

LAX

PROJECT ID:  
WITH: 5991-02-57

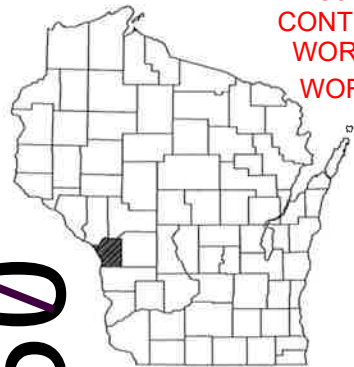
5991-02-54, 5991-02-55

COUNTY: LA CROSSE

JANUARY 2018  
ORDER OF SHEETS

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

TOTAL SHEETS = 100



**AS-BUILT PLAN**

SUPERVISOR: Jim Savoldelli  
PROJECT MANAGER: Brian Meyer  
PROJECT LEADER: Lorie Peterson  
CONTRACTOR: Gerke Excavating, Inc.  
WORK STARTED: 4/23/2018  
WORK COMPLETED 8/31/2018

**Subcontractor List**  
Barricade Flasher Service  
Brickline, Inc.  
Chippewa Concrete Services, Inc.  
Hard Rock Sawing & Drilling  
Heider & Bott Co.  
Mathy Construction Company  
Poellinger Electric, Inc.  
Smith Restorations, Inc.

Sheets Revised: 5,6,7,8, 9, 14,  
15,23, 28, 30, 31

DESIGN DESIGNATION	BRAUND	PH
A.A.D.T. (2018)	= 4000	5000
A.A.D.T. (2038)	= 4700	5800
D.H.V.	= 665	865
D.D.	= 59/41	59/41
T.	= 2.5%	2.8%
DESIGN SPEED	= 30 MPH	30 MPH
ESALS	= 408,800	408,800

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	----
ORIGINAL GROUND	----
MARSH OR ROCK PROFILE (To be noted as such)	----
SPECIAL DITCH	----
GRADE ELEVATION	95.36
CULVERT (Profile View)	----
UTILITIES	
ELECTRIC	----
FIBER OPTIC	----
GAS	----
SANITARY SEWER	----
STORM SEWER	----
TELEPHONE	----
WATER	----
UTILITY PEDESTAL	----
POWER POLE	----
TELEPHONE POLE	----

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF ONALASKA, BRAUND STREET

STH 16 TO PH

LOCAL STREET  
LA CROSSE COUNTY

STATE PROJECT NUMBER  
5991-02-54

CITY OF ONALASKA, PH

BRAUND ST TO THEATER RD

LOCAL STREET  
LA CROSSE COUNTY

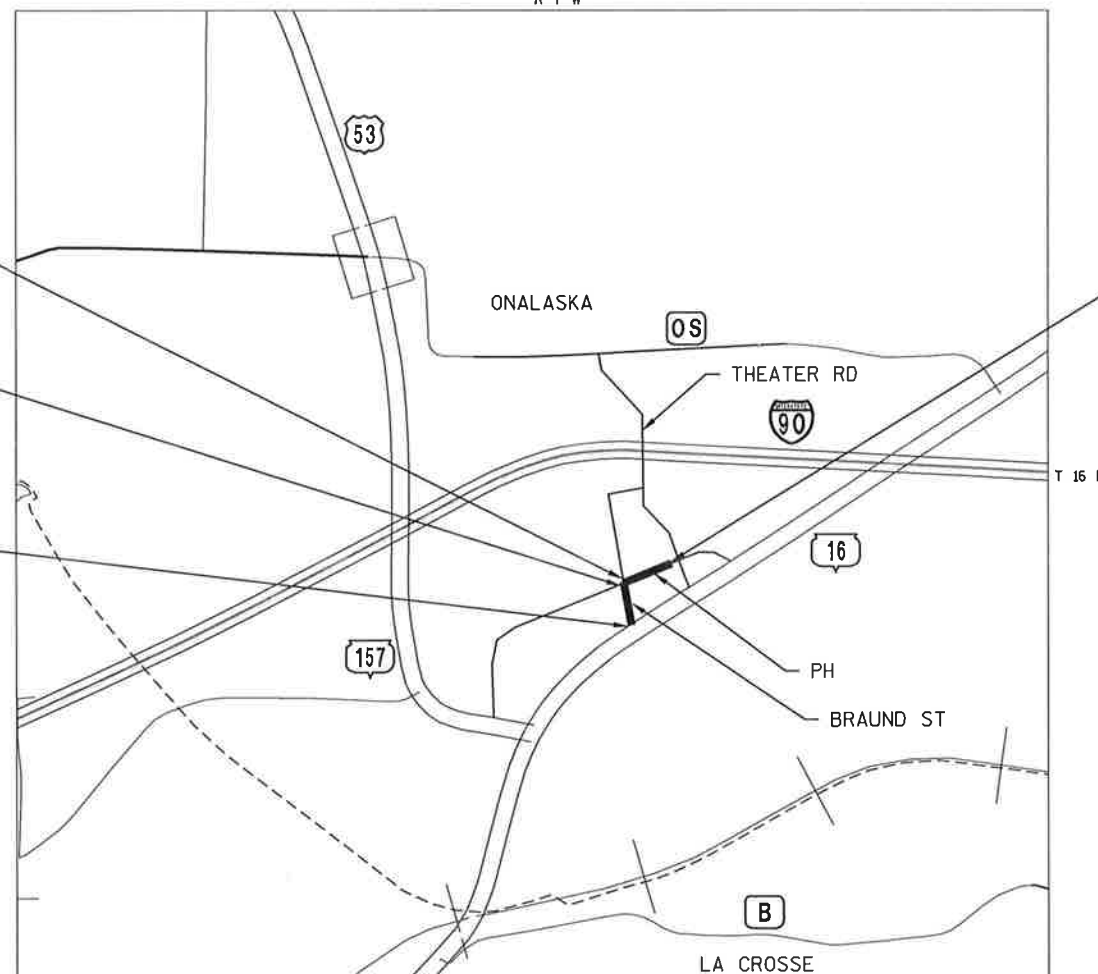
STATE PROJECT NUMBER  
5991-02-55

BEGIN PROJECT  
5991-02-55  
STA 100+61.34  
Y=153295.523  
X=458758.766

END PROJECT  
5991-02-54  
STA 20+86.19  
Y=153356.743  
X=458825.888

BEGIN PROJECT  
5991-02-54  
STA 11+46.22  
Y=152421.594  
X=458847.940

END PROJECT  
5991-02-55  
STA 112+00.00  
Y=153592.841  
X=459857.926



LAYOUT  
SCALE 0 0.5 MILES  
TOTAL NET LENGTH OF CENTERLINE = 0.394 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, LA CROSSE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT

5991-02-54

5991-02-55

FEDERAL PROJECT

PROJECT

WISC 2018042

WISC 2018043

CONTRACT

1

1

ACCEPTED FOR  
CITY OF ONALASKA

7-17-17 C. J. J. City Engineer

ORIGINAL PLANS PREPARED BY



7/14/2017 Jeremy J. Tomesh (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

SEH

Designer

SEH

Management Consultant

KL Engineering

APPROVED FOR THE DEPARTMENT

DATE: 7/31/17

Management Consultant Signature

E

GENERAL NOTES

1. NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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

3. CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED TO A 4-INCH TYPICAL DEPTH.

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

5. THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

6. ASPHALTIC AND CONCRETE SURFACES SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

7. DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

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

9. A CONVERSION FACTOR OF 2.0 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 1 1/4-INCH.
10. A CONVERSION FACTOR OF 112 LBS/IN/SY IS USED TO ESTIMATE QUANTITIES FOR HMA PAVEMENT.

11. MAINTAIN EXISTING GUTTER FLOW AS INDICATED BY THE GRADES AND FLOW ARROWS SHOWN ON THE DRAWINGS. ADJUST BACK OF CURB AND FLAG OF CURB GRADES SO THAT THE CURB & GUTTER GRADES DO NOT EXCEED THE GRADES SHOWN ON THE TYPICAL RAMP SECTION.

12. CURB TAPERS AT RAMPS ARE 2 FEET LONG UNLESS OTHERWISE NOTED.

13. CONSTRUCTION OF TEMPORARY ACCESS POINTS TO RESIDENCES AND BUSINESS IS INCIDENTAL TO THE PROJECT.

14. INLET PROTECTION TYPE C IS UTILIZED THROUGHOUT THE PROJECT. SEE MISCELLANEOUS QUANTITY TABLE FOR LOCATIONS.

15. CONTRACTOR TO KEEP ALL ROADWAYS OUTSIDE OF PROJECT LIMITS CLEAN AND FREE OF DEBRIS.

ORDER OF SHEETS-SECTION 2

GENERAL NOTES  
TYPICAL SECTIONS  
CONSTRUCTION DETAILS  
INTERSECTION DETAILS  
SIGNING AND PAVEMENT MARKING  
CONSTRUCTION STAGING

UTILITY CONTACT LIST

Dairyland Power

Jane Eggen  
P.O. Box 817  
La Crosse, WI 54602  
608.788.4000  
jane.eggen@dairylandpower.com

Xcel Energy (Electricity)

Scott Roberts  
3215 Commerce Street  
La Crosse, WI 54603  
608.789.3625  
scott.w.roberts@xcelenergy.com

DNR Liaison Contact

Karen Kalvelage  
DNR Service Center  
3550 Mormon Coulee Road  
La Crosse, WI 54601  
608.785.9115  
karen.kalvelage@wisconsin.gov

Charter Communications

Perry McClellan  
1228 12th Ave S  
Onalaska, WI 54650  
715.370.7140  
Perry.McClellan@chartercom.com

Xcel Energy (Gas)

Ed Przytarski  
3215 Commerce Street  
La Crosse, WI 54603  
608.789.3631

City of Onalaska

Jarrod Holter, PE  
City Engineer  
608.781.9537  
jholter@cityofonalaska.com

CenturyLink

Brian Stelplugh  
333 N Front St  
La Crosse, WI 54601  
608.796.5543 / 608.796.5142(cell)  
brian.stelplugh@centurylink.com

Riverland Energy

Tim Holtan  
N29988 State Road 93  
Arcadia, WI 54612  
608.797.0102 (cell)  
608.323.3381 (office)  
tholtan@riverlandenergy.com

CONSULTANT DESIGN

JEREMY TOMESH  
SEH INC.  
312 SOUTH 3RD STREET  
LA CROSSE, WI 54601  
PHONE: (608) 498-4947  
EMAIL: JTOMESH@SEHINC.COM

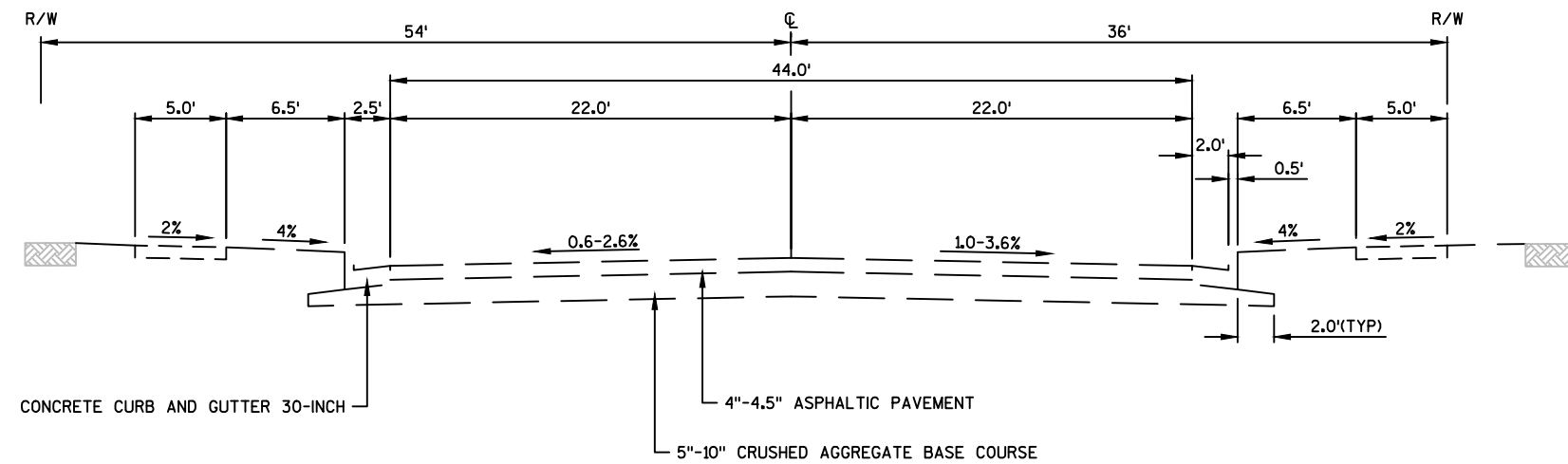
TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN



Dial 811 or (800)242-8511

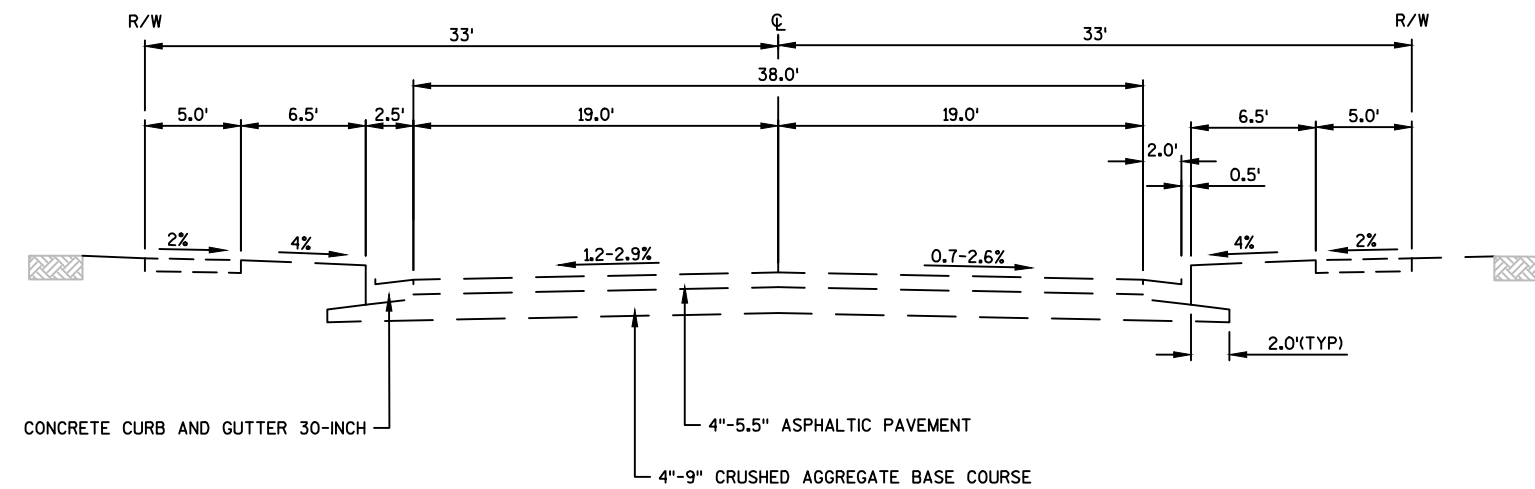
www.DiggersHotline.com

\*\*DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS



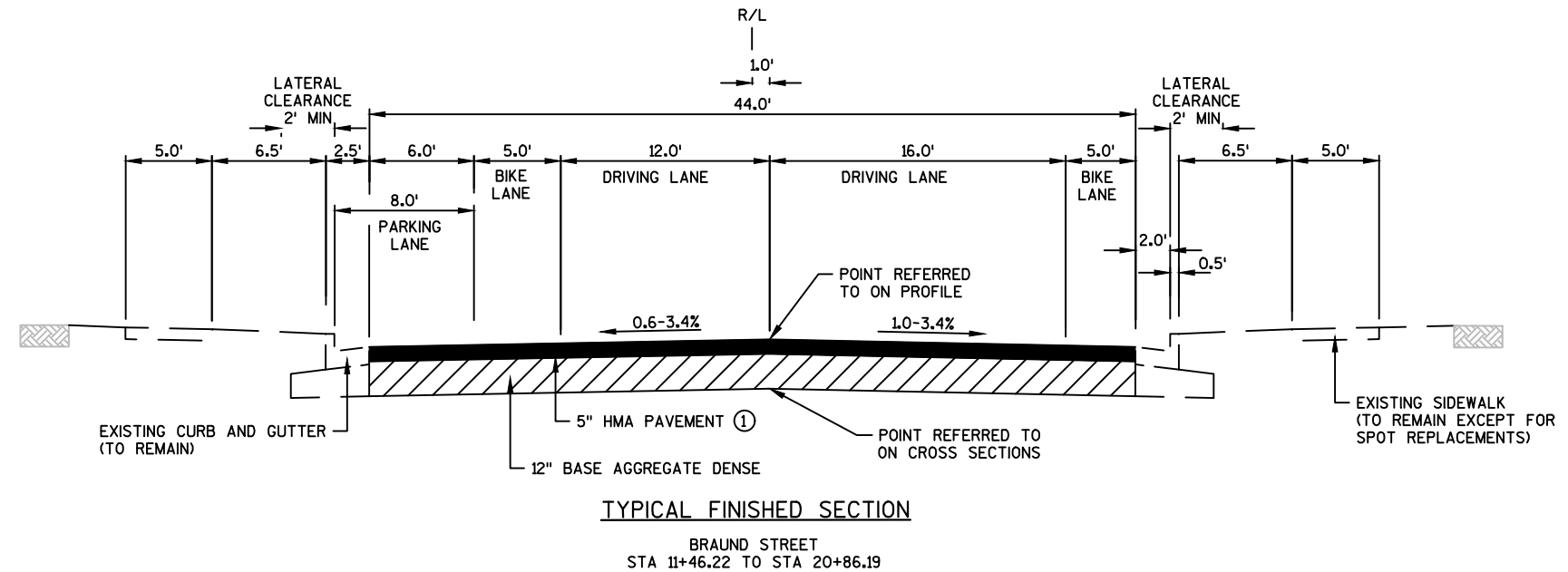
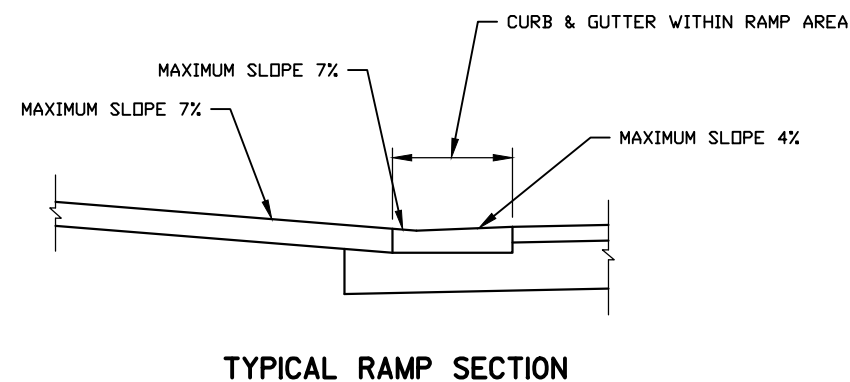
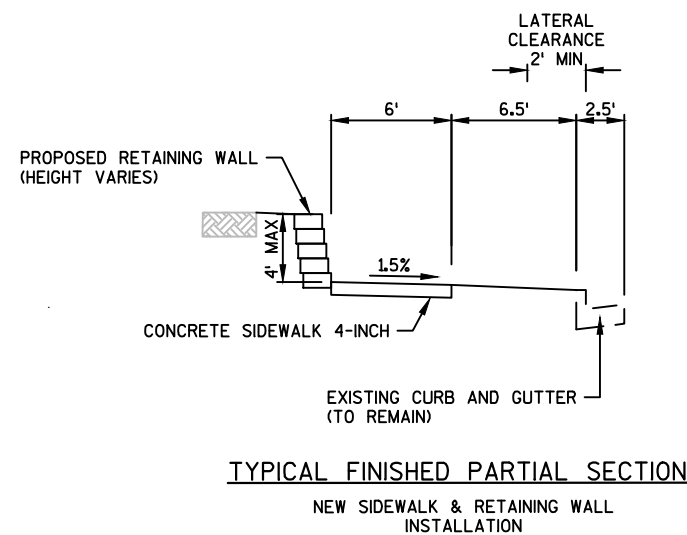
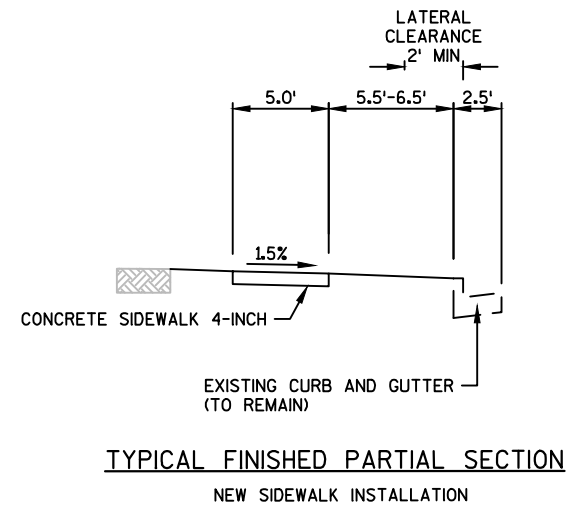
TYPICAL EXISTING SECTION

BRAUND STREET  
STA 11+46.22 TO STA 20+86.19

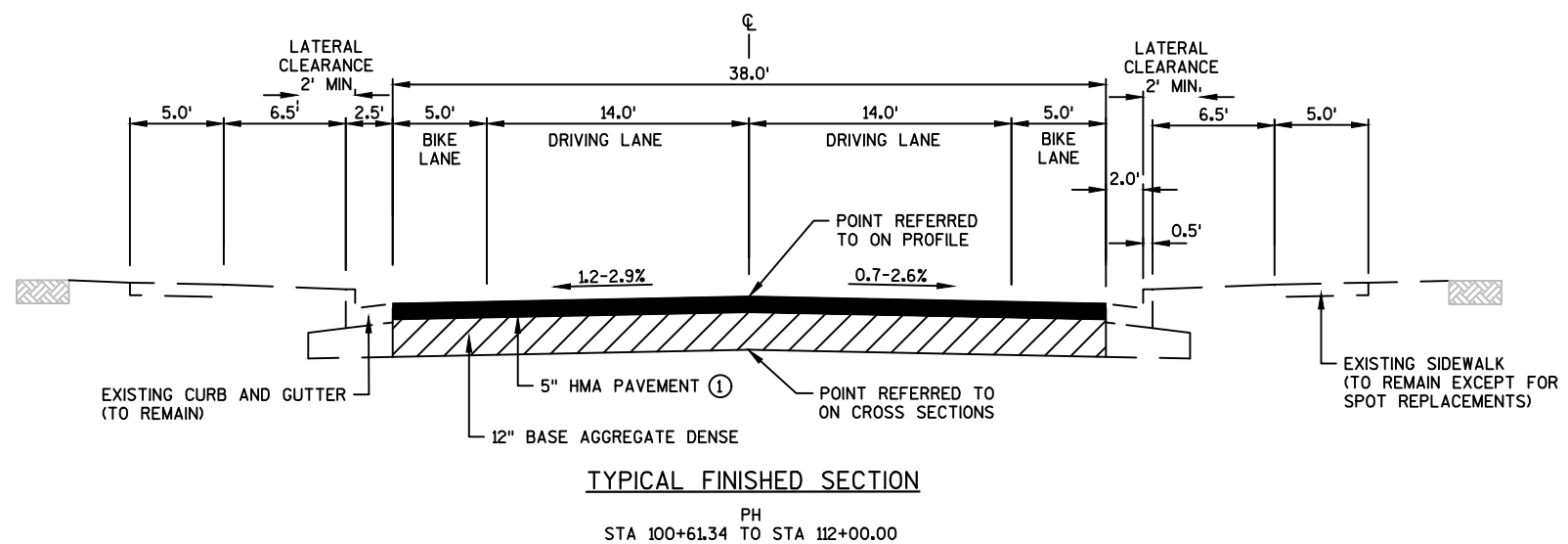


TYPICAL EXISTING SECTION

PH  
STA 100+61.34 TO STA 112+00.00

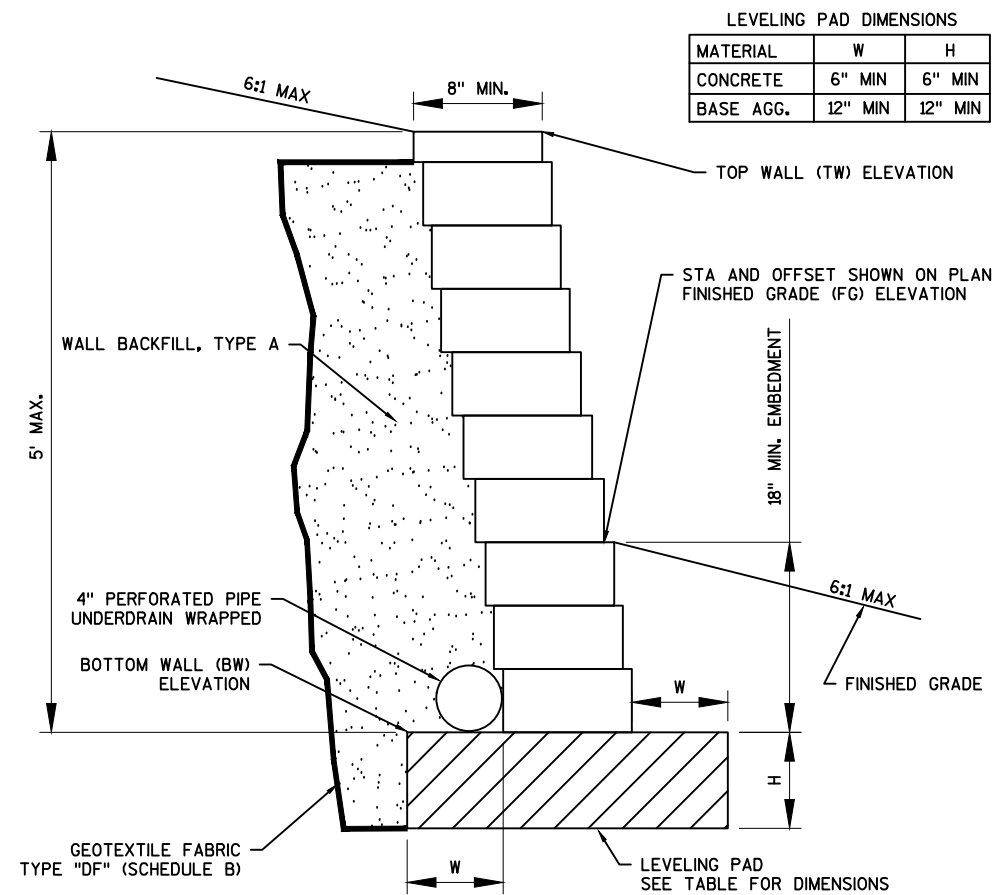


- ① 5" HMA PAVEMENT TO BE CONSTRUCTED IN 2 LAYERS
- 2.5" HMA PAVEMENT 4 LT 58-28 S UPPER LAYER
  - 2.5" HMA PAVEMENT 3 LT 58-28 S LOWER LAYER

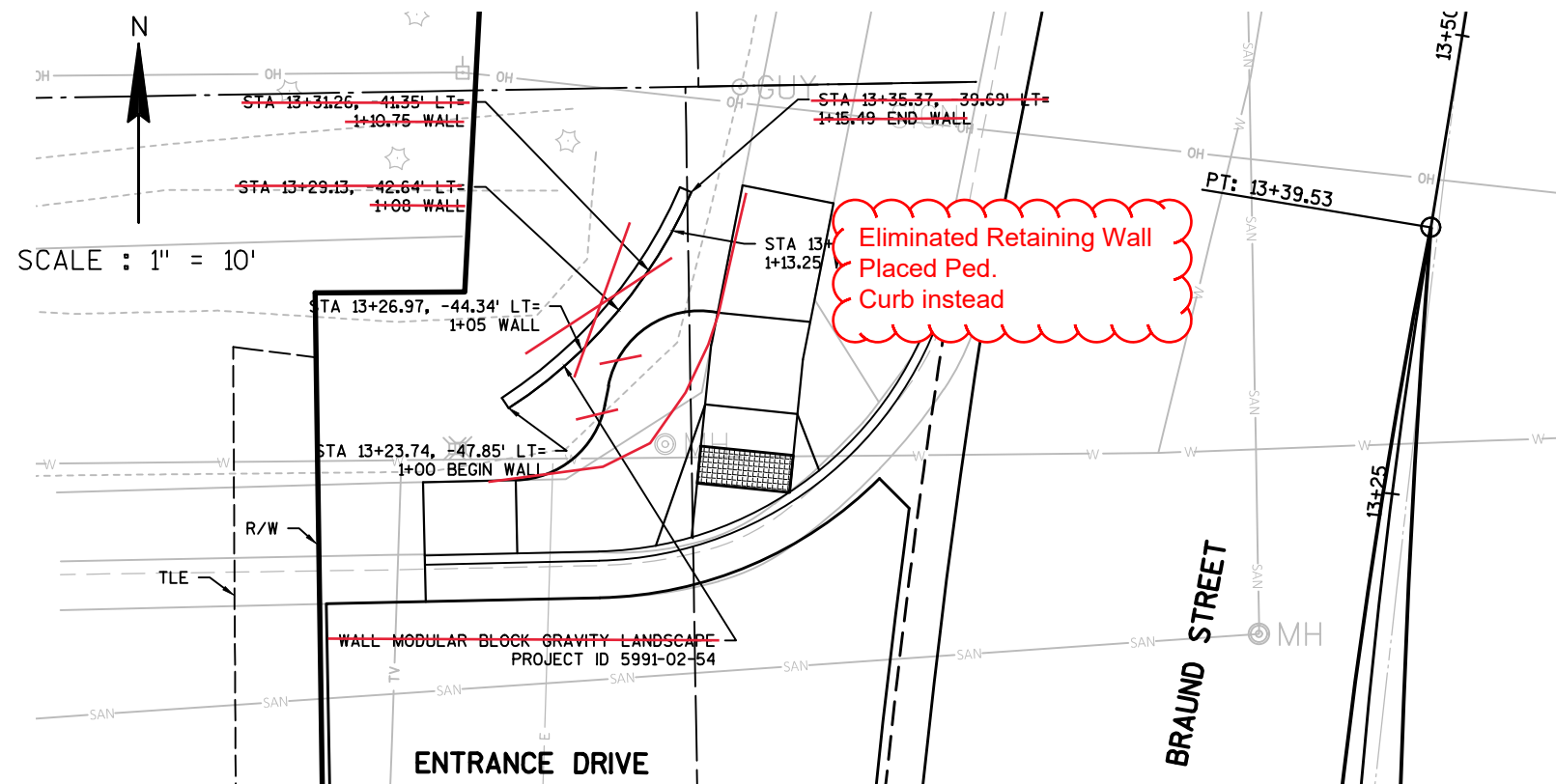




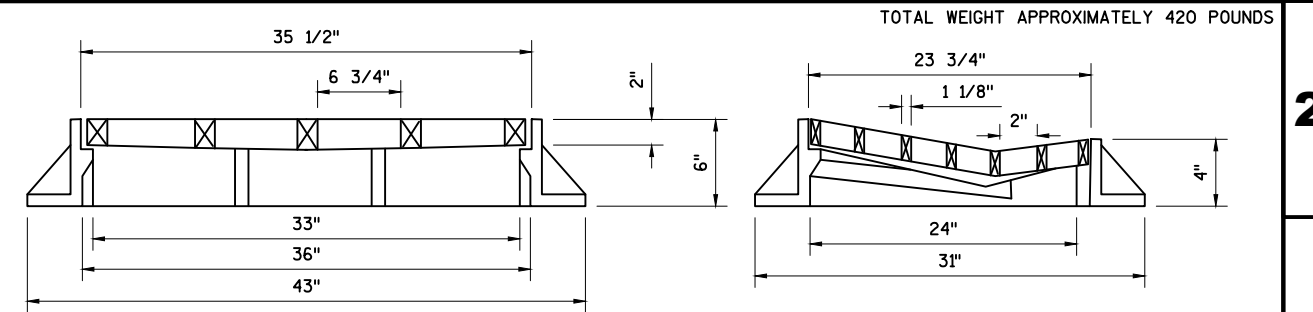
# 2



TYPICAL WALL SECTION



## RETAINING WALL PLAN - BRAUND STREET



INLET COVERS TYPE DW

NOTES:  
ALLOWABLE WALL SYSTEMS - WALL MODULAR BLOCK GRAVITY LANDSCAPE

THE PLAN QUANTITY FOR BID ITEM WALL MODULAR BLOCK GRAVITY LANDSCAPE IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GRADE. SEE MISCELLANEOUS QUANTITY SHEETS FOR PLAN QUANTITY.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK GRAVITY LANDSCAPE (STATION)".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

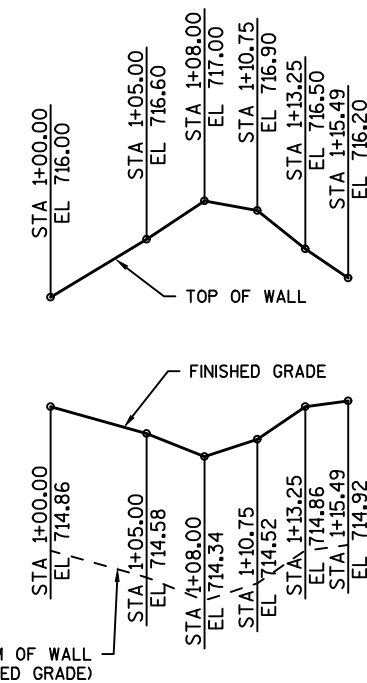
ALLOWABLE SOIL BEARING CAPACITY = 1000 PSF

ELEVATIONS AND LENGTHS ARE APPROXIMATE. CONSTRUCT TO FIT TERRAIN.

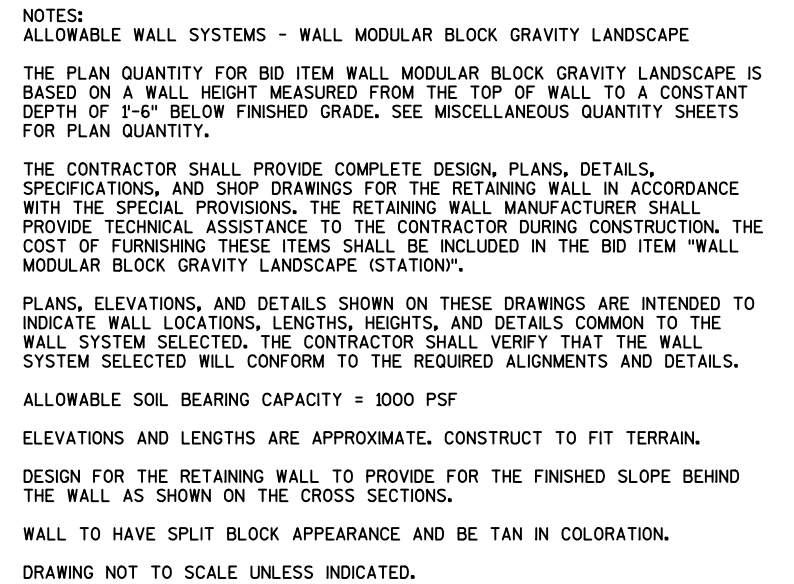
DESIGN FOR THE RETAINING WALL TO PROVIDE FOR THE FINISHED SLOPE BEHIND THE WALL AS SHOWN ON THE CROSS SECTIONS.

WALL TO HAVE SPLIT BLOCK APPEARANCE AND BE TAN IN COLORATION.

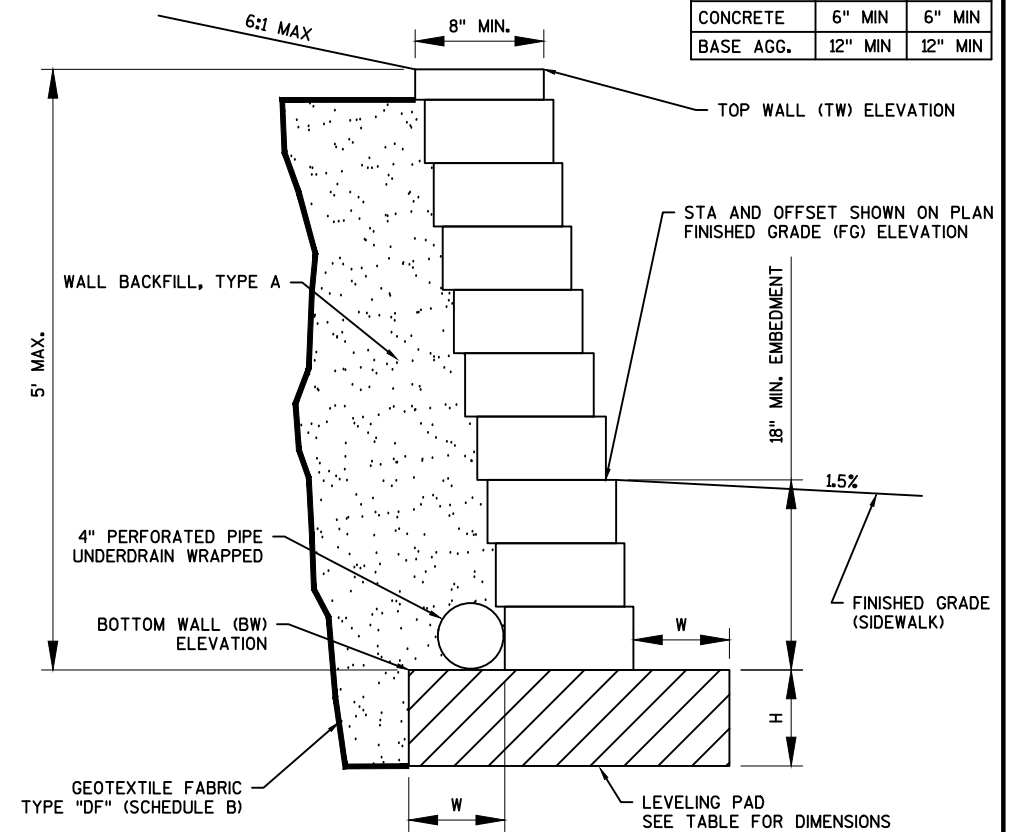
DRAWING NOT TO SCALE UNLESS INDICATED.



### RETAINING WALL ELEVATION - BRAUND



MATERIAL	W	H
CONCRETE	6" MIN	6" MIN
BASE AGG.	12" MIN	12" MIN

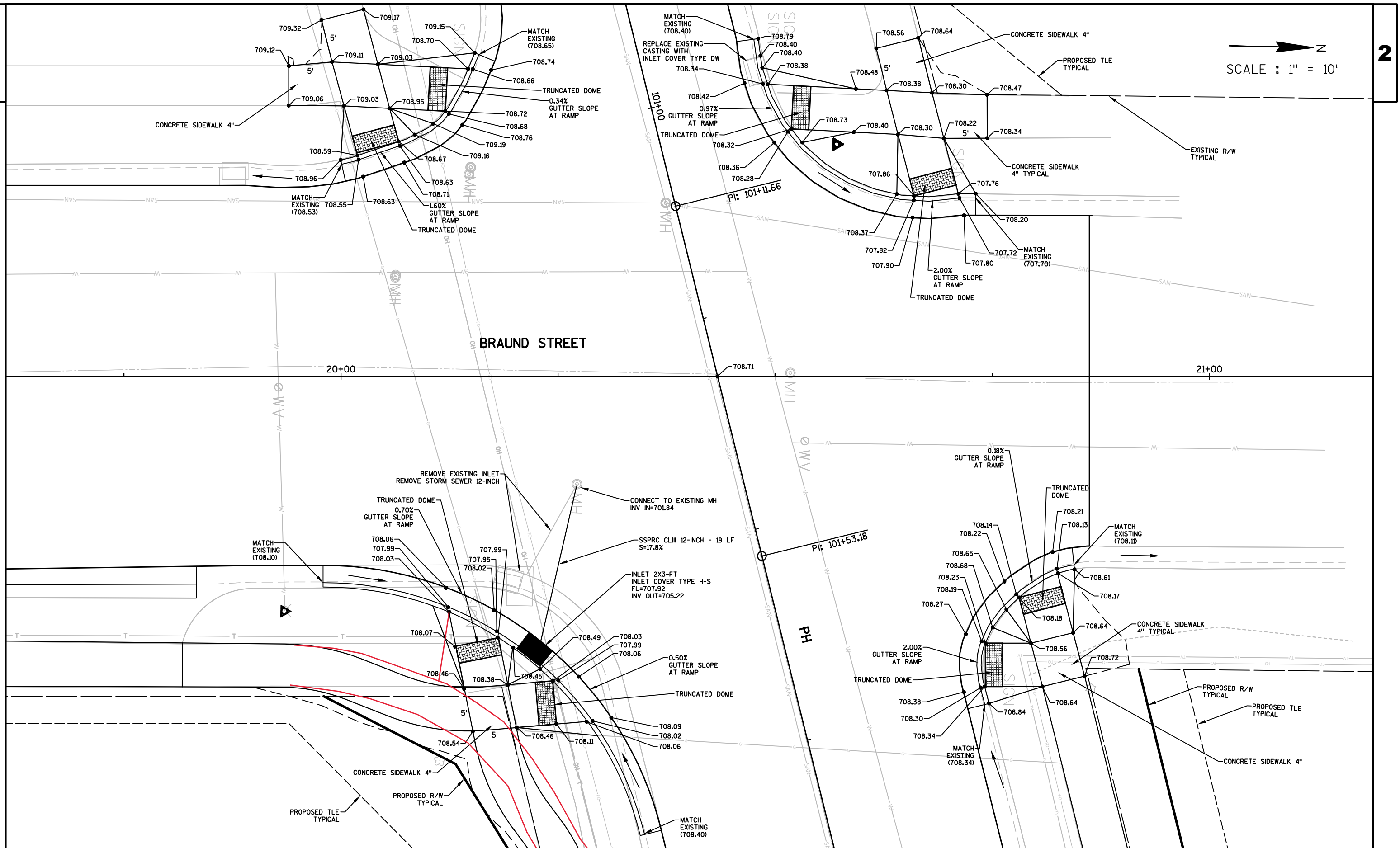


PROJECT NO:5991-02-55	HWY:PH	COUNTY:LA CROSSE	RETAINING WALL DETAILS	SHEET	<b>E</b>
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2

2



PROJECT NO:5991-02-54

HWY:BRAUND STREET

COUNTY:LA CROSSE

BRAUND STREET &amp; PH INTERSECTION DETAILS

SHEET

E

FILE NAME : \\SEHLX1\PROJECTS\K0\0\NALA\133149\C3D\SHEETPLAN\BRAUND\021101-ID-BRAUND.DWG  
LAYOUT NAME - 021101-ID-BRAUND - 2

PLOT DATE : 7/19/2017 5:09 PM

PLOT BY : TOREY LEONARD

PLOT NAME :

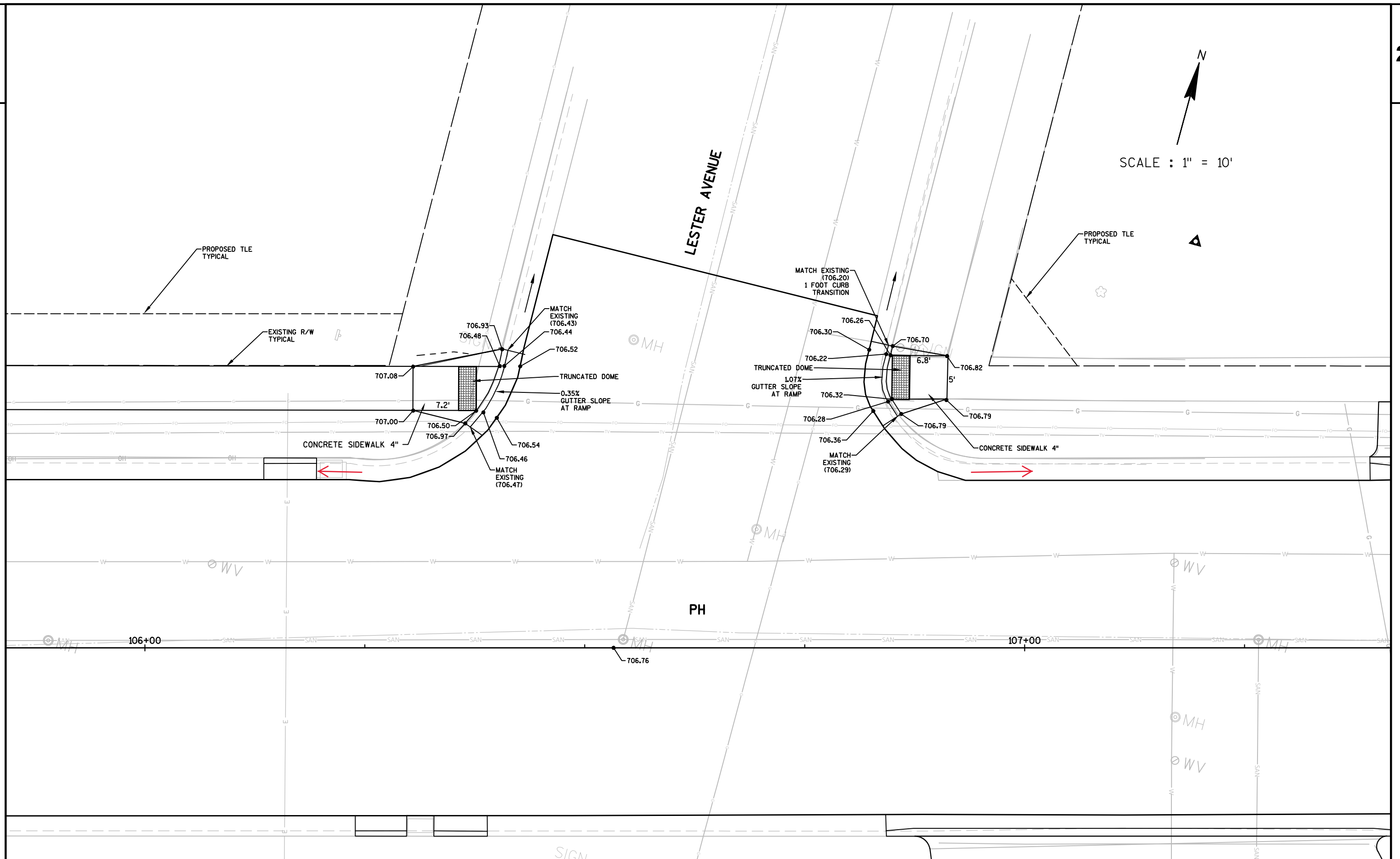
PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



# 2

2 |



PROJECT NO:5991-02-55	HWY:PH	COUNTY:LA CROSSE	PH & LESTER AVENUE INTERSECTION DETAILS	SHEET	<b>E</b>
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FILE NAME : \\SEHLX1\PROJECTS\K0\0\NALA\133149\C3D\SHEETSP\AN\BRAUND\021101-ID-PH.DWG  
LAYOUT NAME - 021101-ID-PH - 3

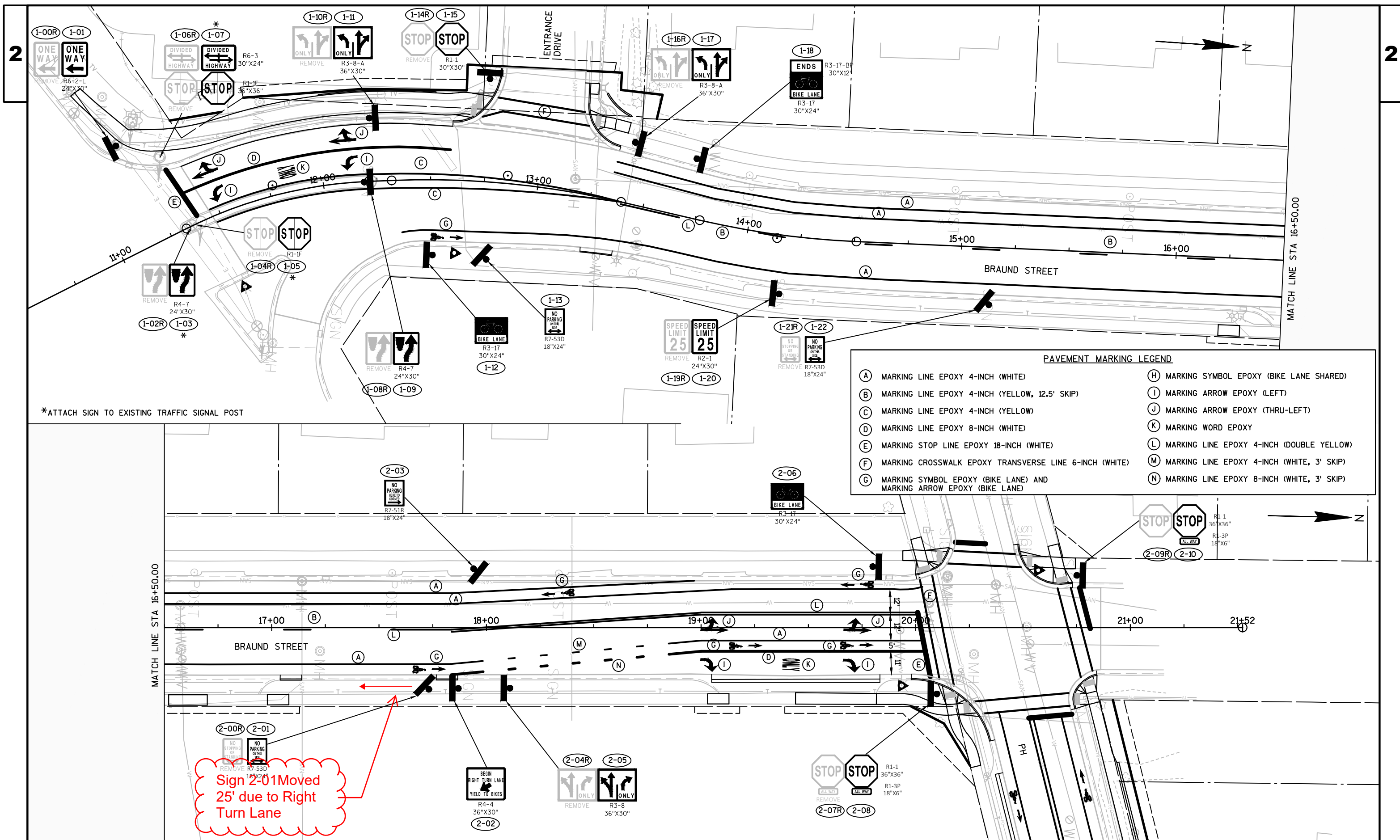
PLOT DATE : 6/1/2017 7:22 AM

PLOT BY : TOREY LEONARD

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

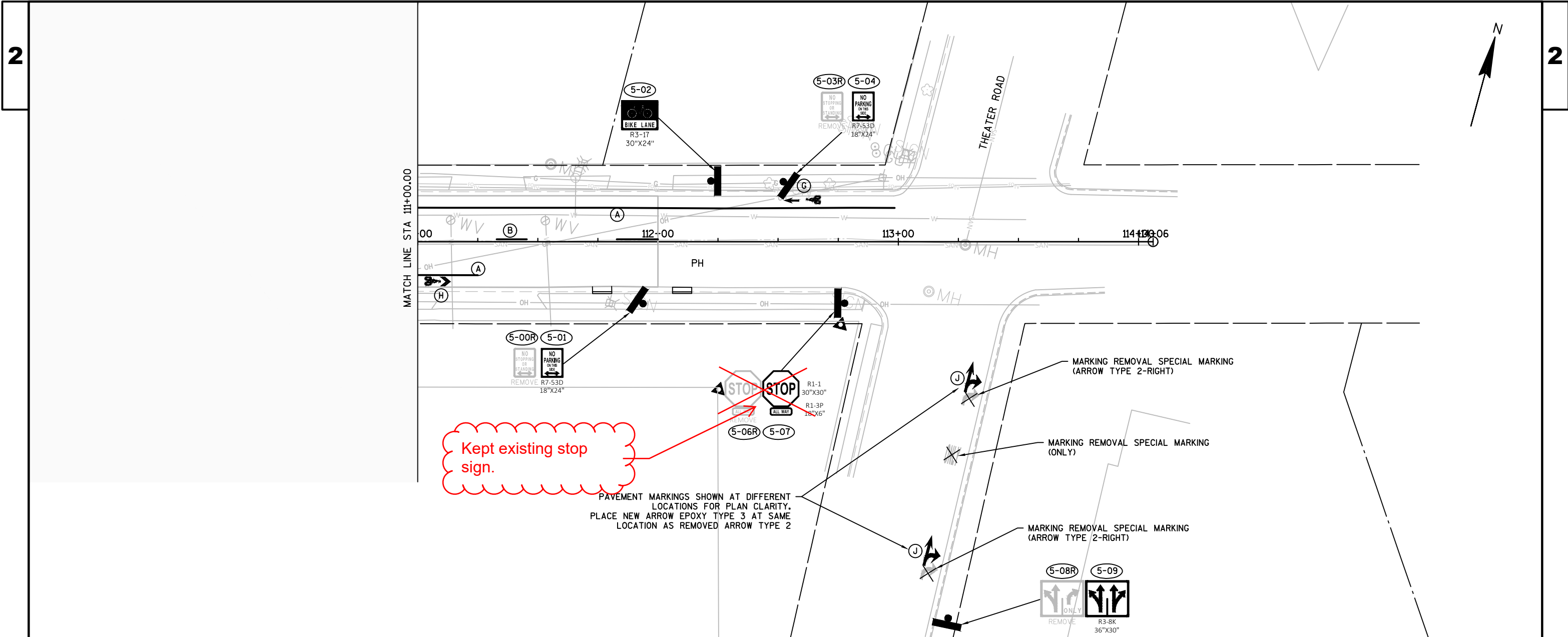


Stop sign  
4-03 has Lester/ PH  
signs on it.

Left existing R3-8,  
turn lanes sign

PAVEMENT MARKING LEGEND			
(A)	MARKING LINE EPOXY 4-INCH (WHITE)	(H)	MARKING SYMBOL EPOXY (BIKE LANE SHARED)
(B)	MARKING LINE EPOXY 4-INCH (YELLOW, 12.5' SKIP)	(I)	MARKING ARROW EPOXY (LEFT)
(C)	MARKING LINE EPOXY 4-INCH (YELLOW)	(J)	MARKING ARROW EPOXY (THRU-LEFT)
(D)	MARKING LINE EPOXY 8-INCH (WHITE)	(K)	MARKING WORD EPOXY
(E)	MARKING STOP LINE EPOXY 18-INCH (WHITE)	(L)	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
(F)	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	(M)	MARKING LINE EPOXY 4-INCH (WHITE, 3' SKIP)
(G)	MARKING SYMBOL EPOXY (BIKE LANE) AND MARKING ARROW EPOXY (BIKE LANE)	(N)	MARKING LINE EPOXY 8-INCH (WHITE, 3' SKIP)

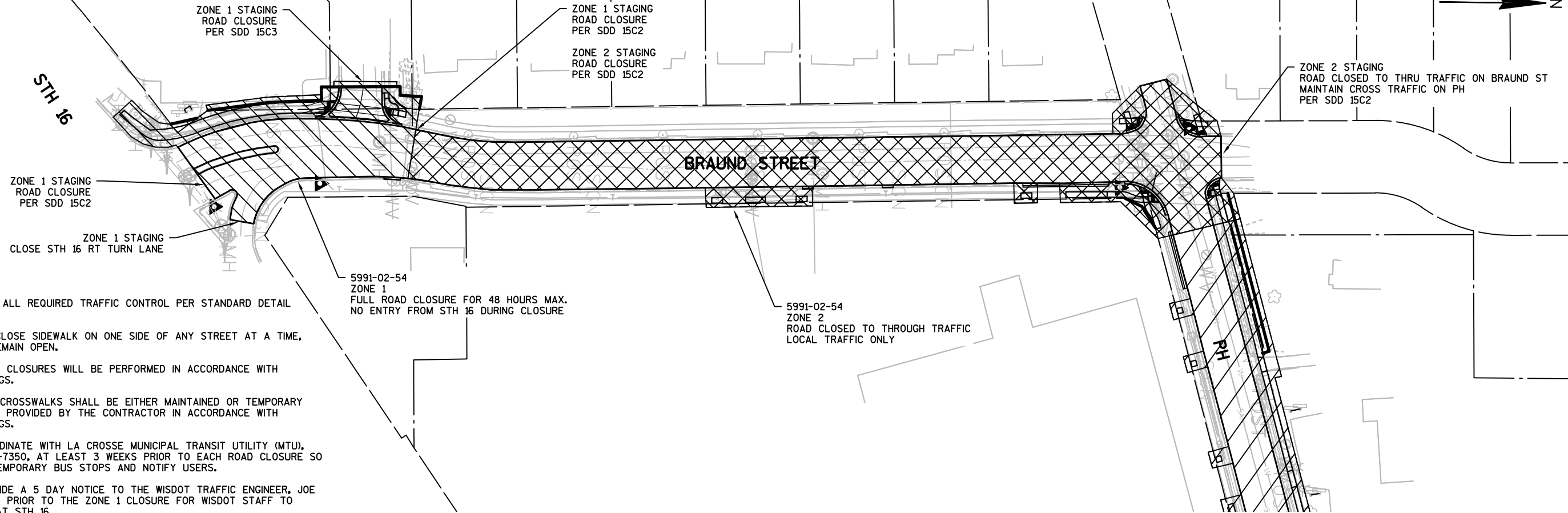




PAVEMENT MARKING LEGEND	
(A) MARKING LINE EPOXY 4-INCH (WHITE)	(H) MARKING SYMBOL EPOXY (BIKE LANE SHARED)
(B) MARKING LINE EPOXY 4-INCH (YELLOW, 12.5' SKIP)	(I) MARKING ARROW EPOXY (LEFT)
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(D) MARKING LINE EPOXY 8-INCH (WHITE)	(K) MARKING WORD EPOXY
(E) MARKING STOP LINE EPOXY 18-INCH (WHITE)	(L) MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
(F) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	(M) MARKING LINE EPOXY 4-INCH (WHITE, 3' SKIP)
(G) MARKING SYMBOL EPOXY (BIKE LANE) AND MARKING ARROW EPOXY (BIKE LANE)	(N) MARKING LINE EPOXY 8-INCH (WHITE, 3' SKIP)

2

2



NOTES:

CONTRACTOR TO PROVIDE ALL REQUIRED TRAFFIC CONTROL PER STANDARD DETAIL DRAWINGS (SDD).

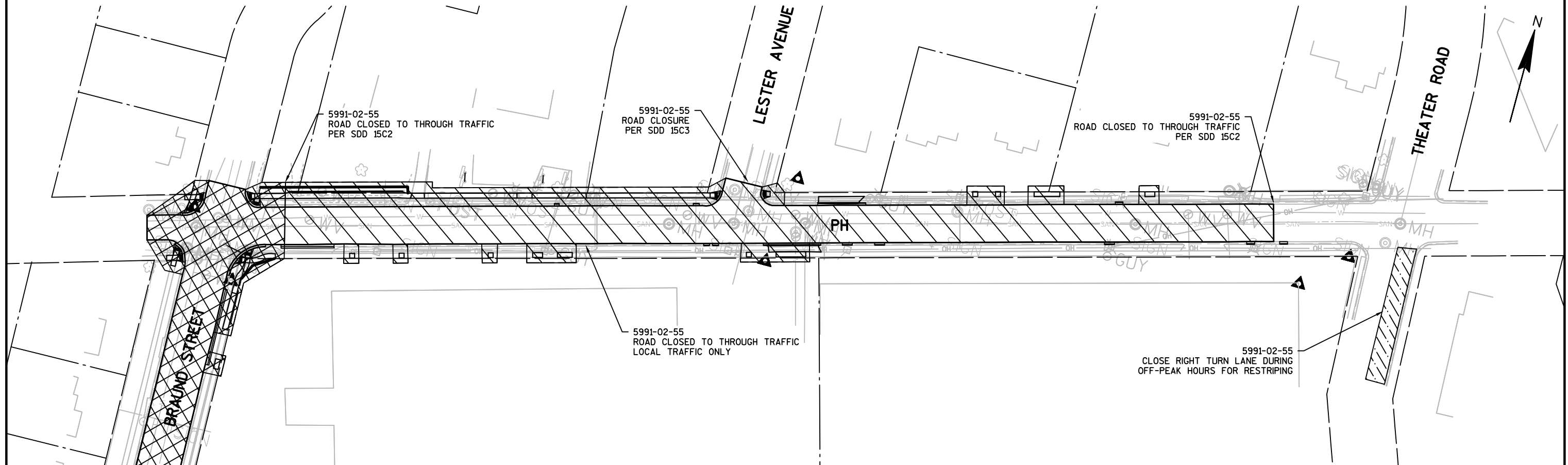
CONTRACTOR MAY ONLY CLOSE SIDEWALK ON ONE SIDE OF ANY STREET AT A TIME, THE OTHER SIDE MUST REMAIN OPEN.

WORK REQUIRING SIDEWALK CLOSURES WILL BE PERFORMED IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS.

EXISTING SIDEWALKS AND CROSSWALKS SHALL BE EITHER MAINTAINED OR TEMPORARY ACCOMMODATIONS WILL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH STANDARD DETAIL DRAWINGS.

CONTRACTOR SHALL COORDINATE WITH LA CROSSE MUNICIPAL TRANSIT UTILITY (MTU), JAMES KRUEGER (608)789-7350, AT LEAST 3 WEEKS PRIOR TO EACH ROAD CLOSURE SO THE MTU CAN PROVIDE TEMPORARY BUS STOPS AND NOTIFY USERS.

CONTRACTOR SHALL PROVIDE A 5 DAY NOTICE TO THE WISDOT TRAFFIC ENGINEER, JOE SCHNEIDER (608)789-5959, PRIOR TO THE ZONE 1 CLOSURE FOR WISDOT STAFF TO REPROGRAM THE SIGNAL AT STH 16.



