

MAD

PROJECT ID: 5849-02-07

WITH: N/A

COUNTY: DANE

AUGUST 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 292

03

N

DESIGN DESIGNATION

A.A.D.T.	2024	=	8,625
A.A.D.T.	2044	=	10,080
D.H.V.		=	3.1
D.D.		=	59/41
T.		=	3.6%
DESIGN SPEED		=	40 MPH
ESALS		=	760,000

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	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C FITCHBURG, SYENE ROAD

MCCOY ROAD INTERSECTION

LOCAL STREET

DANE COUNTY

STATE PROJECT NUMBER

5849-02-07

END PROJECT 5849-02-07

STA 684+29.09 SRN

BEGIN PROJECT 5849-02-07

STA 670+35.78 SRN

Y = 461,697.12

X = 818,117.27

US 14

CTH MM

T-6-N

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.264 MI

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A-W

PUBLIC IMPROVEMENT DESIGN

APPROVED BY:

4/25/24 (Date)

Tim Vall (Signature)

City of Fitchburg

ORIGINAL PLANS PREPARED BY

KL Engineering

[A] Better Experience

WISCONSIN PROFESSIONAL ENGINEER

BRIAN J. ST. VINCENT

44329-6

FITCHBURG, WI

April 24, 2024 (Date)

Brian St. Vincent (Signature)

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor KL ENGINEERING, INC.

Designer KL ENGINEERING, INC.

Project Manager LORRAINE BETZEL P.E.

Regional Examiner

Regional Supervisor

APPROVED FOR THE DEPARTMENT

DATE: 4/29/24

Lorraine Betzel (Signature)

E

FILE NAME : G:\FITCHBRG\20087-000 SYENE ROAD\CIVIL 3D\SHEETS\PLAN\PHASE 3 SHEET FILES - W CLAYTON TO MCCOY\010101-T1_P3.DWG

PLOT DATE : 4/24/2024 10:53 AM

PLOT BY : BRIAN ST. VINCENT

PLOT NAME :

ABBREVIATIONS

BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
BLDG.	BUILDING
CBTP	CONCRETE BARRIER TEMPORARY PRECAST
CTR	CENTER
C/L	CENTERLINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CSW	CONCRETE SIDEWALK
CMCP	CORRUGATED METAL CULVERT PIPE
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE
CPT	HORIZONTAL ELLIPTICAL
DMS	CONSTRUCTION PERMIT
EAT	DYNAMIC MESSAGE SIGN
EB	ENERGY ABSORBING TERMINAL
ELEC	EASTBOUND
IE	ELECTRIC
EX. OR EXIST	INVERT ELEVATION
FO	EXISTING
F.E.	FIBER OPTIC
GAS	FIELD ENTRANCE
HMA	GAS
HSE.	HOT MIX ASPHALT
LHF	HOUSE
MH	LEFT HAND FORWARD
MAX.	MANHOLE
MIN.	MAXIMUM
NB	MINIMUM
NOR.	NORTHBOUND
NTS	NORMAL
PLE	NOT TO SCALE
P.E.	PERMANENT LIMITED EASEMENT
P.L.	PRIVATE ENTRANCE
PRW	PROPERTY LINE
RAD OR R	PROPOSED RIGHT-OF-WAY
R/L	RADIUS
REQ'D.	REFERENCE LINE
RHF	REQUIRED
RW	RIGHT HAND FORWARD
SAN	RIGHT-OF-WAY LINE
SB	SANITARY SEWER
SHLD	SOUTHBOUND
SW	SHOULDER
SF	SIDEWALK
SY	SQUARE FEET
S.D.D.	SQUARE YARD
STA	STANDARD DETAIL DRAWING
SS	STATION
TEL	STORM SEWER
TLE	TELEPHONE
TYP	TEMPORARY LIMITED EASEMENT
WAT	TYPICAL
WB	WATER
	WESTBOUND

UTILITY CONTACTS

ELECTRIC

AMERICAN TRANSMISSION COMPANY
DOUG VOSBERG
2489 RINDEN RD
COTTAGE GROVE, WI 53527
(608) 877-7650
DVOSBERG@ATCLLC.COM

COMMUNICATIONS

AT&T DISTRIBUTION
MATTHEW VACHALIK
411 7TH ST
RACINE, WI 53403
(262) 707-6216
MV5616@ATT.COM

COMMUNICATIONS

CHARTER/SPECTRUM COMMUNICATIONS
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2701 DANIELS STREET
MADISON, WI 53718
(608) 287-4505
DERRICK.BUZZEL@CHARTER.COM

WATER

CITY OF FITCHBURG
TRACY FOSS
5520 LACY ROAD
FITCHBURG, WI 53711
(608) 270-4272
TRACY.FOSS@FITCHBURGWI.GOV

ELECTRIC

MADISON GAS & ELECTRIC COMPANY
MARK BOHM
PO BOX 1231
MADISON, WI 53701
(608) 252-4730
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GAS

MADISON GAS & ELECTRIC COMPANY
JOHN WICHERN
PO BOX 1231
MADISON, WI 53701-1231
(608) 252-1563
JWICHERN@MGE.COM

SEWER

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RAY SCHNEIDER
1610 MOORLAND ROAD
MADISON, WI 53713
(608) 347-3628
RAYS@MADSEWER.ORG



ORDER OF DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- CURB RAMP DETAILS
- PAVING DETAILS
- EROSION CONTROL
- BASIN SEEDING PLAN
- STORM SEWER
- PERMANENT SIGNING
- TRAFFIC SIGNAL PLAN
- PAVEMENT MARKING
- TRAFFIC CONTROL
- ALIGNMENT DIAGRAM
- BENCHMARKS AND CONTROL POINTS

GENERAL NOTES

ALL STREET DIMENSIONS (WIDTHS, RADII LENGTH) ARE MEASURED TO THE EDGE OF PAVEMENT UNLESS NOTED IN THE PLANS ELSEWHERE.

ALL ADA RAMPS TO BE VERIFIED BY THE CITY BEFORE PLACEMENT.

ALL GRADES PROVIDED ALONG RADII ARE ALONG EDGE OF PAVEMENT.

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

UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

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

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

NO TREES AND/OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES AND/OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS SHOWN TO END OF PIPE, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

HMA PAVEMENT CALCULATIONS ARE BASED ON 112 LBS/SY/IN. TACK COAT QUANTITIES BASED ON 0.07 GAL/SY APPLICATION RATE.

WETLANDS ARE PRESENT AS SHOWN ON PLANS. DO NOT OPERATE MACHINERY OUTSIDE OF SLOPE INTERCEPTS ADJACENT TO THESE LOCATIONS.

THE CONTRACTOR'S HMA PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.

ALIGNMENT IDENTIFIERS

SRN SYENE ROAD NORTHBOUND
SRS SYENE ROAD SOUTHBOUND
EM MCCOY ROAD EASTBOUND
WM MCCOY ROAD WESTBOUND
CCT CAPITAL CITY TRAIL
SCT SYENE ROAD TEMPORARY CONNECTION
WSP WEST SIDE PATH
TPD TRAILHEAD PARKING LOT DRIVEWAY

DESIGN CONTACT

BRIAN ST. VINCENT, P.E.
KL ENGINEERING, INC.
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WISDOT

LORRAINE BETZEL P.E.
WISDOT SOUTHWEST REGION
2101 WRIGHT STREET
MADISON, WI 53704
(608) 246-3279
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DNR CONTACT

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WISCONSIN DEPT. OF NATURAL RESOURCES
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
(608) 228-7927
ERIC.HEGGELUND@WISCONSIN.GOV

CITY OF FITCHBURG

ROSS KAHLER
5520 LACY ROAD
FITCHBURG, WI 53711
(608) 270-4266
ROSS.KAHLER@FITCHBURGWI.GOV

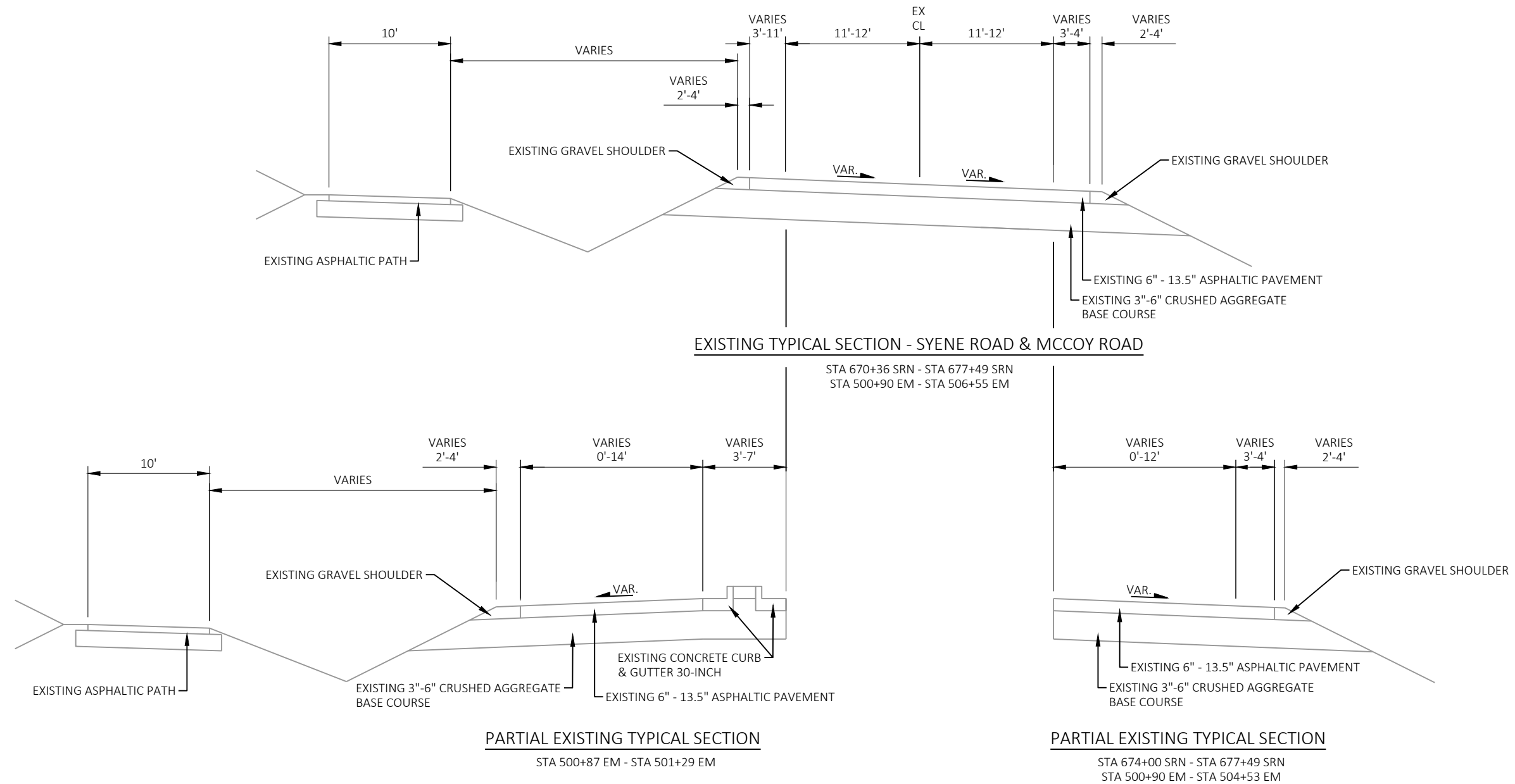
PROJECT NO: 5849-02-07

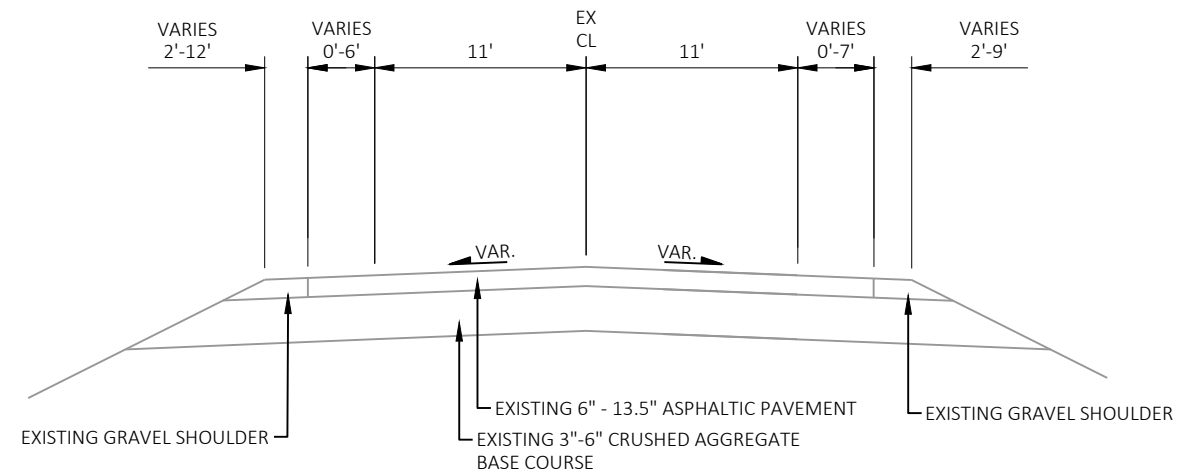
HWY: LOCAL STREET - SYENE ROAD

COUNTY: DANE

GENERAL NOTES

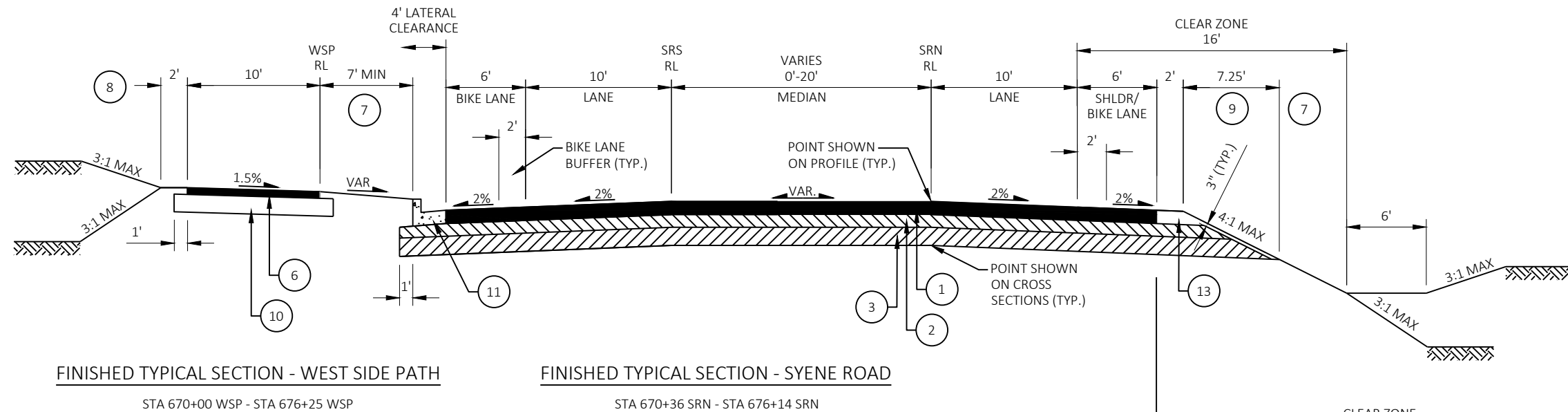
SHEET





EXISTING TYPICAL SECTION - SYENE ROAD

STA 677+49 SRN - STA 684+29 SRN

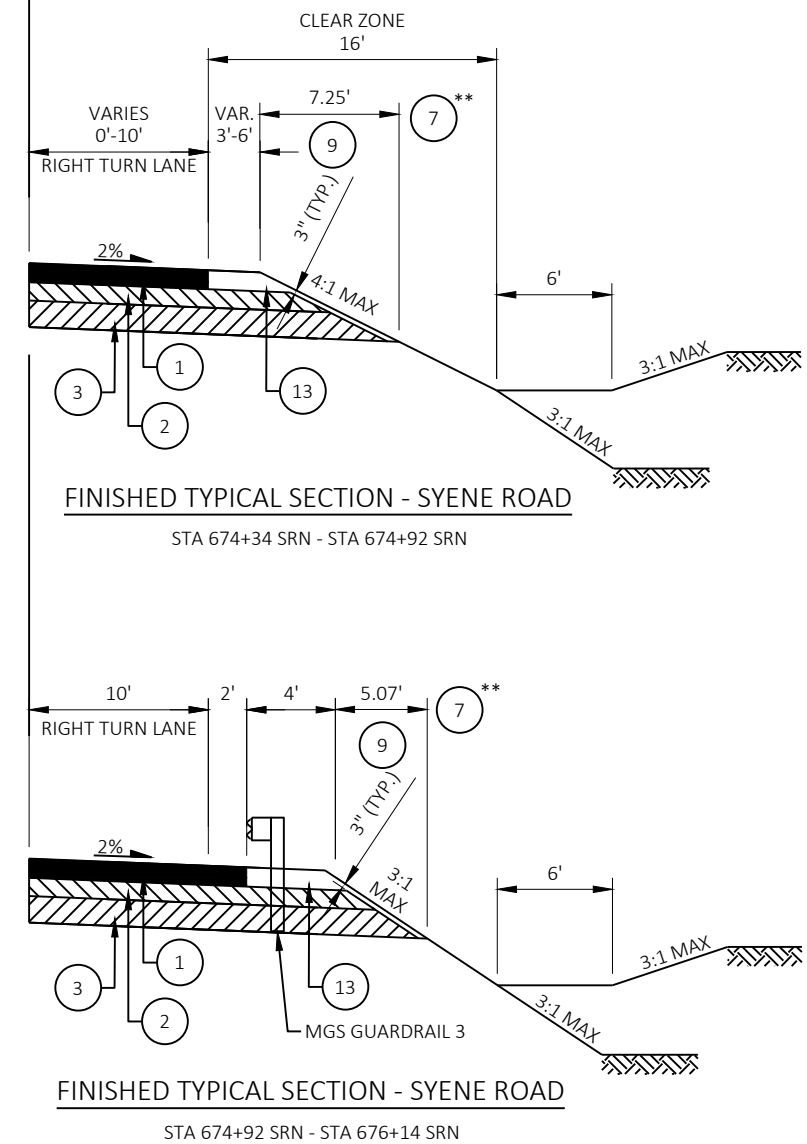


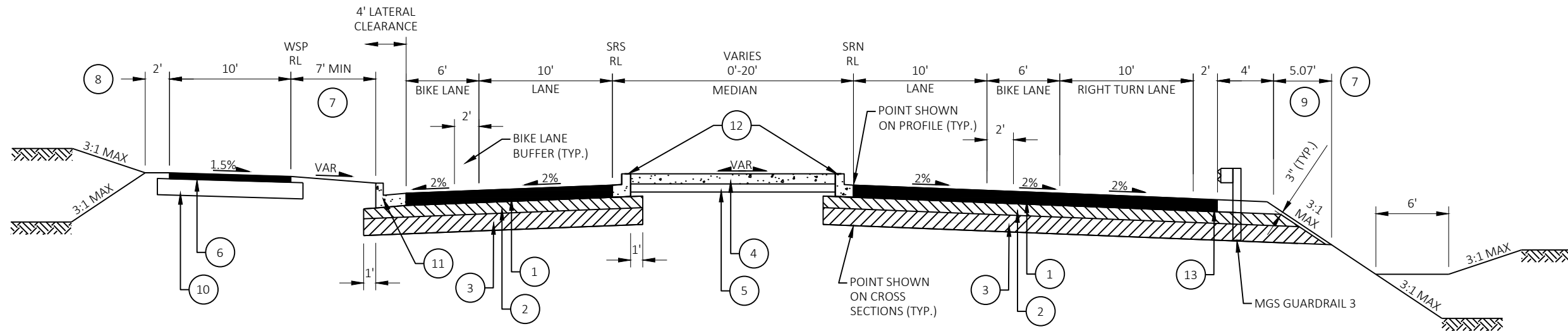
LEGEND

- ① HMA PAVEMENT 6.00-INCH
UPPER, 2.25-INCH, 5 MT 58-28 S
LOWER, 3.75-INCH, 3 MT 58-28 S
- ② BASE AGGREGATE DENSE 1 1/4-INCH, 5-INCH
- ③ BASE AGGREGATE DENSE 3-INCH, 9-INCH
- ④ CONCRETE SIDEWALK 5-INCH /
STAMPING COLORED CONCRETE *
- ⑤ BASE AGGREGATE DENSE 3/4-INCH, 4-INCH
- ⑥ HMA PAVEMENT 3.00-INCH
UPPER, 3.00-INCH, 5 LT 58-28 S
- ⑦ 6" SALVAGED TOPSOIL, SEED MIXTURE NO. 70A,
FERTILIZER TYPE B, AND EMAT
- ⑧ 6" SALVAGED TOPSOIL, TURF GRASS SEED MIXTURE,
FERTILIZER TYPE B, AND EMAT
- ⑨ SEED MIXTURE NO. 70A AND FERTILIZER TYPE B
- ⑩ BASE AGGREGATE DENSE 3/4-INCH, 8-INCH
- ⑪ CONCRETE CURB & GUTTER 30-INCH, TYPE D
- ⑫ CONCRETE CURB & GUTTER 24-INCH REJECT
- ⑬ BASE AGGREGATE DENSE 3/4-INCH
TO MATCH PAVEMENT THICKNESS
- ⑭ ASPH. SURF. DRIVEWAYS AND FIELD ENTRANCES, 4-INCH
- ⑮ BASE AGGREGATE DENSE 1 1/4-INCH, 10-INCH

* STAMPED RED BRICK PATTERN. SEE PROJECT SPECIAL PROVISIONS.

**SEE BASIN SEEDING PLAN.





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**SEE BASIN SEEDING PLAN.

PROJECT NO: 5849-02-07

HWY: LOCAL STREET - SYENE ROAD

COUNTY: DANE

TYPICAL SECTIONS

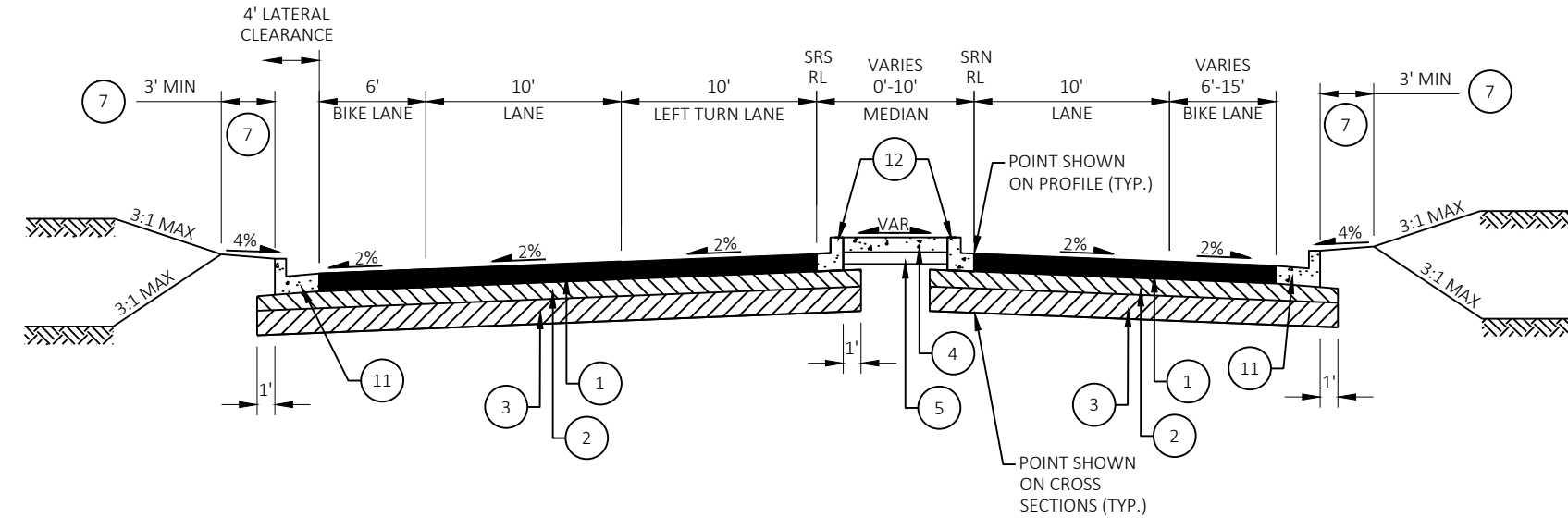
SHEET

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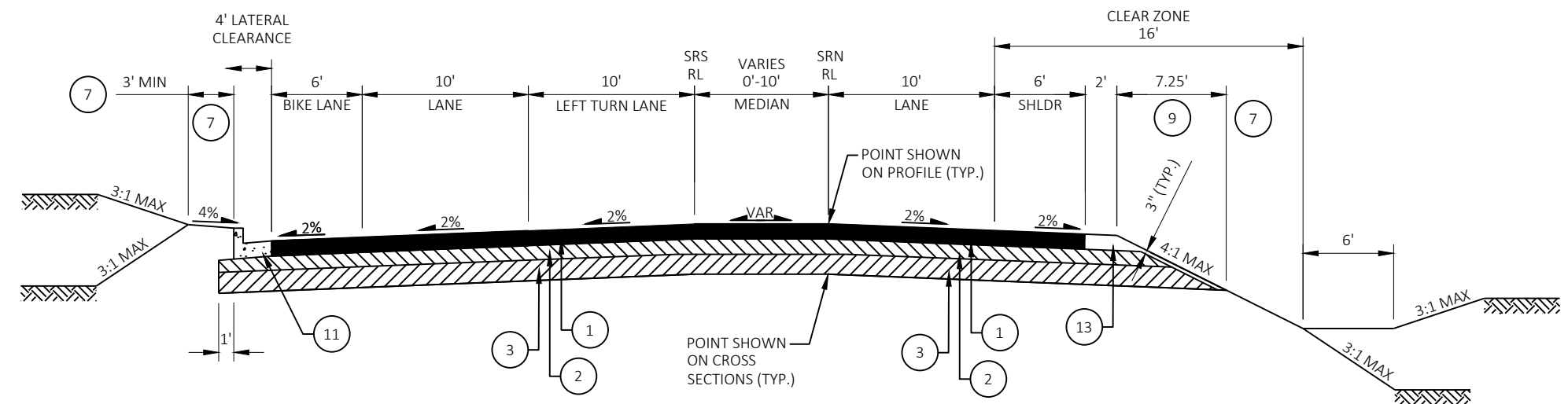
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FINISHED TYPICAL SECTION - SYENE ROAD

STA 678+50 SRN - STA 679+57 SRN

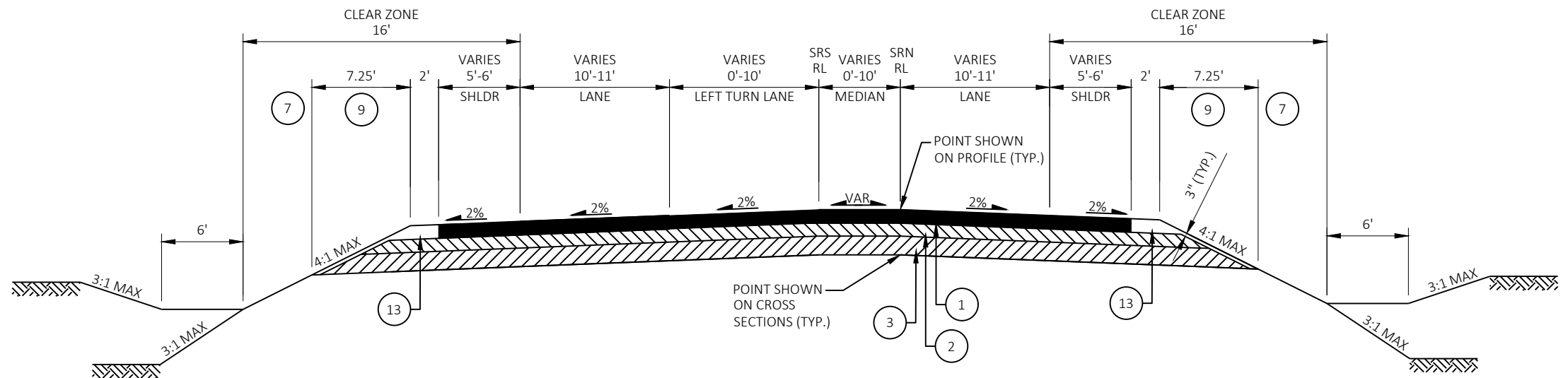


FINISHED TYPICAL SECTION - SYENE ROAD

STA 679+57 SRN - STA 680+75 SRN

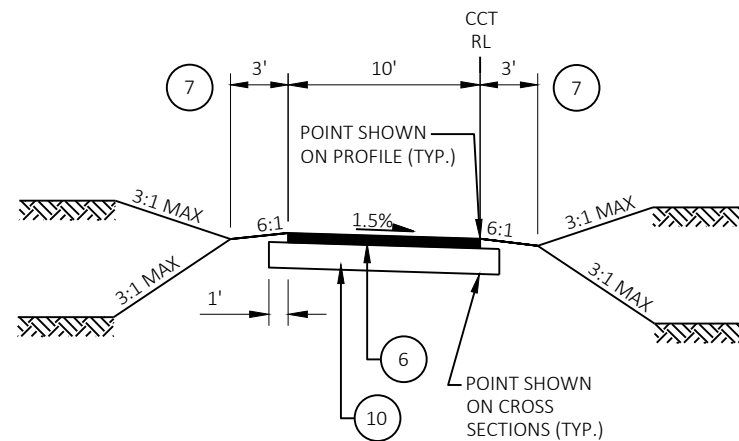
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STAMPING COLORED CONCRETE *
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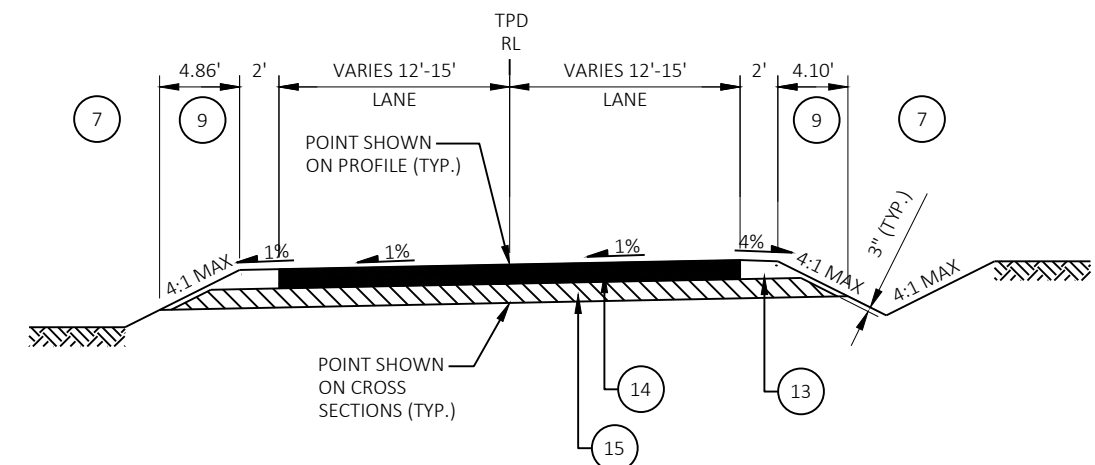
FINISHED TYPICAL SECTION - SYENE ROAD

STA 680+75 SRN - STA 684+29 SRN



FINISHED TYPICAL SECTION - CAPITAL CITY TRAIL

STA 103+29 CCT - STA 104+23 CCT
STA 104+83 CCT - STA 105+05 CCT
STA 105+27 CCT - STA 105+96 CCT



FINISHED TYPICAL SECTION - TRAILHEAD PARKING LOT DRIVEWAY

STA 800+85 TPD - STA 802+14 TPD

LEGEND

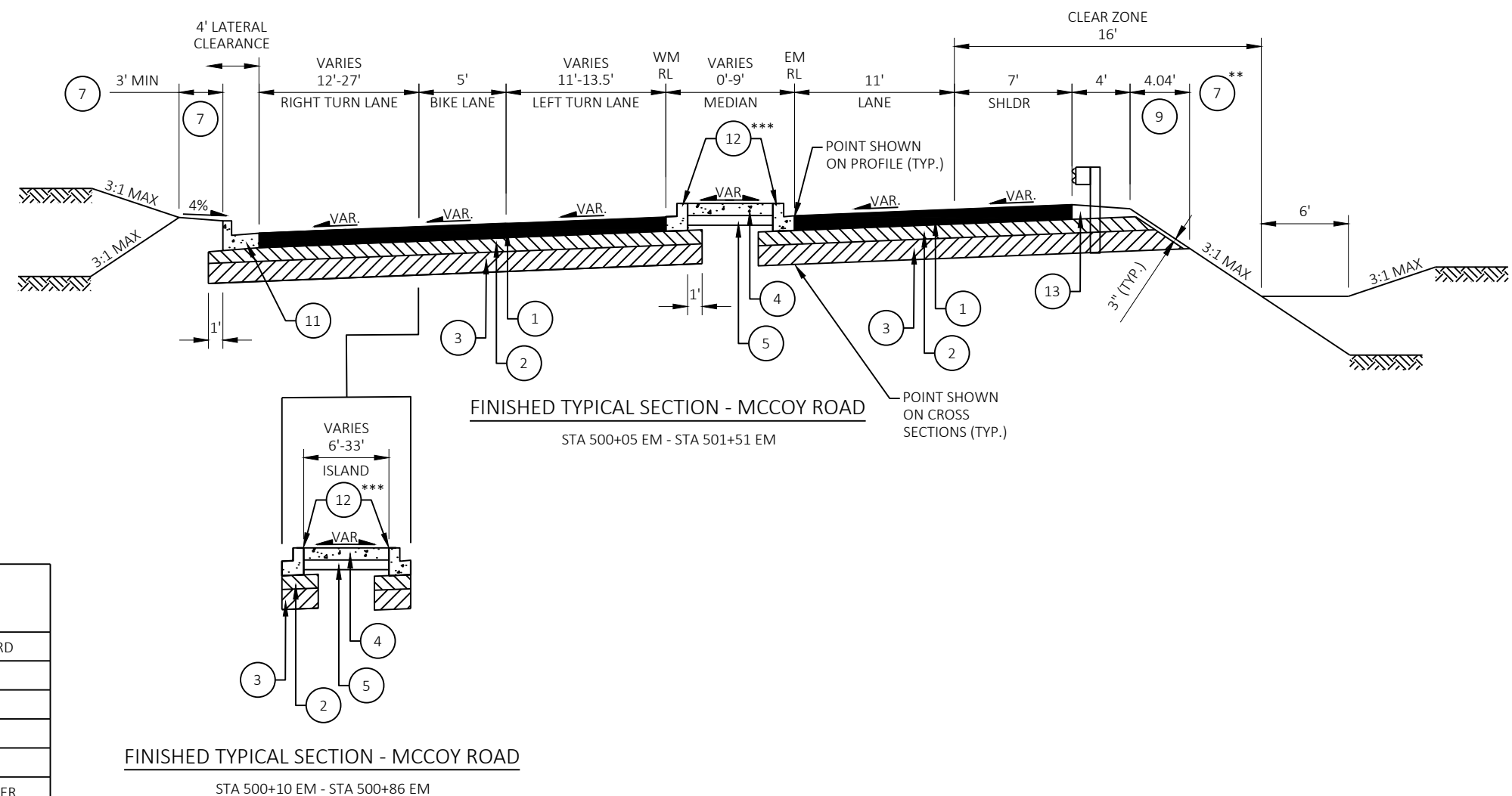
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- * STAMPED RED BRICK PATTERN. SEE PROJECT SPECIAL PROVISIONS.

SUPERELEVATION

STATION	LEFT UNPAVED SHOULDER	LEFT LANE AND PAVED SHOULDER	RIGHT LANE AND PAVED SHOULDER	RIGHT UNPAVED SHOULDER	DESCRIPTION
500+14.70 EM	-4.00%	-0.75%	0.75%	-4.00%	MATCH SYENE RD
500+77.36 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
502+60.00 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
503+04.61 EM	-4.00%	0.00%	0.00%	-4.00%	LEVEL
503+49.23 EM	-4.00%	2.00%	-2.00%	-4.00%	REVERSE
504+20.61 EM	-2.80%	5.20%	-5.20%	-5.20%	BEGIN FULL SUPER
506+28.98 EM	-2.80%	5.20%	-5.20%	-5.20%	END FULL SUPER
506+55.42 EM	-2.57%	5.43%	-6.15%	-6.15%	MATCH EXISTING SE

**SEE BASIN SEEDING PLAN.

***STANDARD CURB (NON-REJECT) ON THE SOUTH SIDE
OF THE MEDIAN ISLAND WHEN SUPERELEVATED



LEGEND

- 1

HMA PAVEMENT 6.00-INCH
UPPER, 2.25-INCH, 5 MT 58-28 S
LOWER, 3.75-INCH, 3 MT 58-28 S
- 2

BASE AGGREGATE DENSE 1 1/4-INCH, 5-INCH
- 3

BASE AGGREGATE DENSE 3-INCH, 9-INCH
- 4

CONCRETE SIDEWALK 5-INCH /
STAMPING COLORED CONCRETE *
- 5

BASE AGGREGATE DENSE 3/4-INCH, 4-INCH
- 6

HMA PAVEMENT 3.00-INCH
UPPER, 3.00-INCH, 5 LT 58-28 S
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FERTILIZER TYPE B, AND EMAT
- 9

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- 10

BASE AGGREGATE DENSE 3/4-INCH, 8-INCH
- 11

CONCRETE CURB & GUTTER 30-INCH, TYPE D
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CONCRETE CURB & GUTTER 24-INCH REJECT
- 13

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TO MATCH PAVEMENT THICKNESS
- 14

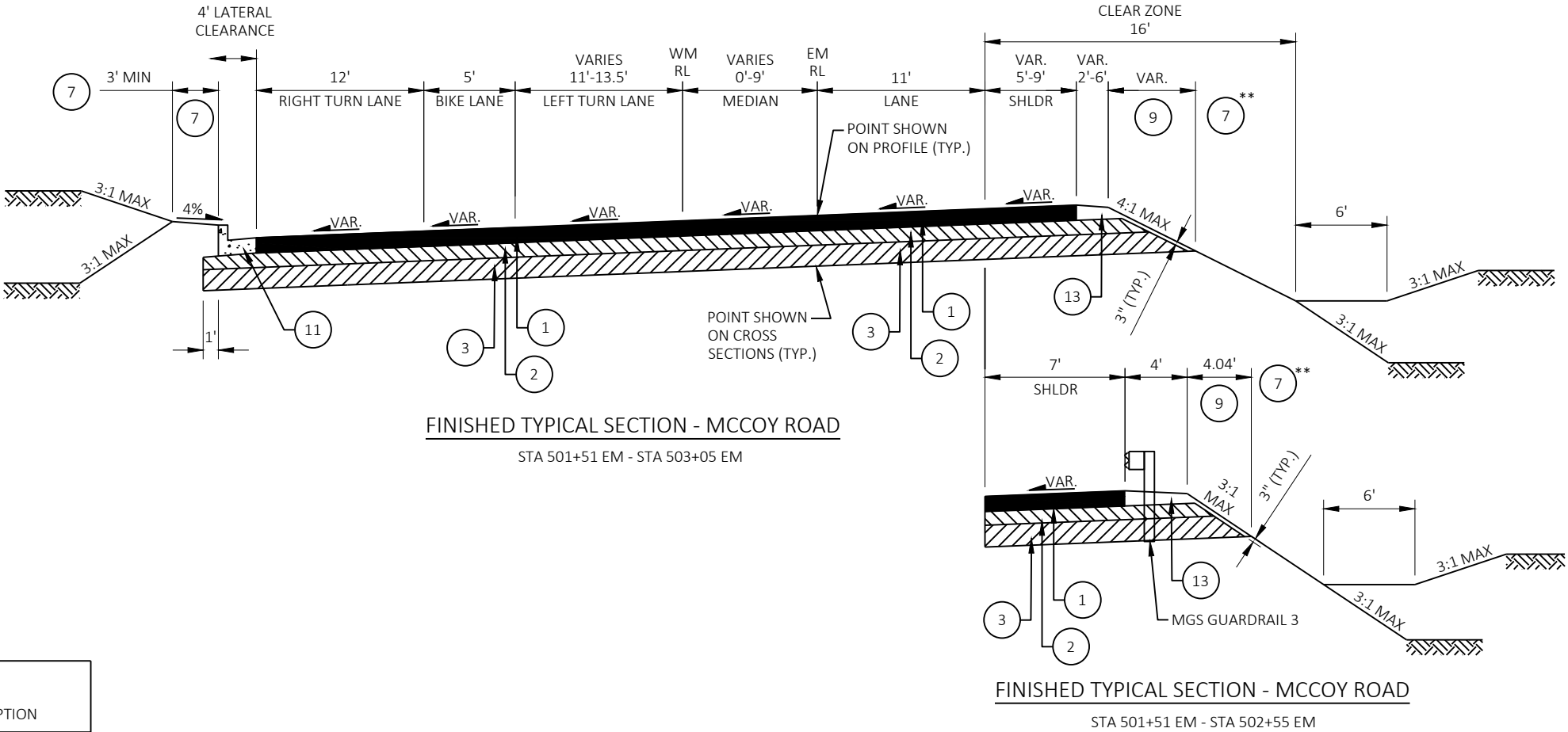
ASPH. SURF. DRIVEWAYS AND FIELD ENTRANCES, 4-INCH
- 15

BASE AGGREGATE DENSE 1 1/4-INCH, 10-INCH
- * STAMPED RED BRICK PATTERN. SEE PROJECT SPECIAL PROVISIONS.

SUPERELEVATION

STATION	LEFT UNPAVED SHOULDER	LEFT LANE AND PAVED SHOULDER	RIGHT LANE AND PAVED SHOULDER	RIGHT UNPAVED SHOULDER	DESCRIPTION
500+14.70 EM	-4.00%	-0.75%	0.75%	-4.00%	MATCH SYENE RD
500+77.36 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
502+60.00 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
503+04.61 EM	-4.00%	0.00%	0.00%	-4.00%	LEVEL
503+49.23 EM	-4.00%	2.00%	-2.00%	-4.00%	REVERSE
504+20.61 EM	-2.80%	5.20%	-5.20%	-5.20%	BEGIN FULL SUPER
506+28.98 EM	-2.80%	5.20%	-5.20%	-5.20%	END FULL SUPER
506+55.42 EM	-2.57%	5.43%	-6.15%	-6.15%	MATCH EXISTING SE

**SEE BASIN SEEDING PLAN.

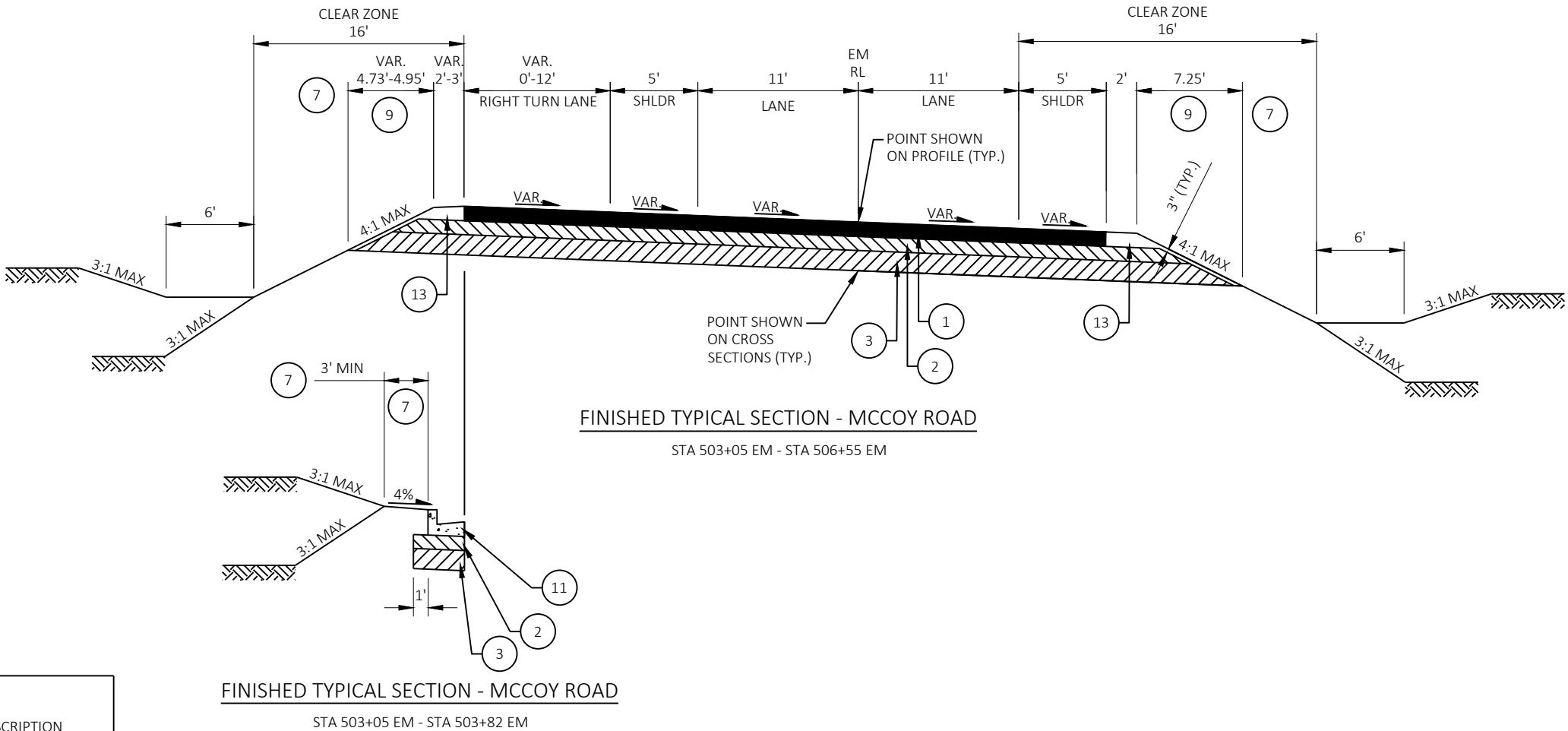


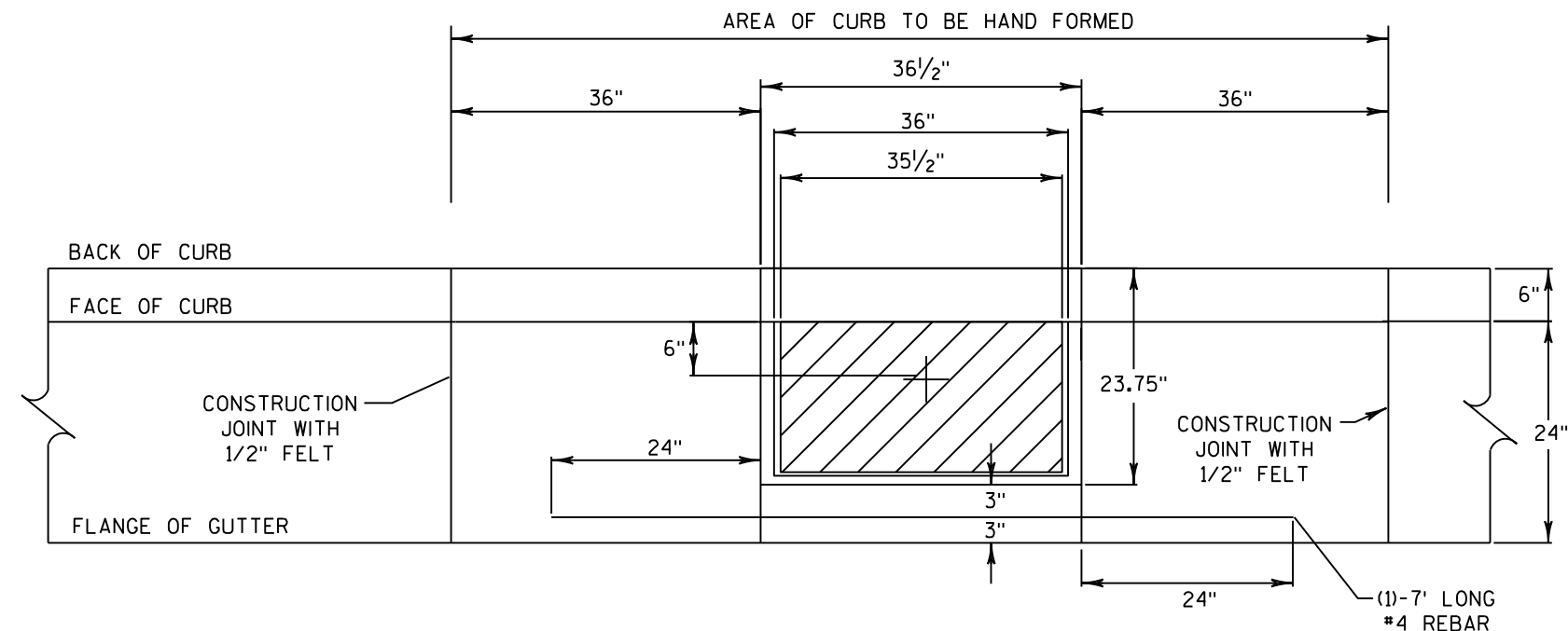
LEGEND

- ① HMA PAVEMENT 6.00-INCH
UPPER, 2.25-INCH, 5 MT 58-28 S
LOWER, 3.75-INCH, 3 MT 58-28 S
- ② BASE AGGREGATE DENSE 1 1/4-INCH, 5-INCH
- ③ BASE AGGREGATE DENSE 3-INCH, 9-INCH
- ④ CONCRETE SIDEWALK 5-INCH /
STAMPING COLORED CONCRETE *
- ⑤ BASE AGGREGATE DENSE 3/4-INCH, 4-INCH
- ⑥ HMA PAVEMENT 3.00-INCH
UPPER, 3.00-INCH, 5 LT 58-28 S
- ⑦ 6" SALVAGED TOPSOIL, SEED MIXTURE NO. 70A,
FERTILIZER TYPE B, AND EMAT
- ⑧ 6" SALVAGED TOPSOIL, TURF GRASS SEED MIXTURE,
FERTILIZER TYPE B, AND EMAT
- ⑨ SEED MIXTURE NO. 70A AND FERTILIZER TYPE B
- ⑩ BASE AGGREGATE DENSE 3/4-INCH, 8-INCH
- ⑪ CONCRETE CURB & GUTTER 30-INCH, TYPE D
- ⑫ CONCRETE CURB & GUTTER 24-INCH REJECT
- ⑬ BASE AGGREGATE DENSE 3/4-INCH
TO MATCH PAVEMENT THICKNESS
- ⑭ ASPH. SURF. DRIVEWAYS AND FIELD ENTRANCES, 4-INCH
- ⑮ BASE AGGREGATE DENSE 1 1/4-INCH, 10-INCH
- * STAMPED RED BRICK PATTERN. SEE PROJECT SPECIAL PROVISIONS.

SUPERELEVATION

STATION	LEFT UNPAVED SHOULDER	LEFT LANE AND PAVED SHOULDER	RIGHT LANE AND PAVED SHOULDER	RIGHT UNPAVED SHOULDER	DESCRIPTION
500+14.70 EM	-4.00%	-0.50%	0.50%	-4.00%	MATCH SYENE RD
500+77.36 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
502+60.00 EM	-4.00%	-2.00%	2.00%	-4.00%	NORMAL
503+04.61 EM	-4.00%	0.00%	0.00%	-4.00%	LEVEL
503+49.23 EM	-4.00%	2.00%	-2.00%	-4.00%	REVERSE
504+20.61 EM	-2.80%	5.20%	-5.20%	-5.20%	BEGIN FULL SUPER
506+28.98 EM	-2.80%	5.20%	-5.20%	-5.20%	END FULL SUPER
506+55.42 EM	-2.57%	5.43%	-6.15%	-6.15%	MATCH EXISTING SE

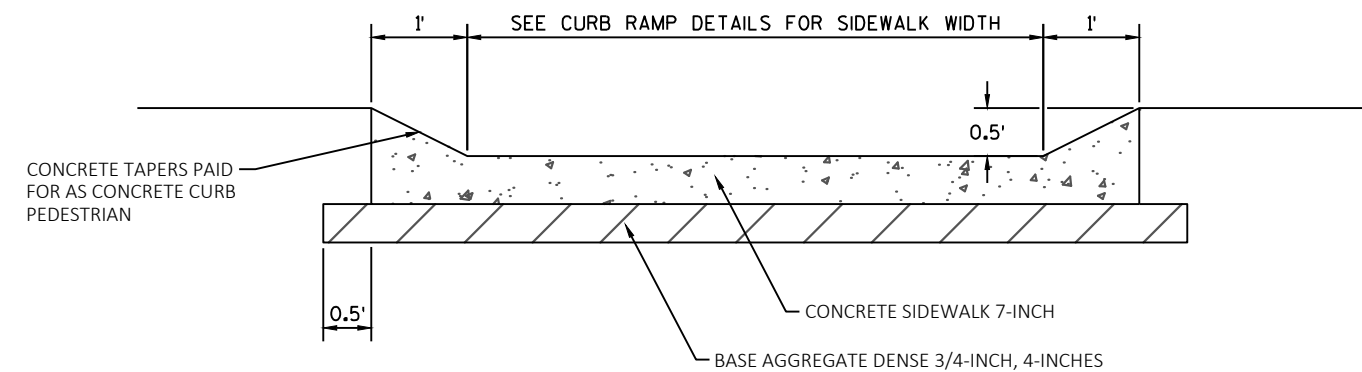




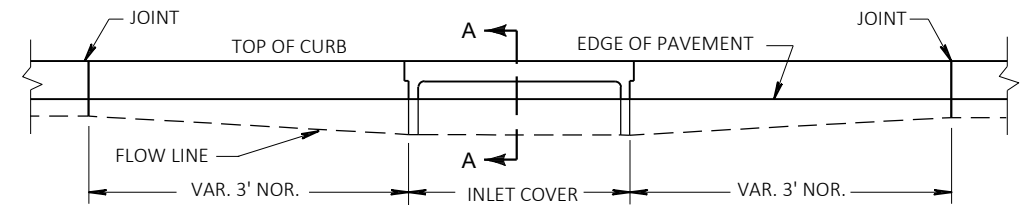
⊕ = CENTER OF STRUCTURE
(STATION AND OFFSET
AS INDICATED ON THE
STORM SCHEDULE)

TYPE H CASTING AND 30-INCH CONCRETE CURB AND GUTTER
PLAN VIEW

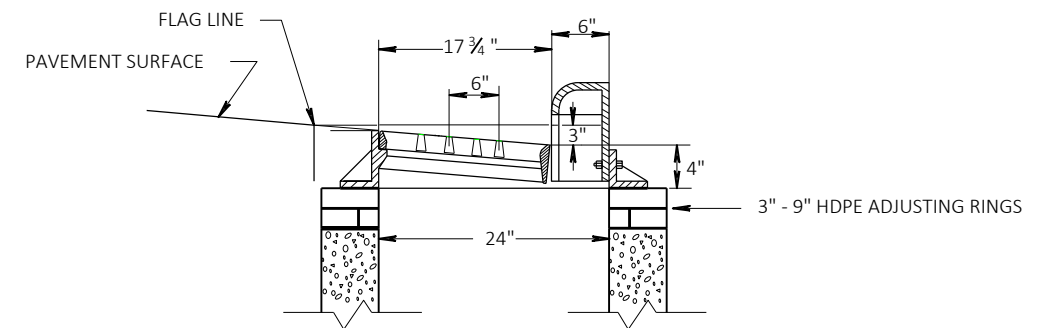
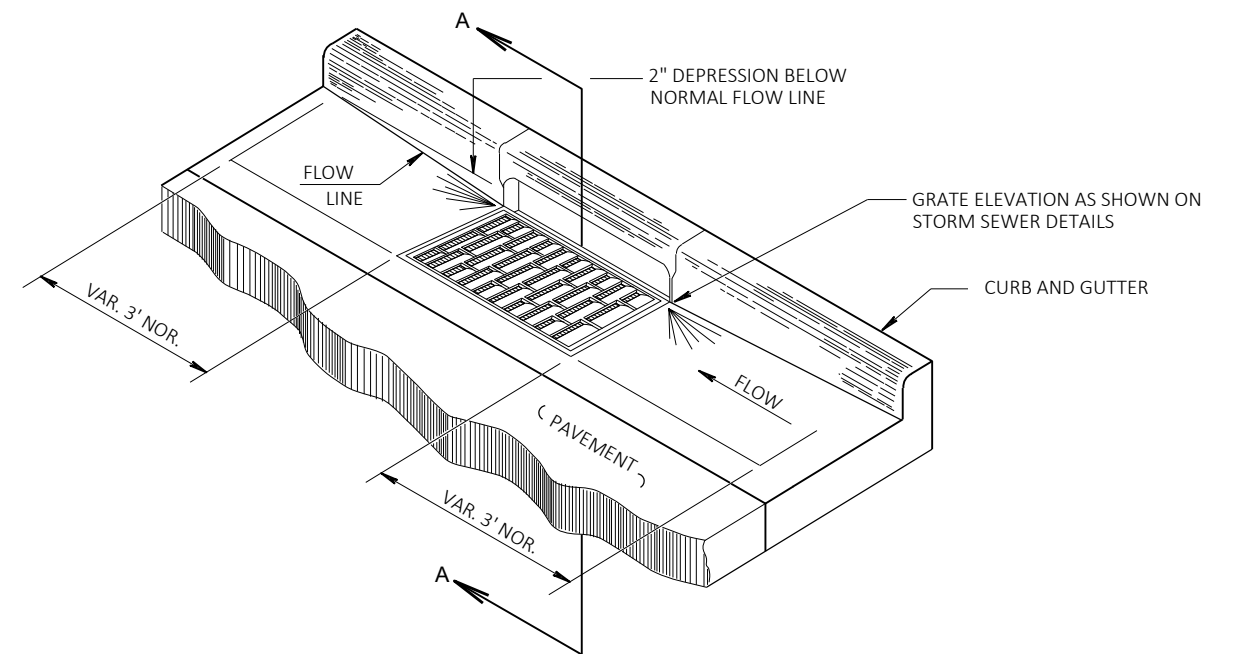
INLET LOCATIONS IN CURB DETAIL



MEDIAN ISLAND CURB RAMP SECTION



ELEVATION

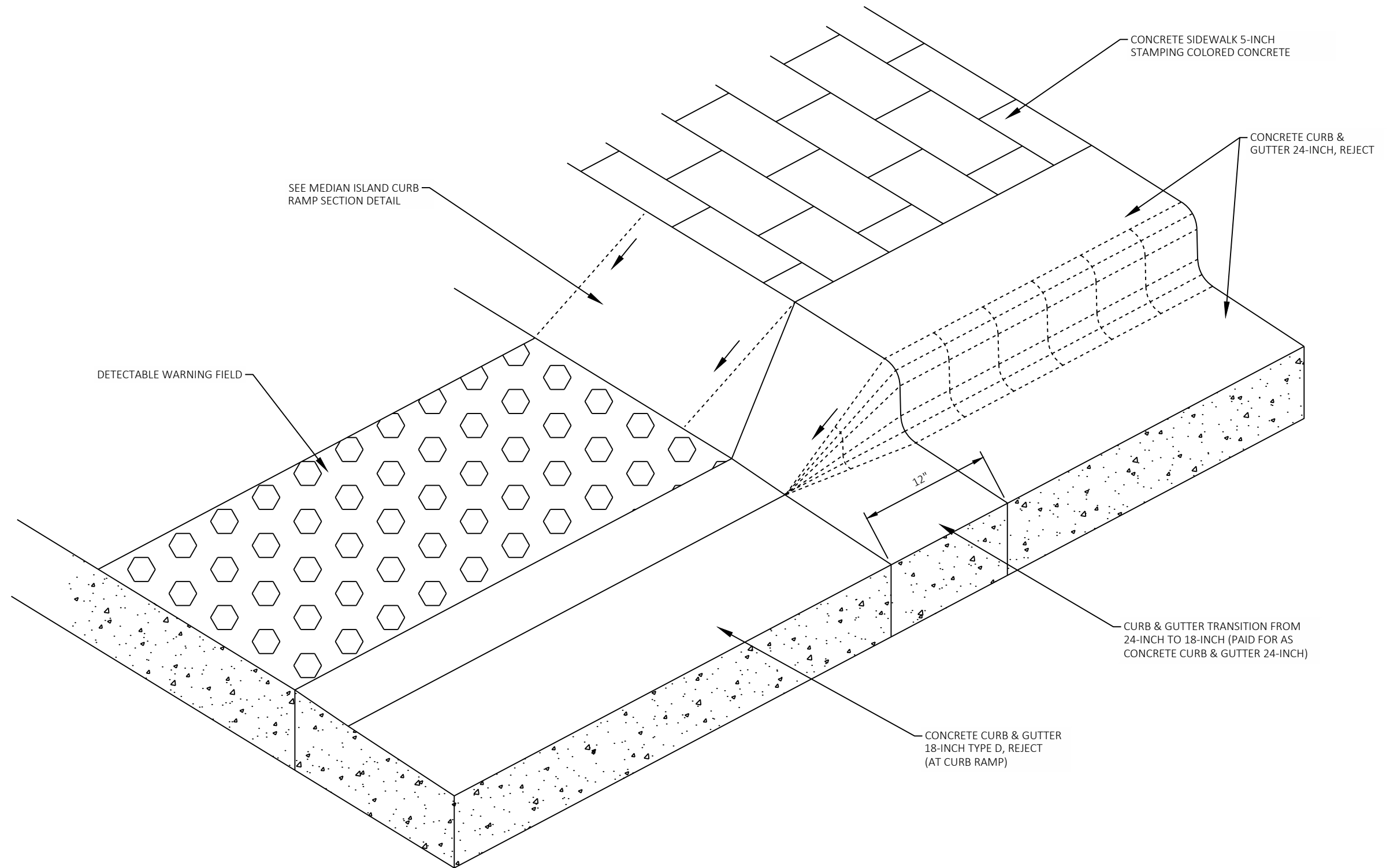


SECTION A-A

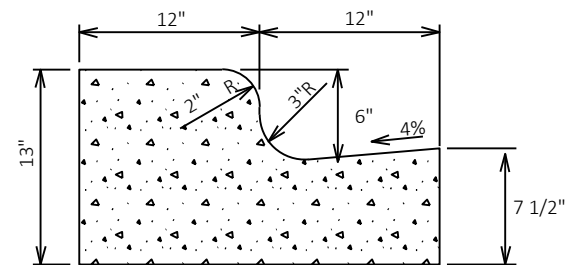
DETAIL OF CURB AND GUTTER AT INLETS
(TYPE 3-H INLET SHOWN)

NOTES:

1. SEAL BOLT HOLES WITH CONCRETE.
2. INSTALL 7' #4 EPOXY COATED REBAR IN CENTER OF CONCRETE IN FRONT OF CASTING
3. FOR INLET COVER TYPES NOT SHOWN, SEE CITY OF FITCHBURG AND WISDOT DETAILS FOR DIMENSIONS NOT SHOWN

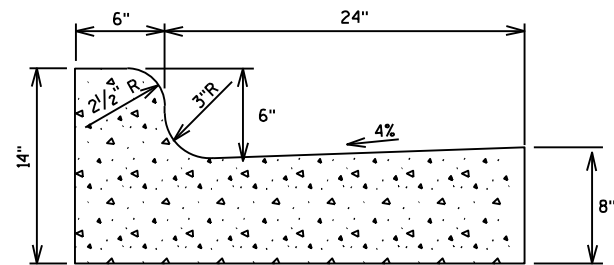


CURB & GUTTER TRANSITION 24-INCH TO 18-INCH
SEE PLAN FOR LOCATIONS



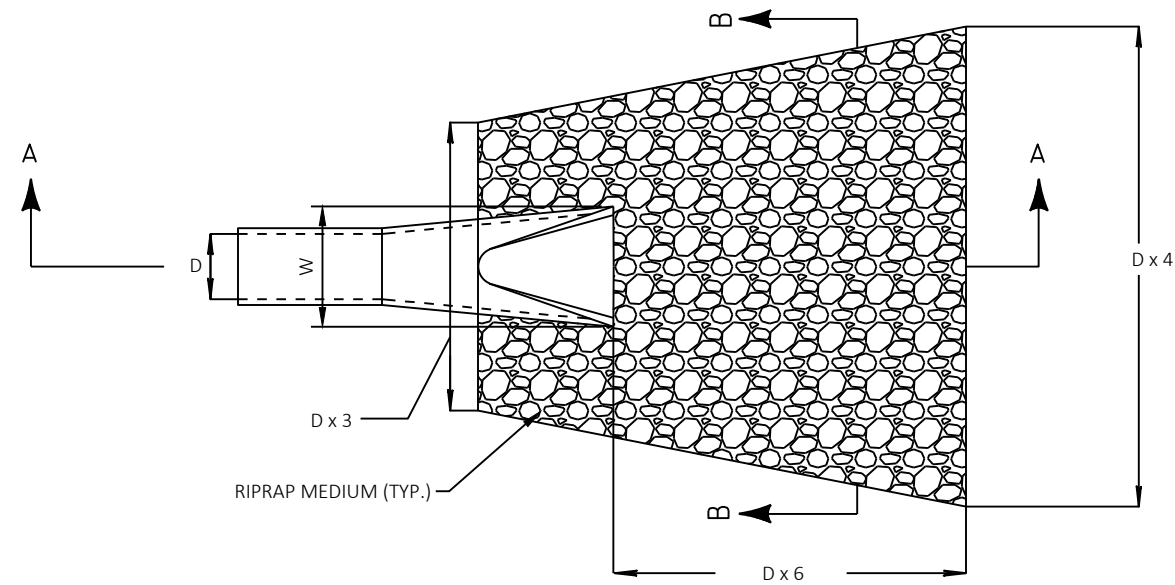
CONCRETE CURB & GUTTER 24-INCH

4% GUTTER DETAILS
FOR REJECT TYPE, GUTTER SLOPE TO MATCH ADJACENT PAVEMENT SLOPE

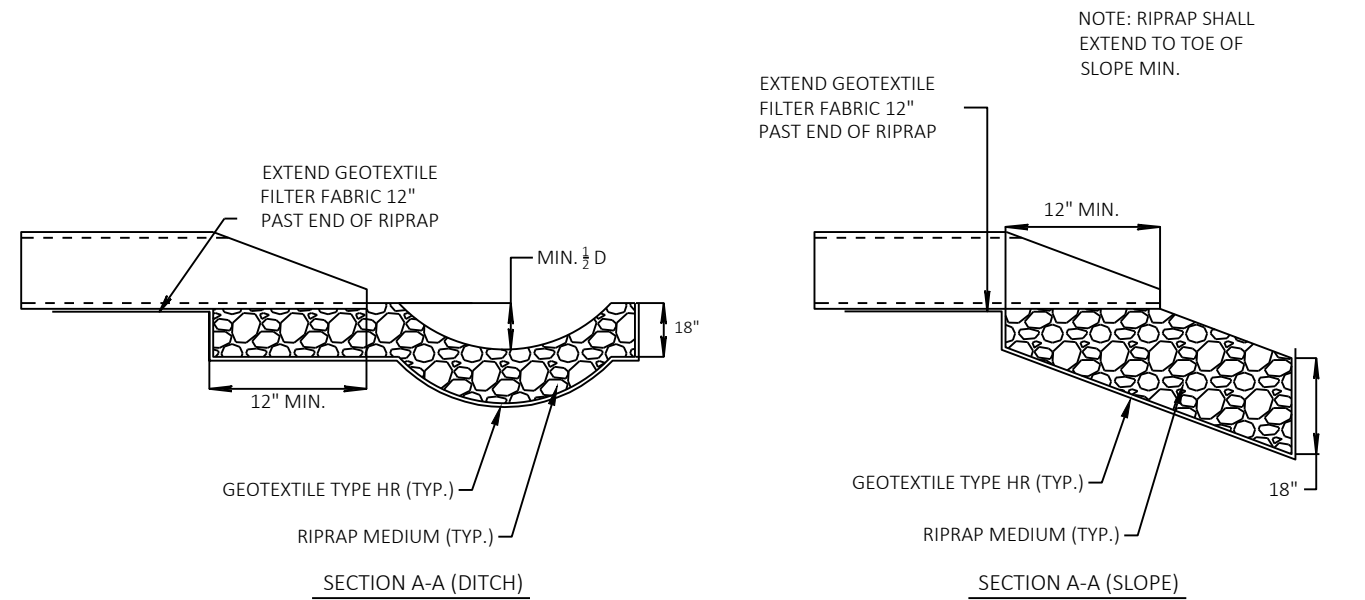


CONCRETE CURB & GUTTER 30-INCH

4% GUTTER DETAILS

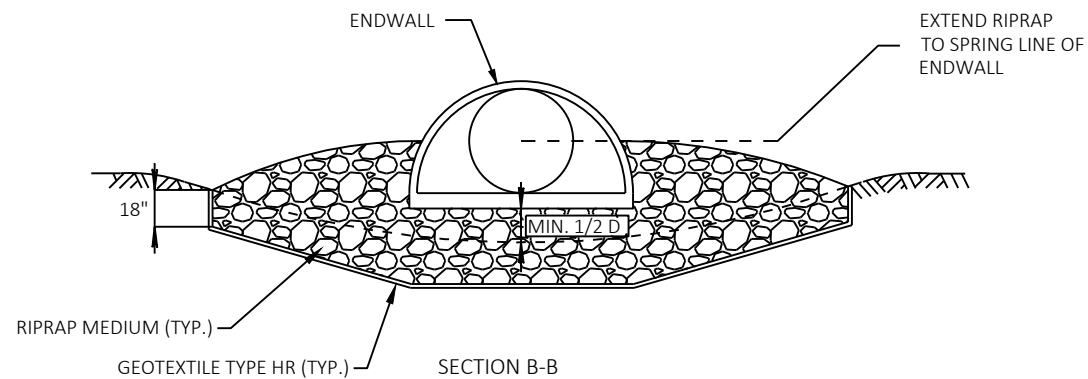


PLAN VIEW



SECTION A-A (DITCH)

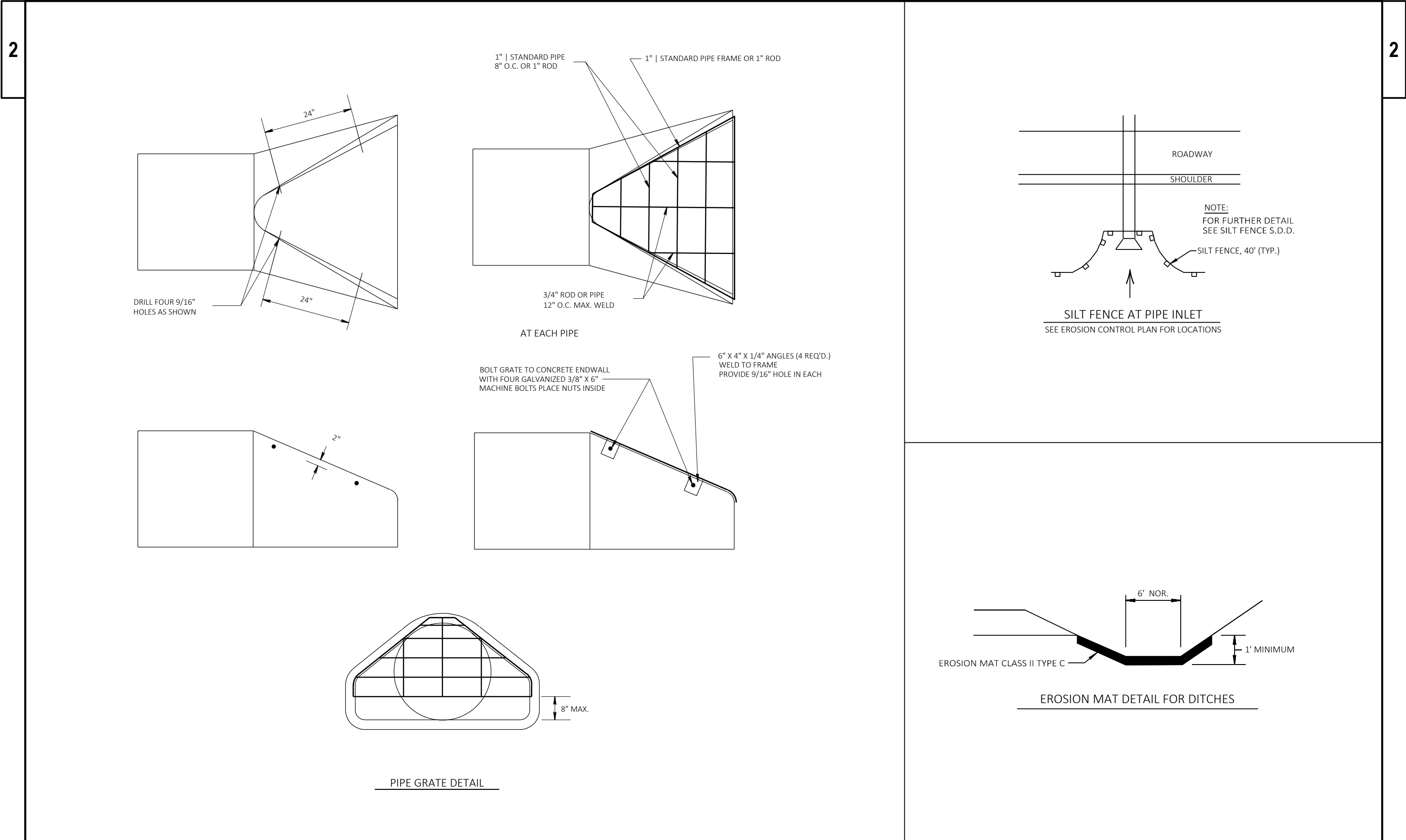
SECTION A-A (SLOPE)



SECTION B-B

RIPRAP TREATMENT AT PIPE ENDWALL DETAIL

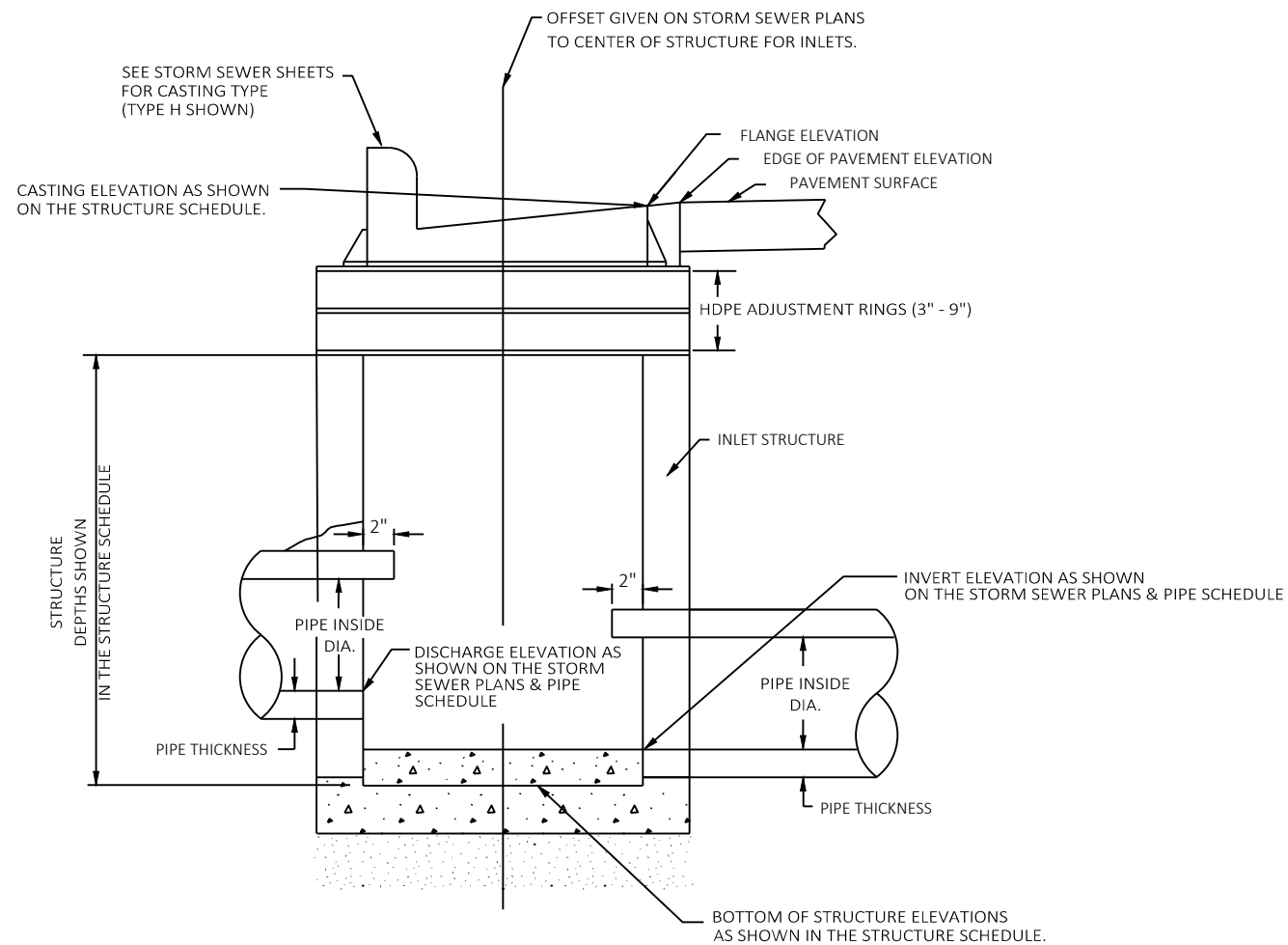
SEE EROSION CONTROL PLAN FOR LOCATIONS



GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKSMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CITY OF FITCHBURG SPECIFICATIONS.

PIPE SHALL EXTEND 2" INTO STRUCTURE AND COLLARS EXTENDED INSIDE, FIELD POURED FLOW LINE.

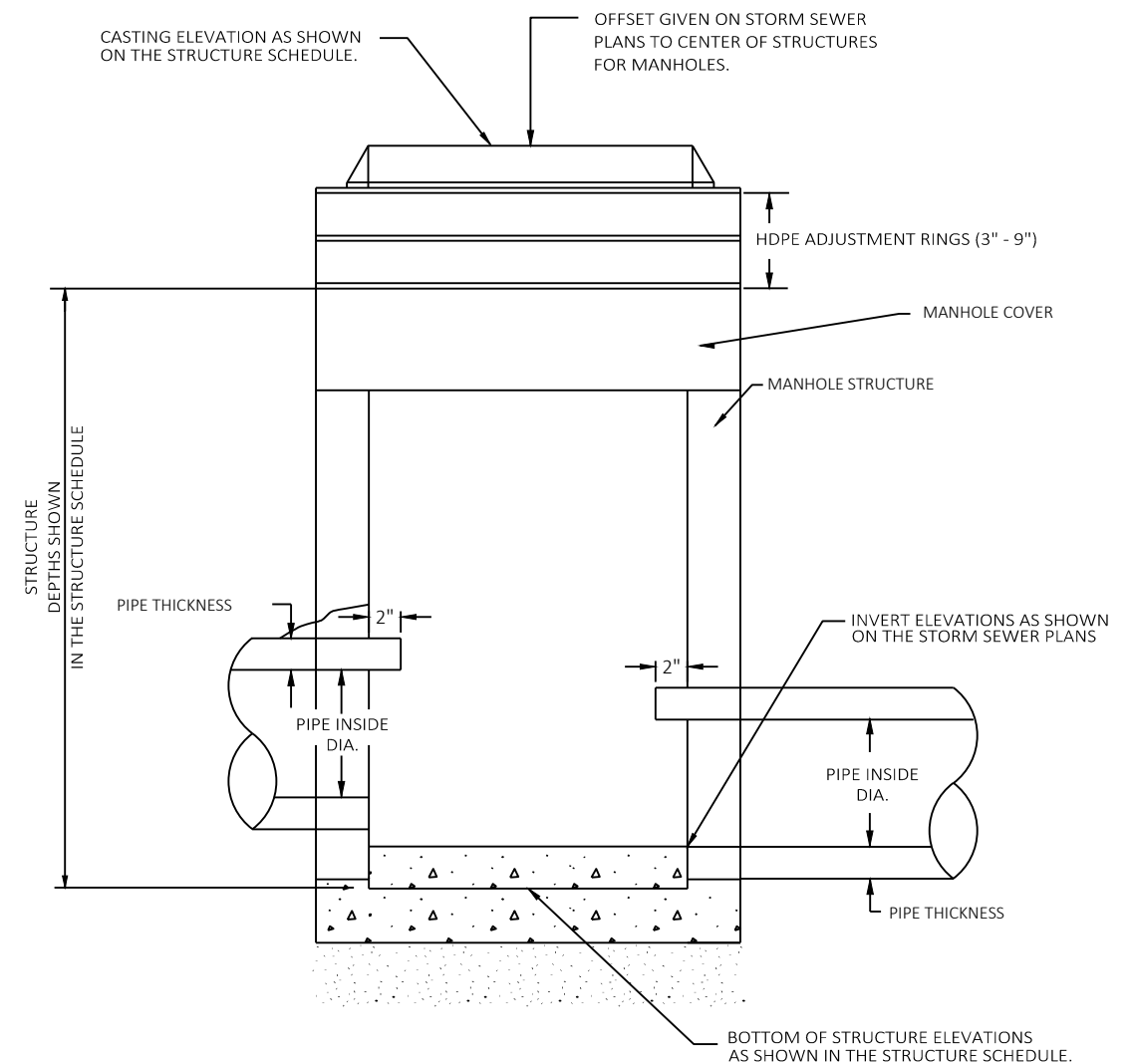


DETAIL OF INLET W/CASTING

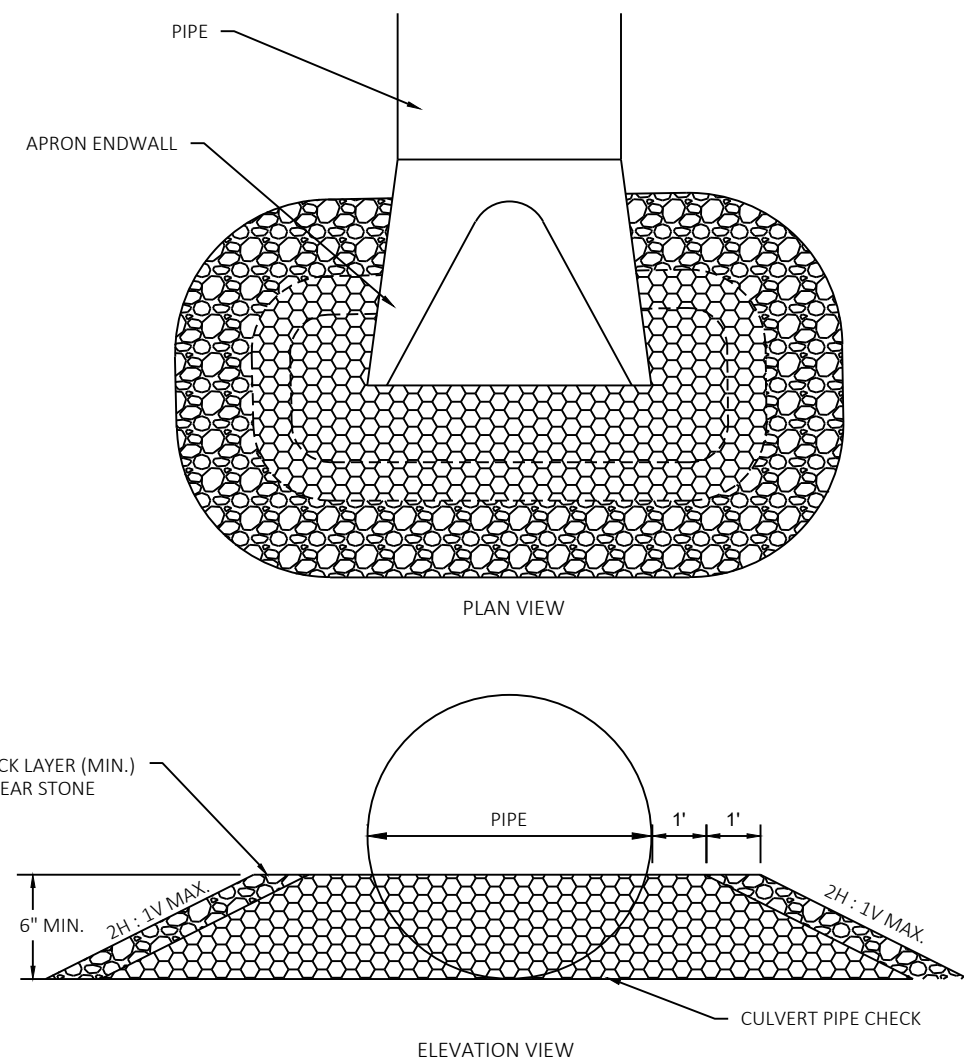
GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKSMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CITY OF FITCHBURG SPECIFICATIONS.

PIPE SHALL EXTEND 2" INTO STRUCTURE AND COLLARS EXTENDED INSIDE, FIELD POURED FLOW LINE.



STORM SEWER MANHOLE W/CASTING DETAIL



1. CUVLERT PIPE CHECK SHALL BE INSTALLED AT THE END OF PIPE APRON ENDWALL AND REMOVED AFTER CONSTRUCTION.

CULVERT PIPE CHECK SPECIAL
SEE EROSION CONTROL PLAN FOR LOCATIONS

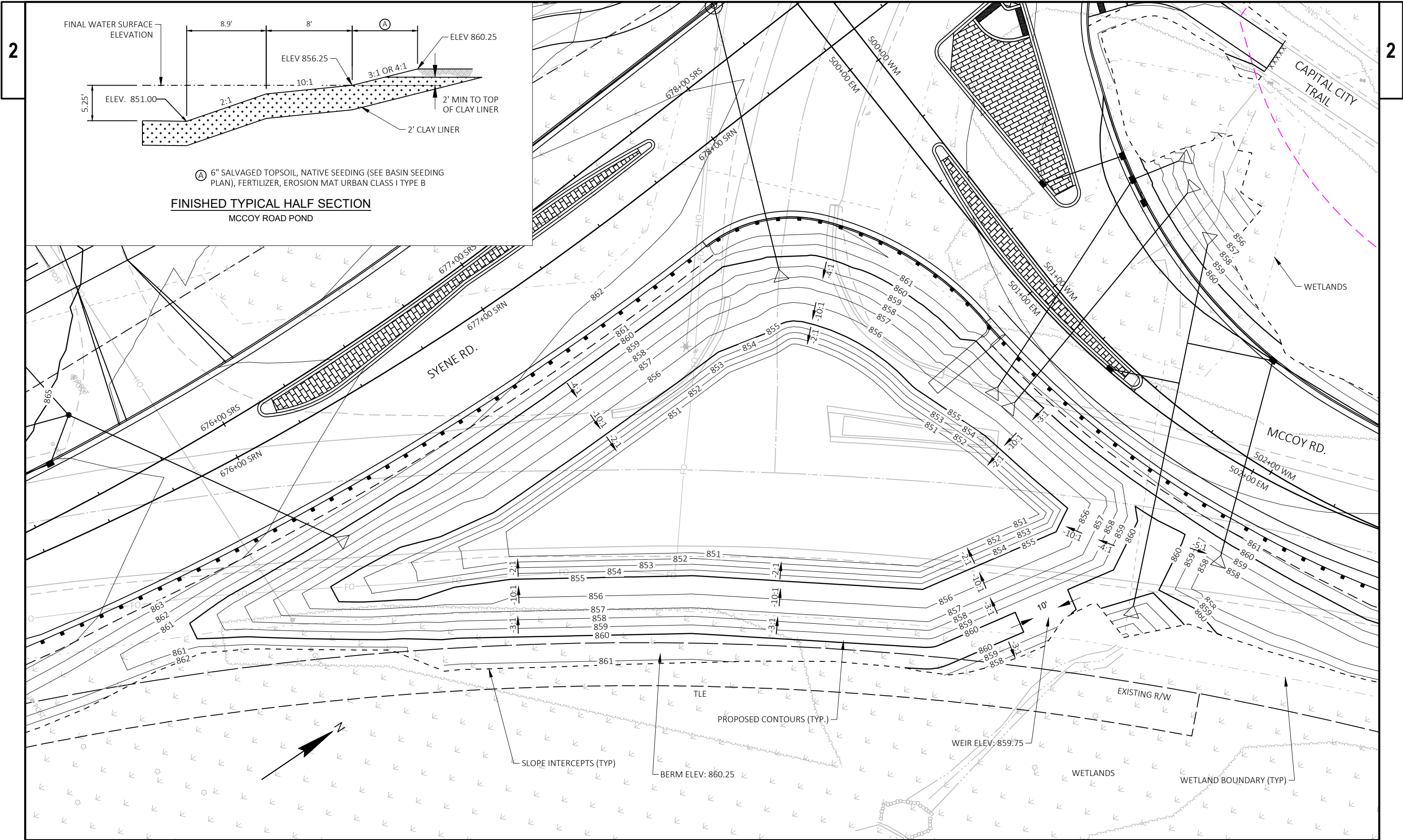
RUNOFF COEFFICIENT TABLE

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

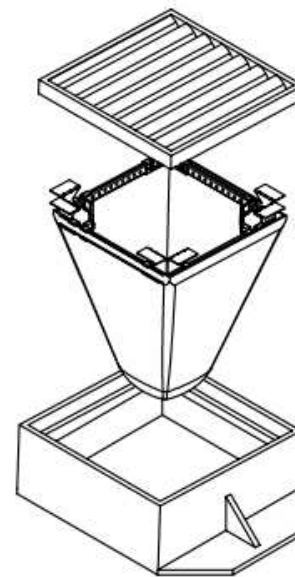
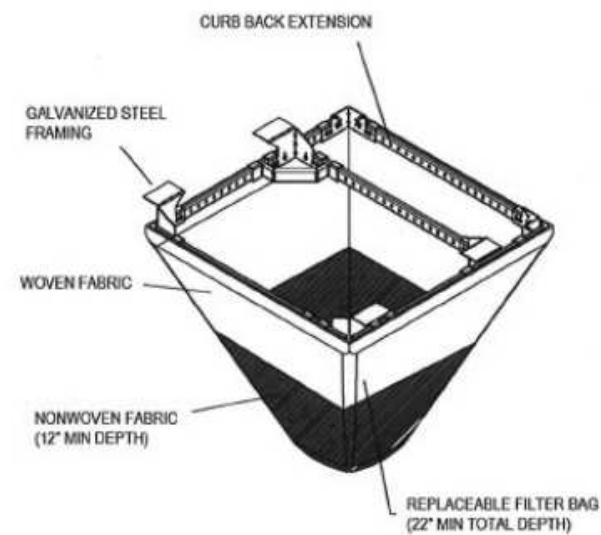
TOTAL PROJECT AREA = 8.497 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.929 ACRES

2





FINISHED TYPICAL HALF SECTION
MCCOY ROAD POND

**INSTALLATION:**

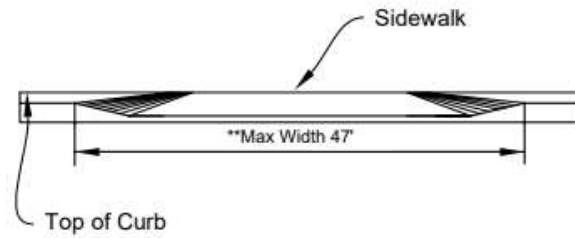
1. REMOVE GRATE.
2. DROP INLET FILTER ONTO LOAD BEARING LIP OF CASTING OR CONCRETE STRUCTURE.
3. REPLACE GRATE.



FRAMED INLET PROTECTION
STANDARD DETAIL DRAWING

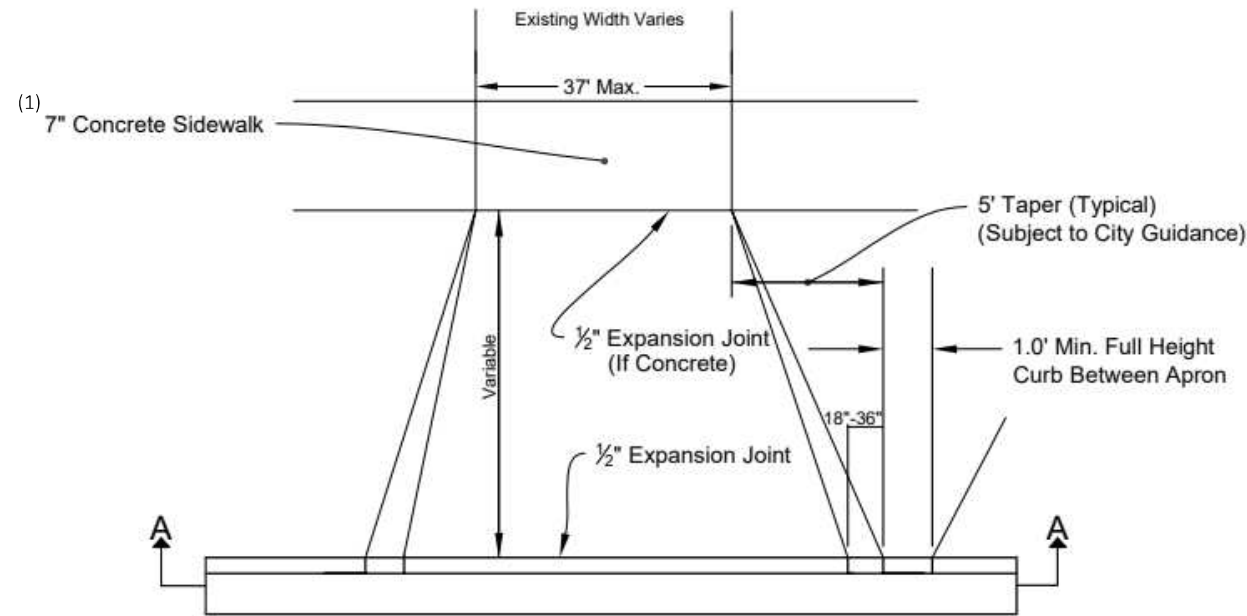
DATE:
2/8/2019
SHEET NO.:
2.01

Commercial Driveway Detail

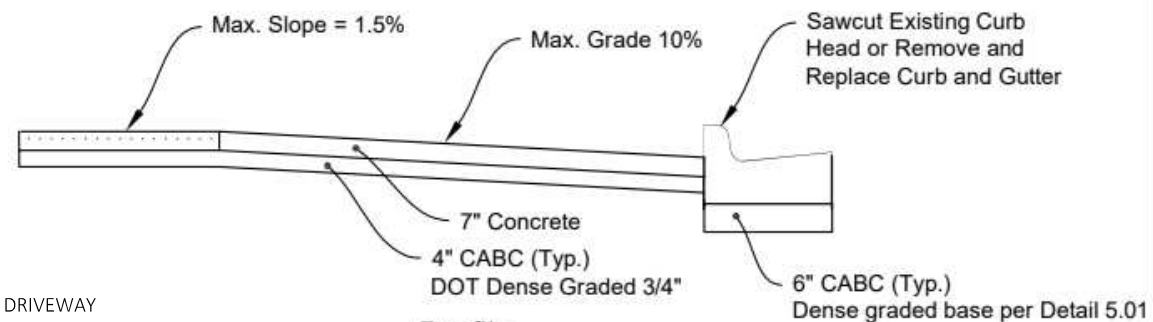


Section A-A

**Applicant may request an administrative variance for a commercial or industrial curb opening (excluding tapers) that is greater than 37" in width by providing documentation per City Ordinance 27-402 (b).



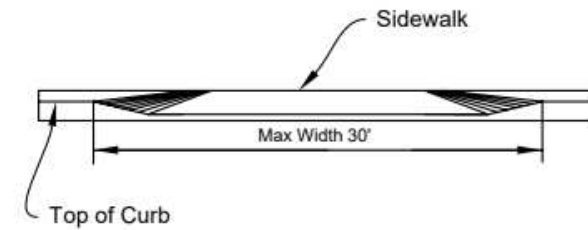
Plan



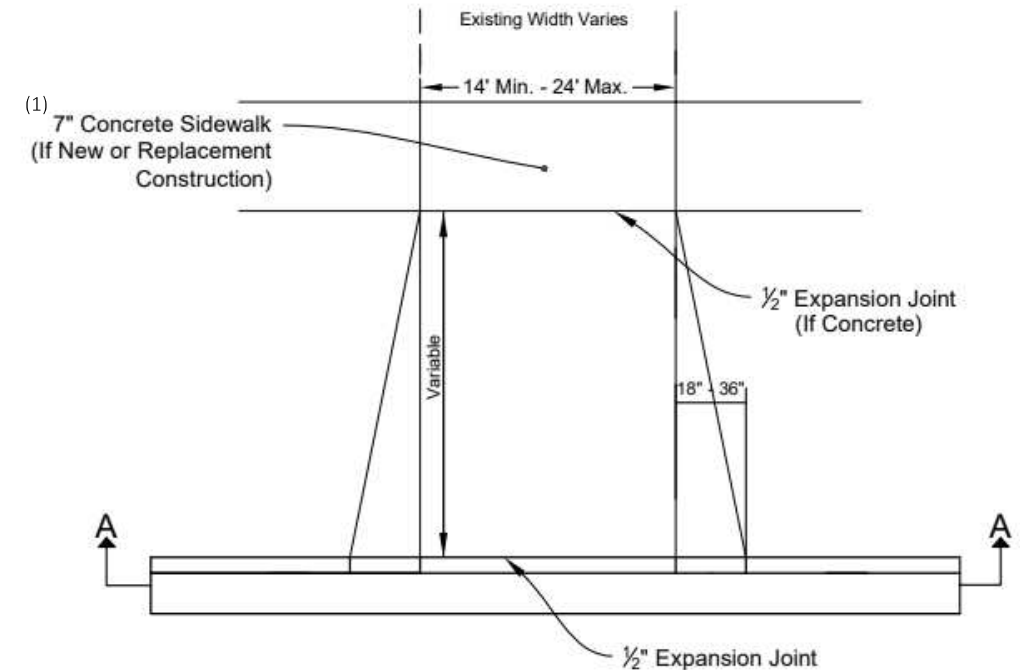
COMMERCIAL DRIVEWAY
STANDARD DETAIL DRAWING

DATE: 2/1/2017
SHEET NO.: 4.03

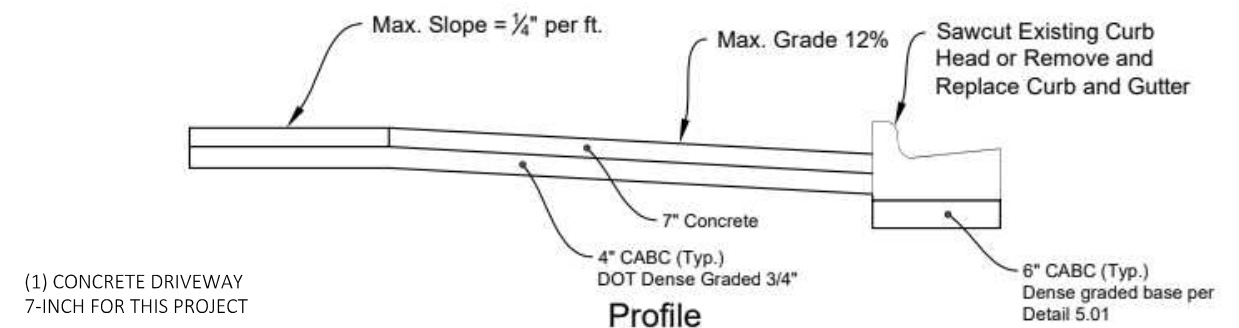
Urban Driveway Detail
Residential



Section A-A

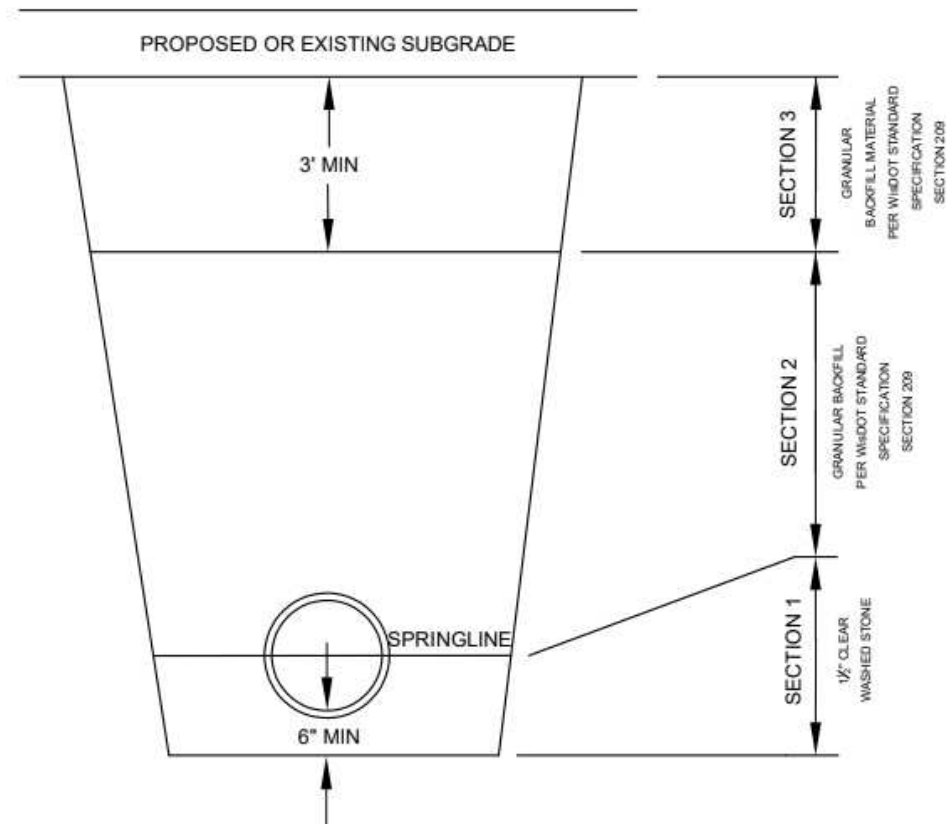


Plan



URBAN DRIVEWAY
STANDARD DETAIL DRAWING

DATE: 2/1/2017
SHEET NO.: 4.04



STANDARD TRENCH COMPACTION
ALL BACKFILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 18" BEFORE COMPACTION UNLESS AUTHORIZED BY THE ENGINEER DUE TO THE CHARACTER OF THE MATERIAL AND THE COMPACTING EQUIPMENT. EACH LIFT SHALL BE MECHANICALLY COMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING SUCCEEDING LIFTS OF BACKFILL MATERIAL.

SECTION 1:
MECHANICALLY COMPACTED BEDDING AS REQUIRED BY THE SPECIFICATIONS. COMPACTION ACHIEVED WITH SMALLER PLATE COMPACTOR.

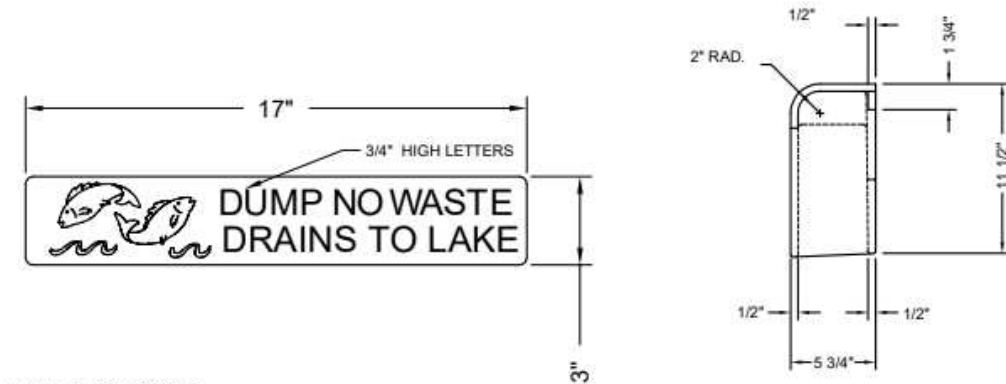
SECTION 2:
MINIMUM COMPACTION 90% MAXIMUM DENSITY. COMPACTION OF BACKFILL WITH BOMAG OR HOE-PAC SHALL NOT BEGIN UNTIL THE DEPTH OF BACKFILL MATERIAL IS TWO (2) FEET ABOVE THE TOP OF PIPE.

SECTION 3:
MINIMUM COMPACTION 95% MAXIMUM DENSITY.



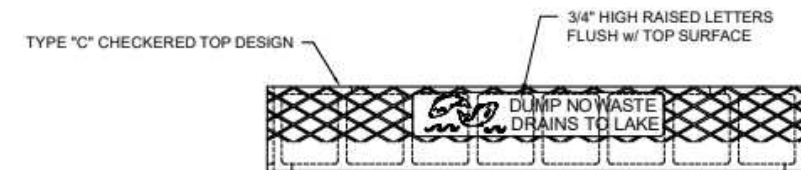
STORM SEWER TRENCH
STANDARD DETAIL DRAWING

DATE:
2/1/2017
SHEET NO.:
6.01

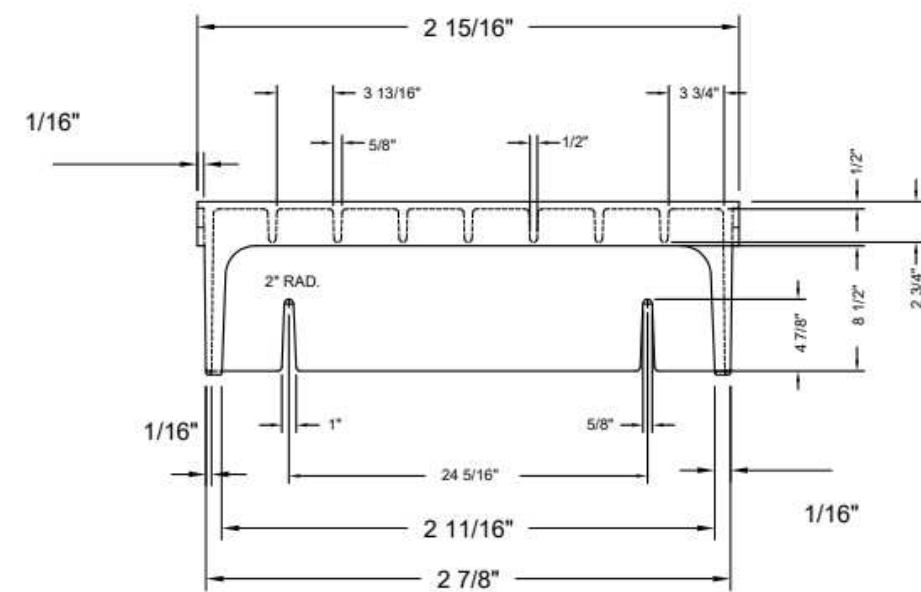


NOTE: ALL DIMENSIONS SHOWN ARE IN ENGLISH
MATERIAL: CAST GRAY
IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT
WEIGHT: 126#

SIDE VIEW



TOP VIEW

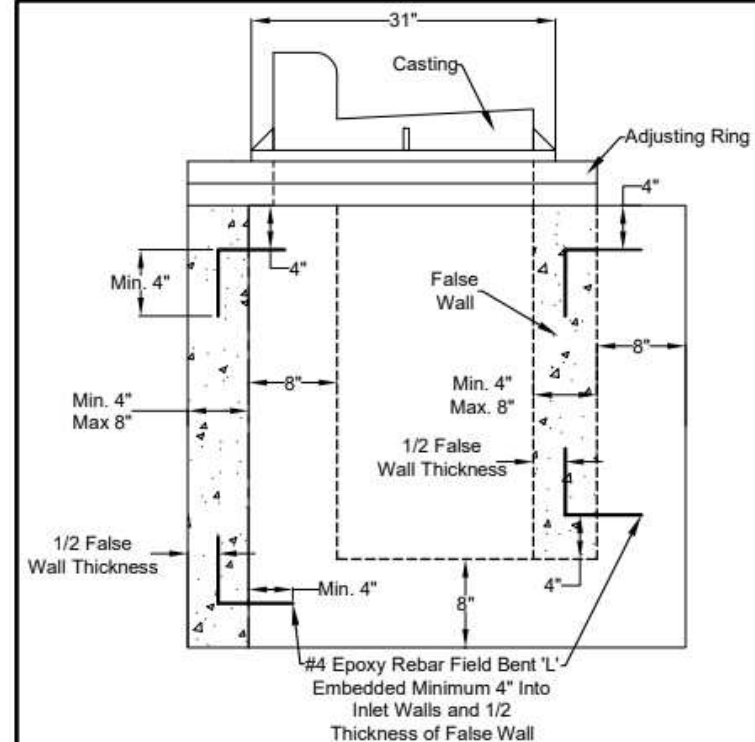
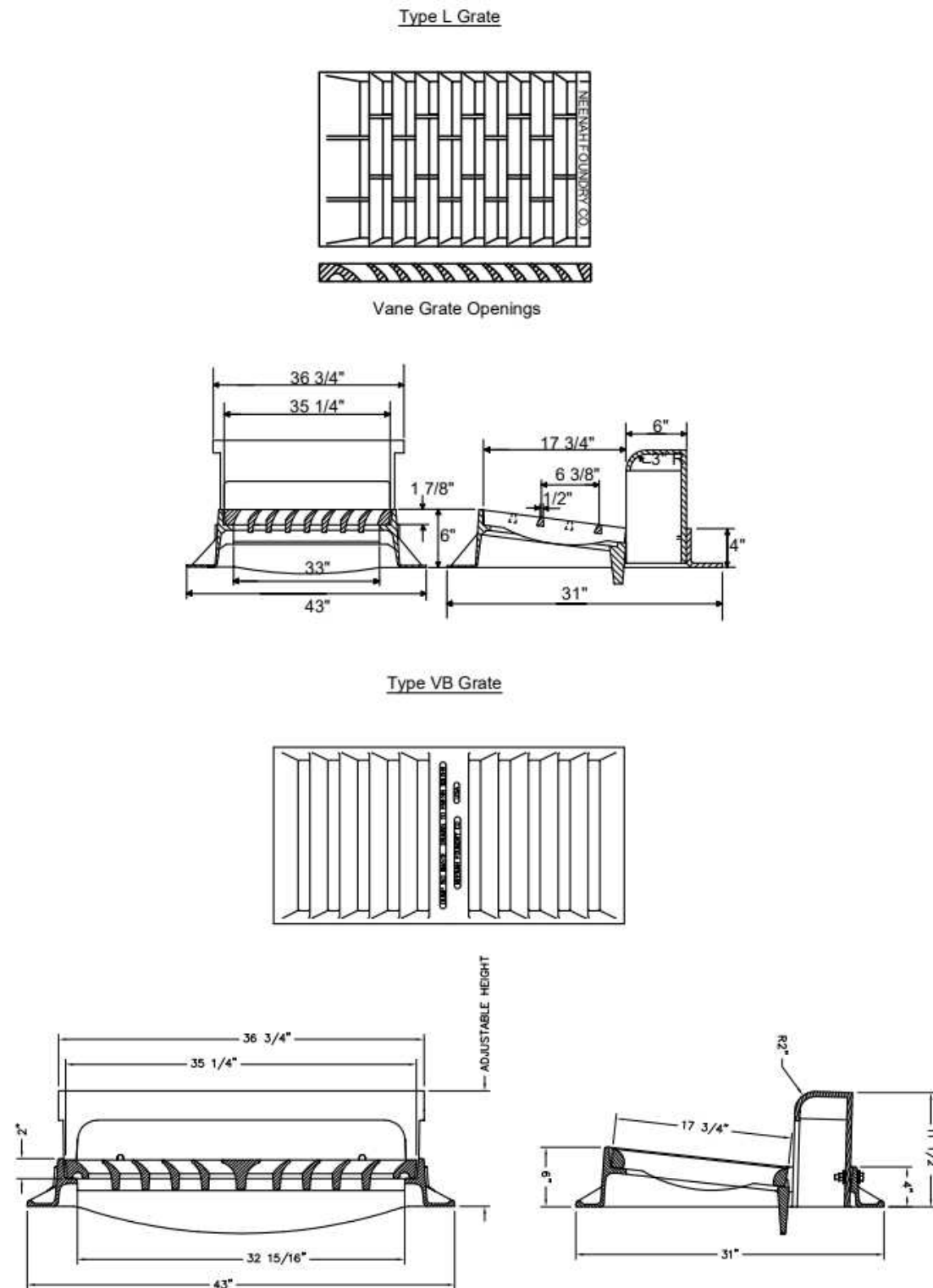


FRONT VIEW



CURB BOX
STANDARD DETAIL DRAWING

DATE:
1/24/2014
SHEET NO.:
6.02

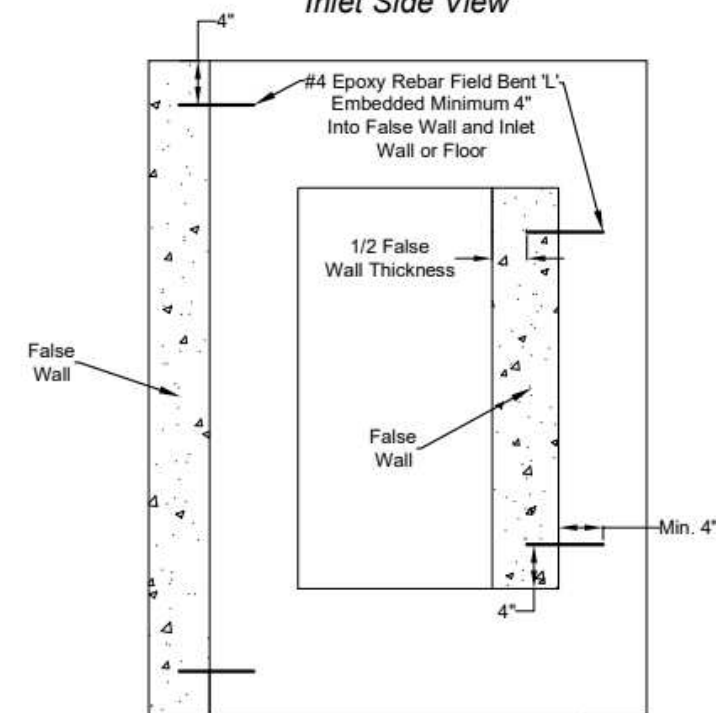


Note:

To insure the inlet casting is aligned correctly with the curb and gutter, an offset of the inlet casting may be required. The acceptable inlet casting offsets are shown and the guidelines are as follows:

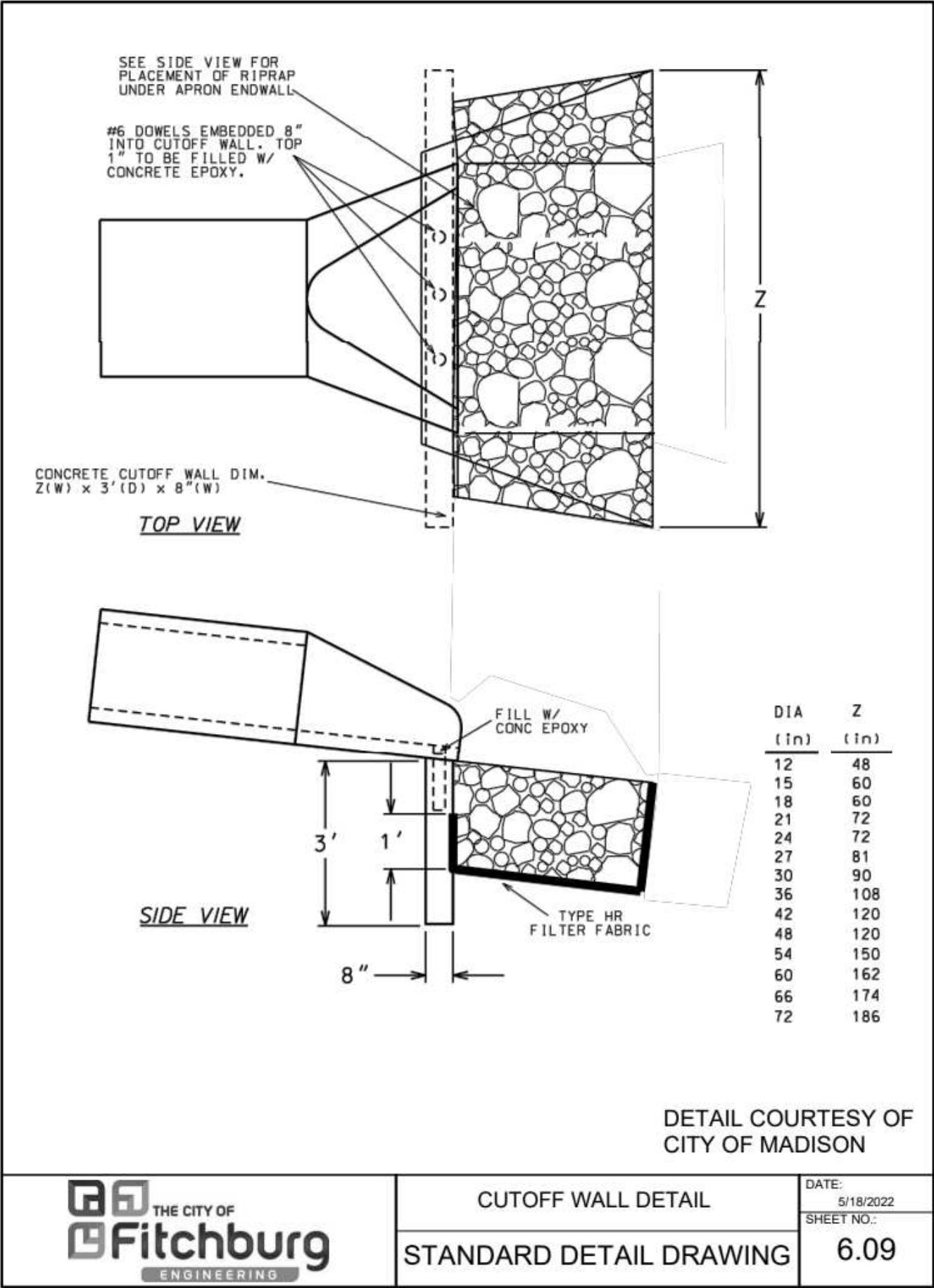
- (1) If adjustment is required the inlet casting offset shall be obtained by the construction of two false walls with equal wall thickness varying from four to eight inches (4"-8") depending on the offset required. The placement and anchoring shall be constructed in the manner shown.
- (2) If the adjustment required is greater than eight inches (8"), the inlet shall be repositioned or reconstructed to reduce the offset.

