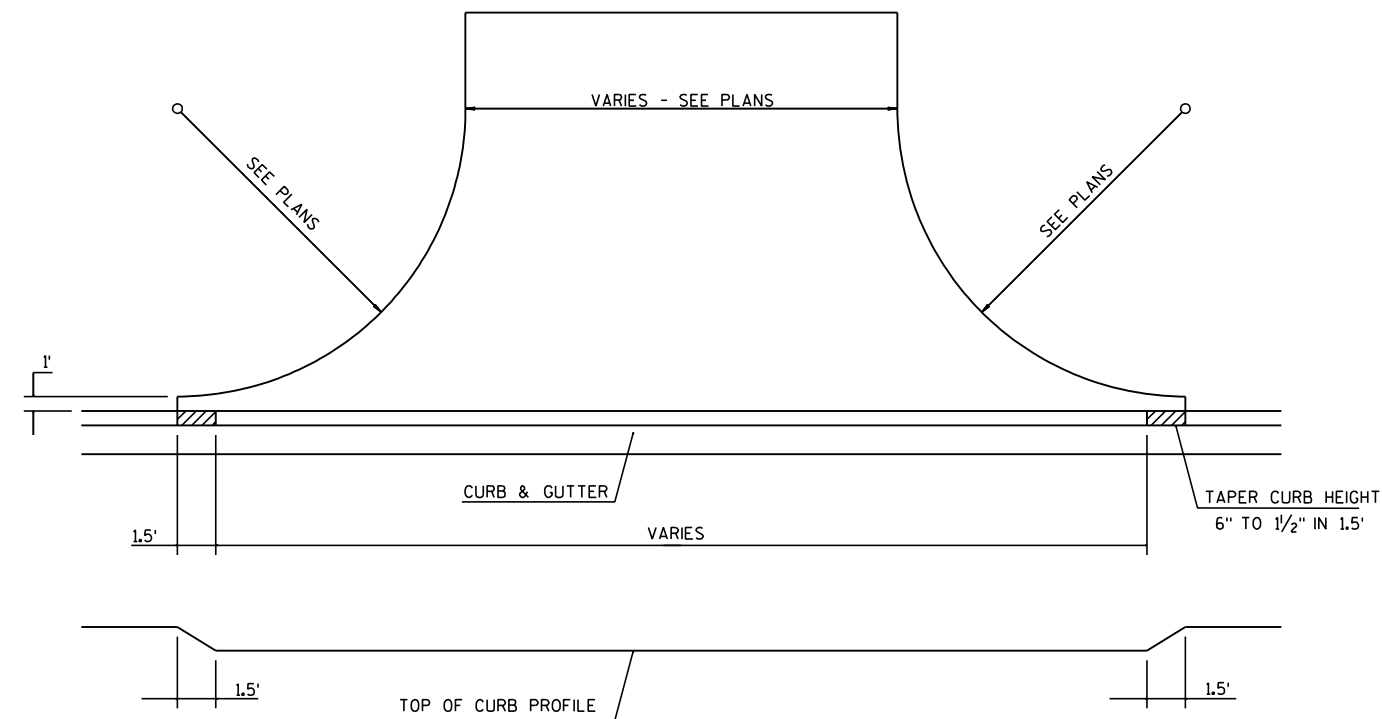
PROPOSED TYPICAL SECTION CTH B

STA 109+08 TO STA 111+32



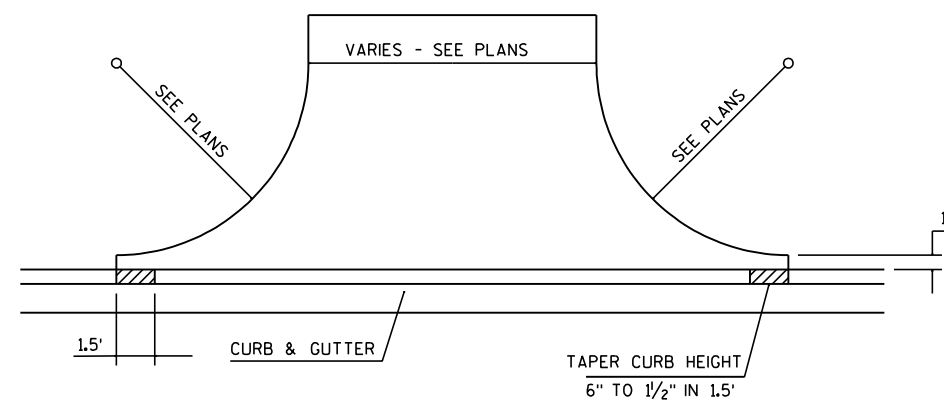
PROPOSED TYPICAL HALF SECTION ROUNDABOUT

HMA PAVEMENT E-10			
UPPER	1.75"	12.5mm	PG 64-28
LOWER	3.25"	19mm	PG 64-22
LOWER	3.25"	19mm	PG 64-22



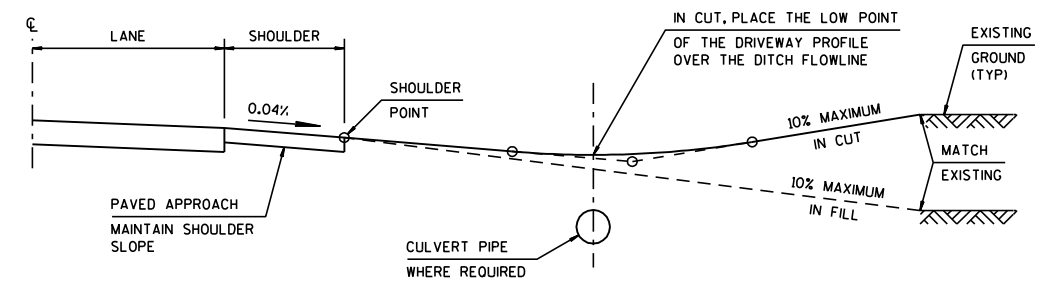
COMMERCIAL ENTRANCES

NOTE: NON-PAVED DRIVEWAYS SHALL CONSIST OF 6" OF BASE AGGREGATE DENSE, 1/4-INCH. RESIDENTIAL ENTRANCE ASPHALTIC DRIVEWAYS SHALL CONSIST OF 6" BASE AGGREGATE DENSE AND 3" OF ASPHALTIC PAVEMENT. COMMERCIAL ENTRANCE ASPHALTIC DRIVEWAYS SHALL CONSIST OF 12" BASE AGGREGATE DENSE AND 4" OF ASPHALTIC PAVEMENT.

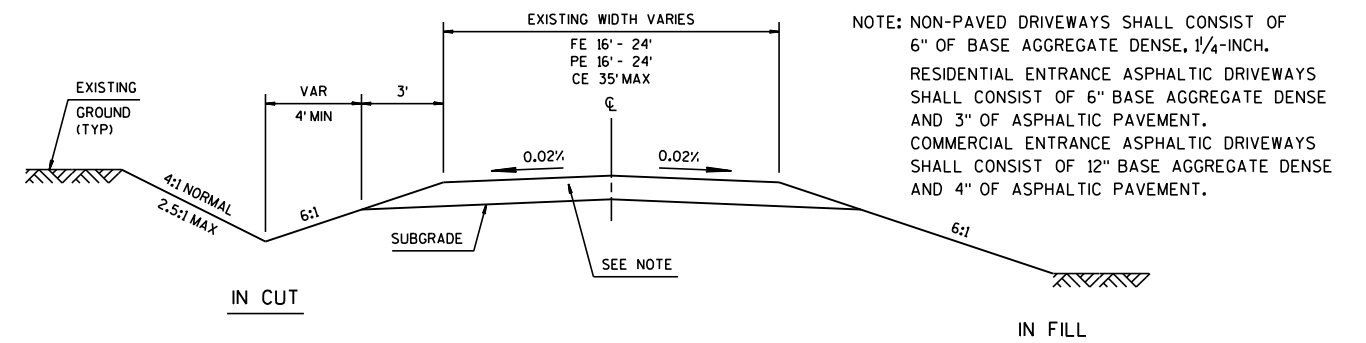


PRIVATE ENTRANCES

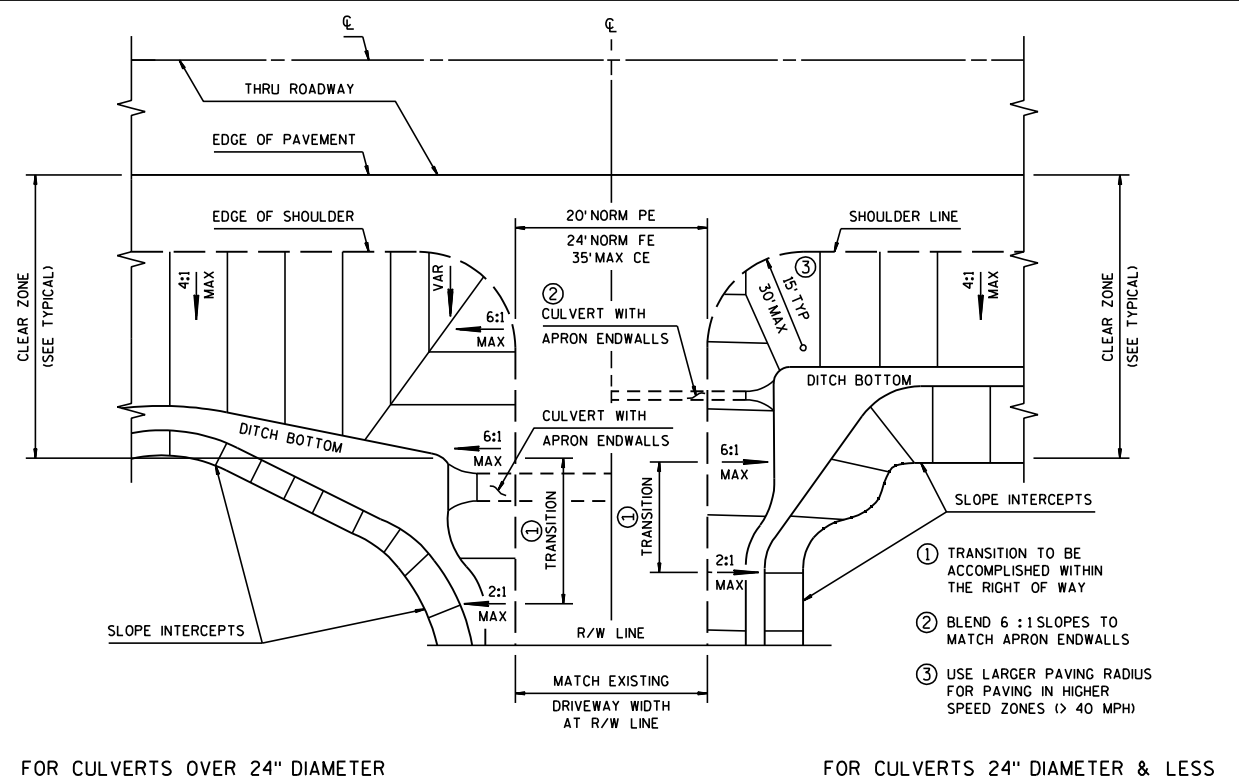
RURAL DRIVEWAYS WITH CURB & GUTTER



TYPICAL DRIVEWAY PROFILES



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE

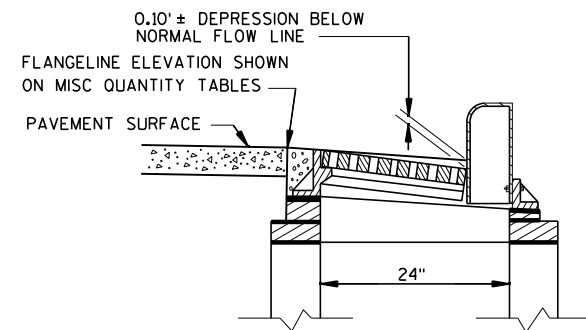


FOR CULVERTS OVER 24" DIAMETER

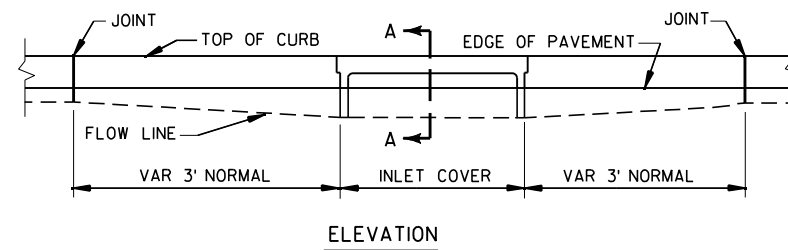
FOR CULVERTS 24" DIAMETER & LESS

PLAN VIEW

RURAL DRIVEWAY GRADING AND/OR PAVING DETAIL

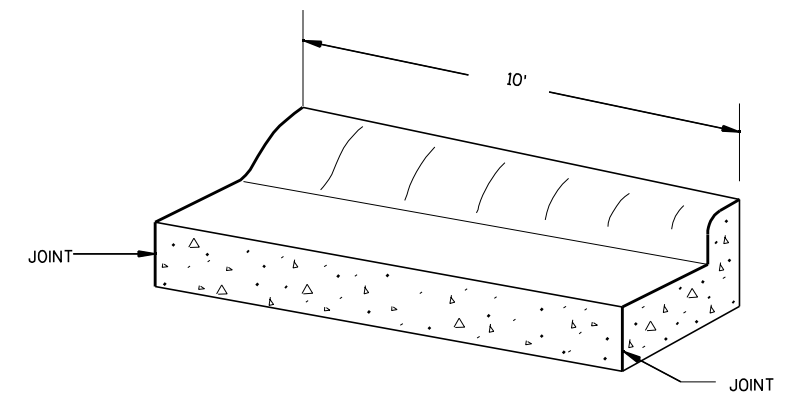


SECTION A-A



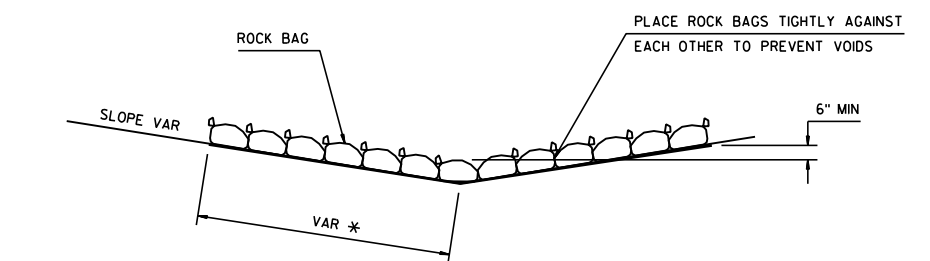
ELEVATION

DETAIL OF CURB AND GUTTER AT INLETS

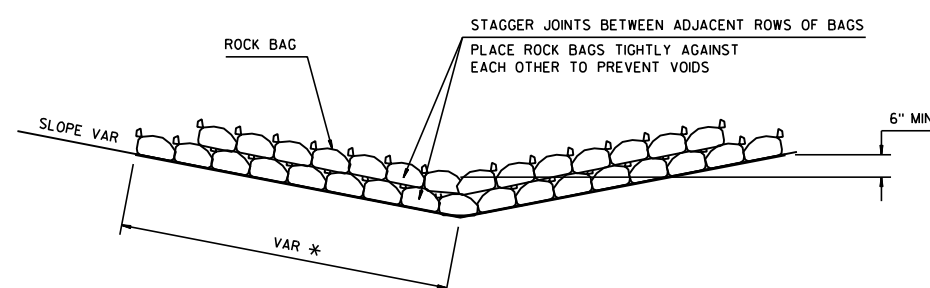


TRANSITION DETAIL

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH, TYPE D
TO CONCRETE CURB & GUTTER 30-INCH, TYPE D
(TO BE MEASURED & PAID FOR AS
CONC C&G 6-INCH SLOPE 36-INCH, TYPE D)



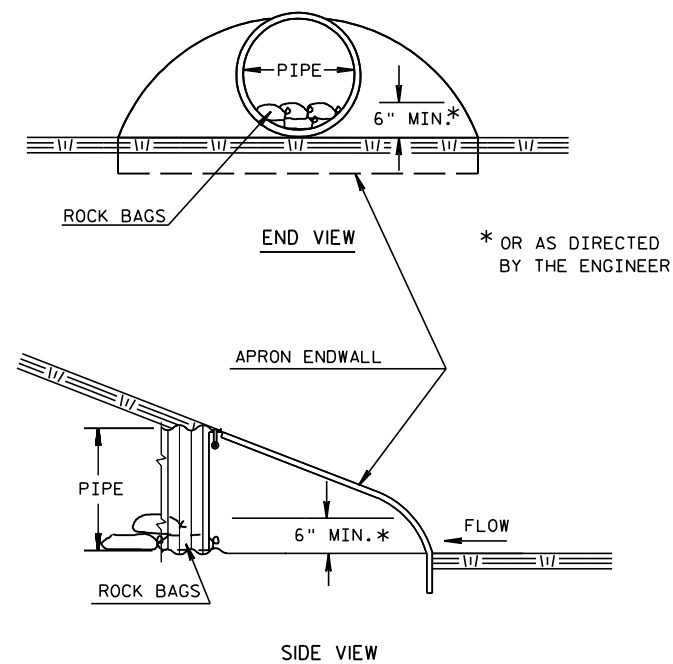
SIDE VIEW (SINGLE LAYER)



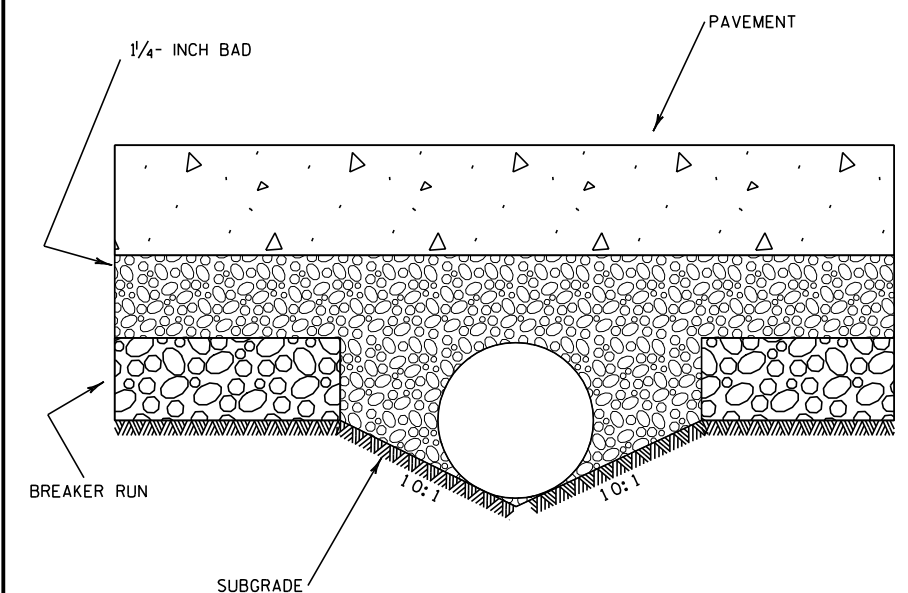
* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK
PAID AS ROCK BAGS



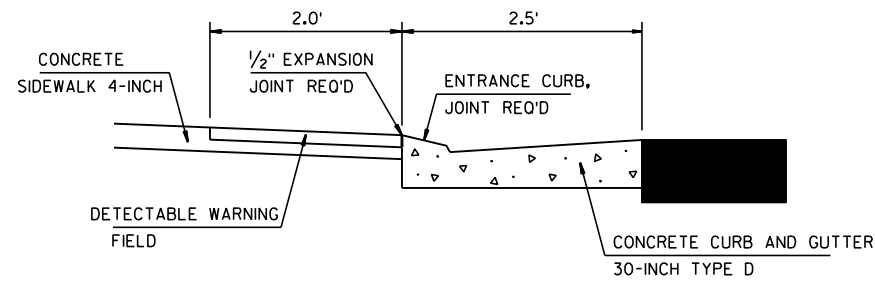
CULVERT PIPE CHECK



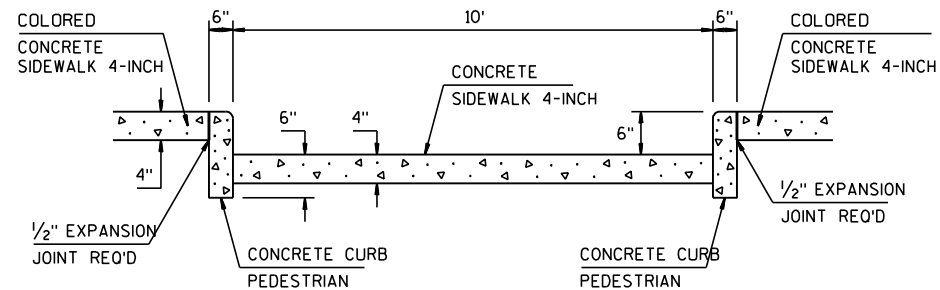
STORM SEWER PIPE WITH MINIMAL COVER

NOTE:

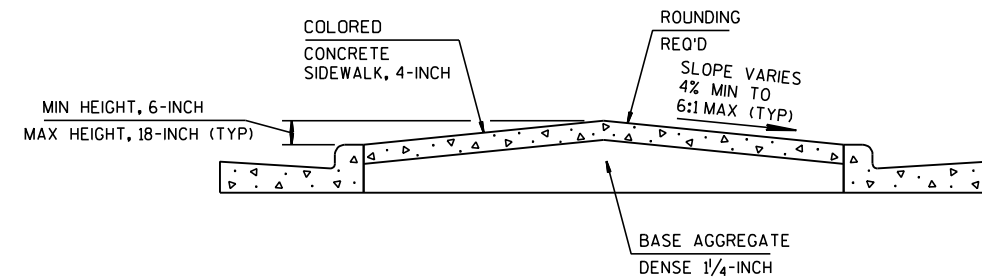
1. WHEN A STORM SEWER PIPE IS PLACED ABOVE THE SUBGRADE LINE NO BREAKER SHALL BE USE TO BACKFILL AROUND THE PIPE. BASE AGGERGATE DENSE 1/4- INCH SHALL BE USED IN PLACE OF BREAKER FOR THE WIDTH OF THE TRENCH.
2. ALL REQUIREMENTS OF SECTION 607 OF THE STANDARD SPECIFICATIONS STILL APPLY.
3. SEE STORM SEWER PIPE QUANTITY TABLE FOR LOCATIONS



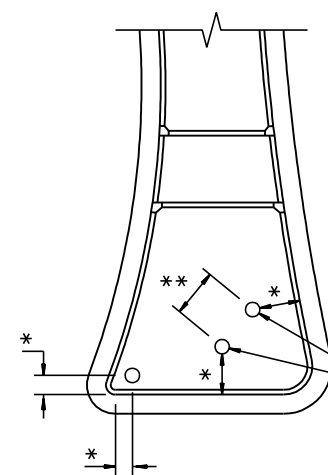
SECTION A-A



SECTION B-B



SECTION C-C

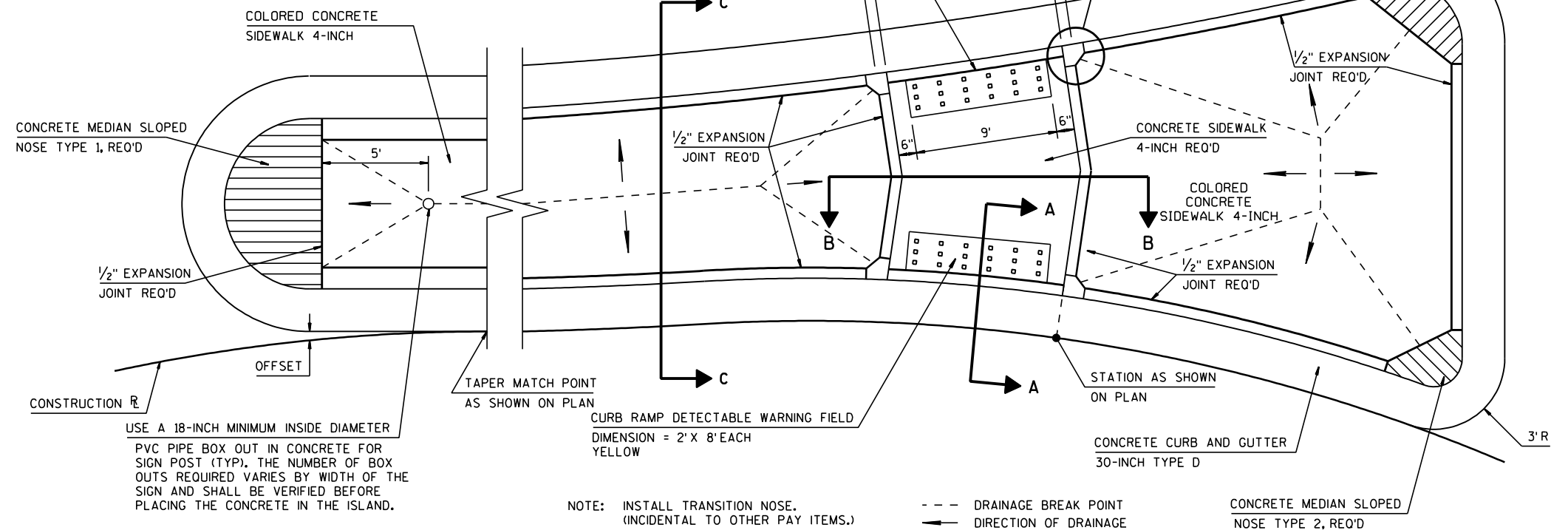


ISLAND SIGN LOCATION DETAIL (TYP)

NOTIFY THE REGIONAL TRAFFIC UNIT AT 920-492-5653
A MINIMUM OF TWO WEEK PRIOR TO THE NEED FOR
SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY
PERMANENT SIGNING REQUIRED ON THE PROJECT.

- * DISTANCE TO BE LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.
- ** SEE A4-4 SIGN PLATE FOR POST SPACING REQUIREMENTS.

USE A 18-INCH MINIMUM INSIDE DIAMETER PVC PIPE BOX OUT IN CONCRETE FOR SIGN POST (TYP). THE NUMBER OF BOX OUTS REQUIRED VARIES BY WIDTH OF THE SIGN AND SHALL BE VERIFIED BEFORE PLACING THE CONCRETE IN THE ISLAND.



SPLITTER ISLAND DETAIL

NOTE: INSTALL TRANSITION NOSE.
(INCIDENTAL TO OTHER PAY ITEMS.)

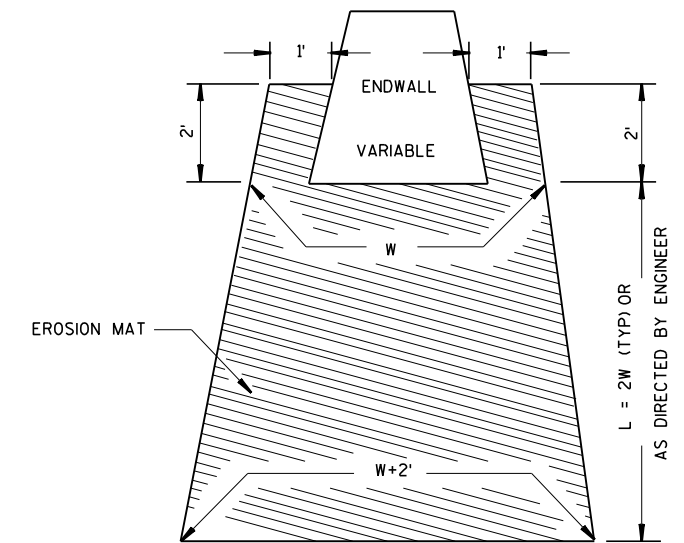
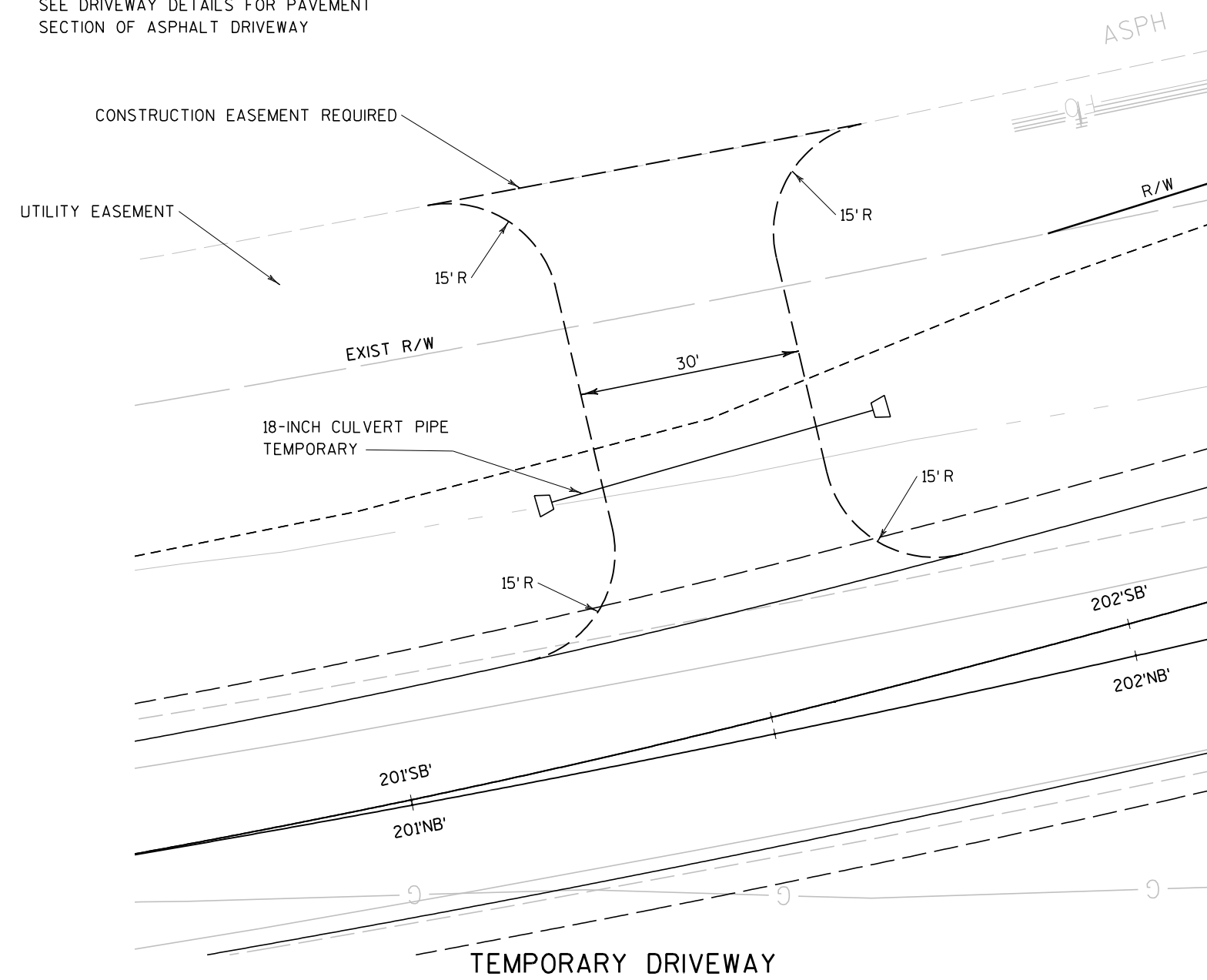
--- DRAINAGE BREAK POINT
--- DIRECTION OF DRAINAGE

MOUNTAIN
BAY MALL

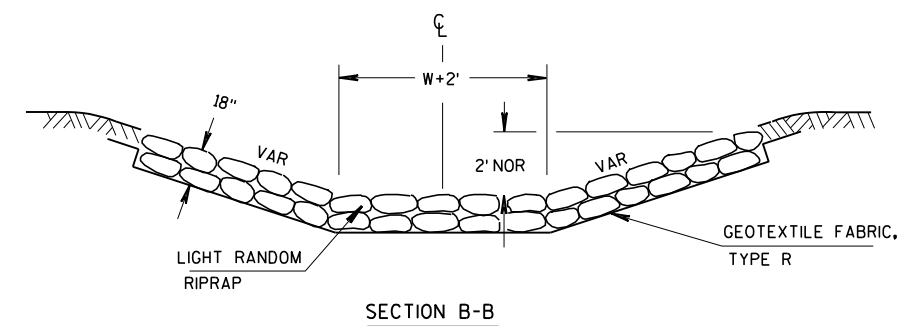
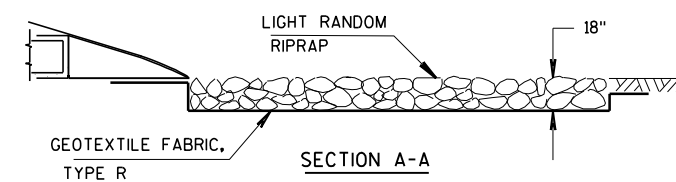
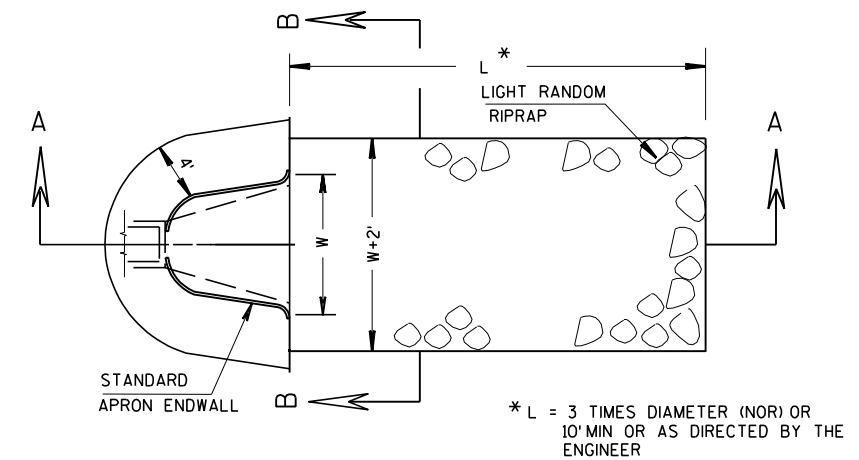


NOTE: LOCATION SHOWN IS FOR INFORMATION ONLY

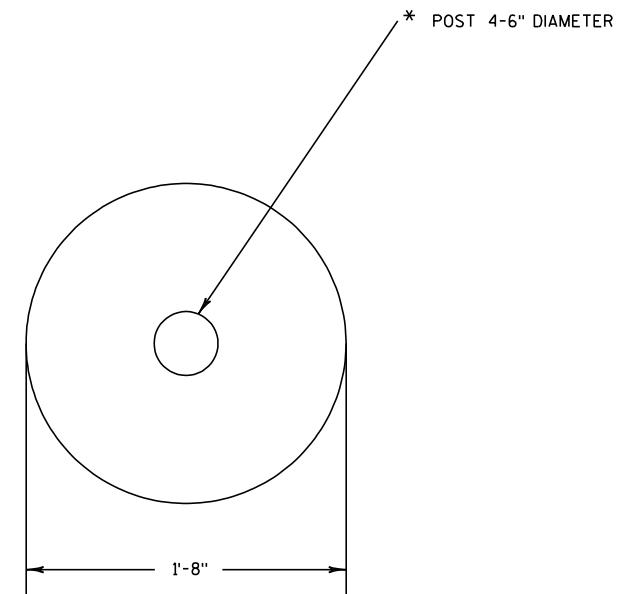
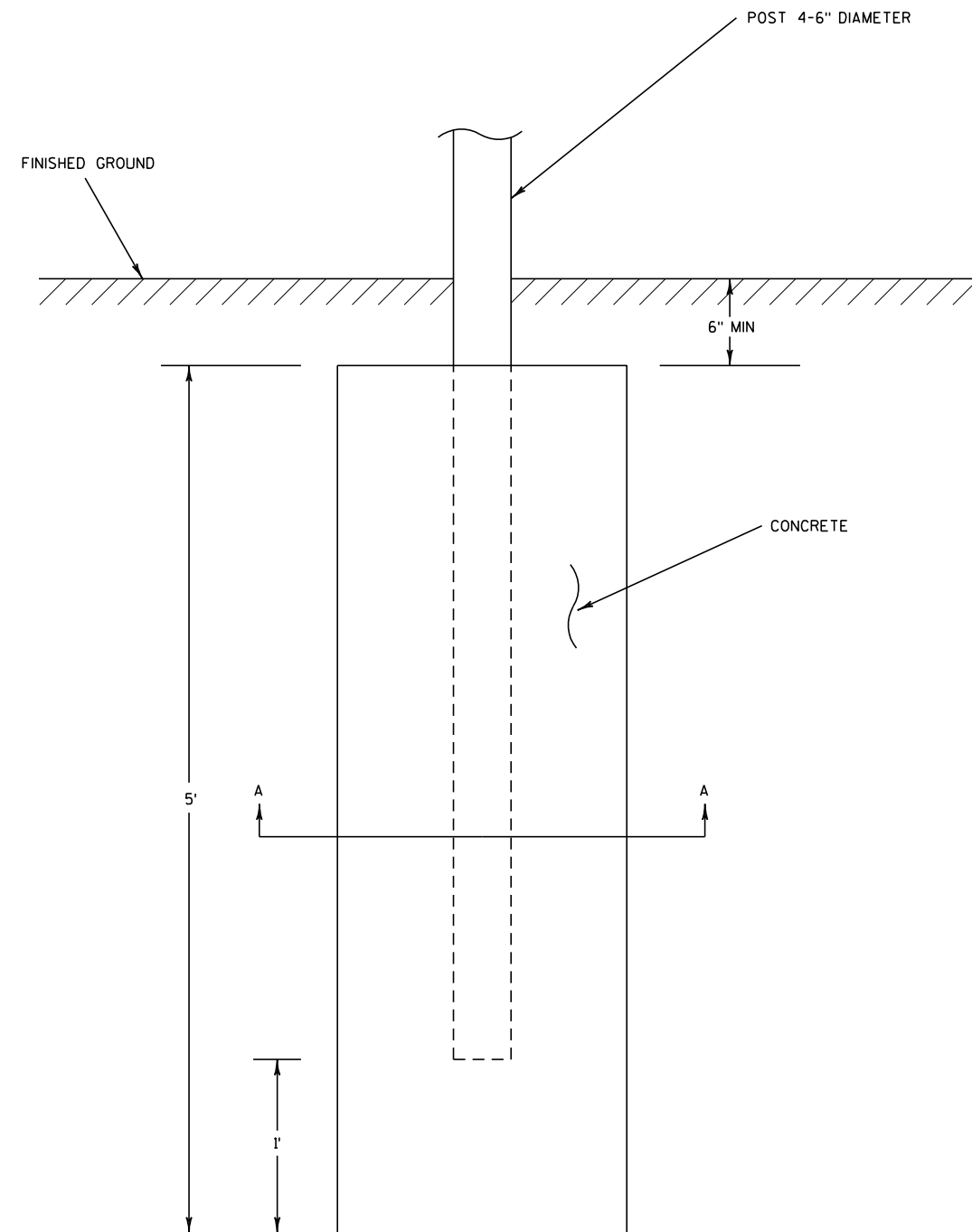
LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD
SEE DRIVEWAY DETAILS FOR PAVEMENT
SECTION OF ASPHALT DRIVEWAY



EROSION MAT TREATMENT AT CULVERTS



**LIGHT RANDOM RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS**



SECTION A-A

QUANTITY REQUIREMENTS PER POST	
APPROX CY CONC	0.4

NOTE:
BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.
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 CONCRETE BASE IN LAYERS OF 1' OR LESS.

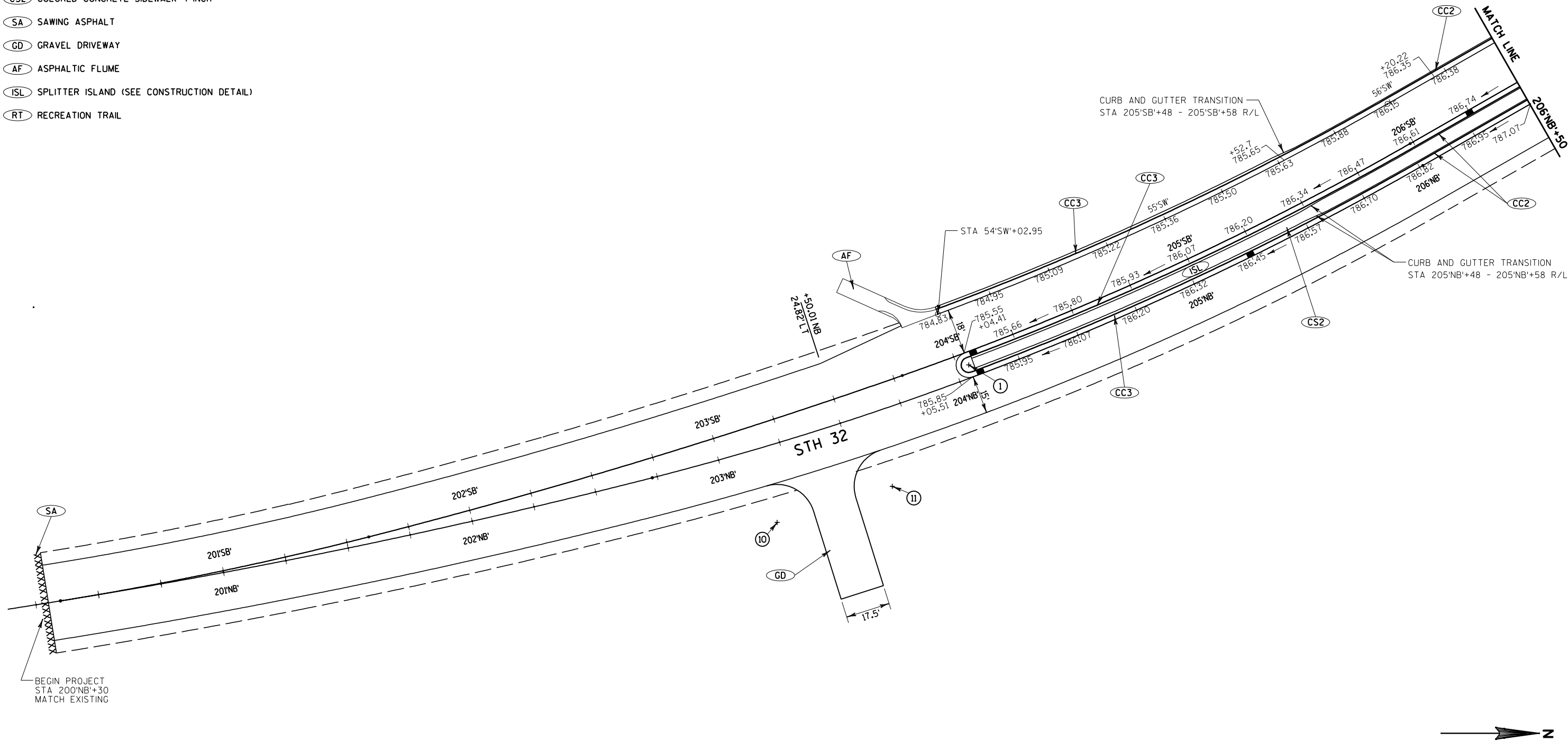
*POST AND GATE TO BE SUPPLIED BY BROWN COUNTY

RECREATION TRAIL GATE BASES

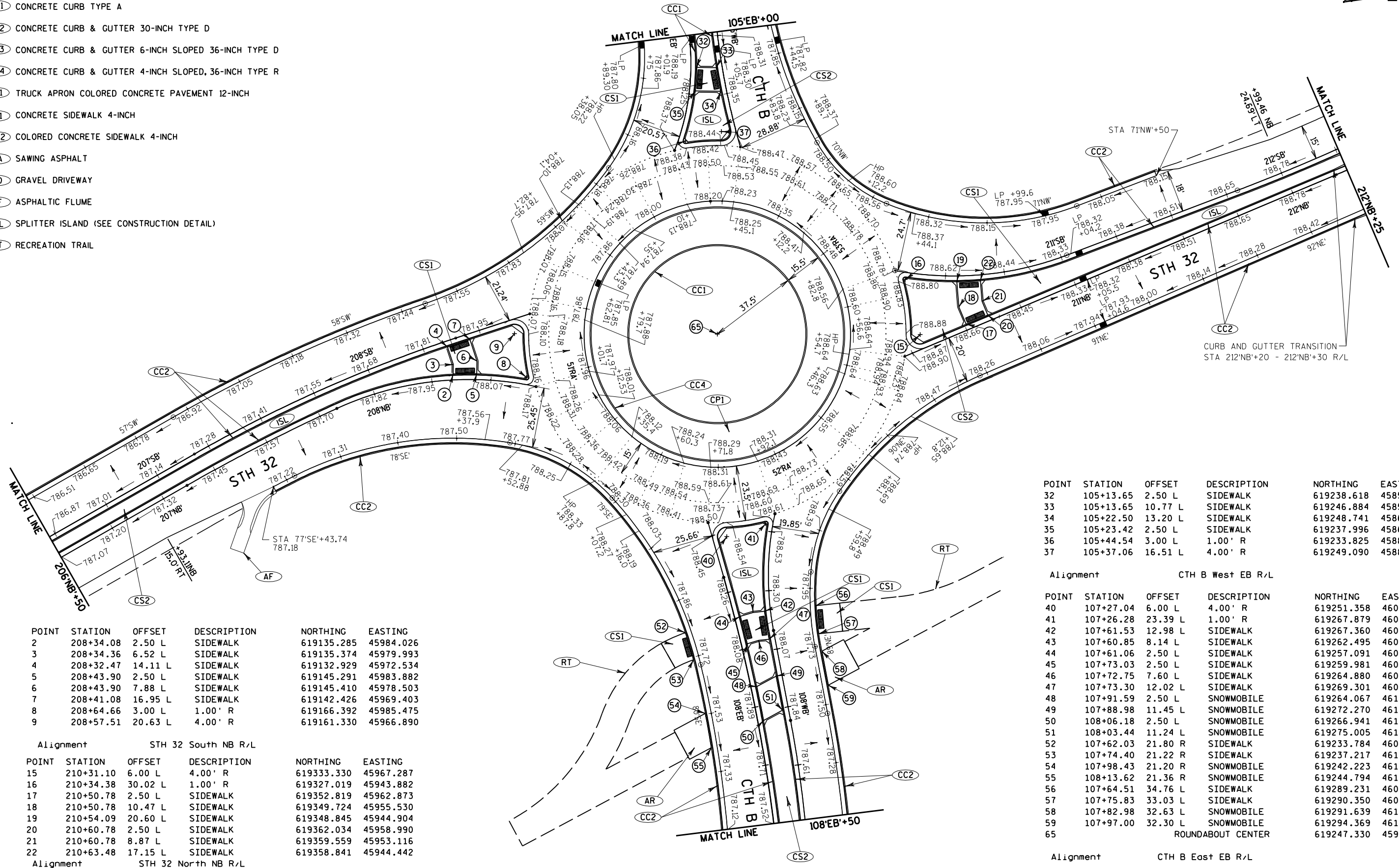
- (AR) ASPHALTIC SURFACE, DRIVEWAY AND FIELD ENTRANCES, 3-INCH
- (AC) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 4-INCH
- (CC1) CONCRETE CURB TYPE A
- (CC2) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (CC3) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CC4) CONCRETE CURB & GUTTER 4-INCH SLOPED, 36-INCH TYPE R
- (CP1) TRUCK APRON COLORED CONCRETE PAVEMENT 12-INCH
- (CS1) CONCRETE SIDEWALK 4-INCH
- (CS2) COLORED CONCRETE SIDEWALK 4-INCH
- (SA) SAWING ASPHALT
- (GD) GRAVEL DRIVEWAY
- (AF) ASPHALTIC FLUME
- (ISL) SPLITTER ISLAND (SEE CONSTRUCTION DETAIL)
- (RT) RECREATION TRAIL

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
1	204+05.51	5.00 L	3.00' R	618748.036	46164.355
10	203+15.23	30.00 R	15.00' R	618672.606	46226.382
11	203+61.60	30.00 R	15.00' R	618717.929	46212.166

Alignment STH 32 South NB R/L



- (AR) ASPHALTIC SURFACE, DRIVEWAY AND FIELD ENTRANCES, 3-INCH
 (AC) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 4-INCH
 (CC1) CONCRETE CURB TYPE A
 (CC2) CONCRETE CURB & GUTTER 30-INCH TYPE D
 (CC3) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
 (CC4) CONCRETE CURB & GUTTER 4-INCH SLOPED, 36-INCH TYPE R
 (CP1) TRUCK APRON COLORED CONCRETE PAVEMENT 12-INCH
 (CS1) CONCRETE SIDEWALK 4-INCH
 (CS2) COLORED CONCRETE SIDEWALK 4-INCH
 (SA) SAWING ASPHALT
 (GD) GRAVEL DRIVEWAY
 (AF) ASPHALTIC FLUME
 (ISL) SPLITTER ISLAND (SEE CONSTRUCTION DETAIL)
 (RT) RECREATION TRAIL



POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
2	208+34.08	2.50 L	SIDEWALK	619135.285	45984.026
3	208+34.36	6.52 L	SIDEWALK	619135.374	45979.993
4	208+32.47	14.11 L	SIDEWALK	619132.929	45972.534
5	208+43.90	2.50 L	SIDEWALK	619145.291	45983.882
6	208+43.90	7.88 L	SIDEWALK	619145.410	45978.503
7	208+41.08	16.95 L	SIDEWALK	619142.426	45969.403
8	208+64.66	3.00 L	1.00' R	619166.392	45985.475
9	208+57.51	20.63 L	4.00' R	619161.330	45966.890

Alignment STH 32 South NB R/L

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
15	210+31.10	6.00 L	4.00' R	619333.330	45967.287
16	210+34.38	30.02 L	1.00' R	619327.019	45943.882
17	210+50.78	2.50 L	SIDEWALK	619352.819	45962.873
18	210+50.78	10.47 L	SIDEWALK	619349.724	45955.530
19	210+54.09	20.60 L	SIDEWALK	619348.845	45944.904
20	210+60.78	2.50 L	SIDEWALK	619362.034	45958.990
21	210+60.78	8.87 L	SIDEWALK	619359.559	45953.116
22	210+63.48	17.15 L	SIDEWALK	619358.841	45944.442

Alignment STH 32 North NB R/L

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
32	105+13.65	2.50 L	SIDEWALK	619238.618	45853.943
33	105+13.65	10.77 L	SIDEWALK	619246.884	45854.054
34	105+22.50	13.20 L	SIDEWALK	619248.741	45864.079
35	105+23.42	2.50 L	SIDEWALK	619237.996	45863.936
36	105+44.54	3.00 L	1.00' R	619233.825	45885.197
37	105+37.06	16.51 L	4.00' R	619249.090	45881.109

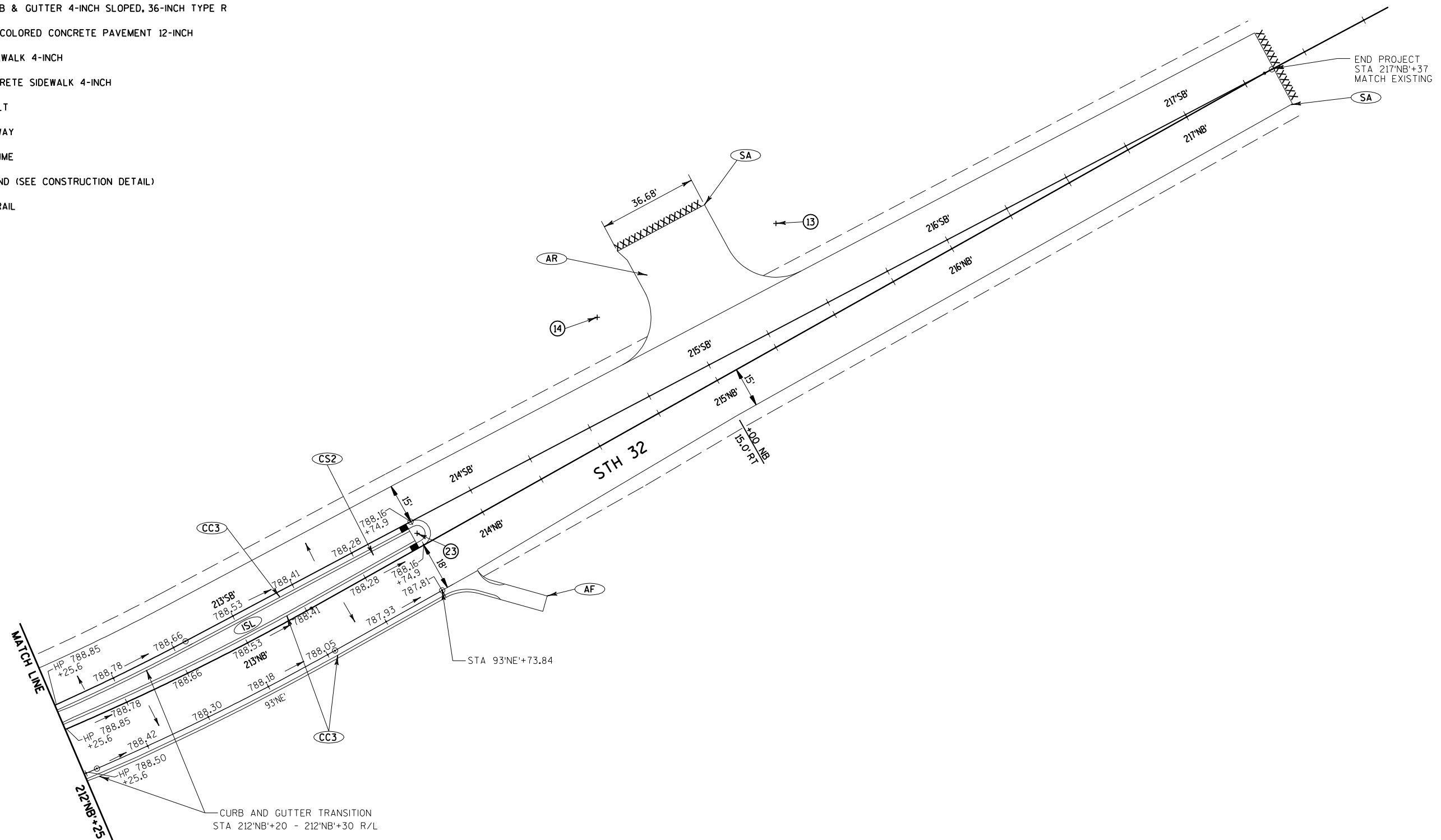
Alignment CTH B West EB R/L

POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
40	107+27.04	6.00 L	4.00' R	619251.358	46052.997
41	107+26.28	23.39 L	1.00' R	619267.879	46047.507
42	107+61.53	12.98 L	SIDEWALK	619267.360	46084.653
43	107+60.85	8.14 L	SIDEWALK	619262.495	46085.183
44	107+61.06	2.50 L	SIDEWALK	619257.091	46086.795
45	107+73.03	2.50 L	SIDEWALK	619259.981	46098.456
46	107+72.75	7.60 L	SIDEWALK	619264.880	46096.994
47	107+73.30	12.02 L	SIDEWALK	619269.301	46096.513
48	107+91.59	2.50 L	SNOWMOBILE	619264.067	46116.627
49	107+88.98	11.45 L	SNOWMOBILE	619272.270	46112.189
50	108+06.18	2.50 L	SNOWMOBILE	619266.941	46130.989
51	108+03.44	11.24 L	SNOWMOBILE	619275.005	46126.627
52	107+62.03	21.80 R	SIDEWALK	619233.784	46093.755
53	107+74.40	21.22 R	SIDEWALK	619237.217	46105.254
54	107+98.43	21.20 R	SNOWMOBILE	619242.223	46128.018
55	108+13.62	21.36 R	SNOWMOBILE	619244.794	46142.518
56	107+64.51	34.76 L	SIDEWALK	619289.231	46082.273
57	107+75.83	33.03 L	SIDEWALK	619290.350	46094.222
58	107+82.98	32.63 L	SNOWMOBILE	619291.639	46101.605
59	107+97.00	32.30 L	SNOWMOBILE	619294.369	46116.020
65			ROUNDBOUT CENTER	619247.330	45967.091

Alignment CTH B East EB R/L

- (AR) ASPHALTIC SURFACE, DRIVEWAY AND FIELD ENTRANCES, 3-INCH
(AC) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 4-INCH
(CC1) CONCRETE CURB TYPE A
(CC2) CONCRETE CURB & GUTTER 30-INCH TYPE D
(CC3) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
(CC4) CONCRETE CURB & GUTTER 4-INCH SLOPED, 36-INCH TYPE R
(CP1) TRUCK APRON COLORED CONCRETE PAVEMENT 12-INCH
(CS1) CONCRETE SIDEWALK 4-INCH
(CS2) COLORED CONCRETE SIDEWALK 4-INCH
(SA) SAWING ASPHALT
(GD) GRAVEL DRIVEWAY
(AF) ASPHALTIC FLUME
(ISL) SPLITTER ISLAND (SEE CONSTRUCTION DETAIL)
(RT) RECREATION TRAIL

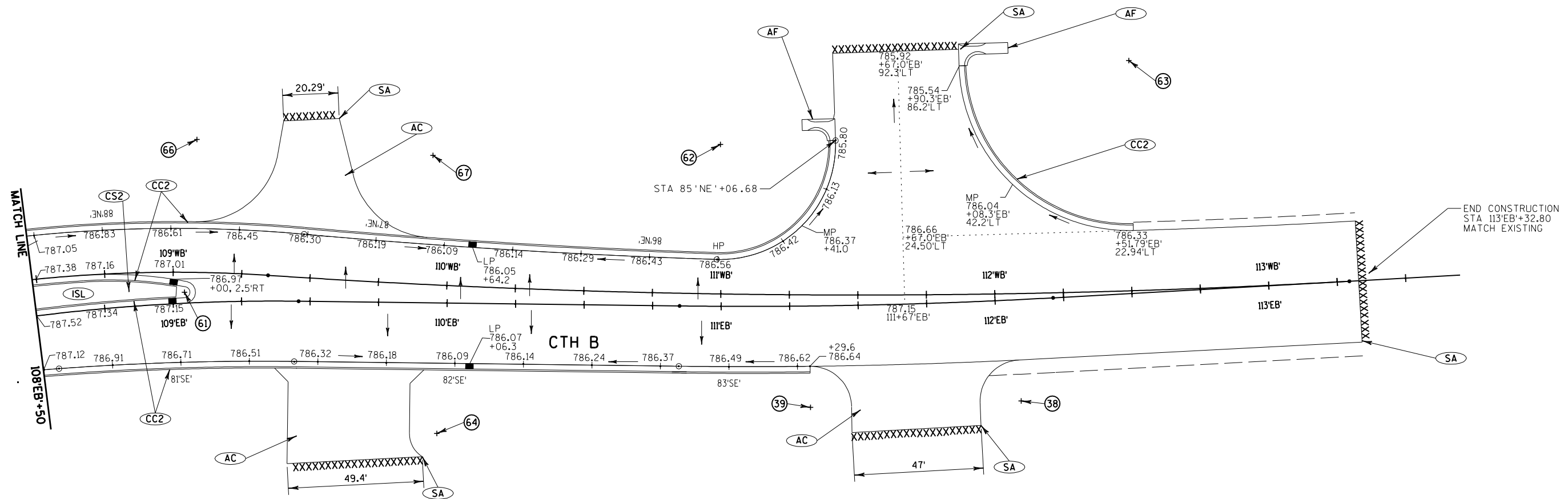
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
13	215+47.55	40.21 L	20.00' R	619778.443	45709.445
14	214+72.57	42.29 L	20.00' R	619712.035	45744.322
23	213+74.90	5.00 L	3.00' R	619645.112	45824.650
Alignment			STH 32 North NB R/L		



2

- | POINT | STATION | OFFSET | DESCRIPTION | NORTHING | EASTING |
|-------|-----------|---------|-------------|------------|-----------|
| 24 | 102+12.71 | 86.00 R | 60.00' R | 619136.807 | 45552.620 |
| 25 | 103+53.19 | 60.00 R | 40.00' R | 619160.220 | 45696.088 |
| 26 | 100+23.08 | 30.10 R | 15.00' L | 619250.191 | 45363.034 |
| 27 | 100+72.46 | 30.72 R | 15.00' L | 619252.588 | 45412.819 |
| 28 | 102+57.93 | 39.83 R | 15.00' L | 619261.614 | 45600.278 |
| 29 | 103+18.43 | 44.95 R | 15.00' L | 619264.891 | 45660.257 |
| 30 | 104+08.48 | 3.00 L | 1.00' R | 619226.681 | 45749.227 |
| 31 | 104+50.68 | 45.78 R | 58.00' R | 619183.435 | 45797.504 |

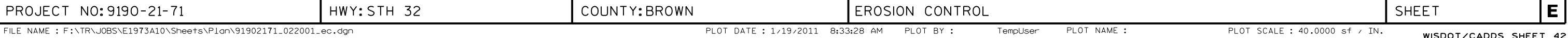
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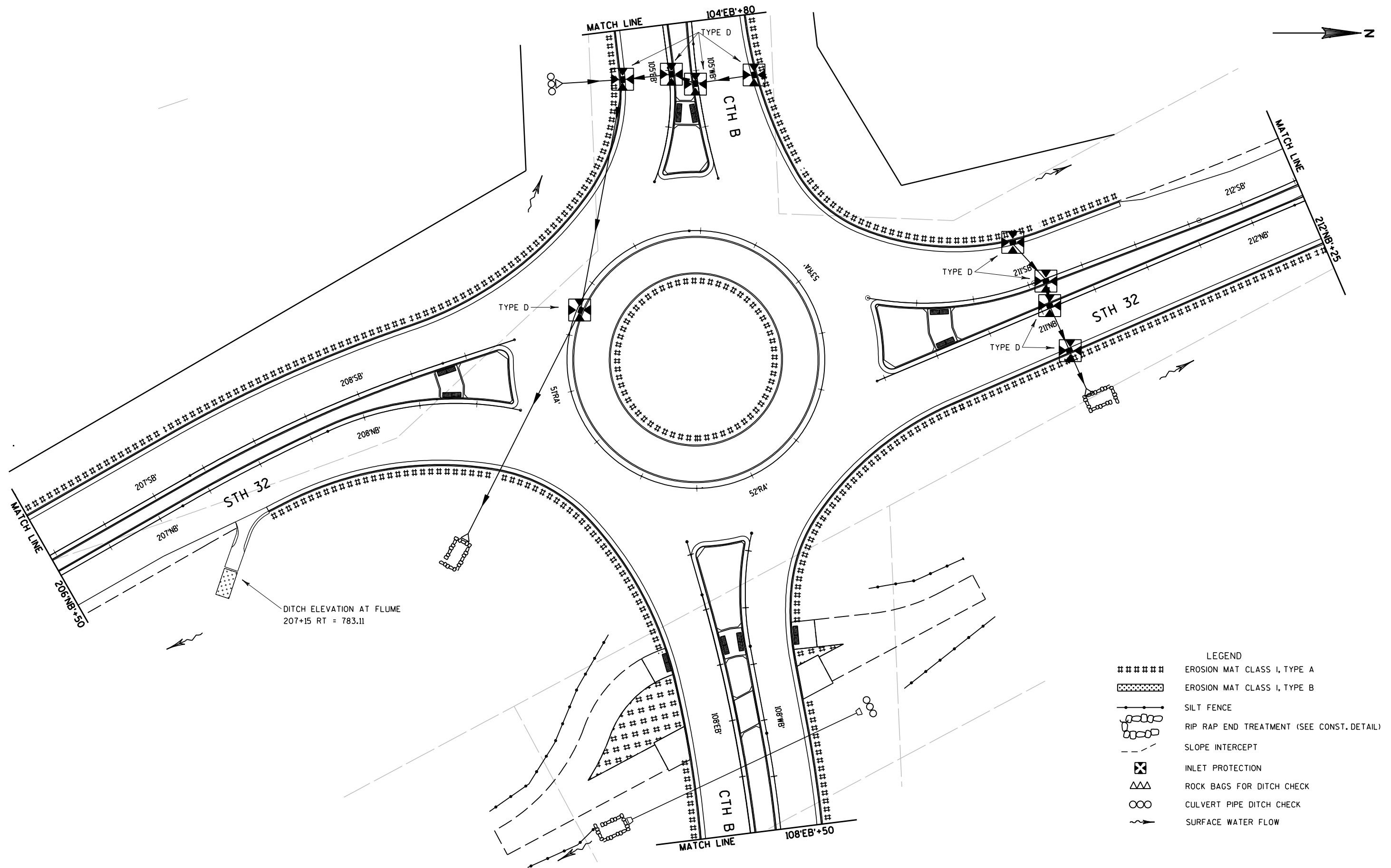


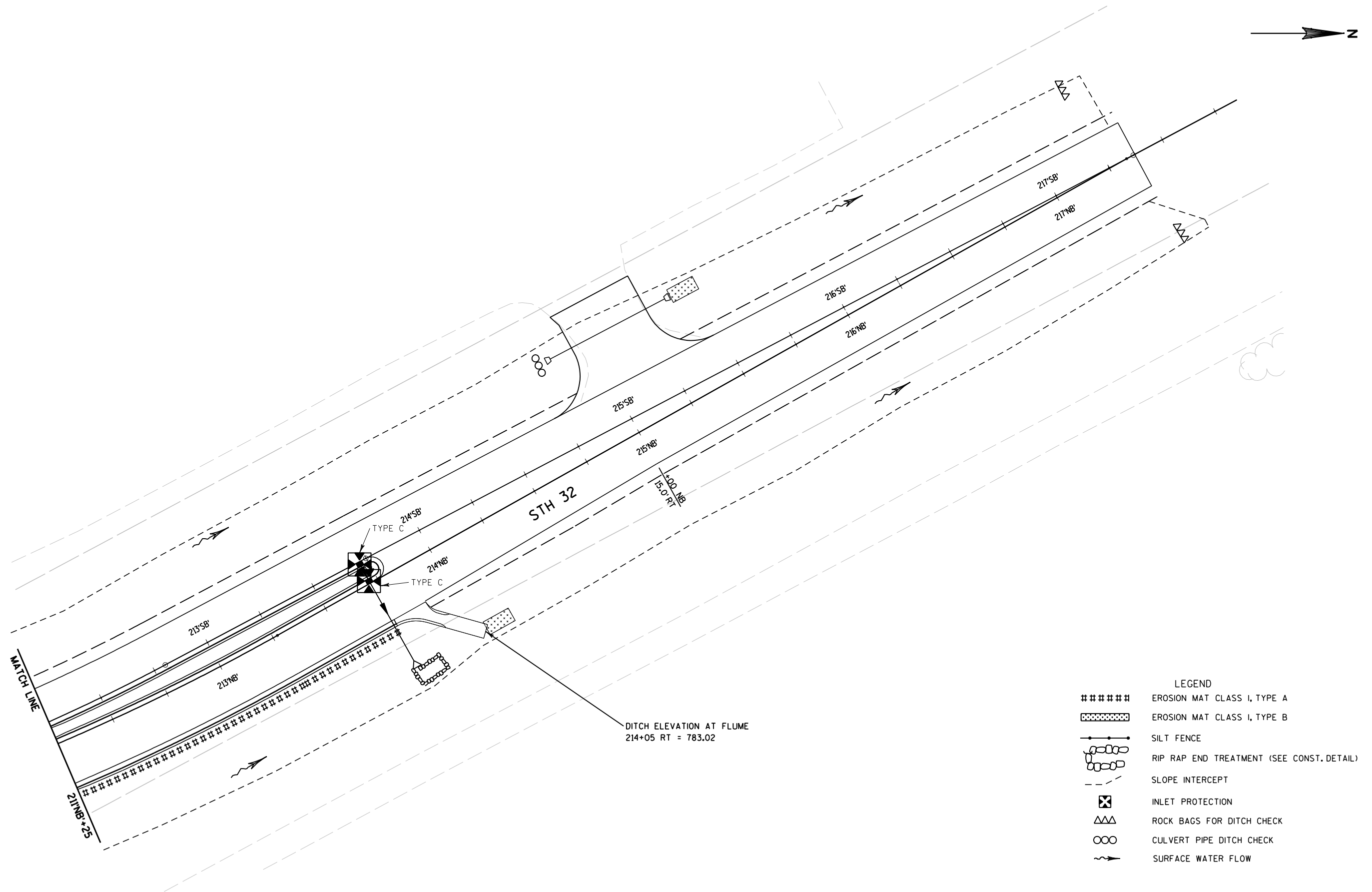
POINT	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
38	112+07.70	37.00 R	15.00' R	619240.218	46533.965
39	111+32.19	37.00 R	15.00' R	619237.899	46457.101
60	108+62.44	137.05 R	148.00' R	619136.444	46201.688
61	109+04.36	4.00 L	2.00' R	619279.926	46228.687
62	110+99.45	59.09 L	40.00' R	619333.886	46424.244
63	112+53.61	84.91 L	60.00' R	619364.468	46573.258
64	109+96.83	47.64 R	10.00' R	619228.377	46320.745
66	109+10.93	59.50 L	30.00' R	619335.669	46233.218
67	109+94.21	53.84 L	30.00' R	619329.875	46319.376

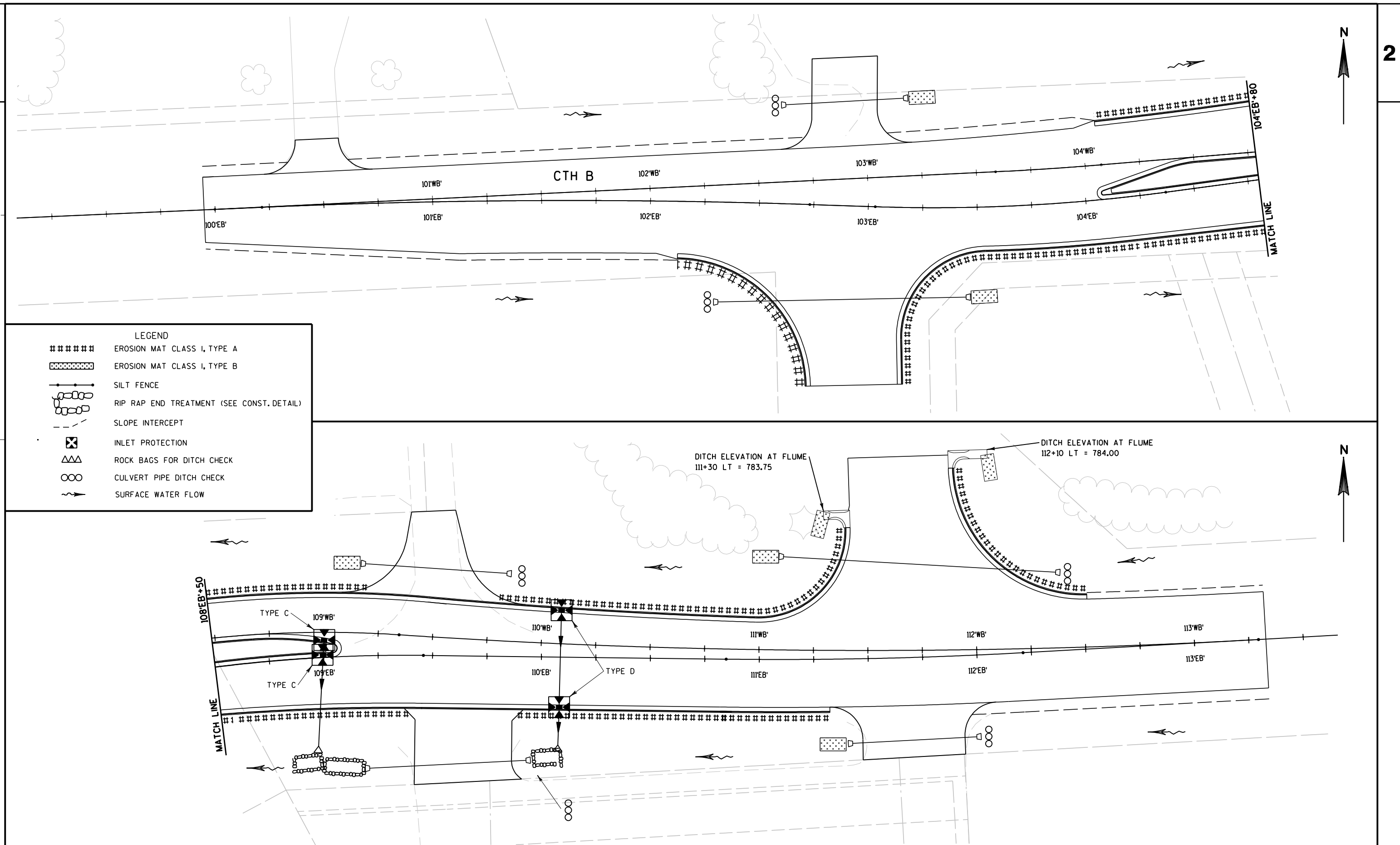
Alignment CTH B East EB R/L

- (AR) ASPHALTIC SURFACE, DRIVEWAY AND FIELD ENTRANCES, 3-INCH
- (AC) ASPHALTIC SURFACE DRIVEWAY AND FIELD ENTRANCES, 4-INCH
- (CC1) CONCRETE CURB TYPE A
- (CC2) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (CC3) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
- (CC4) CONCRETE CURB & GUTTER 4-INCH SLOPED, 36-INCH TYPE R
- (CPI) TRUCK APRON COLORED CONCRETE PAVEMENT 12-INCH
- (CS1) CONCRETE SIDEWALK 4-INCH
- (CS2) COLORED CONCRETE SIDEWALK 4-INCH
- (SA) SAWING ASPHALT
- (GD) GRAVEL DRIVEWAY
- (AF) ASPHALTIC FLUME
- (ISL) SPLITTER ISLAND (SEE CONSTRUCTION DETAIL)
- (RT) RECREATION TRAIL



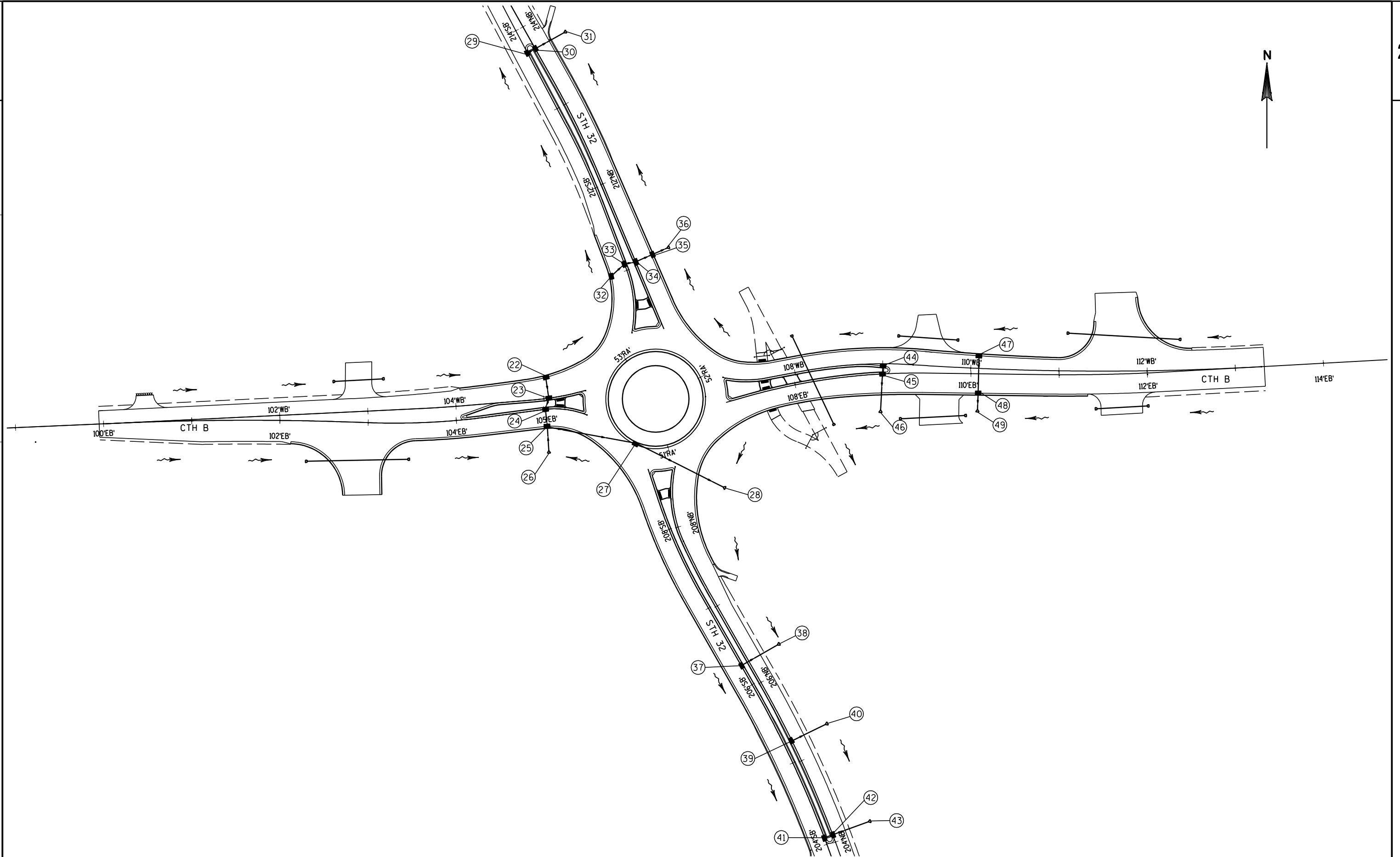






2

2



PROJECT NO: 9190-21-71

HWY:STH 32

COUNTY: BROWN

STORM SEWER

SHEET

E

FILE NAME : F:\TR\JOBS\E1973A10\Sheets\Plan\91902171_022501_ss.dgn

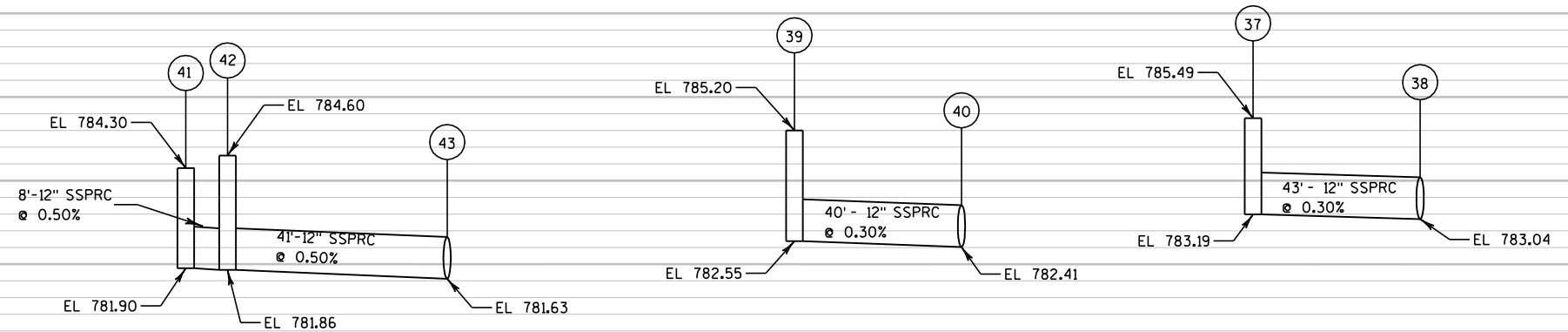
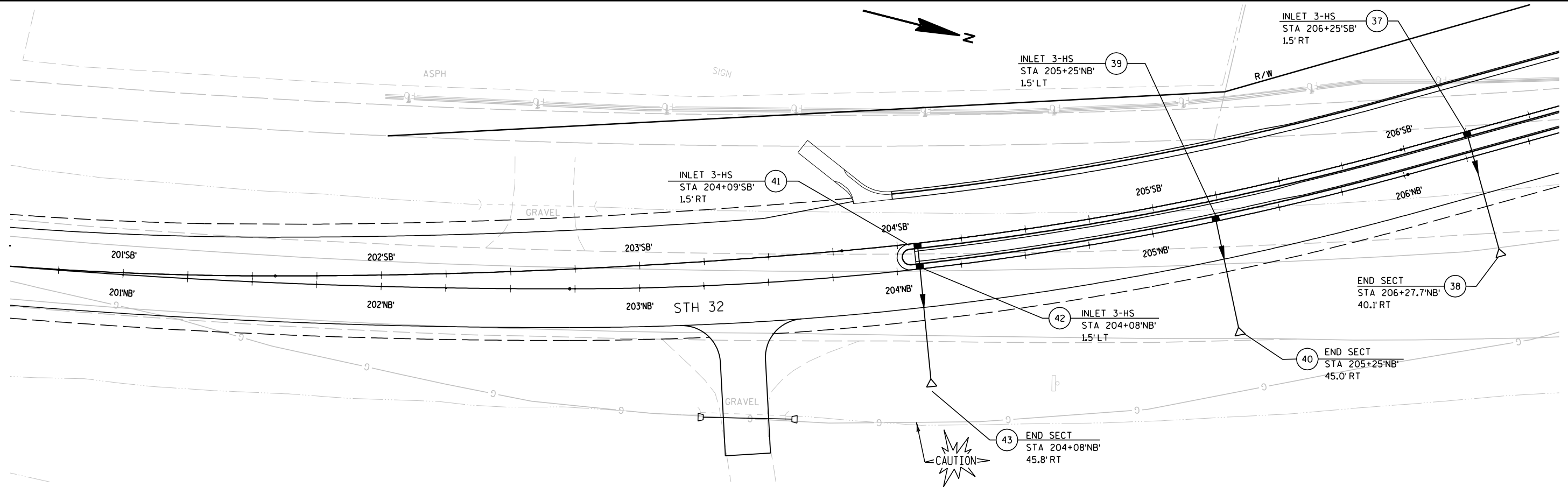
PLOT DATE : 1/3/2011

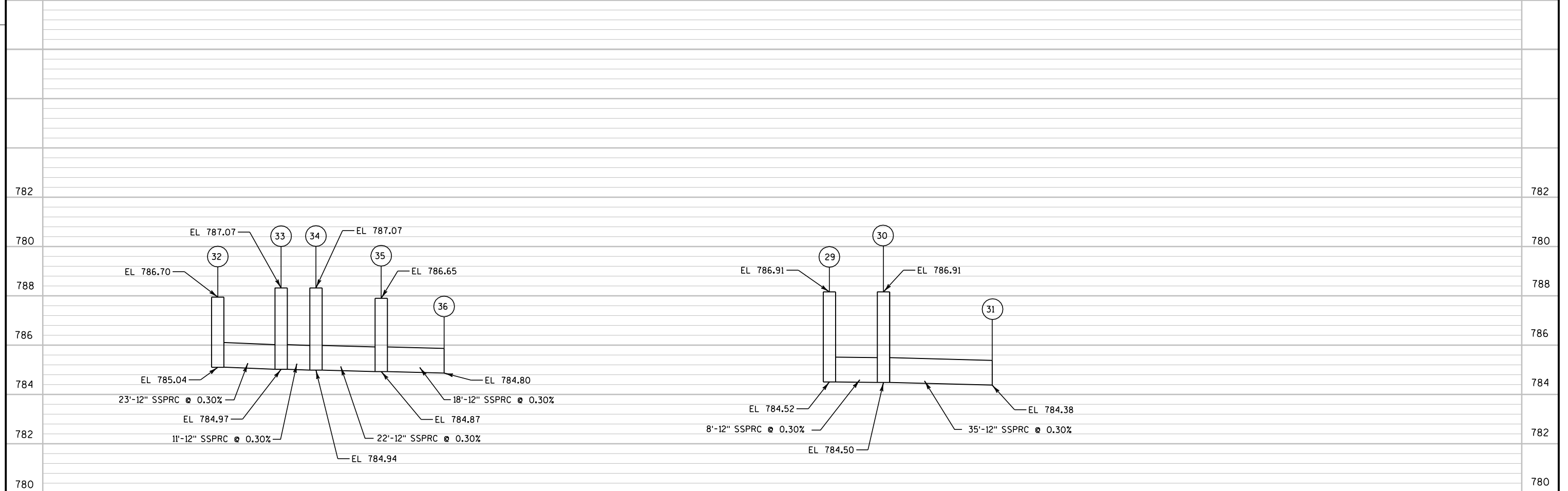
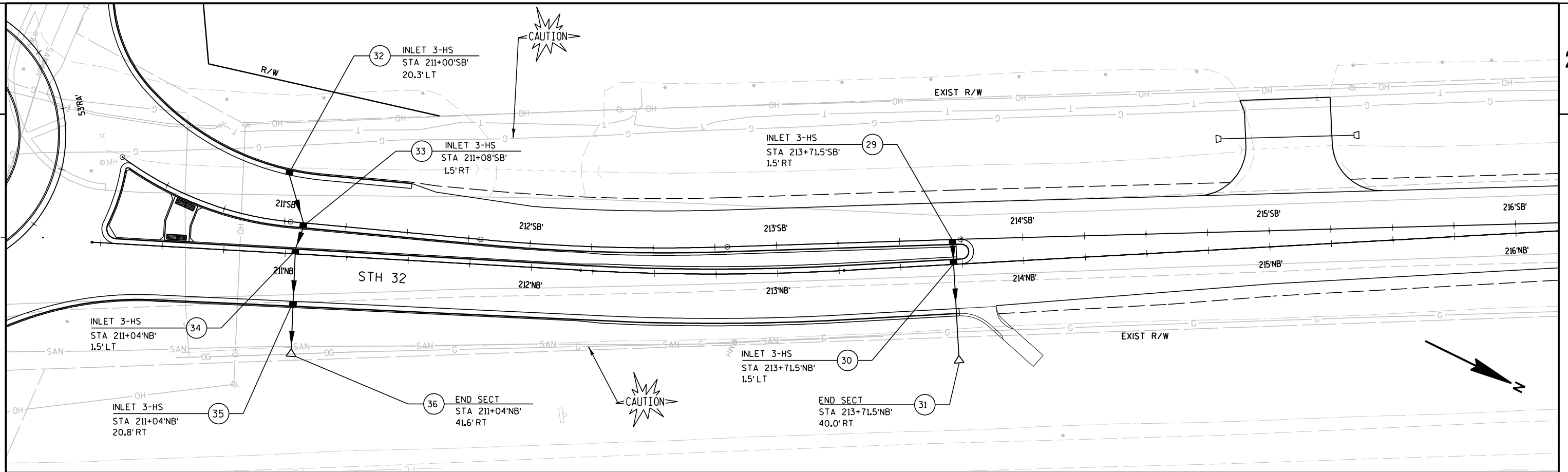
PLOT BY : bergm

PLOT NAME :

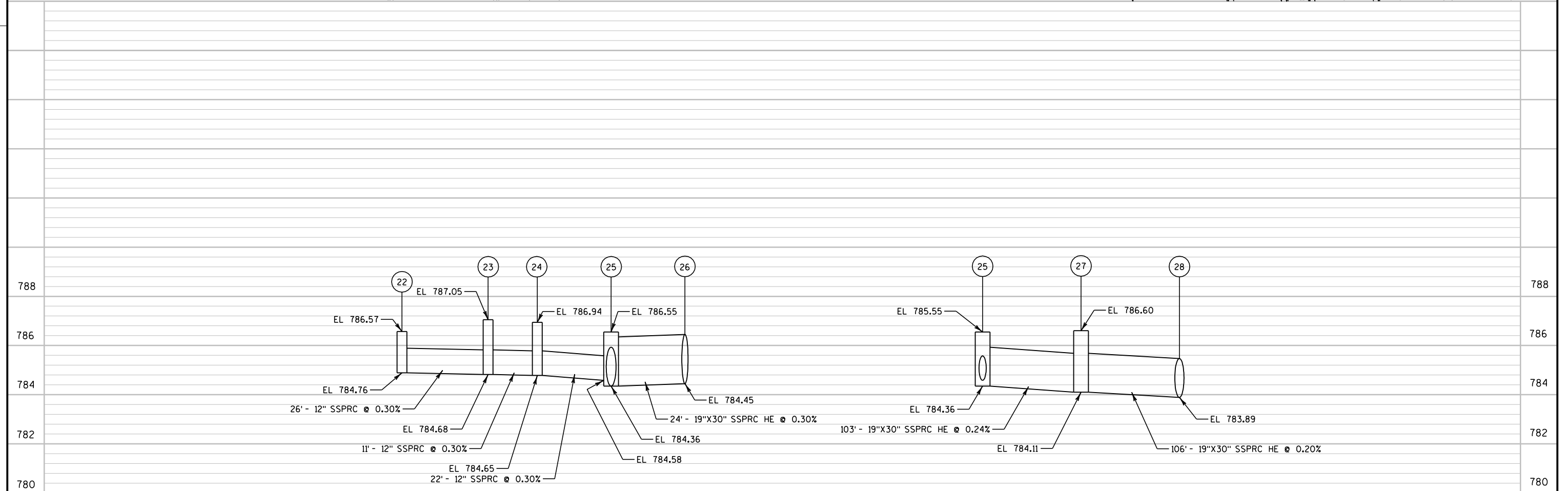
PLOT SCALE : 100.0000 sf / IN.

