

ORDER OF SHEETS

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

TOTAL SHEETS = 90

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DUBUQUE - JANESVILLE

VARIOUS LOCATIONS

STH 11

LAFAYETTE COUNTY

STATE PROJECT NUMBER

1706-00-71

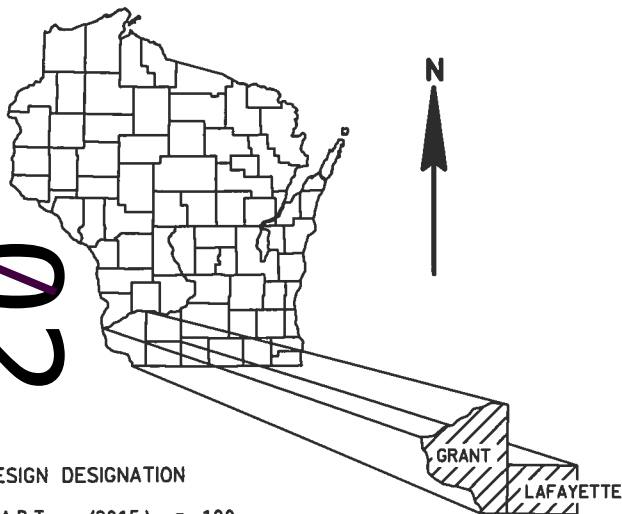
STATE PROJECT

1706-00-71

FEDERAL PROJECT

PROJECT

CONTRACT



DESIGN DESIGNATION

A.A.D.T. (2015)	=	100
A.A.D.T. (2035)	=	115
D.H.V. (2035)	=	10
D.D.	=	100.0
T.	=	100.0%
DESIGN SPEED	=	25-55 M.P.H.
ESALS	=	330,000

BEGIN PROJECT

STA 100+28.61A

Y = 423,495.812

X = 894,067.177

MATCH EXISTING

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	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

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

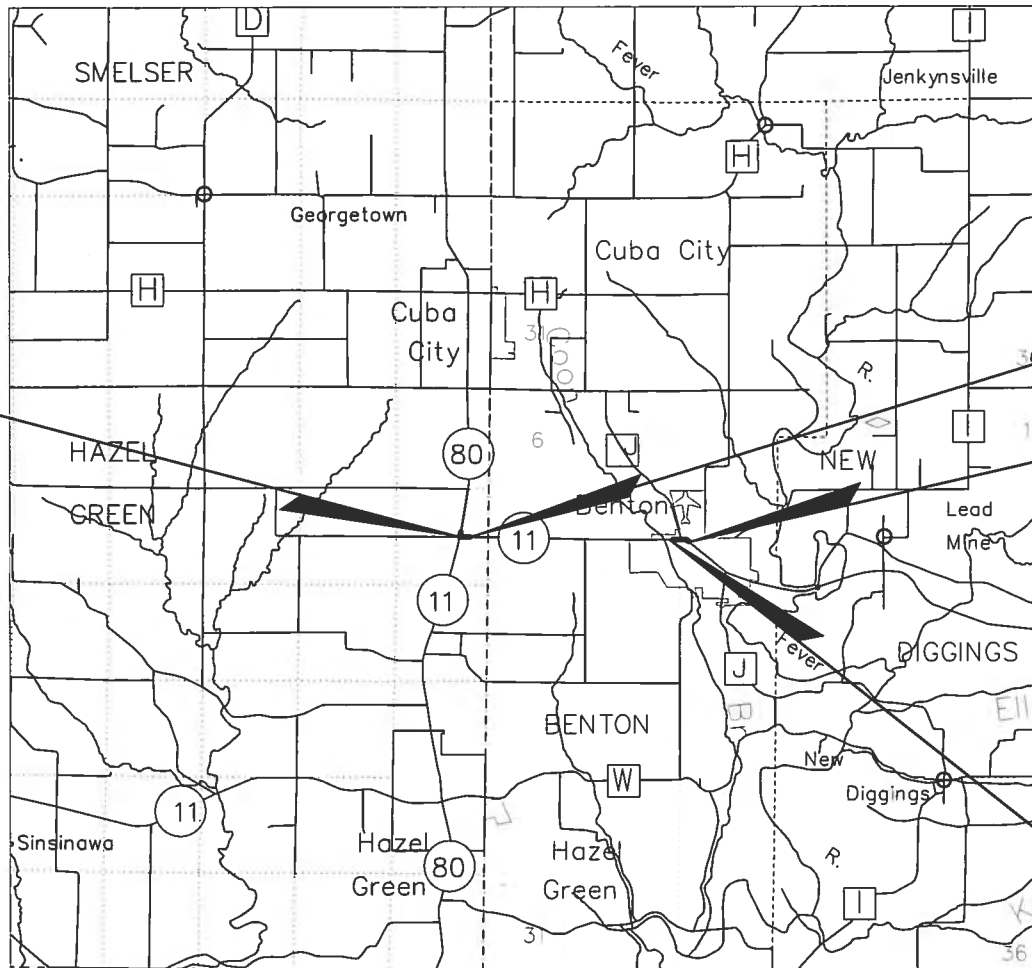
TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE



END CONSTRUCTION

STA 102+98.13A

END PROJECT

STA 13+65.40EB

BEGIN CONSTRUCTION

STA 12+01.65EB

Y = 127,058.552

X = 410,486.984

MATCH EXISTING

LAYOUT

SCALE 0 2MI

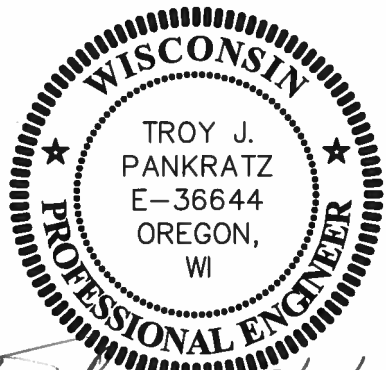
TOTAL NET LENGTH OF CENTERLINE = 0.000 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, GRANT/LAFAYETTE COUNTIES, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY

Mead & Hunt

Mead & Hunt, Inc.
2440 Deming Way
Middleton, WI 53562
608.273.6380
fax: 608.273.6391
www.meadhunt.com



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JEWELL ASSOCIATES ENGINEERS, INC.
Designer	MEAD & HUNT, INC.
Project Manager	TROY PANKRATZ
Regional Examiner	
Regional Supervisor	KURT JOHNSON
C.O. Reviewer	

APPROVED FOR THE DEPARTMENT

DATE: 2/23/2015

(Signature)

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE APPROXIMATE USGS DATUM NAVD 88 (2007).

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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.

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOIL, FERTILIZED, SEEDED AND EROSION MATTED.

BEARINGS SHOWN ON THE PLANS ARE GROUND BEARINGS TO THE NEAREST SECOND.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

CONSTRUCT INSIDE EDGE OF TERRACE 1/4-INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

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

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON OR ROCK EXCAVATION.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

EXISTING PIPE CULVERT AND/OR CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR SHALL BASE ITS BID ON ACTUAL FIELD CONDITIONS.

ASPHALTIC SURFACE SHALL BE PLACED IN ONE SINGULAR LAYER AND HAVE A THICKNESS OF 4-INCHES.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

CONTRACTION JOINT SPACING FOR 8-INCH CONCRETE IS NOT TO EXCEED 12 FEET.

ORDER OF SECTION 2 SHEETS


- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- EROSION CONTROL DETAILS
- PERMANENT SIGNING AND MARKING DETAILS
- TRAFFIC CONTROL DETAILS
- ALIGNMENT DETAILS

UTILITY CONTACTS

ALLIANT ENERGY ELECTRICITY AND GAS/PETROLEUM ATTN: MR. JASON HOGAN SUITE 1000 4902 N. BILTMORE LANE MADISON, WI 53718 TELEPHONE: (608) 458-4871 EMAIL: JASONHOGAN@ALLIANTENERGY.COM	* CUBA CITY TELEPHONE EXCHANGE COMPANY COMMUNICATION LINE ATTN: MR. KEN McWILLIAMS 121 N. WASHINGTON ST. CUBA CITY, WI 53807 TELEPHONE: (608) 744-2154 EMAIL: TELEFON@PCII.NET	NORTHERN NATURAL GAS COMPANY GAS/PETROLEUM ATTN: MR. TOM DICKSON 8101 BIRCHWOOD CT. SUITE F JOHNSTON, IA 50131 TELEPHONE: (515) 226-2016 EMAIL: TOM.DICKSON@NNGCO.COM
BENTON MUNICIPAL ELECTRIC AND WATER UTILITY ELECTRICITY AND WATER ATTN: MR. DARNELL HENDRICKS 48 W. MAIN ST. P.O. BOX 53 BENTON, WI 53803 TELEPHONE: (608) 759-3721 EMAIL: DHENDRICKS@BENTONWI.US	MEDIACOM LLC WISCONSIN COMMUNICATION ATTN: MR. TIM ORCUTT 3033 ASBURY RD. DUBUQUE, IA 52001 TELEPHONE: (608) 326-0478 EMAIL: TORCUTT@MEDIACOMCC.COM	CENTURYLINK COMMUNICATION ATTN: MR. STEVE BLADO 333 N. FRONT ST. P.O. BOX 4800 LA CROSSE, WI 54602 TELEPHONE: (608) 796-5543 EMAIL: STEVE.BLADO@CENTURYTEL.COM

WISDOT CONTACT WISDOT, SOUTHWEST REGION 2101 WRIGHT ST. MADISON, WI 53704 ATTN: MS. VICKI ROMENESKO, P.E. TELEPHONE: 608-246-5333 E-MAIL: VICKI.ROMENESKO@DOT.WI.GOV	CONSULTANT CONTACT MEAD & HUNT, INC. 2440 DEMING WAY MIDDLETON, WI 53562 ATTN: MR. TROY PANKRATZ, P.E. TELEPHONE: 608-273-6380 E-MAIL: TROY.PANKRATZ@MEADHUNT.COM	DNR LIAISON DEPARTMENT OF NATURAL RESOURCES SOUTH CENTRAL DISTRICT 3911 SOUTH FISH HATCHERY ROAD FITCHBURG, WI 53711 ATTN: MR. ERIC HEGGELUND TELEPHONE: 608-275-3301 E-MAIL: ERIC.HEGGELUND@WISCONSIN.GOV
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STANDARD ABBREVIATIONS

ABUT	ABUTMENT	FP	FENCE POST	REQD	REQUIRED
AP	ACCESS POINT	FERT	FERTILIZE	RES	RESIDENCE OR RESIDENTIAL
AR	ACCESS RIGHTS	FE	FIELD ENTRANCE	RW	RETAINING WALL
AC	ACRE	F	FILL	RT	RIGHT
AGG	AGGREGATE	FG	FINISH GRADE	RHF	RIGHT-HAND FORWARD
AH	AHEAD	FAB	FLASHING ARROW BOARD	R/W	RIGHT-OF-WAY
ET AL	AND OTHERS	HES	HIGH EARLY STRENGTH	R	RIVER
	ANGLE	H	HOUSE	RD	ROAD
ASPH	ASPHALTIC	HYD	HYDRANT	RDWY	ROADWAY
APM	ASPHALTIC PLANT MIX	IN DIA	INCH DIAMETER	SALV	SALVAGED
AVG	AVERAGE	INTERS	INTERSECTION	SSS	SANITARY AND STORM SEWER
AADT	ANNUAL AVERAGE DAILY TRAFFIC	INV	INVERT	SAN S	SANITARY SEWER
BK	BACK	IP	IRON PIPE OR PIN	SEC	SECTION
BF	BACK FACE	JT	JOINT	SHLDR	SHOULDER
BL or B/L	BASE LINE	JCT	JUNCTION	SHR	SHRINKAGE
BM	BENCH MARK	LT	LEFT	SW	SIDEWALK
BLK	BLOCK	LHF	LEFT-HAND FORWARD	SB#	SIGNAL BASE
BR	BRIDGE	L	LENGTH OF CURVE	S	SOUTH
CB	CATCH BASIN	LIN FT or L	LINEAR FOOT	SB	SOUTHBOUND
CL or C/L	CENTER LINE	LC	LONG CHORD OF CURVE	SP	SPECIAL
CC	CENTER TO CENTER	LS	LUMP SUM	SC	SPECIAL CROSSING
	CENTRAL ANGLE OR DELTA	MAINT	MAINTENANCE	SPECS	SPECIFICATIONS
CH	CHORD	MH	MANHOLE	SQ	SQUARE
CH BRG	CHORD BEARING	MP	MARKER POST	SF or SQ FT	SQUARE FEET
CE	COMMERCIAL ENTRANCE	M	MARSH	SY or SQ YD	SQUARE YARD
CONC	CONCRETE	ML or M/L	MATCH LINE	STD	STANDARD
CB#	CONTROL BASE	MATL	MATERIAL	SDD	STANDARD DETAIL DRAWINGS
CORR	CORRUGATED	MB	MESSAGE BOARD	STH	STATE TRUNK HIGHWAYS
CACP	CORRUGATED ALUMINUM CULVERT PIPE	NOM	NOMINAL	STA	STATION
CAPA	CORRUGATED ALUMINUM PIPE ARCH	NRCPSS	NON REINFORCED CONCRETE PIPE STORM SEWER	SS	STORM SEWER
CSCP	CORRUGATED STEEL CULVERT PIPE	NC	NORMAL CROWN	SE	SUPERELEVATION
CSPA	CORRUGATED STEEL PIPE ARCH	NW or N/W	NORMAL WATER	SURF	SURFACE
CSPCP	CORRUGATED STEEL PIPE CATTLE PASS	N	NORTH	T	TANGENT
CO	COUNTY	Y	NORTH GRID COORDINATE	TEL	TELEPHONE
CTH	COUNTY TRUNK HIGHWAY	NB	NORTHBOUND	TEMP	TEMPORARY
CR	CREEK	NO	NUMBER	TI	TEMPORARY INTEREST
CR	CRUSHED	OBLIT	OBLITERATE	TLE	TEMPORARY LIMITED EASEMENT
CABC	CRUSHED AGGREGATE BASE COURSE	OL	OUT LOT	TPM	TEMPORARY PAVEMENT MARKING
CY or CUYD	CUBIC YARD	OD	OUTSIDE DIAMETER	TPMRT	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
CULV	CULVERT	PAVT	PAVEMENT	+	TON
CP	CULVERT PIPE	PERM	PERMANENT	TC	TOP OF CURB
CG	C & G CURB AND GUTTER	PLE	PERMANENT LIMITED EASEMENT	T or TN	TOWN
D	DEGREE OF CURVE	PU	PIPE UNDERDRAIN	TRANS	TRANSITION
DHV	DESIGN HOUR VOLUME	PUDT	PIPE UNDERDRAIN DRAIN	TL or T/L	TRANSIT LINE
DIA	DIAMETER	PUU	PIPE UNDERDRAIN UNPERFORATED	T	TRUCKS (PERCENT OF)
DD	DIRECTIONAL DISTRIBUTION	PT	POINT	TYP	TYPICAL
DISCH	DISCHARGE	PCC	POINT OF COMPOUND CURVE	UG	UNDERGROUND
DIST	DISTRICT	PC	POINT OF CURVATURE	USH	UNITED STATES HIGHWAY
DG	DITCH GRADE	PI	POINT OF INTERSECTION	VAR	VARIABLE
DOC	DOCUMENT	PT	POINT OF TANGENCY	V	VELOCITY OR DESIGN SPEED
DWY	DRIVEWAY	PVC	POLYVINYL CHLORIDE	VERT	VERTICAL
E	EAST	PCC	PORTLAND CEMENT CONCRETE	VC	VERTICAL CURVE
X	EAST GRID COORDINATE	LB Pound	LB POUND	VPCC	VERTICAL POINT OF COMPOUND
EB	EASTBOUND	PSI	POUNDS PER SQUARE INCH	Curve	CURVE
ELEC	ELECTRIC (AL)	PE	PRIVATE ENTRANCE	VPC	VERTICAL POINT OF CURVE
EL or ELEV	ELEVATION	PROJ	PROJECT	VPI	VERTICAL POINT OF INTERSECTION
EMB	EMBANKMENT	PL	PROPERTY LINE	VPRC	VERTICAL POINT OF REVERSE CURVE
EVP	EMERGENCY VEHICLE PREEMPT	R	RADIUS	VPT	VERTICAL POINT OF TANGENCY
EVPR	EMERGENCY VEHICLE PREEMPT RECEIVER	RP	RADIUS POINT	VIT	VITRIFIED
EW	ENDWALL	RR	RAILROAD	VOL	VOLUME
ENT	ENTRANCE	RM	RAMP METER	W	WATER
ESALS	EQUIVALENT SINGLE AXLE LOADS	R	RANGE	WM	WATER MAIN
EXC	EXCAVATION	RECY	RECYCLED	WV	WATER VALVE
EBS	EXCAVATION BELOW SUBGRADE	RL or R/L	REFERENCE LINE	W	WELL
EX or EXIST	EXISTING	RP	REFERENCE POINT	W	WEST
FL or F/L	FLOW LINE	RCCP	REINFORCED CONCRETE CULVERT PIPE	WB	WESTBOUND
FT	FOOT	CP	CULVERT PIPE	YD	YARD
FTG	FOOTING	RCHECP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE		
FDN	FOUNDATION	RCPA	REINFORCED CONCRETE PIPE ARCH		
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM	RCPCP	REINFORCED CONCRETE PIPE CATTLE PASS		
G	GARAGE	RCPSS	REINFORCED CONCRETE PIPE STORM SEWER		
GN	GRID NORTH	REBAR	REINFORCEMENT BAR		
EXP	EXPANSION	REINF	REINFORCING OR REINFORCEMENT		
FF	FACE TO FACE OR FRONT FACE	REL	RELOCATE (D)		
		REM	REMAINING		

PROJECT NO:1706-00-71

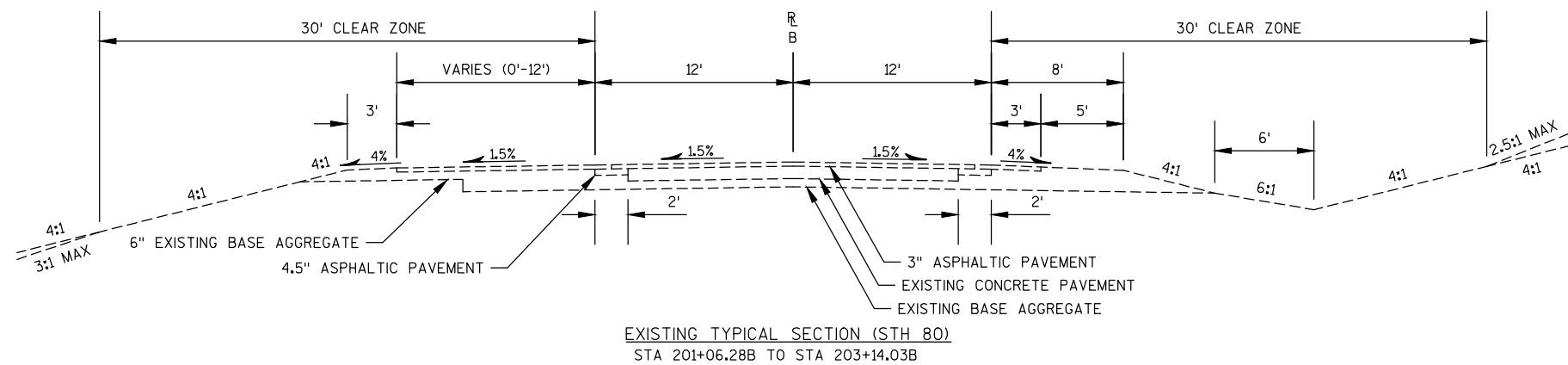
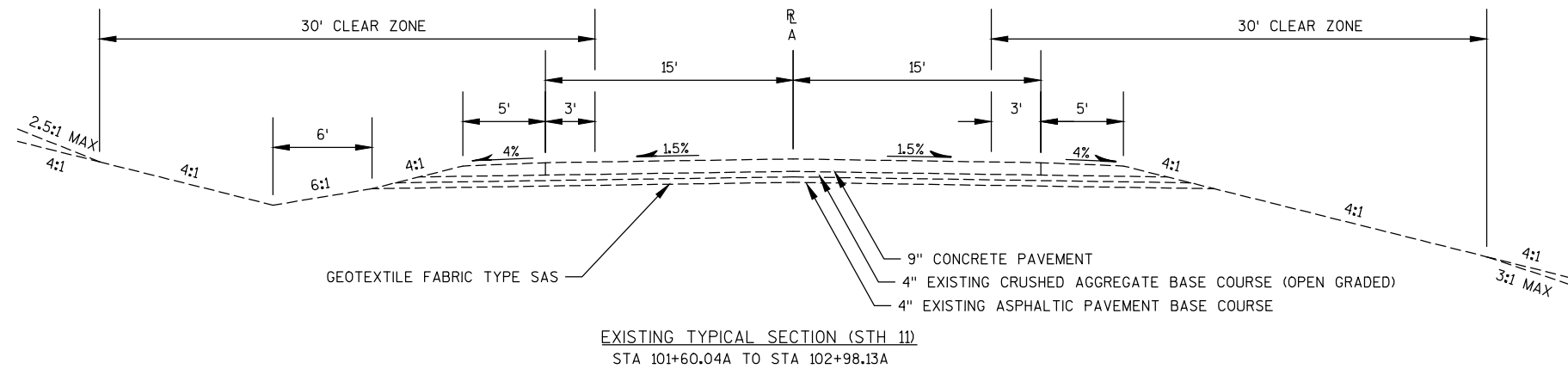
HWY: STH 11

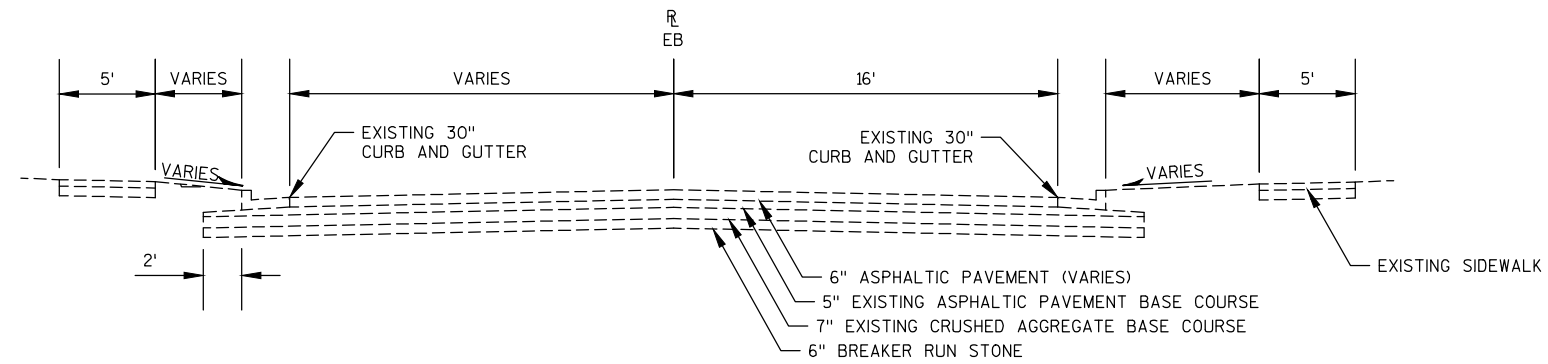
COUNTY: LAFAYETTE

GENERAL NOTES

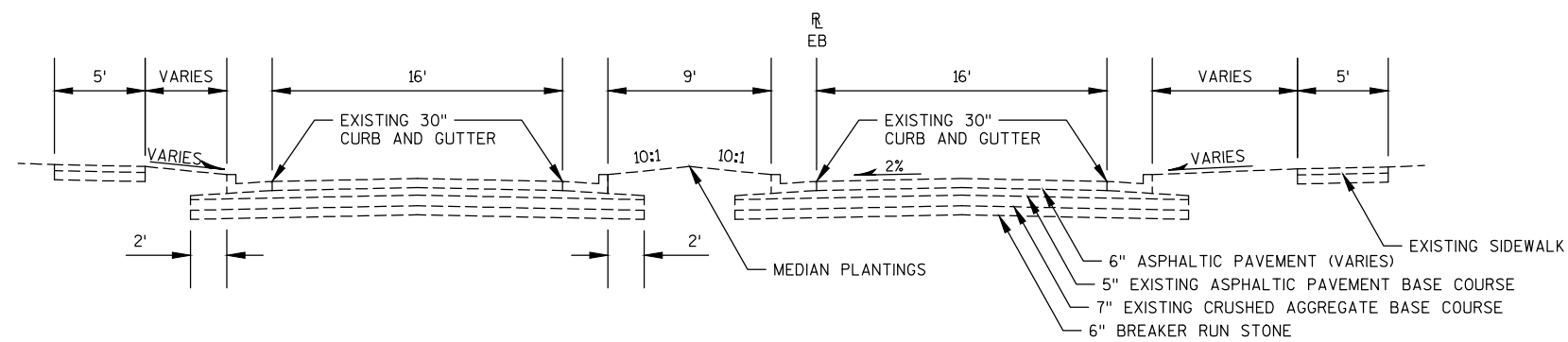
SHEET

E

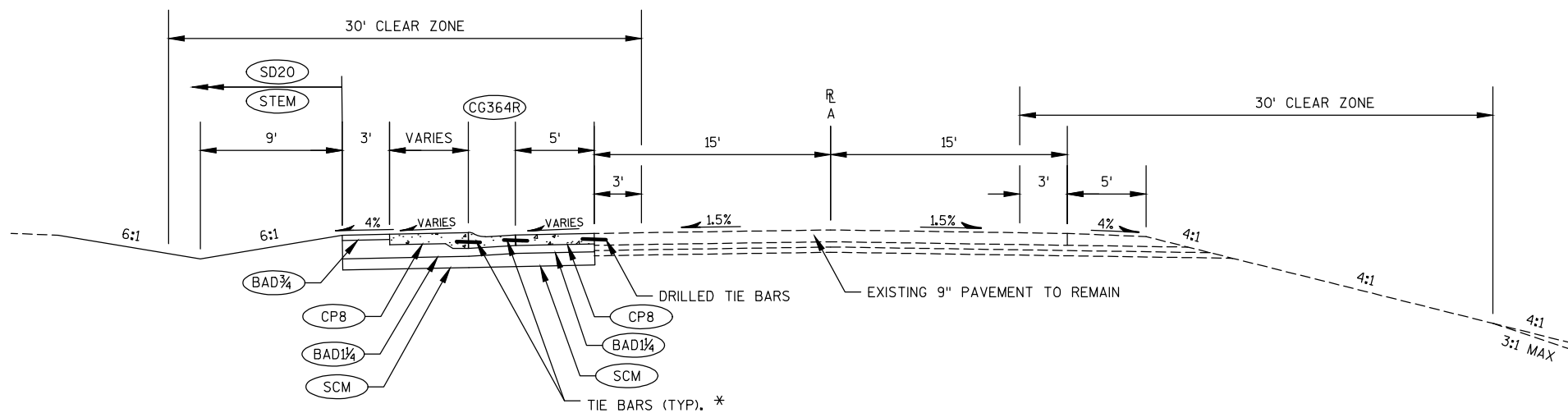




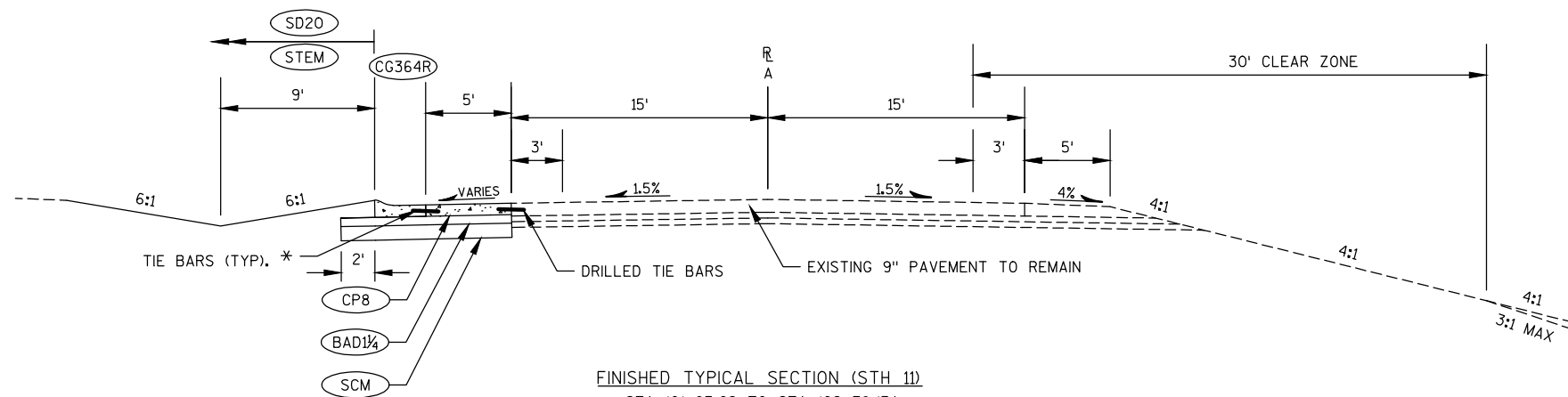
EXISTING TYPICAL SECTION (BENTON)
STA 12+01.65EB TO STA 12+29.41EB



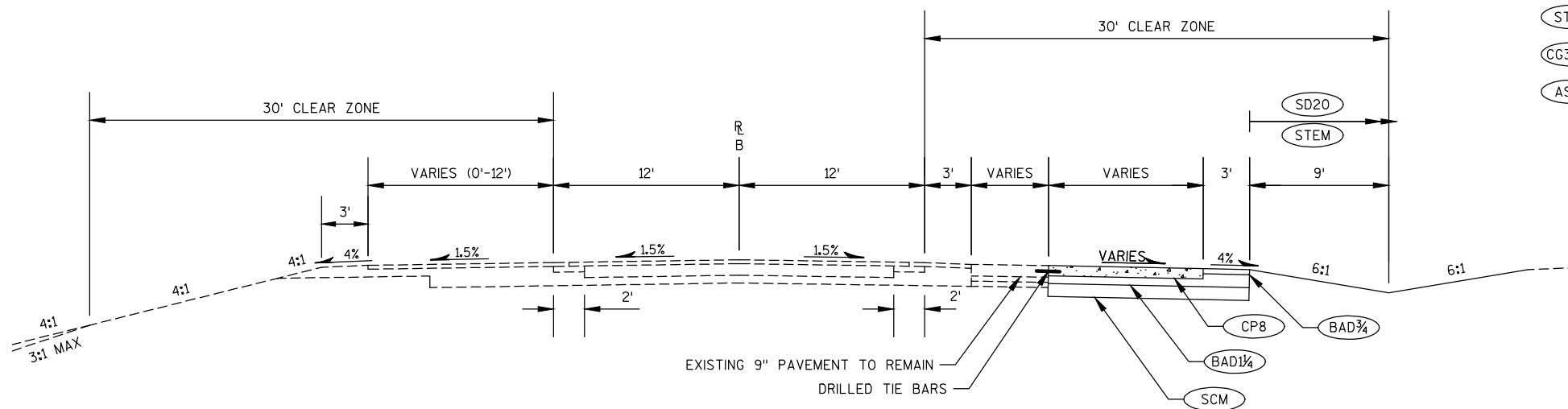
EXISTING TYPICAL SECTION (BENTON)
STA 12+29.41EB TO STA 13+65.41EB



FINISHED TYPICAL SECTION (STH 11)
STA 101+53.15A TO STA 101+93.62A



FINISHED TYPICAL SECTION (STH 11)
STA 101+93.62 TO STA 102+78.13A



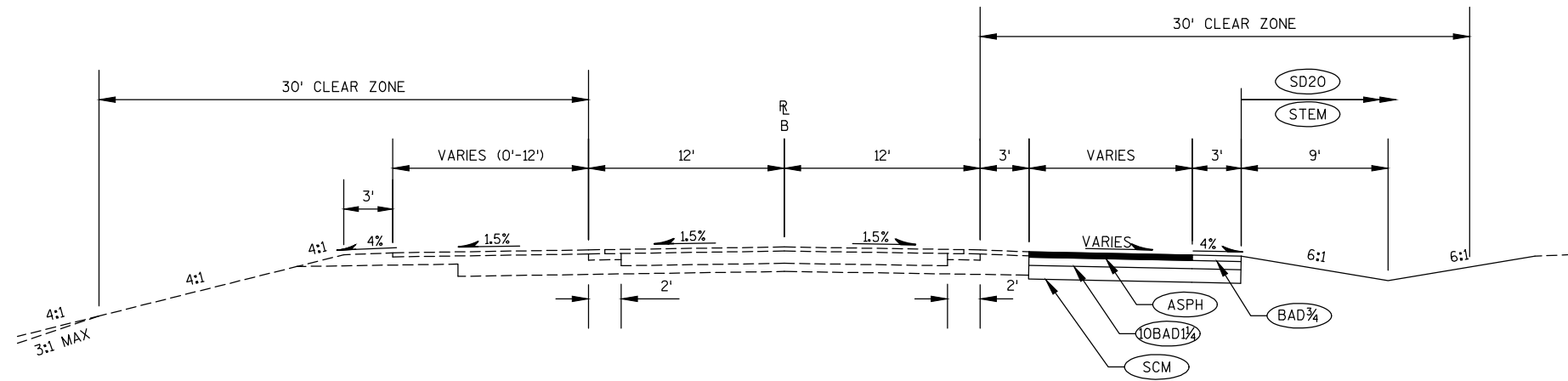
FINISHED TYPICAL SECTION (STH 80)
STA 201+06.28B TO STA 201+74.79B

* INCIDENTAL TO CURB & GUTTER BID ITEMS

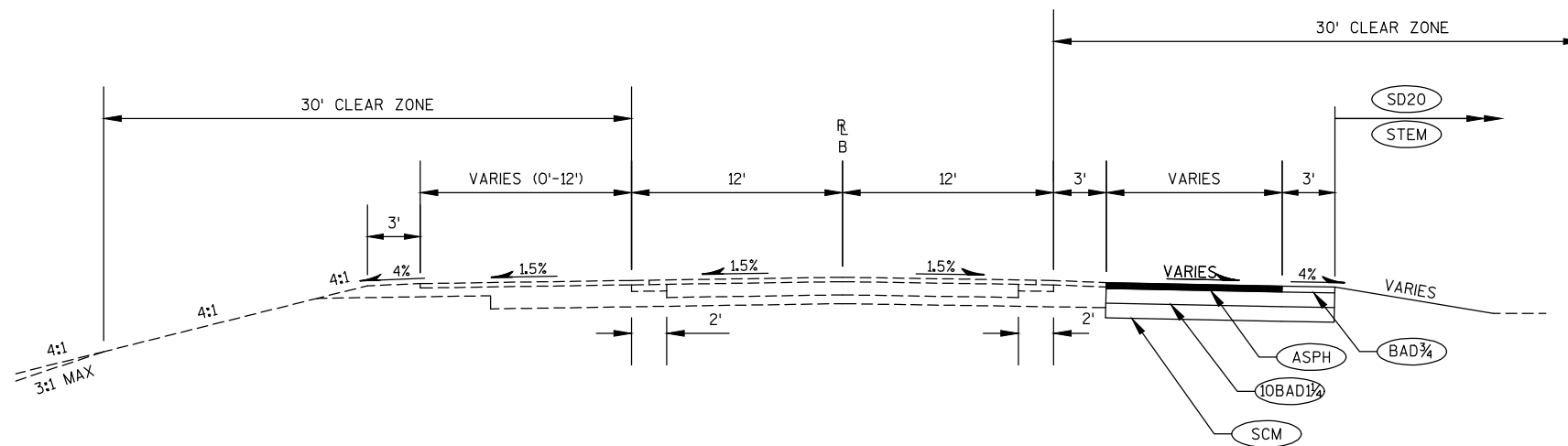
- CP8 CONCRETE PAVEMENT 8-INCH (COLORING CONCRETE RED)
- BAD1 1/4 6" BASE AGGREGATE DENSE 1 1/4-INCH
- 10BAD1 1/4 10" BASE AGGREGATE DENSE 1 1/4-INCH
- BAD3 4 4" BASE AGGREGATE DENSE 3/4-INCH
- SCM 10" SELECT CRUSHED MATERIAL
- SD20 SEEDING MIXTURE NO 20, FERTILIZER TYPE A
- STEM SALVAGED TOPSOIL AND EROSION MAT CLASS I TYPE B
- CG364R CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE R
- ASPH 4" ASPHALTIC SURFACE

2

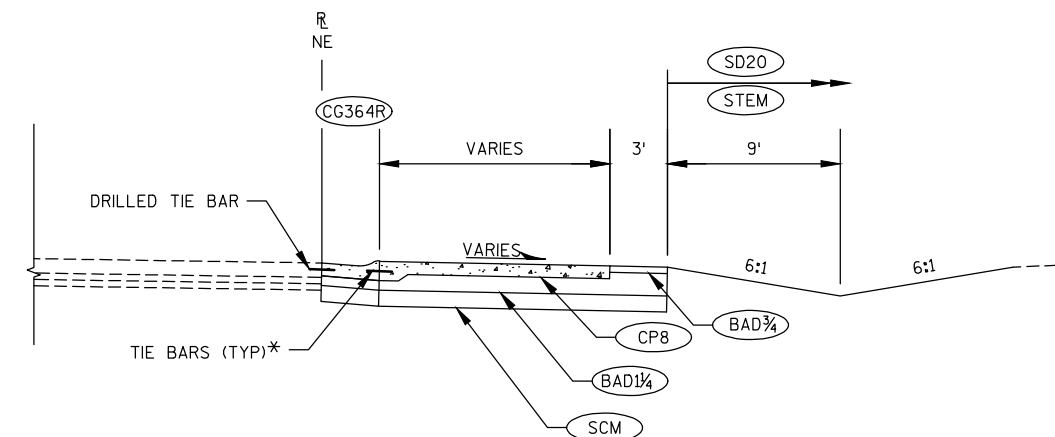
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FINISHED TYPICAL SECTION (STH 80)
STA 201+74.79B TO STA 202+14.18B



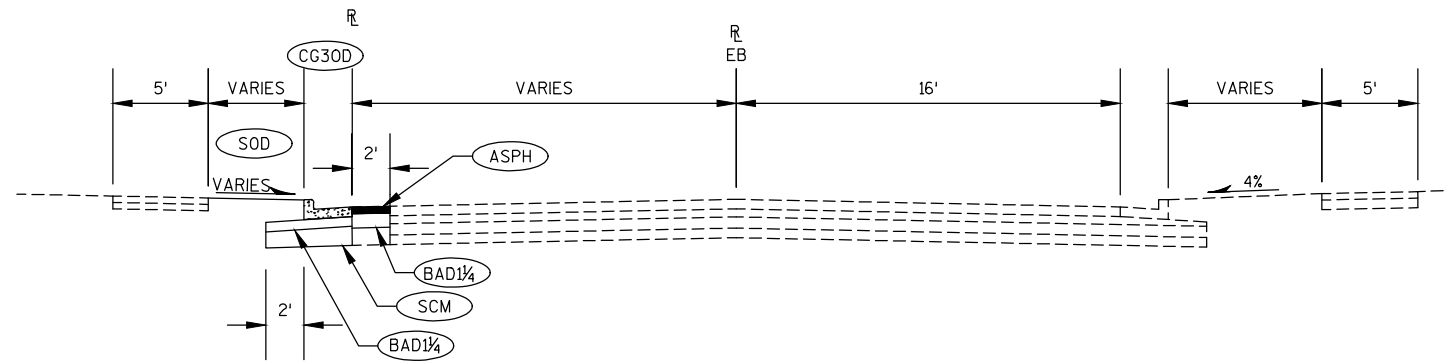
FINISHED TYPICAL SECTION (STH 80)
STA 202+14.18B TO STA 203+14.03B



FINISHED TYPICAL SECTION (NE RETURN AT STH 80 INT.)
STA 11+38.10NE TO STA 12+66.37NE

* INCIDENTAL TO CURB & GUTTER BID ITEMS

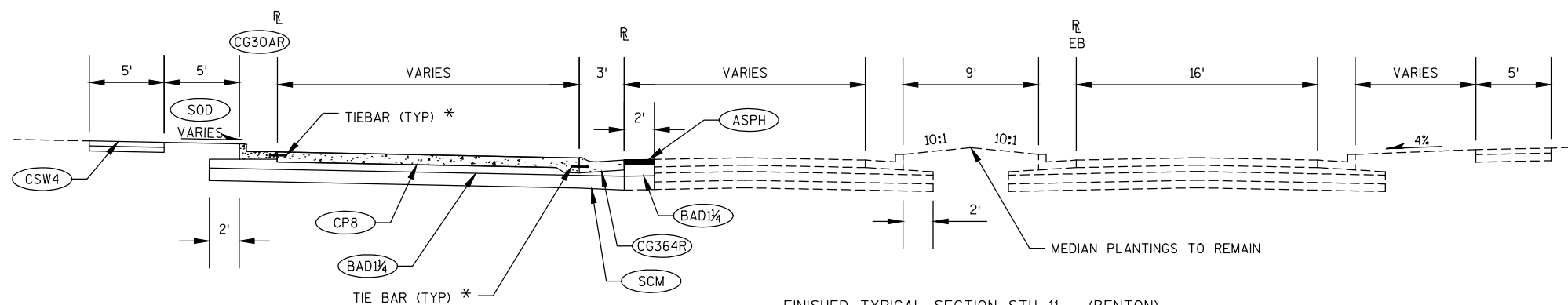
- | | |
|---------|---|
| CP8 | CONCRETE PAVEMENT 8-INCH (COLORING CONCRETE RED) |
| BAD1¼ | 6" BASE AGGREGATE DENSE 1¼-INCH |
| 10BAD1¼ | 10" BASE AGGREGATE DENSE 1¼-INCH |
| BAD¾ | 4" BASE AGGREGATE DENSE ¾-INCH |
| SCM | 10" SELECT CRUSHED MATERIAL |
| SD20 | SEEDING MIXTURE NO 20, FERTILIZER TYPE A |
| STEM | SALVAGED TOPSOIL AND EROSION MAT CLASS I TYPE B |
| CG364R | CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE R |
| ASPH | 4" ASPHALTIC SURFACE |



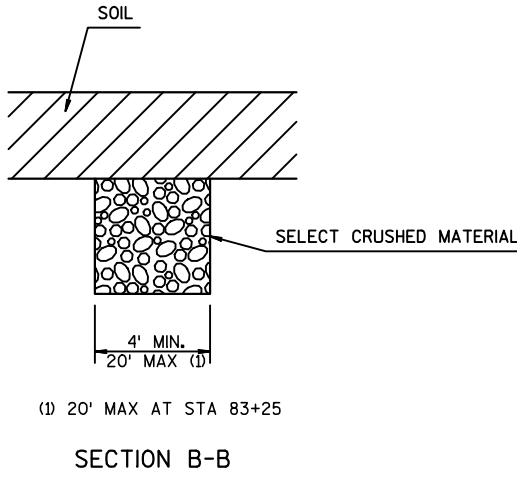
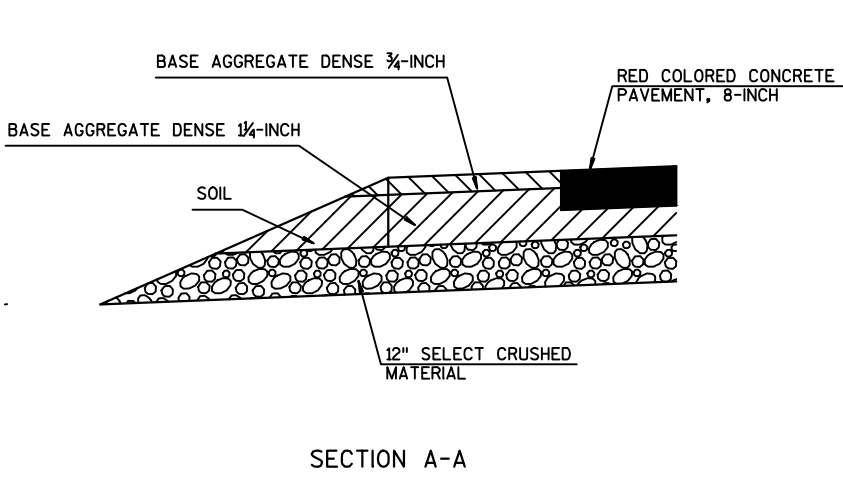
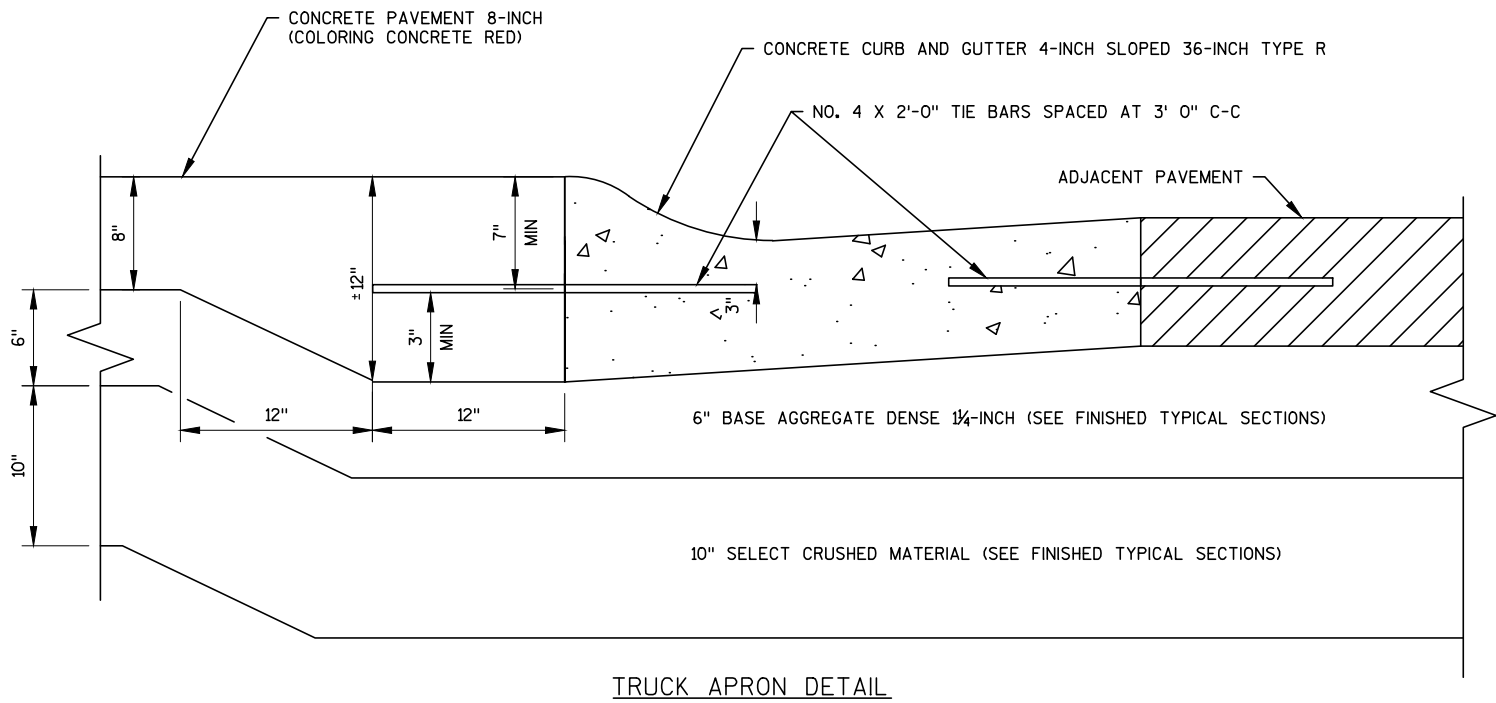
FINISHED TYPICAL SECTION STH 11 - (BENTON)
STA 12+02.18EB TO STA 12+29.41EB

* INCIDENTAL TO CURB & GUTTER BID ITEMS

- (SOD) SOD LAWN, 4" TOPSOIL
- (BAD1 1/4) 6" BASE AGGREGATE DENSE 1 1/4-INCH
- (CSW4) CONCRETE SIDEWALK 4-INCH, 4" BASE AGGREGATE DENSE 1 1/4-INCH
- (CP8) CONCRETE PAVEMENT 8-INCH (COLORING CONCRETE RED)
- (CG364R) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE R
- (CG30D) CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (SCM) 10" SELECT CRUSHED MATERIAL
- (CG30AR) CONCRETE CURB AND GUTTER 30-INCH TYPE A (REJECT)
- (ASPH) 4" ASPHALTIC SURFACE

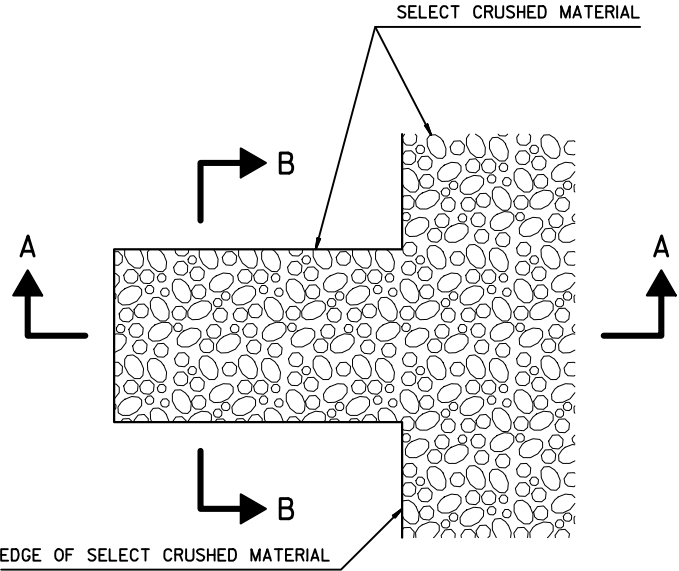


FINISHED TYPICAL SECTION STH 11 - (BENTON)
STA 12+29.41EB TO STA 13+65.41EB



RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

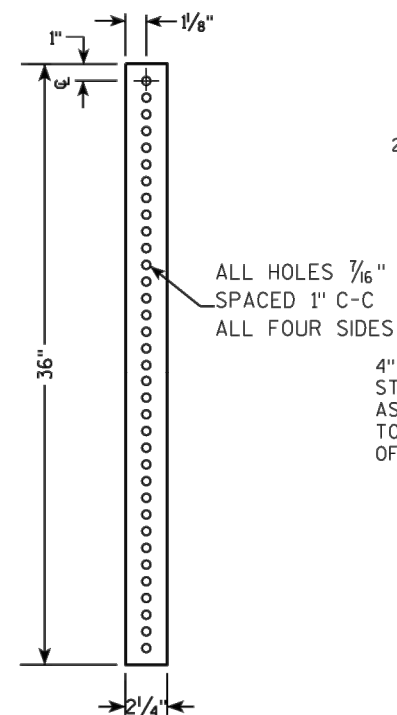


DRAINS ARE TO BE CONSTRUCTED AT LEAST EVERY 250'.
LOCATIONS AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL BE CONSIDERED INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL
DO NOT COVER OUTLET OF DRAINS WITH TOPSOIL

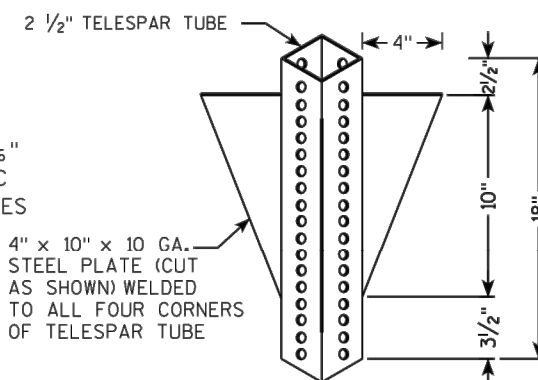
TOTAL PROJECT AREA = 0.70 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.48 ACRES

TELESCOPIC TUBING ANCHORS TWO PIECE SYSTEM

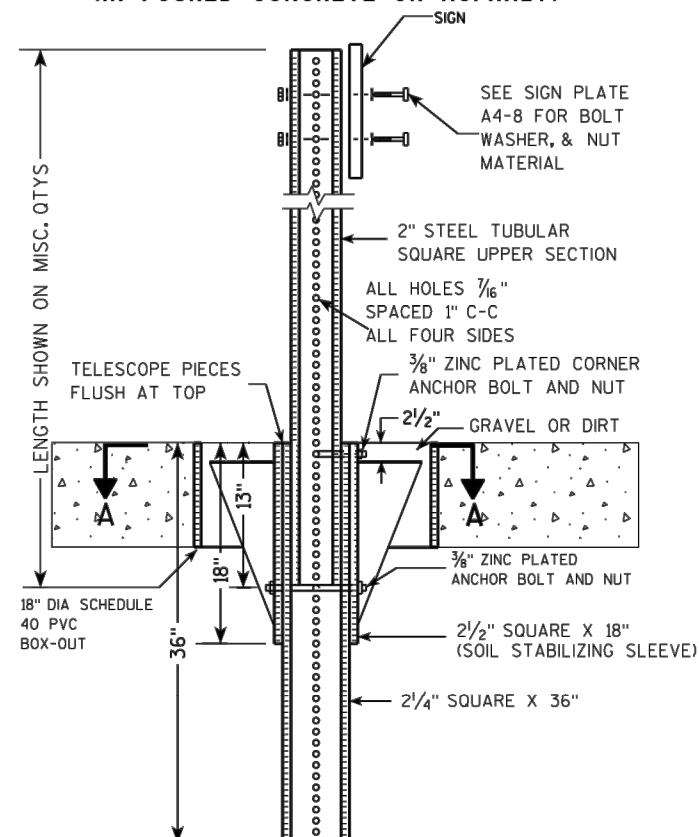
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



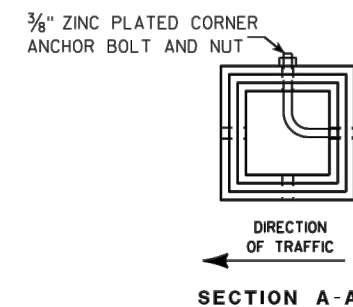
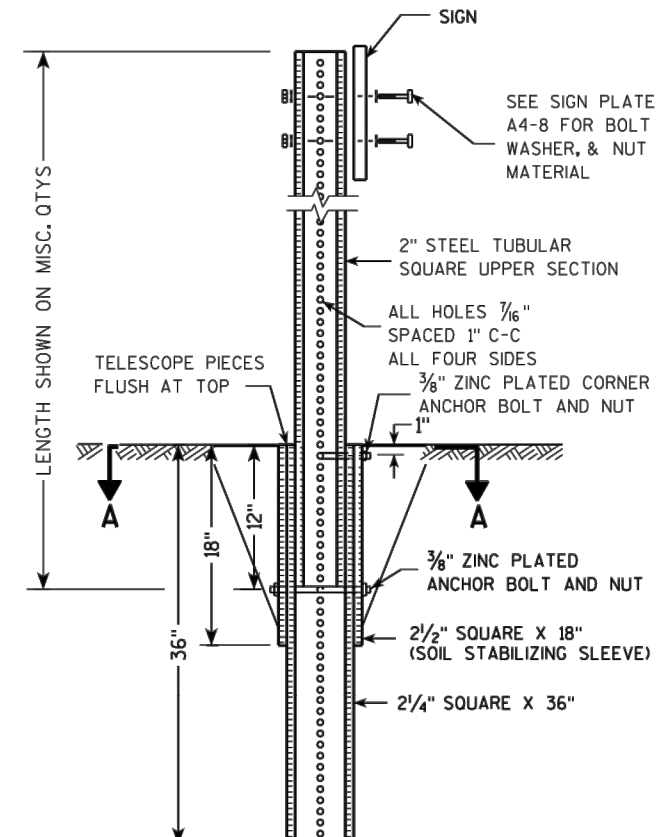
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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).

TRAFFIC CONTROL GENERAL NOTES

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

POST MOUNTED SIGNS LOCATED NEAR OR ADJACENT TO A SIDEWALK SHALL HAVE A 7' MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK.

FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN CROSS WALK LINES.

A CONTINUOUS TEMPORARY PEDESTRIAN ACCESS ROUTE INCLUDING ACCESSIBLE CROSSWALKS IS REQUIRED IN THE NORTH-SOUTH AND EAST-WEST DIRECTION OF THE RECONSTRUCT AREA AT ALL TIMES.