PROJECT NO:5991-02-54/55	HWY:BRAUND STREET & PH	COUNTY:LA CROSSE	CONSTRUCTION STAGING	SHEET	E
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Estimate Of Quantities By Plan Sets

		5991-02-54		5991-02-55			
Line	Item	Item Description	Unit	Total	Qty	Qty	
0006	204.0100	Removing Pavement	SY	70.000		70.000	
0008	204.0150	Removing Curb & Gutter	LF	589.000	330.000	259.000	
0010	204.0155	Removing Concrete Sidewalk	SY	693.000	365.000	328.000	
0012	204.0220	Removing Inlets	EACH	1.000	1.000		
0014	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	19.000	19.000		
0016	205.0100	Excavation Common	CY	5,090.000	2,623.000	2,467.000	
0018	213.0100	Finishing Roadway (project) 01. 5991-02-54	EACH	1.000	1.000		
0020	213.0100	Finishing Roadway (project) 01. 5991-02-55	EACH	1.000		1.000	
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,458.000	3,513.000	2,945.000	
0026	312.0110	Select Crushed Material	TON	760.000		760.000	
0028	416.0160	Concrete Driveway 6-Inch	SY	154.000	40.000	114.000	
0030	455.0605	Tack Coat	GAL	534.000	291.000	243.000	
0032	460.2000	Incentive Density HMA Pavement	DOL	1,760.000	960.000	800.000	
0034	460.5223	HMA Pavement 3 LT 58-28 S	TON	1630.00	7887.0	6743	CCO 1
0036	460.6224	HMA Pavement MT 58-28 S	TON	11086.00	73591.0	495	CCO 1#3
0038	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	570.000	311.000	259.000	
0040	602.0405	Concrete Sidewalk 4-Inch	SF	5,432.000	2,790.000	2,642.000	
0042	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	132.000	112.000	20.000	
0046	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	19.000	19.000		
0048	611.0639	Inlet Covers Type H-S	EACH	1.000	1.000		
0050	611.3230	Inlets 2x3-FT	EACH	1.000	1.000		
0052	611.8110	Adjusting Manhole Covers	EACH	16.000	9.000	7.000	
0058	619.1000	Mobilization	EACH	0.400	0.200	0.200	
0060	624.0100	Water	MGAL	193.800	105.400	88.400	
0062	625.0100	Topsoil	SY	301.000	128.000	173.000	
0064	627.0200	Mulching	SY	301.000	128.000	173.000	
0066	628.1905	Mobilizations Erosion Control	EACH	4.000	2.000	2.000	
0068	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	2.000	2.000	
0070	628.7015	Inlet Protection Type C	EACH	9.000	3.000	6.000	
0072	629.0210	Fertilizer Type B	CWT	0.420	0.170	0.250	
0074	630.0140	Seeding Mixture No. 40	LB	5.420	2.310	3.110	
0076	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	37.000	18.000	19.000	
0080	637.2210	Signs Type II Reflective H	SF	194.670	110.100	84.570	
0082	637.2215	Signs Type II Reflective H Folding	SF	14.920	14.920		
0084	638.2602	Removing Signs Type II	EACH	30.000	15.000	15.000	
0086	638.3000	Removing Small Sign Supports	EACH	27.000	12.000	15.000	
0088	642.5001	Field Office Type B	EACH	0.500	0.250	0.250	
0090	643.0300	Traffic Control Drums	DAY	608.000	20.000	588.000	
0092	643.0410	Traffic Control Barricades Type II	DAY	236.000	124.000	112.000	
225	201.0120	Clearing	ID	47.00		47.00	
230	201.0220	Grubbing	ID	47.00		47.00	
205	601.0600	Concrete Curb Pedestrian	LF	100.00	100.00		
280	611.8115	Adjusting Inlet Covers	EACH	2.0	1.0	1.0	

Estimate Of Quantities By Plan Sets

5991-02-54 5991-02-55

Line	Item	Item Description	Unit	Total	Qty	Qty
0094	643.0420	Traffic Control Barricades Type III	DAY	1,586.000	1,026.000	560.000
0096	643.0705	Traffic Control Warning Lights Type A	DAY	4,664.000	2,788.000	1,876.000
0098	643.0900	Traffic Control Signs	DAY	1,518.000	874.000	644.000
0104	643.5000	Traffic Control	EACH	0.400	0.200	0.200
0106	644.1420.S	Temporary Pedestrian Surface Plywood	SF	608.000	456.000	152.000
0108	644.1601.S	Temporary Curb Ramp	EACH	8.000	6.000	2.000
0110	646.1020	Marking Line Epoxy 4-Inch	LF	5,177.000	2,724.500	2,452.500
0112	646.3020	Marking Line Epoxy 8-Inch	LF	264.000	264.000	
0114	646.5020	Marking Arrow Epoxy	EACH	20.000	13.000	7.000
0116	646.5120	Marking Word Epoxy	EACH	2.000	2.000	
0118	646.5220	Marking Symbol Epoxy	EACH	11.000	5.000	6.000
0120	646.6120	Marking Stop Line Epoxy 18-Inch	LF	117.000	79.000	38.000
0124	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	505.500	423.500	82.000
0128	646.9300	Marking Removal Special Marking	EACH	3.000		3.000
0134	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000	
0136	650.4500	Construction Staking Subgrade	LF	2,079.000	940.000	1,139.000
0138	650.5000	Construction Staking Base	LF	2,079.000	940.000	1,139.000
0140	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	281.000	262.000	19.000
0142	650.9000	Construction Staking Curb Ramps	EACH	12.000	10.000	2.000
0144	650.9910	Construction Staking Supplemental Control (project) 01. 5991-02-54	LS	1.000	1.000	
0146	650.9910	Construction Staking Supplemental Control (project) 01. 5991-02-55	LS	1.000		1.000
0150	652.0800	Conduit Loop Detector	LF	55.000	55.000	
0152	655.0800	Loop Detector Wire	LF	65.000	65.000	
0154	690.0150	Sawing Asphalt	LF	502.000	422.000	80.000
0156	690.0250	Sawing Concrete	LF	422.000	194.000	228.000
0162	SPV.0060	Special 01. Existing Valve Box Adjustment	EACH	10.000	5.000	5.000
0164	SPV.0060	Special 02. Inlet Covers Type DW	EACH	1.000		1.000
0166	SPV.0090	Special 01. Concrete Curb & Gutter 30-Inch Type D SHES	LF	75.000	75.000	
0168	SPV.0090	Special 02. Construction Staking Multi-Use Path	LF	348.000	348.000	
0170	SPV.0165	Special 01. Wall Modular Block Gravity Landscape	SF	520.000	44.000	476.000
265	634.0616	POSTS WOOD 4X6X16-FT	EACH	3.0	1.0	2.0
210	804.2005	DISINCENTIVE DENSITY HMA PAVEMENT	DOLLAR	-3888.39	-761.34	-3127.05
200	SPV.0195	SPECIAL.01 EXTRA COST FOR ASPHALT MIX UPGRADE TON		1086.00	591.00	495.00

REMOVING PAVEMENT					
STATION	TO	STATION	DIR	LOCATION	204.0100 REMOVING PAVEMENT SY
PROJECT 5991-00-55 CATEGORY 0010					
106+89	-	107+42	RT	PH	39
107+40	-	107+86	LT	PH	31
PROJECT TOTAL					70

REMOVING CURB AND GUTTER				
STATION	DIR	LOCATION		204.0150 REMOVING CURB AND GUTTER LF
PROJECT 5991-00-54 CATEGORY 0010				
13+00	LT	BRAUND		75
13+25	RT	BRAUND		15
16+21	RT	BRAUND		10
17+04	RT	BRAUND		10
17+77	RT	BRAUND		10
19+05	RT	BRAUND		79
20+00	LT	BRAUND		22
20+00	RT	BRAUND		51
20+50	LT	BRAUND		36
20+50	RT	BRAUND		22
PROJECT 5991-00-55 CATEGORY 0010				
101+97	RT	PH		53
104+73	LT	PH		5
106+13	LT	PH		6
106+24	RT	PH		15
106+50	LT	PH/LESTER		19
106+84	RT	PH		58
107+39	RT	PH		49
107+64	RT	PH		10
107+97	RT	PH		10
110+29	RT	PH		10
110+40	LT	PH		8
111+73	RT	PH		8
112+06	RT	PH		8
PROJECT TOTAL				589

REMOVING CONCRETE SIDEWALK					
STATION	TO	STATION	DIR	LOCATION	204.0155 REMOVING SIDEWALK SY
PROJECT 5991-00-54 CATEGORY 0010					
11+46.22	-	12+75	LT	BRAUND	212
13+20	-	13+35	LT	BRAUND	14
16+21	-	16+31	RT	BRAUND	6
16+52	-	16+70	RT	BRAUND	10
16+98	-	17+08	RT	BRAUND	6
19+03	-	19+13	RT	BRAUND	6
19+44	-	20+20	RT	BRAUND	54
19+95	-	20+20	LT	BRAUND	20
20+50	-	20+75	LT	BRAUND	24
20+50	-	20+75	RT	BRAUND	13
PROJECT 5991-00-55 CATEGORY 0010					
101+60	-	106+40	LT	PH	251
102+66	-	102+71	RT	PH	3
103+16	-	103+21	RT	PH	3
104+06	-	104+11	RT	PH	3
104+51	-	104+61	RT	PH	6
104+76	-	104+91	RT	PH	9
106+67	-	106+72	RT	PH	3
106+85	-	106+95	LT	PH	5
106+97	-	107+27	RT	PH	18
108+96	-	109+01	LT	PH	3
109+19	-	109+24	LT	PH	3
109+58	-	109+84	LT	PH	15
111+70	-	111+80	LT	PH	6
PROJECT TOTALS					693

EXCAVATION COMMON				
STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY
PROJECT 5991-00-54 CATEGORY 0010				
11+46	-	13+50	BRAUND	773
13+50	-	20+86.19	BRAUND	1850
PROJECT 5991-00-55 CATEGORY 0010				
101+78	-	112+00	PH	2044
108+50	-	111+50	PH, EBS	423
PROJECT TOTALS				5090

EXCAVATION COMMON INCLUDES EXISTING PAVEMENT.

3

REMOVING INLETS			
			204.0220 REMOVING INLETS EACH
STATION	DIR	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010			
22+00	RT	BRAUND	1
PROJECT TOTALS			1

REMOVING STORM SEWER (SIZE)					
					204.0245 12-INCH LF
STATION	TO	STATION	DIR	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010					
20+20	-	20+27	RT	BRAUND	19
PROJECT TOTAL					19

BASE, SUBGRADE AGGREGATE, AND WATER						
STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON	312.0110 SELECT CRUSHED MATERIAL TON*	624.010 O WATER* *
PROJECT 5991-00-54 CATEGORY 0010						
11+46	-	13+50	BRAUND	940		28.2
13+50	-	20+86.19	BRAUND	2573		77.2
PROJECT 5991-00-55 CATEGORY 0010						
101+78	-	112+00	PH	2945	760	88.4
PROJECT TOTALS				6458	760	193.7

\*FOR AREAS OF EBS, SEE EARTHWORK TABLE FOR LOCATIONS.  
SELECT CRUSHED MATERIAL ESTIMATED AT 1.8 TON/CY.  
\*\*INCLUDES WATER FOR DUST CONTROL

CONCRETE DRIVEWAYS						
STATION	TO	STATION	DIR	LOCATION	416.0160 6-INCH SY	
PROJECT 5991-00-54 CATEGORY 0010						
16+52	-	16+70	RT	BRAUND	11	
19+03	-	19+13	RT	BRAUND	6	
19+44	-	19+82	RT	BRAUND	23	
PROJECT 5991-00-55 CATEGORY 0010						
103+27	-	103+42	LT	PH	8	
104+35	-	104+51	LT	PH	9	
104+86	-	105+05	LT	PH	11	
106+89	-	107+42	RT	PH	55	
107+40	-	107+86	LT	PH	31	
PROJECT TOTAL					154	

ASPHALTIC ITEMS							
STATION	TO	STATION	LOCATION	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON
PROJECT 5991-00-54 CATEGORY 0010							
11+46.22	-	13+50		260	78	198	198
13+50	-	20+86.19		700	213	541	541
PROJECT 5991-00-55 CATEGORY 0010							
101+78	-	112+00		800	243	619	619
PROJECT TOTALS				1760	534	1358	1358

CONCRETE CURB AND GUTTER				
STATION	DIR	LOCATION	601.0411 CONCRETE CURB & GUTTER 30- INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER 30- INCH TYPE D SHES LF
PROJECT 5991-00-54 CATEGORY 0010				
12+00	LT	BRAUND	56	
13+00	LT	BRAUND		75
13+25	RT	BRAUND	15	
16+21	RT	BRAUND	10	
17+04	RT	BRAUND	10	
17+77	RT	BRAUND	10	
19+05	RT	BRAUND	79	
20+00	LT	BRAUND	22	
20+00	RT	BRAUND	51	
20+50	LT	BRAUND	36	
20+50	RT	BRAUND	22	
PROJECT 5991-00-55 CATEGORY 0010				
101+97	RT	PH	53	
104+73	LT	PH	5	
106+13	LT	PH	6	
106+24	RT	PH	15	
106+50	LT	PH/LESTER	19	
106+84	RT	PH	58	
107+39	RT	PH	49	
107+64	RT	PH	10	
107+97	RT	PH	10	
110+29	RT	PH	10	
110+40	LT	PH	8	
111+73	RT	PH	8	
112+06	RT	PH	8	
PROJECT TOTALS			570	75

3

CONCRETE SIDEWALK					
					602.0405 CONCRETE SIDEWALK 4- INCH SF
STATION	TO	STATION	DIR	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010					
11+46.22	-	12+75	LT	BRAUND	1790
13+20	-	13+35	LT	BRAUND	118
16+21	-	16+31	RT	BRAUND	50
16+98	-	17+08	RT	BRAUND	48
19+82	-	20+20	RT	BRAUND	284
19+95	-	20+20	LT	BRAUND	174
20+50	-	20+75	LT	BRAUND	214
20+50	-	20+75	RT	BRAUND	112
PROJECT 5991-00-55 CATEGORY 0010					
101+60	-	106+40	LT	PH	2024
101+75	-	102+00	RT	PH	132
102+66	-	102+71	RT	PH	24
103+16	-	103+21	RT	PH	25
104+06	-	104+11	RT	PH	24
104+51	-	104+61	RT	PH	48
104+76	-	104+91	RT	PH	73
106+67	-	106+72	RT	PH	24
106+85	-	106+95	LT	PH	43
108+96	-	109+01	LT	PH	25
109+19	-	109+24	LT	PH	25
109+58	-	109+84	LT	PH	127
111+70	-	111+80	LT	PH	49
PROJECT TOTALS					5433

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA			
			602.0515
STATION	DIR	LOCATION	SF
PROJECT 5991-00-54 CATEGORY 0010			
12+75	LT	BRAUND	22
13+20	LT	BRAUND	10
20+15	LT	BRAUND	20
20+15	RT	BRAUND	20
20+75	LT	BRAUND	20
20+75	RT	BRAUND	20
PROJECT 5991-00-55 CATEGORY 0010			
106+30	LT	PH	10
106+90	LT	PH	10
PROJECT TOTALS			132

STORM SEWER PIPE			
			608.0312 REIN. CONC. CLASS III 12-INCH LF
FROM	TO	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010			
INL-XX	MH-EX	BRAUND	19
PROJECT TOTALS			19

STORM SEWER STRUCTURES						
STRUCTURE NUMBER				611.0639 INLET COVERS TYPE H-S EACH	611.3230 INLETS 2X3-FT EACH	SPV.0060.02 INLET COVERS TYPE DW EACH
	STA	DIR	LOCATION			
PROJECT 5991-00-54 CATEGORY 0010						
INL-XX	20+22	RT	BRAUND	1	1	
PROJECT 5991-00-55 CATEGORY 0010						
EXISTING	101+00	LT	PH			1
PROJECT TOTAL				1	1	1



ADJUSTING UTILITIES				
STATION	DIR	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.01 EXISTING VALVE BOX ADJUSTMENT EACH
PROJECT 5991-00-54 CATEGORY 0010				
17+20	RT	BRAUND	1	
20+20	LT	BRAUND	1	
20+25	RT	BRAUND	1	
PROJECT 5991-00-54 CATEGORY 0020				
13+20	LT	BRAUND	1	
13+75	RT	BRAUND		1
16+60	L/R	BRAUND	2	2
19+95	RT	BRAUND		1
20+05	LT	BRAUND	1	
20+40	LT	BRAUND	1	
20+50	RT	BRAUND	1	1
PROJECT 5991-00-55 CATEGORY 0010				
106+55	LT	PH	1	
PROJECT 5991-00-55 CATEGORY 0020				
102+25	LT	PH		1
105+90	CL	PH	1	
106+05	LT	PH		1
106+55	LT	PH	1	
106+70	LT	PH	1	
107+20	L/R	PH	1	1
107+25	CL	PH	1	
110+60	CL	PH	1	
111+15	LT	PH		1
111+55	LT	PH		1
PROJECT TOTALS			16	10

LANDSCAPING ITEMS										
					625.0100 TOPSOIL	627.0200 MULCHING	628.1905 MOBILIZATION EROSION CONTROL	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL	629.0210 FERTILIZER TYP B	630.0140 SEEDING MIXTURE NO. 40
STATION	TO	STATION	DIR	LOCATION	SY	SY	EACH	EACH	CWT	LB
PROJECT 5991-00-54 CATEGORY 0010										
11+46.22	-	12+75	LT	BRAUND	47	47			0.03	0.84
13+20	-	13+35	LT	BRAUND	11	11			0.01	0.19
16+21	-	16+31	RT	BRAUND	2	2			0.01	0.04
16+52	-	16+70	RT	BRAUND	4	4			0.01	0.07
16+98	-	17+08	RT	BRAUND	2	2			0.01	0.04
19+03	-	19+13	RT	BRAUND	2	2			0.01	0.04
19+44	-	20+20	RT	BRAUND	17	17			0.02	0.31
19+95	-	20+20	LT	BRAUND	5	5			0.01	0.08
20+50	-	20+75	LT	BRAUND	11	11			0.01	0.19
20+50	-	20+75	RT	BRAUND	2	2			0.01	0.04
UNDISTRIBUTED					26	26	2	2	0.04	0.46
PROJECT 5991-00-55 CATEGORY 0010										
101+60	-	106+40	LT	PH	103	103			0.07	1.85
101+75	-	102+00	RT	PH	7	7			0.01	0.12
102+66	-	102+71	RT	PH	1	1			0.01	0.02
103+16	-	103+21	RT	PH	1	1			0.01	0.02
104+06	-	104+11	RT	PH	1	1			0.01	0.02
104+51	-	104+61	RT	PH	2	2			0.01	0.04
104+76	-	104+91	RT	PH	3	3			0.01	0.06
106+67	-	106+72	RT	PH	1	1			0.01	0.02
106+85	-	106+95	LT	PH	1	1			0.01	0.03
106+97	-	107+27	RT	PH	7	7			0.01	0.12
108+96	-	109+01	LT	PH	1	1			0.01	0.02
109+19	-	109+24	LT	PH	1	1			0.01	0.02
109+58	-	109+84	LT	PH	6	6			0.01	0.10
111+70	-	111+80	LT	PH	2	2			0.01	0.04
UNDISTRIBUTED					35	35	2	2	0.05	0.62
PROJECT TOTAL					301	301	4	4	0.42	5.42

INLET PROTECTION			
STATION	DIR	LOCATION	628.7015 INLET PROTECTION TYPE C EACH
PROJECT 5991-00-54 CATEGORY 0010			
16+30	RT	BRAUND	1
19+85	LT	BRAUND	1
20+22	RT	BRAUND	1
PROJECT 5991-00-55 CATEGORY 0010			
100+80	RT	PH	1
101+00	LT	PH	1
106+22	LT	PH	1
106+32	RT	PH	1
109+68	RT	PH	1
109+73	LT	PH	1
PROJECT TOTALS			9

SIGNING ITEMS									
ZONE	SIGN NUMBER	LOCATION	SIGN CODE	SIZE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF
PROJECT 5991-00-54 CATEGORY 0010									
1	1-00R	BRAUND	REMOVE		1	1			
	1-01	BRAUND	R6-2-L	24x30			1	5	
	1-02R	BRAUND	REMOVE		1	0			
	1-03	BRAUND	R4-7	24x30			--	5	
	1-04R	BRAUND	REMOVE		1	0			
	1-05	BRAUND	R1-1F	36x36			--		7.46
	1-06R	BRAUND	REMOVE		1	0			
	1-07	BRAUND	R6-3	30X24			--	5	
		BRAUND	R1-1F	36x36					7.46
	1-08R	BRAUND	REMOVE		1	1			
	1-09	BRAUND	R4-7	24X30			1	5	
	1-10R	BRAUND	REMOVE		1	1			
	1-11	BRAUND	R3-8-A	36X30			1	7.5	
	1-12	BRAUND	R3-17	30X24			1	5	
	1-13	BRAUND	R7-17	30X24			1	5	
	1-14R	BRAUND	REMOVE		1	1			
	1-15	BRAUND	R1-1	30X30			1	5.18	
	1-16R	BRAUND	REMOVE		1	1			
	1-17	BRAUND	R3-8-A	36X30			1	7.5	
	1-18	BRAUND	R3-17-BP	30X12			1	2.5	
2	1-19R	BRAUND	REMOVE		1	1			
	1-20	BRAUND	R2-1	24X30			1	5	
	1-21R	BRAUND	REMOVE		1	1			
	1-22	BRAUND	R7-53D	18X24			1	3	
	2-00R	BRAUND	REMOVE		1	1			
	2-01	BRAUND	R7-53D	18X24			1	3	
	2-02	BRAUND	R4-4	36X30			1	7.5	
	2-03	BRAUND	R7-51R	18X24			1	3	
	2-04R	BRAUND	REMOVE		1	1			
	2-05	BRAUND	R3-8	36X30			1	7.5	
	2-06	BRAUND	R3-17	30X24			1	5	
	2-07R	BRAUND	REMOVE		1	1			
	2-08	BRAUND	R1-1	36x36			1	7.46	
	2-08	BRAUND	R1-3P	18X6				0.75	
	2-09R	BRAUND	REMOVE		1	1			
	2-10	BRAUND	R1-1	36x36			1	7.46	
	2-10	BRAUND	R1-3P	18X6				0.75	
	3-00R	PH	REMOVE		1	1			
	3-01	PH	R1-1	30X30			1	6.25	
	3-01	PH	R1-3P	18X6				0.75	
PROJECT TOTALS					15	12	18	110.1	14.92

PROJECT 5991-00-55 CATEGORY 0010									
3	3-02R	PH	REMOVE		1	1			
	3-03	PH	R1-1	36x36			1	7.46	
	3-04	PH	R1-3P	18X6				0.75	
	3-05R	PH	REMOVE		1	1			
	3-06	PH	R7-53D	18X24			1	3	
	3-07R	PH	REMOVE		1	1			
	3-08	PH	R2-1	24X30			1	5	
	3-09R	PH	REMOVE		1	1			
	3-10	PH	R3-8	36X30			1	7.5	
	3-10	PH		18X24			1	3	
	3-11R	PH	REMOVE		1	1			
	3-12	PH	R7-53D	18X24			1	3	
	4-00R	PH	REMOVE		1	1			
	4-01	PH	R2-1	24X30			1	5	
	4-02R	PH	REMOVE		1	1			
	4-03	PH	R1-1	30X30			1	5.18	
	4-03	PH	R1-3P	18X6				0.75	
	4-04R	PH	REMOVE		1	1			
	4-05	PH	R7-53D	18X24			1	3	
	4-06R	PH	REMOVE		1	1			
	4-07	PH	R7-53D	18X24			1	3	
	4-08R	PH	REMOVE		1	1			
	4-09	PH	R7-53D	18X24			1	3	
	4-10R	PH	REMOVE		1	1			
	4-11	PH	R7-53D	18X24			1	3	
	4-12	PH	R3-17-BP	30X12			1	2.5	
	4-12	PH	R3-17	30X24			1	5	
	5-00R	PH	REMOVE		1	1			
	5-01	PH	R7-53D	18X24			1	3	
	5-02	PH	RE-17	30X24			1	5	
	5-03R	PH	REMOVE		1	1			
	5-04	PH	R7-53D	18X24			1	3	
	5-05	PH							
	5-06R	PH	REMOVE		1	1			
	5-07	PH	R1-1	30X30			1	5.18	
	5-07	PH	R1-3P	18X6			0	0.75	
	5-08R	THEATER ROAD	REMOVE		1	1			
	5-09	THEATER ROAD	R3-8K	36X30			1	7.5	
PROJECT TOTALS					15	15	19	84.57	0

TRAFFIC CONTROL													
ZONE	LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0410 TRAFFIC CONTROL BARRICADES TYPE II		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.5000 TRAFFIC CONTROL
			NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	NO.	DAYS	
PROJECT 5991-00-54 CATEGORY 0010													
	PROJECT												1
1	STH 16	2	10	20		0	15	30	30	60	6	12	
	STRIP MALL ENTRANCE DRIVE	2		0	1	2	7	14	18	36	4	8	
	STA 13+50	2		0	1	2	11	22	26	52	7	14	
2	STA 13+50	30		0	1	30	11	330	28	840	7	210	
	Braund/PH North Leg	30		0	1	30	7	210	20	600	7	210	
	Braund/PH West Leg	30		0	1	30	7	210	20	600	7	210	
	Braund/PH East Leg	30		0	1	30	7	210	20	600	7	210	
5991-02-54 Subtotal				20	6	124	65	1026	162	2788	45	874	1
PROJECT 5991-00-55 CATEGORY 0010													
	PROJECT												1
3	Braund/PH East Leg	28		0	1	28	7	196	16	448	7	196	
	Lester Avenue	28		0	2	56	6	168	14	392	5	140	
	STA 112+00	28		0	1	28	7	196	16	448	7	196	
	Theater Road	28	21	588					21	588	4	112	
5991-02-55 Subtotal				588	4	112	20	560	67	1876	23	644	1
Project Totals				608		236		1586		4664		1518	2

PEDESTRIAN ACCOMMODATION

STATION	DIR	CROSSING LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH
PROJECT 5991-00-54 CATEGORY 0010				
20+45	LT	CROSSING PH WEST OF BRAUND	152	2
20+45		CROSSING BRAUND NORTH OF PH	152	2
20+75	RT	CROSSING BRAUND NORTH OF PH	152	2
PROJECT 5991-00-55 CATEGORY 0010				
106+50	LT	CROSSING LESTER AVE	152	2
PROJECT TOTAL			608	8

PAVEMENT MARKING														
STATION	TO	STATION	ROADWAY	646.1020			646.3020		646.5020 MARKING ARROW EPOXY EACH	646.5220 MARKING SYMBOL EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
				MARKING LINE EPOXY 4-INCH			MARKING LINE EPOXY 8-INCH							
				(YELLOW) LF	(WHITE) LF	(YELLOW, 12.5' SKIP) LF	(WHITE) LF	(WHITE, 3' SKIP) LF						
PROJECT 5991-00-54 CATEGORY 0010														
11+38	-	12+59	BRAUND				129							
11+46.22	-	13+50	BRAUND	387	95									
13+50	-	20+86.19	BRAUND	434	1696	112.5								
11+46.22	-	20+86.19	BRAUND											
		11+40	BRAUND									26		
11+50	-	11+60	BRAUND						2					
12+75	-	13+25	BRAUND										92	
12+80	-	12+90	BRAUND								1			
12+15	-	12+25	BRAUND						2					
12+35	-	12+45	BRAUND								1			
12+50	-	12+65	BRAUND						1	1				
17+65	-	17+30	BRAUND						1	1				
17+83	-	19+00	BRAUND					30						
18+25	-	18+40	BRAUND						1	1				
19+00	-	19+10	BRAUND						2					
19+00	-	20+05	BRAUND				105							
19+10	-	19+30	BRAUND						1	1				
19+65	-	19+75	BRAUND						3	1				
		20+00	BRAUND									31		
		20+10	BRAUND										100	
20+15	-	20+50	BRAUND										148.5	
		21+75	BRAUND									22	83	
PROJECT TOTALS				821	1791	112.5	234	30	13	5	2	79	423.5	0

PROJECT 5991-00-55 CATEGORY 0010														
		100+90	PH									18		
101+78	-	112+00	PH	204	2011	237.5								
		101+75	PH									20		
102+05	-	102+20	PH						2	2				
105+95	-	106+10	PH						1	1				
106+35	-	106+85	PH										82	
107+15	-	107+30	PH						1	1				
111+00	-	111+15	PH							1				
112+50	-	112+70	PH						1	1				
113+13	-	113+30	PH						2					3
PROJECT TOTALS				204	2011	237.5	0	0	7	6	0	38	82	3

3

CONSTRUCTION STAKING										
			650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EA	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5991-02-54 LS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 5991-02-55 LS	SPV.0900.02 CONSTRUCTION STAKING MULTI- USE PATH LF
STATION	TO	STATION	LOCATION							
PROJECT 5991-00-54 CATEGORY 0010										
11+46.22	-	12+75	BRAUND							348
11+46.22	-	20+86.19	BRAUND		940	940		1		
		12+00	BRAUND				56			
		12+75	BRAUND					1		
		13+00	BRAUND				75			
		13+20	BRAUND					1		
		20+00	BRAUND				22			
		20+00	BRAUND				51			
		20+15	BRAUND					4		
20+20	-	20+25	BRAUND	1						
		20+50	BRAUND				36			
		20+50	BRAUND				22			
		20+75	BRAUND					4		
PROJECT 5991-00-55 CATEGORY 0010										
100+61.34	-	112+00	PH		1139	1139			1	
		106+30	PH				1			
		106+50	PH				19			
		106+90	PH				1			
PROJECT TOTALS				1	2079	2079	281	8	1	348

LOOP DETECTOR CONDUIT, CABLE, AND WIRE				
			652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF
STATION	DIR	LOCATION		
PROJECT 5991-00-54 CATEGORY 0010				
12+55	LT	BRAUND	55	65
PROJECT TOTALS			55	65

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SAWCUTS					
STATION	TO	STATION	DIR	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010					
11+46.22	-		LT	BRAUND	27
11+46	-		RT	BRAUND	117
11+46	-	12+25		BRAUND	173
12+75	-	13+25	LT	ENTRANCE DRIVE	40
13+20	-	13+35	LT	BRAUND	
13+25	-	13+40	RT	BRAUND	
16+21	-	16+31	RT	BRAUND	
16+52	-	16+70	RT	BRAUND	
16+98	-	17+08	RT	BRAUND	
17+04	-	17+14	RT	BRAUND	
17+77	-	17+87	RT	BRAUND	
19+03	-	19+13	RT	BRAUND	
19+05	-	19+84	RT	BRAUND	
19+44	-	20+20	RT	BRAUND	
19+95	-	20+20	LT	BRAUND	
20+25	-	20+55	LT	PH	
20+50	-	20+75	LT	BRAUND	
20+50	-	20+75	RT	BRAUND	
20+86.19	-			BRAUND	40
PROJECT 5991-00-55 CATEGORY 0010					
101+97	-	102+50	RT	PH	
102+66	-	102+71	RT	PH	
103+16	-	103+21	RT	PH	
104+06	-	104+11	RT	PH	
104+51	-	104+61	RT	PH	
104+73	-	104+78	LT	PH	
104+76	-	104+91	RT	PH	
106+13	-	106+19	LT	PH	
106+24	-	106+39	RT	PH	
106+35	-	106+85	LT	PH/LESTER	40
106+67	-	106+72	RT	PH	
106+84	-	106+95	LT	PH	
106+97	-	107+42	RT	PH	
107+39	-	107+88	LT	PH	
107+64	-	107+74	RT	PH	
107+97	-	108+07	RT	PH	
108+96	-	109+01	LT	PH	
109+19	-	109+24	LT	PH	
109+58	-	109+84	LT	PH	
110+29	-	110+39	RT	PH	
110+40	-	110+48	LT	PH	
111+73	-	111+81	LT	PH	
112+00	-			PH	40
112+06	-	112+14	RT	PH	
PROJECT TOTALS					502
					417

WALL MODULAR BLOCK GRAVITY LANDSCAPE					
STATION	TO	STATION	DIR	LOCATION	
PROJECT 5991-00-54 CATEGORY 0010					
13+24	-	13+36	LT	BRAUND	44
PROJECT 5991-00-55 CATEGORY 0010					
102+05	-	103+20	LT	PH	476
PROJECT TOTALS					520

PROJECT NO:5991-02-54/55

HWY:BRAUND STREET

COUNTY:LA CROSSE

MISCELLANEOUS QUANTITIES

SHEET

E

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE				NON-MONUMENTED R/W POINT	
SIXTEENTH LINE		SECTION CORNER MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE					
NEW R/W LINE					
EXISTING R/W OR HE LINE		GEODETIC SURVEY MONUMENT			
PROPERTY LINE		SIXTEENTH CORNER MONUMENT			
LOT, TIE & OTHER MINOR LINES		SIGN	SIGN	OFF-PREMISE SIGN	SIGN
SLOPE INTERCEPT					
CORPORATE LIMITS		ELECTRIC POLE		<u>COMPENSABLE</u>	<u>NON-COMPENSABLE</u>
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		TELEPHONE POLE			
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
TEMPORARY LIMITED EASEMENT AREA		ACCESS RESTRICTED BY ACQUISITION			
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)			
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
BUILDING TO BE REMOVED		NO ACCESS (NEW HIGHWAY)			
BRIDGE		PARCEL NUMBER		UTILITY NUMBER	
		PARALLEL OFFSETS			

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100' )
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V

NUMBER	NO	LONG CHORD	LCH
OUTLOT	OL	LONG CHORD BEARING	LCB
PAGE	P	RADIUS	R
POINT OF TANGENCY	PT	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE	Δ/DELTA
		LENGTH OF CURVE	L
POINT OF BEGINNING	POB	TANGENT	T
POINT OF CURVATURE	PC	DIRECTION AHEAD	DA
POINT OF COMPOUND CURVE	PCC	DIRECTION BACK	DB

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

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

WATER	—	W
GAS	—	G
TELEPHONE	—	T
OVERHEAD	—	OH
TRANSMISSION LINES		
ELECTRIC	—	E
CABLE TELEVISION	—	TV
FIBER OPTIC	—	FO
SANITARY SEWER	—	SAN
STORM SEWER	—	SS

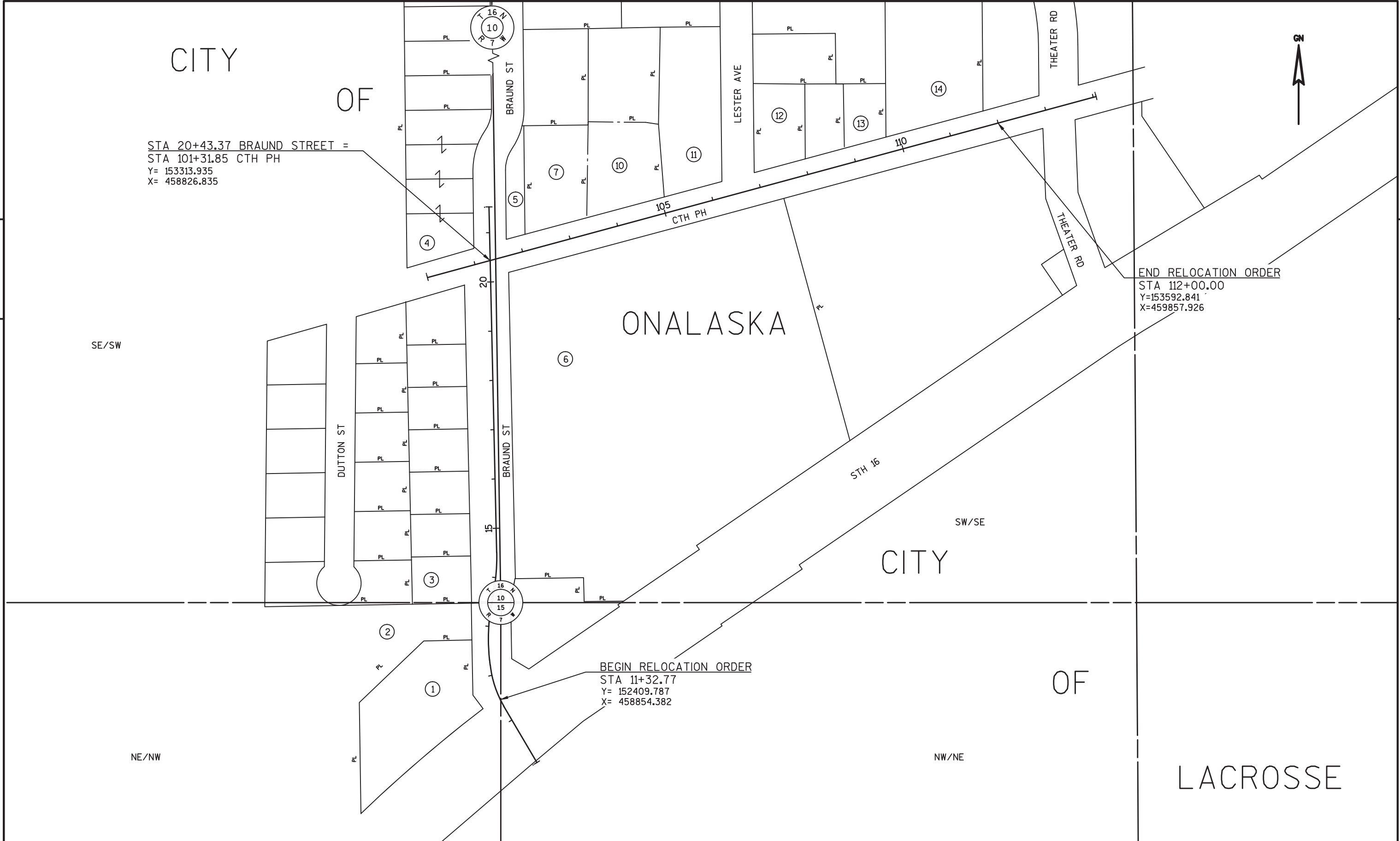
Right of Way information should be viewed in DOTView using the Real Estate Project ID.  
The Plat information contained in this AsBuilt Plan may not be the final records.

The map shows the City of Onalaska at the top and the City of Lacrosse at the bottom, separated by a thick black boundary line. Major roads include HWY 90 running horizontally across the top and HWY 16 running diagonally from the bottom left to the top right. Local streets shown include RUDY ST, LESTER AVE, THEATER RD, BRAUND ST, DUTTON ST, COURT RD, MAYFAIR PL, SIERRA PL, SYCAMORE ST, GILSTER ST, WINTER ST, and N PL. The Lacrosse River is shown in the bottom right corner. Arrows point from the text in the adjacent block to specific locations on the map: one arrow points to the intersection of HWY 16 and BRAUND ST, and another arrow points to the intersection of HWY 16 and DUTTON ST.

REVISION DATE	CITY OF ONALASKA
	APPROVED FOR THE CITY  DATE: _____ (Signature) _____

SCHEDULE OF LANDS & INTERESTS REQUIRED				OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF ONALASKA.			
PARCEL NUMBER	SHEET NUMBER	OWNER (S)	INTEREST REQUIRED	R/W SF REQUIRED			TLE SF
				NEW	EXISTING	TOTAL	
1	4.04	VALLEY PLAZA LLC	FEE/TLE	792	-	792	552
2	4.04	JLP ASSOCIATES II OF EDEN PRAIRIE	FEE/TLE	1417	-	1417	271
3	4.04	DEAN A BLUSKE, DIANE E. OLSON, AUDREY L. FREDERICK, AND JANELLE A KOWALSKI	FEE	75	-	75	-
4	4.04	THE LKE LIMITED PARTNERSHIP	TLE	-	-	-	105
5	4.04	BENJAMIN R. MILLER & CRYSTAL D. MILLER	FEE/TLE	223	-	223	206
6	4.04/4.05	SPIRIT SPE PORTFOLIO 2006-1 LLC	FEE/TLE	181	-	181	1573
7	4.04	DENNIS T TRUE & VICKI R TRUE	FEE/TLE	688	-	688	783
10	4.04/4.05	JAE ENTERPRISES	TLE	-	-	-	934
11	4.05	CENTURYTEL OF WISCONSIN	TLE	-	-	-	711
12	4.05	VALLEY VIEW BUSINESS PARK	TLE	-	-	-	50
13	4.05	THE AUDIO VIDEO PROS INC	TLE	-	-	-	359
14	4.05	CMJ INVESTMENTS LLC	TLE	-	-	-	211
100	4.04	WISCONSIN-MINNESOTA LIGHT AND POWER COMPANY	RELEASE OF RIGHTS				
101	4.05	NORTHERN STATES POWER COMPANY	RELEASE OF RIGHTS				

R/W COORDINATES		
Point	North	East
550	152607.475	458768.514
551	152607.527	458776.594
556	152398.668	458804.626
557	152422.427	458799.079
558	152439.135	458791.618
559	152487.105	458784.245
560	152535.773	458781.554
561	152535.485	458769.557
562	152626.992	458777.598
584	153269.393	458864.691
585	153284.761	458872.172
586	153297.321	458891.565
598	153362.857	458859.475
599	153402.015	459003.098
600	153395.914	459004.748
638	152432.189	458791.738
641	152625.116	458789.050



REVISION DATE	DATE 2-7-2017	NOT TO SCALE	HWY: BRAUND ST/CTH PH	STATE R/W PROJECT NUMBER 5991-02-53	PLAT SHEET 4.03	E
	GRID FACTOR N/A		COUNTY: LACROSSE	CONSTRUCTION PROJECT NUMBER 5991-02-54/55	PS&E SHEET	



Point	Station	Offset
550	13+28.00	59.00' LT
551	13+29.00	51.00' LT
552	12+75.00	54.03' LT
553	12+75.00	59.00' LT
554	13+25.00	63.00' LT
555	13+25.00	58.50' LT
556	11+45.44	49.00' LT
557	11+65.00	44.28' LT
558	11+80.00	45.73' LT
559	12+20.00	43.00' LT
560	12+65.00	42.00' LT
561	12+65.00	54.00' LT
562	13+47.03	53.00' LT
563	20+64.74	47.36' LT
564	20+83.00	32.38' LT
571	12+55.00	40.00' LT
572	17+13.00	36.92' RT
573	17+13.00	40.00' RT
574	16+16.00	40.00' RT
575	16+16.00	36.94' RT
576	18+97.00	36.88' RT
577	18+97.00	40.00' RT
578	19+18.00	40.00' RT
579	19+18.00	36.88' RT
580	19+39.00	36.87' RT
581	19+39.00	40.00' RT
582	19+94.00	40.00' RT
583	20+27.70	74.06' RT
584	19+98.00	36.86' RT
585	20+13.20	44.68' RT
586	20+25.33	64.35' RT
587	102+60.00	33.14' RT
588	102+60.00	38.00' RT
589	102+75.00	38.00' RT
590	102+75.15	33.18' RT
591	103+10.00	33.28' RT
592	103+10.00	38.00' RT
593	103+25.00	38.00' RT
594	103+25.00	33.32' RT
595	101+77.50	44.00' LT
596	103+50.00	44.00' LT
597	103+50.00	38.00' LT
598	101+76.21	39.00' LT
599	103+25.00	39.00' LT
600	103+25.00	32.68' LT
628	11+32.77	0.00' LT
629	13+47.03	0.00' LT
641	13+47.03	41.39' LT
638	11+74.58	47.79' LT
642	11+75.00	53.00' LT
643	12+20.00	48.00' LT
644	12+65.00	47.00' LT

RECIPROCAL EASEMENT  
DOC # 943476  
DOC # 948182  
DOC # 971028  
DOC # 1035421

RECIPROCAL EASEMENT  
DOC # 943476  
DOC # 948182  
DOC # 971028  
DOC # 1022733  
DOC # 1035421

JLP ASSOCIATES II OF  
EDEN PRAIRIE  
INGRESS/EGRESS  
EASEMENT  
DOC # 1022736

RESTRICTED ACCESS  
DOC # 997082

SLOPE INTERCEPT

VALLEY PLAZA LLC

TLE SLOPE

552 S.F.

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TLE SLOPE

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TLE SLOPE

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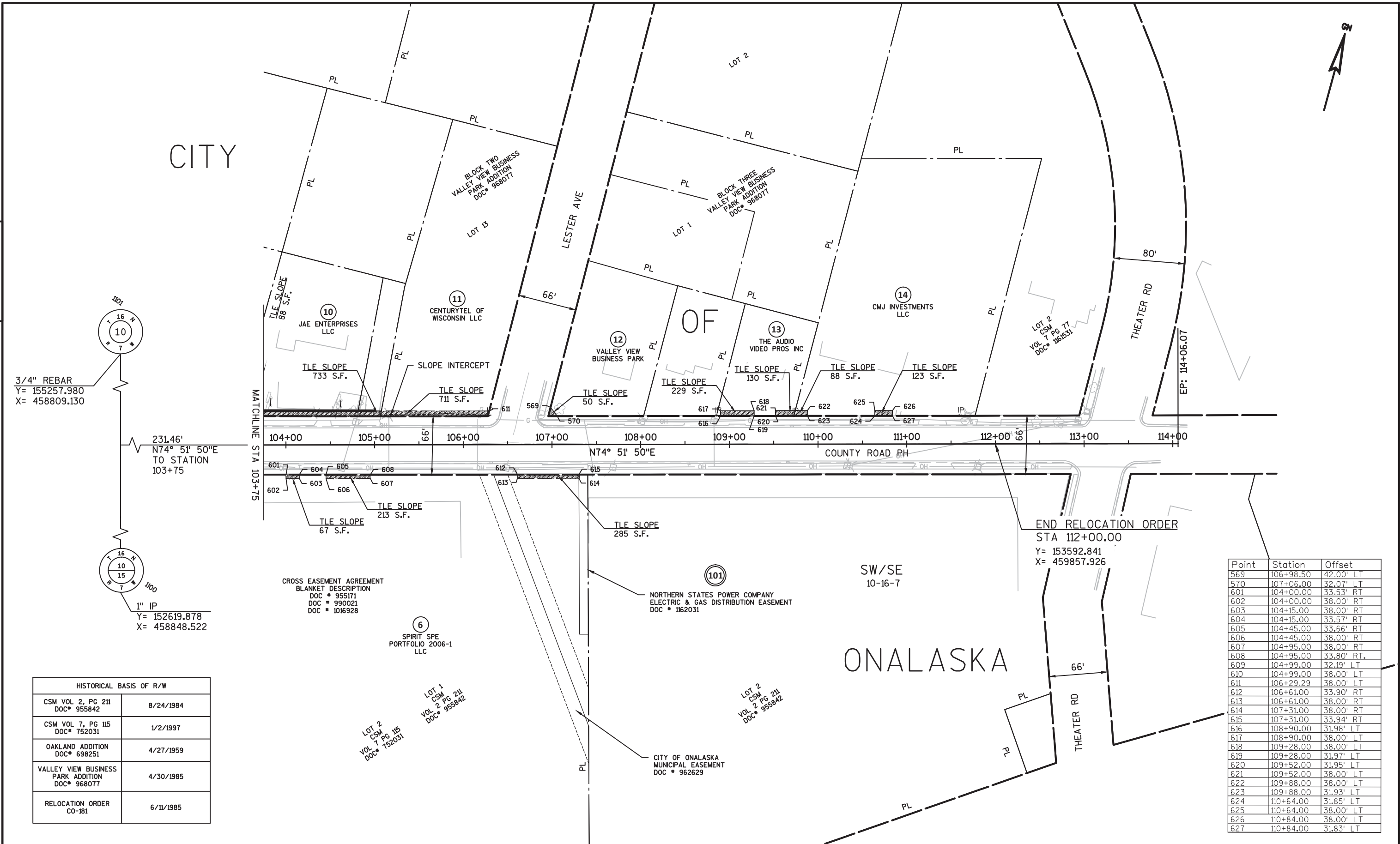
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3/4" REBAR  
Y= 155257.980  
X= 458809.130

231.46'  
N74° 51' 50"E  
TO STATION  
103+75

1" IP  
Y= 152619.878  
X= 458848.522

HISTORICAL BASIS OF R/W	
CSM VOL 2, PG 211 DOC* 955842	8/24/1984
CSM VOL 7, PG 115 DOC* 752031	1/2/1997
OAKLAND ADDITION DOC* 698251	4/27/1959
VALLEY VIEW BUSINESS PARK ADDITION DOC* 968077	4/30/1985
RELOCATION ORDER CO-181	6/11/1985

CROSS EASEMENT AGREEMENT  
BLANKET DESCRIPTION  
DOC \* 955171  
DOC \* 990021  
DOC \* 1016928

6  
SPIRIT SPE  
PORTFOLIO 2006-1  
LLC

LOT 2  
CSM  
VOL 7 PG 115  
DOC\* 752031

LOT 1  
CSM  
VOL 2 PG 211  
DOC\* 955842

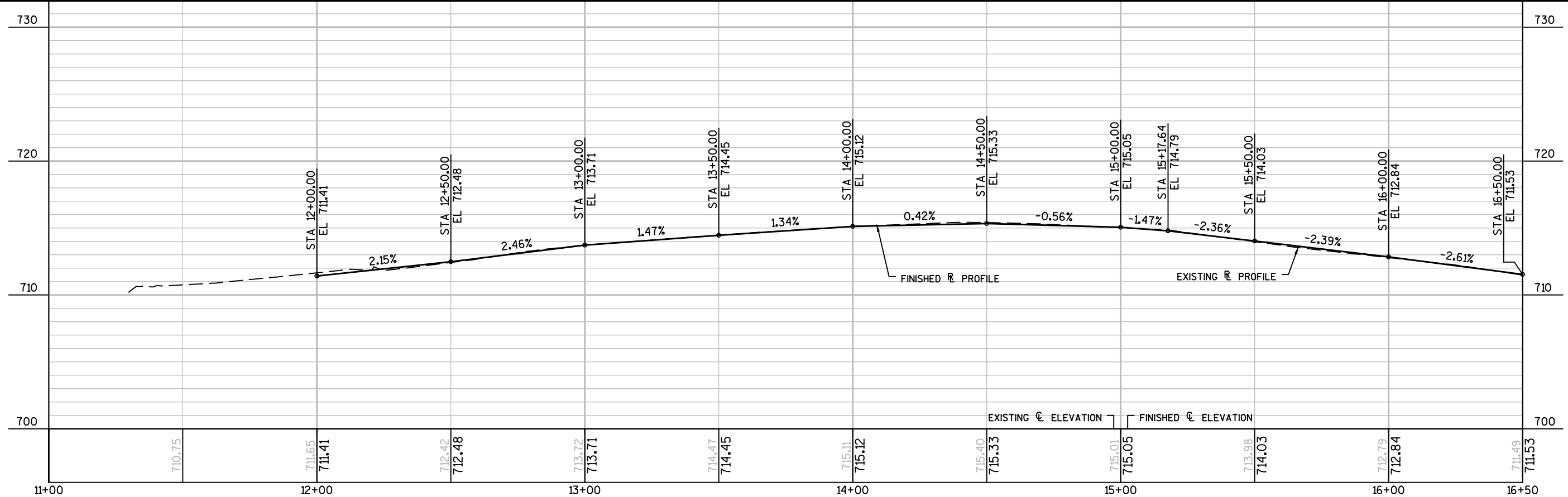
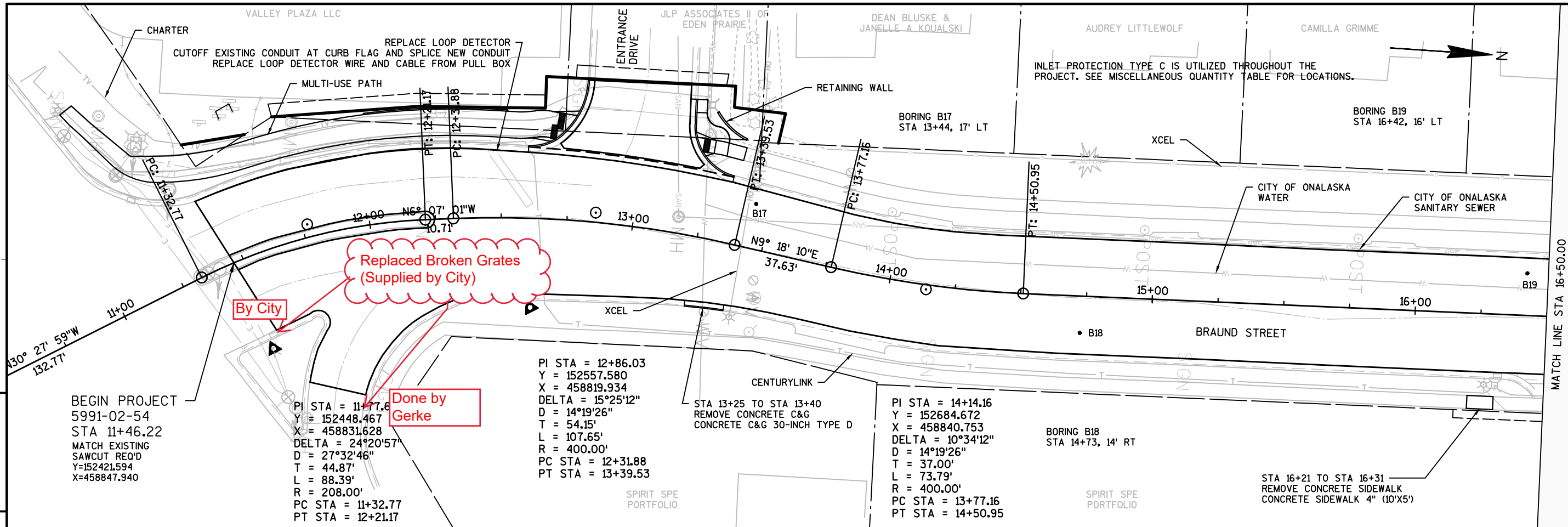
NORTHERN STATES POWER COMPANY  
ELECTRIC & GAS DISTRIBUTION EASEMENT  
DOC \* 1162031

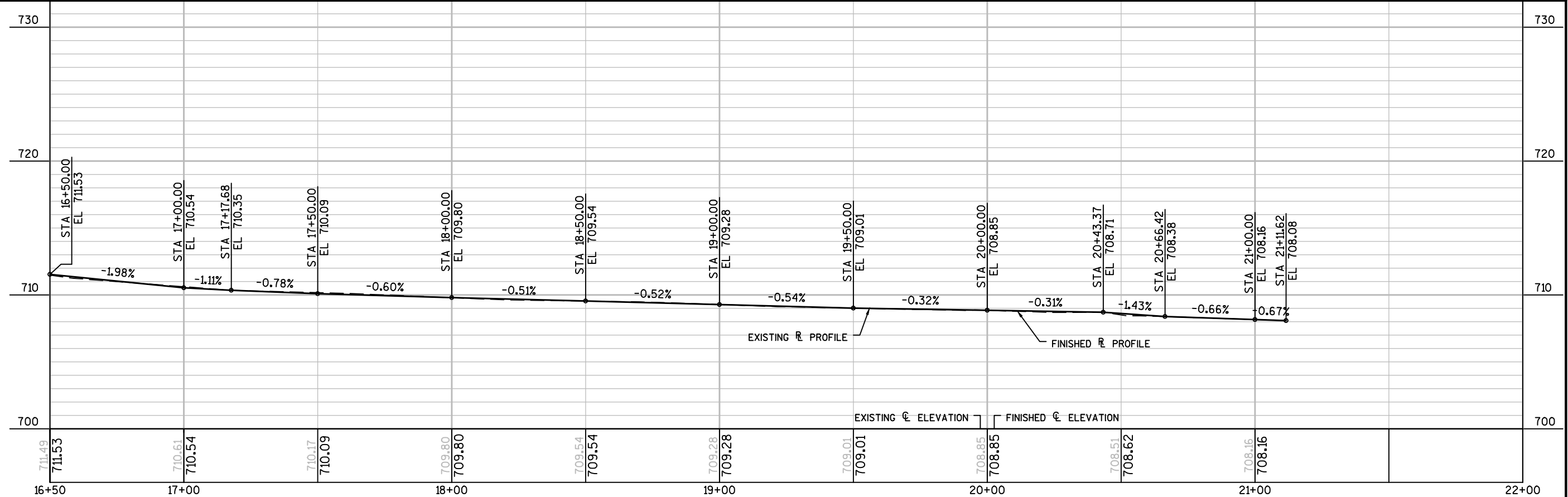
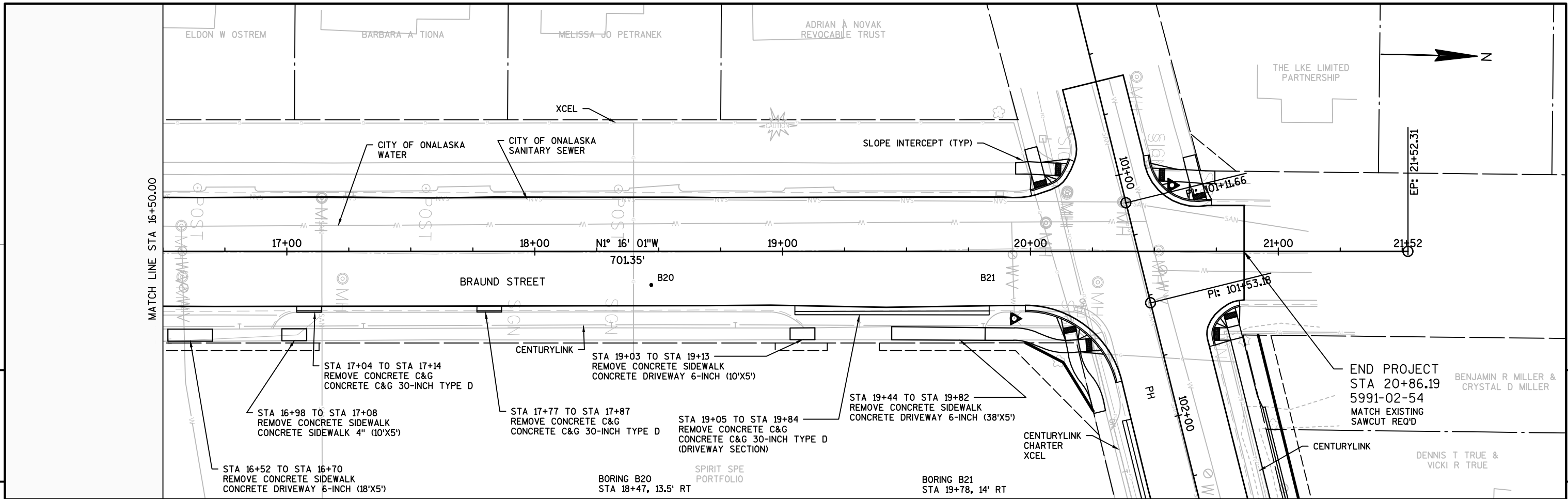
CITY OF ONALASKA  
MUNICIPAL EASEMENT  
DOC \* 962629

END RELOCATION ORDER  
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Y= 153592.841  
X= 459857.926

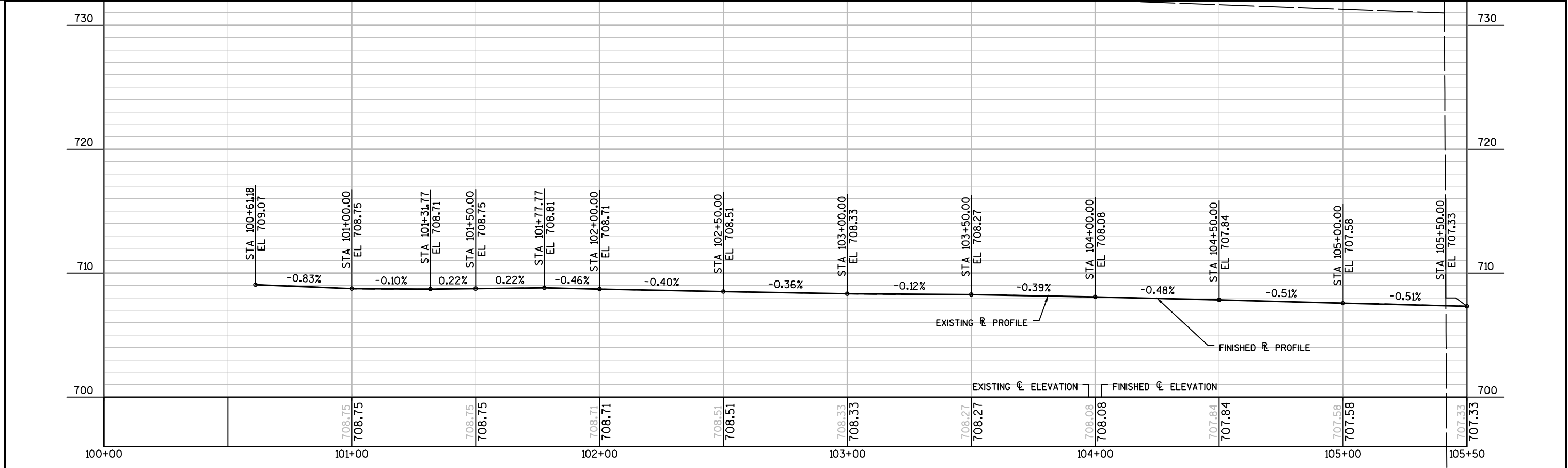
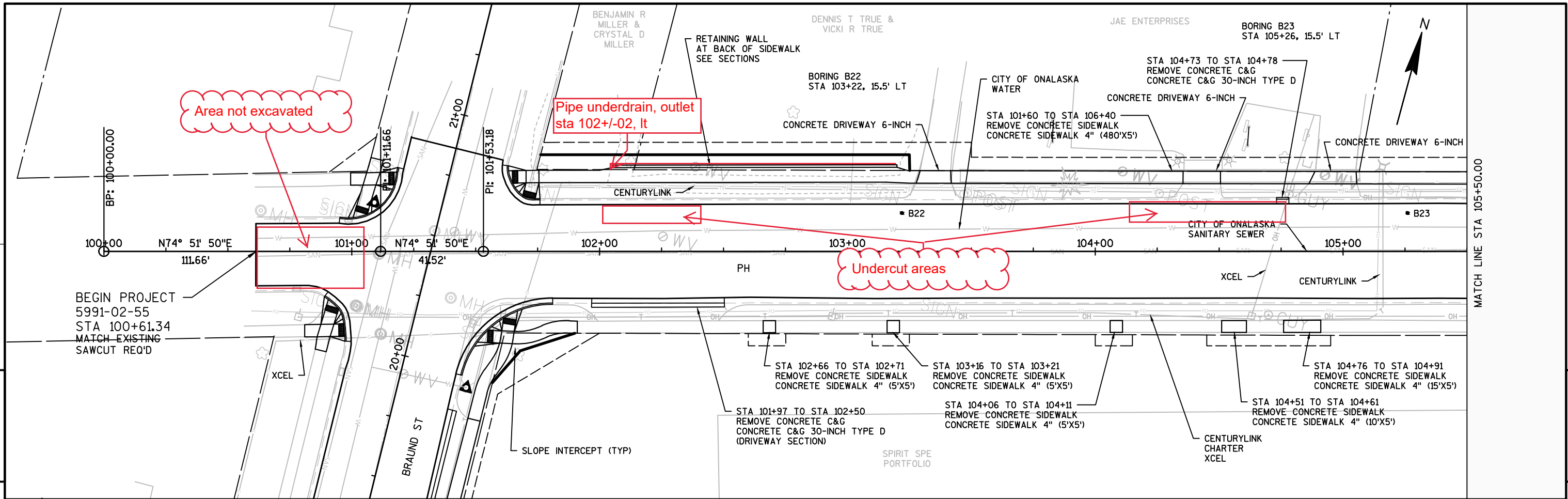
Point	Station	Offset
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602	104+00.00	38.00' RT
603	104+15.00	38.00' RT
604	104+15.00	33.57' RT
605	104+45.00	33.66' RT
606	104+45.00	38.00' RT
607	104+95.00	38.00' RT
608	104+95.00	33.80' RT
609	104+99.00	32.19' LT
610	104+99.00	38.00' LT
611	106+29.29	38.00' LT
612	106+61.00	33.90' RT
613	106+61.00	38.00' RT
614	107+31.00	38.00' RT
615	107+31.00	33.94' RT
616	108+90.00	31.98' LT
617	108+90.00	38.00' LT
618	109+28.00	38.00' LT
619	109+28.00	31.97' LT
620	109+52.00	31.95' LT
621	109+52.00	38.00' LT
622	109+88.00	38.00' LT
623	109+88.00	31.93' LT
624	110+64.00	31.85' LT
625	110+64.00	38.00' LT
626	110+84.00	38.00' LT
627	110+84.00	31.83' LT

REVISION DATE	DATE 2-7-2017	SCALE, FEET 0 50 100	HWY: BRAUND ST / CTH PH	STATE R/W PROJECT NUMBER 5991-02-53	PLAT SHEET 4.05
	GRID FACTOR N/A		COUNTY: LACROSSE	CONSTRUCTION PROJECT NUMBER 5991-02-54/55	PS&E SHEET

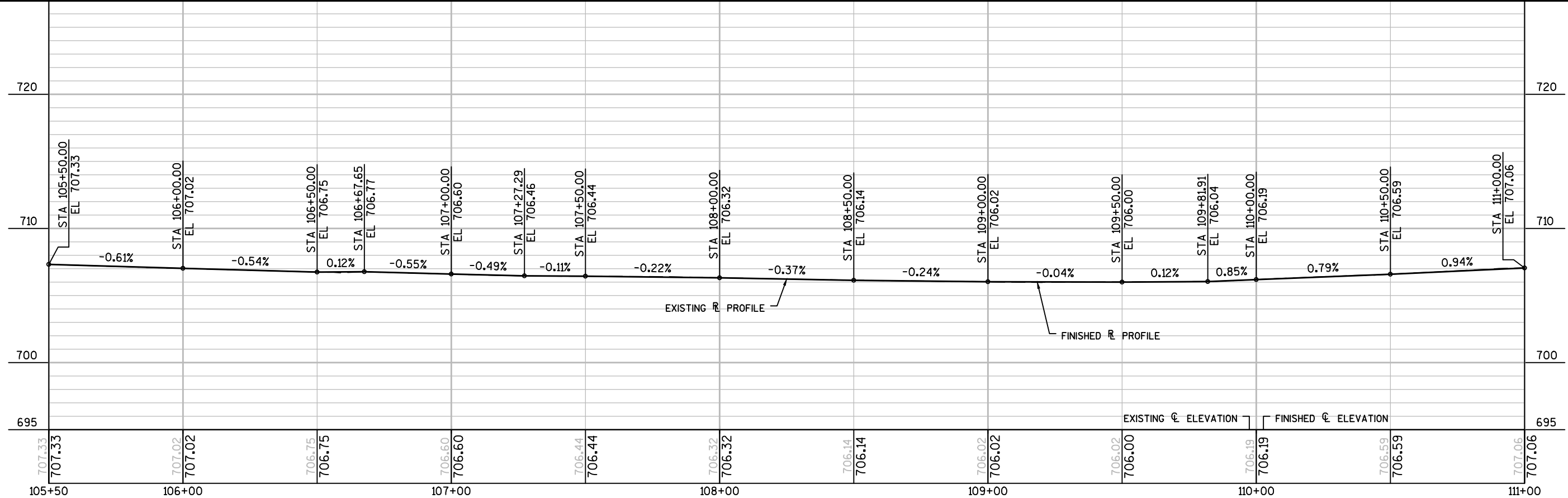
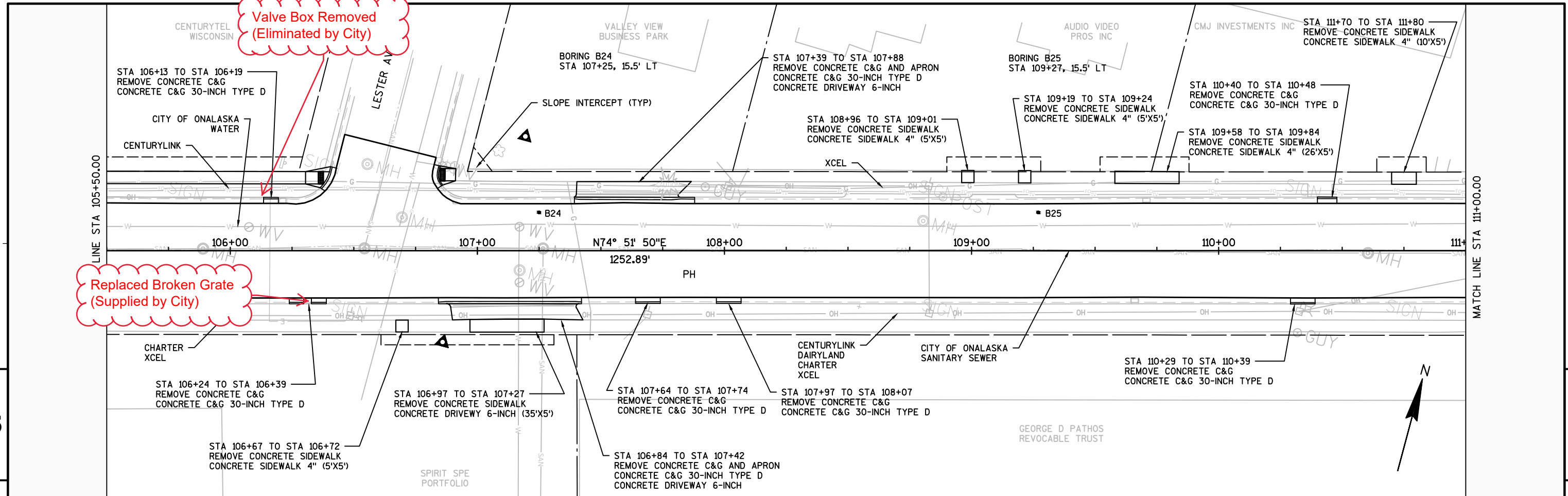




