

EAU

PROJECT ID: 7200-00-70

WITH:


COUNTY: ST CROIX

JUNE 2021

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 Plan
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Gross Sections

TOTAL SHEETS = 50



N

DESIGN DESIGNATION 7200-00-00

A.A.D.T.	2021	=	10,200
A.A.D.T.	2041	=	10,200
D.H.V.		=	N/A
D.D.		=	N/A
T.		=	7%
DESIGN SPEED		=	15 MPH
ESALS		=	210

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE (To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

300' FB'

CAUTION

ROCK

LABEL

95.36

E

FO

G

SAN

SS

T

W

Ø

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

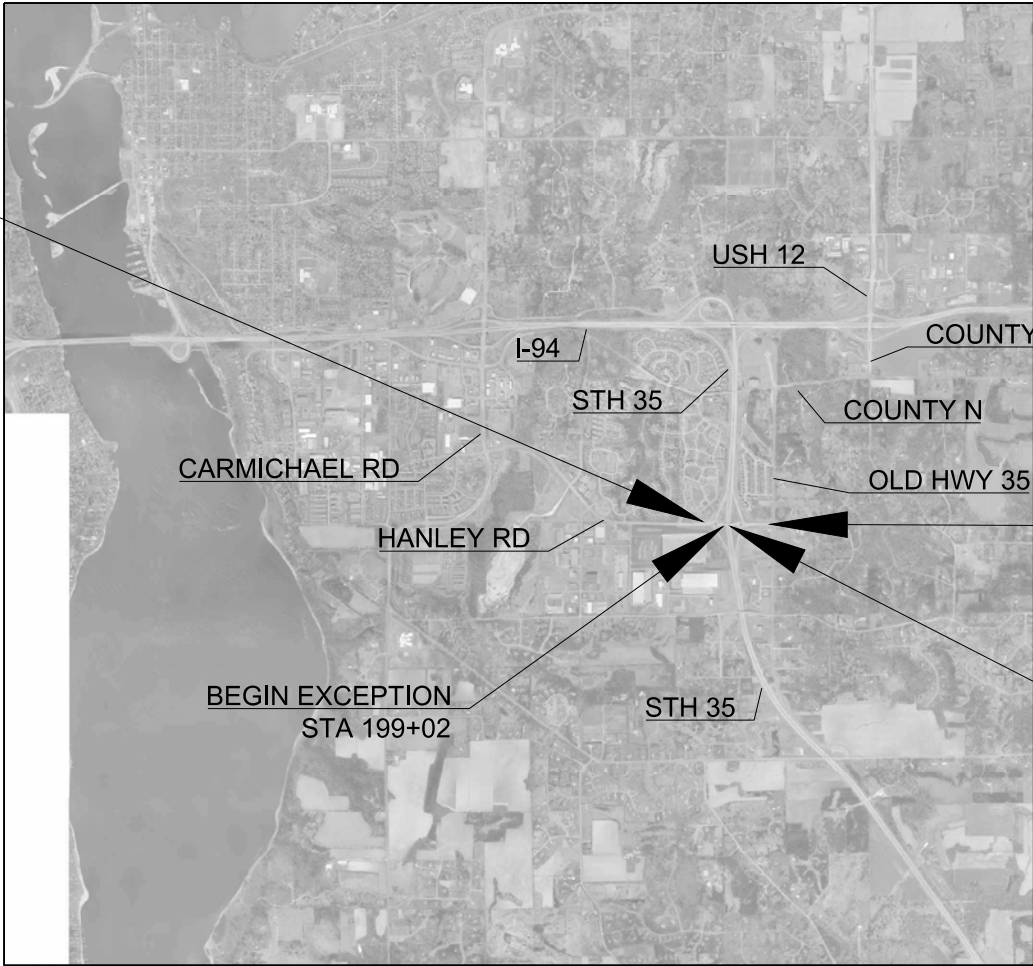
RIVER FALLS - HUDSON

HANLEY ROAD INTERCHANGE

STH 35

ST CROIX COUNTY

STATE PROJECT NUMBER 7200-00-70



BEGIN PROJECT STA 193+28

END PROJECT STA 213+01

BEGIN EXCEPTION STA 199+02

END EXCEPTION STA 201+59

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.360 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ST CROIX COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7200-00-70	WISC 2021373	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	VIDAR SANCHEZ
Project Manager	NICHOLAS PITSCHE
Regional Examiner	TOU YANG
Regional Supervisor	DAVID KOEPP, PE

APPROVED FOR THE DEPARTMENT

DATE: Dave Koepp

Digitally signed by Dave Koepp
DN: cn=Dave Koepp, o=State of Wisconsin, email=dave.koepp@dot.wisconsin.gov, c=US
Date: 2021.04.06 18:11:27 -0500
(Signature)

E

STANDARD ABBREVIATIONS

AGG	AGGREGATE	LC	LONG CHORD OF CURVE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE	MOR	MID POINT OF RADIUS
		NC	NORMAL CROWN
ASPH	ASPHALTIC	N.T.S.	NOT TO SCALE
BM	BENCH MARK	PAVT	PAVEMENT
CE	COMMERCIAL ENTRANCE	PE	PRIVATE ENTRANCE
CL OR C/L OR €	CENTER LINE	PVRC	POINT OF VERTICAL REVERSE CURVE
Δ	CENTRAL ANGLE OR DELTA	QOR	QUARTER POINT OF RADIUS
CONC	CONCRETE	R	RADIUS
CPRC	CULVERT PIPE REINFORCED CONCRETE	RES	RESIDENCE OR RESIDENTIAL
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	R/W	RIGHT-OF-WAY
		RDWY	ROADWAY
DISCH	DISCHARGE	R/L OR R	REFERENCE LINE
DWY	DRIVEWAY	SAN	SANITARY SEWER
EOR	END POINT OF RADIUS	SS	STORM SEWER
ENT	ENTRANCE	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
FE	FIELD ENTRANCE	SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
FO	FIBER OPTIC		SUPERELEVATION RATE
CWT	HUNDREDWEIGHT	SE	TYPICAL
HDPE	HIGH DENSITY POLYTHENE PIPE	TYP	VARIABLE
HYD	HYDRANT	VAR	VERTICAL CURVE
INV	INVERT	VC	
IP	IRON PIPE ON PIN		
L	LENGTH OF CURVE		

GENERAL NOTES

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

ACCESS TO ALL RESIDENCES AND BUSINESSES SHALL BE MAINTAINED DURING CONSTRUCTION.

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

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

WHEN THE QUANTITY OF BASE AGGREGATE DENSE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD THE DEPTH OF THE THICKNESS OF THE COURSE SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

LIMIT STAGING/STOCKPILING TO PAVED, GRAVEL OR MOWED AREAS. IF STAGING CANNOT BE LIMITED, THEN SURVEYS FOR THREATENED AND ENDANGERED SPECIES ARE REQUIRED.

CURB RAMP TYPES ARE SHOWN ON THE INTERSECTION DETAIL SHEETS. ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH TOPSOILED, FERTILIZED, SEEDED, AND EROSION MATTED AS SHOWN IN THE PLANS. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

REMOVAL OF EROSION MAT AFTER VEGETATION HAS BEEN ESTABLISHED, OR AT THE COMPLETION OF PROJECT, WILL BE REQUIRED AND IS INCIDENTAL TO THE COST OF INSTALLATION.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL - SEE STORM & SANITARY SEWER
STORM & SANITARY SEWER
LIGHTING PLAN
TRAFFIC SIGNAL REMOVAL
TRAFFIC SIGNAL TEMPORARY
TRAFFIC SIGNAL PLAN
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
DETOURS
ALIGNMENT

UTILITY CONTACTS

COMMUNICATION

AT&T WISCONSIN
RICK PODOLAK
304 S DEWEY STREET
EAU CLAIRE, WI 54701
TELEPHONE:
715-839-5565 (OFFICE)
715-410-0656 (MOBILE)
EMAIL:
RP4514@ATT.COM

BALDWIN TELECOM, INC
MATT KNEGENDORF
930 MAPLE STREET
BALDWIN, WI 54002
TELEPHONE:
715-688-1034 (OFFICE)
715-760-0968 (MOBILE)
EMAIL:
MKNEGENDORF@LSWI.NET

ELECTRIC

XCEL ENERGY
BRIAN MELLO
2001 OLD HWY 35 S
HUDSON, WI 54016
TELEPHONE:
715-377-1810
EMAIL:
BRIAN.M.MELLO@XCELENERGY.COM

GAS / PETROLEUM

XCEL ENERGY
BRIAN MELLO
2001 OLD HWY 35 S
HUDSON, WI 54016
TELEPHONE:
715-377-1810
EMAIL:
BRIAN.M.MELLO@XCELENERGY.COM

SANITARY SEWER & WATER

HUDSON PUBLIC UTILITIES
KIP PETERS
505 THIRD STREET
HUDSON, WI 54016
TELEPHONE:
715-386-4765 EXT. 115 (OFFICE)
920-219-0378 (MOBILE)
EMAIL:
KPETERS@HUDSONWI.GOV

STATE CONTACTS

STATE OF WISCONSIN
NORTHWEST DISTRICT
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701-6127
TELEPHONE: 715-495-1903
ATTENTION: AMY L. LESIK
EMAIL: AMYL.LESIK@WISCONSIN.GOV

LOCAL OFFICIAL

DEAN CHAMBERLAIN, P.E.
CITY ENGINEER
505 THIRD STREET
HUDSON, WI 54016
TELEPHONE: 715-716-5729
EMAIL: DCHAMBERLAIN@HUDSONWI.GOV

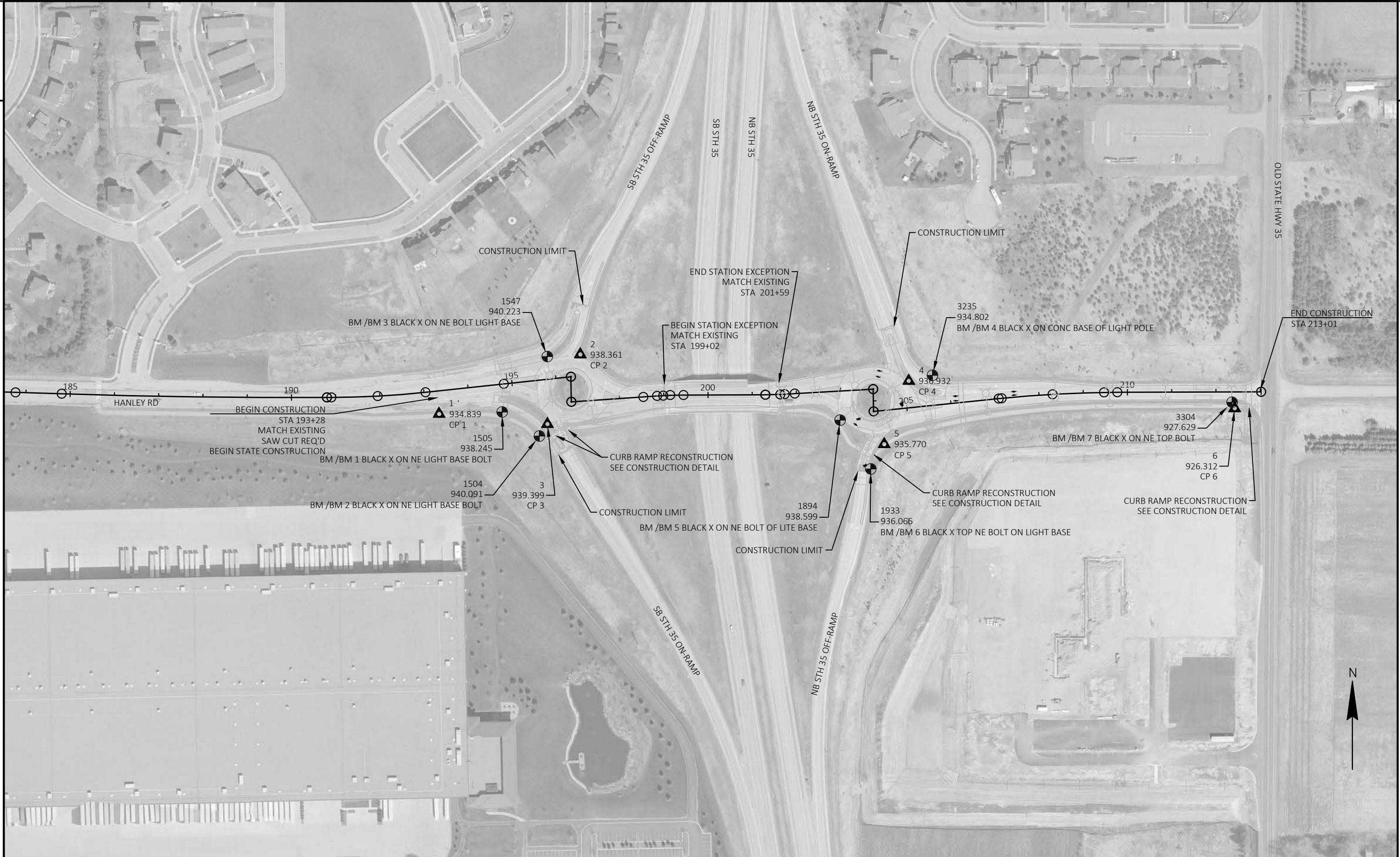
DNR CONTACT

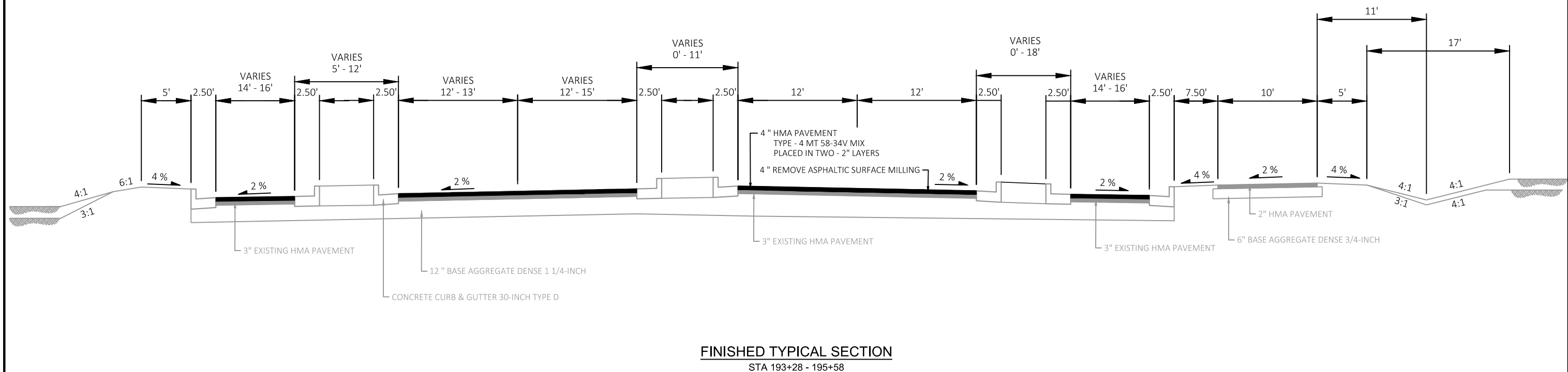
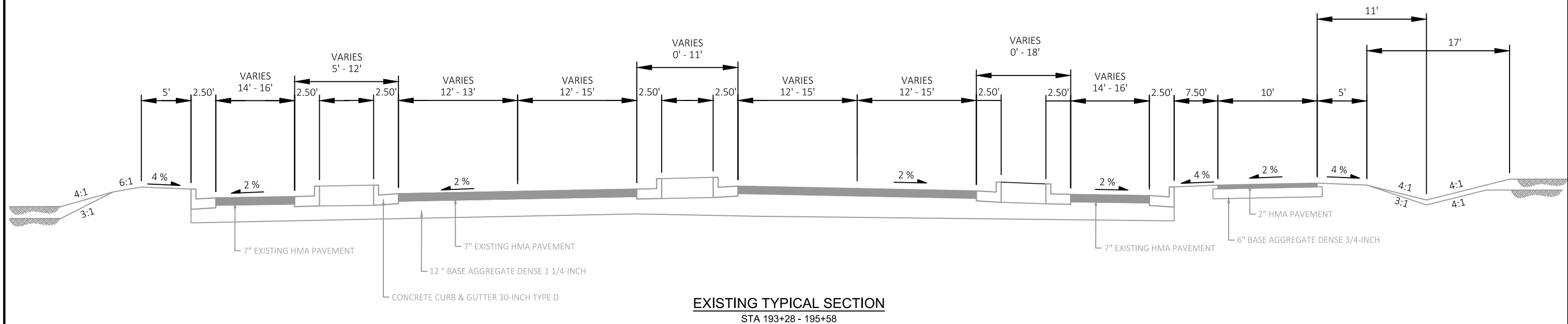
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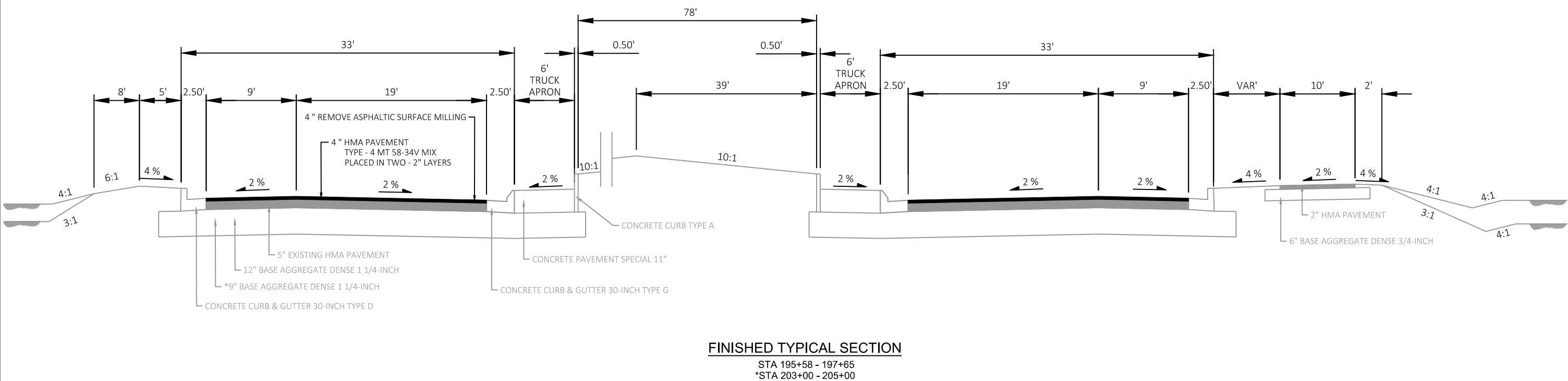
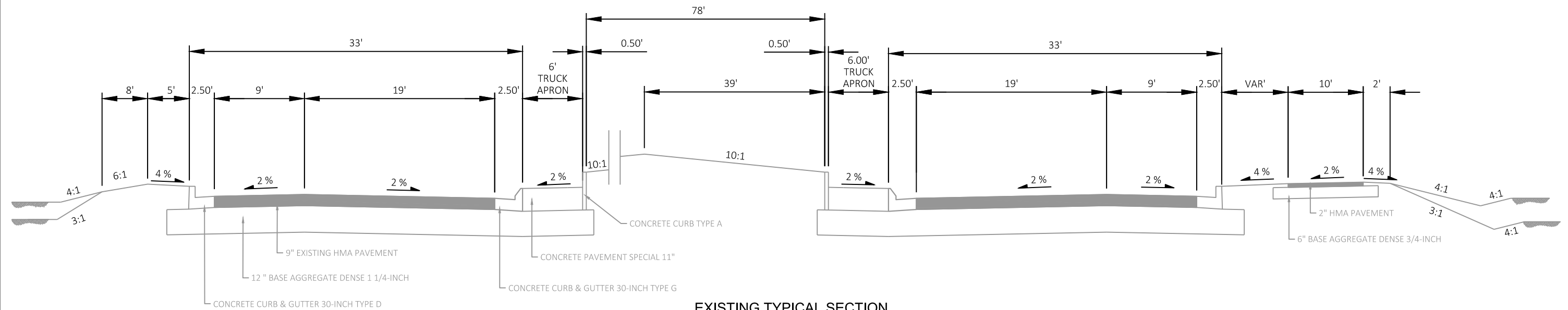
WISCONSIN DEPARTMENT OF TRANSPORTATION
VIDAR SANCHEZ - PROJECT LEADER
1701 N.4TH STREET
SUPERIOR, WI 54880
TELEPHONE: 715-395-3034
EMAIL: VIDAR.SANCHEZ@DOT.WI.GOV

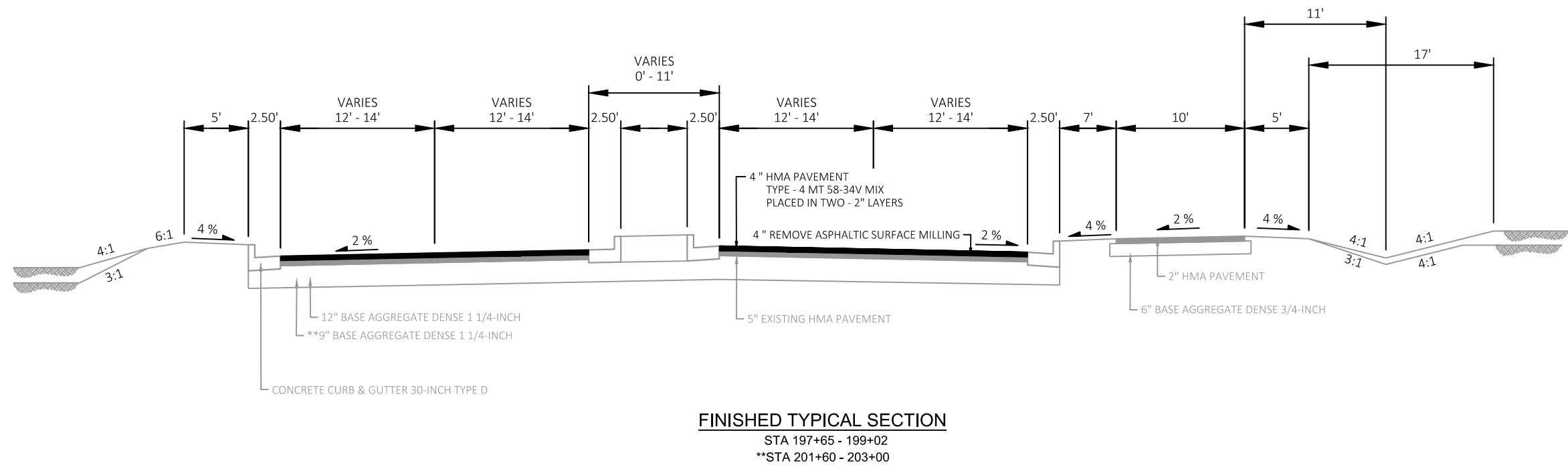
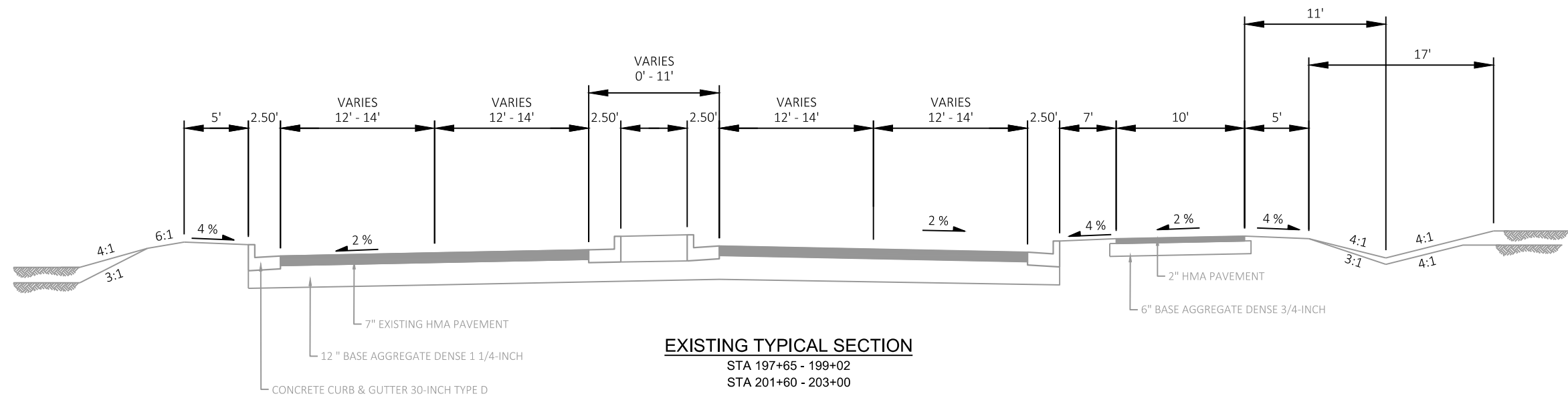


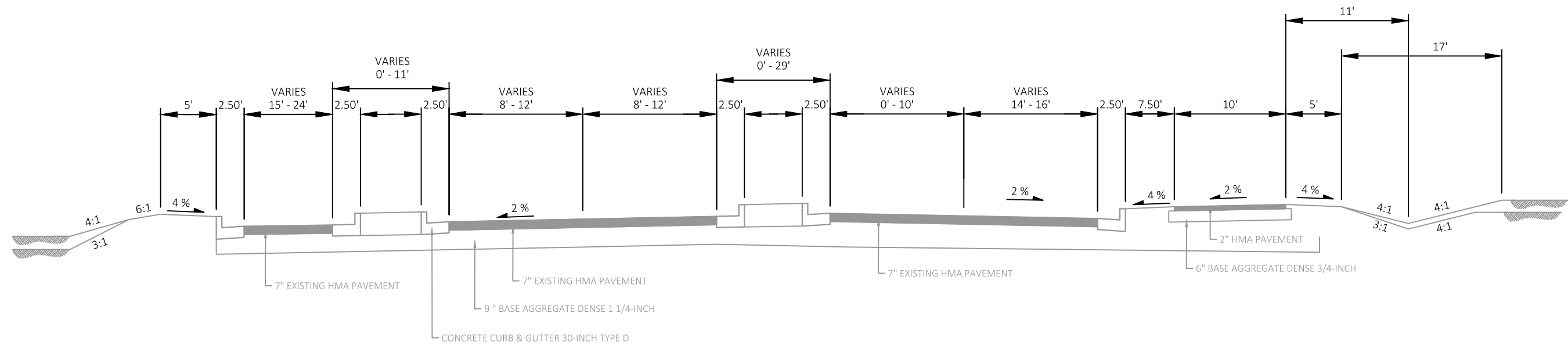
Dial 811 or (800)242-8511
www.DiggersHotline.com