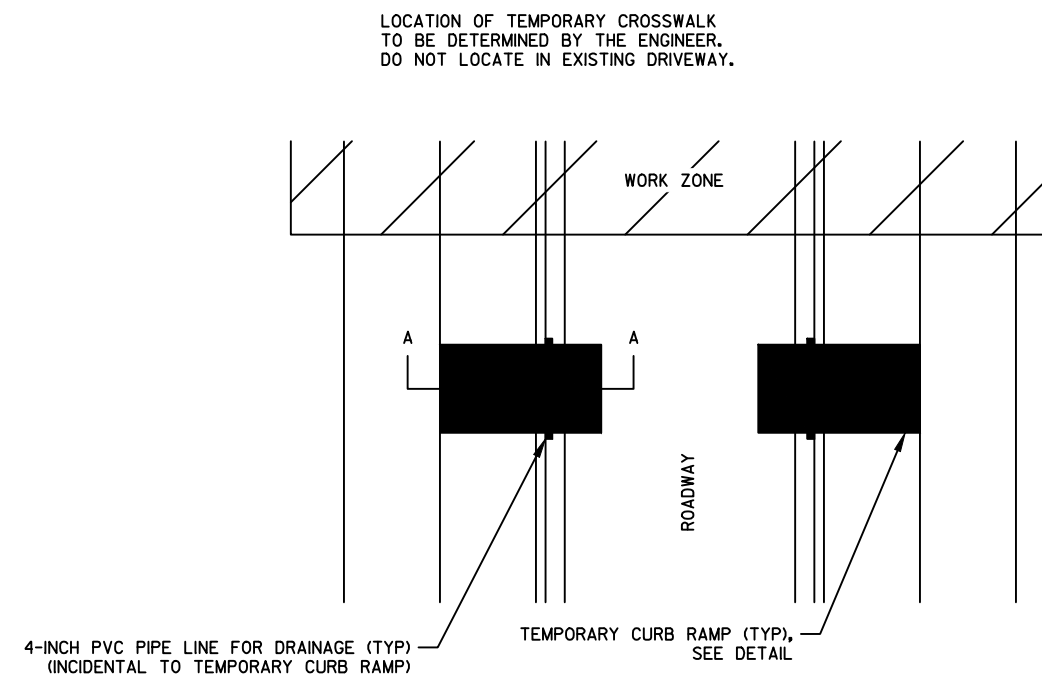
THE TEMPORARY PEDESTRIAN ACCESS ROUTE MAY BE EXISTING OR NEW SIDEWALK, ASPHALTIC SURFACE TEMPORARY, OR OTHER HARD STABLE SURFACE APPROVED BY THE ENGINEER.

THE TEMPORARY PEDESTRIAN ACCESS ROUTE CROSSWALKS SHALL BE MOVED AS NEEDED TO PROVIDE CONTINUOUS ACCESS THROUGHOUT THE RECONSTRUCTION PROJECT. REFER TO THE TRAFFIC CONTROL CONSTRUCTION DETAILS, TEMPORARY PEDESTRIAN ACCESS ROUTES, AND THE CONSTRUCTION DETAILS SHOWN ON THIS SHEET.

SURFACE APPLIED DETECTABLE WARNING AND 4-INCH PVC (IF NEEDED FOR DRAINAGE) SHALL BE INCIDENTAL TO THE ITEM, TEMPORARY CURB RAMP.

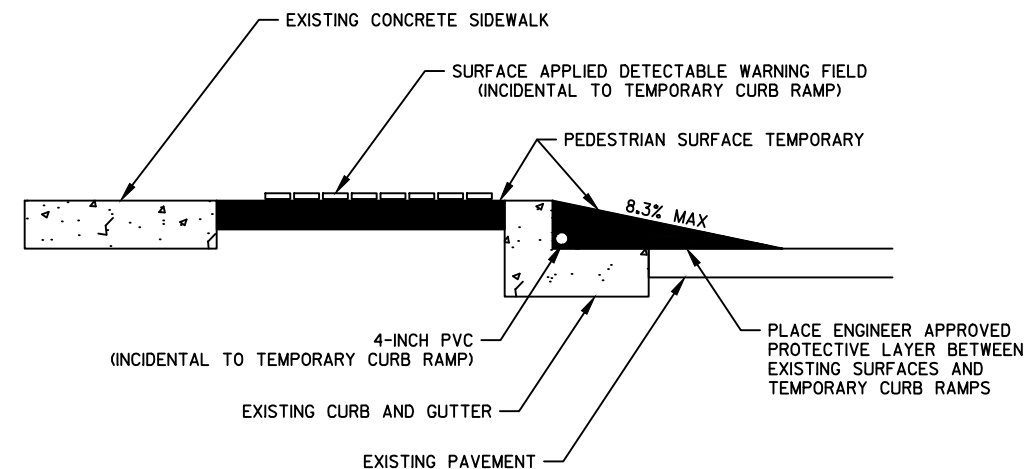
THE INTERSECTIONS IN THE WORK ZONE AREAS WILL PROVIDE ACCESSIBLE ACCESS BY STAGING THE CONSTRUCTION OF THE NEW CURB RAMPS TO PROVIDE CONTINUOUS PEDESTRIAN ACCESS USING TEMPORARY PEDESTRIAN ACCESS ROUTES TO SIDEWALK ON OPPOSITE SIDES OF THE ROADWAY. SEE TRAFFIC CONTROL, SIDEWALK CLOSURE STANDARD DETAIL DRAWING FOR SIGNING OF THE TEMPORARY CROSSWALK LOCATIONS.

PEDESTRIAN SAFETY BARRIER CAN BE PLASTIC SAFETY FENCE WITH PERIMETER WOODEN FRAME OR OTHER BARRIER SYSTEM APPROVED BY THE ENGINEER.



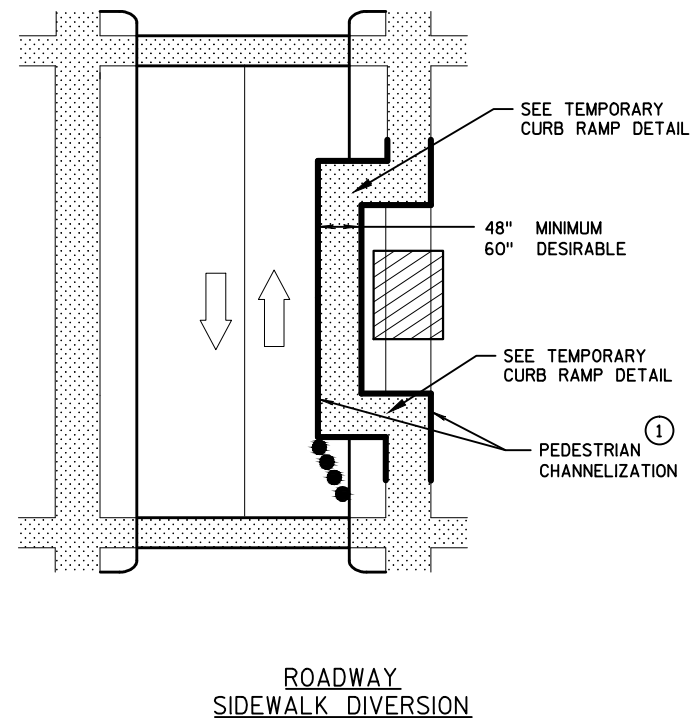
TEMPORARY CROSSWALK DETAIL

USED AT NON-SIGNALIZED INTERSECTIONS

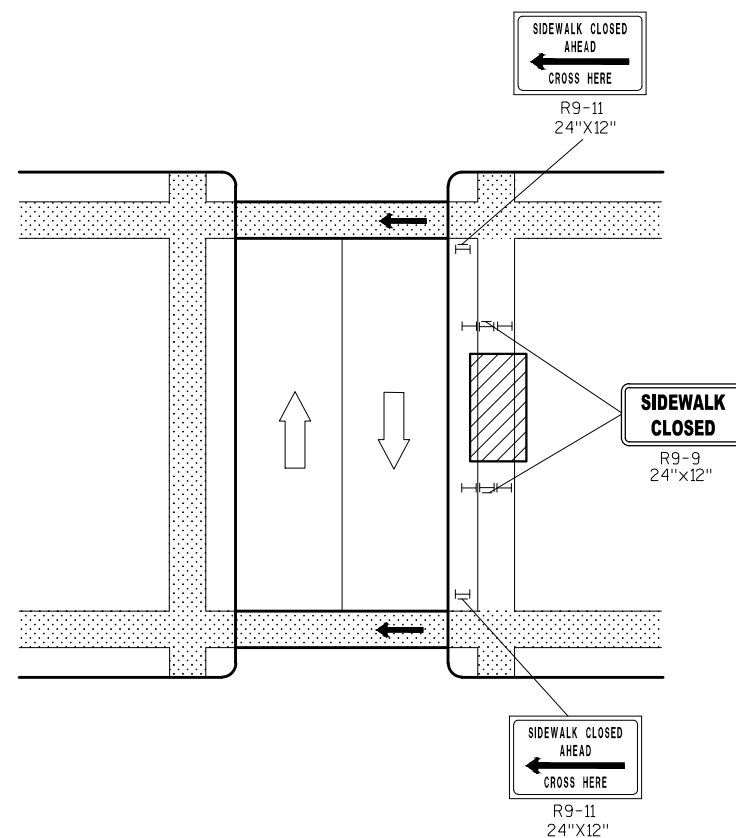


SECTION A-A
TEMPORARY CURB RAMP DETAIL

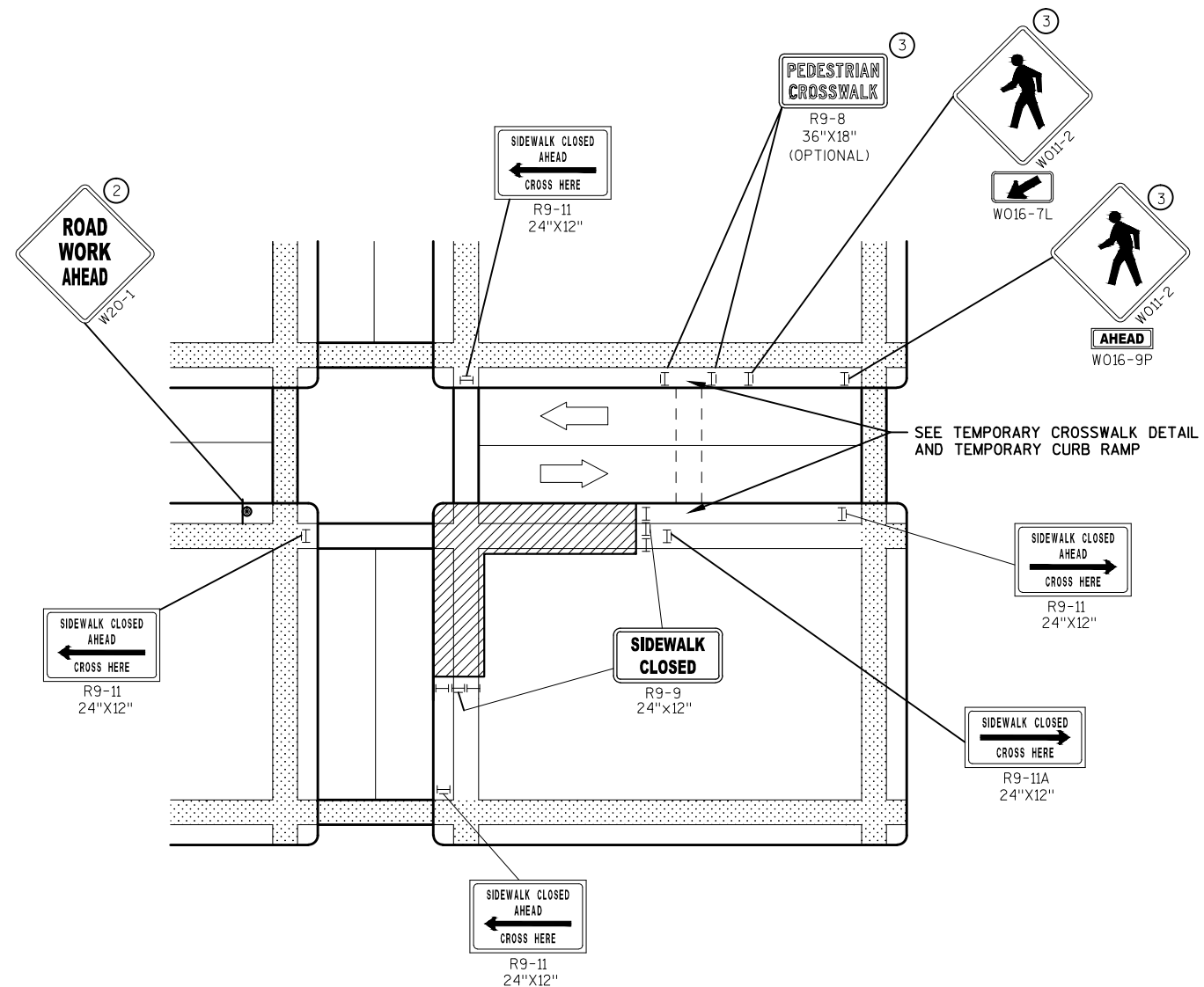
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



ROADWAY
SIDEWALK DIVERSION



SIDEWALK CLOSURE, MIDBLOCK



SIDEWALK CLOSURE, CORNER

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR OTHER PEDESTRIAN FACILITIES PROVIDE ADA COMPLIANT FACILITIES. INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES BY PROVIDING ADEQUATE SLOPE TRANSITIONS AND SURFACING.

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.

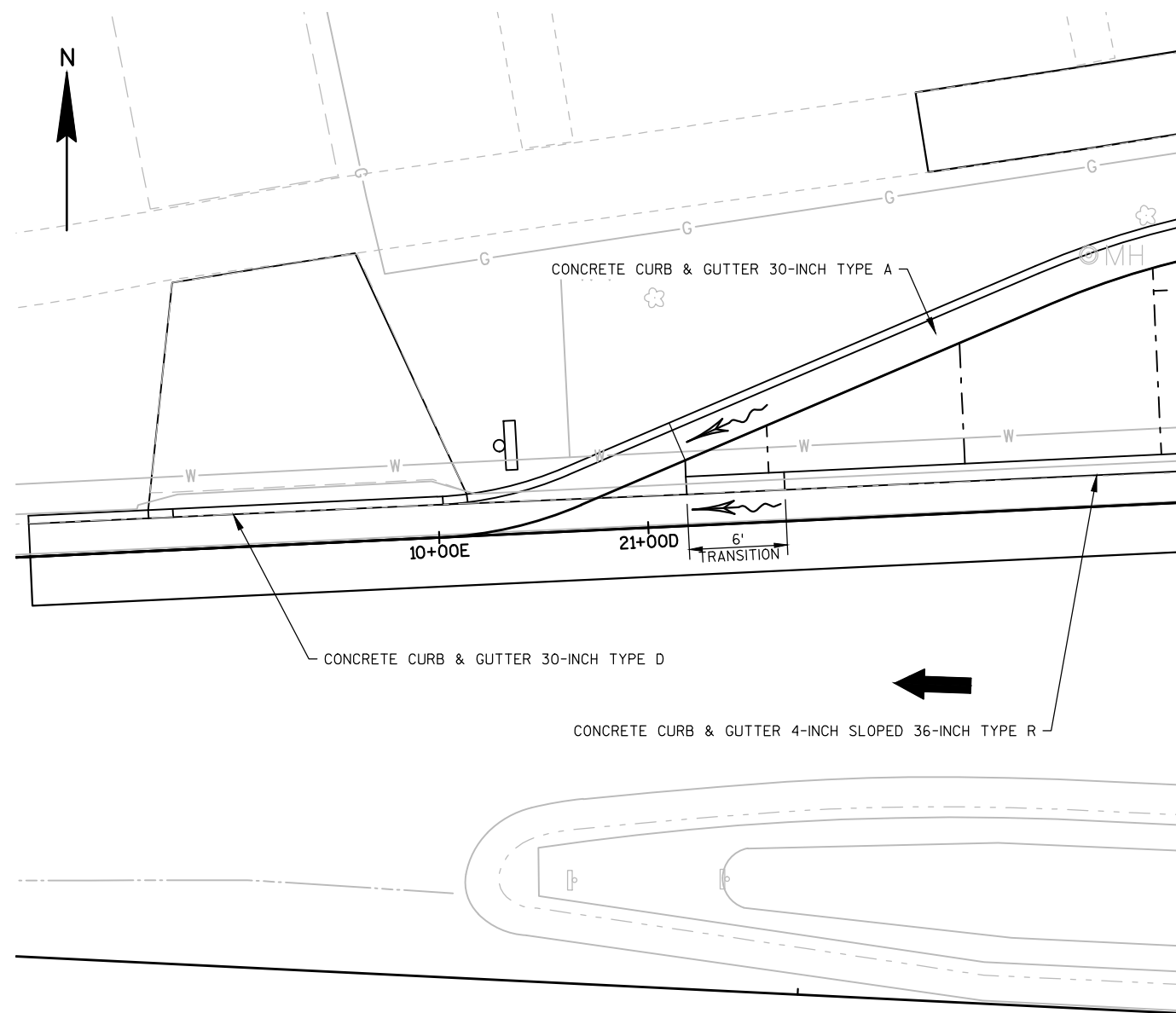
"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

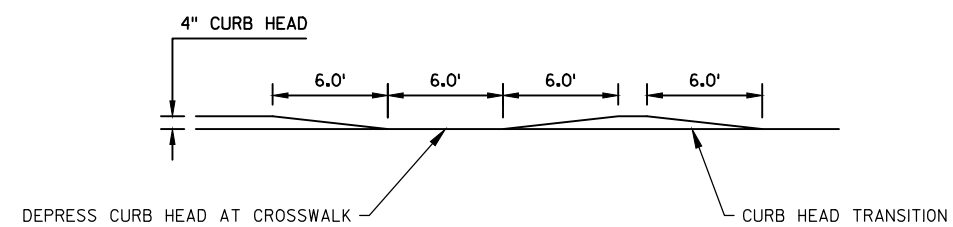
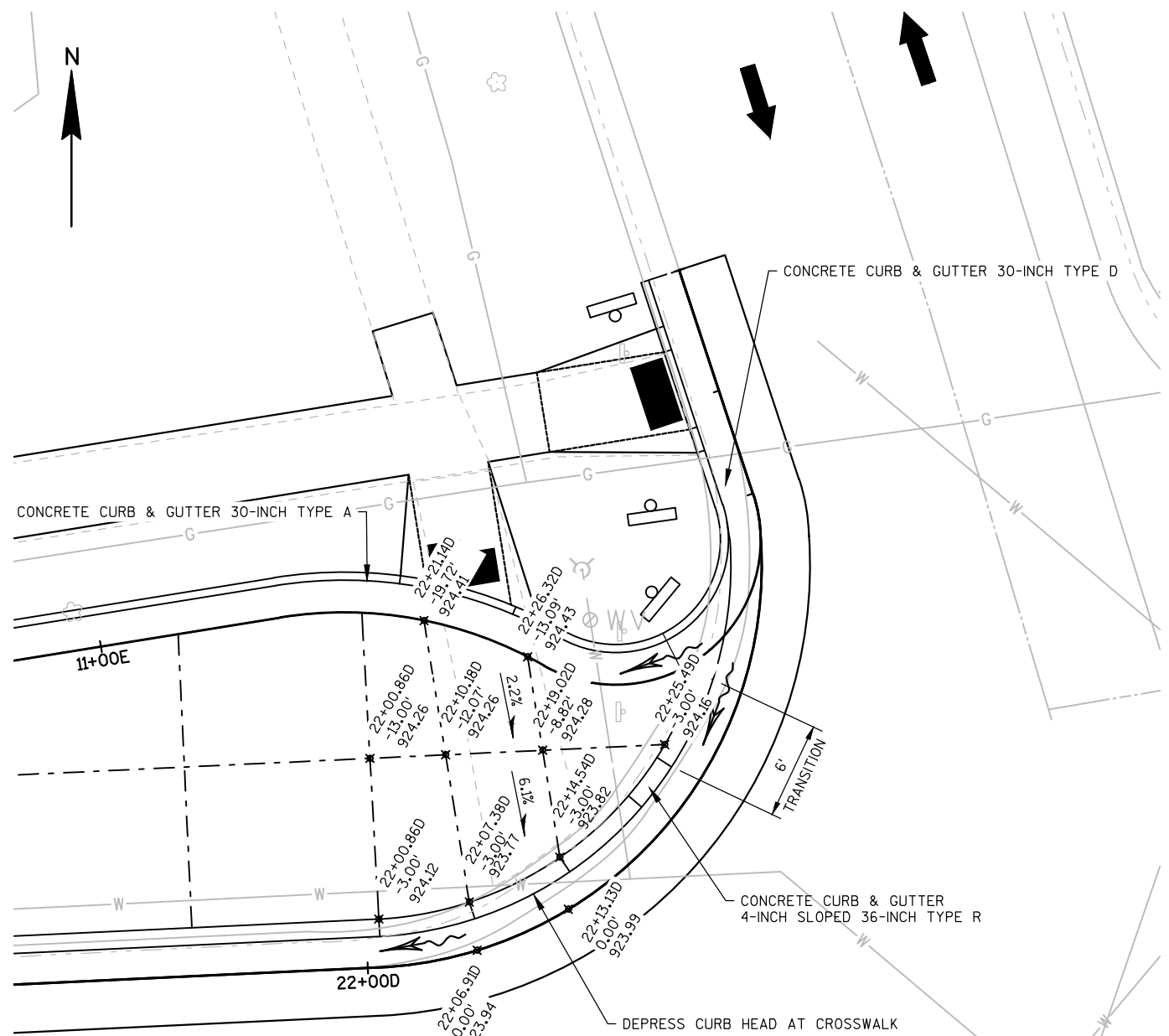
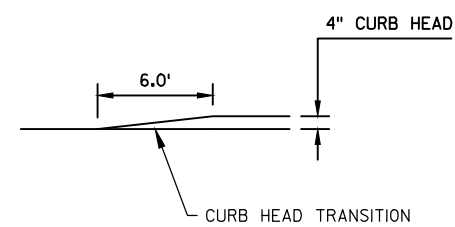
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGNS

LEGEND

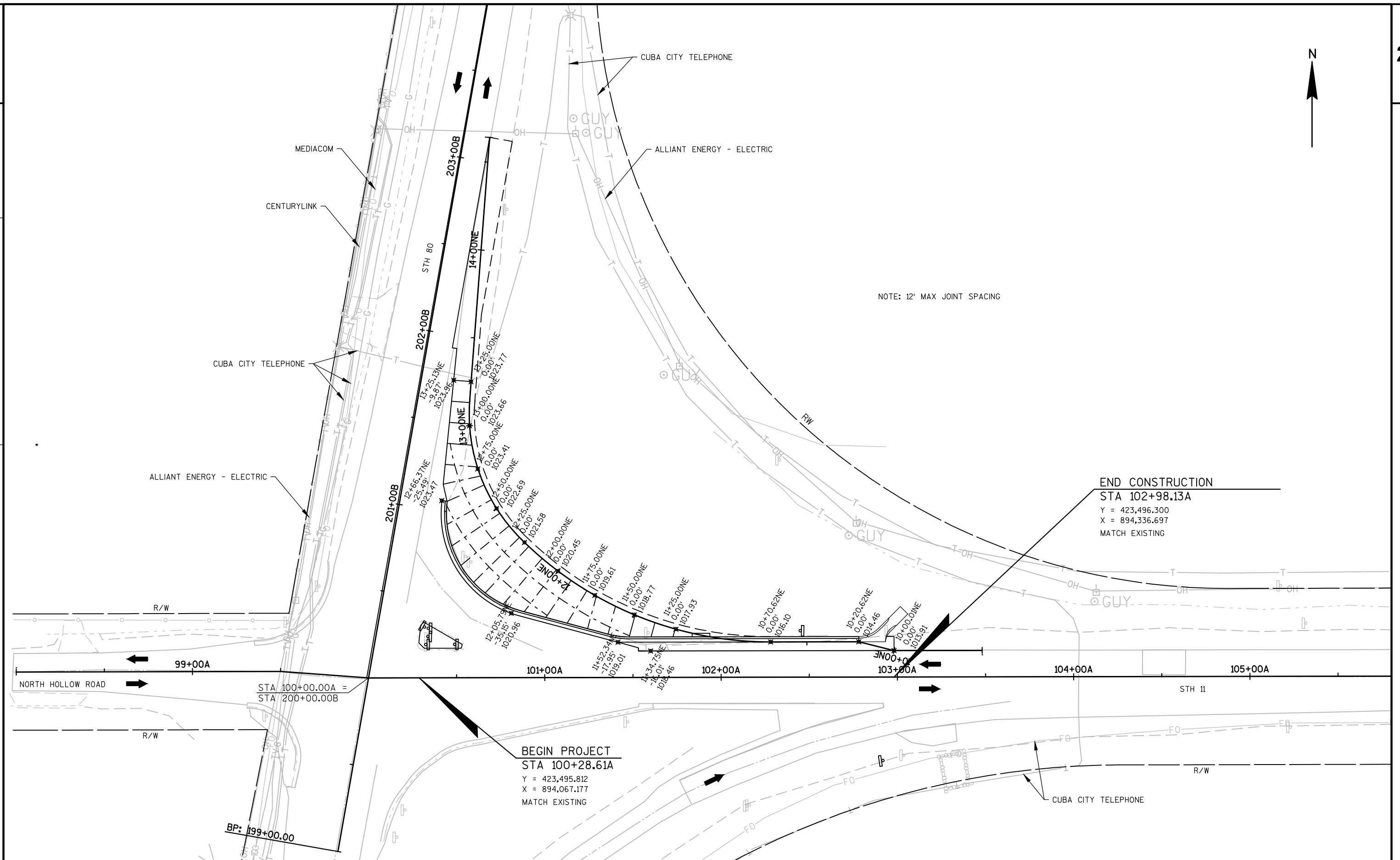
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE I I BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC



STH 11





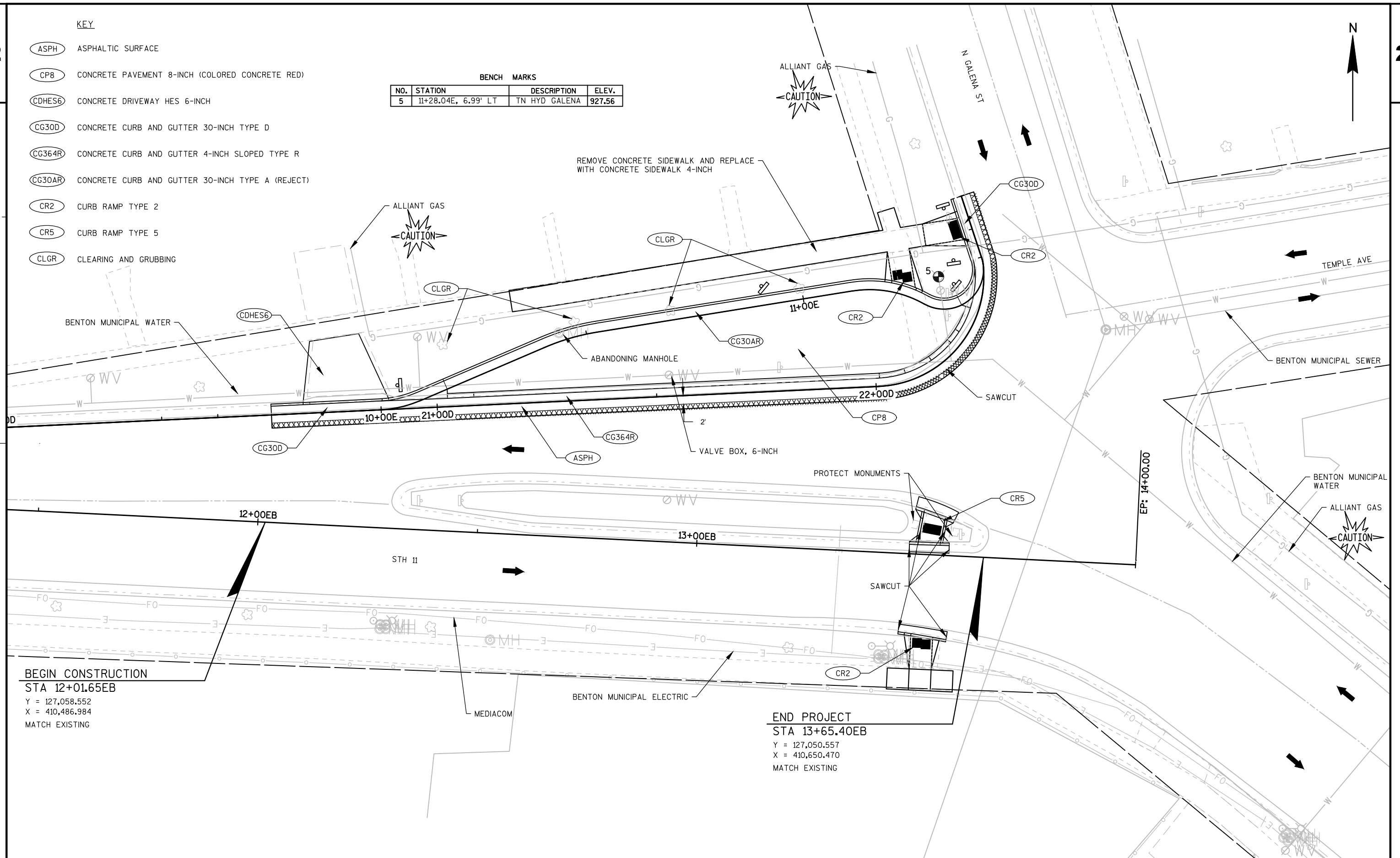


KEY

- (ASPH) ASPHALTIC SURFACE
- (CP8) CONCRETE PAVEMENT 8-INCH (COLORED CONCRETE RED)
- (CDHES6) CONCRETE DRIVEWAY HES 6-INCH
- (CG30D) CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (CG364R) CONCRETE CURB AND GUTTER 4-INCH SLOPED TYPE R
- (CG30AR) CONCRETE CURB AND GUTTER 30-INCH TYPE A (REJECT)
- (CR2) CURB RAMP TYPE 2
- (CR5) CURB RAMP TYPE 5
- (CLGR) CLEARING AND GRUBBING

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	11+28.04E, 6.99' LT	TN HYD GALENA	927.56



BEGIN CONSTRUCTION

STA 12+01.65EB

Y = 127,058.552

X = 410,486.984

MATCH EXISTING

END PROJECT

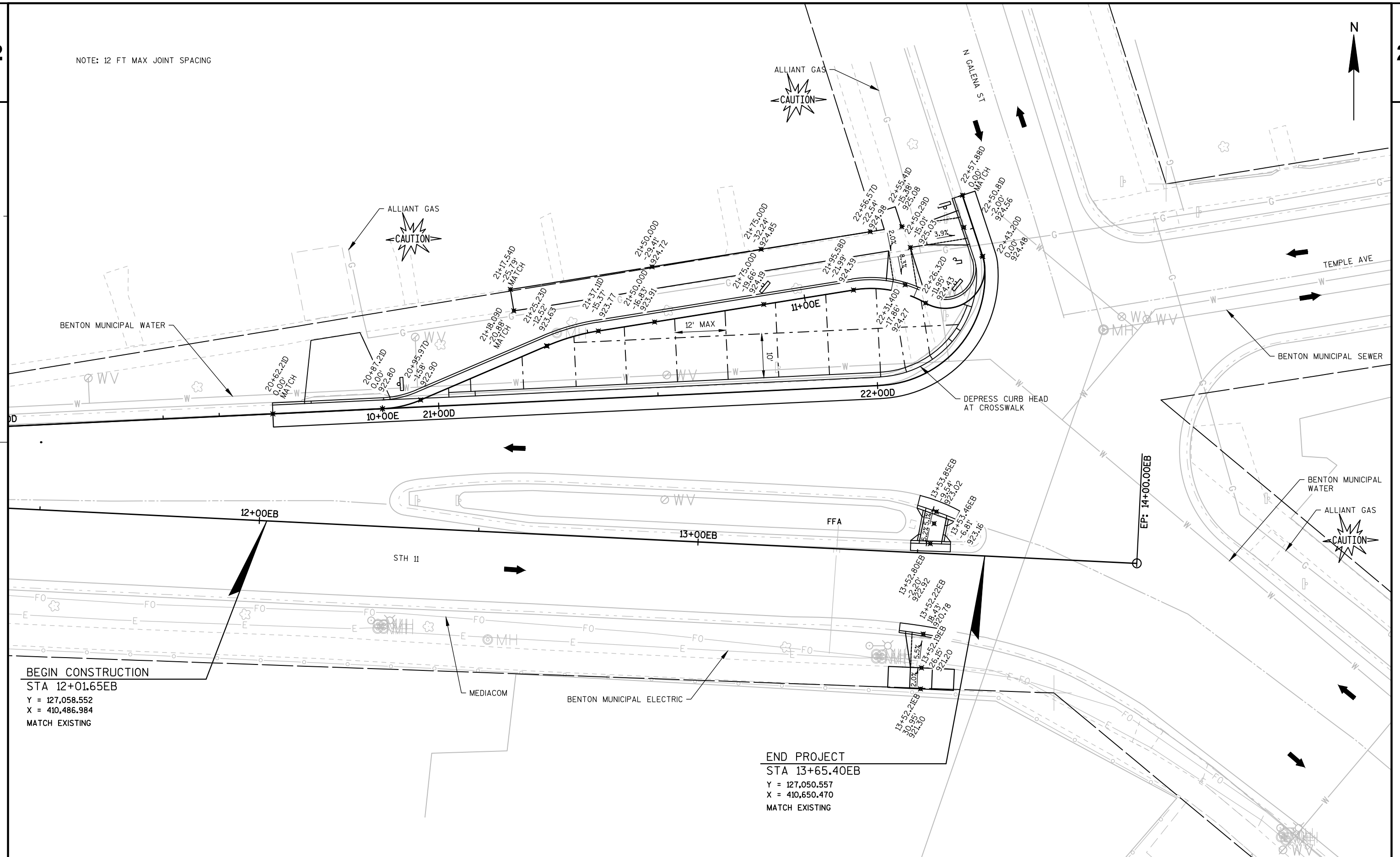
STA 13+65.40EB

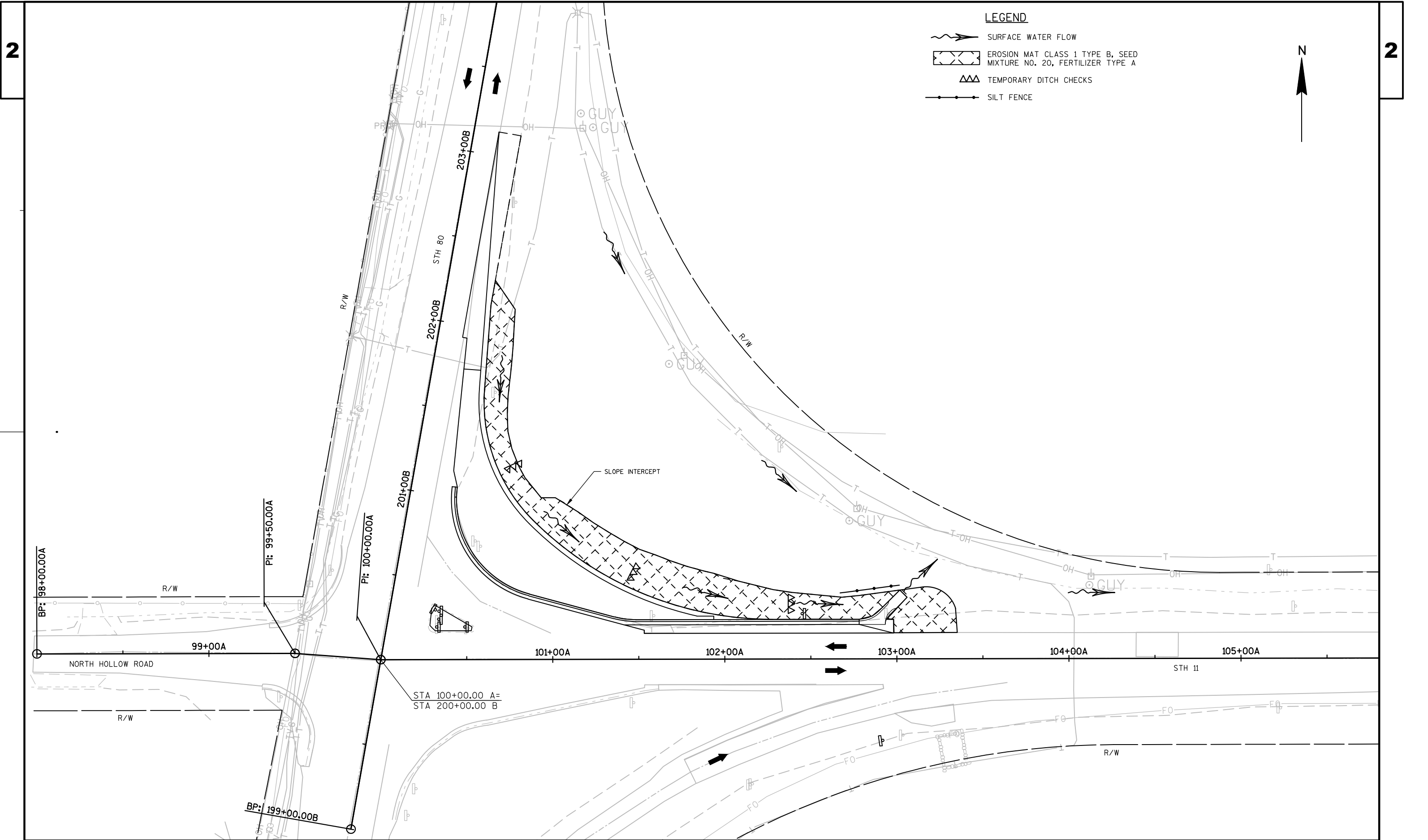
Y = 127,050.557

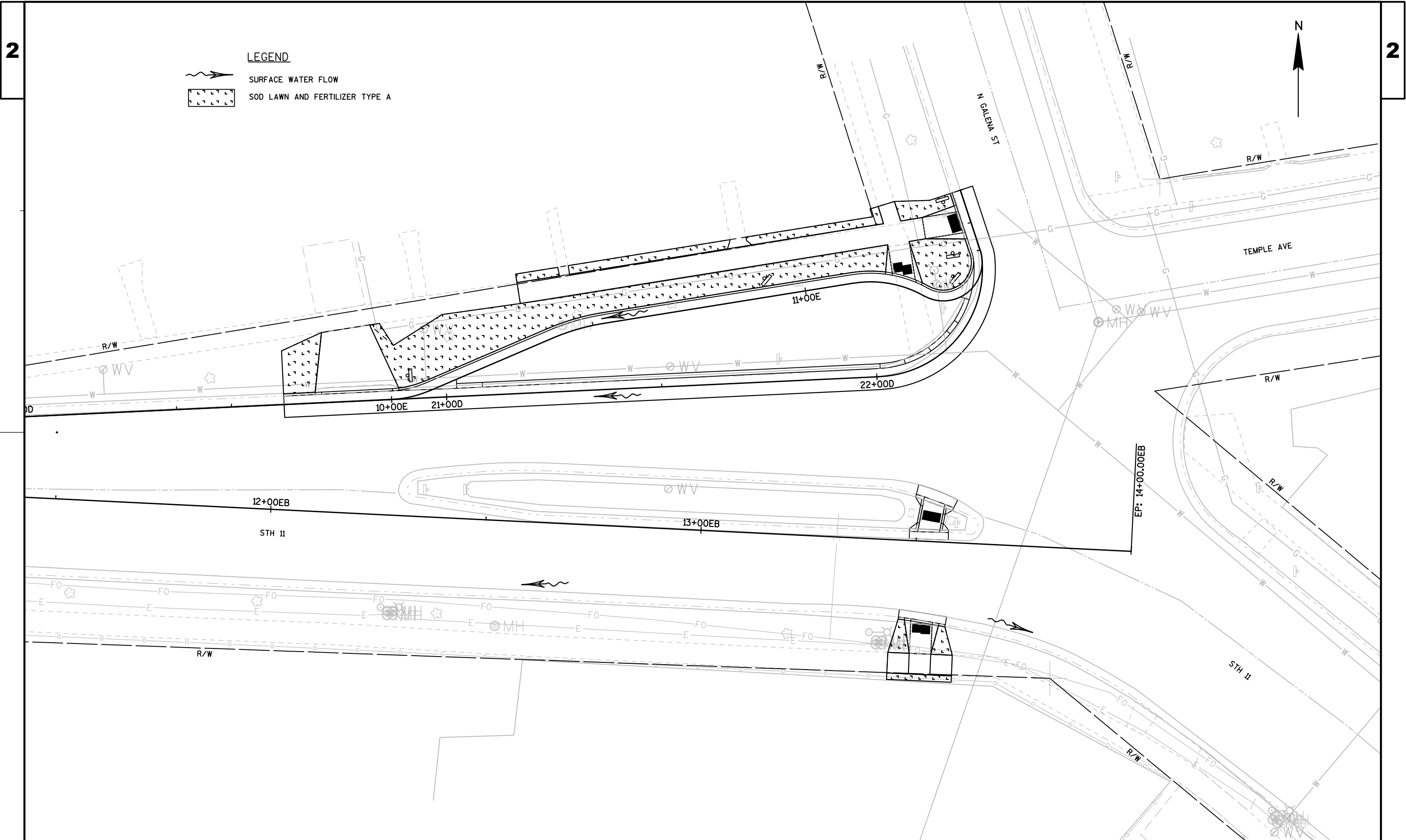
X = 410,650.470

MATCH EXISTING

NOTE: 12 FT MAX JOINT SPACING

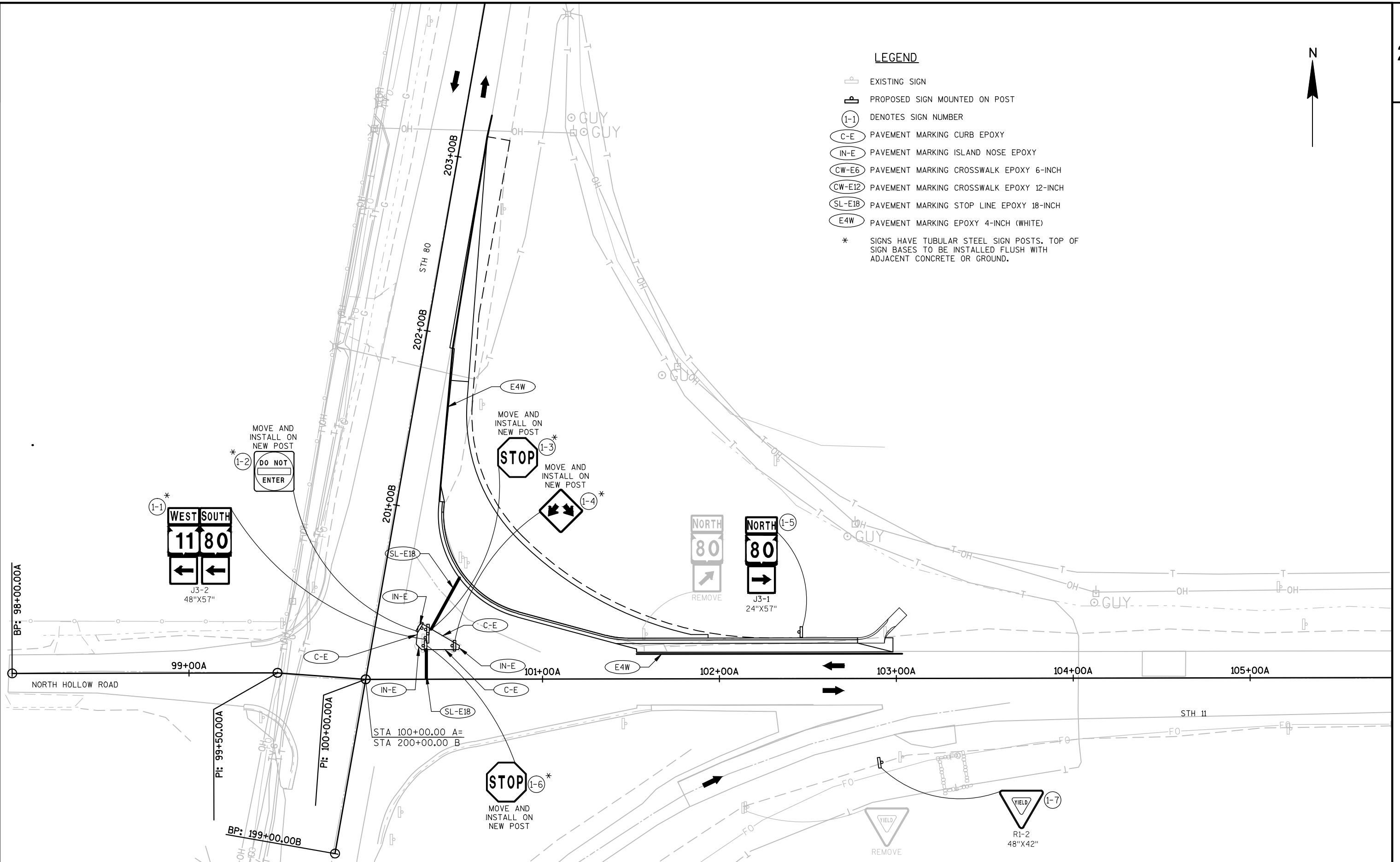






LEGEND

- EXISTING SIGN
PROPOSED SIGN MOUNTED ON POST
(1-1) DENOTES SIGN NUMBER
(C-E) PAVEMENT MARKING CURB EPOXY
(IN-E) PAVEMENT MARKING ISLAND NOSE EPOXY
(CW-E6) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH
(CW-E12) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH
(SL-E18) PAVEMENT MARKING STOP LINE EPOXY 18-INCH
(E4W) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
* SIGNS HAVE TUBULAR STEEL SIGN POSTS. TOP OF SIGN BASES TO BE INSTALLED FLUSH WITH ADJACENT CONCRETE OR GROUND.



LEGEND

EXISTING SIGN

PROPOSED SIGN MOUNTED ON POST

(1-1) DENOTES SIGN NUMBER.

(C-E) PAVEMENT MARKING CURB EPOXY

(IN-E) PAVEMENT MARKING ISLAND NOSE EPOXY

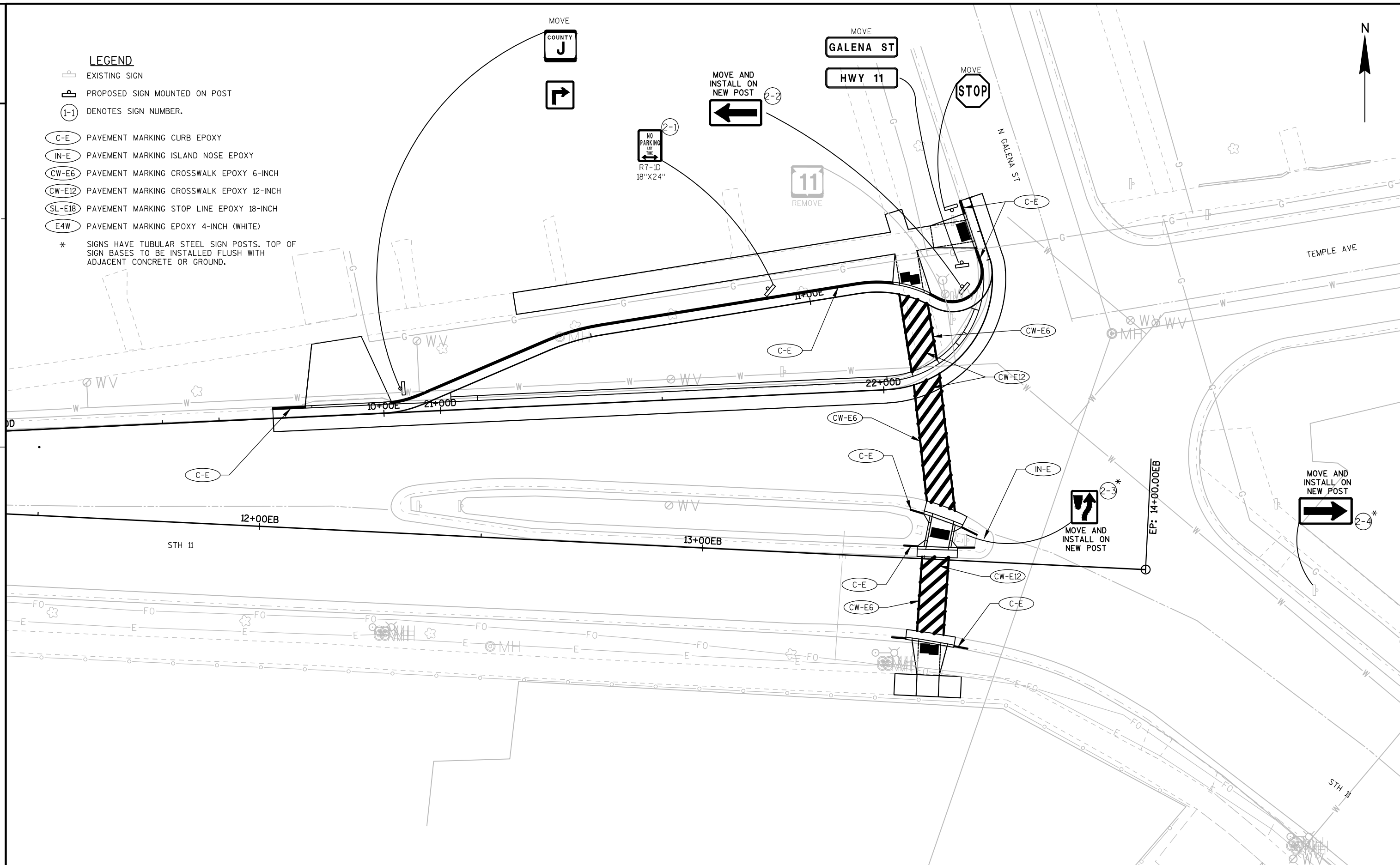
(CW-E6) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

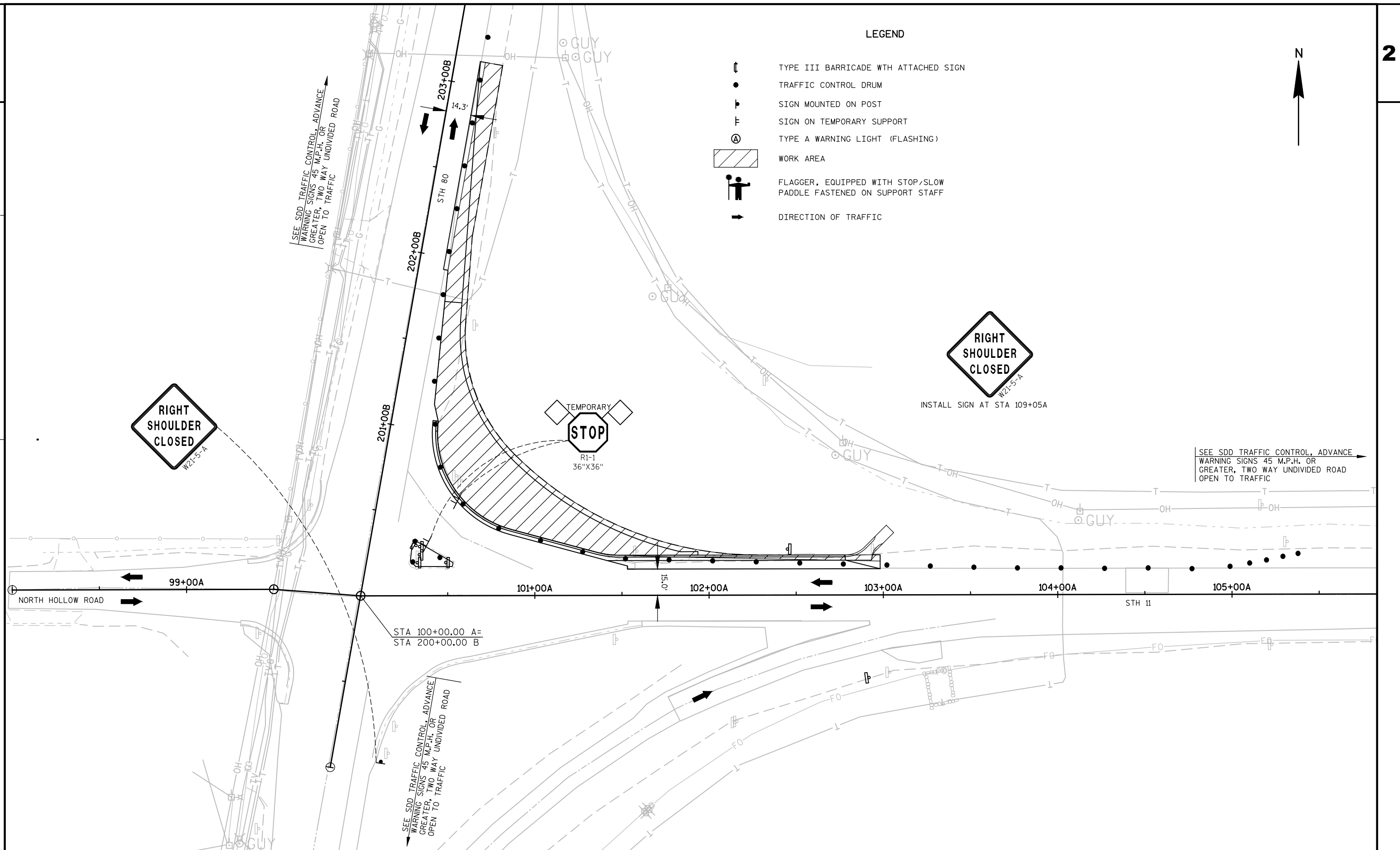
(CW-E12) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

(SL-E18) PAVEMENT MARKING STOP LINE EPOXY 18-INCH

(E4W) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

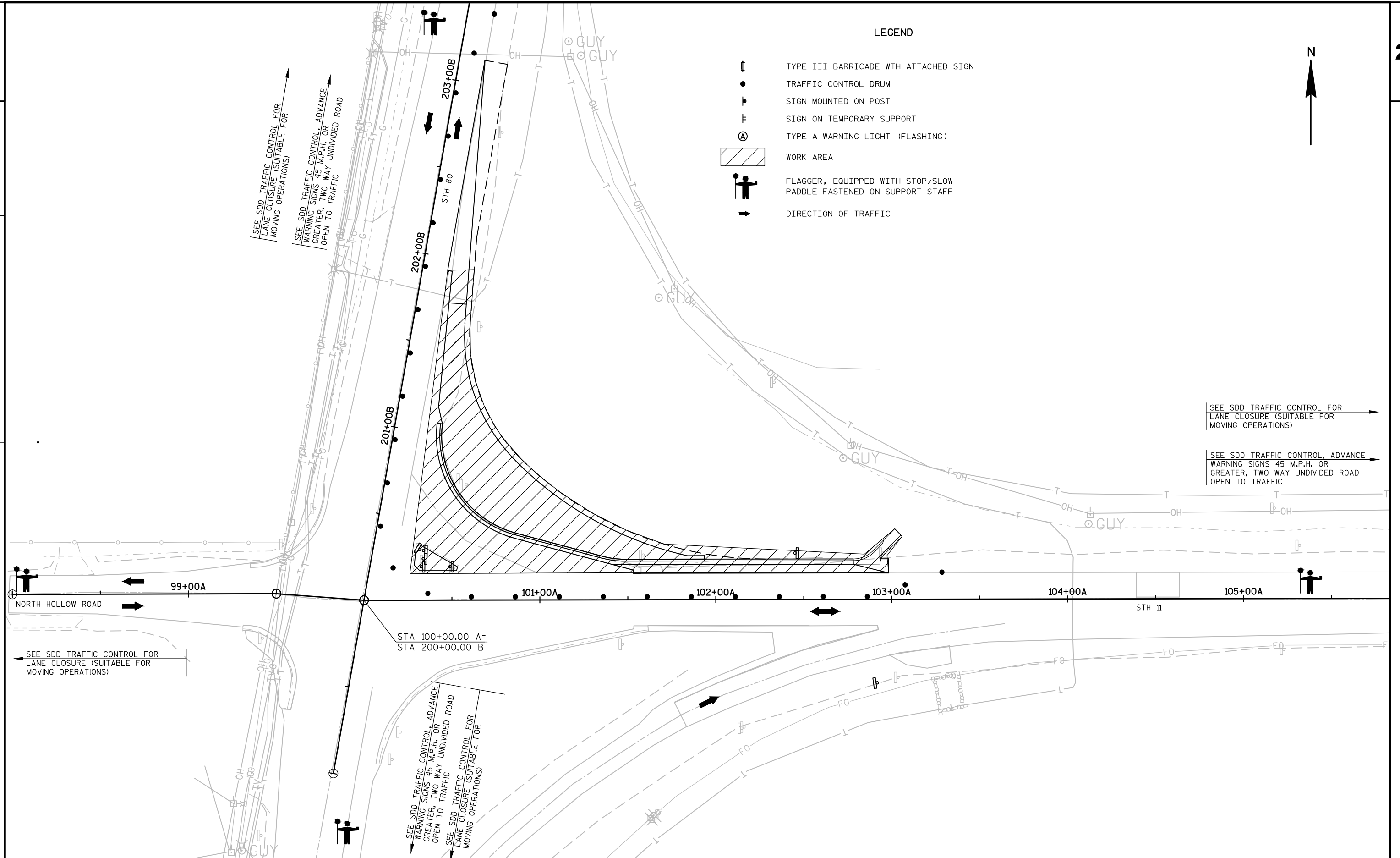
* SIGNS HAVE TUBULAR STEEL SIGN POSTS. TOP OF SIGN BASES TO BE INSTALLED FLUSH WITH ADJACENT CONCRETE OR GROUND.



