MAD | FEBRUARY 2025

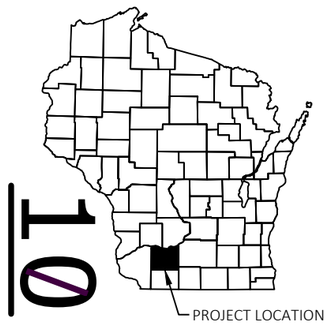
PROJECT ID: **5975-00-70**

WITH: N/A

COUNTY: **IOWA**

ORDER OF SHEETS

TOTAL SHEETS = 148



DESIGN DESIGNATION 5975-00-01

A.A.D.T.	2025	=	600
A.A.D.T.	2045	=	650
D.H.V.		=	86
D.D.		=	62/38
T.		=	7.7%
DESIGN SPEED		=	30 MPH
ESALS		=	110,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- 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) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MOSCOW - HOLLANDALE (CTH K)

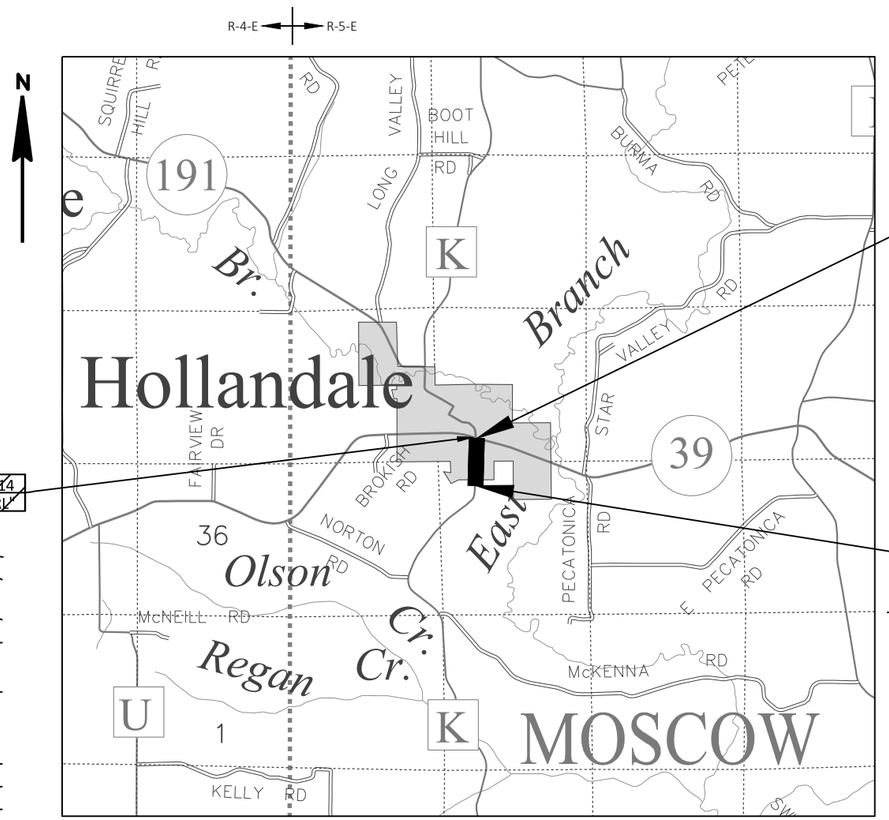
NORTON ROAD TO STH 39

CTH K
IOWA COUNTY

STATE PROJECT NUMBER
5975-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5975-00-70	WISC 2025309	1

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.



STRUCTURE R-25-014
STA 00+00 "RL" - STA 1+65 "RL"

END PROJECT
STA 24+71.75

BEGIN PROJECT
STA 10+25
Y = 120 768.766
X = 432 438.699

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.274 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), IOWA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

ACCEPTED FOR

IOWA COUNTY

10/31/24 (Date) (Signature and Title of Official)

Iowa County Highway Commissioner

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954

WISCONSIN
AARON B. PALMER
E-35695
RICHLAND CENTER, WI
PROFESSIONAL ENGINEER

DATE: 10/31/24 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC.
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC.
Project Manager	JOSH SCHOENMANN, P.E.
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 11/1/24 (Signature)

E

GENERAL NOTES

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

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

MAINTAIN EROSION CONTROL ITEMS UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. PROTECT WETLANDS AND OTHER WATERWAYS THAT ARE PRESENT WITHIN THE PROJECT LIMITS.

SLOPES 2.5:1 OR STEEPER REQUIRE EROSION MAT.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, AND MULCHED AND/OR EROSION MAT INSTALLED AS DIRECTED BY THE ENGINEER.

APPLY SEED, MULCH OR EROSION MAT, AND FERTILIZER TO ALL DISTURBED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

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

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A VERTICAL SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

HMA PAVEMENT QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

4.5-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING ONE (1) 2.25-INCH UPPER LAYER AND ONE (1) 2.25-INCH LOWER LAYER.

6-INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED USING ONE (1) 2.25-INCH UPPER LAYER AND ONE (1) 3.75-INCH LOWER LAYER. THE PREFERRED UPPER LAYER IS 2.25-INCHES OF 4 LT 58-28 S. THE PREFERRED LOWER LAYER IS 3.75-INCHES OF HMA PAVEMENT 3 LT 58-28 S.

APPLY TACK COAT BETWEEN LAYERS OF HMA PAVEMENT AT A RATE OF 0.05 GAL/SY.

PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

THE LOCATION OF STOP LINES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ADJUST DITCH GRADING AS NECESSARY TO FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

ORDER OF SHEETS

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

UTILITIES

ALLIANT ENERGY
ELECTRIC
MARK MUENCH
490 SHAKERAG STREET
MINERAL POINT, WI 53565
PHONE: (608) 220-0634
EMAIL: markmuench@alliantenergy.com

ALLIANT ENERGY
FIBER OPTIC
BRANDON KLAAS
655 SULLIVAN DRIVE
FOND DU LAC, WI 54935
PHONE: (920) 445-5918
EMAIL: bklaas@mi-tech.us

ALLIANT ENERGY
GAS
BLAKE WEDIG
490 SHAKERAG STREET
MINERAL POINT, WI 53565
PHONE: (608) 931-4221
EMAIL: blakewedig@alliantenergy.com

BUG TUSSEL WIRELESS
COMMUNICATIONS
DUSTIN TEAFF
1262 CHAMBER CT
DE PERE, WI 54115
PHONE: (920) 254-3539
EMAIL: Dustin.Teaff@btussel.com

FRONTIER COMMUNICATIONS
COMMUNICATIONS
CHRISTOPHER POLLACK
521 N 4TH STREET
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: christopher.pollack@ftr.com

MOUNT HOREB TELEPHONE COMPANY
COMMUNICATIONS
JEFFREY INABNIT
200 EAST MAIN STREET
MOUNT HOREB, WI 53572
PHONE: (608) 437-0632
EMAIL: Jeffrey.Inabnit@mhtcinc.com

VILLAGE OF HOLLANDALE
WATER
JERRY DOESCHER
200 5TH AVENUE
HOLLANDALE, WI 53544
PHONE: (608) 574-2084
EMAIL: pwhollandale@mhtc.net

VILLAGE OF HOLLANDALE
SANITARY SEWER
JERRY DOESCHER
200 5TH AVENUE
HOLLANDALE, WI 53544
PHONE: (608) 574-2084
EMAIL: pwhollandale@mhtc.net

CONTACTS

COUNTY LIAISON

IOWA COUNT HIGHWAY
DEPARTMENT
1215 BEQUETTE STREET
DODGEVILLE, WI 53533

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PH: (608) 574-2935
craig.hardy@iowacounty.org

DESIGN CONSULTANT

WESTBROOK ASSOCIATED
ENGINEERS, INC.
619 EAST HOXIE STREET
SPRING GREEN, WI 53588

ATTN: AARON PALMER, P.E.
PH: (608) 588-7866
FAX: (608) 588-7954
apalmer@westbrookeng.com

WisDOT

WisDOT PROJECT MANAGER
2101 WRIGHT ST
MADISON, WI 53704

ATTN: JOSH SCHOENMANN, P.E.
PH: (608) 246-3800
josh.schoenmann@dot.wi.gov

WDNR LIAISON

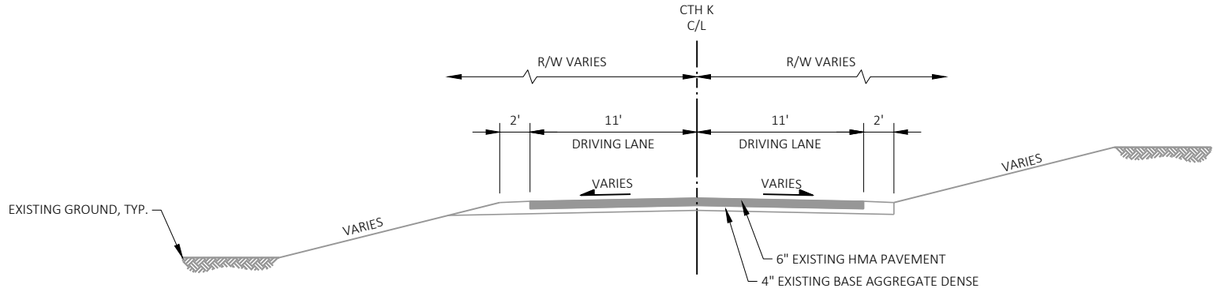
DNR SOUTH CENTRAL REGION
HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711

ATTN: ERIC HEGGELUND
PH: (608) 228-7927
eric.heggelund@wisconsin.gov

STANDARD ABBREVIATIONS

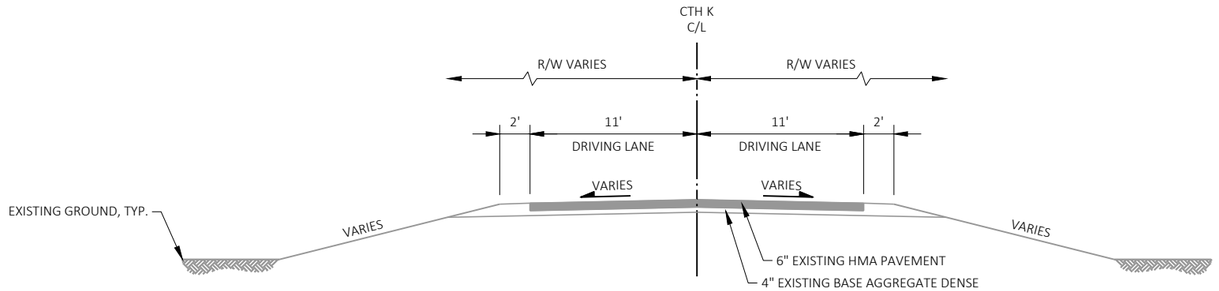
ABUT.	Abutment	JT	Joint	SEC	Section
AC	Acre	JCT	Junction	SHLDR	Shoulder
AGG.	Aggregate	LHF	Left-Hand Forward	SHR	SHRINKAGE
AH	Ahead	L	Length of Curve	SW	Sidewalk
<	Angle	LIN FT OR LF	Linear Foot	S	South
ASPH	Asphaltic	LC	Long Chord of Curve	SQ	Square
AVG.	Average	MH	Manhole	SF OR SQ FT	Square Feet
A.D.T	Average Daily Traffic	MB	Mailbox	SY or SQ YD	Square Yard
BAD	Base Aggregate Dense	ML OR M/L	Match Line	STD	Standard
BK	Back	N	North	SDD	Standard Detail Drawings
BF	Back Face	Y	North Grid Coordinate	STH	State Trunk Highway
B.M.	Bench Mark	OD	Outside Diameter	STA	Station
BR.	Bridge	PLE	Permanent Limited Easement	SS	Storm Sewer
C/L	Center Line	PT	Point	SG	Subgrade
CC	Center to Center	PC	Point of Curvature	SE	Superelevation
CTH	County Trunk Highway	PI	Point of Intersection	SL or S/L	Survey Line
CR.	Creek	PRC	Point of Reverse Curvature	SV	Septic Vent
CY or CU YD	Cubic Yard	PT	Point of Tangency	T	Tangent
CP	Culvert Pipe	POC	Point on Curve	TEL	Telephone
C & G	Curb and Gutter	PVC	Polyvinyl Chloride	TEMP	Temporary
D	Degree of Curve	PCC	Portland Cement Concrete	TI	Temporary Interest
DHV	Design Hour Volume	LB	Pound	t	Ton
DIA	Diameter	PSI	Pounds Per Square Inch	T or TN	Town
E	East	PE	Private Entrance	TRANS	Transition
X	East Grid Coordinate	R	Radius	TL OR T/L	Transit Line
ELEC	Electric	RR	Railroad	T	Trucks (percent of)
EL OR ELEV	Elevation	RL OR R/L	Reference Line	TYP	Typical
ESALS	Equivalent Single Axle Loads	RP	Reference Point	UNCL	Unclassified
EBS	Excavation Below Subgrade	RCCP	Reinforced Concrete Culvert Pipe	UG	Underground Cable
FF	Face to Face	REQD	Required	USH	United States Highway
FE	Field Entrance	RES	Residence or Residential	VAR	Variable
F	Fill	RW	Retaining Wall	V	Velocity or Design Speed
FG	Finished Grade	RT	Right	VERT	Vertical
FL or F/L	Flow Line	RHF	Right-Hand Forward	VC	Vertical Curve
FT	Foot	R/W	Right-of-Way	VOL	Volume
FTG	Footing	R	River	WM	Water Main
GN	Grid North	RD	Road	WV	Water Valve
HT	Height	RDWY	Roadway	W	West
CWT	Hundredweight	SALV	Salvaged	WB	Westbound
HYD	Hydrant	SAN S	Sanitary Sewer	YD	Yard
INL	Inlet	ID	Inside Diameter	INV	Invert
IP	Iron Pipe or Pin	IRS	Iron Rod Set		

2



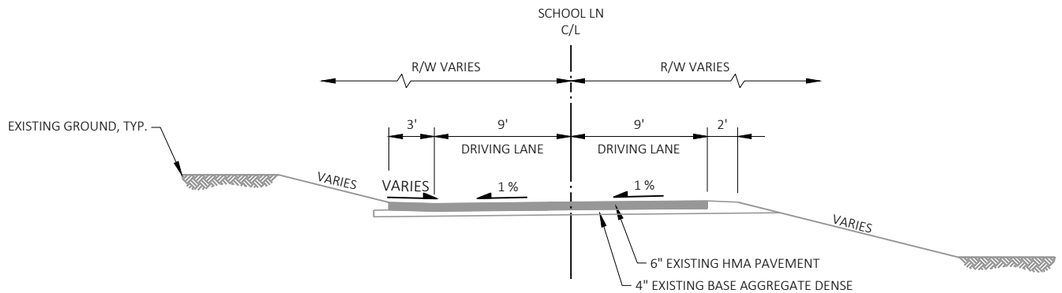
EXISTING TYPICAL SECTION - CTH K

STA 10+25 - STA 17+50



EXISTING TYPICAL SECTION - CTH K

STA 17+50 - STA 24+72



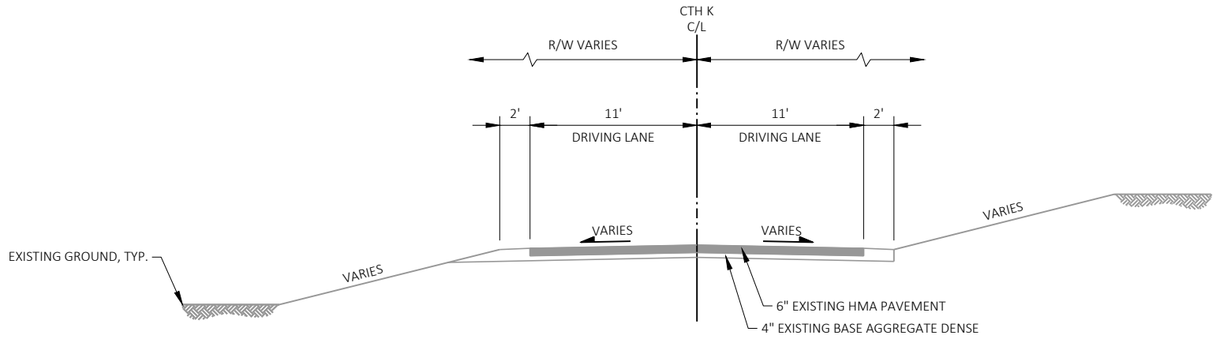
EXISTING TYPICAL SECTION - SCHOOL LN

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	TYPICAL SECTIONS	SHEET 3	E

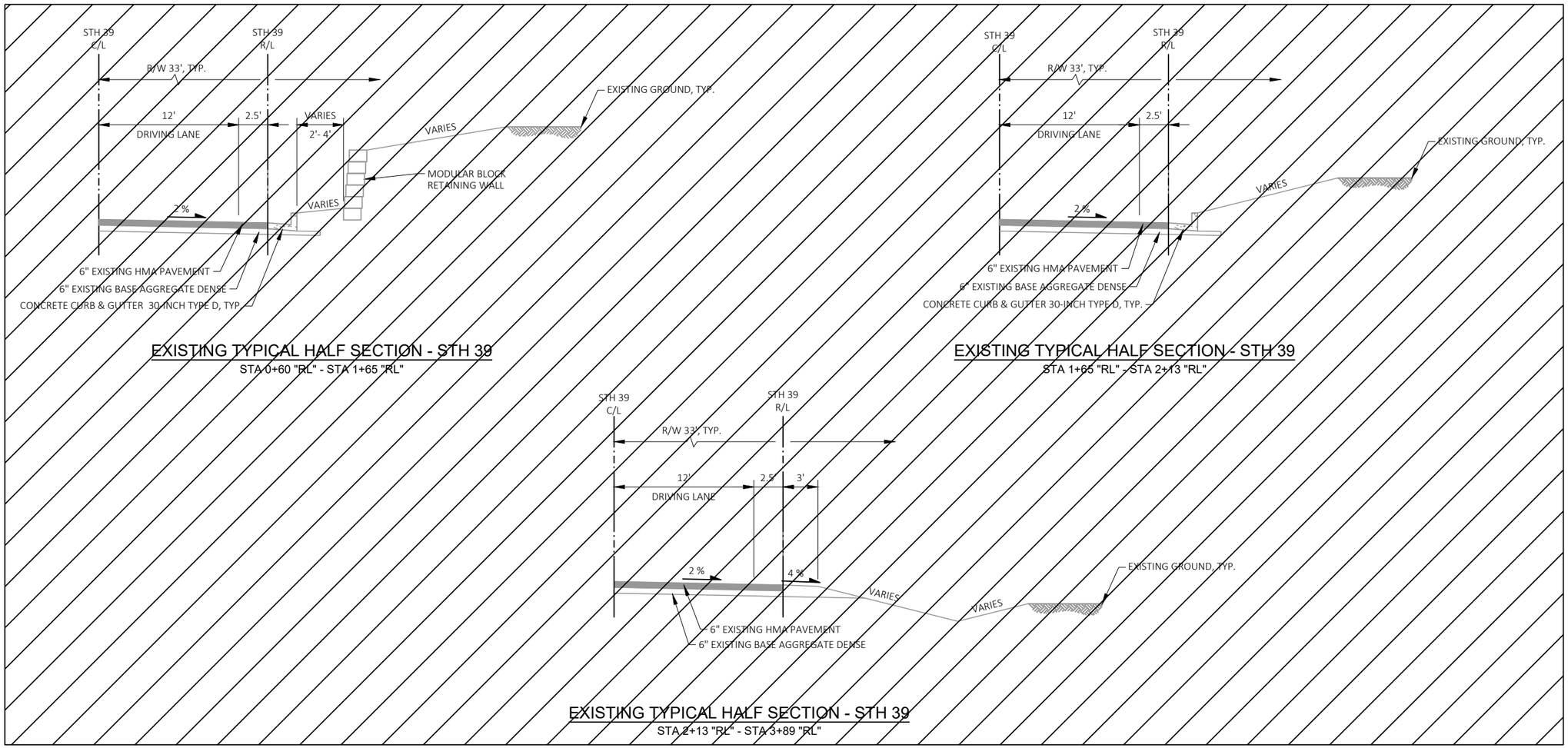
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\020301_TS.DWG
LAYOUT NAME - 020301_ts

PLOT DATE : 12/9/2024 12:41 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



EXISTING TYPICAL SECTION - CEMETERY RD



EXISTING TYPICAL HALF SECTION - STH 39
STA 0+60 "RL" - STA 1+65 "RL"

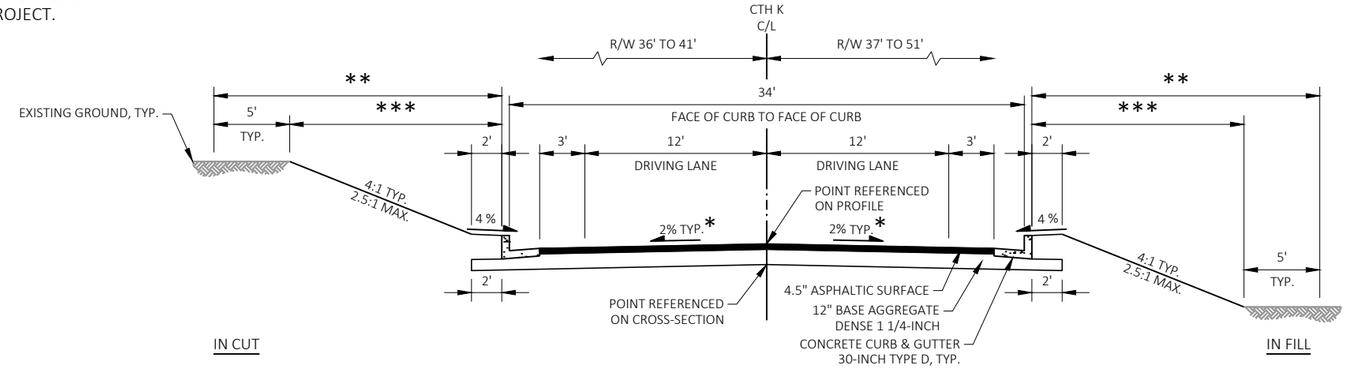
EXISTING TYPICAL HALF SECTION - STH 39
STA 1+65 "RL" - STA 2+13 "RL"

EXISTING TYPICAL HALF SECTION - STH 39
STA 2+13 "RL" - STA 3+89 "RL"

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	TYPICAL SECTIONS	SHEET 4	E

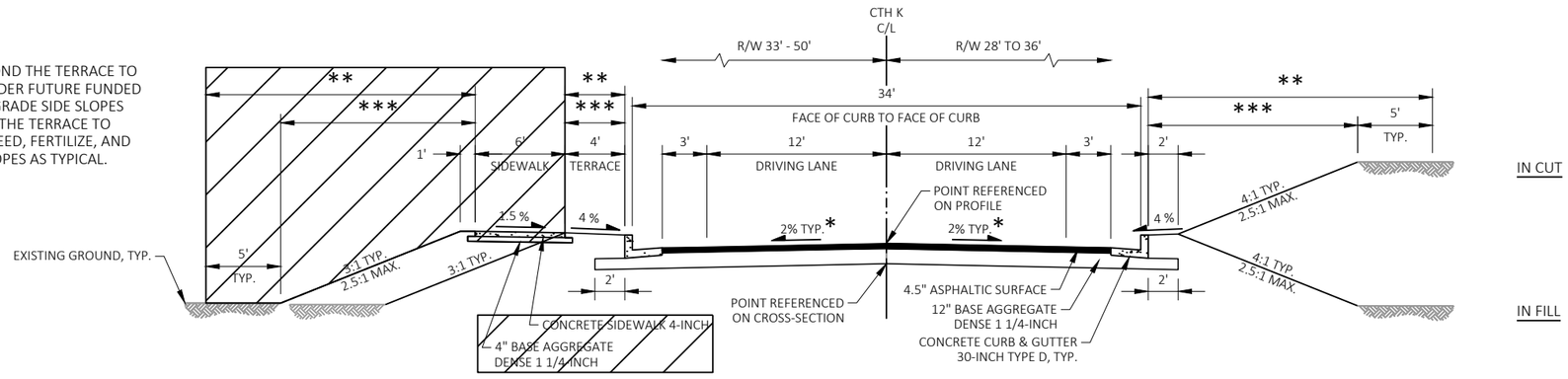
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\020301_TS.DWG
LAYOUT NAME - 020302_ts
PLOT DATE : 12/9/2024 12:41 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



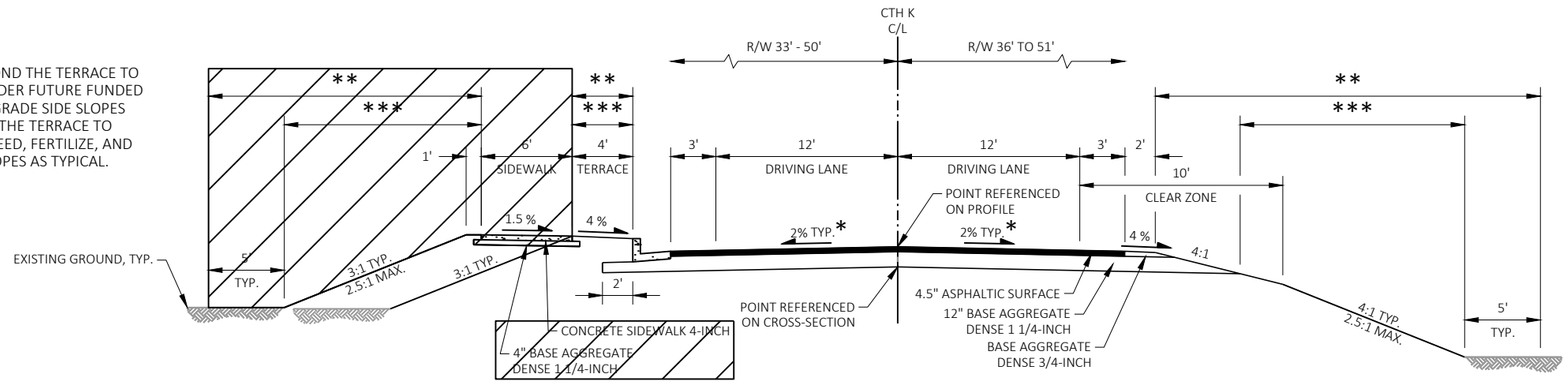
PROPOSED TYPICAL SECTION - CTH K
STA 10+25 - STA 17+12

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.



PROPOSED TYPICAL SECTION - CTH K
STA 17+12 - STA 20+30

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

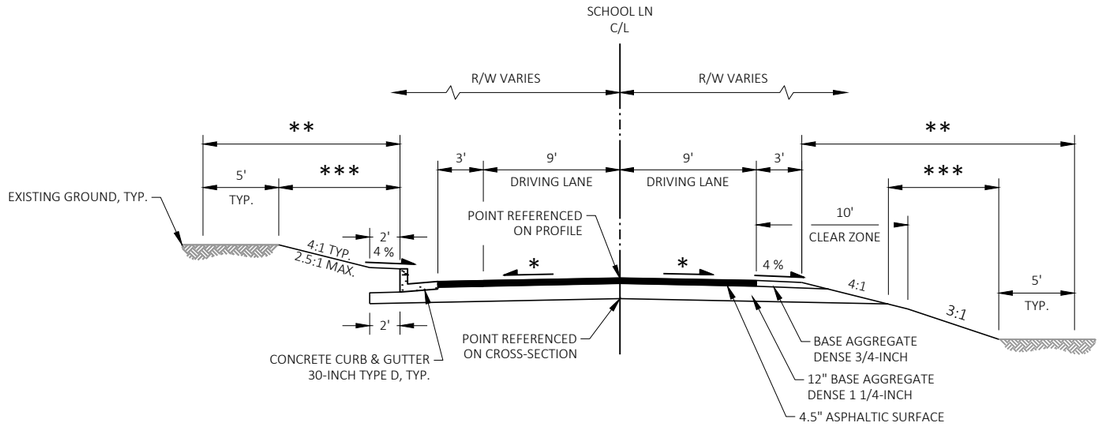


PROPOSED TYPICAL SECTION - CTH K
STA 20+30 - STA 24+60

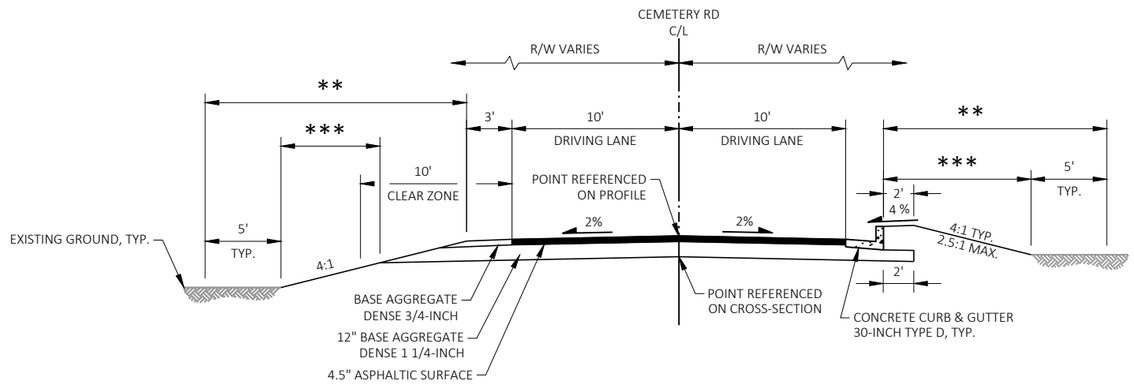
* SEE SUPERELEVATION TABLE
** LIMITS OF SEEDING, TEMPORARY SEEDING, AND FERTILIZER.
*** LIMITS OF SALVAGED TOPSOIL, MULCH, AND E-MAT.

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	TYPICAL SECTIONS	SHEET 5	E

2



PROPOSED TYPICAL SECTION - SCHOOL LN

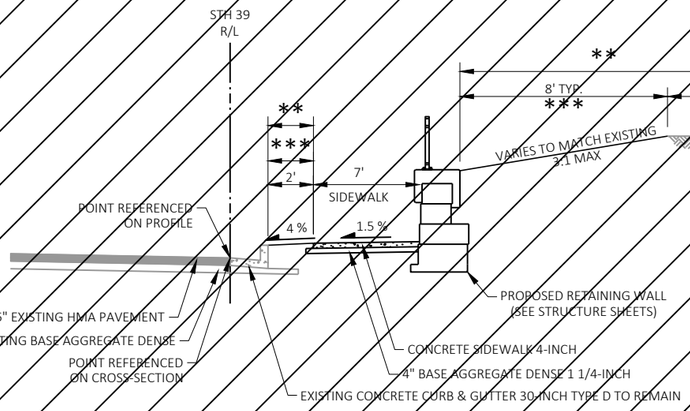


PROPOSED TYPICAL SECTION - CEMETERY RD

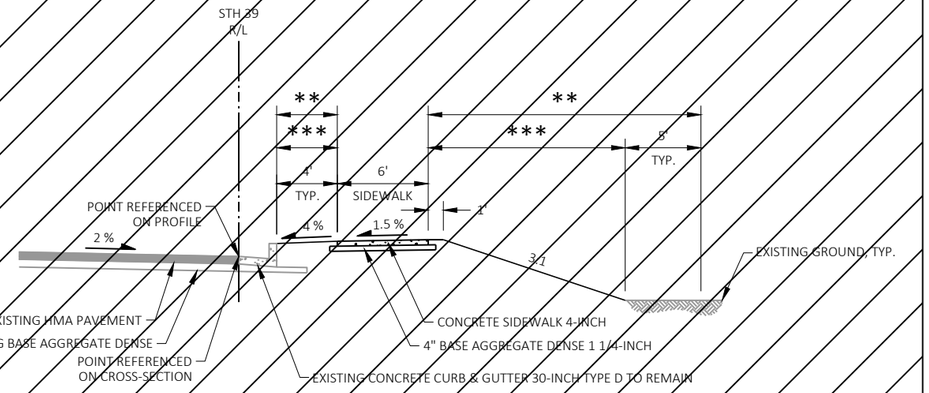
* SEE SUPERELEVATION TABLE
** LIMITS OF SEEDING, TEMPORARY SEEDING, AND FERTILIZER.
*** LIMITS OF SALVAGED TOPSOIL, MULCH, AND E-MAT.

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	TYPICAL SECTIONS	SHEET 6	E

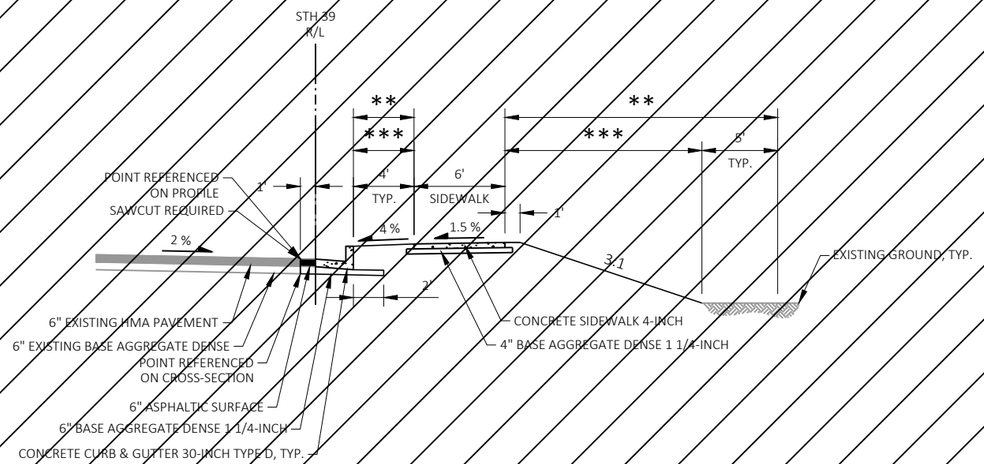
WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



PROPOSED TYPICAL HALF SECTION - STH 39
STA 0+60 "RL" - STA 1+65 "RL"



PROPOSED TYPICAL HALF SECTION - STH 39
STA 1+65 "RL" - STA 2+03 "RL"



PROPOSED TYPICAL HALF SECTION - STH 39
STA 2+03 "RL" - STA 3+89 "RL"

** LIMITS OF SEEDING, TEMPORARY SEEDING, AND FERTILIZER.
*** LIMITS OF SALVAGED TOPSOIL, MULCH, AND E-MAT.

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	TYPICAL SECTIONS	SHEET 7	E

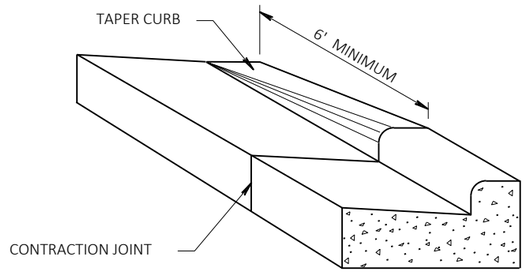
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\020301_TS.DWG
LAYOUT NAME - 020305_ts
PLOT DATE : 12/9/2024 12:41 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

SUPERELEVATION TABLE: STA. 12+38.67 TO 15+61.12							
STATION	REMARK	UNPAVED SHOULDER	PAVED SHOULDER	LANE	LANE	PAVED SHOULDER	UNPAVED SHOULDER
12+38.67	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%
12+75.19	LEVEL CROWN	0.0%	0.0%	0.0%	-2.0%	-2.0%	-4.0%
13+11.72	REVERSE CROWN	2.0%	2.0%	2.0%	-2.0%	-2.0%	-4.0%
13+17.19	BEGIN FULL SUPER	2.3%	2.3%	2.3%	-2.3%	-2.3%	-4.0%
14+82.59	END FULL SUPER	2.3%	2.3%	2.3%	-2.3%	-2.3%	-4.0%
14+88.07	REVERSE CROWN	2.0%	2.0%	2.0%	-2.0%	-2.0%	-4.0%
15+24.59	LEVEL CROWN	0.0%	0.0%	0.0%	-2.0%	-2.0%	-4.0%
15+61.12	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%

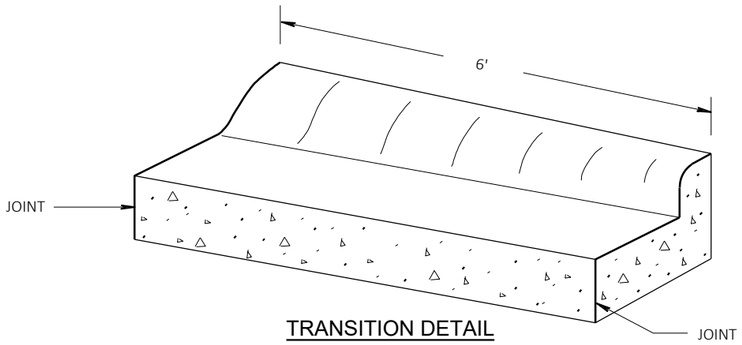
SUPERELEVATION TABLE: 15+65.26 TO 19+42.56							
STATION	REMARK	UNPAVED SHOULDER	PAVED SHOULDER	LANE	LANE	PAVED SHOULDER	UNPAVED SHOULDER
15+65.26	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%
16+01.26	LEVEL CROWN	-4.0%	-2.0%	-2.0%	0.0%	0.0%	0.0%
16+37.26	BEGIN FULL SUPER	-4.0%	-2.0%	-2.0%	2.0%	2.0%	2.0%
18+70.56	END FULL SUPER	-4.0%	-2.0%	-2.0%	2.0%	2.0%	2.0%
19+06.56	LEVEL CROWN	-4.0%	-2.0%	-2.0%	0.0%	0.0%	0.0%
19+42.56	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%

SUPERELEVATION TABLE: STA. 21+08.86 TO 24+24.61							
STATION	REMARK	UNPAVED SHOULDER	PAVED SHOULDER	LANE	LANE	PAVED SHOULDER	UNPAVED SHOULDER
21+08.86	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%
21+45.53	LEVEL CROWN	0.0%	0.0%	0.0%	-2.0%	-2.0%	-4.0%
21+82.20	REVERSE CROWN	2.0%	2.0%	2.0%	-2.0%	-2.0%	-4.0%
21+89.53	BEGIN FULL SUPER	2.4%	2.4%	2.4%	-2.4%	-2.4%	-4.0%
23+43.94	END FULL SUPER	2.4%	2.4%	2.4%	-2.4%	-2.4%	-4.0%
23+51.27	REVERSE CROWN	2.0%	2.0%	2.0%	-2.0%	-2.0%	-4.0%
23+87.94	LEVEL CROWN	0.0%	0.0%	0.0%	-2.0%	-2.0%	-4.0%
24+24.61	NORMAL CROWN	-4.0%	-2.0%	-2.0%	-2.0%	-2.0%	-4.0%

SUPERELEVATION TABLE: 60+55 "SL" TO 61+05 "SL"					
STATION	REMARK	PAVED SHOULDER	LANE	LANE	UNPAVED SHOULDER
60+55	MATCH EXISTING	6.0%	-1.0%	1.0%	-4.0%
60+65	BEGIN CURB & GUTTER	-1.2%	-1.2%	0.0%	-4.0%
60+75		-1.4%	-1.4%	-0.2%	-4.0%
61+00		-2.0%	-2.0%	-1.7%	-4.0%
61+05	NORMAL CROWN	-2.0%	-2.0%	-2.0%	-2.0%

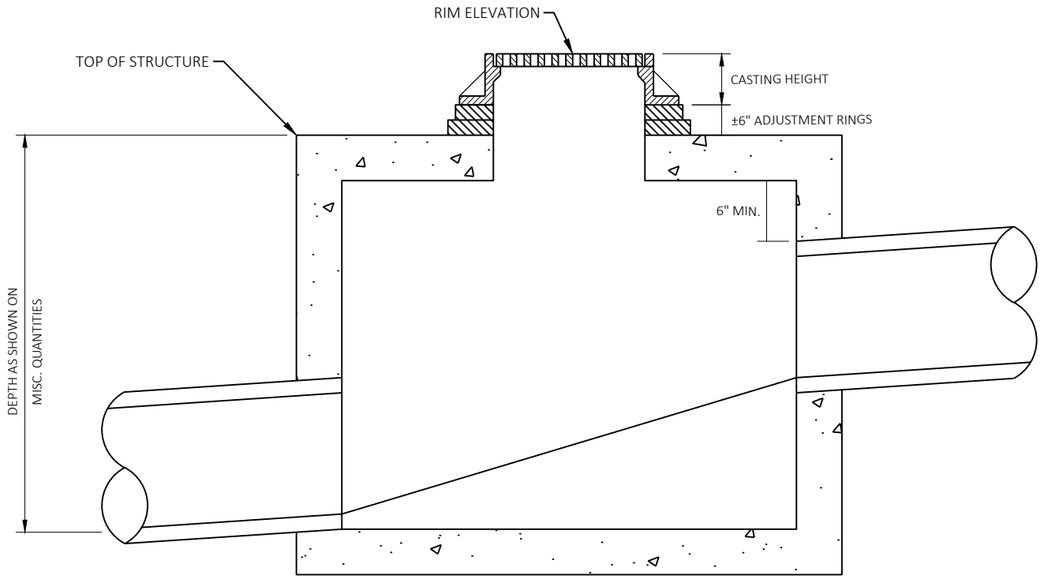


DETAIL OF CURB & GUTTER TERMINI

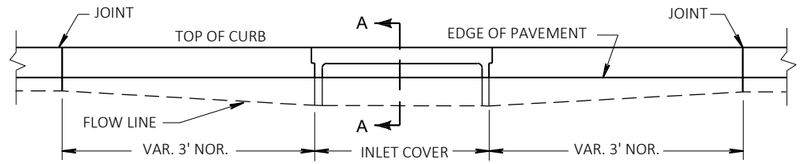


TRANSITION DETAIL

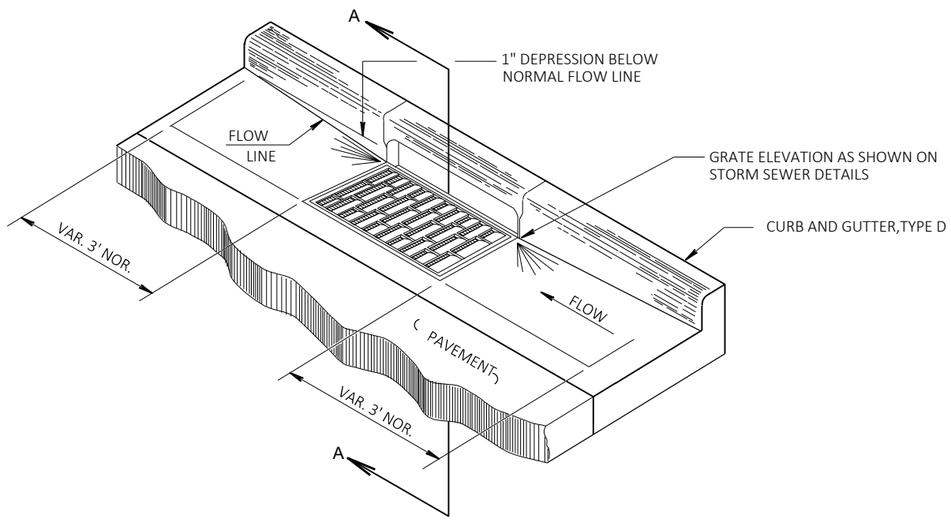
6" SLOPED 36" TYPE "D" CURB & GUTTER TO 30" TYPE "D" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)

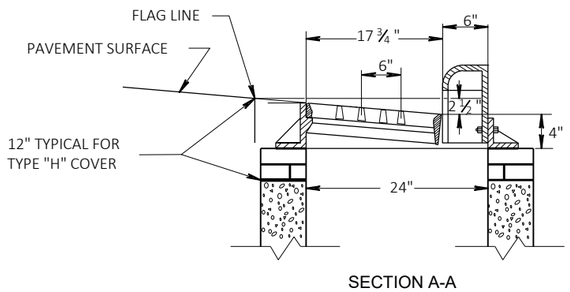


DETAIL FOR COMPUTING MANHOLE STRUCTURE ELEVATIONS



ELEVATION

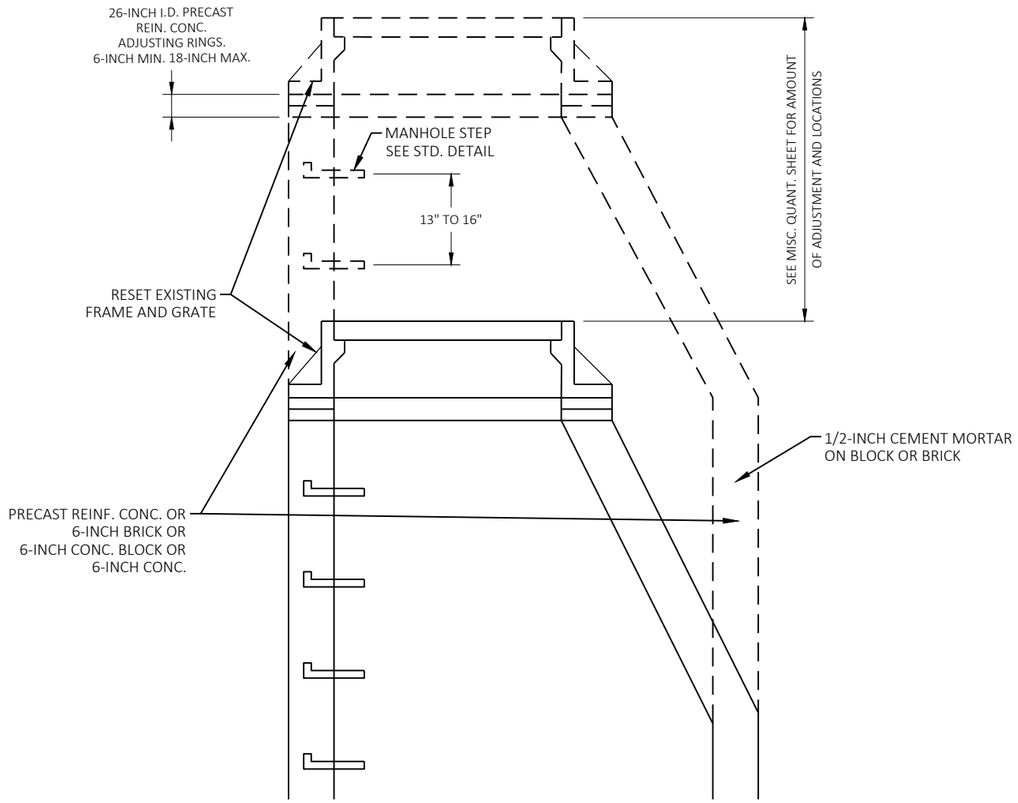




SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3-H INLET SHOWN)



DETAIL FOR RECONSTRUCTING MANHOLES

NOTES FOR RECONSTRUCTING MANHOLES

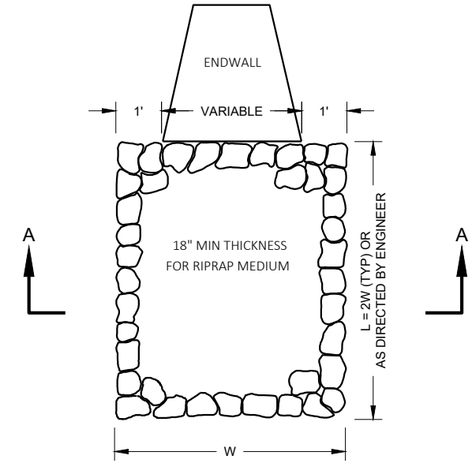
1. SEE MISCELLANEOUS QUANTITY SHEET FOR ADJUSTMENT DEPTH.

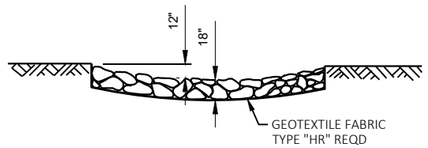
2. CONSTRUCTION METHODS ARE "TYPICAL" AND MAY APPLY TO EITHER RECONSTRUCTING OR ADJUSTING MANHOLES.

3. ADJUST FRAME TO GRATE WITH PRECAST CONCRETE RINGS OF VARIABLE THICKNESS. MAXIMUM RING HEIGHT IS 18-INCHES. MINIMUM RING HEIGHT IS 6-INCHES. CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP.

   CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS. JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING RUBBER GASKETS FOR SANITARY MANHOLES.

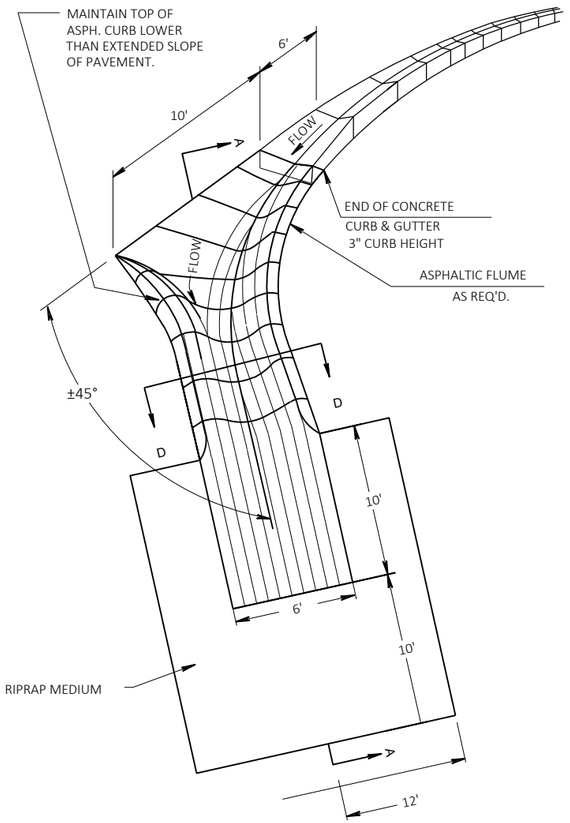
4. WHEN RESETTING EXISTING COVERS, REPAIRING BRICKWORK UP TO 12-INCH DEPTH IS PAID AS ADJUSTING COVERS, UNLESS THERE IS A RECONSTRUCT. WHERE NEW COVERS ARE PLACED, THE FIRST 6-INCHES OF ADJUSTMENT OR REPAIR IS PART OF THE NEW COVER. ADJUSTING OR REPAIRING GREATER THAN 6-INCH AND UP TO 12-INCHES SHALL BE PAID AS ADJUSTING COVERS. WHEN THE DEPTH OF THE WORK IS GREATER THAN 12-INCHES, ALL WORK SHALL BE PAID AS RECONSTRUCT.

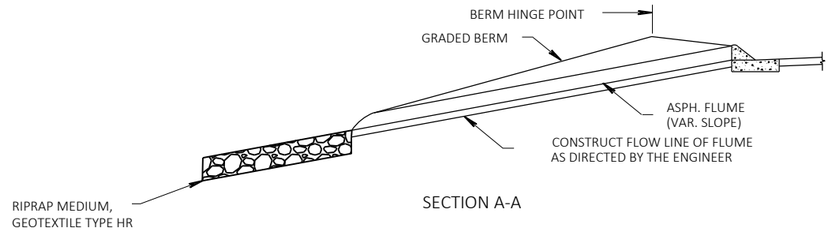




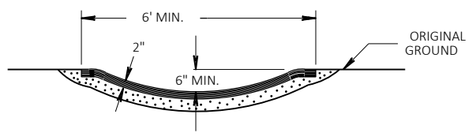
SECTION A-A

RIPRAP MEDIUM TREATMENT AT CULVERTS





SECTION A-A



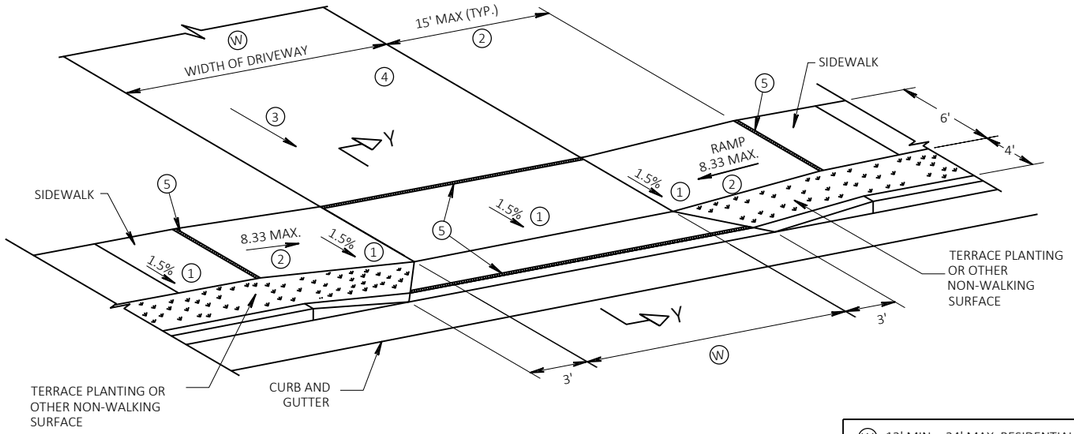
SECTION D-D

ASPHALTIC FLUME DETAIL
AT RURAL INTERSECTIONS

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 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

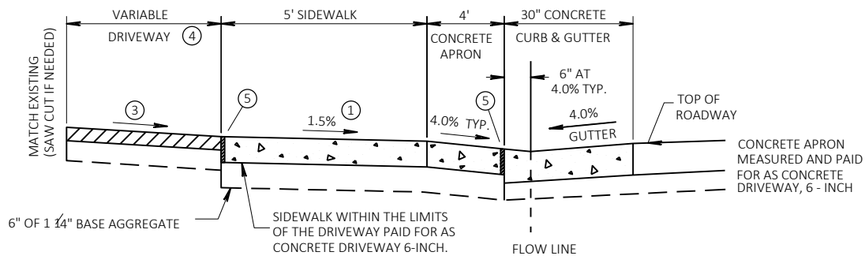
TOTAL PROJECT AREA = 2.92 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.66 ACRES



PLAN

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

16' MIN. - 35' MAX. COMMERCIAL (CE)



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y

GENERAL NOTES

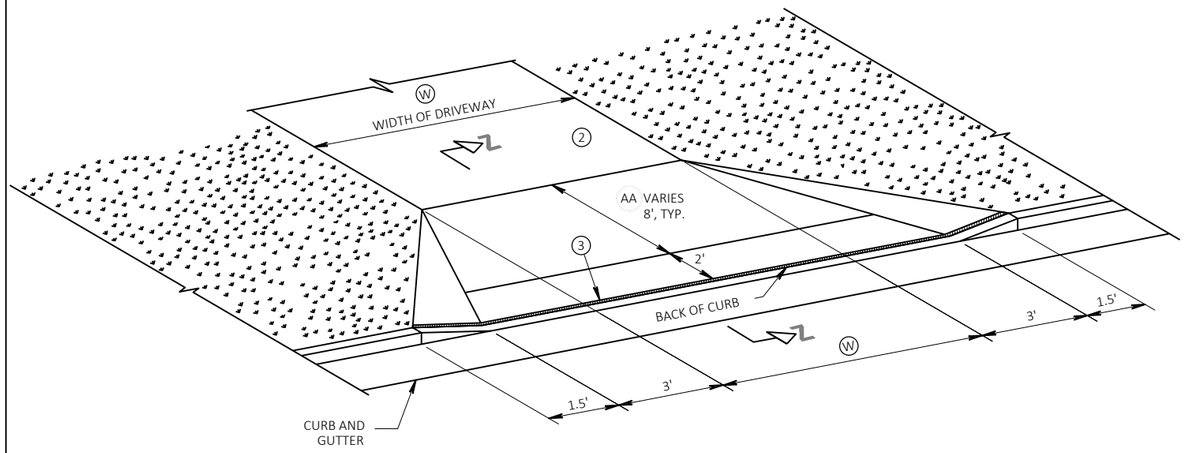
PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS AND PERCENT GRADS ARE SHOWN ON THE CROSS SECTIONS.

1. CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
2. THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO ACOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
3. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   - 10.5% UP AWAY FROM SIDEWALK (SAG)
   - 8.5% DOWN AWAY FROM SIDEWALK (CREST)
   - ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
4. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
   - 2-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
   - 6-INCH BASE AGGREGATE DENSE 3/4-INCH
5. 1/2-INCH EXPANSION JOINT FILLER.

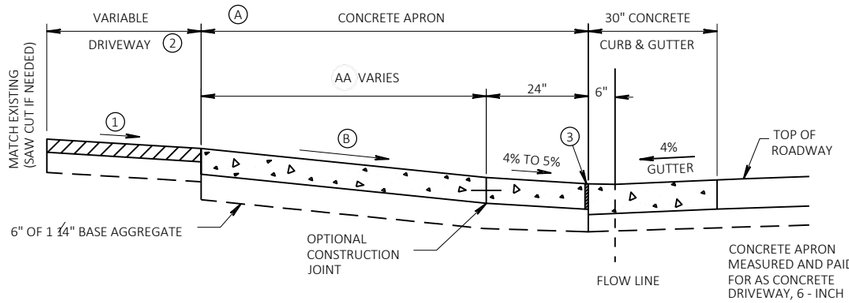
DRIVEWAY DETAIL WITH SIDEWALK



PLAN

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

16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE AA AND Ⓑ AS SHOWN ON CROSS SECTIONS.

SECTION Z - Z

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

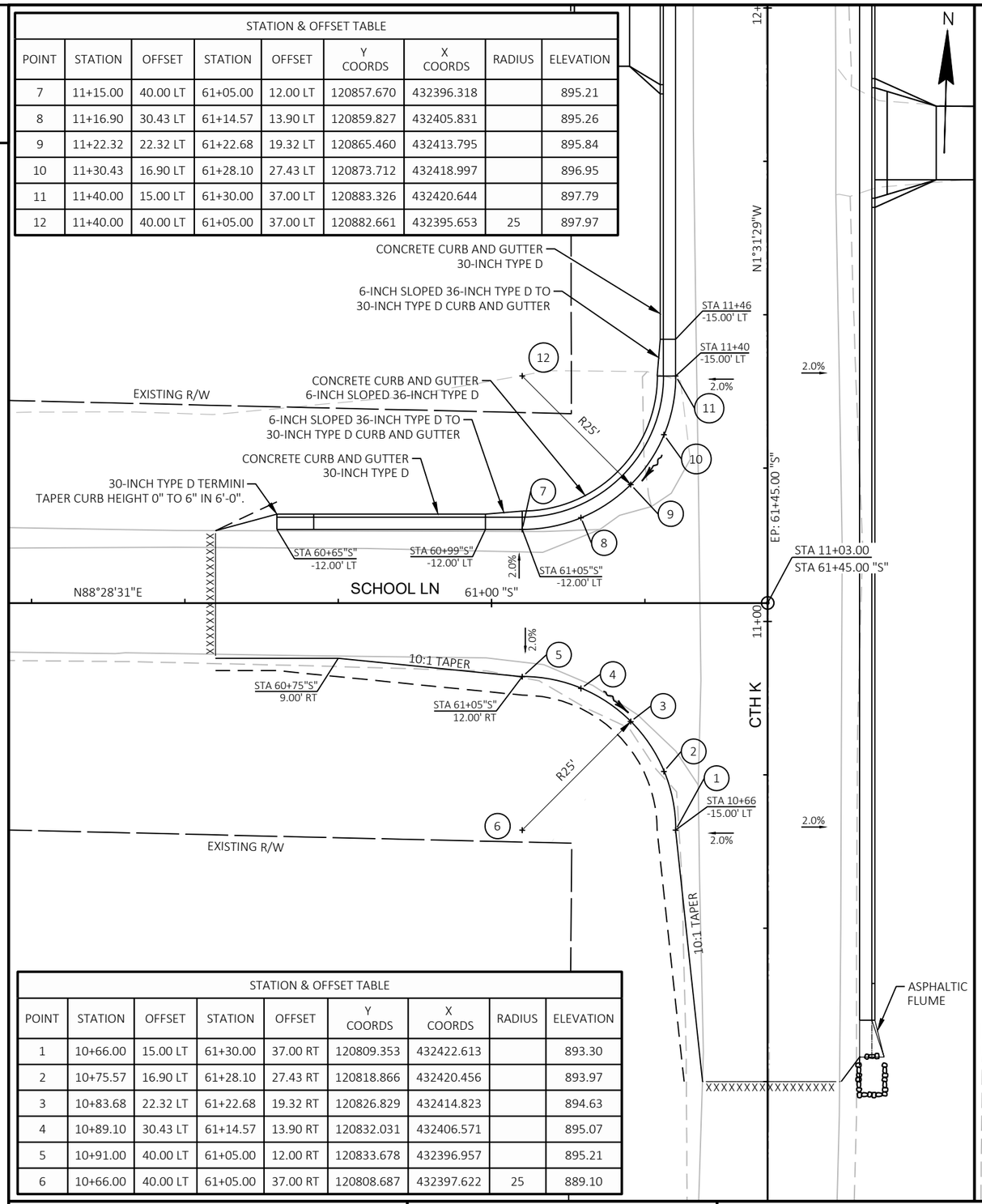
Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS AND PERCENT GRADS ARE SHOWN ON THE CROSS SECTIONS.

1. DRIVEWAY SLOPES: DESIRABLE MAXIMUM
   - 10.5% UP AWAY FROM SIDEWALK (SAG)
   - 8.5% DOWN AWAY FROM SIDEWALK (CREST)
   - ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
2. DRIVEWAY TYPES
   - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
   - 2-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
   - 6-INCH BASE AGGREGATE DENSE 3/4-INCH
3. 1/2-INCH EXPANSION JOINT FILLER.

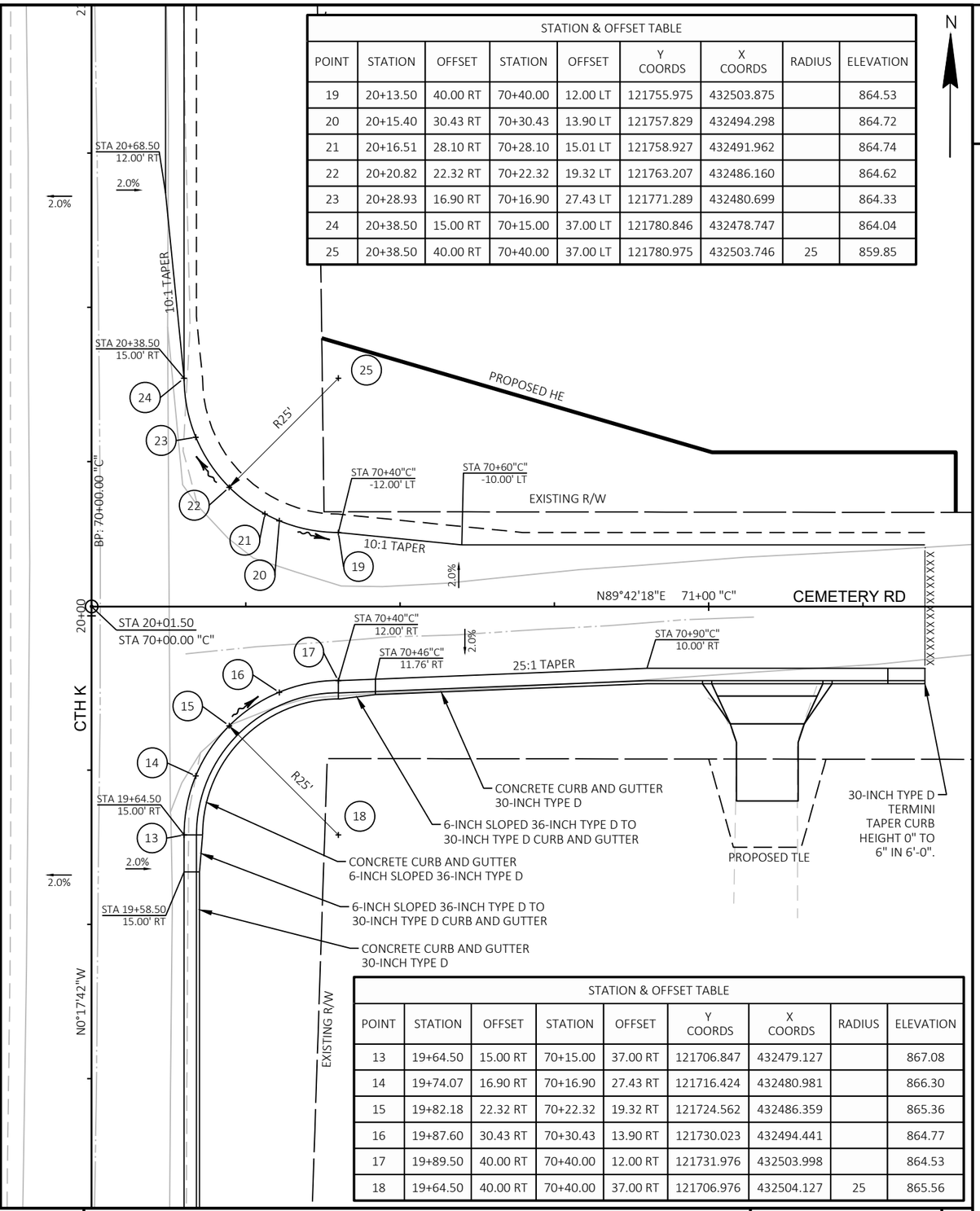
DRIVEWAY DETAIL WITH CONCRETE APRON

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
7	11+15.00	40.00 LT	61+05.00	12.00 LT	120857.670	432396.318		895.21
8	11+16.90	30.43 LT	61+14.57	13.90 LT	120859.827	432405.831		895.26
9	11+22.32	22.32 LT	61+22.68	19.32 LT	120865.460	432413.795		895.84
10	11+30.43	16.90 LT	61+28.10	27.43 LT	120873.712	432418.997		896.95
11	11+40.00	15.00 LT	61+30.00	37.00 LT	120883.326	432420.644		897.79
12	11+40.00	40.00 LT	61+05.00	37.00 LT	120882.661	432395.653	25	897.97



STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
1	10+66.00	15.00 LT	61+30.00	37.00 RT	120809.353	432422.613		893.30
2	10+75.57	16.90 LT	61+28.10	27.43 RT	120818.866	432420.456		893.97
3	10+83.68	22.32 LT	61+22.68	19.32 RT	120826.829	432414.823		894.63
4	10+89.10	30.43 LT	61+14.57	13.90 RT	120832.031	432406.571		895.07
5	10+91.00	40.00 LT	61+05.00	12.00 RT	120833.678	432396.957		895.21
6	10+66.00	40.00 LT	61+05.00	37.00 RT	120808.687	432397.622	25	889.10

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
19	20+13.50	40.00 RT	70+40.00	12.00 LT	121755.975	432503.875		864.53
20	20+15.40	30.43 RT	70+30.43	13.90 LT	121757.829	432494.298		864.72
21	20+16.51	28.10 RT	70+28.10	15.01 LT	121758.927	432491.962		864.74
22	20+20.82	22.32 RT	70+22.32	19.32 LT	121763.207	432486.160		864.62
23	20+28.93	16.90 RT	70+16.90	27.43 LT	121771.289	432480.699		864.33
24	20+38.50	15.00 RT	70+15.00	37.00 LT	121780.846	432478.747		864.04
25	20+38.50	40.00 RT	70+40.00	37.00 LT	121780.975	432503.746	25	859.85



STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
13	19+64.50	15.00 RT	70+15.00	37.00 RT	121706.847	432479.127		867.08
14	19+74.07	16.90 RT	70+16.90	27.43 RT	121716.424	432480.981		866.30
15	19+82.18	22.32 RT	70+22.32	19.32 RT	121724.562	432486.359		865.36
16	19+87.60	30.43 RT	70+30.43	13.90 RT	121730.023	432494.441		864.77
17	19+89.50	40.00 RT	70+40.00	12.00 RT	121731.976	432503.998		864.53
18	19+64.50	40.00 RT	70+40.00	37.00 RT	121706.976	432504.127	25	865.56

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	INTERSECTION DETAILS	SHEET 13	E

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
39	110+37.28	14.60 LT	122261.974	432414.451		870.00
40	110+41.85	14.88 LT	122261.036	432418.934		869.91
41	110+46.36	15.67 LT	122260.612	432423.495		869.69
42	110+50.76	16.97 LT	122260.706	432428.074		869.40
43	110+54.98	18.75 LT	122261.318	432432.613		869.11
44	110+37.13	55.02 LT	122301.004	432424.954	40	865.61

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
33	24+18.34	15.00 LT	111+14.30	68.63 RT	122161.398	432466.825		864.99
34	24+39.19	18.80 LT	111+07.60	48.36 RT	122182.717	432465.709		865.34
35	24+57.54	29.71 LT	110+94.24	31.71 RT	122202.296	432457.200		866.27
36	24+70.91	46.36 LT	110+75.89	20.80 RT	122217.656	432442.374		868.13
37	24+77.60	66.63 LT	110+54.88	17.00 RT	122226.853	432423.108		869.39
38	24+18.34	75.00 LT	110+54.88	77.00 RT	122168.971	432407.305	60	864.47

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS	ELEVATION
26	24+20.07	15.00 RT	111+43.74	62.58 RT	122159.479	432496.823		864.92
27	24+36.66	18.60 RT	111+44.99	45.65 RT	122175.482	432502.491		865.30
28	24+37.03	18.78 RT	111+45.11	45.25 RT	122175.832	432502.710		865.29
29	24+50.26	28.76 RT	111+53.16	30.76 RT	122187.693	432514.287		864.66
30	24+58.42	43.65 RT	111+66.76	20.60 RT	122193.912	432530.084		863.73
31	24+59.68	60.58 RT	111+83.35	17.00 RT	122193.018	432547.038		862.80
32	24+20.07	55.00 RT	111+83.35	57.00 RT	122154.430	432536.503	40	855.13

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

N

EXISTING R/W

STATE ST

CURB RAMP TYPE 3

CONCRETE CURB AND GUTTER 30-INCH TYPE D

EXISTING R/W

R40'

6-INCH SLOPED 36-INCH TYPE D TO 30-INCH TYPE D CURB AND GUTTER

30-INCH TYPE D TERMINI TAPER CURB HEIGHT 0" TO 6" IN 3'-0".

PI: 110+00.00

STA 110+16.01"39" -14.55' LT

STA 110+26.01"39" -14.57' LT

STA 110+37.28"39" -14.60' LT

STA 110+54.98"39" -28.75' LT

S74°43'36"E

110+00

S74°43'46"E

111+00

STA 24+85.38

STA 111+19.78 "39"

STH 39

PI: 112+00.00

112+00

S74°59'41"E

CONCRETE CURB AND GUTTER 30-INCH TYPE D

STA 110+08"39" 14.50' RT

CURB RAMP TYPE 3

STA 110+48.88"39" 17.00' RT

STA 110+54.88"39" 17.00' RT

18:1 TAPER

CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D

STA 111+83.35"39" 17.00' RT

STA 111+93.35"39" 17.00' RT

STA 112+32"39" 15.27' RT

20:1 TAPER

PROPOSED TLE

4-INCH CONCRETE SIDEWALK

EXISTING R/W

6-INCH SLOPED 36-INCH TYPE D TO 30-INCH TYPE D CURB AND GUTTER

6-INCH SLOPED 36-INCH TYPE D TERMINI TAPER CURB HEIGHT 0" TO 6" IN 6'-0".

R60'

N7°15'06"E

R40'

ASPHALTIC FLUME

6-INCH SLOPED 36-INCH TYPE D TERMINI TAPER CURB HEIGHT 6" TO 3" IN 6'-0" FOR ASPHALTIC FLUME

STA 24+20.07 15.00' RT

STA 24+18.34 -15.00' LT

1.6%

2.0%

STA 24+10.07 15.00' RT

6-INCH SLOPED 36-INCH TYPE D TERMINI TAPER CURB HEIGHT 6" TO 0" IN 6'-0".

℄

PROPOSED HE

6-INCH SLOPED 36-INCH TYPE D TO 30-INCH TYPE D CURB AND GUTTER

STA 24+12.18 -15.00' LT

24+00

CONCRETE CURB AND GUTTER 30-INCH TYPE D

CTH K

10:1 TAPER

STA 23+60.07 12.00' RT

PT: 23+33.60

EXISTING R/W

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	INTERSECTION DETAILS	SHEET 14	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\021101_ID.DWG
LAYOUT NAME - 021102_id

PLOT DATE : 12/9/2024 1:33 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

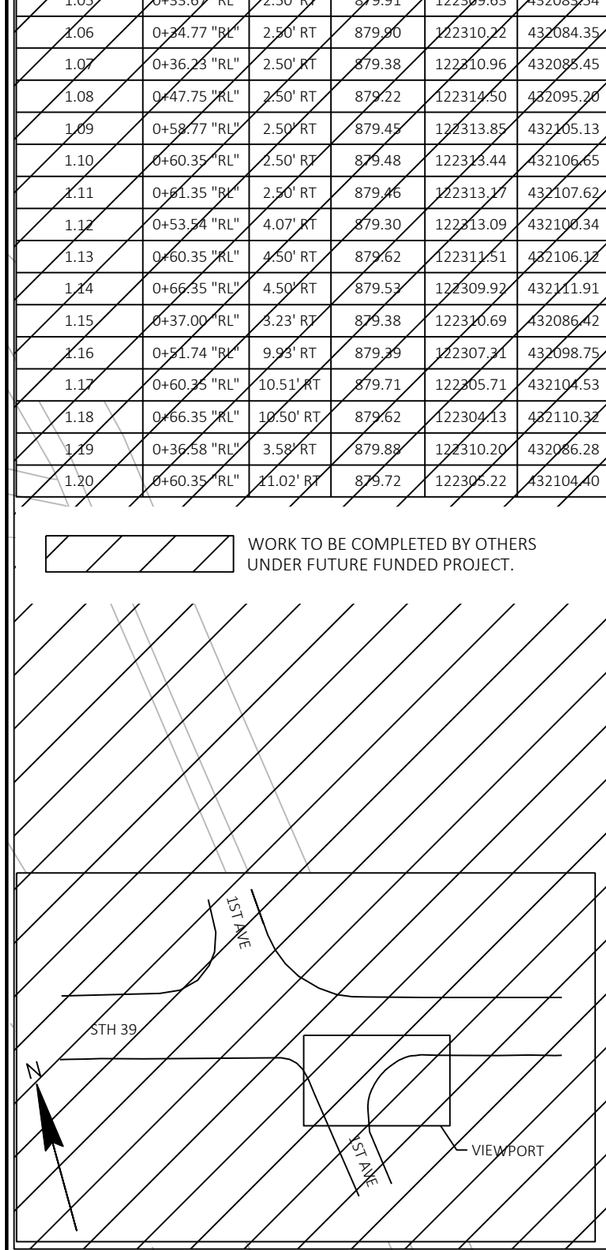
STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1.01	0+33.67 "RL"	0.00'	879.49	122311.61	432082.02
1.02	0+47.10 "RL"	0.00'	879.24	122316.88	432094.22
1.03	0+58.77 "RL"	0.00'	879.09	122316.27	432105.78
1.04	0+61.35 "RL"	0.00'	879.04	122315.58	432108.28
1.05	0+33.67 "RL"	2.50' RT	879.91	122309.63	432083.54
1.06	0+34.77 "RL"	2.50' RT	879.90	122310.22	432084.35
1.07	0+36.23 "RL"	2.50' RT	879.38	122310.96	432085.45
1.08	0+47.75 "RL"	2.50' RT	879.22	122314.50	432095.20
1.09	0+58.77 "RL"	2.50' RT	879.45	122313.85	432105.13
1.10	0+60.35 "RL"	2.50' RT	879.48	122313.44	432106.65
1.11	0+61.35 "RL"	2.50' RT	879.46	122313.17	432107.62
1.12	0+53.54 "RL"	4.07' RT	879.30	122313.09	432100.34
1.13	0+60.35 "RL"	4.50' RT	879.62	122311.51	432106.12
1.14	0+66.35 "RL"	4.50' RT	879.53	122309.92	432111.91
1.15	0+37.00 "RL"	3.23' RT	879.38	122310.69	432086.42
1.16	0+51.74 "RL"	9.93' RT	879.39	122307.31	432098.75
1.17	0+60.35 "RL"	10.51' RT	879.71	122305.71	432104.53
1.18	0+66.35 "RL"	10.50' RT	879.62	122304.13	432110.32
1.19	0+36.58 "RL"	3.58' RT	879.88	122310.20	432086.28
1.20	0+60.35 "RL"	11.02' RT	879.72	122305.22	432104.40

RADIAL WARNING FIELD	
LANDING "XR"	13.54 FEET
AREA	22.5 FEET
LONG CHORD	10.2 FEET
BOC RADIUS	24.7 FEET

LEGEND

- XXXX SAWCUT ASPHALT
- YYYY SAWCUT CONCRETE
- L.L. LEVEL LANDING
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- DIRECTION OF FLOW
- SLOPE INTERCEPT

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.



STH 39

CURB RAMP TYPE 4B1

CONCRETE CURB & GUTTER 30-INCH TYPE D

PAVED NON-TRAVERSABLE TAPER

PT: 0+58.77 "RL"

EXISTING CONCRETE CURB AND GUTTER TO REMAIN (TYP.)

EXISTING FLASHING BEACON TO BE REMOVED

CONCRETE CURB PEDESTRIAN

EXISTING CONCRETE CURB AND GUTTER TO REMAIN (TYP.)

MOVING SIGNS REQ'D

STRUCTURE R-25-15

PC: 0+14.04 "RL"

1ST AVE

PI: 0+05.00 "RL"

SLOPE INTERCEPT, TYP.

EXISTING R/W

PROPOSED TLE

EXISTING R/W

1.01 879.49
1.02 879.24
1.03 879.09
1.04 879.04
1.05 879.91
1.06 879.90
1.07 879.38
1.08 879.22
1.09 879.45
1.10 879.48
1.11 879.46
1.12 879.30
1.13 879.62
1.14 879.53
1.15 879.38
1.16 879.39
1.17 879.71
1.18 879.62
1.19 879.88
1.20 879.72

2

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CURB RAMP DETAILS	SHEET 15	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\021301_CR.DWG
LAYOUT NAME - 021301_cr

PLOT DATE : 12/9/2024 1:42 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

STH 39

PI: 3+33.55 "RL"

PI: 3+38.55 "RL"

GRADED NON-TRAVERSABLE FLARE

CONCRETE CURB & GUTTER
30-INCH TYPE D

CURB RAMP
TYPE 3

GRADED NON-TRAVERSABLE FLARE

INLET PROTECTION TYPE C REQ'D AFTER
CURB & GUTTER CONSTRUCTION

PI: 3+82.51 "RL"

PC: 3+88.51 "RL"

CONCRETE CURB & GUTTER
36-INCH TYPE D

RECTANGULAR RAPID
FLASHING BEACON

2.01 870.13
2.02 870.06
2.03 870.70
2.04 870.05
2.05 869.98
2.06 870.42
2.07 871.65
2.08 871.58
2.09 870.42
2.10 870.33
2.11 869.95
2.12 871.74
2.13 871.67
2.14 870.51
2.15 870.42
2.16 870.04

4.25'
3.00'
5.00'
6.00'
L.L.
1.8%
7.0%
7.8%
5.1%
1.5%
7.9%
5.3%
7.7%
2.5%
6.1%
6.8%

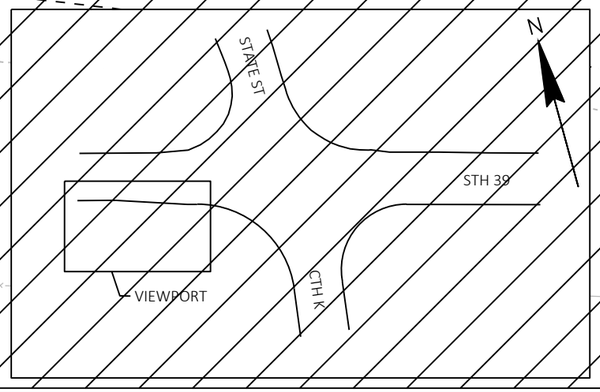
EXISTING R/W

SLOPE INTERCEPT, TYP.

EXISTING FENCE TO REMAIN, TYP.