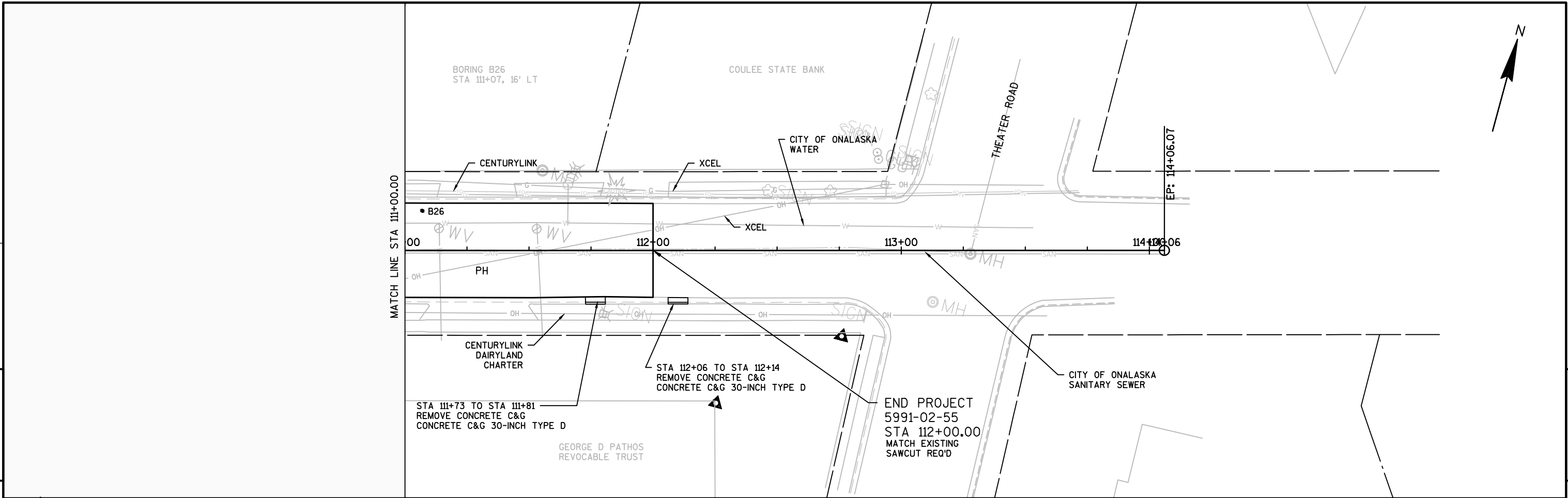




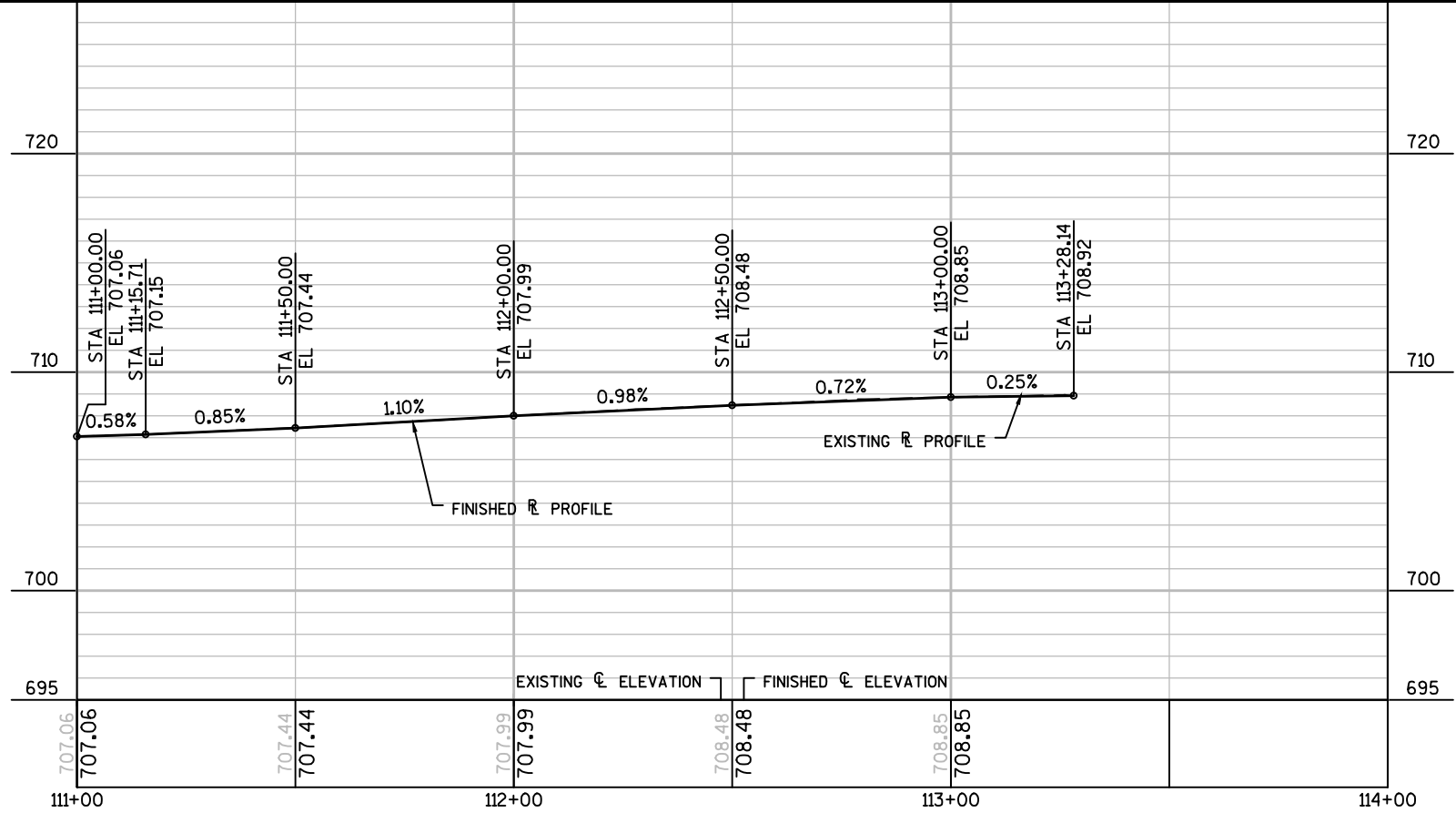
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5



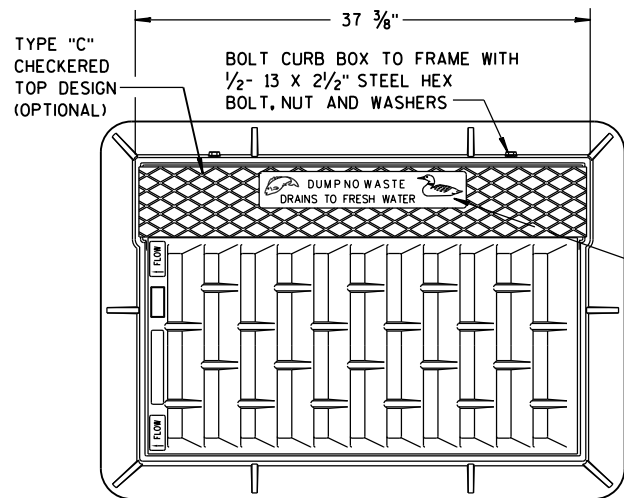
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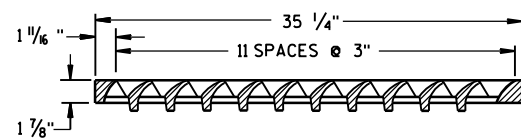
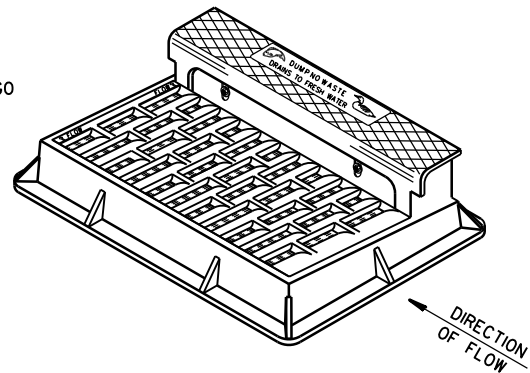


Standard Detail Drawing List

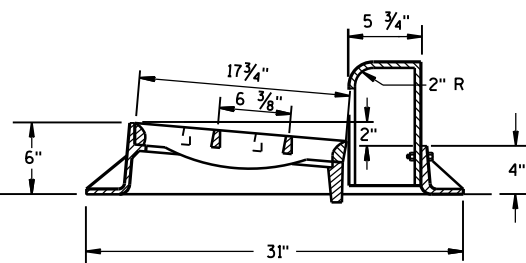
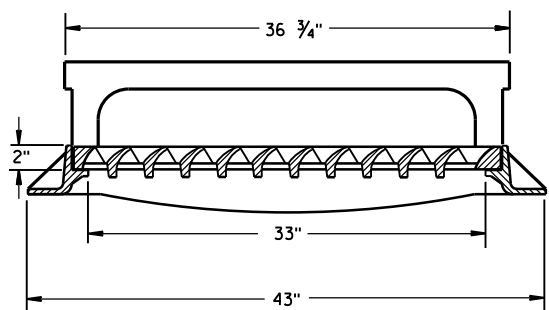
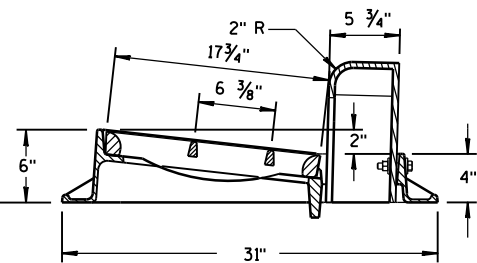
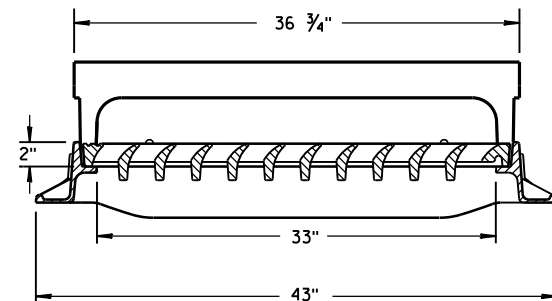
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-01	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C19-04A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C29-05A	BICYCLE LANE MARKING
15C29-05B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-01A	PAVEMENT MARKING (INTERSECTIONS)
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



**NOTE:  
GRATE IS REVERSIBLE.**

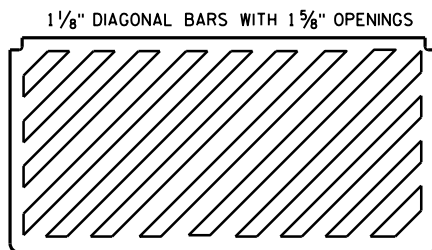


**NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"**



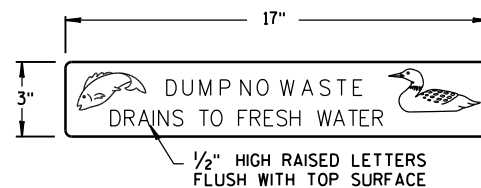
**TYPE "H"**

**NOTE: EITHER CASTING IS ACCEPTABLE**

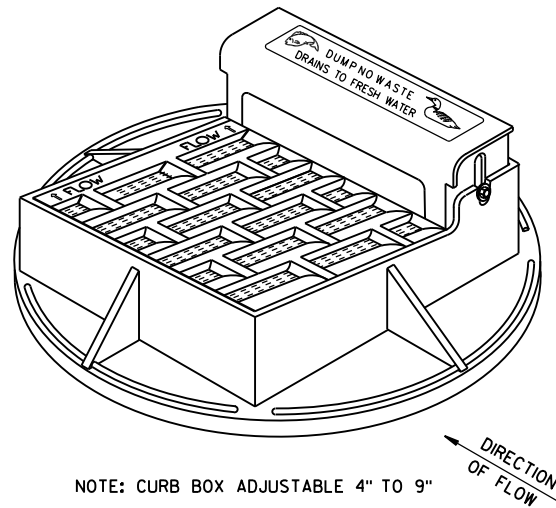


**SPECIAL GRATE FOR  
TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

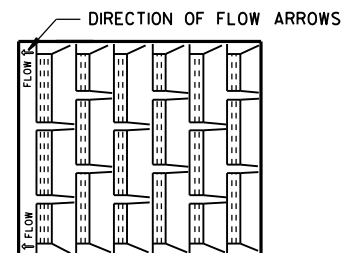


**LOGO DETAIL**

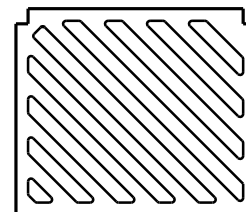


**NOTE: CURB BOX ADJUSTABLE 4" TO 9"**

**NOTE:  
GRATE IS REVERSIBLE.**

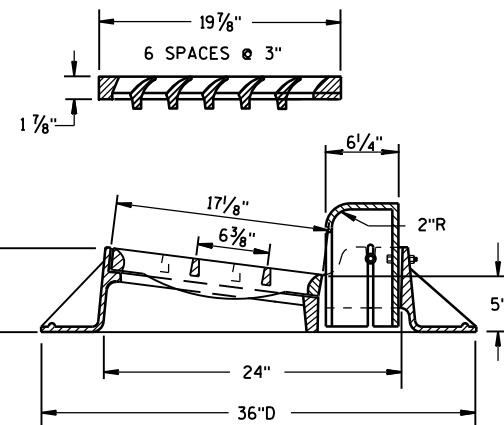
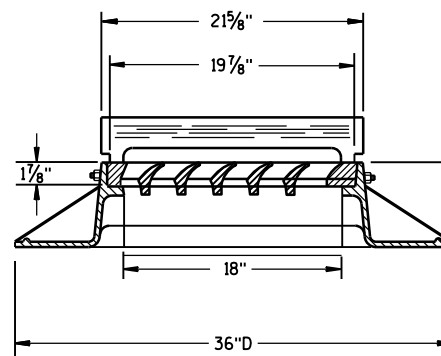


1" DIAGONAL BARS  
WITH 1 1/2" OPENINGS

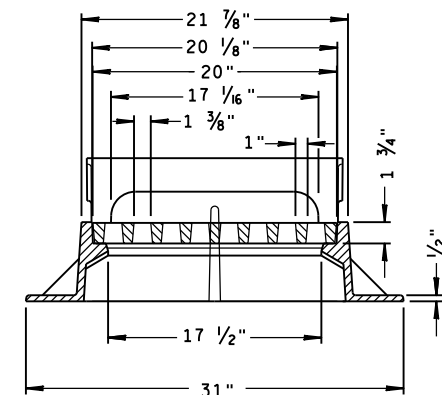
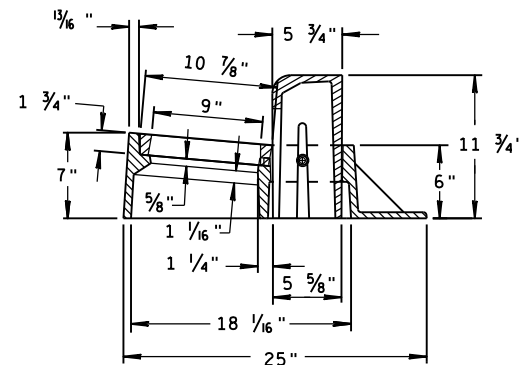


**SPECIAL GRATE FOR  
TYPE "A" COVER**

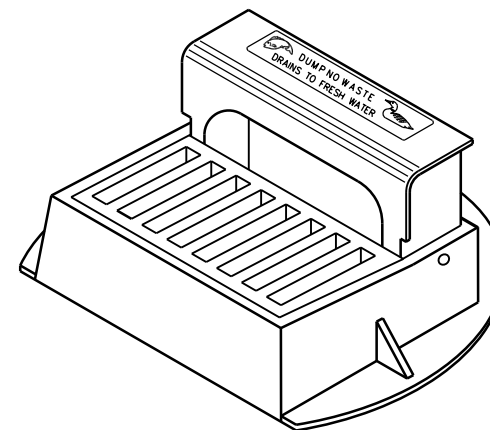
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



**TYPE "A"**



**TYPE "Z"**

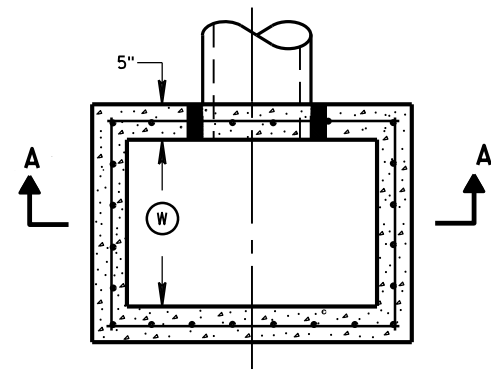


**INLET COVERS  
TYPE A, H, A-S, H-S & Z**

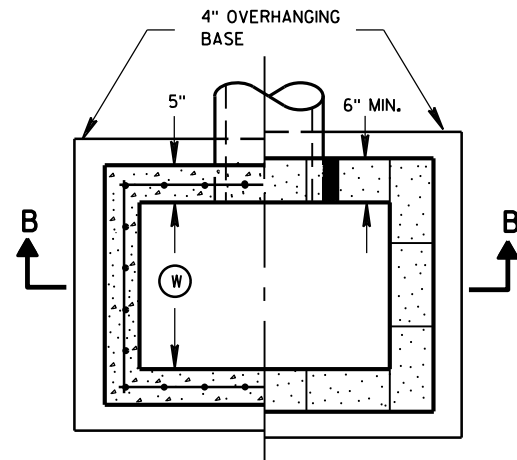
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11-27-13  
DATE  
FHWA

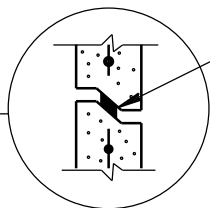
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



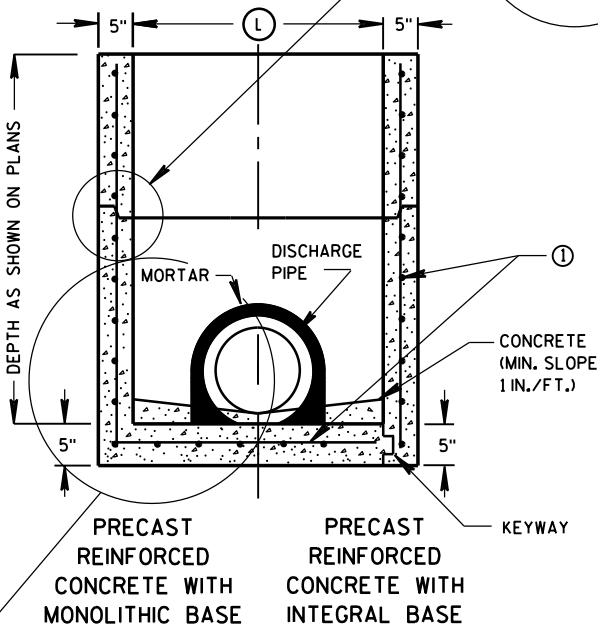
PLAN VIEW



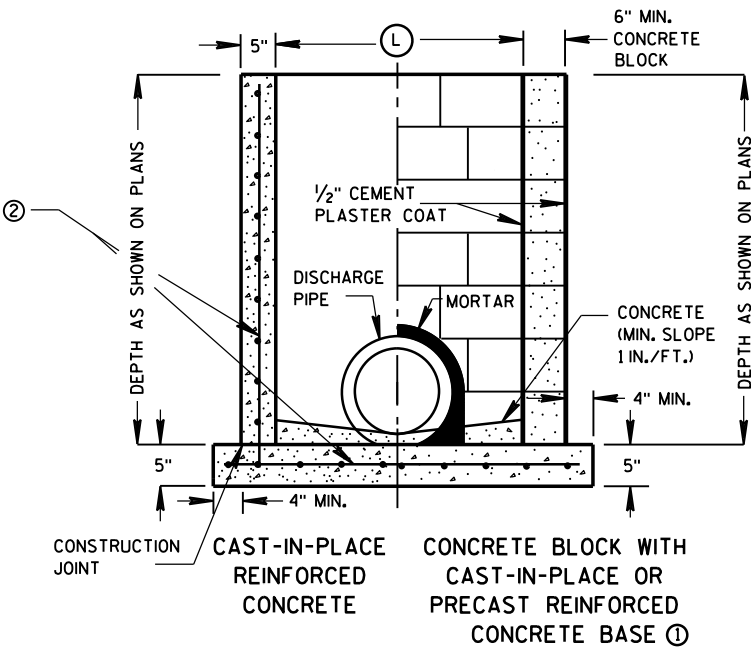
PLAN VIEW



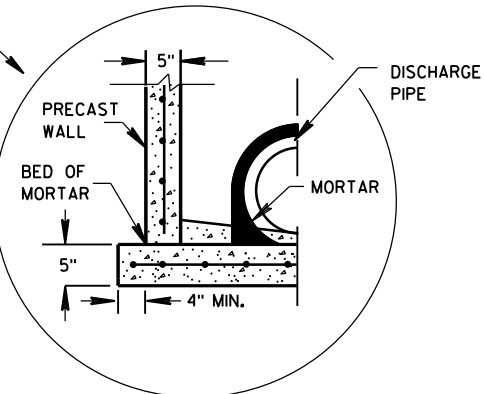
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

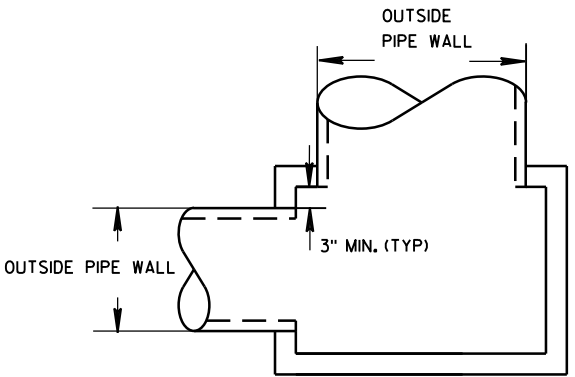
- 1 FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- 2 CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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

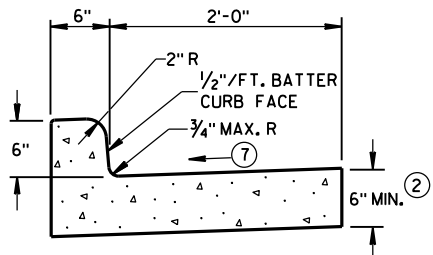


DETAIL "A"

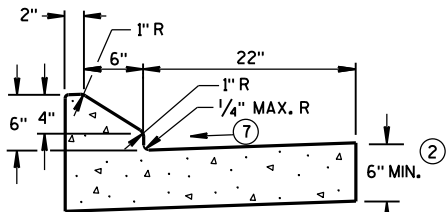
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

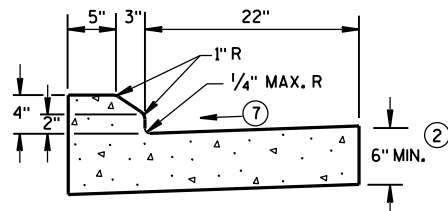
APPROVED  
Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



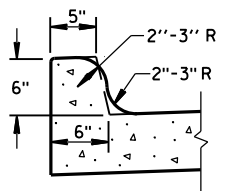
TYPES A<sup>①</sup> & D



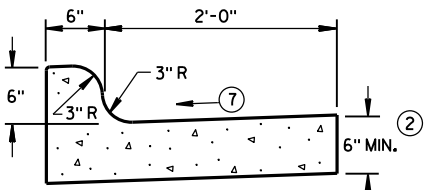
6" SLOPED CURB TYPES G<sup>①</sup> & J



4" SLOPED CURB TYPES G<sup>①</sup> & J

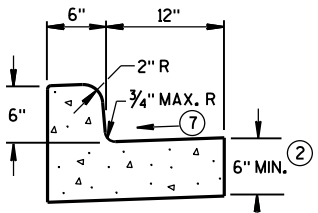


TYPES K<sup>①</sup> & L  
(OPTIONAL CURB SHAPE)



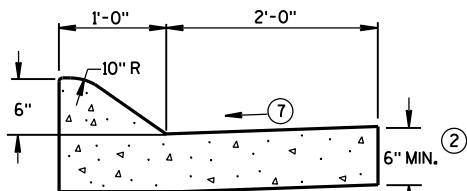
TYPES K<sup>①</sup> & L

CONCRETE CURB & GUTTER 30"

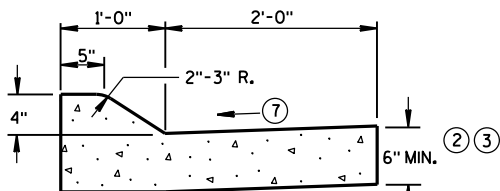


TYPES A<sup>①</sup> & D

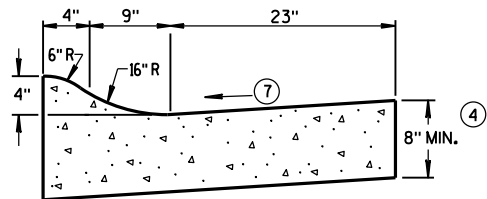
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A<sup>①</sup> & D

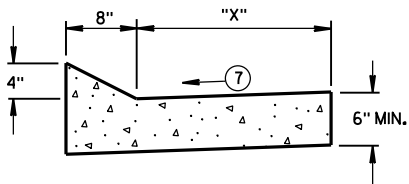


4" SLOPED CURB TYPES A<sup>①</sup> & D



4" SLOPED CURB TYPES R<sup>①</sup> & T<sup>⑤</sup>

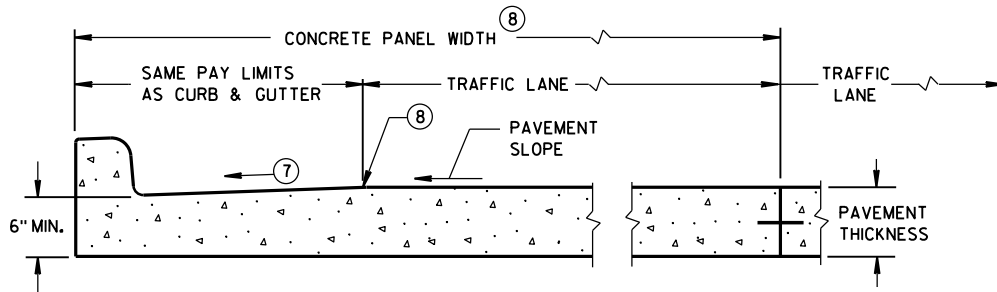
CONCRETE CURB & GUTTER 36"



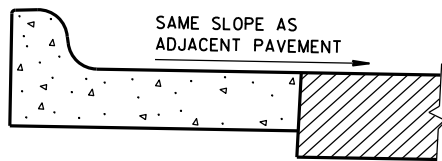
TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER<sup>⑥</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

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.

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

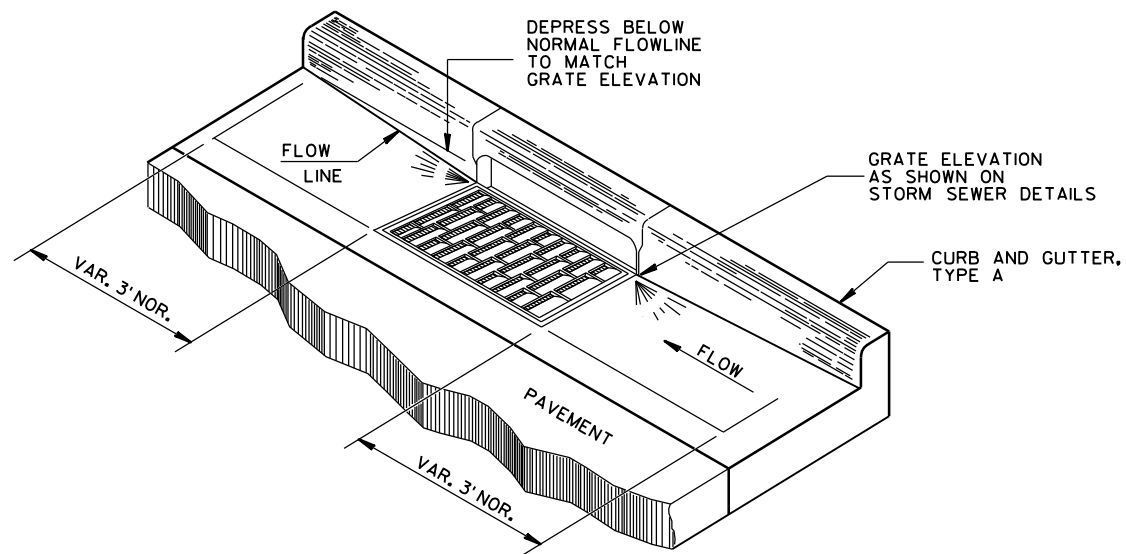
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

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

\* BIKE LANE IS NOT SHOWN.

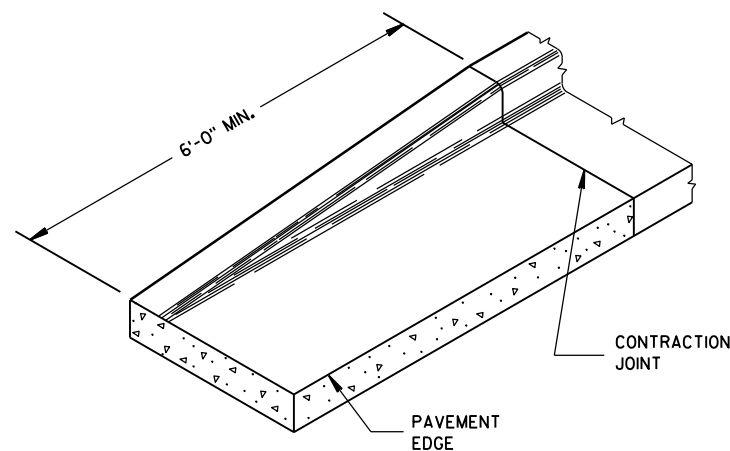
CONCRETE CURB & GUTTER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

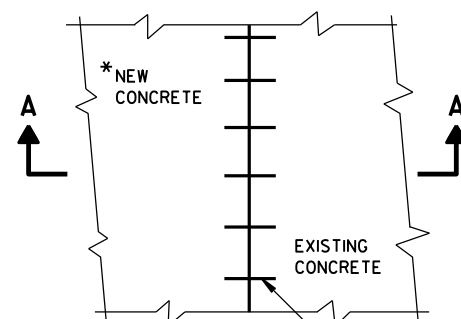


**DETAIL OF CURB AND GUTTER AT INLETS**

(TYPE H INLET COVER SHOWN)

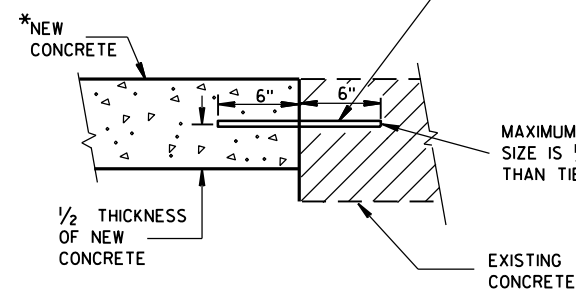


**END SECTION CURB & GUTTER**



**PLAN VIEW**

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



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

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

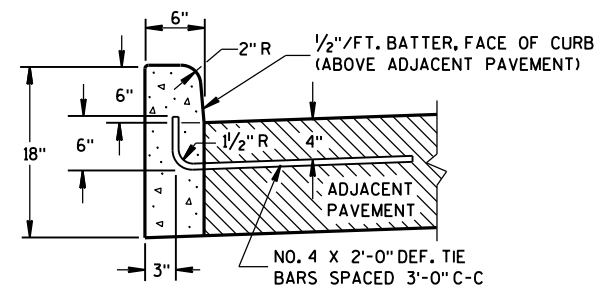
## GENERAL NOTES

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

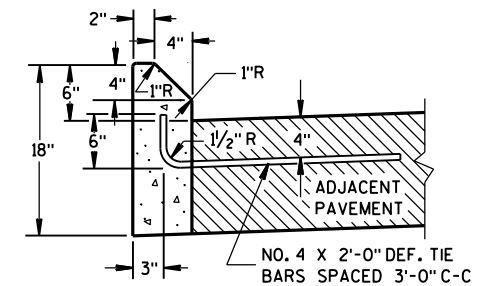
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

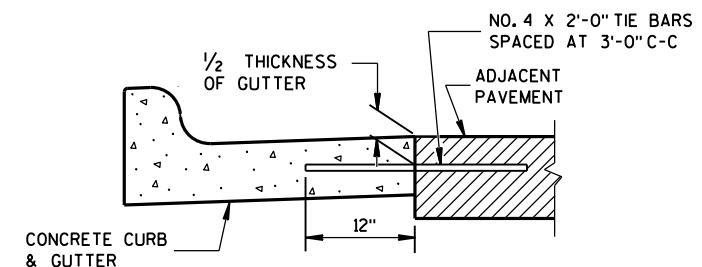


**TYPES A<sup>①</sup> & D**

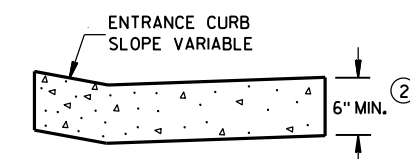


**TYPES G<sup>①</sup> & J**

## CONCRETE CURB



**TYPICAL TIE BAR LOCATION<sup>①</sup>**



**DRIVEWAY ENTRANCE CURB<sup>⑨</sup>**  
(WHEN DIRECTED BY THE ENGINEER)

## CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2017

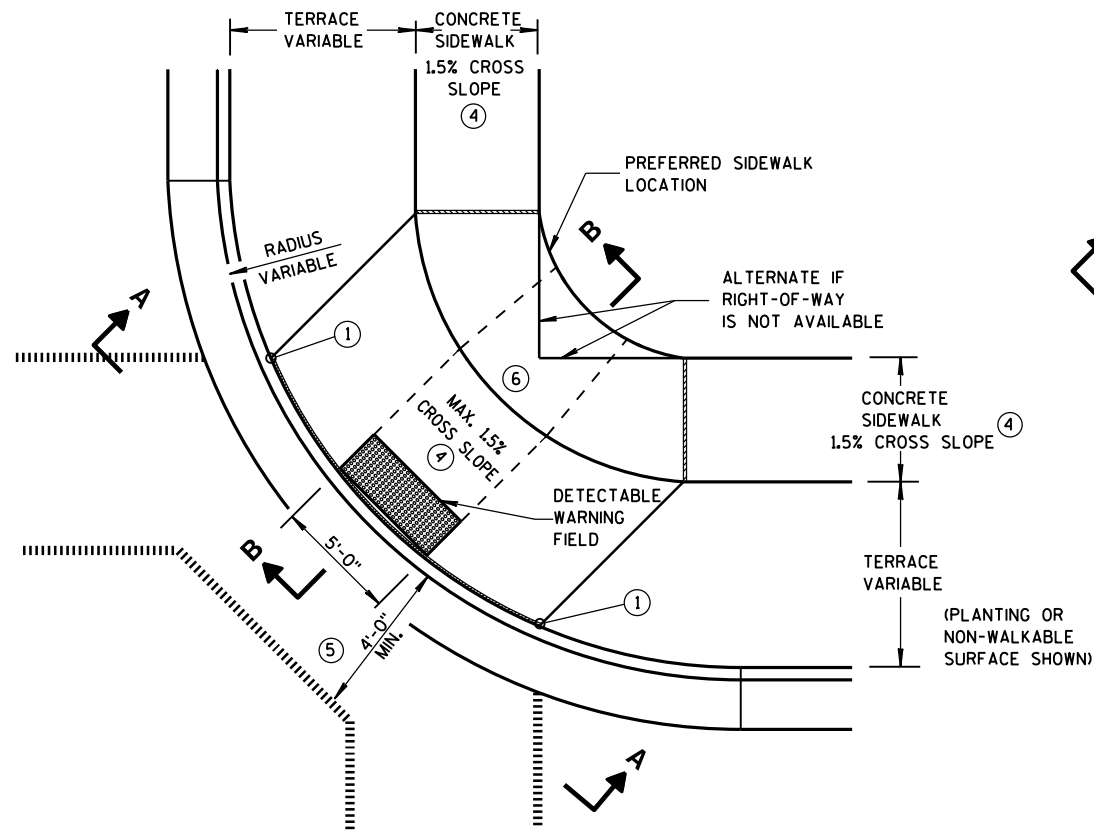
DATE

FHWA

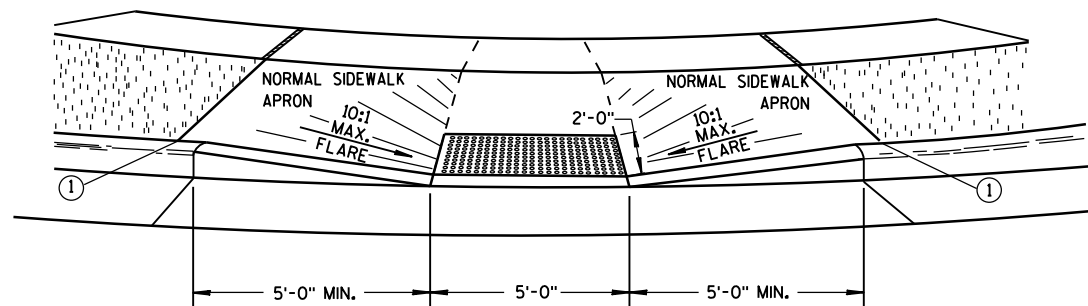
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

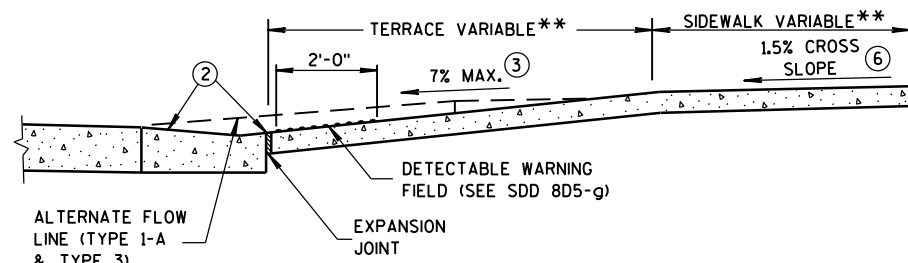


**PLAN VIEW  
TYPE 1 RAMP**  
(CENTER OF CORNER RADIUS)

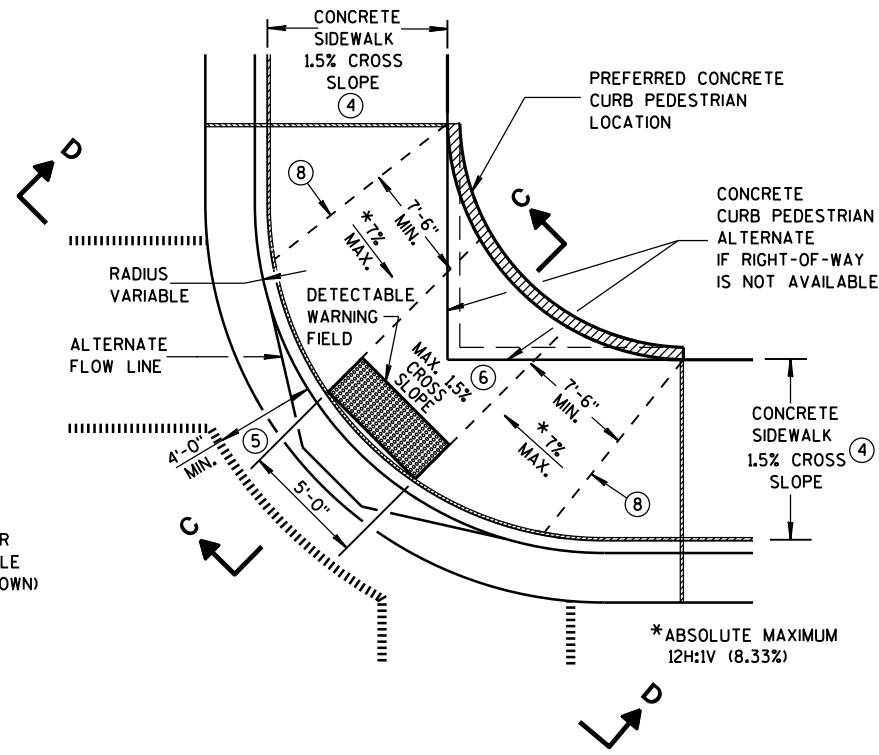


**VIEW A-A**

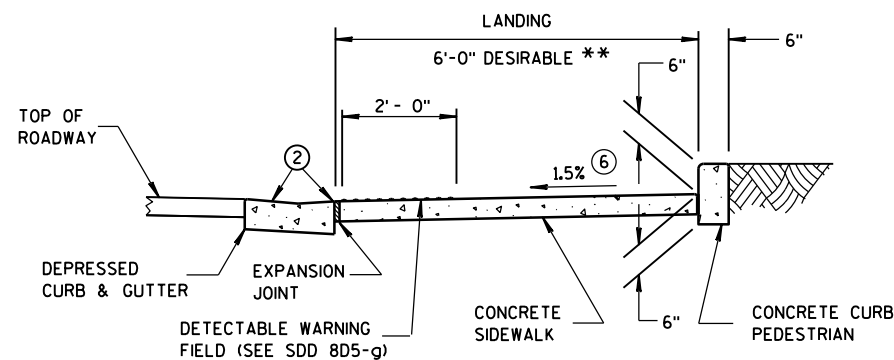
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



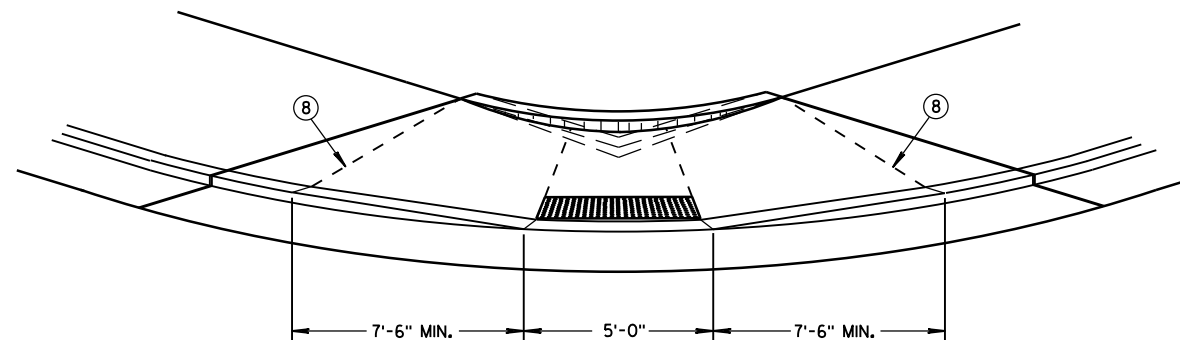
**SECTION B-B**



**PLAN VIEW  
TYPE 1-A RAMP**  
(NO TERRACE)



**SECTION C-C**



**VIEW D-D**

## GENERAL NOTES

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

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

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".

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

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

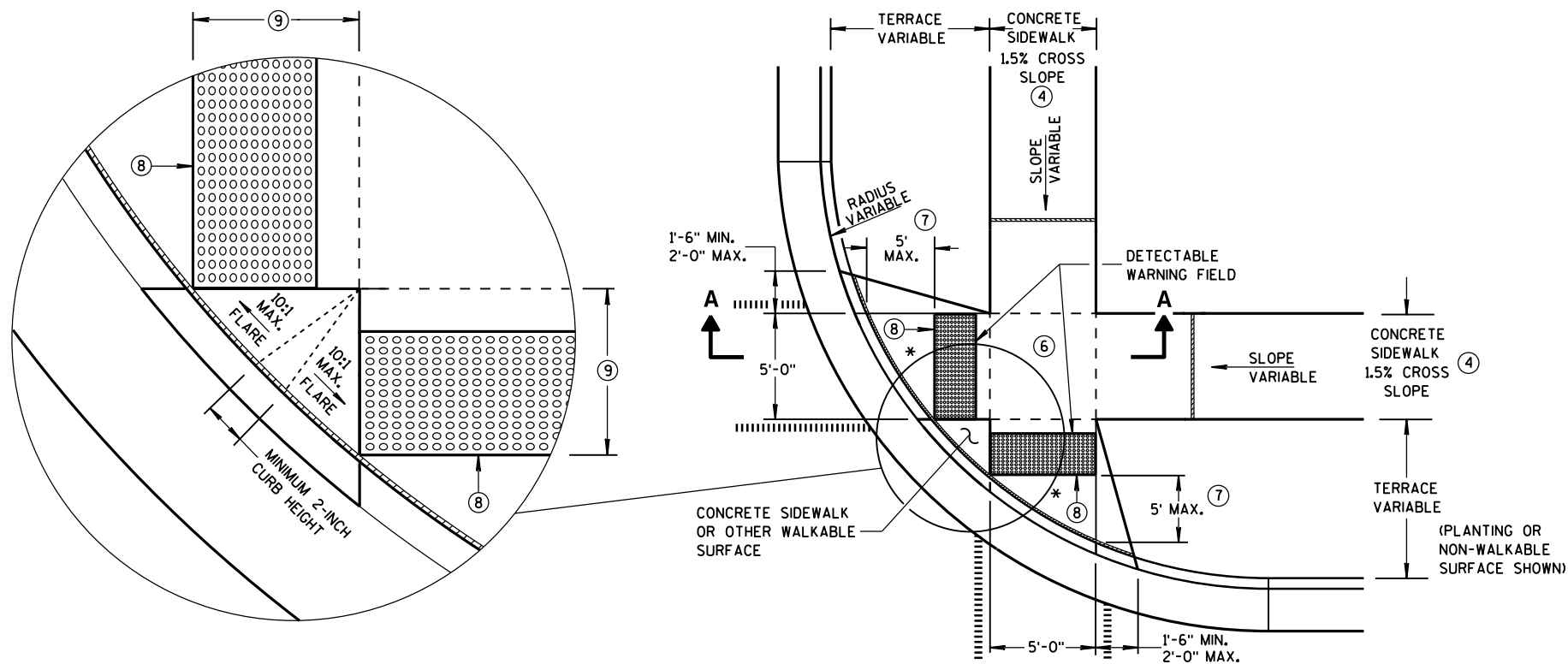
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

## LEGEND

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

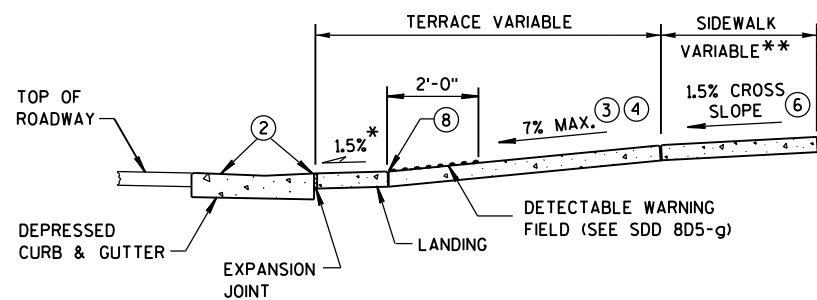
**CURB RAMPS  
TYPES 1 AND 1-A**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



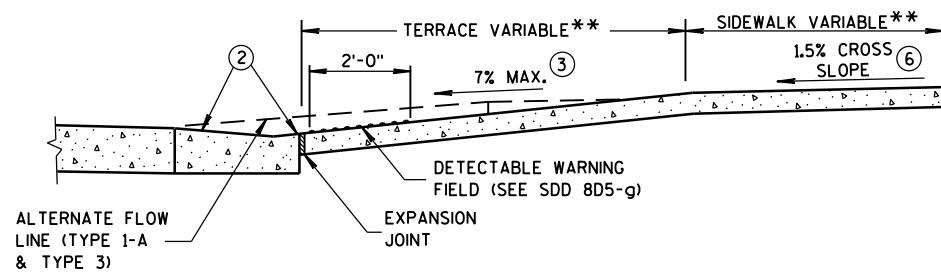
**PLAN VIEW  
TYPE 2 RAMP**  
(ON LINE WITH SIDEWALK)

\* MAXIMUM 2.0% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE BREAK



**SECTION A-A**

\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



**SECTION B-B**

## GENERAL NOTES

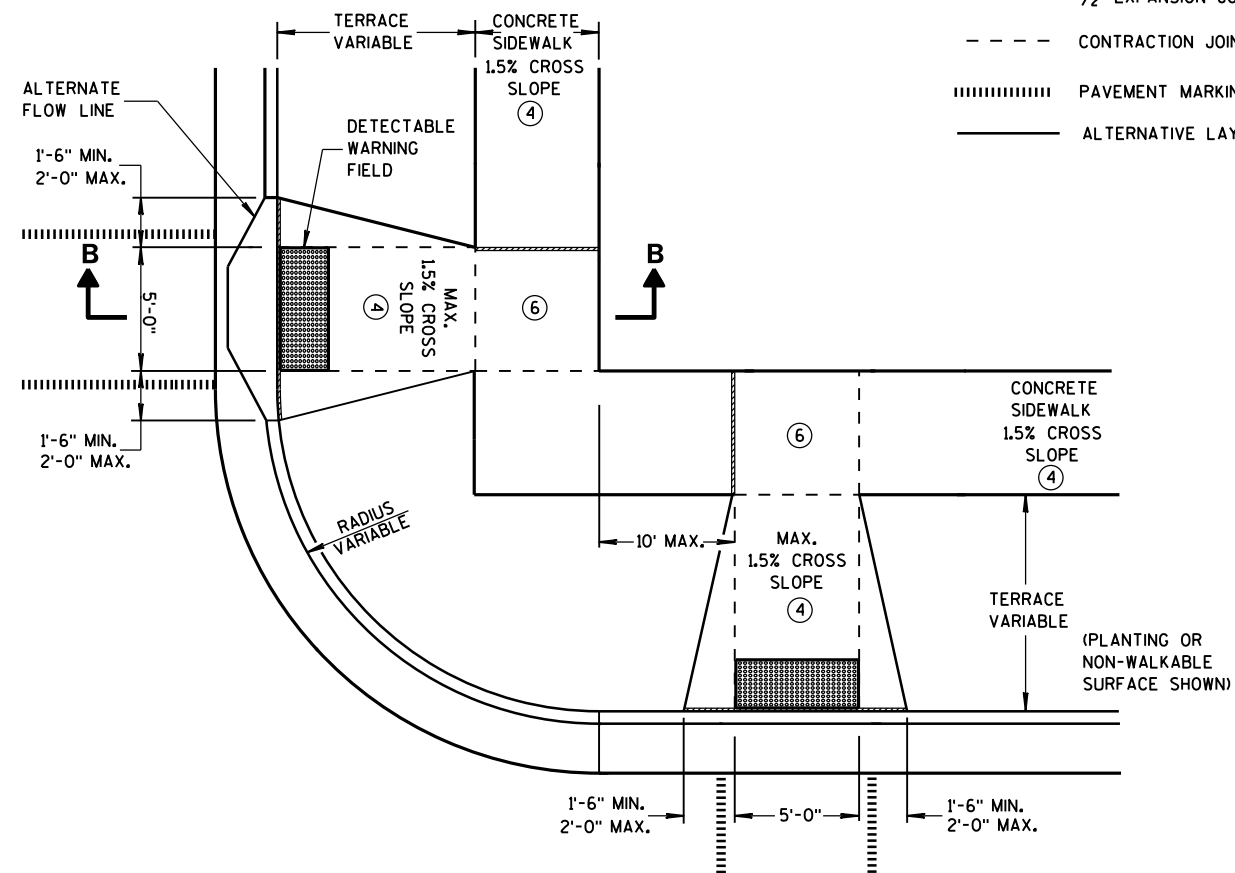
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

## LEGEND

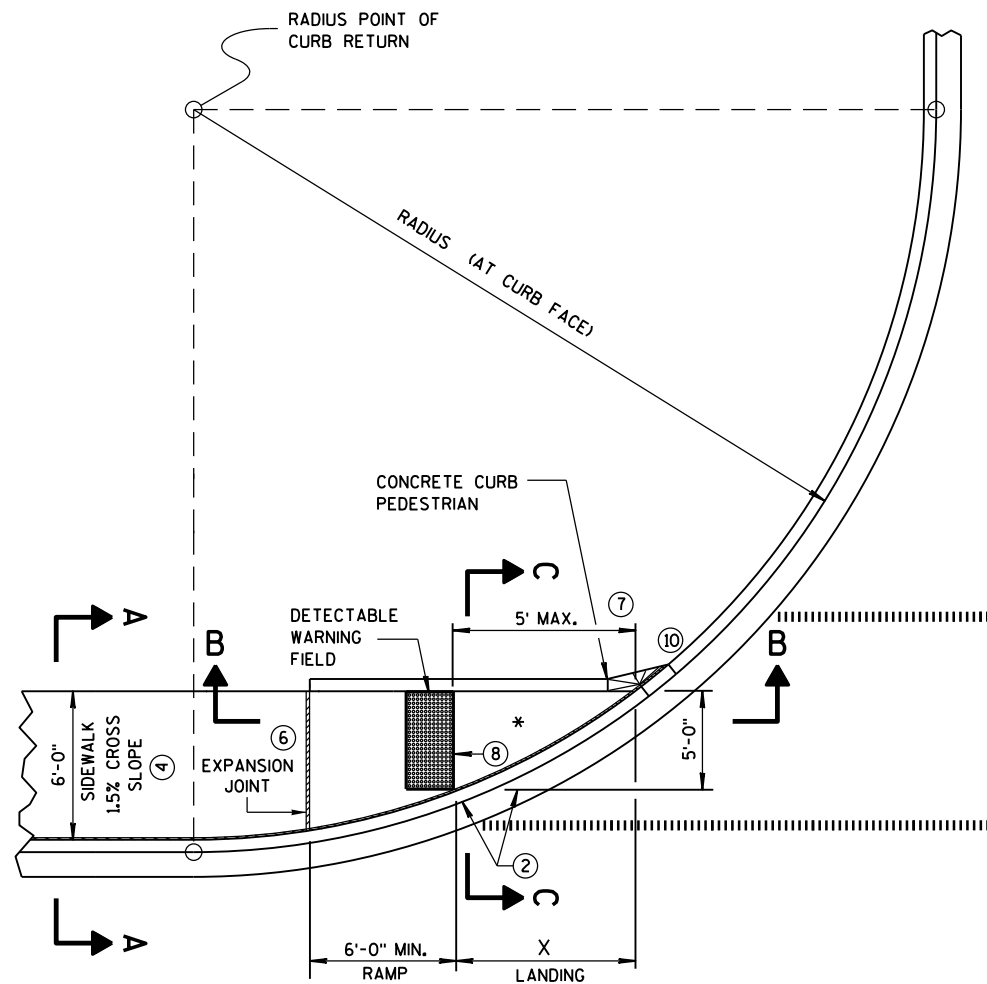
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



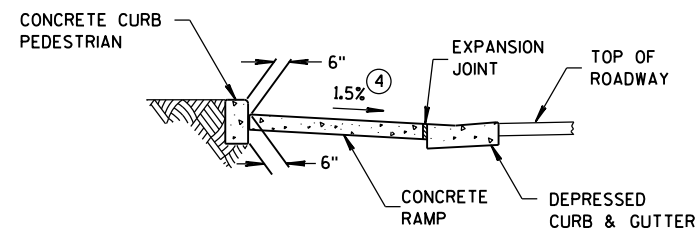
**PLAN VIEW  
TYPE 3 RAMP**  
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS  
TYPES 2 AND 3**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

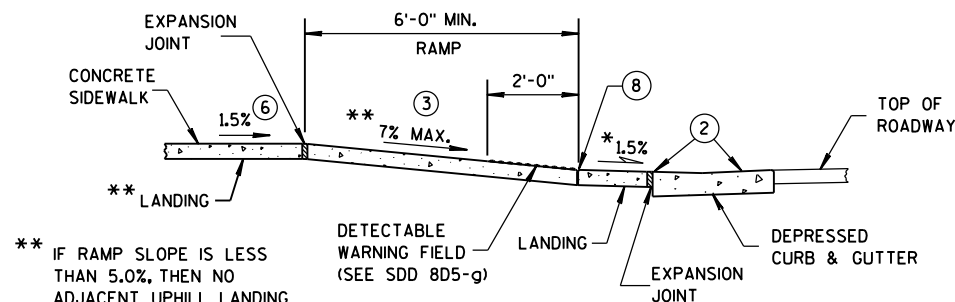


**CURB RAMP TYPE 4A**  
PLAN VIEW



**SECTION C-C FOR TYPE 4A**

\* MAXIMUM 2.0% SLOPE  
IN ALL DIRECTIONS IN  
FRONT OF GRADE BREAK

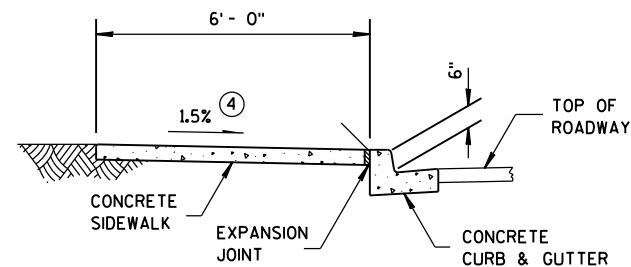


**SECTION B-B FOR TYPE 4A**

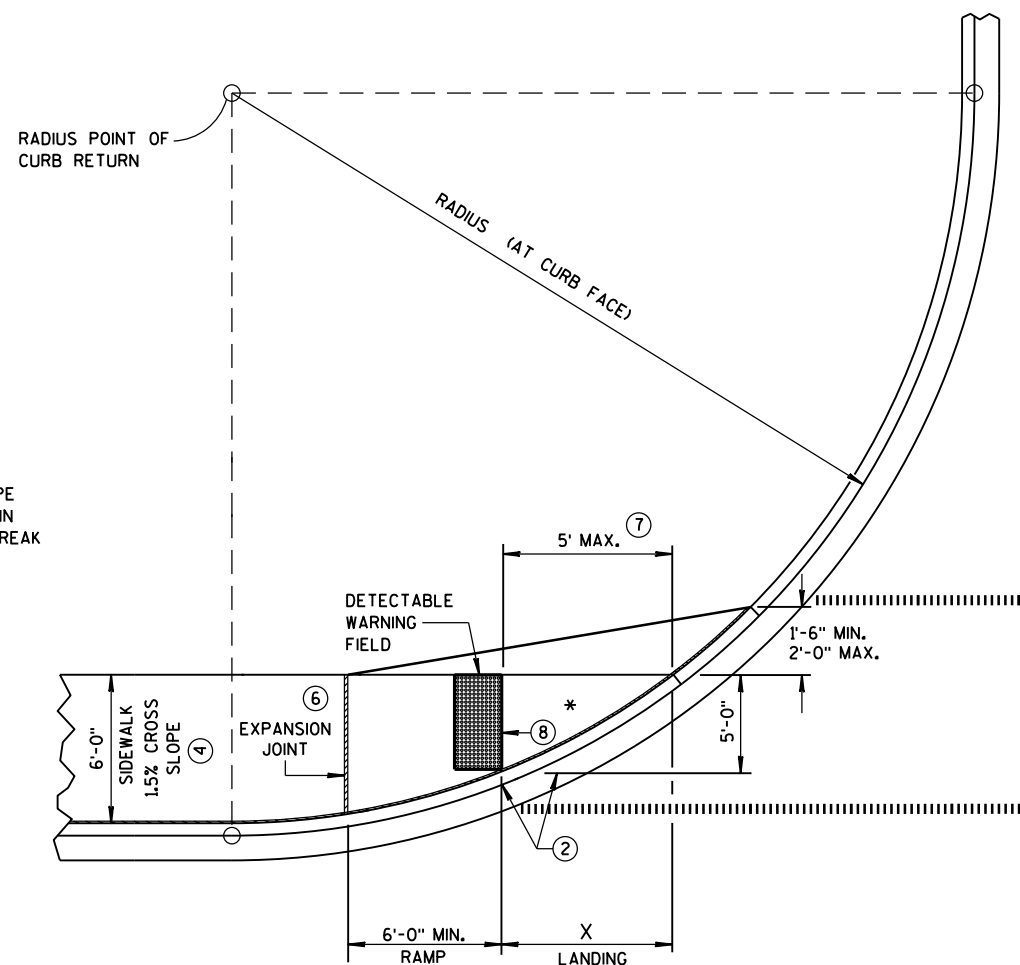
\*\* IF RAMP SLOPE IS LESS  
THAN 5.0%, THEN NO  
ADJACENT UPHILL LANDING  
IS REQUIRED

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



**SECTION A-A FOR TYPE 4A**



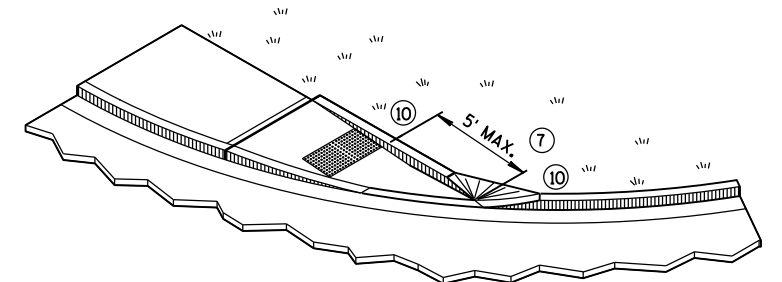
**CURB RAMP TYPE 4A1**  
PLAN VIEW

## GENERAL NOTES

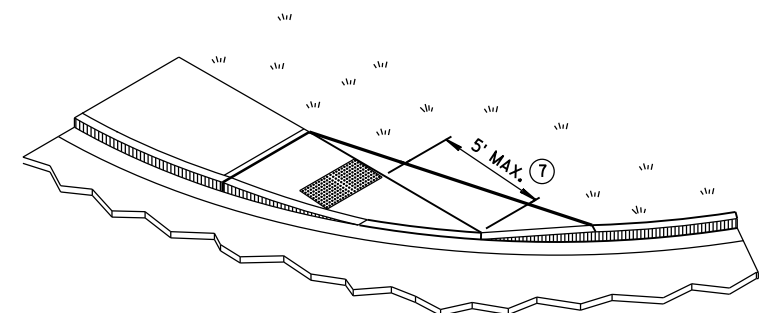
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



**ISOMETRIC VIEW FOR TYPE 4A**



**ISOMETRIC VIEW FOR TYPE 4A1**

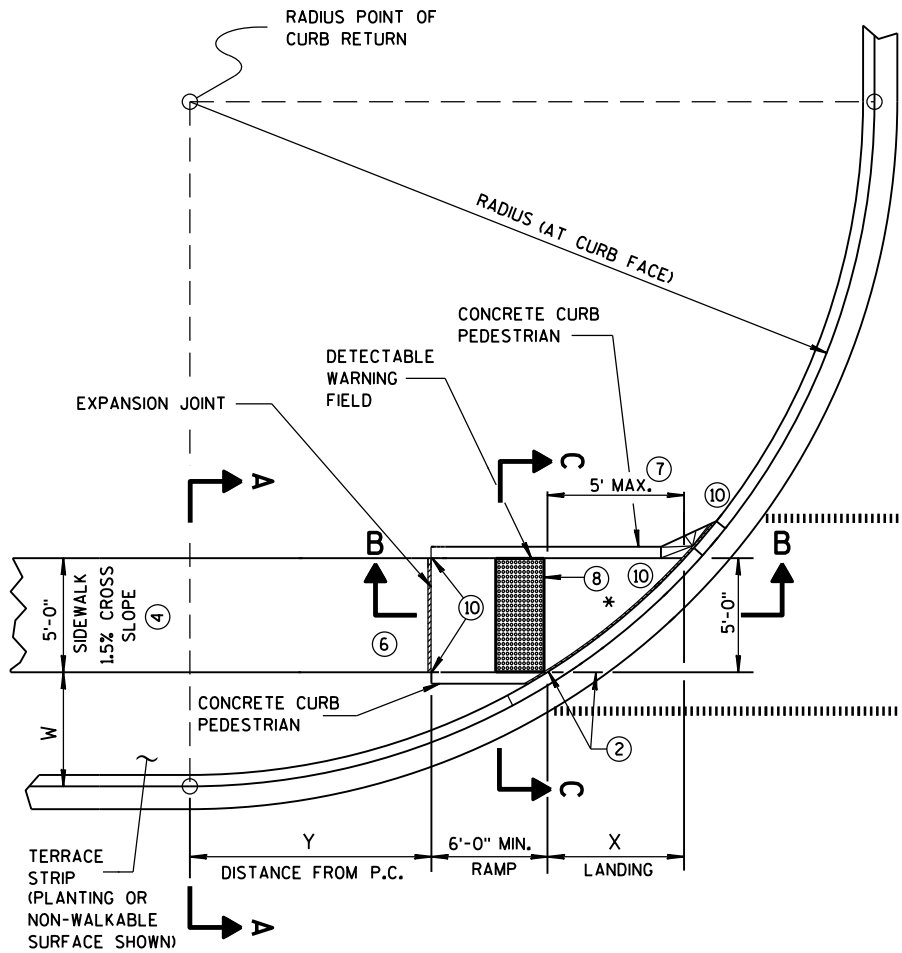
## LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

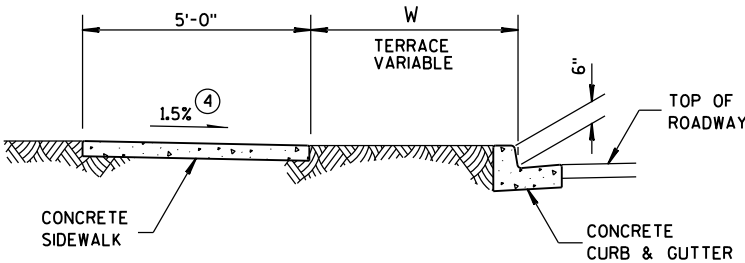
**CURB RAMPS**  
**TYPES 4A AND 4A1**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

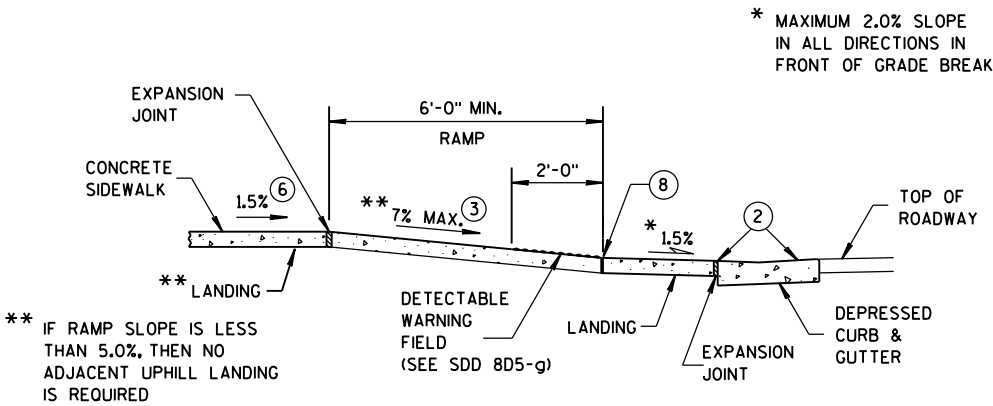




**CURB RAMP TYPE 4B  
PLAN VIEW**



**SECTION A-A FOR TYPE 4B**



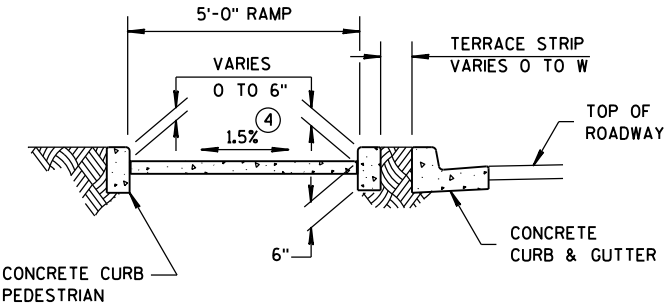
**SECTION B-B FOR TYPE 4B**

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 1/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 1/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

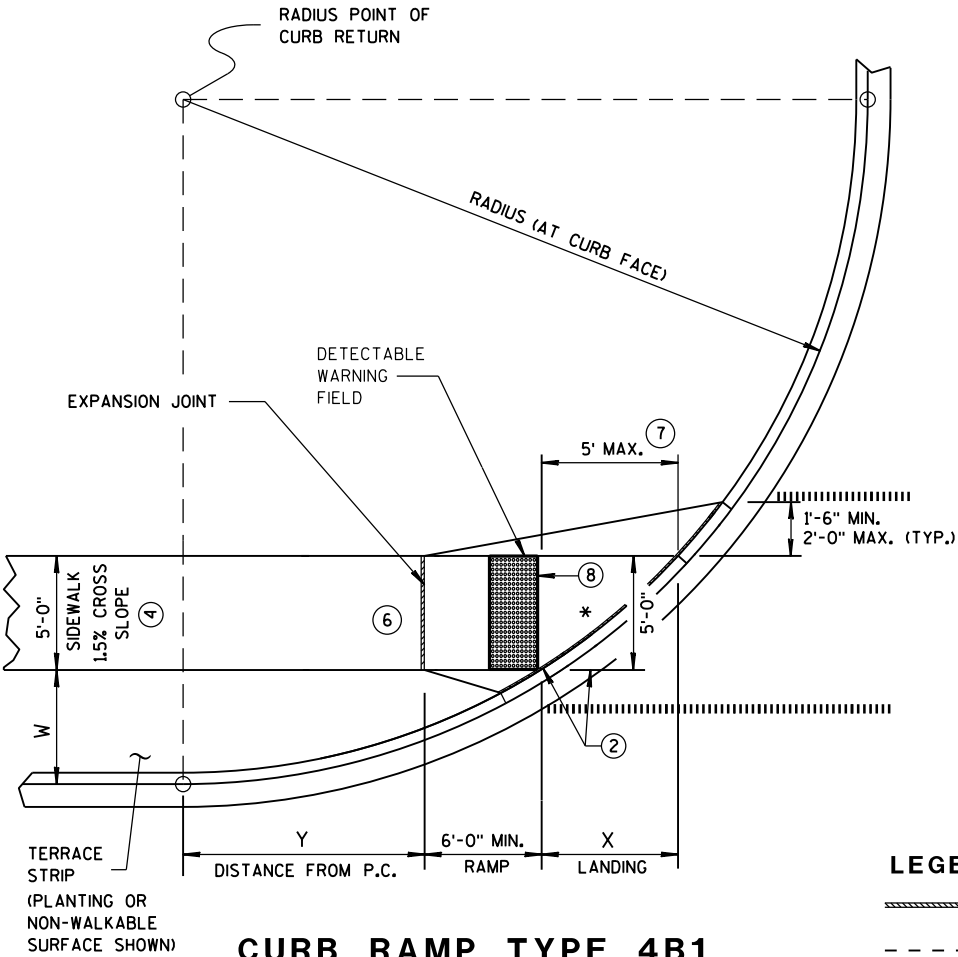
INTERMEDIATE RADII CAN BE INTERPOLATED  
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

**GENERAL NOTES**

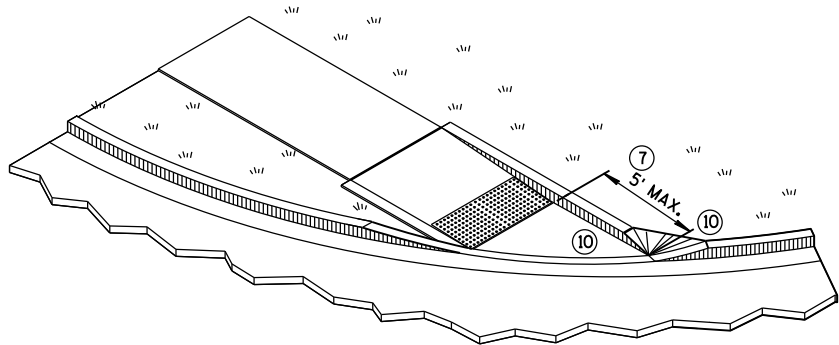
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



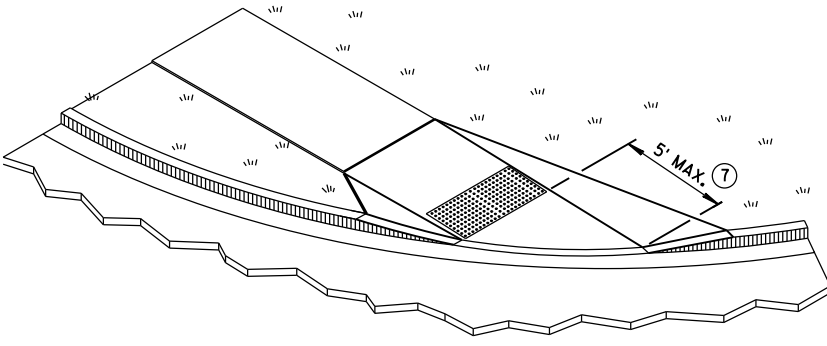
**SECTION C-C FOR TYPE 4B**



**CURB RAMP TYPE 4B1  
PLAN VIEW**



**ISOMETRIC VIEW FOR TYPE 4B**



**ISOMETRIC VIEW FOR TYPE 4B1**

**LEGEND**

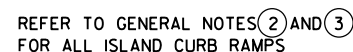
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS  
TYPE 4B AND 4B1**

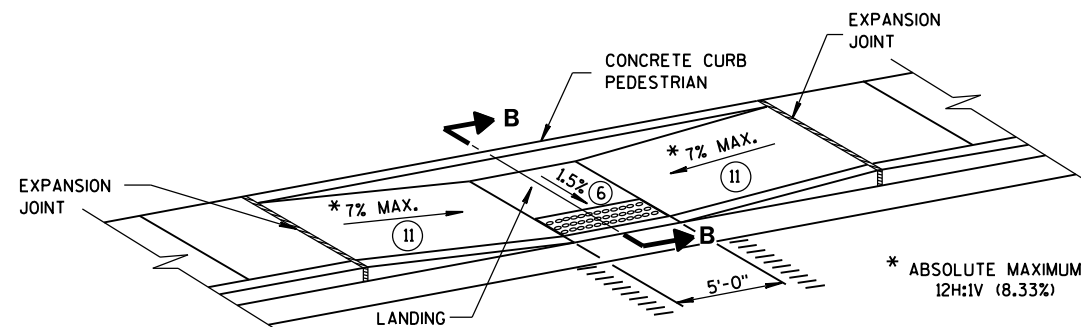
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



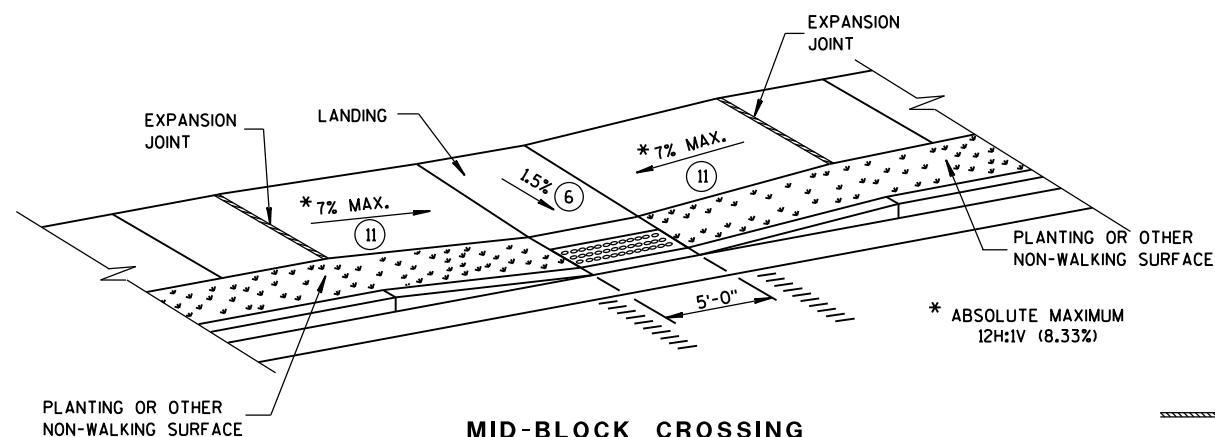
\*\*\* DETAILS TO BE DETERMINED  
BY DESIGNER



## DETECTABLE WARNING AT ISLANDS



## MID-BLOCK CROSSING TYPE 7A



**MID-BLOCK CROSSING  
TYPE 7B**

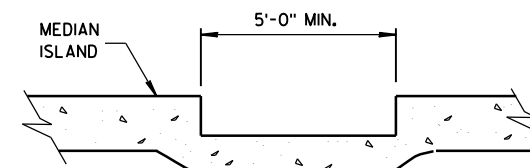
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS  
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

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

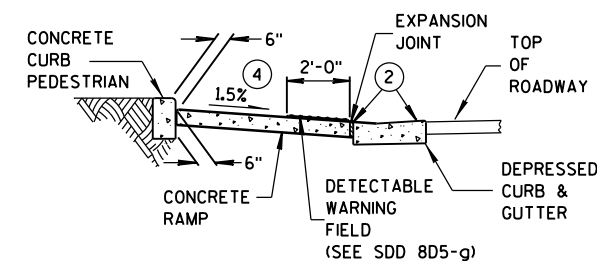
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 FEET  $\pm$  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.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.