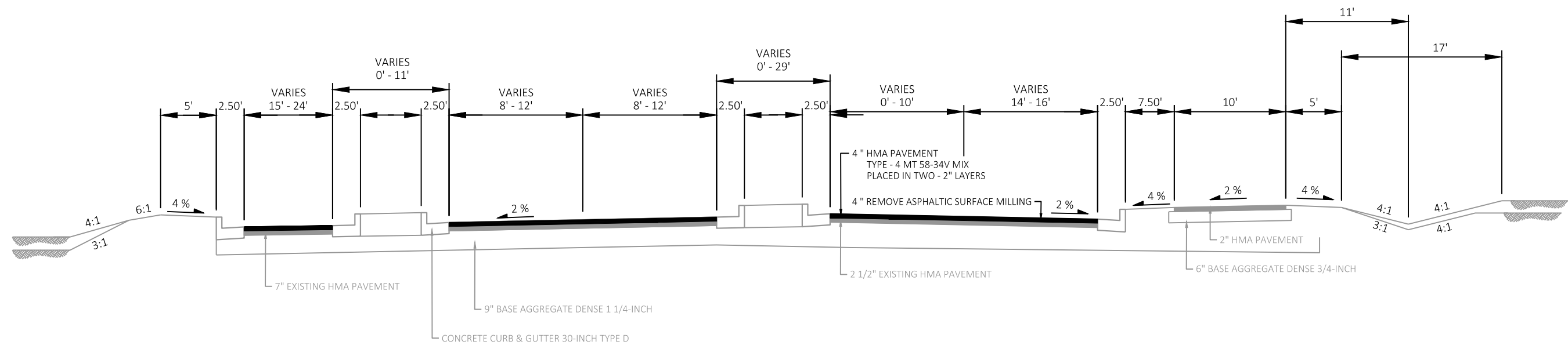




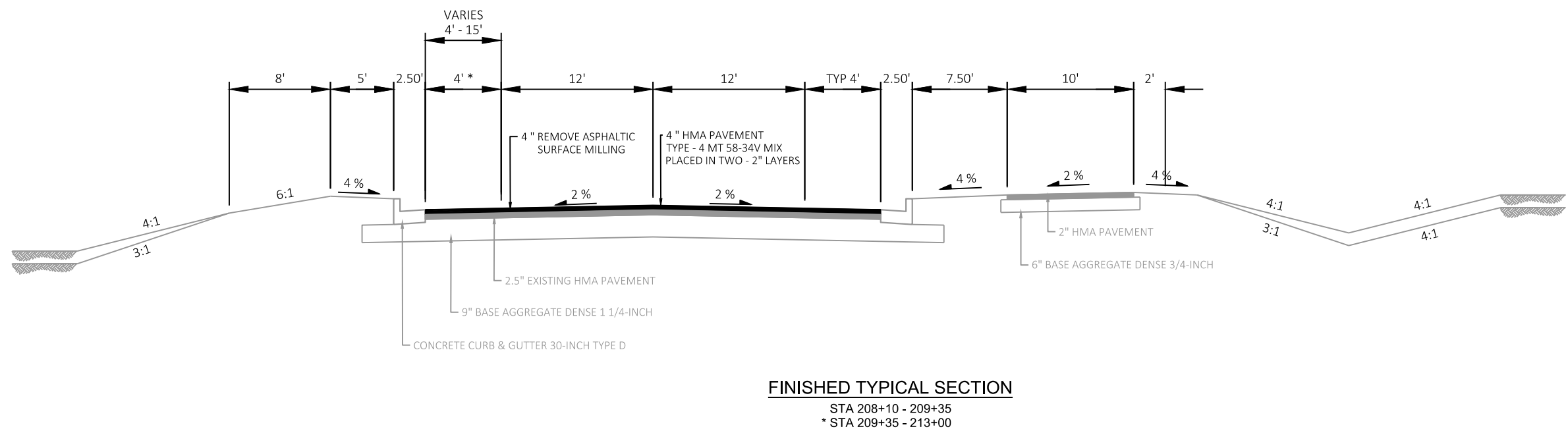
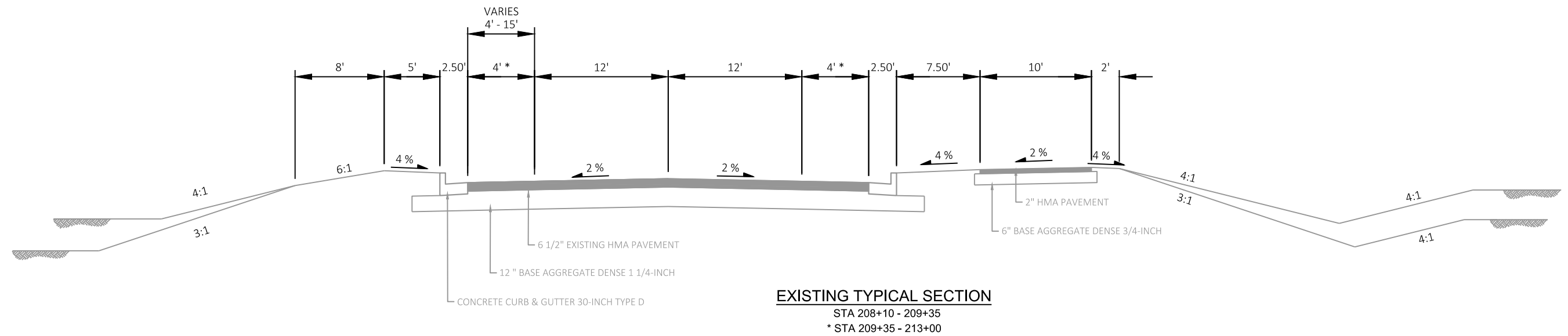




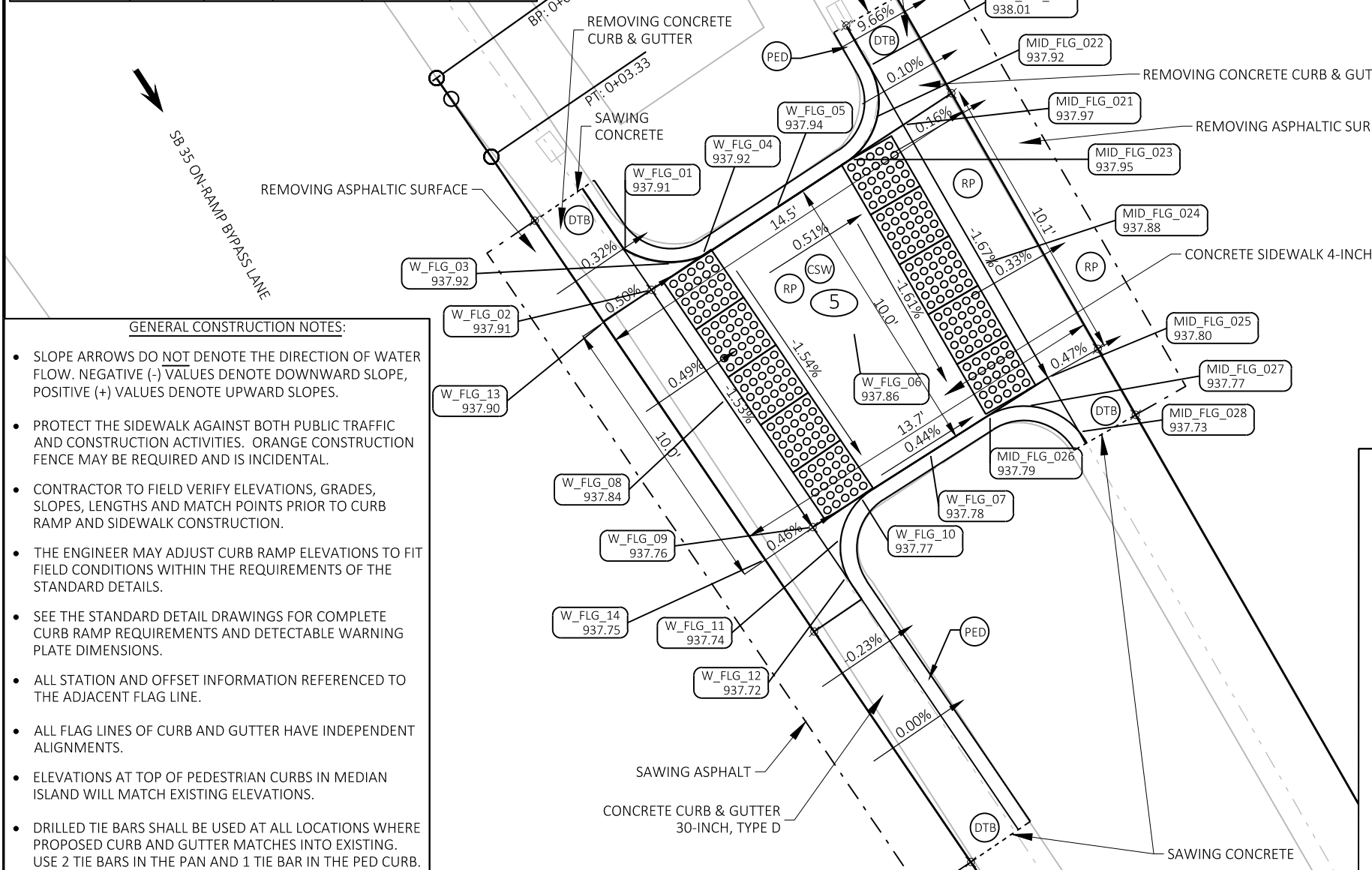
EXISTING TYPICAL SECTION
STA 205+00 - 208+10



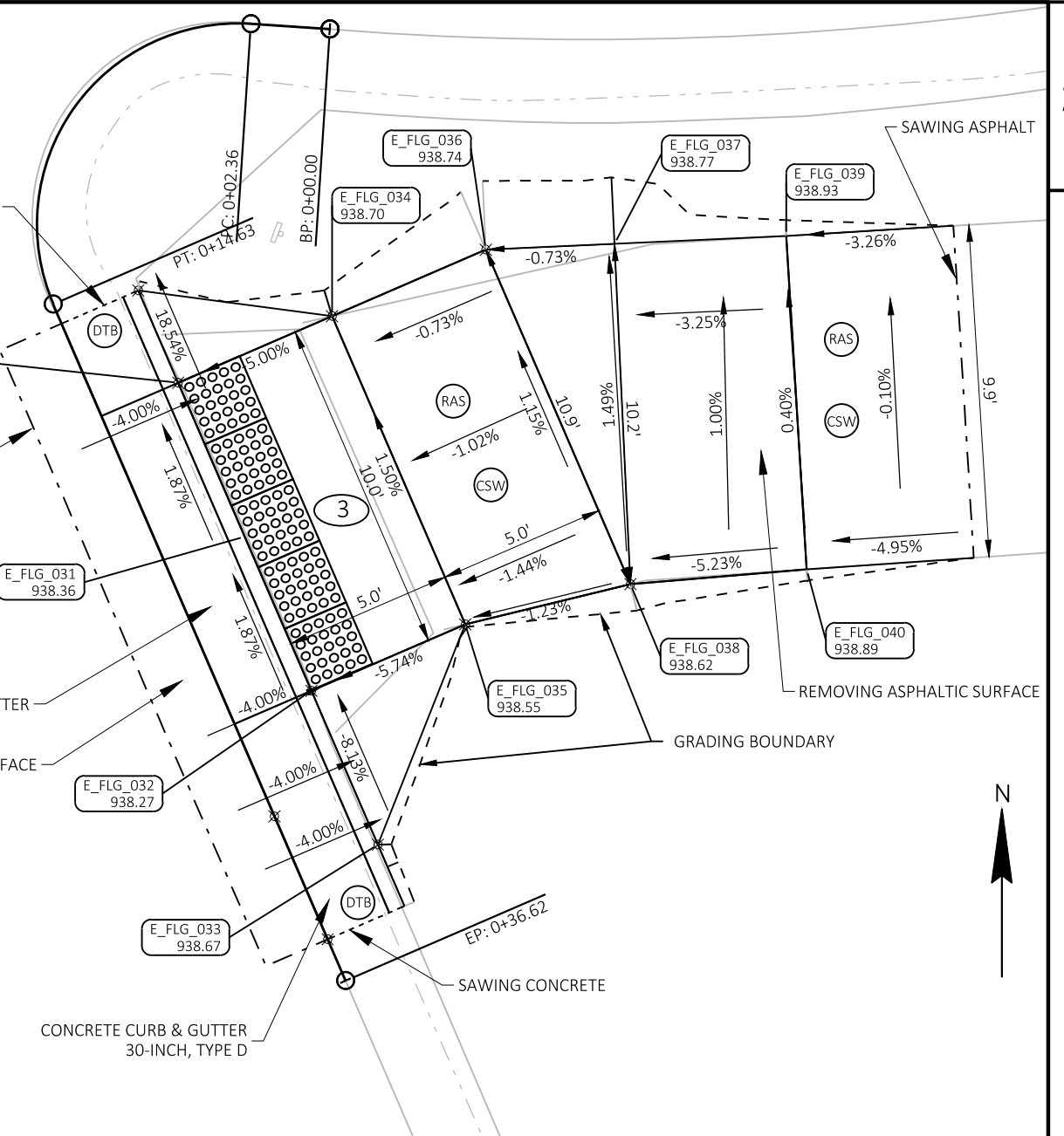
FINISHED TYPICAL SECTION
STA 205+00 - 208+10



WEST CURB FLAG LINE						MID CURB FLAG LINE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
W_FLG_01	0+08.67	2.00' LT	937.91	332692.60	526559.42	MID_FLG_020	0+02.08	2.00' RT	938.01	332699.04	526567.90
W_FLG_02	0+10.27	2.00' LT	937.91	332691.27	526560.32	MID_FLG_021	0+04.43	2.00' RT	937.97	332697.00	526569.07
W_FLG_03	0+09.93	3.13' LT	937.92	332692.19	526561.06	MID_FLG_022	0+03.73	2.73' RT	937.92	332697.25	526568.08
W_FLG_04	0+10.31	4.18' LT	937.92	332692.46	526562.15	MID_FLG_023	0+04.57	4.19' RT	937.95	332695.79	526567.23
W_FLG_05	0+10.41	7.22' LT	937.94	332694.09	526564.72	MID_FLG_024	0+10.00	2.00' RT	937.88	332692.17	526571.83
W_FLG_06	0+15.40	7.03' LT	937.86	332689.86	526567.36	MID_FLG_025	0+14.55	2.00' RT	937.80	332688.22	526574.09
W_FLG_07	0+20.38	6.84' LT	937.78	332685.63	526570.01	MID_FLG_026	0+14.66	4.38' RT	937.79	332686.95	526572.08
W_FLG_08	0+14.86	2.00' LT	937.84	332687.47	526562.91	MID_FLG_027	0+15.05	3.11' RT	937.77	332687.23	526573.37
W_FLG_09	0+20.23	2.00' LT	937.76	332683.03	526565.93	MID_FLG_028	0+16.72	2.00' RT	937.73	332686.33	526575.17
W_FLG_10	0+20.29	3.96' LT	937.77	332684.08	526567.58						
W_FLG_11	0+21.11	2.57' LT	937.74	332682.63	526566.89						
W_FLG_12	0+22.31	2.00' LT	937.72	332681.31	526567.10						
W_FLG_13	0+10.27	0.00'	937.90	332690.14	526558.67						
W_FLG_14	0+20.23	0.00'	937.75	332681.91	526564.27						

**GENERAL CONSTRUCTION NOTES:**

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCED TO THE ADJACENT FLAG LINE.
- ALL FLAG LINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- ELEVATIONS AT TOP OF PEDESTRIAN CURBS IN MEDIAN ISLAND WILL MATCH EXISTING ELEVATIONS.
- DRILLED TIE BARS SHALL BE USED AT ALL LOCATIONS WHERE PROPOSED CURB AND GUTTER MATCHES INTO EXISTING. USE 2 TIE BARS IN THE PAN AND 1 TIE BAR IN THE PED CURB.

**LEGEND**

- (RAS) REMOVING ASPHALTIC SURFACE
- (DTB) DRILLED TIE BARS
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 4-INCH
- [Pattern] CURB RAMP DETECTABLE WARNING FIELD YELLOW
- [Dashed Line] SAWING CONCRETE
- [Dashed Line] SAWING ASPHALT
- (3) CURB RAMP TYPE 3
- (5) CURB RAMP TYPE 5

EAST CURB FLAG LINE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
E_FLG_030	0+18.26	2.50' LT	938.45	332708.34	526590.63
E_FLG_031	0+23.26	2.50' LT	938.36	332703.75	526592.62
E_FLG_032	0+28.28	2.50' LT	938.27	332699.15	526594.61
E_FLG_033	0+33.28	2.50' LT	938.67	332694.56	526596.59
E_FLG_034	0+18.26	7.50' LT	938.70	332710.33	526595.22
E_FLG_035	0+28.28	7.50' LT	938.55	332701.14	526599.20
E_FLG_036	0+18.26	12.50' LT	938.74	332712.31	526599.81
E_FLG_037	0+19.62	16.09' LT	938.77	332712.49	526603.65
E_FLG_038	0+29.13	12.50' LT	938.62	332702.34	526604.13
E_FLG_039	0+21.44	20.89' LT	938.93	332712.72	526608.77
E_FLG_040	0+30.81	17.50' LT	938.89	332702.78	526609.38

PROJECT NO: 7200-00-70

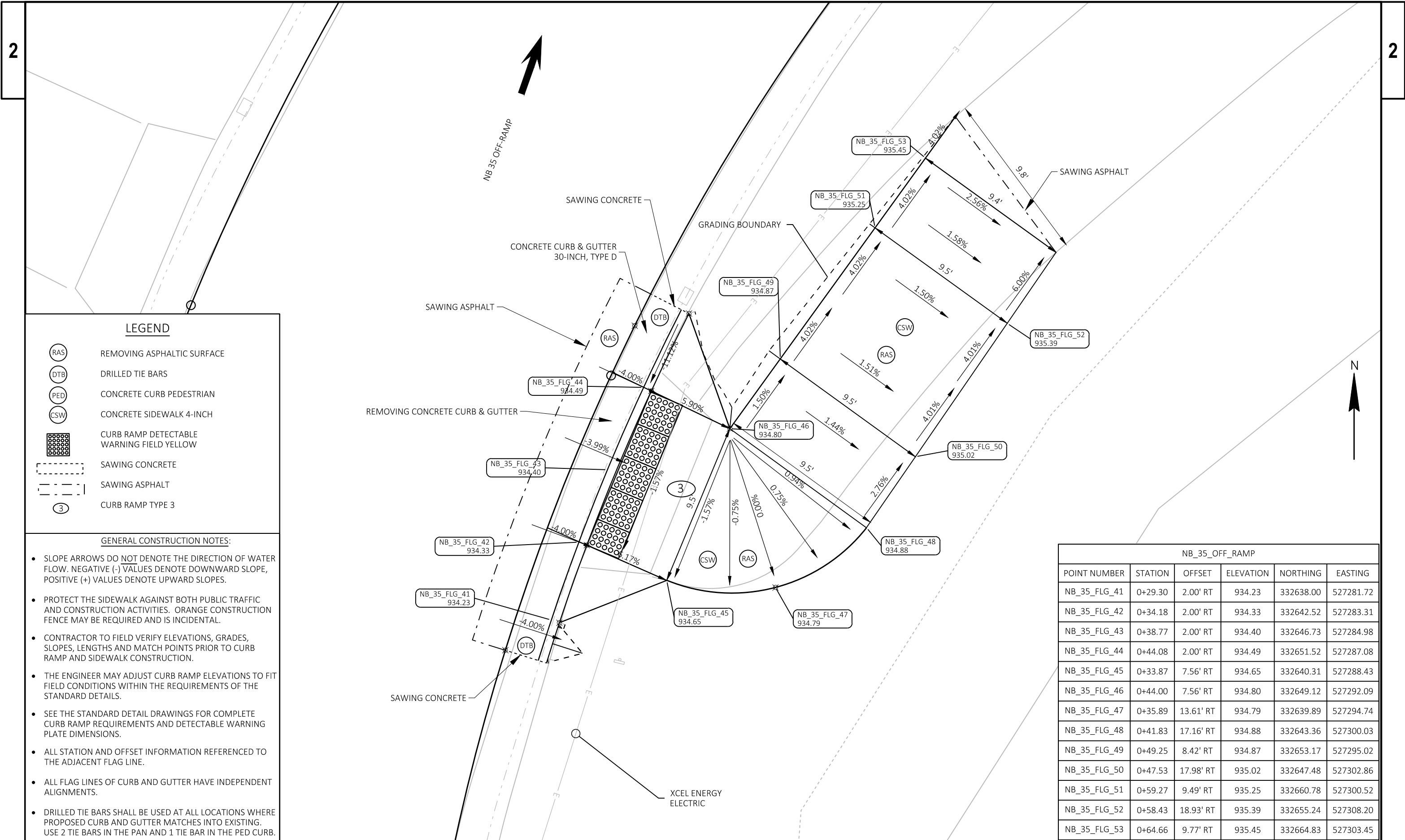
HWY: STH 35

COUNTY: ST CROIX COUNTY

CURB RAMP CONSTRUCTION DETAILS

SHEET

E



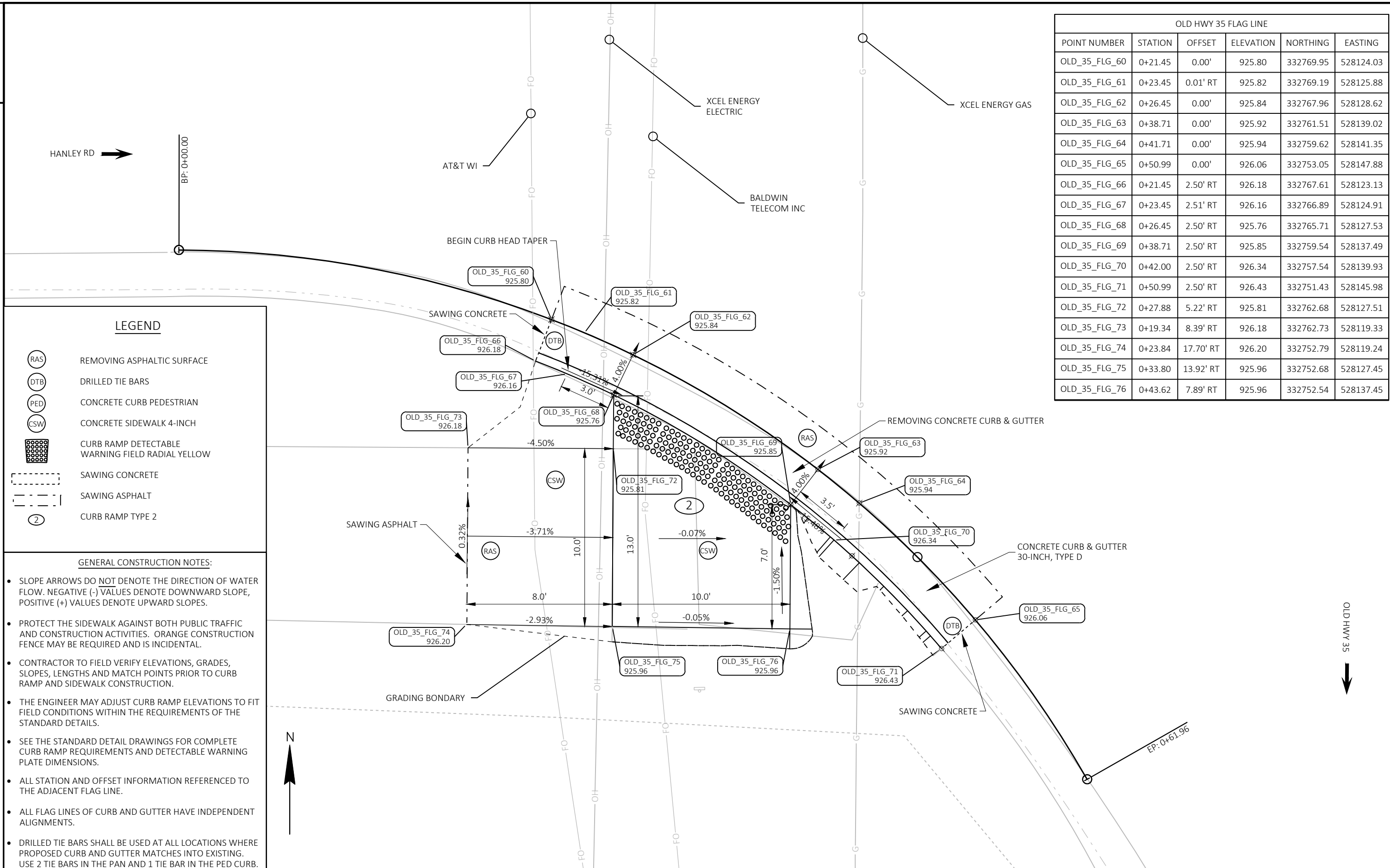
LEGEND

- (RAS) REMOVING ASPHALTIC SURFACE
- (DTB) DRILLED TIE BARS
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 4-INCH
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- - - SAWING CONCRETE
- - - SAWING ASPHALT
- (3) CURB RAMP TYPE 3