WISDOT/CADDS SHEET 42

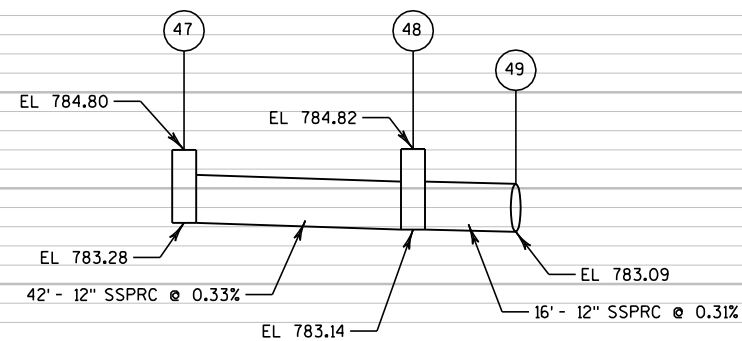
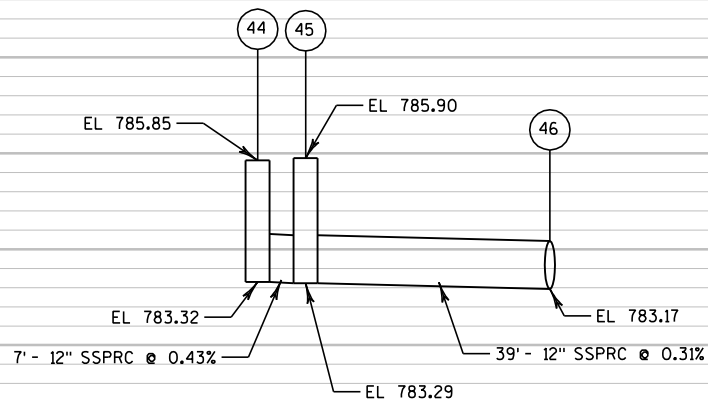
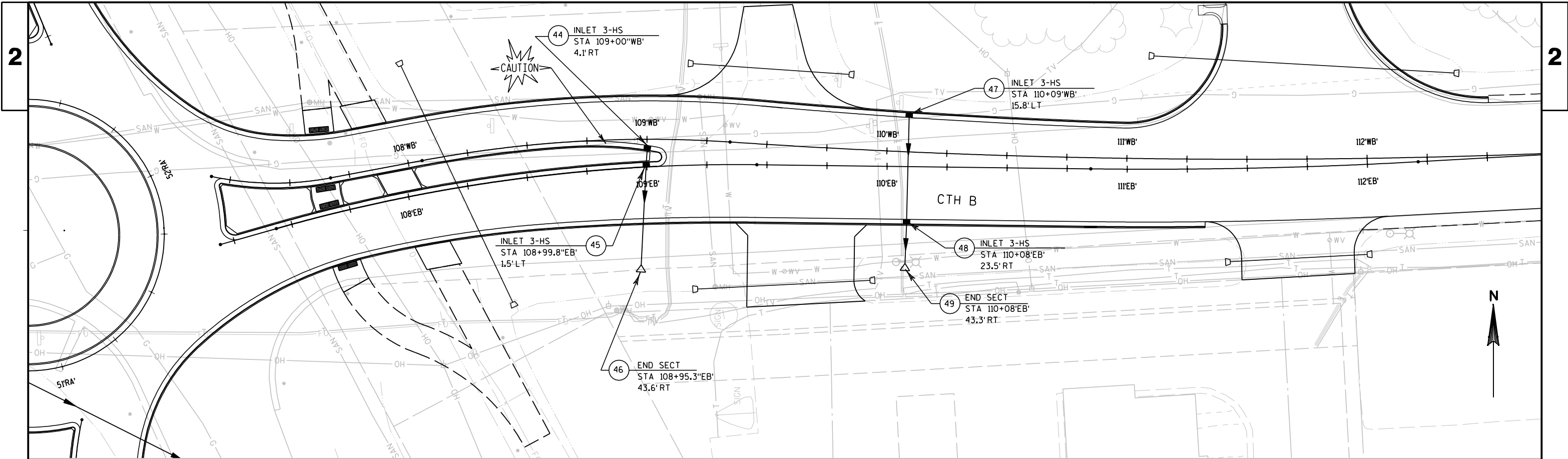


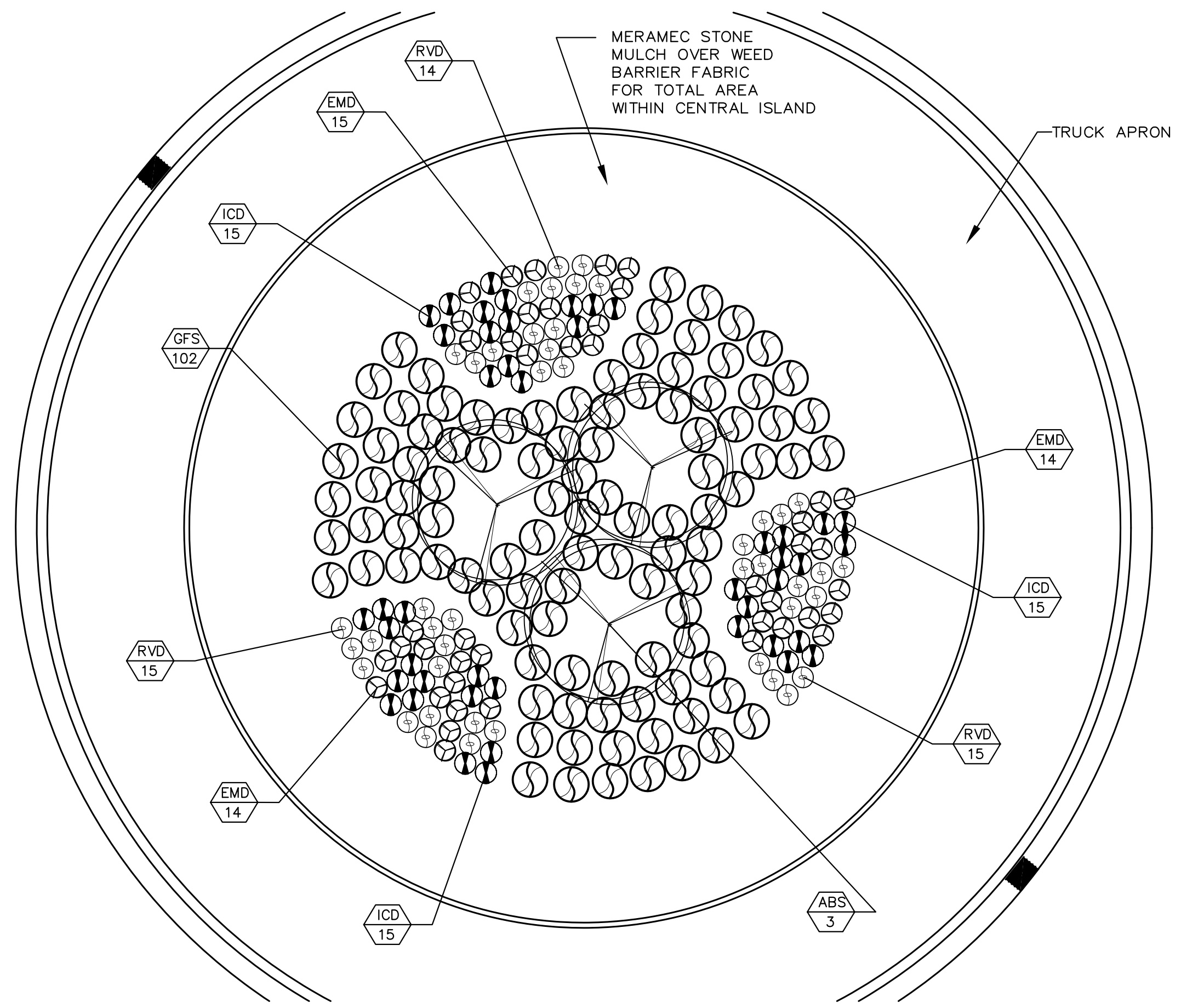


2



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N

LEGEND

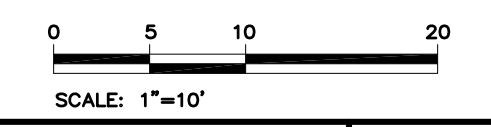
XXX
X PLANT SYMBOL
QUANTITY

⊗ PLANT LOCATION SYMBOL (TYPICAL)

- NOTES
- * REFER TO PLANT DATA CHART AND MISCELLANEOUS QUANTITIES SHEET – PLANT QUANTITIES
 - * REFER TO CONSTRUCTION DETAIL SHEET SDD 14 A 2-1 FOR PLANTING DETAILS
 - * USE SELECTIVE PRE-EMERGENCE HERBICIDE IN PLANT BED BEFORE MULCHING

PLANT LIST

SYMBOL	COMMON NAME
ABS	SERVICEBERRY, AUTUMN BRILLIANCE
GFS	SUMAC, GRO-LOW FRAGRANT
EMD	DAYLILY, ED MURRAY
ICD	DAYLILY, ICE CARNIVAL
RVD	DAYLILY, RED VOLUNTEER



PLANT DATA CHART

SYMBOL	COMMON NAME	SCIENTIFIC NAME	TYPE	AVG MATURE HEIGHT	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZES					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTCTN REQ'D	MULCH RING DIAMETER
							BALL DIA.	POT DEPTH	ROOT SPREAD	PLANT DIA.	HOLE DEPTH				
LARGE DECIDUOUS SHRUBS															
ABS	SERVICEBERRY, AUTUMN BRILLIANCE	AMELANCHIER x GRANDIFLORA AUTUMN BRILLIANCE	3S	20'	7–8' HT	BB	20"	15"	20"	44"	15"	NO	5	NO	BED
MEDIUM & SMALL DECIDUOUS SHRUBS															
GFS	SUMAC, GRO–LOW FRAGRANT	RHUS AROMATICA 'GRO–LOW'	2S	18–24"	18" HT	CONT	12"	11"	12"	24"	11"	NO	2	NO	BED
PERENNIALS															
EMD	DAYLILY, ED MURRAY	HEMEROCALLIS 'ED MURRAY'	CG	30"	#1	CONT	7"	6"	6"	14"	6"	NO	1	NO	BED
ICD	DAYLILY, ICE CARNIVAL	HEMEROCALLIS 'ICE CARNIVAL'	CG	28"	#1	CONT	7"	6"	6"	14"	6"	NO	1	NO	BED
RVD	DAYLILY, RED VOLUNTEER	HEMEROCALLIS 'RED VOLUNTEER'	CG	30"	#1	CONT	7"	6"	6"	14"	6"	NO	1	NO	BED

CONT: CONTAINER
CG: CONTAINER GROWN
BB: BALLED AND BURLAPPED

PLANT QUANTITIES

BID ITEM #	SYMBOL	COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	QTY.
LARGE DECIDUOUS SHRUBS						
632.0201.01	ABS	SERVICEBERRY, AUTUMN BRILLIANCE	AMELANCHIER x GRANDIFLORA AUTUMN BRILLIANCE	7-8' HT	BB	3
MEDIUM & SMALL DECIDUOUS SHRUBS						
632.0201.02	GFS	SUMAC, GRO-LOW FRAGRANT	RHUS AROMATICA 'GRO-LOW'	18" HT	CONT	102
PERENNIALS						
SPV.0060.03	EMD	DAYLILY, ED MURRAY	HEMEROCALLIS 'ED MURRAY'	#1	CONT	43
SPV.0060.04	ICD	DAYLILY, ICE CARNIVAL	HEMEROCALLIS 'ICE CARNIVAL'	#1	CONT	45
SPV.0060.05	RVD	DAYLILY, RED VOLUNTEER	HEMEROCALLIS 'RED VOLUNTEER'	#1	CONT	44

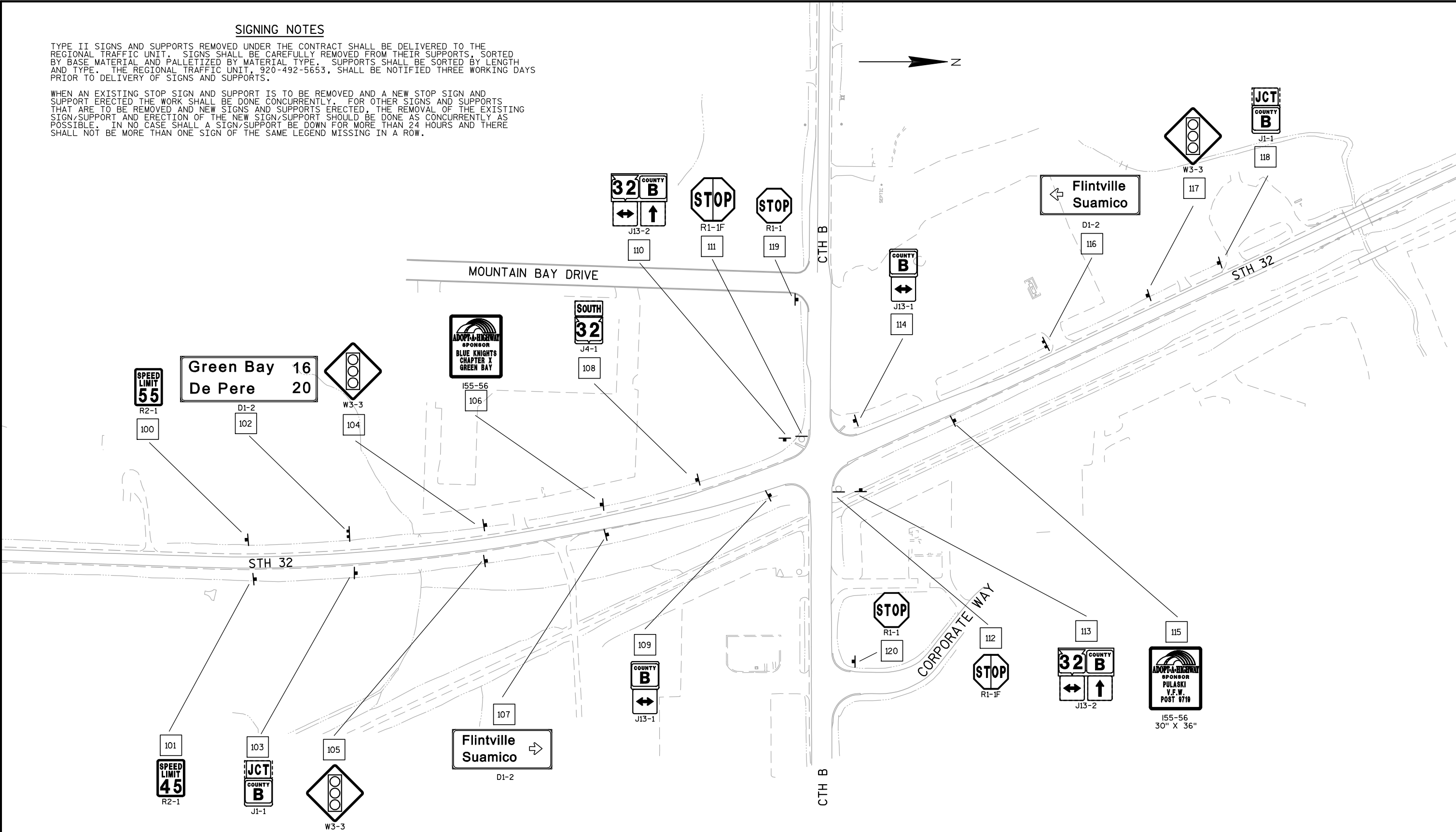
THE NUMBER AND LOCATION OF NO PASSING ZONE SIGNS/POSTS (W 14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED BY THE DEPARTMENT AFTER THE ROADWAYS HAVE BEEN BUILT MOUNTING HEIGHT TO BOTTOM OF YIELD SIGNS (R1-2) SHALL BE 7'-3".



SIGNING NOTES

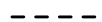
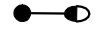
TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THEIR SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT, 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.



PLAN SHEET PRODUCED
BY WISDOT-NE REGION

LEGEND

- LIGHTING CONTROL CABINET WITH METER BREAKER PEDESTAL 
- 2" CONDUIT, NON-METALLIC (UNLESS OTHERWISE NOTED) 
- 150 WATT LUMINAIRE, TYPE 5 POLE, TYPE 5 CONCRETE BASE, TRUSS TYPE - 4 1/2" CLAMP - 12FT WITH TRANSFORMER BASE 
- PULL BOX 24" X 42" 
- POWER POLE 
- SERVICE POLE 
- ELECTRIC, UNDERGROUND  E
- ELECTRIC, OVERHEAD  OH
- SIGN 

III -150-12-5-A-4

LIGHT UNIT NUMBER IN CIRCUIT
CIRCUIT NUMBER
BASE TYPE
MAST ARM LENGTH (In feet)
LAMP WATTAGE
DISTRIBUTION TYPE

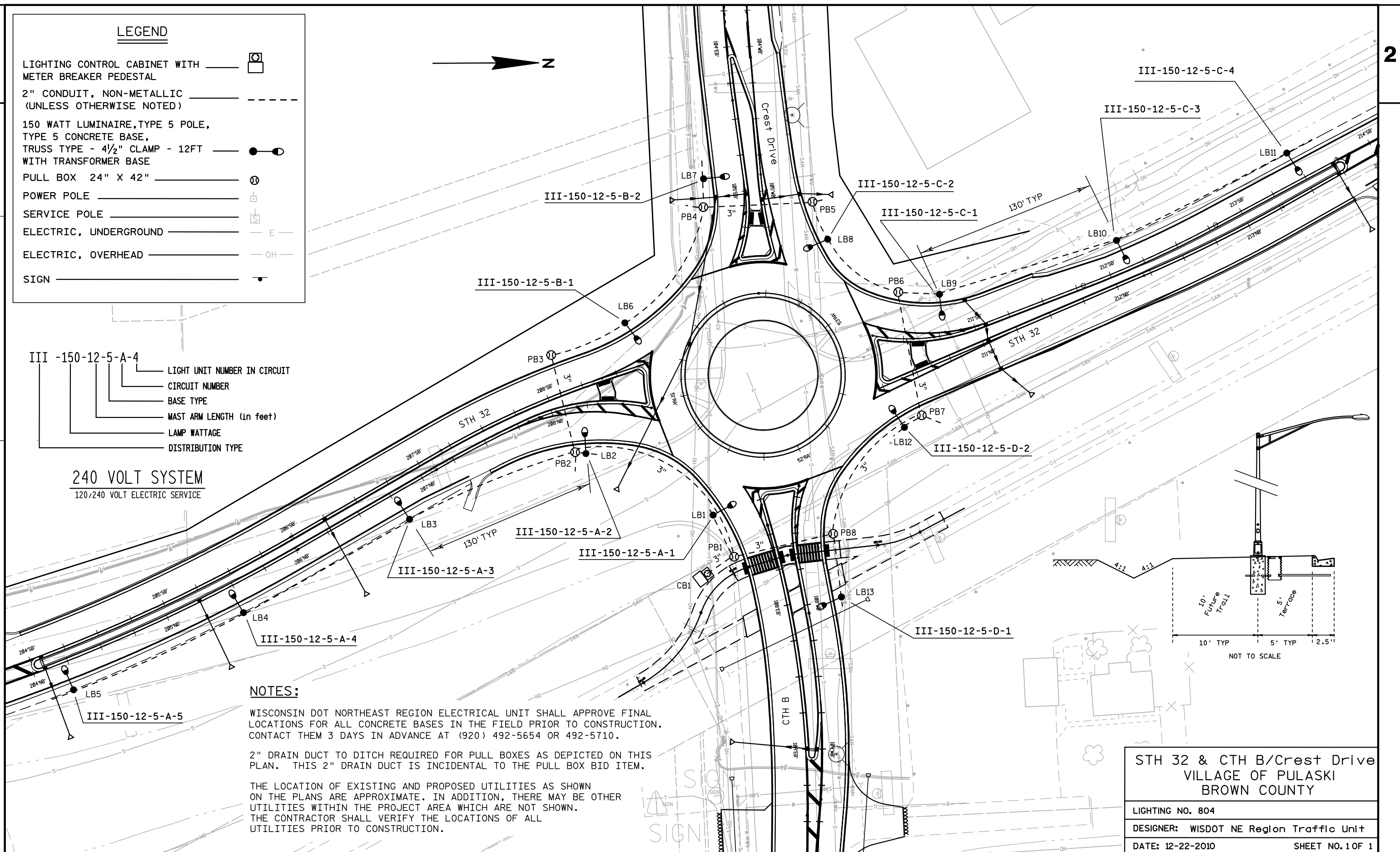
240 VOLT SYSTEM
120/240 VOLT ELECTRIC SERVICE

NOTES:

WISCONSIN DOT NORTHEAST REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5654 OR 492-5710.

2" DRAIN DUCT TO DITCH REQUIRED FOR PULL BOXES AS DEPICTED ON THIS PLAN. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM.

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.



STH 32 & CTH B/Crest Drive
VILLAGE OF PULASKI
BROWN COUNTY

LIGHTING NO. 804

DESIGNER: WISDOT NE Region Traffic Unit

DATE: 12-22-2010

SHEET NO. 1 OF 1

PROJECT NO: 9190-21-71

HWY: STH 32

COUNTY: BROWN

CONSTRUCTION DETAIL - ROUNDABOUT LIGHTING

SHEET

E

LEGEND

- ☒ CONTROL CABINET
--- NONMETALLIC CONDUIT
--- OH --- OVERHEAD LINES
--- E --- UNDERGROUND ELECTRIC
◀● SIGNAL HEAD, PEDESTAL MOUNT
◀● SIGNAL HEAD, MAST-ARM MOUNT
○● LUMINAIRE
○■ LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
2T (61) LOOP DETECTOR
● PULL BOX, 24" x 36"
⊕ PULL BOX, 12" x 24"
3-V 4 MOUNTING CONFIGURATION
4 SIGNAL HEAD NUMBER
□ SERVICE POLE
□ UTILITY POLE

CONFIGURATION WITH HEAD NUMBERS

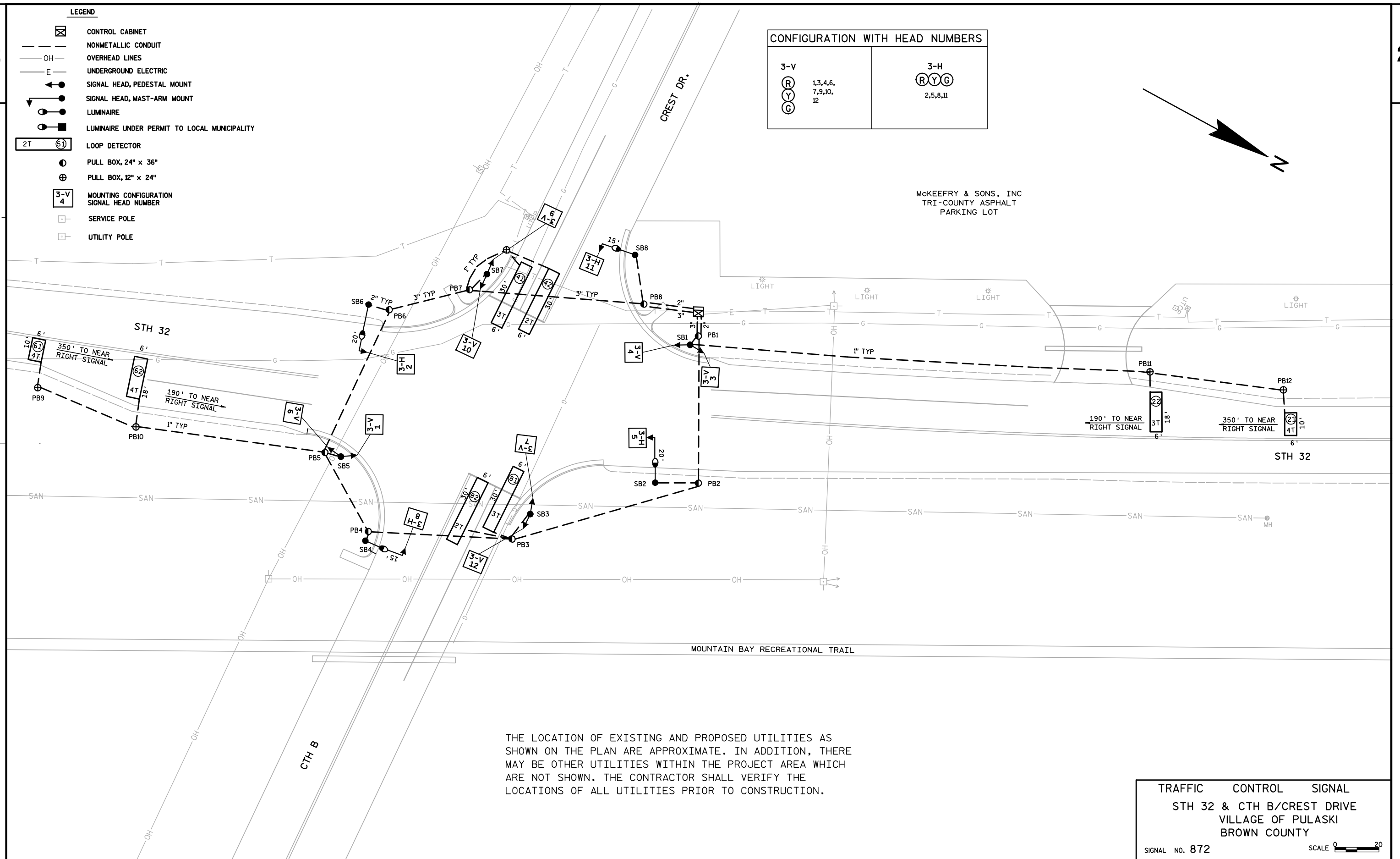
3-V

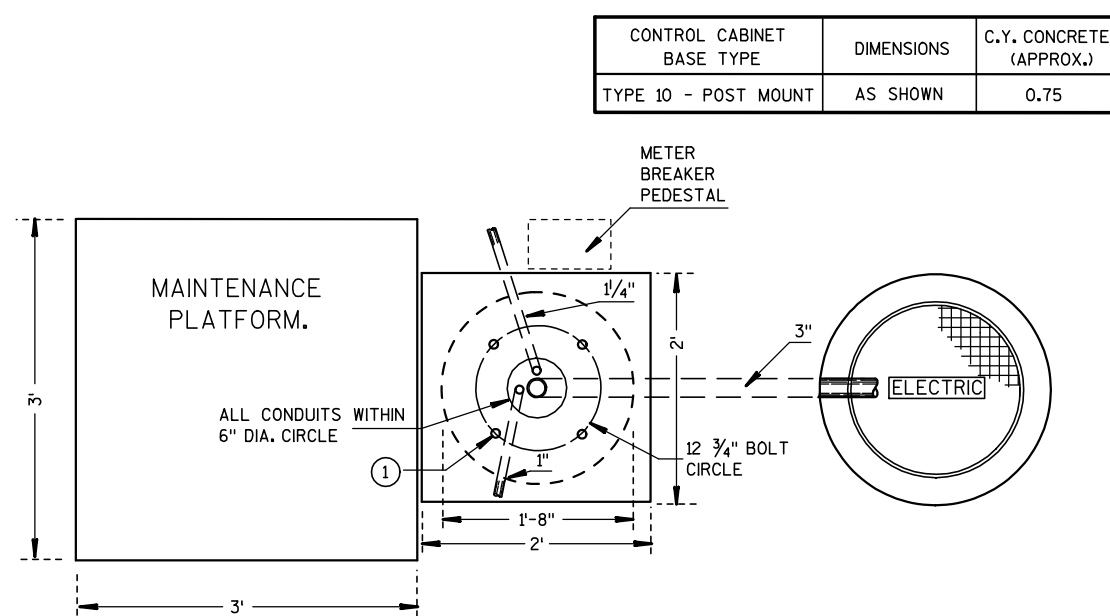
R
Y
G1,3,4,6,
7,9,10,
12

3-H

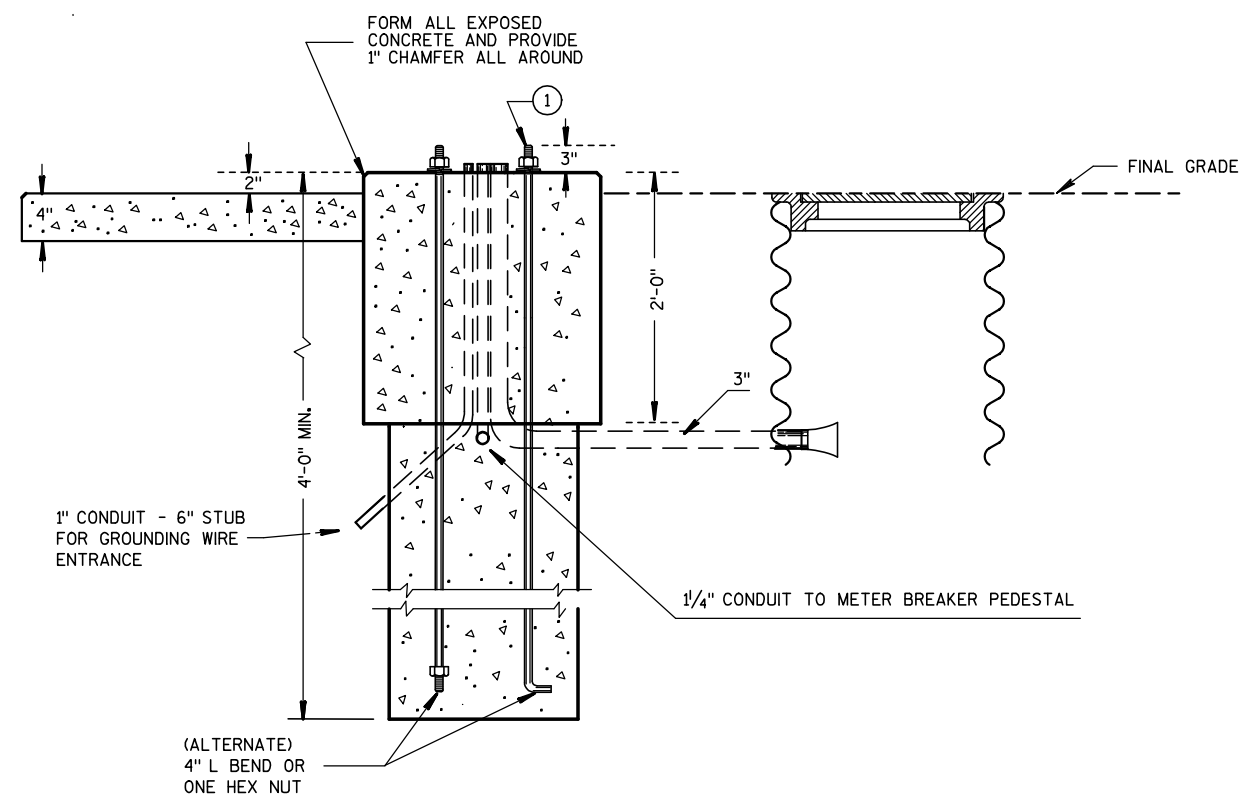
R Y G

2,5,8,11

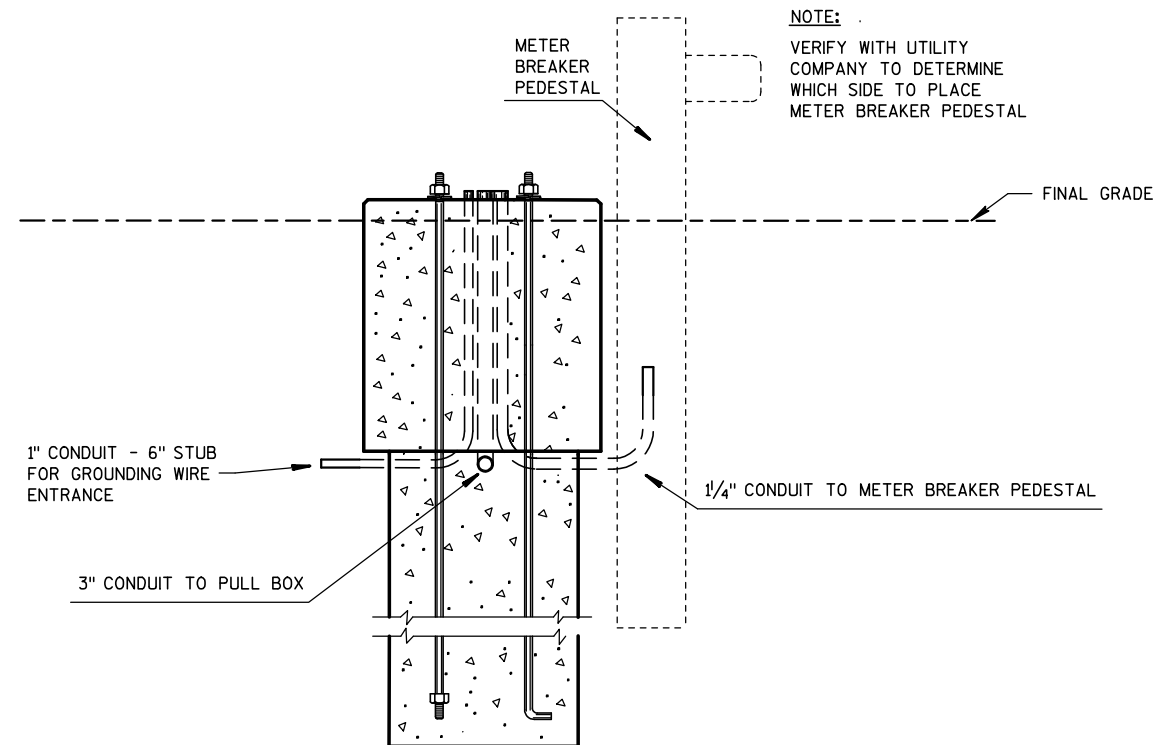




PLAN VIEW



PROFILE VIEW



FRONT VIEW

GENERAL NOTES

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

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL.

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

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

ALL CONDUIT ENDS AT THE TOP OF THE CONCRETE BASE SHALL PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

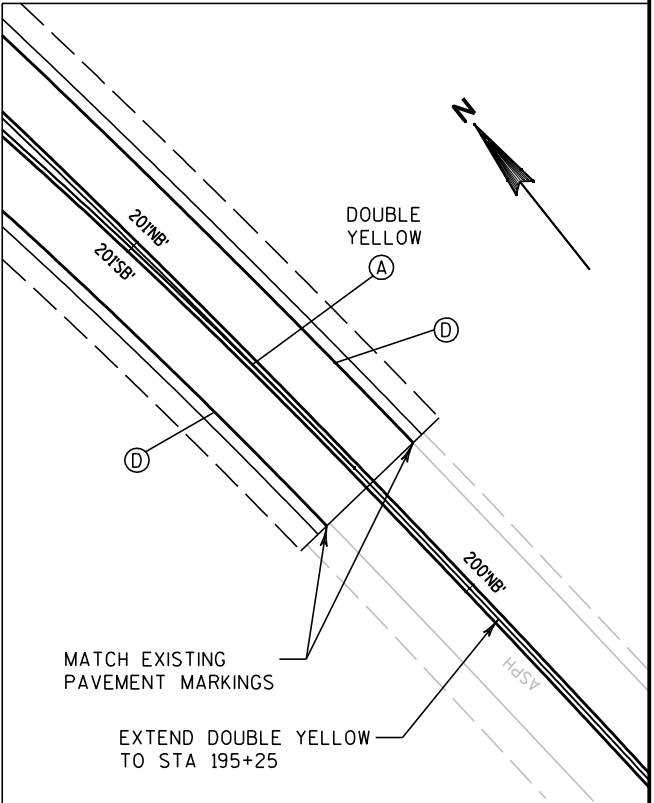
WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

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

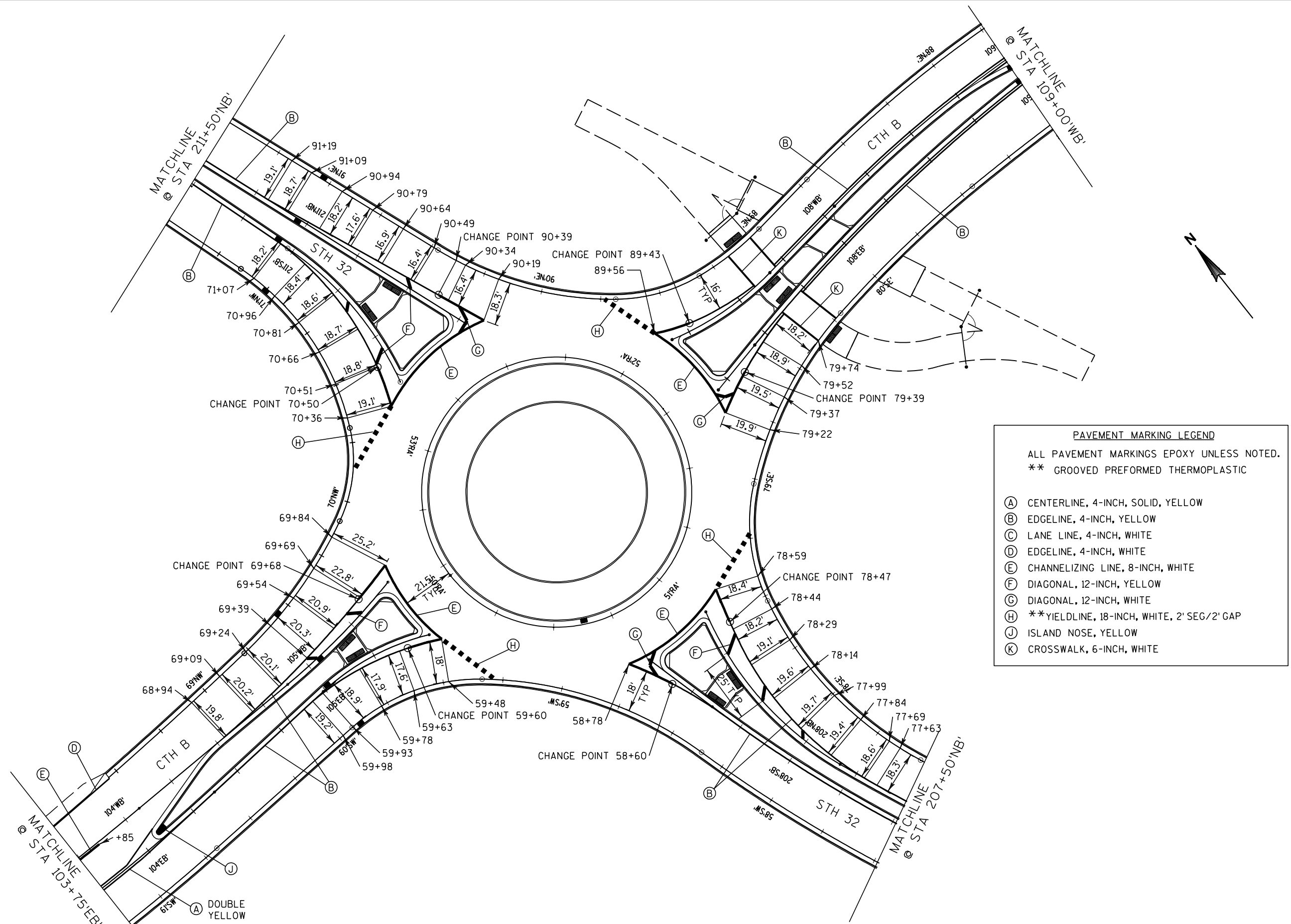
FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"

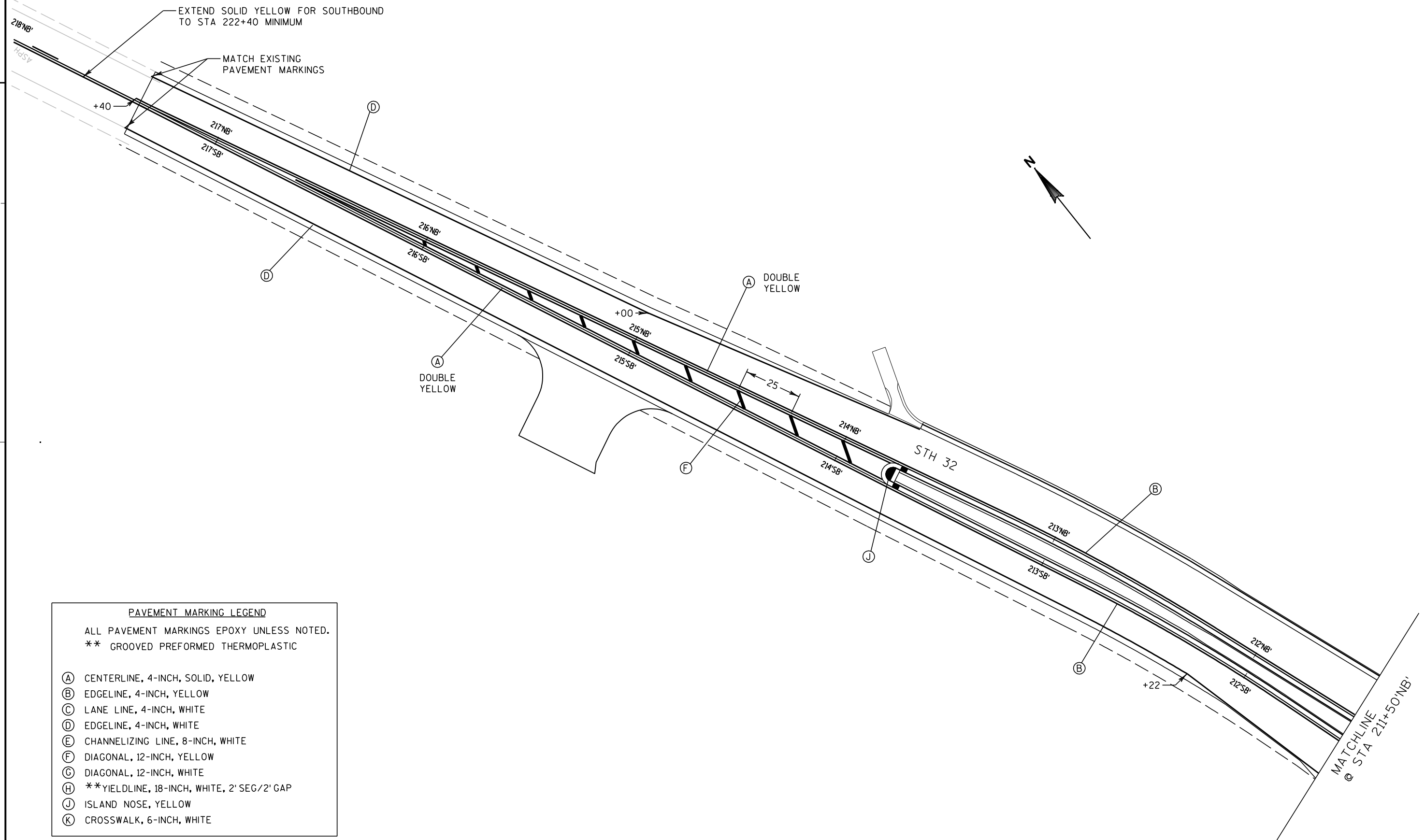
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS AND IN ACCORDANCE WITH A-449, OR ASTM. A-687 (GRADE 105).

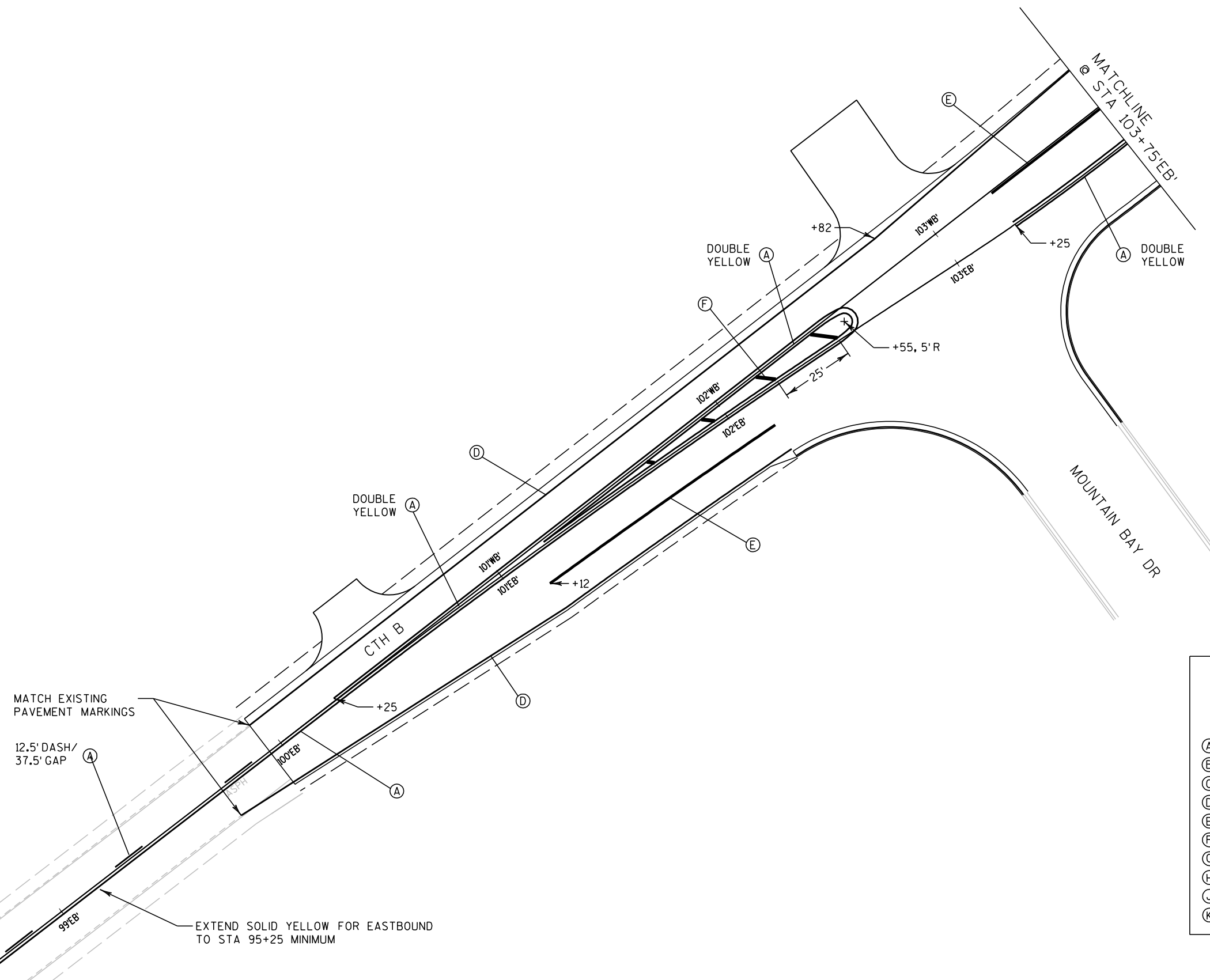


ALL PAVEMENT MARKINGS EPOXY UNLESS NOTED.
 ** GROOVED PREFORMED THERMOPLASTIC

- (A) CENTERLINE, 4-INCH, SOLID, YELLOW
- (B) EDGE LINE, 4-INCH, YELLOW
- (C) LANE LINE, 4-INCH, WHITE
- (D) EDGE LINE, 4-INCH, WHITE
- (E) CHANNELIZING LINE, 8-INCH, WHITE
- (F) DIAGONAL, 12-INCH, YELLOW
- (G) DIAGONAL, 12-INCH, WHITE
- (H) **YIELDLINE, 18-INCH, WHITE, 2' SEG/2' GAP
- (J) ISLAND NOSE, YELLOW
- (K) CROSSWALK, 6-INCH, WHITE





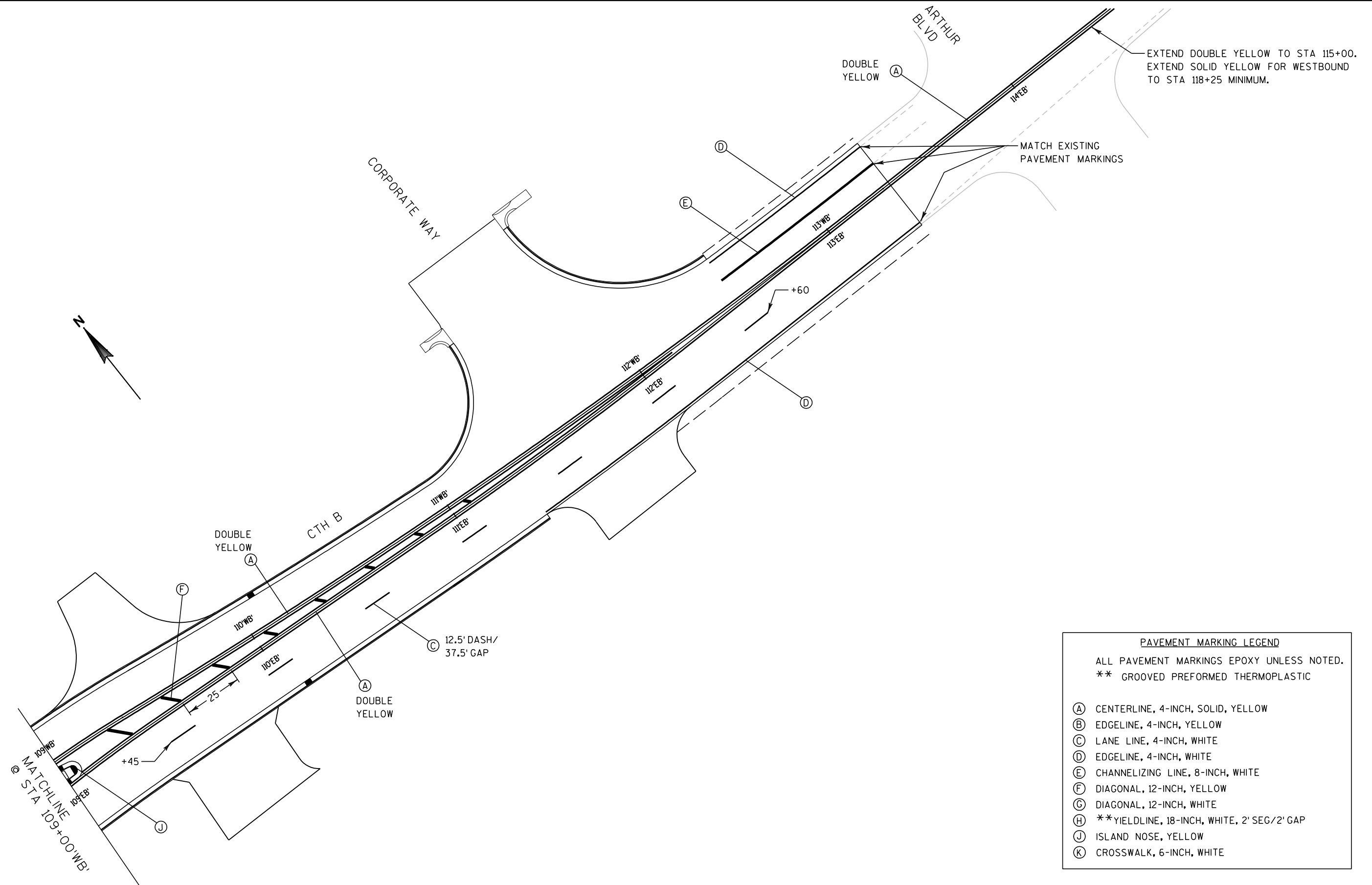


PAVEMENT MARKING LEGEND

ALL PAVEMENT MARKINGS EPOXY UNLESS NOTED.

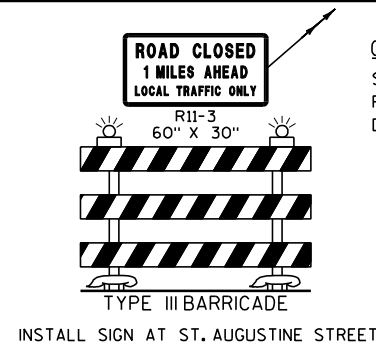
** GROOVED PREFORMED THERMOPLASTIC

- (A) CENTERLINE, 4-INCH, SOLID, YELLOW
- (B) EDGE LINE, 4-INCH, YELLOW
- (C) LANE LINE, 4-INCH, WHITE
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- (G) DIAGONAL, 12-INCH, WHITE
- (H) **YIELDLINE, 18-INCH, WHITE, 2' SEG/2' GAP
- (J) ISLAND NOSE, YELLOW
- (K) CROSSWALK, 6-INCH, WHITE



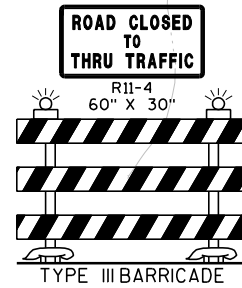
TRAFFIC CONTROL GENERAL NOTES:

- 1) ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS WILL BE DETERMINED BY FIELD CONDITIONS AND BY THE ENGINEER IN THE FIELD.
- 4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS SHALL BE INCIDENTAL TO TRAFFIC CONTROL PROJECT ITEM.
- 6) TEMPORARY PAVEMENT MARKINGS PLACED ON NEW PAVEMENTS OR PAVEMENT TO REMAIN IN PLACE SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKINGS ON PAVEMENTS TO BE REMOVED MAY BE PAINT.
- 7) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.



INSTALL SIGN AT ST. AUGUSTINE STREET

CTH B WEST APPROACH
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C, D, AND E



TYPE III BARRICADE

MAINTAIN ACCESS TO RESIDENTIAL DRIVEWAY.
SEE SPECIAL PROVISIONS.

CONSTRUCT PERMANENT DRIVEWAY
DURING STAGE 1

STH 32 NORTH APPROACH

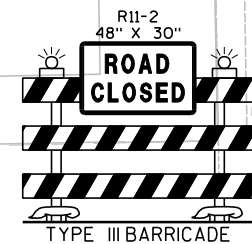
SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS, 45 MPH OR GREATER, TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

TEMPORARY ACCESS TO BE CONSTRUCTED PRIOR TO CLOSURE OF CTH B WEST APPROACH. EXACT LOCATION TO BE DETERMINED IN FIELD. SEE CONSTRUCTION DETAIL. SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" DURING CONSTRUCTION.

STH 32

STH 32 SOUTH APPROACH

SEE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS, 45 MPH OR GREATER, TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC"



TYPE III BARRICADE

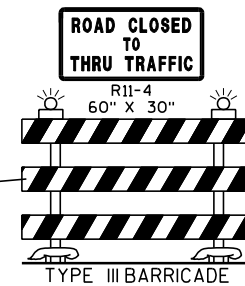


R3-2 24" X 24"

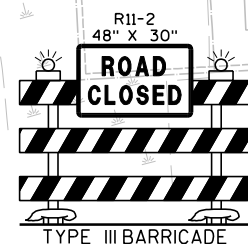


R3-1 24" X 24"

MAINTAIN ACCESS TO DRIVEWAYS
DURING STAGE 1 CONSTRUCTION



TYPE III BARRICADE



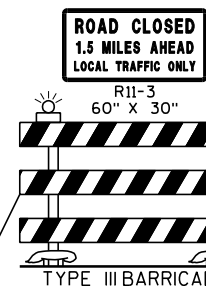
TYPE III BARRICADE

DRIVEWAY

ARTHUR BLVD.

CTH B EAST APPROACH

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C, D, AND E



TYPE III BARRICADE

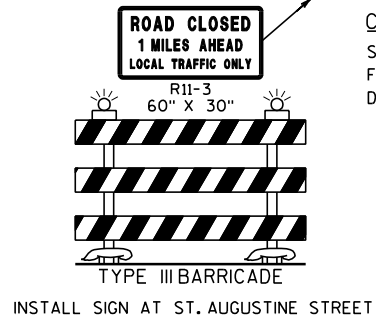
INSTALL SIGN AT BROOKSIDE DR

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- ▨ WORK AREA
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL GENERAL NOTES:

- 1) ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.
- 2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK ZONES" IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER. THE COST OF FLAGGING SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.
- 3) ALL SIGN, DRUM AND BARRICADE LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS WILL BE DETERMINED BY FIELD CONDITIONS AND BY THE ENGINEER IN THE FIELD.
- 4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 5) TRAFFIC CONTROL SIGNS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE OR AS DIRECTED BY THE ENGINEER. THE COST FOR COVERING SIGNS SHALL BE INCIDENTAL TO TRAFFIC CONTROL PROJECT ITEM.
- 6) TEMPORARY PAVEMENT MARKINGS PLACED ON NEW PAVEMENTS OR PAVEMENT TO REMAIN IN PLACE SHALL BE REMOVABLE TAPE. TEMPORARY PAVEMENT MARKINGS ON PAVEMENTS TO BE REMOVED MAY BE PAINT.
- 7) ALL TEMPORARY PAVEMENT MARKING FROM PREVIOUS STAGE(S) OR PHASE(S) IN CONFLICT WITH TEMPORARY PAVEMENT SHOWN IN THIS STAGE OR PHASE SHALL BE REMOVED.

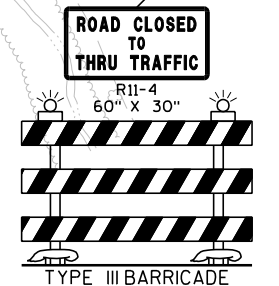
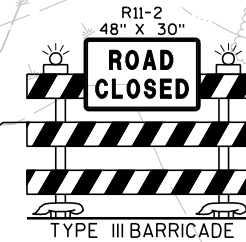


CTH B WEST APPROACH

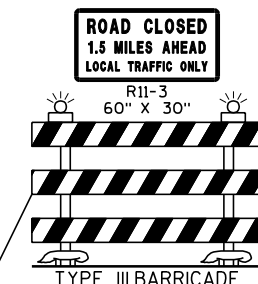
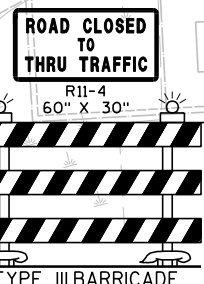
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C, D, AND E

STH 32 NORTH APPROACH

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL A, D, AND E



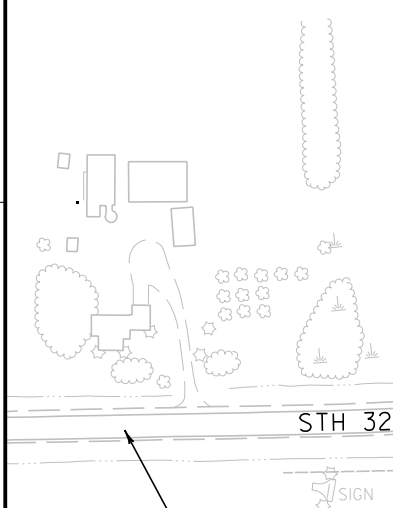
INSTALL SIGN AT GLENBROOK DRIVE



INSTALL SIGN AT BROOKSIDE DR

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- ▭ SIGN ON PERMANENT SUPPORT
- ▨ WORK AREA
- DIRECTION OF TRAFFIC



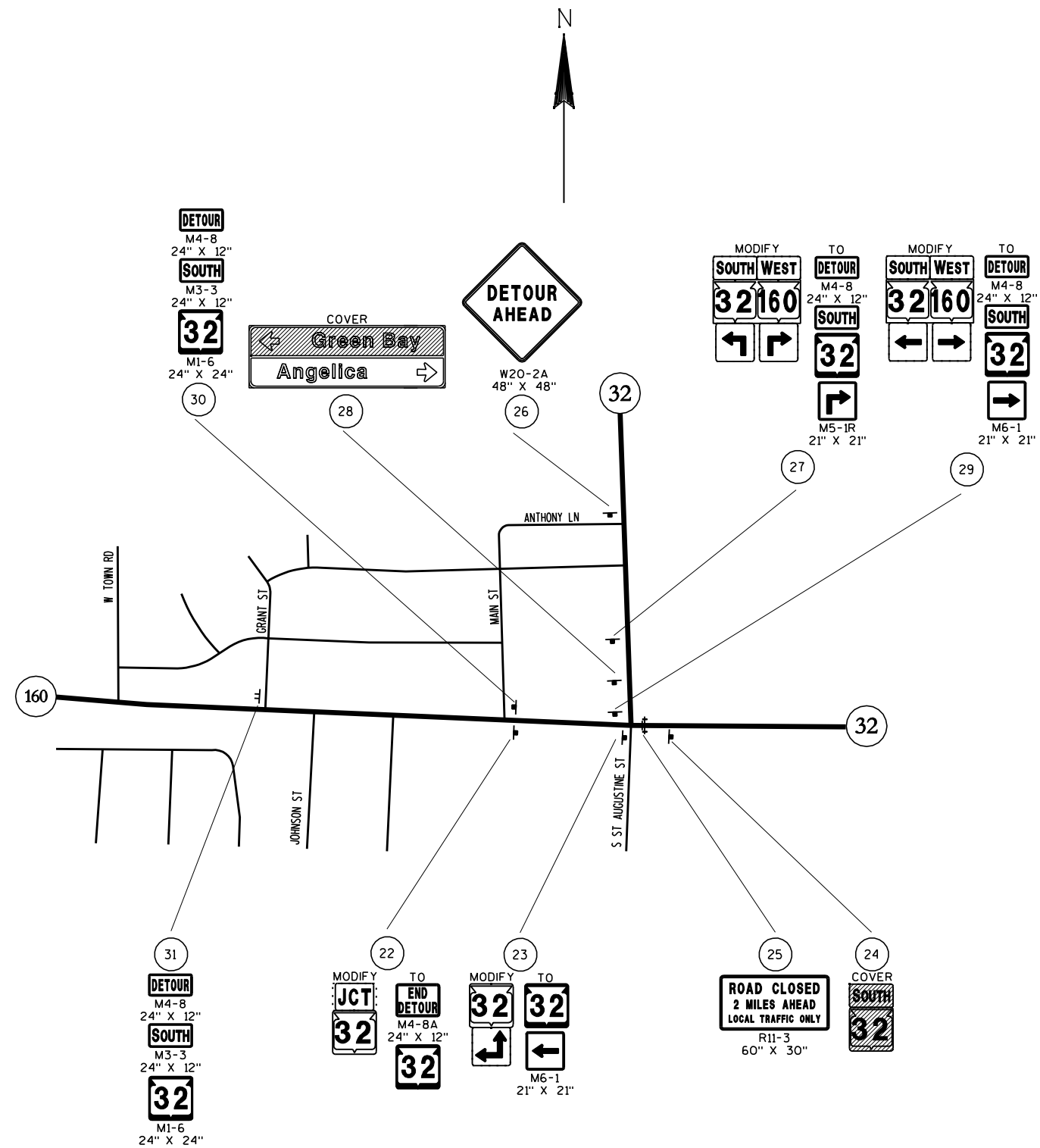
STH 32 SOUTH APPROACH

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL A, D, AND E

CTH B EAST APPROACH

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C, D, AND E

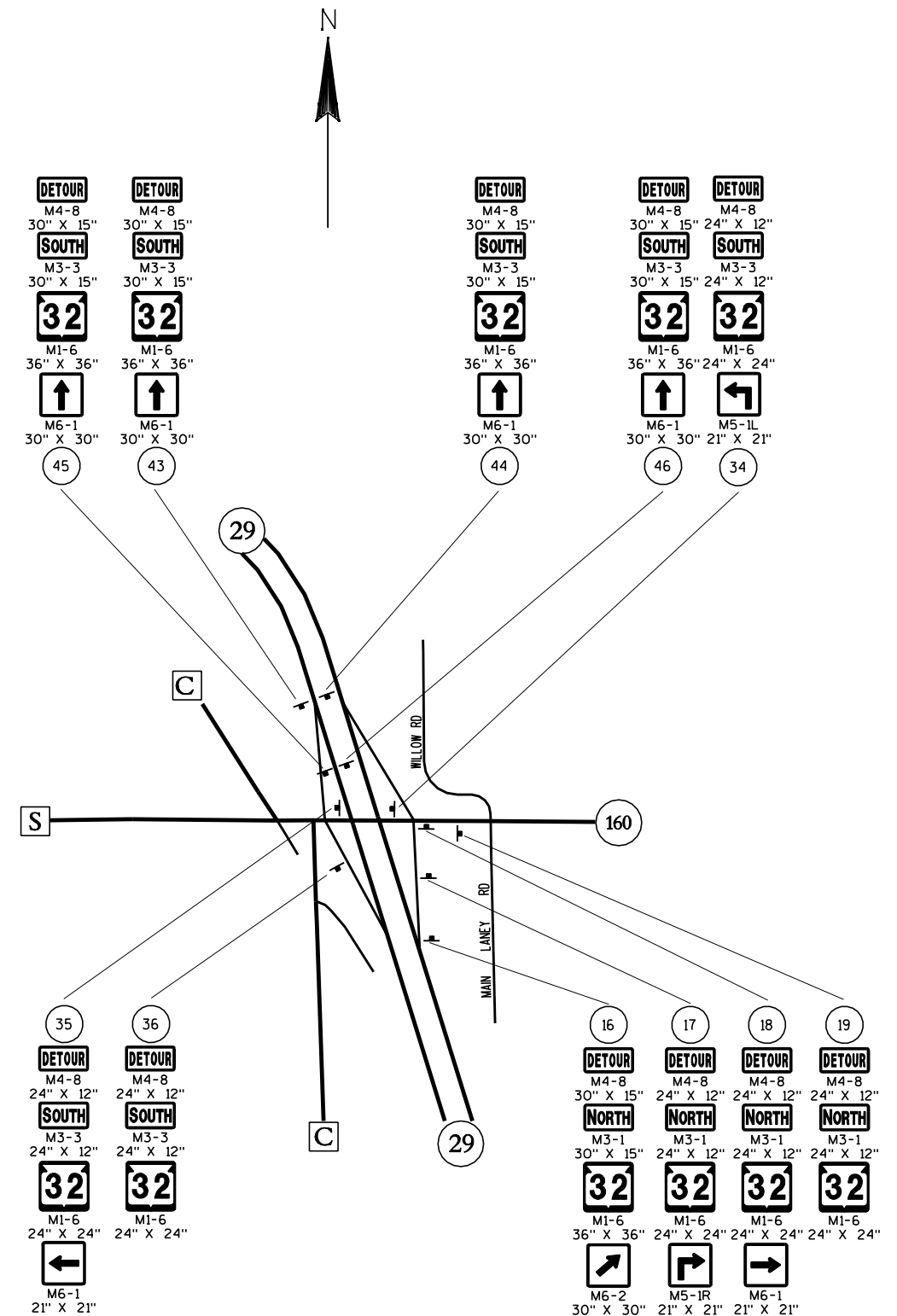




LEGEND

- | | |
|---|---|
|  | SIGN NUMBER. REFER TO
MISCELLANEOUS QUANTITY SHEET |
|  | SIGN MOUNTED ON TYPE III BARRICADE |
|  | SIGN MOUNTED ON TYPE II BARRICADE |
|  | POST MOUNTED SIGN |

DETAIL 1



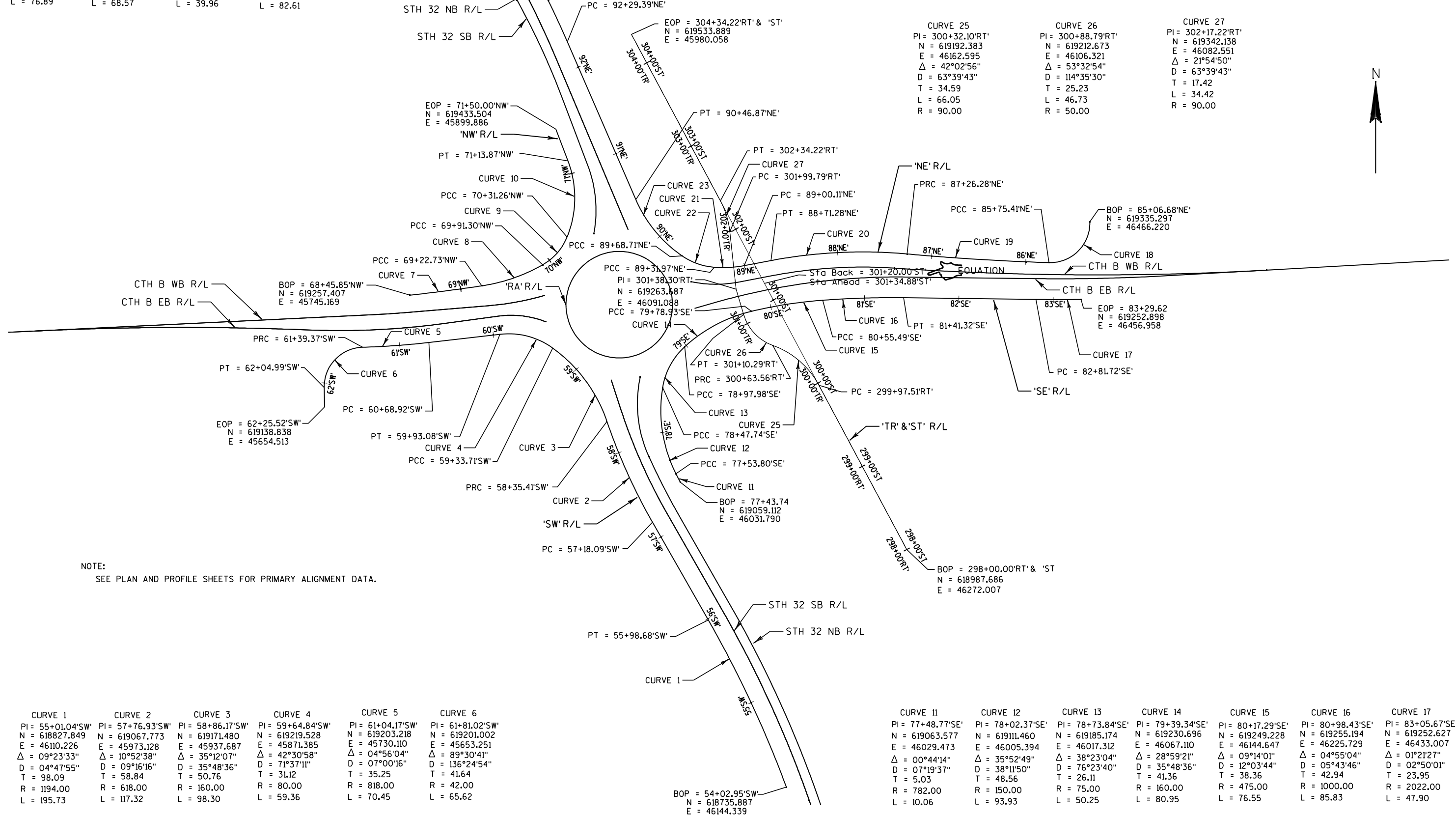
DETAIL 2

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

CURVE 7	CURVE 8	CURVE 9	CURVE 10
PI = 68+84.30'NW'	PI = 69+57.41'NW'	PI = 70+12.06'NW'	PI = 70+74.62'NW'
N = 619261.628	N = 619272.443	N = 619299.846	N = 619359.199
E = 45783.384	E = 45855.706	E = 45903.889	E = 45928.129
$\Delta = 02^{\circ}12'09''$	$\Delta = 21^{\circ}07'21''$	$\Delta = 38^{\circ}09'23''$	$\Delta = 43^{\circ}01'40''$
D = 02°51'53"	D = 30°48'15"	D = 95°29'35"	D = 52°05'13"
T = 38.45	T = 34.68	T = 20.75	T = 43.36
R = 2000.00	R = 186.00	R = 60.00	R = 110.00
L = 76.89	L = 68.57	L = 39.96	L = 82.61

STH 32 NB R/L
STH 32 SB R/L
EOP = 93+73.84'NE'
N = 619654.425
E = 45845.799
PT = 93+28.18'NE'
CURVE 24
PC = 92+29.39'NE'
EOP = 304+34.22'RT' & 'ST'
N = 619533.889
E = 45980.058
PT = 90+46.87'NE'
CURVE 23
PC = 89+00.11'NE'
PT = 88+71.28'NE'
CURVE 20
PC = 85+75.41'NE'
BOP = 85+06.68'NE'
N = 619335.297
E = 46466.220
CURVE 18
PI = 85+51.53'NE'
N = 619290.472
E = 46467.727
 $\Delta = 93^{\circ}45'33''$
D = 136°25'07"
T = 44.85
R = 42.00
L = 68.73
CURVE 19
PI = 86+50.87'NE'
N = 619294.322
E = 46347.482
 $\Delta = 03^{\circ}19'29''$
D = 02°12'13"
T = 75.46
R = 2600.00
L = 150.87
CURVE 20
PI = 87+99.25'NE'
N = 619307.668
E = 46199.660
 $\Delta = 15^{\circ}53'05''$
D = 10°57'19"
T = 72.97
R = 523.00
L = 145.00
CURVE 21
PI = 89+16.13'NE'
N = 619285.740
E = 46083.898
 $\Delta = 15^{\circ}12'43''$
D = 47°44'47"
T = 16.02
R = 120.00
L = 31.86
CURVE 22
PI = 89+50.77'NE'
N = 619288.464
E = 46049.177
 $\Delta = 30^{\circ}04'20''$
D = 81°51'04"
T = 18.80
R = 70.00
L = 36.74
CURVE 23
PI = 90+08.84'NE'
N = 619321.892
E = 46000.645
 $\Delta = 31^{\circ}59'11''$
D = 40°55'32"
T = 40.13
R = 140.00
L = 78.16
CURVE 24
PI = 92+78.83'NE'
N = 619571.495
E = 45892.343
 $\Delta = 05^{\circ}50'51''$
D = 05°55'08"
T = 49.44
R = 968.00
L = 98.79

CURVE 25	CURVE 26	CURVE 27
PI = 300+32.10'RT'	PI = 300+88.79'RT'	PI = 302+17.22'RT'
N = 619192.383	N = 61912.673	N = 619342.138
E = 46162.595	E = 46106.321	E = 46082.551
$\Delta = 42^{\circ}02'56''$	$\Delta = 53^{\circ}32'54''$	$\Delta = 21^{\circ}54'50''$
D = 63°39'43"	D = 114°35'30"	D = 63°39'43"
T = 34.59	T = 25.23	T = 17.42
L = 66.05	L = 46.73	L = 34.42
R = 90.00	R = 50.00	R = 90.00



NOTE:
SEE PLAN AND PROFILE SHEETS FOR PRIMARY ALIGNMENT DATA.

CURVE 1	CURVE 2	CURVE 3	CURVE 4	CURVE 5	CURVE 6
PI = 55+01.04'SW'	PI = 57+76.93'SW'	PI = 58+86.17'SW'	PI = 59+64.84'SW'	PI = 61+04.17'SW'	PI = 61+81.02'SW'
N = 618827.849	N = 619067.773	N = 619171.480	N = 619219.528	N = 619203.218	N = 619201.002
E = 46110.226	E = 45973.128	E = 45937.687	E = 45871.385	E = 45730.110	E = 45653.251
$\Delta = 09^{\circ}23'33''$	$\Delta = 10^{\circ}52'38''$	$\Delta = 35^{\circ}12'07''$	$\Delta = 42^{\circ}30'58''$	$\Delta = 04^{\circ}56'04''$	$\Delta = 89^{\circ}30'41''$
D = 04°47'55"	D = 09°16'16"	D = 35°48'36"	D = 71°37'11"	D = 07°00'16"	D = 136°24'54"
T = 98.09	T = 58.84	T = 50.76	T = 31.12	T = 35.25	T = 41.64
R = 1194.00	R = 618.00	R = 160.00	R = 80.00	R = 818.00	R = 42.00
L = 195.73	L = 117.32	L = 98.30	L = 59.36	L = 70.45	L = 65.62

CURVE 11	CURVE 12	CURVE 13	CURVE 14	CURVE 15	CURVE 16	CURVE 17
PI = 77+48.77'SE'	PI = 78+02.37'SE'	PI = 78+73.84'SE'	PI = 79+39.34'SE'	PI = 80+17.29'SE'	PI = 80+98.43'SE'	PI = 83+05.67'SE'
N = 619063.577	N = 619111.460	N = 619185.174	N = 619230.696	N = 619249.228	N = 619255.194	N = 619252.627
E = 46029.473	E = 46005.394	E = 46017.312	E = 46067.110	E = 46144.647	E = 46225.729	E = 46433.007
$\Delta = 00^{\circ}44'14''$	$\Delta = 35^{\circ}52'49''$	$\Delta = 38^{\circ}23'04''$	$\Delta = 28^{\circ}59'21''$	$\Delta = 09^{\circ}14'01''$	$\Delta = 04^{\circ}55'04''$	$\Delta = 01^{\circ}21'27''$
D = 07°19'37"	D = 38°11'50"	D = 76°23'40"	D = 35°48'36"	D = 12°03'44"	D = 05°43'46"	D = 02°50'01"
T = 5.03	T = 48.56	T = 26.11	T = 41.36	T = 38.36	T = 42.94	T = 23.95
R = 782.00	R = 150.00	R = 75.00	R = 160.00	R = 475.00	R = 1000.00	R = 2022.00
L = 10.06	L = 93.93	L = 50.25	L = 80.95	L = 76.55	L = 85.83	L = 47.90

DATE 21MAR11		E S T I M A T E O F Q U A N T I T I E S			
LINE		9190-21-71			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0120	CLEARING	ID	3.000	3.000
0020	201.0220	GRUBBING	ID	3.000	3.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	10.000	10.000
0040	204.0100	REMOVING PAVEMENT	SY	2,000.000	2,000.000
0050	204.0110	REMOVING ASPHALTIC SURFACE	SY	855.000	855.000
0060	204.0150	REMOVING CURB & GUTTER	LF	910.000	910.000
0070	204.0195	REMOVING CONCRETE BASES	EACH	9.000	9.000
0080	205.0100	EXCAVATION COMMON **P**	CY	10,400.000	10,400.000
0090	208.0100	BORROW	CY	2,700.000	2,700.000
0100	213.0100	FINISHING ROADWAY (PROJECT) 01. 9190-21-71	EACH	1.000	1.000
0110	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	830.000	830.000
0120	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	7,750.000	7,750.000
0130	311.0110	BREAKER RUN	TON	12,000.000	12,000.000
0140	455.0115	ASPHALTIC MATERIAL PG64-22	TON	245.000	245.000
0150	455.0120	ASPHALTIC MATERIAL PG64-28	TON	80.000	80.000
0160	455.0605	TACK COAT	GAL	560.000	560.000
0170	460.1110	HMA PAVEMENT TYPE E-10	TON	5,830.000	5,830.000
0180	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	3,735.000	3,735.000
0190	460.4100.S	REHEATING HMA LONGITUDINAL JOINTS	STA	17.000	17.000
0200	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	260.000	260.000
0210	465.0315	ASPHALTIC FLUMES	SY	90.000	90.000
0220	520.4018	CULVERT PIPE TEMPORARY 18-INCH	LF	98.000	98.000
0230	521.0112	CULVERT PIPE CORRUGATED STEEL 12-INCH	LF	48.000	48.000
0240	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	544.000	544.000
0250	521.1012	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	EACH	2.000	2.000
0260	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	12.000	12.000
0270	521.1518	APRON ENDWALLS FOR CULVERT PIPE SLOPED SECTION STEEL 18-INCH	EACH	2.000	2.000
0280	522.0324	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	LF	112.000	112.000
0290	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	7.000	7.000
0300	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	2.000	2.000
0310	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	2.000	2.000
0320	601.0105	CONCRETE CURB TYPE A	LF	240.000	240.000
0330	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	4,120.000	4,120.000
0340	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	920.000	920.000
0350	601.0580	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R	LF	340.000	340.000
0360	601.0600	CONCRETE CURB PEDESTRIAN	LF	120.000	120.000
0370	602.0405	CONCRETE SIDEWALK 4-INCH	SF	890.000	890.000
0380	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	180.000	180.000
0390	606.0100	RIPRAP LIGHT	CY	34.000	34.000
0400	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	412.000	412.000

DATE 21MAR11		E S T I M A T E O F Q U A N T I T I E S			
LINE					9190-21-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0410	610.0419	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	233.000	233.000
0420	611.0201	MANHOLES TYPE 1	EACH	1.000	1.000
0430	611.0303	INLETS TYPE 3	EACH	17.000	17.000
0440	611.0624	INLET COVERS TYPE H	EACH	3.000	3.000
0450	611.0627	INLET COVERS TYPE HM	EACH	5.000	5.000
0460	611.0639	INLET COVERS TYPE H-S	EACH	10.000	10.000
0470	611.0652	INLET COVERS TYPE T	EACH	1.000	1.000
0480	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9190-21-71	EACH	1.000	1.000
0490	619.1000	MOBILIZATION	SF	370.000	370.000
0500	620.0300	CONCRETE MEDIAN SLOPED NOSE			
0510	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	4.000	4.000
0520	624.0100	WATER	MGAL	50.000	50.000
0530	625.0105	TOPSOIL	CY	125.000	125.000
0540	625.0500	SALVAGED TOPSOIL	SY	22,400.000	22,400.000
0550	627.0200	MULCHING	SY	20,700.000	20,700.000
0560	628.1504	SILT FENCE	LF	290.000	290.000
0570	628.1520	SILT FENCE MAINTENANCE	LF	290.000	290.000
0580	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0590	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0600	628.2002	EROSION MAT CLASS I TYPE A	SY	1,780.000	1,780.000
0610	628.2004	EROSION MAT CLASS I TYPE B	SY	680.000	680.000
0620	628.7015	INLET PROTECTION TYPE C	EACH	8.000	8.000
0630	628.7020	INLET PROTECTION TYPE D	EACH	11.000	11.000
0640	628.7555	CULVERT PIPE CHECKS	EACH	60.000	60.000
0650	628.7570	ROCK BAGS	EACH	90.000	90.000
0660	629.0210	FERTILIZER TYPE B	CWT	14.000	14.000
0670	630.0130	SEEDING MIXTURE NO. 30	LB	405.000	405.000
0680	630.0140	SEEDING MIXTURE NO. 40	LB	55.000	55.000
0690	630.0200	SEEDING TEMPORARY	LB	298.000	298.000
0700	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. SERVICEBERRY AUTUMN BRILLIANCE, B & B, 7-FT	EACH	3.000	3.000
0710	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 02. SUMAC GRO-LOW FRAGRANT, B & B, 18-INCH	EACH	102.000	102.000
0720	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	9.000	9.000
0730	633.5200	MARKERS CULVERT END	EACH	11.000	11.000
0740	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	33.000	33.000
0750	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	8.000	8.000
0760	634.0622	POSTS WOOD 4X6-INCH X 22-FT	EACH	16.000	16.000
0770	637.0202	SIGNS REFLECTIVE TYPE II	SF	620.370	620.370
0780	638.2602	REMOVING SIGNS TYPE II	EACH	30.000	30.000
0790	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	21.000	21.000
0800	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
0810	643.0100	TRAFFIC CONTROL (PROJECT) 01. 9190-21-71	EACH	1.000	1.000
0820	643.0300	TRAFFIC CONTROL DRUMS	DAY	600.000	600.000
0830	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	2,220.000	2,220.000
0840	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	2,900.000	2,900.000
0850	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,900.000	1,900.000
0860	643.0905.S	TRAFFIC CONTROL COVERING SIGNS	EACH	6.000	6.000
0870	643.1050.S	TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE	DAY	35.000	35.000

DATE 21MAR11			E S T I M A T E O F Q U A N T I T I E S		
LINE					9190-21-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0880	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01.	EACH	1.000	1.000
		9190-21-71			
0890	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	9,000.000	9,000.000
0900	645.0130	GEOTEXTILE FABRIC TYPE R	SY	114.000	114.000
0910	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	12,620.000	12,620.000
0920	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	560.000	560.000
0930	646.0600	REMOVING PAVEMENT MARKINGS	LF	1,775.000	1,775.000
0940	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	4.000	4.000
0950	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	325.000	325.000
0960	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	70.000	70.000
0970	650.4000	CONSTRUCTION STAKING STORM SEWER SYSTEM	EACH	28.000	28.000
0980	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	3,070.000	3,070.000
0990	650.5000	CONSTRUCTION STAKING BASE	LF	3,070.000	3,070.000
1000	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	5,795.000	5,795.000
1010	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	10.000	10.000
1020	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 9190-21-71	LS	1.000	1.000
1030	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	3,070.000	3,070.000
1040	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	1,050.000	1,050.000
1050	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	630.000	630.000
1060	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	8.000	8.000
1070	653.0905	REMOVING PULL BOXES	EACH	13.000	13.000
1080	654.0105	CONCRETE BASES TYPE 5	EACH	13.000	13.000
1090	654.0220	CONCRETE CONTROL CABINET BASES TYPE 10	EACH	1.000	1.000
1100	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG **P**	LF	1,950.000	1,950.000
1110	655.0615	ELECTRICAL WIRE LIGHTING 10 AWG **P**	LF	8,010.000	8,010.000
1120	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. STH 32 AND CTH B INT	LS	1.000	1.000
1130	657.0255	TRANSFORMER BASES STANDARD 11 1/2-INCH BOLT CIRCLE	EACH	13.000	13.000
1140	657.0322	POLES TYPE 5-ALUMINUM	EACH	13.000	13.000
1150	657.0710	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT	EACH	13.000	13.000
1160	659.0115	LUMINAIRES UTILITY HPS 150 WATTS	EACH	13.000	13.000
1170	690.0150	SAWING ASPHALT	LF	845.000	845.000
1180	690.0250	SAWING CONCRETE	LF	28.000	28.000
1190	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	1,200.000	1,200.000
1200	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	1,200.000	1,200.000
1210	SPV.0060	SPECIAL 01. RECREATION TRAIL GATE BASE	EACH	6.000	6.000
1220	SPV.0060	SPECIAL 02. MANHOLE TYPE 1 SPECIAL	EACH	1.000	1.000
1230	SPV.0060	SPECIAL 03. PERENNIALS, DAYLILY, ED MURRAY, #1 CONTAINER	EACH	43.000	43.000
1240	SPV.0060	SPECIAL 04. PERENNIALS, DAYLILY, ICE CARNIVAL, #1 CONTAINER	EACH	45.000	45.000
1250	SPV.0060	SPECIAL 05. PERENNIALS, DAYLILY, RED VOLUNTEER, #1 CONTAINER	EACH	44.000	44.000
1260	SPV.0060	SPECIAL 07. SECTION SURVEY MONUMENTS RECONSTRUCTION PROJECT	EACH	1.000	1.000
1270	SPV.0085	SPECIAL 01. LOW MAINTENANCE SEED MIX	LB	3.000	3.000

DATE 21MAR11		E S T I M A T E O F Q U A N T I T I E S			
LINE					9190-21-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
1280	SPV.0090	SPECIAL 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE 18-INCH	LF	60.000	60.000
1290	SPV.0090	SPECIAL 02. SPECIAL DITCHING	LF	38.000	38.000
1300	SPV.0105	SPECIAL 01. SALVAGE TRAFFIC SIGNALS SPECIAL	LS	1.000	1.000
1310	SPV.0165	SPECIAL 01. CONCRETE SIDEWALK COLORED 4-INCH **P**	SF	7,310.000	7,310.000
1320	SPV.0180	SPECIAL 01. TRUCK APRON COLORED CONCRETE 12-INCH **P**	SY	495.000	495.000
1330	SPV.0180	SPECIAL 02. PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE CROSSING	SY	57.000	57.000
1340	SPV.0195	SPECIAL 01. LIMESTONE SCREENINGS 3/8-INCH	TON	125.000	125.000
1350	SPV.0195	SPECIAL 02. MULCH MERAMEC STONE	TON	54.000	54.000

CLEARING AND GRUBBING

STATION	DIR	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
CATEGORY 0010				
111+20	LT	CTH B	3	3
PROJECT TOTAL			3	3

REMOVING CONCRETE PAVEMENT

STATION TO STATION	LOCATION	204.0100 SY
CATEGORY 0010		
208+50 - 217+37	STH 32	2,000
PROJECT TOTAL		2,000

REMOVING SMALL PIPE CULVERTS

STATION	DIR	LOCATION	203.0100 REMOVING CULVERT EA	DESCRIPTION
CATEGORY 0010				
103+00	RT	CTH B	1	
108+18	LT/RT	CTH B	1	UNDER ROADWAY
109+50	LT	CTH B	1	
109+50	RT	CTH B	1	
111+75	LT	CTH B	1	
111+62	RT	CTH B	1	
202+70	LT	STH 32	1	
203+40	RT	STH 32	1	
212+00	LT	STH 32	1	
215+10	LT	STH 32	1	
PROJECT TOTAL			10	

REMOVING ASPHALTIC SURFACE

STATION TO STATION	DIR	LOCATION	204.0110 SY
CATEGORY 0010			
104+25 - 105+60	LT	DRIVEWAY	855
PROJECT TOTAL			855

REMOVING CURB AND GUTTER

STATION TO STATION	DIR	LOCATION	204.0150 REMOVING CURB AND GUTTER LF
CATEGORY 0010			
102+45 - 102+75	RT	CTH B	60
102+55 - 105+65	LT	CTH B	310
103+15 - 103+55	RT	CTH B	65
105+60 - 106+20	LT	NW CORNER - STH 32/CTH B	95
106+05 - 106+55	RT	SW CORNER - STH 32/CTH B	80
107+00 - 107+45	LT	NE CORNER - STH 32/CTH B	60
107+30 - 107+75	RT	SE CORNER - STH 32/CTH B	75
111+05 - 111+55	LT	CTH B	65
111+95 - 112+60	LT	CTH B	100

PROJECT TOTAL 910

EARTHWORK SUMMARY

LOCATION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)		SALVAGED\ UNUSABLE PAVEMENT MATERIAL (WITHIN CUT) (9)	SALVAGED\ UNUSABLE PAVEMENT MATERIAL NOT WITHIN CUT (9)	AVAILABLE MATERIAL (4)	EXPANDED EBS BACKFILL (5)	UNEXPANDED FILL	EXPANDED FILL (6)	MASS ORDINATE +/- (7)	208.0100 Borrow	REMARKS
		CUT (2)	EBS EXCAVATION (3)	WASTE	WASTE		FACTOR 1.25		FACTOR 1.25			
STH 32 SOUTH	200+30 - 208+25	4,470	0	604	52	3,867	0	912	1,139	2,727		
STH 32 NORTH	210+75 - 217+37	1,258	329	313	214	616	412	1,429	1,786	-1,581		NOTE 8
CTH B WEST	99+95 - 105+00	1,754	0	682	0	1,072	0	325	406	666		
CTH B EAST	107+50 - 113+33	2,356	0	784	67	1,572	0	997	1,247	326		
ROUNDBABOUT	50+00 - 53+55	211	0	0	613	211	0	4,036	5,045	-4,834		
PROJECT TOTALS		10,050	329	2,382	947	7,339	412	7,698	9,623	-2,696		
		TOTAL COMMON EXC	10,379									
		ROUNDED TOTAL	10,400								2,700	

NOTES:

- 1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS
- 2) SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT) IS INCLUDED IN THE CUT
- 3) EBS EXCAVATION IS TO BE BACKFILLED WITH BORROW OF SUITABLE NATURE FOR USE AS ROADWAY EMBANKMENT CONSTRUCTION.
EBS MATERIAL IS NOT TO BE USED IN FILL AND SHALL BE WASTED.
- 4) AVAILABLE MATERIAL = CUT - EBS - SALVAGED/UNUSABLE PAVEMENT MATERIAL WITHIN CUT
- 5) EBS BACKFILL FACTOR = 1.25
- 6) EXPANDED FILL FACTOR = 1.25; EXPANDED FILL = UNEXPANDED FILL * (FILL FACTOR)
- 7) A POSITIVE MASS ORDINATE QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. A NEGATIVE VALUE INDICATES A SHORTAGE OF MATERIAL.
- 8) REMOVAL OF EXISTING CONCRETE PAVEMENT IS COVERED BY THE VOLUME OF EBS
- 9) ASPHALT PAVEMENT MATERIAL SHALL NOT BE USED AS FILL MATERIAL. CONCRETE PAVEMENT USED AS FILL SHALL BE PLACED A MINIMUM OF 2 FEET BELOW SUBGRADE EXTENDED HORIZONTALLY.