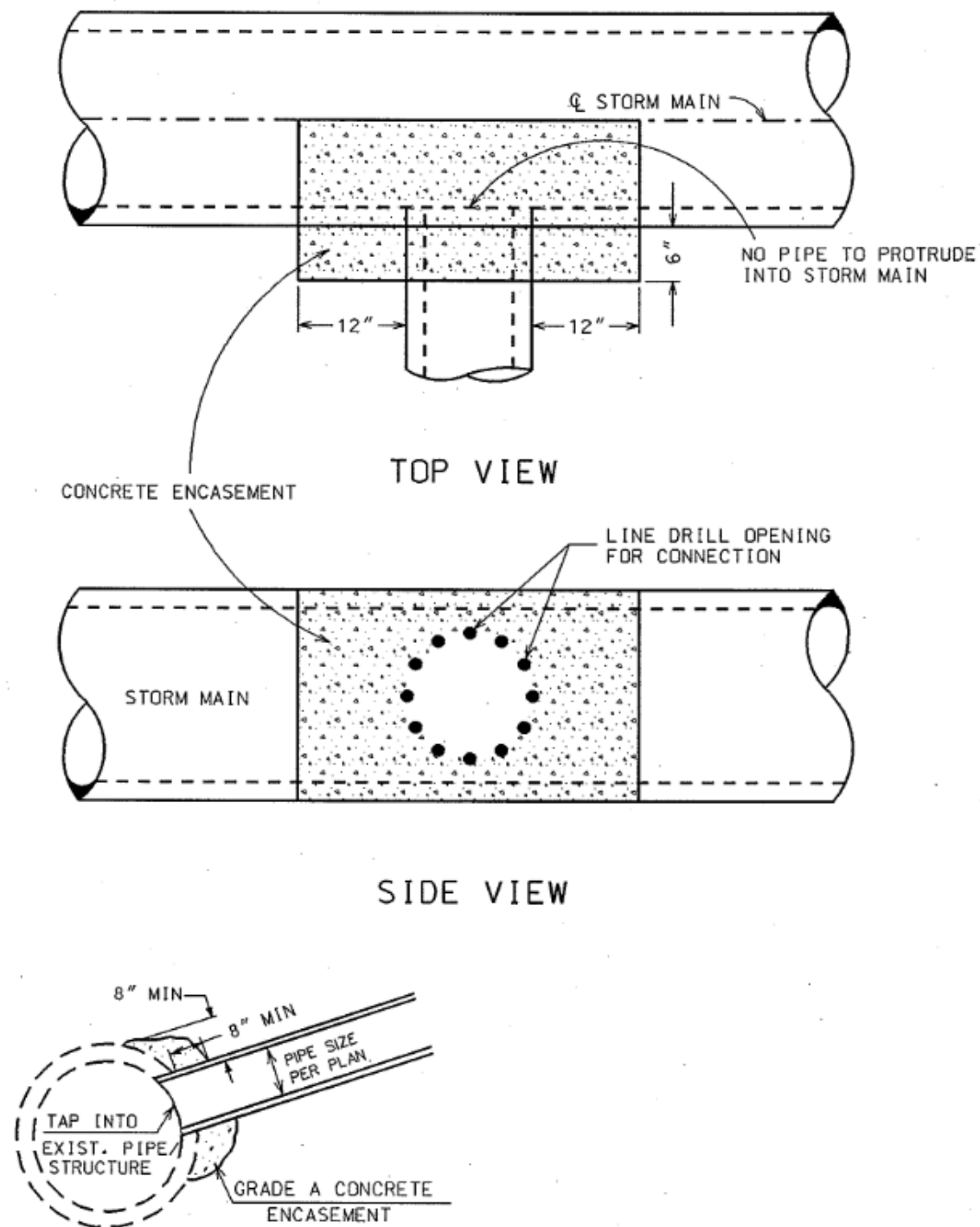
Offset Using False Wall
Inlet Side View



Offset Using False Wall Inlet Top View

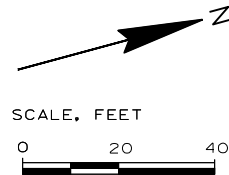
These specifications are applicable for both poured-in-place and precast inlets. The detail shows a poured-in-place inlet. A precast inlet would only differ with a wall thickness of 5".





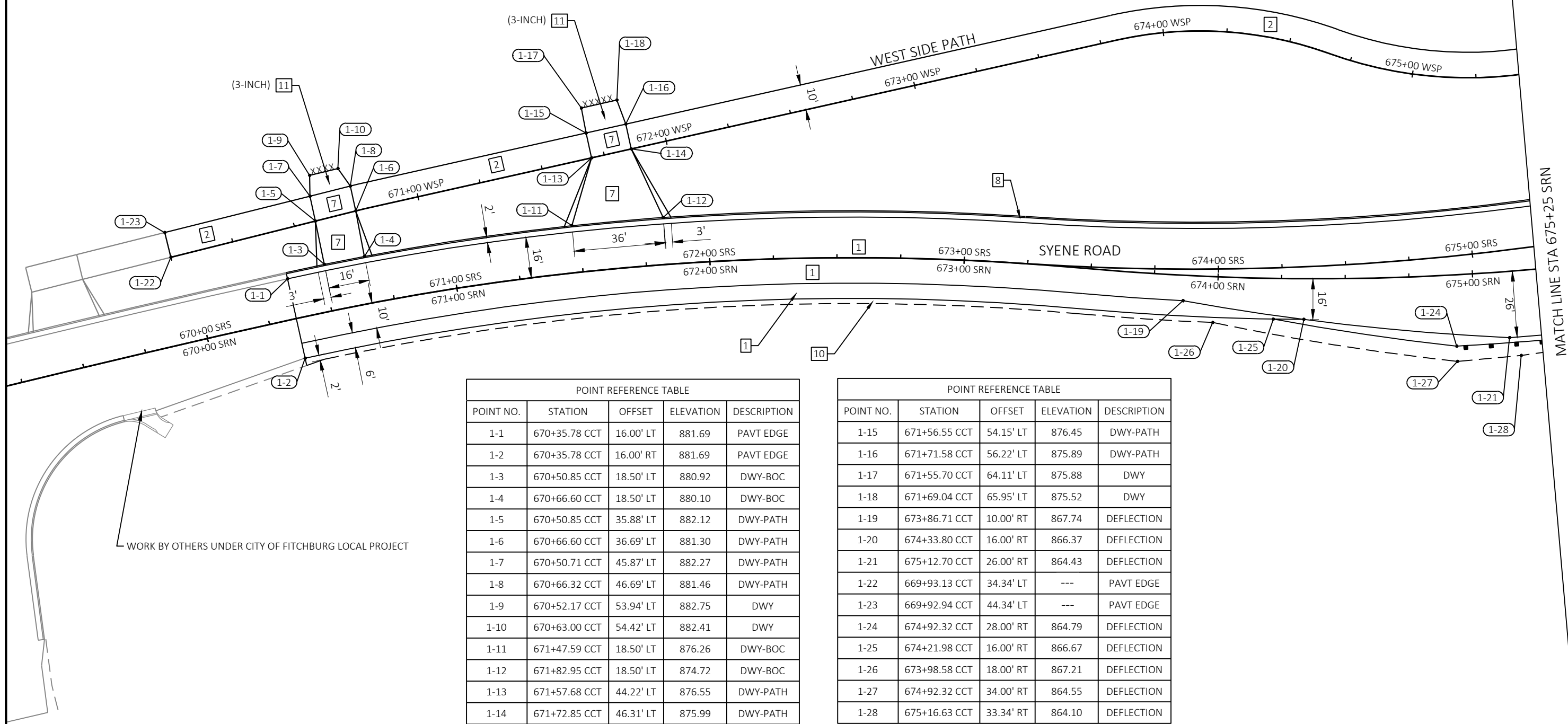
STORM SEWER TAP DETAIL

TO BE PAID FOR AS CONCRETE
COLLARS FOR PIPE



- | | | | |
|---|---|----|---|
| 1 | HMA PAVEMENT 6-INCH | 8 | CONCRETE CURB & GUTTER 30-INCH, TYPE D |
| 2 | HMA PAVEMENT 3-INCH | 9 | CONCRETE CURB & GUTTER 24-INCH, REJECT |
| 3 | CONCRETE MEDIAN SLOPED NOSE | 10 | BASE AGGREGATE DENSE 3/4-INCH TO MATCH PAVEMENT THICKNESS |
| 4 | CONCRETE SIDEWALK 7-INCH | 11 | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES |
| 5 | CONCRETE SIDEWALK 5-INCH / STAMPING COLORED CONCRETE* | 12 | CONCRETE CURB PEDESTRIAN |
| 6 | CONCRETE CURB & GUTTER 18-INCH, TYPE D REJECT | | .XXXXXXX. SAWCUT |
| 7 | CONCRETE DRIVEWAY 7-INCH | | |

* RED BRICK PATTERN. SEE SPECIAL PROVISIONS.

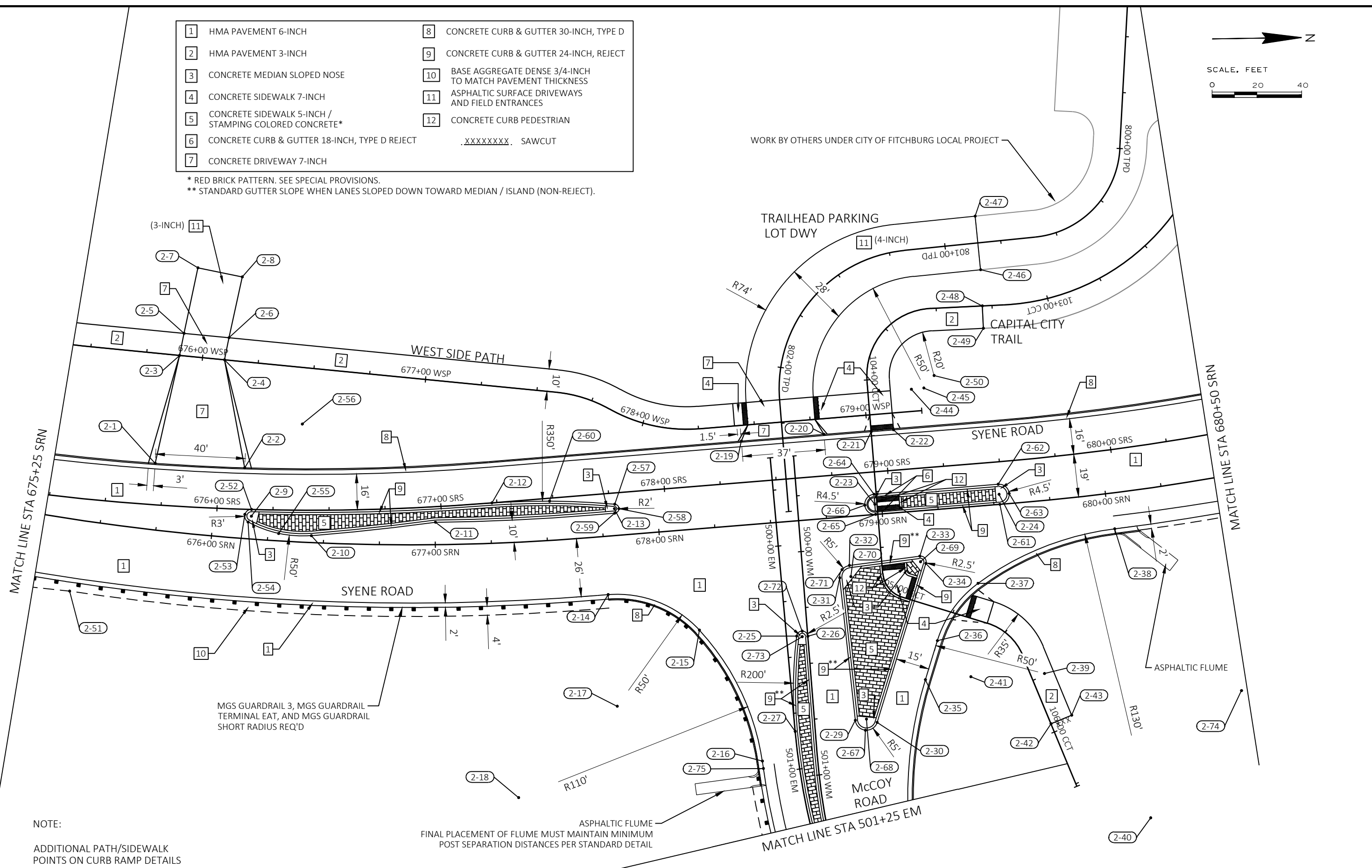


2

2

1	HMA PAVEMENT 6-INCH	8	CONCRETE CURB & GUTTER 30-INCH, TYPE D
2	HMA PAVEMENT 3-INCH	9	CONCRETE CURB & GUTTER 24-INCH, REJECT
3	CONCRETE MEDIAN SLOPED NOSE	10	BASE AGGREGATE DENSE 3/4-INCH TO MATCH PAVEMENT THICKNESS
4	CONCRETE SIDEWALK 7-INCH	11	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
5	CONCRETE SIDEWALK 5-INCH / STAMPING COLORED CONCRETE*	12	CONCRETE CURB PEDESTRIAN
6	CONCRETE CURB & GUTTER 18-INCH, TYPE D REJECT		.XXXXXXXX. SAWCUT
7	CONCRETE DRIVEWAY 7-INCH		

* RED BRICK PATTERN. SEE SPECIAL PROVISIONS.
** STANDARD GUTTER SLOPE WHEN LANES SLOPED DOWN TOWARD MEDIAN / ISLAND (NON-REJECT).



NOTE:

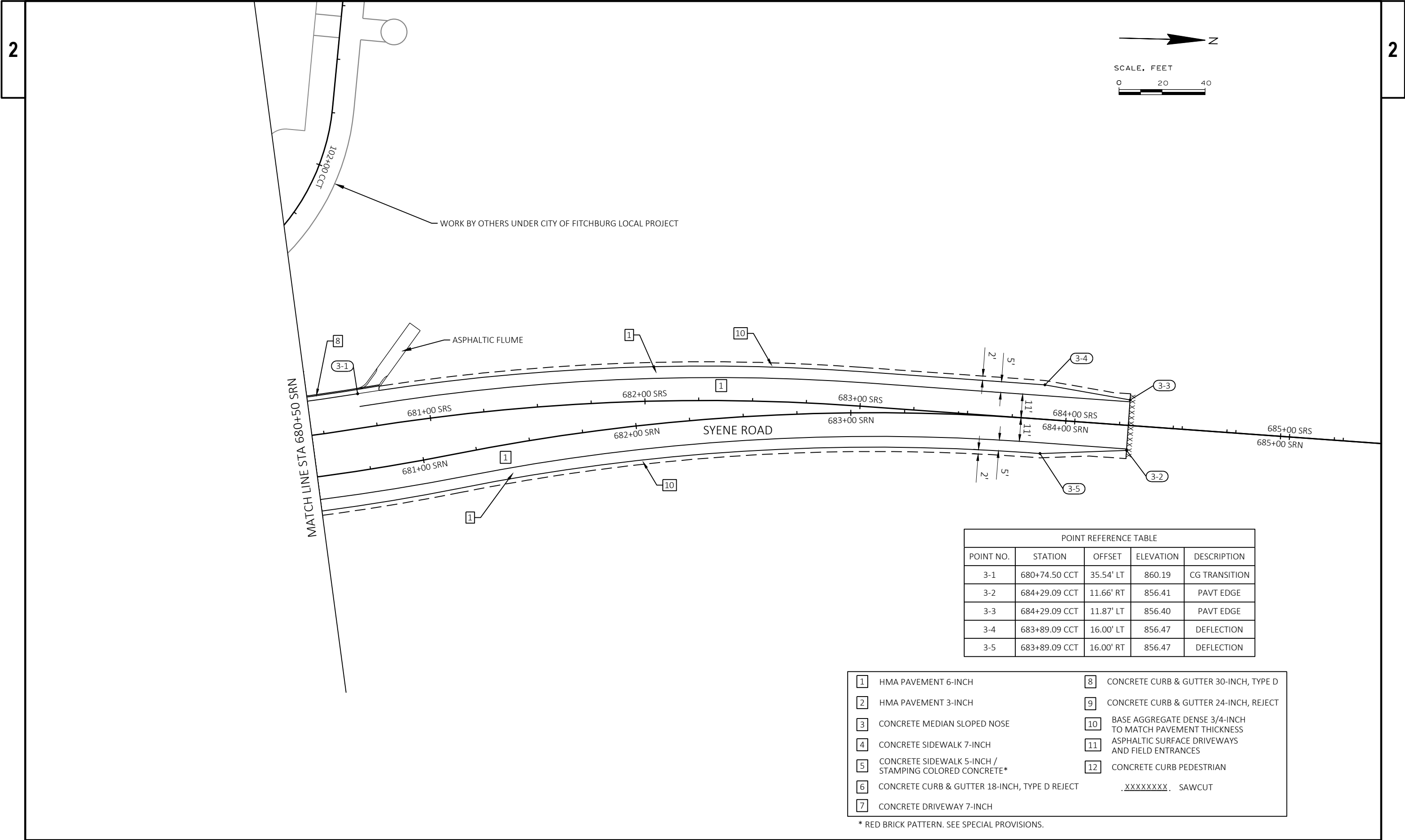
ADDITIONAL PATH/SIDEWALK
POINTS ON CURB RAMP DETAILS

ASPHALTIC FLUME
FINAL PLACEMENT OF FLUME MUST MAINTAIN MINIMUM
POST SEPARATION DISTANCES PER STANDARD DETAIL

POINT REFERENCE TABLE				
POINT NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
2-1	675+71.21 CCT	29.60' LT	863.56	DWY-BOC
2-2	676+12.43 CCT	31.49' LT	862.98	DWY-BOC
2-3	675+76.78 CCT	78.71' LT	865.04	DWY-PATH
2-4	675+98.61 CCT	78.79' LT	864.54	DWY-PATH
2-5	675+77.76 CCT	88.72' LT	865.17	DWY-PATH
2-6	675+99.83 CCT	88.78' LT	864.66	DWY-PATH
2-7	675+81.03 CCT	118.47' LT	864.41	DWY
2-8	676+03.81 CCT	116.36' LT	864.36	DWY
2-9	676+17.07 CCT	10.18' LT	---	CENTER 3' RADIUS
2-10	676+44.45 CCT	3.05' LT	863.05	DEFLECTION
2-11	677+00.12 CCT	10.00' LT	862.73	DEFLECTION
2-12	677+25.89 CCT	18.03' LT	862.39	DEFLECTION
2-13	677+80.98 CCT	12.00' LT	---	CENTER 2' RADIUS
2-14	677+75.12 CCT	26.00' RT	861.88	CURVE BEGIN
2-15	678+14.44 CCT	45.11' RT	861.60	CURVE TRANSITION
2-16	678+37.70 CCT	105.61' RT	861.20	CURVE END
2-17	677+75.12 CCT	76.00' RT	---	CENTER 50' RADIUS
2-18	677+32.27 CCT	113.88' RT	---	CENTER 110'
2-19	678+39.94 CCT	37.50' LT	861.91	DWY-BOC
2-20	678+76.91 CCT	37.50' LT	861.72	DWY-BOC
2-21	678+98.02 CCT	37.00' LT	861.12	PATH
2-22	679+08.02 CCT	37.00' LT	861.08	PATH
2-23	678+97.01 CCT	4.50' LT	862.09	CENTER 5' RADIUS
2-24	679+52.61 CCT	4.50' LT	861.85	CENTER 4' RADIUS
2-25	678+57.47 CCT	51.25' RT	861.18	---
2-26	678+62.42 CCT	51.76' RT	861.12	---
2-27	678+53.37 CCT	93.63' RT	860.93	DEFLECTION
2-28	677+34.14 CCT	331.86' RT	---	CENTER 350' RADIUS
2-29	678+80.52 CCT	90.87' RT	860.43	---
2-30	678+90.17 CCT	92.58' RT	860.23	---

POINT REFERENCE TABLE				
POINT NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
2-31	678+78.73 CCT	26.89' RT	861.33	---
2-32	678+83.48 CCT	21.76' RT	861.37	---
2-33	679+15.13 CCT	20.19' RT	861.23	---
2-34	679+17.57 CCT	23.61' RT	861.16	---
2-35	679+13.16 CCT	75.33' RT	860.02	DEFLECTION
2-36	679+19.89 CCT	58.41' RT	860.32	CURVE BEGIN
2-37	679+40.07 CCT	34.34' RT	860.66	CURVE TRANSITION
2-38	680+02.11 CCT	16.00' RT	860.67	CURVE END
2-39	679+65.82 CCT	76.90' RT	---	CENTER 50' RADIUS
2-40	680+02.11 CCT	146.00' RT	---	CENTER 130' RADIUS
2-41	679+33.49 CCT	75.65' RT	---	CENTER 35' RADIUS
2-42	679+66.68 CCT	99.51' RT	860.36	PAVT EDGE
2-43	679+75.38 CCT	96.55' RT	860.82	PAVT EDGE
2-44	679+17.44 CCT	54.38' LT	---	CENTER 74' RADIUS
2-45	679+23.02 CCT	54.50' LT	---	CENTER 50' RADIUS
2-46	679+52.54 CCT	105.09' LT	861.95	PAVT EDGE
2-47	679+52.06 CCT	129.08' LT	862.19	PAVT EDGE
2-48	679+52.01 CCT	88.89' LT	861.80	PAVT EDGE
2-49	679+51.68 CCT	78.90' LT	861.65	PAVT EDGE
2-50	679+28.02 CCT	59.67' LT	---	CENTER 20' RADIUS
2-51	675+40.96 CCT	32.00' RT	863.71	DEFLECTION
2-52	676+16.93 CCT	13.17' LT	863.31	CURVE END
2-53	676+14.09 CCT	10.75' LT	863.38	CURVE MIDDLE
2-54	676+15.80 CCT	7.45' LT	863.59	CURVE BEGIN
2-55	676+29.83 CCT	3.25' LT	863.21	CURVE MIDDLE
2-56	676+37.88 CCT	52.64' LT	---	CENTER 50' RADIUS
2-57	677+81.32 CCT	13.97' LT	862.16	CURVE END
2-58	677+82.97 CCT	11.83' LT	862.18	CURVE MIDDLE
2-59	677+80.98 CCT	10.00' LT	862.21	CURVE BEGIN
2-60	677+52.11 CCT	17.53' LT	862.27	CURVE MIDDLE

POINT REFERENCE TABLE				
POINT NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
2-61	679+52.61 CCT	0.00'	861.24	CURVE BEGIN
2-62	679+52.61 CCT	9.00' LT	861.42	CURVE END
2-63	679+57.11 CCT	4.50' LT	861.30	CURVE MIDDLE
2-64	678+97.01 CCT	9.00' LT	861.62	CURVE END
2-65	678+97.01 CCT	0.00'	861.52	CURVE BEGIN
2-66	678+92.51 CCT	4.50' LT	861.59	CURVE MIDDLE
2-67	678+84.65 CCT	95.66' RT	860.32	CURVE MIDDLE
2-68	678+85.52 CCT	90.73' RT	---	CENTER 5' RADIUS
2-69	679+15.25 CCT	22.69' RT	---	CENTER 2.5' RADIUS
2-70	678+83.73 CCT	26.75' RT	---	CENTER 5' RADIUS
2-71	678+80.06 CCT	23.36' RT	861.37	CURVE MIDDLE
2-72	678+60.09 CCT	49.26' RT	861.18	CURVE MIDDLE
2-73	678+59.92 CCT	51.75' RT	---	CENTER 2.5' RADIUS
2-74	680+45.22 CCT	95.70' RT	---	CENTER 200' RADIUS
2-75	678+37.88 CCT	108.98' RT	861.18	END C&G



POINT REFERENCE TABLE				
POINT NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
3-1	680+74.50 CCT	35.54' LT	860.19	CG TRANSITION
3-2	684+29.09 CCT	11.66' RT	856.41	PAVT EDGE
3-3	684+29.09 CCT	11.87' LT	856.40	PAVT EDGE
3-4	683+89.09 CCT	16.00' LT	856.47	DEFLECTION
3-5	683+89.09 CCT	16.00' RT	856.47	DEFLECTION

- 1

HMA PAVEMENT 6-INCH
- 2

HMA PAVEMENT 3-INCH
- 3

CONCRETE MEDIAN SLOPED NOSE
- 4

CONCRETE SIDEWALK 7-INCH
- 5

CONCRETE SIDEWALK 5-INCH / STAMPING COLORED CONCRETE*
- 6

CONCRETE CURB & GUTTER 18-INCH, TYPE D REJECT
- 7

CONCRETE DRIVEWAY 7-INCH
- 8

CONCRETE CURB & GUTTER 30-INCH, TYPE D
- 9

CONCRETE CURB & GUTTER 24-INCH, REJECT
- 10

BASE AGGREGATE DENSE 3/4-INCH TO MATCH PAVEMENT THICKNESS
- 11

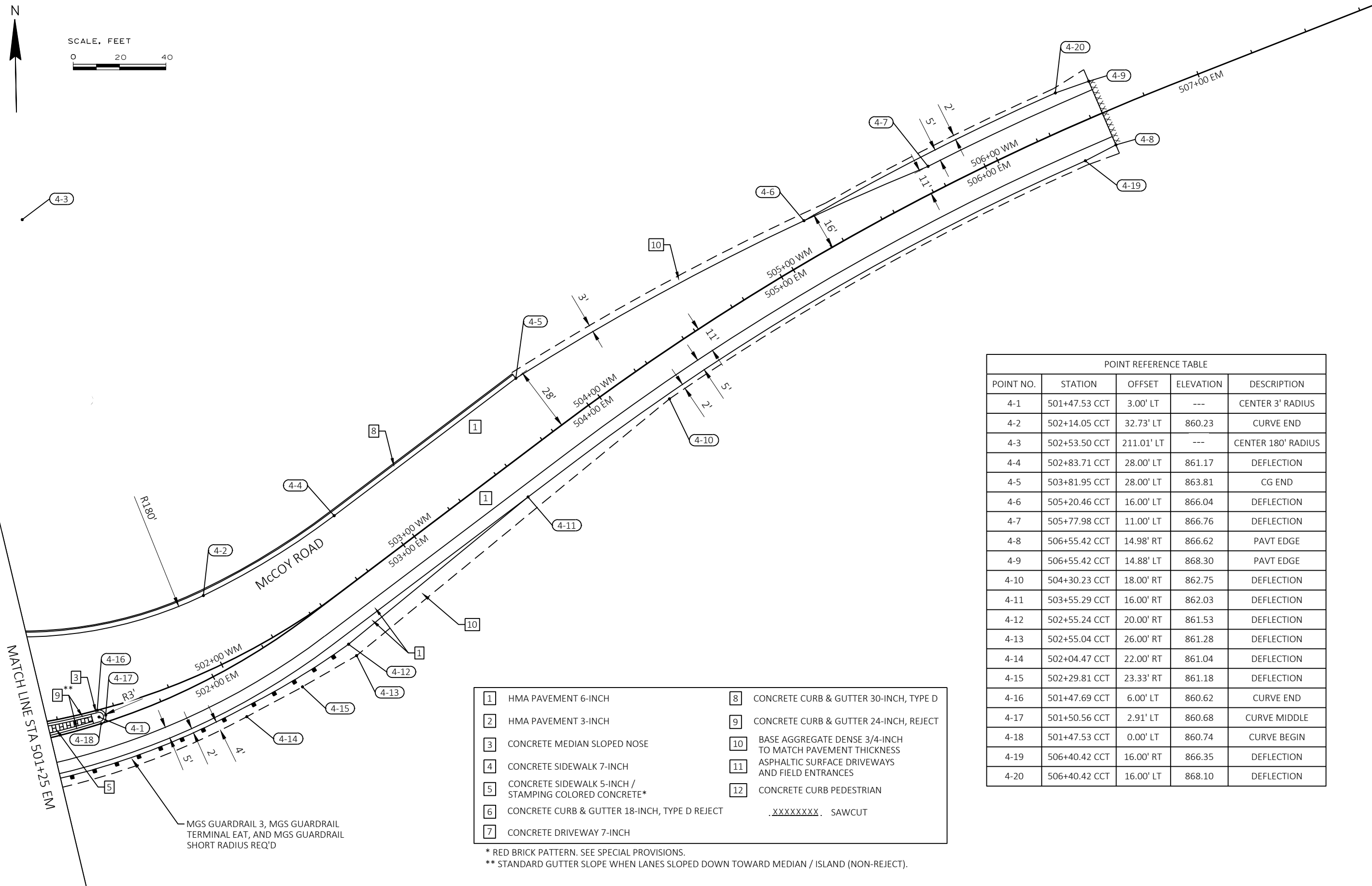
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- 12

CONCRETE CURB PEDESTRIAN

.XXXXXXXX

SAWCUT

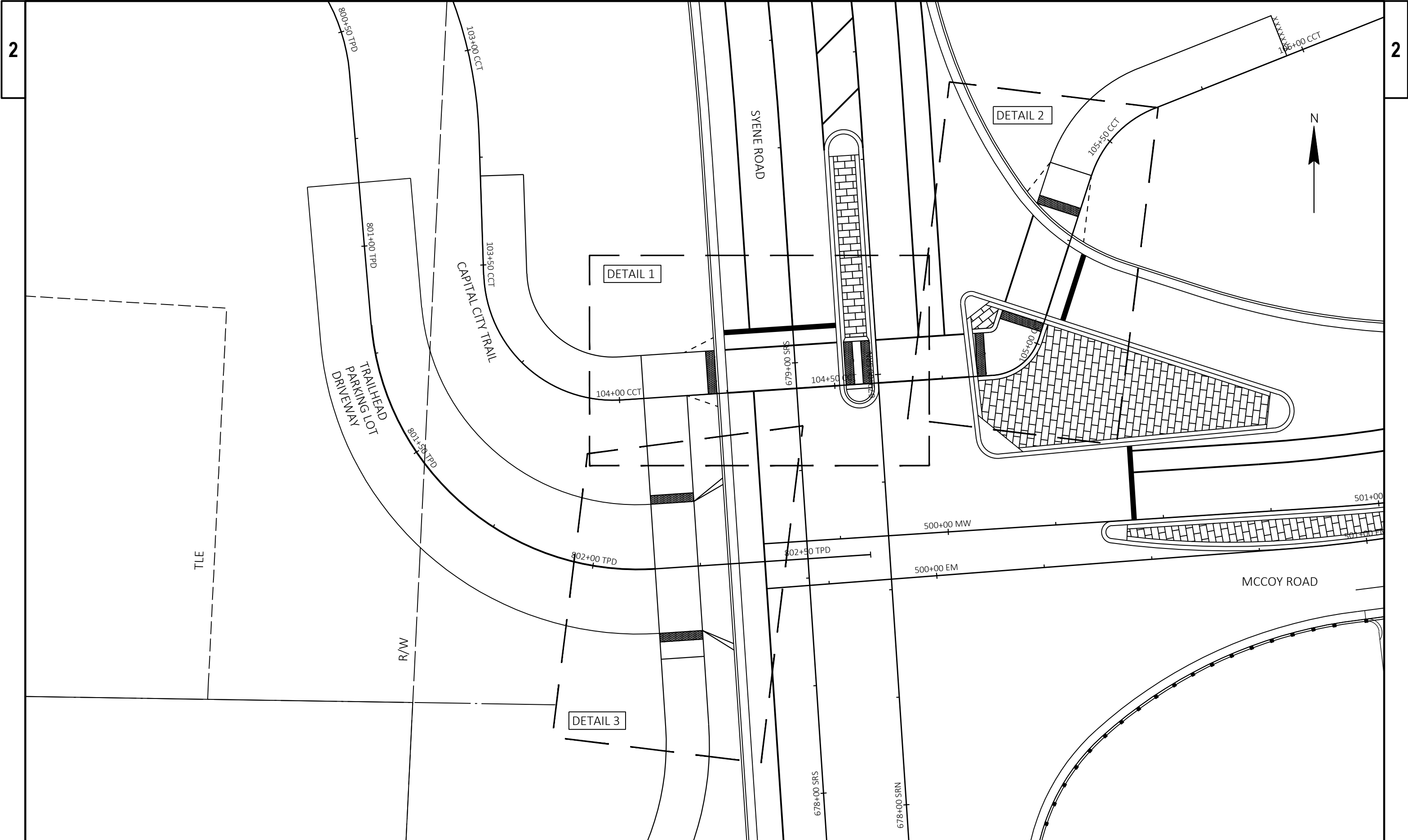
* RED BRICK PATTERN. SEE SPECIAL PROVISIONS.

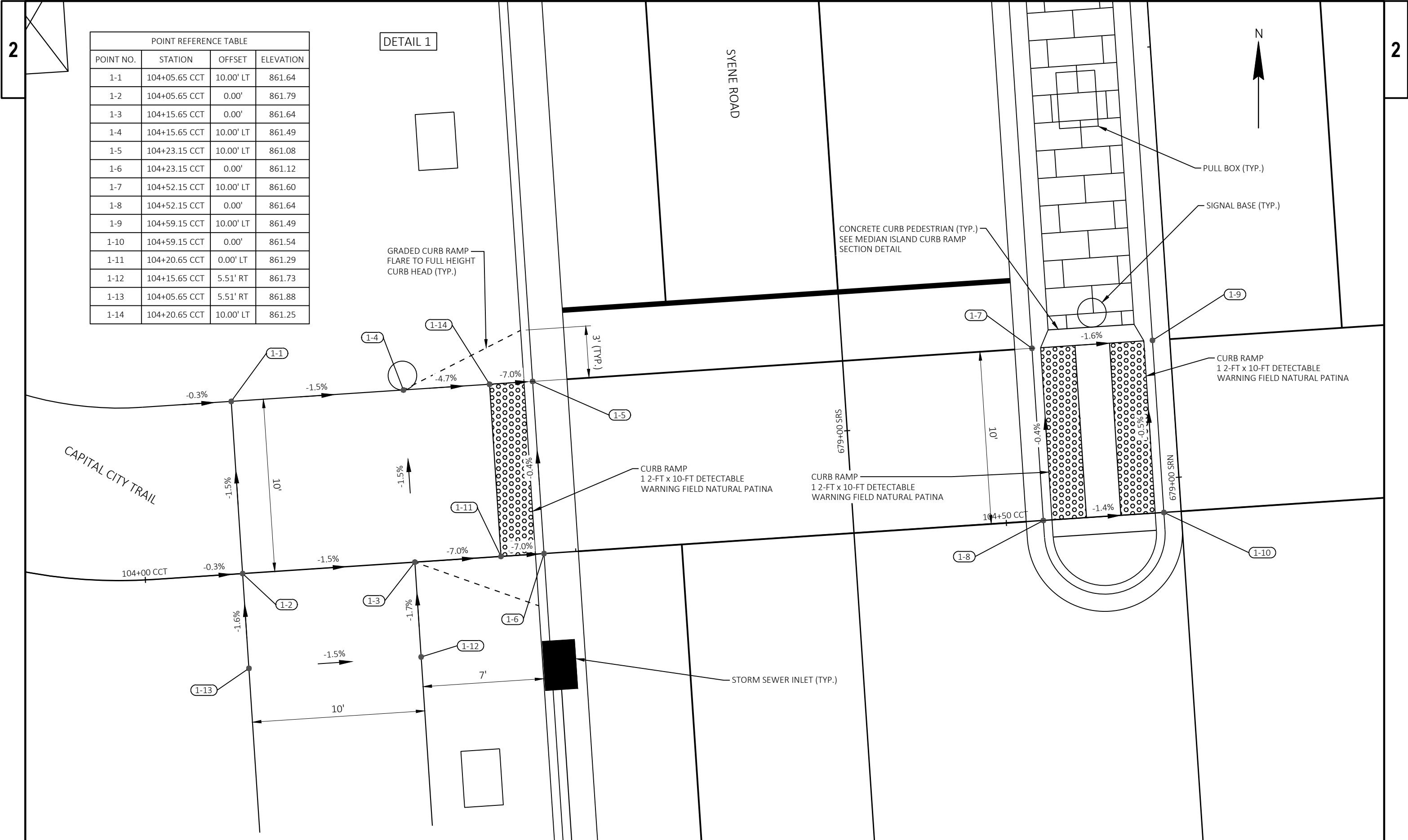


POINT REFERENCE TABLE				
POINT NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
4-1	501+47.53 CCT	3.00' LT	---	CENTER 3' RADIUS
4-2	502+14.05 CCT	32.73' LT	860.23	CURVE END
4-3	502+53.50 CCT	211.01' LT	---	CENTER 180' RADIUS
4-4	502+83.71 CCT	28.00' LT	861.17	DEFLECTION
4-5	503+81.95 CCT	28.00' LT	863.81	CG END
4-6	505+20.46 CCT	16.00' LT	866.04	DEFLECTION
4-7	505+77.98 CCT	11.00' LT	866.76	DEFLECTION
4-8	506+55.42 CCT	14.98' RT	866.62	PAVT EDGE
4-9	506+55.42 CCT	14.88' LT	868.30	PAVT EDGE
4-10	504+30.23 CCT	18.00' RT	862.75	DEFLECTION
4-11	503+55.29 CCT	16.00' RT	862.03	DEFLECTION
4-12	502+55.24 CCT	20.00' RT	861.53	DEFLECTION
4-13	502+55.04 CCT	26.00' RT	861.28	DEFLECTION
4-14	502+04.47 CCT	22.00' RT	861.04	DEFLECTION
4-15	502+29.81 CCT	23.33' RT	861.18	DEFLECTION
4-16	501+47.69 CCT	6.00' LT	860.62	CURVE END
4-17	501+50.56 CCT	2.91' LT	860.68	CURVE MIDDLE
4-18	501+47.53 CCT	0.00' LT	860.74	CURVE BEGIN
4-19	506+40.42 CCT	16.00' RT	866.35	DEFLECTION
4-20	506+40.42 CCT	16.00' LT	868.10	DEFLECTION

- | | | | |
|---|---|----|---|
| 1 | HMA PAVEMENT 6-INCH | 8 | CONCRETE CURB & GUTTER 30-INCH, TYPE D |
| 2 | HMA PAVEMENT 3-INCH | 9 | CONCRETE CURB & GUTTER 24-INCH, REJECT |
| 3 | CONCRETE MEDIAN SLOPED NOSE | 10 | BASE AGGREGATE DENSE 3/4-INCH TO MATCH PAVEMENT THICKNESS |
| 4 | CONCRETE SIDEWALK 7-INCH | 11 | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES |
| 5 | CONCRETE SIDEWALK 5-INCH / STAMPING COLORED CONCRETE* | 12 | CONCRETE CURB PEDESTRIAN |
| 6 | CONCRETE CURB & GUTTER 18-INCH, TYPE D REJECT | | .XXXXXXXX. SAWCUT |
| 7 | CONCRETE DRIVEWAY 7-INCH | | |

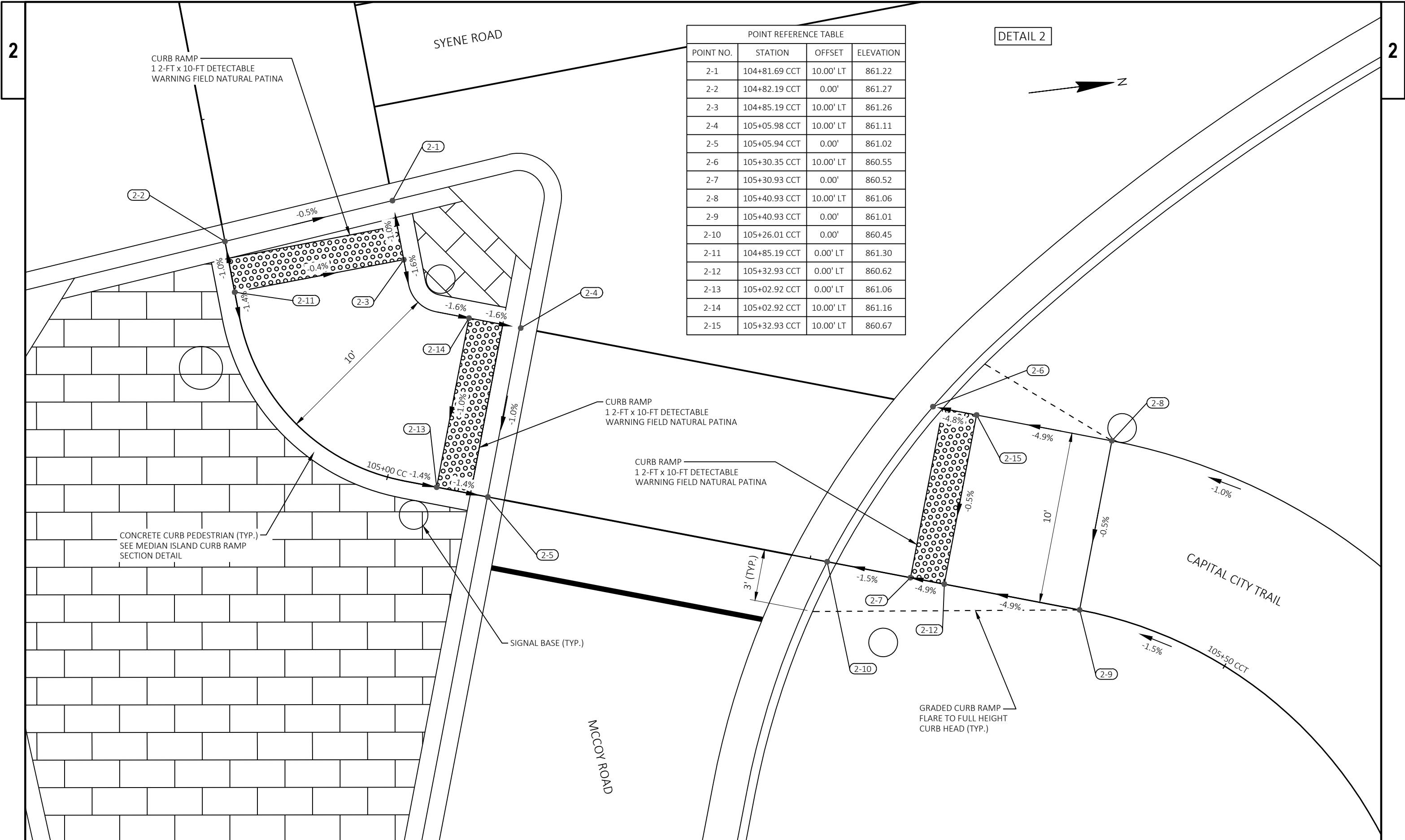
* RED BRICK PATTERN. SEE SPECIAL PROVISIONS.
** STANDARD GUTTER SLOPE WHEN LANES SLOPED DOWN TOWARD MEDIAN / ISLAND (NON-REJECT).





POINT REFERENCE TABLE			
POINT NO.	STATION	OFFSET	ELEVATION
1-1	104+05.65 CCT	10.00' LT	861.64
1-2	104+05.65 CCT	0.00'	861.79
1-3	104+15.65 CCT	0.00'	861.64
1-4	104+15.65 CCT	10.00' LT	861.49
1-5	104+23.15 CCT	10.00' LT	861.08
1-6	104+23.15 CCT	0.00'	861.12
1-7	104+52.15 CCT	10.00' LT	861.60
1-8	104+52.15 CCT	0.00'	861.64
1-9	104+59.15 CCT	10.00' LT	861.49
1-10	104+59.15 CCT	0.00'	861.54
1-11	104+20.65 CCT	0.00' LT	861.29
1-12	104+15.65 CCT	5.51' RT	861.73
1-13	104+05.65 CCT	5.51' RT	861.88
1-14	104+20.65 CCT	10.00' LT	861.25

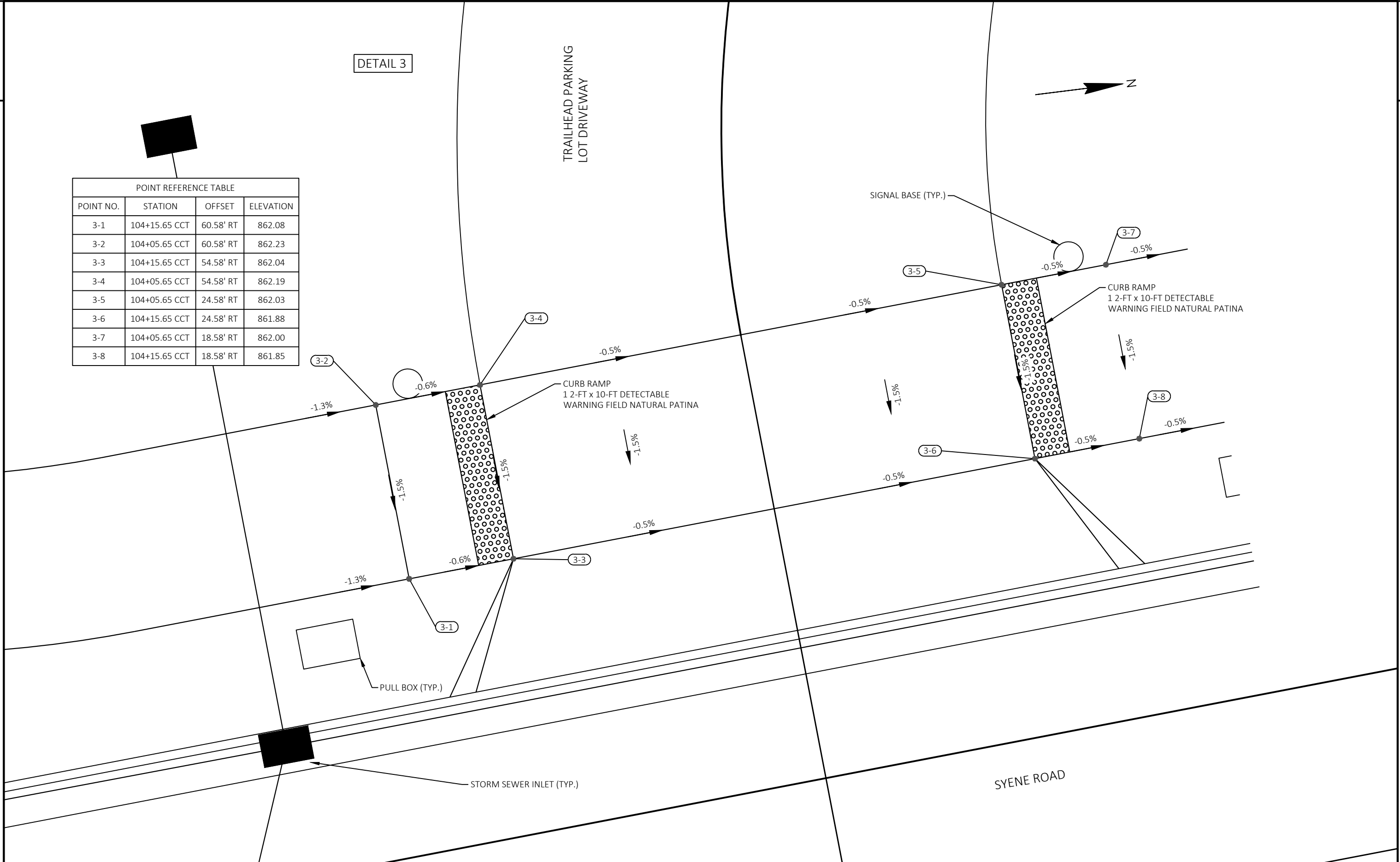
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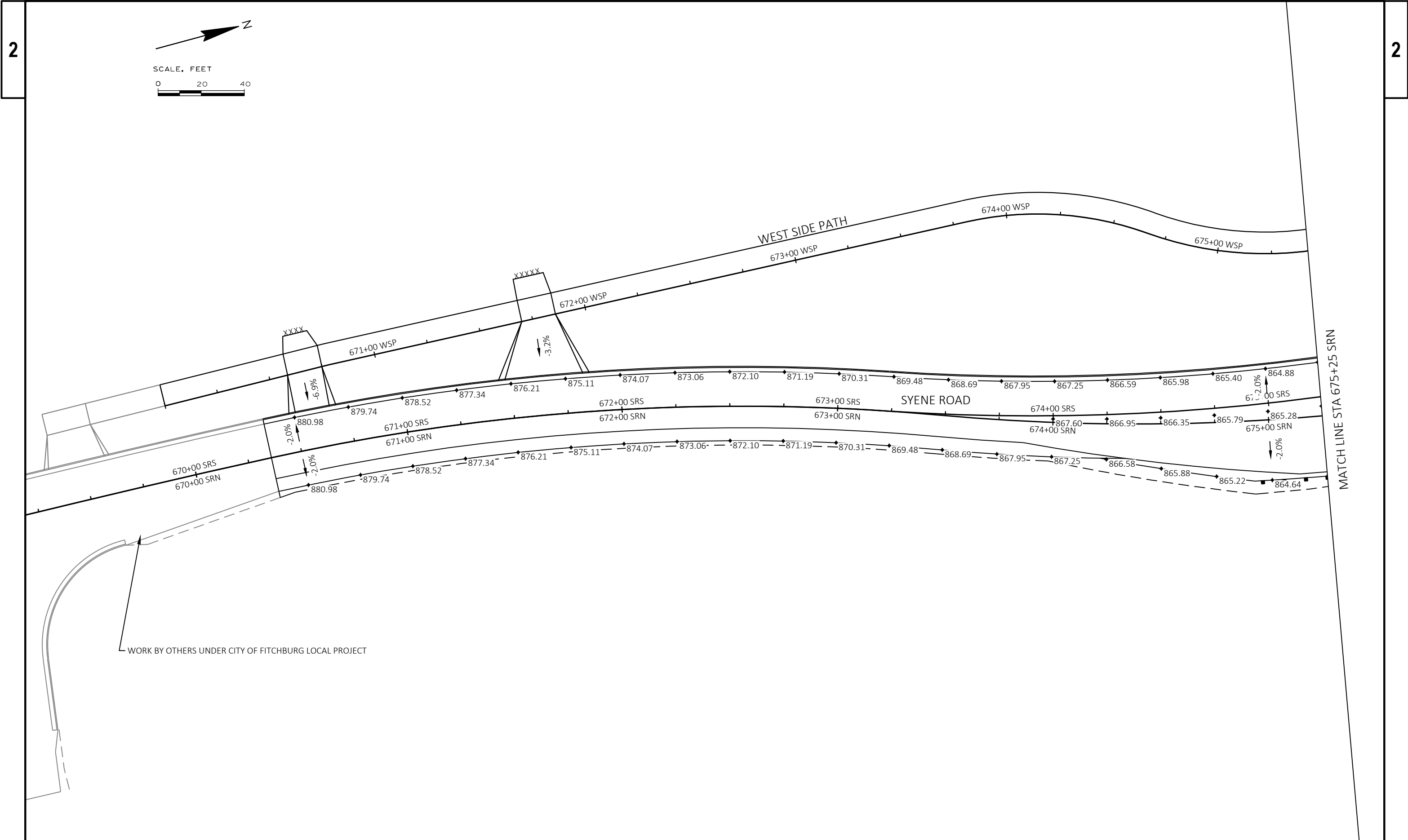


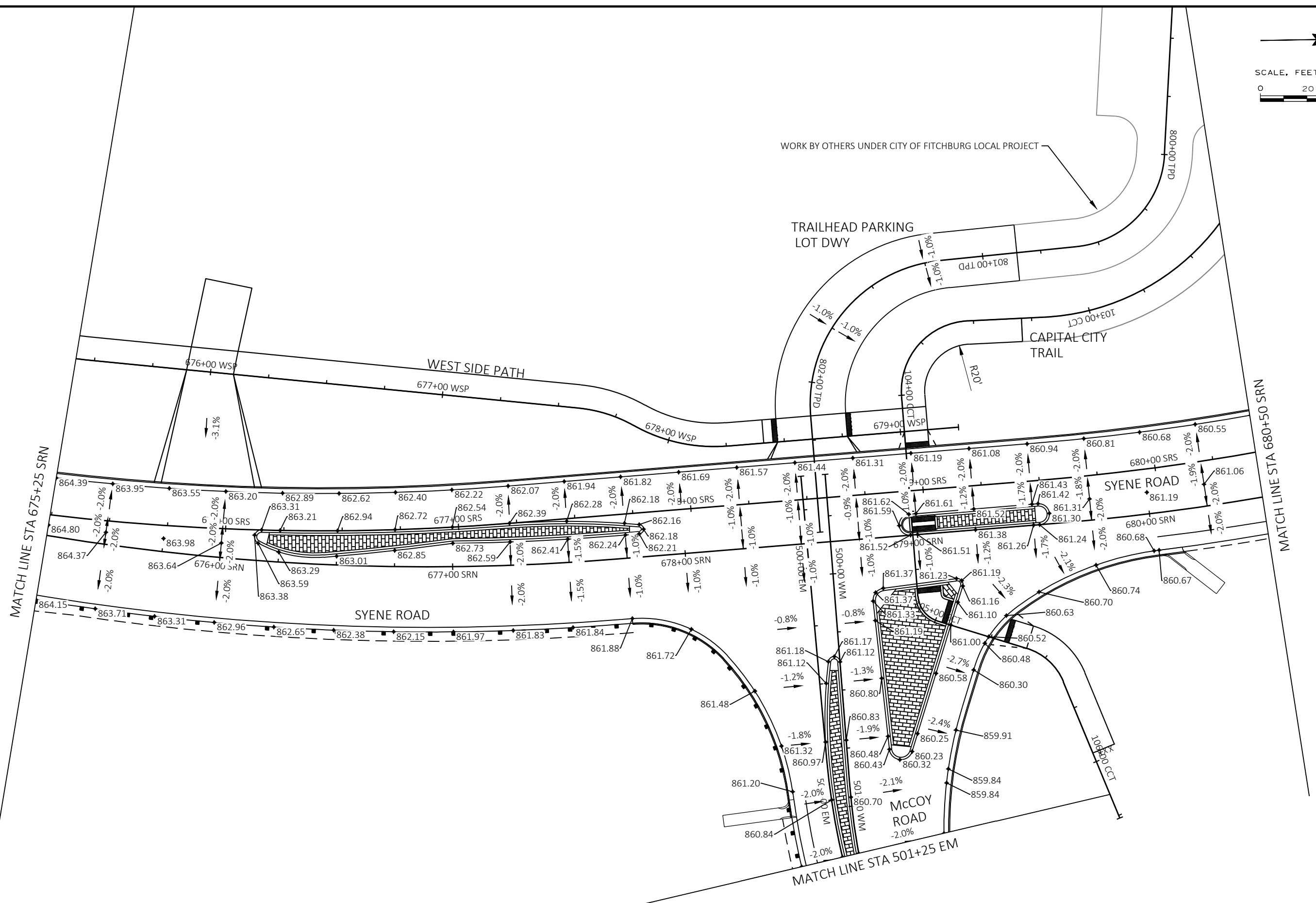
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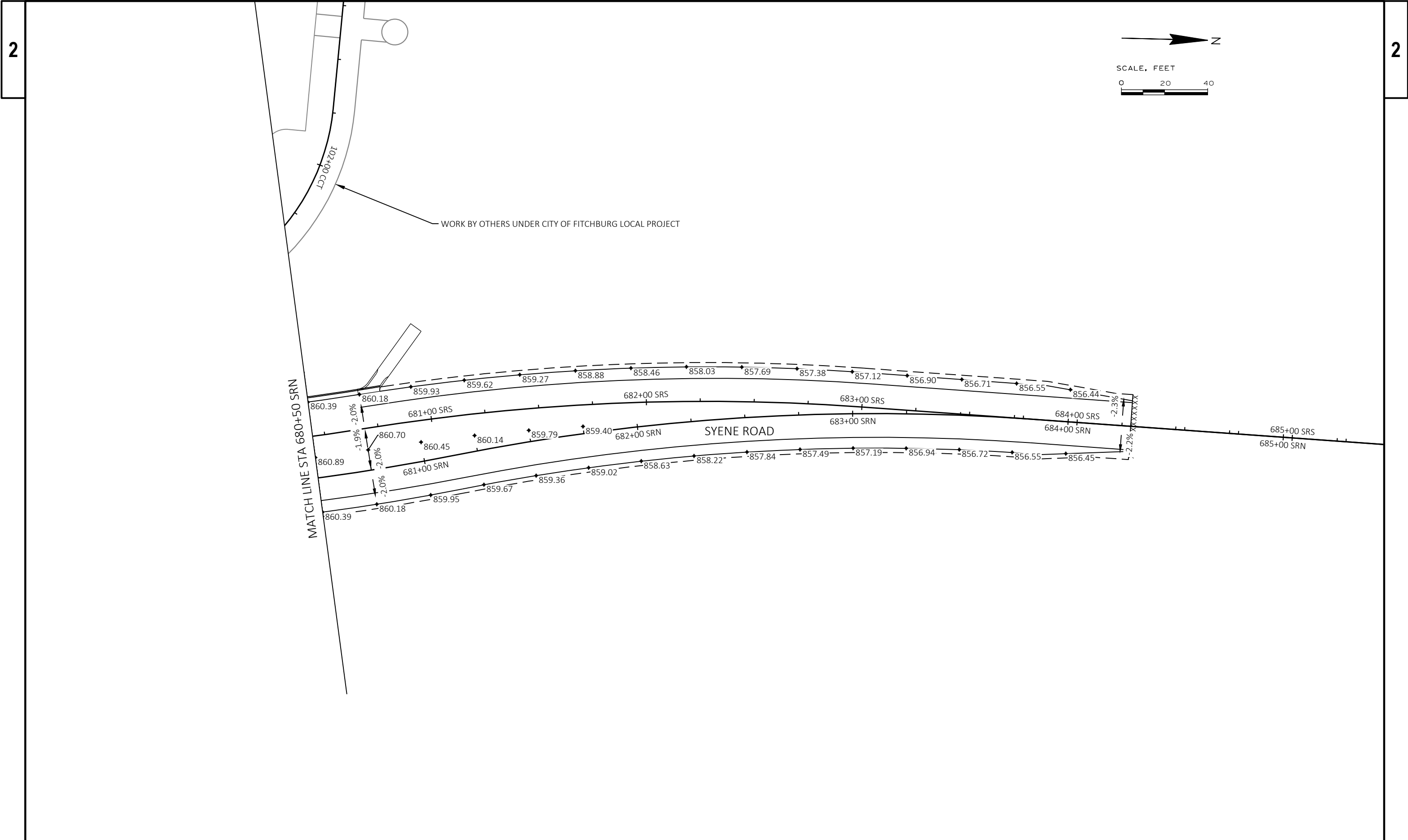
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POINT REFERENCE TABLE			
POINT NO.	STATION	OFFSET	ELEVATION
3-1	104+15.65 CCT	60.58' RT	862.08
3-2	104+05.65 CCT	60.58' RT	862.23
3-3	104+15.65 CCT	54.58' RT	862.04
3-4	104+05.65 CCT	54.58' RT	862.19
3-5	104+05.65 CCT	24.58' RT	862.03
3-6	104+15.65 CCT	24.58' RT	861.88
3-7	104+05.65 CCT	18.58' RT	862.00
3-8	104+15.65 CCT	18.58' RT	861.85



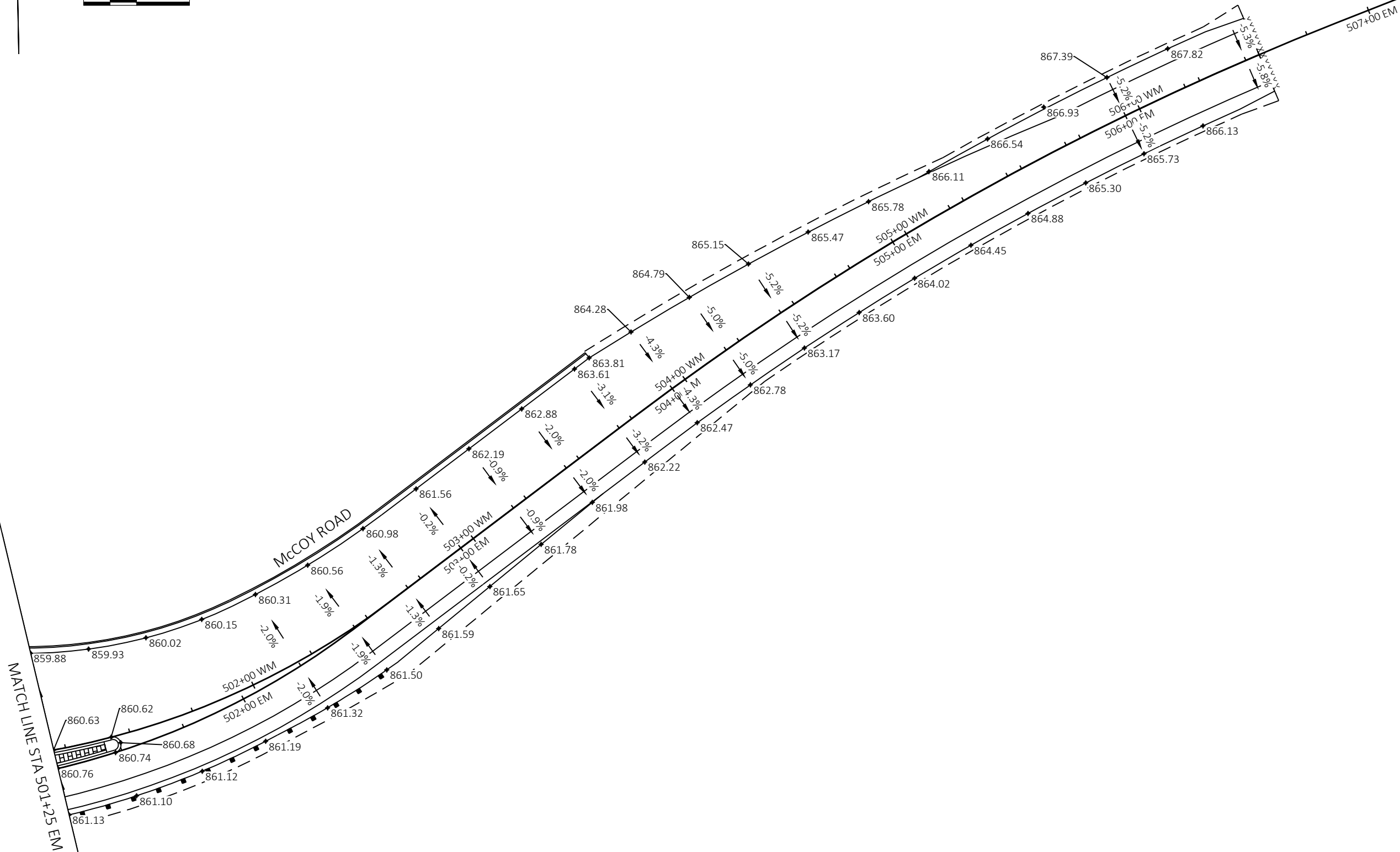
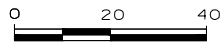


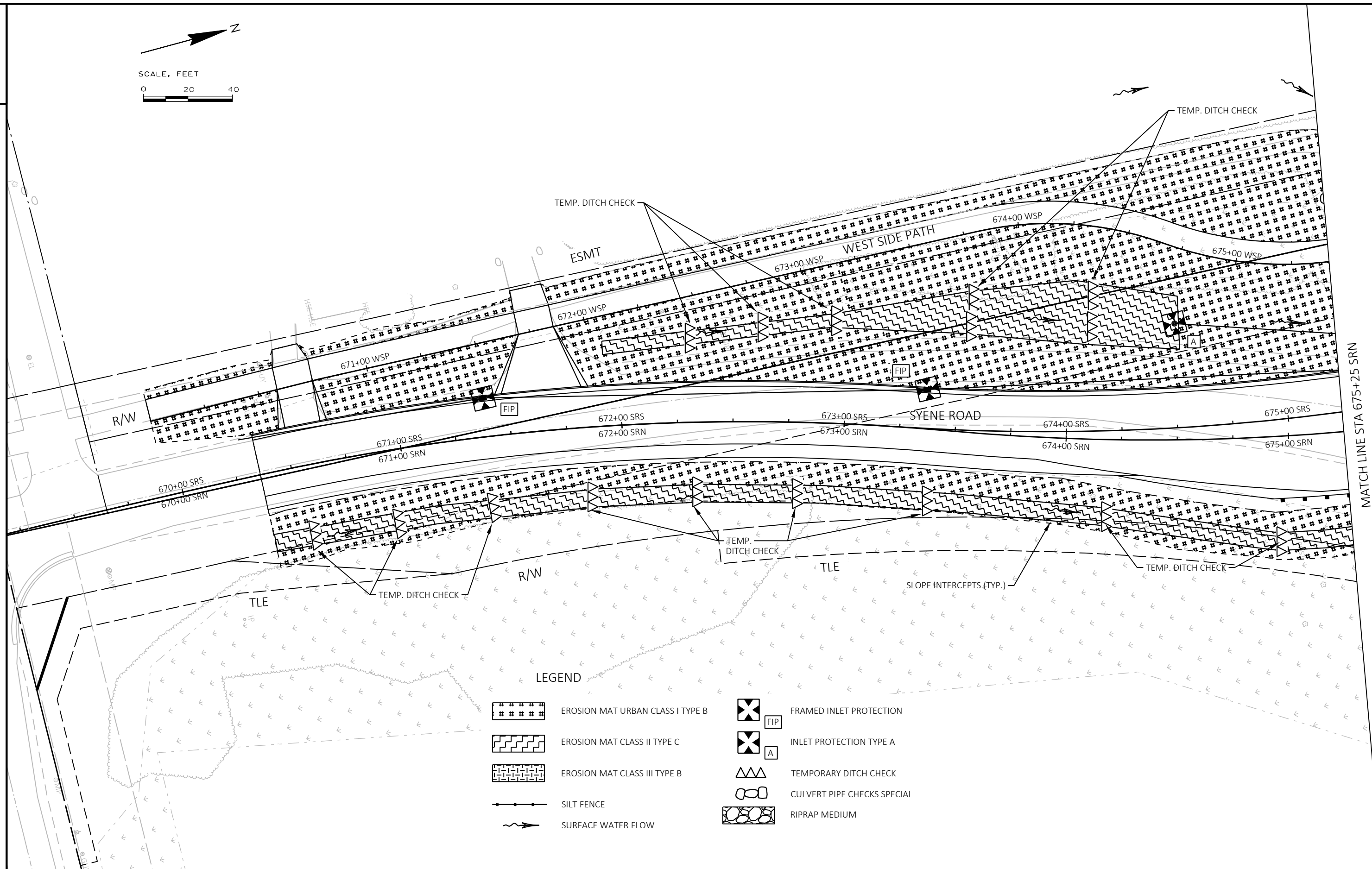
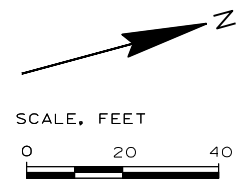




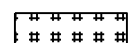
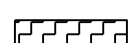
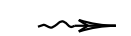


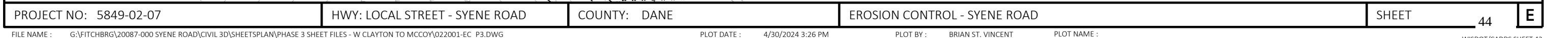
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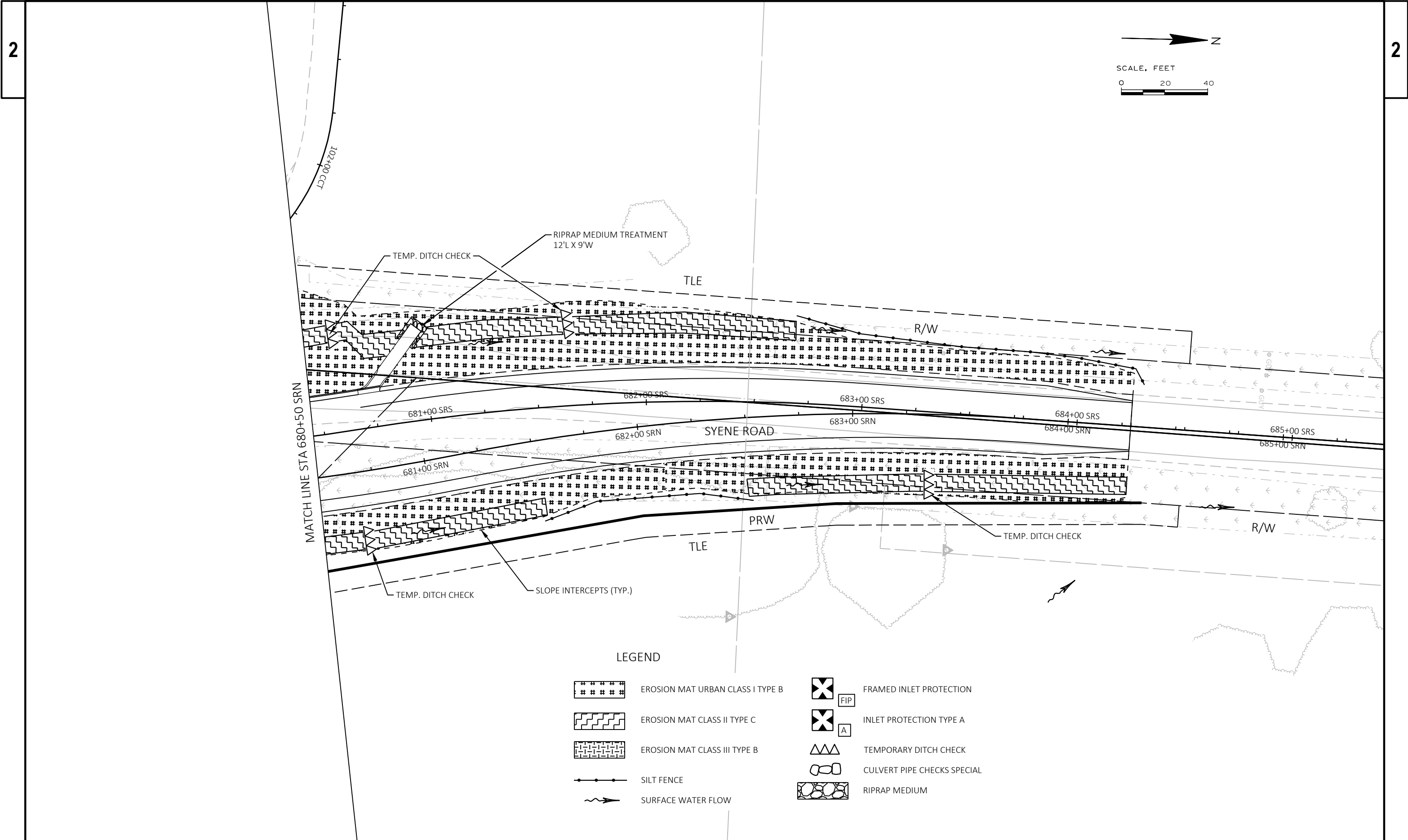




LEGEND

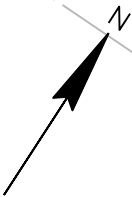
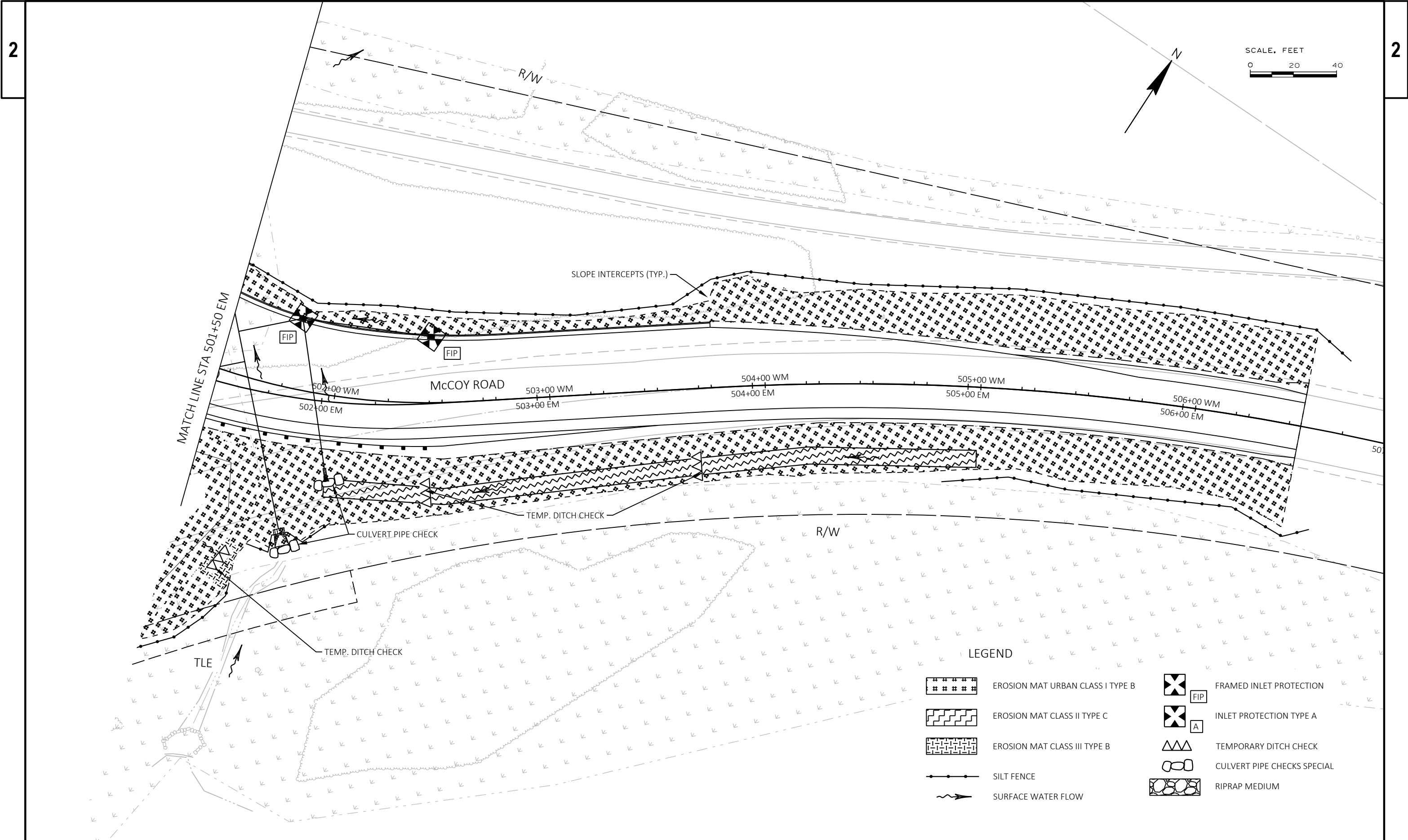
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|---|----------------------------------|---|-----------------------------|
|  | EROSION MAT URBAN CLASS I TYPE B |  | FRAMED INLET PROTECTION |
|  | EROSION MAT CLASS II TYPE C |  | INLET PROTECTION TYPE A |
|  | EROSION MAT CLASS III TYPE B |  | TEMPORARY DITCH CHECK |
|  | SILT FENCE |  | CULVERT PIPE CHECKS SPECIAL |
|  | SURFACE WATER FLOW |  | RIPRAP MEDIUM |



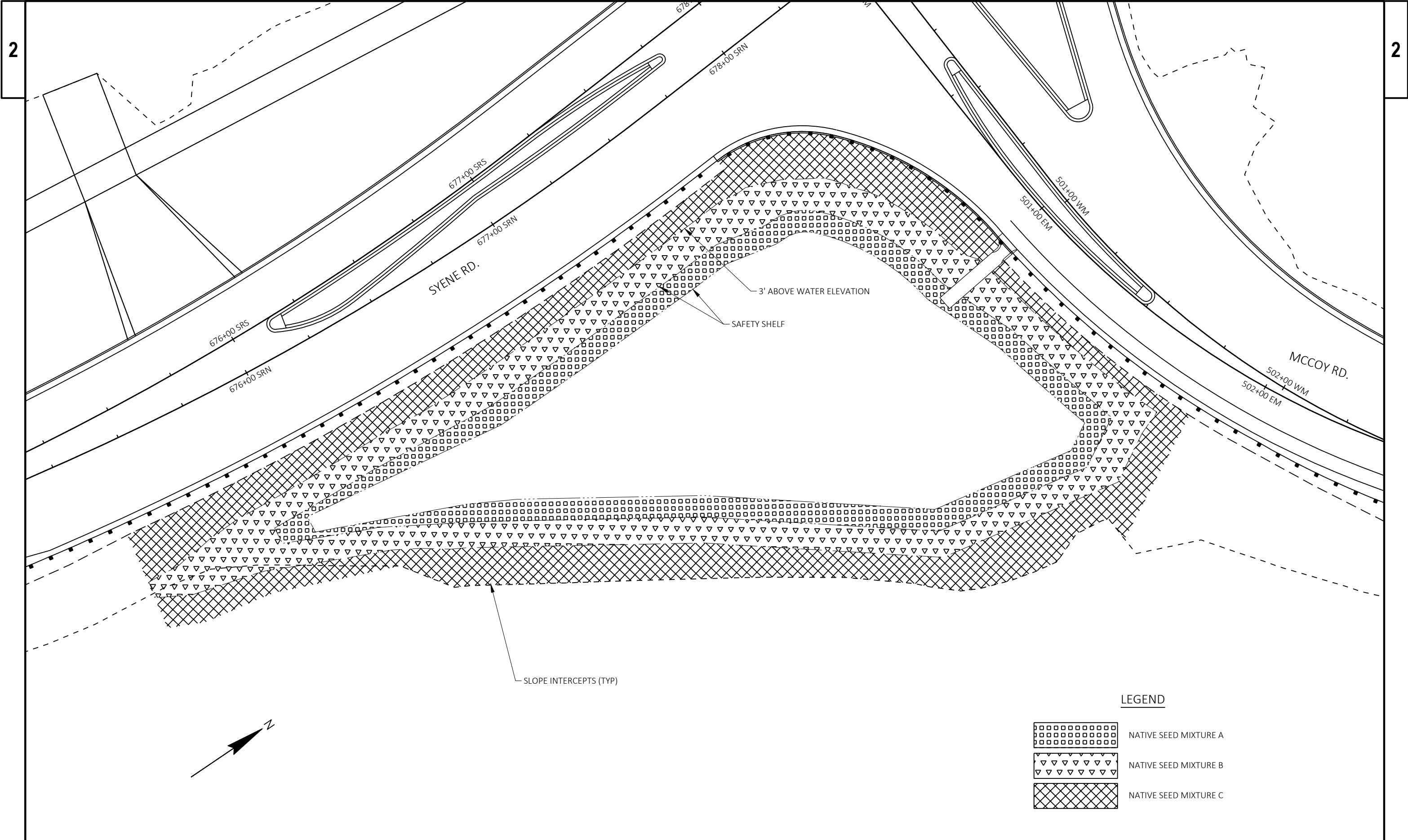


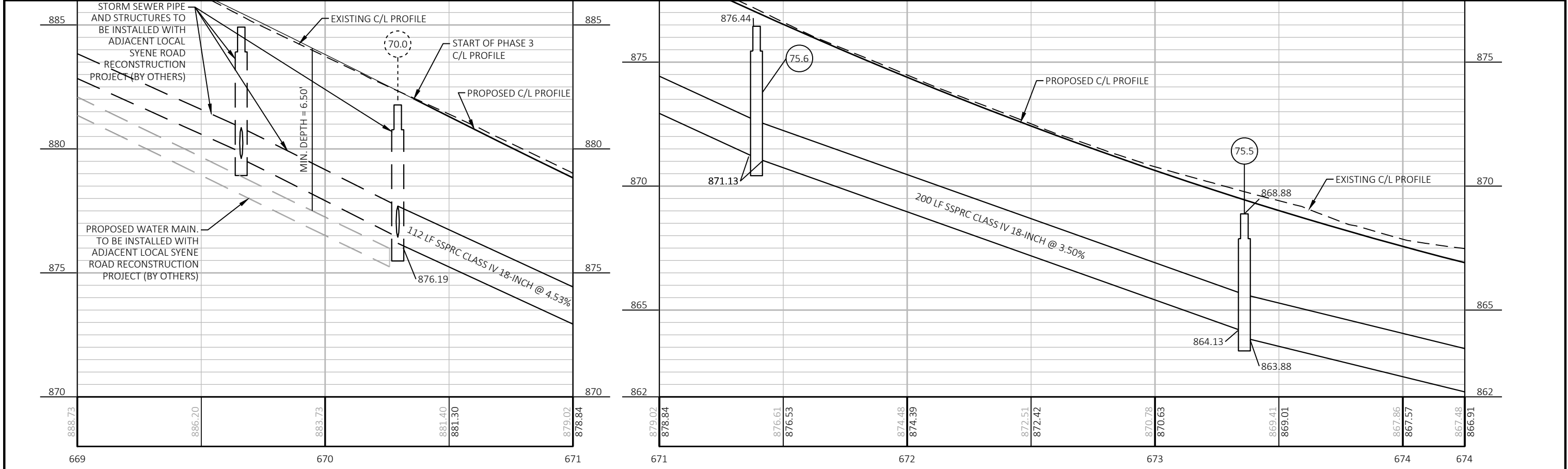
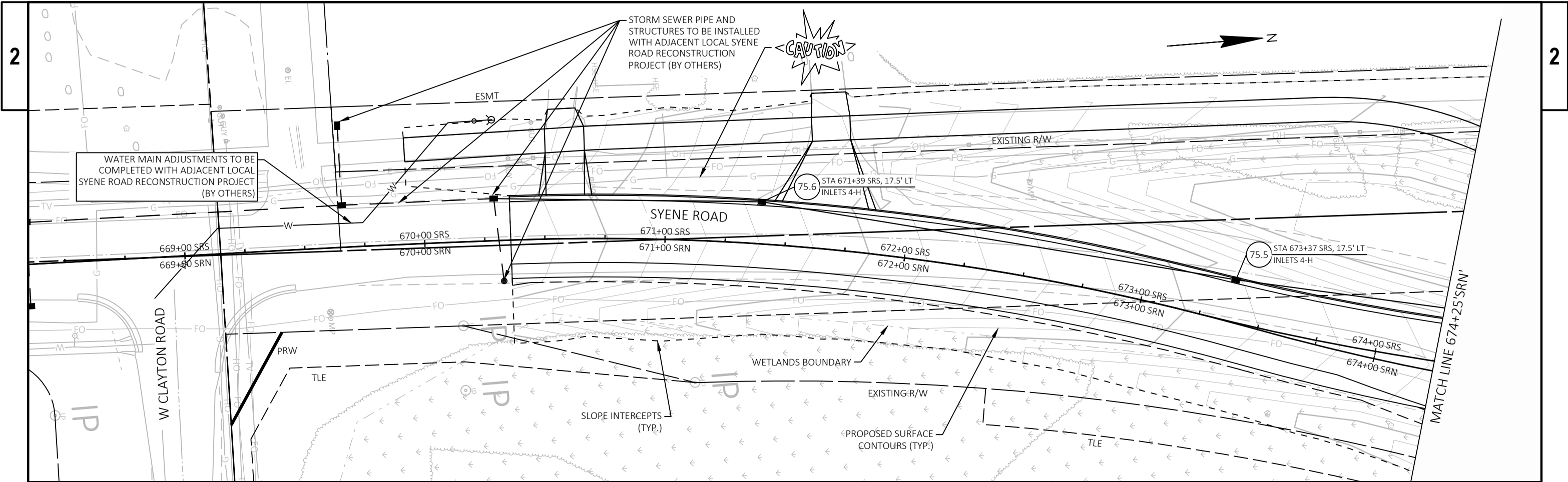
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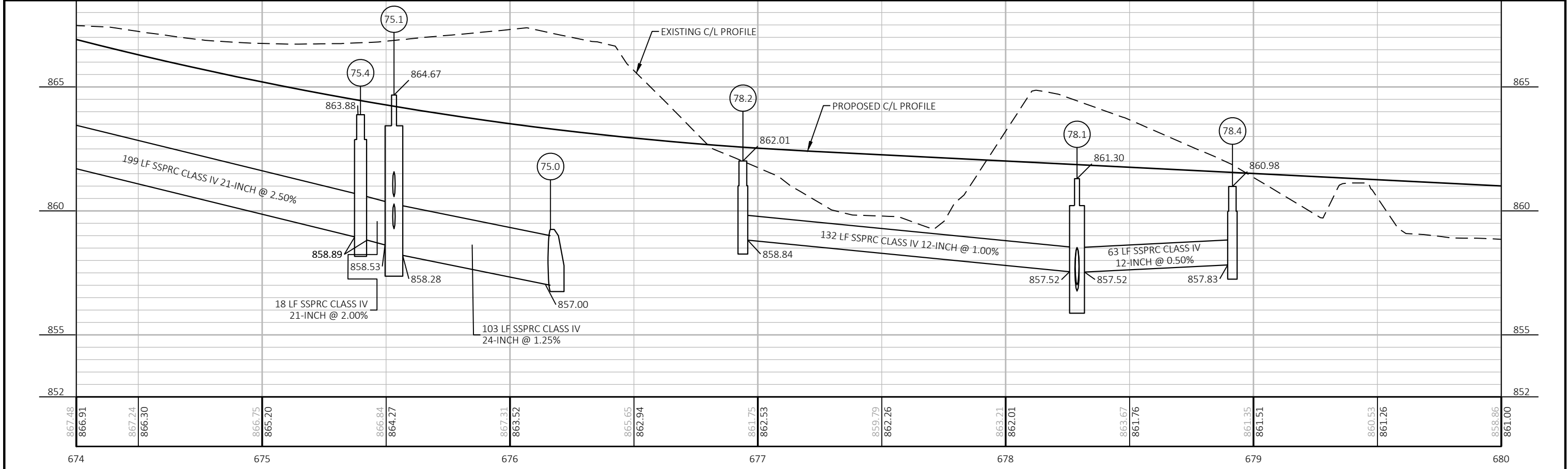
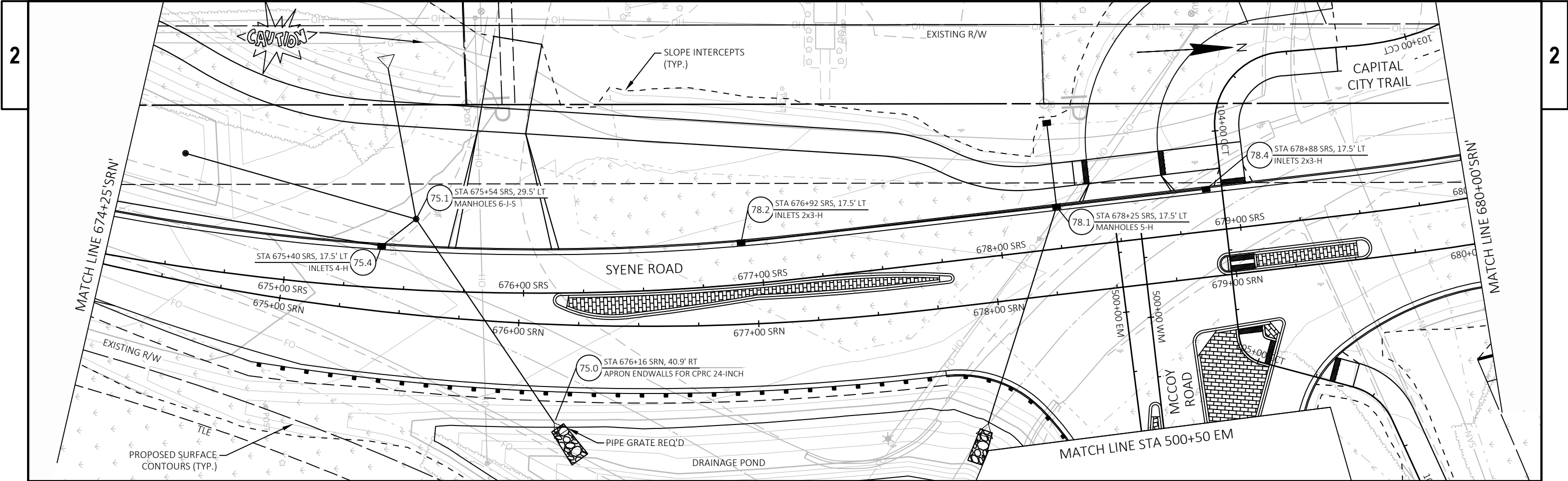
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|--|----------------------------------|--|-----|-----------------------------|
| | EROSION MAT URBAN CLASS I TYPE B | | FIP | FRAMED INLET PROTECTION |
| | EROSION MAT CLASS II TYPE C | | A | INLET PROTECTION TYPE A |
| | EROSION MAT CLASS III TYPE B | | | TEMPORARY DITCH CHECK |
| | SILT FENCE | | | CULVERT PIPE CHECKS SPECIAL |
| | SURFACE WATER FLOW | | | RIPRAP MEDIUM |

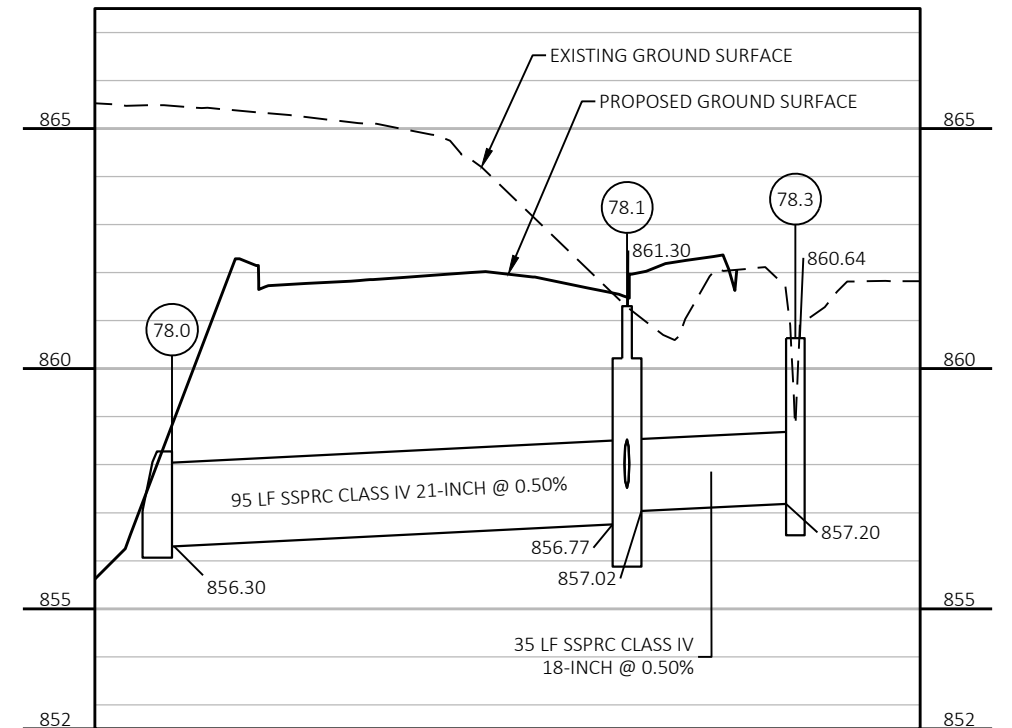
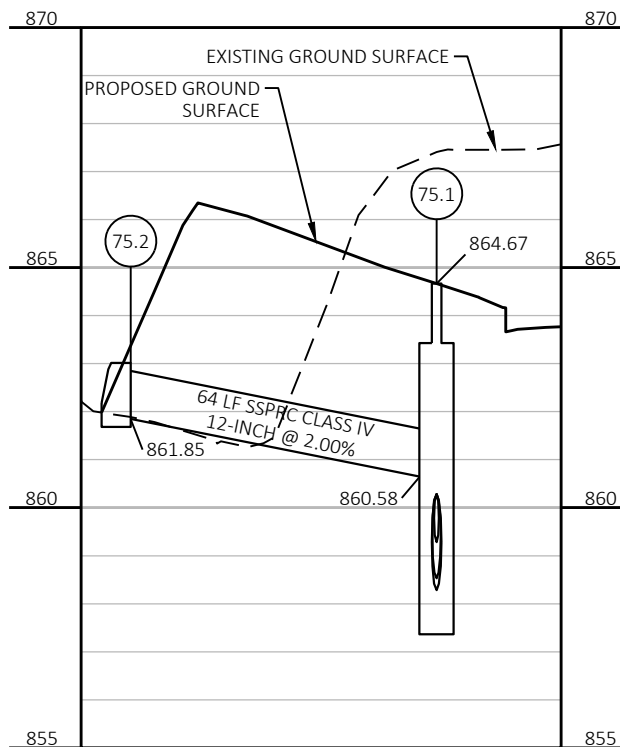
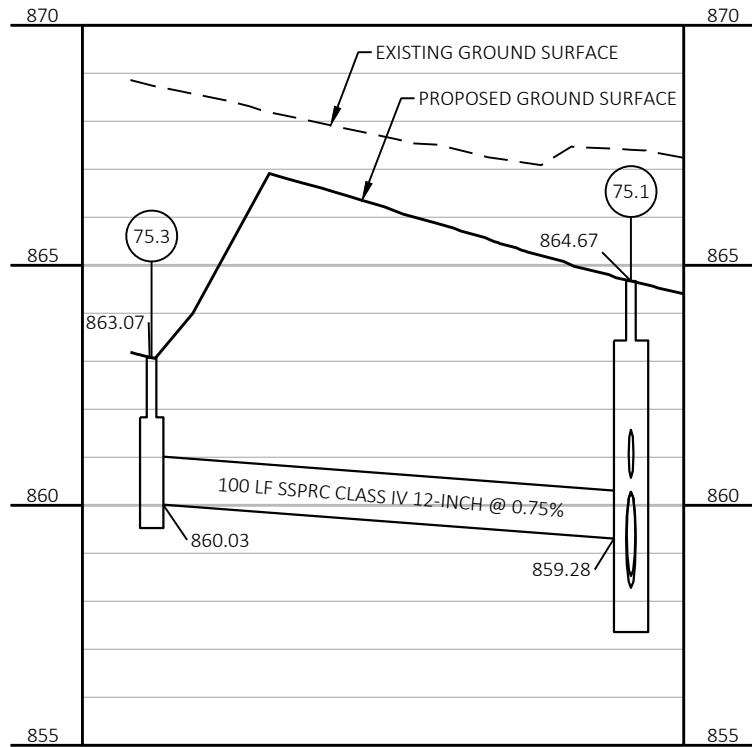
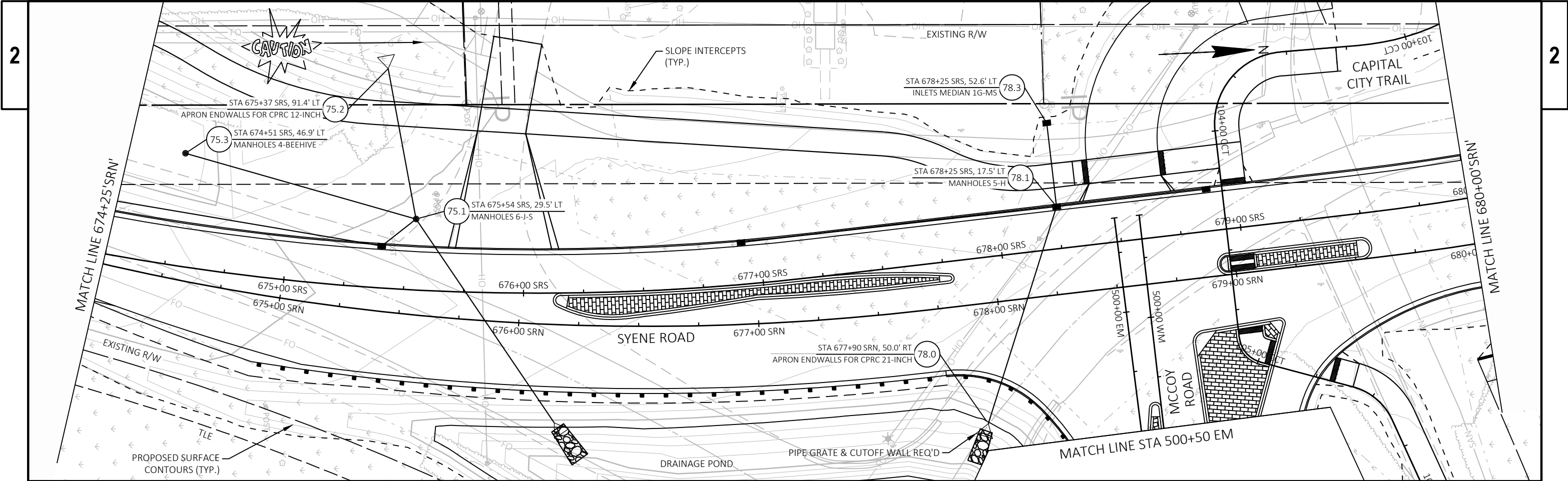


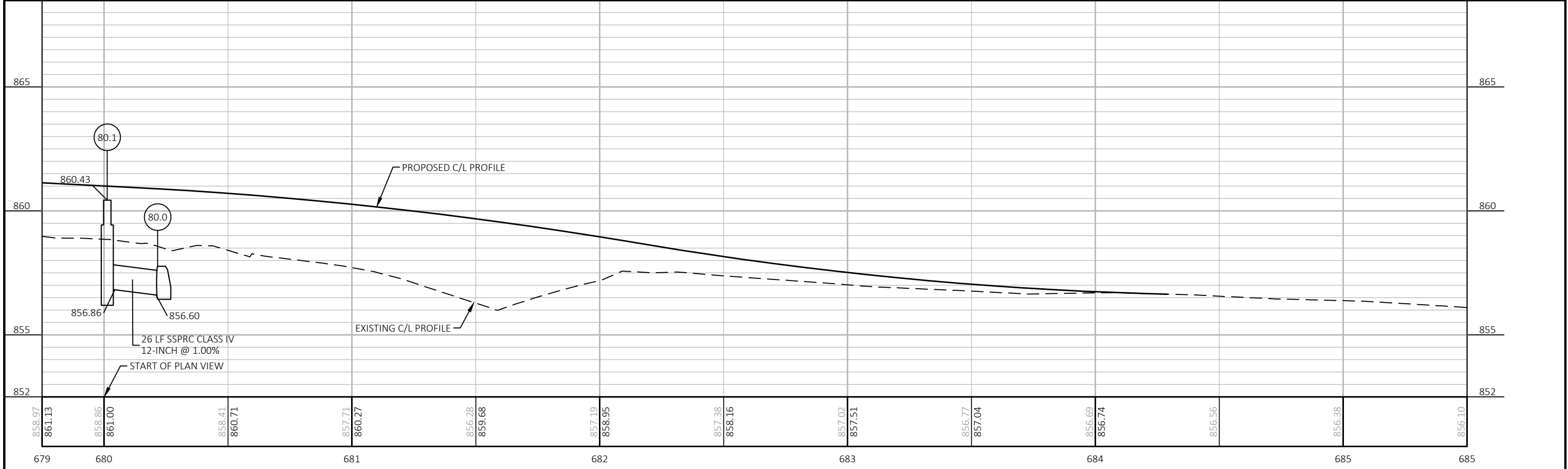
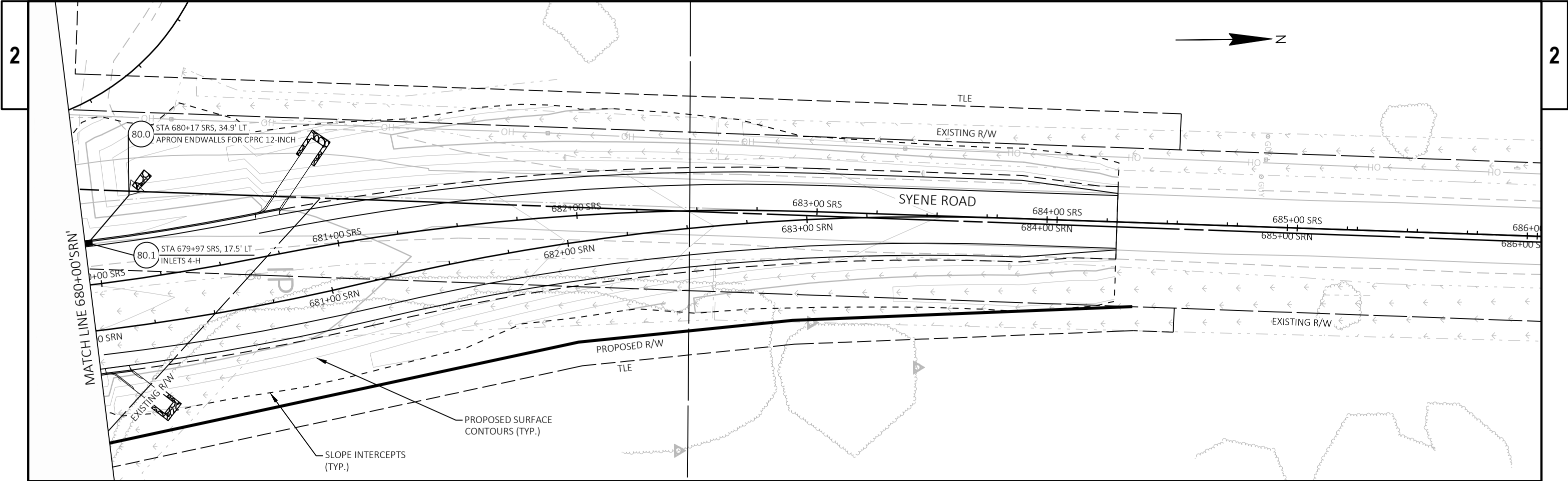
LEGEND	
	EROSION MAT URBAN CLASS I TYPE B
	EROSION MAT CLASS II TYPE C
	EROSION MAT CLASS III TYPE B
	SILT FENCE
	SURFACE WATER FLOW
	FRAMED INLET PROTECTION
	INLET PROTECTION TYPE A
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECKS SPECIAL
	RIPRAP MEDIUM



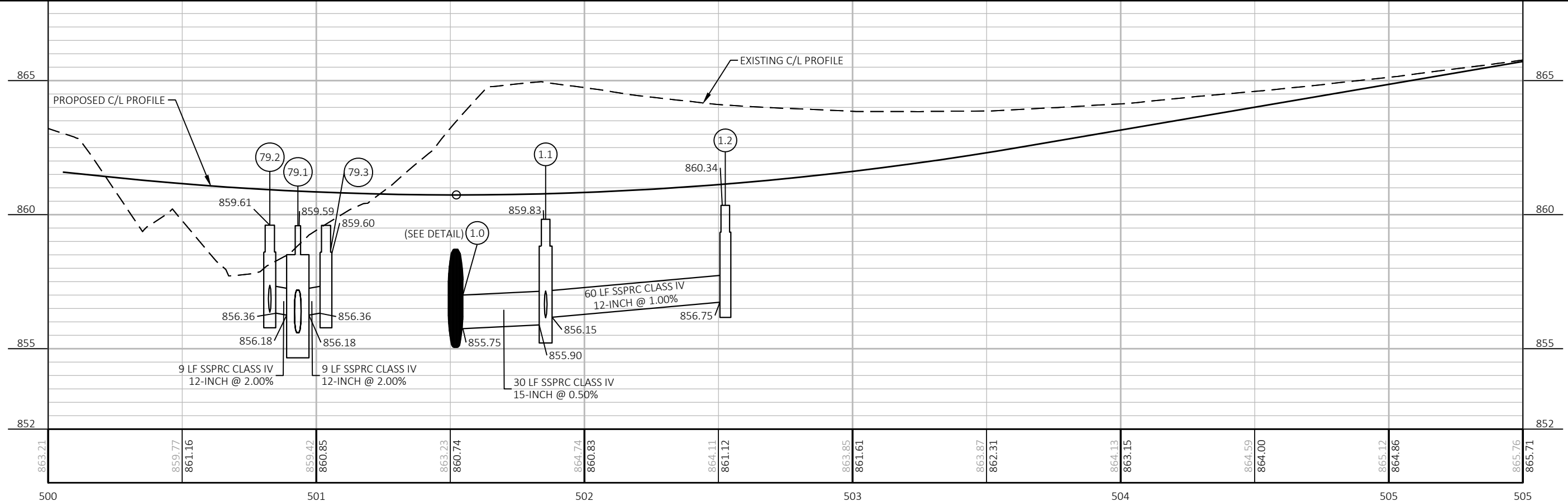
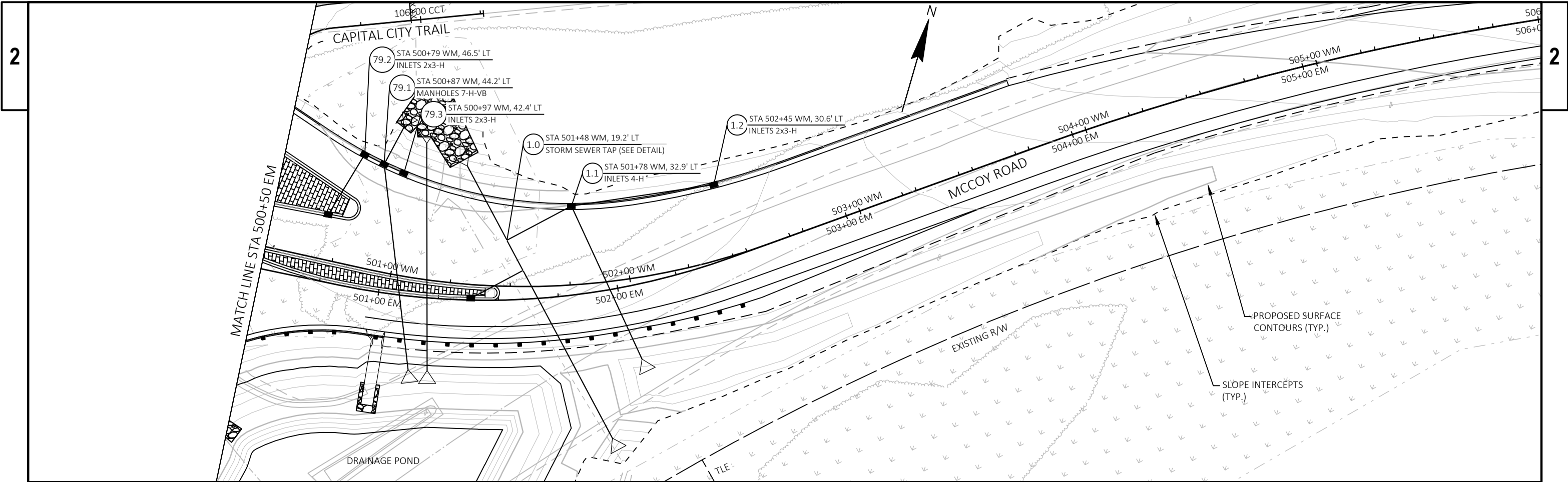


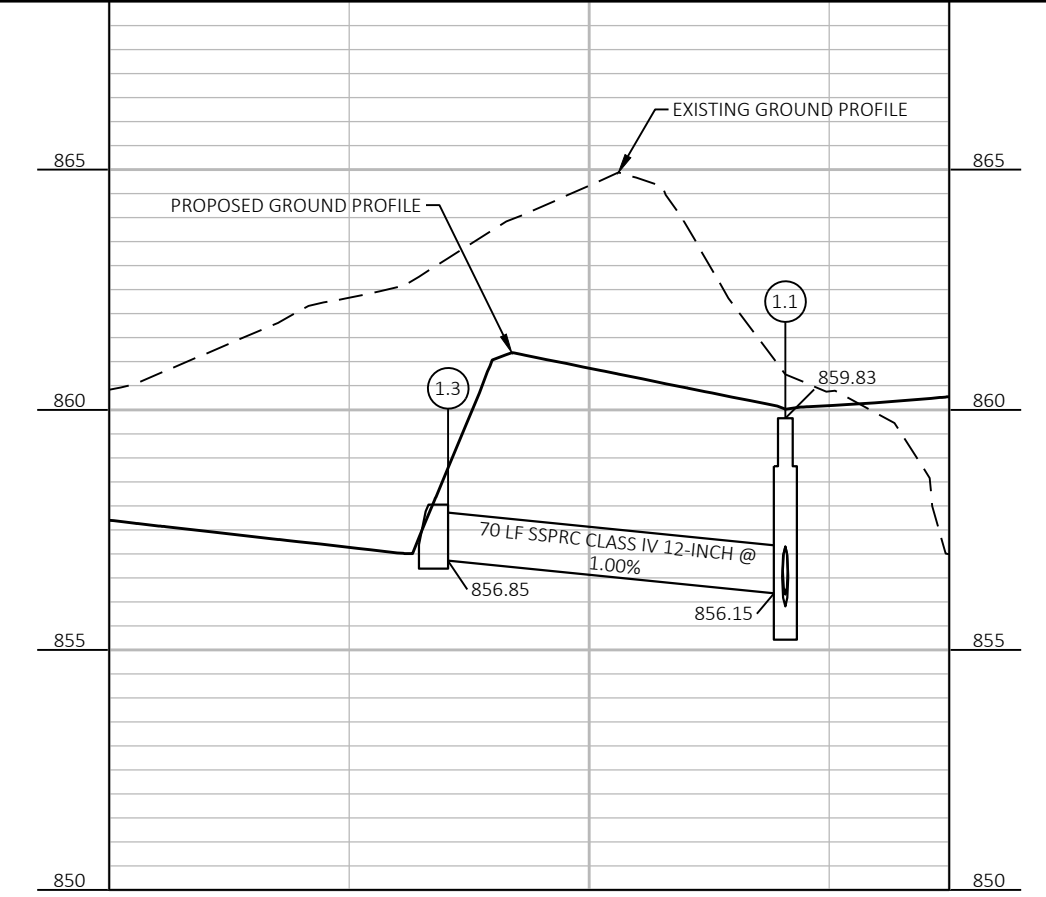
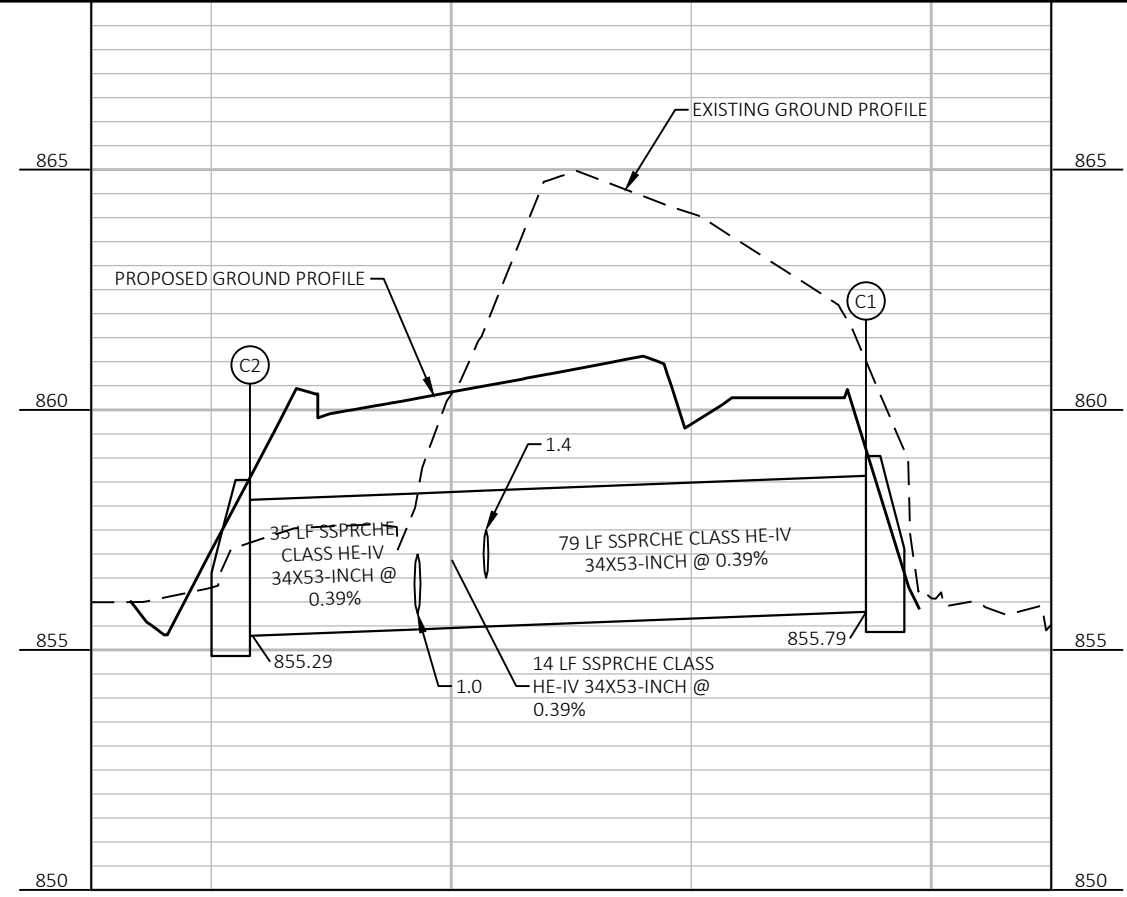
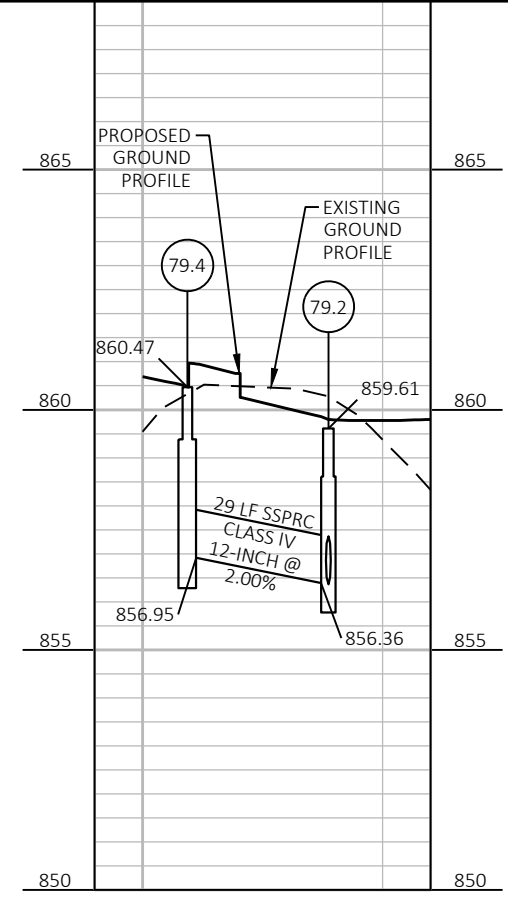
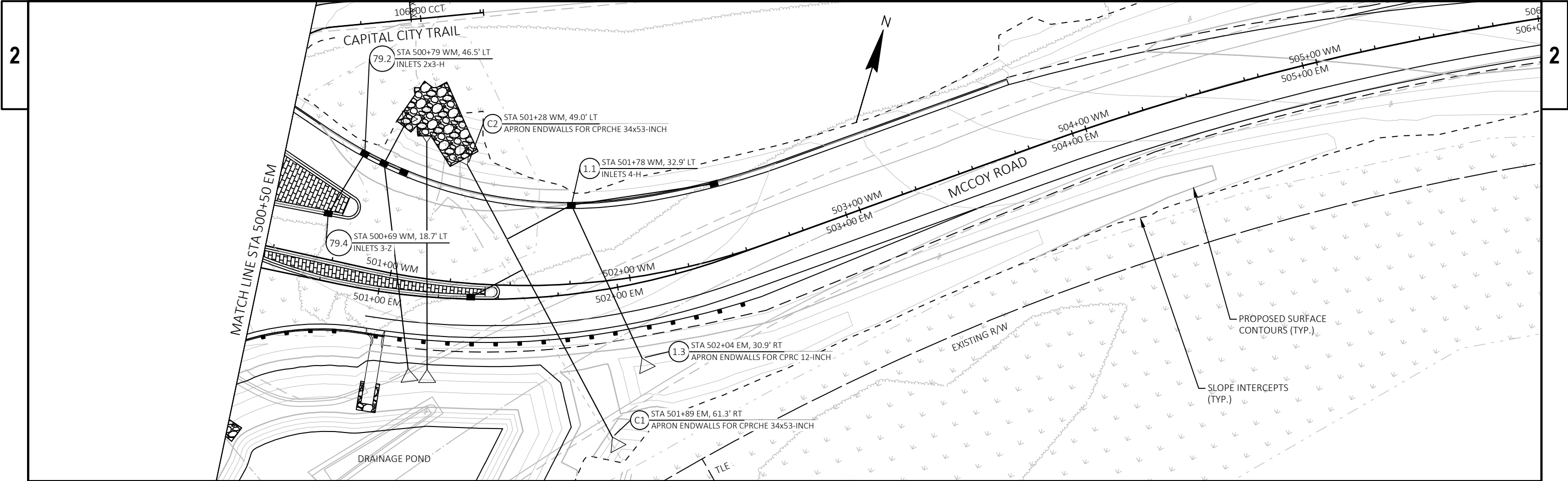


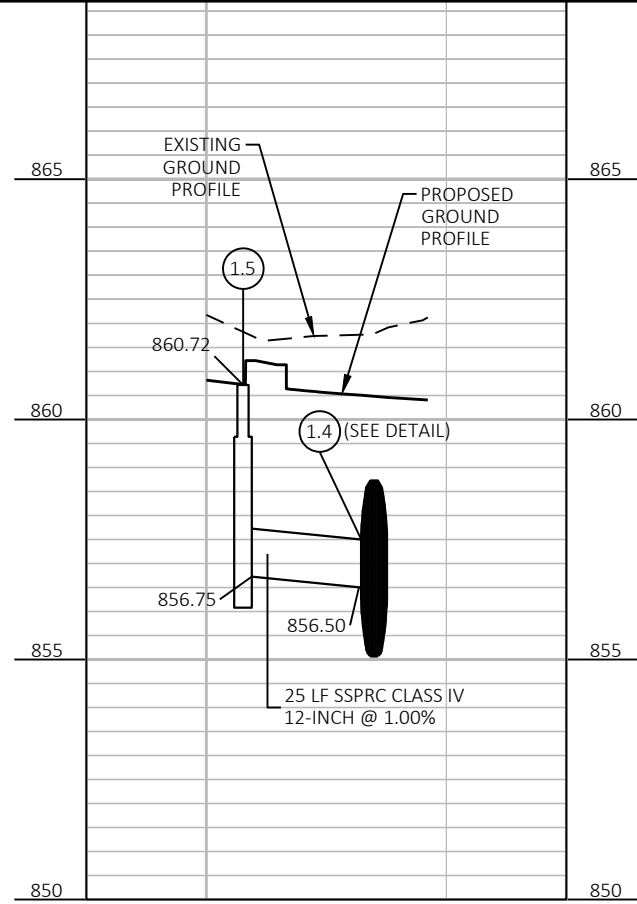
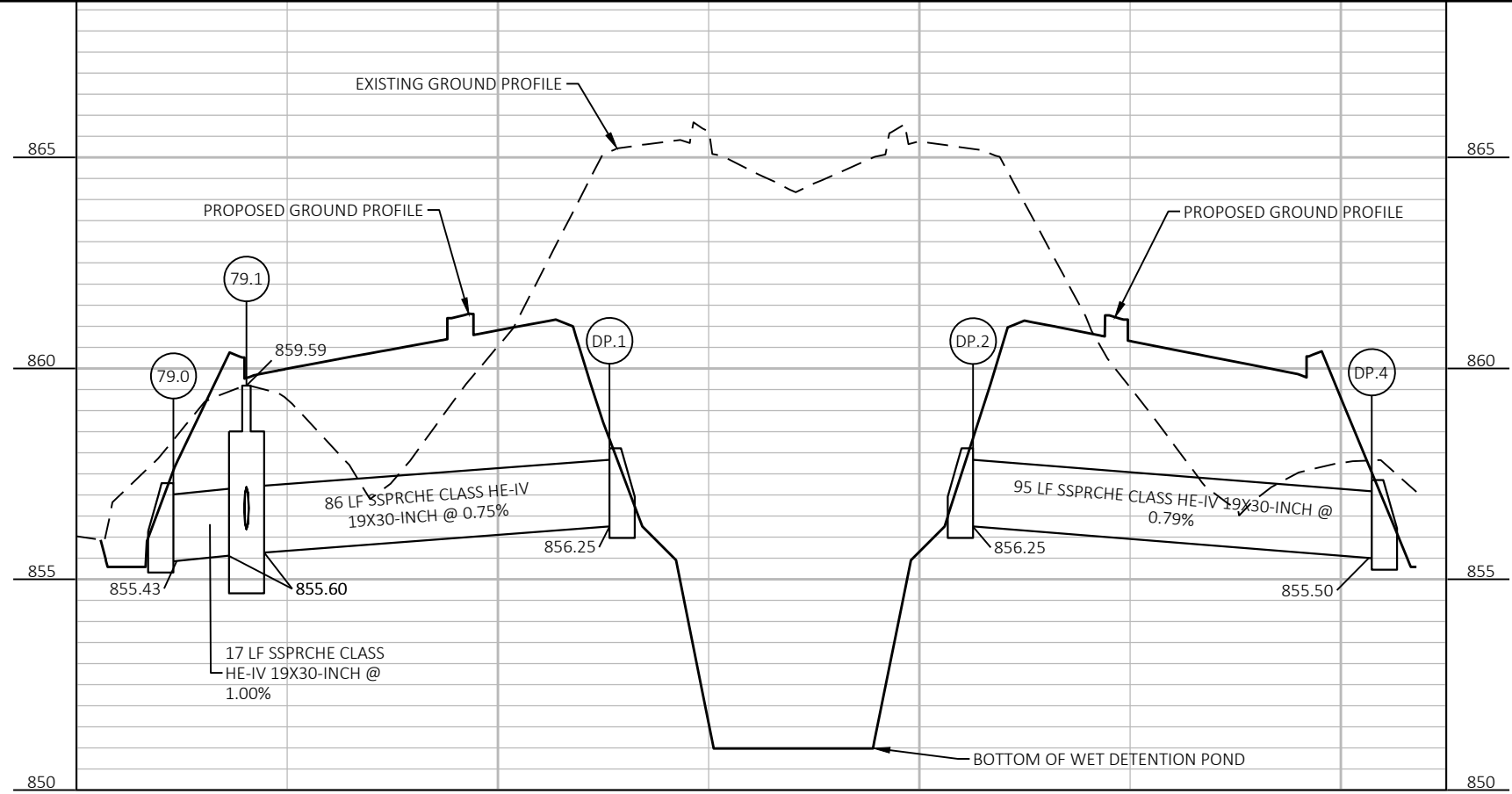
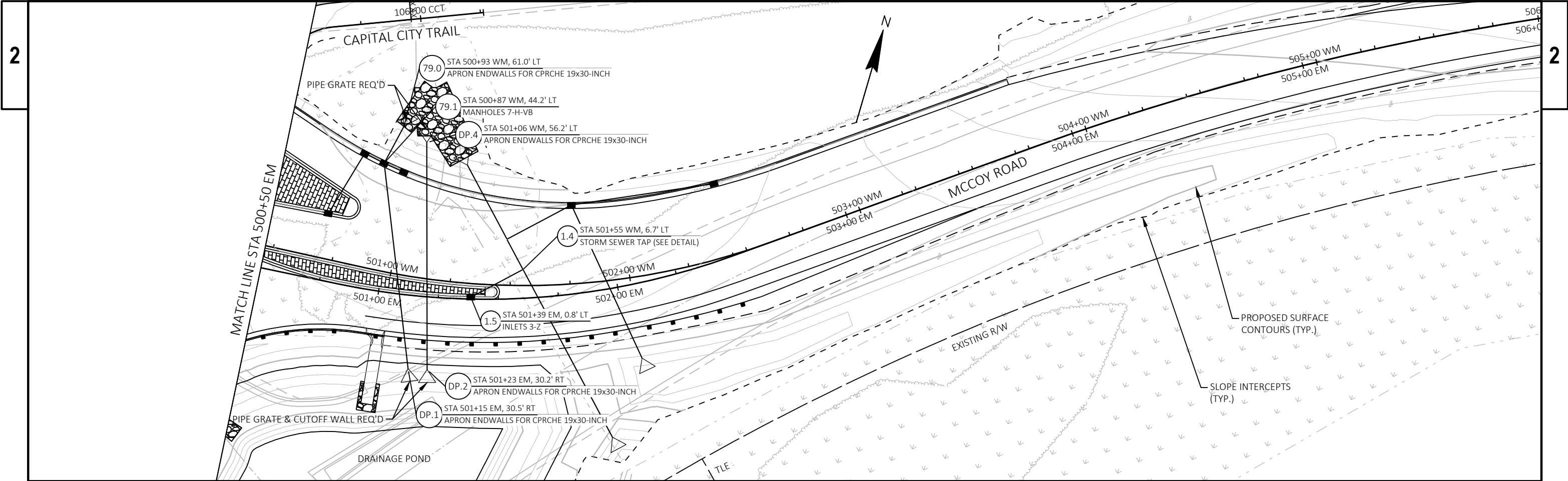


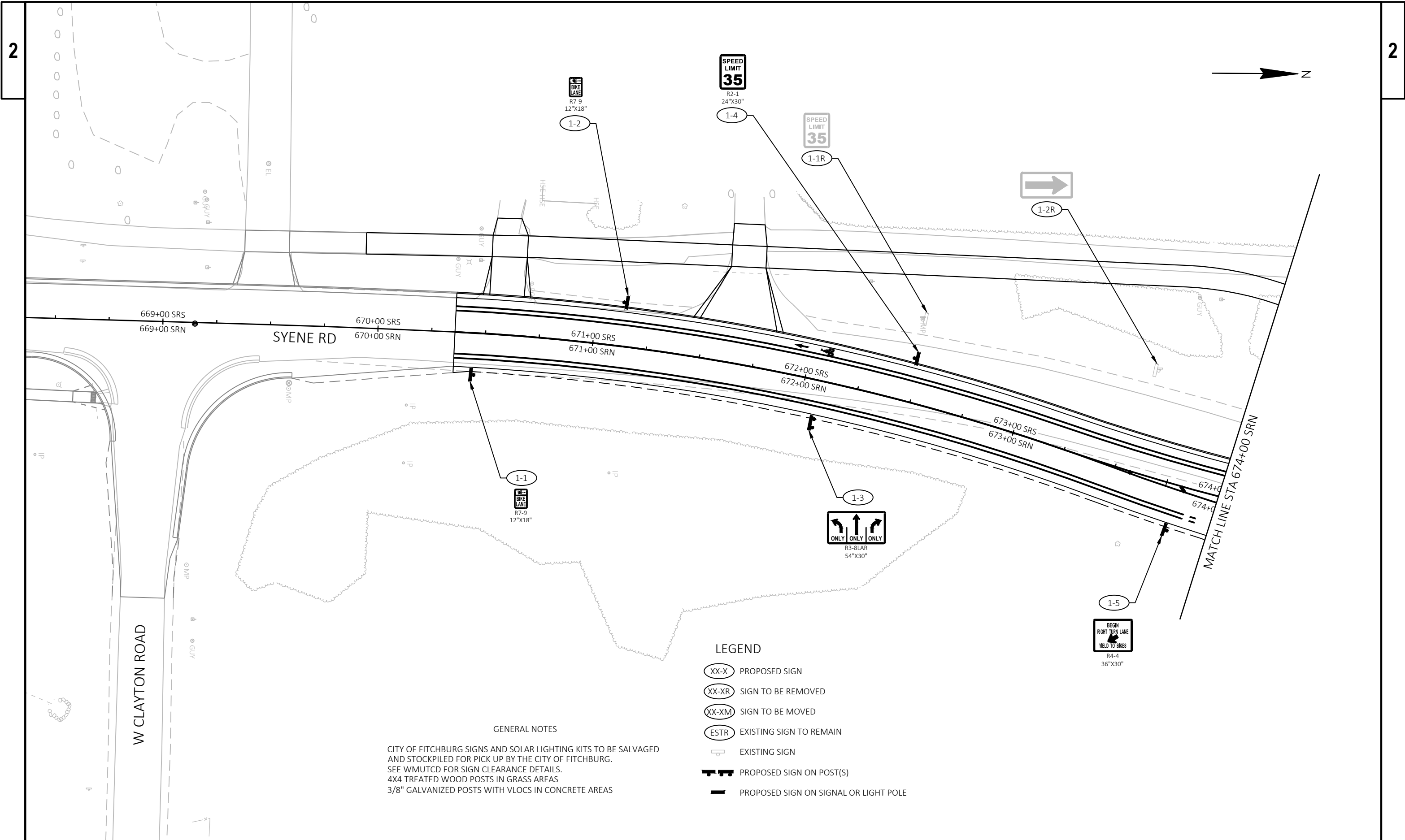


PROJECT NO:	5849-02-07	HWY: LOCAL STREET - SYENE ROAD	COUNTY: DANE	STORM SEWER: SYENE ROAD	SHEET 51	E
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2

2

GENERAL NOTES

CITY OF FITCHBURG SIGNS AND SOLAR LIGHTING KITS TO BE SALVAGED AND STOCKPILED FOR PICK UP BY THE CITY OF FITCHBURG. SEE WMUTCD FOR SIGN CLEARANCE DETAILS.