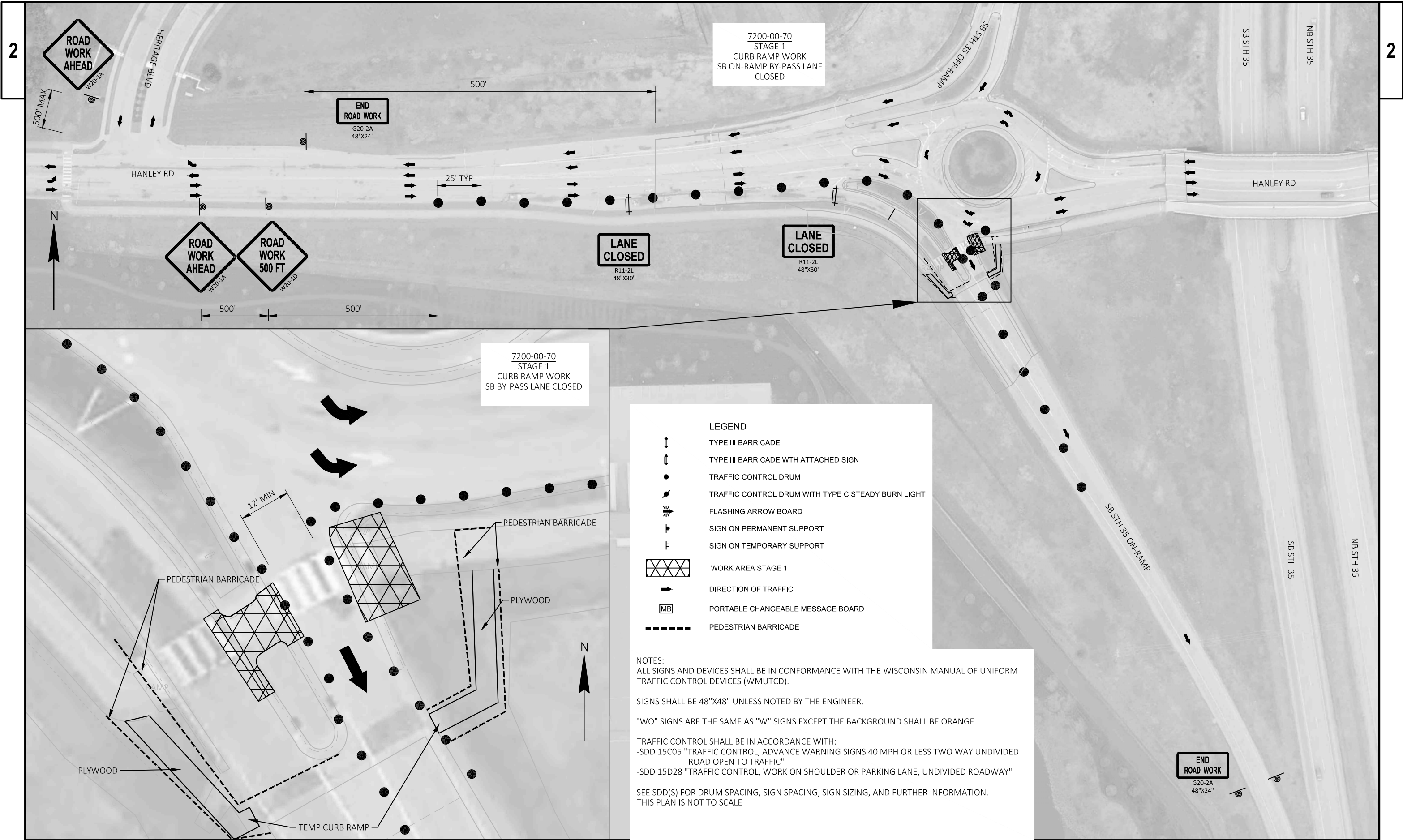
GENERAL CONSTRUCTION NOTES:

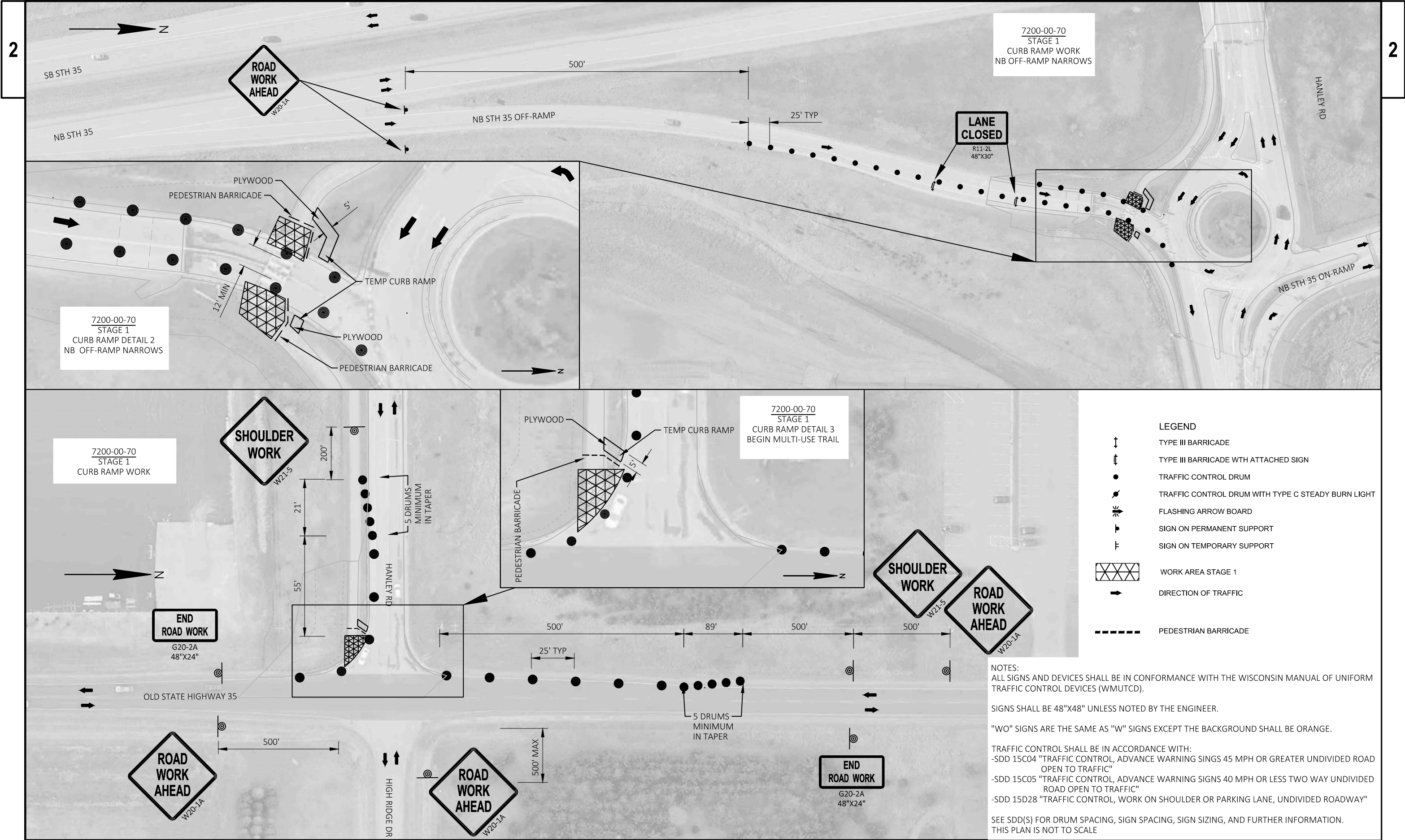
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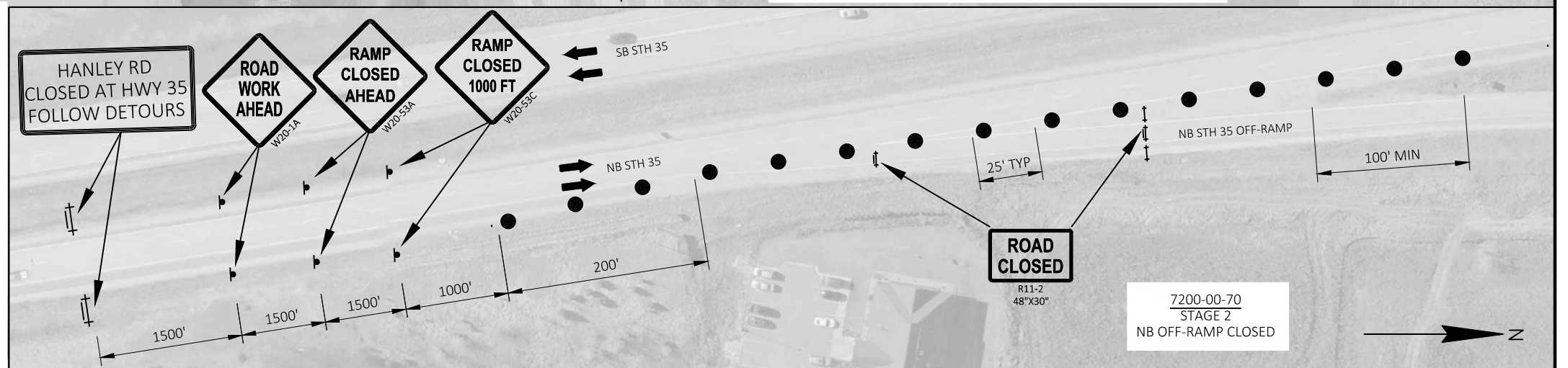
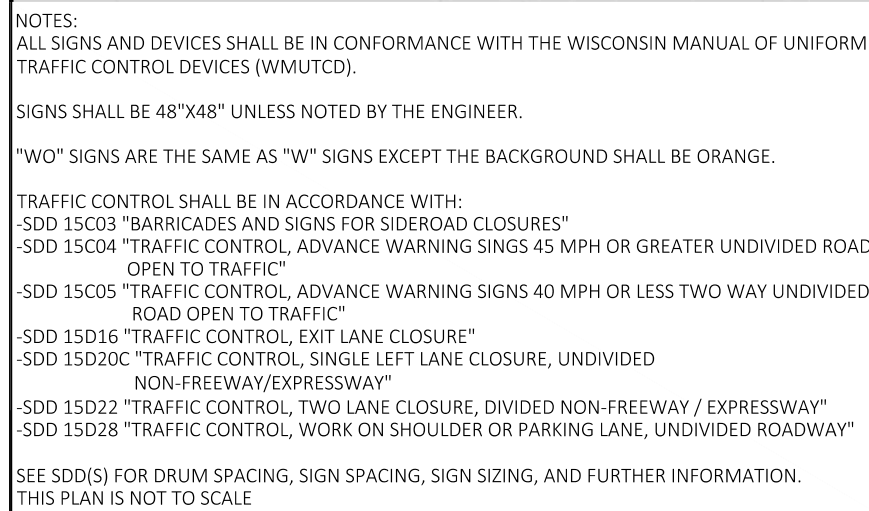
NB_35_OFF_RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB_35_FLG_41	0+29.30	2.00' RT	934.23	332638.00	527281.72
NB_35_FLG_42	0+34.18	2.00' RT	934.33	332642.52	527283.31
NB_35_FLG_43	0+38.77	2.00' RT	934.40	332646.73	527284.98
NB_35_FLG_44	0+44.08	2.00' RT	934.49	332651.52	527287.08
NB_35_FLG_45	0+33.87	7.56' RT	934.65	332640.31	527288.43
NB_35_FLG_46	0+44.00	7.56' RT	934.80	332649.12	527292.09
NB_35_FLG_47	0+35.89	13.61' RT	934.79	332639.89	527294.74
NB_35_FLG_48	0+41.83	17.16' RT	934.88	332643.36	527300.03
NB_35_FLG_49	0+49.25	8.42' RT	934.87	332653.17	527295.02
NB_35_FLG_50	0+47.53	17.98' RT	935.02	332647.48	527302.86
NB_35_FLG_51	0+59.27	9.49' RT	935.25	332660.78	527300.52
NB_35_FLG_52	0+58.43	18.93' RT	935.39	332655.24	527308.20
NB_35_FLG_53	0+64.66	9.77' RT	935.45	332664.83	527303.45















OLD HWY 35 FLAG LINE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
OLD_35_FLG_60	0+21.45	0.00'	925.80	332769.95	528124.03
OLD_35_FLG_61	0+23.45	0.01' RT	925.82	332769.19	528125.88
OLD_35_FLG_62	0+26.45	0.00'	925.84	332767.96	528128.62
OLD_35_FLG_63	0+38.71	0.00'	925.92	332761.51	528139.02
OLD_35_FLG_64	0+41.71	0.00'	925.94	332759.62	528141.35
OLD_35_FLG_65	0+50.99	0.00'	926.06	332753.05	528147.88
OLD_35_FLG_66	0+21.45	2.50' RT	926.18	332767.61	528123.13
OLD_35_FLG_67	0+23.45	2.51' RT	926.16	332766.89	528124.91
OLD_35_FLG_68	0+26.45	2.50' RT	925.76	332765.71	528127.53
OLD_35_FLG_69	0+38.71	2.50' RT	925.85	332759.54	528137.49
OLD_35_FLG_70	0+42.00	2.50' RT	926.34	332757.54	528139.93
OLD_35_FLG_71	0+50.99	2.50' RT	926.43	332751.43	528145.98
OLD_35_FLG_72	0+27.88	5.22' RT	925.81	332762.68	528127.51
OLD_35_FLG_73	0+19.34	8.39' RT	926.18	332762.73	528119.33
OLD_35_FLG_74	0+23.84	17.70' RT	926.20	332752.79	528119.24
OLD_35_FLG_75	0+33.80	13.92' RT	925.96	332752.68	528127.45
OLD_35_FLG_76	0+43.62	7.89' RT	925.96	332752.54	528137.45







LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WITH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	WORK AREA STAGE 1
	WORK AREA STAGE 2
	WORK AREA STAGE 3
	DIRECTION OF TRAFFIC
	PORTABLE CHANGEABLE MESSAGE BOARD

7200-00-70
STAGE 3
ROUND-ABOUT OPEN IN ALL DIRECTIONS
SB EXIT BY-PASS LANE CLOSED
SB ON-RAMP BY-PASS LANE CLOSED

NOTES:
ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

SIGNS SHALL BE 48"X48" UNLESS NOTED BY THE ENGINEER.

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

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH:

- SDD 15C04 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"
- SDD 15C05 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SDD 15D28 "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

SEE SDD(S) FOR DRUM SPACING, SIGN SPACING, SIGN SIZING, AND FURTHER INFORMATION.
THIS PLAN IS NOT TO SCALE



PROJECT NO: 7200-00-70

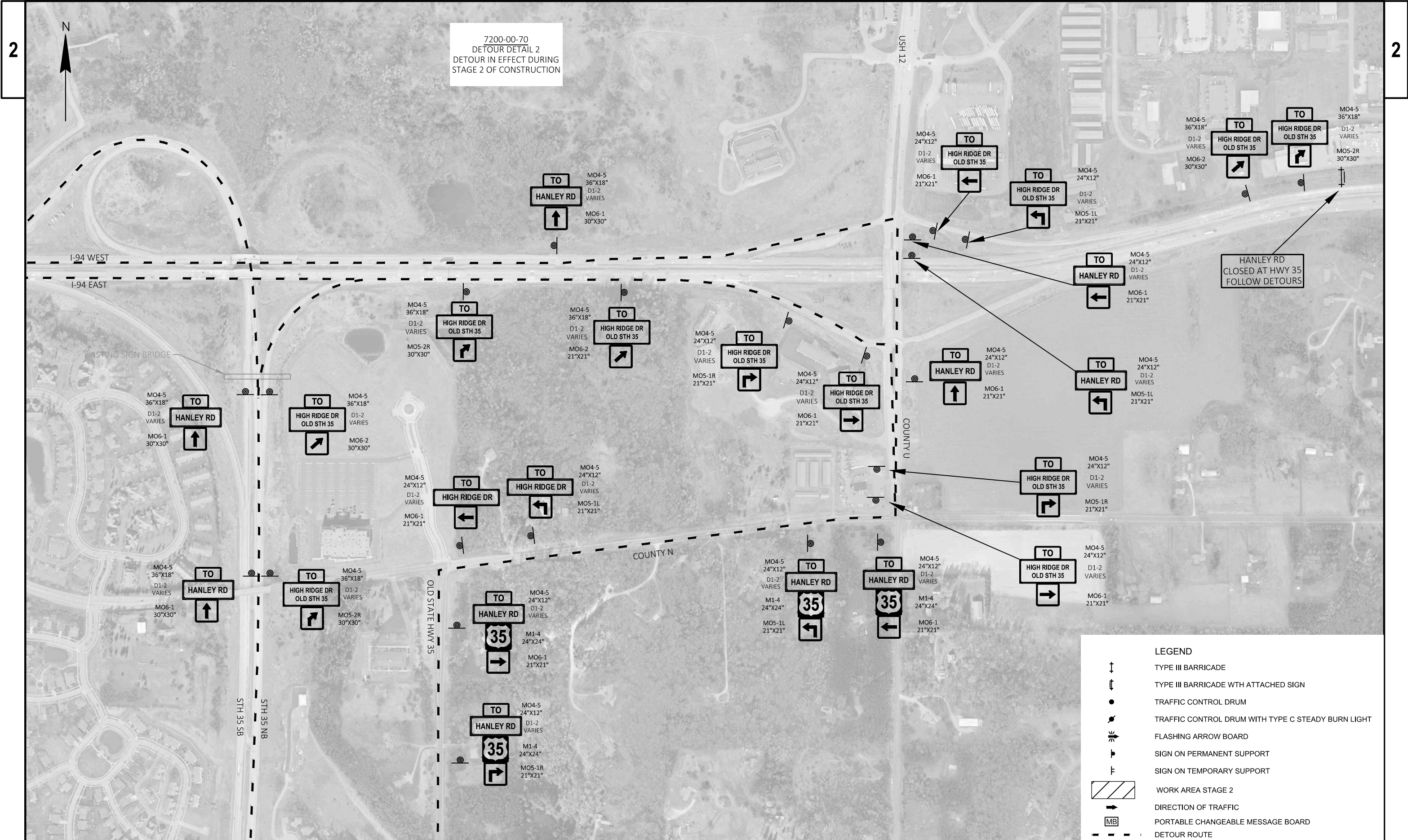
HWY: STH 35

COUNTY: ST CROIX COUNTY

TRAFFIC CONTROL STAGE 3

SHEET

E



7200-00-70
DETOUR DETAIL 2
DETOUR IN EFFECT DURING
STAGE 2 OF CONSTRUCTION

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

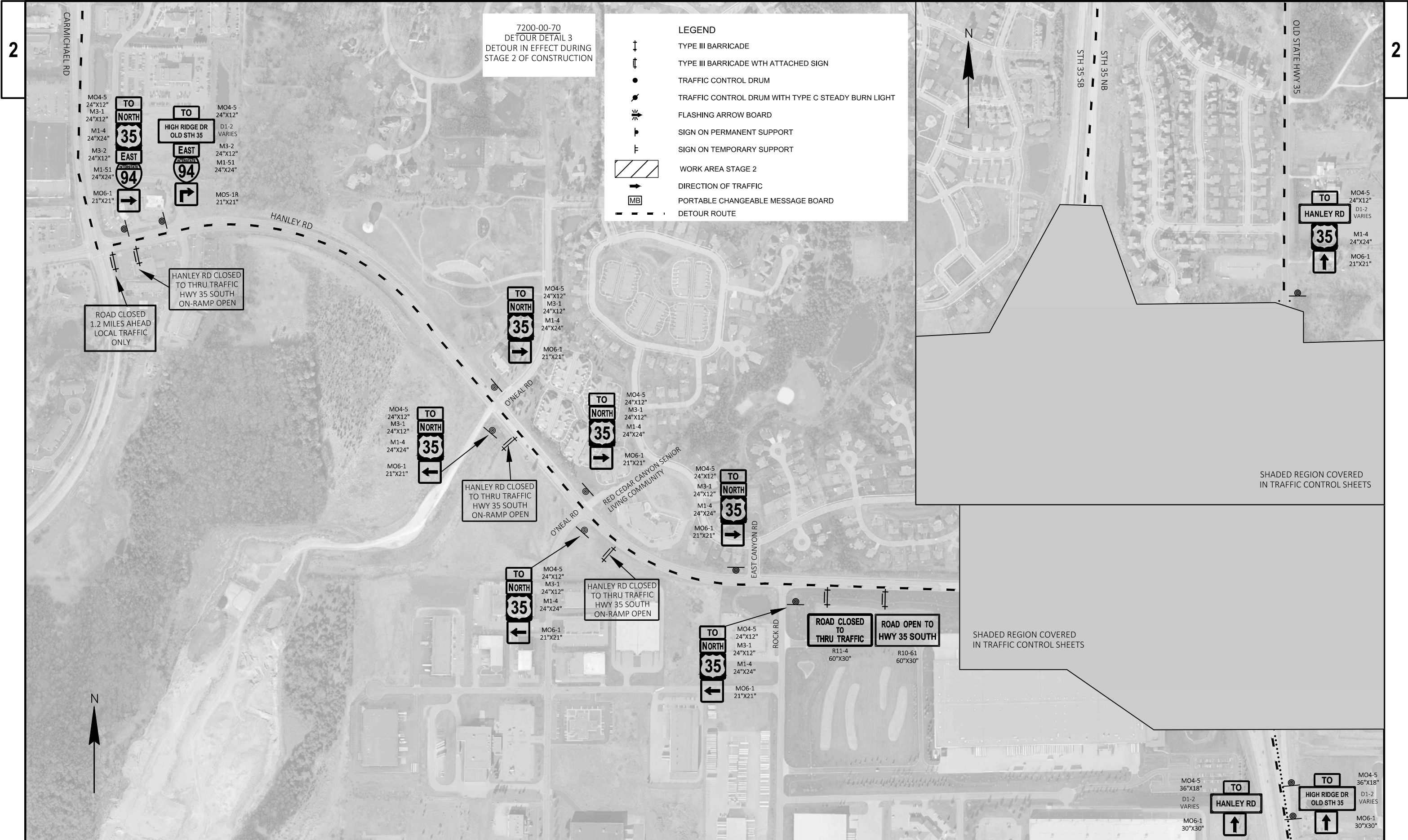
SIGN ON TEMPORARY SUPPORT

WORK AREA STAGE 2

DIRECTION OF TRAFFIC

PORTABLE CHANGEABLE MESSAGE BOARD

DETOUR ROUTE



7200-00-70
DETOUR DETAIL 3
DETOUR IN EFFECT DURING
STAGE 2 OF CONSTRUCTION

- LEGEND
- TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - WORK AREA STAGE 2
 - DIRECTION OF TRAFFIC
 - PORTABLE CHANGEABLE MESSAGE BOARD
 - DETOUR ROUTE

PROJECT NO: 7200-00-70

HWY: STH 35

COUNTY: ST CROIX COUNTY

DETOUR STAGE 2

SHEET

E

FILE NAME : N:\PDS\C3D\72000000\SHEETSP\N\72000000_TC.DWG
LAYOUT NAME - DETOUR SOUTH

PLOT DATE : 4/4/2021 11:45 PM

PLOT BY : SANCHEZ, VIDAR

PLOT NAME :

PLOT SCALE : 1 IN:500 FT

WISDOT/CADD'S SHEET 44



7200-00-70
DETOUR DETAIL 1
DETOUR IN EFFECT DURING
STAGE 2 OF CONSTRUCTION

LEGEND

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TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

WORK AREA STAGE 2

DIRECTION OF TRAFFIC

PORTABLE CHANGEABLE MESSAGE BOARD

DETOUR ROUTE

Estimate Of Quantities

7200-00-70					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	23.000	23.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	13,160.000	13,160.000
0006	204.0150	Removing Curb & Gutter	LF	110.000	110.000
0008	204.0155	Removing Concrete Sidewalk	SY	840.000	840.000
0010	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7200-00-70	LS	1.000	1.000
0012	213.0100	Finishing Roadway (project) 01. 7200-00-70	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	30.000	30.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	16.000	16.000
0018	305.0500	Shaping Shoulders	STA	225.000	225.000
0020	416.0610	Drilled Tie Bars	EACH	30.000	30.000
0022	455.0605	Tack Coat	GAL	1,842.000	1,842.000
0024	460.2000	Incentive Density HMA Pavement	DOL	1,890.000	1,890.000
0026	460.6644	HMA Pavement 4 MT 58-34 V	TON	2,949.000	2,949.000
0028	465.0105	Asphaltic Surface	TON	100.000	100.000
0030	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0032	465.0315	Asphaltic Flumes	SY	40.000	40.000
0034	601.0150	Concrete Curb Integral Type D	LF	49.000	49.000
0036	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	71.000	71.000
0038	601.0600	Concrete Curb Pedestrian	LF	26.000	26.000
0040	602.0405	Concrete Sidewalk 4-Inch	SF	900.000	900.000
0042	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	80.000	80.000
0044	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	20.000	20.000
0046	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7200-00-70	EACH	1.000	1.000
0048	619.1000	Mobilization	EACH	1.000	1.000
0050	624.0100	Water	MGAL	0.100	0.100
0052	625.0500	Salvaged Topsoil	SY	93.000	93.000
0054	627.0200	Mulching	SY	93.000	93.000
0056	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0058	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0060	628.7015	Inlet Protection Type C	EACH	34.000	34.000
0062	629.0210	Fertilizer Type B	CWT	0.090	0.090
0064	630.0120	Seeding Mixture No. 20	LB	2.430	2.430
0066	642.5001	Field Office Type B	EACH	1.000	1.000
0068	643.0300	Traffic Control Drums	DAY	2,752.000	2,752.000
0070	643.0420	Traffic Control Barricades Type III	DAY	267.000	267.000
0072	643.0705	Traffic Control Warning Lights Type A	DAY	591.000	591.000
0074	643.0715	Traffic Control Warning Lights Type C	DAY	60.000	60.000
0076	643.0800	Traffic Control Arrow Boards	DAY	33.000	33.000