ALL QUANTITIES ARE CATEGORY 0010

BASE AGGREGATE DENSE AND WATER

				305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	311.0110 BREAKER RUN	624.0100 WATER	SPV.0195.01 LIMESTONE SCREENINGS 3/8 - INCH
STATION	TO	STATION	LOCATION	TON	TON	TON	MGAL	TON
200+35	-	208+69	STH 32 SOUTH LEG	295	1610	2950	12	---
210+22	-	217+36	STH 32 NORTH LEG	255	1265	2300	9	---
100+00	-	105+50	CTH B WEST LEG	170	1395	2650	10	---
107+17	-	113+29	CTH B EAST LEG	80	1640	3150	11	---
---	-	---	ROUNDAABOUT	---	1,265	950	8	---
---	-	---	DRIVEWAYS	30	370	---	0	---
			MOUNTAIN BAY TRAIL	---	5	---	---	125
			UNDISTRIBUTED - MINIMAL COVER STORM SEWER	---	200	---	---	---
TOTALS				830	7,750	12,000	50	125

ASPHALTIC ITEMS

				455.0115 ASPHALTIC MATERIAL PG 64-22	455.0120 ASPHALTIC MATERIAL PG 64-28	460.1110 HMA PAVEMENT TYPE E-10	455.0605 TACK COAT	460.4100.S RE-HEATING LONGITUDINAL JOINTS	465.0120 ASPHALTIC SURFACE DRIVEWAYS
STATION	TO	STATION	LOCATION	TON	TON	TON	GAL	STA	TON
200+35	-	208+69	STH 32 SOUTH LEG	48	16	1,140	110	4	58
210+22	-	217+37	STH 32 NORTH LEG	34	11	800	80	4	43
100+00	-	105+50	CTH B WEST LEG	58	19	1,390	135	4	37
107+17	-	113+29	CTH B EAST LEG	74	24	1,750	165	5	116
---	-	---	ROUNDAABOUT	31	10	750	70	---	---
---	+	---	MOUNTAIN BAY TRAIL	---	---	---	---	---	6
TOTALS				245	80	5830	560	17	260

ASPHALTIC FLUMES

STATION	DIR	LOCATION	465.0315 ASPHALTIC FLUMES SY
CATEGORY 0010			
203+85	LT	STH 32	23
207+25	RT	STH 32	29
213+85	RT	STH 32	25
111+38	LT	CTH B	6
112+00	LT	CTH B	6

PROJECT TOTALS 90

CULVERTS

STA	OFFSET	LOCATION	520.4018 CULVERT PIPE TEMPORARY 18-INCH	521.0112 CULVERT PIPE CORRUGATED STEEL 12-INCH	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	STEEL THICKNESS (IN)	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SECTION STEEL 18-INCH	*633.5200 MARKER CULVERT END	650.6000 CONST. STAKING PIPE CULVERTS	INLET	DISCHARGE
			LF	LF	LF	LF		EACH	EACH	EACH	EACH	EACH	EACH	ELEV	ELEV
CATEGORY 0010															
103+00	LT	CTH B	---	48	---	---	0.064	2	---	---	---	---	1	---	---
103+00	RT	MOUNTAIN BAY RD	---	---	112	---	0.064	---	2	---	---	---	1	785.25	784.95
108+36	LT/RT	CTH B	---	---	---	112	---	---	---	2	---	2	1	782.70	782.39
109+50	LT	CTH B	---	---	56	---	0.064	---	2	---	---	---	1	---	---
109+62	RT	CTH B	---	---	62	---	0.064	---	2	---	---	---	1	---	---
111+67	LT	CORPORATE WAY	---	---	104	---	0.064	---	2	---	---	---	1	783.44	783.25
111+67	RT	CTH B	---	---	58	---	0.064	---	2	---	---	---	1	---	---
201+50	LT	STH 32	98	---	---	---	0.064	---	---	---	---	---	1	---	---
203+38	RT	STH 32	---	---	56	---	0.064	---	2	---	---	---	1	---	---
215+00	LT	STH 32	---	---	96	---	0.064	---	---	---	2	---	1	---	---

PROJECT TOTALS 98 48 544 112 2 12 2 2 2 2 10

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010

CURB AND GUTTER

STATION TO STATION	LOCATION	601.0105 CONCRETE CURB TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	601.0600 CONCRETE CURB PEDESTRIAN LF
CATEGORY 0010						
204+00 - 208+70	STH 32 - SOUTH LEG	---	1,132	460	---	27
210+25 - 213+75	STH 32 - NORTH LEG	---	767	460	---	34
102+10 - 105+45	CTH B - WEST LEG	---	845	---	---	20
107+25 - 112+50	CTH B - EAST LEG	---	1,370	---	---	39
--- - ---	ROUNDBOUT	240	---	---	340	---
PROJECT TOTALS		240	4,120	920	340	120

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STATION	LOCATION	602.0505 SF
CATEGORY 0010		
105+20	CTH B MEDIAN	36
107+70	CTH B MEDIAN & TRAIL CROSSING	72
208+40	STH 32 MEDIAN	36
210+55	STH 32 MEDIAN	36
PROJECT TOTAL		180

CONCRETE SIDEWALK 4-INCH

STATION TO STATION	LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF	SPV.0165.01 COLORED CONCRETE SIDEWALK 4-INCH SF
CATEGORY 0010			
105+14 - 105+24	CTH B MEDIAN	95	---
107+60 - 107+72	CTH B MEDIAN	120	---
107+60 - 107+72	CTH B TRAIL - LT	120	---
107+60 - 107+72	CTH B TRAIL - RT	120	---
107+90 - 108+05	CTH B MEDIAN	130	---
208+35 - 208+45	STH 32 MEDIAN	135	---
210+50 - 210+60	STH 32 MEDIAN	170	---
104+12 - 105+14	CTH B MEDIAN	---	740
105+24 - 105+44	CTH B MEDIAN	---	300
107+25 - 107+60	CTH B MEDIAN	---	550
107+72 - 107+90	CTH B MEDIAN	---	150
108+05 - 109+00	CTH B MEDIAN	---	740
204+07 - 208+35	STH 32 MEDIAN	---	2,110
208+45 - 208+65	STH 32 MEDIAN	---	390
210+25 - 210+50	STH 32 MEDIAN	---	495
210+60 - 213+73	STH 32 MEDIAN	---	1,835
PROJECT TOTALS		890	7,310

CONCRETE SLOPED NOSE

STATION	LOCATION	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	COMMENTS
CATEGORY 0010			
104+08	CTH B MEDIAN	40	TYPE 1
105+45	CTH B MEDIAN - LT	27	TYPE 2
105+45	CTH B MEDIAN - RT	16	TYPE 2
107+20	CTH B MEDIAN - LT	12	TYPE 2
107+25	CTH B MEDIAN - RT	27	TYPE 2
109+03	CTH B MEDIAN	50	TYPE 1
204+02	STH 32 MEDIAN	58	TYPE 1
208+65	STH 32 MEDIAN - LT	28	TYPE 2
208+65	STH 32 MEDIAN - RT	12	TYPE 2
211+25	STH 32 MEDIAN - RT	30	TYPE 2
211+30	STH 32 MEDIAN - LT	12	TYPE 2
213+78	STH 32 MEDIAN	58	TYPE 1
PROJECT TOTAL		370	

ALL QUANTITIES ARE CATEGORY 0010

STORM SEWER PIPE							
LOCATION		608.0412 SSPRC CLASS IV 12-INCH	610.0419 SSPRC HE CLASS IV 19X30-INCH	JOINT TIES (NOTE A) EACH	INLET ELEV	DIS- CHARGE ELEV	REMARKS
FROM	TO	LF	LF				
CATEGORY 0010							
22.0	23.0	26	---	---	784.76	784.68	NOTE D
23.0	24.0	11	---	---	784.68	784.65	
24.0	25.0	22	---	---	784.65	784.58	
26.0	25.0	---	24	6	784.45	784.36	NOTE B,C
25.0	27.0	---	103	---	784.36	784.11	NOTE D
27.0	28.0	---	106	6	784.11	783.89	NOTE B,C,D
29.0	30.0	8	---	---	784.52	784.50	
30.0	31.0	35	---	6	784.50	784.38	NOTE B,C
32.0	33.0	23	---	---	785.04	784.97	NOTE D
33.0	34.0	11	---	---	784.97	784.94	
34.0	35.0	22	---	---	784.94	784.87	NOTE D
35.0	36.0	18	---	6	784.87	784.80	NOTE B,C
37.0	38.0	43	---	6	783.19	783.04	NOTE B,C
39.0	40.0	40	---	6	782.55	782.41	NOTE B,C
41.0	42.0	8	---	6	781.90	781.86	
42.0	43.0	41	---	6	781.86	781.63	NOTE B,C
44.0	45.0	7	---	6	783.33	783.31	
45.0	46.0	39	---	---	783.31	783.17	NOTE B,C
47.0	48.0	42	---	---	783.28	783.15	NOTE D
48.0	49.0	16	---	---	783.15	783.09	NOTE B,C
PROJECT TOTALS		412	233	54			

NOTE A: NOT A BID ITEM. SEE THE STANDARD DETAIL DRAWING OF JOINT TIES FOR CONCRETE PIPE
NOTE B: PIPE LENGTH IS MEASURED FROM THE CENTER OF STRUCTURE TO THE BEGINNING OF ENDWALL.
NOTE C: INLET / DISCHARGE ELEVATION IS THE ELEVATION OF THE END OF ENDWALL.
NOTE D: USE CONSTRUCTION DETAIL STORM SEWER WITH MINIMAL COVER

ALL QUANTITIES ARE CATEGORY 0010

MANHOLES, INLETS, AND COVERS																		
						522.1012	523.0519	611.0201	SPV.0060.02	611.0303	611.0624	611.0615	611.0639	611.0652			*633.5200	
	LOCATION						ENDWALL	ENDWALL	MANHOLE	MANHOLE	INLET	INLET	INLET	INLET		STRUCTURE	MARKER	
STRUCTURE		OFFSET				12-INCH	19 X 30 HE	TYPE 1	TYPE 1	TYPE 3	COVERS	COVERS	COVERS	COVERS		DEPTH	CULVERT	
NUMBER	STATION	RL	DIST.	DIR.	STRUCTURE	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	ELEVATION	(FT)	END	REMARKS
22	105 + 05.7	WB	25.3	LT	INLET	---	---	---	---	1	---	---	1	---	784.76	1.81	---	
23	105 + 05.7	WB	1.5	RT	INLET	---	---	---	---	1	---	---	1	---	784.68	2.37	---	
24	105 + 02.	EB	1.5	LT	INLET	---	---	---	---	1	---	---	1	---	784.65	2.29	---	
25	105 + 02.	EB	20.9	RT	MANHOLE	---	---	1	---	---	---	---	1	---	784.36	2.19	---	NOTE A
26	105 + 00.	EB	49.8	RT	ENDWALL	---	1	---	---	---	---	---	---	---	784.45	---	1	NOET D
27	50 + 74.5	RA	1.5	LT	MANHOLE	---	---	---	1	---	---	---	---	1	784.11	2.49	---	NOTE B,C
28	208 + 50.	SB	60.0	RT	ENDWALL	---	1	---	---	---	---	---	---	---	783.89	---	1	NOTE D
29	213 + 71.5	SB	1.5	RT	INLET	---	---	---	---	1	---	1	---	---	784.52	2.39	---	
30	213 + 71.5	NB	1.5	LT	INLET	---	---	---	---	1	---	1	---	---	784.50	2.41	---	
31	213 + 71.5	NB	40.0	RT	ENDWALL	1	---	---	---	---	---	---	---	---	784.38	---	1	NOTE D
32	211 + 00.	SB	20.3	LT	INLET	---	---	---	---	1	---	---	1	---	785.04	1.66	---	
33	211 + 08.	SB	1.5	RT	INLET	---	---	---	---	1	---	---	1	---	784.97	2.10	---	
34	211 + 04.	NB	1.5	LT	INLET	---	---	---	---	1	---	---	1	---	784.94	2.13	---	
35	211 + 04.	NB	20.8	RT	INLET	---	---	---	---	1	---	---	1	---	784.87	1.81	---	
36	211 + 04.	NB	41.6	RT	ENDWALL	1	---	---	---	---	---	---	---	---	784.80	---	1	NOTE D
37	206 + 25.	SB	1.5	RT	INLET	---	---	---	---	1	1	---	---	---	783.19	2.30	---	
38	206 + 27.7	NB	40.1	RT	ENDWALL	1	---	---	---	---	---	---	---	---	783.04	---	1	NOTE D
39	205 + 25.	NB	1.5	LT	INLET	---	---	---	---	1	---	1	---	---	782.55	2.65	---	
40	205 + 25.	NB	45.0	RT	ENDWALL	1	---	---	---	---	---	---	---	---	782.41	---	1	NOTE D
41	204 + 09.	SB	1.5	RT	INLET	---	---	---	---	1	---	1	---	---	781.90	2.40	---	
42	204 + 08.	NB	1.5	LT	INLET	---	---	---	---	1	---	1	---	---	781.86	2.74	---	
43	204 + 08.	NB	45.8	RT	ENDWALL	1	---	---	---	---	---	---	---	---	781.63	---	1	NOTE D
44	109 + 00.	WB	4.1	RT	INLET	---	---	---	---	1	1	---	---	---	783.33	2.52	---	
45	108 + 99.8	EB	1.5	LT	INLET	---	---	---	---	1	1	---	---	---	783.31	2.59	---	
46	108 + 95.3	EB	43.6	RT	ENDWALL	1	---	---	---	---	---	---	---	---	783.17	---	1	NOTE D
47	110 + 09.	WB	15.8	LT	INLET	---	---	---	---	1	---	---	1	---	783.28	1.52	---	
48	110 + 08.	EB	23.5	RT	INLET	---	---	---	---	1	---	---	1	---	783.15	1.67	---	
49	110 + 08.	EB	43.3	RT	ENDWALL	1	---	---	---	---	---	---	---	---	783.09	---	1	NOTE D

TOTALS 47 7 2 1 1 17 3 5 10 1 9

NOTE A: CONCRETE FLAT SLAB TOP WITH 2' X 3' INLET SIZE OPENING REQUIRED
NOTE B: CONCRETE FLAT SLAB TOP WITH 2' X 2.5' INLET SIZE OPENING REQUIRED
NOTE C: REQUIRES RUBBER ADJUSTMENT RINGS
NOTE D: OFFSET IS TO THE END OF ENDWALL.
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL QUANTITIES ARE CATEGORY 0010

EROSION CONTROL

STATION	TO	STATION	LOCATION	625.0105 TOPSOIL CY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 E-MAT CLASS 1 TYPE A SY	628.2004 E-MAT CLASS 1 TYPE B SY	628.7555 CULVERT PIPE CHECK EACH	628.7570 ROCK BAGS EACH	629.0210 FERTILIZER TYPE B CTW	630.0130 SEED MIX #30 LBS	630.0140 SEED MIX #40 LBS	630.0200 TEMP. SEEDING LBS	SPV.0085.01 LOW MAINTENANCE SEED LBS
CATEGORY 0010																	
99+95	-	105+50	CTH B 'EB'	---	1450	1250	---	---	210	10	10	---	0.91	26.1	---	19.6	---
107+27	-	113+33	CTH B 'EB'	---	1470	1270	140	140	210	30	10	---	0.92	26.3	13.0	19.7	1.6
99+95	-	105+48	CTH B 'WB'	---	1900	1840	---	---	60	10	5	---	1.20	34.2	17.0	25.6	---
107+19	-	113+33	CTH B 'WB'	---	1830	1580	100	100	260	40	15	---	1.15	32.8	16.0	24.6	1
200+30	-	208+69	STH 32 'NB'	---	5460	5380	---	---	90	110	5	20	3.44	98.2	---	73.7	---
210+22	-	217+37	STH 32 'NB'	---	2210	1990	---	---	230	100	---	20	1.39	39.7	---	29.8	---
200+30	-	208+73	STH 32 'SB'	---	1790	1500	---	---	300	150	5	20	1.13	32.2	---	24.1	---
210+28	-	217+37	STH 32 'SB'	---	1780	1710	---	---	70	100	5	20	1.12	32.9	---	23.9	---
50+00	-	53+55.5	ROUNDAABOUT	125													
			UNDISTRIBUTED	---	4510	4180	50	50	350	130	5	10	2.74	82.6	9.0	57.0	0.4
TOTALS				125	22400	20700	290	290	1780	680	60	90	14.00	405.0	55.0	298.0	3.0

INLET PROTECTION

STATION	OFFSET	DIR	LOCATION	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
CATEGORY 0010					
105+02	1'	LT	CTH B 'EB'	---	1
105+02	20.5'	RT	CTH B 'EB'	---	1
109+00	1'	LT	CTH B 'EB'	1	---
110+08	23'	RT	CTH B 'EB'	---	1
105+06	1'	RT	CTH B 'WB'	---	1
105+06	25'	LT	CTH B 'WB'	---	1
109+00	3.7'	RT	CTH B 'WB'	1	---
110+08	15'	LT	CTH B 'WB'	---	1
204+09	1'	LT	STH 32 'NB'	1	---
205+25	1'	LT	STH 32 'NB'	1	---
211+04	1'	LT	STH 32 'NB'	---	1
211+04	20'	RT	STH 32 'NB'	---	1
213+71	1'	LT	STH 32 'NB'	1	---
204+08	1'	RT	STH 32 'SB'	1	---
206+25	1'	RT	STH 32 'SB'	1	---
211+00	20'	LT	STH 32 'SB'	---	1
211+08	1'	LT	STH 32 'SB'	---	1
213+71	1'	RT	STH 32 'SB'	1	---
50+63	1.5'	RT	'RA'	---	1
TOTALS				8	11

RIPRAP AND GEOTEXTILE FABRIC TYPE R

STR NUM STATION OFFSET LOCATION						606.0100 RIPRAP LIGHT CY	645.0130 GEOTEXTILE FABRIC TYPE R SY
CATEGORY 0010							
26.0	105+00	EB	46.8	RT	ENDWALL	3.0	11
28.0	208+50	SE	57.0	RT	ENDWALL	3.0	10
31.0	213+72	NB	37.0	RT	ENDWALL	3.0	10
36.0	211+15	NB	38.6	RT	ENDWALL	3.0	10
38.0	206+27	NB	37.1	RT	ENDWALL	3.0	10
40.0	205+25	EB	42.0	RT	ENDWALL	3.0	10
43.0	204+08	NB	42.8	RT	ENDWALL	3.0	10
46.0	108+95	EB	40.6	RT	ENDWALL	10.0	33
49.0	110+08	EB	40.3	RRT	ENDWALL	3.0	10
PROJECT TOTALS						34.0	114

ALL QUANTITIES ARE CATEGORY 0010

3

3

PLANTS – LARGE DECIDUOUS SHRUBS

CATEGORY	LOCATION	632.0201.01
		SERVICEBERRY, AUTUMN BRILLIANCE EACH
0010	RAB CENTRAL ISLAND	3
TOTAL 0010		3

PLANTS – MEDIUM & SMALL DECIDUOUS SHRUBS

CATEGORY	LOCATION	632.0201.02
		SUMAC, GRO–LOW, FRAGRANT EACH
0010	RAB CENTRAL ISLAND	102
TOTAL 0010		102

PLANTS – PERENNIALS

CATEGORY	LOCATION	SPV.0060.03	SPV.0060.04	SPV.0060.05
		DAYLILY, ED MURRAY EACH	DAYLILY, ICE CARNIVAL EACH	DAYLILY, RED VOLUNTEER EACH
0010	RAB CENTRAL ISLAND	43	45	44
TOTAL 0010		43	45	44

LANDSCAPE PLANTING SURVEILLANCE AND CARE

CATEGORY	LOCATION	632.9101
		EACH
0010	RAB CENTRAL ISLAND	9
TOTAL 0010		9

MULCH, MERAMEC STONE

CATEGORY	LOCATION	SPV.0195.02
		TONS
0010	RAB CENTRAL ISLAND	54
TOTAL 0010		54

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0624 POSTS WOOD 4x6x24 EACH	REMARKS
1	STH 32, S. OF CTH B	I55-56	30" X 36"	7.50	1			SEE PLAN SHEET
1A	"	D2-2	78" X 24"	13.00	1	1		SEE SIGN DETAIL
1B	"	J1-1	24" X 39"	6.50	1			CTH B, SEE PLAN SHEET
2	"	R2-1	24" X 30"	5.00	1			55 MPH
3	"	W2-6	30" X 30"	6.25		1		
3A	"	W2-6P	30" X 16"	3.33				MOUNT BELOW SIGN #3
3B	"	W13-1	18" X 18"	2.25				15 MPH, MOUNT BELOW SIGN #3A
4	"	J4-1	24" X 36"	6.00	1			STH 32, SEE PLAN SHEET
5	"	W3-2	36" X 36"	9.00	1			
6	STH 32 SPLITTER ISLAND, S. OF CTH B	R4-7	24" X 30"	5.00	1			
7	STH 32, S. OF CTH B	D1-62	120" X 84"	70.00			4	SEE SIGN DETAIL
7A	STH 32 SPLITTER ISLAND AT ROUNDABOUT	D1-1	42" X 30"	8.75	1			"
8	"	R1-2	36" X 31"	3.88		1		
8A	"	R6-2R	24" X 30"	5.00				MOUNT BELOW SIGN #8
9	STH 32 AT ROUNDABOUT	R1-2	36" X 31"	3.88	1			
9A	"	R1-54	24" X 15"	2.50				MOUNT BELOW SIGN #9
10	IN ROUNDABOUT CIRCLE	R6-1R	36" X 12"	3.00	1			
10A	"	R6-4B	48" X 18"	6.00				MOUNT BELOW SIGN #10
11	"	R6-1R	36" X 12"	3.00	1			
11A	"	R6-4B	48" X 18"	6.00				MOUNT BELOW SIGN #11
12	STH 32 AT ROUNDABOUT	R1-2	36" X 31"	3.88	1			
12A	"	R1-54	24" X 15"	2.50				MOUNT BELOW SIGN #12
13	STH 32 SPLITTER ISLAND, N. OF CTH B	R1-2	36" X 31"	3.88		1		
13A	"	R6-2R	24" X 30"	5.00				MOUNT BELOW SIGN #13
14	"	D1-1	42" X 30"	8.75	1			SEE SIGN DETAIL
14A	"	R4-7	24" X 30"	5.00	1			
15	STH 32 N. OF CTH B	D1-62	120" X 84"	70.00			4	SEE SIGN DETAIL
16	"	J4-1	24" X 36"	6.00	1			STH 32, SEE PLAN SHEET
17	"	W3-2	36" X 36"	9.00	1			
18	"	R2-1	24" X 30"	5.00	1			45 MPH
19	"	W2-6	30" X 30"	6.25		1		
19A	"	W2-6P	30" X 16"	3.33				MOUNT BELOW SIGN #19
19B	"	W13-1	18" X 18"	2.25				15 MPH, MOUNT BELOW SIGN #19A
20	"	J1-1	24" X 39"	6.50	1			CTH B, SEE PLAN SHEET
20A	"	I55-56	30" X 36"	7.50	1			SEE PLAN SHEET
21	CTH B E. OF STH 32	J1-1	24" X 39"	6.50	1			STH 32, SEE PLAN SHEET
				306.69	18	4	8	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ALL QUANTITIES ARE CATEGORY 0010

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0622 POSTS WOOD 4x6x22 EACH	REMARKS
22	CTH B, E. OF STH 32	W2-6	30" X 30"	6.25		1		
22A	"	W2-6P	30" X 16"	3.33				MOUNT BELOW SIGN #22
22B	"	W13-1	18" X 18"	2.25				15 MPH, MOUNT BELOW SIGN #22A
23	"	J4-1	24" X 36"	6.00	1			CTH B, SEE PLAN SHEET
24	"	W3-2	36" X 36"	9.00	1			
25	"	D1-62	144" X 72"	72.00			4	SEE SIGN DETAIL
26	CTH B SPLITTER ISLAND, E. OF STH 32	R4-7	24" X 30"	5.00				
26A	CTH B SPLITTER ISLAND AT ROUNDABOUT	D1-1	36" X 18"	4.50	1			SEE SIGN DETAIL
27	"	R1-2	36" X 31"	3.88		1		
27A	"	R6-2R	24" X 30"	5.00				MOUNT BELOW SIGN #27
28	CTH B AT ROUNDABOUT	R1-2	36" X 31"	3.88				
28A	"	R1-54	24" X 15"	2.50	1			MOUNT BELOW SIGN #28
29	IN ROUNDABOUT CIRCLE	R6-1R	36" X 12"	3.00	1			
29A	"	R6-4B	48" X 18"	6.00				MOUNT BELOW SIGN #29
30	"	R6-1R	36" X 12"	3.00	1			
30A	"	R6-4B	48" X 18"	6.00				MOUNT BELOW SIGN #30
31	CTH B AT ROUNDABOUT	R1-2	36" X 31"	3.88	1			
31A	"	R1-54	24" X 15"	2.50				MOUNT BELOW SIGN #31
32	CTH B SPLITTER ISLAND AT ROUNDABOUT	R1-2	36" X 31"	3.88		1		
32A	"	R6-2R	24" X 30"	5.00				MOUNT BELOW SIGN #32
33	"	D1-1	36" X 18"	4.50	1			SEE SIGN DETAIL
33A	CTH B SPLITTER ISLAND, W. OF STH 32	R4-7	24" X 30"	5.00	1			
34	CTH B, W. OF STH 32	D1-62	144" X 72"	72.00			4	SEE SIGN DETAIL
35	"	J4-1	24" X 36"	6.00				CTH B, SEE PLAN SHEET
36	"	W3-2	36" X 36"	9.00	1			
37	"	W2-6	30" X 30"	6.25		1		
37A	"	W2-6P	30" X 16"	3.33				MOUNT BELOW SIGN #37
37B	"	W13-1	18" X 18"	2.25				15 MPH, MOUNT BELOW SIGN #37A
38	"	J1-1	24" X 39"	6.50	1			STH 32, SEE PLAN SHEET
39	STH 32	W14-3	48" X 36"	12.00	1			
40	STH 32	W14-3	48" X 36"	12.00	1			
41	CORPORATE WAY	R1-1	36" X 36"	9.00	1			
42	MOUNTAIN BAY DRIVE	R1-1	36" X 36"	9.00	1			
TOTALS				620.37	33	8	16	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ALL QUANTITIES ARE CATEGORY 0010

REMOVING, TYPE II SIGNS AND
REMOVING SMALL SIGN SUPPORTS

SIGN	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
100	STH 32 S. OF CTH B	R2-1	1	1	
101	"	R2-1	1	1	
102	"	D1-2	1	2	
103	"	J1-1	2	1	
104	"	W3-3	1	1	
105	"	W3-3	1	1	
106	"	I55-56	1	1	
107	"	D1-2	1	1	
108	"	J4-1	2	1	
109	"	J13-1	2	1	
110	CTH B AT STH 32	J13-2	3	1	
111	"	R1-1F	1		REMOVE FROM TRAFFIC SIGNAL
112	"	R1-1F	1		REMOVE FROM TRAFFIC SIGNAL
113	STH 32 N. OF CTH B	J13-2	3	1	
114	"	J13-1	2	1	
115	"	I55-56	1	1	
116	"	D1-2	1	2	
117	"	W3-3	1	1	
118	"	J1-1	2	1	
119	MOUNTAIN BAY DRIVE	R1-1	1	1	
120	CORPORATE WAY	R1-1	1	1	

3021

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ALL QUANTITIES ARE CATEGORY 0010

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 60 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III *** DAYS	643.0905.S COVERING SIGNS EACH	REMARKS
1A	500' E OF SIGN # 2	M1-6	36"x36"	1	60	60			32
	"	W20-2-A	48"x48"	1	60	60			
1B	ACROSS FROM SIGN # 1 (MEDIAN SIDE)	M1-6	36"x36"	1	60	60			32
	"	W20-2-A	48"x48"	1	60	60			
2	TYPE 1 (32-Y, PULASKI - GILLETT, 1 MILE)							1	32, PULASKI - GILLETT
3	1000' E OF SIGN # 5	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
4	ACROSS FROM SIGN # 3 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
5	TYPE 1 (32-Y, PULASKI - GILLETT, TILT RT)							1	32, PULASKI - GILLETT
6	250' W OF EXIT 249 SIGN	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
7	ACROSS FROM SIGN # 6 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
8	LT OF SHAWANO COUNTY SIGN	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
9	ACROSS FROM SIGN # 8 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
10	200' W OF HOFA PARK RD INTERSECTION	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
11	ACROSS FROM SIGN # 10 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
12	250' W OF REDWOOD DR. INTERSECTION	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
13	ACROSS FROM SIGN # 12 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
14	LT OF TYPE 1 (NORTH-55-AHEAD)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M5-2-R	30"x30"	1	60	60			

*** - QUANTITIES SHOWN ELSEWHERE IN THE PLANS

ALL QUANTITIES ARE CATEGORY 0010

SHEET 1 OF 4
DESIGNED BY NE REGION

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 60 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III *** DAYS	643.0905.S COVERING SIGNS EACH	REMARKS
15	ACROSS FROM SIGN # 14 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M5-2-R	30"x30"	1	60	60			
16	LT OF TYPE 1 (S 55-160, PULASKI-SEYMOUR, TILT RT)	M4-8	30"x15"	1	60	60			
	"	M3-1	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-2	30"x30"	1	60	60			RIGHT
17	LT OF STOP AHEAD SIGN	M4-8	24"x12"	1	60	60			
	"	M3-1	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
	"	M5-1-R	21"x21"	1	60	60			
18	RT OF STOP SIGN	M4-8	24"x12"	1	60	60			
	"	M3-1	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
	"	M6-1	21"x21"	1	60	60			RIGHT
19	300' E OF NE RAMP & STH 160 INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-1	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
20	200' E OF ELM GROVE RD & STH 160 INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-1	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
21	200' E OF GREEN VALLEY (SOUTH LEG) & STH 160 INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-1	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
22	MODIFY J1-1 (JCT 32)	M4-8-A	24"x12"	1	60	60			
	"	M1-6	EXISTING						
23	MODIFY J13-1 (32 - AH & LT)	M1-6	EXISTING						
	"	M6-1	24"x12"	1	60	60			LEFT
24	J4-1 (SOUTH 32)							1	
25	SE QUAD OF STH 32 & STH 160 INTERSECTION	R11-3	60"x30"	1	60	60			2 MILES
26	50' N OF ANTHONY LANE	W20-2-A	48"x48"	1	60	60			
27	MODIFY J2-2 (S-32-AH LT; W-160-AH RT)	M4-8	24"x12"	1	60	60			
	"	M3-3	EXISTING						
	"	M1-6	EXISTING						
	"	M5-1-R	21"x21"	1	60	60			
28	D1-2 (LT-GREEN BAY; ANGELICA-RT)							1	LT- GREEN BAY
29	MODIFY J3-2 (S-32-LT; W-160-RT)	M4-8	24"x12"	1	60	60			
	"	M3-3	EXISTING						
	"	M1-6	EXISTING						
	"	M6-1	21"x21"	1	60	60			RIGHT
30	IN FRONT OF TREE (ON TYPE II BARICADE)	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60	60		32

*** - QUANTITIES SHOWN ELSEWHERE IN THE PLANS

ALL QUANTITIES ARE CATEGORY 0010

SHEET 2 OF 4
DESIGNED BY NE REGION

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 60 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III *** DAYS	643.0905.S COVERING SIGNS EACH	REMARKS
31	50' E OF J4-1 (WEST-160)	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
32	200' W OF GREEN VALLEY RD & STH 160 INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
33	200' W OF ELM RD & STH 160 INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
34	LT OF J2-2 (E-29-AH LT; S-55-AH)	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
	"	M5-1-L	21"x21"	1	60	60			
35	LT OF J3-2 (E-29-LT; S-55-AH)	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60	60		32
	"	M6-1	21"x21"	1	60	60			LEFT
36	250' S OF STH 160 & SE RAMP INTERSECTION	M4-8	24"x12"	1	60	60			
	"	M3-3	24"x12"	1	60	60			
	"	M1-6	24"x24"	1	60	60			32
37	1000' W OF D2-1 (ANGELICA -EXIT 242)	M1-6	30"x15"	1	60	60			32
	"	w20-2-A	48"x48"	1	60	60			
38	ACROSS FROM SIGN # 37 (MEDIAN SIDE)	M1-6	30"x15"	1	60	60			32
	"	w20-2-A	48"x48"	1	60	60			
39	LT OF D2-1 (ANGELICA- EXIT 242)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
40	ACROSS FROM SIGN # 39 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
41	1000 ' S OF SIGN # 39 -(D2-1 - ANGELICA- EXIT 242)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
42	ACROSS FROM SIGN # 41 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
43	LT OF TYPE 1 (55 - 160, PULASKI-SEYMOUR, TILT RT)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD

*** - QUANTITIES SHOWN ELSEWHERE IN THE PLANS

ALL QUANTITIES ARE CATEGORY 0010

SHEET 3 OF 4
DESIGNED BY NE REGION

TRAFFIC CONTROL DETOUR SIGNS AND COVERING SIGNS

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 60 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III *** DAYS	643.0905.S COVERING SIGNS EACH	REMARKS
44	ACROSS FROM SIGN # 43 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
45	200' S OF EXIT - 242 - TILT RT SIGN	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
46	ACROSS FROM SIGN # 45 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
	"	M6-1	30"x30"	1	60	60			AHEAD
47	250' E OF REDWOOD RD & STH 29 INTERSECTION	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
48	ACROSS FROM SIGN # 47 MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
49	250' E OF HOFA PARK RD & STH 29 INTERSECTION	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
50	ACROSS FROM SIGN # 49 (MEDIAN SIDE)	M4-8	30"x15"	1	60	60			
	"	M3-3	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
51	250' E OF STH 156/ ST. AUGUSTINE RD. & STH 29 INTERSECTION	M4-8-A	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
52	ACROSS FROM SIGN # 51 (MEDIAN SIDE)	M4-8-A	30"x15"	1	60	60			
	"	M1-6	36"x36"	1	60	60			32
53	TYPE II (32-NORTH-Y, PULASKI-GILLETT, 3/4 MILE)							1	32-NORTH, PULASKI-GILLETT
54	TYPE II (32-NORTH-Y, PULASKI-GILLETT, TILT RT							1	32-NORTH, PULASKI-GILLETT
	TOTAL			150		9,000	120	6	

*** - QUANTITIES SHOWN ELSEWHERE IN THE PLANS

ALL QUANTITIES ARE CATEGORY 0010

SHEET 4 OF 4
DESIGNED BY NE REGION

REMOVING PAVEMENT MARKINGS

STATION TO STATION	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	REMARKS
CATEGORY 0010			
95+25 - 100+00	CTH B	525	CENTERLINE SOLID AND SKIP
113+25 - 118+25	CTH B	125	CENTERLINE SKIPS
195+25 - 200+25	STH 32	1,000	DOUBLE CENTERLINE
222+40 - 217+40	STH 32	125	CENTERLINE SKIPS

PROJECT TOTALS 1,775

TRAFFIC CONTROL

STAGE	LOCATION	SERVICE PERIOD DAYS	643.0300		643.0420 ***		643.0705		643.0900		643.1050.S PORTABLE CHANGEABLE MESSAGE SIGNS		REMARKS
			DRUMS NO	DAYS	BARRICADES TYPE III NO	DAYS	WARNING LIGHTS TYPE A NO	DAYS	SIGNS NO	DAYS	SIGNS NO	DAYS	
CATEGORY 0010													
	STH 32 TEMPORARY DWY	3	10	30	--	--	--	--	8	24	--	--	
1	STH 32	20	--	--	--	--	--	--	6	120	--	--	
1	CTH B	20	10	200	30	600	36	720	22	440	2	14	NOTE A
2	STH 32	40	--	--	16	640	24	960	14	560	2	14	NOTE B
2	CTH B	40	10	400	20	800	28	1,120	18	720	--	--	
	UNDISTRIBUTED	--	--		--	60	--	100	--	60		7	

PROJECT TOTALS 600 2,100 2,900 1,900 35

NOTE A: INSTALL PORTABLE CHANGEABLE MESSAGE SIGN ON CTH B EAST AND WEST OF INTERSECTION ONE WEEK BEFORE CTH B CLOSURE.
NOTE B: INSTALL PORTABLE CHANGEABLE MESSAGE SIGN ON STH 32 NORTH AND SOUTH OF INTERSECTION ONE WEEK BEFORE STH 32 CLOSURE.
*** - QUANTITIES SHOWN ELSEWHERE IN THE PLANS

PAVEMENT MARKING

STATION - STATION	LOCATION	****	****	646.0106	646.0126	647.0606	647.0766	****	****	647.0726	SPV.0090.01 GROOVED PREFORMED THERMOPLASTIC YIELD LINE 18-INCH (WHITE) EACH	REMARKS
		EPOXY 4-INCH (WHITE) LF	EPOXY 4-INCH (YELLOW) LF	EPOXY 4-INCH LF	EPOXY 8-INCH (WHITE) LF	ISLAND NOSE EPOXY (YELLOW) EACH	CROSSWALK EPOXY 6-INCH (WHITE) EACH	DIAGONAL EPOXY 12-INCH (WHITE) LF	DIAGONAL EPOXY 12-INCH (YELLOW) LF	DIAGONAL EPOXY 12-INCH LF		
CATEGORY 0010												
95+25 - 103+75	CTH B	620	1,525	2,145	150	---	---	---	30	30	---	NOTE A
103+75 - 105+50	CTH B	30	200	230	80	1	---	---	10	10	14	
107+00 - 109+00	CTH B	---	350	350	80	---	70	10	---	10	14	
109+00 - 118+25	CTH B	280	2,250	2,530	80	1	---	---	50	50	---	NOTE A
195+25 - 207+50	STH 32	1,100	2,450	3,550	---	1	---	---	90	90	---	NOTE A
207+50 - 208+75	STH 32	---	230	230	80	---	---	15	20	35	16	
210+00 - 211+50	STH 32	---	230	230	90	---	---	15	20	35	16	
211+50 - 222+40	STH 32	950	2,405	3,355	---	1	---	---	65	65	---	NOTE A

PROJECT TOTALS 12,620 560 4 70 325 60

**** FOR INFORMATION ONLY.
NOTE A. INCLUDES PAVEMENT MARKING OUTSIDE CONSTRUCTION LIMITS

ALL QUANTITIES ARE CATEGORY 0010

SURVEY PROJECT ID 9190-21-71

STATION - STATION			LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.9910 SUPPLEMENTAL CONTROL PROJECT 9190-21-71 LS	650.9920 SLOPE STAKES LF
99+95	-	105+50	CTH B 'EB'	3	555	555	865		555
107+27	-	113+33	CTH B 'EB'	4	605	605	1,470		605
99+95	-	105+48	CTH B 'WB'	2					
107+19	-	113+33	CTH B 'WB'	2					
200+30	-	208+69	STH 32 'NB'	5	839	839	1,619		839
210+22	-	217+37	STH 32 'NB'	5	715	715	1,261		715
200+30	-	208+73	STH 32 'SB'	2					
210+28	-	217+37	STH 32 'SB'	4					
50+00		53+55.5	'RA'	1	356	356	580		356
			PROJECT					1	
PROJECT TOTALS				28	3,070	3,070	5,795	1	3,070

NOTES: SOME STAKING QUANTITIES SHOWN ELSEWHERE

SAWCUTS

STATION	OFFSET	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
CATEGORY 0010					
100+00	RT/LT	CTH B	30	---	PROJECT LIMITS
100+50	LT	CTH B	20	---	PRIVATE DWY
102+90	RT	CTH B	40	4	MOUNTAIN BAY RD
104+00	LT	CTH B	357	---	PRIVATE DWY
108+00	LT	CTH B	14	---	TRAIL
108+00	RT	CTH B	14	---	TRAIL
109+55	LT	CTH B	20	---	PRIVATE DWY
109+60	RT	CTH B	50	---	PRIVATE DWY
111+65	RT	CTH B	47	---	PRIVATE DWY
111+70	LT	CTH B	47	---	CORPORATE WAY
113+41	RT/LT	CTH B	44	---	PROJECT LIMITS
200+30	RT/LT	STH 32	24	---	PROJECT LIMITS
203+30	RT	STH 32	18	---	PRIVATE DWY
212+00	LT	STH 32	56	---	PRIVATE DWY
215+10	LT	STH 32	40	---	PRIVATE DWY
217+37	RT/LT	STH 32	24	24	PROJECT LIMITS
PROJECT TOTALS			845	28	

RECREATION TRAIL GATE BASE

			SPV.0060.01 RECREATION TRAIL GATE BASE EACH
STATION		O/S	LOCATION
			CATEGORY 0010
107+79	41.50		CTH B EB LT 3
108+09	59.39		CTH B EB RT 3

PROJECT TOTALS 6

SECTION MONUMENT STAKING

	621.0100 LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.07 SECTION SURVEY MONUMENTS RECONSTRUCTION PROJECT EACH	
LOCATION			REMARKS
CATEGORY 0010			
CTH B EAST OF INT	4	1	N 1/4 COR T25N R19E

PROJECT TOTALS 4 1

COLORED CONCRETE TRUCK APRON

	SPV.0180.01 COLORED CONCRETE TRUCK APRON 12-INCH SY	
LOCATION		REMARKS
CATEGORY 0010		
ROUNDAABOUT	495	TRUCK APRON

PROJECT TOTALS 495

PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE CROSSING

	SPV.0180.02 THERMOSPLASTIC COATING SY
LOCATION	
CATEGORY 0010	
STA 107+93 LT	26
STA 108+00 RT	31

PROJECT TOTALS 57

SPECIAL DITCHING

				SPV.0090.02 SPECIAL DITCHING LF	
STATION	TO	STATION	LOCATION		REMARKS
CATEGORY 0010					
217+37	-	217+75	STH 32, RT	38	DITCH TO DRAIN

PROJECT TOTALS 38

ALL QUANTITIES ARE CATEGORY 0010

Conduit Rigid Nonmetallic Schedule 40			
LOCATION			
STH 32 & CTH B		652.0225	652.0235
		2-Inch	3-Inch
FROM	TO	LF	LF
CB1	PB1		30
PB1	LB1	40	
PB1	PB2		150
PB2	LB2	10	
PB2	LB3	120	
LB3	LB4	130	
LB4	LB5	130	
PB2	PB3		80
PB3	LB6	50	
LB6	PB4	100	
PB4	LB7	10	
PB4	PB5		80
PB5	LB8	40	
LB8	PB6	70	
PB6	LB9	20	
LB9	LB10	130	
LB10	LB11	130	
PB6	PB7		90
PB7	LB12	30	
PB7	PB8		120
PB8	LB13	40	
PB8	PB1		80
	TOTAL	1,050	630

Electrical Service	
	656.0200
	Meter Breaker Pedestal
LOCATION	LS
STH 32 & CTH B	1

Salvage Traffic Signals Special	
	SPV.0105.01
LOCATION	LS
STH 32 & CTH B	1
TOTALS	1

Lighting Summary				
	657.0255	657.0322	657.0710	659.0115
	Transformer Bases	Poles	Luminaire Arms	Luminaires
	Standard	Type 5	Truss Type	Utility HPS
	11 1/2-Inch	(Aluminum)	4 1/2-Inch Clamp	150 watts
	Bolt Circle		12-FT	
LOCATION	EACH	EACH	EACH	EACH
STH 32 & CTH B	13	13	13	13

Concrete Bases		
		654.0220
		Control
	654.0105	Cabinet
	Type 5	Type 10
		NER
LOCATION	EACH	EACH
STH 32 & CTH B	13	1

Removing Concrete Bases	
	204.0195
LOCATION	EACH
STH 32 & CTH B	9

Removing Pull Boxes	
	653.0905
LOCATION	EACH
STH 32 & CTH B	13

Pull Boxes Steel	
	653.0140
	24x42-Inch
LOCATION	EACH
STH 32 & CTH B	8

Electrical Wire Lighting						
			10AWG		12AWG	
LOCATION			655.0615	655.0615	655.0610	655.0610
STH 32 & CTH B			Equipment	Equipment	Equipment	Equipment
			Ungrounded	Grounding	Ungrounded	Grounding
(240 VOLT SYSTEM)			Conductor	Conductor	Conductor	Conductor
			(Black/Red)	(Green)	(Black/Red)	(Green)
Circuit	FROM	TO	LF	LF	LF	LF
A	CB1	LB1	200	100		
	LB1	Luminaire			100	50
	CB1	PB1		50		
	LB1	LB2	480	240		
	LB2	Luminaire			100	50
	LB2	PB2		30		
	LB2	LB3	320	160		
	LB3	Luminaire			100	50
	LB3	LB4	300	150		
	LB4	Luminaire			100	50
	LB4	LB5	300	150		
	LB5	Luminaire			100	50
B	CB1	LB6	720	360		
	LB6	Luminaire			100	50
	LB6	PB3		70		
	LB6	LB7	280	140		
	LB7	Luminaire			100	50
	LB7	PB4		30		
C	CB1	LB9	800	400		
	LB9	Luminaire			100	50
	LB9	PB6		40		
	LB9	LB8	240	120		
	LB8	Luminaire			100	50
	LB8	PB5		60		
	LB9	LB10	300	150		
	LB10	Luminaire			100	50
	LB10	LB11	300	150		
	LB11	Luminaire			100	50
D	CB1	LB13	380	190		
	LB13	Luminaire			100	50
	LB13	PB8		60		
	LB13	LB12	460	230		
	LB12	Luminaire			100	50
	LB12	PB7		50		
		SUB-TOTALS	5,080	2,930	1,300	650
		TOTAL	8,010		1,950	

ALL QUANTITIES ARE CATEGORY 0010

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W SQUARE FEET REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
1	BABIARZ FAMILY TRUST	FEE, TLE	6165	0	6165	144
2	PULASKI LAND DEVELOPMENT LLC	FEE	29766	0	29766	
3	MCKEEFRY & SONS, INC.	FEE, TLE & AR	11690	0	11690	450
4	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	TLE				25873
100	WISCONSIN PUBLIC SERVICE CORP.-ELECTRIC	RELEASE OF RIGHTS				
101	NSIGHT TELE SERVICES (NORTHEAST TELEPHONE)	RELEASE OF RIGHTS				
102	WE ENERGIES, INC. - GAS	RELEASE OF RIGHTS				
103	KDL, INC.-FIBER OPTIC	RELEASE OF RIGHTS				

STATION AND OFFSET TABLE					
PT.#	STATION	OFFSET	Y	X	
5502	309+39.75	0	619260.23	46280.00	
40101	307+97.08	714.11R	618540.56	46168.72	
40102	307+14.25	400.37R	618850.37	46072.25	
40103	305+40.62	70'R	619172.83	45884.33	
40104	303+25.15	70'R	619163.40	45669.06	
40105	302+55.12	70'R	619160.33	45599.10	
40106	301+00.00	70'R	619153.55	45444.13	
40107	300+00.00	40'R	619179.14	45342.91	
40108	300+00.00	0	619219.10	45341.16	
40109	300+00.00	40'L	619259.06	45339.41	
40110	301+00.00	57'L	619280.42	45438.57	
40111	304+50.00	57'L	619295.74	45788.23	
40112	304+91.77	60'L	619300.57	45829.83	
40113	305+54.28	94.11L	619337.38	45890.79	
40114	305+36.09	188.40L	619430.78	45868.49	
40115	302+55.00	75'R	619155.33	45599.20	
40116	302+26.30	75'R	619154.08	45570.52	
40117	302+26.30	70'R	619159.07	45570.30	
40118	302+77.00	57'L	619288.17	45615.40	
40119	302+77.00	62'L	619293.17	45615.18	
40120	303+07.00	62'L	619294.48	45645.15	
40121	303+07.00	57'L	619289.48	45645.37	
40122	305+31.58	186.24L	619428.42	45864.08	
40123	305+05.64	240.34L	619481.34	45835.80	
40124	305+10.15	242.50L	619483.70	45840.21	
40125	304+45.47	377.40L	619161.63	45769.68	
40126	306+94.30	82.80L	619332.21	46031.17	
40127	303+81.53	735.10L	619970.19	45690.16	
40128	304+05.88	746.77L	619982.92	45713.97	
40129	307+10.81	110.80L	619360.90	46046.44	
40130	307+91.77	110.80L	619364.45	46127.32	
40131	308+05.24	82.80L	619337.06	46141.96	
40132	308+65.13	42.20R	619214.80	46207.31	
40133	308+81.99	77.37R	619180.41	46225.69	
40134	307+91.82	120.60R	619133.27	46137.50	
40135	307+74.96	85.44R	619167.66	46119.12	

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD83/91 ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

RIGHT-OF-WAY REFERENCE LINE IS NOT THE SAME AS THE CONSTRUCTION REFERENCE LINE.

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

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

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

EXISTING HIGHWAY RIGHT-OF-WAY FOR S.T.H.32 & C.T.H.B. ESTABLISHED FROM PREVIOUS PROJECT 9190-06-21 AND T 0261 (4)

EXISTING HIGHWAY RIGHT-OF-WAY FOR C.T.H.B. ESTABLISHED FROM NORTH LINE OF NW 1/4, SECTION 8 AND PREVIOUS PROJECT 61-B-12.

EXISTING HIGHWAY RIGHT-OF-WAY FOR MOUNTAIN BAY DRIVE ESTABLISHED FROM CSM 7578

EXISTING ACCESS CONTROL AS PER CSM 7578

TEMPORARY LIMITED EASEMENT

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

FOUND IRON PIPE/PIN	IF
FOUND IRON PIPE/PIN	IF
R/W MONUMENT	R/W MONUMENT
R/W STANDARD	R/W STANDARD
SIGN	SIGN
SECTION CORNER MONUMENT	SECTION CORNER MONUMENT
SECTION CORNER SYMBOL	SECTION CORNER SYMBOL
FEE (HATCH VARIES)	FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT	TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT	PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT	R/W BOUNDARY POINT
PARCEL NUMBER	PARCEL NUMBER
SIGN NUMBER (OFF PREMISE)	SIGN NUMBER (OFF PREMISE)
BUILDING	BUILDING

CONVENTIONAL SYMBOLS

PROPOSED R/W LINE	PROPOSED R/W LINE
EXISTING H.E. LINE	EXISTING H.E. LINE
PROPERTY LINE	PROPERTY LINE
LOT & TIE LINES	LOT & TIE LINES
SLOPE INTERCEPTS	SLOPE INTERCEPTS
CORPORATE LIMITS	CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY STATUTORY AUTHORITY)	NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE	SECTION LINE
QUARTER LINE	QUARTER LINE
SIXTEENTH LINE	SIXTEENTH LINE
EXISTING CENTERLINE	EXISTING CENTERLINE
PROPOSED REFERENCE LINE	PROPOSED REFERENCE LINE
PARALLEL OFFSET	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SS
STORM SEWER	SS
POWER POLE	POWER POLE
TELEPHONE POLE	TELEPHONE POLE
TELEPHONE PEDESTAL	TELEPHONE PEDESTAL
ELECTRIC TOWER	ELECTRIC TOWER
LIGHT POLE	LIGHT POLE

TRANSPORTATION PROJECT PLAT NO: 9190-21-21 - 4.01 AMENDMENT NO. 1

ADDS PARCEL 4 TO TRANSPORTATION PROJECT PLAT 9190-21-21-4.01 RECORDED AS DOCUMENT NO: 2483139 IN VOLUME 10F TRANSPORTATION PLATS, PAGE 136

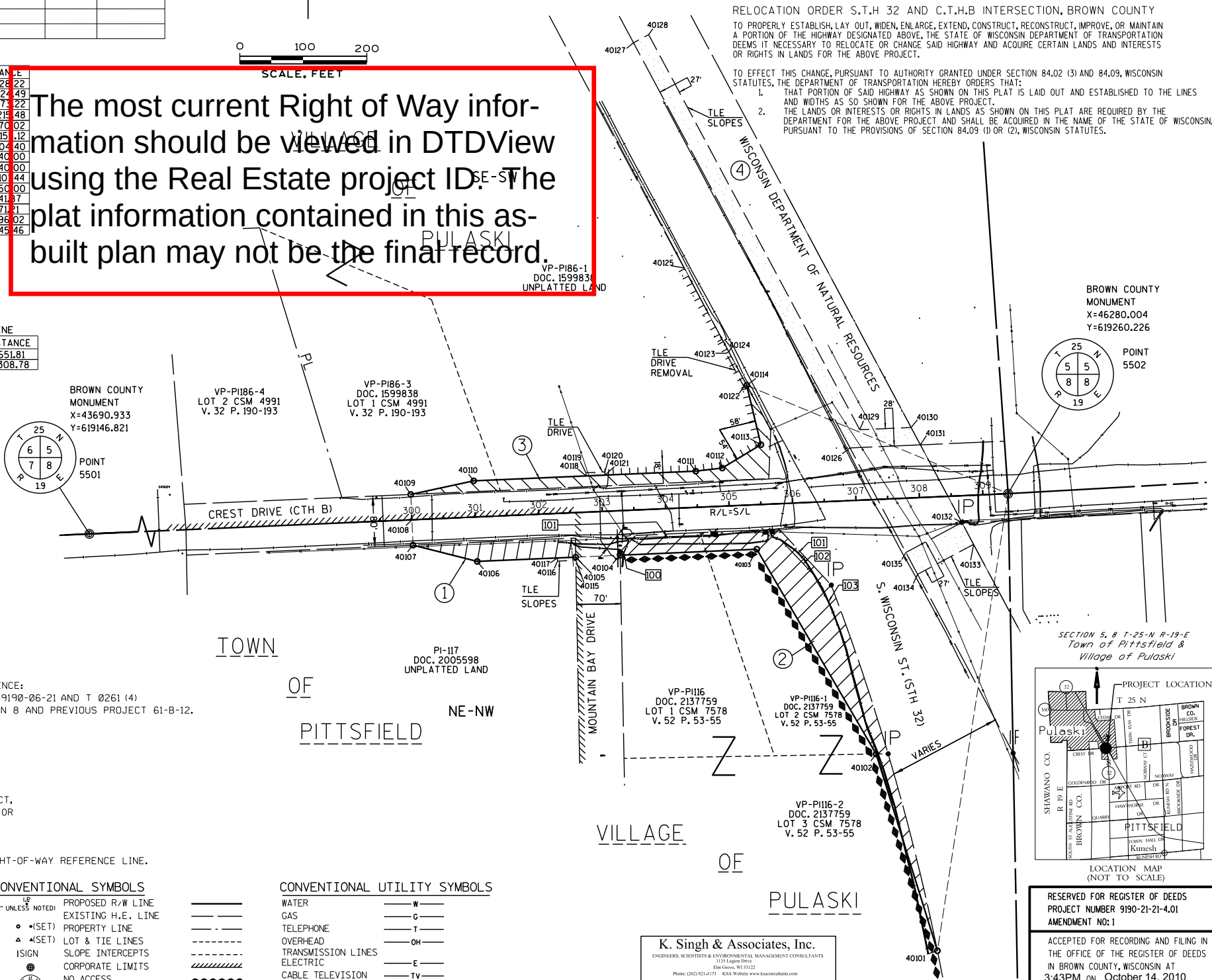
THAT PART OF LOTS 1, 2 AND 3 OF CERTIFIED SURVEY MAP NO. 7578 AND LANDS LOCATED IN THE NE1/4 OF THE NW1/4 OF SECTION 8, AND PART OF LOT 1 OF CERTIFIED SURVEY MAP NO. 4991 AND OTHER LANDS LOCATED IN THE SE1/4 OF THE SW1/4 OF SECTION 5, T25N-R19E, VILLAGE OF PULASKI, AND PART OF THE NE1/4 OF THE NW1/4 OF SECTION 8, T25N-R19E, TOWN OF PITTSFIELD, ALL LOCATED IN BROWN COUNTY, WISCONSIN.

RELOCATION ORDER S.T.H 32 AND C.T.H.B INTERSECTION, BROWN COUNTY TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

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

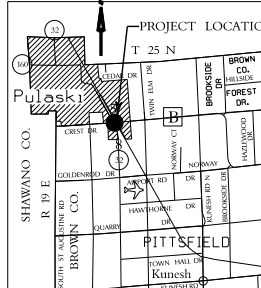
The most current Right of Way information should be viewed in DTDView using the Real Estate project ID. The plat information contained in this as-built plan may not be the final record.



BROWN COUNTY MONUMENT
X=46280.004
Y=619260.226

POINT 5502
X=46280.004
Y=619260.226

SECTION 5, 8 T-25-N R-19-E
Town of Pittsfield &
Village of Pulaski



LOCATION MAP
(NOT TO SCALE)

K. Singh & Associates, Inc.
ENGINEERS, SCIENTISTS & ENVIRONMENTAL MANAGEMENT CONSULTANTS
11151 Legum Drive
Eau Claire, WI 54601
Phone: (218) 821-1111 FAX: (218) 821-1111

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS TRANSPORTATION PROJECT PLAT 9190-21-21 - 4.01 AMENDMENT NO. 1 WAS PREPARED BY OR UNDER THE DIRECTION OF
PAUL A. KUBICEK R.L.S. #2232
PRINTED NAME
SIGNATURE
DATE 10-06-2010

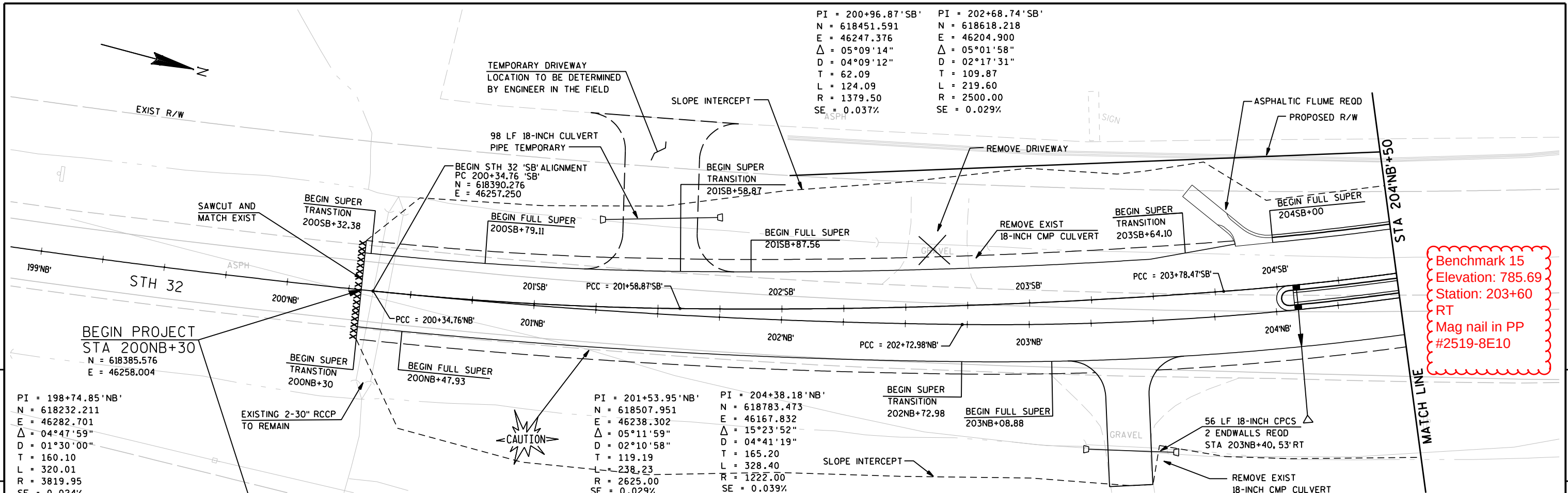
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NORMAN H. PAWELCZYK
PRINTED NAME
SIGNATURE
DATE 10-6-2010

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9190-21-21-4.01
AMENDMENT NO: 1

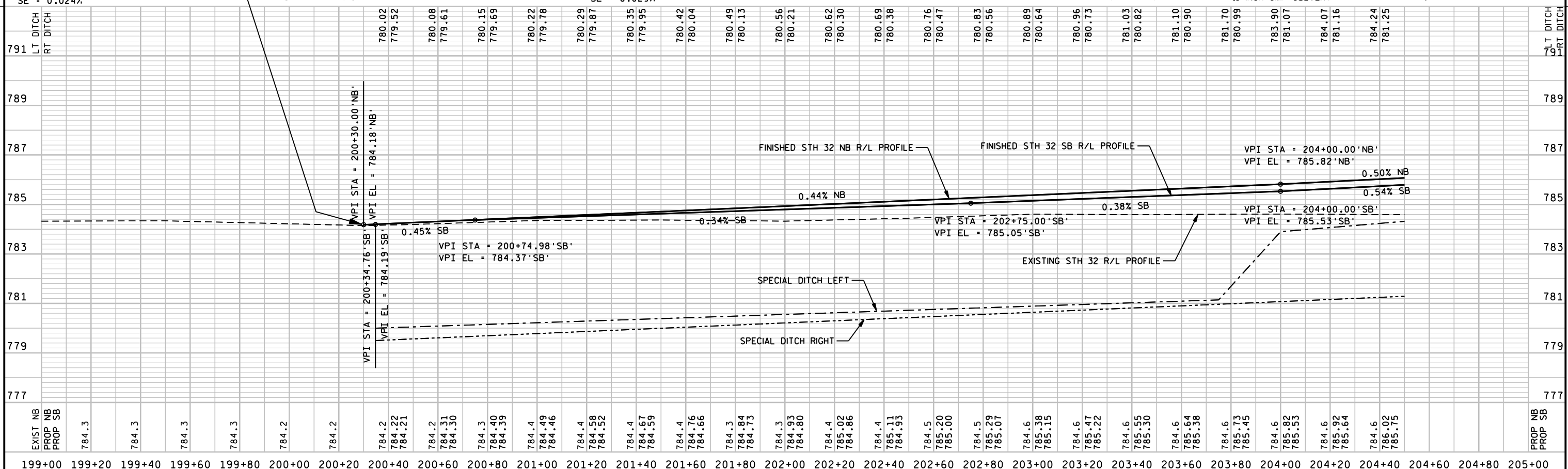
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN BROWN COUNTY, WISCONSIN AT 3:43PM ON October 14, 2010. AS DOCUMENT # 2495068 AND FILED IN Vol. 1 of Transportation Plats Pg 139

SIGNATURE OF REGISTER OF DEEDS

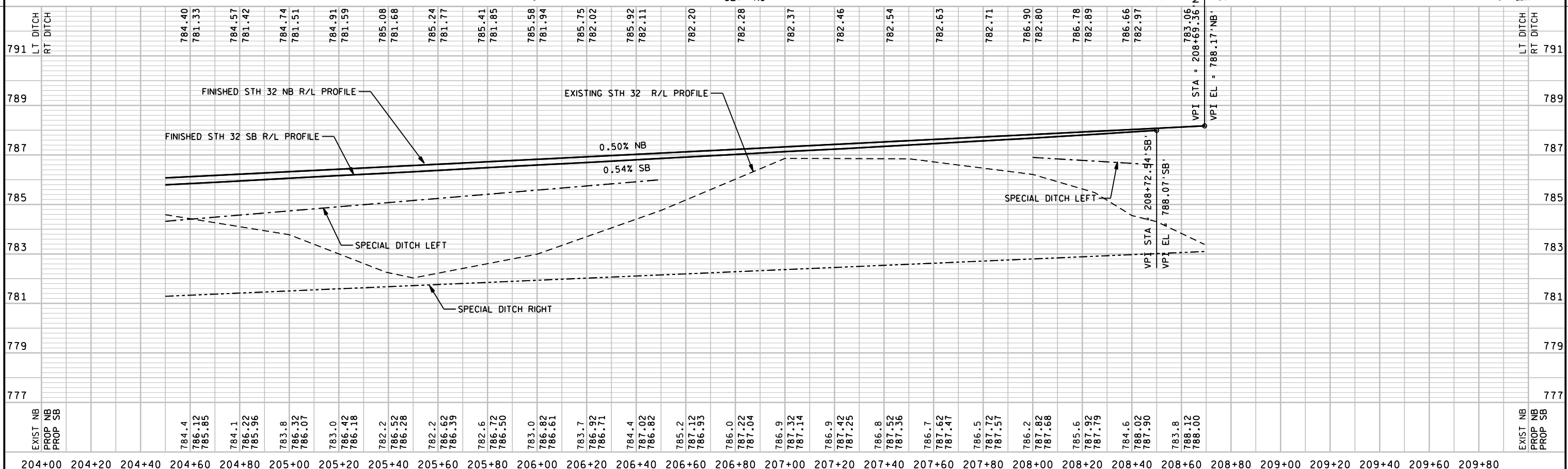
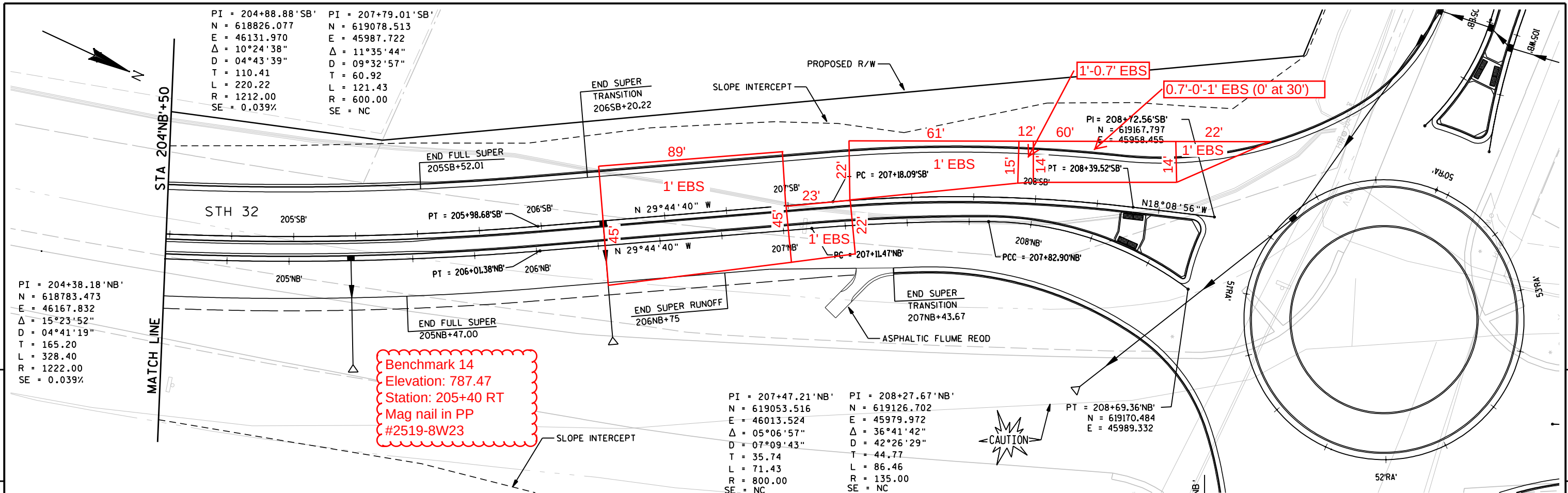
Recording information via email from Debbie Gore, Chief Deputy



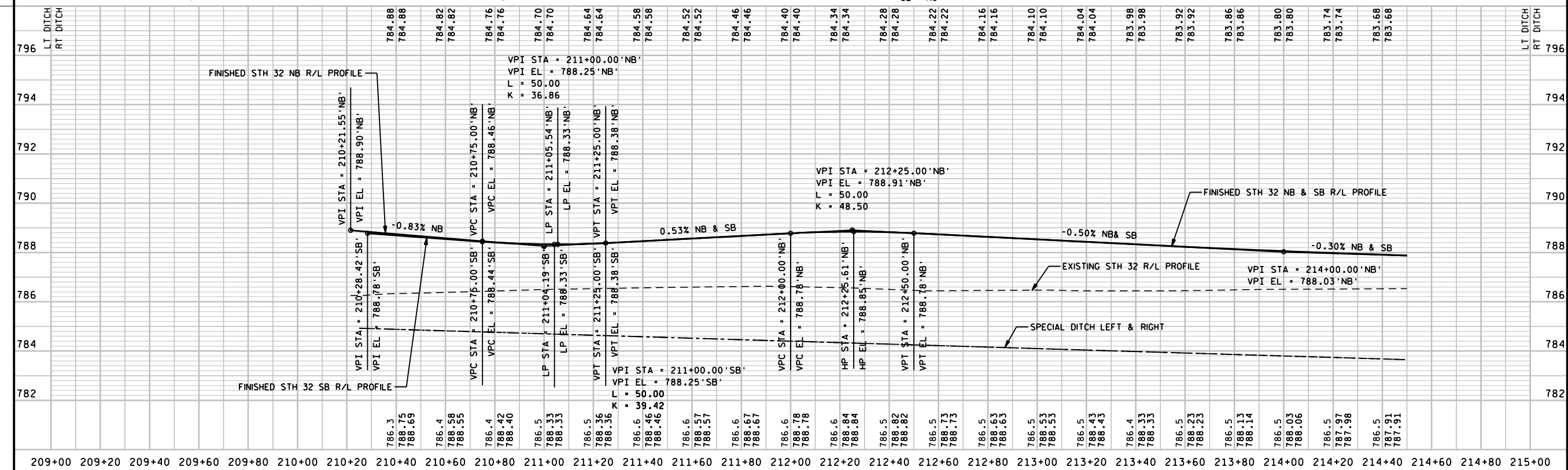
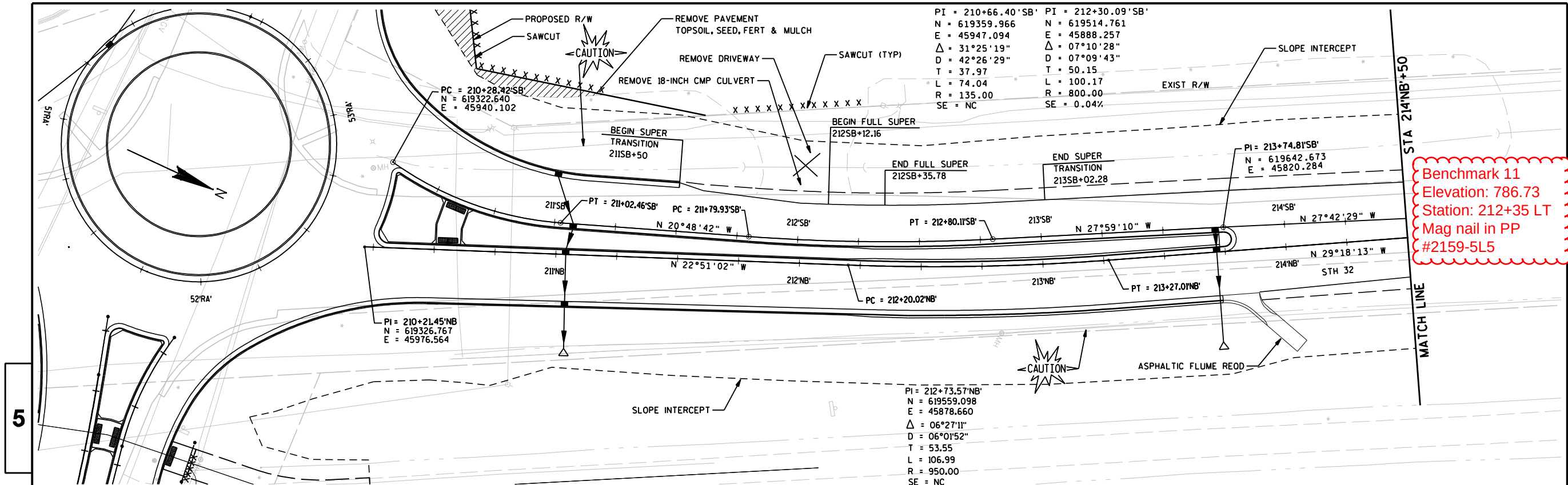
Benchmark 15
Elevation: 785.69
Station: 203+60
RT
Mag nail in PP
#2519-8E10



PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: STH 32 SOUTH	SHEET	E
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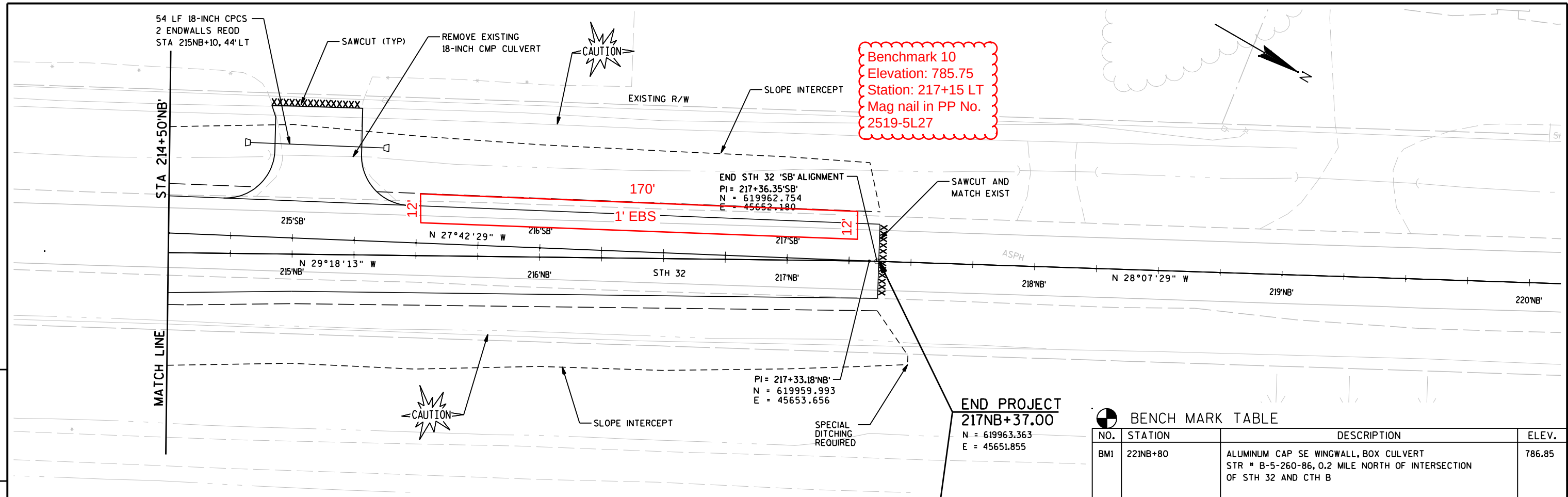


PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: STH 32 SOUTH	SHEET	E
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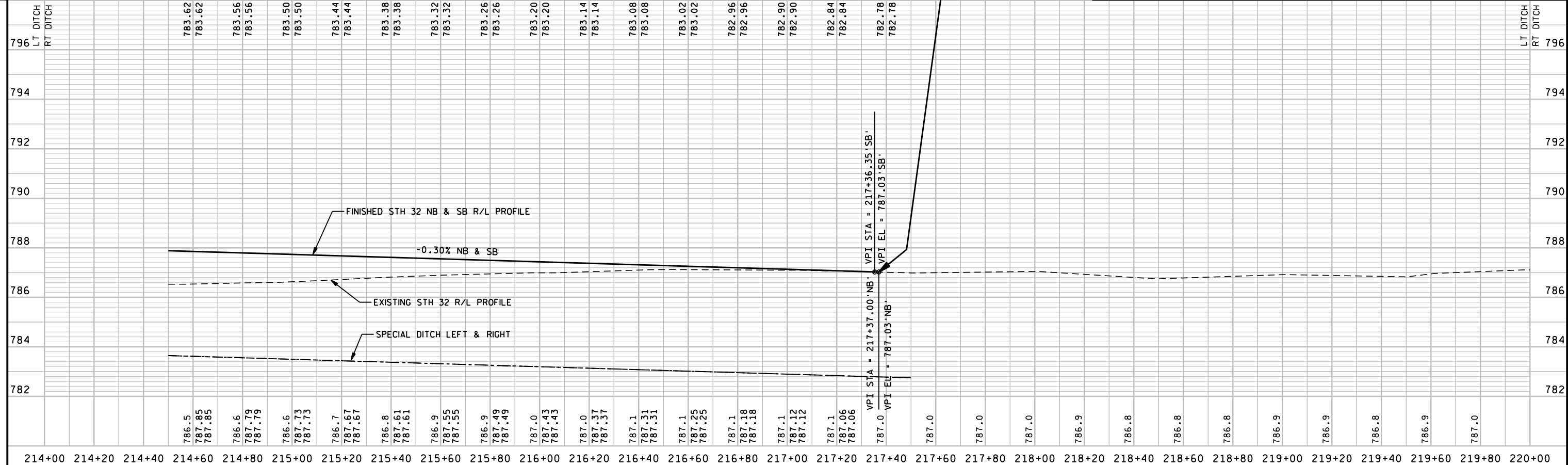
PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: STH 32 NORTH	SHEET	E
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5

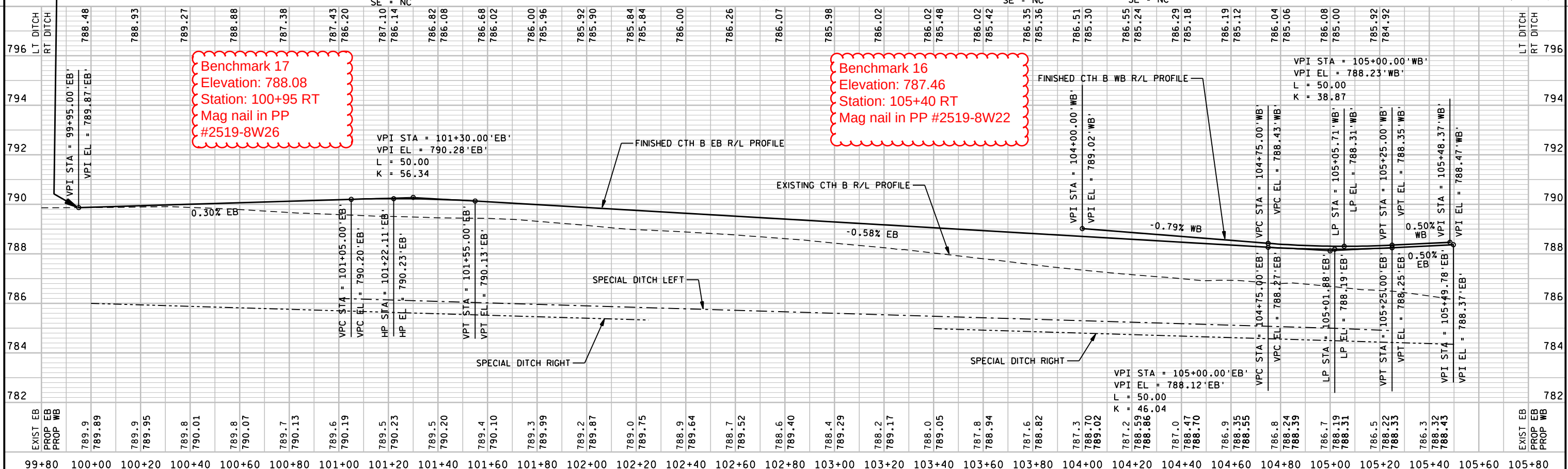
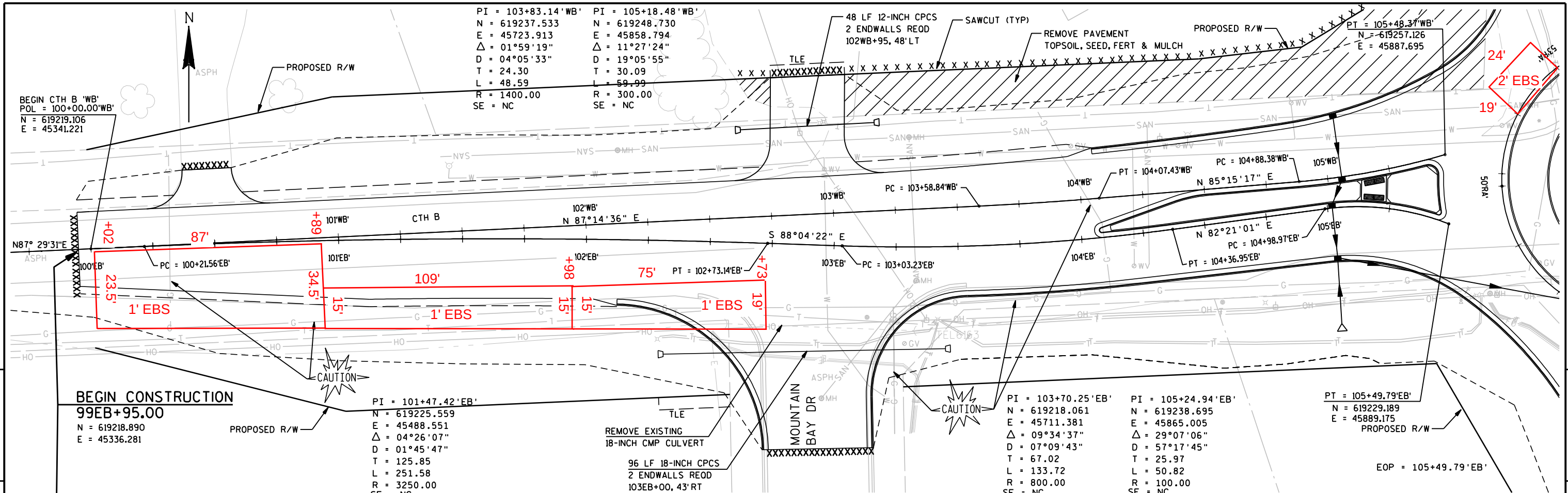


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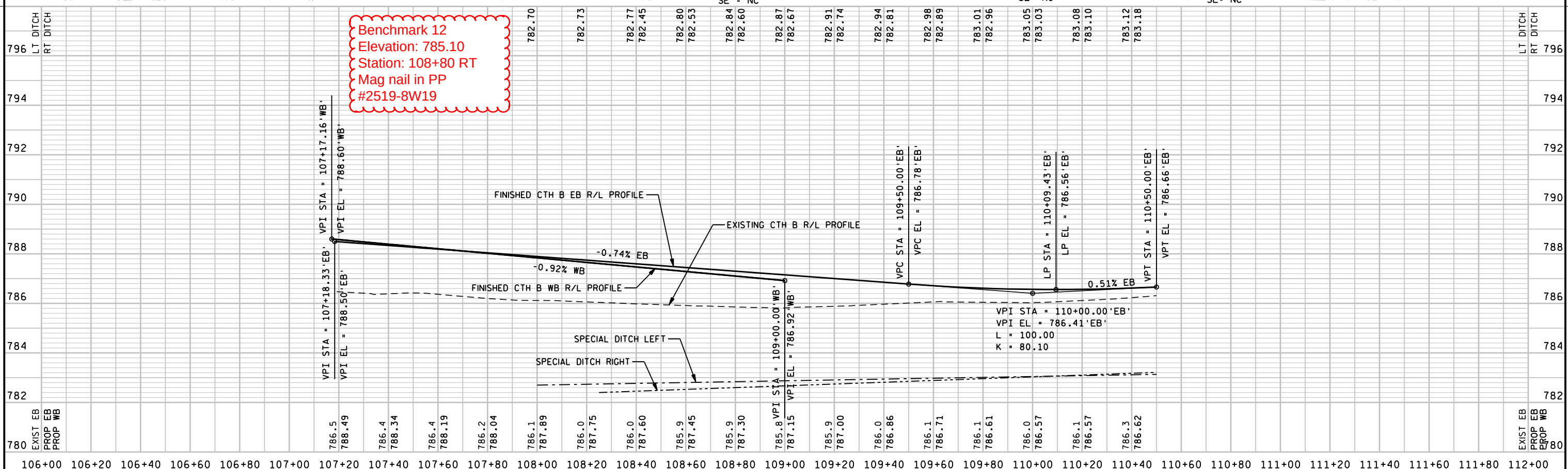
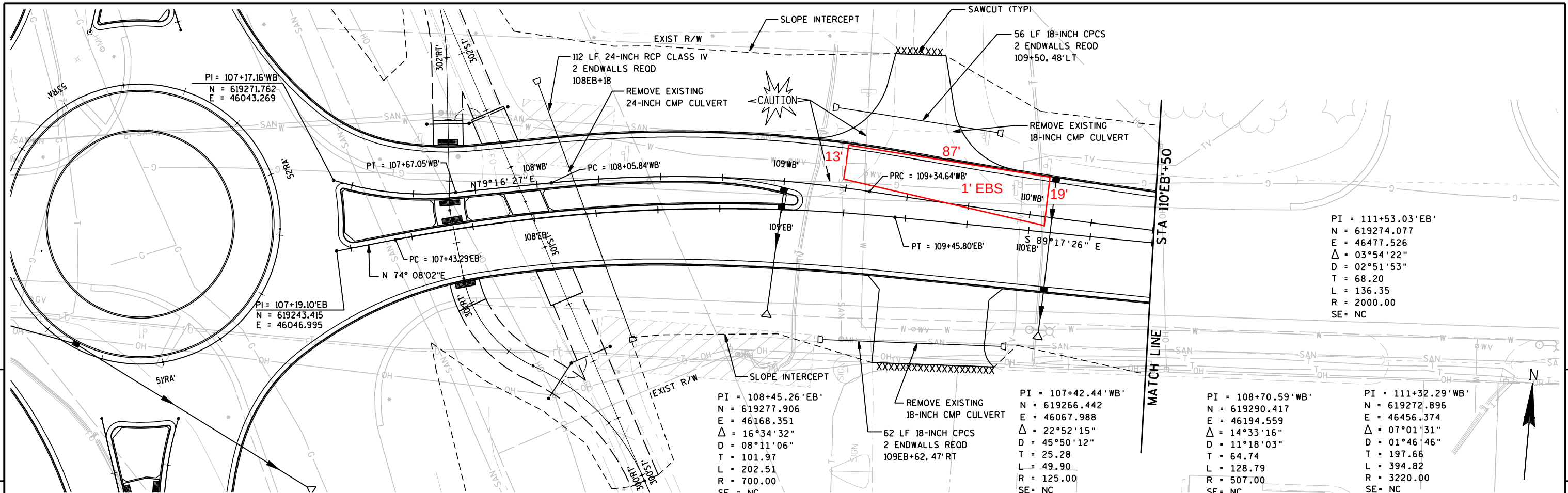
BENCH MARK TABLE			
NO.	STATION	DESCRIPTION	ELEV.
BM1	221NB+80	ALUMINUM CAP SE WINGWALL, BOX CULVERT STR # B-5-260-86, 0.2 MILE NORTH OF INTERSECTION OF STH 32 AND CTH B	786.85



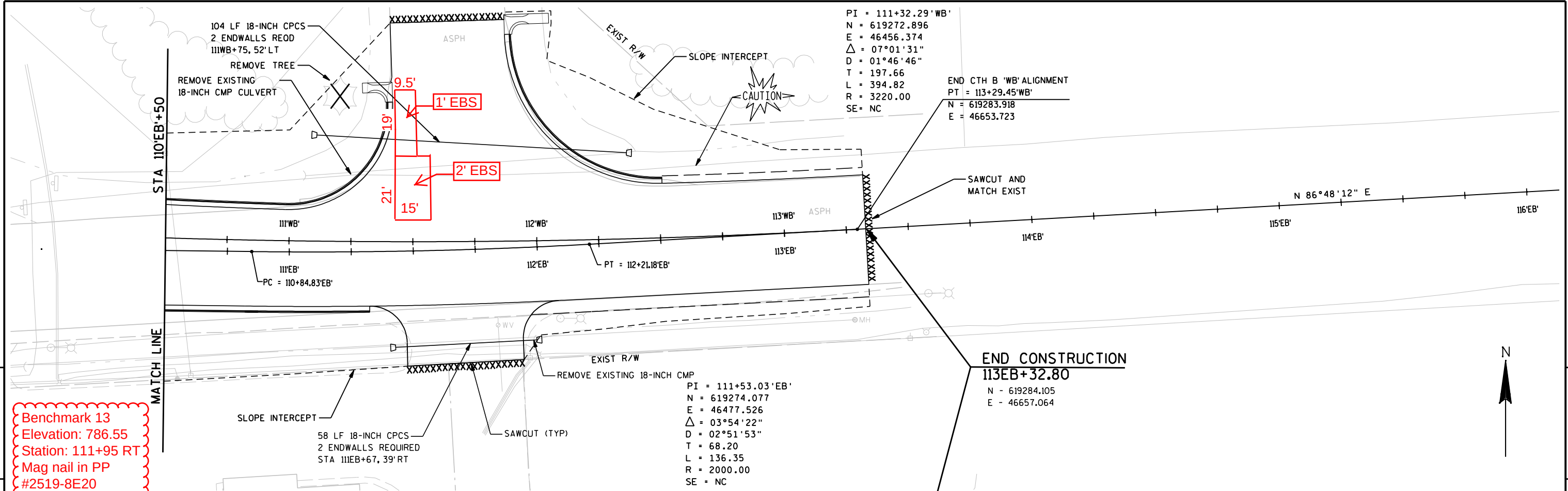
PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: STH 32 NORTH	SHEET	E
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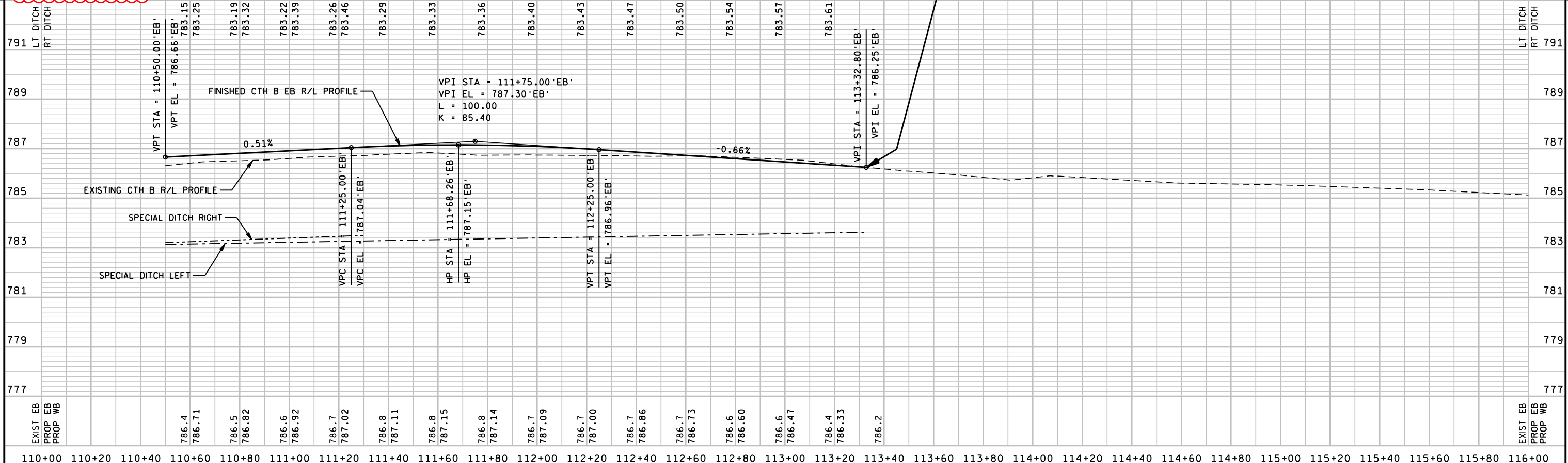
PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: CTH B WEST	SHEET	E
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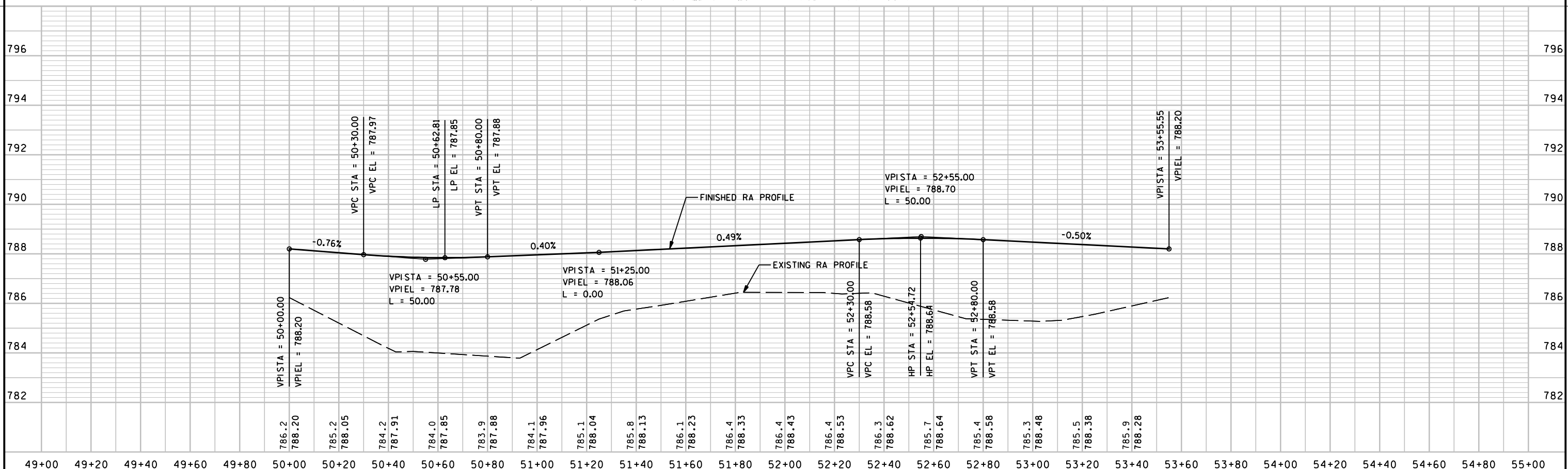
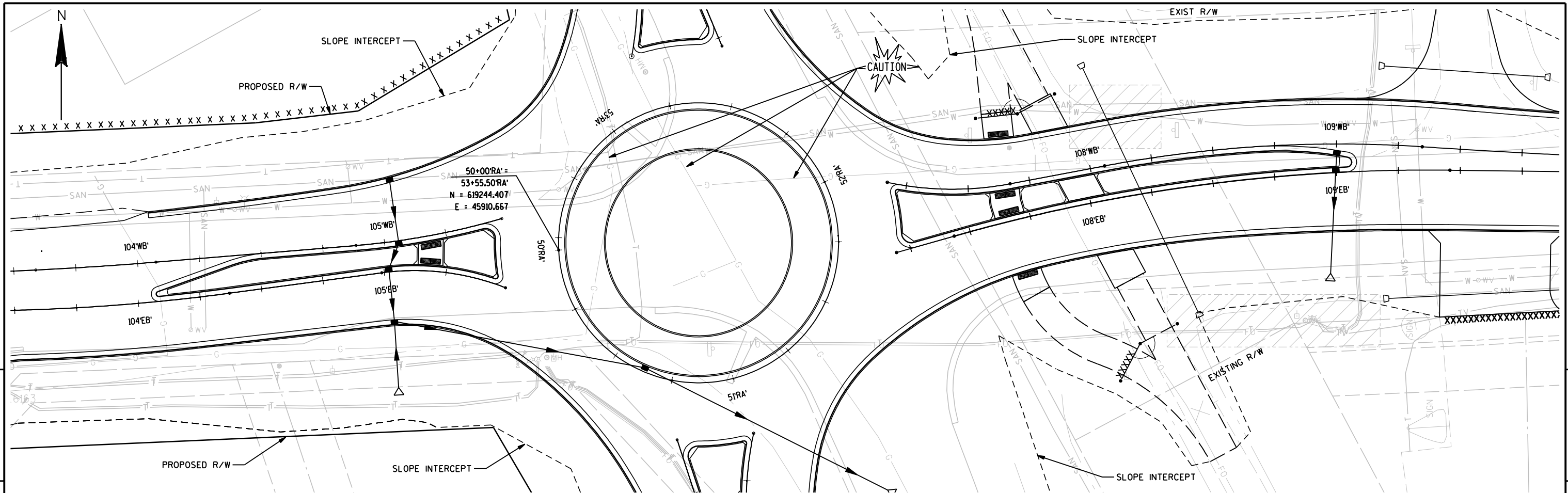


Benchmark 12
Elevation: 785.10
Station: 108+80 RT
Mag nail in PP
#2519-8W19



Benchmark 13
Elevation: 786.55
Station: 111+95 RT
Mag nail in PP
#2519-8E20



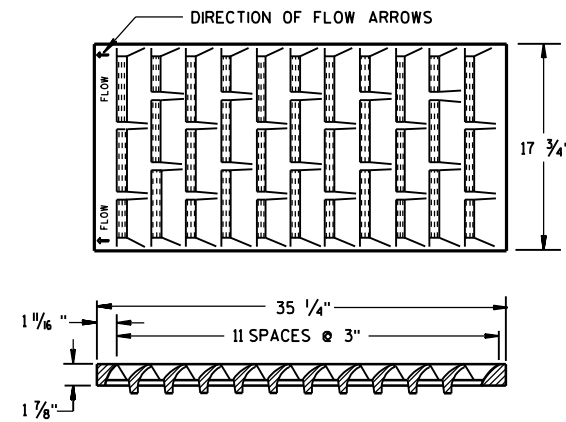


PROJECT NO: 9190-21-71	HWY: STH 32	COUNTY: BROWN	PLAN AND PROFILE: ROUNDABOUT	SHEET	E
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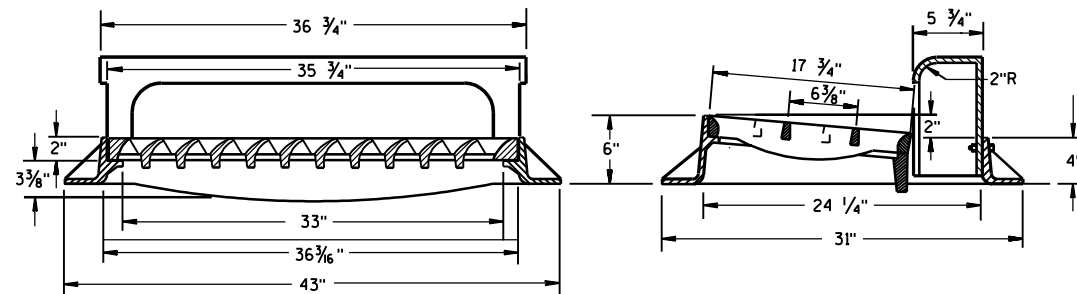
Standard Detail Drawing List

08A5-16A	INLET COVERS TYPE A, H, A-S, & H-S
08A5-17C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08B6-4	MANHOLES TYPE 1
08C1-5	INLETS TYPE 1, 2, 3 & 4
08D1-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D4-5	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D5-14A	CURB RAMPS TYPES 1 AND 1-A
08D5-14B	CURB RAMPS TYPES 2 AND 3
08D5-14C	CURB RAMPS TYPE 4A
08D5-14D	CURB RAMPS TYPE 4B
08D5-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E9-6	SILT FENCE
08E10-2	INLET PROTECTION TYPE A, B, C AND D
08F1-11	APRON ENDWALLS FOR CULVERT PIPE
08F2-1	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F4-6	JOINT TIES FOR CONCRETE PIPE
08F7-3	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SIDE DRAINS SLOPED SECTION
09A1-12A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B2-7	CONDUIT
09B4-9	PULL BOX
09C2-6	CONCRETE BASES, TYPES 1, 2 & 5
09C3-3	TRANSFORMER/PEDESTAL BASES
09D1-4	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E1-10D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E1-10G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E3-3	NON-FREEWAY LIGHTING UNIT POLE WIRING
11B2-2	CONCRETE MEDIAN NOSE
14A2-1	TREE PLANTING DETAIL
15A3-1	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C2-4A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C2-4C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C3-1	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C4-1	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C8-13A	PAVEMENT MARKING (MAINLINE)
15C8-13F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-3	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-3	MEDIAN ISLAND MARKING
16A1-6	LANDMARK REFERENCE MONUMENTS AND COVERS

NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

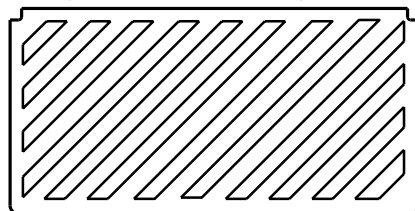


TYPE "H"

(APPROXIMATE WEIGHT 422 LBS.)

FRAME..... 175 LBS.
GRATE..... 138 LBS.
CURB BOX..... 109 LBS.

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



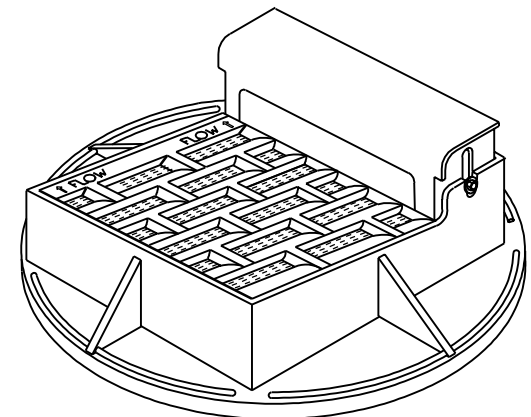
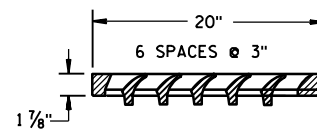
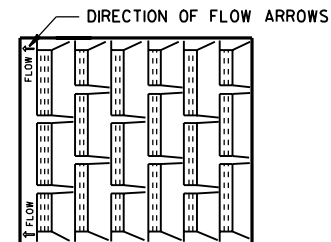
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

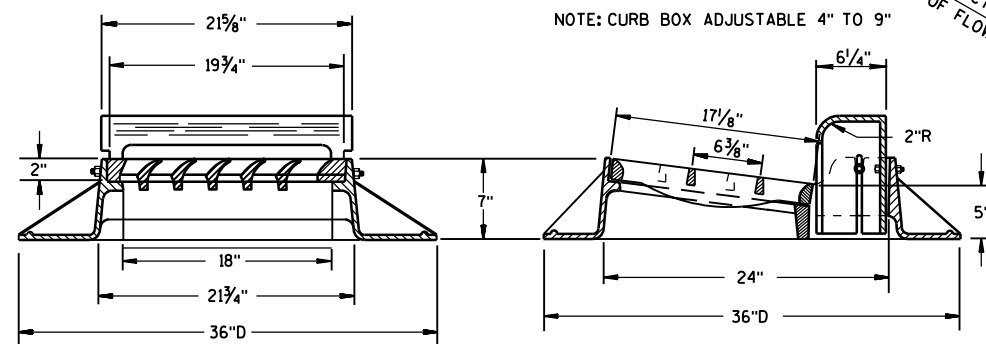
(APPROXIMATE WEIGHT 172 LBS.)

GRATE..... 172 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"

(APPROXIMATE WEIGHT 325 LBS.)

FRAME..... 157 LBS.
GRATE..... 84 LBS.
CURB BOX..... 84 LBS.

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.

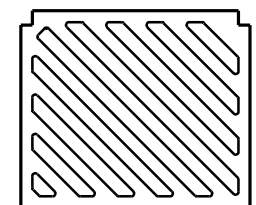
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

NOTE:
GRATE IS REVERSIBLE.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8")

GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS
TYPE A, H, A-S, & H-S

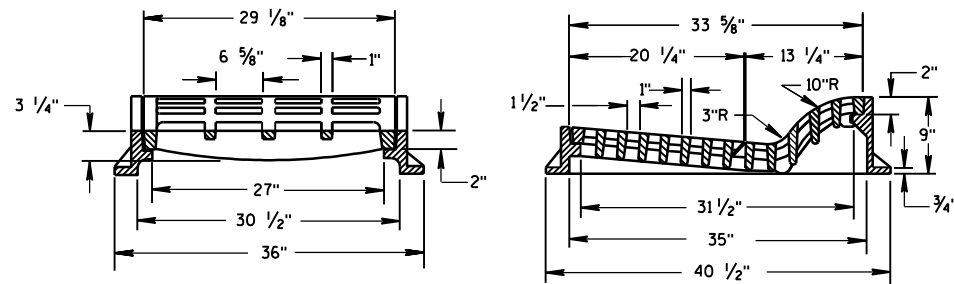
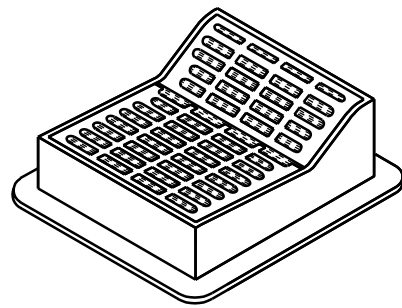
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/4/99
DATE

FHWA

Paul J. Rasmussen
CHIEF ROADWAY DEVELOPMENT ENGINEER



TYPE "F"

(APPROXIMATE WEIGHT 645 LBS.)

FRAME.....300 LBS.