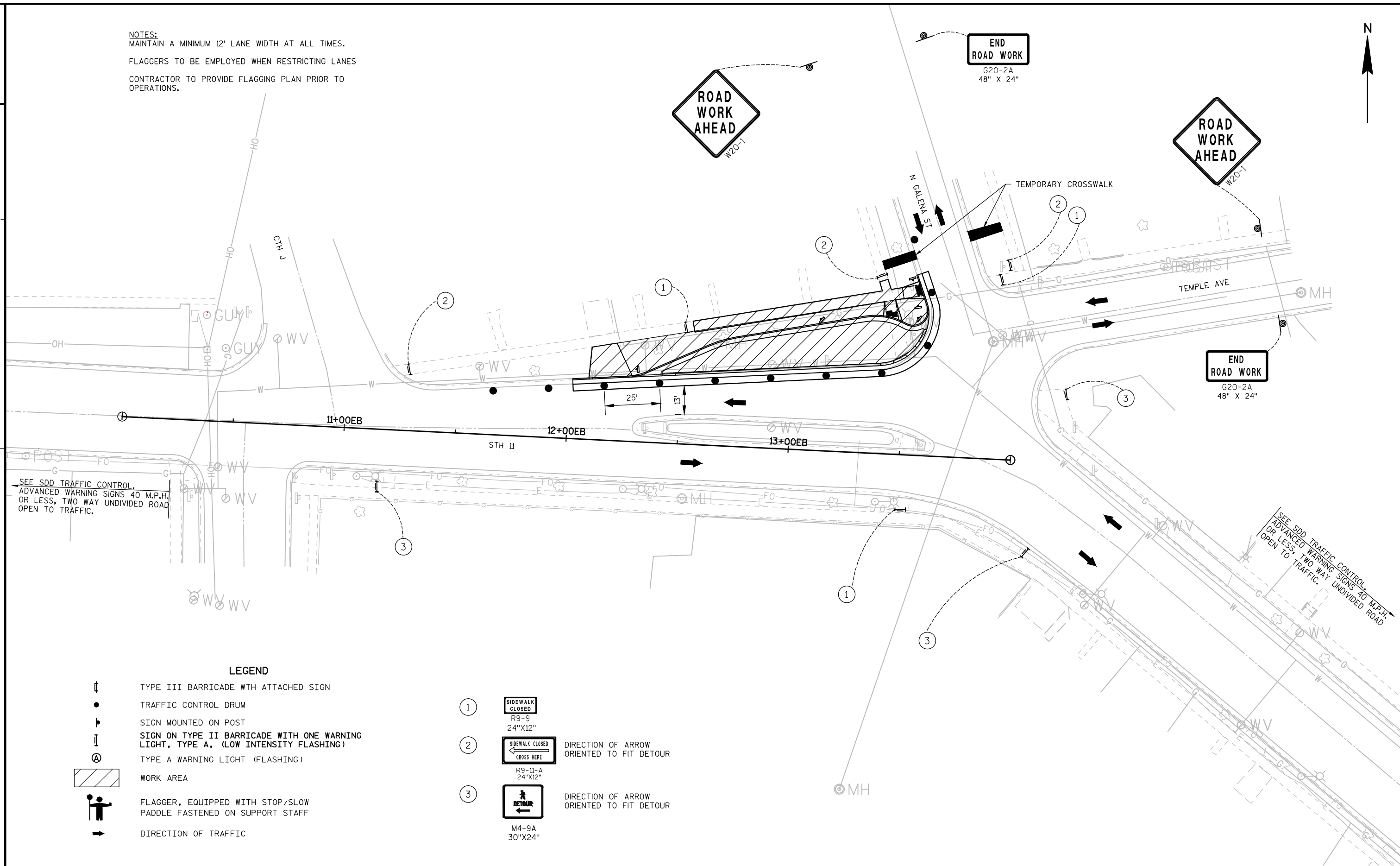


2

2 |

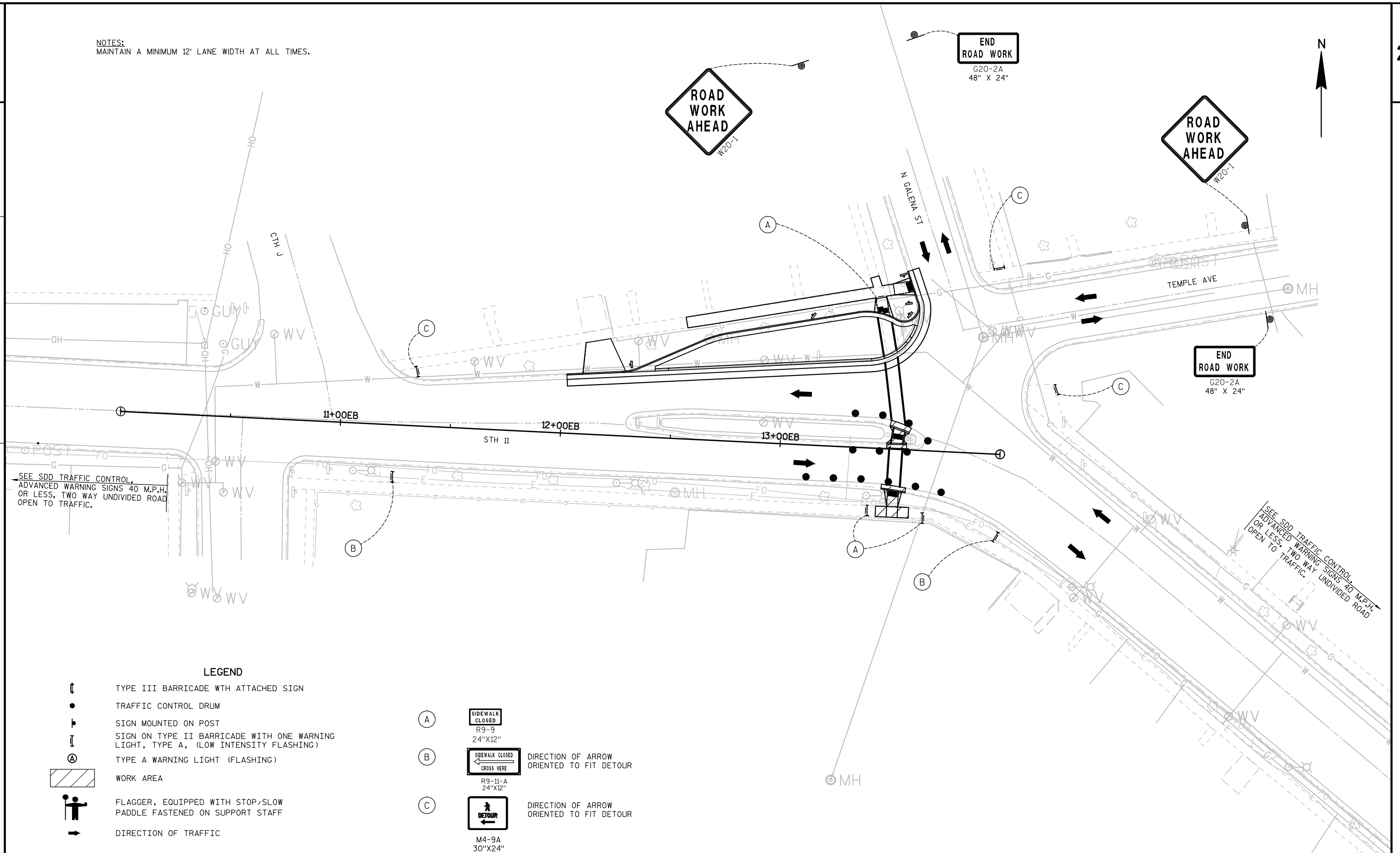


NOTES:
MAINTAIN A MINIMUM 12' LANE WIDTH AT ALL TIMES.
FLAGGERS TO BE EMPLOYED WHEN RESTRICTING LANES
CONTRACTOR TO PROVIDE FLAGGING PLAN PRIOR TO OPERATIONS.





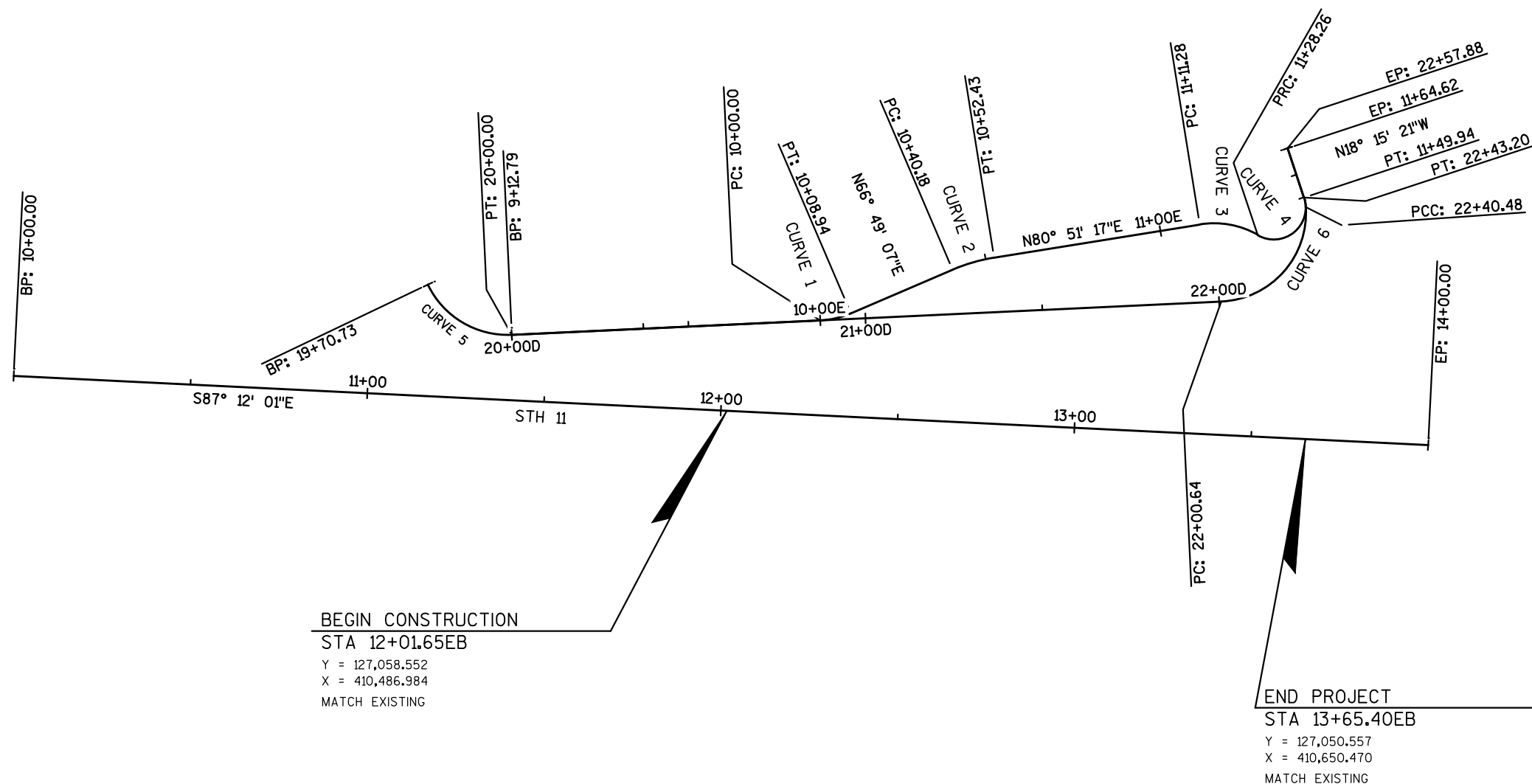
NOTES:
MAINTAIN A MINIMUM 12' LANE WIDTH AT ALL TIMES.







CURVE 1	CURVE 2	CURVE 3	CURVE 4	CURVE 5	CURVE 6
PI STA = 10+04.52	PI STA = 10+46.34	PI STA = 11+20.11	PI STA = 11+51.72	PI STA = 19+87.31	PI STA = 22+26.22
Y = 127084.32	Y = 127100.82	Y = 127112.55	Y = 127096.52	Y = 127079.24	Y = 127090.61
X = 410517.90	X = 410556.43	X = 410629.33	X = 410657.36	X = 410409.71	X = 410652.24
DELTA = 20°29'56"	DELTA = 14°02'10"	DELTA = 38°54'59"	DELTA = 138°01'37"	DELTA = 67°10'55"	DELTA = 91°18'31"
D = 229°10'59"	D = 114°35'30"	D = 229°10'59"	D = 636°37'11"	D = 229°30'48"	D = 229°10'59"
T = 4.52	T = 6.16	T = 8.83	T = 23.46	T = 16.58	T = 25.58
L = 8.94	L = 12.25	L = 16.98	L = 21.68	L = 29.27	L = 39.84
R = 25.00	R = 50.00	R = 25.00	R = 9.00	R = 24.96	R = 25.00
PC STA = 10+00.00	PC STA = 10+40.18	PC STA = 11+11.28	PC STA = 11+28.26	PC STA = 19+70.73	PC STA = 22+00.64
PT STA = 10+08.94	PT STA = 10+52.43	PT STA = 11+28.26	PT STA = 11+49.94	PT STA = 20+00.00	PT STA = 22+40.48



DATE 31MAR15		E S T I M A T E O F Q U A N T I T I E S			
LINE					1706-00-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0120	Clearing	ID	70.000	70.000
0020	201.0220	Grubbing	ID	70.000	70.000
0030	204.0100	Removing Pavement	SY	25.000	25.000
0040	204.0150	Removing Curb & Gutter	LF	377.000	377.000
0050	204.0155	Removing Concrete Sidewalk	SY	115.000	115.000
0060	204.0250	Abandoning Manholes	EACH	1.000	1.000
0070	205.0100	Excavation Common	CY	1,196.000	1,196.000
0080	213.0100	Finishing Roadway (project) 01. 1706-00-71	EACH	1.000	1.000
0090	305.0110	Base Aggregate Dense 3/4-Inch	TON	40.000	40.000
0100	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	550.000	550.000
0110	312.0110	Select Crushed Material	TON	650.000	650.000
0120	405.0100	Coloring Concrete Red	CY	128.000	128.000
0130	415.0080	Concrete Pavement 8-Inch	SY	714.000	714.000
0140	416.0260	Concrete Driveway HES 6-Inch	SY	25.000	25.000
0150	416.0610	Drilled Tie Bars	EACH	185.000	185.000
0160	416.1010	Concrete Surface Drains	CY	2.000	2.000
0170	465.0105	Asphaltic Surface	TON	33.000	33.000
0180	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	125.000	125.000
0190	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	84.000	84.000
0200	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	406.000	406.000
0210	602.0405	Concrete Sidewalk 4-Inch	SF	751.000	751.000
0220	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	32.000	32.000
0230	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1706-00-71	EACH	1.000	1.000
0240	619.1000	Mobilization	EACH	1.000	1.000
0250	625.0500	Salvaged Topsoil	SY	675.000	675.000
0260	628.1504	Silt Fence	LF	35.000	35.000
0270	628.1520	Silt Fence Maintenance	LF	35.000	35.000
0280	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0290	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0300	628.2004	Erosion Mat Class I Type B	SY	675.000	675.000
0310	628.7504	Temporary Ditch Checks	LF	30.000	30.000
0320	629.0205	Fertilizer Type A	CWT	0.550	0.550
0330	630.0120	Seeding Mixture No. 20	LB	18.000	18.000
0340	630.0200	Seeding Temporary	LB	18.000	18.000
0350	631.0300	Sod Water	MGAL	3.400	3.400
0360	631.1000	Sod Lawn	SY	150.000	150.000
0370	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0380	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	2.000	2.000
0390	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	1.000	1.000
0400	634.0811	Posts Tubular Steel 2x2-Inch X 11-FT	EACH	2.000	2.000
0410	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	3.000	3.000
0420	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	2.000	2.000
0430	637.2210	Signs Type II Reflective H	SF	38.500	38.500
0440	638.2102	Moving Signs Type II	EACH	10.000	10.000
0450	638.2602	Removing Signs Type II	EACH	4.000	4.000
0460	638.3000	Removing Small Sign Supports	EACH	9.000	9.000
0470	638.4000	Moving Small Sign Supports	EACH	3.000	3.000
0480	642.5001	Field Office Type B	EACH	1.000	1.000
0490	643.0100	Traffic Control (project) 01. 1706-00-71	EACH	1.000	1.000
0500	643.0300	Traffic Control Drums	DAY	2,371.000	2,371.000

DATE 31MAR15		E S T I M A T E O F Q U A N T I T I E S				
LINE					1706-00-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0510	643.0410	Traffic Control Barricades Type II	DAY	392.000	392.000	
0520	643.0420	Traffic Control Barricades Type III	DAY	10.000	10.000	
0530	643.0705	Traffic Control Warning Lights Type A	DAY	412.000	412.000	
0540	643.0900	Traffic Control Signs	DAY	2,409.000	2,409.000	
0550	645.0130	Geotextile Fabric Type R	SY	20.000	20.000	
0560	646.0106	Pavement Marking Epoxy 4-Inch	LF	370.000	370.000	
0570	646.0600	Removing Pavement Markings	LF	225.000	225.000	
0580	647.0456	Pavement Marking Curb Epoxy	LF	261.000	261.000	
0590	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	49.000	49.000	
0600	647.0606	Pavement Marking Island Nose Epoxy	EACH	4.000	4.000	
0610	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	123.000	123.000	
0620	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	173.000	173.000	
0630	650.4500	Construction Staking Subgrade	LF	660.000	660.000	
0640	650.5000	Construction Staking Base	LF	335.000	335.000	
0650	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	213.000	213.000	
0660	650.7000	Construction Staking Concrete Pavement	LF	463.000	463.000	
0670	650.9910	Construction Staking Supplemental Control (project) 01. 1706-00-71	LS	1.000	1.000	
0680	650.9920	Construction Staking Slope Stakes	LF	375.000	375.000	
0690	690.0150	Sawing Asphalt	LF	343.000	343.000	
0700	690.0250	Sawing Concrete	LF	200.000	200.000	
0710	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000	
0720	SPV.0045	Special 01. Temporary Crosswalk	DAY	32.000	32.000	
0730	SPV.0060	Special 01. Valve Box, 6-Inch	EACH	1.000	1.000	
0740	SPV.0060	Special 02. Furnishing Trees Maple (Red), B & B, 3" CAL	EACH	4.000	4.000	
0750	SPV.0060	Special 03. Construction Staking Curb Ramp	EACH	4.000	4.000	
0760	SPV.0105	Special 01. Concrete Pavement Joint Layout	LS	1.000	1.000	

CLEARING AND GRUBBING

		201.0120	201.0220
		CLEARING	GRUBBING
STATION	LOCATION	(ID)	(ID)
BENTON	21+01D 17' LT	28	28
BENTON	21+31D 19' LT	12	12
BENTON	21+53D 23' LT	20	20
BENTON	21+83D 14' LT	10	10
PROJECT	TOTAL	70	70

ABANDONING MANHOLES

		204.0250
		ABANDONING
		MANHOLES
STATION	LOCATION	(EACH)
BENTON	12+66EB 46' LT	1
PROJECT	TOTAL	1

EXCAVATION

205.0100											
EXCAVATION											
COMMON											
						(1)	(2)	(3)	(4)		
						CUT FROM	EXPANDED	EXPANDED	MASS	WASTE	
						EW DATA	FILL FROM	FILL	ORDINATE		
						(CY)	(CY)	(CY)	(CY)	(CY)	
										REMARKS	
STH 11/STH 80	STAGE 1	10+00NE	-	14+64NE	TRUCK APRON RT	751	4	4	747	747	
BENTON	STAGE 1	20+62D	-	22+58D	TRUCK APRON LT	322	1	1	321	321	
BENTON	STAGE 2	13+48EB	-	13+59EB	MEDIAN LT	7			7	7	
BENTON	STAGE 2	13+44EB	-	13+60EB	CURB RT	6			6	6	
UNDISTRIBUTED						110			110	110	
PROJECT						TOTAL	1,196	5	5	1,191	1,191

- (1) COMMON FROM COMPUTER EARTHWORK DATA, INCLUDES PAVEMENT REMOVAL(CONTAINS SALVAGED/UNUSABLE PAVEMENT MATERIAL)
- (2) EXPANDED FILL FROM COMPUTER EARTHWORK DATA
- (3) EXPANDED FILL FACTOR = 1.3
- (4) MASS ORDINATE IS + OR - FOR STAGE. PLUS IS EXCESS, MINUS IS SHORTAGE.

CONCRETE PAVEMENT 8-INCH

		405.0100	415.0080
		COLORING	CONCRETE
		CONCRETE RED	PAVEMENT 8-INCH
STATION	LOCATION	(CY)	(SY)
STH 11/STH 80	100+28A - 100+58A LT		24
STH 11/STH 80	11+05.30NE - 13+25.13NE RT	90	444
STH 11/STH 80	10+00.00NE - 11+52.32NE RT		77
BENTON	21+02.43D - 22+30.95D LT	38	169
PROJECT		128	714

REMOVING PAVEMENT

		204.0100
		REMOVING
		PAVEMENT
STATION	LOCATION	(SY)
BENTON	12+09EB - 12+28EB LT	25
PROJECT	TOTAL	25

DRILLED TIE BARS

		416.0610
		DRILLED TIE
		BARS
STATION	LOCATION	(EACH)
STH 11/STH 80	10+00NE - 13+25NE LT	185
PROJECT	TOTAL	185

REMOVING CURB & GUTTER

		204.0150
		REMOVING
		CURB & GUTTER
STATION	LOCATION	(LF)
STH 11/STH 80	201+06B - 101+57A LT	157
BENTON	12+02D - 13+55D LT	191
BENTON	13+47EB - 13+58EB RT	11
BENTON	13+48EB - 13+57EB LT	9
BENTON	13+50EB - 13+58EB LT	9
PROJECT	TOTAL	377

REMOVING CONCRETE SIDEWALK

		204.0155
		REMOVING
		CONCRETE
		SIDEWALK
STATION	LOCATION	(SY)
STH 11/STH 80	100+28A - 100+58A LT	24
BENTON	12+55EB - 13+58EB LT	72
BENTON	13+48EB - 13+58EB LT	5
BENTON	13+45EB - 13+60EB RT	14
PROJECT	TOTAL	115

CONCRETE SURFACE DRAINS

		416.1010	645.0130
		CONCRETE	GEOTEXTILE
		SURFACE	FABRIC
		DRAINS	TYPE R
STATION	LOCATION	(CY)	(SY)
STH 11/STH 80	102+85A LT	2.0	20
PROJECT	TOTAL	2.0	20

CONCRETE DRIVEWAY

		416.0260
		CONCRETE
		DRIVEWAY HES
		6-INCH
STATION	LOCATION	(SY)
BENTON	12+09EB - 12+28EB LT	25
PROJECT	TOTAL	25

BASE AGGREGATE

		305.0110	305.0120	312.0110
		BASE	BASE	SELECT
		AGGREGATE	AGGREGATE	CRUSHED
		DENSE 3/4-INCH	DENSE 1 1/4-INCH	MATERIAL
STATION	LOCATION	(TON)	(TON)	(TON)
STH 11/STH 80	10+00NE - 14+64NE RT/LT	40	400	490
STH 11/STH 80	12+32NE - 12+50NE RT			5
STH 11/STH 80	103+00A - 103+23A LT			5
BENTON	20+61D - 22+57D LT		130	150
BENTON	12+55EB - 13+59EB LE		15	
BENTON	13+48EB - 13+58EB LT		2	
BENTON	13+45EB - 13+60EB RT		3	
PROJECT	TOTAL	40	550	650

ASPHALTIC SURFACE

		465.0105
		ASPHALTIC
		SURFACE
STATION	LOCATION	(TON)
STH 11/STH 80	13+25NE - 14+64NE LT	23
BENTON	20+61D - 22+57D RT	10
PROJECT		33

3

CONCRETE SIDEWALK

				602.0405	602.0505	SPV.0060.03
				CONCRETE	CURB RAMP	CONSTRUCTION
				SIDEWALK	DETECTABLE	STAKING CURB
				4-INCH	WARNING FIELD	RAMP
				(SF)	YELLOW	(EACH)
STATION	-	STATION	LOCATION			
BENTON	12+55EB	- 13+58EB	LT	591	16	2
BENTON	13+48EB	- 13+58EB	LT	41	8	1
BENTON	13+45EB	- 13+60EB	RT	119	8	1
PROJECT			TOTAL	751	32	4

EROSION CONTROL

				625.0500	628.2004	628.7504	629.0205	630.0120	630.0200	631.0300	631.1000
				SALVAGED	EROSION MAT	TEMPORARY	FERTILIZER	SEEDING	SEEDING	SOD WATER	SOD
				TOPSOIL	CLASS I	DITCH	TYPE A	MIXTURE	TEMPORARY		LAWN
				(SY)	TYPE B	CHECKS	TYPE A	No. 20	(LB)	(MGAL)	(SY)
STATION	-	STATION	LOCATION		(SY)	(LF)	(CWT)	(LB)	(LB)		
STH 11/STH 80	10+00NE	- 14+64NE	RT	675	675	30	0.45	18	18		
BENTON	20+62D	- 22+58D	LT				0.09			3.2	142
BENTON	13+44EB	- 13+60EB	RT				0.01			0.2	8
PROJECT			TOTAL	675	675	30	0.55	18	18	3.4	150

SILT FENCE

				628.1504	628.1520
				SILT FENCE	SILT FENCE
				(LF)	MAINTENANCE
STATION	-	STATION	LOCATION		(LF)
STH 11/STH 80	102+67A	- 103+02A	LT	35	35
PROJECT			TOTAL	35	35

MOBILIZATIONS EROSION CONTROL

			628.1905	628.1910
			MOBILIZATIONS	MOBILIZATIONS
			EROSION	EMERGENCY
			CONTROL	EROSION CONTROL
			(EACH)	(EACH)
PROJECT		2	2	
PROJECT	TOTAL	2	2	

PERMANENT SIGNING TYPE II

637.2210											
SIGNS TYPE II					634.0614	634.0616	634.0808	634.0811	634.0812	634.0814	SIGN MOUNTED ON SAME POST AS
SIGN SIZE REFLECTIVE H					POSTS WOOD	4X6-INCH	POSTS TUBULAR STEEL 2X2-INCH				
SIGN #	SIGN CODE	IN	(SF)		14-FT (EACH)	16-FT (EACH)	8-FT (EACH)	11-FT (EACH)	12-FT (EACH)	14-FT (EACH)	
STH 11/STH 80	1-1	J3-2	48X57	19.00						2	
STH 11/STH 80	1-2	R5-1							1		EXISTING SIGN ON NEW POST
STH 11/STH 80	1-3	R1-1							1		EXISTING SIGN ON NEW POST
STH 11/STH 80	1-4	W12-1-D					1				EXISTING SIGN ON NEW POST
STH 11/STH 80	1-5	J3-1	24X57	9.50		1					
STH 11/STH 80	1-6	R1-1							1		EXISTING SIGN ON NEW POST
STH 11/STH 80	1-7	R1-2	48X42	7.00		1					
BENTON	2-1	R7-1D	18X24	3.00	1						
BENTON	2-2	W1-6			1						EXISTING SIGN ON NEW POST
BENTON	2-3	R4-7						1			EXISTING SIGN ON NEW POST
BENTON	2-4	W1-6						1			EXISTING SIGN ON NEW POST
PROJECT			TOTAL	38.50	2	2	1	2	3	2	

TRAFFIC CONTROL PROJECT

			643.0100
			TRAFFIC CONTROL
			1706-00-71
PROJECT	LOCATION		(EACH)
1706-00-71	PROJECT LIMITS		1
PROJECT			1

REMOVING SIGNS

			638.2102	638.2602	638.3000	638.4000
			MOVING	REMOVING	REMOVING	MOVING
			SIGNS TYPE	SIGNS	SMALL	SMALL SIGN
			II	TYPE II	SIGN	SUPPORTS
			(EACH)	(EACH)	(EACH)	(EACH)
STATION	LOCATION					
STH 11/STH 80	100+34A	18' LT	1		1	
STH 11/STH 80	100+34A	23' LT		1	1	
STH 11/STH 80	100+51A	18' LT	1		1	
STH 11/STH 80	100+55A	69' LT	1		1	
STH 11/STH 80	100+58A	68' LT	1		1	
STH 11/STH 80	101+58A	25' LT		1	1	
STH 11/STH 80	102+14A	73' RT		1		
BENTON	13+16EB	41' LT	1			1
BENTON	13+54EB	54' LT	1	1	1	
BENTON	13+54EB	59' LT	1			1
BENTON	13+54EB	77' LT	1			1
BENTON	13+60EB	5' LT	1		1	
BENTON	14+00EB		1		1	
PROJECT		TOTAL	10	4	9	3

CONCRETE CURB & GUTTER

				601.0409	601.0411	601.0580	650.5500
				CONCRETE	CONCRETE	CONCRETE	CONSTRUCTION
				CURB & GUTTER	CURB & GUTTER	CURB & GUTTER	STAKING CURB
				30-INCH TYPE A	30-INCH TYPE D	4-INCH SLOPED	GUTTER AND
				(LF)	(LF)	36-INCH TYPE R	CURB AND
						(LF)	GUTTER
STATION	-	STATION	LOCATION				(LF)
STH 11/STH 80	10+20NE	- 12+66NE	RT/LT			277	
BENTON	21+02D	- 22+31D	LT			129	129
BENTON	9+75E	- 10+15E	LT		40		40
BENTON	11+40E	- 11+65E	LT		15		15
BENTON	10+15E	- 11+40E	LT	125			
BENTON	13+47EB	- 13+58EB	RT		11		11
BENTON	13+48EB	- 13+57EB	LT		9		9
BENTON	13+50EB	- 13+58EB	LT		9		9
PROJECT			TOTAL	125	84	406	213

3

TRAFFIC CONTROL

		643.0300	643.0410	643.0420	643.0705	643.0900
		TRAFFIC CONTROL DRUMS (DAY)	TRAFFIC CONTROL BARRICADES TYPE II (DAY)	TRAFFIC CONTROL BARRICADES TYPE III (DAY)	TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	TRAFFIC CONTROL SIGNS (DAY)
LOCATION		(DAY)	(DAY)	(DAY)	(DAY)	(DAY)
STH 80		1,620				960
STH 80 OFF PEAK LANE CLOSURE		270				180
STAGE 1 (BENTON)		242	198		198	638
STAGE 1 LANE CLOSURE (BENTON)		70	90	10	110	280
STAGE 2 (BENTON)		169	104		104	351
PROJECT	TOTAL	2,371	392	10	412	2,409

PAVEMENT MARKING

					646.0106	647.0456	647.0566	647.0606	647.0766	647.0776
					PAVEMENT MARKING EPOXY 4-INCH WHITE (LF)	PAVEMENT MARKING CURB EPOXY (LF)	PAVEMENT MARKING STOP LINE EPOXY 18-INCH (LF)	PAVEMENT MARKING ISLAND NOSE EPOXY (EACH)	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (LF)	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (LF)
STH 11/STH 80	100+28A	-	100+53A	LT	ISLAND MARKINGS					
STH 11/STH 80	100+34A			LT	STOP LINE					
STH 11/STH 80	100+37A	-	100+53A	LT	STOP LINE					
STH 11/STH 80	101+53A	-	103+03A	LT	EDGE LINE					150
STH 11/STH 80	201+06B	-	203+26B	RT	EDGE LINE					220
BENTON	12+02EB	-	13+57EB	LT	CURB EPOXY					186
BENTON	13+41EB	-	13+65EB	LT	CROSSWALK					10
BENTON	13+49EB	-	13+56EB	RT	CROSSWALK					20
PROJECT	TOTAL				370	261	49	4	123	173

CONSTRUCTION STAKING

		650.4500	650.5000	650.7000	650.9910	650.9920
		CONSTRUCTION STAKING SUBGRADE (LF)	CONSTRUCTION STAKING BASE (LF)	CONSTRUCTION STAKING CONCRETE PAVEMENT (LF)	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1706-00-71) (LS)	CONSTRUCTION STAKING SLOPE STAKES (LF)
STH 11/STH 80	10+00NE - 13+25NE	LT	325	139		
STH 11/STH 80	10+03NE - 13+78NE	LT				375
STH 11/STH 80	13+25NE - 14+64NE	LT	139	325		
BENTON	20+61D - 22+57D	LT	196	196		
BENTON	21+02D - 22+40D	LT		138		
PROJECT					1	
PROJECT	TOTAL		660	335	1	375

SAWING PAVEMENT

		690.0150	690.0250
		SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
STH 11/STH 80	11+38NE - 13+59NE	LT	165
STH 11/STH 80	201+78B - 203+14B	RT	138
BENTON	20+62D - 22+58D	LT	205
BENTON	13+47EB - 13+58EB	RT	5
BENTON	13+48EB - 13+58EB	LT	20
BENTON	13+50EB - 13+59EB	LT	5
PROJECT	TOTAL	343	200

VALVE BOX, 6-INCH

		SPV.0060.01
		VALVE BOX, 6-INCH (EACH)
STATION	LOCATION	
BENTON	12+91EB	LT
PROJECT	TOTAL	1

REMOVING PAVEMENT MARKINGS

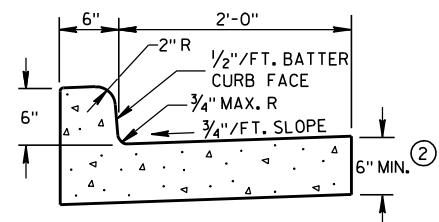
		646.0600
		REMOVING PAVEMENT MARKINGS (LF)
STATION	LOCATION	
BENTON	13+41EB - 13+65EB	LT/RT
PROJECT	TOTAL	225

TEMPORARY CROSSWALK

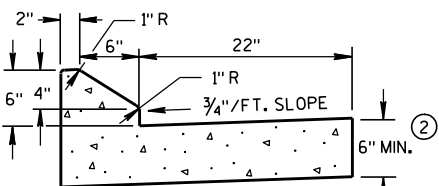
		SPV.0045.01
		TEMPORARY CROSSWALK (DAY)
STATION	LOCATION	
BENTON	12+91EB	LT
PROJECT	TOTAL	32

Standard Detail Drawing List

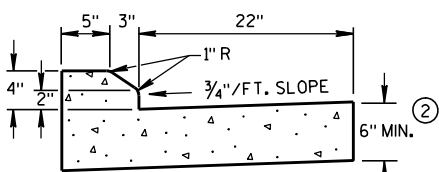
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
13C01-17	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPES A & D ①

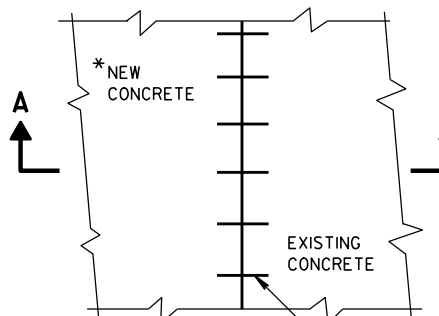


6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

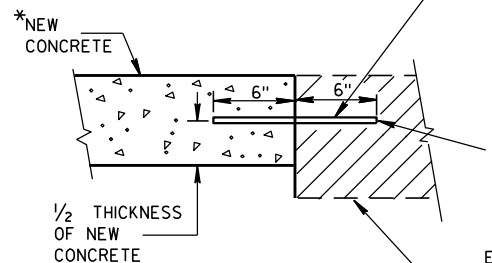
CONCRETE CURB & GUTTER 30"



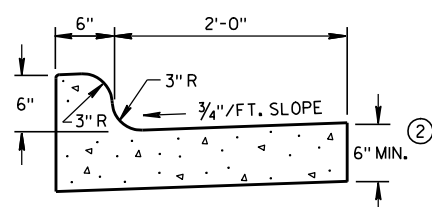
PLAN VIEW

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

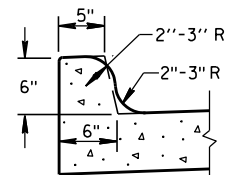
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.



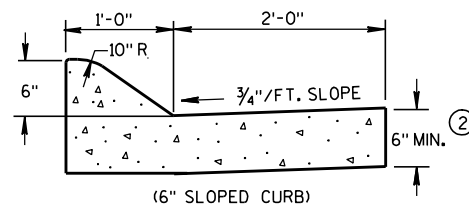
SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT



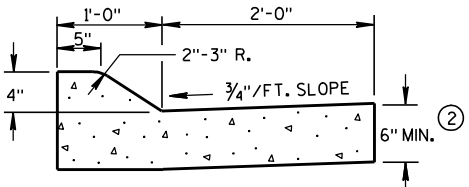
TYPES K & L ①



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

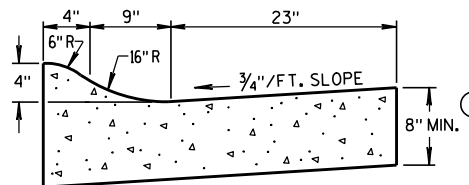


(6" SLOPED CURB)

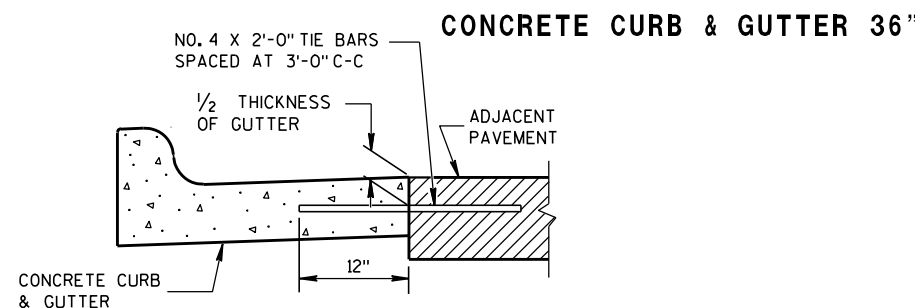


(4" SLOPED CURB)

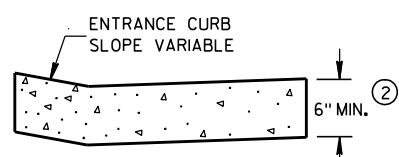
TYPES A & D ①



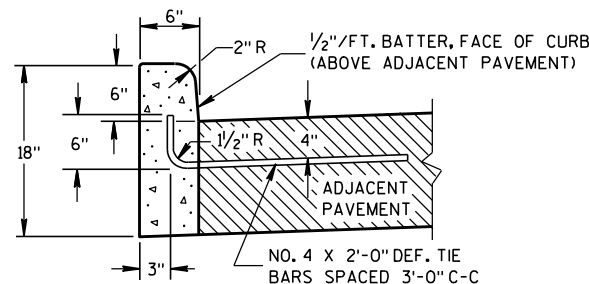
4" SLOPED CURB TYPES R & T ① ④



TYPICAL TIE BAR LOCATION ①

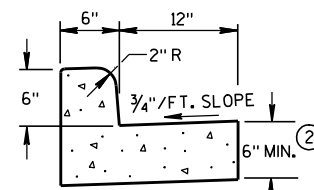


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

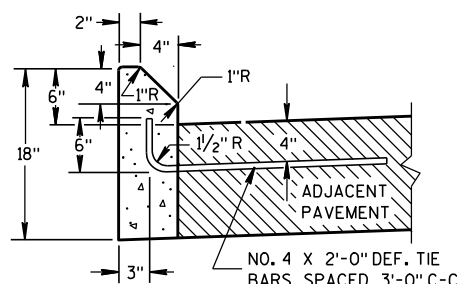


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

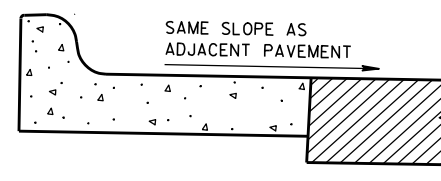
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

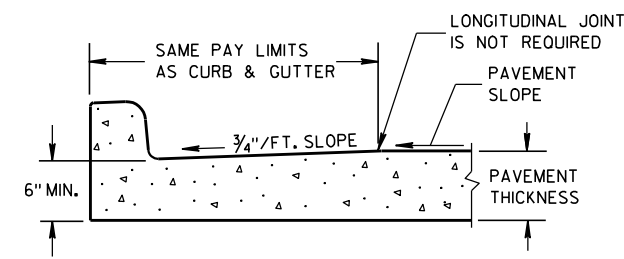
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

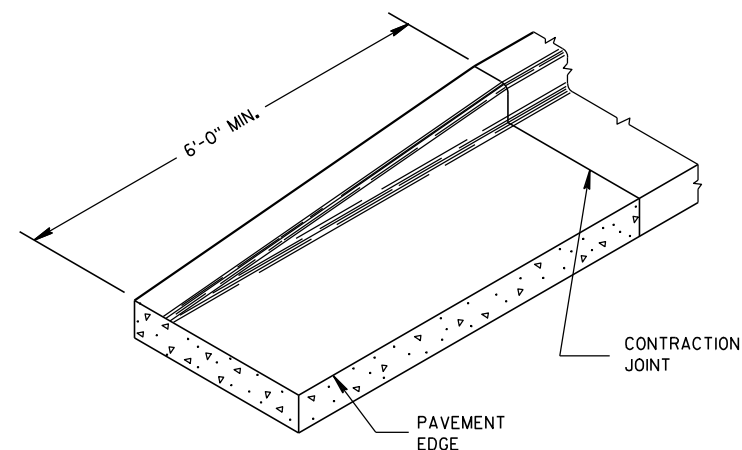
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER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



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

6



PLAN VIEW
FLUME AT CURB END



6

S.D.D. 8 D 4-5

- ① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ 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

EXPANSION JOINT

CONCRETE CURB AND GUTTER

2" MIN. CURB HEIGHT

5/8" R

TAPER CURB TO FLOW LINE

INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS

8'-0"

4'-0"

EDGE OF PAVEMENT

3'-0" MIN.

SURFACE DRAIN IS SYMMETRICAL WHEN CURB AND GUTTER IS CONTINUED

SHOULDER OR BERM HINGE POINT

JOINTS

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

6'-0"

OR AS REQUIRED

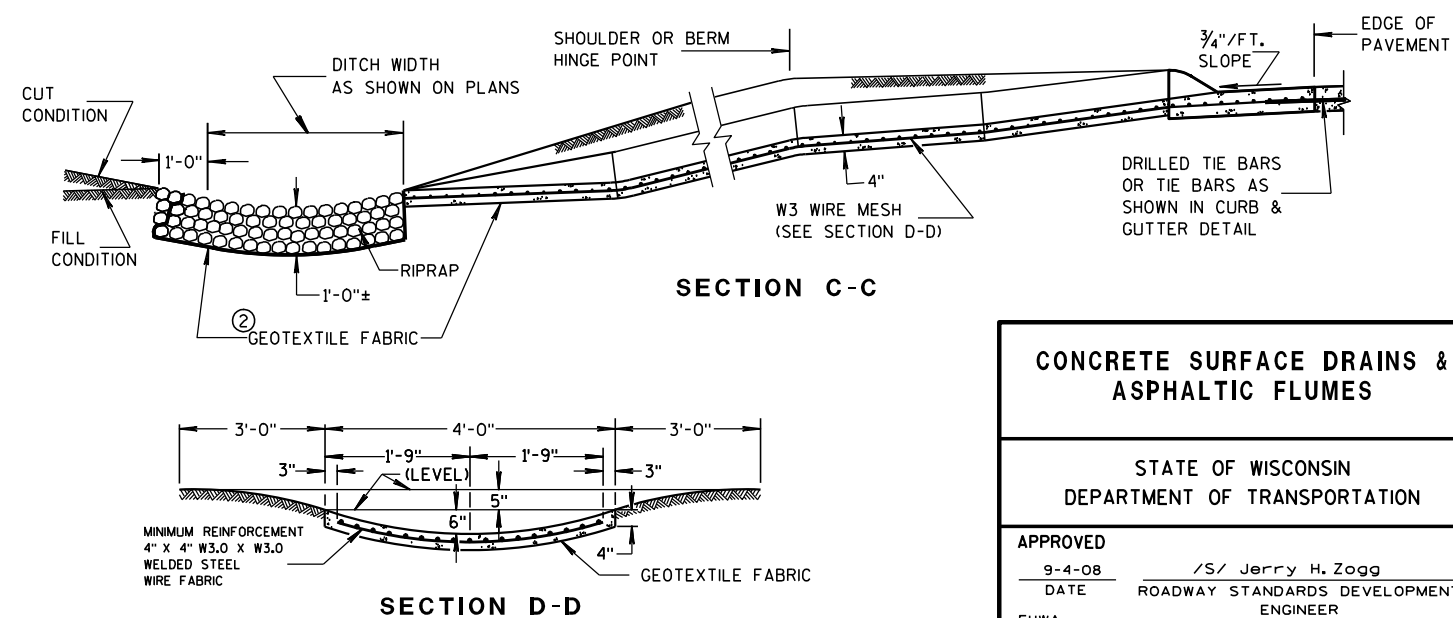
1'-0" ON CUT SLOPE

DITCH

DITCH

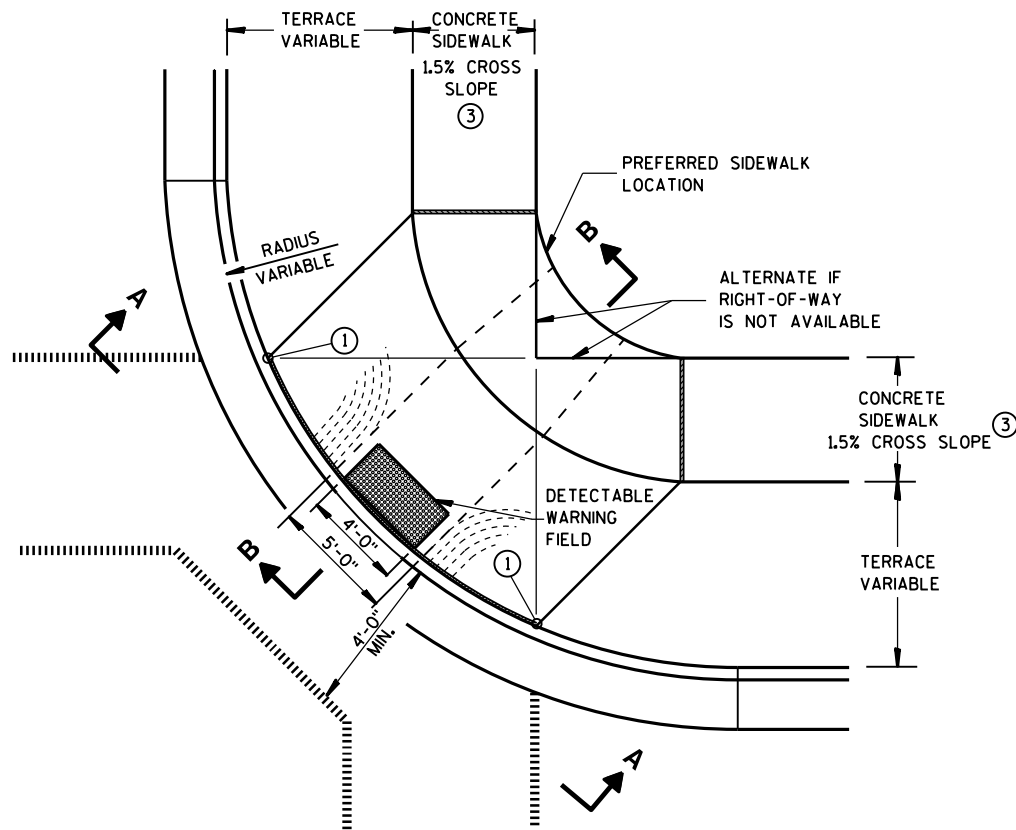
PLAN VIEW

PLAN VIEW

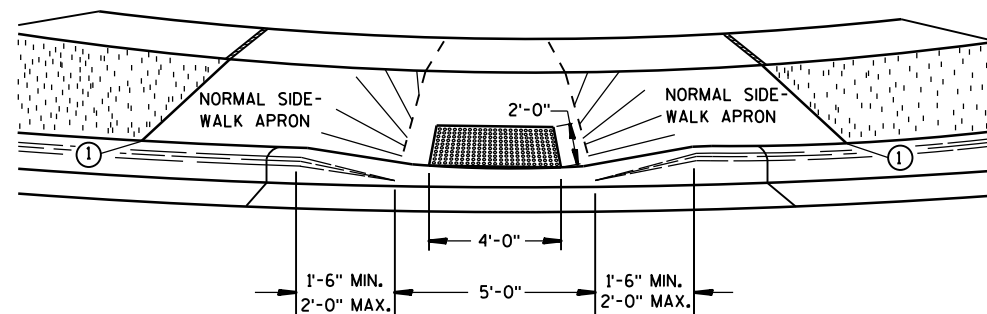


STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

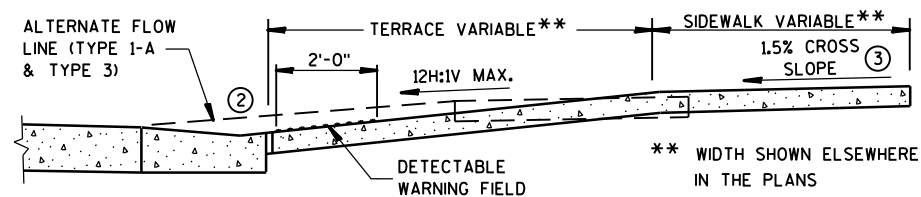
APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER



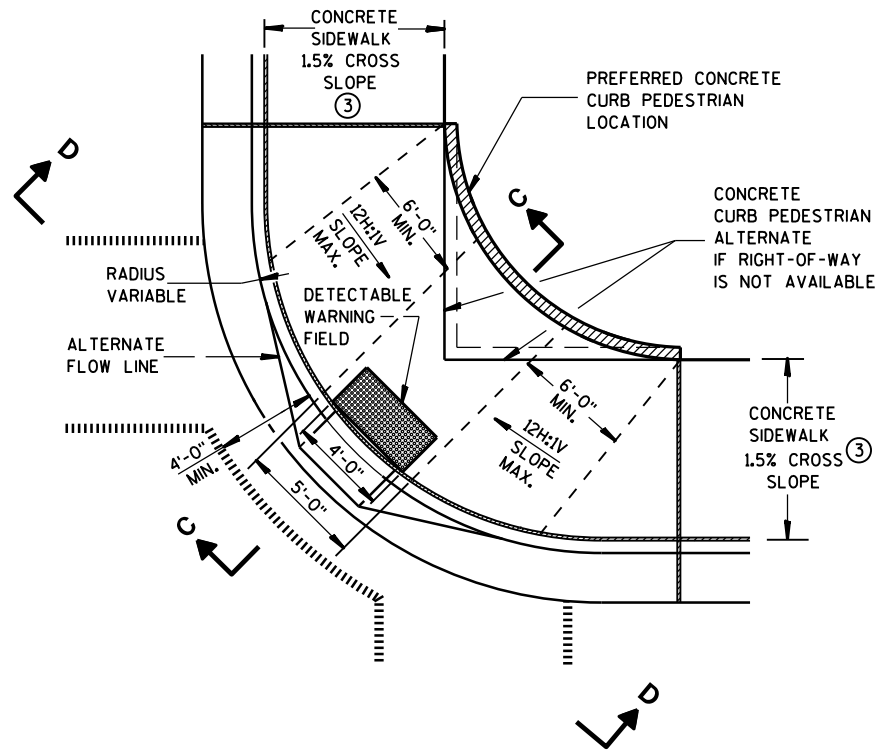
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



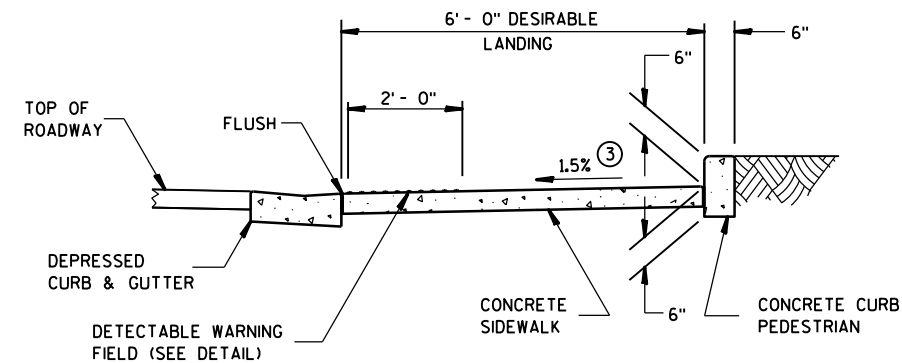
VIEW A-A



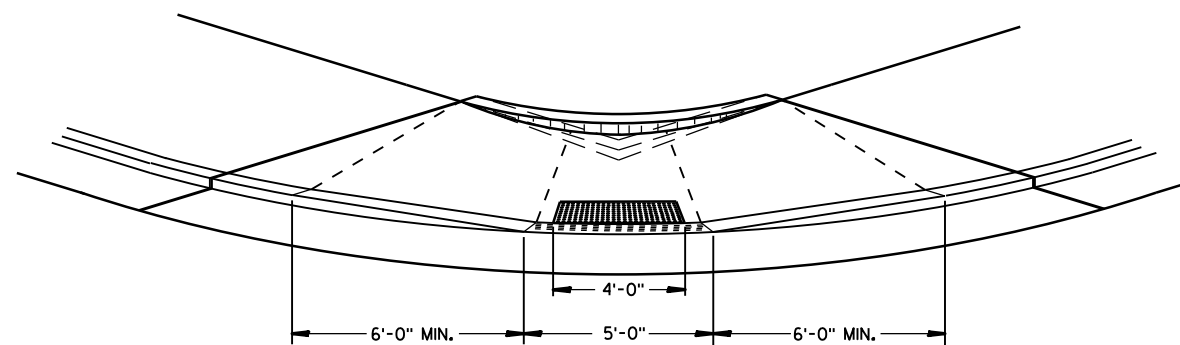
SECTION B-B



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



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

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

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

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

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.