**SECTION A-A**



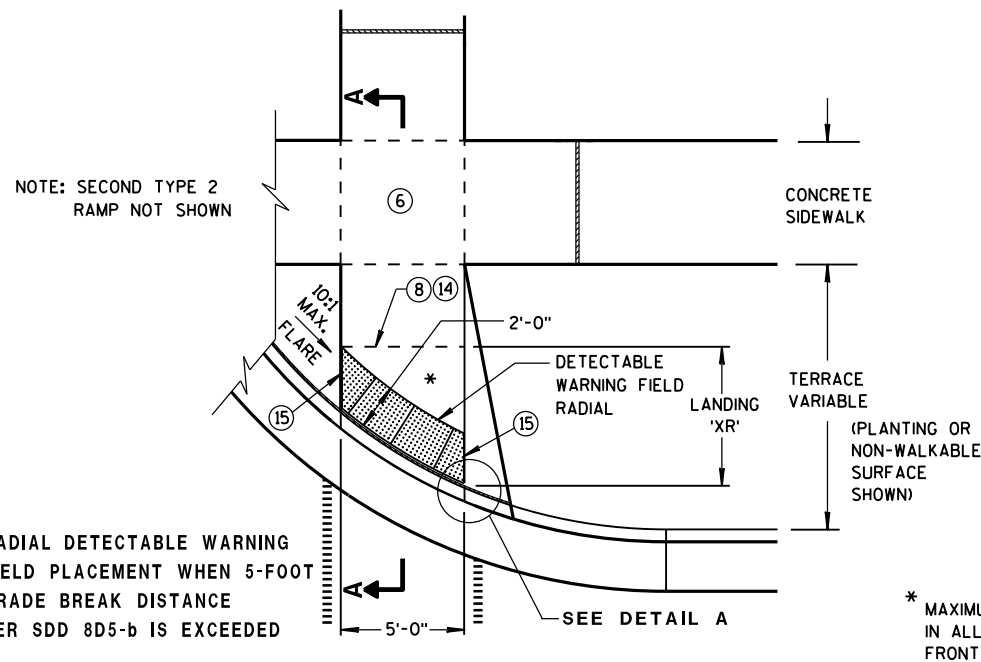
**SECTION B-B**

### LEGEND

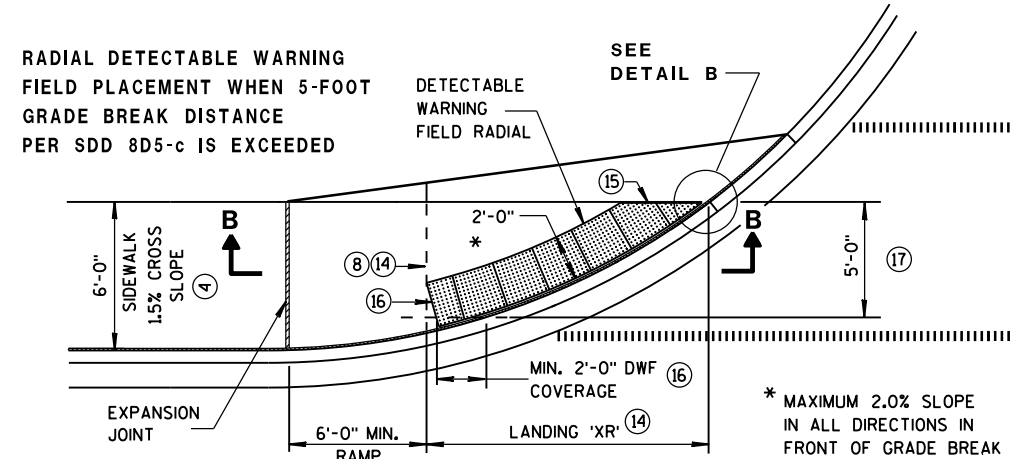
- |   |                                    |
|---|------------------------------------|
|  | 1/2" EXPANSION JOINT-SIDEWALK      |
| - - - -   | CONTRACTION JOINT FIELD LOCATED    |
|   | PAVEMENT MARKING CROSSWALK (WHITE) |

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

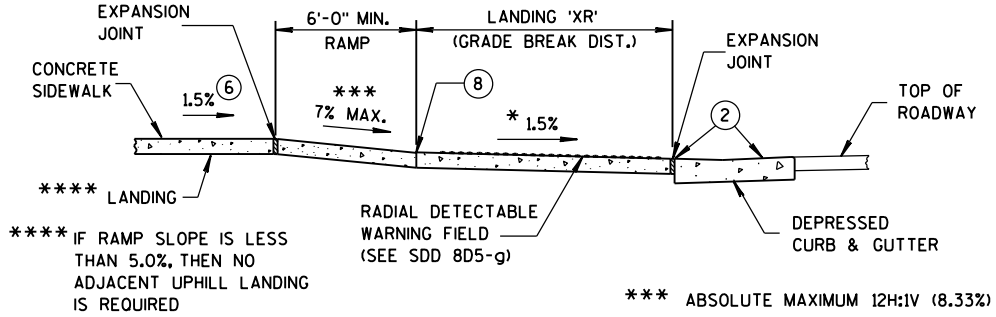
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



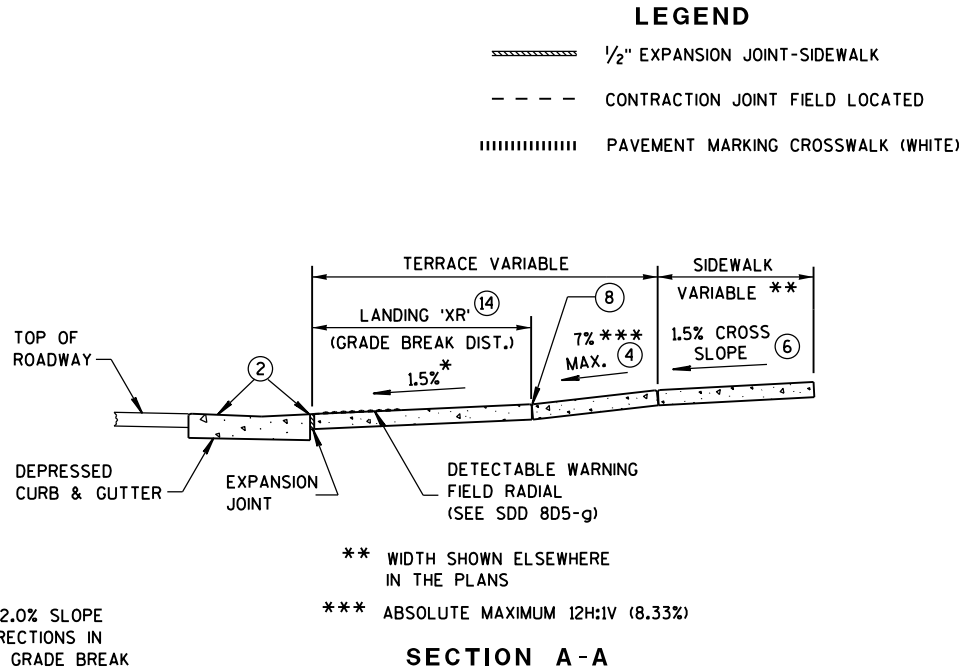
**TYPE 2 RAMP**  
**PLAN VIEW**  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)  
(ON LINE WITH SIDEWALK)



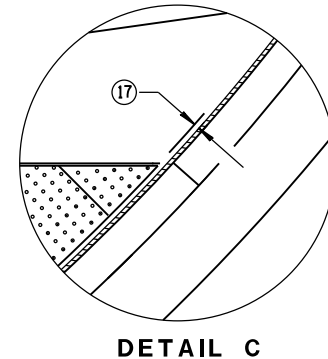
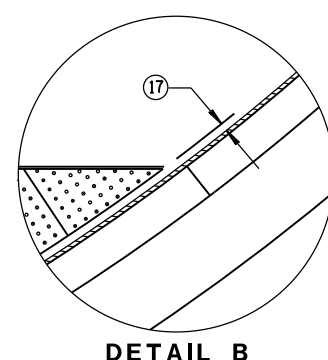
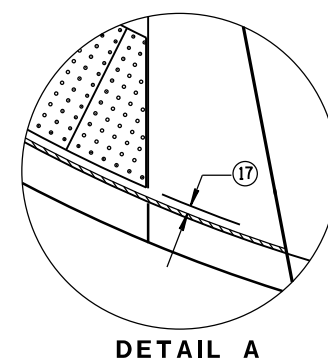
**CURB RAMP TYPE 4A1**  
**PLAN VIEW**  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



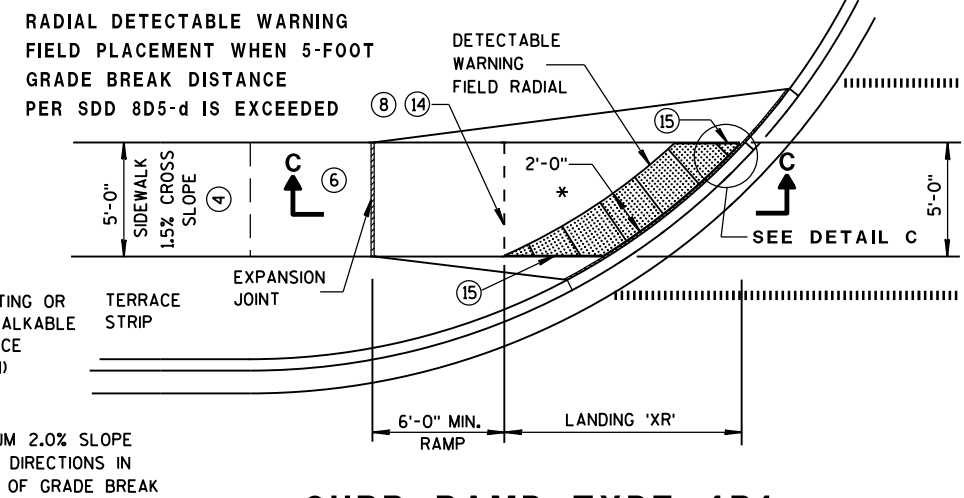
**SECTION B-B FOR TYPE 4A1**



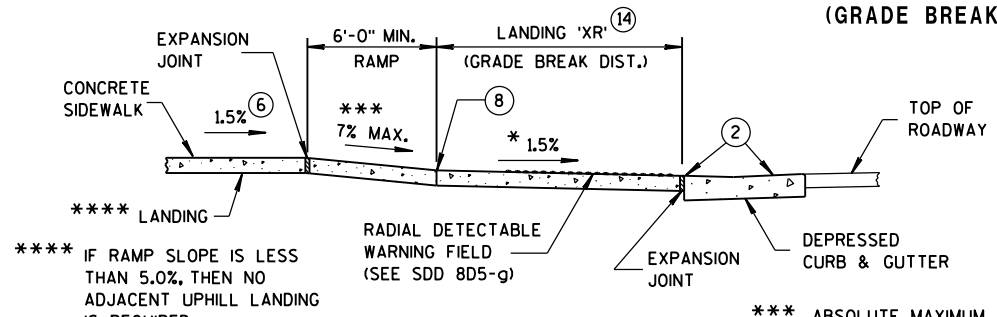
**SECTION A-A**



**DETAIL C**



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



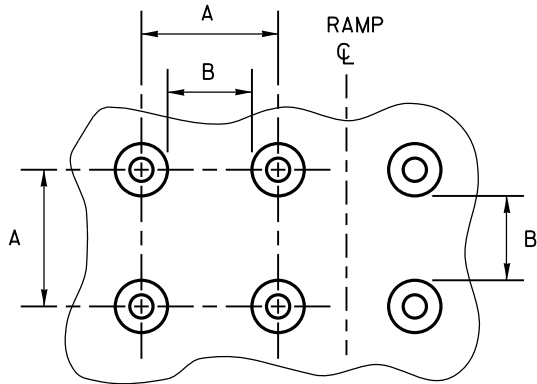
**SECTION C-C FOR TYPE 4B1**

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

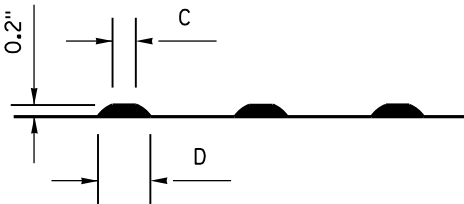
- GENERAL NOTES**
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - 3 ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
  - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
  - 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
  - 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
  - 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
  - 16 USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
  - 17 A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

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

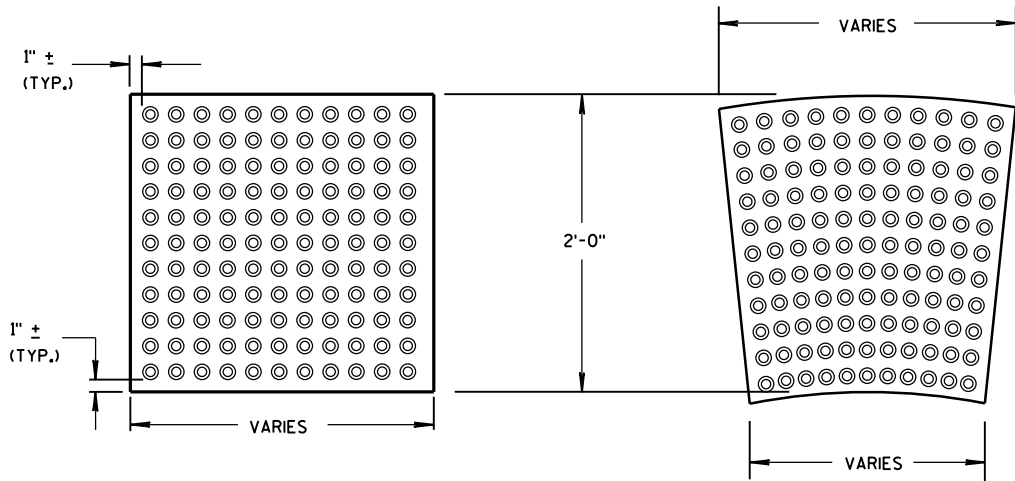


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES  
RADIAL PLATES  
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

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

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

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

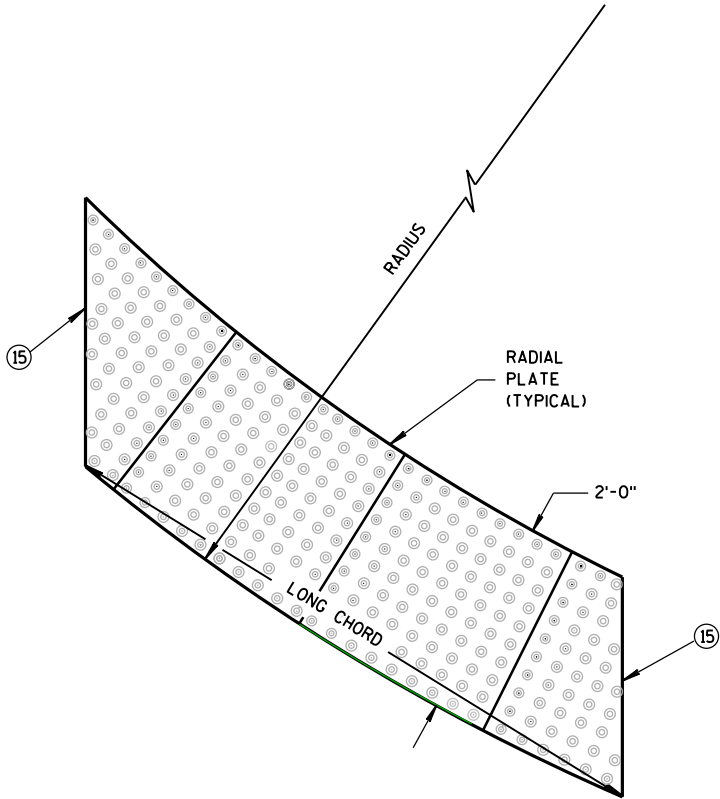
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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



RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES

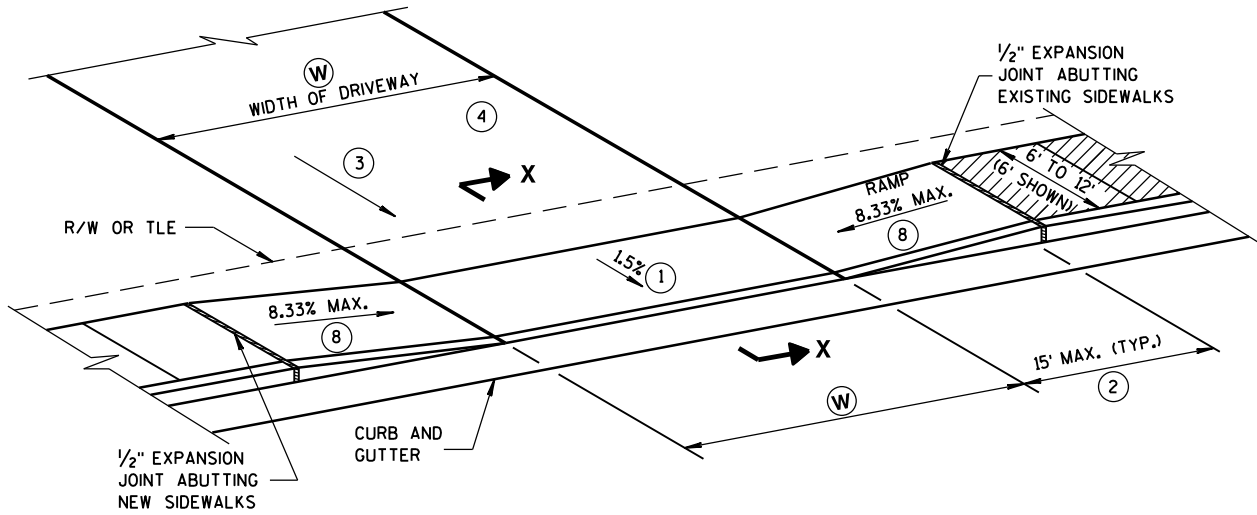
CURB RAMPS  
RECTANGULAR AND RADIAL  
DETECTABLE WARNING PLATES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

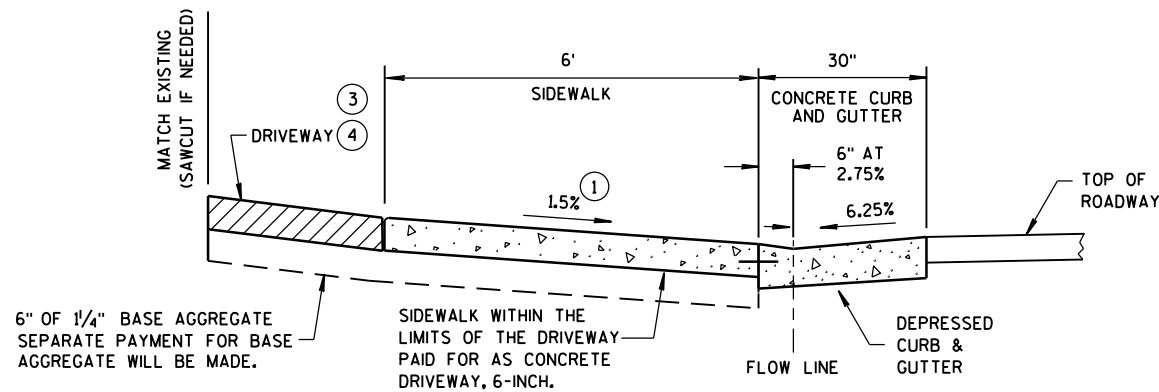
APPROVED  
June, 2017 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

GENERAL NOTES

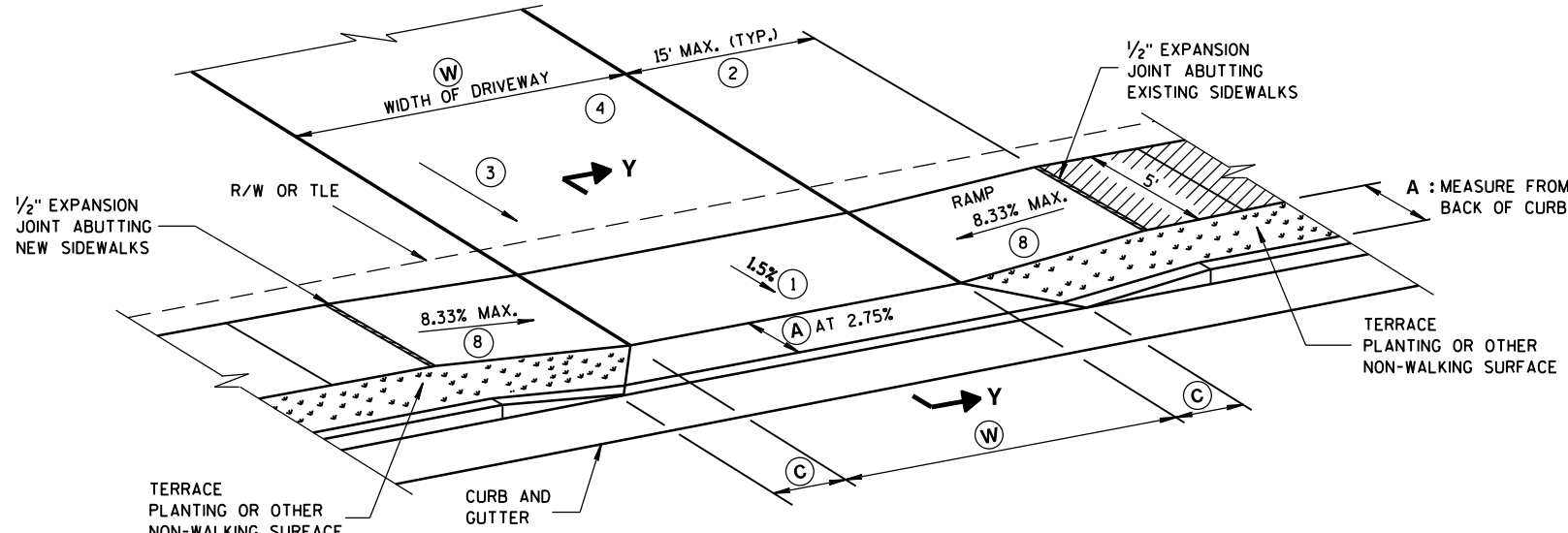
- 1 CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- 2 THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
- 3 DRIVEWAY SLOPES: DESIRABLE MAXIMUM  
10.5% UP AWAY FROM SIDEWALK (SAG)  
8.5% DOWN AWAY FROM SIDEWALK (CREST)  
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- 4 DRIVEWAY TYPES
  - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
  - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
  - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)
- 5 PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
- 6 W IS SHOWN ON PLAN AND PROFILE SHEETS.
- 7 OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.
- 8 SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.



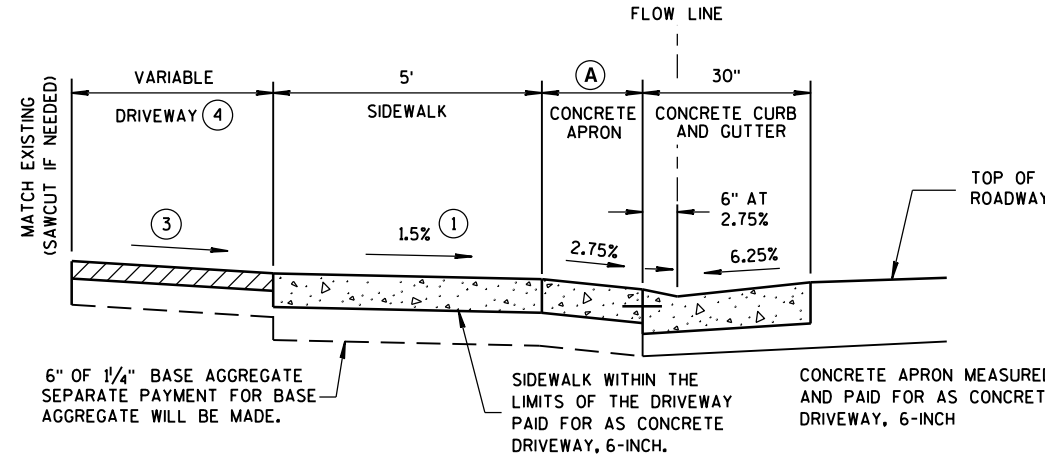
TYPE X  
SIDEWALK ABUTS CURB & GUTTER  
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



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



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

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

TABLE Y

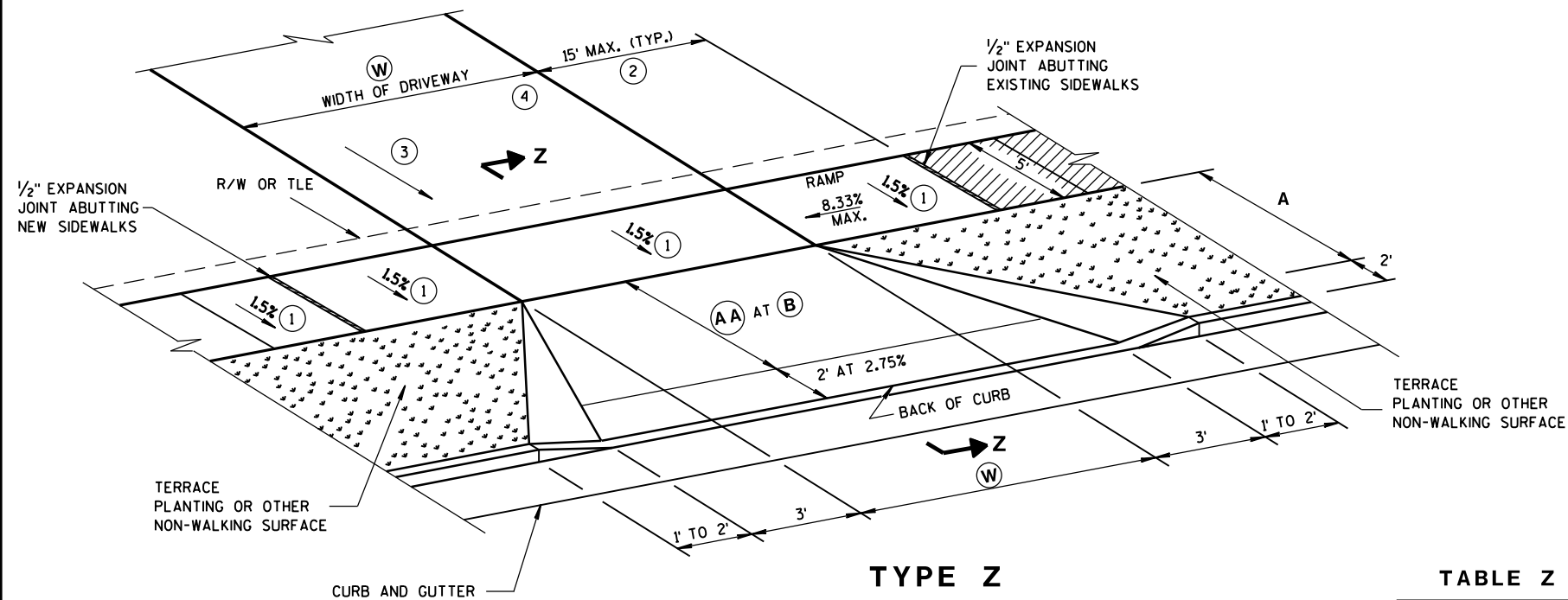
A FEET	C FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE

DRIVEWAY AND SIDEWALK  
RAMPS  
TYPES X & Y

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

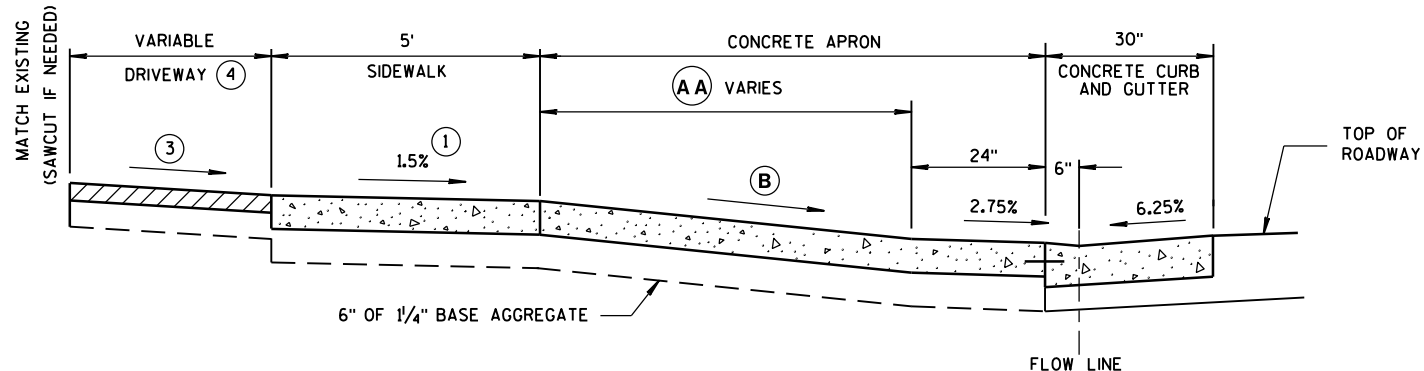
APPROVED  
December, 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



**TYPE Z**  
**SIDEWALK WITH WIDER TERRACE**  
**TERRACE VARIES 7 TO 12 FEET**

**TABLE Z**

(A) FEET	(B) %
4.5'	11.5%
5.5'	9-11.5%
6.5'	8-11.5%
7.5'	7-11.5%
8.5'	6-11.5%
9.5'	5-11.5%



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR B VALUES NOT SHOWN IN TABLE Z.  
 SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, 6-INCH.  
 SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

PROVIDE (A) AND (B) AS SHOWN ON CROSS SECTIONS.

CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, 6-INCH

**SECTION Z-Z**  
**DRIVEWAY DETAIL**  
**WITH CONCRETE CURB & GUTTER**  
**(URBAN AND SUBURBAN)**

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)  
 16' MIN. - 35' MAX. COMMERCIAL (CE)

## GENERAL NOTES

- CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
- DRIVEWAY SLOPES: DESIRABLE MAXIMUM**  
 10.5% UP AWAY FROM SIDEWALK (SAG)  
 8.5% DOWN AWAY FROM SIDEWALK (CREST)  
 ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- DRIVEWAY TYPES**
  - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
  - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
  - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)
- PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.
- (W) IS SHOWN ON PLAN AND PROFILE SHEETS.
- OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

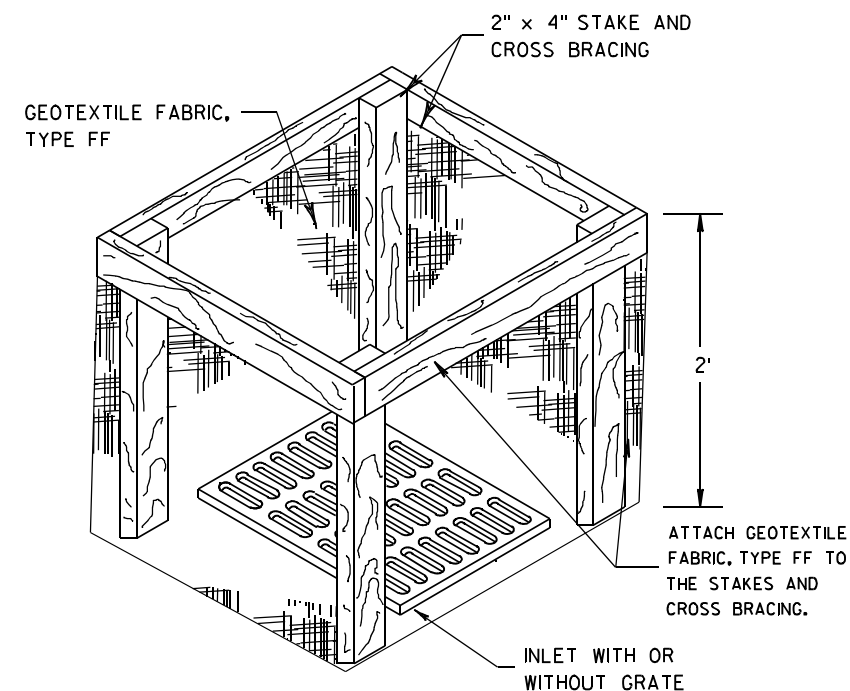
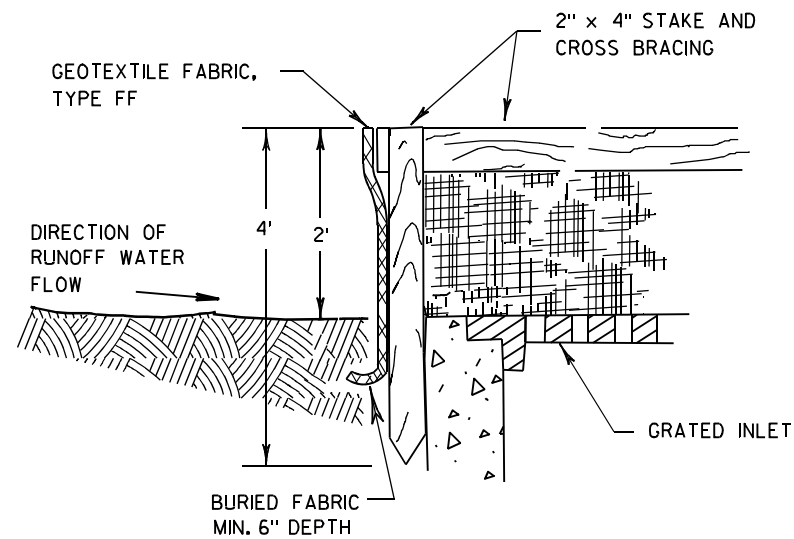
NOT TO SCALE

**DRIVEWAY AND SIDEWALK**  
**RAMPS**  
**TYPE Z**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

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





## INLET PROTECTION, TYPE A

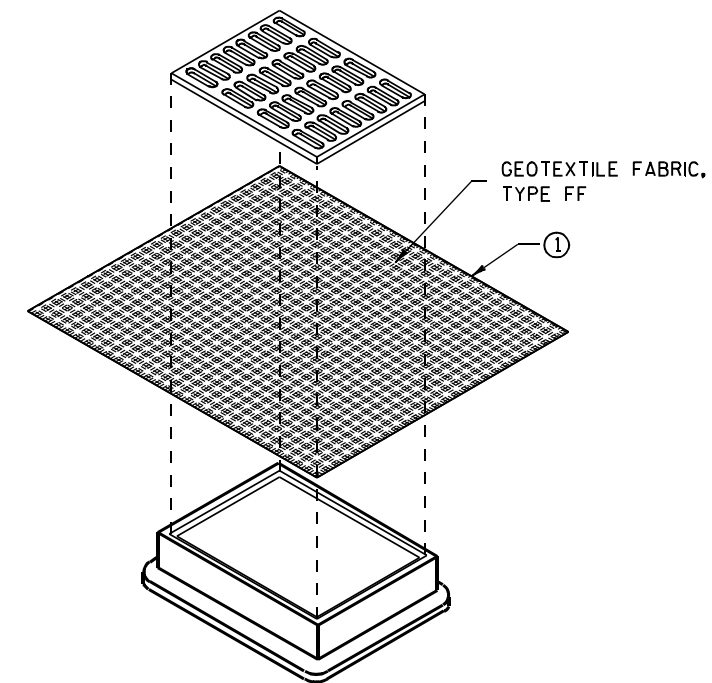
## GENERAL NOTES

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.

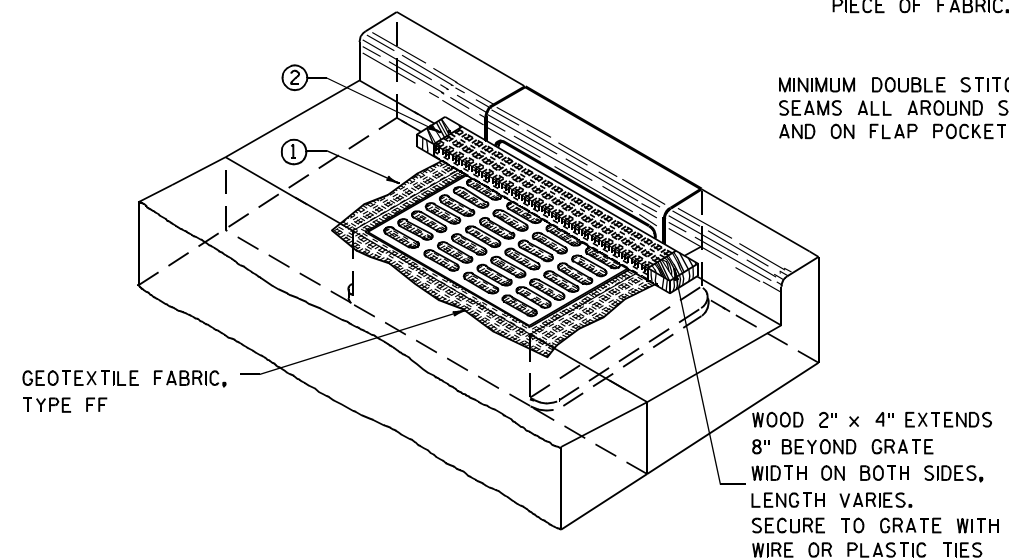
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

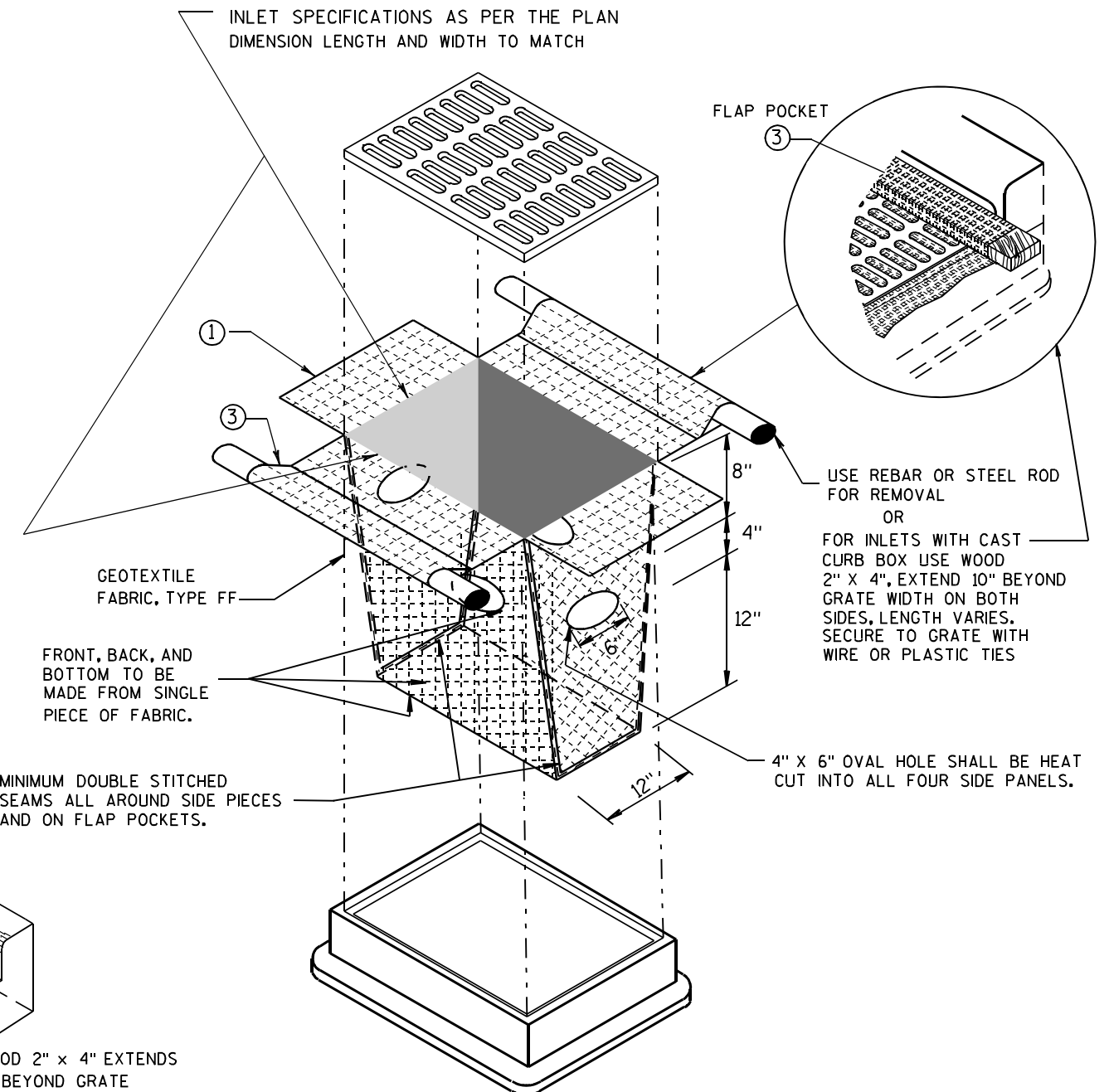
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

## 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.



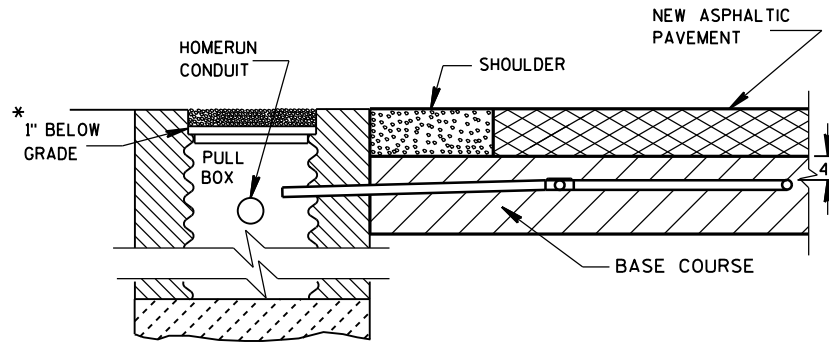
## INLET PROTECTION, TYPE D

(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

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DEPARTMENT OF TRANSPORTATION

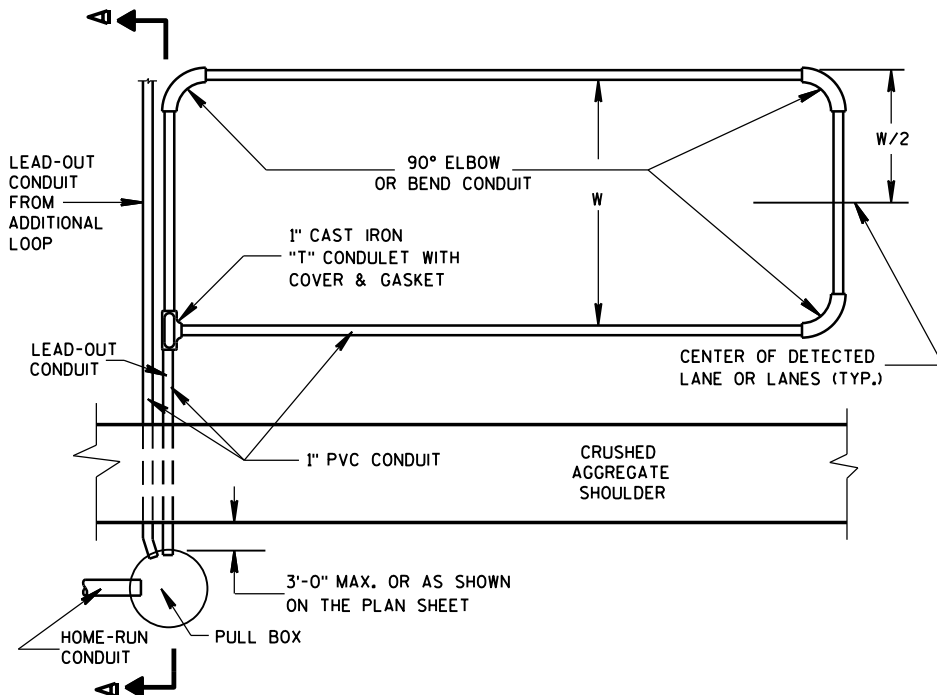
APPROVED  
10/16/02 /S/ Beth Cannestra  
DATE  
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



SECTION A-A  
NO CURB & GUTTER

### DETECTOR LOOP INSTALLATION DETAIL

\*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

### GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

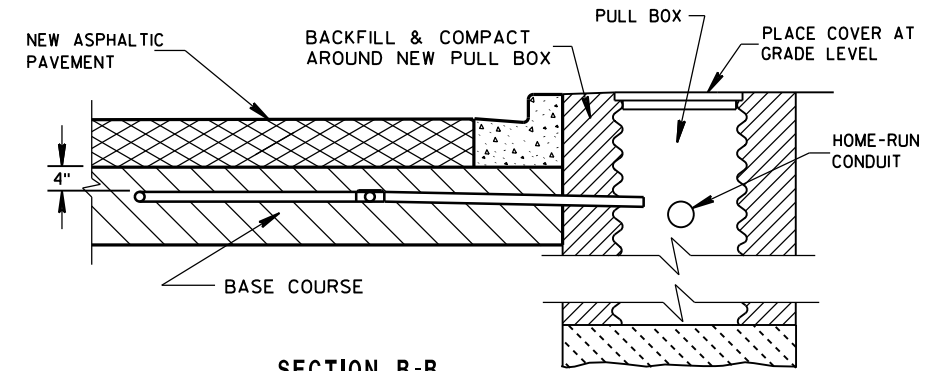
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

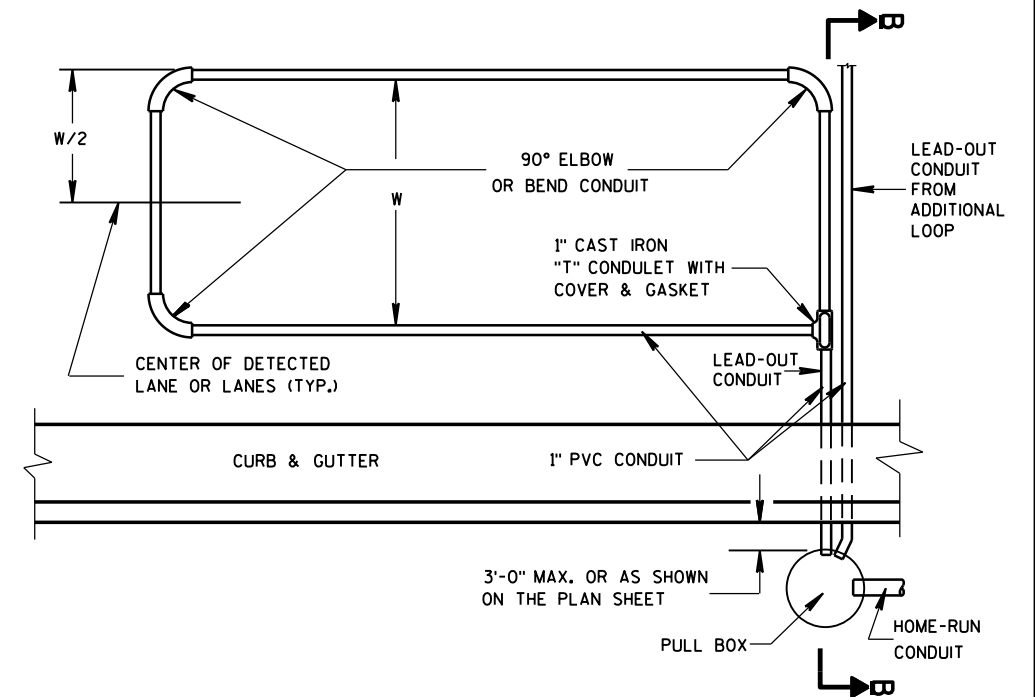
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B  
CURB & GUTTER

### LOOP DETECTOR INSTALLATION DETAIL



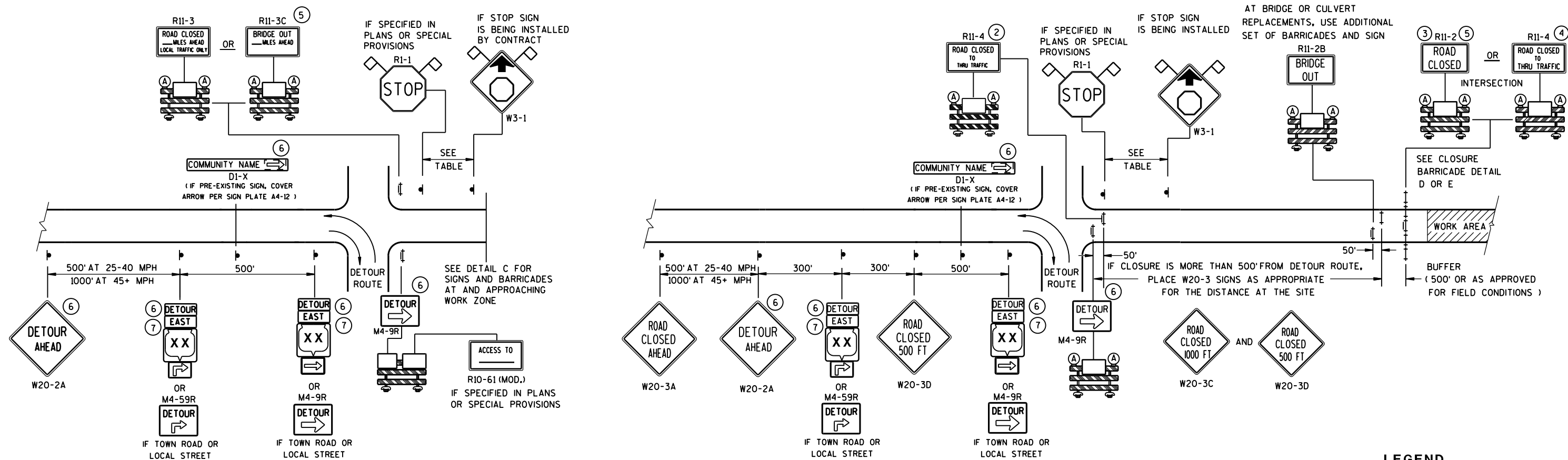
TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED  
IN CRUSHED AGGREGATE BASE  
(NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept. 2014  
DATE  
FHWA

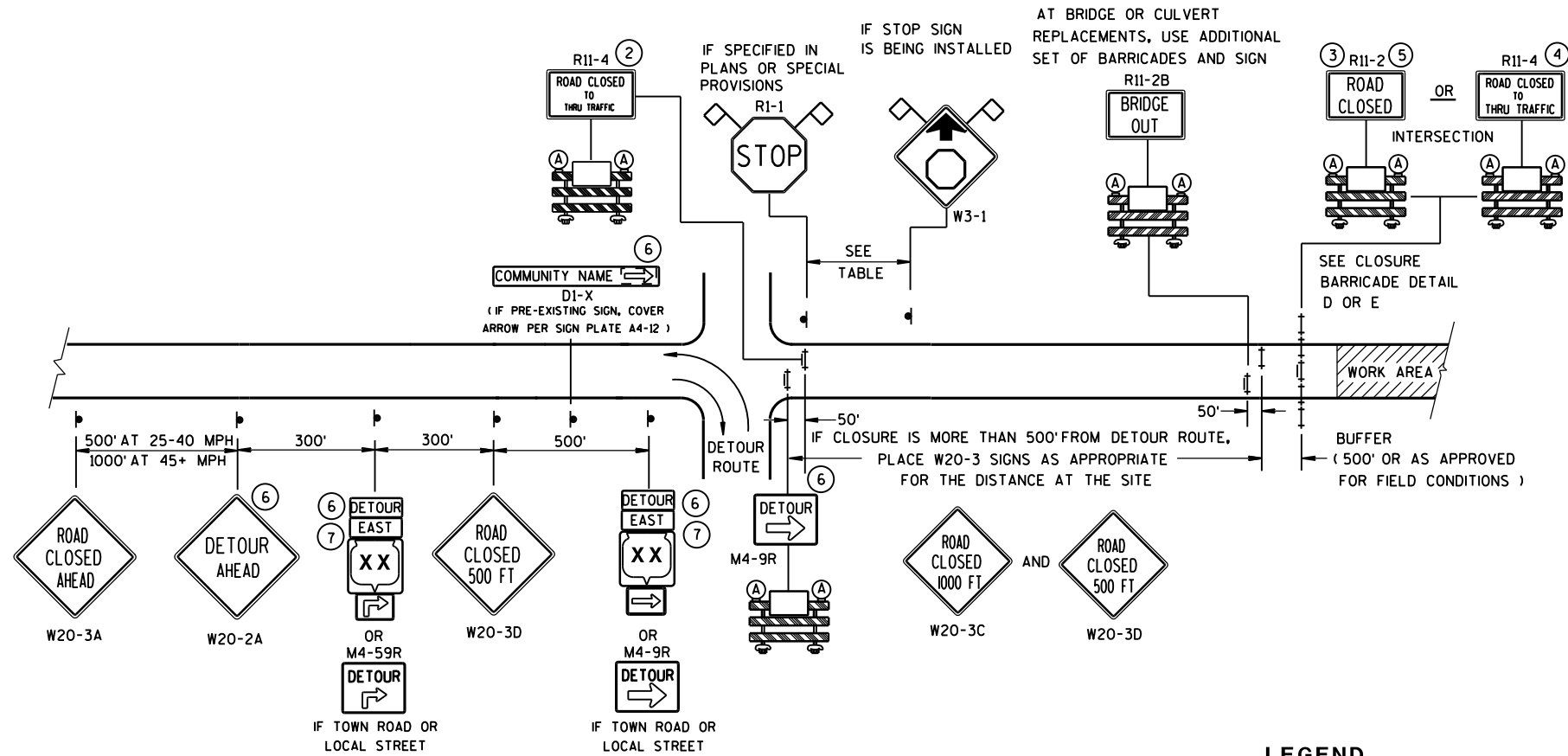
/S/ Ahmet Demirbilek  
STATE ELECTRICAL ENGINEER



DETAIL A

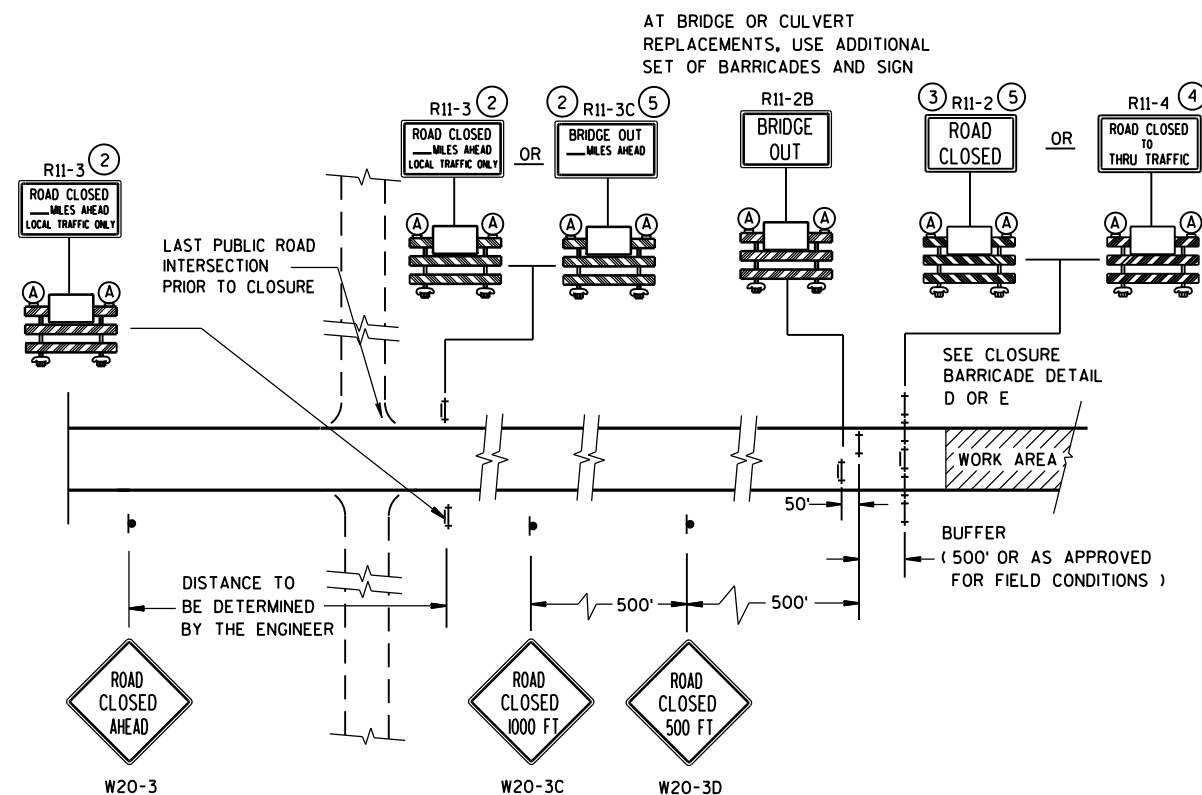
**MAINLINE CLOSURE WITH POSTED DETOUR**

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

- ### LEGEND

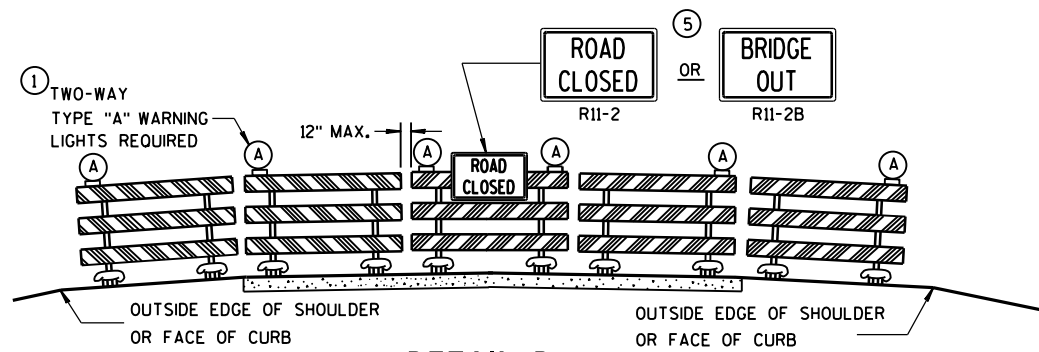
-  SIGN ON PERMANENT SUPPORT  
 TYPE III BARRICADE  
 TYPE III BARRICADE WITH ATTACHED SIGN  
 TYPE "A" WARNING LIGHT (FLASHING)  
 WORK AREA  
 M4-8  
 M3-X  
 M1-4  
 M1-5A  
 M1-6  
 M05-1  
 M06-1  
 FLAGS, 16" X 16" MIN., (ORANGE)

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

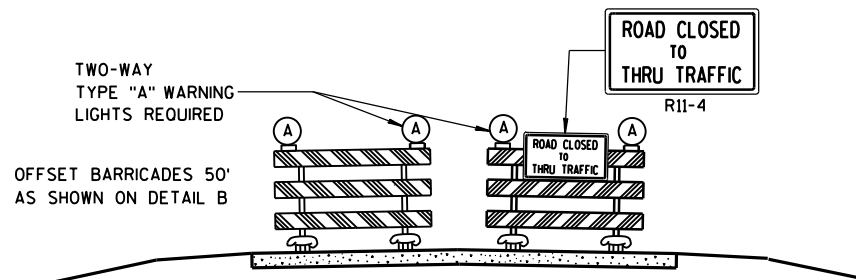
## BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
FHWA	SAFETY ENGINEER



DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW



DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

### GENERAL NOTES

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

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

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

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

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

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

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

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

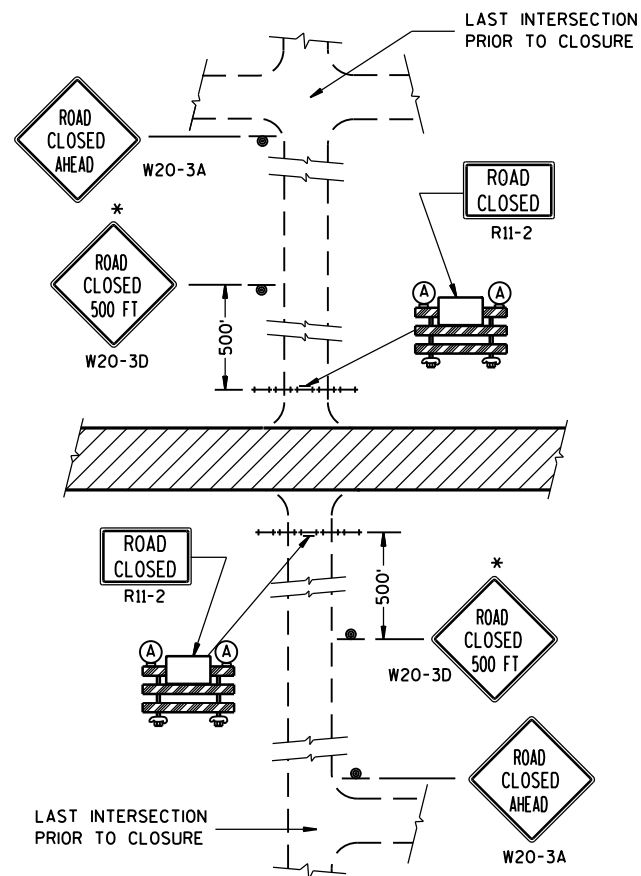
"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

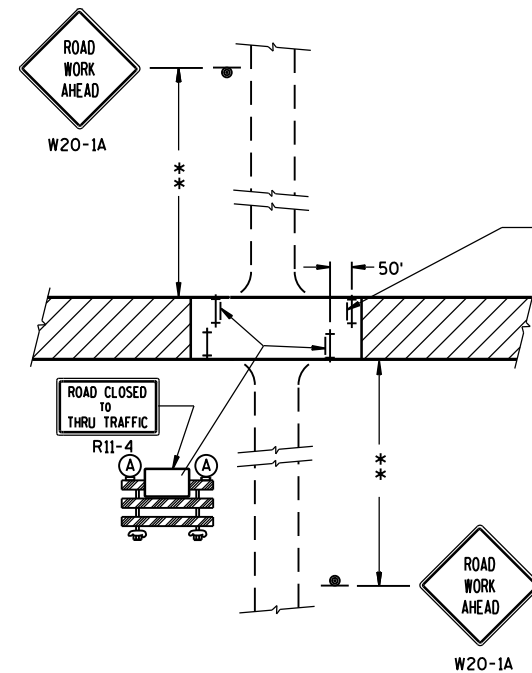
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" 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.