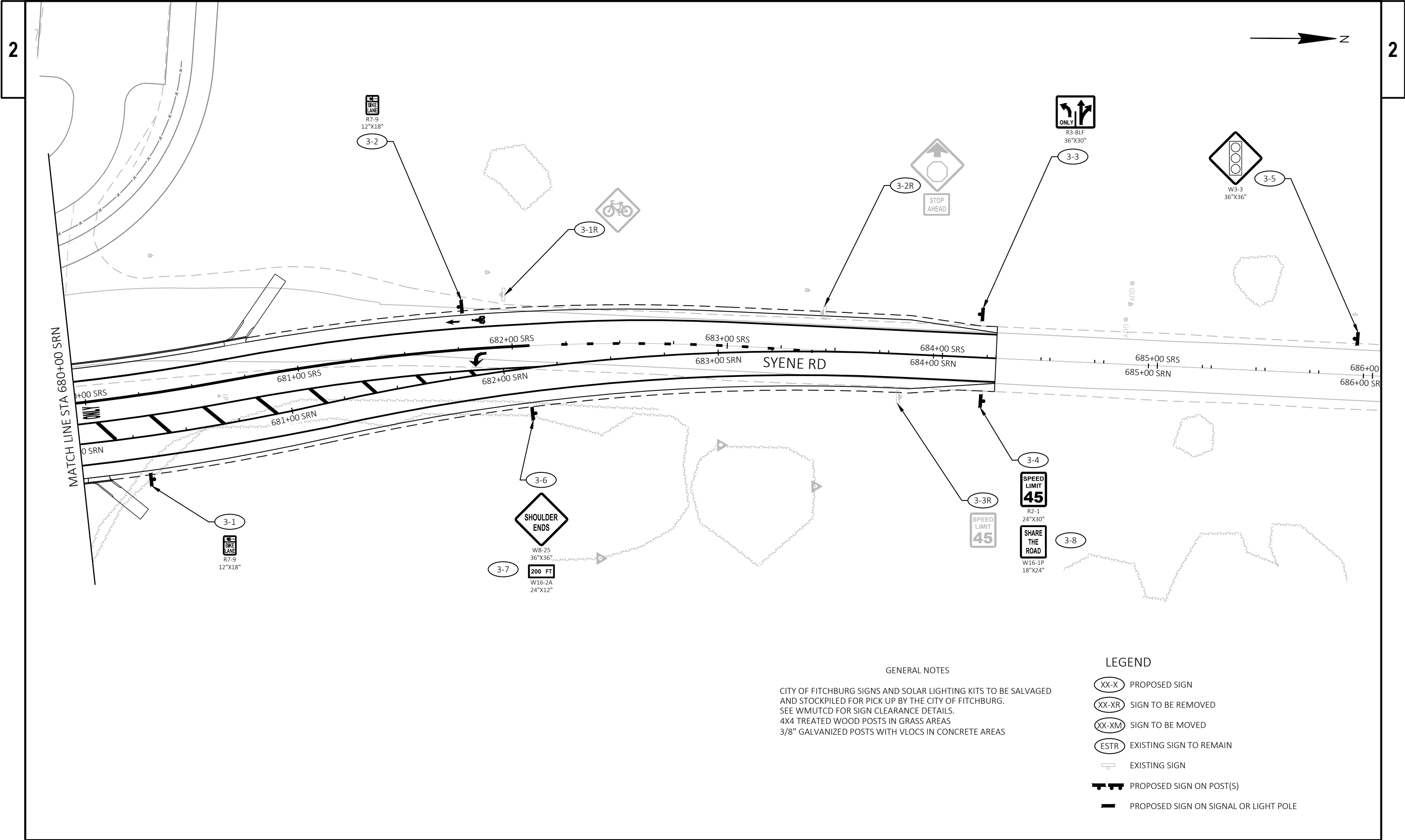
4X4 TREATED WOOD POSTS IN GRASS AREAS

3/8" GALVANIZED POSTS WITH VLOCS IN CONCRETE AREAS

LEGEND

- XX-X PROPOSED SIGN
- XX-XR SIGN TO BE REMOVED
- XX-XM SIGN TO BE MOVED
- ESTR EXISTING SIGN TO REMAIN
- EXISTING SIGN
- PROPOSED SIGN ON POST(S)
- PROPOSED SIGN ON SIGNAL OR LIGHT POLE



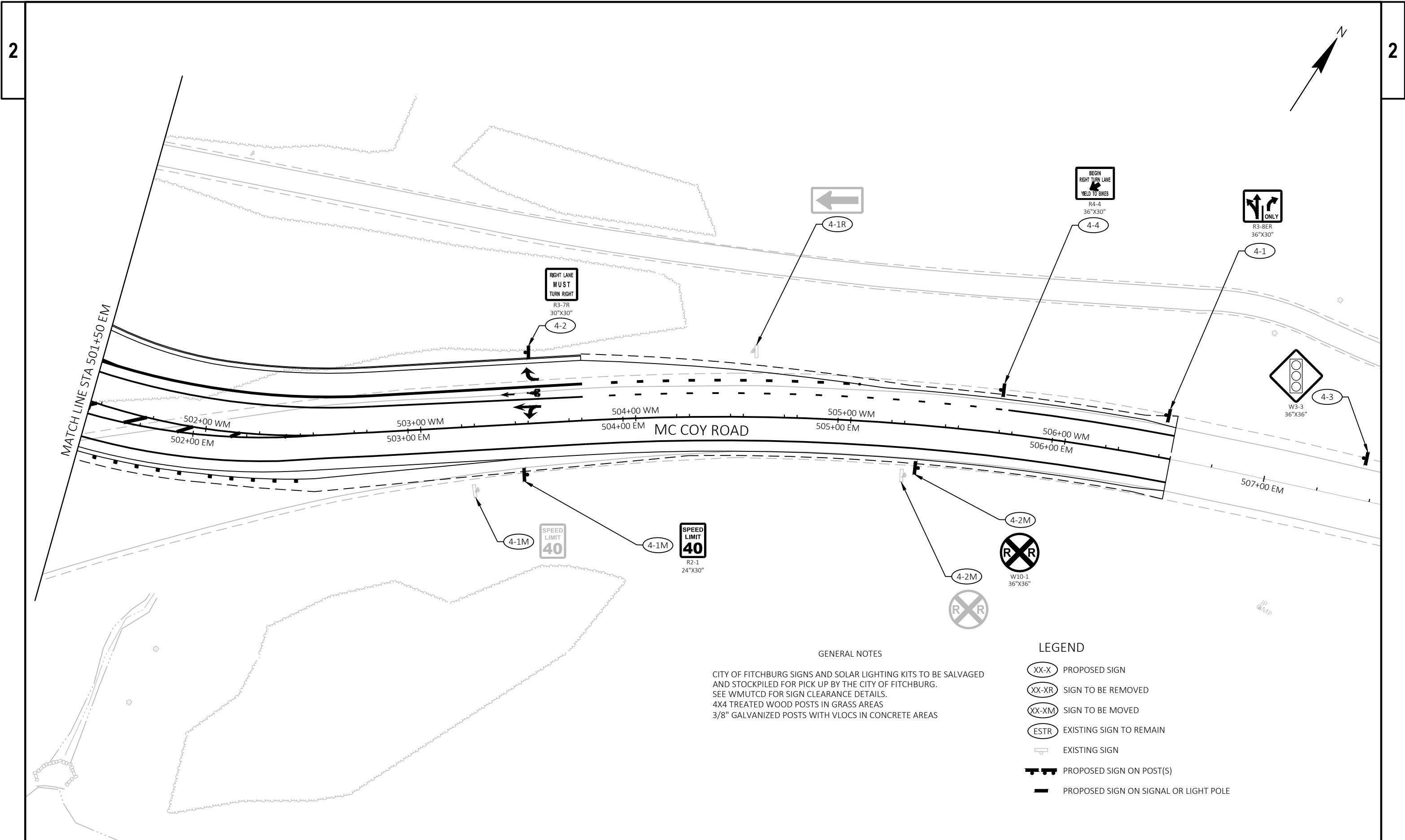


GENERAL NOTES

CITY OF FITCHBURG SIGNS AND SOLAR LIGHTING KITS TO BE SALVAGED AND STOCKPILED FOR PICK UP BY THE CITY OF FITCHBURG.
SEE WMUTCD FOR SIGN CLEARANCE DETAILS.
4X4 TREATED WOOD POSTS IN GRASS AREAS
3/8" GALVANIZED POSTS WITH VLOCS IN CONCRETE AREAS

LEGEND

- (XX-X) PROPOSED SIGN
- (XX-XR) SIGN TO BE REMOVED
- (XX-XM) SIGN TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- EXISTING SIGN
- PROPOSED SIGN ON POST(S)
- PROPOSED SIGN ON SIGNAL OR LIGHT POLE



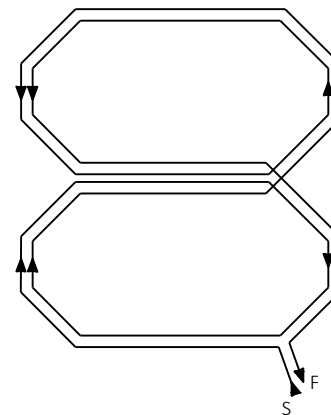
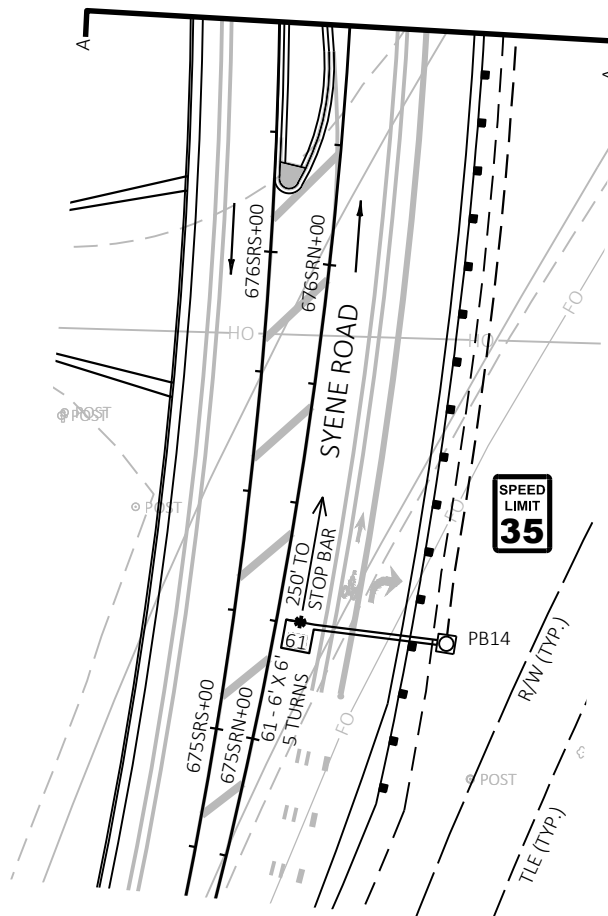
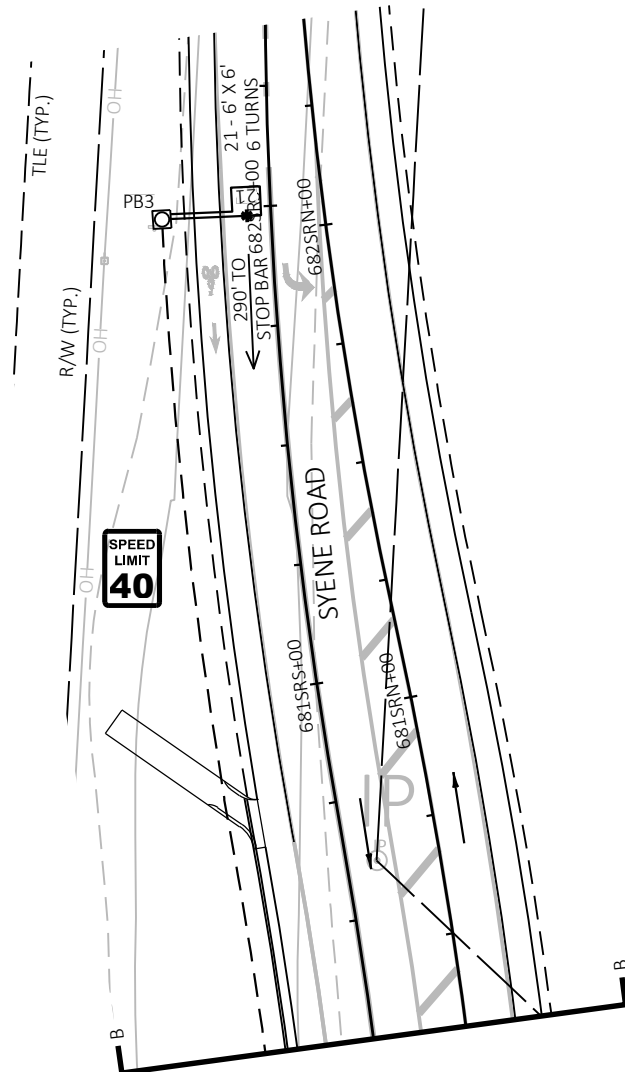
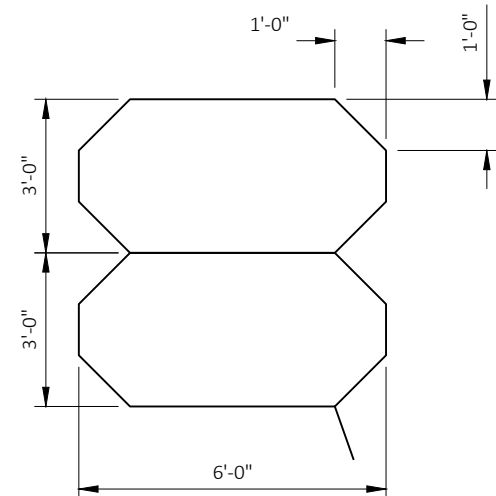
VISDOT/CADDS SHEET 44

**LEGEND**

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- HANDHOLE, TYPE 1, 17"x30"
- ↔ LANE DESIGNATION FOR INFO ONLY

NOTES:

1. ALL LENSES ARE 12-INCH
2. GRAYSHADE REPRESENTS EXISTING

**WINDING DETAIL****SAW CUT DETAIL****BICYCLE LOOP DETECTOR CONFIGURATION**

TRAFFIC CONTROL SIGNAL SYENE RD & MCCOY RD CITY OF FITCHBURG DANE COUNTY	
SIGNAL NO. LOCAL	CABINET TYPE: TS2 CONTROLLER TYPE: ECONOLITE
LOCAL CONTACT: DESIGNED BY: KL ENGINEERING REVISED BY:	PAGE 2 OF 4

PROJECT NO: 5849-02-07

HWY: LOCAL

COUNTY: DANE

TRAFFIC SIGNAL PLAN

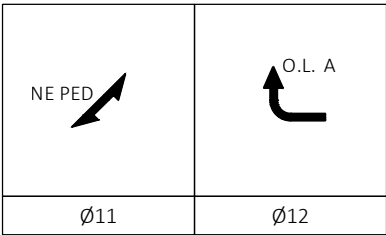
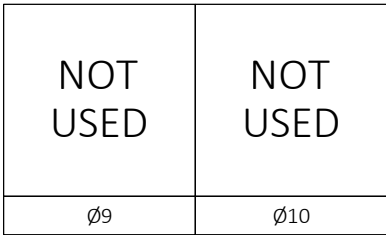
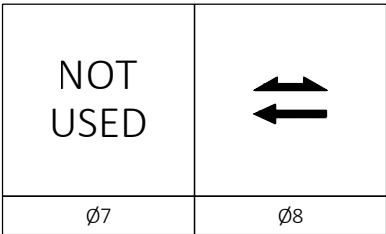
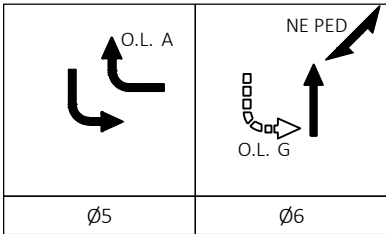
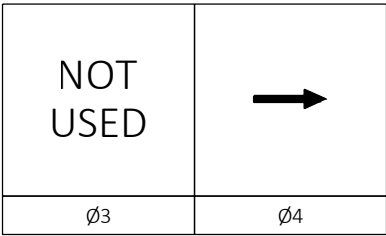
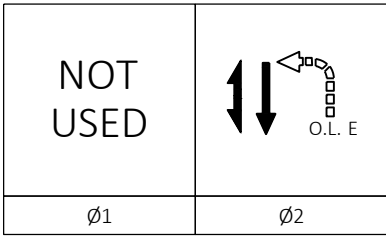
SHEET

60

E

	HEAD NUMBERS	F A S H
Ø1		
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5	9,10	
Ø6	1,2,3	R
Ø7		
Ø8	14,17,18	R
Ø2 PED	2A,2B	
Ø4 PED		
Ø6 PED		
Ø8 PED	8A,8B	
NE PED	91, 92	
O.L.A	15,16	R
O.L.B		
O.L.C		
O.L.D		
O.L.E	4,5	R
O.L.F		
O.L.G	9,10	R
O.L.H		

O.L. ASSIGNMENTS	
	Ø6+Ø11
	Ø5+Ø12
	Ø2
	Ø5,Ø6



NOTE: PHASE 5 SHALL LAG PHASE 6

BARRIER

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	12		23	42	52		64	65
PHASE CALLED	2		2	4	5		6	6
PHASE EXTENDED	2		2	4	5		6	6
DISCONNECT TIME								
CALLING DELAY				3				10
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	11	21	22	41	51	61	62	63
PHASE CALLED	2	2	2	4	5	6	6	6
PHASE EXTENDED	2	2	2	4	5	6	6	6
DISCONNECT TIME								
CALLING DELAY								10
EXTENSION STRETCH								
LOOP FUNCTION								

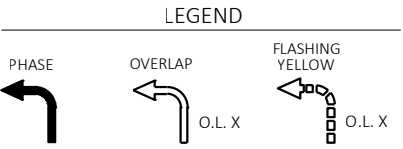
19	17	23	21	27	25	31	29
82	84	85					
8	8	8					
8	8	8					
	10						

20	18	24	22	28	26	32	30
81	83						
8	8						
8	8						
	10						

DETECTOR INPUT
DETECTOR #(S)
PHASE CALLED
PHASE EXTENDED
DISCONNECT TIME
CALLING DELAY
EXTENSION STRETCH
LOOP FUNCTION

DETECTOR INPUT
DETECTOR #(S)
PHASE CALLED
PHASE EXTENDED
DISCONNECT TIME
CALLING DELAY
EXTENSION STRETCH
LOOP FUNCTION

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	DIRECTION OF TRAVEL	PHASE(S) CALLED
1	RESERVED	-	-	-
2	RESERVED	-	-	-
3	EVP	A	NORTH	2+6
4	EVP	B	SOUTH	2+6
5	EVP	C	WEST	4+8+12
6	RESERVED	-	-	-
7	NOT USED	-	-	-
8	NOT USED	-	-	-
9	NOT USED	-	-	-
10	NOT USED	-	-	-



CENTRAL SYSTEM	
LOCATION OF MASTER CONTROLLER NO.:	N/A
SIGNAL SYSTEM #:	

CONTROLLER LOGIC				
PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8+12		X
5		2		X
6	X	2	MIN	X
7				
8		4+12		X
11		4+8		X
12		4+8		X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GPS	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE LIGHTING CABINET	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
SYENE RD & MCCOY RD
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCALCABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

LOCAL CONTACT:
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 4

INTERSECTION: SYENE RD & MCCOY RD

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Apr-24



CB1 TO SB1	AWG 14 # OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	DWALK	WALK	
SB1	12	6	2	RED	ORG	GRN							
		4	O.L.E				RED/BLK	ORG/BLK	WHT/BLK				
		8B	8								BLK	BLU	
		BUTTON	8									*	
SB2	12	5	O.L.E				RED	ORG	WHT/BLK				
		BUTTON	8									*	
SB3	12	16	O.L.A	RED				ORG/BLK		GRN/BLK			
SB4	12	15	O.L.A	RED				ORG/BLK		GRN/BLK			
		18	BLANKOUT										BLU/BLK
SB5	12	91	NE PED								BLK	BLU	
		BUTTON	NE PED									*	
SB6	12	92	NE PED								BLK	BLU	
		BUTTON	NE PED									*	
SB7	12	8A	8								BLK	BLU	
		BUTTON	8									*	
SB8	12	2	6	RED	ORG	GRN							
		3	6	RED	ORG	GRN							
SB9	12	12	4	RED	ORG	GRN							
		14	8	RED/BLK	ORG/BLK	GRN/BLK							
		BUTTON	8									BLU/BLK	
SB10	12	13	4	RED	ORG	GRN							
SB11	12	1	6	RED	ORG	GRN							
		9	5, O.L.G				RED/BLK	ORG/BLK	WHT/BLK	GRN/BLK			
SB12	12	7	2	RED	ORG	GRN							
		8	2	RED	ORG	GRN							
		10	5, O.L.G				RED/BLK	ORG/BLK	WHT/BLK	GRN/BLK			
SB13	12	11	4	RED	ORG	GRN							
		17	8	RED/BLK	ORG/BLK	GRN/BLK							
		2B	2								BLK	BLU	
		BUTTON	2									*	
SB14	12	18	8	RED	ORG	GRN							
		2A	2								BLK	BLU	
		BUTTON	2									*	

*LOOP DETECTOR LEAD IN CABLE USED FOR PEDESTRIAN PUSH BUTTON.

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	CB1

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB4
CB1	SB14
SB14	SB11

LOOP DETECTOR LEAD-IN CABLE		
FROM	TO BUTTON ON	PHASE
CB1	SB1	8
CB1	SB2	8
CB1	SB5	NE PED
CB1	SB6	NE PED
CB1	SB7	8
CB1	SB13	2
CB1	SB14	2

NOTE: ALL RUNS SHALL BE COMPLETED WITH ONE CONTINUOUS CABLE FROM CABINET TO BUTTON. NO CABLE TO CABLE SPLICING IS PERMITTED.

TRAFFIC CONTROL SIGNAL
SYENE RD & MCCOY RD
CITY OF FITCHBURG
DANE COUNTY

SIGNAL NO. LOCAL

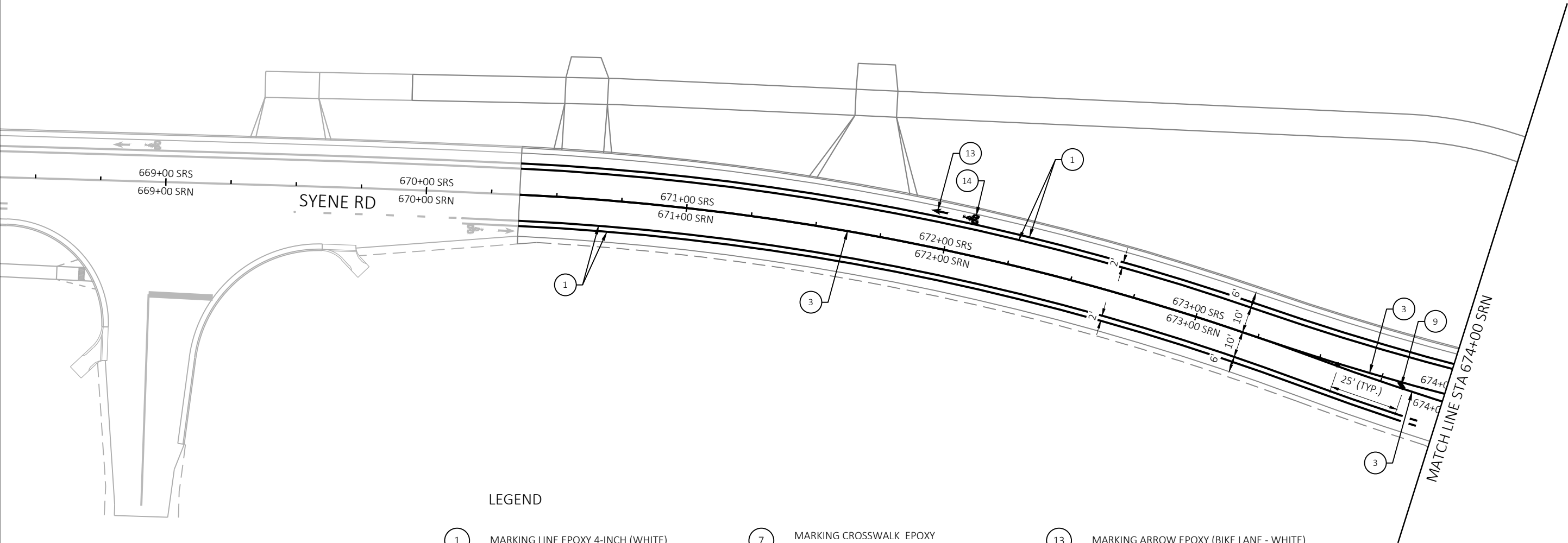
CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

LOCAL CONTACT:
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 4 OF 4

GENERAL NOTES:

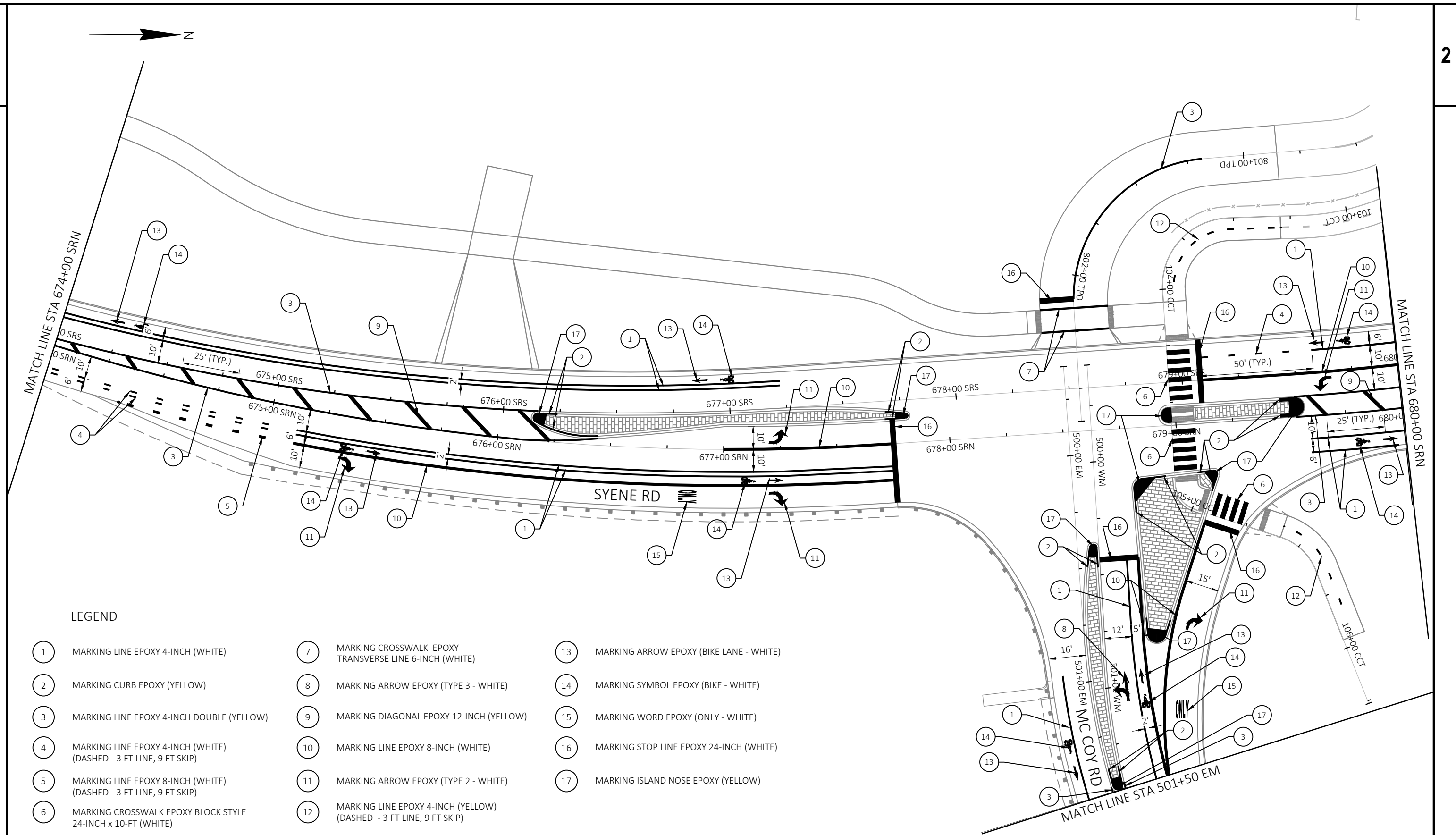
1) BICYCLE DETECTOR LOOPS SHALL BE INSTALLED PRIOR TO PAVEMENT MARKINGS.



W CLAYTON ROAD

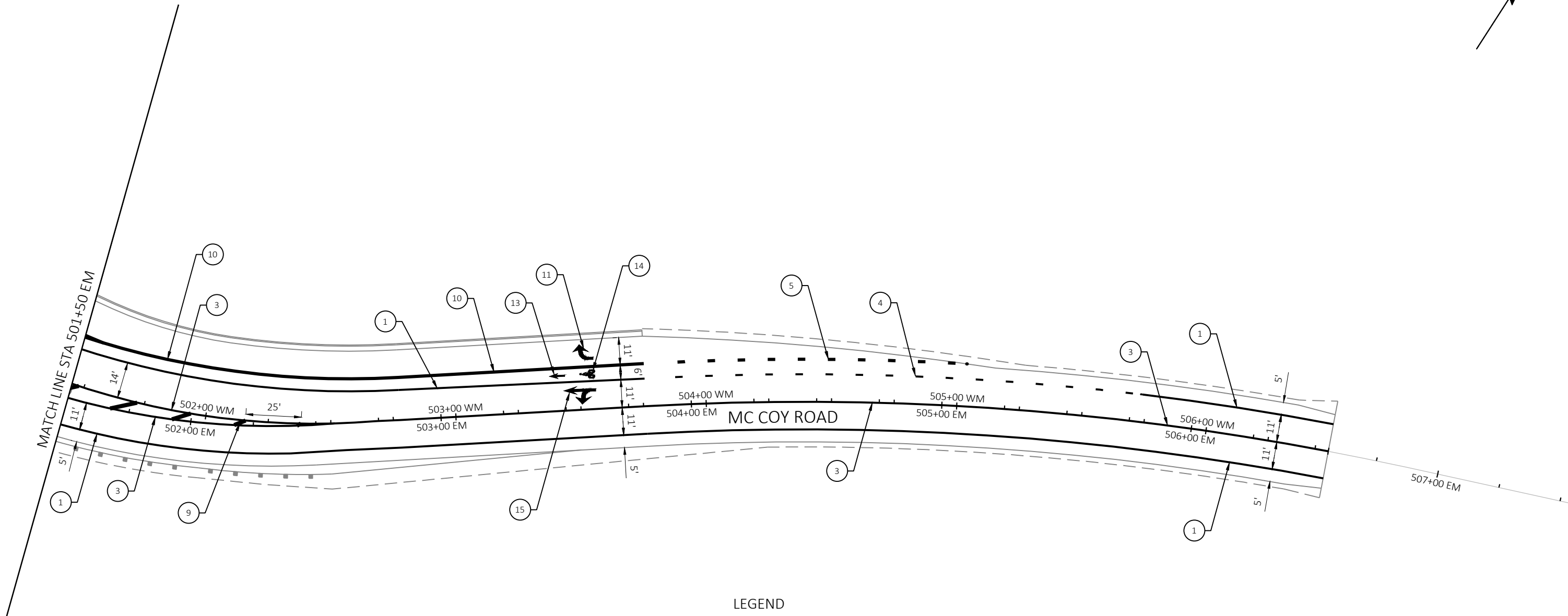
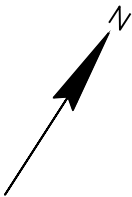
LEGEND

- | | | | | | |
|---|--|----|---|----|---|
| 1 | MARKING LINE EPOXY 4-INCH (WHITE) | 7 | MARKING CROSSWALK EPOXY
TRANSVERSE LINE 6-INCH (WHITE) | 13 | MARKING ARROW EPOXY (BIKE LANE - WHITE) |
| 2 | MARKING CURB EPOXY (YELLOW) | 8 | MARKING ARROW EPOXY (TYPE 3 - WHITE) | 14 | MARKING SYMBOL EPOXY (BIKE - WHITE) |
| 3 | MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW) | 9 | MARKING DIAGONAL EPOXY 12-INCH (YELLOW) | 15 | MARKING WORD EPOXY (ONLY - WHITE) |
| 4 | MARKING LINE EPOXY 4-INCH (WHITE)
(DASHED - 3 FT LINE, 9 FT SKIP) | 10 | MARKING LINE EPOXY 8-INCH (WHITE) | 16 | MARKING STOP LINE EPOXY 24-INCH (WHITE) |
| 5 | MARKING LINE EPOXY 8-INCH (WHITE)
(DASHED - 3 FT LINE, 9 FT SKIP) | 11 | MARKING ARROW EPOXY (TYPE 2 - WHITE) | 17 | MARKING ISLAND NOSE EPOXY (YELLOW) |
| 6 | MARKING CROSSWALK EPOXY BLOCK STYLE
24-INCH x 10-FT (WHITE) | 12 | MARKING LINE EPOXY 4-INCH (YELLOW)
(DASHED - 3 FT LINE, 9 FT SKIP) | | |





1	MARKING LINE EPOXY 4-INCH (WHITE)	7	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	13	MARKING ARROW EPOXY (BIKE LANE - WHITE)
2	MARKING CURB EPOXY (YELLOW)	8	MARKING ARROW EPOXY (TYPE 3 - WHITE)	14	MARKING SYMBOL EPOXY (BIKE - WHITE)
3	MARKING LINE EPOXY 4-INCH DOUBLE (YELLOW)	9	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)	15	MARKING WORD EPOXY (ONLY - WHITE)
4	MARKING LINE EPOXY 4-INCH (WHITE) (DASHED - 3 FT LINE, 9 FT SKIP)	10	MARKING LINE EPOXY 8-INCH (WHITE)	16	MARKING STOP LINE EPOXY 24-INCH (WHITE)
5	MARKING LINE EPOXY 8-INCH (WHITE) (DASHED - 3 FT LINE, 9 FT SKIP)	11	MARKING ARROW EPOXY (TYPE 2 - WHITE)	17	MARKING ISLAND NOSE EPOXY (YELLOW)
6	MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH x 10-FT (WHITE)	12	MARKING LINE EPOXY 4-INCH (YELLOW) (DASHED - 3 FT LINE, 9 FT SKIP)		

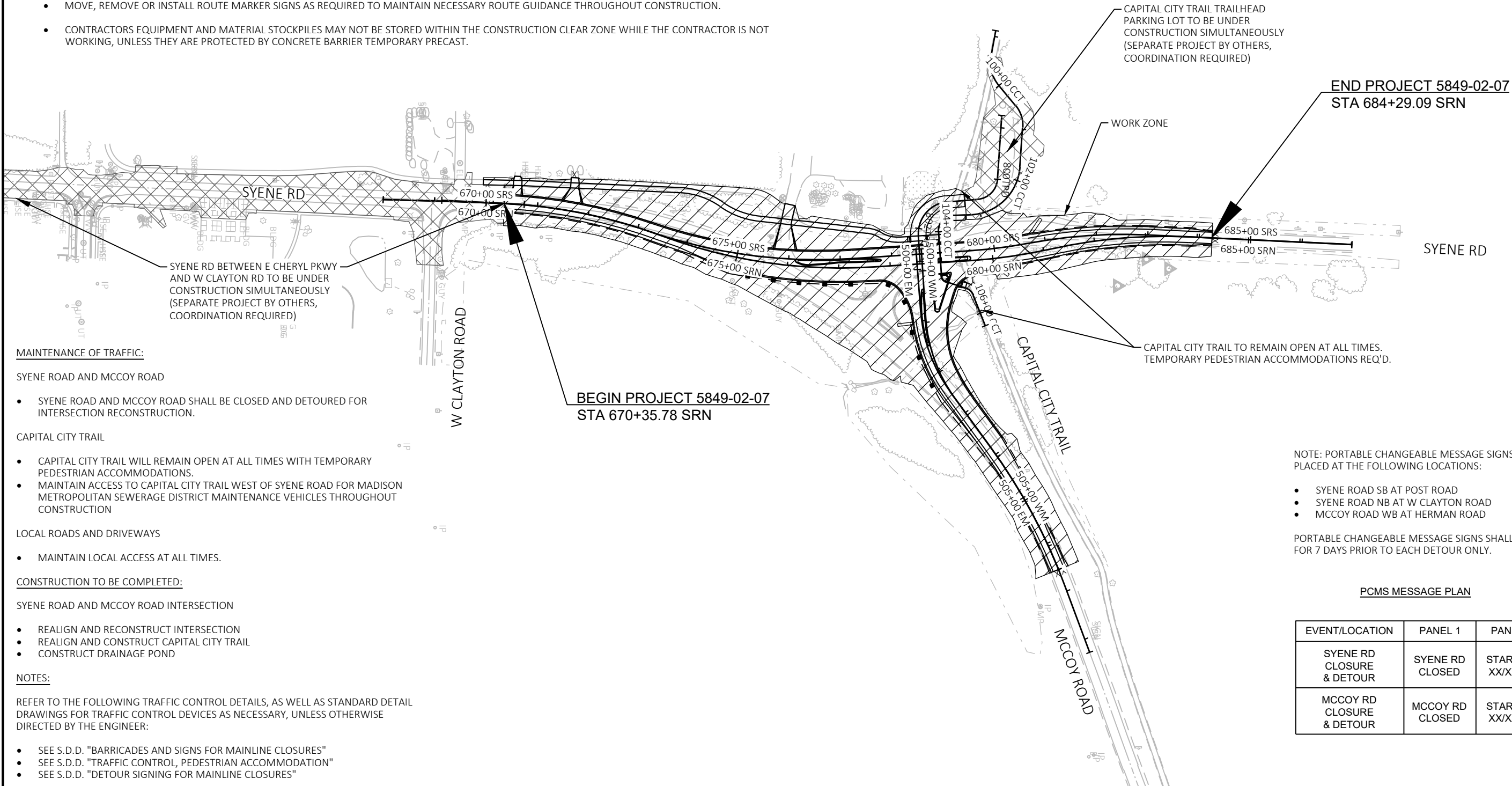


LEGEND

- | | | |
|---|---|--|
| 1 MARKING LINE EPOXY 4-INCH (WHITE) | 7 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) | 13 MARKING ARROW EPOXY (BIKE LANE - WHITE) |
| 2 MARKING CURB EPOXY (YELLOW) | 8 MARKING ARROW EPOXY (TYPE 3 - WHITE) | 14 MARKING SYMBOL EPOXY (BIKE - WHITE) |
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| 6 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH x 10-FT (WHITE) | 12 MARKING LINE EPOXY 4-INCH (YELLOW) (DASHED - 3 FT LINE, 9 FT SKIP) | |

TRAFFIC CONTROL GENERAL NOTES:

- 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.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING TRAFFIC CONTROL ITEMS SUCH AS SIGNS AND MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE TRAFFIC CONTROL ITEMS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.
- CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST.



MAINTENANCE OF TRAFFIC:

SYENE ROAD AND MCCOY ROAD

- SYENE ROAD AND MCCOY ROAD SHALL BE CLOSED AND DETOURED FOR INTERSECTION RECONSTRUCTION.

CAPITAL CITY TRAIL

- CAPITAL CITY TRAIL WILL REMAIN OPEN AT ALL TIMES WITH TEMPORARY PEDESTRIAN ACCOMMODATIONS.
- MAINTAIN ACCESS TO CAPITAL CITY TRAIL WEST OF SYENE ROAD FOR MADISON METROPOLITAN SEWERAGE DISTRICT MAINTENANCE VEHICLES THROUGHOUT CONSTRUCTION

LOCAL ROADS AND DRIVEWAYS

- MAINTAIN LOCAL ACCESS AT ALL TIMES.

CONSTRUCTION TO BE COMPLETED:

SYENE ROAD AND MCCOY ROAD INTERSECTION

- REALIGN AND RECONSTRUCT INTERSECTION
- REALIGN AND CONSTRUCT CAPITAL CITY TRAIL
- CONSTRUCT DRAINAGE POND

NOTES:

REFER TO THE FOLLOWING TRAFFIC CONTROL DETAILS, AS WELL AS STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"
- SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES"

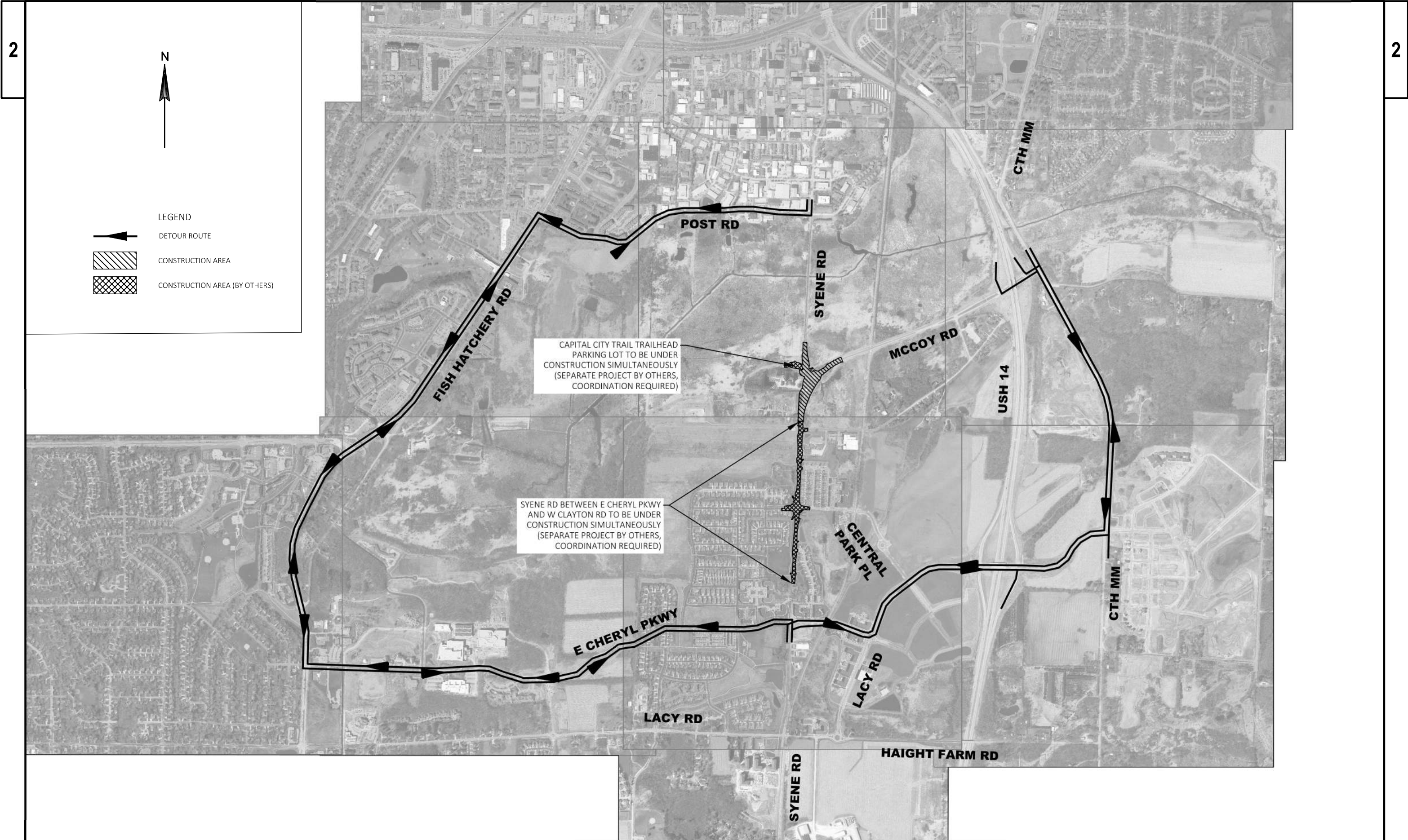
NOTE: PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS:

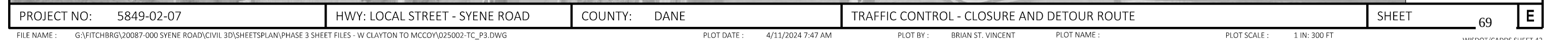
- SYENE ROAD SB AT POST ROAD
- SYENE ROAD NB AT W CLAYTON ROAD
- MCCOY ROAD WB AT HERMAN ROAD

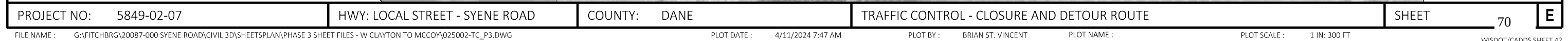
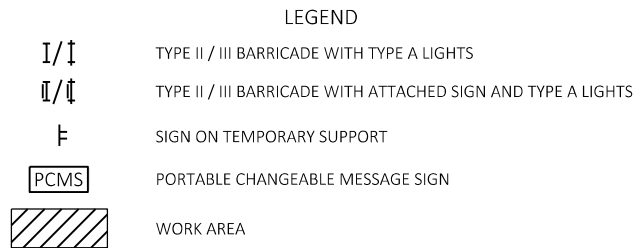
PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN PLACE FOR 7 DAYS PRIOR TO EACH DETOUR ONLY.

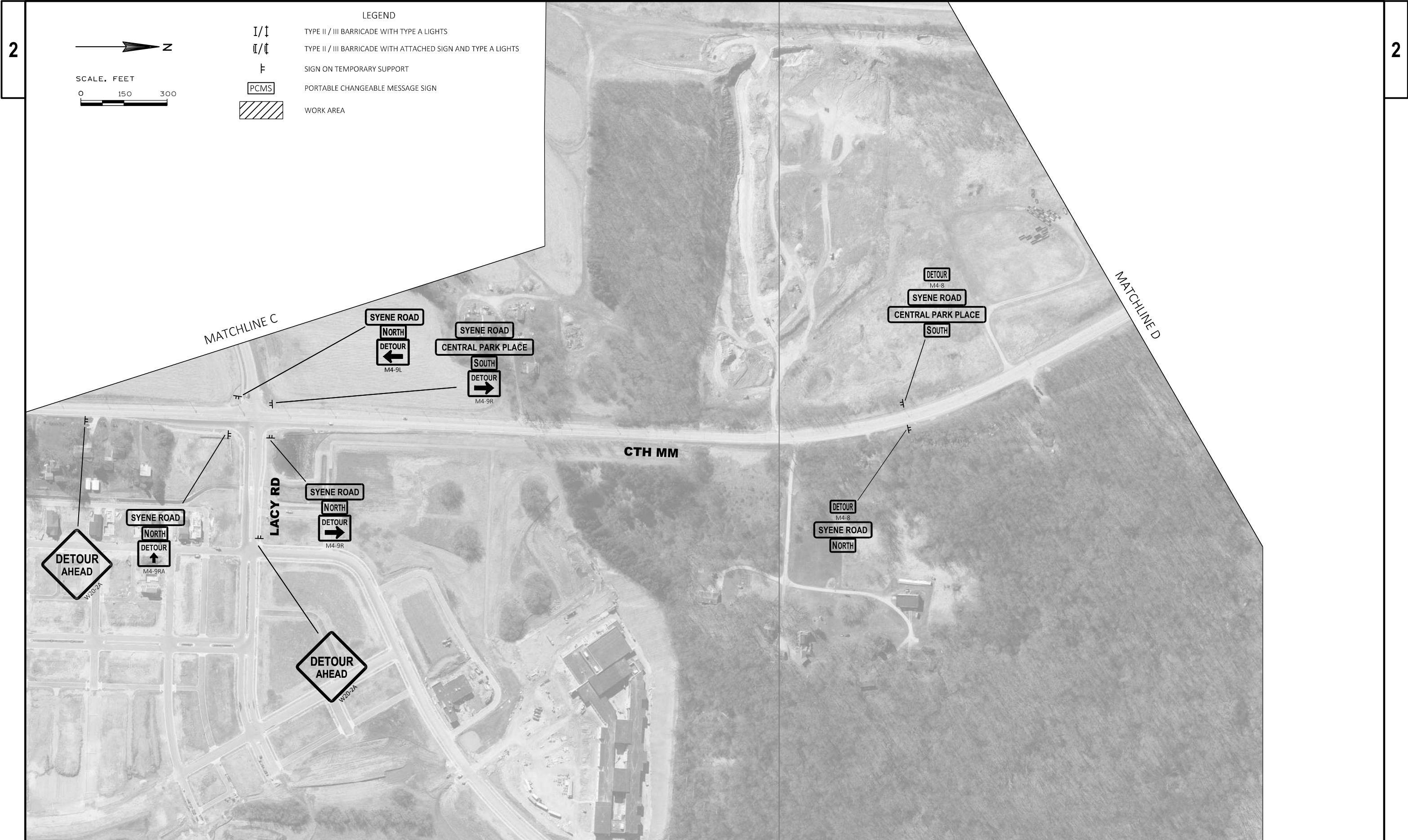
PCMS MESSAGE PLAN

EVENT/LOCATION	PANEL 1	PANEL 2
SYENE RD CLOSURE & DETOUR	SYENE RD CLOSED	STARTING XX/XX/XX
MCCOY RD CLOSURE & DETOUR	MCCOY RD CLOSED	STARTING XX/XX/XX



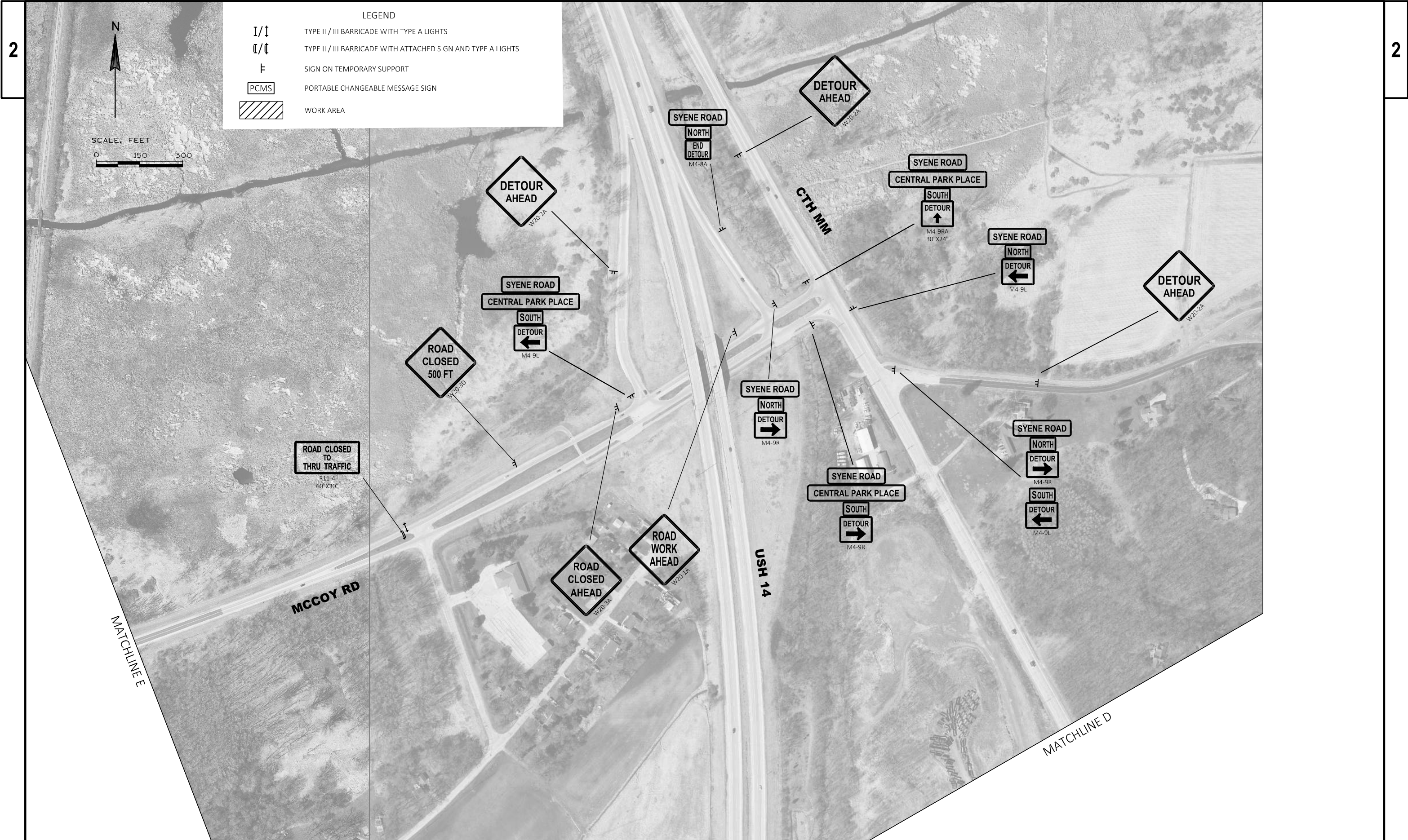


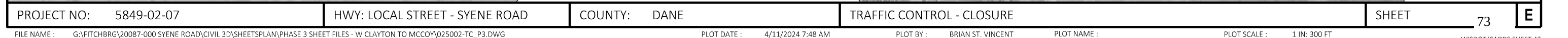




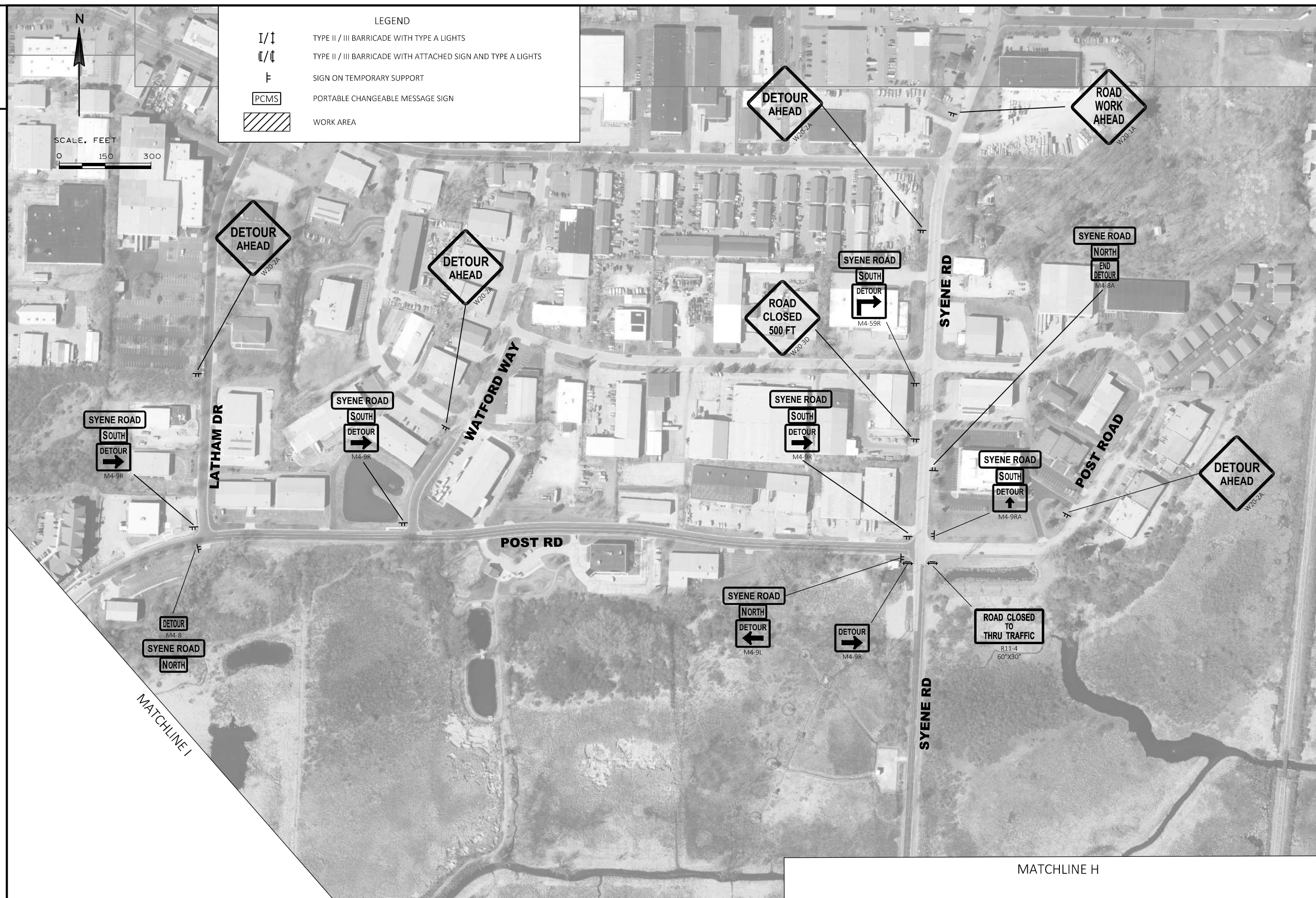
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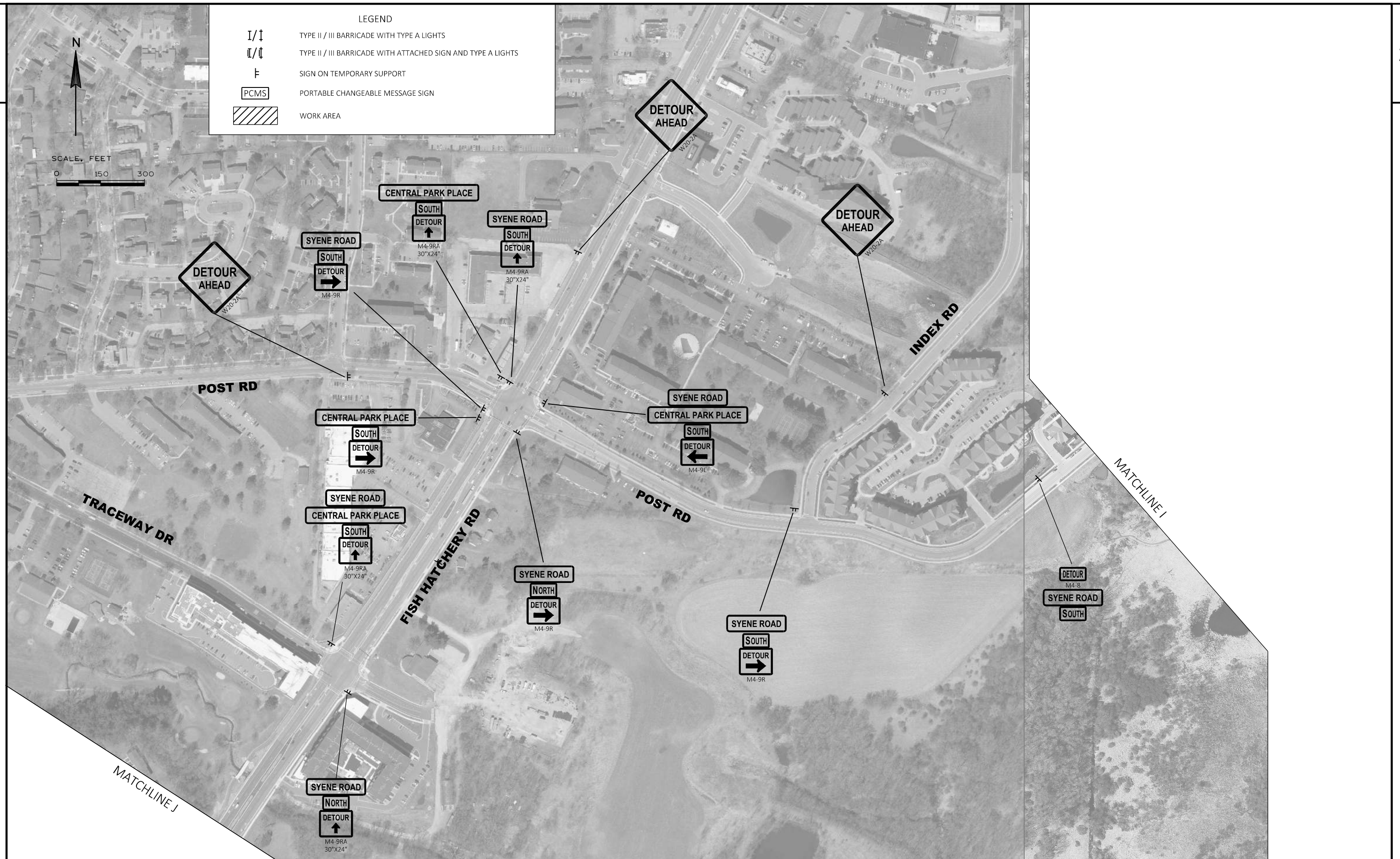
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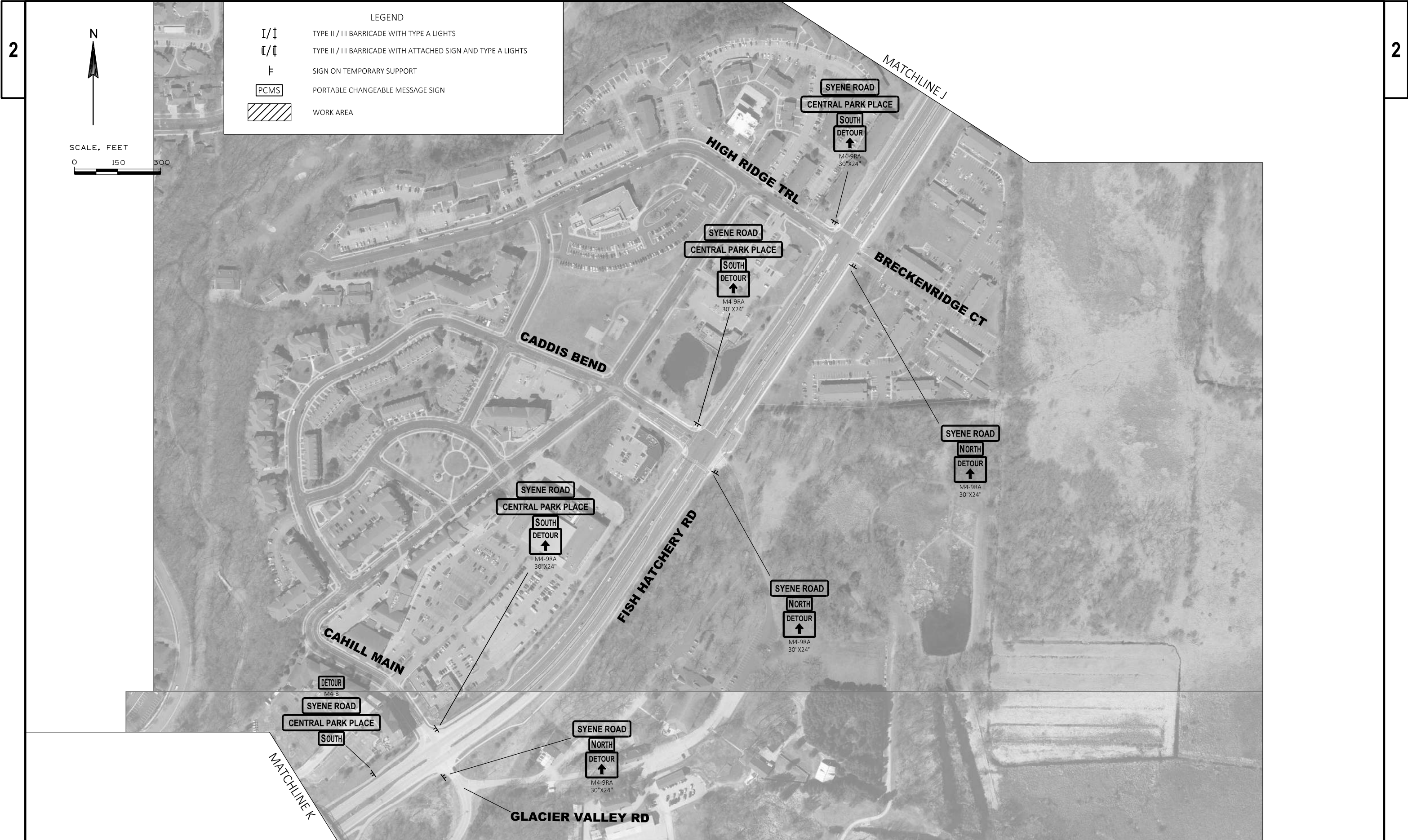


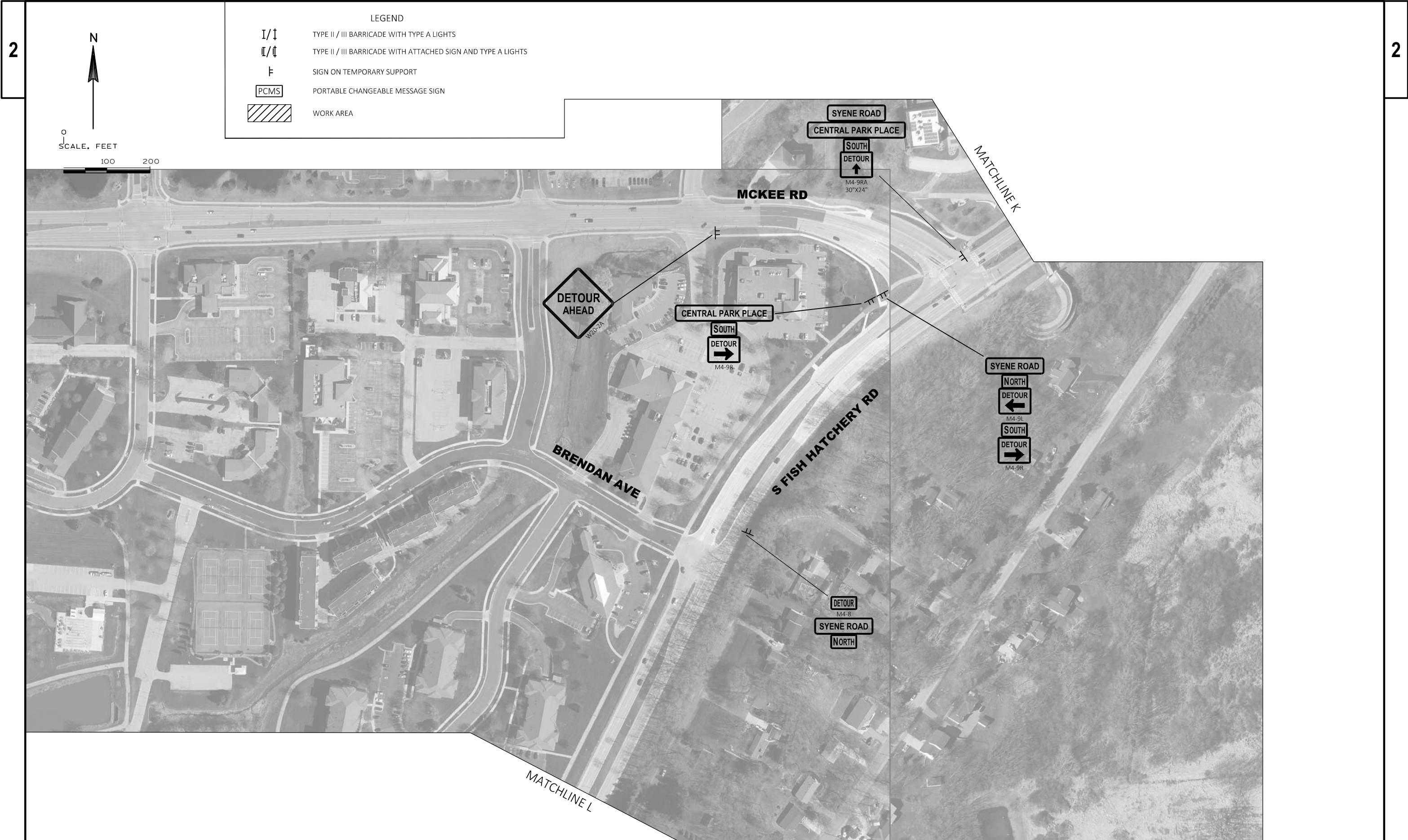










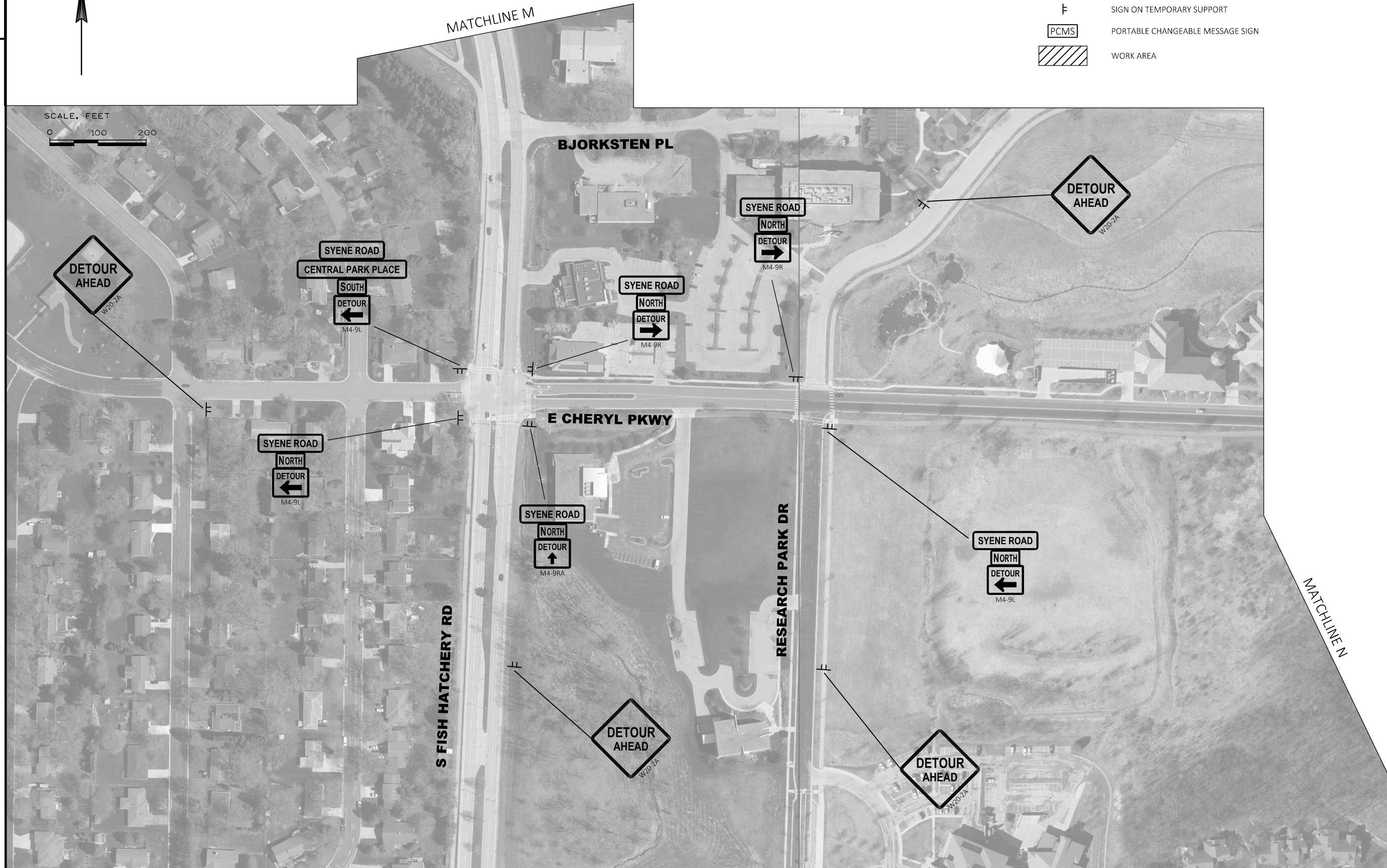


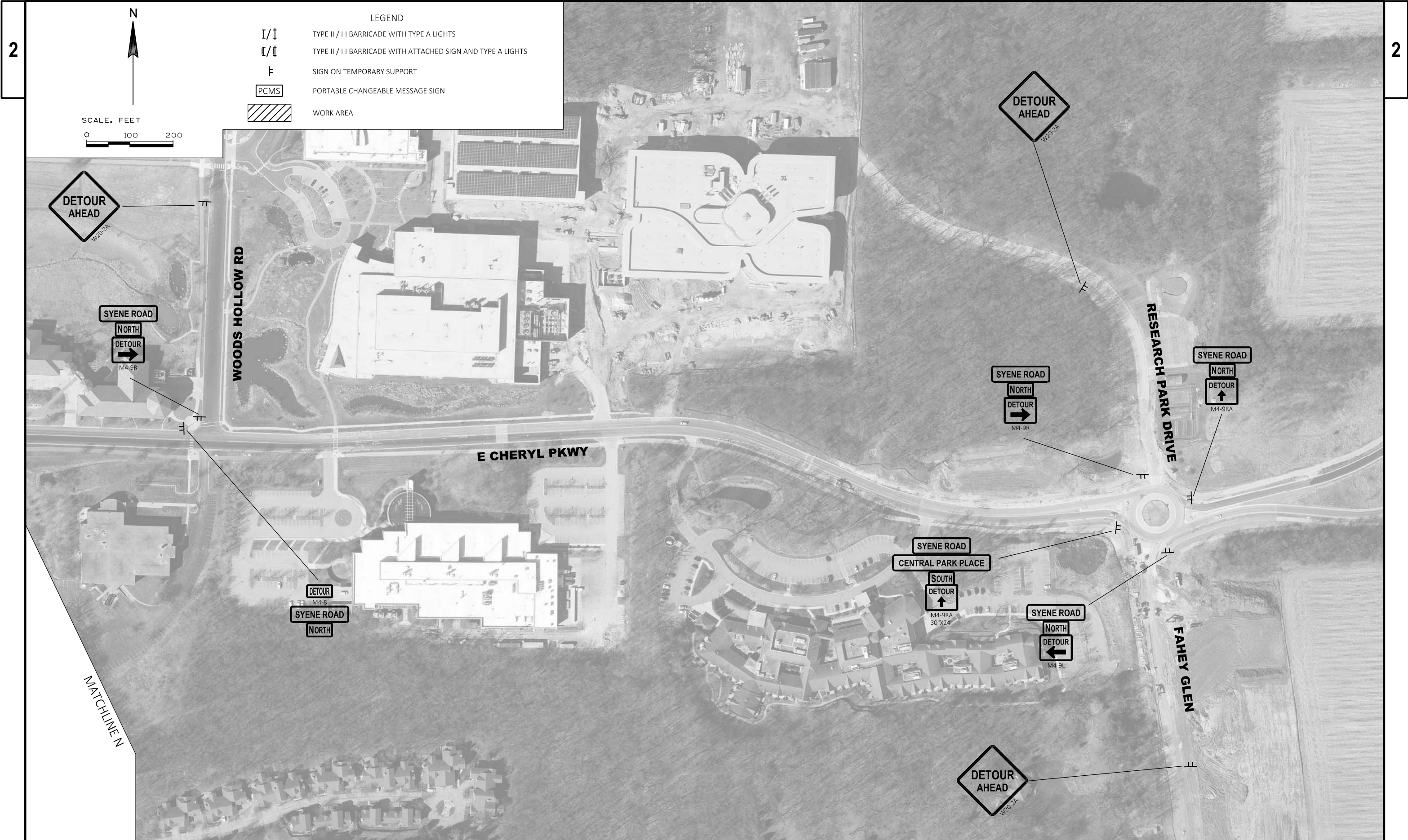




SCALE, FEET
0 100 200

LEGEND	
	TYPE II / III BARRICADE WITH TYPE A LIGHTS
	TYPE II / III BARRICADE WITH ATTACHED SIGN AND TYPE A LIGHTS
	SIGN ON TEMPORARY SUPPORT
	PORTABLE CHANGEABLE MESSAGE SIGN
	WORK AREA





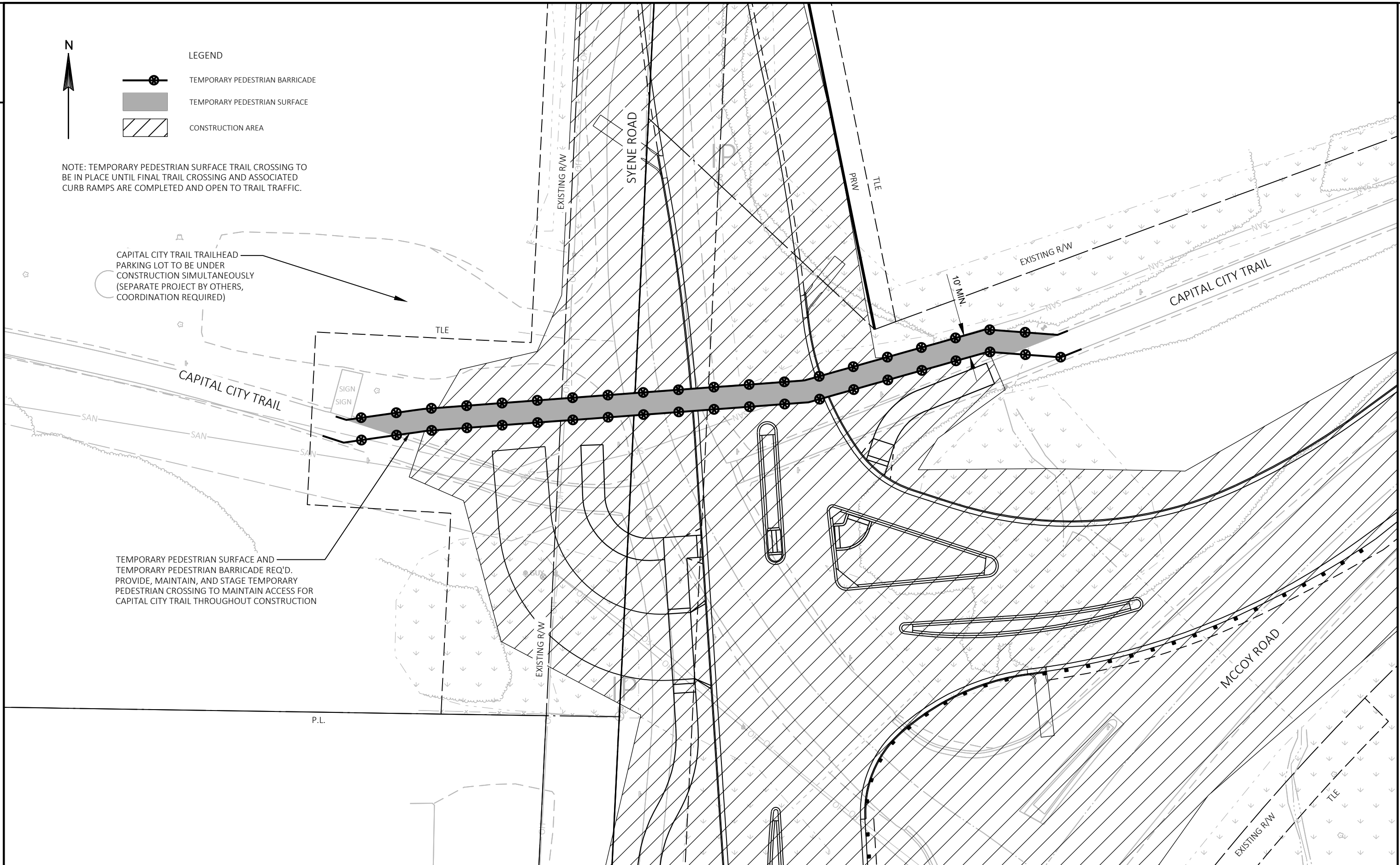




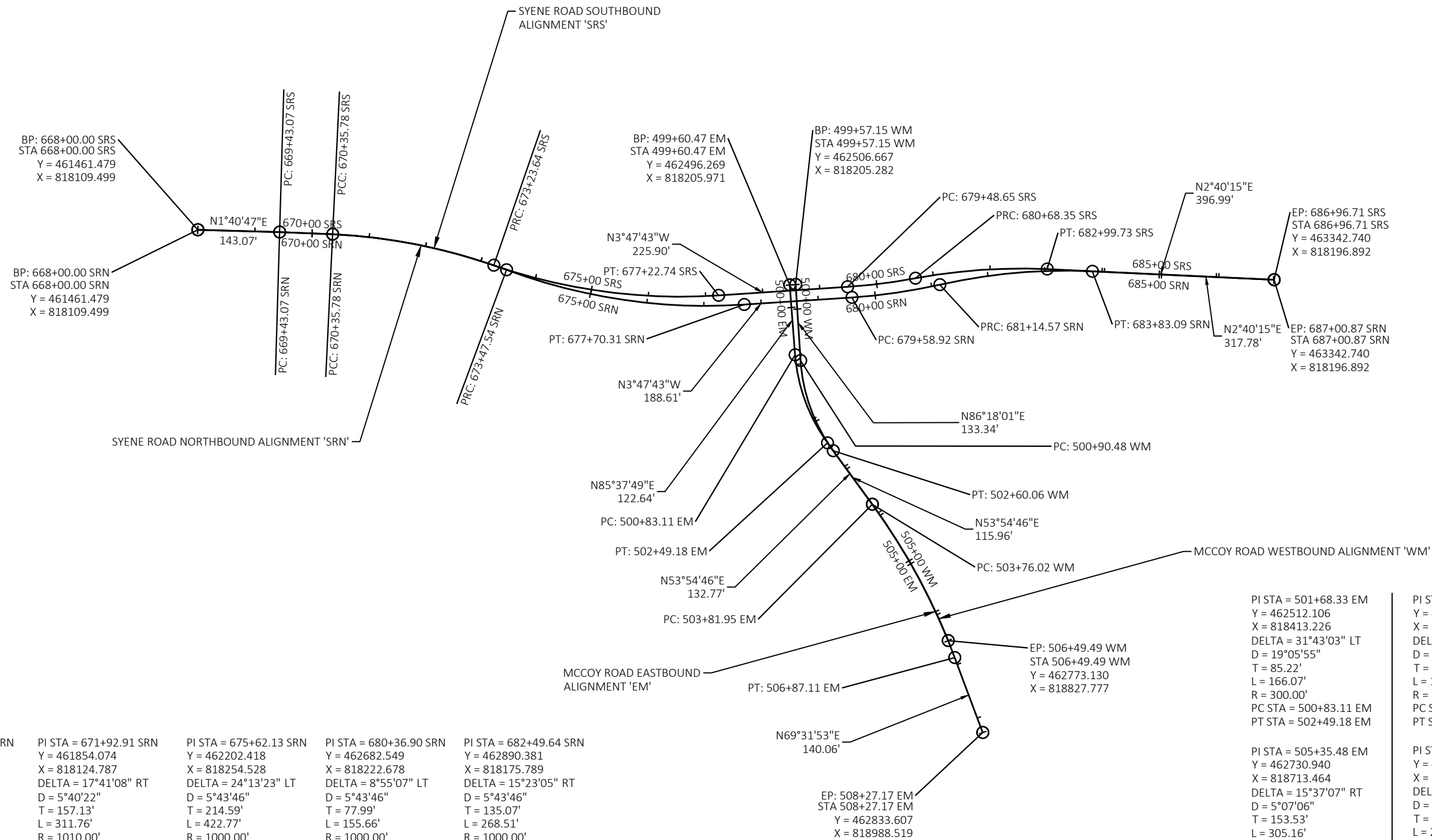
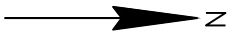
LEGEND

- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY PEDESTRIAN SURFACE
- CONSTRUCTION AREA

NOTE: TEMPORARY PEDESTRIAN SURFACE TRAIL CROSSING TO BE IN PLACE UNTIL FINAL TRAIL CROSSING AND ASSOCIATED CURB RAMPS ARE COMPLETED AND OPEN TO TRAIL TRAFFIC.

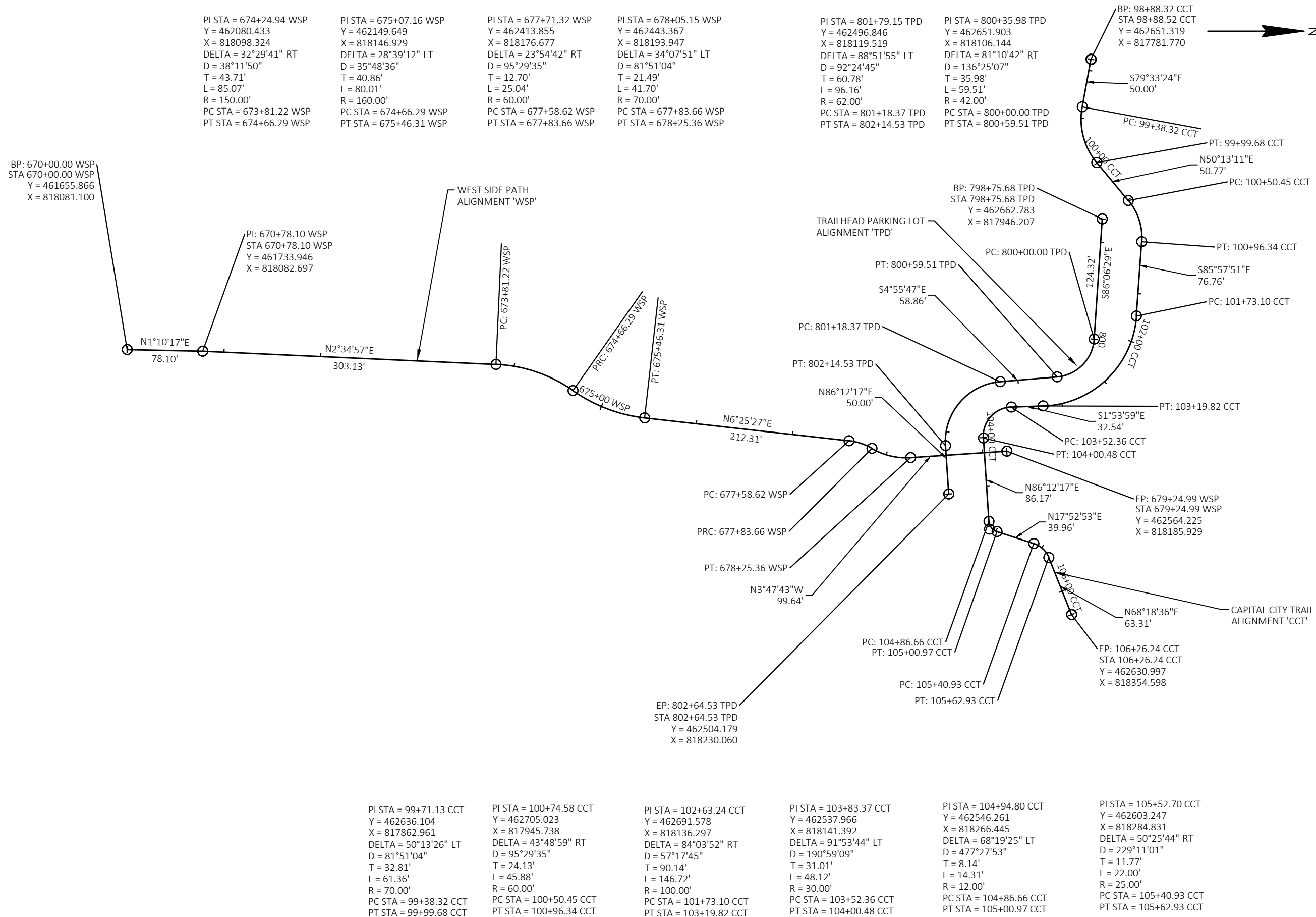


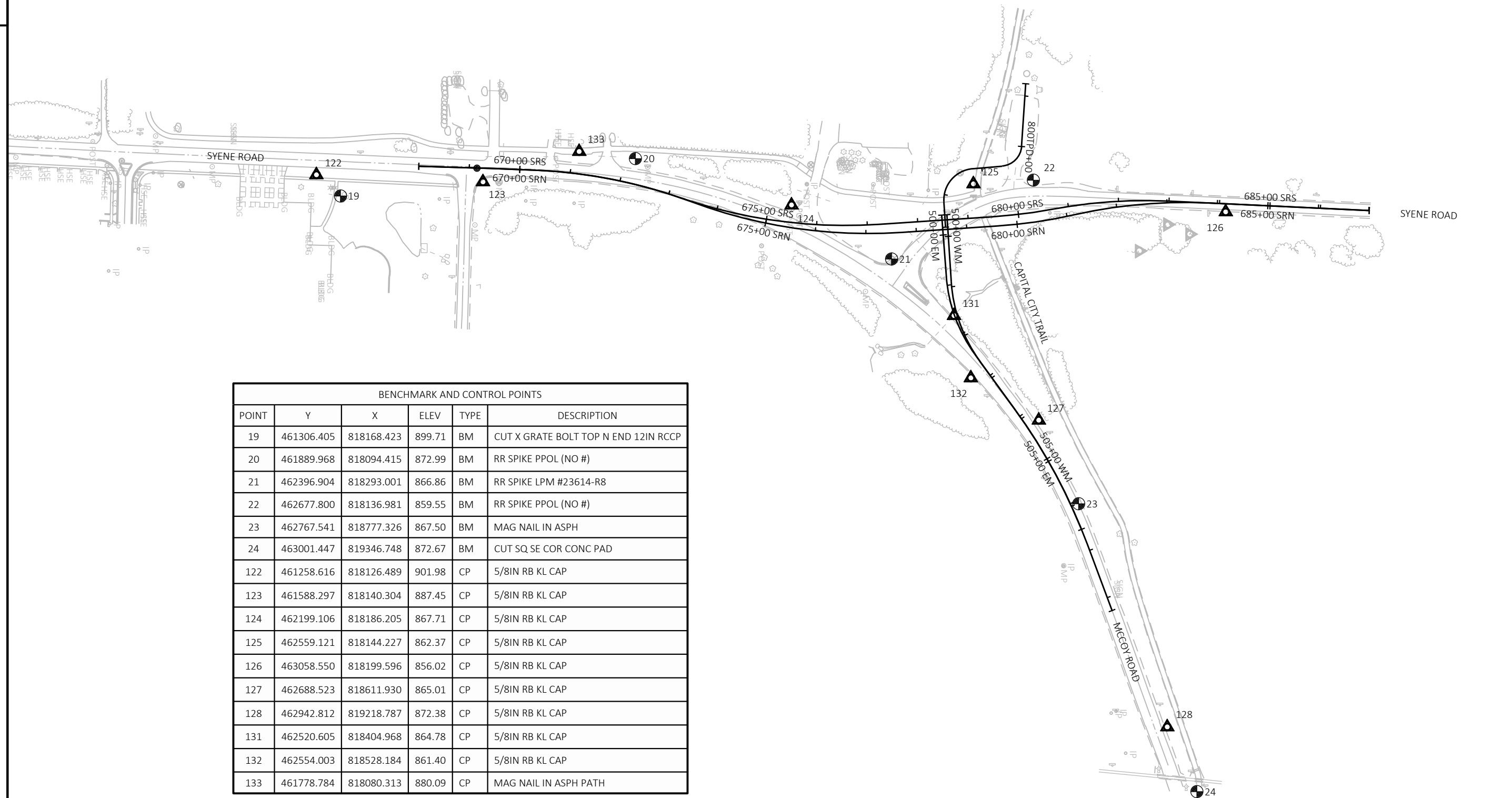
PI STA = 669+89.43 SRS Y = 461650.822 X = 818115.052 DELTA = 1°03'44" RT D = 1°08'45" T = 46.36' L = 92.71' R = 5000.00' PC STA = 669+43.07 SRS PT STA = 670+35.78 SRS	PI STA = 671+80.69 SRS Y = 461841.870 X = 818124.202 DELTA = 16°19'47" RT D = 5°40'22" T = 144.91' L = 287.86' R = 1010.00' PC STA = 670+35.78 SRS PT STA = 673+23.64 SRS	PI STA = 675+25.88 SRS Y = 462169.972 X = 818237.638 DELTA = 22°52'02" LT D = 5°43'46" T = 202.25' L = 399.11' R = 1000.00' PC STA = 673+23.64 SRS PT STA = 677+22.74 SRS	PI STA = 680+08.57 SRS Y = 462656.974 X = 818205.333 DELTA = 6°47'26" LT D = 5°40'22" T = 59.92' L = 119.70' R = 1010.00' PC STA = 679+48.65 SRS PT STA = 680+68.35 SRS	PI STA = 681+84.56 SRS Y = 462830.105 X = 818172.977 DELTA = 13°15'24" RT D = 5°43'46" T = 116.21' L = 231.37' R = 1000.00' PC STA = 680+68.35 SRS PT STA = 682+99.73 SRS
---	--	--	--	--



PI STA = 669+89.43 SRN Y = 461650.822 X = 818115.052 DELTA = 1°03'44" RT D = 1°08'45" T = 46.36' L = 92.71' R = 5000.00' PC STA = 669+43.07 SRN PT STA = 670+35.78 SRN	PI STA = 671+92.91 SRN Y = 461854.074 X = 818124.787 DELTA = 17°41'08" RT D = 5°40'22" T = 157.13' L = 311.76' R = 1010.00' PC STA = 670+35.78 SRN PT STA = 673+47.54 SRN	PI STA = 675+62.13 SRN Y = 462202.418 X = 818254.528 DELTA = 24°13'23" LT D = 5°43'46" T = 214.59' L = 422.77' R = 1000.00' PC STA = 673+47.54 SRN PT STA = 677+70.31 SRN	PI STA = 680+36.90 SRN Y = 462682.549 X = 818222.678 DELTA = 8°55'07" LT D = 5°43'46" T = 77.99' L = 155.66' R = 1000.00' PC STA = 679+58.92 SRN PT STA = 681+14.57 SRN	PI STA = 682+49.64 SRN Y = 462890.381 X = 818175.789 DELTA = 15°23'05" RT D = 5°43'46" T = 135.07' L = 268.51' R = 1000.00' PC STA = 681+14.57 SRN PT STA = 683+83.09 SRN
---	--	--	--	--

PI STA = 501+68.33 EM Y = 462512.106 X = 818413.226 DELTA = 31°43'03" LT D = 19°05'55" T = 85.22' L = 166.07' R = 300.00' PC STA = 500+83.11 EM PT STA = 502+49.18 EM	PI STA = 501+77.61 WM Y = 462520.892 X = 818425.280 DELTA = 32°23'15" LT D = 19°05'55" T = 87.12' L = 169.58' R = 300.00' PC STA = 500+90.48 WM PT STA = 502+60.06 WM
PI STA = 505+35.48 EM Y = 462730.940 X = 818713.464 DELTA = 15°37'07" RT D = 5°07'06" T = 153.53' L = 305.16' R = 1119.45' PC STA = 503+81.95 EM PT STA = 506+87.11 EM	PI STA = 505+13.44 WM Y = 462721.451 X = 818700.445 DELTA = 13°59'49" RT D = 5°07'06" T = 137.42' L = 273.47' R = 1119.45' PC STA = 503+76.02 WM PT STA = 506+49.49 WM





BENCHMARK AND CONTROL POINTS					
POINT	Y	X	ELEV	TYPE	DESCRIPTION
19	461306.405	818168.423	899.71	BM	CUT X GRATE BOLT TOP N END 12IN RCCP
20	461889.968	818094.415	872.99	BM	RR SPIKE PPOL (NO #)
21	462396.904	818293.001	866.86	BM	RR SPIKE LPM #23614-R8
22	462677.800	818136.981	859.55	BM	RR SPIKE PPOL (NO #)
23	462767.541	818777.326	867.50	BM	MAG NAIL IN ASPH
24	463001.447	819346.748	872.67	BM	CUT SQ SE COR CONC PAD
122	461258.616	818126.489	901.98	CP	5/8IN RB KL CAP
123	461588.297	818140.304	887.45	CP	5/8IN RB KL CAP
124	462199.106	818186.205	867.71	CP	5/8IN RB KL CAP
125	462559.121	818144.227	862.37	CP	5/8IN RB KL CAP
126	463058.550	818199.596	856.02	CP	5/8IN RB KL CAP
127	462688.523	818611.930	865.01	CP	5/8IN RB KL CAP
128	462942.812	819218.787	872.38	CP	5/8IN RB KL CAP
131	462520.605	818404.968	864.78	CP	5/8IN RB KL CAP
132	462554.003	818528.184	861.40	CP	5/8IN RB KL CAP
133	461778.784	818080.313	880.09	CP	MAG NAIL IN ASPH PATH

Estimate Of Quantities

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Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	12.000	12.000
0004	201.0205	Grubbing	STA	12.000	12.000
0006	203.0100	Removing Small Pipe Culverts	EACH	8.000	8.000
0008	204.0110	Removing Asphaltic Surface	SY	175.000	175.000
0010	204.0150	Removing Curb & Gutter	LF	250.000	250.000
0012	204.0155	Removing Concrete Sidewalk	SY	35.000	35.000
0014	204.9060.S	Removing (item description) 01. Existing Boardwalk	EACH	1.000	1.000
0016	205.0100	Excavation Common	CY	28,328.000	28,328.000
0018	205.0400	Excavation Marsh	CY	4,673.000	4,673.000
0020	213.0100	Finishing Roadway (project) 01. 5849-02-07	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,050.000	1,050.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,950.000	3,950.000
0026	305.0130	Base Aggregate Dense 3-Inch	TON	7,350.000	7,350.000
0028	311.0110	Breaker Run	TON	20,630.000	20,630.000
0030	405.1000	Stamping Colored Concrete	CY	40.000	40.000
0032	455.0605	Tack Coat	GAL	720.000	720.000
0034	460.2000	Incentive Density HMA Pavement	DOL	2,330.000	2,330.000
0036	460.5225	HMA Pavement 5 LT 58-28 S	TON	180.000	180.000
0038	460.6223	HMA Pavement 3 MT 58-28 S	TON	2,130.000	2,130.000
0040	460.6225	HMA Pavement 5 MT 58-28 S	TON	1,290.000	1,290.000
0042	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	105.000	105.000
0044	465.0315	Asphaltic Flumes	SY	70.000	70.000
0046	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0048	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	3.000	3.000
0050	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0052	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0054	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	2.000	2.000
0056	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	20.000	20.000
0058	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	1,550.000	1,550.000
0060	601.0600	Concrete Curb Pedestrian	LF	50.000	50.000
0062	602.0410	Concrete Sidewalk 5-Inch	SF	2,440.000	2,440.000
0064	602.0420	Concrete Sidewalk 7-Inch	SF	865.000	865.000
0066	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	160.000	160.000
0068	602.0815	Concrete Driveway 7-Inch	SY	435.000	435.000
0070	606.0200	Riprap Medium	CY	70.000	70.000
0072	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	587.000	587.000
0074	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	30.000	30.000
0076	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	347.000	347.000
0078	608.0421	Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	LF	312.000	312.000
0080	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	103.000	103.000
0082	608.2419	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	198.000	198.000
0084	608.2434	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	LF	128.000	128.000
0086	611.0535	Manhole Covers Type J-Special	EACH	1.000	1.000
0088	611.0624	Inlet Covers Type H	EACH	11.000	11.000
0090	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0092	611.0666	Inlet Covers Type Z	EACH	2.000	2.000
0094	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0096	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0098	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0100	611.2007	Manholes 7-FT Diameter	EACH	1.000	1.000
0102	611.3003	Inlets 3-FT Diameter	EACH	2.000	2.000
0104	611.3004	Inlets 4-FT Diameter	EACH	5.000	5.000
0106	611.3230	Inlets 2x3-FT	EACH	5.000	5.000
0108	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0110	611.9850.S	Pipe Grates (size) 01. 19x30-Inch	EACH	4.000	4.000
0112	611.9850.S	Pipe Grates (size) 02. 24-Inch	EACH	1.000	1.000
0114	611.9850.S	Pipe Grates (size) 03. 21-Inch	EACH	1.000	1.000
0116	614.2300	MGS Guardrail 3	LF	350.000	350.000
0118	614.2350	MGS Guardrail Short Radius	LF	125.000	125.000
0120	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0122	616.0700.S	Fence Safety	LF	1,000.000	1,000.000
0124	619.1000	Mobilization	EACH	1.000	1.000
0126	620.0300	Concrete Median Sloped Nose	SF	205.000	205.000
0128	624.0100	Water	MGAL	250.000	250.000
0130	625.0100	Topsoil	SY	500.000	500.000
0132	625.0500	Salvaged Topsoil	SY	16,500.000	16,500.000
0134	628.1504	Silt Fence	LF	1,720.000	1,720.000
0136	628.1520	Silt Fence Maintenance	LF	1,720.000	1,720.000
0138	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0142	628.2008	Erosion Mat Urban Class I Type B	SY	14,250.000	14,250.000
0144	628.2027	Erosion Mat Class II Type C	SY	2,170.000	2,170.000
0146	628.2033	Erosion Mat Class III Type B	SY	40.000	40.000
0148	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0150	628.7504	Temporary Ditch Checks	LF	390.000	390.000
0152	628.7560	Tracking Pads	EACH	3.000	3.000
0154	629.0210	Fertilizer Type B	CWT	11.000	11.000
0156	630.0171	Seeding Mixture No. 70A	LB	50.000	50.000
0158	630.0200	Seeding Temporary	LB	445.000	445.000
0160	630.0500	Seed Water	MGAL	375.000	375.000
0162	637.2210	Signs Type II Reflective H	SF	176.750	176.750
0164	637.2215	Signs Type II Reflective H Folding	SF	31.080	31.080
0166	637.2230	Signs Type II Reflective F	SF	36.000	36.000
0168	638.2102	Moving Signs Type II	EACH	10.000	10.000
0170	638.2602	Removing Signs Type II	EACH	16.000	16.000
0172	638.3000	Removing Small Sign Supports	EACH	16.000	16.000
0174	638.4000	Moving Small Sign Supports	EACH	8.000	8.000
0176	640.1303.S	Pond Liner Clay	CY	1,900.000	1,900.000
0178	642.5201	Field Office Type C	EACH	1.000	1.000
0180	643.0300	Traffic Control Drums	DAY	1,850.000	1,850.000
0182	643.0410	Traffic Control Barricades Type II	DAY	125.000	125.000
0184	643.0420	Traffic Control Barricades Type III	DAY	2,950.000	2,950.000
0186	643.0705	Traffic Control Warning Lights Type A	DAY	5,850.000	5,850.000
0188	643.0800	Traffic Control Arrow Boards	DAY	125.000	125.000
0190	643.0900	Traffic Control Signs	DAY	46,800.000	46,800.000
0192	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000
0194	643.1050	Traffic Control Signs PCMS	DAY	21.000	21.000
0196	643.5000	Traffic Control	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0198	644.1410	Temporary Pedestrian Surface Asphalt	SF	3,800.000	3,800.000
0200	644.1810	Temporary Pedestrian Barricade	LF	870.000	870.000
0202	645.0120	Geotextile Type HR	SY	310.000	310.000
0204	645.0220	Geogrid Type SR	SY	3,761.000	3,761.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	9,430.000	9,430.000
0208	646.3020	Marking Line Epoxy 8-Inch	LF	1,180.000	1,180.000
0210	646.5020	Marking Arrow Epoxy	EACH	20.000	20.000
0212	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0214	646.5220	Marking Symbol Epoxy	EACH	11.000	11.000
0216	646.7120	Marking Diagonal Epoxy 12-Inch	LF	265.000	265.000
0218	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	60.000	60.000
0220	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	150.000	150.000
0222	646.8120	Marking Curb Epoxy	LF	100.000	100.000
0224	646.8220	Marking Island Nose Epoxy	EACH	9.000	9.000
0226	650.4000	Construction Staking Storm Sewer	EACH	28.000	28.000
0228	650.4500	Construction Staking Subgrade	LF	2,086.000	2,086.000
0230	650.5000	Construction Staking Base	LF	2,086.000	2,086.000
0232	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,375.000	2,375.000
0234	650.8501	Construction Staking Electrical Installations (project) 01. 5849-02-07	EACH	1.000	1.000
0236	650.9000	Construction Staking Curb Ramps	EACH	6.000	6.000
0238	650.9500	Construction Staking Sidewalk (project) 01. 5849-02-07	EACH	1.000	1.000
0240	650.9911	Construction Staking Supplemental Control (project) 01. 5849-02-07	EACH	1.000	1.000
0242	650.9920	Construction Staking Slope Stakes	LF	2,086.000	2,086.000
0244	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	970.000	970.000
0246	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,144.000	1,144.000
0248	652.0800	Conduit Loop Detector	LF	1,408.000	1,408.000
0250	654.0101	Concrete Bases Type 1	EACH	7.000	7.000
0252	654.0102	Concrete Bases Type 2	EACH	4.000	4.000
0254	654.0110	Concrete Bases Type 10	EACH	3.000	3.000
0256	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0258	655.0230	Cable Traffic Signal 5-14 AWG	LF	778.000	778.000
0260	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,185.000	3,185.000
0262	655.0305	Cable Type UF 2-12 AWG Grounded	LF	673.000	673.000
0264	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,870.000	1,870.000
0266	655.0610	Electrical Wire Lighting 12 AWG	LF	605.000	605.000
0268	655.0700	Loop Detector Lead In Cable	LF	4,866.000	4,866.000
0270	655.0800	Loop Detector Wire	LF	3,994.000	3,994.000
0272	655.0900	Traffic Signal EVP Detector Cable	LF	785.000	785.000
0274	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. Syene Road & McCoy Road	EACH	1.000	1.000
0276	657.0100	Pedestal Bases	EACH	7.000	7.000
0278	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	4.000	4.000
0280	657.0315	Poles Type 4	EACH	4.000	4.000
0282	657.0345	Poles Type 9	EACH	3.000	3.000
0284	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
0286	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	3.000	3.000
0288	657.0520	Monotube Arms 20-FT	EACH	1.000	1.000
0290	657.0525	Monotube Arms 25-FT	EACH	1.000	1.000
0292	657.0530	Monotube Arms 30-FT	EACH	1.000	1.000
0294	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	5.000	5.000

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Line	Item	Item Description	Unit	Total	Qty
0296	658.0173	Traffic Signal Face 3S 12-Inch	EACH	16.000	16.000
0298	658.0174	Traffic Signal Face 4S 12-Inch	EACH	2.000	2.000
0300	658.0416	Pedestrian Signal Face 16-Inch	EACH	6.000	6.000
0302	658.0500	Pedestrian Push Buttons	EACH	1.000	1.000
0304	658.5070	Signal Mounting Hardware (location) 01. Syene Road & McCoy Road	EACH	1.000	1.000
0306	659.1115	Luminaires Utility LED A	EACH	5.000	5.000
0308	690.0150	Sawing Asphalt	LF	142.000	142.000
0310	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0312	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0314	SPV.0060	Special 01. Framed Inlet Protection	EACH	20.000	20.000
0316	SPV.0060	Special 02. Project Dewatering	EACH	1.000	1.000
0318	SPV.0060	Special 03. Posts Wood 4x4-Inch x 14-FT	EACH	16.000	16.000
0320	SPV.0060	Special 04. Posts Wood 4x4-Inch x 16-FT	EACH	7.000	7.000
0322	SPV.0060	Special 05. Posts Galvanized Steel 2 3/8-Inch Diameter x 11-FT	EACH	6.000	6.000
0324	SPV.0060	Special 06. Posts Wood 4x4-Inch x 12-FT	EACH	2.000	2.000
0326	SPV.0060	Special 07. V-Loc Sign Base	EACH	6.000	6.000
0328	SPV.0060	Special 08. Inlet Covers Type Beehive	EACH	1.000	1.000
0330	SPV.0060	Special 09. Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch with Cutoff Wall	EACH	1.000	1.000
0332	SPV.0060	Special 10. Apron Endwalls for CPRC Horizontal Elliptical 19x30-Inch with Cutoff Wall	EACH	2.000	2.000
0334	SPV.0060	Special 11. Culvert Pipe Checks Special	EACH	7.000	7.000
0336	SPV.0060	Special 12. Posts Wood 4x4-Inch x 18-FT	EACH	2.000	2.000
0338	SPV.0060	Special 13. Inlet Covers Type H-VB	EACH	1.000	1.000
0340	SPV.0060	Special 20. Construct Electrical Handhole Type 1	EACH	8.000	8.000
0342	SPV.0060	Special 21. Construct Electrical Handhole Type 5	EACH	10.000	10.000
0344	SPV.0060	Special 22. Traffic Signal Cabinet and Controller (Syene Road & McCoy Road)	EACH	1.000	1.000
0346	SPV.0060	Special 23. Furnish and Install EVP System (Syene Road & McCoy Road)	EACH	1.000	1.000
0348	SPV.0060	Special 24. Furnish and Install APS System (Syene Road & McCoy Road)	EACH	1.000	1.000
0350	SPV.0060	Special 25. LED Blank Out Sign No Right Turn 30-Inch	EACH	1.000	1.000
0352	SPV.0085	Special 01. Turf Grass Seed Mixture	LB	80.000	80.000
0354	SPV.0085	Special 02. Native Seed Mixture A	LB	5.000	5.000
0356	SPV.0085	Special 03. Native Seed Mixture B	LB	5.000	5.000
0358	SPV.0085	Special 04. Native Seed Mixture C	LB	5.000	5.000
0360	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch	LF	755.000	755.000
0362	SPV.0090	Special 02. Marking Stop Line Epoxy 24-Inch	LF	115.000	115.000

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CLEARING AND GRUBBING						
CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	500+92	-	506+55	McCoy Road	4	4
0010	670+35	-	677+71	Syene Road South	4	4
0010	677+71	-	680+00	Syene/McCoy Intersection	1	1
0010	680+00	-	684+29	Syene Road North	3	3
PROJECT TOTAL					12	12

REMOVING SMALL PIPE CULVERTS					
				203.0100 REMOVING SMALL PIPE CULVERTS EACH	NOTES
CATEGORY	STATION	OFFSET	LOCATION		
0010	501+75	RT	McCoy Road	1	36 IN CMCP
0010	670+60	LT	Syene Road South	1	18 IN CMCP
0010	671+00	RT	Syene Road South	1	18 IN CMCP
0010	671+65	LT	Syene Road South	1	18 IN CMCP
0010	675+90	LT	Syene Road South	1	18 IN CMCP
0010	676+40	LT	Syene Road South	1	12 IN CMCP
0010	678+10	RT	Syene/McCoy Intersection	1	24 IN CMCP
0010	678+20	LT	Syene/McCoy Intersection	1	12 IN CMCP
PROJECT TOTAL				8	

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REMOVALS								
				204.0110 REMOVING ASPHALTIC SURFACE SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.9060.01 REMOVING EXISTING BOARDWALK EA	
CATEGORY	STATION	TO	STATION	LOCATION				
0010	500+92	-	506+55	McCoy Road	5	--	--	--
0010	670+35	-	677+71	Syene Road South	100	--	--	1
0010	677+71	-	680+00	Syene/McCoy Intersection	70	250	35	--
0010	680+00	-	684+29	Syene Road North	--	--	--	--
PROJECT TOTAL					175	250	35	1

PROJECT ITEMS							
				213.0100 FINISHING ROADWAY 5849-02-07 EACH	619.1000 MOBILIZATION EACH	642.5201 FIELD OFFICE TYPE C EACH	643.5000 TRAFFIC CONTROL EACH
CATEGORY	STATION	TO	STATION	LOCATION			
0010		PROJECT		PROJECT	1	1	1
PROJECT TOTAL					1	1	1

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DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED / UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	205.0400 MARSH EXCAVATION (CY) (6)	645.0220 GEOGRID TYPE SR (SY) (16)	REDUCED MARSH IN FILL (8)	REDUCED EBS IN FILL (9)	EXPANDED MARSH BACKFILL (10)	EXPANDED EBS BACKFILL (11)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14) (15)	WASTE	BORROW (CY)
			CUT (CY) (2)	EBS EXCAVATION (CY) (3)					FACTOR 0.80	FACTOR 0.80	FACTOR 1.25	FACTOR 1.25		FACTOR 1.25			
1-1	670+36 - 684+29	SYENE ROAD NORTHBOUND 'SRN'	8,625	3,019	0	8,625	3,128	2,437	2,502	2,415	3,910	3,774	2,355	2,944	5,681	5,681	0
1-2	500+05 - 506+55	MCCOY ROAD EASTBOUND 'EM'	3,951	1,383	0	3,951	1,052	1,030	842	1,106	1,315	1,729	214	268	3,683	3,683	0
1-3	103+29 - 105+96	CAPITAL CITY TRAIL 'CCT'	147	52	0	147	0	0	0	42	0	65	0	0	147	147	0
1-4	800+85 - 802+14	TRAILHEAD PARKING LOT DRIVEWAY 'TPD'	119	42	0	119	105	294	84	34	131	53	41	52	67	67	0
1-5	PROJECT	EXCAVATION FOR POND (7)	9,090	0	0	9,090	388	0	0	0	485	0	36	45	9,045	9,045	0
1-6	PROJECT	EXCAVATION FOR POND LINER (7)	1,900	0	0	1,900	0	0	0	0	0	0	0	0	1,900	1,900	0
GRAND TOTAL			23,832	4,496			4,673	3,761			5,841	5,620					0
TOTAL COMMON EXC			28,328								11,461						

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (3) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
- (6) MARSH EXCAVATION - TO BE BACKFILLED WITH BREAKER RUN. ITEM NUMBER 311.0110
- (7) EXCAVATION FOR POND AND EXCAVATION FOR POND LINER CALCULATED BY USING AUTOCAD SURFACE AND AREA X DEPTH CALCULATIONS
- (8) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = .80
- (9) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = .80
- (10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN. MARSH BACKFILL FACTOR = 1.25. ITEM NUMBER 311.0110
- (11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN. EBS BACKFILL FACTOR = 1.25. ITEM NUMBER 311.0110
- (12) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.
- (13) EXPANDED FILL FACTOR = 1.25
- EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
- (14) 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.
- (15) MASS ORDINATE = AVAILABLE MATERIAL - EXPANDED FILL
- (16) GEOGRID TYPE SR FOR USE IN AREAS OVER MARSH EXCAVATION.