LEGEND

- XXXX SAWCUT ASPHALT
- YYYY SAWCUT CONCRETE
- L.L. LEVEL LANDING
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- DIRECTION OF FLOW
- SLOPE INTERCEPT



STATION & OFFSET TABLE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2.01	3+68.74 "RL"	0.00'	870.13	122232.81	432404.27
2.02	3+73.75 "RL"	0.00'	870.06	122231.22	432409.02
2.03	3+64.49 "RL"	2.50' RT	870.70	122231.79	432399.44
2.04	3+68.74 "RL"	2.50' RT	870.05	122230.44	432403.47
2.05	3+73.75 "RL"	2.50' RT	869.98	122228.85	432408.22
2.06	3+76.75 "RL"	2.50' RT	870.42	122227.89	432411.07
2.07	3+49.38 "RL"	6.95' RT	871.65	122232.38	432383.70
2.08	3+54.37 "RL"	7.16' RT	871.58	122230.59	432388.36
2.09	3+69.04 "RL"	7.78' RT	870.42	122225.34	432402.08
2.10	3+74.03 "RL"	7.49' RT	870.33	122224.02	432406.90
2.11	3+88.51 "RL"	6.50' RT	869.95	122220.58	432421.40
2.12	3+49.32 "RL"	12.94' RT	871.74	122226.71	432381.74
2.13	3+54.32 "RL"	13.15' RT	871.67	122224.93	432386.41
2.14	3+69.39 "RL"	13.77' RT	870.51	122219.54	432400.51
2.15	3+74.38 "RL"	13.48' RT	870.42	122218.23	432405.32
2.16	3+88.51 "RL"	12.50' RT	870.04	122214.79	432419.82

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CURB RAMP DETAILS	SHEET 16	E

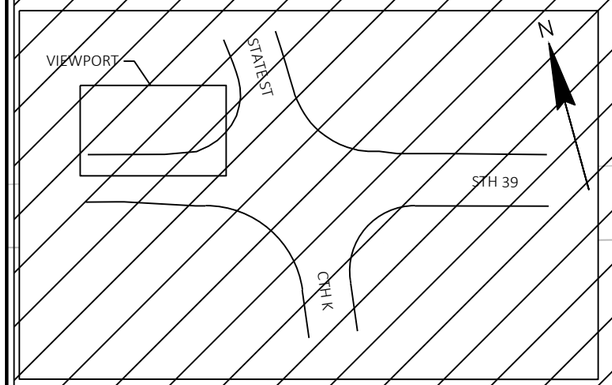
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\021301_CR.DWG
LAYOUT NAME - 021302_cr

PLOT DATE : 12/9/2024 1:42 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

2

STATION & OFFSET TABLE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1.17	3+66.47 "RL"	37.36' LT	870.03	122268.95	432413.99
1.18	3+71.47 "RL"	37.64' LT	869.93	122267.63	432418.81
1.19	3+76.46 "RL"	37.93' LT	869.86	122266.32	432423.64
1.20	3+66.19 "RL"	42.35' LT	870.11	122273.77	432415.31
1.21	3+71.18 "RL"	42.63' LT	870.01	122272.46	432420.13
1.22	3+76.17 "RL"	42.92' LT	869.93	122271.14	432424.95
3.01	3+57.87 "RL"	30.22' LT	870.50	122264.92	432403.57
3.02	3+62.89 "RL"	30.52' LT	870.24	122263.60	432408.42
3.03	3+64.07 "RL"	30.59' LT	870.18	122263.30	432409.56
3.04	3+66.86 "RL"	30.75' LT	870.05	122262.57	432412.25
3.05	3+69.13 "RL"	30.89' LT	870.00	122261.97	432414.45
3.06	3+72.02 "RL"	31.17' LT	869.95	122261.32	432417.29
3.07	3+73.68 "RL"	31.43' LT	869.91	122261.04	432418.93
3.08	3+78.14 "RL"	32.47' LT	869.69	122260.61	432423.49
3.09	3+84.38 "RL"	33.97' LT	869.40	122260.71	432428.07
3.10	3+88.56 "RL"	35.75' LT	869.11	122261.32	432432.61
3.11	3+57.72 "RL"	32.72' LT	870.42	122267.33	432404.22
3.12	3+60.72 "RL"	32.89' LT	870.77	122266.55	432407.11
3.13	3+63.71 "RL"	33.07' LT	870.61	122265.76	432410.01
3.14	3+66.71 "RL"	33.25' LT	869.97	122264.98	432412.91
3.15	3+71.69 "RL"	33.65' LT	869.87	122263.77	432417.76
3.16	3+74.67 "RL"	34.17' LT	870.28	122263.32	432420.74



LEGEND

- XXXX SAWCUT ASPHALT
- YYYY SAWCUT CONCRETE
- L.L. LEVEL LANDING
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- DIRECTION OF FLOW
- SLOPE INTERCEPT

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

EXISTING CULVERT PIPE TO REMAIN

EXISTING R/W

SLOPE INTERCEPT, TYP.

RECTANGULAR RAPID FLASHING BEACON

GRADED NON-TRAVERSABLE FLARE

CONCRETE CURB & GUTTER 30-INCH TYPE D

EXISTING SHOULDER, TYP.

EXISTING EDGE OF ASPHALT, TYP.

EXISTING CONCRETE CURB AND GUTTER 36-INCH TO REMAIN

1.20 870.11 | 1.21 870.01 | 1.22 869.93 | 1.17 870.03 | 1.19 869.86 | 1.18 869.93 | 3.11 870.42 | 3.12 870.77 | 3.13 870.61 | 3.16 870.28 | 3.14 869.97 | 3.15 869.87 | 3.10 869.11 | 3.01 870.50 | 3.02 870.24 | 3.03 870.18 | 3.04 870.05 | 3.05 870.00 | 3.06 869.95 | 3.07 869.91 | 3.08 869.69 | 3.09 869.40

2.0% | 1.5% | 5.00' | L.L. | 4.00' | 3.00' | 4.0% | 1.00'

CURB RAMP TYPE 3

STH 39

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CURB RAMP DETAILS	SHEET 17	E

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

STA 16+95
33' C.F. (ASPHALT)

EXISTING R/W

PROPOSED TEMPORARY EASEMENT

SLOPE INTERCEPT, TYP.

GRADED NON-TRAVERSABLE TAPER

4.09
886.98

4.06
886.73

4.07
886.09

4.08
886.02

8.0%
8.00'
1.5%
5.00'
8.4%

CURB RAMP
TYPE 4B1

1.5%
6.00'
2.5%
LL
1.5%
6.00'
6.00'
1.5%

8.0%
1.5%
8.3%

4.04
886.00

4.05
885.93

4.03
886.64

GRADED NON-TRAVERSABLE TAPER

4.01
886.26

4.02
886.28

CONCRETE CURB & GUTTER
30-INCH TYPE D

EDGE OF LANE

CTH K

17+00

LEGEND

XXXX SAWCUT ASPHALT

YYYY SAWCUT CONCRETE

LL LEVEL LANDING

CURB RAMP DETECTABLE
WARNING FIELD YELLOW

DIRECTION OF FLOW

SLOPE INTERCEPT

STATION & OFFSET TABLE

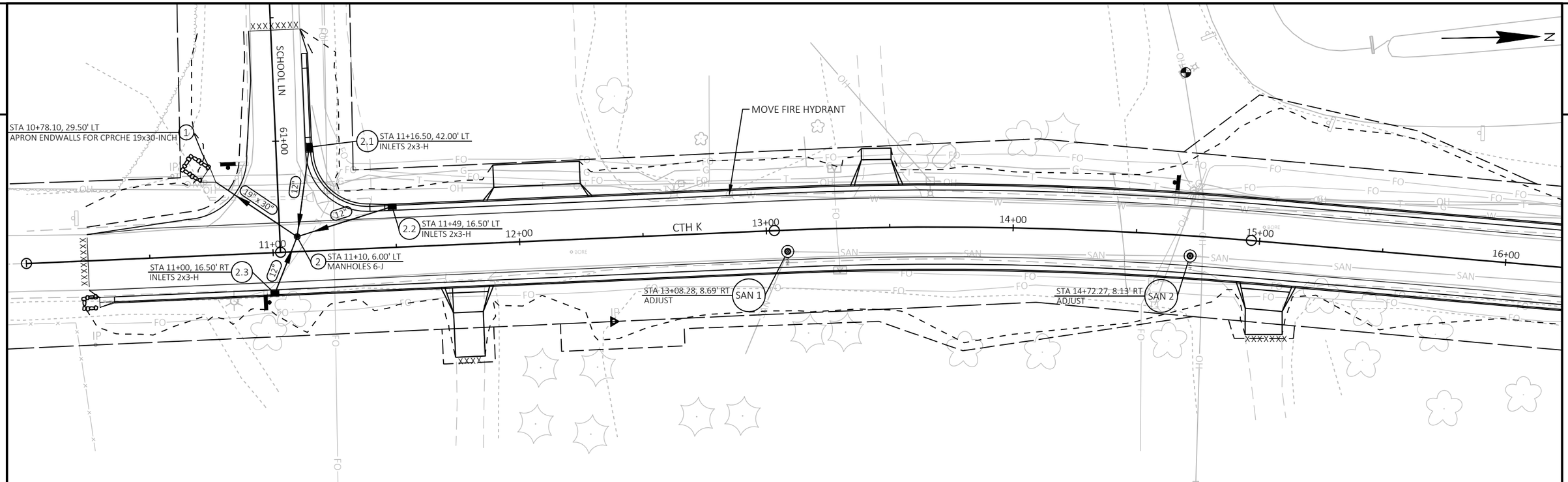
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4.01	17+16.65	17.50' LT	886.26	121460.16	432442.15
4.02	17+21.72	17.50' LT	886.28	121465.18	432442.47
4.03	17+13.66	21.50' LT	886.64	121457.46	432437.96
4.04	17+21.73	21.50' LT	886.00	121465.45	432438.48
4.05	17+26.78	21.50' LT	885.93	121470.44	432438.78
4.06	17+13.66	27.50' LT	886.73	121457.86	432431.97
4.07	17+21.75	27.50' LT	886.09	121465.84	432432.49
4.08	17+26.81	27.50' LT	886.02	121470.83	432432.80
4.09	17+12.75	30.50' LT	886.98	121457.16	432428.92

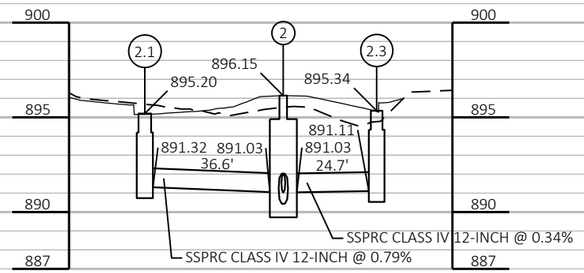
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CURB RAMP DETAILS	SHEET 18	E

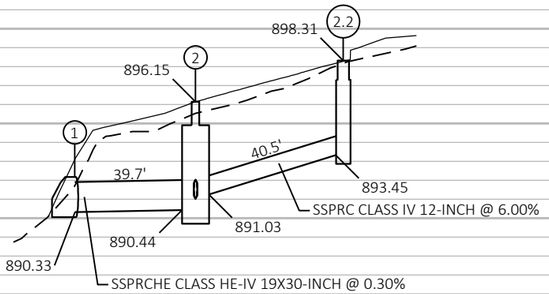
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\021301_CR.DWG
LAYOUT NAME - 021304_cr

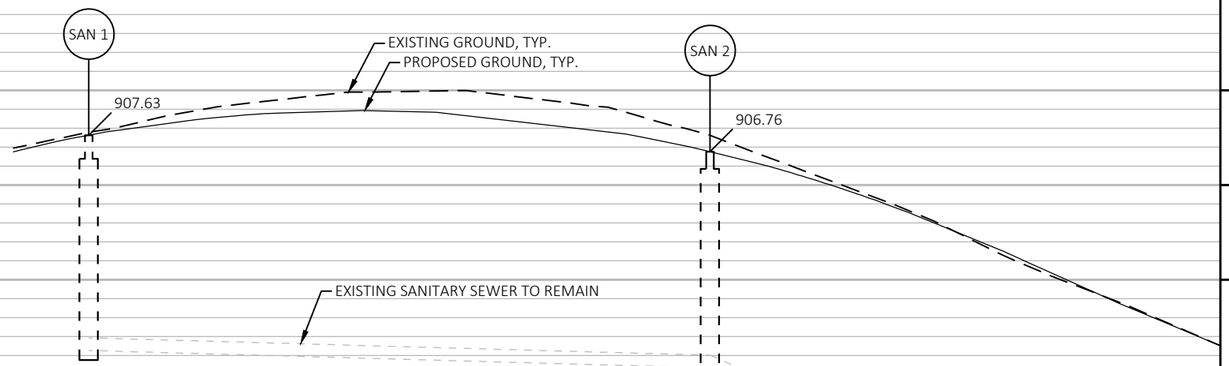
PLOT DATE : 12/9/2024 1:42 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42


XXXXXXXX
SCHOOL LN
619+00
STA 10+78.10, 29.50' LT
APRON ENDWALLS FOR CPRCHE 19x30-INCH
1
19"X 30"
12"
12"
2.1
STA 11+16.50, 42.00' LT
INLETS 2x3-H
MOVE FIRE HYDRANT
2.2
STA 11+49, 16.50' LT
INLETS 2x3-H
CTH K
11+00
12+00
13+00
14+00
15+00
16+00
STA 11+00, 16.50' RT
INLETS 2x3-H
2.3
12"
2
STA 11+10, 6.00' LT
MANHOLES 6-J
STA 13+08.28, 8.69' RT
ADJUST
SAN 1
STA 14+72.27, 8.13' RT
ADJUST
SAN 2
XXXX
XXXXXXX
N


900
895
890
887
2.1
2
2.3
895.20
896.15
895.34
891.11
891.32
891.03
891.03
36.6'
24.7'
SSPRC CLASS IV 12-INCH @ 0.34%
SSPRC CLASS IV 12-INCH @ 0.79%


898.31
2.2
896.15
2
1
40.5'
39.7'
893.45
SSPRC CLASS IV 12-INCH @ 6.00%
891.03
890.44
890.33
SSPRCHE CLASS HE-IV 19X30-INCH @ 0.30%


SAN 1
SAN 2
EXISTING GROUND, TYP.
PROPOSED GROUND, TYP.
907.63
906.76
EXISTING SANITARY SEWER TO REMAIN

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	STORM SEWER	SHEET 20	E

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

N

STATE ST

CTH K

STH 39

107+00 108+00 109+00 110+00 111+00 112+00 24+00

STA 2+14.55, 1.50' RT
INLETS 2x3-H
7.2

STA 3+79.61, 1.50' RT
INLETS 4-H
7.1

STA 3+92.46, 21.13' RT
APRON ENDWALLS FOR CPRC 18-INCH
7

1+00 "RL"

2+00 "RL"

3+00 "RL"

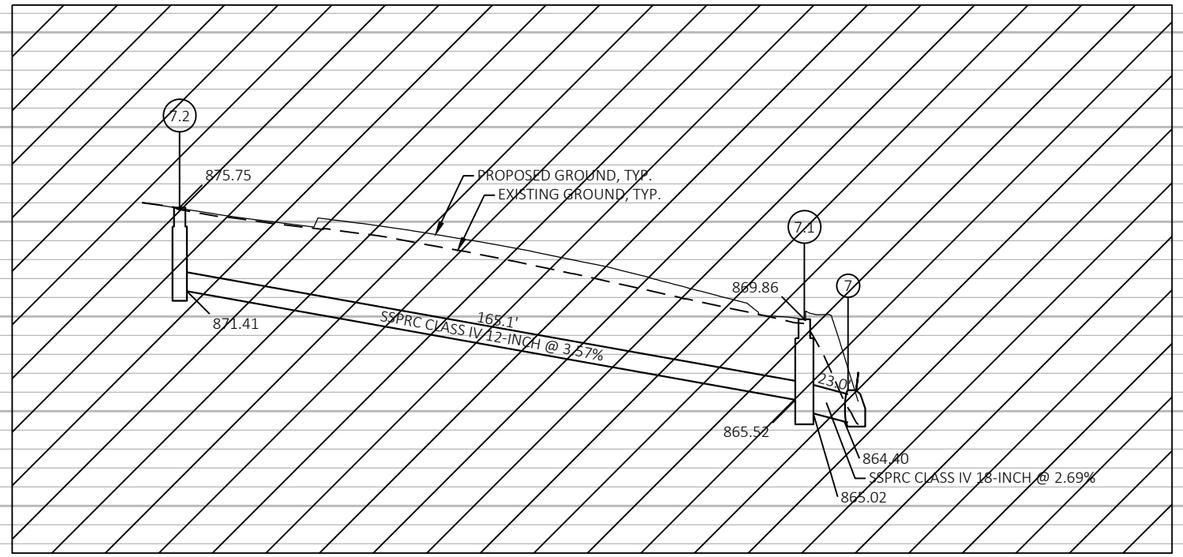
4+00 "RL"

ADJUST WATER VALVES

MOVE FIRE HYDRANT

5

5

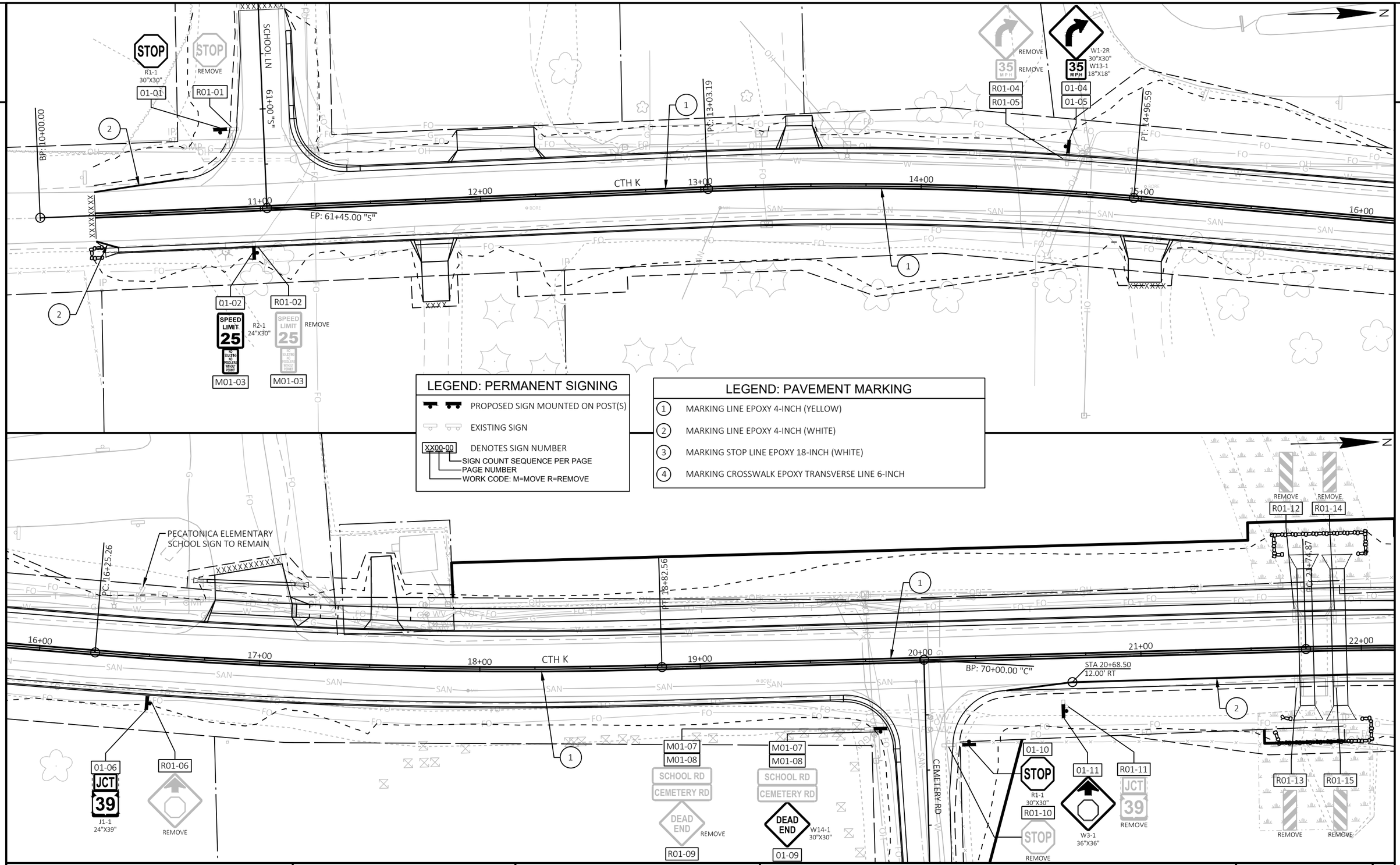


PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	STORM SEWER	SHEET 21 E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\022501_SS.DWG
LAYOUT NAME - 022503_ss

PLOT DATE : 12/9/2024 2:04 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PERMANENT SIGNING AND PAVEMENT MARKING : CTH K	SHEET 22	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\023201_PS.DWG
LAYOUT NAME - 023201_ps

PLOT DATE : 12/9/2024 2:21 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

N

SPEED LIMIT 25
R2-1
24"X30"
02-01

SPEED LIMIT 25
REMOVE
R02-01

SCHOOL RD
M02-04

PI: 110+00.00 "39"

PI: 112+00.00 "39"

EP: 24+85.38

PT: 23+58.30

CTH K

22+00

23+00

24+00

STOP
R1-1
30"X30"
02-02

STOP
REMOVE
R02-02

COUNTY K 39
J13-2
48"X45"
02-03

COUNTY K 39
REMOVE
R02-03

LEGEND: PERMANENT SIGNING

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN
- XX00-00 DENOTES SIGN NUMBER
  - SIGN COUNT SEQUENCE PER PAGE
  - PAGE NUMBER
  - WORK CODE: M=MOVE R=REMOVE

LEGEND: PAVEMENT MARKING

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING STOP LINE EPOXY 18-INCH (WHITE)
4. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PERMANENT SIGNING AND PAVEMENT MARKING : CTH K	SHEET 23	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\023201_PS.DWG
LAYOUT NAME - 023202_ps

PLOT DATE : 12/9/2024 2:21 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

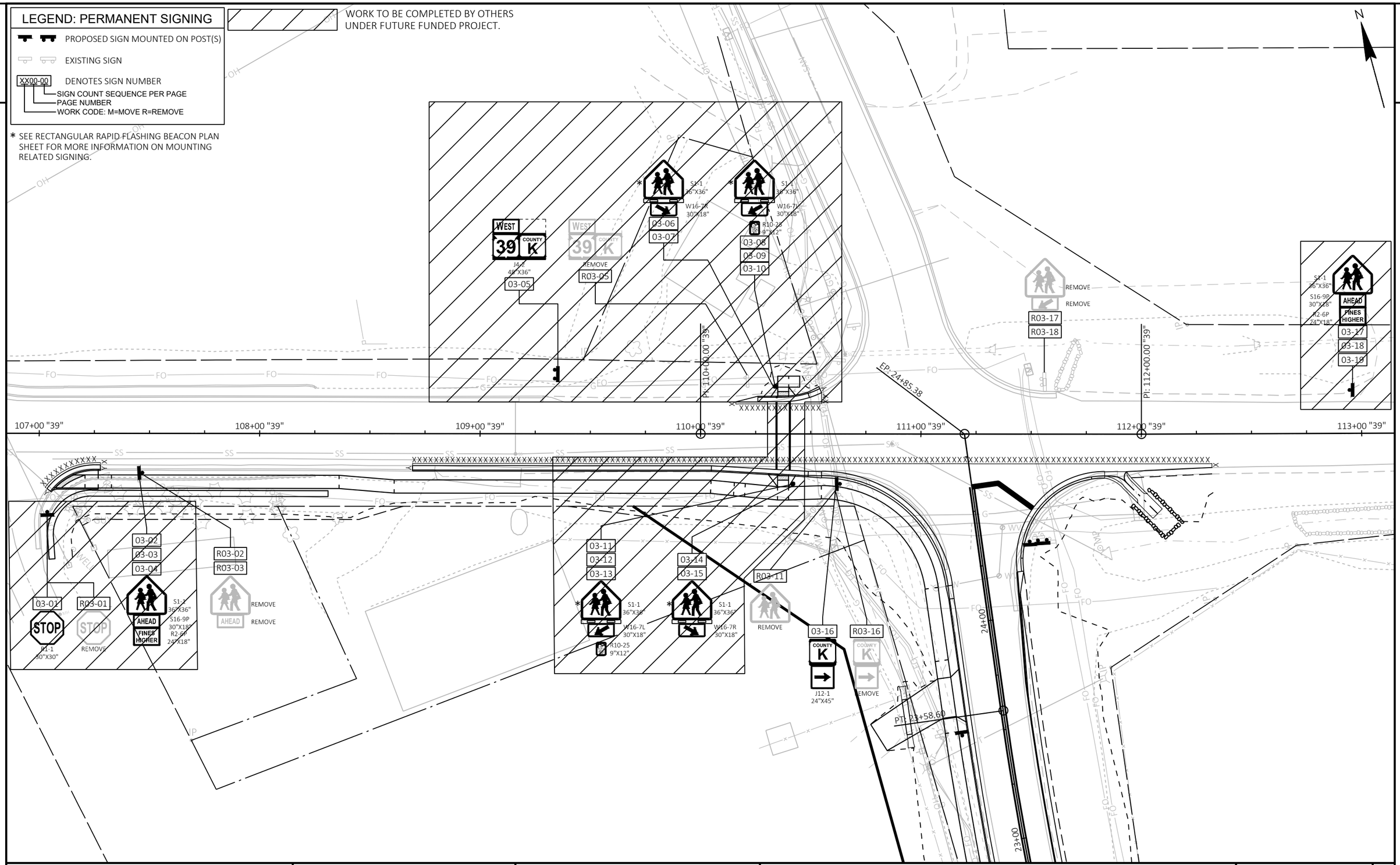
WISDOT/CADDS SHEET 42

LEGEND: PERMANENT SIGNING

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN
- XX00-00 DENOTES SIGN NUMBER
  - SIGN COUNT SEQUENCE PER PAGE
  - PAGE NUMBER
  - WORK CODE: M=MOVE R=REMOVE

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

* SEE RECTANGULAR RAPID FLASHING BEACON PLAN SHEET FOR MORE INFORMATION ON MOUNTING RELATED SIGNING.



PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PERMANENT SIGNING AND PAVEMENT MARKING : CTH K	SHEET 24	E

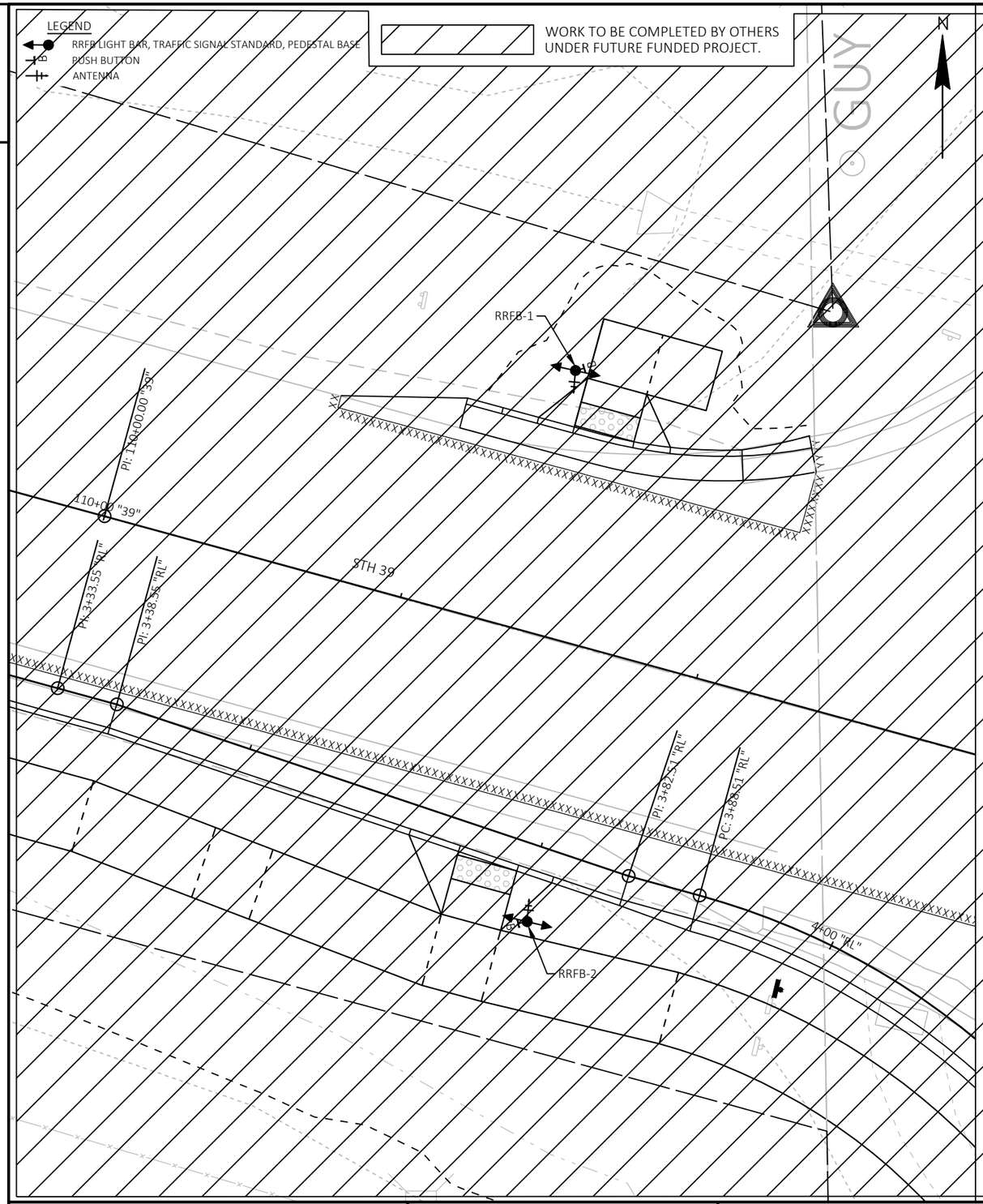
LEGEND

RRFB LIGHT BAR, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE

PUSH BUTTON

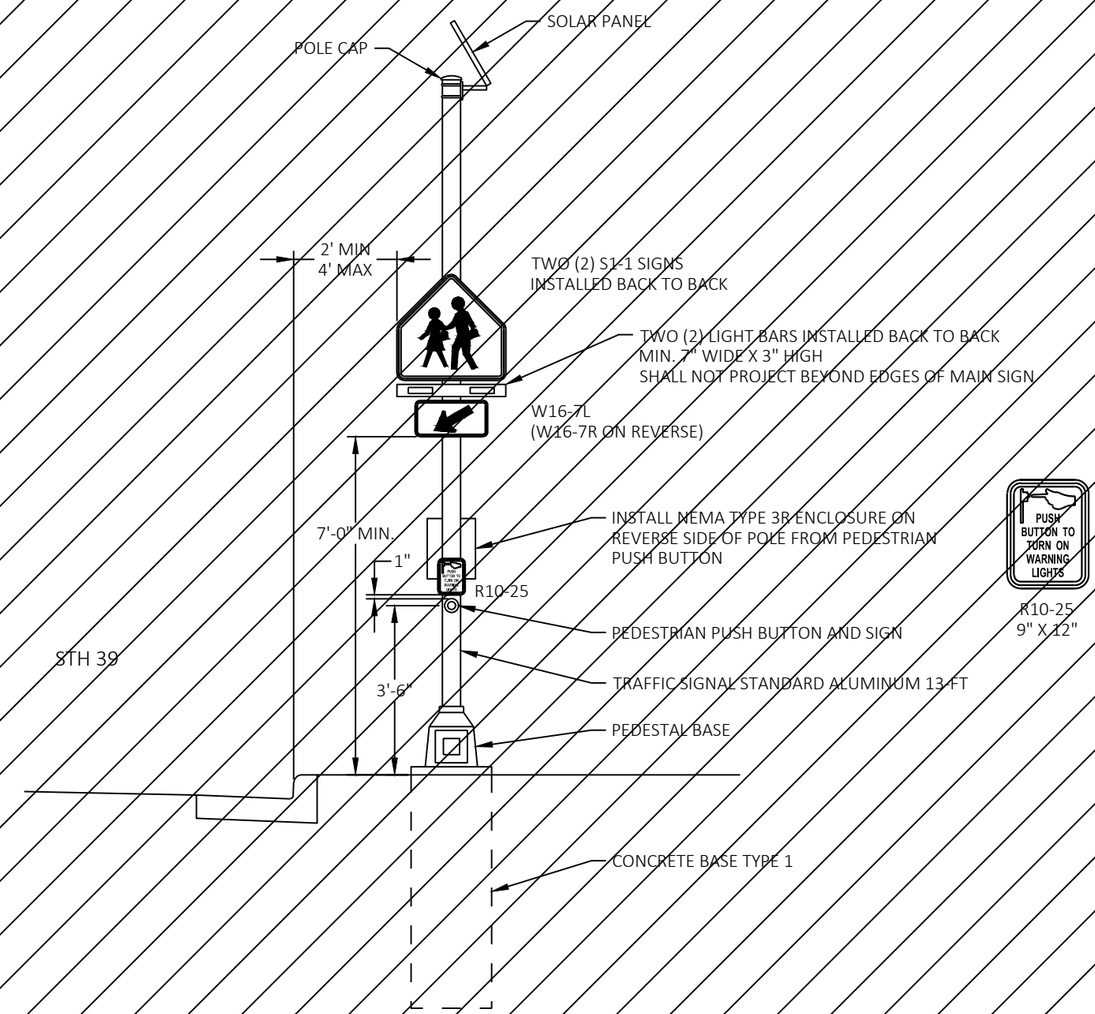
ANTENNA

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.



NOTES:

1) SEE PLAN DERAIL TO THE LEFT FOR BEACON AND PUSH BUTTON LOCATIONS.
2) EACH RRFB POLE SHALL HAVE ONE (1) W16-7L SIGN AND ONE (1) W16-7R SIGN, ONE (1) ON EACH SIDE OF THE POLE. THE ARROW SHALL BE DIRECTED TOWARDS THE CROSSWALK. REFER TO SIGNING PLANS FOR LOCATION.
3) EACH RRFB POLE SHALL HAVE TWO (2) S1-1 SIGNS, WITH ONE (1) ON EACH SIDE OF THE POLE. REFER TO SIGNING PLANS FOR LOCATIONS.
4) LOCATE R10-25 SIGN ABOVE PUSH BUTTON.
5) LIGHT BAR, CONTROLS, SOLAR PANEL, WIRELESS RADIO, HARDWARE, WIRING, SIGNING, ALUMINUM STANDARD, PEDESTAL AND CONCRETE BASE, PUSH BUTTON AND INCIDENTALS ARE CONSIDERED PART OF THE "SYSTEM" BID ITEM.
6) FIELD LOCATE ALL BASES TO PROVIDE 1.5' MAXIMUM REACH FROM ACCESSIBLE SLOPED AREA.



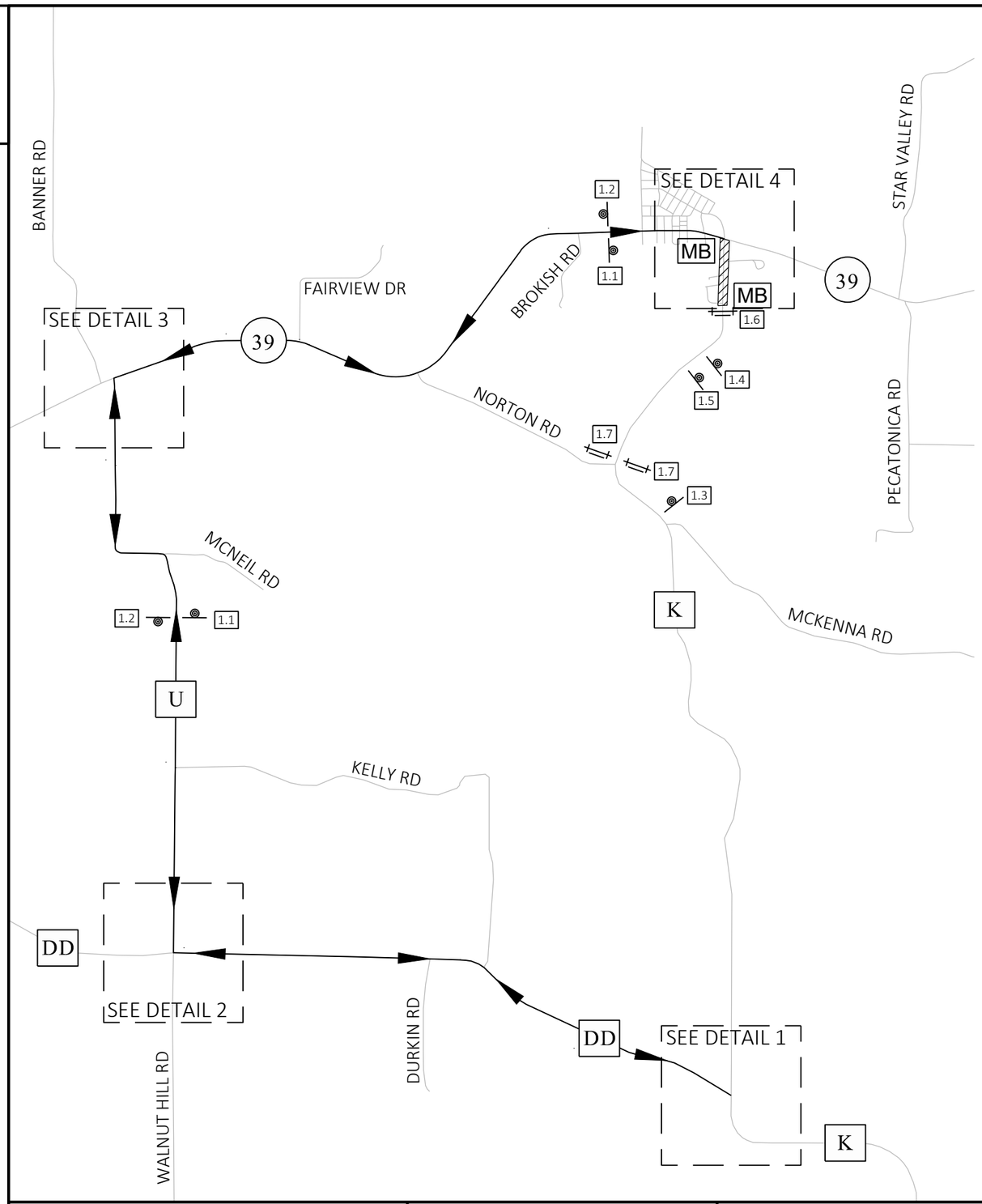
RECTANGULAR RAPID FLASHING BEACON DETAIL

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	RECTANGULAR RAPID FLASHING BEACON PLAN	SHEET 25	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\024201_SP.DWG
LAYOUT NAME - 024201_sp

PLOT DATE : 12/9/2024 12:49 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



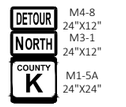
LEGEND

- WORK ZONE
- DETOUR ROUTE
- X — SIGN NUMBER
- PROPOSED SIGN MOUNTED ON TEMPORARY POSTS
- BARRICADE TYPE III WITH SIGN
- MB — PCMS BOARD

N

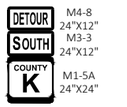
NOTES

- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND WISDOT SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION" AND SDD 15C3 "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".
- EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE PROVIDED IN THE PLAN.
- SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM 'TRAFFIC CONTROL COVERING SIGNS'.
- USE SIGN SIZE 3 ON FREEWAY, USE SIGN SIZE 2 ON LOCAL HIGHWAYS AND RAMPS.
- IF THERE ARE EXISTING ROUTE MARKERS THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.



M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"

1.1



M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"

1.2

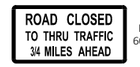
1.3

1.4

1.5

R11-4 60"X30"

1.6



R11-3 60"X30"

1.7

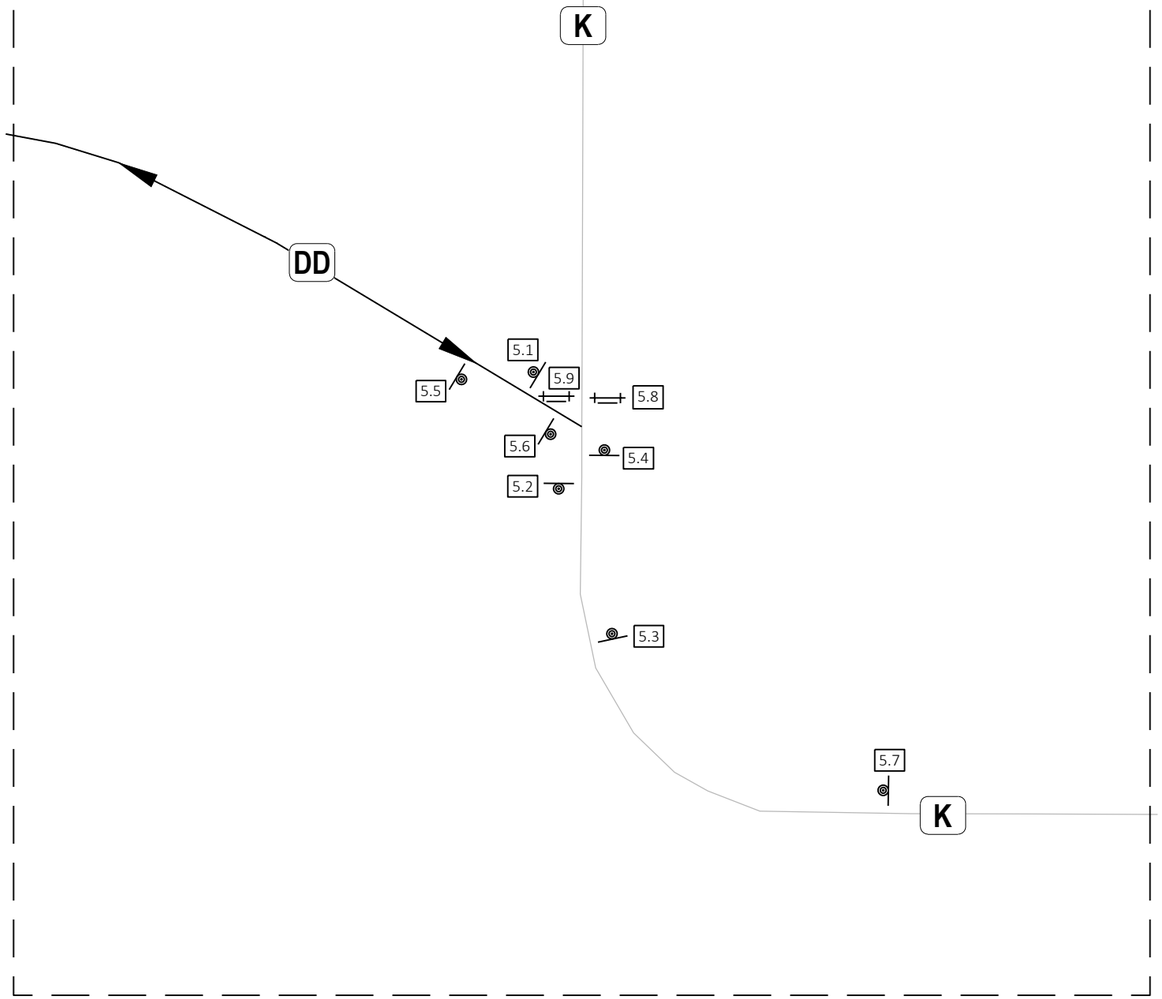
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	DETOUR ROUTE	SHEET 26	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027001_DT.DWG
LAYOUT NAME - 027001_dt

PLOT DATE : 10/30/2024 9:04 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

DETAIL 1



LEGEND

- WORK ZONE
- DETOUR ROUTE
- X — SIGN NUMBER
- PROPOSED SIGN MOUNTED ON TEMPORARY POSTS
- BARRICADE TYPE III WITH SIGN

NOTES

- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND WISDOT SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION" AND SDD 15C3 "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".
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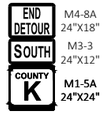
N

M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"

5.1

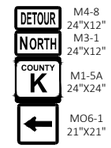


M4-8A 24"X18"
M3-3 24"X12"
M1-5A 24"X24"

5.2

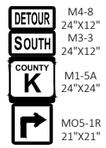
M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"
MO5-1L 21"X21"

5.3



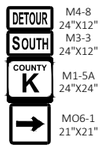
M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"
MO6-1 21"X21"

5.4



M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO5-1R 21"X21"

5.5



M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO6-1 21"X21"

5.6

5.7

MO4-9L 30"X24"

5.8

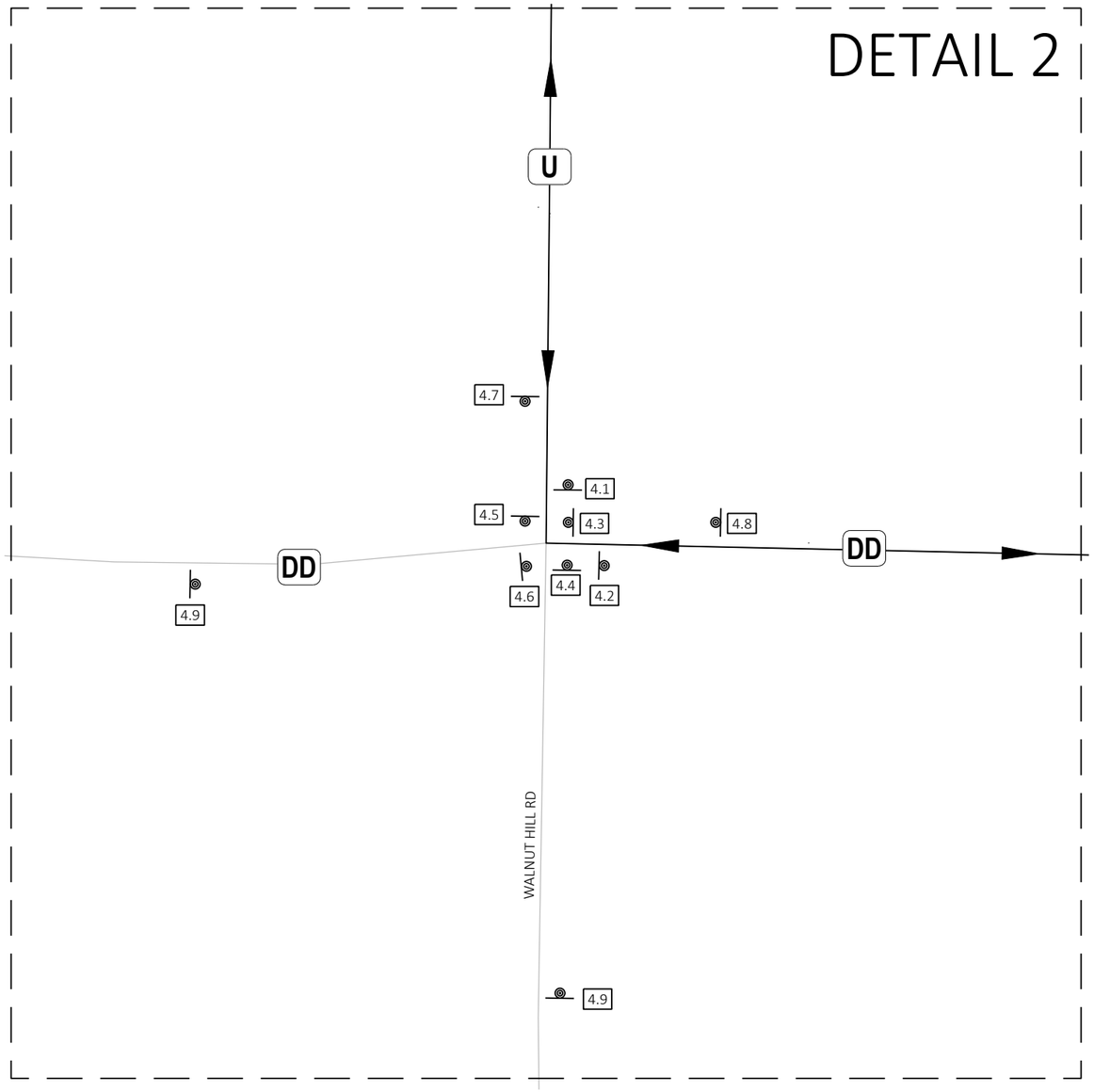
R11-3 60"X30"

5.9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	DETOUR ROUTE	SHEET 27	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027001_DT.DWG
LAYOUT NAME - 027002_dt
PLOT DATE : 10/30/2024 9:04 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:400 FT

DETAIL 2



LEGEND

- WORK ZONE
- DETOUR ROUTE
- X — SIGN NUMBER
- PROPOSED SIGN MOUNTED ON TEMPORARY POSTS
- BARRICADE TYPE III WITH SIGN

NOTES

- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND WISDOT SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION" AND SDD 15C3 "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".
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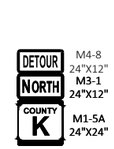
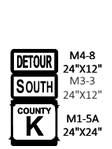
- USE SIGN SIZE 3 ON FREEWAY, USE SIGN SIZE 2 ON LOCAL HIGHWAYS AND RAMPS.
- IF THERE ARE EXISTING ROUTE MARKERS THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.

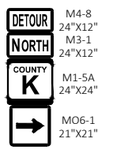
N



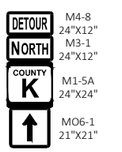
4.1



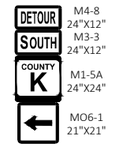
4.2



4.3

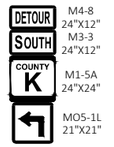


4.4



4.5

4.6



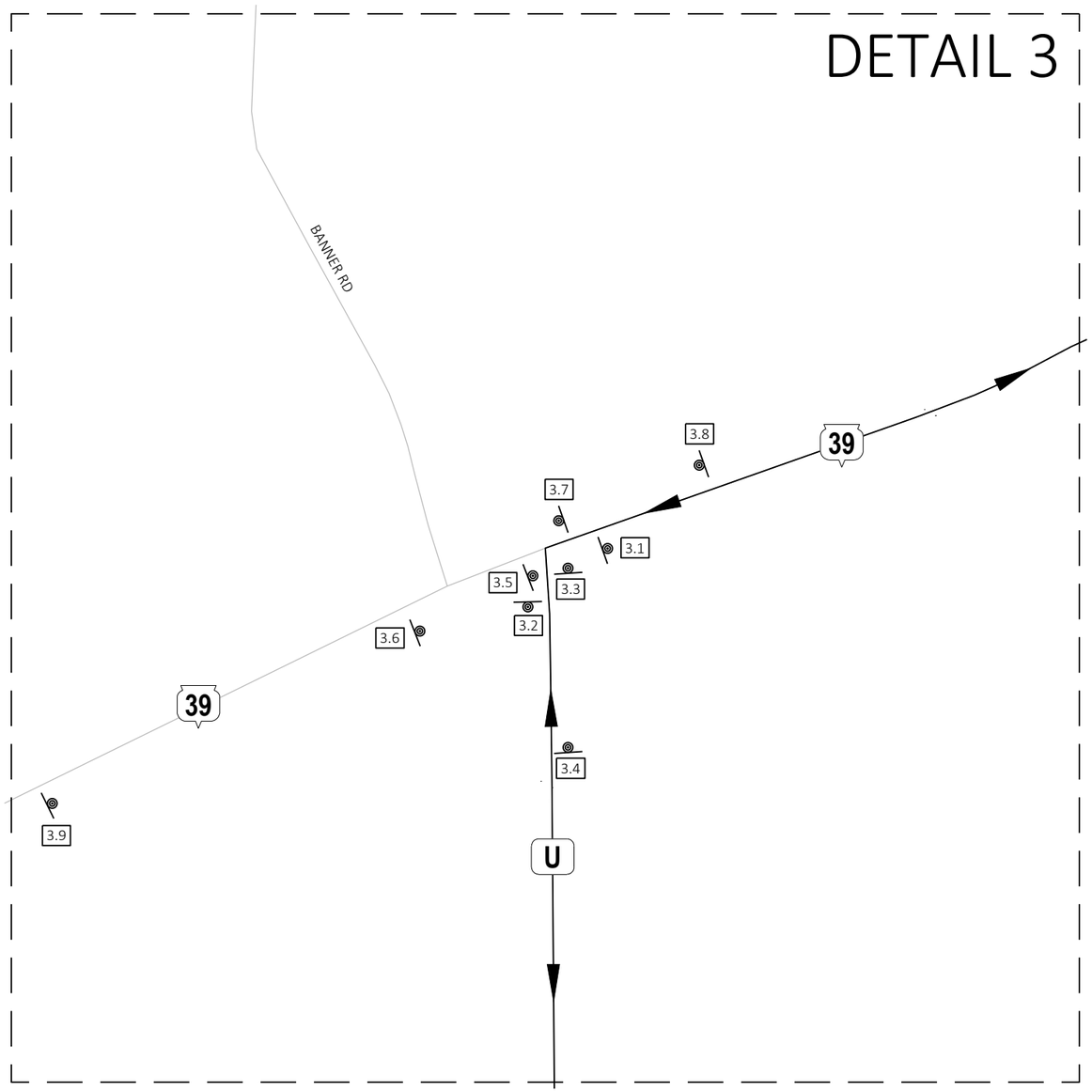
4.7

4.8

4.9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	DETOUR ROUTE	SHEET 28	E

DETAIL 3



LEGEND

- WORK ZONE
- DETOUR ROUTE
- X — SIGN NUMBER
- PROPOSED SIGN MOUNTED ON TEMPORARY POSTS
- BARRICADE TYPE III WITH SIGN

NOTES

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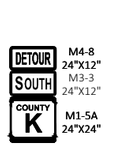
- IF THERE ARE EXISTING ROUTE MARKERS THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.

N

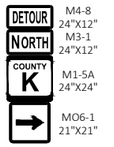
M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"

3.1



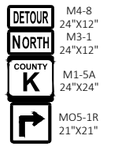
M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"

3.2



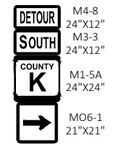
M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"
MO6-1 21"X21"

3.3



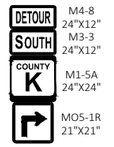
M4-8 24"X12"
M3-1 24"X12"
M1-5A 24"X24"
MO5-1R 21"X21"

3.4



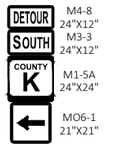
M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO6-1 21"X21"

3.5



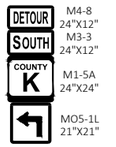
M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO5-1R 21"X21"

3.6



M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO6-1 21"X21"

3.7



M4-8 24"X12"
M3-3 24"X12"
M1-5A 24"X24"
MO5-1L 21"X21"

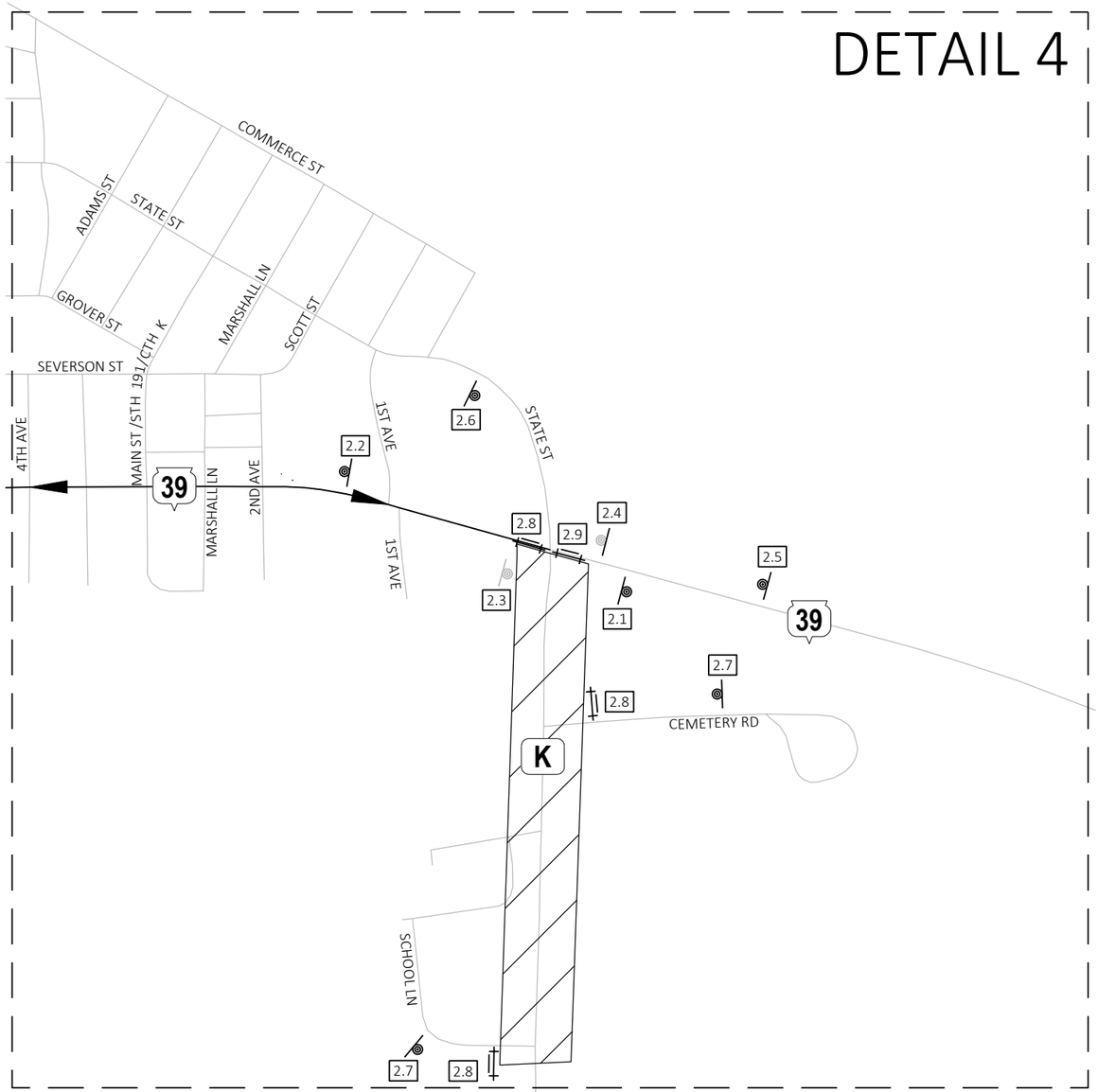
3.8

M3-3 24"X12"
M1-5A 24"X24"

3.9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	DETOUR ROUTE	SHEET 29	E

DETAIL 4



LEGEND

- WORK ZONE
- DETOUR ROUTE
- X — SIGN NUMBER
- PROPOSED SIGN MOUNTED ON TEMPORARY POSTS
- BARRICADE TYPE III WITH SIGN
- COVERING EXISTING SIGNS
- PROPOSED SIGN ON EXISTING POST
- EXISTING POST

NOTES

- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND WISDOT SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION" AND SDD 15C3 "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".
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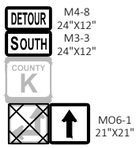
- IF THERE ARE EXISTING ROUTE MARKERS THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR SIGNS TO CORRESPOND WITH EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.

N

2.1

2.2

2.3



2.4

2.5

2.6

2.7

2.8

2.9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	DETOUR ROUTE	SHEET 30	E

2

N

SCHOOL LN

BP: 10+00.00
X = 432 439.364
Y = 120 743.775

BP: 60+00.00 "S"
X = 432 291.675
Y = 120 842.880

BM 1
RAIL ROAD SPIKE IN
POWER POLE
X = 432 300.783
Y = 120 865.045
ELEV. = 899.870

145.00'
N88°28'18"E
3.11'
S 00+19

PC: 13+03.19
X = 432 431.297
Y = 121 046.862

BM 2
RAIL ROAD SPIKE IN
POWER POLE
X = 432 370.248
Y = 121 214.626
ELEV. = 903.331

PT: 14+96.59
X = 432 438.695
Y = 121 239.983

PC: 16+25.26
X = 432 451.948
Y = 121 367.970

CURVE 2
PI STA = 17+54.04
Y = 121496.057
X = 432465.212
DELTA = 6°12'25" LT
D = 2°24'45"
T = 128.77'
L = 257.29'
R = 2375.00'
PC STA = 16+25.26
Y = 121367.970
X = 432451.948
PT STA = 18+82.56
Y = 121624.828
X = 432464.549
DB = N05°54'44"E
DA = N00°17'42"W
S.E. = 2.0%

PT: 18+82.56
X = 432 464.549
Y = 121 624.828

PC: 21+74.87
X = 432 463.045
Y = 121 917.133

PT: 23+58.60
X = 432 474.184
Y = 122 100.400

EP: 24+85.38
X = 432 490.187
Y = 122 226.161

CP 5

11+00 N1°31'29"W 12+00 13+00 CURVE 1 14+00 15+00 N5°54'44"E 16+00 17+00 CURVE 2 18+00 19+00 CTH K 20+00 N0°17'42"W 21+00 22+00 CURVE 3 23+00 24+00 N7°15'06"E

303.19' 128.67' 292.31' 126.78'

STA 11+03.00
STA 61+45.00 "S"
X = 432 436.623
Y = 120 846.739

CP 1
2" IRON PIPE
X = 432 466.917
Y = 120 981.151
ELEV. = 908.400

CURVE 1
PI STA = 14+00.03
Y = 121143.663
X = 432428.720
DELTA = 7°26'13" RT
D = 3°50'43"
T = 96.83'
L = 193.40'
R = 1490.00'
PC STA = 13+03.19
Y = 121046.862
X = 432431.297
PT STA = 14+96.59
Y = 121239.983
X = 432438.695
DB = N01°31'29"W
DA = N05°54'44"E
S.E. = 2.3%

CP 2
3/4 REBAR
X = 432 502.266
Y = 121 719.341
ELEV. = 863.830

N89°47'18"E 144.44'

STA 20+01.50
STA 70+00.00 "C"
X = 432 463.937
Y = 121 743.770

71+00 "C"

2.3%PI: 71+44.44 "C"
X = 432 608.371
Y = 121 744.513

72+00 "C"

N86°40'18"E 105.55'

EP: 72+49.99 "C"
X = 432 713.744
Y = 121 750.641

CEMETERY RD

CURVE 3
PI STA = 22+66.87
Y = 122009.134
X = 432462.571
DELTA = 7°32'48" RT
D = 4°06'26"
T = 92.00'
L = 183.74'
R = 1395.00'
PC STA = 21+74.87
Y = 121917.133
X = 432463.045
PT STA = 23+58.60
Y = 122100.400
X = 432474.184
DB = N00°17'42"W
DA = N07°15'06"E
S.E. = 2.4%

CP 3

STH 36

BM 3
CHISELED X IN CULVERT HEADER
X = 432 802.062
Y = 122 114.890
ELEV. = 853.940

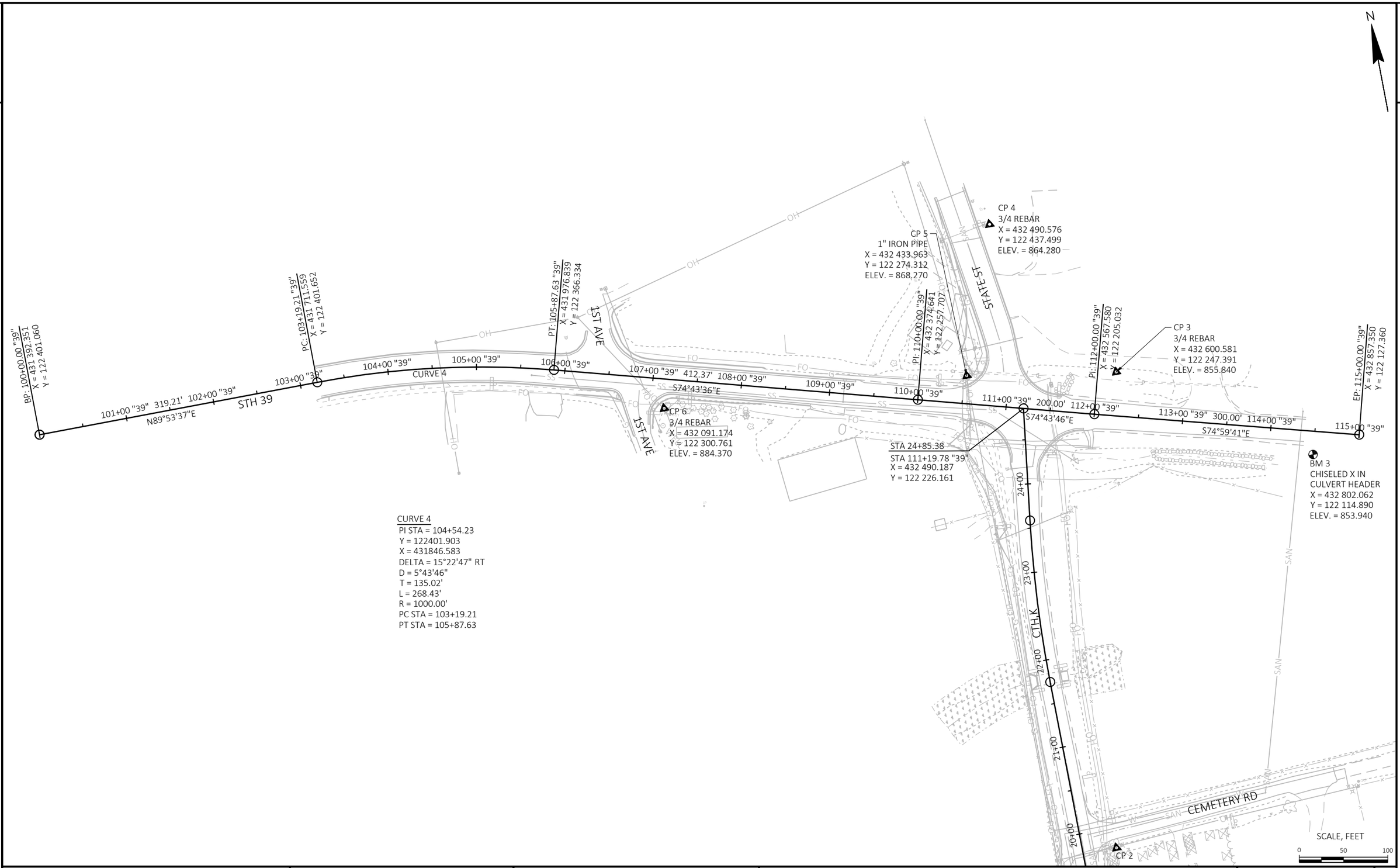
SCALE, FEET
0 50 100

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	ALIGNMENT DETAILS	SHEET 31	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027201_AD.DWG
LAYOUT NAME - 027201_ad

PLOT DATE : 10/22/2024 8:08 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

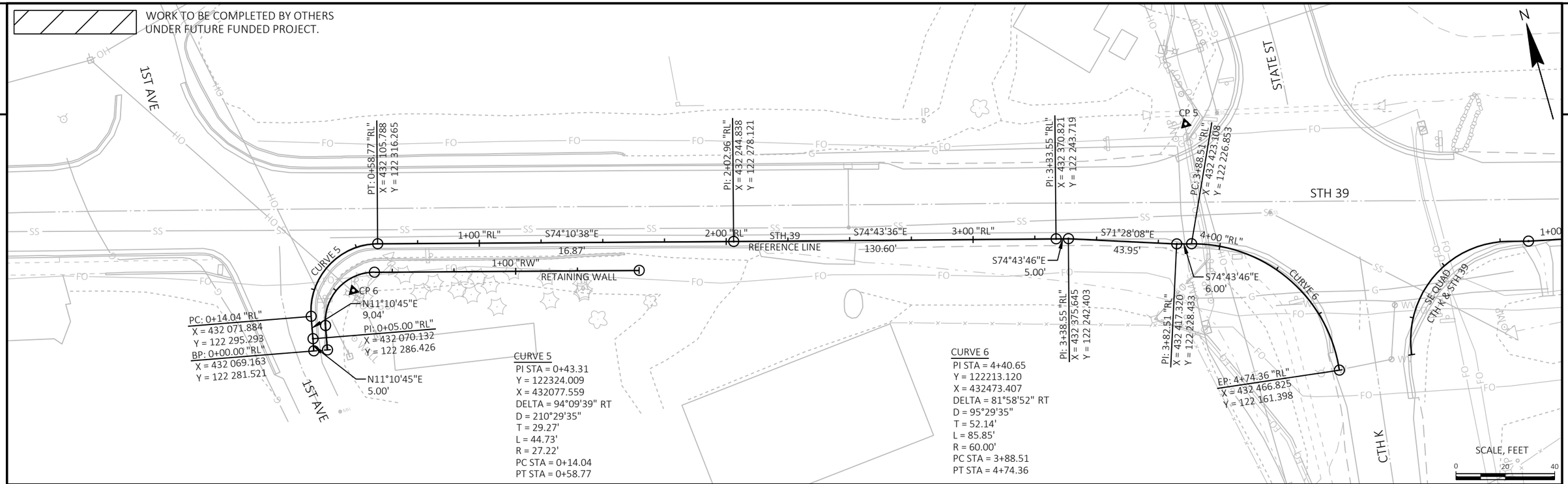


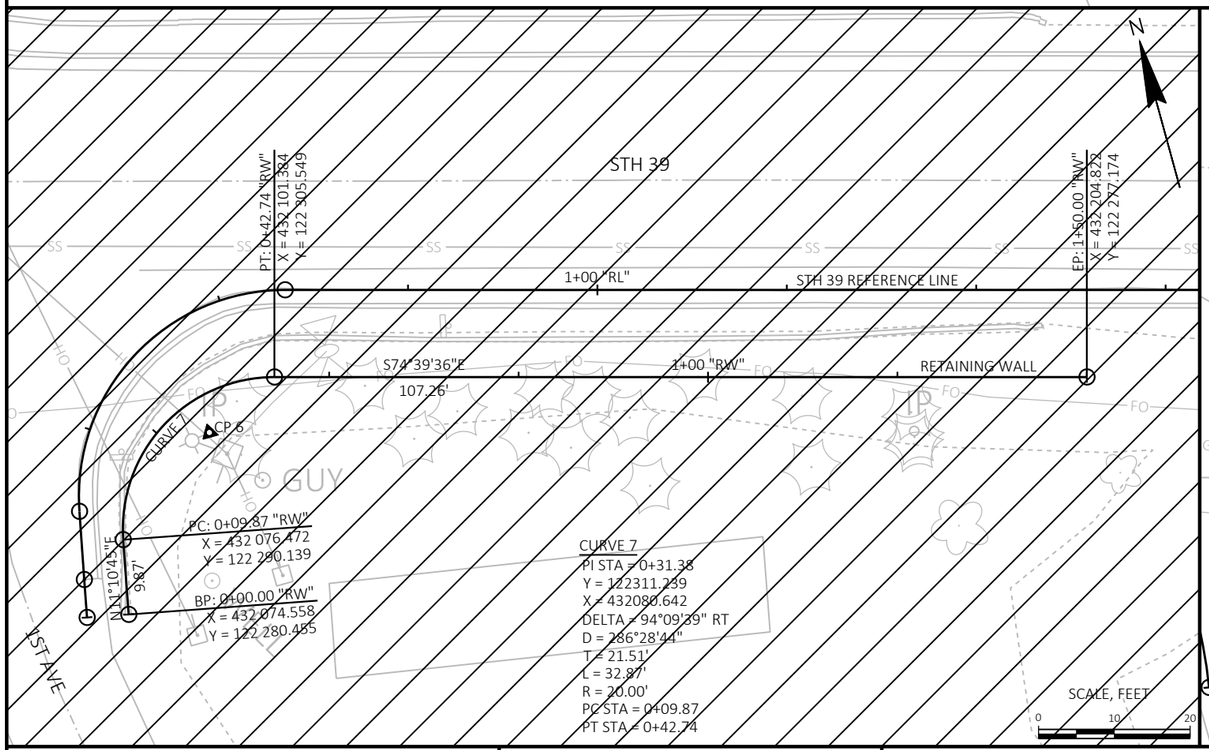
CURVE 4
PI STA = 104+54.23
Y = 122401.903
X = 431846.583
DELTA = 15°22'47" RT
D = 5°43'46"
T = 135.02'
L = 268.43'
R = 1000.00'
PC STA = 103+19.21
PT STA = 105+87.63

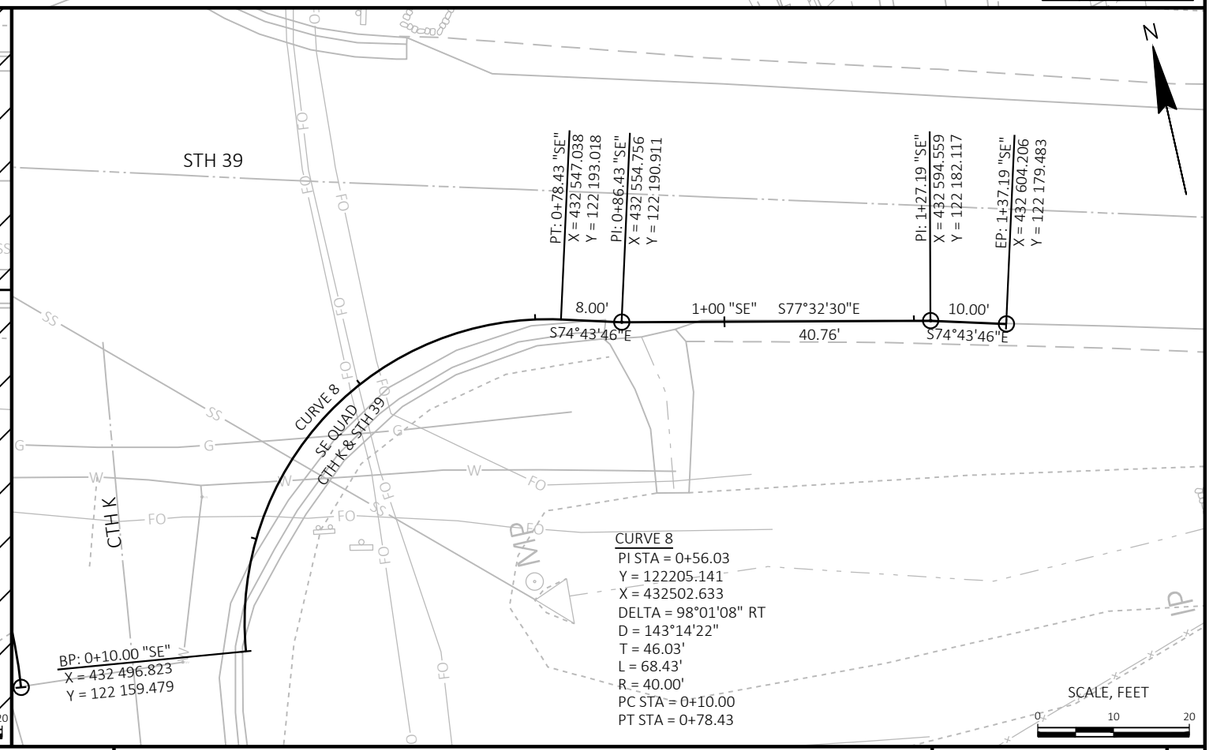
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	ALIGNMENT DETAILS	SHEET 32	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027202_AD.DWG
LAYOUT NAME - 027202_ad
PLOT DATE : 10/22/2024 8:16 AM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

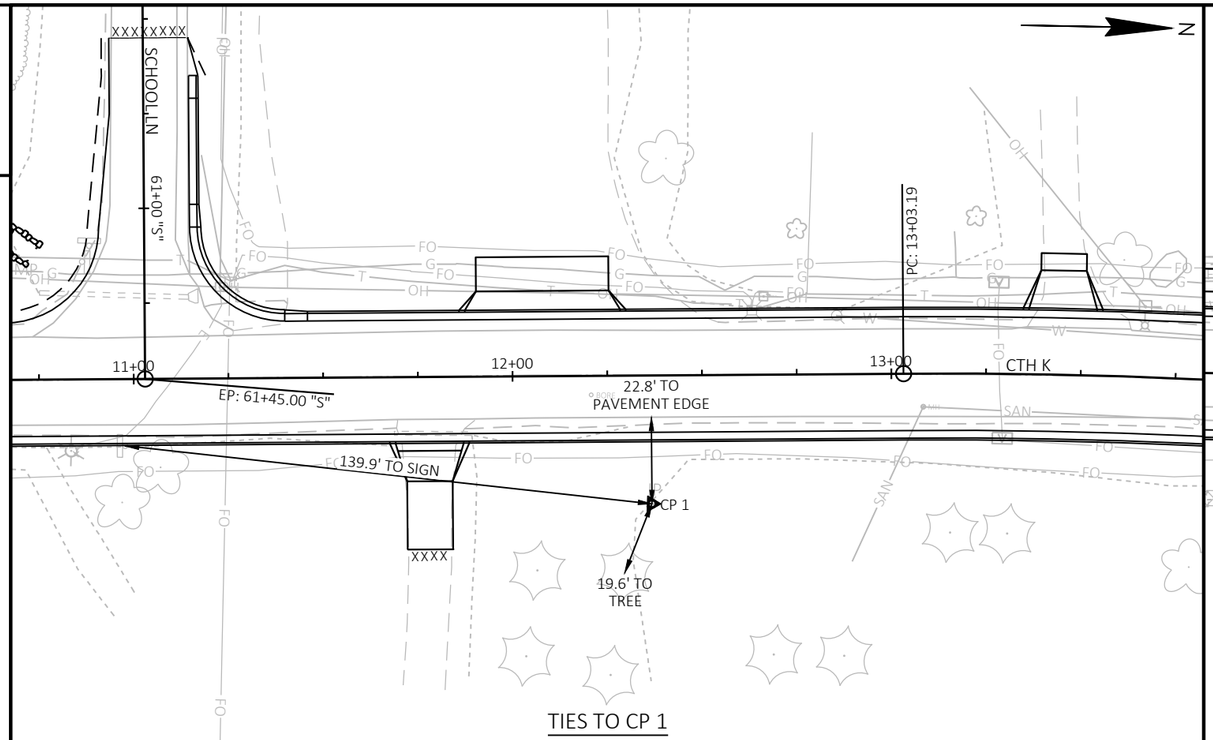




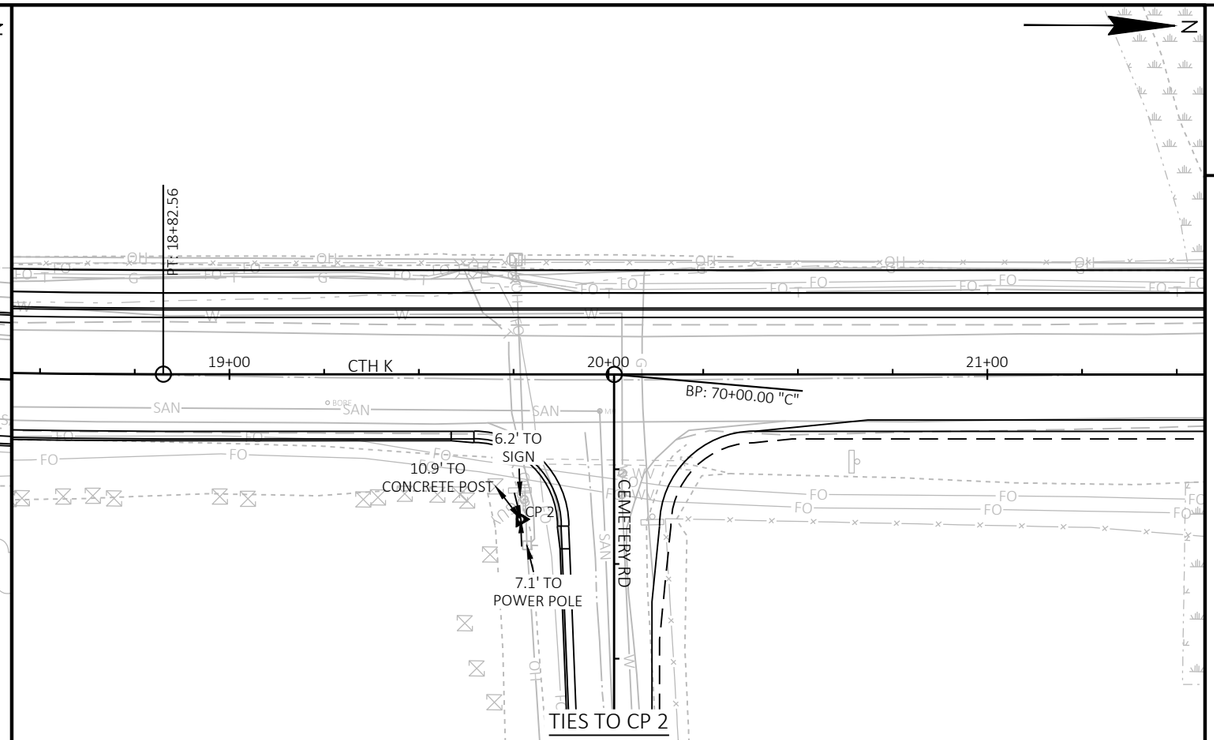


PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	ALIGNMENT DETAILS	SHEET 33	E