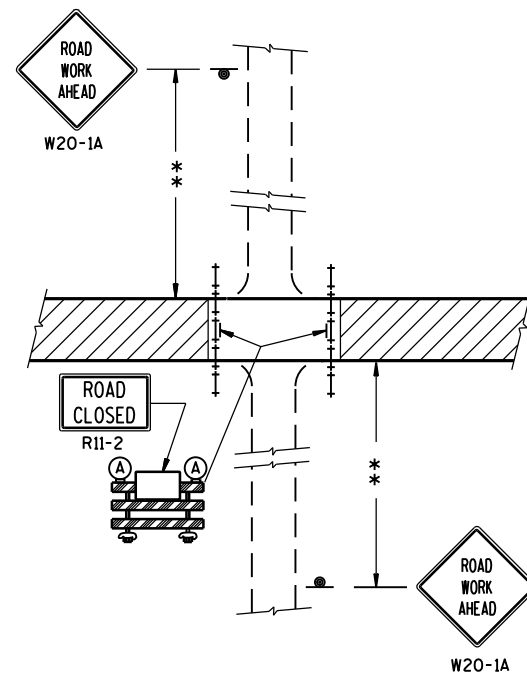
BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



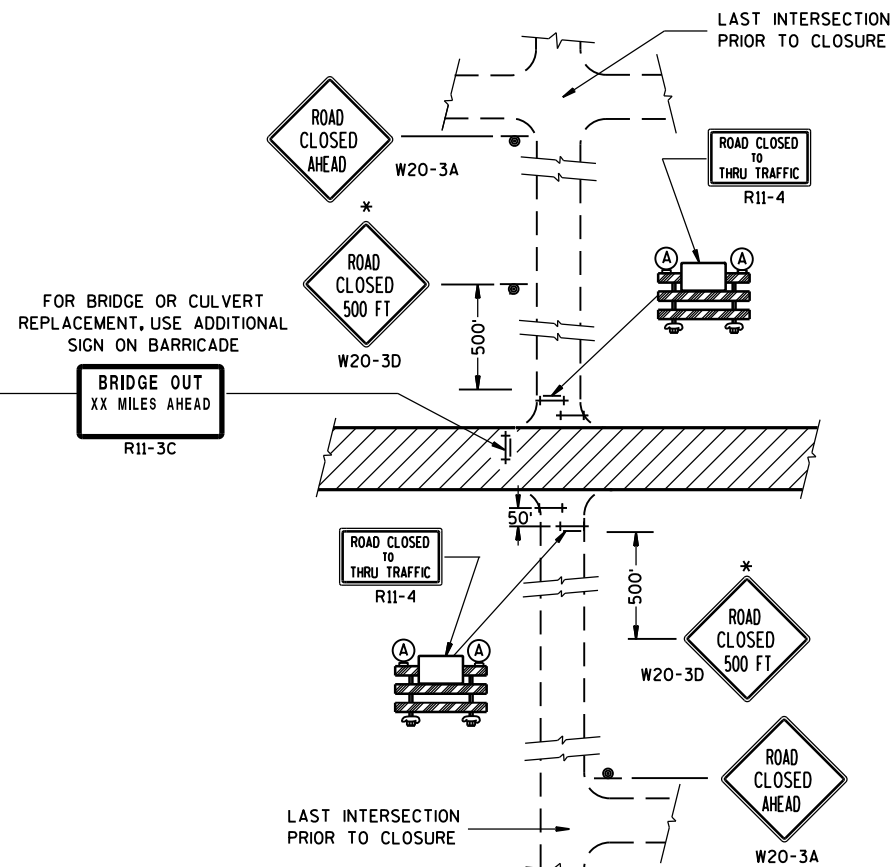
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**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.

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

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

## BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

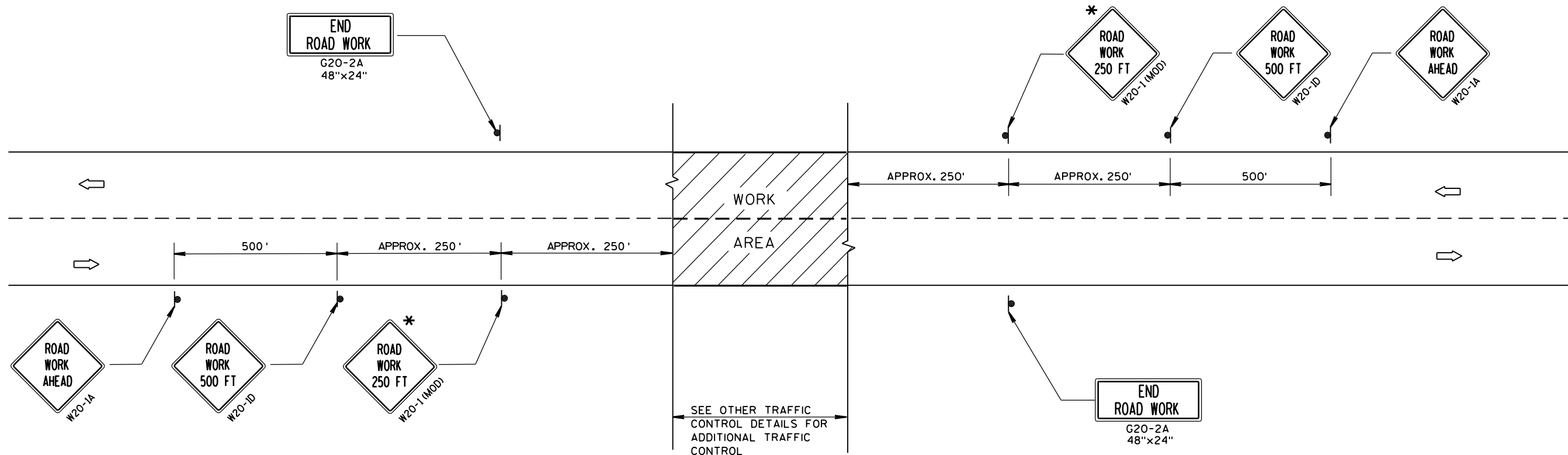
APPROVED

Sept. 2015

DATE

FHWA

/S/ Peter Amakobe Atepe  
STATEWIDE WORK ZONE TRAFFIC  
SAFETY 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.

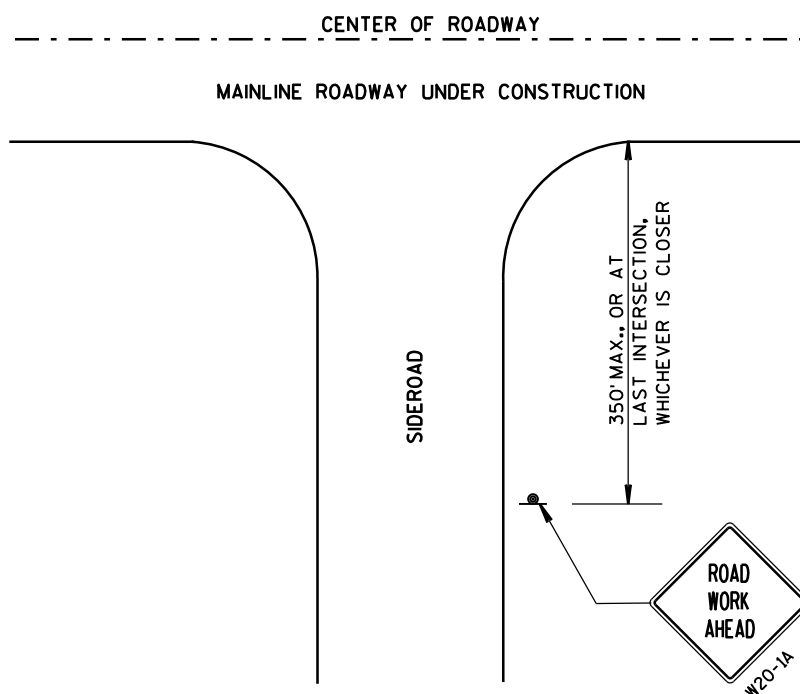
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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.

\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



## LEGEND

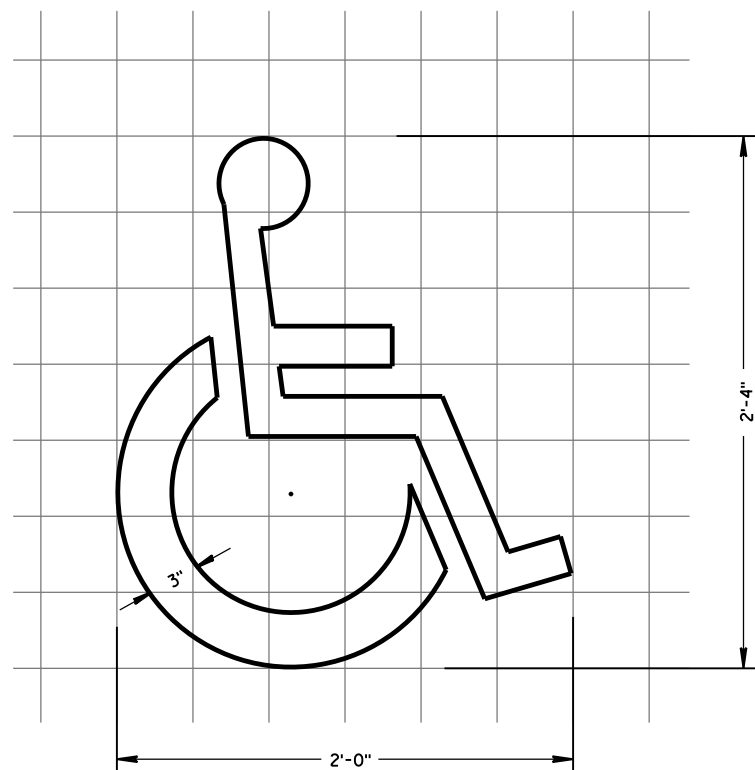
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE  
WARNING SIGNS 40 M.P.H.  
OR LESS TWO-WAY UNDIVIDED  
ROAD OPEN TO TRAFFIC

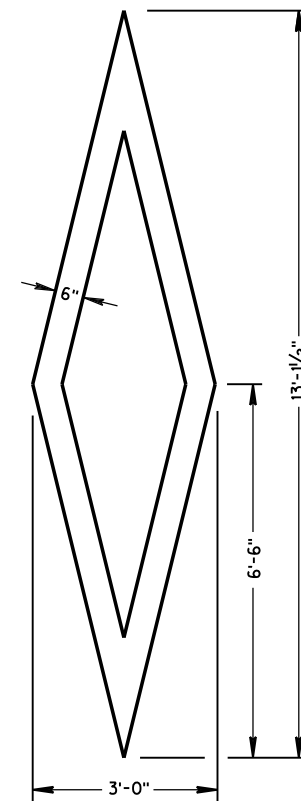
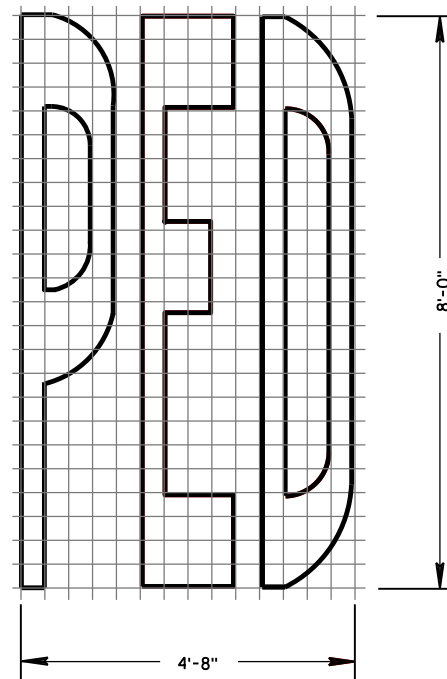
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept. 2015 /S/ Peter Amakobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER





HANDICAP SYMBOL

PREFERENTIAL  
LANE SYMBOL**GENERAL NOTES**

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

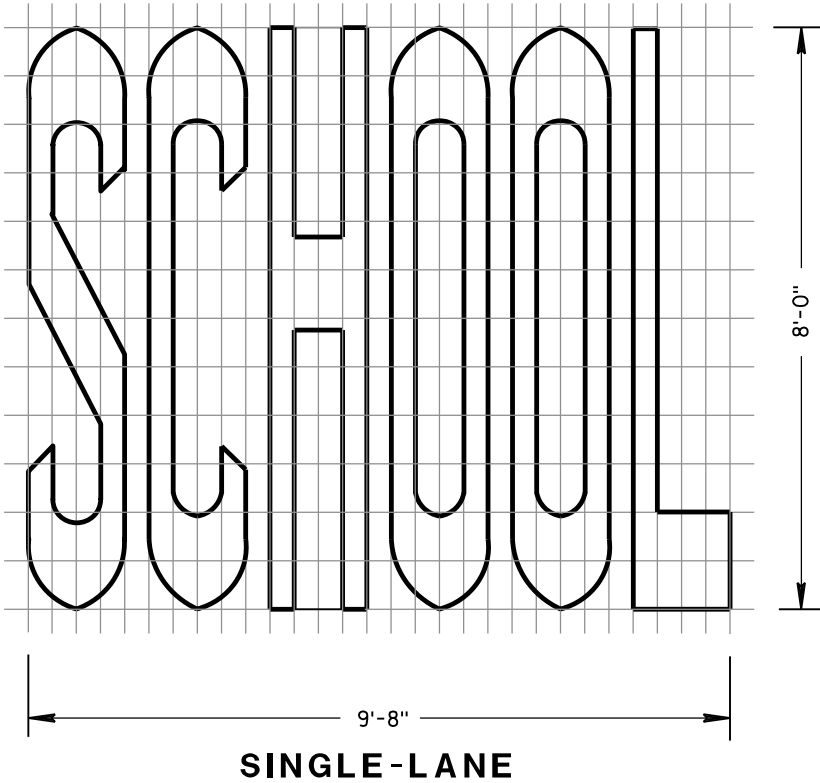
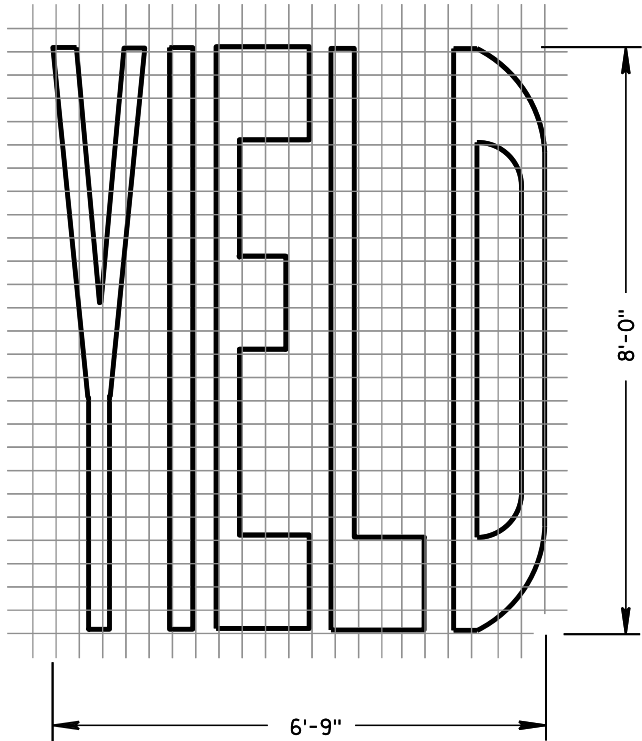
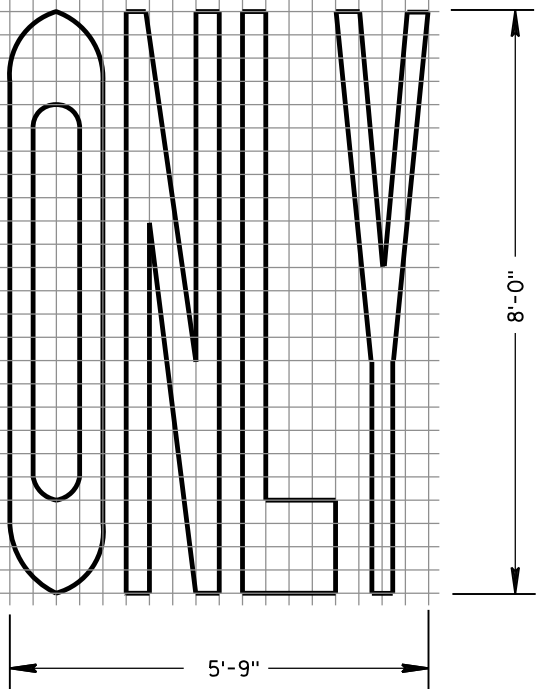
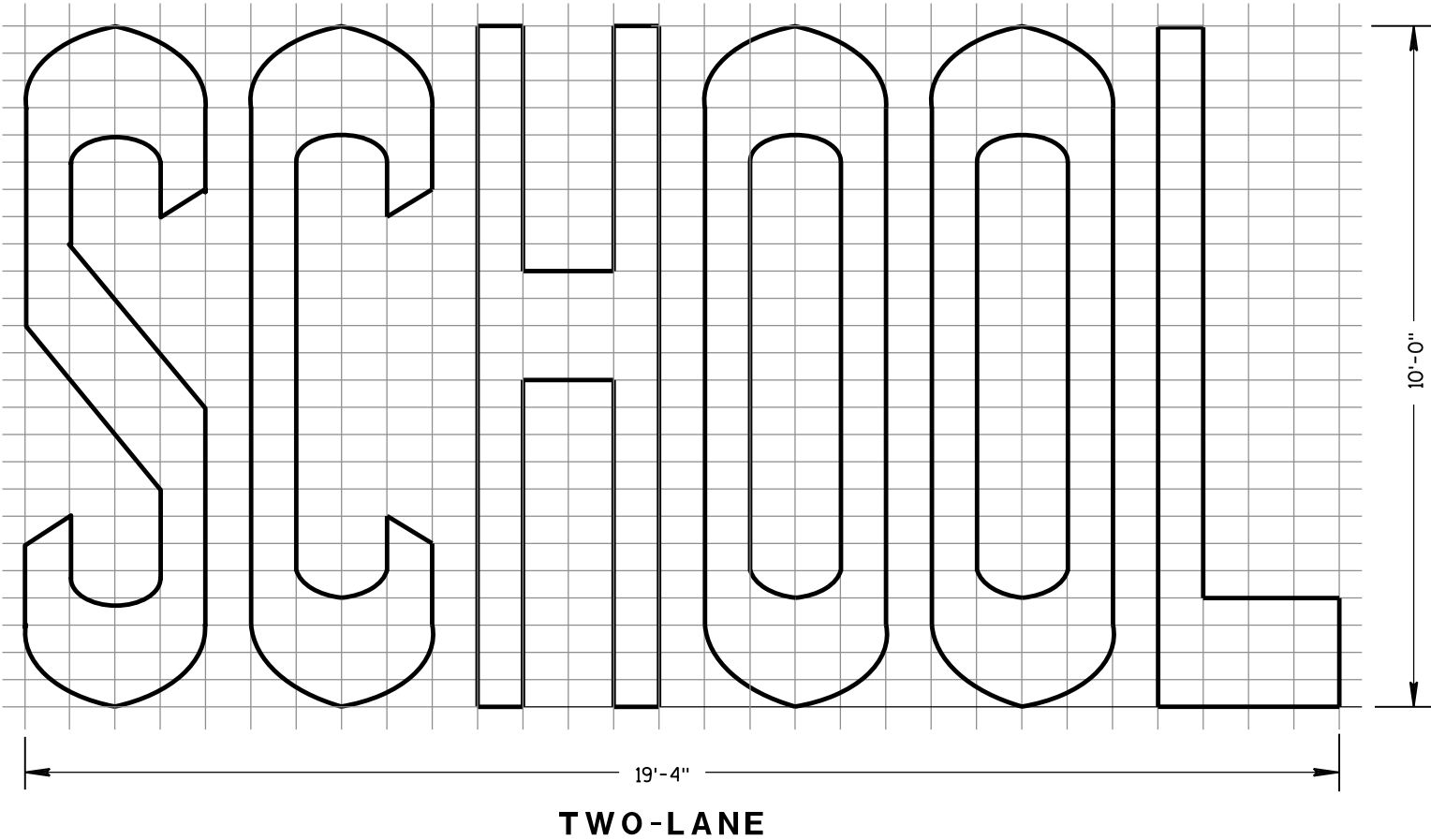
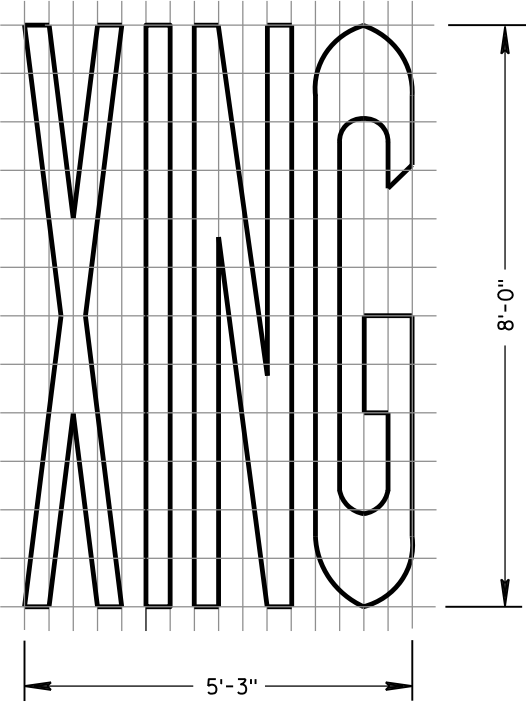
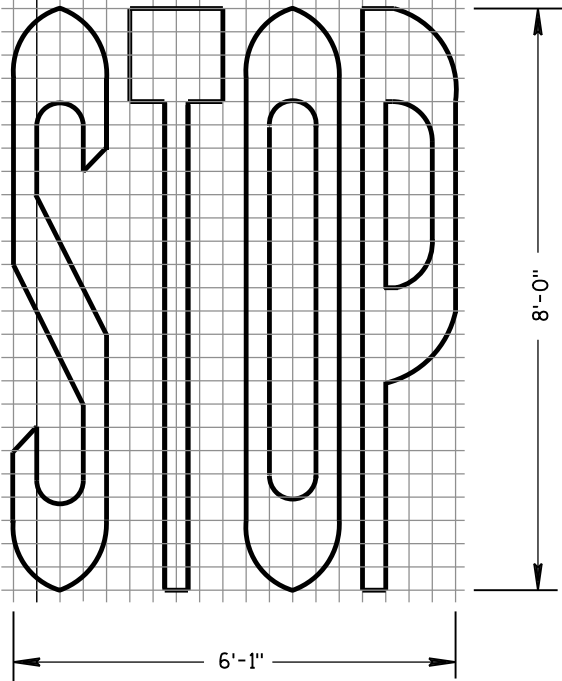
APPROVED

June 2017  
DATE/S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER

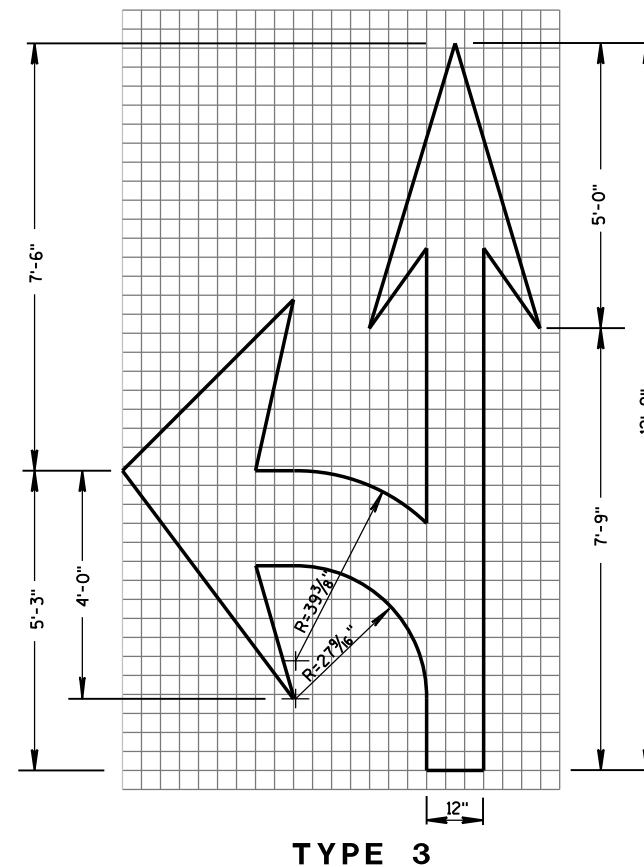
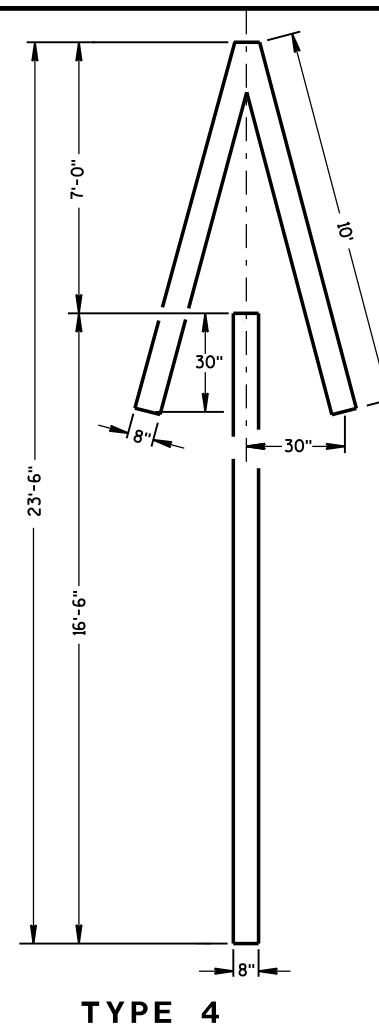
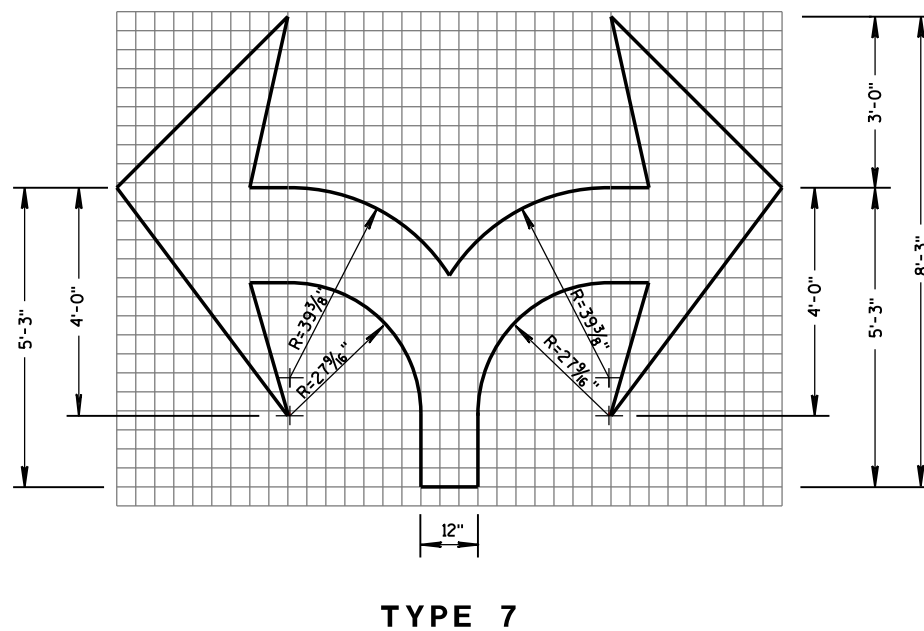
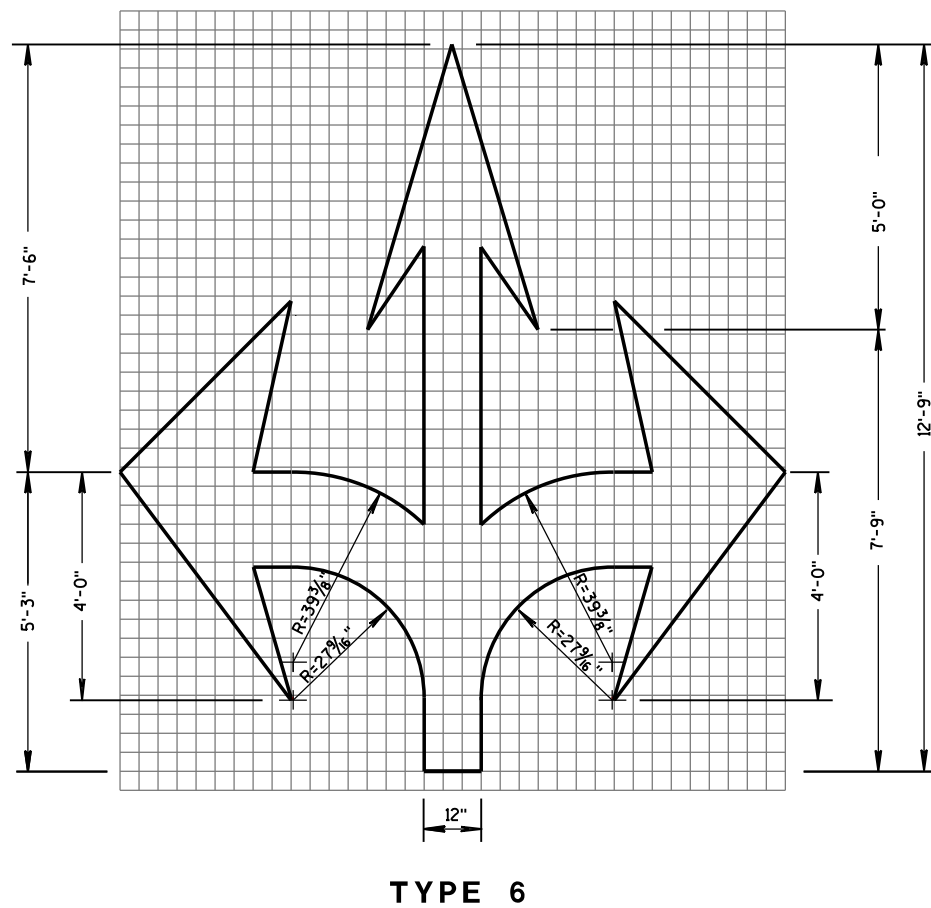
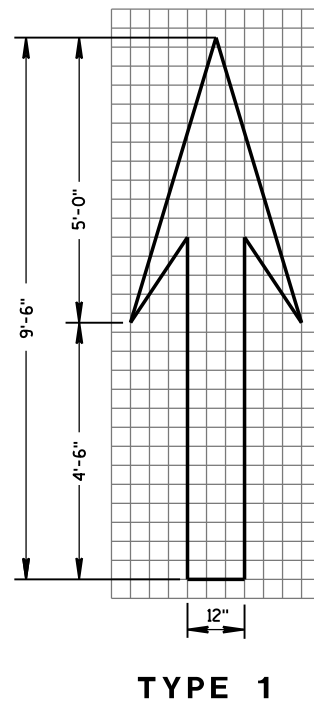
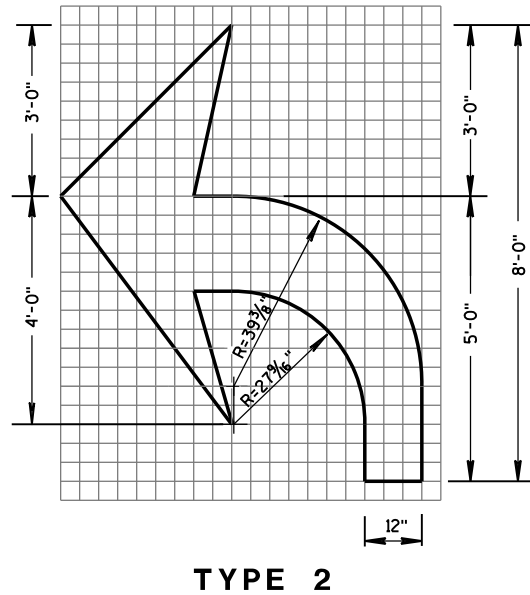
FHWA

GENERAL NOTES

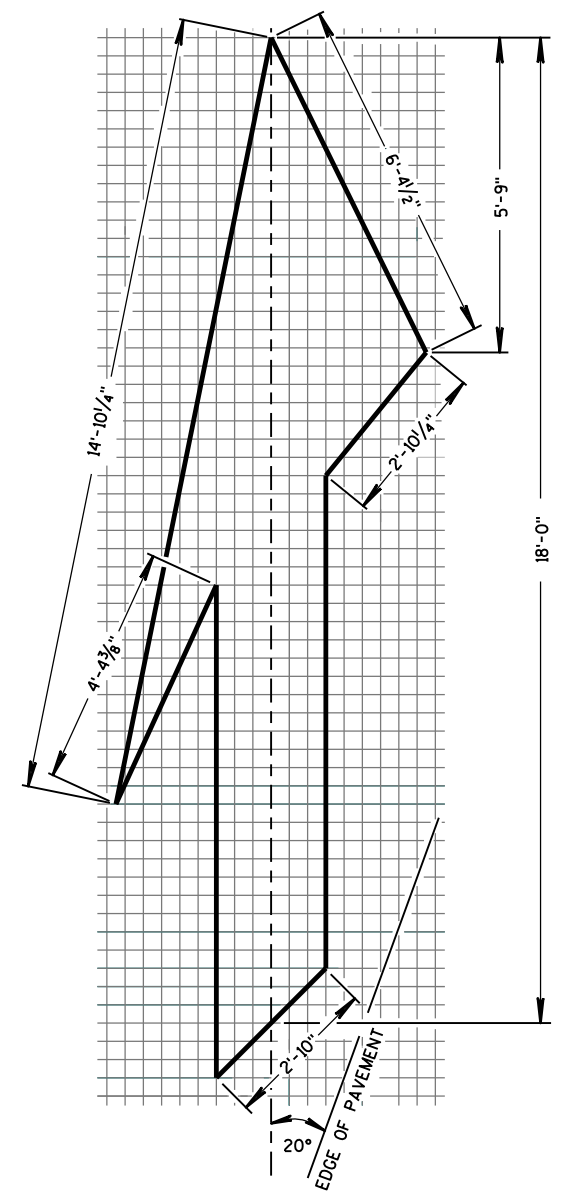
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

**GENERAL NOTES**

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

**PAVEMENT MARKING ARROWS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

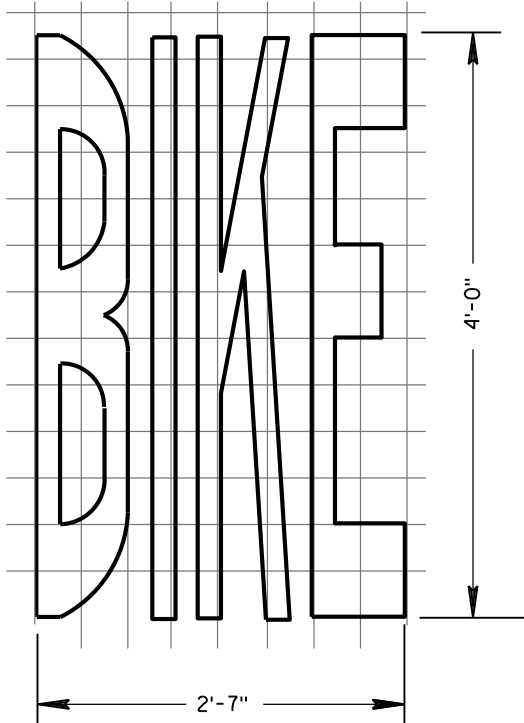
APPROVED

June 2017

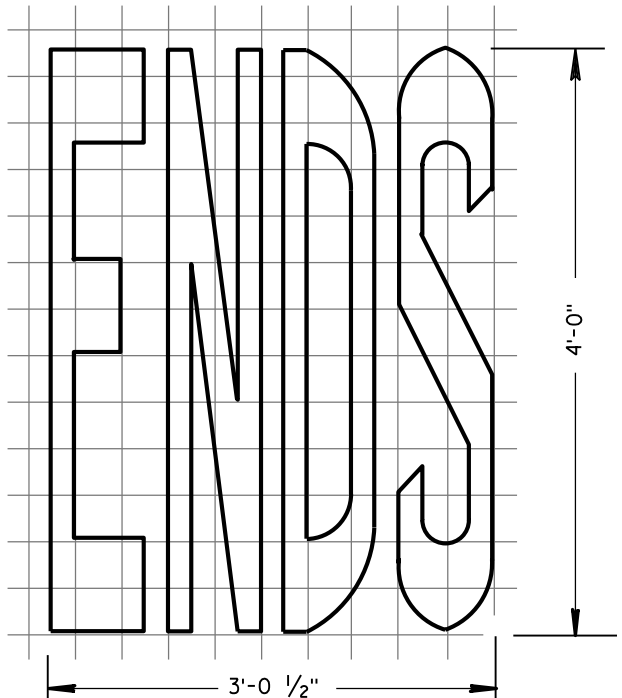
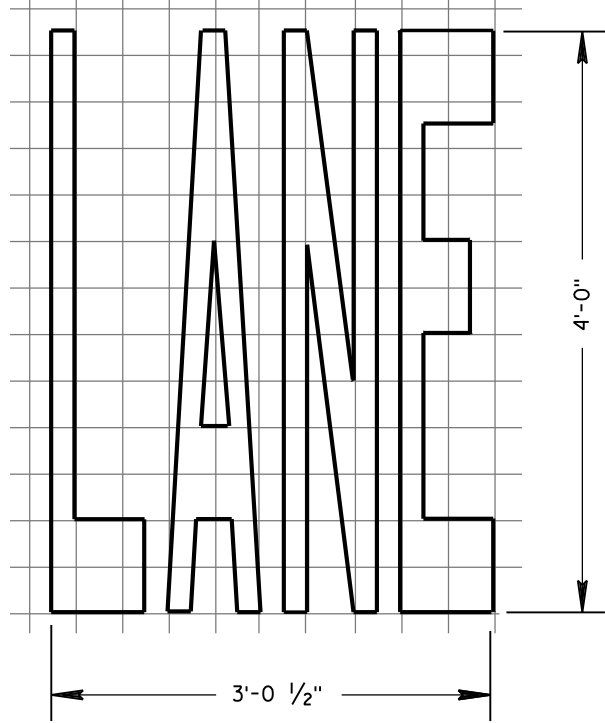
DATE

FHWA

/S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER

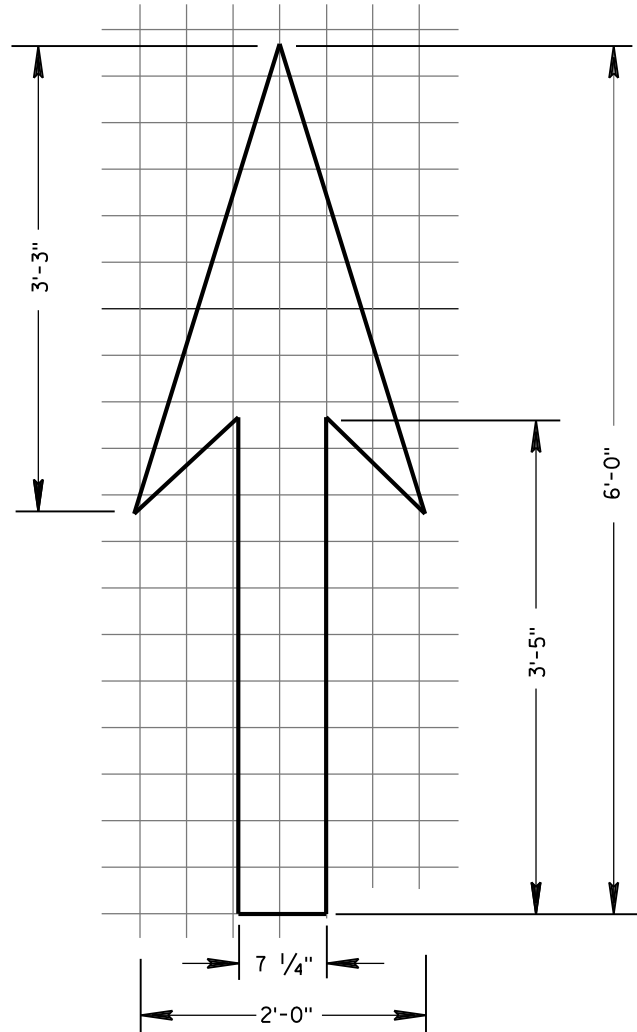


BIKE LANE WORDS

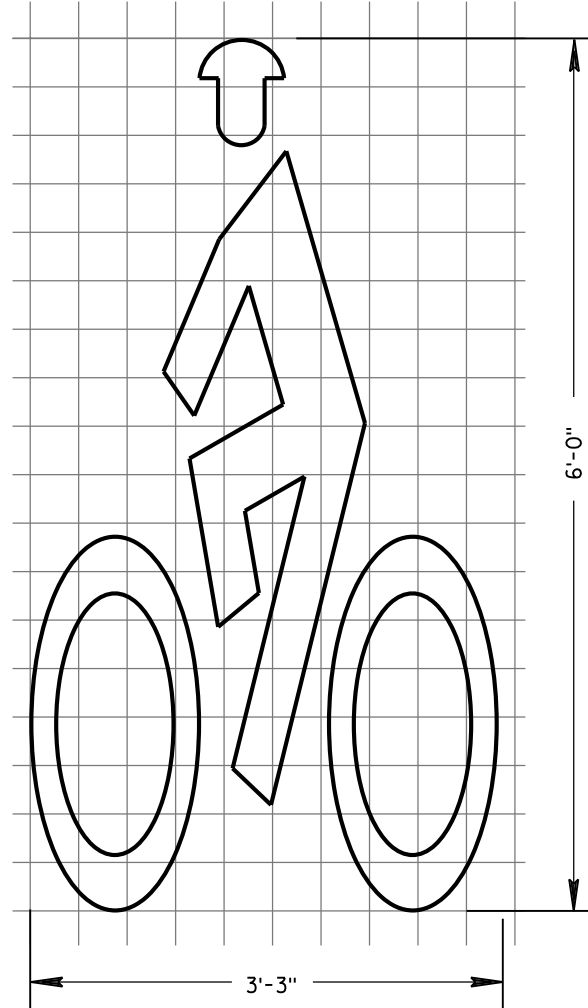


BIKE LANE WORDS

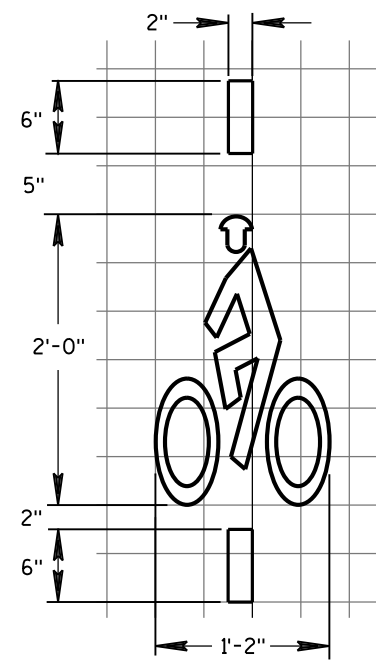
**GENERAL NOTES**  
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



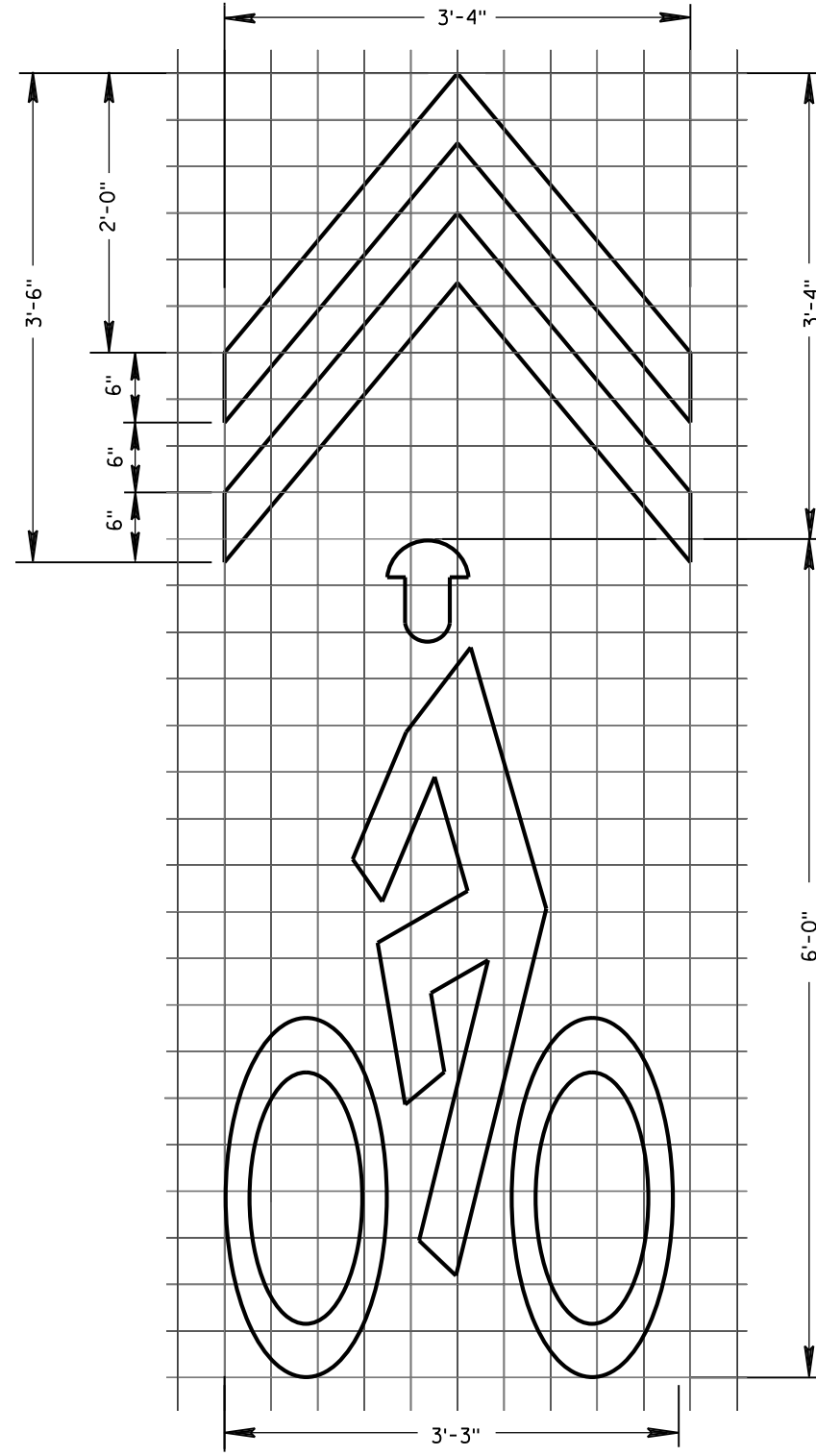
BIKE LANE ARROW



BIKE LANE SYMBOL

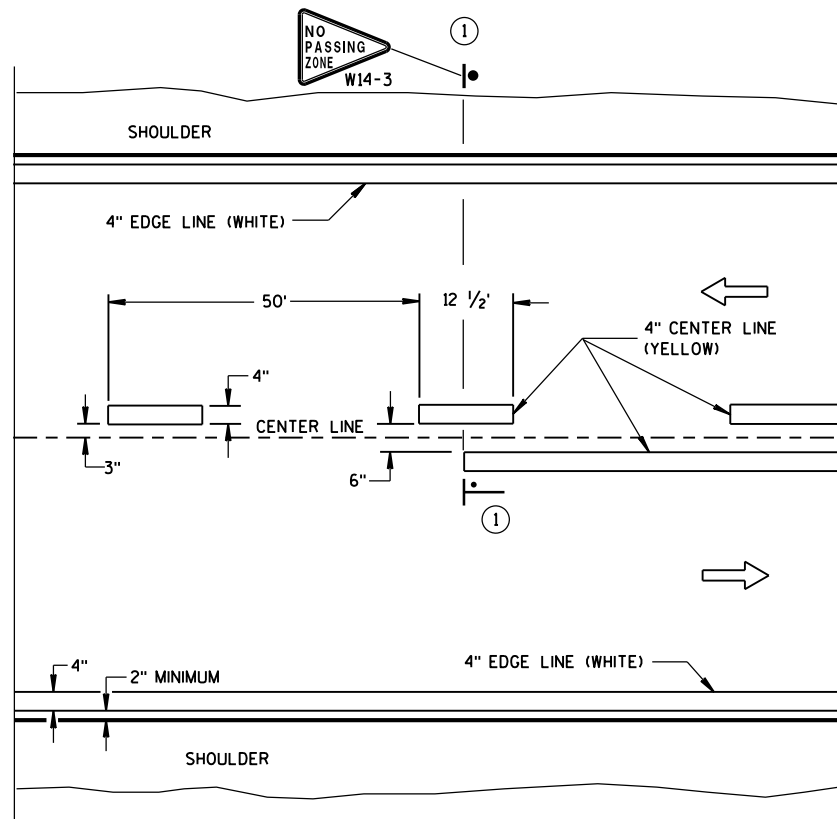


BICYCLE DETECTOR PAVEMENT MARKING

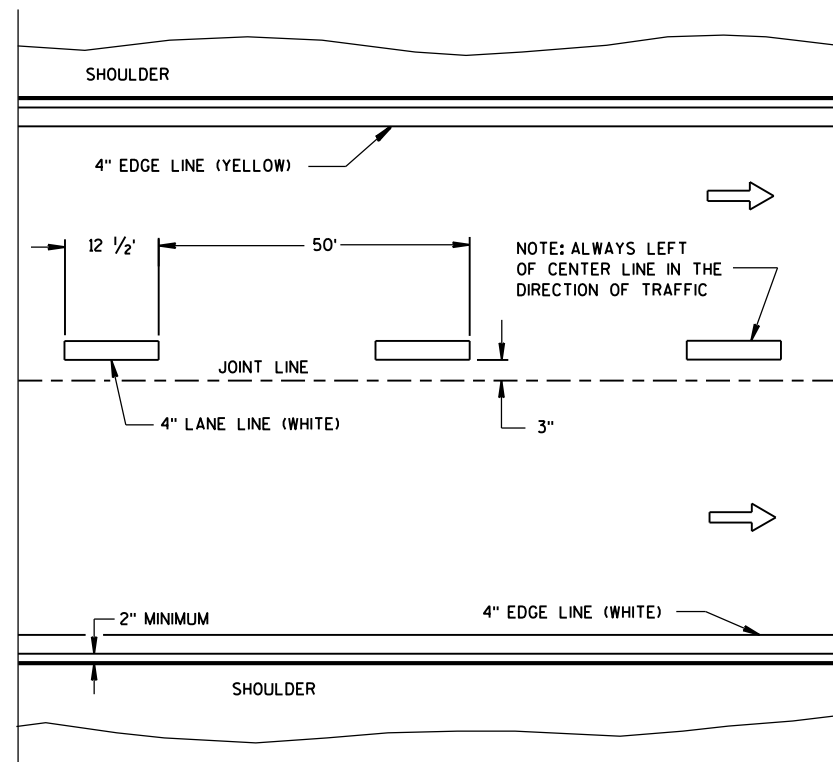


BIKE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

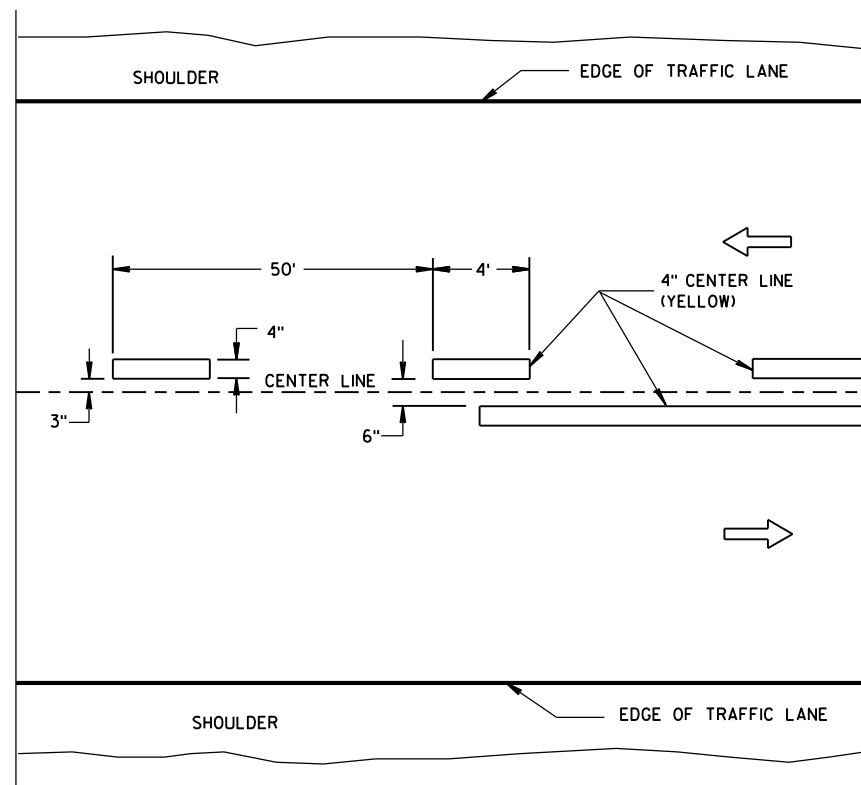


**TWO WAY TRAFFIC**

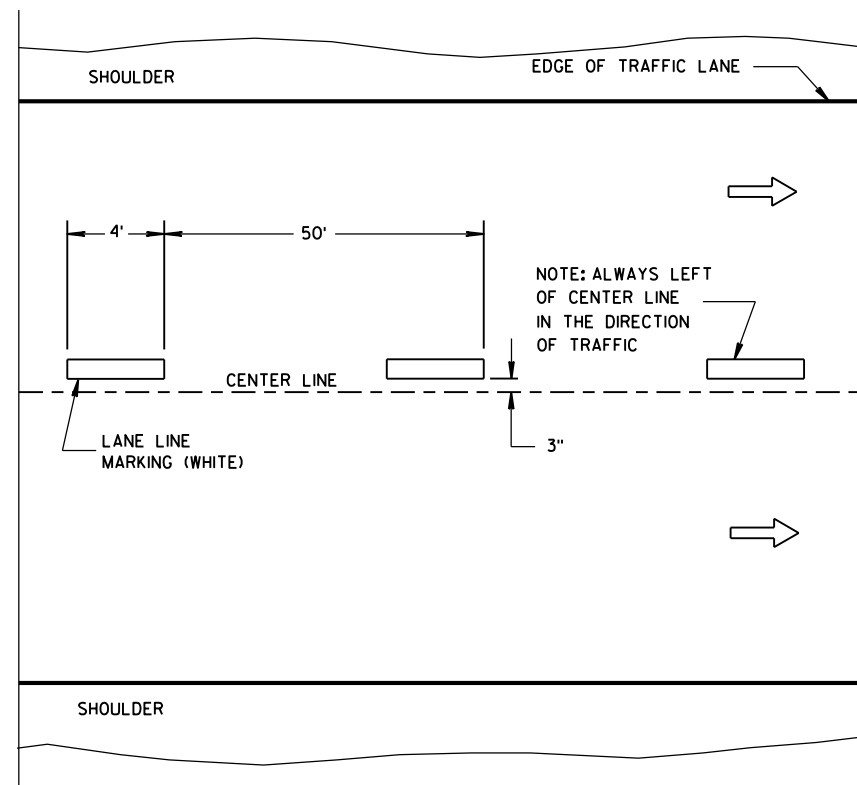


**ONE WAY TRAFFIC**

## PERMANENT PAVEMENT MARKING



**TWO WAY TRAFFIC**



ONE WAY TRAFFIC

## TEMPORARY PAVEMENT MARKING

## GENERAL NOTES

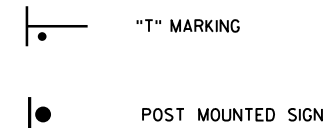
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

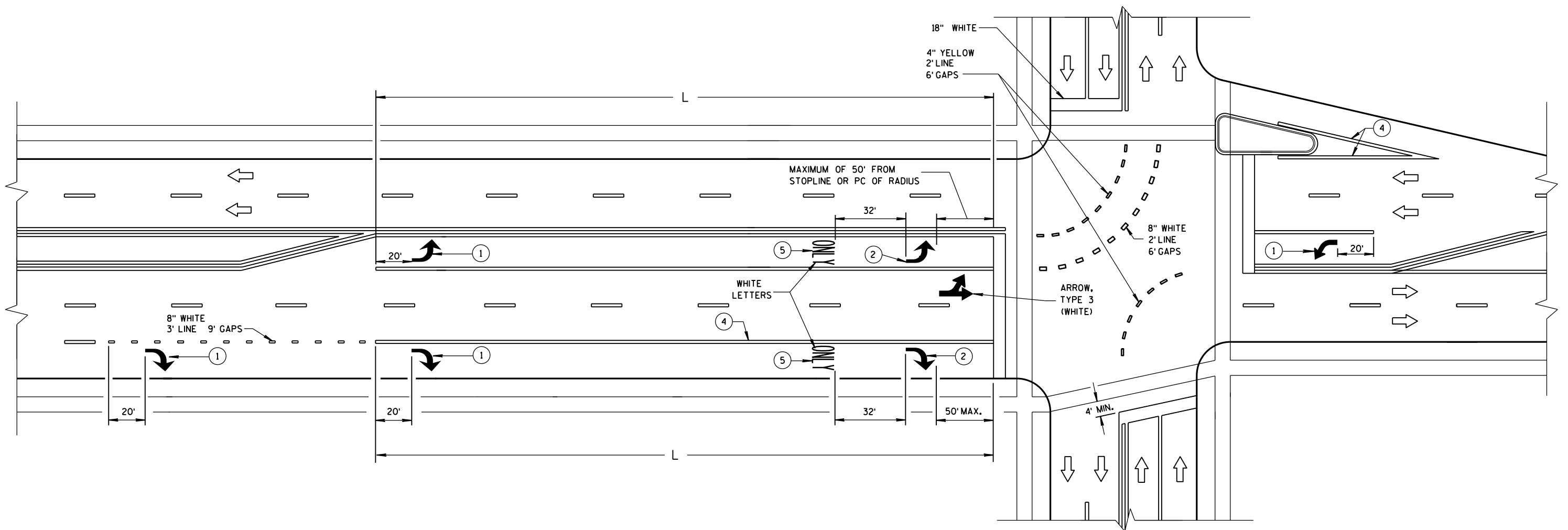
## NOTE

ARROW SYMBOL (  ) SHOWS DIRECTION OF TRAVEL

## LEGEND



<p><b>LONGITUDINAL MARKING (MAINLINE)</b></p>
<p><b>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</b></p>
<p><b>APPROVED</b> June 2017 /S/ Matthew R. Rauch DATE STATE SIGNING AND MARKING ENGINEER</p> <p>FHWA</p>



### GENERAL NOTES

- ① REQUIRED ARROW, TYPE 2 (WHITE).
- ② REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ 8" WHITE
- ⑤ REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

### TWO WAY LEFT TURN LANE

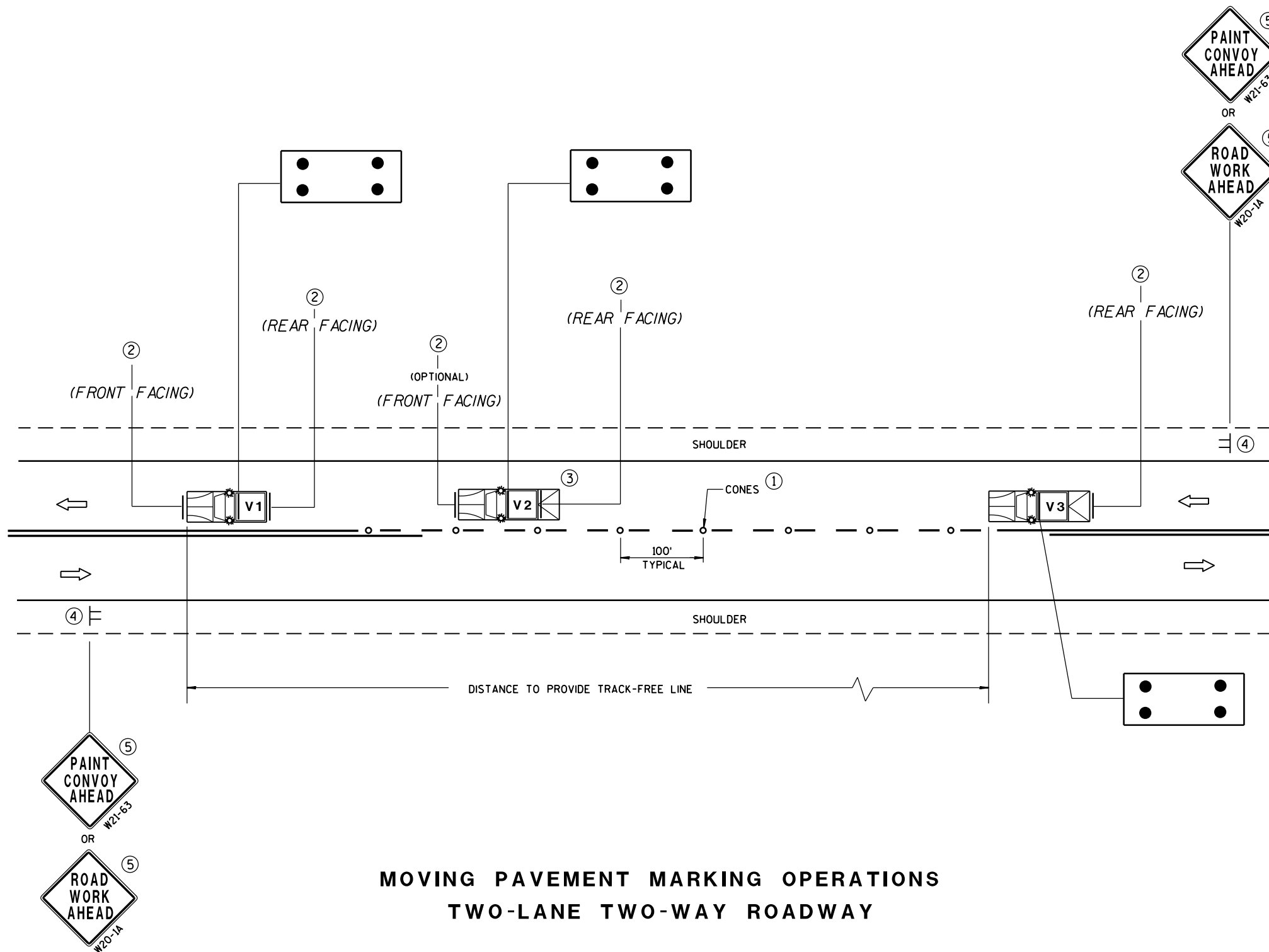
NOTE:  
ARROW SYMBOL (→)  
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

PAVEMENT MARKING  
(TURN LANES)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





MOVING PAVEMENT MARKING OPERATIONS  
TWO-LANE TWO-WAY ROADWAY

## GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

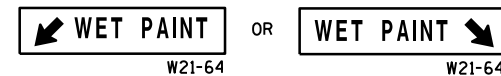
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

## LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

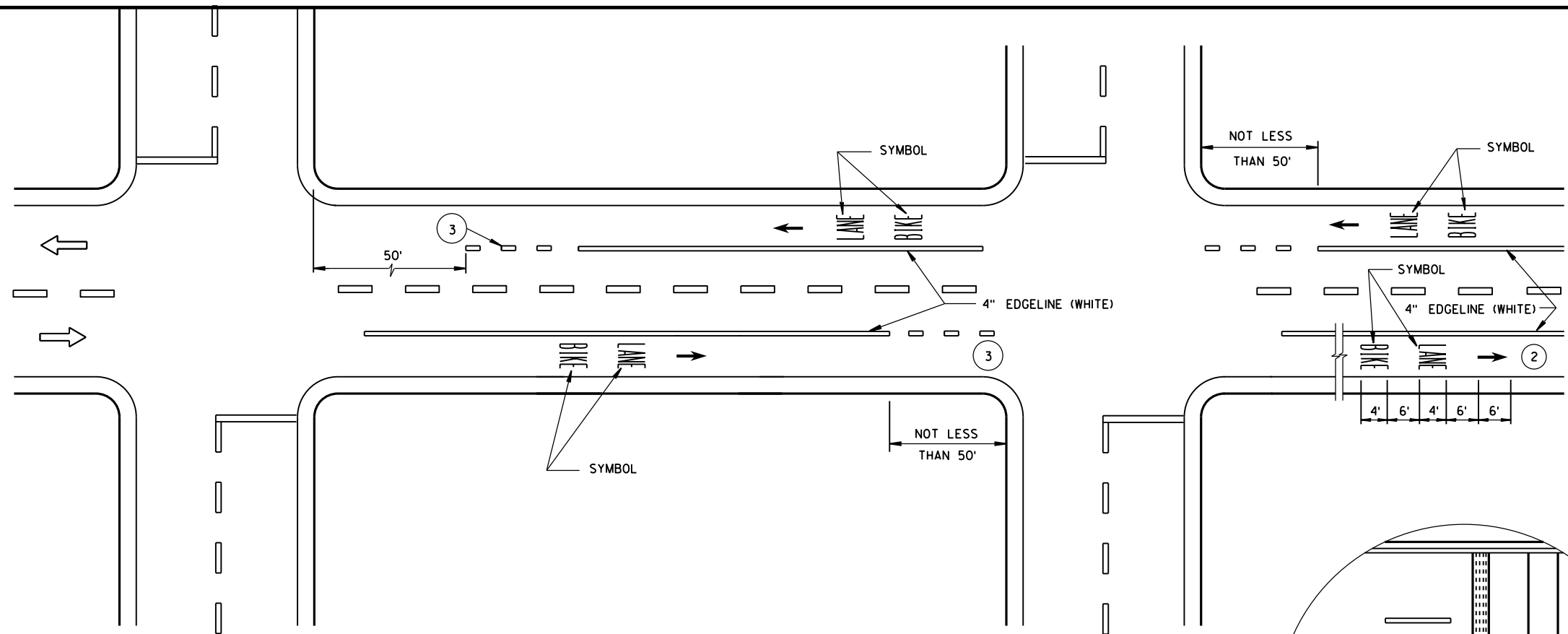
FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING  
OPERATION  
TWO-LANE TWO-WAY ROADWAY

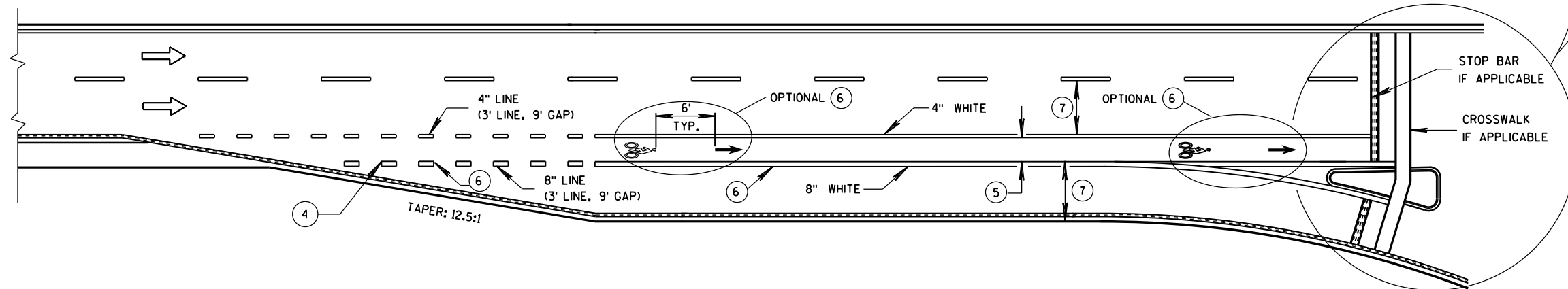
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2016  
DATE  
FHWA

/S/ Peter Amakobe Atepe  
STATEWIDE WORK ZONE TRAFFIC  
SAFETY ENGINEER



### DESIGNATED BICYCLE LANE NO PARKING

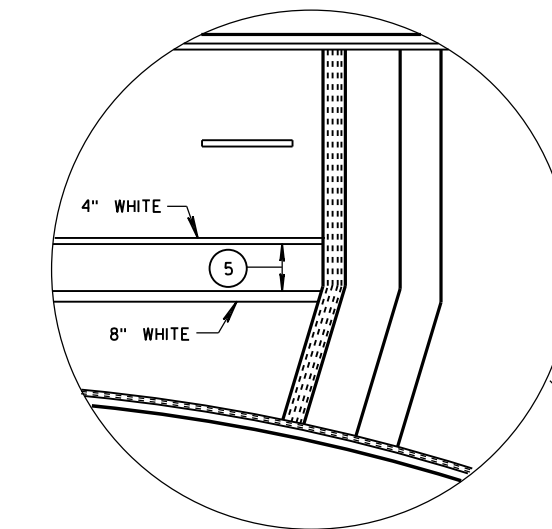


### BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS (4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

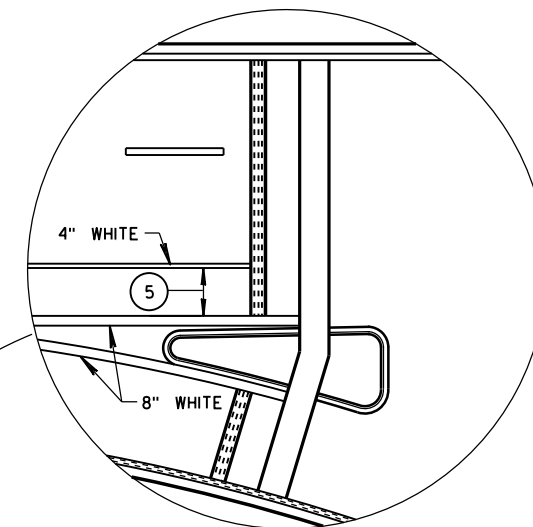
### GENERAL NOTES

- ① DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- ② MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- ③ DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- ④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT  $\geq 45$  MPH.
- ⑥ OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
- ⑦ REFER TO CONTRACT PLANS FOR LANE WIDTH.