Estimate Of Quantities

7200-00-70					
Line	Item	Item Description	Unit	Total	Qty
0078	643.0900	Traffic Control Signs	DAY	2,284.000	2,284.000
0080	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	15.000	15.000
0082	643.5000	Traffic Control	EACH	1.000	1.000
0084	644.1420	Temporary Pedestrian Surface Plywood	SF	494.000	494.000
0086	644.1601	Temporary Pedestrian Curb Ramp	DAY	24.000	24.000
0088	644.1810	Temporary Pedestrian Barricade	LF	389.000	389.000
0090	646.1020	Marking Line Epoxy 4-Inch	LF	6,734.000	6,734.000
0092	646.3020	Marking Line Epoxy 8-Inch	LF	3,145.000	3,145.000
0094	646.5020	Marking Arrow Epoxy	EACH	31.000	31.000
0096	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0098	646.6120	Marking Stop Line Epoxy 18-Inch	LF	18.000	18.000
0100	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	232.000	232.000
0102	646.7120	Marking Diagonal Epoxy 12-Inch	LF	664.000	664.000
0104	646.7220	Marking Chevron Epoxy 24-Inch	LF	275.000	275.000
0106	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	109.000	109.000
0108	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	1,032.000	1,032.000
0110	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	517.000	517.000
0112	646.9310	Marking Removal Special Marking Water Blasting	EACH	8.000	8.000
0114	650.8000	Construction Staking Resurfacing Reference	LF	1,716.000	1,716.000
0116	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0118	650.9910	Construction Staking Supplemental Control (project) 01.	LS	1.000	1.000
		7200-00-70			
0120	690.0150	Sawing Asphalt	LF	144.000	144.000
0122	690.0250	Sawing Concrete	LF	15.000	15.000
0124	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0126	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0128	SPV.0090	Special 01. Cure and Seal treatment, Concrete Curb and Gutter	LF	146.000	146.000
0130	SPV.0165	Special 01. Cure and Seal Treatment Concrete Sidewalk	SF	900.000	900.000

PAVEMENT SUMMARY													
STATION	TO	STATION	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0500 SHAPING SHOULDERS STA	455.0605 TACK COAT GAL	460.6644 HMA PAVEMENT 4 MT 58-34 V TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0315 ASPHALTIC FLUMES SY	624.0100 WATER MGAL	REMARKS
193+28	-	199+02	HANLEY RD: BEGIN PROJECT - BRIDGE	5,690			797	1,275					
201+59	-	208+10	HANLEY RD: BRIDGE - END STATE CONSTRUCTION PROJECT	5,320			745	1,192					
				--			--		83	42			MISC REPAIRS PATCHING WEDGING
196+10	-	196+26	SB STH 35 OFF-RAMP		4	101					10	0.01	SHOULDER/FLUME ON WEST SIDE OF OFF-RAMP
195+64		195+77	SB STH 35 ON-RAMP		13	26					10	0.01	SHOULDER/FLUME ON WEST SIDE OF ON-RAMP
204+30	-	204+50	NB STH 35 ON-RAMP		13	98					20	0.01	SHOULDER/FLUME ON BOTH SIDES OF ON-RAMP
TOTAL 0010				11,010	30	225	1,541	2,467	83	42	40	0.03	
208+10	-	213+01	HANLEY RD: BEGIN CITY CONSTRUCTION - END CITY CONSTRUCTION	2,150			301	482	17	8			MISC REPAIRS PATCHING WEDGING
TOTAL 0020				2,150	0	0	301	482	17	8	0		
PROJECT TOTAL				13160	30	225	1842	2949	100	50	40	0.03	

PAVEMENT SUMMARY								
				650.8000	650.9910.01	211.0100.01	213.0100.01	
				CONSTRUCTION	CONSTRUCTION	PREPARE		
				STAKING	STAKING	FOUNDATION		
				SUPPLEMENTAL	SUPPLEMENTAL	FOR ASPHALTIC	FINISHING	
				CONTROL	CONTROL	PAVING	ROADWAY	
				(PROJECT) (01.	(PROJECT) (01.	(PROJECT) (01.	(PROJECT) (01.	
				7200-00-70)	7200-00-70)	7200-00-70)	7200-00-70)	
STATION	TO	STATION	LOCATION	LF	LS	LS	EACH	REMARKS
193+29	-	199+02	HANLEY RD: BEGIN PROJECT - BRIDGE	574				
201+59	-	208+10	HANLEY RD: BRIDGE - END STATE CONSTRUCTION	651				
			PROJECT	--	1	1	1	MISC REPAIRS PATCHING WEDGING
TOTAL 0010				1,225	1	1	1	
208+10	-	213+01	HANLEY RD: BEGIN CITY CONSTRUCTION - END CITY CONSTRUCTION	491				MISC REPAIRS PATCHING WEDGING
TOTAL 0020				491	0	0	0	
PROJECT TOTAL				1716	1	1	1	

PEDESTRIAN RAMP																				
STATION	TO	STATION	LOCATION	204.0110	204.0150	204.0155	305.0120	416.0610	601.0150	601.0411	601.0600	602.0405	602.0505	602.0605	624.0100	650.9000	690.0150	690.0250	SPV.0090.01	SPV.0165.01
				REMOVING ASPHALTIC SURFACE SY	REMOVING CURB & GUTTER LF	REMOVING CONCRETE SIDEWALK SY	BASE AGGREGATE DENSE 1 1/4-INCH TON	DRILLED TIE BARS EACH	CONCRETE CURB INTEGRAL TYPE D LF	CONCRETE CURB & GUTTER 30-INCH TYPE D LF	CONCRETE CURB LF	CONCRETE SIDEWALK 4-INCH SF	CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	WATER MGAL	CONSTRUCTION STAKING CURB RAMPS EACH	SAWING ASPHALT LF	SAWING CONCRETE LF	SPV.0090.01 CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER) LF	SPV.0165.01 CURE AND SEAL TREATMENT CONCRETE SF
195+73	-	195+97	HANLEY RD EB TO 35 SB - MEDIAN	8	35	105	2	12	49		26	106	40		0.01	1	60	6	75	106
196+05	-	196+96	HANLEY RD EB TO 35 SB - RAMP	4	20	225	5	6		20		244	20		0.01	1	24	3	20	244
203+56	-	204+39	35 NB RAMP TO HANLEY RD	5	25	305	5	6		23		335	20		0.01	1	27	3	23	335
TOTAL 0010				17	80	635	12	24	49	43	26	685	80	0	0.03	3	111	12	118	685
212+57	-	212+87	HANLEY RD @ OLD STH 35	6	30	205	4	6		28		215		20		1	33	3	28	215
TOTAL 0020				6	30	205	4	6	0	28	0	215	0	20	0.00	1	33	3	28	215
PROJECT TOTAL				23	110	840	16	30	49	71	26	900	80	20	0.03	4	144	15	146	900

EROSION CONTROL SUMMARY

					625.0500	627.0200	628.1905	628.1910	628.7015	629.0210	630.0120
							MOBILIZATIONS	MOBILIZATIONS			
					SALVAGED		EROSION	EROSION	INLET	FERTILIZER TYPE	SEEDING
STATION	TO	STATION	OFFSET	LOCATION	TOPSOIL	MULCHING	CONTROL	CONTROL	PROTECTION	B	MIXTURE NO. 20
					SY	SY	EACH	EACH	EACH	CWT	LB
	-			PROJECT	--	--	1	1	30	--	--
195+64		195+77	173 RT	SB STH 35 ON-RAMP FLUME	8	8				0.01	0.20
196+13	-	197+00	123 RT	SB STH 35 ON-RAMP CURB RAMP	18	18				0.02	0.48
196+10	-	196+26	133 LT	SB STH 35 OFF-RAMP FLUME	8	8				0.01	0.20
203+70	-	204+50	102 RT	NB STH 35 OFF-RAMP CURB RAMP	29	29				0.02	0.78
204+30	-	204+49	134 LT	NB STH 35 ON-RAMP WEST FLUME	8	8				0.01	0.20
205+02	-	205+11	137 LT	NB STH 35 ON-RAMP EAST FLUME	8	8				0.01	0.20
TOTAL 0010					79	79	1	1	30	0.08	2.06
212+58	-	212+87	38 RT	HANLEY RD @ OLD STH 35	14	14				0.01	0.37
	-			PROJECT	--	--	--	--	4	--	--
TOTAL 0020					14	14	0	0	4	0.01	0.37
PROJECT TOTAL					93	93	1	1	34	0.09	2.43

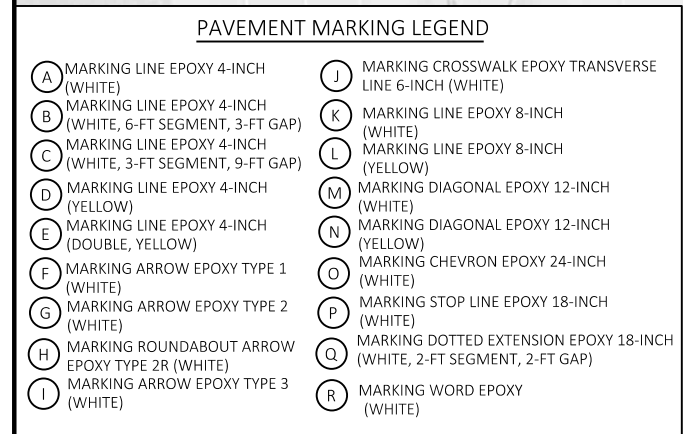
TRAFFIC CONTROL SUMMARY											
			643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	643.1051	643.5000	
			TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A	TRAFFIC CONTROL WARNING LIGHTS TYPE C	TRAFFIC CONTROL ARROW BOARDS	TRAFFIC CONTROL SIGNS	TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS	TRAFFIC CONTROL	
DAYS IN STAGE 1	DAYS IN STAGE 2	DAYS IN STAGE 3	LOCATION	DAY	DAY	DAY	DAY	DAY	DAY	EACH	
6	11	6	HANLEY RD TO 35 SB	989	51	158		22	149	5	1
6	11	6	35 SB TO HANLEY RD	1,074	17	68		11	123	5	
6	11	6	35 NB TO HANLEY RD	515	78	156			144	5	
	11		DETOUR		77	154			1,738		
TOTAL 0010				2,578	223	536	0	33	2,154	15	1
6	11	6	HANLEY RD @ OLD STH 35	174	44	55	60		130		
TOTAL 0020				174	44	55	60	0	130	0	0
PROJECT TOTAL				2752	267	591	60	33	2284	15	1

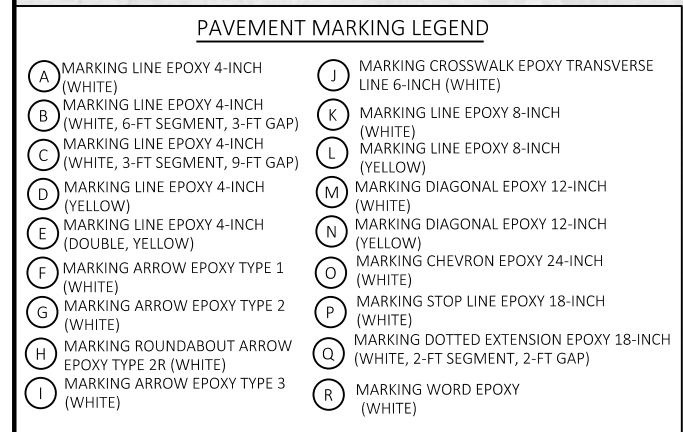
MOBILIZATION			
LOCATION	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7200-00-70) EACH	619.1000 MOBILIZATION EACH	642.5001 FIELD OFFICE TYPE B EACH
	1.00	0.87	1.00
TOTAL 0010	1	1	1
		0.13	
TOTAL 0020	0	0	0
PROJECT TOTAL	1	1	1

TEMPORARY PED. ACCOMMODATION						
TEMP CURB RAMPS	DAYS	LOCATION	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	
2	6	HANLEY RD EB TO 35 SB	411	12	330	
1	6	35 NB RAMP TO HANLEY RD	30	6	40	
TOTAL 0010			441	18	370	
1	6	HANLEY RD @ OLD STH 35	53	6	19	
TOTAL 0020			53	6	19	
PROJECT TOTAL			494	24	389	

PAVEMENT MARKINGS											
				646.1020	646.3020	646.5020	646.5120	646.6120	646.6320	646.7120	646.7220
STATION	TO	STATION	LOCATION	MARKING LINE EPOXY 4-INCH LF	MARKING LINE EPOXY 8-INCH LF	MARKING ARROW EPOXY EACH	MARKING WORD EPOXY EACH	MARKING STOP LINE EPOXY 18- INCH LF	MARKING DOTTED EXTENSION EPOXY 18-INCH LF	MARKING DIAGONAL EPOXY 12-INCH LF	MARKING CHEVRON EPOXY 24-INCH LF
193+51	-	199+02	WEST ROUND-ABOUT	1,948	1,590	9			107	372	112
201+60	-	208+10	EAST ROUND-ABOUT	2,073	1,038	14	1		125	292	163
199+02	-	201+60	BRIDGE	1,032	517	8					
	-										
	-										
	-										
			TOTAL 0010	5,053	3,145	31	1	0	232	664	275
208+10	-	213+01	EAST ROUND-ABOUT TO OLD STH 35	1,681				18			
	-										
			TOTAL 0020	1,681	0	0	0	18	0	0	0
PROJECT TOTAL				6734	3145	31	1	18	232	664	275

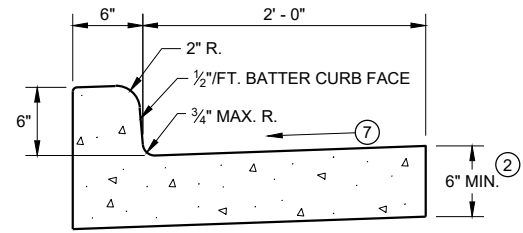
PAVEMENT MARKINGS							
				646.7420	646.9010	646.9110	646.9310
STATION	TO	STATION	LOCATION	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	MARKING REMOVAL LINE WATER BLASTING 4- INCH LF	MARKING REMOVAL LINE WATER BLASTING 8- INCH LF	MARKING REMOVAL SPECIAL MARKING WATER BLASTING EACH
193+51	-	199+02	WEST ROUND-ABOUT	71			
201+60	-	208+10	EAST ROUND-ABOUT	38			
199+02	-	201+60	BRIDGE		1,032	517	8
	-						
	-						
	-						
			TOTAL 0010	109	1,032	517	8
208+10	-	213+01	EAST ROUND-ABOUT TO OLD STH 35				
	-						
			TOTAL 0020	0	0	0	0
PROJECT TOTAL				109	1032	517	8



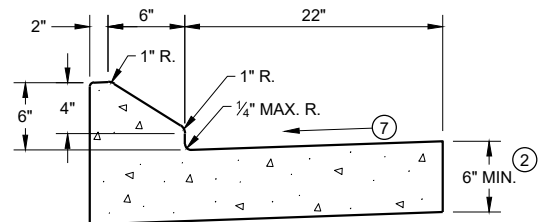


Standard Detail Drawing List

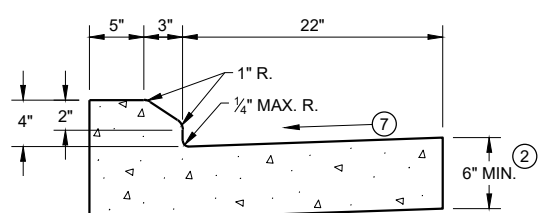
08D01-21A	CONCRETE CURB & GUTTER
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15D	ROUNDAABOUT ARROWS
15C31-03B	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15D16-04	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-05C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D22-04	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



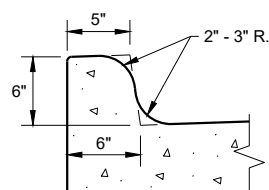
TYPES A^① & D



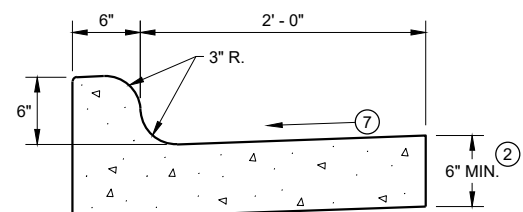
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

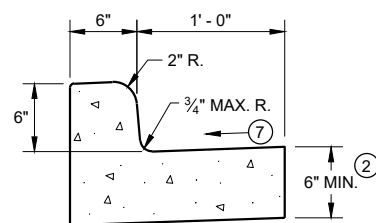


TYPES K^① & L
(OPTIONAL CURB SHAPE)



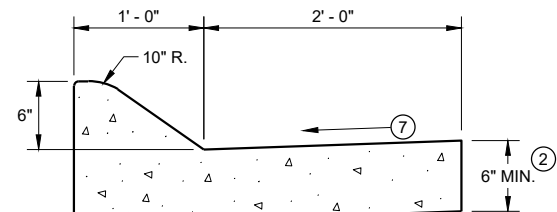
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

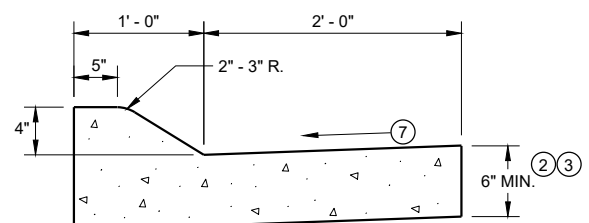


TYPES A^① & D

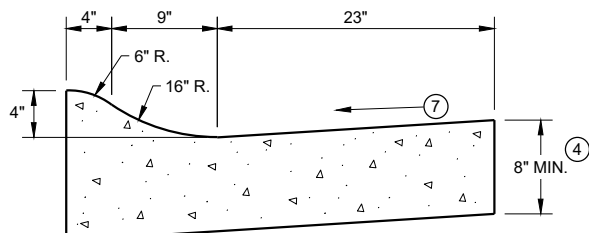
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D



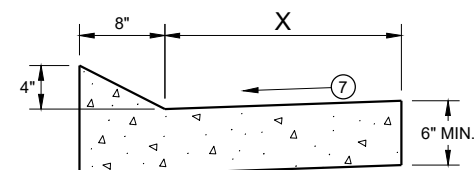
4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

CONCRETE CURB AND GUTTER 36"

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

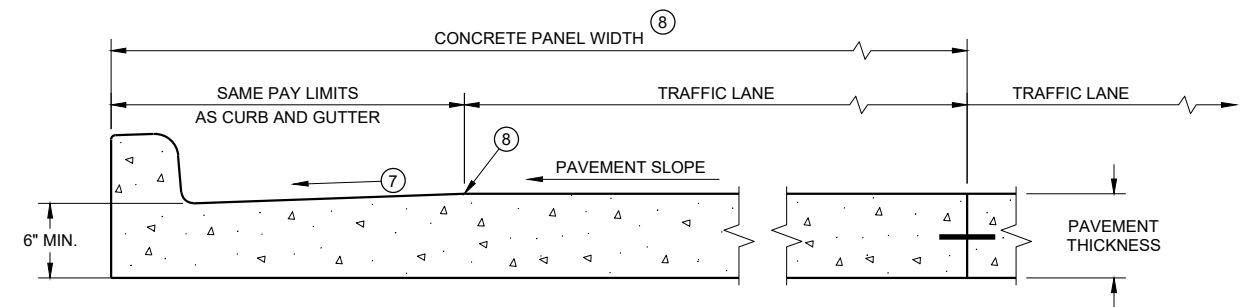


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

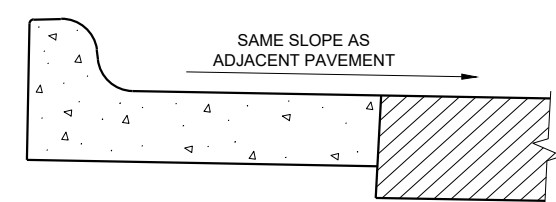
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

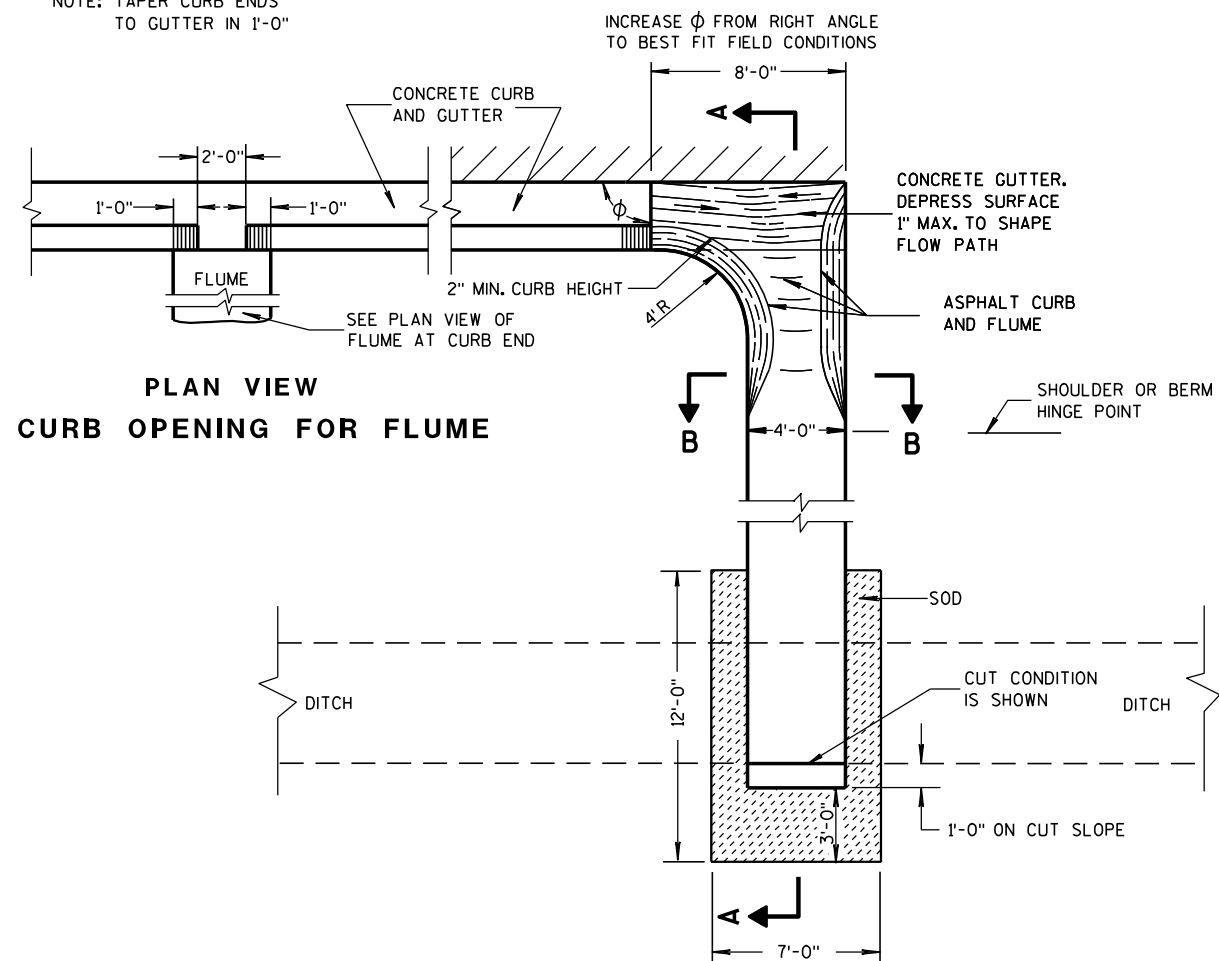
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ 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.