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BASE AGGREGATE DENSE									
					305.0110	305.0120	305.0130	311.0110	624.0100
					BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4- INCH TON	BASE AGGREGATE DENSE 3-INCH TON	BREAKER RUN TON	WATER MGAL
CATEGORY	STATION	TO	STATION	LOCATION					
0010	500+92	-	506+55	McCoy Road	144	953	2,022	--	63
0010	670+35	-	677+71	Syene Road South	615	1397	2,557	--	93
0010	677+71	-	680+00	Syene/McCoy Intersection	109	674	1,308	--	42
0010	680+00	-	684+29	Syene Road North	88	679	1,463	--	45
0010	103+30	-	104+06	Capital City Trail	44	--	--	--	1
0010	105+41	-	105+96	Capital City Trail	50	--	--	--	1
0010	800+86	-	802+15	Trailhead Parking Lot Driveway	--	247	--	--	5
0010	PROJECT			EBS Backfill	--	--	--	10,116	--
0010	PROJECT			Marsh Excavation Backfill	--	--	--	10,514	--
PROJECT TOTAL					1,050	3,950	7,350	20,630	250

CONCRETE DRIVEWAYS					
					602.0815 CONCRETE DRIVEWAY 7-INCH SY
CATEGORY	STATION TO	STATION	LOCATION		SY
0010	500+92 -	506+55	McCoy Road		--
0010	670+35 -	677+71	Syene Road South		370
0010	677+71 -	680+00	Syene/McCoy Intersection		65
0010	680+00 -	684+29	Syene Road North		--
PROJECT TOTAL					435

HMA PAVEMENT										
CATEGORY	STATION	TO	STATION	LOCATION	455.0605	460.5225	460.6223	460.6225	465.0120	465.0315
					TACK COAT GAL	HMA PAVEMENT		HMA PAVEMENT		ASPHALTIC SURFACE
						5 LT 58-28 S TON	3 MT 58-28 S TON	5 MT 58-28 S TON	DRIVEWAYS AND FIELD ENTRANCES TON	ASPHALTIC FLUMES SY
0010	500+92	-	506+55	McCoy Road	190	--	560	340	--	25
0010	670+35	-	677+71	Syene Road South	240	--	720	430	16	--
0010	677+71	-	680+00	Syene/McCoy Intersection	150	--	430	260	--	--
0010	680+00	-	684+29	Syene Road North	140	--	420	260	--	45
0010	103+30	-	104+06	Capital City Trail	--	155	--	--	--	--
0010	105+41	-	105+96	Capital City Trail	--	25	--	--	--	--
0010	800+86	-	802+15	Trailhead Parking Lot Driveway	--	--	--	--	89	--
PROJECT TOTAL					720	180	2,130	1,290	105	70

CONCRETE SIDEWALK									
CATEGORY	STATION	TO	STATION	LOCATION	405.1000	602.0410	602.0420	602.0515	620.0300
					STAMPING COLORED CONCRETE CY	CONCRETE		CONCRETE	
						SIDEWALK 5- INCH SF	SIDEWALK 7- INCH SF	WARNING FIELD NATURAL PATINA SF	CONCRETE MEDIAN SLOPED NOSE SF
0010	500+92	-	506+55	McCoy Road	3	165	--	--	19
0010	670+35	-	677+71	Syene Road South	11	685	--	--	21
0010	677+71	-	680+00	Syene/McCoy Intersection	26	1,590	865	160	165
0010	680+00	-	684+29	Syene Road North	--	--	--	--	--
PROJECT TOTAL					40	2,440	865	160	205

CONCRETE COLLARS				
CATEGORY	STATION	TO	STATION	LOCATION
0010	500+92	-	506+55	McCoy Road
0010	670+35	-	677+71	Syene Road South
0010	677+71	-	680+00	Syene/McCoy Intersection
0010	680+00	-	684+29	Syene Road North
PROJECT TOTAL				2

CONCRETE CURB & GUTTER									
CATEGORY	STATION	TO	STATION	LOCATION	601.0407	601.0411	601.0600	SPV.0090.01	
					CONCRETE CURB & GUTTER 18-INCH TYPE D LF	CONCRETE CURB		CONCRETE	
						& GUTTER 30-INCH TYPE D LF	PEDESTRIAN LF	CURB 24-INCH LF	CONCRETE CURB & GUTTER 24-INCH LF
0010	500+92	-	506+55	McCoy Road	--	268	--	--	97
0010	670+35	-	677+71	Syene Road South	--	734	--	--	312
0010	677+71	-	680+00	Syene/McCoy Intersection	20	478	50	--	346
0010	680+00	-	684+29	Syene Road North	--	70	--	--	--
PROJECT TOTAL					20	1,550	50	--	755

STORM SEWER STRUCTURES																													
				522.1012	SPV.0060.09	522.1024	522.2619	SPV.0060.10	522.2634	611.0535	SPV.0060.08	611.0624	SPV.0060.13	611.0642	611.0666	611.2004	611.2005	611.2006	611.2007	611.3003	611.3004	611.3230	611.3901	650.4000					
				APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21- INCH WITH CUTOFF WALL EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30- INCH WITH CUTOFF WALL EACH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH EACH	MANHOLE COVERS TYPE J-SPECIAL EACH	INLET COVERS TYPE BEEHIVE EACH	INLET COVERS TYPE H EACH	INLET COVERS TYPE H-VB EACH	INLET COVERS TYPE MS EACH	INLET COVERS TYPE Z EACH	MANHOLES 4-FT DIAMETER EACH	MANHOLES 5-FT DIAMETER EACH	MANHOLES 6-FT DIAMETER EACH	MANHOLES 7-FT DIAMETER EACH	INLETS 3-FT DIAMETER EACH	INLETS 4-FT DIAMETER EACH	INLETS 2X3-FT EACH	INLETS MEDIAN 1 GRATE EACH	CONSTRUCTION STAKING STORM SEWER EACH	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT		
1.1	501+77.93	32.86' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	---	1	859.83	855.90	3.11		
1.2	502+45.06	30.63' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	1	---	1	860.34	856.75	2.76		
1.3	502+04.14	30.93' RT	MCCOY ROAD EB - EM	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	856.85	---		
1.5	501+38.52	0.75' LT	MCCOY ROAD EB - EM	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---	1	860.72	856.75	3.06			
75.0	676+16.35	40.93' RT	SYENE ROAD NB - SRN	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	857.00	---		
75.1	675+53.72	29.53' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	---	---	---	---	1	864.67	858.28	5.40			
75.2	675+37.36	91.36' LT	SYENE ROAD SB - SRS	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	861.85	---			
75.3	674+51.42	46.89' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	863.07	860.03	1.97		
75.4	675+39.78	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	863.88	858.89	4.22			
75.5	673+36.52	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	868.88	863.88	4.23			
75.6	671+39.24	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	876.44	871.13	4.52			
78.0	677+90.09	49.99' RT	SYENE ROAD NB - SRN	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	856.30	---		
78.1	678+24.87	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---	---	---	---	1	861.30	856.77	3.76			
78.2	676+92.15	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	862.01	858.84	2.34			
78.3	678+24.87	52.58' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	1	1	860.64	857.20	3.65			
78.4	678+87.55	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	--	1	860.98	857.83	2.32			
79.0	500+92.52	60.97' LT	MCCOY ROAD WB - WM	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	855.43	---			
79.1	500+87.39	44.25' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	1	---	---	---	1	859.59	855.60	3.26			
79.2	500+78.67	46.50' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	859.61	856.36	2.41			
79.3	500+97.15	42.38' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	859.60	856.36	2.40			
79.4	500+69.21	18.68' LT	MCCOY ROAD WB - WM	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	---	---	1	860.47	856.78	2.60			
80.0	680+16.61	34.90' LT	SYENE ROAD SB - SRS	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	856.60	---		
80.1	679+96.60	17.50' LT	SYENE ROAD SB - SRS	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	1	---	1	860.43	856.86	2.74			
C1	501+88.74	61.28' RT	MCCOY ROAD EB - EM	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	855.79	---		
C2	501+27.59	49.01' LT	MCCOY ROAD WB - WM	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	855.29	---		
DP.1	501+15.38	30.46' RT	MCCOY ROAD EB - EM	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	856.25	---		
DP.2	501+22.60	30.18' RT	MCCOY ROAD EB - EM	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	856.25	---		
DP.4	501+05.69	56.19' LT	MCCOY ROAD WB - WM	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	855.50	---		
TOTALS				3	1	1	2	2	2	1	1	11	1	1	2	1	1	1	1	2	5	5	1	28					

REMARKS:
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLOWLINE 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

3

FENCE SAFETY				
616.0700.S				
CATEGORY	STATION TO	STATION	LOCATION	NOTES
0010	PROJECT		UNDISTRIBUTED	SITE DELINEATION AND WETLAND PROTECTION
PROJECT TOTAL			1,000	

RESTORATION														
					625.0100	625.0500	629.0210	630.0171	630.0200	630.0500	SPV.0085.01	SPV.0085.02	SPV.0085.03	SPV.0085.04
								SEEDING			TURF GRASS			
					TOPSOIL	SALVAGED	FERTILIZER	MIXTURE	SEEDING	SEED	SEED	NATIVE SEED	NATIVE SEED	NATIVE SEED
CATEGORY	STATION	TO	STATION	LOCATION	SY	TOPSOIL	TYPE B	NO. 70A	TEMPORARY	WATER	MIXTURE	MIXTURE A	MIXTURE B	MIXTURE C
						SY	CWT	LB	LB	MGAL	LB	LB	LB	LB
0010	500+92	-	506+55	McCoy Road	--	2,610	1.7	8	71	59	--	1	1	1
0010	670+35	-	677+71	Syene Road South	--	5,770	3.7	12	156	130	51	1	2	2
0010	677+71	-	680+00	Syene/McCoy Intersection	--	2,250	1.5	7	61	51	6	1	1	1
0010	680+00	-	684+29	Syene Road North	--	2,510	1.6	10	68	57	--	--	--	--
UNDISTRIBUTED					500	3,360	2.5	13	89	78	23	2	1	1
PROJECT TOTAL					500	16,500	11.0	50	445	375	80	5	5	5

3

STORM SEWER PIPES													
		608.0412	608.0415	608.0418	608.0421	608.0424	608.2419	608.2434					
		STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT		
FROM	- TO	LOCATION	LF	LF	LF	LF	LF	LF					
1.0	- C2	MCCOY ROAD	---	---	---	---	---	35	855.43	855.29	0.0039		
1.1	- 1.0	MCCOY ROAD	---	30	---	---	---	---	855.90	855.75	0.0050		
1.2	- 1.1	MCCOY ROAD	60	---	---	---	---	---	856.75	856.15	0.0100		
1.3	- 1.1	MCCOY ROAD	70	---	---	---	---	---	856.85	856.15	0.0100		
1.4	- 1.0	MCCOY ROAD	---	---	---	---	---	14	855.48	855.43	0.0039		
1.5	- 1.4	MCCOY ROAD	25	---	---	---	---	---	856.75	856.50	0.0100		
70.0	- 75.6	SYENE ROAD	---	---	112	---	---	---	876.19	871.13	0.0453		
75.1	- 75.0	SYENE ROAD	---	---	---	---	103	---	858.28	857.00	0.0125		
75.2	- 75.1	SYENE ROAD	64	---	---	---	---	---	861.85	860.58	0.0200		
75.3	- 75.1	SYENE ROAD	100	---	---	---	---	---	860.03	859.28	0.0075		
75.4	- 75.1	SYENE ROAD	---	---	---	18	---	---	858.89	858.53	0.0200		
75.5	- 75.4	SYENE ROAD	---	---	---	199	---	---	863.88	858.89	0.0250		
75.6	- 75.5	SYENE ROAD	---	---	200	---	---	---	871.13	864.13	0.0350		
78.1	- 78.0	SYENE ROAD	---	---	---	95	---	---	856.77	856.30	0.0050		
78.2	- 78.1	SYENE ROAD	132	---	---	---	---	---	858.84	857.52	0.0100		
78.3	- 78.1	SYENE ROAD	---	---	35	---	---	---	857.20	857.02	0.0050		
78.4	- 78.1	SYENE ROAD	63	---	---	---	---	---	857.83	857.52	0.0050		
79.1	- 79.0	MCCOY ROAD	---	---	---	---	17	---	855.60	855.43	0.0100		
79.2	- 79.1	MCCOY ROAD	9	---	---	---	---	---	856.36	856.18	0.0200		
79.3	- 79.1	MCCOY ROAD	9	---	---	---	---	---	856.36	856.18	0.0200		
79.4	- 79.2	MCCOY ROAD	29	---	---	---	---	---	856.95	856.36	0.0200		
80.1	- 80.0	SYENE ROAD	26	---	---	---	---	---	856.86	856.60	0.0100		
C1	- 1.4	MCCOY ROAD	---	---	---	---	---	79	855.79	855.48	0.0039		
DP.1	- 79.1	MCCOY ROAD	---	---	---	---	86	---	856.25	855.60	0.0075		
DP.2	- DP.4	MCCOY ROAD	---	---	---	---	95	---	856.25	855.50	0.0079		
TOTALS			587	30	347	312	103	198	128				

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SIGNING REMOVALS					
CATEGORY	SIGN #	SIGN CODE	638.2602	638.3000	REMARKS
			REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	1-1R	R2-1	1	1	SPEED LIMIT 35 MPH
0010	1-2R	W1-6	1	1	NIGHT ARROW (SINGLE)
0010	2-1R	--	1	1	TRUCKS ENTERING
0010	2-2R	R1-1, D3-1	1	1	STOP SIGN, STREET NAME (3 SIGNS)
0010	2-3R	W12-1D	1	1	DOUBLE DOWN ARROW
0010	2-4R	W11-1, D3-1	1	1	BICYCLE WARNING SIGN, CAPITAL CITY TRAIL
0010	2-5R	W1-8	1	1	CHEVRON
0010	2-6R	W1-8	1	1	CHEVRON
0010	2-7R	W1-8	1	1	CHEVRON
0010	2-8R	R5-3	1	1	NO MOTOR VEHICLES
0010	2-9R	R5-3	1	1	NO MOTOR VEHICLES
0010	2-10R	W1-8	1	1	CHEVRON
0010	3-1R	W11-1	1	1	BICYCLE WARNING SIGN
0010	3-2R	W3-1, --	1	1	STOP AHEAD, STOP AHEAD PLAQUE
0010	3-3R	R2-1	1	1	SPEED LIMIT 45 MPH
0010	4-1R	W1-6	1	1	NIGHT ARROW (SINGLE)
PROJECT TOTAL			16	16	

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POND ITEMS				
CATEGORY	STATION TO STATION	LOCATION	640.1303.S	SPV.0060.02
			POND LINER CLAY CY	PROJECT DEWATERING EA
0010	PROJECT	DRAINAGE POND	1,900	1
PROJECT TOTAL			1,900	1

COVERING SIGNS					
CATEGORY	STATION TO STATION	LOCATION	CYCLES	SIGNS	643.0920
					TRAFFIC CONTROL COVERING SIGNS TYPE II EACH
0010	PROJECT	UNDISTRIBUTED	1	5	5
PROJECT TOTAL					5

TRAFFIC CONTROL									
CATEGORY	LOCATION	DAYS	643.0300	643.0410	643.0420	643.0705	643.0800	643.0900	643.1050
			TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL BARRICADES TYPE II DAY	TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL ARROW BOARDS DAY	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS PCMS DAY
0010	ADVANCED WARNING	110	--	--	--	--	--	1,100	--
0010	ROAD CLOSURE	110	1,650	--	2,420	4,840	110	2,310	21
0010	TRAIL AND SIDEWALK CLOSURE	110	--	110	220	440	--	330	--
0010	SYENE RD DETOUR SIGNING	110	--	--	--	--	--	33,110	--
0010	CENTRAL PARK PL DETOUR SIGNING	110	--	--	--	--	--	5,610	--
UNDISTRIBUTED			200	15	310	570	15	4,340	--
PROJECT TOTAL			1,850	125	2,950	5,850	125	46,800	21

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PERMANENT SIGNING																
CATEGORY	SIGN #	SIGN CODE	SIGN SIZE	SIGN WXH IN	SPV.0060.06	SPV.0060.03	SPV.0060.04	SPV.0060.12	637.2210	637.2215	637.2230	638.2102	638.4000	SPV.0060.05	SPV.0060.07	REMARKS
					POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS WOOD	SIGNS TYPE II	SIGNS TYPE II	SIGNS TYPE II	MOVING SIGNS	MOVING SMALL	POSTS	V-LOC SIGN	
					4X4-INCH X 12- FT EACH	4X4-INCH X 14- FT EACH	4X4-INCH X 16- FT EACH	4X4-INCH X 18- FT EACH	REFLECTIVE H SF	REFLECTIVE H FOLDING SF	REFLECTIVE F SF	TYPE II EACH	SIGN SUPPORTS EACH	GALVANIZED STEEL 2 3/8- INCH DIAMETER X 11-FT EACH	BASE EACH	
0010	1-1	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	1-2	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	1-3	R3-8	2S	54X30	--	2	--	--	11.25	--	--	--	--	--	--	VARIOUS ONLYS
0010	1-4	R2-1	2S	24X30	--	1	--	--	5.00	--	--	--	--	--	--	SPEED LIMIT 35 MPH
0010	1-5	R4-4	2S	36X30	--	1	--	--	7.50	--	--	--	--	--	--	BEGIN RIGHT TURN LANE - YIELD TO BIKES
0010	2-1	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	2-2	R3-7R	2S	30X30	--	1	--	--	6.25	--	--	--	--	--	--	RIGHT LANE MUST TURN RIGHT
0010	2-3	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	1	1	KEEP RIGHT
0010	2-4	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	2-5	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	2-6	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	1	1	KEEP RIGHT
0010	2-7	M1-94H	Custom	84X18	--	--	--	--	10.50	--	--	--	--	--	--	CROSS ROAD NAME FOR OVERHEAD STREET
0010	2-8	D1-2	Custom	90X36	--	--	--	--	22.50	--	--	--	--	--	--	TWO DESTINATION (ARROWS)
0010	2-9	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	1	1	KEEP RIGHT
0010	2-10	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	1	1	KEEP RIGHT
0010	2-11	D1-2	Custom	90X36	--	--	2	--	22.50	--	--	--	--	--	--	TWO DESTINATION (ARROWS)
0010	2-12	W12-1D	2S	24X24	--	--	--	--	--	--	4.00	--	--	1	1	DOUBLE DOWN ARROW
0010	2-13	R5-3	2S	24X24	1	--	--	--	4.00	--	--	--	--	--	--	NO MOTOR VEHICLES
0010	2-14	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	--	--	KEEP RIGHT
0010	2-15	M1-94H	Custom	84X18	--	--	--	--	10.50	--	--	--	--	--	--	CROSS ROAD NAME FOR OVERHEAD STREET
0010	2-16	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	2-17	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	2-18	R5-3	2S	24X24	1	1	--	--	4.00	--	--	--	--	--	--	NO MOTOR VEHICLES
0010	2-19	R4-7	2S	24X30	--	--	--	--	5.00	--	--	--	--	1	1	KEEP RIGHT
0010	2-20	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	2-21	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	2-22	R1-1F	2S	30X30	--	--	--	--	--	5.18	--	--	--	--	--	STOP SIGN (FOLDING)
0010	3-1	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	3-2	R7-9	2S	12X18	--	1	--	--	1.50	--	--	--	--	--	--	NO PARKING BIKE LANE
0010	3-3	R3-8	2S	36X30	--	1	--	--	7.50	--	--	--	--	--	--	VARIOUS ONLYS
0010	3-4	R2-1	2S	24X30	--	--	1	--	5.00	--	--	--	--	--	--	SPEED LIMIT 45 MPH
0010	3-5	W3-3	2S	36X36	--	--	2	--	--	--	9.00	--	--	--	--	SIGNAL AHEAD
0010	3-6	W8-25	2S	36X36	--	--	--	2	--	--	9.00	--	--	--	--	SHOULDER ENDS
0010	3-7	W16-2A	2S	24X12	--	--	--	--	--	--	2.00	--	--	--	--	XX FT
0010	3-8	W16-1P	2S	24X30	--	--	--	--	--	--	3.00	--	--	--	--	SHRE THE ROAD
0010	4-1	R3-8	2S	36X30	--	1	--	--	7.50	--	--	--	--	--	--	VARIOUS ONLYS
0010	4-2	R3-7R	2S	30X30	--	1	--	--	6.25	--	--	--	--	--	--	RIGHT LANE MUST TURN RIGHT
0010	4-3	W3-3	2S	36X36	--	--	2	--	--	--	9.00	--	--	--	--	SIGNAL AHEAD
0010	4-4	R4-4	2S	36X30	--	1	--	--	7.50	--	--	--	--	--	--	BEGIN RIGHT TURN LANE - YIELD TO BIKES
0010	2-1M	--	--	--	--	--	--	--	--	--	--	1	1	--	--	WARNING TRAIL SIGNS
0010	2-2M	R1-1	--	--	--	--	--	--	--	--	--	1	1	--	--	STOP SIGN
0010	2-3M	--	--	--	--	--	--	--	--	--	--	1	1	--	--	ENTERING FEE AREA
0010		--	--	--	--	--	--	--	--	--	--	--	--	--	--	MISC INFO
0010	2-4M	R1-1	--	--	--	--	--	--	--	--	--	1	1	--	--	STOP SIGN
0010		D3-1	--	--	--	--	--	--	--	--	--	1	--	--	--	STREET NAME
0010		D3-1	--	--	--	--	--	--	--	--	--	1	--	--	--	STREET NAME
0010	2-5M	--	--	--	--	--	--	--	--	--	--	1	1	--	--	CAPITAL CITY TRAIL
0010	2-6M	--	--	--	--	--	--	--	--	--	--	1	1	--	--	CAPITAL CITY TRAIL
0010	4-1M	R2-1	2S	24X30	--	--	--	--	--	--	--	1	1	--	--	SPEED LIMIT 40 MPH
0010	4-2M	W10-1	2S	36X36	--	--	--	--	--	--	--	1	1	--	--	RAILROAD CROSSING
PROJECT TOTAL					2	16	7	2	176.75	31.08	36.00	10	8	6	6	

PROJECT NO: 5849-02-07

HWY: LOCAL STREET – SYENE ROAD

COUNTY: DANE

MISCELLANEOUS QUANTITIES

SHEET

E

3

TEMPORARY PEDESTRIAN ITEMS						
CATEGORY	STATION	TO	STATION	LOCATION	644.1410	644.1810
					TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	TEMPORARY PEDESTRIAN BARRICADE LF
0010	500+92	-	506+55	McCoy Road	--	--
0010	670+35	-	677+71	Syene Road South	--	--
0010	677+71	-	680+00	Syene/McCoy Intersection	3,040	690
0010	680+00	-	684+29	Syene Road North	--	--
UNDISTRIBUTED					760	180
PROJECT TOTAL					3,800	870

PAVEMENT MARKING																
					646.1020	646.3020	646.5020	646.5120	646.5220	SPV.0090.02	646.7120	646.7420	646.7520	646.8120	646.8220	
					MARKING LINE EPOXY 4-INCH		MARKING LINE EPOXY 8-INCH	MARKING ARROW EPOXY	MARKING WORD EPOXY	MARKING SYMBOL EPOXY	MARKING STOP LINE EPOXY 24-INCH	MARKING DIAGONAL EPOXY 12-INCH	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	MARKING CROSSWALK EPOXY BLOCK STYLE 24- INCH	MARKING CURB EPOXY	MARKING ISLAND NOSE EPOXY
CATEGORY	STATION	TO	STATION	LOCATION	WHITE LF	YELLOW LF	LF	EACH	EACH	EACH	LF	LF	LF	LF	LF	EACH
0010	500+92	-	506+55	McCoy Road	971	1,234	457	7	1	3	--	30	--	--	30	2
0010	670+35	-	677+71	Syene Road South	2,666	1,804	362	8	1	5	37	131	--	--	40	2
0010	677+71	-	680+00	Syene/McCoy Intersection	160	--	113	2	-	1	63	24	--	150	30	5
0010	680+00	-	684+29	Syene Road North	900	1,480	248	3	1	2	--	80	--	--	--	--
0010	103+30	-	104+06	Capital City Trail	--	17	--	--	--	--	--	--	--	--	--	--
0010	105+41	-	105+96	Capital City Trail	--	15	--	--	--	--	--	--	--	--	--	--
0010	800+86	-	802+25	Trailhead Parking Lot Driveway	--	184	--	--	--	--	15	--	60	--	--	--
SUBTOTAL					4,696	4,734	1,180	20	3	11	115	265	60	150	100	9
PROJECT TOTAL					9,430		1,180	20	3	11	115	265	60	150	100	9

3

CONSTRUCTION STAKING											
				650.4500	650.5000	650.5500	650.9000	650.9500.01	650.9911.01	650.9920	
				CONSTRUCTION		CONSTRUCTION		CONSTRUCTION	CONSTRUCTION		
				STAKING	CONSTRUCTION	STAKING CURB	CONSTRUCTION	STAKING	STAKING	CONSTRUCTION	
				SUBGRADE	STAKING BASE	GUTTER AND	STAKING CURB	SIDEWALK	SUPPLEMENTAL	STAKING SLOPE	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	EACH	EACH	EACH	LF
0010				PROJECT	--	--	--	1	1	--	
0010	500+92	-	506+55	McCoy Road	563	563	365	--	--	--	563
0010	670+35	-	677+71	Syene Road South	736	736	1,046	--	--	--	736
0010	677+71	-	680+00	Syene/McCoy Intersection	229	229	894	6	--	--	229
0010	680+00	-	684+29	Syene Road North	429	429	70	--	--	--	429
0010	800+86		802+15	Trailhead Parking Lot Driveway	129	129	--	--	--	--	129
PROJECT TOTAL					2,086	2,086	2,375	6	1	1	2,086

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SAWING					
					690.0150
					SAWING
					ASPHALT
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	500+92	-	506+55	McCoy Road	32
0010	670+35	-	677+71	Syene Road South	68
0010	677+71	-	680+00	Syene/McCoy Intersection	10
0010	680+00	-	684+29	Syene Road North	32
PROJECT TOTAL					142

TRAFFIC SIGNAL STRUCTURES													
				654.0101	654.0102	657.0100	657.0255		657.0315	657.0430	657.0420	657.0609	659.1115
				CONCRETE BASES		PEDESTAL	TRANSFORMER BASES		POLES	TRAFFIC SIGNAL STANDARDS		LUMINAIRE ARMS	LUMINAIRES
LOCATION / BASE				TYPE 1	TYPE 2	BASES	BREAKAWAY 11 1/2-INCH		TYPE 4	ALUMINUM		SINGLE MEMBER	UTILITY
NUMBER	STATION	OFFSET	L/R	EACH	EACH	EACH	BOLT CIRCLE		EACH	10-FT	13-FT	4-INCH CLAMP 6-FT	LED A
CATEGORY 0010													
SYENE ROAD & MCCOY ROAD													
SB1	679+04.9 'SRS'	25.5	L	1	--	1	-	--	--	--	1	--	--
SB2	679+09.9 'SRN'	4.4	L	--	1	--	-	1	1	--	--	2	2
SB3	679+42.5 'SRN'	4.5	L	1	--	1		--	--	--	1	--	--
SB4	679+31.2 'SRN'	52.1	R	--	1	--		1	1	--	--	--	--
SB5	679+47.1 'SRN'	42.5	R	1	--	1	-	--	--	1	--	1	1
SB6	679+05.8 'SRN'	39.7	R	1	--	1		--	--	1	--	--	--
SB7	679+10.0 'SRN'	26.5	R	1	--	1	-	--	--	1	--	--	--
SB9	678+82.4 'SRN'	57.1	R	1	--	1	-	--	--	--	1	1	1
SB11	677+75.0 'SRN'	33.5	R	--	1	--	-	1	1	--	--	1	1
SB13	678+35.5 'SRS'	36.3	L	1	--	1	-	--	--	--	1	--	--
SB14	678+73.5 'SRS'	36.4	L	--	1	--	-	1	1	--	--	--	--
SUBTOTAL				7	4	7		4	4	3	4	5	5
PROJECT TOTAL				7	4	7		4	4	3	4	5	5

TRAFFIC SIGNAL STRUCTURES								
				654.0110	657.0345	657.0520	657.0525	657.0530
				CONCRETE BASES		POLES	MONOTUBE ARMS	
LOCATION / BASE				TYPE 10	TYPE 9	ARMS 20-FT	ARMS 25-FT	ARMS 30-FT
NUMBER	STATION	OFFSET	L/R	EACH	EACH	EACH	EACH	EACH
CATEGORY 0010								
SYENE ROAD & MCCOY ROAD								
SB8	678+95.3 'SRN'	29.0	R	1	1	--	1	--
SB10	678+30.6 'SRN'	108.9	R	1	1	1	--	--
SB12	677+71.2 'SRS'	21.5	L	1	1	--	--	1
SUBTOTAL				3	3	1	1	1
PROJECT TOTAL				3	3	1	1	1

TRAFFIC SIGNAL MOUNTING HARDWARE	
658.5070.001	
SIGNAL MOUNTING	
HARDWARE	
(SYENE ROAD & MCCOY ROAD)	
LOCATION	EACH
CATEGORY 0010	
SYENE ROAD & MCCOY ROAD	1
PROJECT TOTAL	1

TRAFFIC SIGNAL SYSTEMS	
SPV.0060.24	
FURNISH & INSTALL	
APS SYSTEM	
(SYENE ROAD & MCCOY ROAD)	
LOCATION	EACH
CATEGORY 0010	
SYENE ROAD & MCCOY ROAD	1
PROJECT TOTAL	1

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND								
LOCATION	FROM	-	TO	655.0260	655.0305	655.0700*	655.0515	655.0900*
				CABLE	CABLE TYPE		ELECTRICAL WIRE	
				TRAFFIC SIGNAL	UF 2-12 AWG	LOOP DETECTOR	TRAFFIC SIGNALS	TRAFFIC SIGNAL EVP
				12-14 AWG	GROUNDED	LEAD IN CABLE	10 AWG	DETECTOR CABLE
				LF	LF	LF	LF	LF
CATEGORY 0010								
SYENE ROAD & MCCOY ROAD								
	CB1	-	SB1	77	--	77	77	--
	CB1	-	SB2	128	128	128	--	--
	CB1	-	SB3	150	--	--	--	--
	CB1	-	SB4	224	--	--	--	--
	CB1	-	SB5	241	--	241	--	--
	CB1	-	SB6	289	--	289	--	--
	CB1	-	SB7	302	--	302	--	--
	CB1	-	SB8	295	--	--	--	300
	CB1	-	SB9	268	--	--	--	--
	CB1	-	SB10	372	--	--	--	--
	CB1	-	SB11	330	--	--	--	--
	CB1	-	SB12	230	--	--	--	235
	CB1	-	SB13	173	--	173	--	--
	CB1	-	SB14	106	106	106	106	111
	SB1	-	SB2	--	--	--	110	--
	SB2	-	SB3	--	--	--	79	--
	SB3	-	SB4	--	--	--	175	--
	SB4	-	SB5	--	--	--	88	--
	SB5	-	SB6	--	--	--	152	--
	SB6	-	SB7	--	--	--	116	--
	SB7	-	SB8	--	--	--	126	--
	SB8	-	SB9	--	--	--	88	--
	SB9	-	SB10	--	--	--	167	--
	SB10	-	SB11	--	--	--	149	--
	SB11	-	SB12	--	--	--	188	--
	SB12	-	SB13	--	--	--	119	--
	SB13	-	SB14	--	--	--	130	--
	SB2	-	SB4	--	152	--	--	--
	SB14	-	SB11	--	287	--	--	--
SUBTOTAL				3,185	673	1,316	1,870	646
PROJECT TOTAL				3,185	673	*	1,870	*
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.								

TRAFFIC SIGNAL CONDUIT

						652.0225	652.0235
						CONDUIT RIGID NONMETALLIC	
						SCHEDULE 40	
						2-INCH	3-INCH
LOCATION	FROM	-	TO			LF	LF
CATEGORY 0010							
SYENE ROAD & MCCOY ROAD							
	CB1	-	PB1			--	75
	PB1	-	SB1			14	--
	PB1	-	PB2			12	--
	PB2	-	PB3			270	--
	PB1	-	PB4			--	76
	PB4	-	SB2			13	--
	PB4	-	PB5			11	--
	PB4	-	PB6			--	146
	PB5	-	SB3			10	--
	PB6	-	SB4			20	--
	PB6	-	SB5			37	--
	PB6	-	PB7			7	--
	PB6	-	PB8			--	67
	PB8	-	SB6			35	--
	PB8	-	SB7			50	--
	PB8	-	SB8			--	42
	PB8	-	SB9			15	--
	PB8	-	PB9			7	--
	PB8	-	PB10			--	136
	PB10	-	SB10			--	38
	PB10	-	PB11			--	72
	PB11	-	SB11			30	--
	PB11	-	PB12			47	--
	PB12	-	PB13			49	--
	PB12	-	PB14			239	--
	PB11	-	PB15			--	170
	PB15	-	SB12			28	--
	PB15	-	PB16			--	60
	PB16	-	SB13			16	--
	PB16	-	PB17			44	--
	PB16	-	PB18			--	106
	PB18	-	SB14			16	--
	PB18	-	CB1			--	156
SUBTOTAL						970	1,144
PROJECT TOTAL						970	1,144

3	TRAFFIC SIGNAL HEADS						TRAFFIC SIGNAL PULL BOXES						3
			658.0173	658.0174	658.0416					SPV.0060.20	SPV.0060.21		
			TRAFFIC SIGNAL FACE		PEDESTRIAN					CONSTRUCT ELECTRICAL HANDHOLE			
			3S	4S	SIGNAL FACE					TYPE 1	TYPE 5		
	LOCATION	SIGNAL	HEAD	12-INCH	12-INCH	16-INCH							
		BASE NO.	NO.	EACH	EACH	EACH							
	CATEGORY 0010												
	SYENE ROAD & MCCOY ROAD												
		SB1	4	1	--	--							
			6	1	--	--							
			8B	--	--	1							
		SB2	5	1	--	--							
		SB3	16	1	--	--							
		SB4	15	1	--	--							
		SB5	91	--	--	1							
		SB6	92	--	--	1							
		SB7	8A	--	--	1							
		SB8	2	1	--	--							
			3	1	--	--							
		SB9	12	1	--	--							
			14	1	--	--							
		SB10	13	1	--	--							
		SB11	1	1	--	--							
			9	--	1	--							
		SB12	7	1	--	--							
			8	1	--	--							
			10	--	1	--							
		SB13	11	1	--	--							
			17	1	--	--							
			2B	--	--	1							
		SB14	18	1	--	--							
			2A	--	--	1							
	SUBTOTAL			16	2	6							
	PROJECT TOTAL			16	2	6							

TRAFFIC SIGNAL LOOP DETECTORS

										652.0800	655.0800	655.0700*
										CONDUIT	LOOP DETECTOR	
										LOOP DETECTOR	WIRE	LEAD IN CABLE
LOCATION / LOOP NO.	STATION **	OFFSET	L/R	SIZE			NO. OF					
				FT	X	FT	TURNS	INSTALLATION METHOD				
									LF	LF	LF	
CATEGORY 0010												
SYENE ROAD & MCCOY ROAD												
11	677+80.1 'SRN'	5.0	L	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	68	144	121	
12	677+52.0 'SRN'	4.8	L	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	66	140	121	
21	681+98.2 'SRS'	5.0	L	6	X	6	6	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	54	332	513	
22	679+53.1 'SRS'	4.9	L	6	X	20	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	84	260	244	
23	679+05.0 'SRS'	5.0	L	6	X	20	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	84	260	244	
41	678+53.0 'SRS'	63.3	L	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	72	152	186	
42	678+47.1 'SRS'	36.5	L	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	70	148	186	
51	679+33.1 'SRS'	5.0	R	6	X	20	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	68	212	281	
52	679+05.0 'SRS'	4.9	R	6	X	20	3	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	68	212	281	
61	675+25.7 'SRN'	4.9	R	6	X	6	5	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	82	418	309	
62	677+52.3 'SRN'	5.1	R	6	X	20	2	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)	81	228	72	
63	677+52.5 'SRN'	21.1	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	80	168	72	
64	677+80.1 'SRN'	5.0	R	6	X	20	2	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)	81	228	72	
65	677+80.2 'SRN'	21.0	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	80	168	72	
81	678+67.9 'SRN'	80.1	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	86	180	100	
82	678+67.9 'SRN'	52.1	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	86	180	100	
83	679+08.0 'SRN'	69.8	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	76	160	151	
84	679+18.3 'SRN'	43.8	R	6	X	20	2	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPlice) BOX OFF ROADWAY (OPTION 2)	82	172	151	
85	678+76.4 'SRN'	57.1	R	6	X	6	4	REFER TO WISDOT TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR SDD	40	232	186	
SUBTOTAL									1,408	3,994	3,462	
PROJECT TOTAL									1,408	3,994	*	
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.												

CONSTRUCTION STAKING

650.8501.001	
CONSTRUCTION STAKING	
ELECTRICAL INSTALLATIONS	
(5849-02-07)	
LOCATION	EACH
CATEGORY 0010	
5849-02-07	1
PROJECT TOTAL	1

PEDESTRIAN PUSH BUTTONS

658.0500	
PEDESTRIAN	
PUSH	
BUTTON	
LOCATION / BASE NUMBER	EACH
CATEGORY 0010	
SYENE ROAD & MCCOY ROAD	
SB9	1
INTERSECTION TOTAL	1
PROJECT TOTAL	1

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND							
				655.0230	655.0610	655.0700*	655.0900*
				CABLE TRAFFIC SIGNAL 5-14 AWG	ELECTRICAL WIRE LIGHTING 12 AWG	LOOP DETECTOR LEAD IN CABLE	TRAFFIC SIGNAL EVP DETECTOR CABLE
LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	LF	LF	LF	LF
CATEGORY 0010							
SYENE ROAD & MCCOY ROAD							
	SB1	-	4	24	--	--	--
		-	6	24	--	--	--
		-	8B	20	--	--	--
		-	BUTTON	--	--	11	--
	SB2	-	5	24	--	--	--
		-	BUTTON	--	--	11	--
		-	LUMINAIRE	--	239	--	--
	SB3	-	16	24	--	--	--
	SB4	-	15	24	--	--	--
		-	18	24	--	--	--
		-	LUMINAIRE	--	122	--	--
	SB5	-	91	20	--	--	--
		-	BUTTON	--	--	11	--
	SB6	-	92	20	--	--	--
		-	BUTTON	--	--	11	--
	SB7	-	8A	20	--	--	--
		-	BUTTON	--	--	11	--
	SB8	-	2	55	--	--	--
		-	3	55	--	--	--
		-	EVP A	--	--	--	55
SYENE ROAD & MCCOY ROAD SUBTOTAL				334	361	55	55
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.				CONTINUED			

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND (CONTINUED)							
				655.0230	655.0610	655.0700*	655.0900*
				CABLE TRAFFIC SIGNAL 5-14 AWG	ELECTRICAL WIRE LIGHTING 12 AWG	LOOP DETECTOR LEAD IN CABLE	TRAFFIC SIGNAL EVP DETECTOR CABLE
LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	LF	LF	LF	LF
CATEGORY 0010							
SYENE ROAD & MCCOY ROAD							
	SB9	-	12	24	--	--	--
		-	14	24	--	--	--
		-	BUTTON	--	--	11	--
	SB10	-	13	50	--	--	--
	SB11	-	1	27	--	--	--
		-	9	27	--	--	--
			LUMINAIRE	--	122	--	--
	SB12	-	7	60	--	--	--
		-	8	60	--	--	--
		-	10	60	--	--	--
		-	EVP B	--	--	--	60
	SB13	-	11	24	--	--	--
		-	17	24	--	--	--
		-	2B	20	--	--	--
		-	BUTTON	--	--	11	--
	SB14	-	18	24	--	--	--
		-	2A	20	--	--	--
		-	BUTTON	--	--	11	--
		-	LUMINAIRE	--	122	--	--
		-	EVP C	--	--	--	24
SYENE ROAD & MCCOY ROAD SUBTOTAL				444	244	33	84
SUBTOTAL				778	605	88	139
PROJECT TOTAL				778	605	4,866	785
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.							

TRANSPORTATION PROJECT PLAT NO: 5849-02-06 - 4.01

THAT PART OF THE SE 1/4 OF THE SW 1/4, AND PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 2, T 6 N, R 9 E, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.

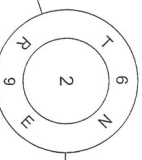
RELOCATION ORDER: LOCAL STREET, C FITCHBURG, SYENE ROAD, MC COY ROAD INTERSECTION, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF FITCHBURG DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

- TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF FITCHBURG HEREBY CERTIFIES THAT:
1. SHOWN FOR THE ABOVE PROJECT.
 2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT.

WISCONSIN STATUTES.

PURSUANT TO THE PROVISIONS OF SECTION 62.22.



ALUMINUM DISK FOUND
PT #5006
Y = 464210.662
X = 818241.765

UTILITY INTERESTS REQUIRED

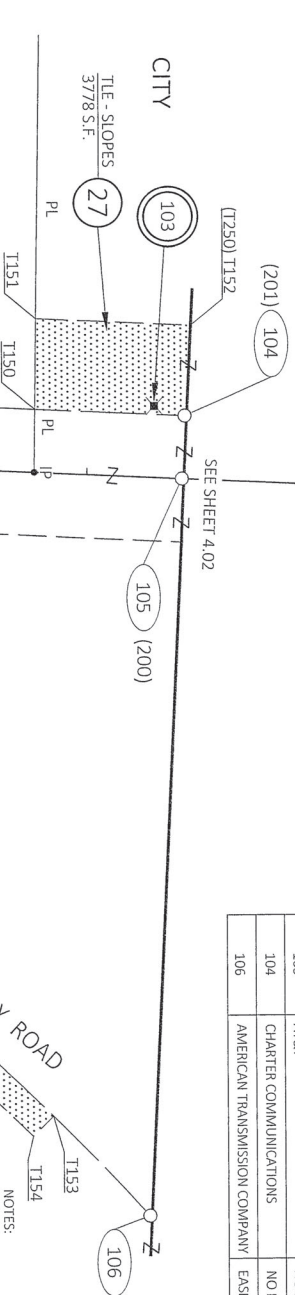
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	MG&E - ELECTRIC	RELEASE OF RIGHTS
103	AT&T	RELEASE OF RIGHTS
104	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
106	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
101	MG&E - ELECTRIC	90' WIDE EASEMENT DOC. 1140513	27
103	AT&T	NO RECORD OF EASEMENT	27
104	CHARTER COMMUNICATIONS	NO RECORD OF EASEMENT	27
106	AMERICAN TRANSMISSION COMPANY	EASEMENT ASSIGNMENT DOC. 3283455	27

Office of Register of Deeds
Dane County, Wisconsin
Received for Record December 1, 2023 at 1:04 o'clock P.M.
and recorded in vol. 61-099 of Plats on pages 587-588.
Noted & Approved by
J. D. Schaefer, Deputy Register

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5849-02-06 - 4.01
SHEET 1 OF 2



NOTES:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN DANE COUNTY AS SHEET 2 OF 2 OF THIS DOCUMENT.

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING / ZONING DEPARTMENT OF THE CITY OF FITCHBURG.

FOUND PROPERTY IRONS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

Point No.	Station	Offset	Y	X
100	69+77.20 SRW	33.00' LT	461576.819	818090.421
101	69+76.31 SRW	80.00' LT	461577.246	818053.410
102	70+26.34 SRW	80.00' LT	461627.218	818055.844
103	70+27.22 SRW	33.00' LT	461626.790	818082.856
104	79+50.00 SRW	33.00' LT	462548.473	818127.754
105	79+50.00 SRW	0.00'	462548.867	818160.715
106	79+50.00 SRW	386.49' RT	462528.092	818546.745
107	71+73.80 SRW	80.00' RT	461768.688	818182.877
108	70+78.27 SRW	33.00' RT	461674.588	818151.261
109	70+02.63 SRW	33.00' RT	461599.011	818147.581
110	69+80.14 SRW	70.89' RT	461574.702	818194.332
111	69+82.26 SRW	152.16' RT	461572.872	818265.605

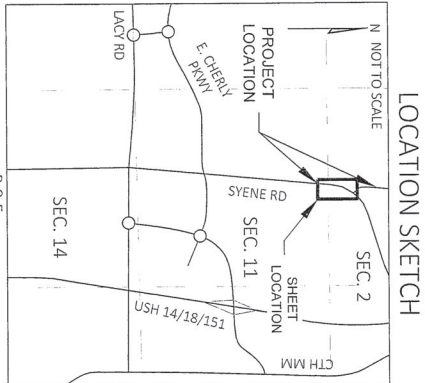
HIGHWAY	BASIS OF EXISTING R/W
SYENE ROAD	PREVIOUS PROJECT T 014-2(22), CSM 11625, POS 1998-00031, M3201
MC COY ROAD	PREVIOUS PROJECT T 014-2(22), POS 1998-00031

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	DANE COUNTY	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED	NEW	EXISTING	TOTAL	TILE S.F.
27				445	---	445	16167	

FROM POINT	TO POINT	CHORD BEARING	CHORD DISTANCE	ARC LENGTH	RADIUS
106	107	S25° 36' 06" W	842.07'	864.74'	1085.92'

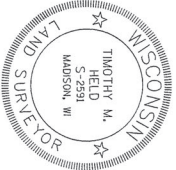
FROM POINT	TO POINT	BEARING	DISTANCE
5005	5006	N02° 47' 20" E	2637.49'
5006	105	S02° 47' 20" W	1665.77'
105	5005	S02° 47' 20" W	971.72'
5005	100	N89° 05' 40" W	33.02'
100	101	N89° 05' 40" W	27.01'
101	102	N02° 47' 20" E	50.03'
102	103	S89° 05' 36" E	27.01'
103	104	N02° 47' 20" E	922.78'
104	105	S87° 12' 40" E	33.00'
105	106	S87° 12' 40" E	386.49'
106	107	SEE CURVE TABLE	
107	108	S18° 34' 17" W	99.27'
108	109	S02° 47' 20" W	75.65'
109	110	S56° 31' 01" E	44.08'
110	111	S88° 42' 39" E	81.29'
111	5005	N88° 42' 39" W	152.21'



Point No.	Station	Offset
T150	78+71.31 SRW	33.00' LT
T151	78+69.73 SRW	80.53' LT
T152	79+50.00 SRW	80.53' LT
T153	78+97.29 SRW	336.11' RT
T154	78+87.30 SRW	347.30' RT
T155	72+92.84 SRW	81.64' RT
T156	72+94.51 SRW	66.73' RT
T157	70+78.27 SRW	48.00' RT
T158	70+05.35 SRW	48.00' RT
T159	69+88.14 SRW	77.00' RT
T160	69+90.10 SRW	151.96' RT



I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF FITCHBURG, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *T. M. Held* DATE: NOV. 10, 2023
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: 5-2591
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF FITCHBURG
SIGNATURE: *Julia Aratt* DATE: 12/01/23
PRINT NAME: JULIA ARATT - TRENTA



TRANSPORTATION PROJECT PLAT TITLE SHEET

5849-02-06

C FITCHBURG, SYENE ROAD

MC COY ROAD INTERSECTION

LOCAL STREET DANE COUNTY

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5849-02-06

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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.

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

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING/ZONING DEPARTMENT OF THE CITY OF FITCHBURG.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

INFORMATION FOR THE BASIS OF HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	•
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---	ELECTRIC POLE		NON-COMPENSABLE	
PROPERTY LINE	---	TELEPHONE POLE			
LOT, TIE & OTHER MINOR LINES	---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
SLOPE INTERCEPT	---	ACCESS RESTRICTED BY ACQUISITION			
CORPORATE LIMITS	---	NO ACCESS (BY STATUTORY AUTHORITY)			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---	NO ACCESS (NEW HIGHWAY)			
TEMPORARY LIMITED EASEMENT AREA	---	PARCEL NUMBER (25)		UTILITY NUMBER (40)	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---	PARALLEL OFFSETS			
TRANSMISSION STRUCTURES	---				
BUILDING					
TO BE REMOVED					
BRIDGE					
CULVERT					

CONVENTIONAL ABBREVIATIONS

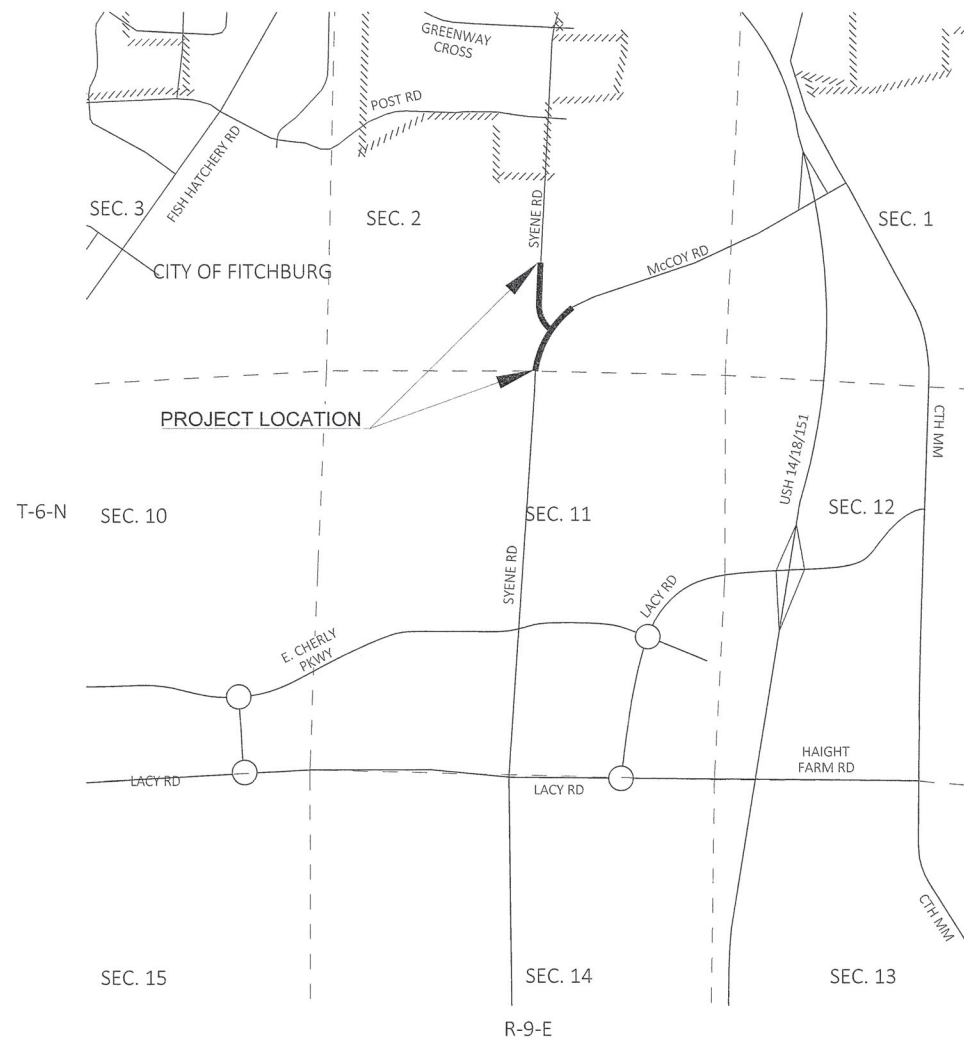
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT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

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
ELECTRIC TOWER	



TRANSPORTATION PROJECT PLAT NO: 5849-02-06 - 4.02 AMENDMENT NO. 1

REVISES UTILITY NUMBER 106 TO UTILITY NUMBER 107 OF TRANSPORTATION PROJECT PLAT 5849-02-06-4.02 RECORDED AS DOCUMENT NUMBER 5937767 AND FILED IN VOL. 61-0998 OF PLATS ON PAGE 589.

THAT PART OF THE SE 1/4 OF THE SW 1/4, PART OF THE NE 1/4 OF THE SW 1/4, PART OF THE NW 1/4 OF THE SE 1/4 AND PART OF THE SW 1/4 OF THE SE 1/4, ALL IN SECTION 2, T 6 N, R 9 E, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN, RELOCATION ORDER: LOCAL STREET, C FITCHBURG, SYENE ROAD, MC COY ROAD INTERSECTION, DANE COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF FITCHBURG DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF FITCHBURG HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS Laid OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF FITCHBURG, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

EASEMENT TABLE			
OWNER		RECORDING INFORMATION	
UTILITY NUMBER	LOCATED IN	R/W PARCEL NO.	
107	MADISON METROPOLITAN SEWERAGE DISTRICT	30' WIDE SANITARY SEWER EASEMENT DOC. 4257437	
107	MADISON METROPOLITAN SEWERAGE DISTRICT	INDETERMINATE WIDTH SANITARY SEWER EASEMENT DOC. 1102313	
107	MADISON METROPOLITAN SEWERAGE DISTRICT	INDETERMINATE WIDTH SANITARY SEWER EASEMENT DOC. 1102314	
107	MADISON METROPOLITAN SEWERAGE DISTRICT	30' WIDE SANITARY SEWER EASEMENT DOC. 1414745	

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF FITCHBURG.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED	TILE S.F.
27	DANE COUNTY	FEET/TILE	9643	20802

NOTES:

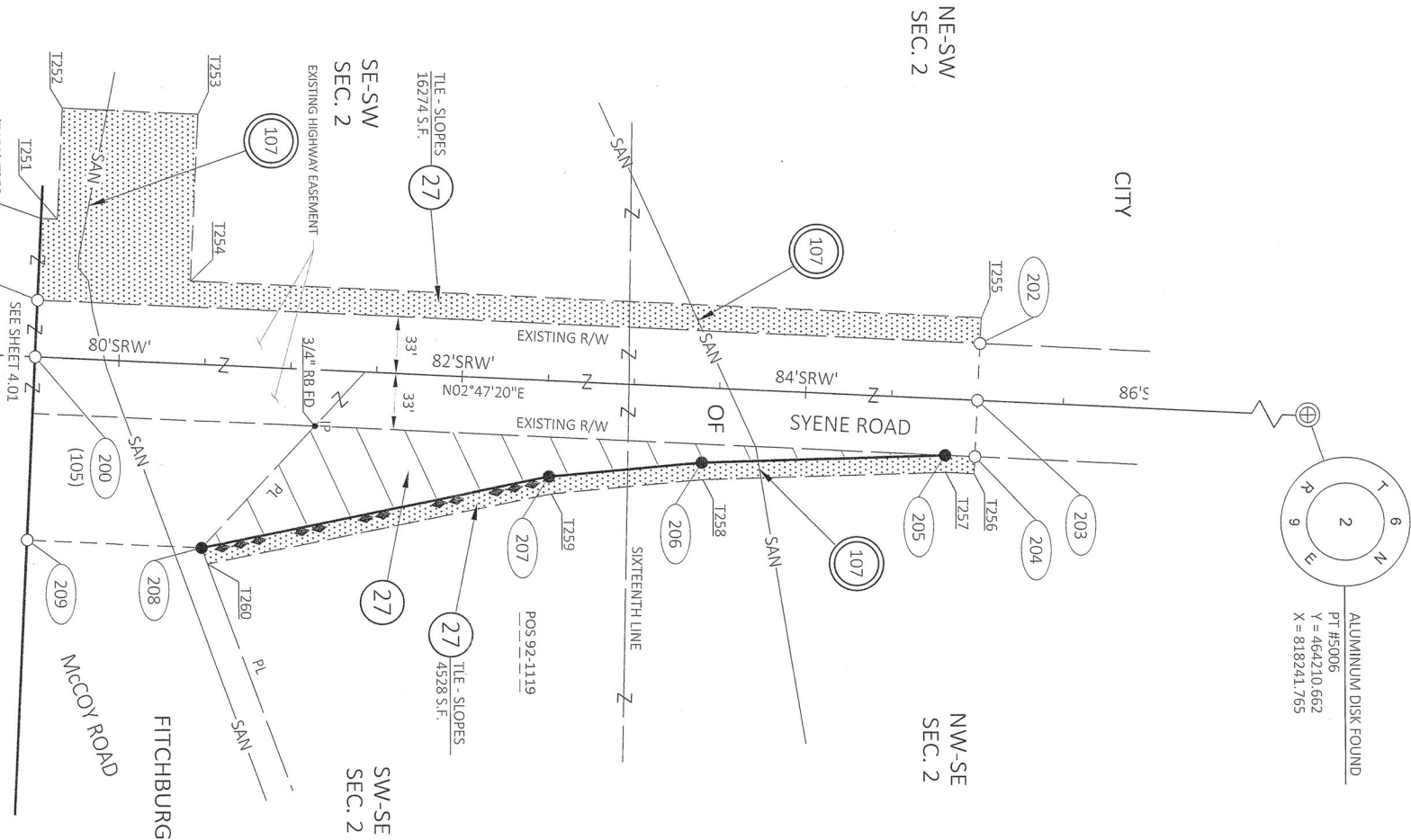
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN DANE COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 5937529 AND FILED IN VOLUME 61-099A, AS PAGES 587 - 588.

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING / ZONING DEPARTMENT OF THE CITY OF FITCHBURG.

FOUND PROPERTY IRONS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

BASIS OF EXISTING ACCESS CONTROL FROM PREVIOUS PROJECT: 1014-21271.

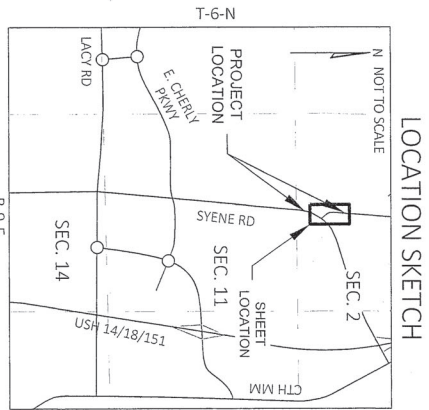


ALUMINUM DISK FOUND
PT #5006
Y = 464210.662
X = 813241.765

R/W Station & Offset Table			
Point No.	Station	Offset	X
200	79+50.00 SRW	0.00'	462546.967
201	79+50.00 SRW	33.00' LT	462548.473
202	85+00.00 SRW	33.00' LT	463097.821
203	85+00.00 SRW	0.00'	463096.215
204	85+00.00 SRW	33.00' RT	463094.610
205	84+82.56 SRW	33.00' RT	463077.195
206	83+41.45 SRW	43.78' RT	462935.722
207	82+52.74 SRW	56.06' RT	462846.523
208	80+52.70 SRW	106.81' RT	462644.340
209	79+50.00 SRW	106.81' RT	462541.670

TILE Station & Offset Table		
Point No.	Station	Offset
T250	79+50.00 SRW	80.53' LT
T251	79+50.53 SRW	80.53' LT
T252	79+50.53 SRW	145.49' LT
T253	80+39.32 SRW	145.49' LT
T254	80+39.32 SRW	48.00' LT
T255	85+00.00 SRW	48.00' LT
T256	85+00.00 SRW	43.00' RT
T257	84+83.33 SRW	42.97' RT
T258	83+42.52 SRW	53.73' RT
T259	82+54.86 SRW	65.89' RT
T260	80+56.76 SRW	116.12' RT

R/W COURSE TABLE		
FROM POINT	TO POINT	BEARING
5005	5006	N02°47'20"E
5006	203	S02°47'20"W
203	200	S02°47'20"W
200	201	N87°12'40"W
201	202	N02°47'20"E
202	203	S87°12'40"E
203	204	S87°12'40"E
204	205	S02°47'20"W
205	206	S01°34'49"E
206	207	S05°05'36"E
207	208	S11°27'08"E
208	209	S02°47'20"W
209	200	N87°12'40"W



I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF FITCHBURG, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Timothy M. Held* DATE: JAN. 17, 2024
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF FITCHBURG.
SIGNATURE: *Julia Oates* DATE: 4/09/2024
PRINT NAME: JULIA A. OATES - F.R.A.T.T.H.

Office of Register of Deeds
Dane County, Wisconsin
Received for Record April 16, 2024 at 1:29 PM
of Plats on page 19
and recorded in vol. 62-0064
Abstract located by
J. Oates, Register
Doc# 5956377
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5849-02-06-4.02
SHEET 11 OF 15
AMENDMENT NO. 1

TRANSPORTATION PROJECT PLAT NO: 5849-02-06 - 4.02

THAT PART OF THE SE 1/4 OF THE SW 1/4, PART OF THE NE 1/4 OF THE SW 1/4, PART OF THE NW 1/4 OF THE SE 1/4 AND PART OF THE SW 1/4 OF THE SE 1/4, ALL IN SECTION 2, T 6 N, R 9 E, CITY OF FITCHBURG, DANE COUNTY, WISCONSIN.

RELOCATION ORDER: LOCAL STREET, C FITCHBURG, SYENE ROAD, MC COY ROAD INTERSECTION, DANE COUNTY.

TO PROPERLY ESTABLISH LAYOUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF FITCHBURG DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF FITCHBURG HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF FITCHBURG, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

EASEMENT TABLE			
OWNER		RECORDING INFORMATION	
UTILITY NUMBER	LOCATED IN R/W PARCEL NO.		
106	MADISON METROPOLITAN SEWERAGE DISTRICT	30' WIDE SANITARY SEWER EASEMENT DOC. 4257437	27
106	MADISON METROPOLITAN SEWERAGE DISTRICT	INDETERMINATE WIDTH SANITARY SEWER EASEMENT DOC. 1102313	27
106	MADISON METROPOLITAN SEWERAGE DISTRICT	INDETERMINATE WIDTH SANITARY SEWER EASEMENT DOC. 1102314	27
106	MADISON METROPOLITAN SEWERAGE DISTRICT	30' WIDE SANITARY SEWER EASEMENT DOC. 1414745	27

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF FITCHBURG.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW EXISTING TOTAL	TILE S.F.
27	DANE COUNTY	FEE/TILE	9643 ---- 9643	20802

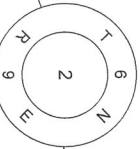
NOTES:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN DANE COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. **587-588** AND FILED IN VOLUME **61-0794** PAGES **587-588**
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DANE COUNTY, MAD08(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING / ZONING DEPARTMENT OF THE CITY OF FITCHBURG.

FOUND PROPERTY IRONS ARE 3/4" REBAR, UNLESS OTHERWISE NOTED.

BASIS OF EXISTING ACCESS CONTROL FROM PREVIOUS PROJECT: T014-2(27).

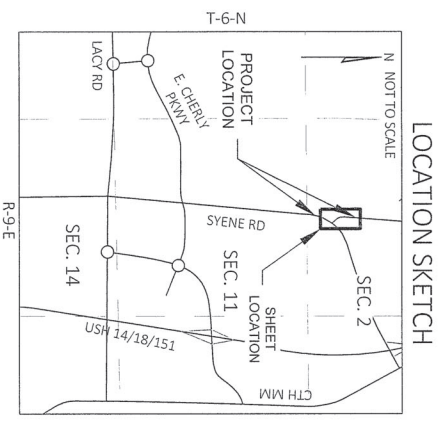
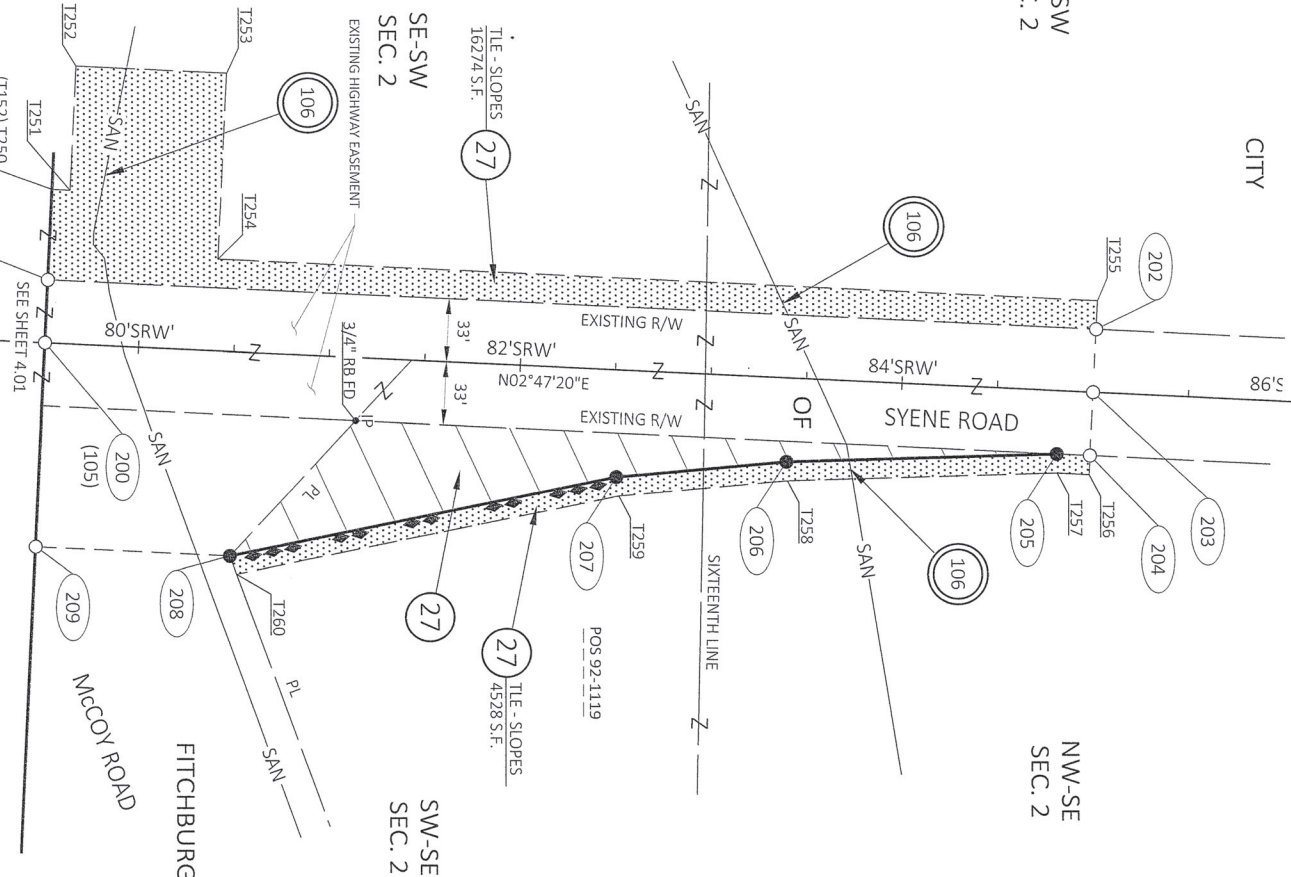


ALUMINUM DISK FOUND
PT #5006
Y = 464210.662
X = 818241.765

CITY

NE-SW
SEC. 2

NW-SE
SEC. 2



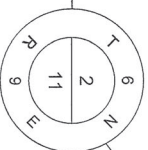
TILE Station & Offset Table		
Point No.	Station	Offset
T260	79+50.00 SRW	80.53' LT
T261	79+60.53 SRW	80.53' LT
T262	79+60.53 SRW	145.49' LT
T263	80+39.32 SRW	145.49' LT
T264	80+39.32 SRW	48.00' LT
T265	85+00.00 SRW	48.00' LT
T266	85+00.00 SRW	43.00' RT
T267	84+83.33 SRW	42.97' RT
T268	83+42.52 SRW	53.79' RT
T269	82+54.66 SRW	65.89' RT
T260	80+56.76 SRW	116.12' RT

R/W COURSE TABLE		
FROM POINT	TO POINT	BEARING
5005	5006	N02° 47' 20"E
5006	203	S02° 47' 20"W
203	200	S02° 47' 20"W
200	5005	S02° 47' 20"W
200	201	N87° 12' 40"W
201	202	N02° 47' 20"E
202	203	S87° 12' 40"E
203	204	S87° 12' 40"E
204	205	S02° 47' 20"W
205	206	S01° 34' 49"E
206	207	S05° 05' 36"E
207	208	S11° 27' 08"E
208	209	S02° 47' 20"W
209	200	N87° 12' 40"W

R/W Station & Offset Table		
Point No.	Station	Offset
200	79+50.00 SRW	0.00'
201	79+50.00 SRW	33.00' LT
202	85+00.00 SRW	33.00' LT
203	85+00.00 SRW	0.00'
204	85+00.00 SRW	33.00' RT
205	84+82.56 SRW	33.00' RT
206	83+41.45 SRW	43.78' RT
207	82+52.74 SRW	56.08' RT
208	80+52.79 SRW	106.81' RT
209	79+50.00 SRW	106.81' RT

Office of Register of Deeds
Dane County, Wisconsin
Received for Record on December 2023 at 10:22:22 o'clock PM and recorded in vol. 61-0998 of Plats on page 589.
Katie Chaberski, Register
Cherylann Weaver, Deputy
Document # 5937767
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 5849-02-06 - 4.02
SHEET 1 OF 1

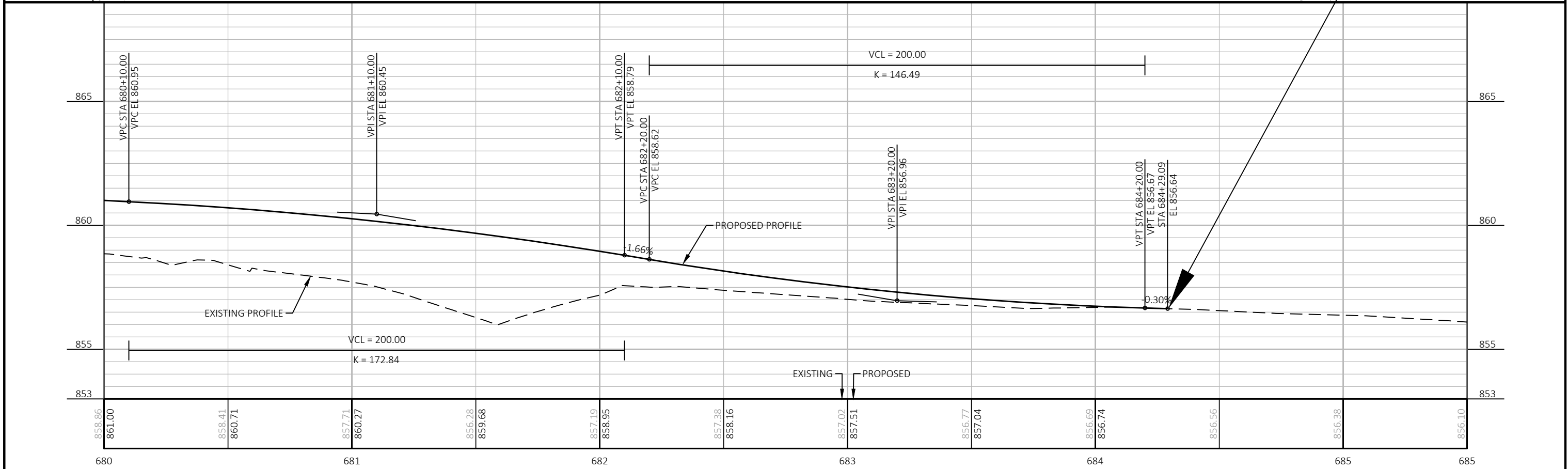
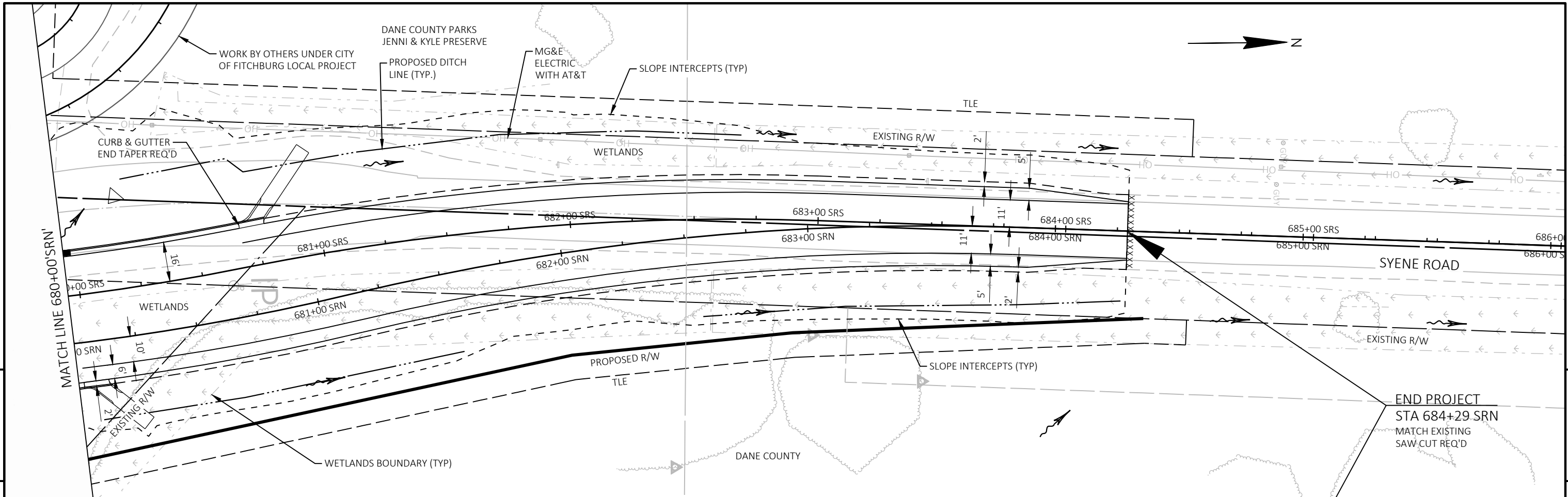
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X = 818113.435



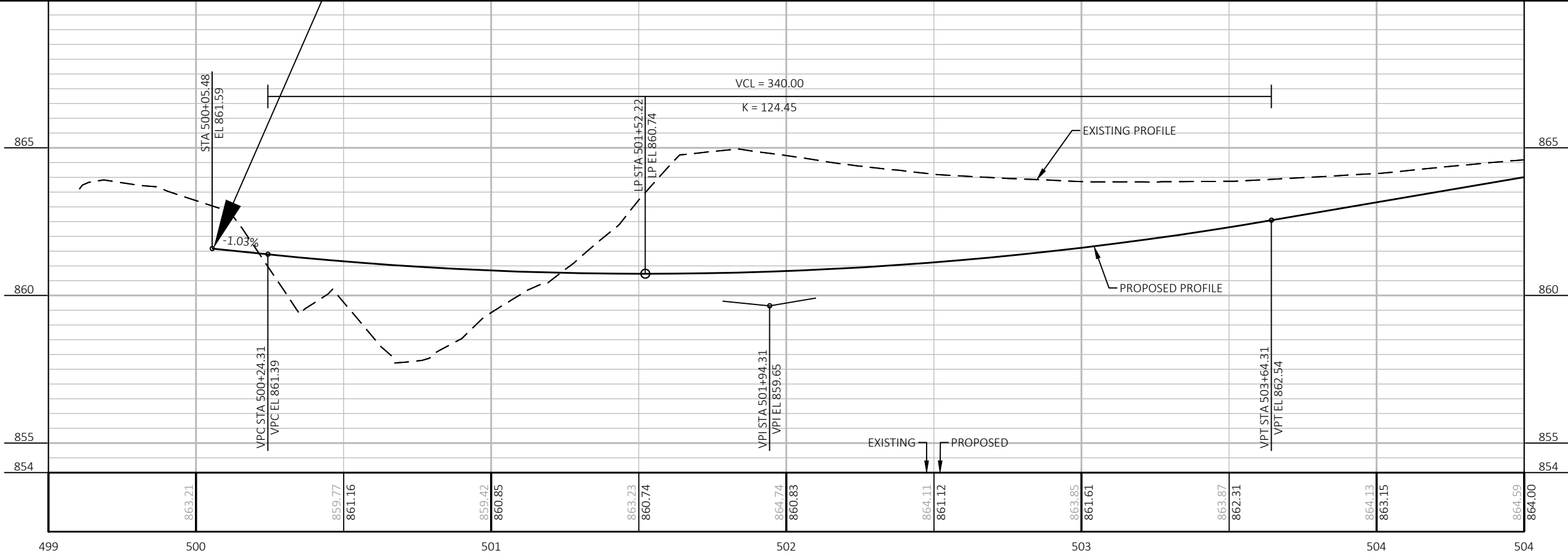
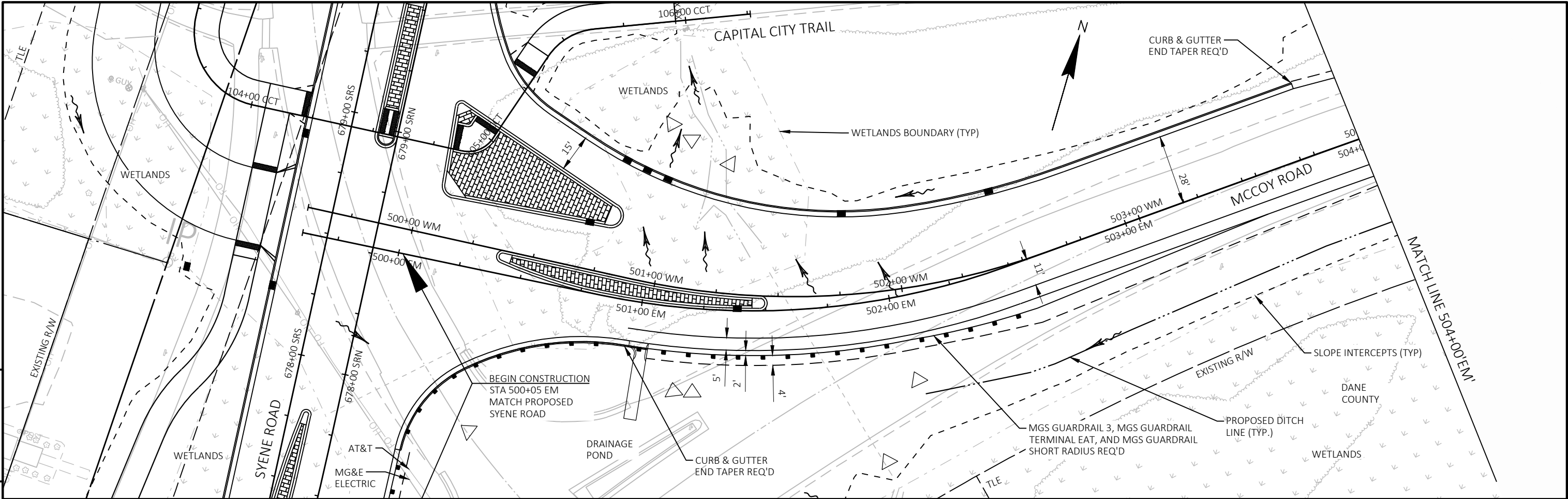
UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
106	MADISON METROPOLITAN SEWERAGE DISTRICT	RELEASE OF RIGHTS

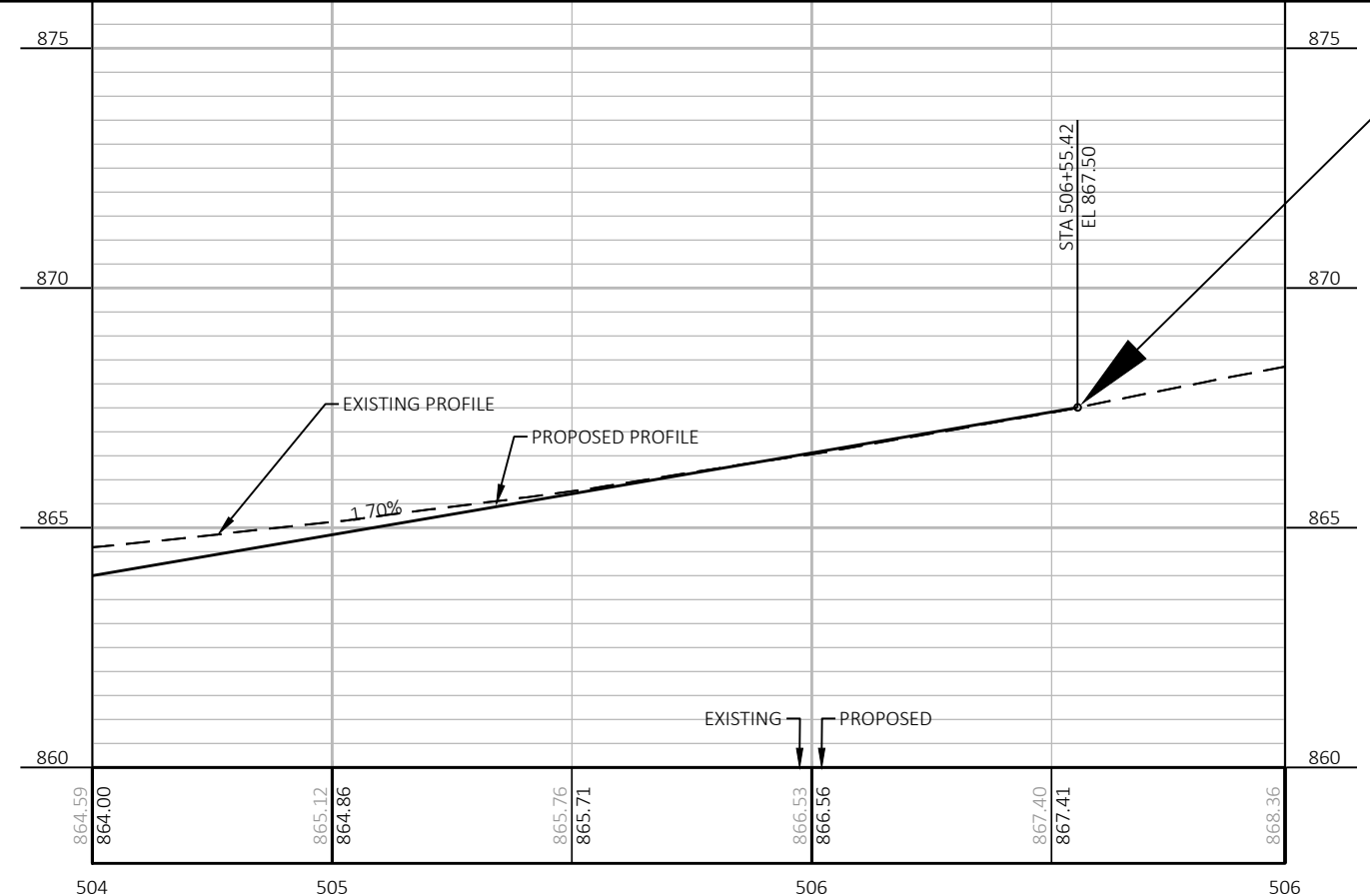
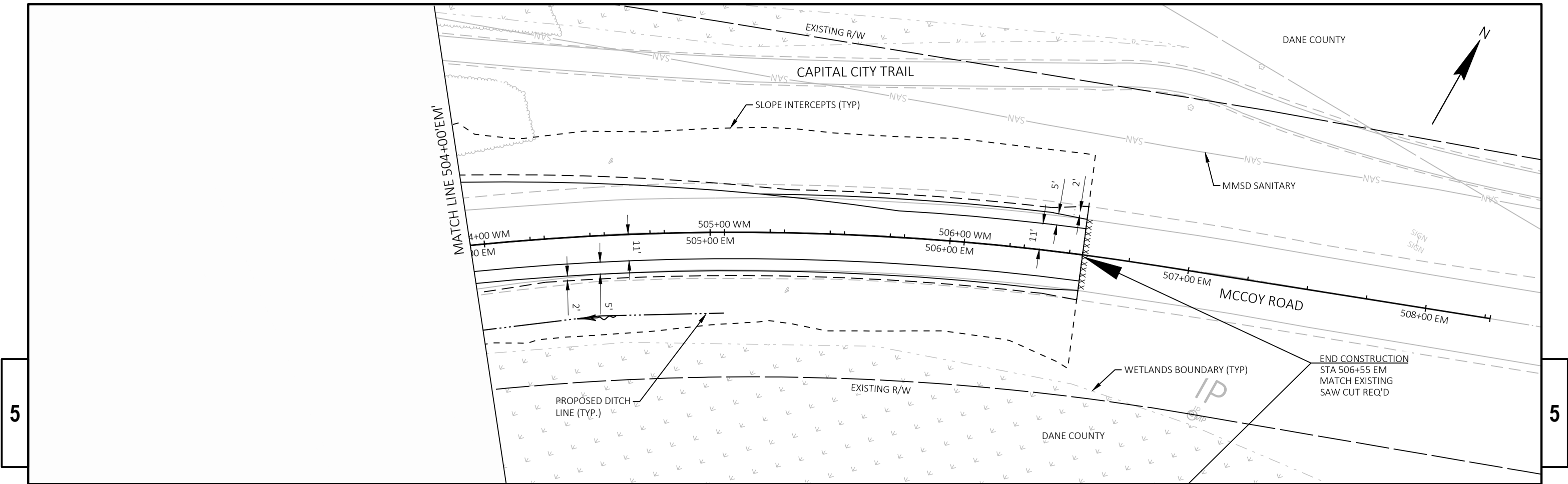
BASIS OF EXISTING R/W	
HIGHWAY	PREVIOUS PROJECT 034-2(27), POS 92-1119
SYENE ROAD	PREVIOUS PROJECT 034-2(27), POS 92-1119
MC COY ROAD	PREVIOUS PROJECT 034-2(27), POS 92-1119

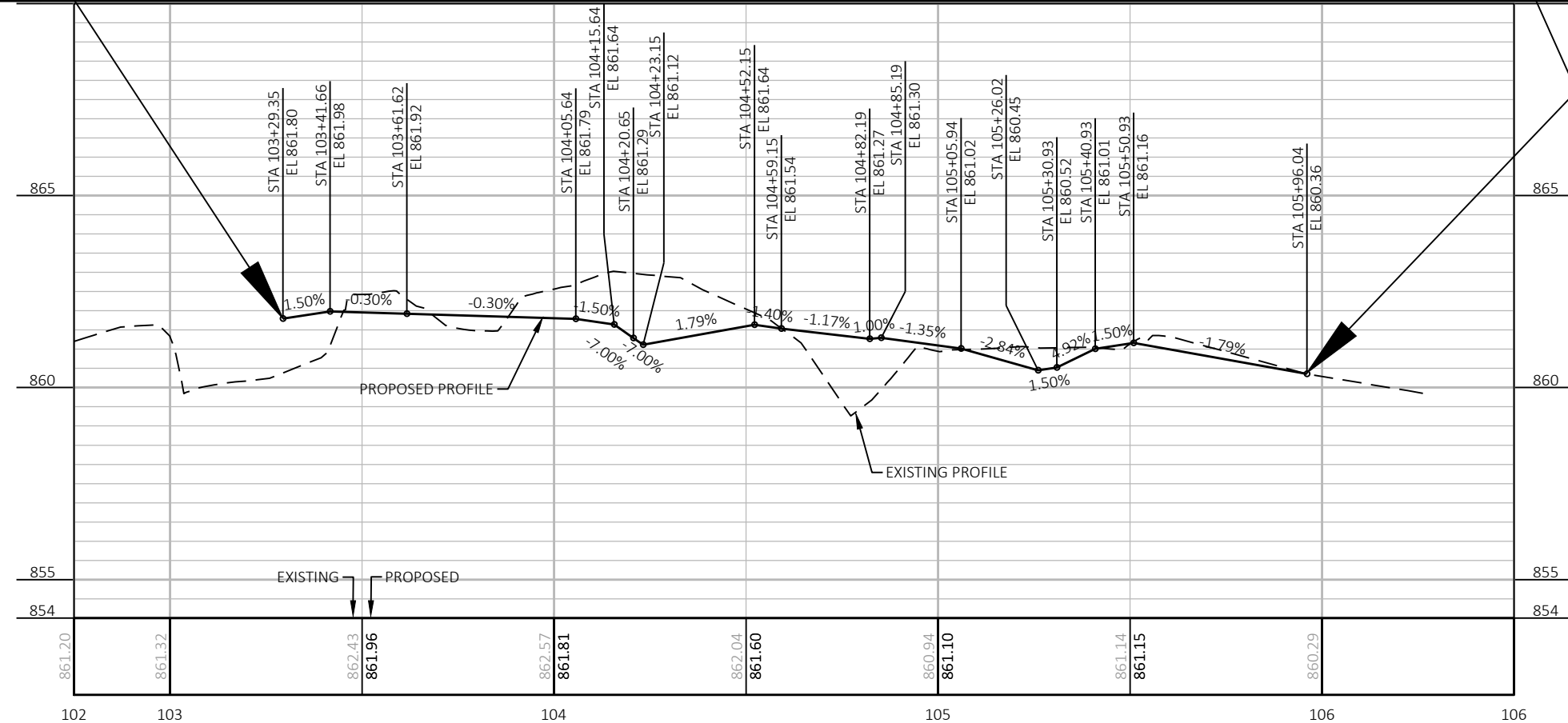
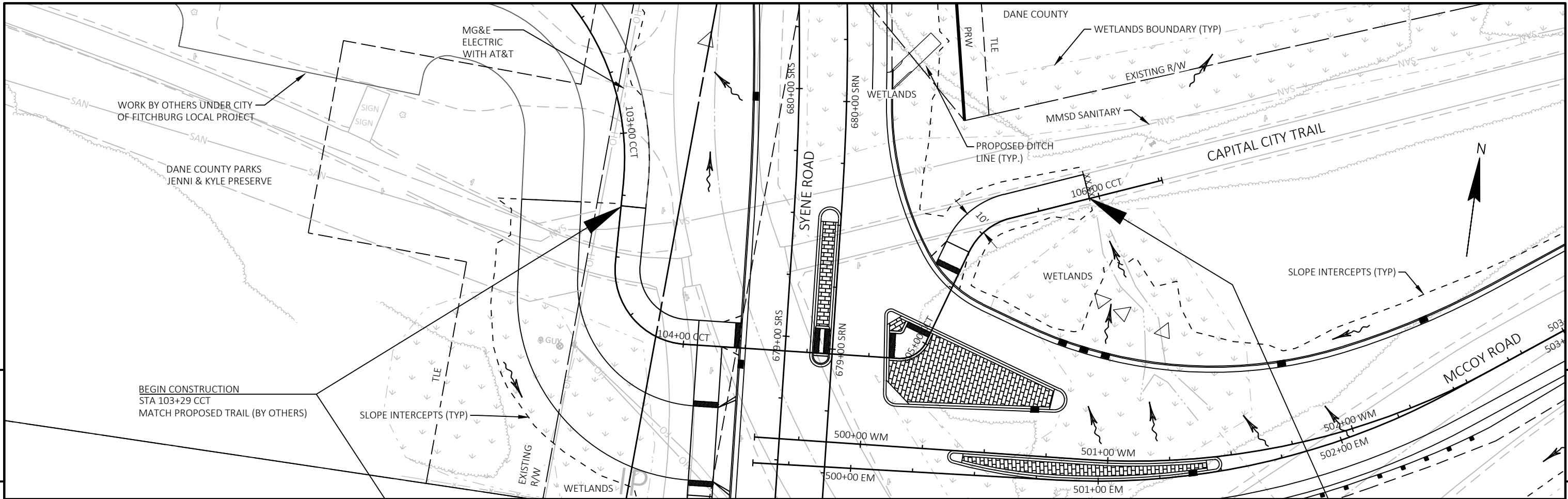
KL Engineering
(A Estee Experience)
I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF FITCHBURG, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.
SIGNATURE: *Timothy M. Held* DATE: NOV. 10, 2023
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF FITCHBURG.
SIGNATURE: *Jocia Ayala-Fatty* DATE: 12/05/23
PRINT NAME: JOCIA AYALA-FATTY

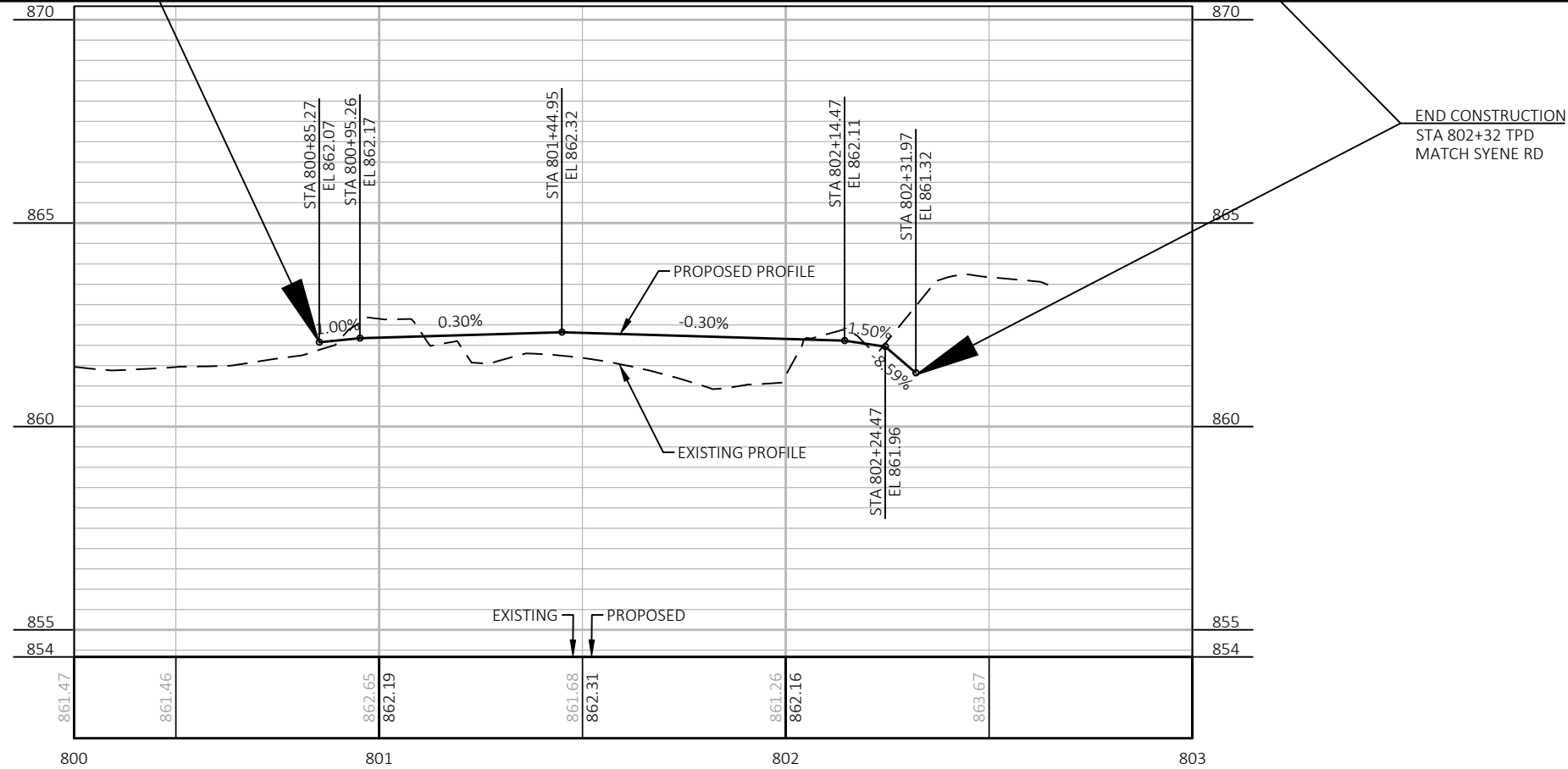
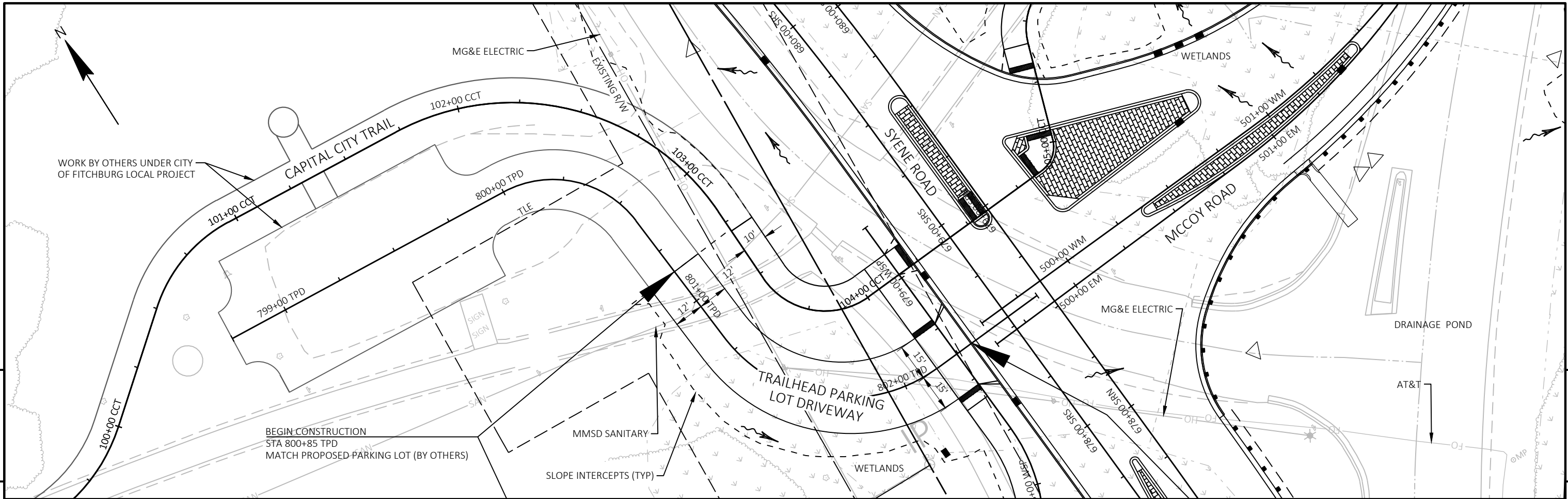


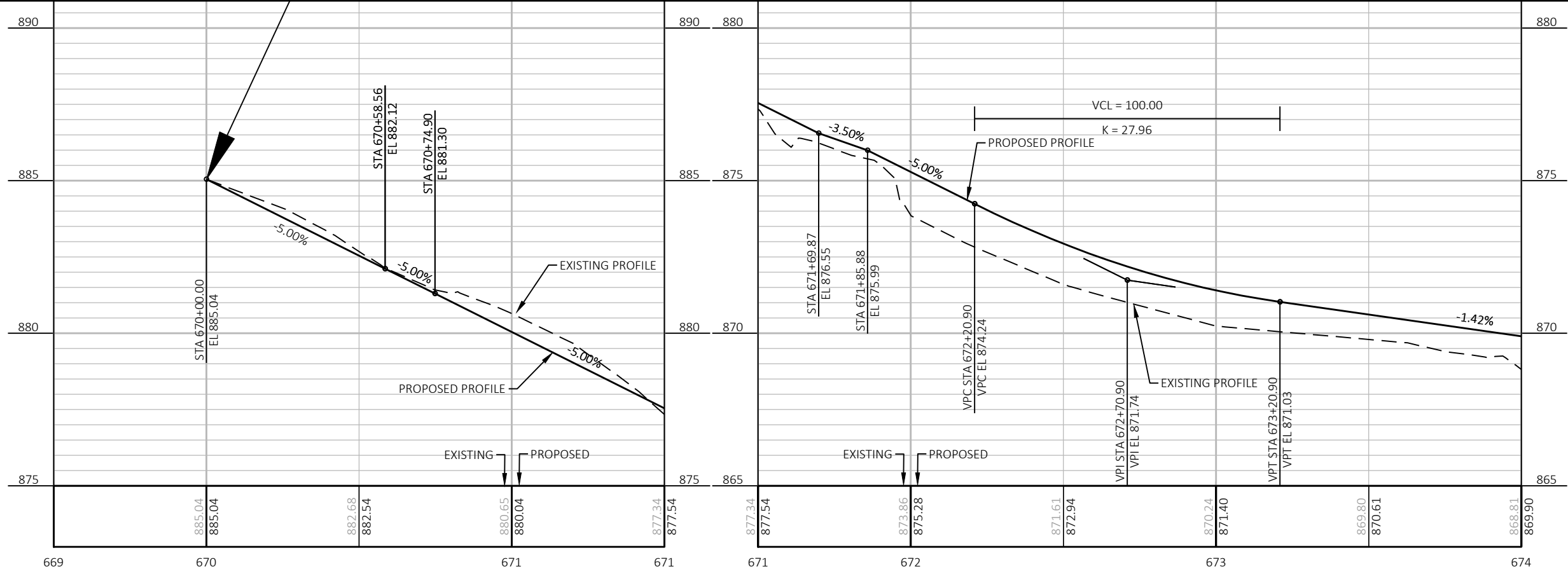
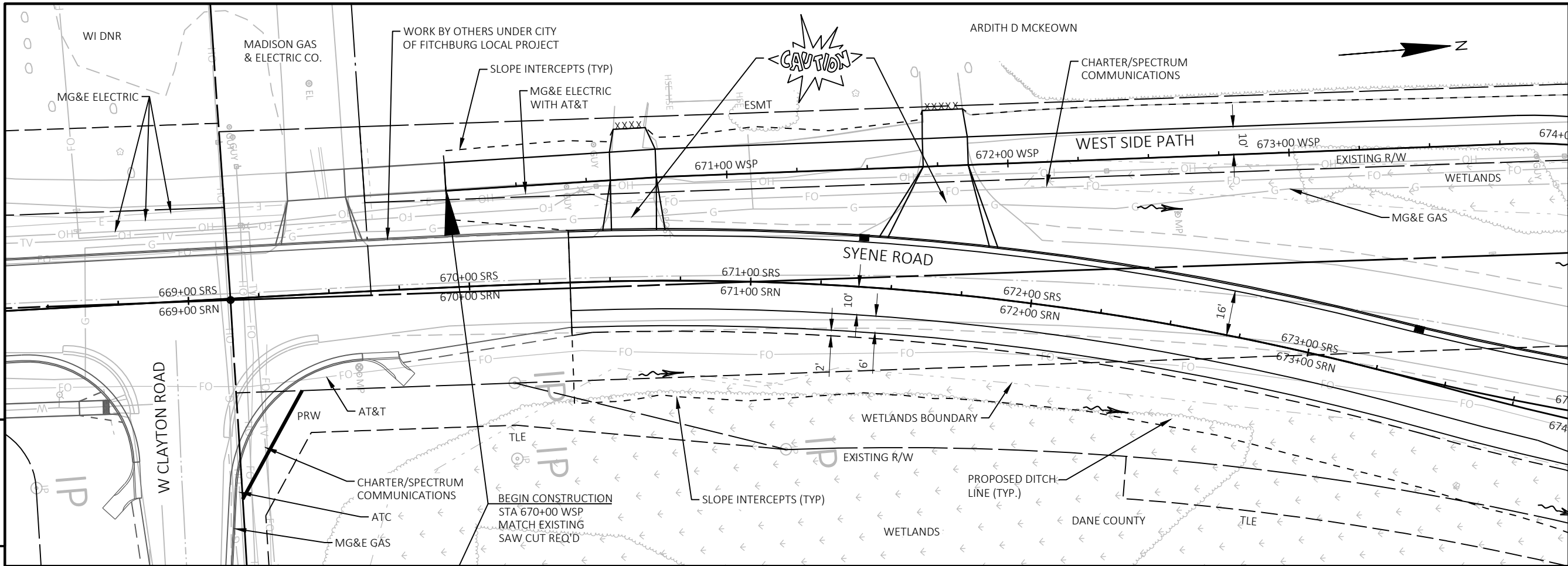
PROJECT NO: 5849-02-07	HWY: LOCAL STREET - SYENE ROAD	COUNTY: DANE	PLAN AND PROFILE: SYENE ROAD	SHEET 112	E
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PROJECT NO: 5849-02-07

HWY: LOCAL STREET - SYENE ROAD

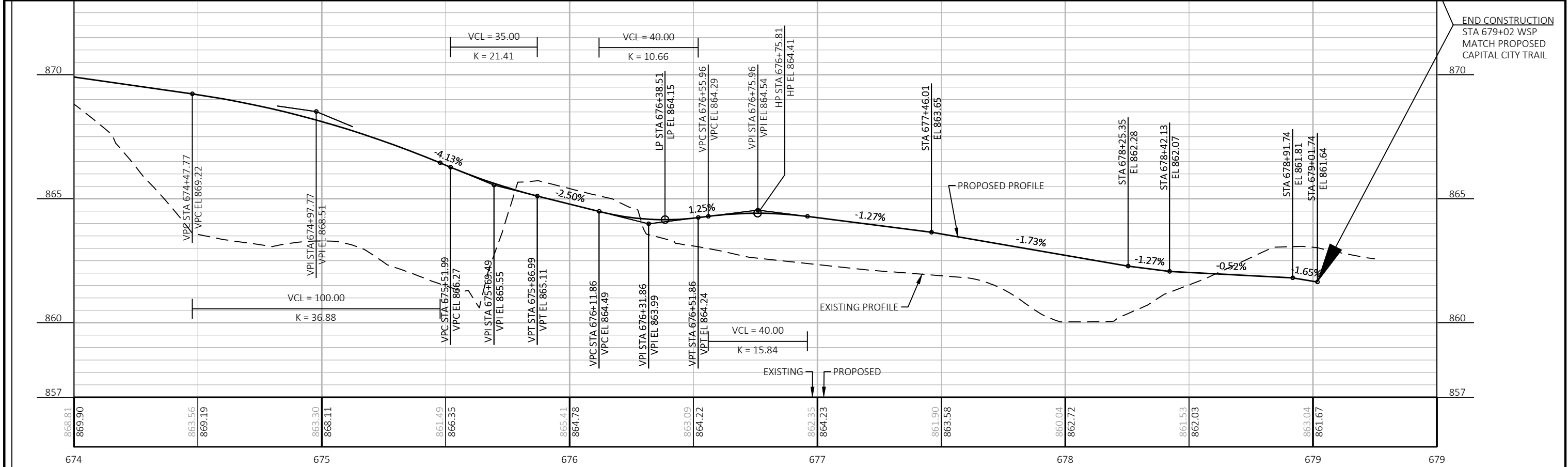
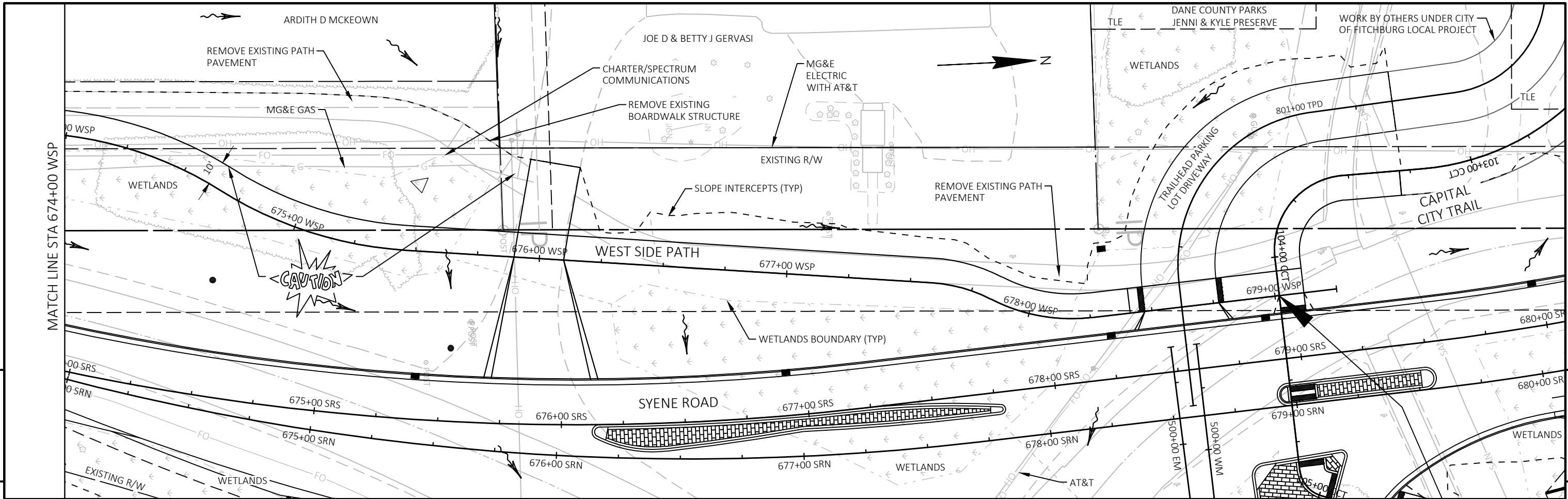
COUNTY: DANE

PLAN AND PROFILE: WEST SIDE PATH

SHEET

117

E

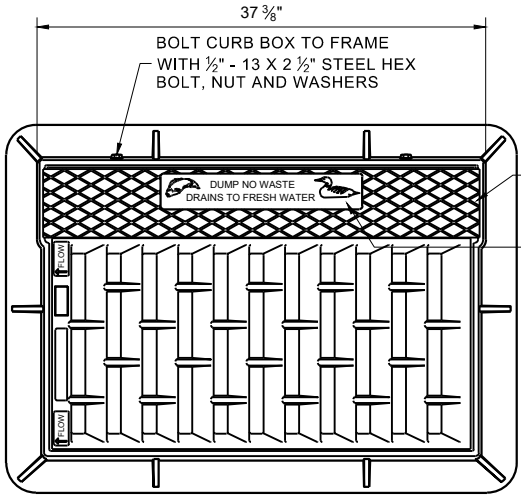


Standard Detail Drawing List

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
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
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
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
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
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
09B02-10	CONDUIT
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C13-03	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D02-03	SIGNAL CONTROL CABINET
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09F01-04	DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS

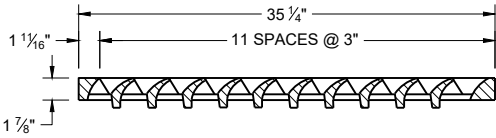
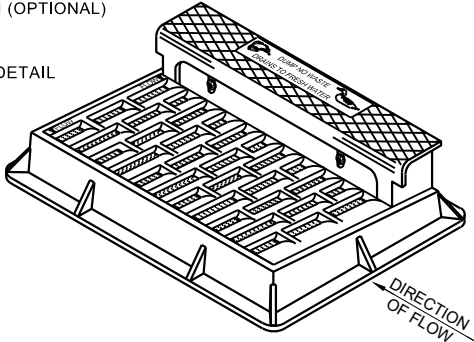
Standard Detail Drawing List

15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-08A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

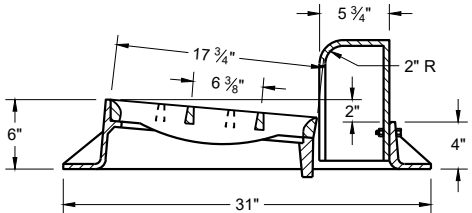
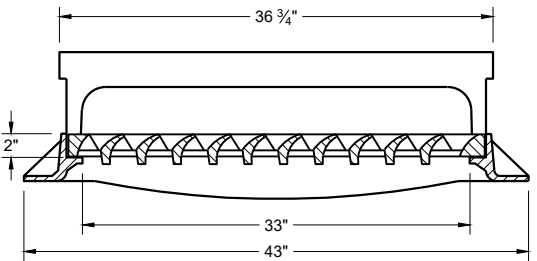
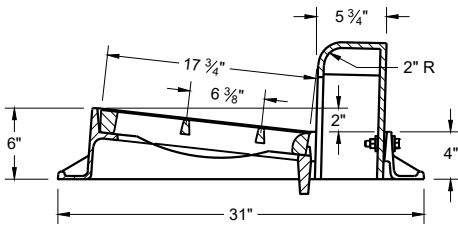
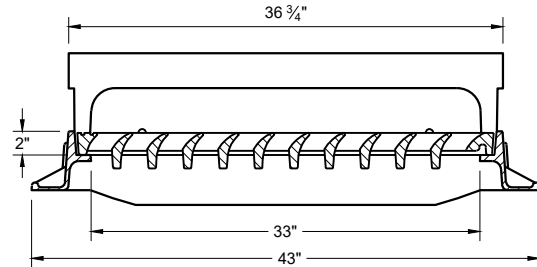


NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)
SEE LOGO DETAIL

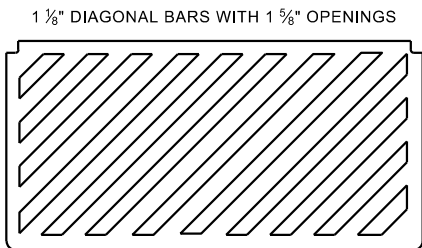


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

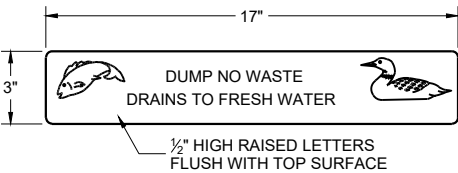


TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE



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



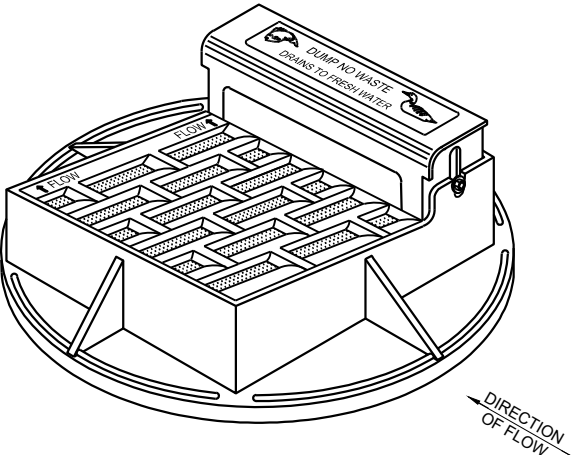
LOGO DETAIL

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.