➡ DIRECTION OF TRAVEL



### 4 LANE DIVIDED WITHOUT ISLAND



### 4 LANE DIVIDED WITH ISLAND

### BICYCLE LANE MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

12-2016

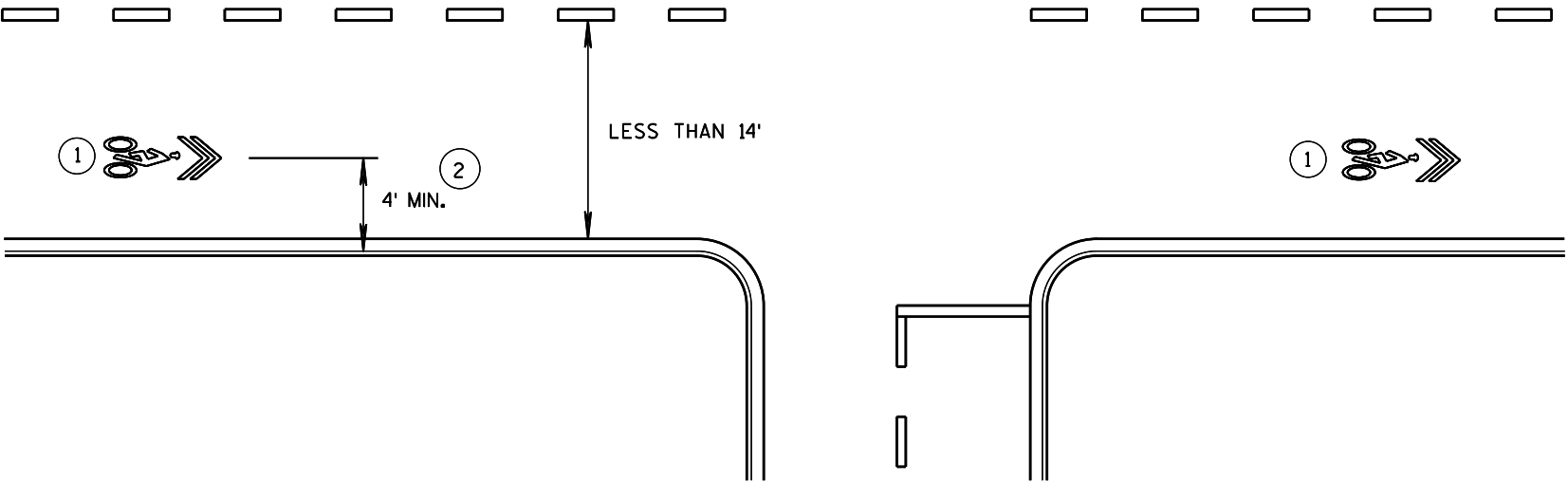
DATE

FHWA

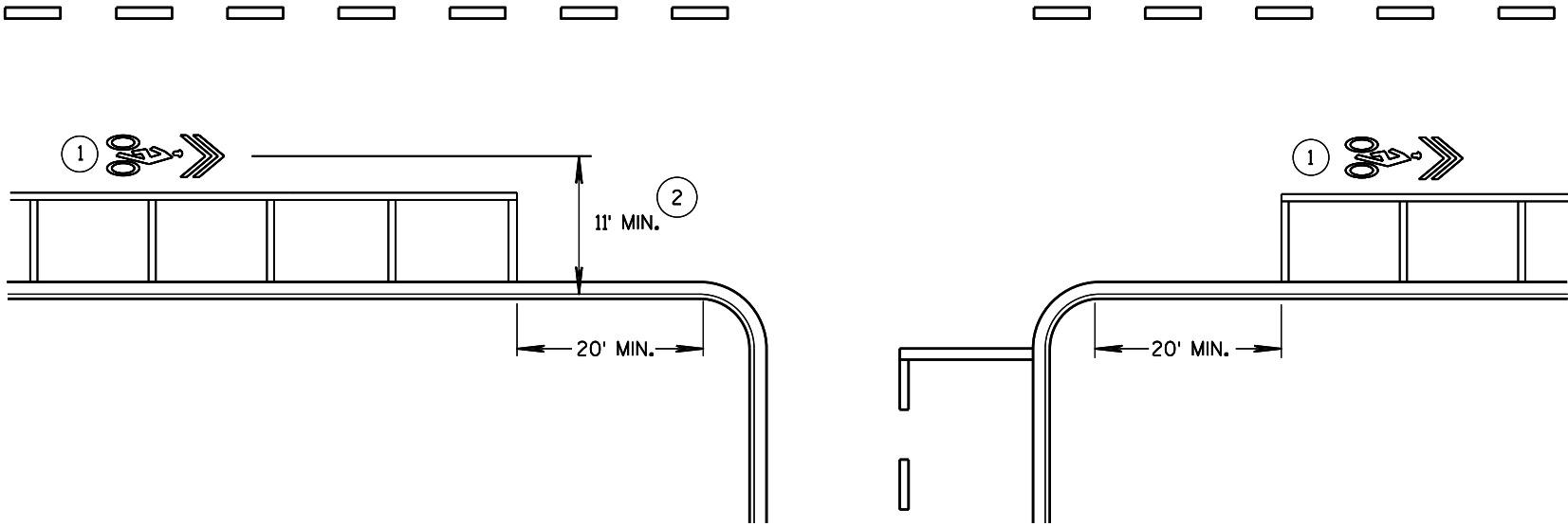
/S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER

GENERAL NOTES

- ① MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.
- ② OR TO EDGE OF PAVEMENT WITHOUT CURB.

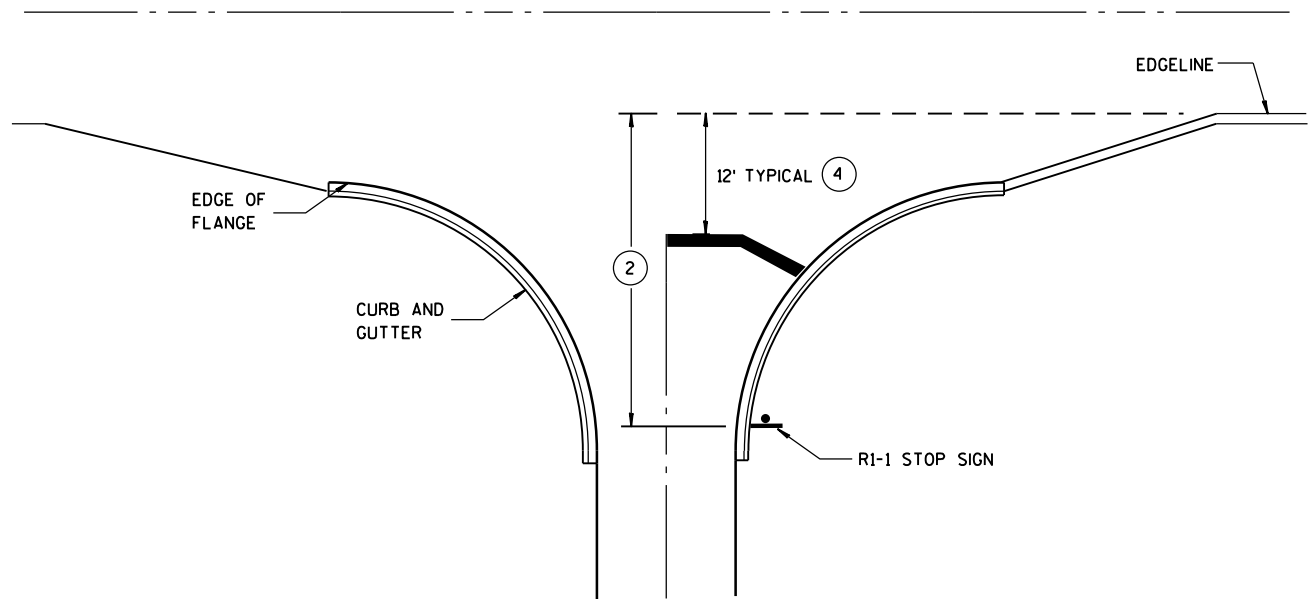


WITHOUT PARKING

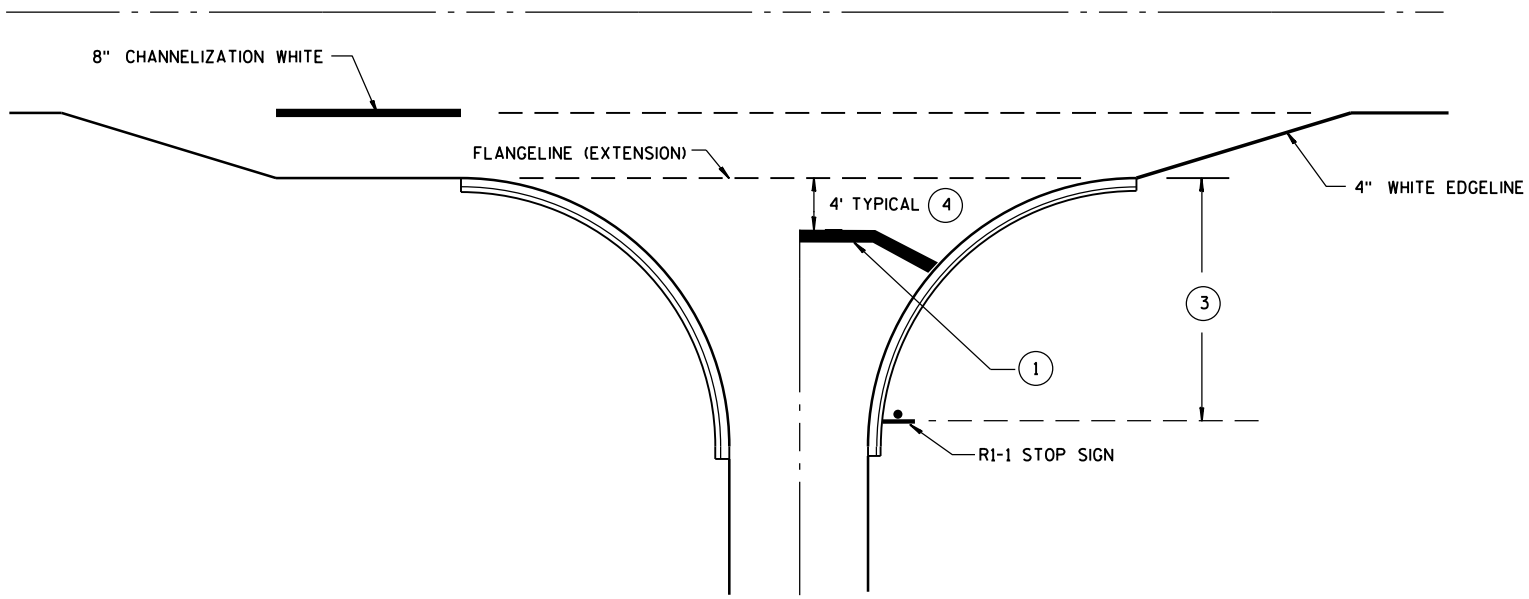


WITH PARKING

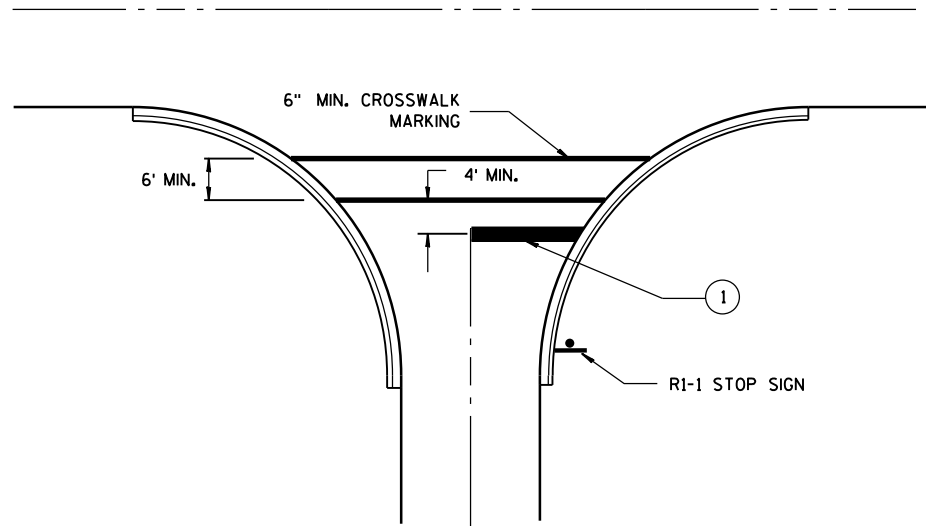
PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



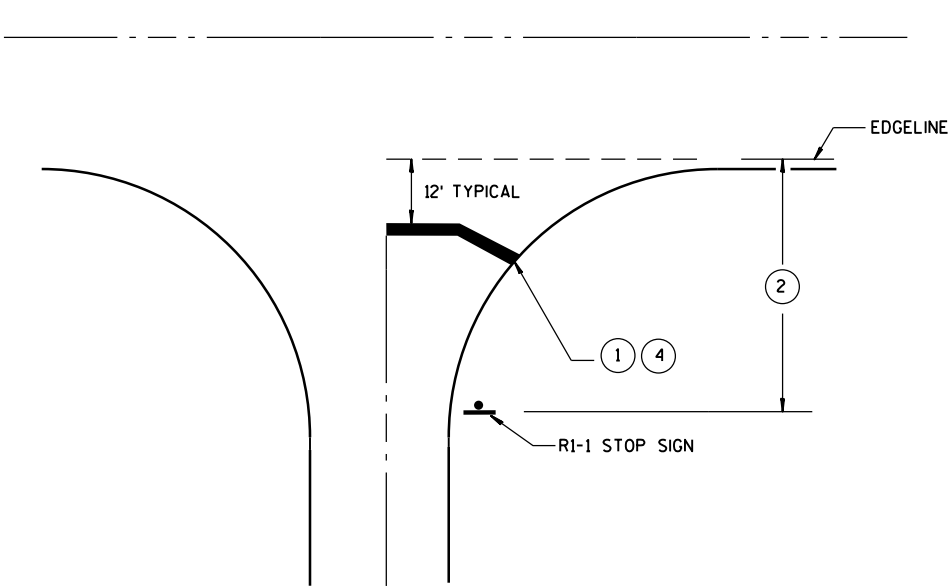
TYPICAL STOP LINE PAVEMENT MARKING  
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING  
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING  
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING  
WITHOUT CURB AND GUTTER

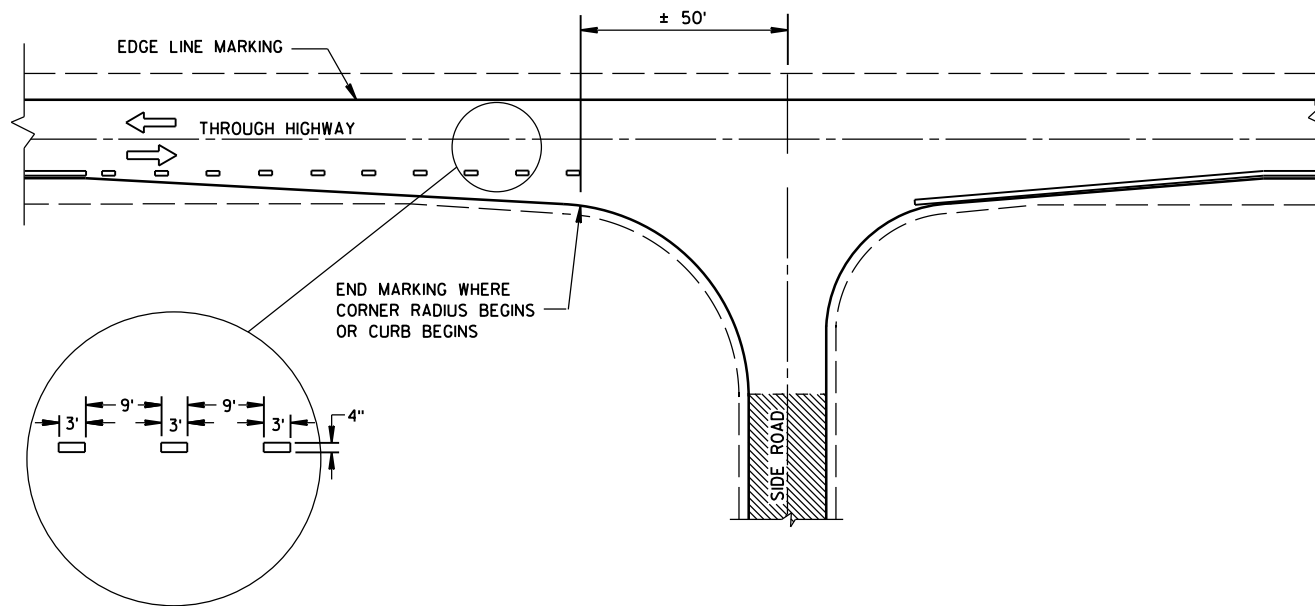
GENERAL NOTES

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK  
PAVEMENT MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
4-18-2016 DATE /S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER  
FHWA




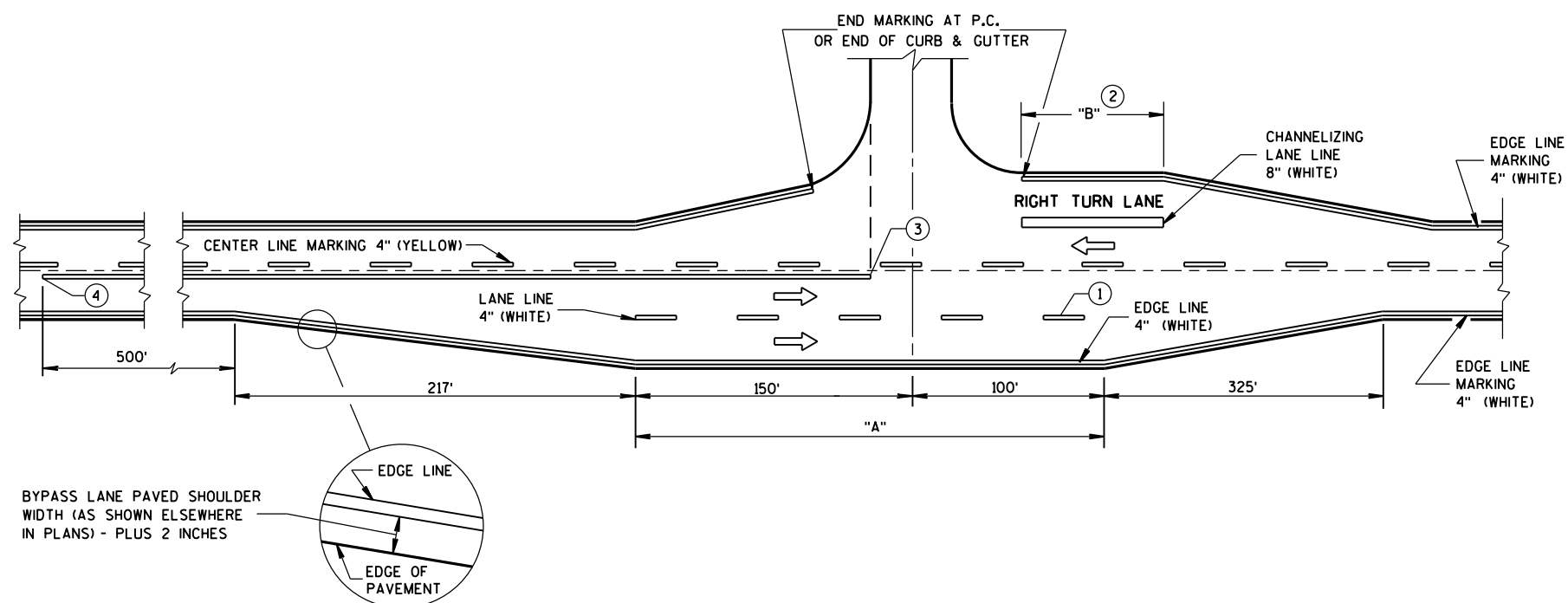
**MINOR INTERSECTION WITHOUT CURBS**

## GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

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

ARROW SYMBOL (  ) SHOWS DIRECTION OF TRAVEL

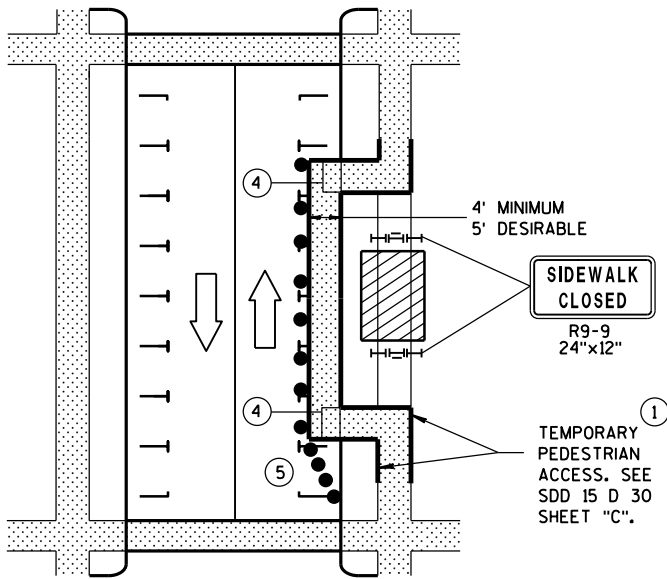


**MAJOR INTERSECTIONS**  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)

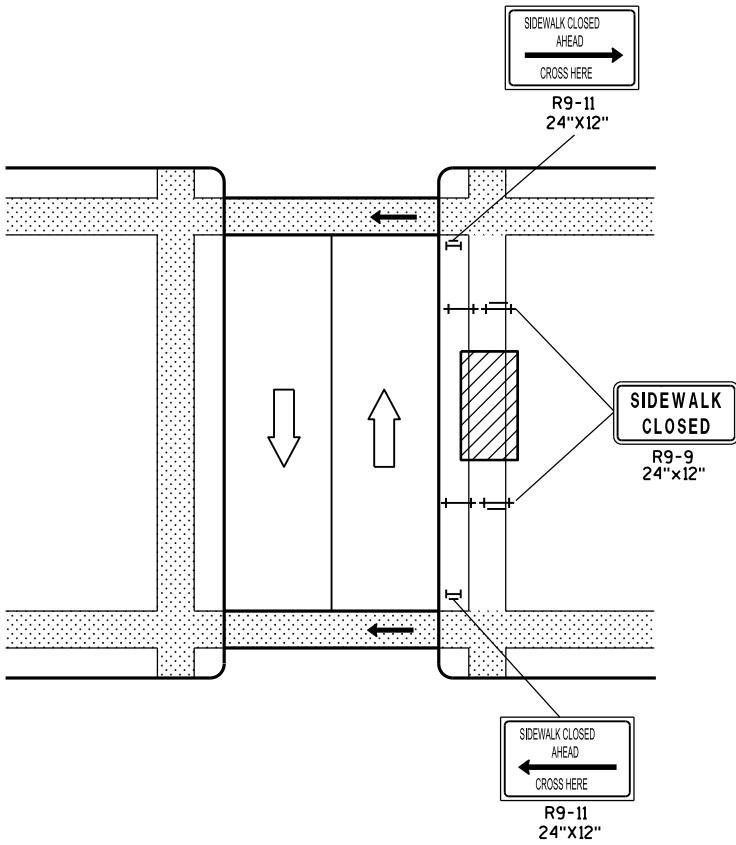
**PAVEMENT MARKING  
(INTERSECTIONS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

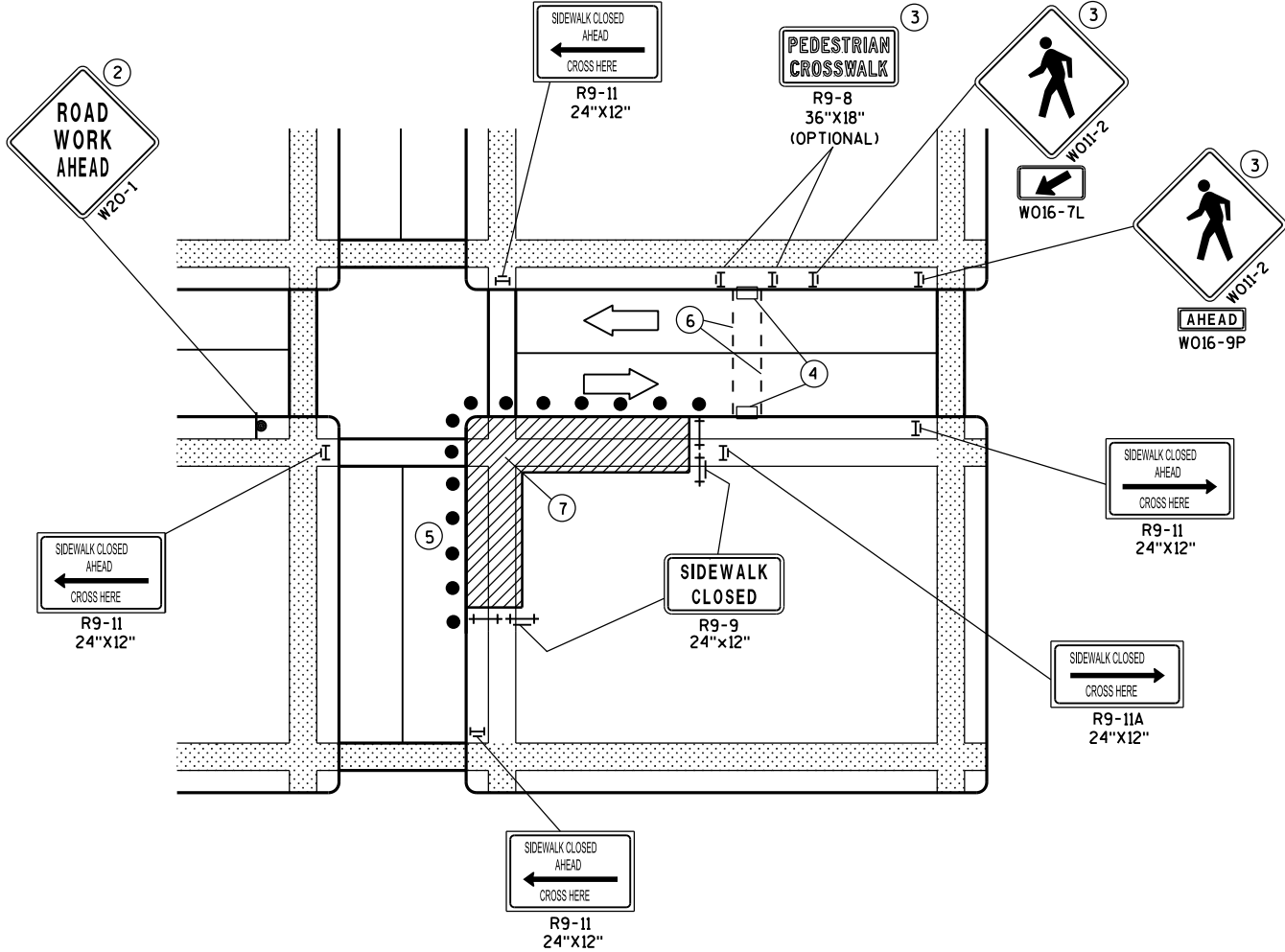
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

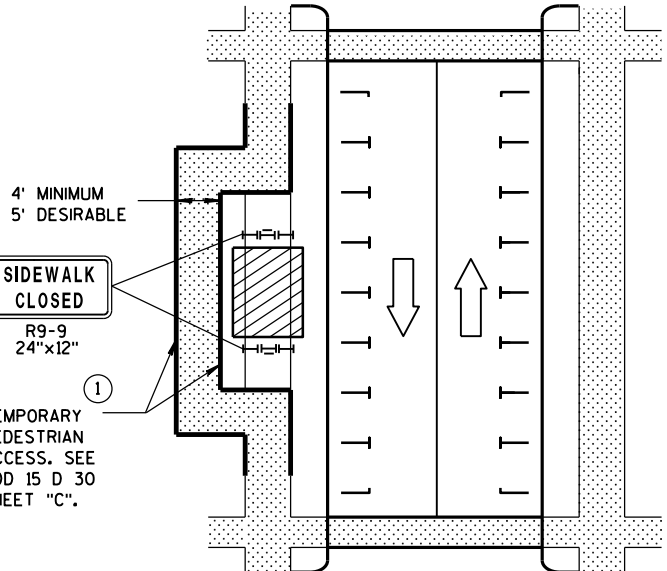


MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

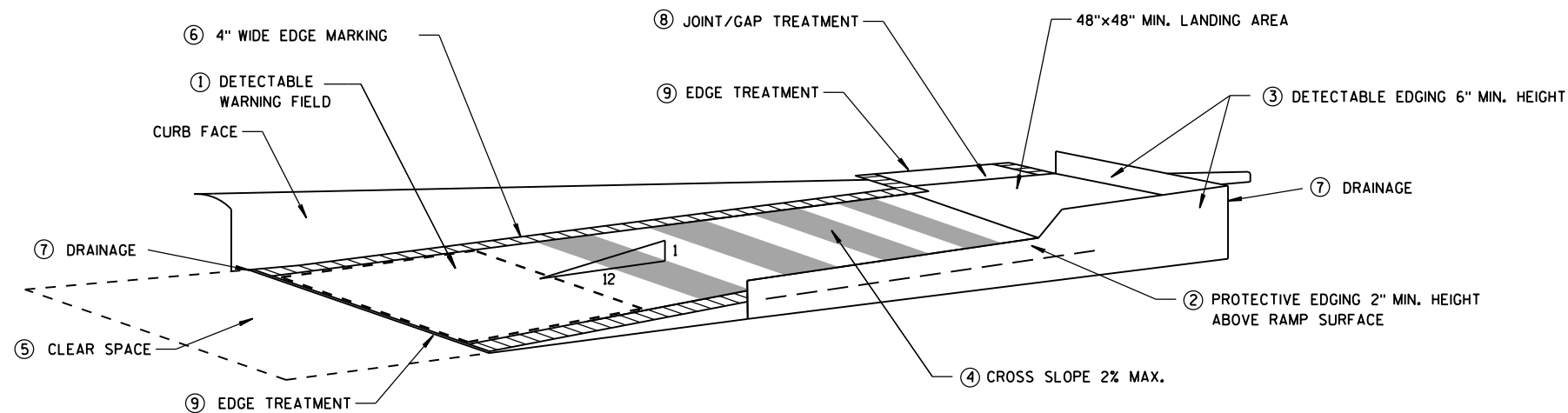
- 1 IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- 2 "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- 3 IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- 4 TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- 5 DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- 6 TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- 7 LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DRUM

TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION

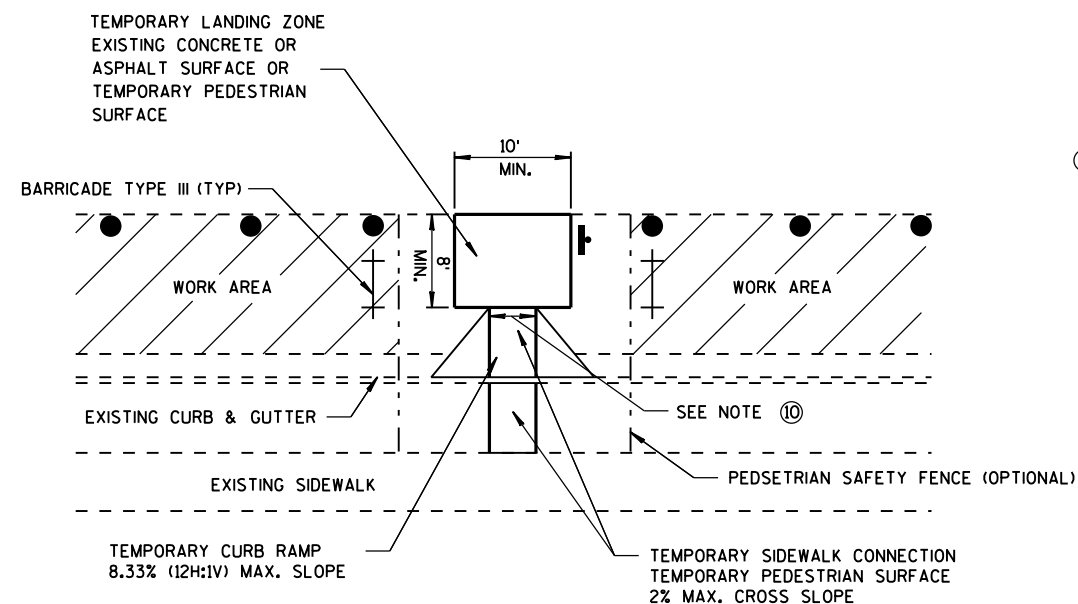
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



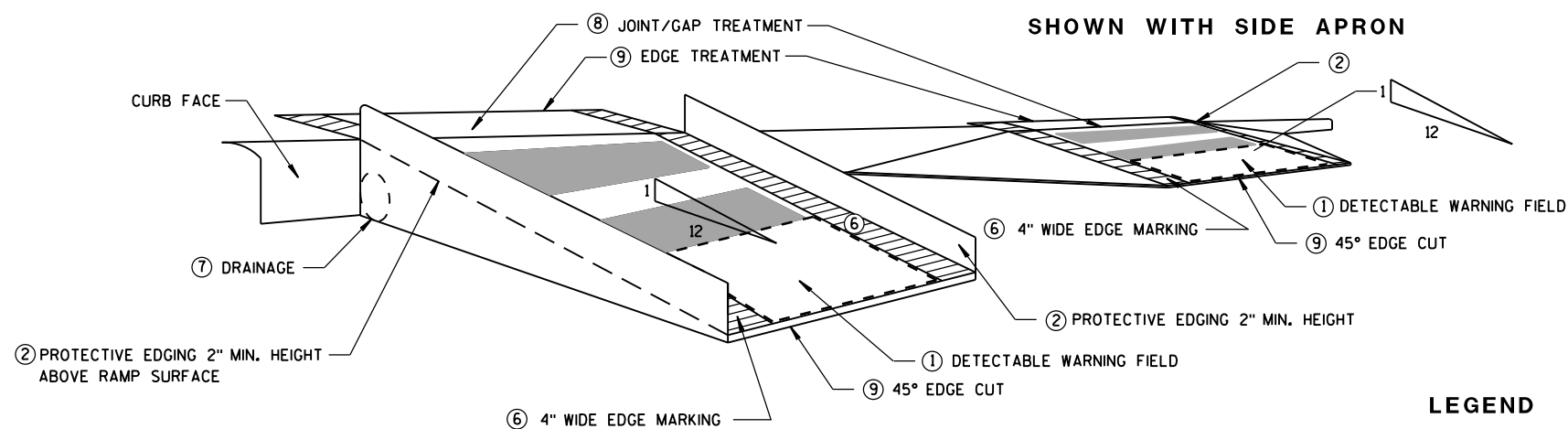
TEMPORARY CURB RAMP  
PARALLEL TO CURB

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.  
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".
  - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
  - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
  - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
  - 5 CLEAR SPACE OF 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
  - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
  - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
  - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
  - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
  - 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP  
PERPENDICULAR TO CURB

SHOWN WITH SIDE APRON

- LEGEND
- WORK AREA
  - TYPE III BARRICADE
  - TRAFFIC CONTROL DRUM

TRAFFIC CONTROL,  
TEMPORARY ADA COMPLIANT  
PEDESTRIAN ACCOMMODATION

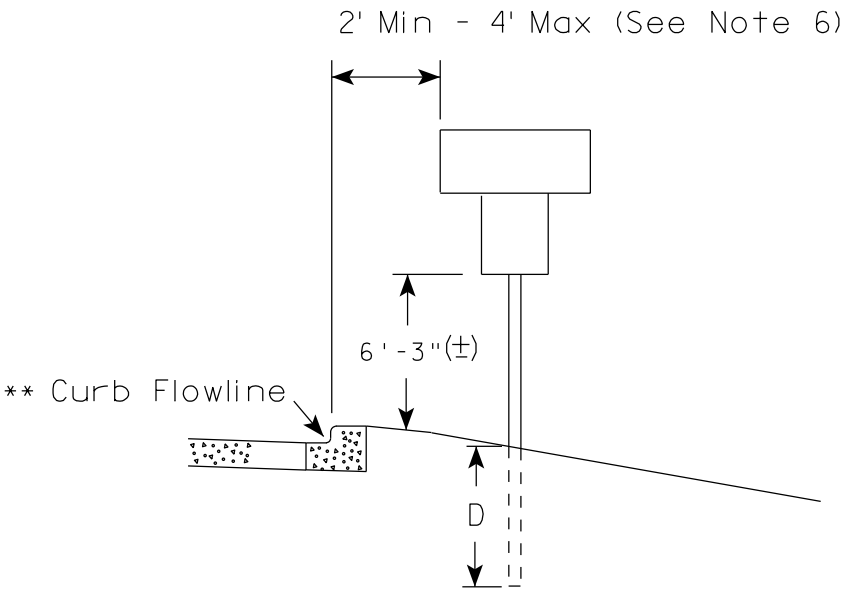
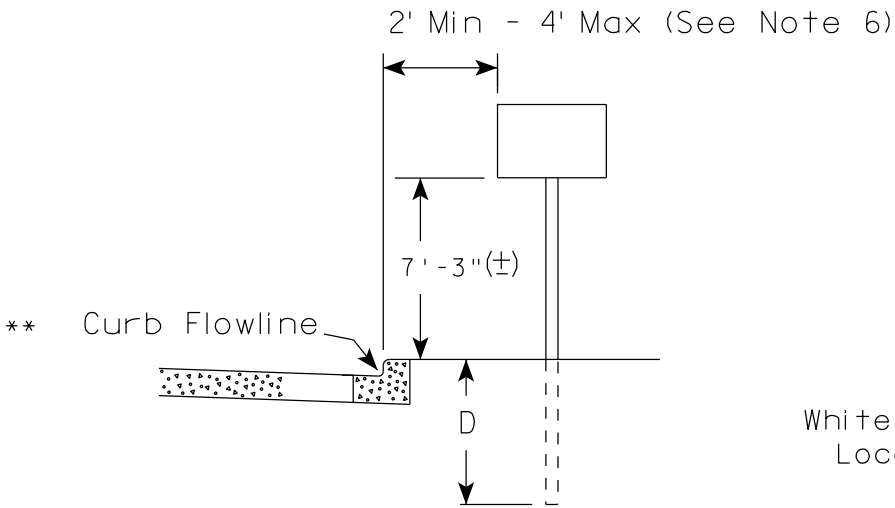
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2016 /S/ Peter Amakobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER

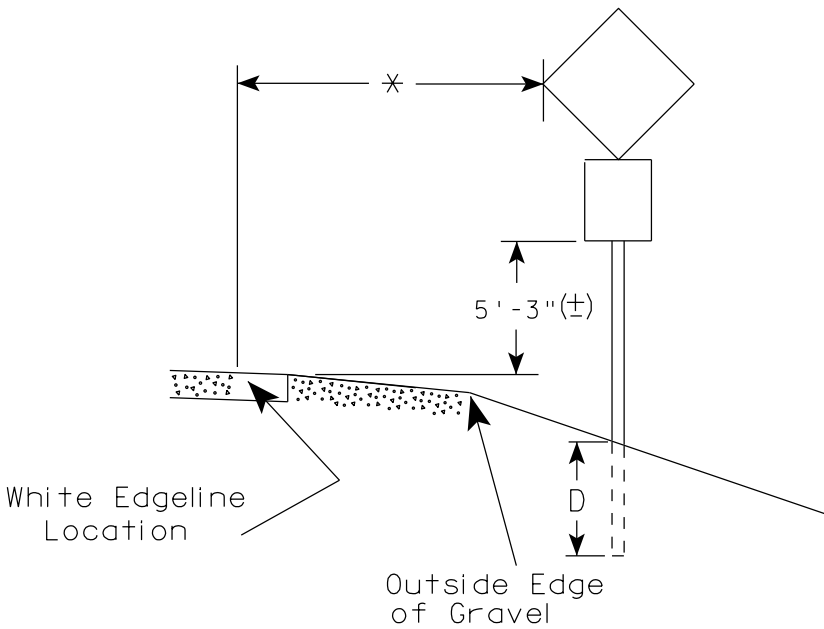
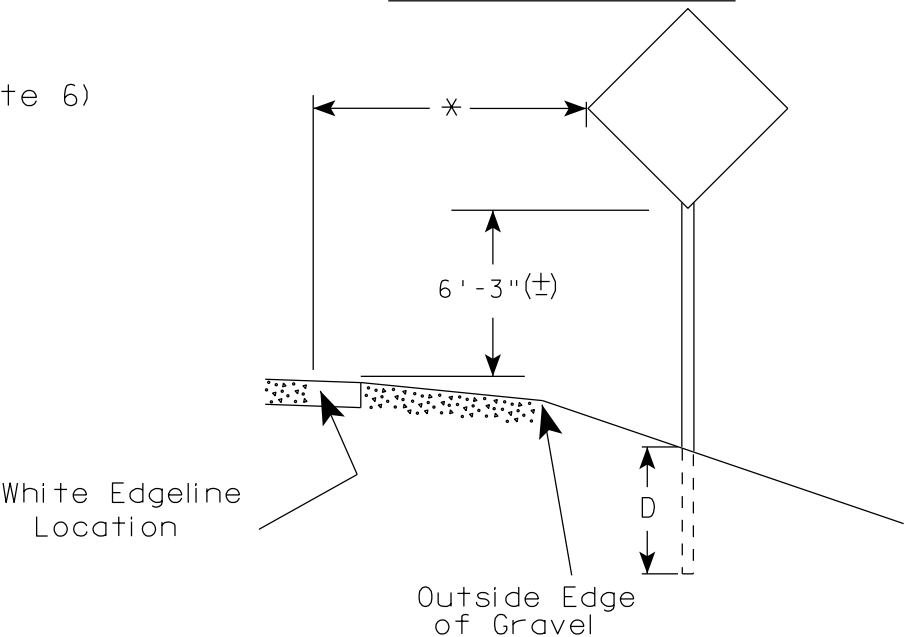




URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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 (A2-1S) 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 signs 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 (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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.

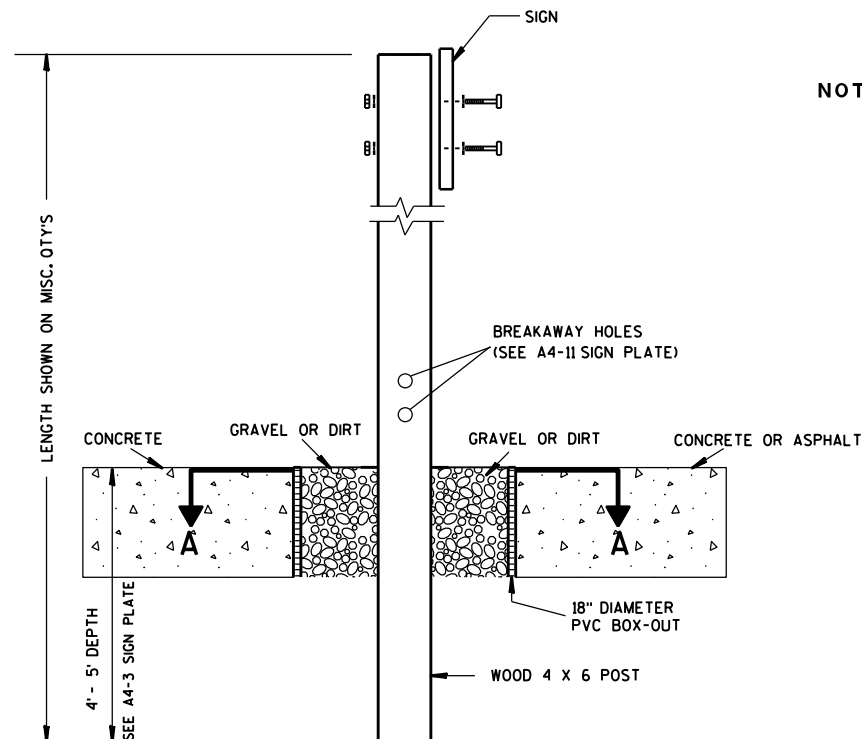
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

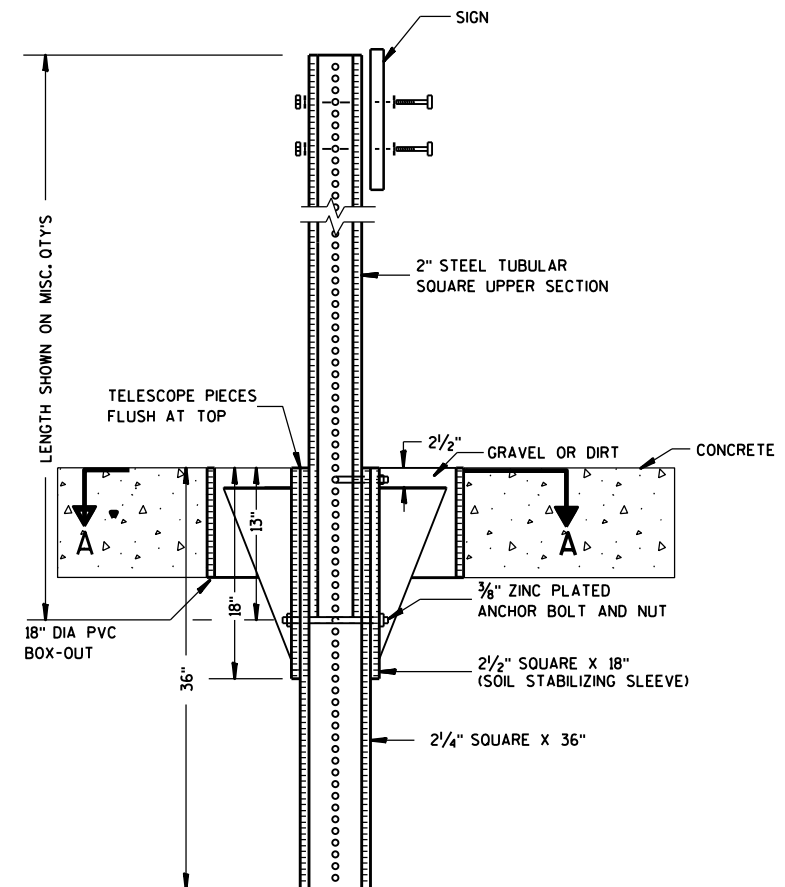
DATE 7/23/15 PLATE NO. A4-3.20



**ELEVATION VIEW**

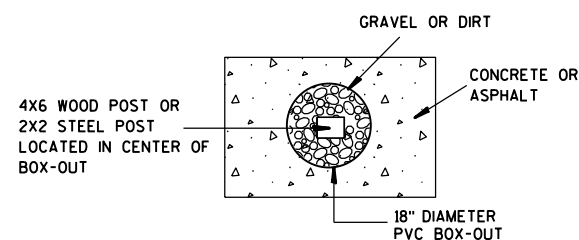
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

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



**ELEVATION VIEW**

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



**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

**SIGN POST  
BOX-OUTS  
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:

HWY:

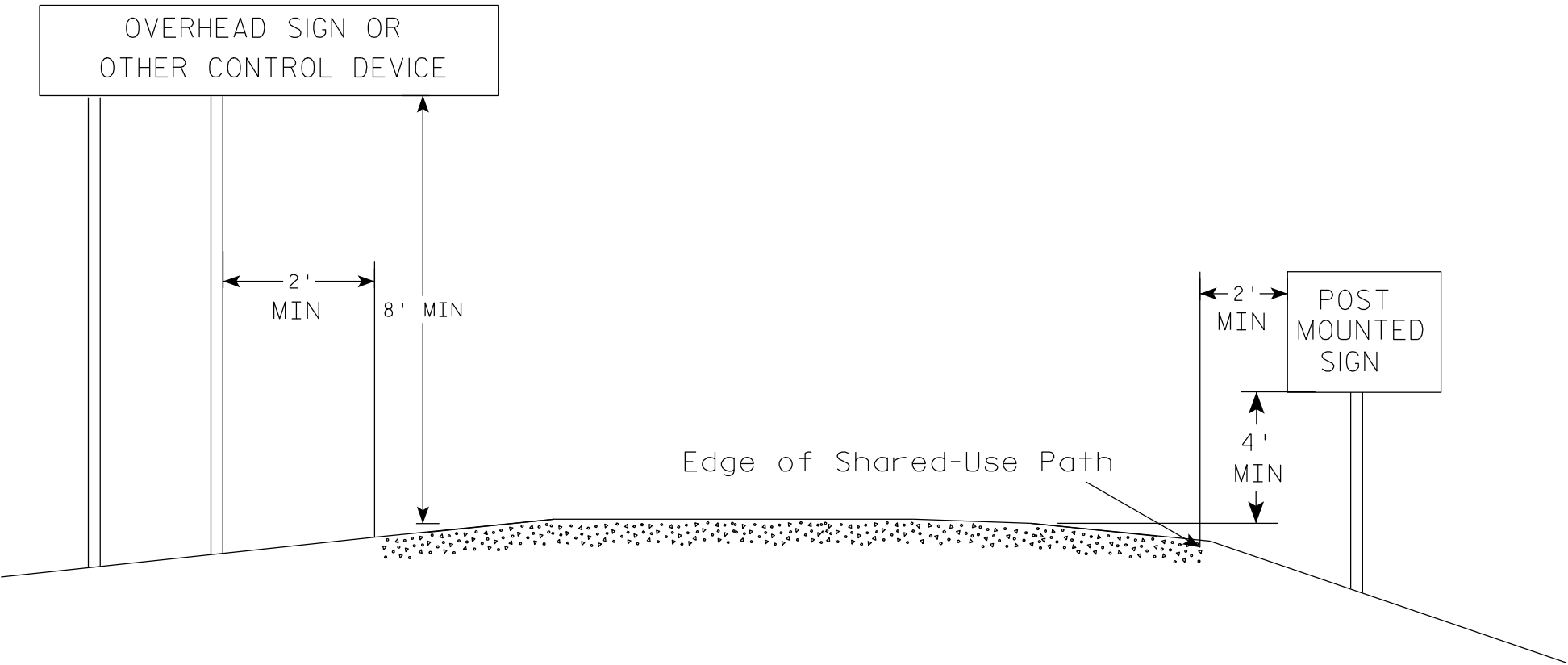
COUNTY:

SHEET NO:

E

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. Offset distance shall be consistent with existing signs or consistent throughout length of project.