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

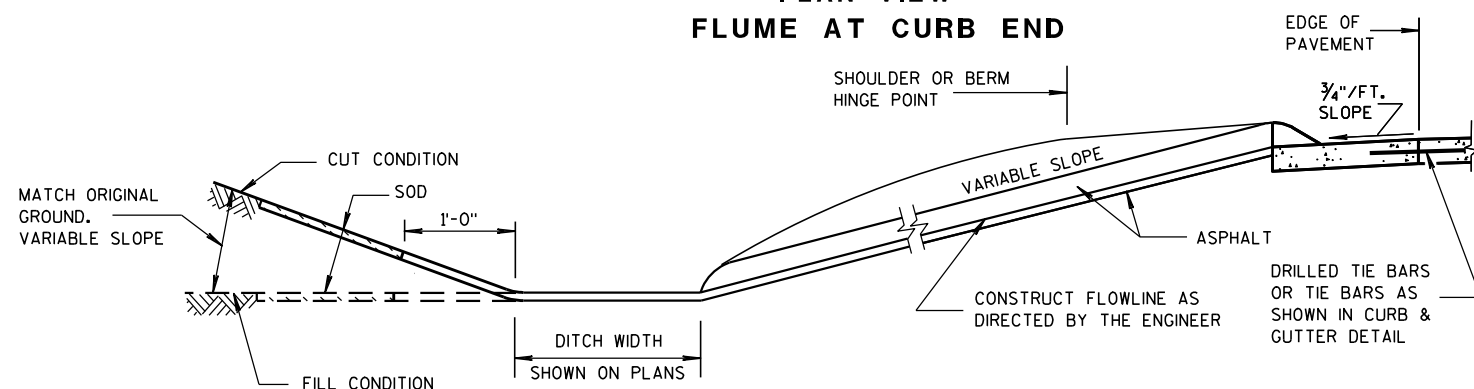
ASPHALTIC FLUME

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

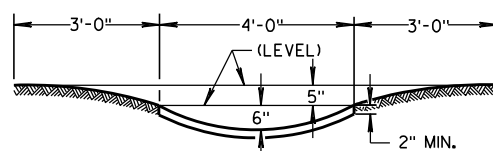


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

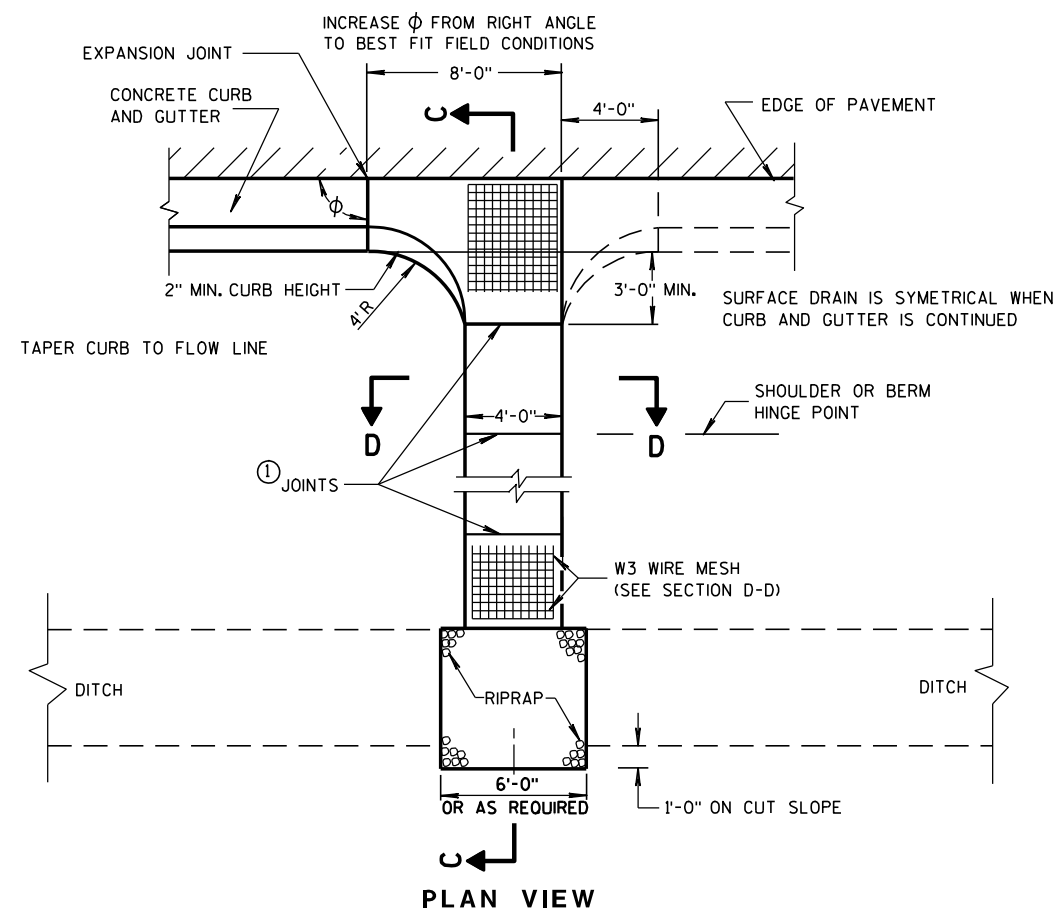
GENERAL NOTES

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

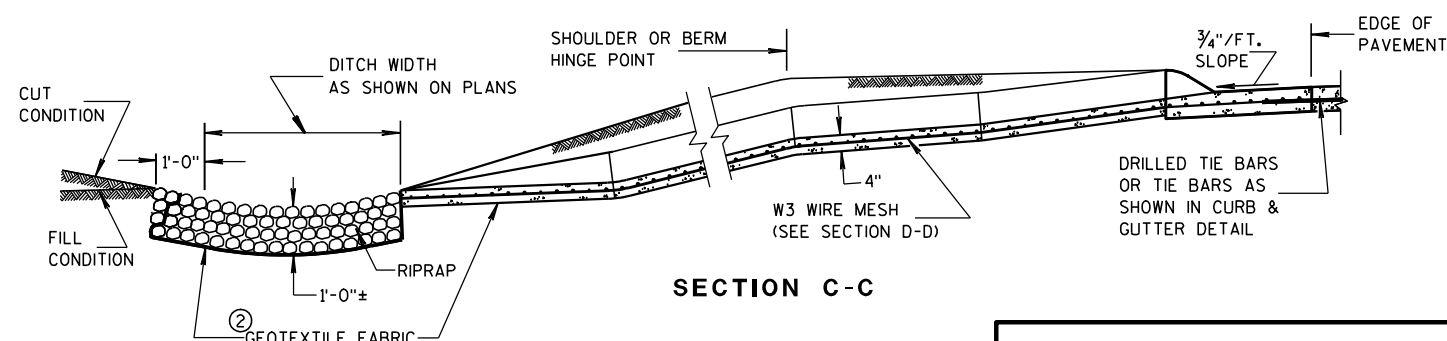
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

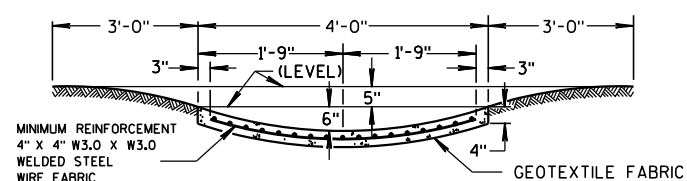
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

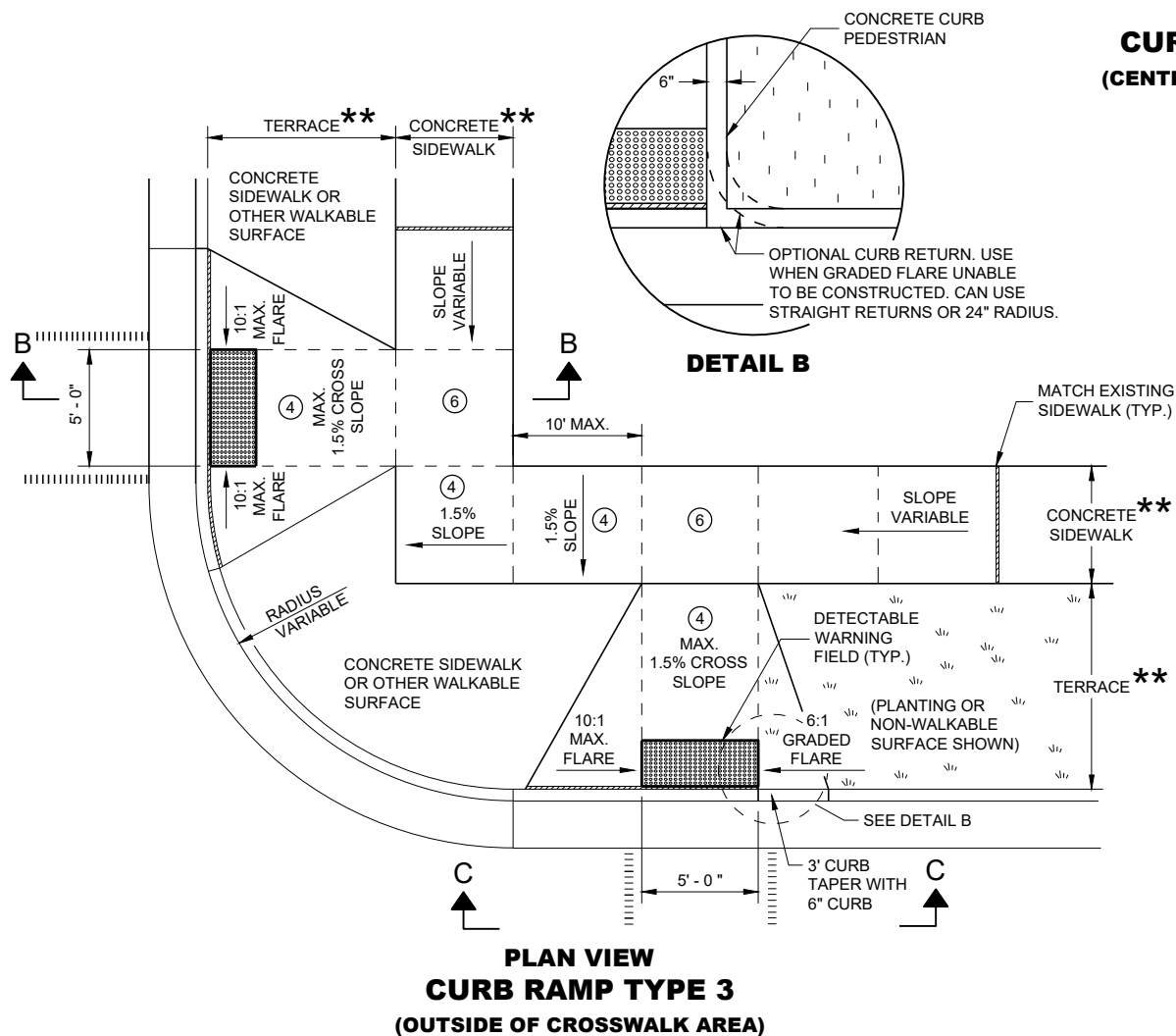
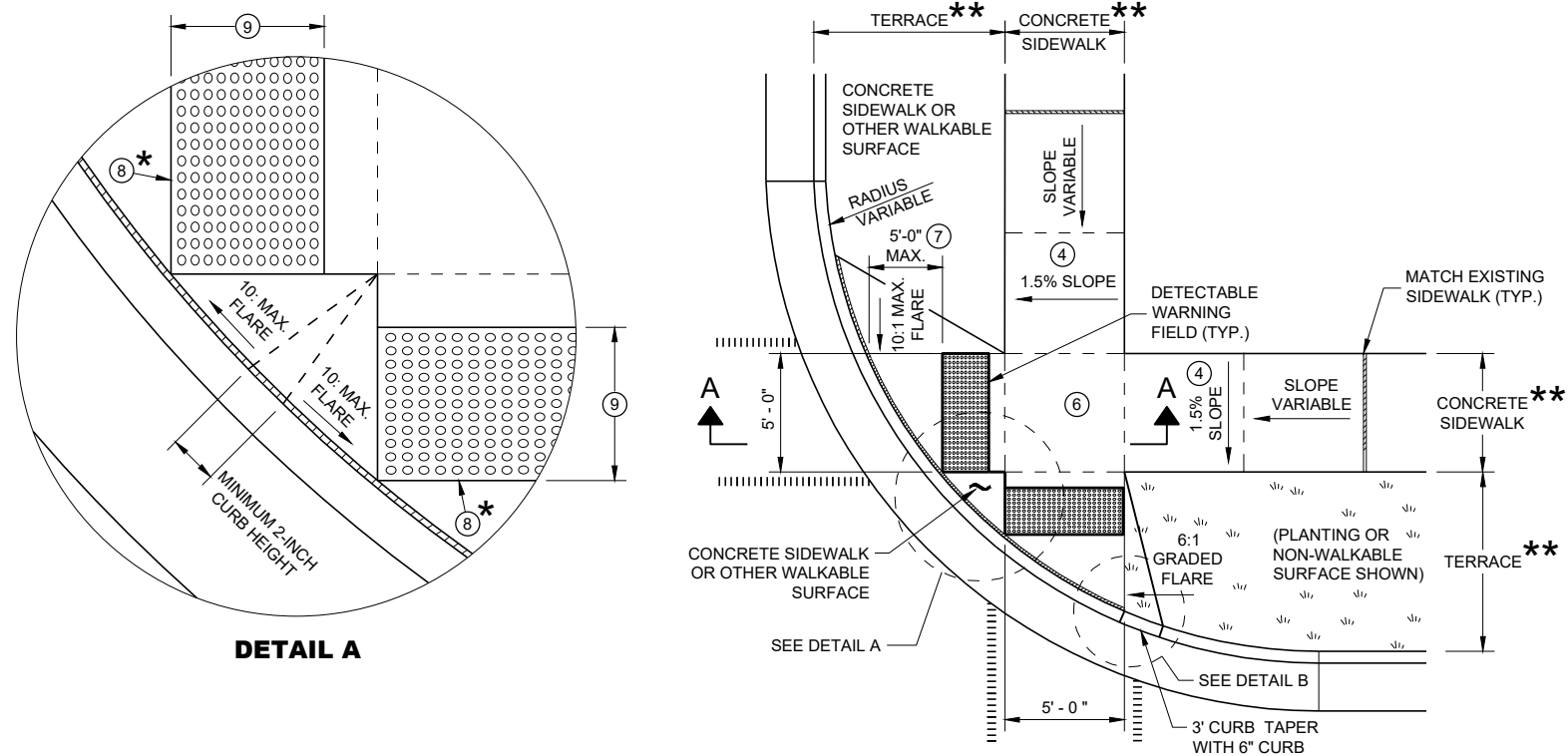
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



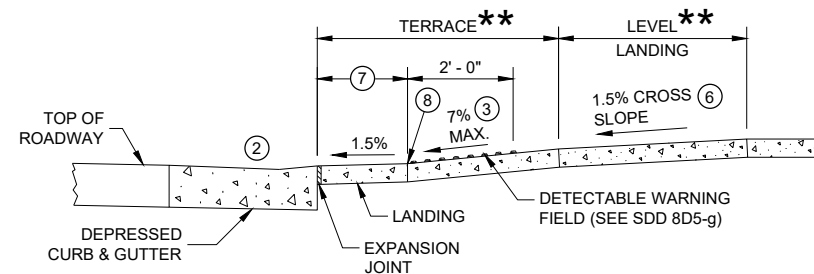
GENERAL NOTES

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.

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 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) 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 LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% 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.

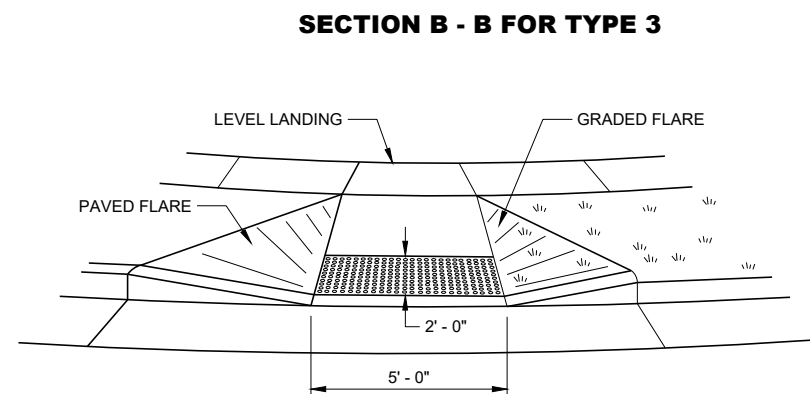
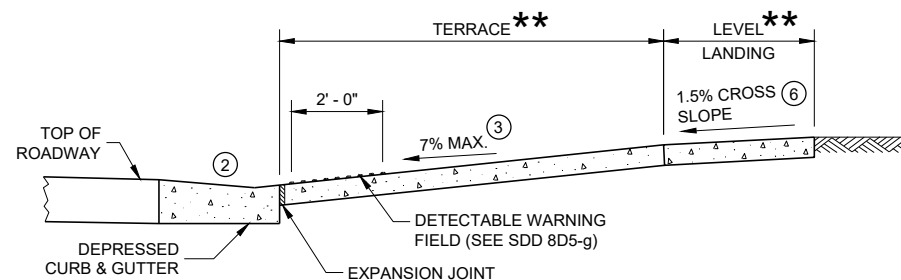


* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

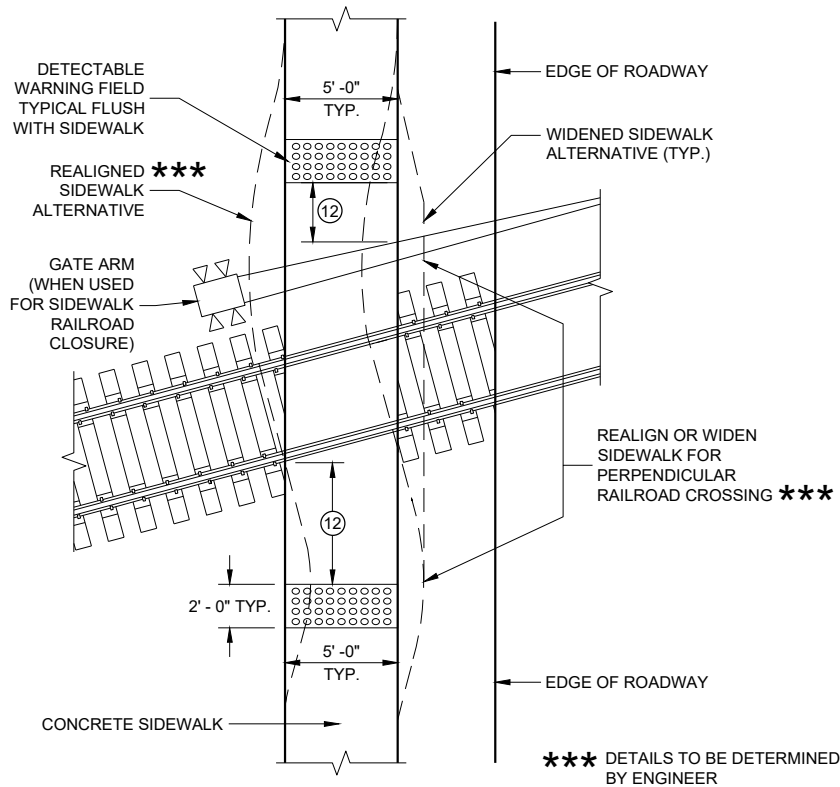
LEGEND

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



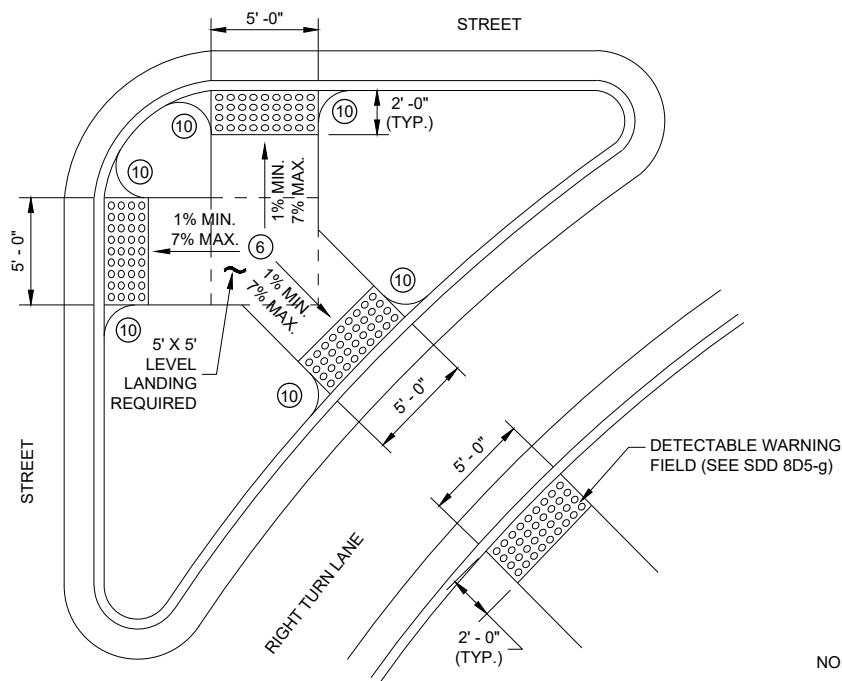
CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
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CURB RAMP TYPE 8

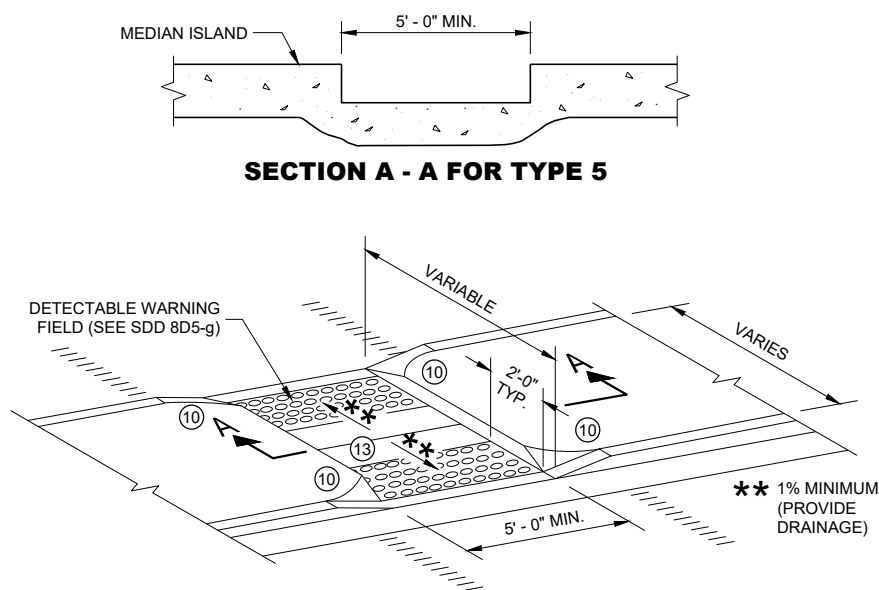
DETECTABLE WARNINGS AT RAILROAD CROSSING



CURB RAMP TYPE 6

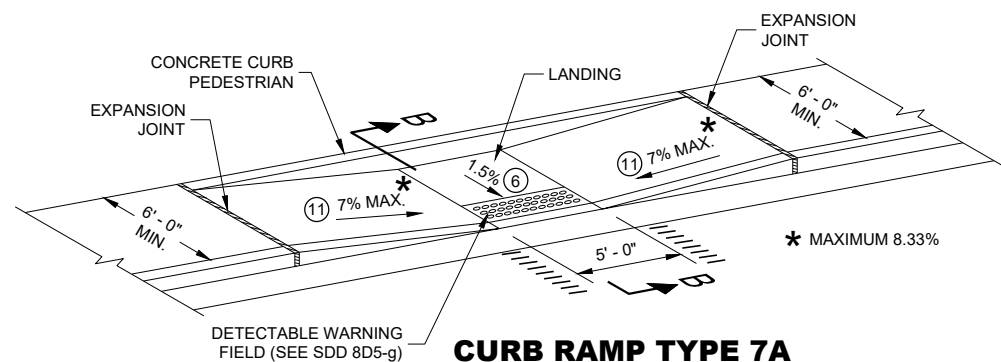
DETECTABLE WARNING AT ISLANDS

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

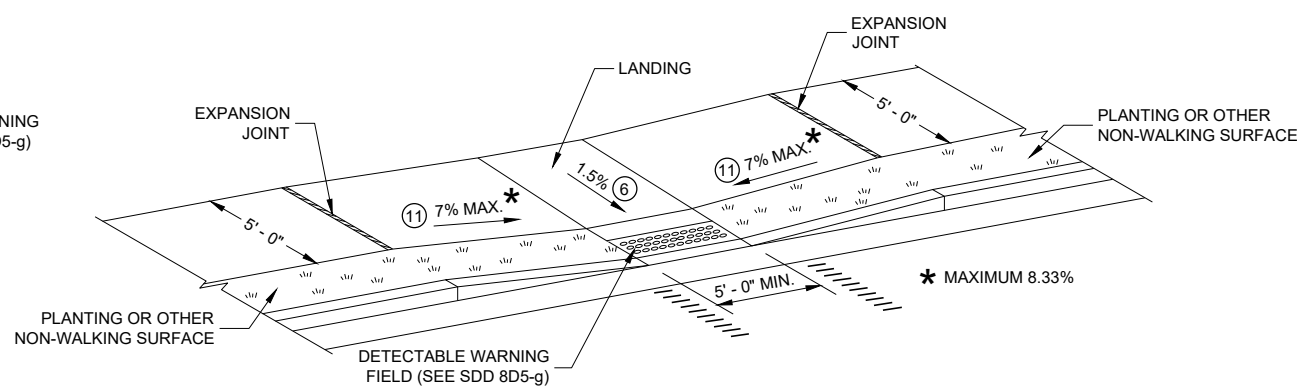


CURB RAMP TYPE 5

**MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B
MID BLOCK CROSSING**

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

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.

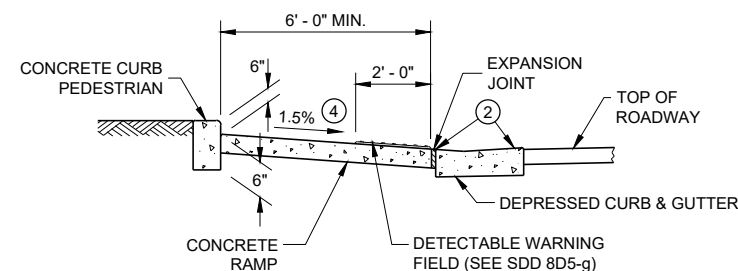
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 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 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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



SECTION B - B FOR TYPE 7A

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

Diagram illustrating the radial detectable warning field placement when the 5-foot grade break distance per SDD 8D5-c is exceeded.

Key components and dimensions shown:

- EXPANSION JOINT**: Located at the start of the ramp.
- DETECTABLE WARNING FIELD RADIAL**: The area of the detectable warning field.
- GRADED FLARE**: The transition area between the ramp and the landing.
- SEE DETAIL A**: Reference to a detail view of the flare.
- MIN. 2'-0" DWF COVERAGE**: Minimum detectable warning field coverage required.
- LANDING 'XR'**: The landing area.
- RAMP**: The sloped section.
- 6'-0" MIN.**: Minimum ramp length.
- 6'-0" SIDEWALK 1.5% CROSS SLOPE**: Sidewalk dimensions and slope.
- 3' CURB TAPER WITH 6" CURB**: Curb dimensions and taper.
- 5'-0"**: Distance from the ramp to the curb.
- (4)**, **(8)**, **(14)**, **(15)**, **(16)**, **(17)**: Callout numbers for specific details.
- * MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK**: Slope requirement for the landing area.

PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

The diagram illustrates the plan view of Curb Ramp Type 4A1. It shows a ramp with a 7% typical grade (*** 7% TYP.) and a 6'-0" minimum landing (6'-0" MIN. LANDING). The ramp is flanked by concrete sidewalks (CONCRETE SIDEWALK) and expansion joints (EXPANSION JOINT). A radial detectable warning field (RADIAL DETECTABLE WARNING FIELD (SEE SDD 8D5-g)) is shown on the ramp. The grade break distance (GRADE BREAK DIST.) is indicated as greater than 5 feet. The diagram also shows a depressed curb and gutter (DEPRESSED CURB & GUTTER) and a top of roadway (TOP OF ROADWAY). Callouts 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 are used to identify specific components and dimensions.