GRATE.....165 LBS.

GRATE.....180 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT 79 LBS.)

CURB BOX.....79 LBS.

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

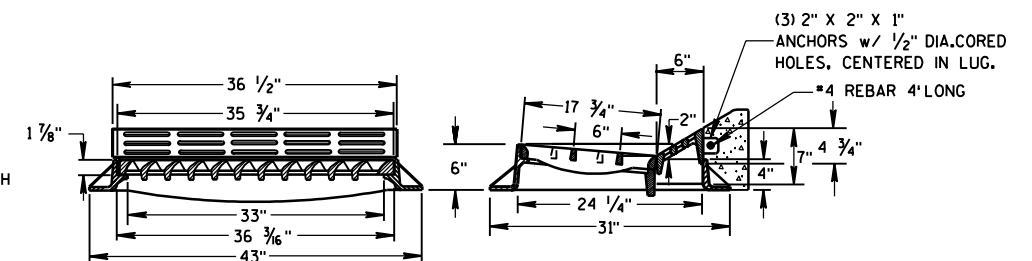
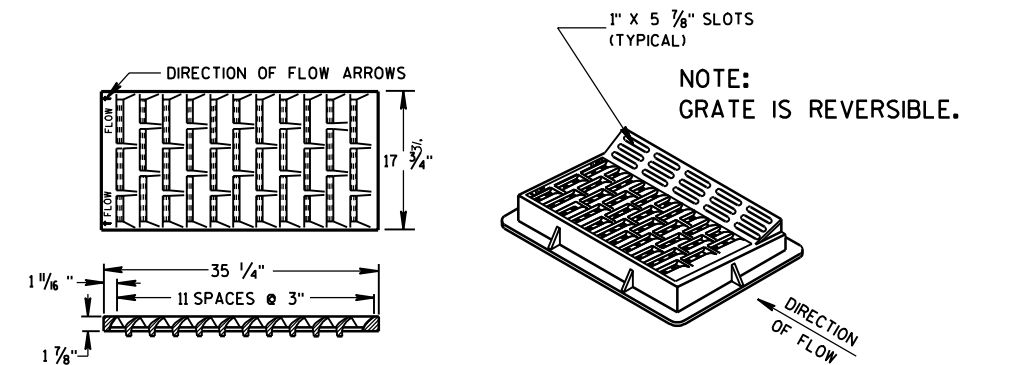
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

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.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



TYPE "HM"

(APPROXIMATE WEIGHT 375 LBS.)

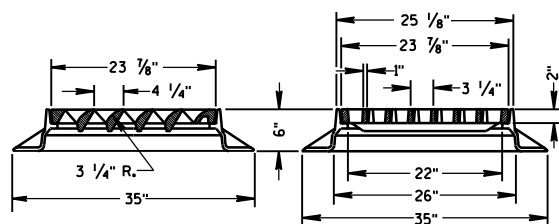
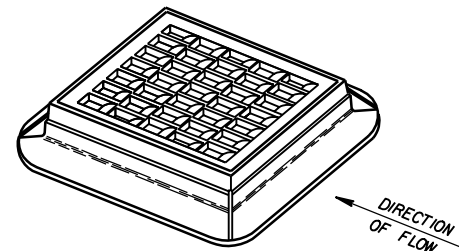
FRAME.....175 LBS.

GRATE.....138 LBS.

CURB BOX.....62 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

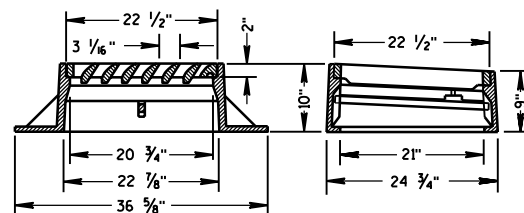
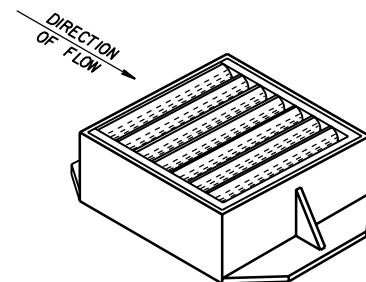


TYPE "S"

(APPROXIMATE WEIGHT 334 LBS.)

FRAME.....165 LBS.

GRATE.....169 LBS.



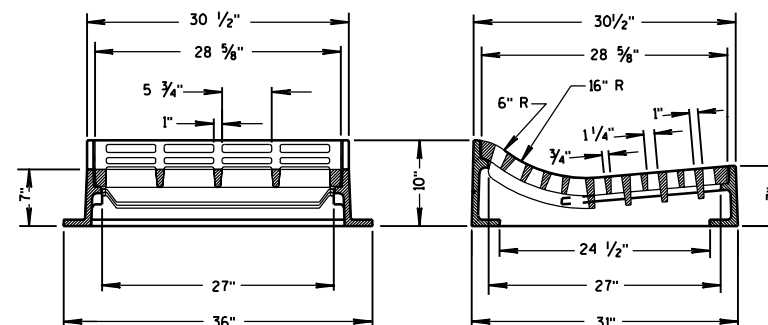
TYPE "V"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME.....270 LBS.

GRATE.....130 LBS.

SAFETY BAR.....5 LBS.



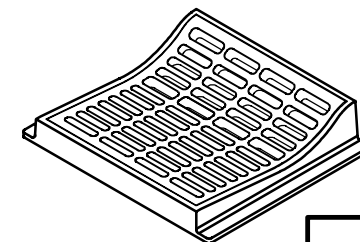
TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)

FRAME.....270 LBS.

GRATE.....260 LBS.

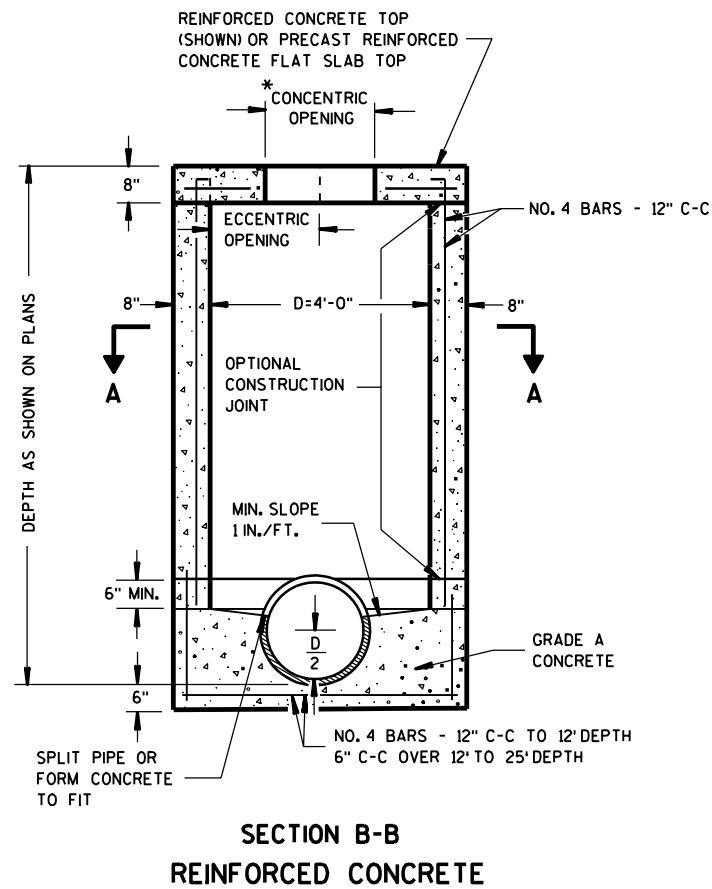
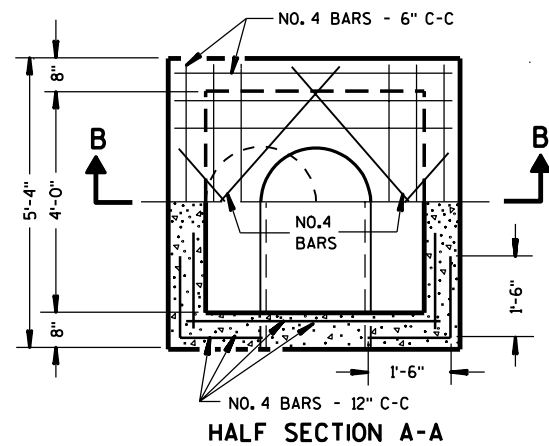
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 30 INCH.



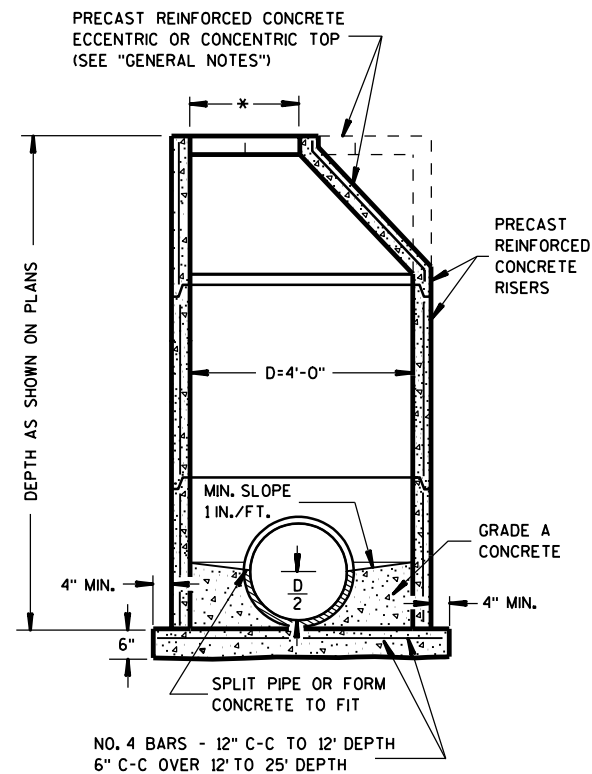
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

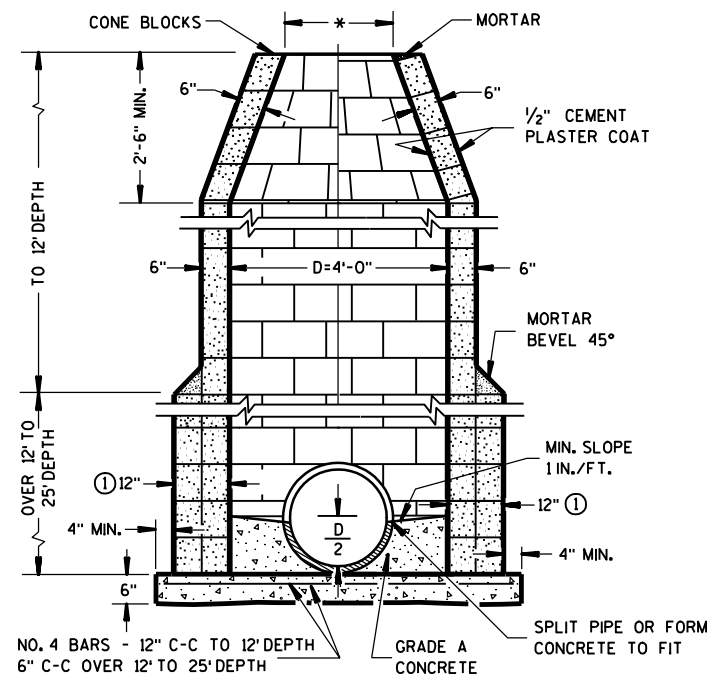
APPROVED
12/17/07 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



MANHOLES TYPE 1



PRECAST REINFORCED CONCRETE



CONCRETE BLOCK

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 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 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

STEPS CONFORMING TO AASHTO M 199 SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT.

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

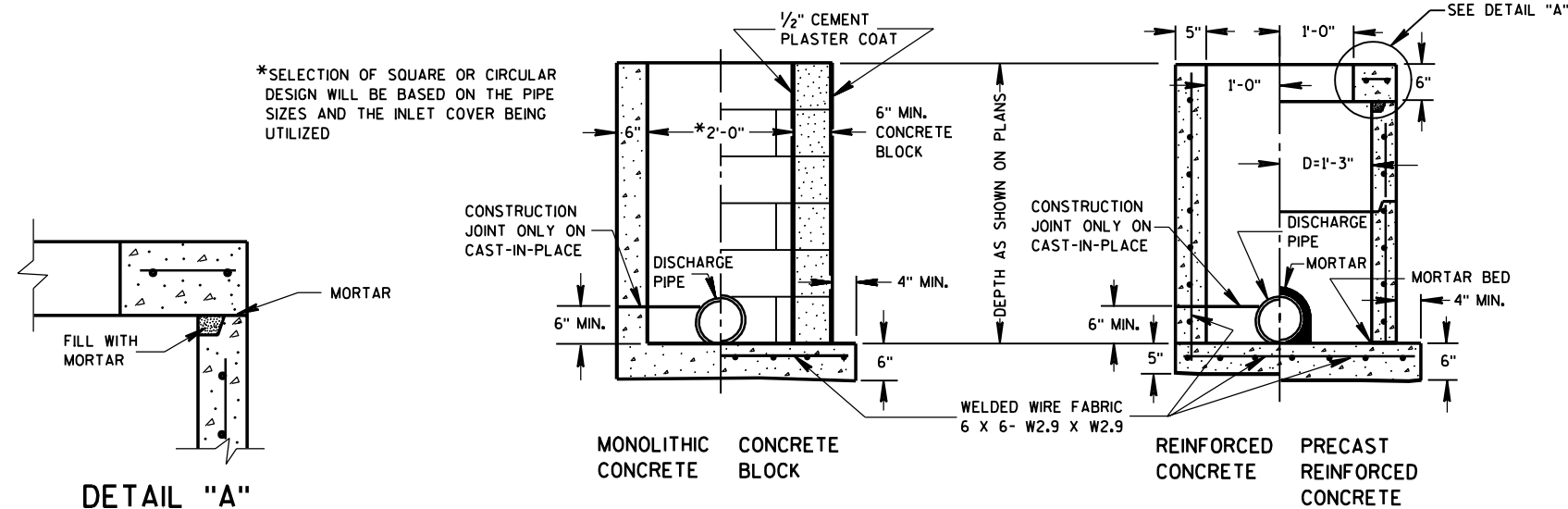
PRECAST REINFORCED CONCRETE RISERS MAY BE PLACED WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS AND MANHOLES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

* USE 2'-0" DIAMETER OPENING WITH TYPE "C", "L" AND "J" COVERS, OR 3'-0" DIAMETER WITH TYPE "K" AND "M" COVERS.

① 2 COURSES 6" BLOCK.

MANHOLES TYPE 1	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/9/05 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS 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.

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 AASHTO DESIGNATION M 199.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 1-C", "CATCH BASINS 1-B", "INLETS 3-H", ETC. THE FIRST DIGIT DESIGNATES THE MASONRY PORTION OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

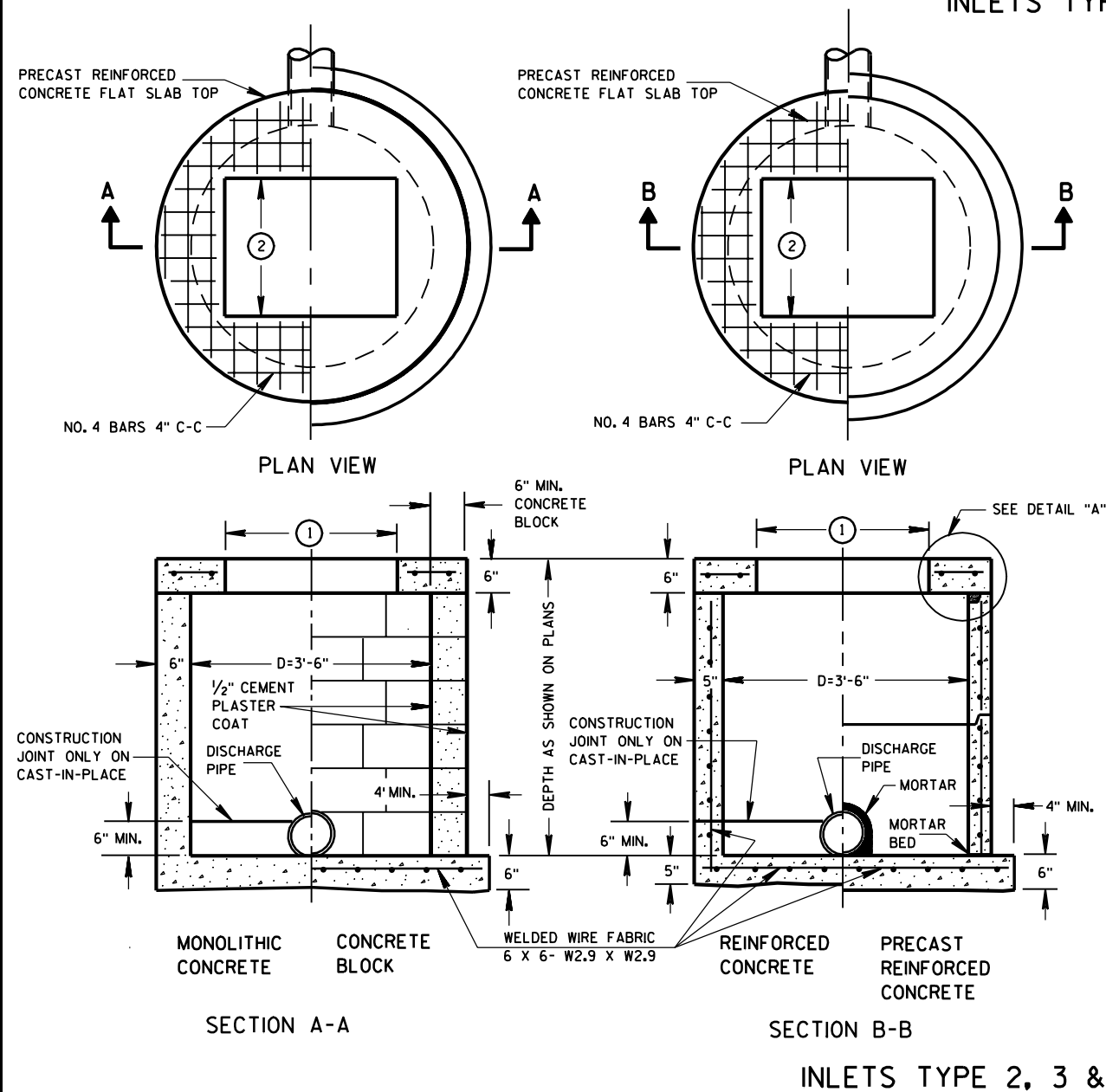
PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

PRECAST REINFORCED CONCRETE RISERS SHALL BE PLACED WITH TONGUE DOWN.

- ① USE 2'-6" OPENING FOR TYPE 2 INLETS, 3'-0" OPENING FOR TYPE 3 INLETS, AND 2'-11" FOR TYPE 4 INLETS.
- ② USE 2'-0" OPENING FOR TYPE 1, 2 & 3 INLETS, 2'-6 1/2" OPENING FOR TYPE 4 INLETS.

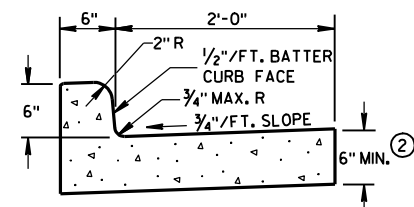


INLETS TYPE 1, 2, 3 & 4

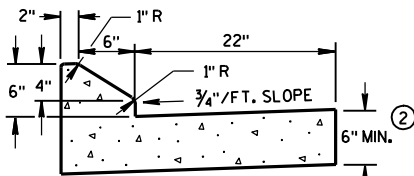
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/26/94
DATE
FHWA

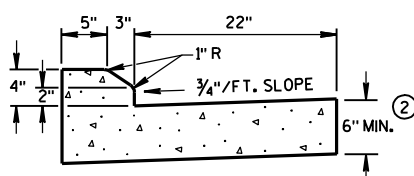
James J. Hunsicker
CHIEF ROADWAY DEVELOPMENT ENGINEER



TYPES A & D ①

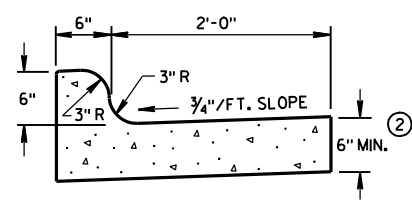


6" SLOPED CURB TYPES G & J ①

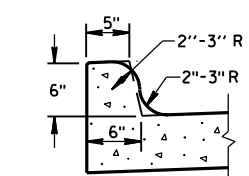
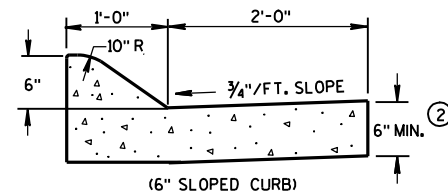


4" SLOPED CURB TYPES G & J ①

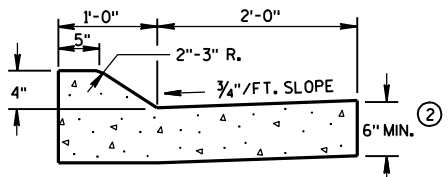
CONCRETE CURB & GUTTER 30"



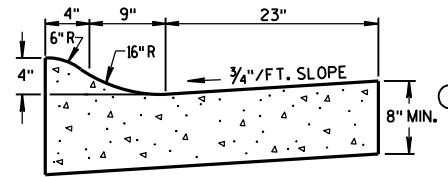
TYPES K & L ①

OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

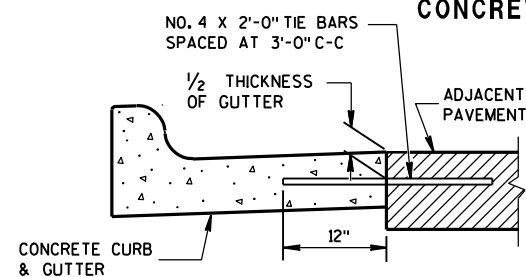


TYPES A & D ①

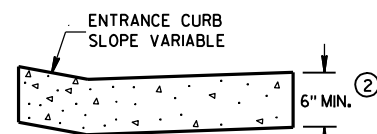
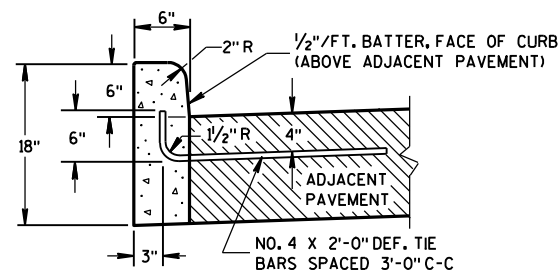


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

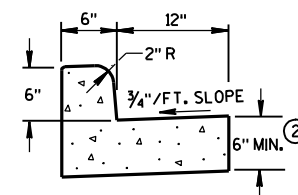
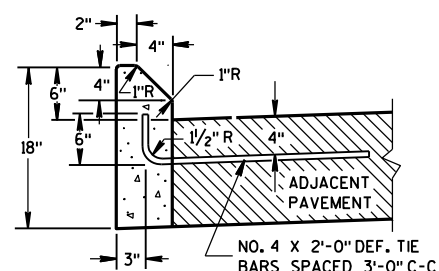


TYPICAL TIE BAR LOCATION ①

DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

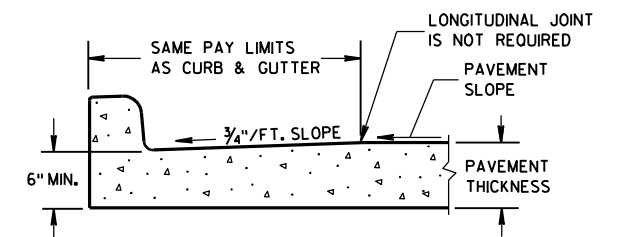
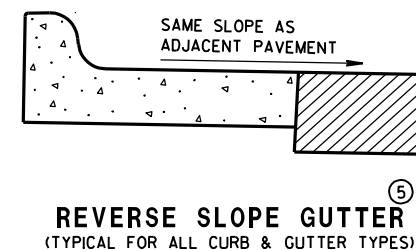
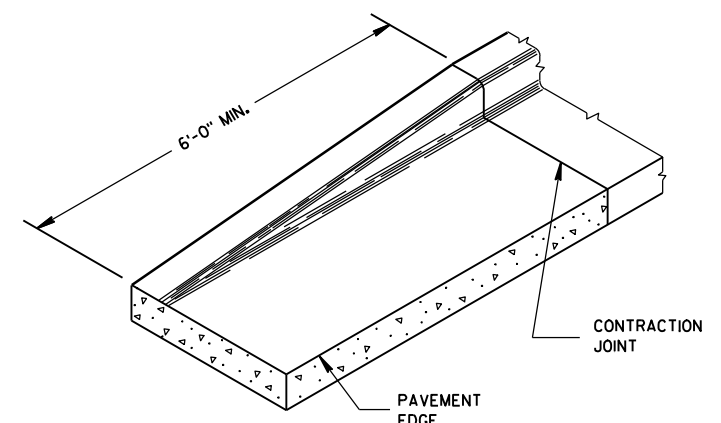
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

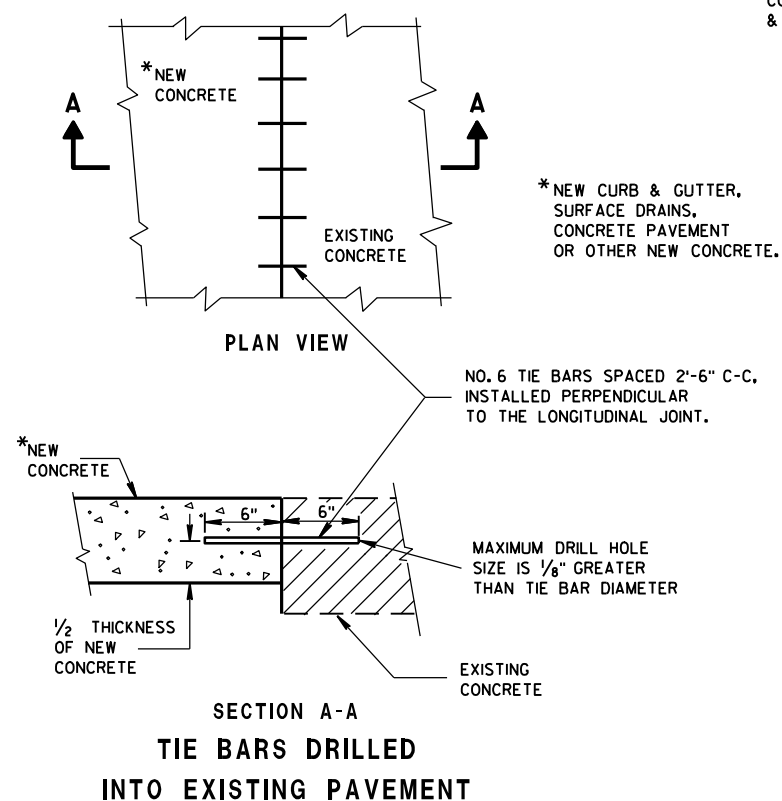
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

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

PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER



PLAN VIEW

SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

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

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

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

EXISTING
CONCRETE

1/2" THICKNESS
OF NEW
CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

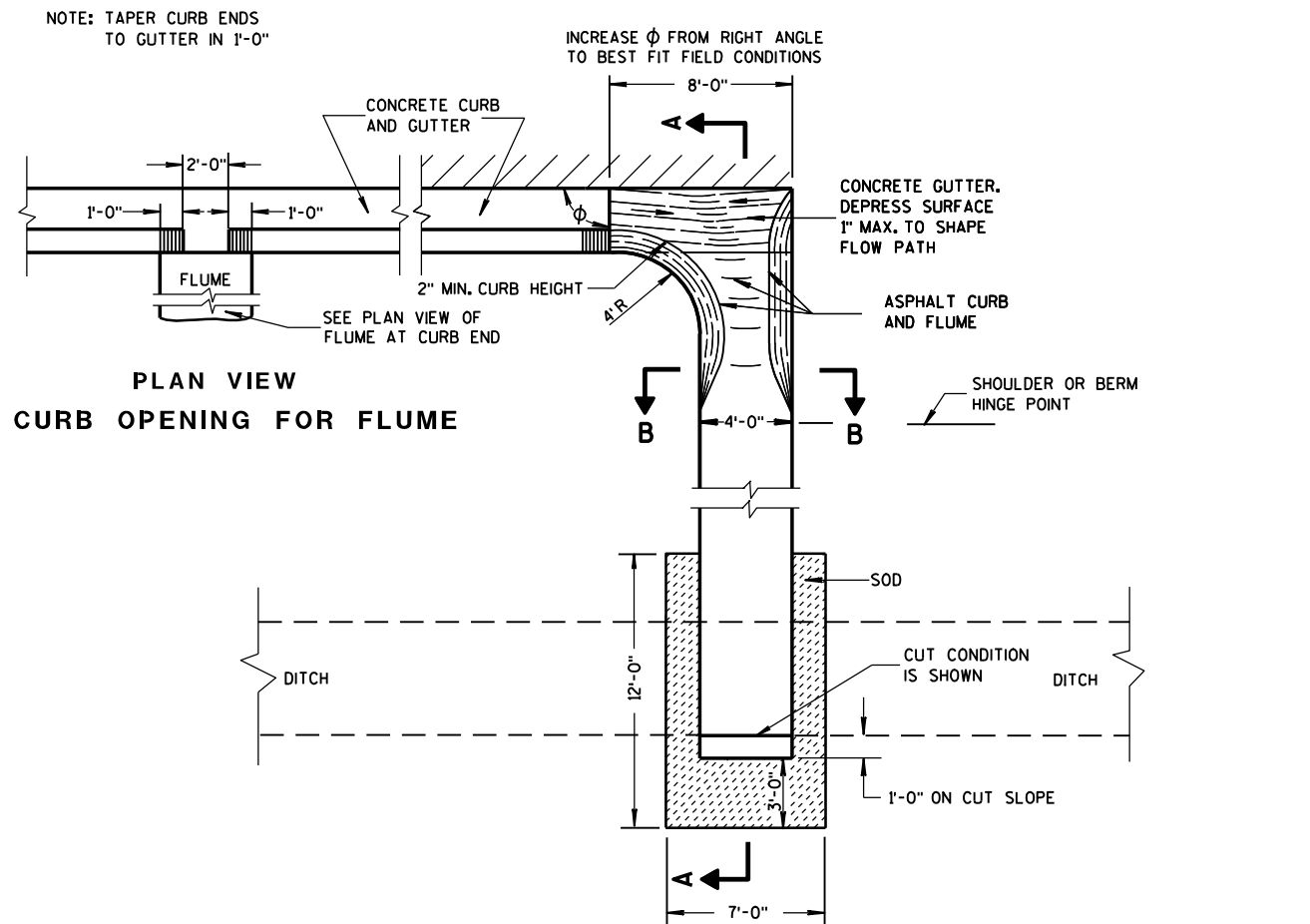
9/4/08

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

ASPHALTIC FLUME



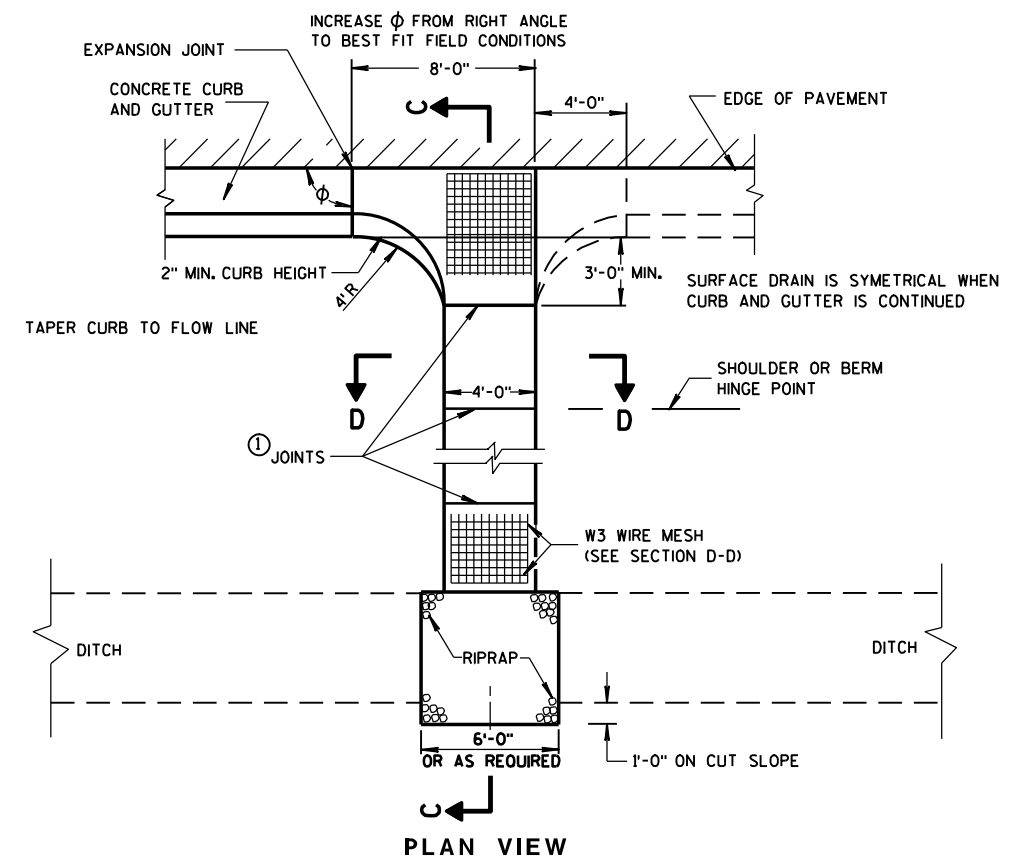
GENERAL NOTES

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

WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- JOINTS SHALL BE 1/8 TO 1/4 INCH WIDE BY 1 1/2 INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

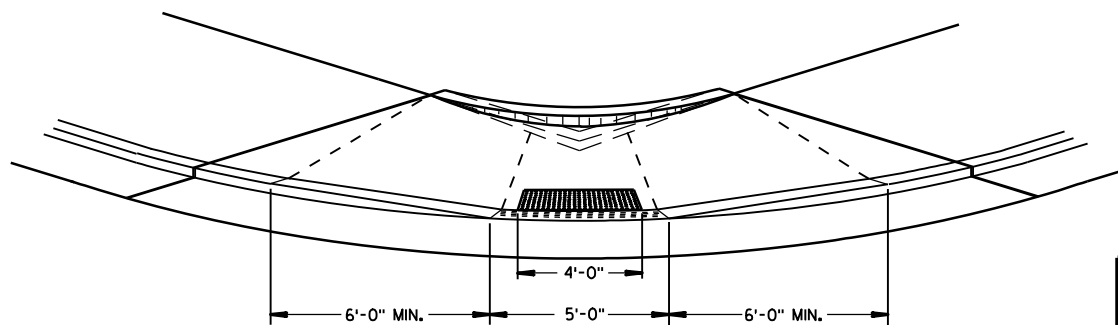
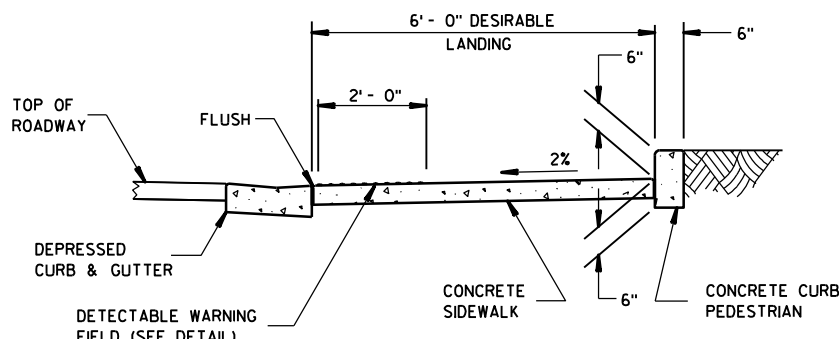
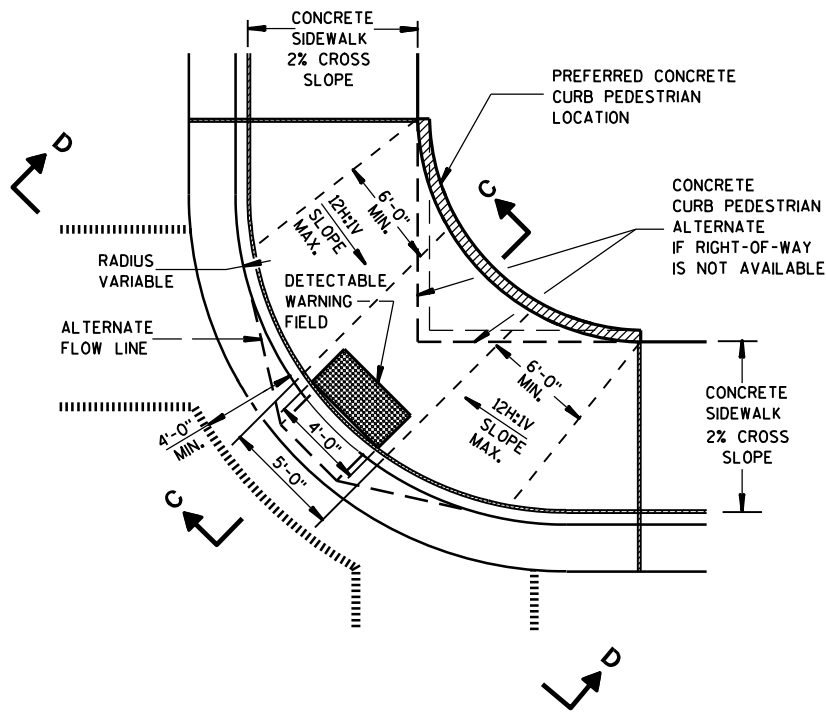
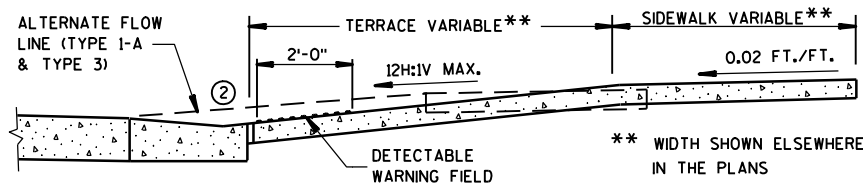
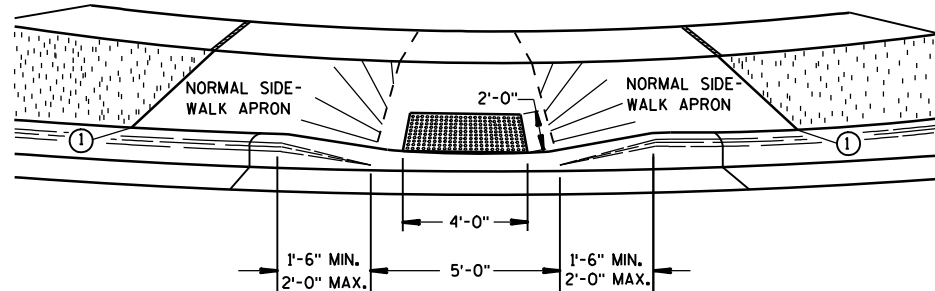
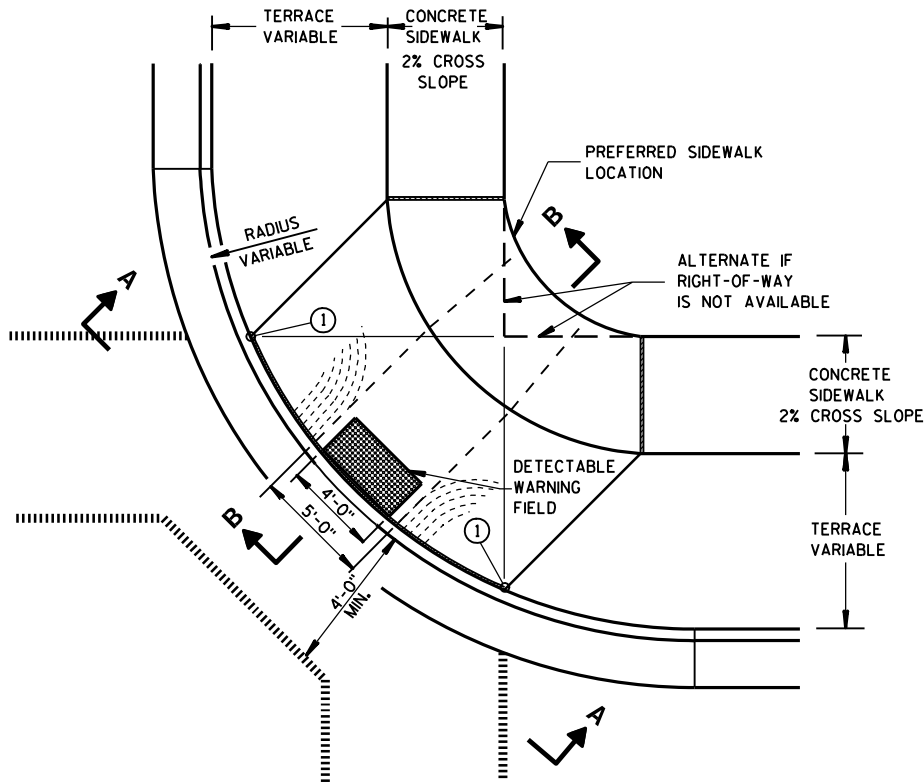
③ CONCRETE SURFACE DRAIN



CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

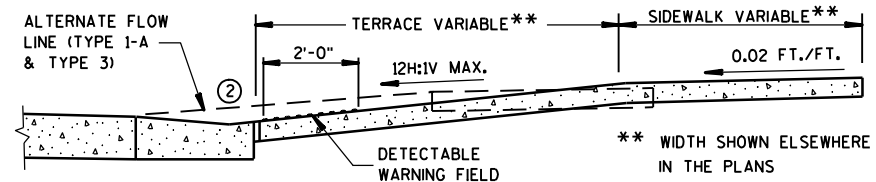
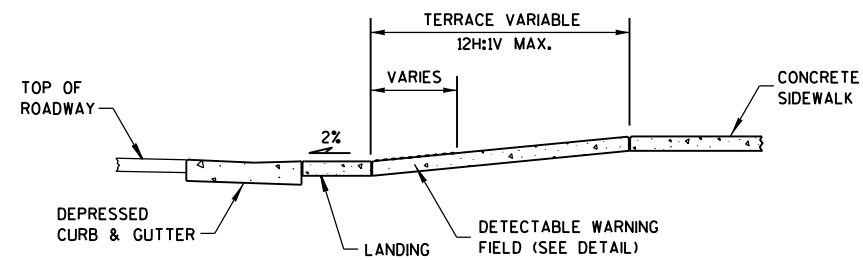
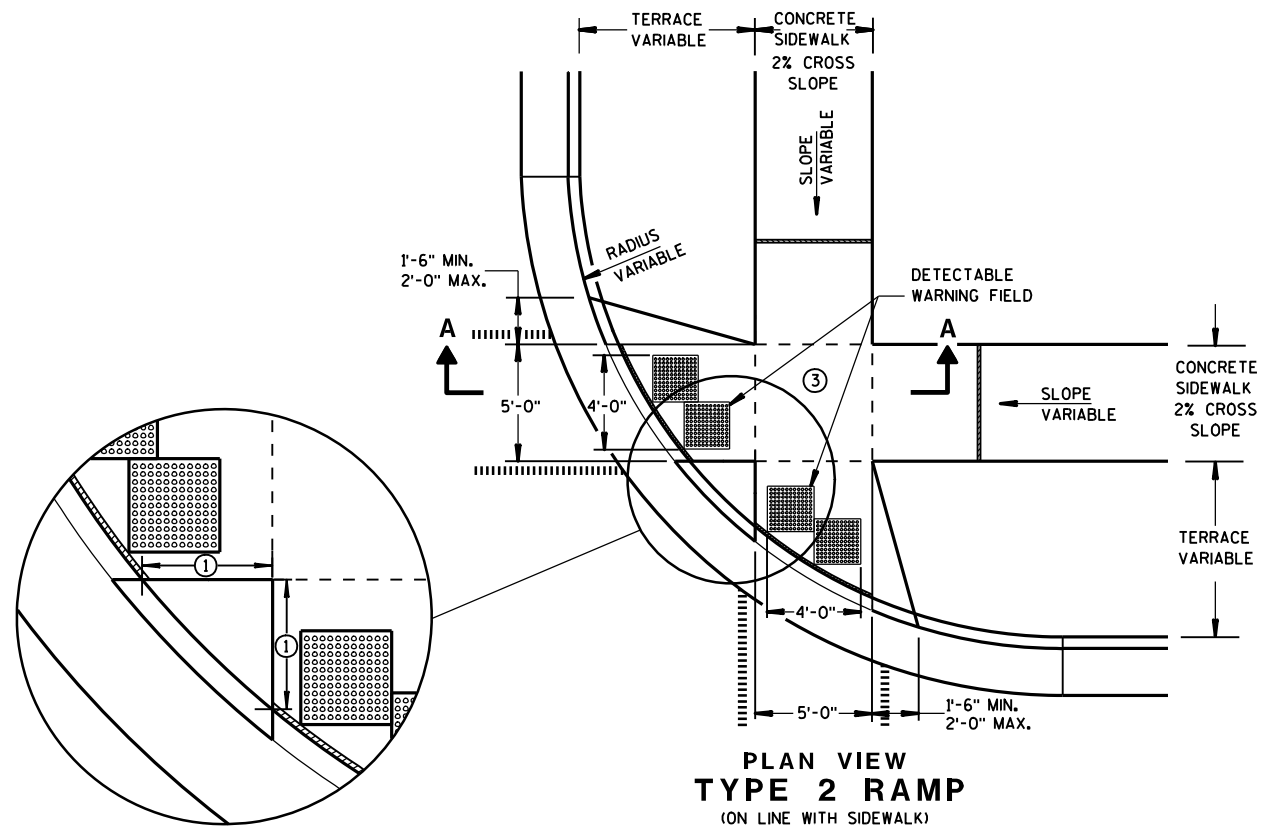
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

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

CURB RAMPS
TYPES I AND I-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



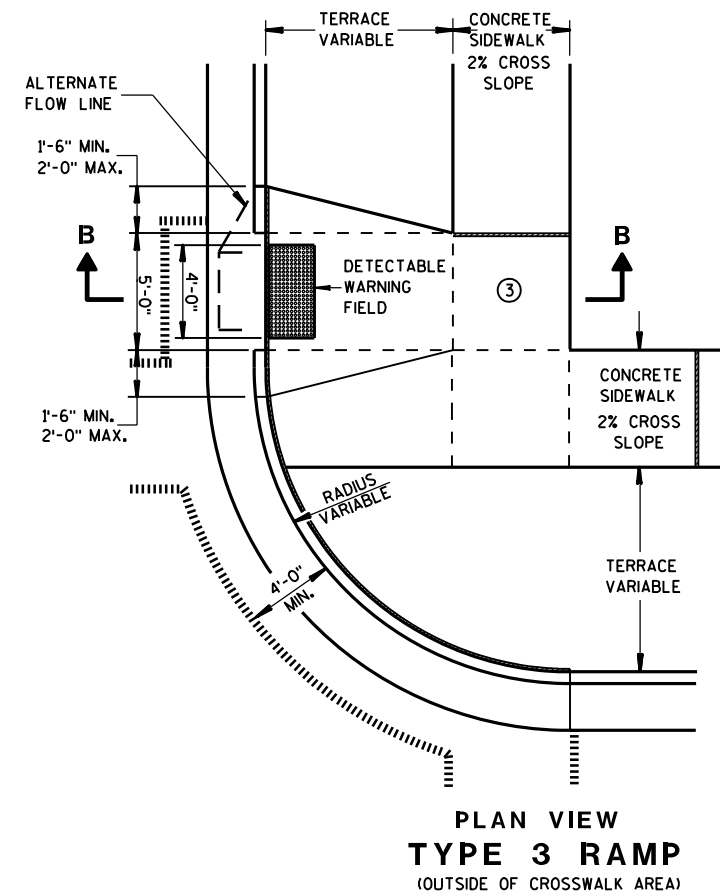
GENERAL NOTES

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

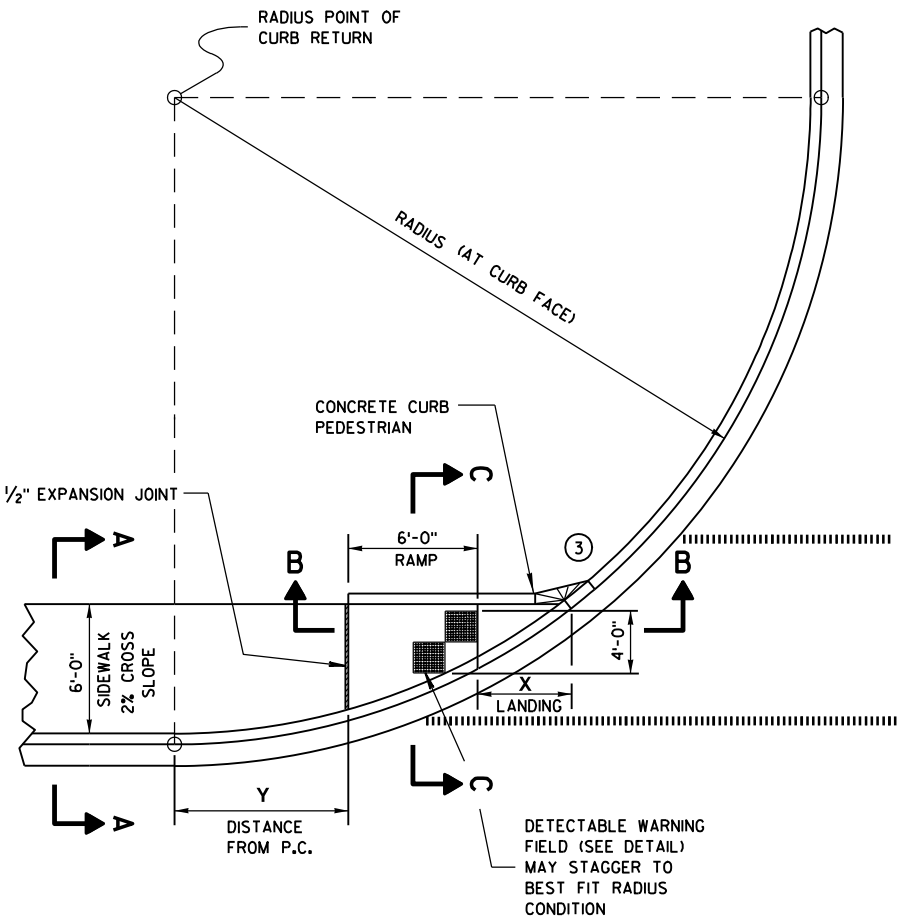
LEGEND

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

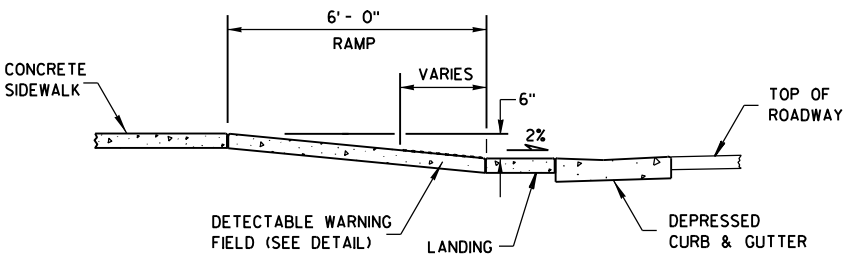


CURB RAMPS
TYPES 2 AND 3

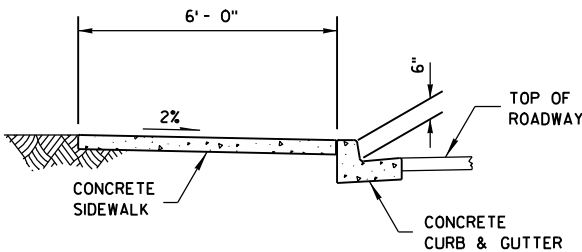
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



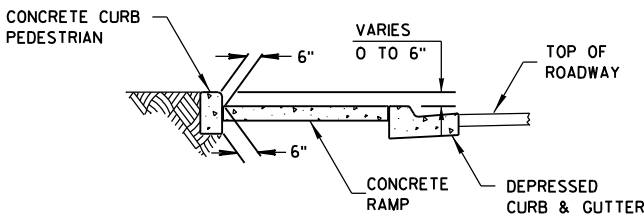
CURB RAMP TYPE 4A
PLAN VIEW



SECTION B-B



SECTION A-A



SECTION C-C

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

INTERMEDIATE RADII CAN BE INTERPOLATED

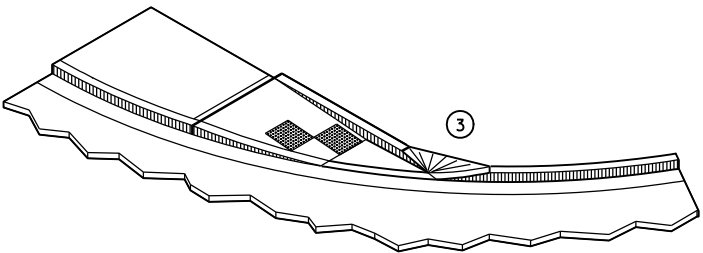
GENERAL NOTES

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

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.



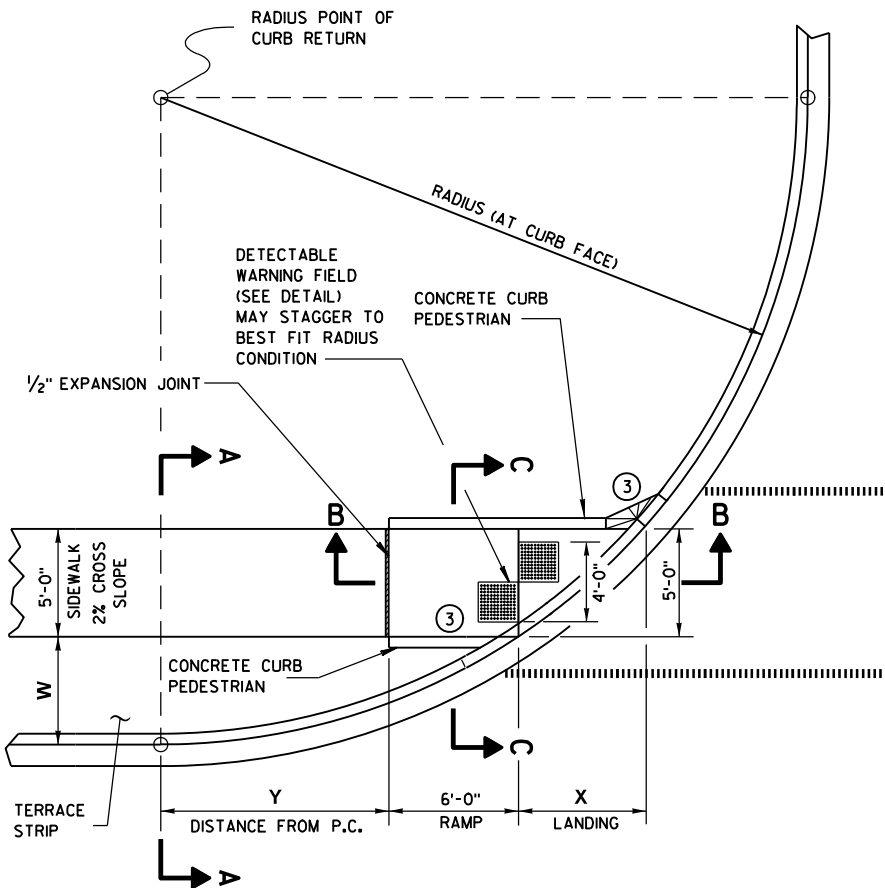
ISOMETRIC VIEW

LEGEND

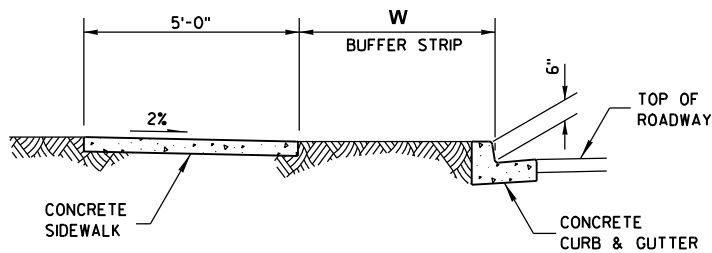
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
||||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

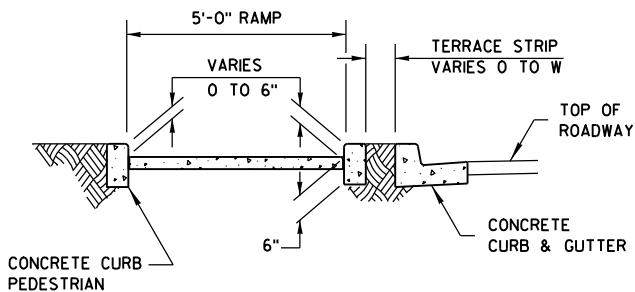
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



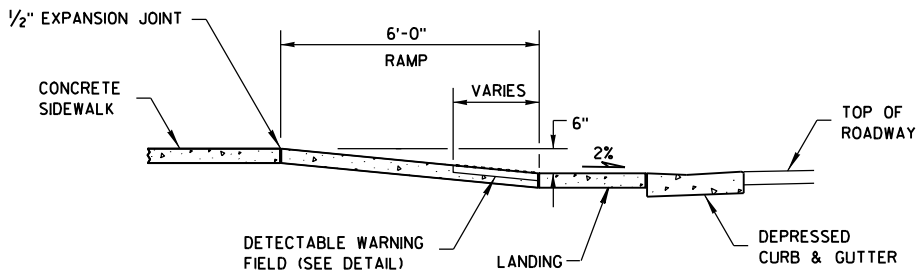
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A



SECTION C-C



SECTION B-B

GENERAL NOTES

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

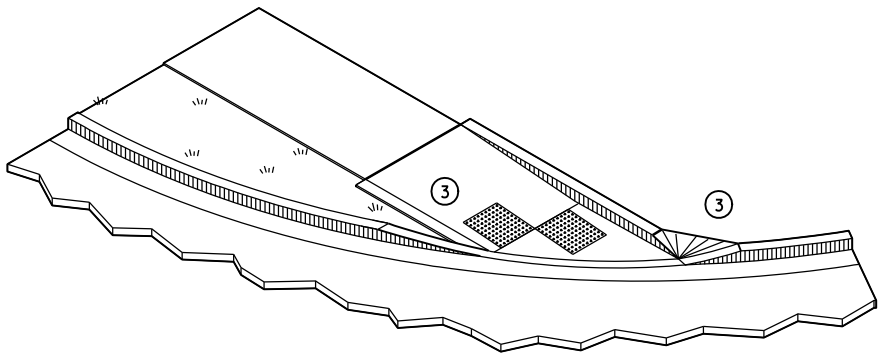
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1/2"	17'-1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



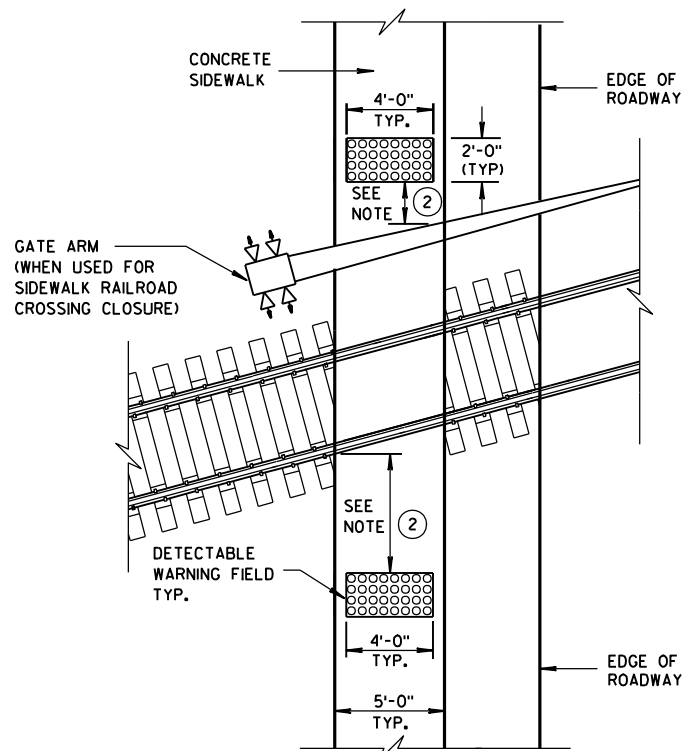
ISOMETRIC VIEW

LEGEND

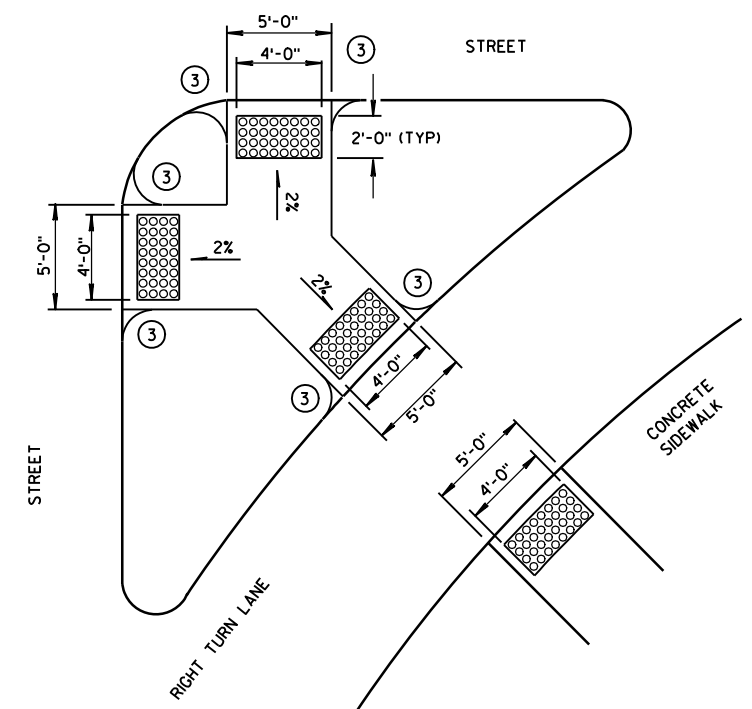
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4B

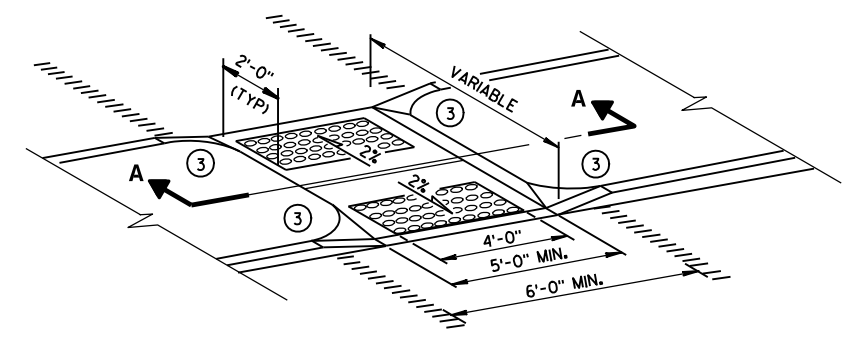
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



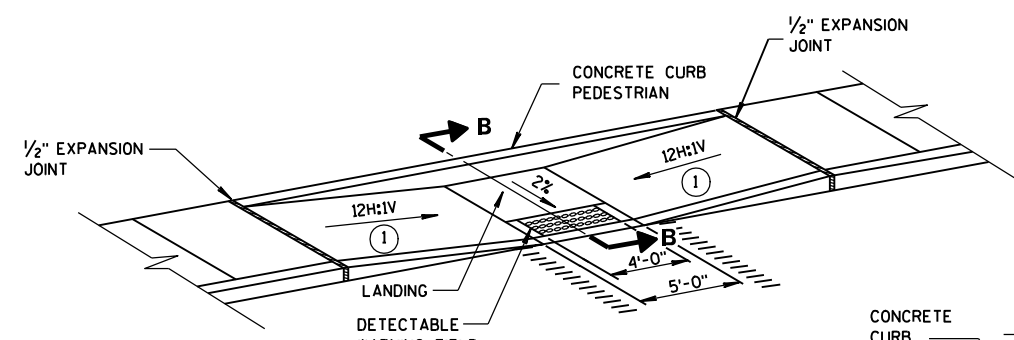
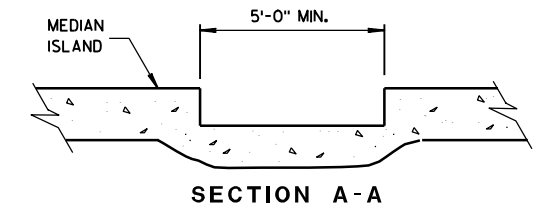
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



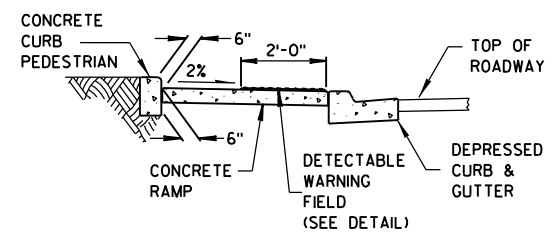
TYPE 6
DETECTABLE WARNING AT ISLANDS



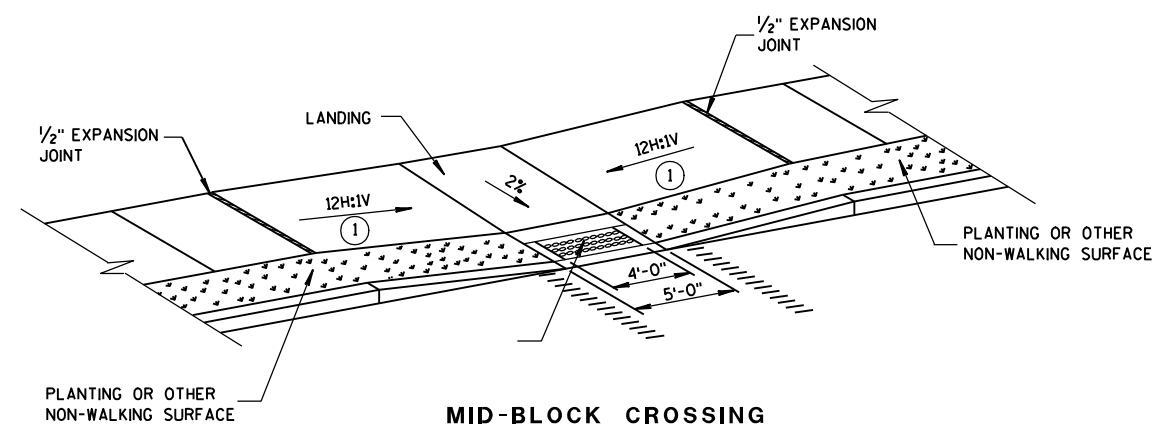
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

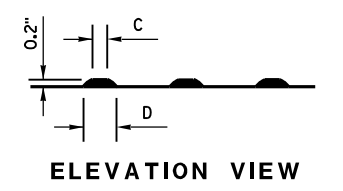
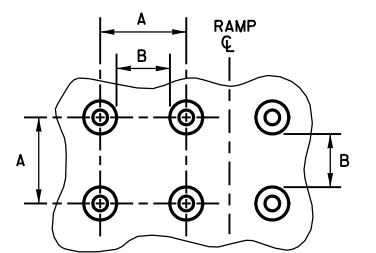
GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

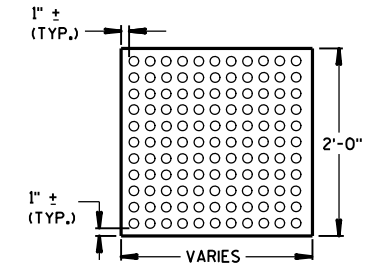
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



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

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

TRUNCATED DOMES
DETECTABLE WARNING
PATTERN DETAIL



DETECTABLE WARNING
FIELD (TYPICAL)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 2-9-10
FHWA

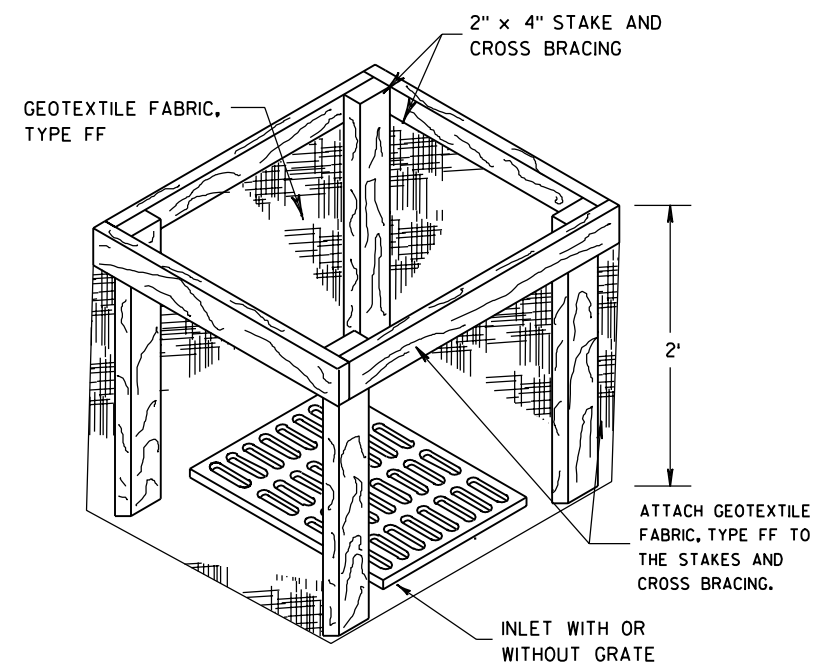
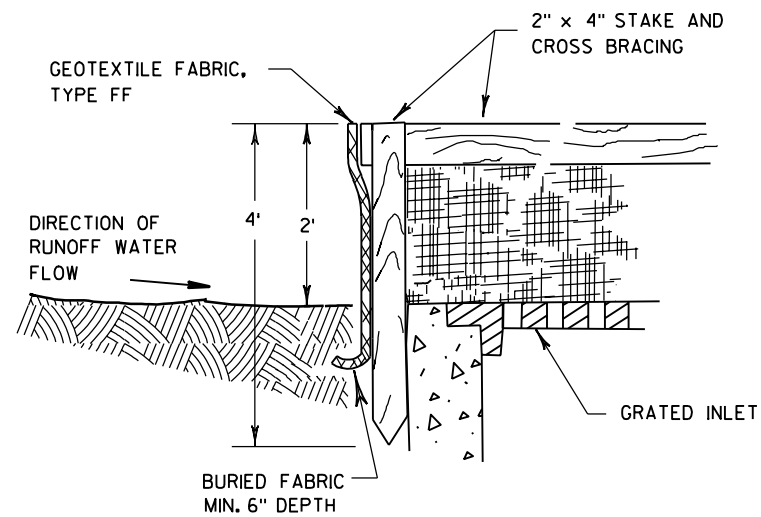
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



- 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.



S.D.D. 8 E 9-6



INLET PROTECTION, TYPE A

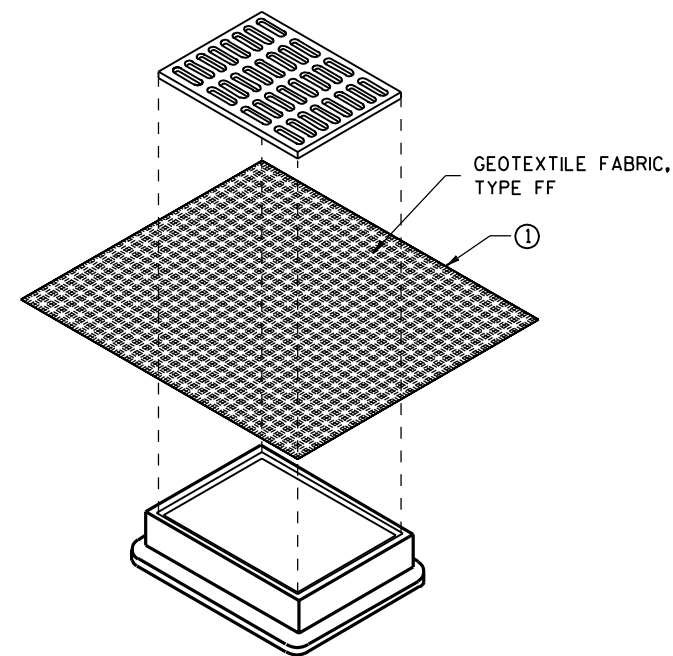
GENERAL NOTES

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.

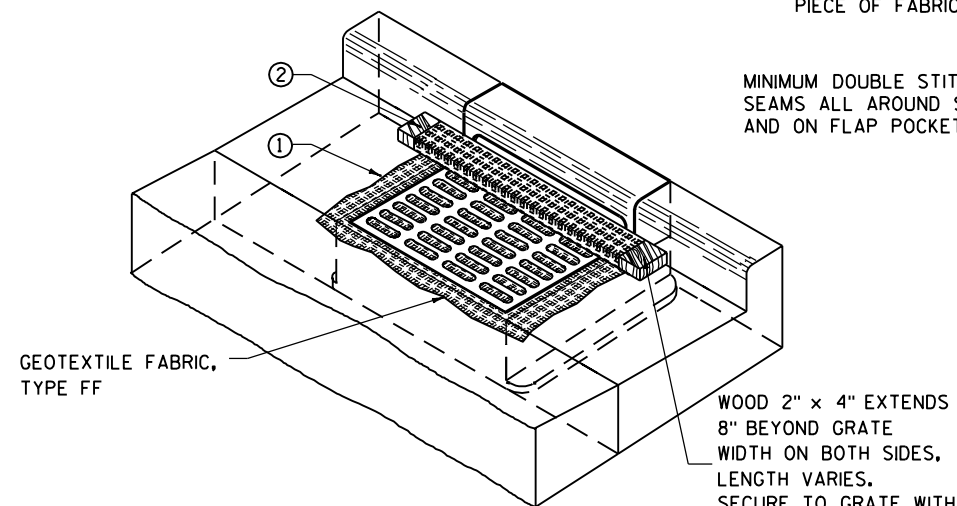
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

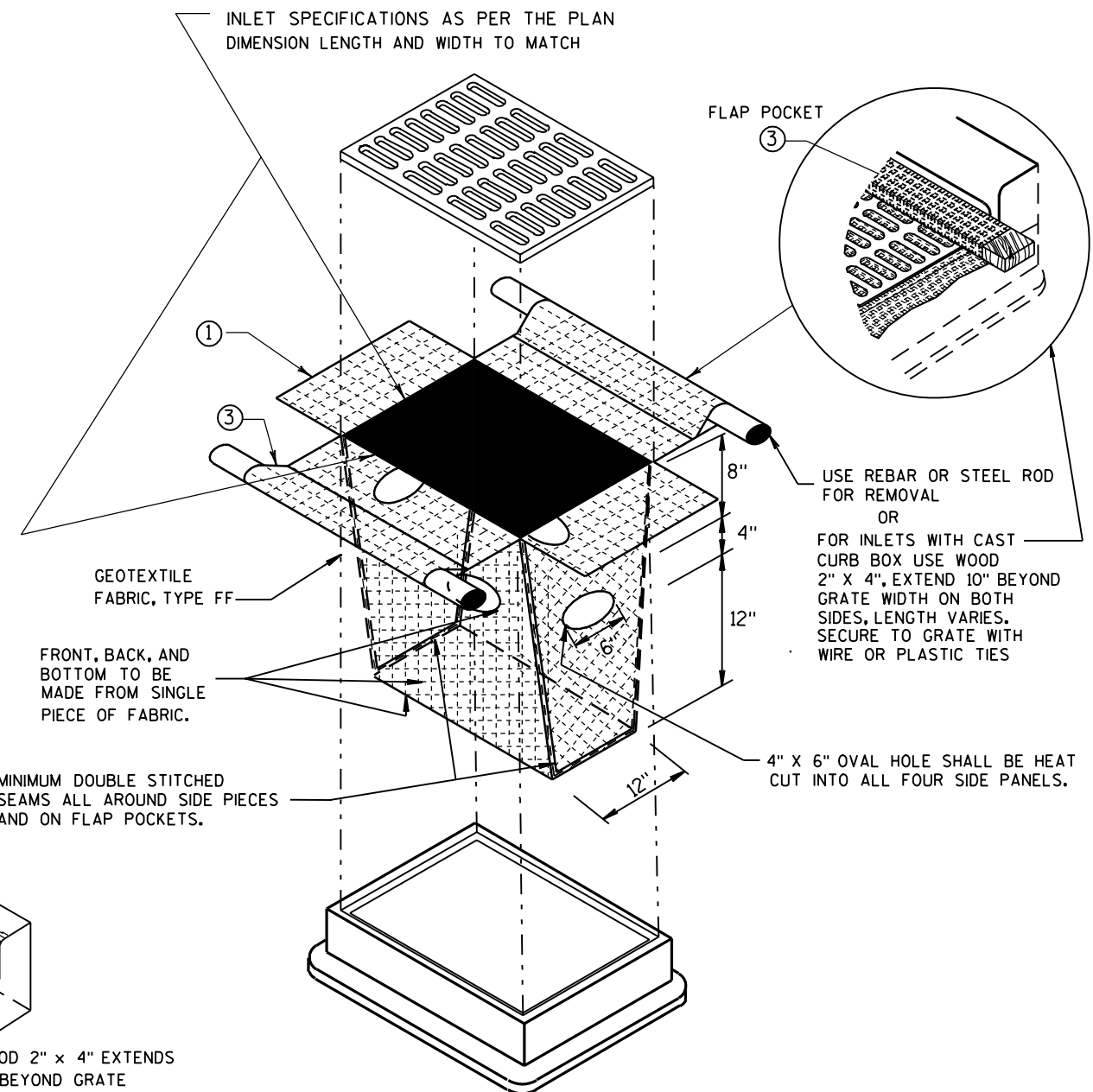
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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**

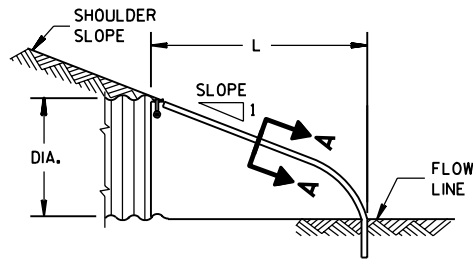
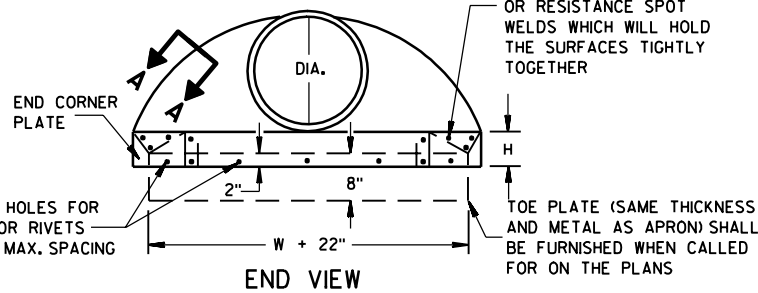
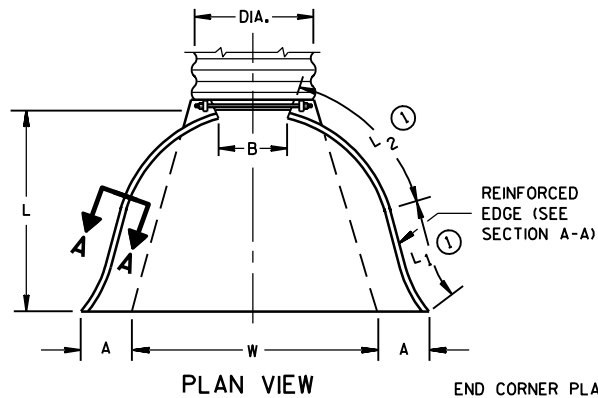
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
FHWA

CHIEF ROADWAY DEVELOPMENT ENGINEER

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

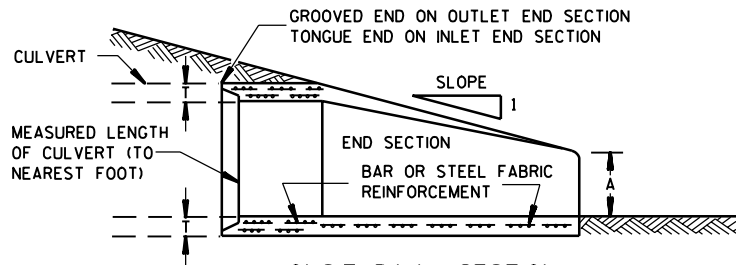
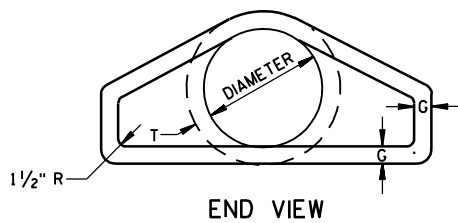
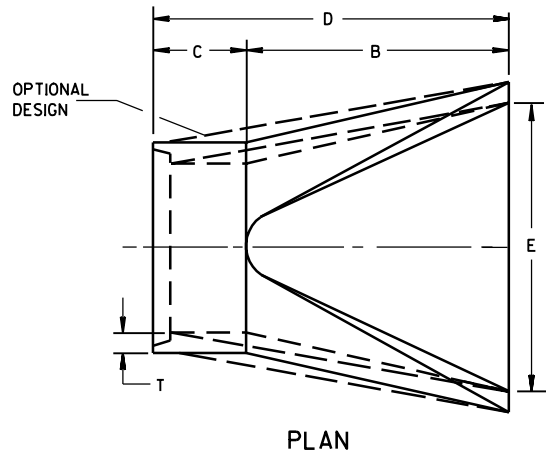
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

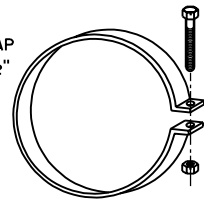
REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2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

* MINIMUM
** MAXIMUM

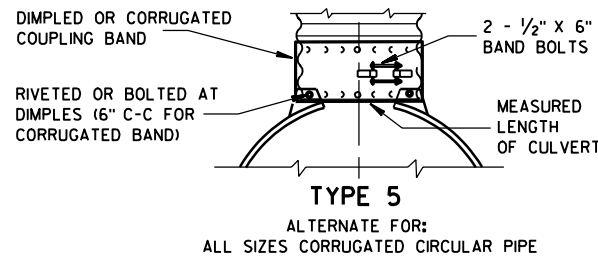
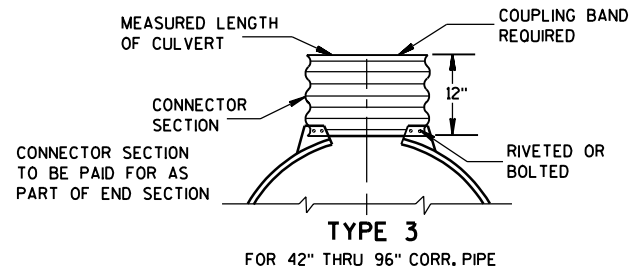
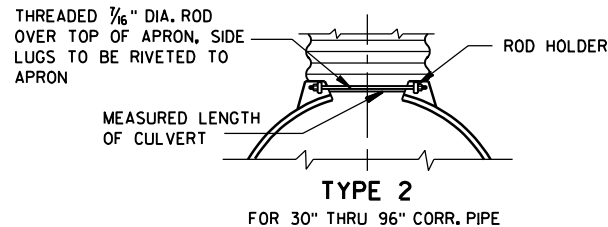
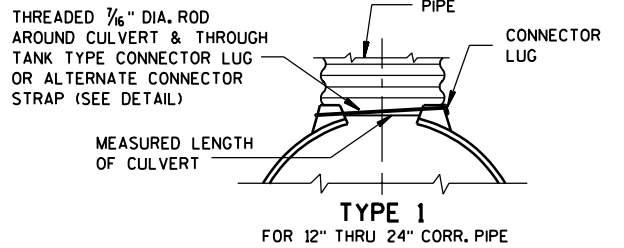


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



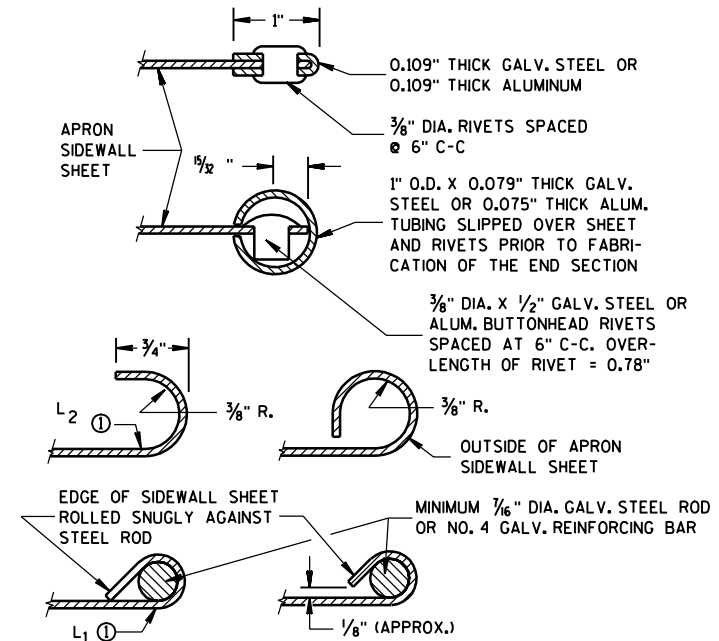
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

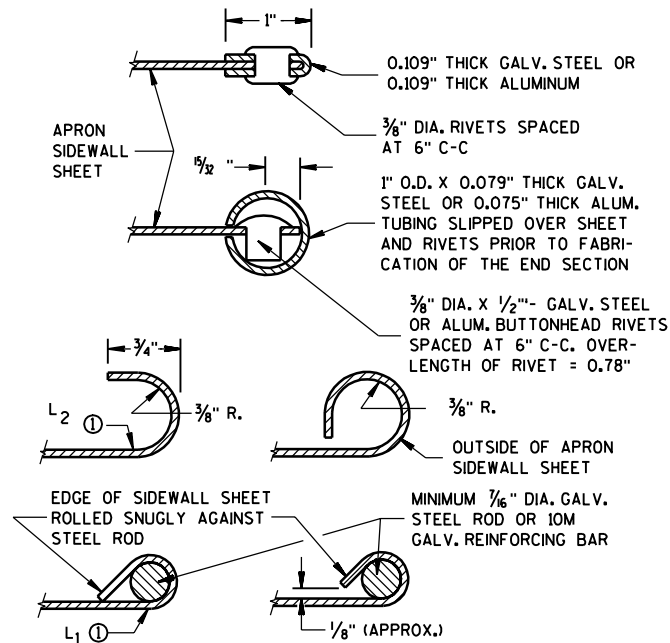
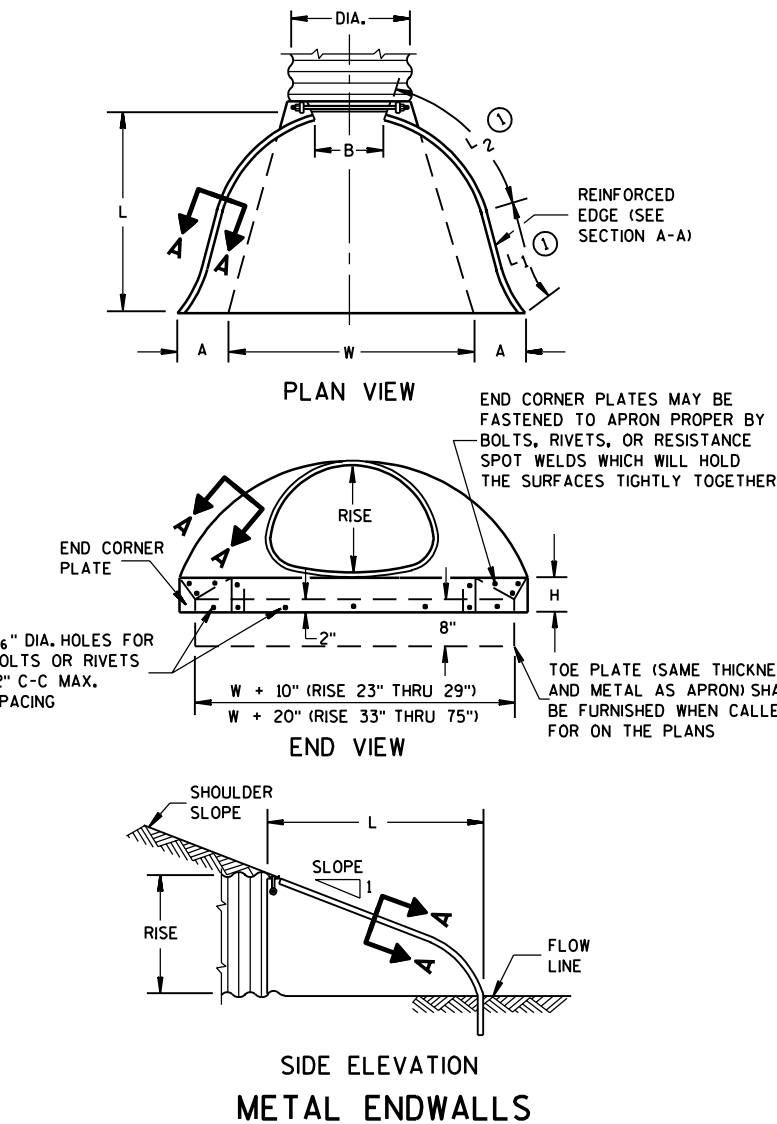
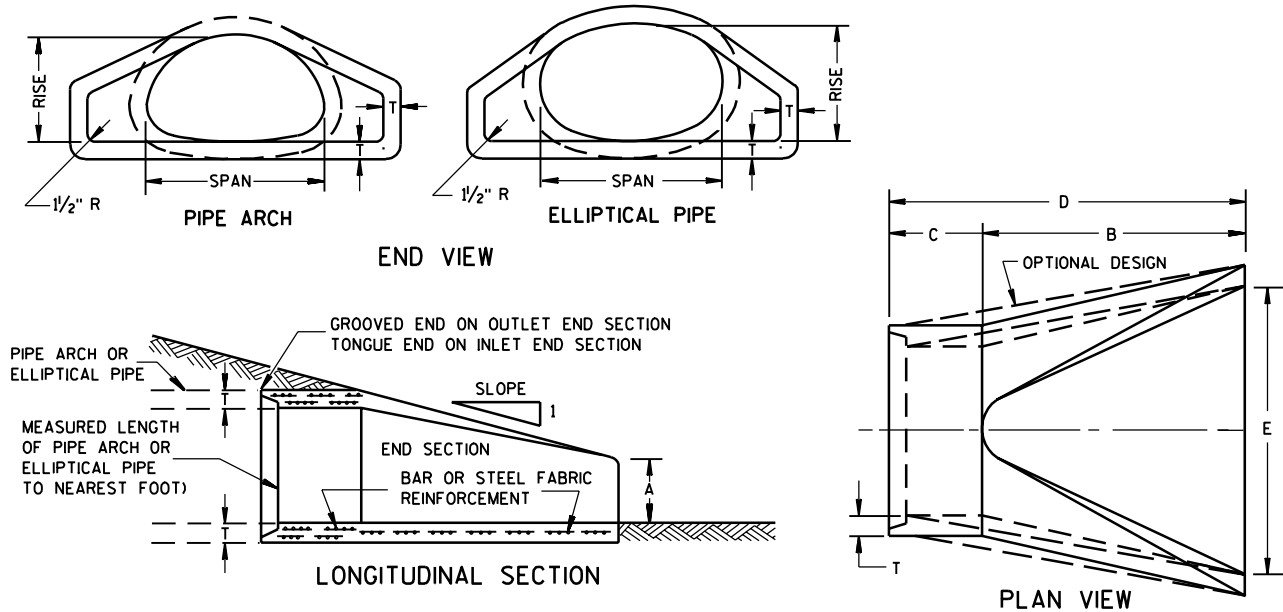
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE

CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

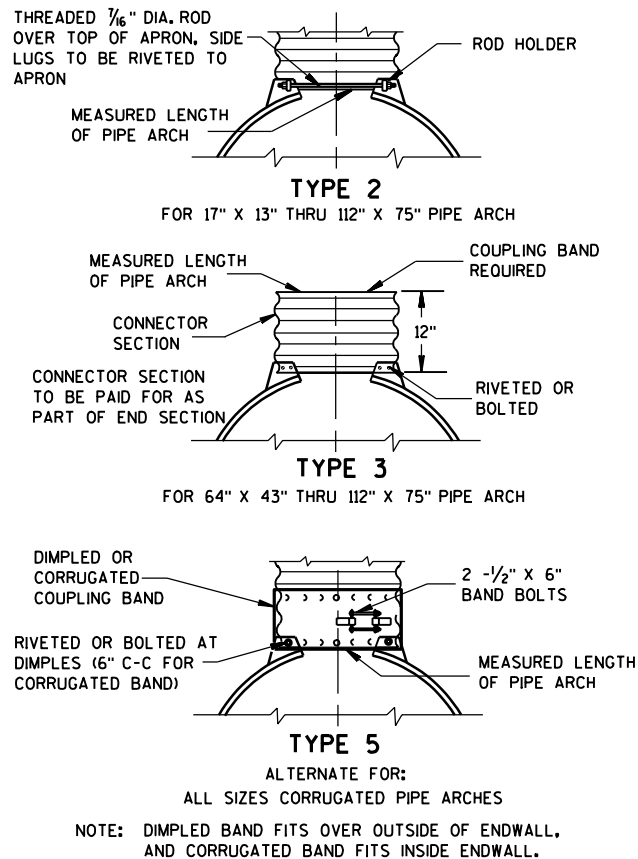


SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A	B	H	L	L1	L 2	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±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 1/4	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 3/8	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	B	H	L	L1	L 2	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±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



CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH									
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅞	60	36	96	72	3 to 1
42	51	31	4½	15⅞	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	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	28½	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	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅞	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ 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.

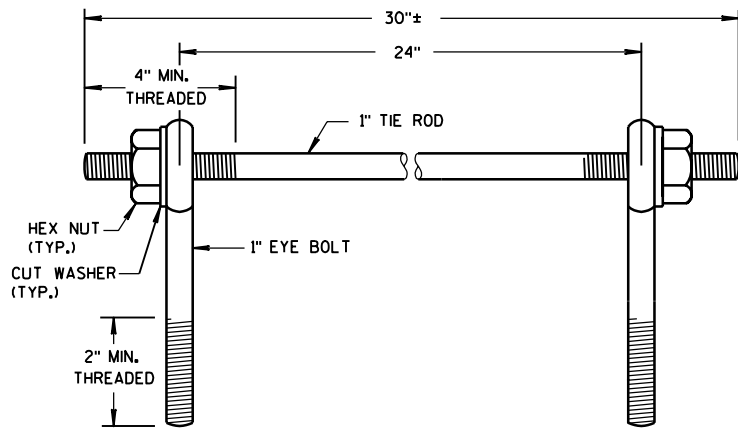
ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT 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.