POST EMBEDMENT DEPTH

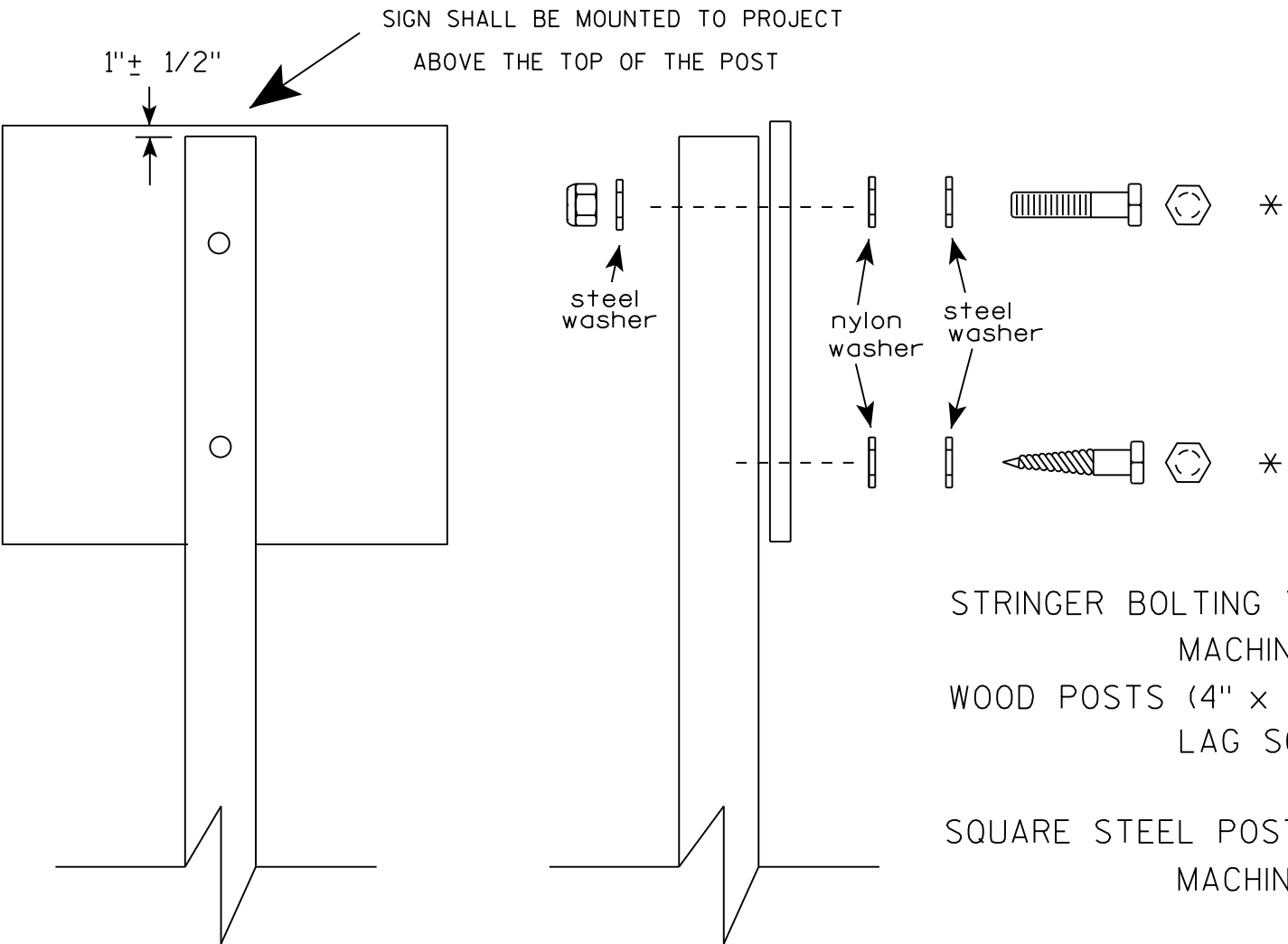
Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON MULTI USE PATHS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/5/2012 PLATE NO. A4-3S.1



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

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

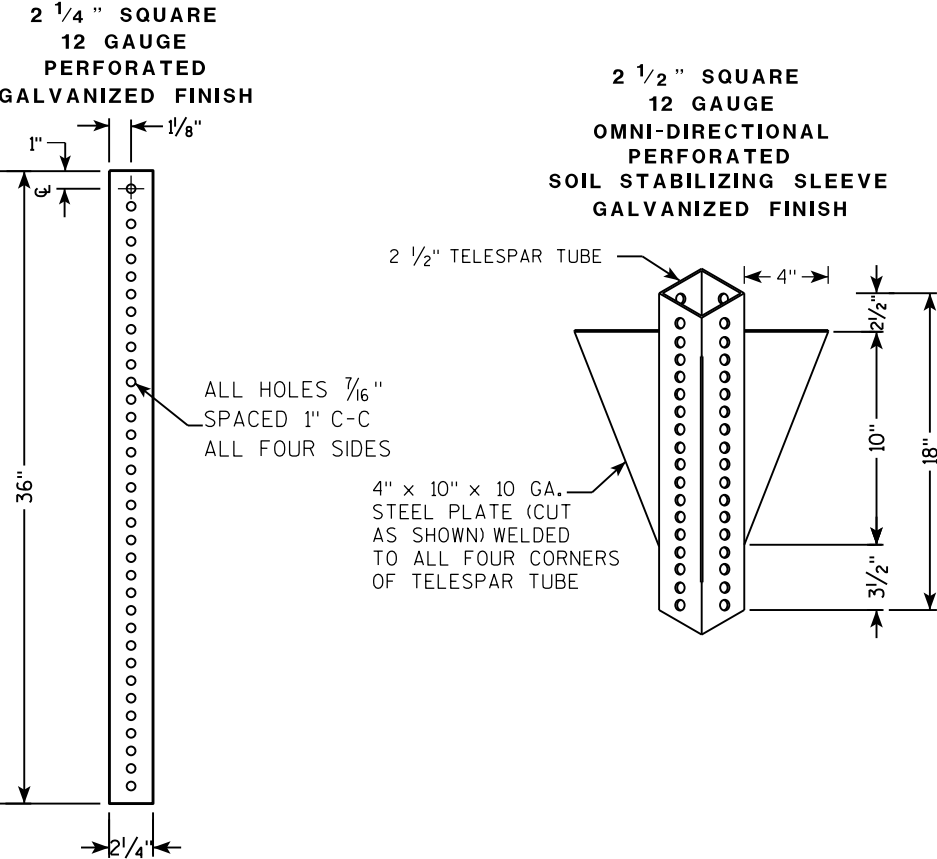
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
  - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
  - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- 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

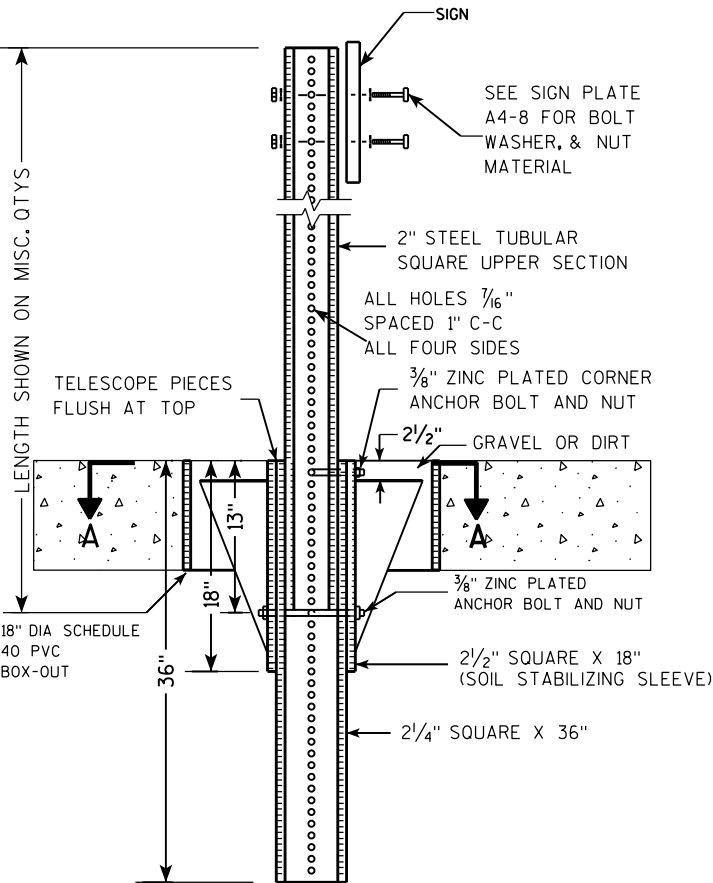
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require 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 8/11/16	PLATE NO. A4-8.8

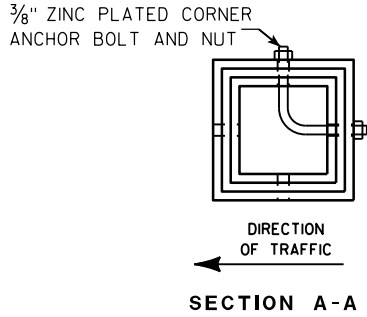
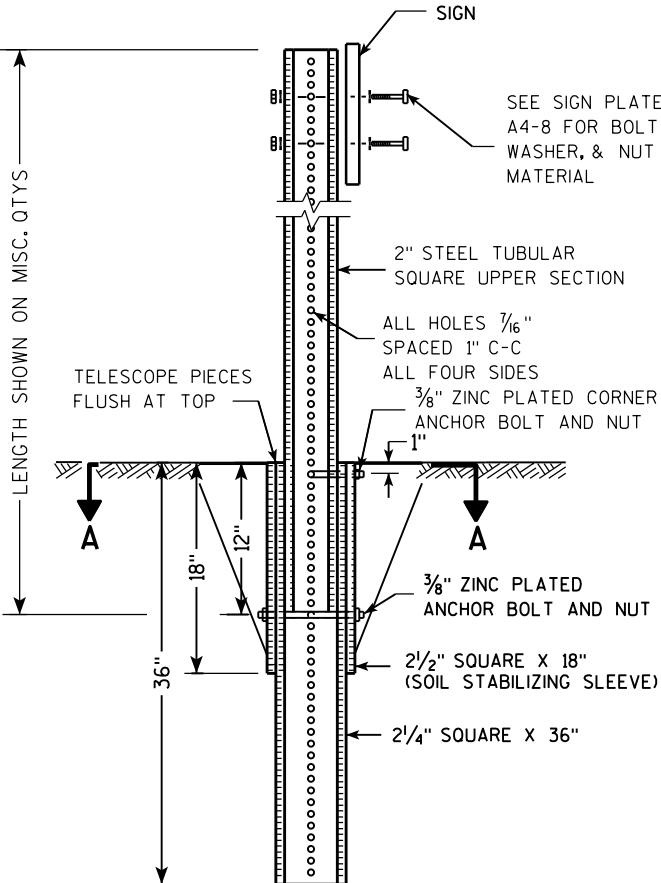
TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM



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



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



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

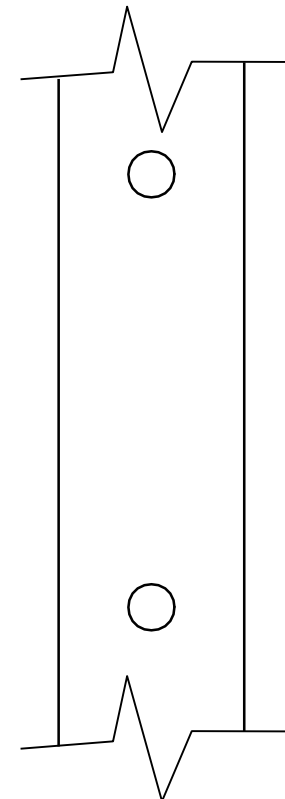
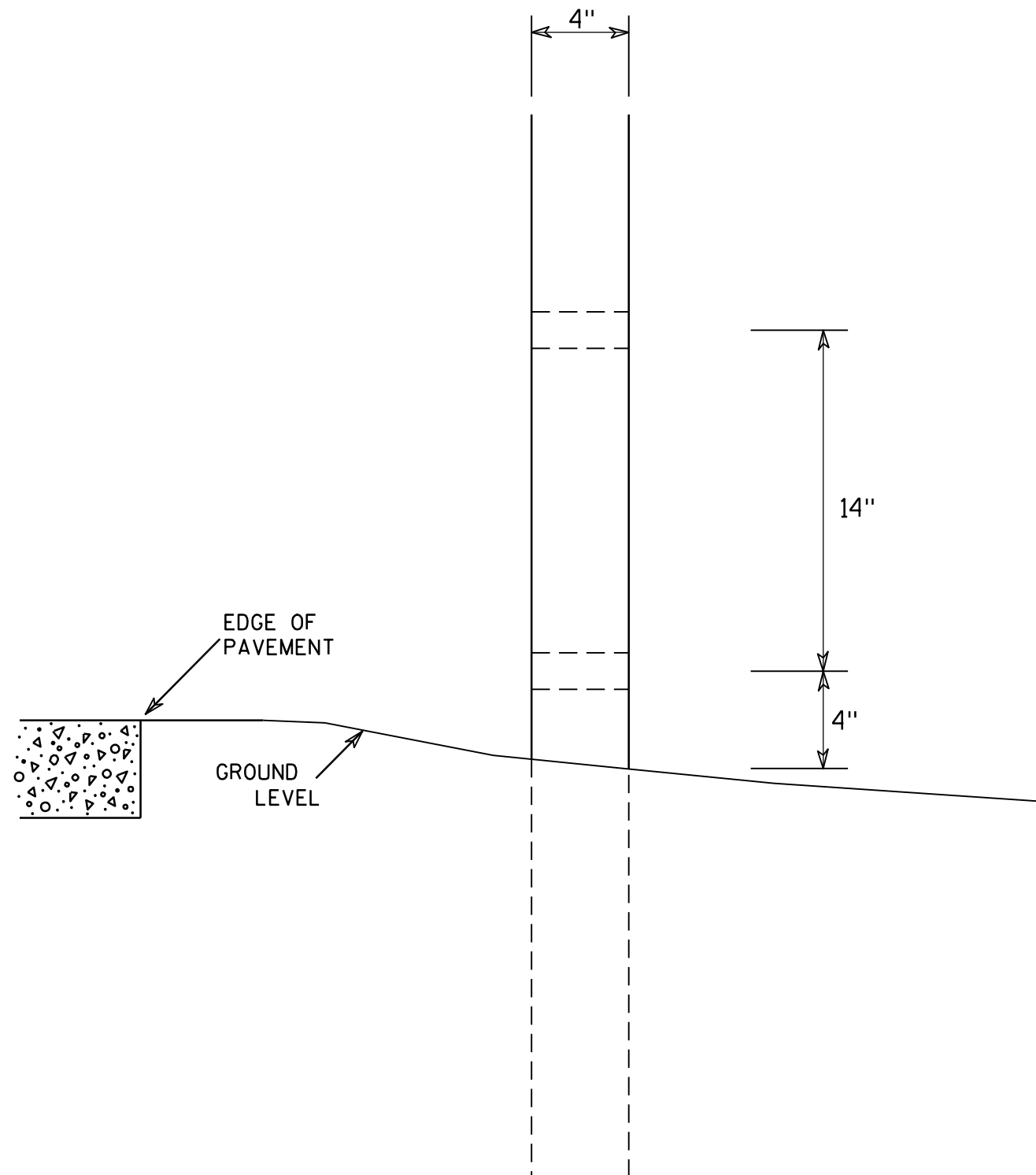
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



SIDE VIEW

# GENERAL NOTES

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

## 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

COUNTY:

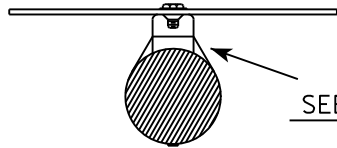
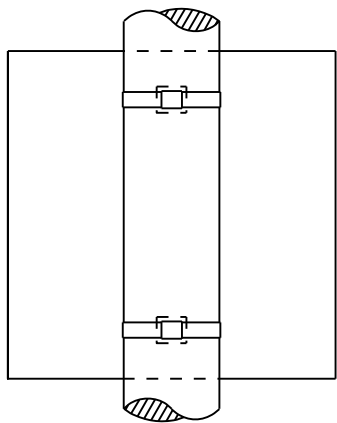
SHEET NO:

E

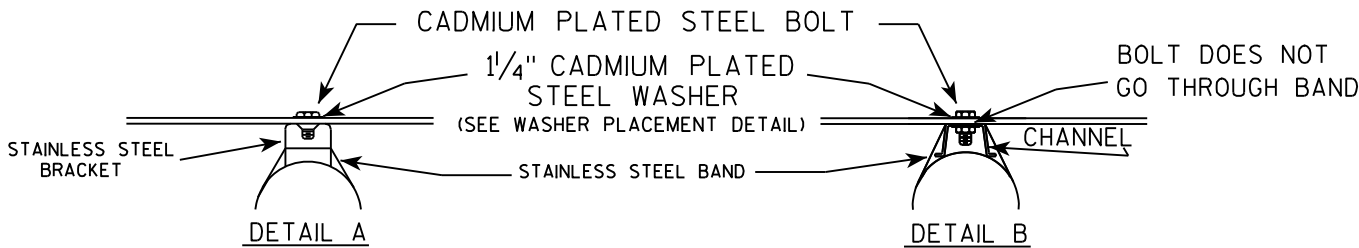


BANDING

SINGLE SIGN

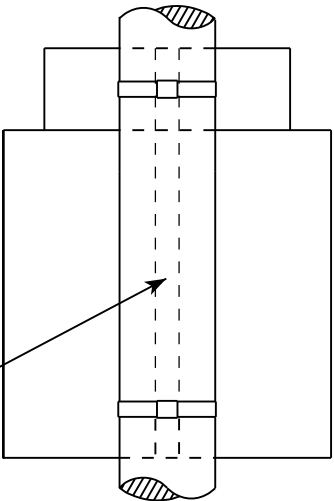


SEE DETAIL A



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET

"J" ASSEMBLY

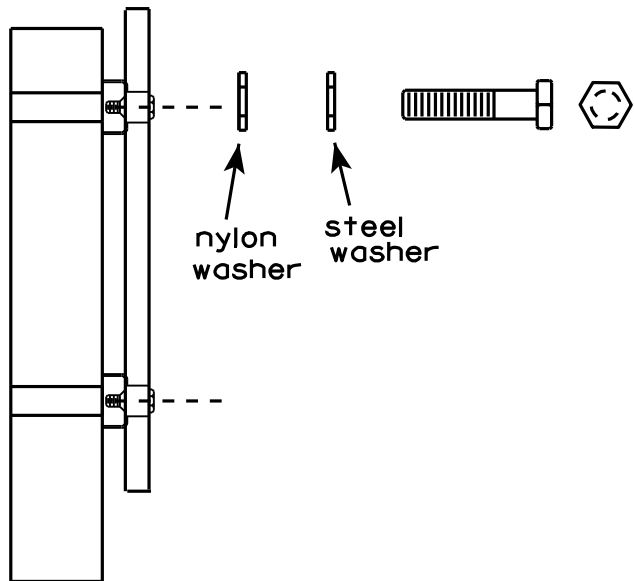


SEE DETAIL B

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be  $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



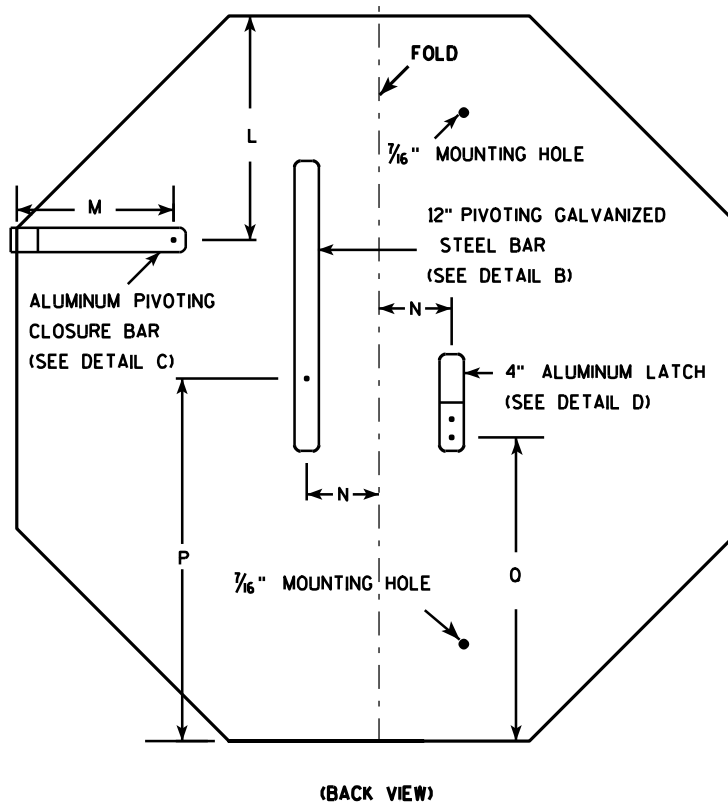
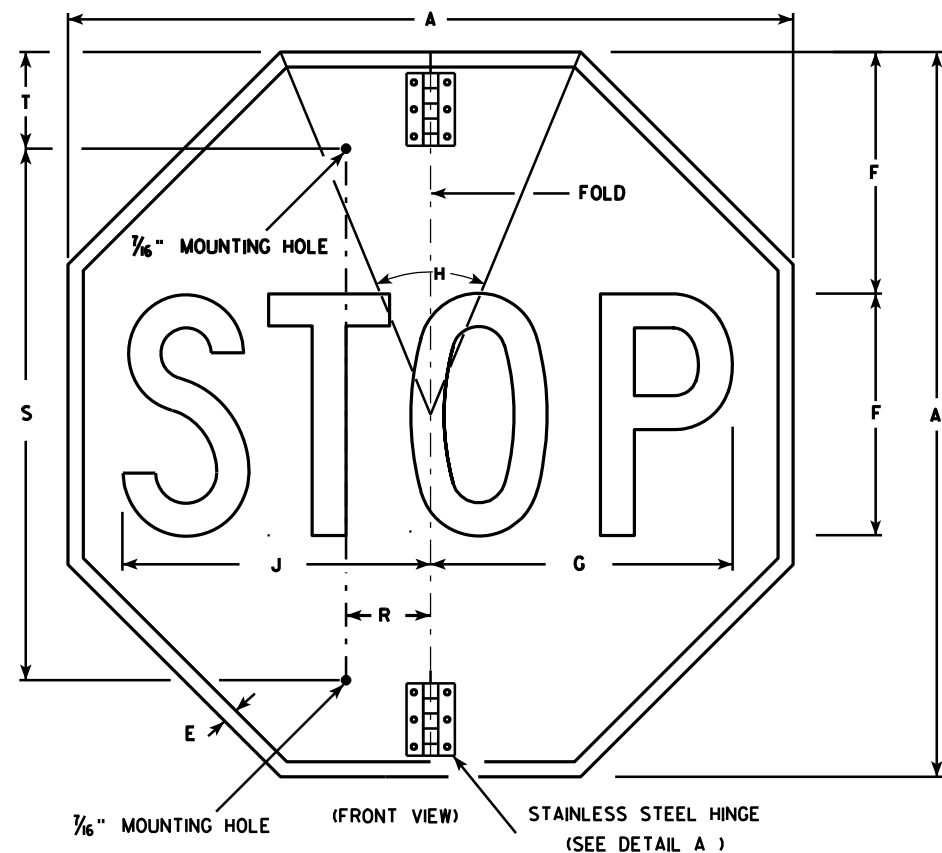
WASHERS (ALL POSTS) -  
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL  
1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

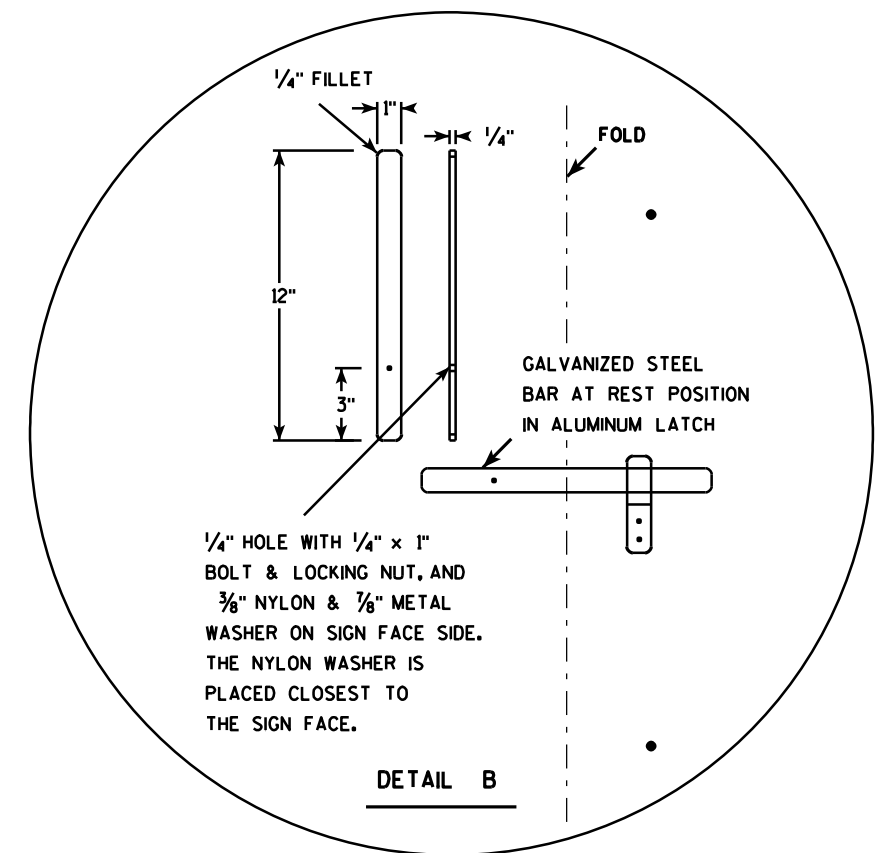
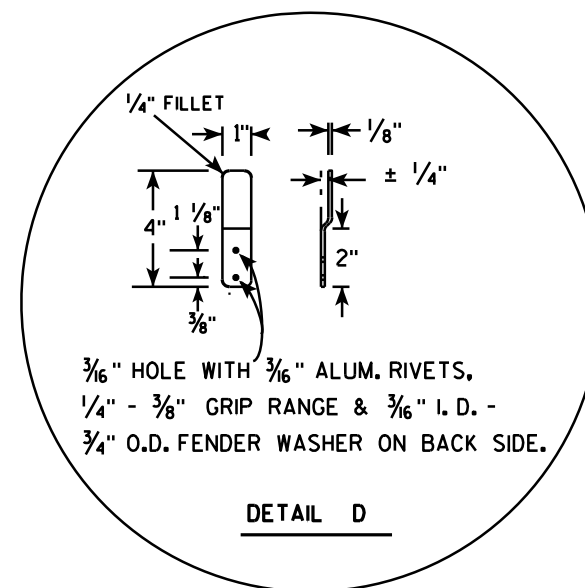
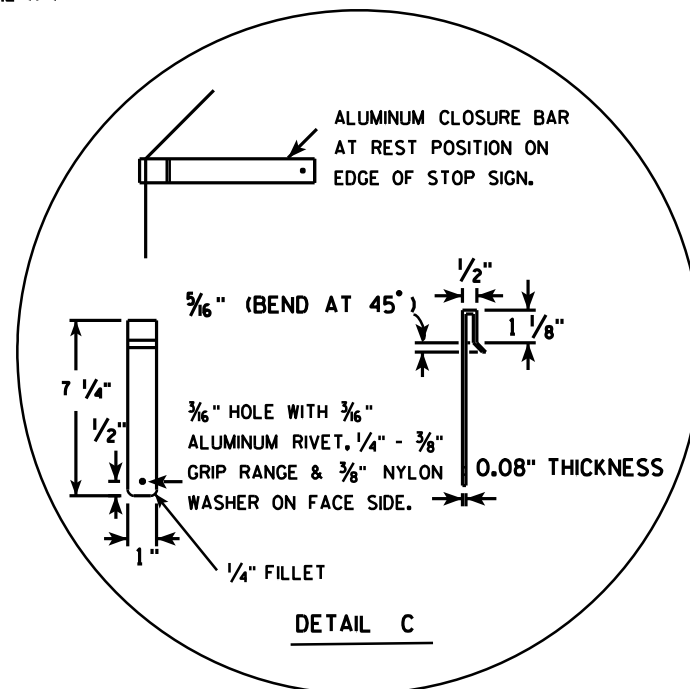
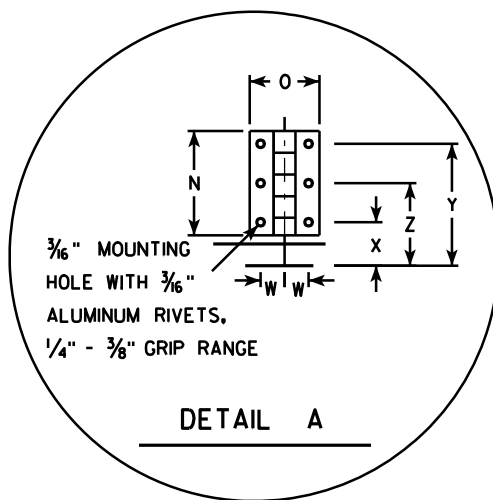
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



# NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Red  
Message - White
- Message Series - C
- All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



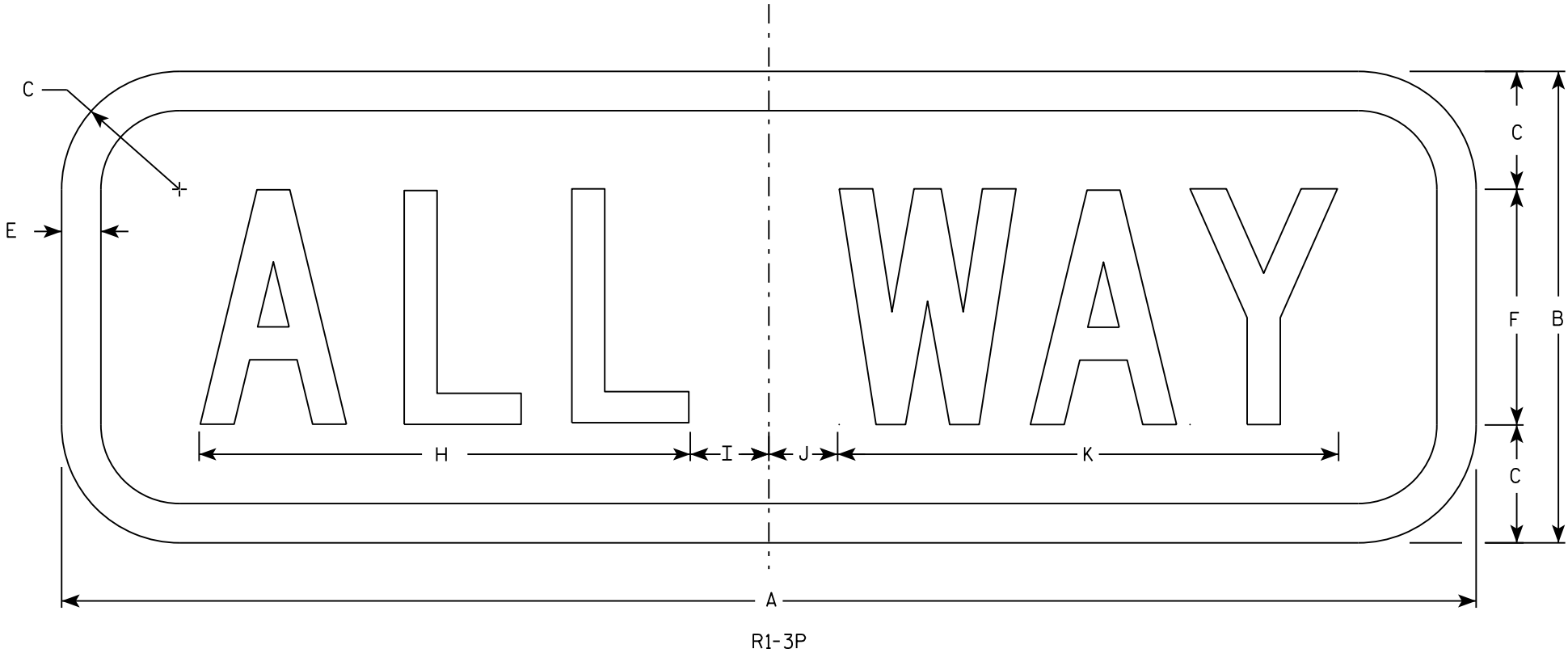
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			1/8	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			1/8	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			1/8	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN R1-1F	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/03/10	PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - Red  
Message - White
- 3. Message Series - C
- 4. For 30"x30" R1-1 use 18"x6" R1-3P sign  
For 36"x36" R1-1 use 24"x9" R1-3P sign  
For 48"x48" R1-1 use 30"x12" R1-3P sign



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN

R1 - 3P

WISCONSIN DEPT OF TRANSPORTATION

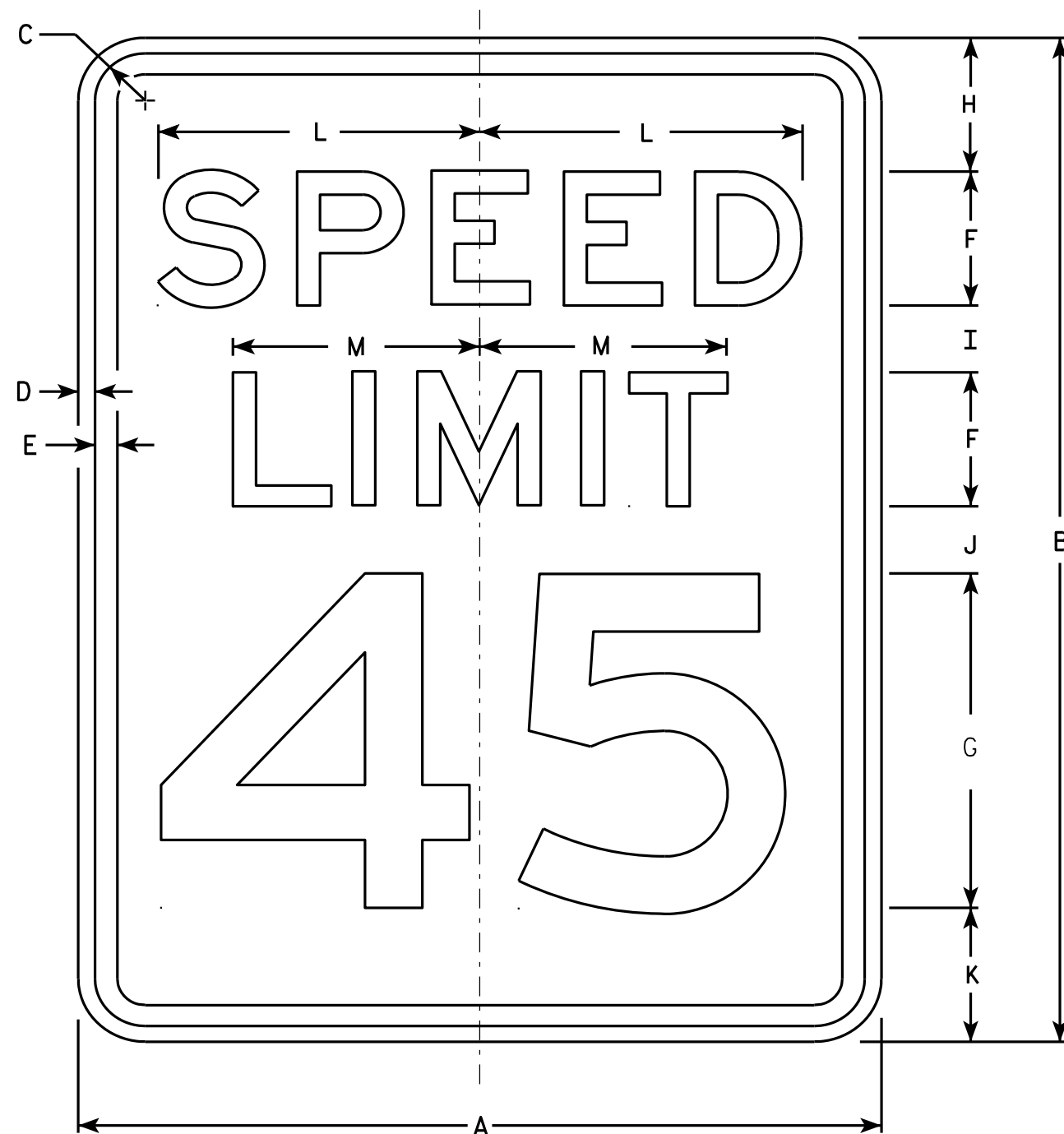
APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 11/29/16

PLATE NO. R1-3P.3



R2-1

### NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

### STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

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

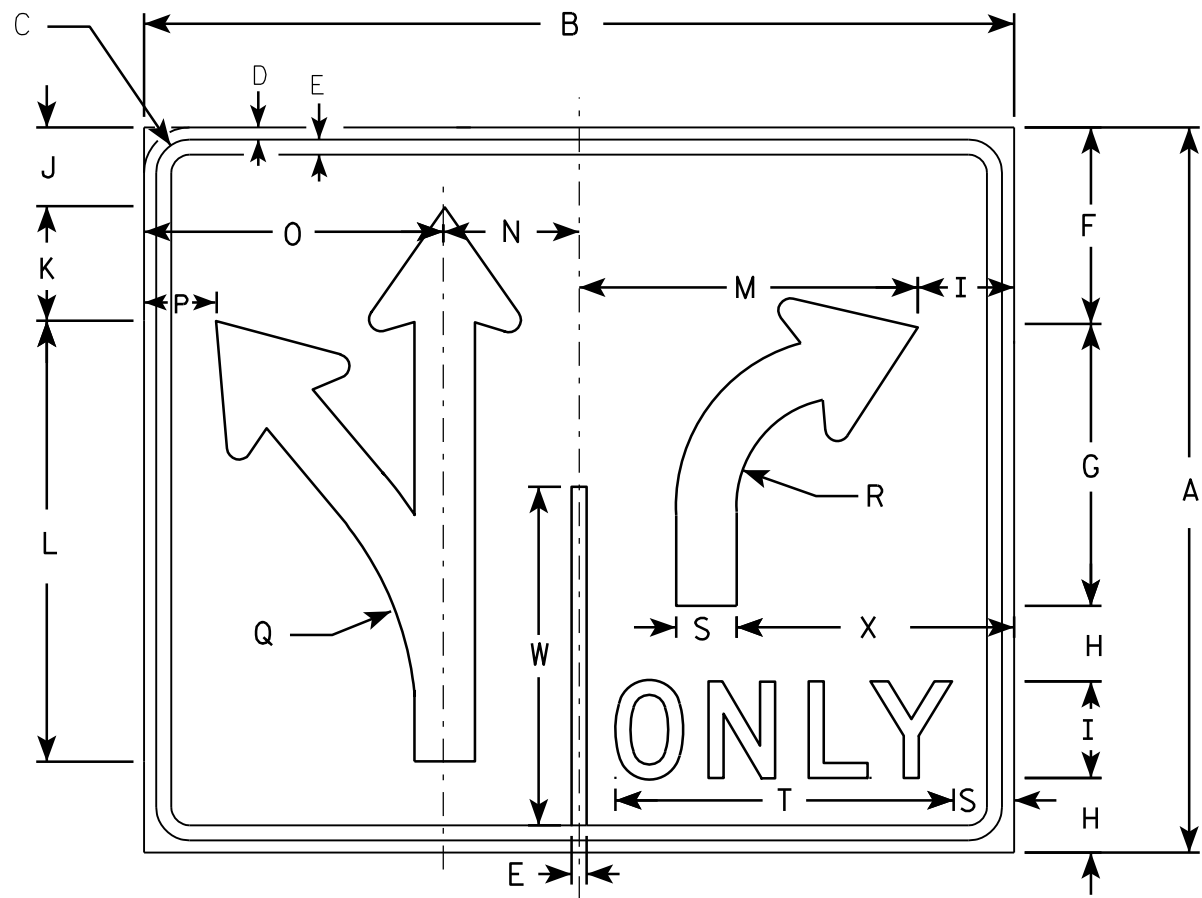
PROJECT NO:

HWY:

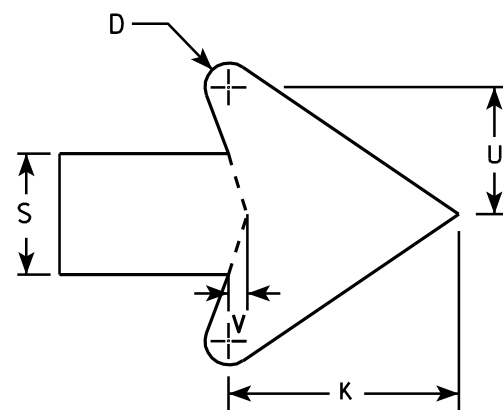
COUNTY:

SHEET NO:

E



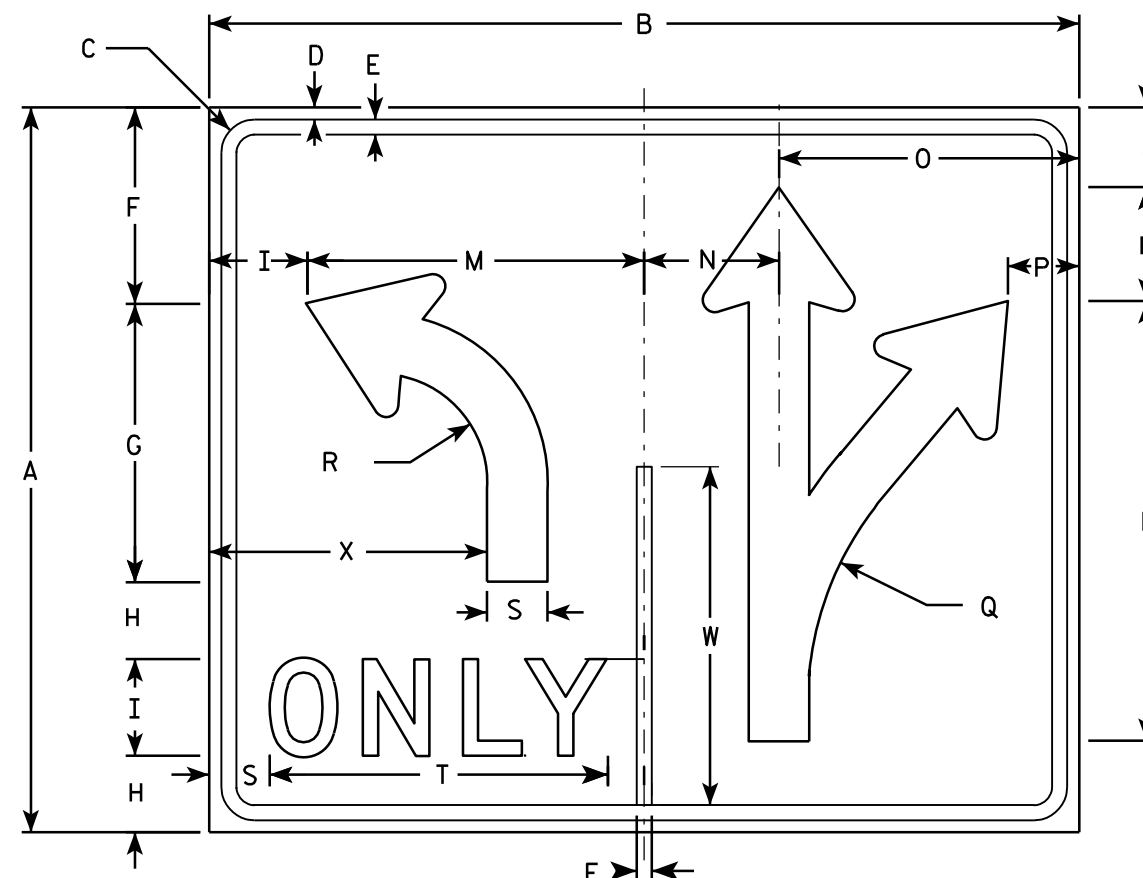
R3-8



ARROW DETAIL

# 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.



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	3 1⁄4	4 3⁄4	18 1⁄4	14	5 5⁄8	12 3⁄8	3	13 1⁄4	4 1⁄2	2 1⁄2	14	2 5⁄8	3⁄8	14	11 1⁄2			7.5
2M	30	36	1 3⁄8	1⁄2	5⁄8	8 1⁄8	11 5⁄8	3 1⁄8	4	3 1⁄4	4 3⁄4	18 1⁄4	14	5 5⁄8	12 3⁄8	3	13 1⁄4	4 1⁄2	2 1⁄2	14	2 5⁄8	3⁄8	14	11 1⁄2			7.5
3																											
4	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	5 1⁄4	7 1⁄8	29 1⁄8	21	8 3⁄8	18 5⁄8	4 3⁄8	21 7⁄8	7 1⁄4	3 3⁄4	20 5⁄8	4	5⁄8	22 3⁄8	17 1⁄4			18.0
5	48	54	2 1⁄4	3⁄4	1	13 1⁄4	18 1⁄2	5 1⁄8	6	5 1⁄4	7 1⁄8	29 1⁄8	21	8 3⁄8	18 5⁄8	4 3⁄8	21 7⁄8	7 1⁄4	3 3⁄4	20 5⁄8	4	5⁄8	22 3⁄8	17 1⁄4			18.0

## STANDARD SIGN R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

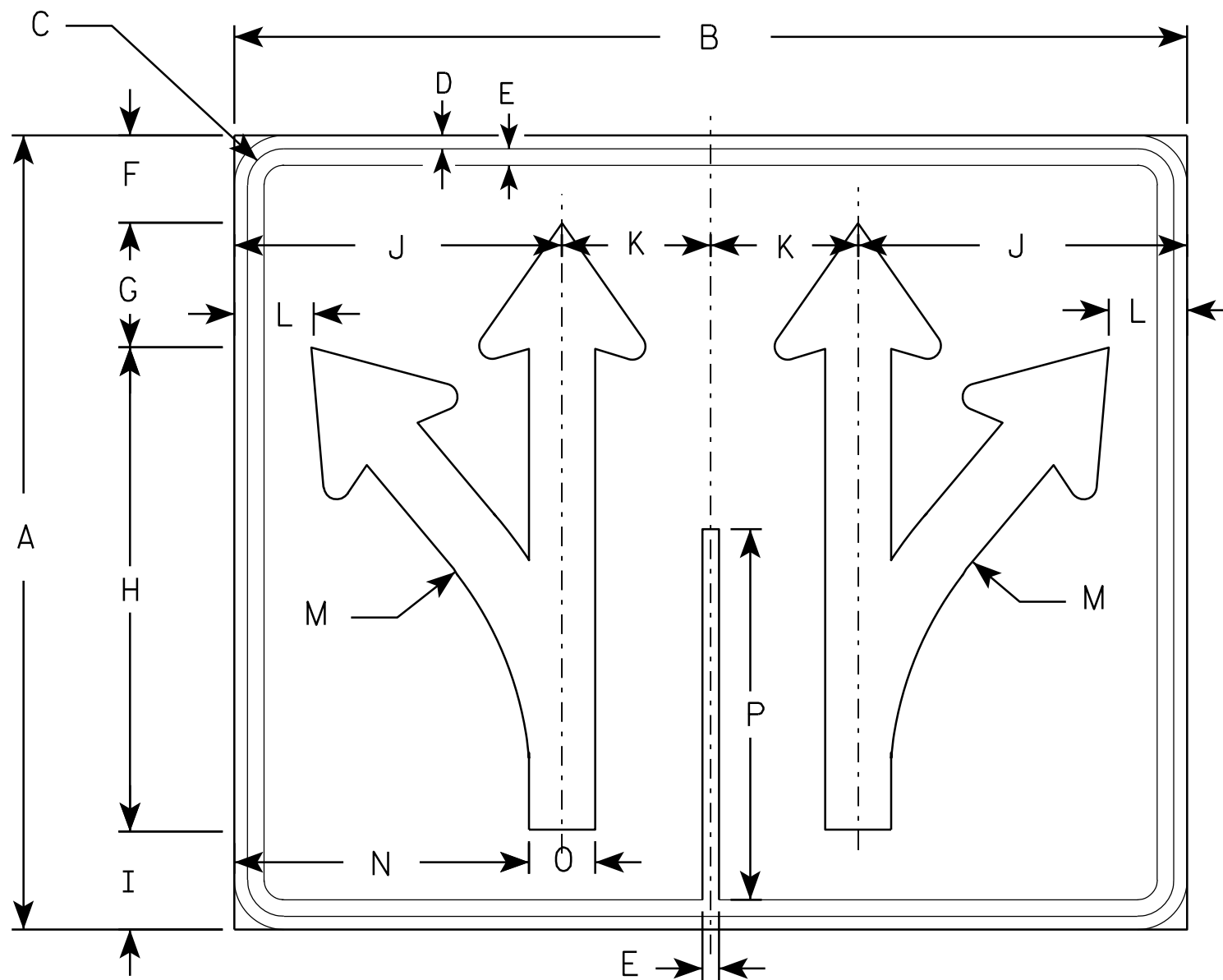
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

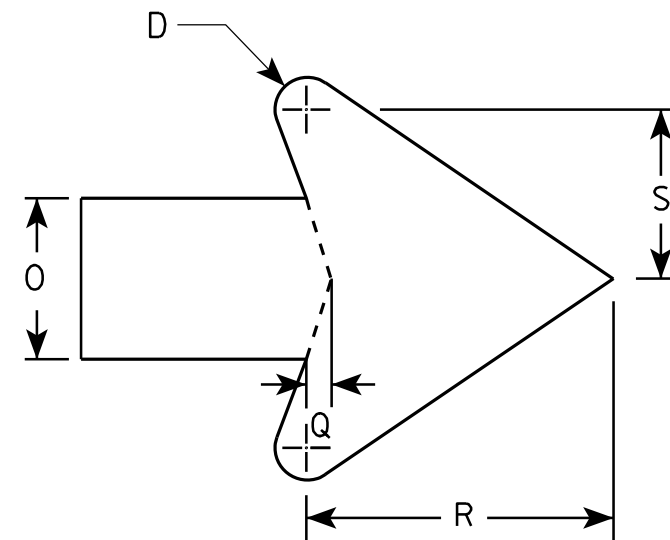
E



R3-8K

### 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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3⁄8	1⁄2	5⁄8	3 1⁄4	4 3⁄4	18 1⁄4	3 3⁄4	12 3⁄8	5 5⁄8	3	13 1⁄4	11 1⁄8	2 1⁄2	14	3⁄8	4 3⁄4	2 5⁄8								7.5
2M	30	36	1 3⁄8	1⁄2	5⁄8	3 1⁄4	4 3⁄4	18 1⁄4	3 3⁄4	12 3⁄8	5 5⁄8	3	13 1⁄4	11 1⁄8	2 1⁄2	14	3⁄8	4 3⁄4	2 5⁄8								7.5
3																											
4	48	54	2 1⁄4	3⁄4	1	5 1⁄4	7 1⁄2	29 1⁄4	5 7⁄8	18 5⁄8	8 3⁄8	4 3⁄8	22 1⁄4	16 3⁄4	3 3⁄4	22 3⁄8	5⁄8	7 1⁄8	4								18.0
5	48	54	2 1⁄4	3⁄4	1	5 1⁄4	7 1⁄2	29 1⁄4	5 7⁄8	18 5⁄8	8 3⁄8	4 3⁄8	22 1⁄4	16 3⁄4	3 3⁄4	22 3⁄8	5⁄8	7 1⁄8	4								18.0

### STANDARD SIGN

R3-8K

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/21/2011 PLATE NO. R3-8K.2

PROJECT NO:

HWY:

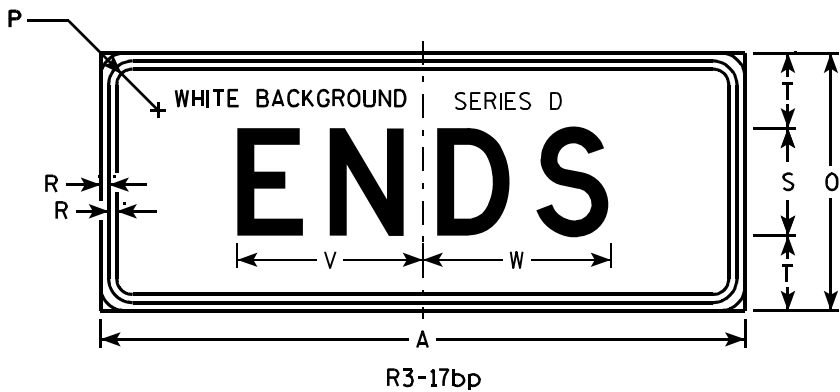
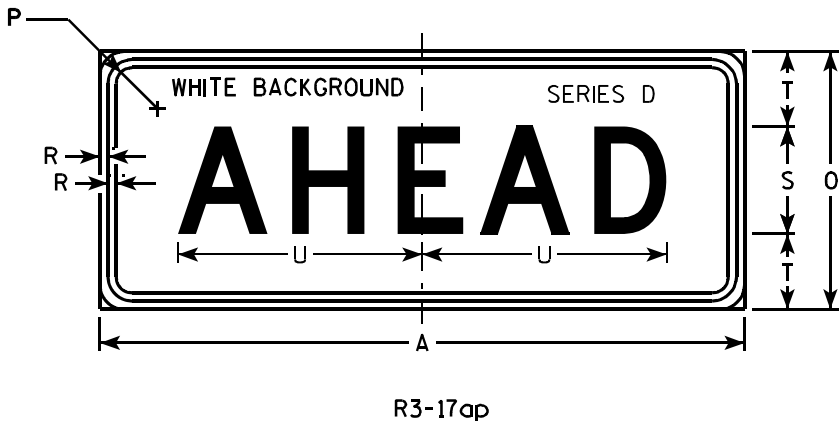
COUNTY:

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 - AS SHOWN  
Message - BLACK
  - 3. Message Series - C or as noted on the Signs.
  - 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.



																												R3-17	R3-17ap	R3-17bp
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	Avg sq. ft.	Avg sq. ft.	Avg sq. ft.	
1																														
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
3																														
4																														
5																														

STANDARD SIGN

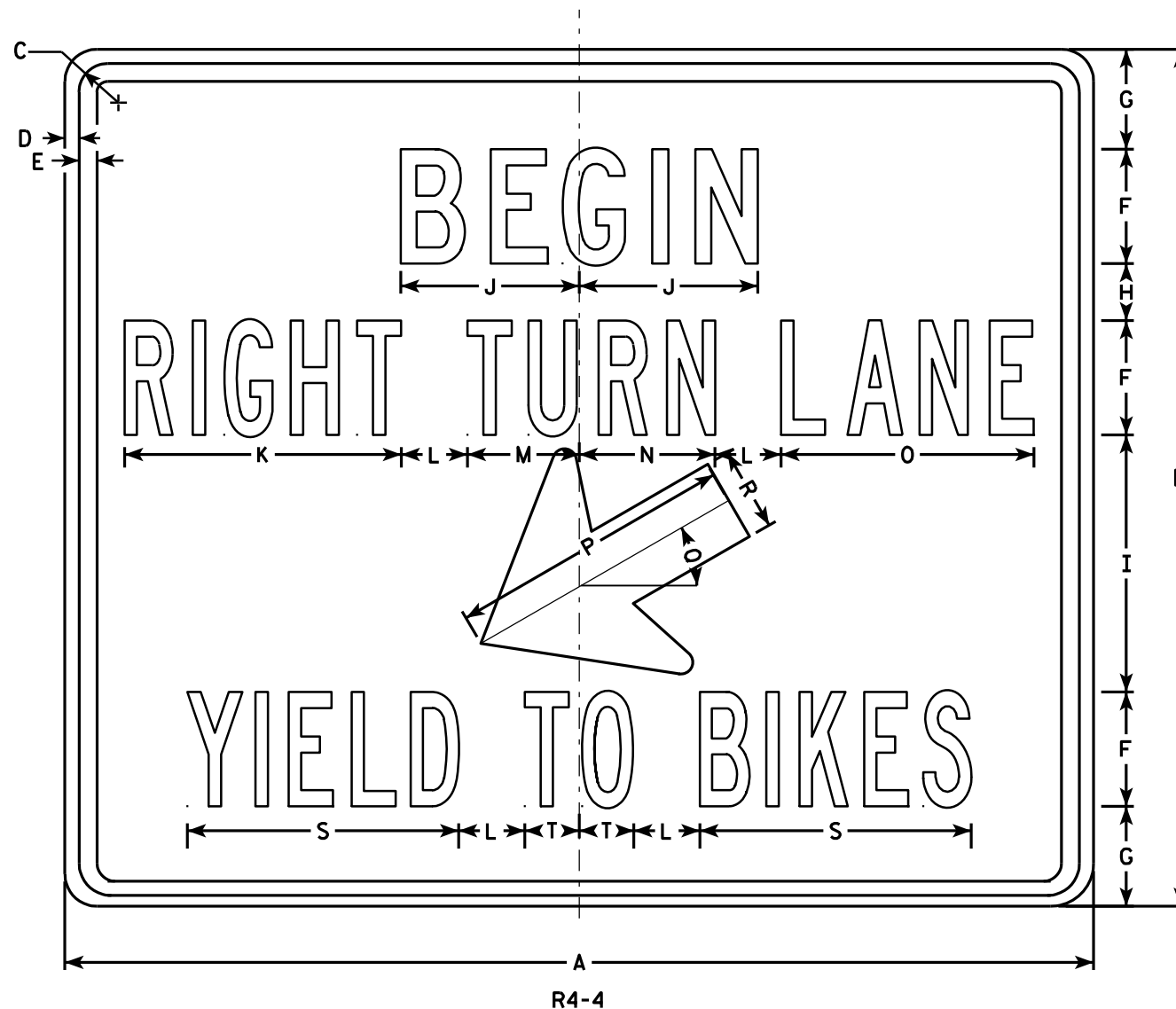
R3-17 & R3-17a&bp

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2





# NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C  
Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3⁄8	1⁄2	5⁄8	4	3 1⁄2	2	9	6 1⁄4	9 3⁄4	2 3⁄8	3 7⁄8	4 3⁄4	8 7⁄8	10	30°	2 7⁄8	9 1⁄2	1 7⁄8							7.5
2M	36	30	1 3⁄8	1⁄2	5⁄8	4	3 1⁄2	2	9	6 1⁄4	9 3⁄4	2 3⁄8	3 7⁄8	4 3⁄4	8 7⁄8	10	30°	2 7⁄8	9 1⁄2	1 7⁄8							7.5
3																											
4																											
5																											

## STANDARD SIGN

R4-4

WISCONSIN DEPT OF TRANSPORTATION

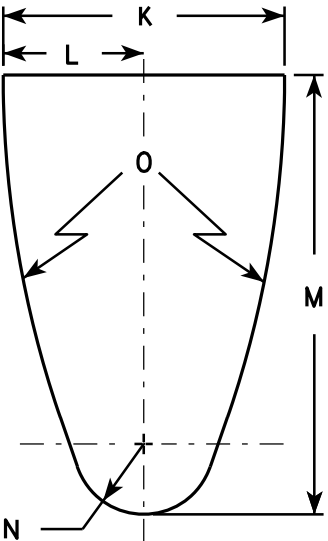
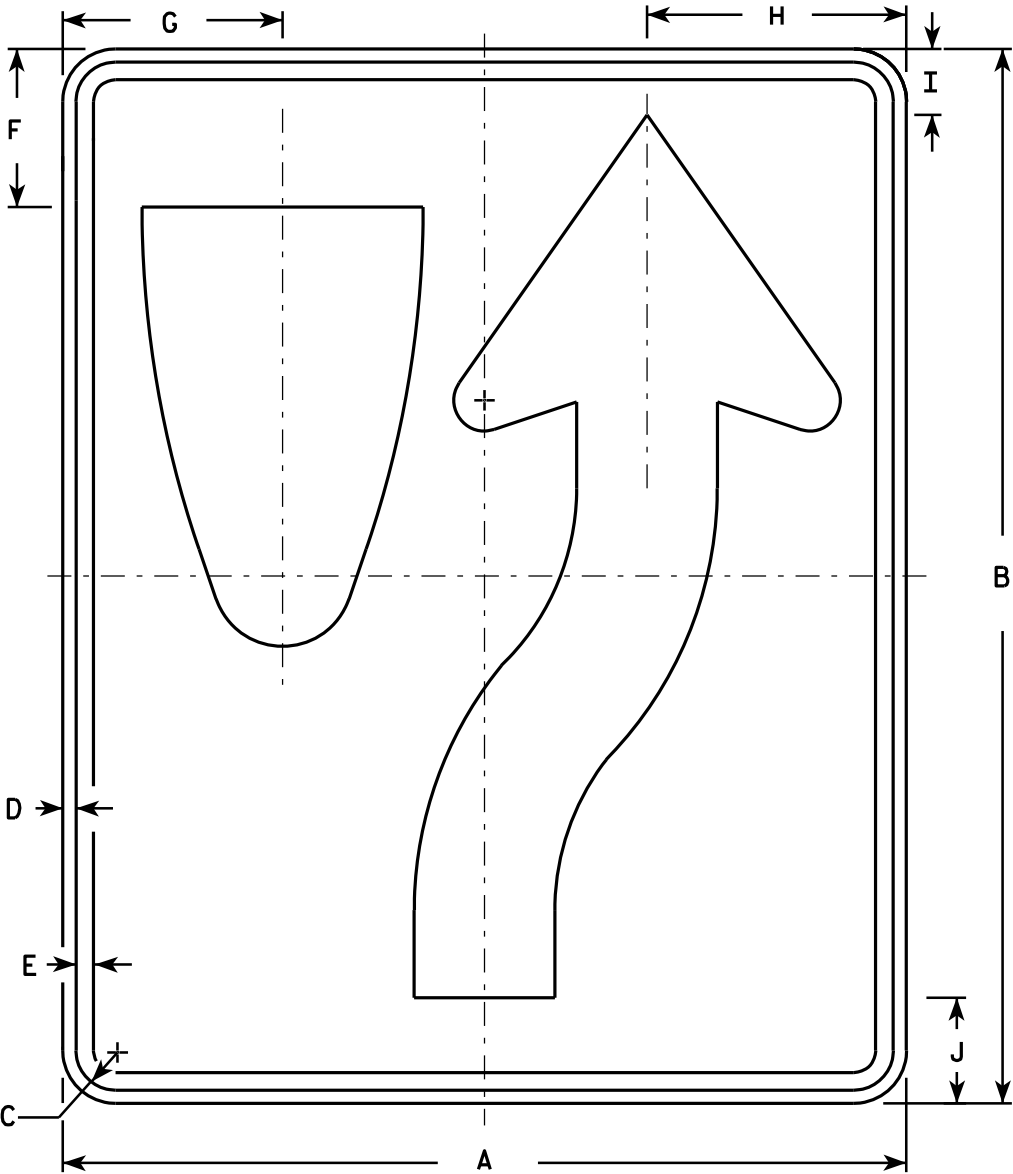
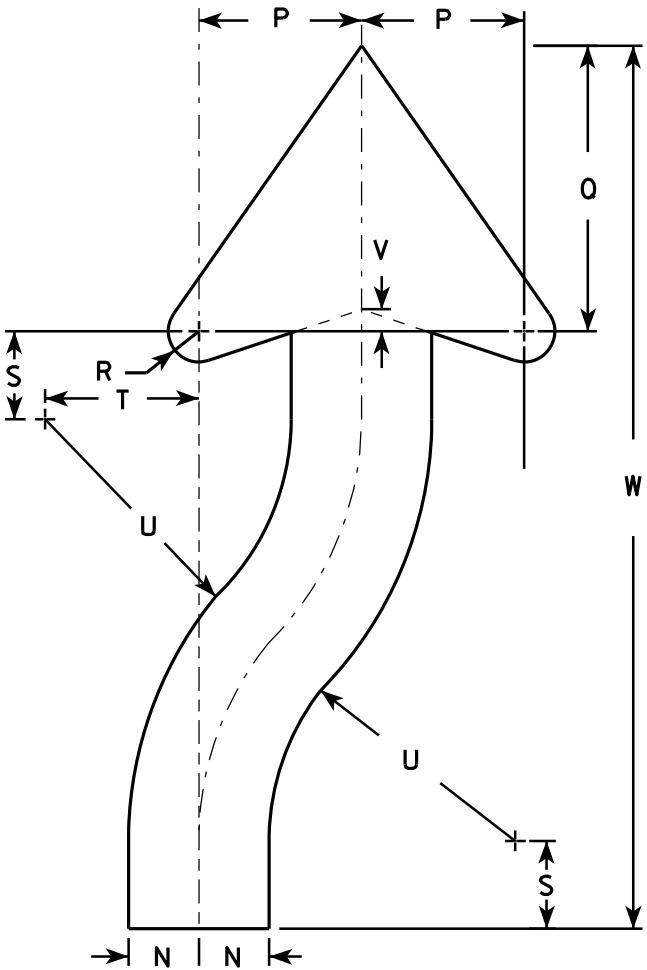
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

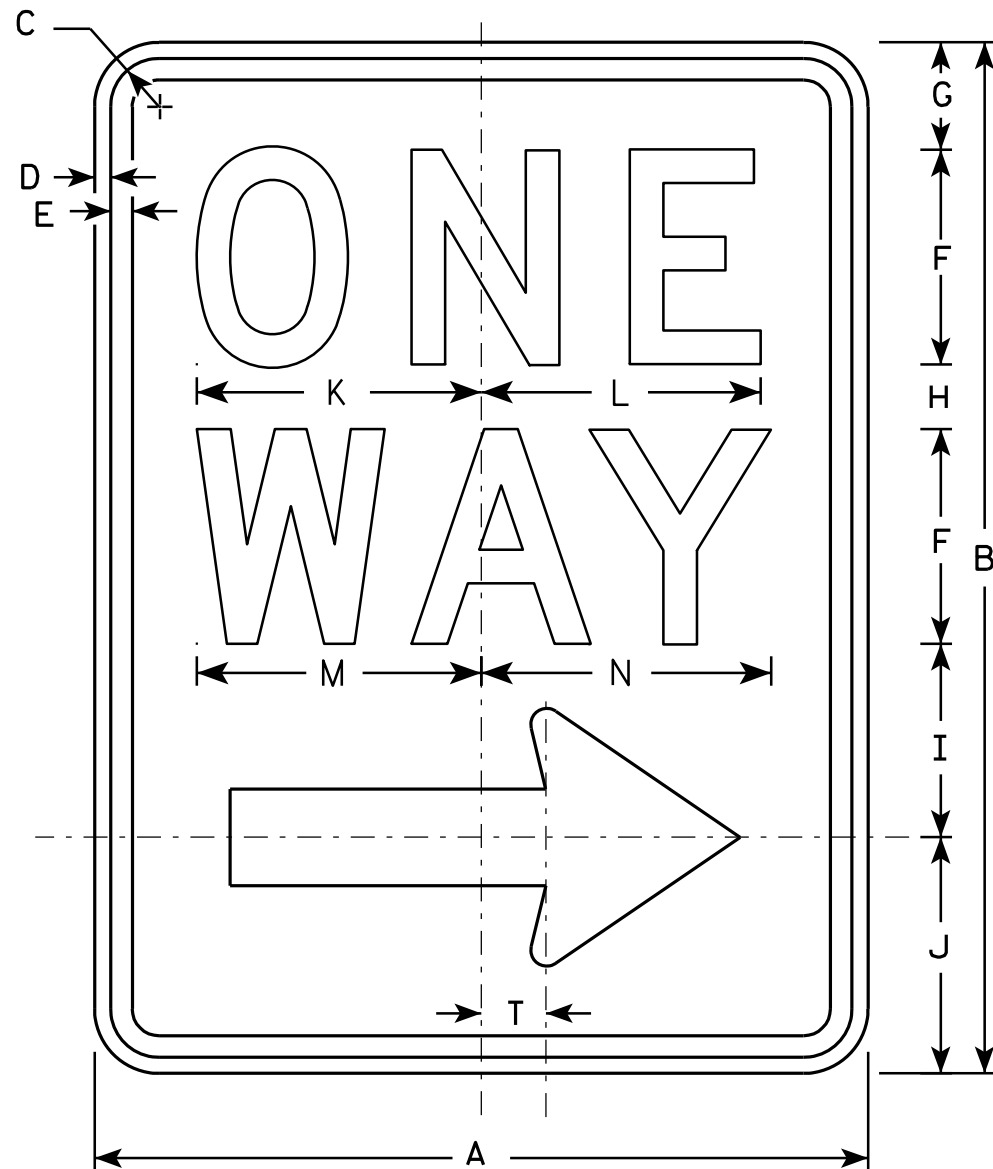
STANDARD SIGN

R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

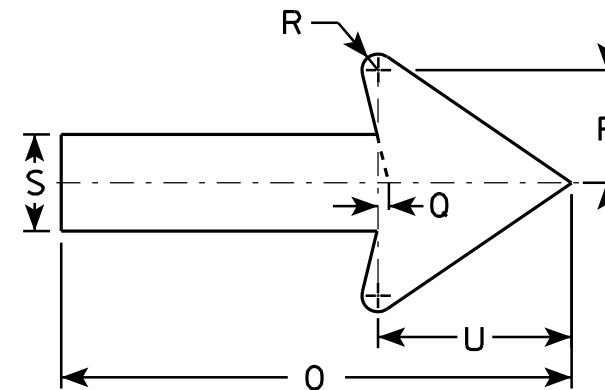
DATE 3/25/2011 PLATE NO. R4-7.8



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																										

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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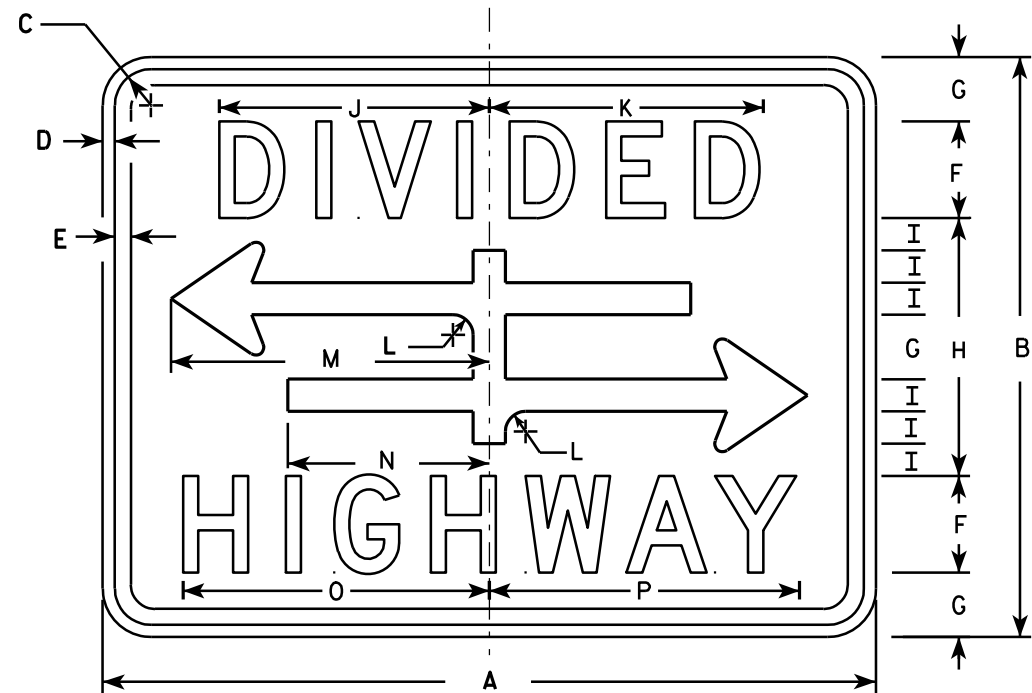
STANDARD SIGN

R6-2 R&L

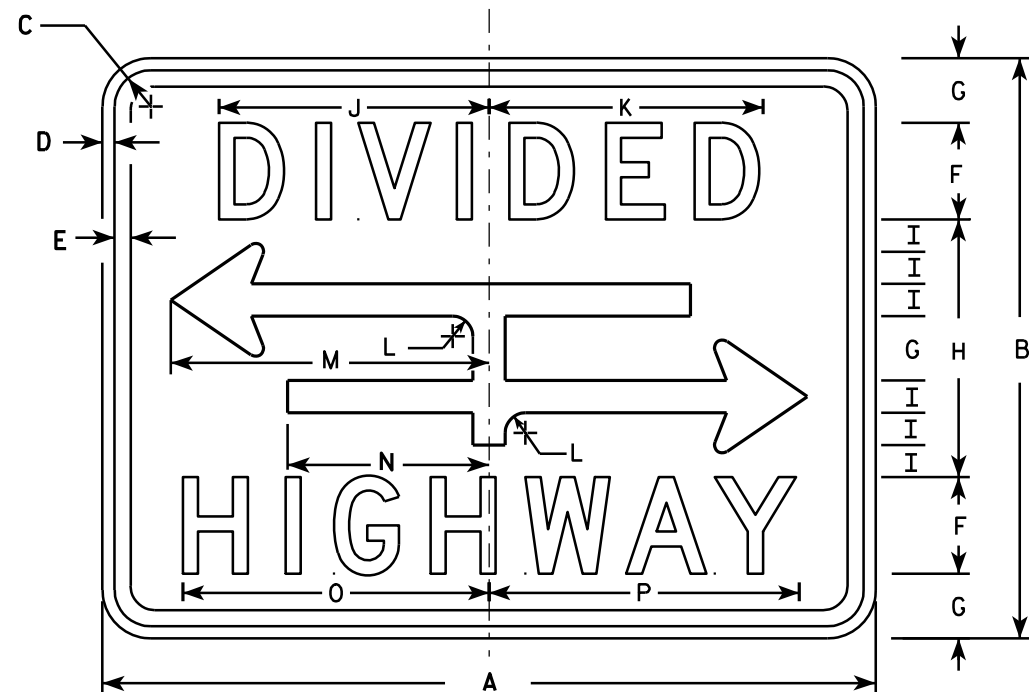
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

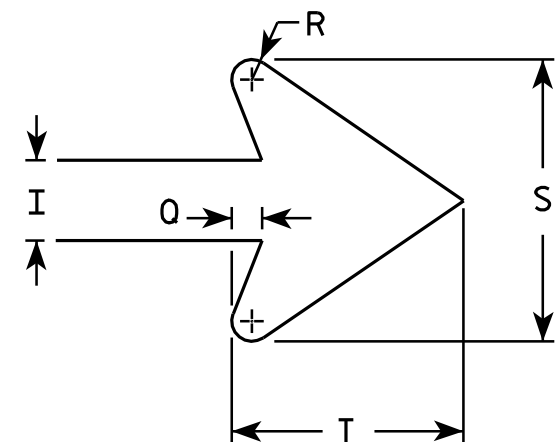
DATE 11/2/10 PLATE NO. R6-2.8



R6-3



R6-3A



ARROW DETAIL

## 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.

7

7

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	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

PROJECT NO:

STANDARD SIGN  
R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

SHEET NO:

E

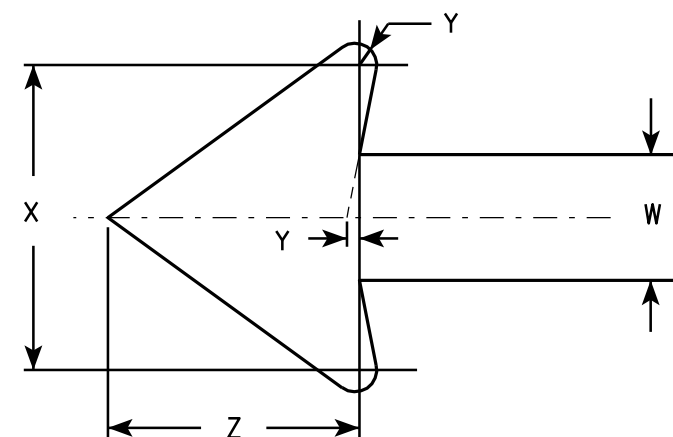
7



R7-51

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 - Red
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. R7-51D (double arrow)  
R7-51R (right arrow)  
R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.  
Line 2 is Series B.