CONCRETE SIDEWALK

EXPANSION JOINT

1.5% (6)

6'-0" MIN. LANDING

*** 7% TYP.

(8)

* 1.5%

EXPANSION JOINT

TOP OF ROADWAY

**** LANDING

RADIAL DETECTABLE WARNING FIELD (SEE SDD 8D5-g)

DEPRESSED CURB & GUTTER




*** MAXIMUM 8.33%

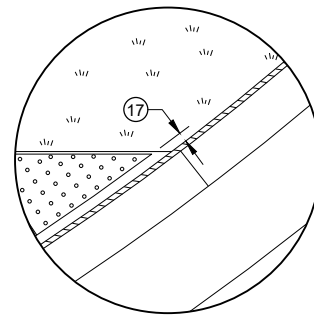
SECTION A - A FOR TYPE 4A1

[illegible]

SECTION B - B FOR TYPE 4B1

LEGEND

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



DETAIL A

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.

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

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

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

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING 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.

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 $\frac{1}{4}$ " - 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.

AN 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 BY 5 FEET.

PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

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

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.

A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

NOTE: SECOND TYPE 2 RAMP NOT SHOWN

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

SECTION C - C FOR TYPE 2

DETAIL C

*** MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK**

**** WIDTH SHOWN ELSEWHERE IN THE PLANS**

***** MAXIMUM 8.33%**

[illegible]

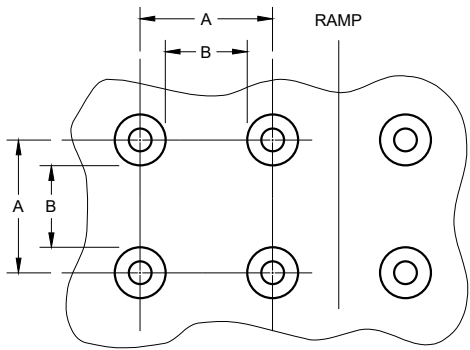
PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

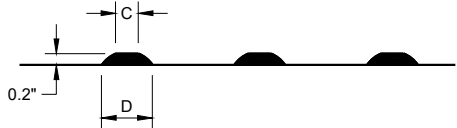
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

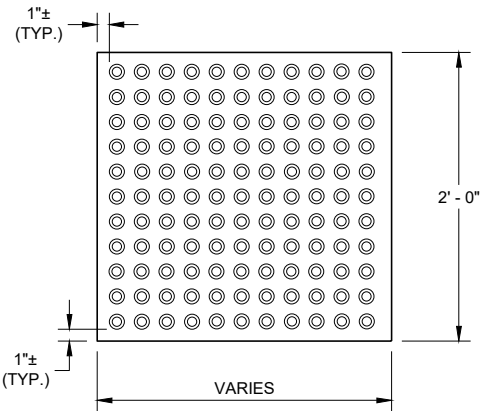


PLAN VIEW

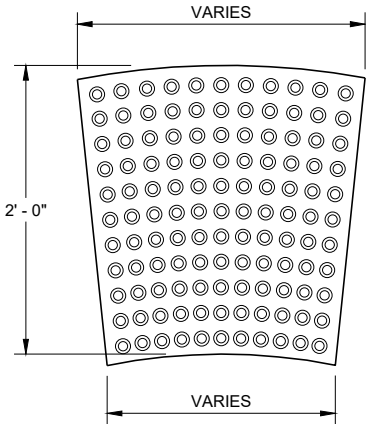


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

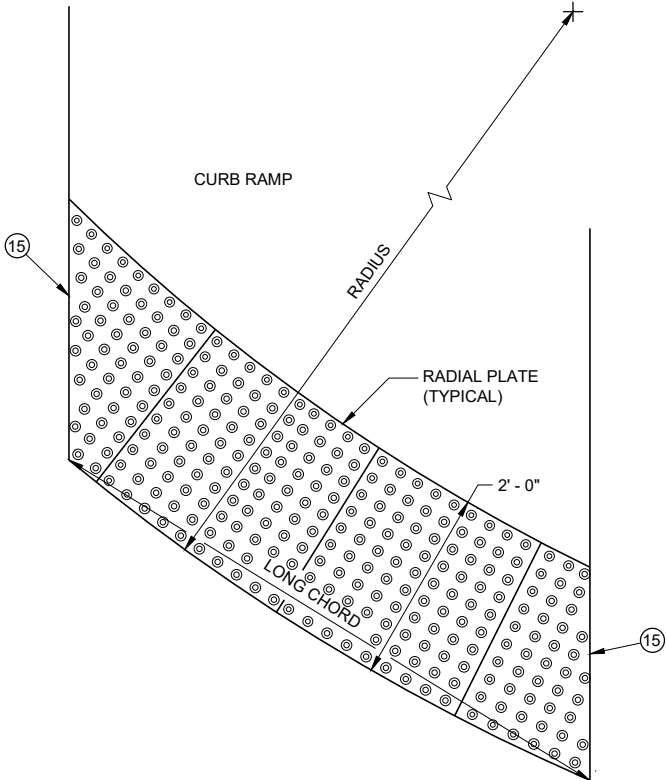


RECTANGULAR
PLATES

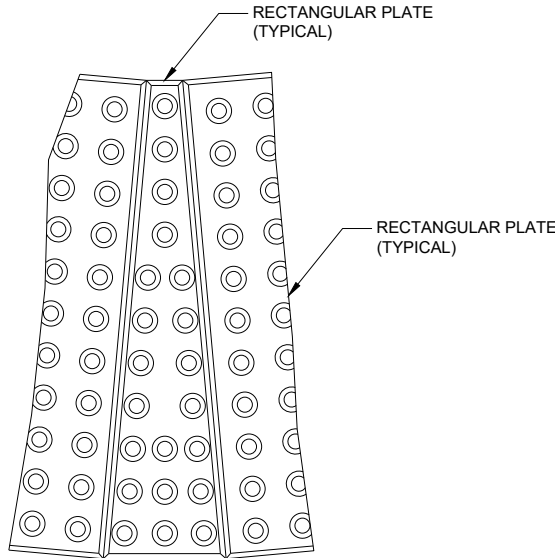


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

GENERAL NOTES

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

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

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

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

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

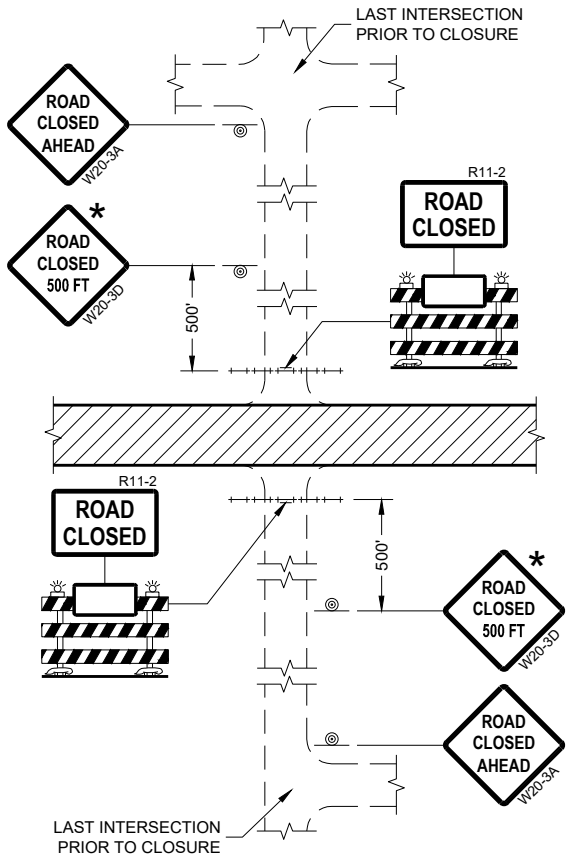
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

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

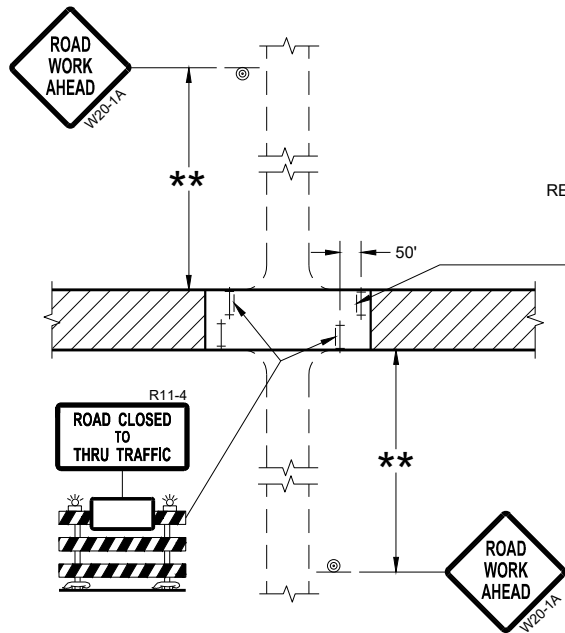
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

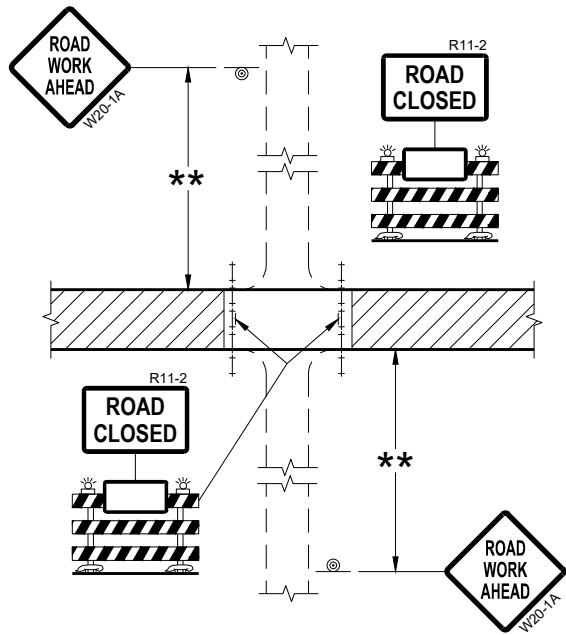
APPROVED
May 2019 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



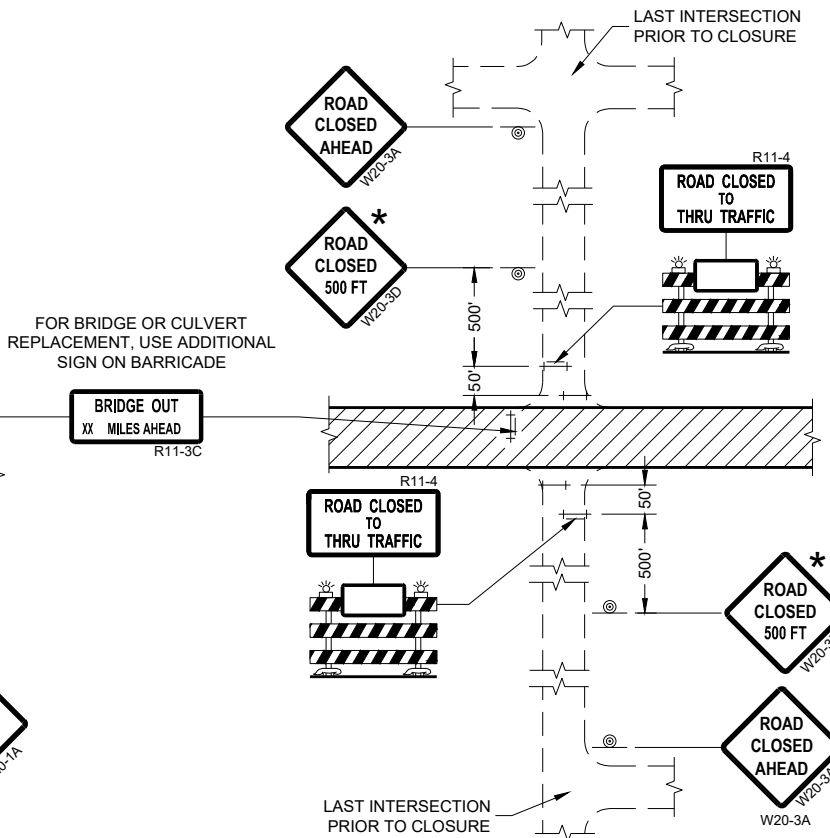
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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




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

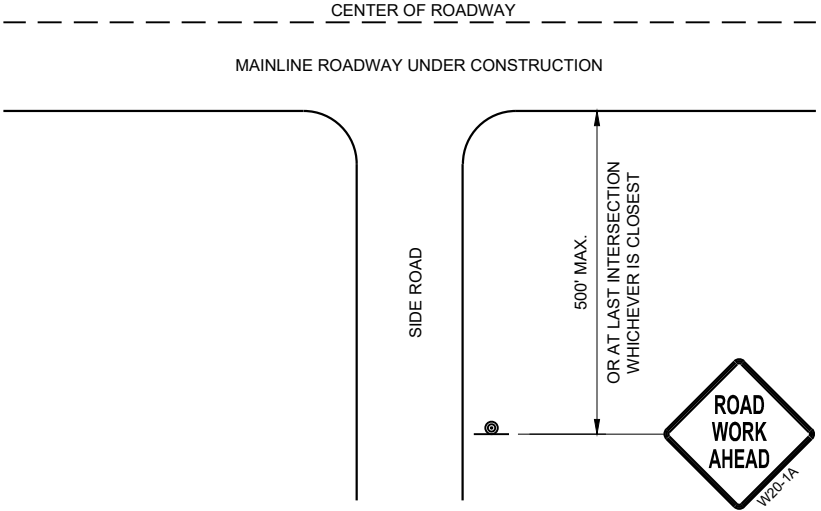
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

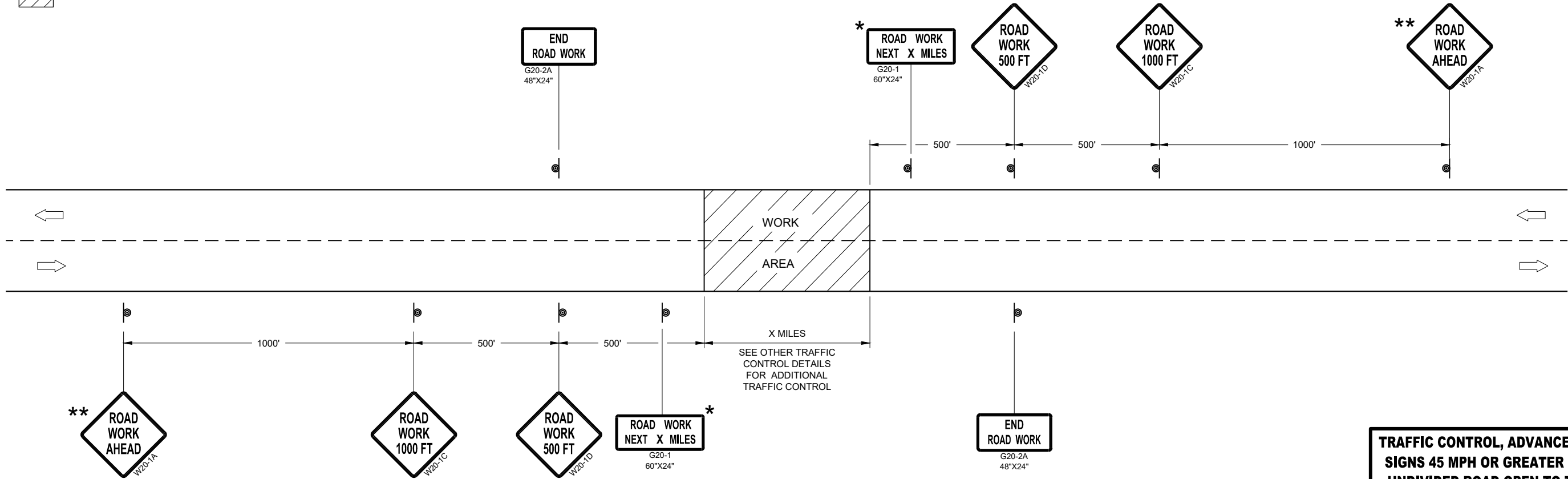
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

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

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




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

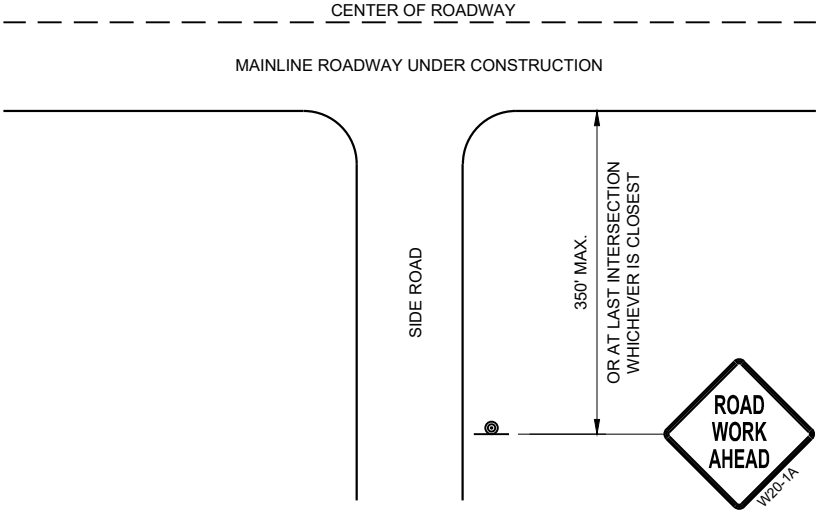
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

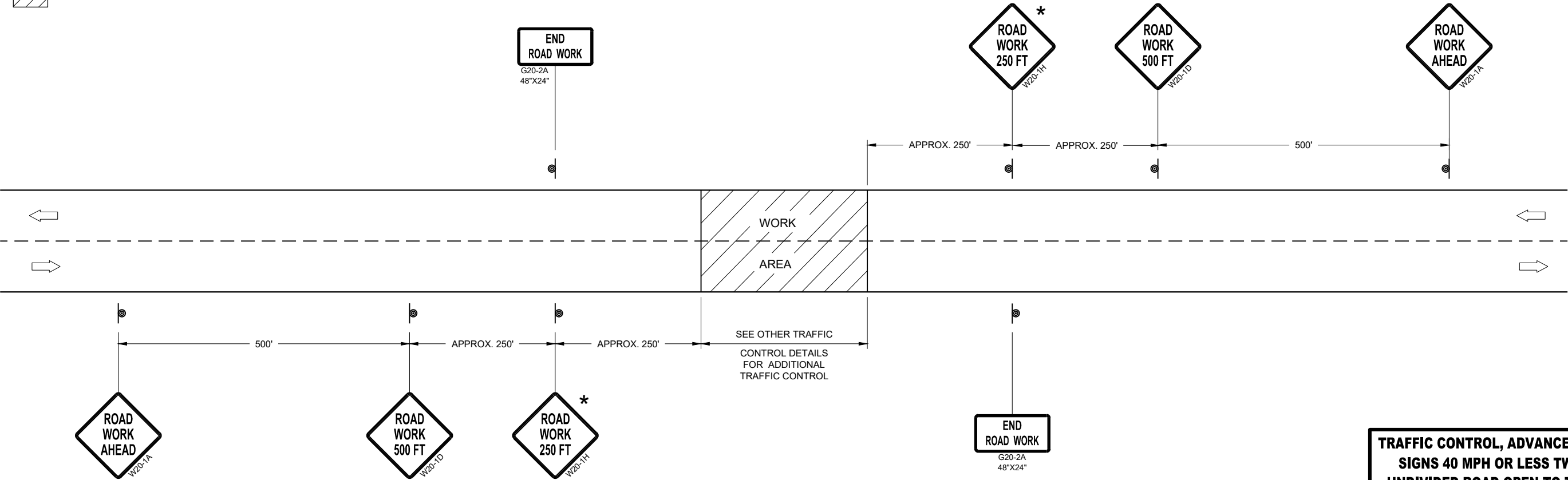
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



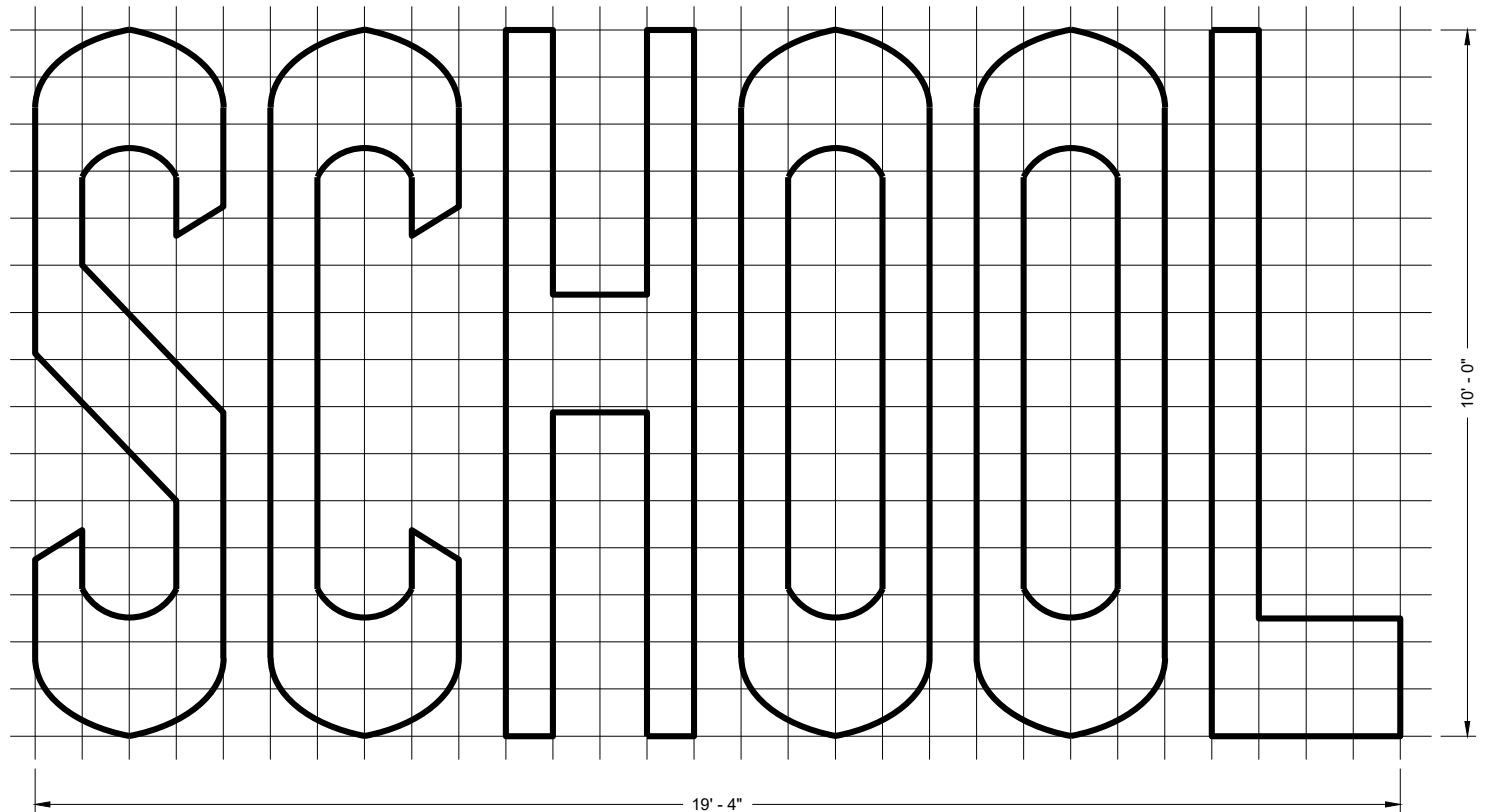
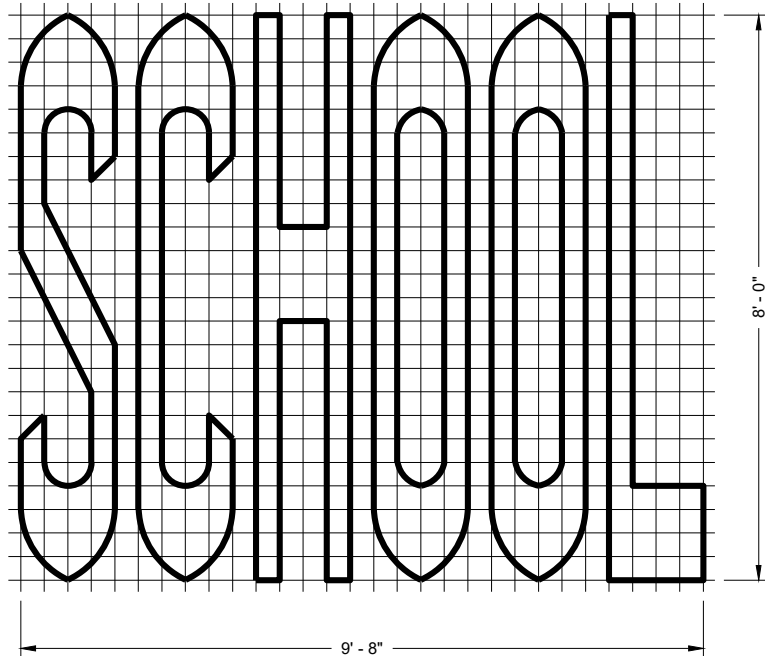
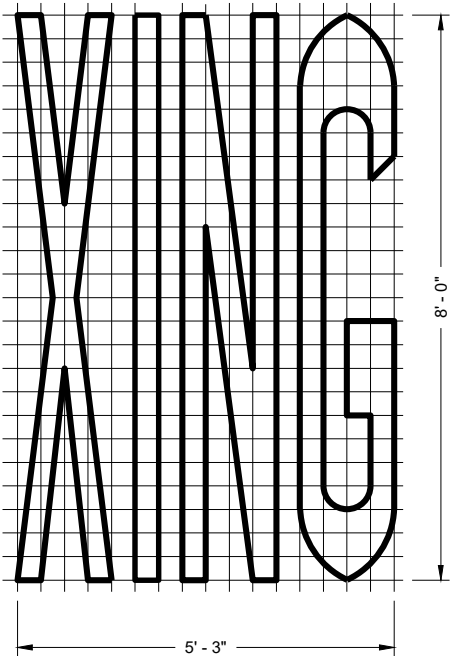
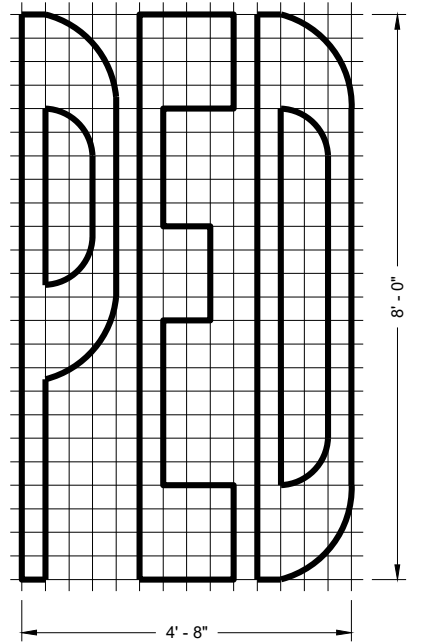
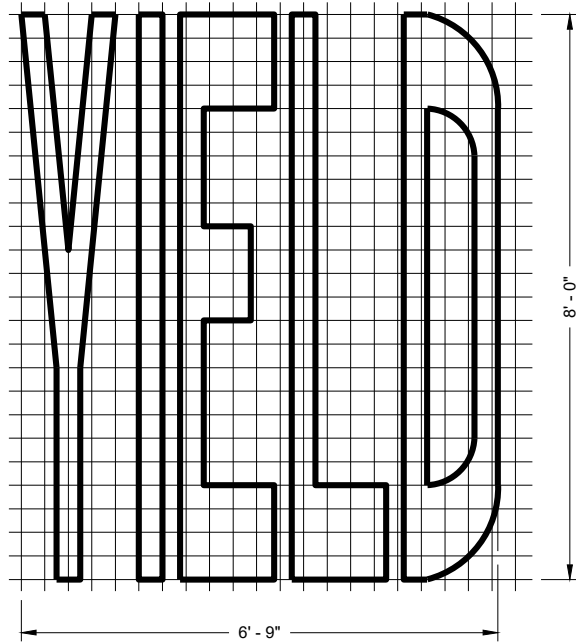
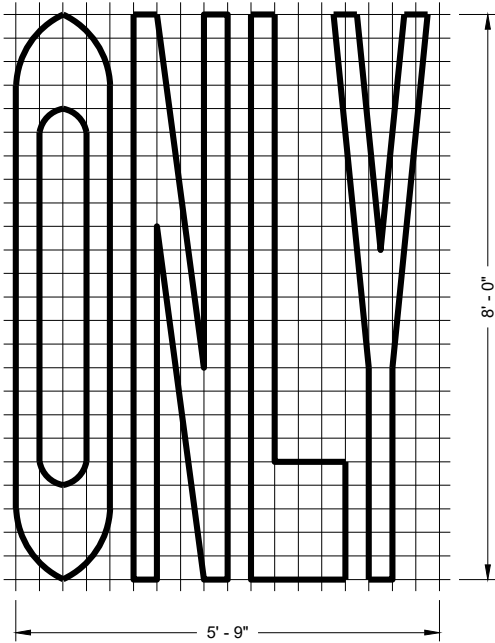
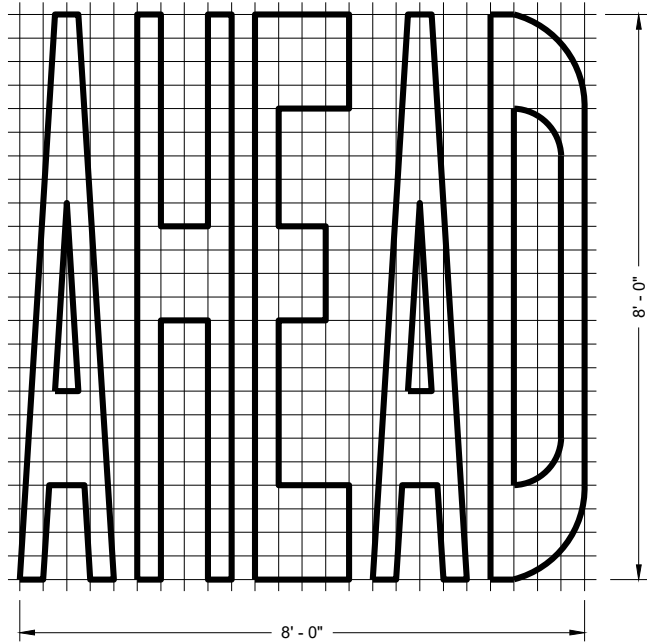
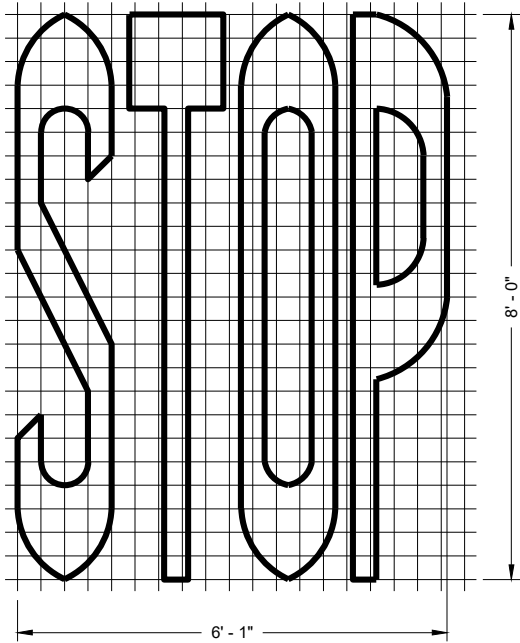
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