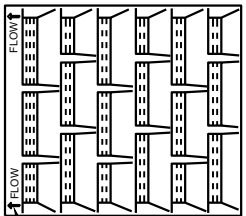
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

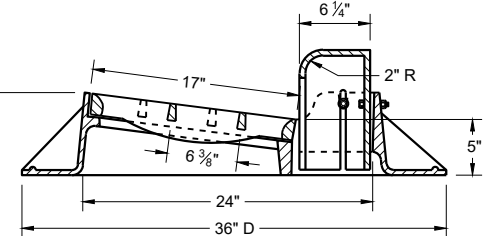
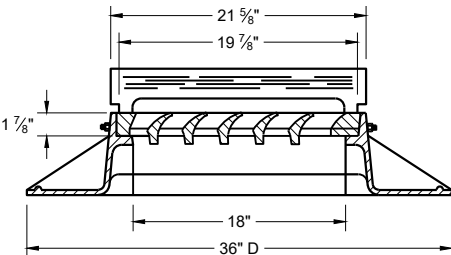
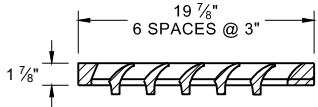


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

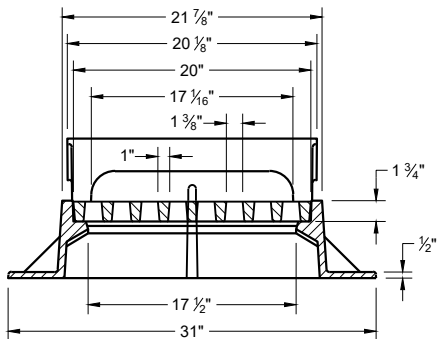
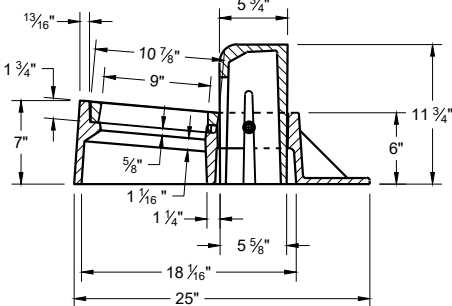
NOTE: EITHER CASTING IS ACCEPTABLE



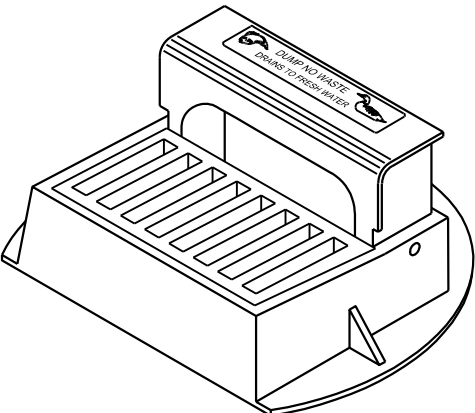
DIRECTION OF FLOW ARROWS



TYPE "A"



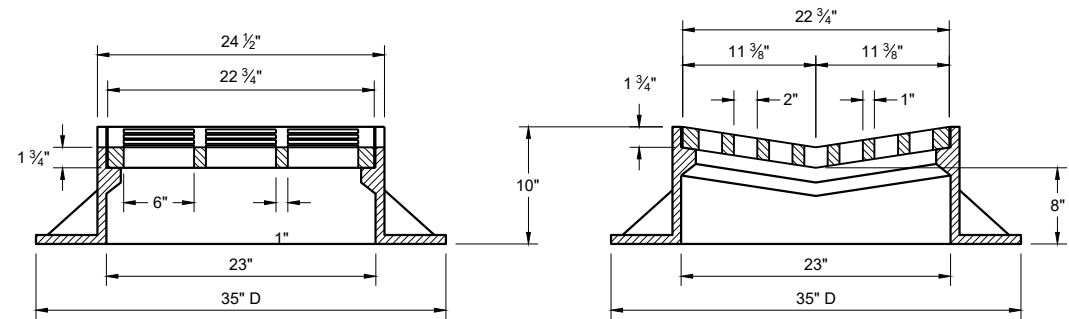
TYPE "Z"



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

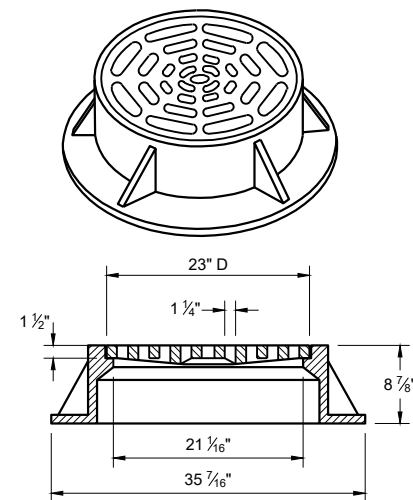
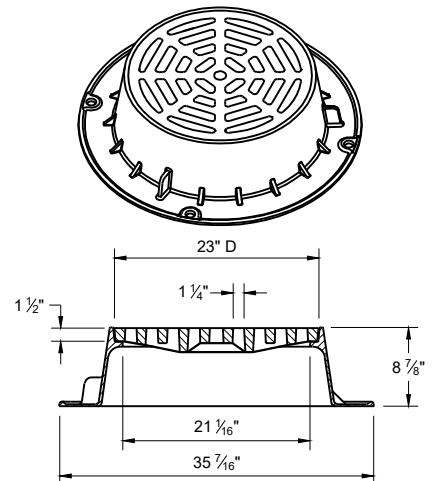
APPROVED
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TYPE "B"

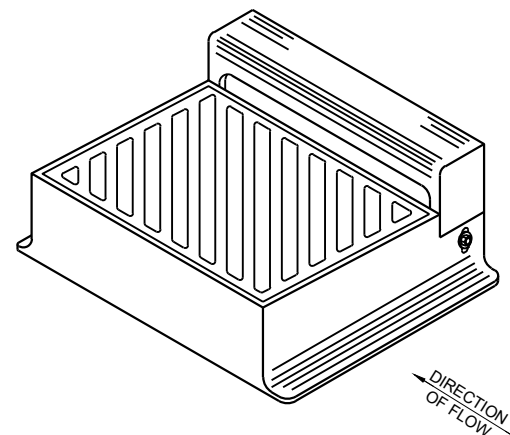
**ALTERNATIVE GRATE FOR
TYPE "B" COVER**

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE
NOTED AS TYPE B - A ON THE DRAINAGE TABLE

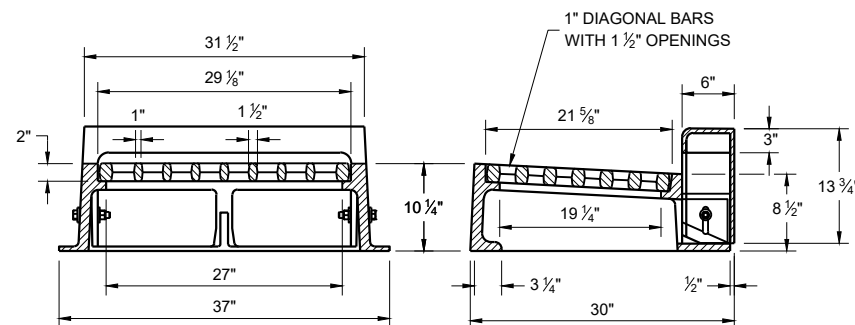


TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



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



TYPE "WM"

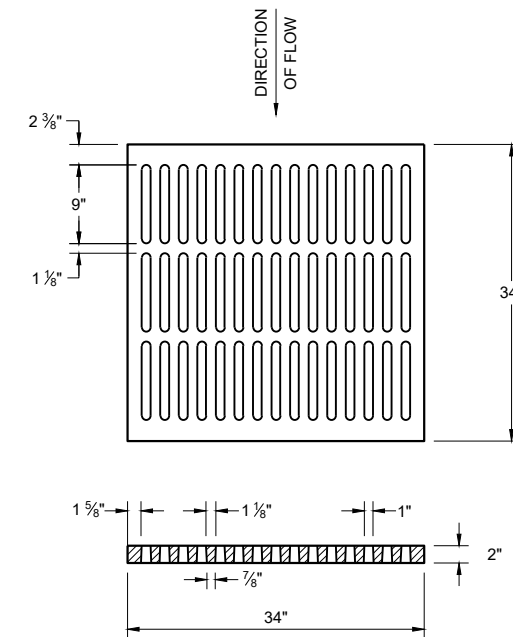
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

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.

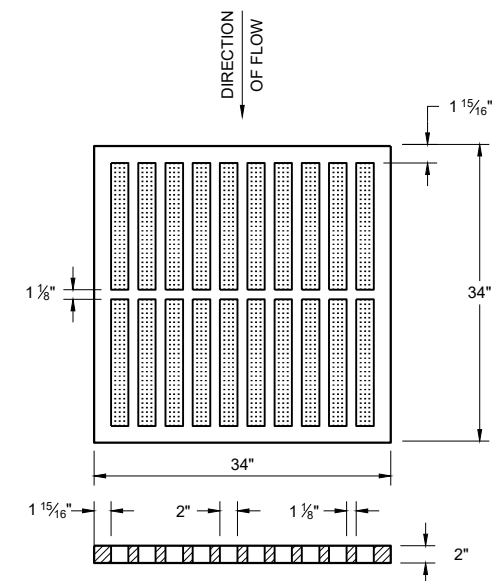
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



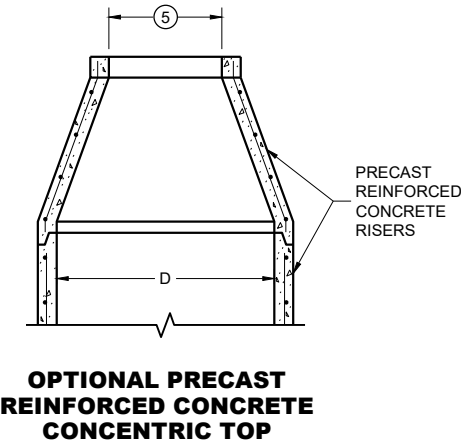
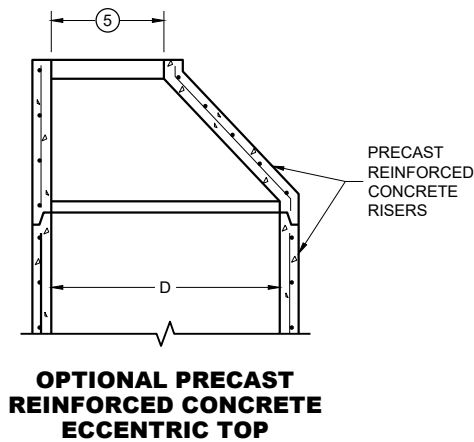
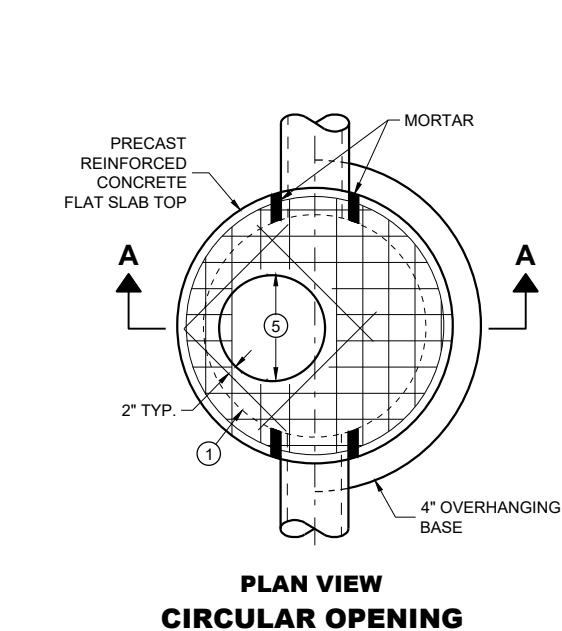
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON THE DRAINAGE TABLE

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

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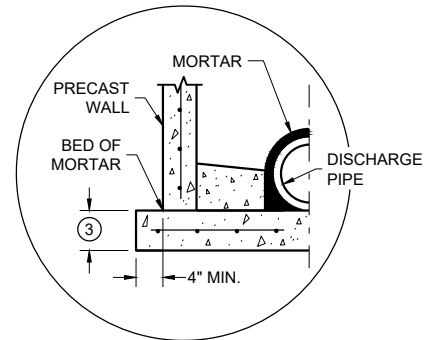
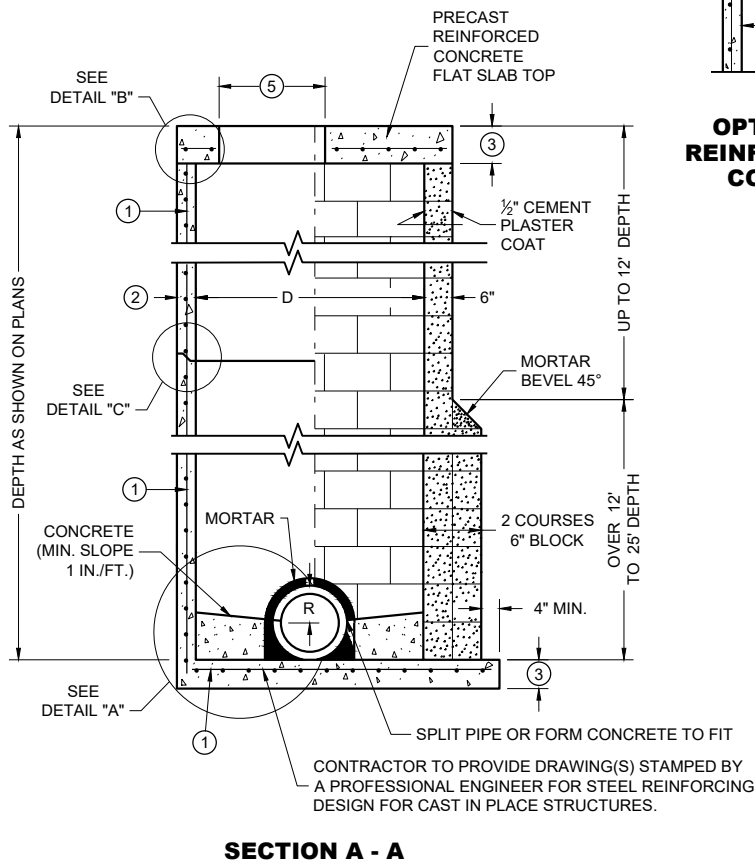
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	5	C	ALL JS	K	L	M
2 DIA.		X	X		X	
3 DIA.				X		X

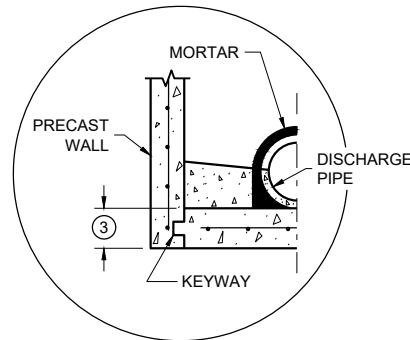
PIPE MATRIX

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.

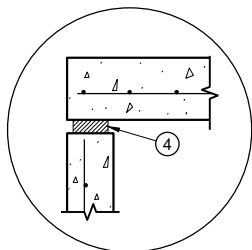


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

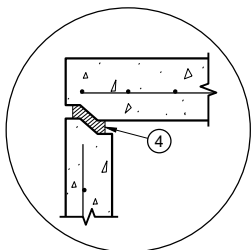


PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION

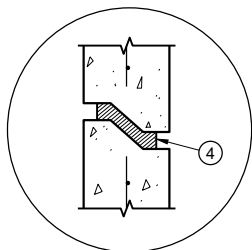
DETAIL "A"



TOP WITH PLAIN
END JOINT



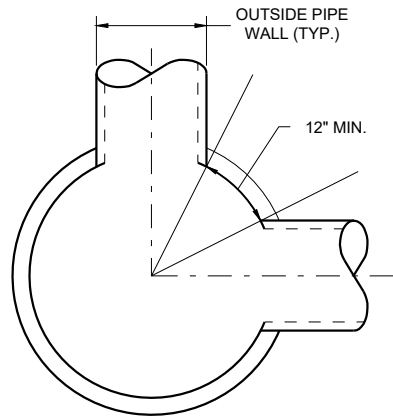
TOP WITH TONGUE
AND GROOVE JOINT



RISER WITH TONGUE
AND GROOVE JOINT

DETAIL "B"

DETAIL "C"



MINIMUM HORIZONTAL
PIPE SEPARATION

DETAIL "D"

GENERAL NOTES

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

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 1/2 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.

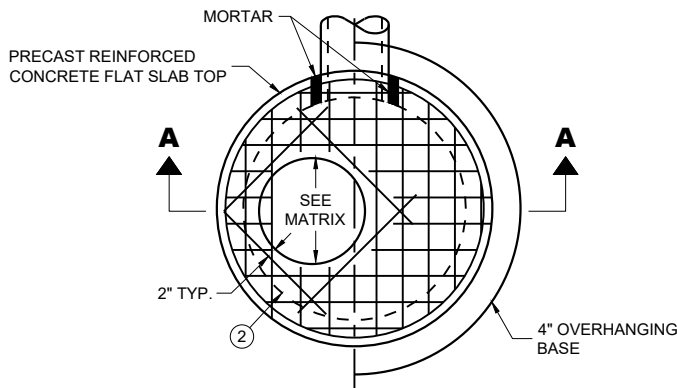
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 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.

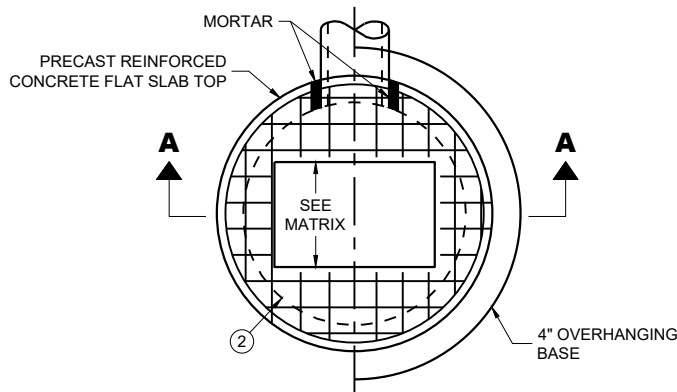
MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

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DEPARTMENT OF TRANSPORTATION

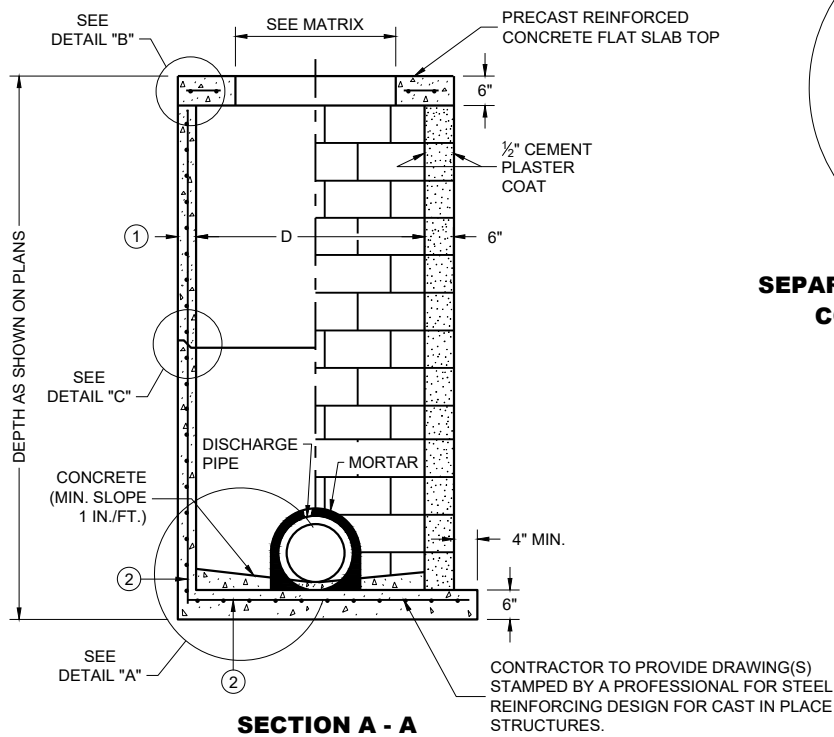
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PLAN VIEW CIRCULAR OPENING



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

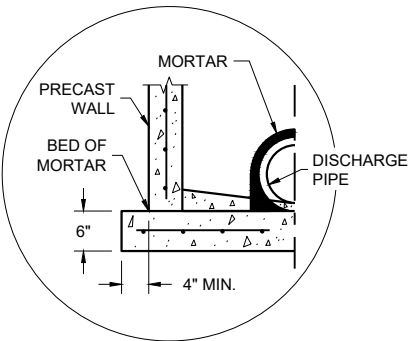
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

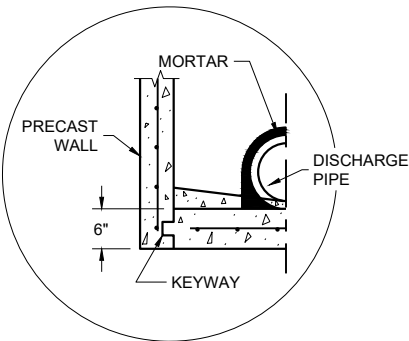
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

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

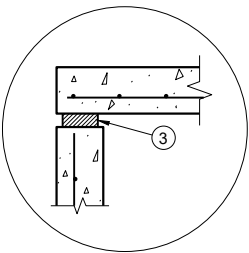


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

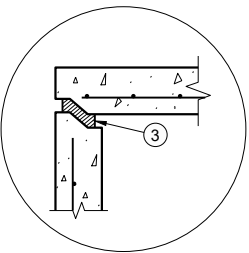


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

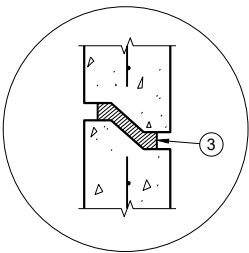


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

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.

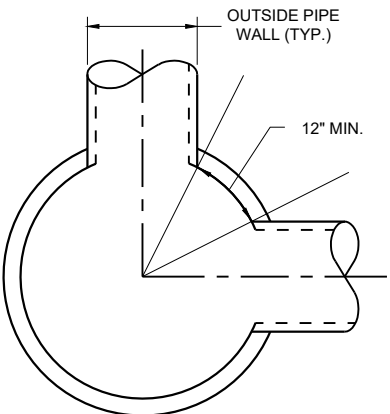
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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 DIAMETER 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.

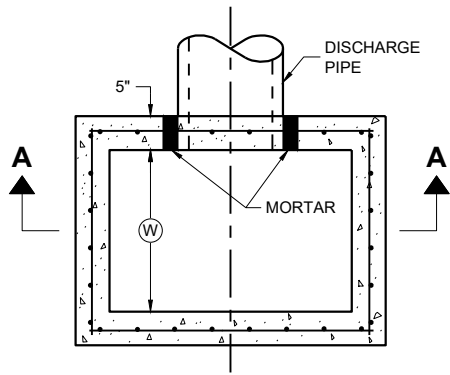


MINIMUM HORIZONTAL PIPE SEPARATION
DETAIL "D"

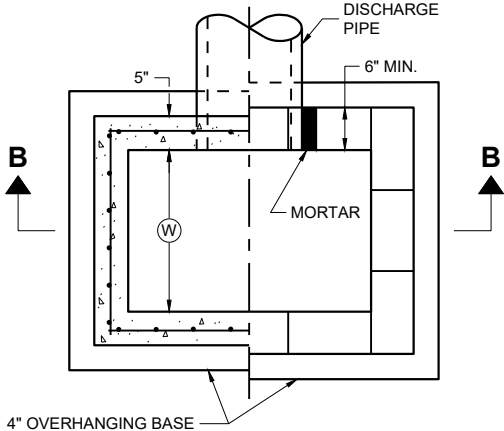
INLETS 3-FT AND 4-FT DIAMETER

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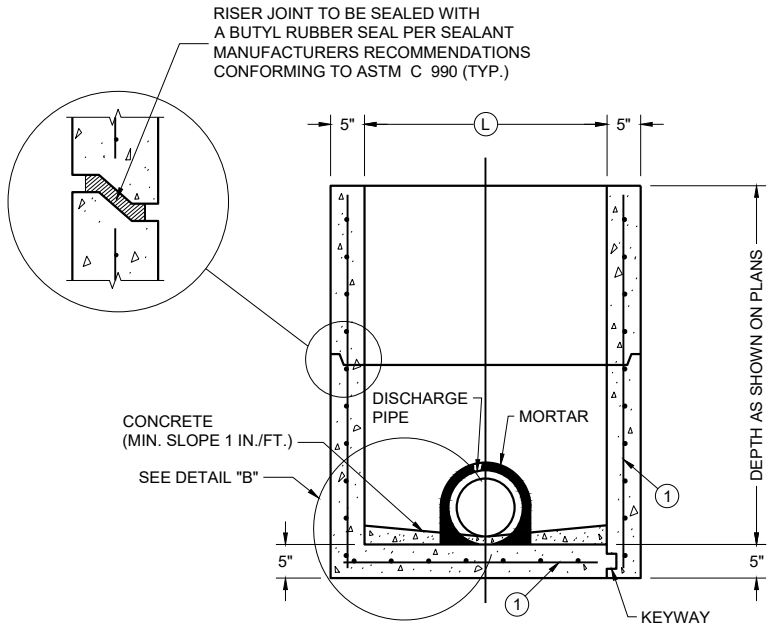
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PLAN VIEW



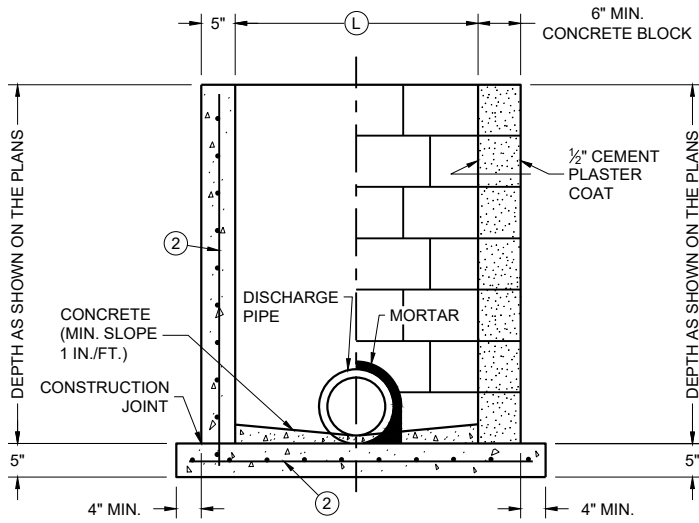
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

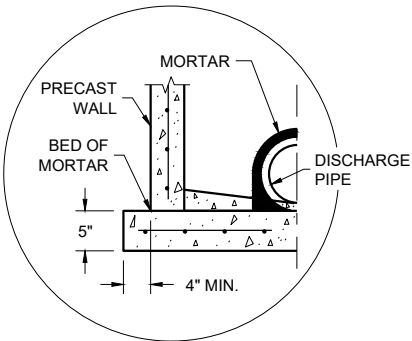
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

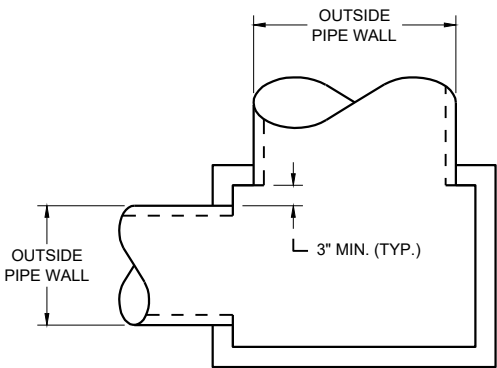
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

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

GENERAL NOTES

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

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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

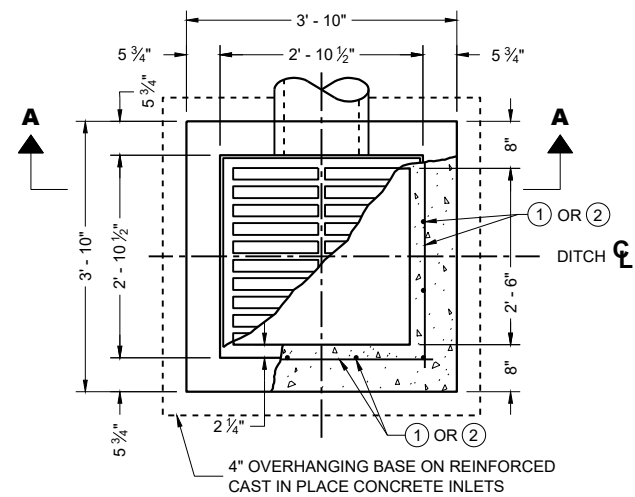
PIPE MATRIX

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

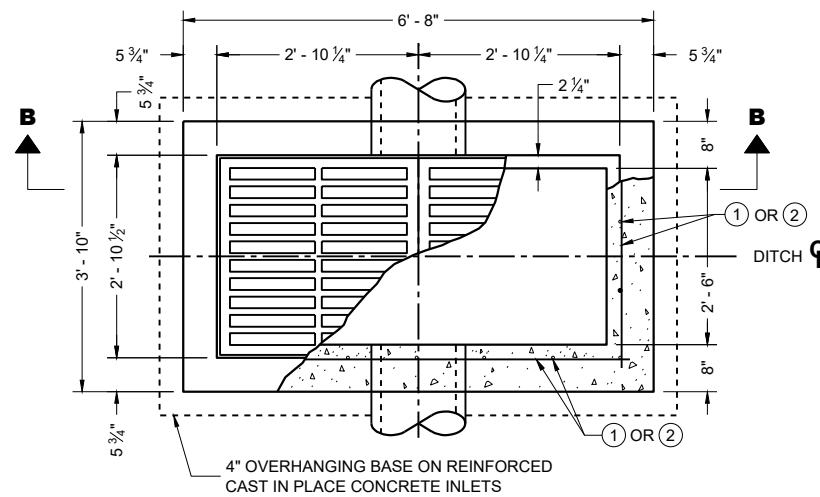
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

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DEPARTMENT OF TRANSPORTATION

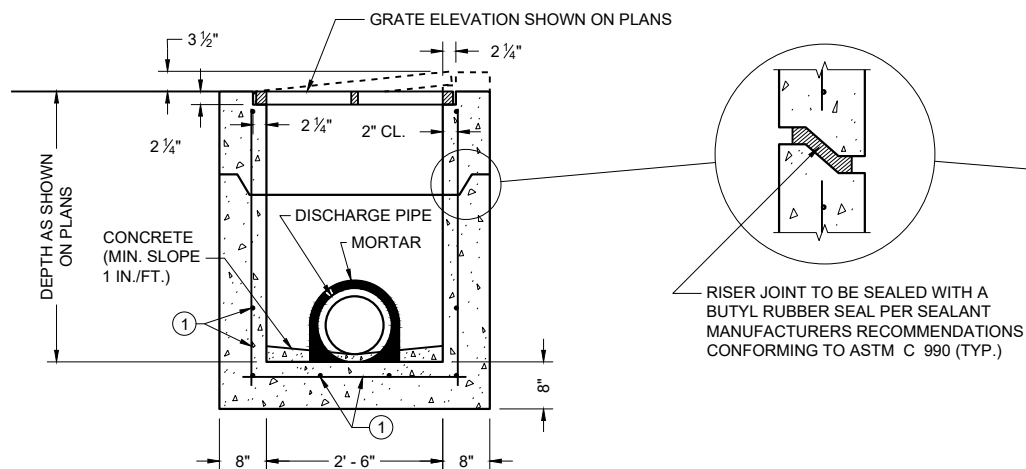
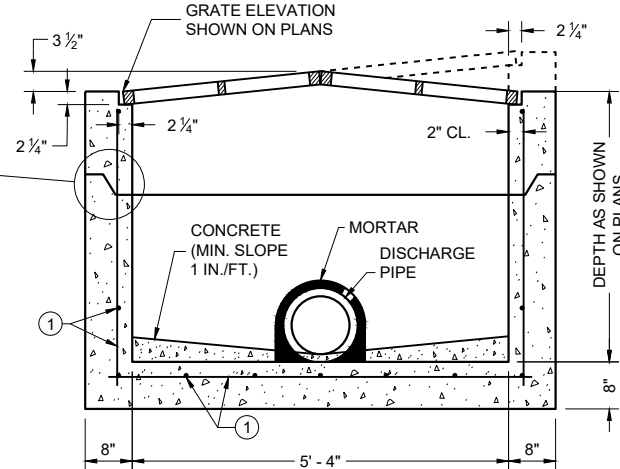
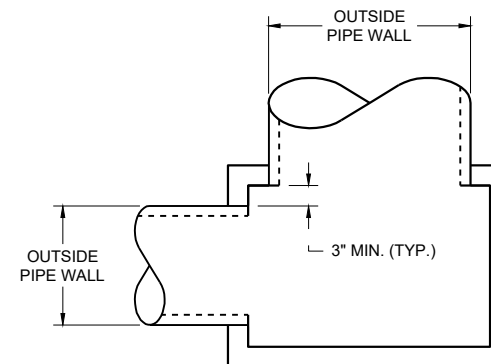
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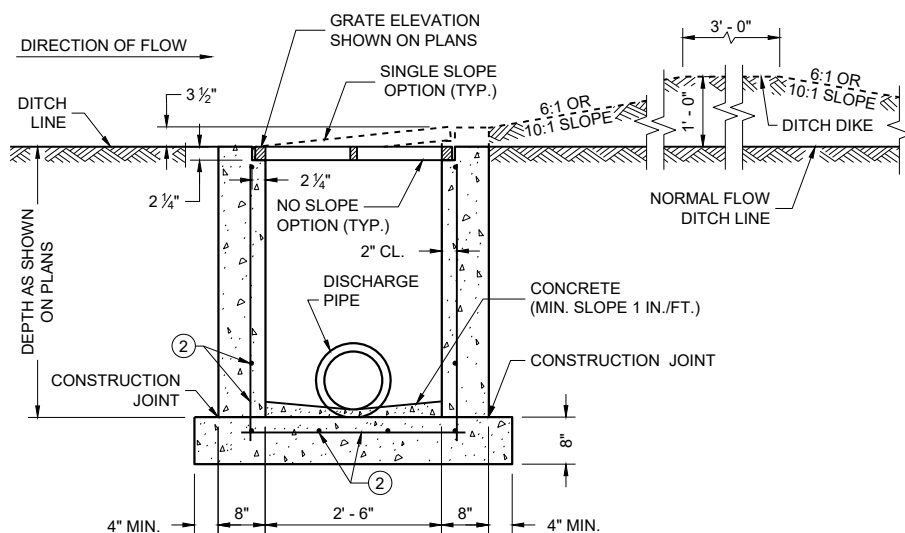
PLAN VIEW



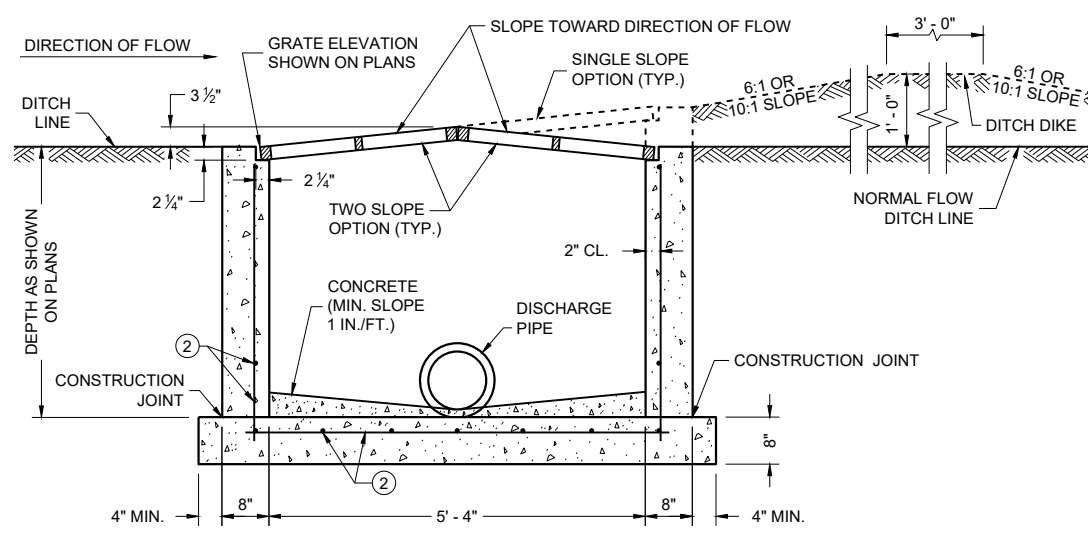
PLAN VIEW

PRECAST REINFORCED CONCRETE
SECTION A - APRECAST REINFORCED CONCRETE
SECTION B - B

DETAIL "A"

REINFORCED CAST IN PLACE CONCRETE
SECTION A - A

INLETS MEDIAN 1 GRATE

REINFORCED CAST IN PLACE CONCRETE
SECTION B - B

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

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.

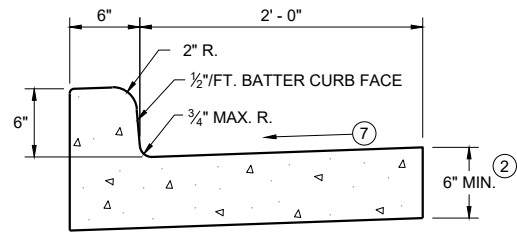
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

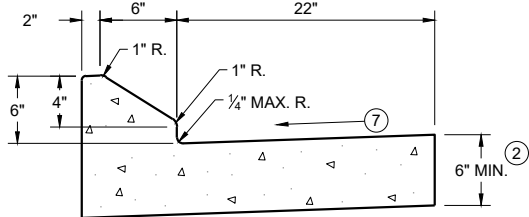
INLETS
MEDIAN 1 AND 2 GRATE

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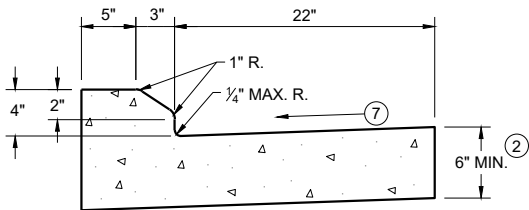
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



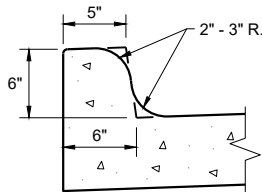
TYPES A^① & D



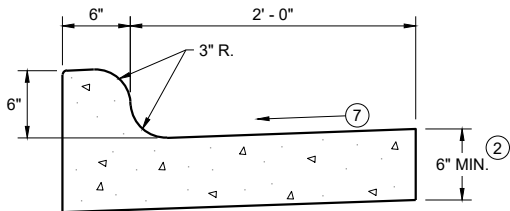
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

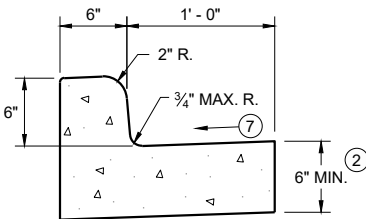


TYPES K^① & L
(OPTIONAL CURB SHAPE)



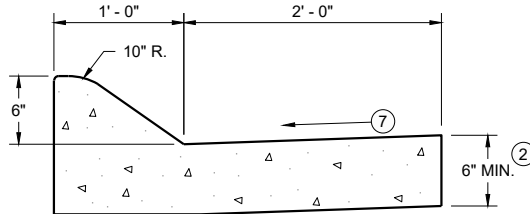
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

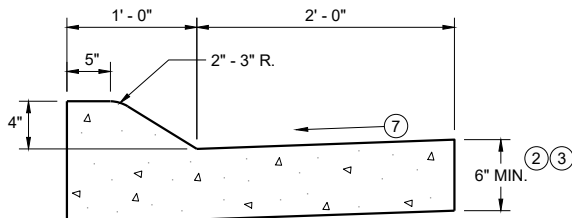


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

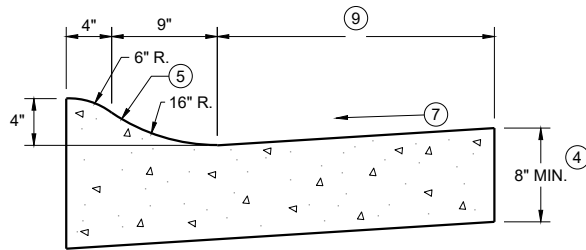


6" SLOPED CURB TYPES A^① & D



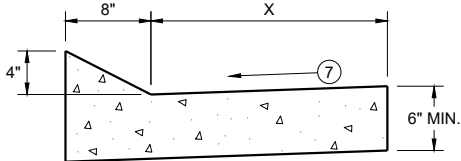
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

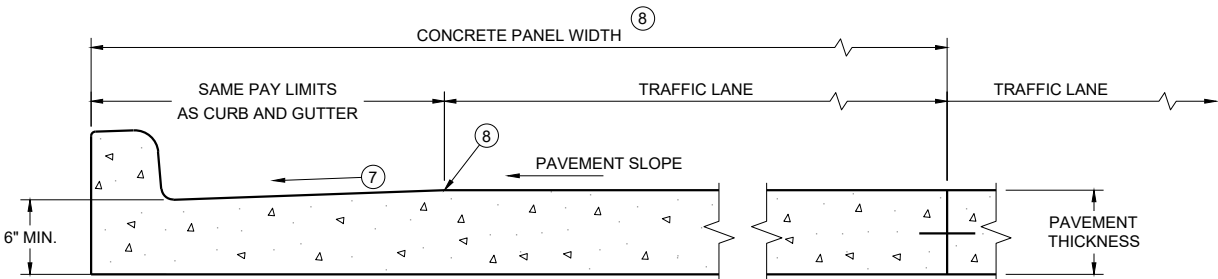


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

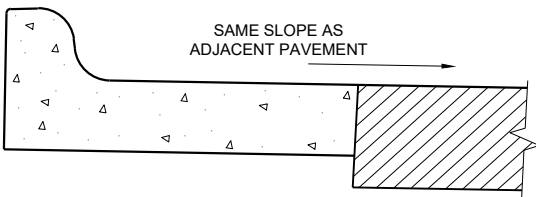
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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.

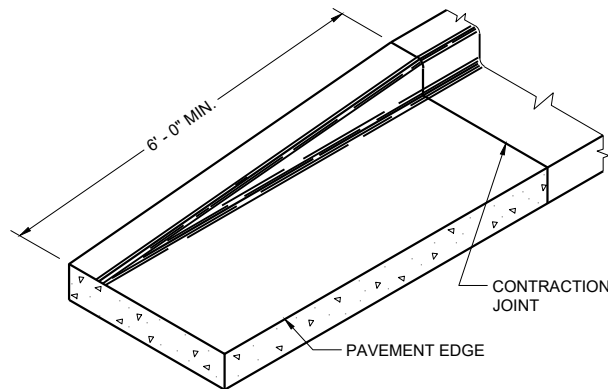
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

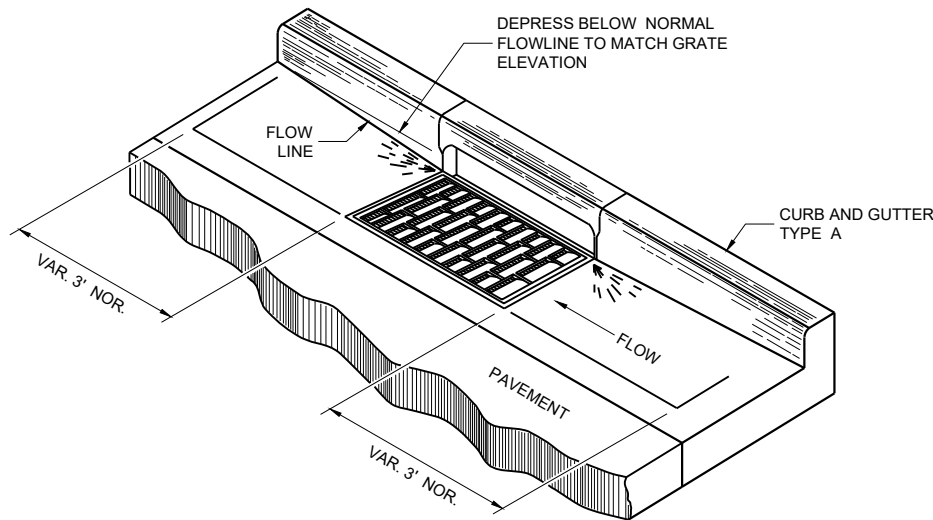
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH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

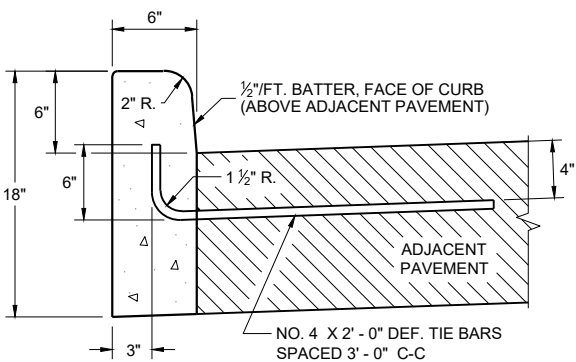


END SECTION CURB AND GUTTER

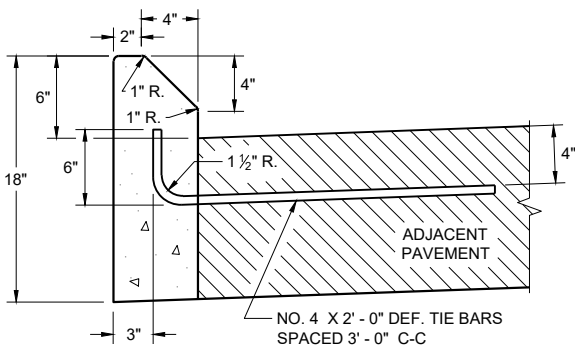


DETAIL OF CURB AND GUTTER AT INLETS

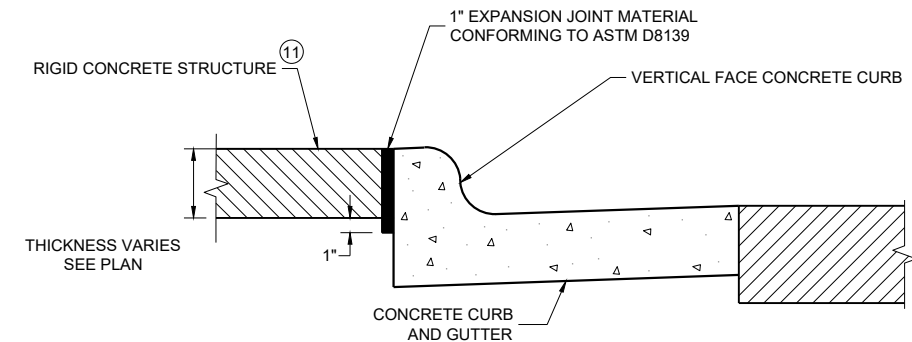
(TYPICAL H INLET COVER SHOWN)



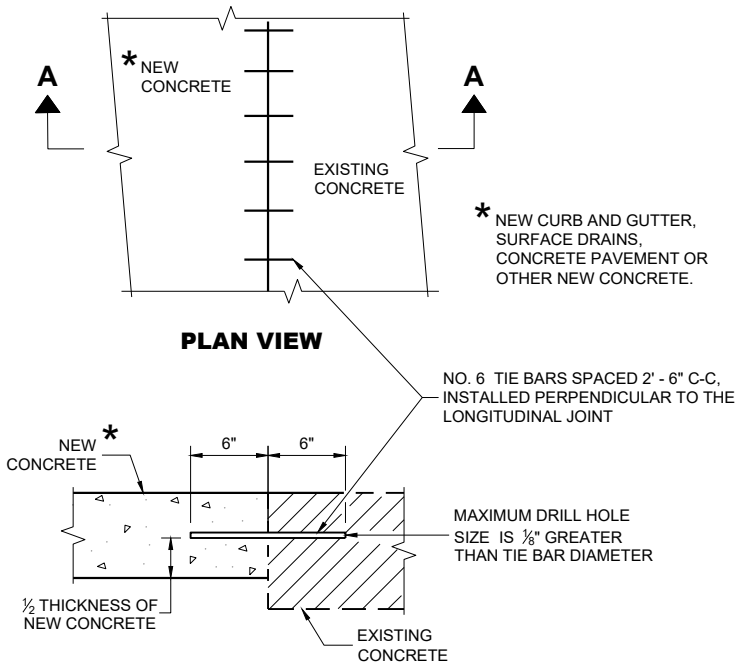
TYPES A^① & D



TYPES G^① & J
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

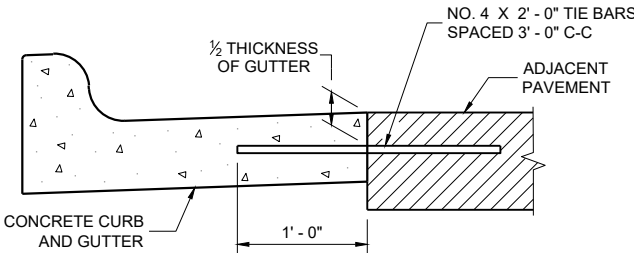
GENERAL NOTES

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

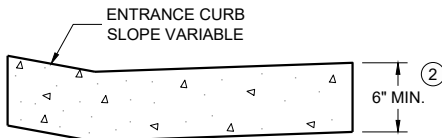
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

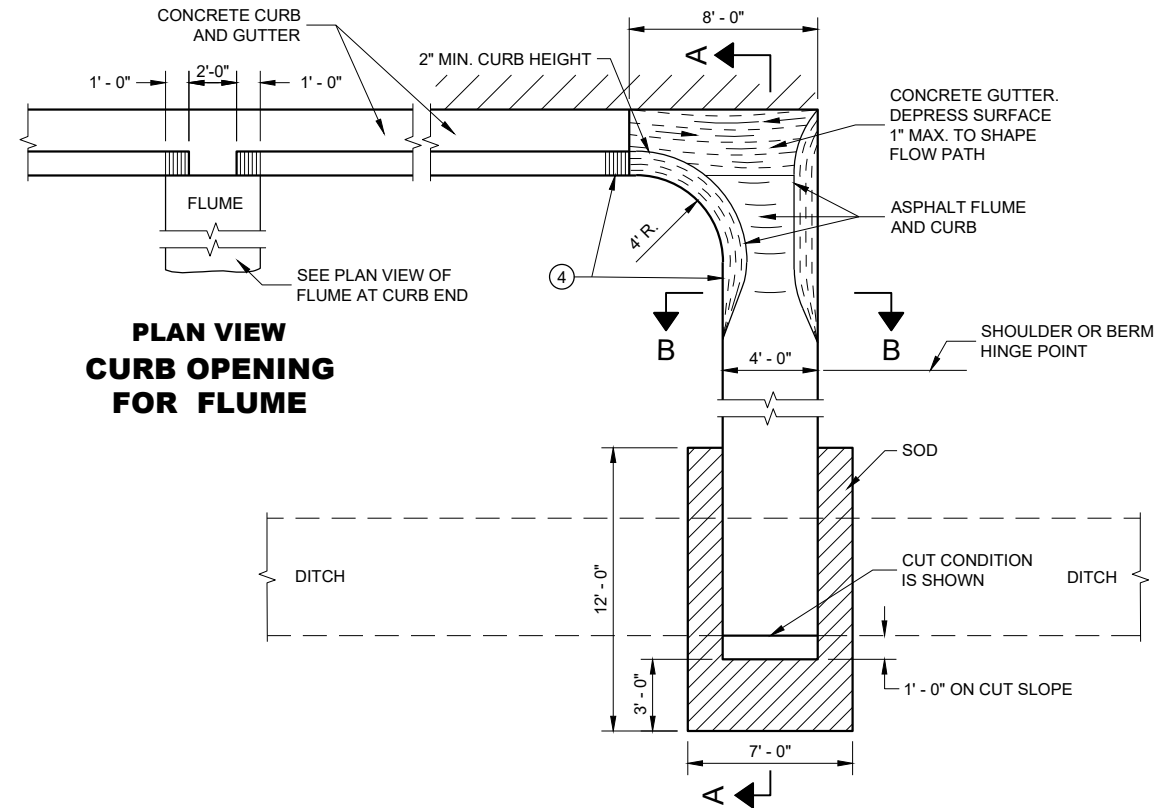
CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

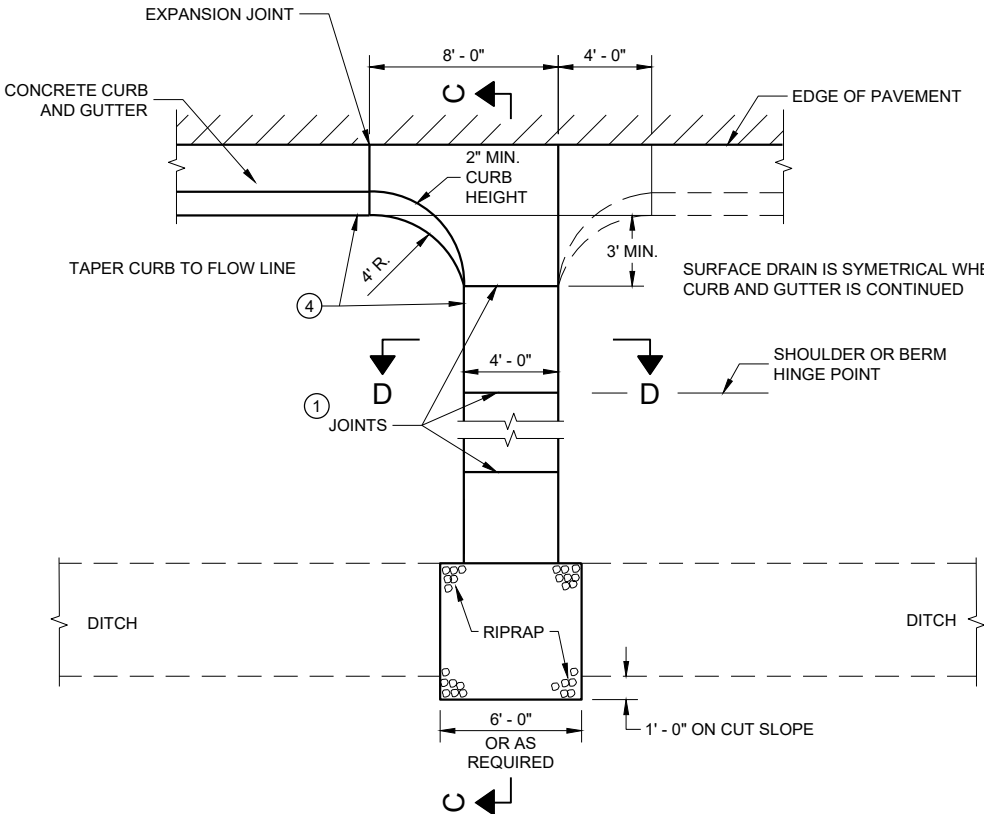
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



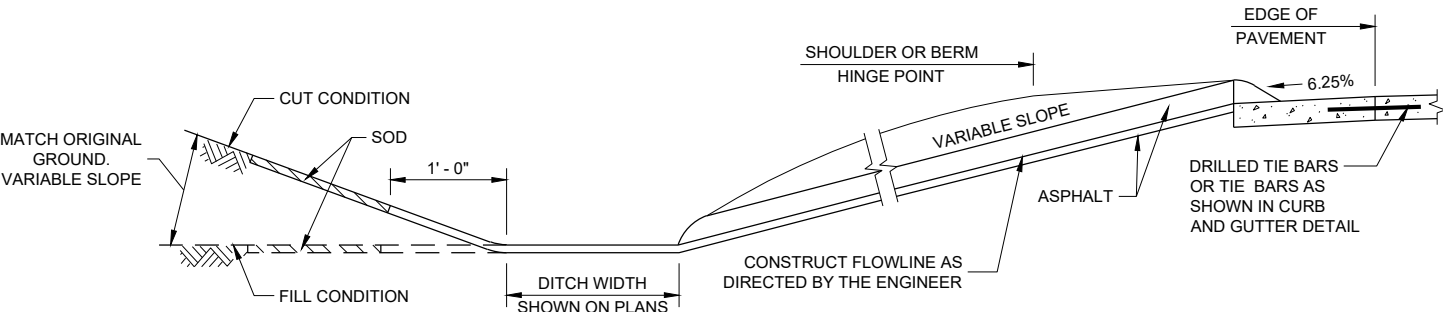
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

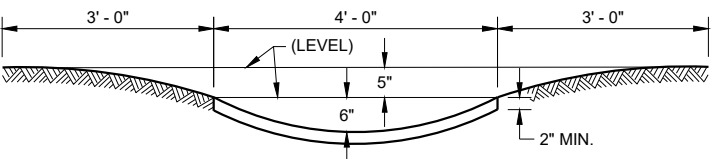
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

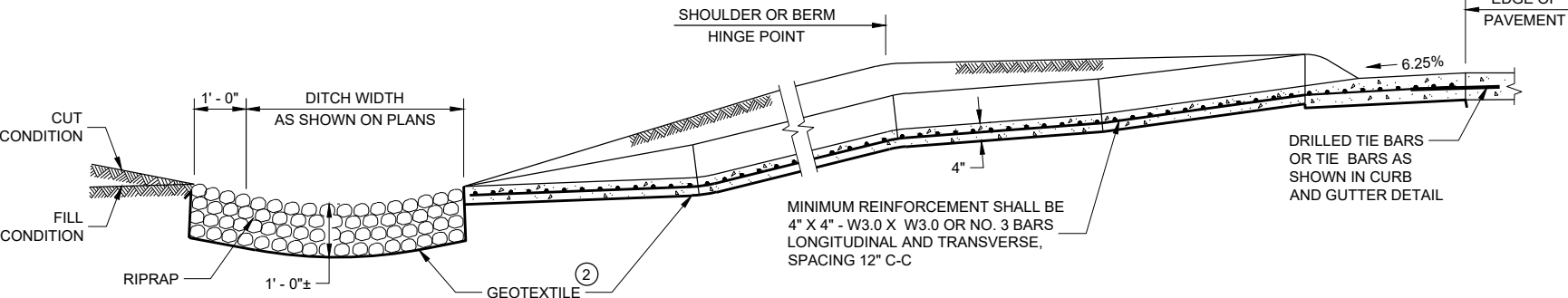
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



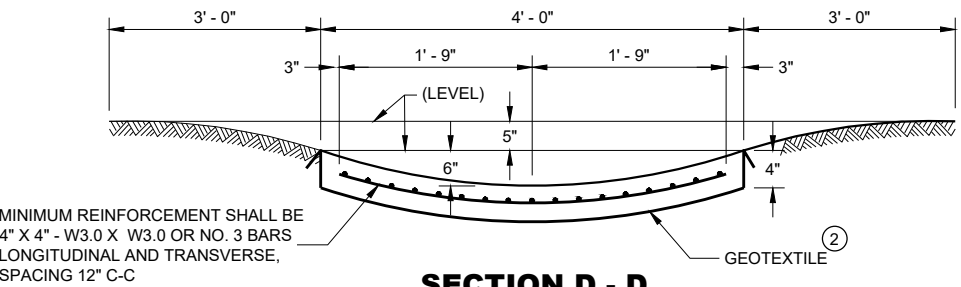
SECTION A - A



SECTION B - B



SECTION C - C

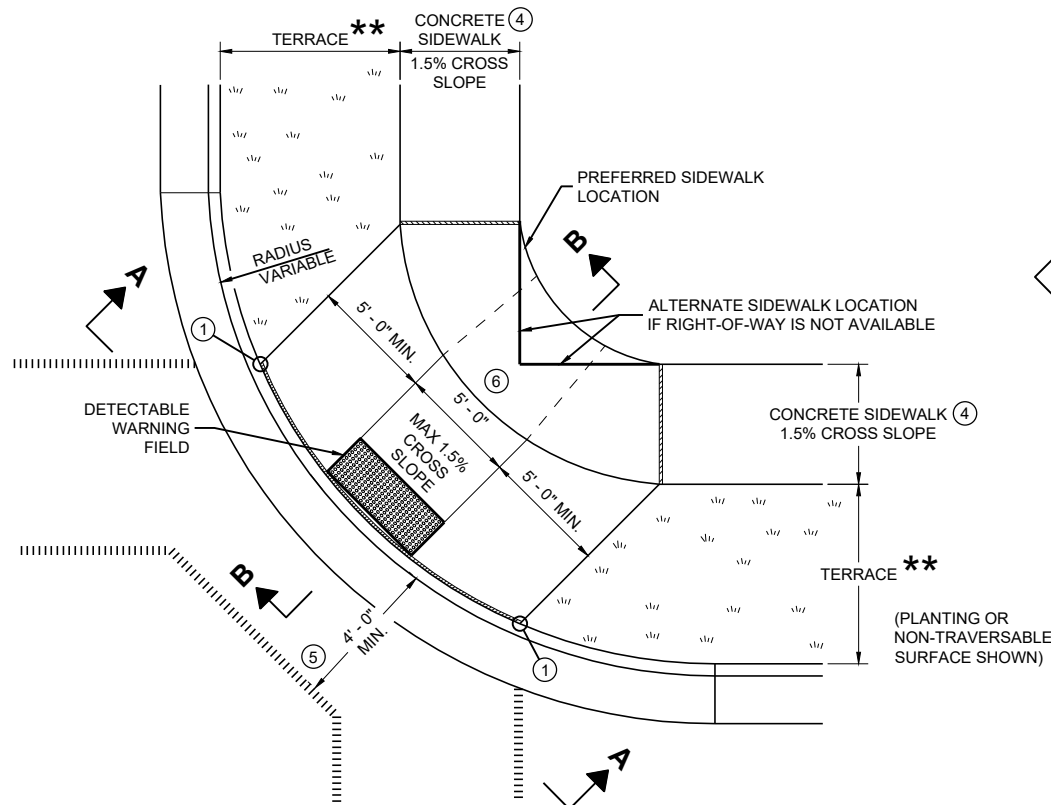


SECTION D - D

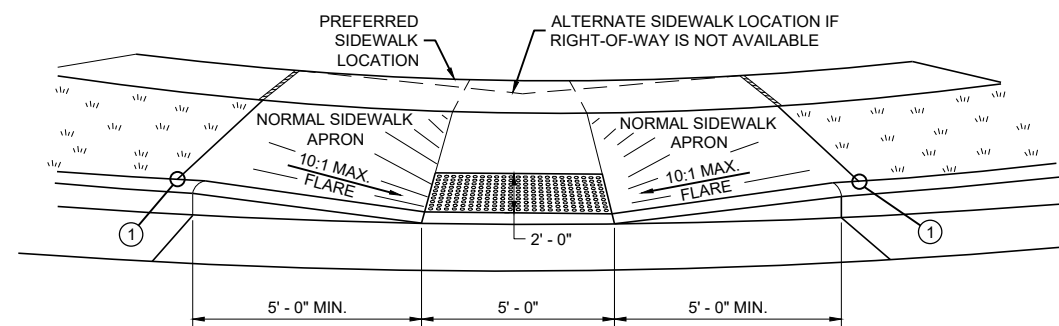
CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 129
FHWA

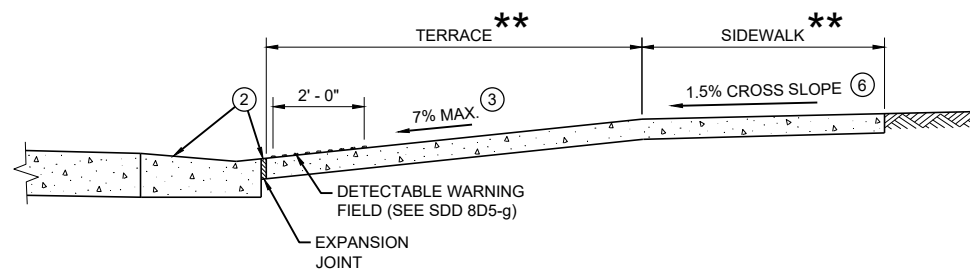


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

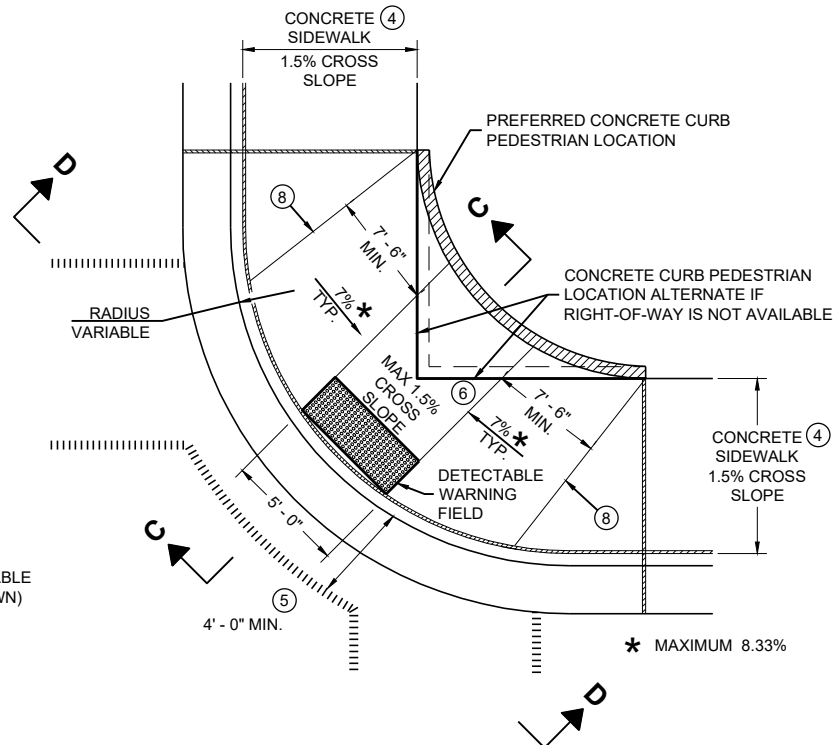


VIEW A - A FOR TYPE 1

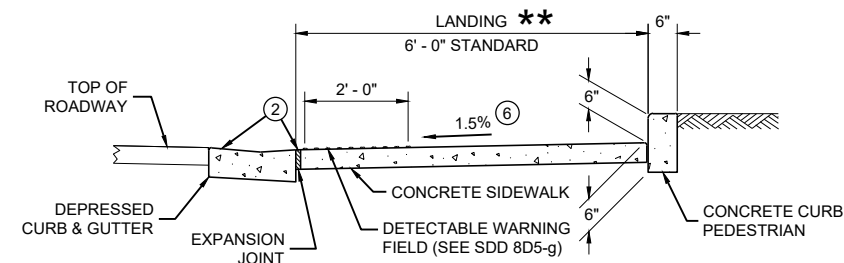
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



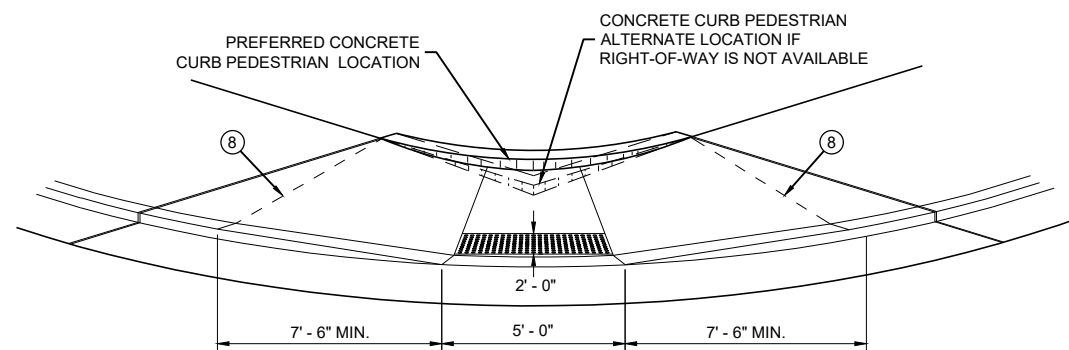
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



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 FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE 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.

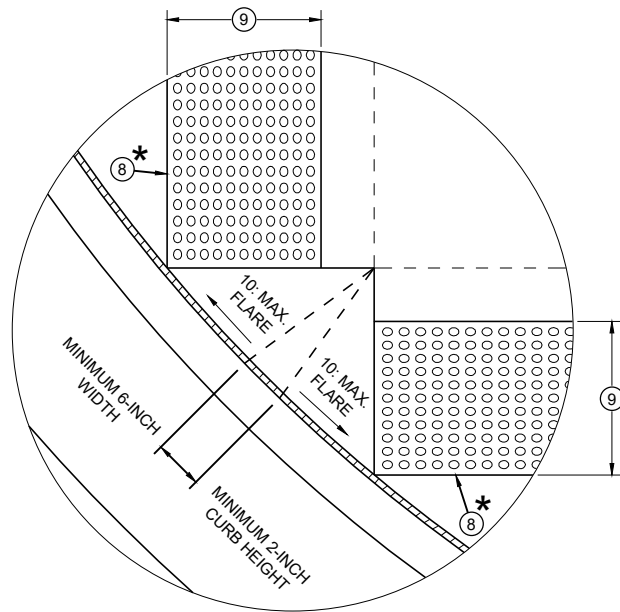
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ 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

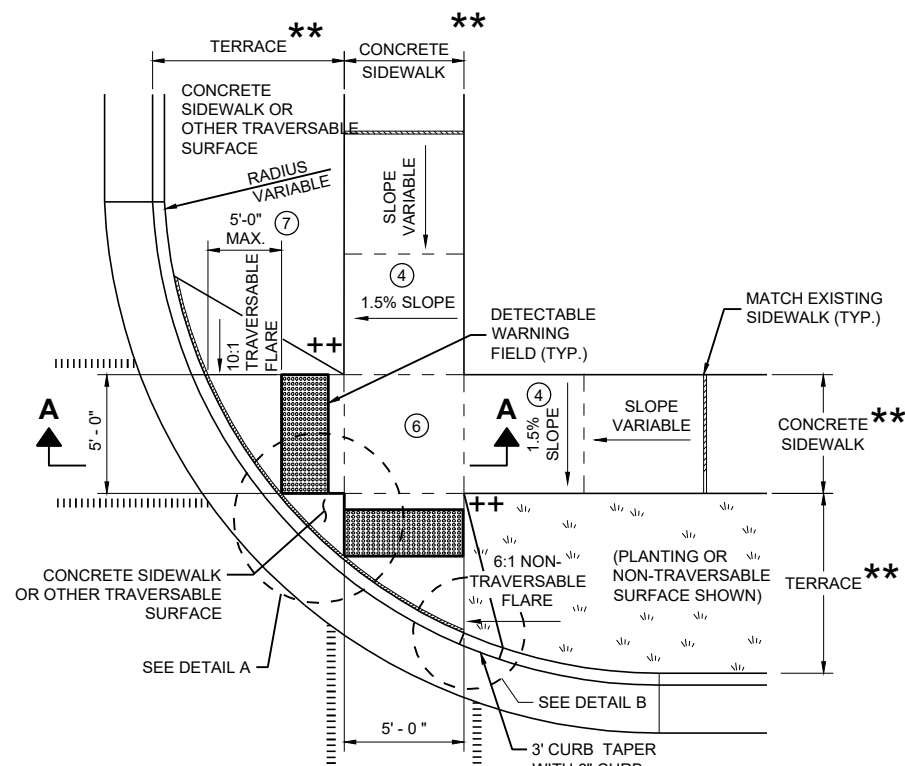
- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

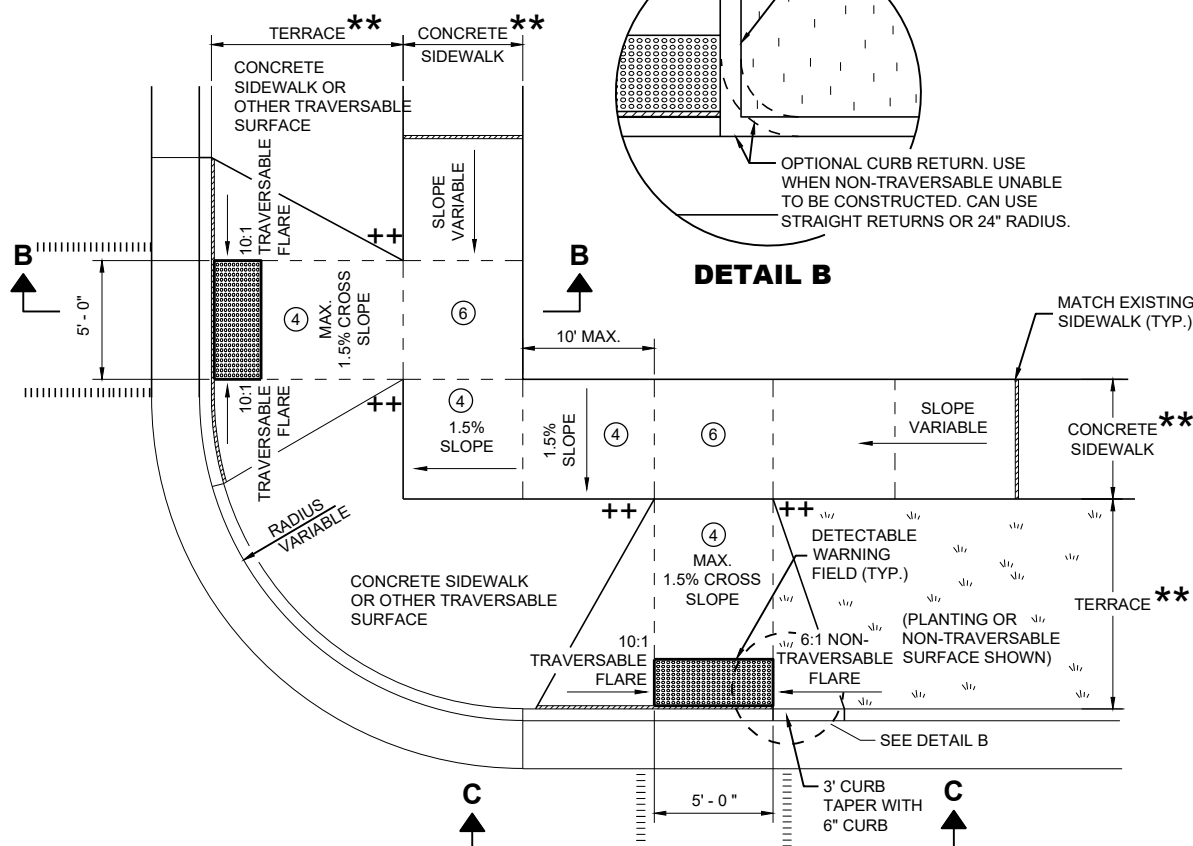
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



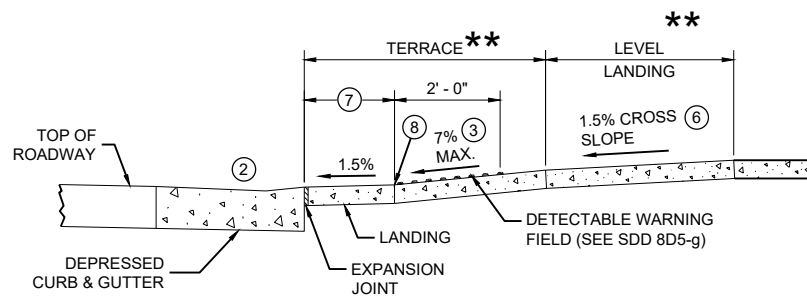
DETAIL A



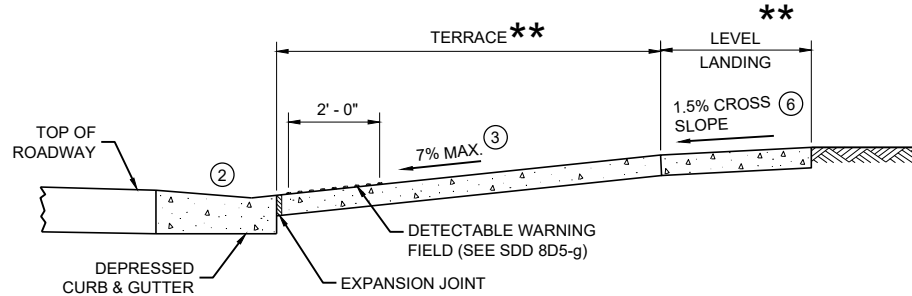
PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



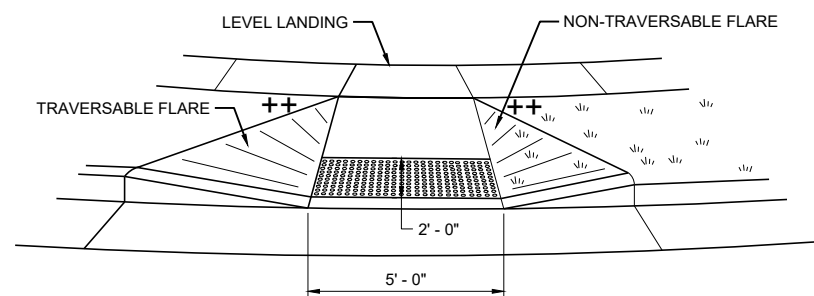
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

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.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
 - WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

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

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

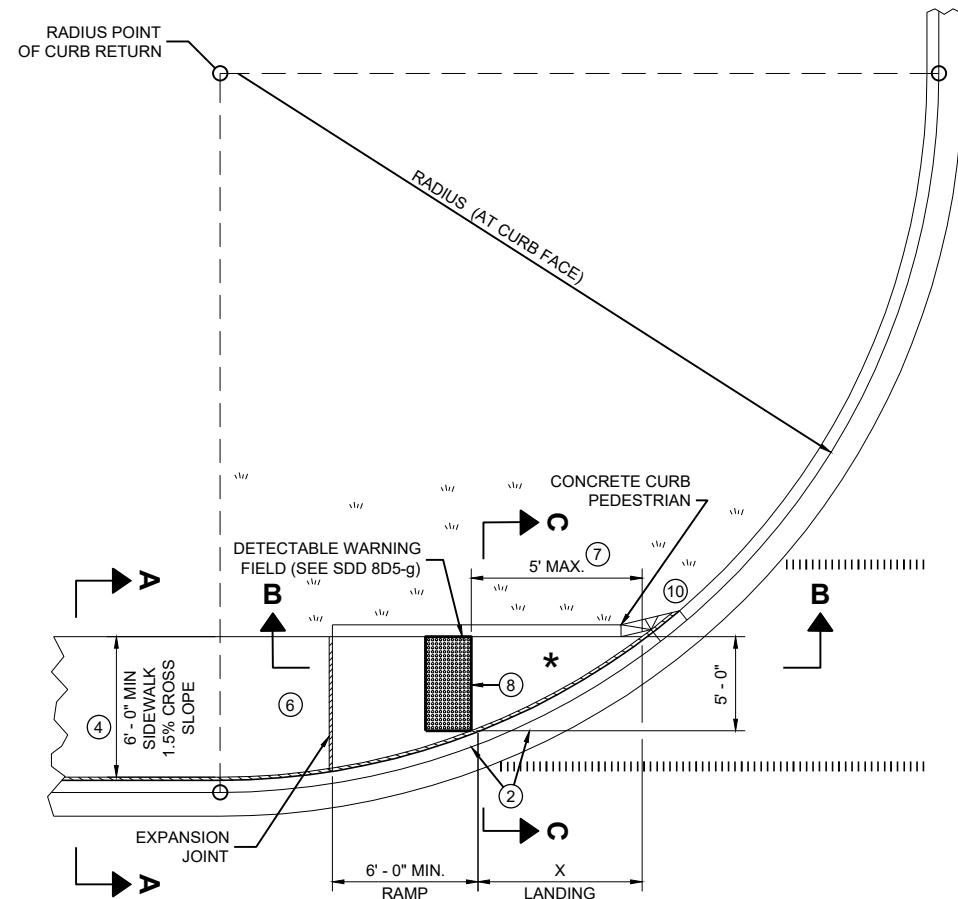
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

LEGEND

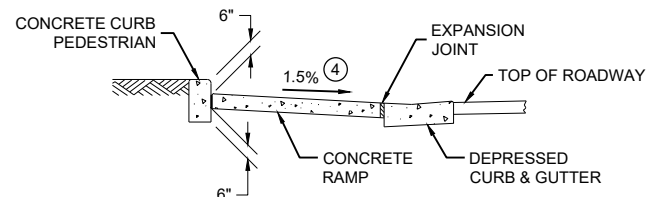
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 2 AND 3

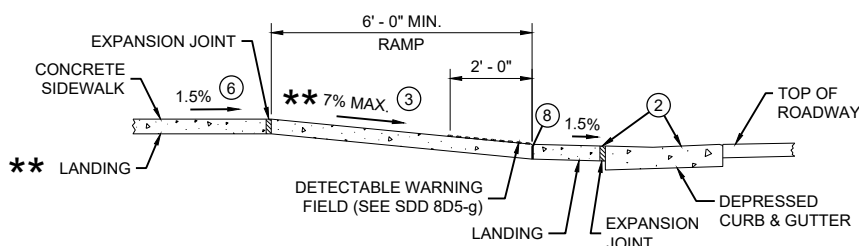
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**PLAN VIEW
CURB RAMP TYPE 4A**



SECTION C - C FOR TYPE 4A

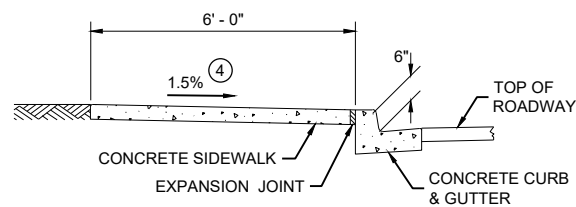


**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

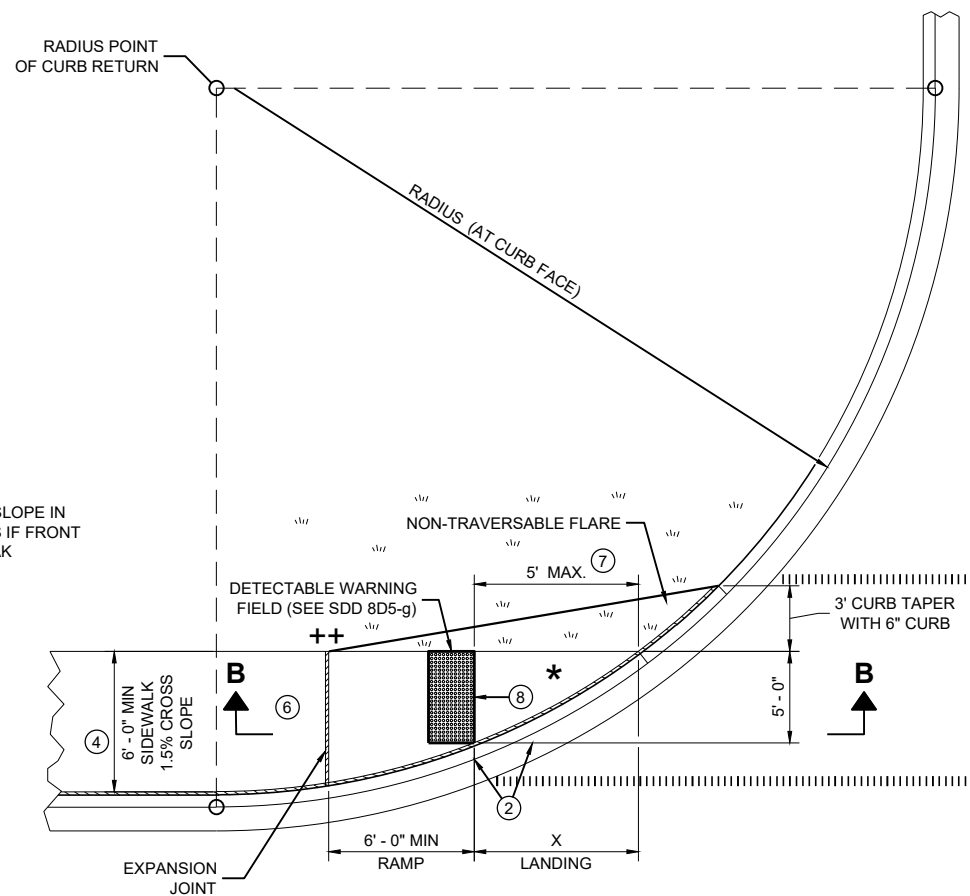
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



**PLAN VIEW
CURB RAMP TYPE 4A1**

GENERAL NOTES

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

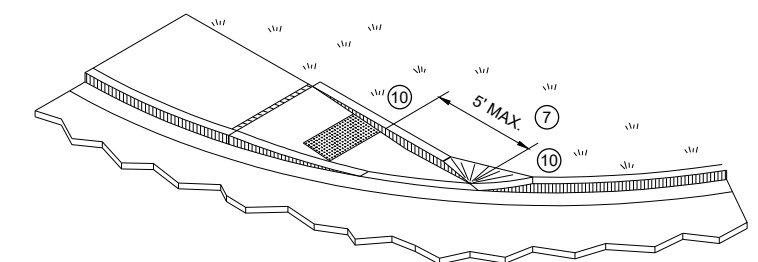
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

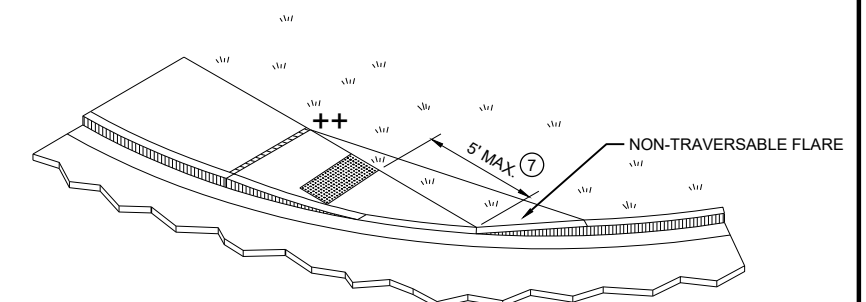
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE 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

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



ISOMETRIC VIEW FOR TYPE 4A

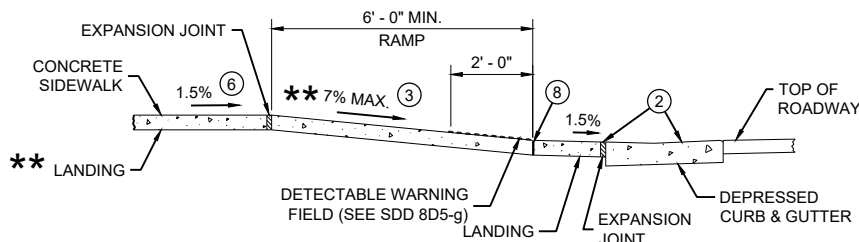
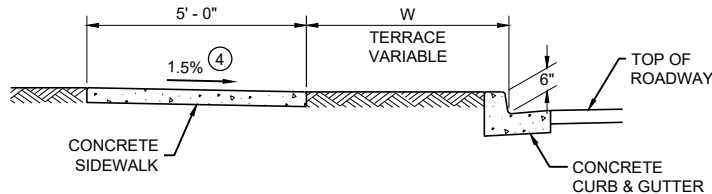
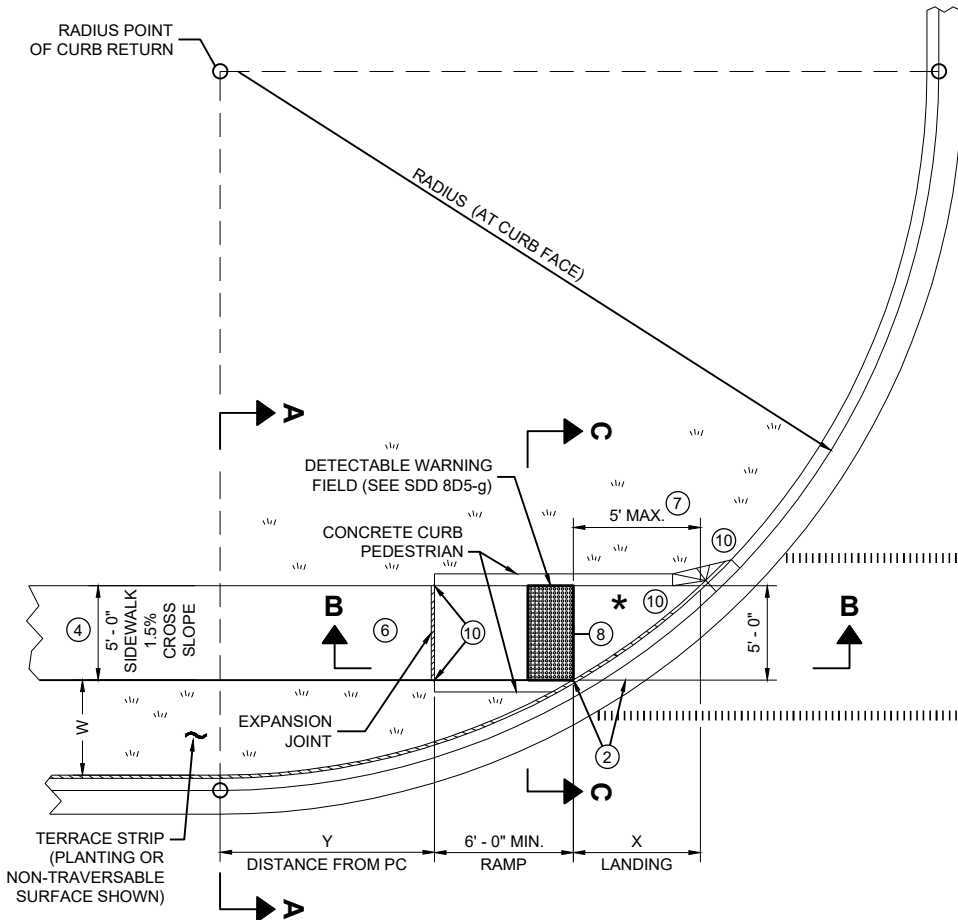


ISOMETRIC VIEW FOR TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

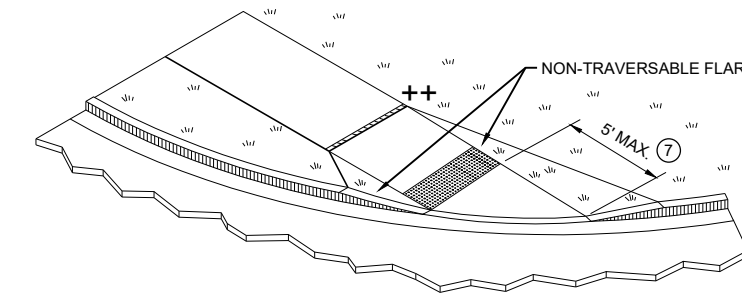
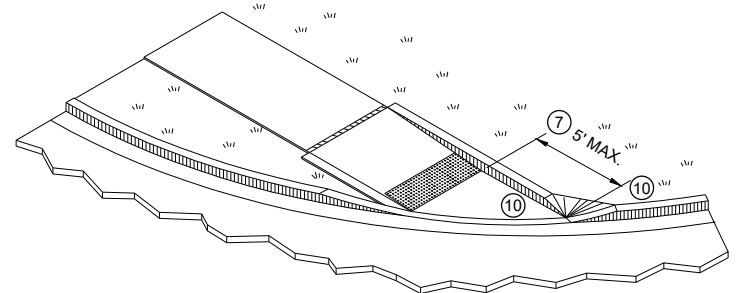
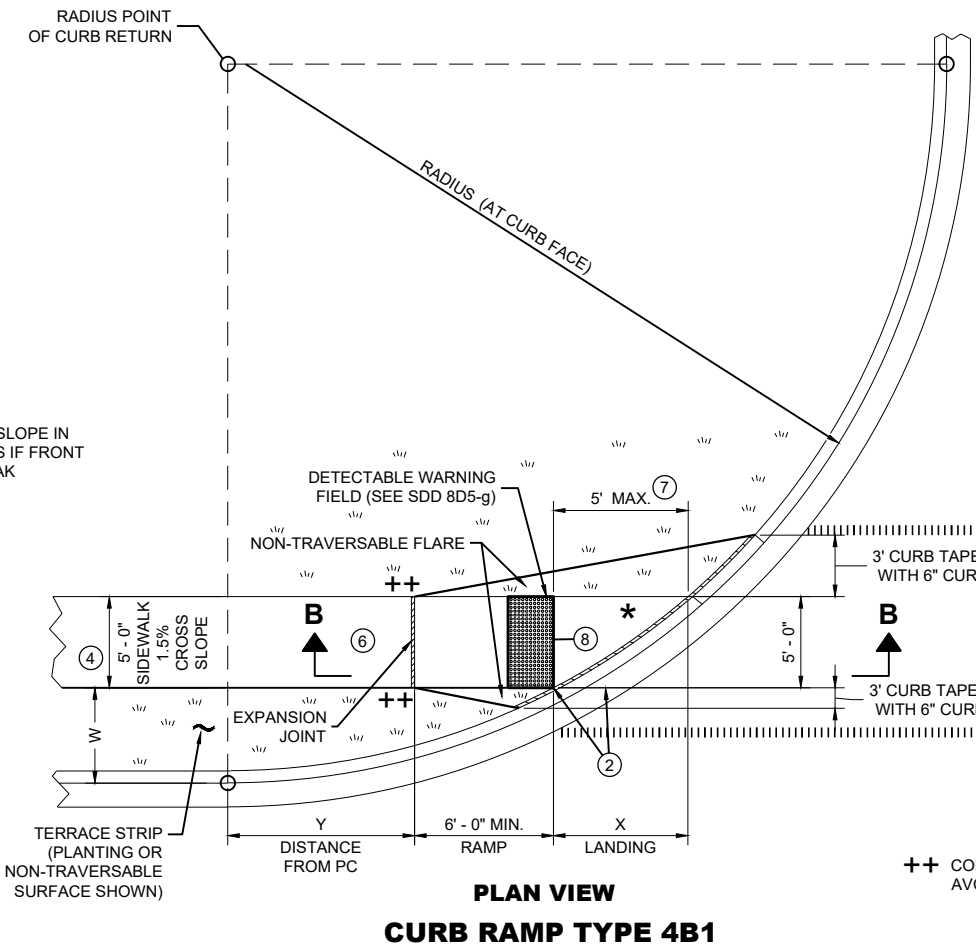
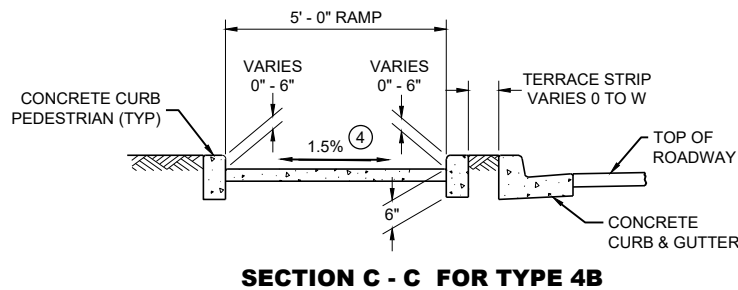
CURB RAMPS TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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



++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

LEGEND

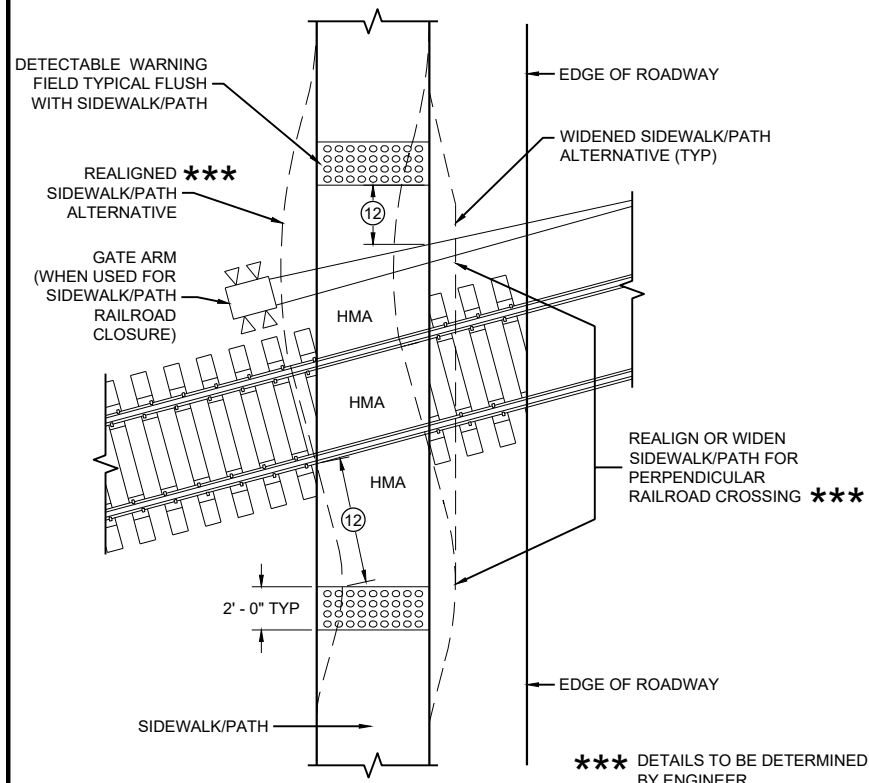
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

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

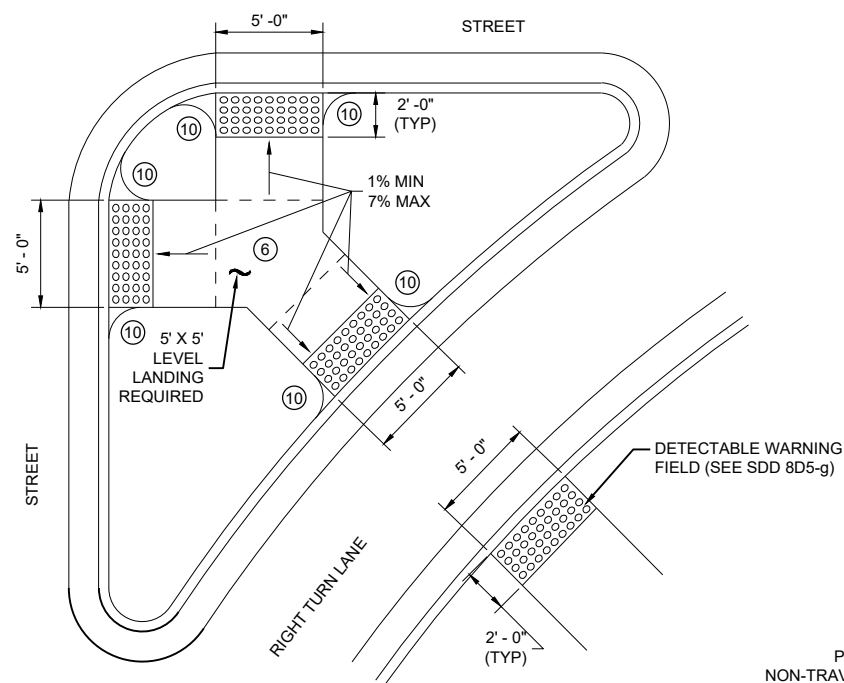
CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
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CURB RAMP TYPE 8

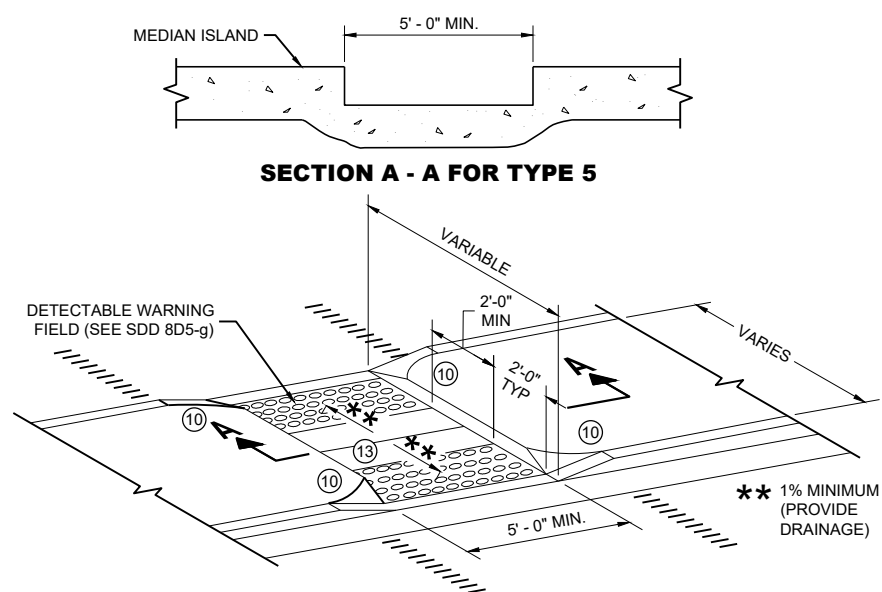
DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

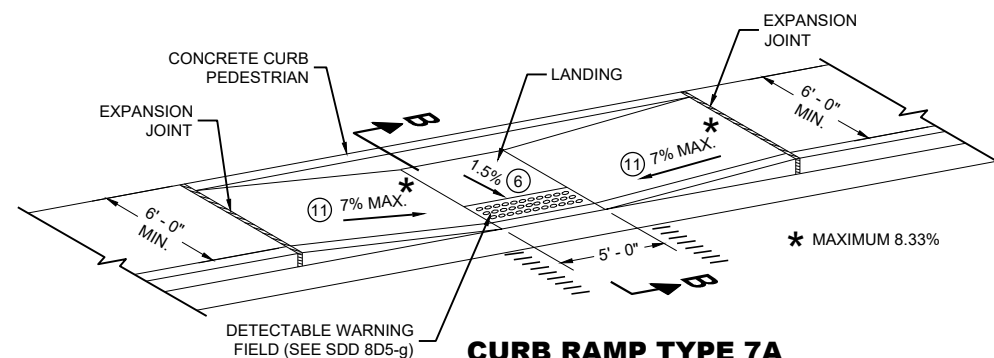
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



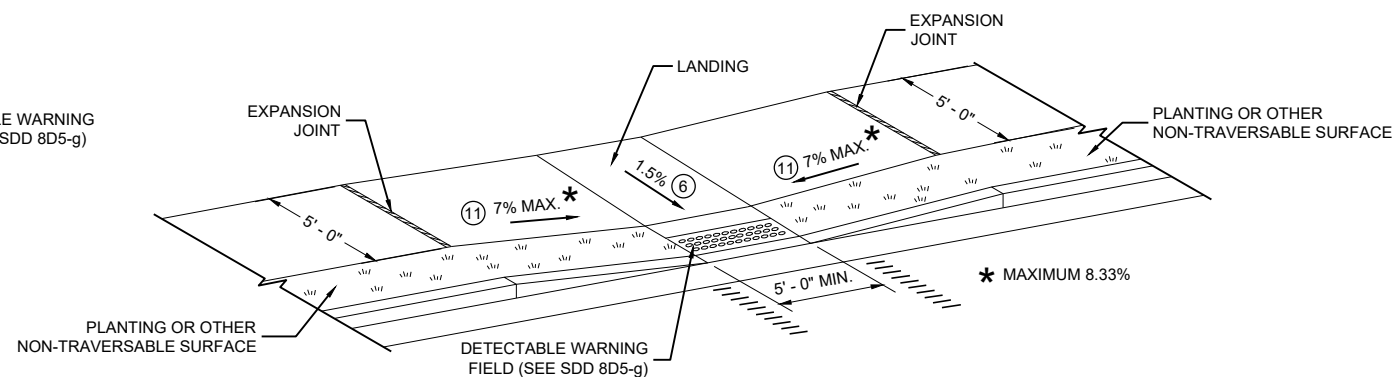
SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A FOR INTERSECTIONS AND MID BLOCK CROSSINGS



CURB RAMP TYPE 7B FOR INTERSECTIONS AND MID BLOCK CROSSINGS

GENERAL NOTES

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

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

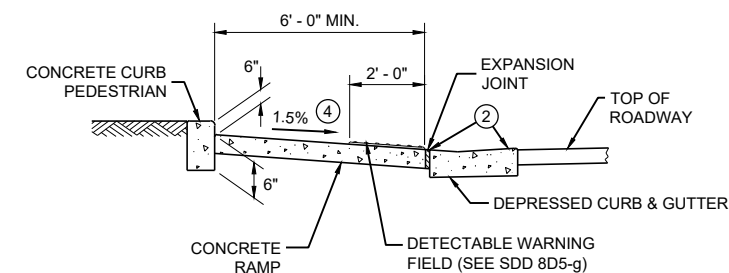
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/8 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 $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD 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 $\pm 0.1'$ 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 STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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

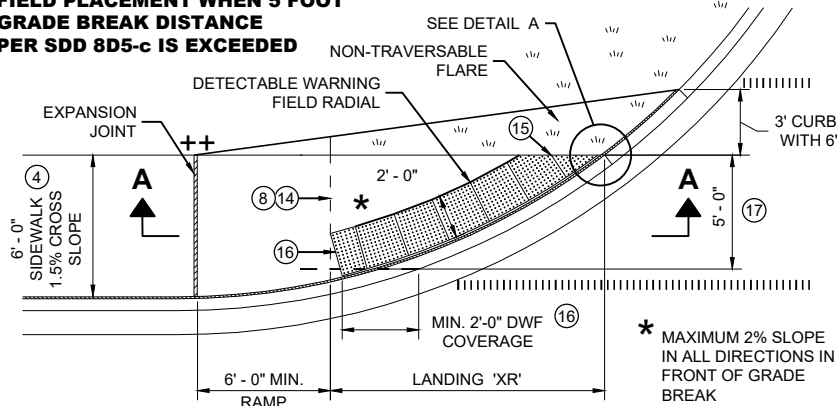


SECTION B - B FOR TYPE 7A

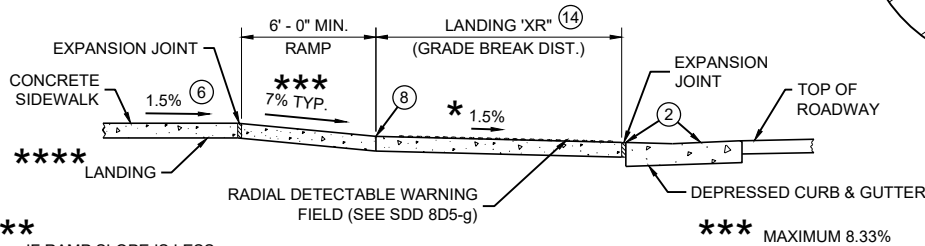
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
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**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)**

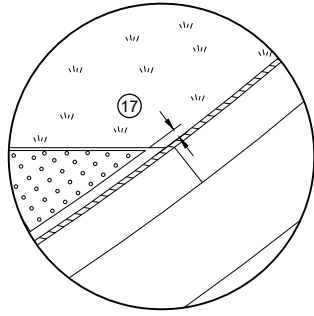


SECTION A - A FOR TYPE 4A1

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

LEGEND

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



DETAIL A

GENERAL NOTES

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

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

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

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

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

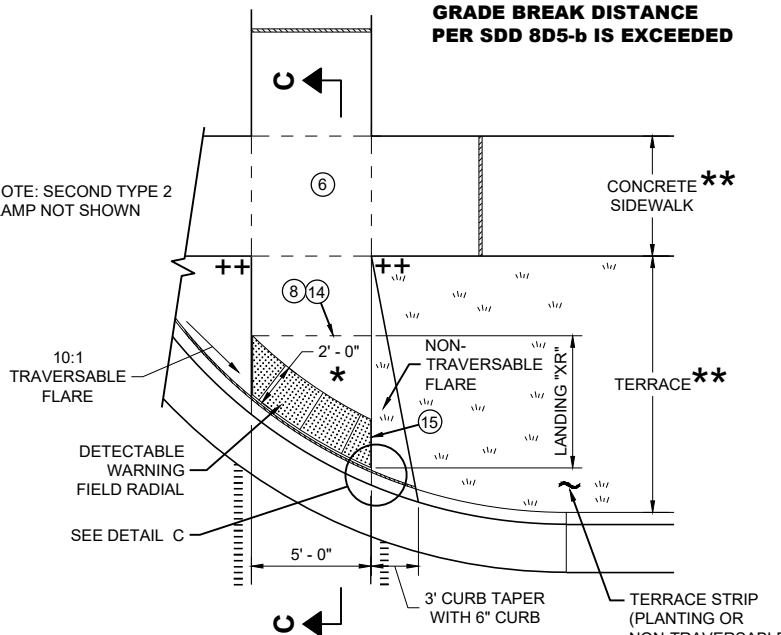
FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

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

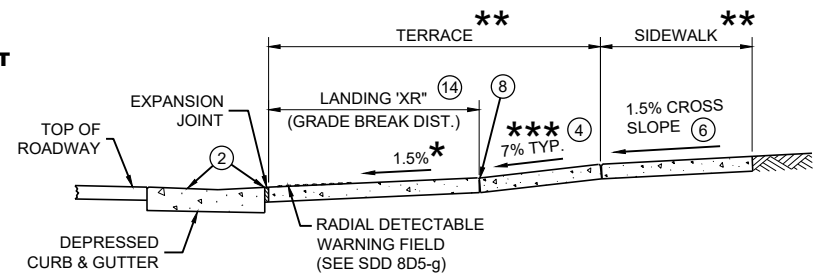
- (2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD 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 1/2" 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-b IS EXCEEDED**

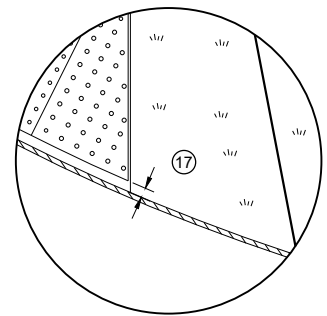
NOTE: SECOND TYPE 2
RAMP NOT SHOWN



**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%

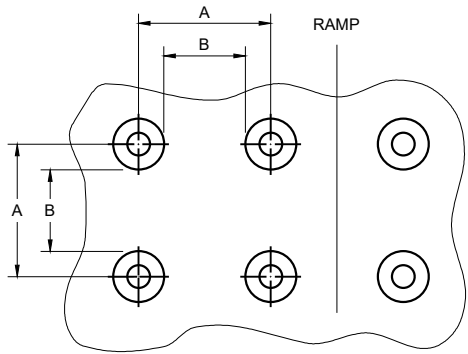
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

**CURB RAMPS
RADIAL DETECTABLE WARNING**

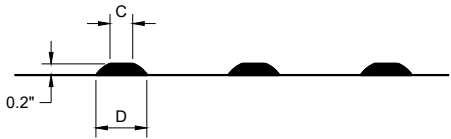
STATE OF WISCONSIN
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	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

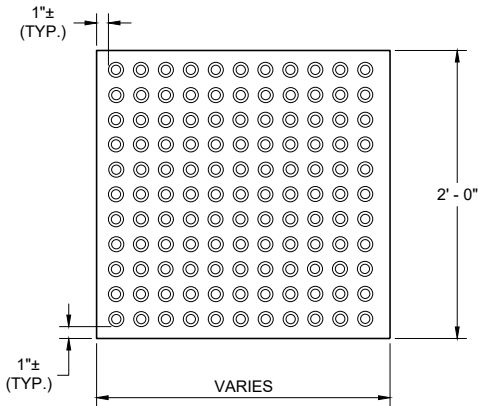


PLAN VIEW

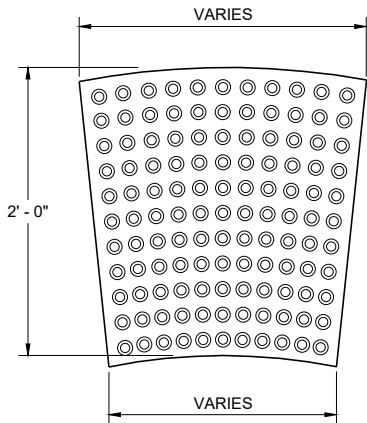


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

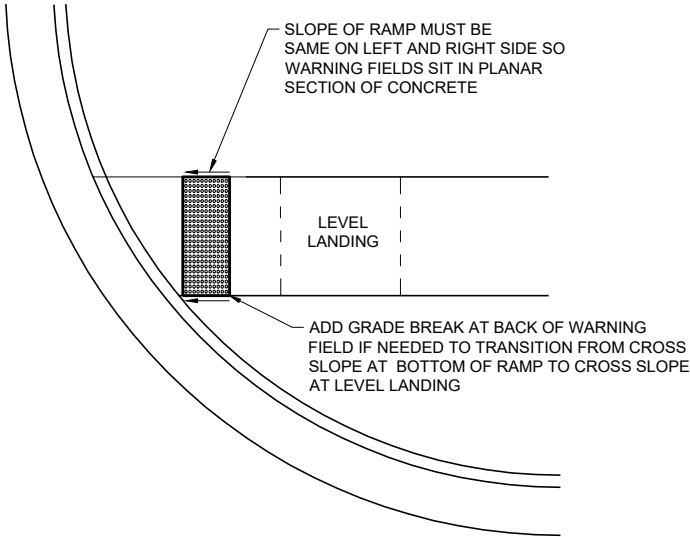


RECTANGULAR
PLATES

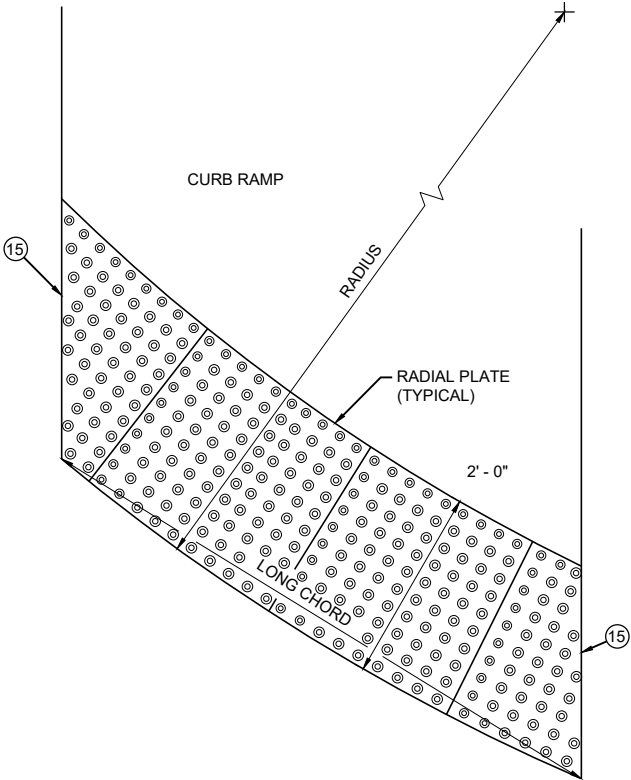


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

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

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

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

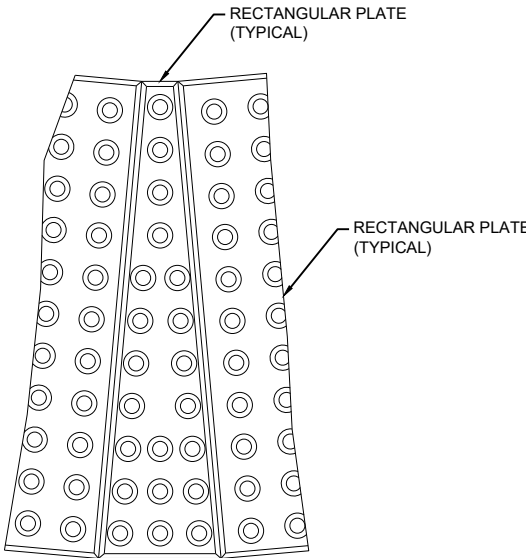
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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



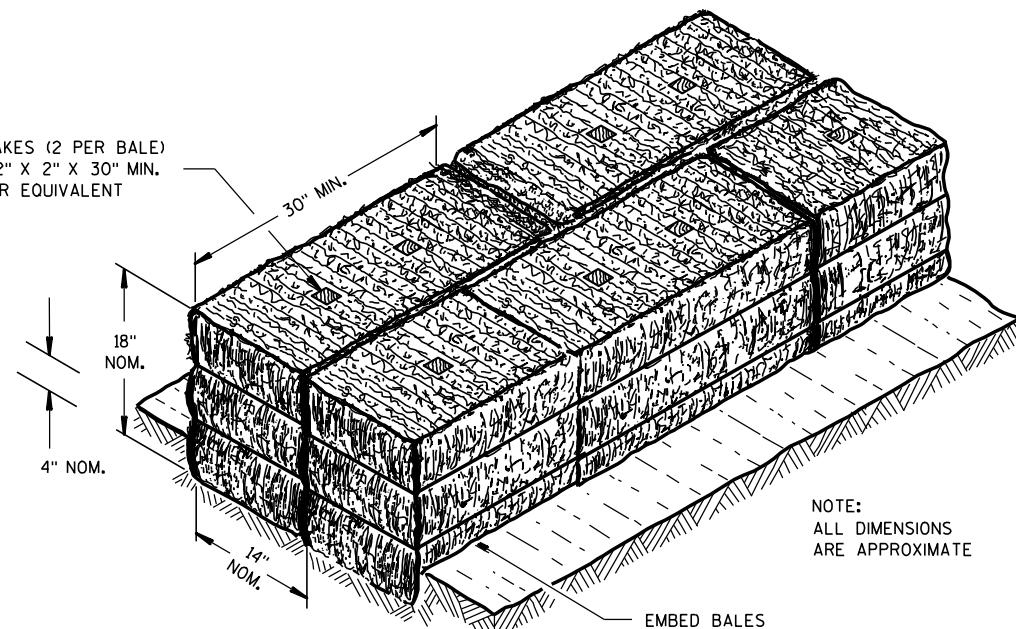
PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

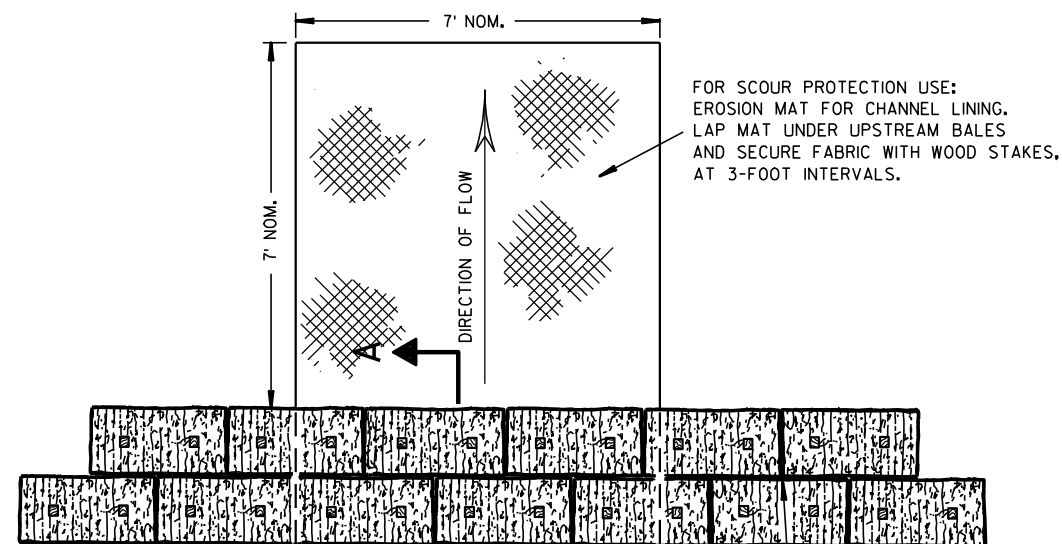
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

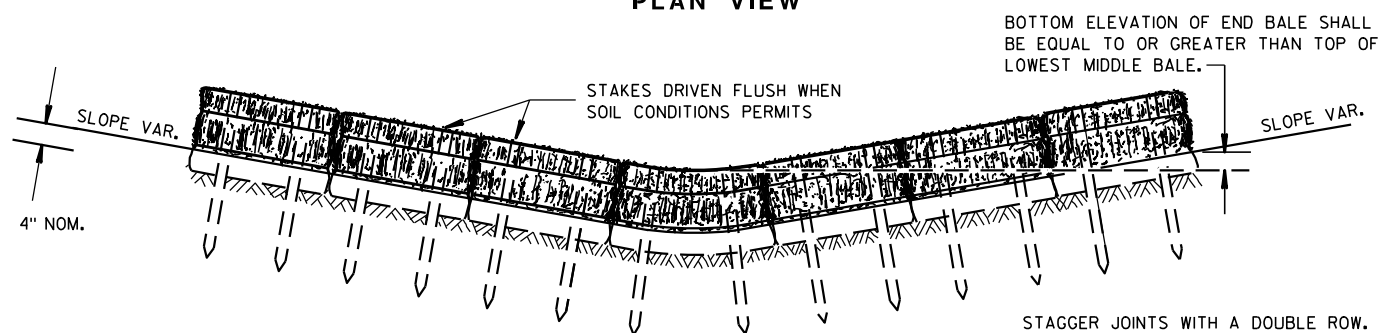
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



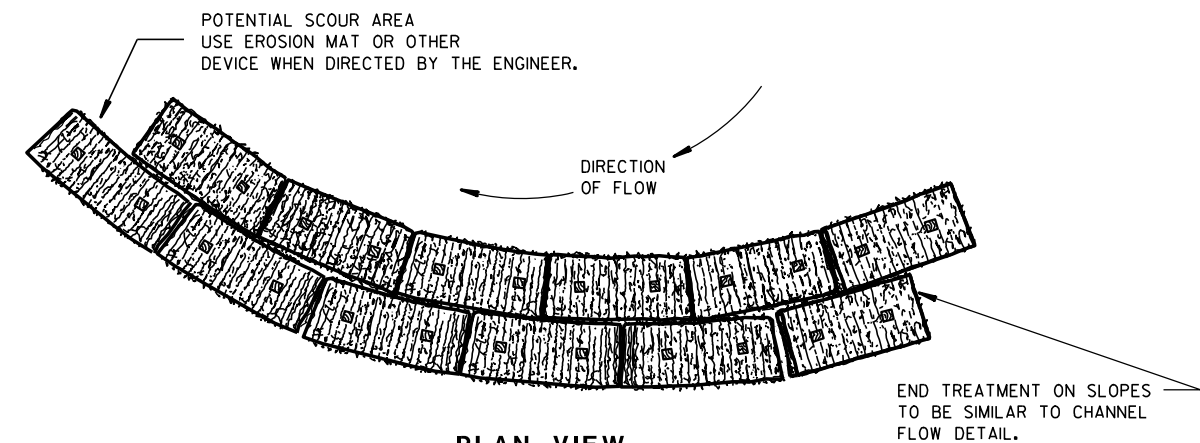
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

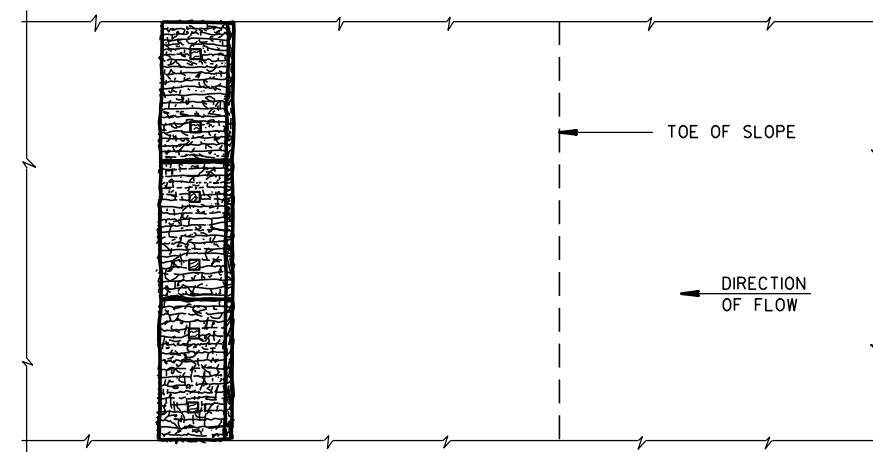
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

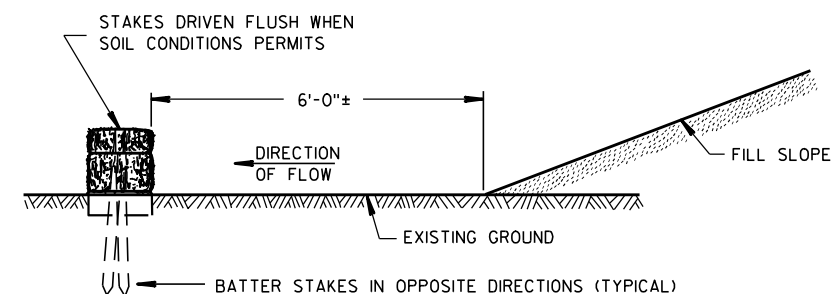


PLAN VIEW

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

FHWA

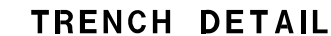
/S/ Beth Connolly

CHIEF ROADWAY DEVELOPER

137
ENGINEER



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.