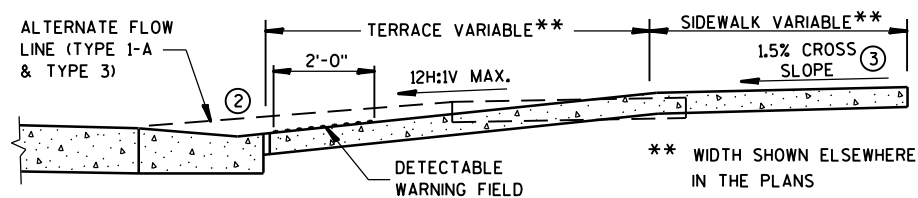
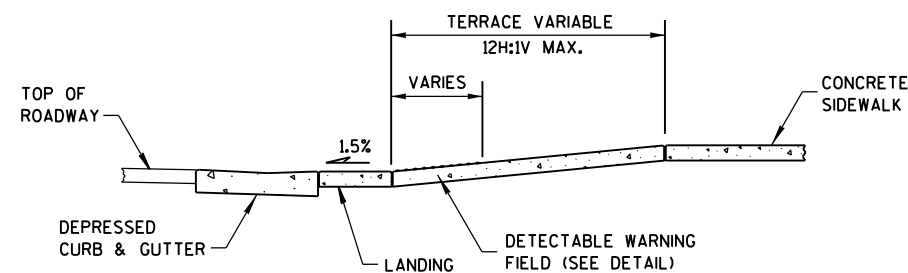
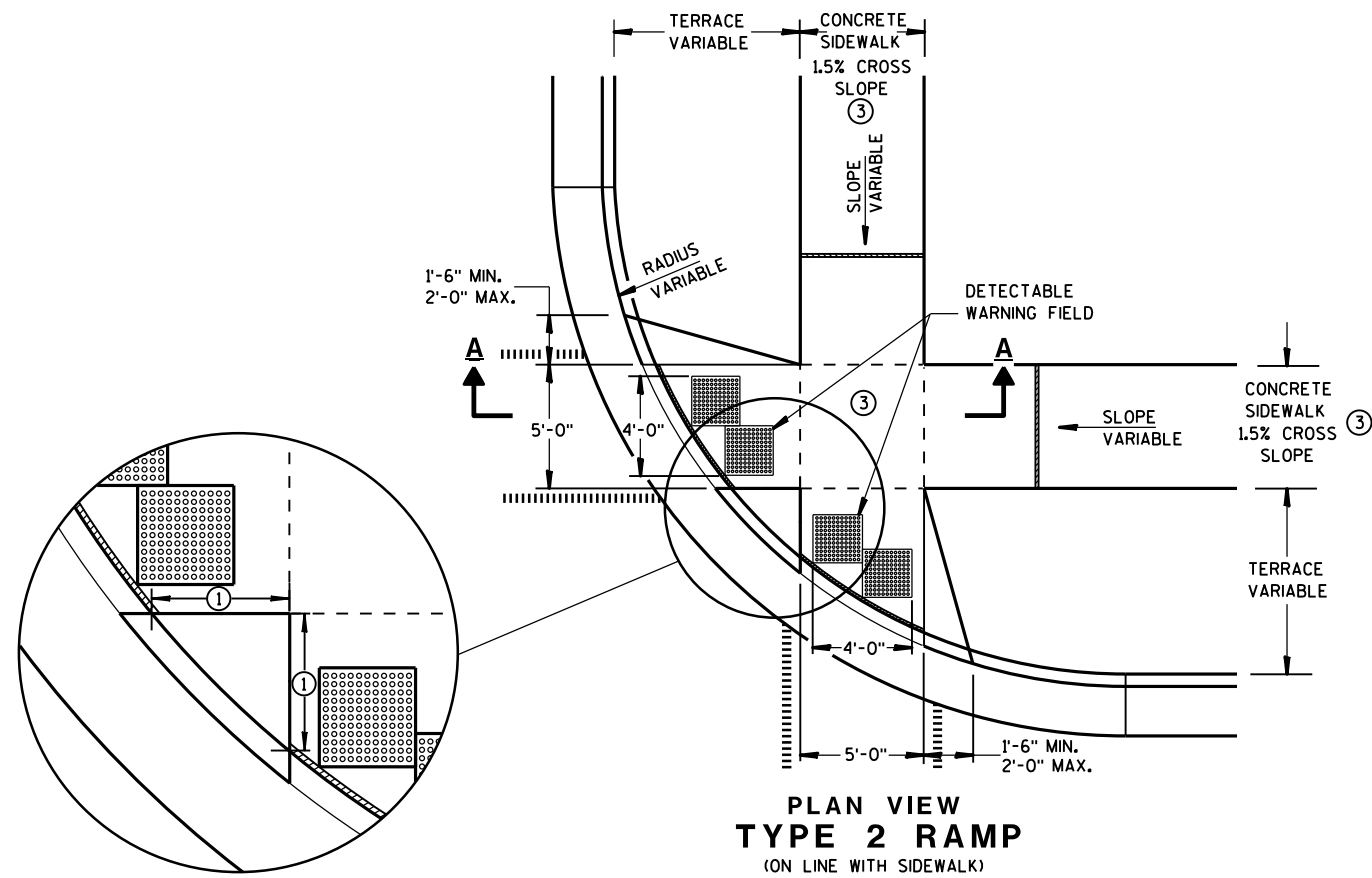
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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



GENERAL NOTES

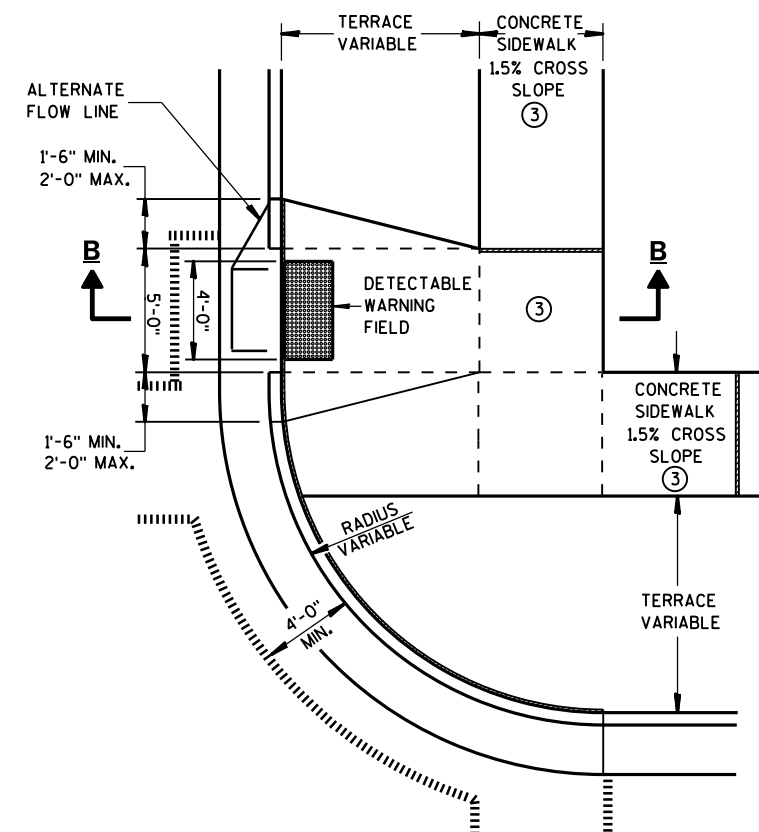
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

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

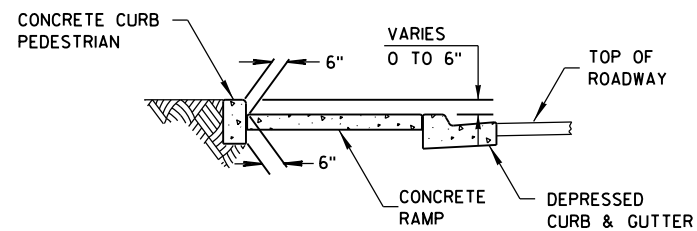


**CURB RAMPS
TYPES 2 AND 3**

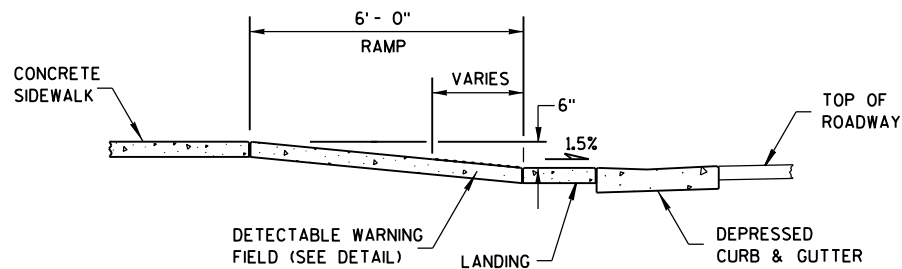
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



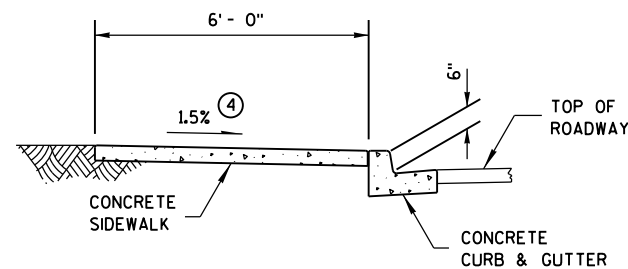
SECTION C-C FOR TYPE 4A



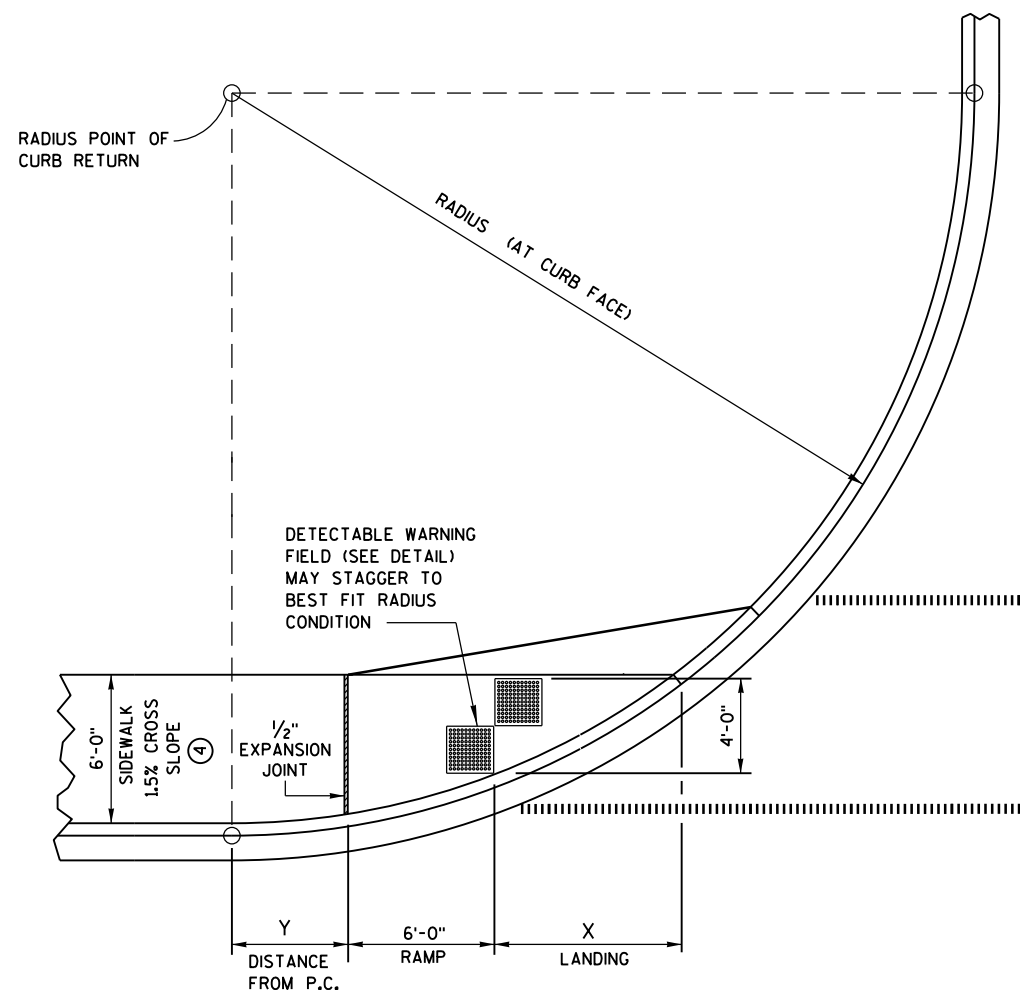
SECTION B-B FOR TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW

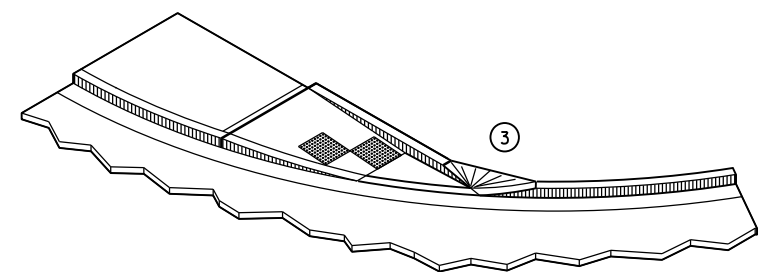
GENERAL NOTES

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

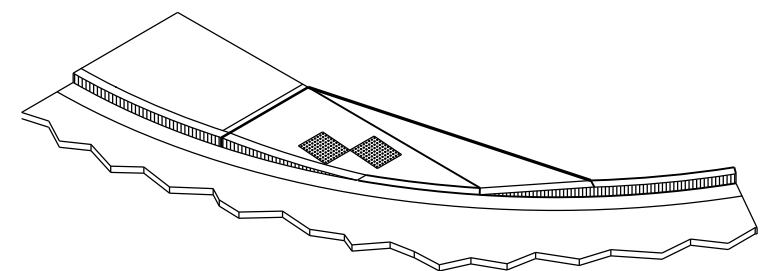
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

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

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.




ISOMETRIC VIEW FOR TYPE 4A



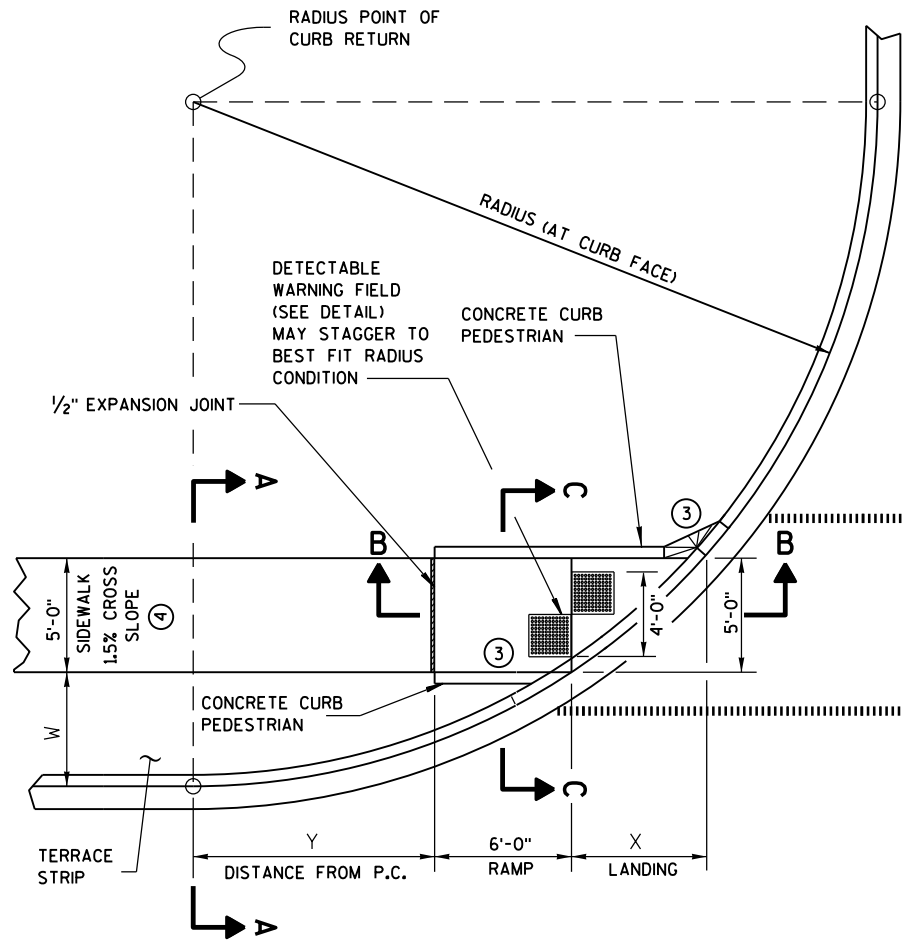
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

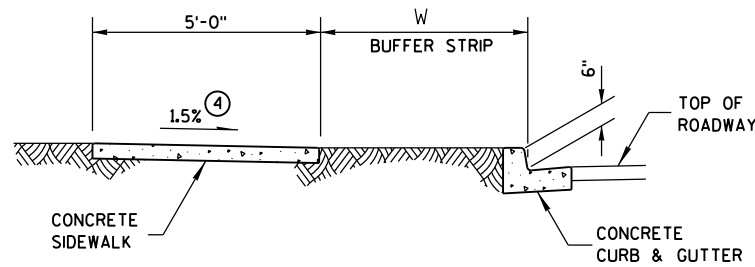
- 1/2" EXPANSION JOINT-SIDEWALK
 CONTRACTION JOINT FIELD LOCATED
 PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

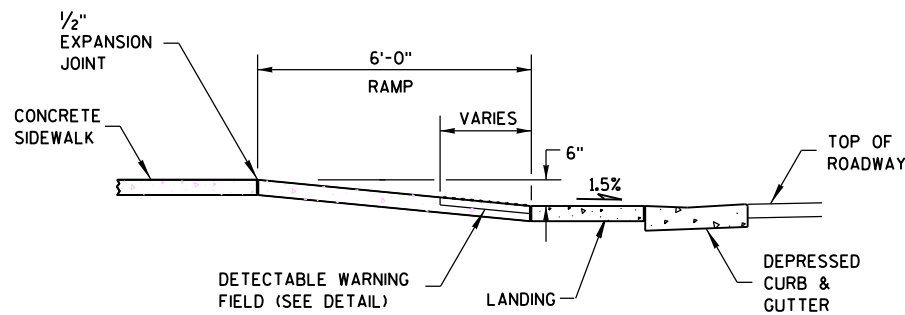
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B

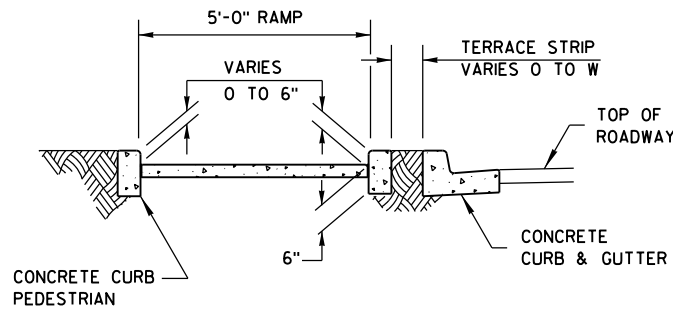


SECTION B-B FOR TYPE 4B

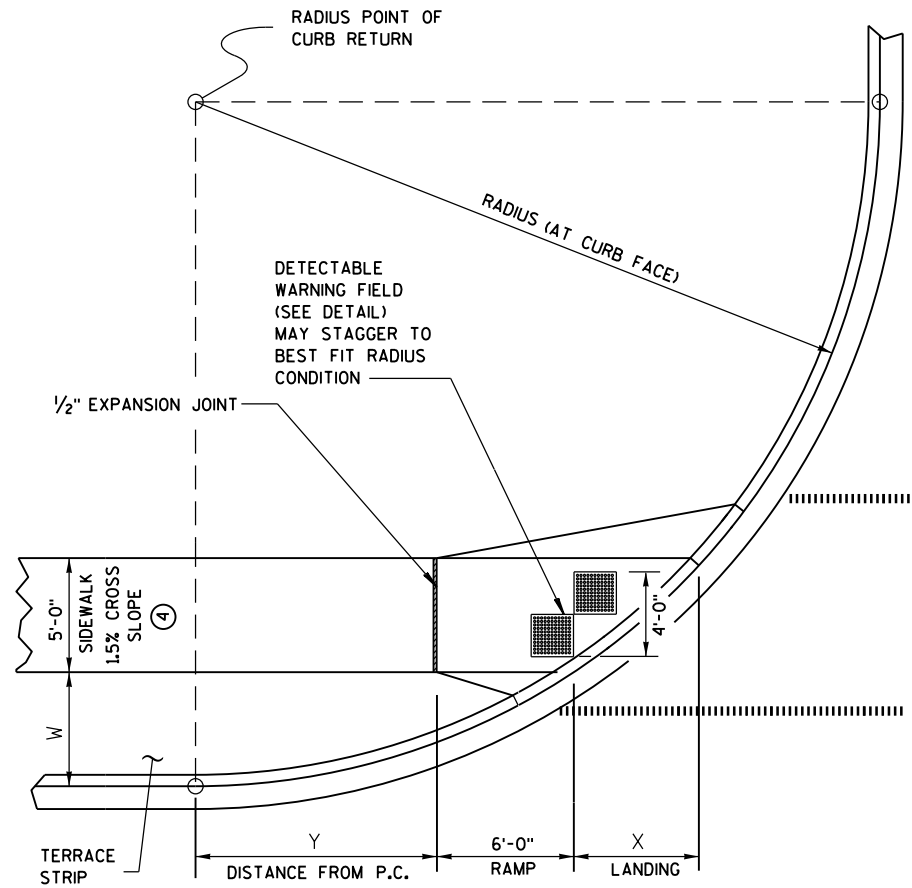
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**

GENERAL NOTES

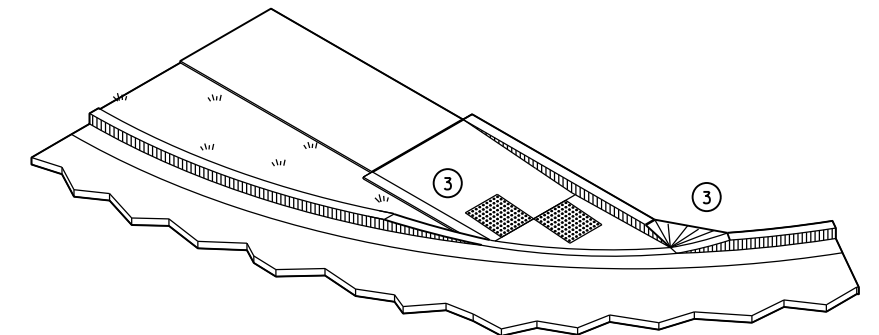
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

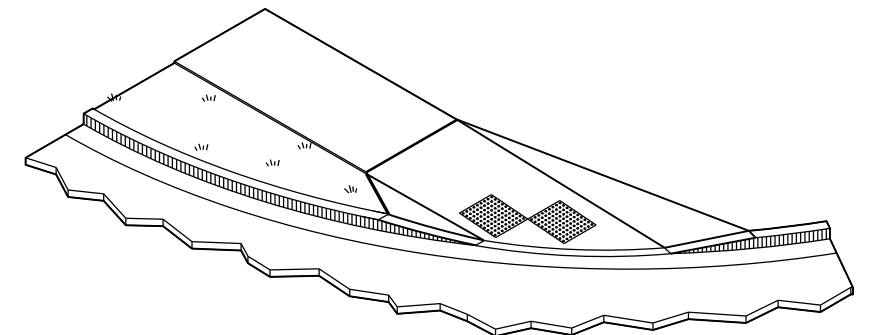
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



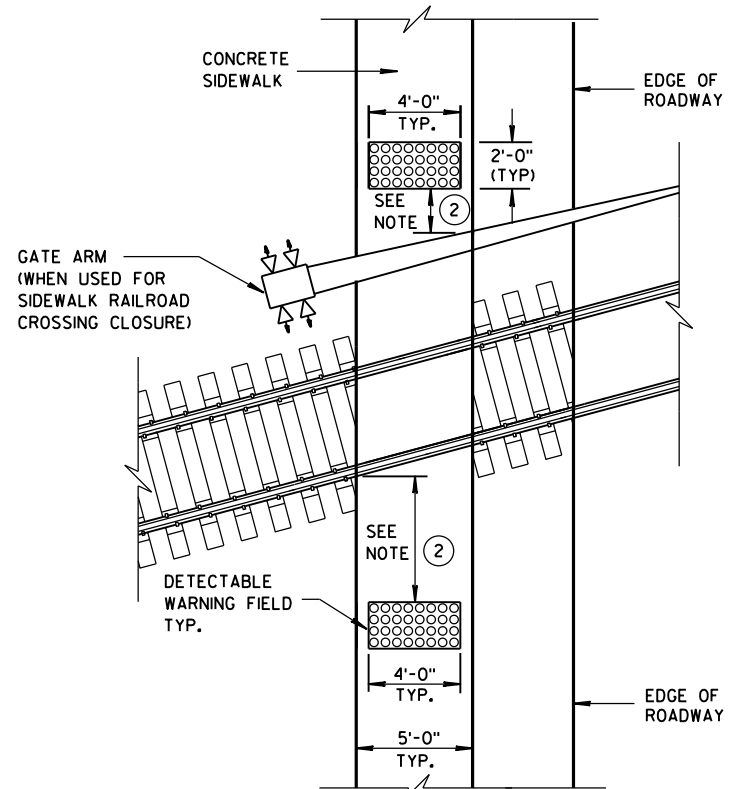
ISOMETRIC VIEW FOR TYPE 4B



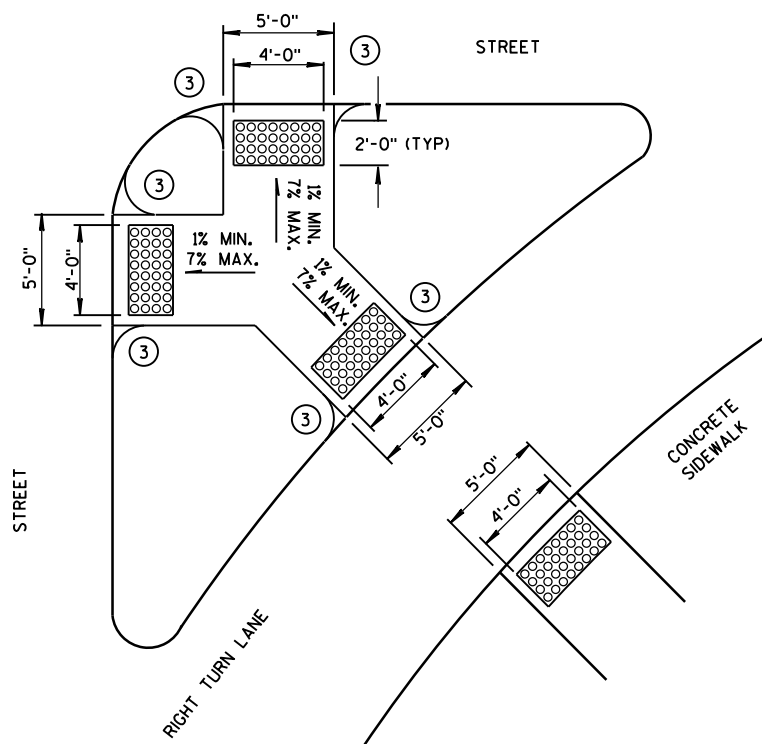
ISOMETRIC VIEW FOR TYPE 4B1

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

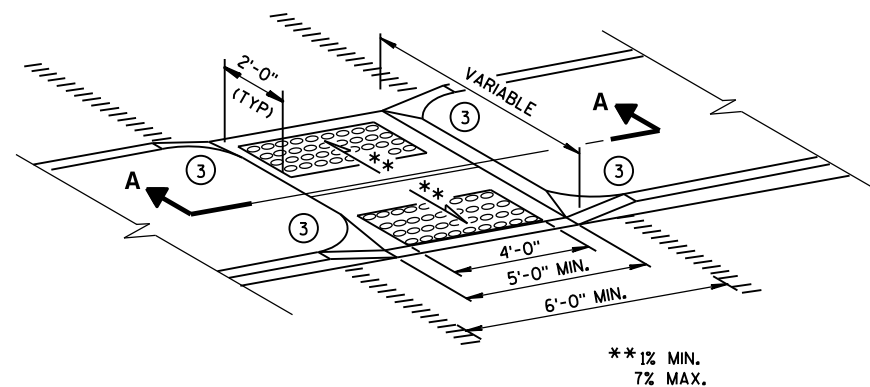
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



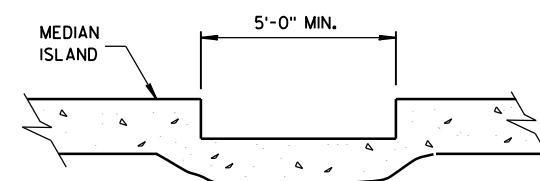
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



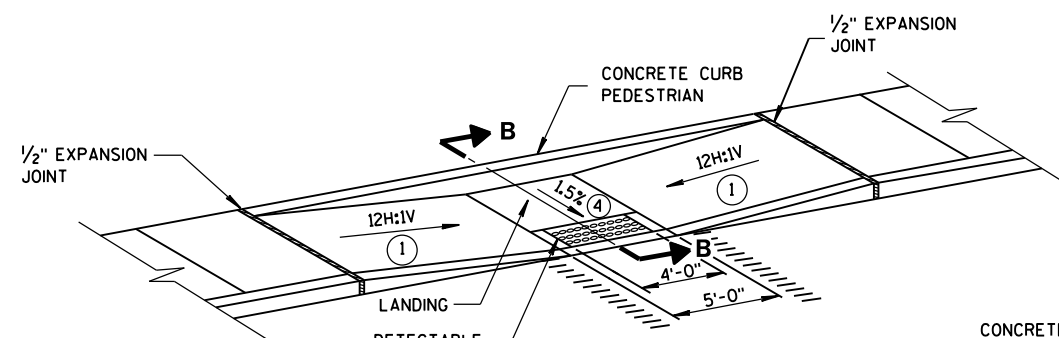
TYPE 6
DETECTABLE WARNING AT ISLANDS



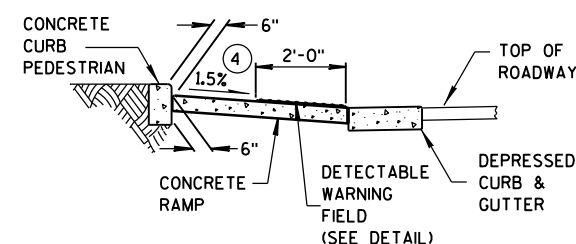
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



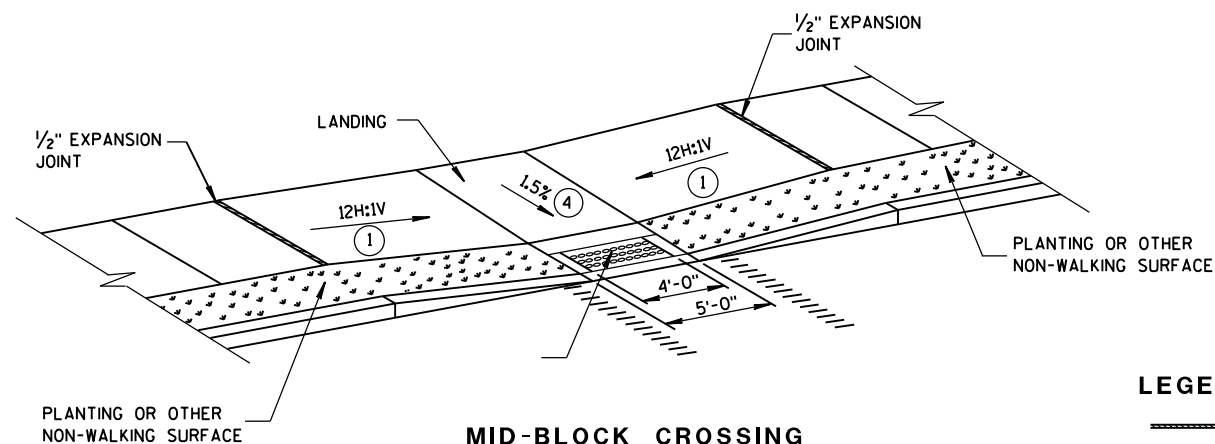
SECTION A-A



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

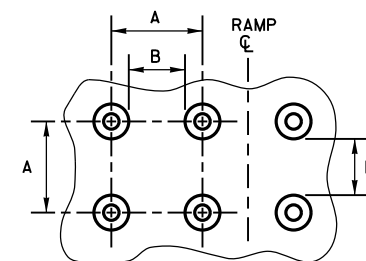
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

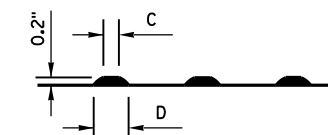
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET \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.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④ \pm 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



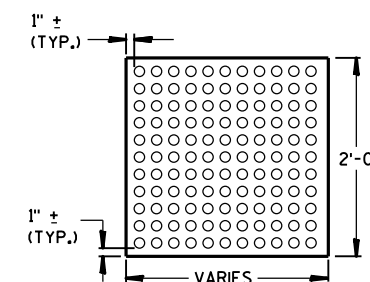
ELEVATION VIEW

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

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

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

LEGEND

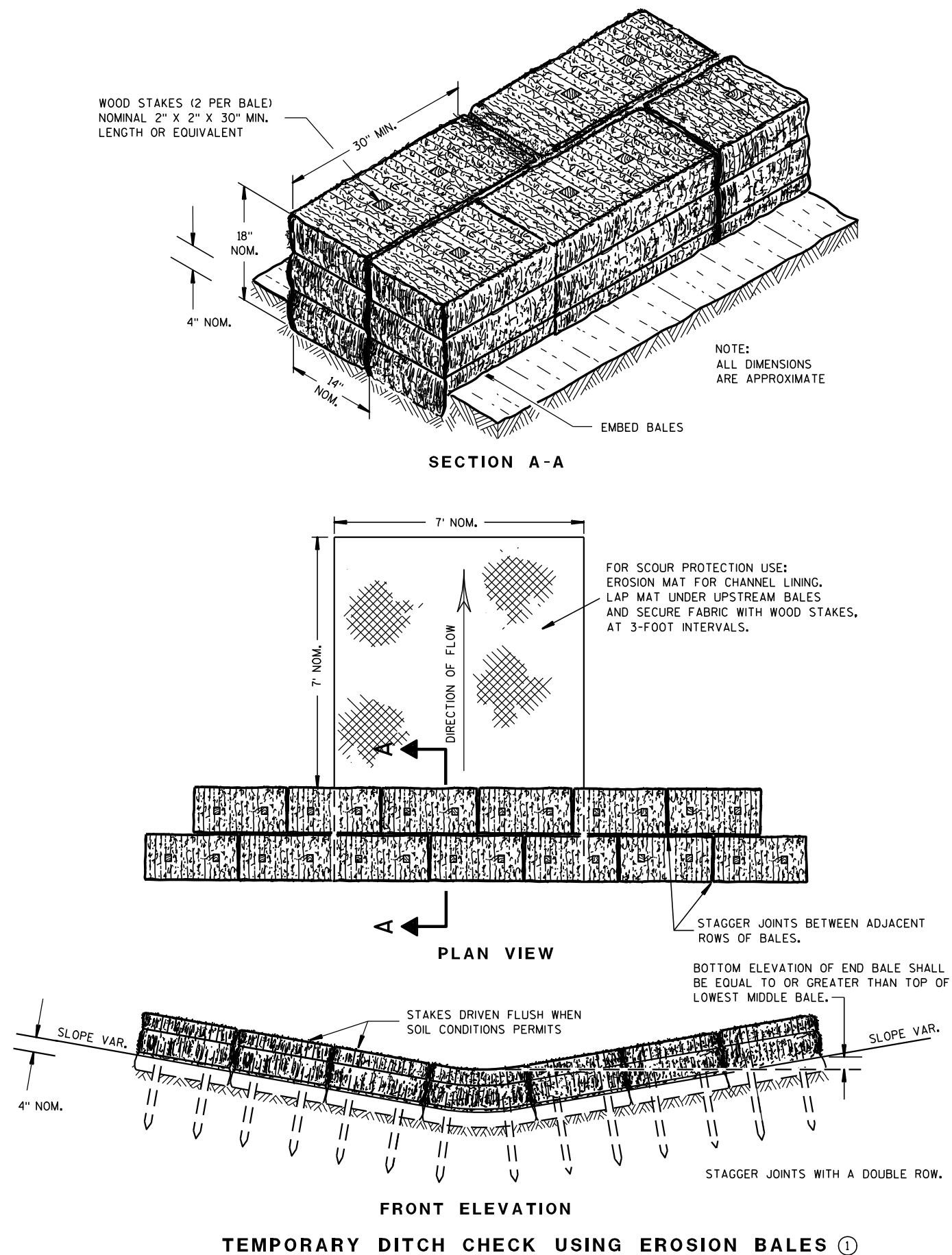
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013
DATE
FHWA

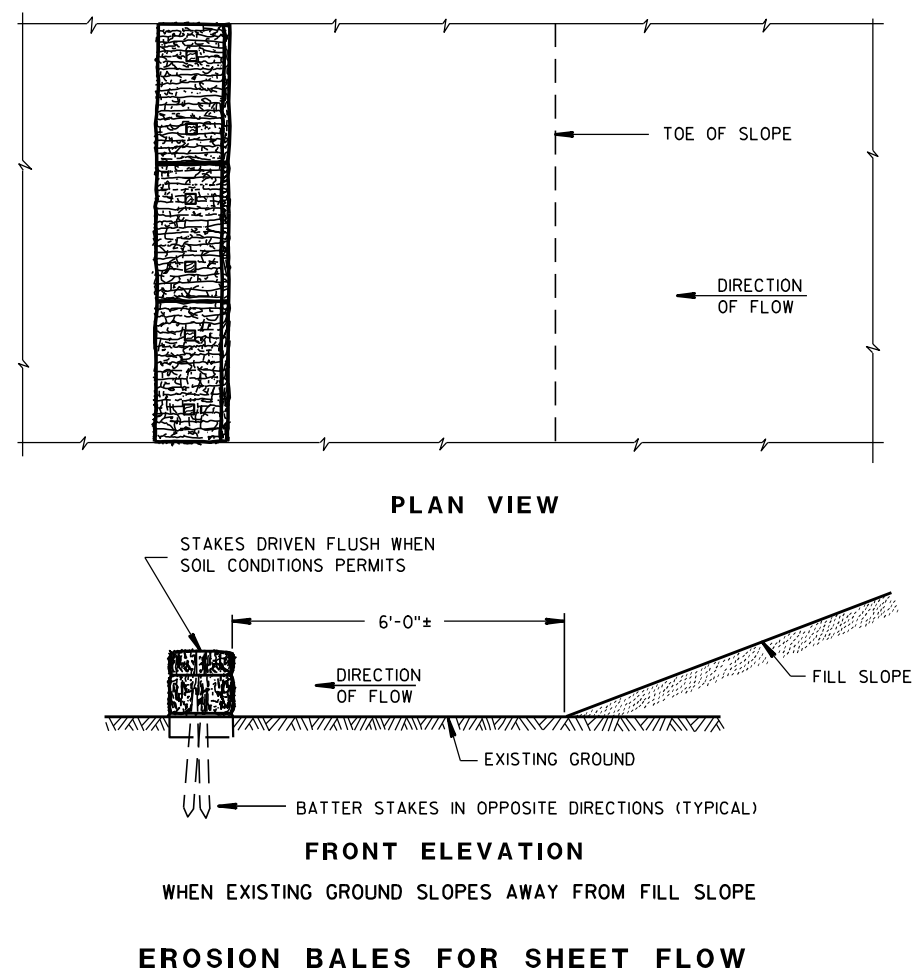
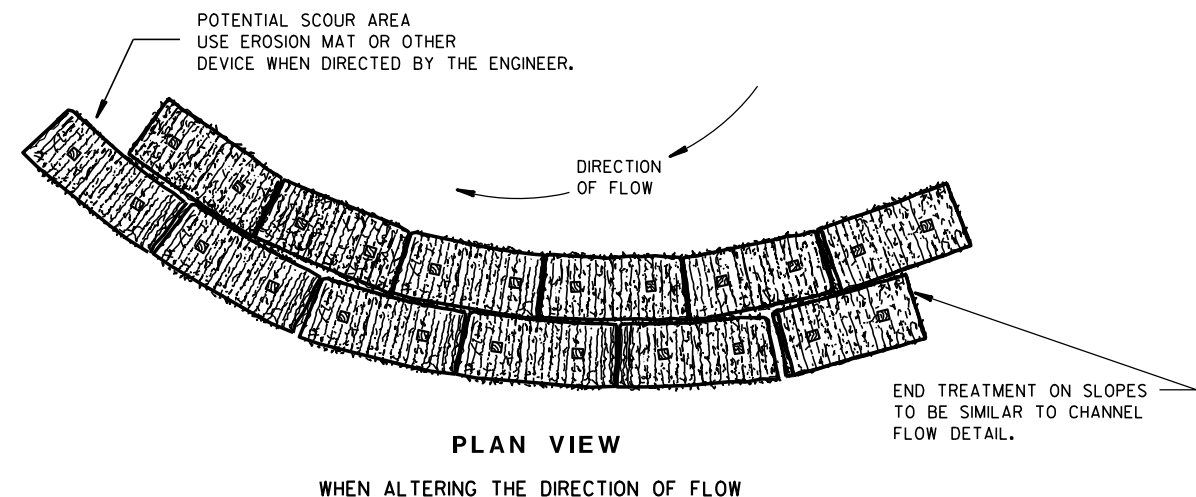
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



GENERAL NOTES

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

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

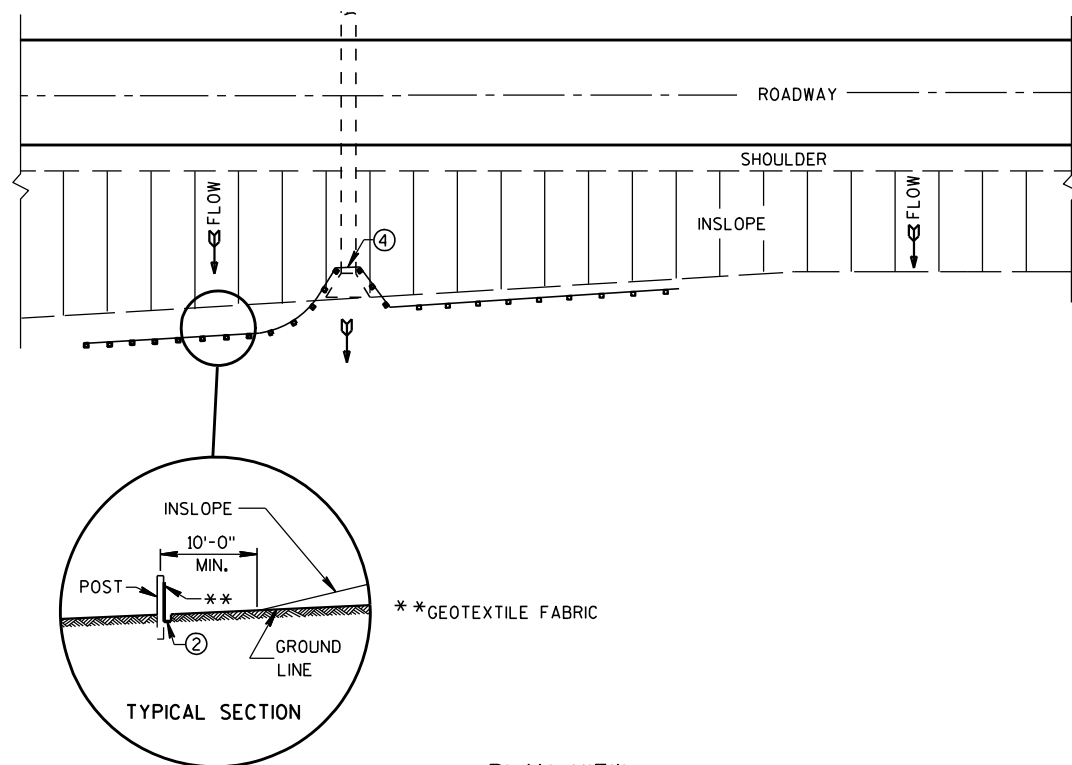
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

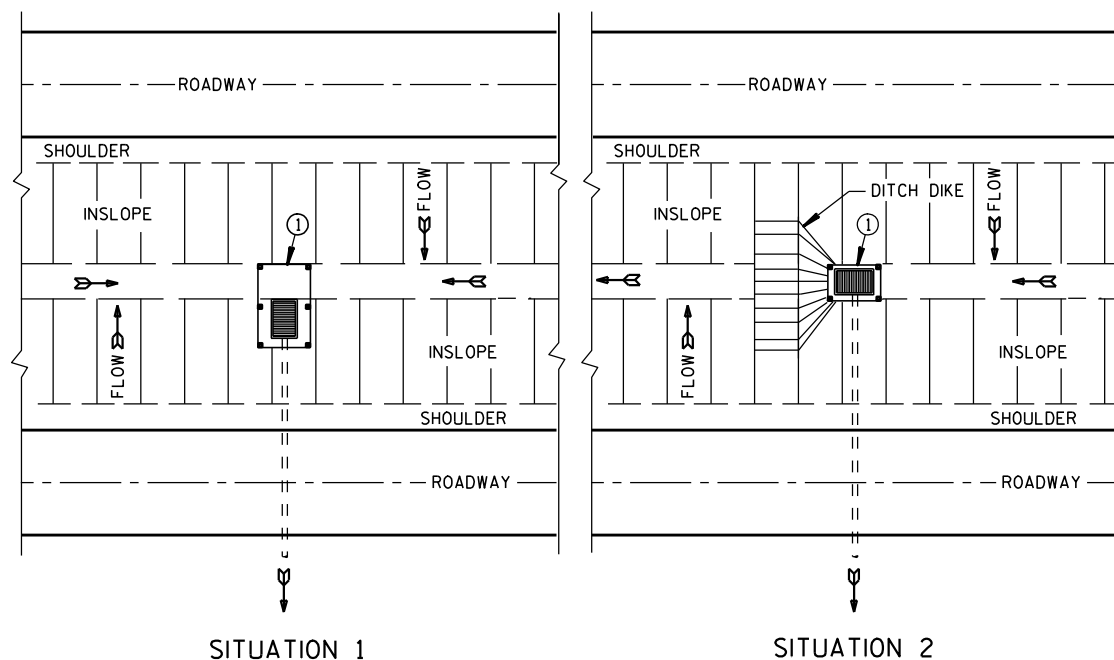
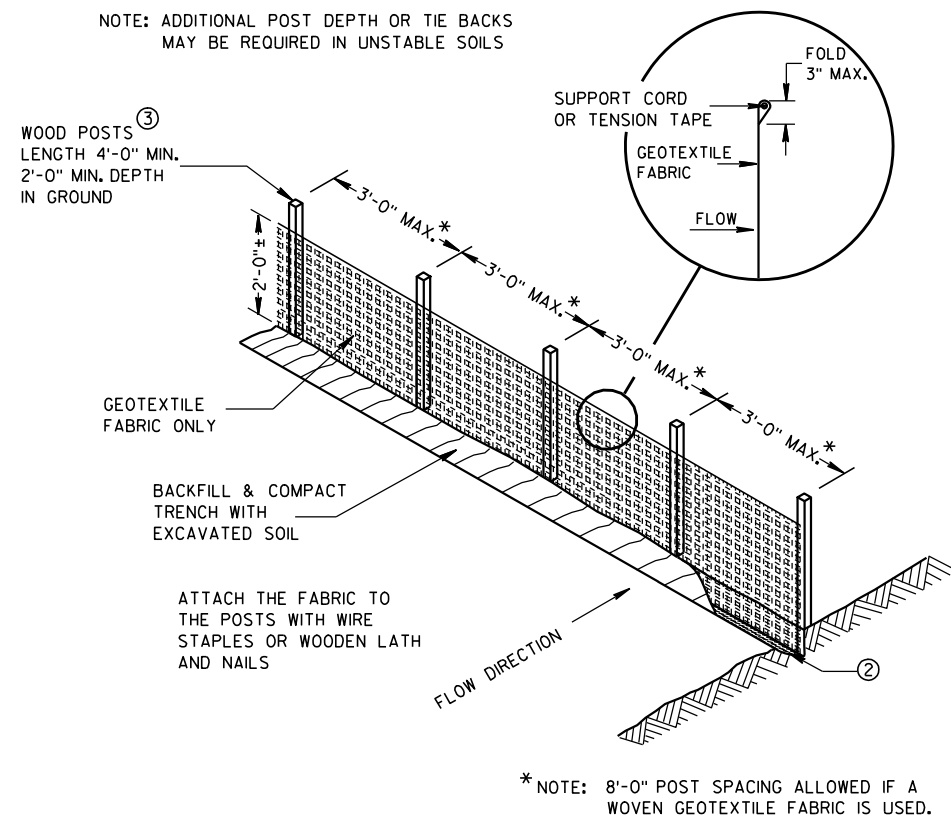
6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



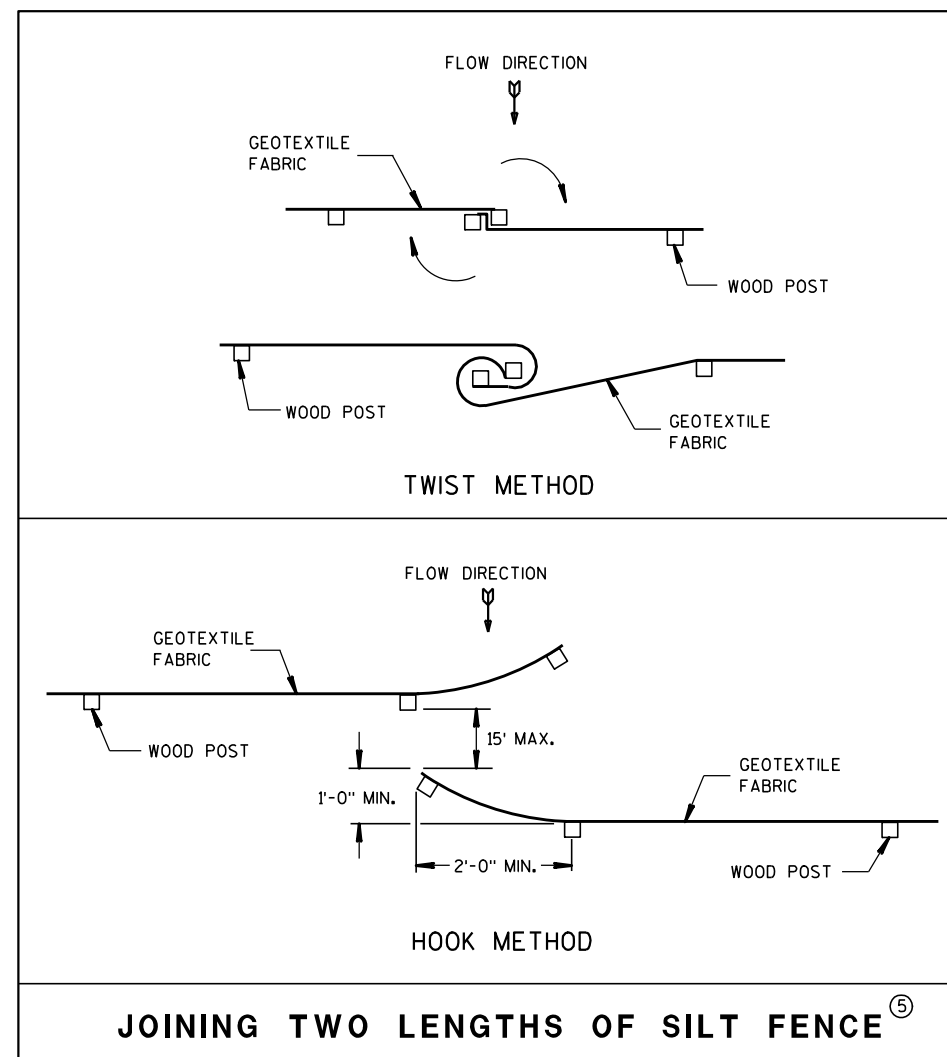
TYPICAL APPLICATION OF SILT FENCE

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



PLAN VIEW

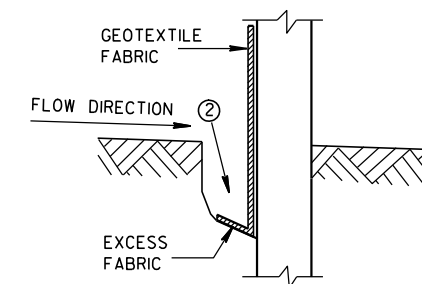
SILT FENCE AT MEDIAN SURFACE DRAINS



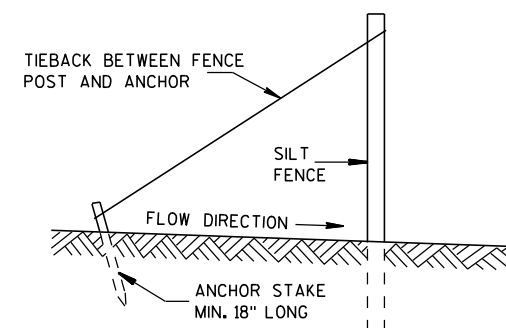
GENERAL NOTES

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

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



TRENCH DETAIL



SILT FENCE TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

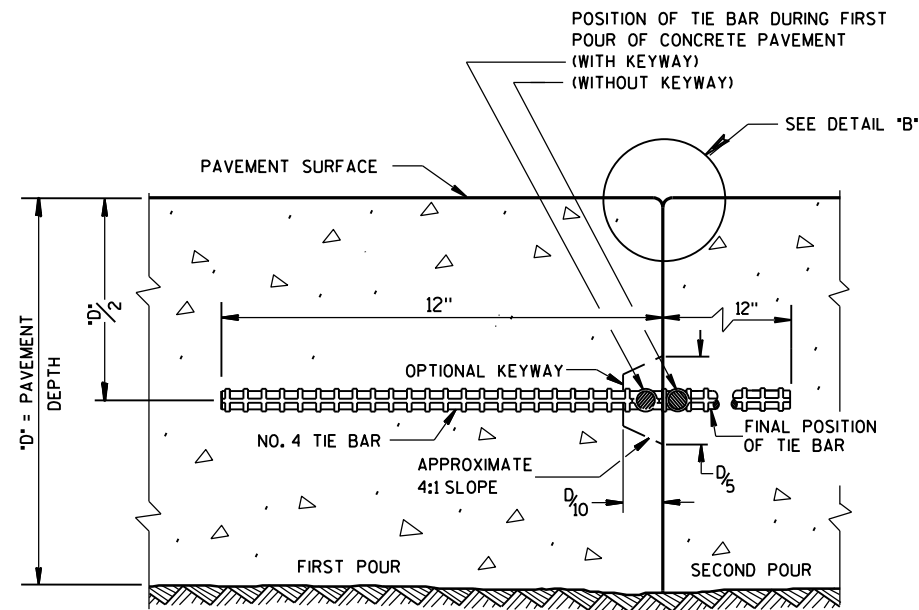
APPROVED

4-29-05

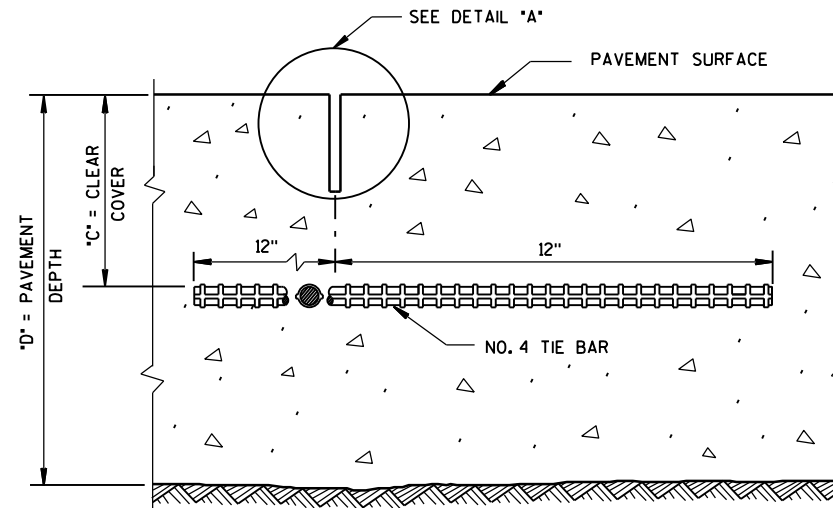
DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



CONSTRUCTION JOINT



SAWED JOINT

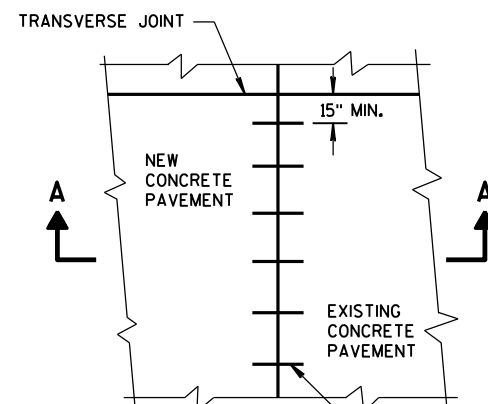
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

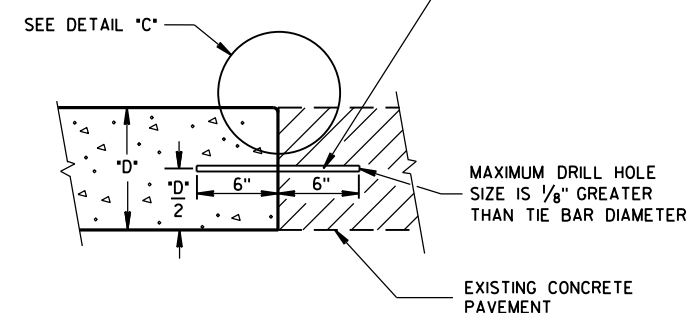
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

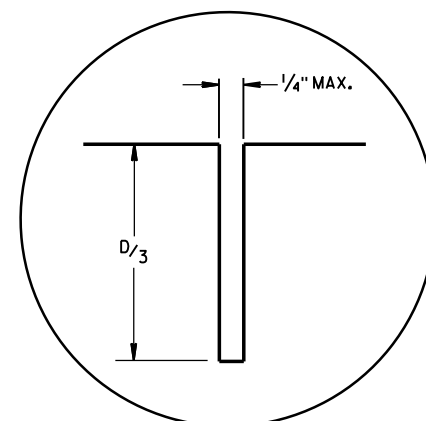


PLAN VIEW

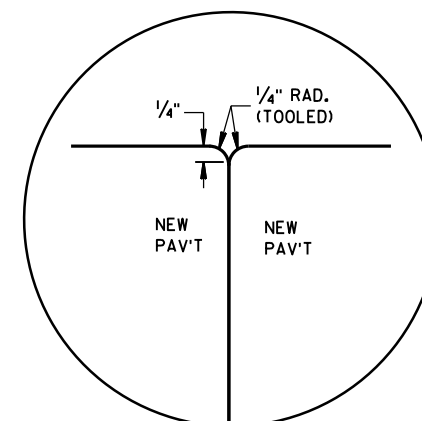
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



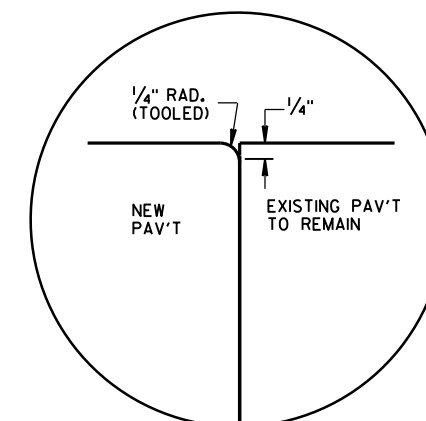
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