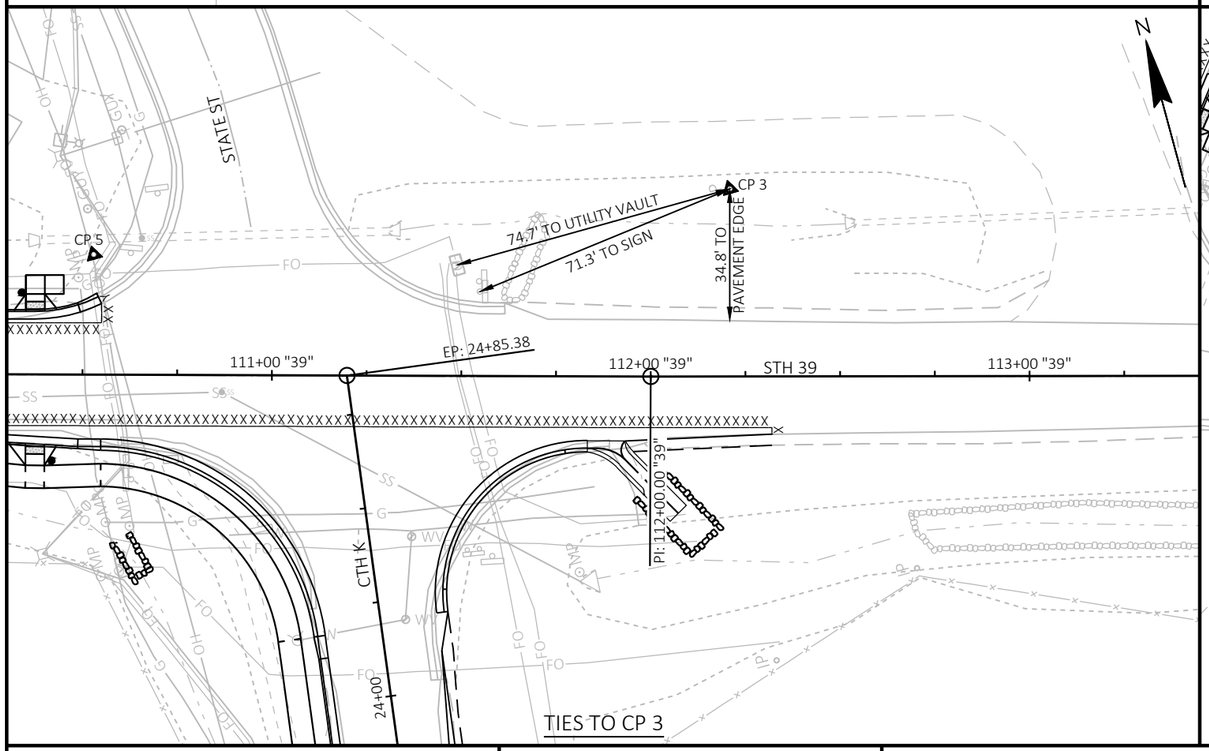
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027203_AD.DWG
LAYOUT NAME - 027203_ad
PLOT DATE : 12/9/2024 12:44 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



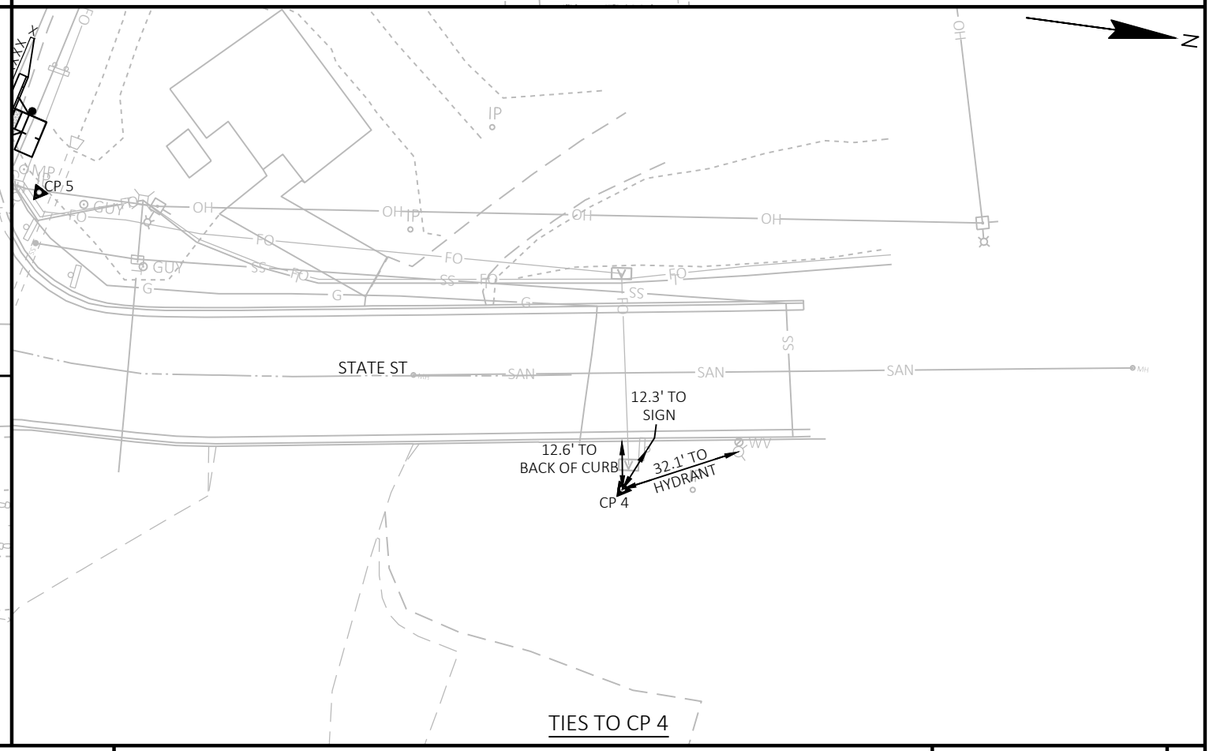
TIES TO CP 1



TIES TO CP 2



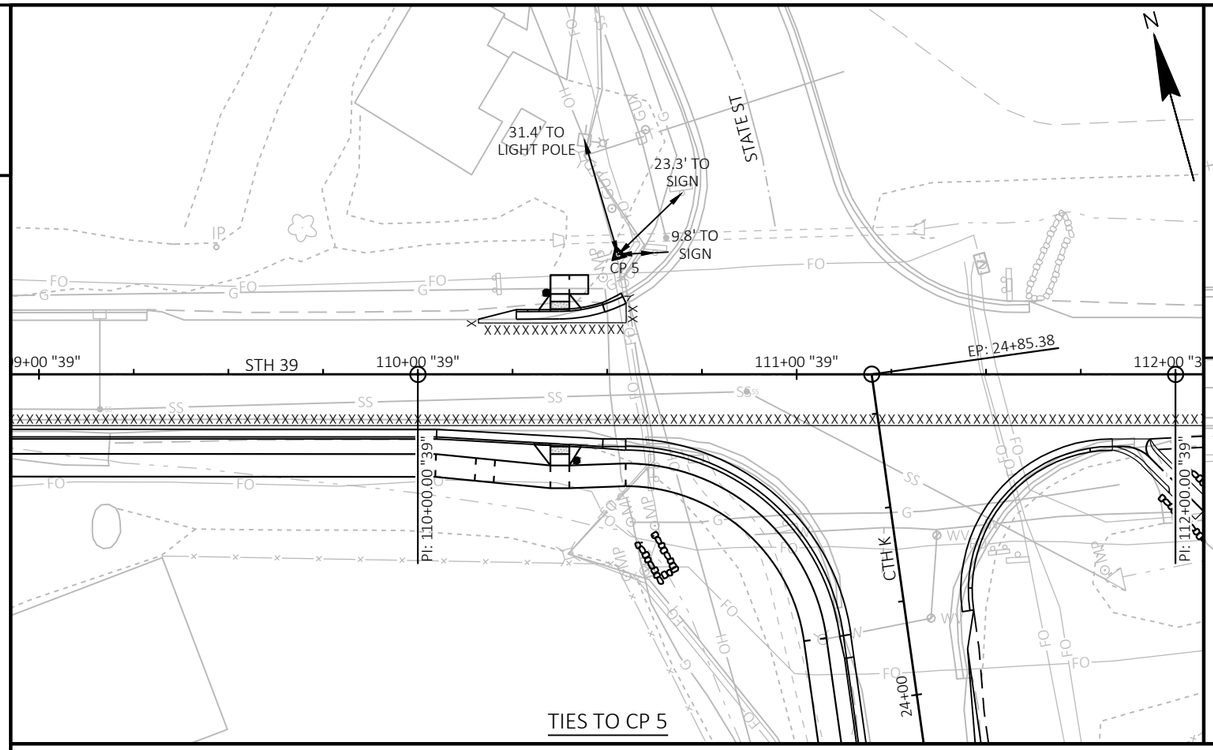
TIES TO CP 3



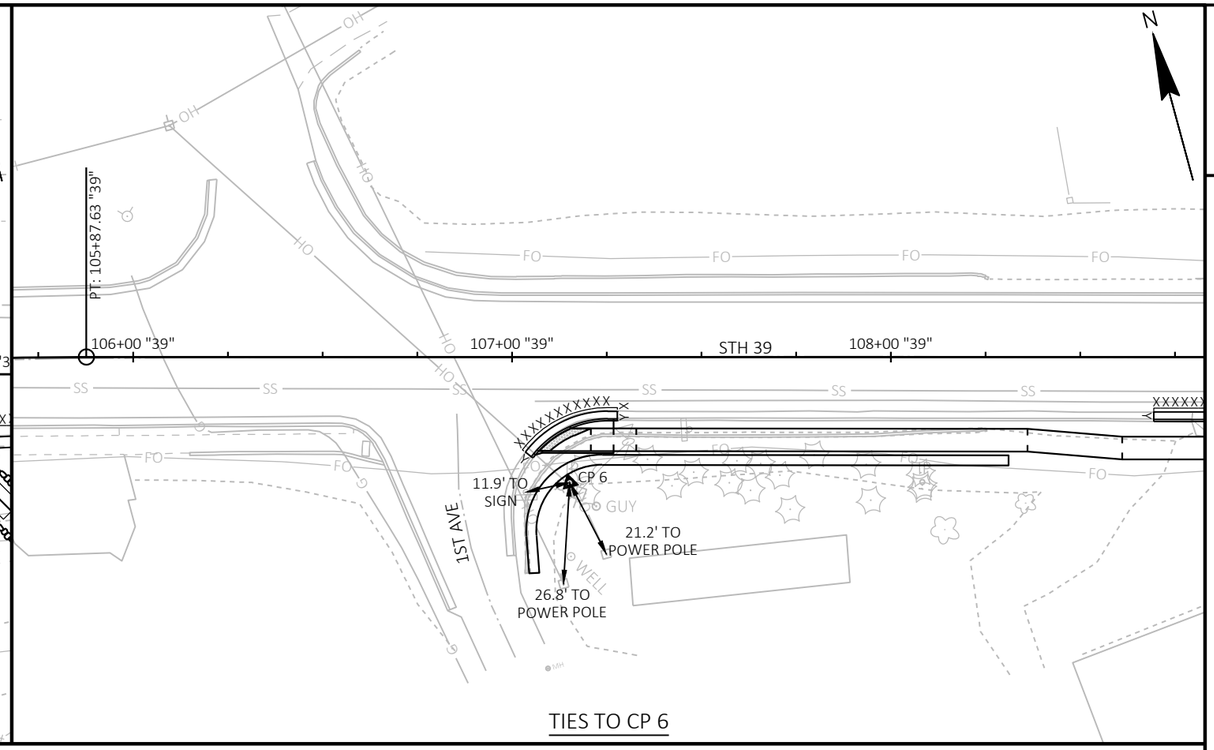
TIES TO CP 4

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CONTROL POINT TIES	SHEET 34	E

2



TIES TO CP 5



TIES TO CP 6

2

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CONTROL POINT TIES	SHEET 35	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\027301_CP.DWG
LAYOUT NAME - 027302_cp

PLOT DATE : 10/22/2024 8:50 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

Estimate Of Quantities

5975-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0220	Grubbing	ID	90.000	90.000
0004	203.0100	Removing Small Pipe Culverts	EACH	6.000	6.000
0006	203.0220	Removing Structure (structure) 01. STA 21+79	EACH	1.000	1.000
0008	204.0150	Removing Curb & Gutter	LF	161.000	161.000
0010	204.0155	Removing Concrete Sidewalk	SY	84.000	84.000
0012	204.0190	Removing Surface Drains	EACH	1.000	1.000
0014	205.0100	Excavation Common	CY	2,725.000	2,725.000
0016	208.0100	Borrow	CY	289.000	289.000
0018	213.0100	Finishing Roadway (project) 01. 5975-00-70	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	145.000	145.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,971.000	4,971.000
0024	455.0605	Tack Coat	GAL	278.000	278.000
0026	465.0105	Asphaltic Surface	TON	1,395.000	1,395.000
0028	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	12.000	12.000
0030	465.0315	Asphaltic Flumes	SY	23.000	23.000
0032	521.1277	Apron Endwalls for Pipe Arch Steel 77x52-Inch	EACH	4.000	4.000
0034	521.3777	Pipe Arch Corrugated Steel 77x52-Inch	LF	124.000	124.000
0036	522.0412	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	40.000	40.000
0038	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0040	522.2414	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	16.000	16.000
0042	522.2614	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000
0044	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0046	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,315.000	2,315.000
0048	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	256.000	256.000
0050	602.0810	Concrete Driveway 6-Inch	SY	63.000	63.000
0052	606.0200	Riprap Medium	CY	60.000	60.000
0054	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	260.000	260.000
0056	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	453.000	453.000
0058	608.2419	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	99.000	99.000
0060	611.0420	Reconstructing Manholes	EACH	2.000	2.000
0062	611.0530	Manhole Covers Type J	EACH	4.000	4.000
0064	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0066	611.0624	Inlet Covers Type H	EACH	9.000	9.000
0068	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000
0070	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0072	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0074	611.3003	Inlets 3-FT Diameter	EACH	1.000	1.000
0076	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0078	611.3230	Inlets 2x3-FT	EACH	8.000	8.000
0080	611.8110	Adjusting Manhole Covers	EACH	2.000	2.000
0082	611.8120.S	Cover Plates Temporary	EACH	18.000	18.000
0084	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5975-00-70	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	49.600	49.600
0090	625.0500	Salvaged Topsoil	SY	5,800.000	5,800.000
0092	627.0200	Mulching	SY	5,750.000	5,750.000
0094	628.1504	Silt Fence	LF	2,130.000	2,130.000
0096	628.1520	Silt Fence Maintenance	LF	5,115.000	5,115.000
0098	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000

5975-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0102	628.2008	Erosion Mat Urban Class I Type B	SY	100.000	100.000
0104	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0106	628.7015	Inlet Protection Type C	EACH	12.000	12.000
0108	628.7504	Temporary Ditch Checks	LF	381.000	381.000
0110	628.7555	Culvert Pipe Checks	EACH	18.000	18.000
0112	629.0210	Fertilizer Type B	CWT	5.500	5.500
0114	630.0130	Seeding Mixture No. 30	LB	200.000	200.000
0116	630.0140	Seeding Mixture No. 40	LB	170.000	170.000
0118	630.0200	Seeding Temporary	LB	230.000	230.000
0120	630.0500	Seed Water	MGAL	145.000	145.000
0122	633.5200	Markers Culvert End	EACH	2.000	2.000
0124	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000	5.000
0126	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0128	637.2210	Signs Type II Reflective H	SF	54.540	54.540
0130	637.2230	Signs Type II Reflective F	SF	23.750	23.750
0132	638.2102	Moving Signs Type II	EACH	4.000	4.000
0134	638.2602	Removing Signs Type II	EACH	21.000	21.000
0136	638.3000	Removing Small Sign Supports	EACH	19.000	19.000
0138	642.5001	Field Office Type B	EACH	1.000	1.000
0140	643.0300	Traffic Control Drums	DAY	420.000	420.000
0142	643.0420	Traffic Control Barricades Type III	DAY	1,750.000	1,750.000
0144	643.0705	Traffic Control Warning Lights Type A	DAY	3,920.000	3,920.000
0146	643.0900	Traffic Control Signs	DAY	12,320.000	12,320.000
0148	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0150	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	172.000	172.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	3,294.000	3,294.000
0158	646.6120	Marking Stop Line Epoxy 18-Inch	LF	32.000	32.000
0160	650.4000	Construction Staking Storm Sewer	EACH	16.000	16.000
0162	650.4500	Construction Staking Subgrade	LF	1,710.000	1,710.000
0164	650.5000	Construction Staking Base	LF	1,710.000	1,710.000
0166	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,571.000	2,571.000
0168	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0170	650.9911	Construction Staking Supplemental Control (project) 01. 5975-00-70	EACH	1.000	1.000
0172	650.9920	Construction Staking Slope Stakes	LF	1,710.000	1,710.000
0174	690.0150	Sawing Asphalt	LF	310.000	310.000
0176	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0178	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0180	SPV.0060	Special 01. Adjusting Water Valves	EACH	7.000	7.000
0182	SPV.0060	Special 02. Relocate Fire Hydrants	EACH	3.000	3.000

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

3

GRUBBING

CATEGORY	STATION	LOCATION	201.0220 GRUBBING ID	REMARKS
0010	11+07	CTH K, 24' RT	32	OAK
0010	15+27	CTH K, 20' RT	26	OAK
0010	15+47	CTH K, 24' RT	32	OAK
		TOTAL 0010	90	

REMOVING CULVERTS

CATEGORY	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	203.0220.01 REMOVING STRUCTURE 01. STA 21+79 EACH	REMARKS
0010	11+03	CTH K, LT	1	---	SCHOOL LN, 15-INCH CMCP
0010	11+78	CTH K, RT	1	---	DRIVEWAY, 12-INCH CMCP
0010	16+96	CTH K, LT	1	---	DRIVEWAY, 12-INCH CMCP
0010	17+56	CTH K, LT	1	---	DRIVEWAY, 12-INCH CMCP
0010	20+02	CTH K, RT	1	---	CEMETERY RD, 15-INCH CMCP
0010	21+79	CTH K	---	1	REINFORCED CONCRETE BOX CULVERT
0010	23+68	CTH K, LT	1	---	DRIVEWAY, 24-INCH CMCP
		TOTAL 0010	6	1	

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150 LF
0010	24+03	-	24+58	CTH K, RT	87
0010	24+25	-	24+76	CTH K, LT	74
				TOTAL 0010	161

3

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 SY
0010	22+92	-	24+73	CTH K, LT	84
				TOTAL 0010	84

REMOVING SURFACE DRAINS

CATEGORY	STATION	LOCATION	204.0190 EACH
0010	24+56	CTH K, RT	1
		TOTAL 0010	1

EARTHWORK

DIVISION	FROM/TO STATION	205.0100 EXCAVATION COMMON (1) CUT (2)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5) FACTOR 1.25	MASS ORDINATE +/- (6)	WASTE (7)	208.0100 BORROW
CATEGORY 0010									
CTY K	10+25.00/24+70.00	2,435	666	1,769	1,728	2,160	-391	---	391
SCHOOL LN	60+55.00/61+30.00	102	30	72	19	24	48	48	---
CEMETERY RD	70+15.00/71+35.00	80	42	38	53	66	-28	---	28
SW QUAD CTH K & STH 39	3+82.51/4+37.15	65	8	57	3	4	53	53	---
SE QUAD CTH K & STH 39	0+40.17/1+27.19	43	12	31	2	3	29	29	---
CATEGORY 0010 SUBTOTAL		2,725	758	1,967	1,805	2,256	-289	---	289
GRAND TOTAL		2,725	758	1,967	1,805	2,256	-289	---	289

NOTES:
(1) EXCAVATION COMMON IS THE SUM OF THE CUT.
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL CONSISTS OF EXISTING ASPHALTIC PAVEMENT.
(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) EXPANDED FILL FACTOR = 1.25, EXPANDED FILL=UNEXPANDED FILL*FILL FACTOR
(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(7) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

BASE AGGREGATE

CATEGORY	STATION	TO	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0010	10+25	-	11+03	CTH K	9	270	2.8
0010	11+03	-	20+02	CTH K	---	2,670	26.7
0010	20+02	-	24+72	CTH K	68	1,580	16.5
0010	60+55 "S"	-	61+05 "S"	SCHOOL LN	6	130	1.4
0010	70+40 "C"	-	71+35 "C"	CEMETERY RD	9	210	2.2
				TOTAL 0010	92	4,860	49.6

* ADDITIONAL QUANTITES SHOWN ELSEWHERE

DRIVEWAYS

CATEGORY	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	602.0810 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
0010	11+78	CTH K, RT	---	15	3	7	ASPHALT
0010	12+06	CTH K, LT	12	8	---	8	BASE AGGREGATE DENSE
0010	13+45	CTH K, LT	3	7	---	7	BASE AGGREGATE DENSE
0010	15+06	CTH K, RT	---	13	2	8	ASPHALT
0010	16+95	CTH K, LT	---	33	7	15	ASPHALT
0010	17+54	CTH K, LT	14	5	---	5	BASE AGGREGATE DENSE
0010	23+64	CTH K, LT	19	26	---	8	BASE AGGREGATE DENSE
0010	71+09 "C"	CEMETERY RD, RT	5	4	---	5	BASE AGGREGATE DENSE
		TOTAL 0010	53	111	12	63	

* ADDITIONAL QUANTITES SHOWN ELSEWHERE

ASPHALTIC PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
0010	10+25	-	11+03	CTH K	15	76
0010	11+03	-	20+02	CTH K	155	780
0010	20+02	-	24+72	CTH K	90	451
0010	60+55 "S"	-	61+05 "S"	SCHOOL LN	7	32
0010	70+40 "C"	-	71+35 "C"	CEMETERY RD	11	56
				TOTAL 0010	278	1,395

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

3

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 SY
0010	10+35	CTH K, RT	3
0010	24+60	CTH K, RT	20
		TOTAL 0010	23

CULVERT PIPE SUMMARY

CATEGORY	STATION	LOCATION	521.1277 APRON ENDWALLS FOR PIPE ARCH STEEL 77X52-INCH EACH	521.3777 PIPE ARCH CORRUGATED STEEL 77X52-INCH LF	522.0412 CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.2414 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	522.2614 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	JOINT TIES* EACH	STEEL THICKNESS INCHES	INLET** ELEVATION	OUTLET** ELEVATION
0010	16+74.02	CTH K, LT	---	---	40	2	---	---	1	6	---	887.74	885.46
0010	21+75.00	CTH K	2	62	---	---	---	---	1	---	0.168	856.62	855.83
0010	21+89.62	CTH K	2	62	---	---	---	---	1	---	0.168	857.00	855.80
0010	23+69.83	CTH K, LT	---	---	---	---	16	2	1	3	---	860.75	860.18
		TOTAL 0010	4	124	40	2	16	2	4	9			

*NON-BID ITEM: FOR INFORMATION ONLY
**PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY. FIELD VERIFY.

3

CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	REMARKS
0010	10+35	-	19+59	CTH K, RT	923	---	923	BOP TO CEMETERY RD
0010	11+17	-	11+46	CTH K, LT	---	48	48	NE QUAD CTH K & SCHOOL LN
0010	11+46	-	24+12	CTH K, LT	1,269	---	1,269	SCHOOL LN TO STH 39
0010	19+59	-	19+88	CTH K, RT	---	48	48	SW QUAD CTH K & CEMETERY RD
0010	24+12	-	24+77	CTH K, LT	---	95	95	SE QUAD CTH K & STH 39
0010	24+20	-	24+58	CTH K, RT	---	65	65	SW QUAD CTH K & STH 39
0010	60+65 "S"	-	60+99 "S"	SCHOOL LN, LT	34	---	34	
0010	70+46 "C"	-	71+35 "C"	CEMETERY RD, RT	89	---	89	
				TOTAL 0010	2,315	256	2,571	

RIPRAP ITEMS

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY	REMARKS
0010	10+29	CTH K, RT	2	6	FLUME
0010	10+73	CTH K, LT	3	10	OUTLET
0010	21+82	CTH K, LT	23	63	INLET
0010	21+83	CTH K, RT	24	64	OUTLET
0010	24+38	CTH K, RT	8	29	FLUME
		TOTAL 0010	60	172	

STORM SEWER PIPE SUMMARY

CATEGORY	FROM STRUCTURE		TO STRUCTURE	LOCATION	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	608.2419 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	JOINT TIES* EACH	INLET ELEVATION	OUTLET ELEVATION	SLOPE FT/FT
0010	2.1	-	2	CTH K	37	---	---	---	891.32	891.03	0.0079
0010	2.2	-	2	CTH K	40	---	---	---	893.45	891.03	0.0600
0010	2.3	-	2	CTH K	25	---	---	---	891.11	891.03	0.0034
0010	2	-	1	CTH K	---	---	40	3	890.44	890.33	0.0030
0010	3.1	-	3	CTH K	13	---	---	---	887.18	886.18	0.0800
0010	3.2	-	3	CTH K	24	---	---	---	887.18	886.18	0.0428
0010	3	-	4	CTH K	---	322	---	---	884.18	858.71	0.0793
0010	4.1	-	4	CTH K	11	---	---	---	860.45	859.86	0.0562
0010	4.4	-	4.2	CTH K	60	---	---	---	860.62	860.32	0.0050
0010	4.3	-	4.2	CTH K	8	---	---	---	860.40	860.32	0.0100
0010	4.2	-	4	CTH K	31	---	---	---	860.32	859.86	0.0150
0010	4	-	5	CTH K	---	131	---	---	858.71	856.89	0.0138
0010	5.1	-	5	CTH K	11	---	---	---	857.92	857.89	0.0030
0010	5	-	6	CTH K	---	---	59	3	856.89	856.67	0.0037
				TOTAL 0010	260	453	99	6			

*NON-BID ITEM: FOR INFORMATION ONLY
PIPE LENGTHS INDICATED ARE TO THE CENTER OF STRUCTURE, TO NEAREST 1'. SLOPES AND ELEVATIONS ARE BASED ON ACTUAL PIPE LENGTH BETWEEN STRUCTURE WALLS OR ENDWALL AS APPLICABLE.

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

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SANITARY MANHOLES

CATEGORY	STRUCTURE	STATION**	OFFSET**	LOCATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	* 611.8120.S COVER PLATES TEMPORARY EACH	EXISTING RIM ELEVATION	PROPOSED RIM ELEVATION	DIFF*** FT
0020	SAN 1	13+08.28	8.69' RT	CTH K	---	1	1	907.79	907.63	-0.16
0020	SAN 2	14+72.27	8.13' RT	CTH K	---	1	1	907.62	906.76	-0.86
0020	SAN 3	17+94.68	9.79' RT	CTH K	1	---	1	878.47	879.80	1.33
0020	SAN 4	19+97.70	9.72' RT	CTH K	1	---	1	856.72	865.52	8.80
				TOTAL 0020	2	2	4			

* ADDITIONAL QUANTITES SHOWN ELSEWHERE
**STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
***FOR INFORMATIONAL PURPOSES ONLY. FIELD VERIFY

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION **	OFFSET **	LOCATION	522.2619 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	* 611.8120.S COVER PLATES TEMPORARY EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM *** ELEVATION	INVERT **** ELEVATION	DEPTH ***** FT
0010	1	10+78.10	29.50' LT	CTH K	1	---	---	---	---	---	---	---	---	---	---	1	---	890.33	---
0010	2	11+10.00	6.00' LT	CTH K	---	1	---	---	---	---	1	---	---	---	1	1	896.15	890.44	4.74
0010	2.1	11+16.50	42.00' LT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	895.20	891.32	3.04
0010	2.2	11+49.00	16.50' LT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	898.31	893.45	4.03
0010	2.3	11+00.00	16.50' RT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	895.34	891.11	3.40
0010	3	16+57.00	6.00' LT	CTH K	---	1	---	---	1	---	---	---	---	---	1	1	891.87	884.18	6.70
0010	3.1	16+50.00	16.50' LT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	892.30	887.18	4.28
0010	3.2	16+50.00	16.50' RT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	892.90	887.18	4.88
0010	4	19+79.00	6.00' LT	CTH K	---	1	---	---	1	---	---	---	---	---	1	1	866.41	858.71	6.72
0010	4.1	19+79.00	16.50' LT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	864.87	860.45	3.59
0010	4.2	19+82.50	24.89' RT	CTH K	---	---	---	1	---	---	---	---	1	---	1	1	863.83	860.32	2.67
0010	4.3	19+75.57	28.77' RT	CTH K	---	---	1	---	---	---	---	1	---	---	1	1	863.76	860.23	2.28
0010	4.4	19+89.76	84.00' RT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	864.17	860.62	2.72
0010	5	21+10.00	6.00' LT	CTH K	---	1	---	---	---	1	---	---	---	---	1	1	862.66	856.89	4.80
0010	5.1	21+10.00	16.50' LT	CTH K	---	---	---	1	---	---	---	---	---	1	1	1	862.47	857.92	3.72
0010	6	21+56.77	29.63' RT	CTH K	1	---	---	---	---	---	---	---	---	---	---	1	---	856.67	---
				TOTAL 0010	2	4	1	9	2	1	1	1	1	8	14	16			

* ADDITIONAL QUANTITES SHOWN ELSEWHERE
**STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE.
***RIM ELEV IS AT THE INLET COVER FLANGE LOCATION.
****FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE.
*****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT.

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

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FINISHING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	10+23	-	11+72	CTH K, RT	140	140	---	0.1	---	11	7	4
0010	10+25	-	10+82	CTH K, LT	50	50	---	0.1	5	---	3	2
0010	11+18	-	11+91	CTH K, LT	70	70	---	0.1	---	5	3	2
0010	11+84	-	14+97	CTH K, RT	590	590	---	0.5	---	34	21	13
0010	12+26	-	13+39	CTH K, LT	140	140	---	0.1	---	8	5	3
0010	13+51	-	16+78	CTH K, LT	570	570	---	0.4	---	32	20	12
0010	15+12	-	19+87	CTH K, RT	410	370	50	0.4	---	31	19	12
0010	17+08	-	17+50	CTH K, LT	70	70	---	0.1	---	5	3	2
0010	17+58	-	23+59	CTH K, LT	1340	1340	---	1.0	74	---	45	28
0010	20+22	-	24+57	CTH K, RT	810	810	---	0.8	59	---	36	22
0010	23+61	-	24+75	CTH K, LT	180	180	---	0.1	11	---	7	4
0010	60+55 "S"	-	61+05 "S"	SCHOOL LN, RT	80	80	---	0.1	6	---	4	3
0010	60+55 "S"	-	61+05 "S"	SCHOOL LN, LT	60	60	---	0.1	---	4	3	2
0010	70+40 "C"	-	71+35 "C"	CEMETERY RD, RT	40	40	---	0.1	---	5	3	2
0010	70+40 "C"	-	71+35 "C"	CEMETERY RD, LT	70	70	---	0.1	9	---	5	4
0010				UNDISTRIBUTED	1180	1170	50	1.4	36	35	46	30
				TOTAL 0010	5,800	5,750	100	5.5	200	170	230	145

SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	10+14	-	10+75	CTH K, LT	125	375
0010	11+31	-	11+89	CTH K, LT	60	180
0010	12+26	-	13+37	CTH K, LT	110	330
0010	13+51	-	16+67	CTH K, LT	335	1,005
0010	17+10	-	17+48	CTH K, LT	50	150
0010	17+59	-	21+47	CTH K, LT	400	1,200
0010	20+23	-	21+57	CTH K, RT	220	660
0010	22+05	-	23+46	CTH K, LT	150	450
0010	22+06	-	24+07	CTH K, RT	205	615
0010	23+60	-	23+74	CTH K, LT	25	75
0010	24+29	-	24+47	CTH K, RT	25	75
0010				UNDISTRIBUTED	425	---
				TOTAL 0010	2,130	5,115

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EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	6	4
	TOTAL 0010	6	4

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	REMARKS
0010	11+00	CTH K, RT	---	1	PROPOSED INLET
0010	11+16	CTH K, LT	---	1	EXISTING INLET
0010	11+49	CTH K, LT	---	1	PROPOSED INLET
0010	16+50	CTH K, LT	---	1	PROPOSED INLET
0010	16+50	CTH K, RT	---	1	PROPOSED INLET
0010	19+75	CTH K, LT	1	---	PROPOSED INLET
0010	19+79	CTH K, RT	---	1	PROPOSED INLET
0010	21+10	CTH K, LT	---	1	PROPOSED INLET
0010	61+03 "S"	SCHOOL LN, LT	---	1	PROPOSED INLET
0010	70+84 "C"	CEMETERY RD, RT	---	1	PROPOSED INLET
0010		UNDISTRIBUTED	1	3	
		TOTAL 0010	2	12	

TEMPORARY DITCH CHECKS

CATEGORY	STATION	TO	STATION	LOCATION	628.7504 LF
0010		-	10+15	CTH K, RT	5
0010	17+00	-	19+75	CTH K, RT	180
0010	17+01	-	19+76	CTH K, RT	181
0010		-	112+42	STH 39, RT	15
				TOTAL 0010	381

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555 EACH	REMARKS
0010	16+68	CTH K, LT	2	EXISTING CULVERT
0010	16+68	CTH K, LT	2	PROPOSED CULVERT
0010	19+75	CTH K, RT	2	EXISTING CULVERT
0010	23+75	CTH K, LT	4	EXISTING CULVERT
0010	23+75	CTH K, LT	4	PROPOSED CULVERT
0010		UNDISTRIBUTED	4	
		TOTAL 0010	18	

MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH
0010	21+75	CTH K	1
0010	21+90	CTH K	1
		TOTAL 0010	2

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

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SIGNING

CATEGORY	SIGN #	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	R01-01	61+10 "S"	SCHOOL LN, RT	R1-1	STOP	---	---	---	---	---	1	1	
0010	01-01	61+10 "S"	SCHOOL LN, RT	R1-1	STOP	1	---	5.18	---	---	---	---	
0010	R01-02	10+98	CTH K, RT	R2-1	SPEED LIMIT 25 MPH	---	---	---	---	---	1	1	
0010	01-02	10+98	CTH K, RT	R2-1	SPEED LIMIT 25 MPH	---	1	5.00	---	---	---	---	
0010	M01-03	10+98	CTH K, RT	---	NO SOLICITATING NO PEDDLERS WITHOUT PERMIT	---	---	---	---	1	---	---	INSTALLED ON SAME POST AS 01-02
0010	R01-04	14+64	CTH K, LT	W1-2R	ROAD CURVES RIGHT	---	---	---	---	---	1	1	
0010	R01-05	14+64	CTH K, LT	W13-1	35 MPH	---	---	---	---	---	1	---	
0010	01-04	14+64	CTH K, LT	W1-2R	ROAD CURVES RIGHT	---	1	---	6.25	---	---	---	
0010	01-05	14+64	CTH K, LT	W13-1	35 MPH	---	---	---	2.25	---	---	---	INSTALLED ON SAME POST AS 01-04
0010	R01-06	16+52	CTH K, RT	W3-1	STOP AHEAD	---	---	---	---	---	1	1	
0010	01-06	16+52	CTH K, RT	J1-1	JUNCTION, STH ROUTE MARKER (39)	---	1	6.50	---	---	---	---	
0010	M01-07	70+32 "C"	CEMETERY RD, RT	M1-94	SCHOOL RD	---	---	---	---	1	---	---	INSTALLED ON SAME POST AS 01-09
0010	M01-08	70+32 "C"	CEMETERY RD, RT	M1-94	CEMETERY RD	---	---	---	---	1	---	---	INSTALLED ON SAME POST AS 01-09
0010	01-09	70+32 "C"	CEMETERY RD, RT	W14-1	DEAD END	---	1	---	6.25	---	---	---	
0010	R01-09	70+32 "C"	CEMETERY RD, RT	W14-1	DEAD END	---	---	---	---	---	1	1	
0010	R01-10	70+38 "C"	CEMETERY RD, LT	R1-1	STOP	---	---	---	---	---	1	1	
0010	01-10	70+38 "C"	CEMETERY RD, LT	R1-1	STOP	1	---	5.18	---	---	---	---	
0010	R01-11	20+66	CTH K, RT	J1-1	JUNCTION, STH ROUTE MARKER (39)	---	---	---	---	---	1	1	
0010	01-11	20+66	CTH K, RT	W3-1	STOP AHEAD	---	1	---	9.00	---	---	---	
0010	R01-12	21+71	CTH K, LT	W5-52L	BRIDGE HASH MARKS	---	---	---	---	---	1	1	
0010	R01-13	21+71	CTH K, RT	W5-52R	BRIDGE HASH MARKS	---	---	---	---	---	1	1	
0010	R01-14	21+87	CTH K, LT	W5-52R	BRIDGE HASH MARKS	---	---	---	---	---	1	1	
0010	R01-15	21+87	CTH K, RT	W5-52L	BRIDGE HASH MARKS	---	---	---	---	---	1	1	
0010	02-01	23+50	CTH K, LT	R2-1	SPEED LIMIT 25 MPH	1	---	5.00	---	---	---	---	
0010	R02-01	23+50	CTH K, LT	R2-1	SPEED LIMIT 25 MPH	---	---	---	---	---	1	1	
0010	02-02	24+24	CTH K, RT	R1-1	STOP	1	---	5.18	---	---	---	---	
0010	R02-02	24+34	CTH K, RT	R1-1	STOP	---	---	---	---	---	1	1	
0010	02-03	24+24	CTH K, RT	J13-2	COUNTY ROUTE MARKER (K), ARROW (LEFT), STH ROUTE MARKER (39), ARROW (LEFT/RIGHT)	---	2	15.00	---	---	---	---	
0010	R02-03	24+34	CTH K, RT	J13-2	COUNTY ROUTE MARKER (K), ARROW (LEFT), STH ROUTE MARKER (39), ARROW (LEFT/RIGHT)	---	---	---	---	---	1	2	
0010	M02-04	24+50	CTH K, LT	M1-94	SCHOOL RD	---	---	---	---	1	---	---	
0010	R03-02	107+46 "39"	STH 39, RT	S1-1	SCHOOL ZONE	---	---	---	---	---	1	1	
0010	R03-03	107+46 "39"	STH 39, RT	S16-9P	AHEAD	---	---	---	---	---	1	---	
0010	03-16	110+61 "39"	STH 39, RT	J12-1	COUNTY ROUTE MARKER (K), ARROW (RIGHT)	1	---	7.50	---	---	---	---	
0010	R03-16	110+61 "39"	STH 39, RT	J12-1	COUNTY ROUTE MARKER (K), ARROW (RIGHT)	---	---	---	---	---	1	1	
0010	R03-11	110+61 "39"	STH 39, RT	S1-1	SCHOOL ZONE	---	---	---	---	---	1	1	
0010	R03-17	111+57 "39"	STH 39, LT	S1-1	SCHOOL ZONE	---	---	---	---	---	1	1	
0010	R03-18	111+57 "39"	STH 39, LT	S16-7L	DOWN ARROW (LEFT)	---	---	---	---	---	1	---	
					TOTAL 0010	5	7	54.54	23.75	4	21	19	

MISCELLANEOUS QUANTITIES EXCLUDE WORK TO BE COMPLETED UNDER FUTURE FUNDED PROJECT.

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TRAFFIC CONTROL

CATEGORY	LOCATION	DURATION DAY	643.0300 TRAFFIC CONTROL DRUMS NO	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS NO	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS NO	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
0010	CLOSURE	70	---	---	18	1,260	36	2,520	13	910	---	---	---	---
0010	DETOUR	70	---	---	2	140	4	280	135	9,450	3	---	---	---
0010	UNDISTRIBUTED	70	5	350	5	350	15	1,050	28	1,960	2	---	---	---
0010	PROJECT	7	10	70	---	---	10	70	---	---	---	2	14	1
		TOTAL 0010	15	420	25	1,750	65	3,920	176	12,320	5	2	14	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2 "BARRICADES AND SIGNS FOR MAINLINE, DETOUR, ON RAMP, OFF RAMP CLOSURES AND ADVANCED WIDTH RESTRICTION."
PLACEMENT SUBJECT TO ENGINEER APPROVAL.

3

PAVEMENT MARKING

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	REMARKS
0010	10+25	-	24+61	CTH K	2,872	---	DOUBLE YELLOW CENTERLINE
0010	10+25	-	10+66	CTH K, LT	41	---	WHITE EDGELINE
0010	10+25	-	10+35	CTH K, RT	1	---	WHITE EDGELINE
0010	20+38	-	24+20	CTH K, RT	380	---	WHITE EDGELINE
0010		-	24+61	CTH K	---	32	STOP LINE
				TOTAL 0010	3,294	32	

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 5975-00-70 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	10+25	-	24+72	CTH K	1,447	1,447	---	1,447
0010	60+55 "S"	-	61+05 "S"	SCHOOL LN	50	50	---	50
0010	70+40 "C"	-	71+35 "C"	CEMETERY RD	95	95	---	95
0010	0+10 "SE"	-	1+28 "SE"	STH 39	118	118	---	118
0010				PROJECT	---	---	1	---
				TOTAL 0010	1,710	1,710	1	1,710

SAWING

CATEGORY	STATION	LOCATION	690.0150 SAWING ASPHALT LF	REMARKS
0010	10+25	CTH K	23	BOP
0010	11+78	CTH K, RT	12	DRIVEWAY
0010	15+04	CTH K, RT	15	DRIVEWAY
0010	16+96	CTH K, LT	31	DRIVEWAY
0010	24+72	CTH K	188	EOP
0010	60+55 "S"	SCHOOL LN	21	EOP
0010	71+35 "C"	CEMETERY RD	20	EOP
		TOTAL 0010	310	

ADJUSTING WATER VALVES

CATEGORY	STATION	LOCATION	SPV.0060.02 EACH
0020	17+76	24.6' LT	1
0020	17+77	17.6' LT	1
0020	17+79	20.2' LT	1
0020	20+04	26.1' RT	1
0020	20+04	31.7' RT	1
0020	24+20	6.6' RT	1
0020	24+41	11.2' RT	1
		TOTAL 0020	7

RELOCATE FIRE HYDRANTS

CATEGORY	STATION	LOCATION	SPV.0060.03 EACH
0020	12+86	CHT K, LT	1
0020	17+73	CTH K, LT	1
0020	24+18	CTH K, LT	1
		TOTAL 0020	3

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE (P.L.)
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE — CULVERT

SECTION CORNER SYMBOL (18 / 23 24 25 / 26 / 9)
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN (SIGN)
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
OFF-PREMISE SIGN (#1-25) (SIGN)

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER 25 — UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), IOWA COUNTY, NAD83 (2011)IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

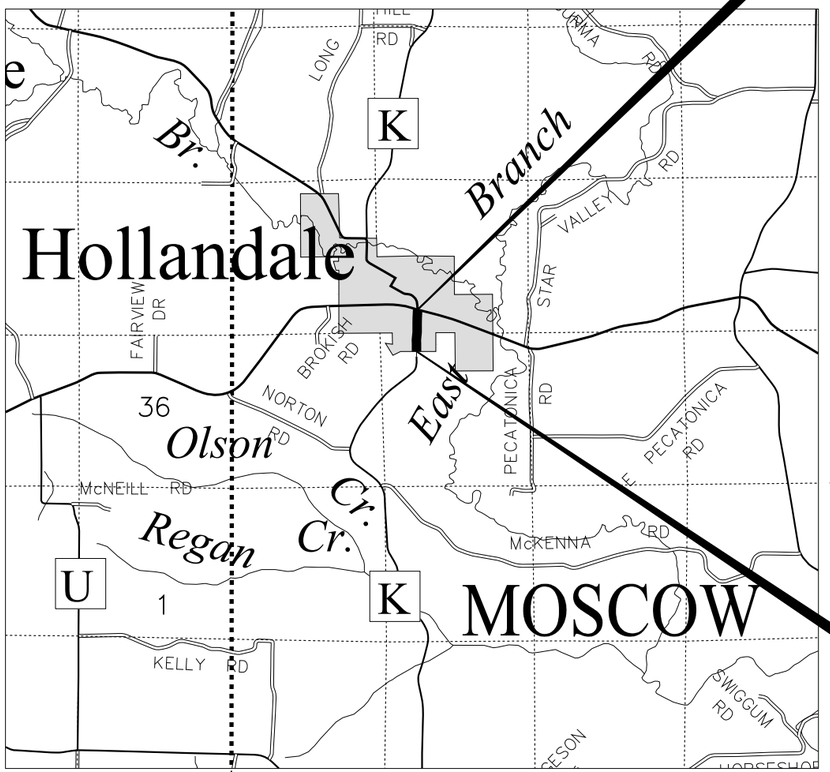
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE IOWA COUNTY HIGHWAY DEPARTMENT.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE DETAIL PAGES.

EXISTING RIGHT OF WAY FOR CTH K IS BASED ON THE PLAT OF SURVEY BY ROBERT S. ARTHUR DATED OCTOBER 4, 1960, THE PLAT OF SURVEY BY KEITH DALSING DATED AUGUST 14, 2023, CERTIFIED SURVEY MAP 443 RECORDED AS DOCUMENT 192369 BY G.E. MILLER DATED JULY 20, 1993, CERTIFIED SURVEY MAP 349 RECORDED AS DOCUMENT 170432 BY JOHN M. HALVERSON DATED MAY 23, 1998, WARRANTY DEED 255662 RECORDED IN VOLUME 635 ON PG. 475 DATED OCTOBER 14, 2002, TRANSPORTATION PROJECT PLAT 5970-02-23 PAGE 4.01 BLAT B, PAGE 86 OF DOCUMENT 350601, TRANSPORTATION PROJECT PLAT 5970-00-71 PAGE 4.2 DATED APRIL 30, 1982, TRANSPORTATION PROJECT PLAT 5970-03-21 PAGE 4.35 DATED NOVEMBER 3, 2004, AND WIS. STATUTE 82.31 (2).

END RELOCATION ORDER
STA 24+85.38
X = 432 490.187
Y = 122 226.161



N

T-5-N
T-4-N

BEGIN RELOCATION ORDER
STA 11+67.00
X = 432 434.921
Y = 120 910.716

LAYOUT
SCALE 0 1.0

TOTAL NET LENGTH OF CENTERLINE = 0.250 MILES

R/W PROJECT NUMBER 5975-00-01	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	3

PLAT OF RIGHT OF WAY REQUIRED FOR

MOSCOW - HOLLANDALE (CTH K)
NORTON ROAD TO STH 39

CTH K	IOWA

CONSTRUCTION PROJECT NUMBER 5975-00-70

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

ACCEPTED FOR

IOWA COUNTY

Date _____ (HIGHWAY COMMISSIONER)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 East Hoxie St. | P.O. Box 429 | Spring Green, WI 53588
P: (608) 588-7866 | F: (608) 588-7954 | www.westbrookeng.com

WISCONSIN
NICHOLAS J. BREY
S-3145
LAVALLE
WISCONSIN
LAND SURVEYOR
06-13-2024

DATE: 6-13-24 _____ (PROFESSIONAL LAND SURVEYOR)

REVISION DATE
10/01/2024

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\RW\59750070\040101_RP.DWG
PLOT DATE : 10/1/2024 10:50 AM
PLOT BY : ERICA BAUER
PLOT NAME :

SCHEDULE OF LANDS AND INTERESTS

OWNERS NAMES ARE SHOWN FOR REFERANCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE VILLAGE OF HOLLANDALE.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	H.E. ACRES	T.L.E. ACRES	P.L.E. ACRES	FEE ACRES
1	4.03	MARK GILBERTSON	T.L.E.	---	---	---	---	0.012	---	---
2	4.03	JOHN THRONSON & AMY THRONSON, HUSBAND & WIFE	T.L.E.	---	---	---	---	0.051	---	---
3	4.03	VILLAGE OF HOLLANDALE	T.L.E.	---	---	---	---	0.005	---	---
4	4.03	JEREMY J GORDON & JAIMIE L GORDON, HUSBAND & WIFE	H.E. & T.L.E.	0.042	---	0.042	0.042	0.015	---	---
5	4.03	PECATONICA AREA SCHOOL DISTRICT	T.L.E.	---	---	---	---	0.070	---	---
6	4.03	VILLAGE OF HOLLANDALE	T.L.E.	---	---	---	---	0.013	---	---
7	4.03	ERIK M GILBERTSON & BRENDA E GILBERTSON, HUSBAND & WIFE	H.E. & T.L.E.	0.354	---	0.354	0.354	0.001	---	---
8	4.03	MARK J GILBERTSON	H.E. & T.L.E.	0.051	---	0.051	0.051	0.008	---	---
9	4.03	J & M SCHAUF, LLC	T.L.E.	---	---	---	---	0.013	---	---
100	4.03	ALLIANT ENERGY (ELECTRIC)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
200	4.03	ALLIANT ENERGY (GAS)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
300	4.03	FRONTIER COMMUNICATIONS (TELEPHONE)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
400	4.03	FRONTIER COMMUNICATIONS (FIBER OPTIC)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
500	4.03	ALLIANT ENERGY (FIBER OPTIC)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
600	4.03	MOUNT HOREB TELEPHONE COMPANY (MHTC) (FIBER OPTIC)	RELEASE OF RIGHTS	---	---	---	---	---	---	---
700	4.03	BUG TUSSEL (FIBER OPTIC)	RELEASE OF RIGHTS	---	---	---	---	---	---	---

4

4

REVISION DATE 10/01/2024

DATE 06/13/2024

GRID FACTOR N/A

NOT TO SCALE

HWY: CTH K

COUNTY: IOWA

STATE R/W PROJECT NUMBER 5975-00-01

CONSTRUCTION PROJECT NUMBER 5975-00-70

PLAT SHEET 4.02

PS&E SHEET 45

E

FILE NAME : 040102_RP.DWG
LAYOUT NAME - 040102_rp

PLOT DATE : 10/1/2024 10:49 AM

PLOT BY : ERICA BAUER

PLOT NAME :

PLOT SCALE :

WISDOT/CADDS SHEET 75

VILLAGE OF HOLLANDALE

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
10-11	S88°58'23"W	15.87'
11-12	N0°17'42"W	361.50'
12-13	S89°42'18"W	8.00'
13-14	N0°17'42"W	66.68'
14-15	S88°38'47"E	8.00'
15-16	N0°17'42"W	187.80'
16-17	N40°39'39"W	115.73'
17-18	S74°47'05"E	100.54'
18-19	S1°01'37"E	274.68'
19-20	S89°15'23"W	6.05'
20-21	S1°02'58"E	213.31'
21-10	S1°37'21"W	188.95'

R/W POINT COORDINATES

	FROM ROAD REFERENCE LINE (CTH K)		COORDINATES	
POINT	STATION	OFFSET	NORTHING	EASTING
1	20+16.75	140.00'	121 759.745	432 603.857
2	20+16.88	37.68'	121 759.342	432 501.537
3	20+45.00	37.31'	121 787.460	432 501.022
4	20+26.50	100.54'	121 769.287	432 564.348
5	20+26.50	140.00'	121 769.490	432 603.807
6	21+55.00	35.86'	121 897.452	432 499.007
7	21+55.00	42.22'	121 897.485	432 505.362
8	21+91.93	42.22'	121 933.896	432 505.276
9	21+91.78	35.28'	121 933.806	432 498.341
10	17+87.39	-32.25'	121 530.804	432 430.902
11	17+86.53	-48.10'	121 530.520	432 415.034
12	21+50.00	-50.00'	121 892.010	432 413.174
13	21+50.00	-58.00'	121 891.969	432 405.174
14	22+15.00	-58.60'	121 958.648	432 404.830
15	22+15.00	-50.60'	121 958.459	432 412.831
16	23+96.23	-67.61'	122 146.261	432 411.865
17	24+73.80	-153.50'	122 234.053	432 336.456
18	24+59.87	-53.93'	122 207.667	432 433.471
19	21+90.61	-24.66'	121 933.028	432 438.394
20	21+90.50	-30.71'	121 932.949	432 432.346
21	19+77.55	-27.81'	121 719.675	432 436.252

BEGIN RELOCATION ORDER
STA. 11+67.00
506.995' SOUTH AND 1,324.012' EAST OF THE NW CORNER OF SECTION 32, T5N, R5E, VILLAGE OF HOLLANDALE, IOWA COUNTY, WI
X = 432 434.921
Y = 120 910.716

NW ¼ - NW ¼ SEC 32

CAST ALUMINUM MONUMENT
X = 431 110.909
Y = 121 417.711

SW ¼ - SW ¼ SEC 29

N85°06'11"E, 1324.83' MON TO POINT

CURVE 2
PI STA = 17+54.04
Y = 121496.057
X = 432465.212
DELTA = 6°12'25" LT
D = 2°24'45"
T = 128.77'
L = 257.29'
R = 2375.00'
PC STA = 16+25.26
PT STA = 18+82.56

STA 107+00.00"39"
X = 432 085.236
Y = 122 336.735

⑤ PECATONICA AREA SCHOOL DISTRICT DOC# 25368

⑥ VILLAGE OF HOLLANDALE DOC# 258689

⑦ ERIK M GILBERTSON & BRENDA E GILBERTSON, HUSBAND & WIFE DOC# 350958

⑧ MARK J GILBERTSON DOC# 291119

⑨ J&M SCHAUF, LLC DOC# 381632

FRONTIER COMMUNICATIONS

ALLIANT ENERGY

MHTC

BUG TUSSEL

VILLAGE OF HOLLANDALE

SCHOOL LN

BP: 60+00.00 "S"

EXISTING R/W

CTH K

CURVE 1

CURVE 2

CURVE 3

SLOPE INTERCEPT, TYP.

CEMETERY RD

BP: 70+00.00 "C"

PI: 71+44.44 "C"

EP: 72+49.99 "C"

PI: 110+00.00 "39"

PI: 112+00.00 "39"

EP: 115+00.00 "39"
X = 432 857.350
Y = 122 127.360

EP: 61+45.00 "S"

① MARK GILBERTSON DOC# 351265

② JOHN THRONSON & AMY THRONSON, HUSBAND & WIFE DOC# 266170

③ VILLAGE OF HOLLANDALE DOC# 357335

④ JEREMY J GORDON & JAIMIE L GORDON, HUSBAND & WIFE DOC# 255662

CURVE 1
PI STA = 14+00.03
Y = 121143.663
X = 432428.720
DELTA = 7°26'13" RT
D = 3°50'43"
T = 96.83'
L = 193.40'
R = 1490.00'
PC STA = 13+03.19
PT STA = 14+96.59

CURVE 3
PI STA = 22+66.87
Y = 122009.134
X = 432462.571
DELTA = 7°32'48" RT
D = 4°06'26"
T = 92.00'
L = 183.74'
R = 1395.00'
PC STA = 21+74.87
PT STA = 23+58.60

END RELOCATION ORDER
STA. 24+85.38
808.450' NORTH AND 1,379.278' EAST OF THE SW CORNER OF SECTION 29, T5N, R5E, VILLAGE OF HOLLANDALE, IOWA COUNTY, WI
X = 432 490.187
Y = 122 226.161

N89°51'19"E, 2673.33' MON TO MON

N74°08'34"W, 1227.07' MON TO POINT

CAST ALUMINUM MONUMENT
X = 433 784.230
Y = 121 424.460

NE ¼ - NW ¼ SEC 32

SE ¼ - SW ¼ SEC 29

TLE TABLE

	FROM ROAD REFERENCE LINE (CTH K)			FROM ROAD REFERENCE LINE (CTH K)	
POINT	STATION	OFFSET	POINT	STATION	OFFSET
T1	11+67.00	33.96'	T19	19+76.78	119.00'
T2	11+67.00	48.00'	T20	20+90.00	36.72'
T3	11+88.00	48.00'	T21	21+56.74	47.45'
T4	11+88.00	33.93'	T22	22+33.55	46.26'
T5	12+15.00	33.89'	T23	14+67.00	-33.69'
T6	12+15.00	45.00'	T24	14+95.00	-59.00'
T7	12+65.00	45.00'	T25	15+60.00	-50.00'
T8	12+65.00	38.00'	T26	16+10.00	-32.70'
T9	13+45.00	38.00'	T27	16+65.00	-32.11'
T10	13+80.00	50.00'	T28	16+65.00	-40.00'
T11	14+75.14	32.51'	T29	17+10.00	-50.00'
T12	14+90.00	32.71'	T30	17+20.00	-40.00'
T13	14+93.00	40.00'	T31	17+43.00	-40.00'
T14	15+17.00	38.00'	T32	17+47.00	-52.00'
T15	15+17.00	32.86'	T33	17+60.00	-52.00'
T16	19+76.80	100.00'	T34	17+65.00	-38.00'
T17	19+62.50	104.00'	T35	17+87.08	-38.01'
T18	19+62.50	115.00'			

TLE TABLE

	FROM ROAD REFERENCE LINE (STH 39)	
POINT	STATION	OFFSET
T100	109+76.78	37.87'
T101	109+40.00	32.91'
T102	108+65.15	32.98'
T103	108+45.00	39.00'
T104	107+25.00	39.00'
T105	107+19.58	41.75'

R/W COURSE TABLE

COURSE	BEARING	DISTANCE	COURSE	BEARING	DISTANCE
1-2	S89°46'27"W	102.32'	3-6	N1°02'58"W	110.01'
2-3	N1°02'58"W	28.12'	6-7	N89°42'18"E	6.36'
3-4	S73°59'15"E	65.88'	7-8	N0°08'07"W	36.41'
4-5	N89°42'18"E	39.46'	8-9	S89°15'23"W	6.94'
5-1	S0°17'42"E	9.75'	9-6	S1°02'58"E	36.36'

REVISION DATE 10/01/2024	DATE 06/13/2024	SCALE, FEET 0 50 100	HWY: CTH K	STATE R/W PROJECT NUMBER 5975-00-01	PLAT SHEET 4.03
	GRID FACTOR N/A		COUNTY: IOWA	CONSTRUCTION PROJECT NUMBER 5975-00-70	PS&E SHEET 46 E

FILE NAME : 040103_RP.DWG
LAYOUT NAME - 040103_rp

PLOT DATE : 10/1/2024 10:48 AM PLOT BY : ERICA BAUER PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 75

5

LEGEND

- -	SLOPE INTERCEPT
XXXXXX	SAWCUT
•—•	SILT FENCE
ooo	CULVERT PIPE CHECK
ΔΔΔ	TEMPORARY DITCH CHECK
⊠	INLET PROTECTION
⊤	EXISTING SIGN
⊤	PROPOSED SIGN
×	TREE REMOVAL

BENCH MARKS

NO.	STATION	ELEV.	DESCRIPTION
BM 2	14+65.68	903.33	RAIL ROAD SPIKE IN POWER POLE, 65.81' LT

5

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PLAN AND PROFILE: CTH K	SHEET 47	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\050101_PP.DWG
LAYOUT NAME - 050101_pp
PLOT DATE : 12/9/2024 3:05 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

▨ WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

STA 16+95
33' C.E. (ASPHALT)
REMOVE EXISTING CULVERT PIPE
(1) CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH
(2) APRON ENDWALLS REQ'D

STA 17+54
12' C.E. (B.A.D.)

STA. 21+75
REMOVE EXISTING BOX CULVERT
(1) PIPE ARCH CORRUGATED STEEL 77x52-INCH REQ'D
(2) APRON ENDWALLS REQ'D
INLET: 856.62
OUTLET: 855.83
LENGTH: 62 LF
SLOPE: 1.28%
SKEW: 0°

STA. 21+90
REMOVE EXISTING BOX CULVERT
(1) PIPE ARCH CORRUGATED STEEL 77x52-INCH REQ'D
(2) APRON ENDWALLS REQ'D
INLET: 857.00
OUTLET: 855.80
LENGTH: 62 LF
SLOPE: 1.94%
SKEW: 1° RHF

LEGEND
- SLOPE INTERCEPT
- XXXXXX SAWCUT
- SILT FENCE
- ○○○ CULVERT PIPE CHECK
- △△△ TEMPORARY DITCH CHECK
- ☒ INLET PROTECTION
- EXISTING SIGN
- PROPOSED SIGN

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PLAN AND PROFILE: CTH K	SHEET 48	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\050101_PP.DWG
LAYOUT NAME - 050102_pp
PLOT DATE : 12/9/2024 3:05 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

ERIK GILBERTSON

STA 23+64
12' F.E. (B.A.D.)
REMOVE EXISTING CULVERT PIPE
CULVERT PIPE REINFORCED CONCRETE
HORIZONTAL ELLIPTICAL CLASS HE-IV 14x23-INCH
(2) APRON ENDWALLS REQ'D

SLOPE INTERCEPT, TYP.

PROPOSED HE

ALLIANT ENERGY

MHTC

CAUTION

STH 39 (ASPHALT)

PI: 110+00.00 "39"

FRONTIER COMMUNICATIONS

CP 5

PC: 50+54.21 "S"

PT: 50+90.20 "S"

MHTC

VILLAGE OF HOLLANDALE

EP: 52+50.00 "S"

ALLIANT ENERGY

PATRICIA MCGRAW

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

N

LEGEND

- SLOPE INTERCEPT
- SAWCUT
- SILT FENCE
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- INLET PROTECTION

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

BP: 50+00.00 "S"

111+00 "39"

STATE STREET (ASPHALT)

51+00 "S"

52+00 "S"

MHTC

CP 4

23+00

CTH K (ASPHALT)

24+00

FRONTIER COMMUNICATIONS

VILLAGE OF HOLLANDALE

EXISTING R/W

ALLIANT ENERGY

SLOPE INTERCEPT, TYP.

6-INCH SLOPED 36-INCH TYPE D TERMINI TAPER CURB HEIGHT 0" TO 6" IN 6'-0".

BUG TUSSEL

EXISTING R/W

EP: 24+85.38

112+00 "39"

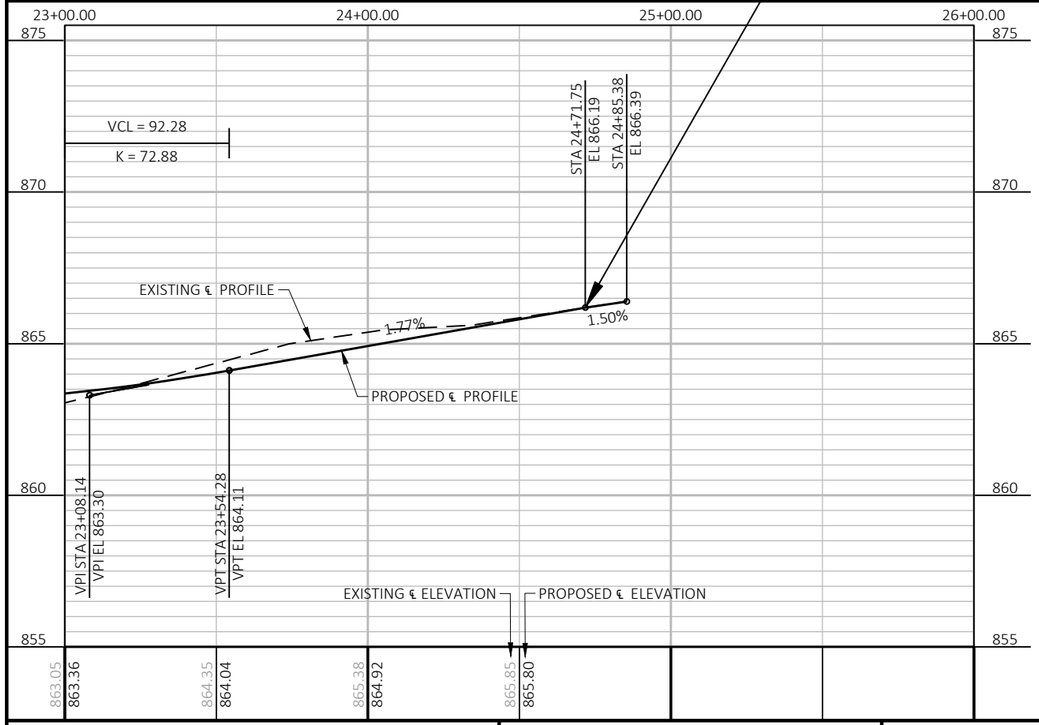
PI: 112+00.00 "39"

ASPHALTIC FLUME

CP 3

END PROJECT
STA. 24+71.75
MATCH EXISTING
SAWCUT REQ'D

JEREMY & JAIMIE GORDON



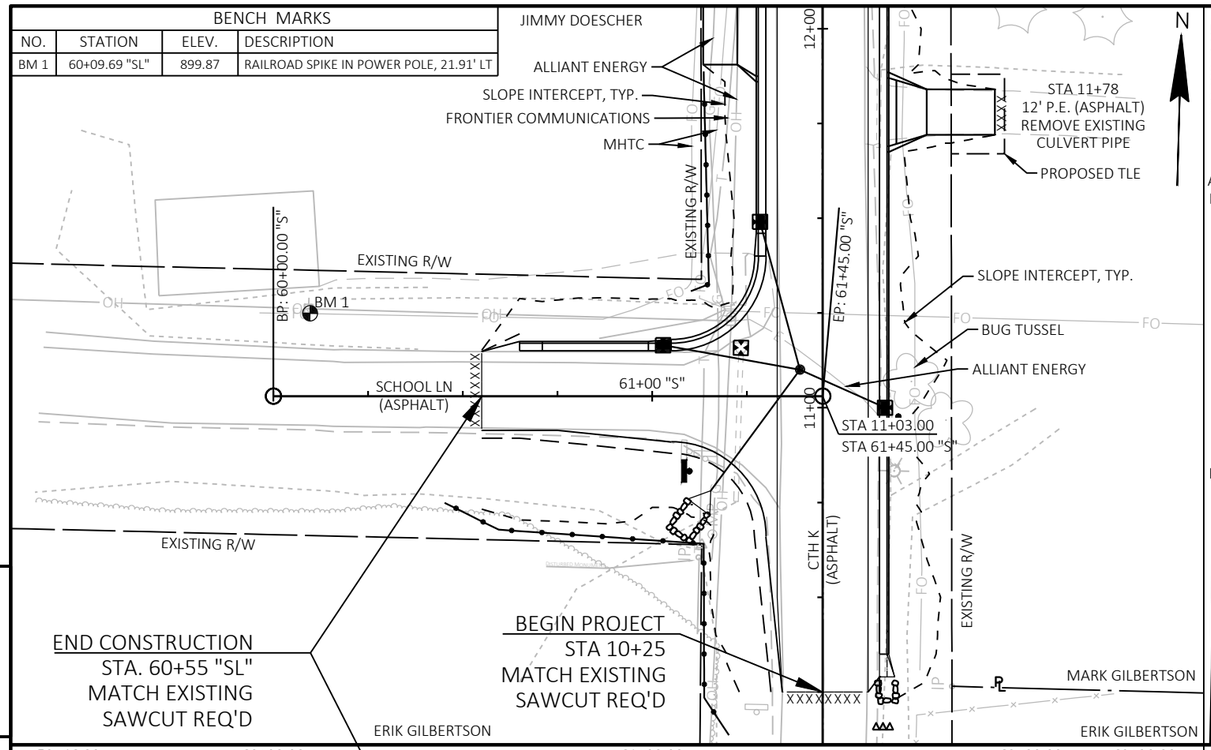
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PLAN AND PROFILE: CTH K	SHEET 49	E

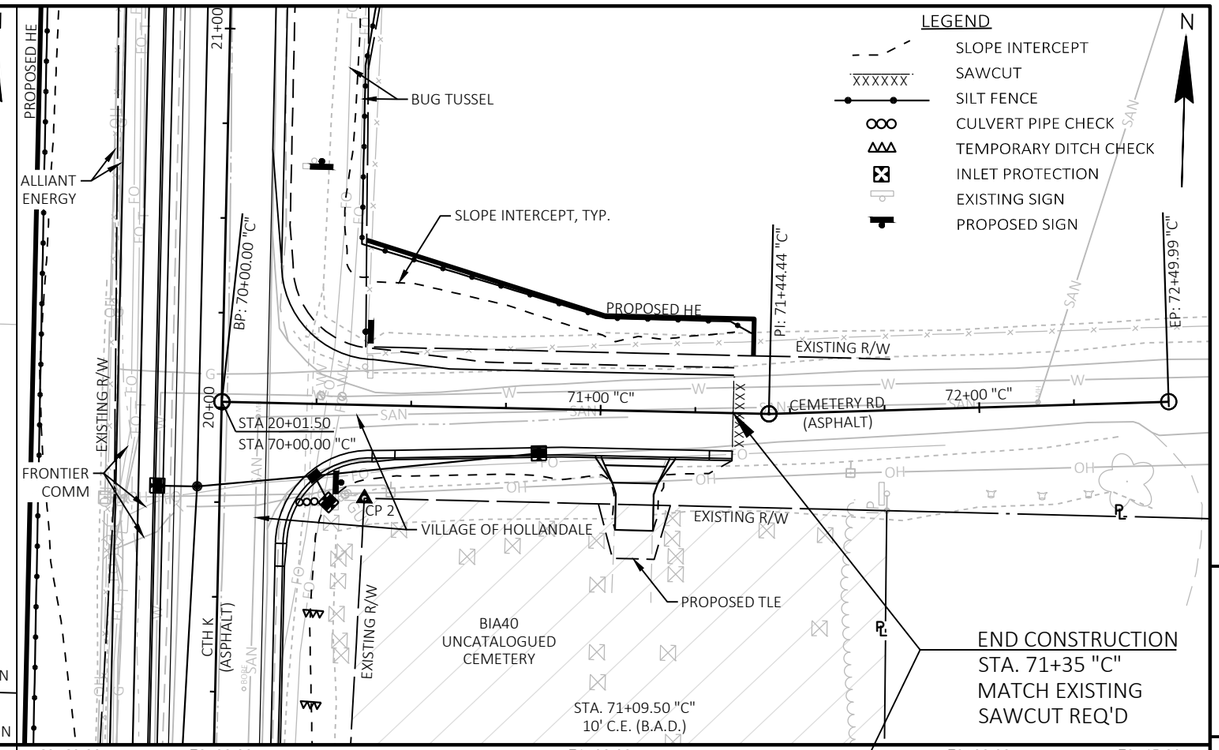
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\050101_PP.DWG
LAYOUT NAME - 050103_pp

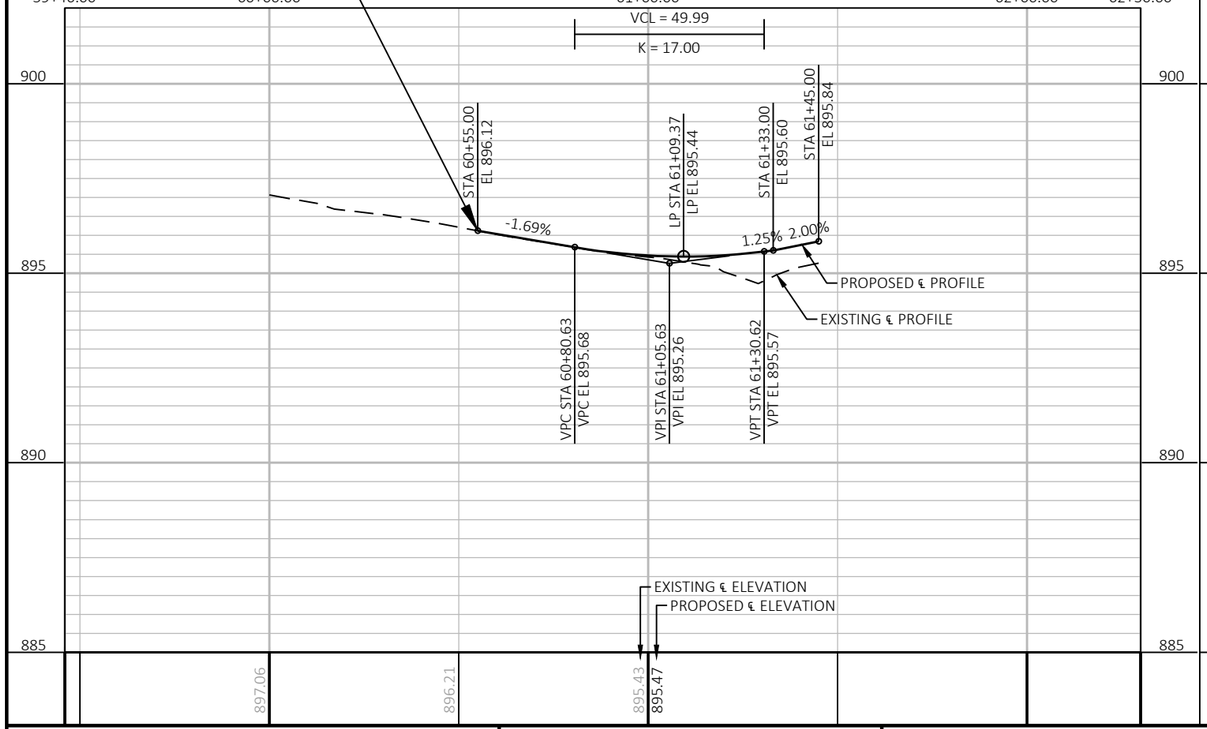
PLOT DATE : 12/9/2024 3:05 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:50 FT

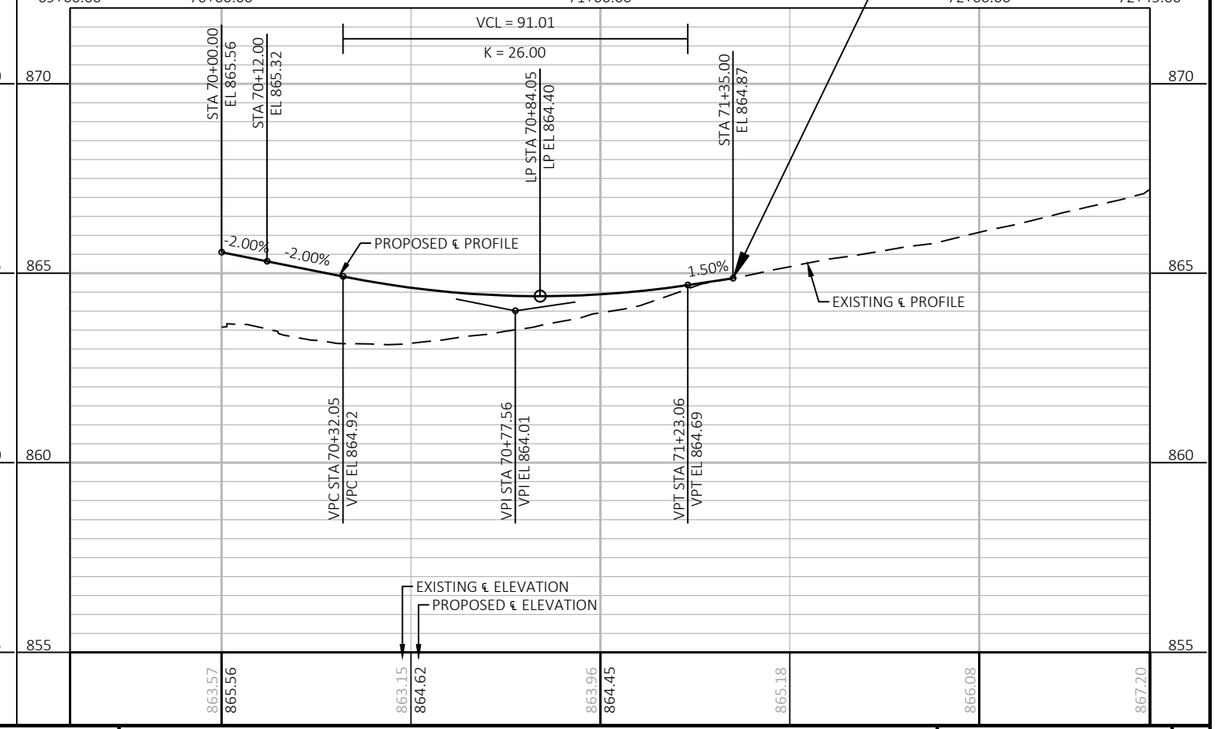
WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
BM 1	60+09.69 "SL"	899.87	RAILROAD SPIKE IN POWER POLE, 21.91' LT









PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PLAN & PROFILE: SCHOOL LANE & CEMETERY ROAD	SHEET 50 E

LEGEND

SLOPE INTERCEPT
SAWCUT
SILT FENCE
CULVERT PIPE CHECK
TEMPORARY DITCH CHECK
INLET PROTECTION
EXISTING SIGN
PROPOSED SIGN

WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

DAVID CHROSTOWSKI
STEVEN KELLY
PATRICIA MCGRAW
ALLIANT ENERGY
VILLAGE OF HOLLANDALE
MHTC
FRONTIER COMMUNICATIONS
STATE STREET
BUG TUSSEL
EXISTING R/W
15TH AVE (ASPHALT)
PT: 105+87.63 "39"
PT: 0+58.72 "RL"
PI: 2+02.96 "RL"
PI: 3+38.95 "RL"
PI: 110+00.00 "39"
PI: 3+38.95 "RL"
CP 5
PI: 3+88.51 "RL"
PC: 3+88.51 "RL"
PI: 112+00.00 "39"
6-INCH SLOPED 36-INCH TYPE D TERMINI
TAPER CURB HEIGHT 0" TO 6" IN 6'-0".
106+00 "39"
107+00 "39"
108+00 "39"
109+00 "39"
STH 39 (ASPHALT)
110+00 "39"
111+00 "39"
EP: 24+85.38
112+00 "
END CURB REPLACEMENT
BEGIN CURB AND GUTTER
BEGIN CURB REPLACEMENT
1+00 "RL"
2+00 "RL"
3+00 "RL"
4+00 "RL"
SLOPE INTERCEPT, TYP.
PC: 0+14.04 "RL"
PI: 0+05.00 "RL"
BP: 0+00.00 "RL"
15TH AVE (ASPHALT)
PROPOSED TLE
ALLIANT ENERGY
SLOPE INTERCEPT, TYP.
PROPOSED HE
CTH K (ASPHALT)
ASPHALTIC FLUME
VILLAGE OF HOLLANDALE
BUG TUSSEL
EP: 4+14.36 "RL"
R-25-0014
EXISTING R/W
EXISTING R/W
MHTC
FRONTIER COMMUNICATIONS
ALLIANT ENERGY
24+00
DENNIS PARADIS
J&M SCHAUF LLC
MARK GILBERTSON
ERIK GILBERTSON

-0+75.00 0+00.00 1+00.00 2+00.00 3+00.00 4+00.00 5+00.00 5+25.00
880 875 870 865 864

EXISTING R/L PROFILE
PROPOSED R/L PROFILE
EXISTING R/L ELEVATION
PROPOSED R/L ELEVATION

-1.35% -1.95% -3.13% -2.47% -3.29% -4.17% -5.10% -1.36% -5.48%

STA 0+33.67 EL 879.49
STA 0+48.95 EL 879.30
STA 0+61.35 EL 879.04
STA 2+23.08 VPC EL 875.50
STA 2+33.08 VPT EL 875.22
STA 2+28.08 VPI EL 875.34
STA 2+02.96 EL 876.13
VCL = 10.00 K = 15.30
VPC STA 2+62.00 VPC EL 874.50
VPI STA 2+69.50 VPI EL 874.32
VPT STA 2+77.00 VPT EL 874.07
VPC STA 2+92.50 VPC EL 873.56
VPI STA 3+00.00 VPI EL 873.31
VPT STA 3+07.50 VPT EL 873.00
STA 3+27.59 EL 872.16
VCL = 15.00 K = 18.48
VCL = 15.00 K = 16.98
VPC STA 3+64.60 VPC EL 870.28
VPI STA 3+77.09 VPI EL 870.01
VCL = 5.00 K = 1.54
VPC STA 3+74.59 VPC EL 870.05
VPI STA 3+79.59 VPI EL 869.88
STA 3+88.51 EL 869.39
VPI STA 3+67.10 VPI EL 870.15
VPT STA 3+69.60 VPT EL 870.11
VCL = 5.00 K = 1.22
880.48 879.16 879.26 878.42 877.62 876.72 874.77 874.80 873.30 871.11 871.08 868.87 866.76