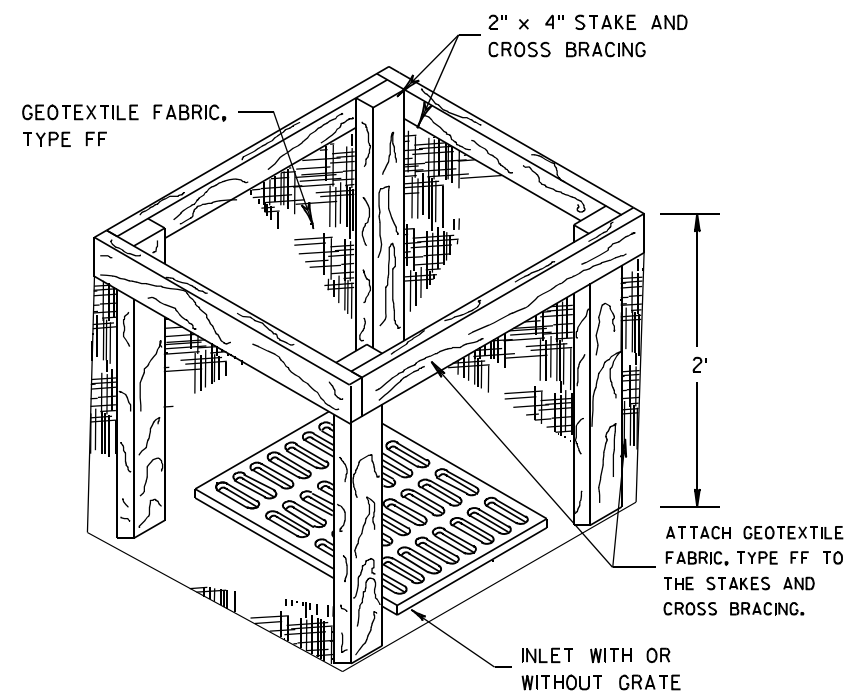
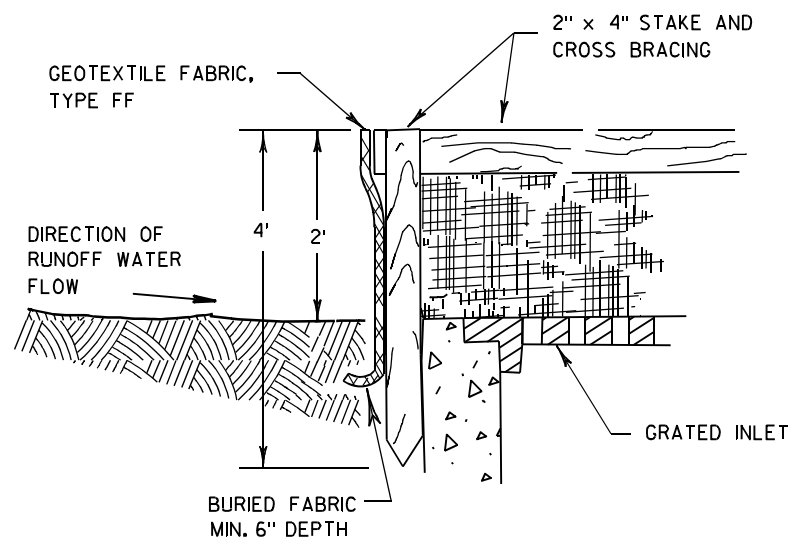


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOPMENT 138 JINEER

FHWA



INLET PROTECTION, TYPE A

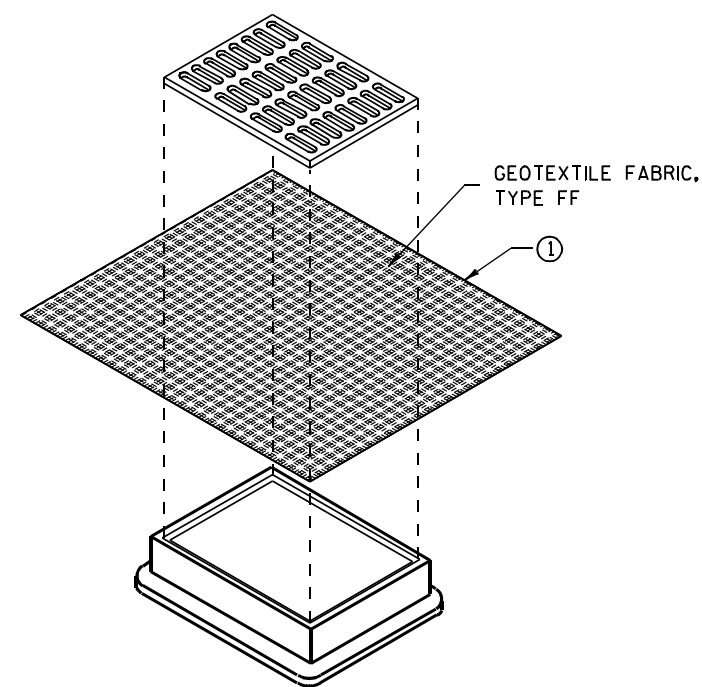
GENERAL NOTES

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

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

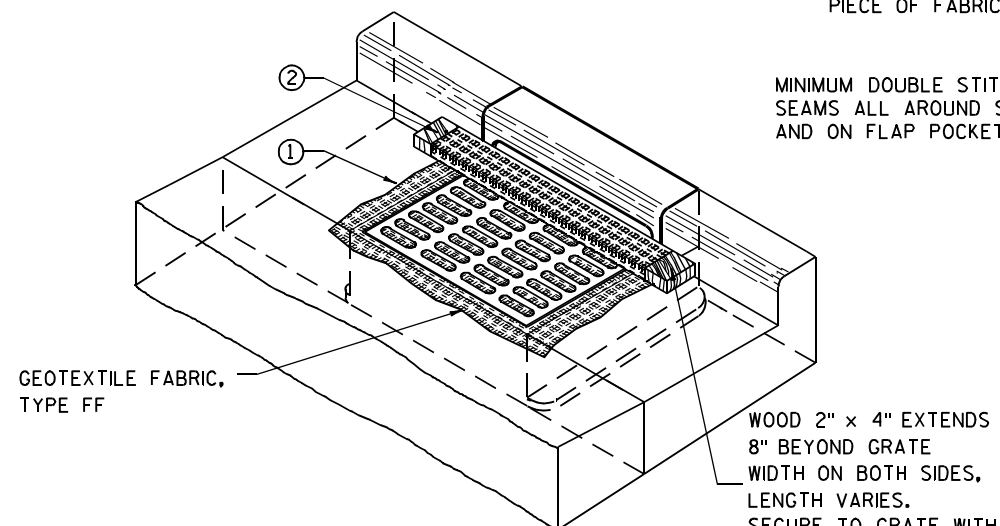
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

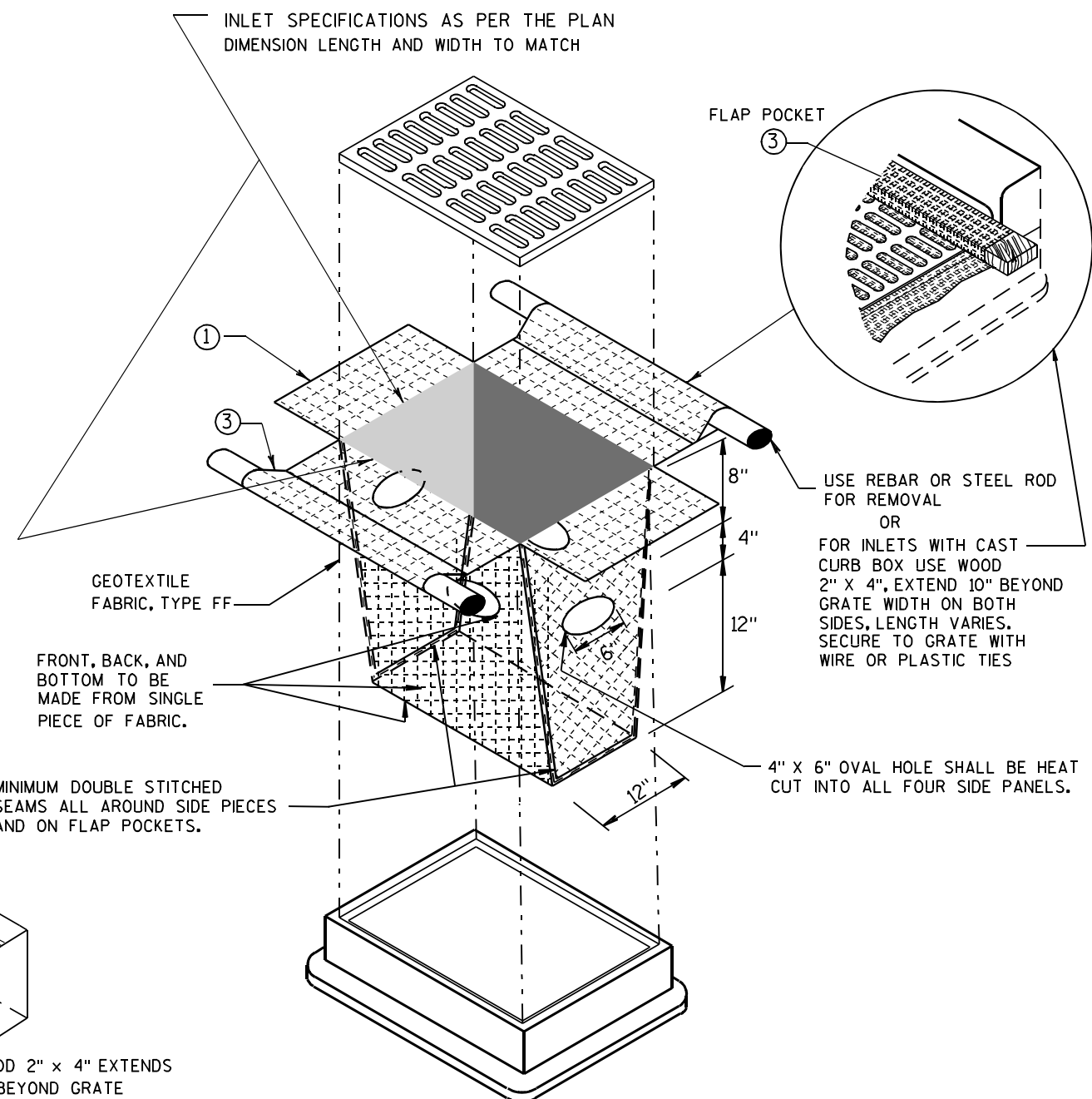
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



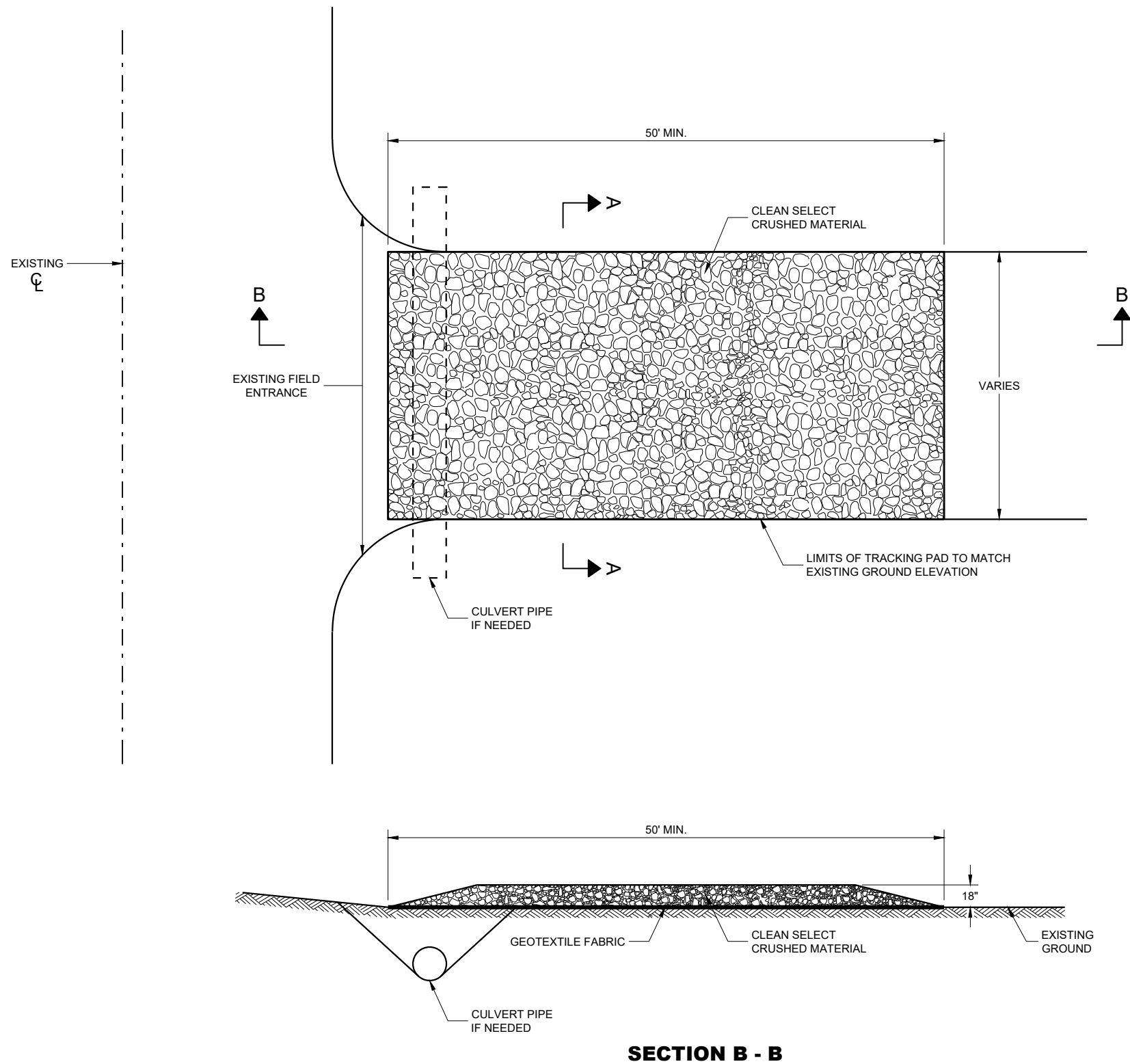
INLET PROTECTION, TYPE D

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

**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 139
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

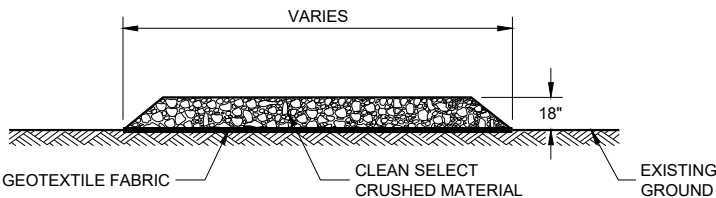
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

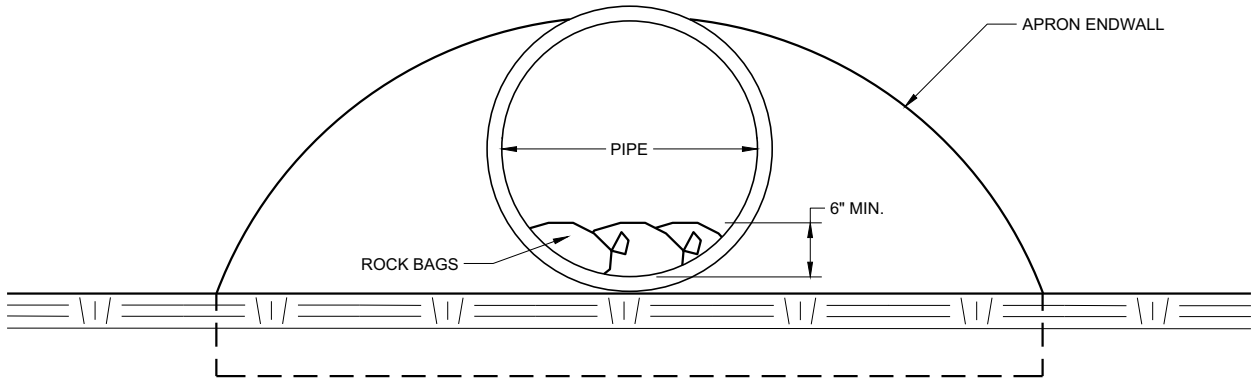


TRACKING PAD

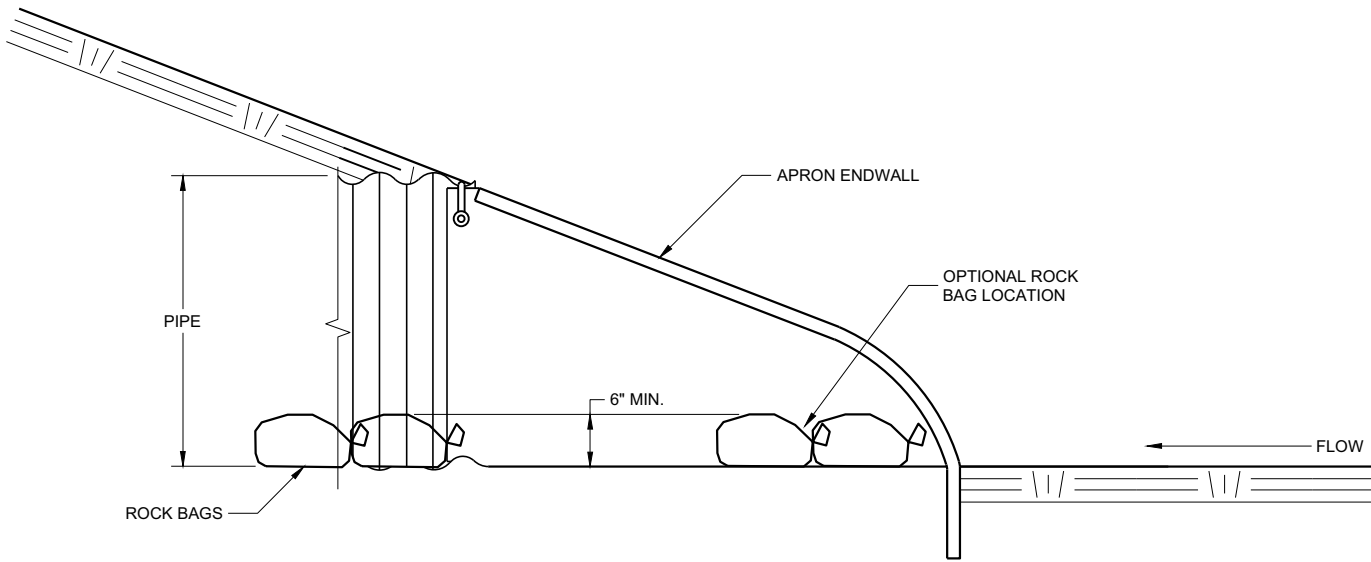
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 140

FHWA



END VIEW



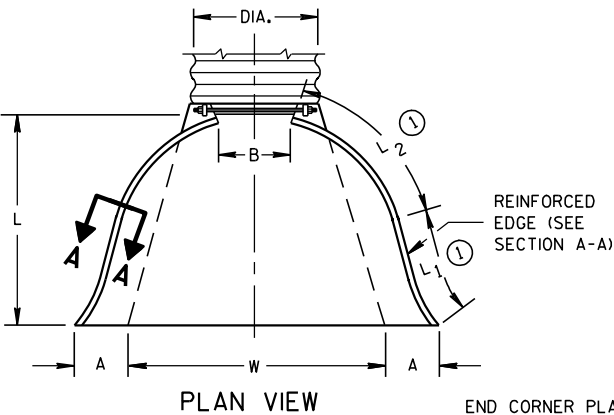
SIDE VIEW

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 141
FHWA	

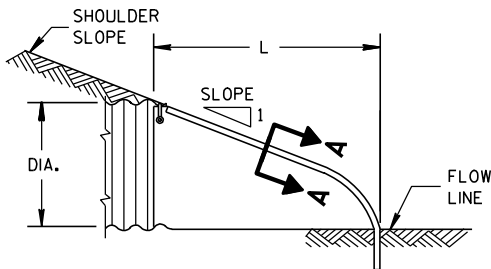
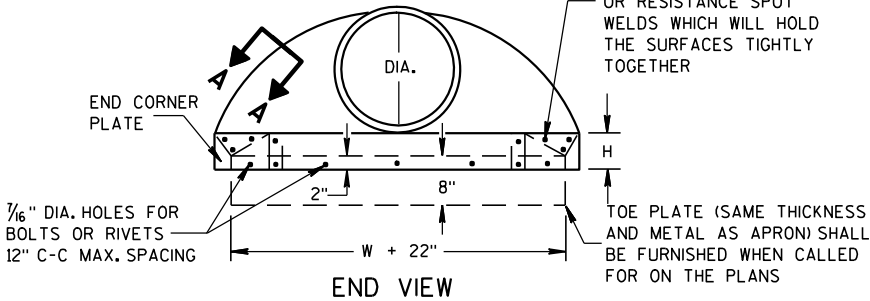
METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064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

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



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

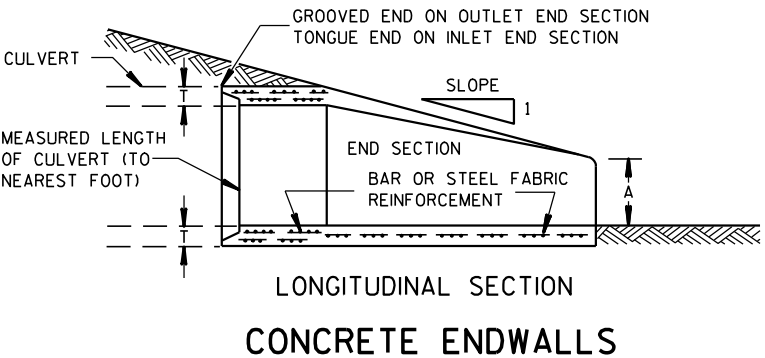
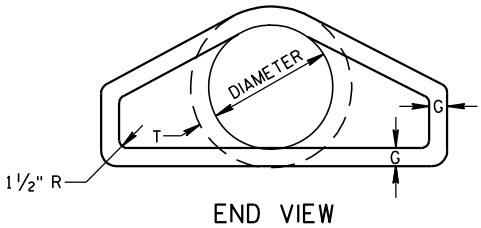
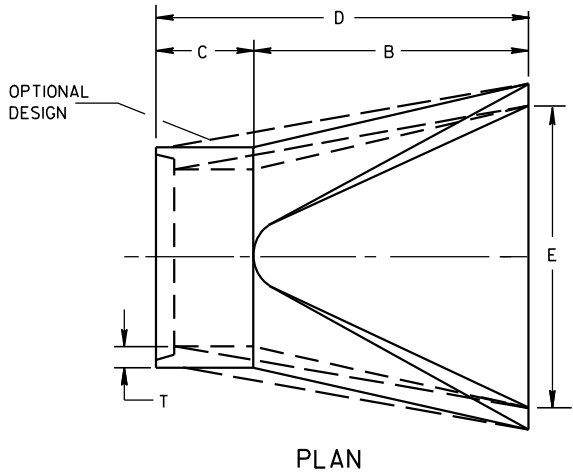
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



SIDE ELEVATION
METAL ENDWALLS

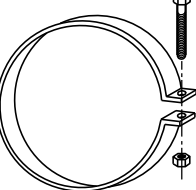
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9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

* MINIMUM
** MAXIMUM

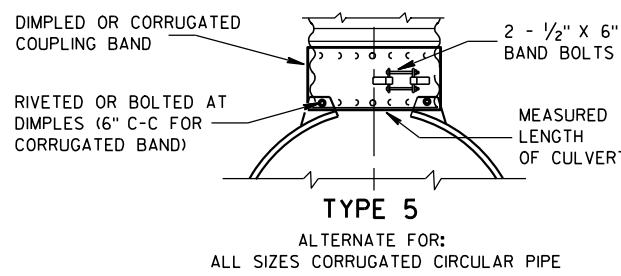
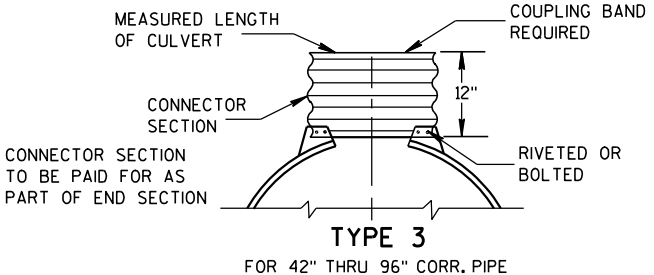
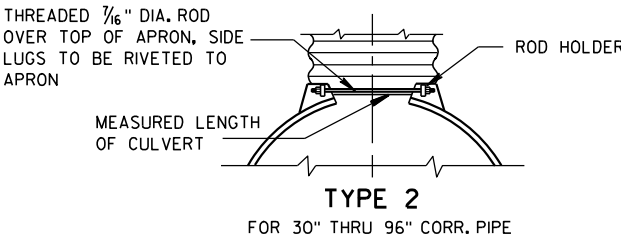
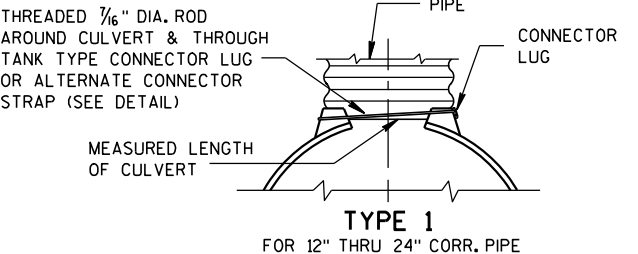


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



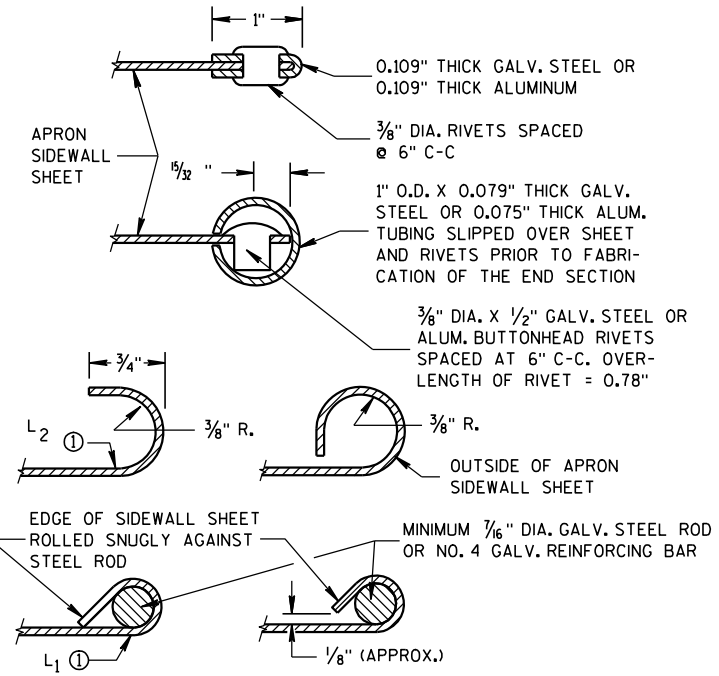
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

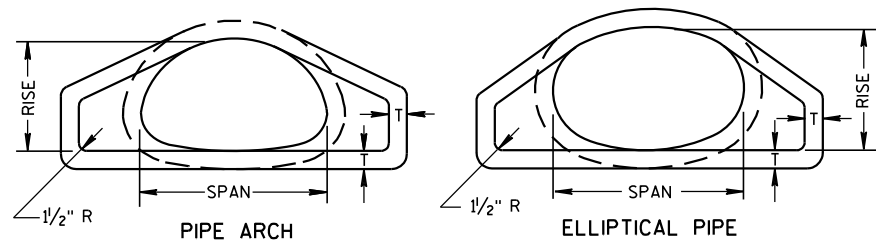
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

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

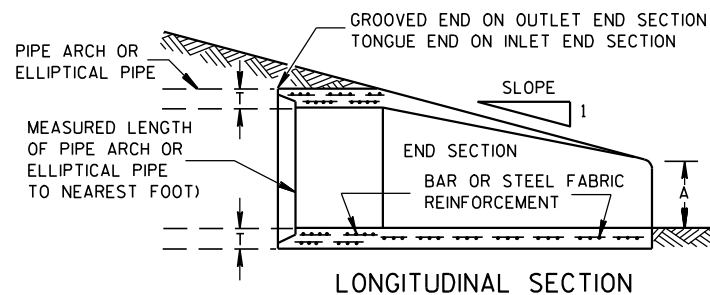
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP	142	NEER
FHWA			

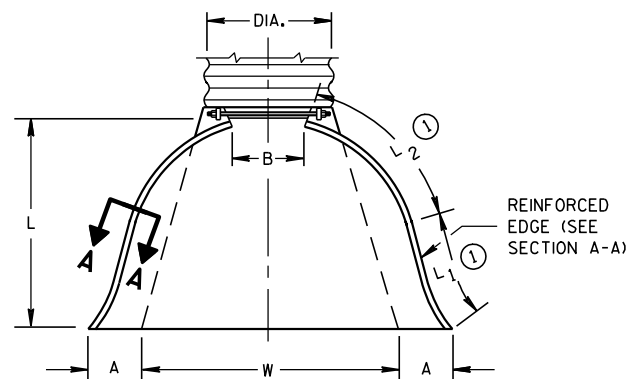


END VIEW



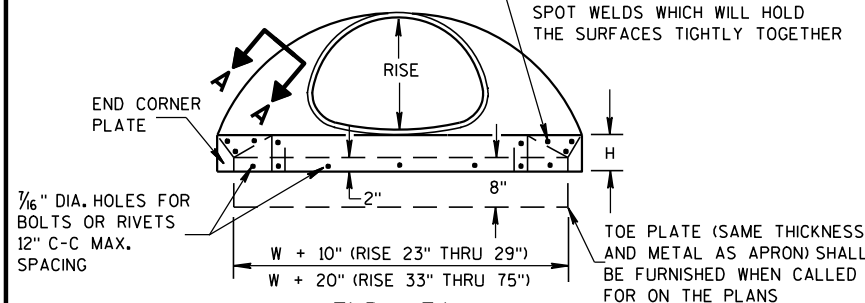
LONGITUDINAL SECTION

CONCRETE ENDWALLS

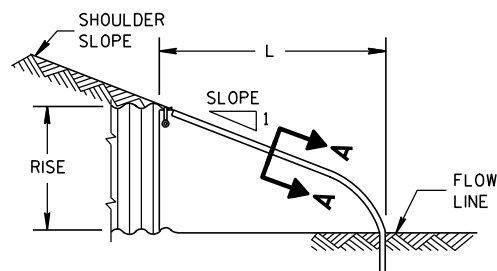
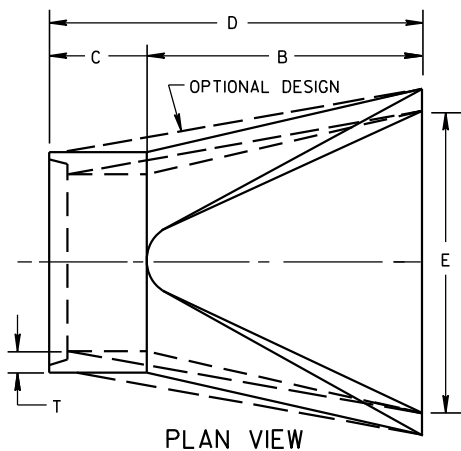


PLAN VIEW

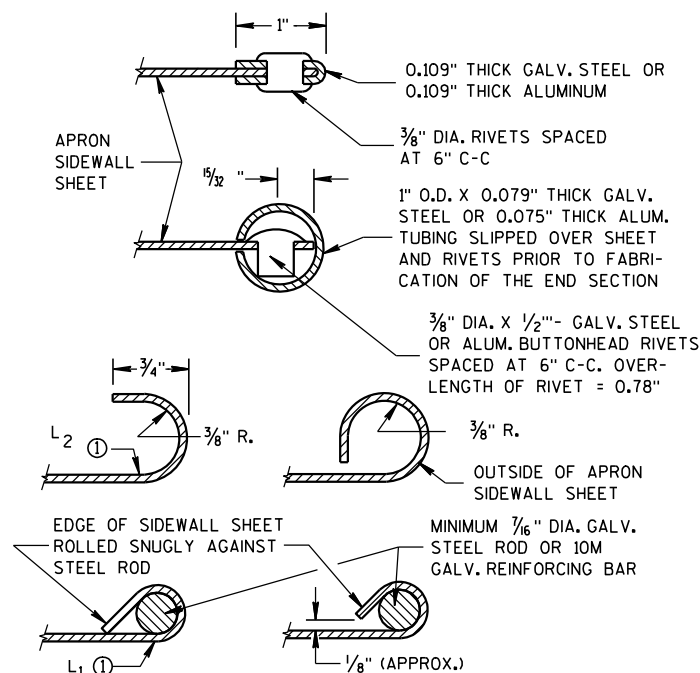
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW

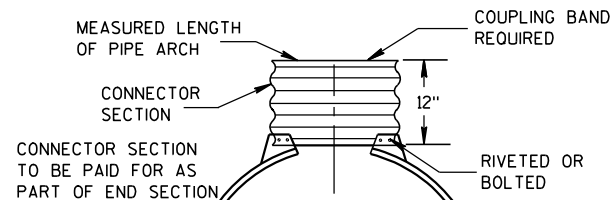


SECTION A-A



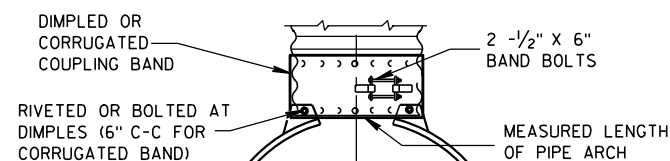
TYPE 2

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

CONNECTION DETAILS

2- 2 3/8" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	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	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94

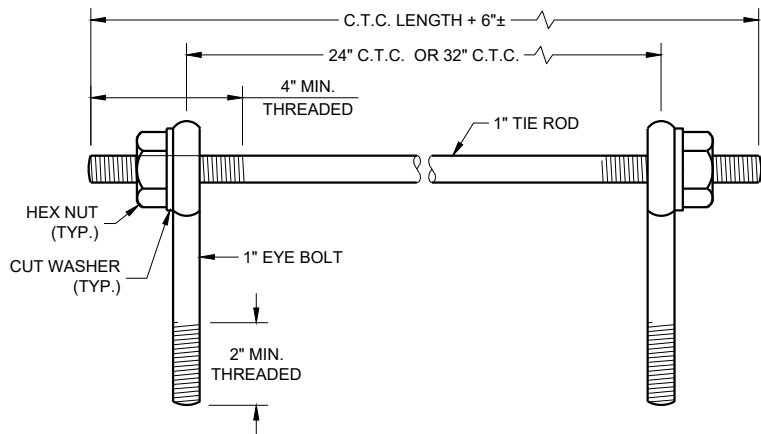
DATE

/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

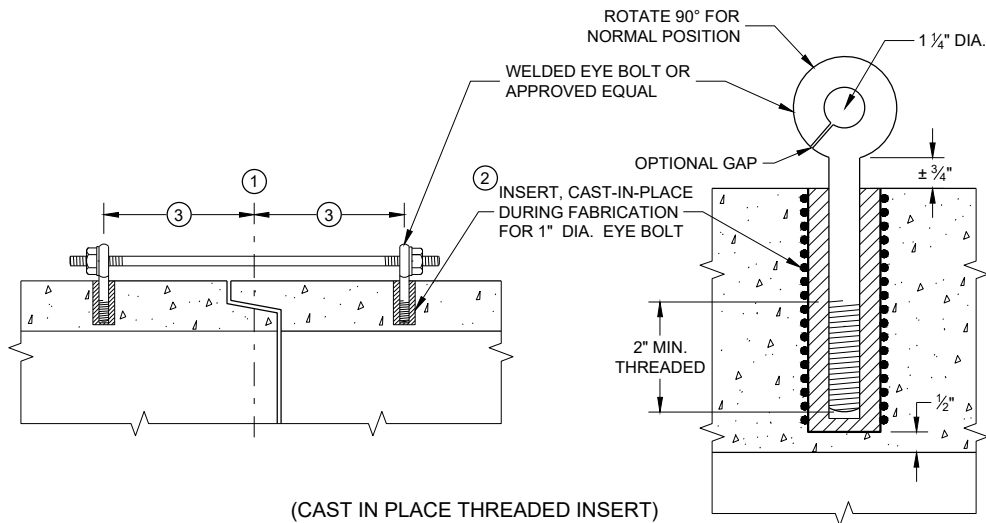
FHWA

ENGINEER



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

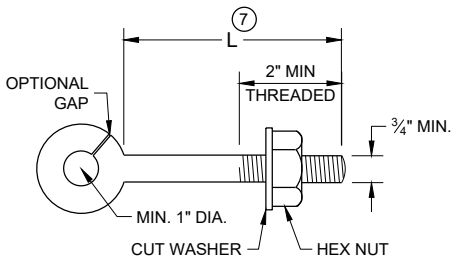
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT 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.

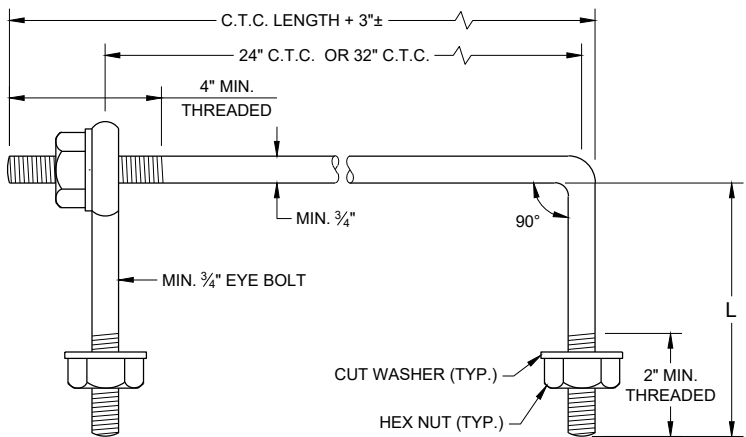
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

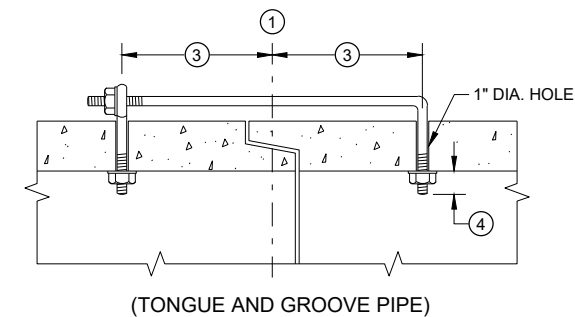


EYE BOLT 7

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

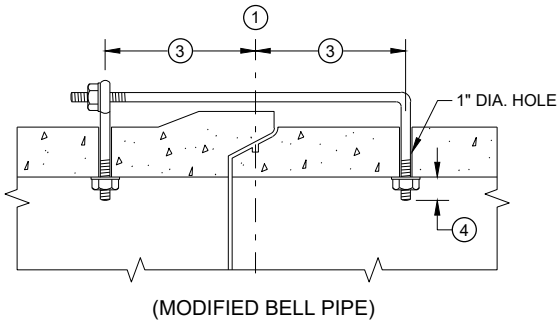


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

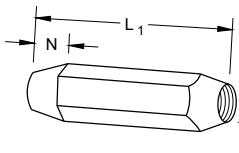


(MODIFIED BELL PIPE)

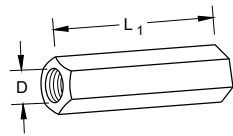
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES

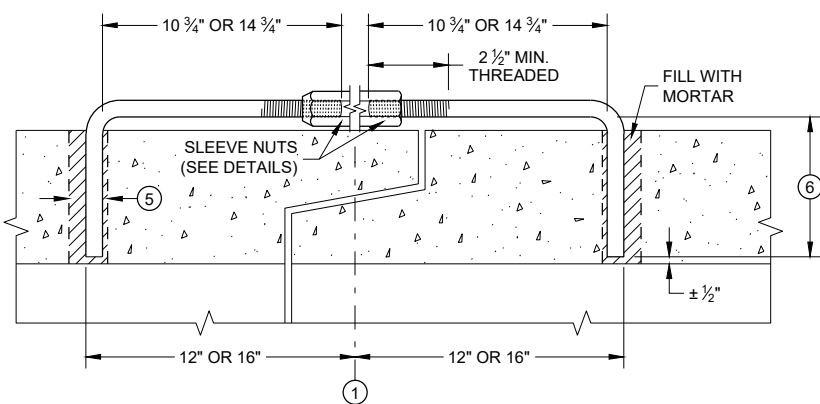


TAPERED



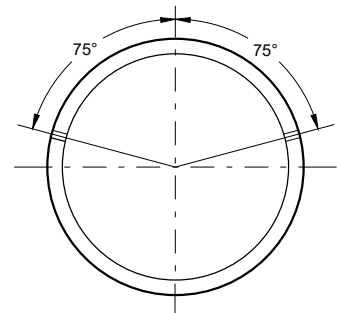
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



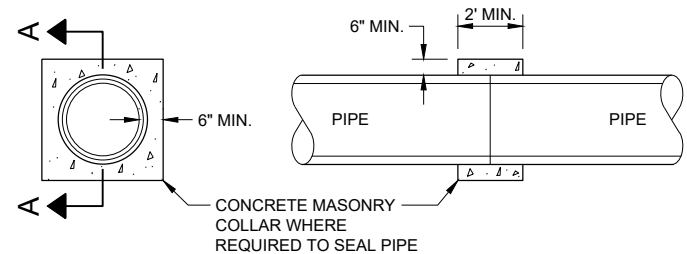
LONGITUDINAL SECTION

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



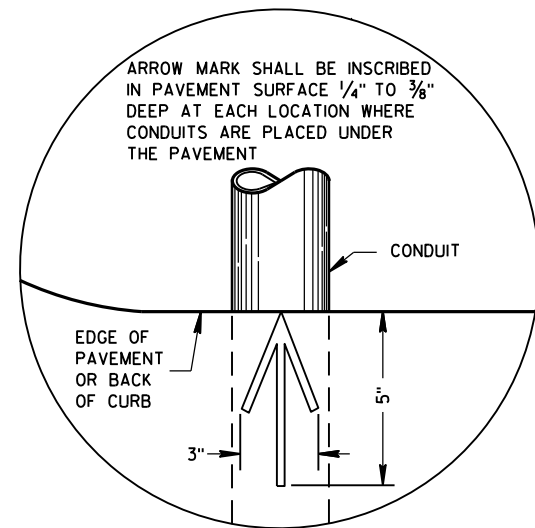
SECTION A - A

CONCRETE COLLAR DETAIL

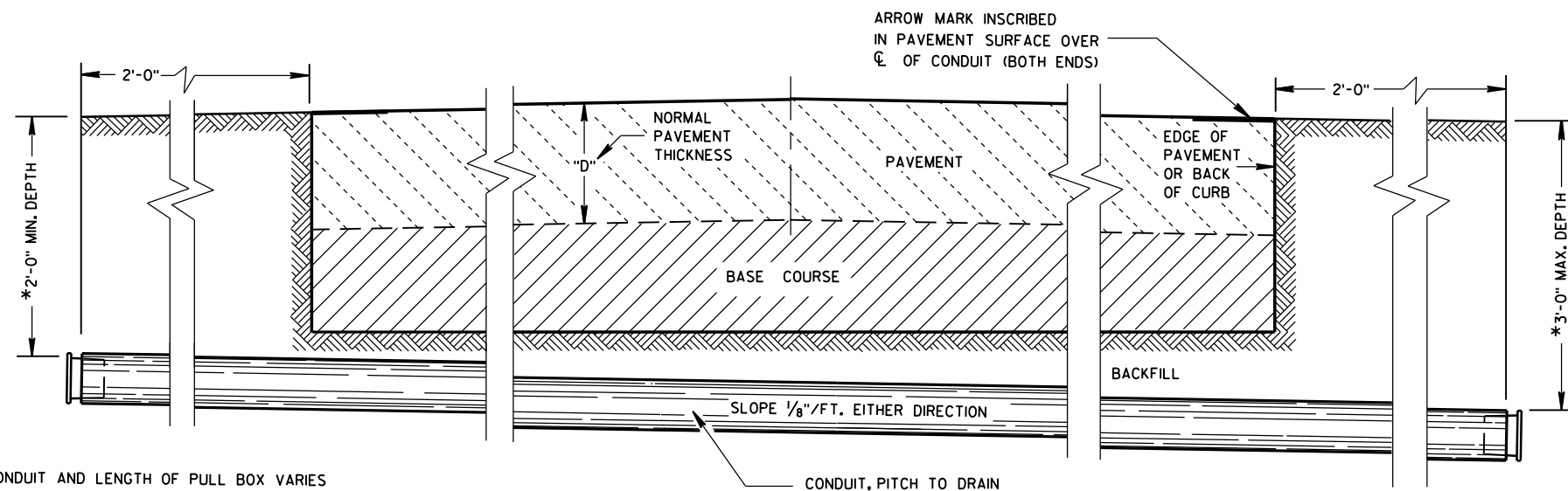
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 144
FHWA



PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

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

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 145
FHWA

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

- ① THE MINIMUM DEPTH OF CONDUIT EXISTING TO 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 STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑨ EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- ⑩ 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ⑪ ANY ANCHOR ROD PROJECTION SHORTER THAN $2\frac{3}{4}$ " OR LONGER THAN $3\frac{1}{4}$ " SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑫ FOR NON - BREAKAWAY INSTALLATIONS, $4\frac{1}{2}$ " $\pm$ ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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.

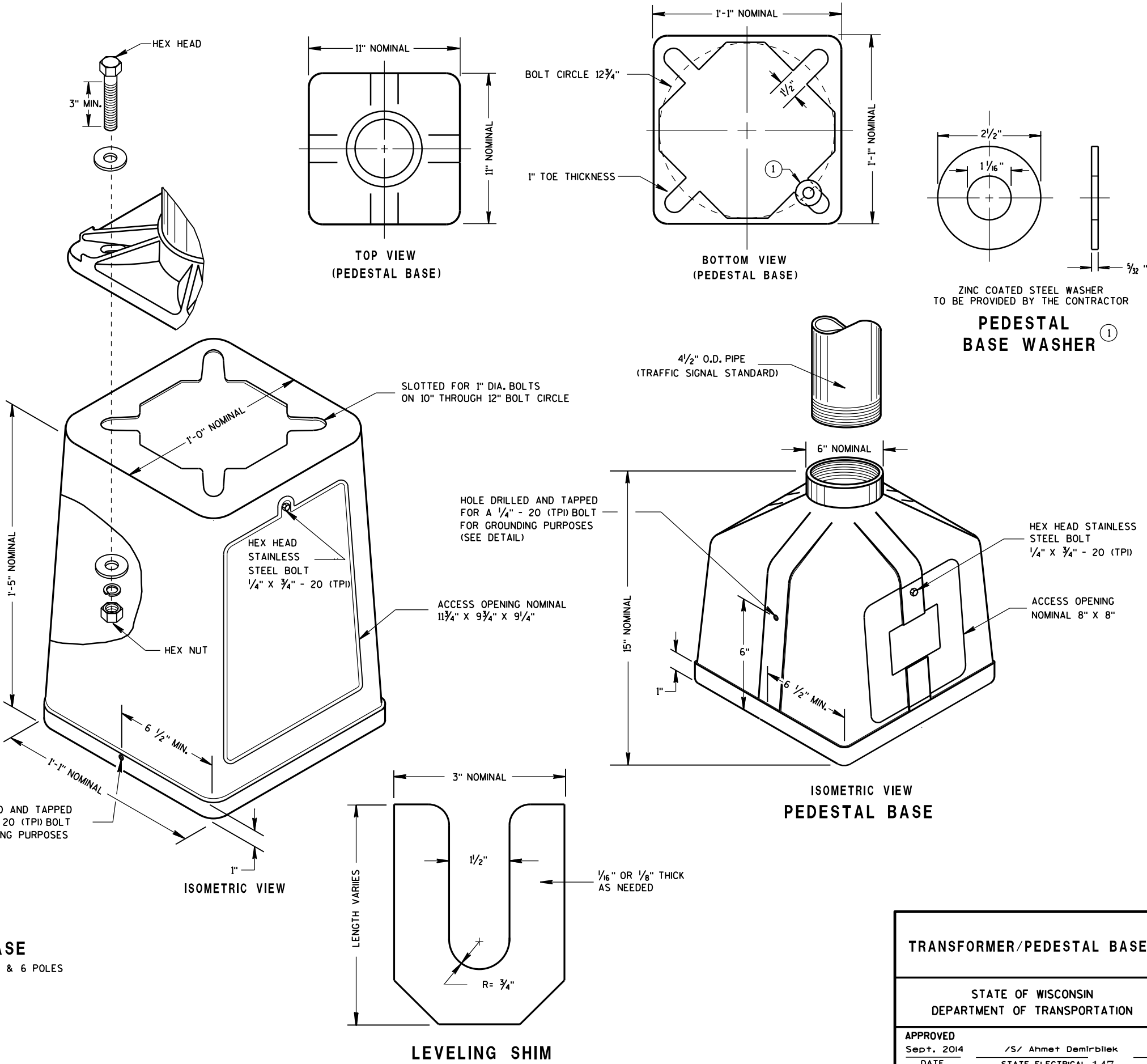
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

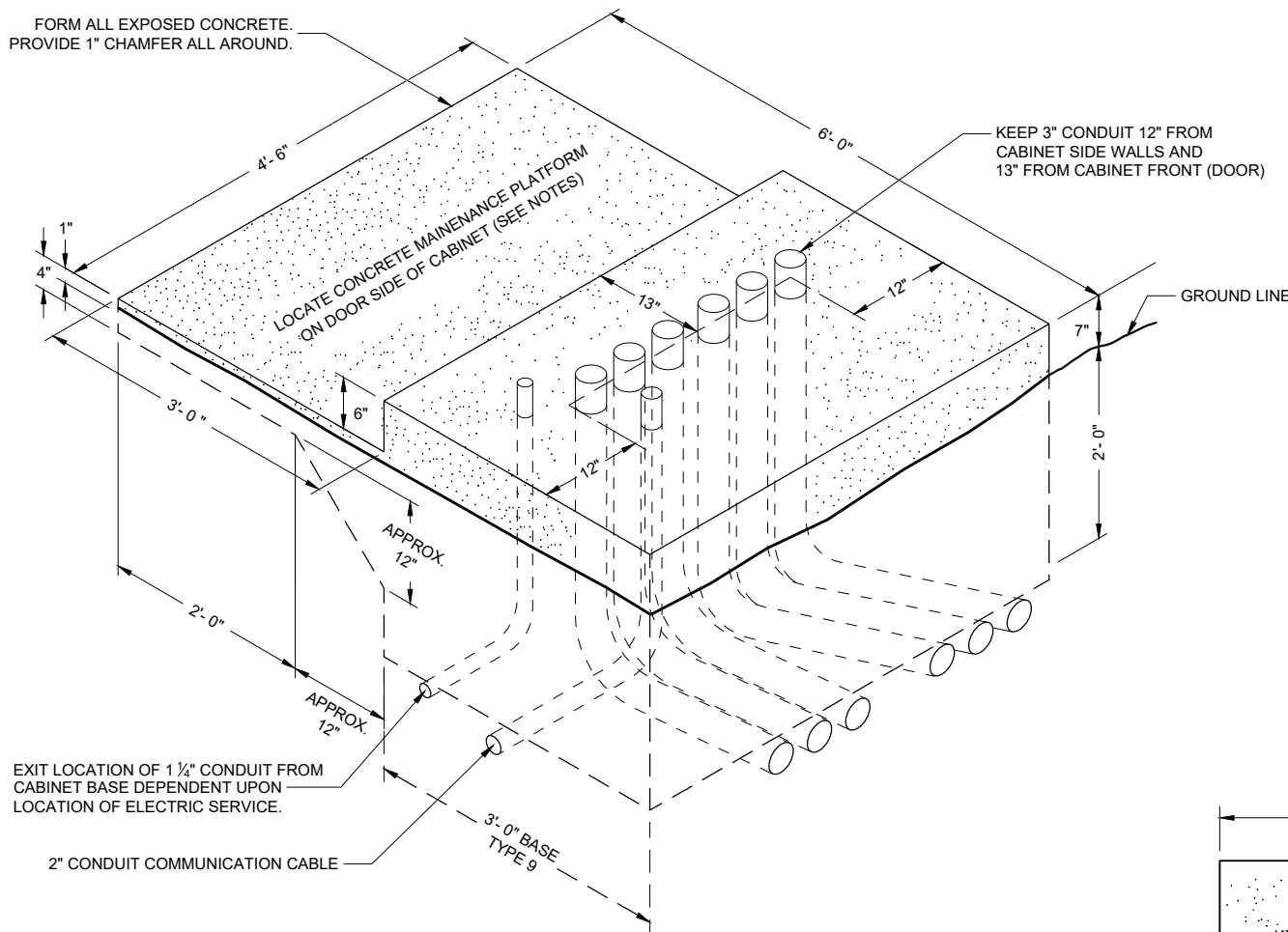
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TRANSFORMER/PEDESTAL BASES

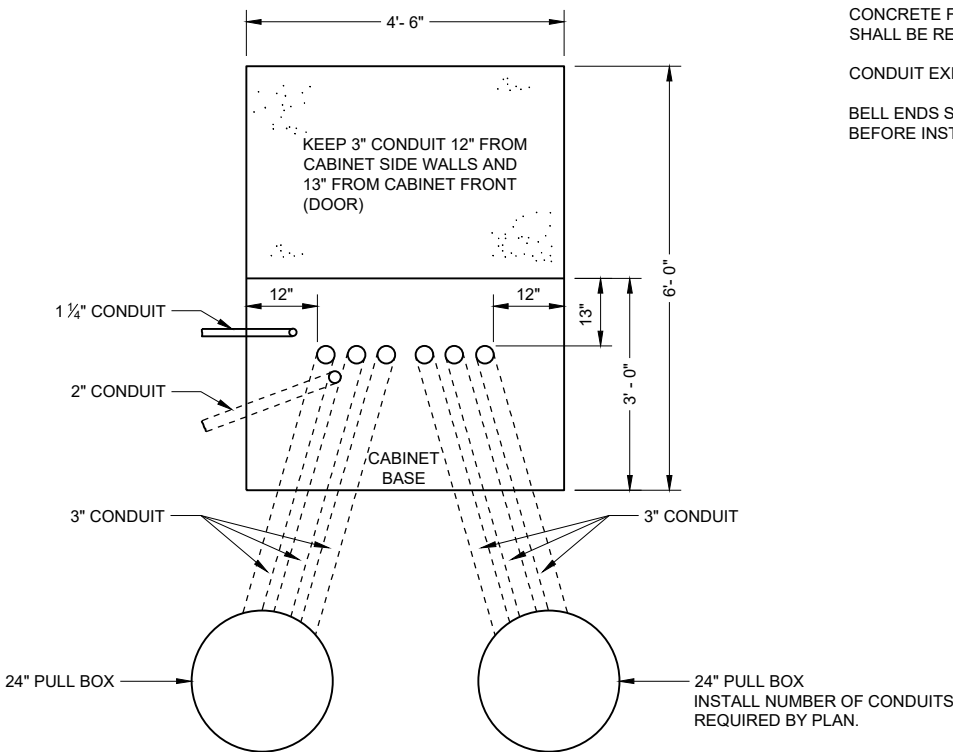
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 147
FHWA



**ISOMETRIC VIEW
TYPE 9 SPECIAL**

(C.Y. CONCRETE = APPROX. 1.56)



**PLAN VIEW
CONCRETE CONTROL CABINET BASE,
TYPE 9 SPECIAL**

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

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

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

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

**CONCRETE CONTROL
CABINET BASE
TYPE 9, SPECIAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI 148
FHWA

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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 OF CABLE OR WIRE.

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

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

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

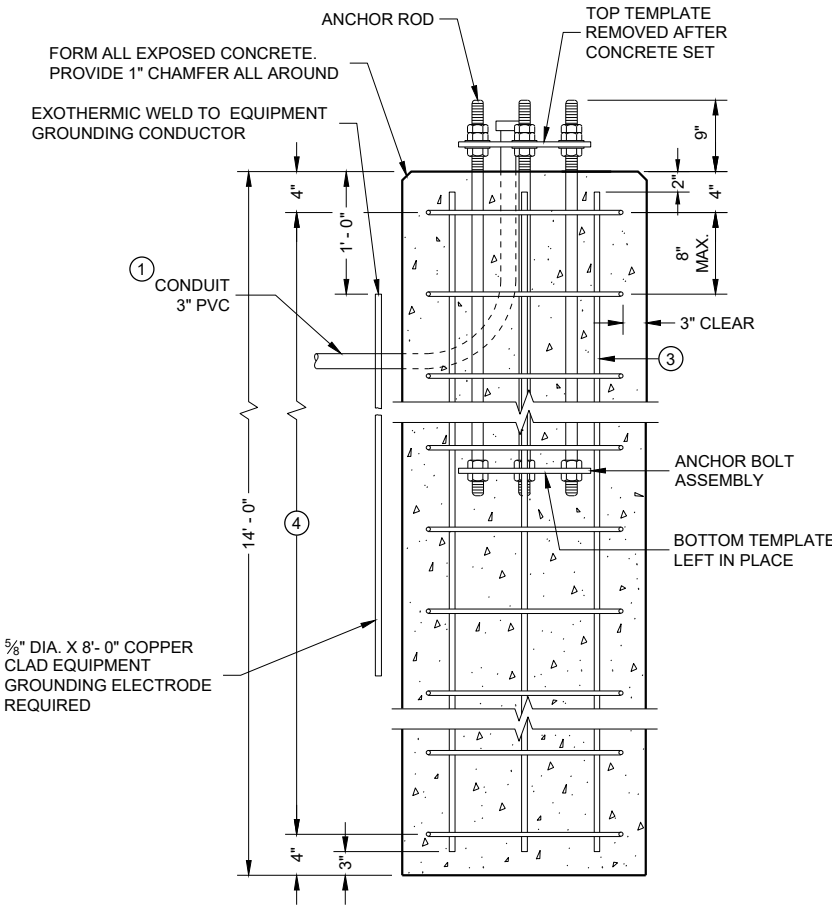
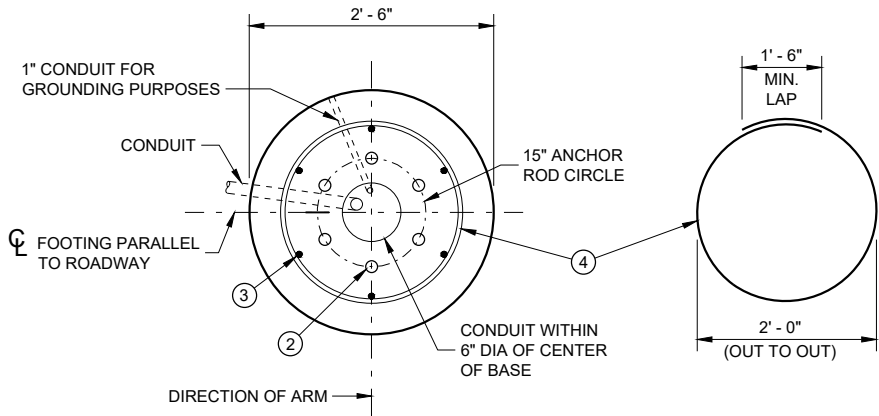
THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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.

- 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 (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2
- (6) 1 1/2 DIA. X 4' - 4" ANCHOR RODS
- 3
- (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.
- 4
- (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

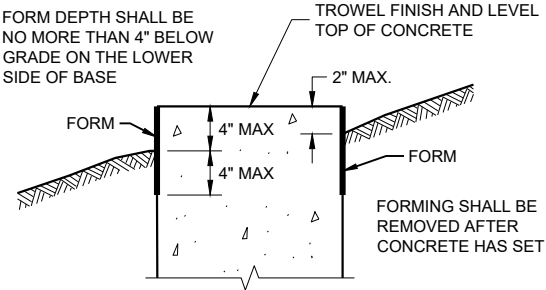
CONCRETE MASONRY.....	fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....	fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)	fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....	fy = 36,000 p.s.i.

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

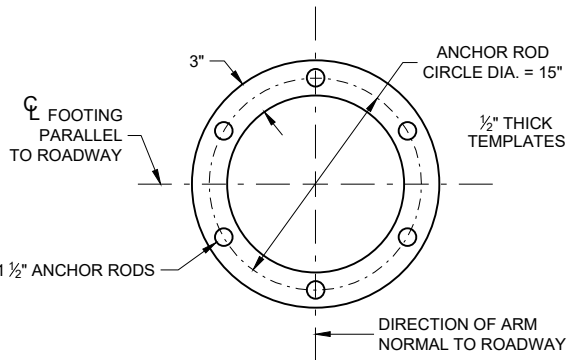


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

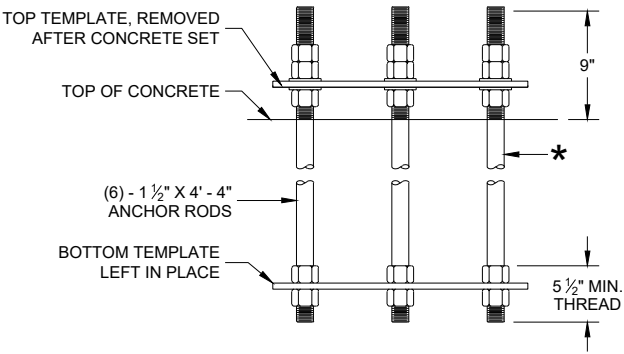
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 1/2" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE
TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

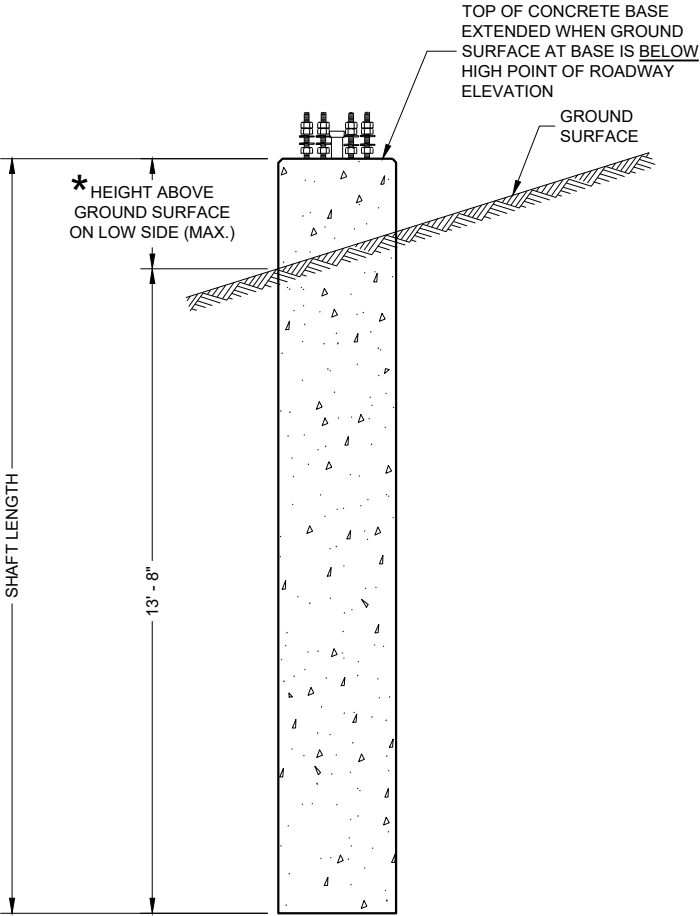
APPROVED
May 2017
DATE

/S/ Ahmet Demerbilek
WIND LOADED STRUCTL PROGRAM LEADER 149

FHWA

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

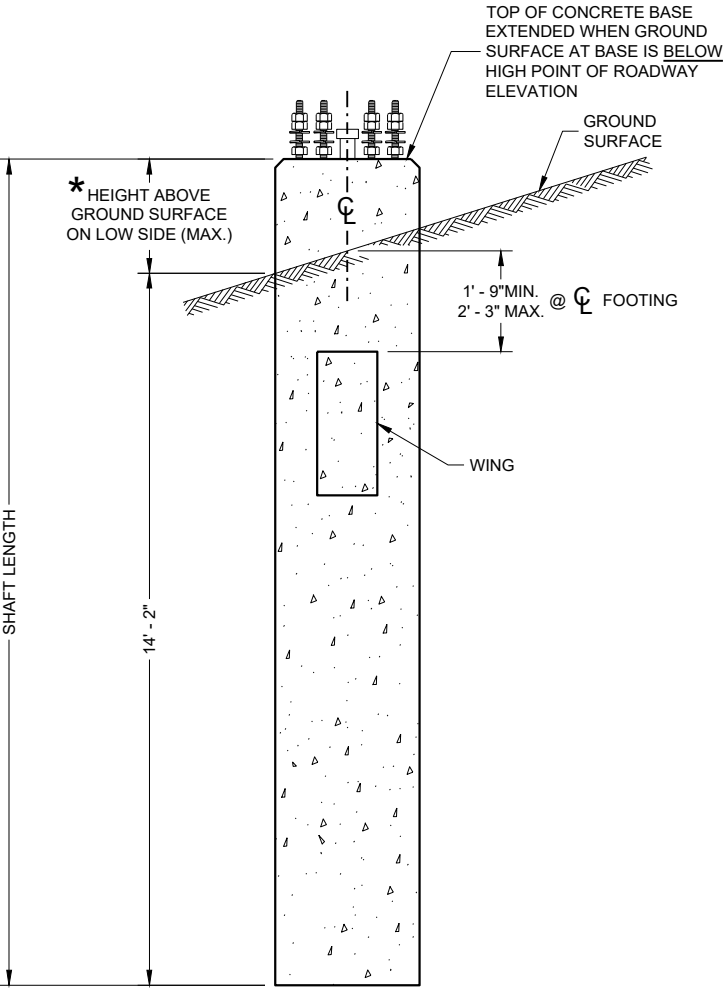
HEIGHT INCREASE REQUIRED	*HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAX.)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #5 HOOPS	CU. YD. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL STEEL
>0" TO 6"	10"	14' - 6"	14' - 1"	22	2.6	180	127
>6" TO 1' - 0"	1' - 4"	15' - 0"	14' - 7"	23	2.7	188	131
>1' - 0" TO 1' - 6"	1' - 10"	15' - 6"	15' - 1"	24	2.8	196	136
>1' - 6" TO 2 - 0"	2' - 4"	16' - 0"	15' - 7"	24	2.9	196	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	*HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAX.)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #5 HOOPS	CU. YD. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15' - 0"	14' - 7"	23	6.5	654
>6" TO 1' - 0"	1' - 4"	15' - 6"	15' - 1"	24	6.6	673
>1' - 0" TO 1' - 6"	1' - 10"	16' - 0"	15' - 7"	24	6.8	680
>1' - 6" TO 2 - 0"	2' - 4"	16' - 6"	16' - 1"	25	7.0	699



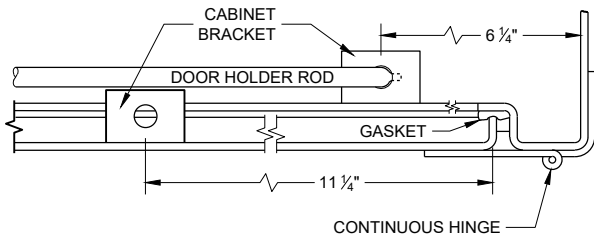
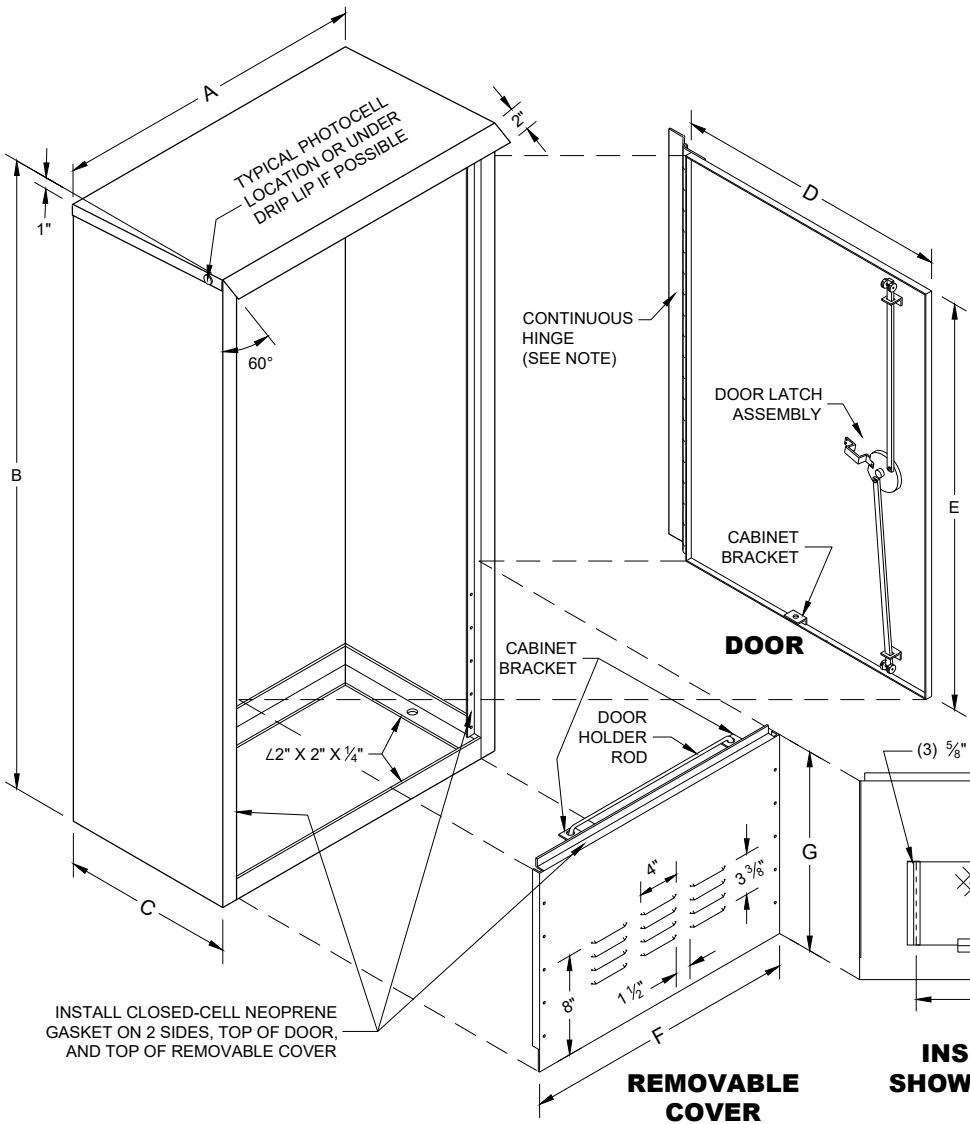
CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 AND TYPE13
EXTENSION

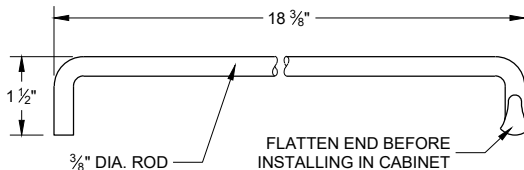
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 150

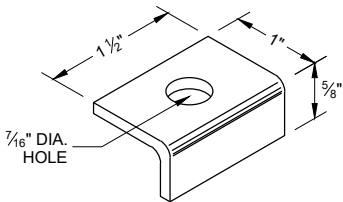
FHWA



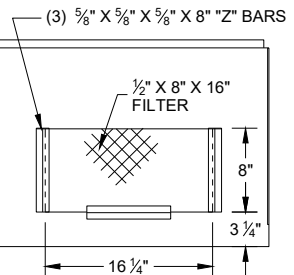
HINGE AND DOOR HOLDER



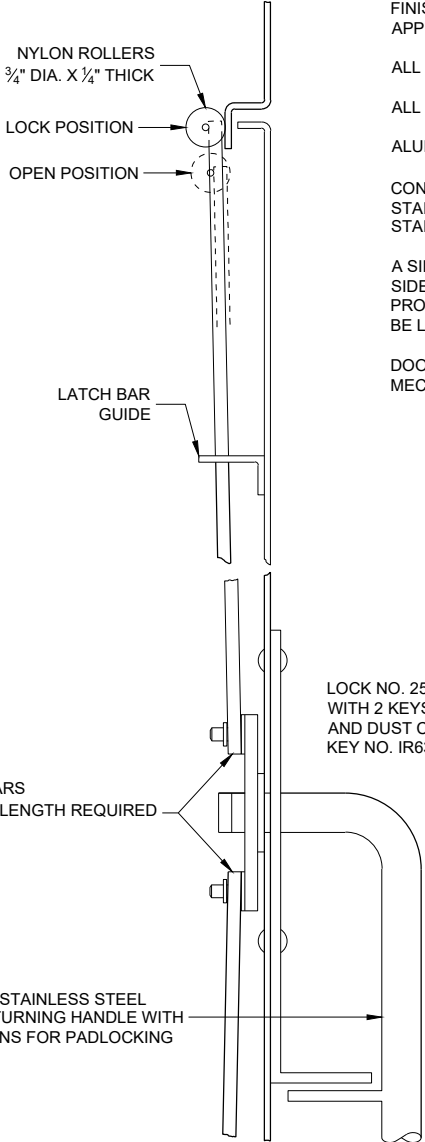
HOLDER ROD



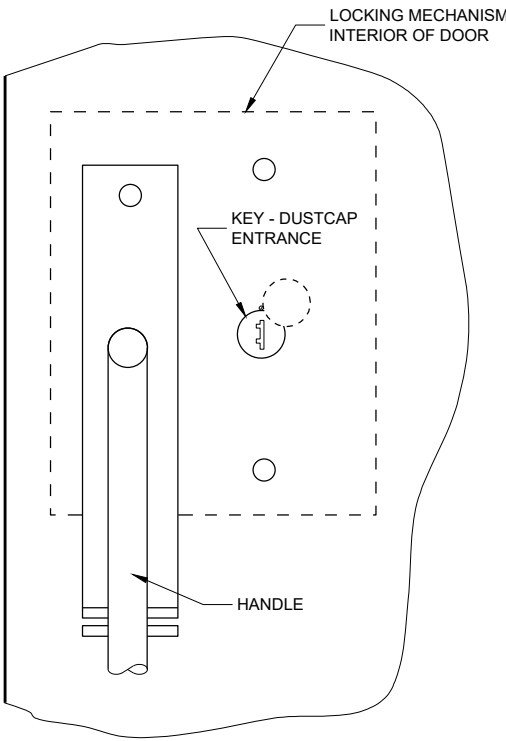
CABINET BRACKET



INSIDE VIEW
SHOWING FILTER

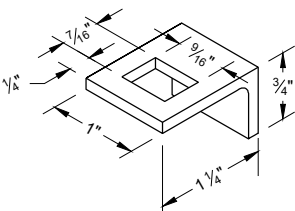


SIDE VIEW



FRONT VIEW

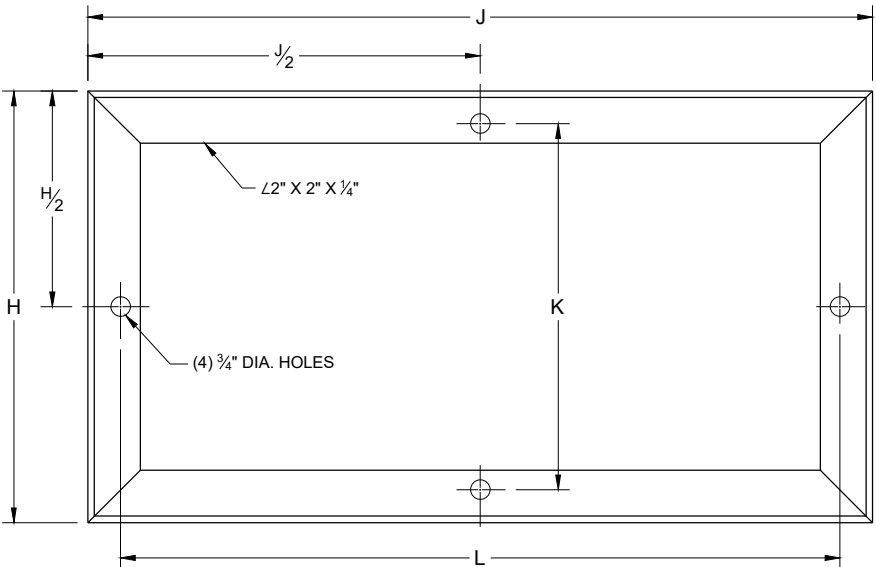
LATCH ASSEMBLY



LATCH BAR GUIDE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 3/4	8 3/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



MOUNTING BASE

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/2" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

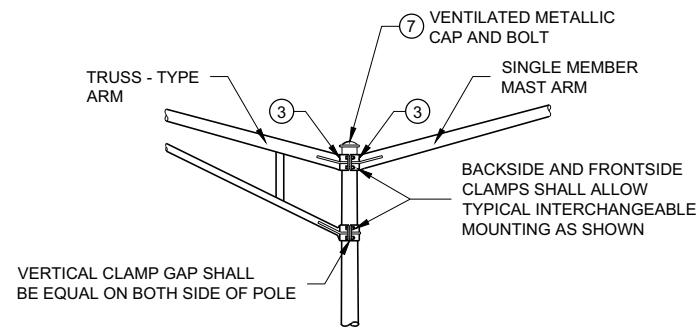
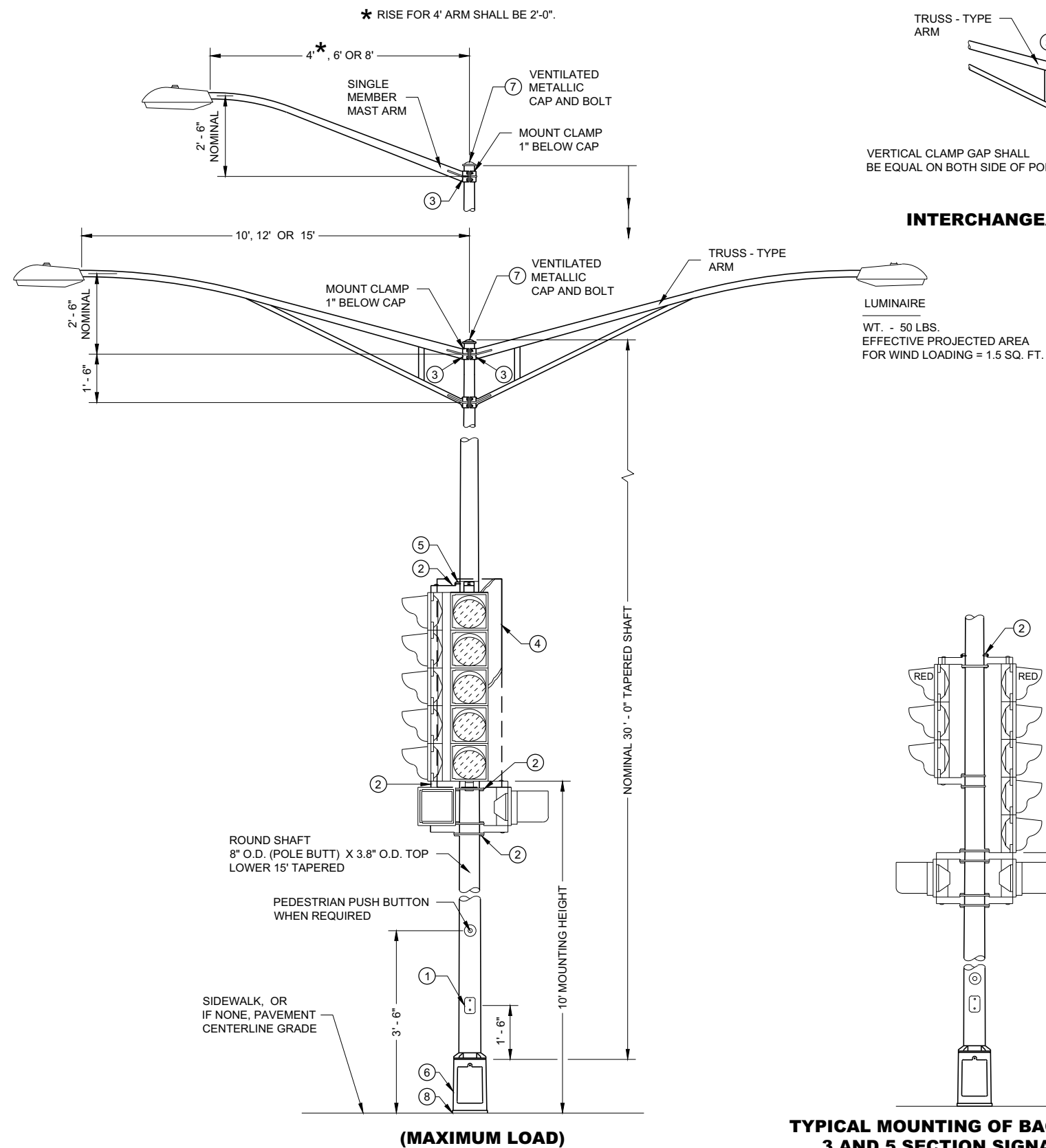
A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI 151
FHWA



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

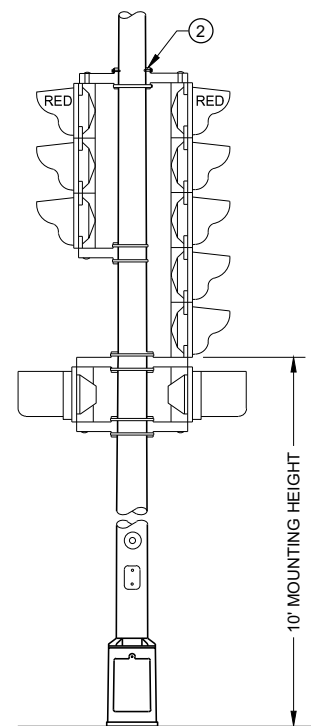
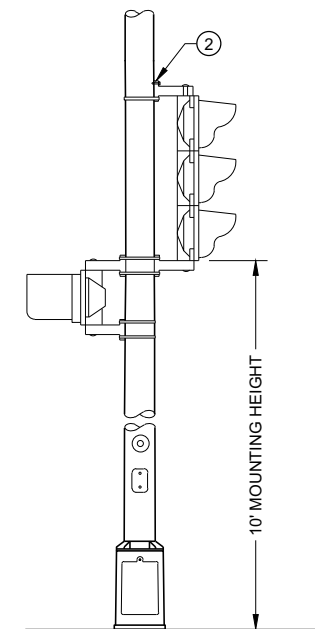
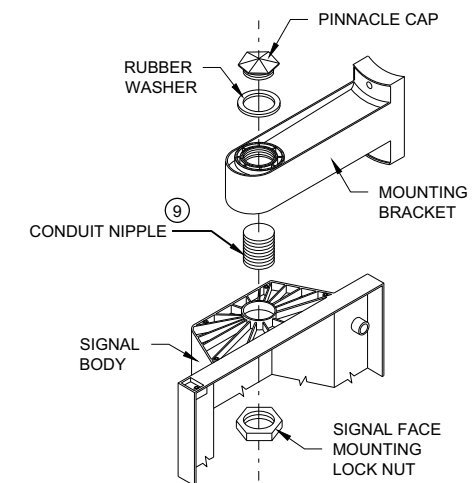
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/4 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

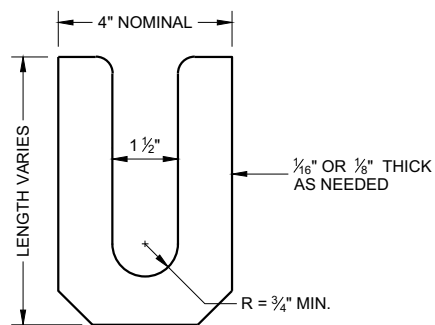
WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑧ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑨ USE 1 1/2" 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 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.

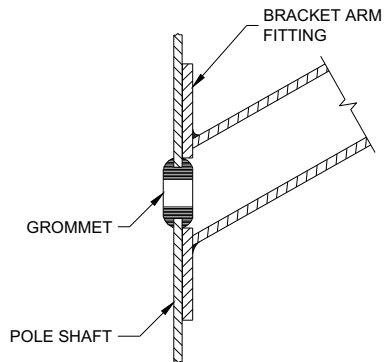
TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACESTYPICAL MOUNTING OF 3 SECTION
SIGNAL FACESIGNAL FACE MOUNTING DETAIL
(BANDED)

**POLE MOUNTINGS FOR
TRAFFIC SIGNALS AND
LIGHTING UNITS, TYPE 4**

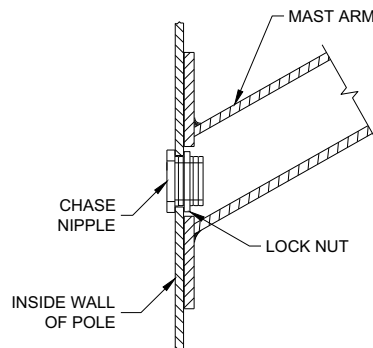
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 152



LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



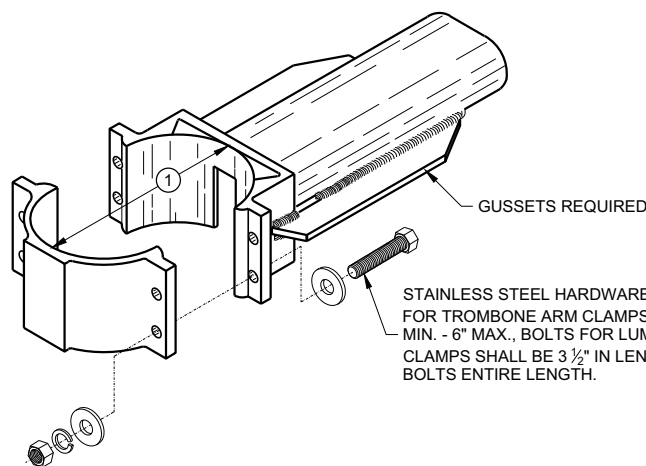
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

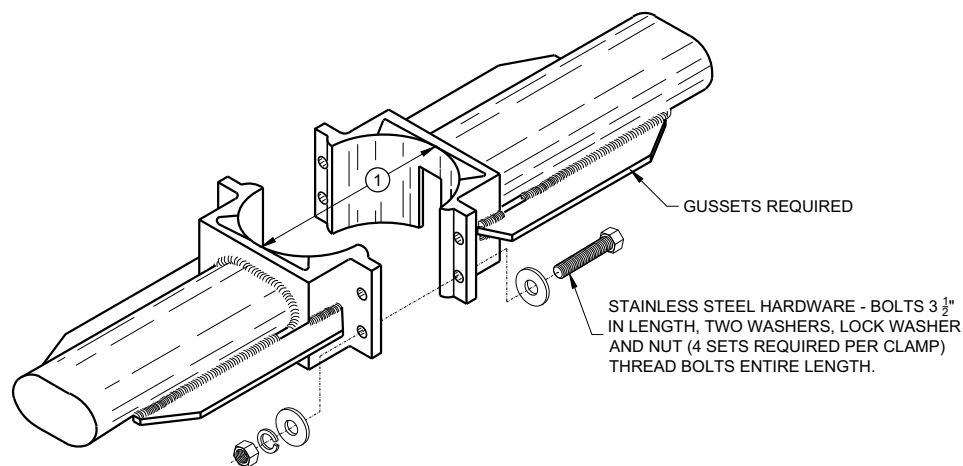
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- 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.