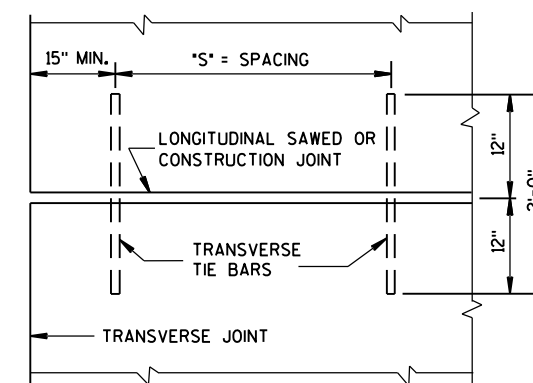
DETAIL "B"



DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3 ± 1/2"	48"	42"
7, 7 1/2"	3 1/4 ± 1"	45"	36"
8, 8 1/2"	3 3/4 ± 1"	39"	30"
9, 9 1/2"	4 1/4 ± 1"	33"	27"
10, 10 1/2"	4 3/4 ± 1"	30"	24"
11, 11 1/2"	5 1/4 ± 1"	27"	21"
12"	5 3/4 ± 1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

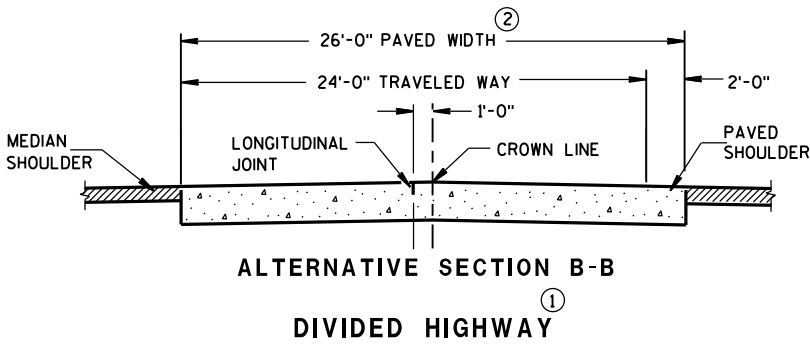
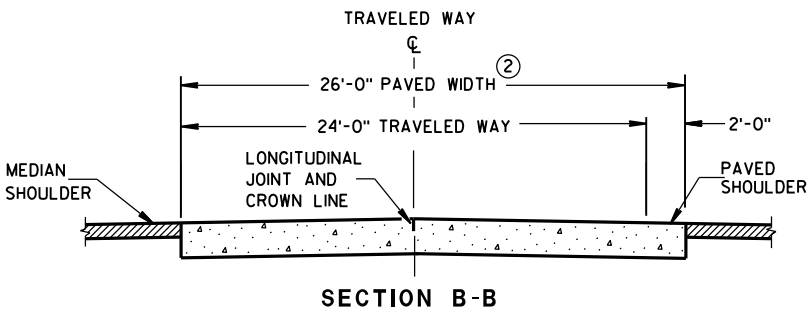
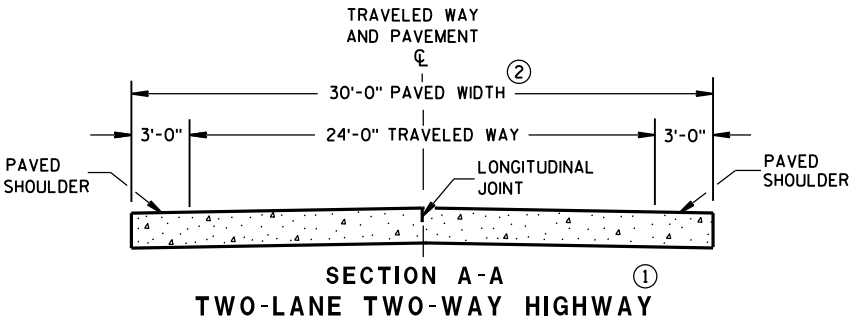
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/2014 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DESIGN ENGINEER

FHWA



GENERAL NOTES

CONTRACTION JOINTS
CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

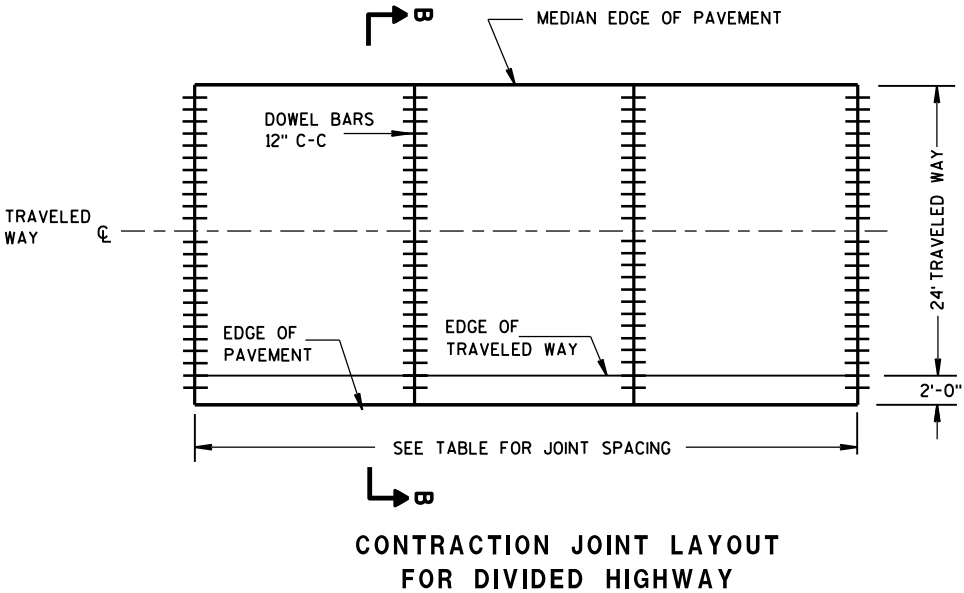
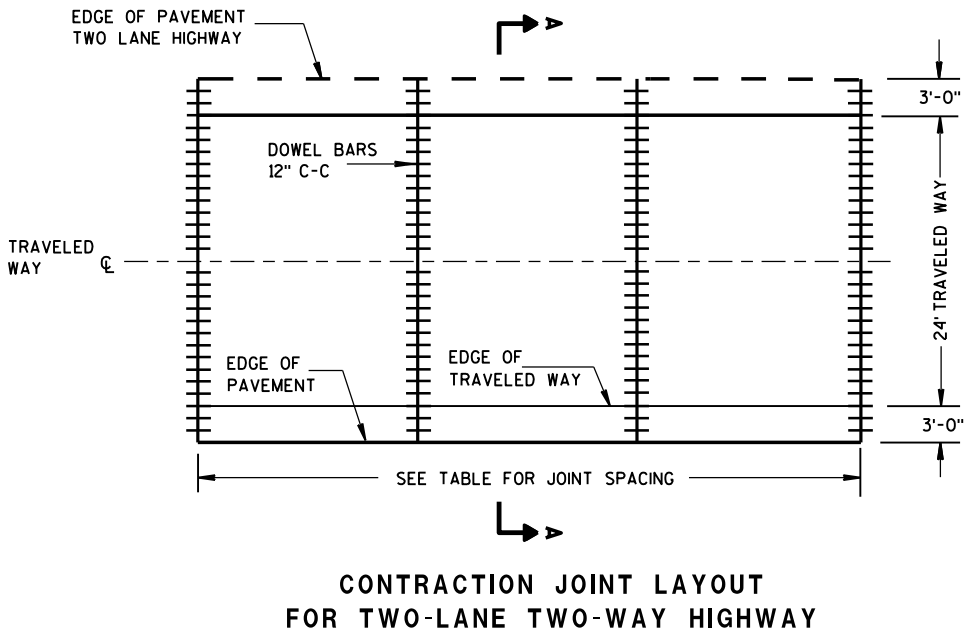
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

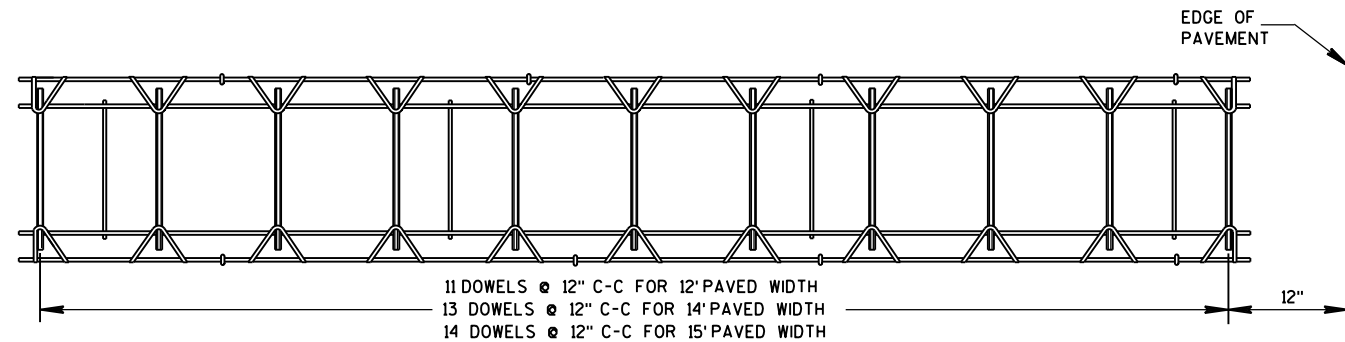
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

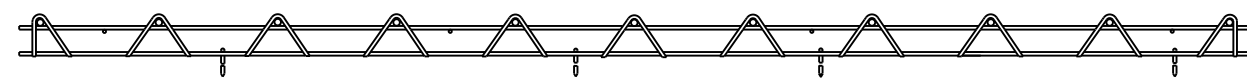


RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



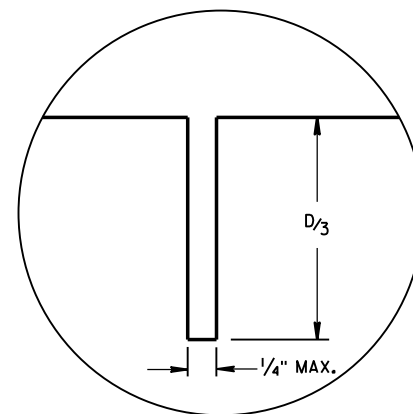
PLAN VIEW



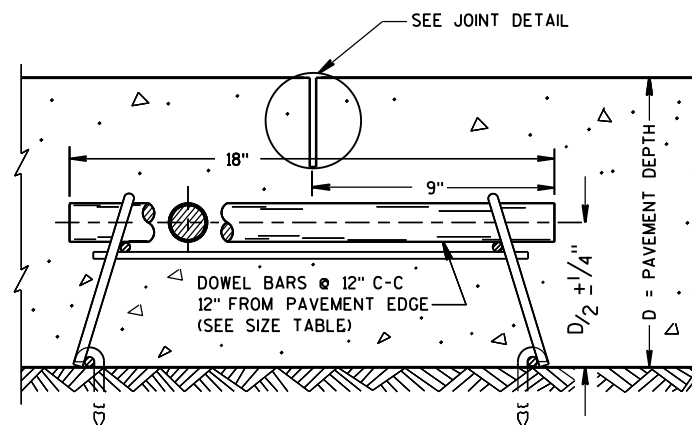
SIDE VIEW

(NORMAL TO CENTERLINE)

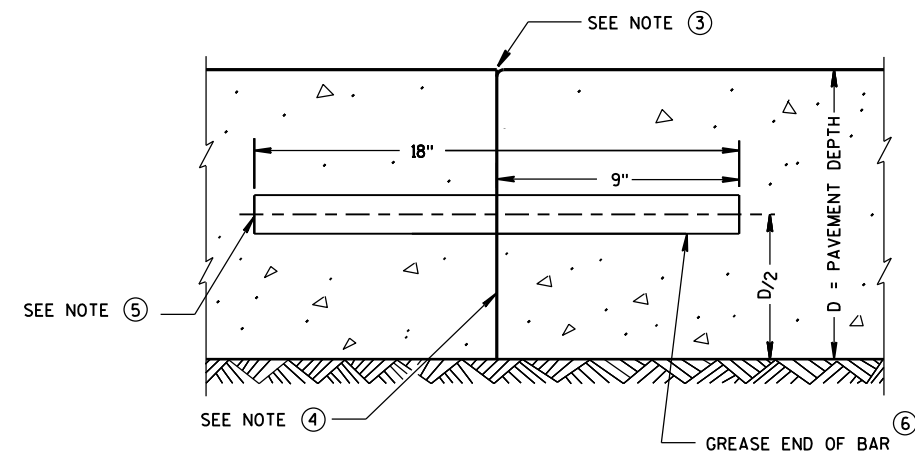
CONTRACTION JOINT DOWEL ASSEMBLY ①



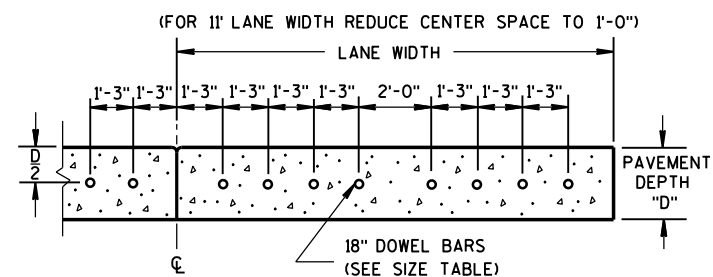
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A $1/4$ -INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS $1/8$ -INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

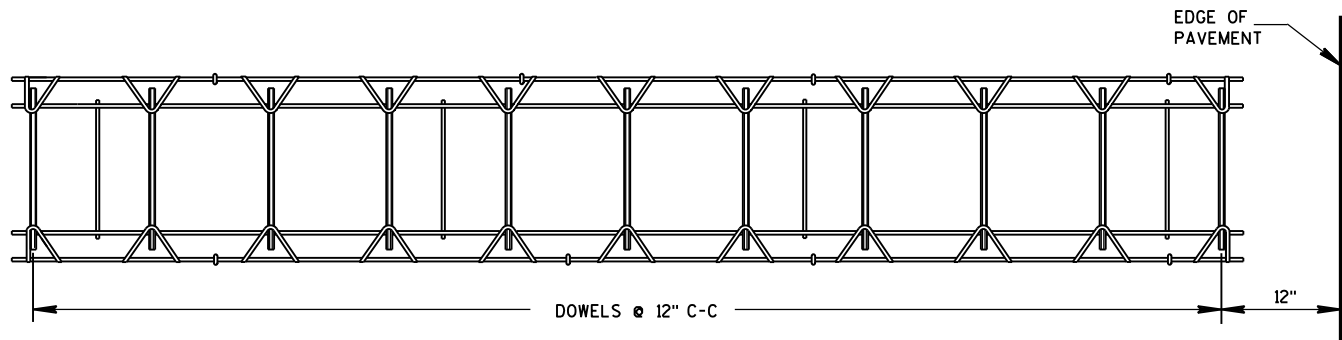
RURAL DOWELED
CONCRETE PAVEMENTSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

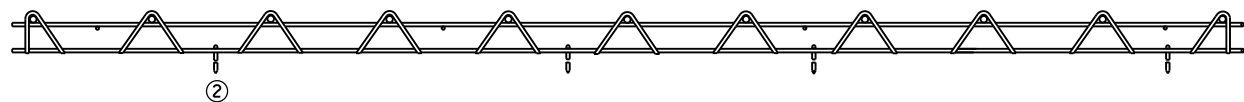
5/3/2013
DATE

FHWA

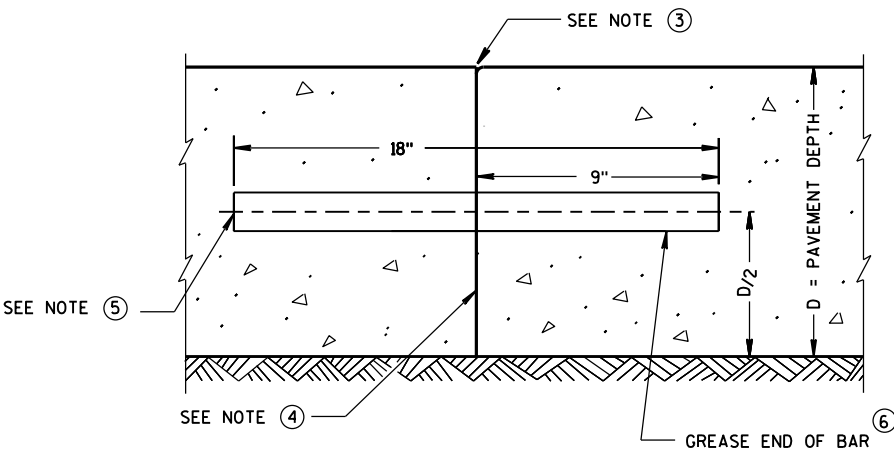
/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



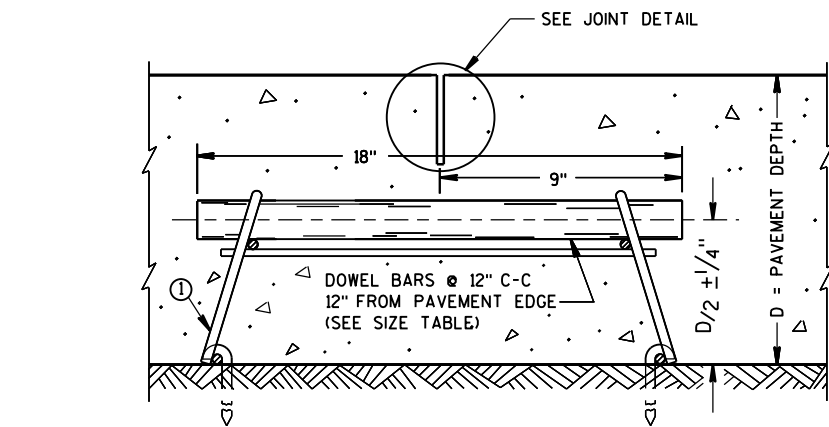
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
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GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

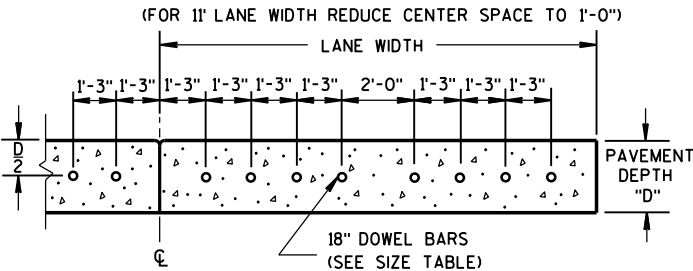
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

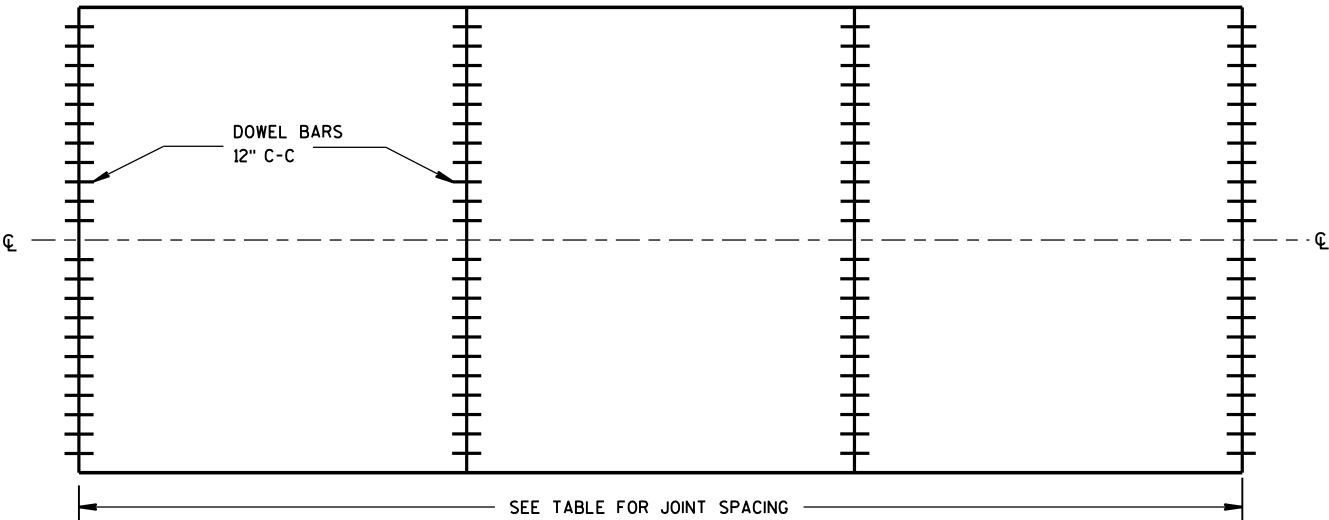
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

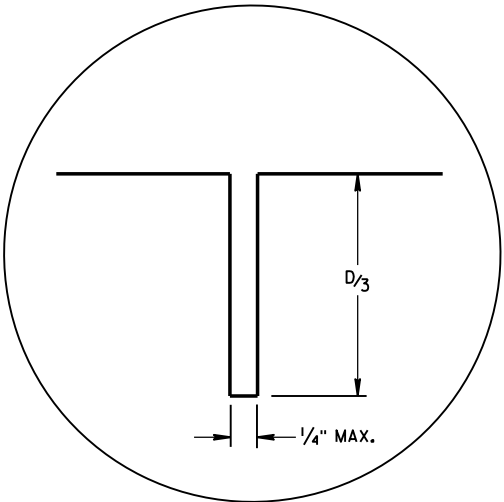
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

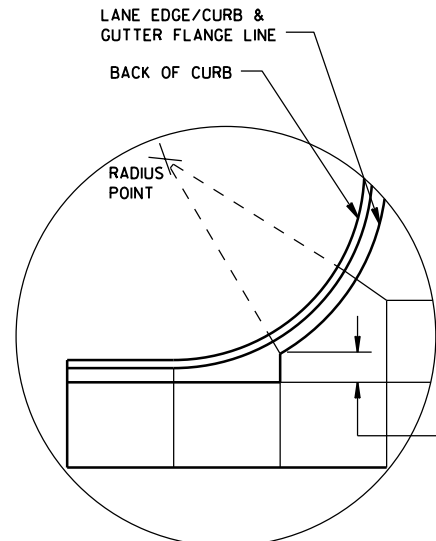


JOINT DETAIL

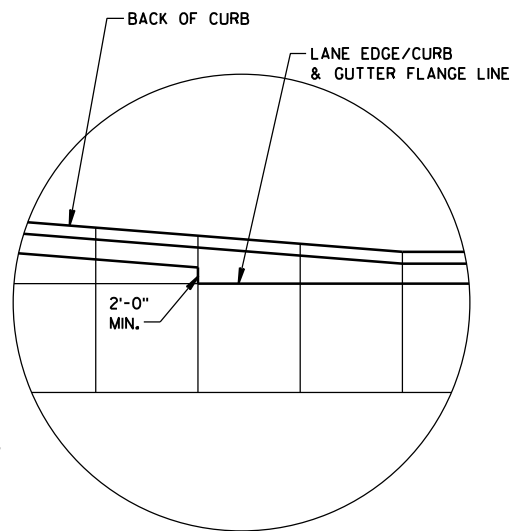
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

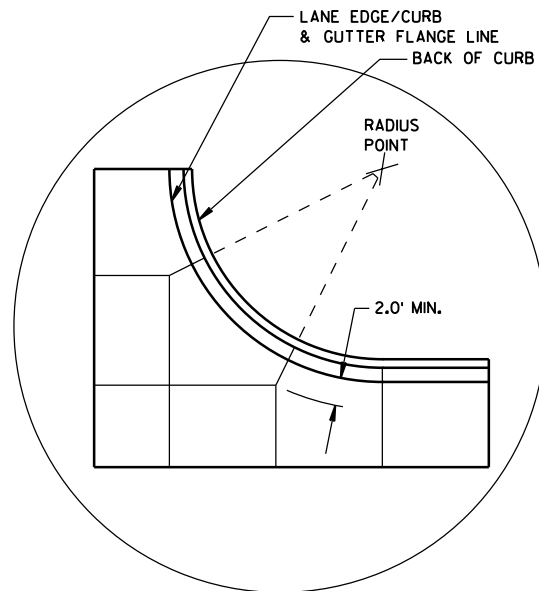
APPROVED
5/3/2013 /S/ Deb Bischoff
DATE PAVEMENT POLICY & DESIGN ENGINEER
FHWA



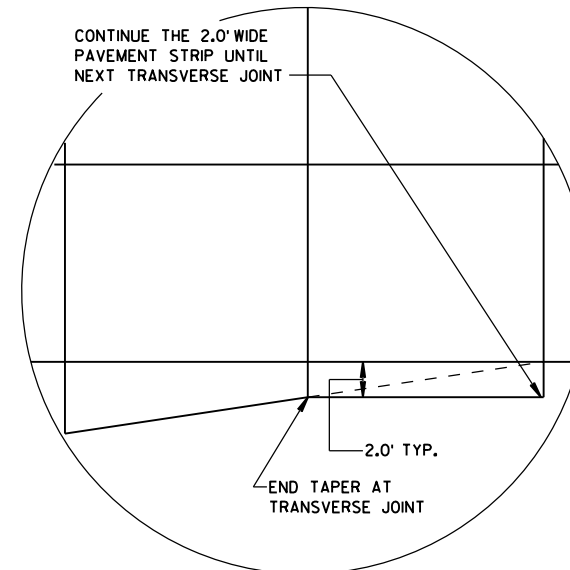
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

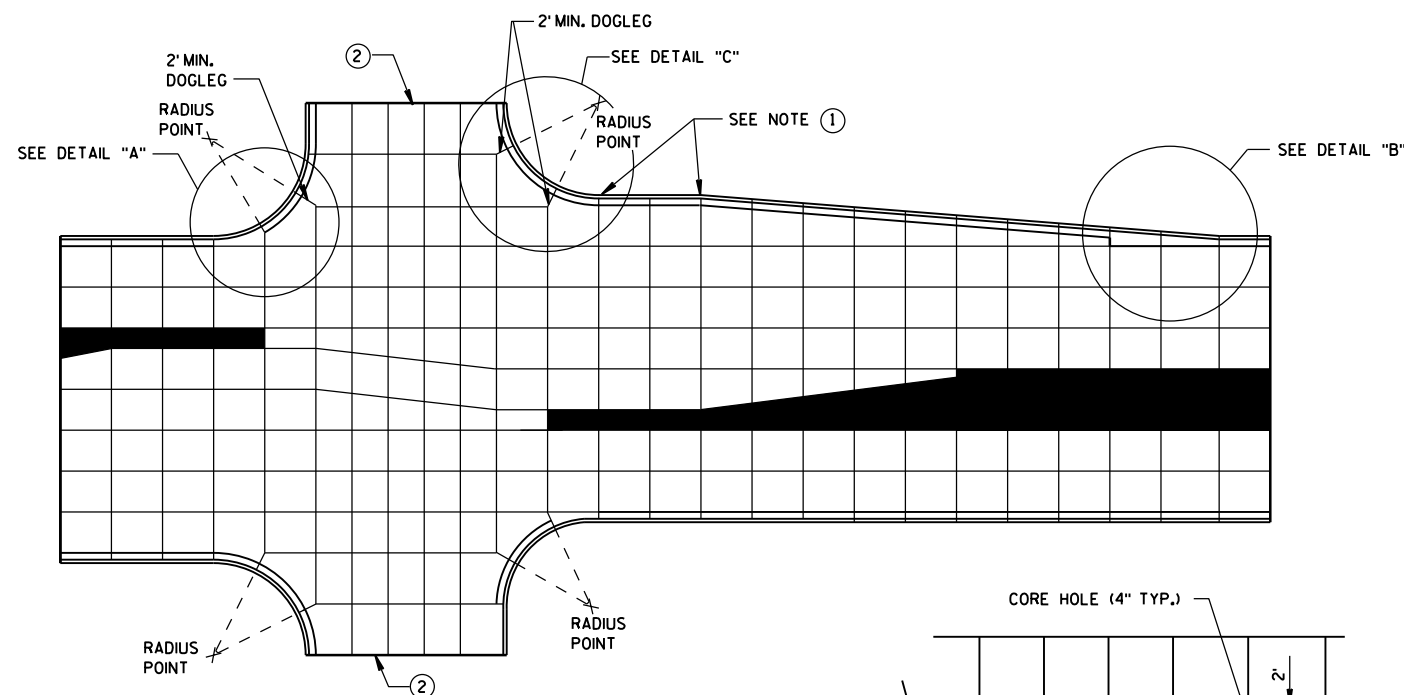
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

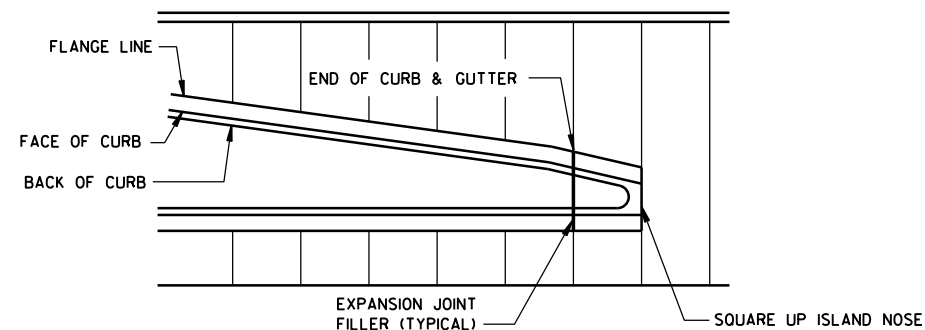
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

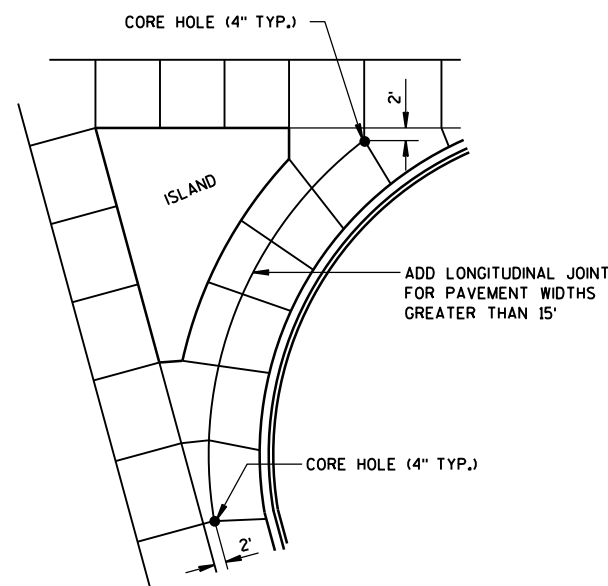
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



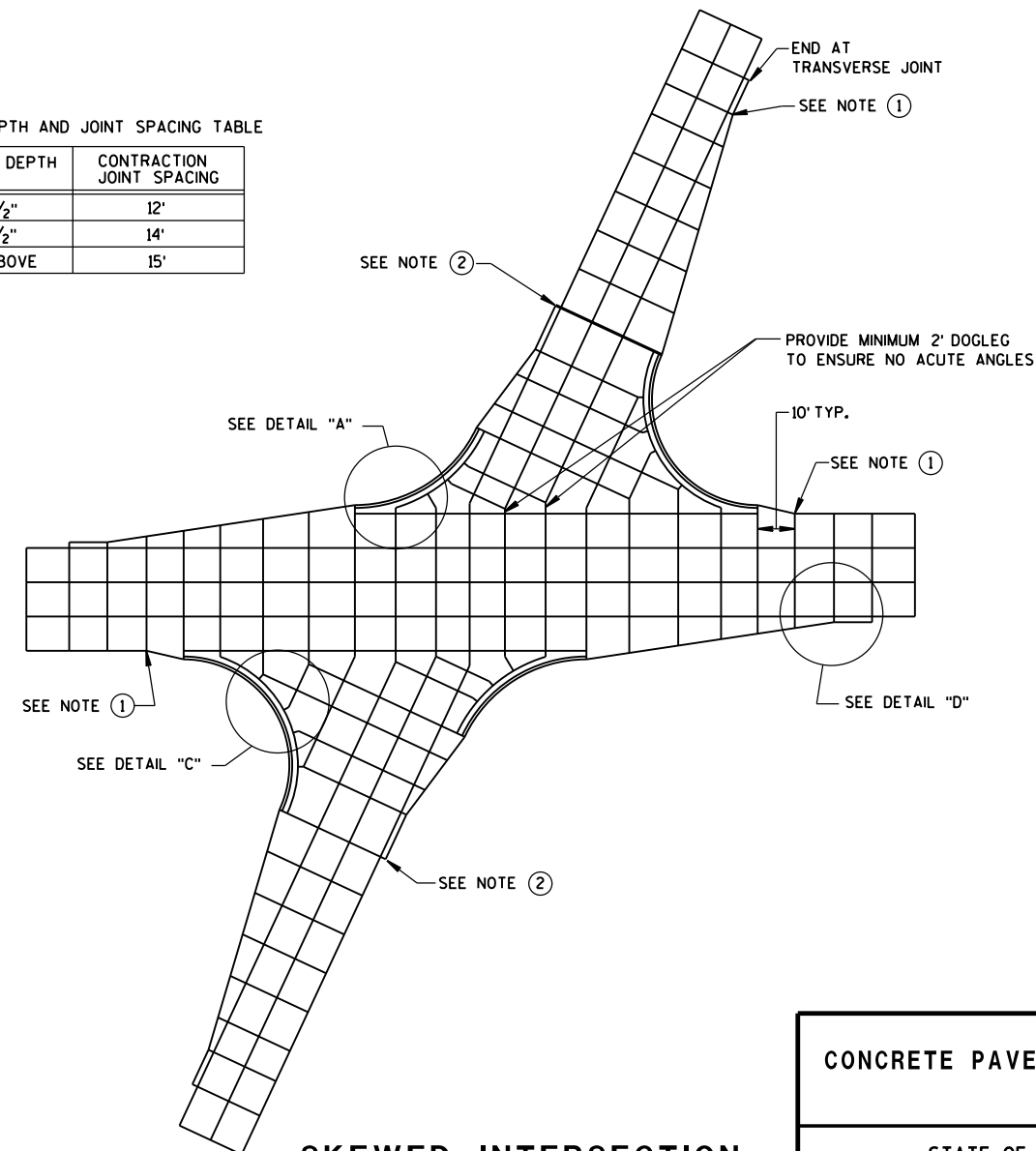
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



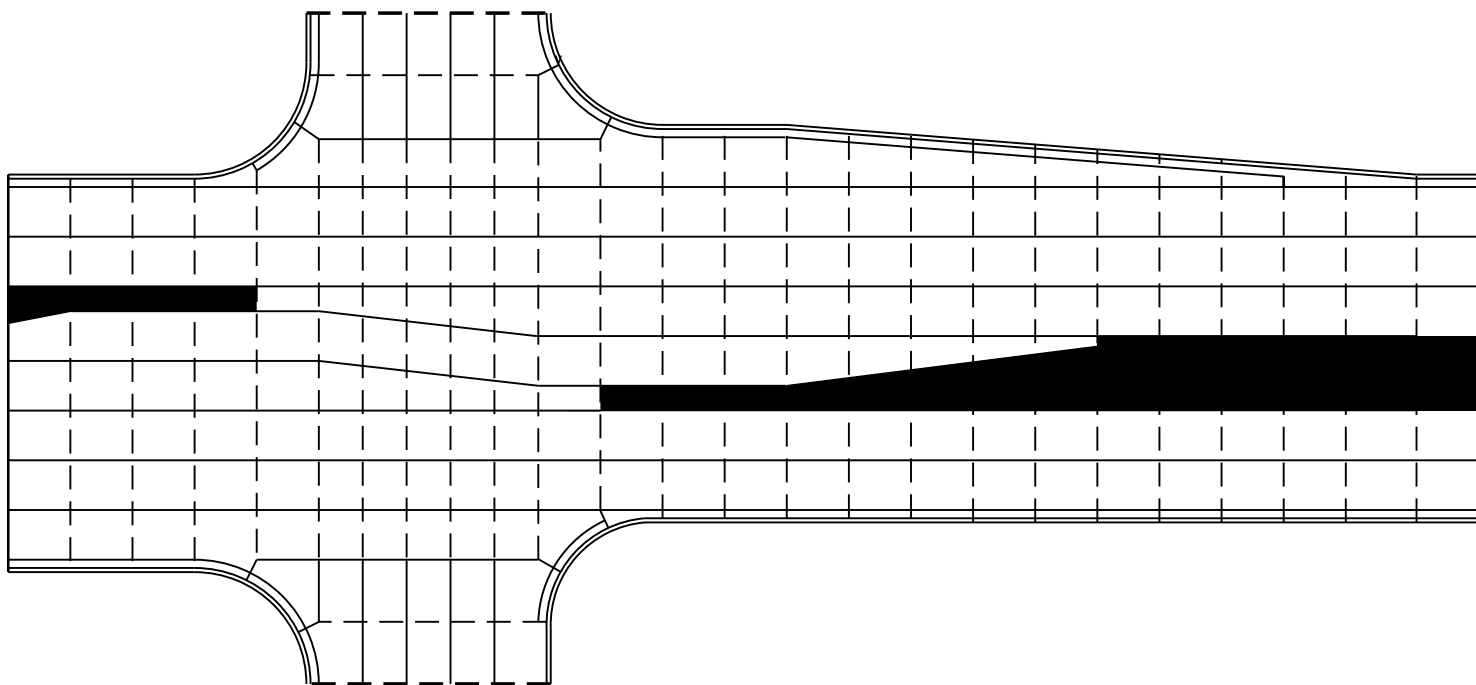
SKewed INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

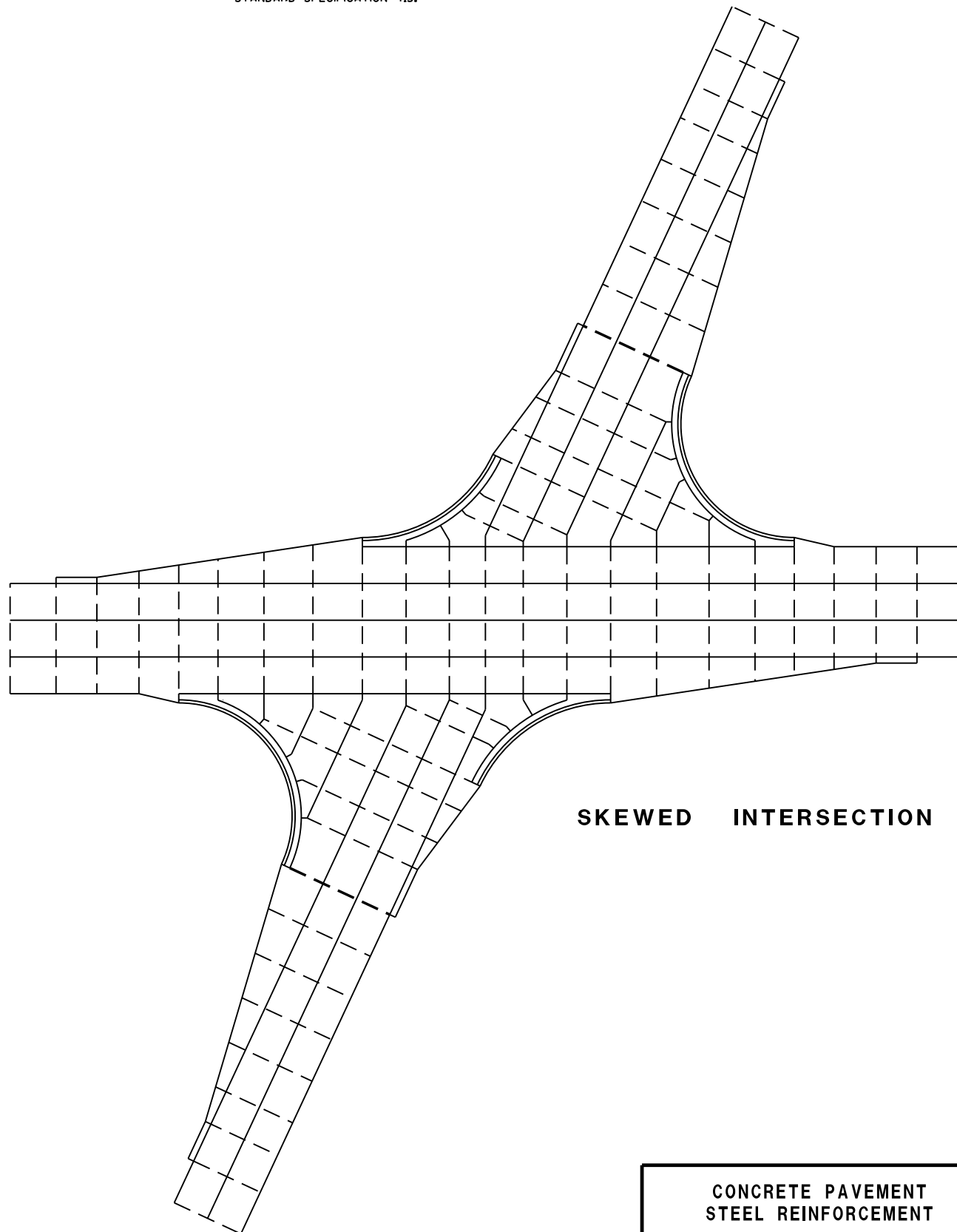
- POTENTIAL DOWELED EXPANSION JOINT
- - - DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

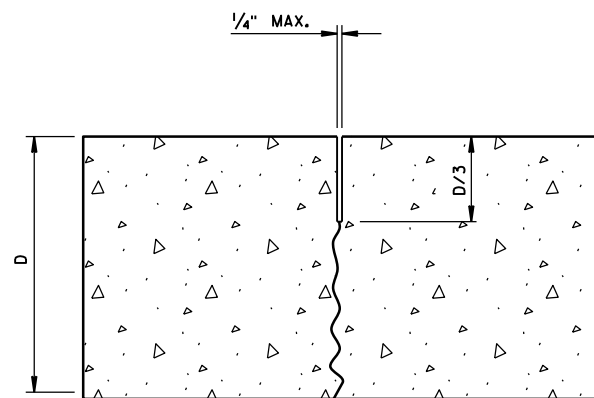
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



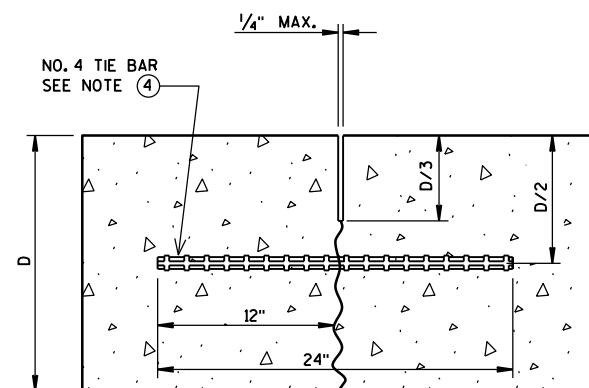
SKewed INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

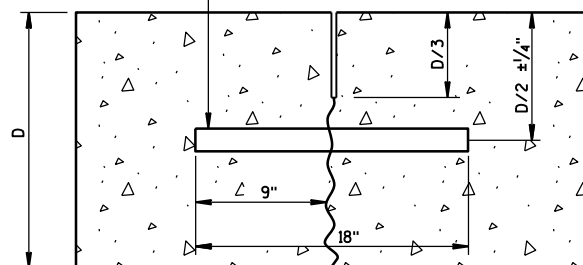


UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

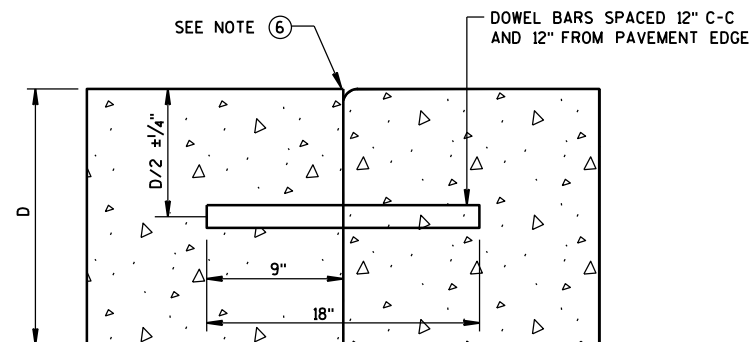
DOWEL BARS AT 12" C-C
12" FROM PAVEMENT EDGE



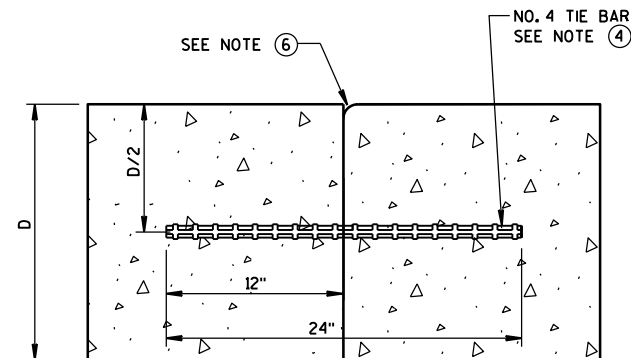
DOWELED-TRANSVERSE

CONTRACTION JOINTS

SEE NOTE ②

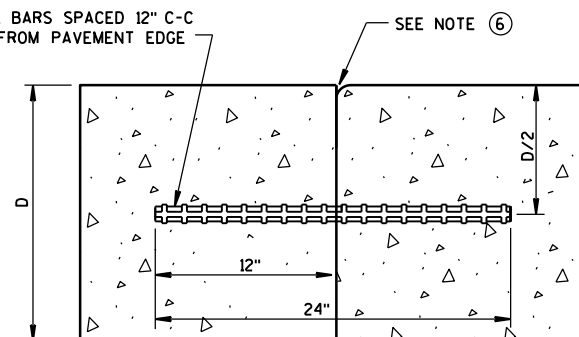
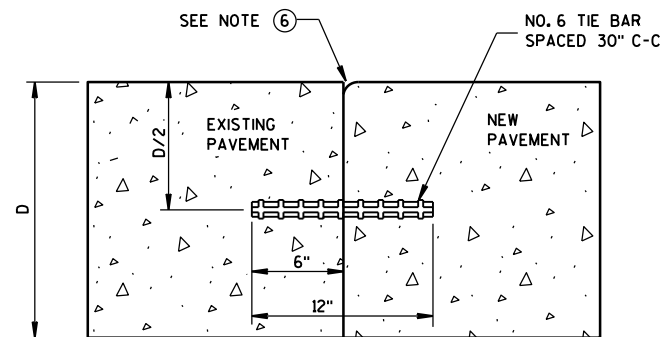


DOWELED TRANSVERSE



TIED LONGITUDINAL

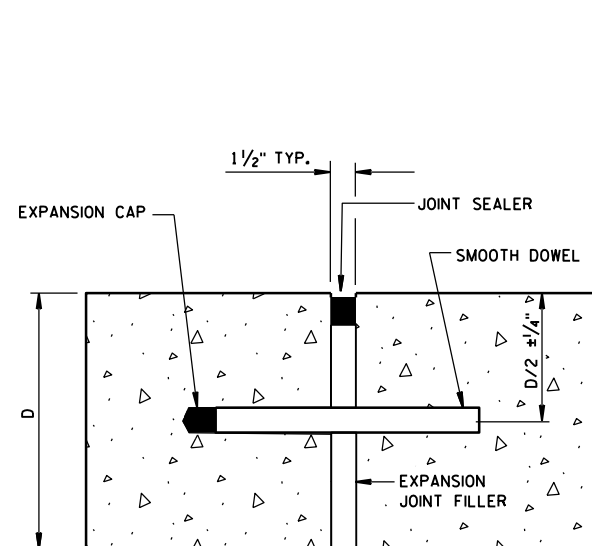
NO. 6 TIE BARS SPACED 12" C-C
AND 12" FROM PAVEMENT EDGE

TIED TRANSVERSE
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)

TIED LONGITUDINAL TO EXISTING

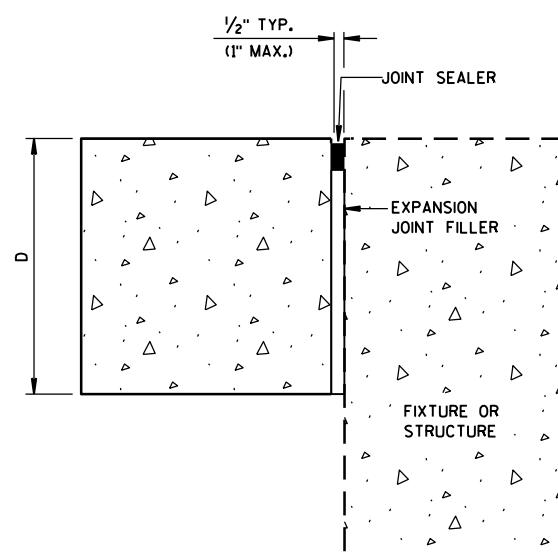
CONSTRUCTION JOINTS

SEE NOTE ⑤



DOWELED-TRANSVERSE

SEE NOTE ①



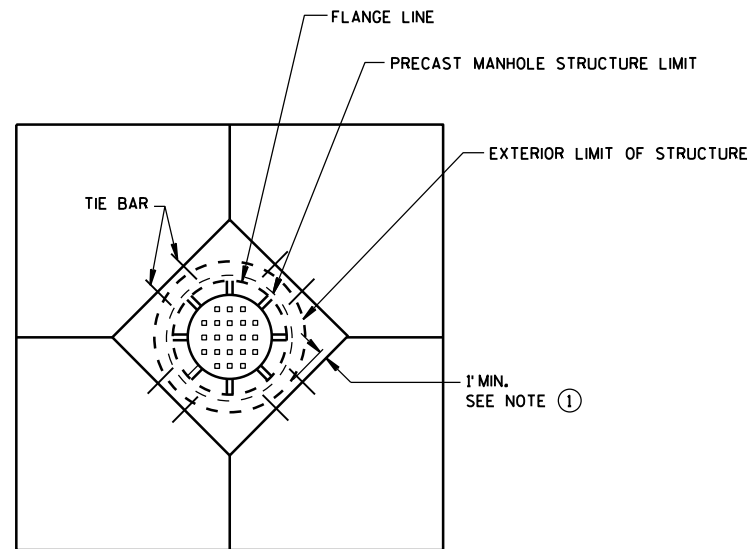
UNTIED-LONGITUDINAL

EXPANSION JOINTS

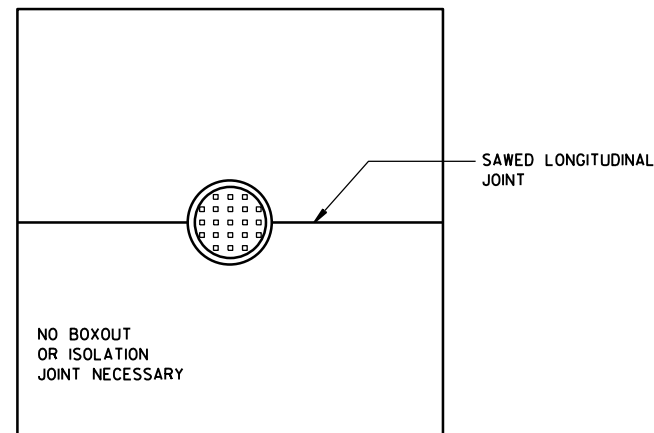
GENERAL NOTES

1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.