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

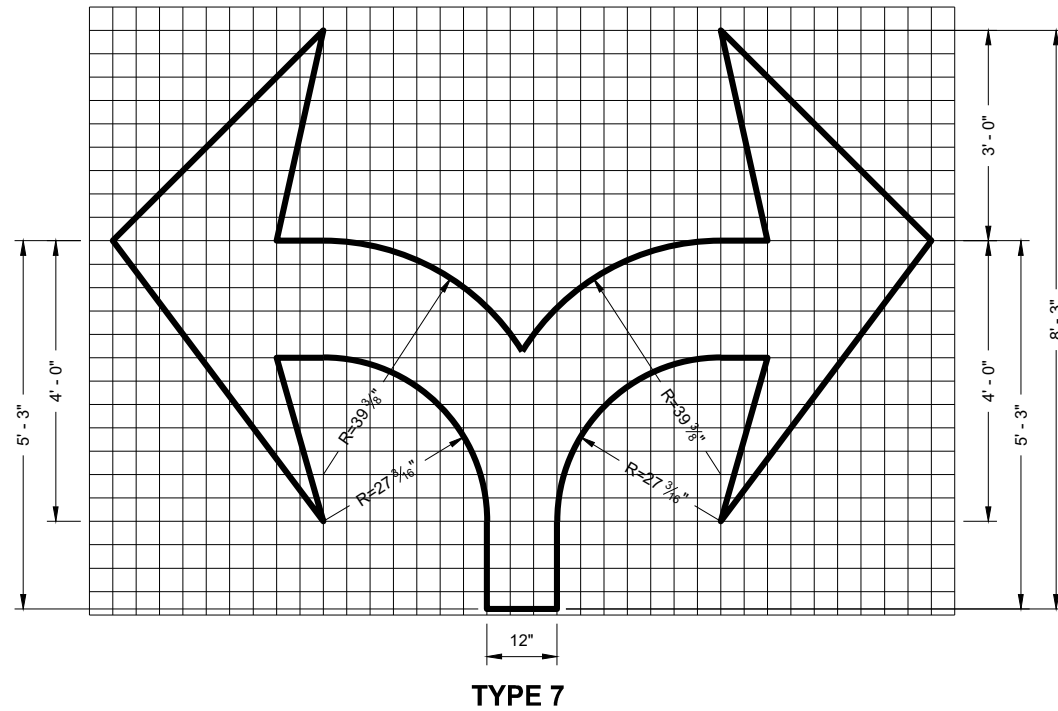
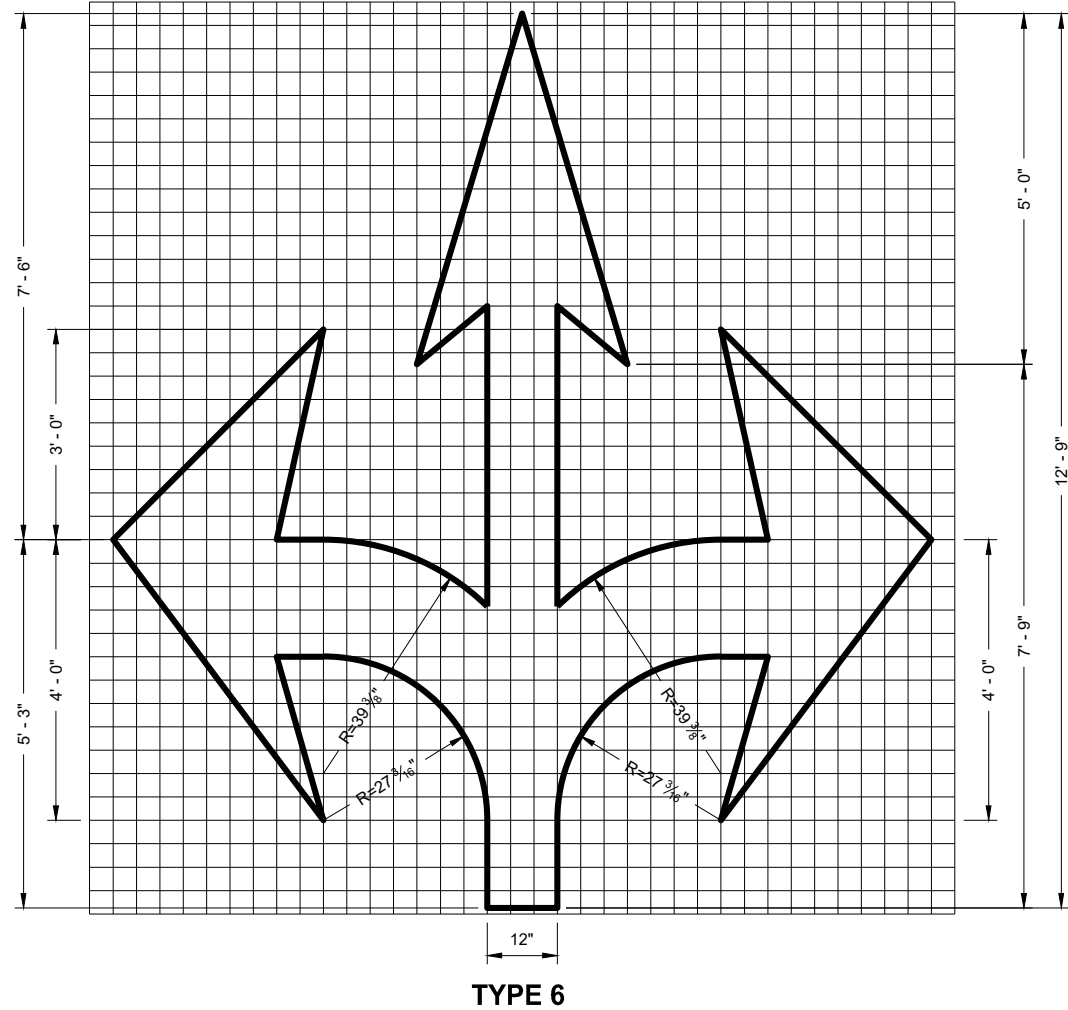
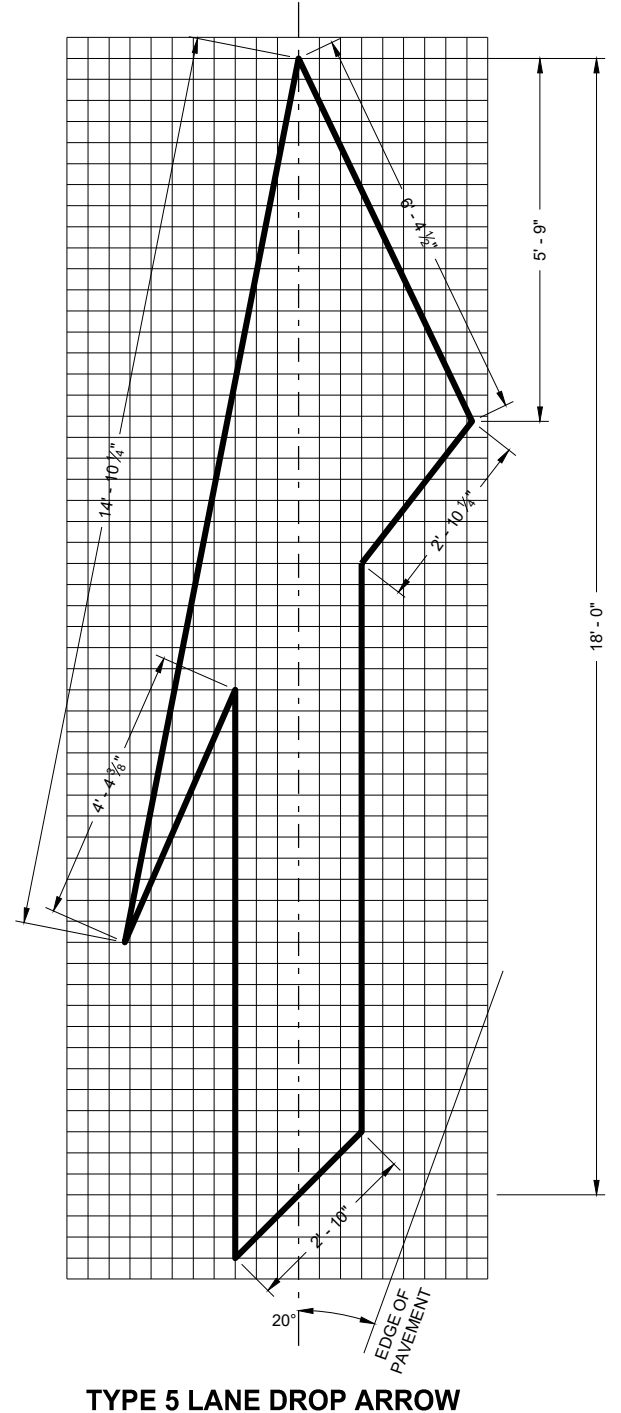
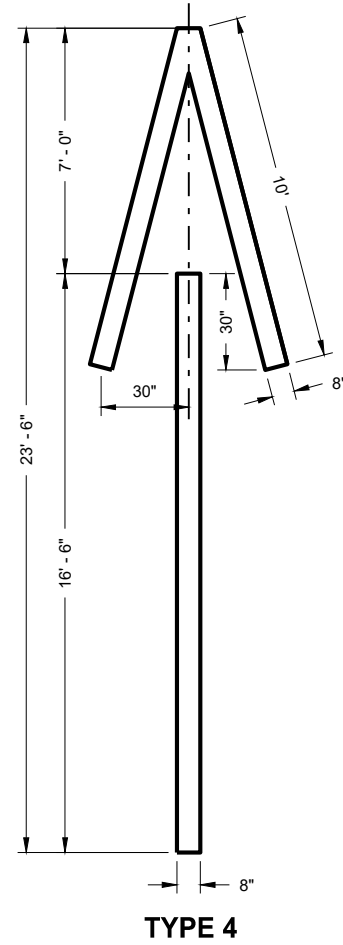
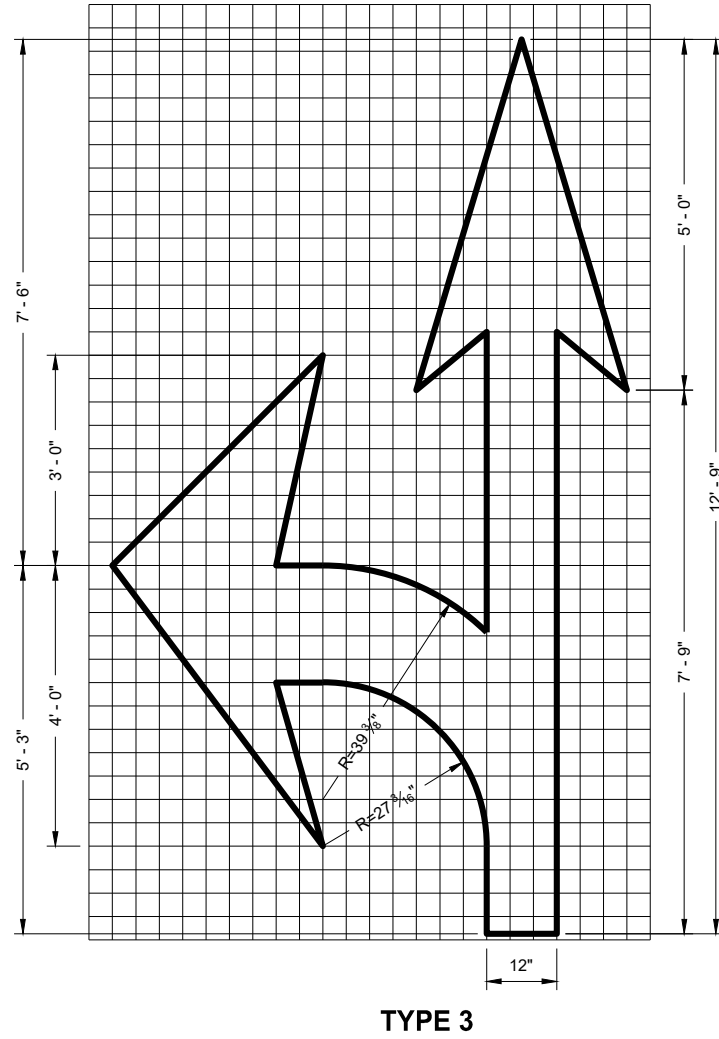
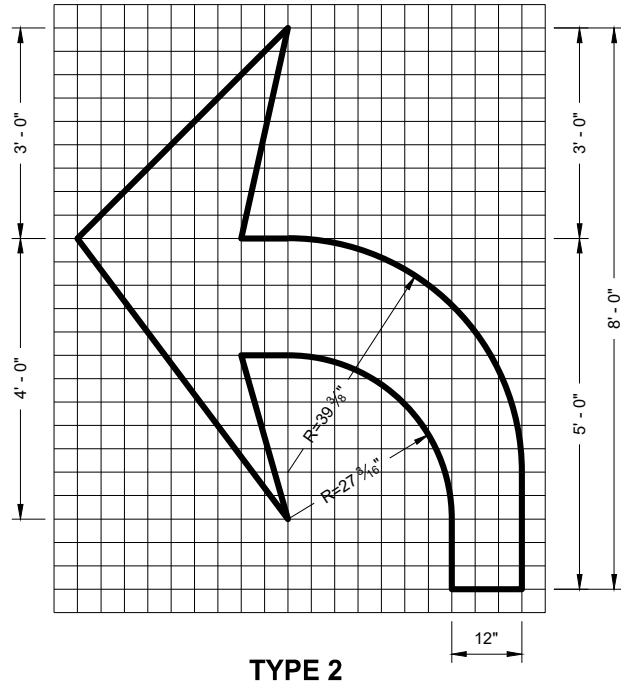
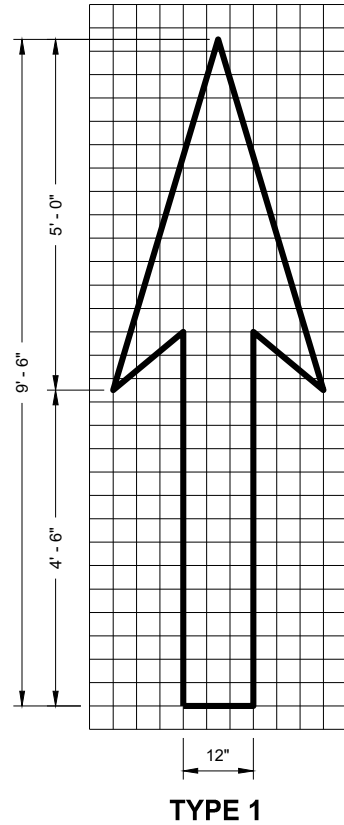
PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

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

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.



ROUNDAABOUT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

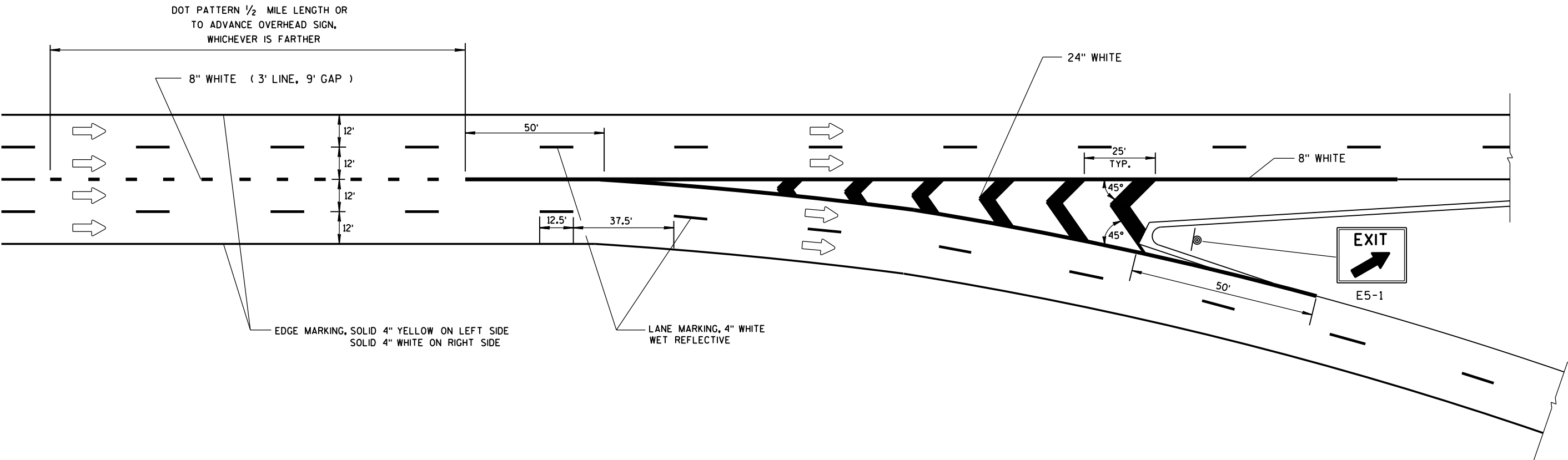
CHWA

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

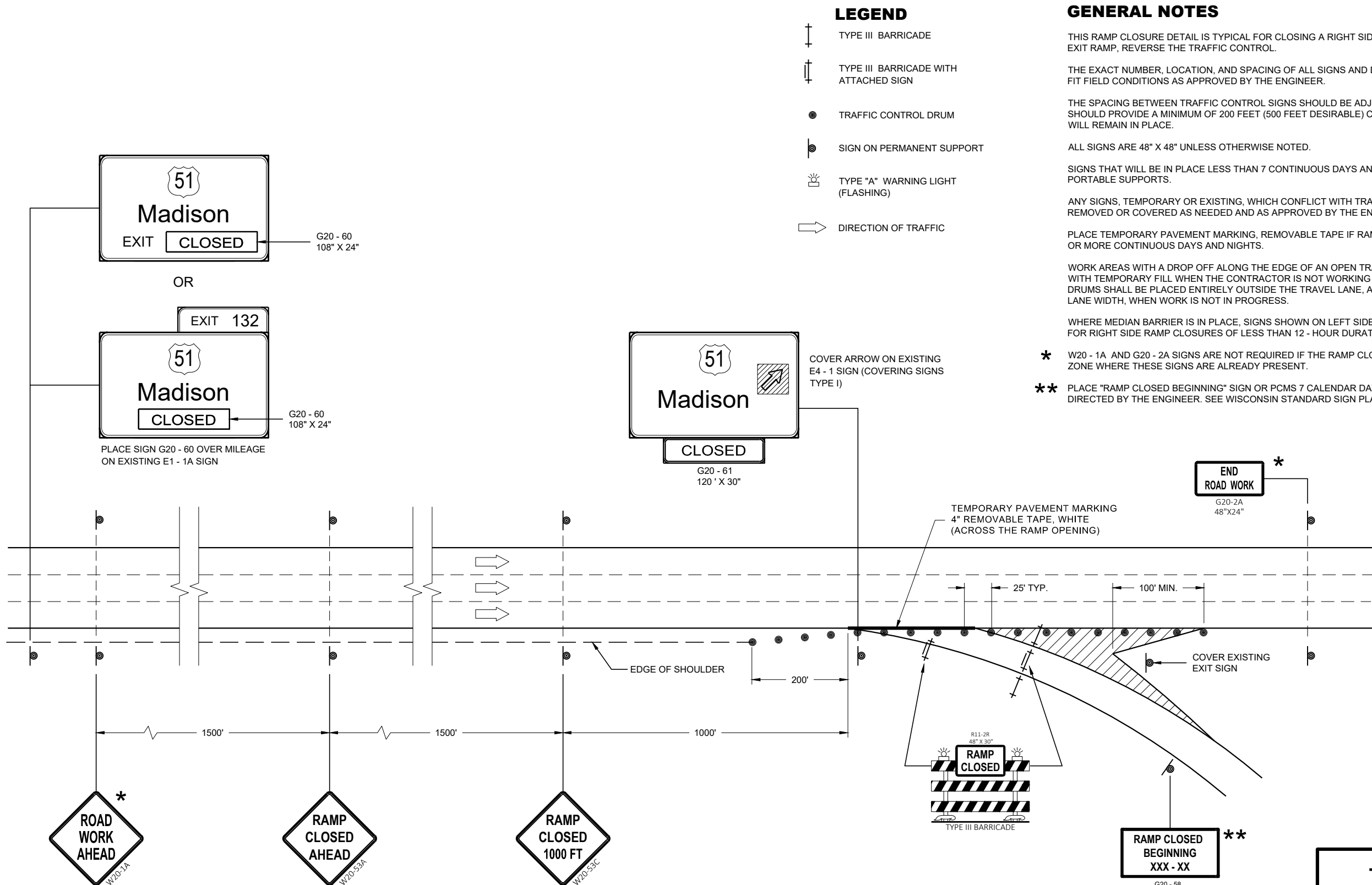
LEGEND

- ➡ DIRECTION OF TRAVEL
- ⊙ SIGN ON PERMANENT SUPPORT



PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

* W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.










** PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

**TRAFFIC CONTROL,
EXIT RAMP CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

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

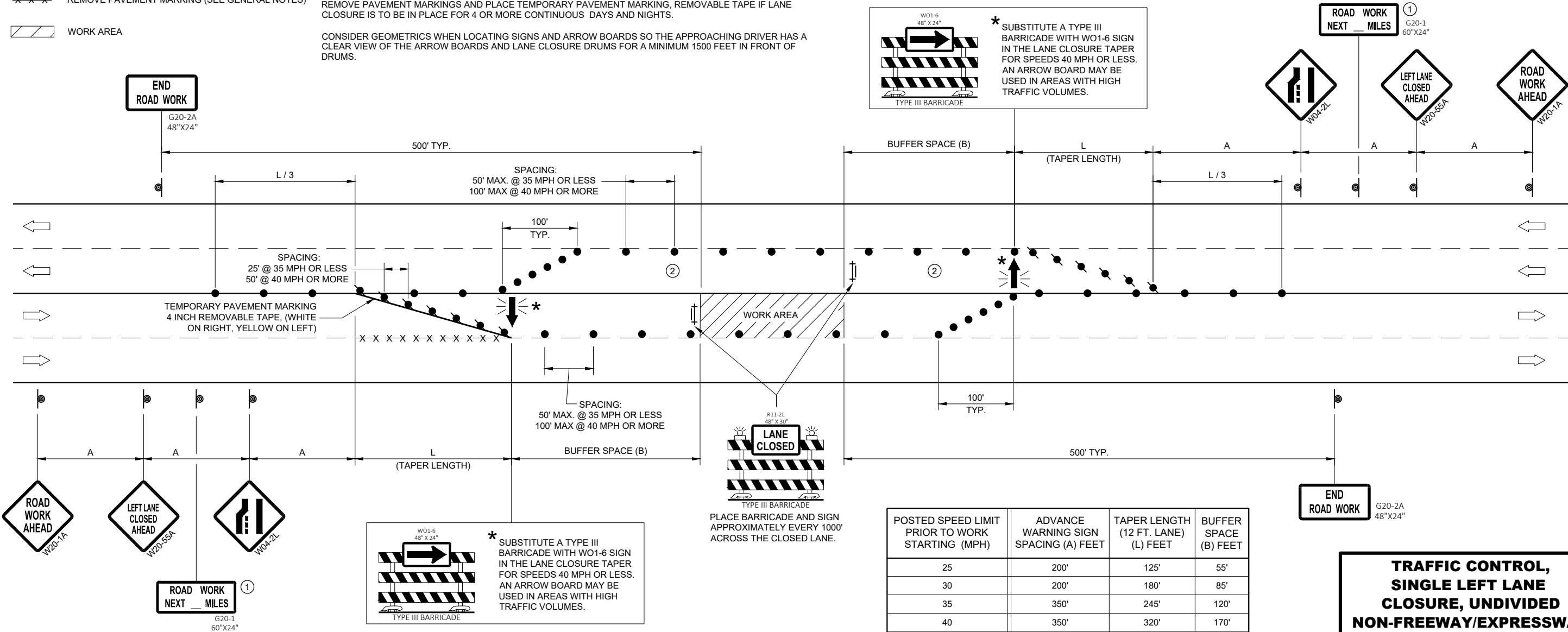
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

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

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

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

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY












STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

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

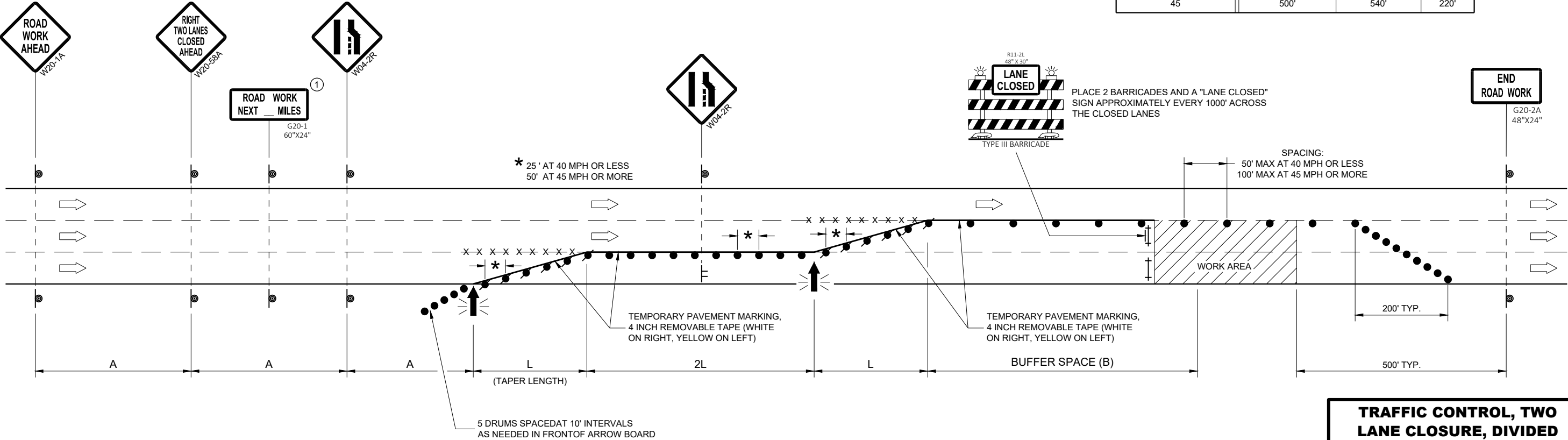
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY





STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

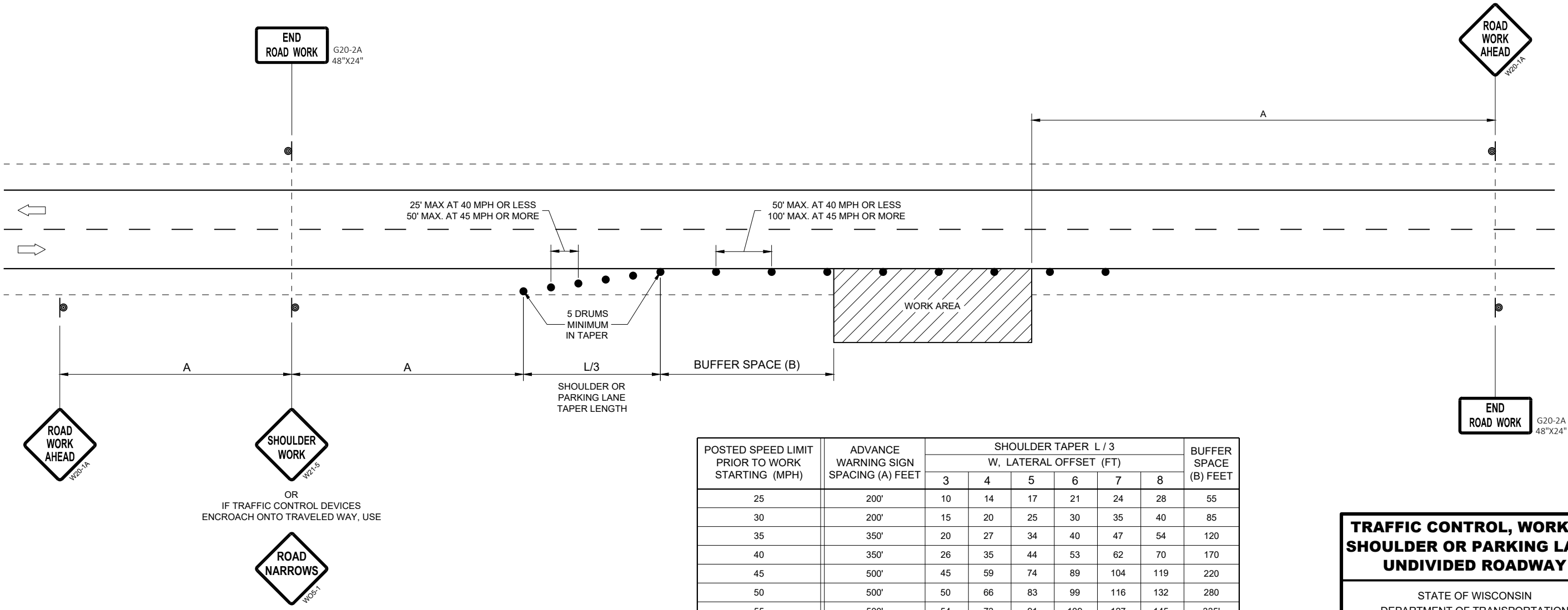
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

6

6



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

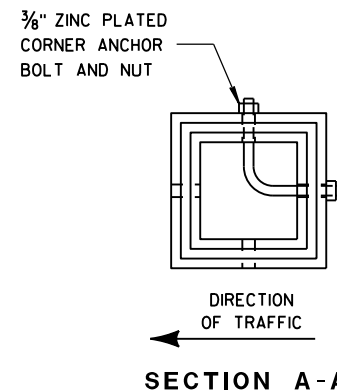


DETAIL OF TUBULAR
STEEL SIGN POST

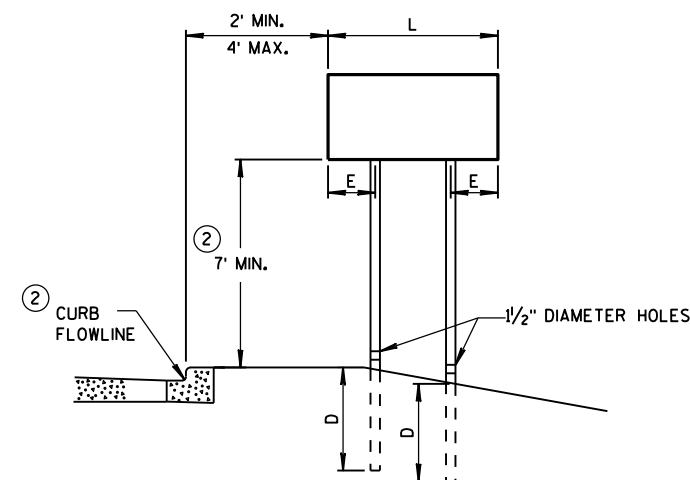
TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



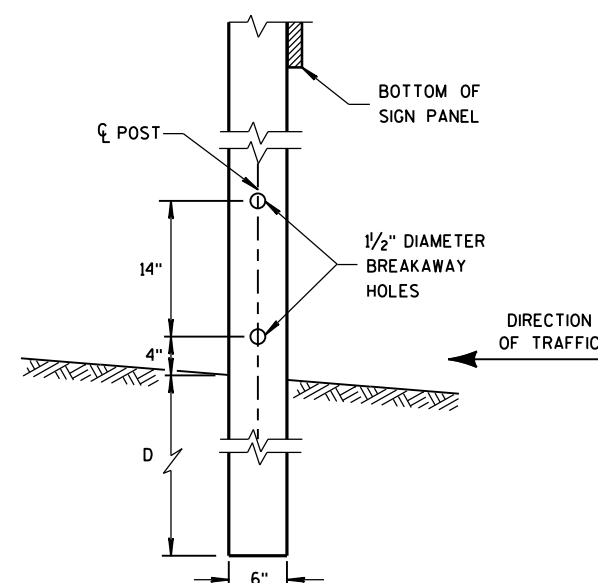
SECTION A-A



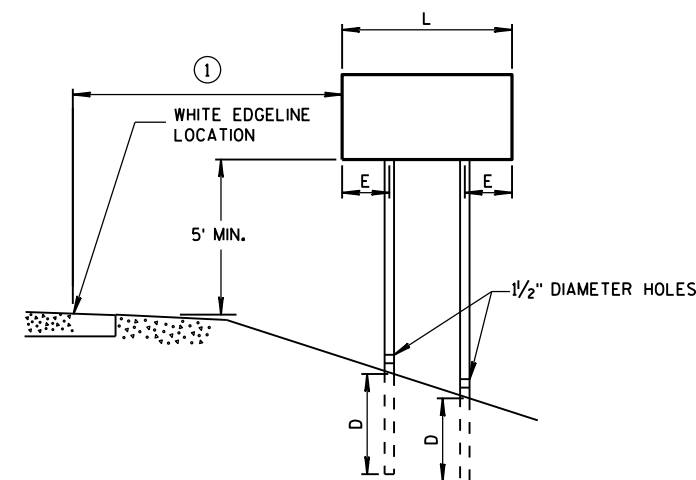
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH	
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

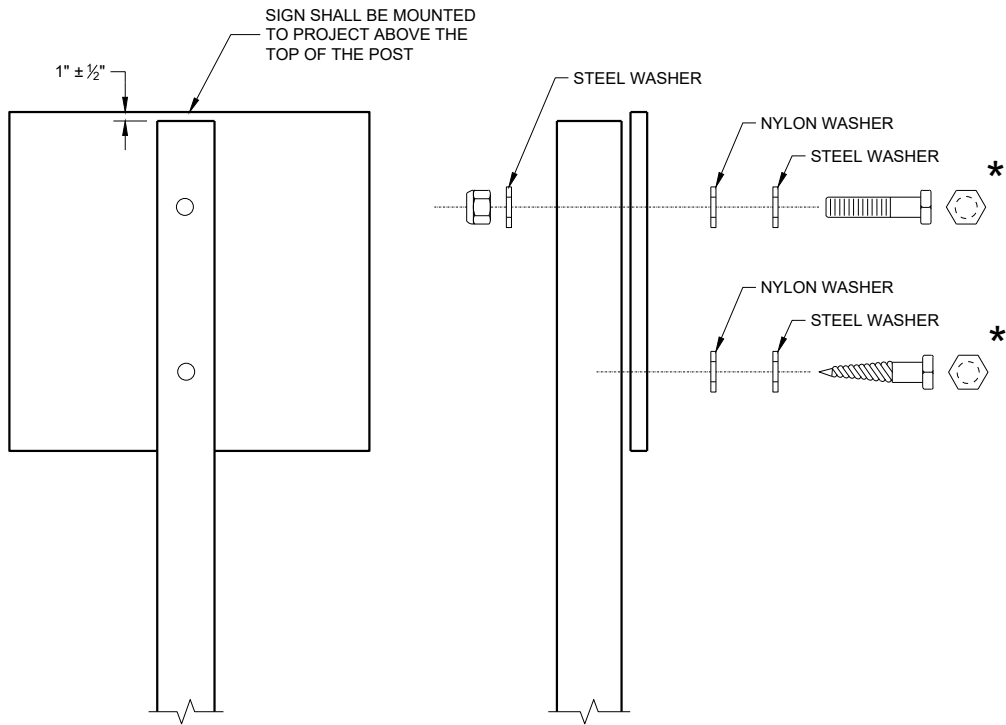
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS
SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM
DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM
DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH
SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED
COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - 3/8" x 3"
MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 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 0.080 NYLON

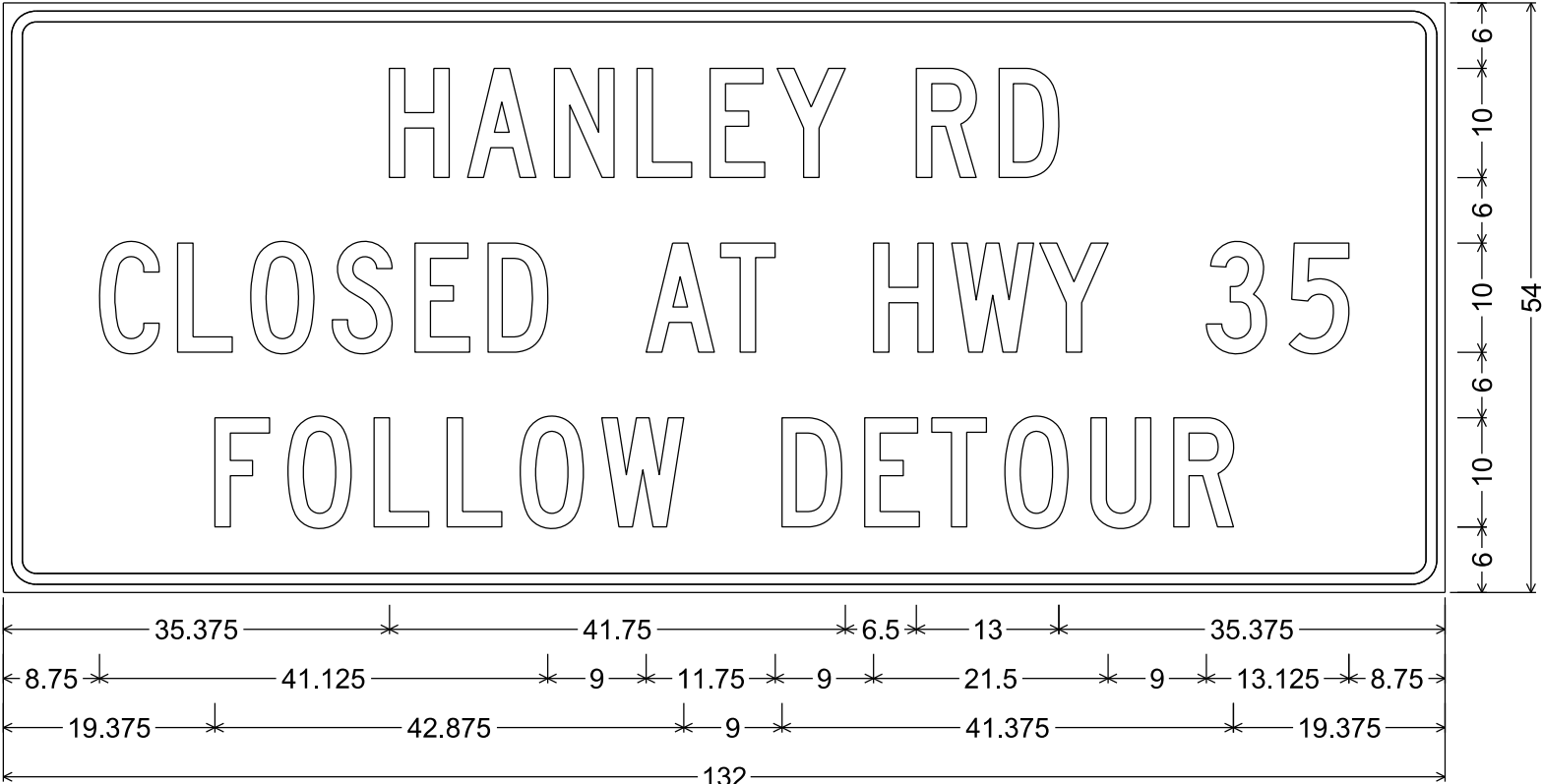
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION
PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM
SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH
THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER
THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS
TO POSTS

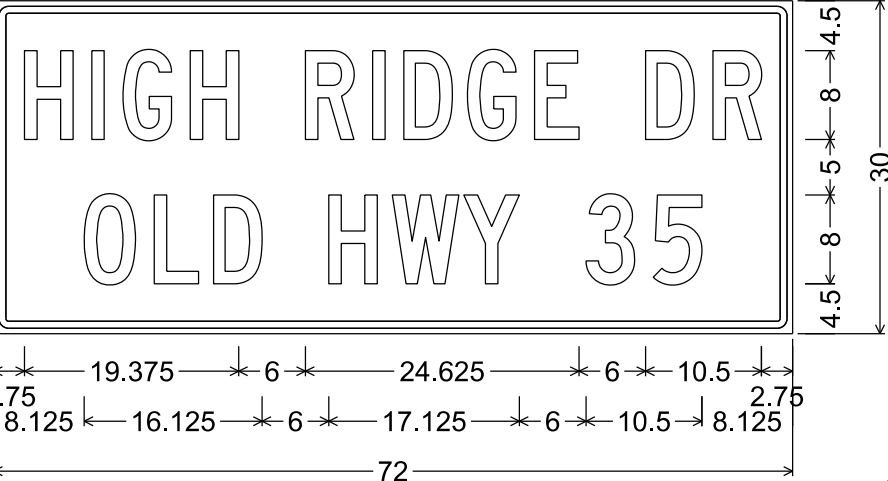
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

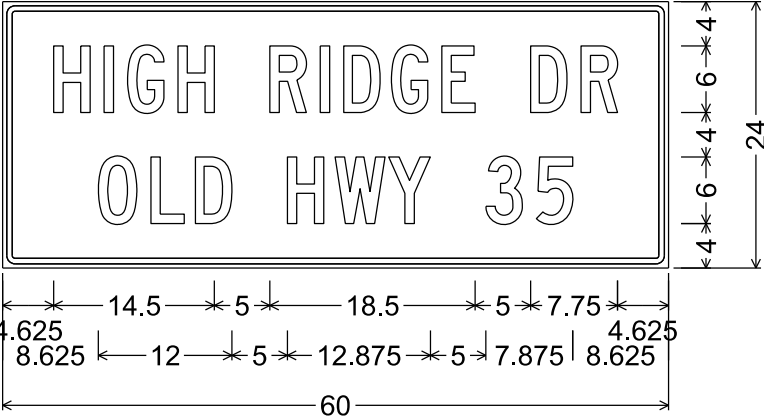
FHWA



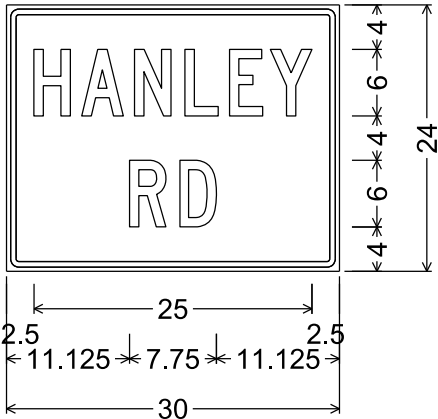
3.000" Radius, 1.000" Border, 0.750" Indent



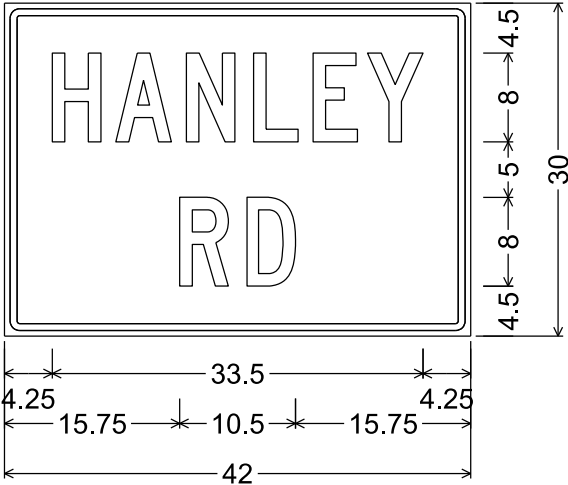
1.375" Radius, 0.625" Border, 0.500" Indent



1.125" Radius, 0.500" Border, 0.375" Indent



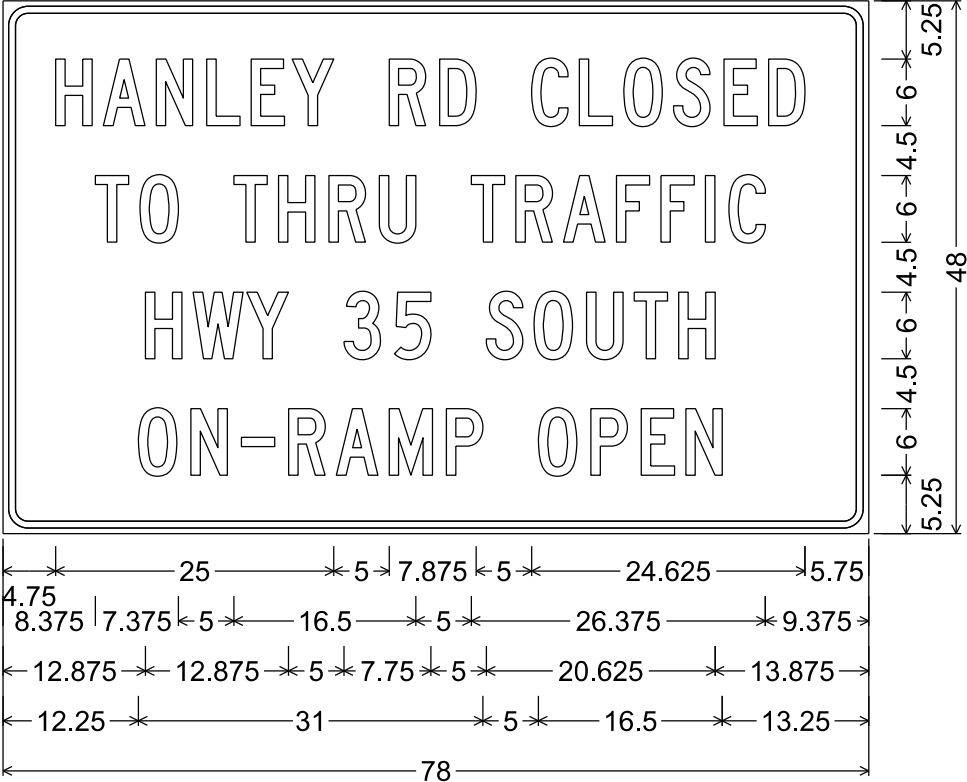
1.125" Radius, 0.500" Border, 0.375" Indent



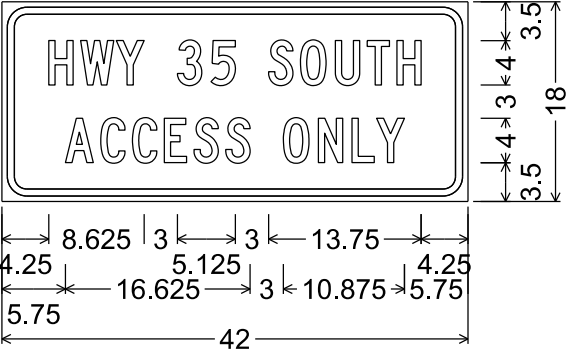
1.375" Radius, 0.625" Border, 0.500" Indent

NOTES

- 1. Fixed Message Type II Signs - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



Wisconsin Department of Transportation

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