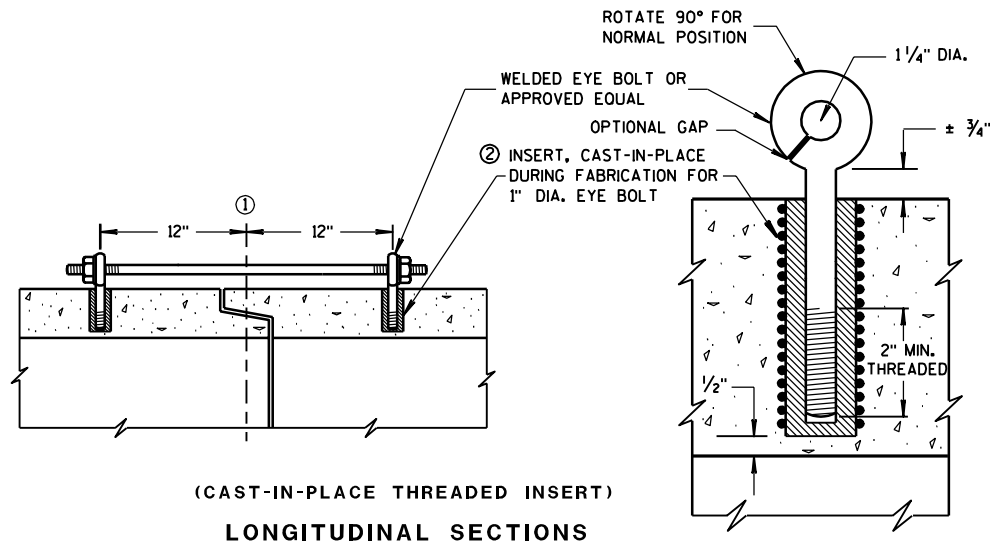
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

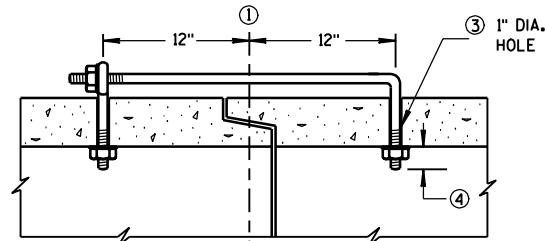
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED ON 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 CULVERT PIPE AS INDICED ON THE PLANS AND BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO CULVERT PIPE, REINFORCED CONCRETE CULVERT PIPE, OR REINFORCED CONCRETE PIPE CATTLE PASS.

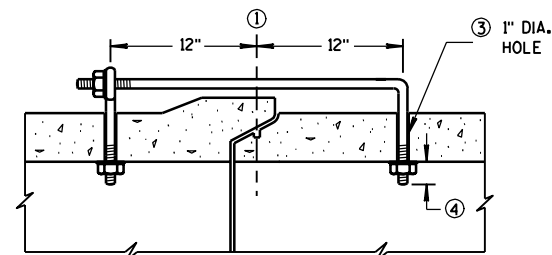
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

- ① C. 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 12 INCHES FROM C. OF TONGUE AND GROOVE.
- 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.

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



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)
LONGITUDINAL SECTION

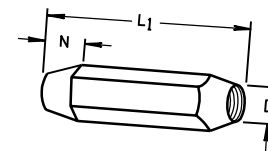
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

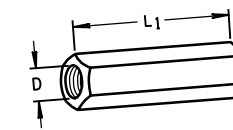
ADJUSTABLE TIE ROD TABLE

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
90-108	1	1	7	1 1/8

DIMENSIONS SHOWN ARE IN INCHES



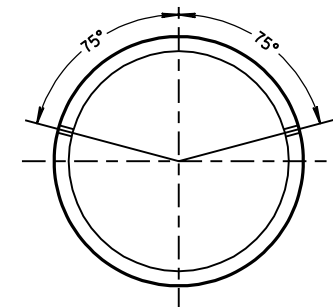
TAPERED



PLAIN

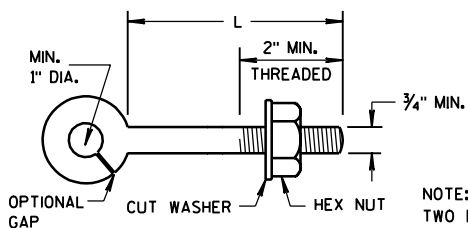
RIGHT AND LEFT THREADS

SLEEVE NUTS



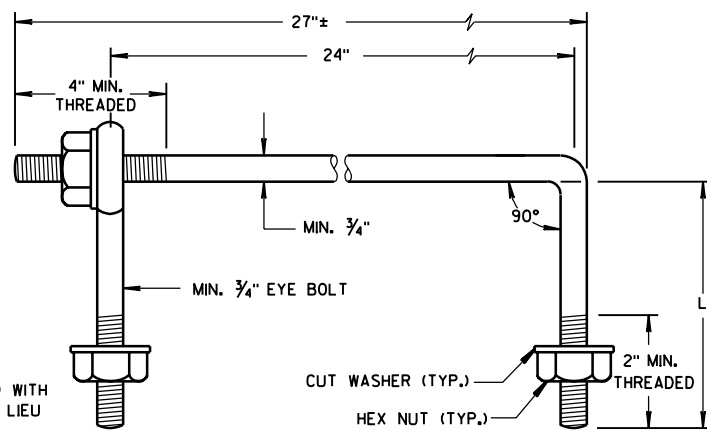
PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



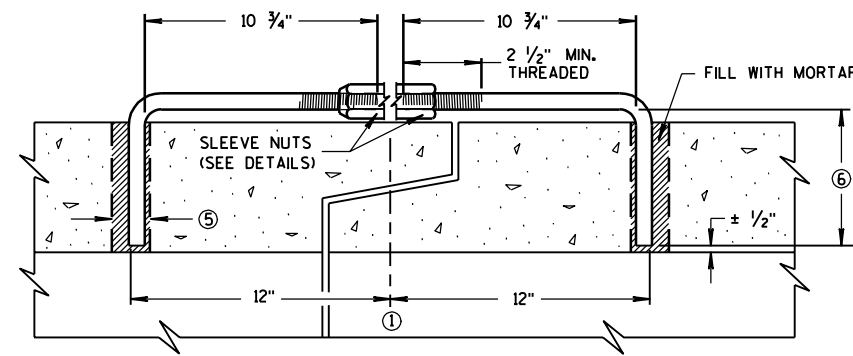
EYE BOLT

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



EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



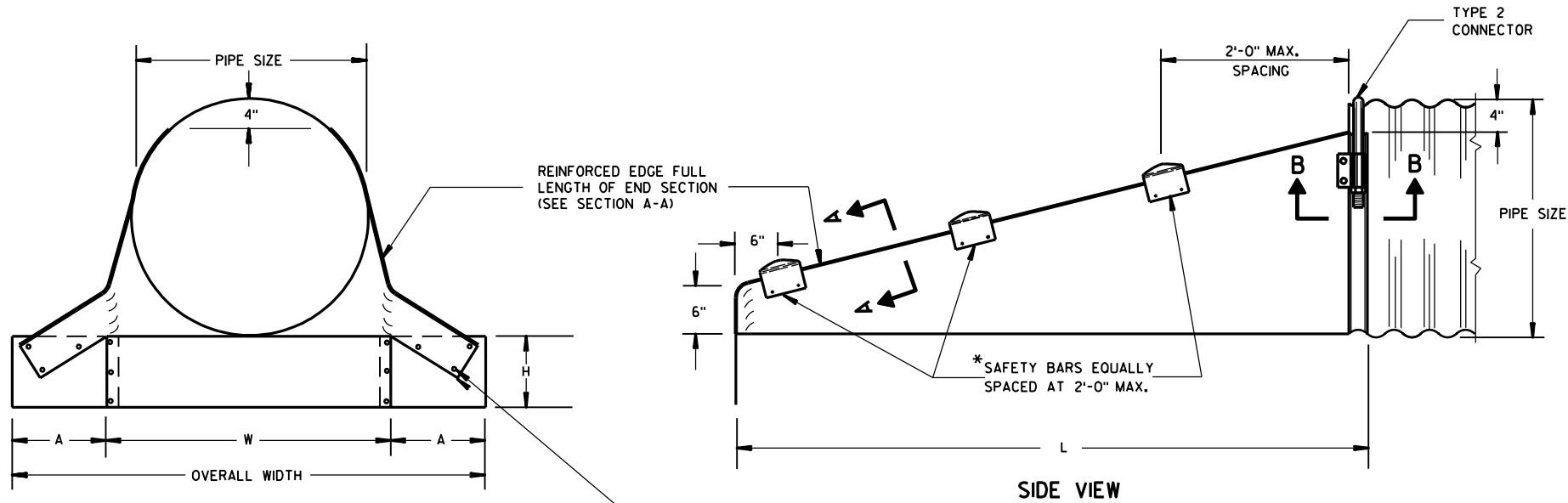
LONGITUDINAL SECTION

(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

JOINT TIES FOR CONCRETE PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/07 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



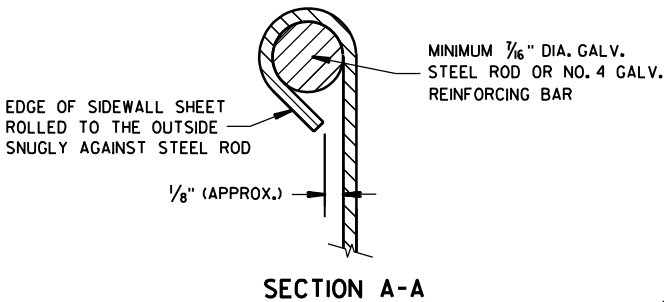
FRONT VIEW

SIDE VIEW

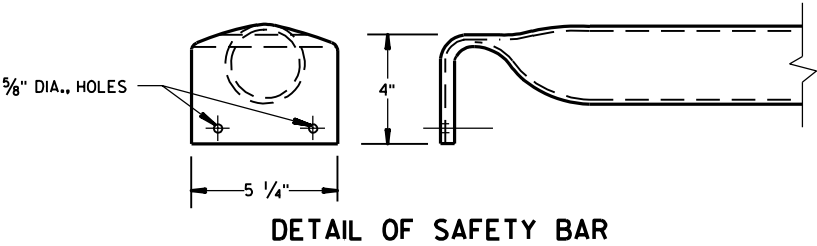
BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

*NOTE: THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

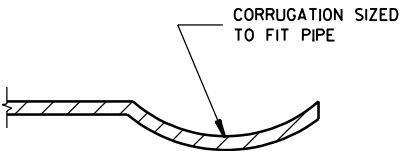
3" GALVANIZED PIPE, FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.



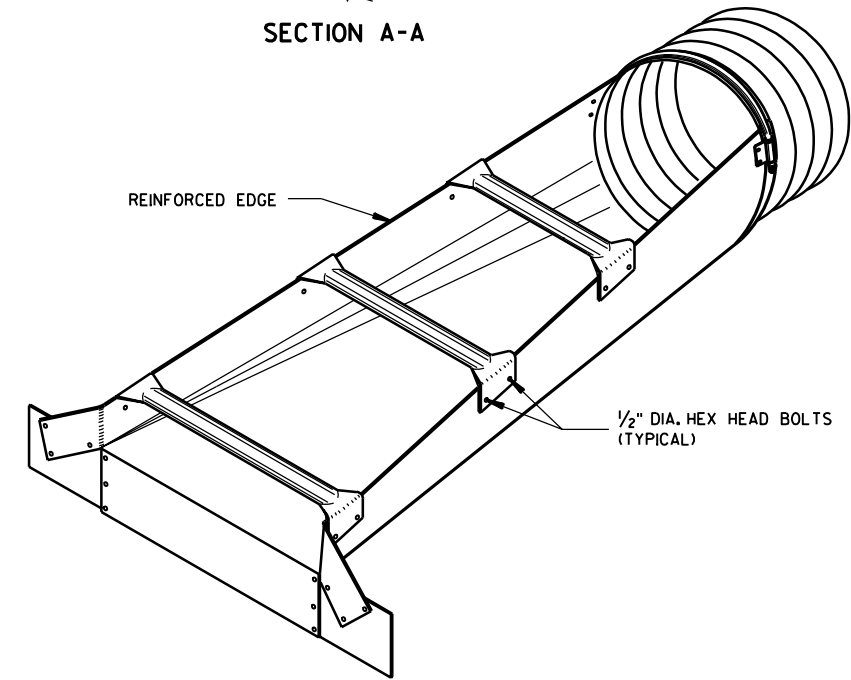
SECTION A-A



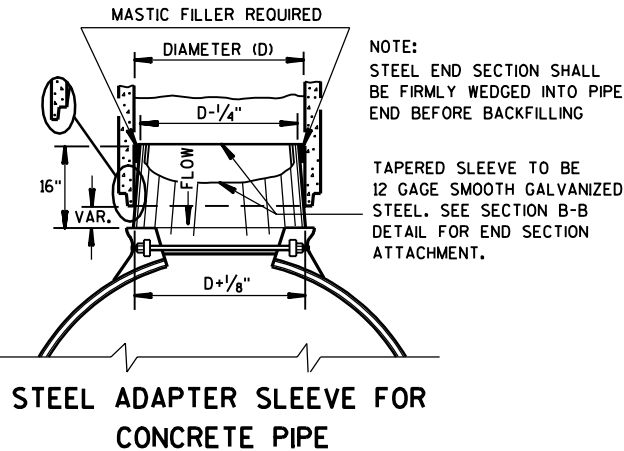
DETAIL OF SAFETY BAR



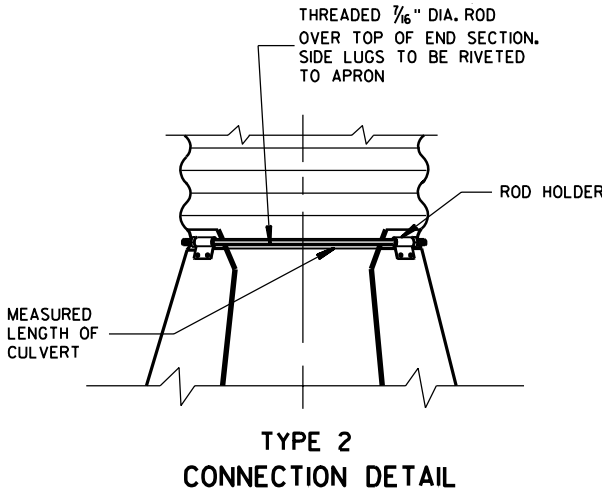
SECTION B-B



ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2 CONNECTION 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.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE							
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS	
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	6:1	30
18	.064	8	6	24	40	6:1	48
21	.064	8	6	27	43	6:1	66
24	.064	8	6	30	46	6:1	84
30	.109	12	9	36	60	6:1	120
36	.109	12	9	42	66	6:1	156
42	.109	16	12	48	80	5.63 TO 1	180
48	.109	16	12	54	86	4.74 TO 1	180
54	.109	16	12	60	92	—	—

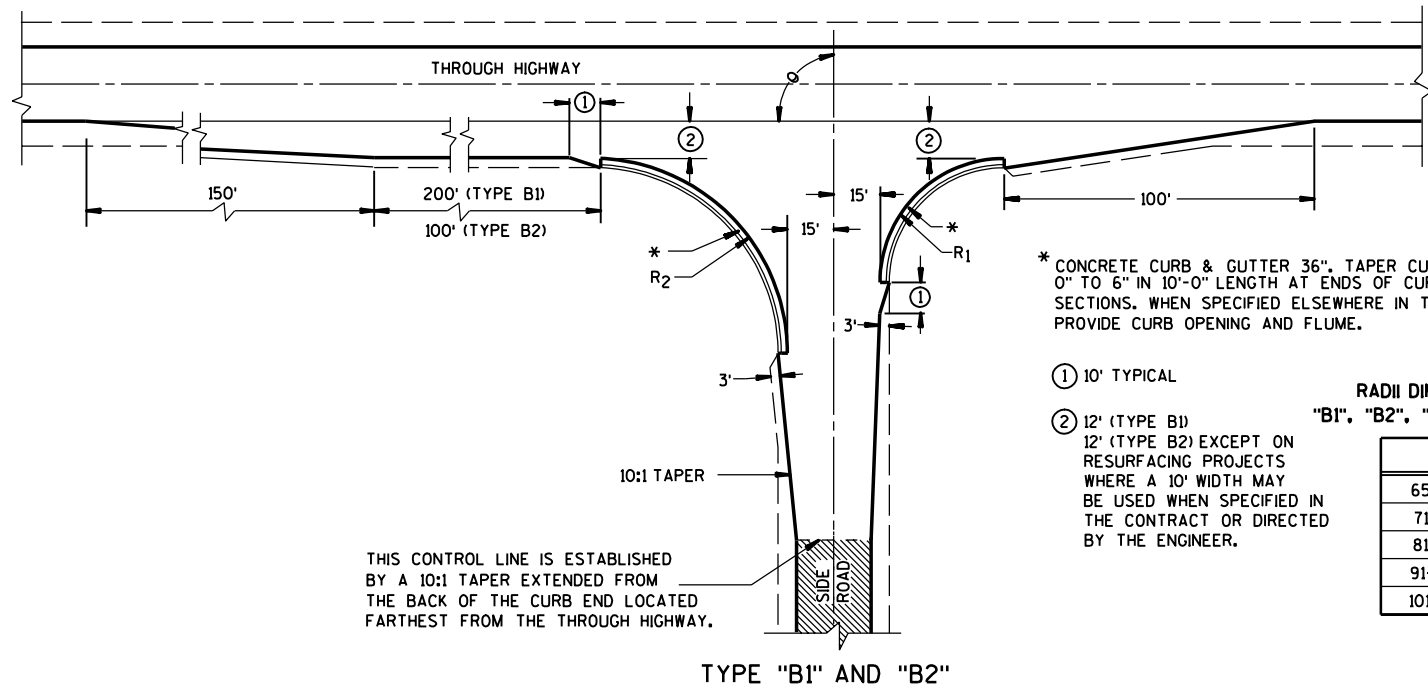
STEEL APRON ENDWALLS FOR PIPE ARCH									
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS	
	SPAN	RISE		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES
15	17	13	.064	8	6	23	39	6:1	18
18	21	15	.064	8	6	27	43	6:1	30
21	24	18	.064	8	6	30	46	6:1	48
24	28	20	.064	8	6	34	50	6:1	60
30	35	24	.079	12	9	41	65	6:1	84
36	42	29	.109	12	9	48	72	6:1	114
42	49	33	.109	16	12	55	87	6:1	138
48	57	38	.109	16	12	63	95	6:1	168
54	64	43	.109	16	12	70	102	5.45 TO 1	180

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SIDE DRAINS SLOPED SECTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/17/95
DATE
FHWA

Chief Roadway Development Engineer



GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

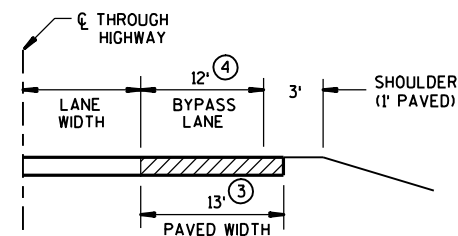
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

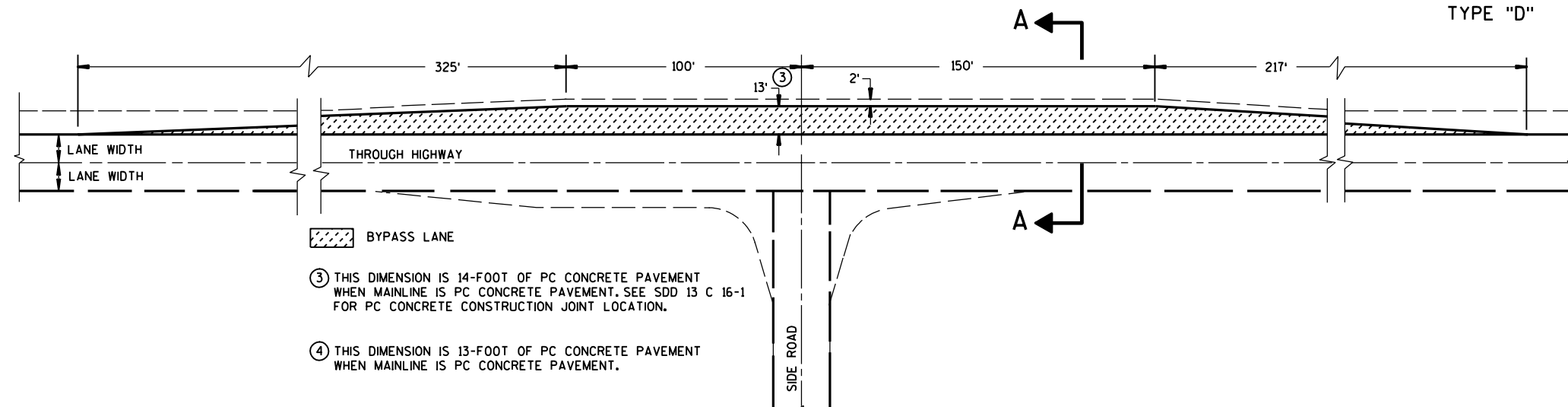
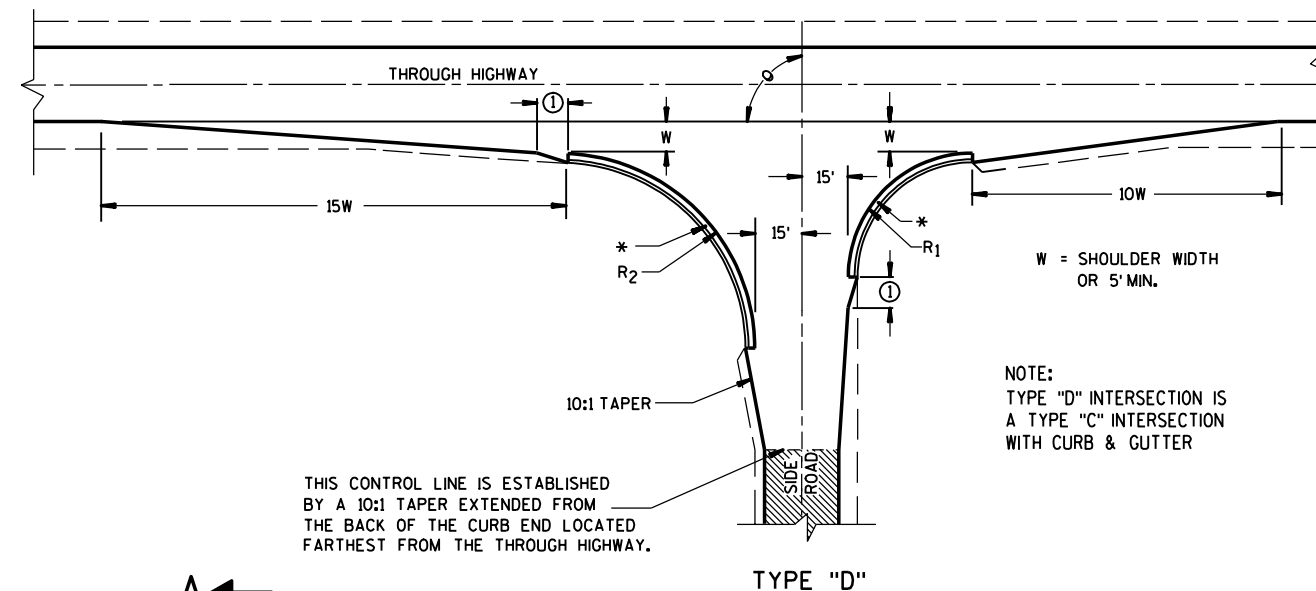
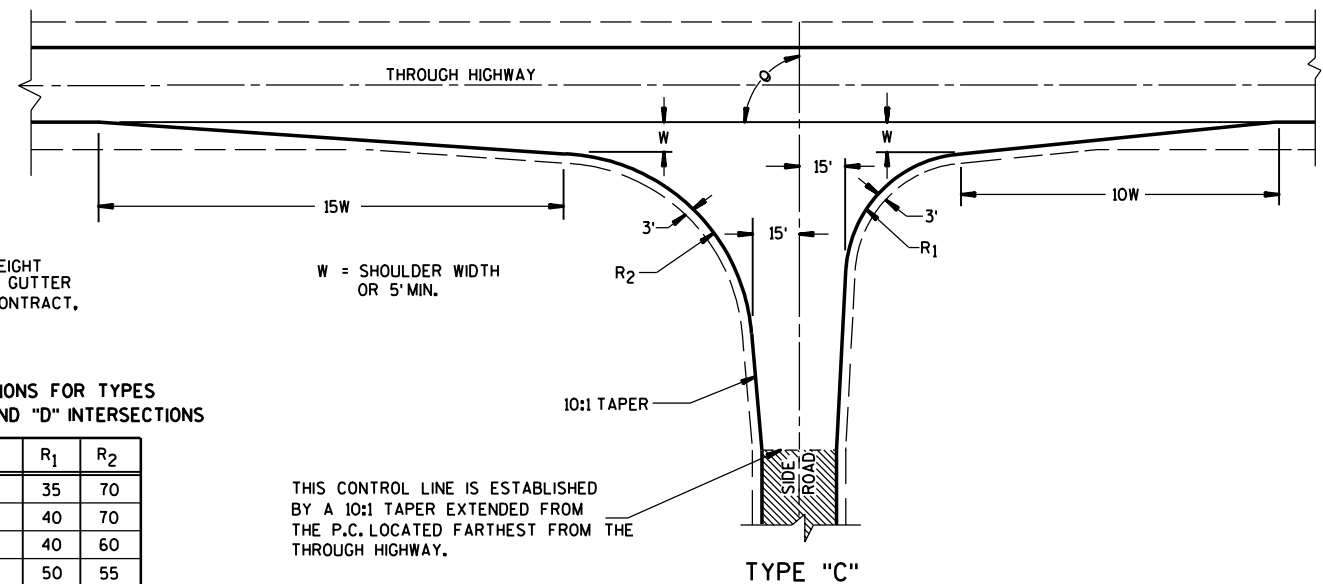
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING SURFACE



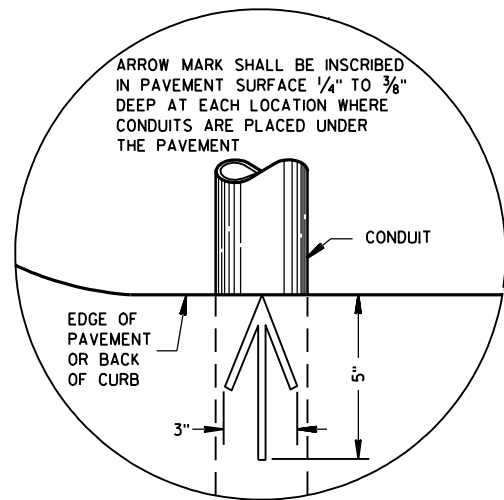
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



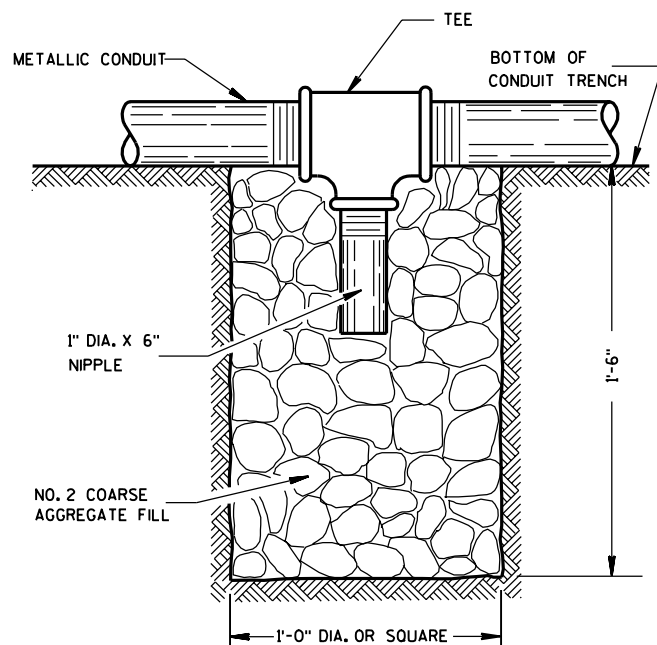
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD
INTERSECTION, TYPES "B1", "B2", "C"
AND "D" AND TEE INTERSECTION
BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

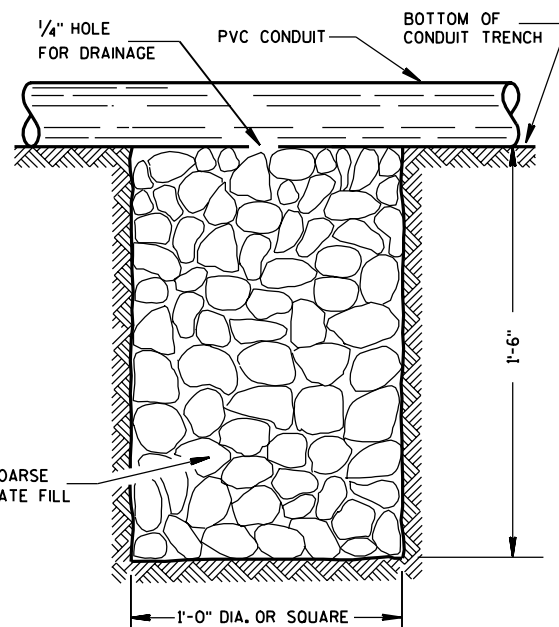


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS
CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS
CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

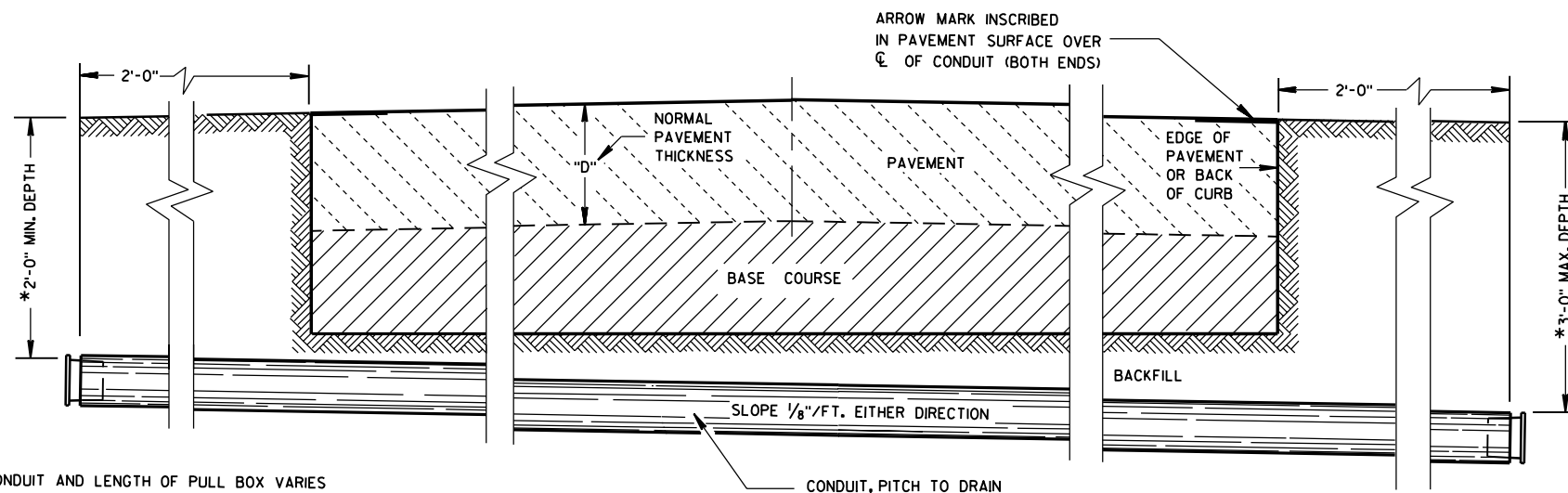
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

POLY ROPE OR A PULL 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.



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

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/23/03
DATE
FHWA

Bala Arund
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS

6

S.D.D. 9 B 4-9

**) 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.

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

6

4" MAX.

6" MAX.

FORM

FORMING SHALL BE REMOVED AFTER CONCRETE HAS SET

Diagram illustrating the bolt circle for a 6" diameter conduit. The conduit is shown within a 6" diameter. The bolt circle is 12 3/4" in diameter. The bolts are 1/2" in diameter. The dimension 1'-8" is indicated at the top. The text "CONDUIT WITHIN 6" DIA." is on the left, "CONDUIT" is on the right, "12 3/4" BOLT CIRCLE" is on the right, "1/2" is near the bolts, and "SHALL BE ALLEL TO" is on the left with a circled number 2.

HALF SECTION
IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

Diagram illustrating the cross-section of a vertical pile foundation, showing various components and dimensions:

- Top Section:**
 - Dimensions: 2" (width of top reinforcement), 3" (width of top reinforcement), 1" (width of top reinforcement).
 - Labels: ② (top reinforcement), ③ (top reinforcement), ④ (top reinforcement).
 - Material: 3/4" PREFORMED FILLER AS APPROVED BY THE ENGINEER.
 - Surface: PAVEMENT.
- Mid Section:**
 - Dimension: 5'-0" MIN. (height of mid section).
 - Label: ① (mid section).
 - Material: EXOTHERMIC TO EQUIPMENT GROUNDING.
- Bottom Section:**
 - Label: ⑤ (bottom reinforcement).
 - Material: 5/8" DIA. X 1' COPPER CLAD GROUNDING REQUIRED.
- Other Labels:**
 - 6" STUB (bottom reinforcement).

5/8" DIA. X 8'-0"
COPPERCLAD EQUIPMENT
GROUNDING ELECTRODE
REQUIRED

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

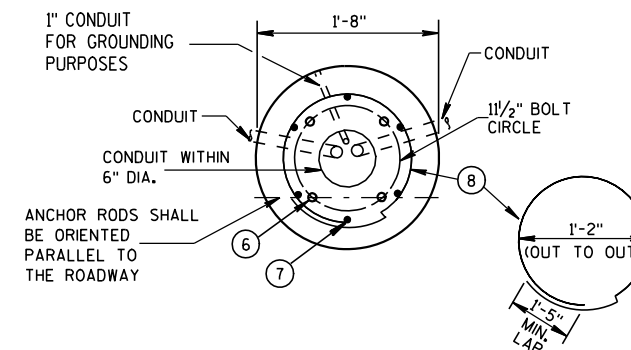
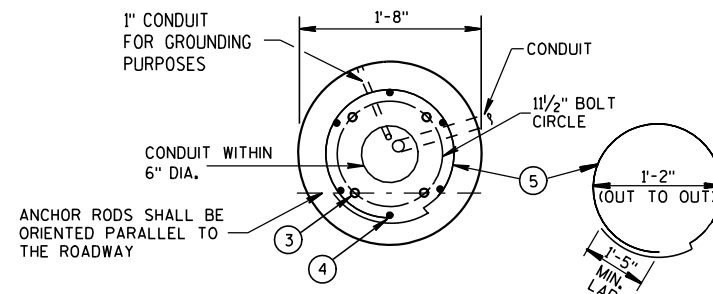
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN
ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF
THE CONTRACT.

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

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.

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 NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.



OPTIONAL 4" L BEND
OR HEX NUT (TYPICAL
FOR TYPES 1, 2 & 5)

FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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 1FOOT OR LESS.

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

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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 BY 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.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

EWING

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

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 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

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 AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

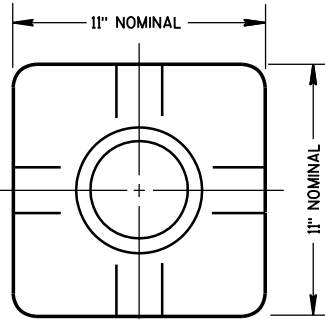
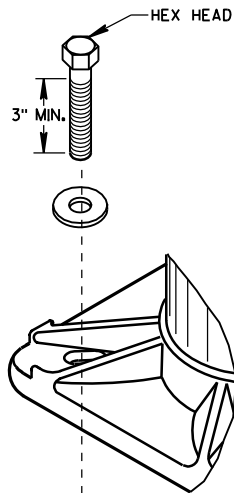
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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.

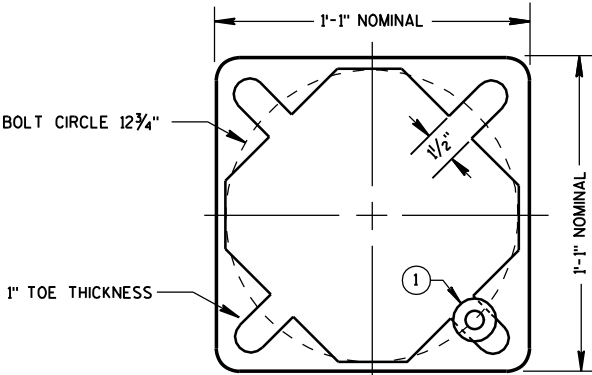
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

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.

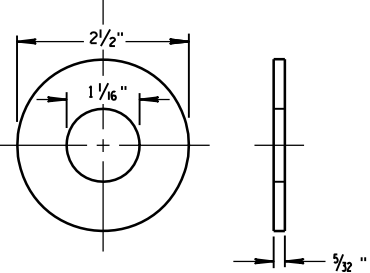
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TOP VIEW
(PEDESTAL BASE)

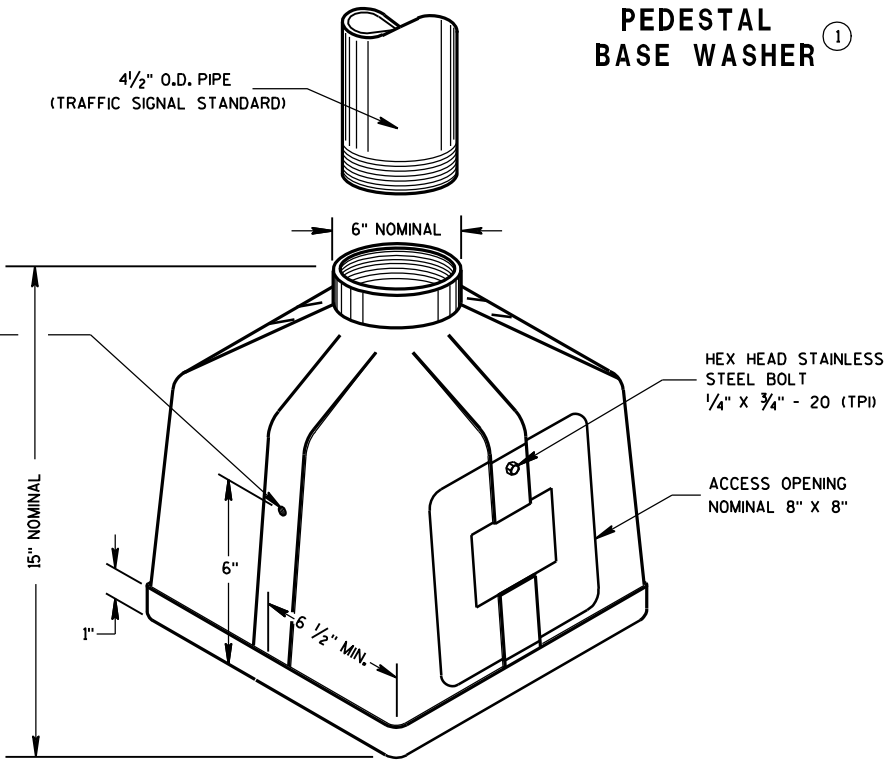


BOTTOM VIEW
(PEDESTAL BASE)

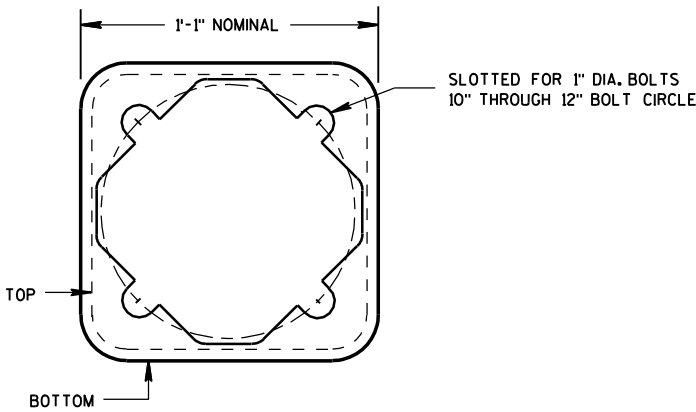


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

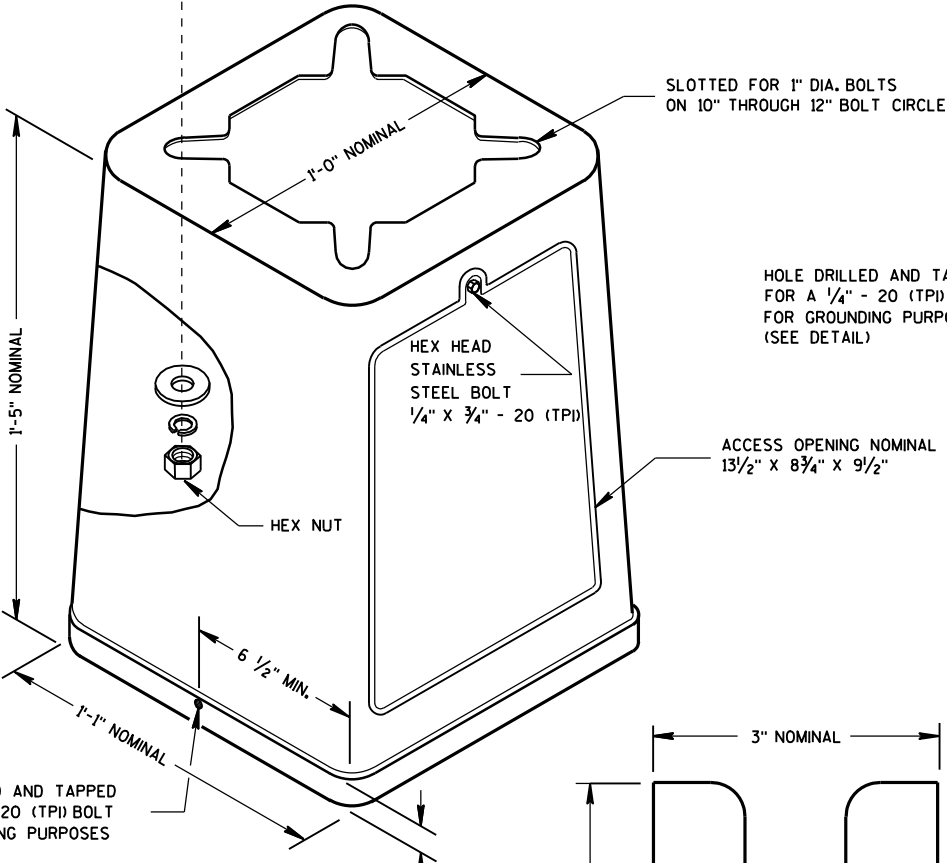
PEDESTAL
BASE WASHER ①



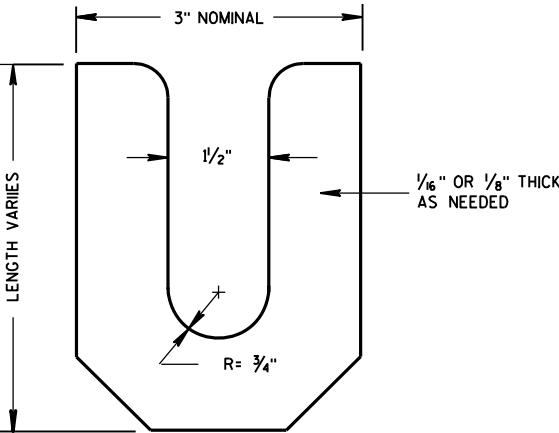
ISOMETRIC VIEW
PEDESTAL BASE



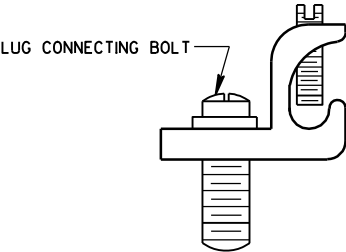
BOTTOM VIEW
(TRANSFORMER BASE)



ISOMETRIC VIEW



LEVELING SHIM



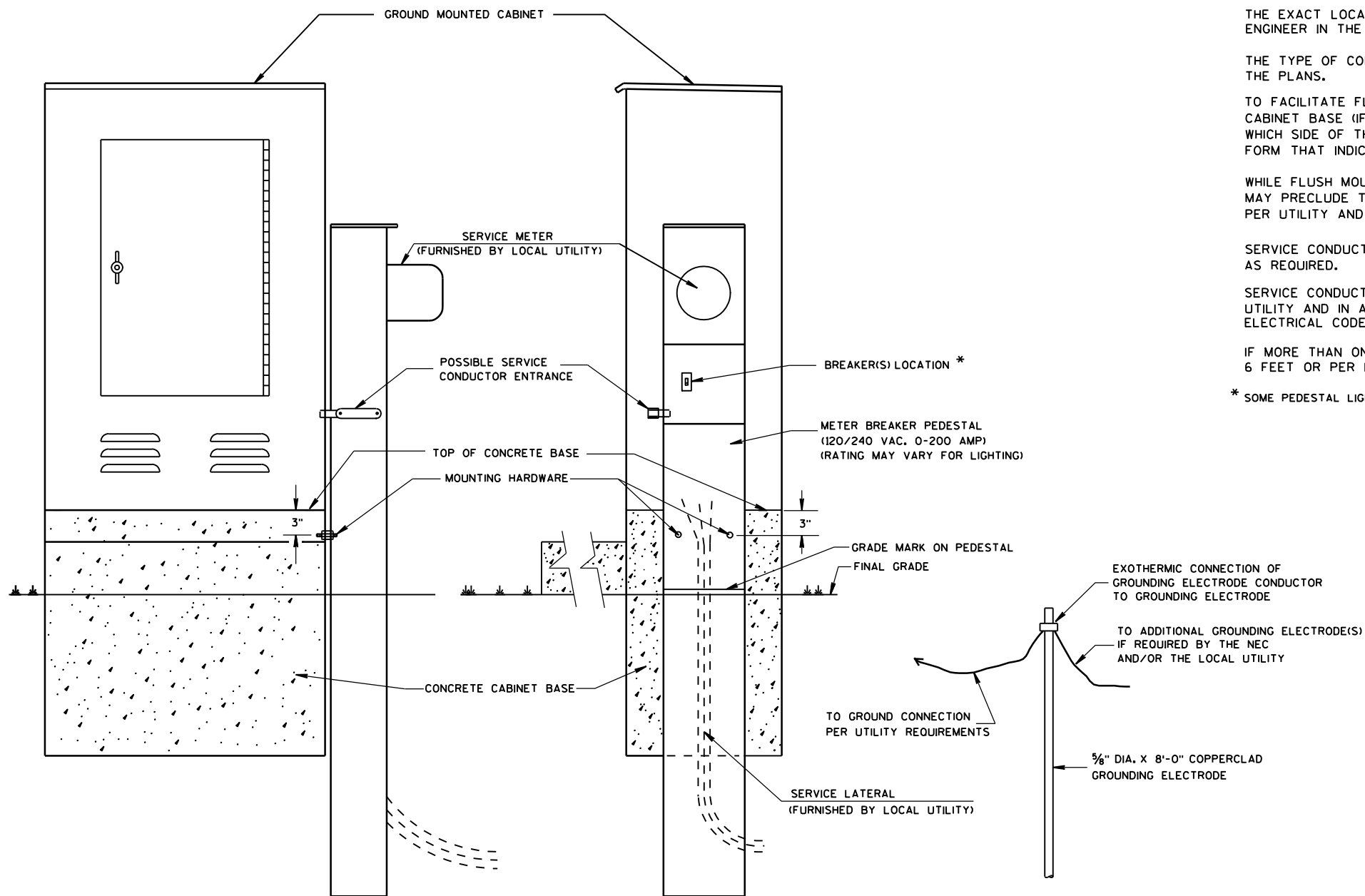
TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09
DATE
/S/ Joanna L. Bush
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS
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.

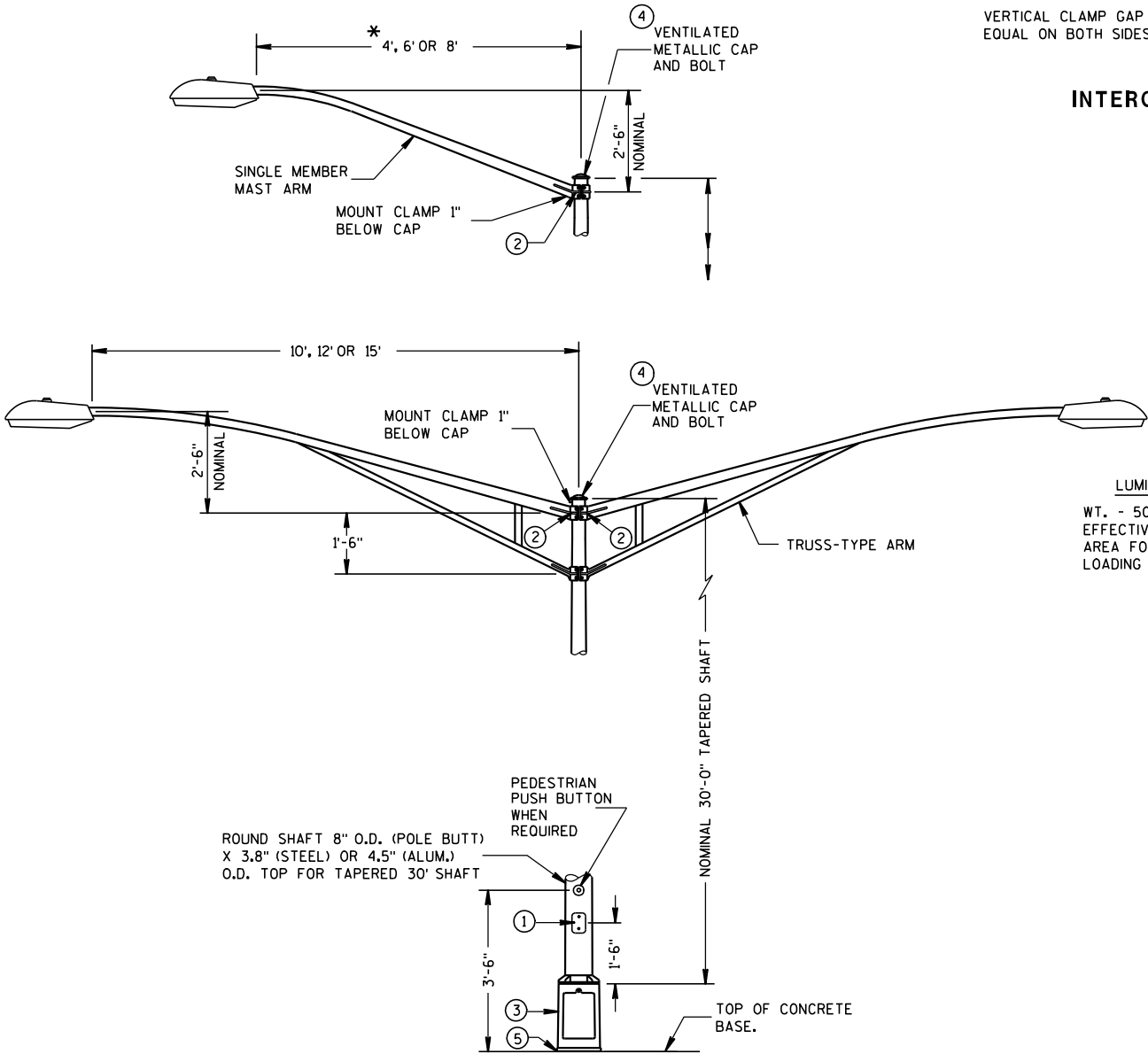
* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

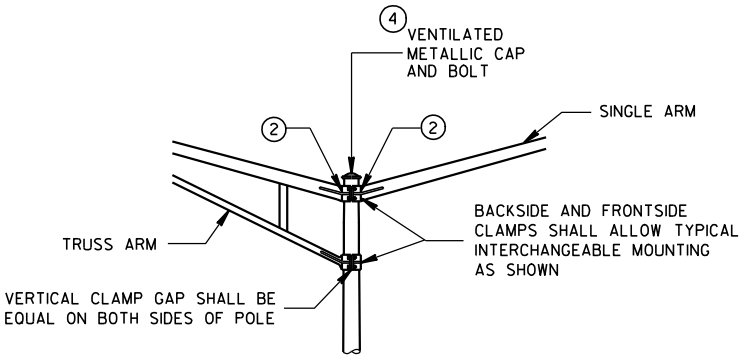
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09
DATE
/S/ Joanna L. Bush
STATE ELECTRICAL ENGINEER FOR
HIGHWAYS
FHWA

* RISE FOR 4' ARM SHALL BE 2'-0".



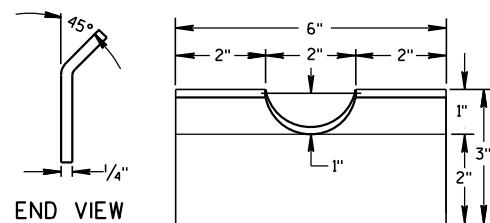
TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



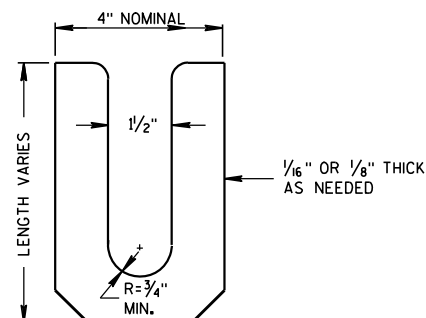
INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

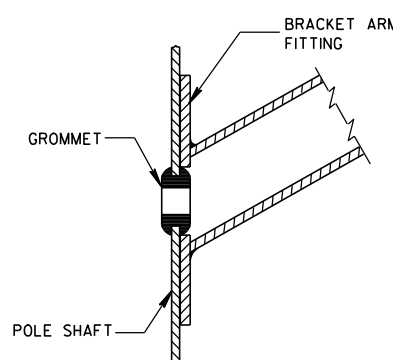
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.
- POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.
- TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.
- THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".
- TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.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 ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.
- WHEN TRANSFORMER BASES ARE USED, WIRE CONECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.
- ① 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" x 3/4" - 20 TPI HEX HEAD STAINLESS STEEL 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 THE TRANSFORMER BASE.



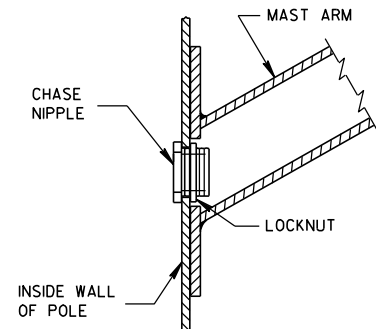
**FRONT VIEW
RECTANGULAR CLAMP SHIM**
(4 TO A SET)



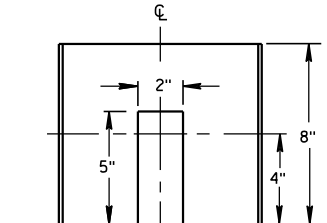
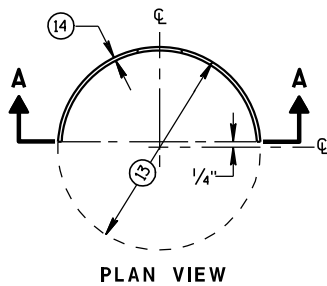
LEVELING SHIM
SHALL BE ALUMINUM



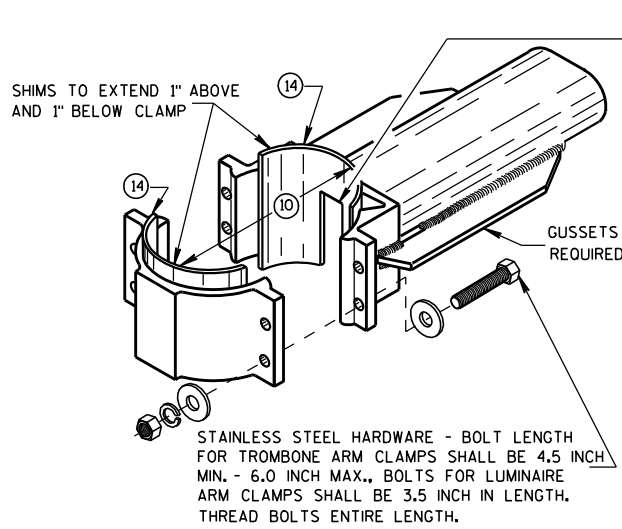
**TYPICAL APPLICATION OF
GROMMET IN POLE SHAFT**



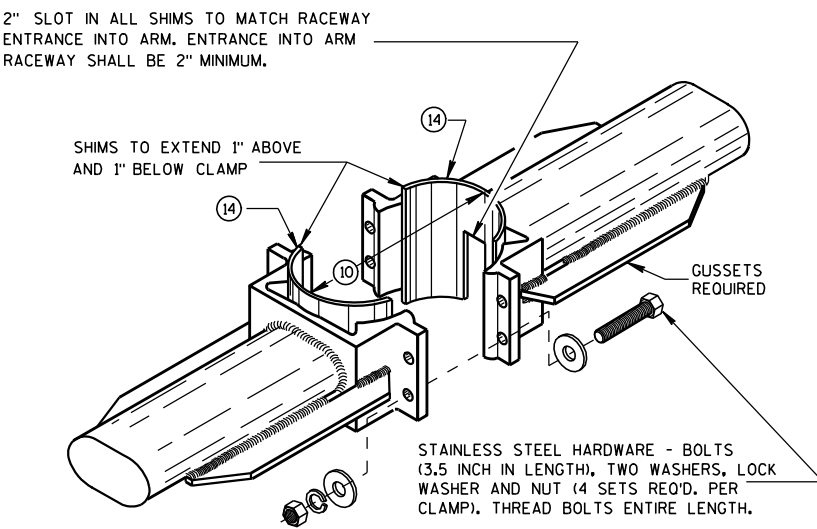
**TYPICAL APPLICATION OF
CHASE NIPPLE IN POLE SHAFT**



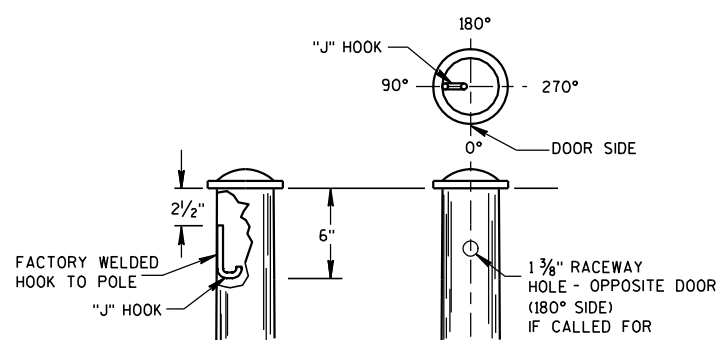
**SECTION A-A
CIRCULAR CLAMP SHIM**
(2 TO A SET)



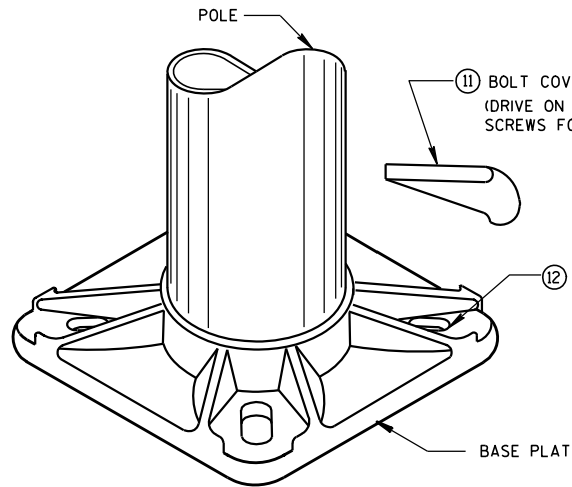
**TYPICAL TROMBONE MAST ARM AND SINGLE
LUMINAIRE MAST ARM MOUNTING CLAMP**



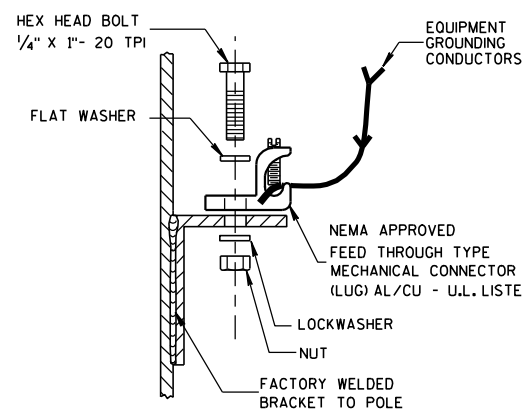
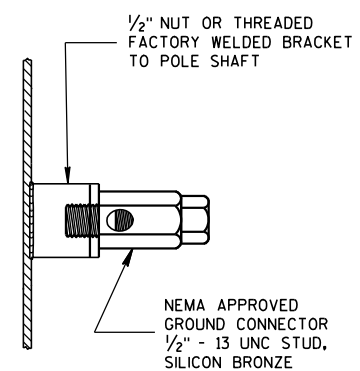
**TYPICAL LUMINAIRE MAST ARM
(DOUBLE) MOUNTING BRACKETS**



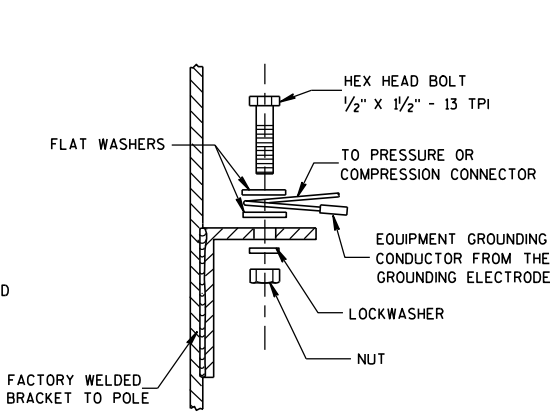
TYPICAL "J" HOOK LOCATION



BASE PLATE



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

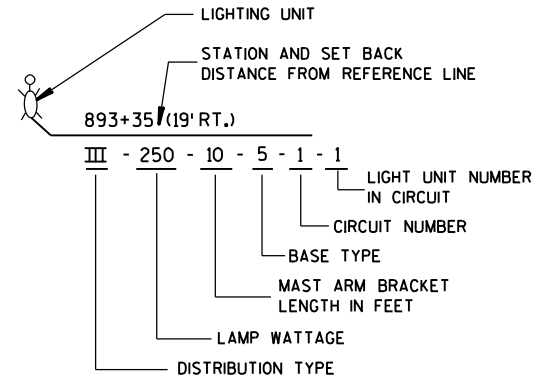


GENERAL NOTES

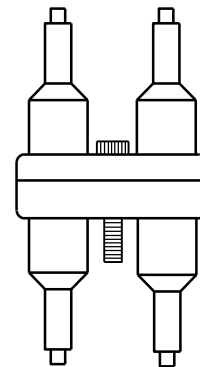
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- (10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- (11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- (12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT
CIRCLE USING 1" DIAMETER ANCHOR RODS.
- (13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)
- (14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")
SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35",
0.53" OR 0.70".
SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10",
0.25" OR 0.35".
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.
SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS
SHALL BE 1/4" HIGH AND LEGIBLE.
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS
TO THE ENGINEER FOR APPROVAL.
- (15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING
POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT
ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE
CONCRETE BASE AND A METALLIC BASE PLATE.
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE
AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

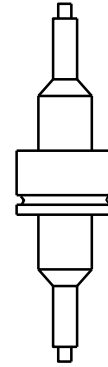
HARDWARE DETAILS FOR POLE MOUNTINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/11/10 DATE	/S/ John Corbin STATE ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA	



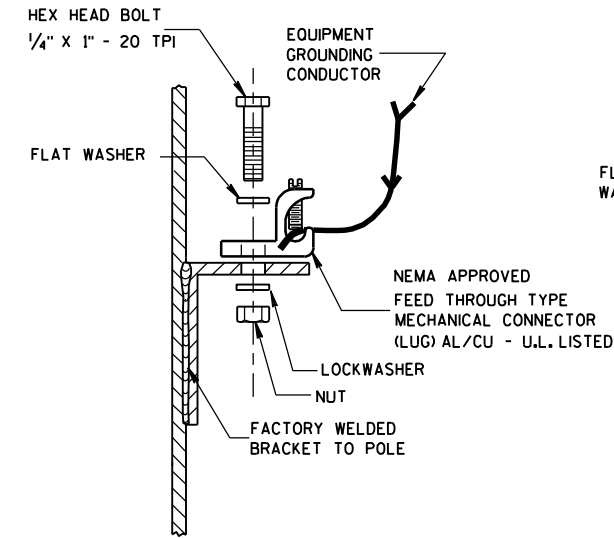
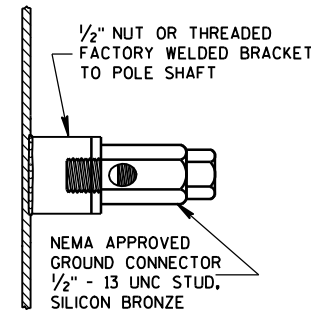
LIGHTING UNIT CODE
(TYPICAL)



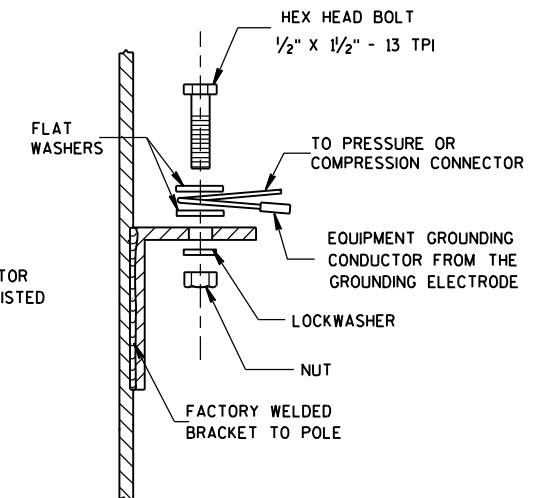
DETAIL "A"
DOUBLE POLE



DETAIL "B"
SINGLE POLE



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



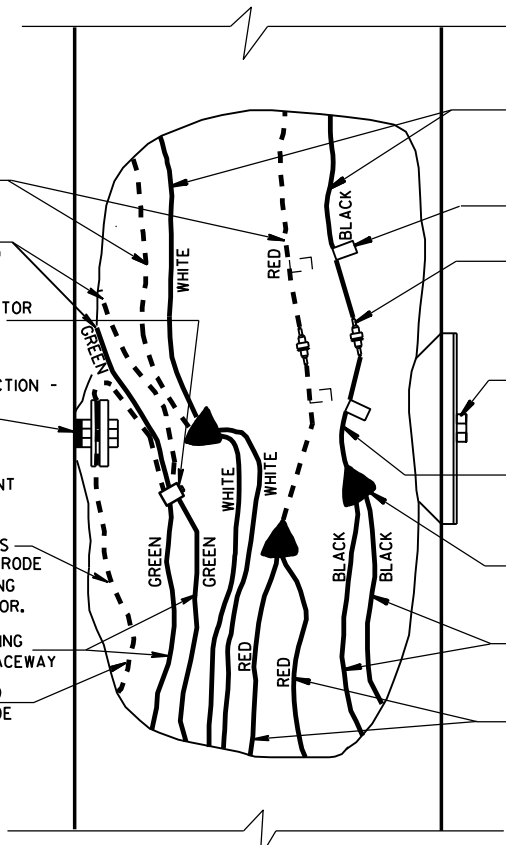
UNGROUND CONDUCTORS TO LUMINAIRES SHALL BE #12 AWG, COPPER STRANDED, U.S.E. RATED, XLP INSULATED, SINGLE LIGHTING UNIT SHOWN

GENERAL NOTES

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

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

ADDITIONAL CONDUCTORS AND FUSE FOR TWIN LIGHTING UNITS
EQUIPMENT GROUNDING CONDUCTOR(S) TO LUMINAIRE(S)
APPROVED PRESSURE OR COMPRESSION TYPE CONNECTOR FOR EQUIPMENT GROUNDING CONDUCTORS
TYPICAL GROUNDING CONNECTION - STAINLESS STEEL BOLT, NUT AND WASHERS 1/2" X 1 1/2" - 13 TPI
AWG #4 (MIN.) BARE EQUIPMENT GROUNDING CONDUCTOR, NOTE: THIS WIRE SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE TO THE EQUIPMENT GROUNDING CONDUCTOR SPLICE CONNECTOR.
INSULATED EQUIPMENT GROUNDING CONDUCTORS FROM SYSTEM RACEWAY
EXOTHERMICALLY WELDED TO GROUNDING ELECTRODE



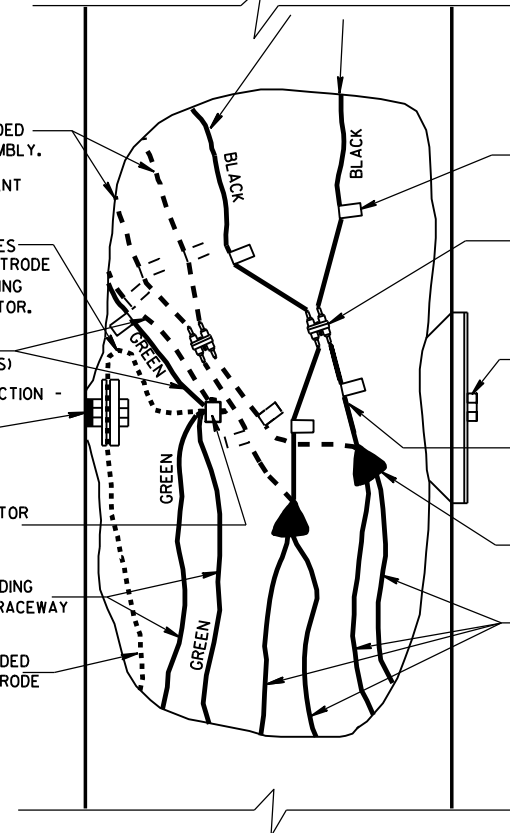
CONDUCTORS TO LUMINAIRES SHALL BE #12 AWG, COPPER STRANDED, U.S.E. RATED, XLP INSULATED, SINGLE LIGHTING UNIT SHOWN
CIRCUIT TAGS, BOTH SIDES OF ALL FUSES (TYPICAL)
IN LINE SINGLE POLE FUSE ASSEMBLY, 600 VAC, WITH 5 AMP FNO FUSE (SEE DETAIL "B") TAPE AND VARNISH CRIMPED END FERRULES
HANDHOLE & COVER
18" PIGTAIL BETWEEN CONNECTOR AND FUSEHOLDER
APPROVED PRESSURE OR COMPRESSION TYPE CONNECTORS BUILT UP WITH RUBBER TAPE OR PUTTY, TAPED AND VARNISHED
INSULATED UNGROUNDED CIRCUIT CONDUCTORS FROM SYSTEM RACEWAY
ALTERNATE PHASE UNGROUNDED CIRCUIT CONDUCTOR PASSING THROUGH THIS POLE

TWIN LIGHTING UNITS REQUIRE INDIVIDUAL SETS OF UNGROUNDED CONDUCTORS AND FUSE ASSEMBLY.

AWG #4 (MIN.) BARE EQUIPMENT GROUNDING CONDUCTOR, NOTE: THIS WIRE SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE TO THE EQUIPMENT GROUNDING CONDUCTOR SPLICE CONNECTOR.

EQUIPMENT GROUNDING CONDUCTOR(S) TO LUMINAIRE(S)
TYPICAL GROUNDING CONNECTION - STAINLESS STEEL BOLT, NUT AND WASHERS 1/2" X 1 1/2" - 13 TPI
APPROVED PRESSURE OR COMPRESSION TYPE CONNECTOR FOR EQUIPMENT GROUNDING CONDUCTORS
INSULATED EQUIPMENT GROUNDING CONDUCTORS FROM SYSTEM RACEWAY

EXOTHERMICALLY WELDED TO GROUNDING ELECTRODE



CIRCUIT TAGS, BOTH SIDES OF ALL FUSES (TYPICAL)

IN LINE FUSE ASSEMBLY TWO POLE, 600 VAC, WITH 5 AMP FNO FUSES (SEE DETAIL "A") TAPE AND VARNISH CRIMPED END FERRULES

HANDHOLE & COVER

18" PIGTAIL BETWEEN CONNECTORS AND FUSEHOLDERS

APPROVED PRESSURE OR COMPRESSION TYPE CONNECTORS BUILT UP WITH RUBBER TAPE OR PUTTY, TAPED AND VARNISHED

INSULATED UNGROUNDED CIRCUIT CONDUCTORS FROM SYSTEM RACEWAY

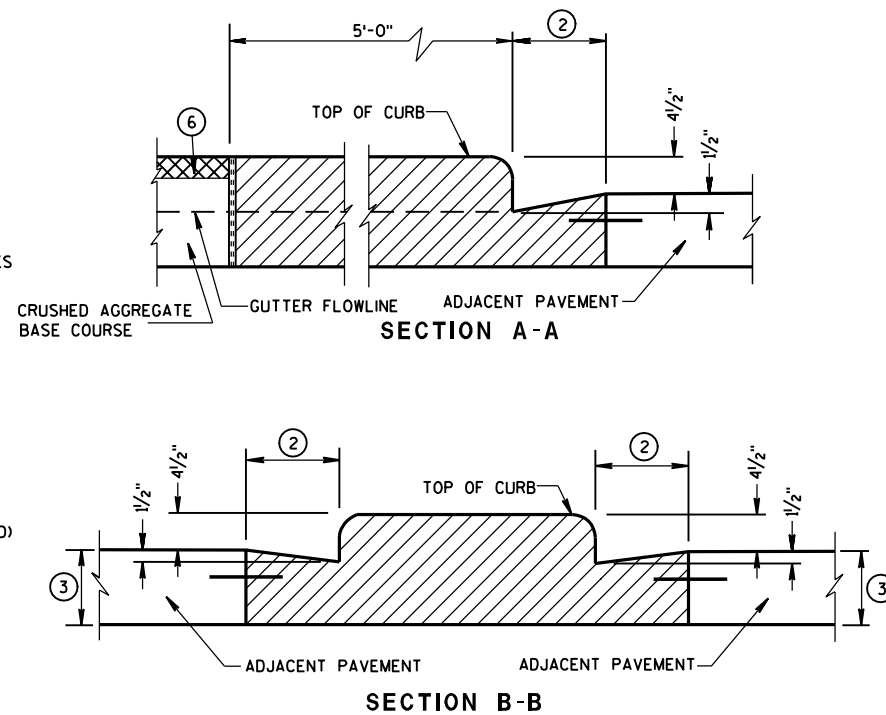
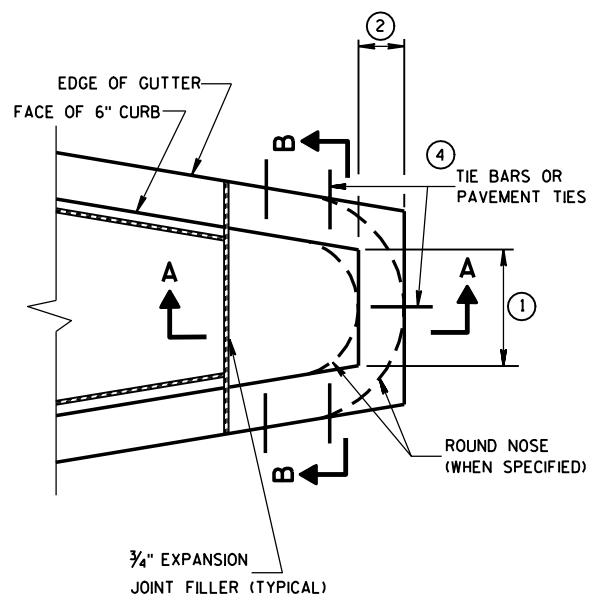
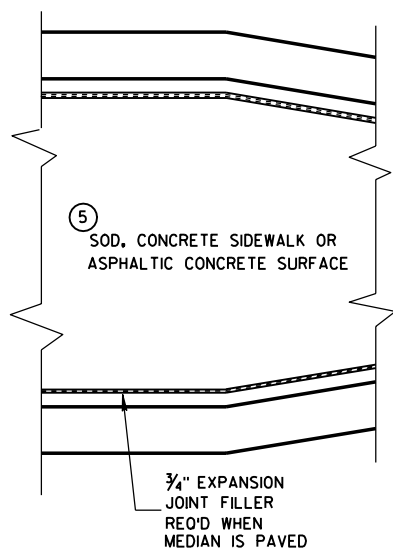
3 WIRE - 120, 240 OR 480 VAC (UNGROUND CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR

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

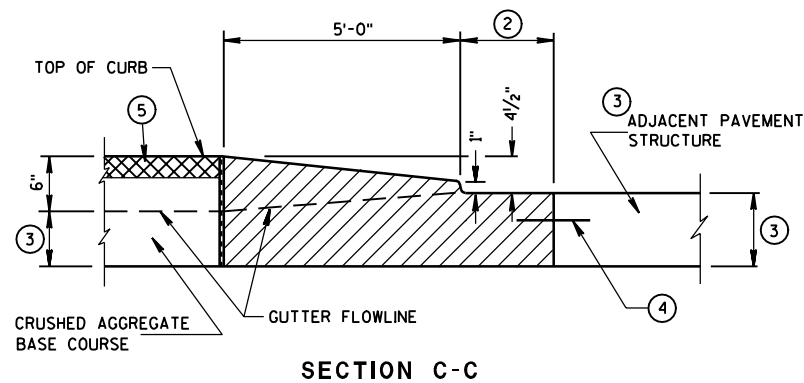
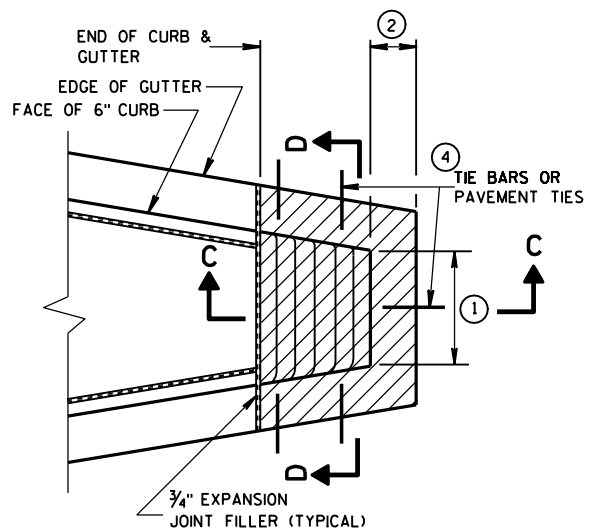
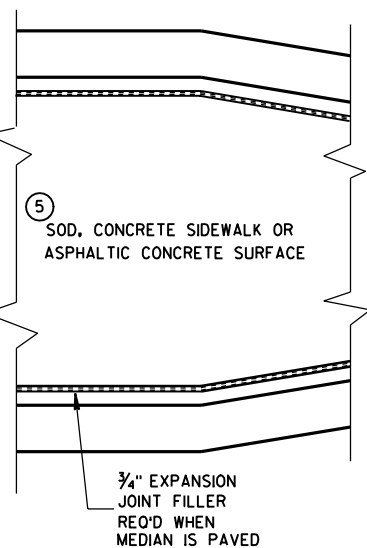
NON-FREEWAY LIGHTING UNIT
POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

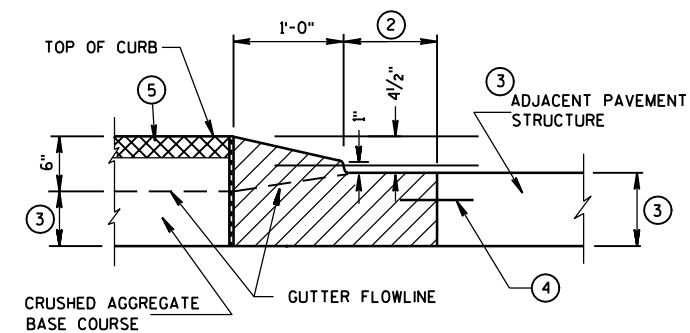
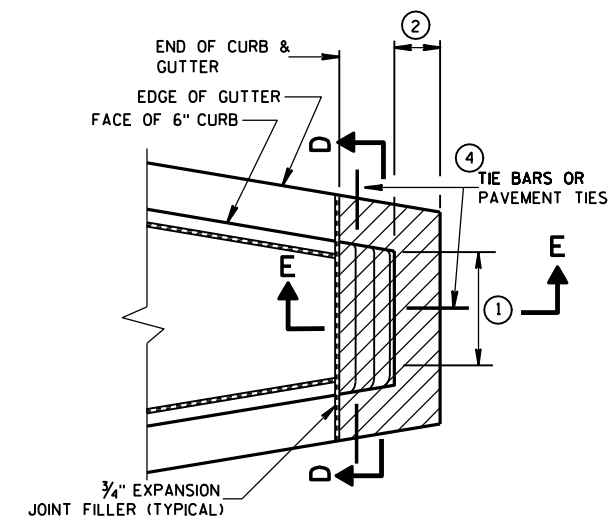
APPROVED
10/14/08 /S/ Joanna L. Bush
DATE STATE ELECTRICAL ENGINEER FOR
FHWA HIGHWAYS



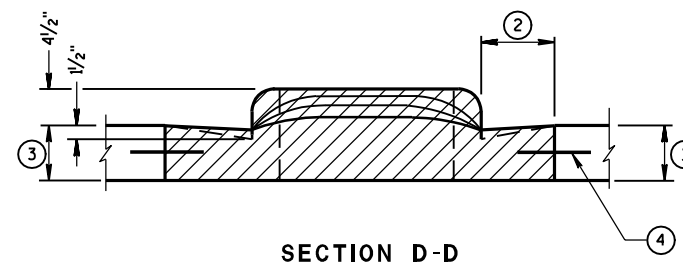
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

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

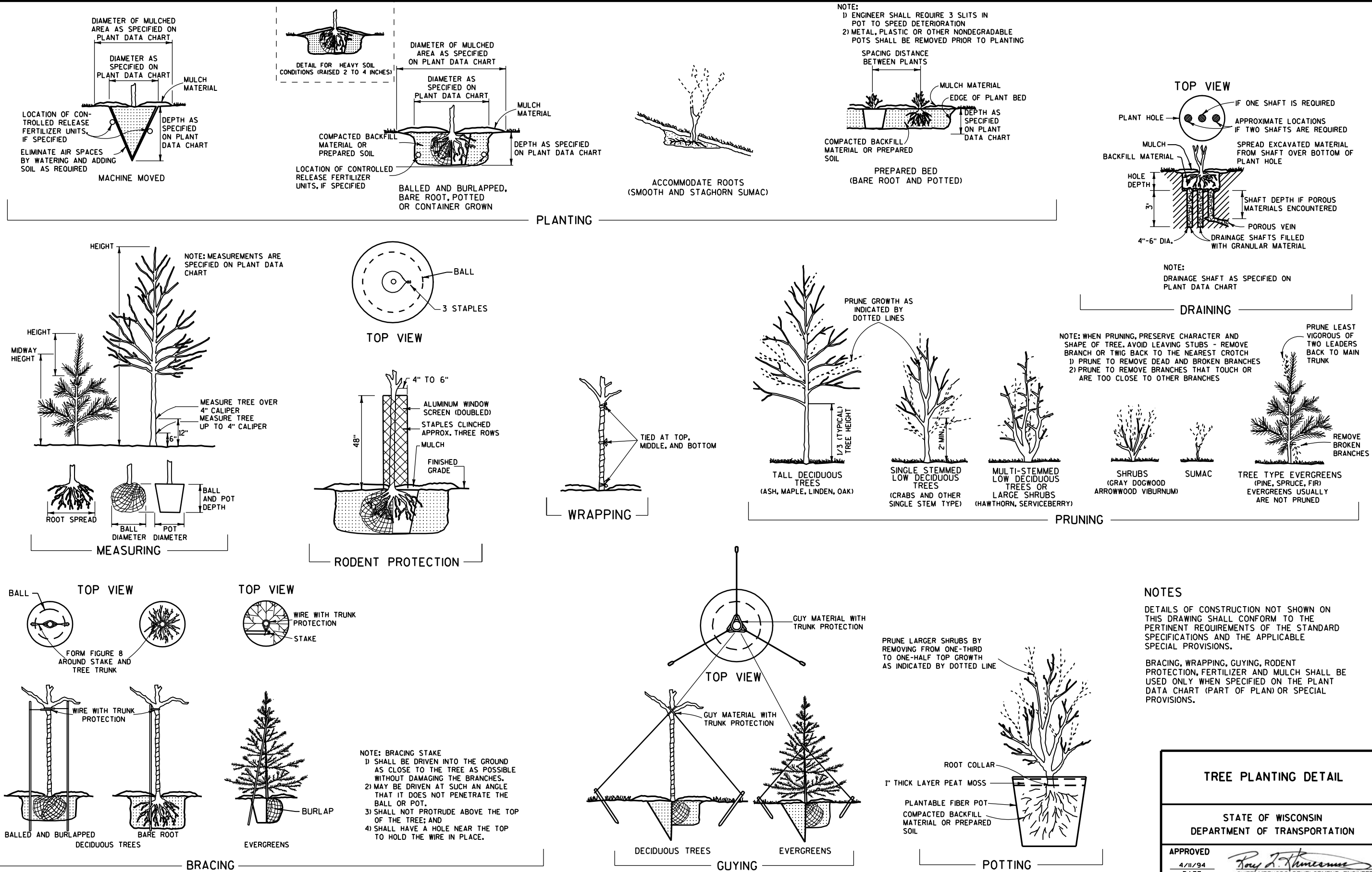
- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
- PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

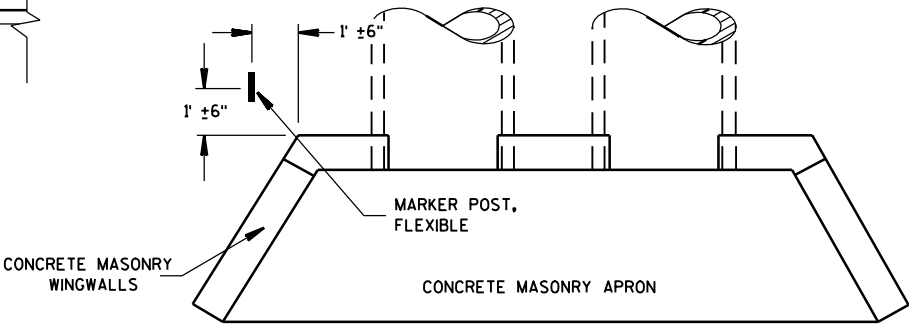
APPROVED
6/8/06
DATE
FWHA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

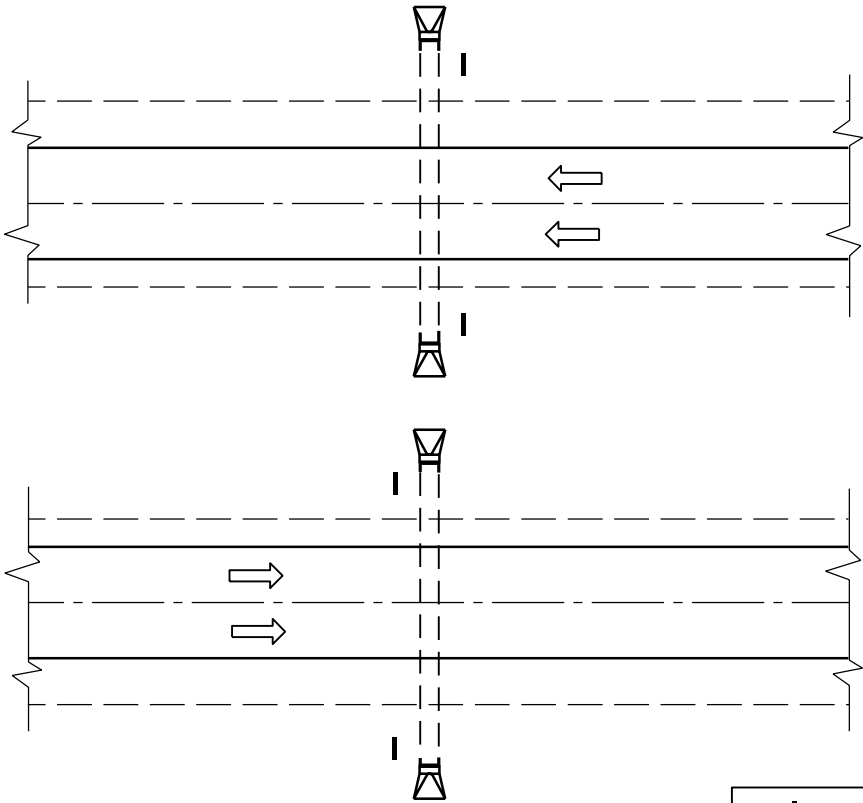


GENERAL NOTES

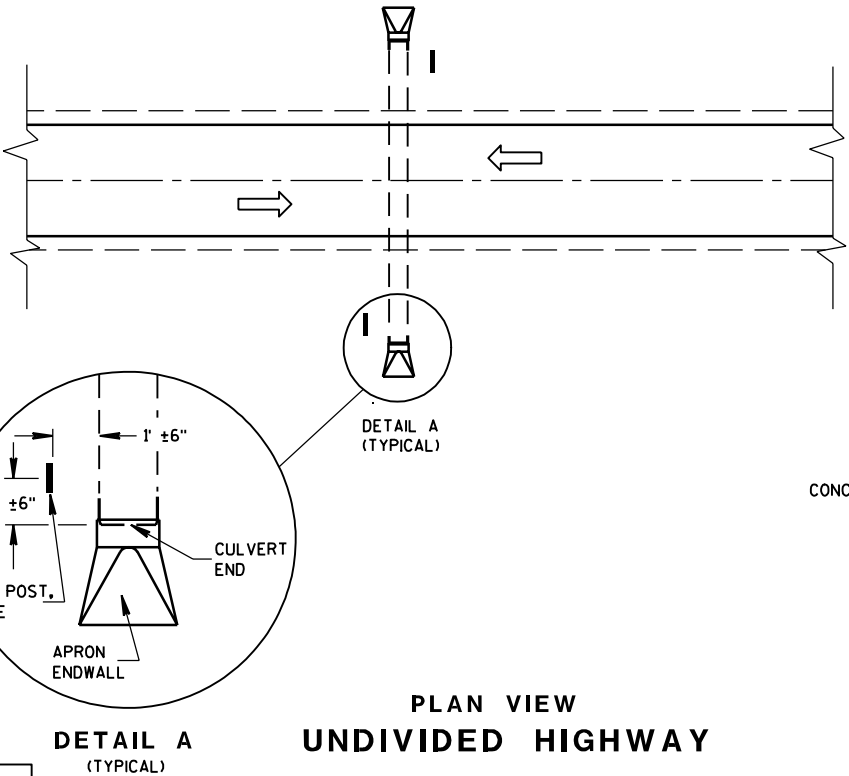
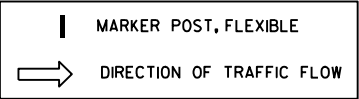
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

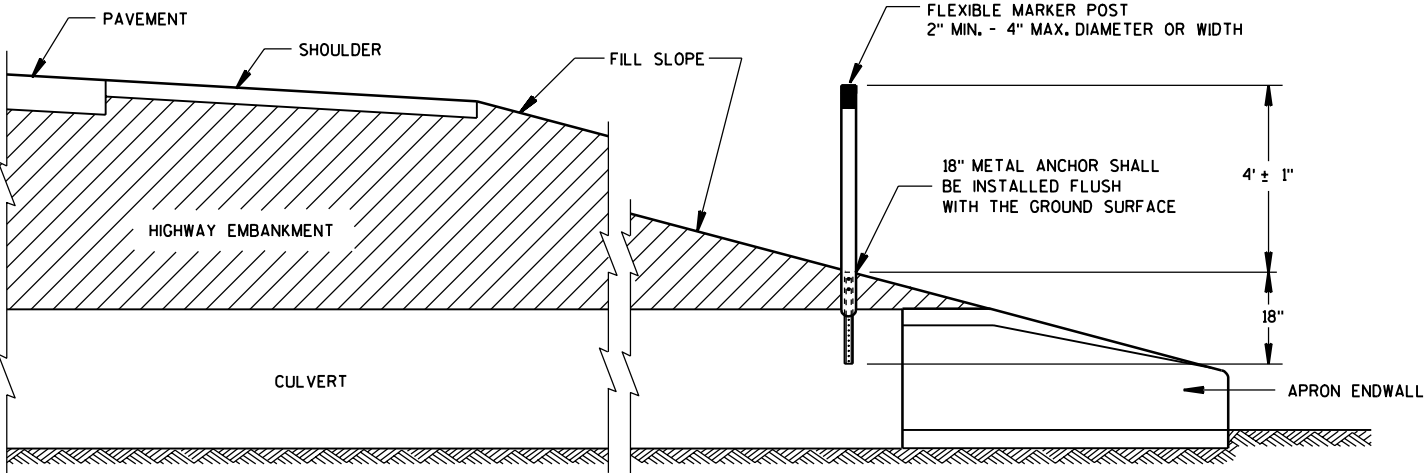


PLAN VIEW
DIVIDED HIGHWAY

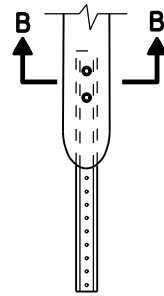


PLAN VIEW
UNDIVIDED HIGHWAY

FLEXIBLE MARKER POST LOCATION



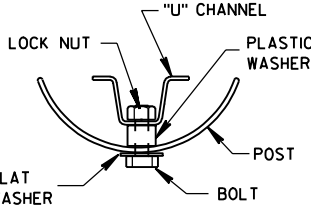
CROSS SECTION
FLEXIBLE MARKER POST



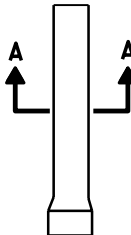
FRONT VIEW
CURVED MARKER



SIDE VIEW
CURVED MARKER



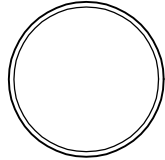
SECTION B-B



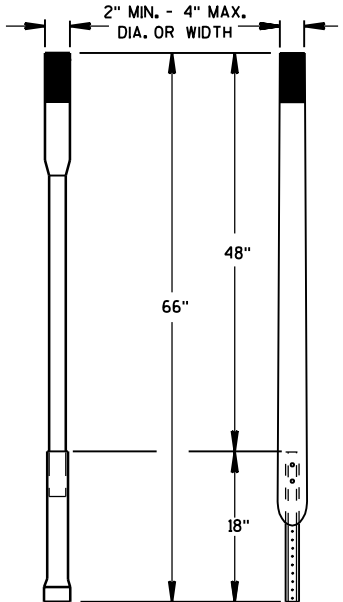
FRONT VIEW
ROUND MARKER



SIDE VIEW
ROUND MARKER



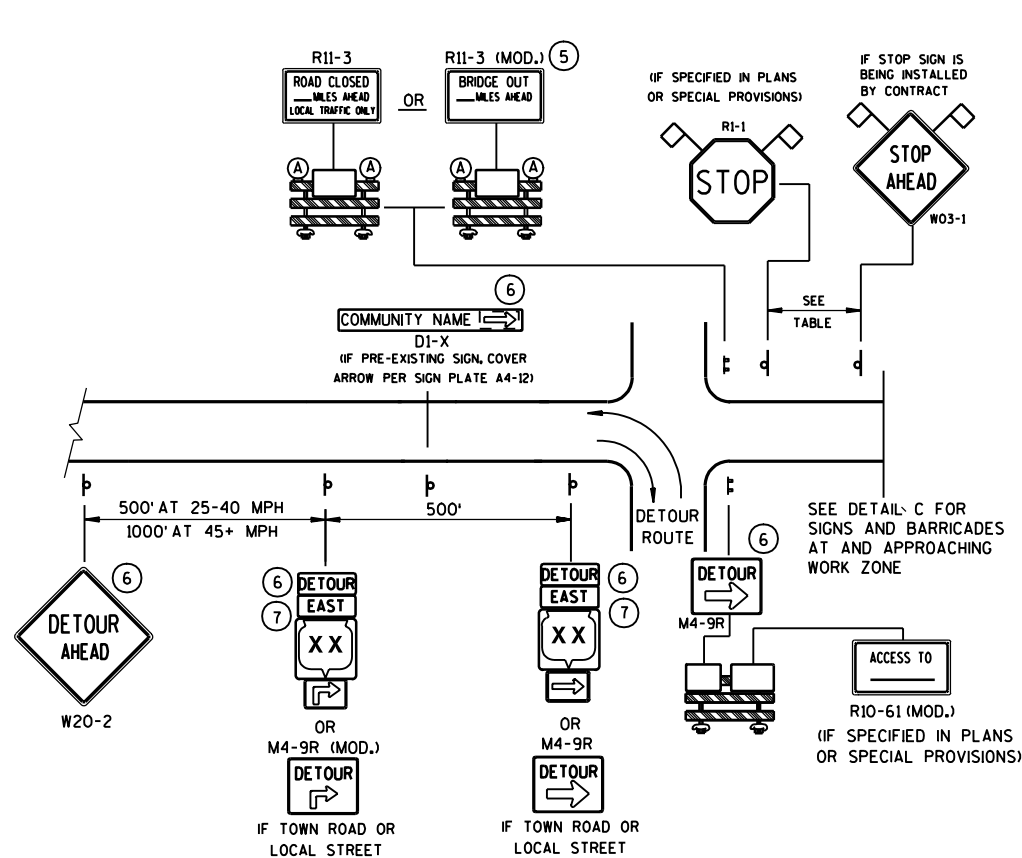
SECTION A-A



ALTERNATE 1 ALTERNATE 2
FLEXIBLE MARKER POST

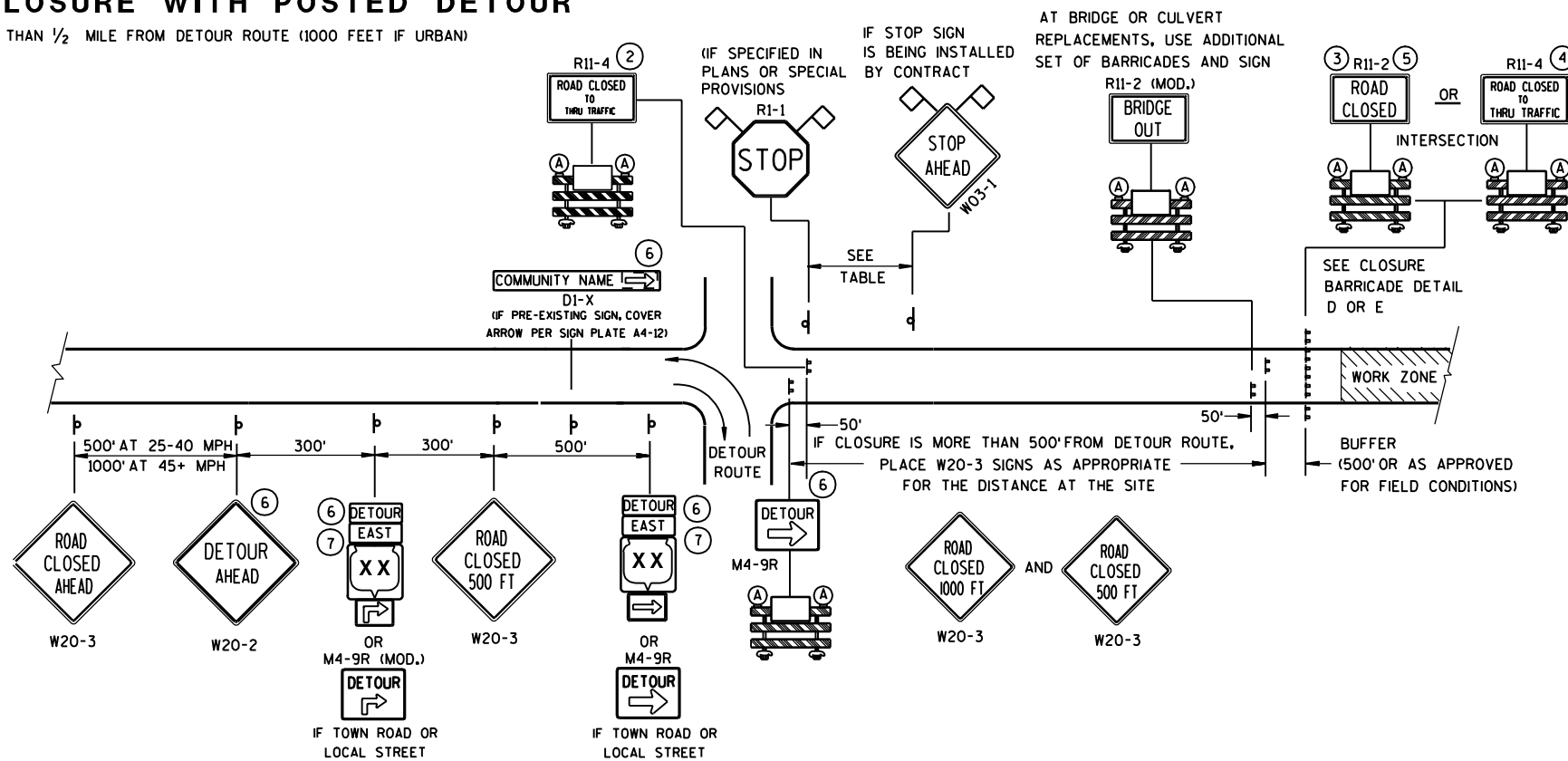
FLEXIBLE MARKER POST ANCHORS

MARKER POST, FLEXIBLE, FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/98 DATE FHWA	 CHIEF ROADWAY DEVELOPMENT ENGINEER



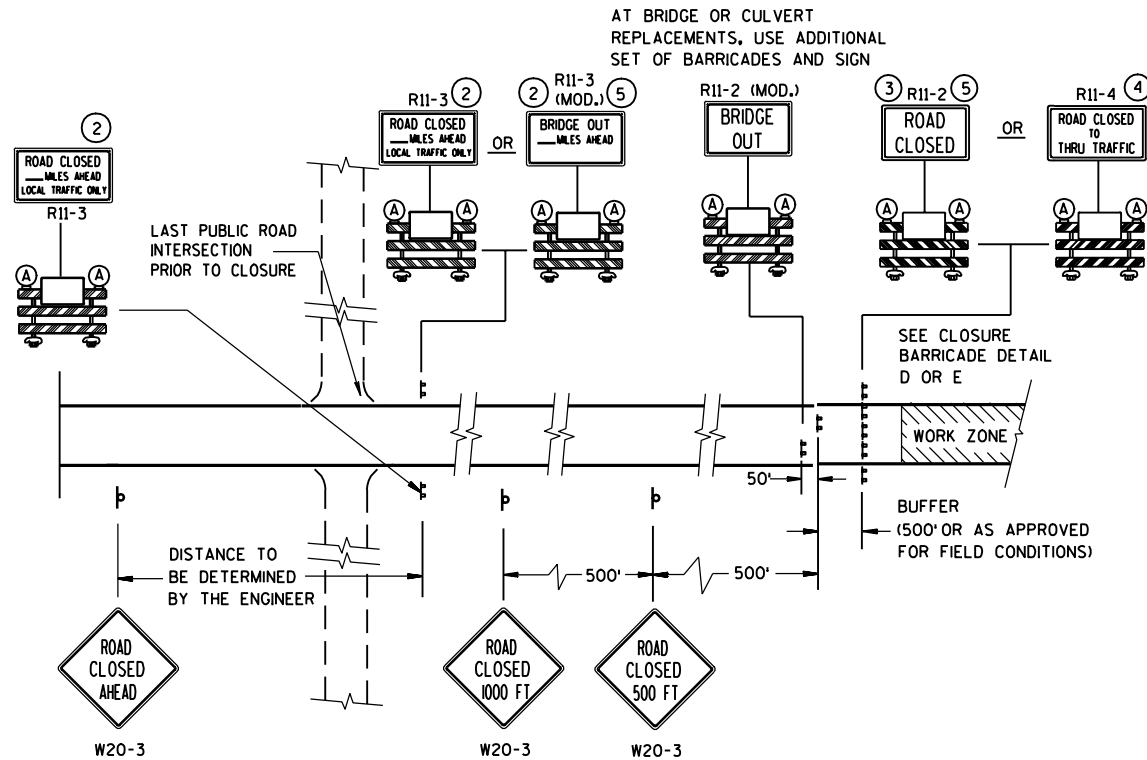
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

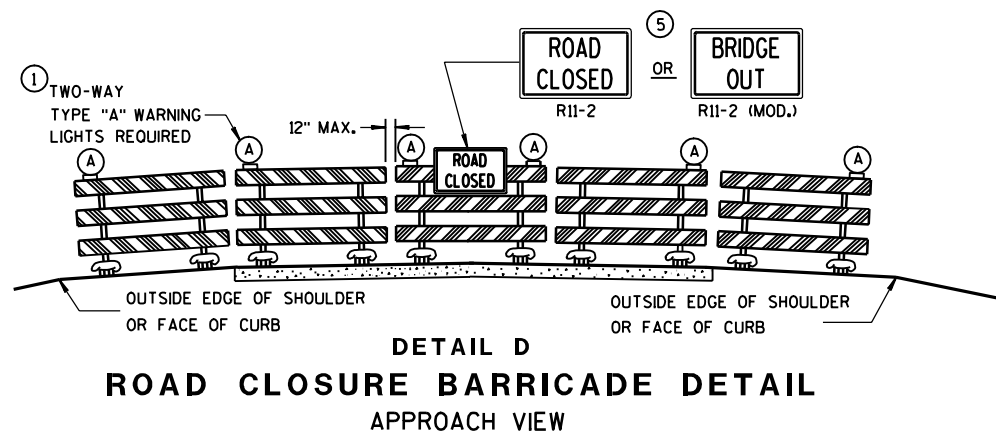
SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

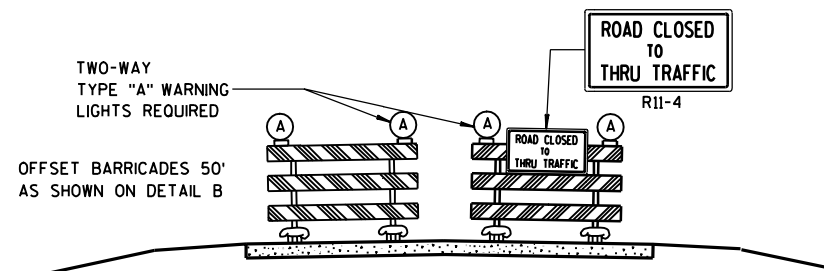
- POST MOUNTED SIGN
- TYPE III BARRICADES
- TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR EAST M4-8 M3-X
- MI-4 OR COUNTY MI-5A OR MI-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

R11-2 SHALL BE 48" X 30".