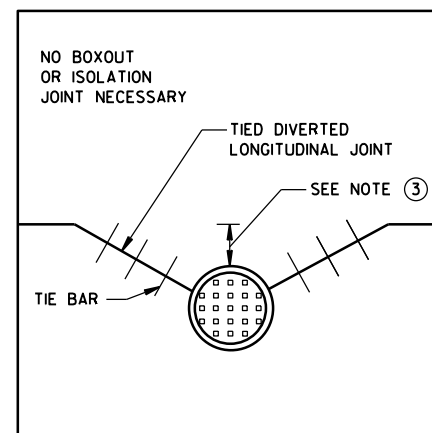
CONCRETE PAVEMENT
JOINT TYPESSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



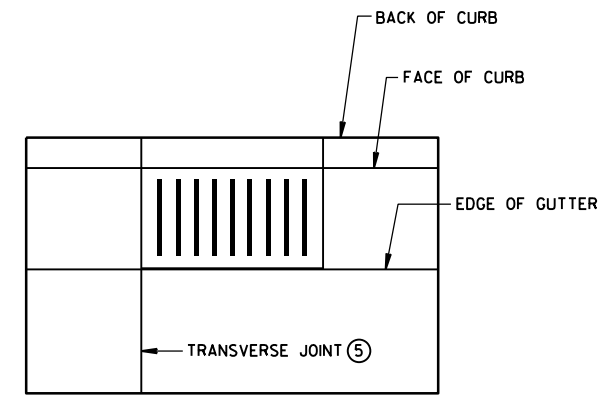
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



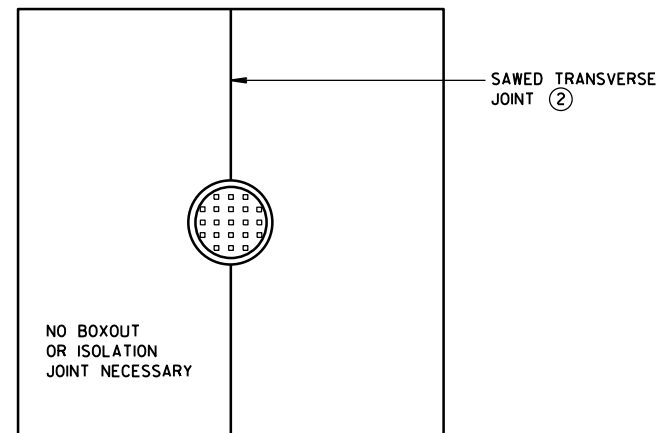
**MANHOLE WITH
LONGITUDINAL JOINT**



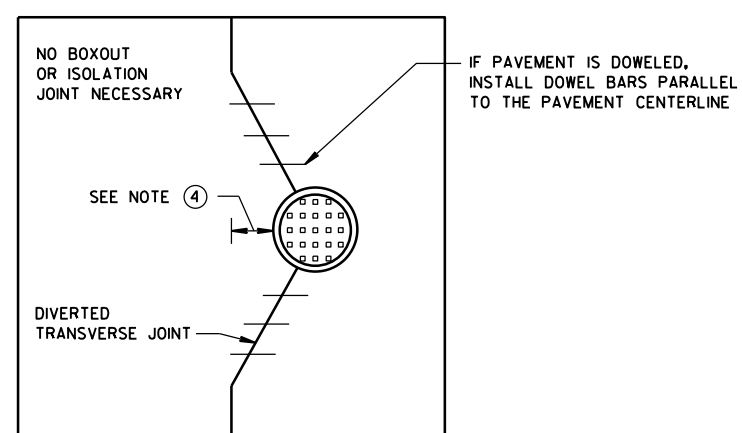
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

GENERAL NOTES

- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ④ IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

**CONCRETE PAVEMENT
JOINTING AT UTILITY FIXTURES**

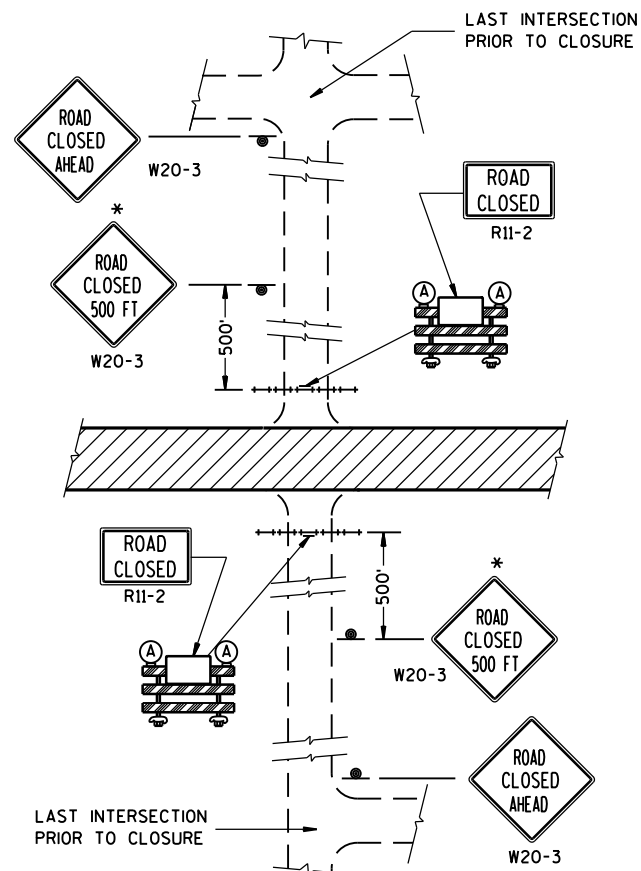
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

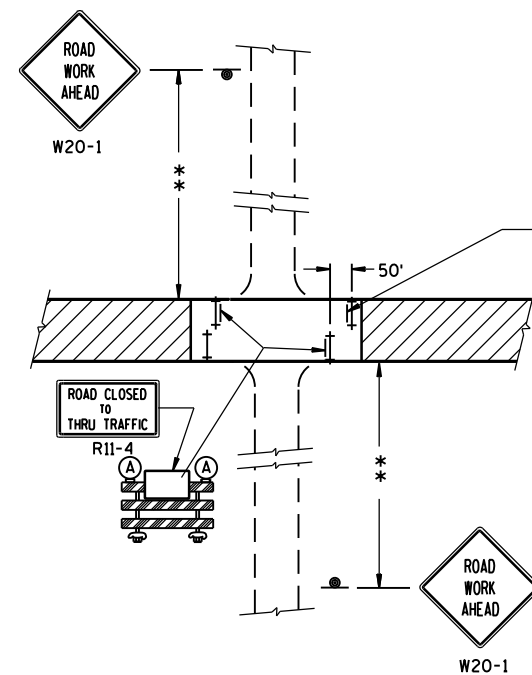
5-3-2013
DATE

FHWA

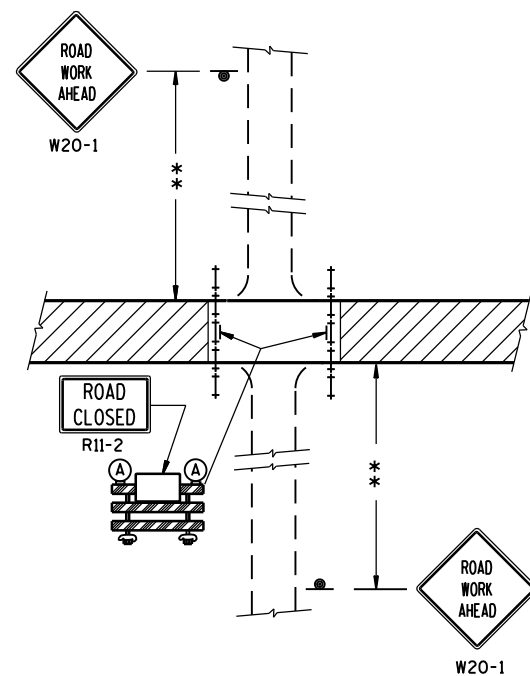
/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



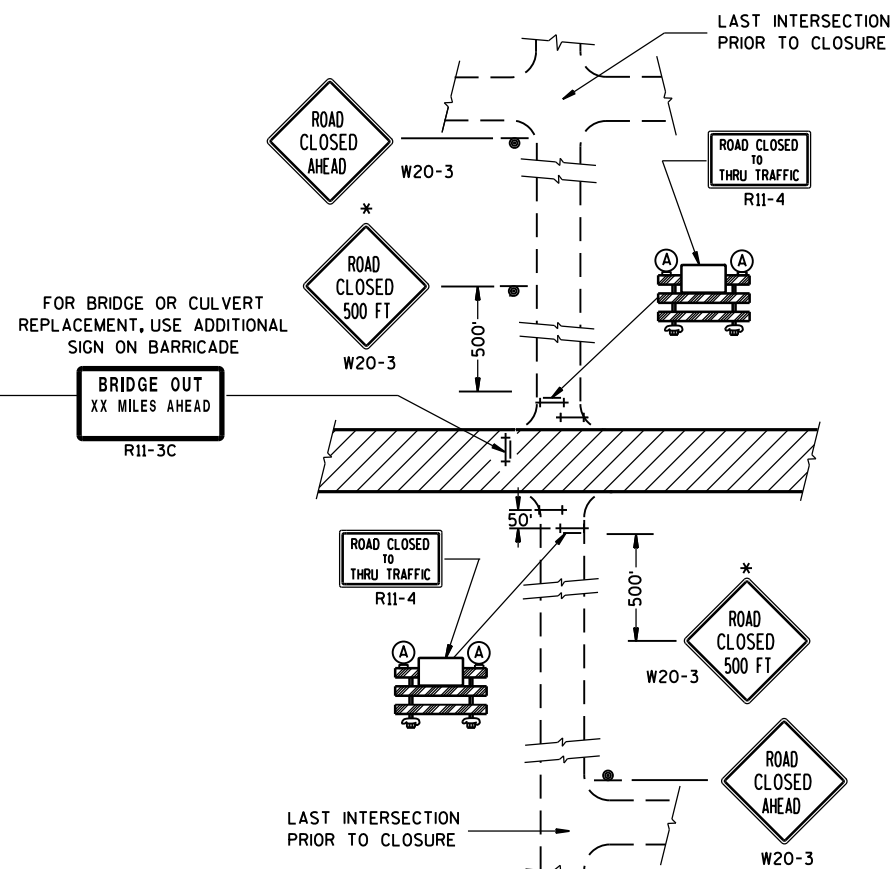
DETAIL 1
(NO ACCESS TO PROJECT)



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

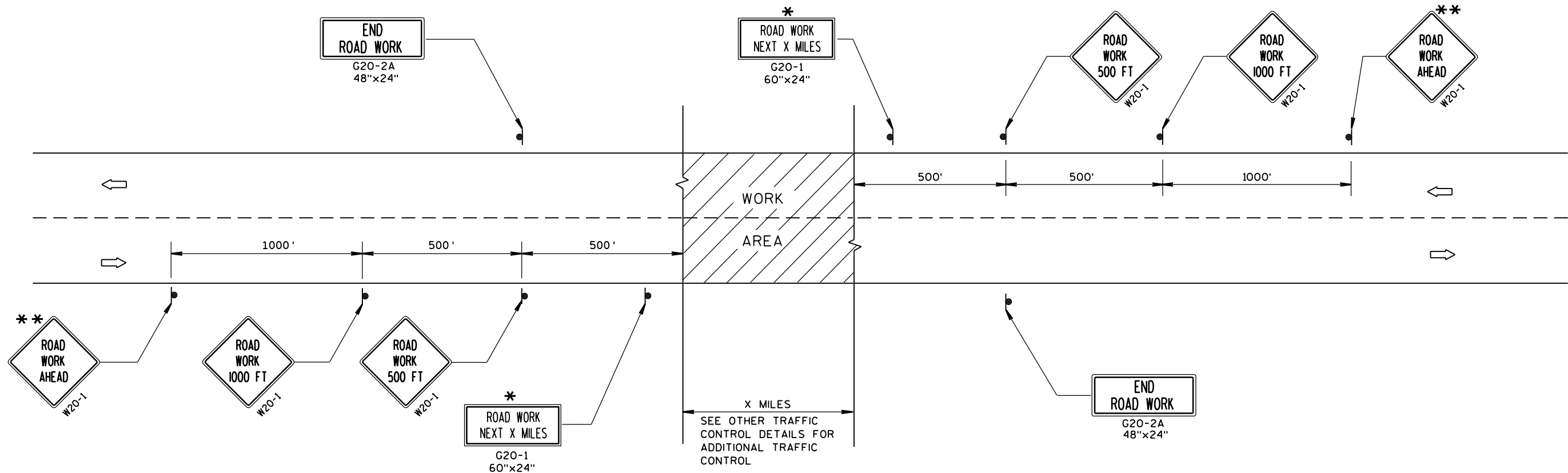
- ⊙ SIGN ON PERMANENT SUPPORT
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

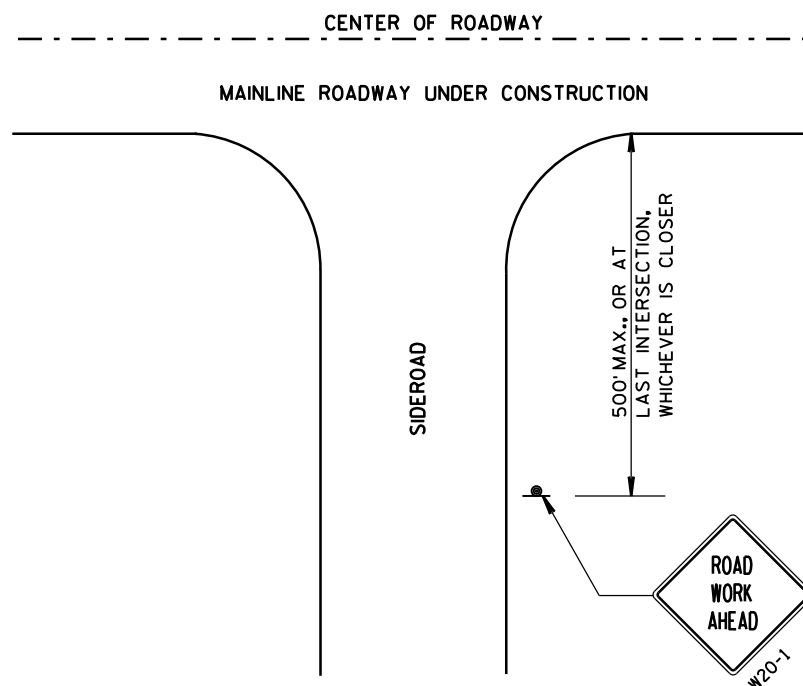
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

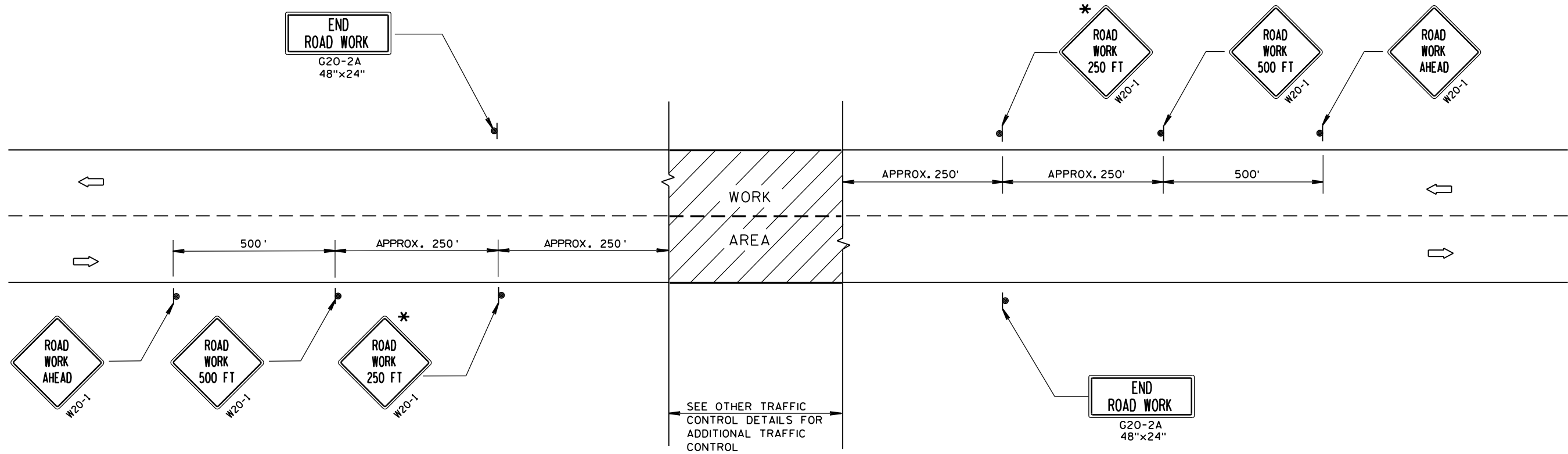
APPROVED

8/2013

DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



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.

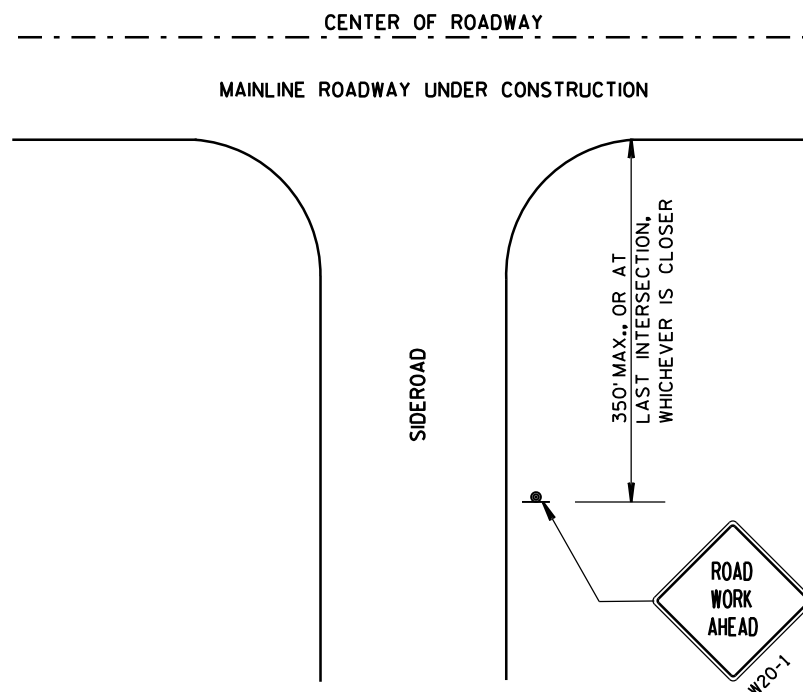
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



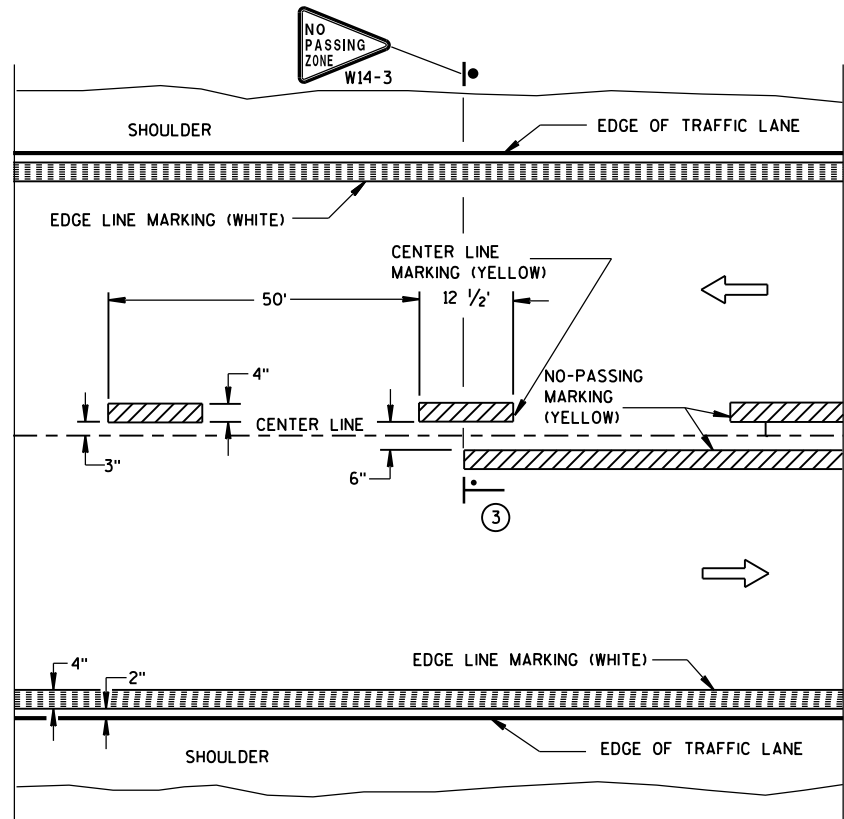
LEGEND

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

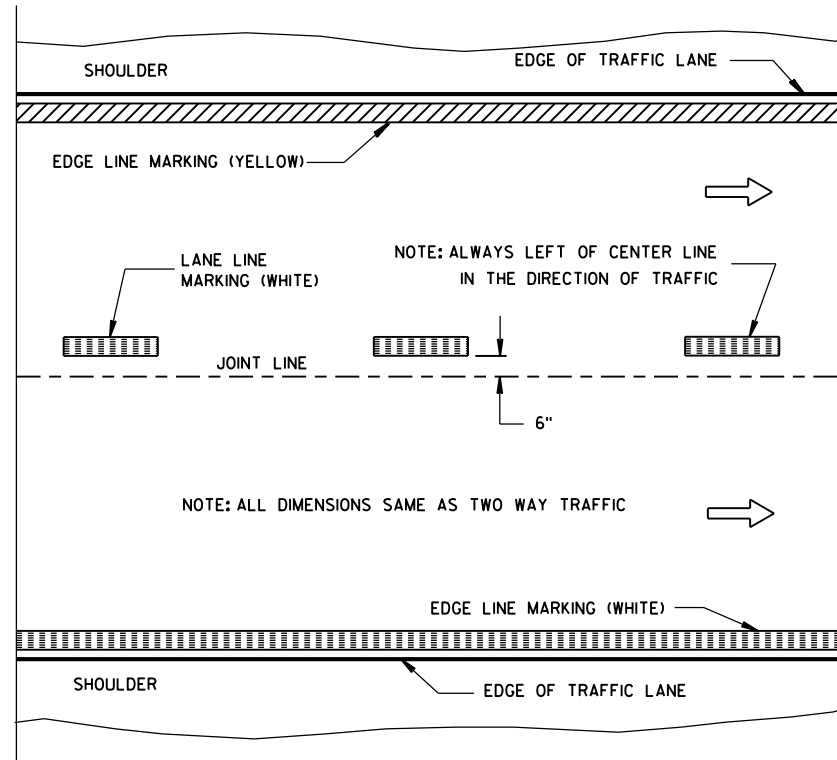
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

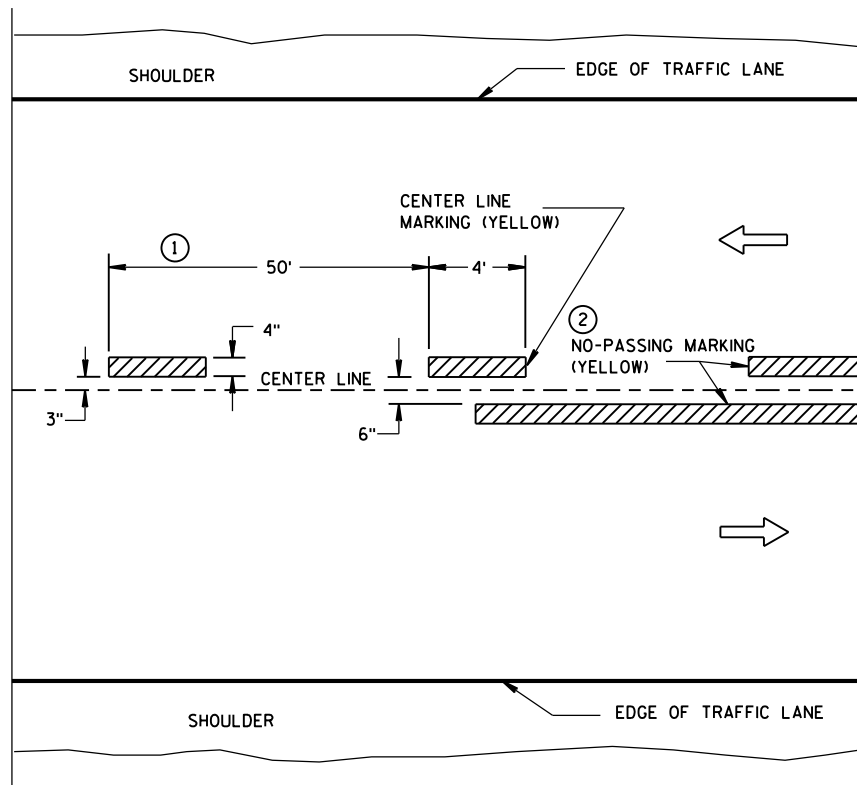


TWO WAY TRAFFIC

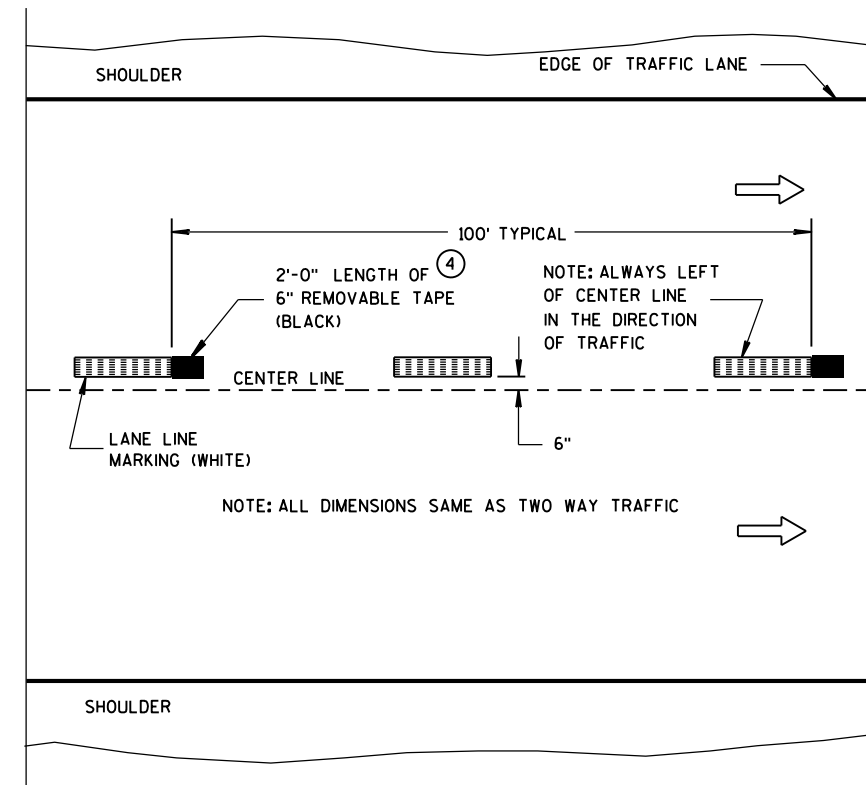


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

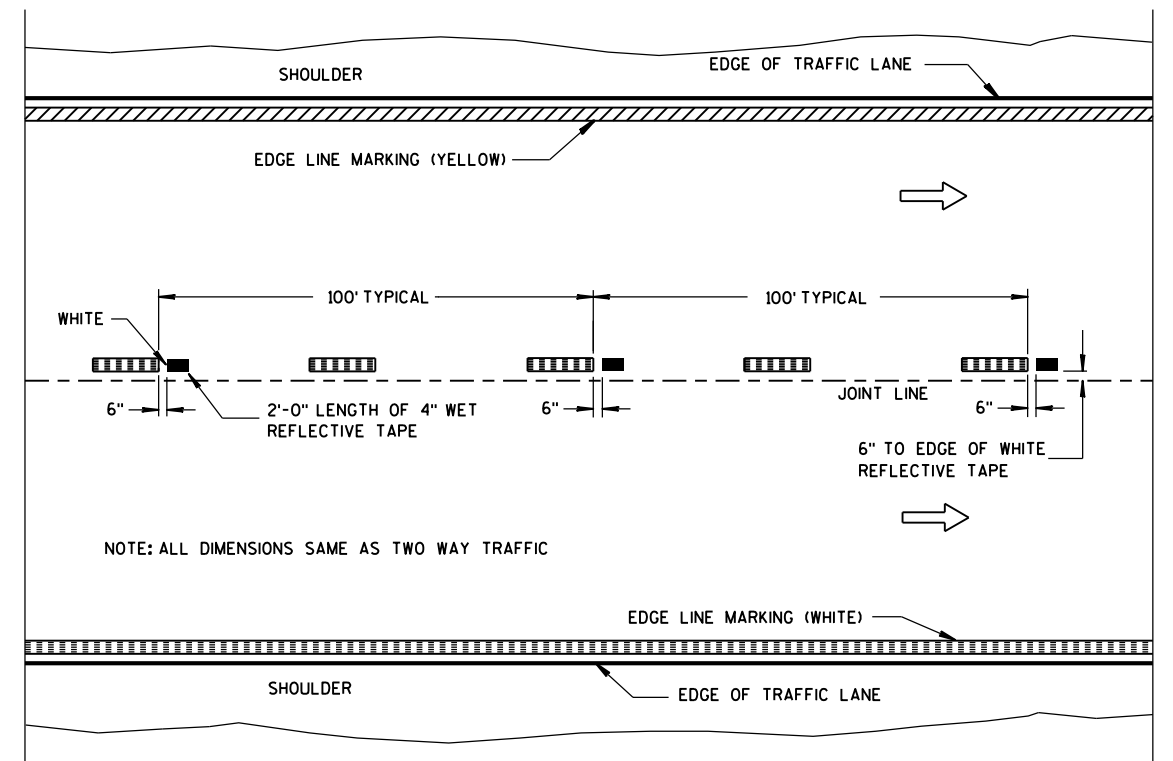
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

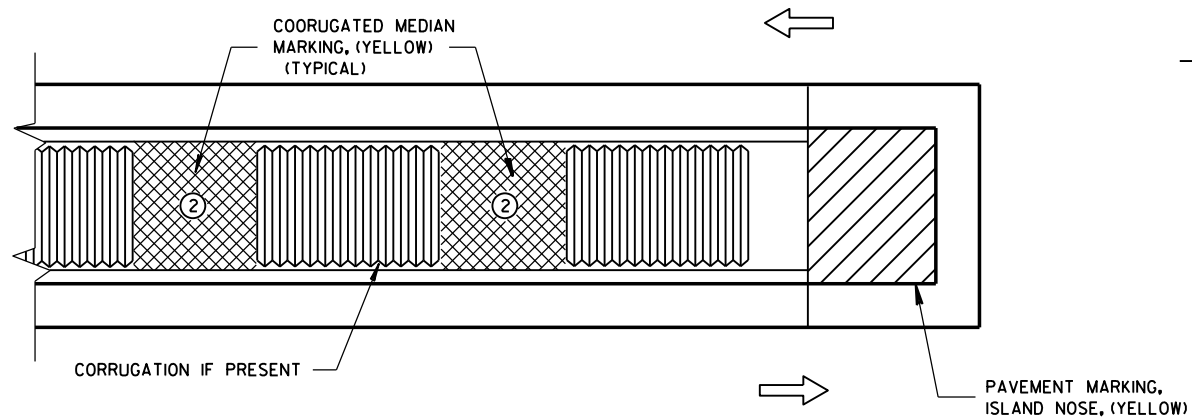
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

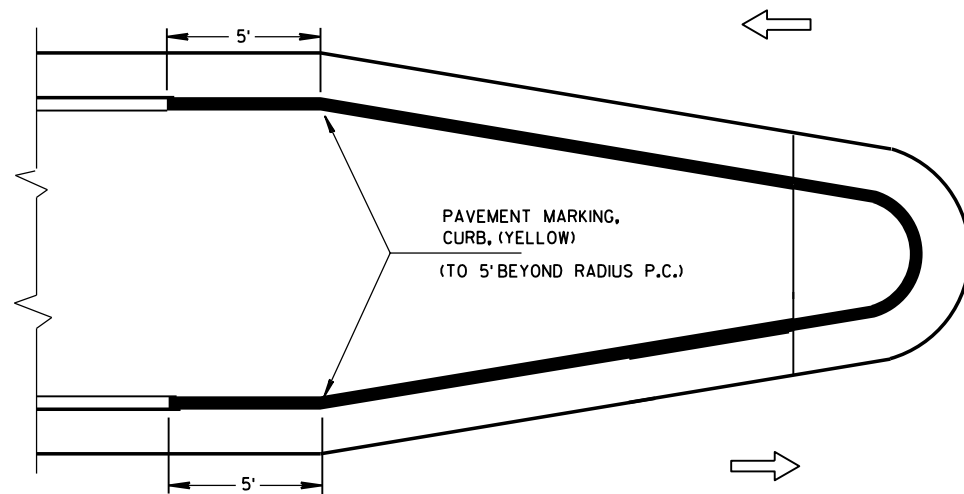
PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

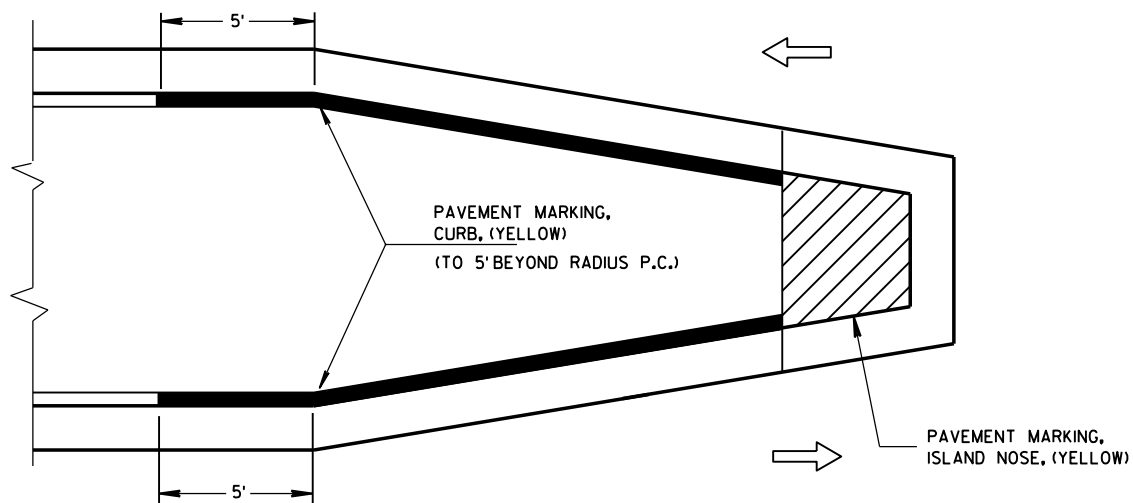
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

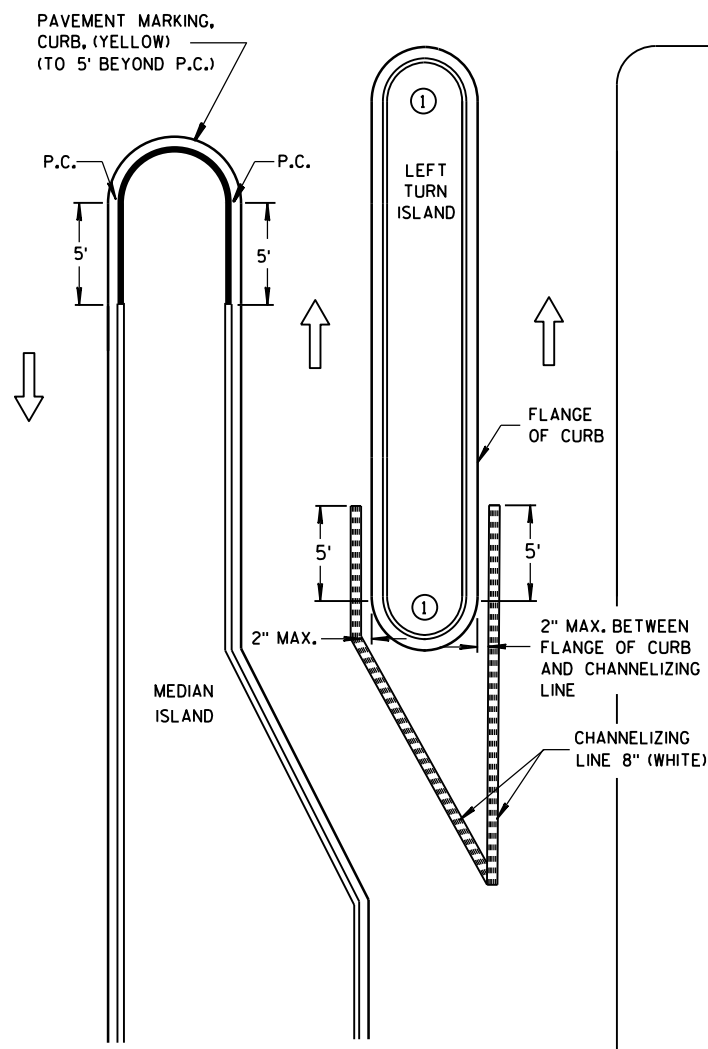


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

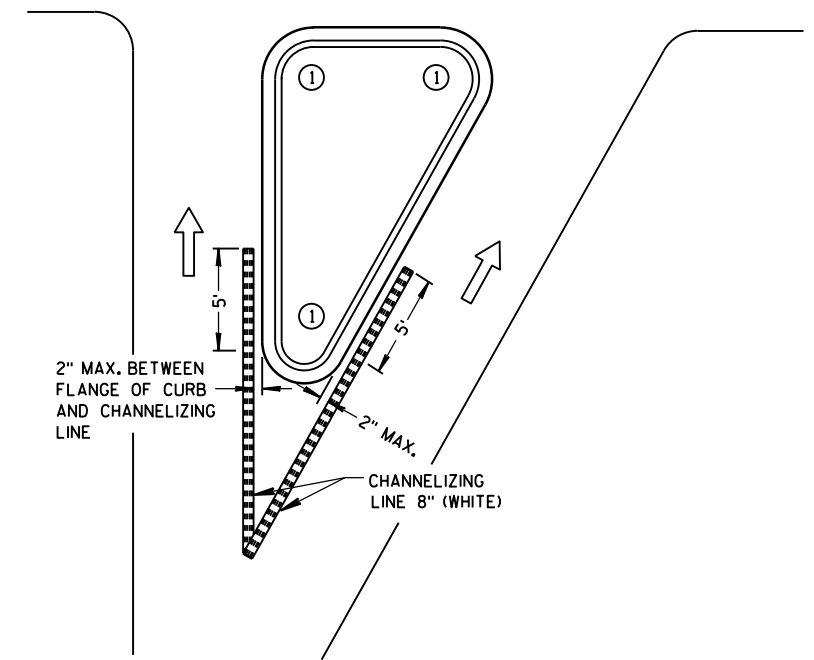
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

- 1 DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- 2 WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND





LEGEND

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

PAVEMENT MARKING (ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

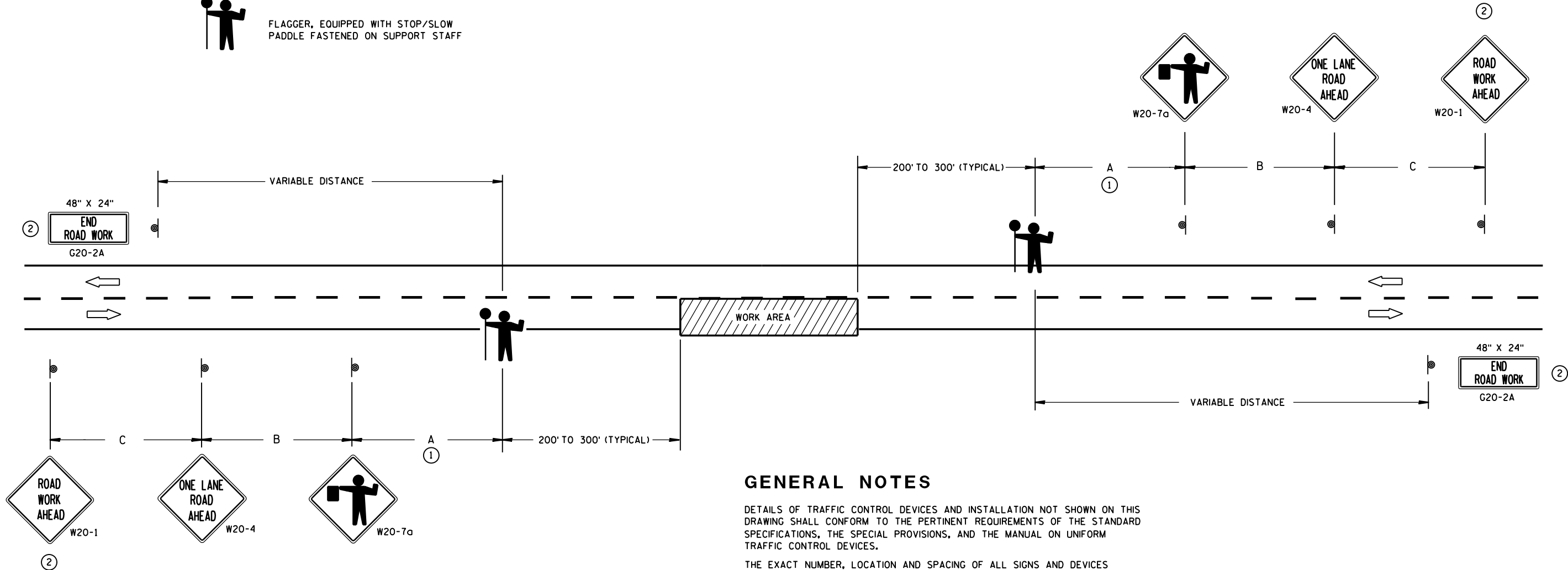
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



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



GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

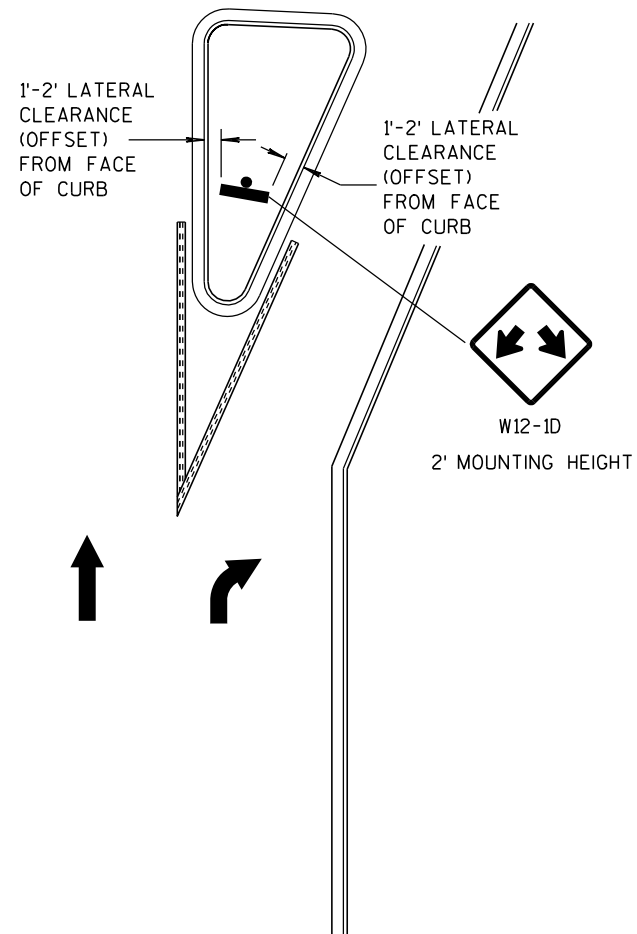
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

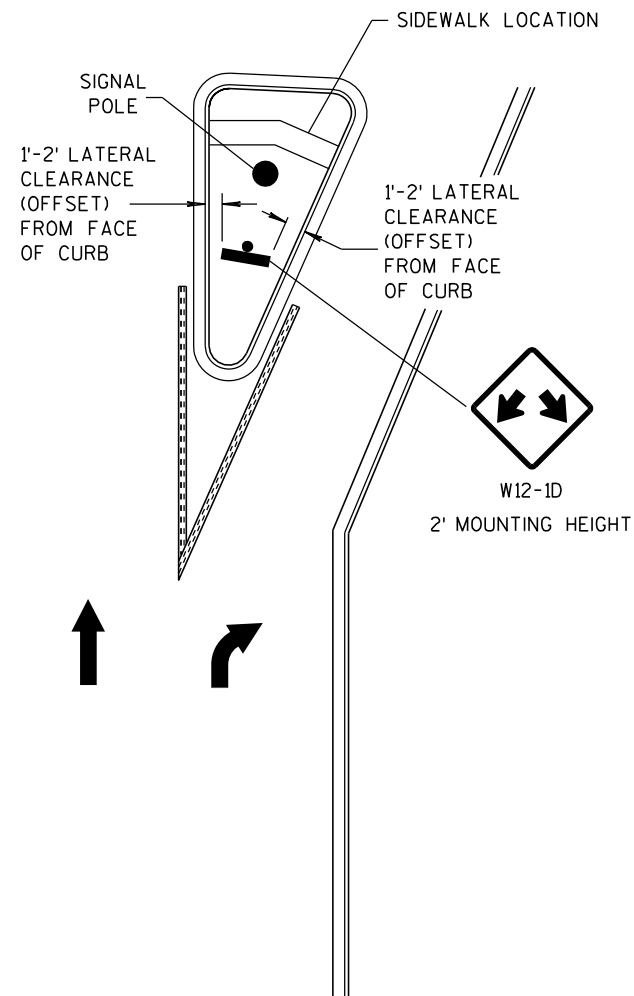
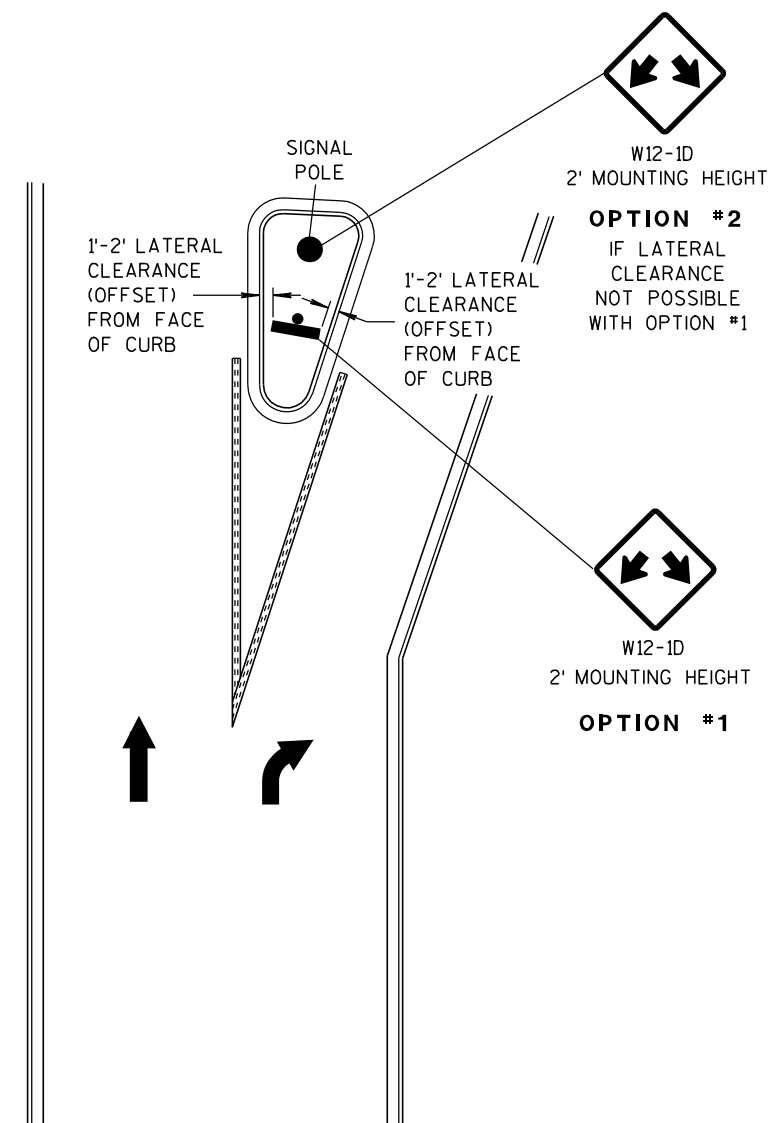
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



LARGE RIGHT TURN ISLAND

LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE

SMALL RIGHT TURN ISLAND

GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

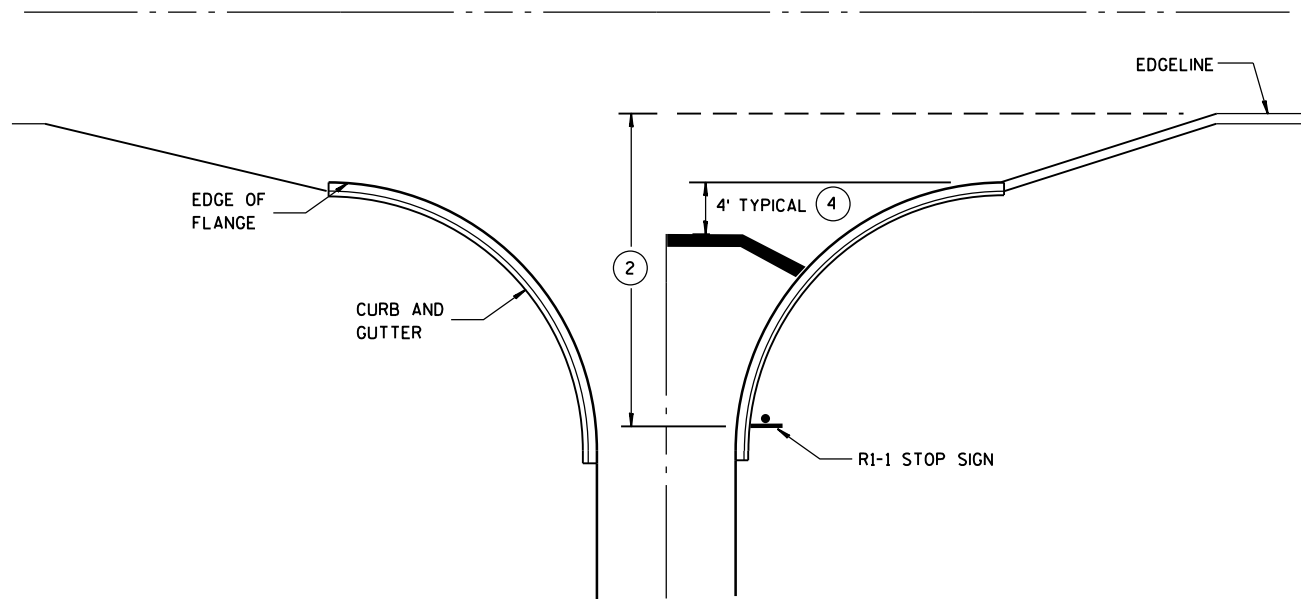
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

DOUBLE ARROW WARNING SIGN PLACEMENT**DOUBLE ARROW
WARNING SIGN PLACEMENT**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

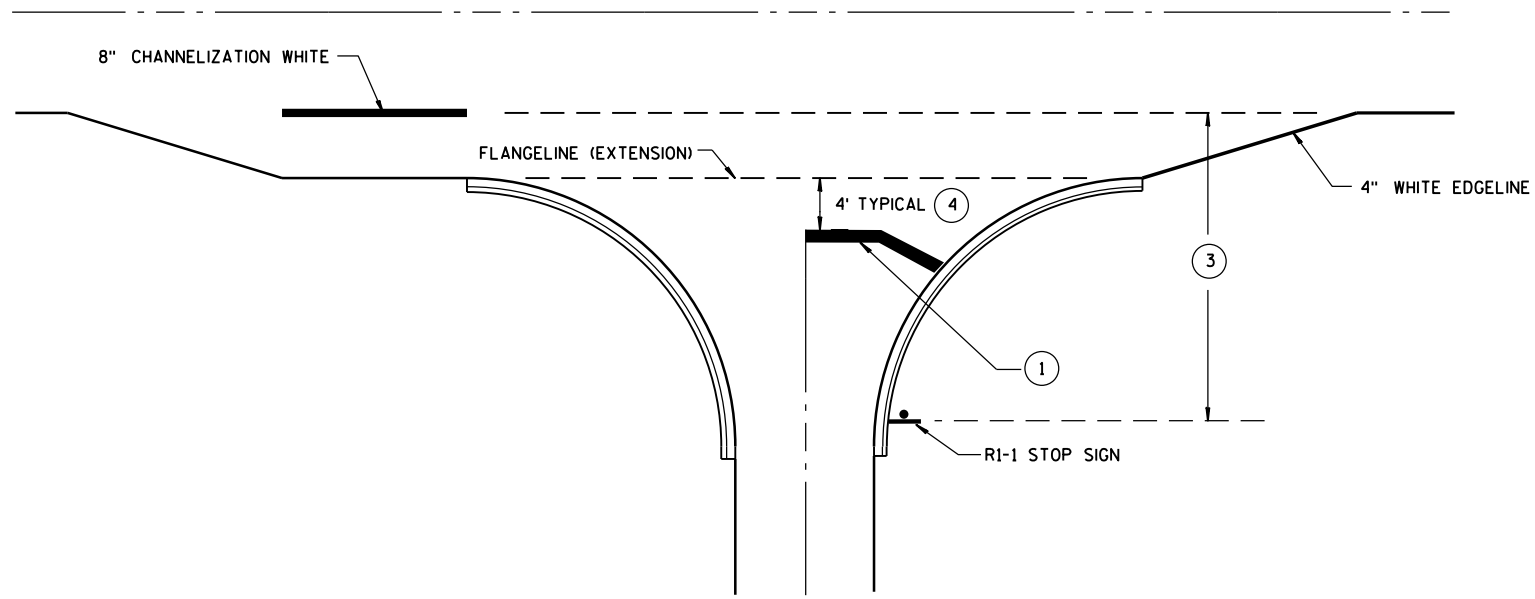
APPROVED

10-22-08
DATE/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

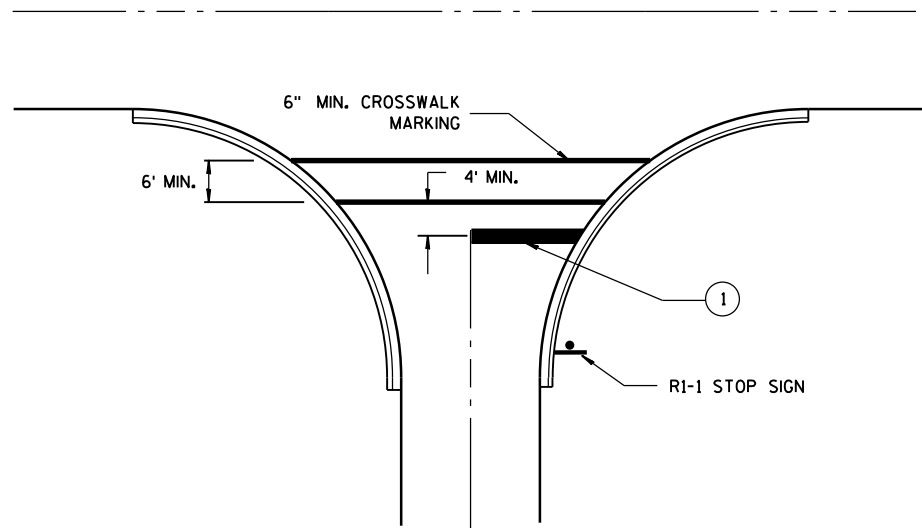
FHWA



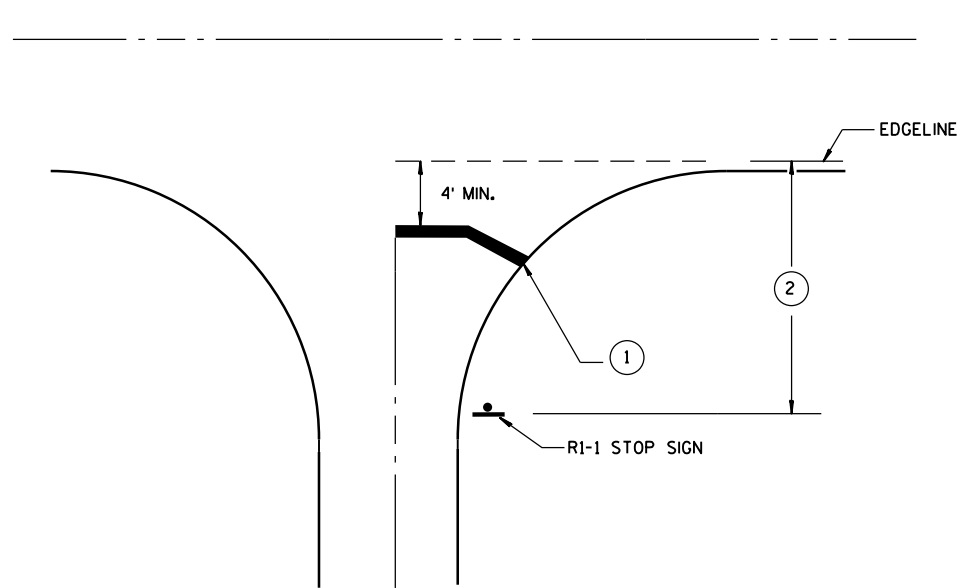
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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.

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/30/2013 DATE	/S/ Travis Feltz STATE TRAFFIC ENGINEER
FHWA	

GENERAL NOTES

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

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

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

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.

W20-1 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.