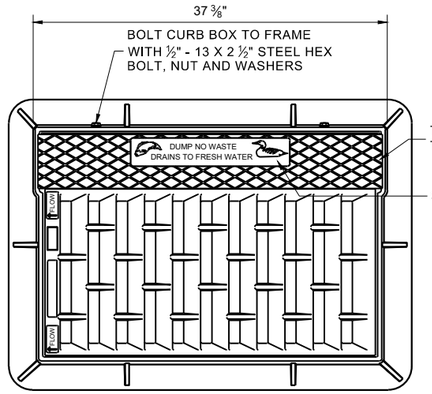
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	PLAN AND PROFILE: STH 39	SHEET 51	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\050105_PP.DWG
LAYOUT NAME - 050105_pp
PLOT DATE : 12/9/2024 3:03 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

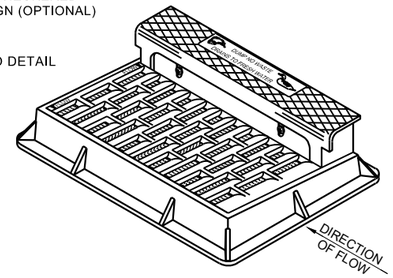
Standard Detail Drawing List

08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-21D	INLET COVERS TYPE V, V-B, & VV-B
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-04	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-04	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING

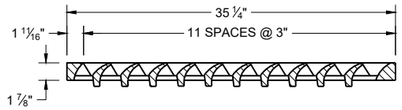
6

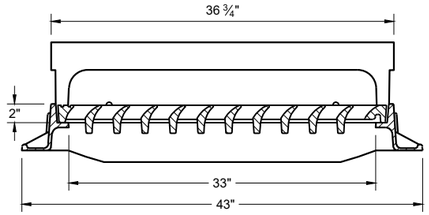


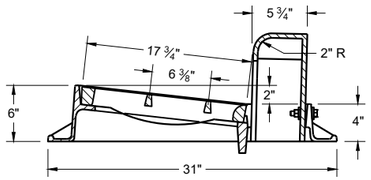
NOTE: EITHER CASTING IS ACCEPTABLE

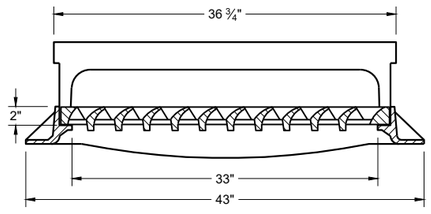


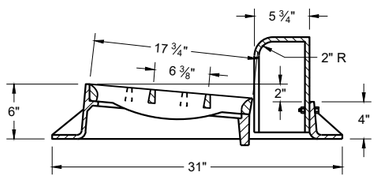
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







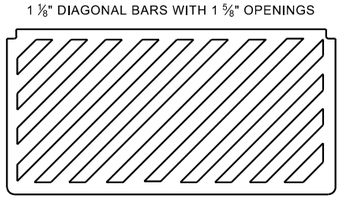




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

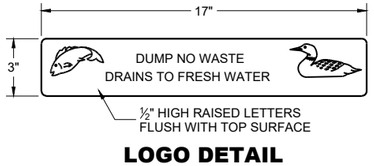
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



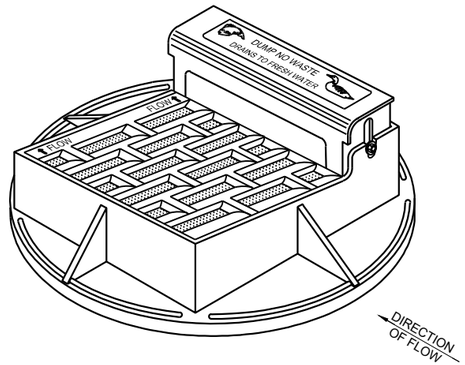
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

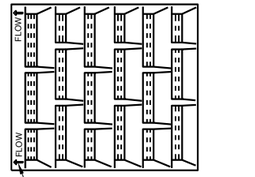


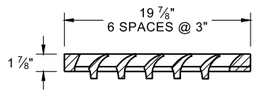
LOGO DETAIL

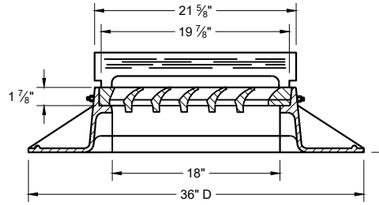


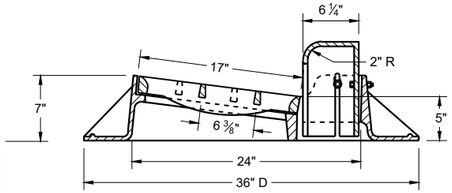
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE









TYPE "A"

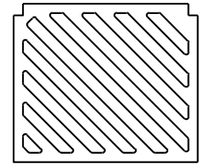
GENERAL NOTES

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

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

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

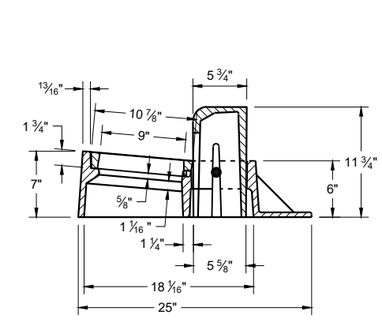
1" DIAGONAL BARS WITH 1 1/2" OPENINGS

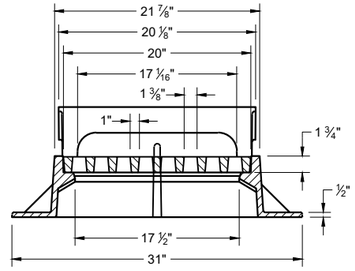


SPECIAL GRATE FOR TYPE "A" COVER

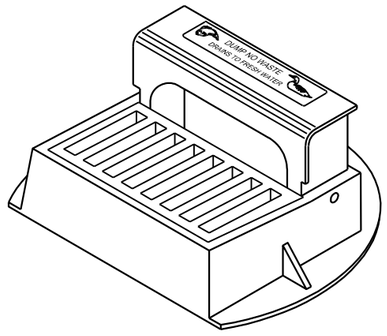
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



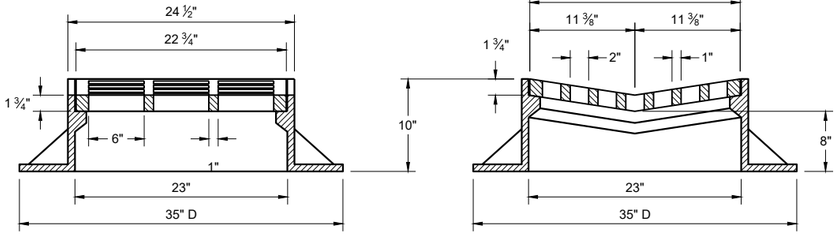
INLET COVERS
TYPES A, H, A-S, H-S AND Z

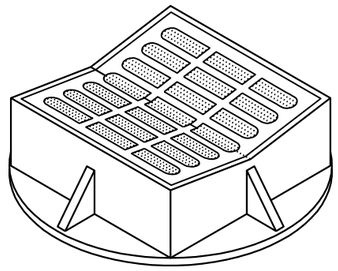
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

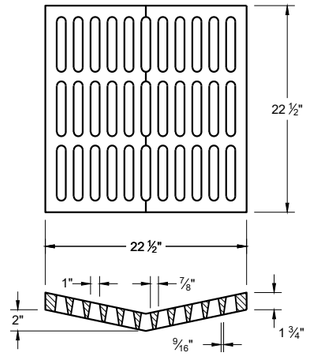
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA





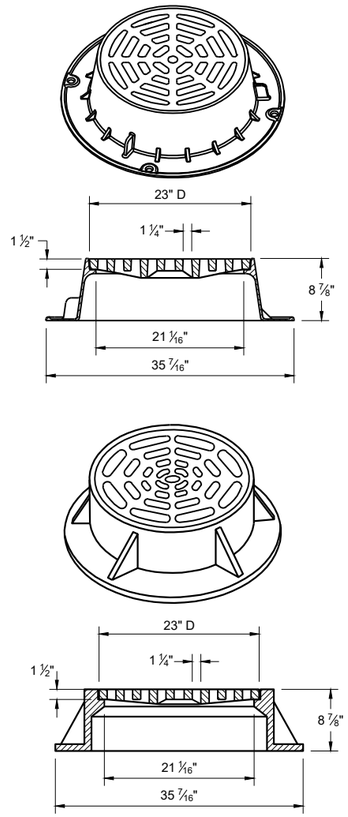
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

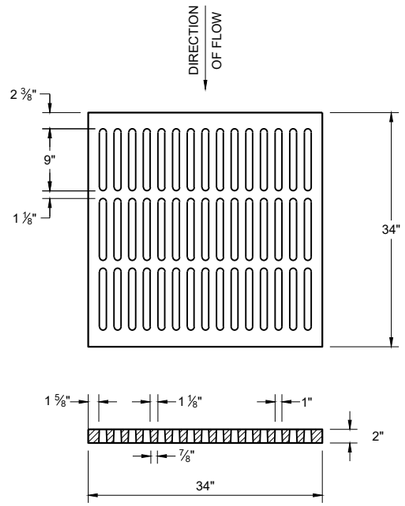
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

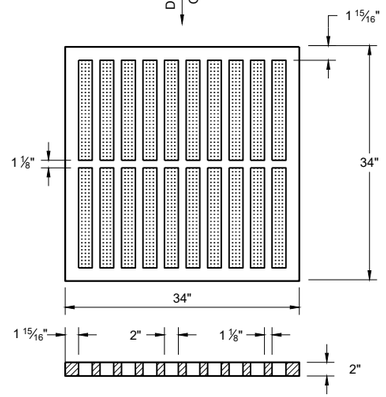
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

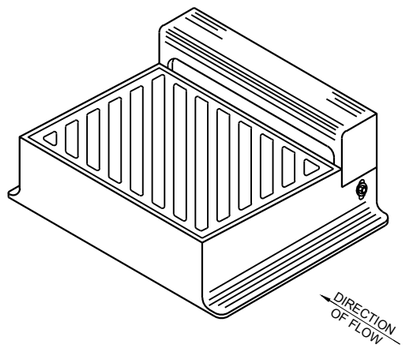
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



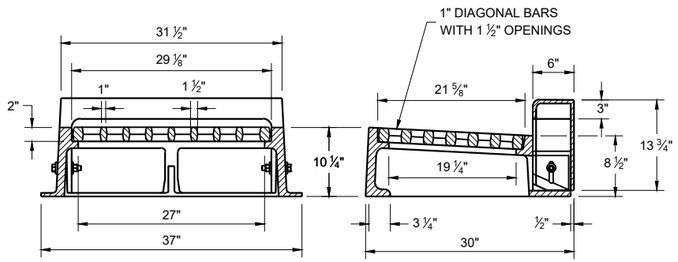
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

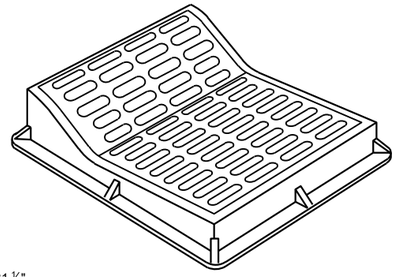
SDD 08A05-21b

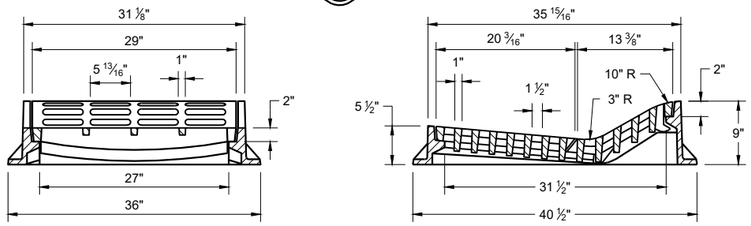
SDD 08A05-21b

GENERAL NOTES

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

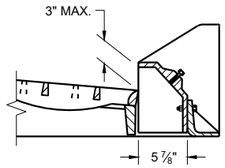
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

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

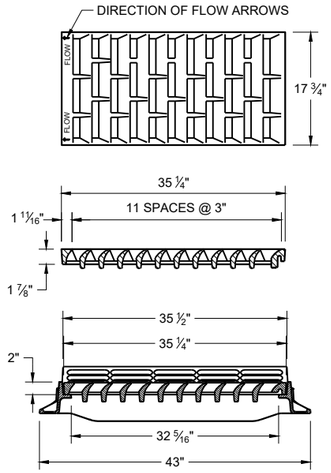


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

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

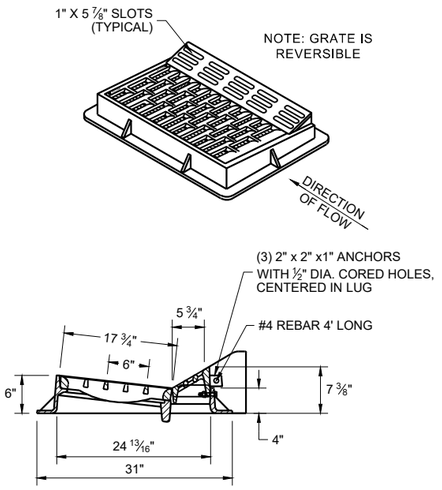
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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



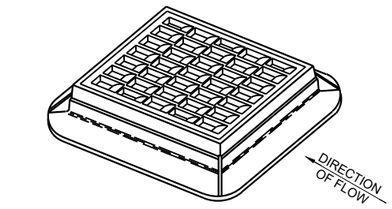
TYPE "HM"

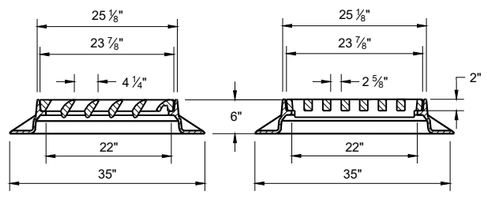
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



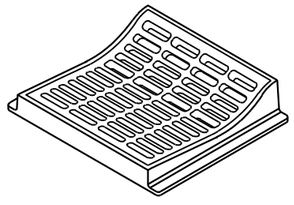
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

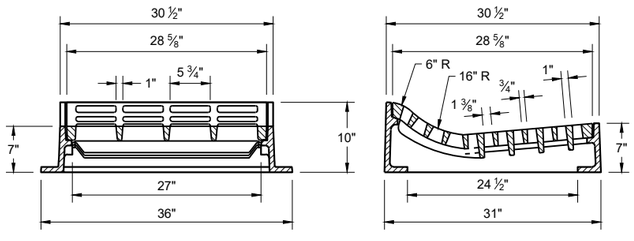
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





TYPE "S"





TYPE "T"

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

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

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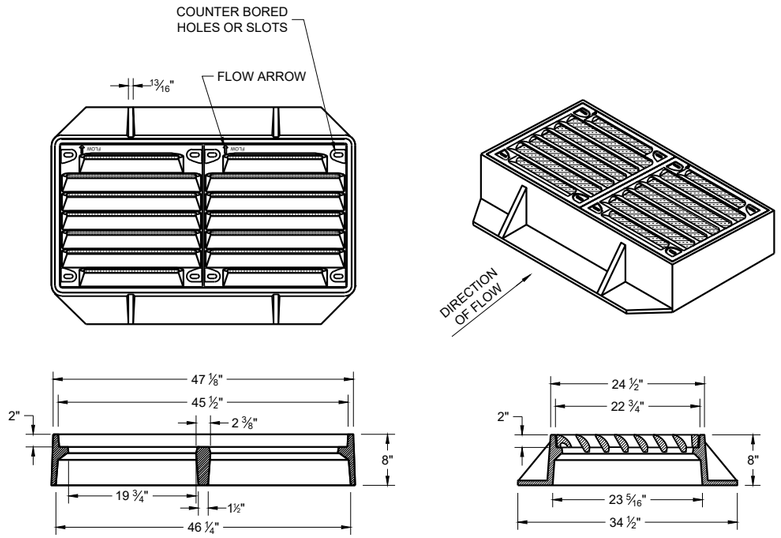
GENERAL NOTES

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

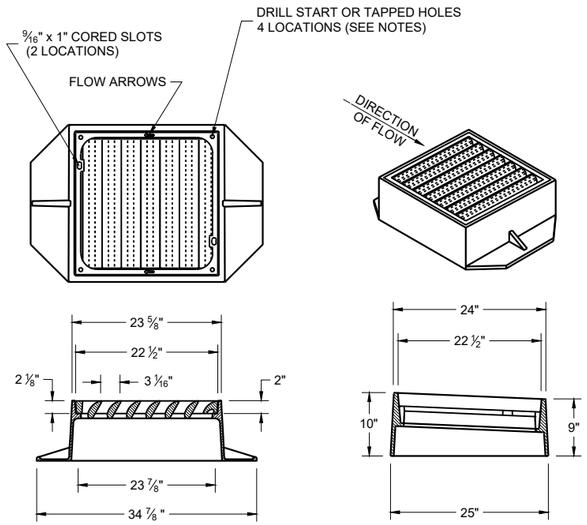
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "VV-B"

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

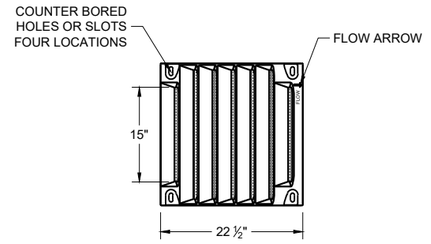
TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 35B
⅜" DIA. X 1/16" DRILL START IN 8 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



TYPE "V"

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

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
⅜" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" AND "VV-B" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" OR "VV-B" (FOR DOUBLE GRATE) ON DRAINAGE TABLE

TAP ½" -13 HOLES IN FOUR LOCATIONS PER GRATE IN FRAME TO BOLT GRATE(S).
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - ½" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS
TYPES V, V-B, AND VV-B

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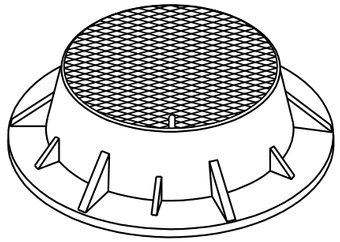
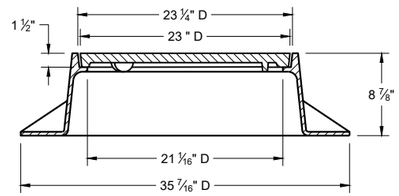
GENERAL NOTES

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

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

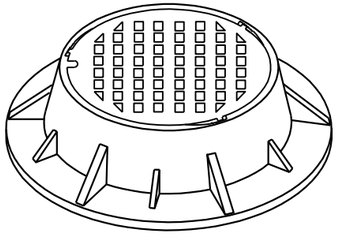
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

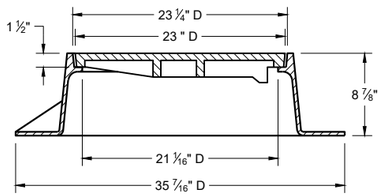




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

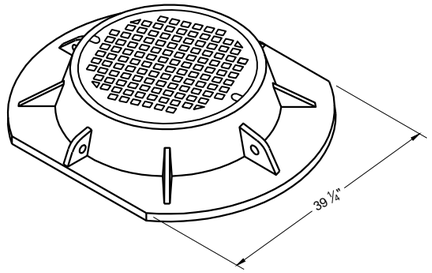


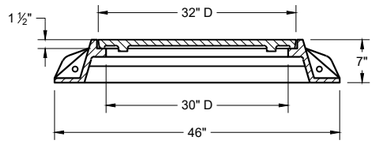


TYPE "J" SPECIAL

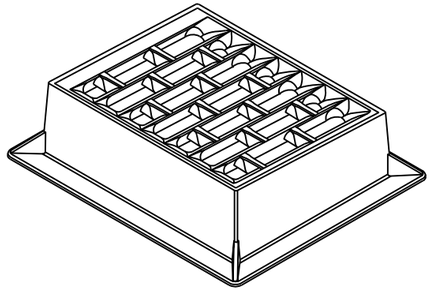
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

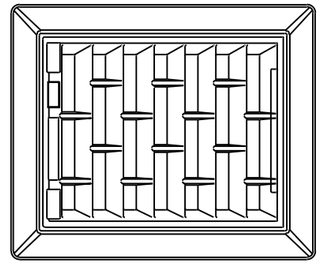
NOTE: EITHER CASTING IS ACCEPTABLE

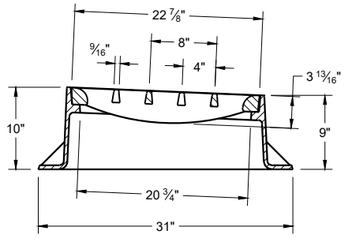


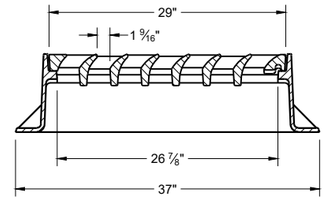


TYPE "K"

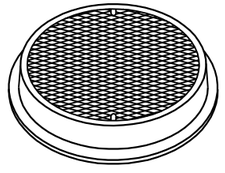


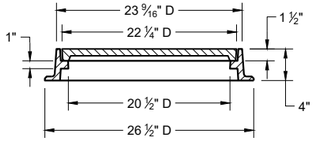




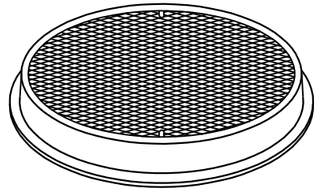


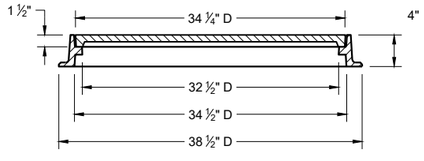
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

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

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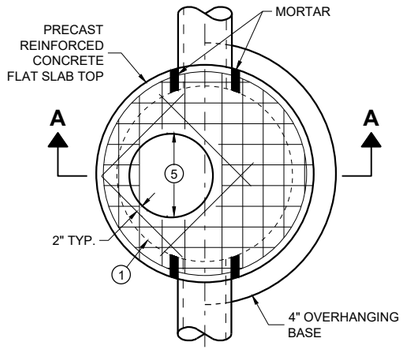
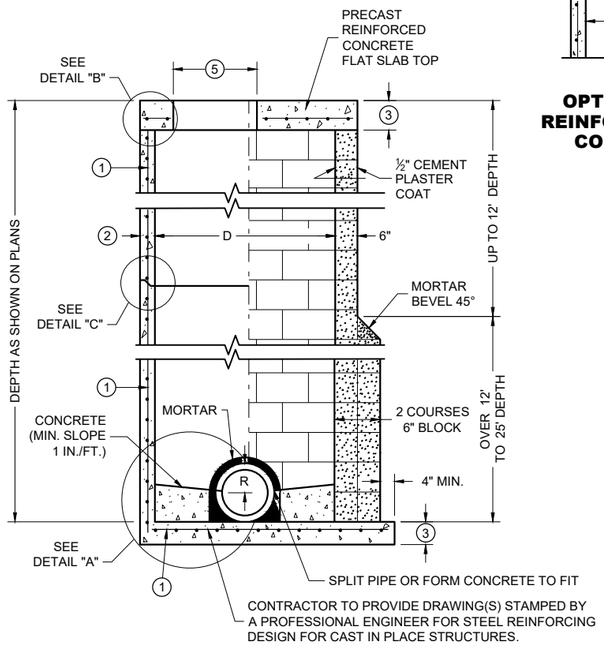


PLAN VIEW

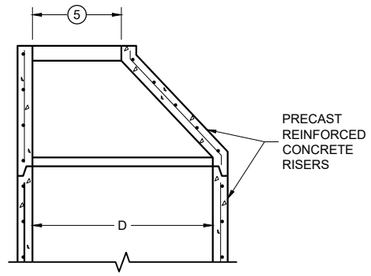
CIRCULAR OPENING



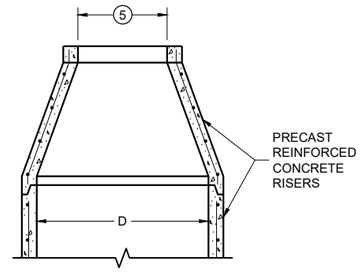
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

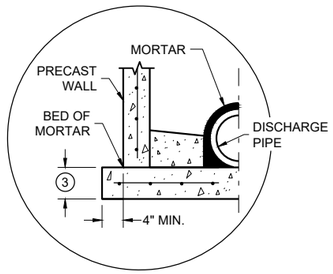
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



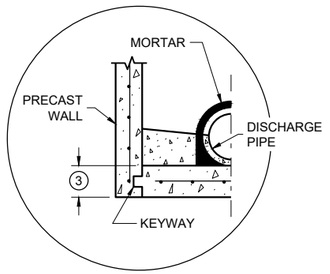
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

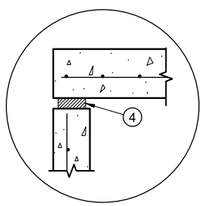


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

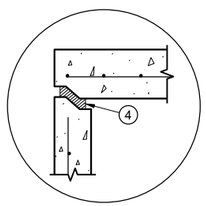


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

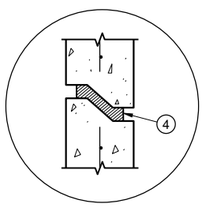
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

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

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

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

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

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

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

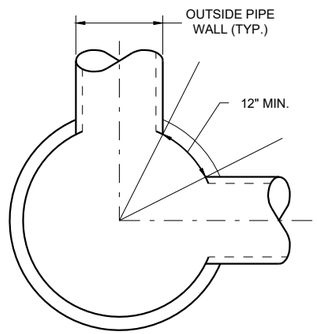
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

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

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

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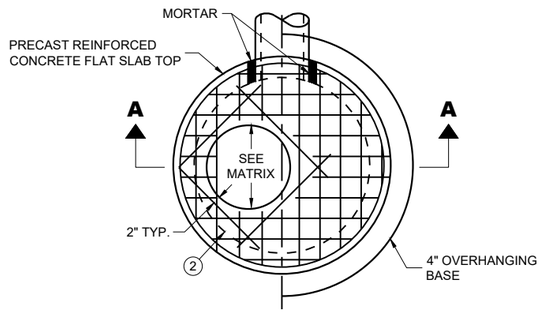
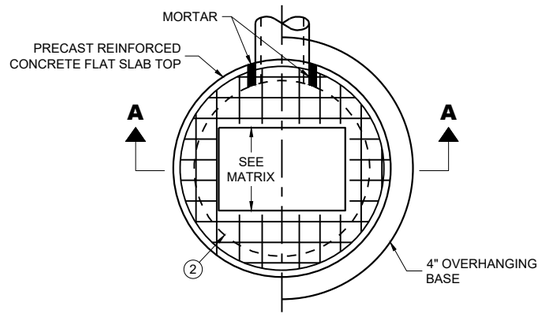
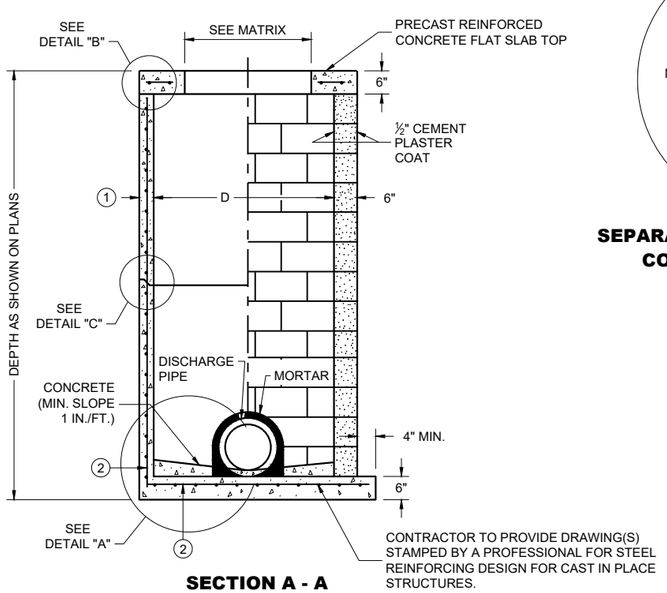


PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

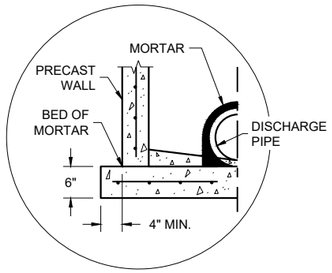
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

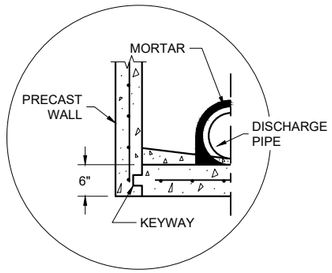
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

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

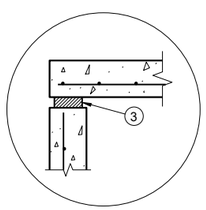


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

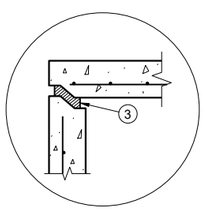


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

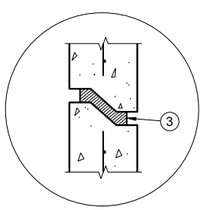
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

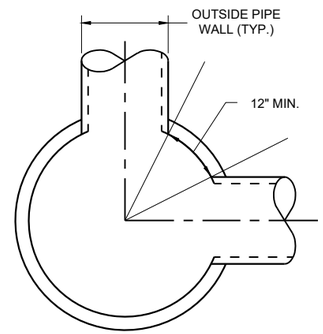
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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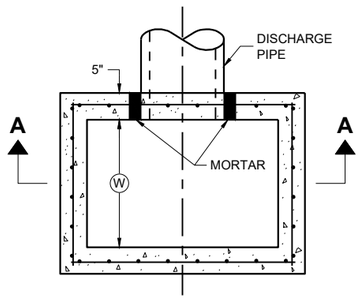
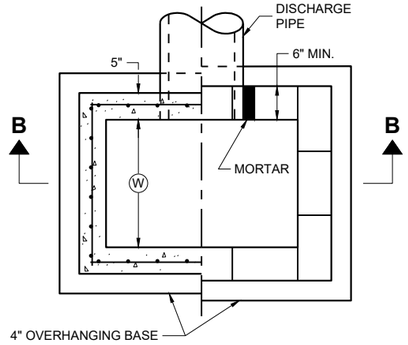
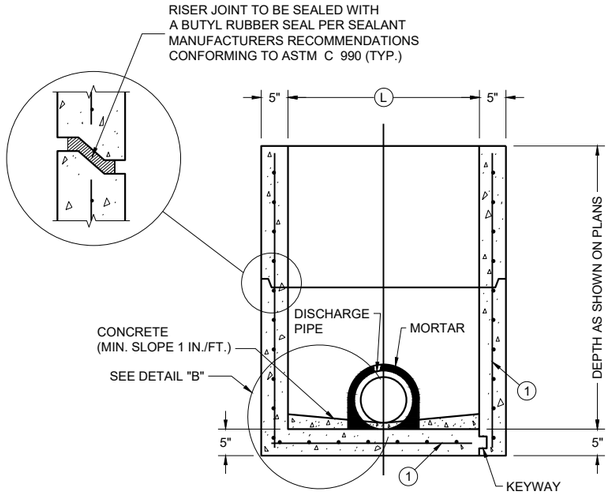
SDD 08C06-03



PLAN VIEW



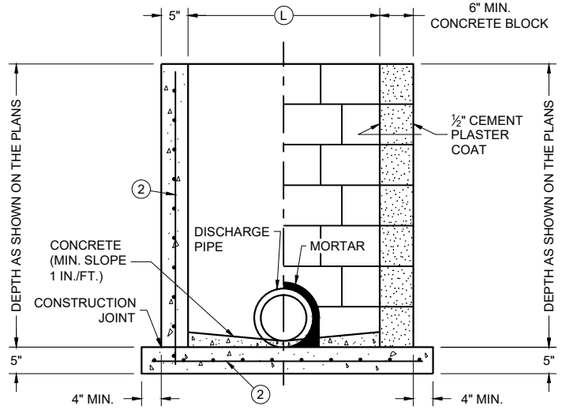
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

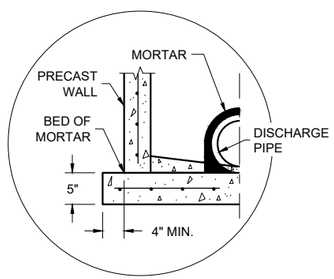
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

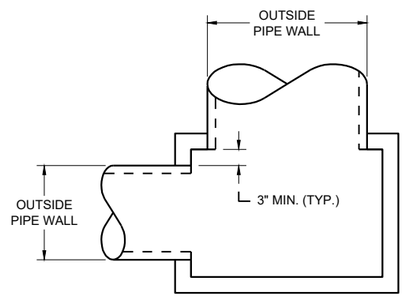
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

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

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

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

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

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

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

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

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

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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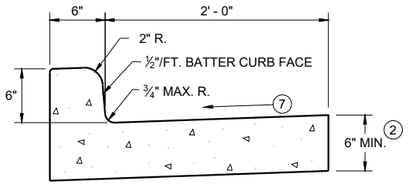
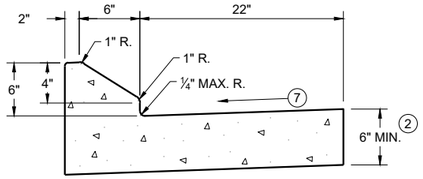
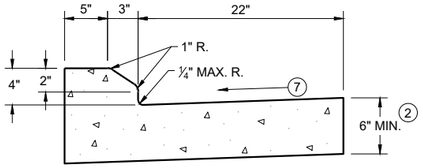
SDD 08C07-03



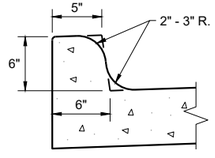
TYPES A (1) & D



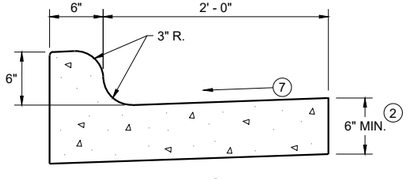
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

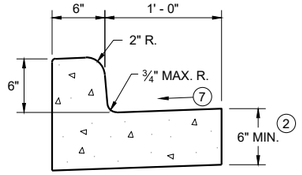


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



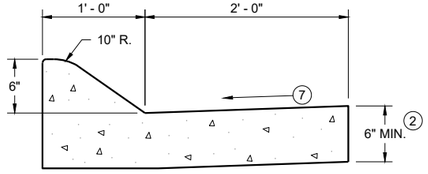
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

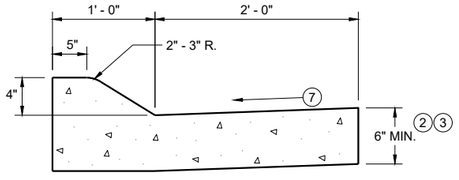


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

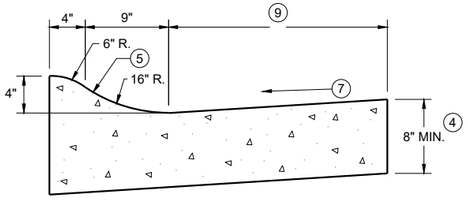


6" SLOPED CURB TYPES A (1) & D



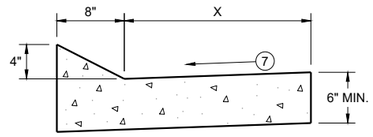
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

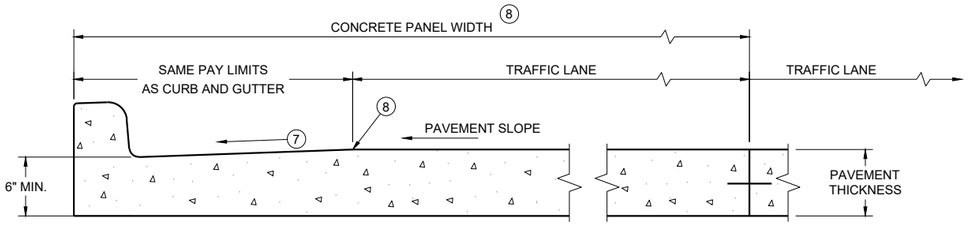


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

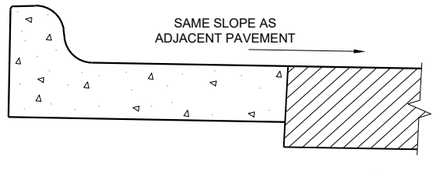
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

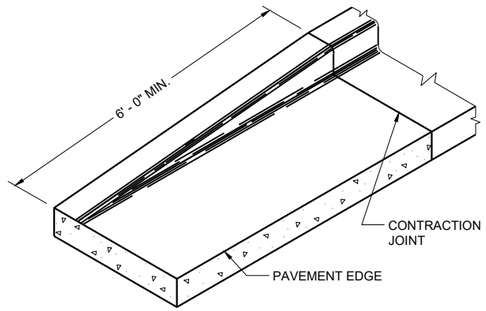
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

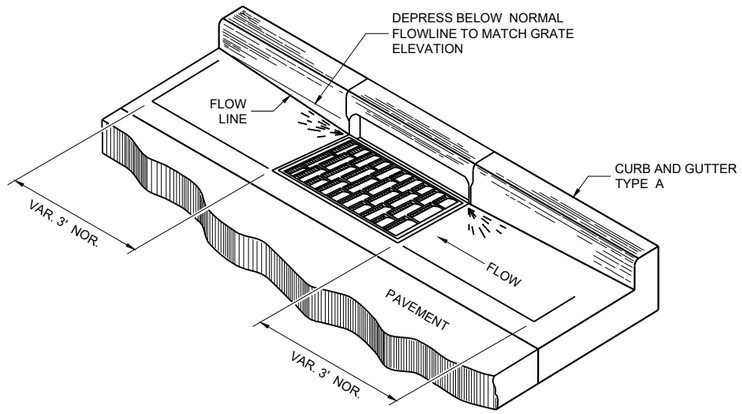
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

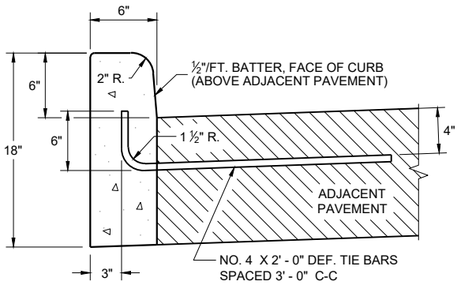
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

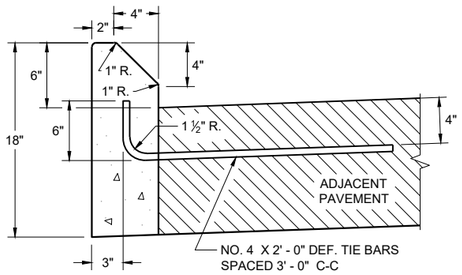
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

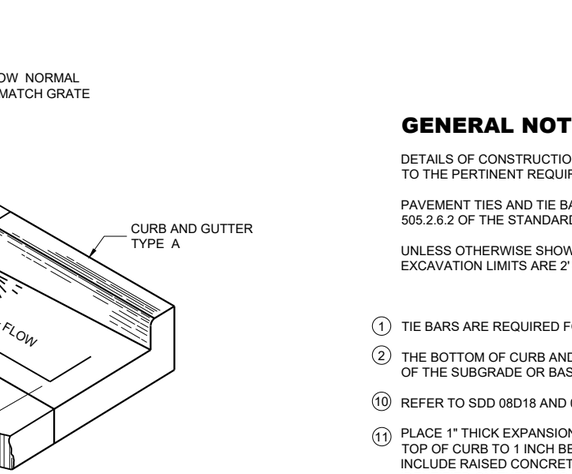


TYPES A (1) & D



TYPES G (1) & J

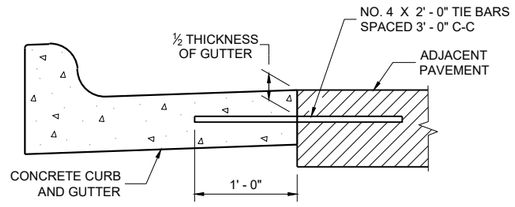
CONCRETE CURB



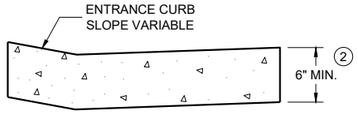
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

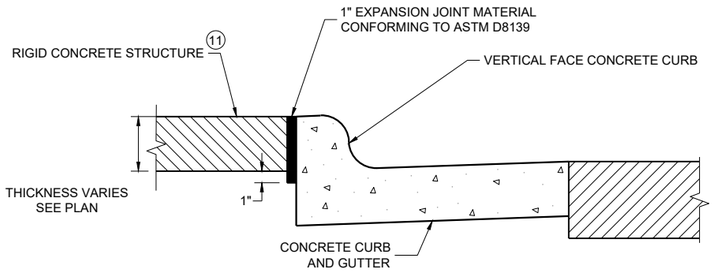


TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)

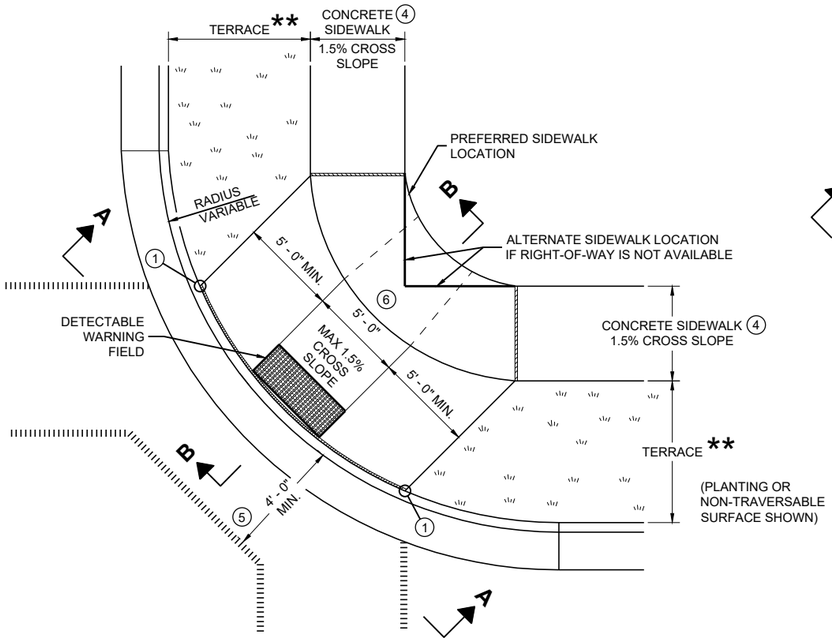
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

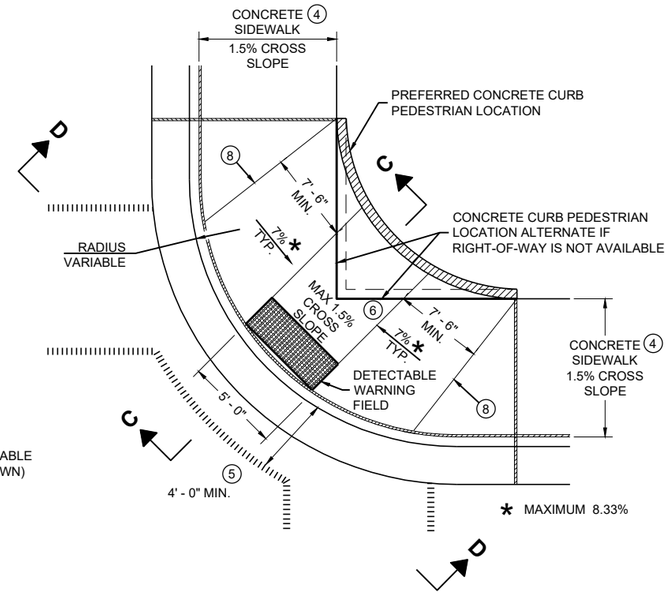
6
SDD 08D01-23b



PLAN VIEW

CURB RAMP TYPE 1

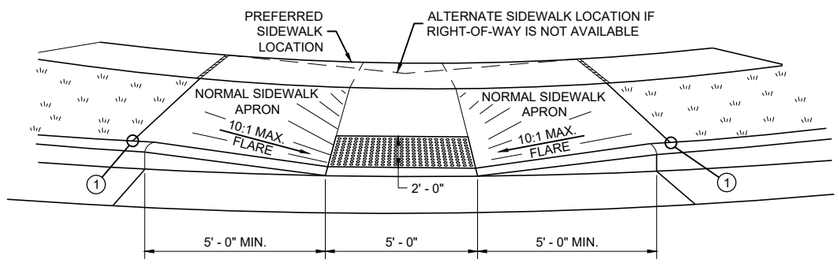
(CENTER OF CORNER RADIUS)



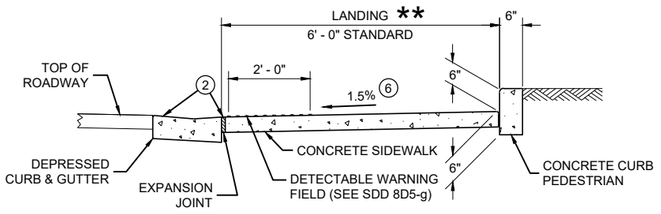
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

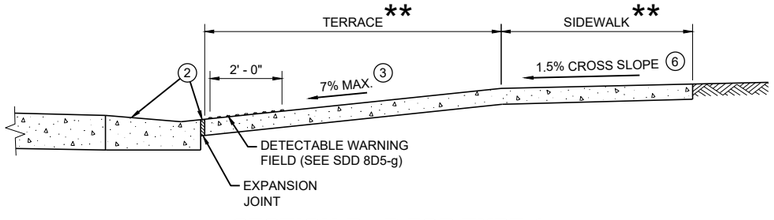


VIEW A - A FOR TYPE 1

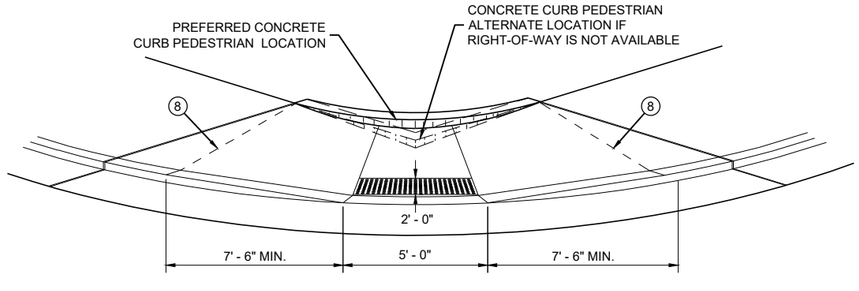


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

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

CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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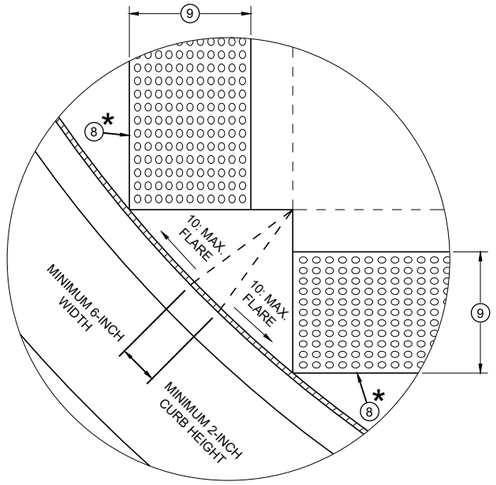
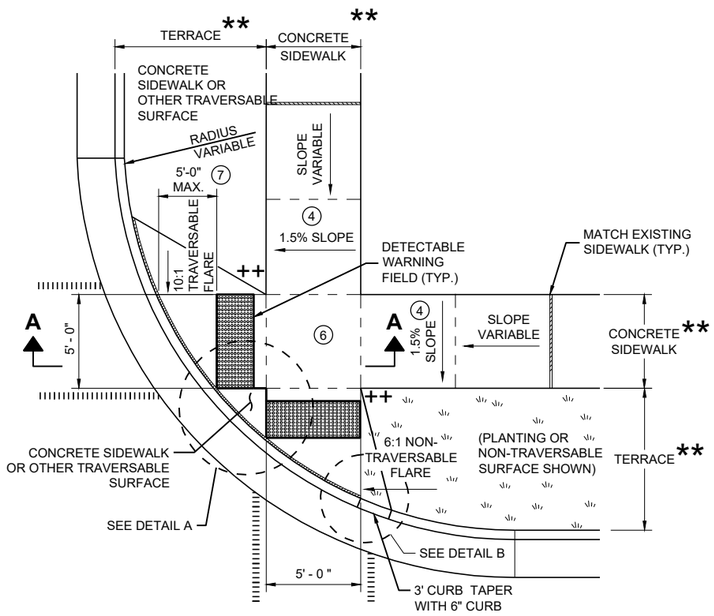
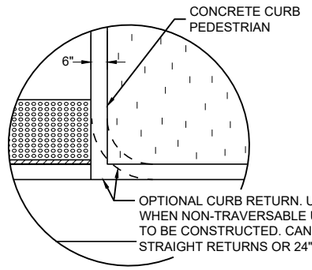
SDD 08D05-21a



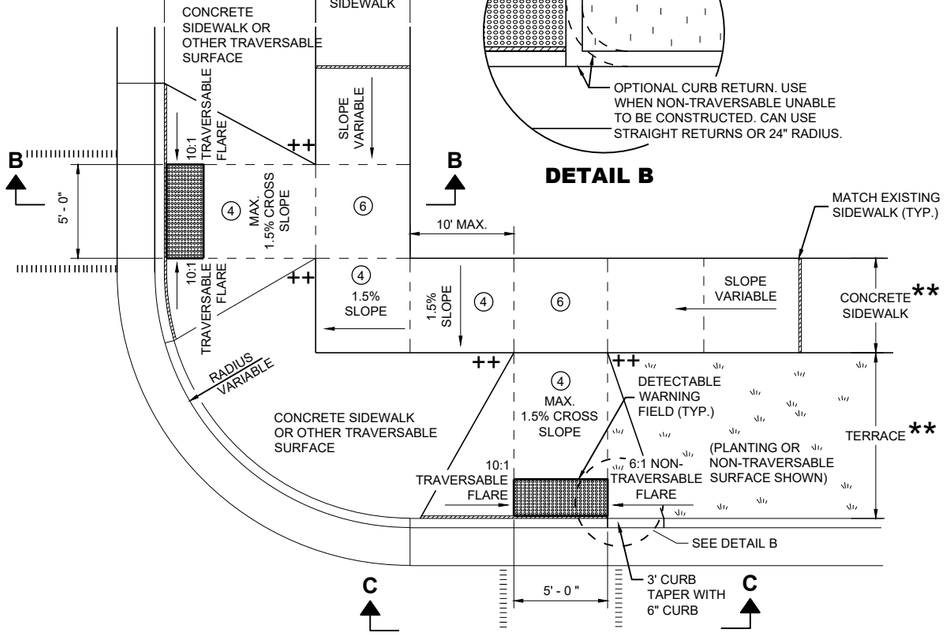
DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



DETAIL B



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

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

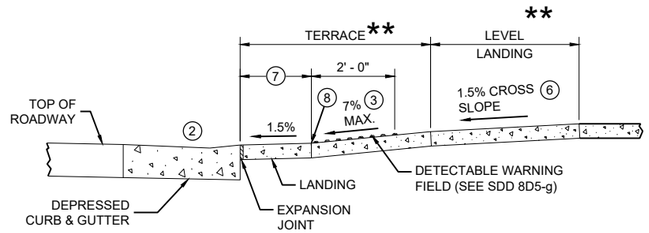
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

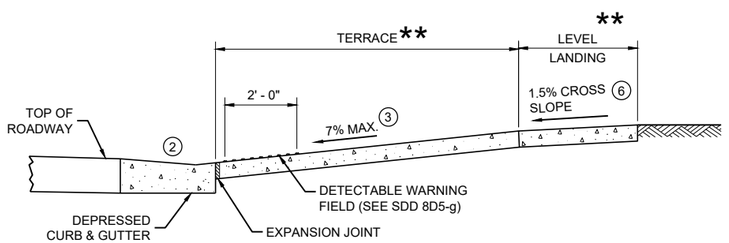


SECTION A - A FOR TYPE 2

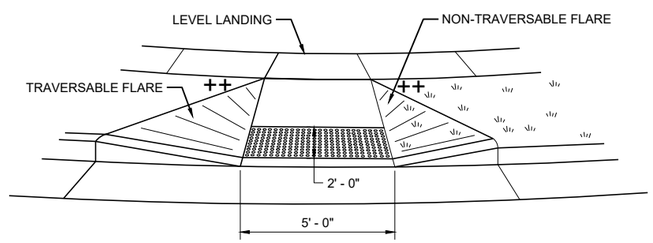
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



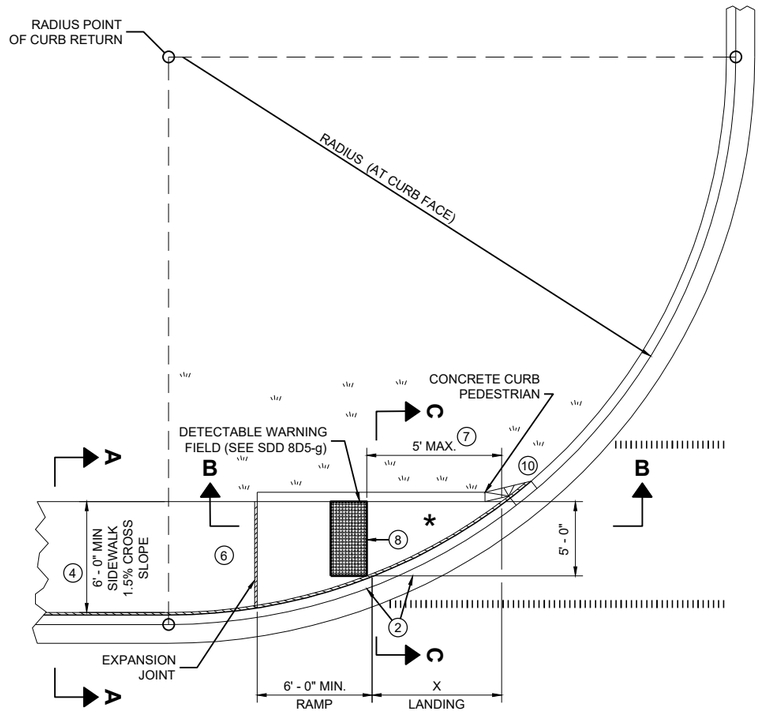
VIEW C - C FOR TYPE 3

LEGEND

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

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

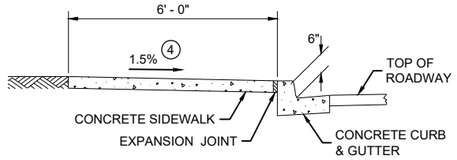


PLAN VIEW

CURB RAMP TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

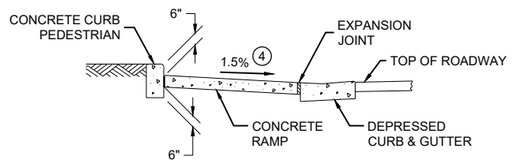
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

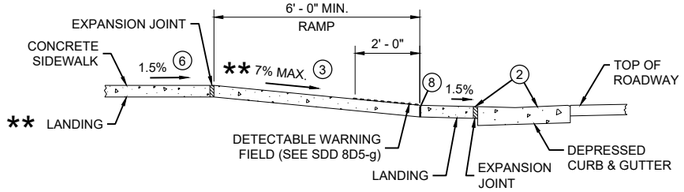
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

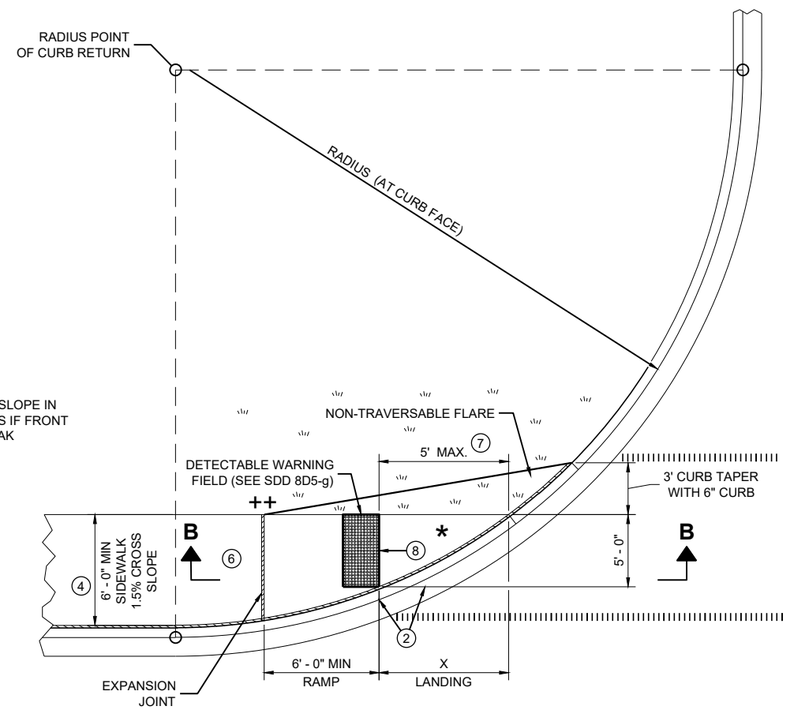


SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

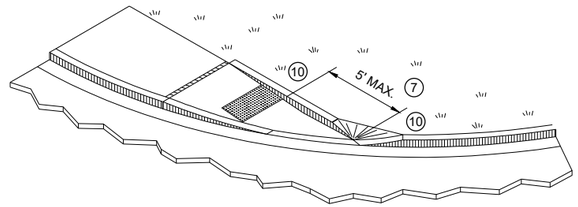
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



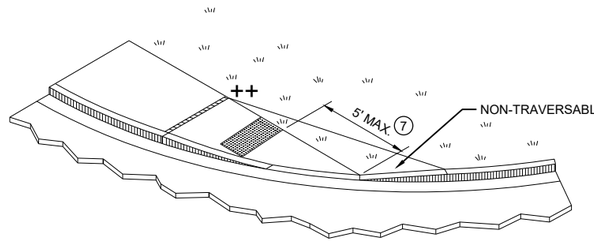
PLAN VIEW

CURB RAMP TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A

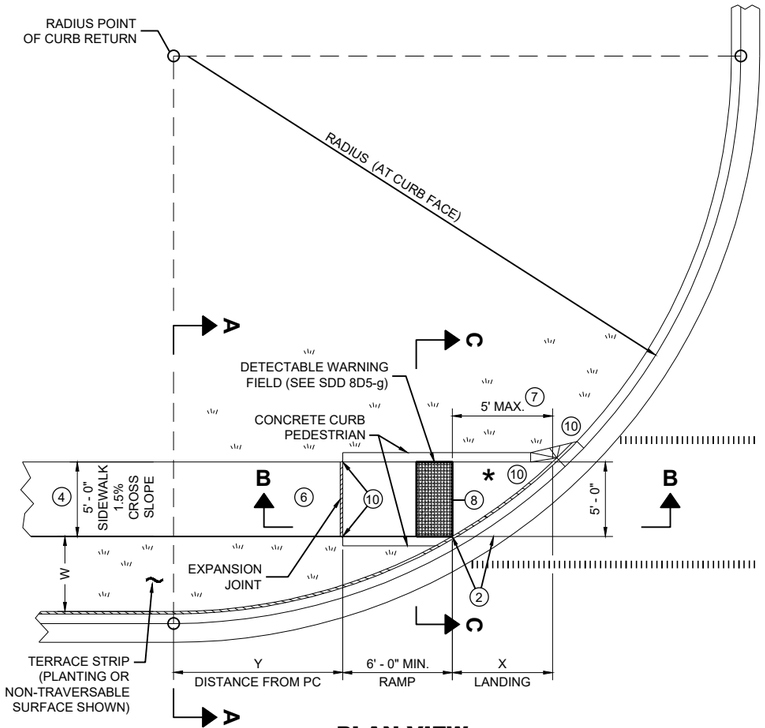


ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D05-21c



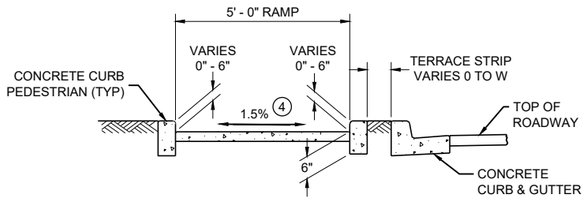
PLAN VIEW
CURB RAMP TYPE 4B

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

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

LEGEND

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



SECTION C - C FOR TYPE 4B

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

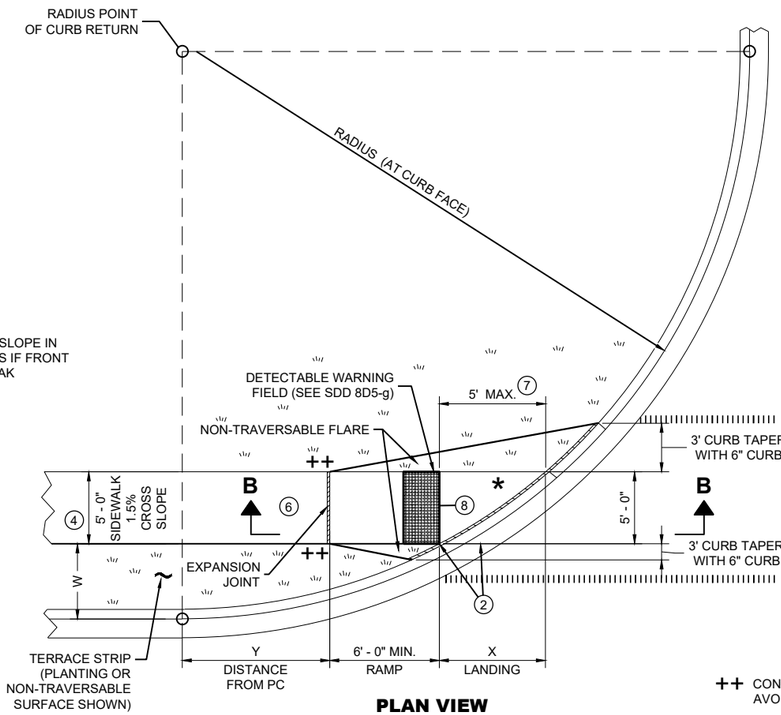
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

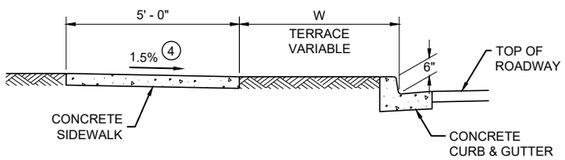
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

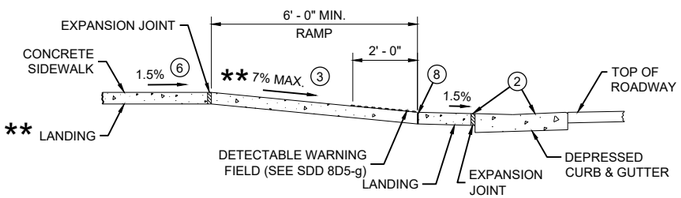
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



PLAN VIEW
CURB RAMP TYPE 4B1



SECTION A - A FOR TYPE 4B

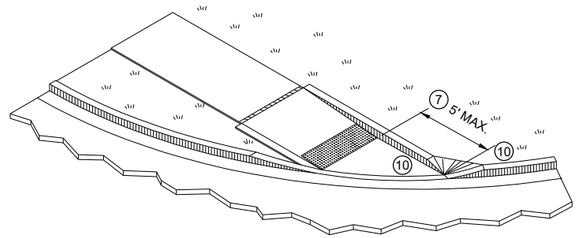


SECTION B - B FOR TYPE 4B AND TYPE 4B1

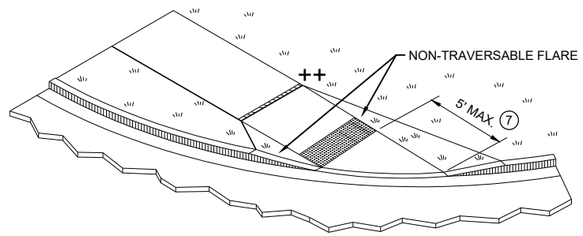
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



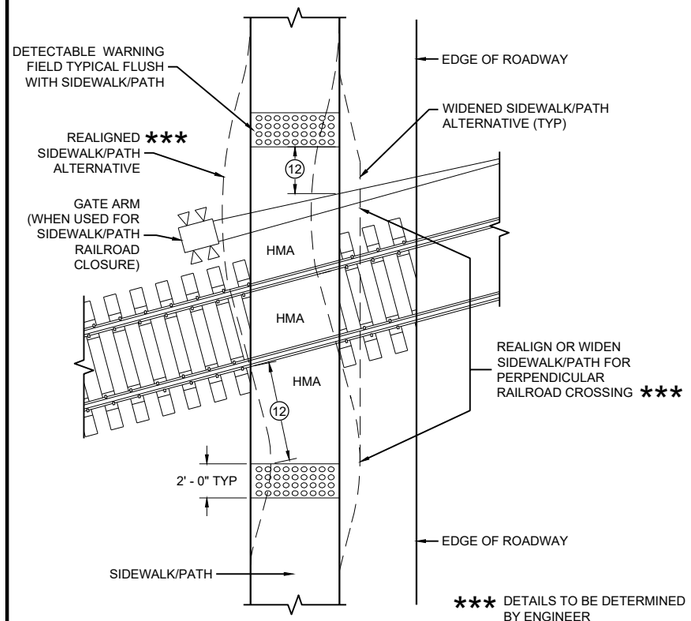
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

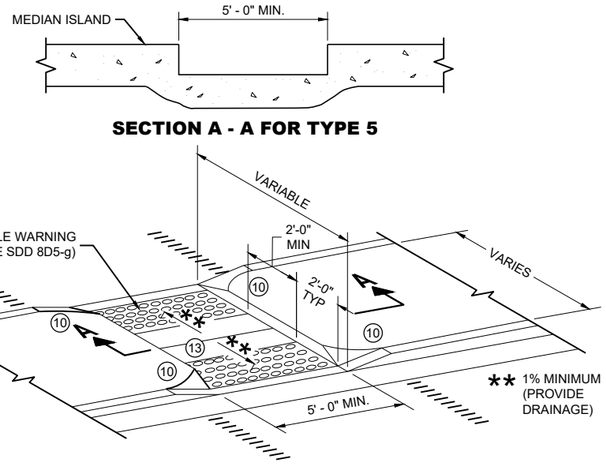
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

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

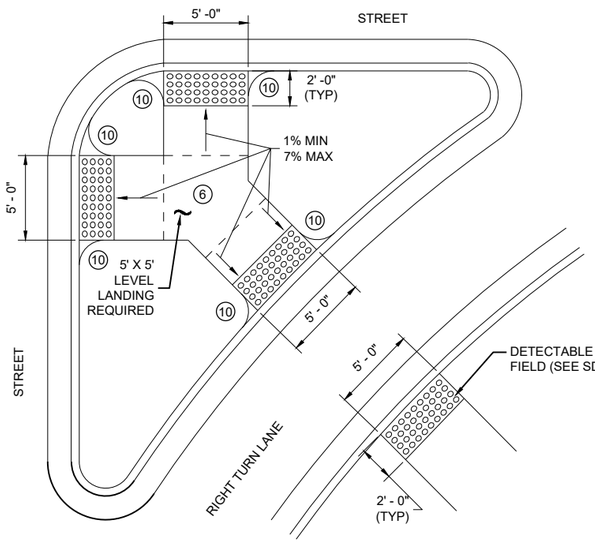
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

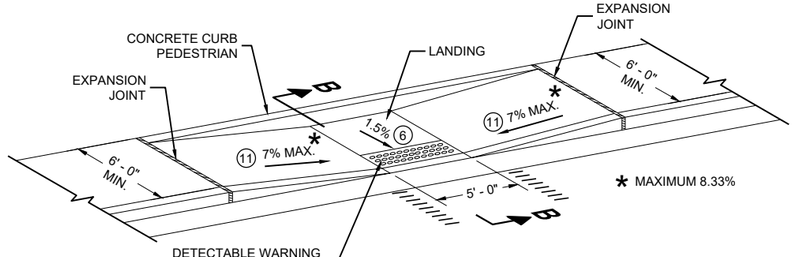
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

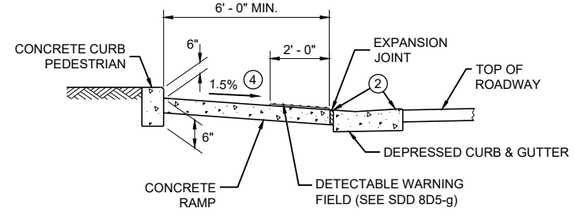
DETECTABLE WARNING AT ISLANDS

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

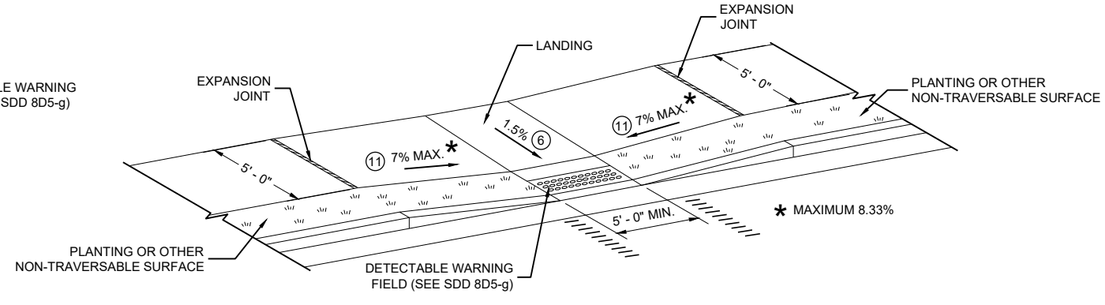


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 7B

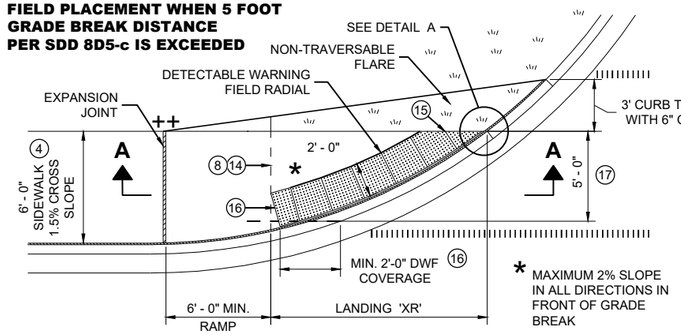
FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

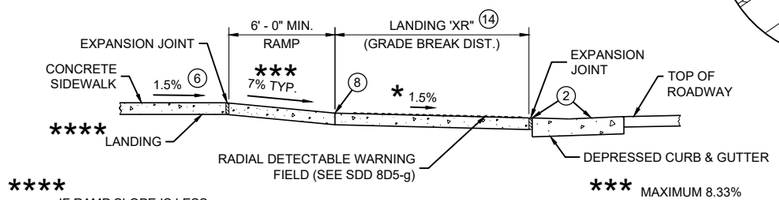
SDD 08D05-21e

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

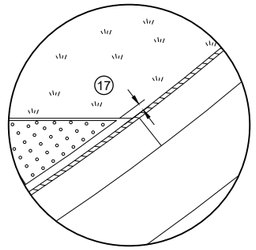


PLAN VIEW

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



SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

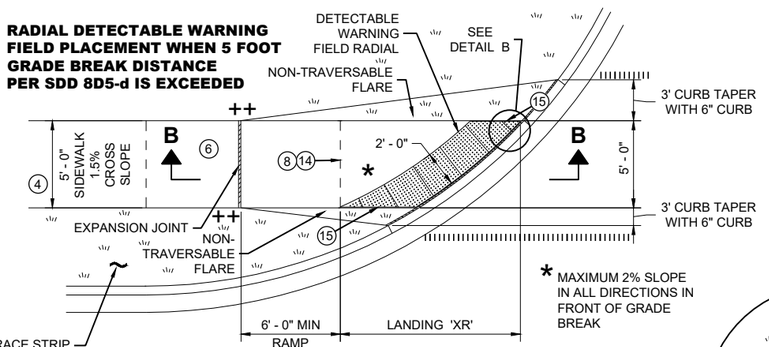
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

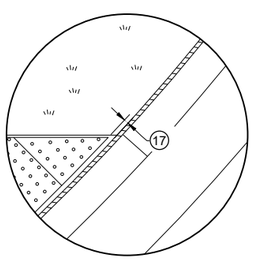
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

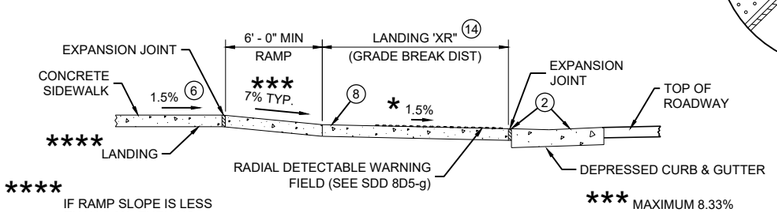


PLAN VIEW

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

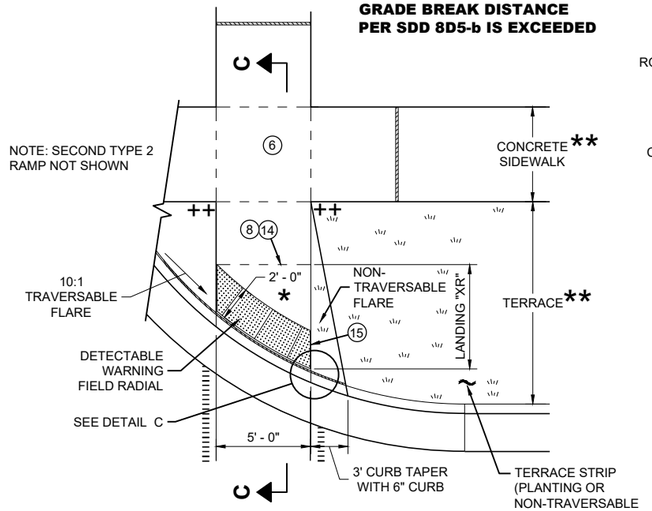


DETAIL B



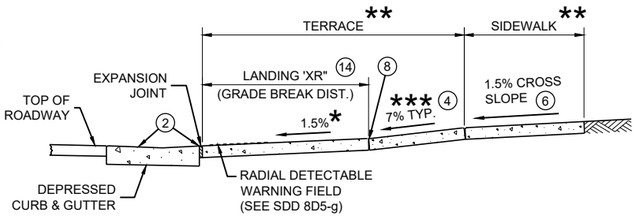
SECTION B - B FOR TYPE 4B1

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

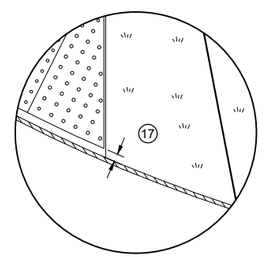


PLAN VIEW

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



SECTION C - C FOR TYPE 2



DETAIL C

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

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

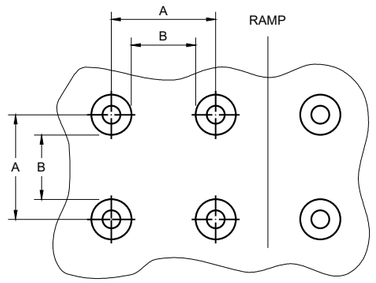
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

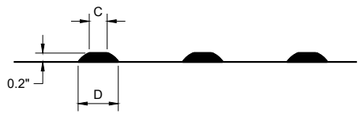
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

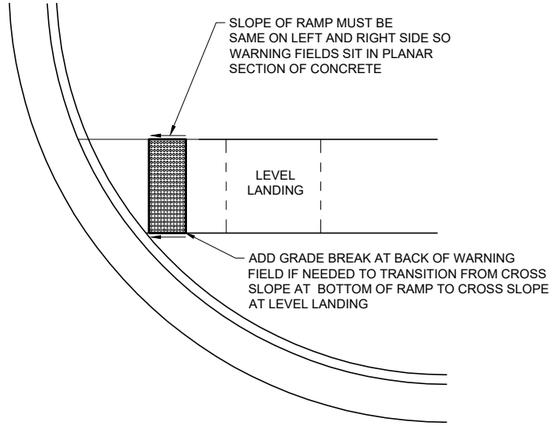
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

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

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

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

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

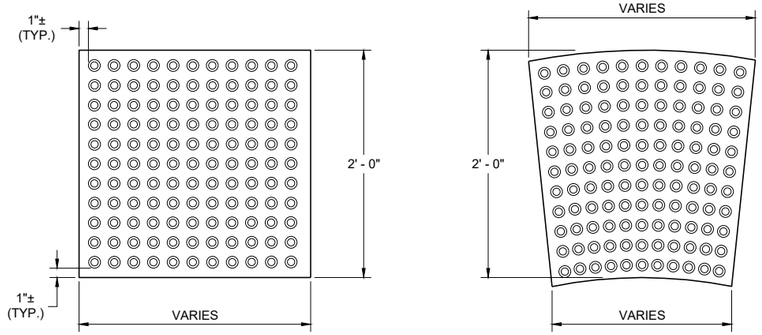
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE.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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

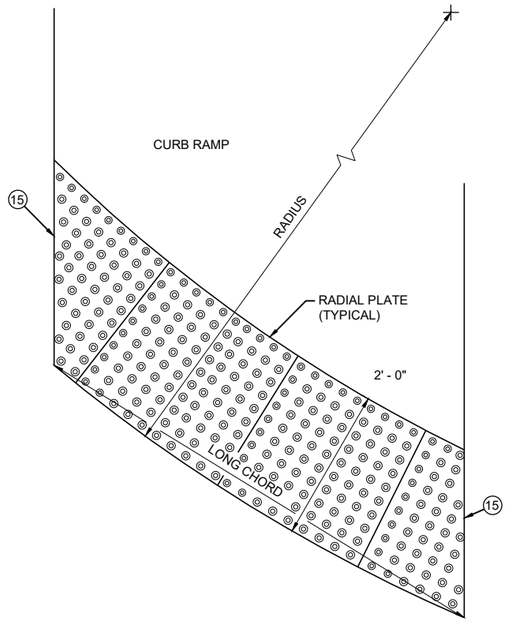
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



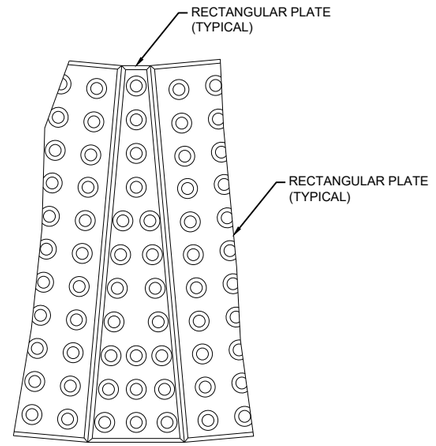
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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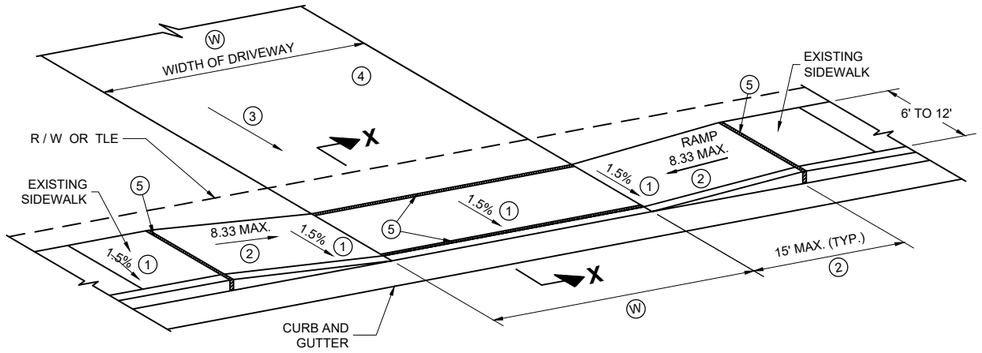
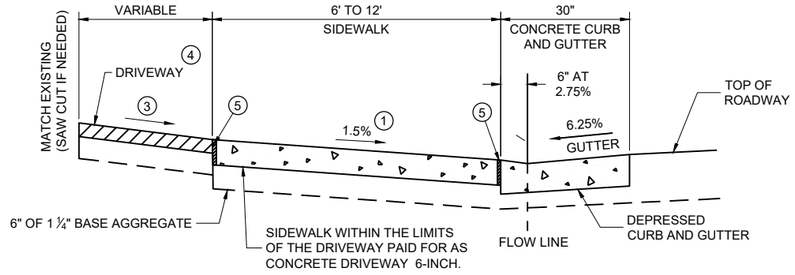
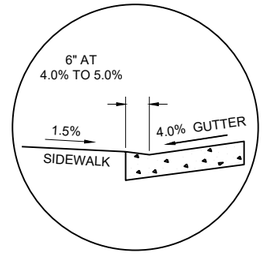
SDD 08D05-21g



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



SECTION X - X



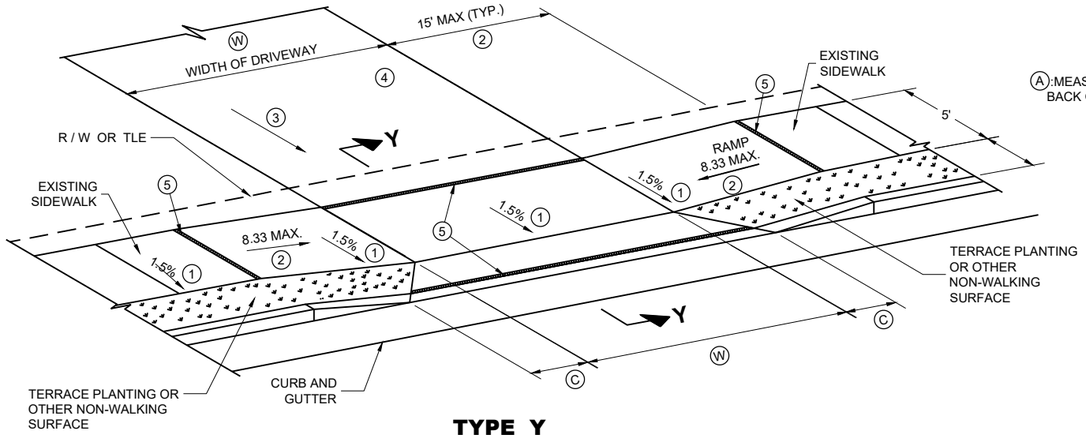
SECTION X - X
4% GUTTER SLOPE

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

16' MIN. - 35' MAX. COMMERCIAL (CE)

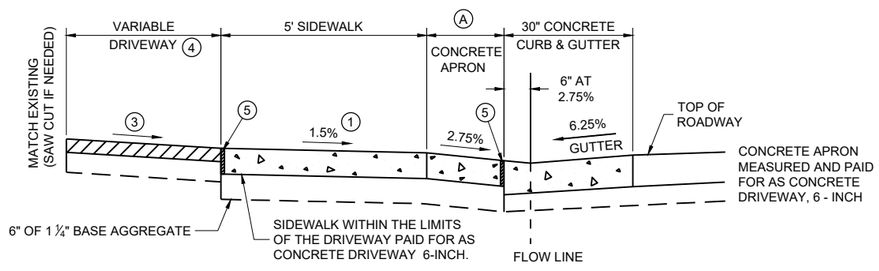
TABLE Y

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

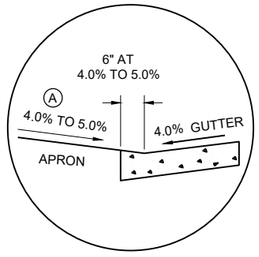


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS



SECTION Y - Y
4% GUTTER SLOPE

SECTION Y - Y

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ ½" EXPANSION JOINT FILLER

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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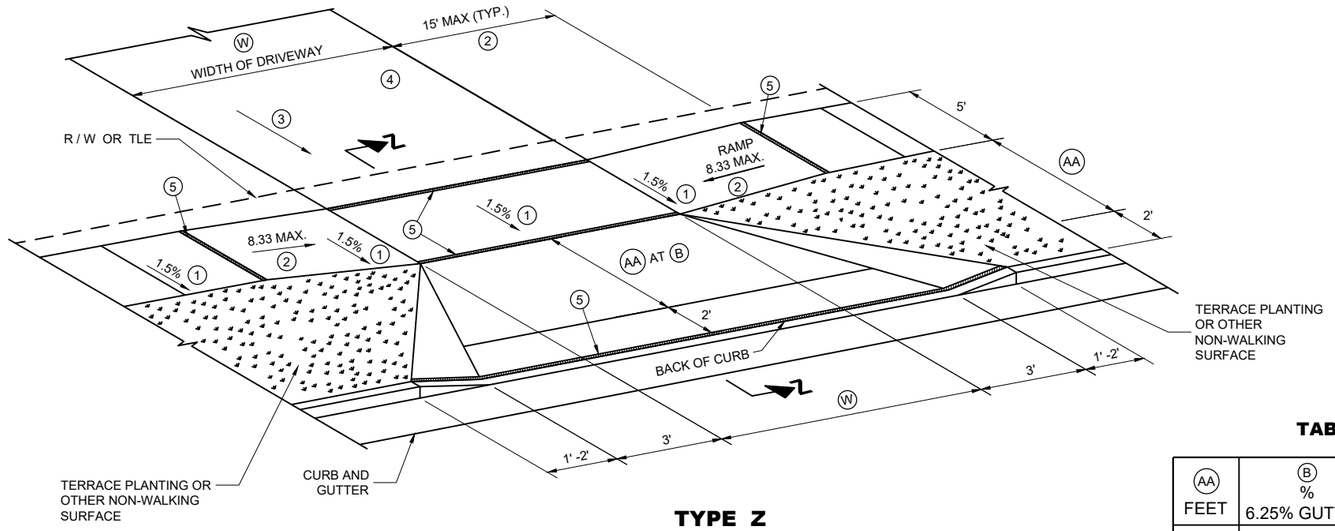


TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

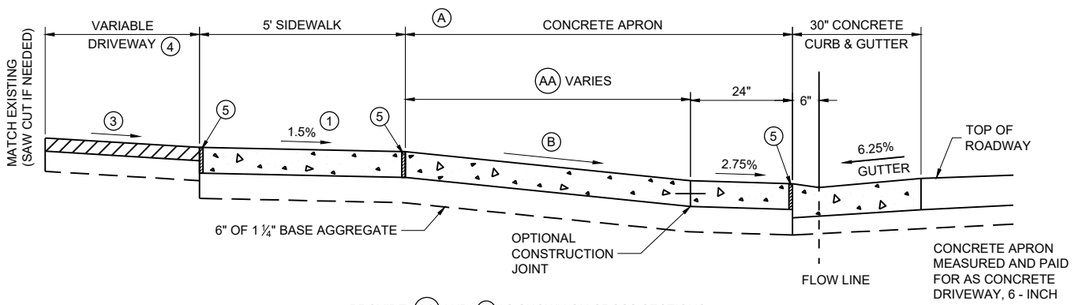
(5) ½" EXPANSION JOINT FILLER.