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

M4-9 SHALL BE 30" X 24".

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

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

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

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

R1-1 SHALL BE 36" X 36".

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

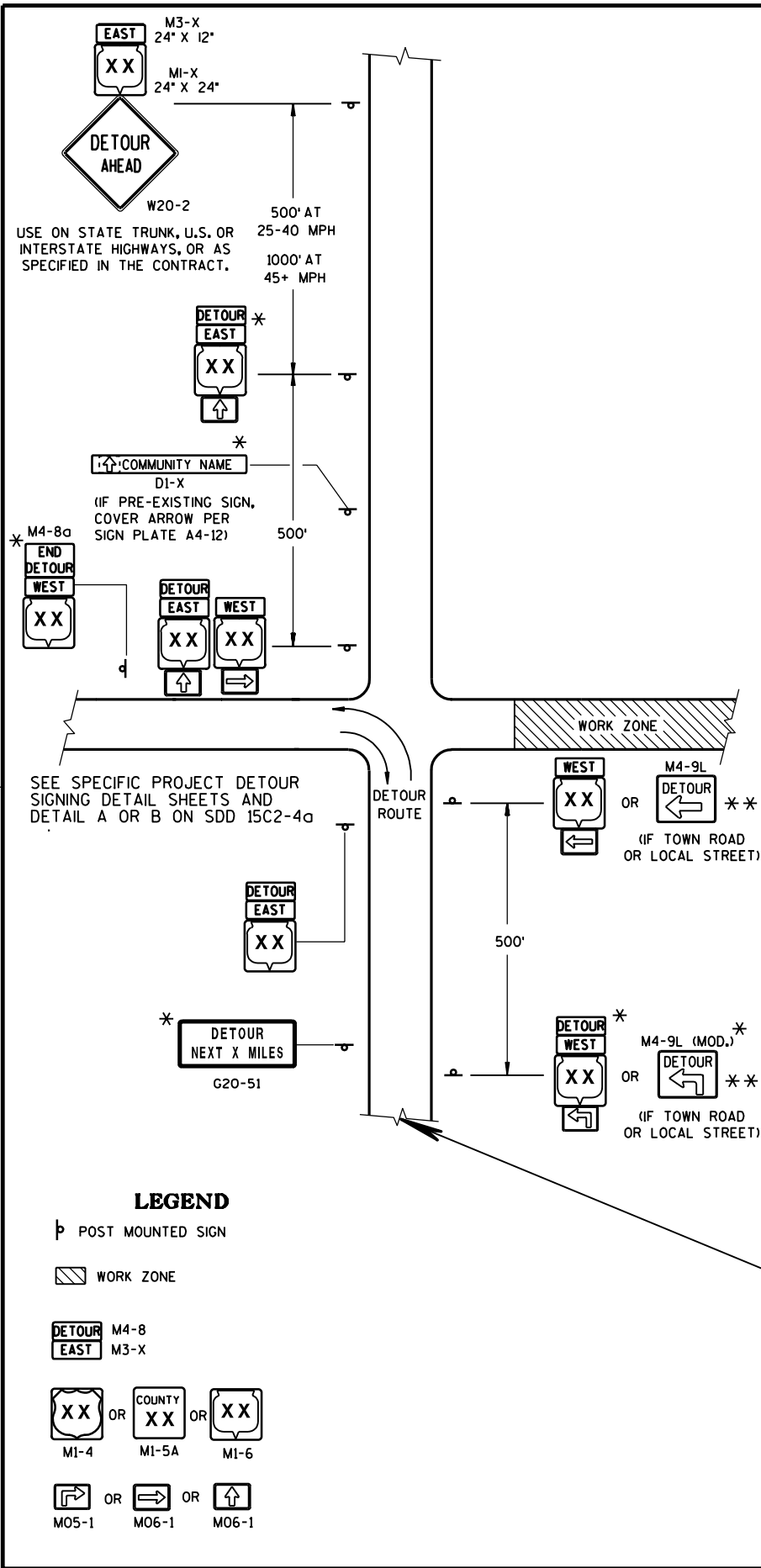
APPROVED

9/16/03

DATE

Thomas N. Nottm for
CHIEF SIGNS AND MARKING ENGINEER

FHWA



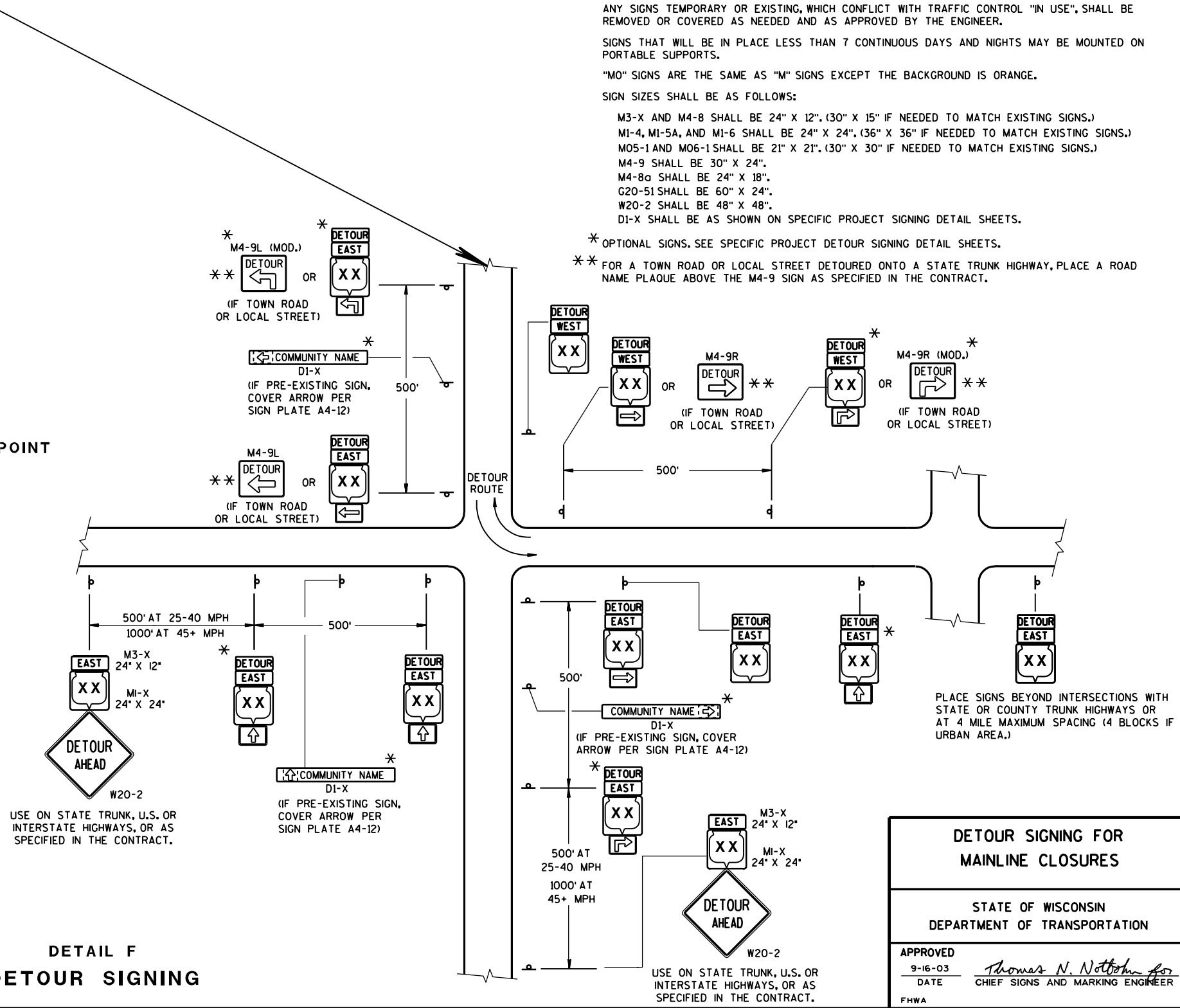
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

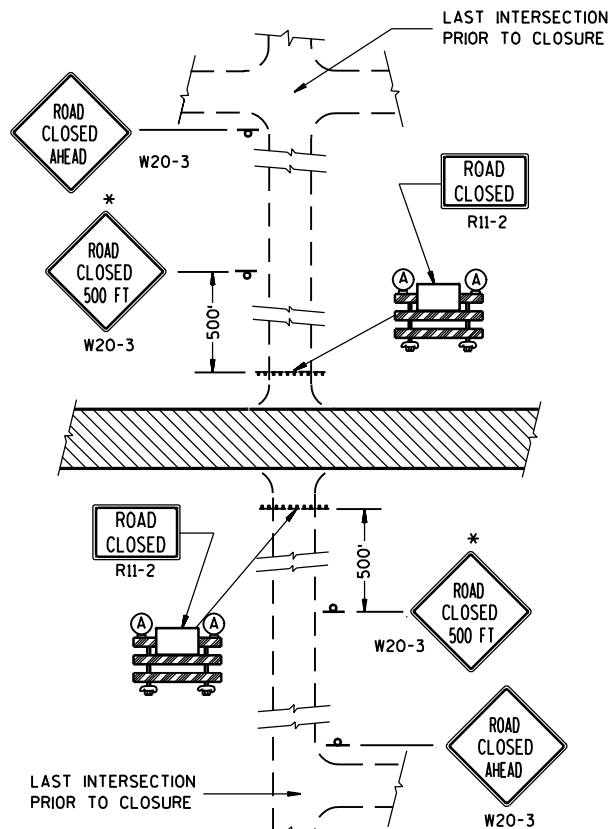
MATCH POINT

DETAIL F
DETOUR SIGNING

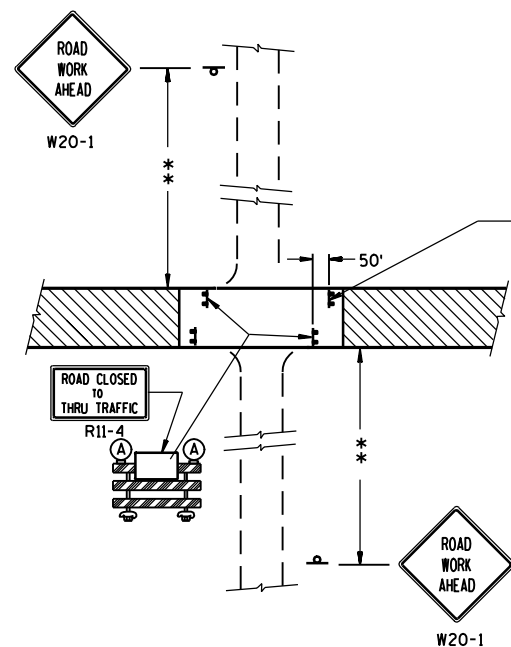
GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOWS:
 - M3-X AND M4-8 SHALL BE 24" X 12", (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24", (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M05-1 AND M06-1 SHALL BE 21" X 21", (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - DI-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.

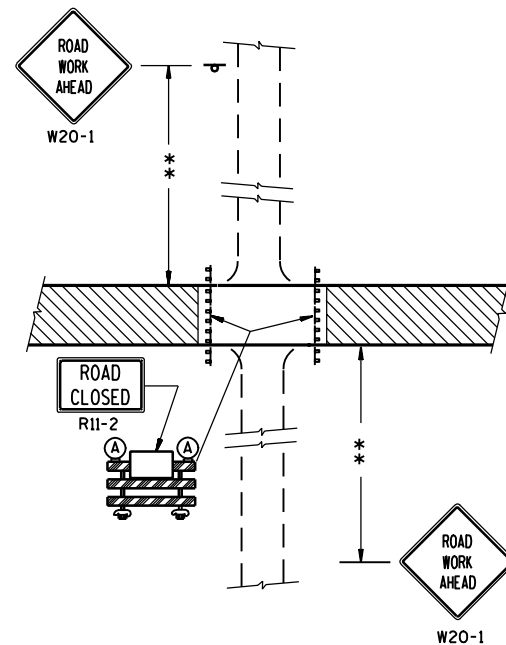




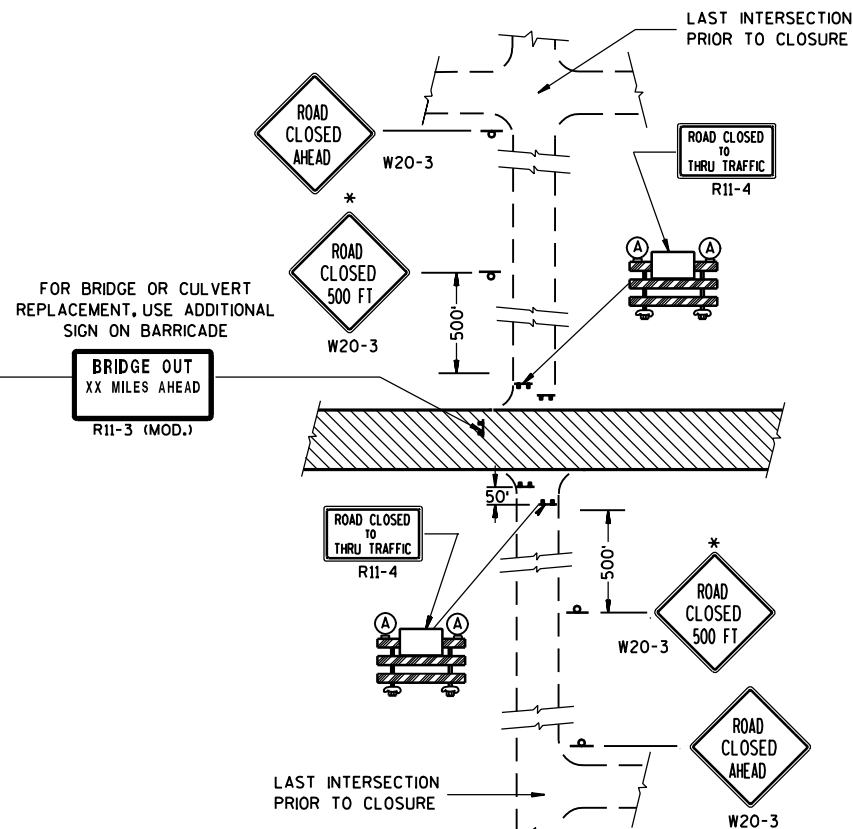
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE 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 RE-ESTABLISHED.

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 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

⏏ POST MOUNTED WARNING SIGN

⏏ TYPE III BARRICADES

Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

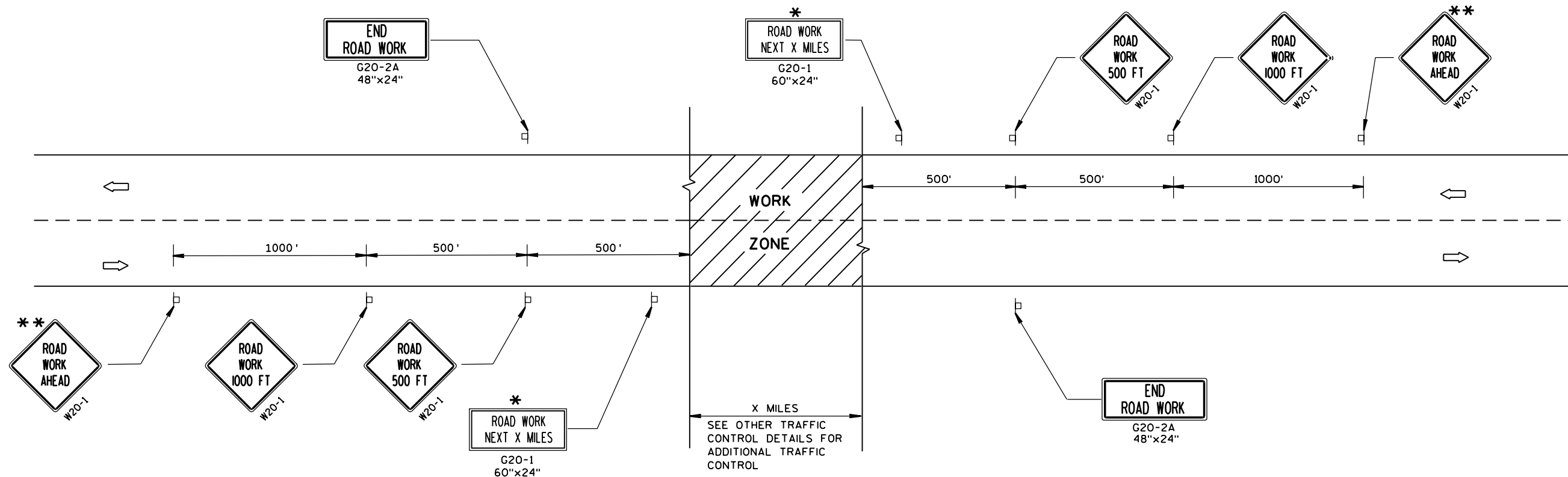
APPROVED

9-16-03

DATE

FHWA

Thomas N. Nottm
CHIEF SIGNS AND MARKING ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

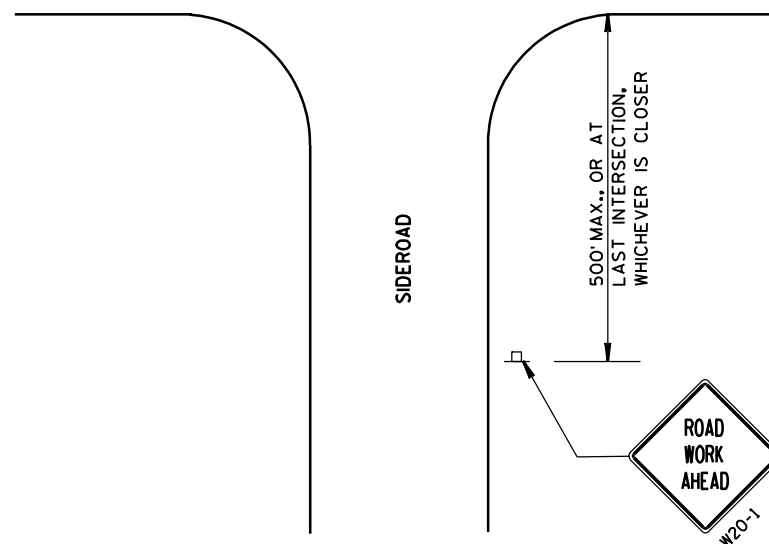
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.

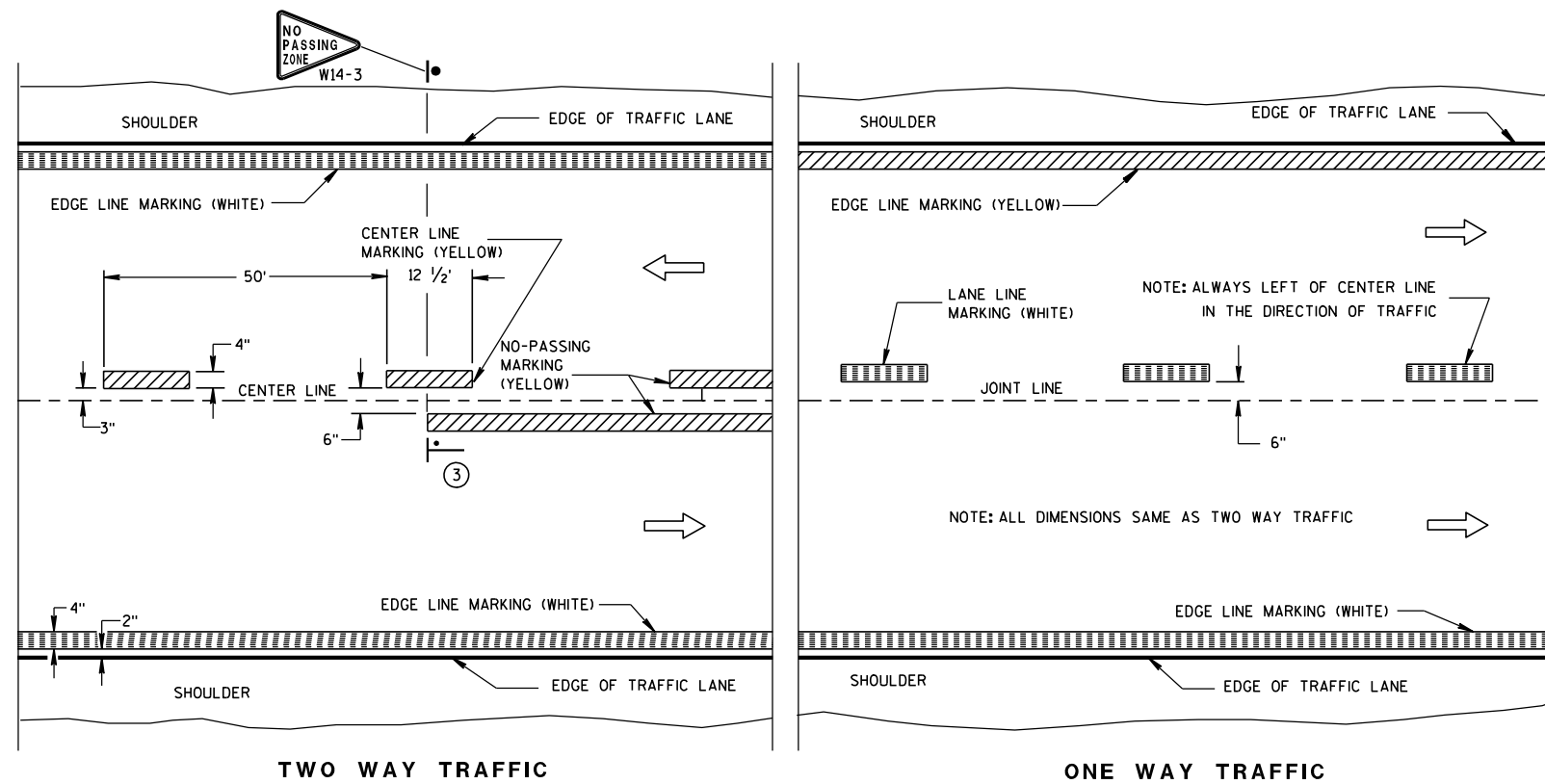
CENTER OF ROADWAY
MAINLINE ROADWAY UNDER CONSTRUCTION



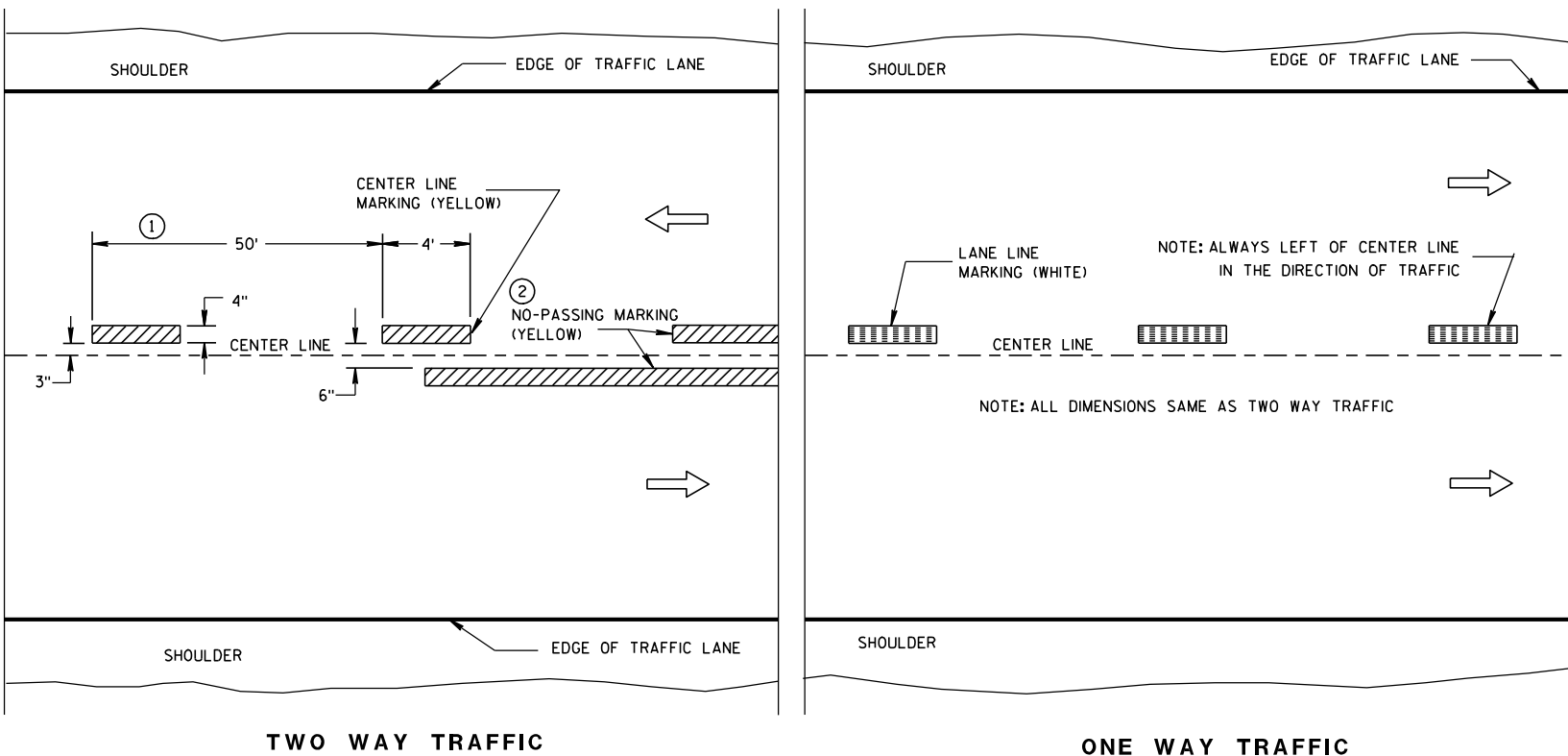
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	<i>Chetan J. Spang</i> CHIEF SIGNS AND MARKING ENGINEER
FHWA	



PERMANENT PAVEMENT MARKING

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

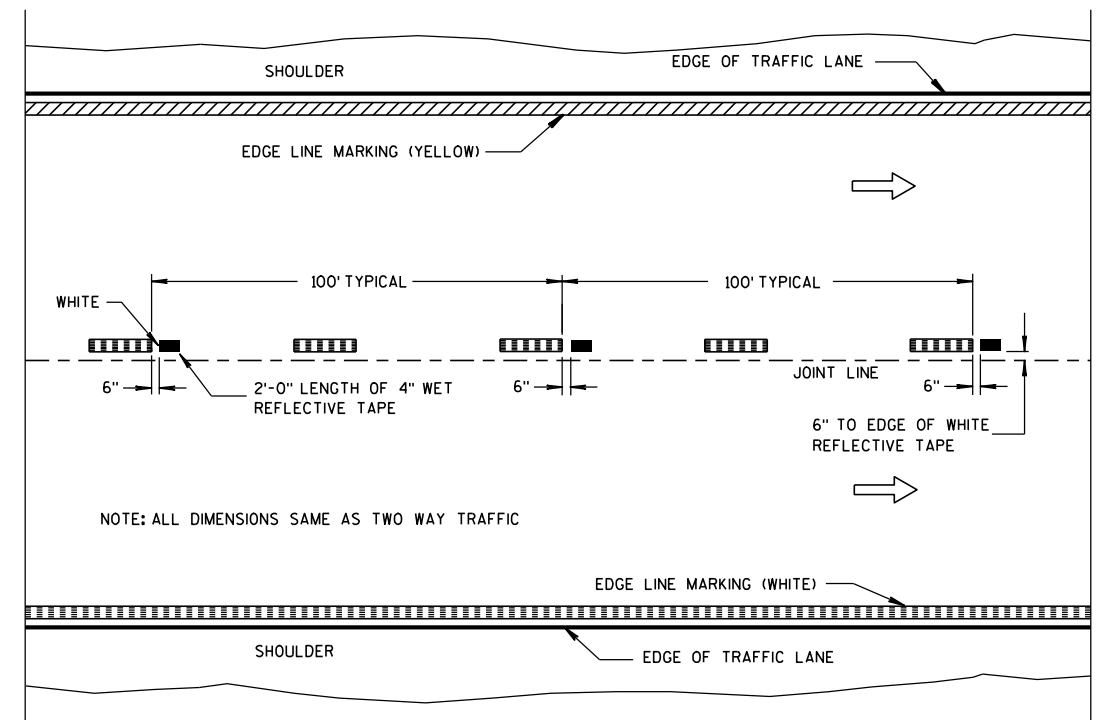
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

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

LEGEND

— "T" MARKING

● POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

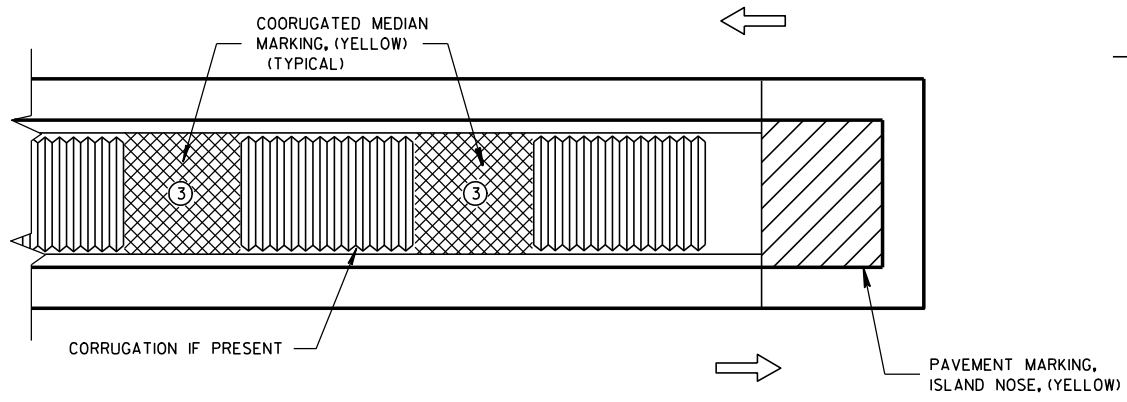
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

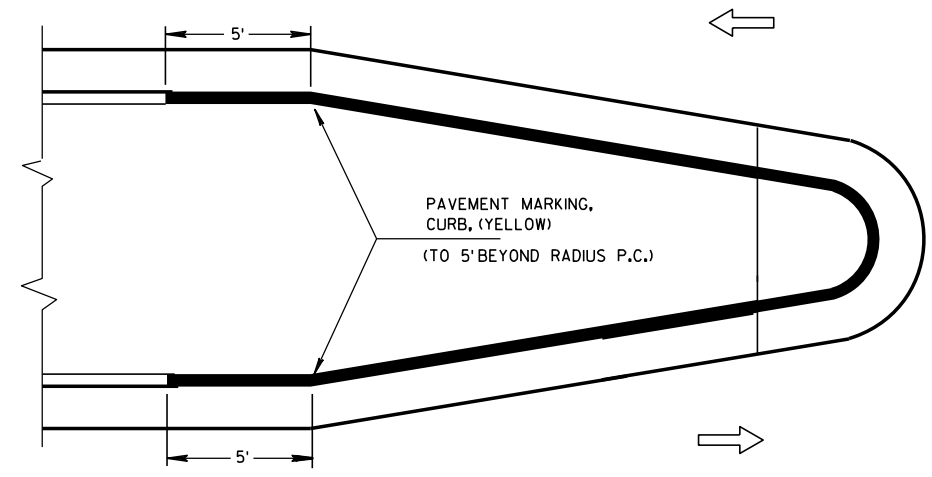
5-13-10
DATE

FHWA

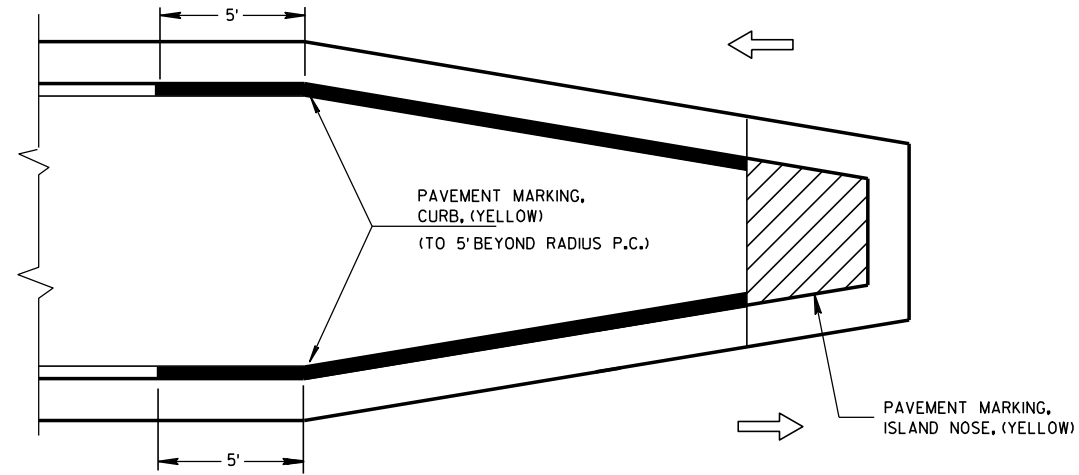
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

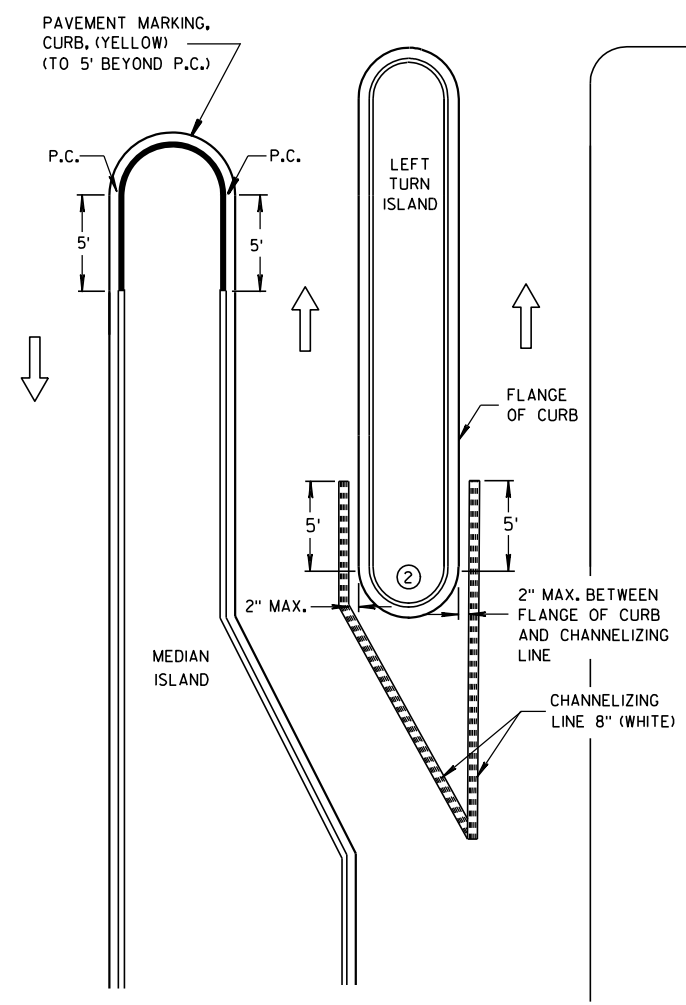


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

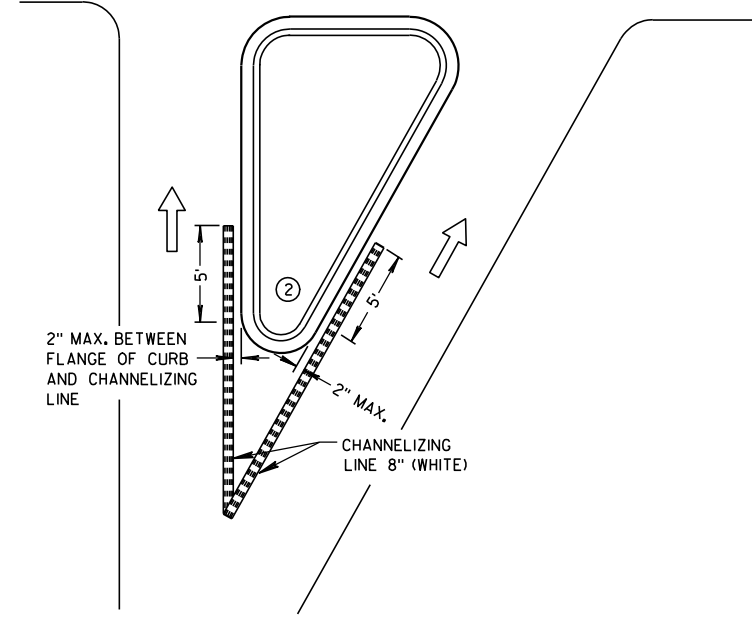
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



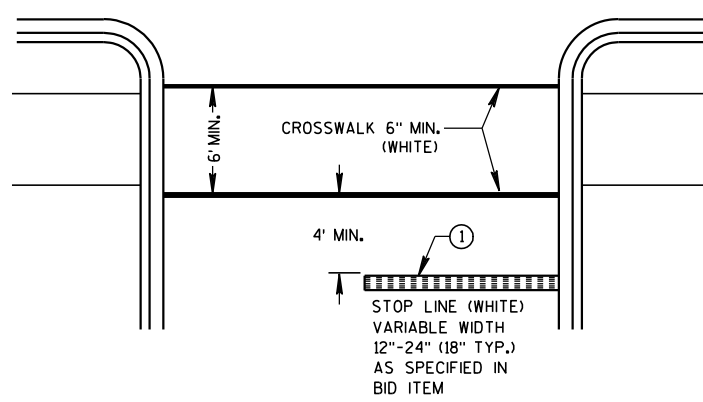
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

- 1 STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- 2 DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- 3 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 AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

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

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



FLAGGER, EQUIPPED WITH STOP/SLOW
PADDLE FASTENED ON SUPPORT STAFF

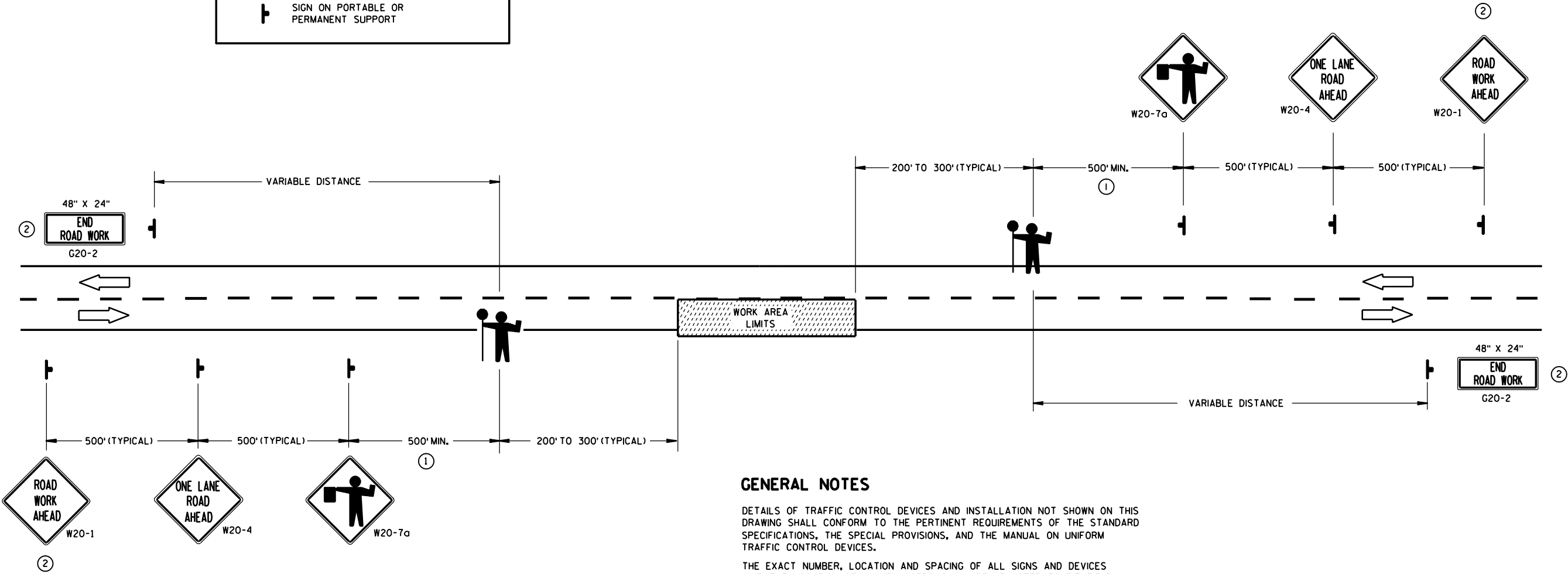


SIGN ON PORTABLE OR
PERMANENT SUPPORT



W3-4

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



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

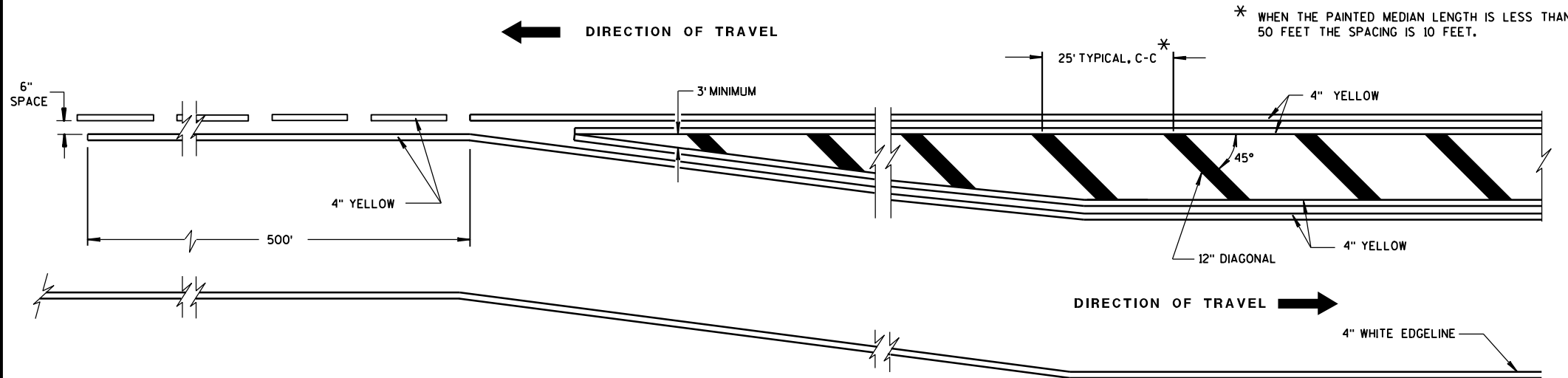
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

TRAFFIC CONTROL FOR LANE
CLOSURE (SUITABLE FOR
MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

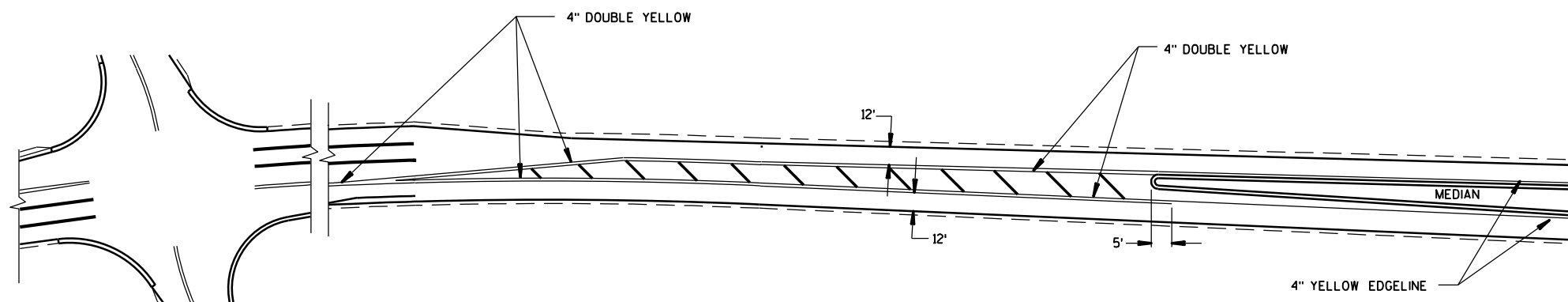
APPROVED
9/5/06 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



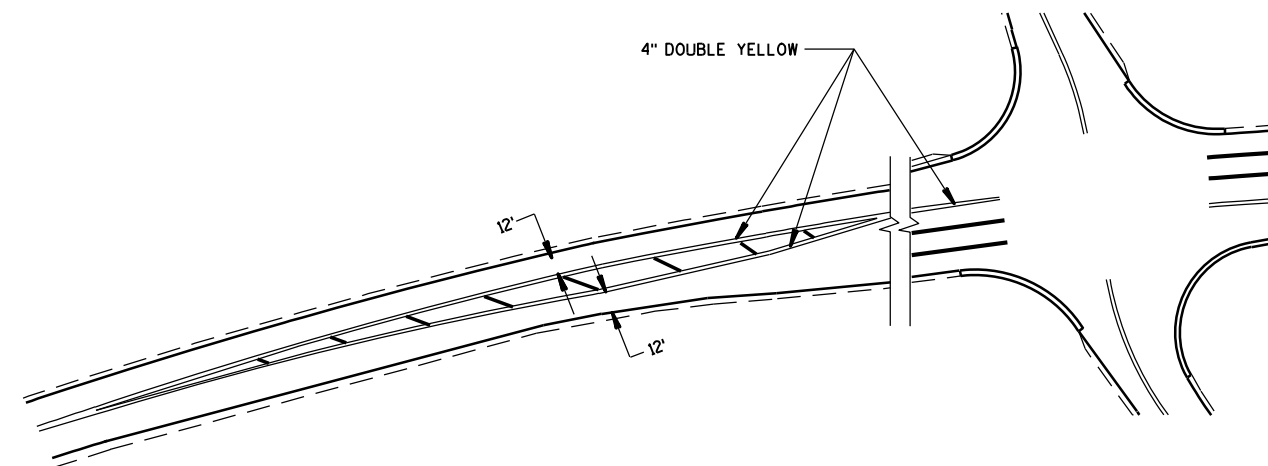
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

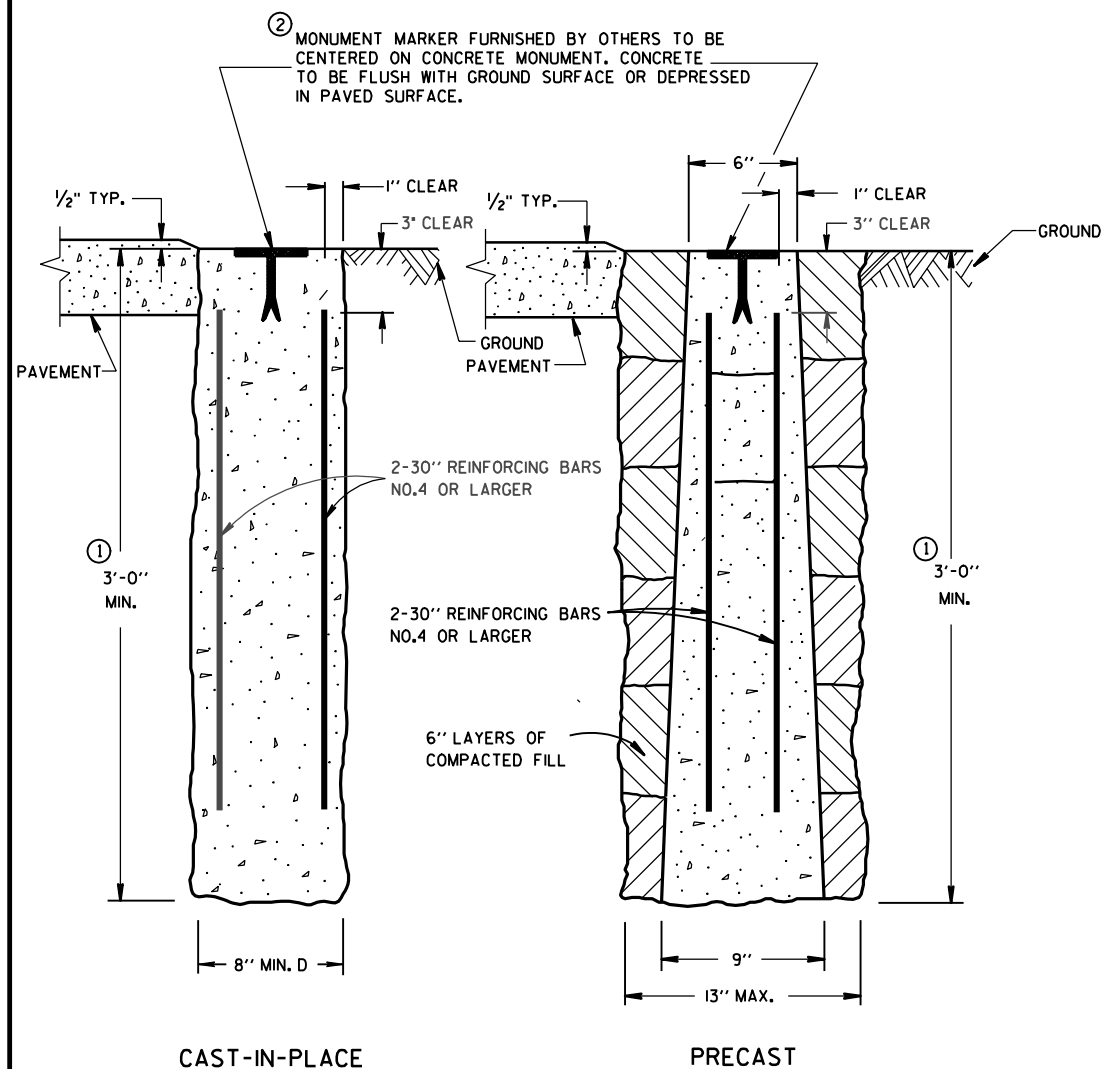


APPROACH MARKINGS FOR OTHER MEDIAN TYPES

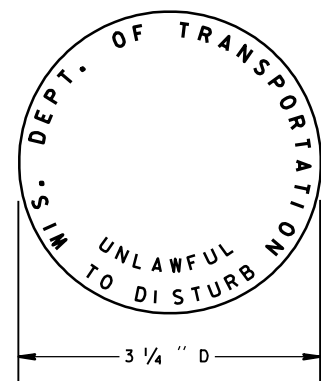
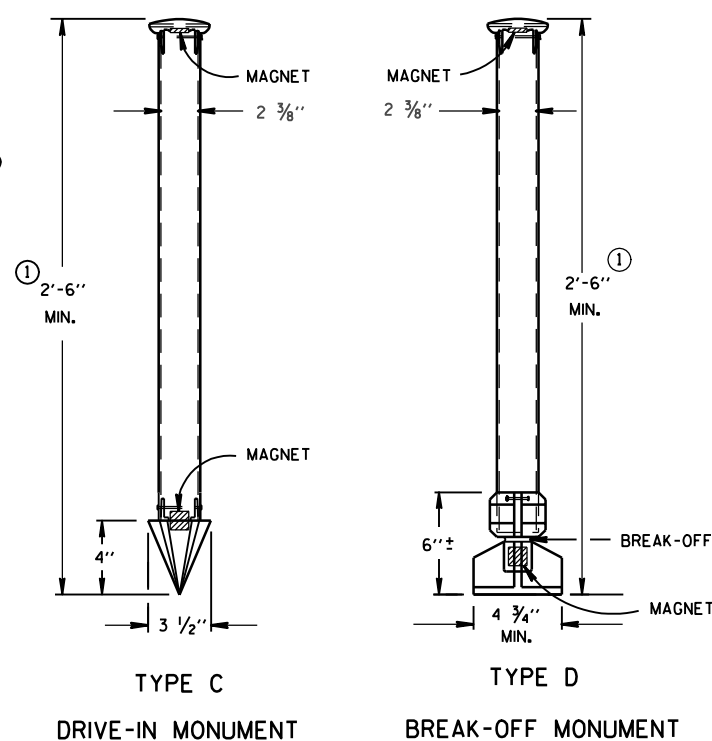


NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



CAST-IN-PLACE

CONCRETE MONUMENTS
TYPE A② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"TYPE C
DRIVE-IN MONUMENTTYPE D
BREAK-OFF MONUMENTALUMINUM 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.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

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.

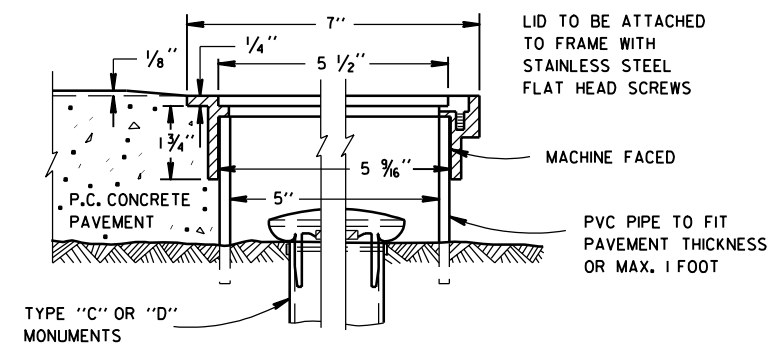
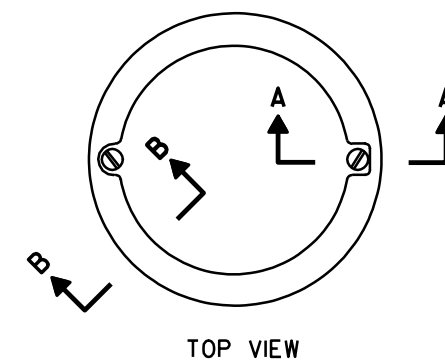
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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 WIS DOT MARKER.

SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS.)
(FOR CONCRETE PAVEMENT ONLY)

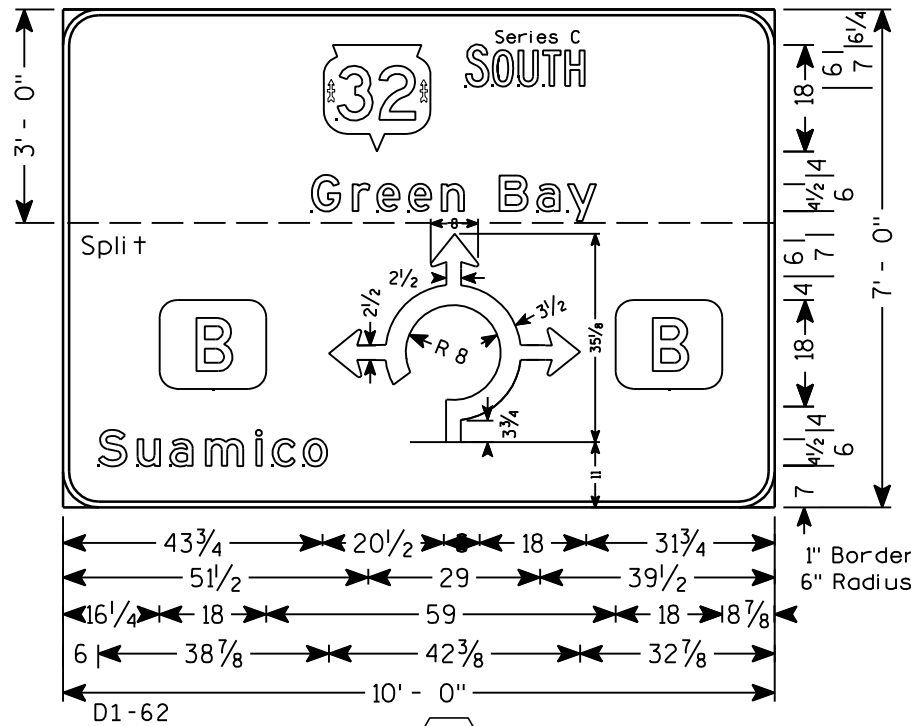
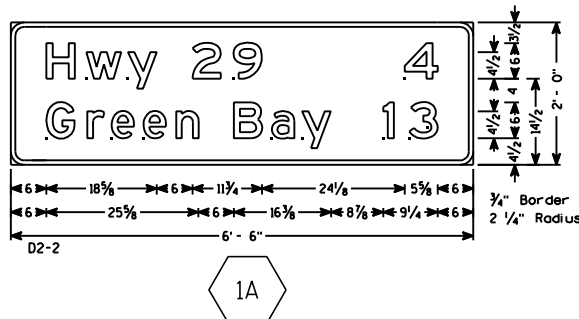
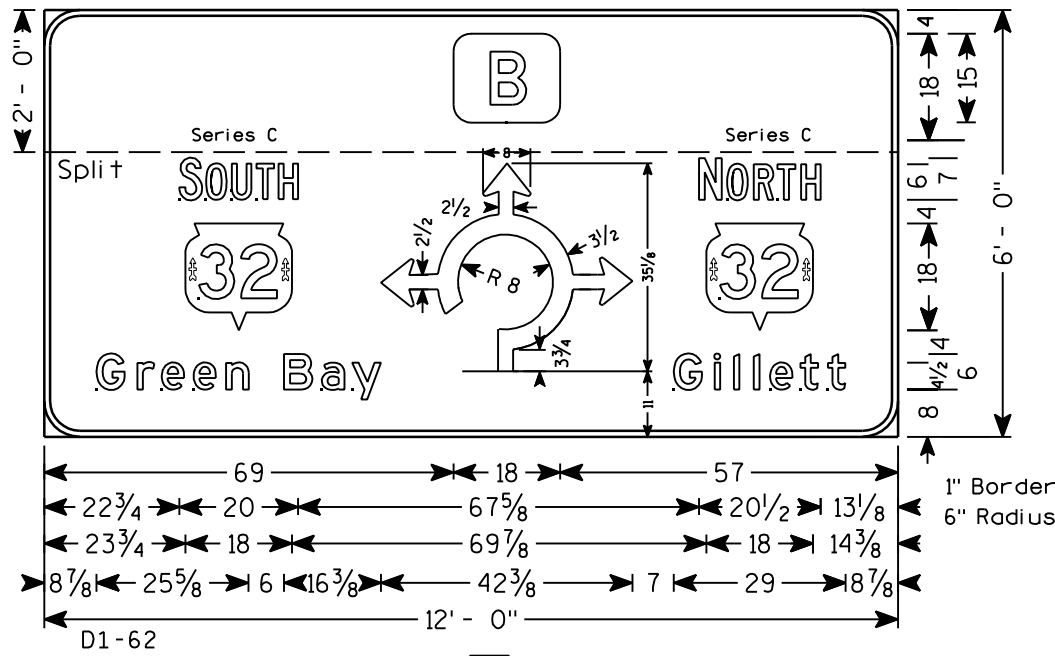
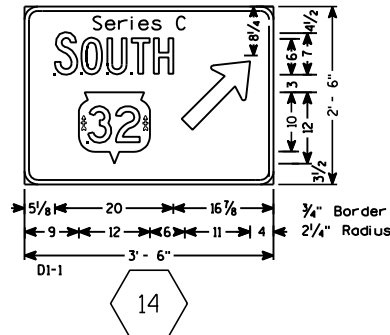
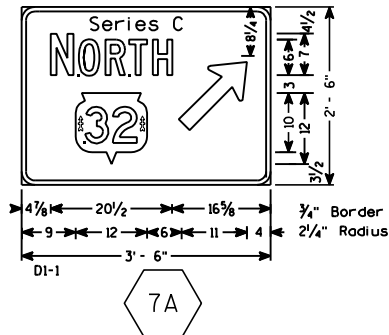
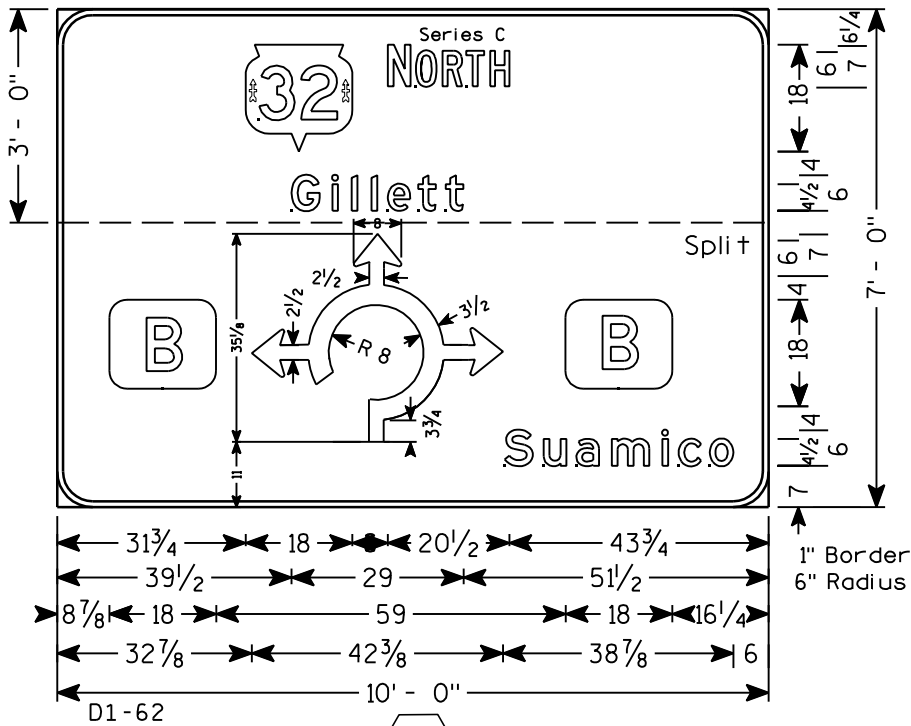
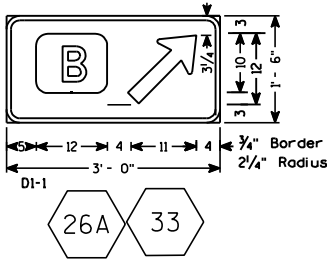
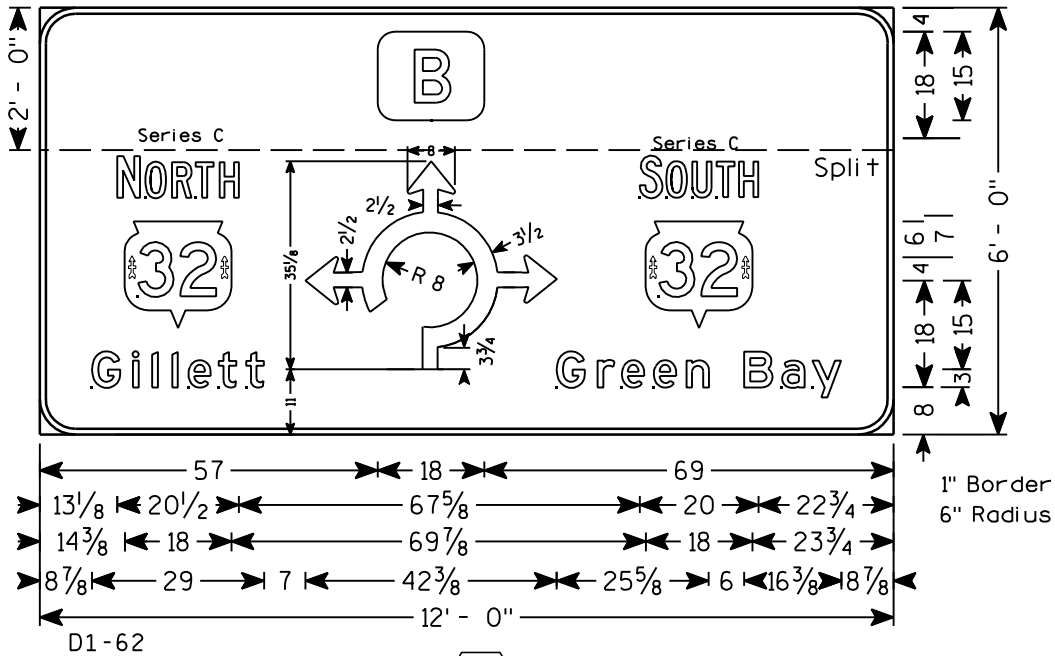
LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/22/99
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green
Message - White
3. Message Series - E except as noted
4. Colors for shields and cardinals shall be according to the applicable route marker specifications.

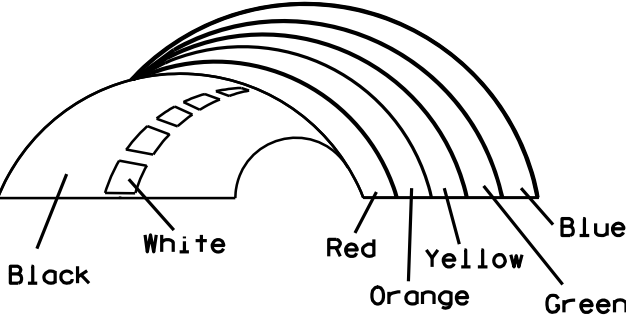


PLAN SHEET PRODUCED
BY WISDOT-NE REGION



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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 - (See Note 6)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

7

Metric equivalent for this sign is:

SIZE	
1	
2	750 mm X 900 mm
3	
4	
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.	Area m ²
1																												
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5	.68
3																												
4																												
5																												

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
I55-56

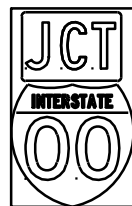
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

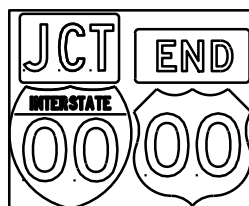
DATE 2/8/10 PLATE NO. I55-56.2

SHEET NO:

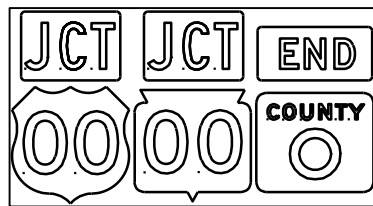
TYPICAL ASSEMBLIES



J1-1



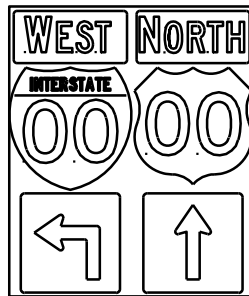
J1-2



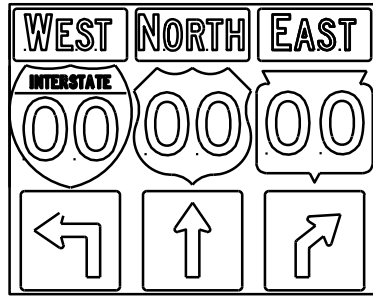
J1-3



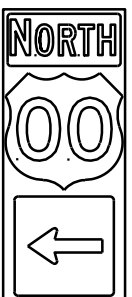
J2-1



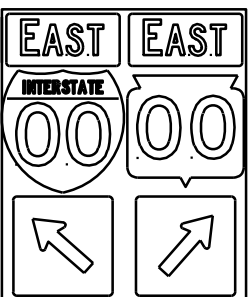
J2-2



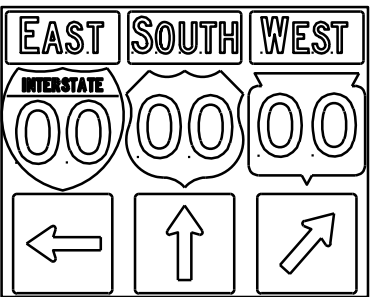
J2-3



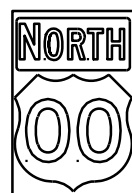
J3-1



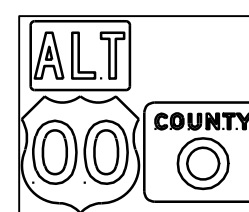
J3-2



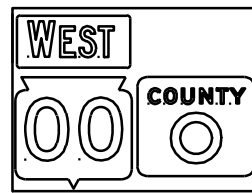
J3-3



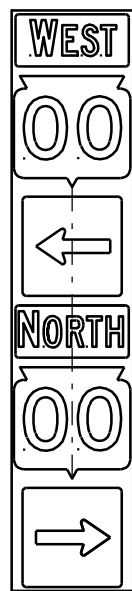
J4-1



J4-2

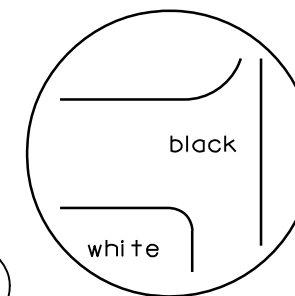
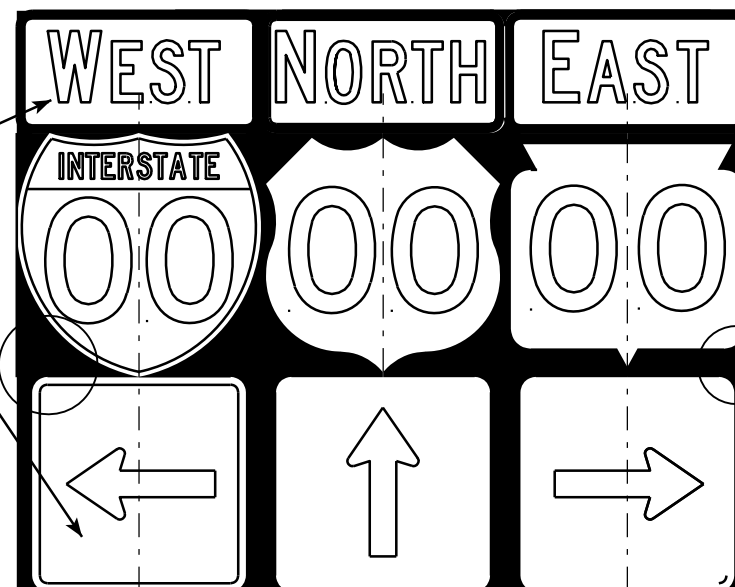
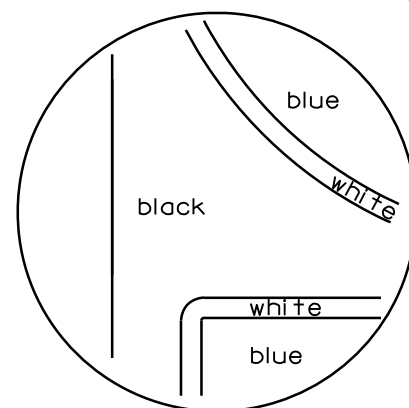


J4-2

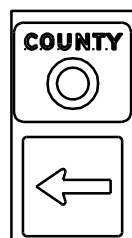


JV

[blue background with interstate]



[black background]



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- 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 M1-1 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.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 10/21/09

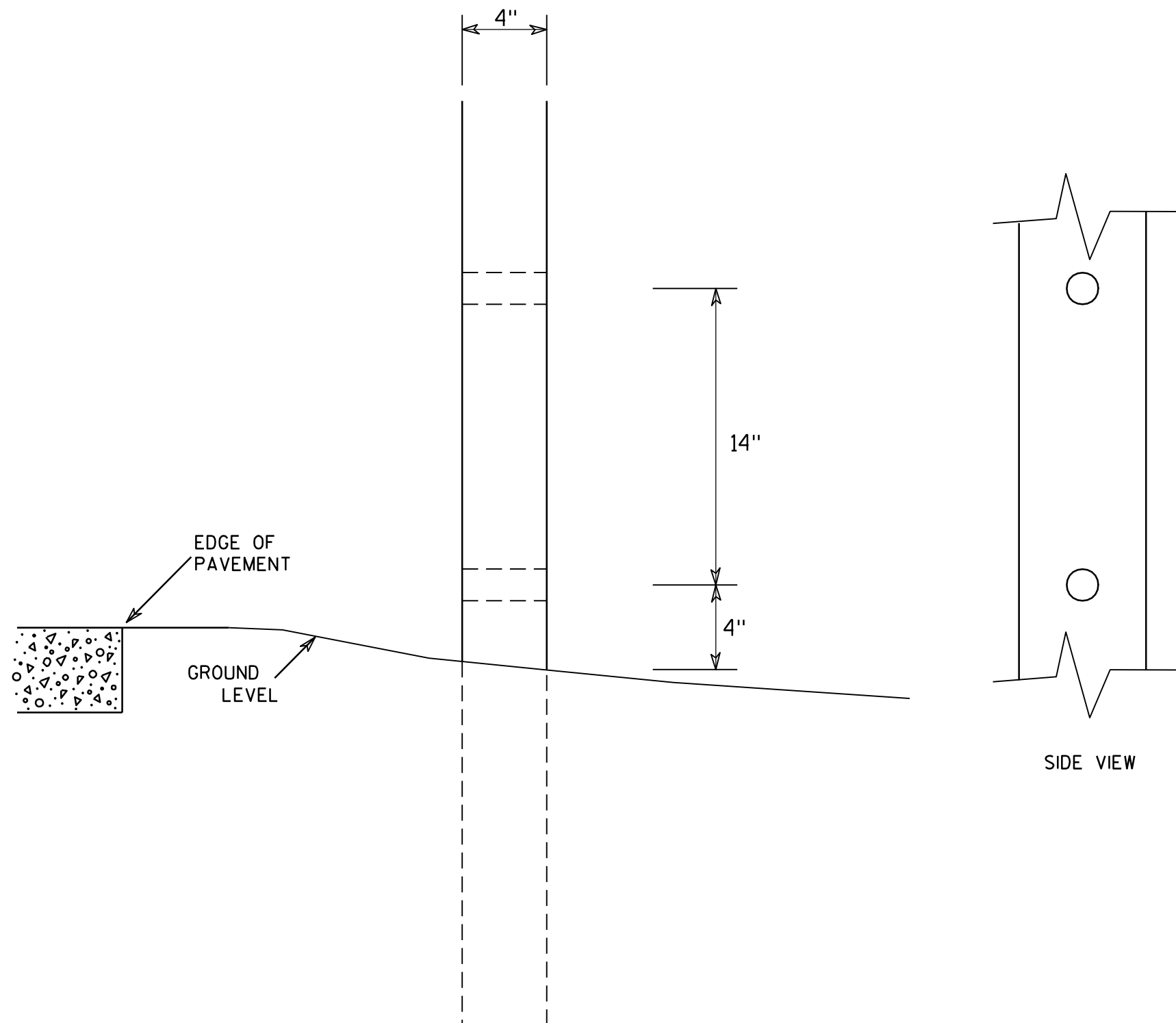
PLATE NO. A2-1S.6

PROJECT NO:

SHEET NO:

E

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

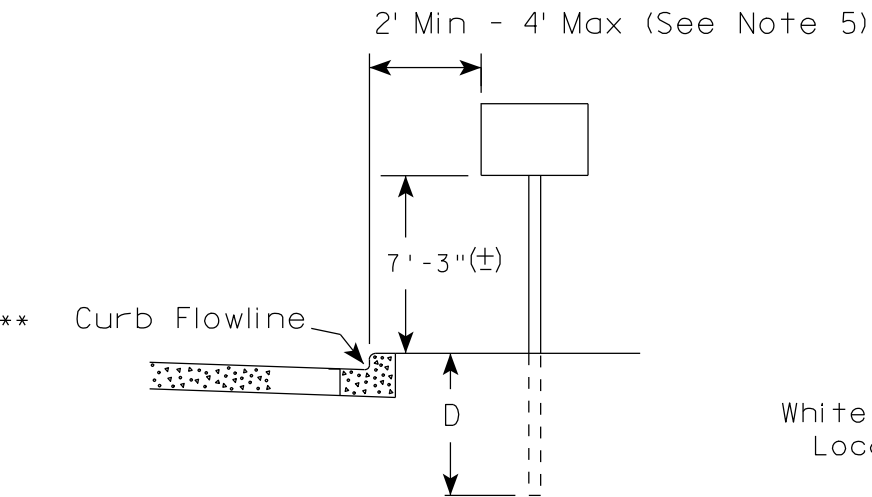
HWY:

COUNTY:

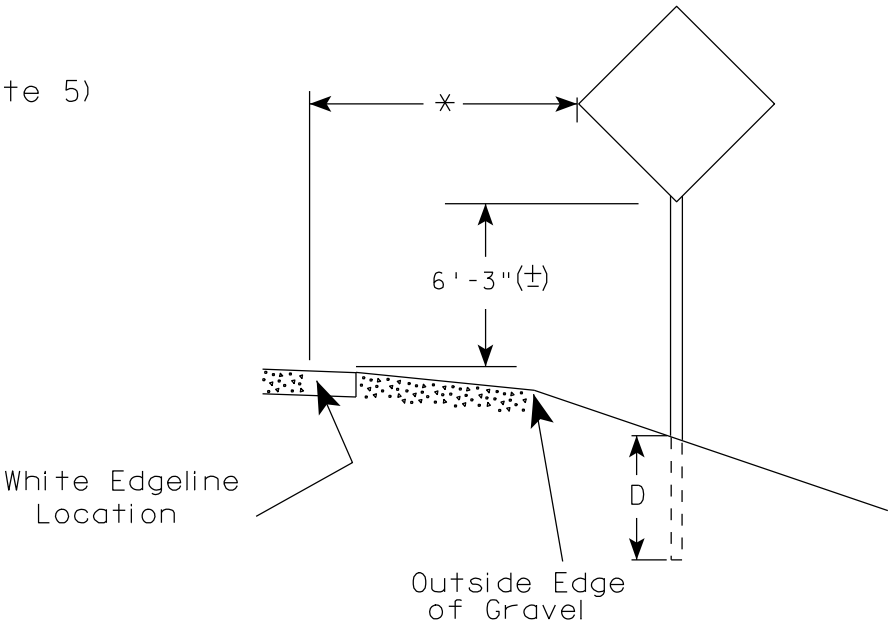
SHEET NO:

E

URBAN AREA



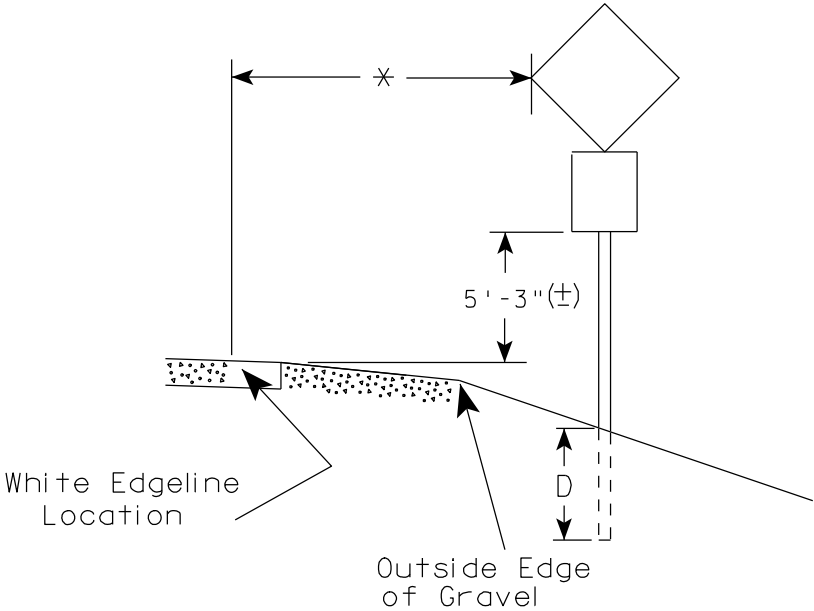
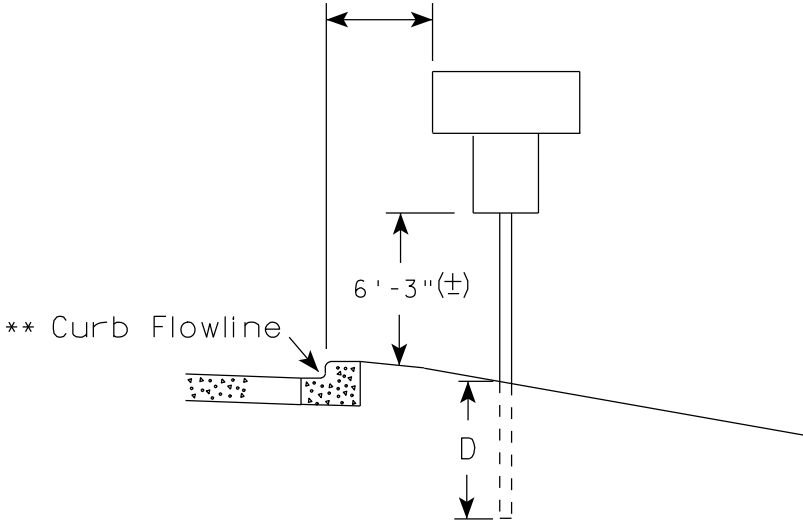
RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
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 J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

2' Min - 4' Max (See Note 5)



POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. A4-3.15

GENERAL NOTES

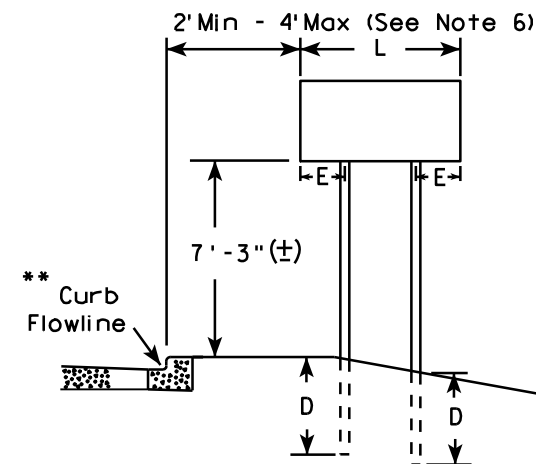
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (W1-8A), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

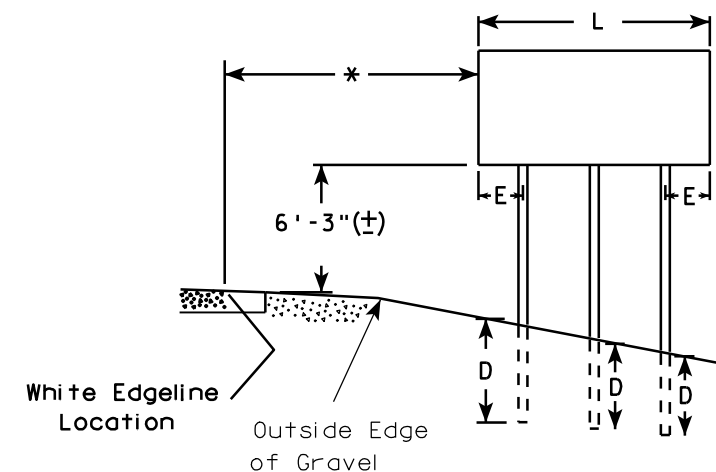
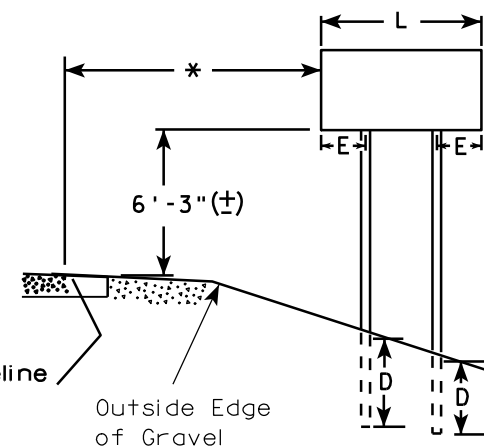
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