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

STANDARD SIGN R7-51	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/31/2011	PLATE NO. R7-51.6

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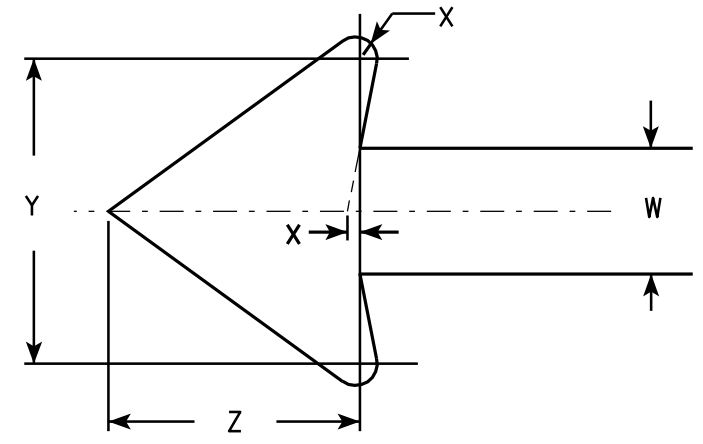
7



R7-53

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 - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-53D (double arrow)  
R7-53L (left arrow)  
R7-53R (right arrow)



ARROW DETAIL

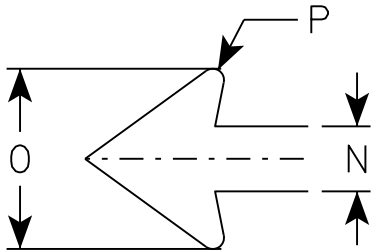
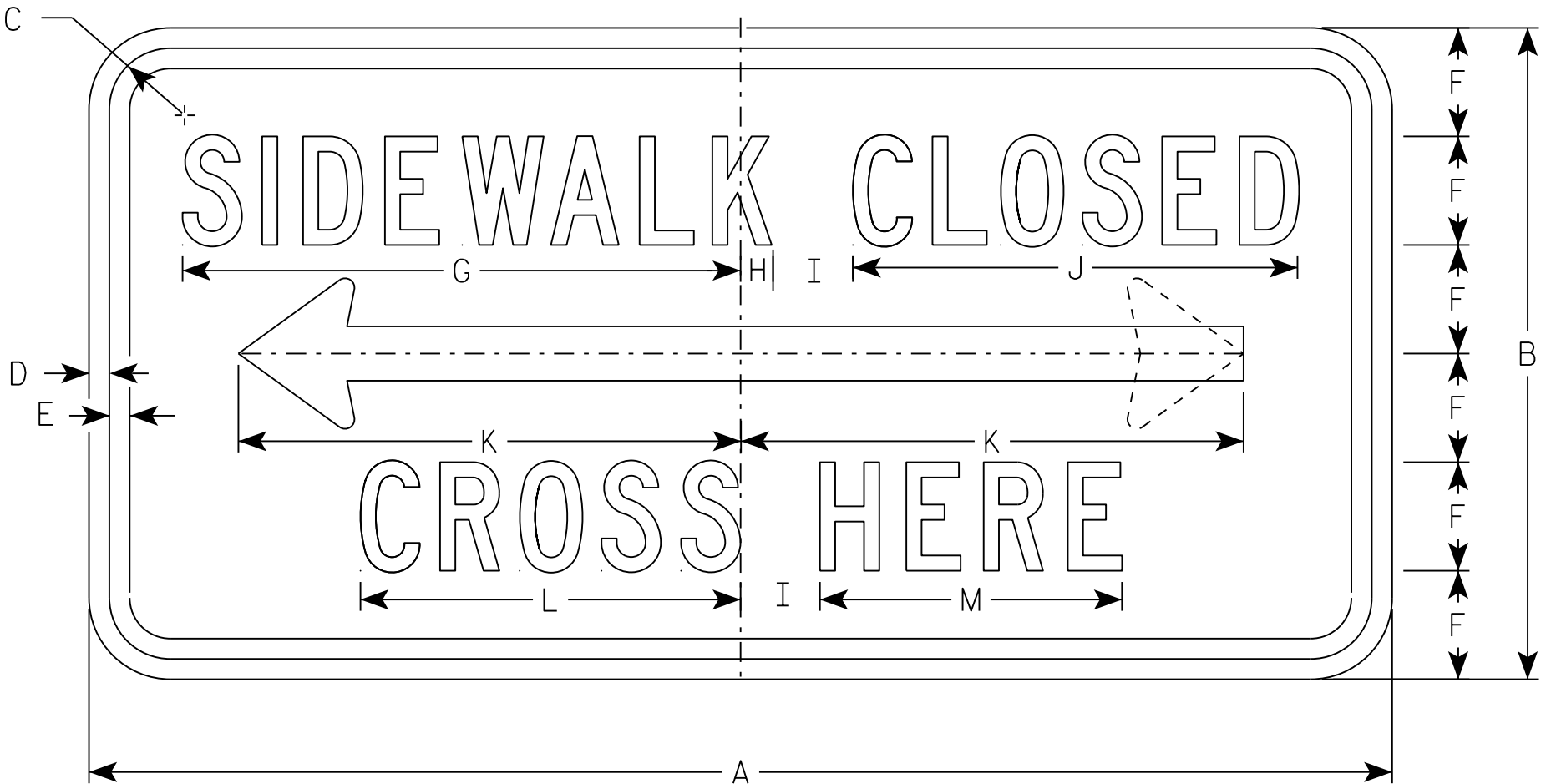
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 5/8	1 3/4	1/4	4 1/2	2 3/8	3 7/8	3/4	1/8	1 3/4	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	3 3/8	1 1/2	5/8	5 3/8	3	5 7/8	1 1/8	1/4	2 5/8	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	4	2	5/8	6 5/8	3 5/8	7 3/4	1 1/2	1/4	3 1/2	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	4	2	5/8	6 5/8	3 5/8	7 3/4	1 1/2	1/4	3 1/2	3	5.0
4																											
5																											

STANDARD SIGN R7-53	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/31/2011	PLATE NO. R7-53.6

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

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - White  
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.



R9-11A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2	13	3/4	2	10 1/4	12 3/8	8 7/8	6 7/8	1 1/4	3 5/8	1/4											3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

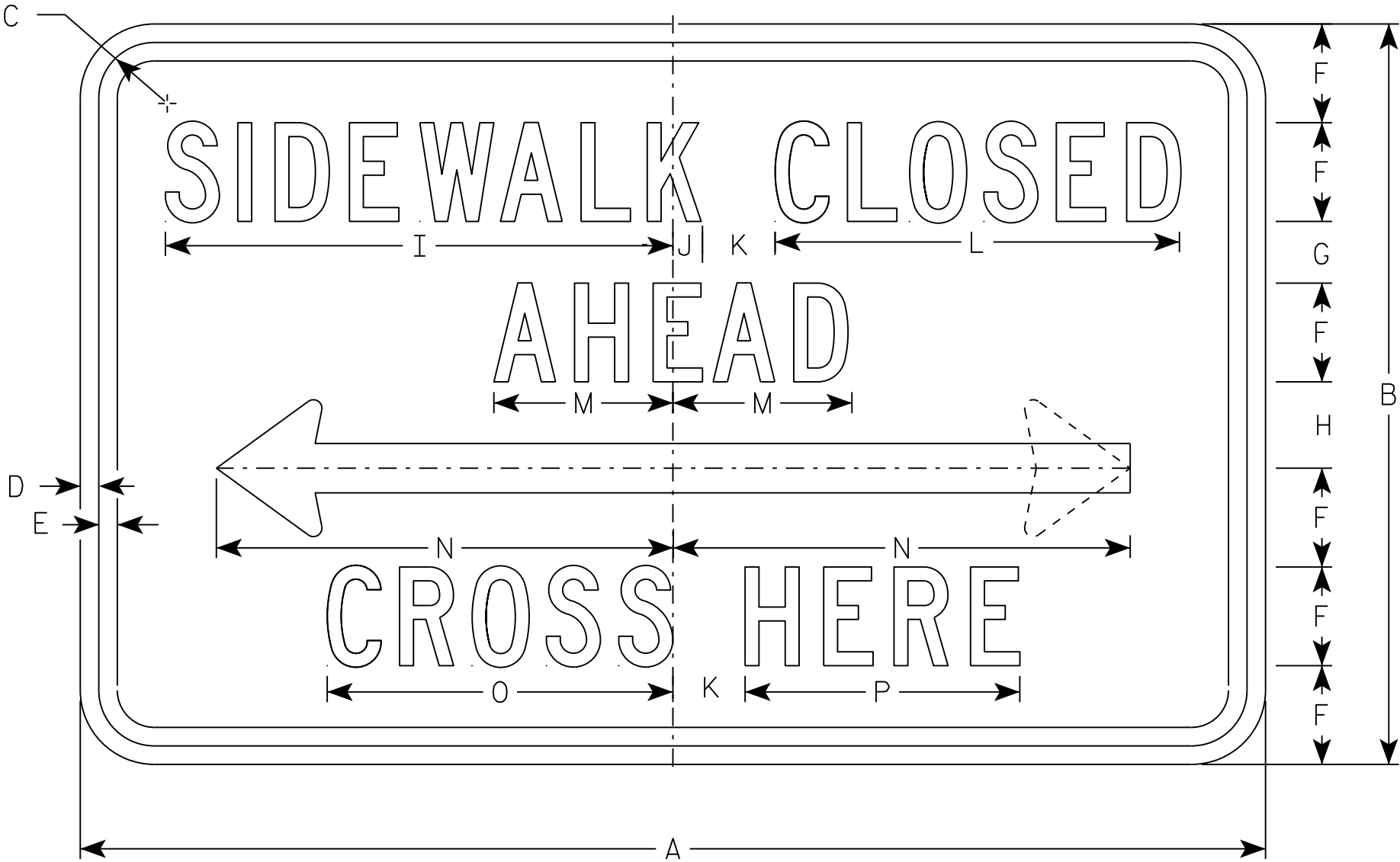
E

STANDARD SIGN  
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

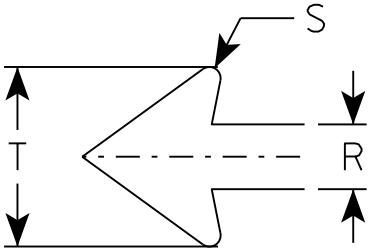
DATE 11/29/16 PLATE NO. R9-11A.3



R9-11

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN  
R9-11

WISCONSIN DEPT OF TRANSPORTATION

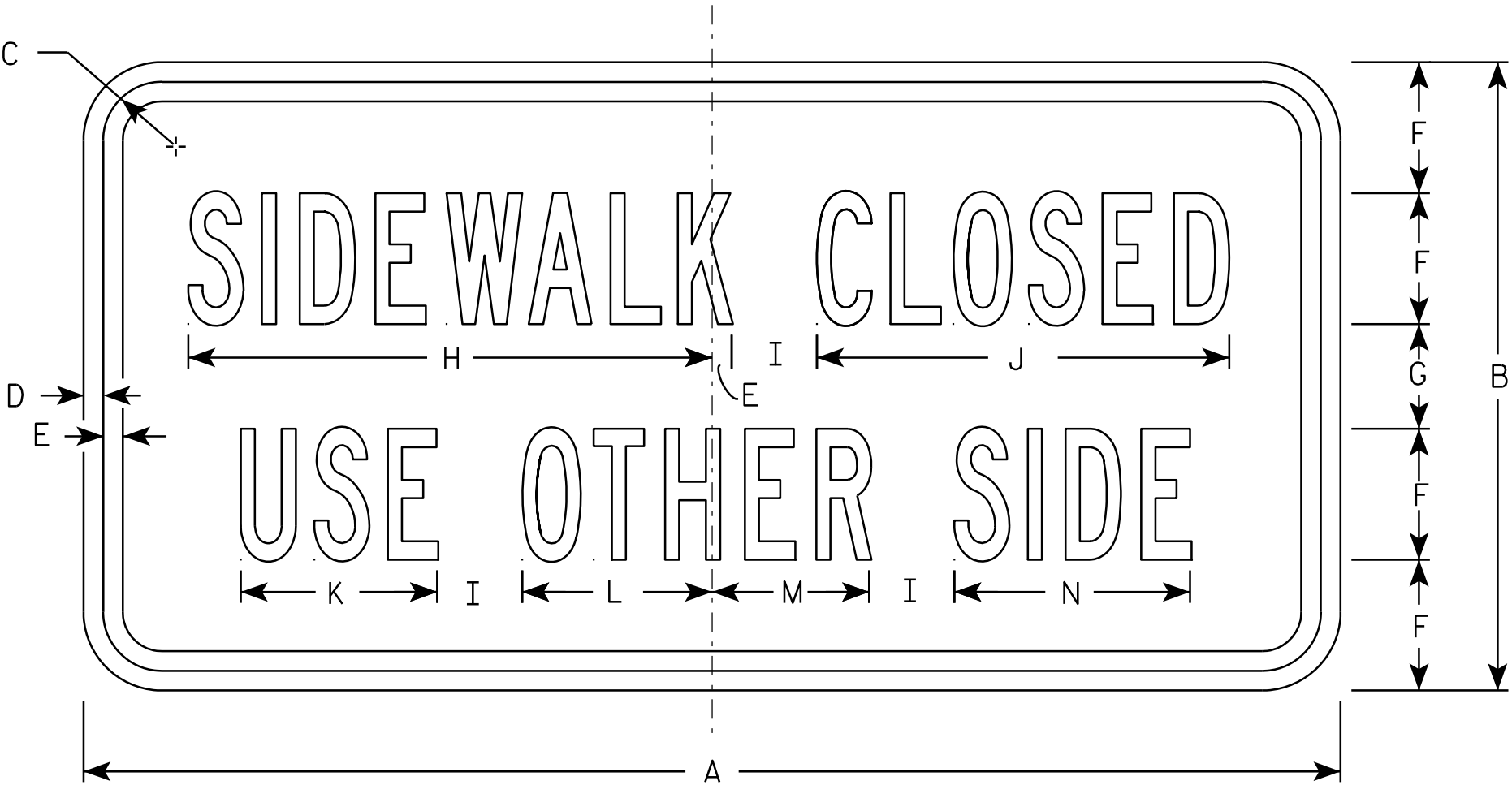
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3



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
- 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.



R9-10

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	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2S	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
2M	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
3																											
4																											
5																											

STANDARD SIGN  
R9-10

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/16/2012 PLATE NO. R9-10.5

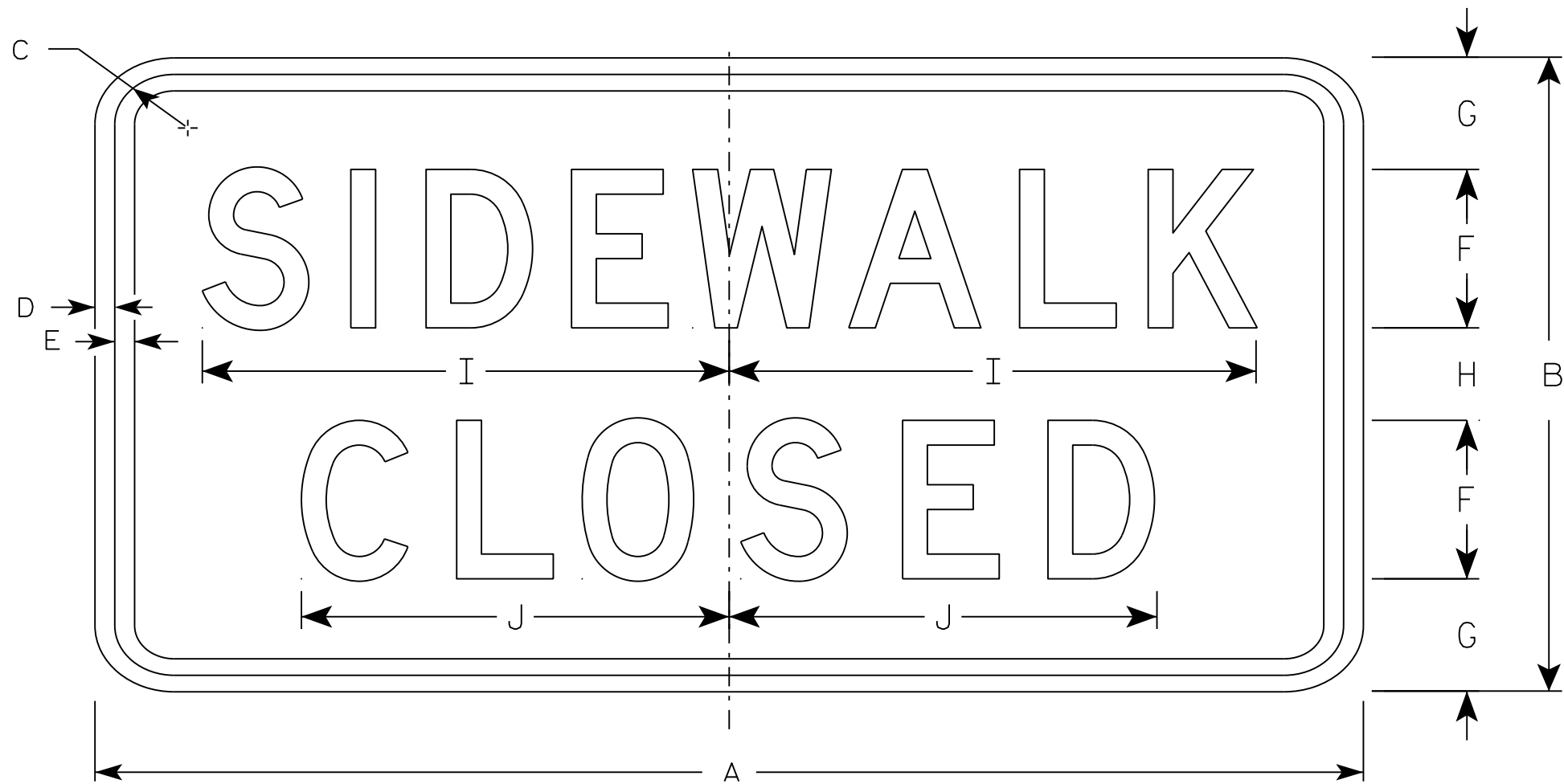
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - White  
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ¾	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN  
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

EARTHWORK

BRAUND ST

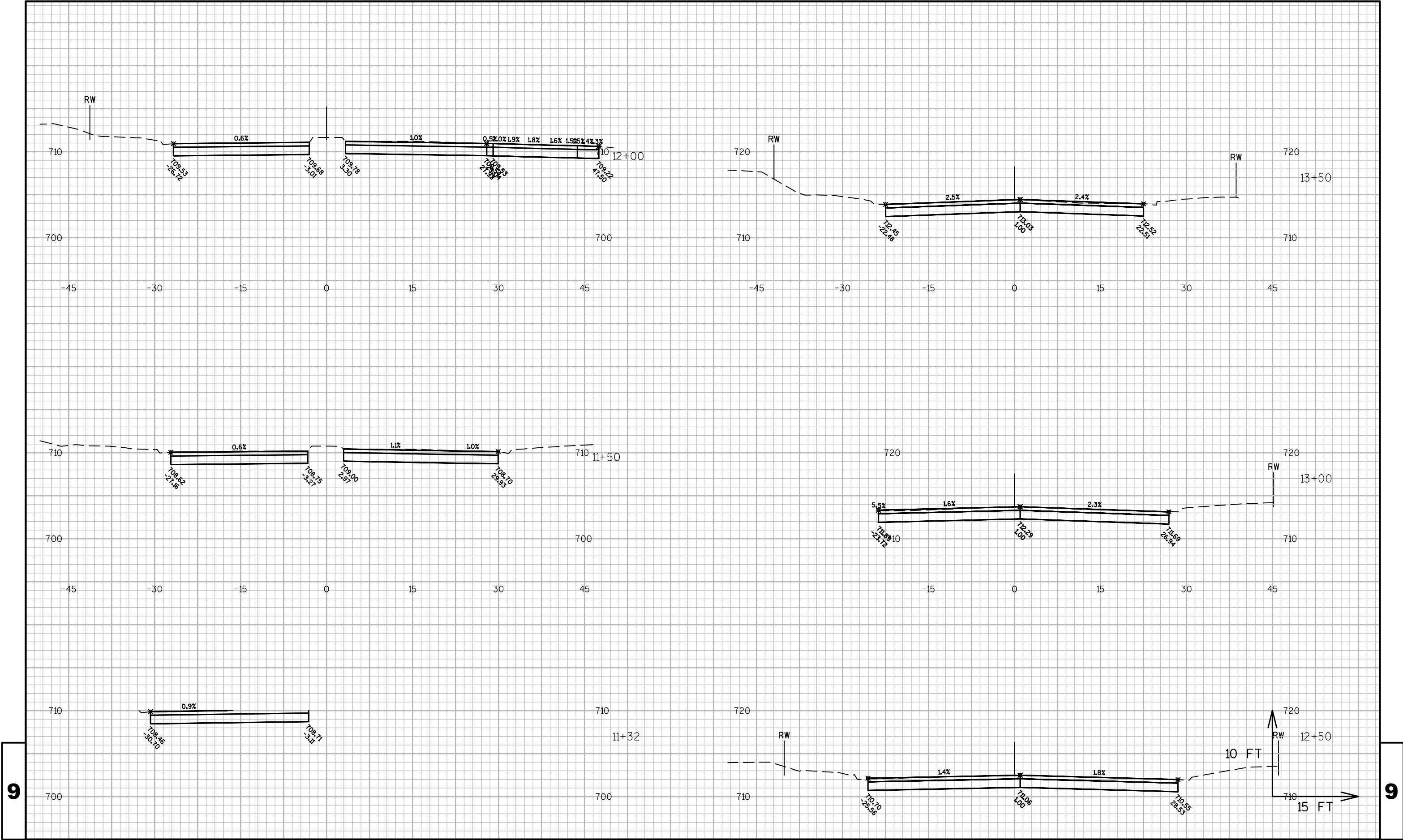
STATION	DISTANCE	END AREA CUT (SF)	INCREMENTAL CUT (CY)	CUMULATIVE CUT (CY)
11+46	0	120.4	0	0
12+00	54	97.8	217.3	218
13+00	100	113.3	390.9	609
13+50	50	63.8	164.0	773
14+00	50	62.3	116.7	890
15+00	100	62.3	230.9	1121
16+00	100	62.3	230.9	1352
17+00	100	62.3	230.9	1583
18+00	100	62.3	230.9	1814
19+00	100	62.3	230.9	2045
20+00	100	62.3	230.9	2276
20+86	86	148.8	336.2	2613
Multi-Use Path	---	---	10.0	2623

PH

STATION	DISTANCE	END AREA CUT (SF)	INCREMENTAL CUT (CY)	CUMULATIVE CUT (CY)
101+78	0	53.8	0.0	0
102+00	22	53.8	43.9	44
103+00	100	53.8	199.4	244
104+00	100	53.8	199.4	444
105+00	100	53.8	199.4	644
106+00	100	53.8	199.4	844
107+00	100	53.8	199.4	1044
108+00	100	53.8	199.4	1244
109+00	100	53.8	199.4	1444
110+00	100	53.8	199.4	1644
111+00	100	53.8	199.4	1844
112+00	100	53.8	199.4	2044
EBS*	300	38.0	422.2	2467

\*EBS Estimated from STA 108+50 to 111+50.

Total5090



PROJECT NO:5991-02-54

HWY:BRAUND STREET

COUNTY:LA CROSSE

CROSS SECTIONS: BRAUND STREET

SHEET

E

FILE NAME : \\SEHLX1\PROJECTS\K0\0\NALA\133149\C3D\SHEETPLAN\BRAUND\090201-XS-BRAUND.DWG  
LAYOUT NAME - 090201-XS-BRAUND - 0902 - (1)

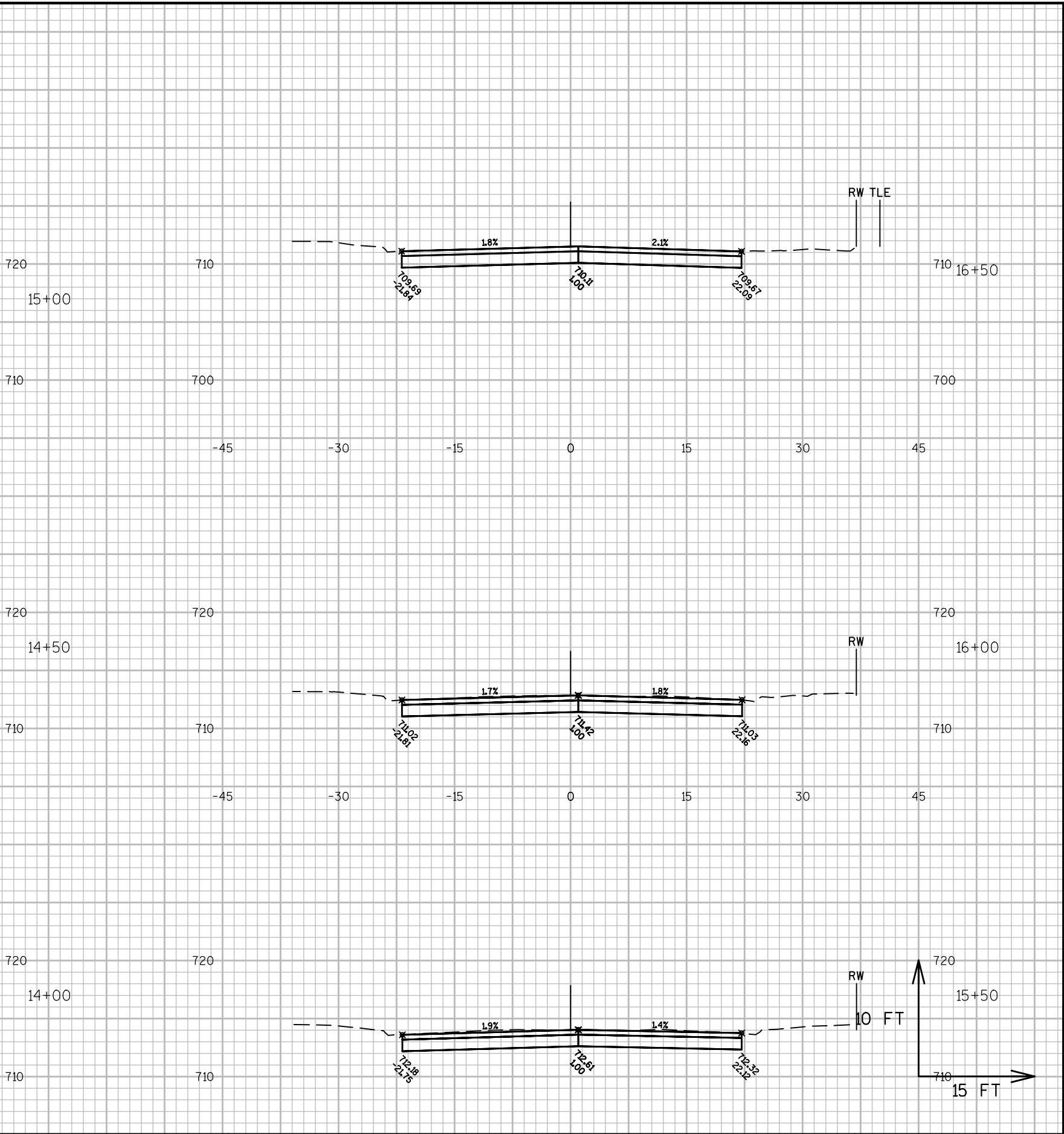
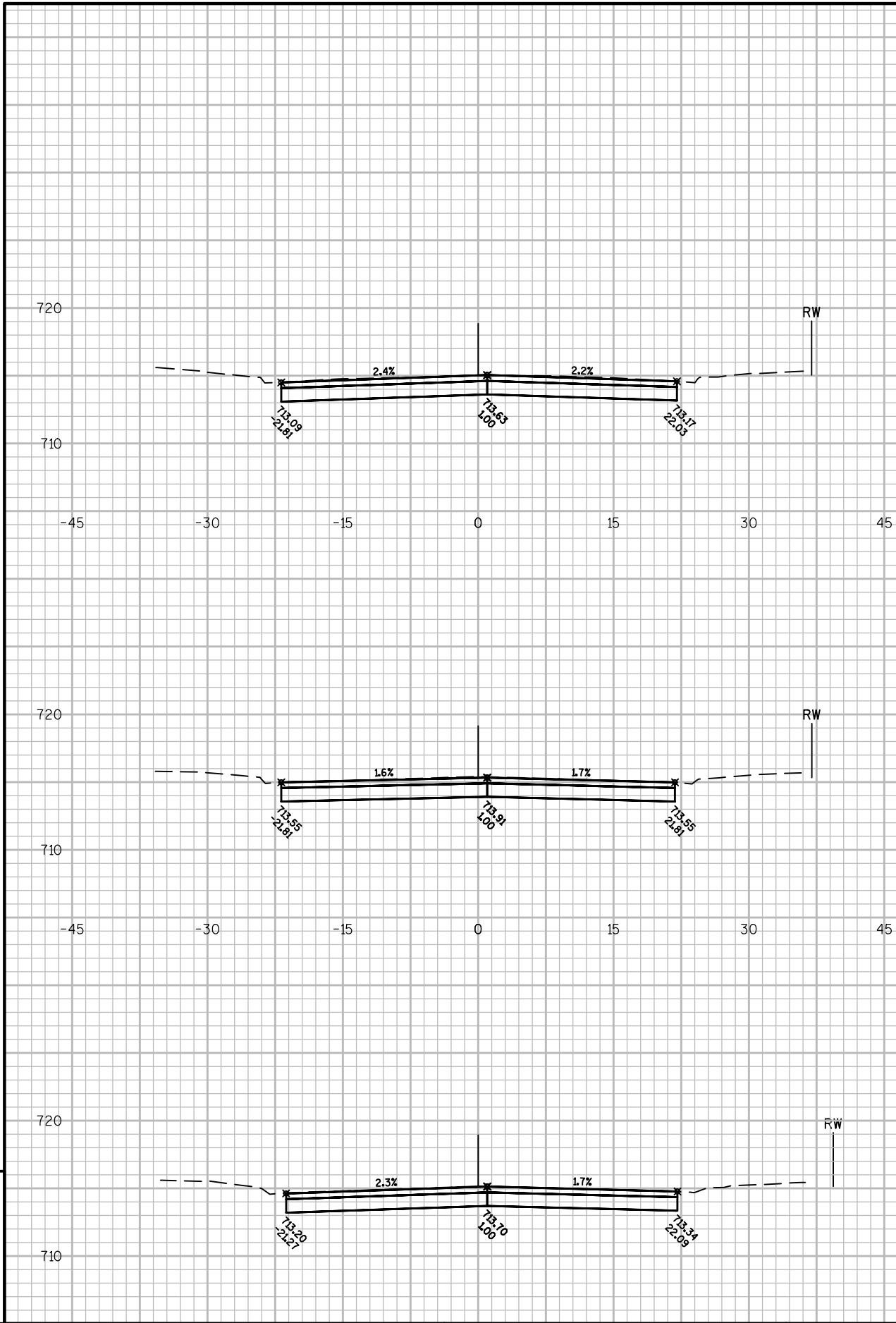
PLOT DATE : 1/3/2017 3:45 PM

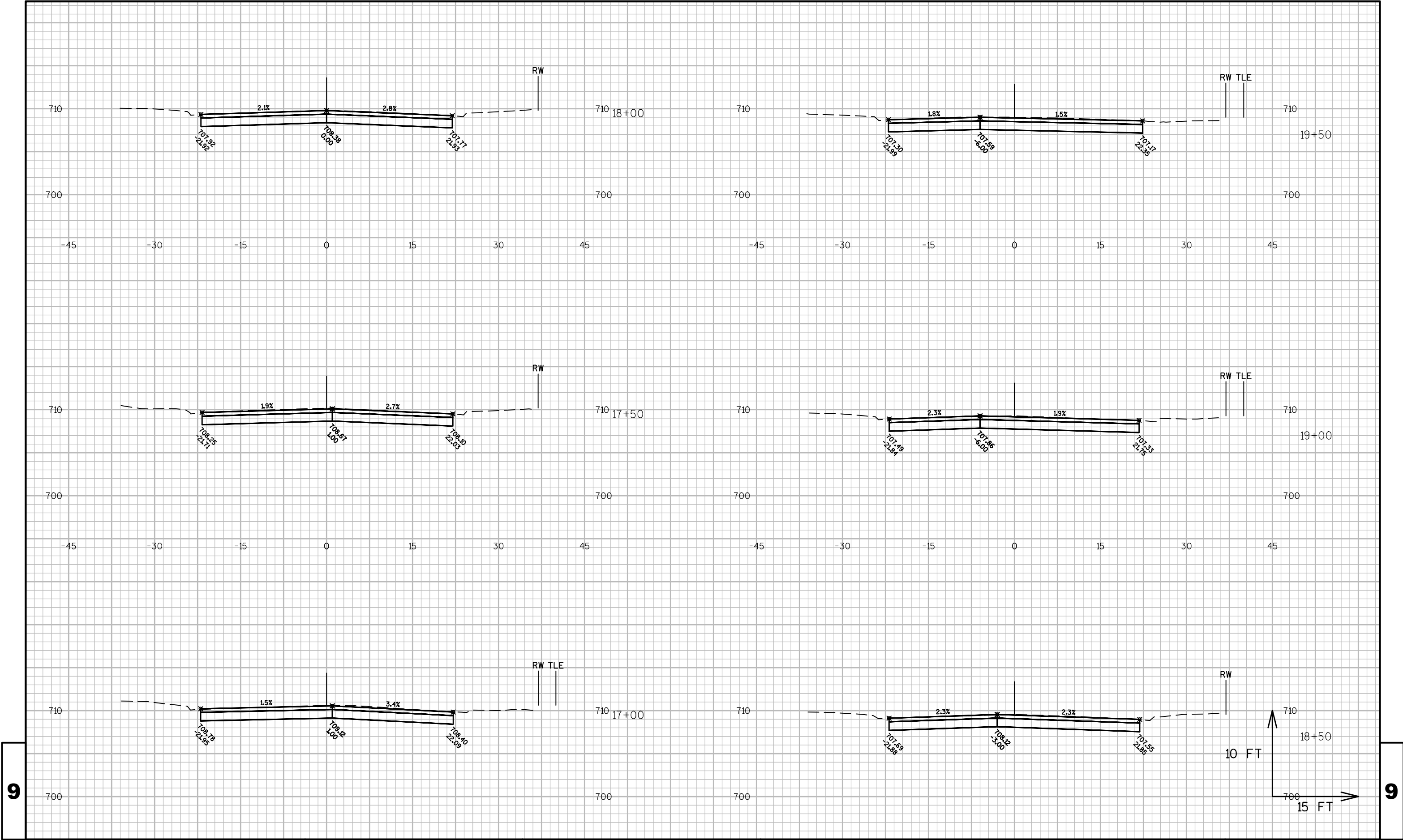
PLOT BY : TOREY LEONARD

PLOT NAME :

PLOT SCALE : 1 IN:15 FT

WISDOT/CADDs SHEET 49





9

9

PROJECT NO:5991-02-54

HWY:BRAUND STREET

COUNTY:LA CROSSE

CROSS SECTIONS: BRAUND STREET

SHEET

E

FILE NAME : \\SEHLX1\PROJECTS\K0\0\0\NALA\133149\C3D\SHEETSPLAN\BRAUND\090201-XS-BRAUND.DWG  
LAYOUT NAME - 090201-XS-BRAUND - 0902 - (3)

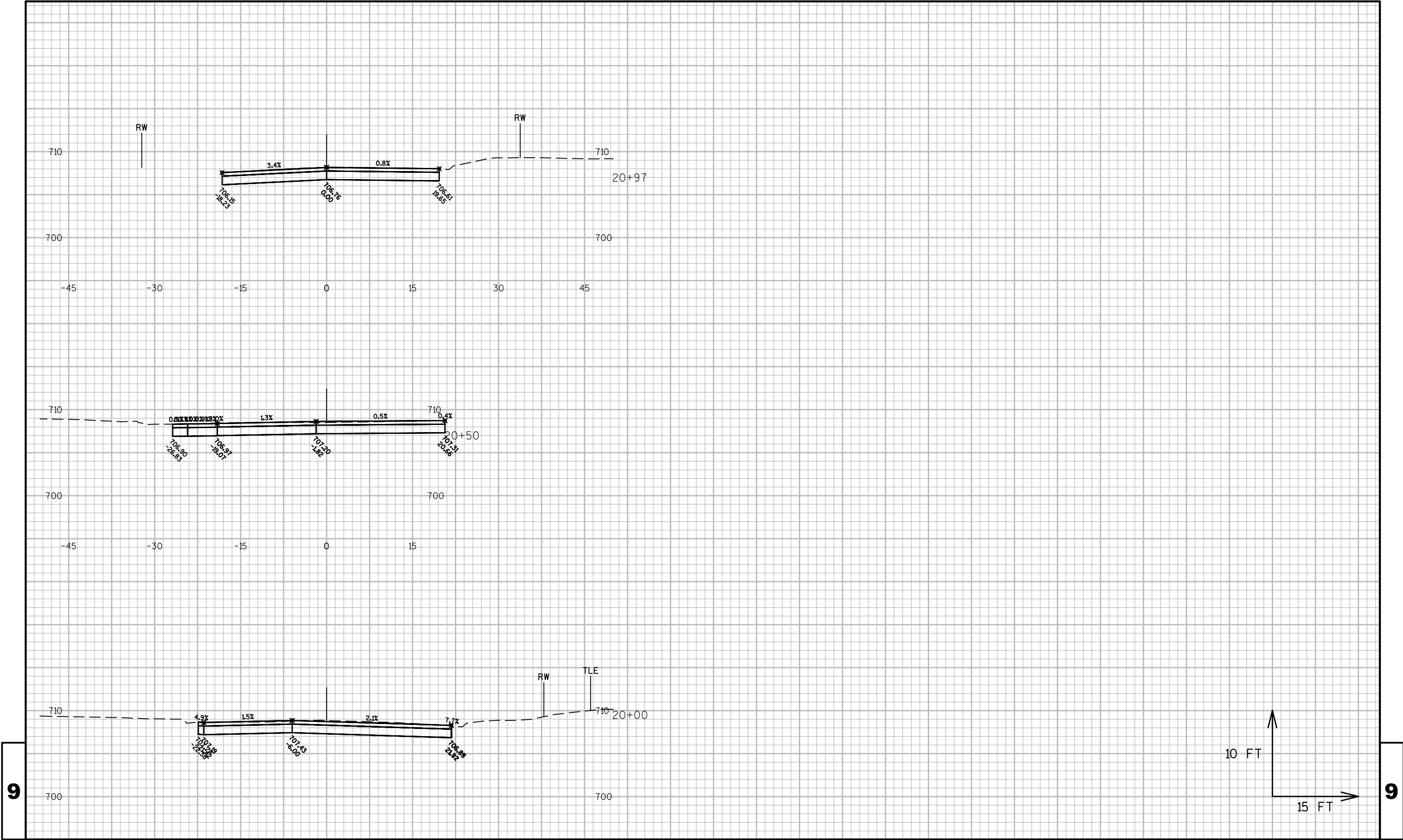
PLOT DATE : 1/3/2017 3:45 PM

PLOT BY : TOREY LEONARD

PLOT NAME :

PLOT SCALE : 1 IN:15 FT

WISDOT/CADDs SHEET 49



9

9

PROJECT NO:5991-02-54

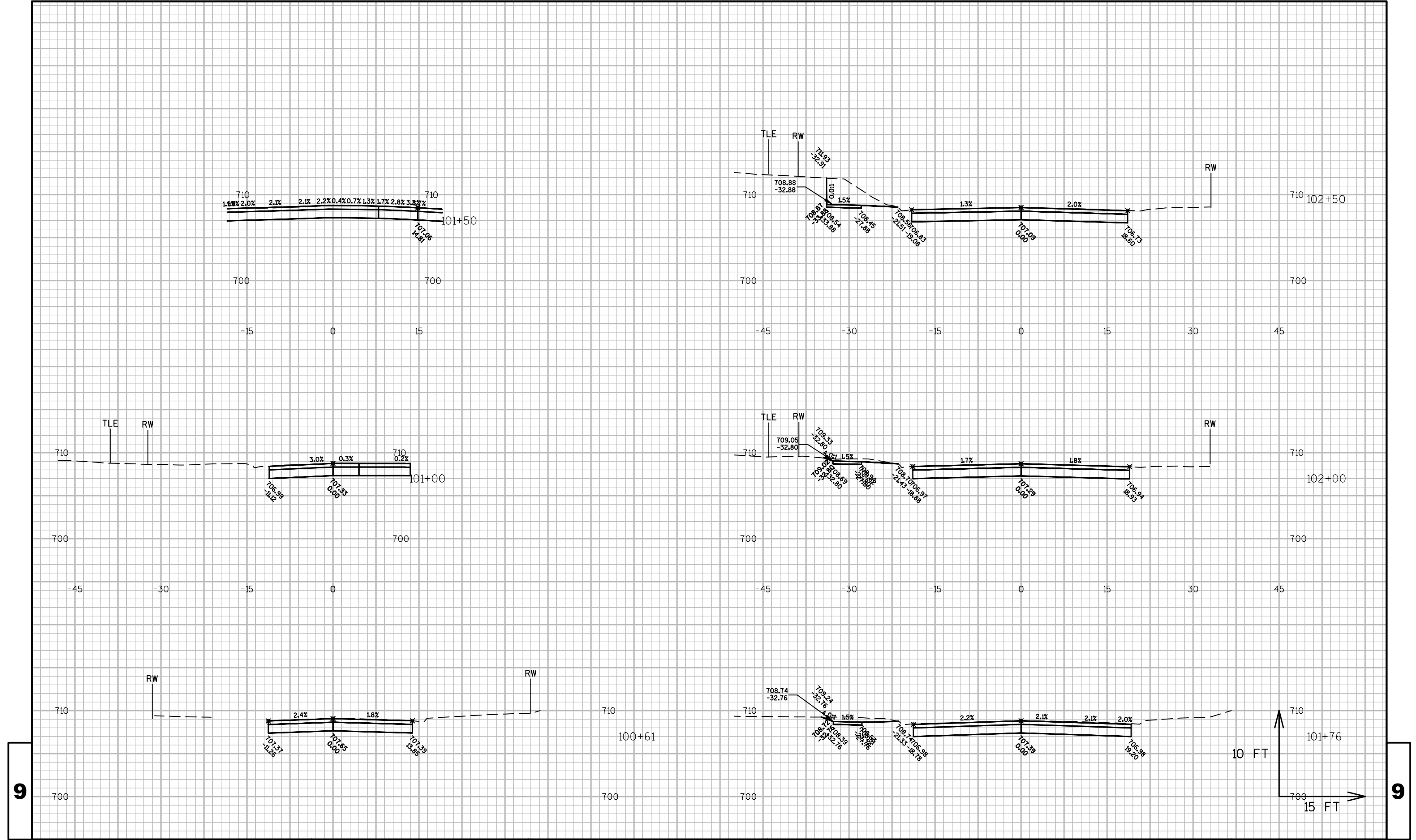
HWY:BRAUND STREET

COUNTY:LA CROSSE

CROSS SECTIONS: BRAUND ST

SHEET

E



PROJECT NO:5991-02-55

HWY:PH

COUNTY:LA CROSSE

CROSS SECTIONS: PH

SHEET

E

FILE NAME : \\SEHLX1\PROJECTS\K0\0\0NALA\133149\C3D\SHEETSPLAN\BRAUND\090201-XS-PH.DWG  
LAYOUT NAME - 090201-XS-PH - PH - (1)

PLOT DATE : 7/19/2017 4:44 PM

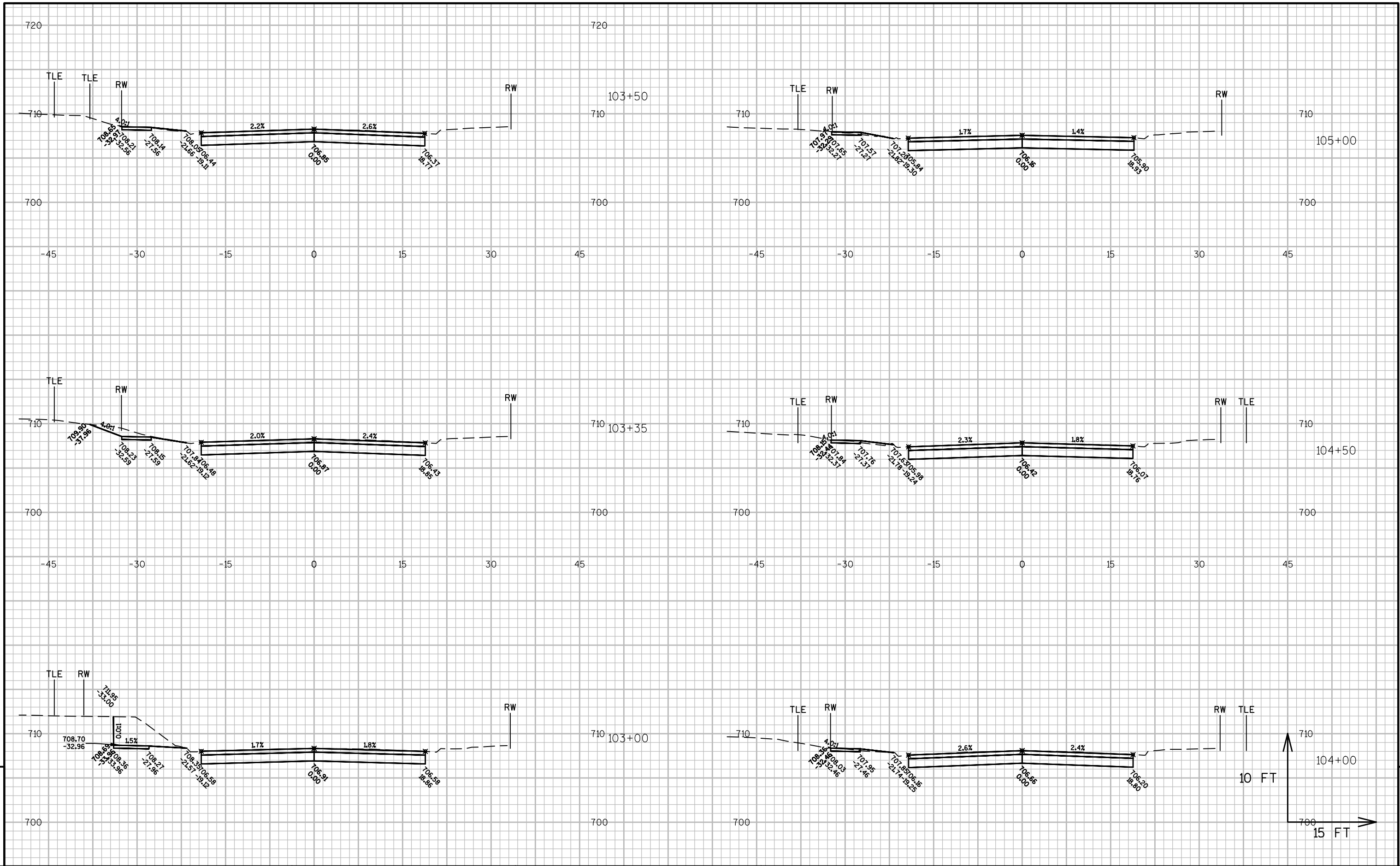
PLOT BY : TOREY LEONARD

PLOT NAME :

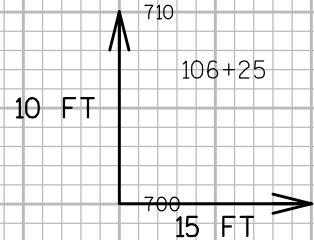
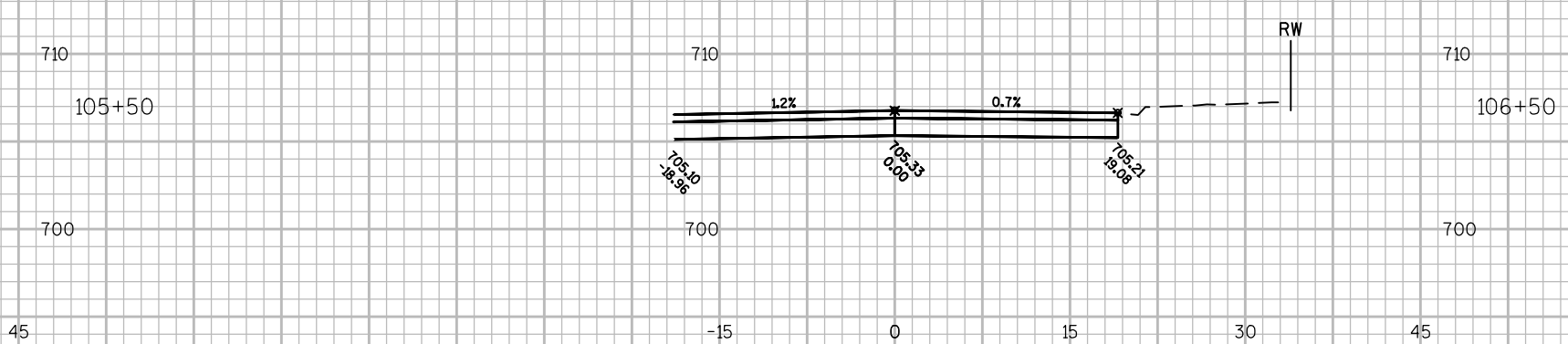
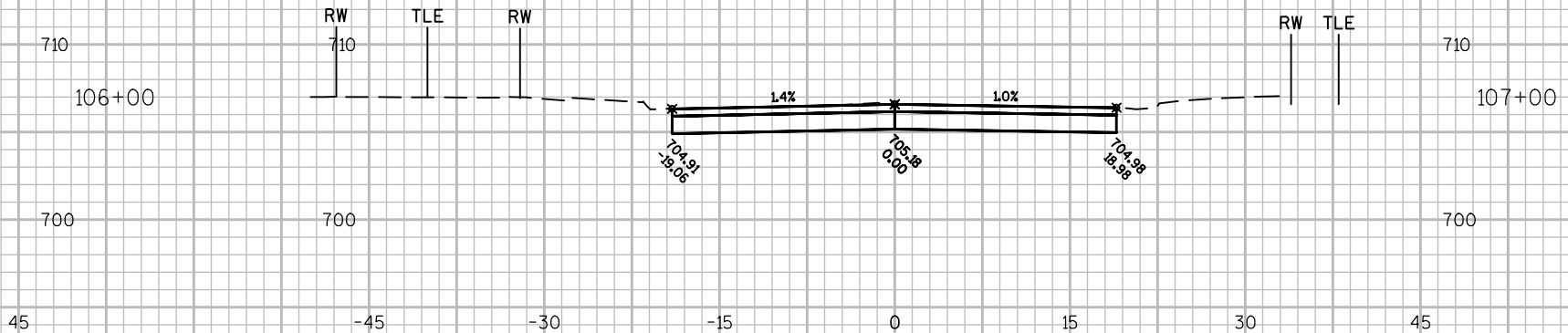
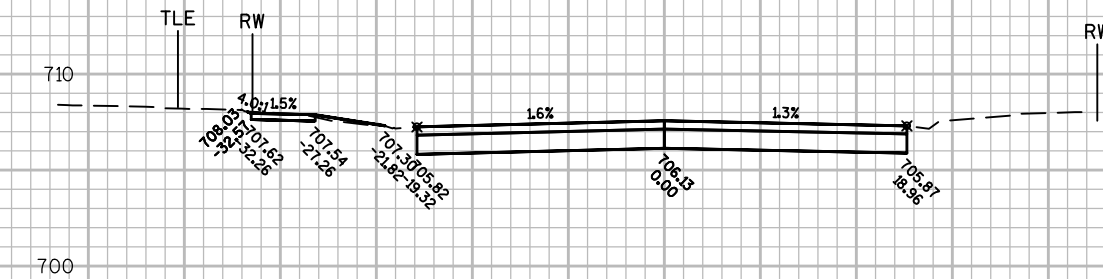
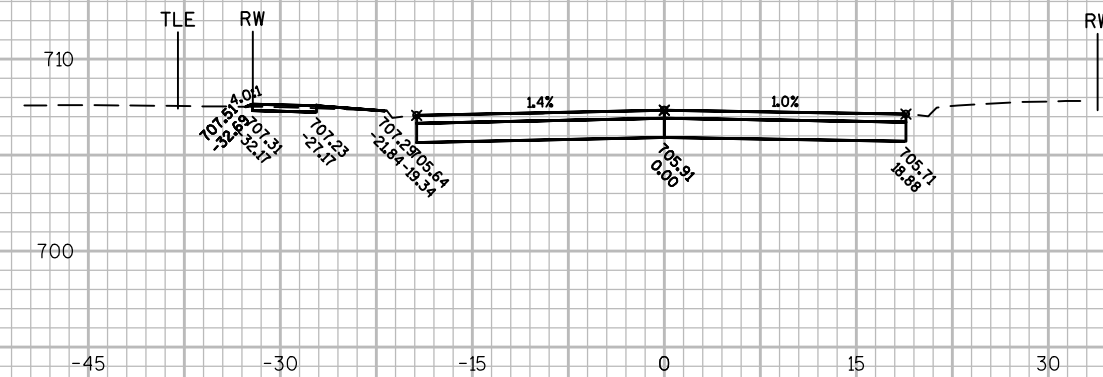
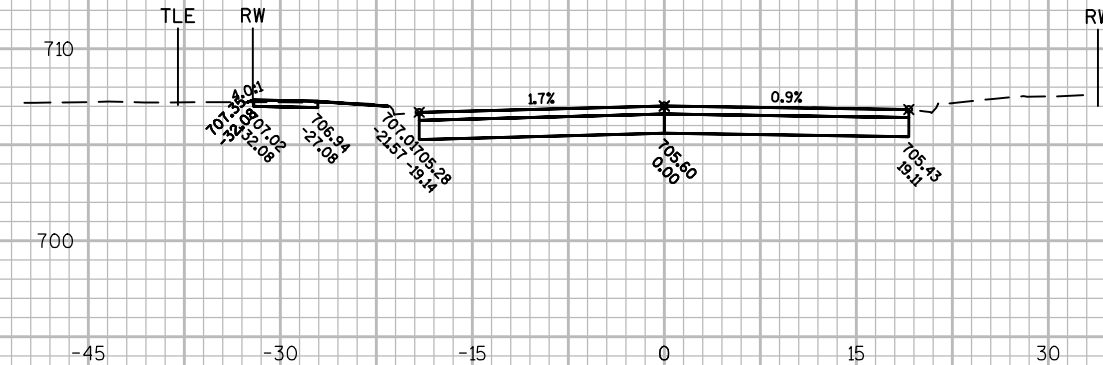
PLOT SCALE : 1 IN:15 FT

WISDOT/CADDs SHEET 49





9



9

PROJECT NO:5991-02-55

HWY:PH

COUNTY:LA CROSSE

CROSS SECTIONS: PH

SHEET

E

FILE NAME : \\SEHLX1\PROJECTS\K0\0\0\NALA\133149\C3D\SHEETSPLAN\BRAUN\090201-XS-PH.DWG  
LAYOUT NAME - 090201-XS-PH - PH - (3)

PLOT DATE : 7/19/2017 4:45 PM

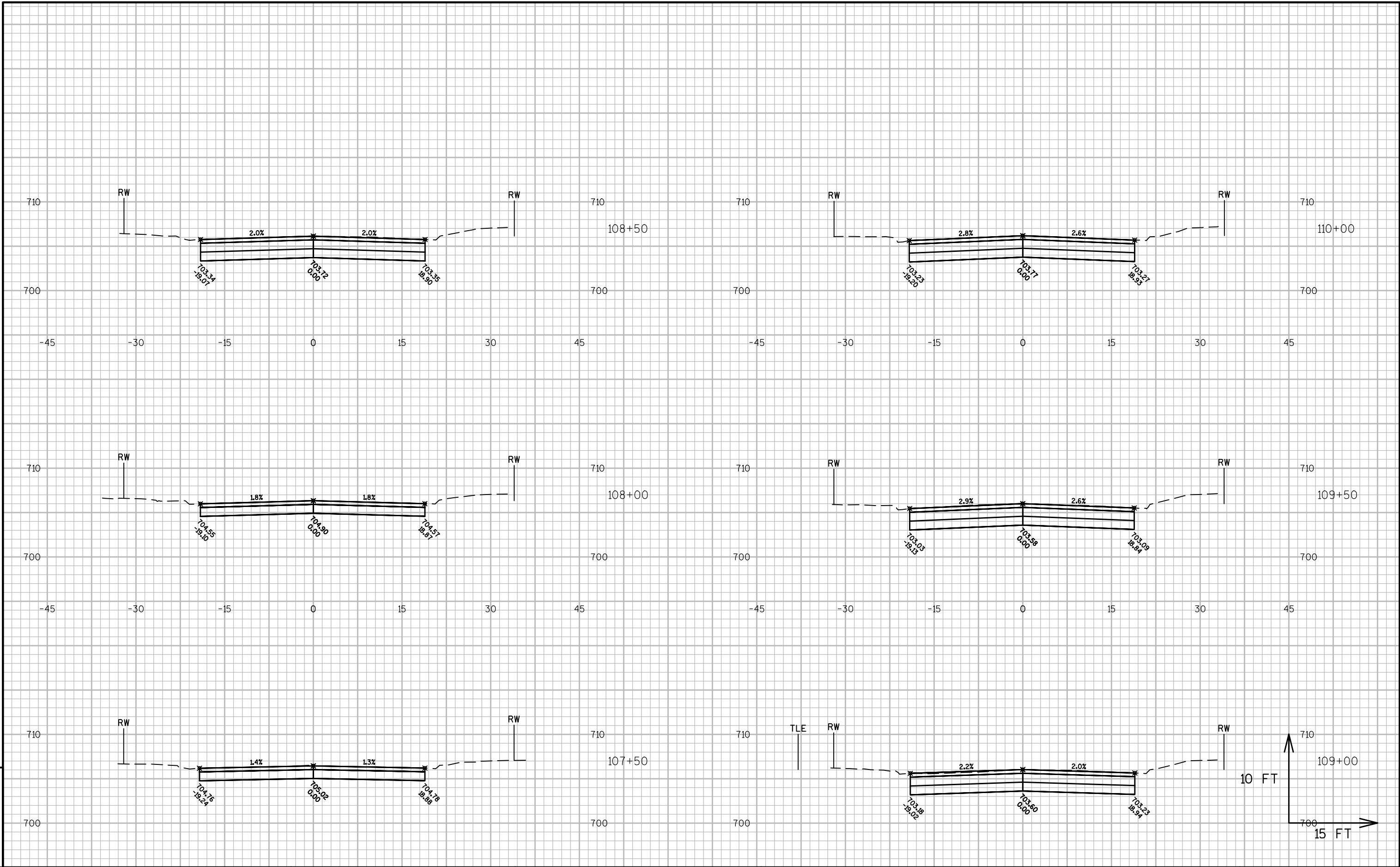
PLOT BY : TOREY LEONARD

PLOT NAME :

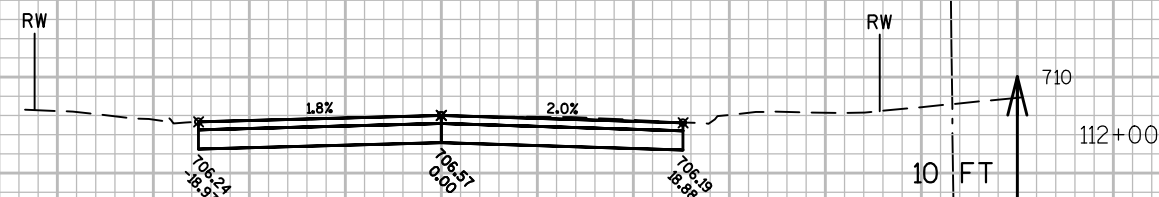
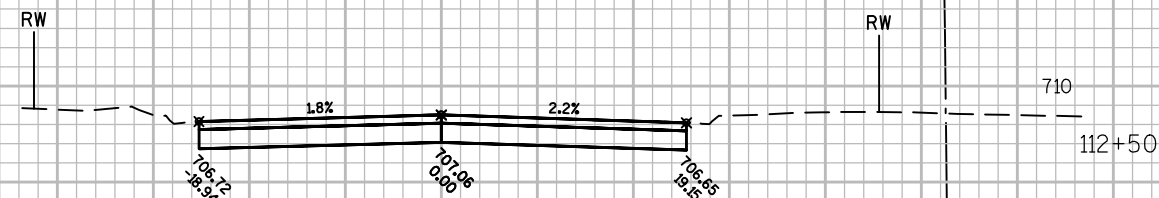
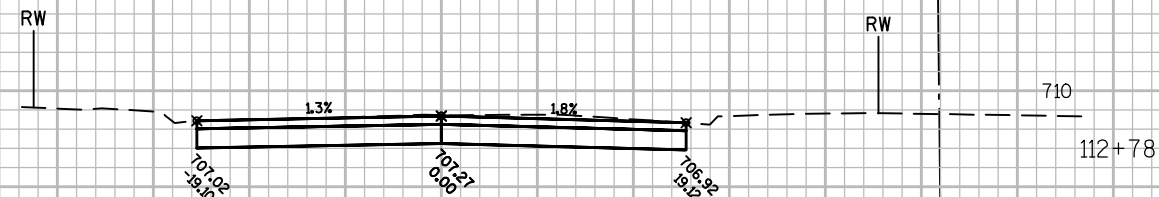
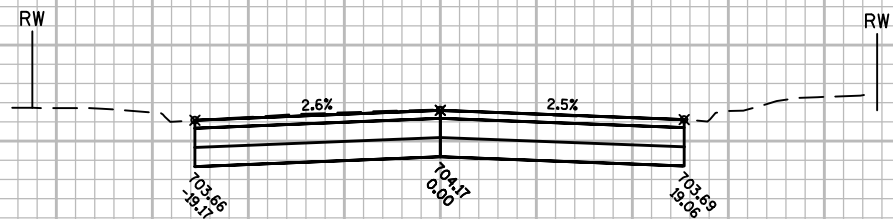
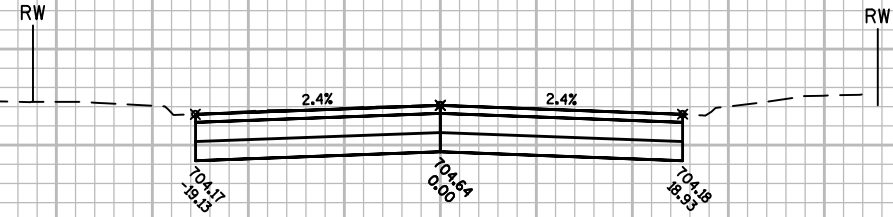
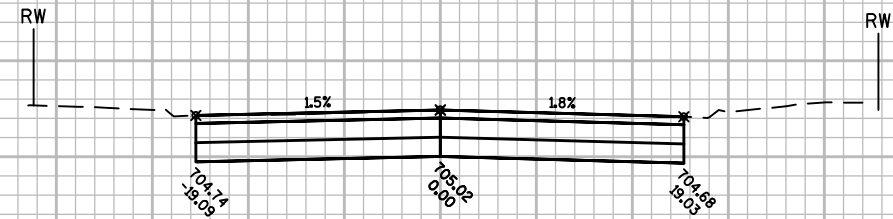
PLOT SCALE : 1 IN:15 FT

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