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

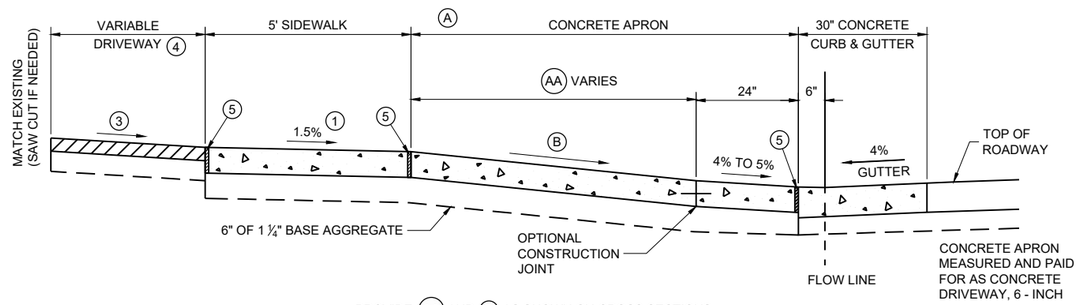
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



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

6.25% GUTTER SLOPE



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

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SECTION Z - Z

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

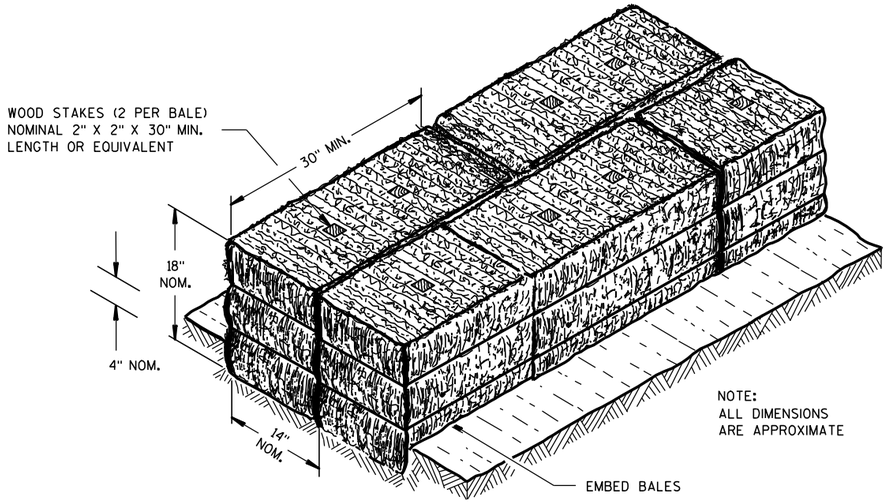
(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

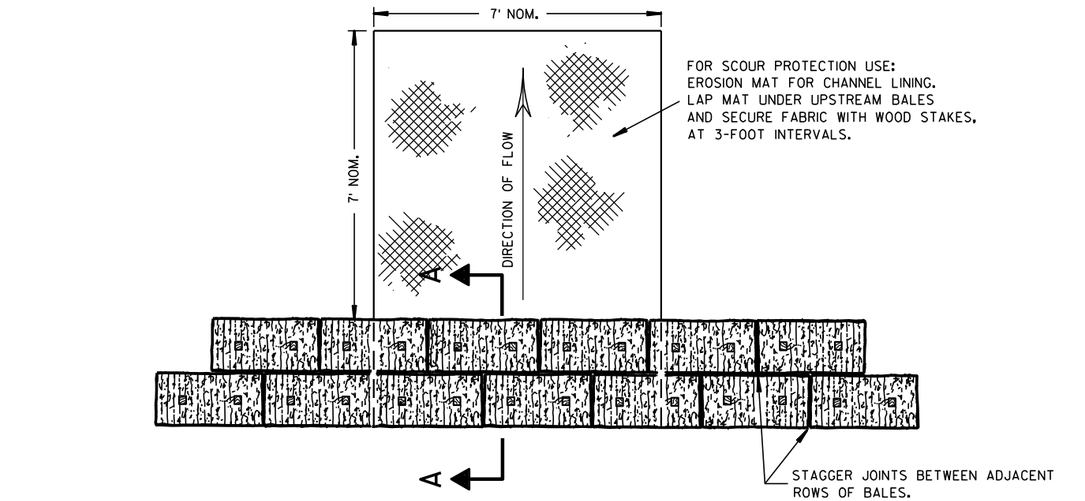
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

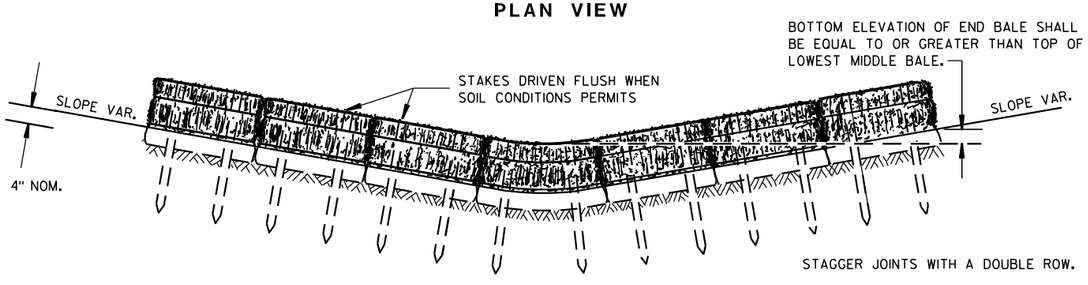
FHWA



SECTION A-A



PLAN VIEW



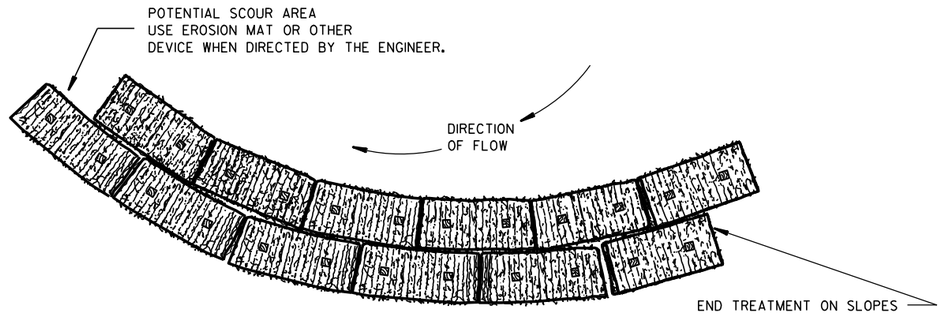
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

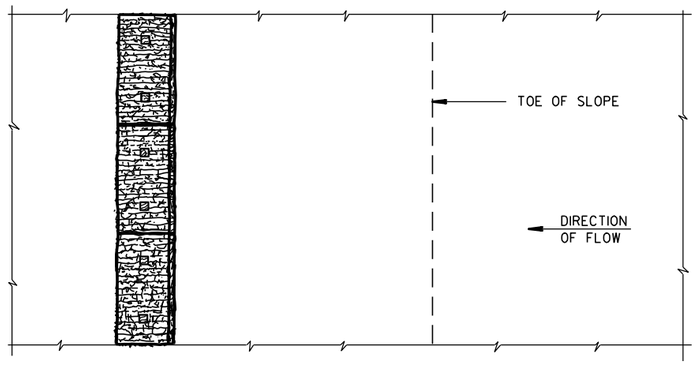
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

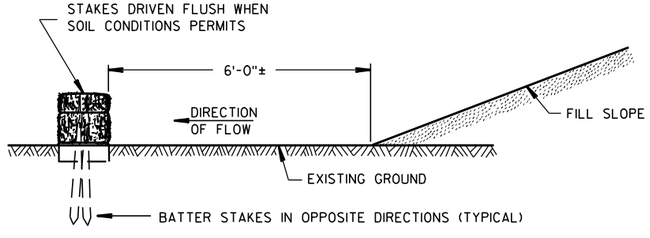


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

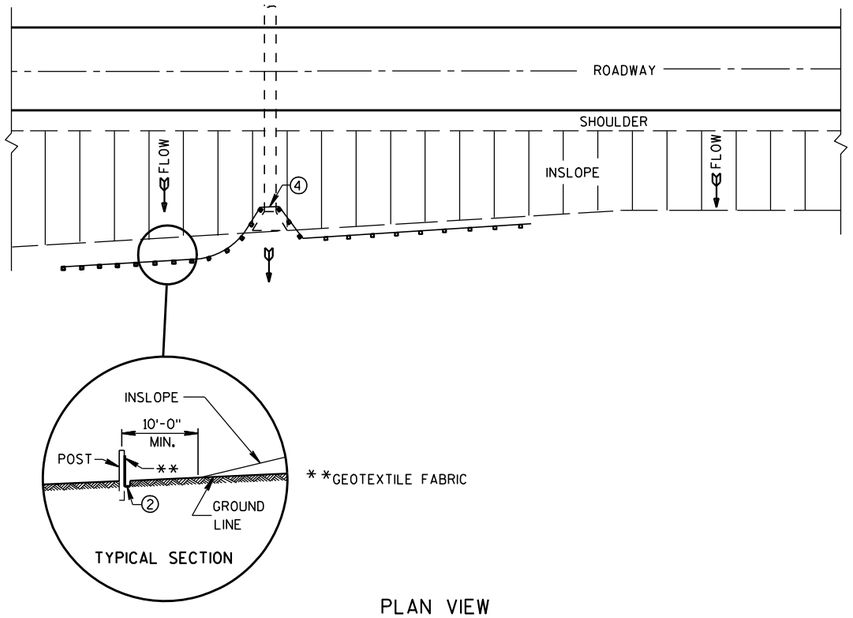
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

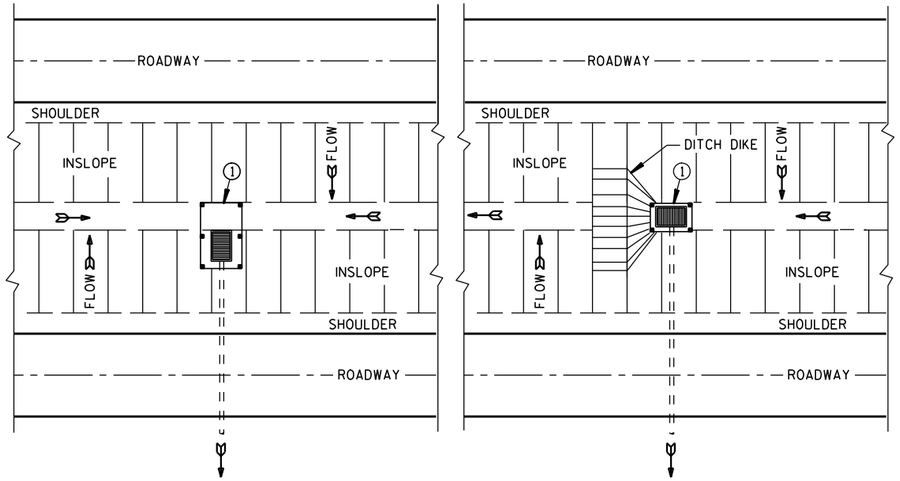
6

S.D.D. 8 E 8-3



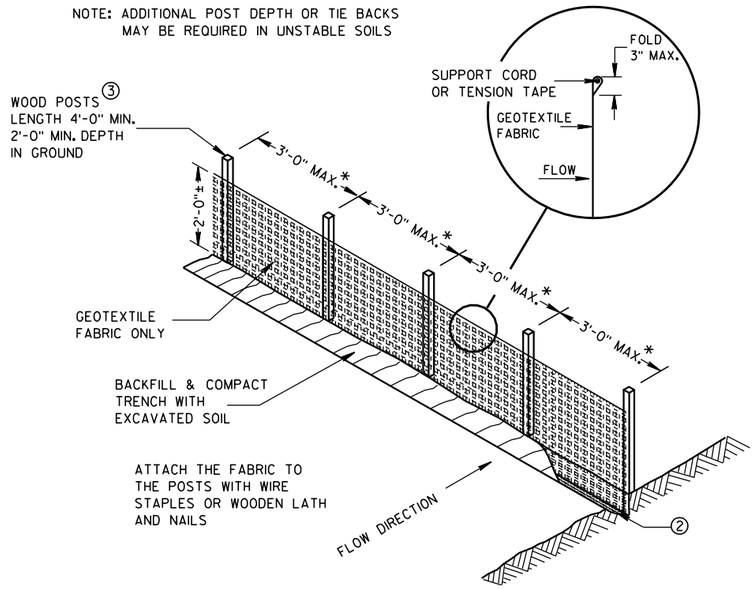
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



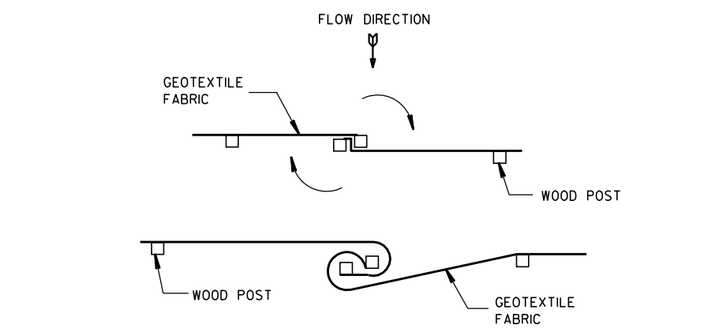
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

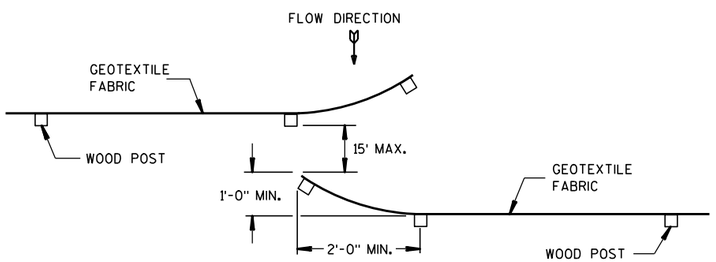


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



TWIST METHOD



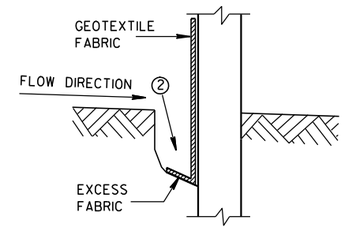
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

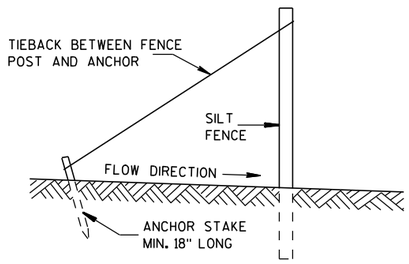
GENERAL NOTES

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 1⅛" X 1⅛" 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

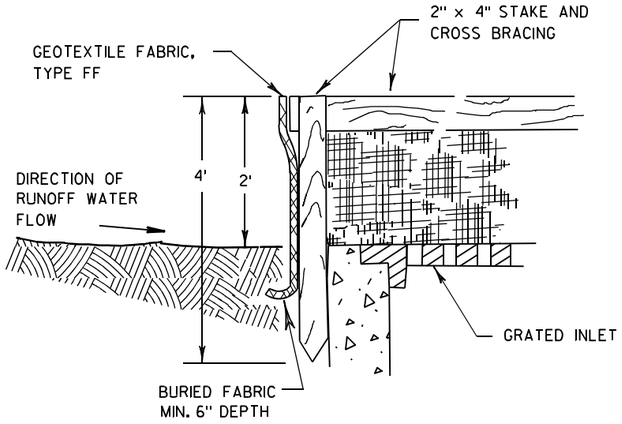
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

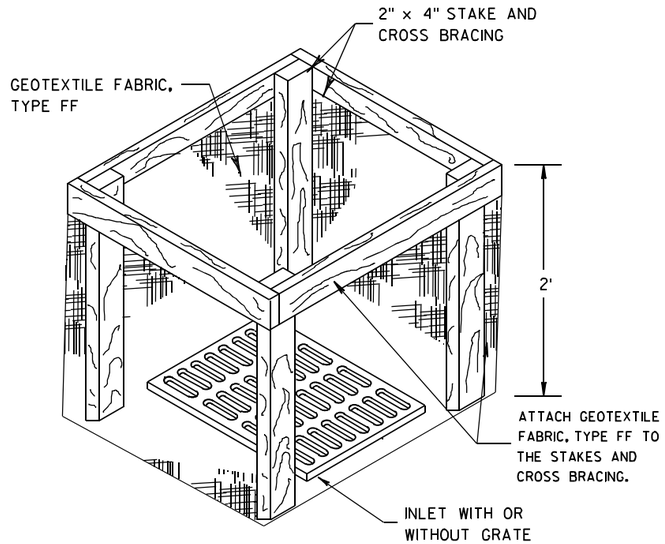
6

S.D.D. 8 E 9-6

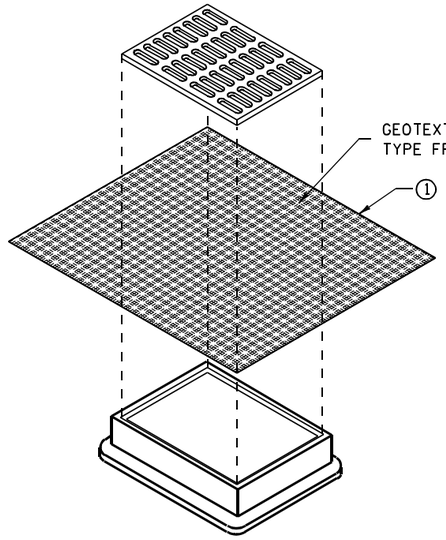
6

S.D.D. 8 E 9-6



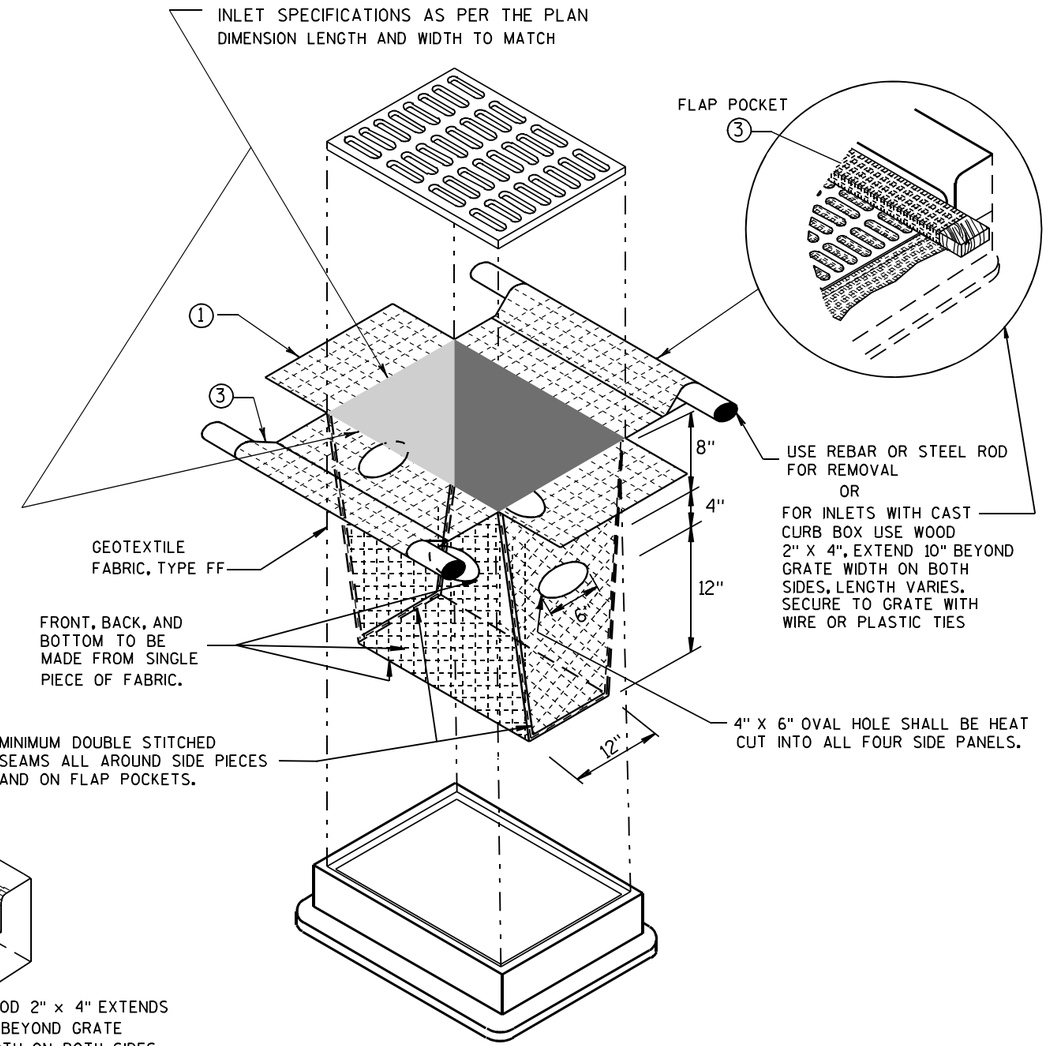


INLET PROTECTION, TYPE A



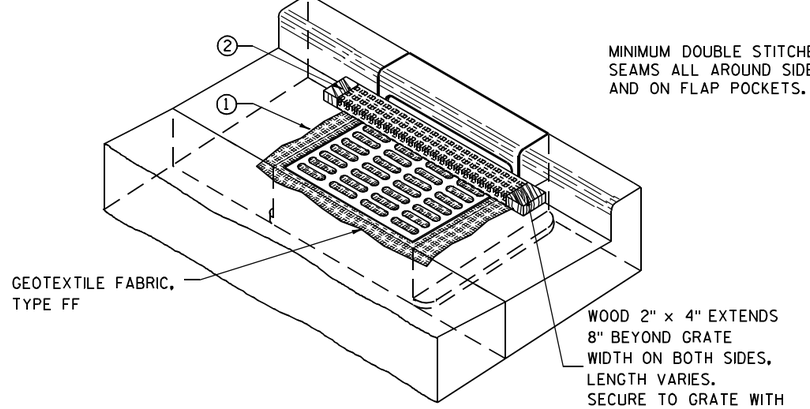
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

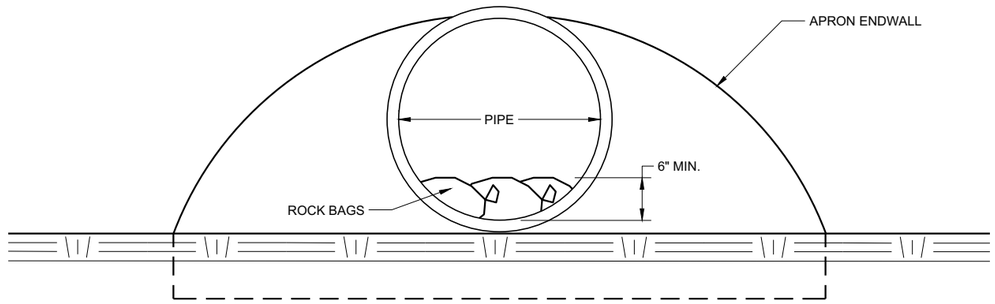
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

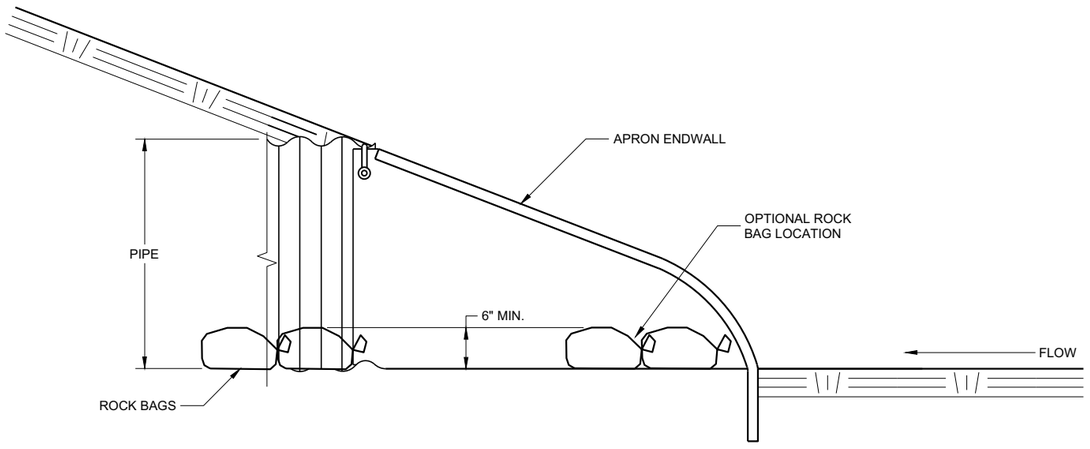
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

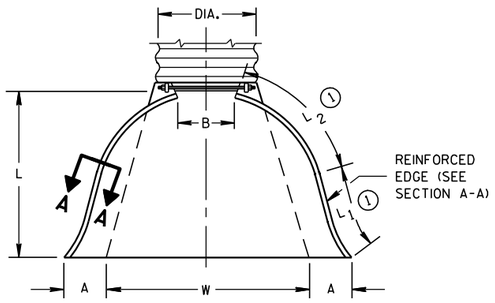
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

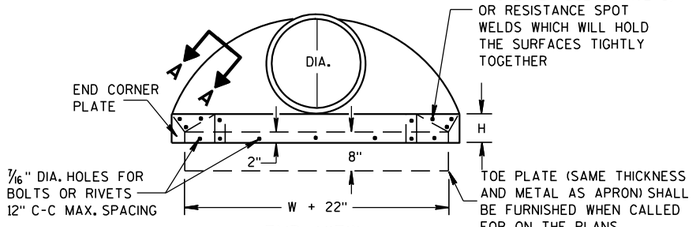
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

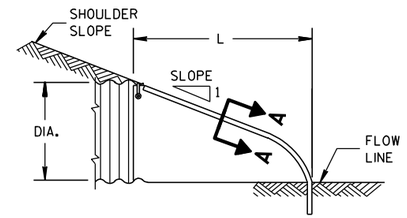
*MINIMUM
**MAXIMUM



PLAN VIEW

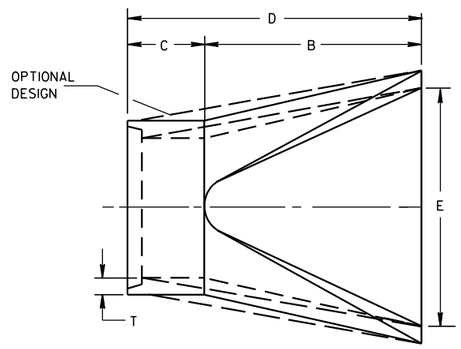


END VIEW

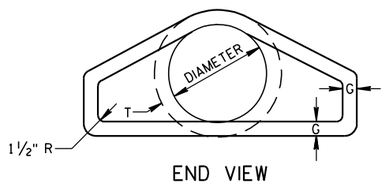


SIDE ELEVATION

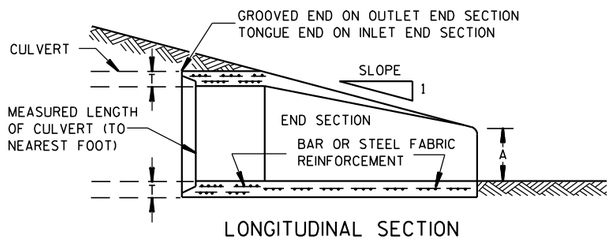
METAL ENDWALLS



PLAN

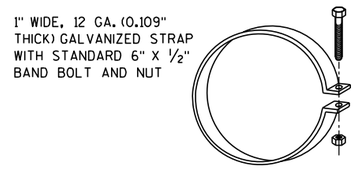


END VIEW



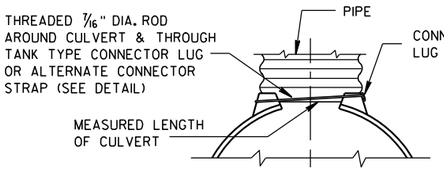
LONGITUDINAL SECTION

CONCRETE ENDWALLS

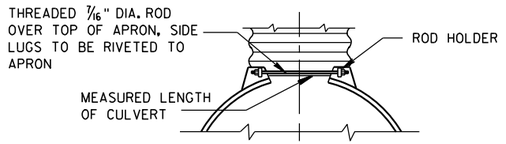


ALTERNATE FOR TYPE 1 CONNECTION

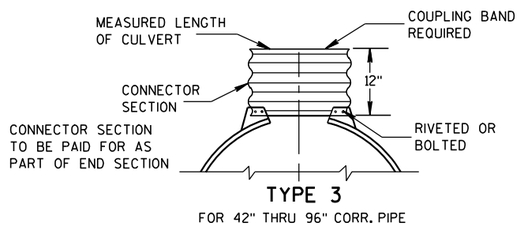
END SECTION CONNECTOR STRAP



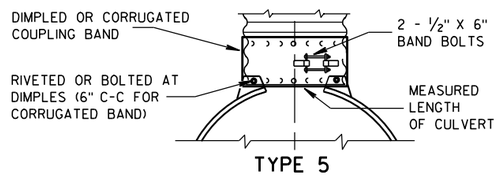
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

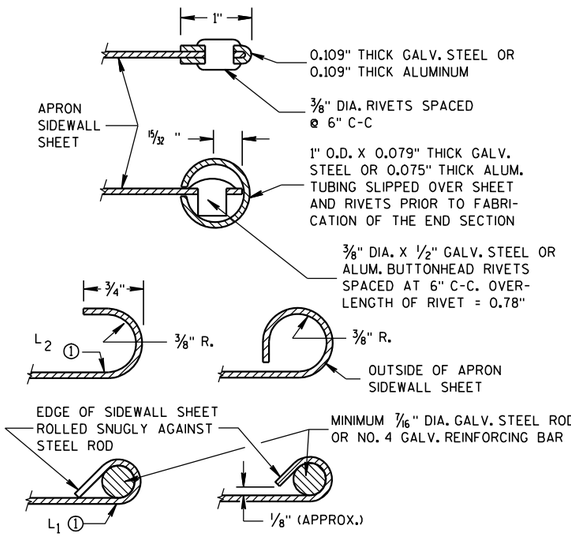
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

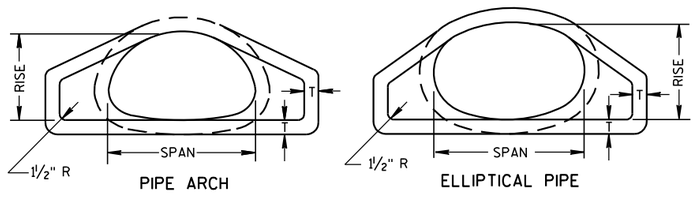
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

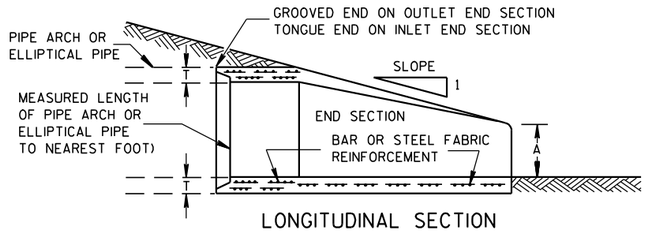
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

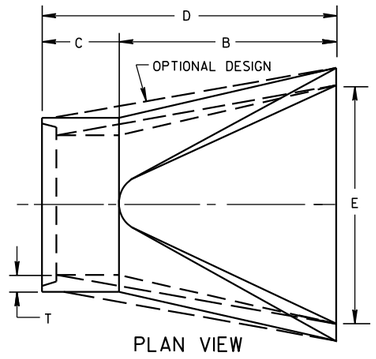
6
S.D.D. 8 F 1-11



END VIEW

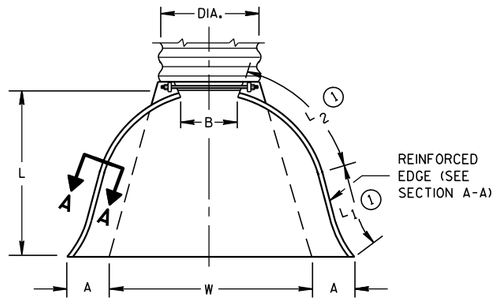


LONGITUDINAL SECTION

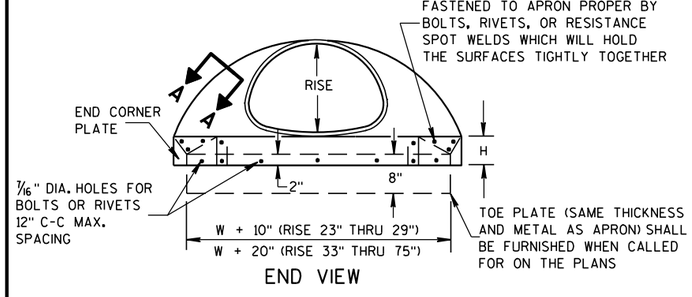


PLAN VIEW

CONCRETE ENDWALLS

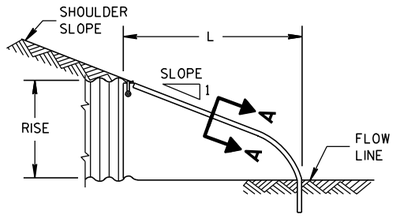


PLAN VIEW



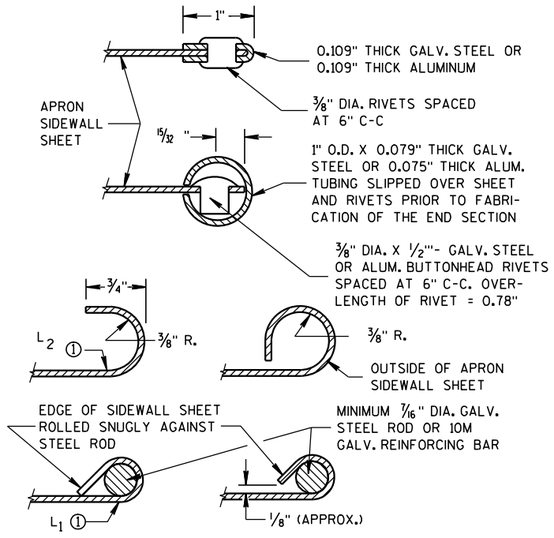
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

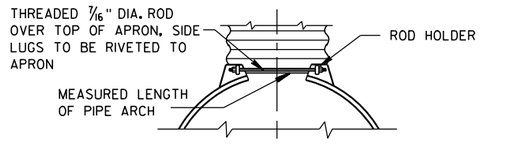
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

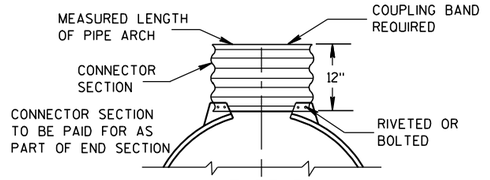
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



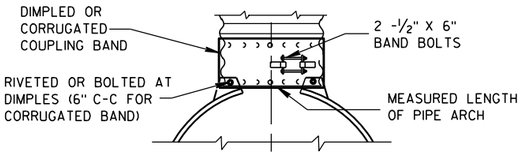
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

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

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

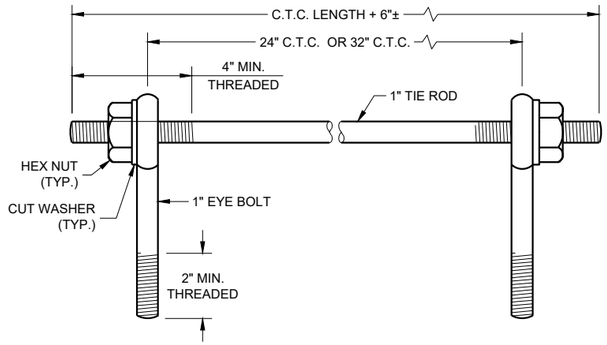
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

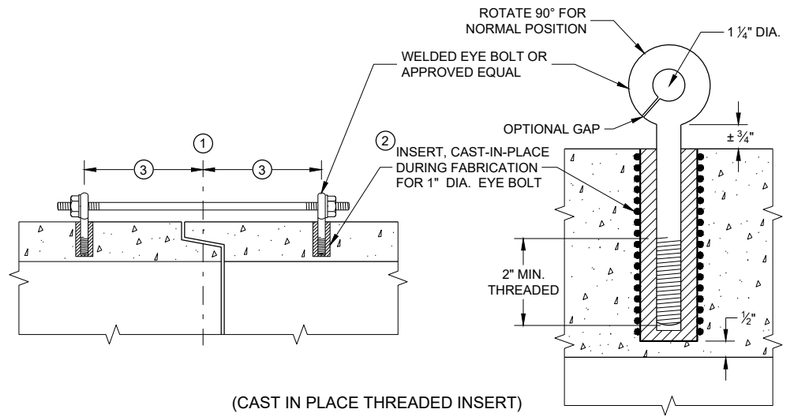
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

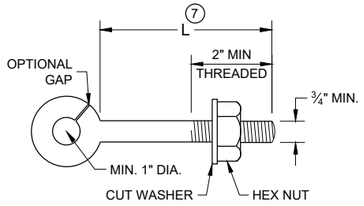
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

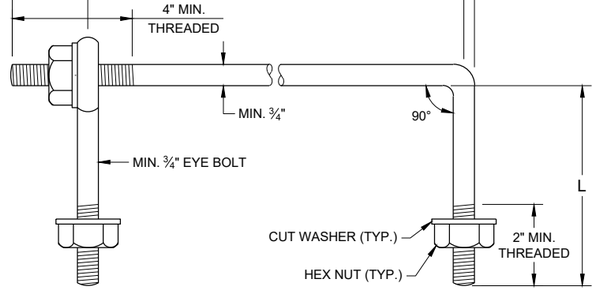
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

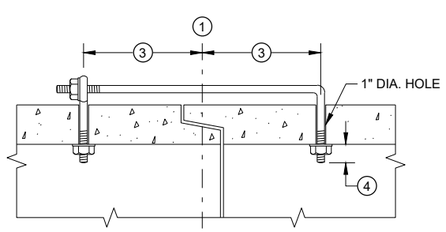


EYE BOLT (7)

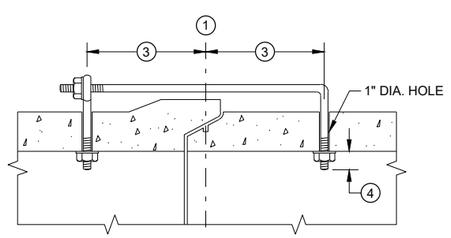
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

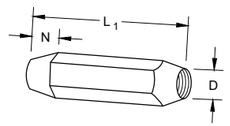
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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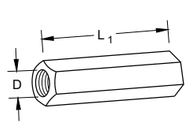
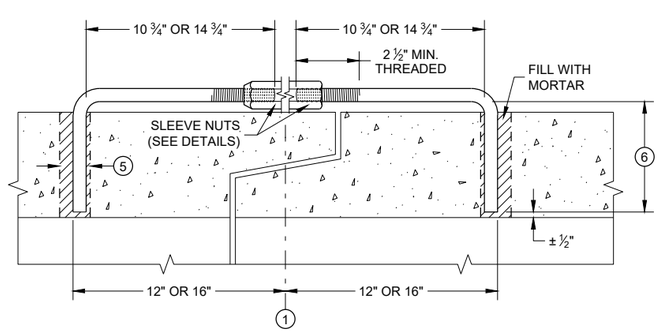


PLAIN

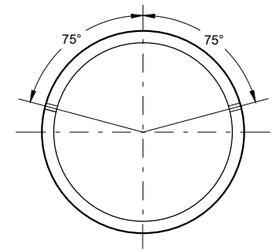
RIGHT AND LEFT THREADS

SLEEVE NUTS



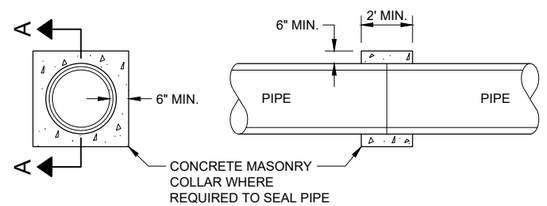
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

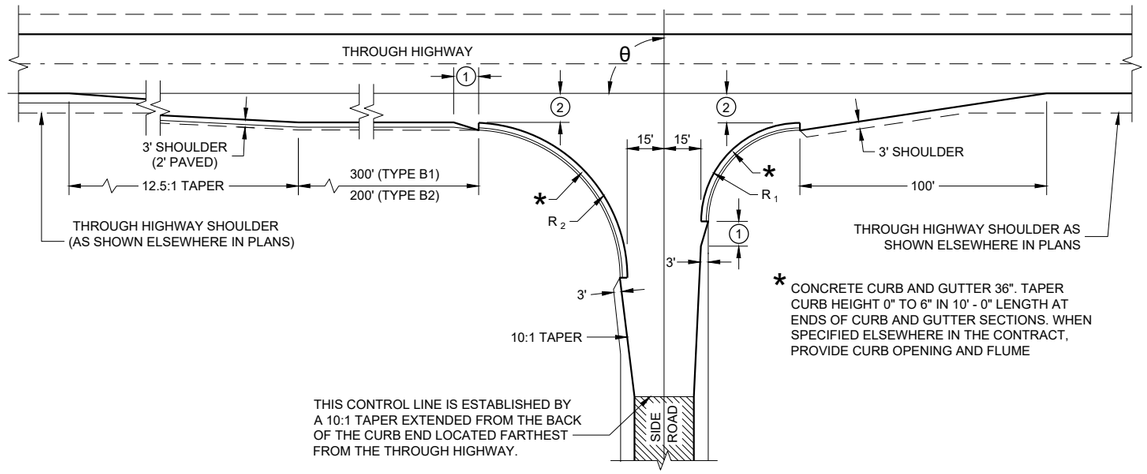
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



* CONCRETE CURB AND GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10' - 0" LENGTH AT ENDS OF CURB AND GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME

TYPE "B1" AND "B2"

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

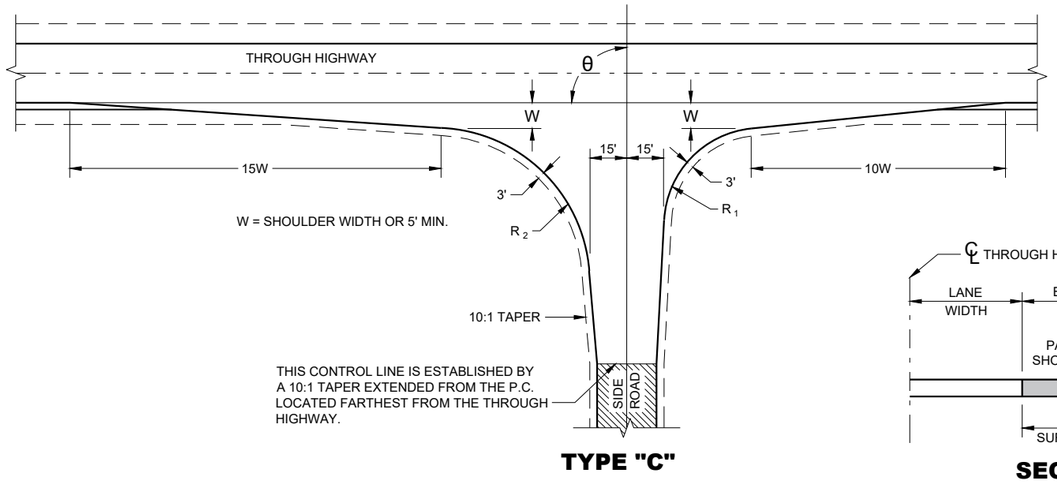
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

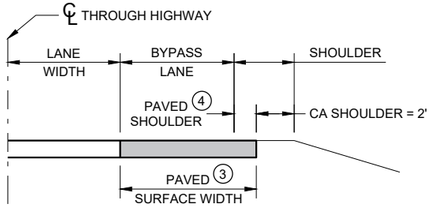
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

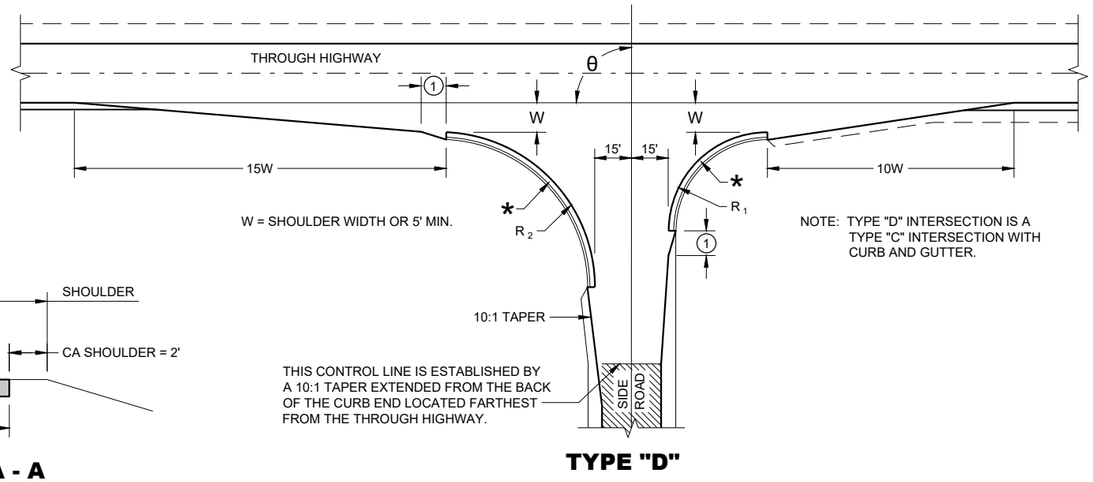
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

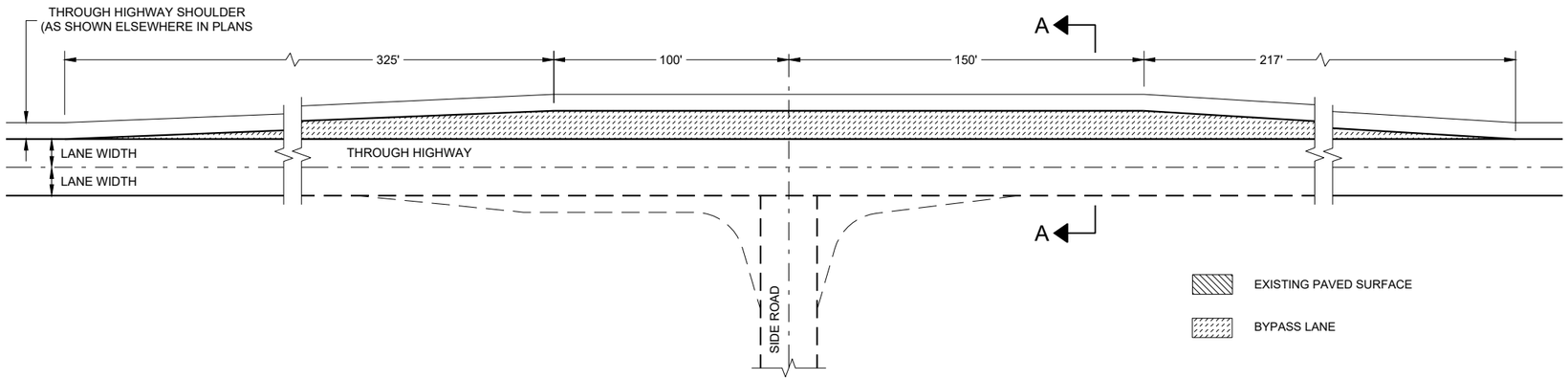


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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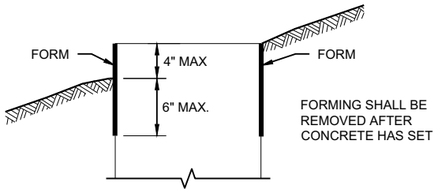
FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

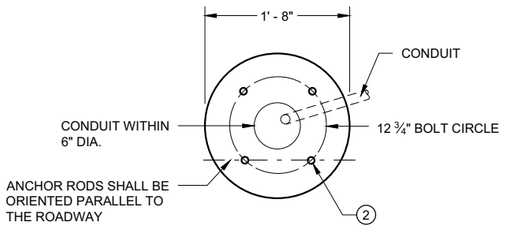
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

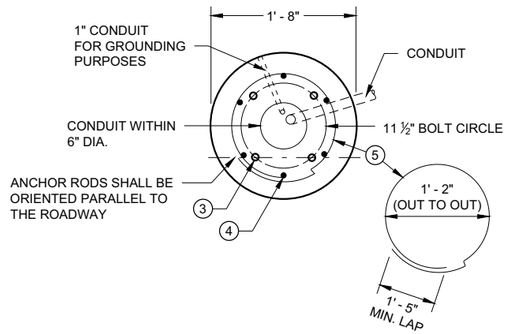
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

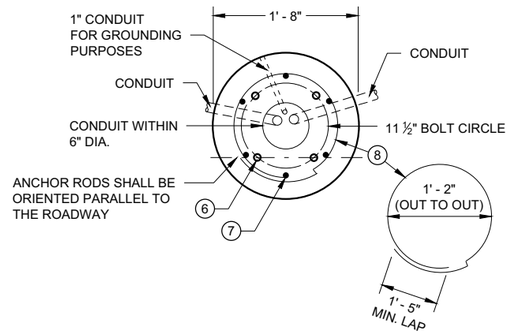
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

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

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

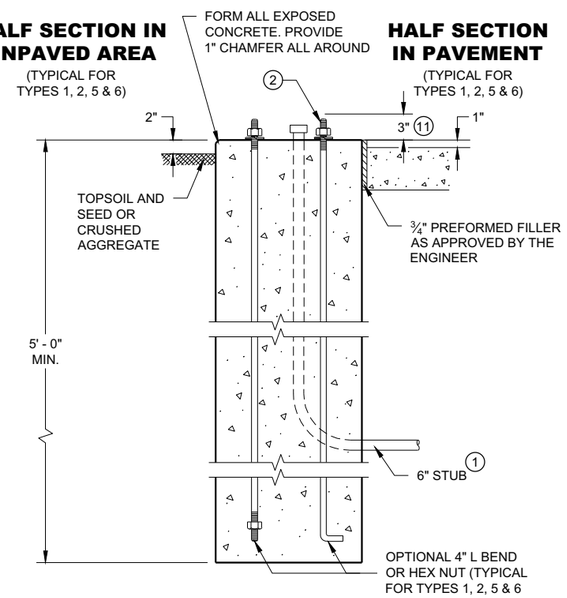
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

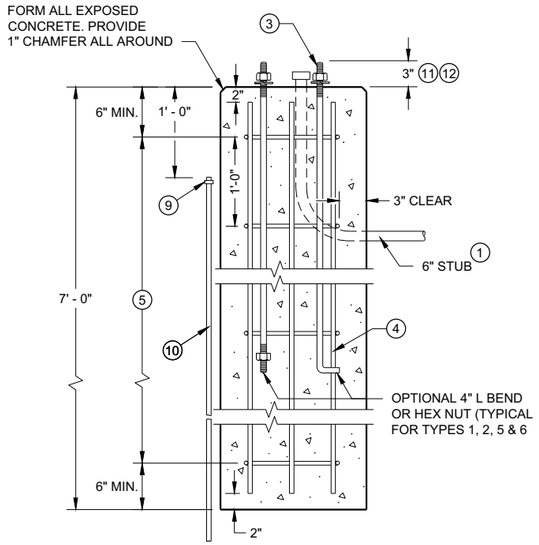
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

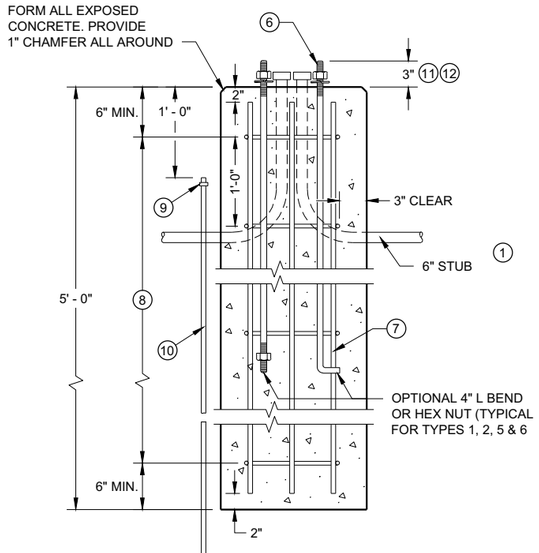
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 80

FHWA

6
SDD 09C02 - 09

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

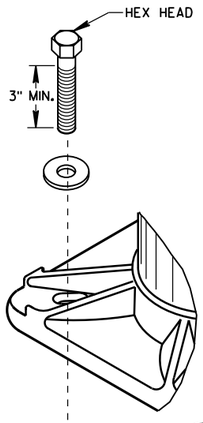
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

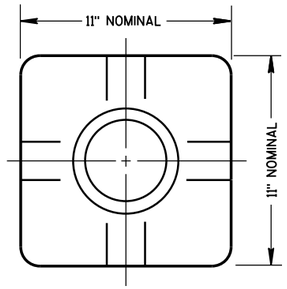
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

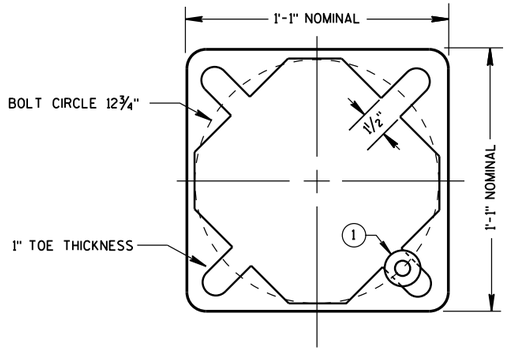
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

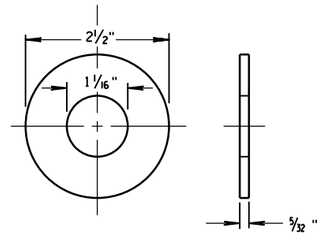




TOP VIEW
(PEDESTAL BASE)

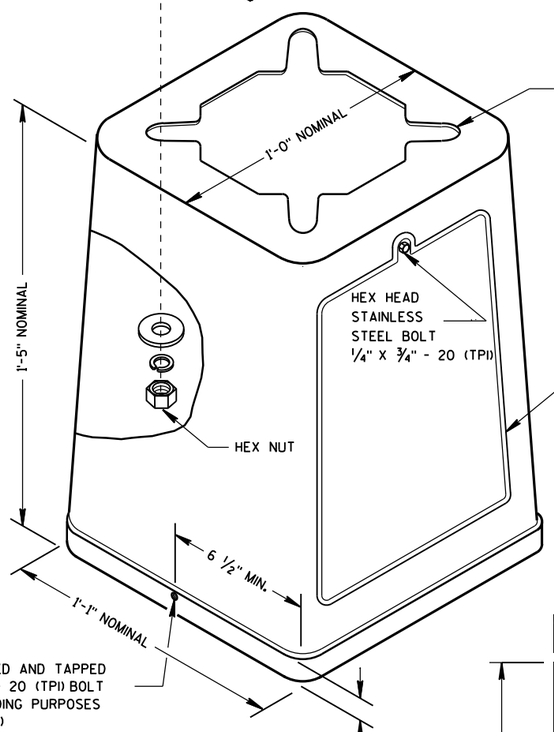


BOTTOM VIEW
(PEDESTAL BASE)

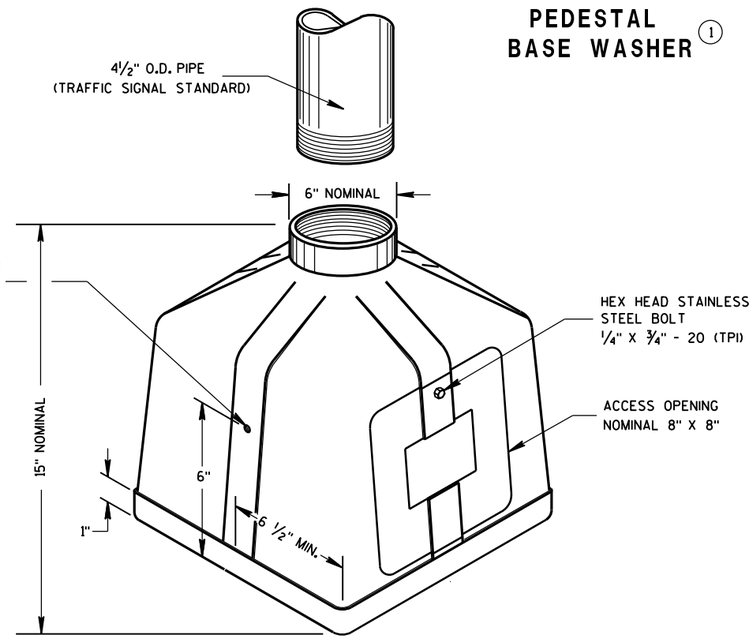


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

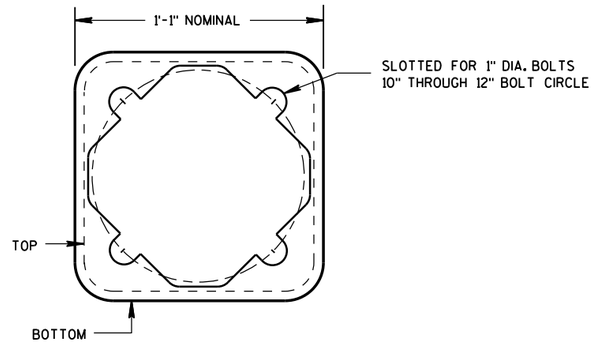


ISOMETRIC VIEW

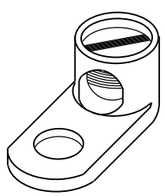


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

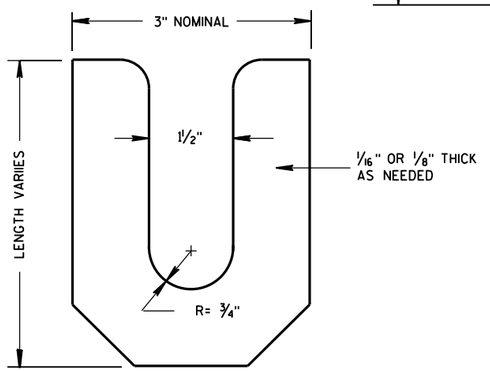


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

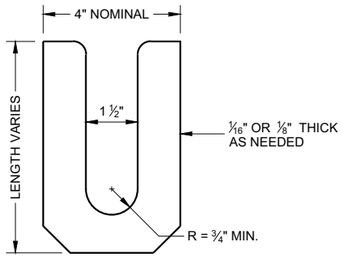
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

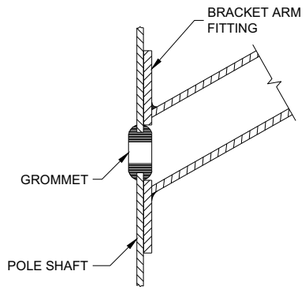
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

S.D.D. 9 C 3-4

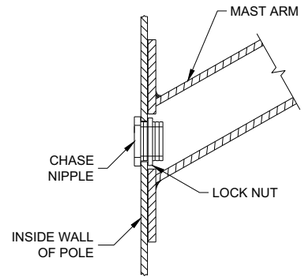
S.D.D. 9 C 3-4



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

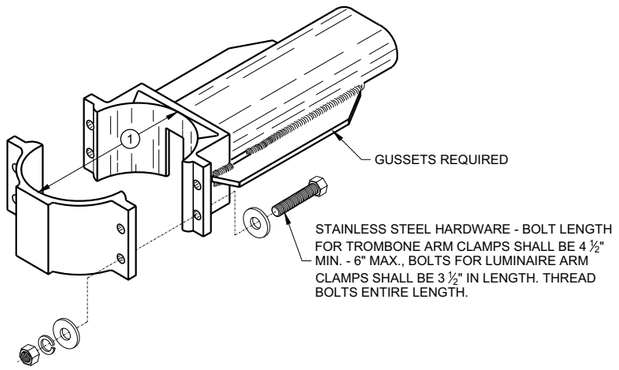
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

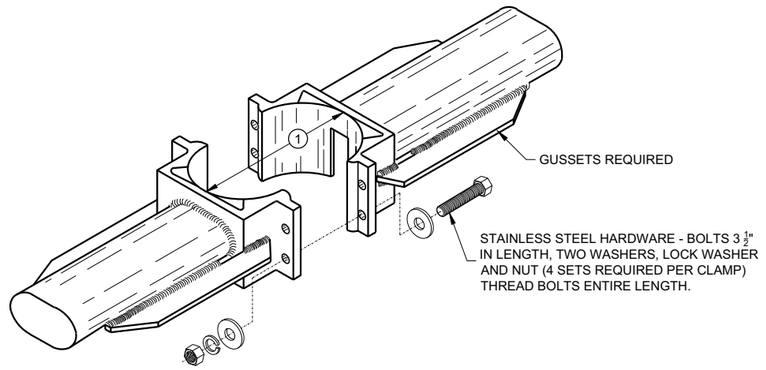
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

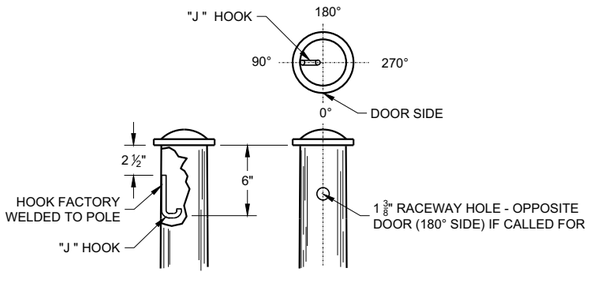
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



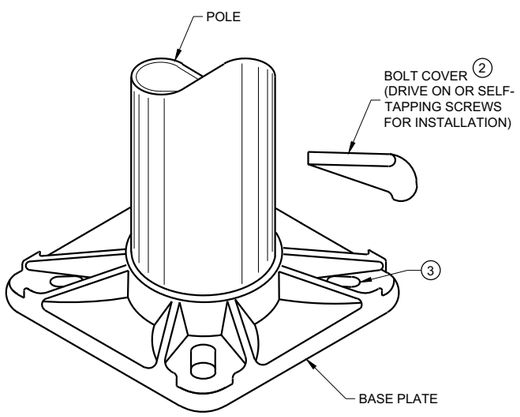
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



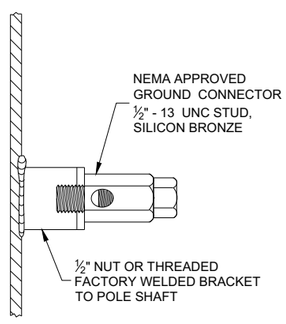
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

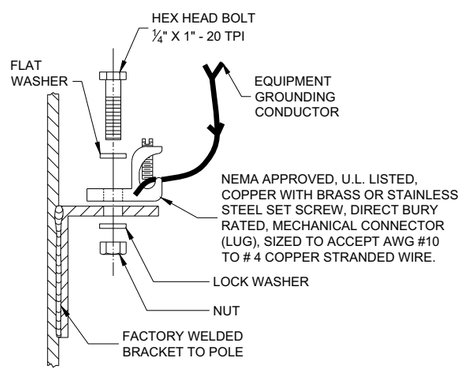


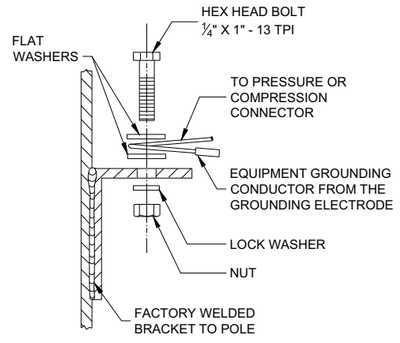
TYPICAL "J" HOOK LOCATION



BASE PLATE







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

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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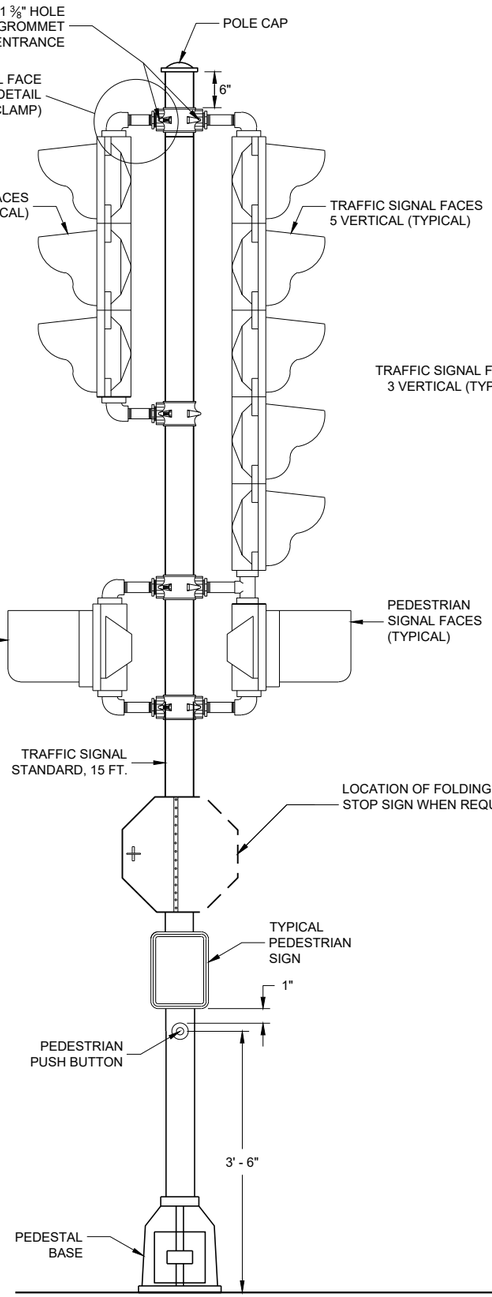
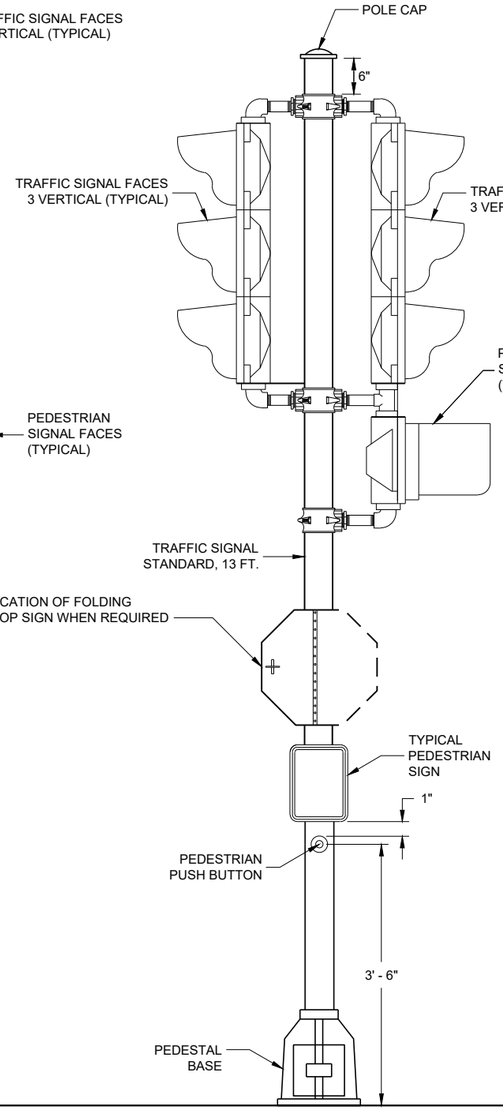
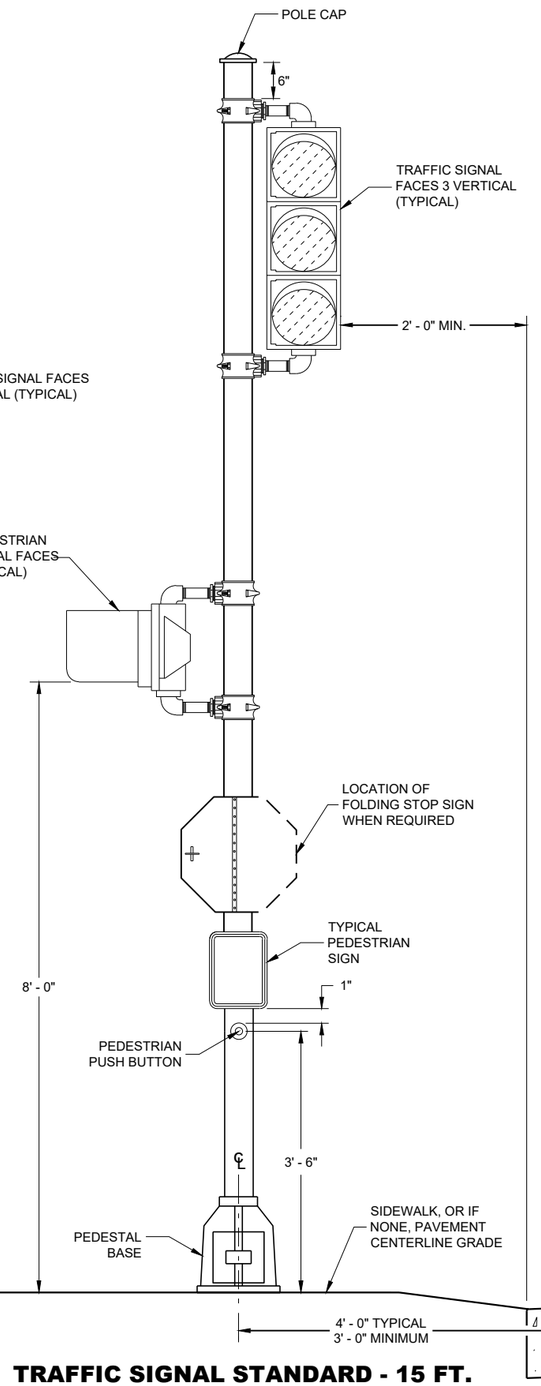
SDD 09E01 - 15g



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

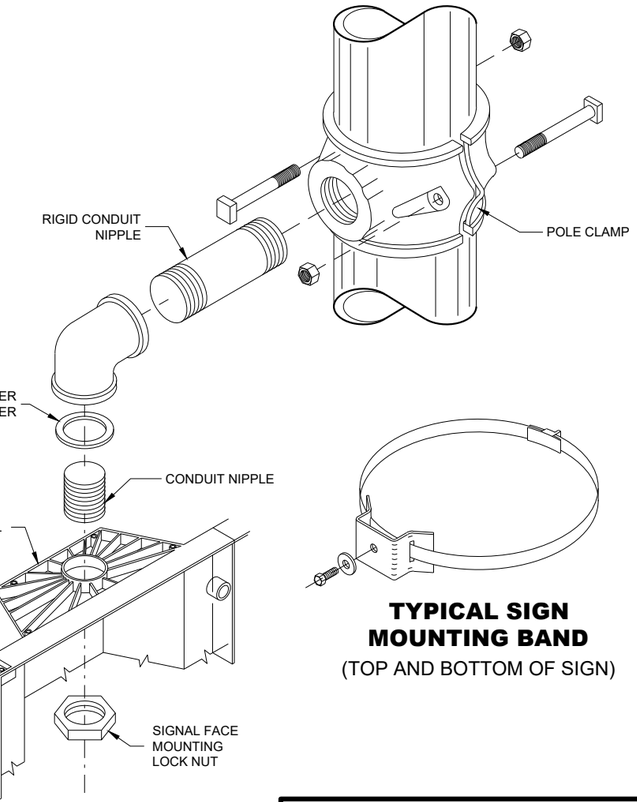
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL (ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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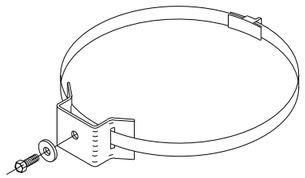
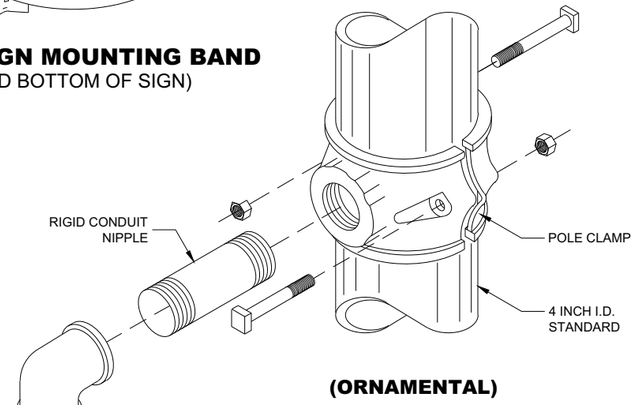
SDD 09E05 - 06