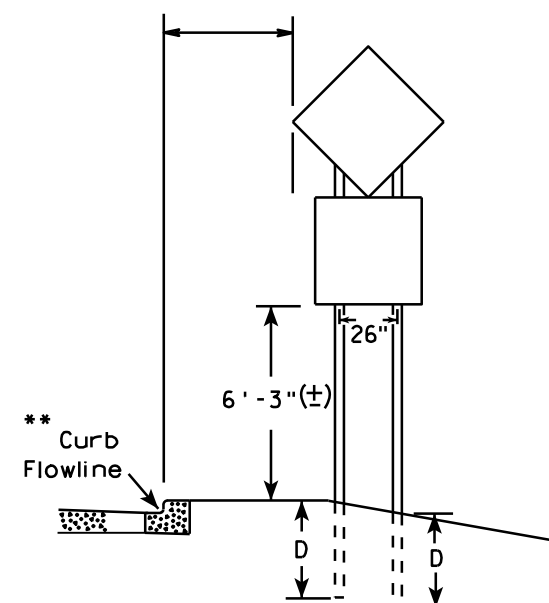
URBAN AREA



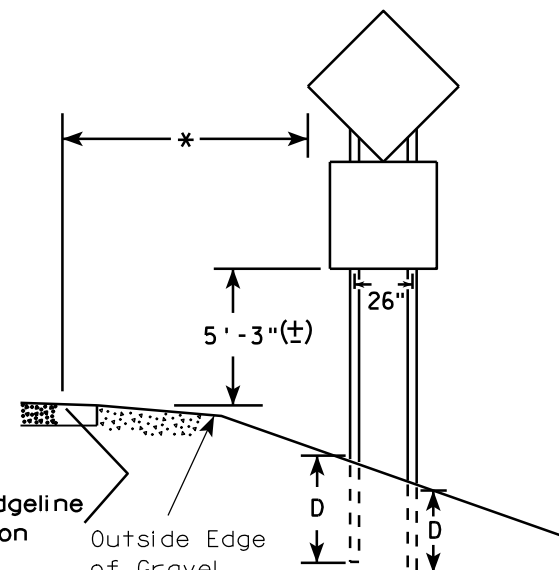
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	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 9/30/09 PLATE NO. A4-4.10

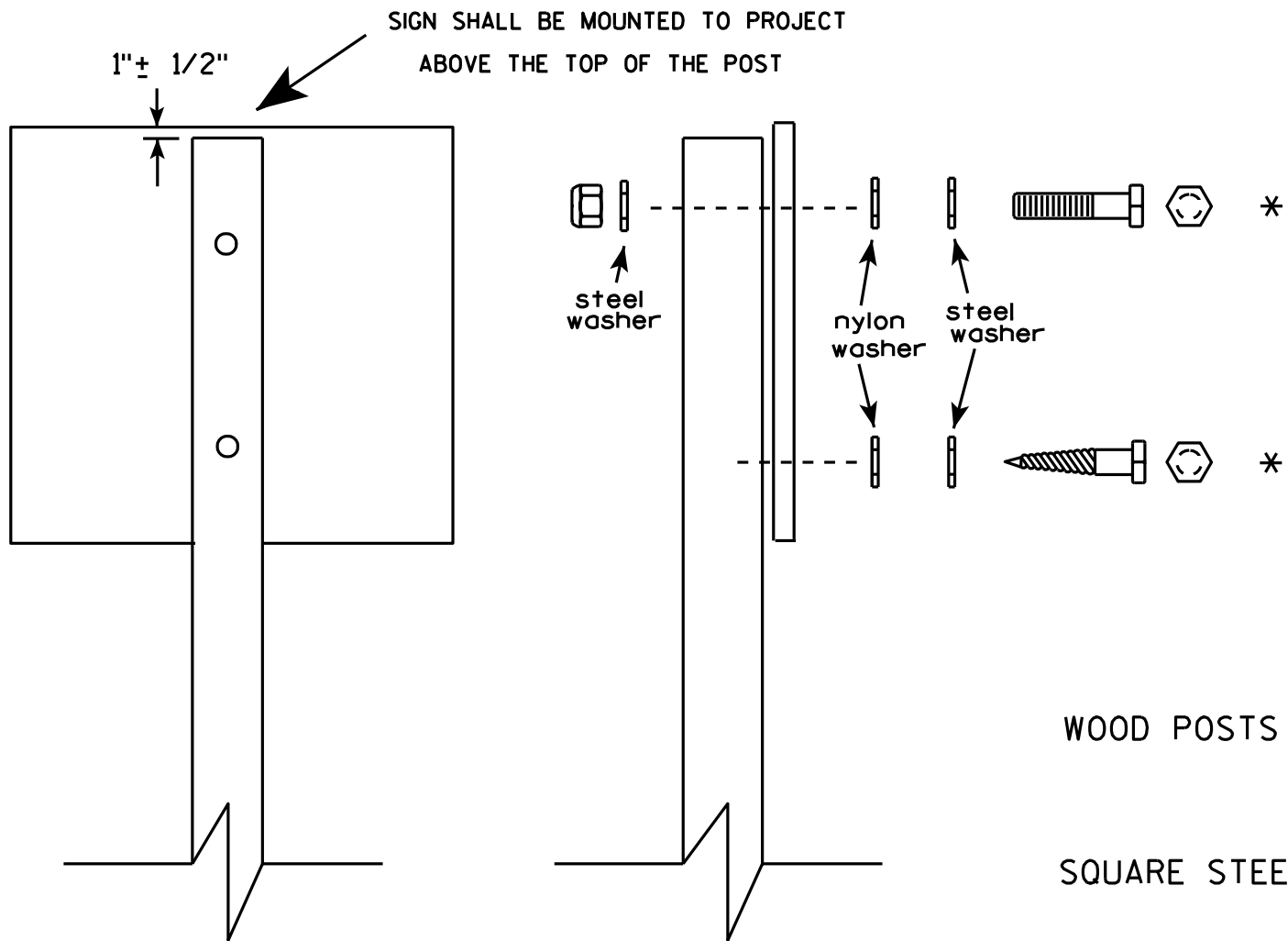
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

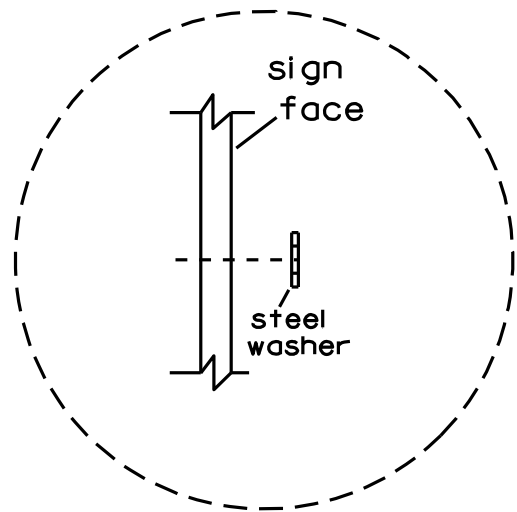


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 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 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

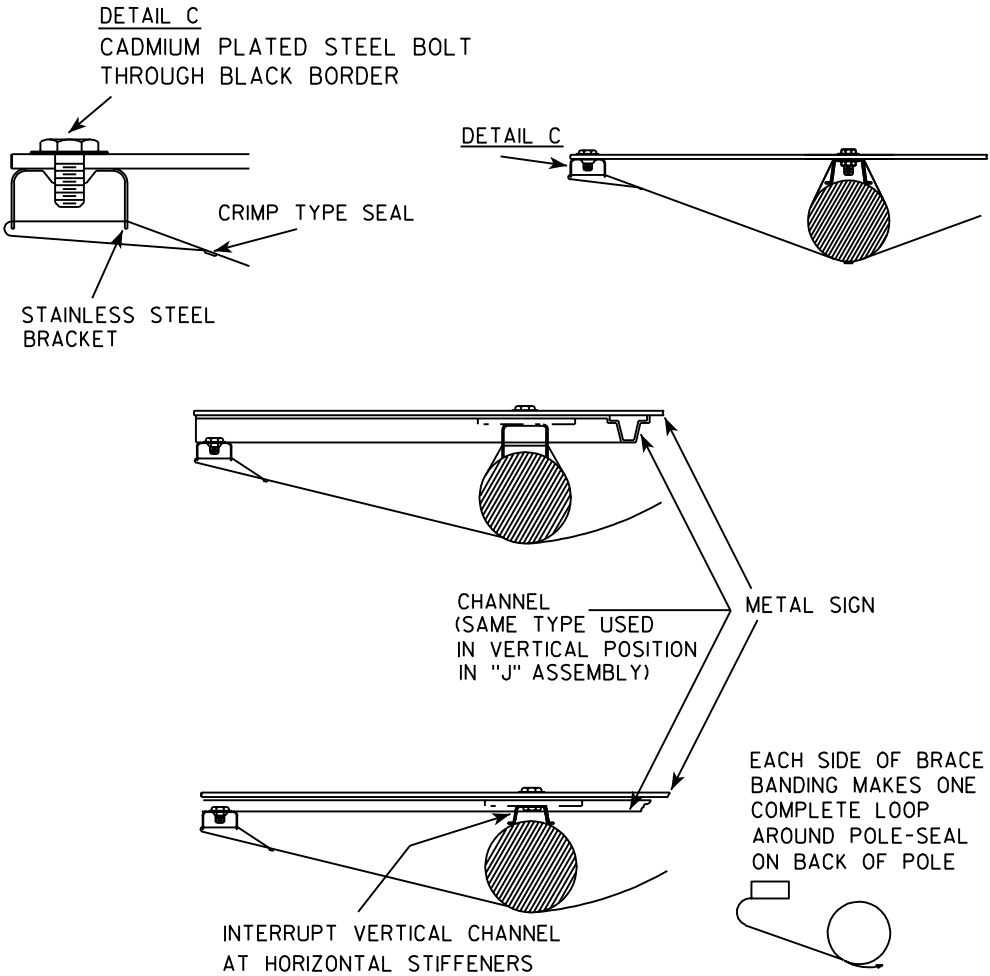


Washer Placement when Sign Has Other Than Type H or Type F Face

* 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 3/23/10	PLATE NO. A4-8.7

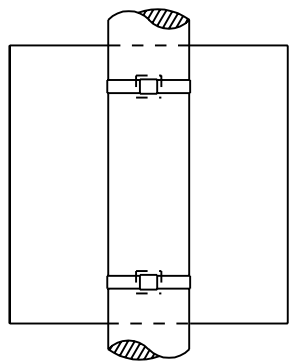
BRACE BANDING



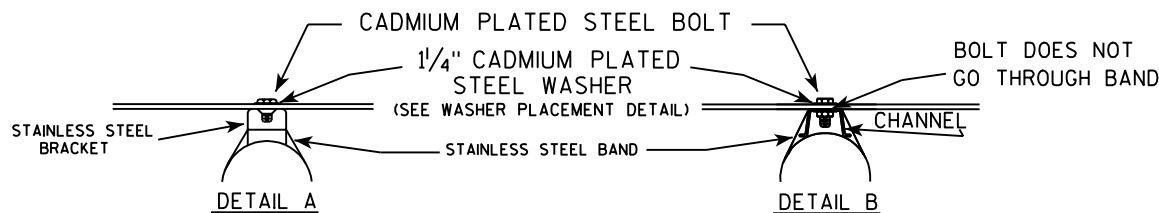
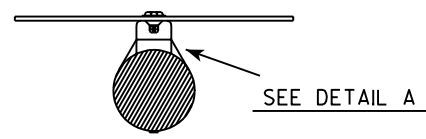
BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

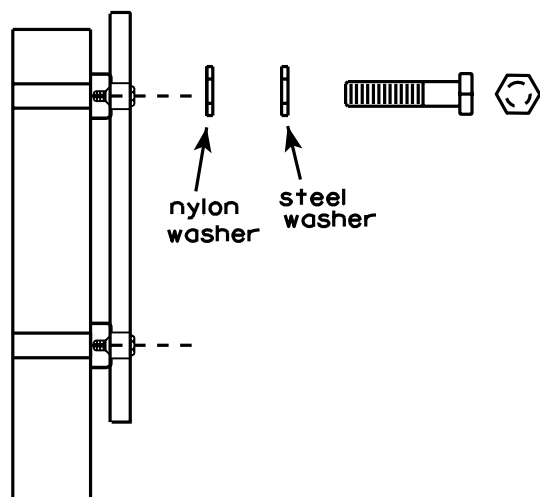
SINGLE SIGN



BRACKET BANDING

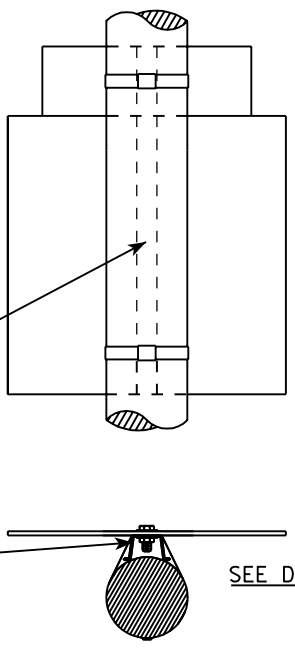


WASHER PLACEMENT



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

"J" ASSEMBLY



SEE DETAIL B

GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

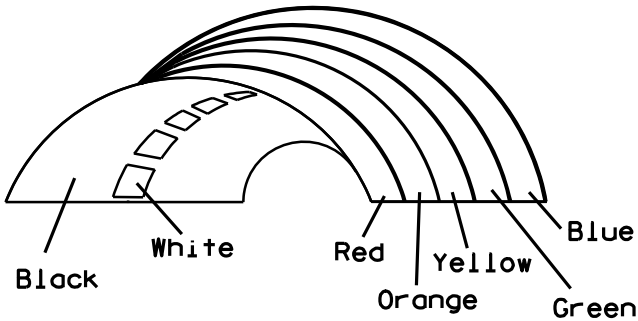
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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 - (See Note 6)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Metric equivalent
for this sign is:

SIZE	
1	
2	750 mm X 900 mm
3	
4	
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.	Area m ²
1																												
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5	.68
3																												
4																												
5																												

STANDARD SIGN
I55-56

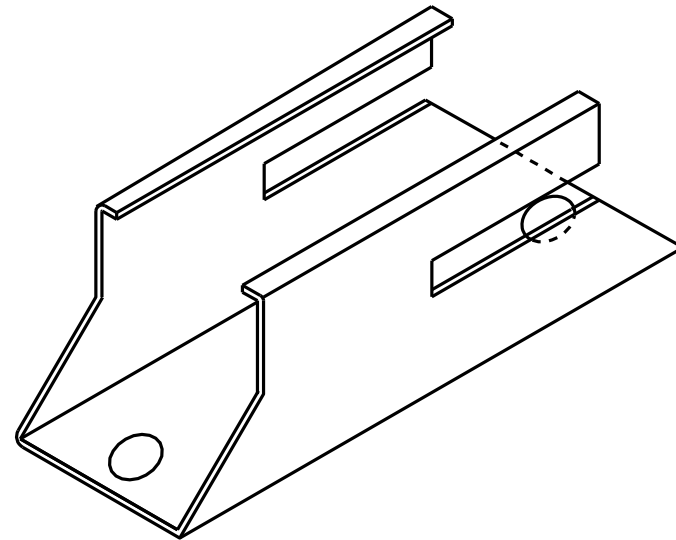
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

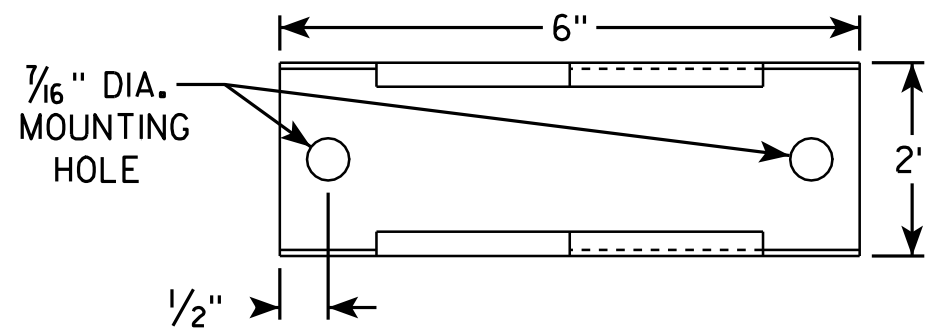
DATE 2/8/10 PLATE NO. I55-56.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:
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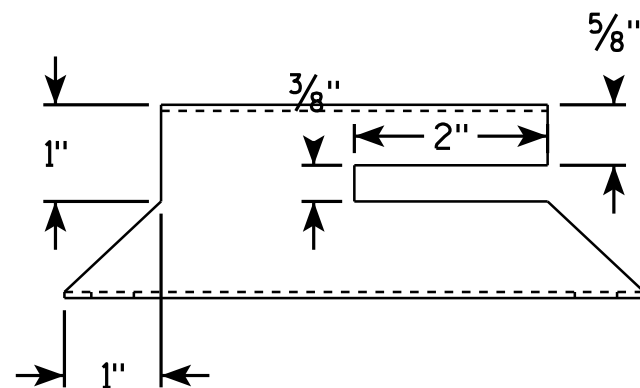
ISOMETRIC VIEW



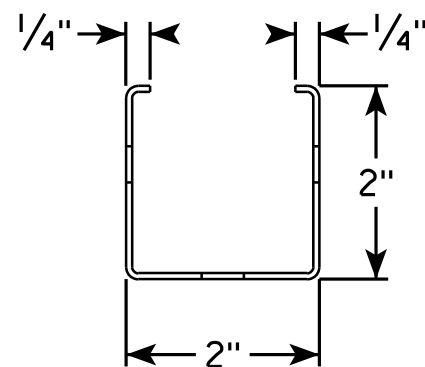
TOP VIEW



SIDE VIEW



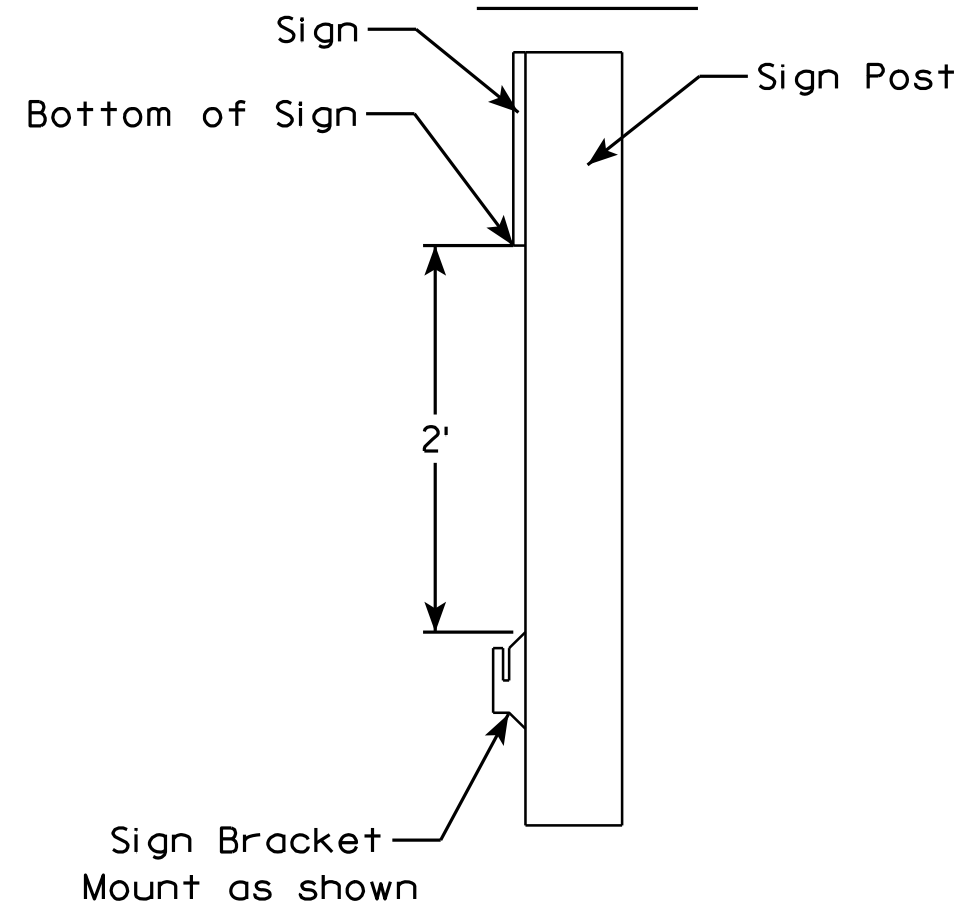
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

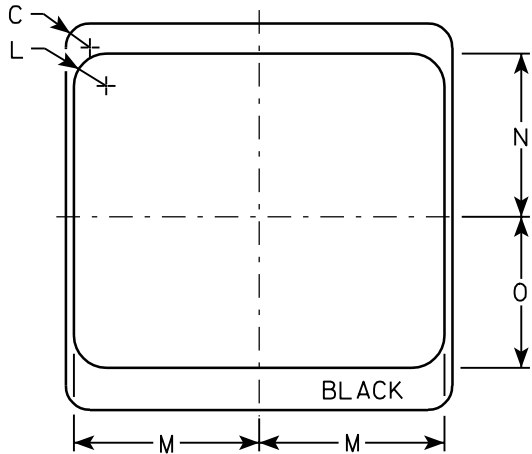
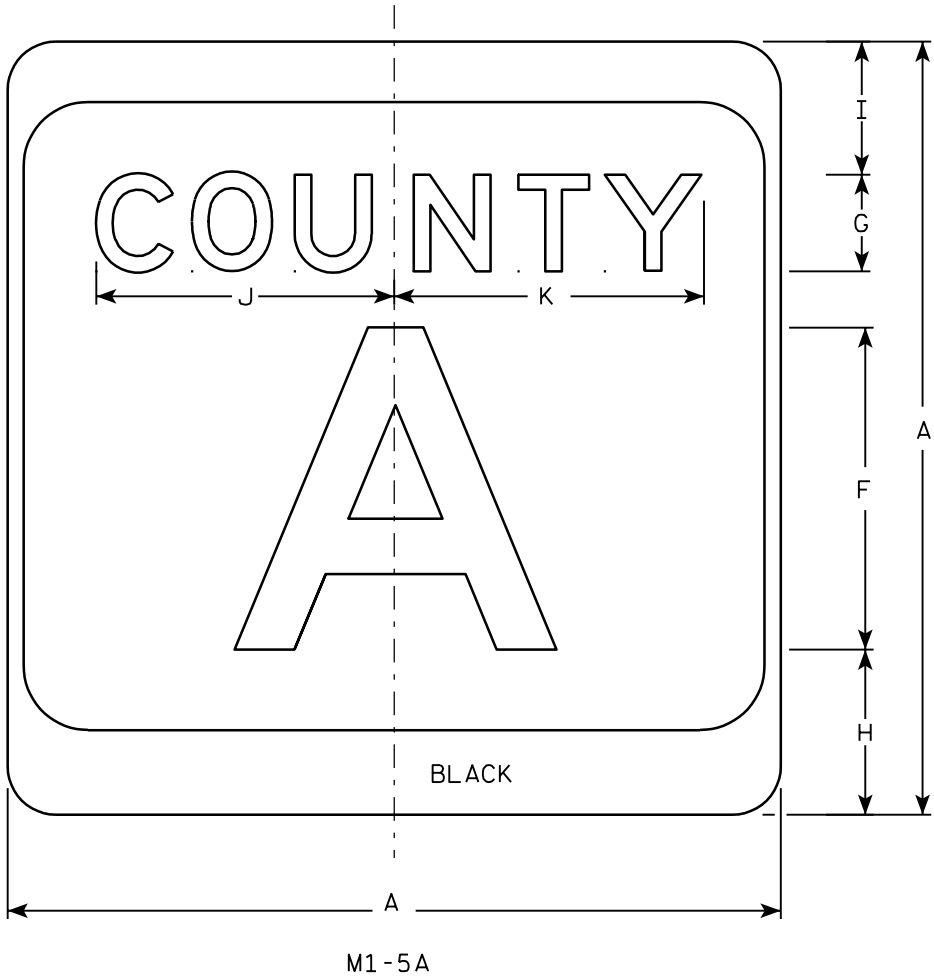
7

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m ²
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												4.0	.36
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												9.0	.81
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												9.0	.81
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												9.0	.81

PROJECT NO:				HWY:				COUNTY:																SHEET NO:				E
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NOTES

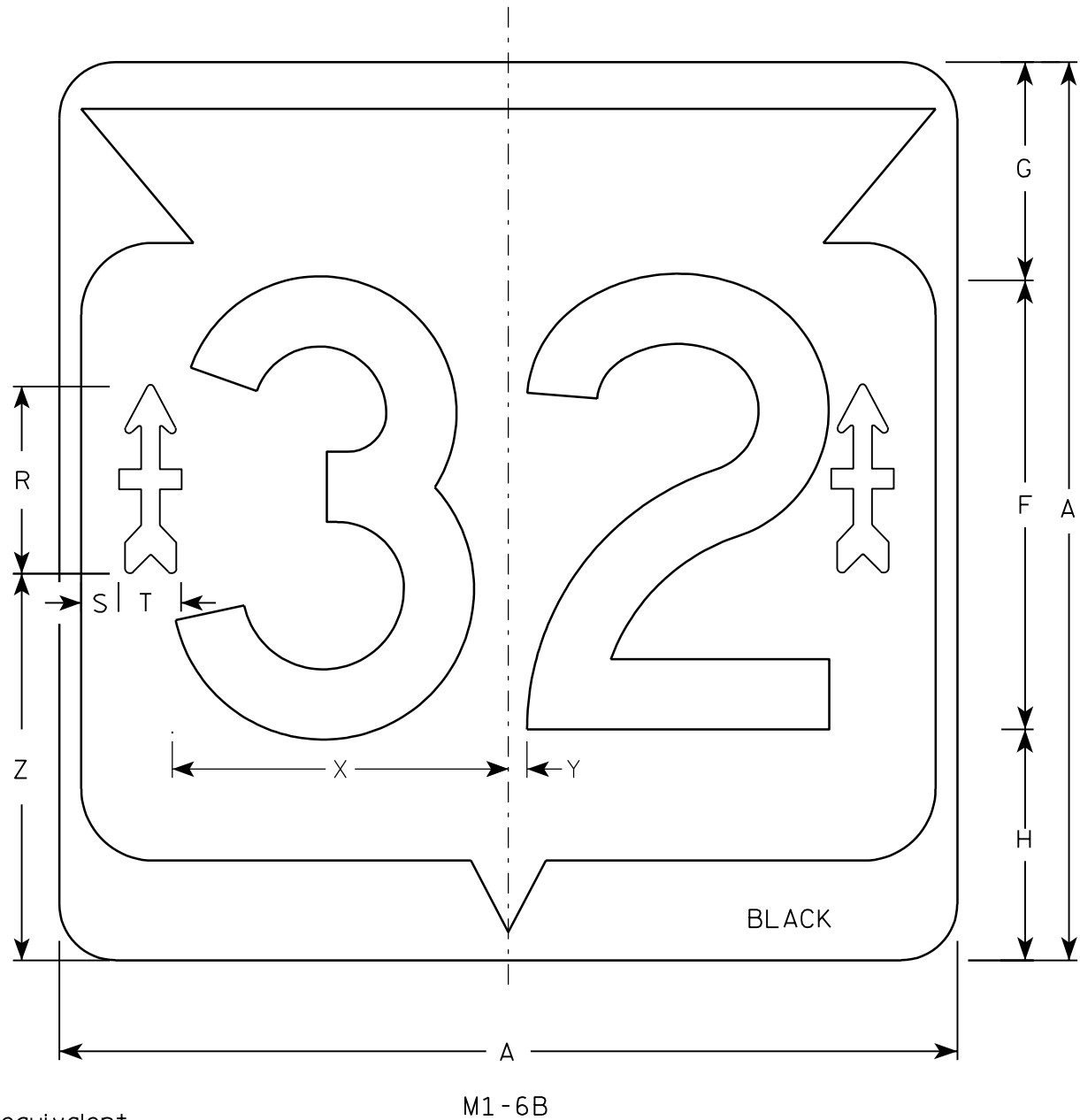
- Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 7
Message - Black
- Message Series - see Note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 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.
- Substitute appropriate letters & optically adjust spacing to achieve proper balance.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Christa J. Spang
for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-5A.7

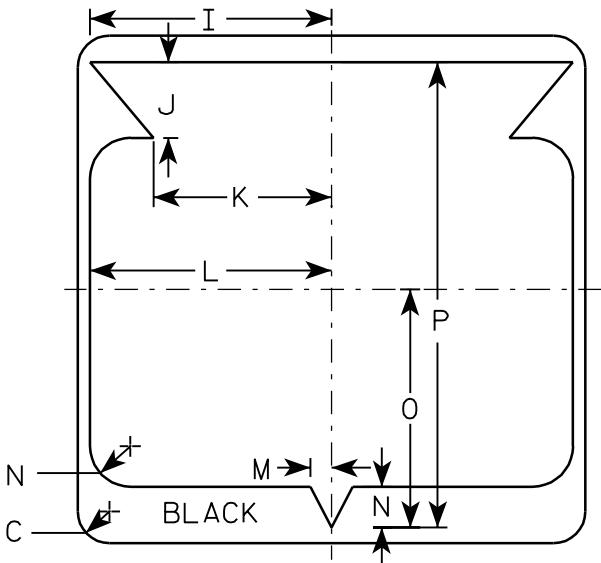


SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

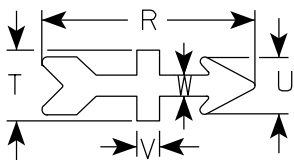
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
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		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
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		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

NOTES

- 1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - White & Black
 - Message - Black
 - Arrow - Type H Reflective Red
- 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.



32nd DIVISION ARROW
ACTUAL SIZE



STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

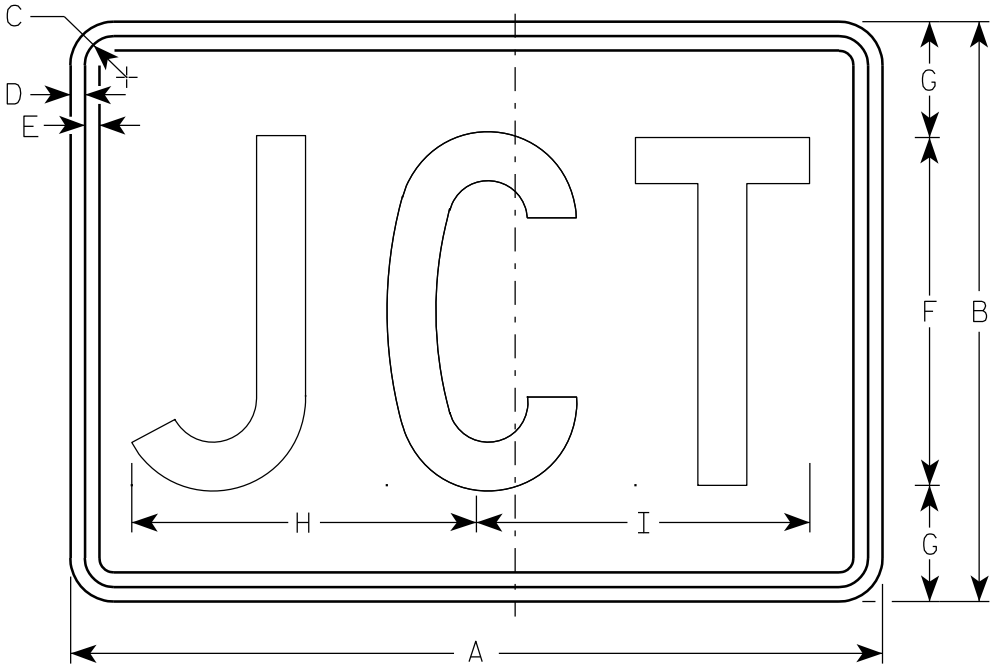
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

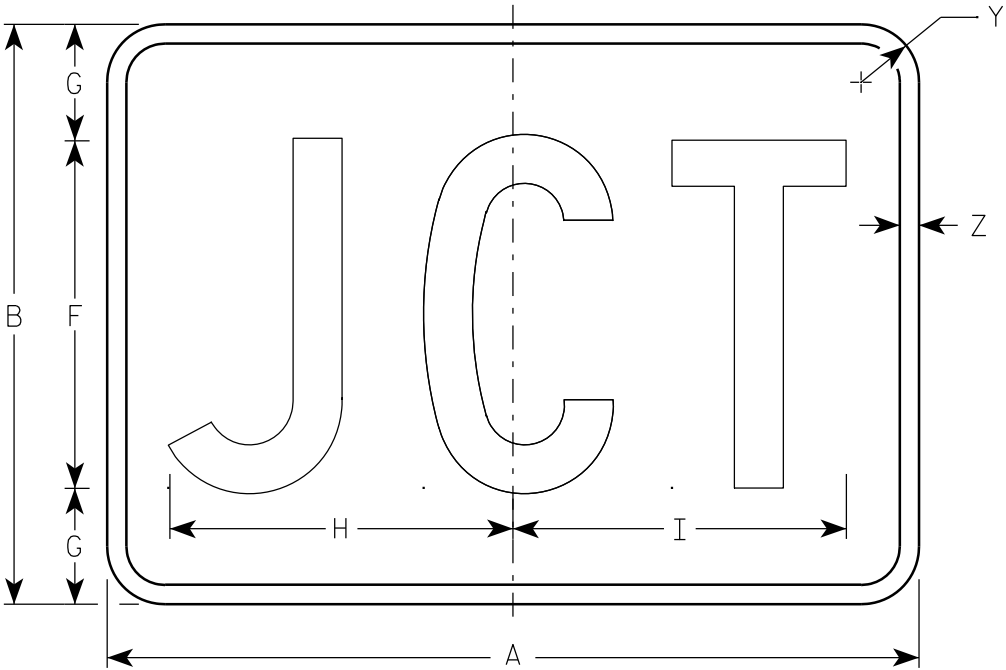
DATE 12/5/05 PLATE NO. M1-6B.2

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

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.	Area m ²
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	0.20
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	0.20
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	0.20
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	0.20

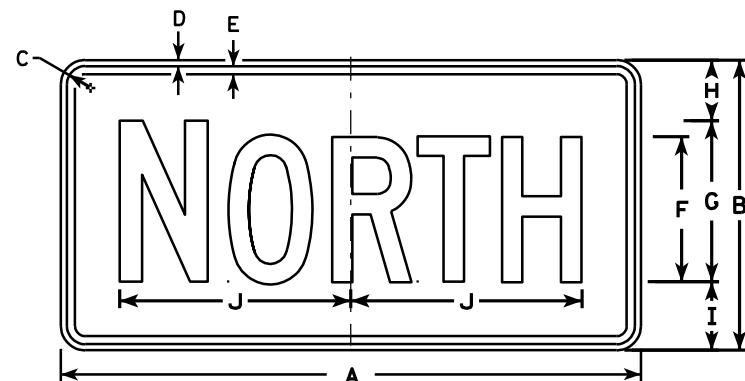
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

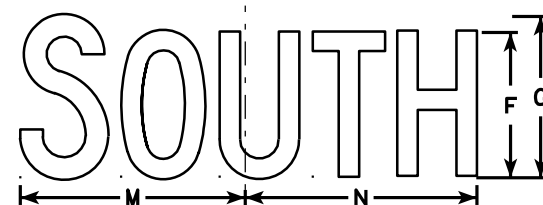
PROJECT NO: HWY: COUNTY: SHEET NO: E



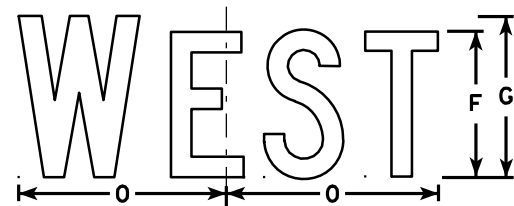
M3-1
MK3-1
M03-1



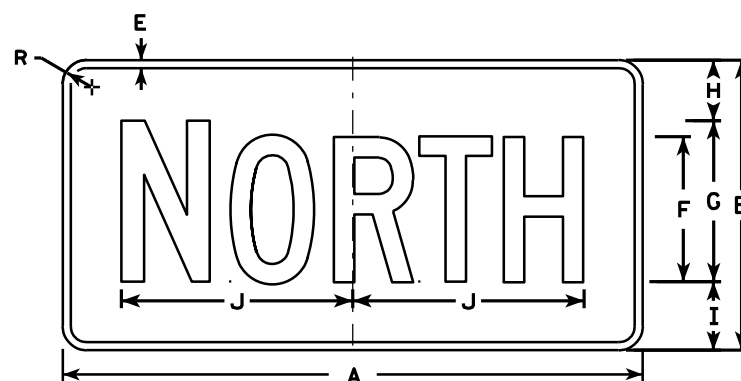
M3-2
MK3-2
M03-2



M3-3
MK3-3
M03-3



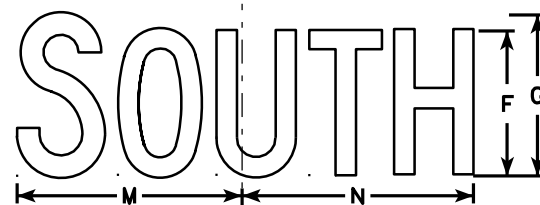
M3-4
MK3-4
M03-4



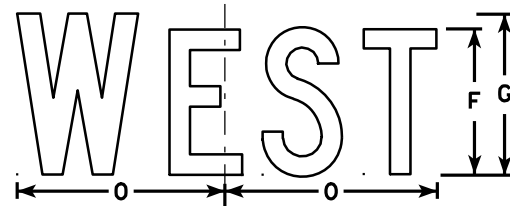
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

- All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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 - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
 - MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
 - MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
 - MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
 - MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
 - MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
 - M03-1 thru M03-4 Background - Orange - Reflective Message - Black
- Note the first letter of each direction is larger than the remainder of the message.

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

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGNS
M3-1 thru M3-4
SERIES

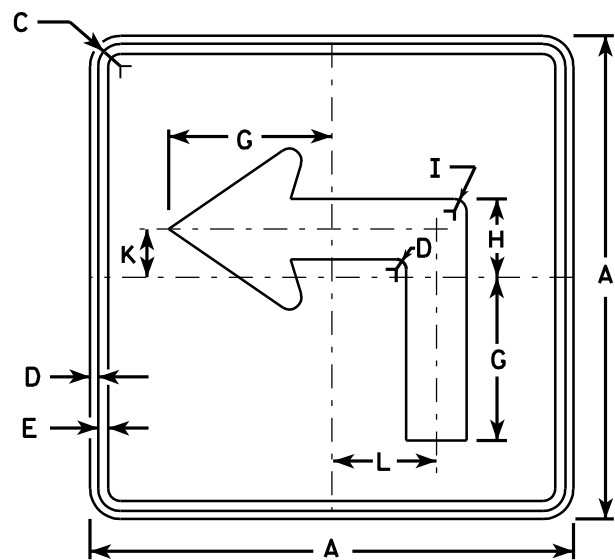
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

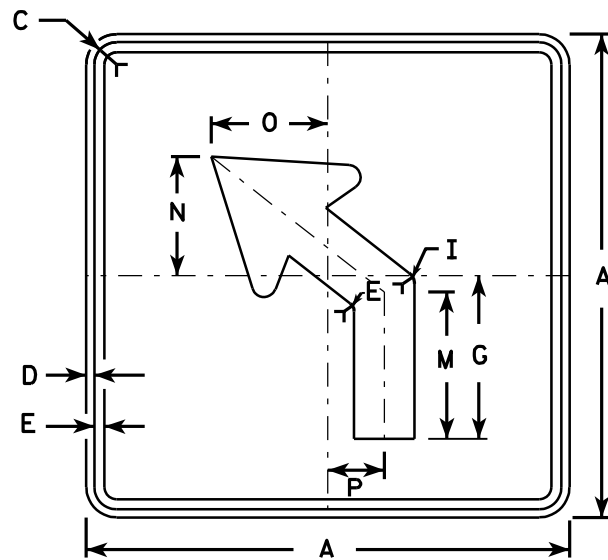
DATE 11/10/10 PLATE NO. M3-1.12

SHEET NO:

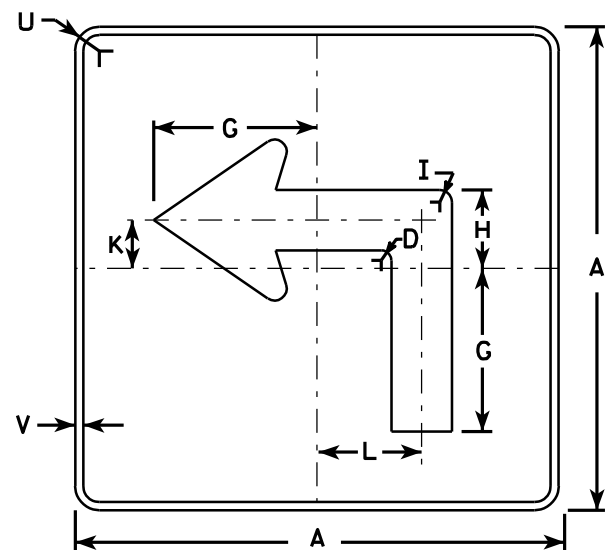
E



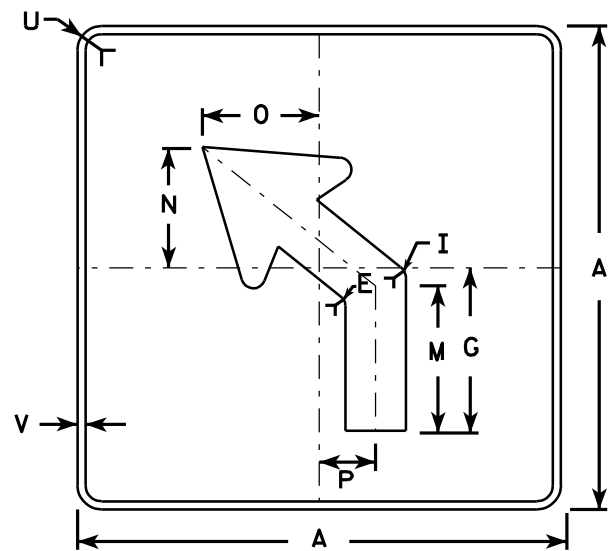
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



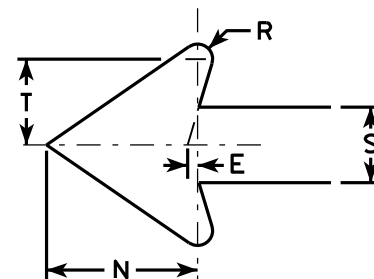
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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 - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
MO5-1 and MO5-2 Background - Orange - Reflective
Message - Black
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area m ²
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	0.28
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	0.56
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	0.56
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	0.56

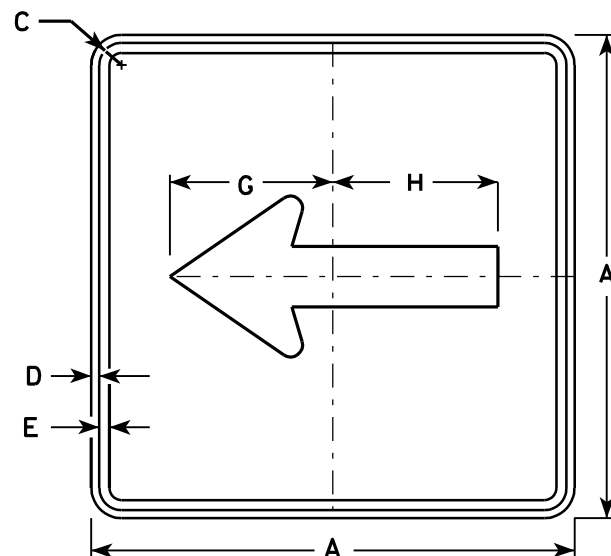
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

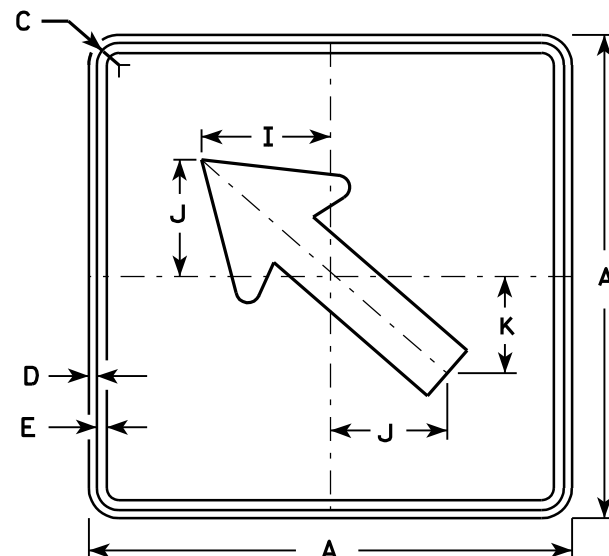
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

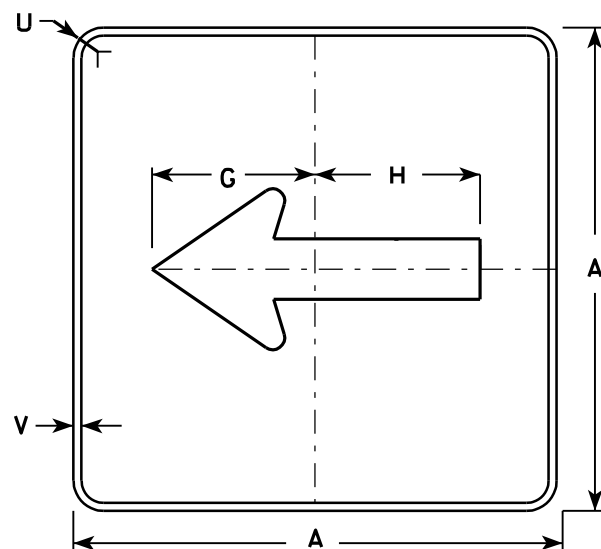
DATE 3/16/10 PLATE NO. M5-1.11



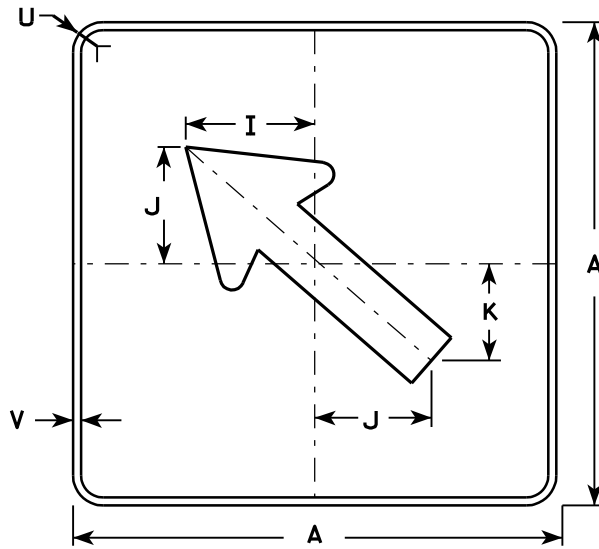
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



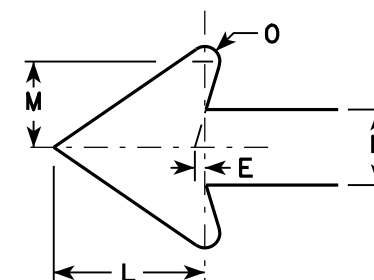
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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 - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective

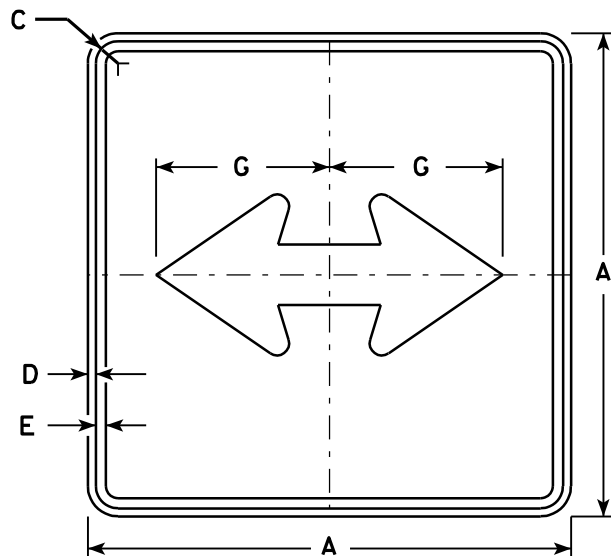


Metric equivalent
for this sign is:

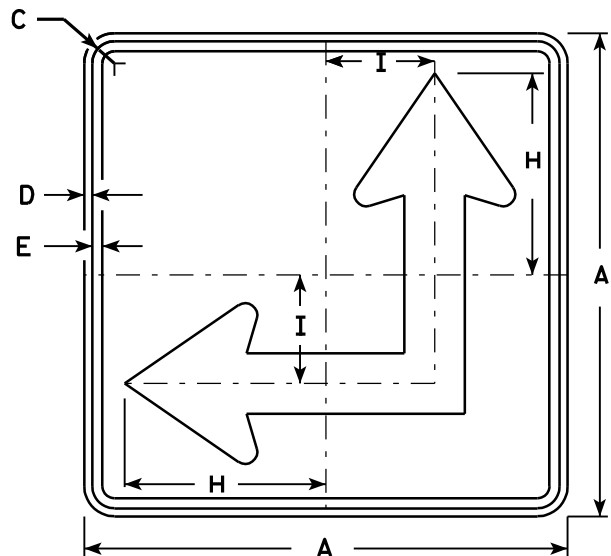
SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area m2
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	0.28
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	0.56
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	0.56
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	0.56

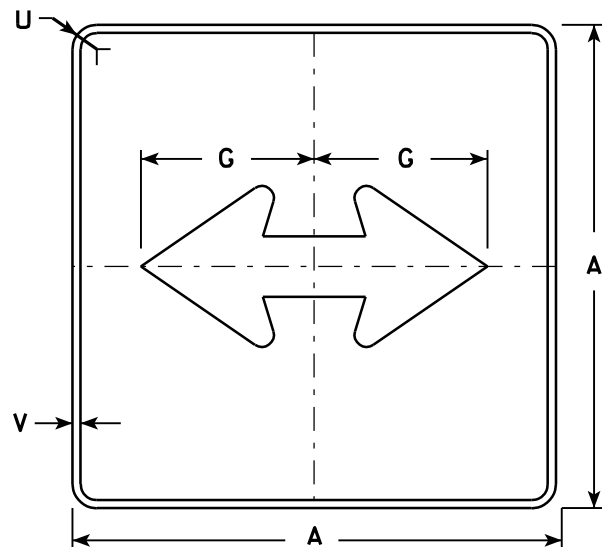
PROJECT NO: HWY: COUNTY: SHEET NO: E



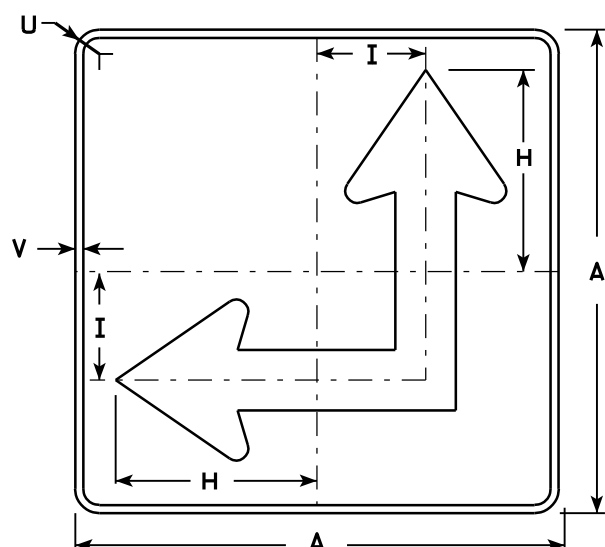
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MR6 - 6



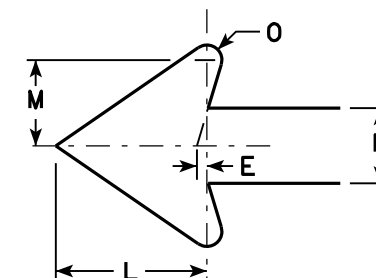
MB6 - 4
MG6 - 4
MN6 - 4



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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.
- M6-4 and M6-6 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Reflective
Message - Black
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area sq. m.
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

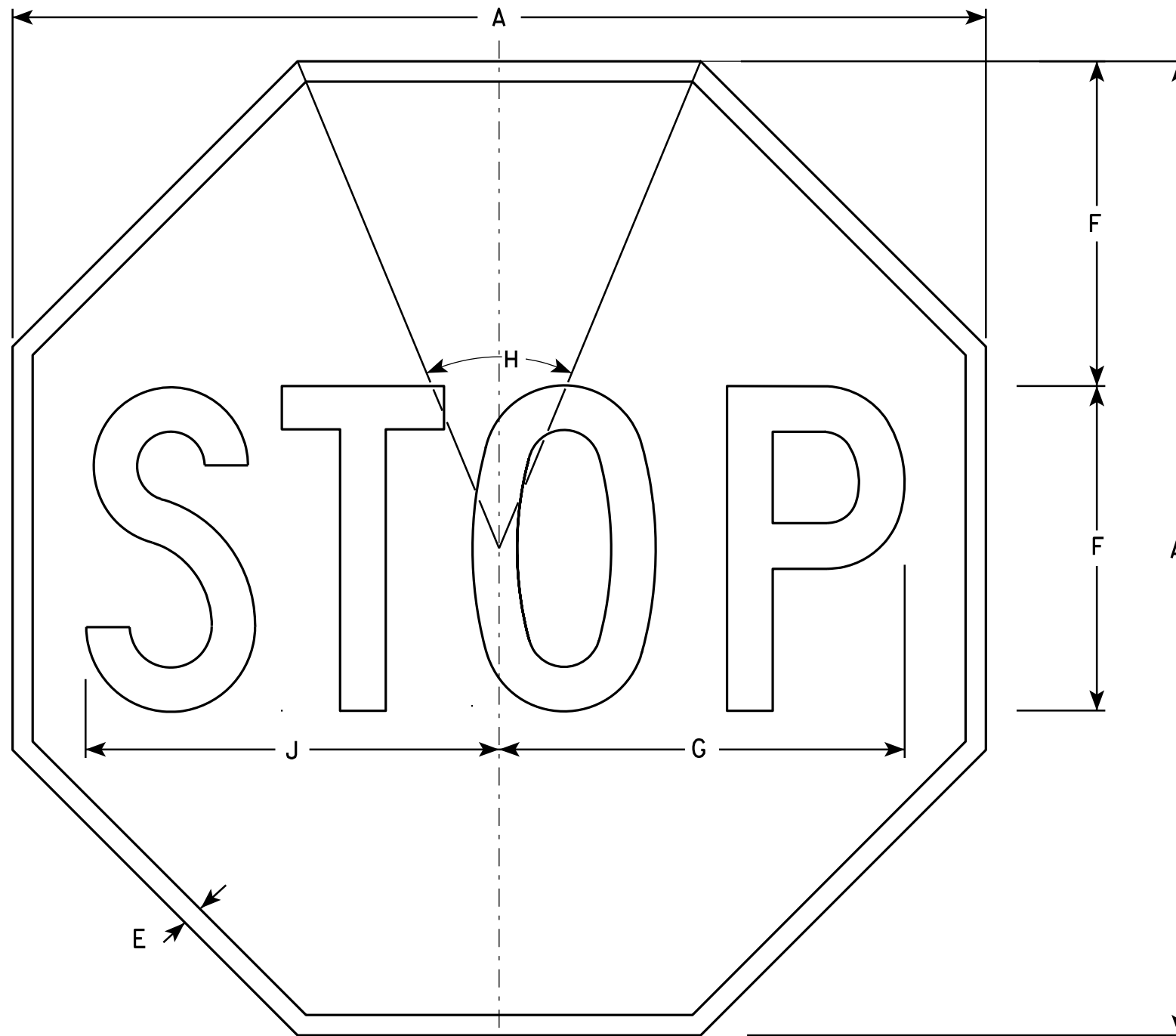
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

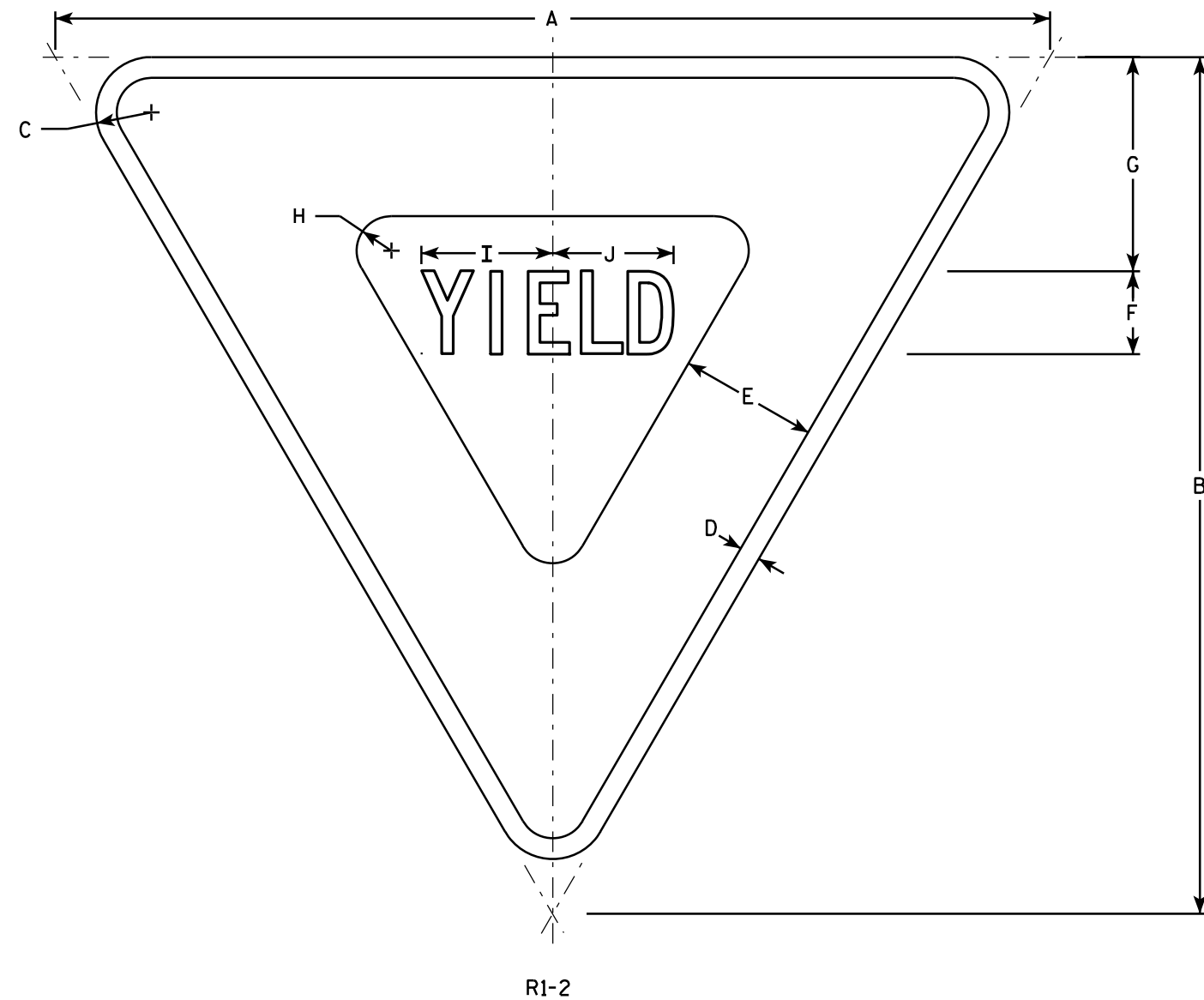
STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
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 11/02/10 PLATE NO. R1-2.11

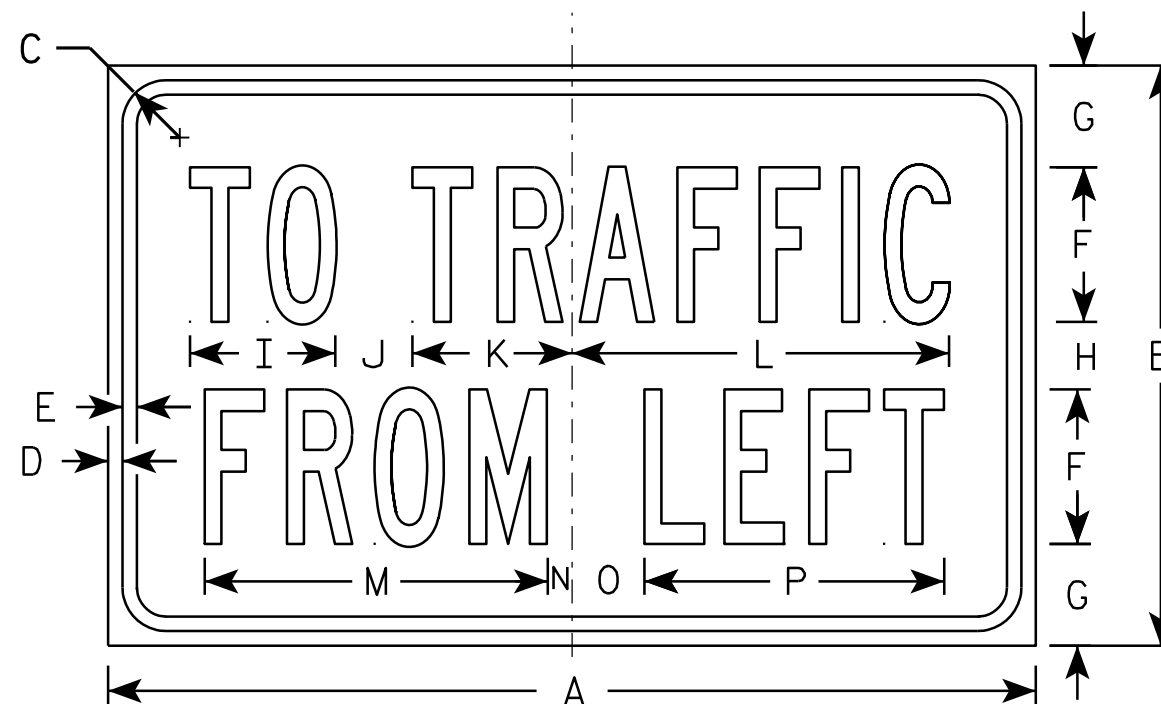
PROJECT NO:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	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

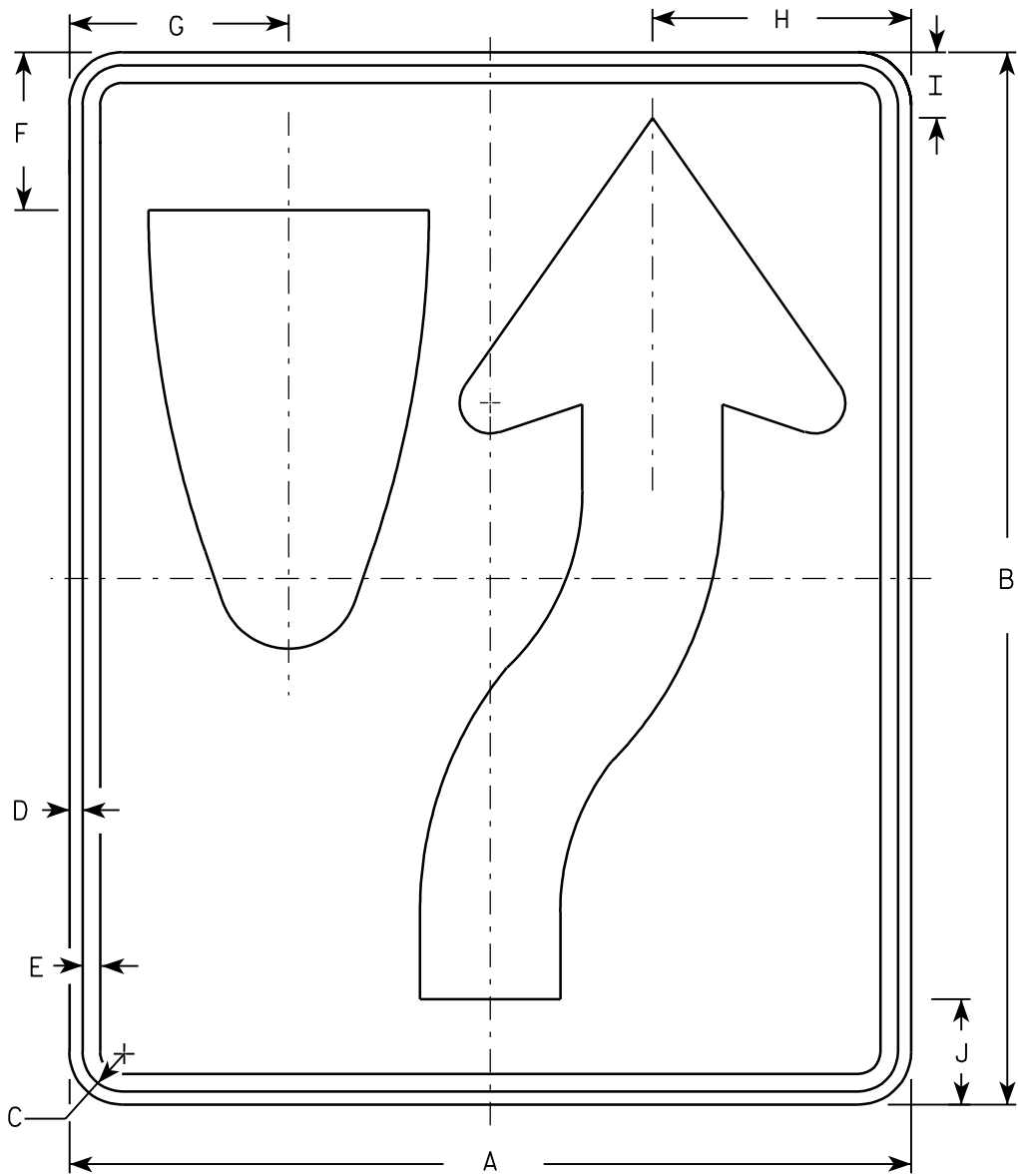
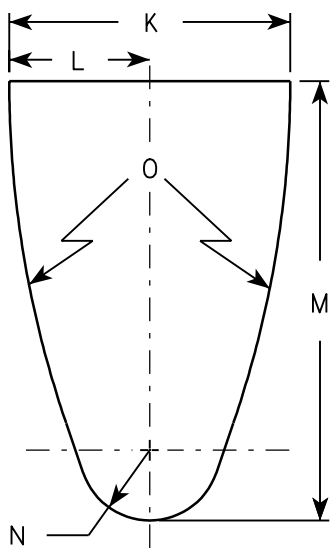
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



R4-7

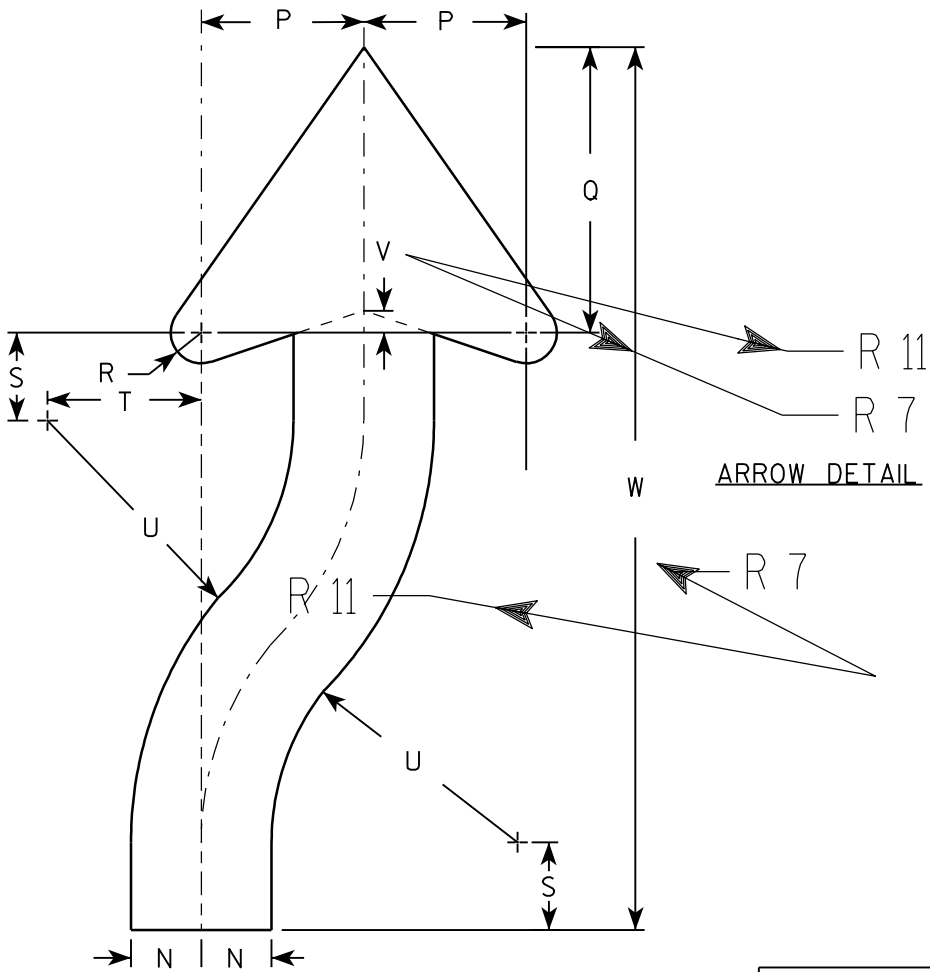
Metric equivalent
for this sign is:

SIZE	
1	450 mm X 600 mm
2	600 mm X 750 mm
3	900 mm X 1200 mm
4	900 mm X 1200 mm
5	900 mm X 1200 mm

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.	Area m ²
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	.27
2	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	.45
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	1.08
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	1.08
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	1.08

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.



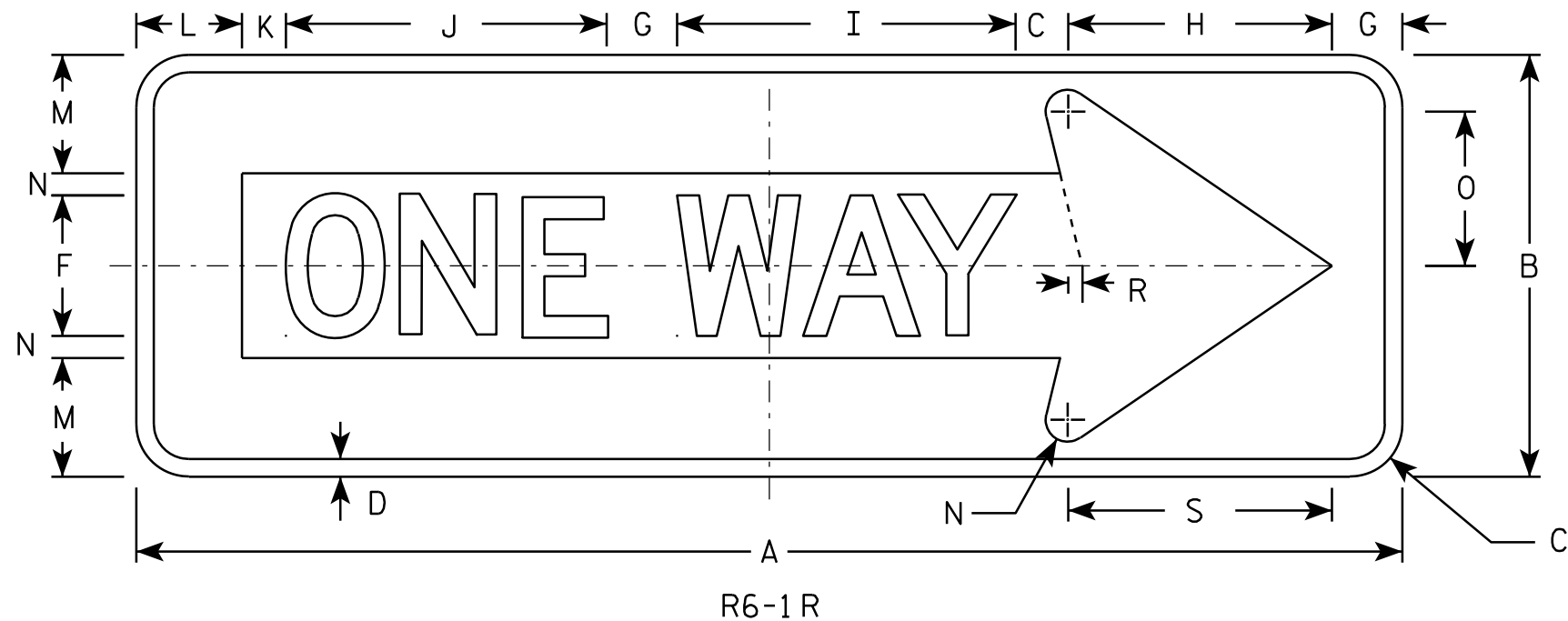
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

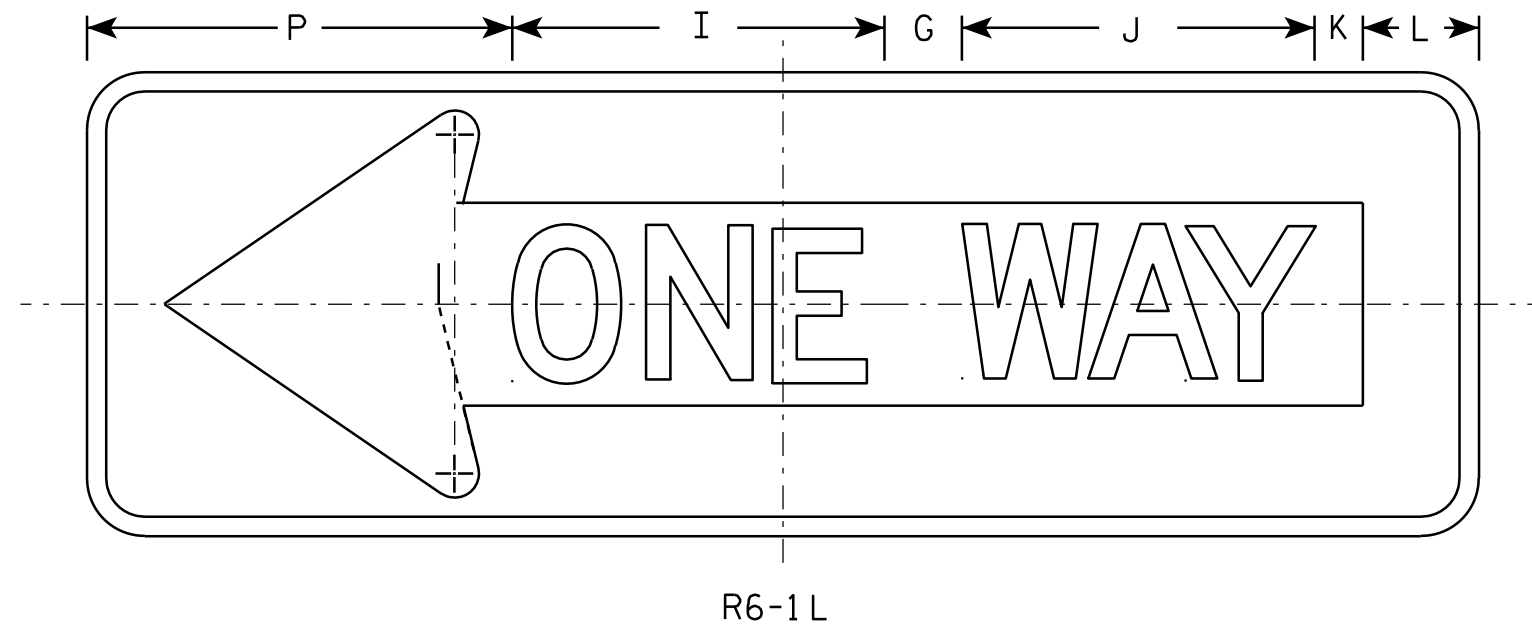
DATE 2/6/02 PLATE NO. R4-7.7

7



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - BLACK
Message - BLACK LEGEND & WHITE ARROW & BORDER
- Message Series - D
- 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.



R6-1 L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	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	14 1/2	13 5/8	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	14 1/2	13 5/8	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	14 1/2	13 5/8	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

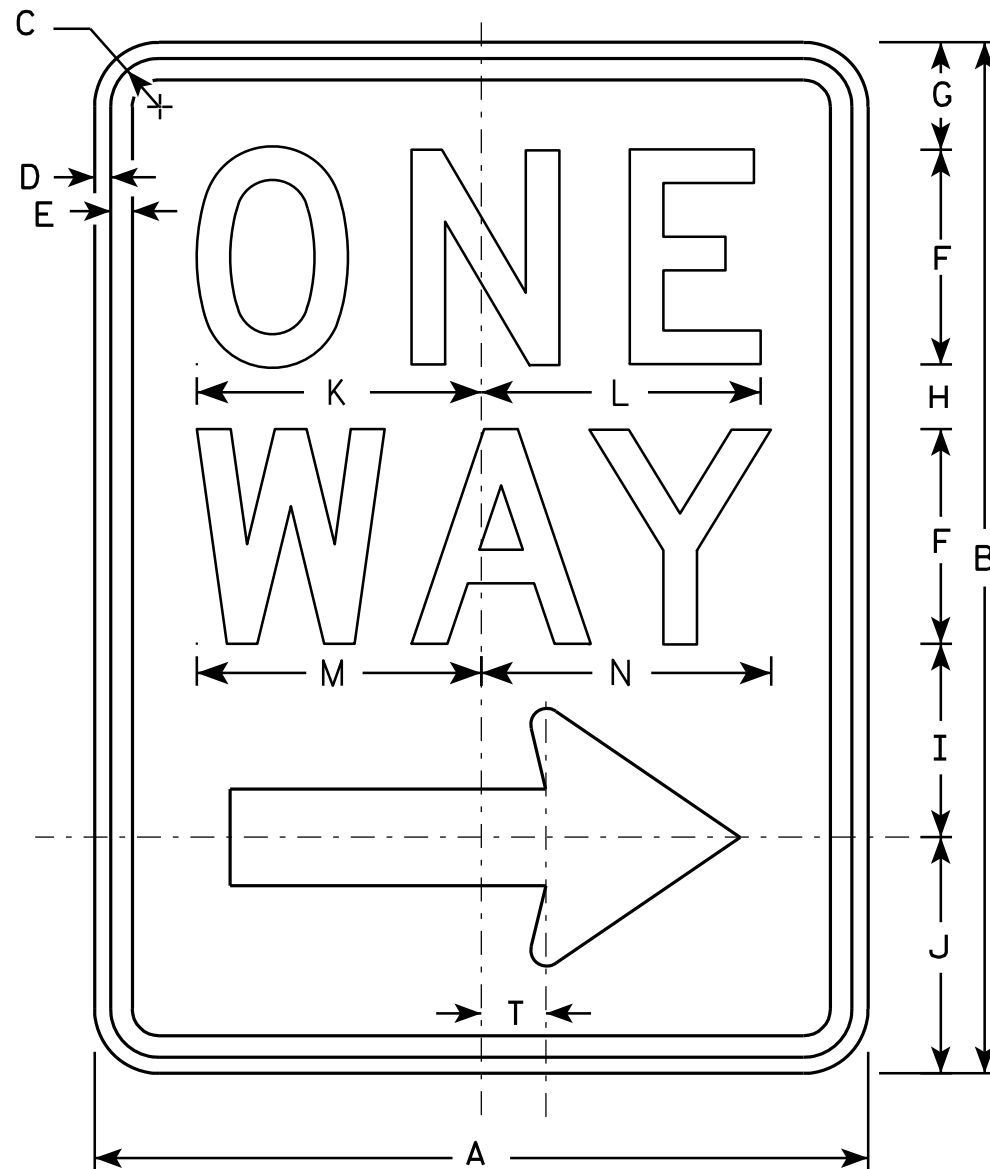
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

PROJECT NO:

SHEET NO:

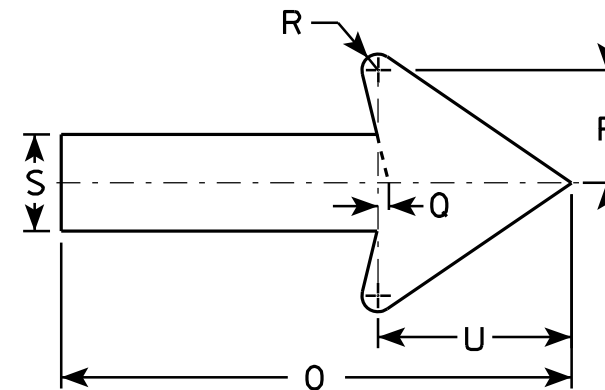
E



R6-2R

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 - 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. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

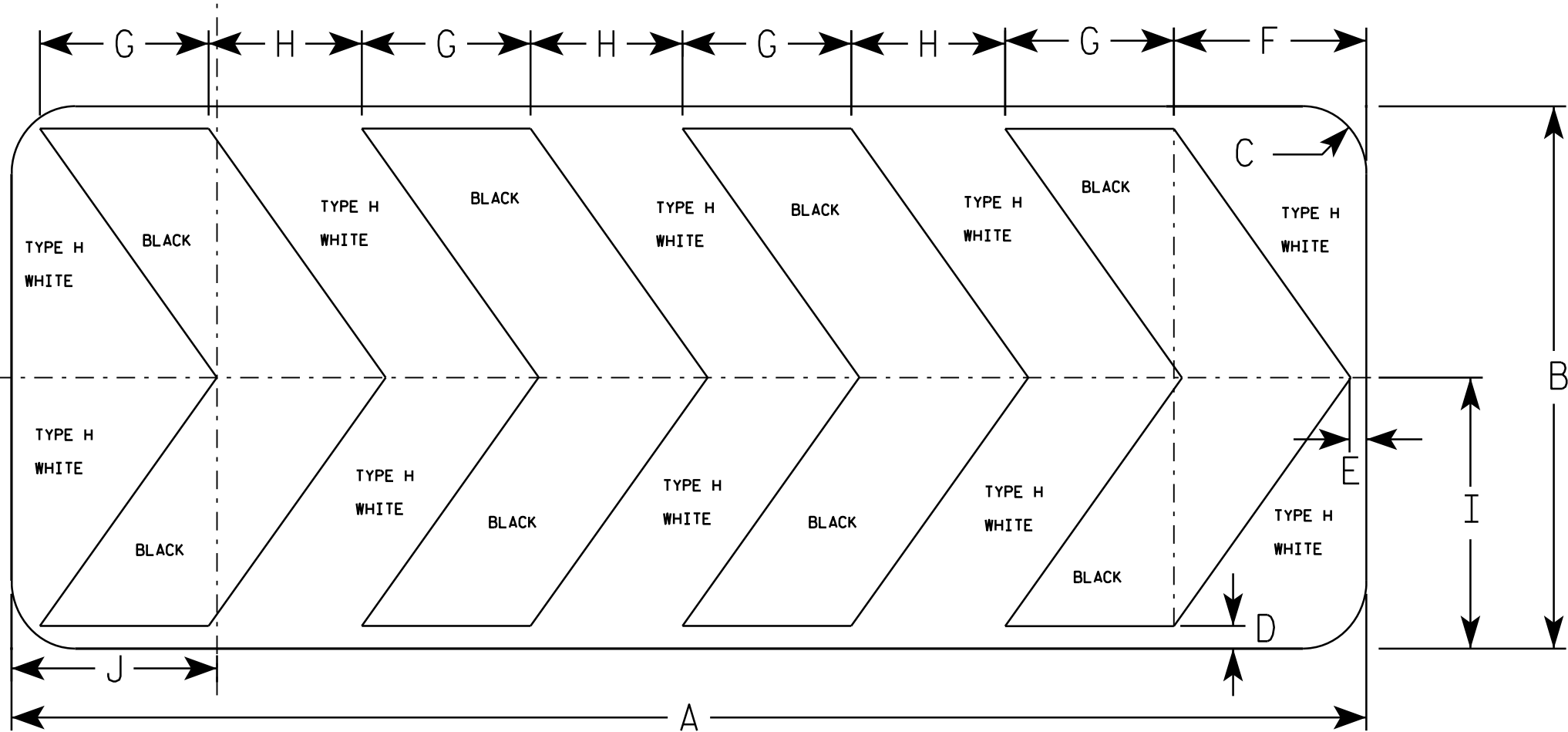
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

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.
- 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	2 1/4	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
2M	60	24	2 1/4	1	3/4	8 1/2	7 1/2	6 3/4	12	9 1/8																	10.0
3																											
4																											
5																											

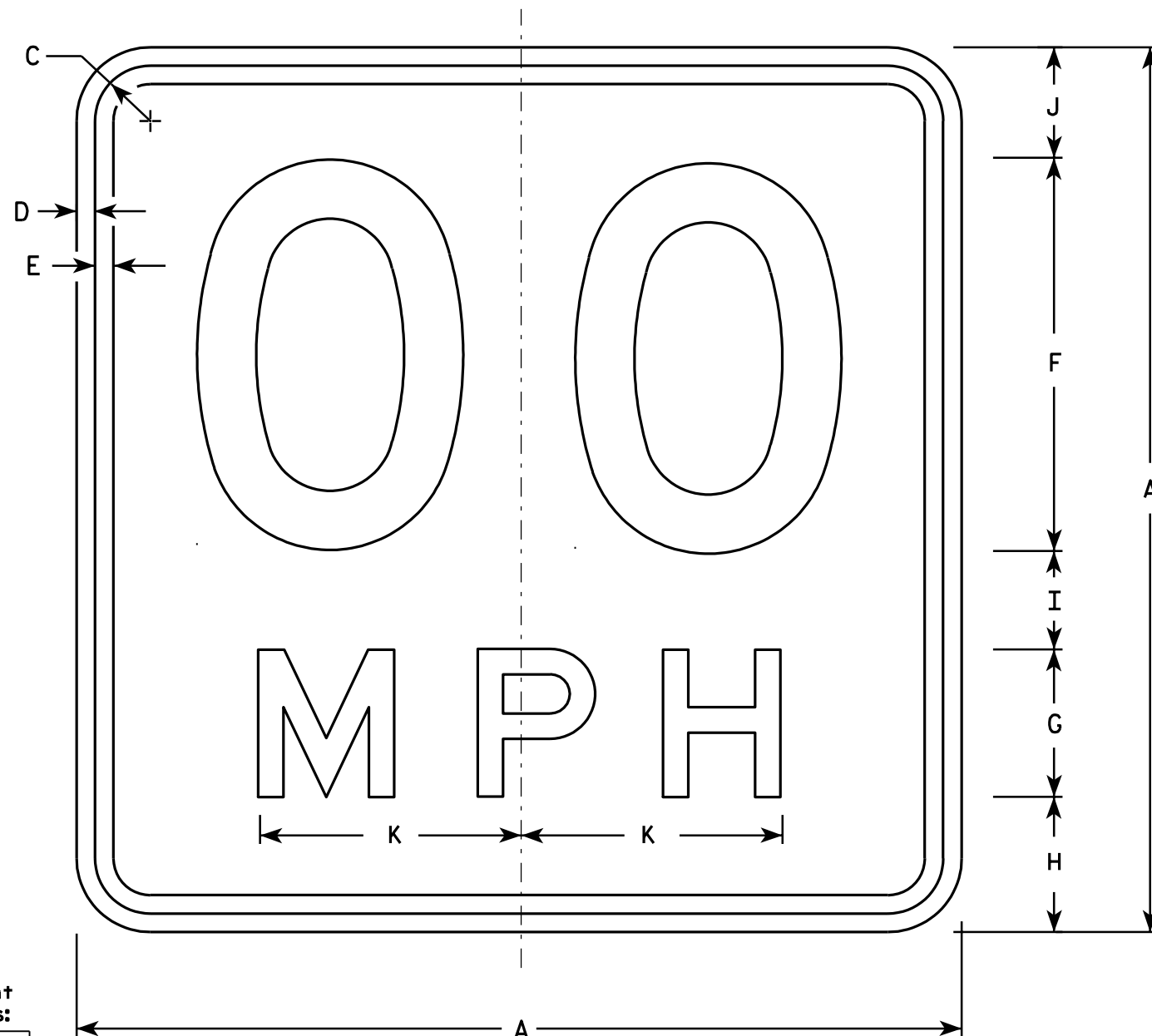
STANDARD SIGN

R6-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/03/11 PLATE NO. R6-4B.2



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
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 space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

Metric equivalent
for this sign is:

SIZE	
1	450 mm X 450 mm
2	450 mm X 450 mm
3	600 mm X 600 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

W13-1

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25	0.20
2*	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25	0.20
2*	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00	0.36
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00	0.36
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00	0.81
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00	0.81

STANDARD SIGN W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/05/06 PLATE NO. W13-1.14

PROJECT NO:

HWY:

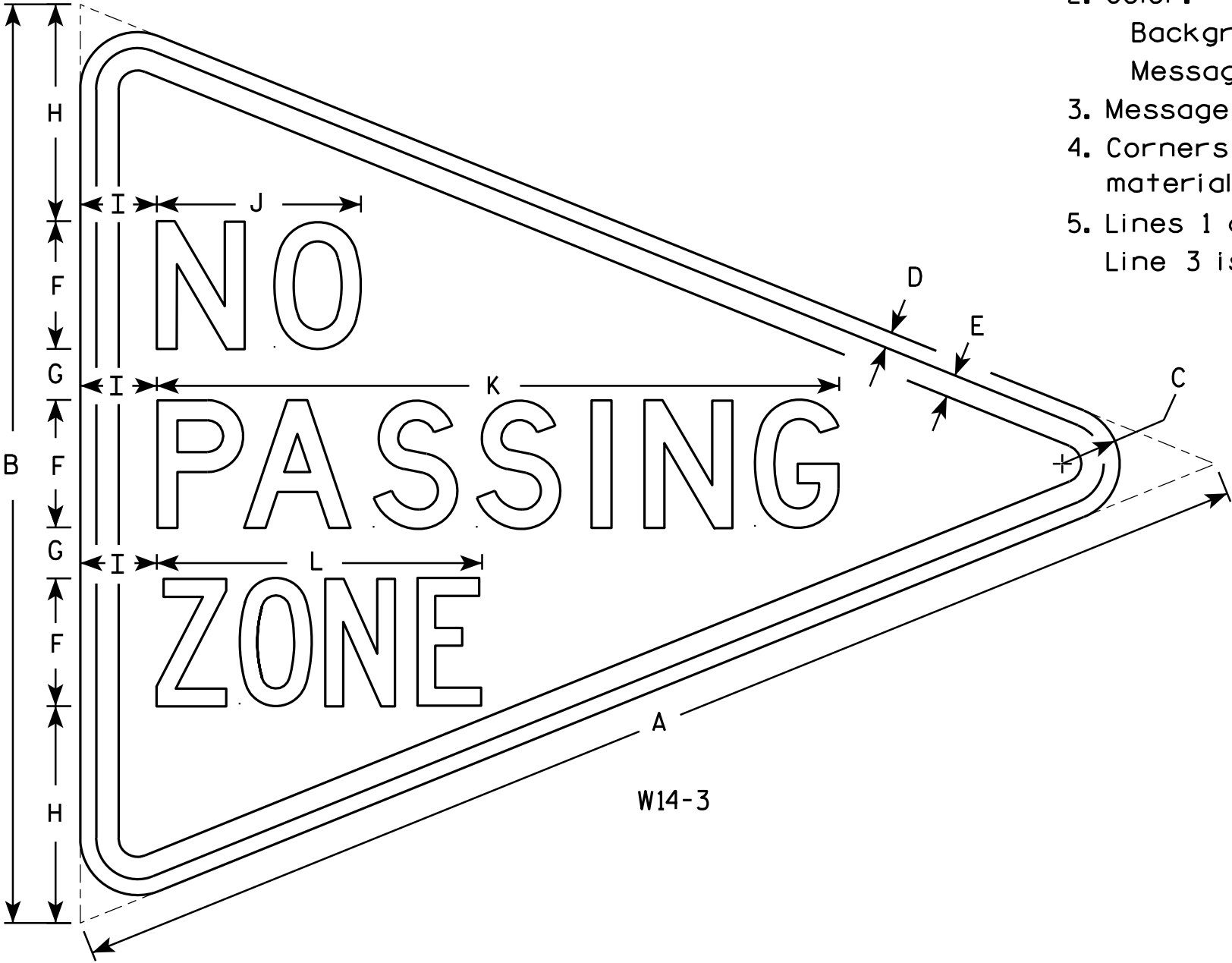
COUNTY:

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 - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

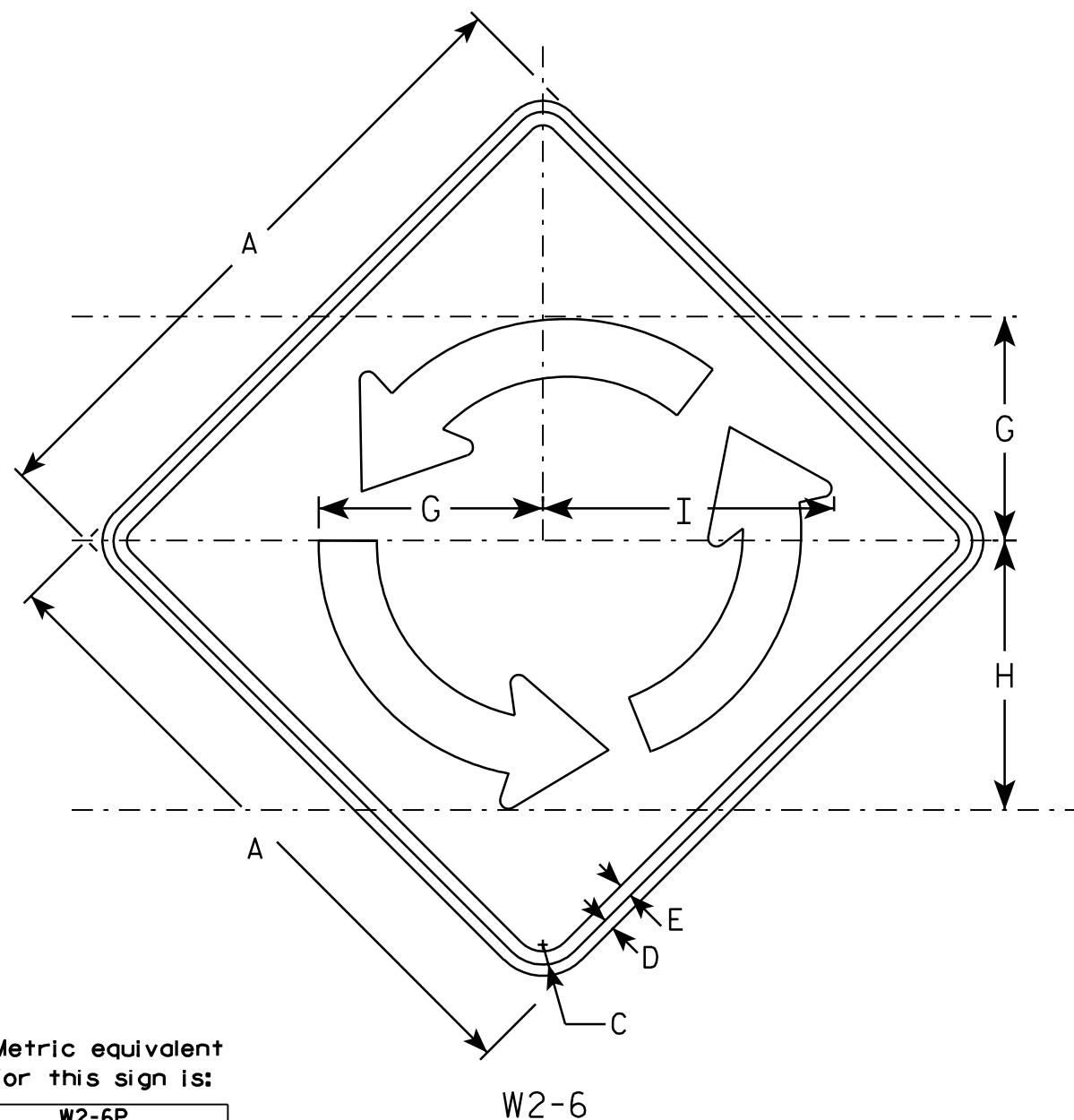
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

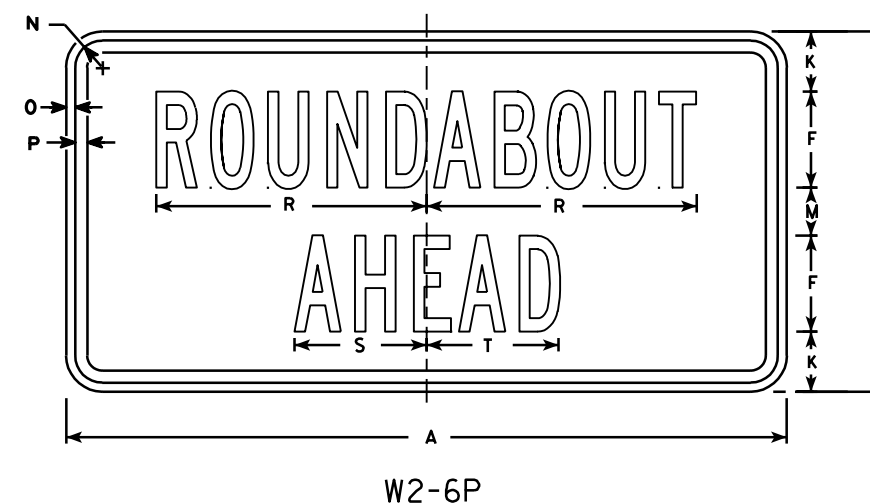
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
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.