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

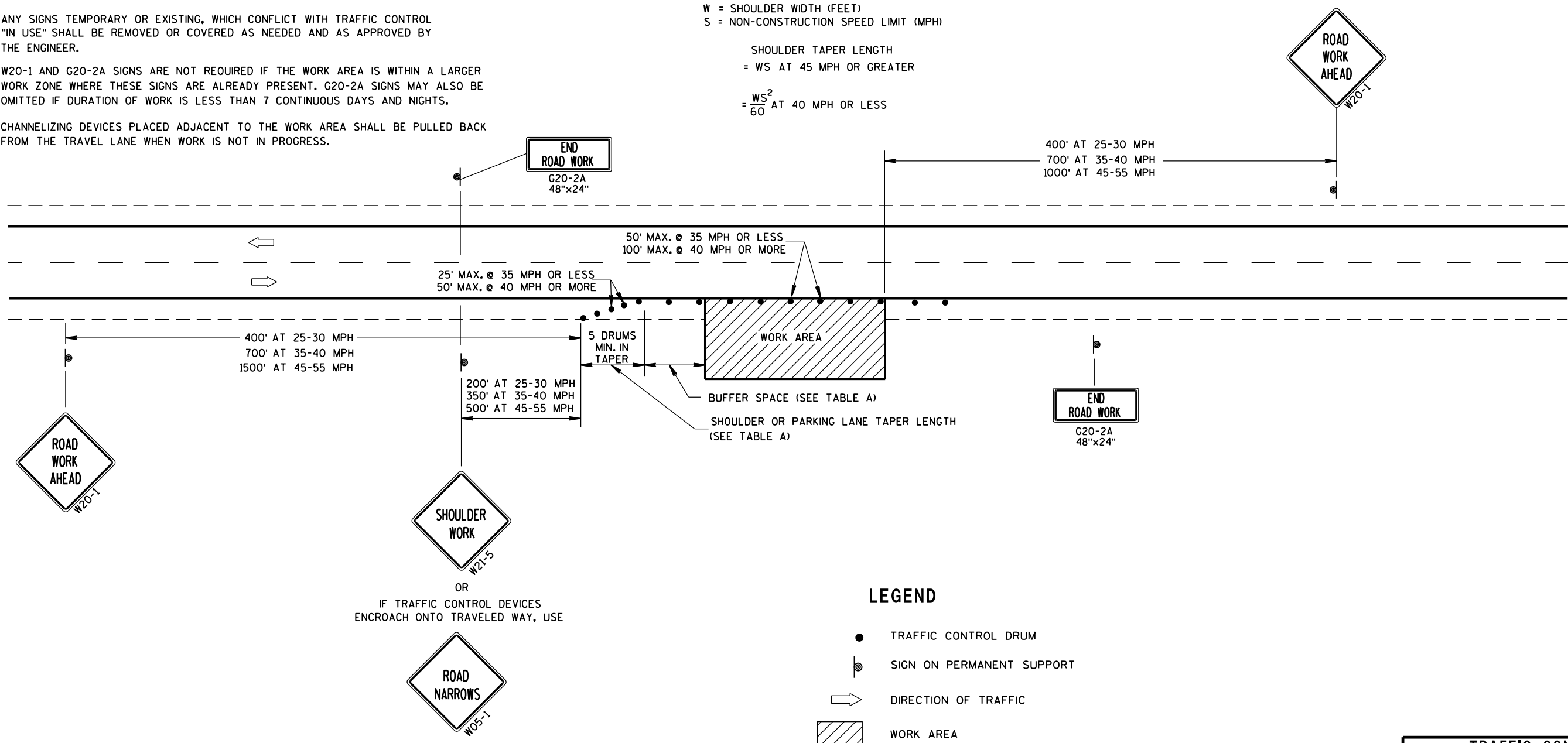
TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

= $\frac{WS^2}{60}$ AT 40 MPH OR LESS

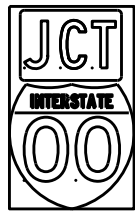


LEGEND

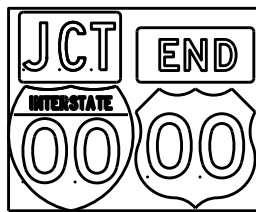
- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

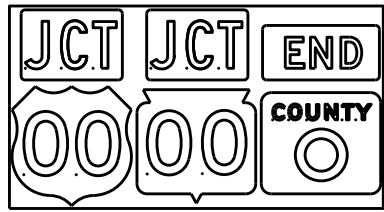
TYPICAL ASSEMBLIES



J1-1



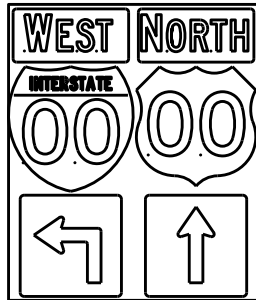
J1-2



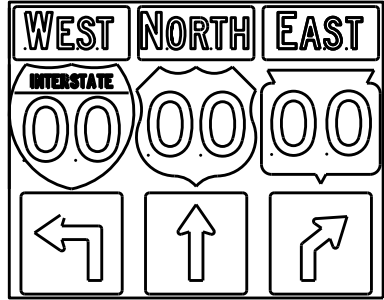
J1-3



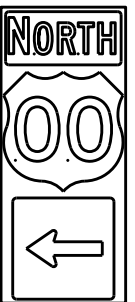
J2-1



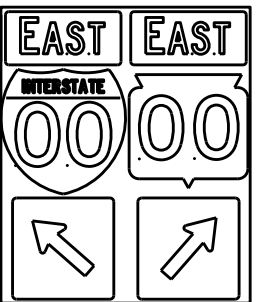
J2-2



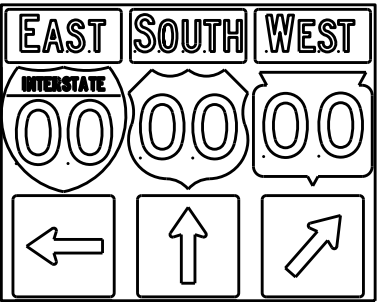
J2-3



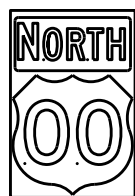
J3-1



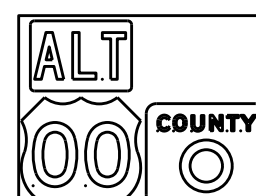
J3-2



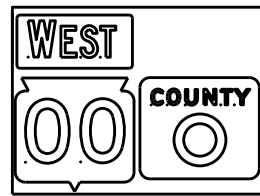
J3-3



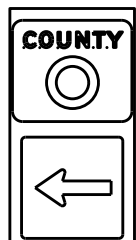
J4-1



J4-2



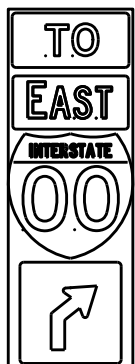
J4-2



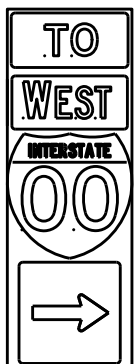
J13-1



J12-1



J32-1



J33-1



J23-1

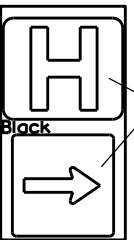


J22-1



JV

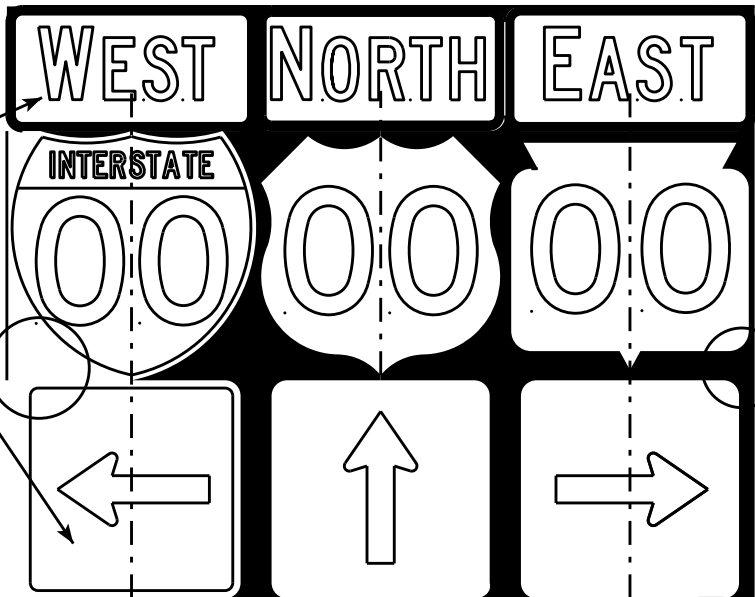
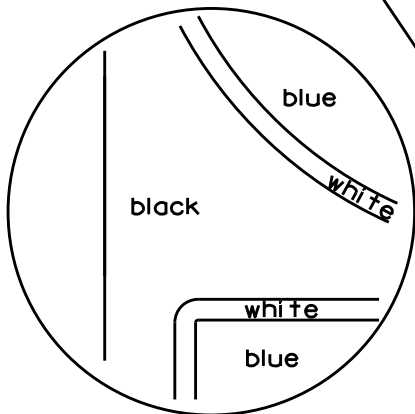
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

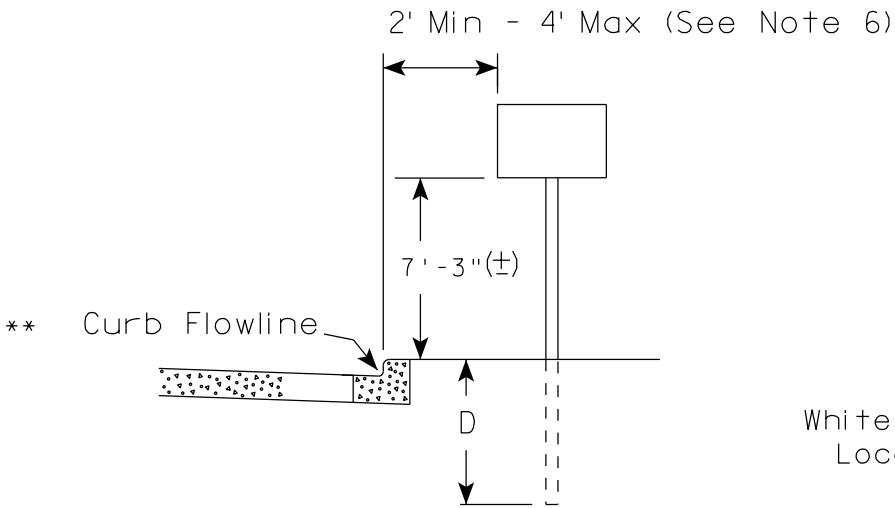
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

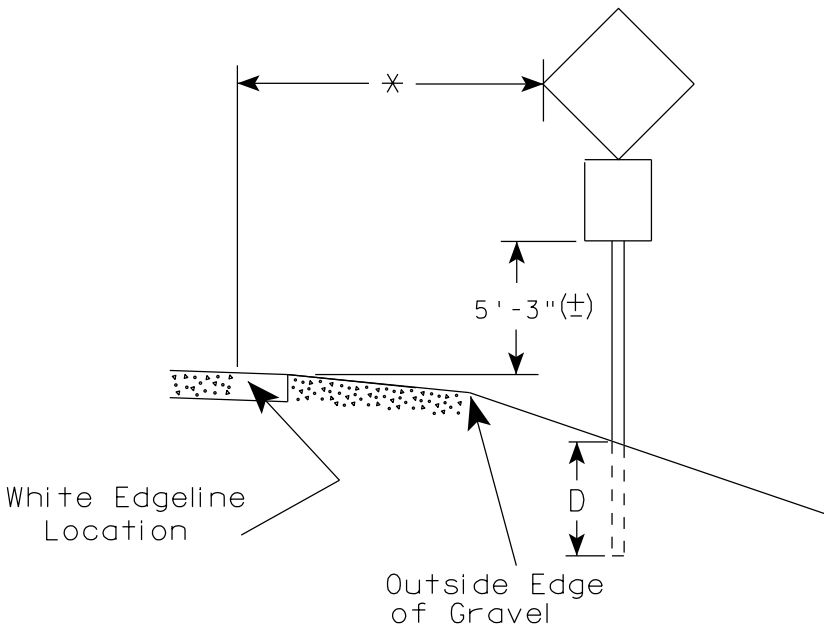
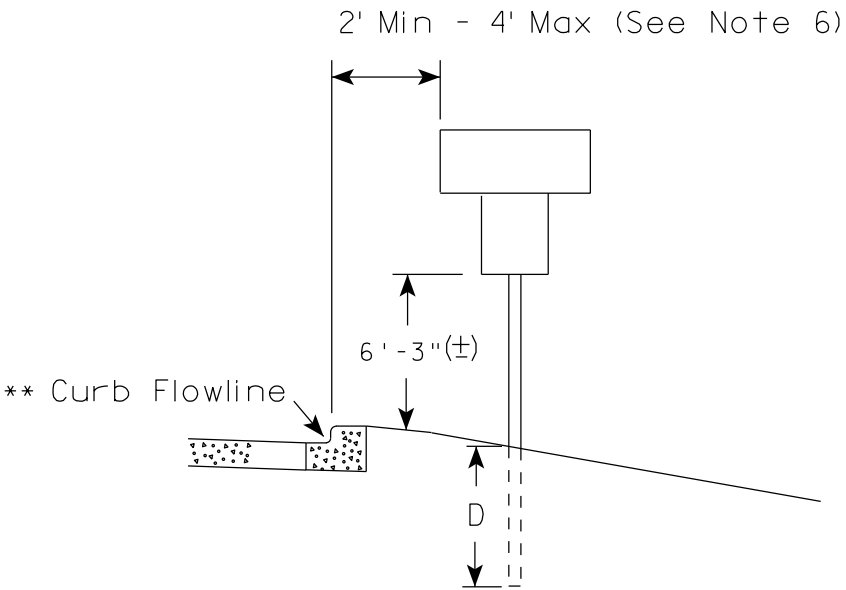
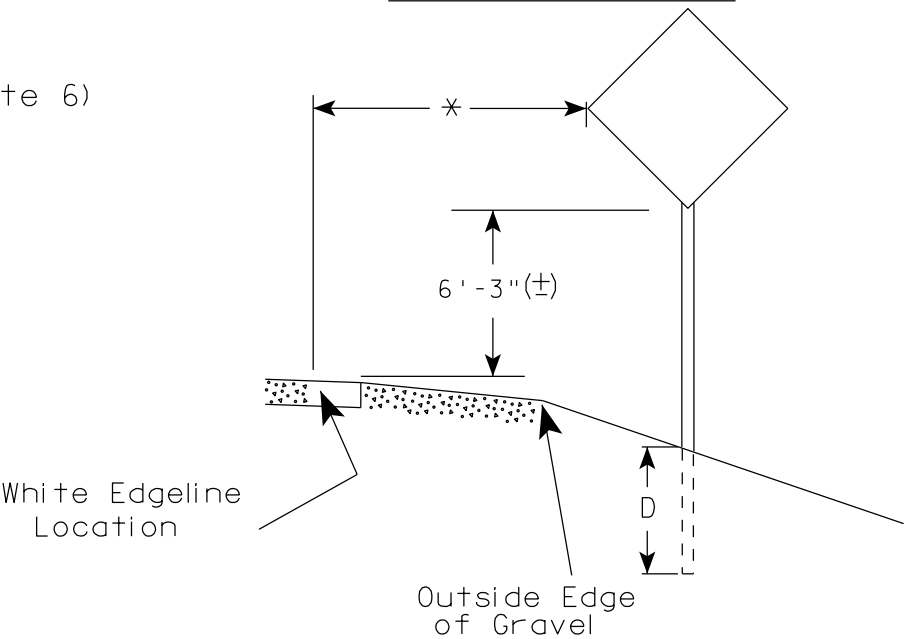
NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 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.

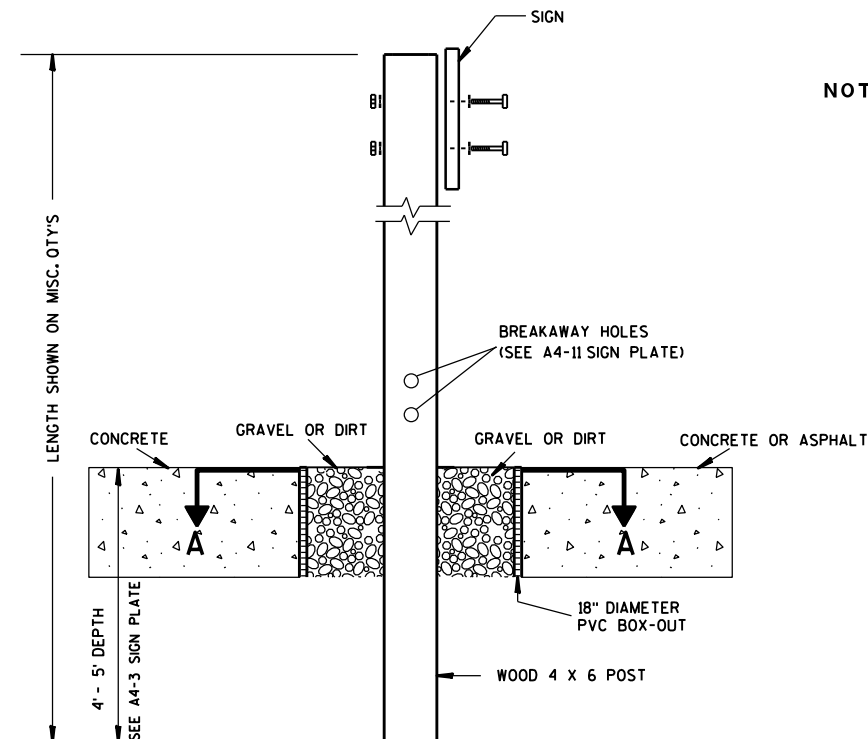
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

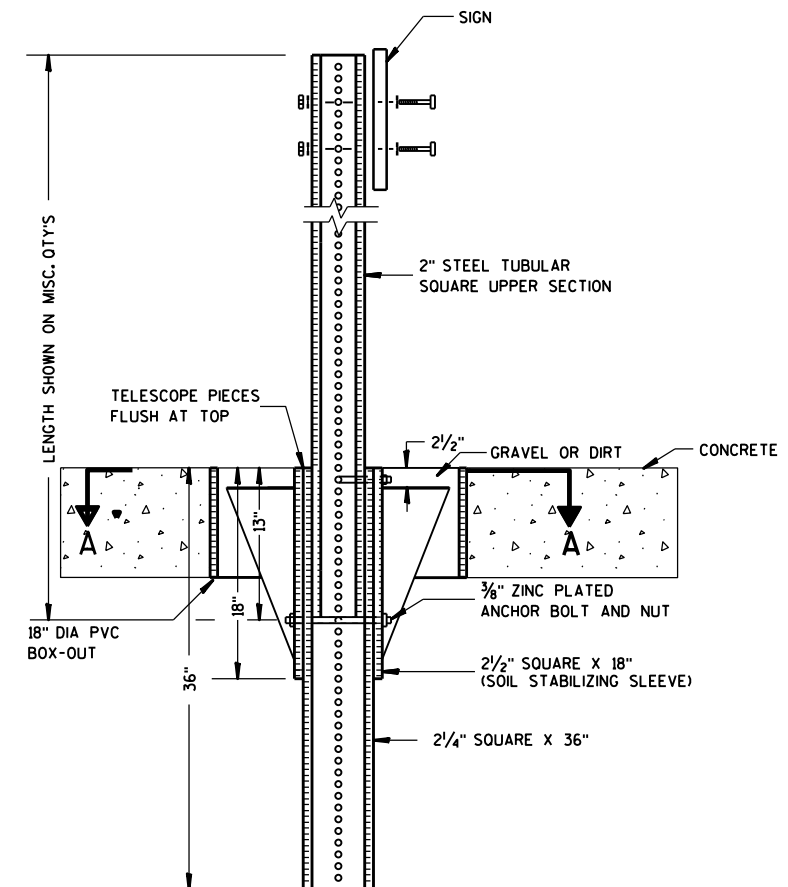
DATE 11/12/14 PLATE NO. A4-3.19



ELEVATION VIEW

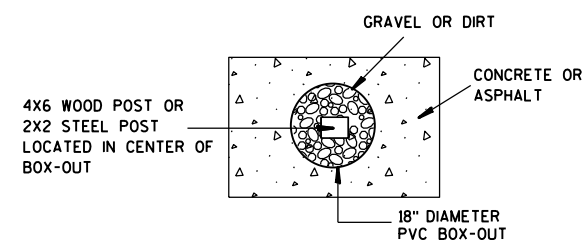
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

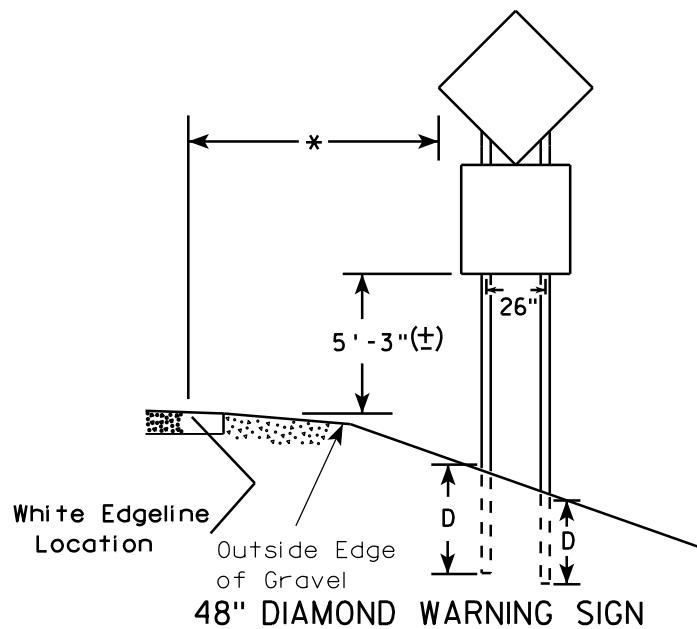
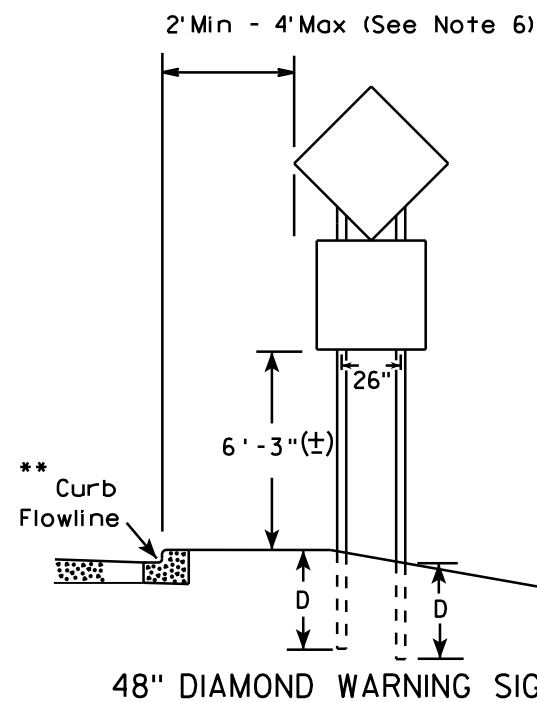
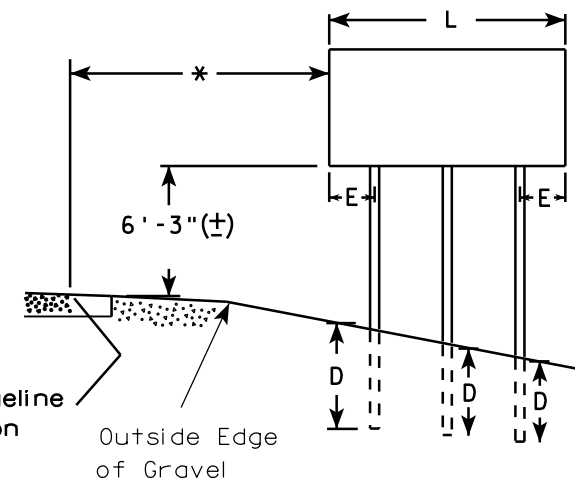
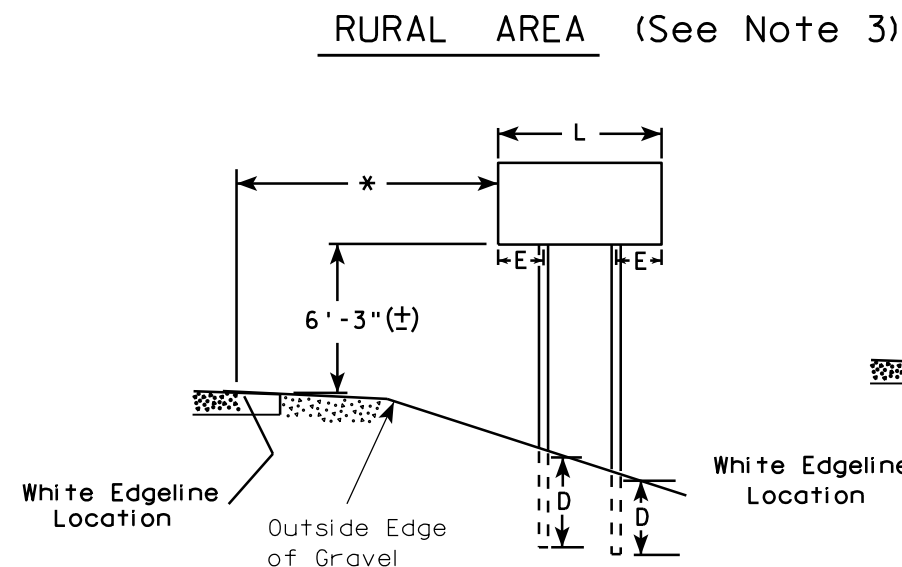
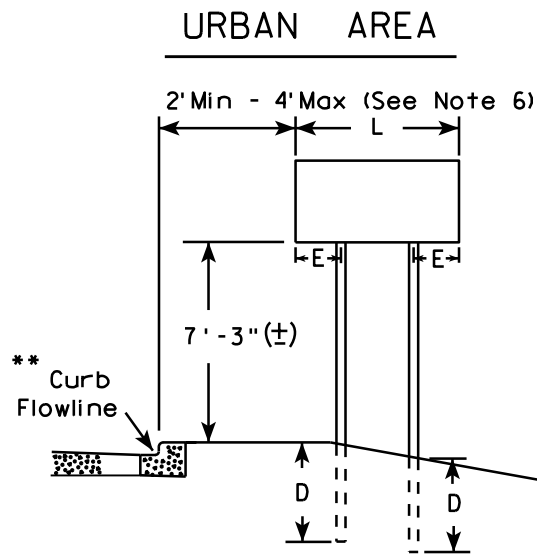
SIGN POST
BOX-OUTS
A4-3B

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. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

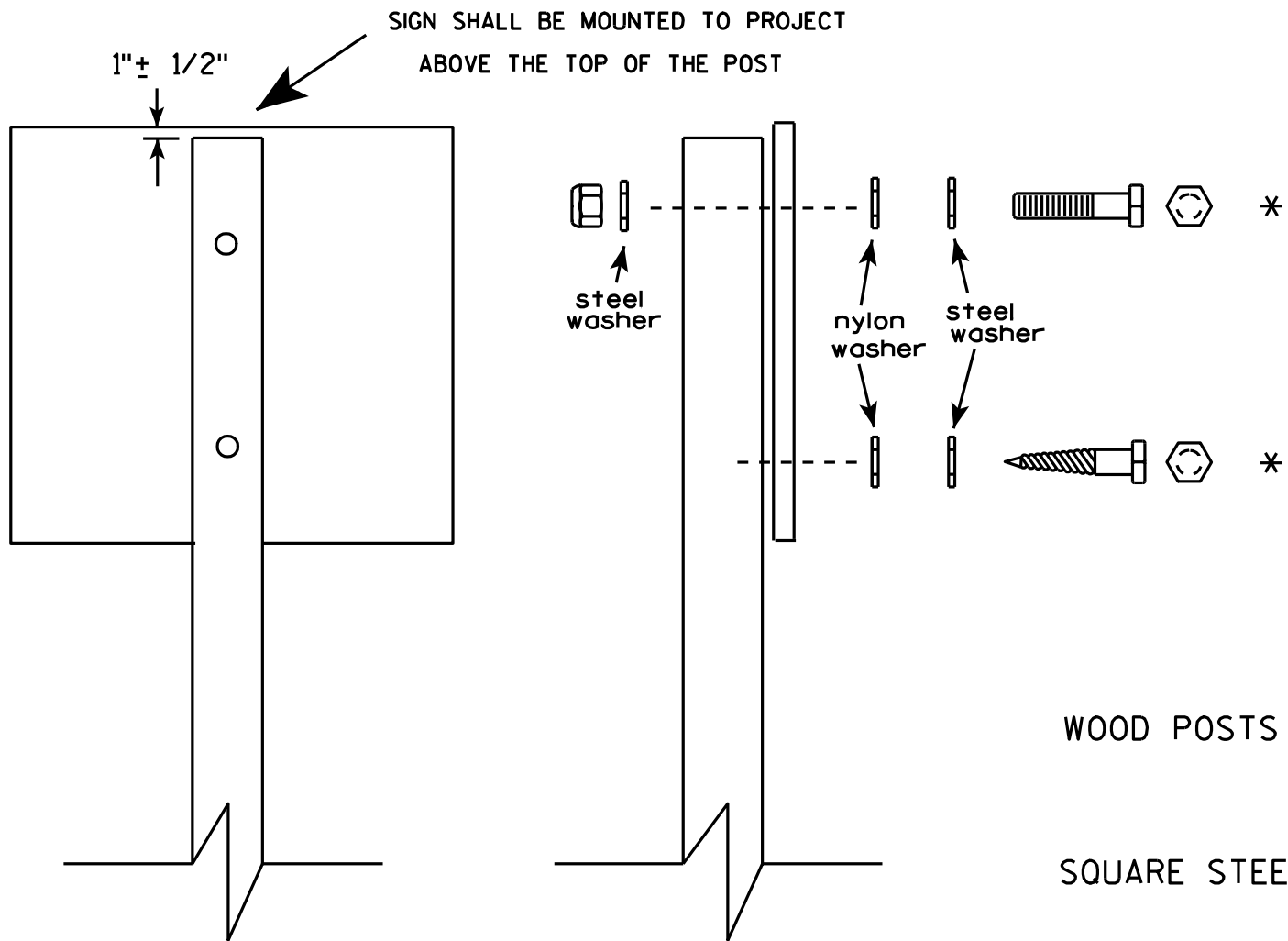
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

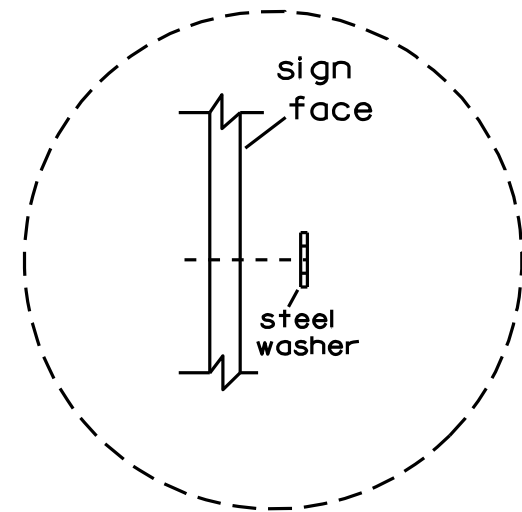
DATE 11/12/14 PLATE NO. A4-4.13



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.



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

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

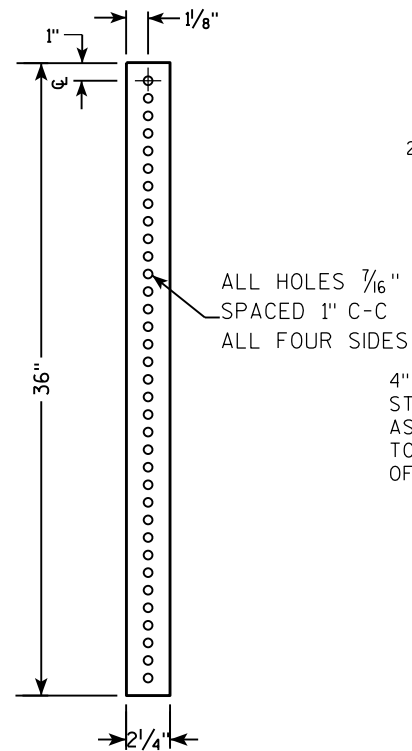
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

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



2 1/2" TELESPAR TUBE

4" x 10" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELESPAR TUBE

4"

2 1/2"

10"

3 1/2"

18"

LENGTH SHOWN ON MISC. QTY'S

18" DIA SCHEDULE 40 PVC BOX-OUT

36"

2 1/2" GRAVEL OR DIRT

3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

TELESCOPE PIECES FLUSH AT TOP

LENGTH SHOWN ON MISC. QTY'S
 81"
 81"
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 2" STEEL TUBULAR SQUARE UPPER SECTION
 ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C
 ALL FOUR SIDES
 $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 1"
 TELESCOPE PIECES FLUSH AT TOP
 A
 18"
 12"
 36"
 $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 2 1/4" SQUARE X 36"

DIRECTION
OF TRAFFIC

SECTION A-A

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

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

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN

PLOT DATE : 05-FEB-2015 17:09

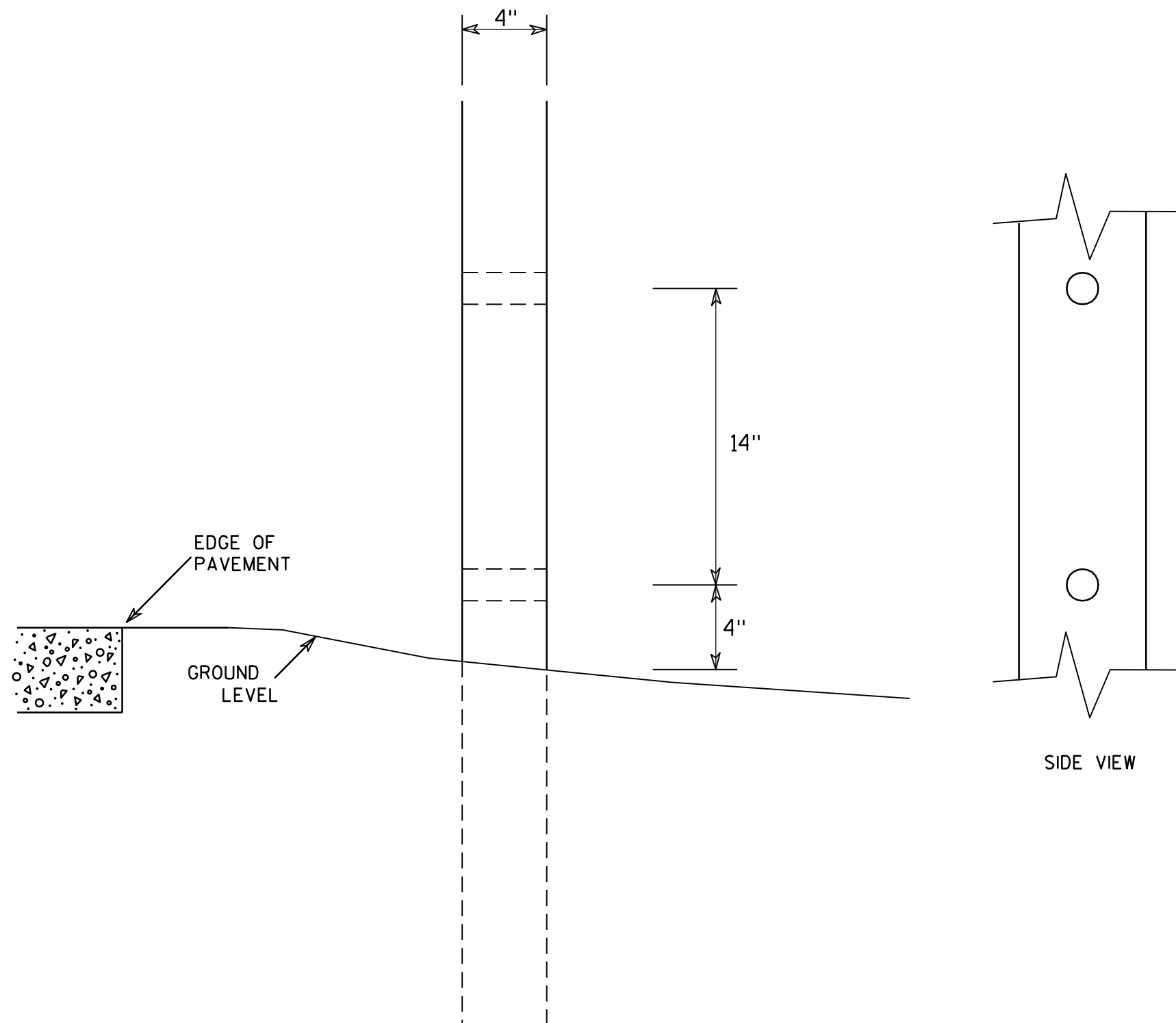
PLOT BY : mscs_ja

PLOT NAME :

PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

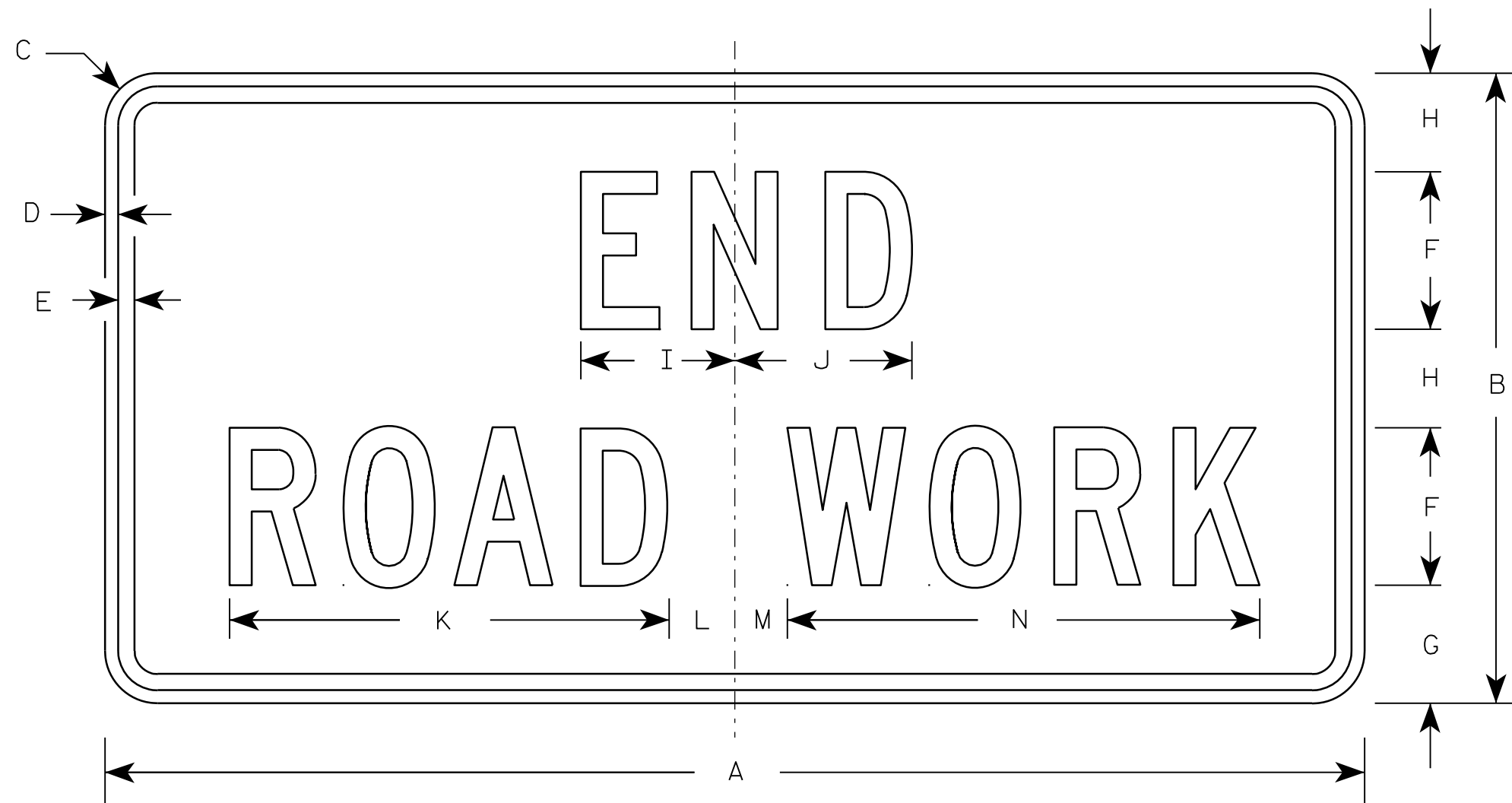
HWY:

COUNTY:

SHEET NO:

E

7



G20-2A

NOTES

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

Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

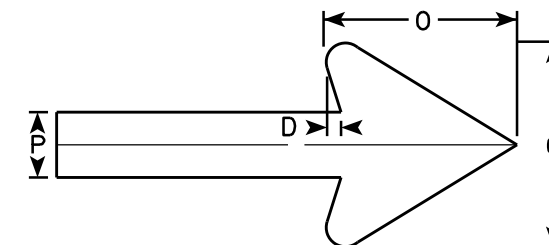
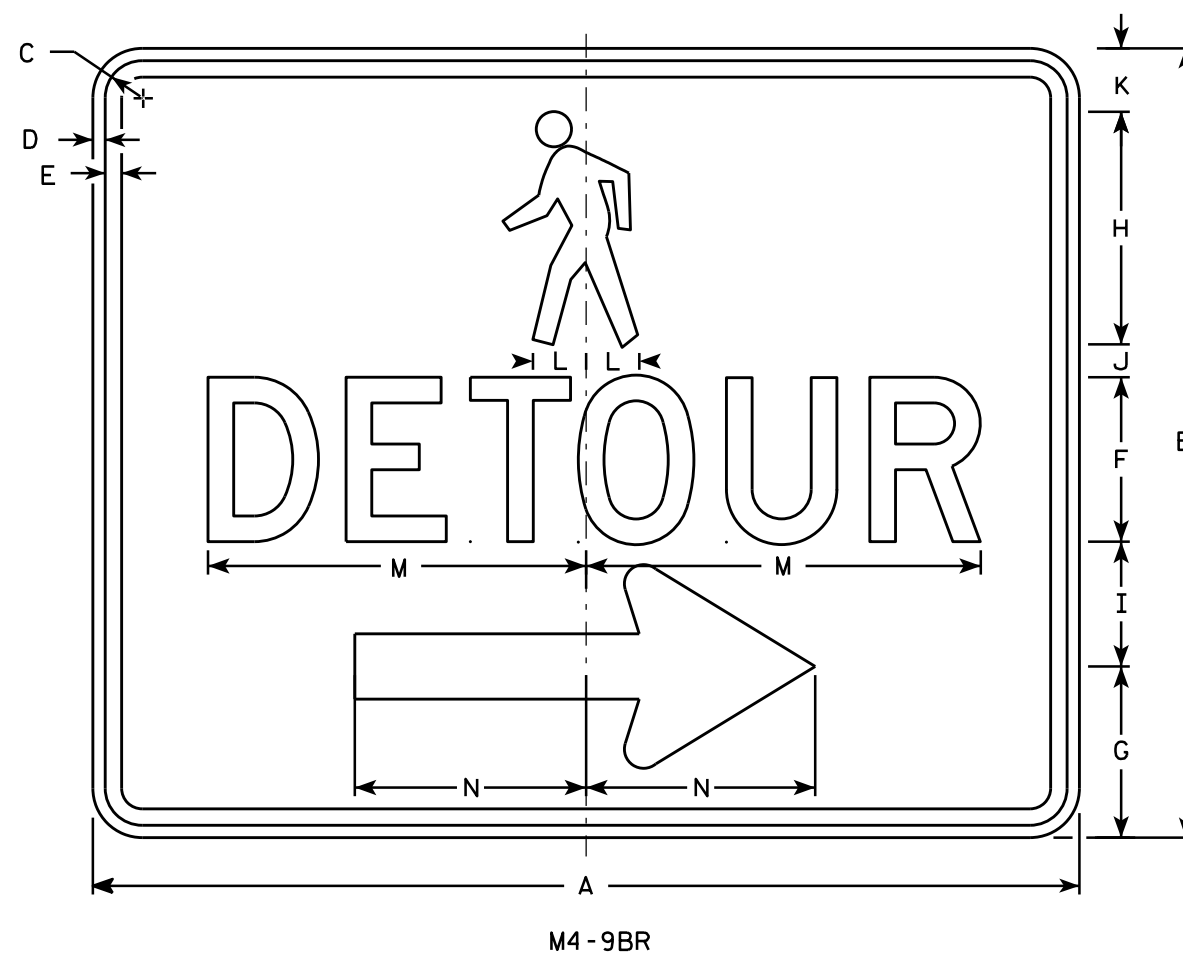
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

7



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow 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																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

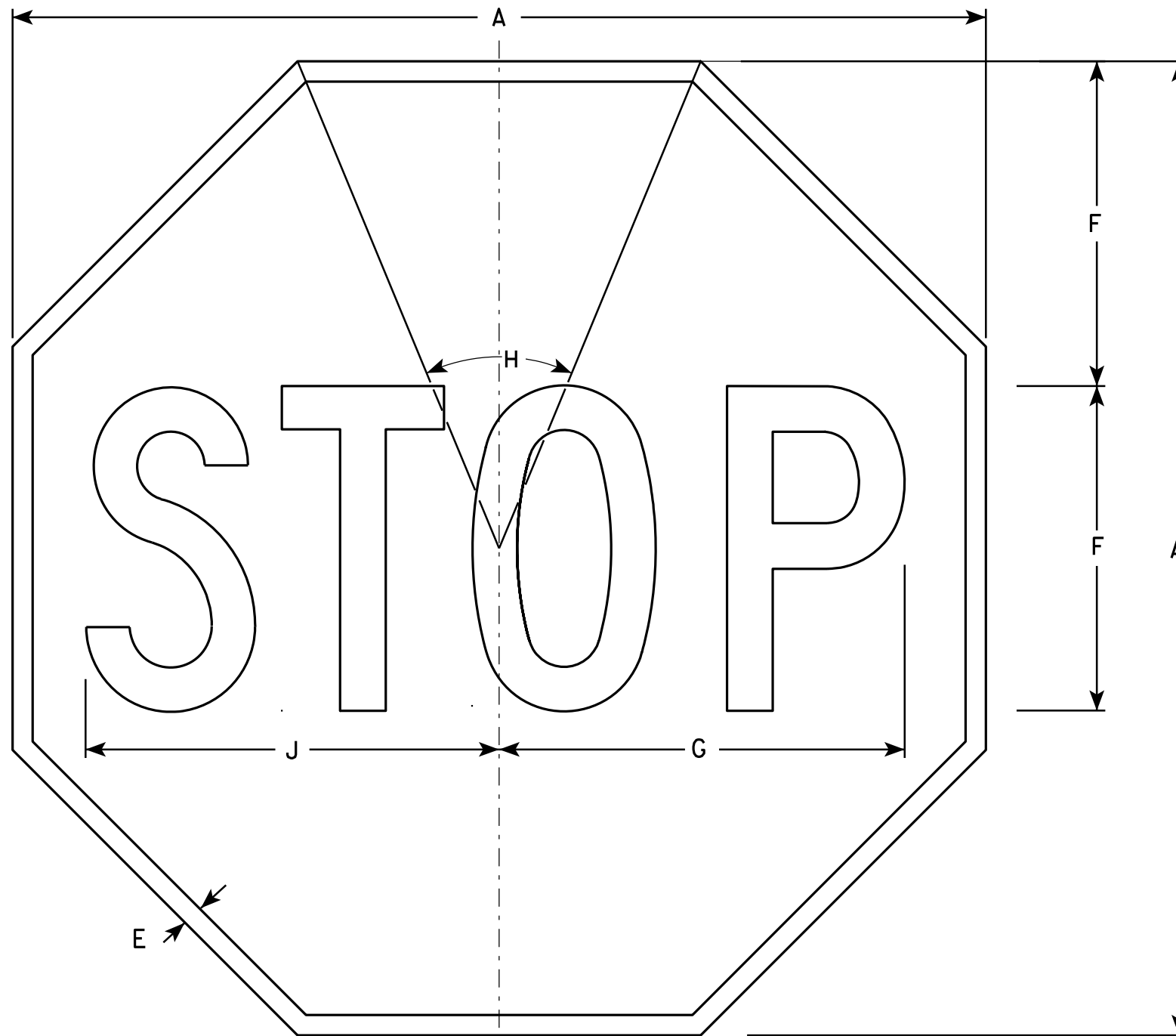
STANDARD SIGN M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/30/13 PLATE NO. M4-9B.1

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

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

R1-1

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

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

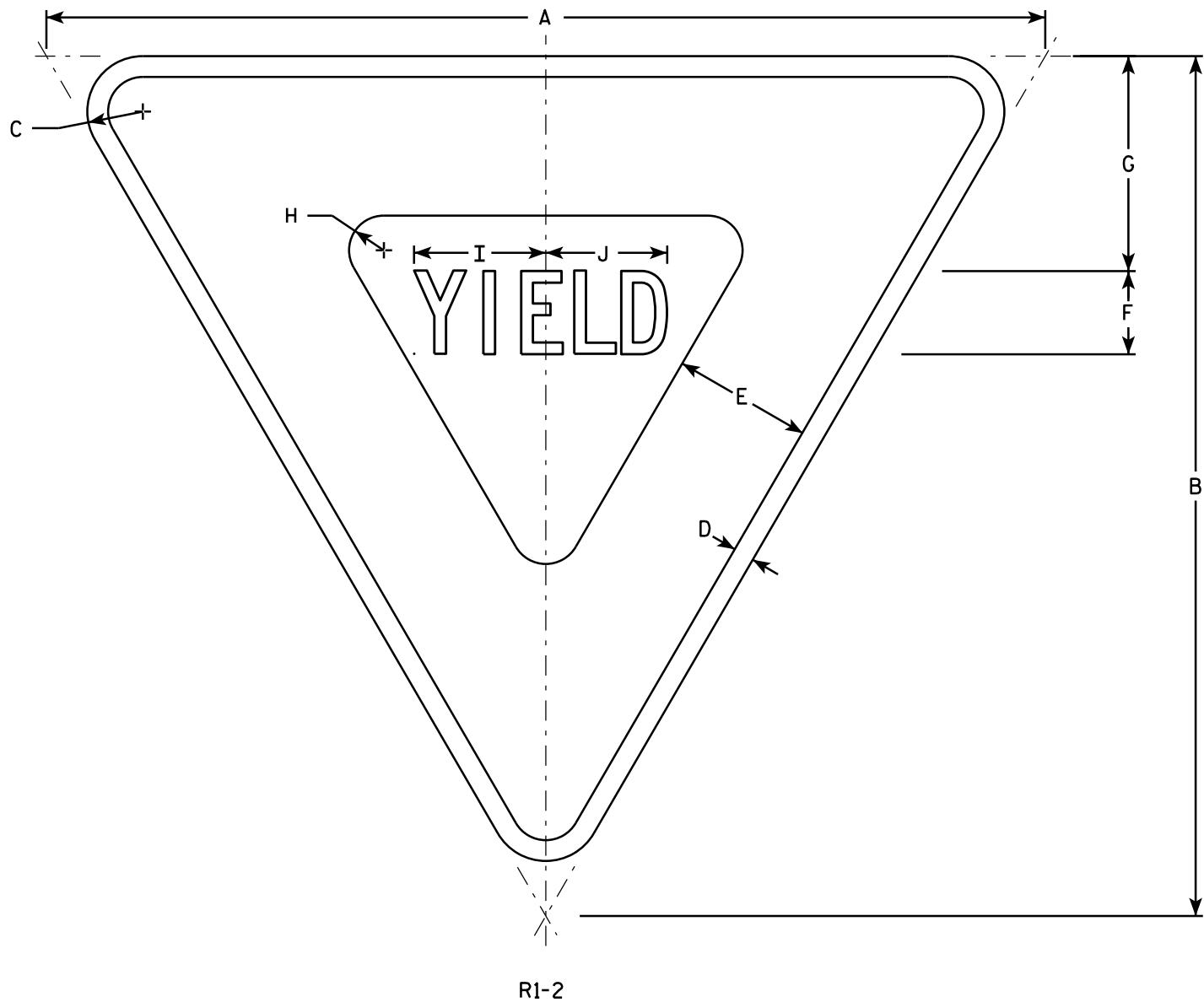
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

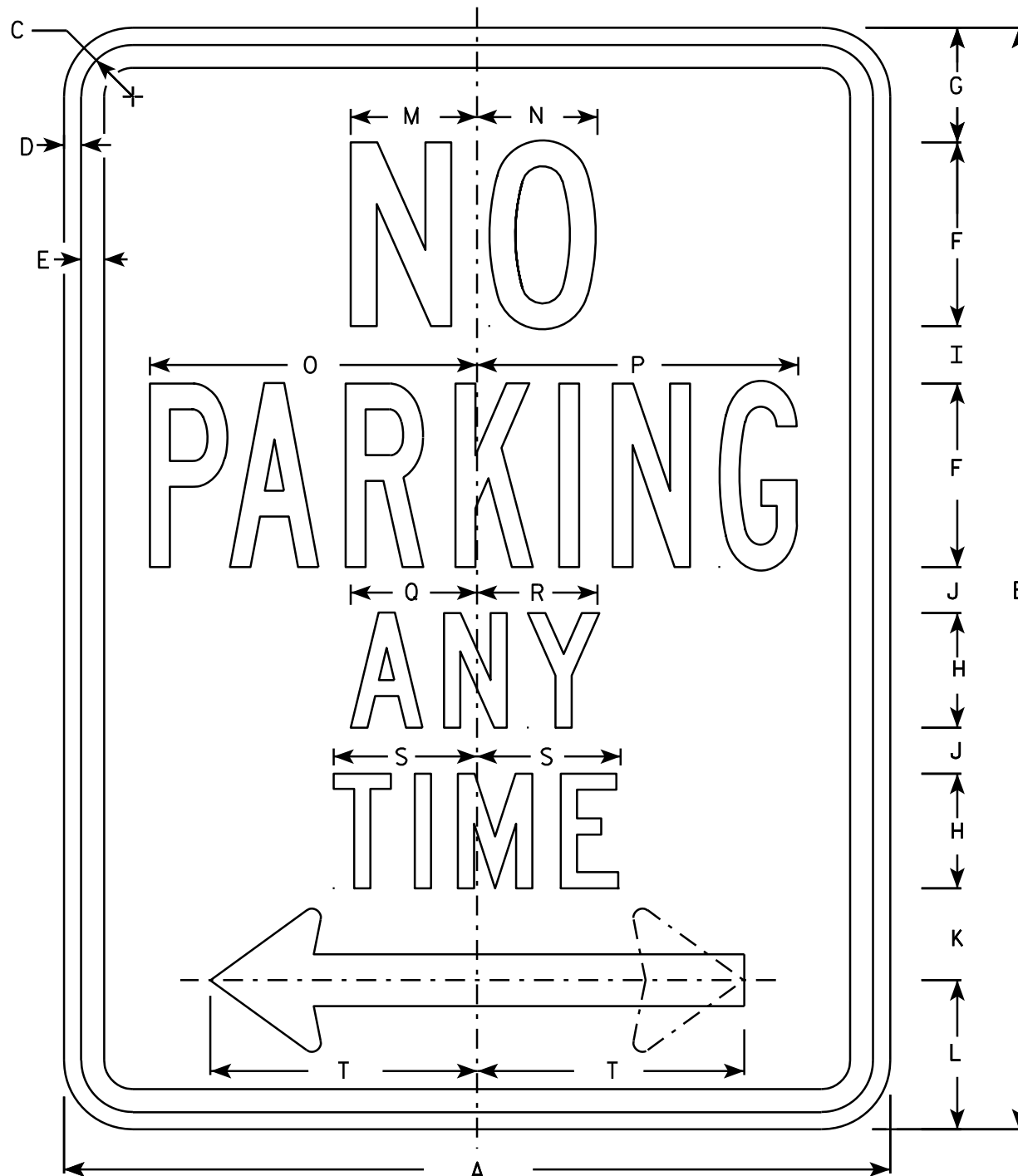
STANDARD SIGN

R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

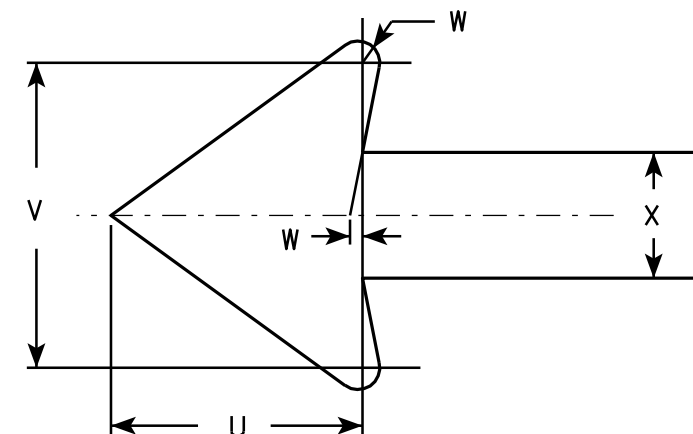
DATE 10/13/14 PLATE NO. R1-2.12



R7-1

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 - 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. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



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 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			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	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			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	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			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	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

NOTES

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



R9-9

7

7

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

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO:

HWY:

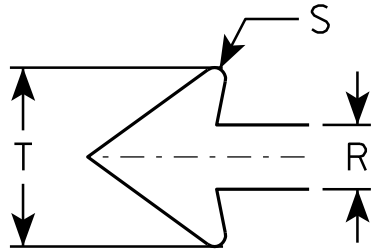
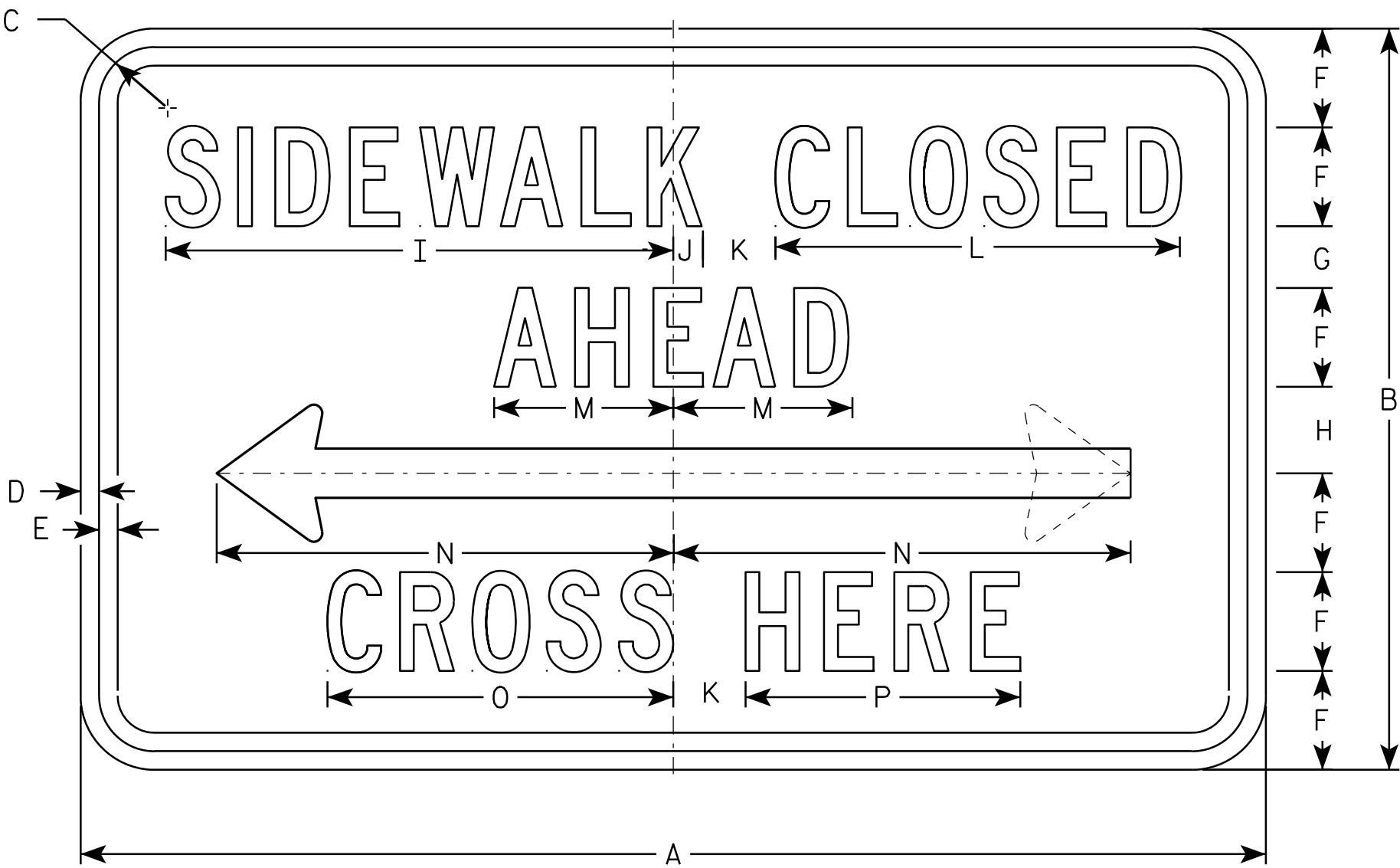
COUNTY:

SHEET NO:

E

NOTES

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



R9-11

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	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
2S	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 1/2	1 1/4	3	16 3/8	7 1/4	18 1/2	14	11 1/8		2	3/8	5 1/2							10.0
2M	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 1/2	1 1/4	3	16 3/8	7 1/4	18 1/2	14	11 1/8		2	3/8	5 1/2							10.0
3																											
4																											
5																											

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/17/2012 PLATE NO. R9-11.2

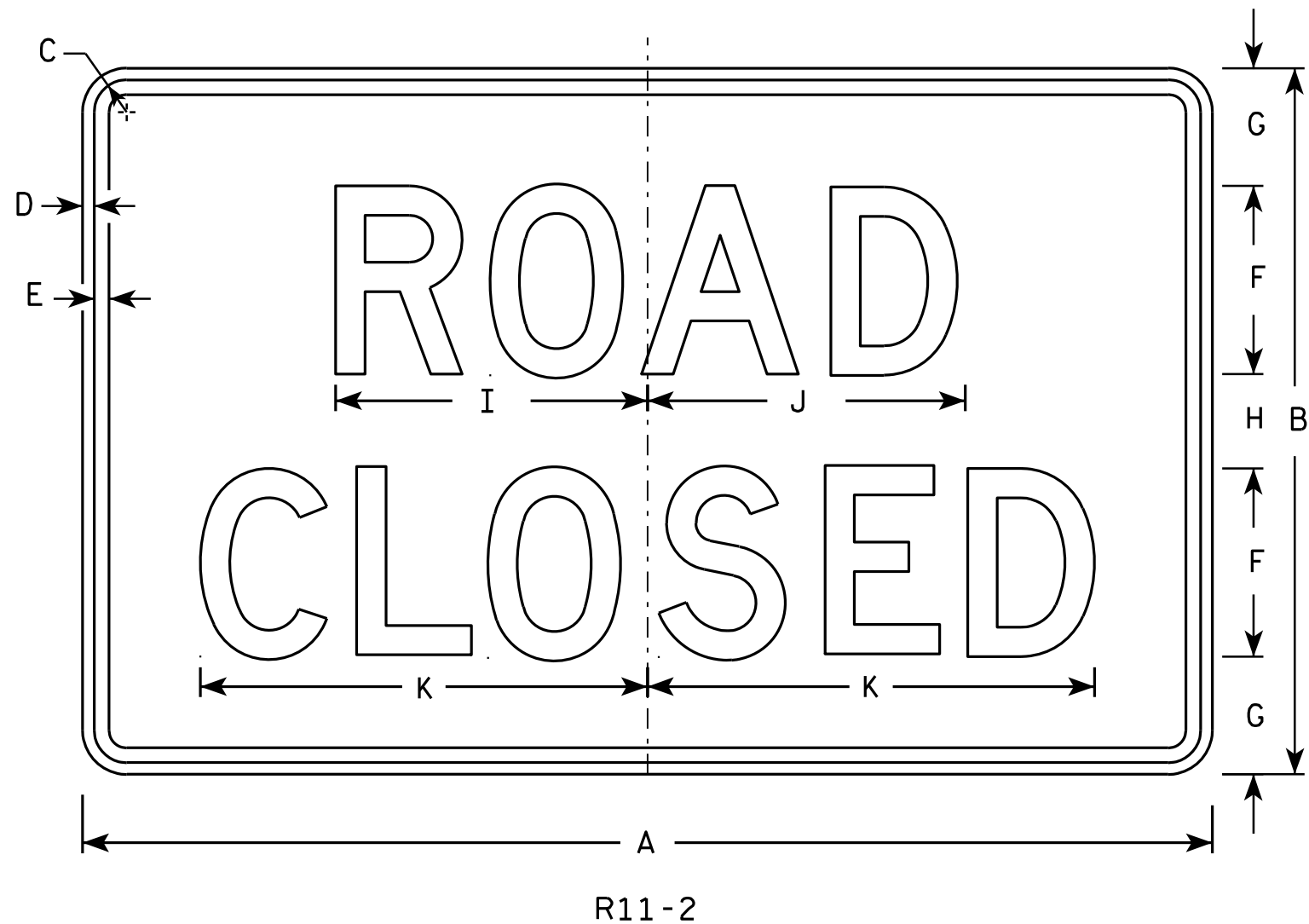
PROJECT NO:

HWY:

COUNTY:

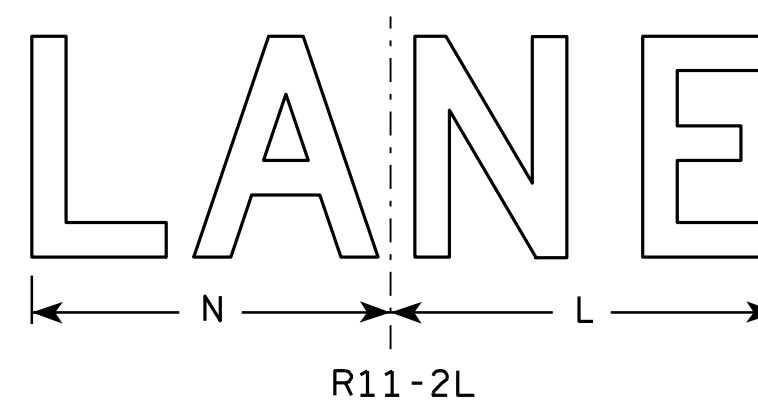
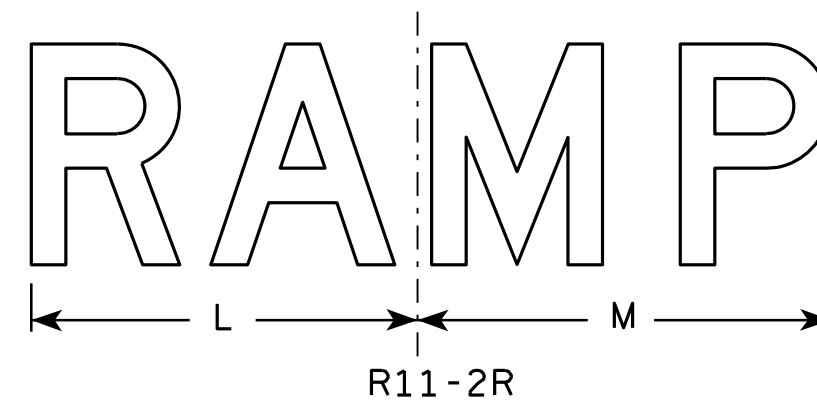
SHEET NO:

E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - Black
- Message Series - D
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Modify the message as required.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

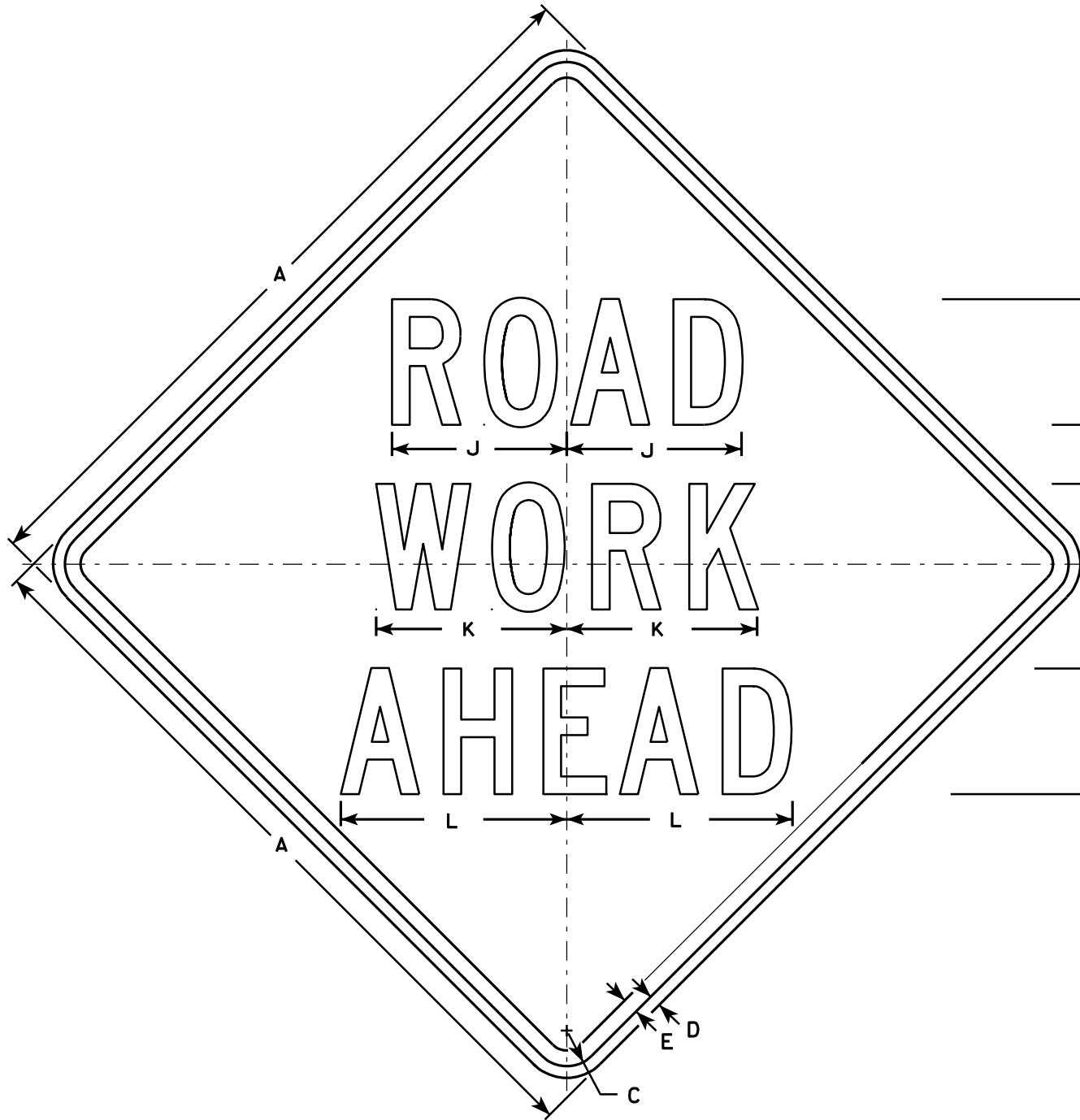
PROJECT NO:

HWY:

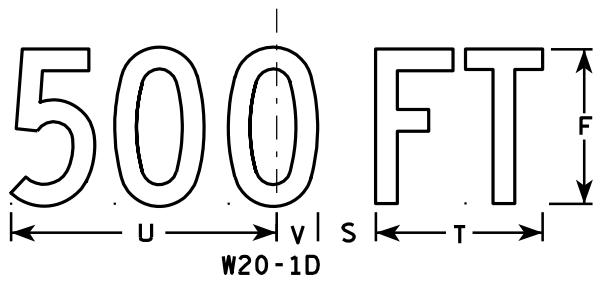
COUNTY:

SHEET NO:

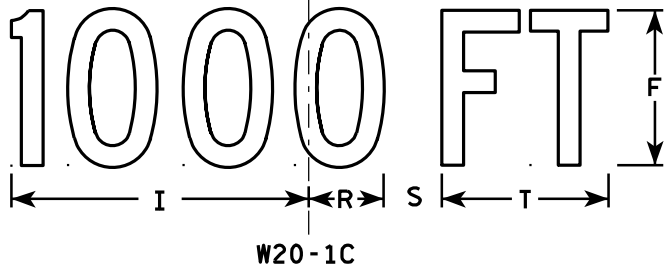
E



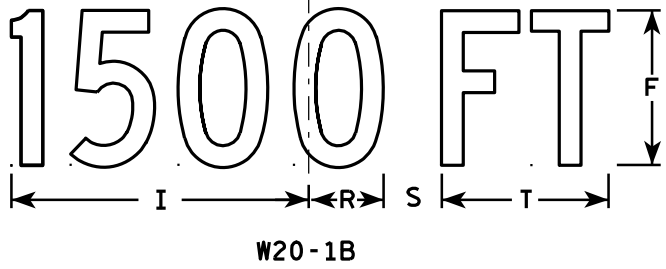
W20-1A



W20-1D



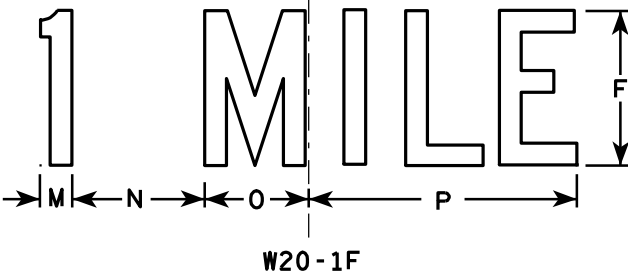
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	1 7/8	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

PROJECT NO:

SHEET NO:

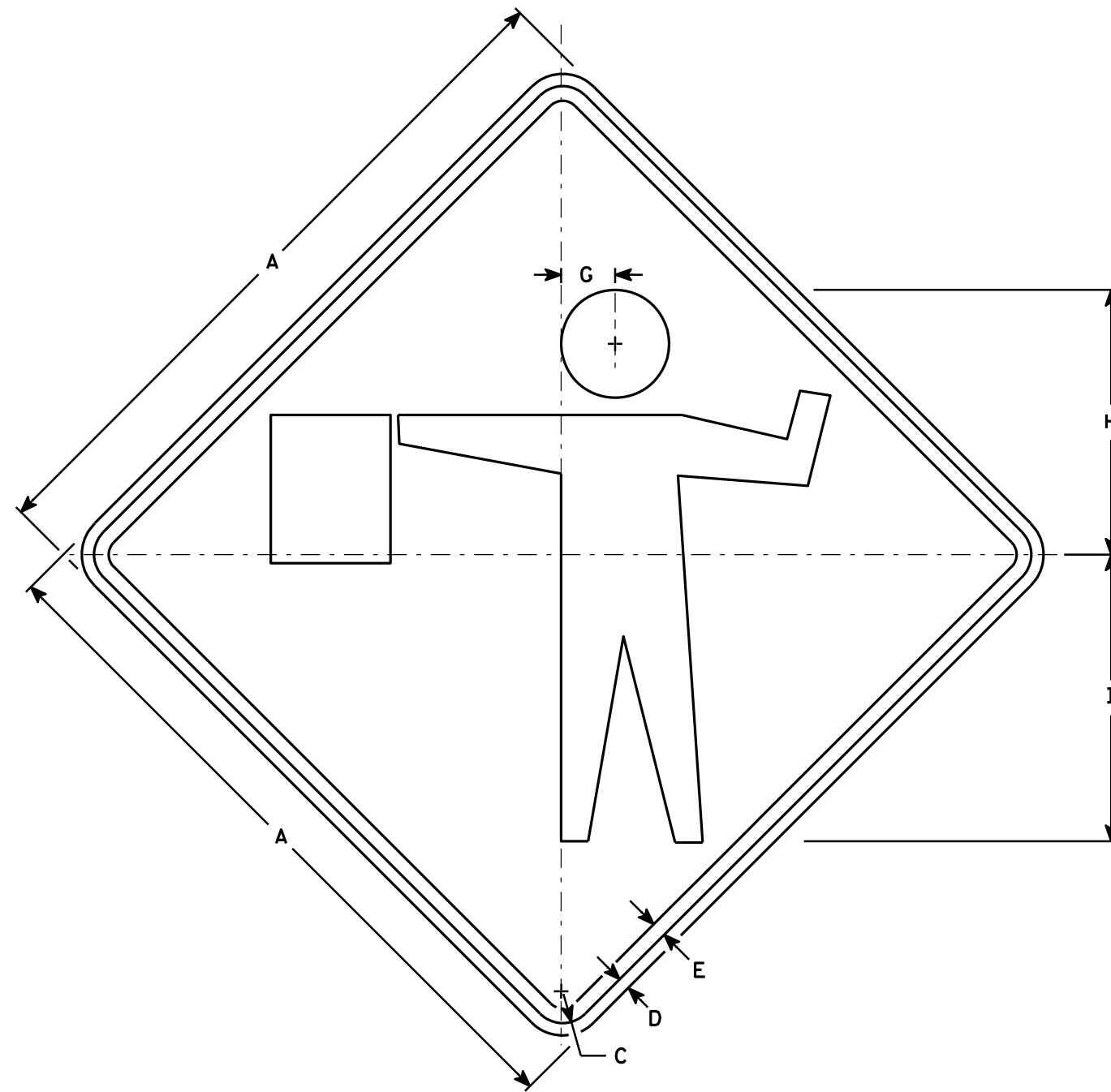
E

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 3/18/11
PLATE NO. W20-1.9



W20-7A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

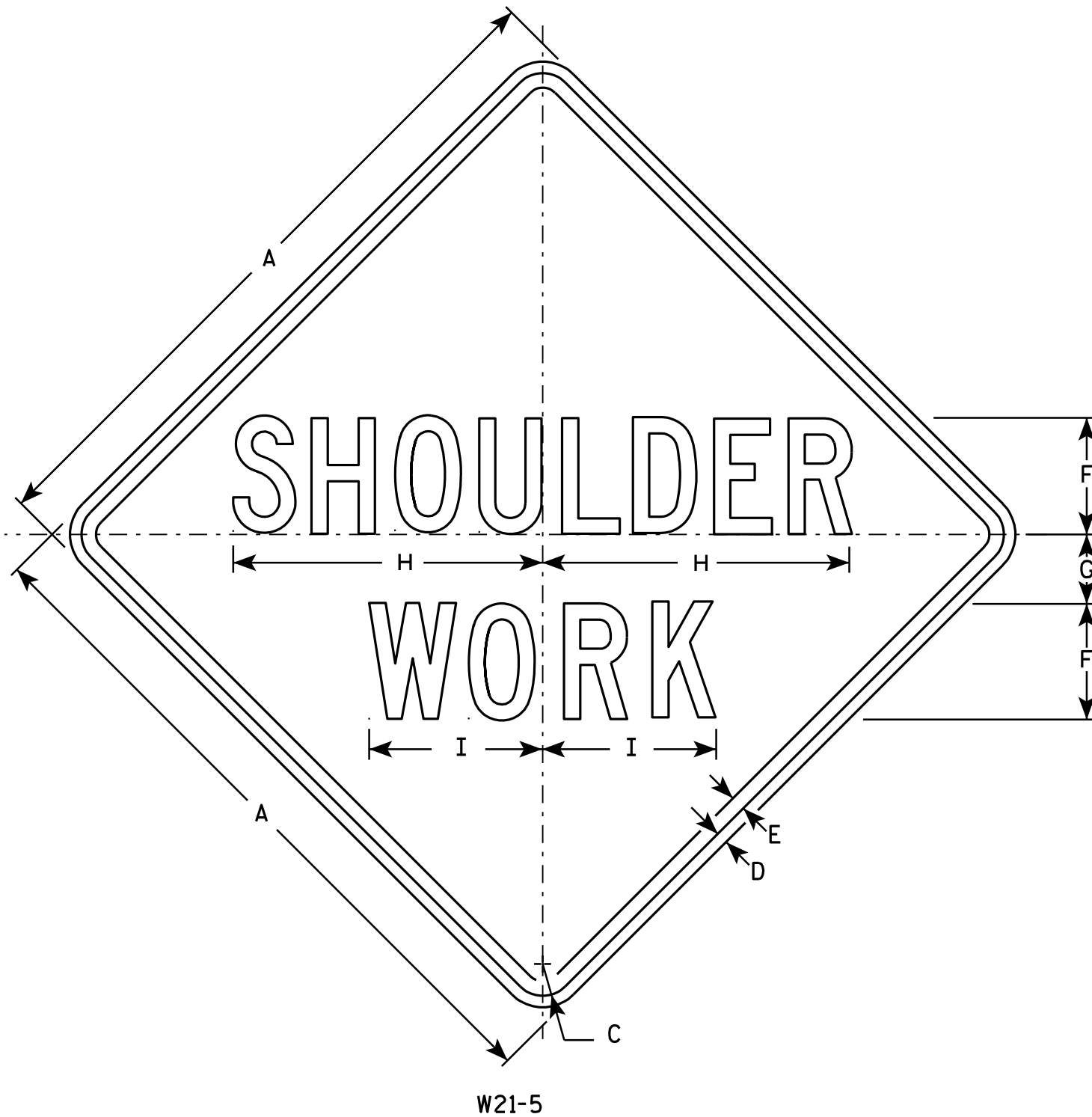
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

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		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

EARTHWORK TABULATION - STH 11 AND STH 80 INTERSECTION - NE QUAD

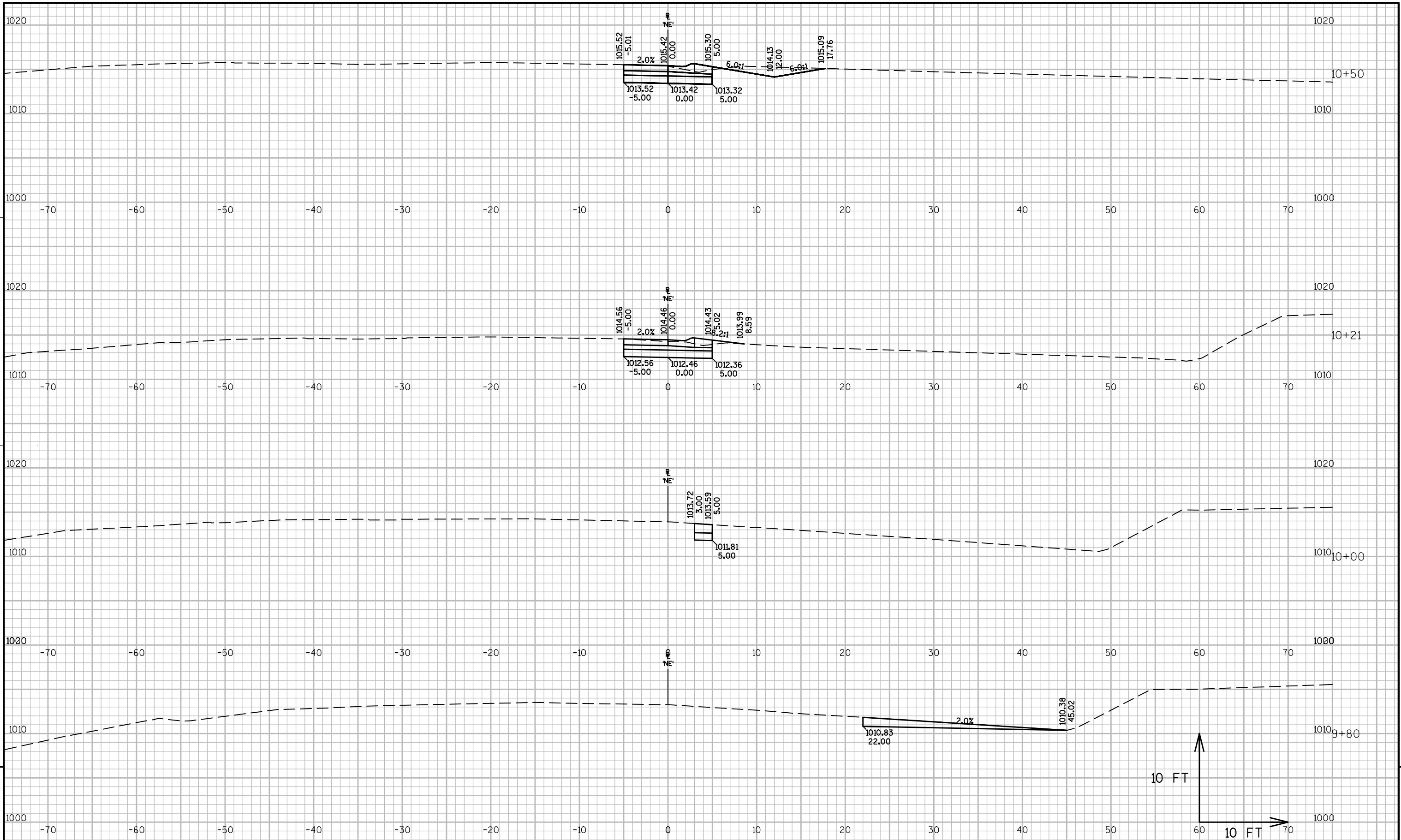
EXPANSION FACTOR = 1.3

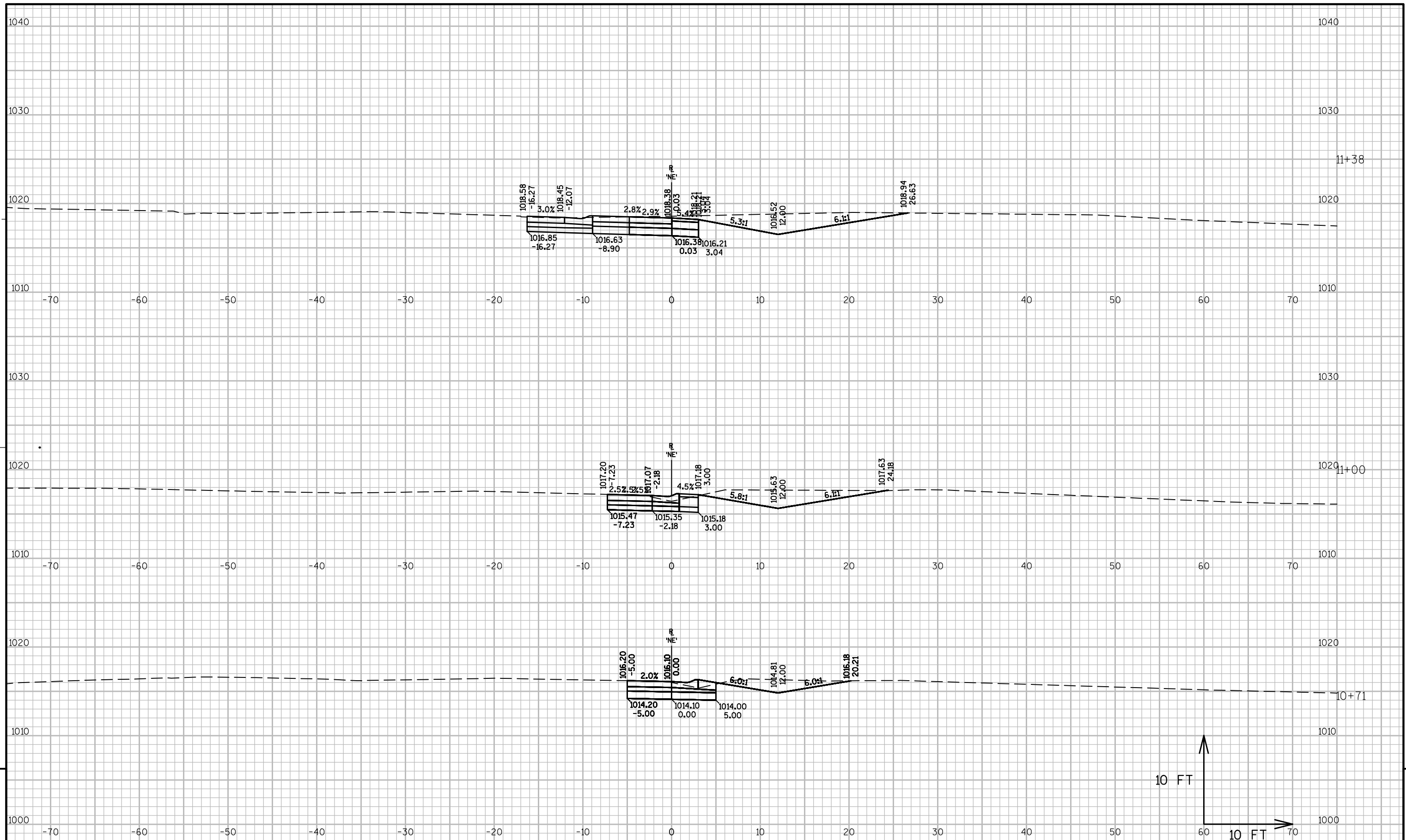
STATION	END AREA		INCREMENTAL VOLUME		CUMMULATIVE VOLUME		MASS ORDINATE
	CUT (SF)	FILL (SF)	CUT (CY)	EXP FILL (CY)	CUT (CY)	EXP FILL (CY)	
10+00	0	0	0	0	0	0	0
10+21	18	1	7	1	7	1	6
10+50	25	0	23	1	30	1	29
10+71	30	0	21	0	51	1	50
11+00	39	0	37	0	89	1	87
11+38	67	0	75	0	163	1	162
11+50	84	0	34	0	197	1	195
12+00	101	0	171	0	368	1	367
12+50	67	1	156	1	524	2	521
12+65	48	1	32	1	555	3	552
13+00	33	0	53	1	608	4	604
13+14	32	0	17	0	625	4	621
13+50	38	0	47	0	672	4	668
14+00	18	0	52	0	723	4	719
14+50	9	0	25	0	748	4	744
14+64	0	0	2	0	751	4	747
TOTAL			751	4			

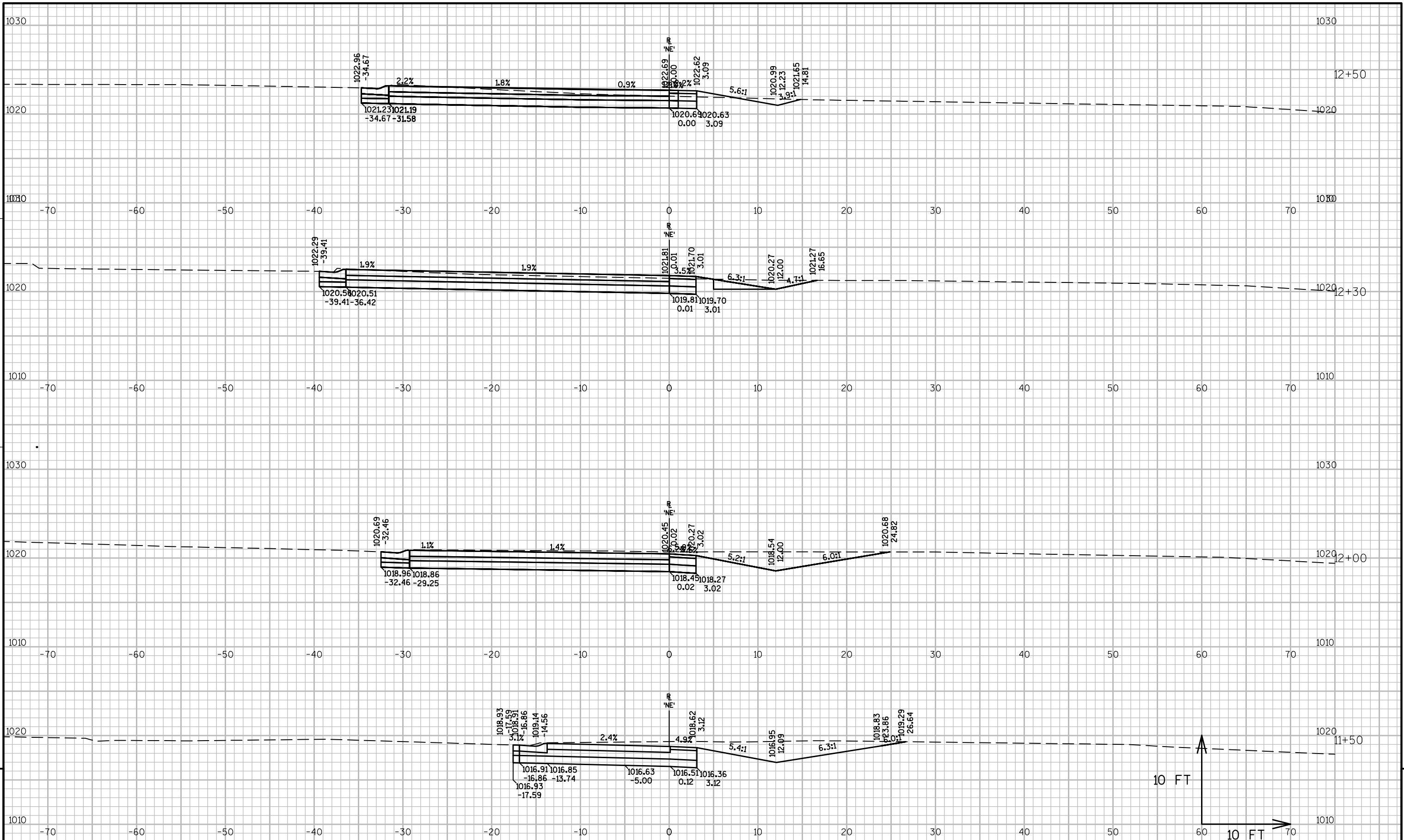
EARTHWORK TABULATION - STH 11 - BENTON

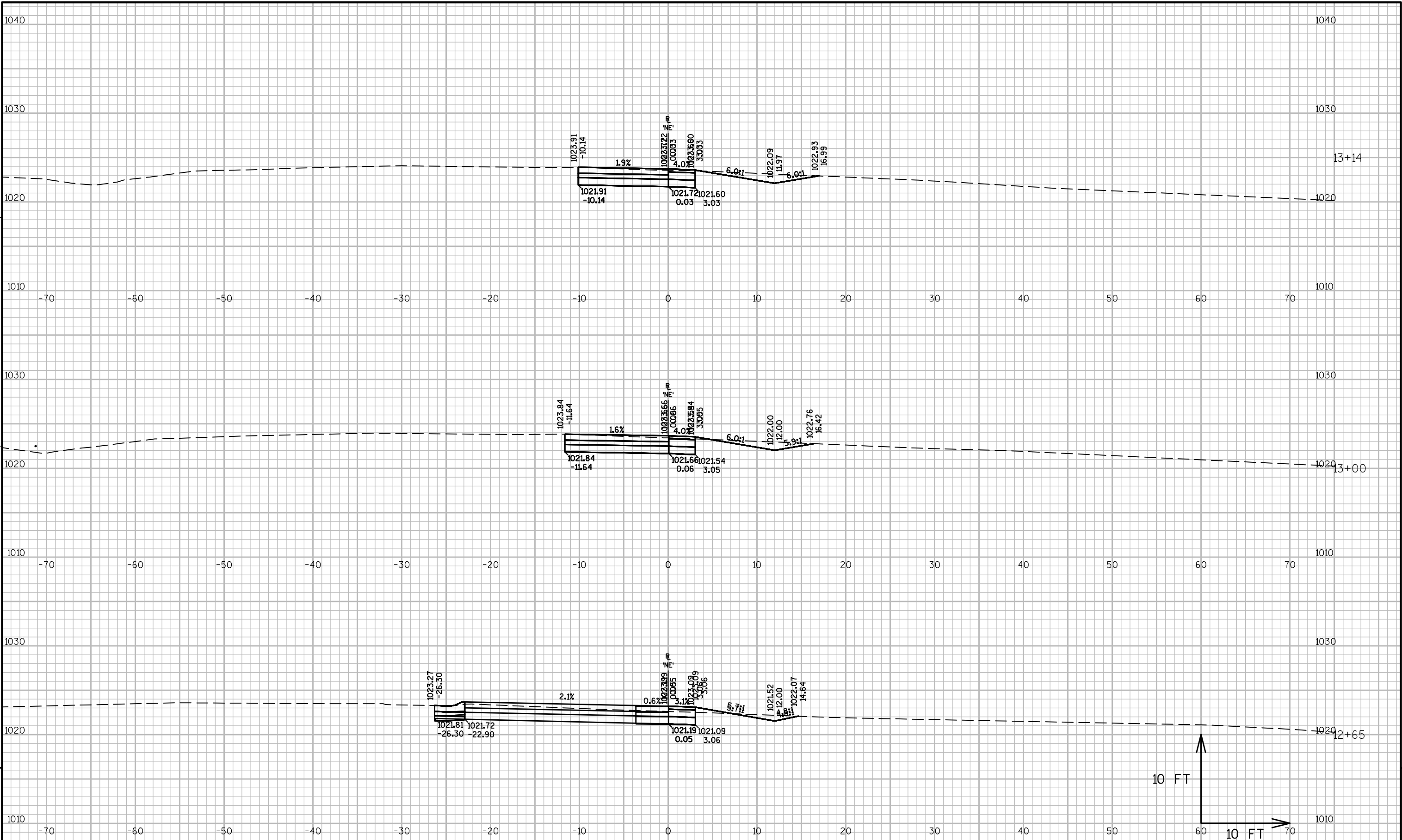
EXPANSION FACTOR = 1.3

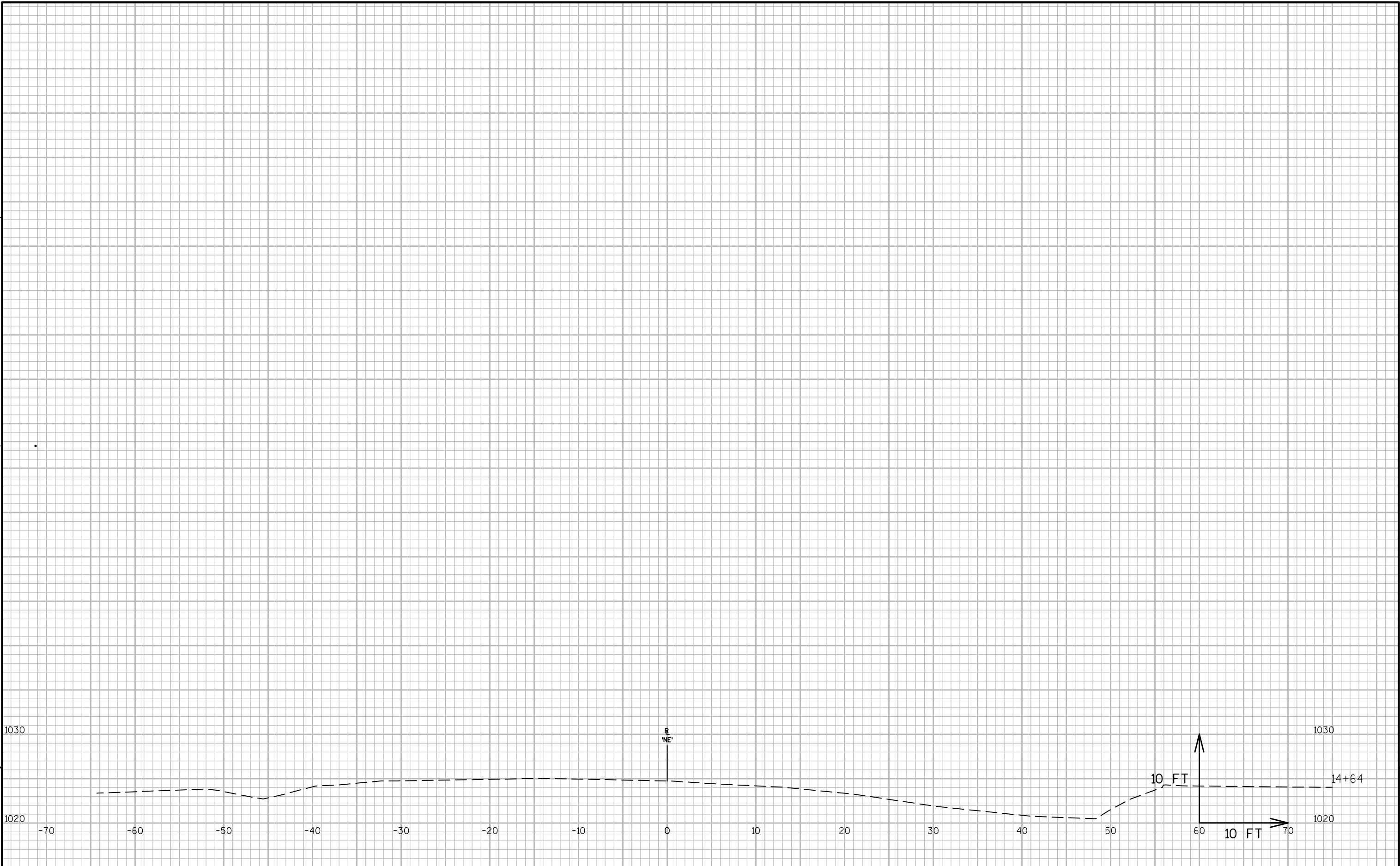
STATION	END AREA		INCREMENTAL VOLUME		CUMMULATIVE VOLUME		MASS ORDINATE
	CUT (SF)	FILL (SF)	CUT (CY)	EXP FILL (CY)	CUT (CY)	EXP FILL (CY)	
20+62	11	0	0	0	0	0	0
20+75	18	0	7	0	7	0	7
21+00	18	1	17	1	24	1	23
21+25	45	0	29	1	53	1	52
21+50	55	0	46	0	99	1	98
21+75	61	0	54	0	153	1	152
22+00	67	0	59	0	212	1	211
22+25	73	0	65	0	277	1	276
22+50	16	0	41	0	318	1	317
22+58	10	0	4	0	322	1	321
TOTAL			322	1			

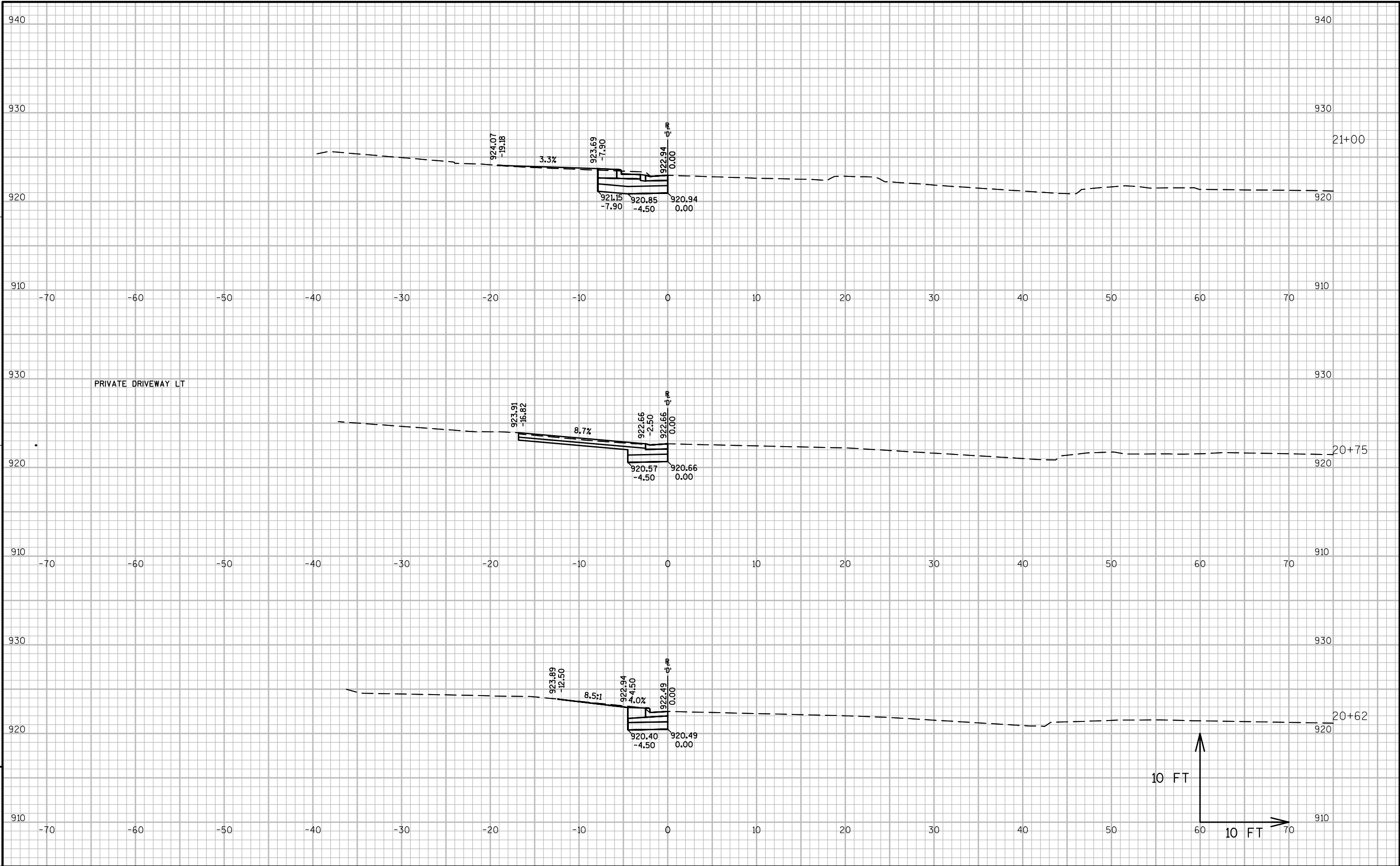


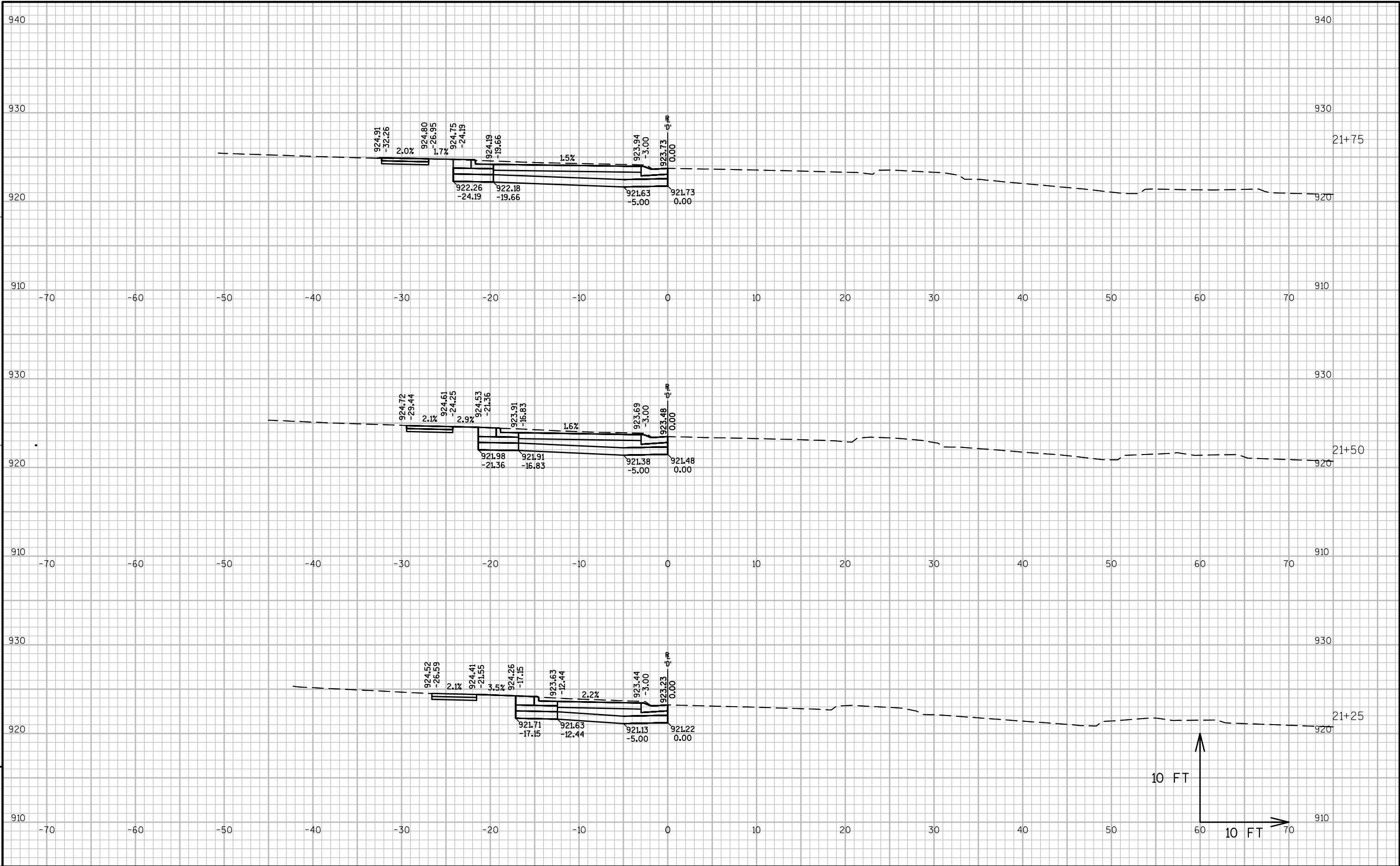






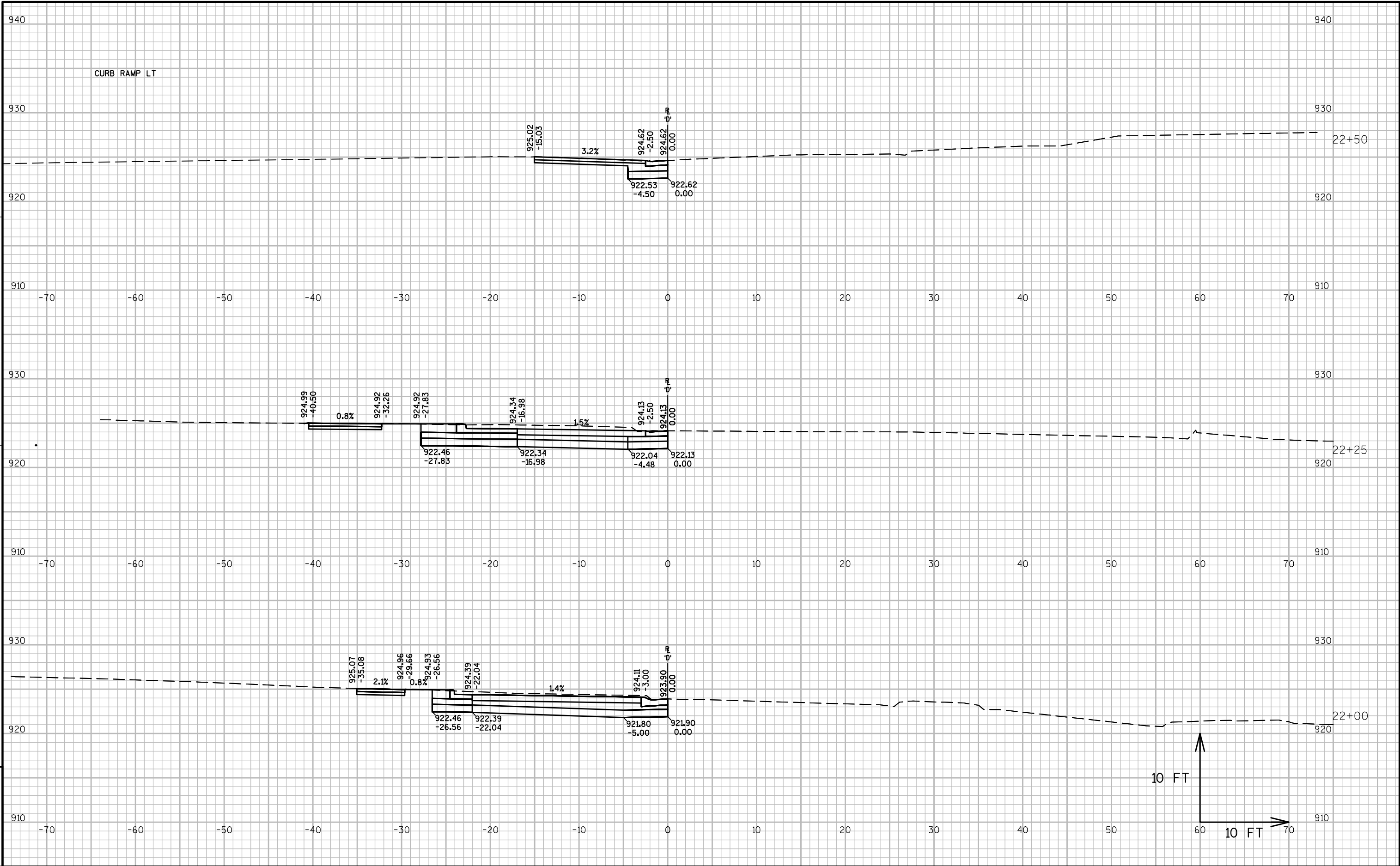


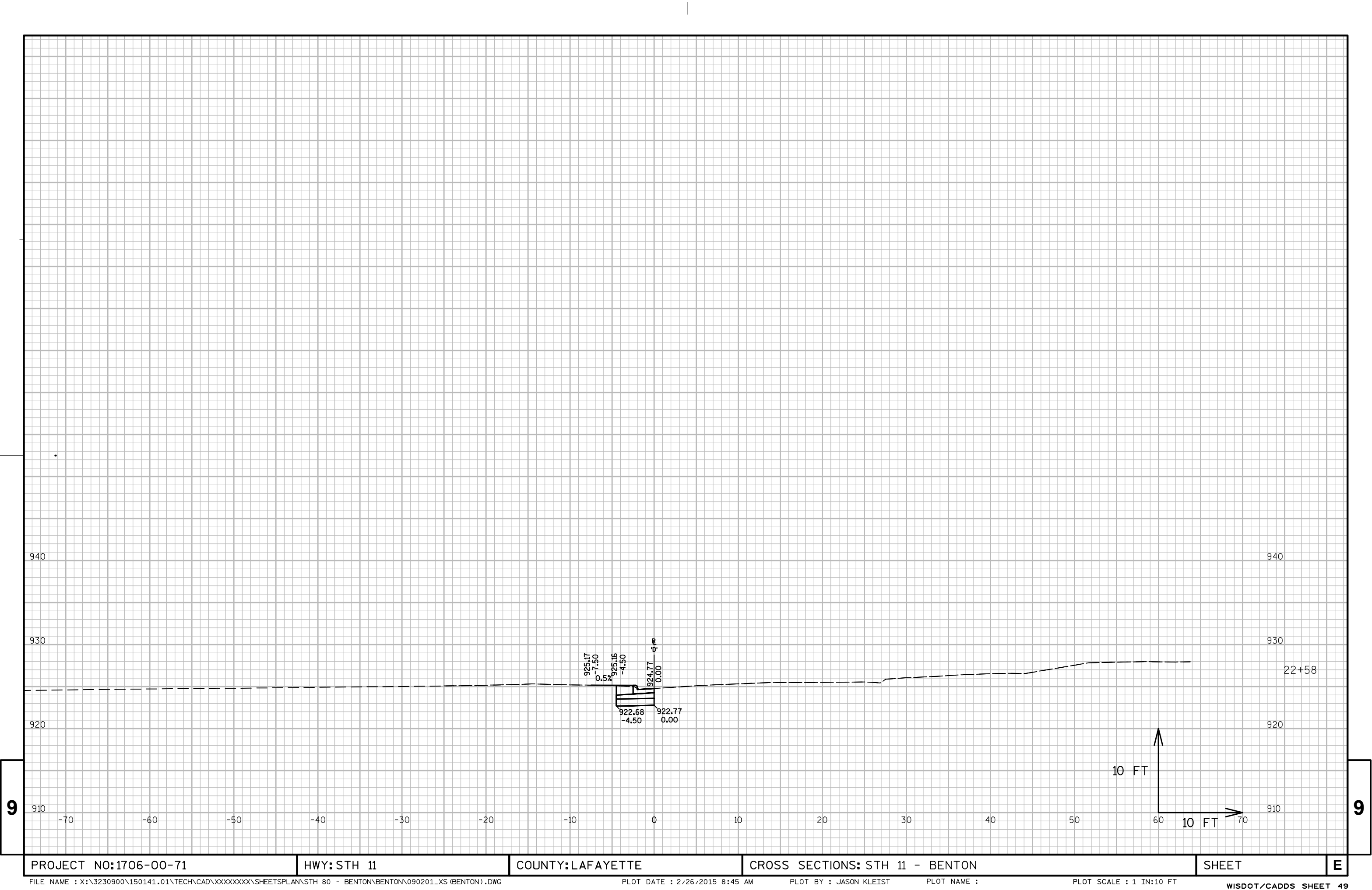


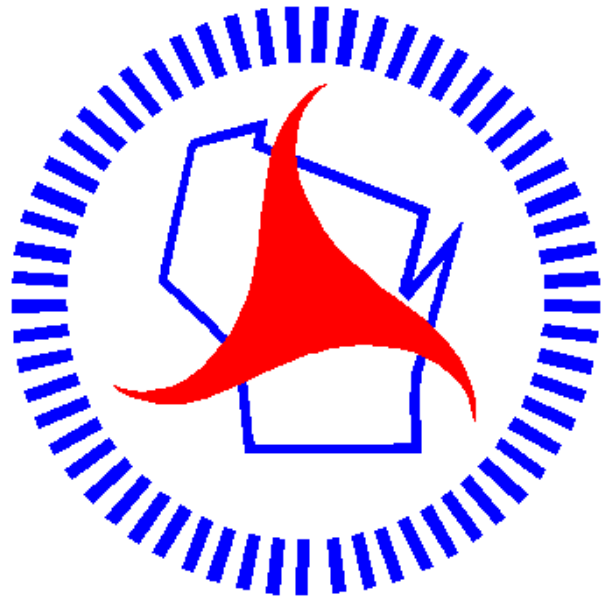


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Wisconsin Department of Transportation

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