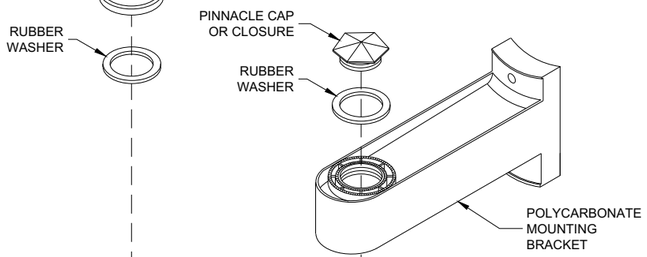
SDD 09E05 - 06



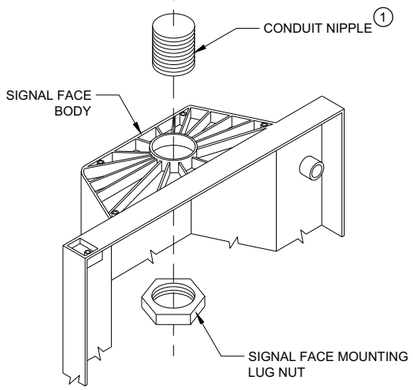
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



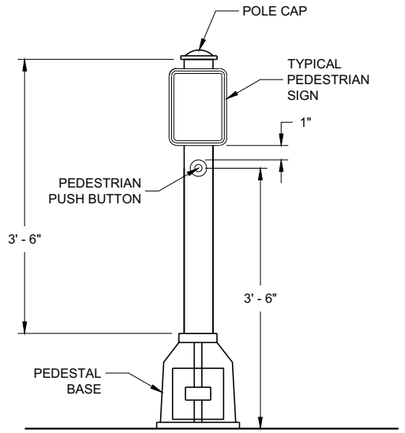
(ORNAMENTAL)



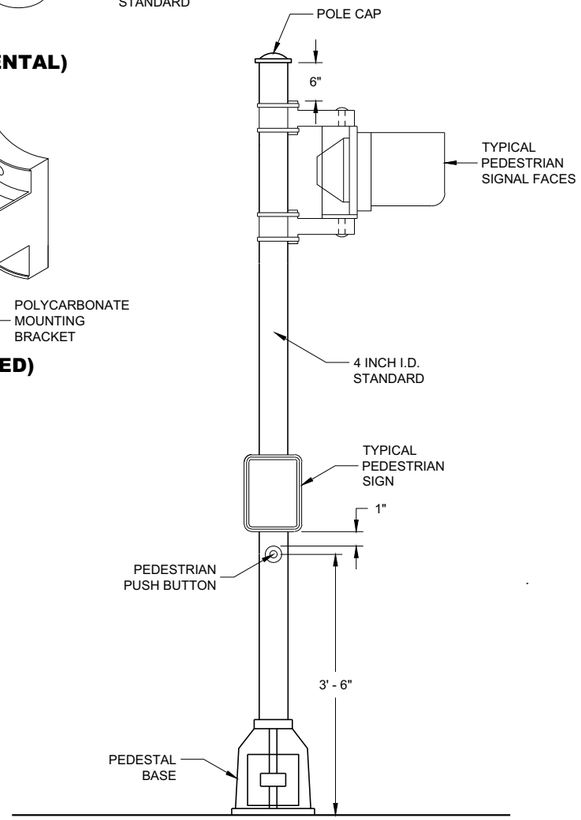
(BANDED)



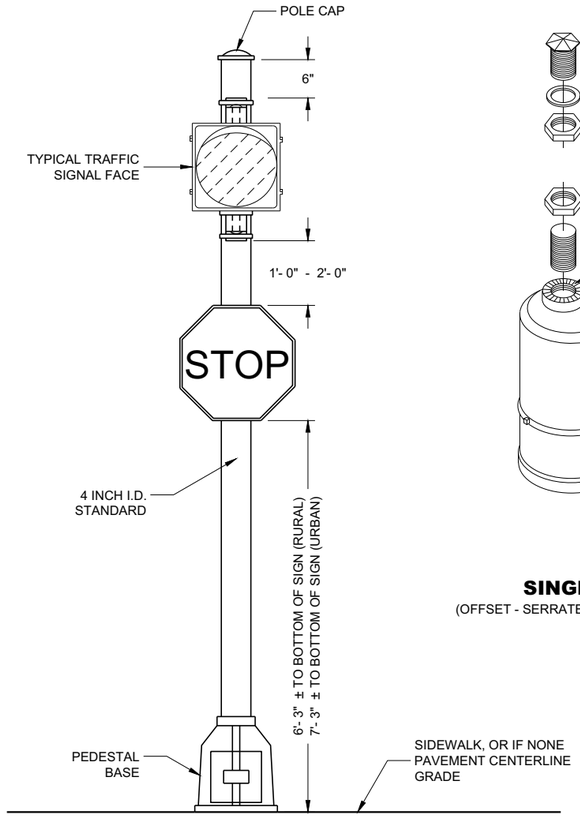
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



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



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

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

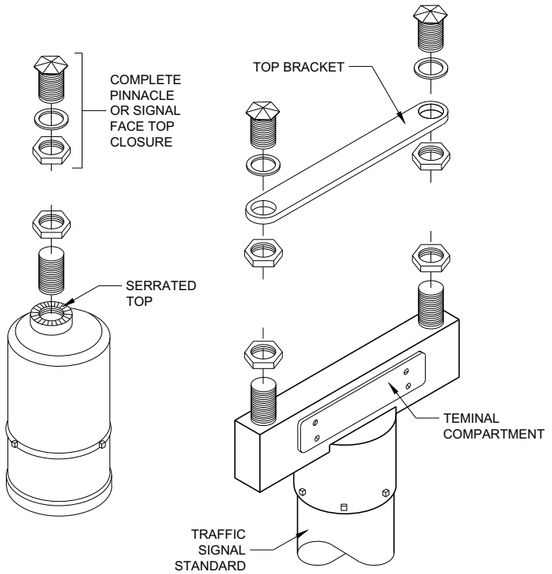
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 84

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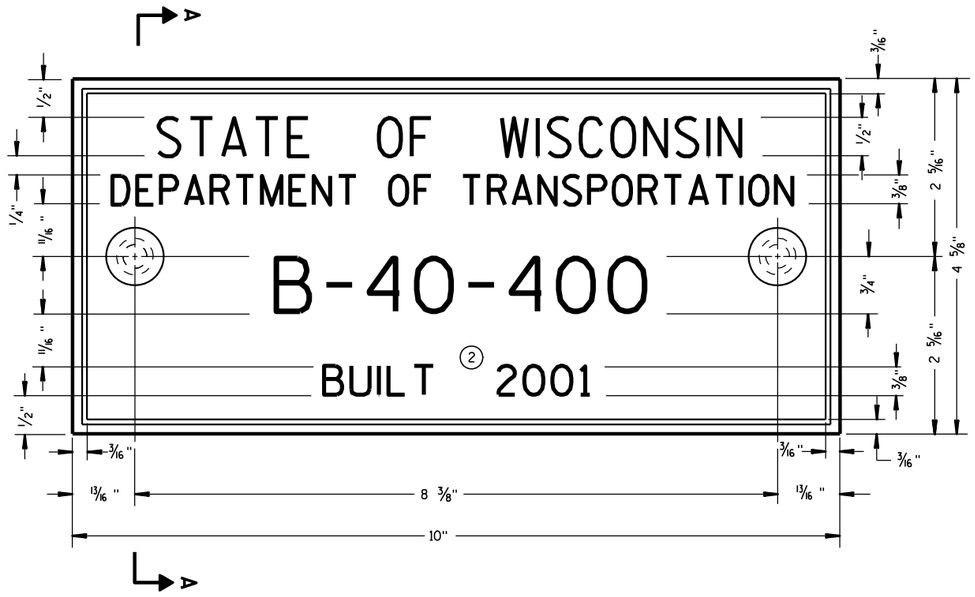
SDD 09E07 - 06



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

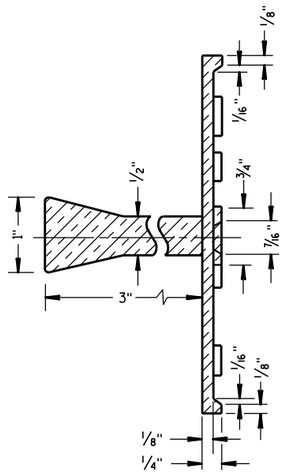
GENERAL NOTES

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

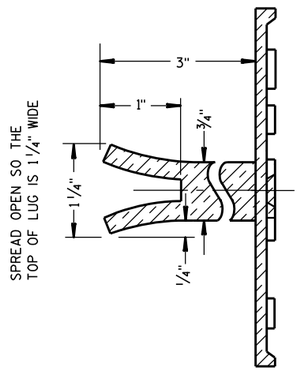
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

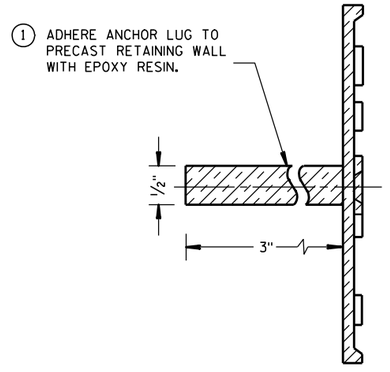
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

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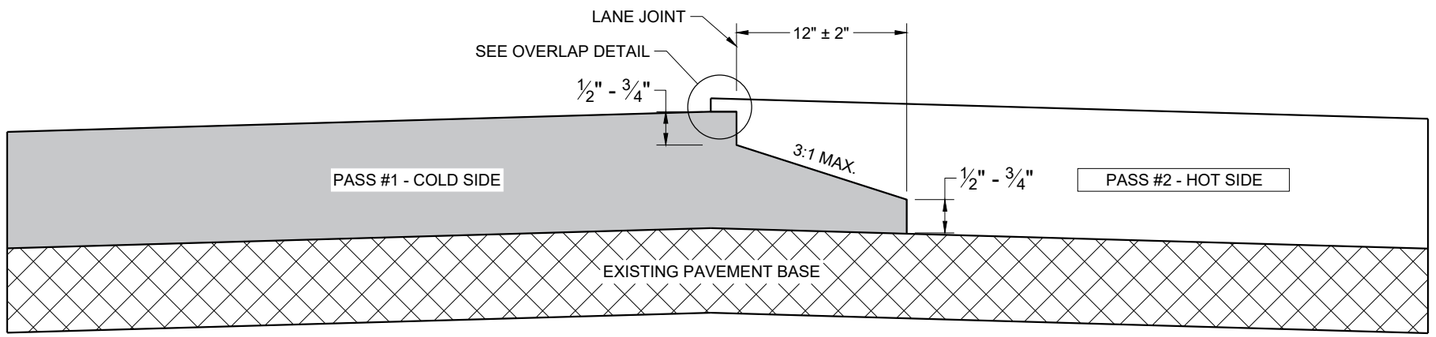
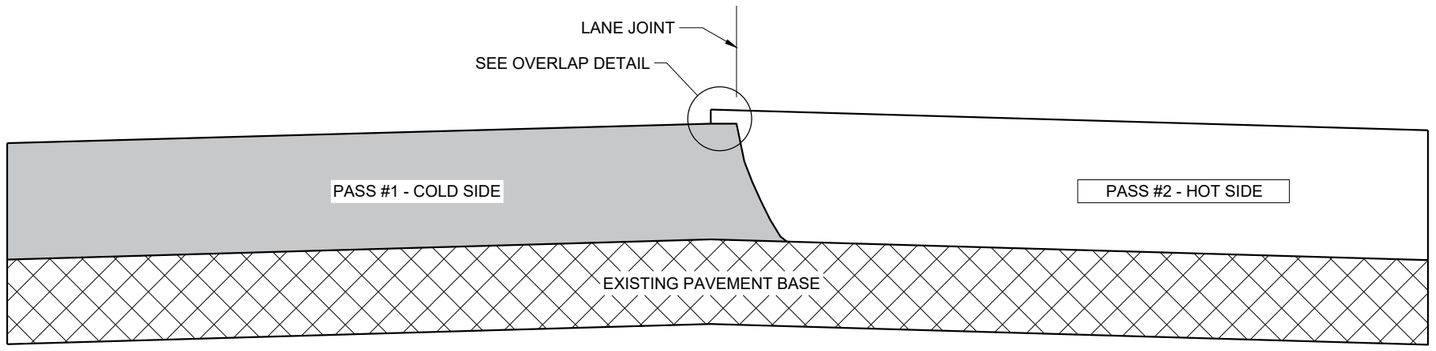
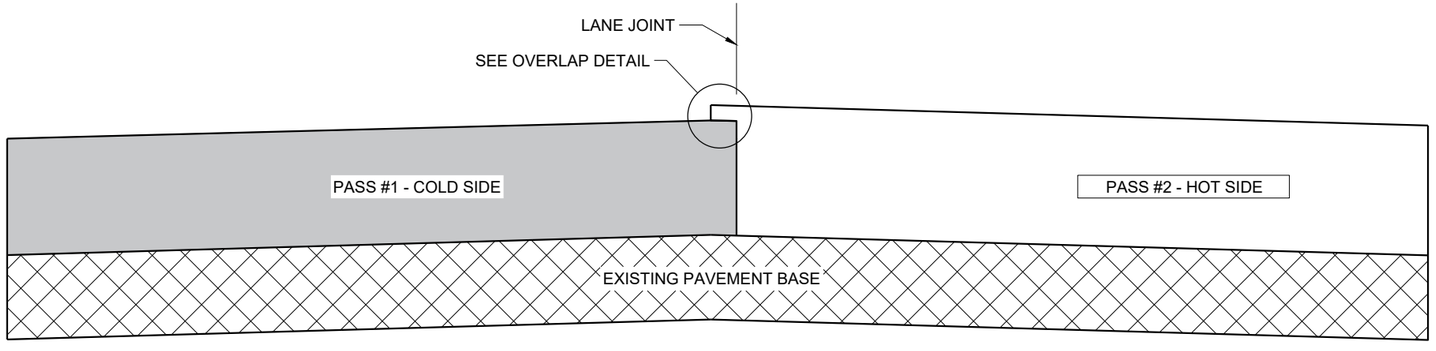
S.D.D. 12 A 3-10



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

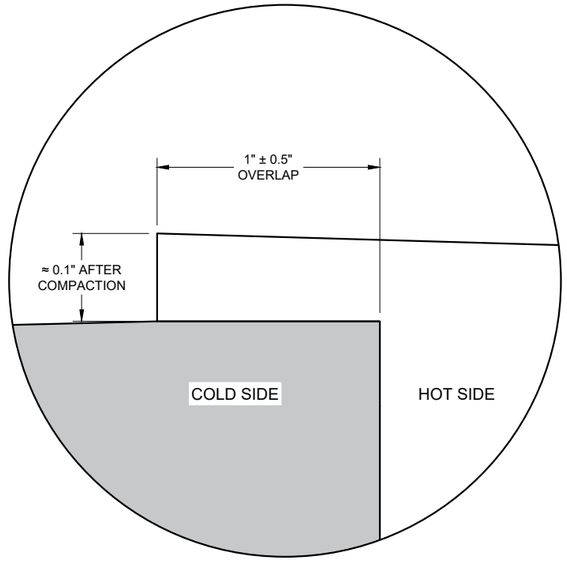
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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

FHWA

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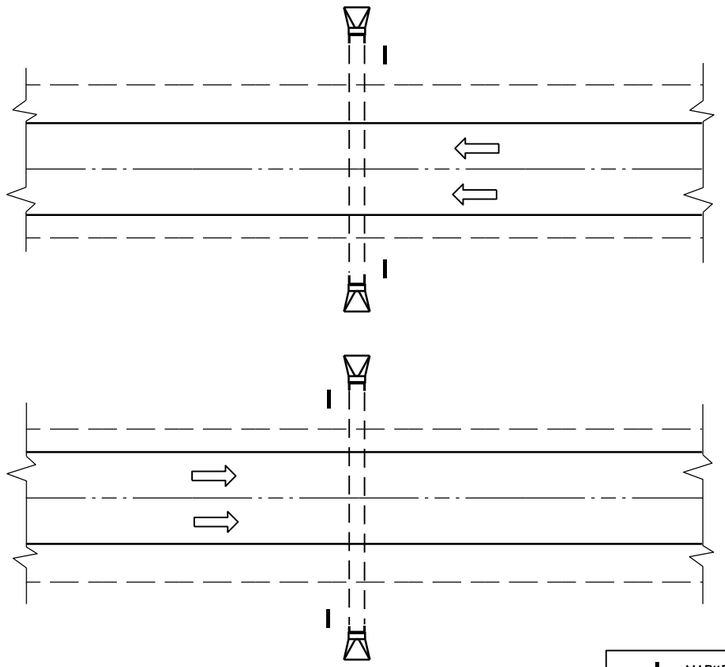
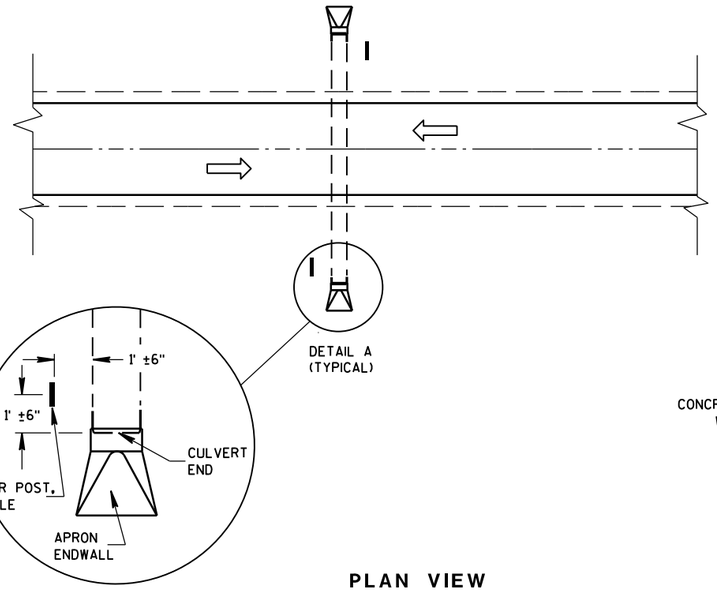
SDD 13C19 - 03



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

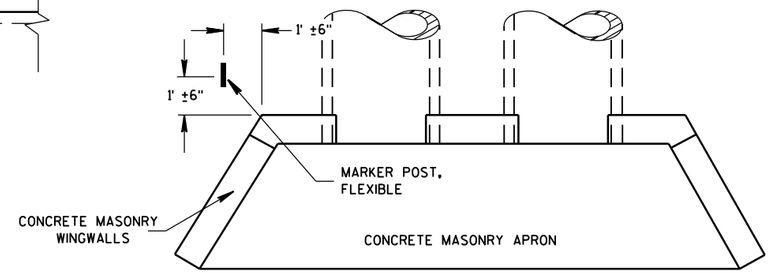
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

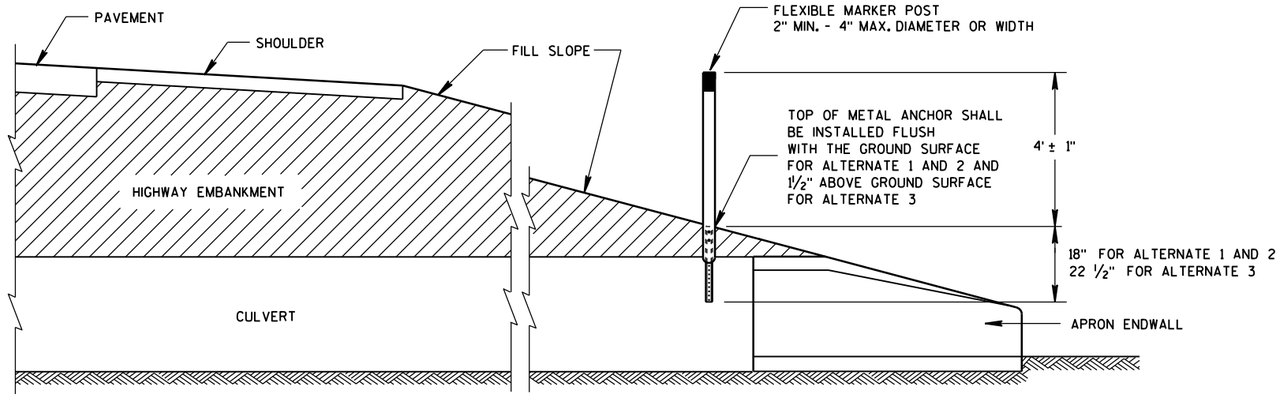
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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

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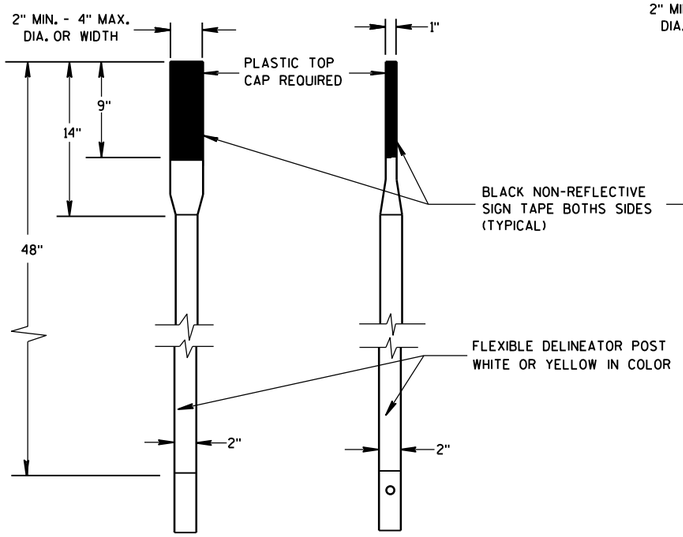
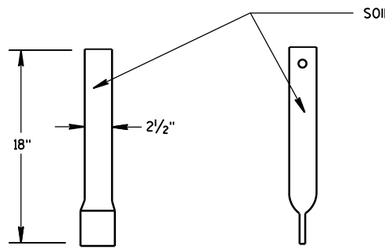
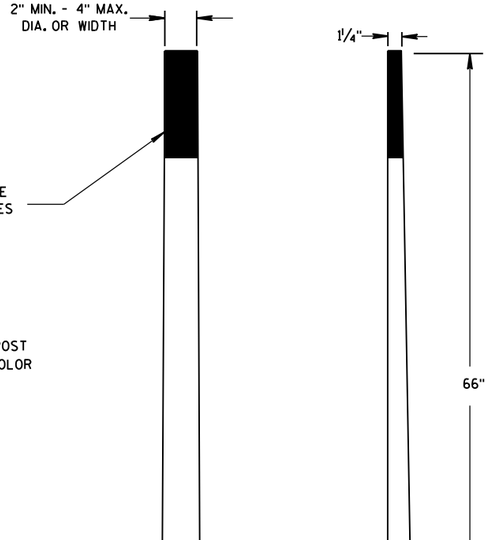
S.D.D. 15 A 3-2a





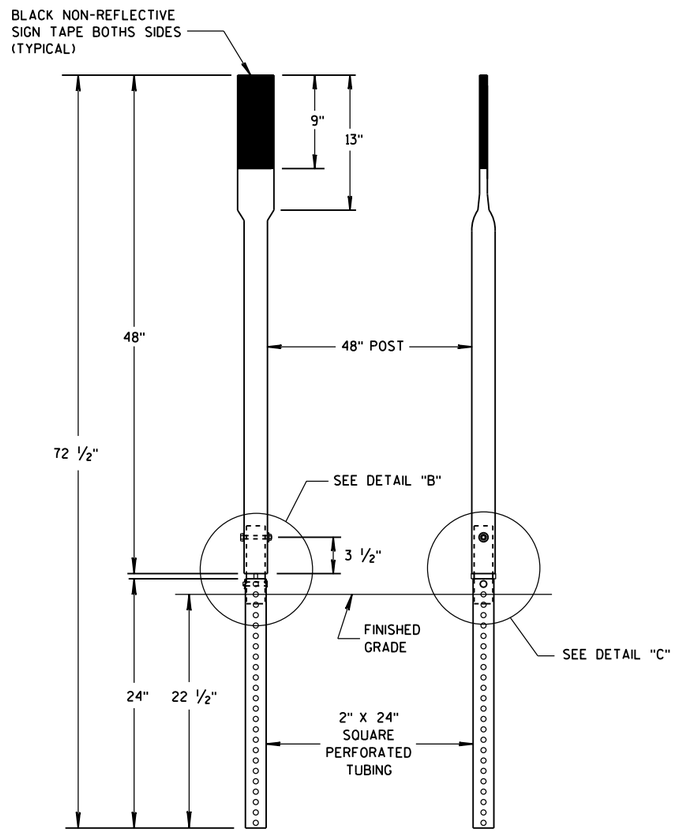
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

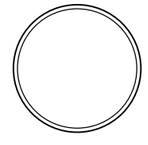
ALTERNATE 2



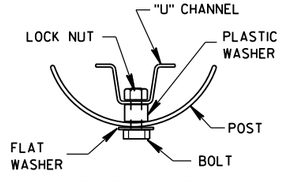
FRONT VIEW SIDE VIEW

ALTERNATE 3

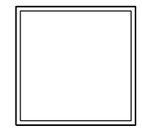
FLEXIBLE MARKER POSTS



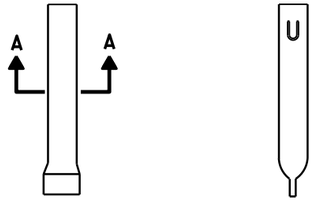
SECTION A-A



SECTION B-B

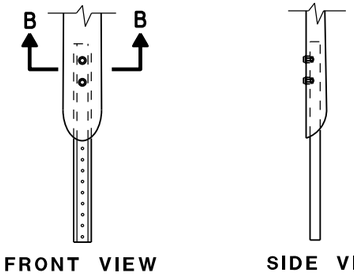


SECTION C-C



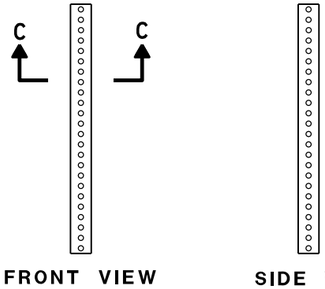
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

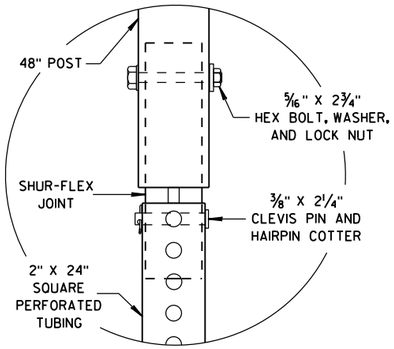
ALTERNATE 2



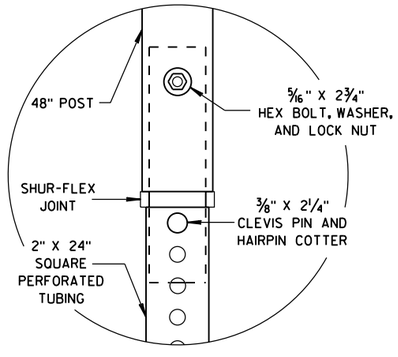
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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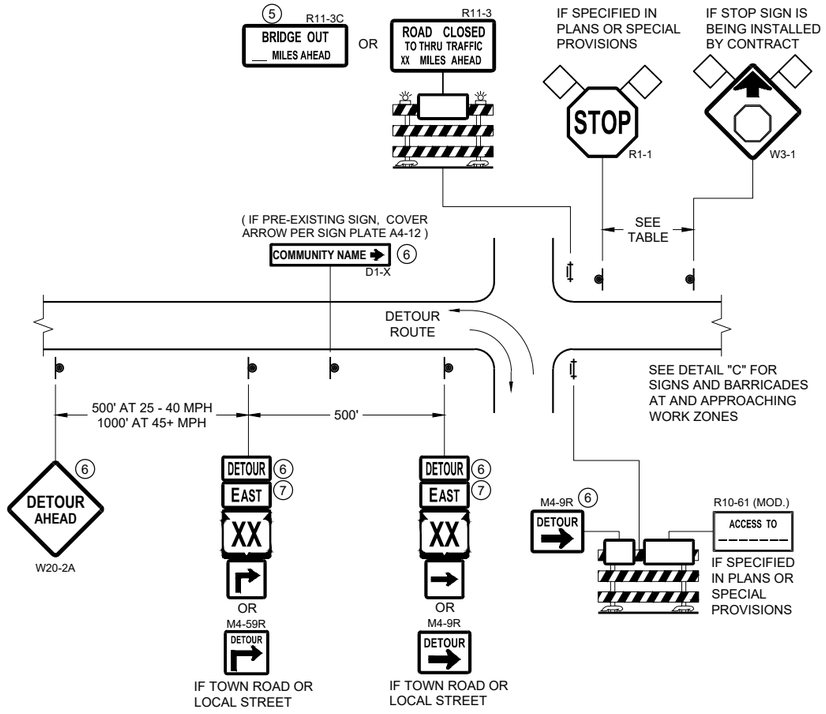
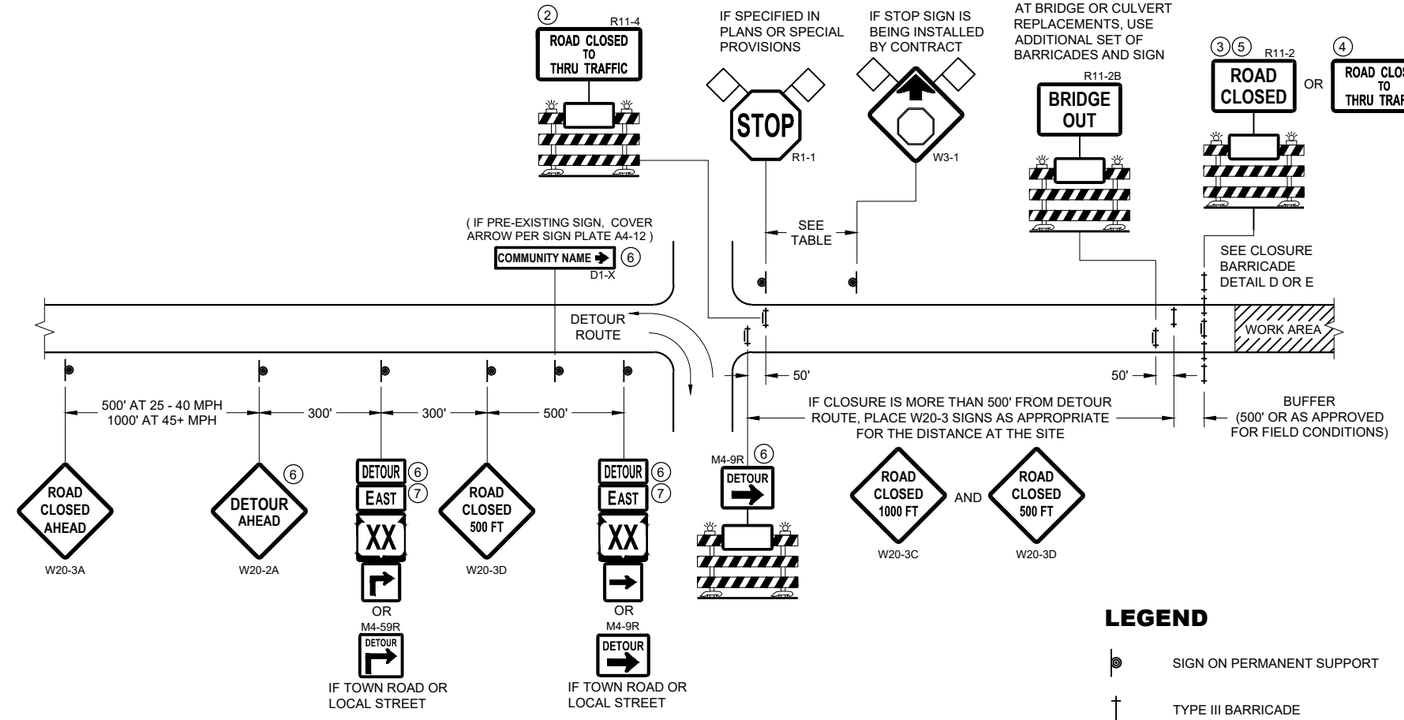
S.D.D. 15 A 3-2b



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

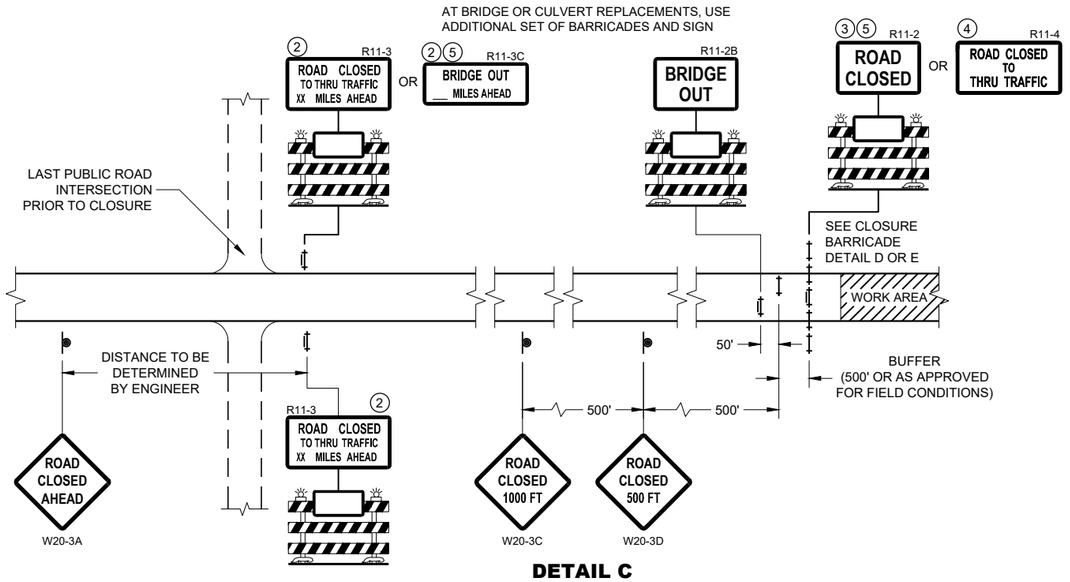


DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

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

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

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

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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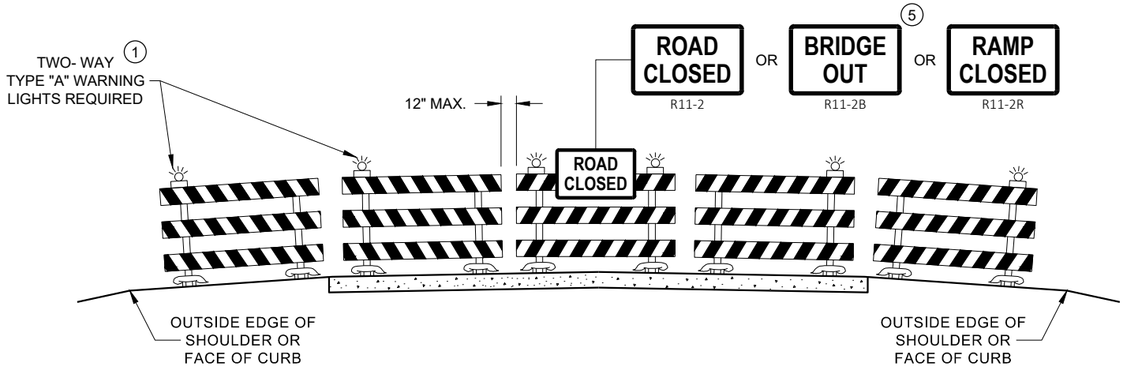
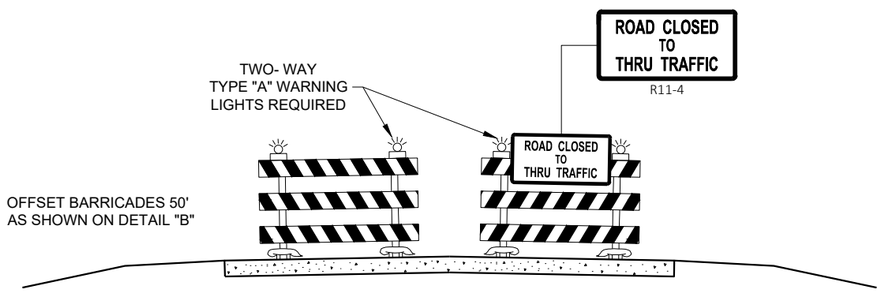
SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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SDD 15C02 - 09b

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SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- XX — M1 - 6
- COUNTY / X — M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST *

DETOUR ROUTE

WORK AREA

DETOUR NEXT X MILES *
G20-51

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59L DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

MATCH POINT

M4-59L DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-9R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59R DETOUR * ** OR
IF TOWN ROAD OR LOCAL STREET

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR ROUTE

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

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

500' AT 25 - 40 MPH
1000' AT 45+ MPH

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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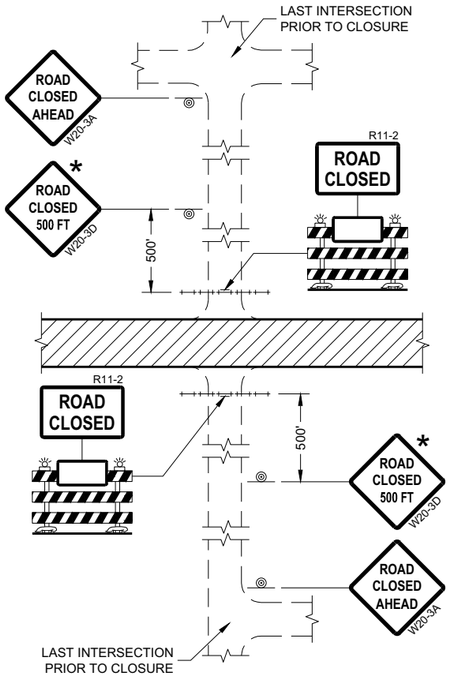
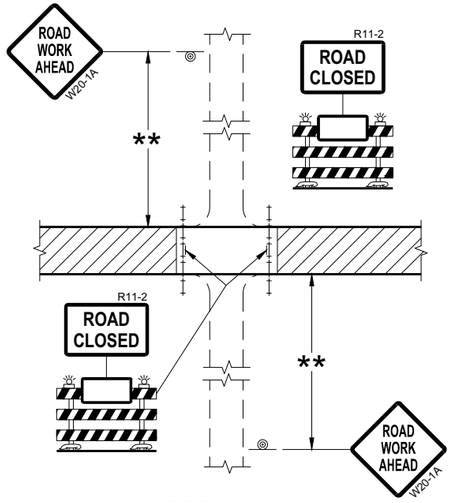
SDD 15C02 - 09c



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

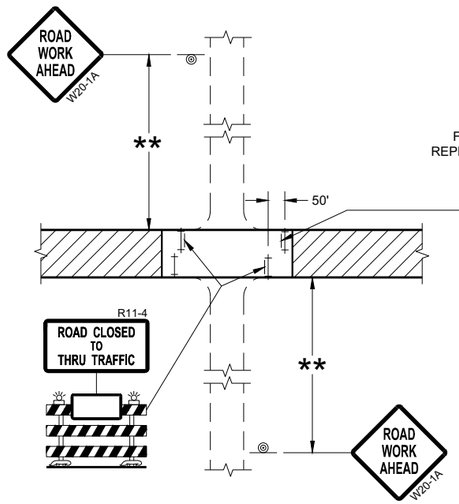
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

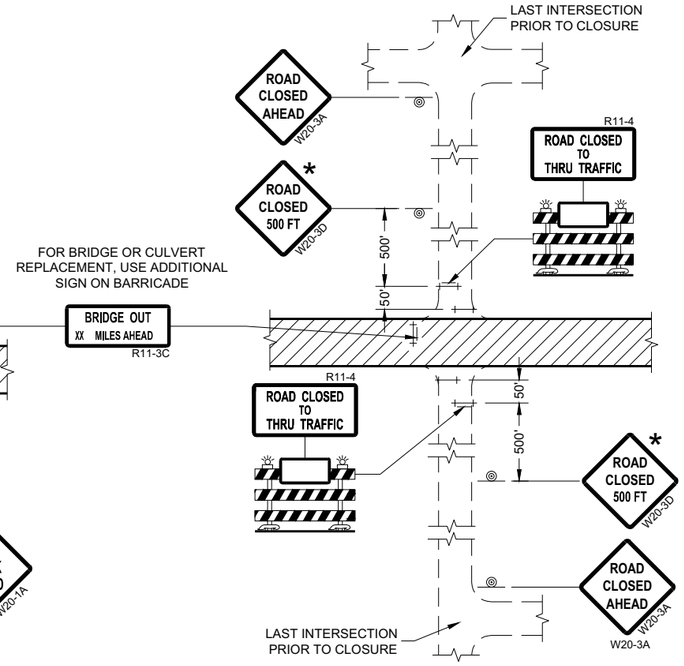
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



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



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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

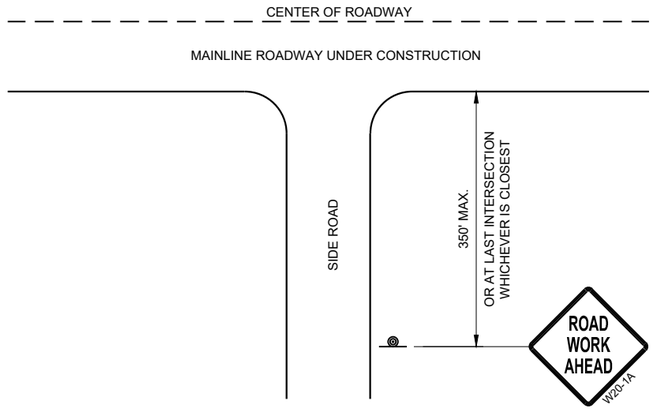
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



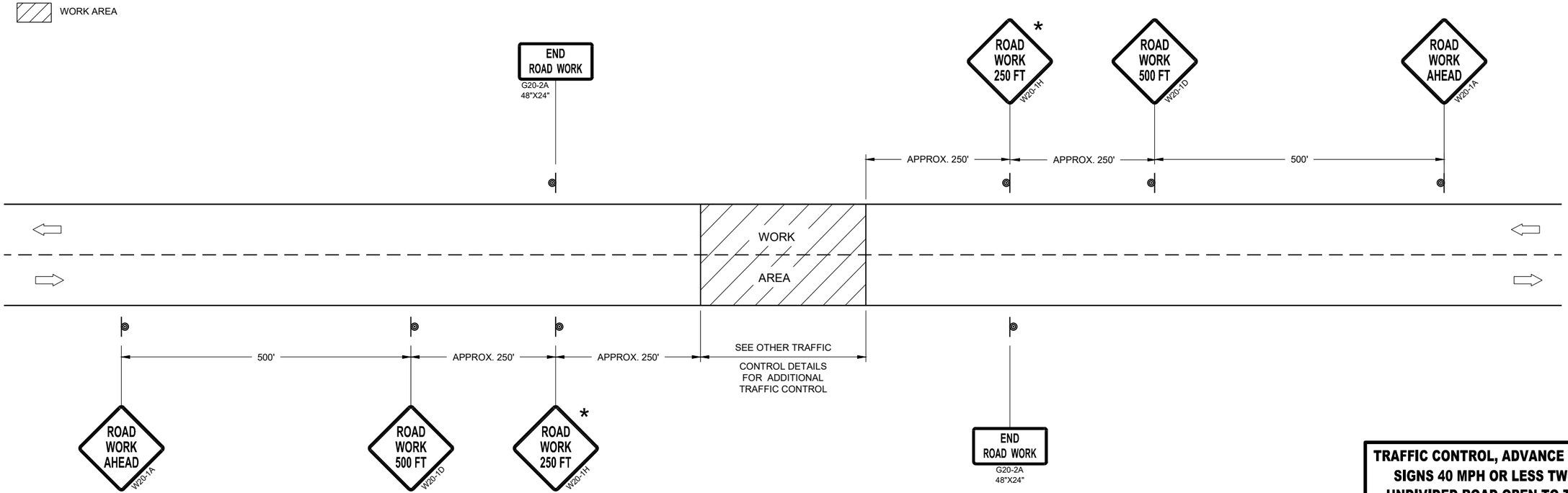
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C05 - 05

6

SDD 15C05 - 05

GENERAL NOTES

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

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

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

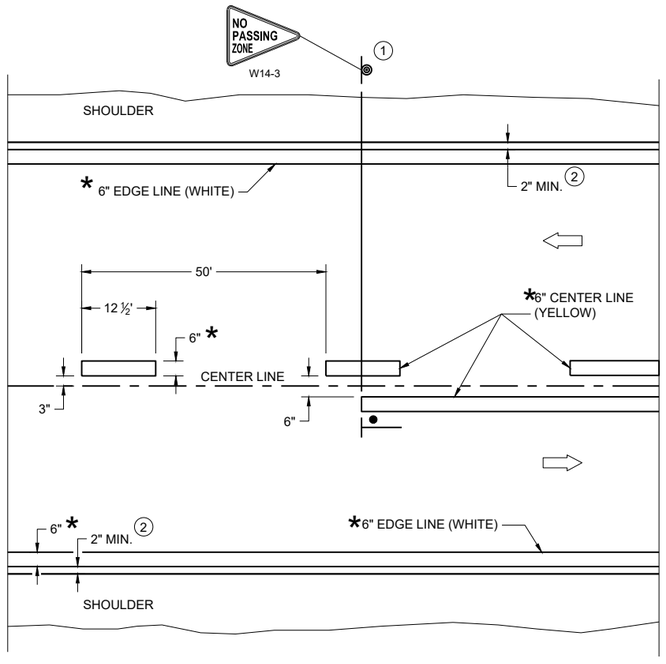
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

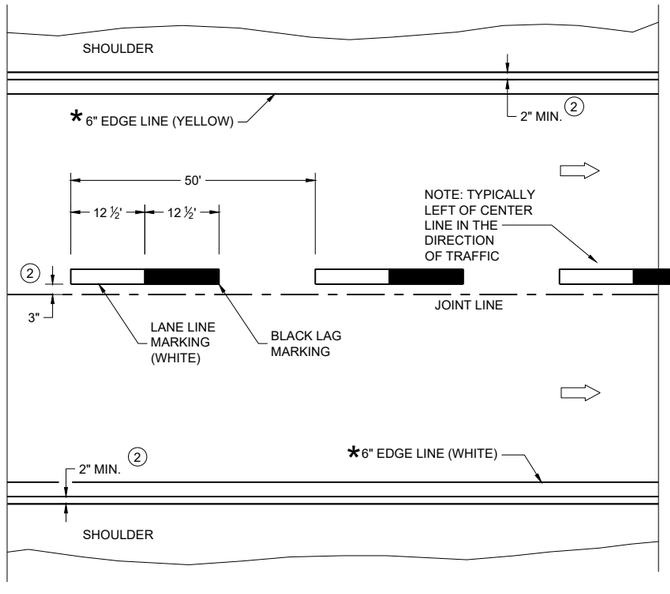
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

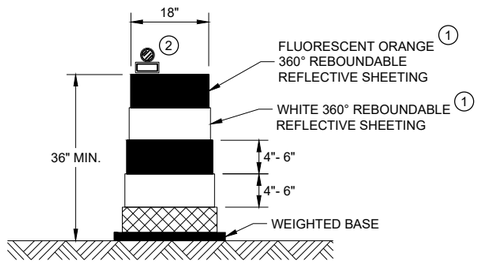
APPROVED
May 2023 — DATE
/S/ Jeannie Silver — Statewide Pavement Marking Engineer
FHWA

6

SDD 15C08-23a

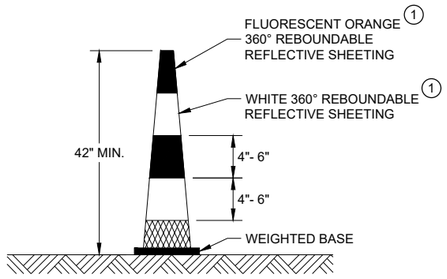
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

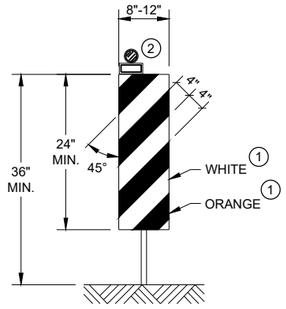
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

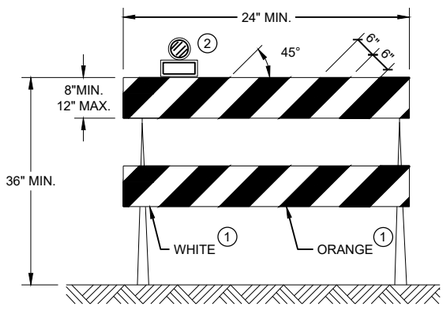
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



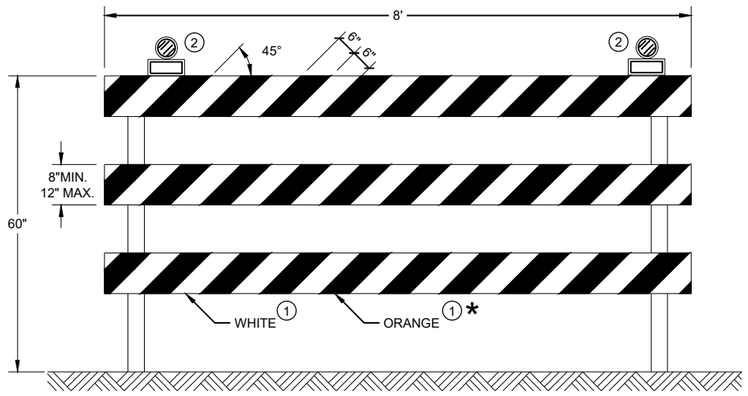
VERTICAL PANEL

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



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C11 - 10b

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SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

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.

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

FLAGGING

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 REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

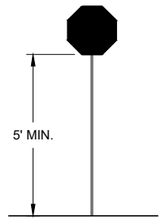
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



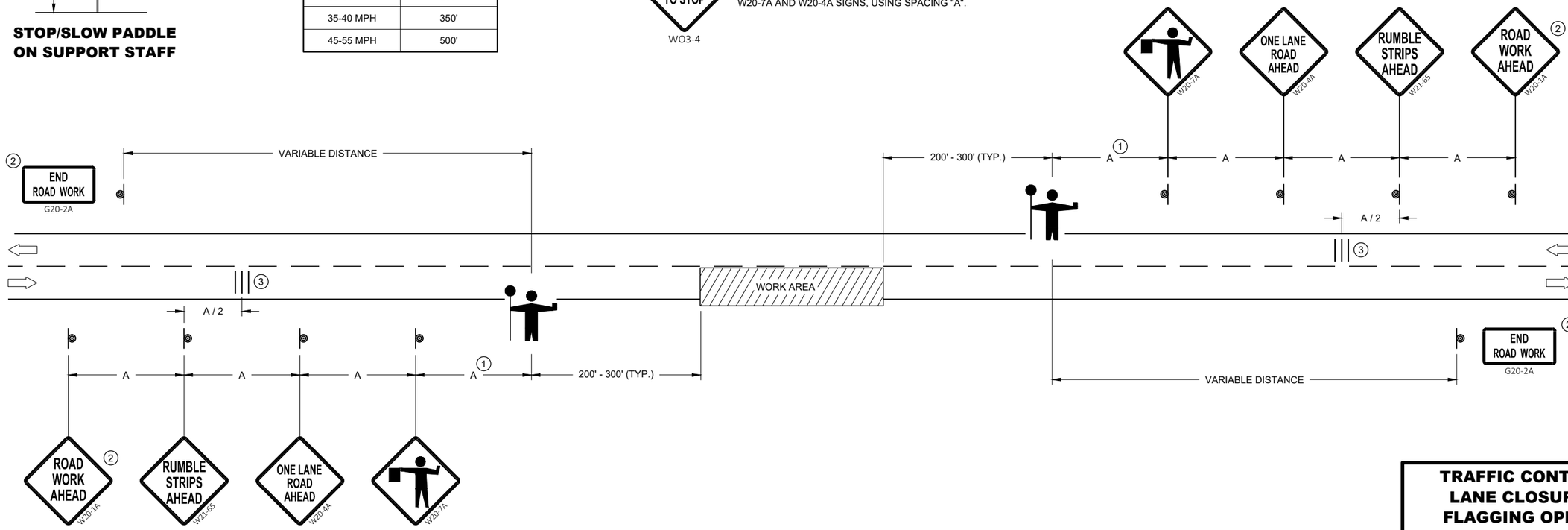
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

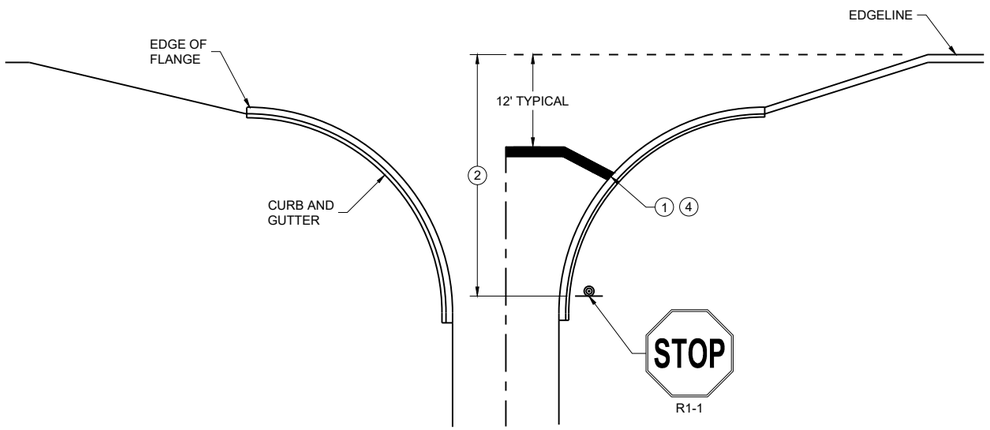
SDD 15C12 - 09a

SDD 15C12 - 09a

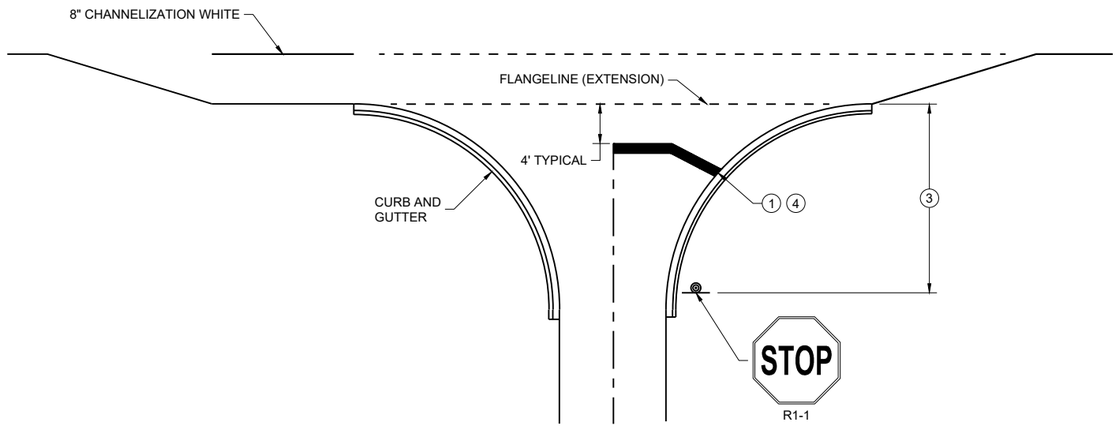
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

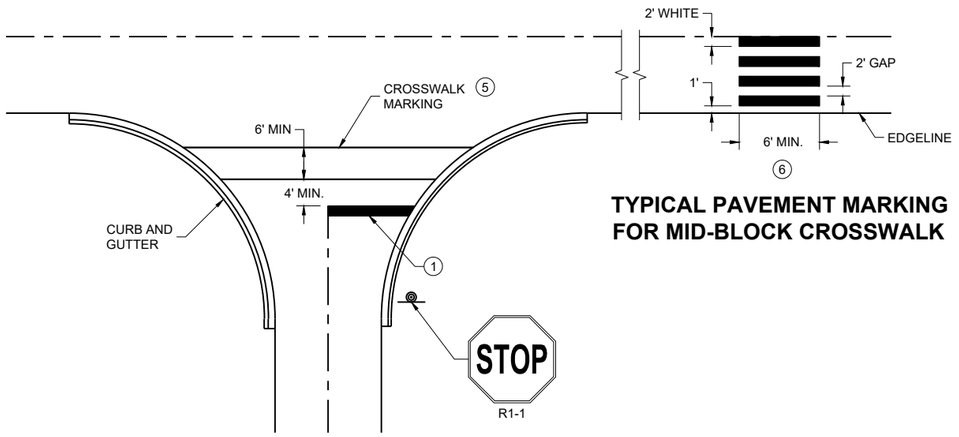
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

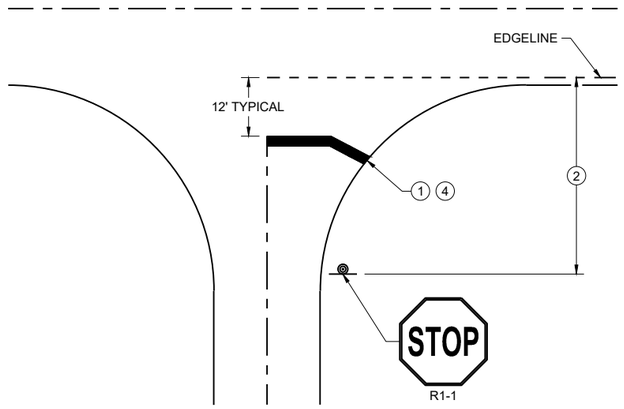


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

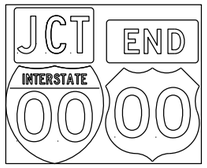
FHWA

6

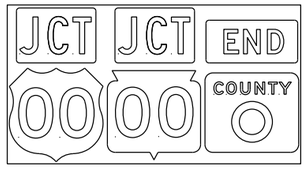
SDD 15C33-05

TYPICAL ASSEMBLIES

J1-1



J1-2

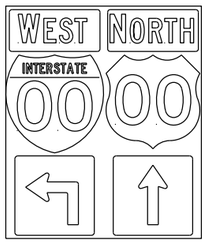


J1-3

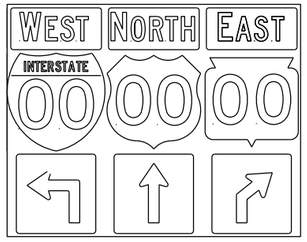
JR1-1

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

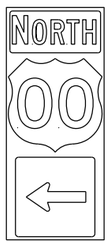
J2-1



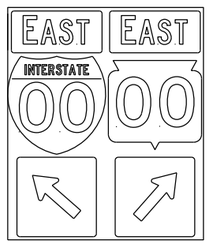
J2-2



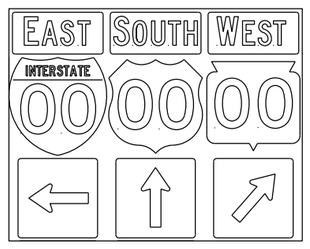
J2-3



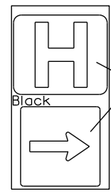
J3-1



J3-2

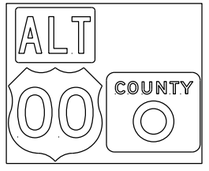


J3-3

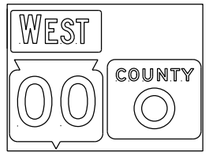


JH-1

J4-1

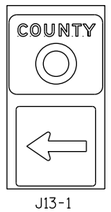


J4-2



J4-2

J12-1



J13-1

J32-1

J33-1

J22-1

J23-1

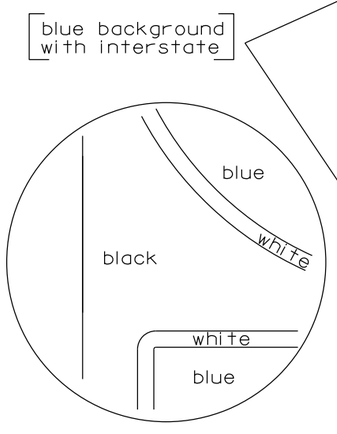
JR13-1

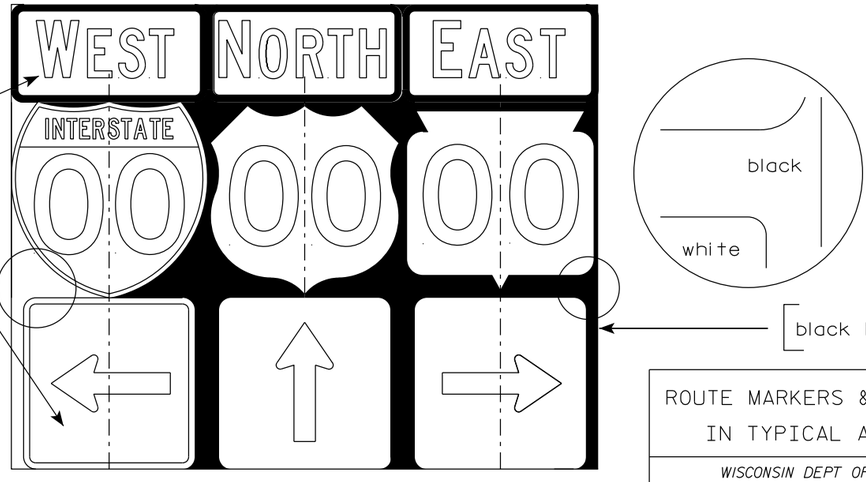
JR23-1

JR99-1

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 4
3. Message Series - See Note 4
4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
5. 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.
6. 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.
7. 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.
8. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (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.
9. All Vertical J Assemblies are given a Sign Code of JV
10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.





ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

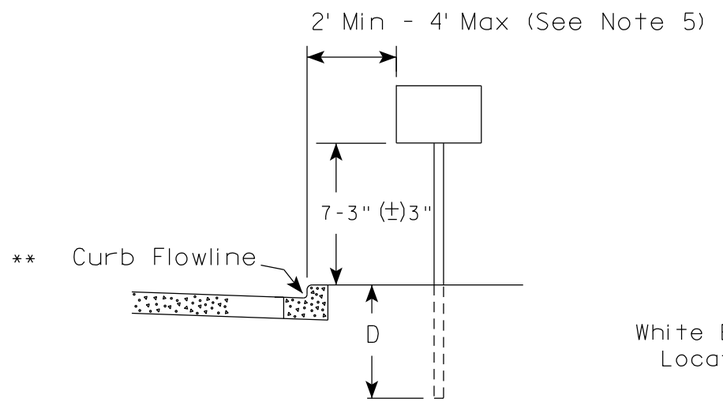
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/23 PLATE NO. A2-1S.10

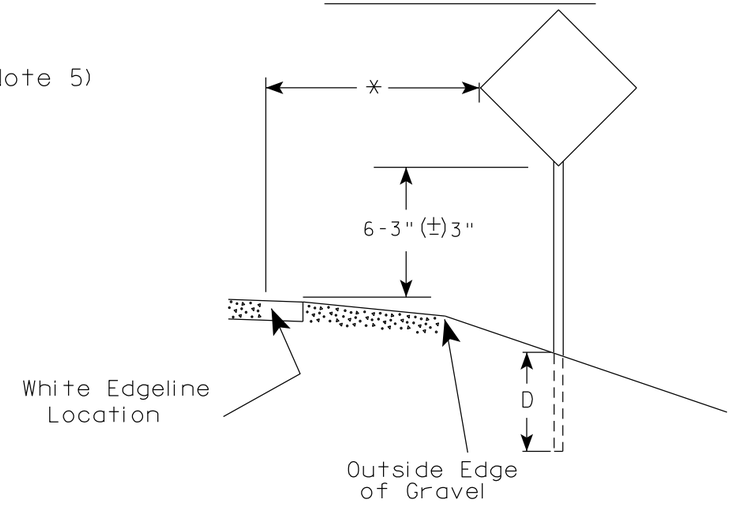
PROJECT NO:

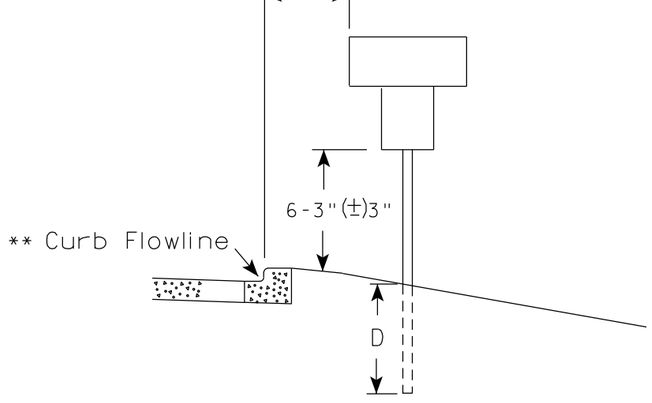
SHEET NO: 98 E

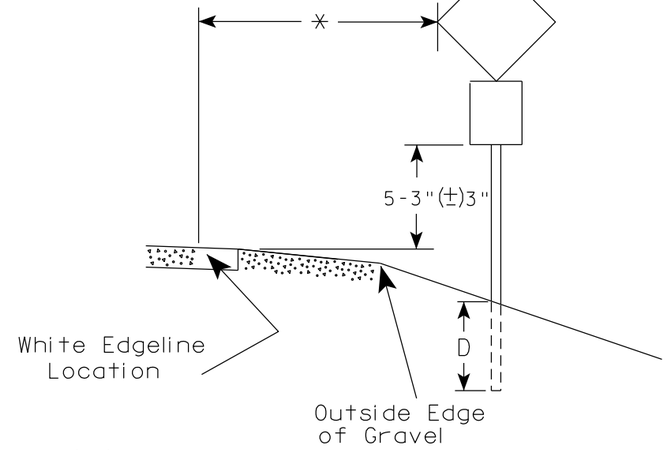
URBAN AREA



RURAL AREA (See Note 2)







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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

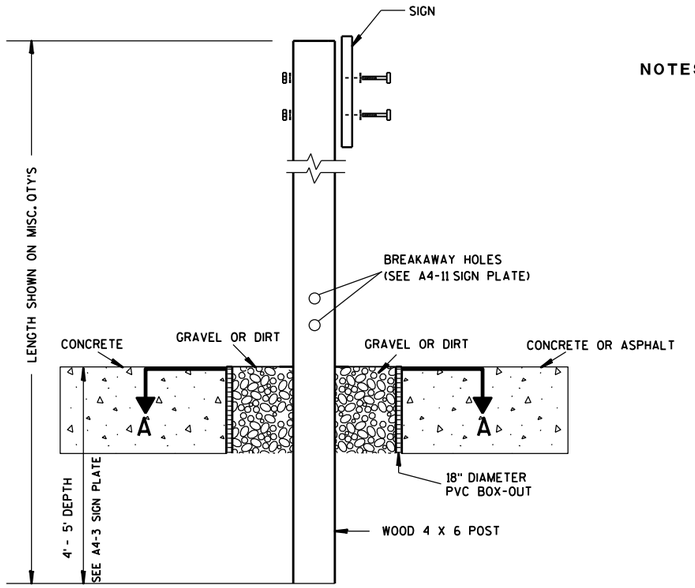
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

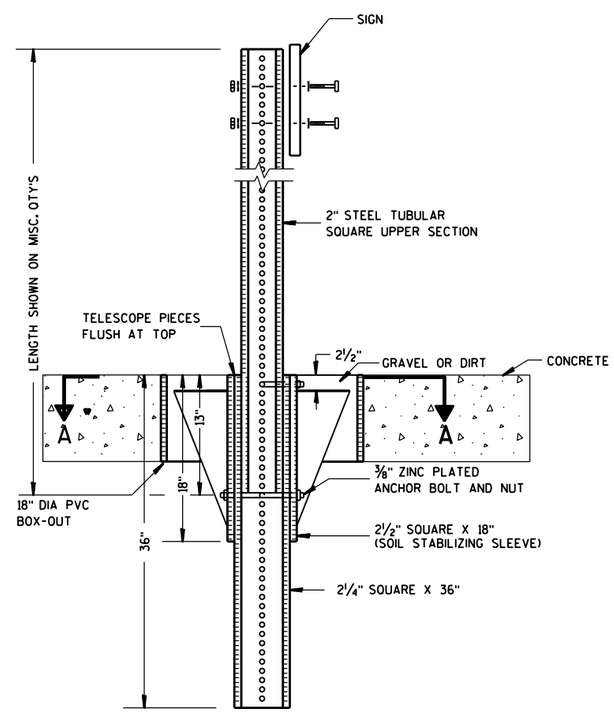
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 99	E



ELEVATION VIEW

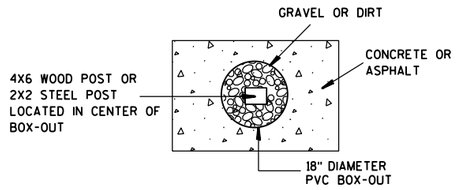
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

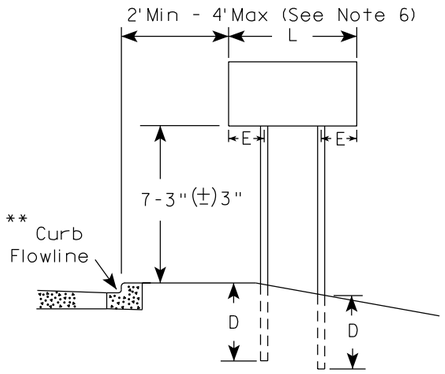
WISCONSIN DEPT OF TRANSPORTATION

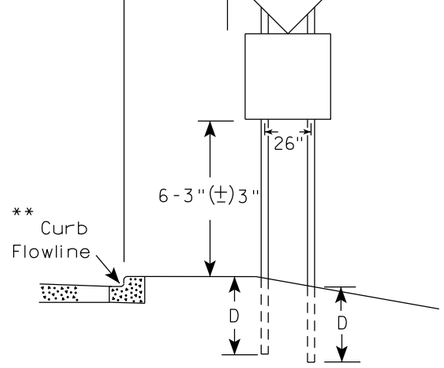
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

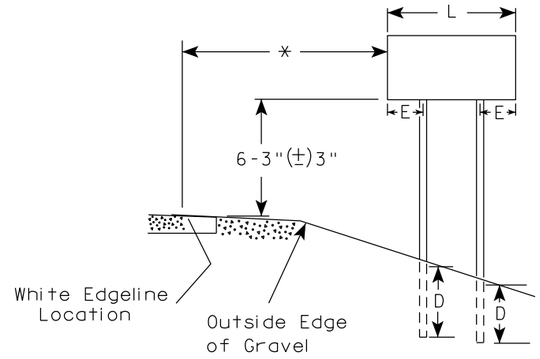
URBAN AREA

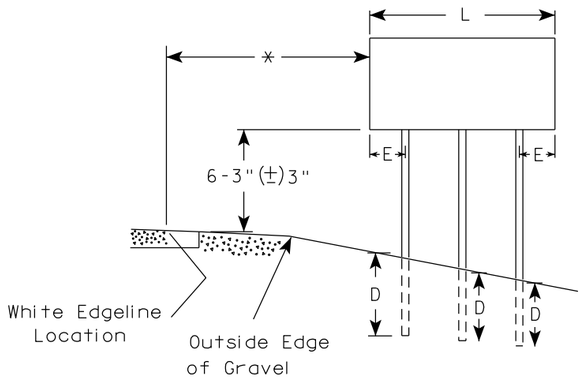


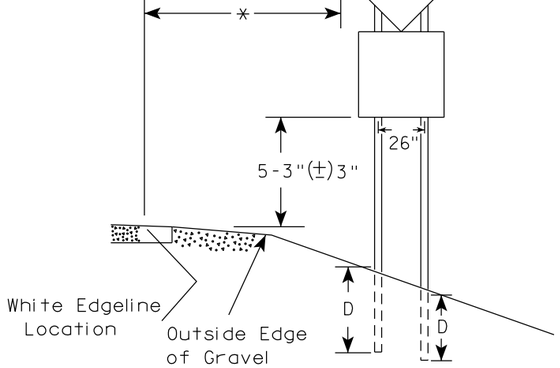


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

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

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" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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 and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

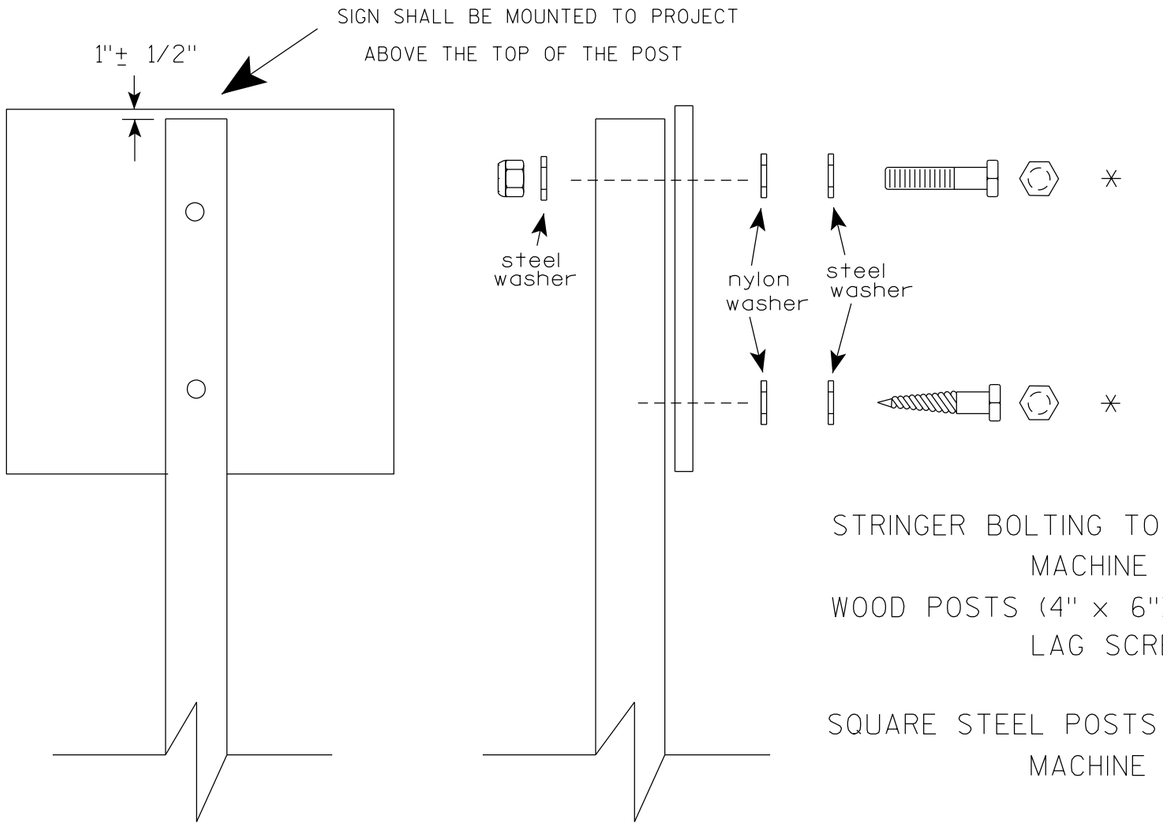
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

SHEET NO: 102 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

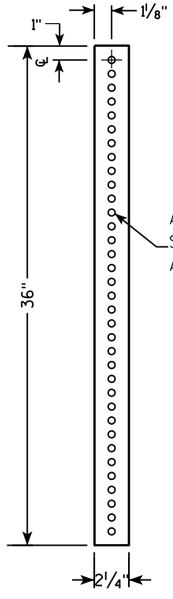
WISDOT/CADDS SHEET 42

7

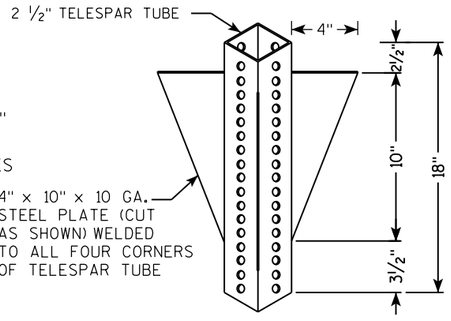
7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

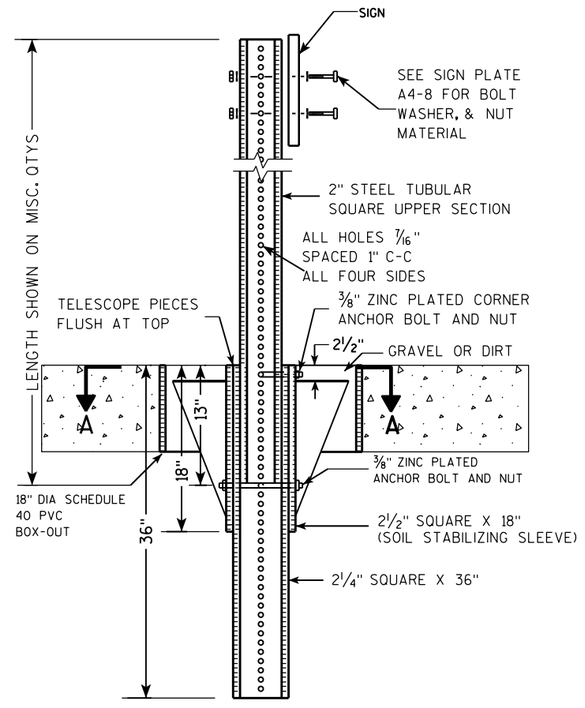
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



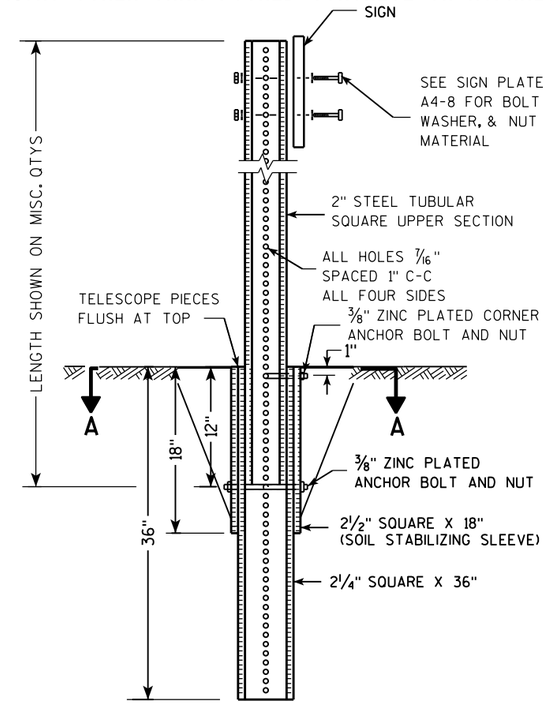
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

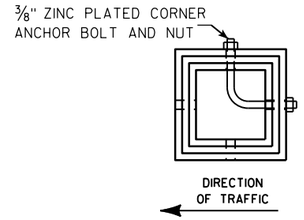


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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