Metric equivalent
for this sign is:

Metric equivalent
for this sign is:

SIZE	W2-6	SIZE	W2-6P
1		1	
2	750 mm X 750 mm	2	750 mm X 375 mm
3	900 mm X 900 mm	3	900 mm X 450 mm
4	1200 mm X 1200 mm	4	1200 mm X 600 mm
5		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	Area sq. ft.	Area m ²	Area sq. ft.	Area m ²
1																												
2	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	0.56	3.12	0.28
3	36		1 5/8	5/8	3/4	5	12 1/2	15	16 1/4	18	2 5/8		2 3/4	1 1/8	3/8	1/2		14	7	6 3/4					9.00	0.81	4.50	0.40
4	48		2 1/4	3/4	1	6	16 5/8	20	16 1/4	24	4 3/8		3 5/8	1 3/8	1/2	5/8		17	8 1/4	8 1/4					16.0	1.44	8.0	.72
5																												

STANDARD SIGN W2-6

WISCONSIN DEPT OF TRANSPORTATION

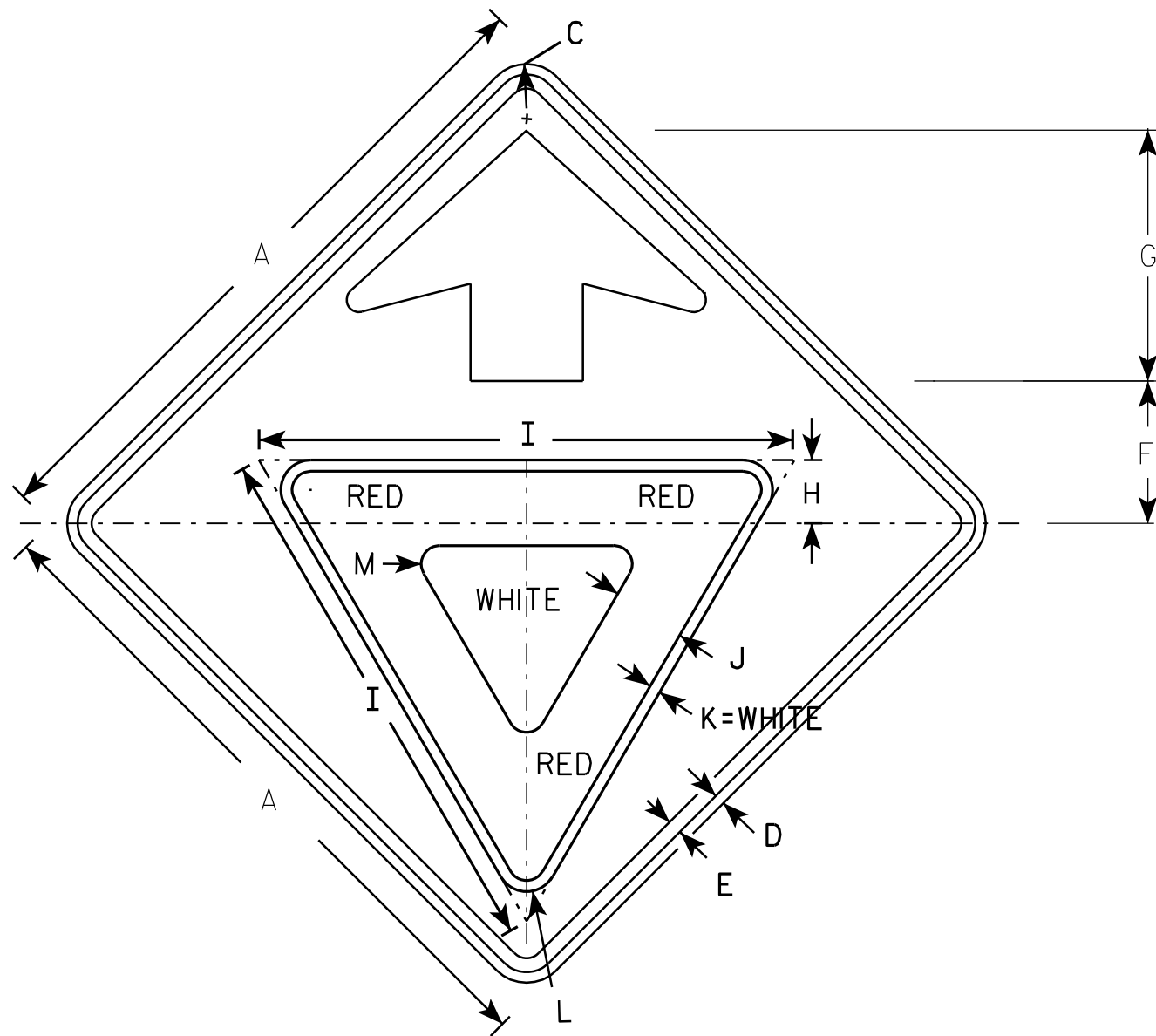
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/12/07 PLATE NO. W2-6.3

PROJECT NO:

SHEET NO:

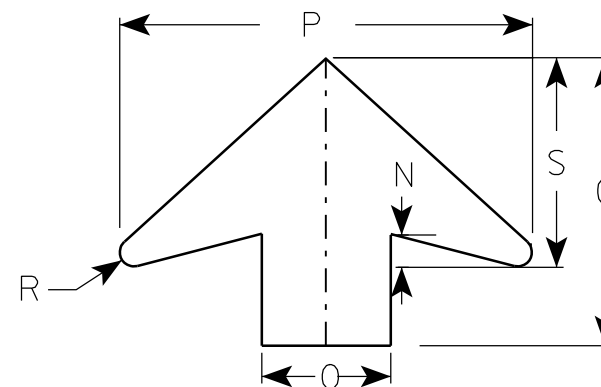
E



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

PROJECT NO:

STANDARD SIGN
W3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

SHEET NO:

E

NOTES	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVMENT MATERIAL WITHIN NEW PAVEMENT SECTION AND EBS.
2- SALVAGED/UNUSABLE PAVEMENT MATERIAL	SALVAGED/UNUSABLE PAVEMENT MATERIAL WITHIN CUT IS ABOVE SUBGRDE SALVAGED/UNUSABLE PAVEMENT MATERIAL NOT WITHN CUT IS BELOW SUBGRADE
3 - FILL	INCLUDES VOLUME REQUIRED TO FILL UNUSABLE PAVEMENT EXC THAT IS NOT WITHIN CUT
4 - EXPANDED FILL FACTOR	EXPANDED FILL FACTOR = 1.25 EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR

STH 32 SOUTH

STATION	DISTANCE FT	AREA (SF)					INCREMENTAL VOL (UNADJUSTED CY)					CUMULATIVE VOLUME (CY)			MASS ORDINATE NOTE 2
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS NOTE 1	Available CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.25	
200+30	0	83	18	0	0	0	0	0	0	0	0	0	0	0	0
200+50	20	117	18	0	15	0	37	13	0	6	0	24	7	0	17
201+00	50	138	18	0	8	0	236	33	0	21	0	226	34	0	193
201+50	50	122	18	0	4	0	241	33	0	11	0	434	47	0	386
202+00	50	109	18	0	7	0	214	33	0	10	0	614	60	0	554
202+50	50	103	18	0	11	0	196	33	0	17	0	777	81	0	696
203+00	50	95	18	0	13	0	183	33	0	22	0	927	109	0	819
203+50	50	73	18	0	17	0	156	33	0	28	0	1,050	144	0	906
203+75	25	84	18	0	18	0	73	17	0	16	0	1,106	164	0	942
204+00	25	155	19	0	16	0	111	17	0	16	0	1,199	183	0	1,016
204+50	50	74	15	5	34	0	212	31	4	55	0	1,380	252	0	1,128
205+00	50	98	17	4	39	0	159	30	8	84	0	1,510	356	0	1,154
205+50	50	124	15	8	50	0	206	30	11	104	0	1,686	486	0	1,200
206+00	50	177	13	12	55	0	279	26	18	133	0	1,939	653	0	1,286
206+50	50	246	28	0	39	0	392	38	11	109	0	2,293	789	0	1,504
207+00	50	311	30	0	22	0	516	54	0	56	0	2,755	860	0	1,895
207+25	25	322	31	0	17	0	293	29	0	18	0	3,019	883	0	2,137
207+50	25	297	32	0	47	0	287	29	0	30	0	3,277	920	0	2,357
208+00	50	226	33	0	66	0	484	60	0	105	0	3,700	1,050	0	2,650
208+25	25	200	34	0	88	0	197	31	0	71	0	3,867	1,139	0	2,727

TOTALS 4,470 604 52 912 0

STH 32 NORTH

STATION	DISTANCE FT	AREA (SF)					INCREMENTAL VOL (UNADJUSTED CY)					CUMULATIVE VOLUME (CY)			MASS ORDINATE NOTE 2
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS NOTE 1	Available CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.25	
210+75	0	20	10.39	21.11	96	35	0	0	0	0	0	0	0	0	0
211+00	25	23	15	15	62	35	20	12	17	107	16	-8	133	20	-162
211+50	50	18	9	20	85	35	38	23	32	200	32	-25	384	61	-470
212+00	50	11	0	27	56	35	27	9	43	217	32	-40	656	101	-796
212+50	50	4	3	23	82	35	14	2	47	221	32	-60	932	142	-1,134
213+00	50	13	3	20	78	35	16	5	39	227	32	-82	1,216	182	-1,480
213+50	50	25	10	10	62	35	35	12	27	184	32	-91	1,445	223	-1,759
214+00	50	42	18	0	32	35	62	26	9	105	32	-87	1,577	263	-1,927
214+50	50	52	18	0	26	35	87	33	0	54	32	-66	1,644	304	-2,013
215+00	50	85	18	0	8	29	127	33	0	31	30	-2	1,683	341	-2,026
215+50	50	83	18	0	13	18	156	33	0	19	22	99	1,707	368	-1,976
216+00	50	90	18	0	11	13	160	33	0	22	14	211	1,735	386	-1,910
216+50	50	106	18	0	8	9	181	33	0	18	10	349	1,757	399	-1,807
217+00	50	101	18	0	7	6	192	33	0	14	7	501	1,775	407	-1,681
217+37	37	109	18	0	6	6	144	25	0	9	4	616	1,786	412	-1,581

TOTALS 1,258 313 214 1,429 329

NOTES	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVMENT MATERIAL WITHIN NEW PAVEMENT SECTION AND EBS.
2- SALVAGED/UNUSABLE PAVEMENT MATERIAL	SALVAGED/UNUSABLE PAVEMENT MATERIAL WITHIN CUT IS ABOVE SUBGRDE SALVAGED/UNUSABLE PAVEMENT MATERIAL NOT WITHN CUT IS BELOW SUBGRADE
3 - FILL	INCLUDES VOLUME REQUIRED TO FILL UNUSABLE PAVEMENT EXC THAT IS NOT WITHIN CUT
4 - EXPANDED FILL FACTOR	EXPANDED FILL FACTOR = 1.25 EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR

CTH B WEST

STATION	DISTANCE FT	AREA (SF)					INCREMENTAL VOL (UNADJUSTED CY)					CUMULATIVE VOLUME (CY)			MASS ORDINATE NOTE 2
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS NOTE 1	Available CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.25	
100+00	0	114	23.25	0	0	0	0	0	0	0	0	0	0	0	0
100+50	50	124	26	0	0	0	220	46	0	0	0	175	0	0	175
101+00	50	106	29	0	0	0	213	51	0	0	0	336	0	0	336
101+50	50	90	31	0	2	0	181	56	0	2	0	462	2	0	459
102+00	50	93	31	0	3	0	169	58	0	5	0	573	8	0	565
102+25	25	97	31	0	19	0	88	29	0	10	0	633	21	0	612
102+50	25	82	32	0	20	0	83	29	0	18	0	686	43	0	643
103+00	50	179	86	0	0	0	242	109	0	19	0	819	67	0	753
103+25	25	98	38	0	4	0	128	57	0	2	0	890	69	0	822
103+50	25	80	38	0	23	0	82	35	0	13	0	938	84	0	854
104+00	50	65	38	0	24	0	134	69	0	44	0	1,003	139	0	864
104+50	50	57	39	0	67	0	113	70	0	84	0	1,045	244	0	801
104+75	25	54	39	0	69	0	51	36	0	63	0	1,061	323	0	738
105+00	25	49	39	0	75	0	48	36	0	67	0	1,072	406	0	666
TOTALS							1,754	682	0	325	0				

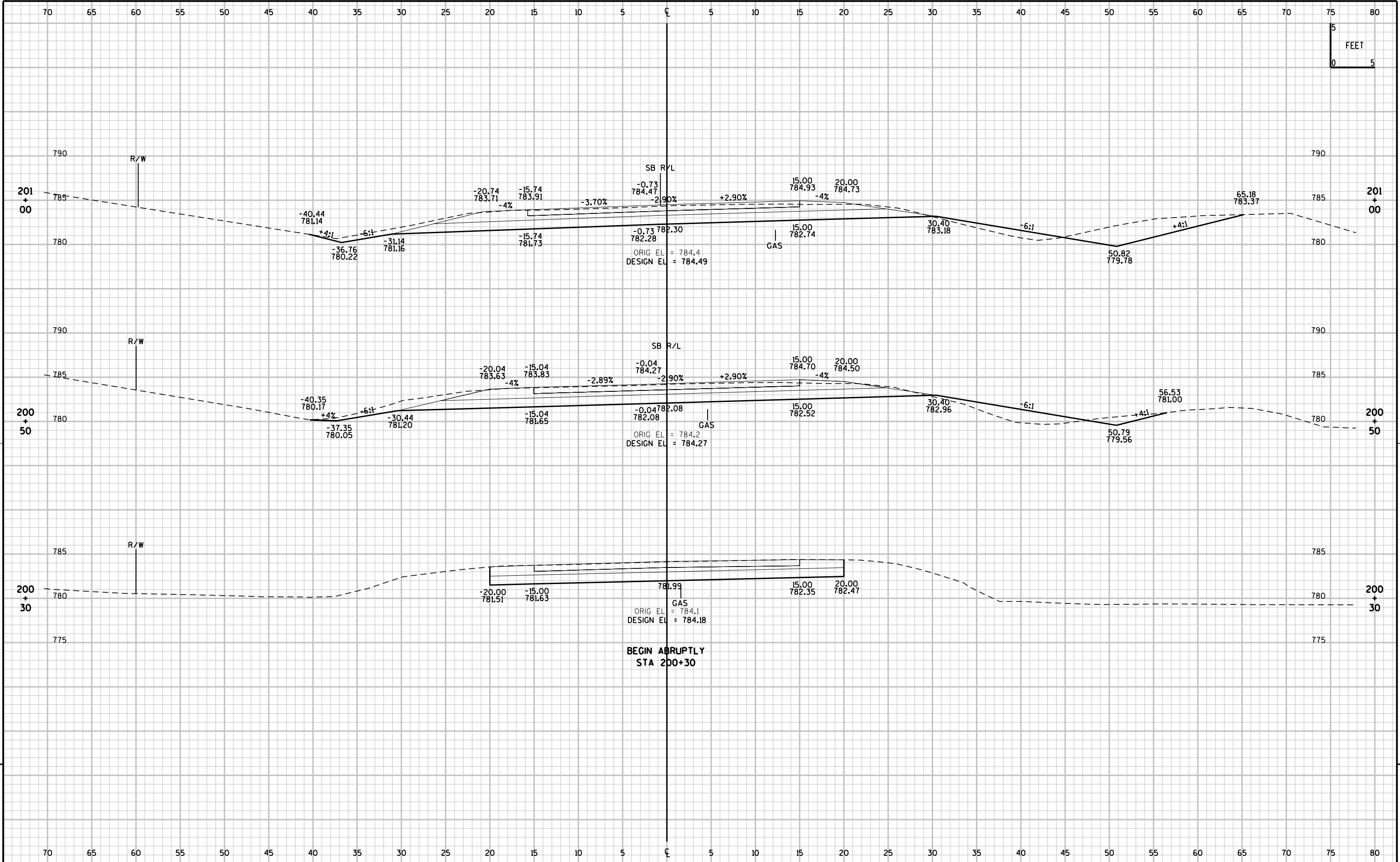
CTH B EAST

STATION	DISTANCE FT	AREA (SF)					INCREMENTAL VOL (UNADJUSTED CY)					CUMULATIVE VOLUME (CY)			MASS ORDINATE NOTE 2
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS NOTE 1	Available CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.25	
107+50	0	13	36.25	5	76	0	0	0	0	0	0	0	0	0	0
107+75	25	14	27	8	194	0	13	29	6	137	0	-17	171	0	-188
108+00	25	35	27	8	156	0	23	25	7	176	0	-19	391	0	-410
108+36	36	64	26	7	70	0	66	35	10	171	0	12	604	0	-592
108+50	14	63	26	7	66	0	33	13	4	43	0	31	657	0	-626
109+00	50	72	26	7	54	0	125	48	13	137	0	108	829	0	-721
109+50	50	91	26	6	22	0	151	48	12	94	0	211	946	0	-736
110+00	50	96	30	2	31	0	173	52	8	65	0	332	1,028	0	-696
110+50	50	108	30	2	26	0	189	56	4	61	0	465	1,104	0	-639
111+00	50	103	32	1	25	0	191	30	3	53	0	626	1,170	0	-544
111+50	50	245	86	0	0	0	322	109	1	25	0	839	1,202	0	-363
111+67	17	242	86	0	0	0	153	54	0	0	0	938	1,202	0	-264
112+00	33	174	51	0	0	0	254	84	0	0	0	1,109	1,202	0	-93
112+25	25	142	33	0	8	0	146	39	0	4	0	1,216	1,206	0	10
112+50	25	128	33	0	19	0	125	54	0	13	0	1,287	1,222	0	65
113+00	50	129	33	0	1	0	238	46	0	19	0	1,479	1,245	0	234
113+33	33	125	33	0	1	0	154	61	0	1	0	1,572	1,247	0	326
TOTALS							2,356	784	67	997	0				

NOTES	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVMENT MATERIAL WITHIN NEW PAVEMENT SECTION AND EBS.
2- SALVAGED/UNUSABLE PAVEMENT MATERIAL	SALVAGED/UNUSABLE PAVEMENT MATERIAL WITHIN CUT IS ABOVE SUBGRDE SALVAGED/UNUSABLE PAVEMENT MATERIAL NOT WITHN CUT IS BELOW SUBGRADE
3 - FILL	INCLUDES VOLUME REQUIRED TO FILL UNUSABLE PAVEMENT EXC THAT IS NOT WITHIN CUT
4 - EXPANDED FILL FACTOR	EXPANDED FILL FACTOR = 1.25 EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR

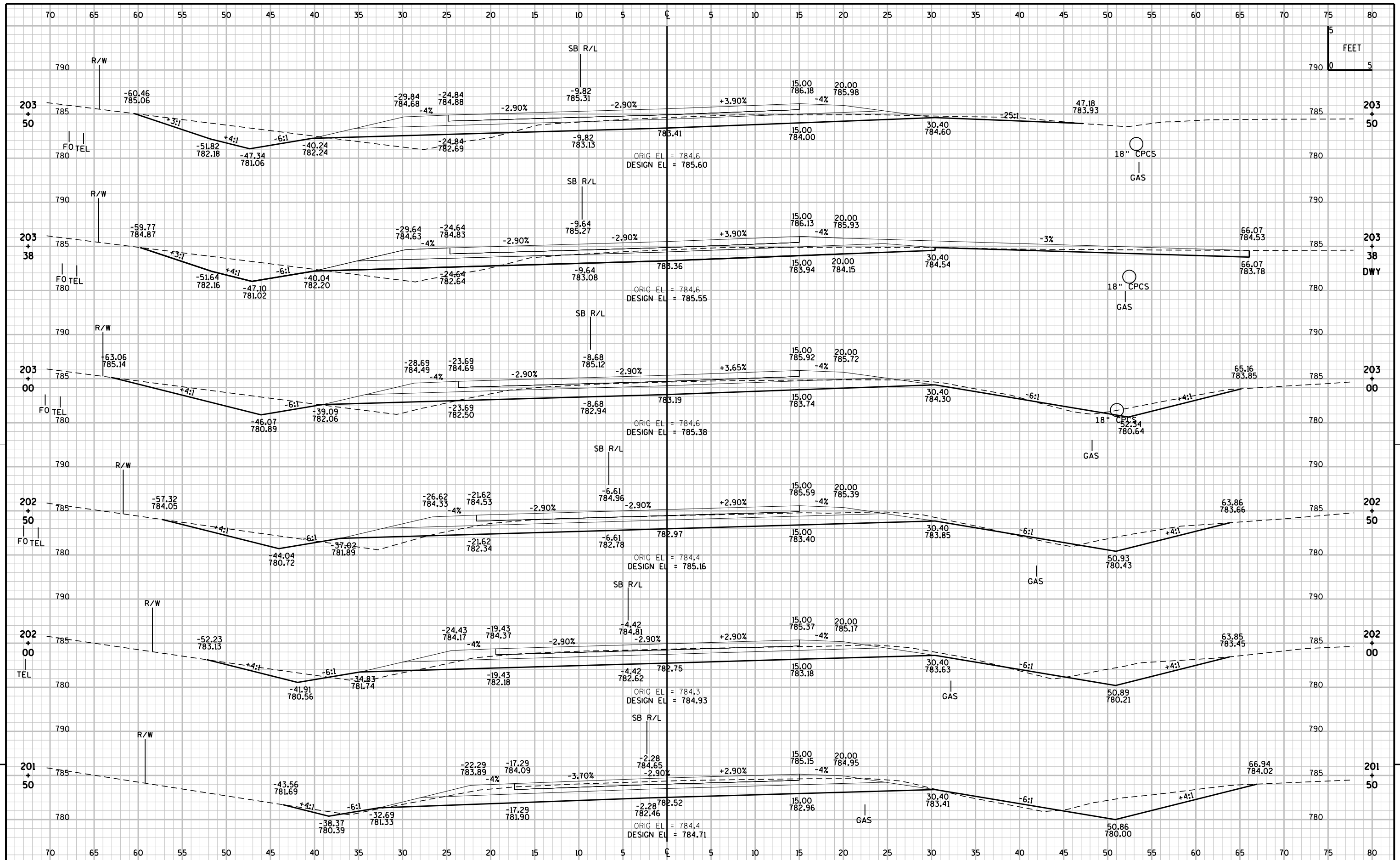
ROUNDABOUT

STATION	DISTANCE FT	AREA (SF)					INCREMENTAL VOL (UNADJUSTED CY)					CUMULATIVE VOLUME (CY)			MASS ORDNATE NOTE 2
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL (WITHIN CUT)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOT WITHIN CUT)	FILL	EBS NOTE 1	Availaible	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.25	
												CUT 1.00			
50+00	0	43.0	0		198.0	0.0	0	0	0	0	0	0	0	0	0
50+43	43	2.0	0		286.0	0.0	36	0	0	385	0	36	482	0	-446
50+93	50	3.0	0	0	310.0	0.0	5	0	0	552	0	40	1,172	0	-1,131
51+35	42	32.0	0	0	254.0	0.0	27	0	0	439	0	68	1,720	0	-1,652
51+82	47	23.0	0	0	208.0	0.0	48	0	0	402	0	116	2,223	0	-2,107
52+23	41	19.0	0	0	277.0	0.0	32	0	0	368	0	147	2,683	0	-2,535
52+73	50	0.0	0	0	282.0	0.0	18	0	0	518	0	165	3,330	0	-3,165
53+12	39	8.0	0	0	262.0	0.0	6	0	0	393	0	171	3,821	0	-3,650
53+55	43	43.0	0	0	198.0	0.0	41	0	0	366	0	211	4,279	0	-4,067
ndistribute	0	0.0	0	0	0.0	0.0	0	0	613	613	0	211	5,045	0	-4,834
TOTALS							211	0	613	4,036	0				



9

9



PROJECT NO: 9190-21-71

HWY: STH 32

COUNTY: BROWN

CROSS SECTIONS: STH 32 SOUTH

SHEET

E

FILE NAME : F:\TR\JOBS\1973A10\Sheets\Plan\91902171_090202_.xdn

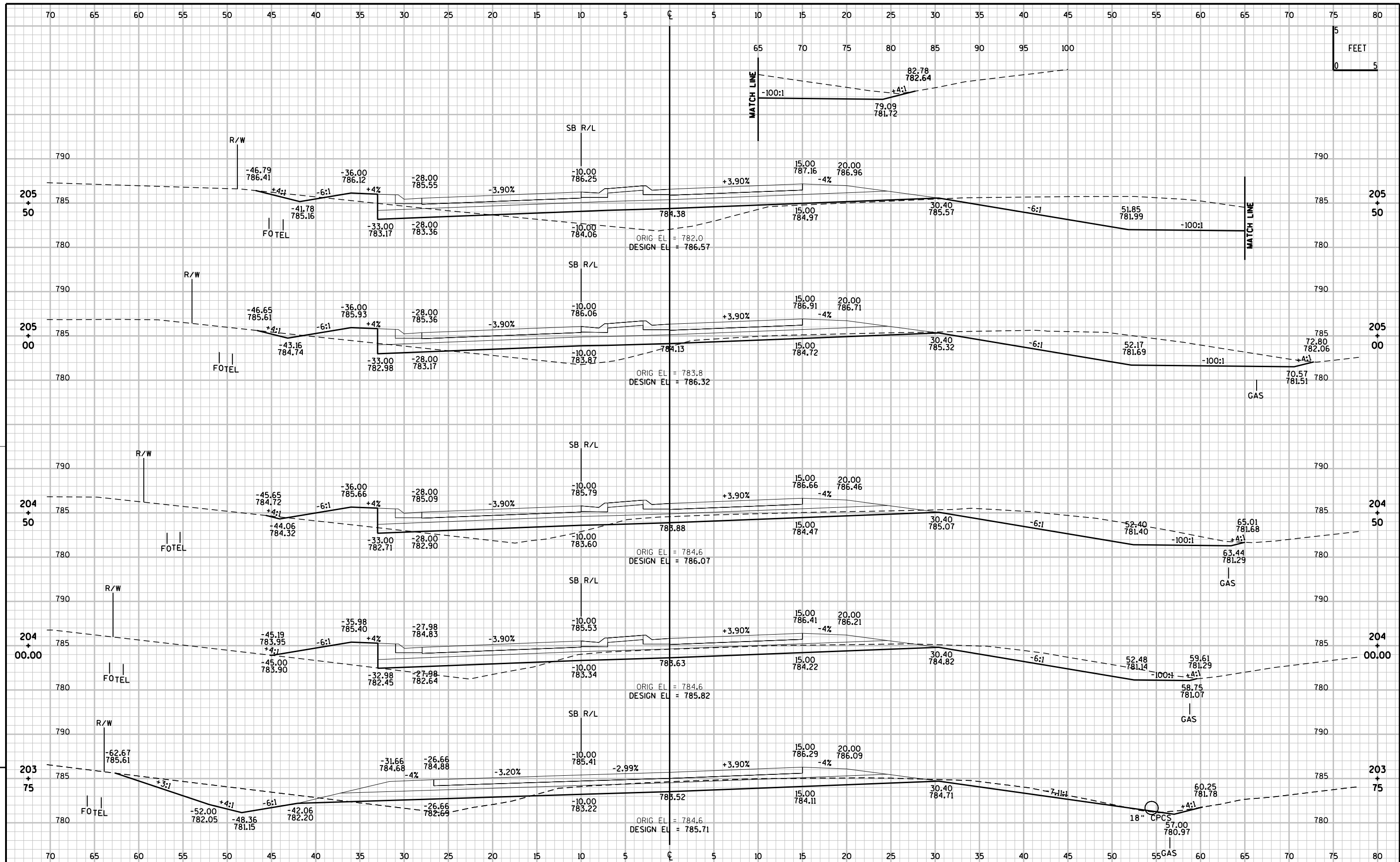
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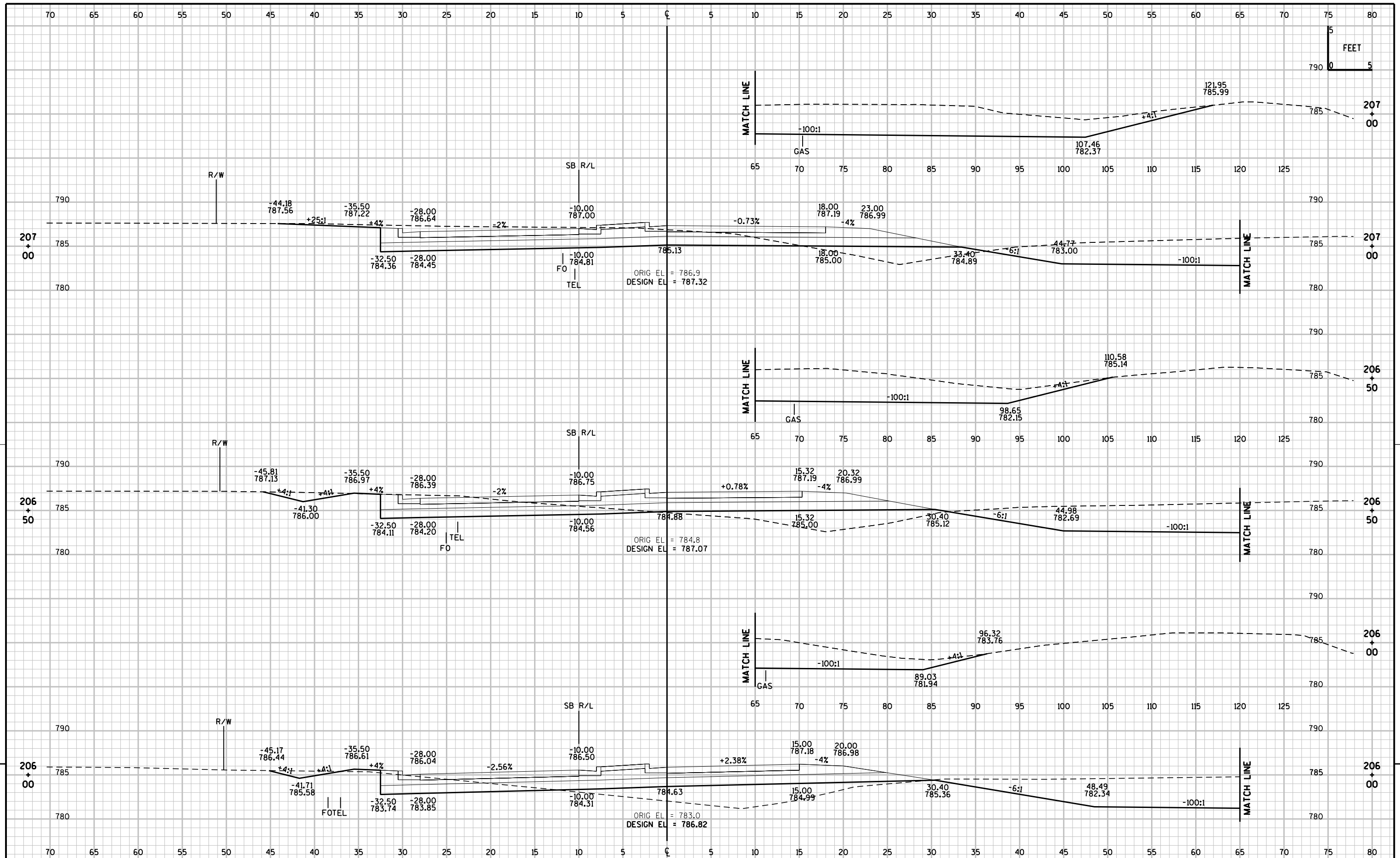
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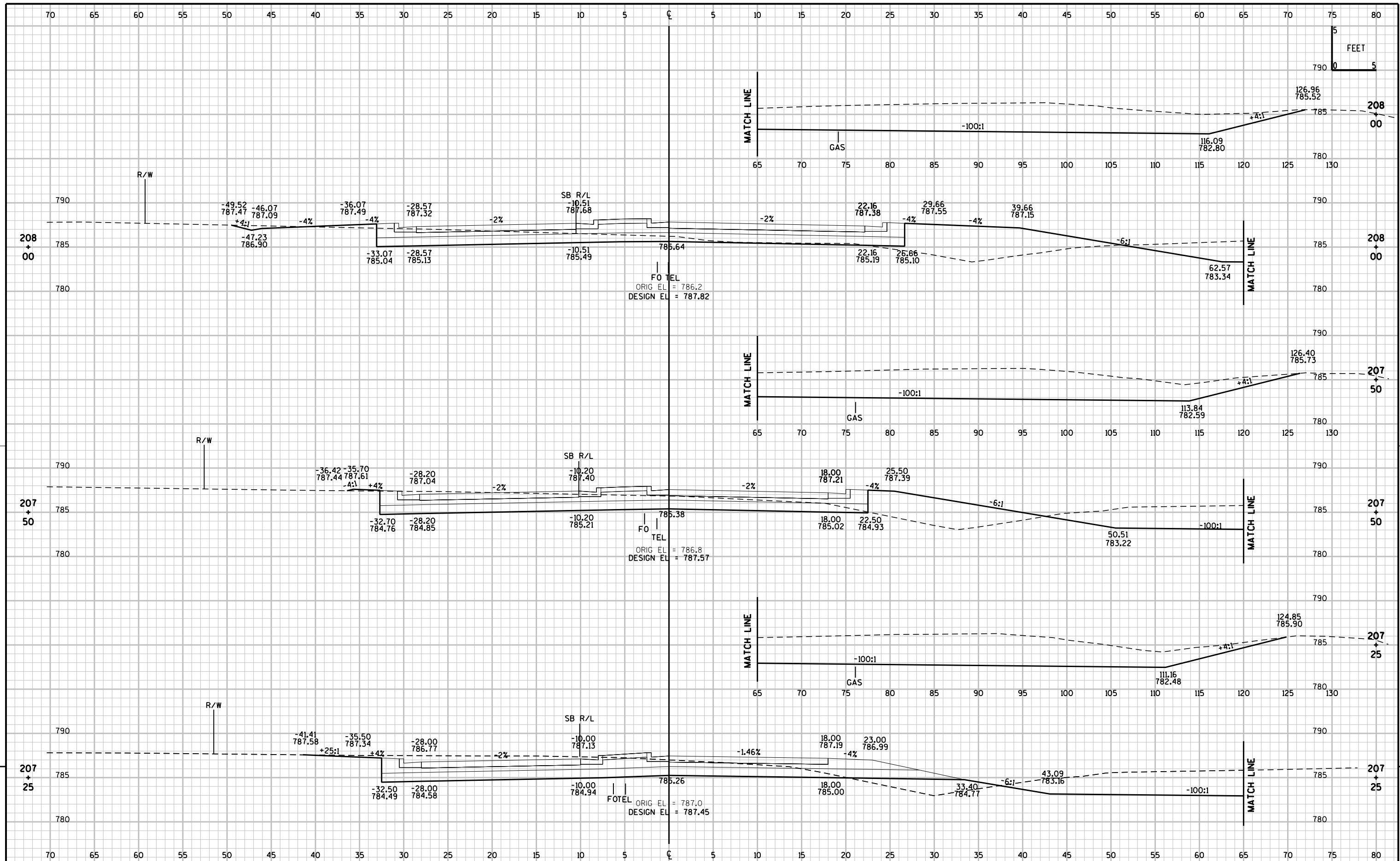
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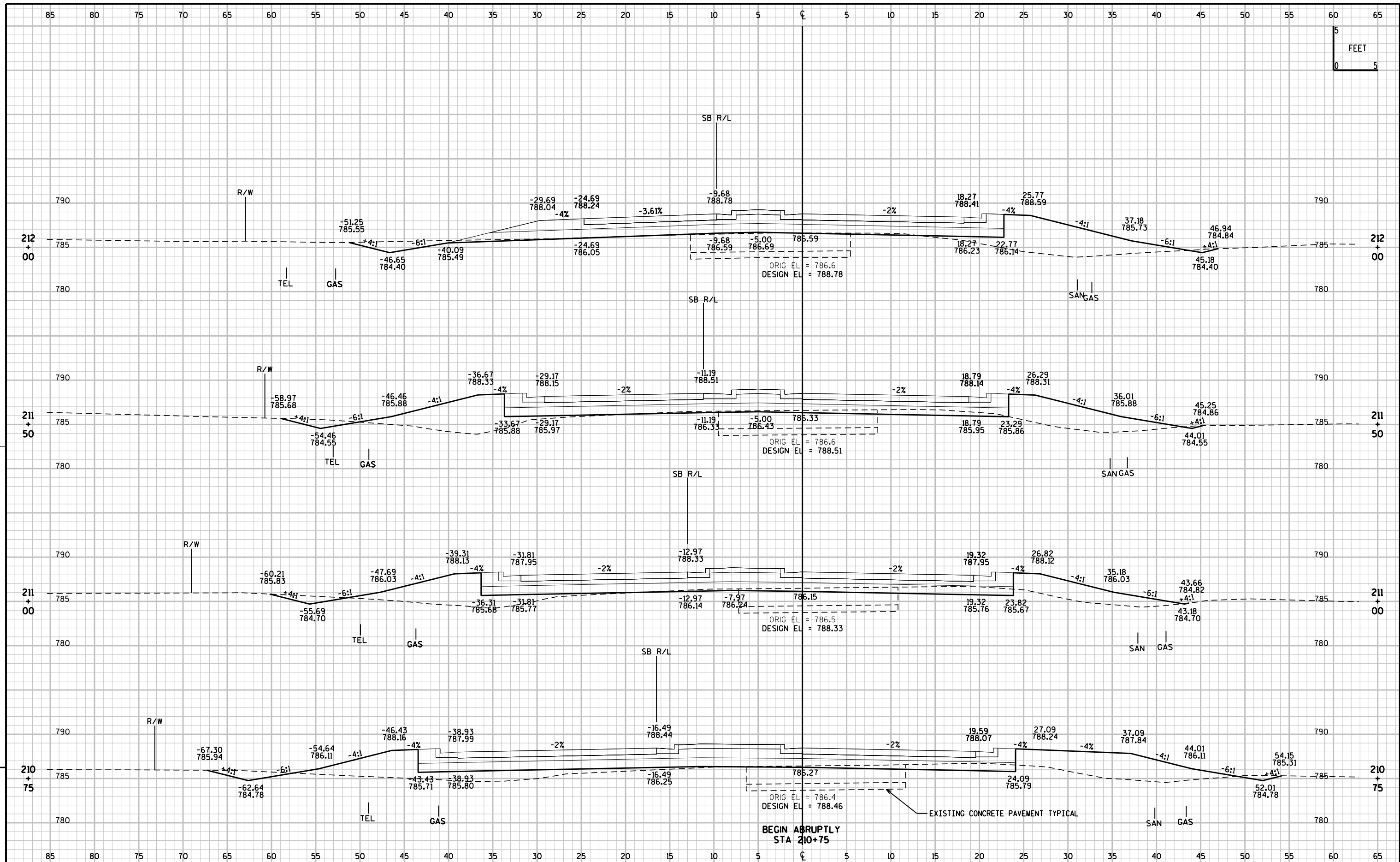
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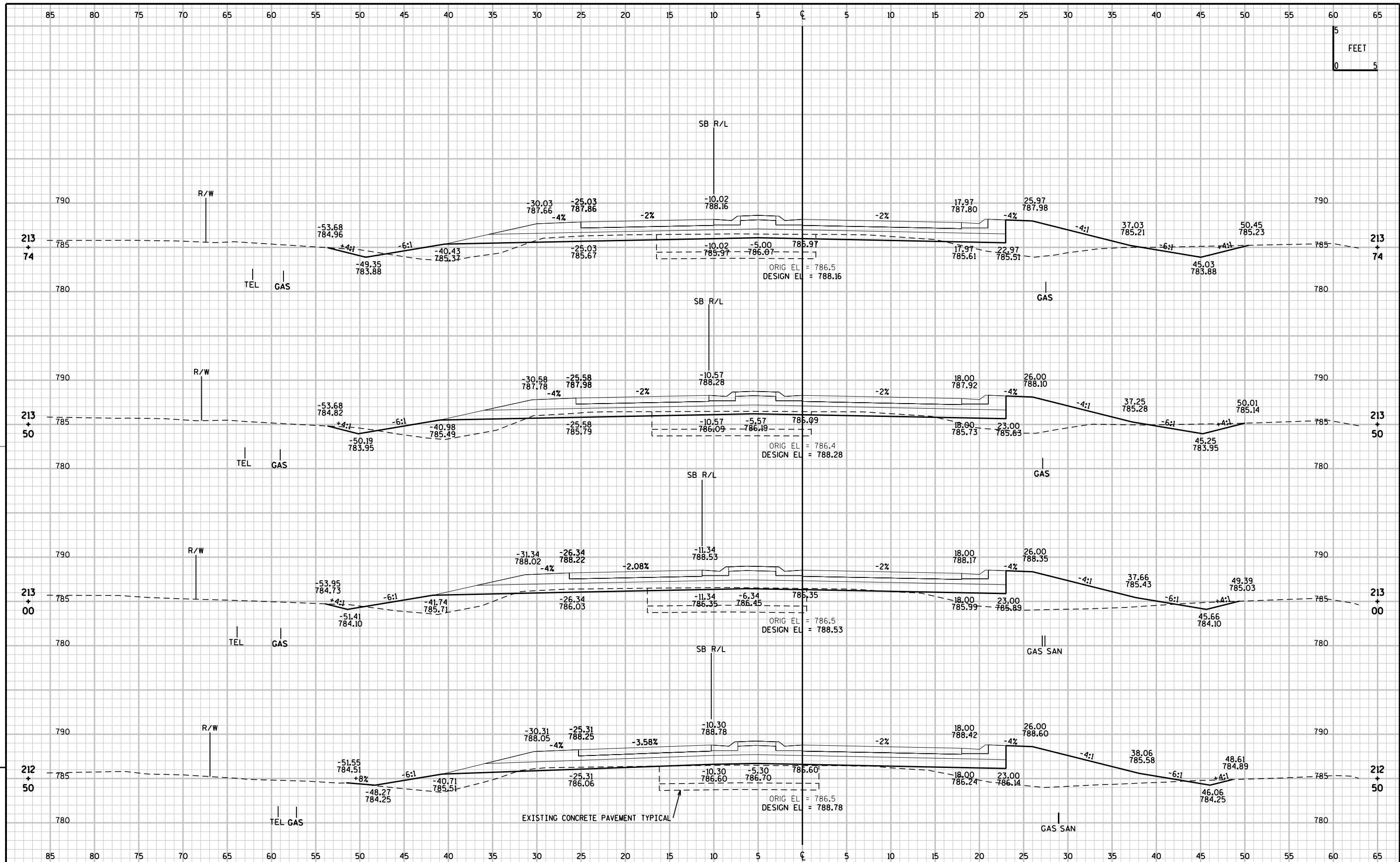
WISDOT/CADDs SHEET 21

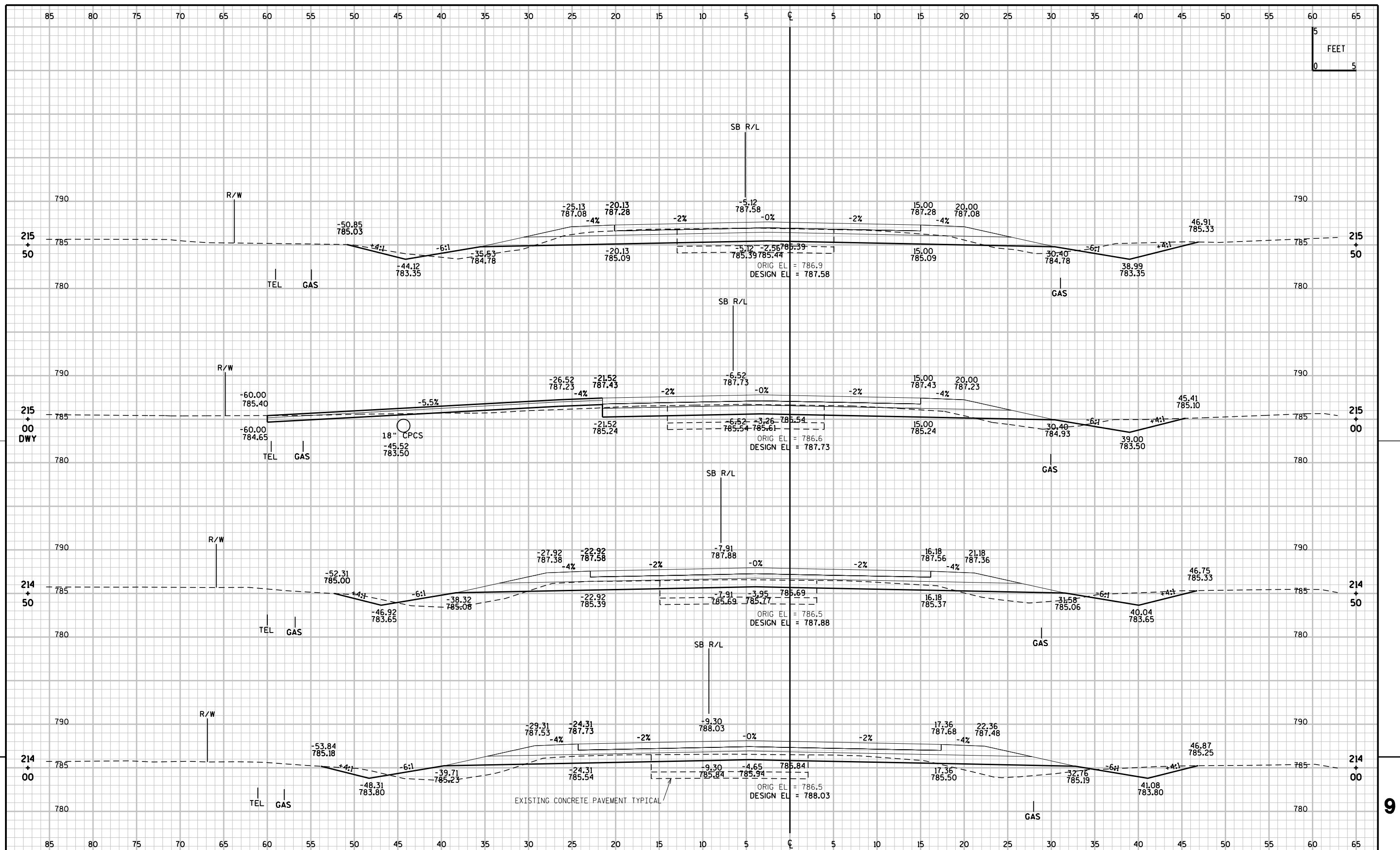


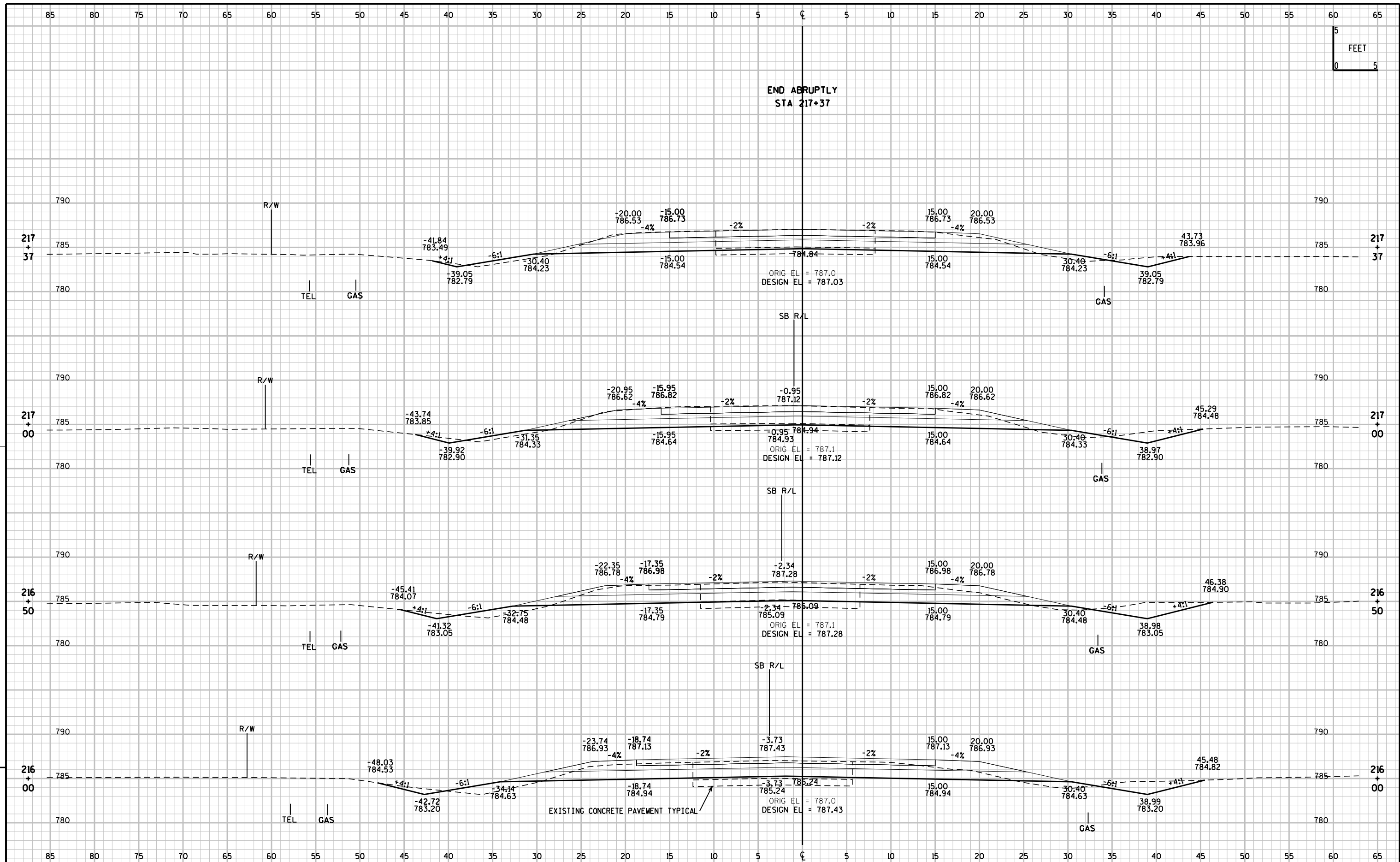


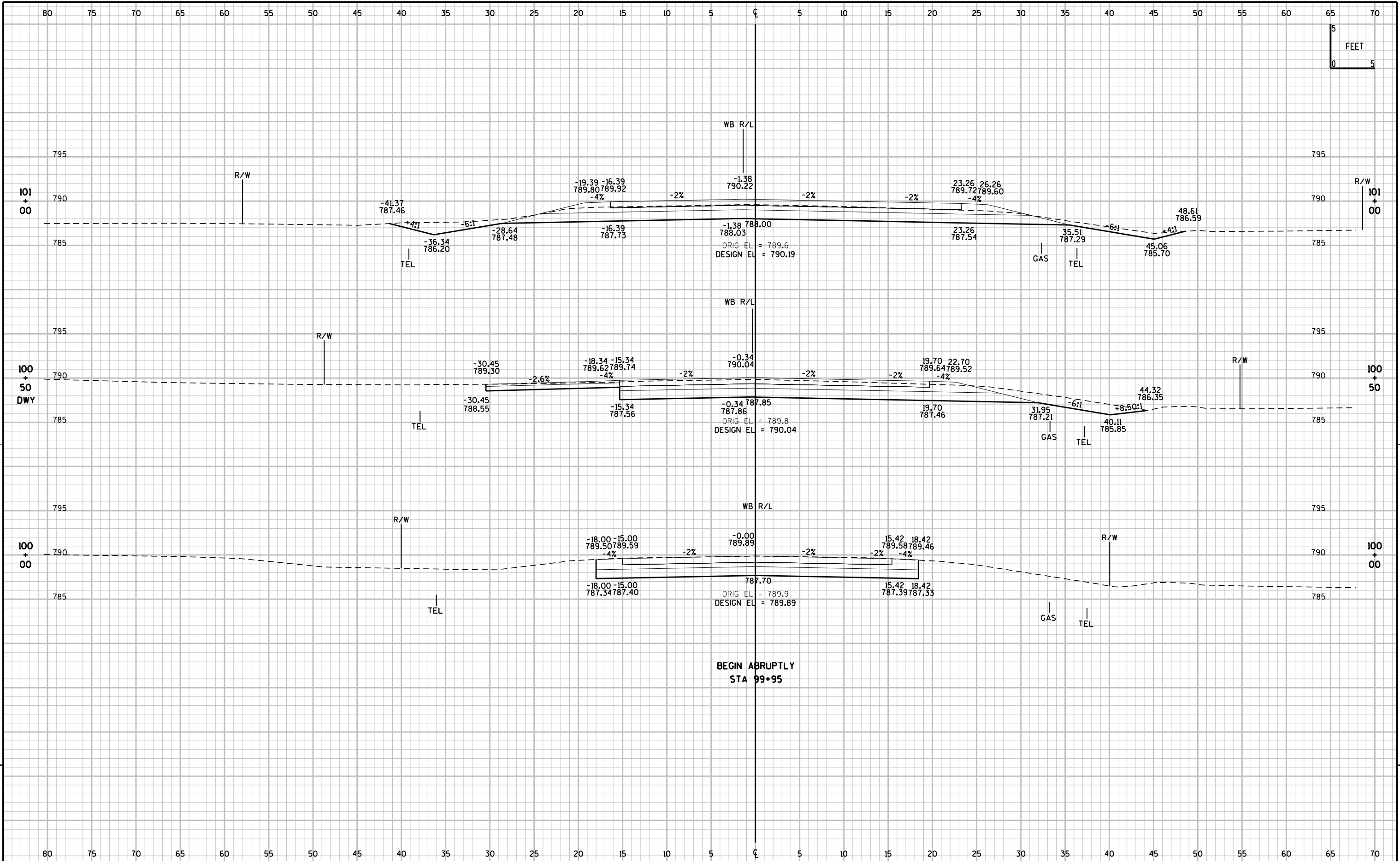






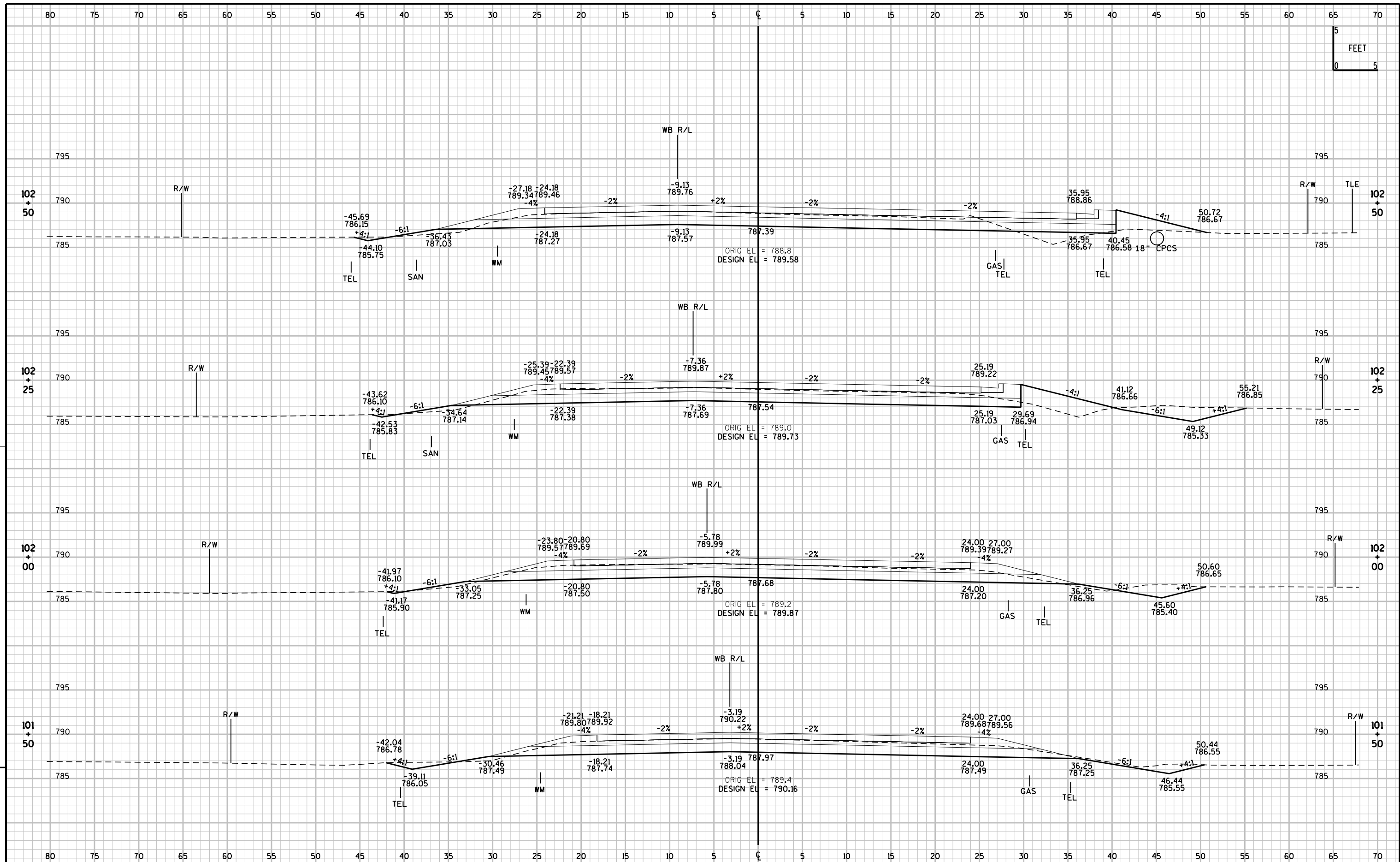


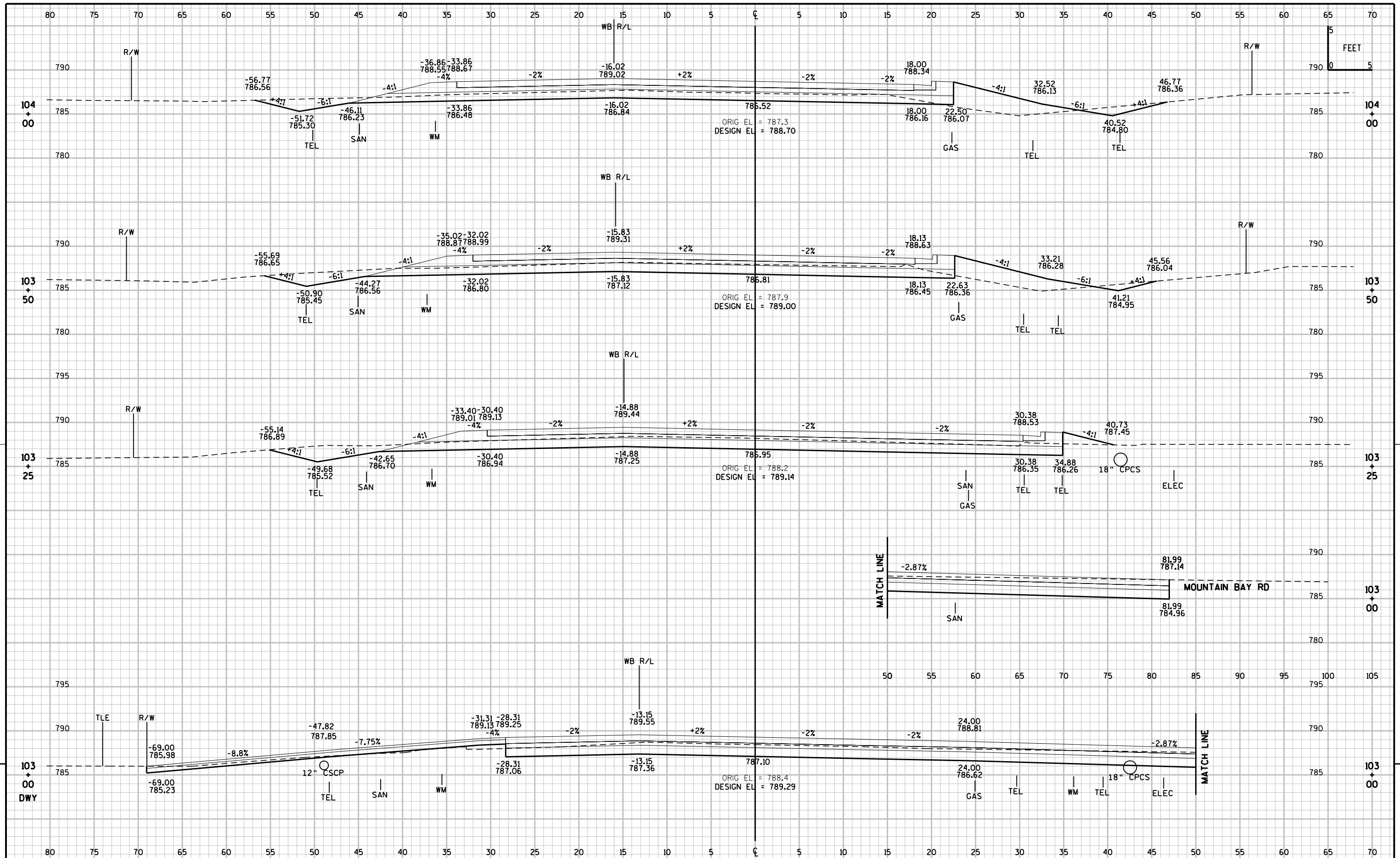


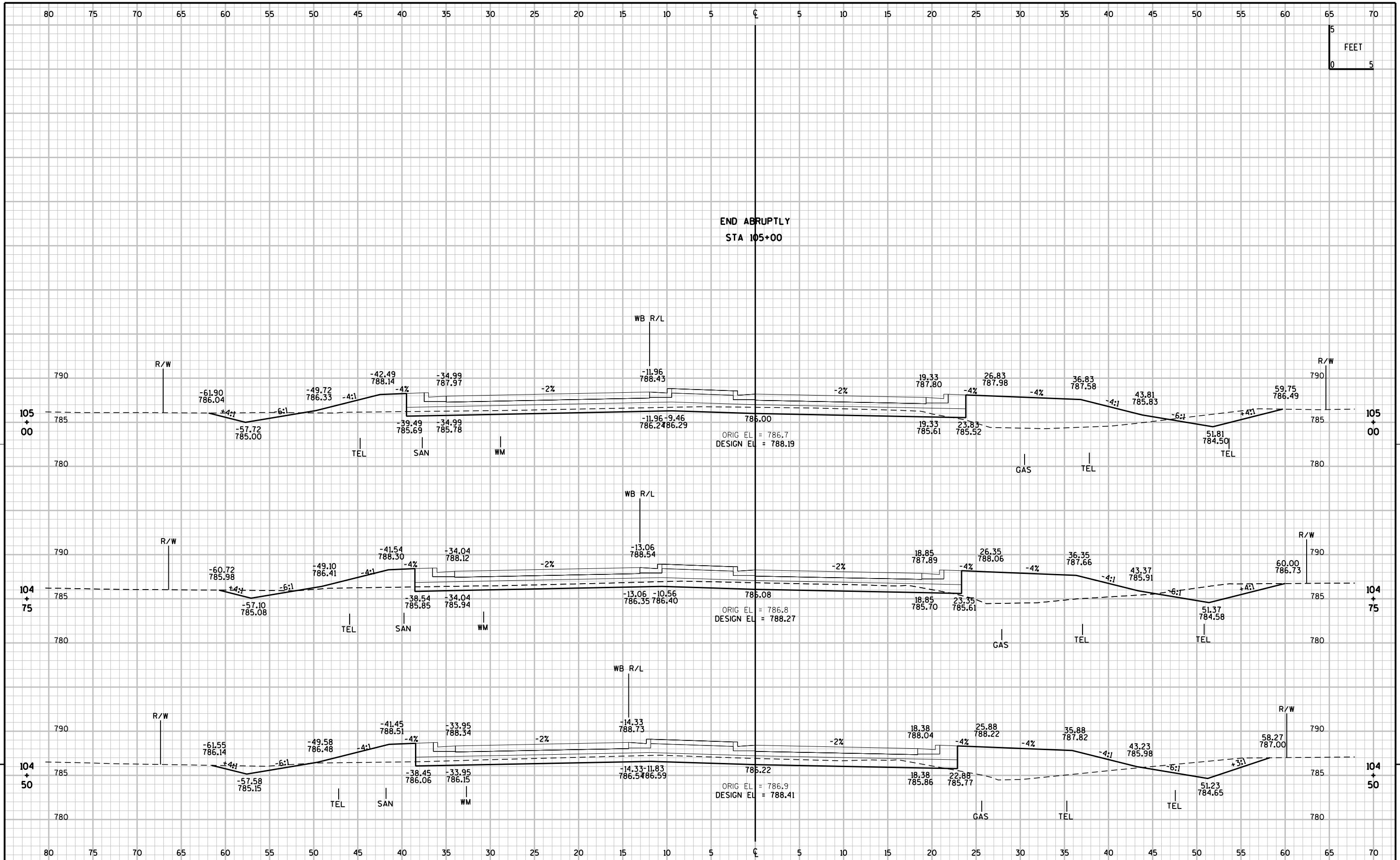


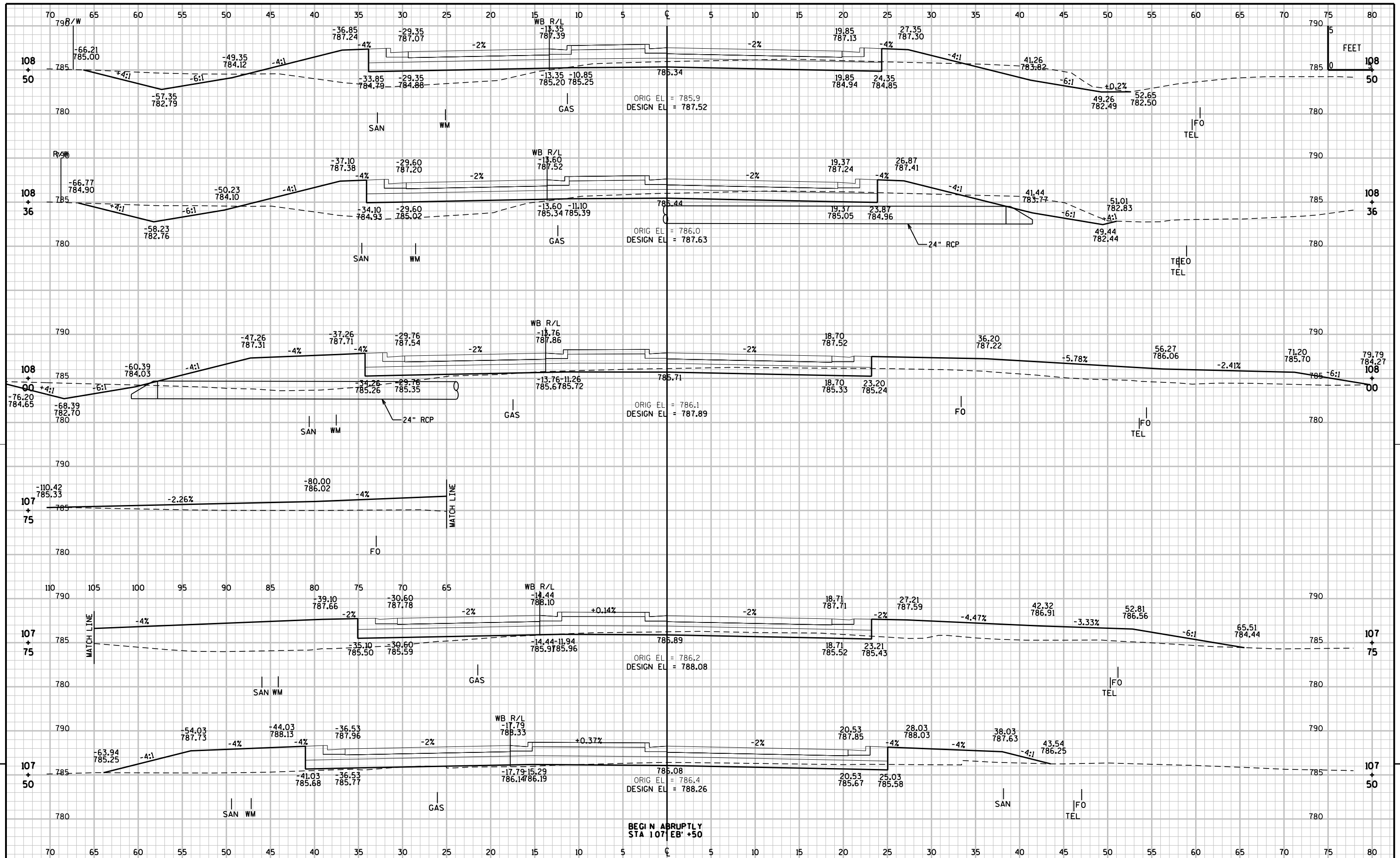
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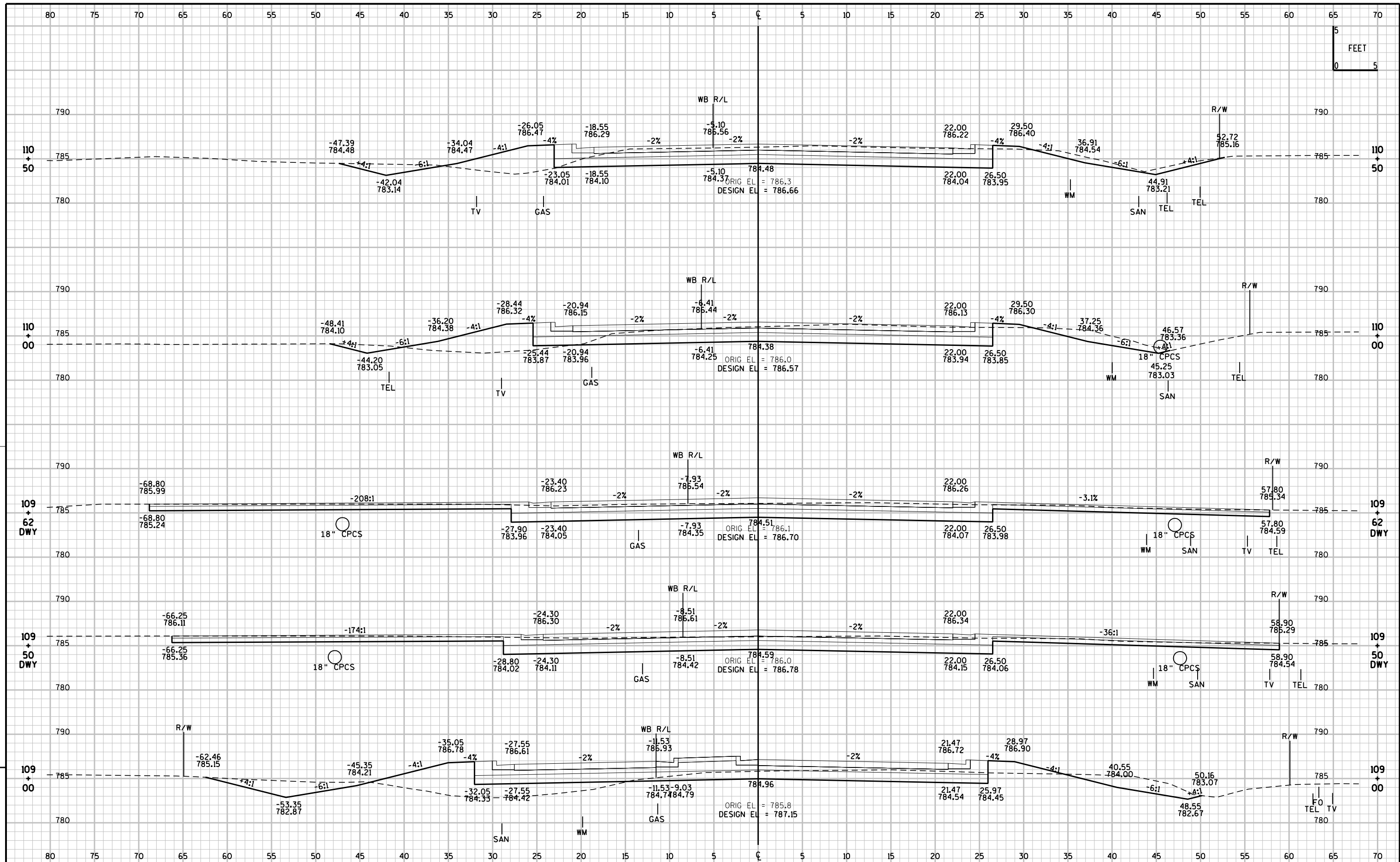
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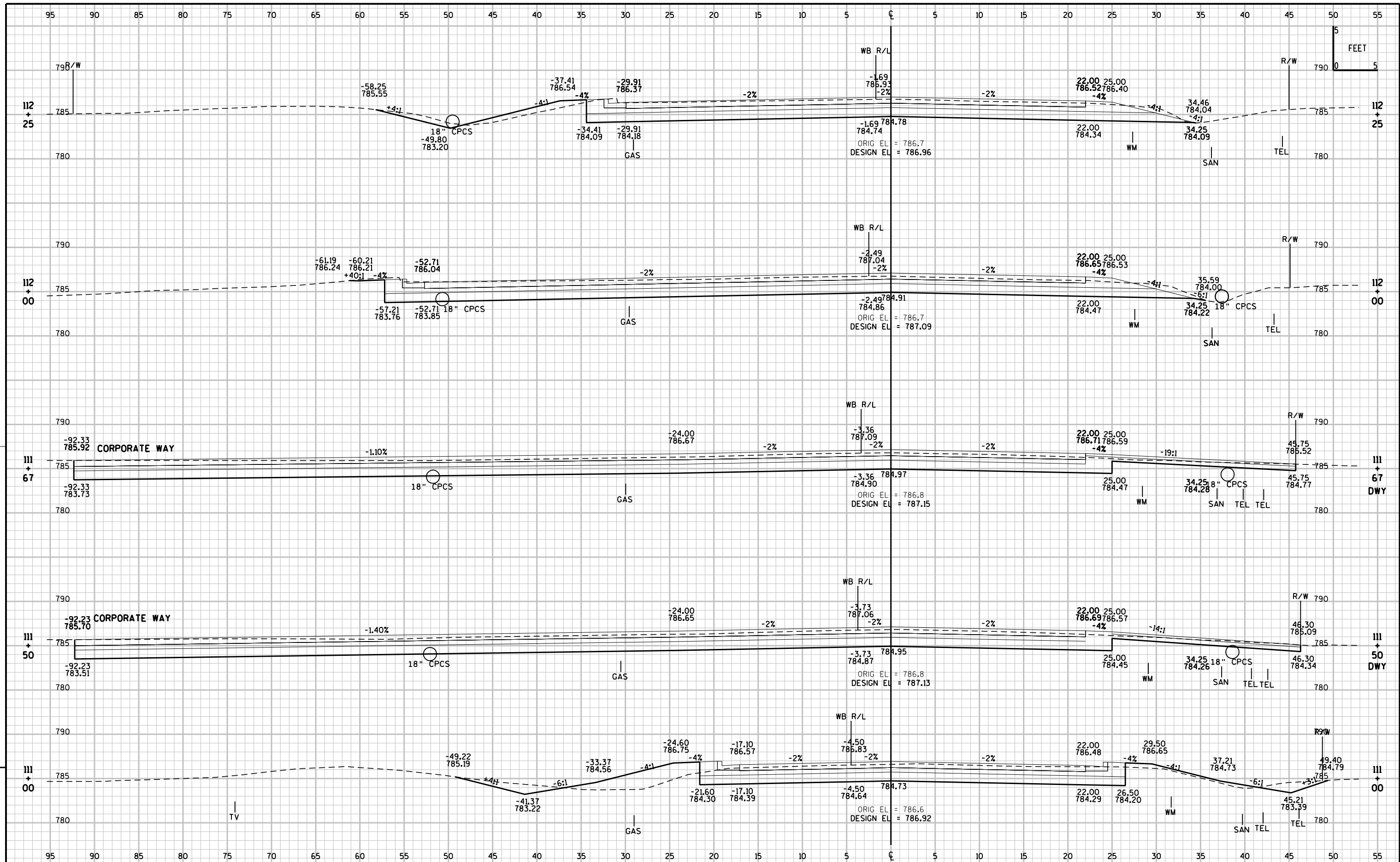


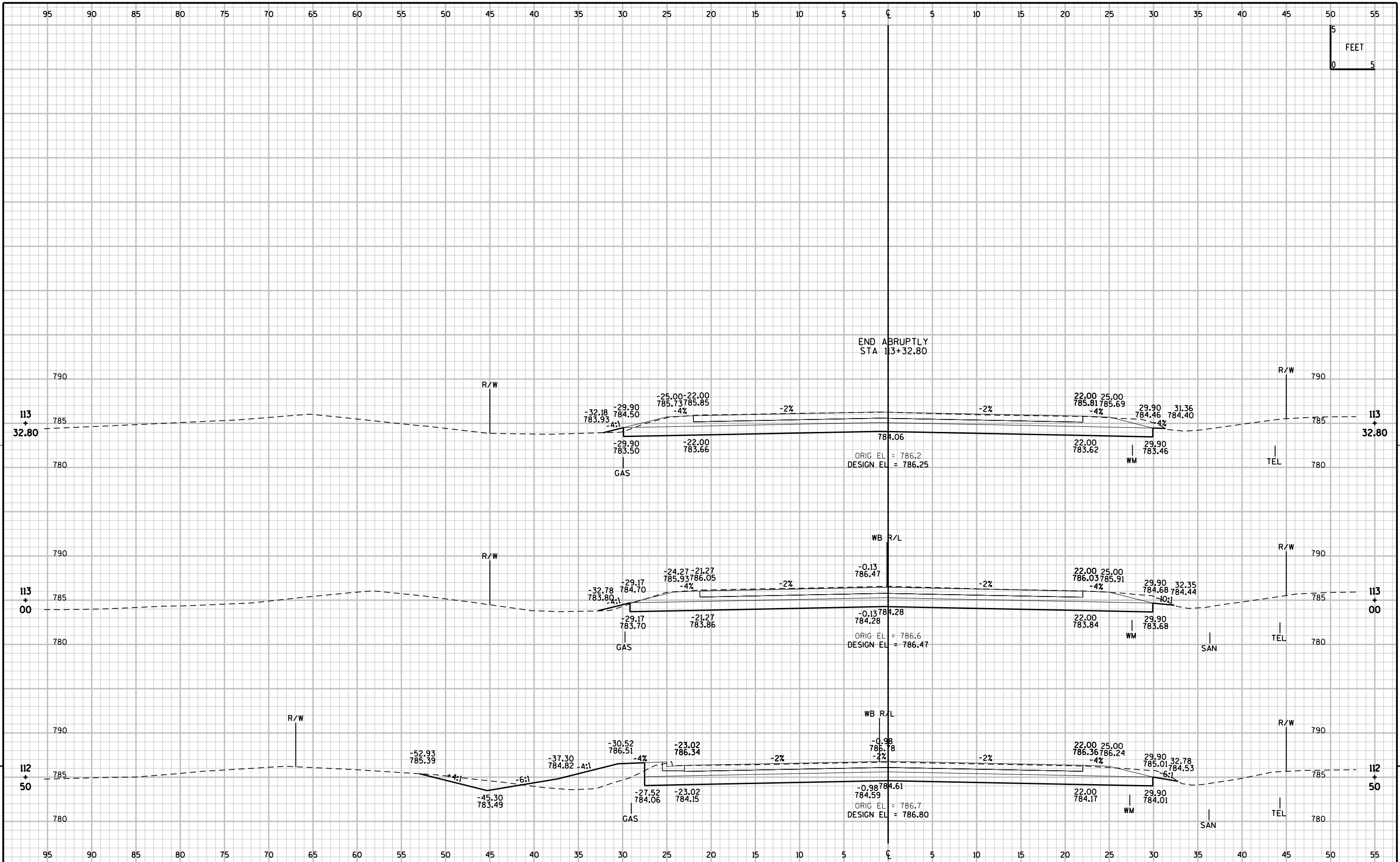


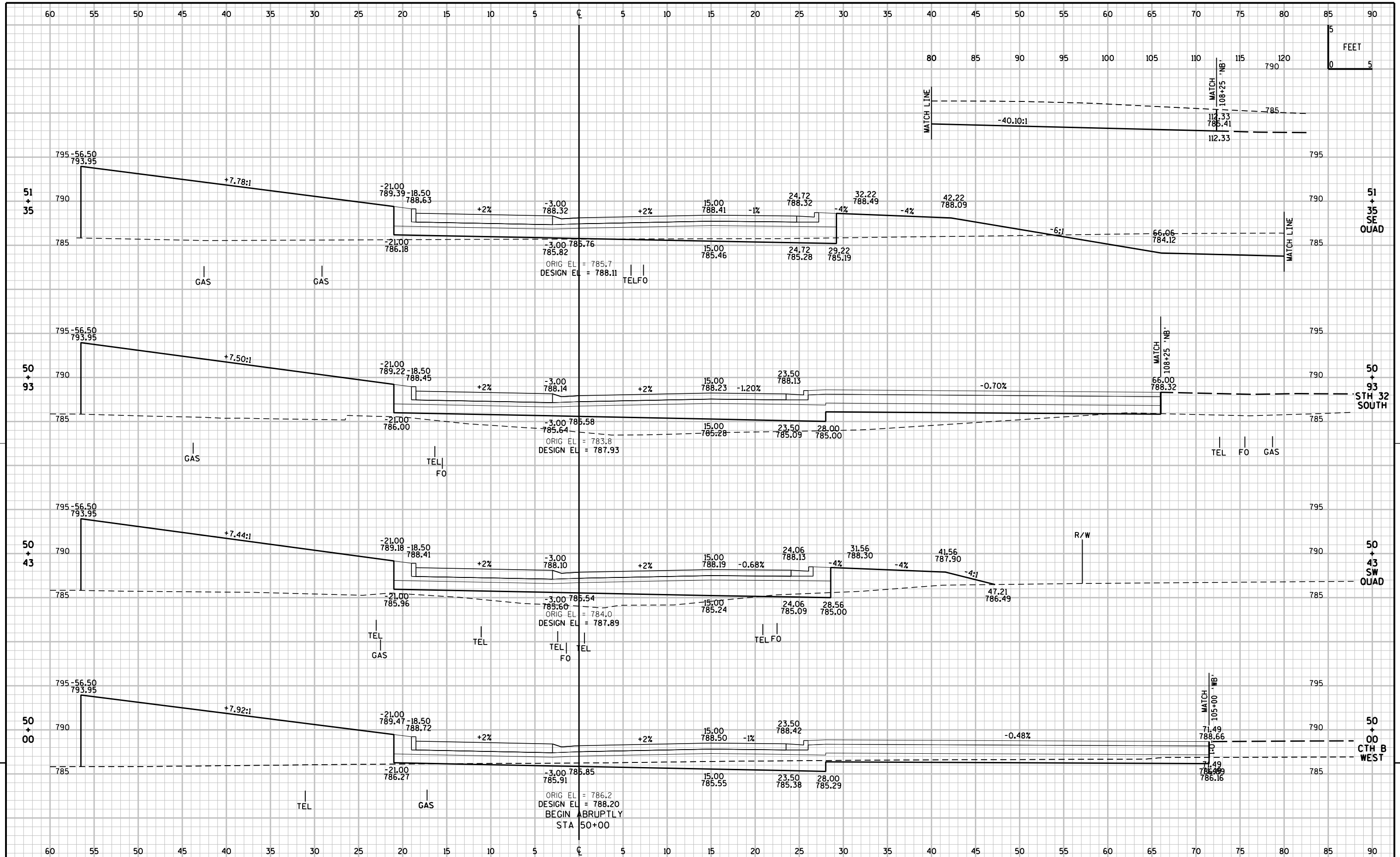


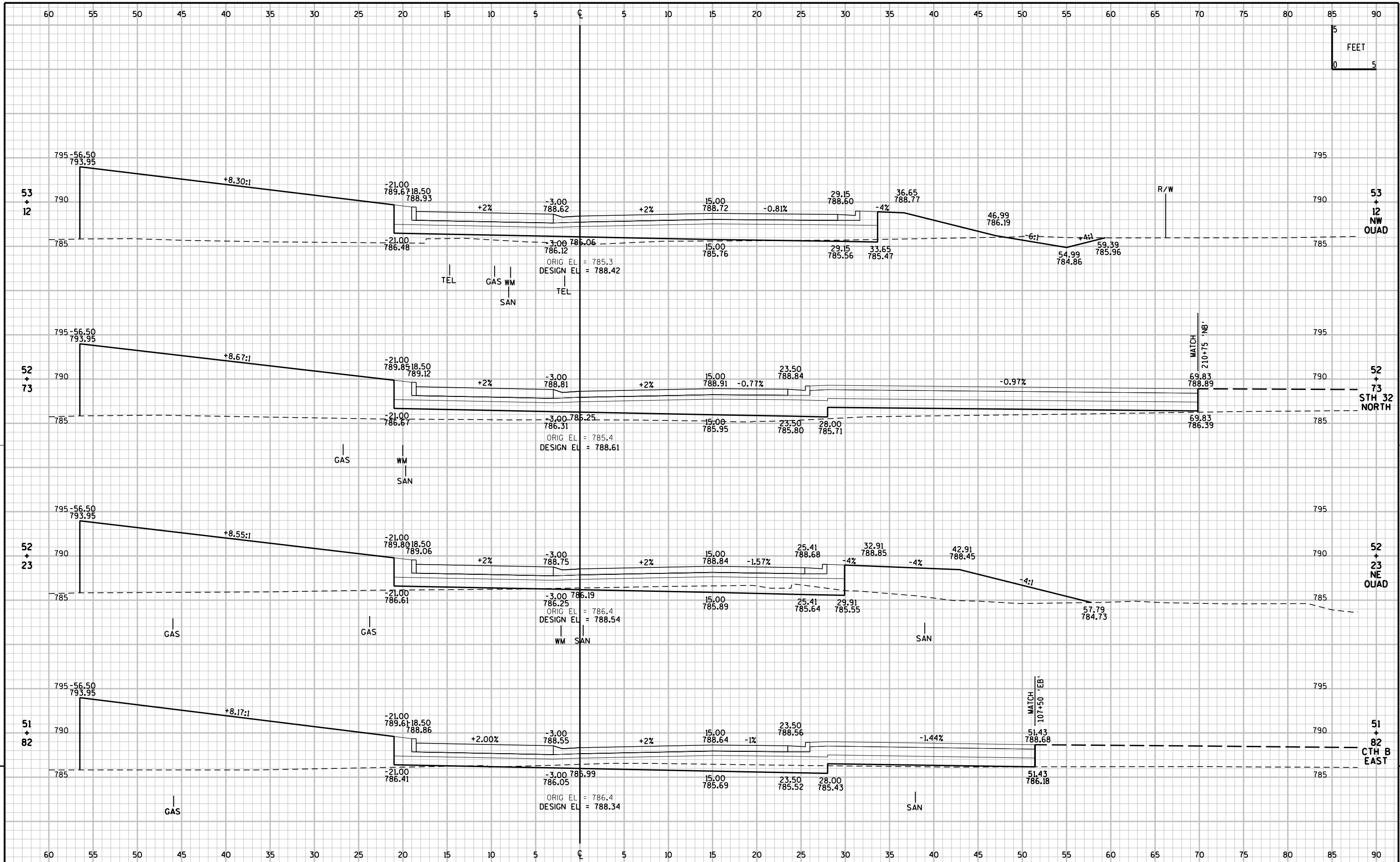


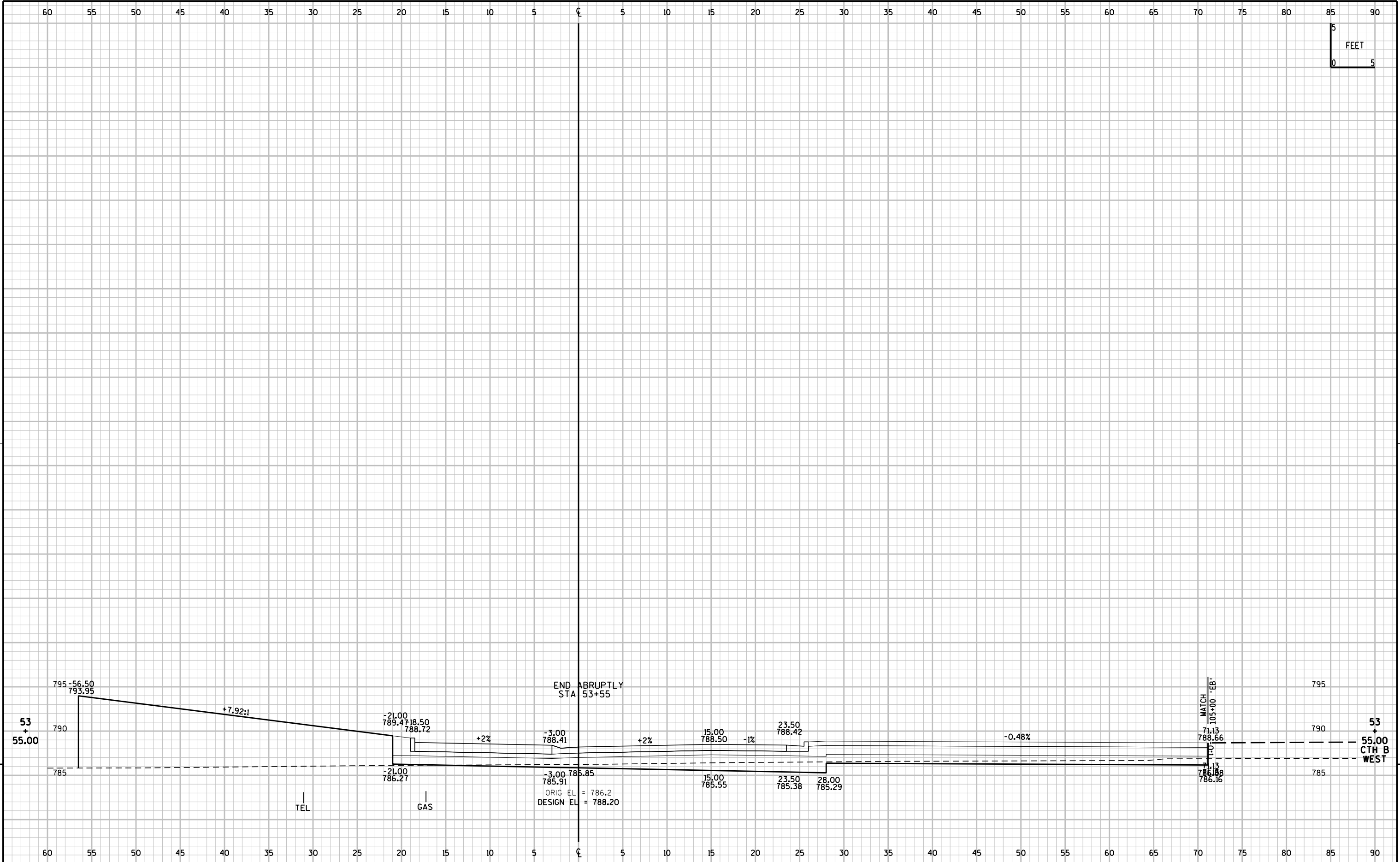




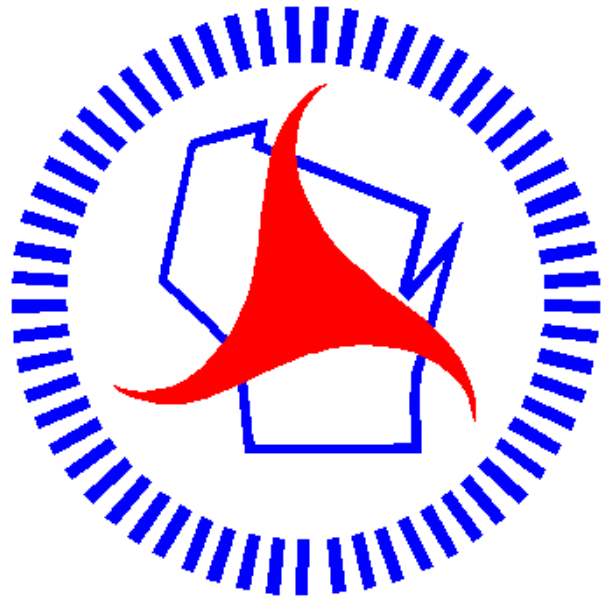








Notes



Wisconsin Department of Transportation

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