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

TUBULAR STEEL
SIGN POST
A4-9

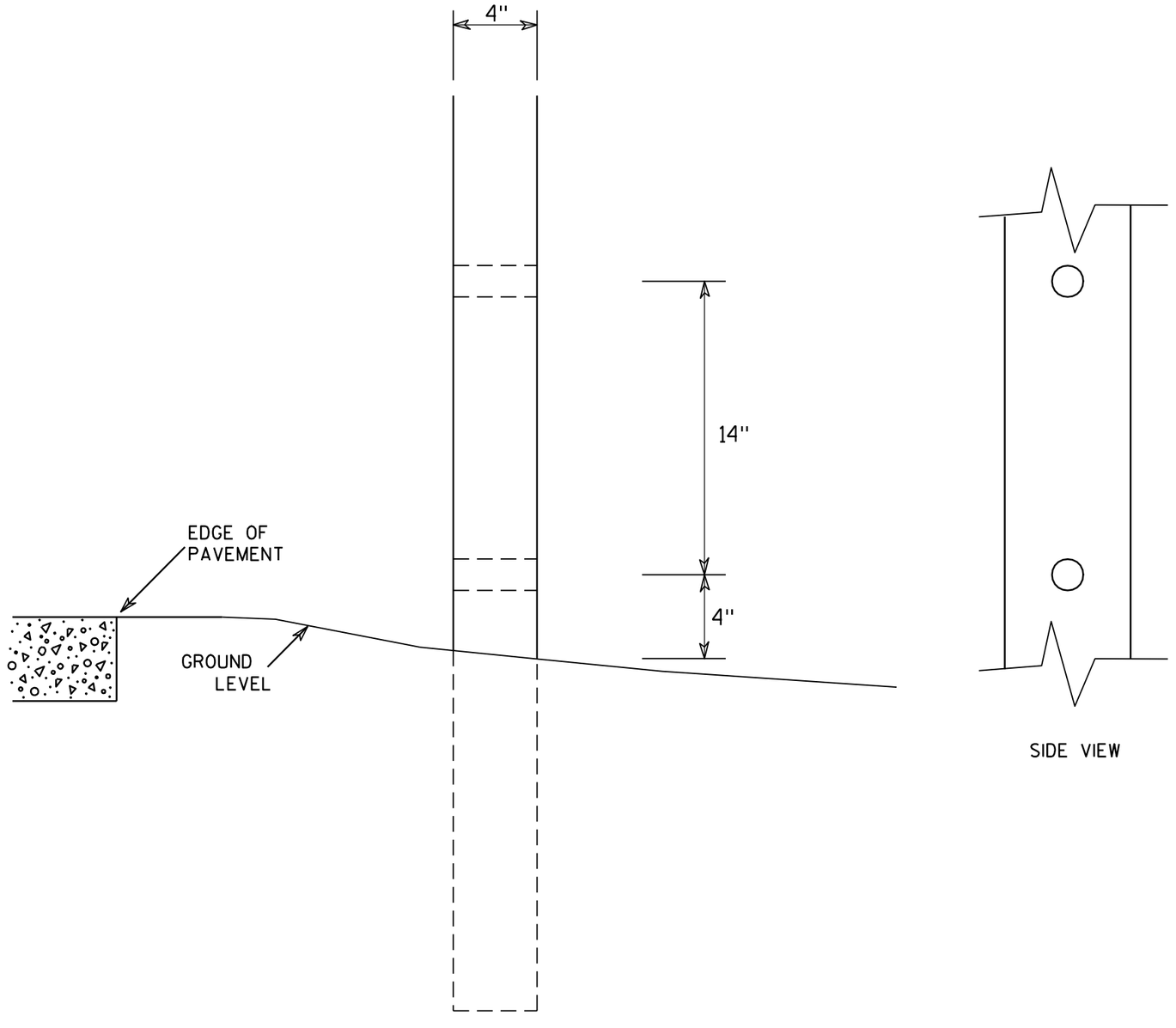
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

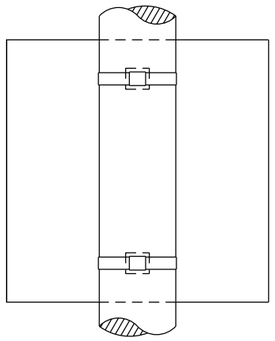
APPROVED Chester J Spang
for State Traffic Engineer

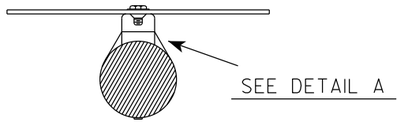
DATE 3/27/97 PLATE NO. A4-11.2

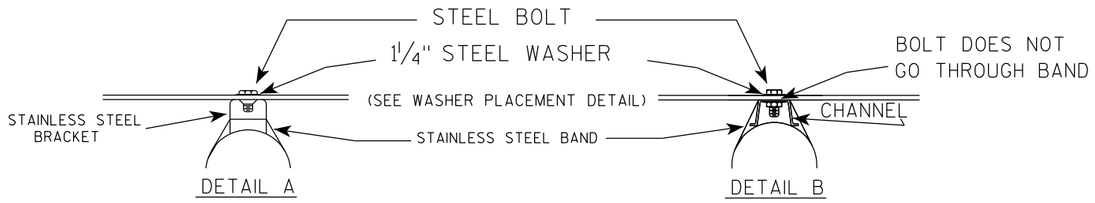
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E

BANDING

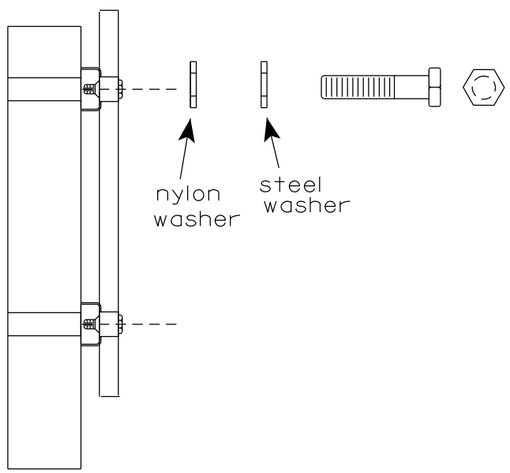
SINGLE SIGN







WASHER PLACEMENT

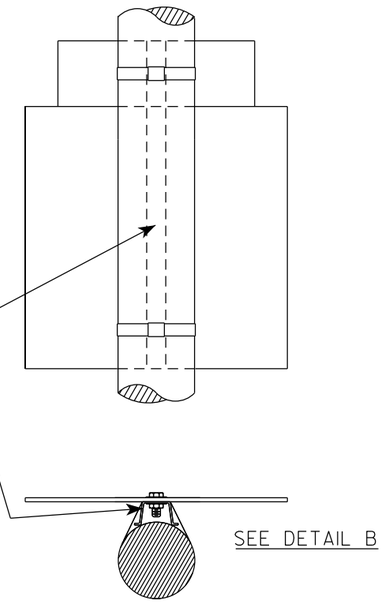


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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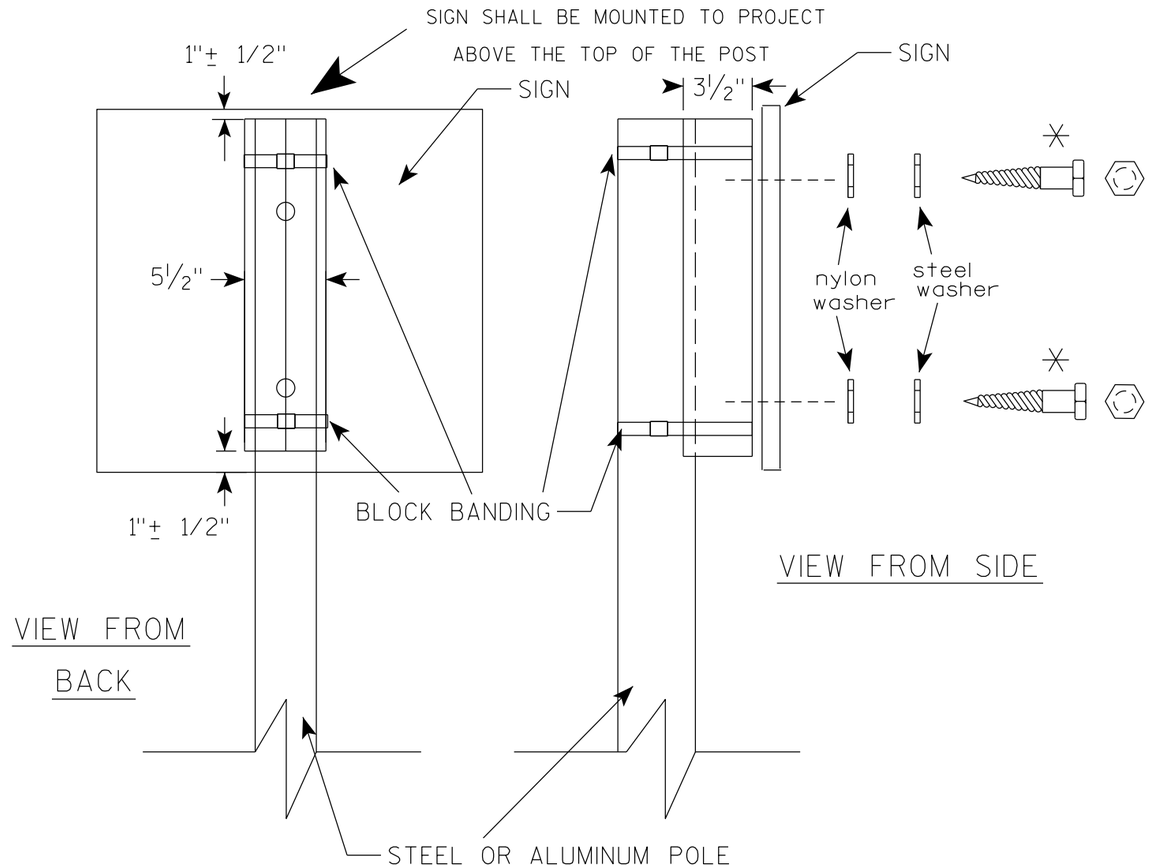
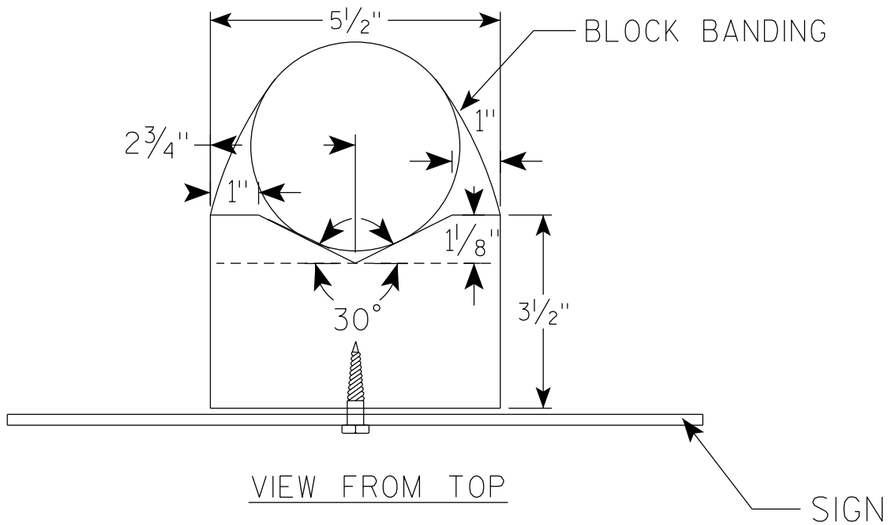




GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

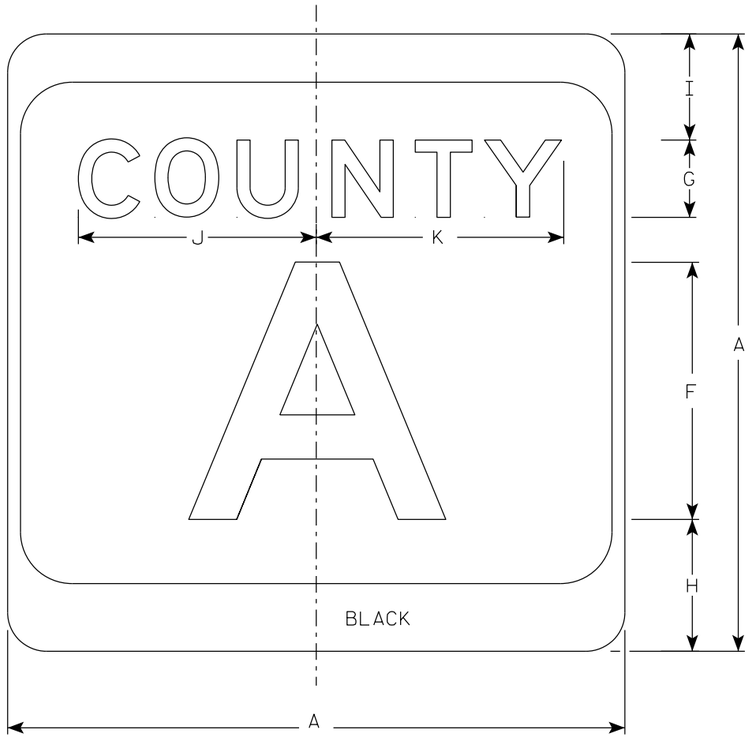
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

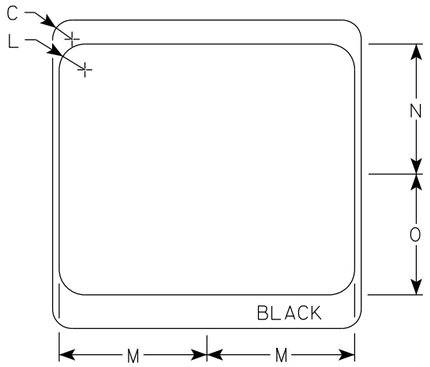
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 106 E

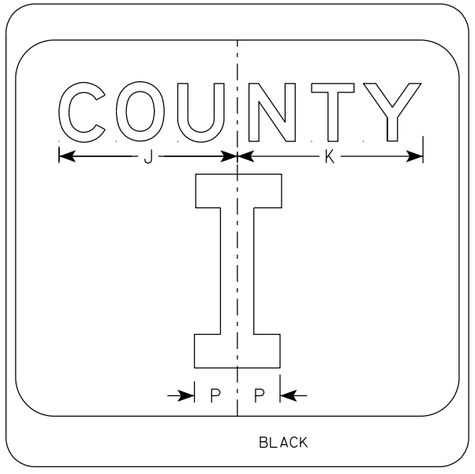


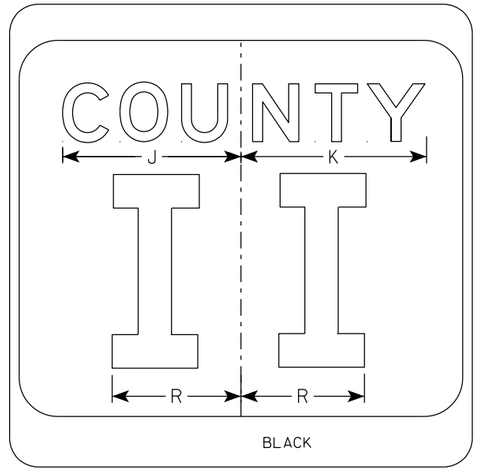
M1-5A



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White & Black
   Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center to achieve proper balance.





SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M15A.dgn PLOT DATE : 8-NOV 2022 8:26 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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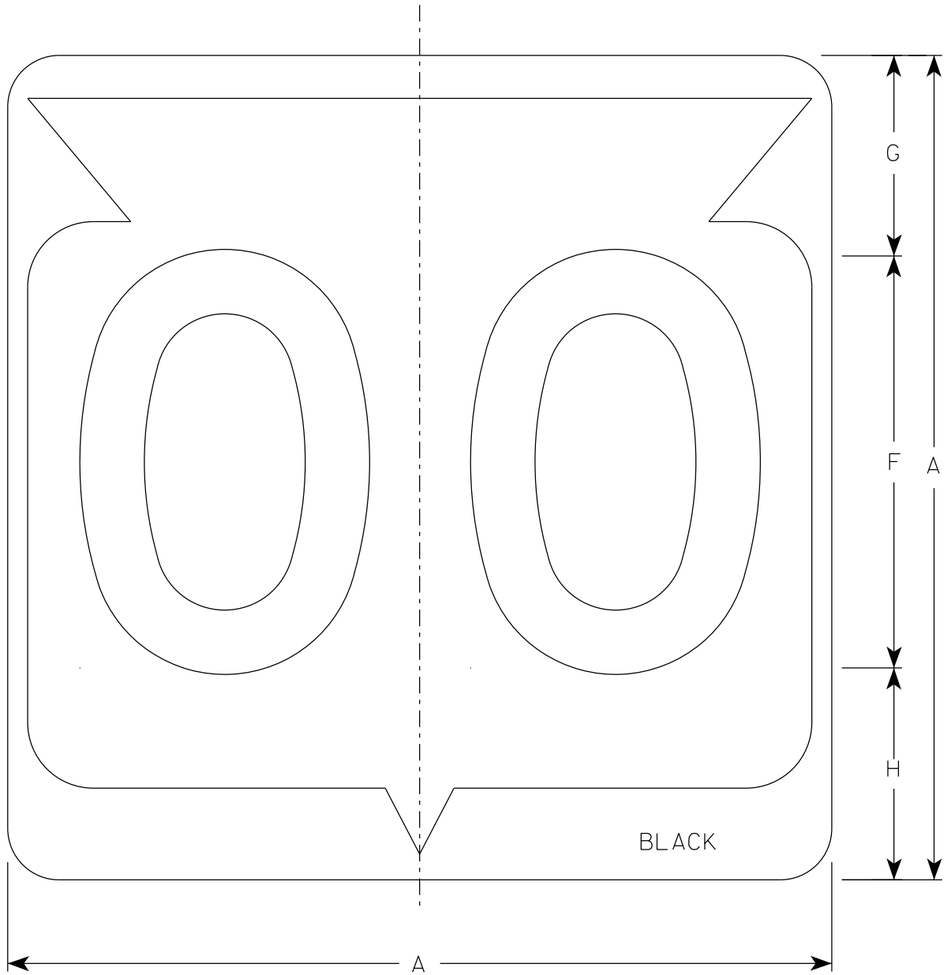
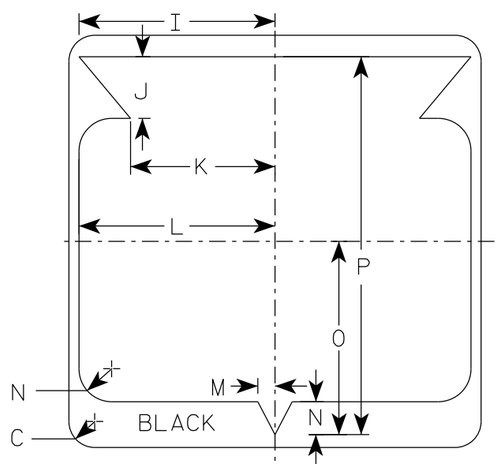


M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



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

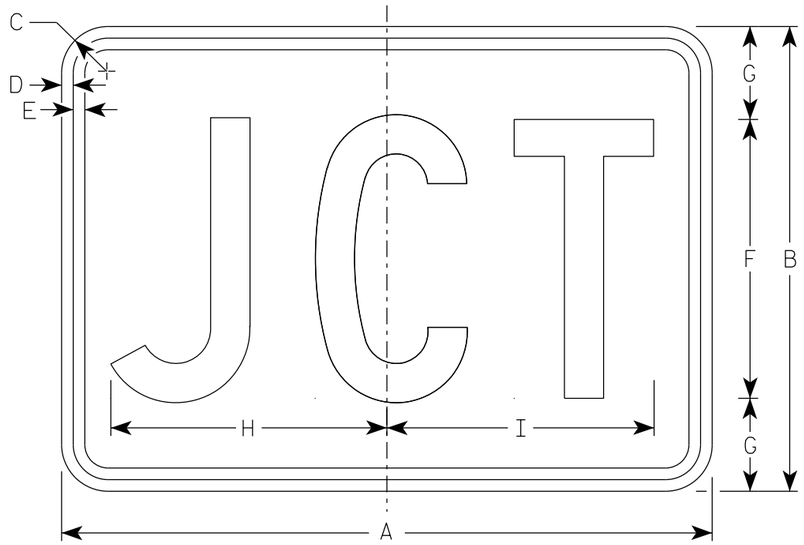
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

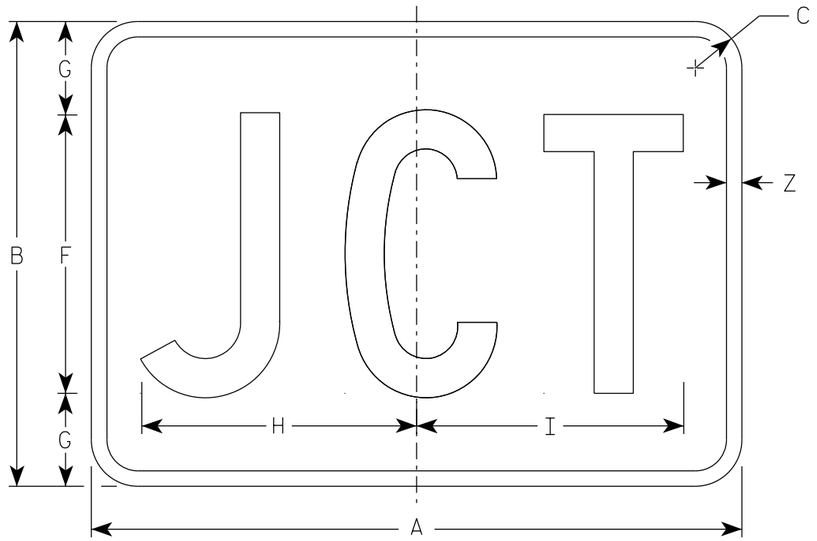
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	E



M2-1
MM2-1
MP2-1



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

NOTES

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

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

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M2-1.14

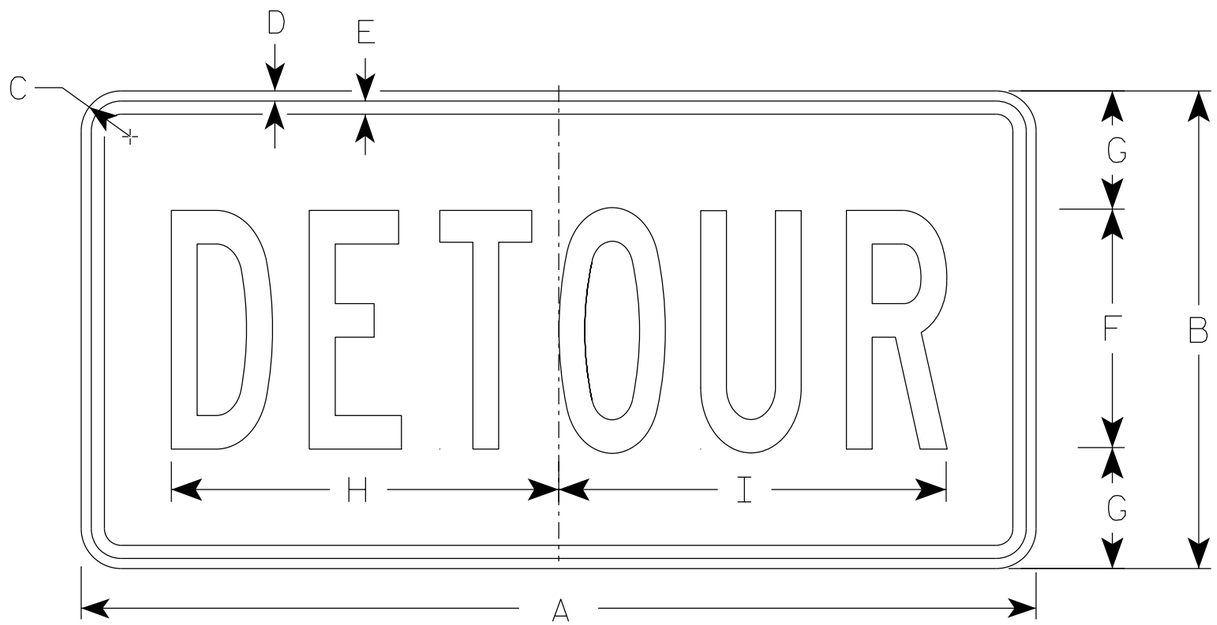
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 109 | E

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

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

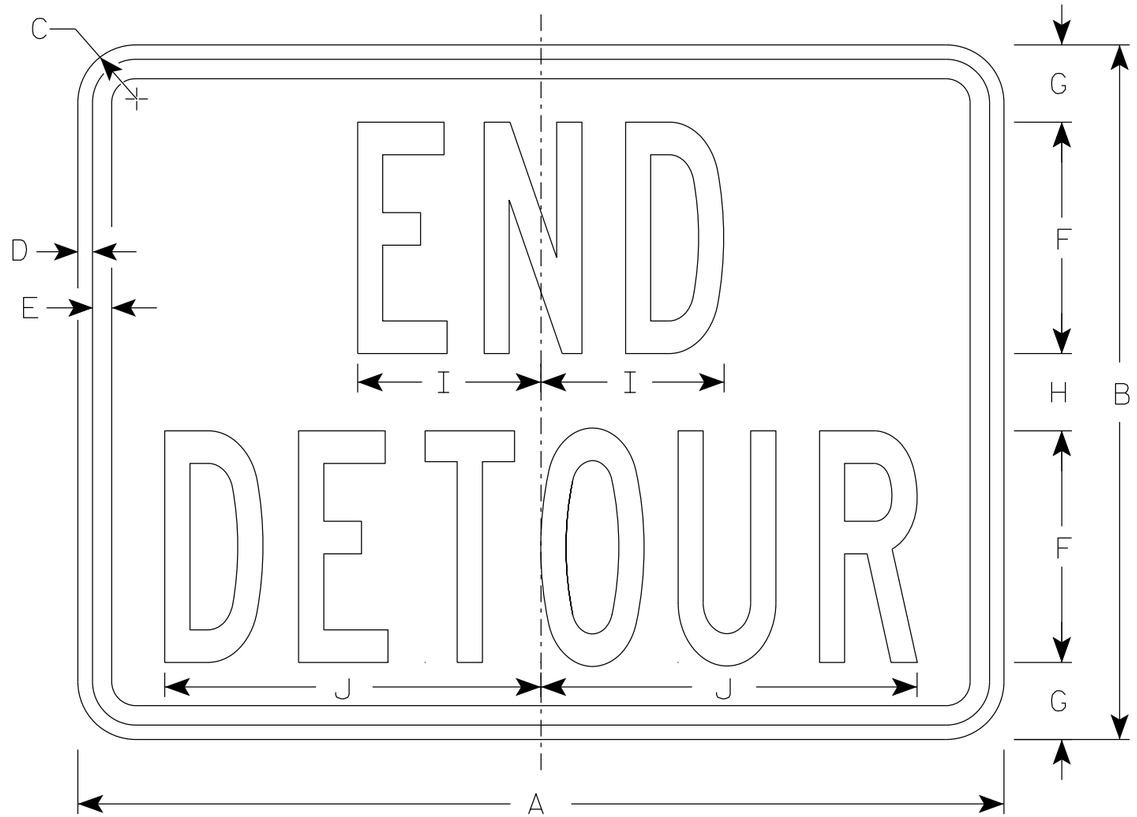
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

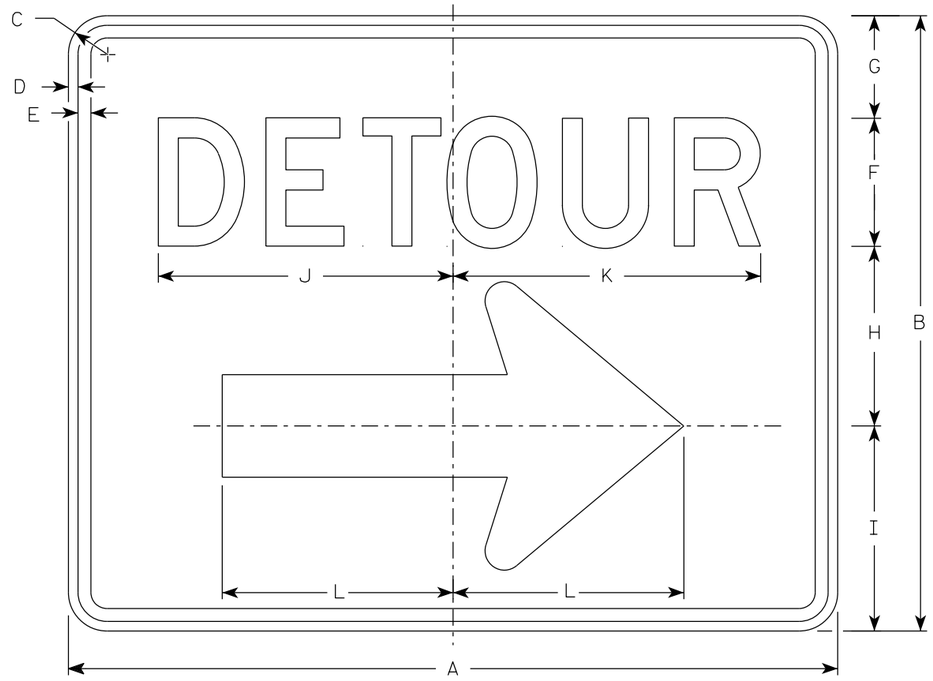
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

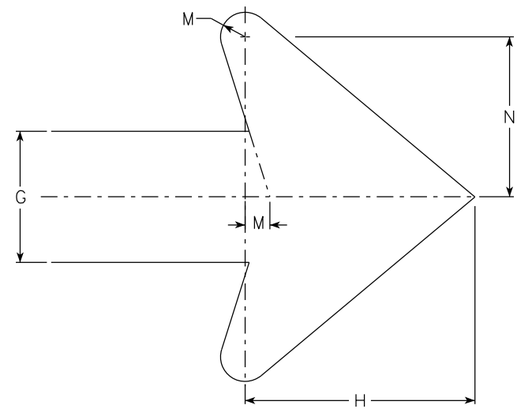
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
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.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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

STANDARD SIGN
M4-9 R & L

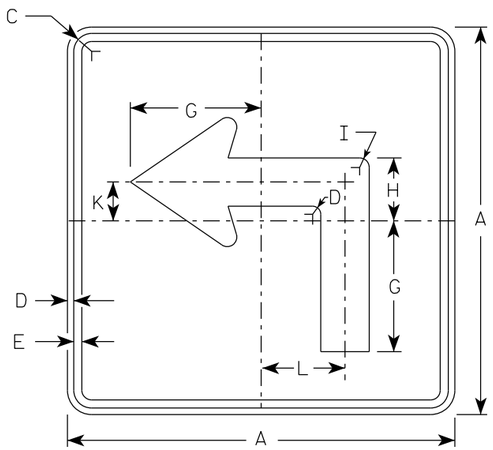
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

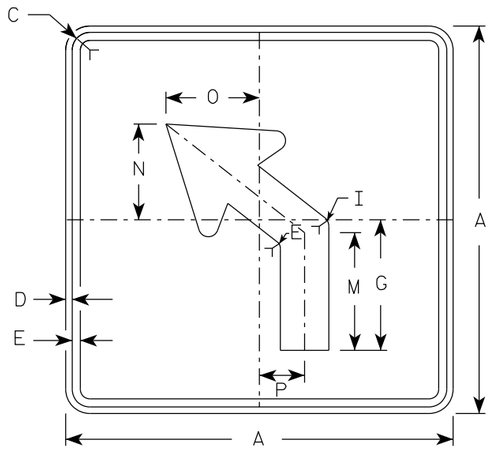
DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

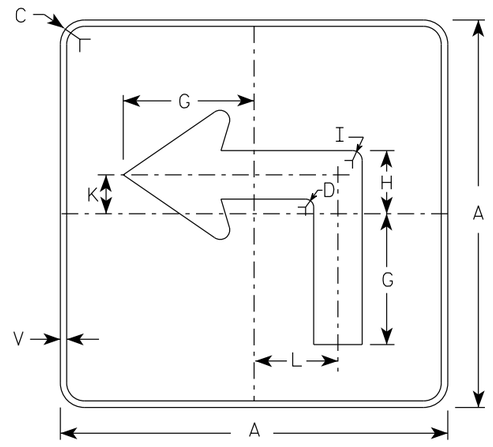
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49R.dgn PLOT DATE : 21-MARCH 2023 1:40 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



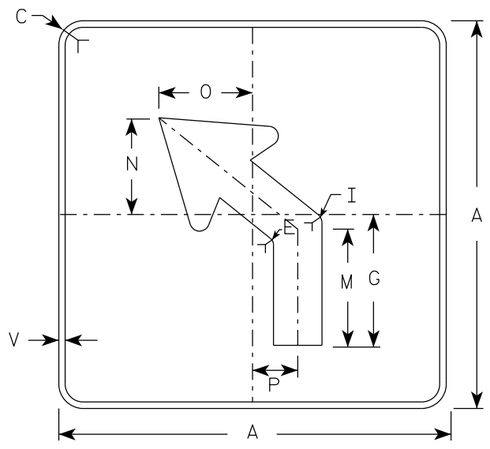
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

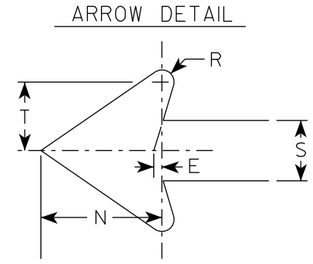


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
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.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



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

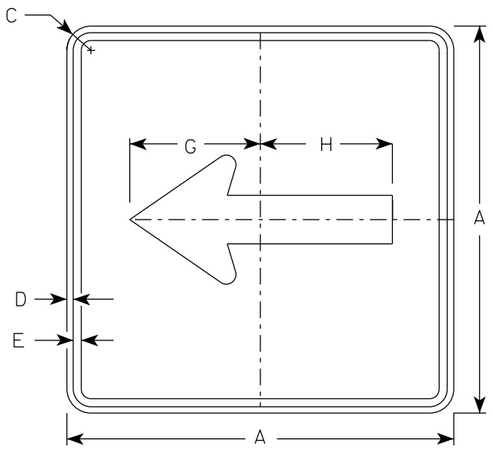
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

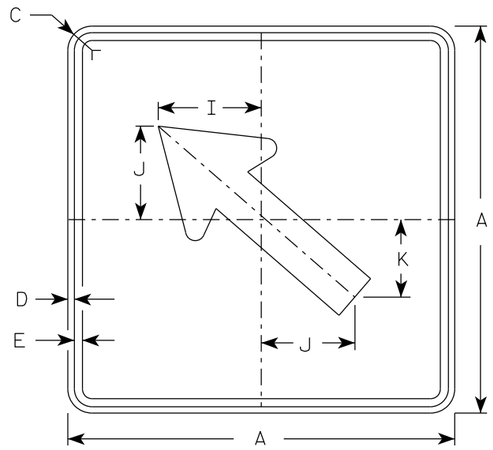
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

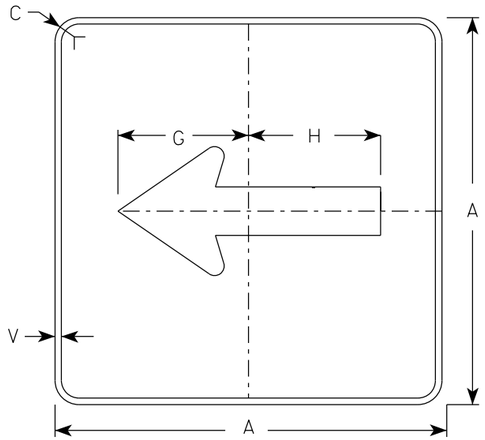
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 113 | E



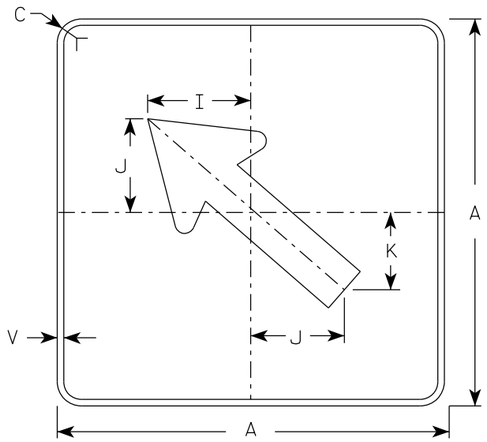
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



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

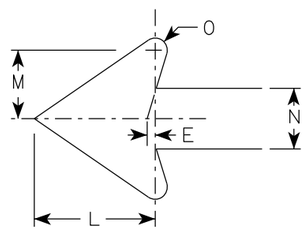


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
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.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

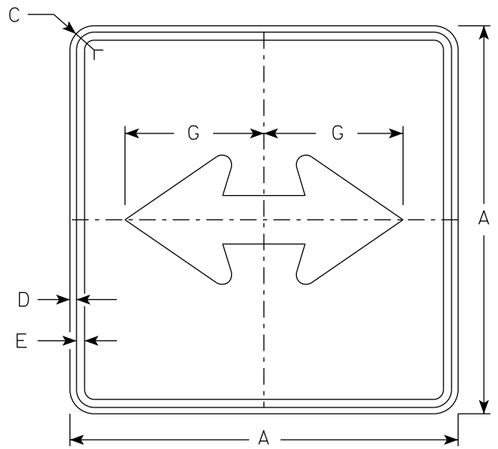
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

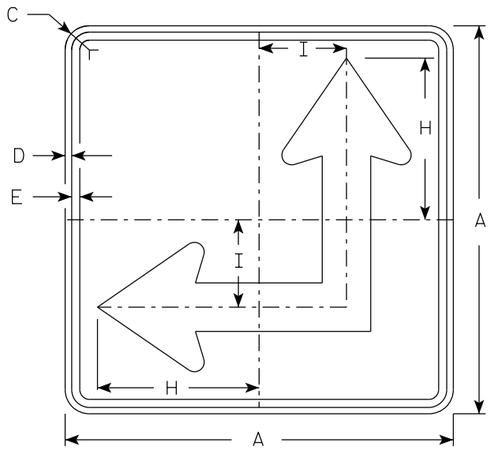
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 114 | E

7

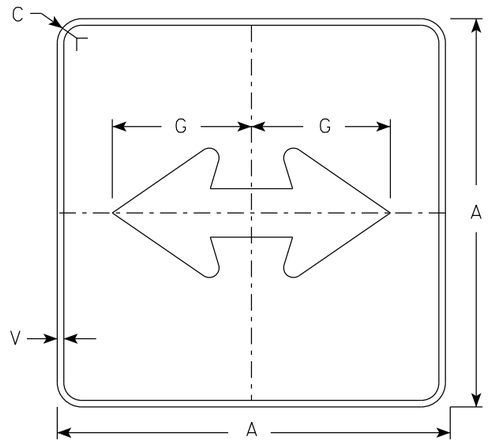
7



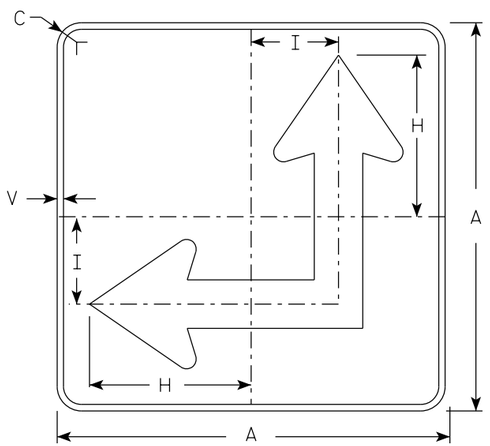
M6-4
MM6-4
MO6-4
MP6-4



M6-6
MM6-6
MO6-6
MP6-6



MB6-4
MK6-4
MN6-4
MR6-4

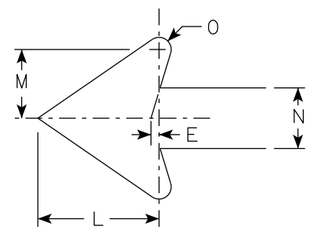


MB6-6
MK6-6
MN6-6
MR6-6

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
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.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

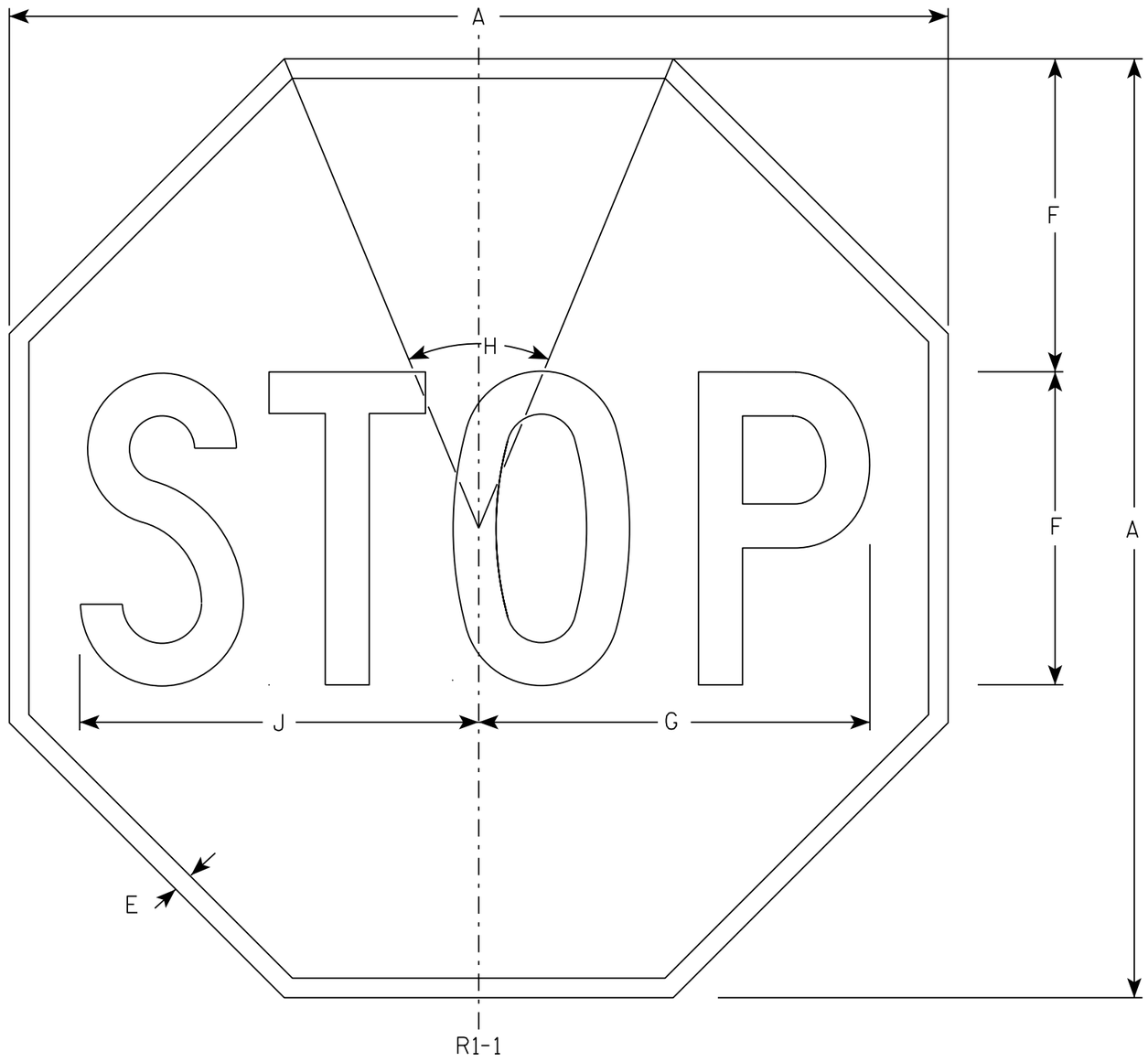
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 115 | 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 - Red
   Message - White
3. Message Series - C

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				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

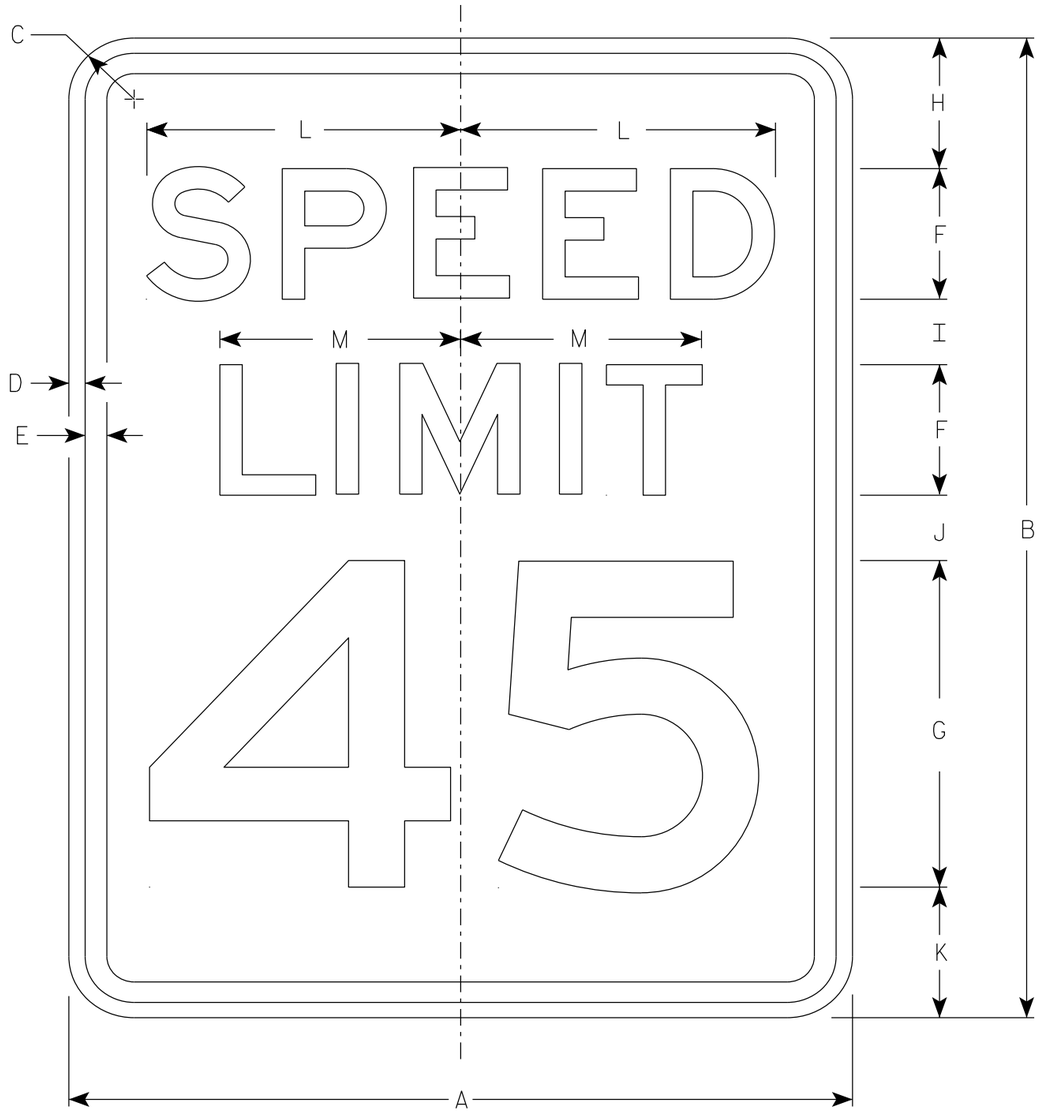
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

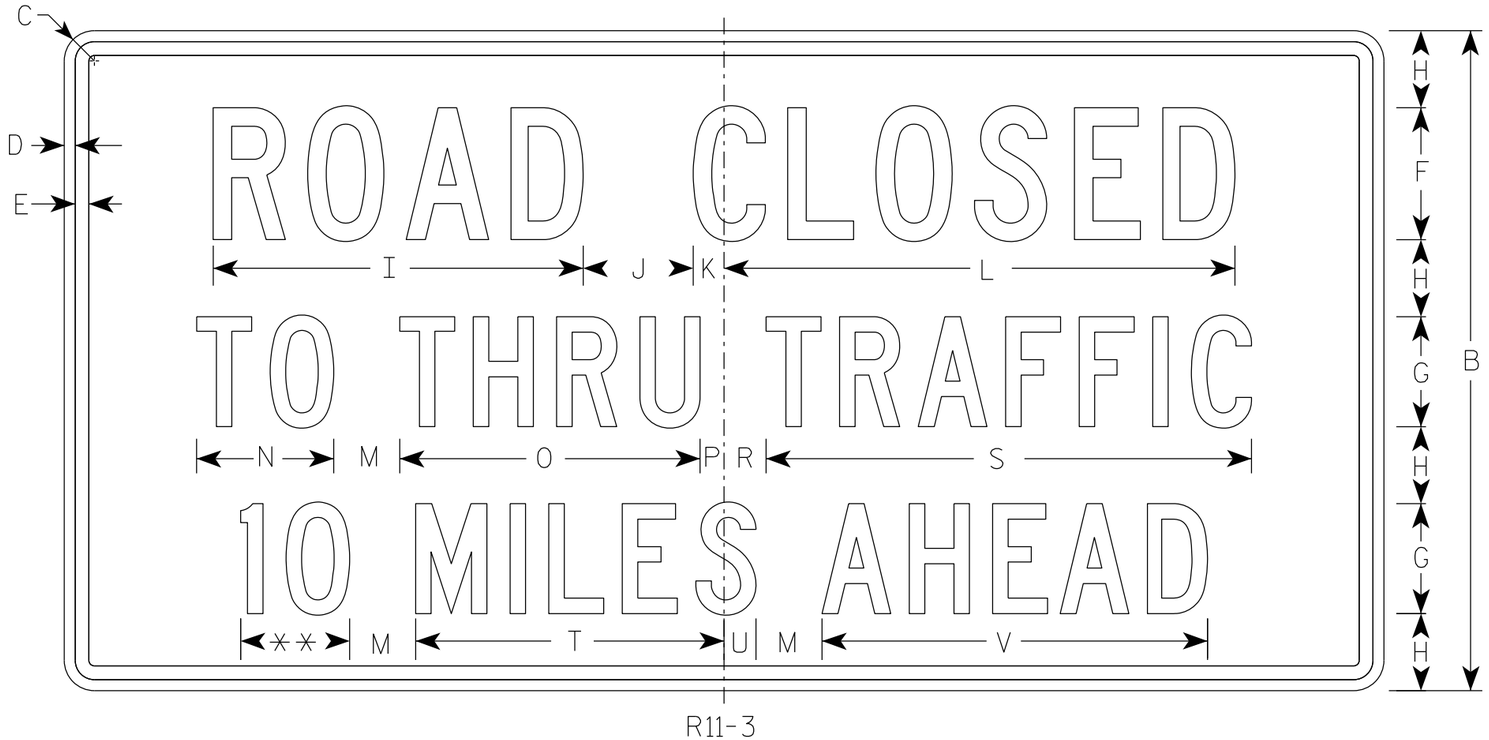
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E

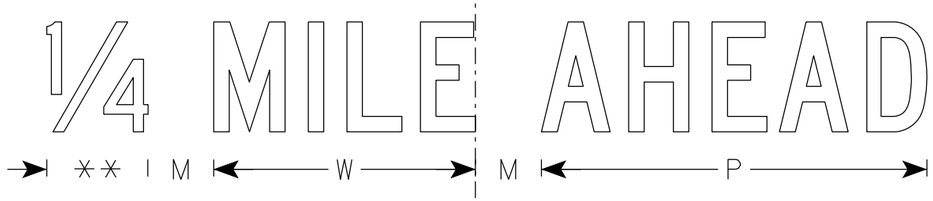
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



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

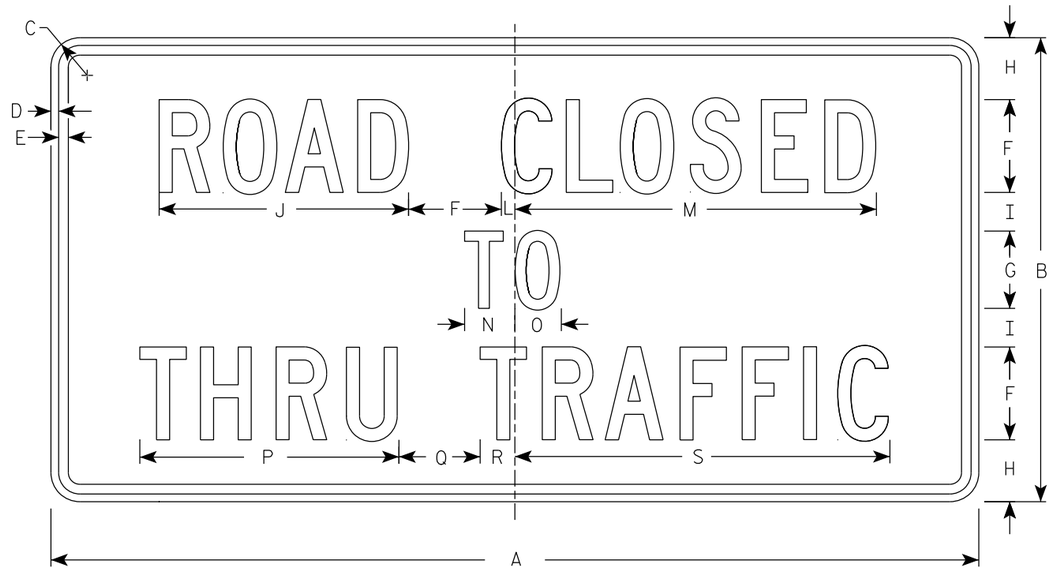
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-3.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

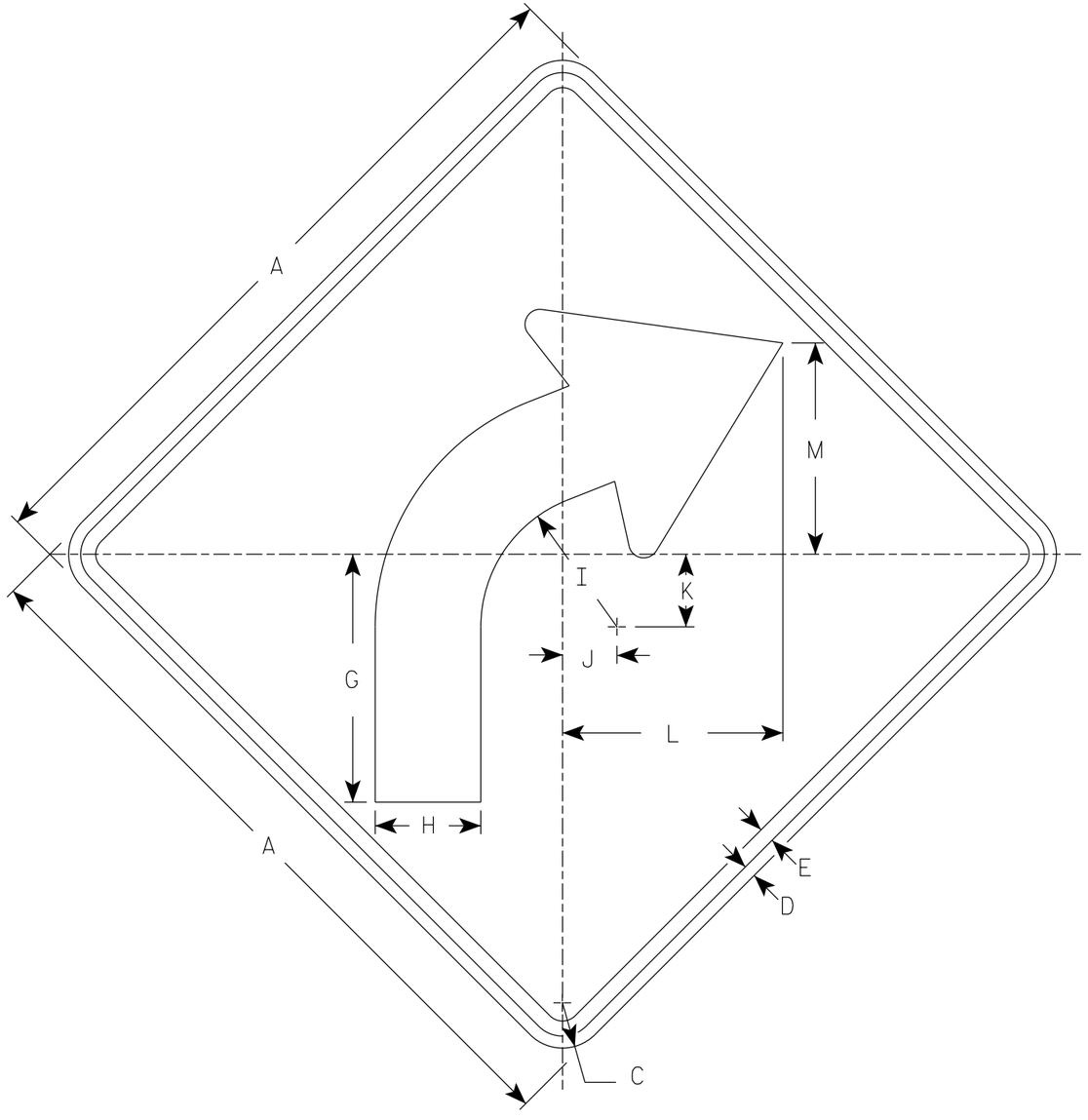
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

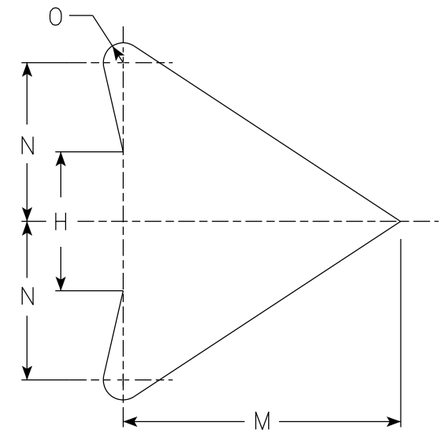
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E



W1-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 7/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		2 1/4	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		3	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

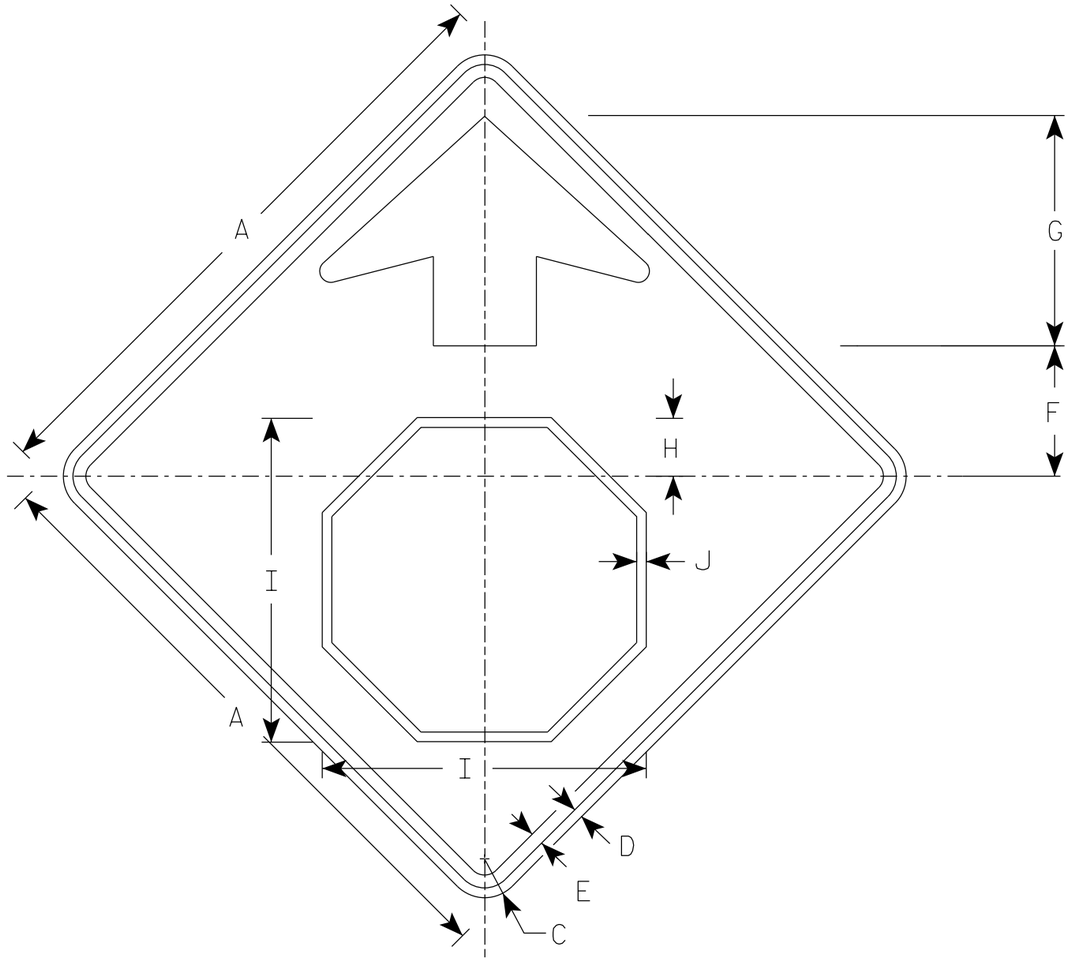
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/2023 PLATE NO. W1-2.11

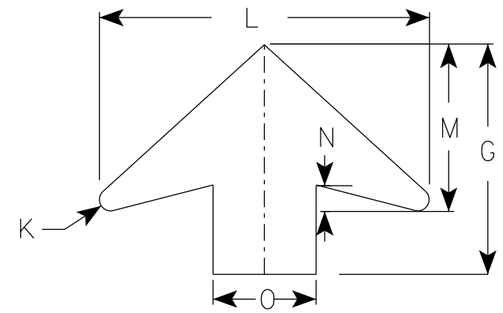
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E



W3-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Arrow & Border - Black
   Stop Symbol - White Border on Red Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		2 1/4	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		3	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

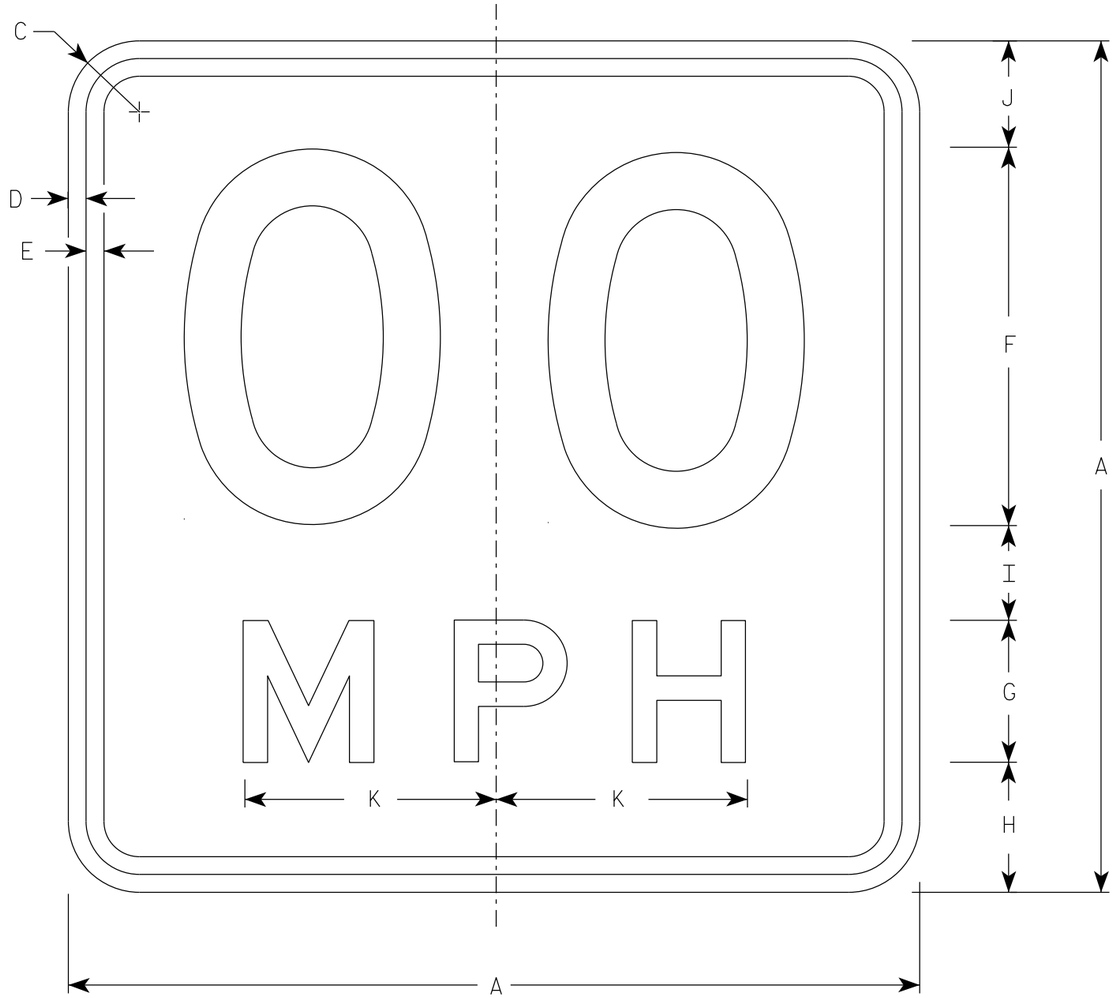
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/2023 PLATE NO. W3-1.13

PROJECT NO:

SHEET NO: 121 E



W13-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
   Line 2 is Series E

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

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

STANDARD SIGN
W13-1

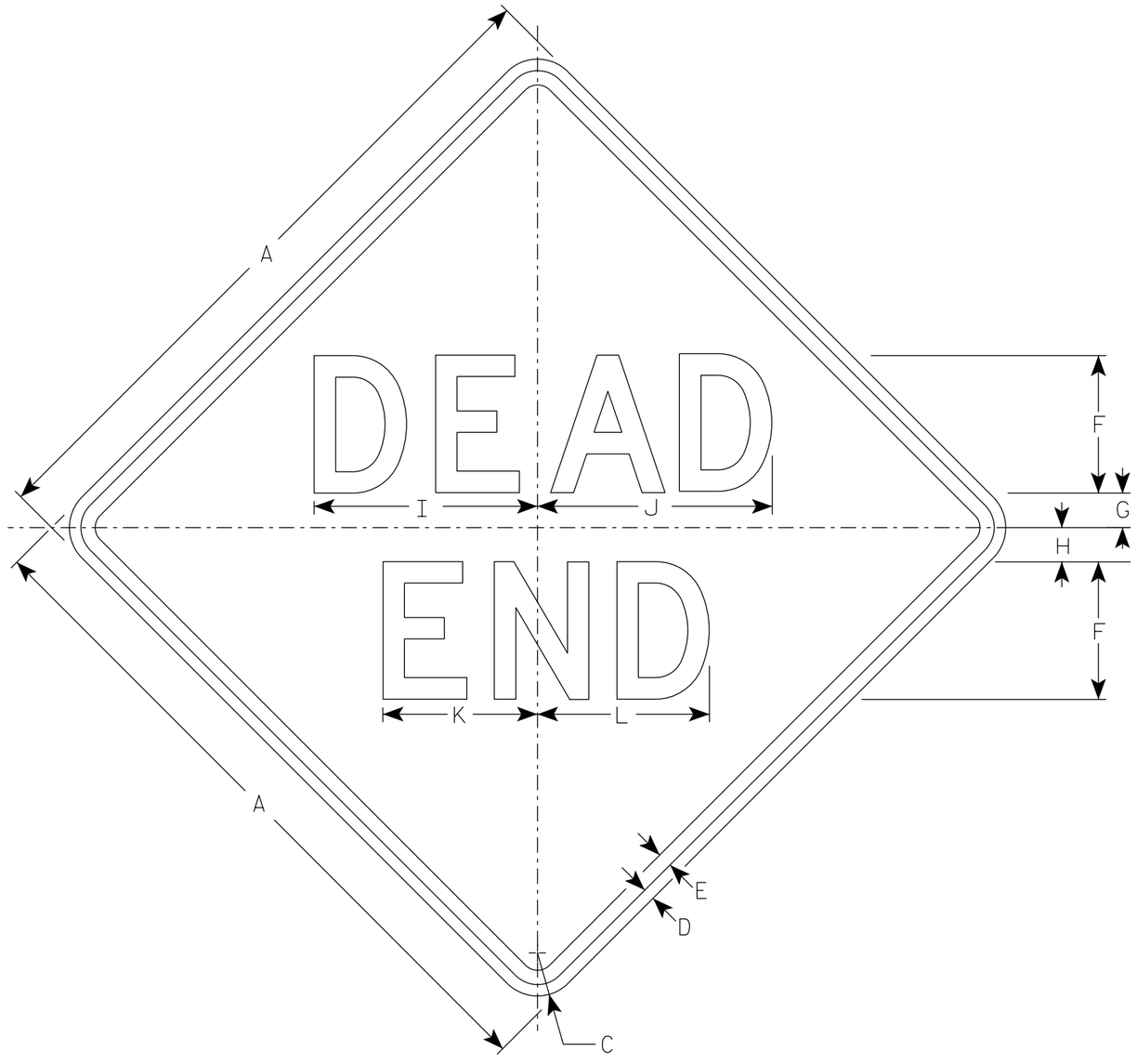
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W131.dgn PLOT DATE : 8-Jan 2024 11:07 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W14-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.
1	24		1 1/2	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 7/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 7/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		2 1/4	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

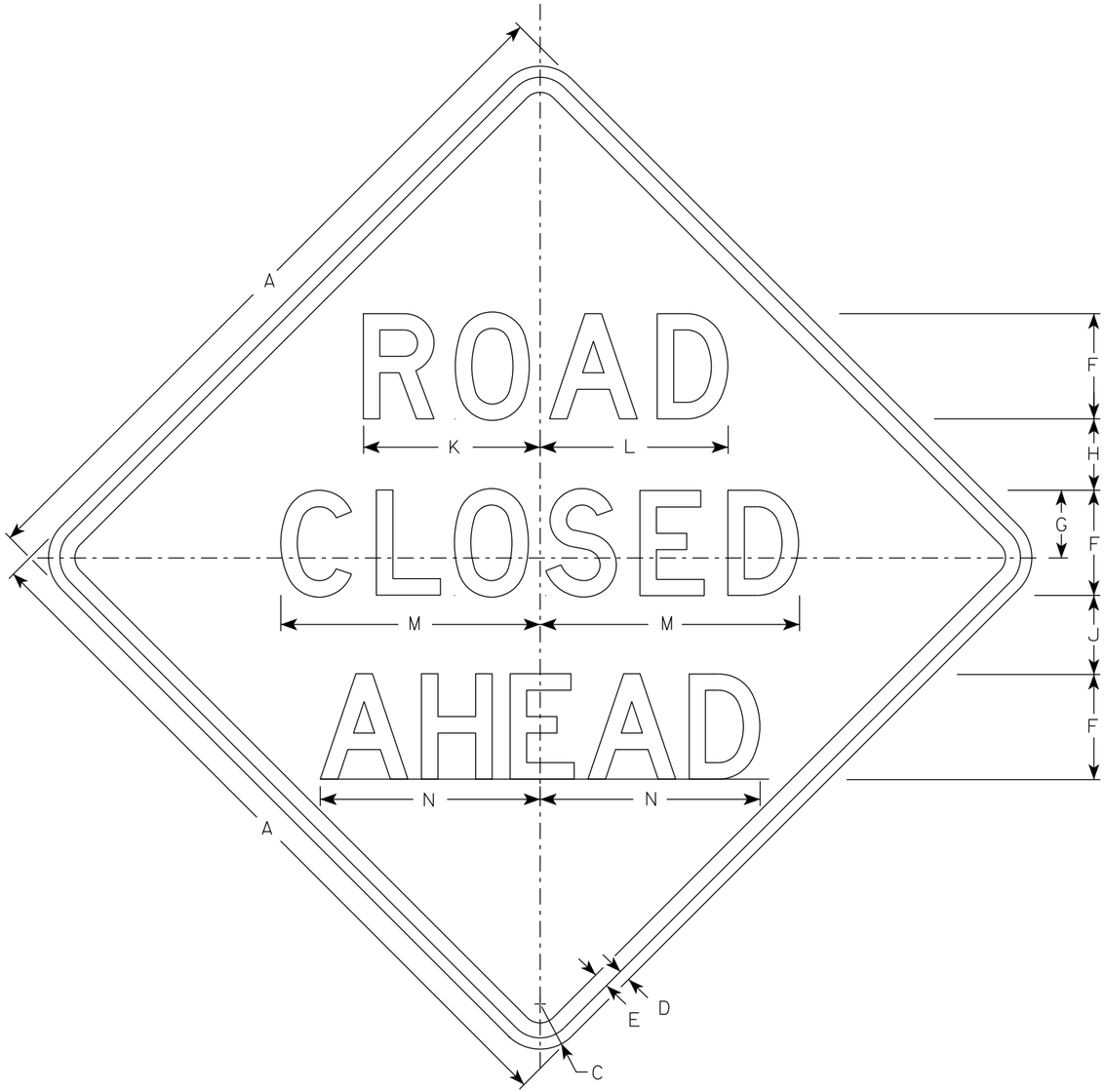
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

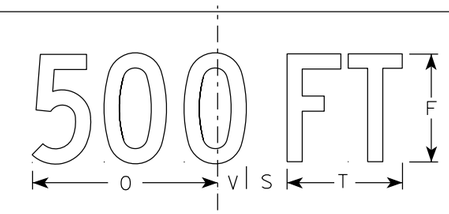
DATE 1/8/2024 PLATE NO. W14-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

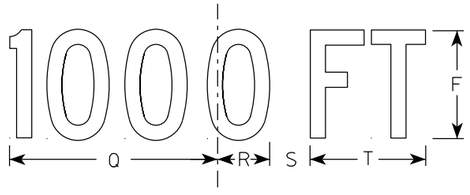
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W141.dgn PLOT DATE : 8-Jan 2024 2:36 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



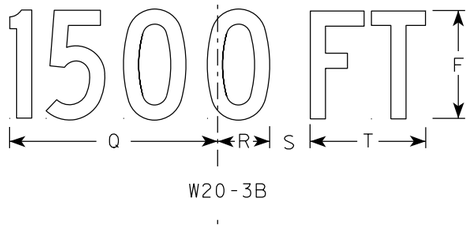
W20-3A



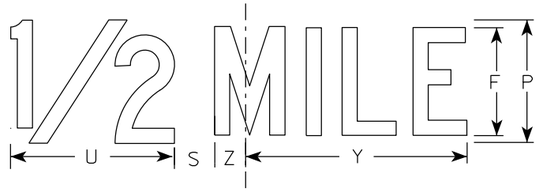
W20-3D



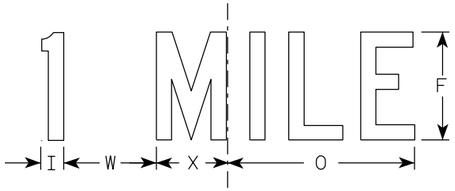
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

EARTHWORK DATA TABLES UPDATED TO EXCLUDE
FUTURE FUNDED PROJECT GRADING.

CTH K

STATION	REAL STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
10+25.00	1025.00	44.97	11.18	0.27	0	0	0	0	0	0
10+50.00	1050.00	50.00	11.42	3.70	44	10	2	44	3	32
10+66.00	1066.00	35.10	11.59	6.44	25	7	3	69	6	46
10+70.00	1070.00	32.33	11.62	8.56	5	2	1	74	8	48
10+75.00	1075.00	30.38	12.20	17.34	6	2	2	80	10	49
10+80.00	1080.00	31.27	14.08	6.76	6	2	2	86	13	51
10+85.00	1085.00	34.48	16.77	1.53	6	3	1	92	14	52
10+90.00	1090.00	30.81	16.95	0.81	6	3	0	98	14	55
10+95.00	1095.00	26.54	15.07	0.90	5	3	0	103	14	57
11+00.00	1100.00	23.39	13.20	1.35	5	3	0	108	14	59
11+05.00	1105.00	22.85	12.83	3.17	4	2	0	112	14	61
11+10.00	1110.00	25.94	14.73	3.40	5	3	1	117	15	62
11+15.00	1115.00	29.76	16.61	1.51	5	3	0	122	15	64
11+20.00	1120.00	36.19	14.55	0.43	6	3	0	128	15	67
11+25.00	1125.00	46.34	12.69	0.22	8	3	0	136	15	72
11+30.00	1130.00	41.00	11.63	0.24	8	2	0	144	15	78
11+35.00	1135.00	39.16	11.62	1.06	7	2	0	151	15	83
11+40.00	1140.00	39.16	11.62	2.60	7	2	0	158	15	88
11+50.00	1150.00	44.38	11.60	1.55	15	4	1	173	16	98
11+78.00	1178.00	53.70	11.61	2.55	51	12	2	224	19	134
12+00.00	1200.00	52.73	11.60	0.79	43	9	1	267	20	167
12+08.00	1208.00	55.22	11.59	0.18	16	3	0	283	20	180
12+50.00	1250.00	77.43	11.43	4.42	103	18	4	386	25	260
13+00.00	1300.00	67.12	11.55	7.15	134	21	11	520	39	359
13+45.00	1345.00	83.36	11.77	0.00	125	19	6	645	46	458
13+50.00	1350.00	85.81	11.74	0.00	16	2	0	661	46	472
14+00.00	1400.00	130.42	10.95	0.66	200	21	1	861	48	650
14+50.00	1450.00	106.32	11.33	1.37	219	21	2	1080	50	845
15+00.00	1500.00	59.65	11.10	19.52	154	21	19	1234	74	954
15+04.00	1504.00	122.51	11.14	22.18	13	2	3	1247	78	962
15+50.00	1550.00	43.45	10.96	29.67	141	19	44	1388	133	1029
16+00.00	1600.00	55.61	10.77	5.82	92	20	33	1480	174	1059
16+50.00	1650.00	60.84	10.84	2.98	108	20	8	1588	184	1137
16+96.00	1696.00	72.25	27.08	0.00	113	32	3	1701	188	1215
17+00.00	1700.00	70.43	27.57	0.00	11	4	0	1712	188	1222
17+50.00	1750.00	38.46	12.07	11.20	101	37	10	1813	200	1273
17+56.00	1756.00	36.19	12.05	7.31	8	3	2	1821	203	1276
18+00.00	1800.00	5.26	11.82	17.92	34	19	21	1855	229	1264
18+50.00	1850.00	0.00	11.97	54.32	5	22	67	1860	313	1164
19+00.00	1900.00	0.00	11.91	80.27	0	22	125	1860	469	985
19+50.00	1950.00	0.00	11.76	82.18	0	22	150	1860	656	776
19+64.50	1964.50	0.00	11.63	88.80	0	6	46	1860	714	712
19+65.00	1965.00	0.00	11.62	88.54	0	0	2	1860	716	710
19+70.00	1970.00	0.00	11.90	90.32	0	2	17	1860	738	687
19+75.00	1975.00	0.00	13.09	93.91	0	2	17	1860	759	663
19+80.00	1980.00	0.00	15.14	82.28	0	3	16	1860	779	640
19+85.00	1985.00	0.01	17.33	78.74	0	3	15	1860	798	619
19+90.00	1990.00	0.00	15.42	77.39	0	3	14	1860	815	598
19+95.00	1995.00	0.00	13.51	74.33	0	3	14	1860	833	578
20+00.00	2000.00	0.00	11.60	72.31	0	2	14	1860	850	558
20+05.00	2005.00	0.00	12.34	72.37	0	2	13	1860	866	540
20+10.00	2010.00	0.00	14.22	72.34	0	2	13	1860	883	522
20+15.00	2015.00	0.00	14.96	71.06	0	3	13	1860	899	502
20+20.00	2020.00	0.00	12.86	74.74	0	3	14	1860	916	482
20+25.00	2025.00	0.00	12.26	77.78	0	2	14	1860	934	462
20+30.00	2030.00	0.28	12.04	78.78	0	2	14	1860	951	443
20+35.00	2035.00	1.09	11.82	72.75	0	2	14	1860	969	423
20+38.50	2038.50	1.81	11.66	70.93	0	2	9	1860	980	410
20+50.00	2050.00	5.53	11.29	67.88	2	5	30	1862	1018	370
21+00.00	2100.00	24.44	11.34	61.93	28	21	120	1890	1168	227

CTH K CONT.

STATION	REAL STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
21+50.00	2150.00	34.24	11.11	83.03	54	21	134	1944	1335	92
22+00.00	2200.00	24.38	11.19	108.24	54	21	177	1998	1556	-96
22+50.00	2250.00	16.55	11.72	90.54	38	21	184	2036	1786	-309
23+00.00	2300.00	26.33	11.78	75.39	40	22	154	2076	1979	-484
23+50.00	2350.00	51.05	12.05	30.35	72	22	98	2148	2101	-556
23+68.00	2368.00	58.93	12.28	34.25	37	8	22	2185	2129	-555
24+00.00	2400.00	77.48	13.58	0.01	81	15	20	2266	2154	-514
24+18.18	2418.18	73.09	14.18	0.00	51	9	0	2317	2154	-472
24+20.00	2420.00	71.39	14.58	0.00	5	1	0	2322	2154	-468
24+25.00	2425.00	63.18	15.67	1.11	12	3	0	2334	2154	-459
24+30.00	2430.00	62.17	15.85	5.26	12	3	1	2346	2155	-451
24+35.00	2435.00	66.72	17.58	10.40	12	3	1	2358	2156	-443
24+40.00	2440.00	75.75	20.05	6.76	13	3	2	2371	2159	-436
24+45.00	2445.00	87.10	23.05	0.00	15	4	1	2386	2160	-426
24+50.00	2450.00	90.15	21.92	0.00	16	4	0	2402	2160	-414
24+55.00	2455.00	64.63	20.58	0.00	14	4	0	2416	2160	-404
24+60.00	2460.00	44.10	14.48	0.00	10	3	0	2426	2160	-397
24+65.00	2465.00	24.84	8.32	0.00	6	2	0	2432	2160	-393
24+70.00	2470.00	6.06	2.16	0.00	3	1	0	2435	2160	-391
				TOTALS	2,435	666	1,728			

SCHOOL LANE

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
60+55.00	0.00	0.00	10.07	0.00	0	0	0	0	0	0
60+75.00	20.00	45.21	10.20	15.41	17	8	6	17	8	2
61+00.00	25.00	47.08	10.36	5.35	43	10	10	60	20	22
61+05.00	5.00	47.96	10.65	4.86	9	2	1	69	21	28
61+10.00	5.00	46.90	11.19	7.69	9	2	1	78	23	34
61+15.00	5.00	49.34	12.34	3.05	9	2	1	87	24	39
61+20.00	5.00	36.77	14.69	0.00	8	3	0	95	24	44
61+25.00	5.00	17.42	10.57	0.00	5	2	0	100	24	47
61+30.00	5.00	4.91	3.97	0.00	2	1	0	102	24	48
				TOTALS	102	30	19			

CEMETERY ROAD

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
70+15.00	0.00	0.00	3.97	3.42	0	0	0	0	0	0
70+20.00	5.00	0.00	10.57	8.75	0	1	1	0	1	-2
70+25.00	5.00	0.18	17.18	13.13	0	3	2	0	4	-8
70+30.00	5.00	2.65	11.44	27.61	0	3	4	0	9	-16
70+35.00	5.00	4.18	9.93	33.15	1	2	6	1	16	-24
70+40.00	5.00	5.76	8.99	31.77	1	2	6	2	24	-33
70+50.00	10.00	7.30	8.64	27.33	2	3	11	4	38	-48
70+75.00	25.00	16.10	9.13	11.01	11	8	18	15	60	-67
71+00.00	25.00	31.26	9.36	0.29	22	9	5	37	66	-60
71+09.50	9.50	36.20	9.36	0.00	12	3	0	49	66	-51
71+25.00	15.50	44.25	9.26	0.23	23	5	0	72	66	-33
71+35.00	10.00	0.00	9.09	0.00	8	3	0	80	66	-28
				TOTALS	80	42	53			

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	EARTHWORK DATA	SHEET 125	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090101_EW.DWG
LAYOUT NAME - 090101_ew
PLOT DATE : 1/3/2025 9:21 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 49

EARTHWORK DATA TABLES UPDATED TO EXCLUDE
FUTURE FUNDED PROJECT GRADING.

SW QUAD CTH K & STH 39

STATION	REAL STATION	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
3+82.51	382.51	7.10	1.28	1.19	0	0	0	0	0	0
3+85.00	385.00	8.13	1.61	10.96	1	0	1	1	1	0
3+88.51	388.51	11.64	2.05	6.82	1	0	1	2	3	-1
3+90.00	390.00	12.79	2.22	4.73	1	0	0	3	3	1
3+95.00	395.00	14.36	1.54	0.72	3	0	1	6	4	2
4+00.00	400.00	17.33	1.65	0.06	3	0	0	9	4	5
4+05.00	405.00	19.40	2.01	0.00	3	0	0	12	4	8
4+10.00	410.00	23.26	2.46	0.00	4	0	0	16	4	12
4+15.00	415.00	30.53	3.61	0.00	5	1	0	21	4	16
4+20.00	420.00	39.37	4.97	0.00	6	1	0	27	4	21
4+25.00	425.00	49.26	7.00	0.00	8	1	0	35	4	28
4+30.00	430.00	62.39	9.38	0.00	10	2	0	45	4	36
4+35.00	435.00	77.93	12.72	0.00	13	2	0	58	4	47
4+37.15	437.15	86.18	14.36	0.00	7	1	0	65	4	53
				TOTALS	65	8	3			

SE QUAD CTH K & STH 39

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 4
0+40.17	0.00	34.72	19.23	6.81	0	0	0	0	0	0
0+45.00	4.83	26.23	13.99	4.80	5	3	1	5	1	1
0+50.00	5.00	21.63	10.16	2.94	4	2	1	9	3	2
0+55.00	5.00	17.89	7.45	2.07	4	2	0	13	3	4
0+60.00	5.00	14.58	5.58	1.23	3	1	0	16	3	6
0+65.00	5.00	12.44	4.10	0.81	3	1	0	19	3	8
0+70.00	5.00	11.50	3.09	1.12	2	1	0	21	3	9
0+75.00	5.00	11.17	2.22	0.72	2	0	0	23	3	11
0+78.44	3.44	11.21	2.00	0.45	1	0	0	24	3	12
0+96.57	18.13	12.11	1.47	0.00	8	1	0	32	3	19
1+00.00	3.43	11.28	1.32	0.00	1	0	0	33	3	20
1+25.00	25.00	8.72	0.83	0.18	9	1	0	42	3	28
1+27.19	2.19	8.69	0.81	0.12	1	0	0	43	3	29
				TOTALS	43	12	2			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	CUT - SALVAGED PAVT - (FILL * FILL FACTOR)

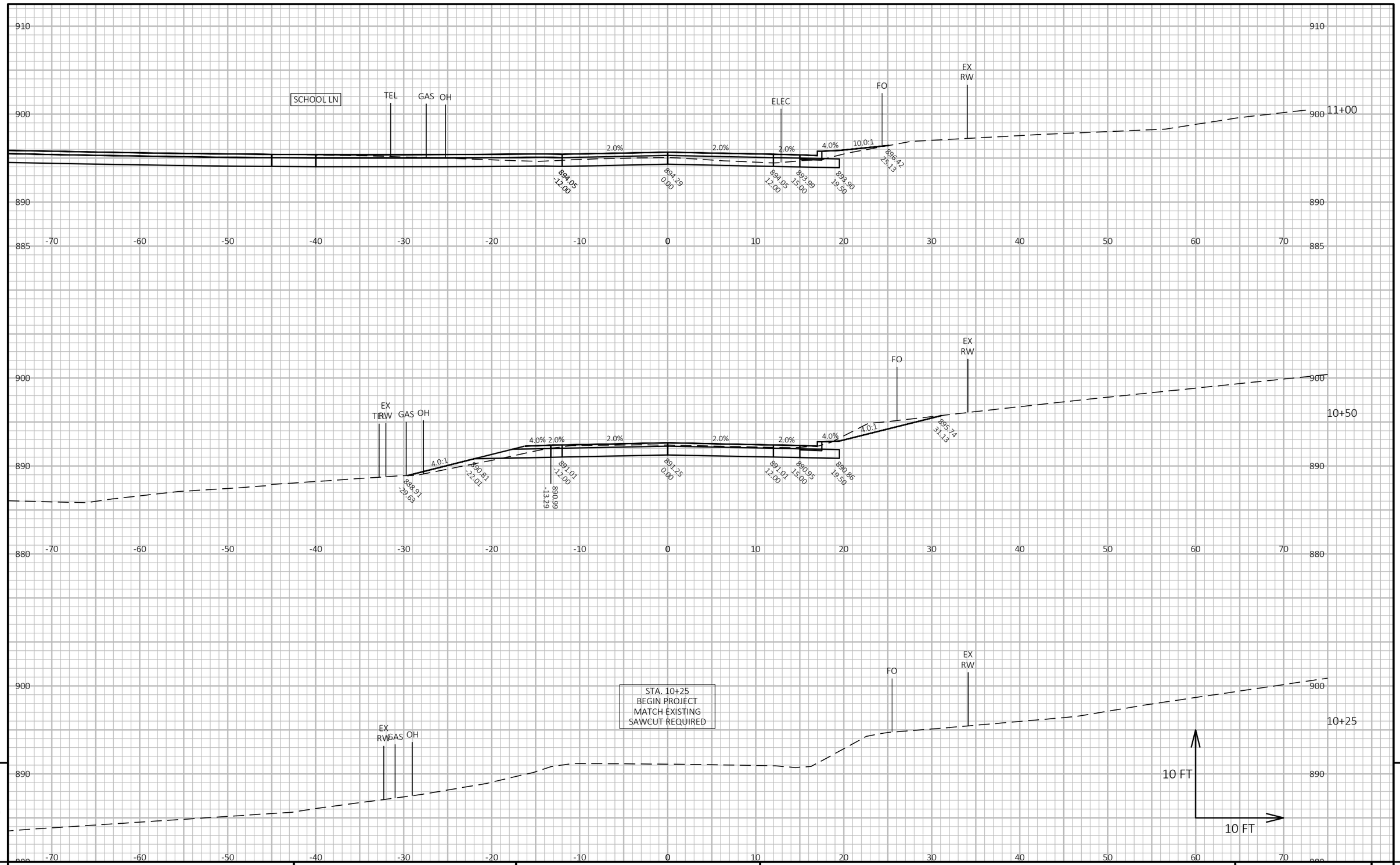
9

9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	EARTHWORK DATA	SHEET 126	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090101_EW.DWG
LAYOUT NAME - 090102_ew

PLOT DATE : 1/3/2025 9:21 AM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1" = 1'



9

9

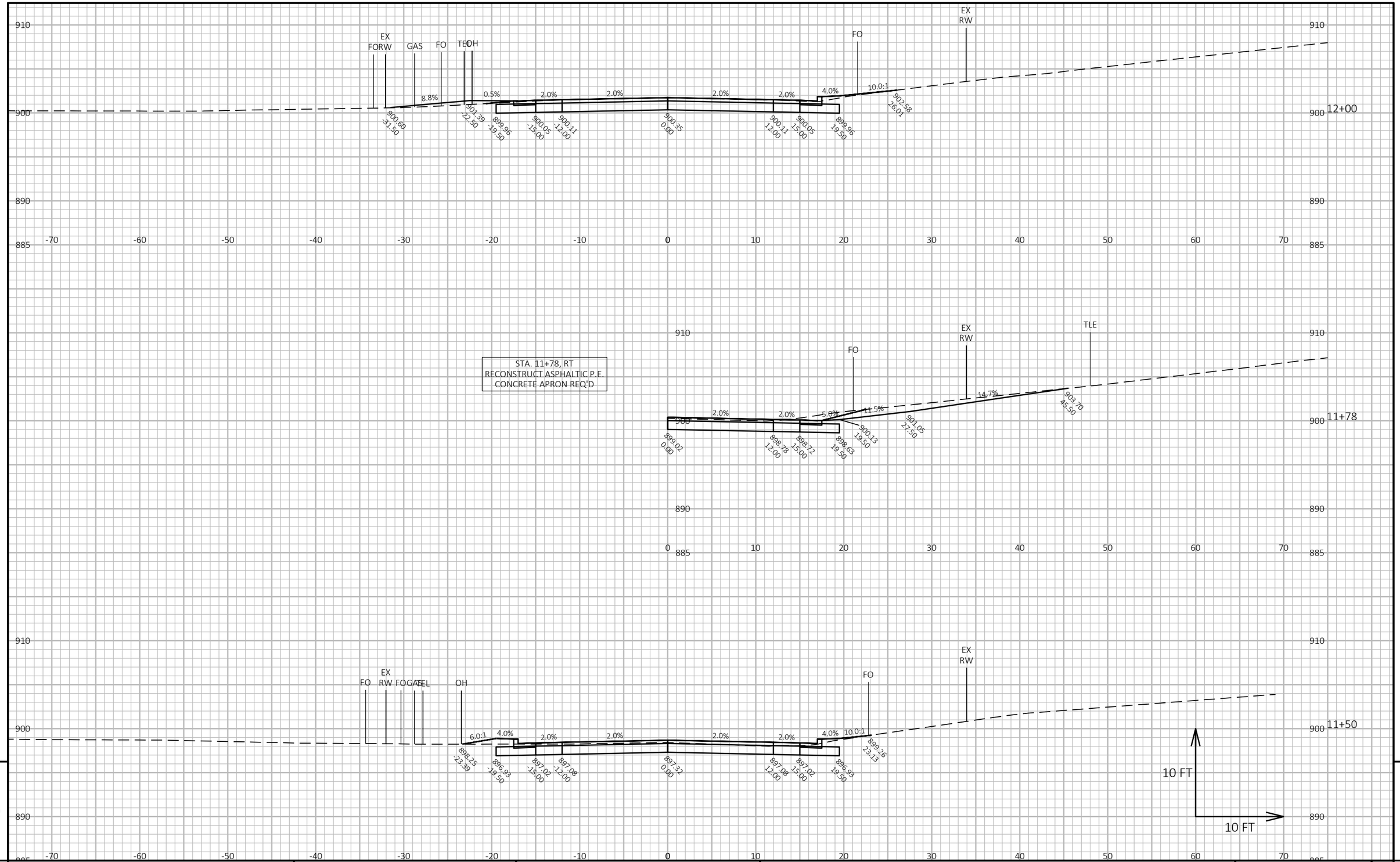
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 127	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090201_xs

PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



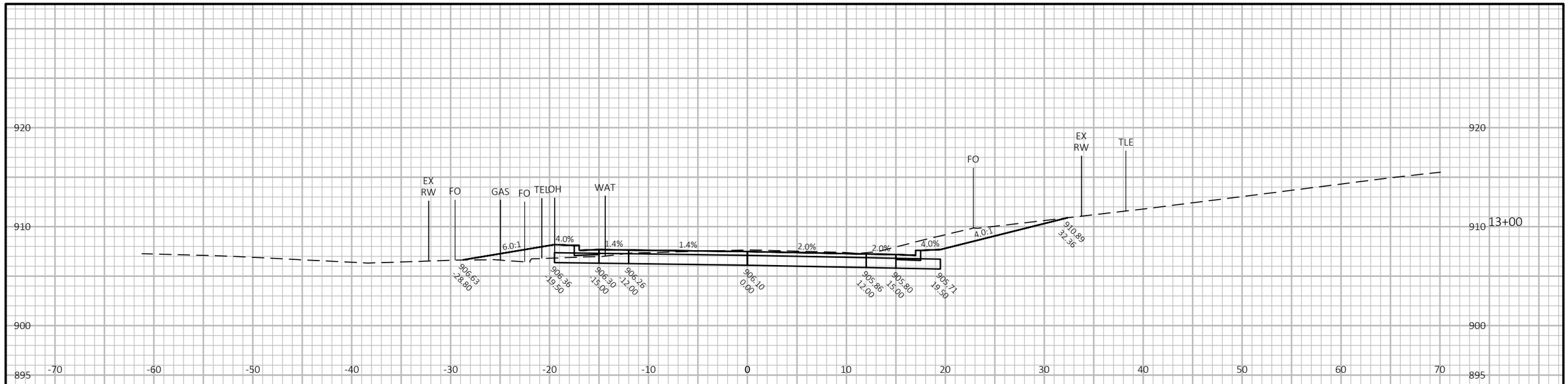
9 9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 128	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

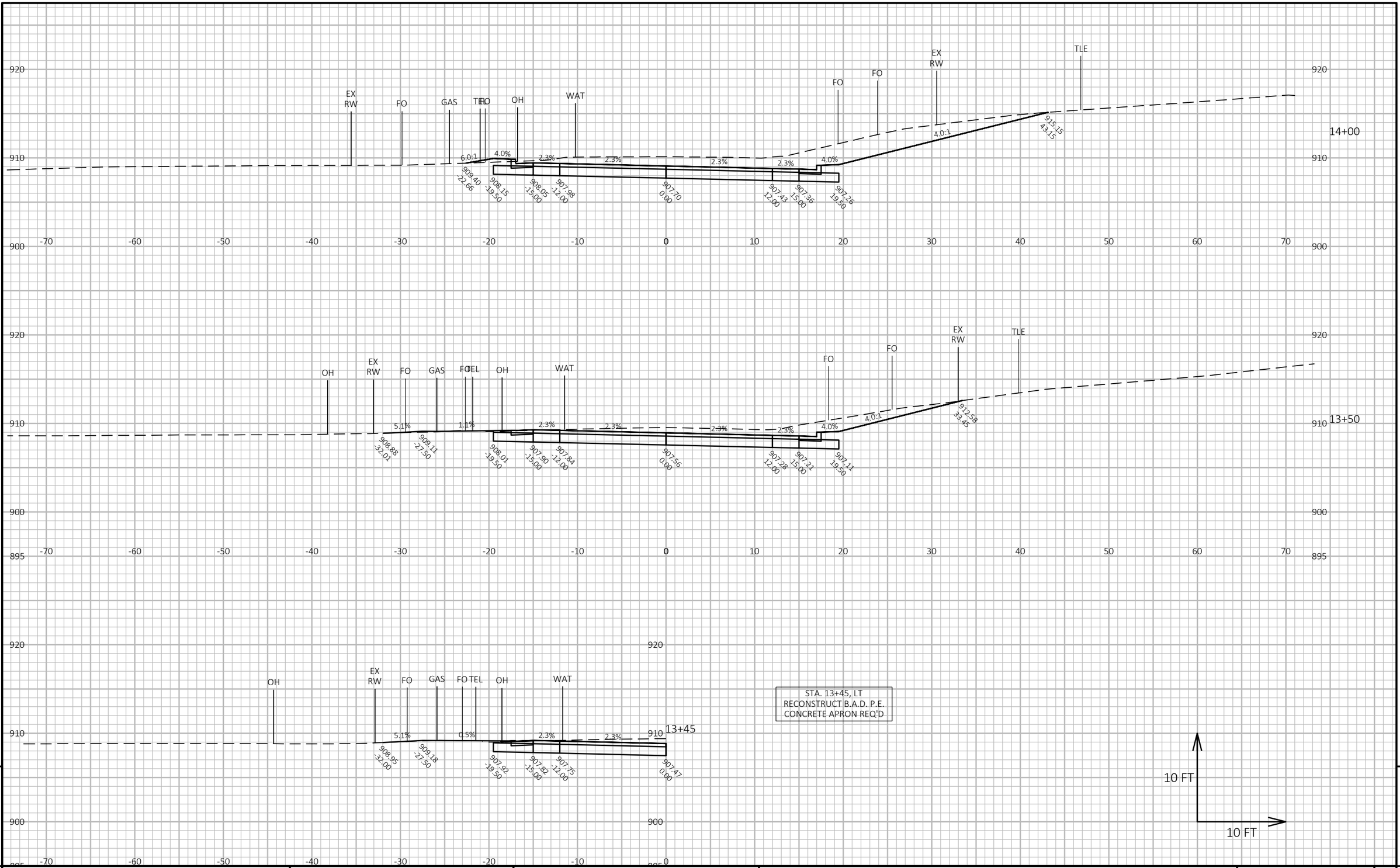
9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 129	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090203_xs

PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



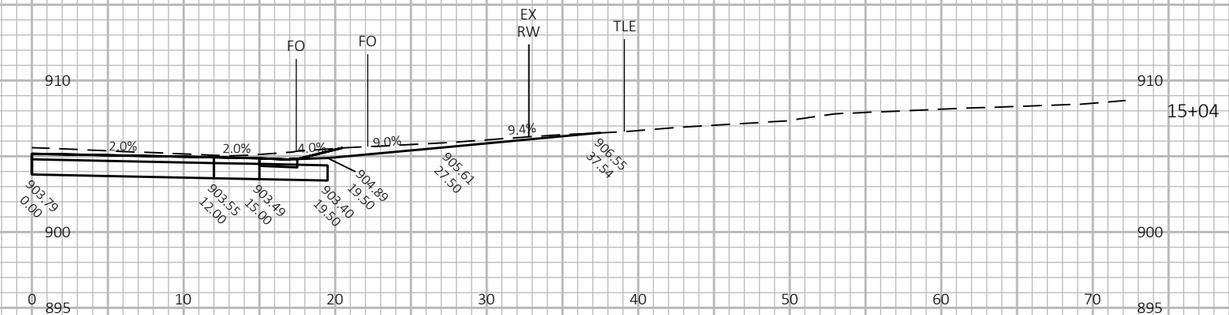
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 130	E

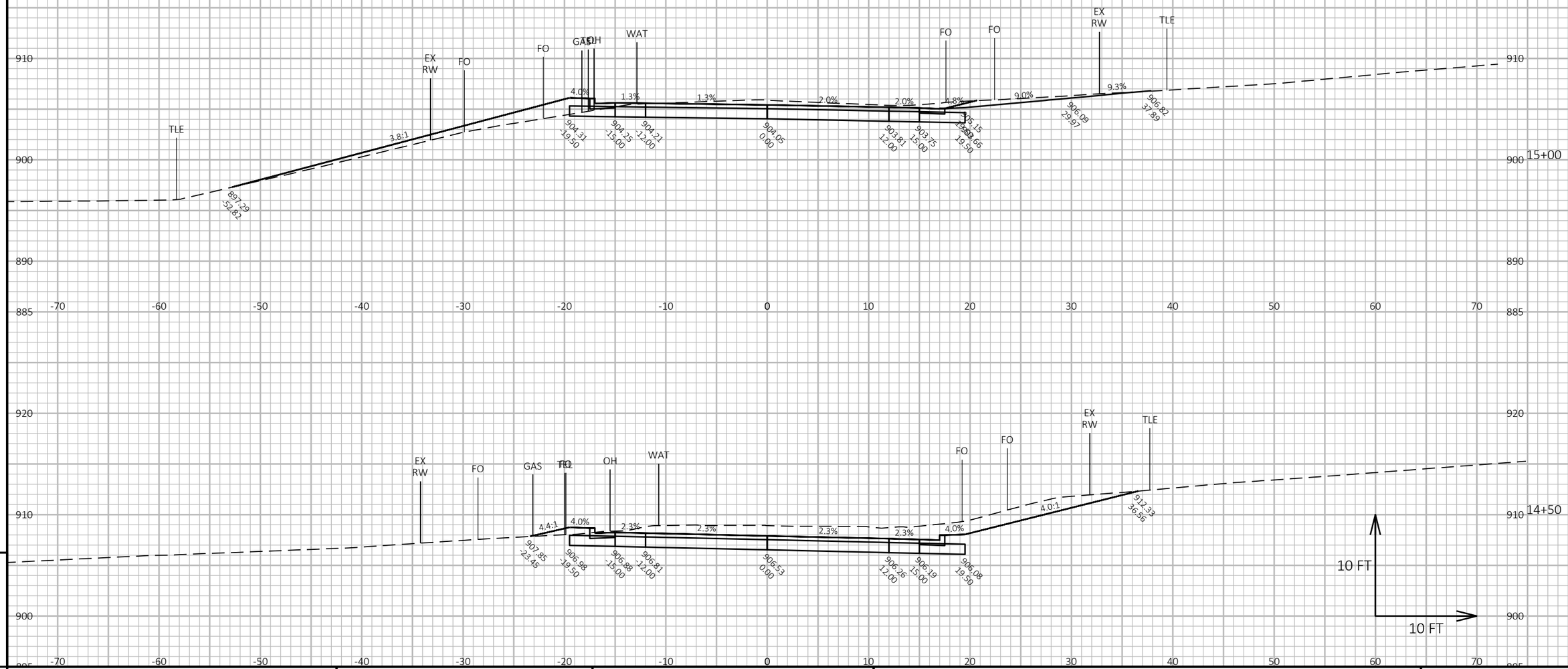
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090204_xs

PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STA. 15+04, RT
RECONSTRUCT ASPHALTIC P.E.
CONCRETE APRON REQ'D



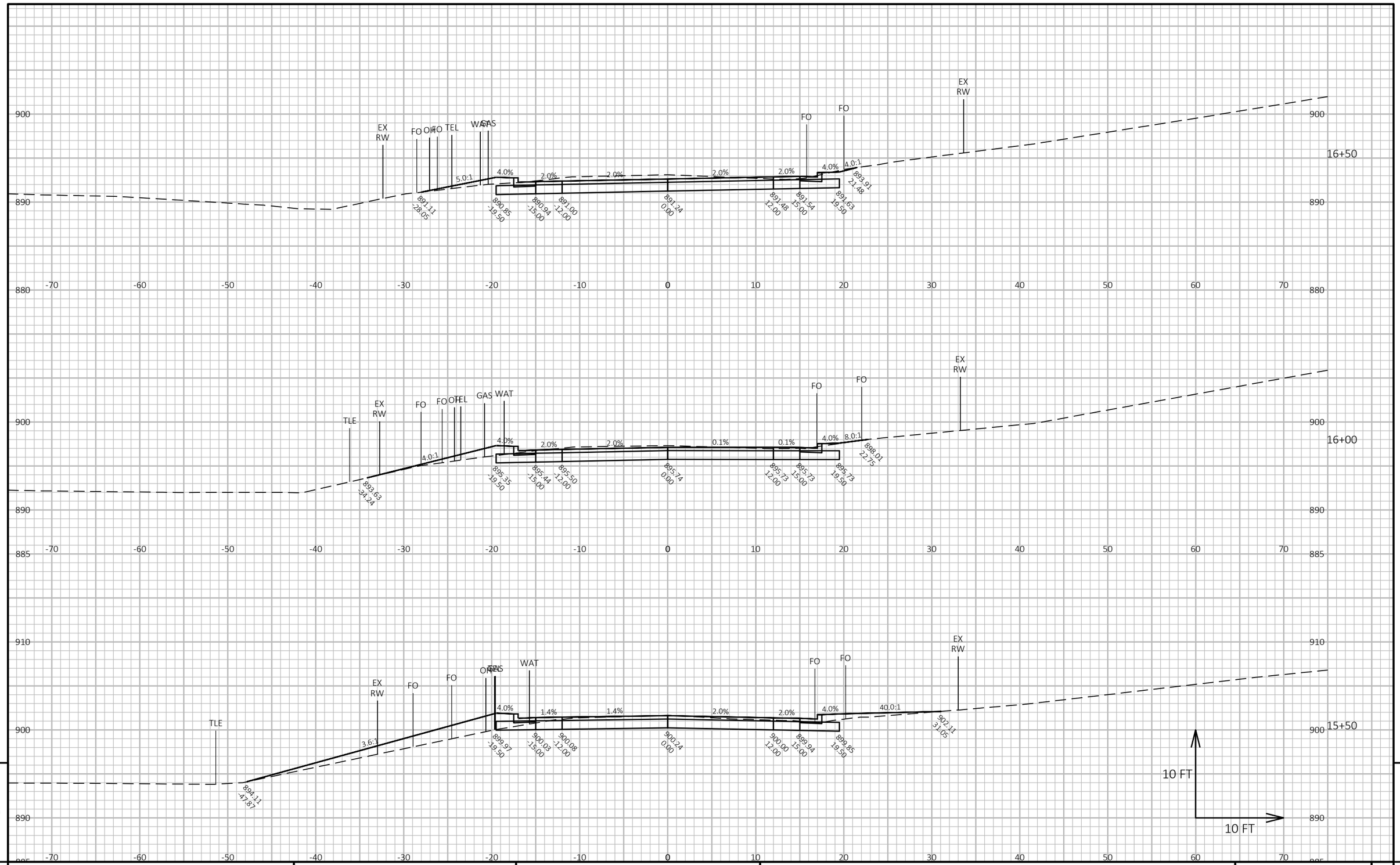


PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 131	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090205_xs

PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



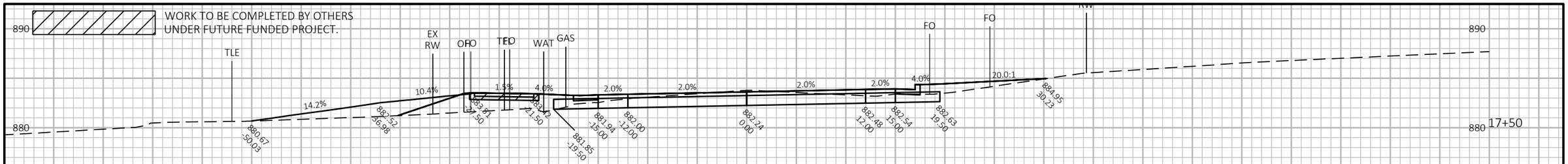
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 132	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090206_xs

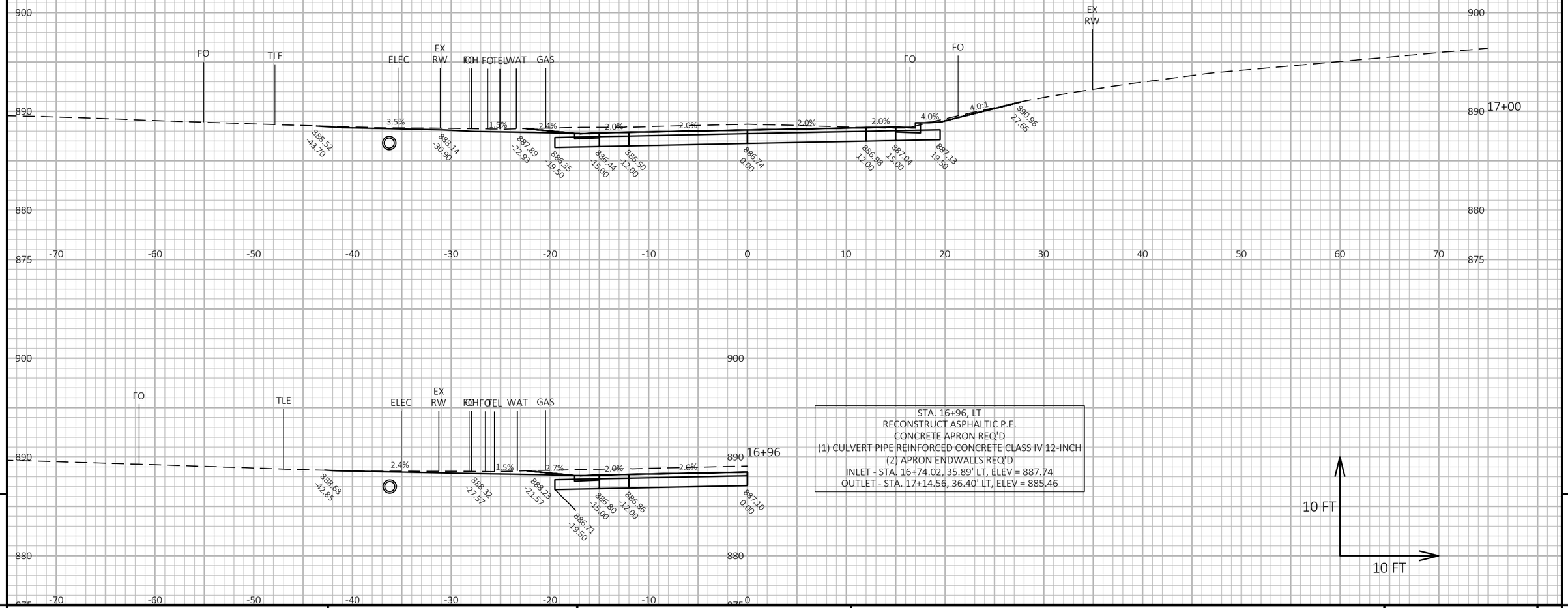
PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.



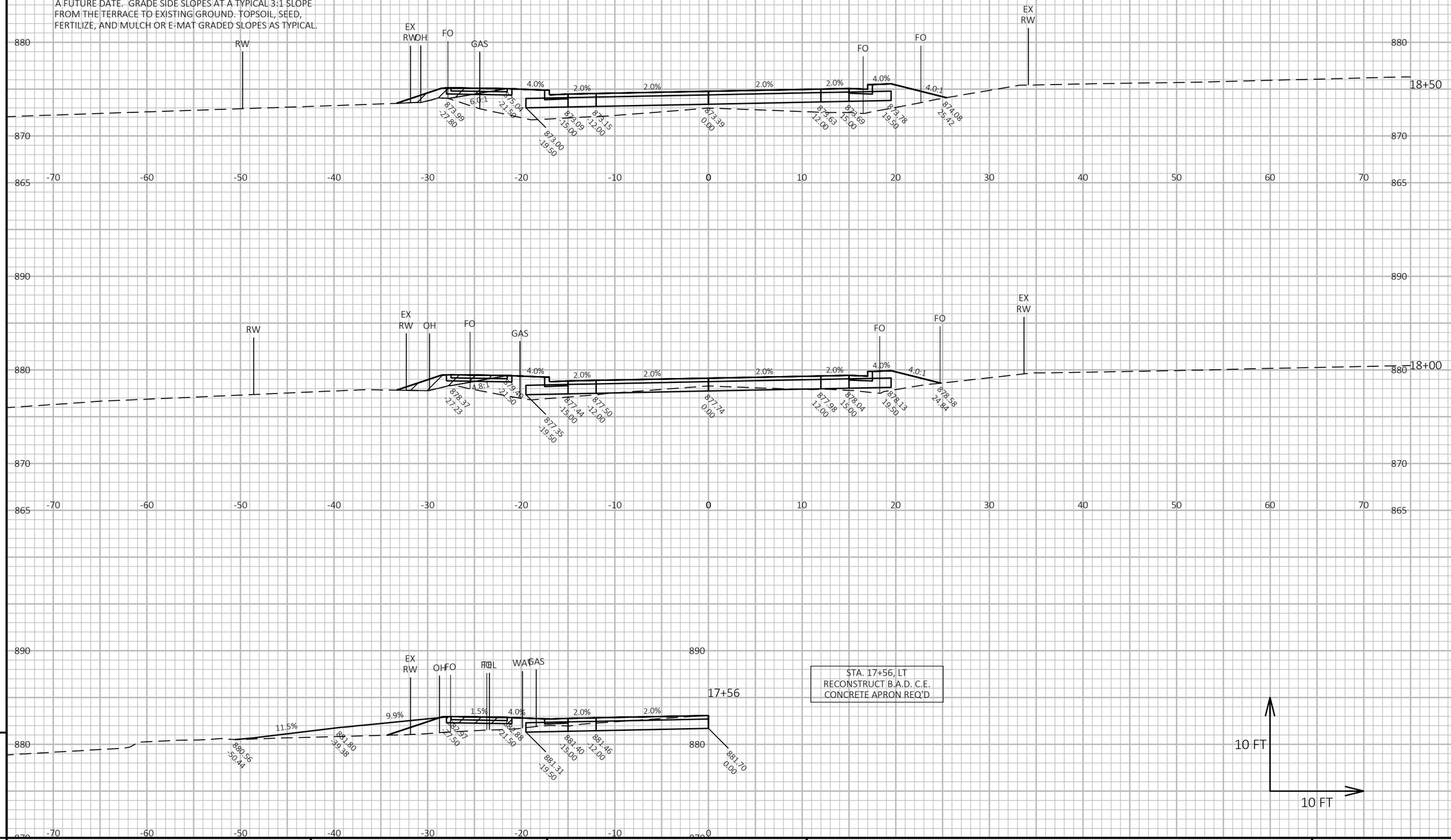
STA. 16+96, LT
RECONSTRUCT ASPHALTIC P.E.
CONCRETE APRON REQ'D
(1) CULVERT PIPE REINFORCED CONCRETE CLASS IV 12-INCH
(2) APRON ENDWALLS REQ'D
INLET - STA. 16+74.02, 35.89' LT, ELEV = 887.74
OUTLET - STA. 17+14.56, 36.40' LT, ELEV = 885.46

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 133	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090207_xs
PLOT DATE : 12/10/2024 12:58 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.



STA. 17+56, LT
RECONSTRUCT B.A.D. C.E.
CONCRETE APRON REQ'D

10 FT
10 FT

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 134	E

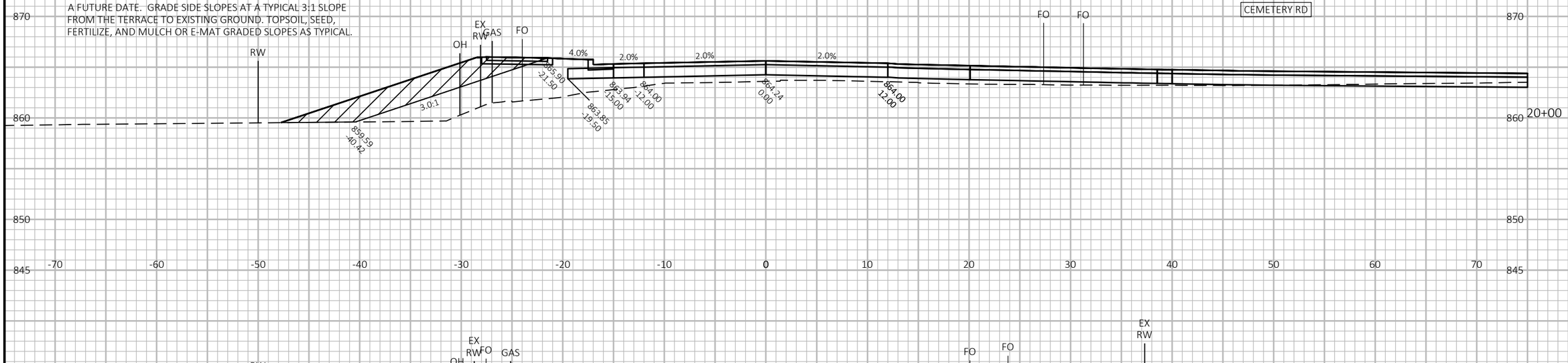
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090208_xs

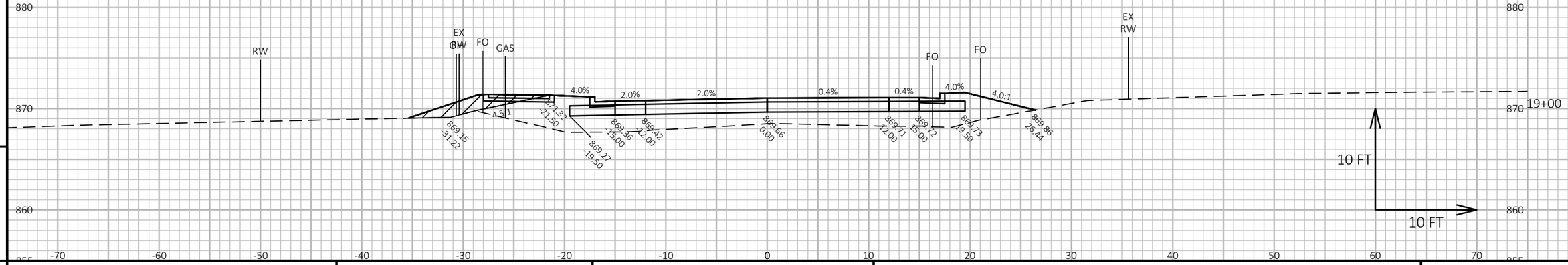
PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.





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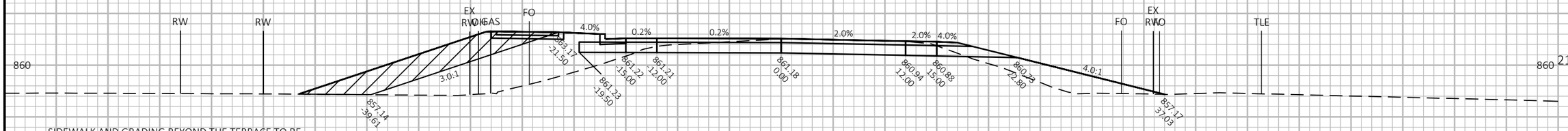
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 135	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090209_xs

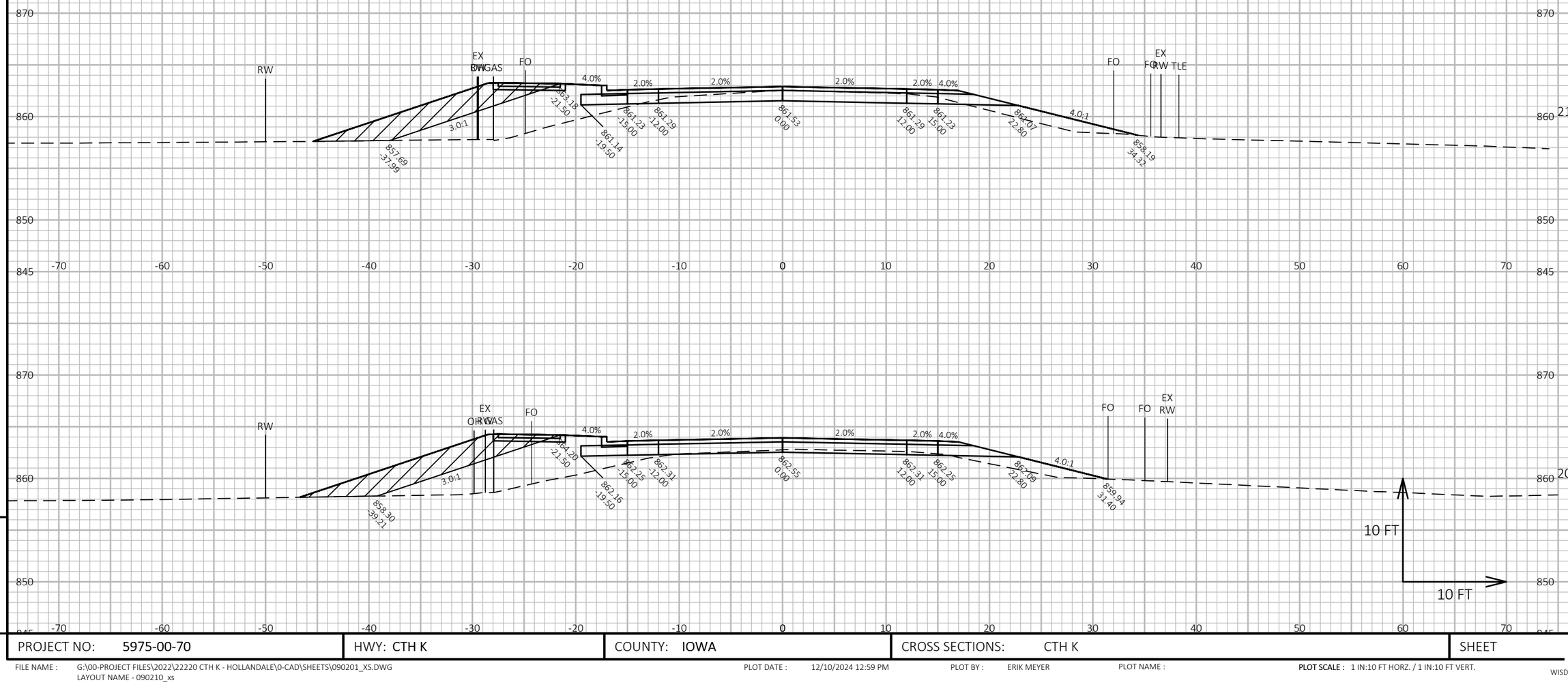
PLOT DATE : 12/10/2024 12:58 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.



9

9

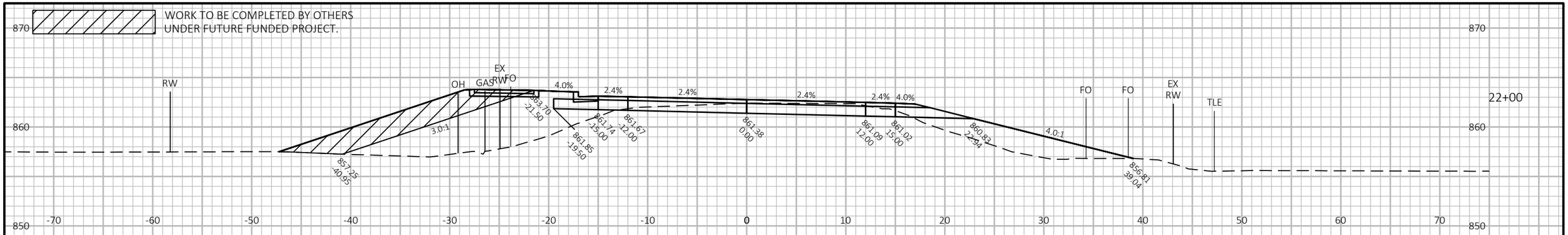
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 136	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090210_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

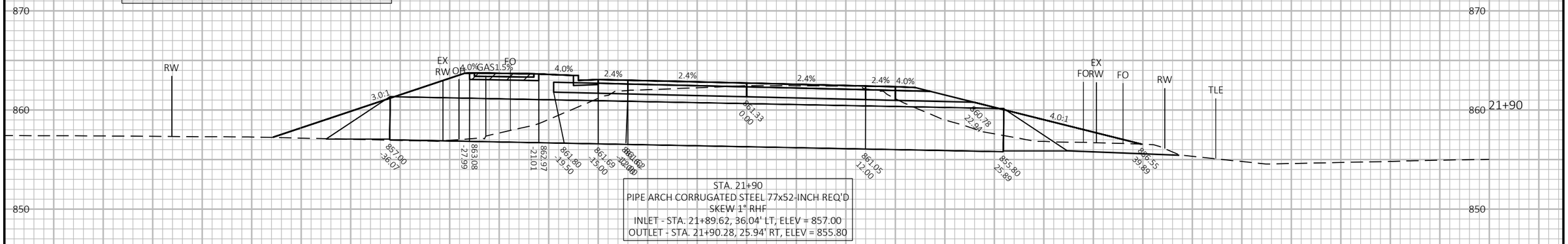
WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



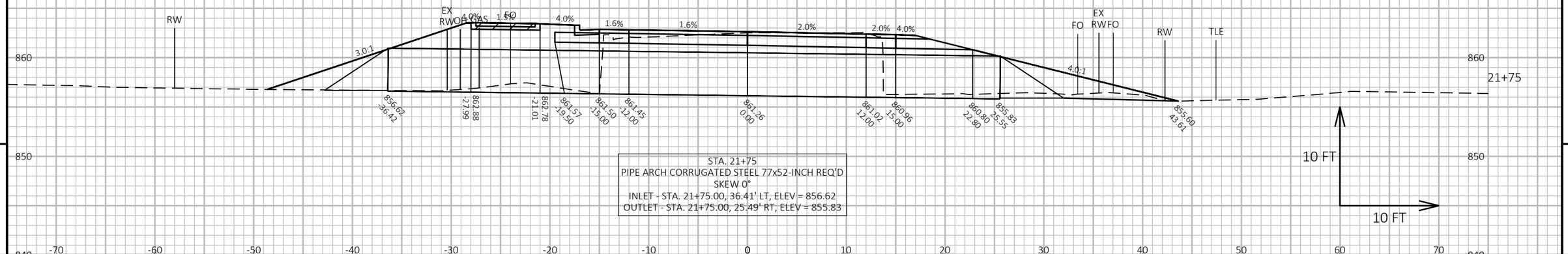
SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

SKEWED WITH PIPE - FOR INFORMATION PURPOSES ONLY



STA. 21+90
PIPE ARCH CORRUGATED STEEL 77x52-INCH REQ'D
SKEW 1° RHF
INLET - STA. 21+89.62, 36.04' LT, ELEV = 857.00
OUTLET - STA. 21+90.28, 25.94' RT, ELEV = 855.80

SKEWED WITH PIPE - FOR INFORMATION PURPOSES ONLY



STA. 21+75
PIPE ARCH CORRUGATED STEEL 77x52-INCH REQ'D
SKEW 0°
INLET - STA. 21+75.00, 36.41' LT, ELEV = 856.62
OUTLET - STA. 21+75.00, 25.49' RT, ELEV = 855.83

9

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PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 137	E

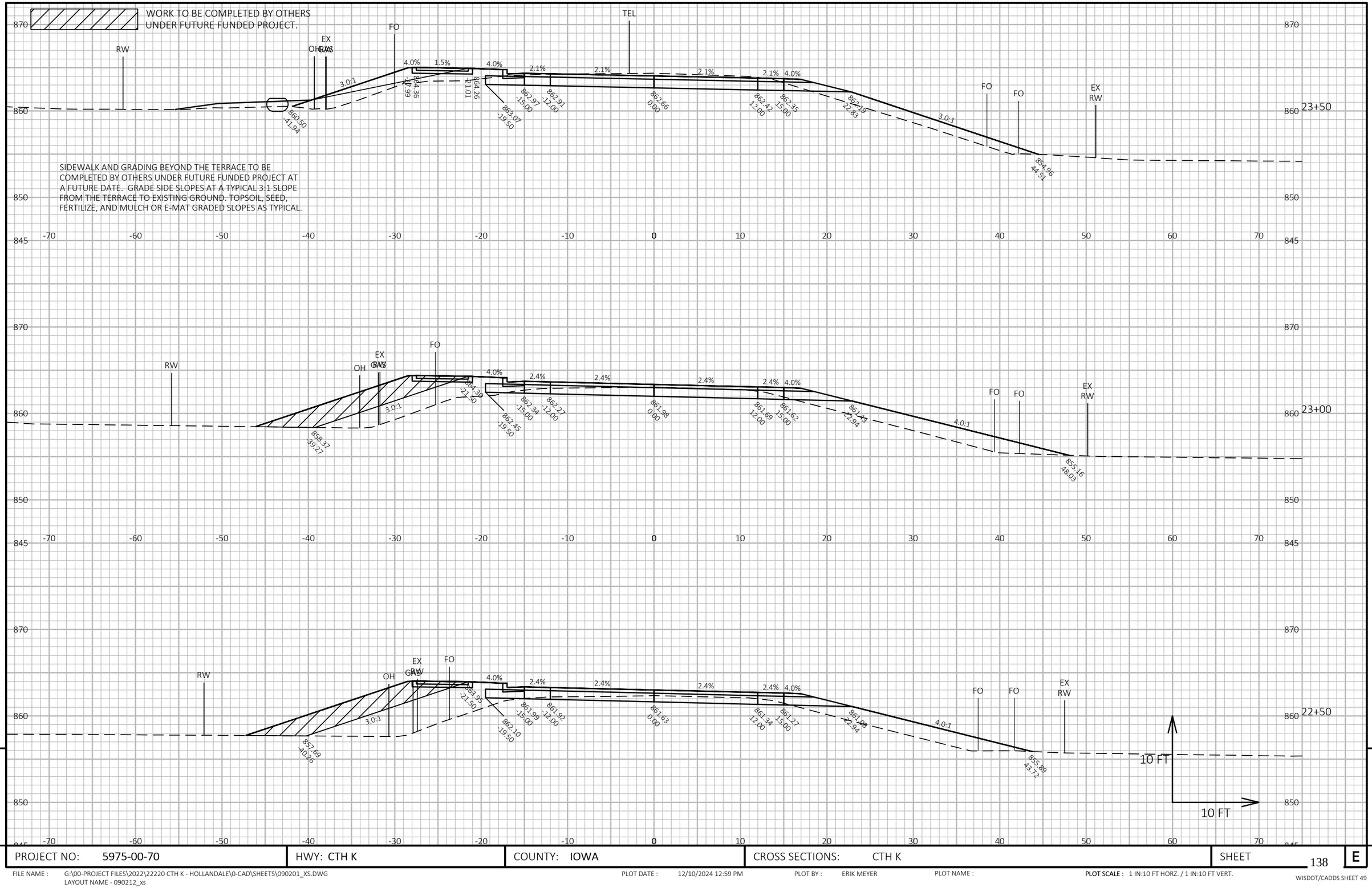
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090211_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.

SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.



PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 138 E

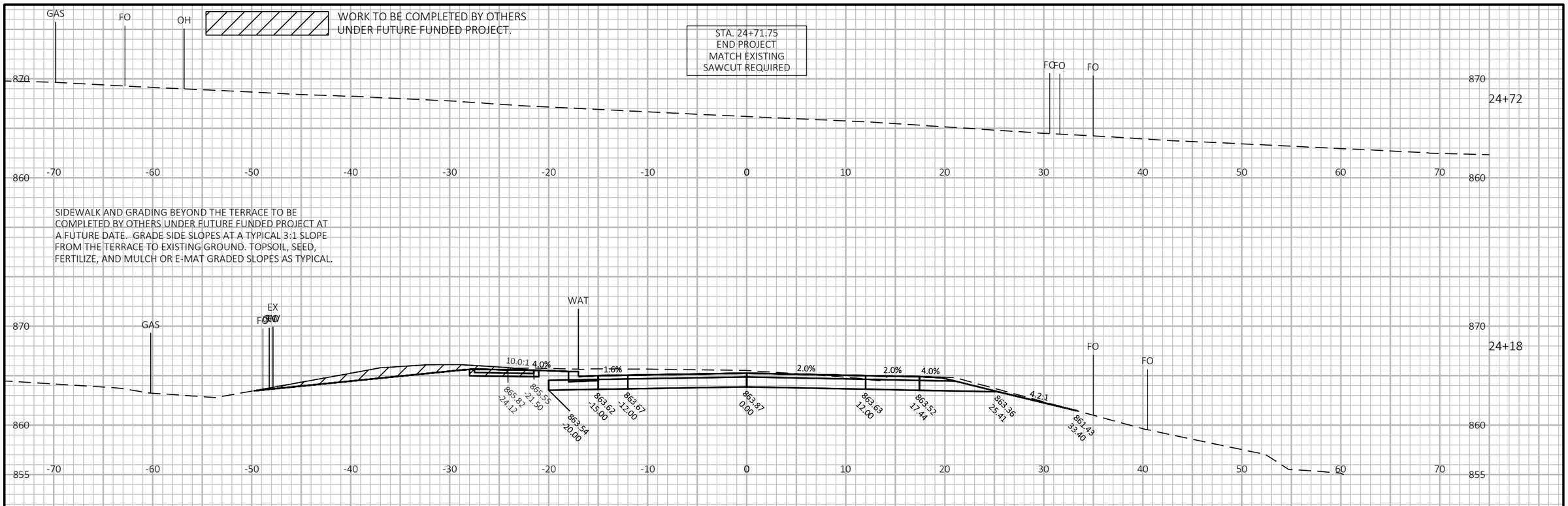
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090212_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

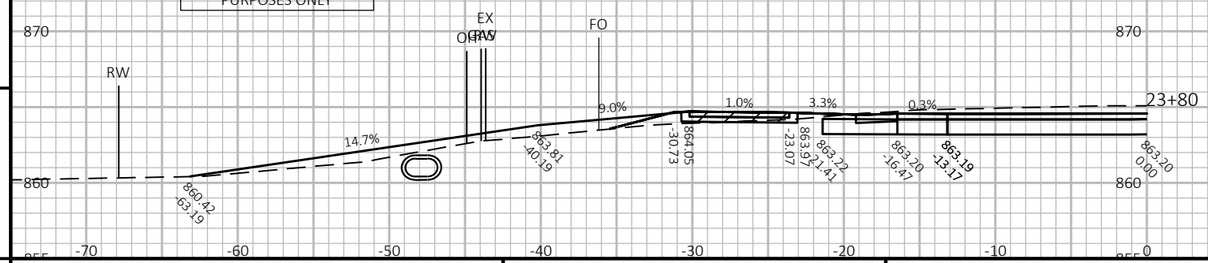
WORK TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT.

STA. 24+71.75
END PROJECT
MATCH EXISTING
SAWCUT REQUIRED

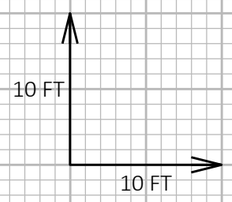


SIDEWALK AND GRADING BEYOND THE TERRACE TO BE COMPLETED BY OTHERS UNDER FUTURE FUNDED PROJECT AT A FUTURE DATE. GRADE SIDE SLOPES AT A TYPICAL 3:1 SLOPE FROM THE TERRACE TO EXISTING GROUND. TOPSOIL, SEED, FERTILIZE, AND MULCH OR E-MAT GRADED SLOPES AS TYPICAL.

SKEWED WITH DRIVEWAY - FOR INFORMATION PURPOSES ONLY



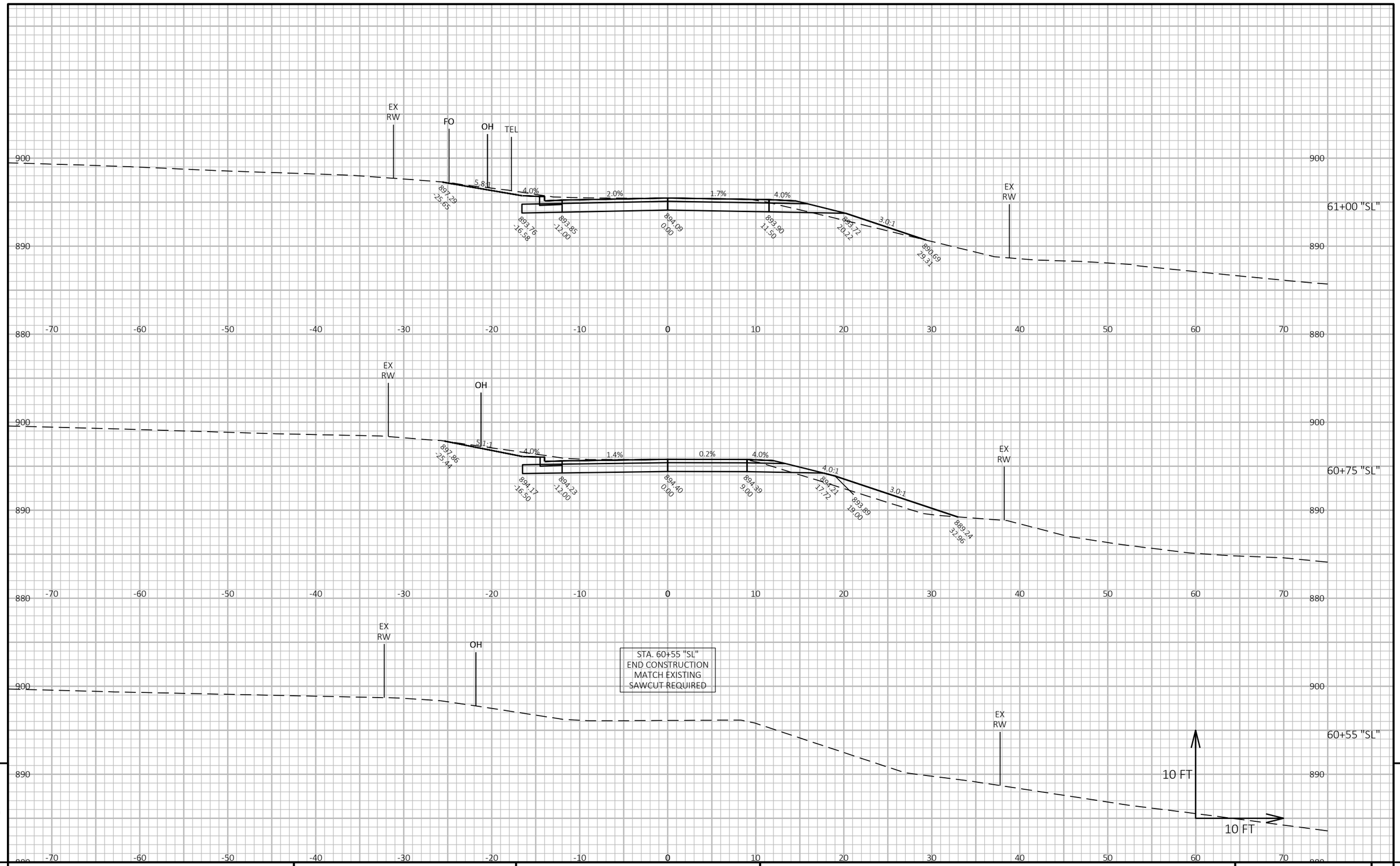
STA. 23+64, LT
RECONSTRUCT B.A.D. F.E.
CONCRETE APRON REQ'D
CULVERT PIPE REINFORCED CONCRETE
HORIZONTAL ELLIPTICAL CLASS HE-IV 14x23-INCH
(2) APRON ENDWALLS REQ'D
INLET - STA. 23+69.83, 43.67' LT, ELEV = 860.75
OUTLET - STA. 23+53.99, 43.60' LT, ELEV = 860.18



9

9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CTH K	SHEET 139	E



9

9

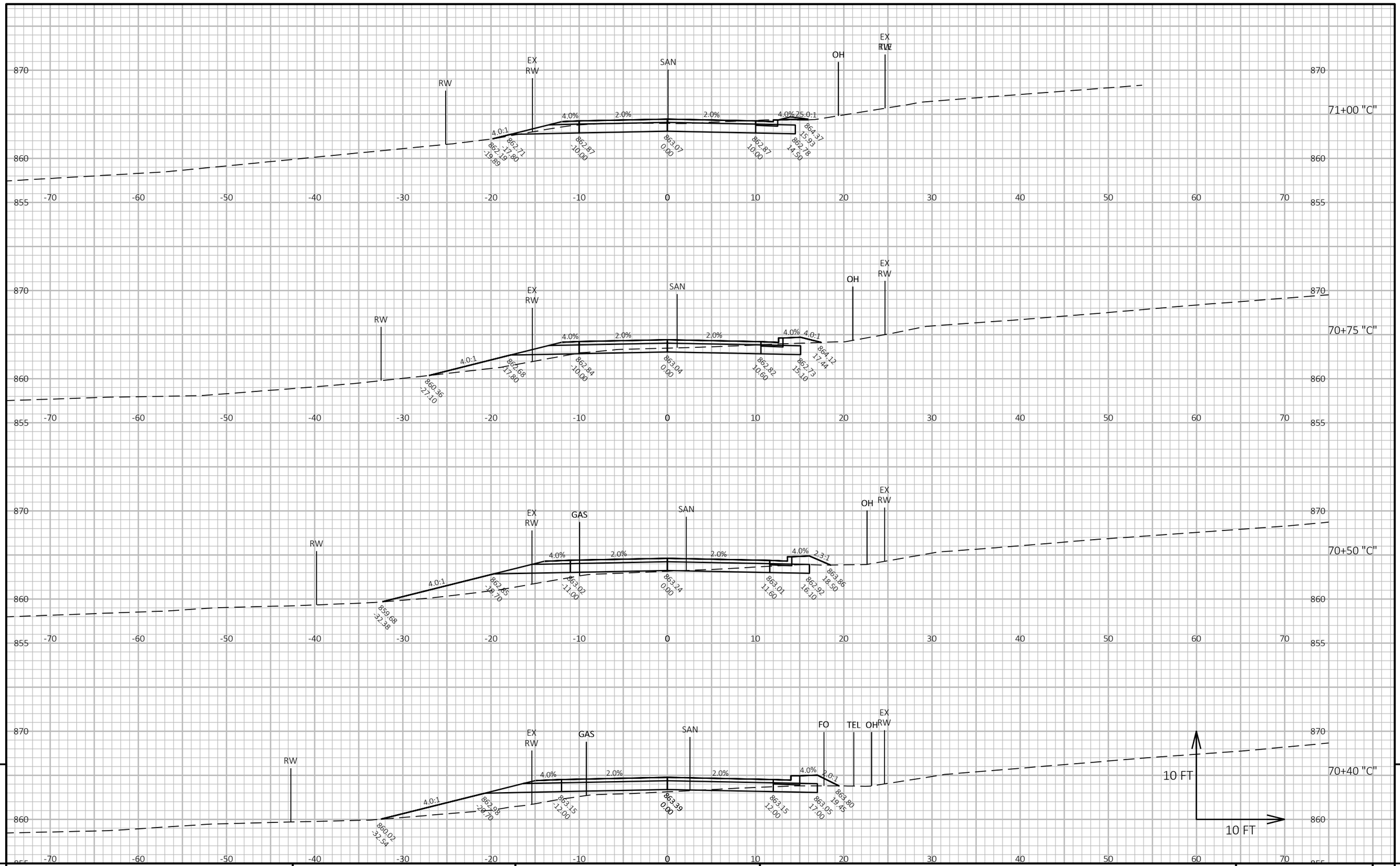
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: SCHOOL LN	SHEET 140	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090214_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

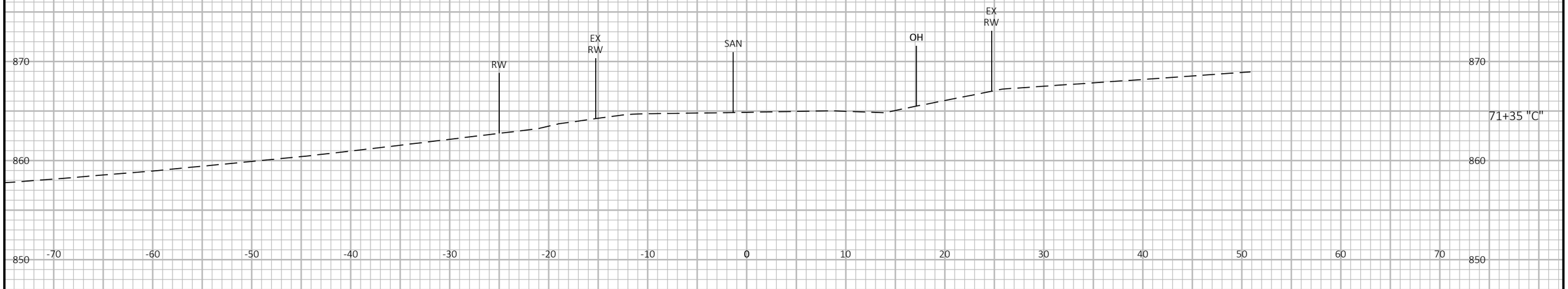
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CEMETERY RD	SHEET 141	E

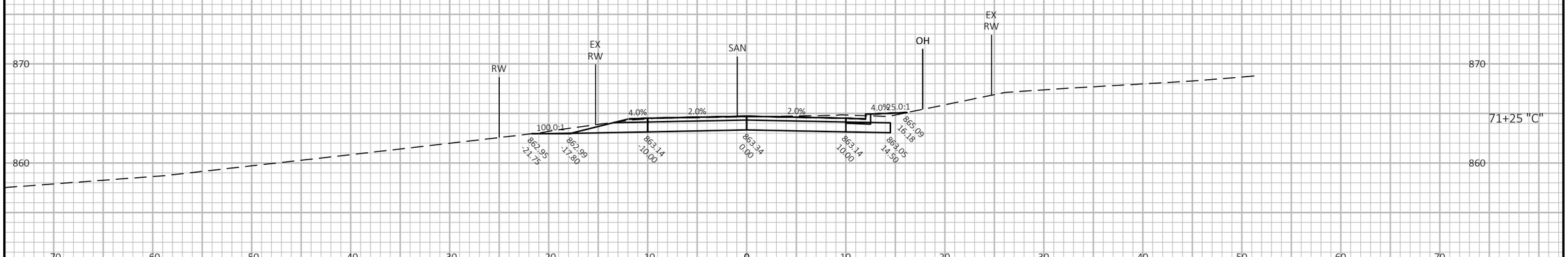
FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090215_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

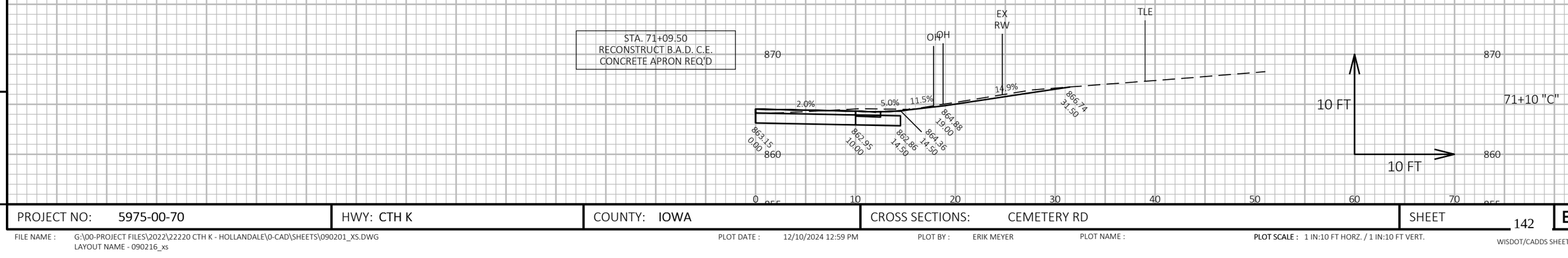
WISDOT/CADDS SHEET 49

STA. 71+35 "C"
END CONSTRUCTION
MATCH EXISTING
SAWCUT REQUIRED





STA. 71+09.50
RECONSTRUCT B.A.D. C.E.
CONCRETE APRON REQ'D



9

9

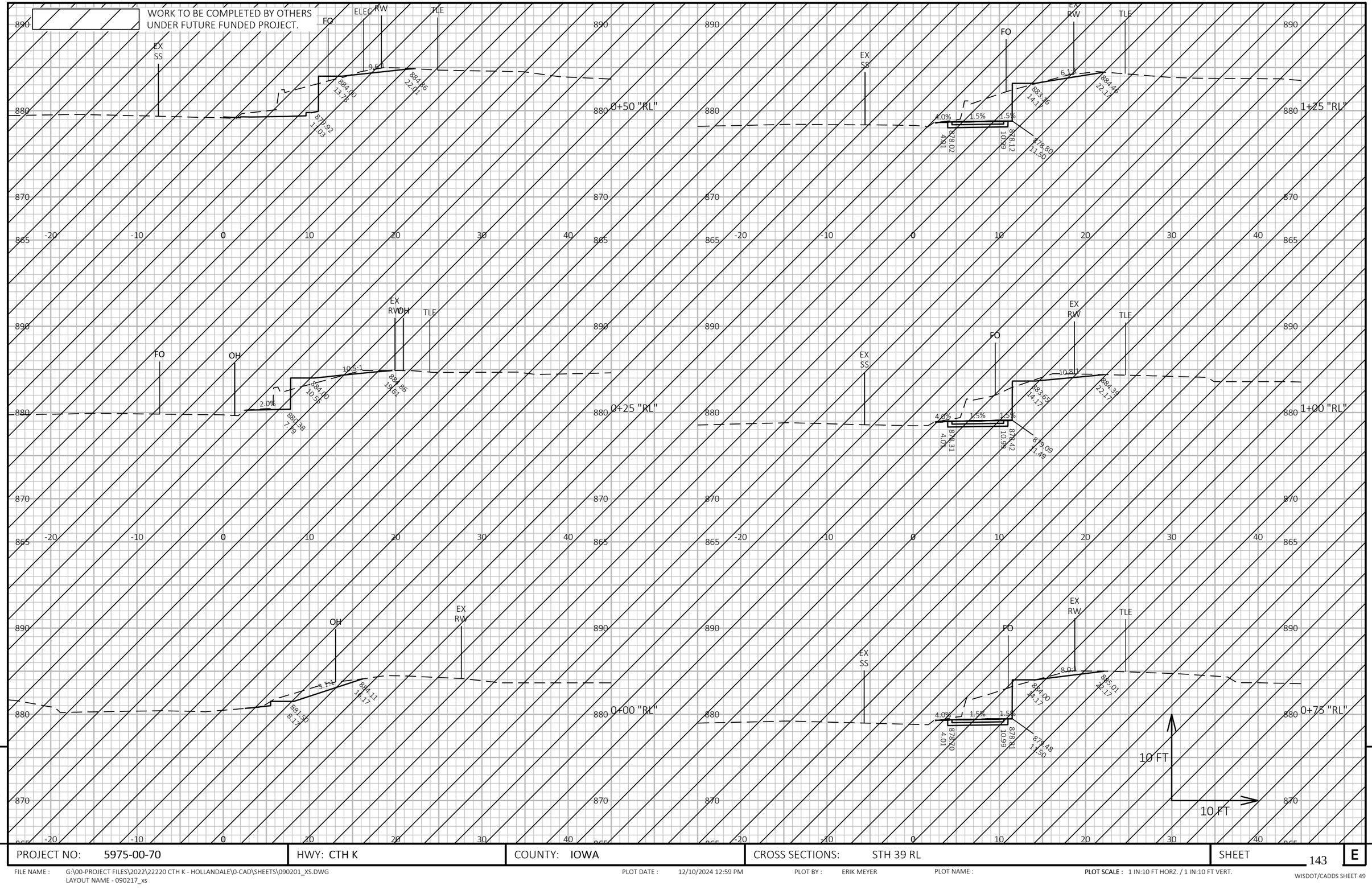
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: CEMETERY RD	SHEET 142	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090216_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



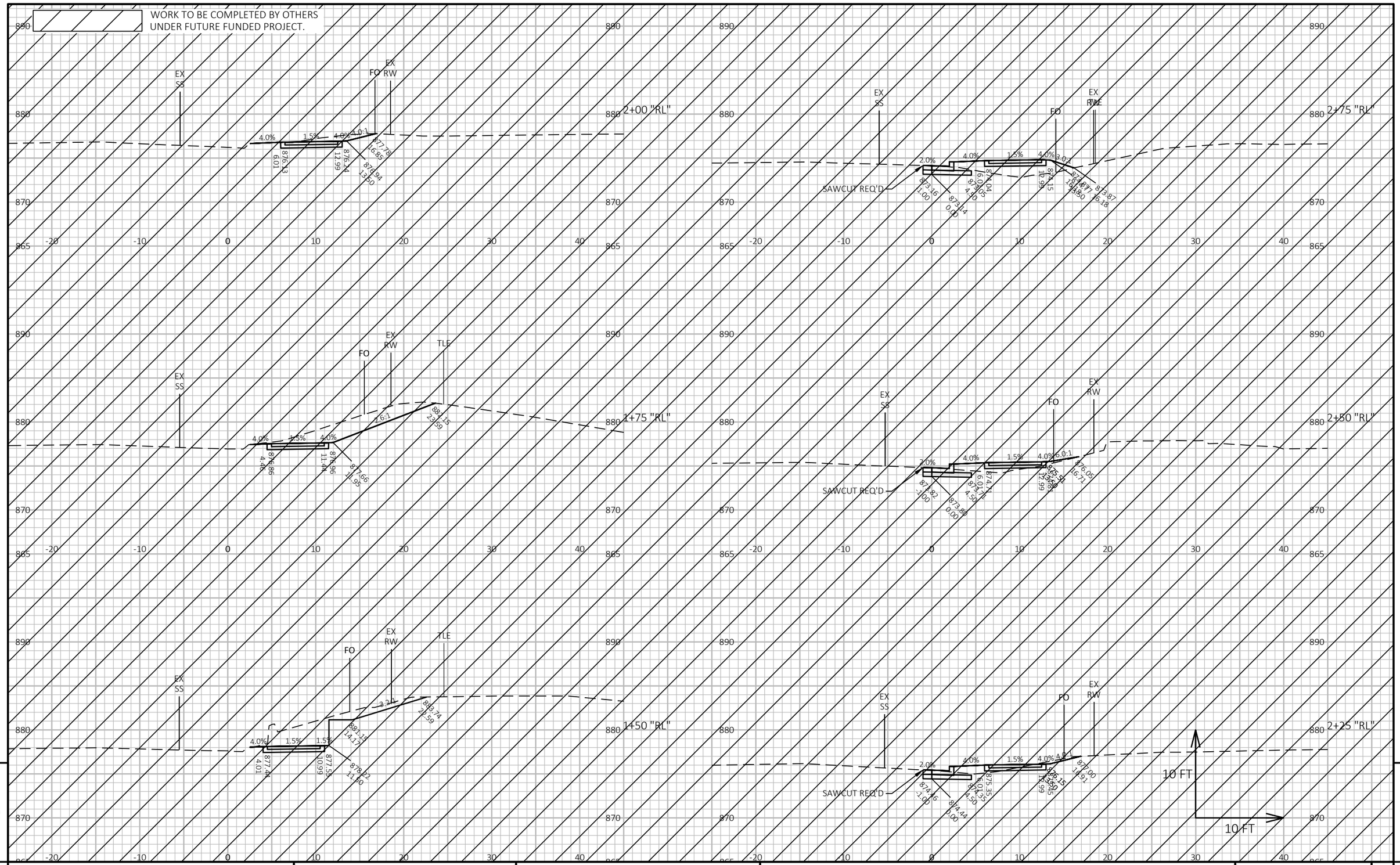
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: STH 39 RL	SHEET 143	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090217_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WORK TO BE COMPLETED BY OTHERS
UNDER FUTURE FUNDED PROJECT.



9

9

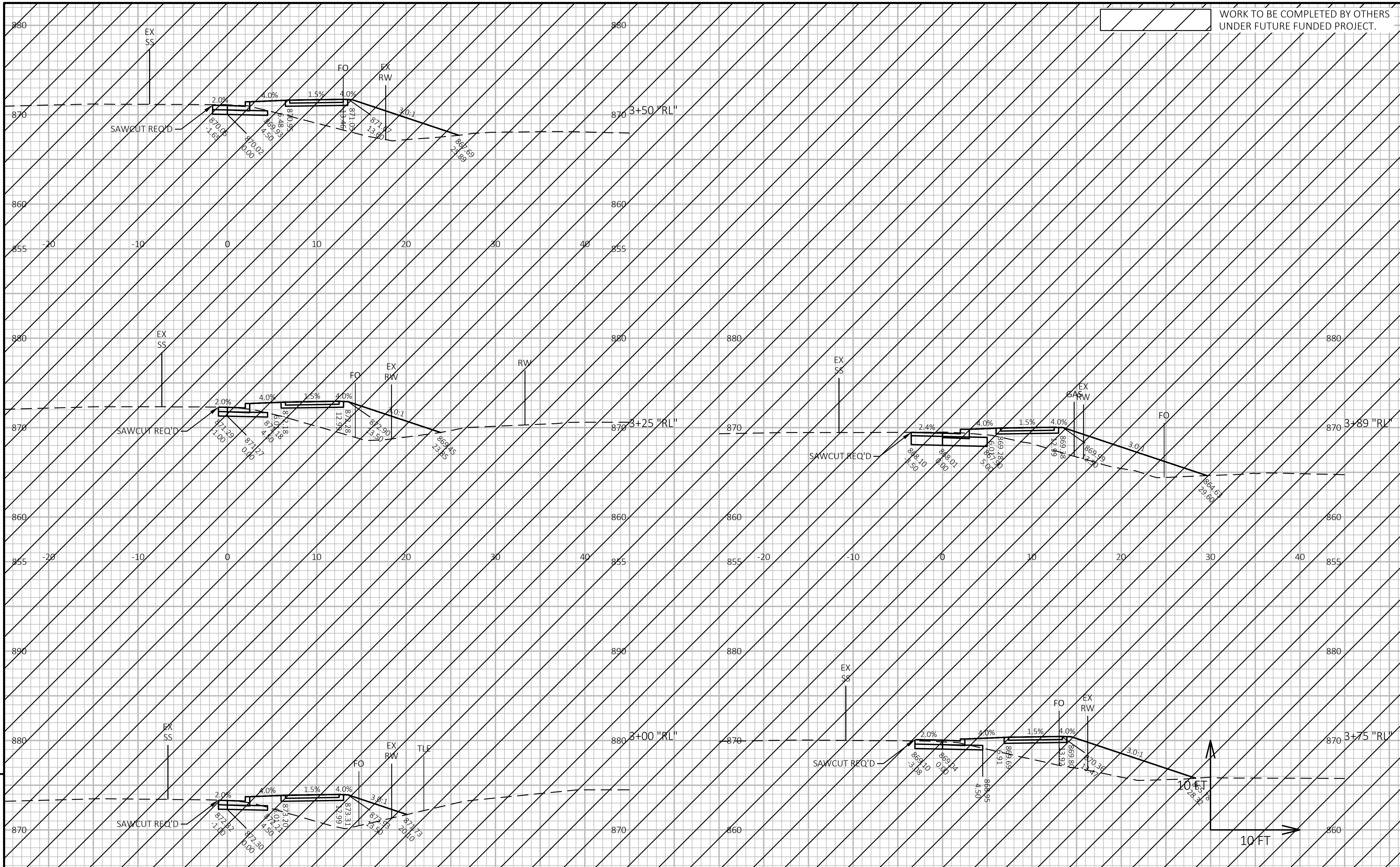
PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: STH 39 RL	SHEET 144	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090218_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: STH 39 RL	SHEET 145	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090219_xs
PLOT DATE : 12/10/2024 12:59 PM
PLOT BY : ERIK MEYER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

END CONSTRUCTION
MATCH EXISTING
SAWCUT REQUIRED

1+27

1+00

0+78

SAWCUT REQ'D

1.9% 4.0% 4.0:1

860.61 -2.94 | 860.56 0.00 | 860.38 -8.72 | 859.85 -10.84

SAWCUT REQ'D

1.8% 4.0% 10.0:1

861.49 -3.50 | 861.43 0.00 | 861.18 -12.18

10 FT

10 FT

9

9

PROJECT NO: 5975-00-70	HWY: CTH K	COUNTY: IOWA	CROSS SECTIONS: SE QUAD CTH K & STH 39	SHEET 146	E

FILE NAME : G:\00-PROJECT FILES\2022\22220 CTH K - HOLLANDALE\0-CAD\SHEETS\090201_XS.DWG
LAYOUT NAME - 090220_xs

PLOT DATE : 12/10/2024 12:59 PM PLOT BY : ERIK MEYER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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