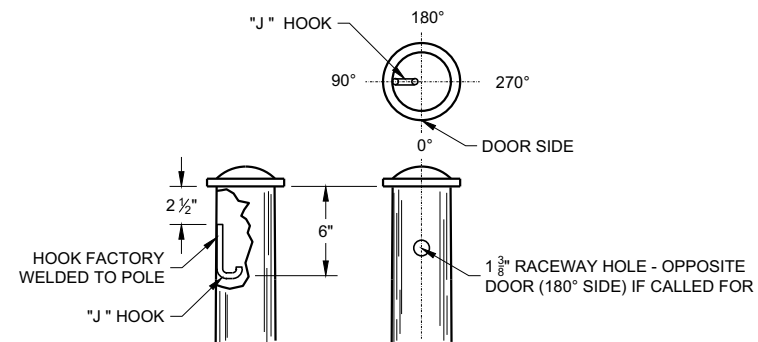
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



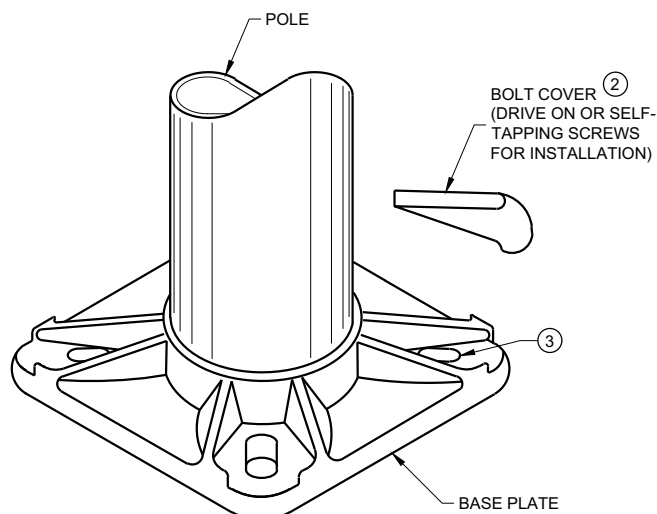
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



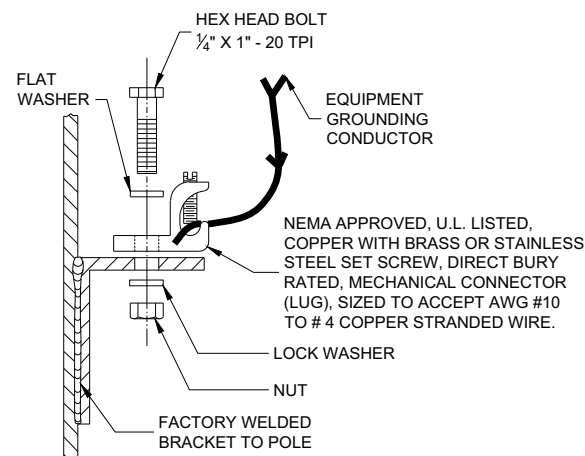
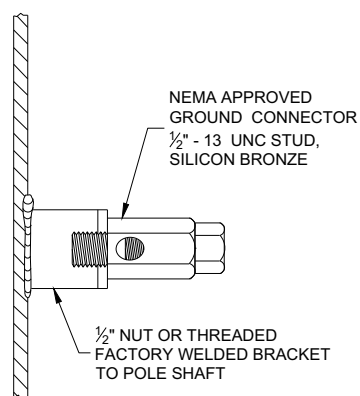
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



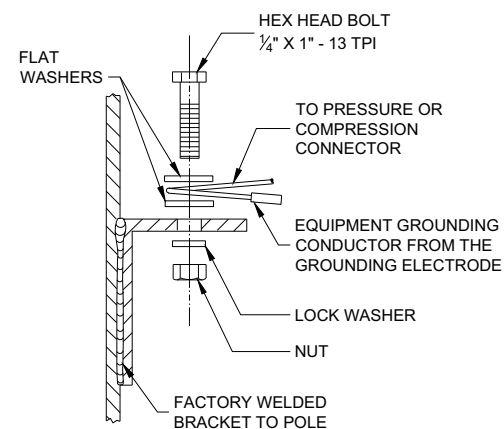
TYPICAL "J" HOOK LOCATION



BASE PLATE



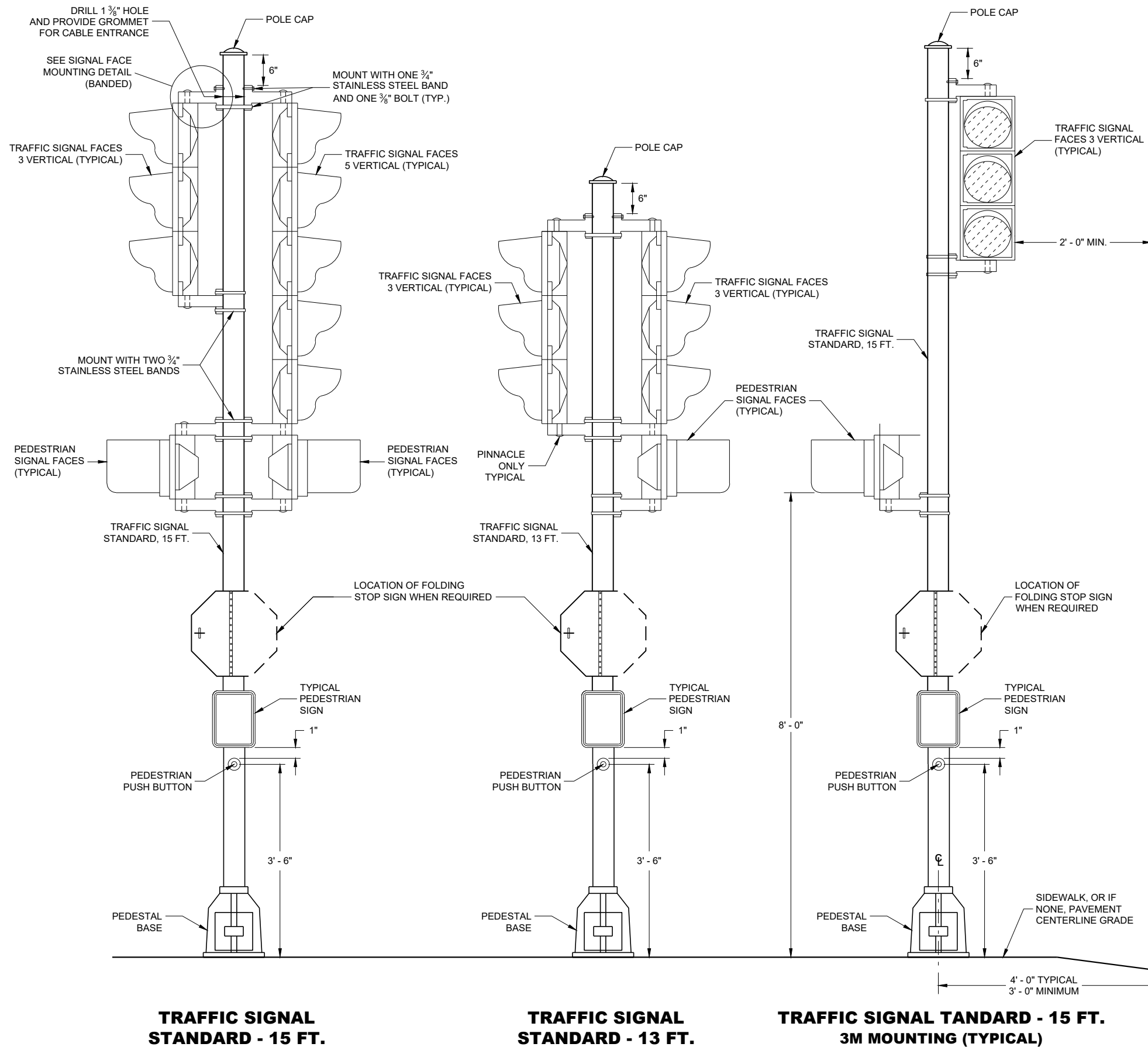
TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 153
FHWA



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.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

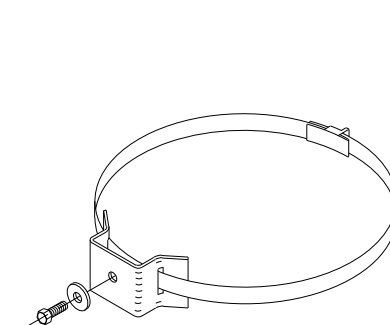
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

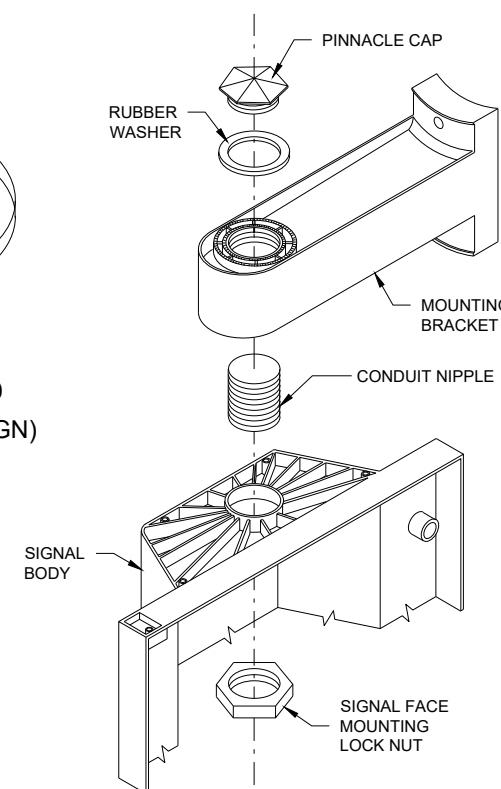
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

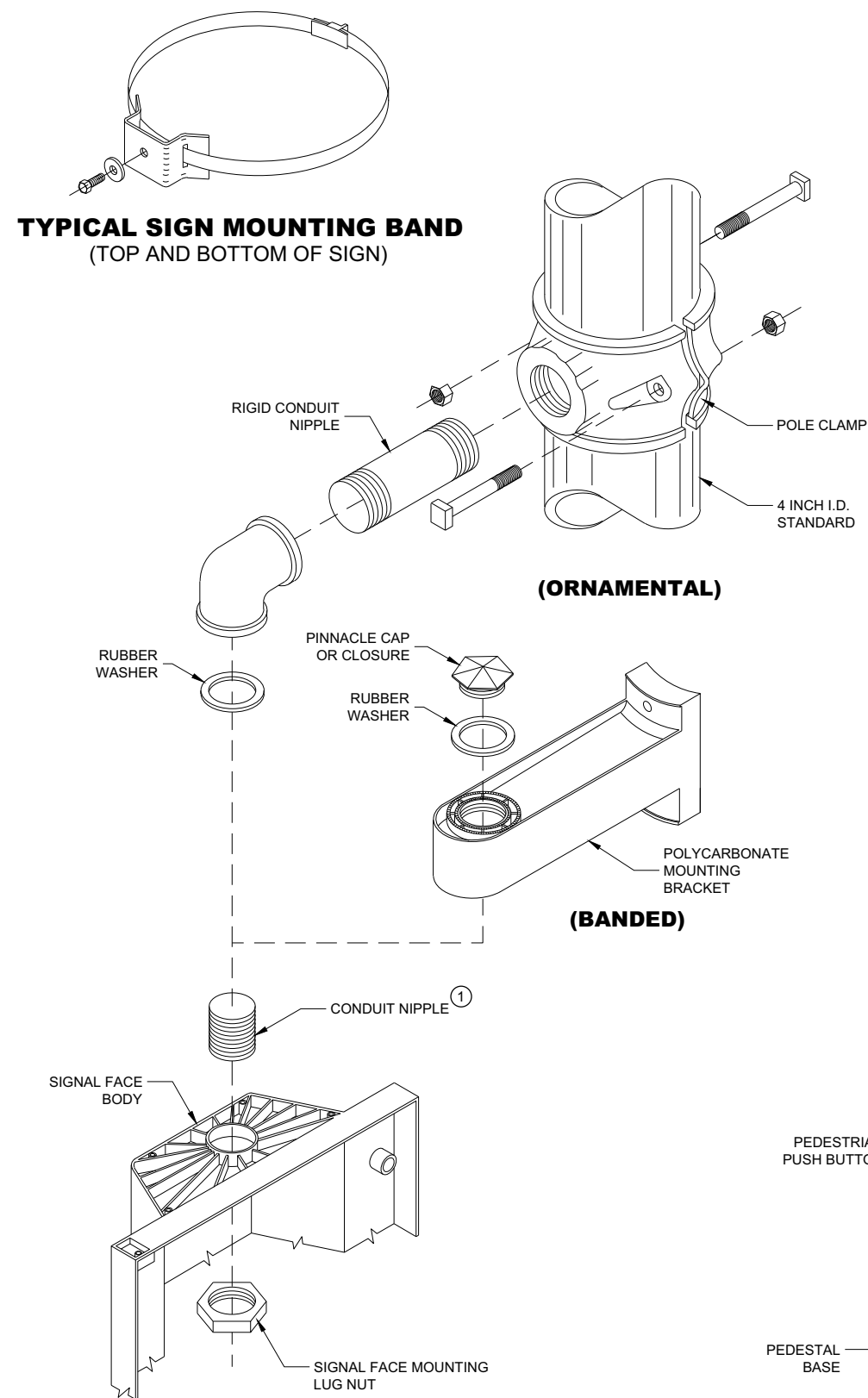
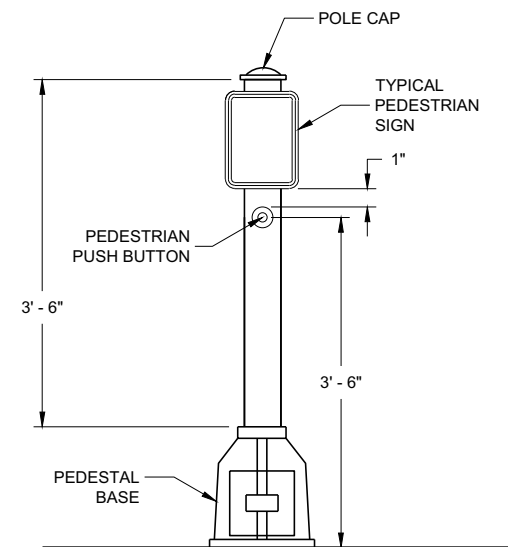
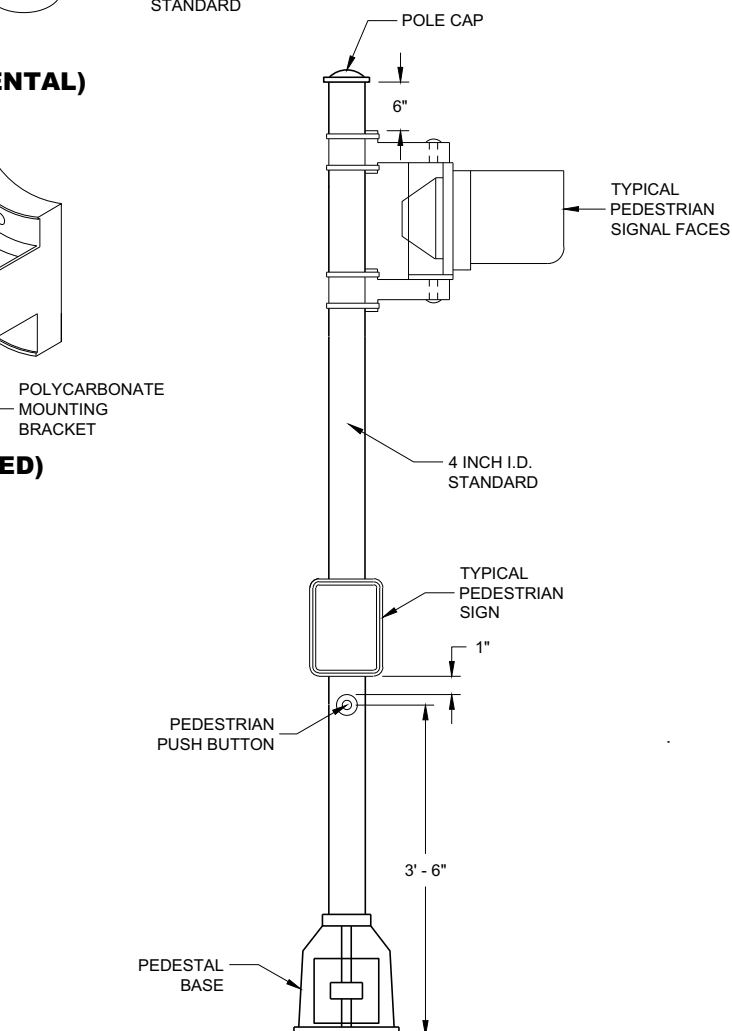
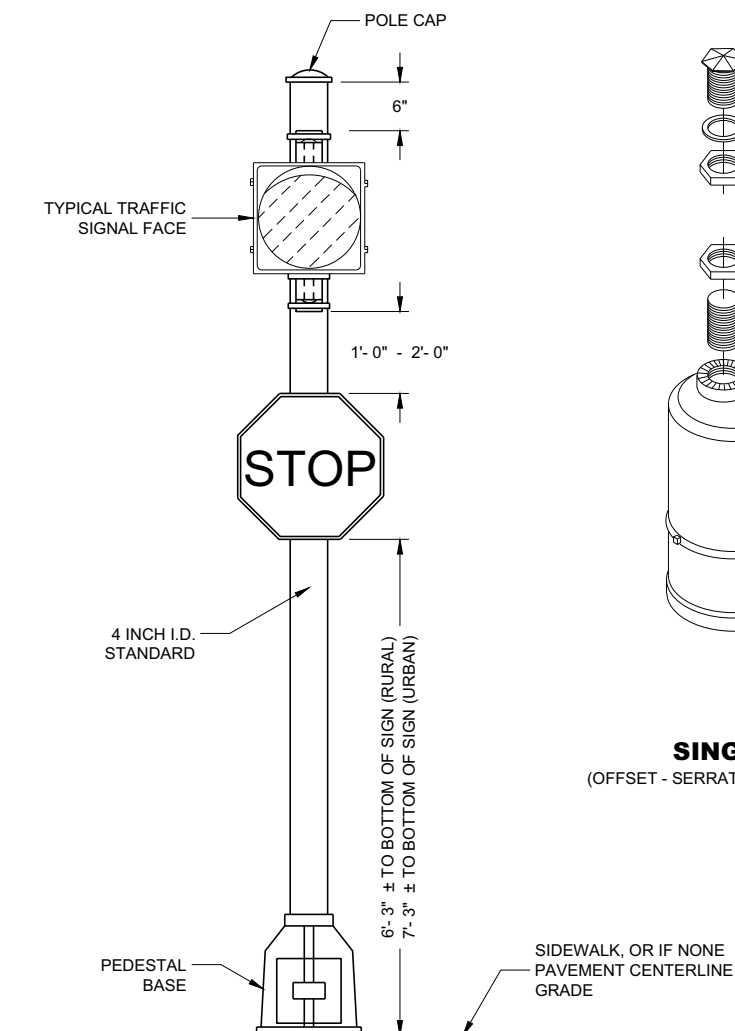


SIGNAL FACE MOUNTING DETAIL (BANDED)

**TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 DATE /S/ Ahmet Demirelek
STATE ELECTRICAL ENGI 154
FHWA

**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.

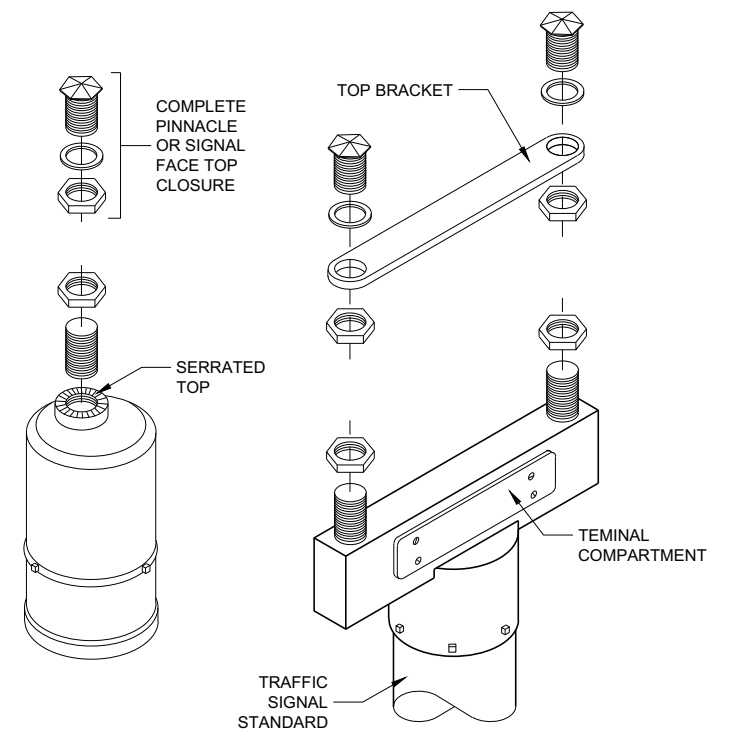
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

- ① USE 1 1/2" 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 1/2" OPENING IN SIGNAL FACES AND 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 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 155
FHWA



APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 156

FHWA

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

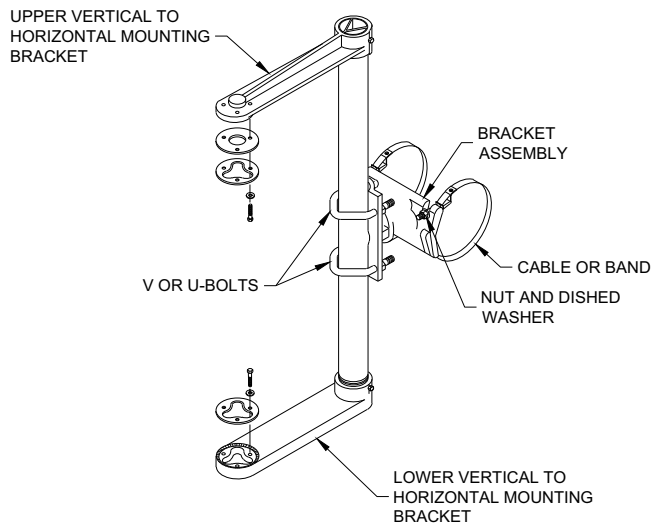
SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- ① DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- ② SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
- ③ SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.
- ④ THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
- ⑤ FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- ⑥ FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.
- ⑦ INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

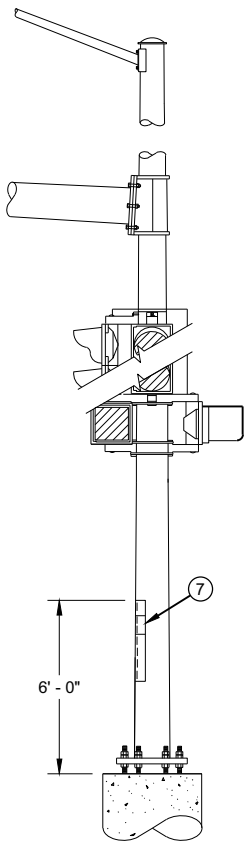
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

- ⑧ FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

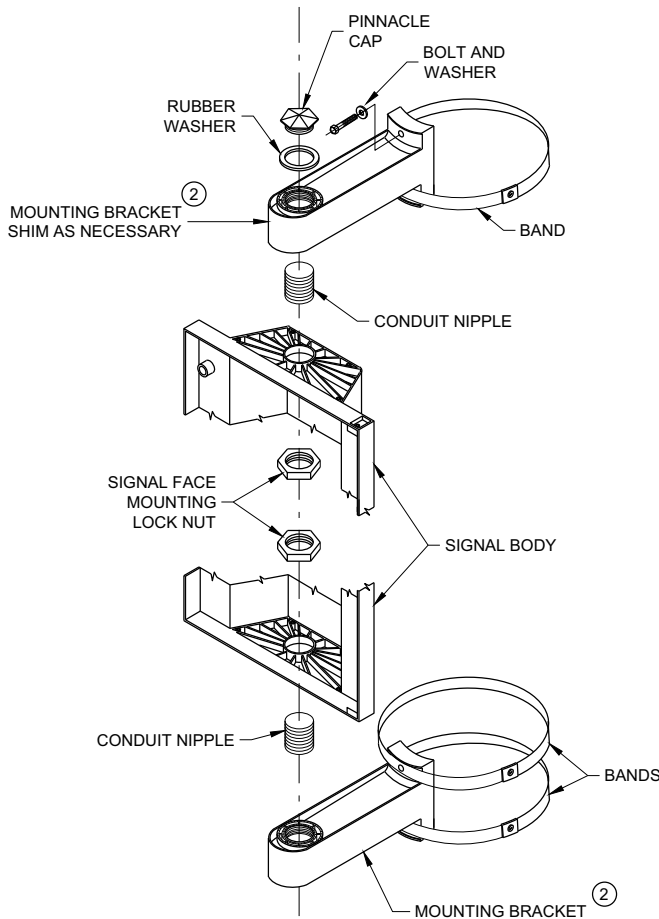


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

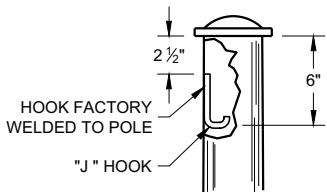
(MOUNT PER MANFACTURER'S RECOMMENDATION)



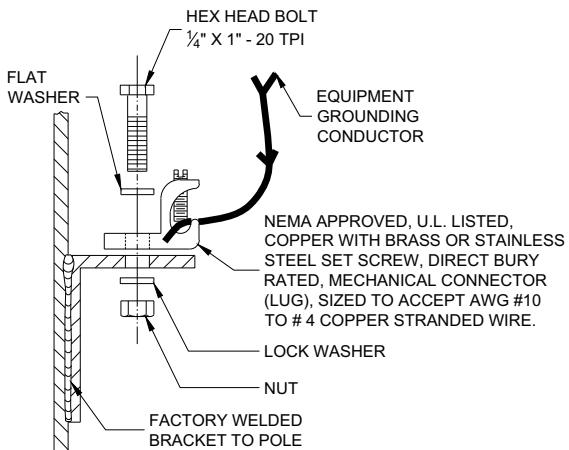
STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



SIGNAL FACE VERTICAL
MOUNTING DETAIL



TYPICAL "J" HOOK
WIRE SUPPORT



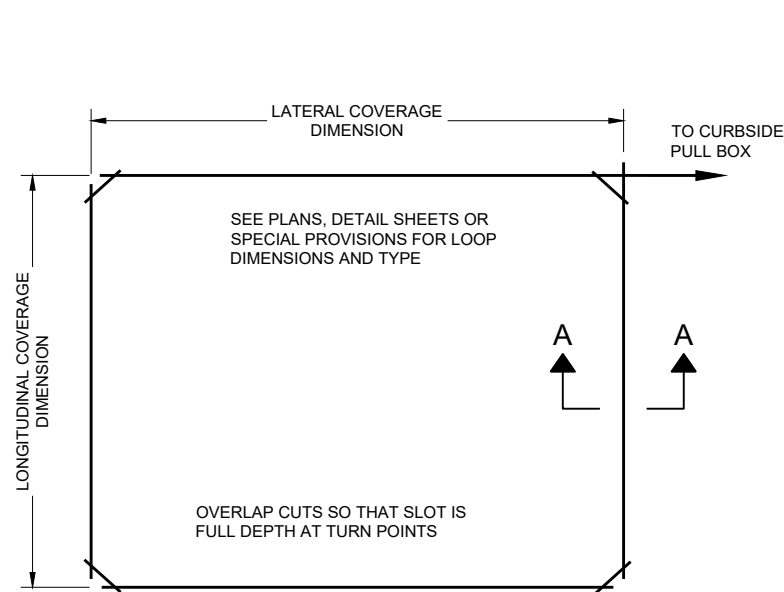
TYPICAL GROUNDING
CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

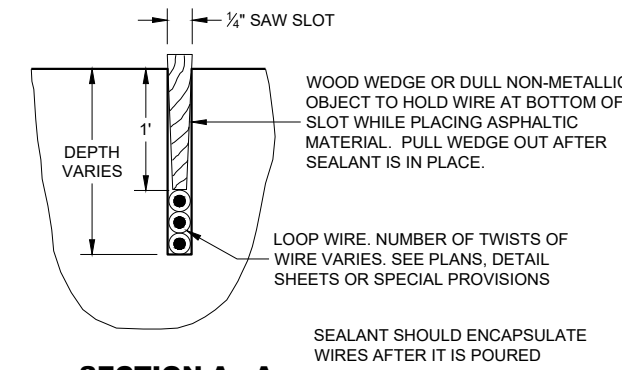
GENERAL NOTES AND
HARDWARE FOR TYPES 9,10,
9/10 SPECIAL, 12 AND 13
POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

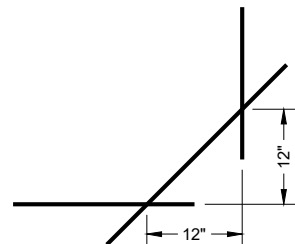
APPROVED
August 2020 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER 157
FHWA



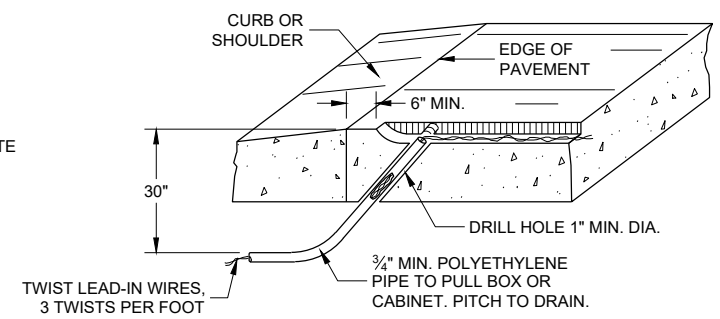
LOOP WIRE SLOT CONSTRUCTION



SECTION A - A
LOOP AND LEAD-IN
WIRES IN PAVEMENT

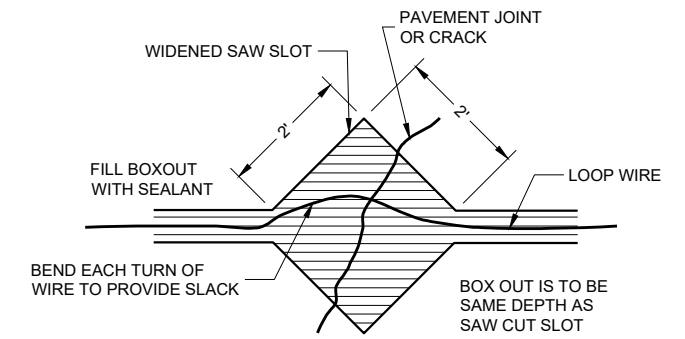


EXPANDED VIEW SAW CUT CORNERS

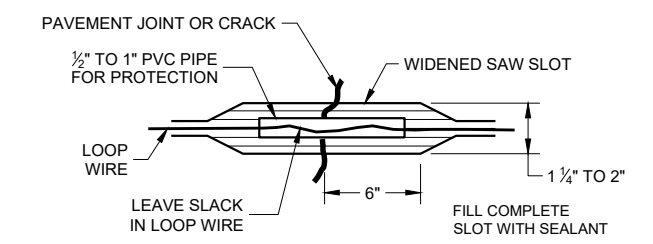


LOOP LEAD-IN WIRES
THROUGH PAVEMENT

GENERAL NOTES
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
THE SLOTS IN THE PAVEMENT SHALL BE CUT TO DIMENSION WITH A SAW. THE SLOTS SHALL BE CLEANED FREE OF DIRT, DUST, MOISTURE AND DEBRIS PRIOR TO INSTALLATION OF THE WIRE.
AFTER PLACING THE WIRE IN THE SLOT, FILL THE SLOT WITH AN ASPHALTIC MATERIAL IN ACCORDANCE WITH THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D6690".
IN THE EVENT ASPHALTIC MATERIAL IS UNAVAILABLE, A FLEXIBLE TYPE EPOXY MAY BE USED AS A LOOP SLOT FILLER. THE LOOP SLOT SHALL BE CLEAN AND DRY BEFORE EPOXY IS INSTALLED. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED ONLY AFTER WRITTEN APPROVAL BY THE BY THE PROJECT ENGINEER.
THE TWO SINGLE CONDUCTOR LOOP WIRES SHALL BE TWISTED TOGETHER AT A RATE OF THREE TWISTS PER FOOT FROM THE PAVEMENT EDGE TO THE SPLICE CONNECTION WITH THE LOOP LEAD-IN CABLE.
LEAD-IN CABLES AND LOOP LEAD-IN WIRES SHALL BOTH BE CUT TO 6 FEET IN LENGTH AT THE SPLICING PULL BOX.

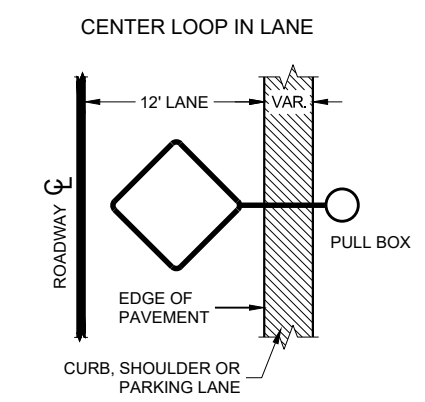


PLAN VIEW

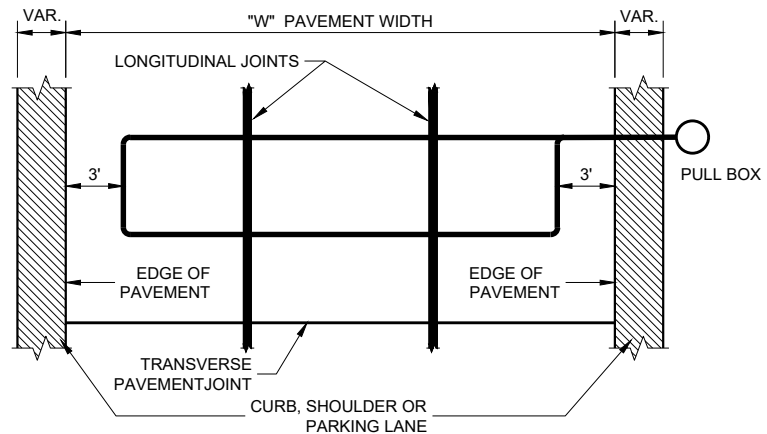


FRONT VIEW

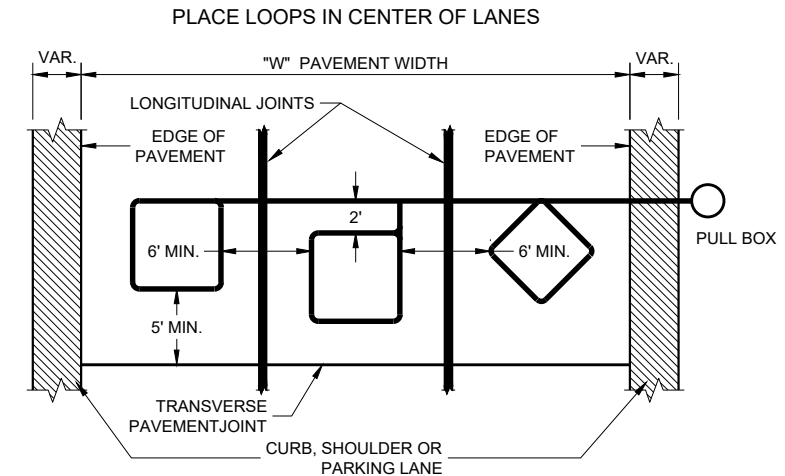
LOOP WIRE INSTALLATION ACROSS
PAVEMENT JOINT OR CRACK



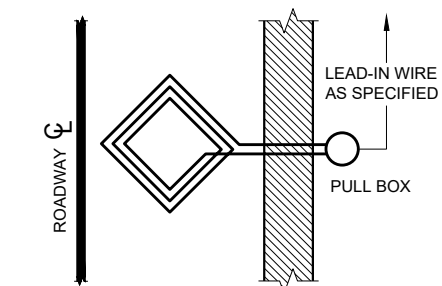
LOOP WIRE SLOT PLAN



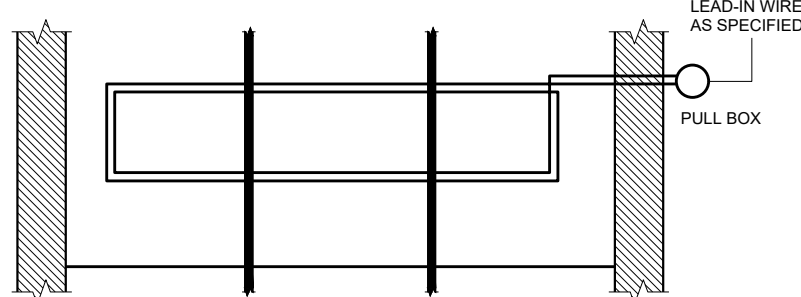
LOOP WIRE SLOT PLAN



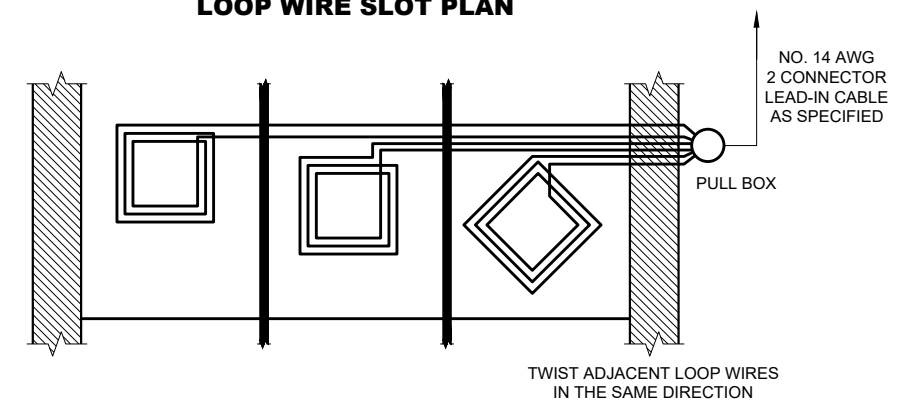
LOOP WIRE SLOT PLAN



LOOP WIRE LAY
CONSTRUCTION DETAILS
SINGLE LANE
LOOP DETECTION

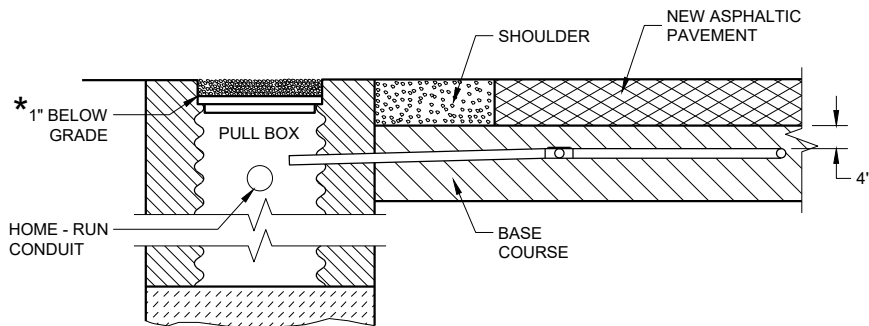


LOOP WIRE LAY CONSTRUCTION DETAILS
MULTIPLE LANE
MASS LOOP DETECTION



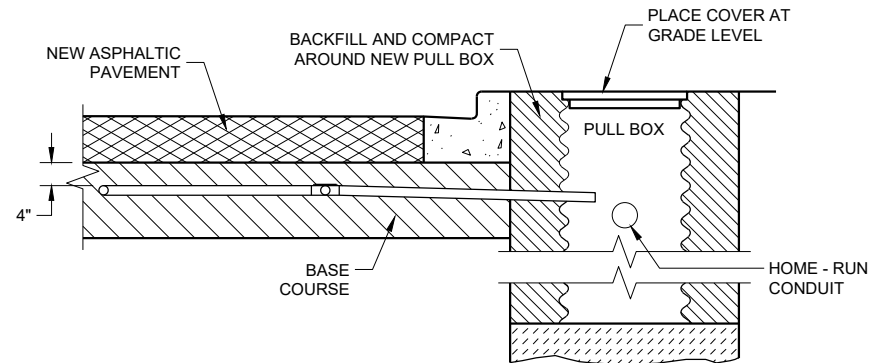
LOOP WIRE LAY CONSTRUCTION DETAILS
MULTIPLE LANE DETECTION
BY INDIVIDUAL LANES. TYPICAL STYLE LOOPS

DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2015 DATE	/S/ Ahmet Demirebilek STATE ELECTRICAL ENGI 158
FHWA	



SECTION A - A
NO CURB AND GUTTER
LOOP DETECTOR INSTALLATION DETAIL

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



SECTION B - B
CURB AND GUTTER
LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

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

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

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

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

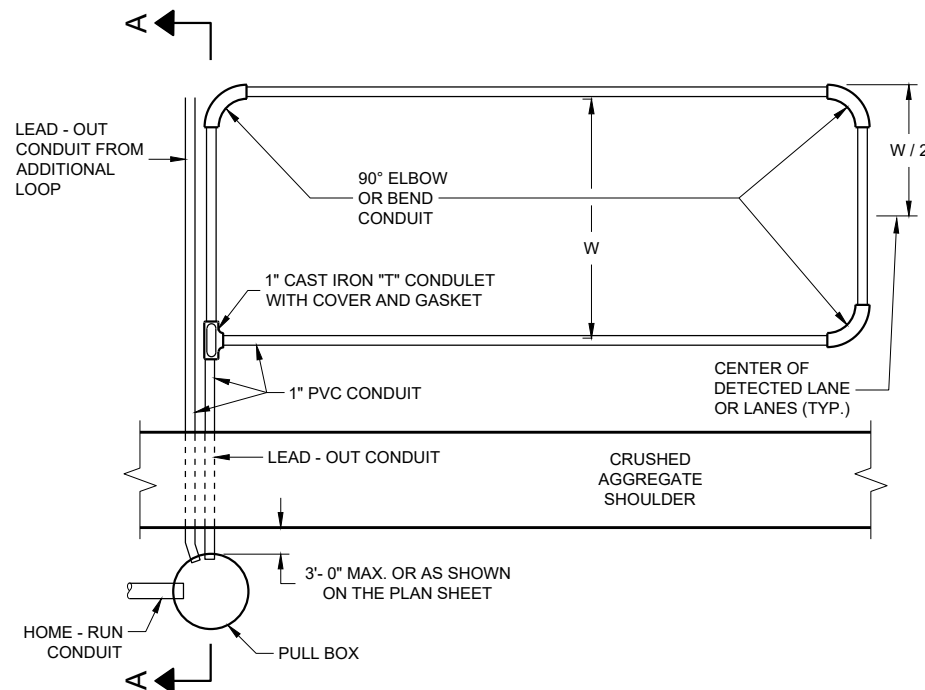
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE PULL BOX IN THE BASE COURSE, AND THE RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

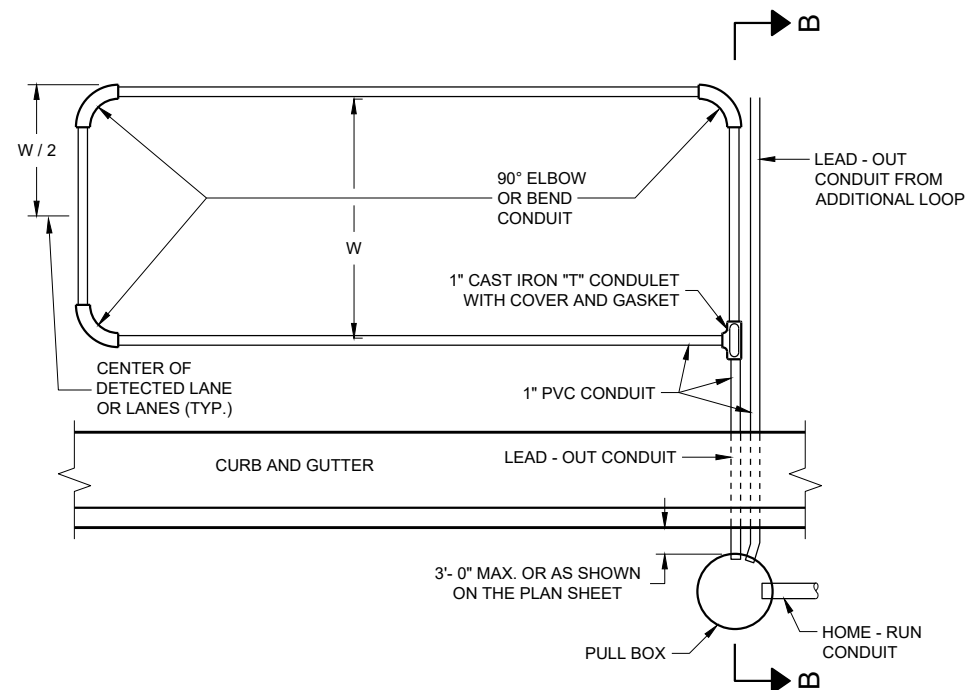
PROTECTION OF THE PULL BOX AND CONDUIT SHALL BE REQUIRED AFTER THE ASPHALTIC PAVEMENT IS PLACED.

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

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



TYPICAL PLAN OF LOOP DETECTOR

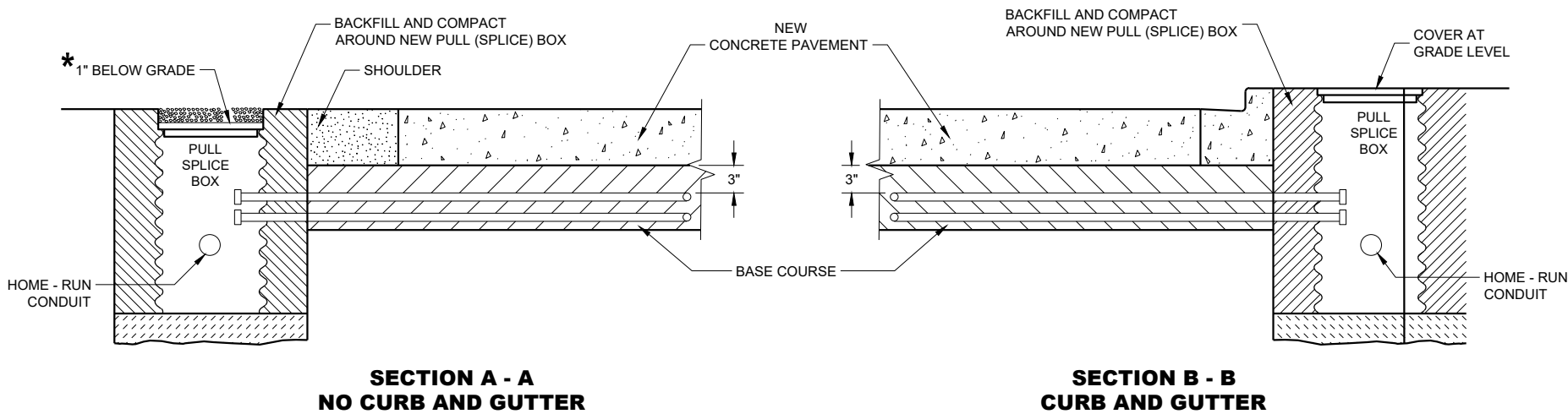


TYPICAL PLAN OF LOOP DETECTOR

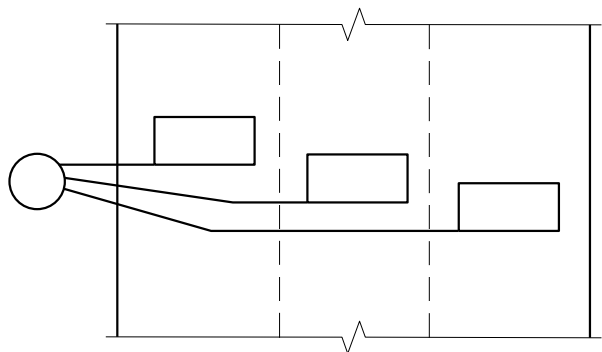
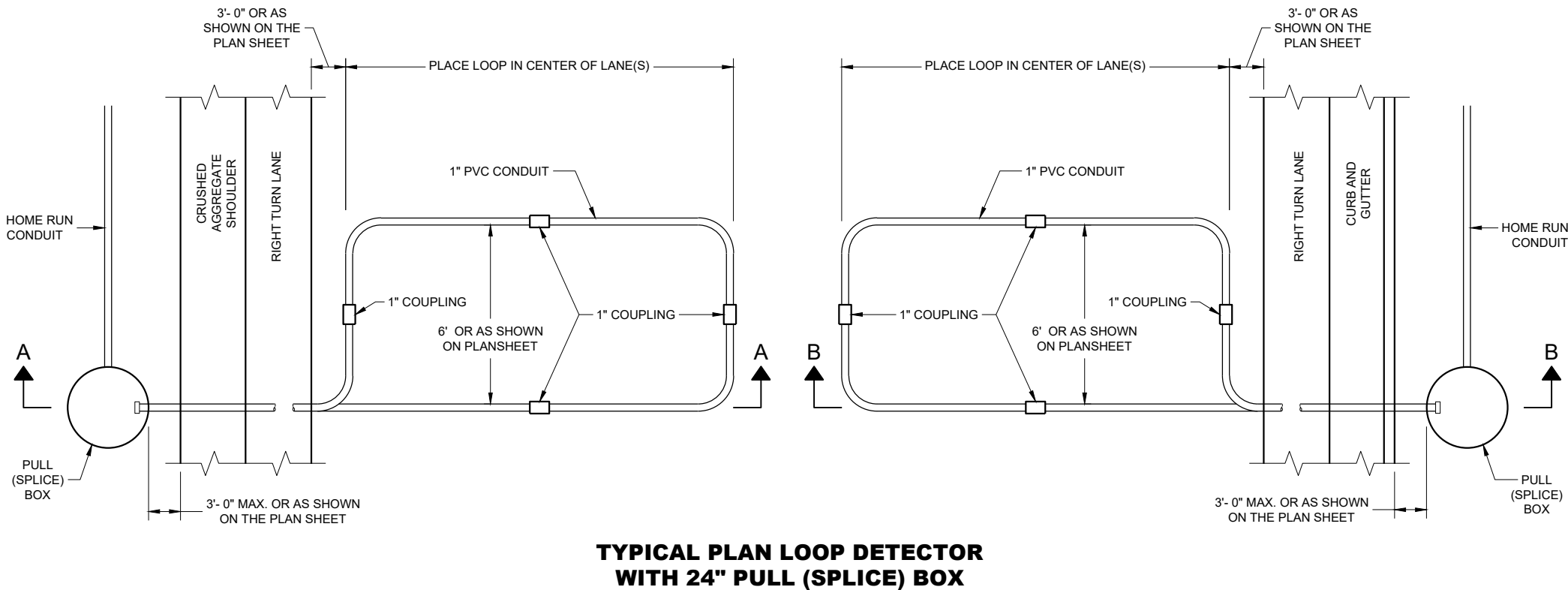
**LOOP DETECTOR PLACED IN
CRUSHED AGGREGATE BASE
(NEW ASPHALTIC PAVEMENT)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 159
FHWA



LOOP DETECTOR INSTALLATION DETAIL



MULTI-LANE INSTALLATION

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

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

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

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

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

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

THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

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

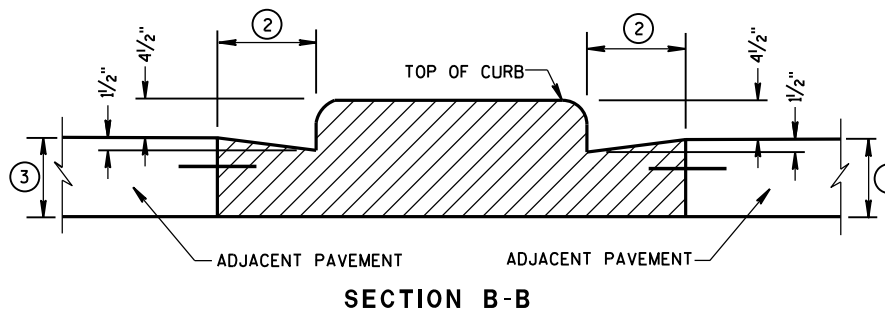
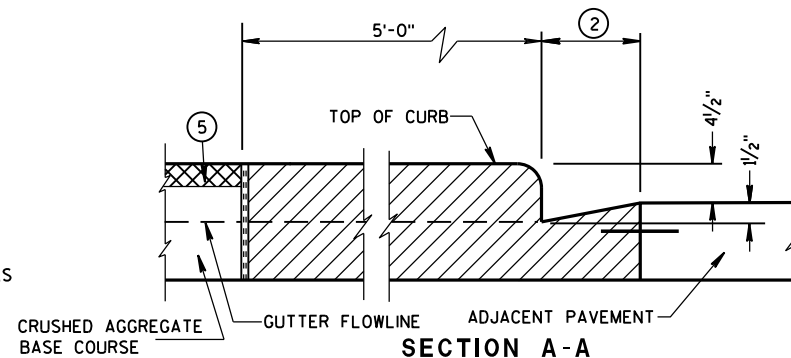
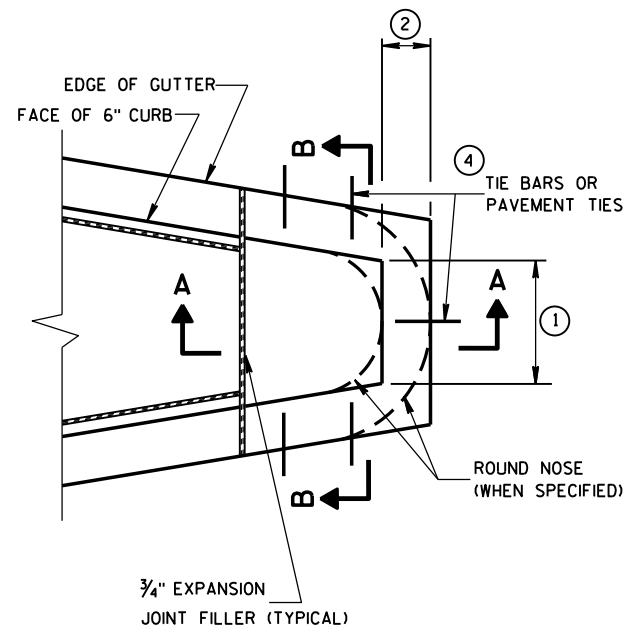
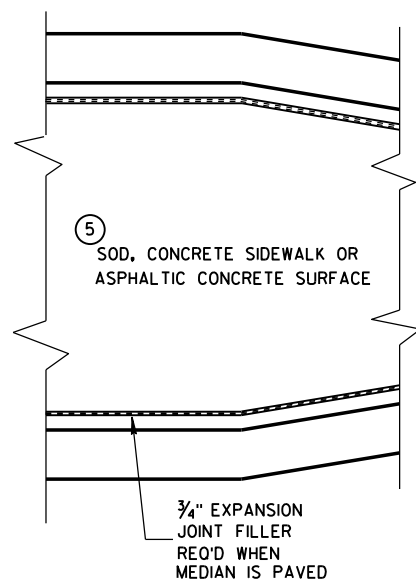
PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.

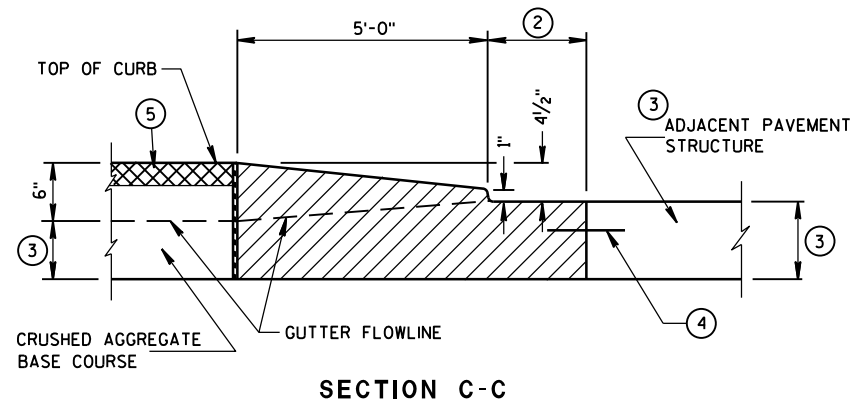
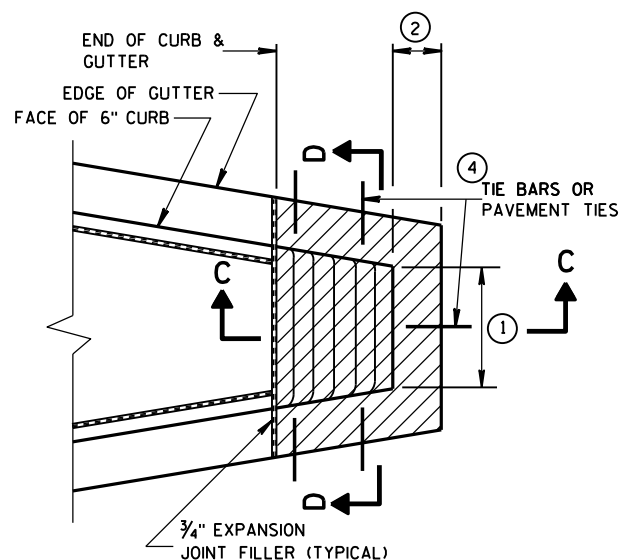
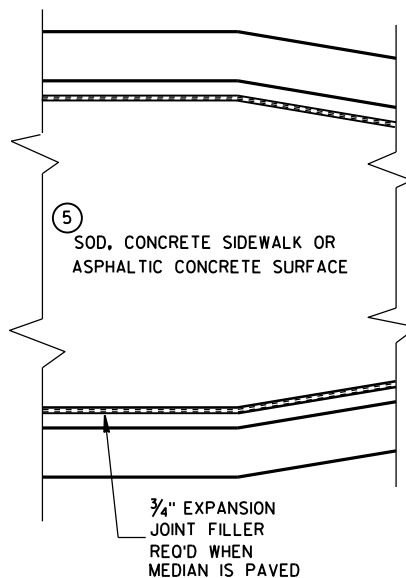
LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

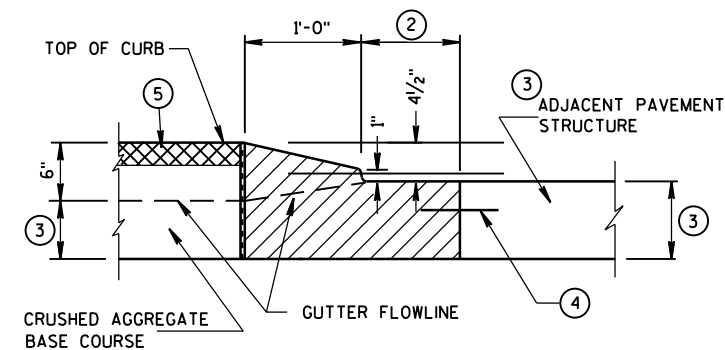
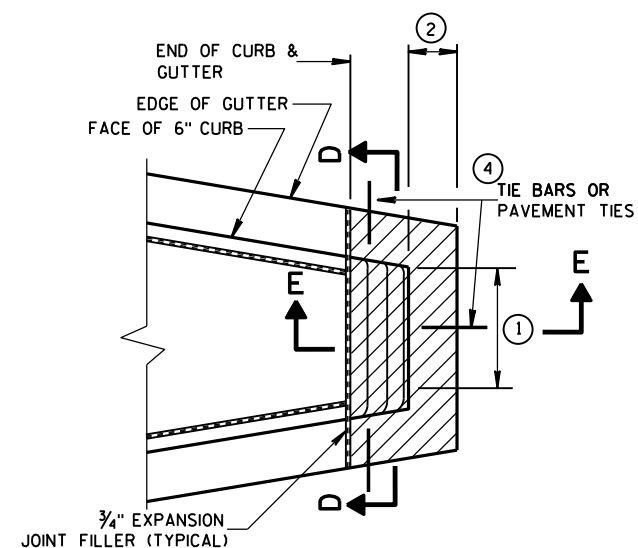
APPROVED
September 2014 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGI 160
FHWA



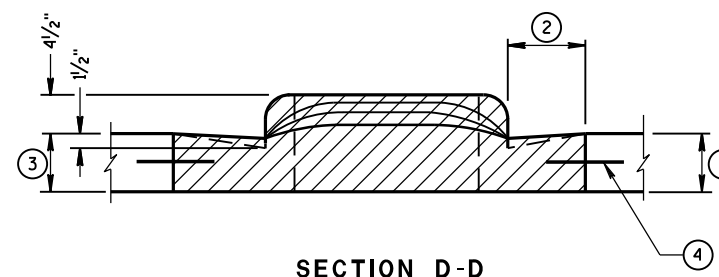
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

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

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

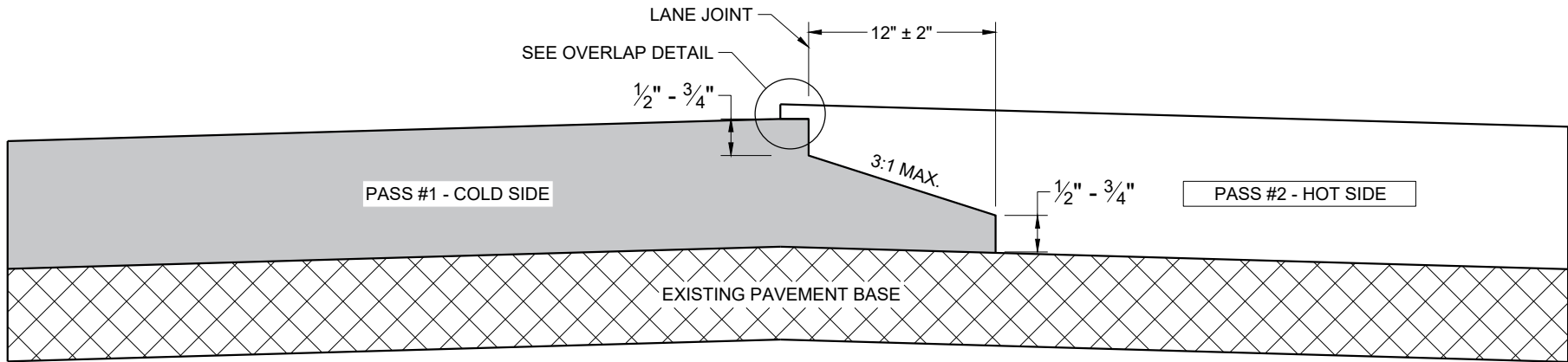
6/8/2006

DATE

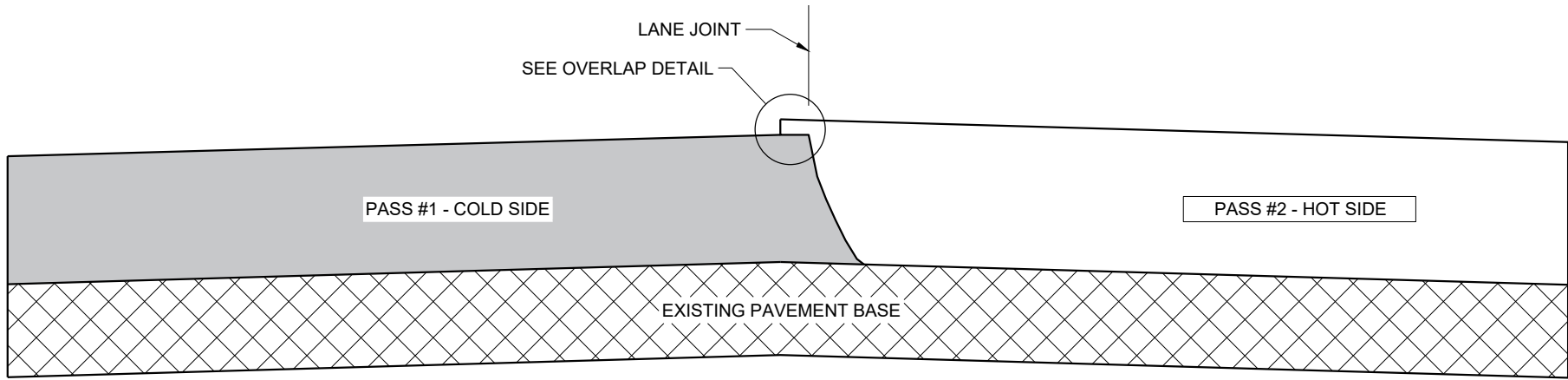
FHWA

/S/ Jerry H. Zoag
ROADWAY STANDARDS D 161
ENGINEER

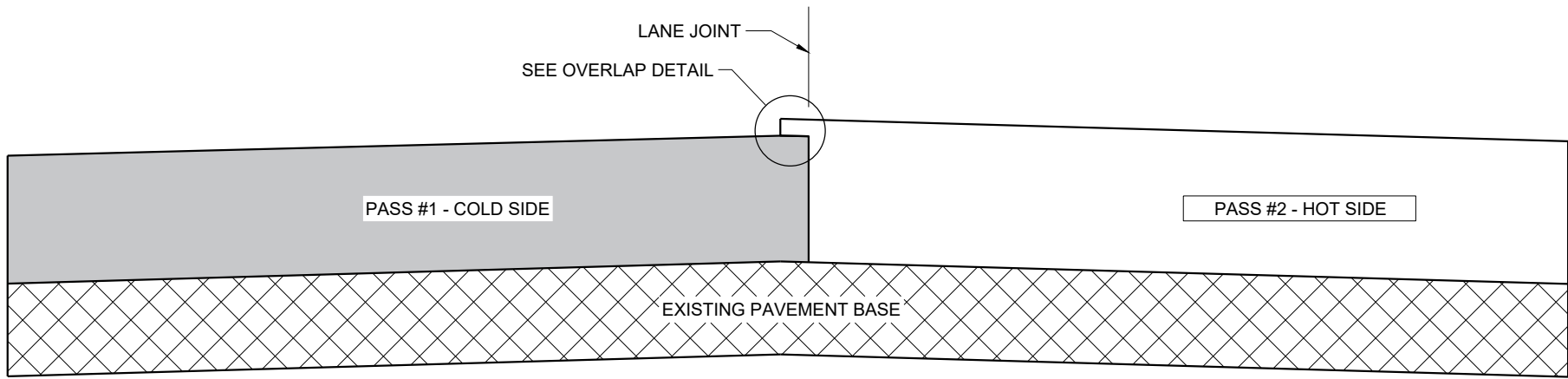
4T



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

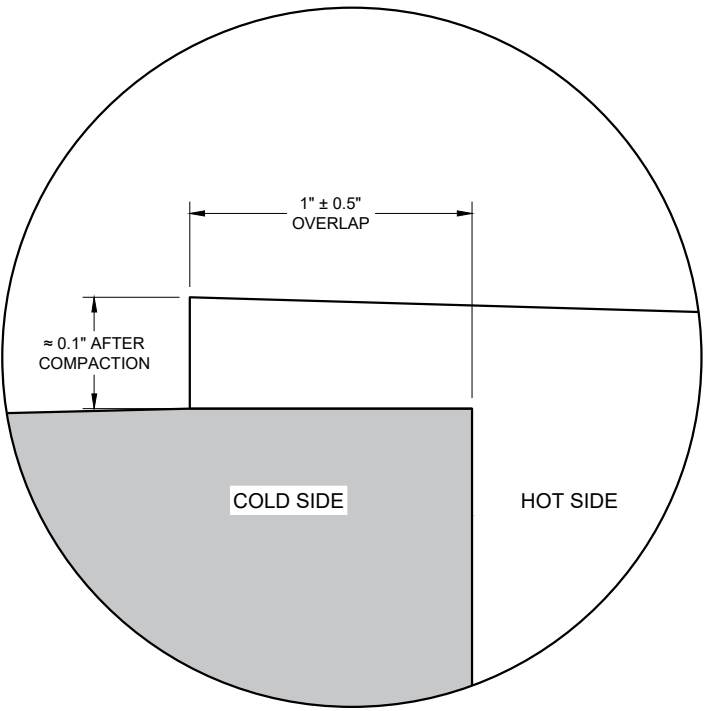
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ 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)

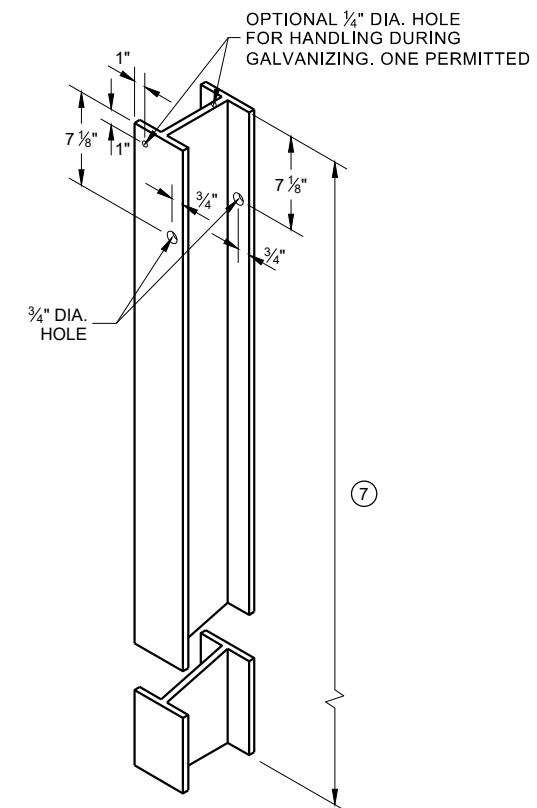
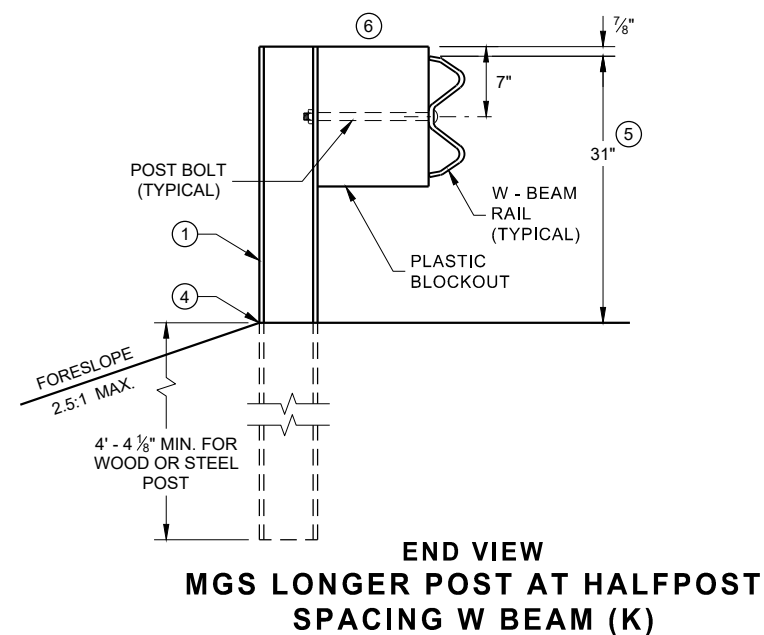
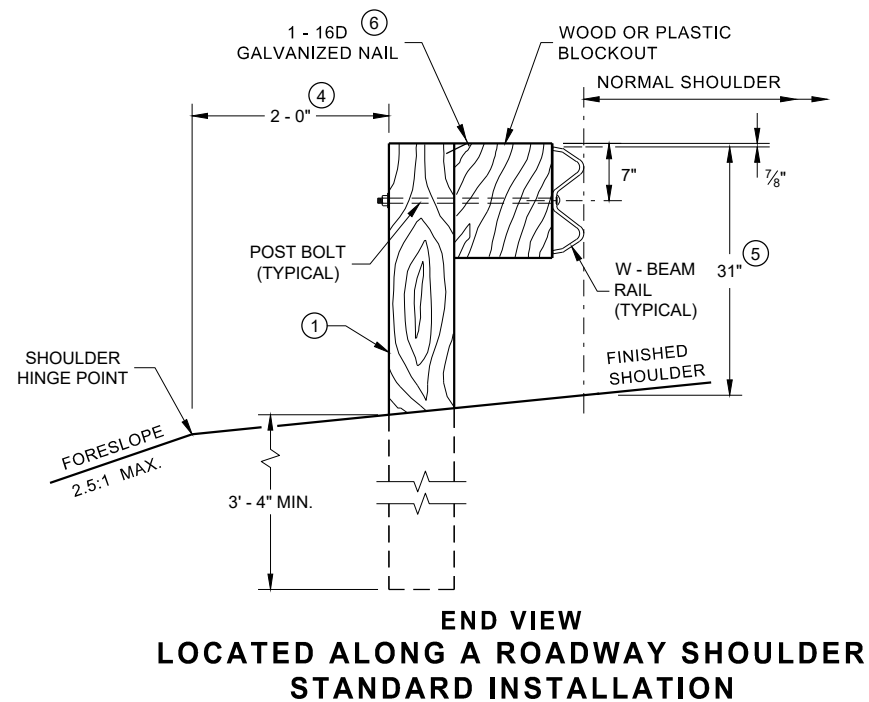
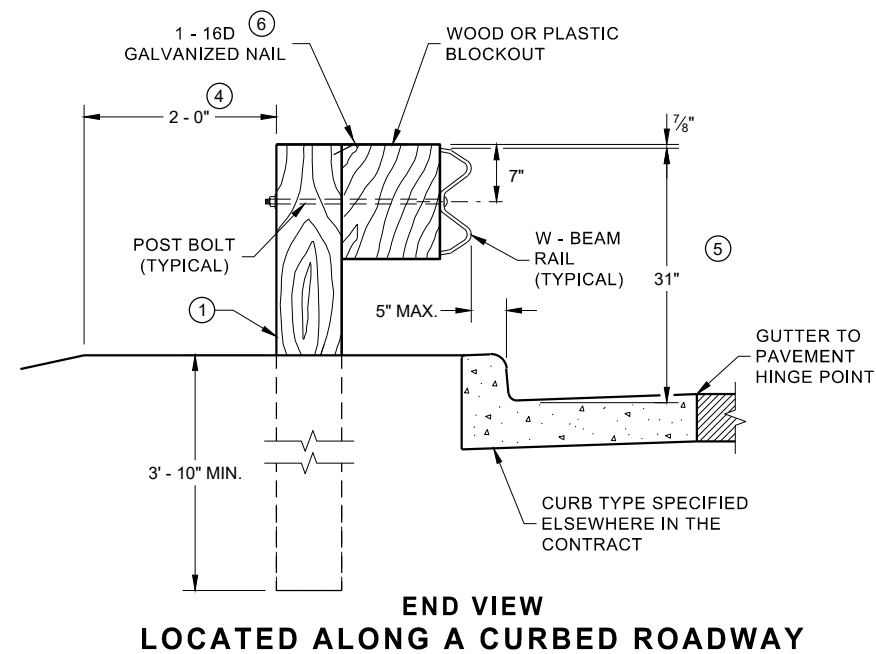
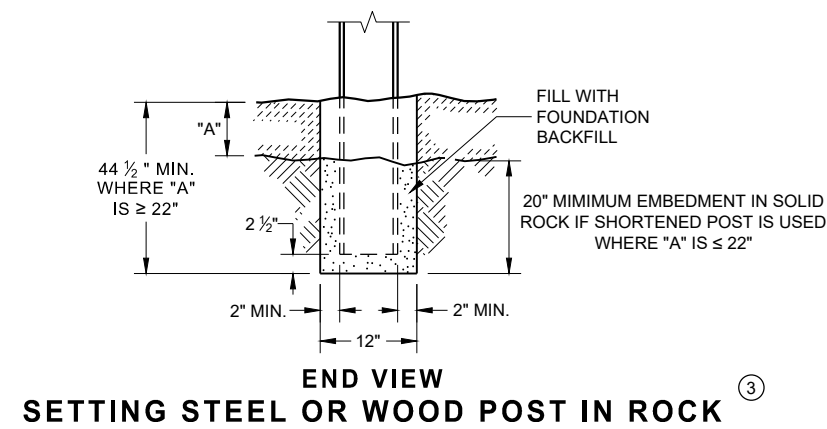
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

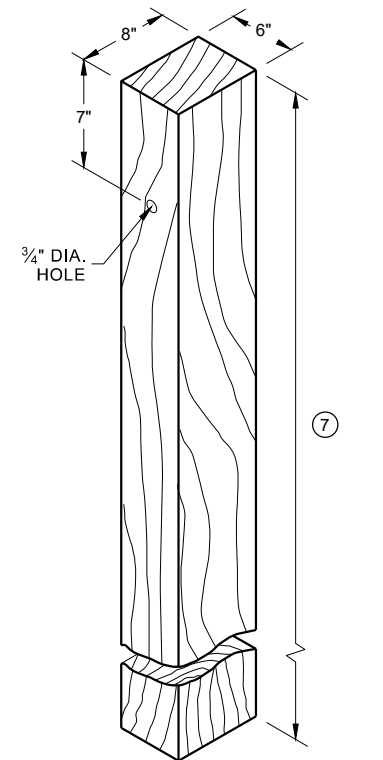
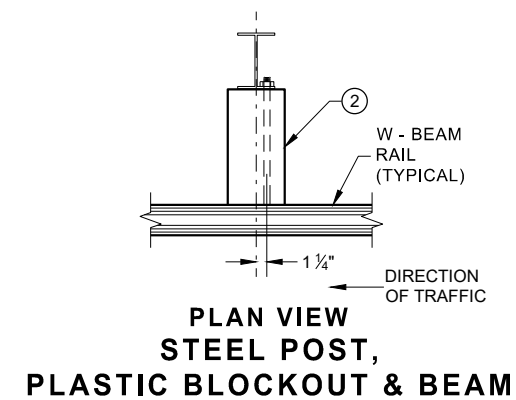
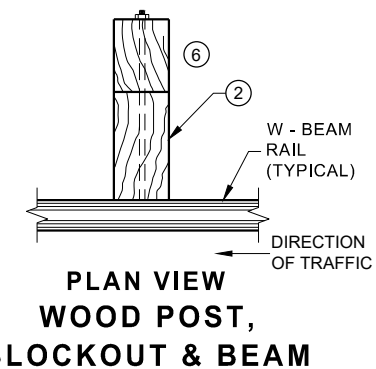
APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 162

FHWA

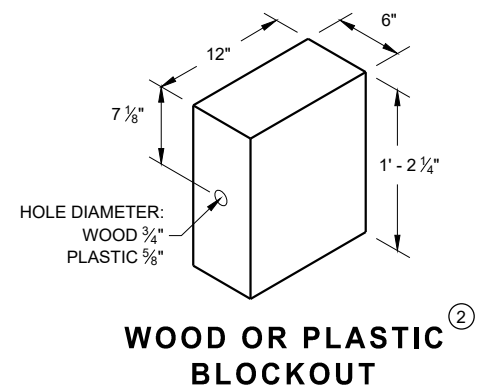
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".

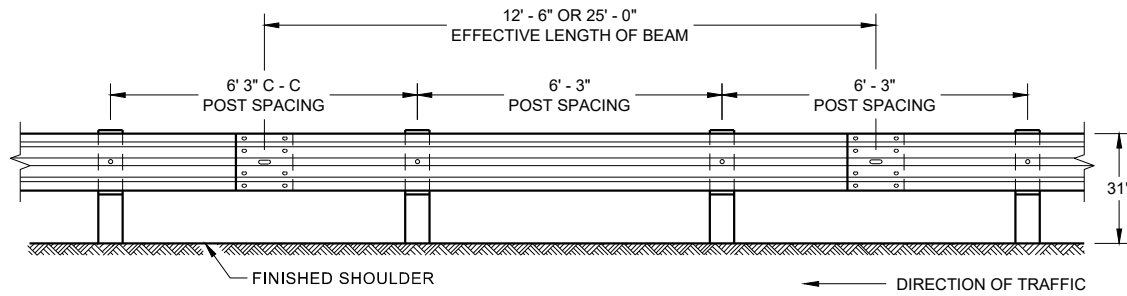


**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**

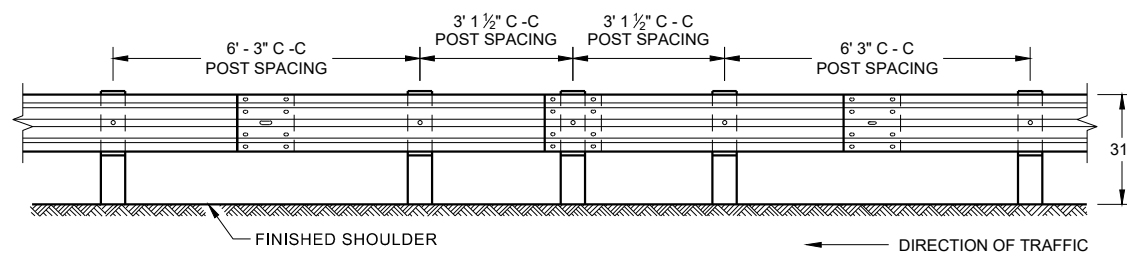


WOOD POST (6" X 8") NOMINAL ⁽¹⁾

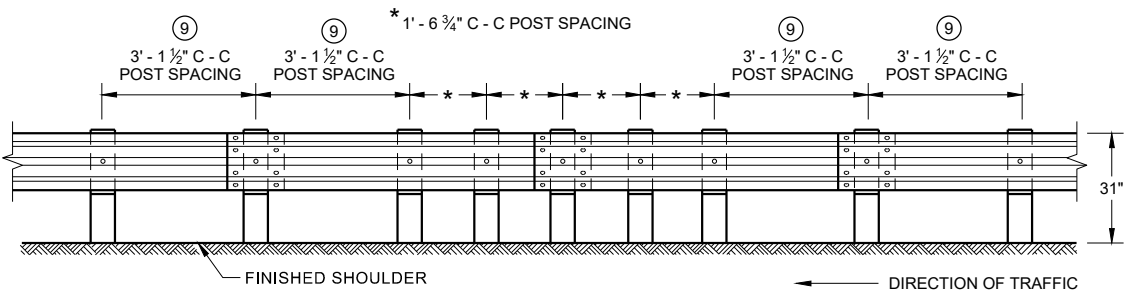




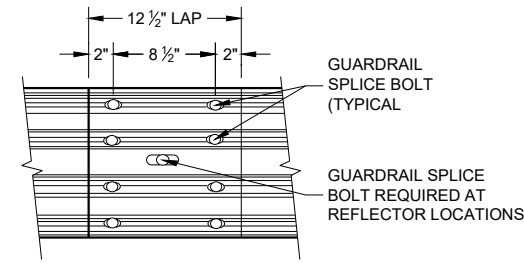
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



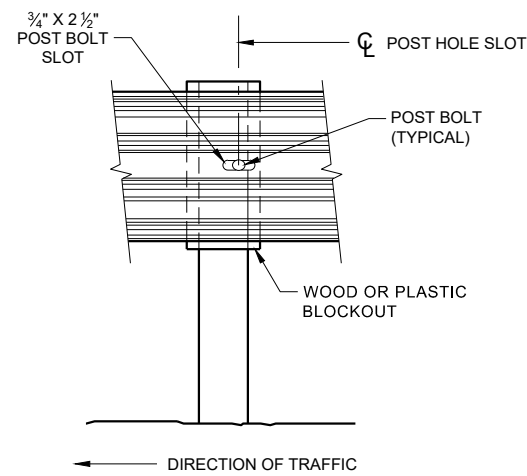
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



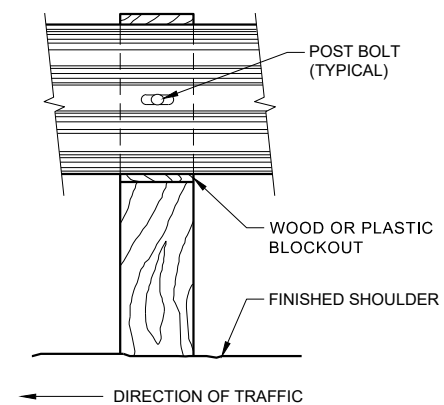
**FRONT VIEW
QUARTER POST SPACING (QS)**



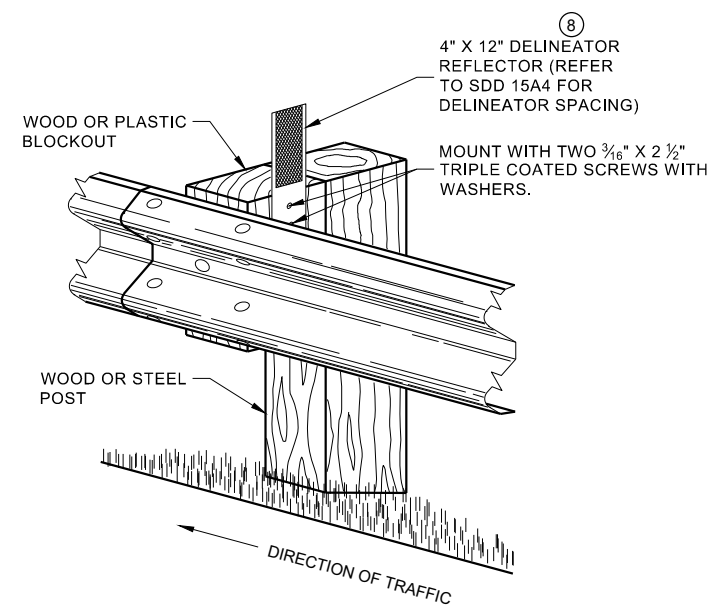
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



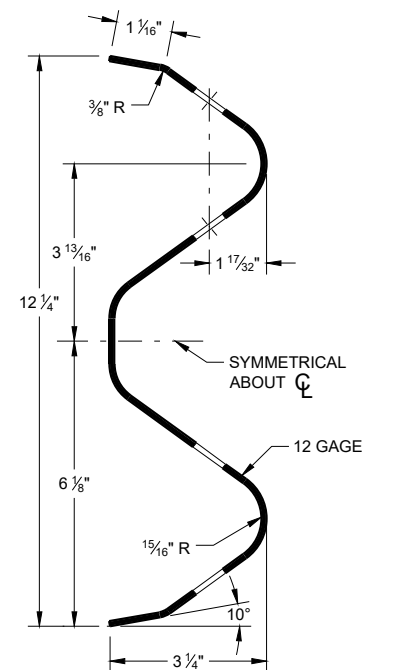
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 164



IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

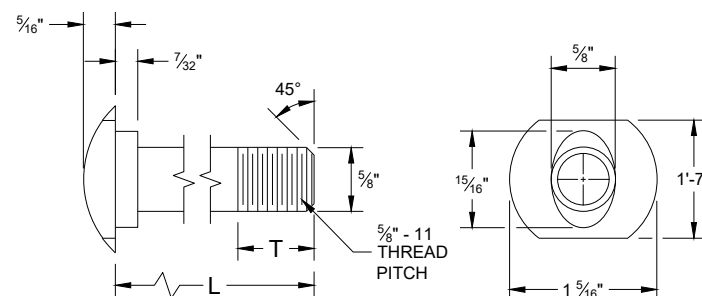


NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

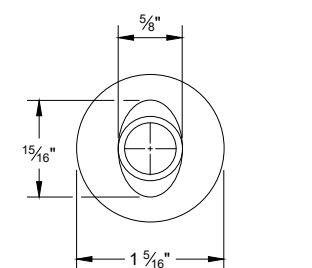
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
2. IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

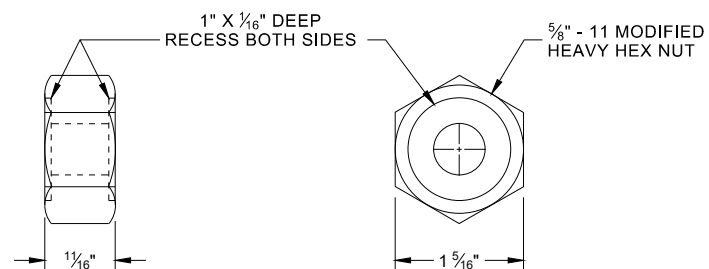


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ½"
2"	1 ¾"
10"	4"
14"	4 ⅙"
18"	4"
21"	4 ⅙"
25"	4"

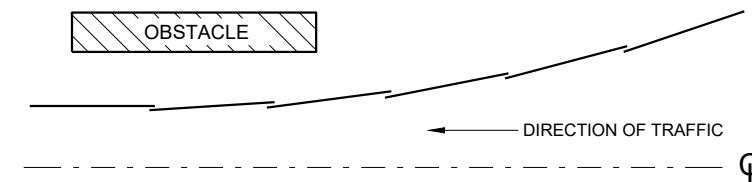


ALTERNATE BOLT HEAD

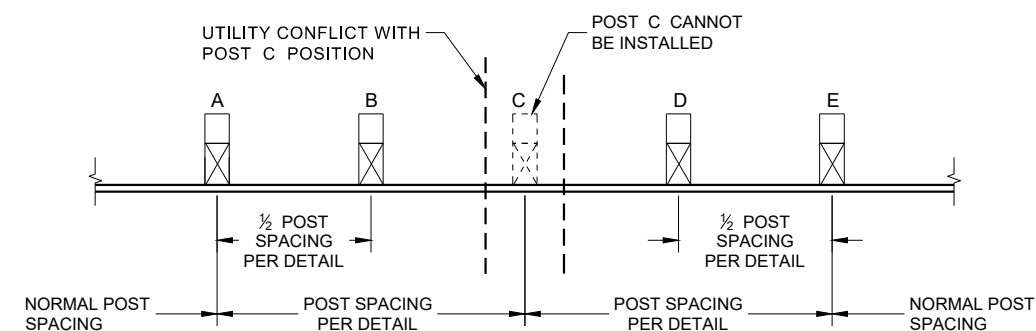


POST BOLT, SPLICE BOLT AND RECESS NUT

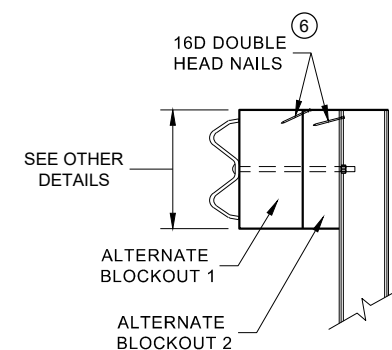
⑥ WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



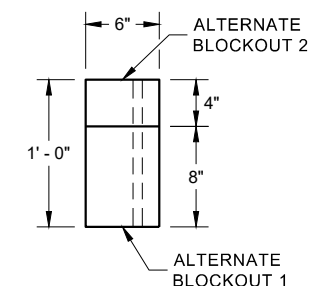
**PLAN VIEW
BEAM LAPPING DETAIL**



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

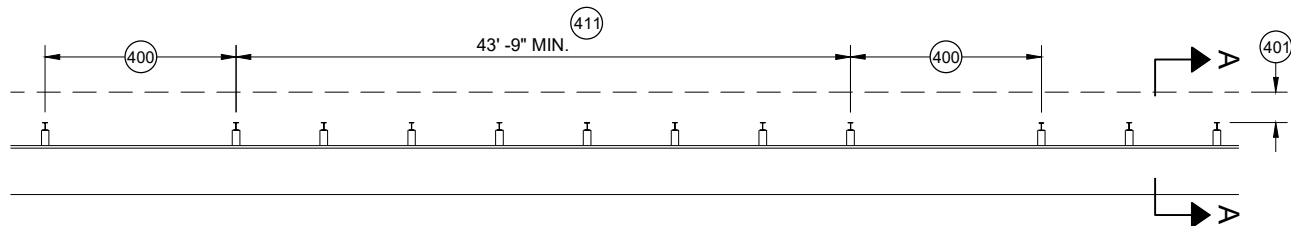


PLAN VIEW

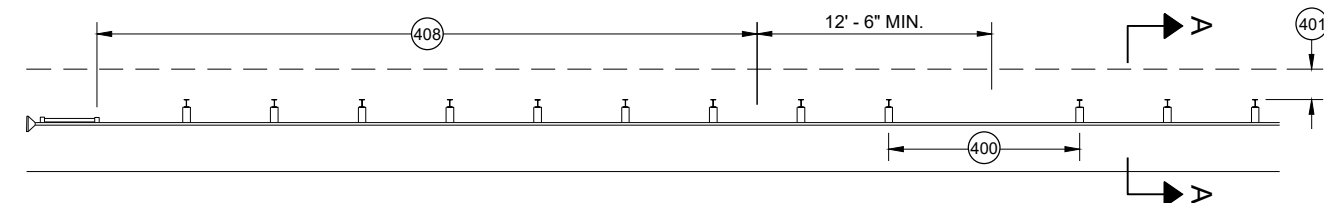
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

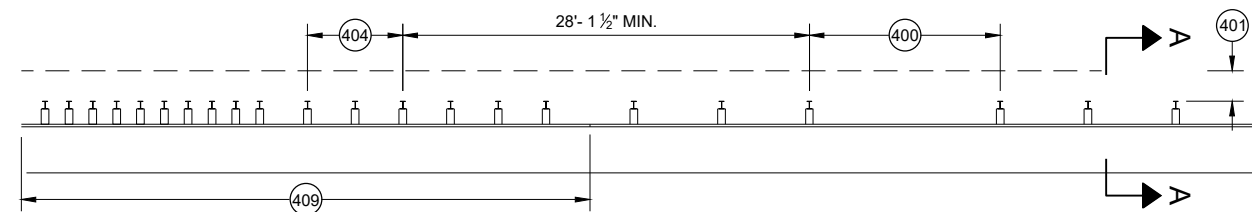
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 165



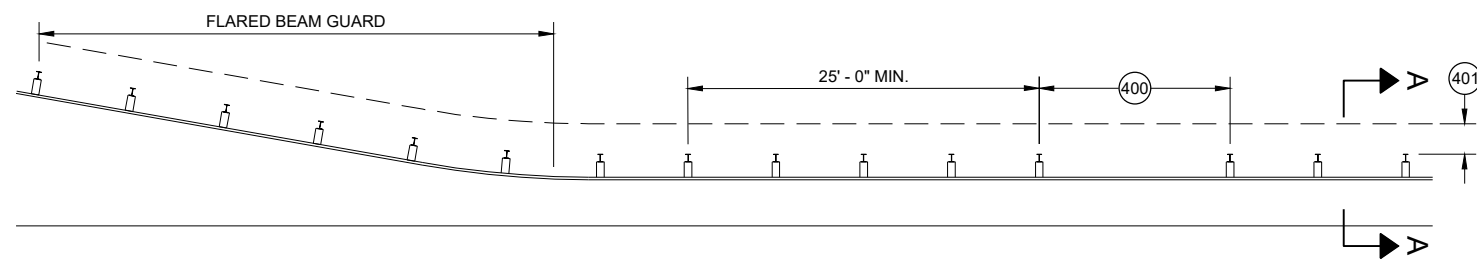
MISSING POST IN MGS GUARDRAIL



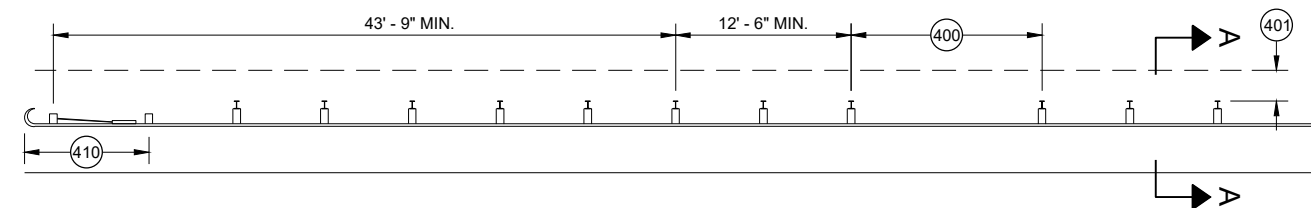
MISSING POST IN MGS GUARDRAIL NEAR EAT



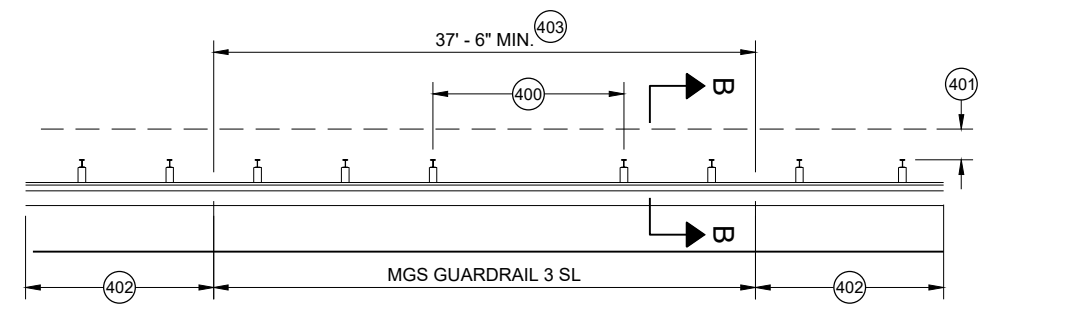
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

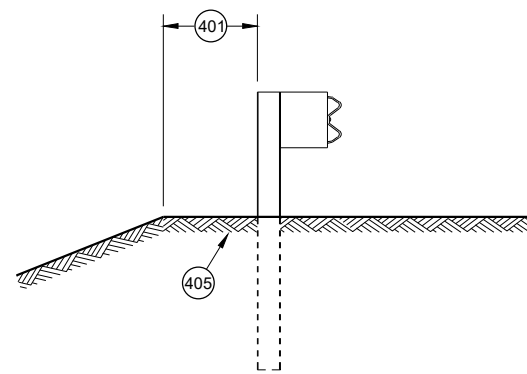


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

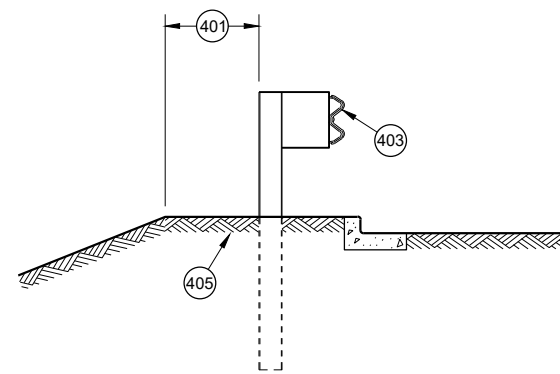


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (400) MAX SPAN 12' - 6"
- (401) 2' MIN.
- (402) MGS GUARDRAIL 3
- (403) NESTING BEAM GUARD
- (404) ASYMMETRIC TRANSITION
- (405) SOIL WELL DRAINED AND COMPACTED
- (406) SEE OTHER DRAWINGS IN THIS SDD
- (407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- (408) SEE SDD 14B44
- (409) SEE SDD 14B45
- (410) SEE SDD 14B47
- (411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

- A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
- D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
- E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

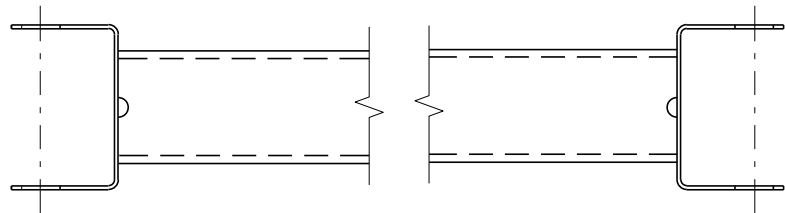
*** DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.**

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

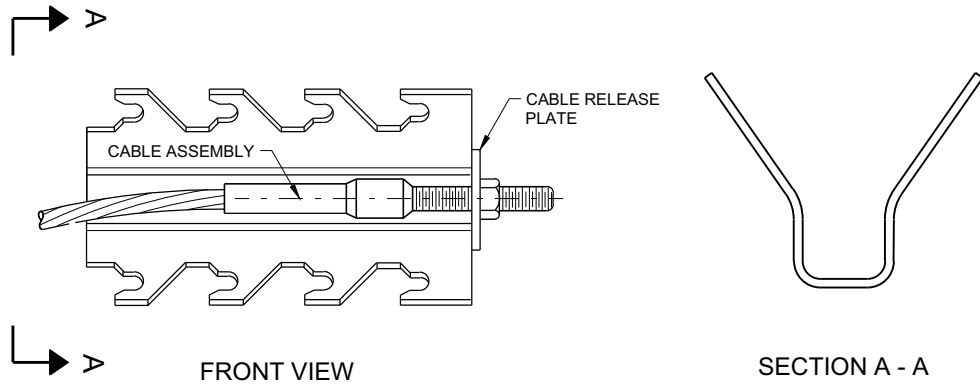


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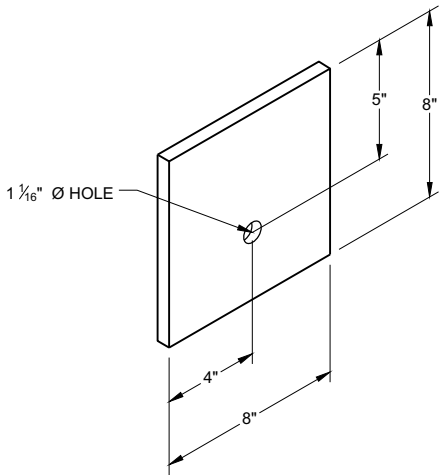


GENERIC GROUND STRUT⁹ ^E

BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



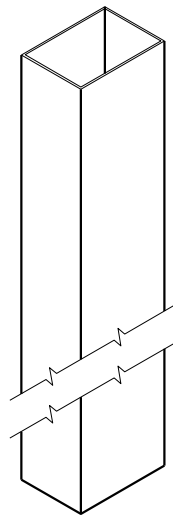
GENERIC ANCHOR CABLE BOX⁹ ^E



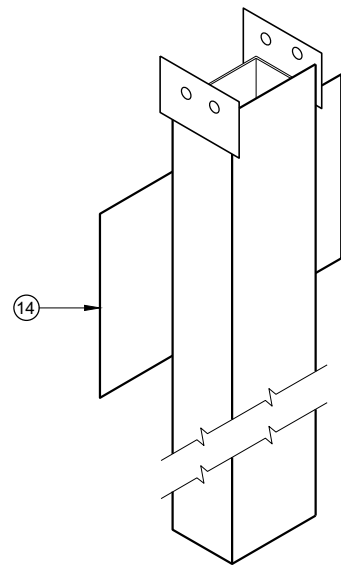
BEARING PLATE⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

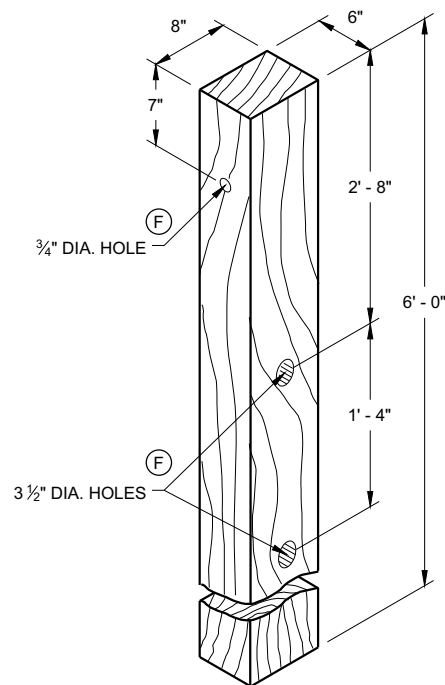
STATE OF WISCONSIN
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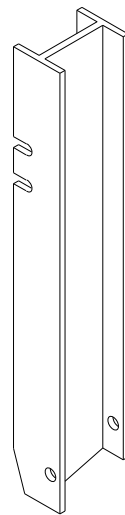
UPPER POST NO. 1 ⁽¹⁾ (E)



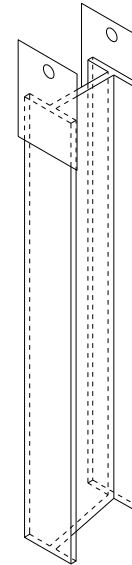
LOWER POST NO. 1 ⁽²⁾ (E)



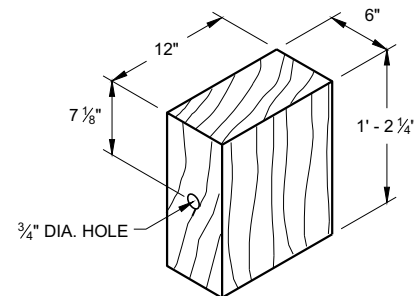
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



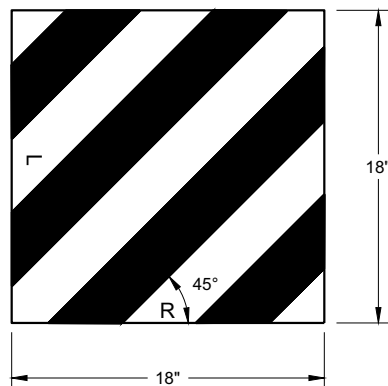
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



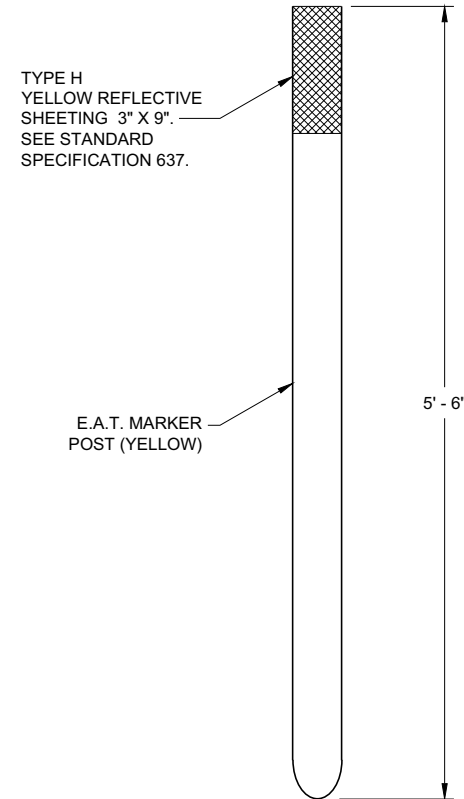
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



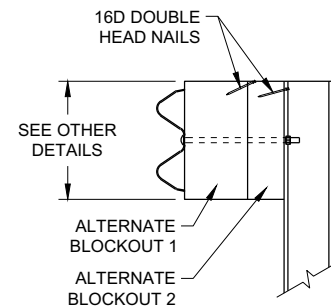
WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



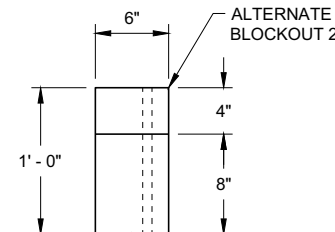
REFLECTIVE SHEETING DETAIL ^(E)



E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



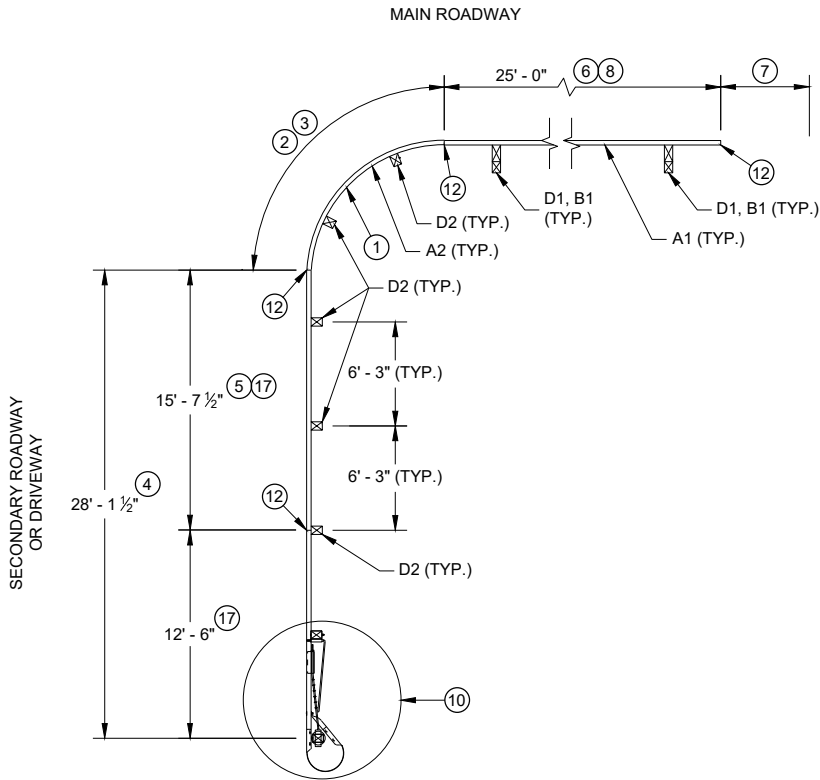
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

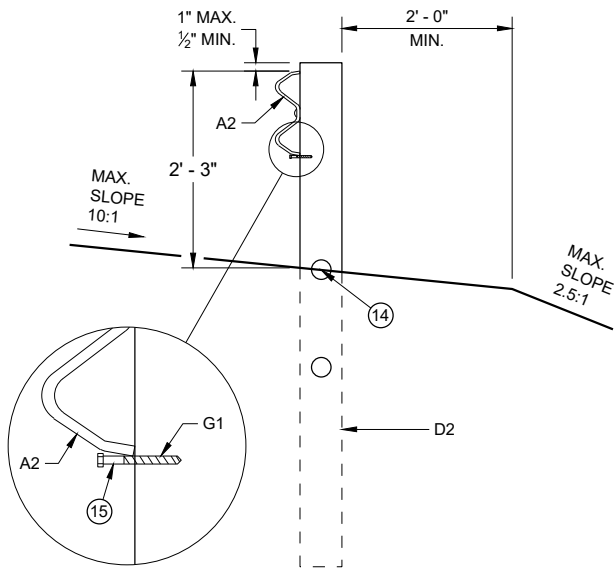
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

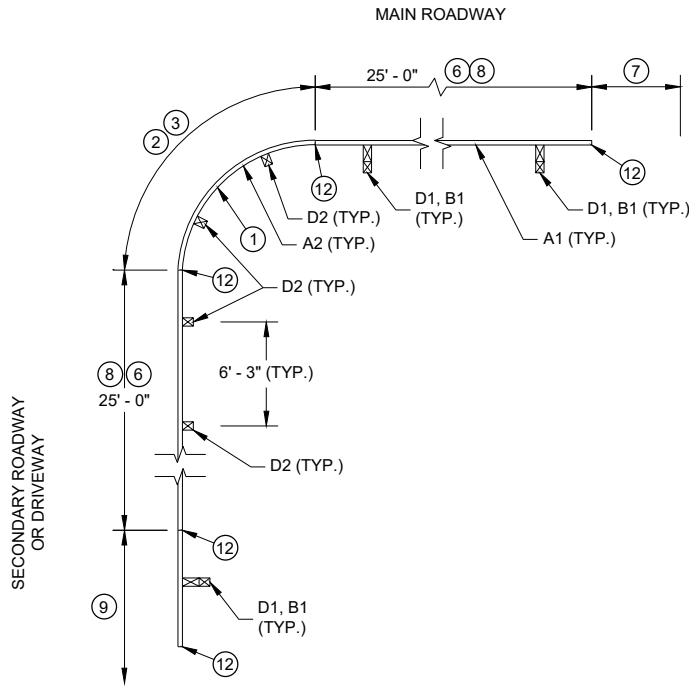
APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR 169
FHWA



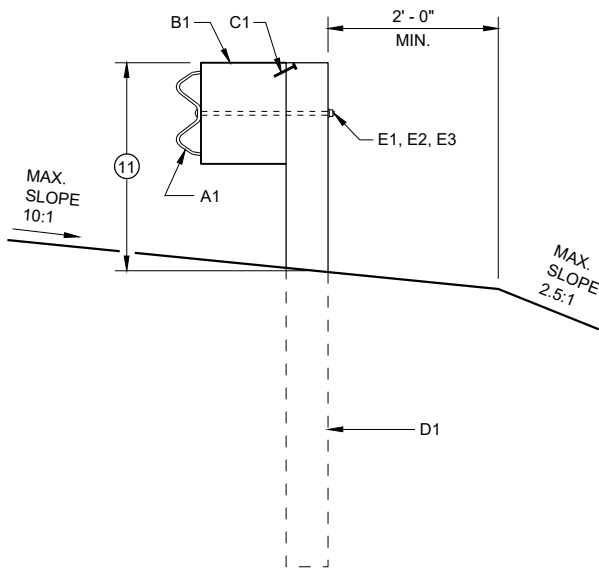
PLAN VIEW
SHORT RADIUS BEAM GUARD WITH
SHORT RADIUS TERMINAL ON
SECONDARY ROAD OR DRIVEWAY



CONTROLLED RELEASE
TERMINAL POST (CRT) IN RADIUS



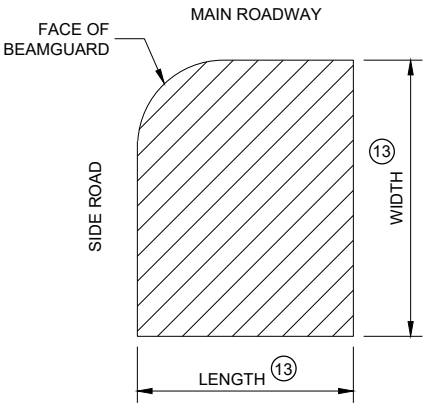
PLAN VIEW
SHORT RADIUS BEAM GUARD WITH
EAT, ADDITIONAL BEAM GUARD
OR
TRANSITION TO RIGID BARRIER ON
SECONDARY ROAD OR DRIVEWAY



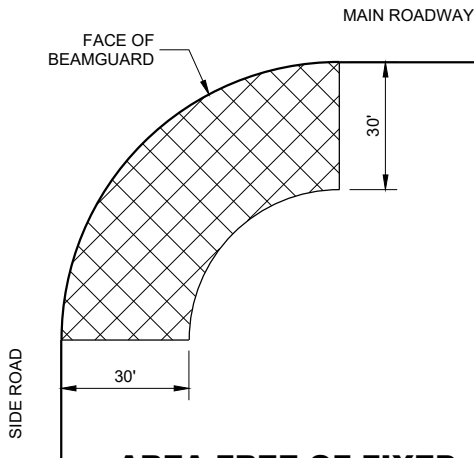
BEAM GUARD POSTS
IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

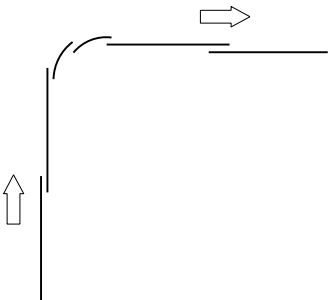
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED
OBJECTS FOR RADIUS
32' AND LESS



AREA FREE OF FIXED
OBJECTS FOR RADIUS
GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

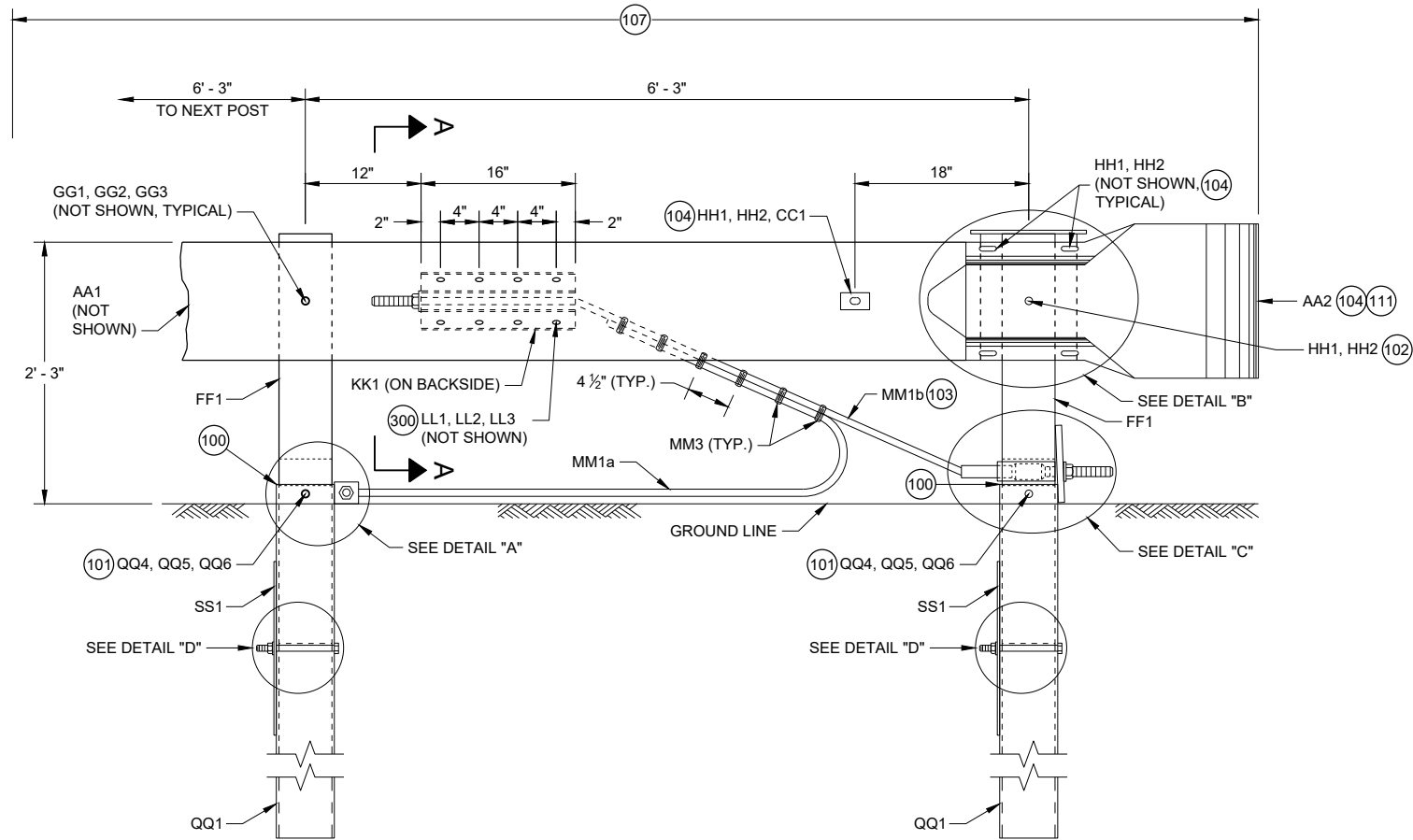
UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE 1/4" TO 1/2" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

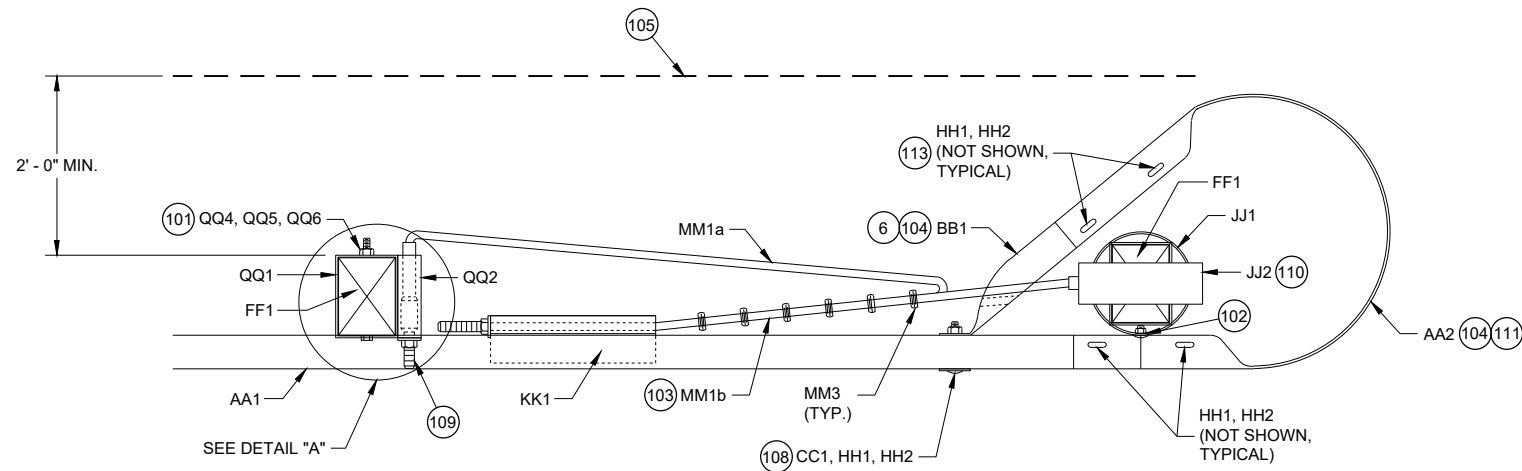
- ① RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.
- ② CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.
- ③ WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.
- ④ MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.
- ⑤ ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.
- ⑥ MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.
- ⑦ BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.
- ⑧ TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.
- ⑨ ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.
- ⑩ SHORT RADIUS TERMINAL (SEE OTHER DETAILS).
- ⑪ HEIGHT VARIES. SEE NOTE ⑧ AND ⑧.
- ⑫ BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.
- ⑬ SEE TABLE FOR VALUES.
- ⑭ MAXIMUM HEIGHT FOR CENTER OF HOLE IS 3/4" ABOVE FINISHED GROUND ±1".
- ⑮ DRILL POST 15/64" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.
- ⑯ SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.
- ⑰ TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

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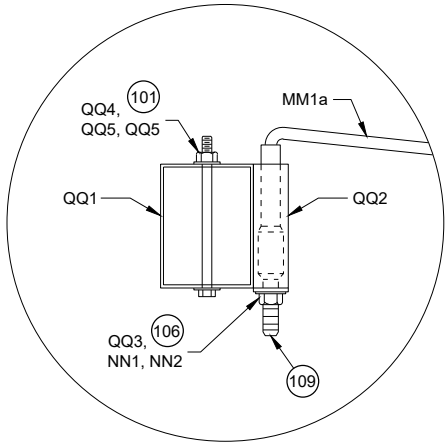
**PROFILE VIEW
SHORT RADIUS TERMINAL**



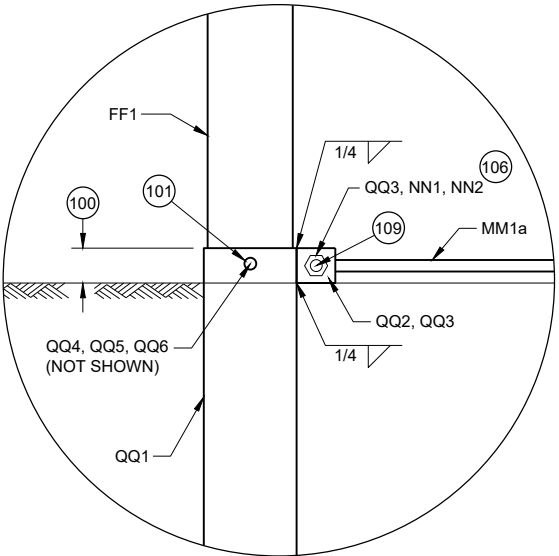
**TOP VIEW
SHORT RADIUS TERMINAL**

GENERAL NOTES

- (100) TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.
- (101) WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.
- (102) SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".
- (103) CABLE IS TAUT.
- (104) ADJUST AA2 AND BB1 TO FIT.
- (105) BREAK POINT OF SHOULDER.
- (106) TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.
- (107) PAY LIMIT FOR BEAM GUARD.
- (108) SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.
- (109) CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS 1/2" TOLERANCE). DEBURR AFTER CUTTING.
- (110) SEE STEEL PIPE ASSEMBLY DETAILS.
- (111) ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.
- (112) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.
- (113) FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



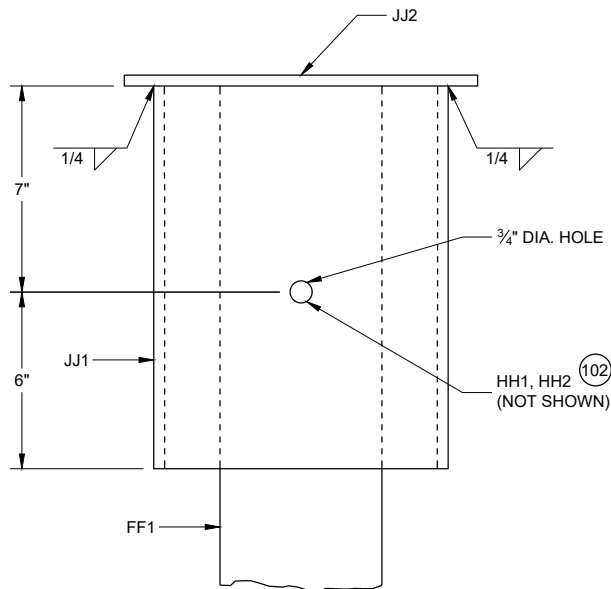
**TOP VIEW
DETAIL "A"
(WOOD BREAKAWAY AND BEAM
GUARD RAIL POSTS NOT SHOWN)**



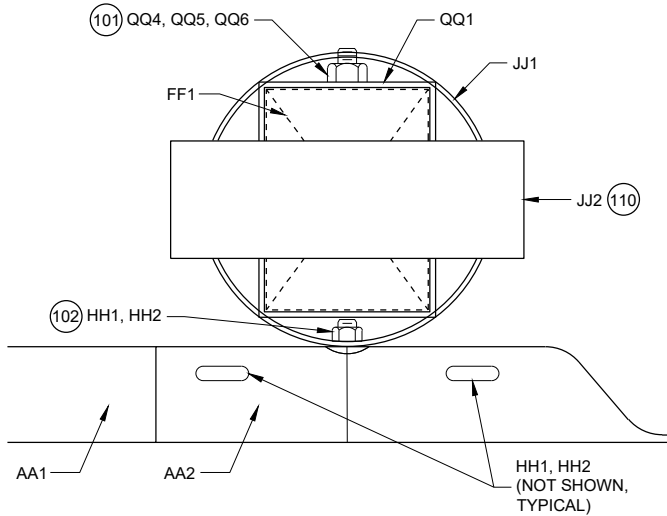
**PROFILE VIEW
DETAIL "A"**

**SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)**

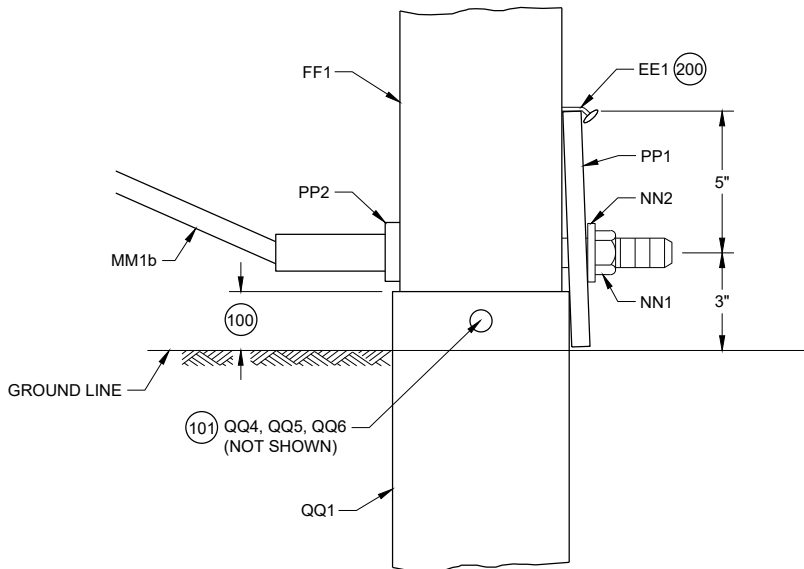
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 171



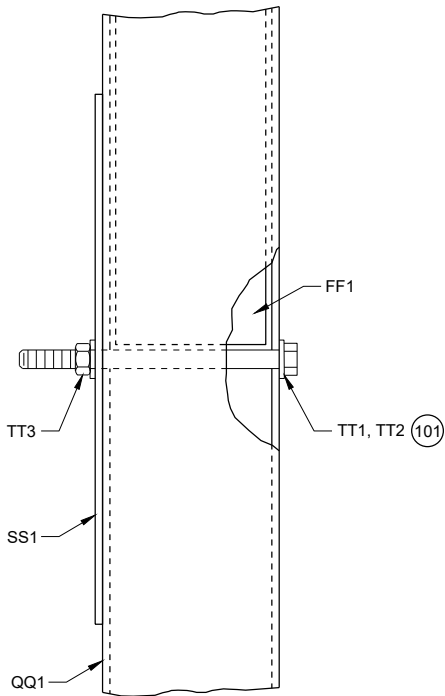
**PROFILE VIEW
DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM
END SECTION NOT SHOWN)**



**PLAN VIEW
DETAIL "B"
STEEL PIPE ASSEMBLY**



**PROFILE VIEW
DETAIL "C"**



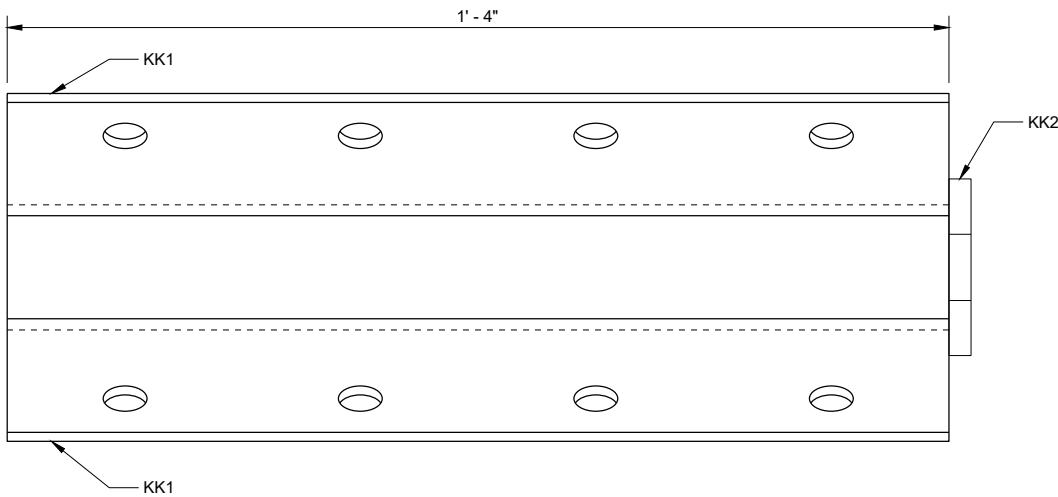
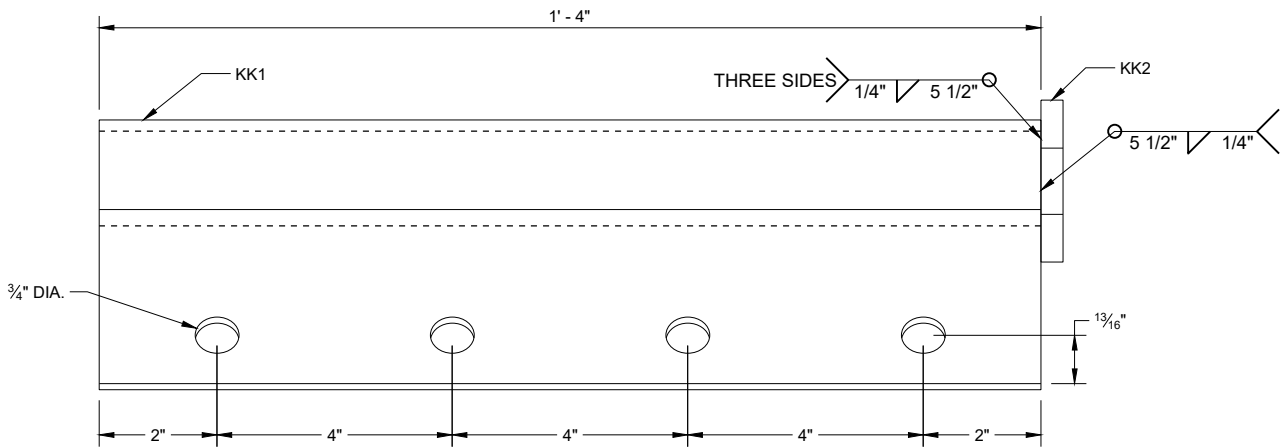
**PROFILE VIEW
DETAIL "D"**

GENERAL NOTES

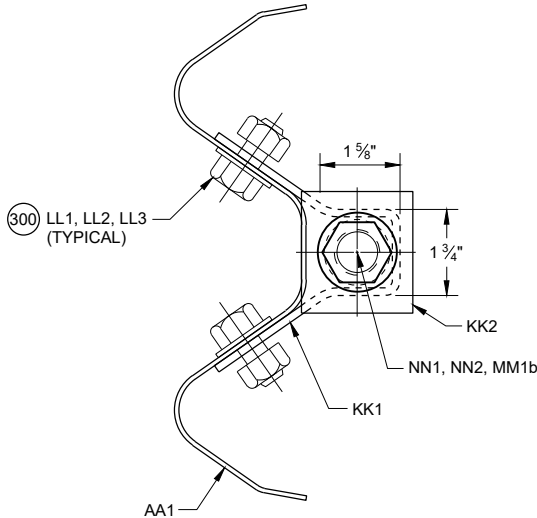
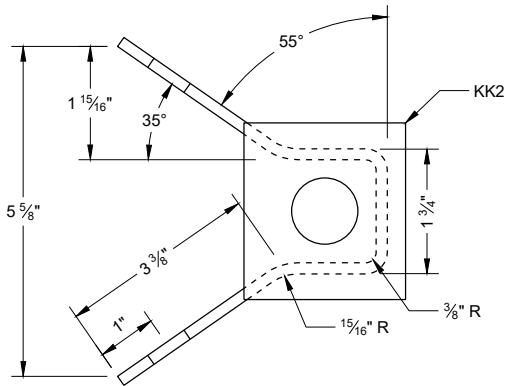
(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.

**SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 172



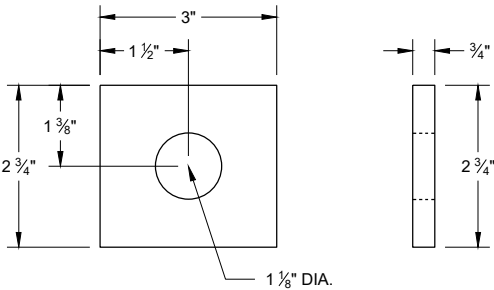
ANCHOR BRACKET (KK1, KK2)



SECTION A - A

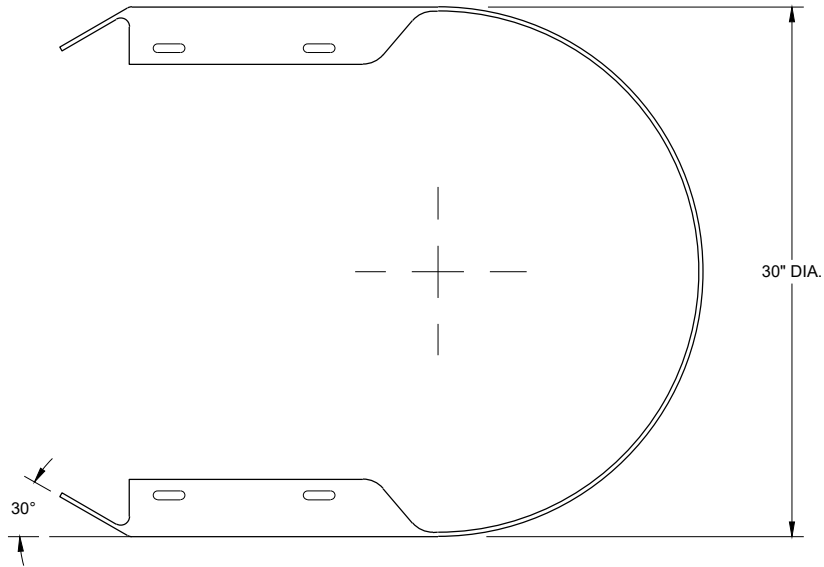
300 WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

ANCHOR BRACKET BEARING PLATE (KK2)

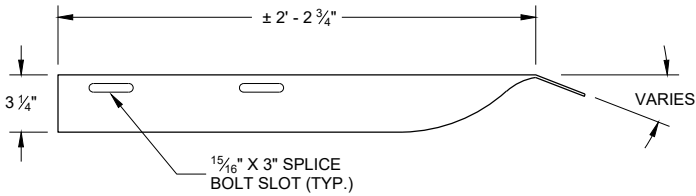


SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

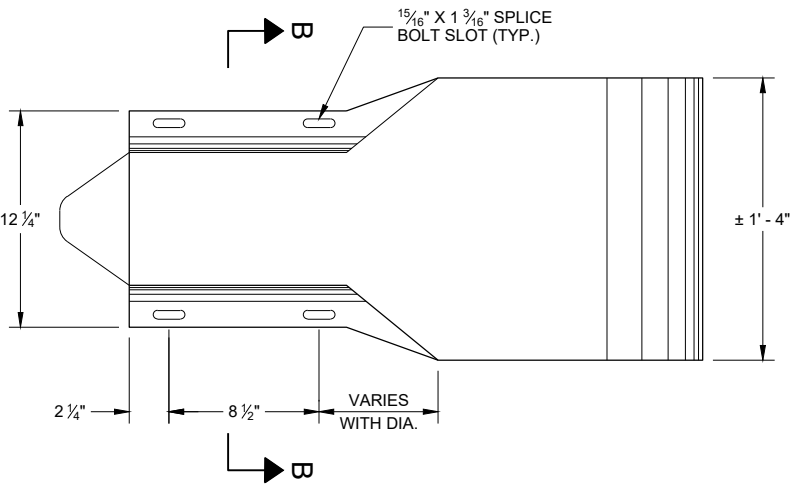
STATE OF WISCONSIN
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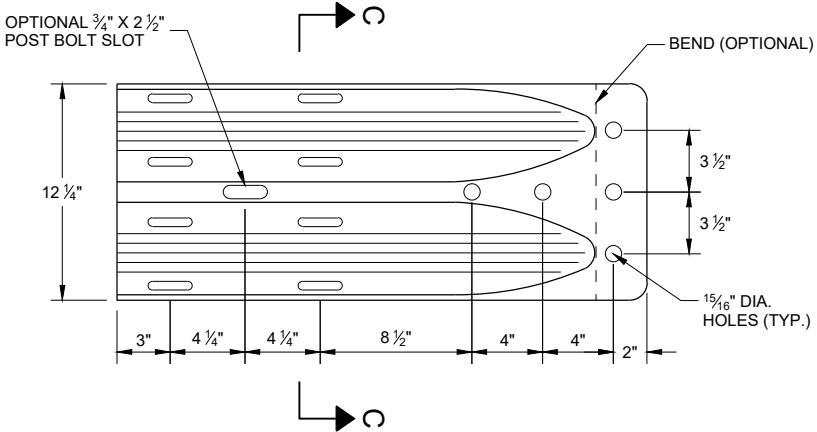
TOP VIEW



TOP VIEW



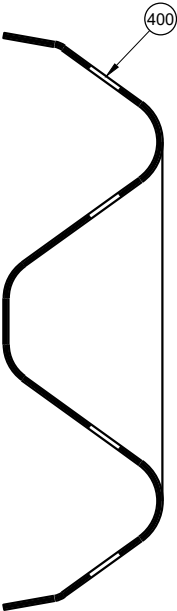
PROFILE VIEW
W BEAM
END SECTION BUFFER (AA2)



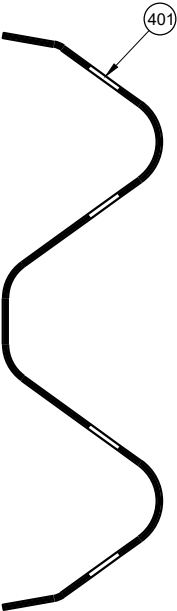
PROFILE VIEW
W BEAM
TERMINAL CONNECTOR (BB1)

GENERAL NOTES

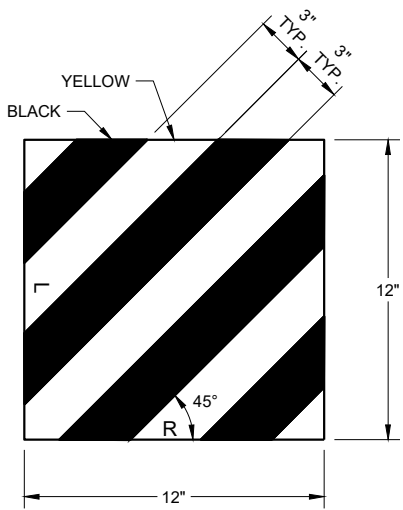
- (400) CROSS SECTION OF PART IS TO FIT OVER AA1 .
- (401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



SECTION B -B



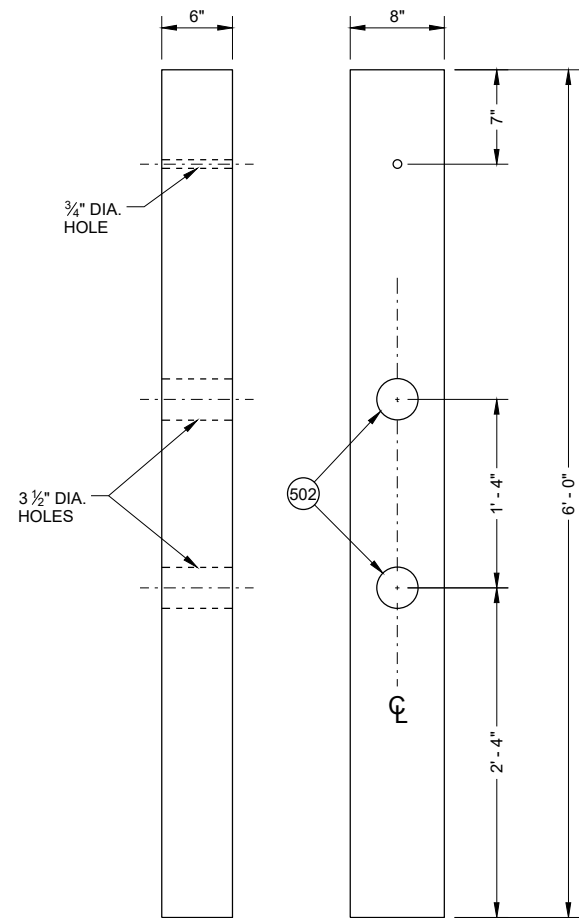
SECTION C -C



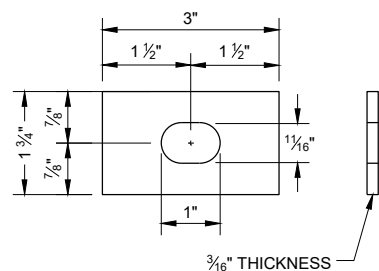
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

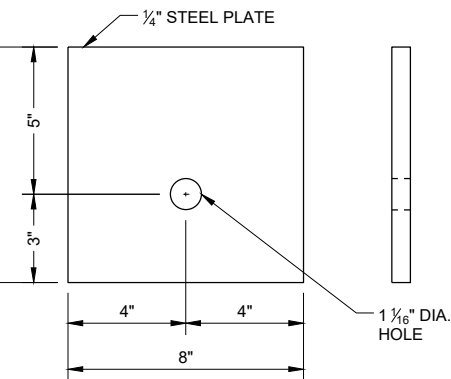
STATE OF WISCONSIN
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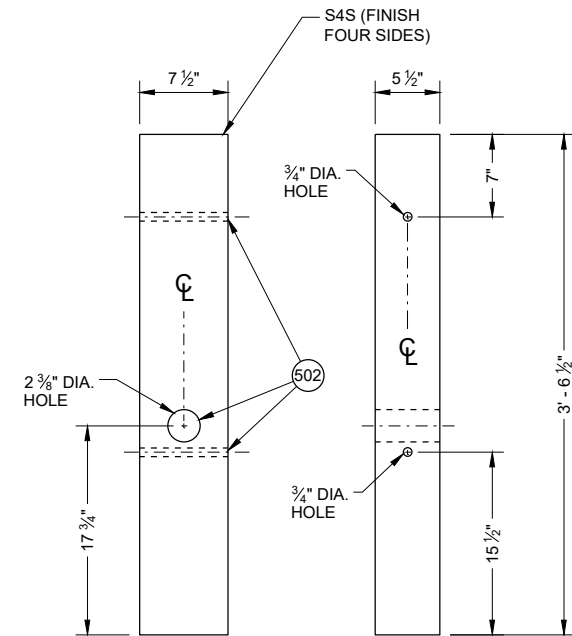
FRONT VIEW SIDE VIEW
CONTROLLED RELEASE POST (CRT) (DD2)



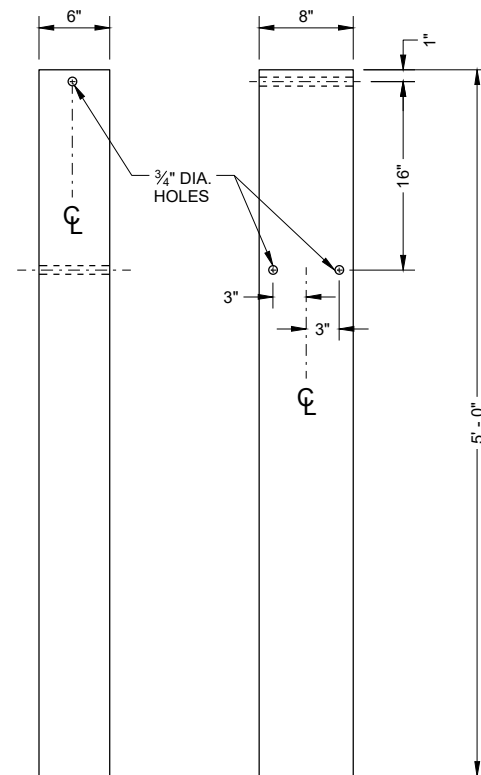
RECTANGULAR PLATE WASHER (CC1)



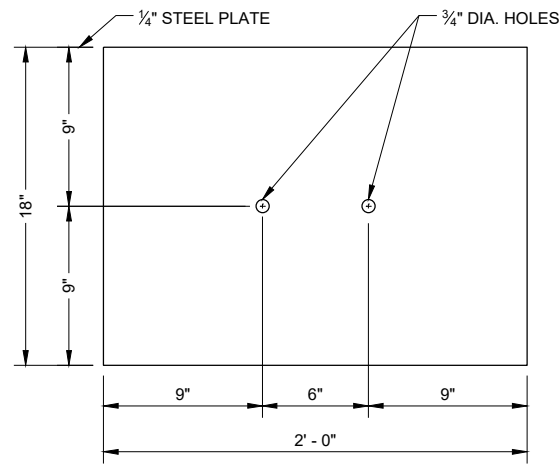
BEARING PLATE (PP1)



FRONT VIEW SIDE VIEW
WOOD BREAKAWAY POST (FF1)



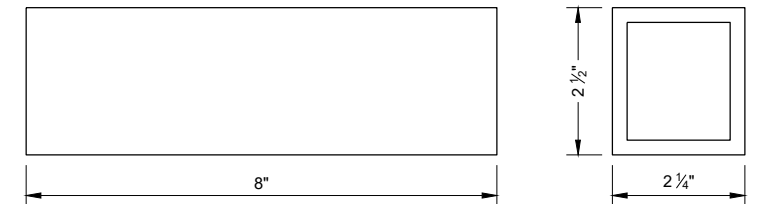
FRONT VIEW SIDE VIEW
FOUNDATION TUBE (QQ1) (500)



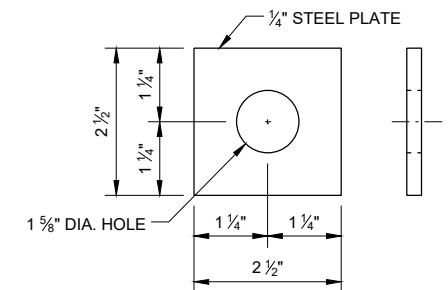
SOIL PLATE (SS1)

GENERAL NOTES

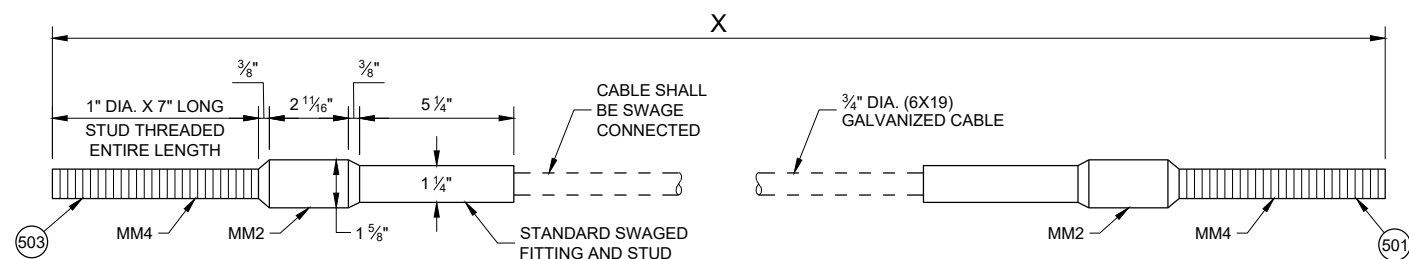
- (500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.
- (501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.
- (502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.
- (503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



ANCHOR CABLE TUBE END PLATE (QQ3)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 175

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3⁄8" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	3⁄8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3⁄8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3⁄8" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	3⁄8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	3⁄8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	3⁄8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3⁄4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
NN2	ANCHOR CABLE - NUT - WASHER	UNC	1" DIA.
		ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 177

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

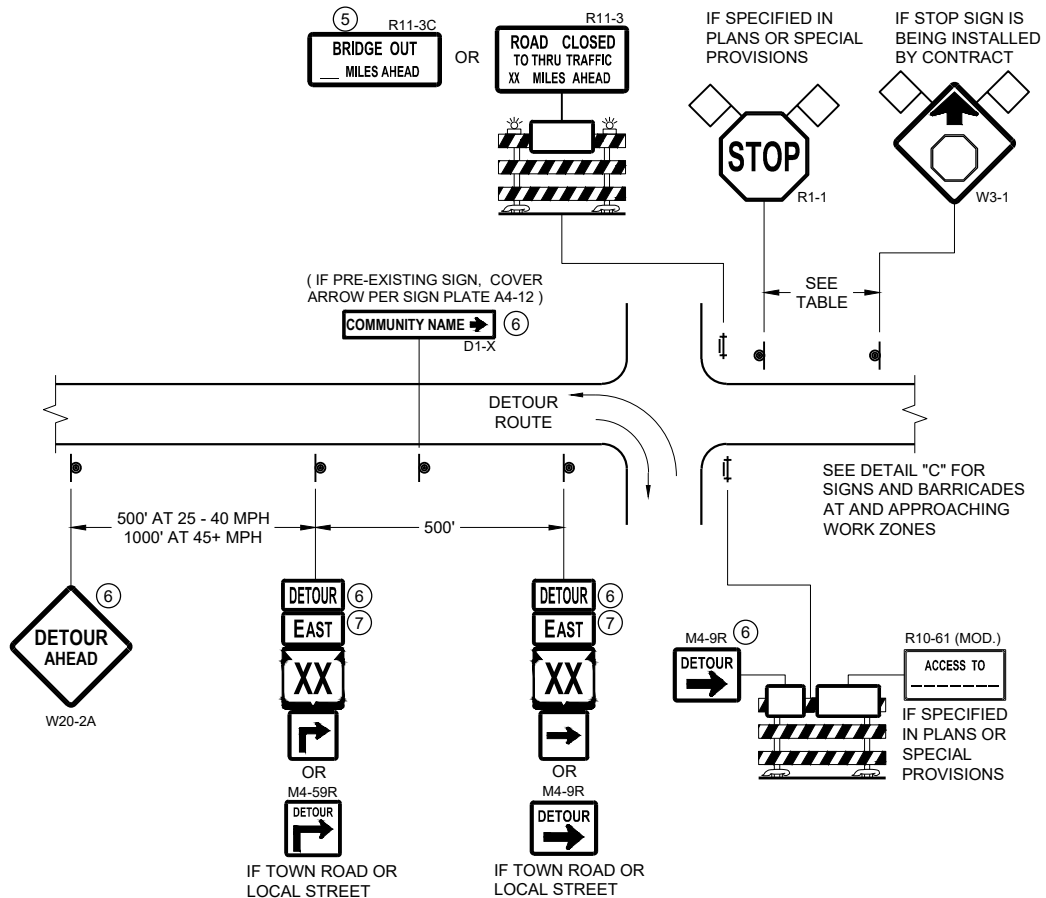
PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X $\frac{3}{16}$ "
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 $\frac{1}{2}$ " X 2 $\frac{1}{4}$ " X $\frac{1}{4}$ " X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 $\frac{1}{2}$ " X 2 $\frac{1}{2}$ " X $\frac{1}{4}$ "
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	$\frac{5}{8}$ DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	$\frac{5}{8}$ DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	$\frac{5}{8}$ DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	$\frac{5}{8}$ DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	$\frac{5}{8}$ DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	$\frac{5}{8}$ DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

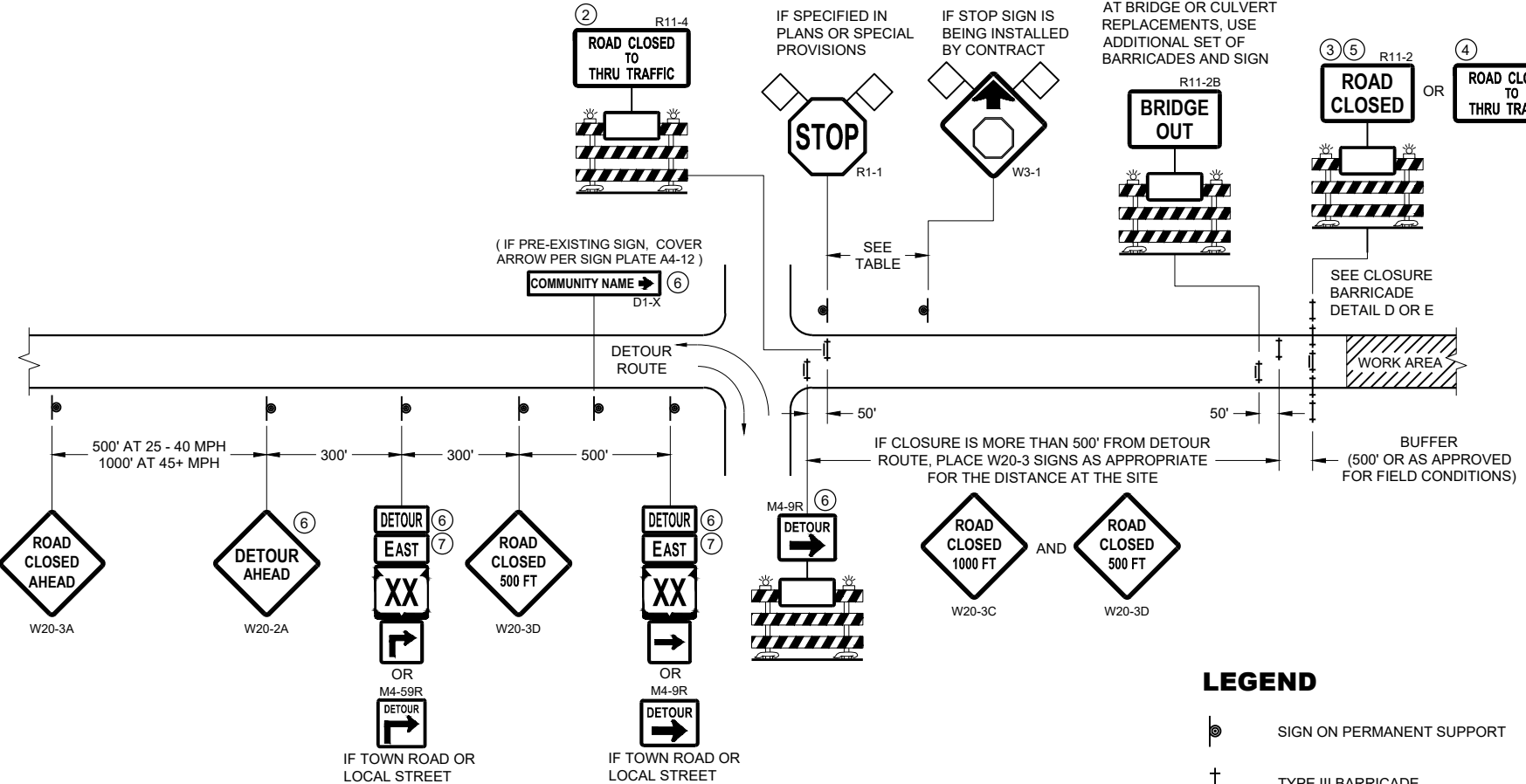
SHORT RADIUS BEAM
GUARD (MGS) SHORT
RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVE ENGINEER 178
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



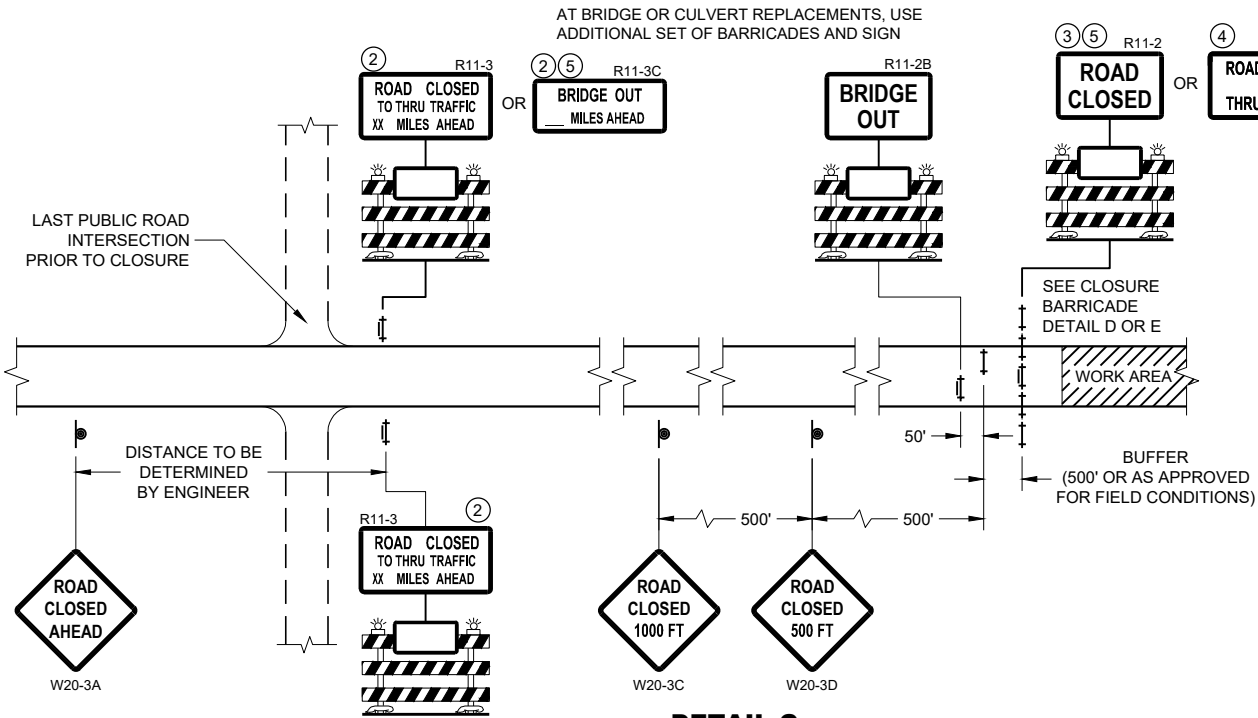
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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 M1 - 5A
- OR M05 - 1 OR M06 - 1

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

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 179

FHWA



SEE SDD 15C2 - SHEET "a" FOR LEGEND

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.

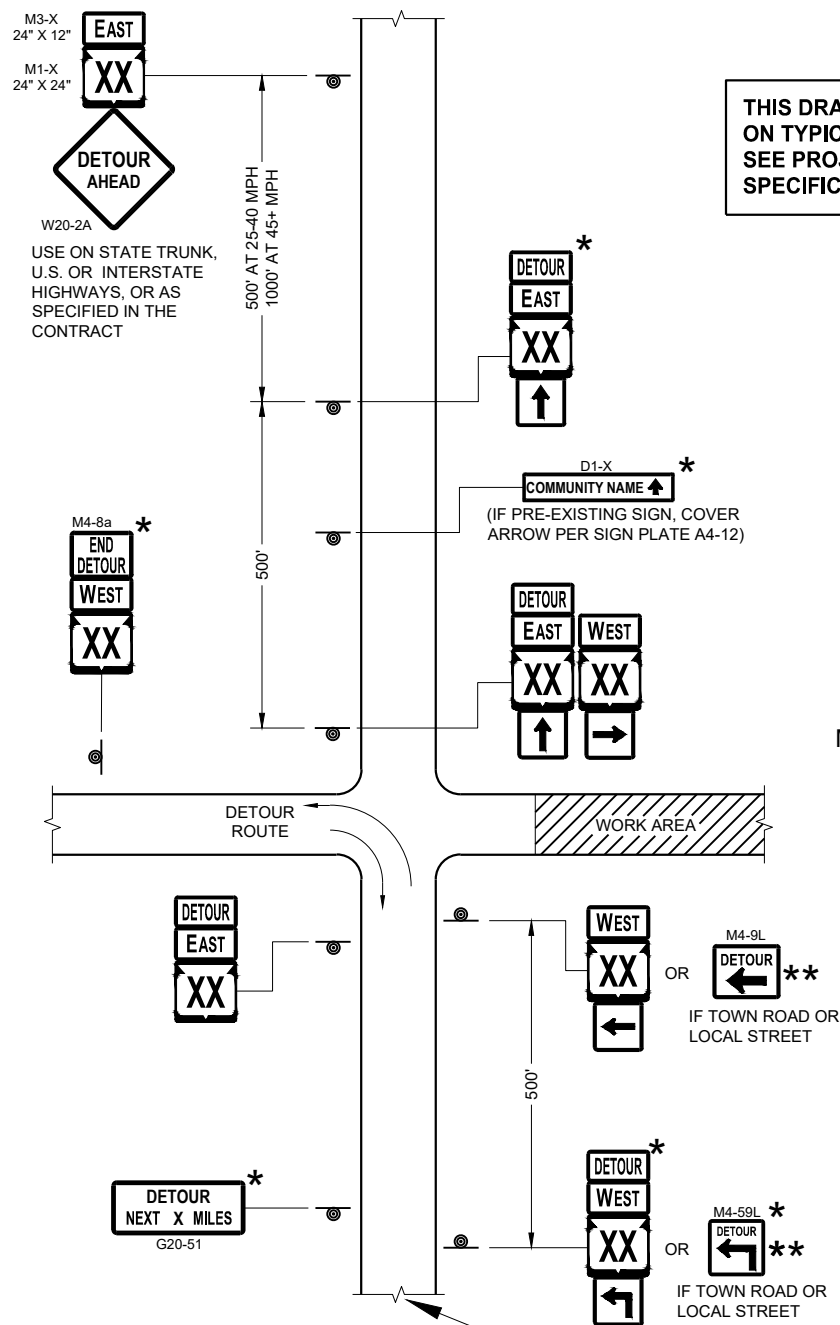
THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"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"

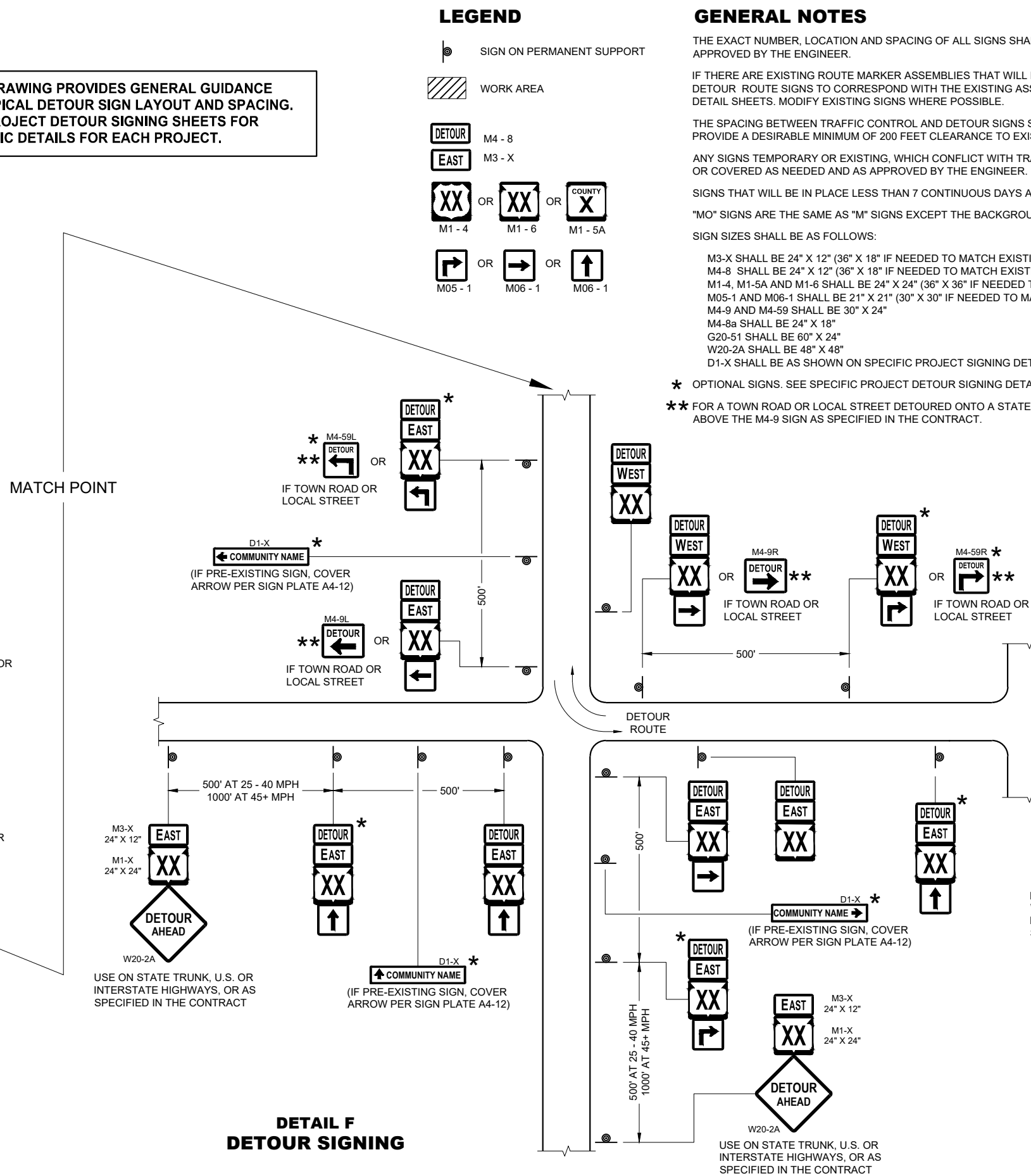
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS 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.



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

SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

SDD 15C02 - 09c



DETAIL F DETOUR SIGNING

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X 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.**

PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
 DATE

/S/ Andrew Heidtke
 WORK ZONE ENGINEER

181

FHWA

SDD15C02 - 09c

GENERAL NOTES

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

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

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

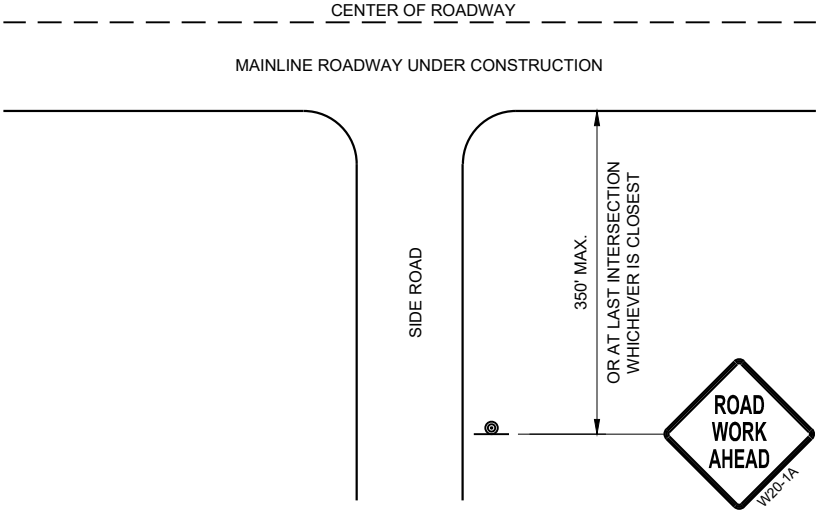
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

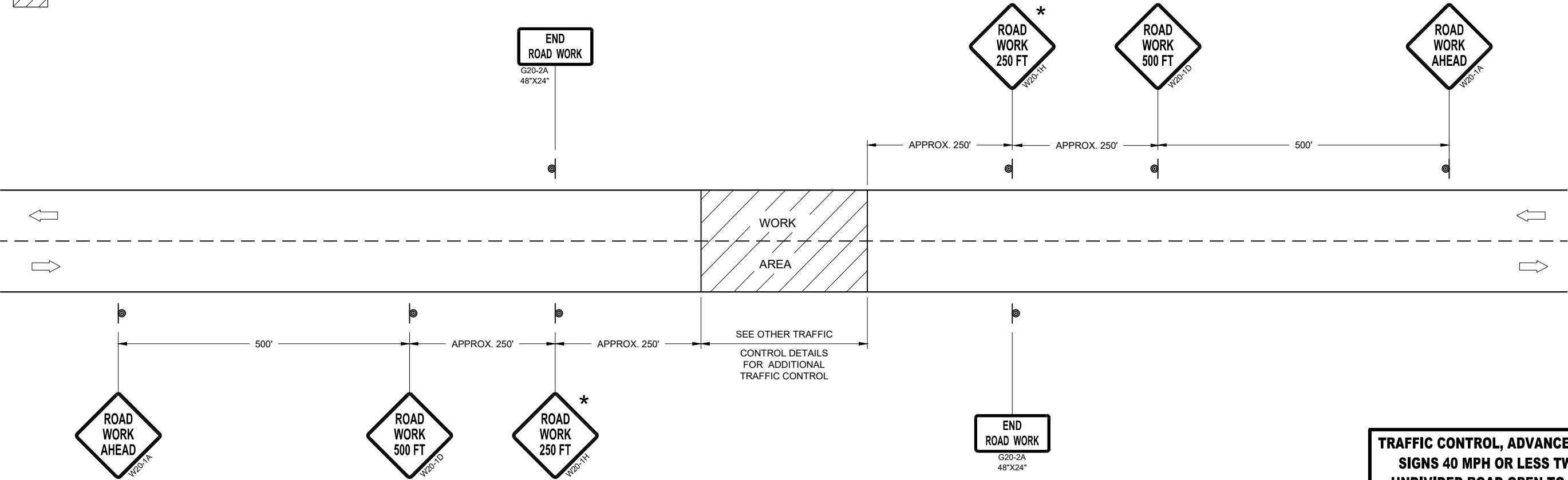
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



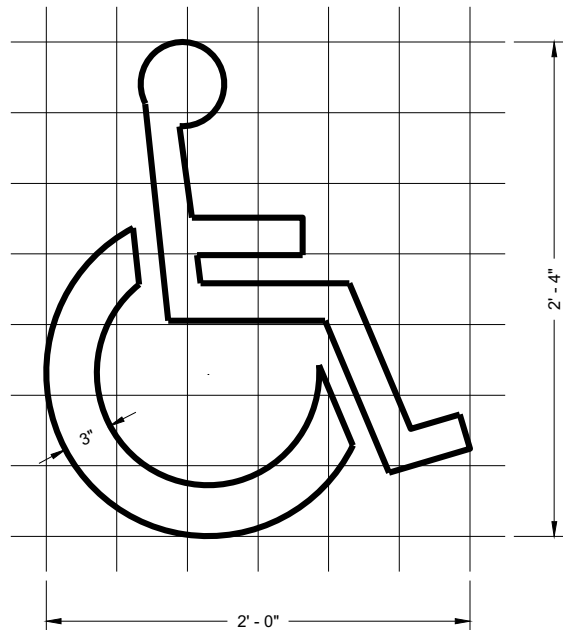
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

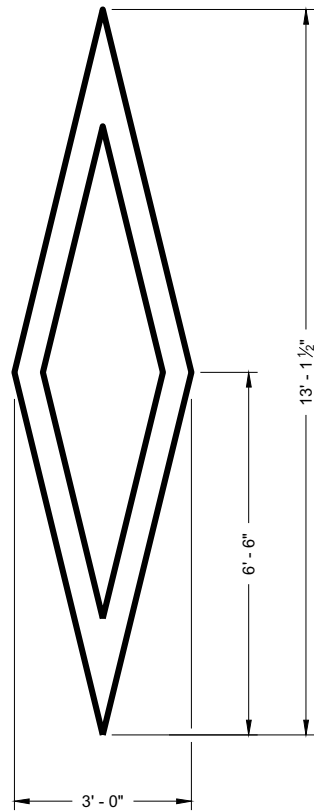
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 182

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HANDICAP SYMBOL



PREFERENTIAL
LANE SYMBOL

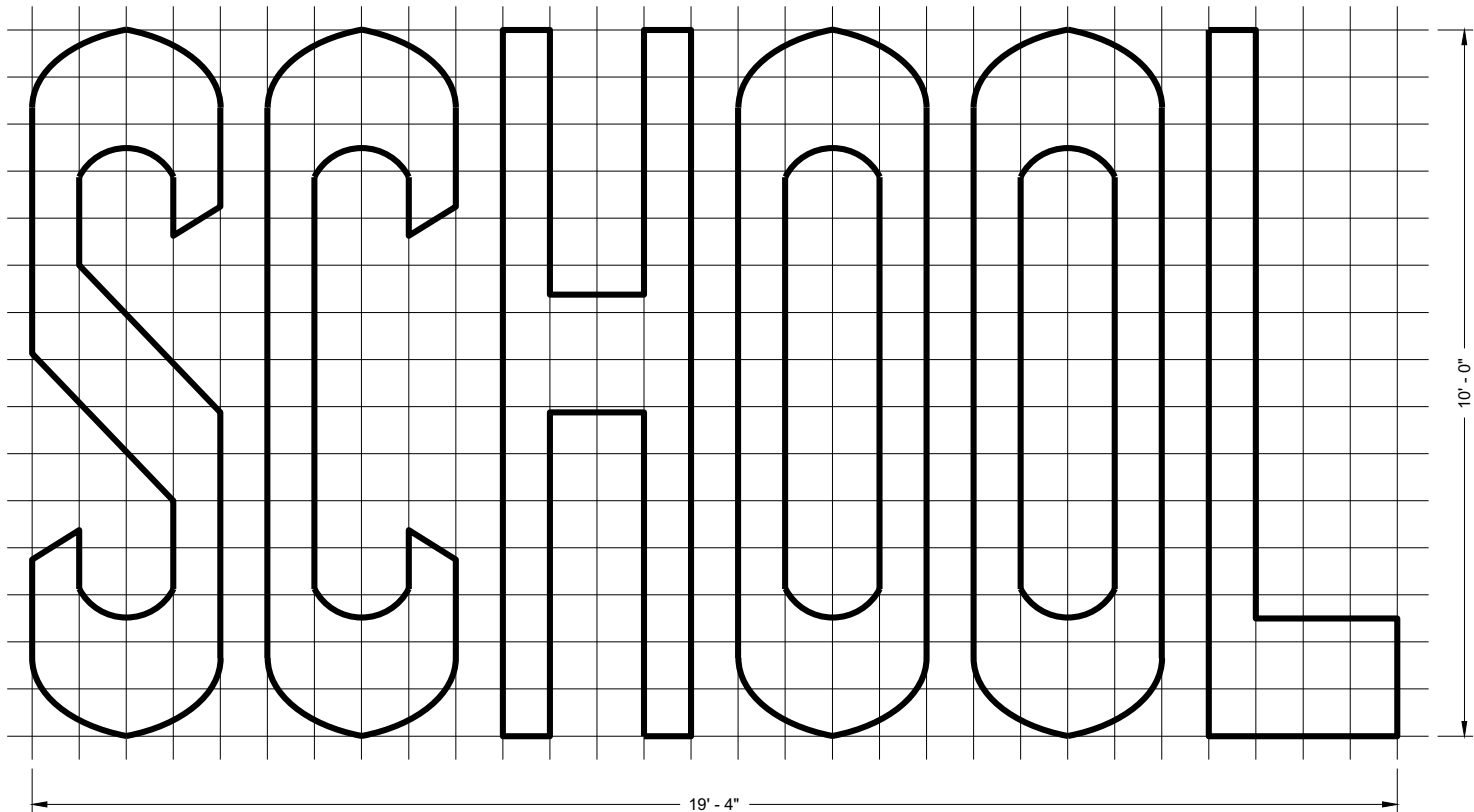
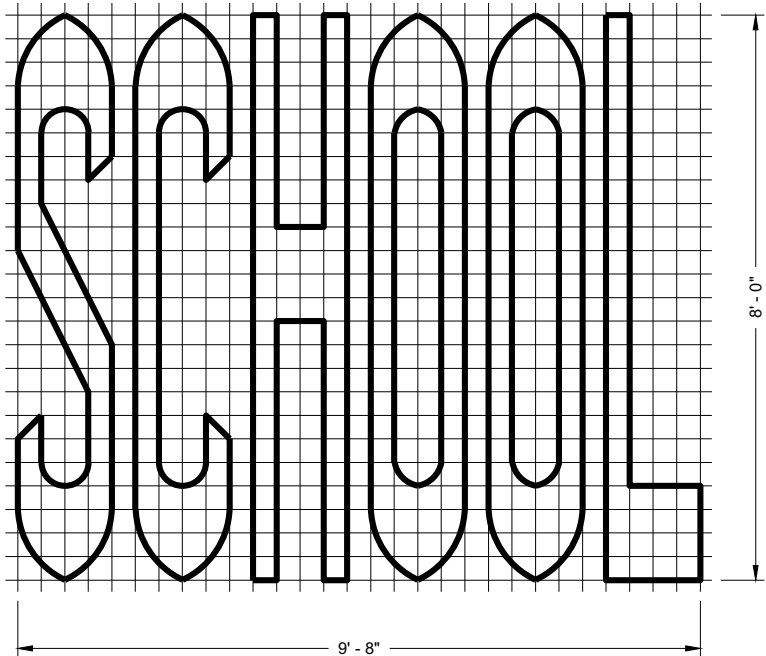
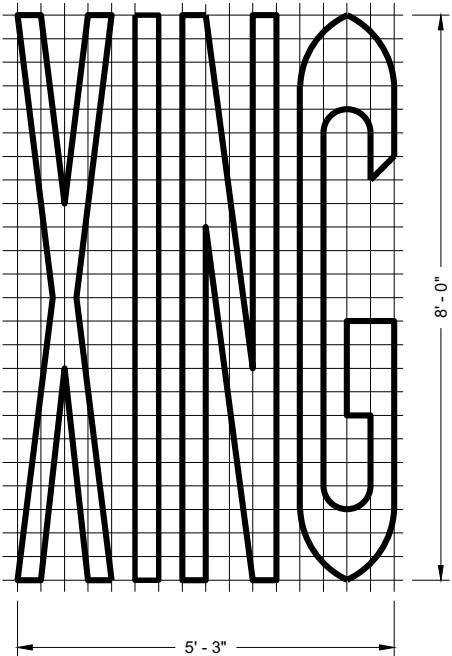
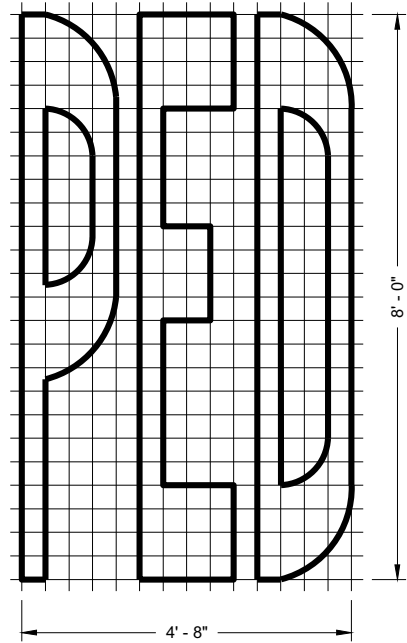
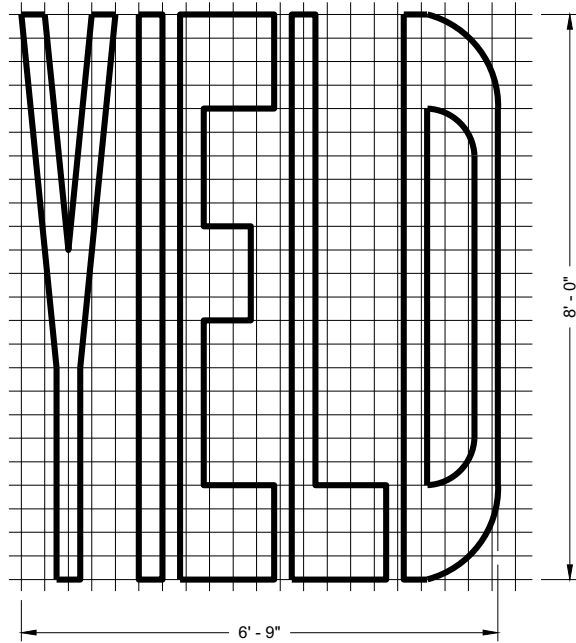
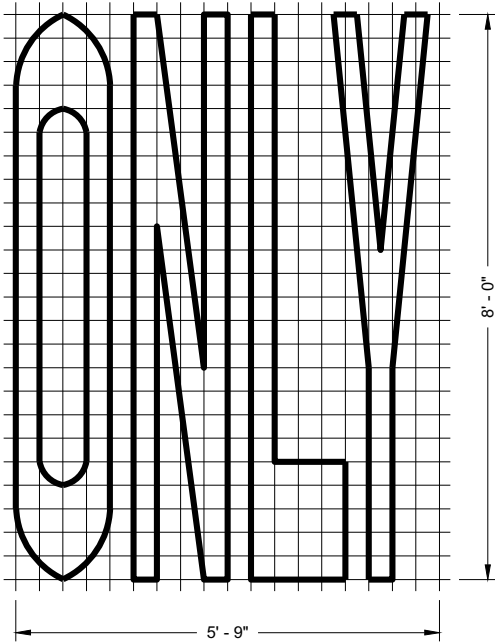
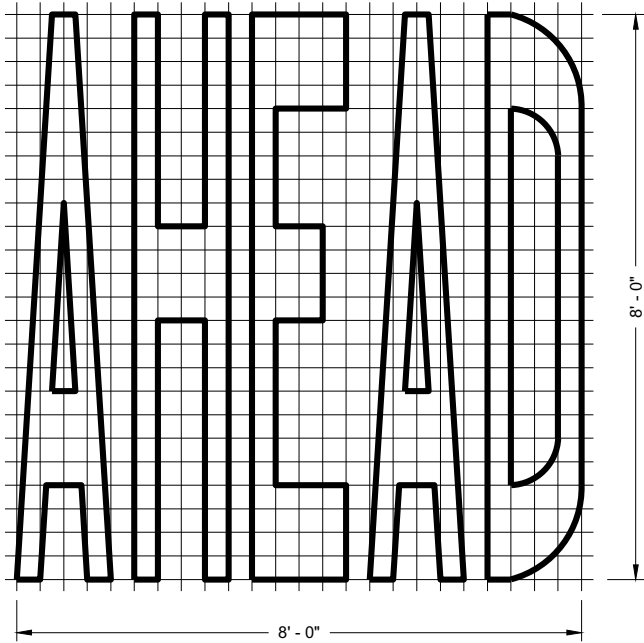
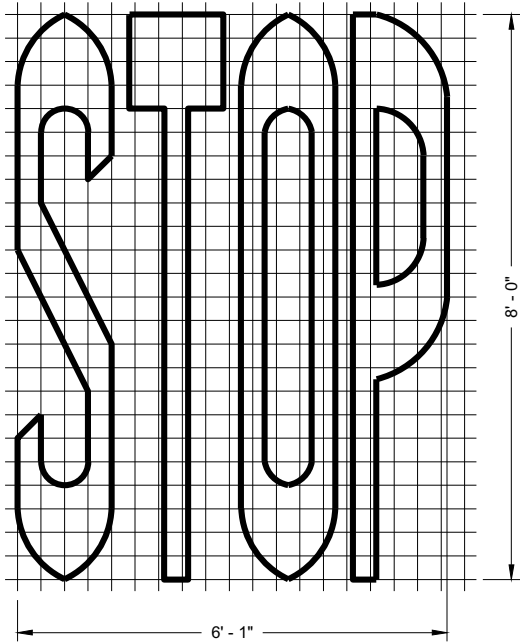
GENERAL NOTES

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 183
FHWA



SINGLE LANE

TWO - LANE

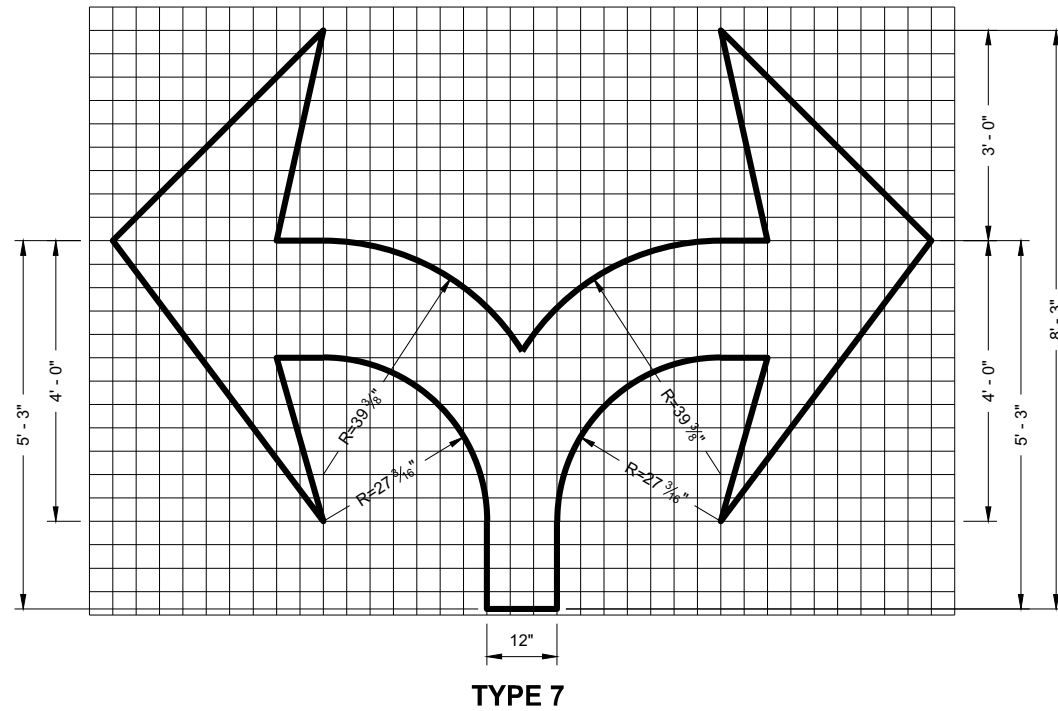
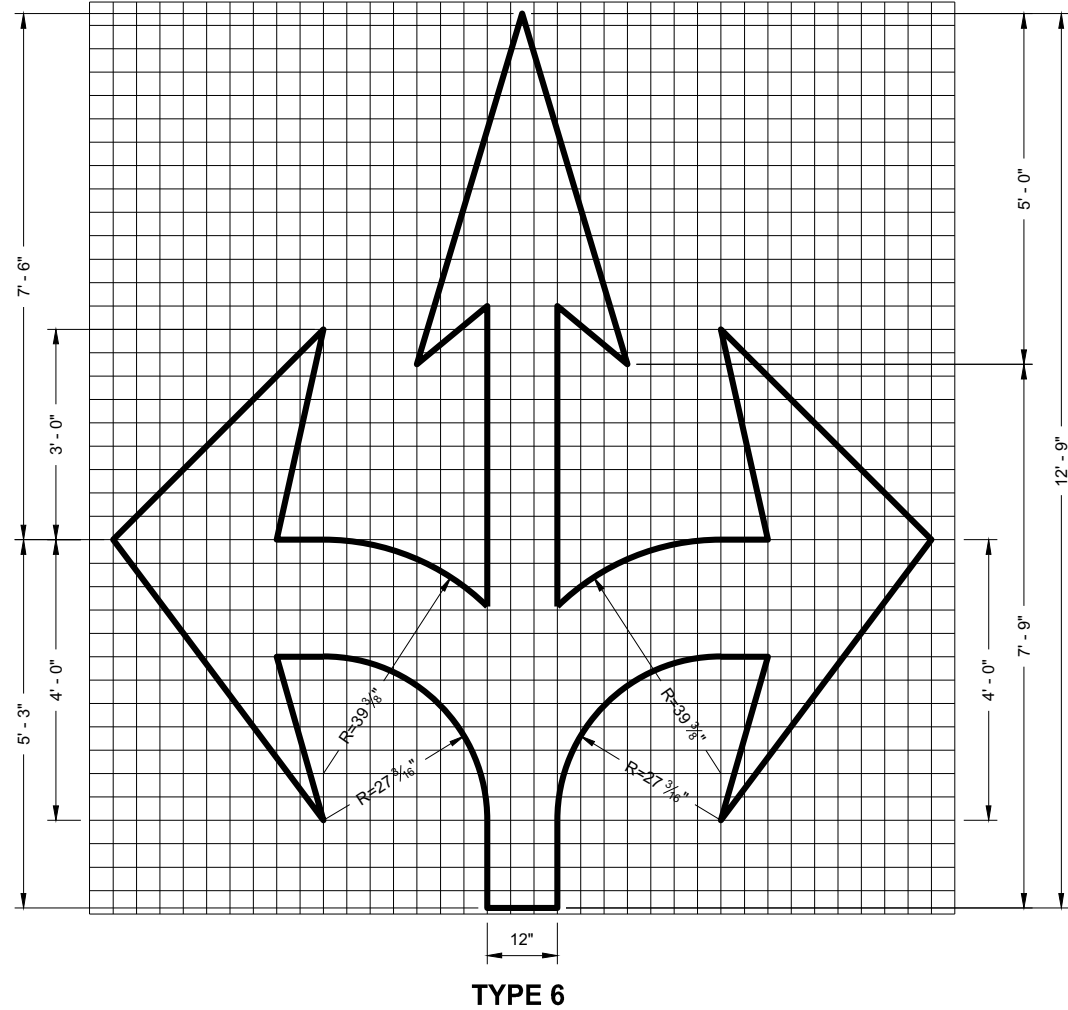
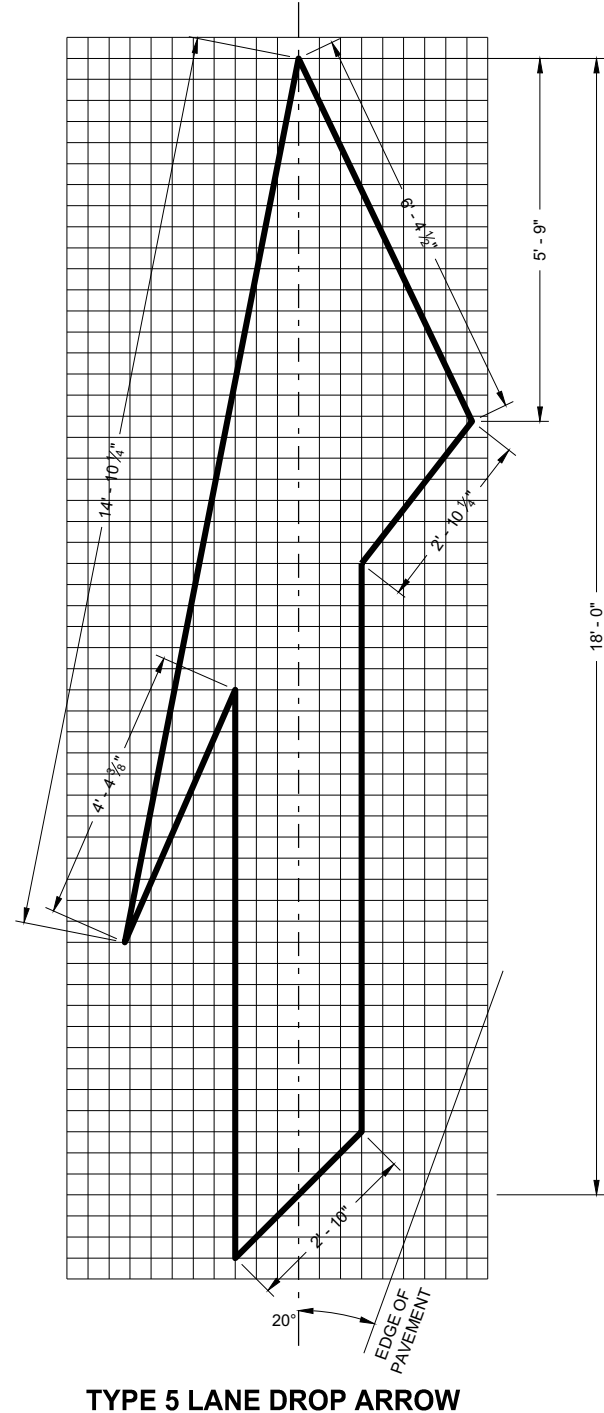
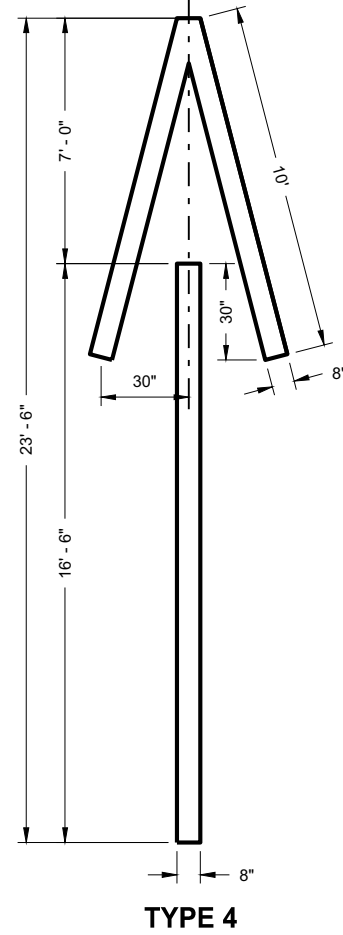
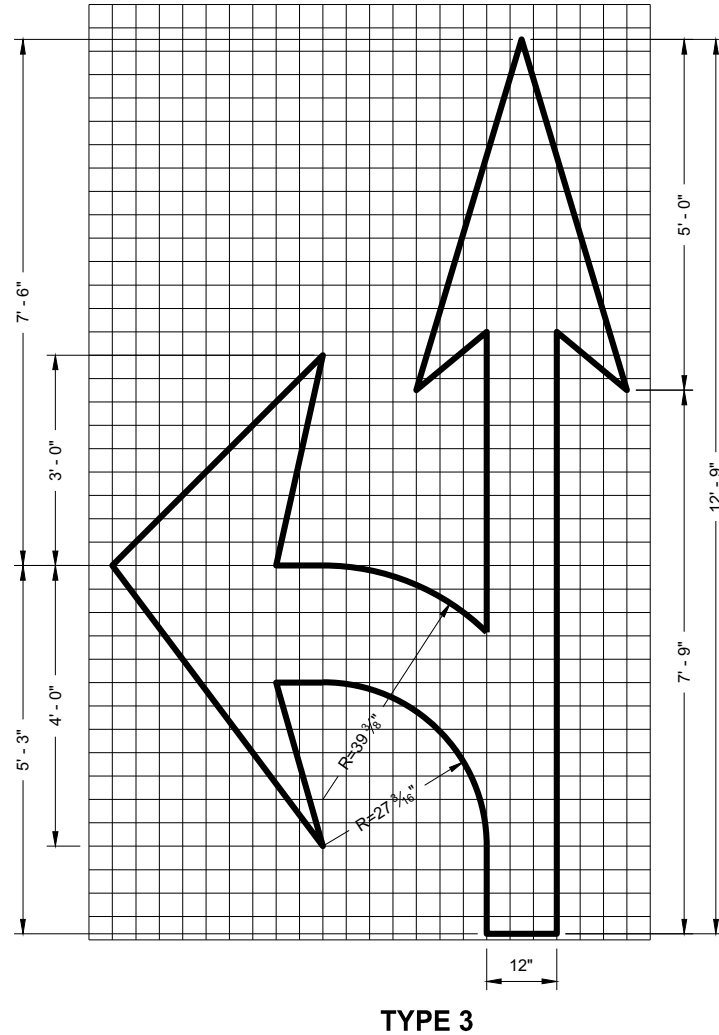
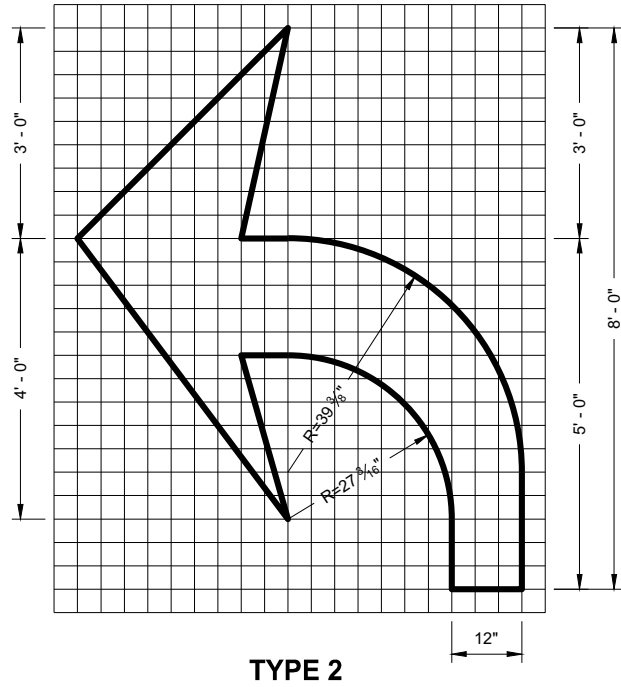
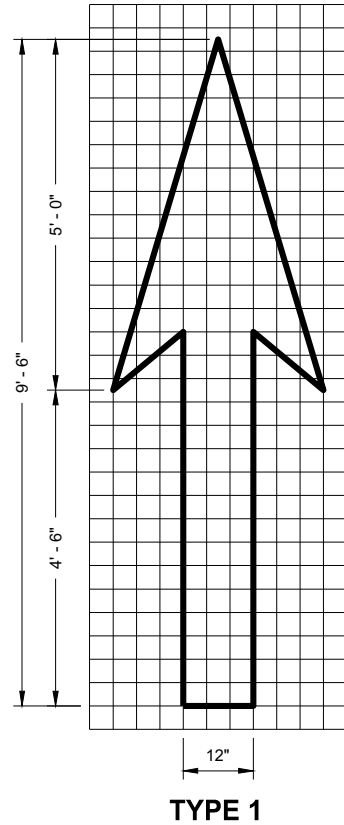
GENERAL NOTES

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PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 184
FHWA



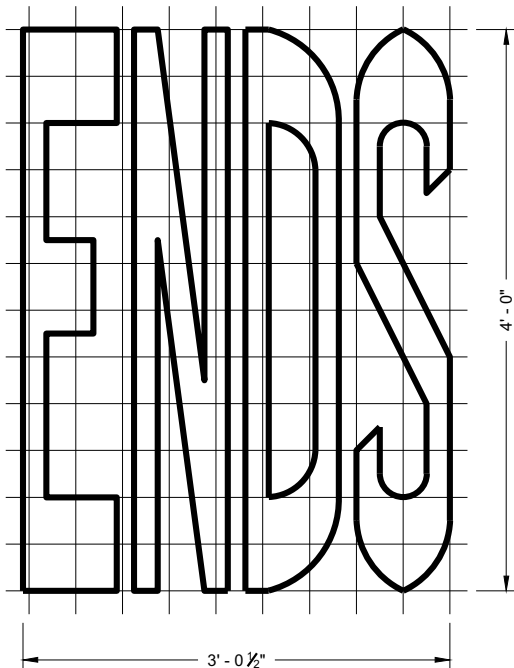
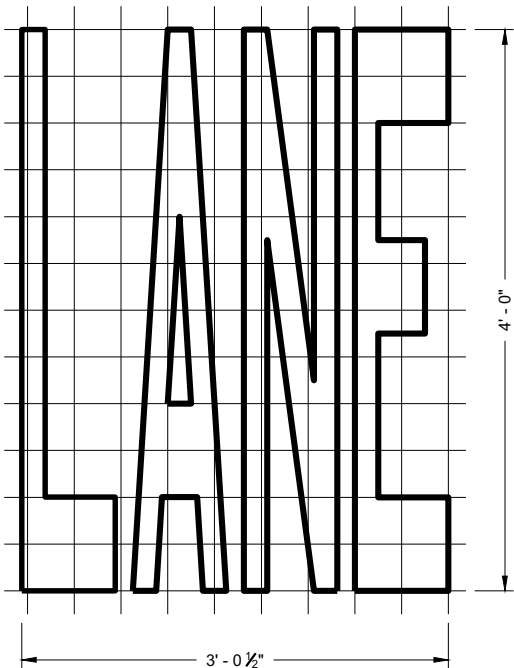
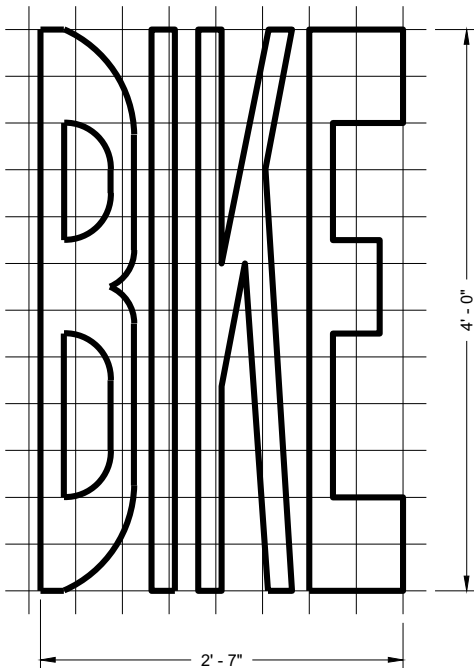
GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

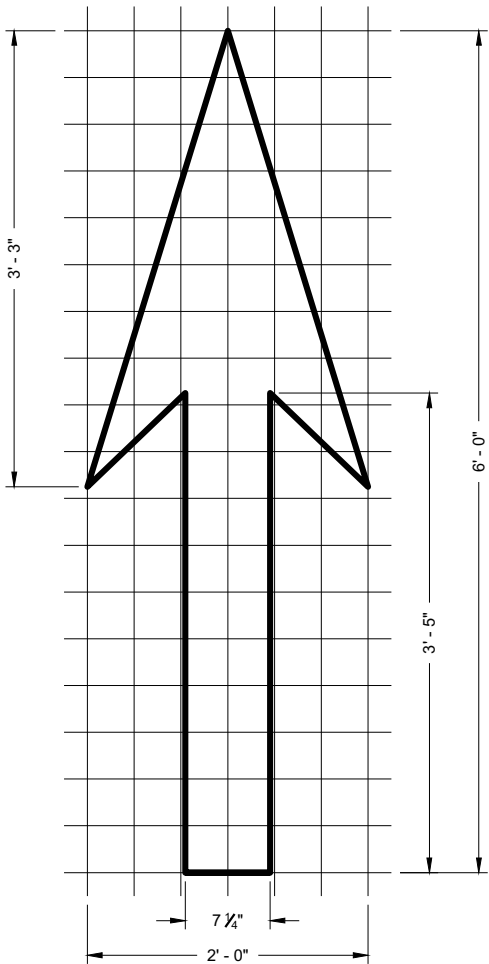
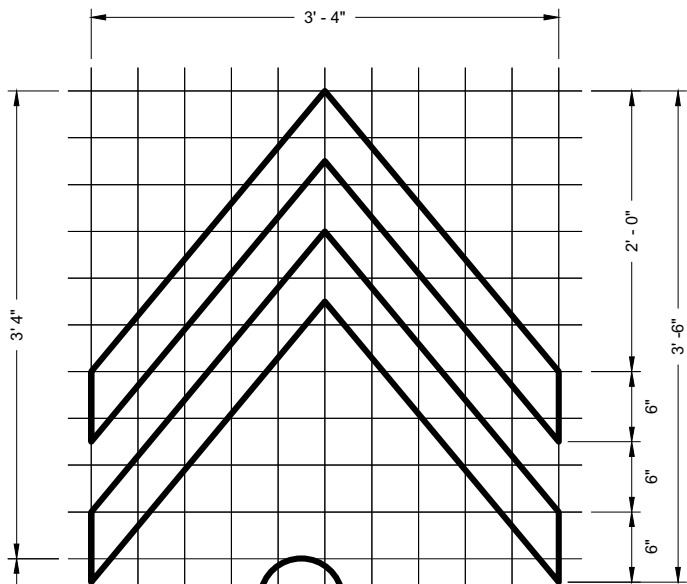
APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 185
FHWA



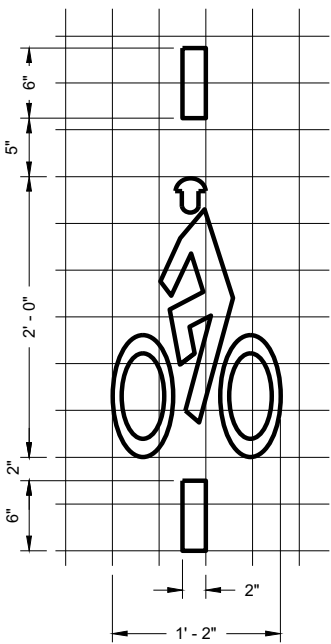
BIKE LANE WORDS

GENERAL NOTES

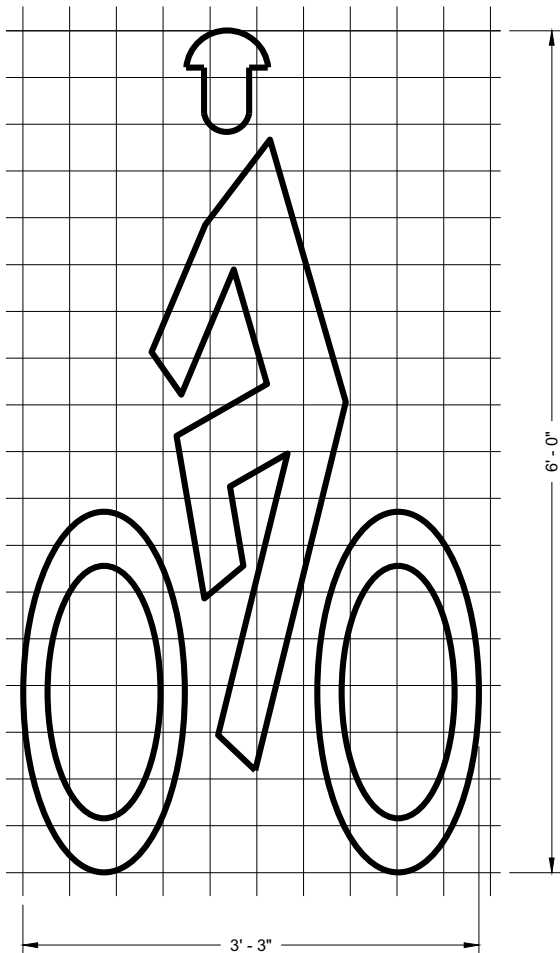
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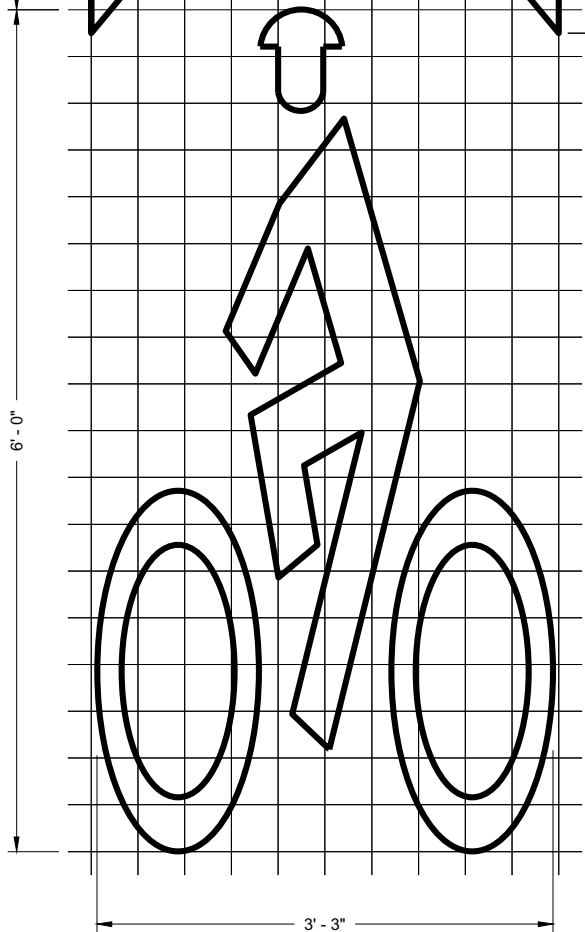
BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL



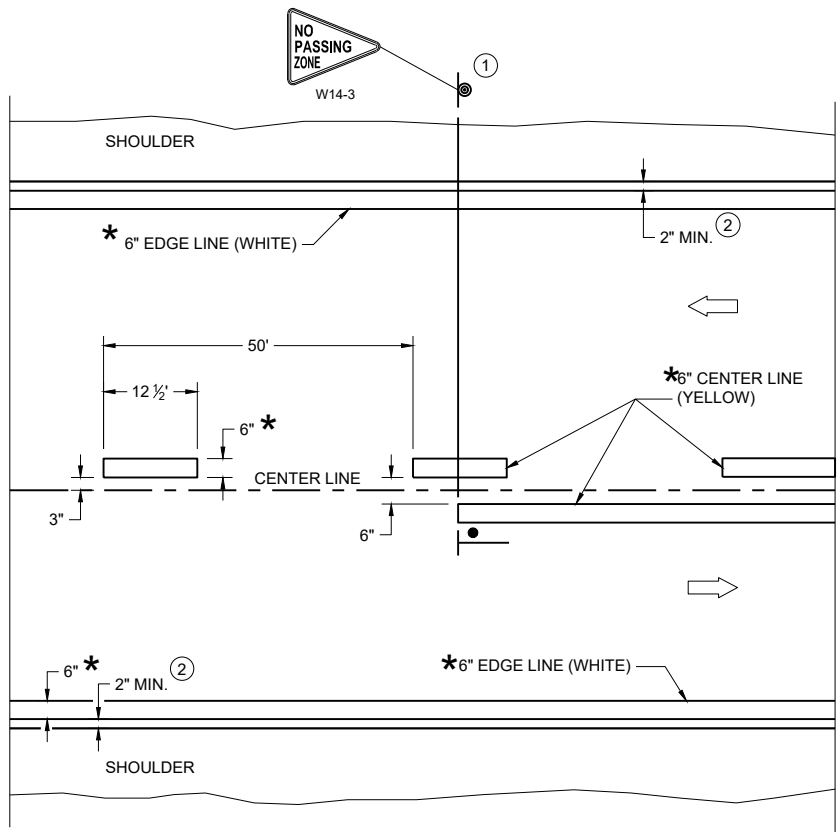
BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

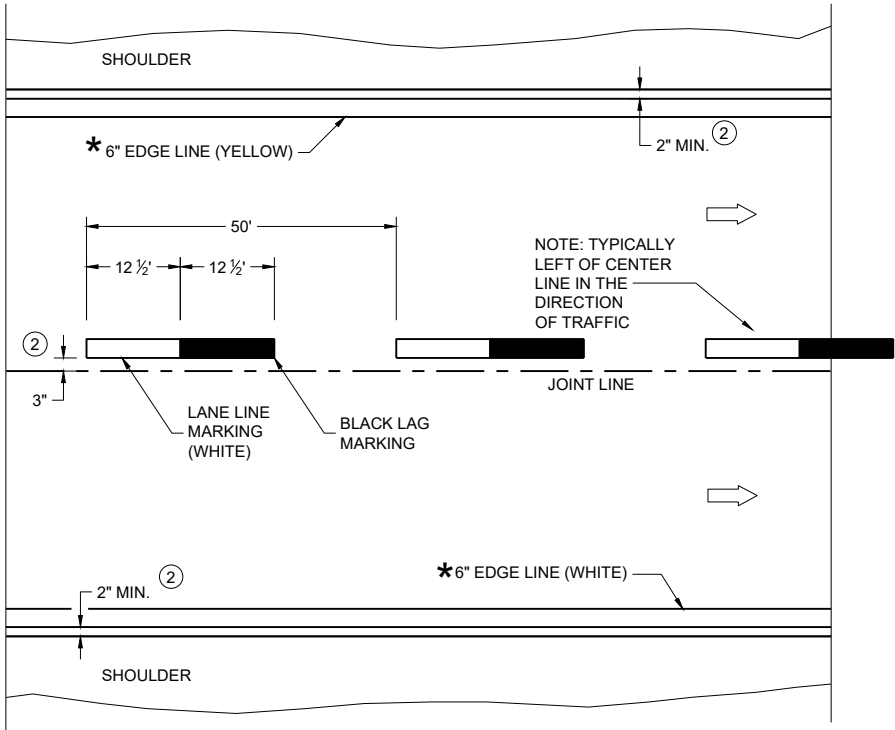
STATE OF WISCONSIN
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APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 186

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TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

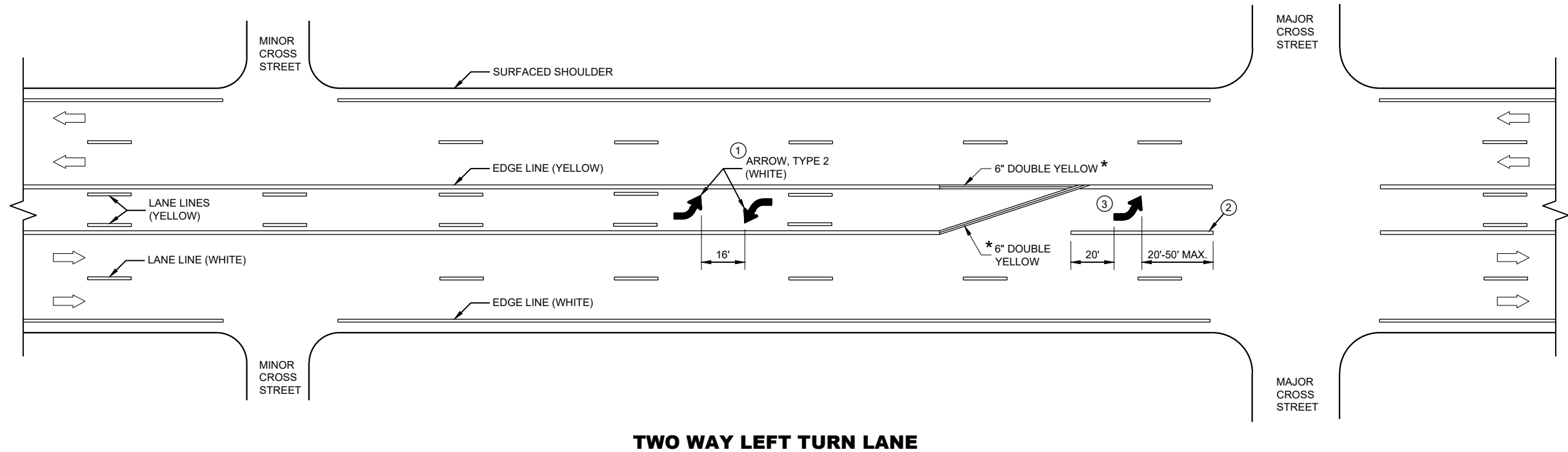
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 187	

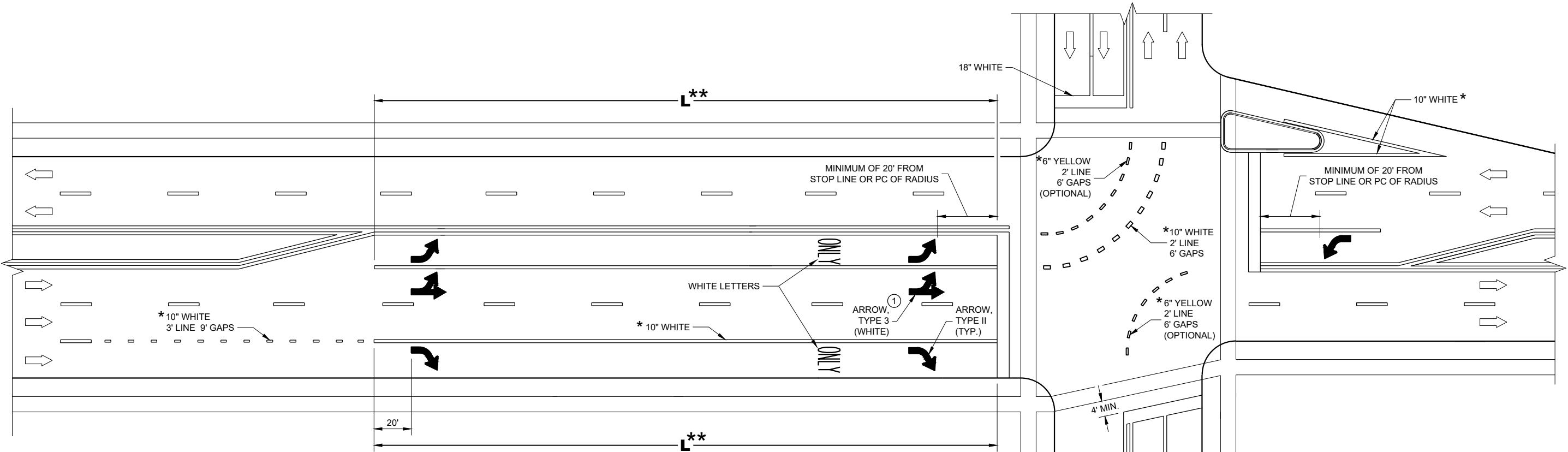


GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

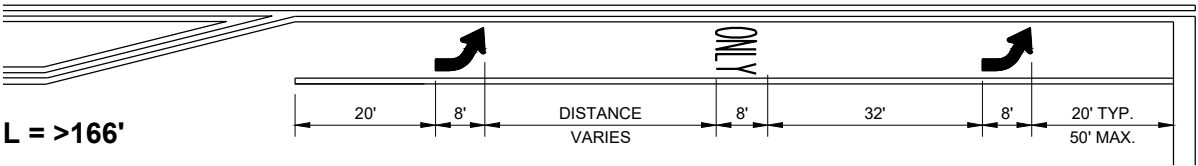
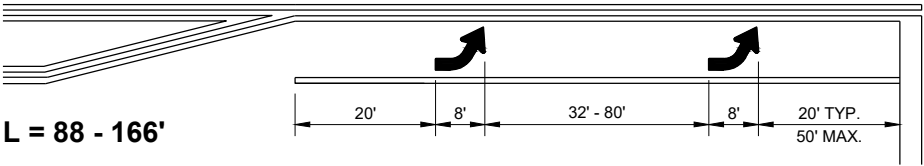
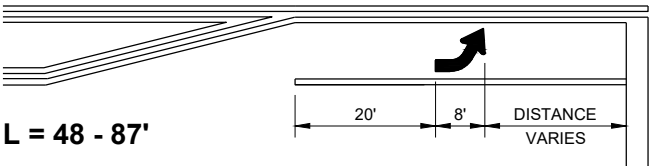
➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

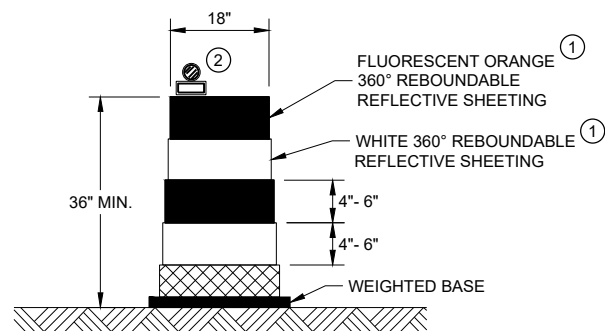
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

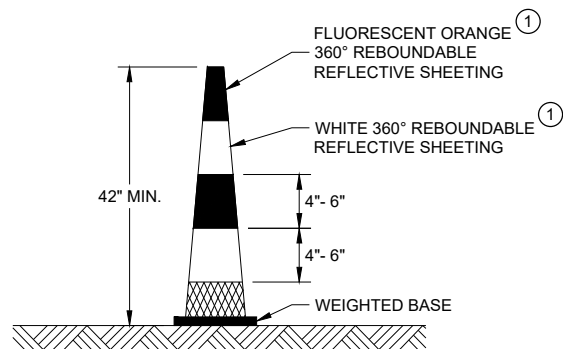
PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 189



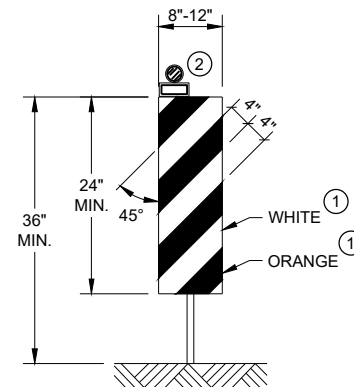
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



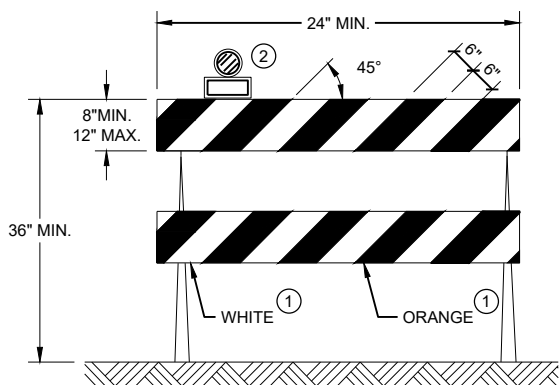
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



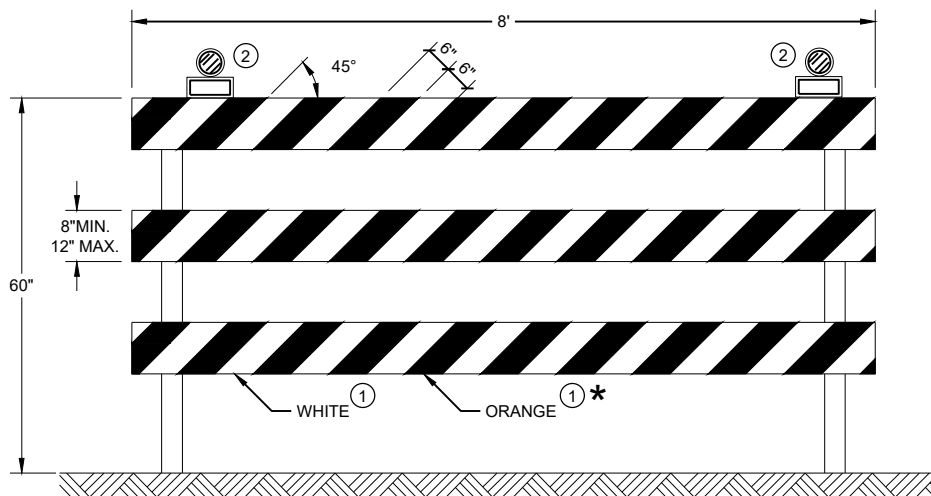
VERTICAL PANEL

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

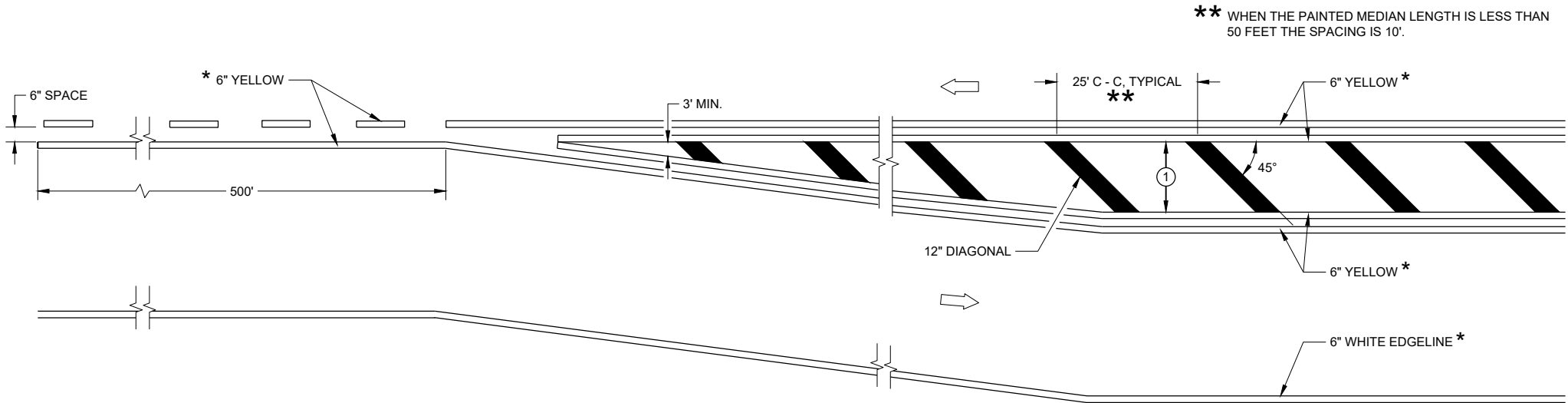
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

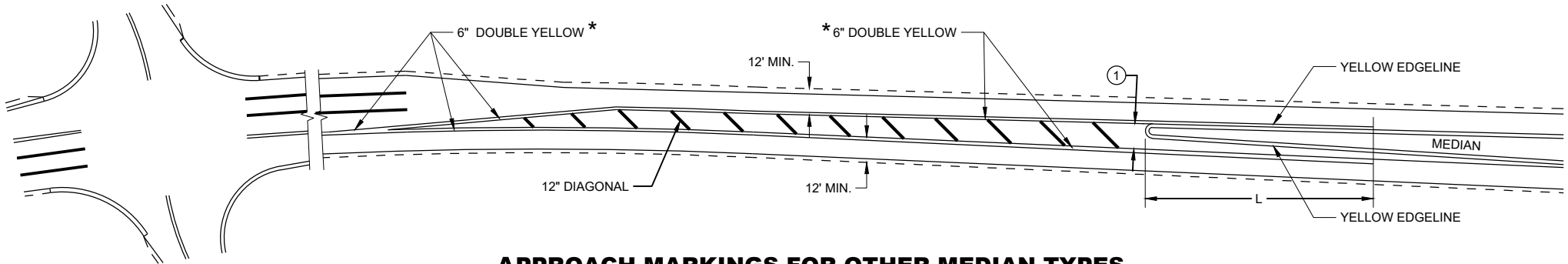
GENERAL NOTES

- 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.

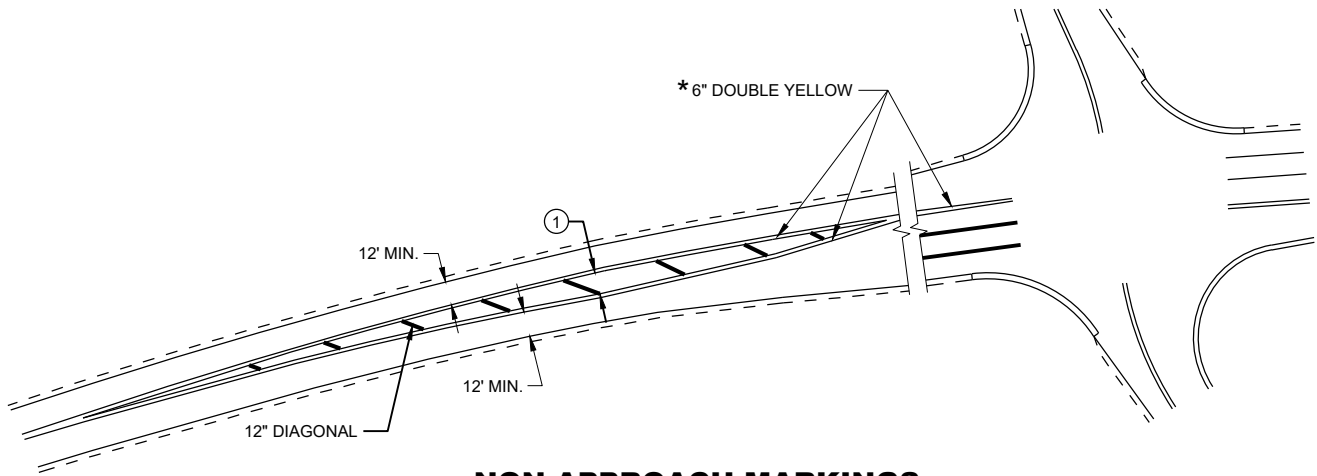
CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 190
FHWA	



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

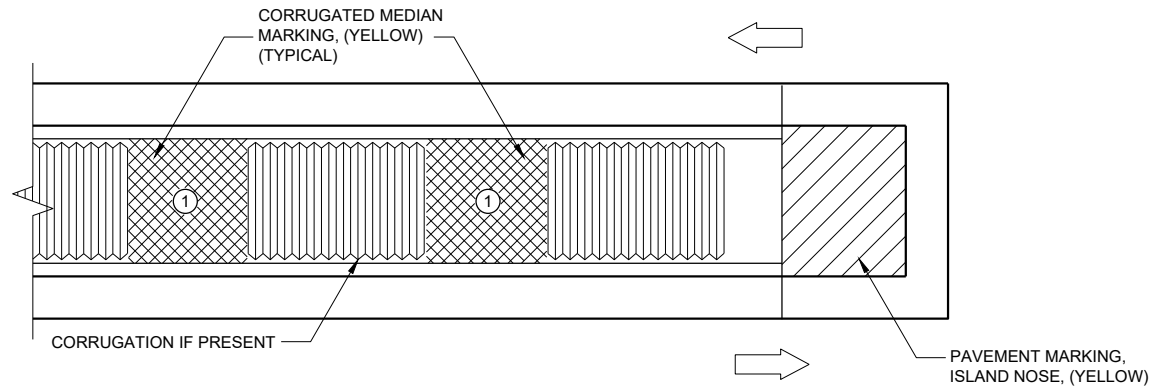
SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'

MEDIAN ISLAND PAVEMENT MARKINGS

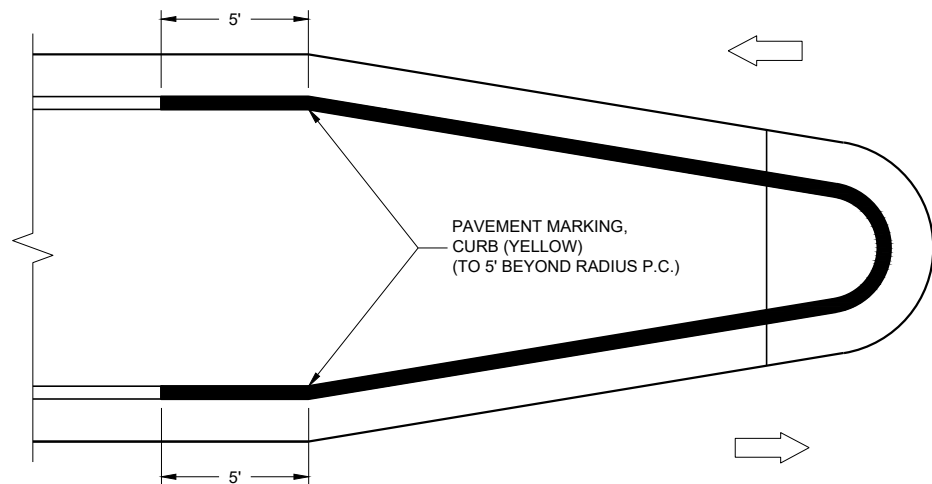
STATE OF WISCONSIN
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May 2023 /S/ Jeannie Silver
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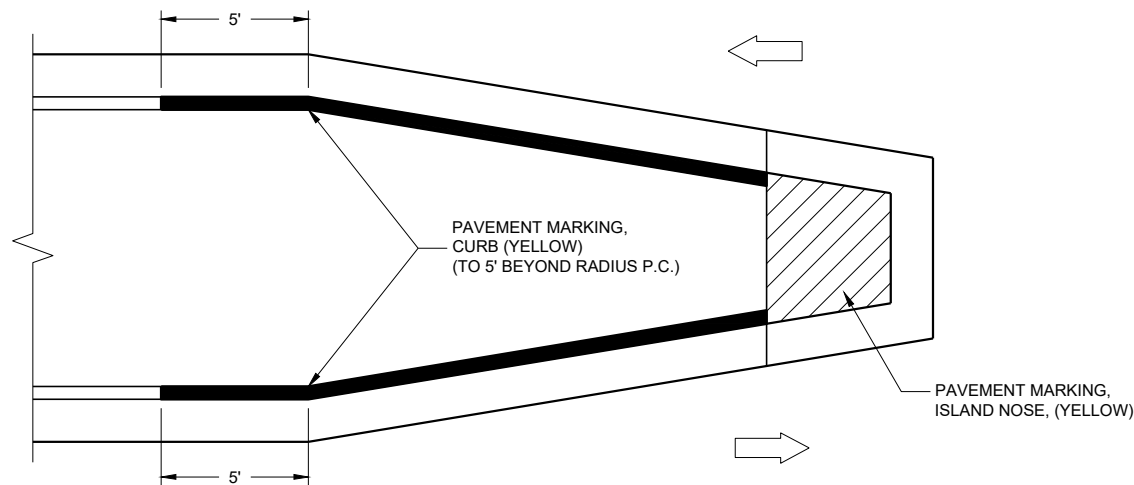
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MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

- ① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

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

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

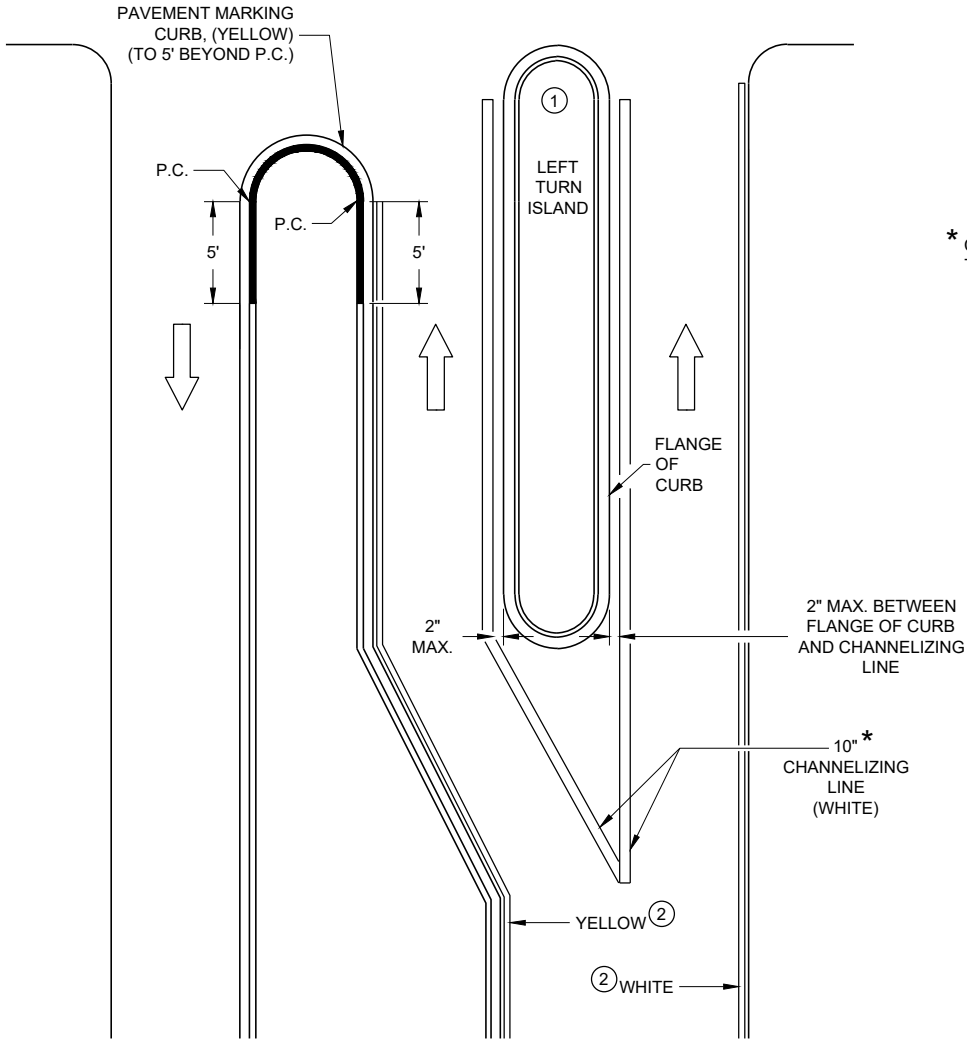
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REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



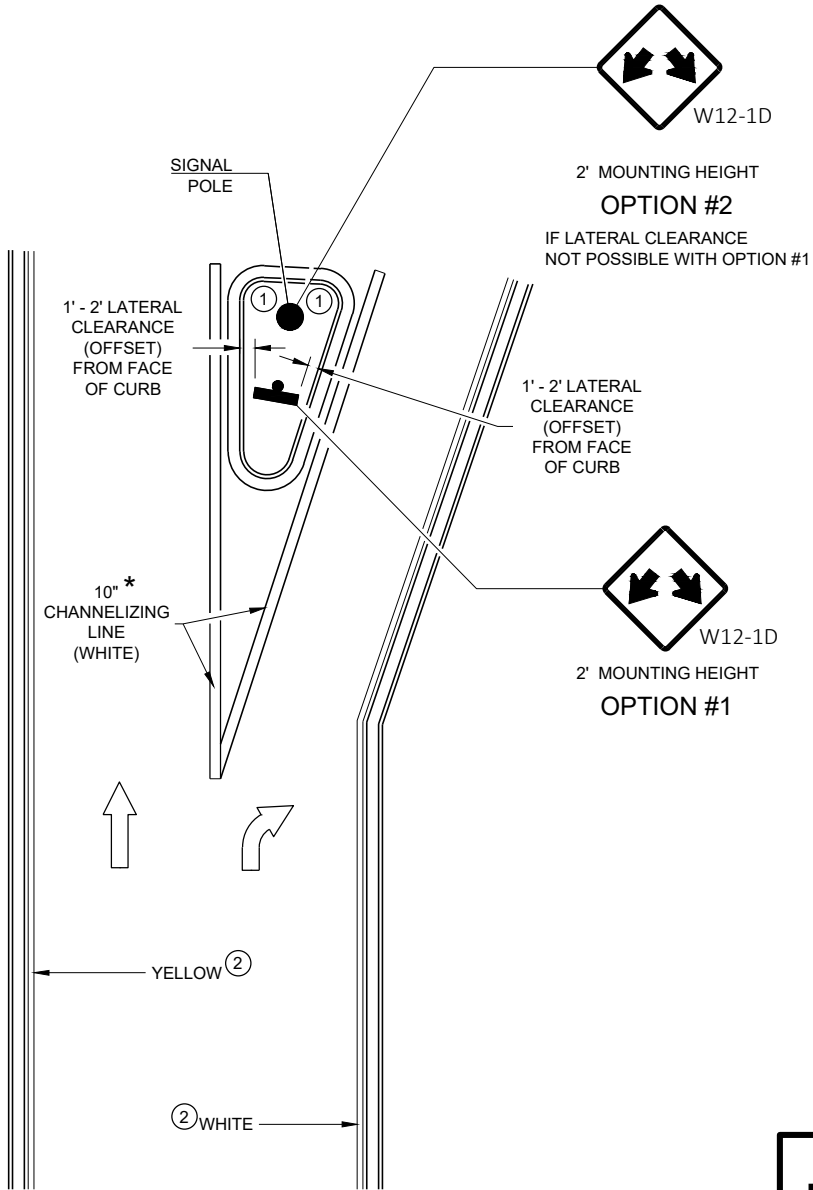
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.

➡ DIRECTION OF TRAVEL



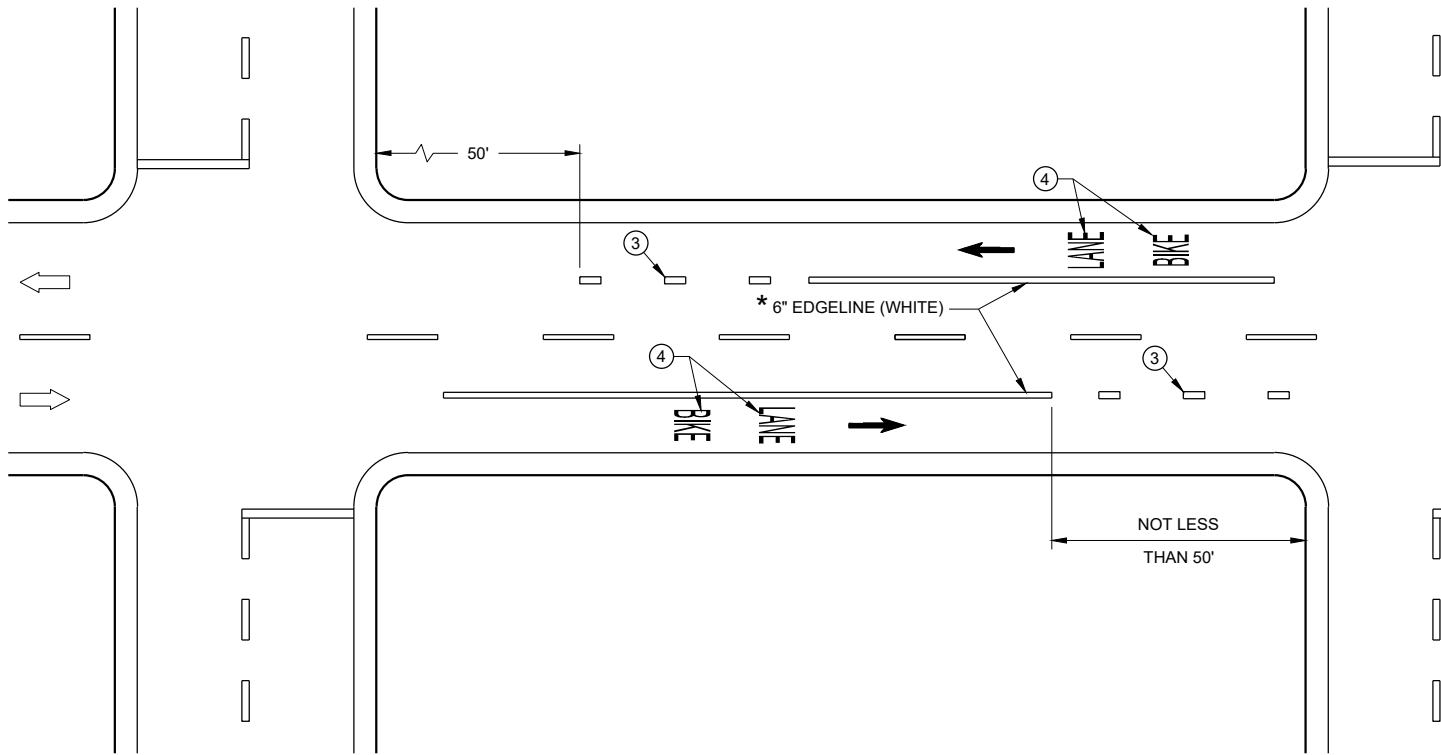
RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

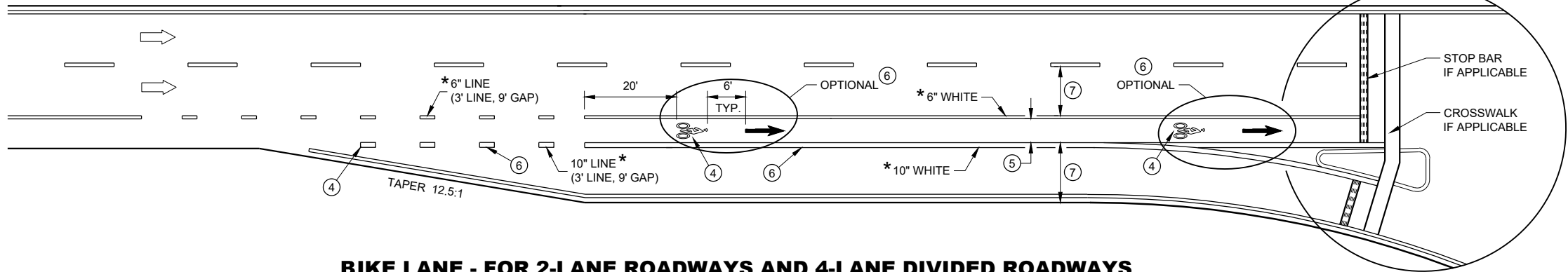
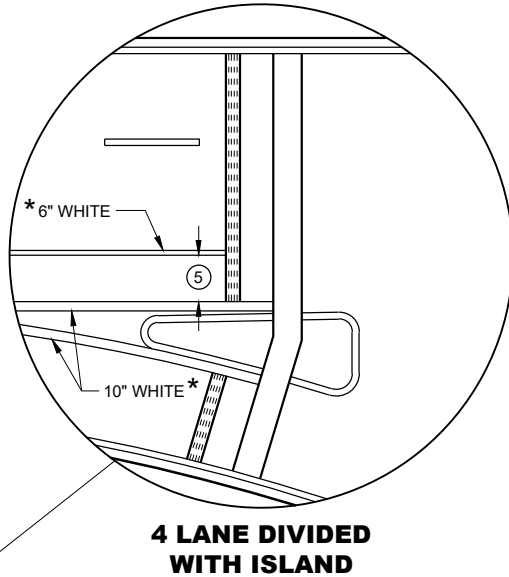
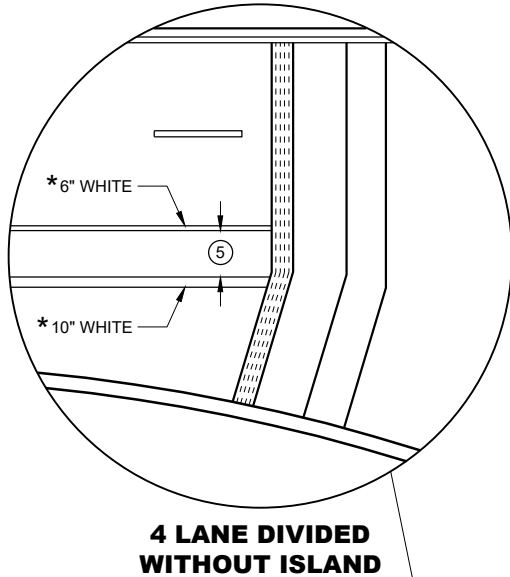
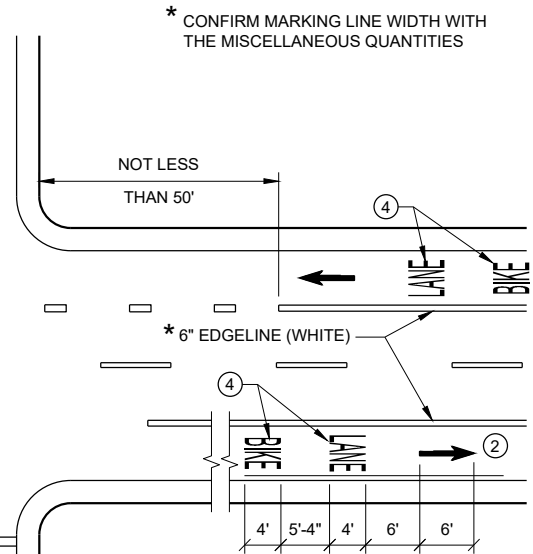
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DESIGNATED BIKE LANE - NO PARKING



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

GENERAL NOTES

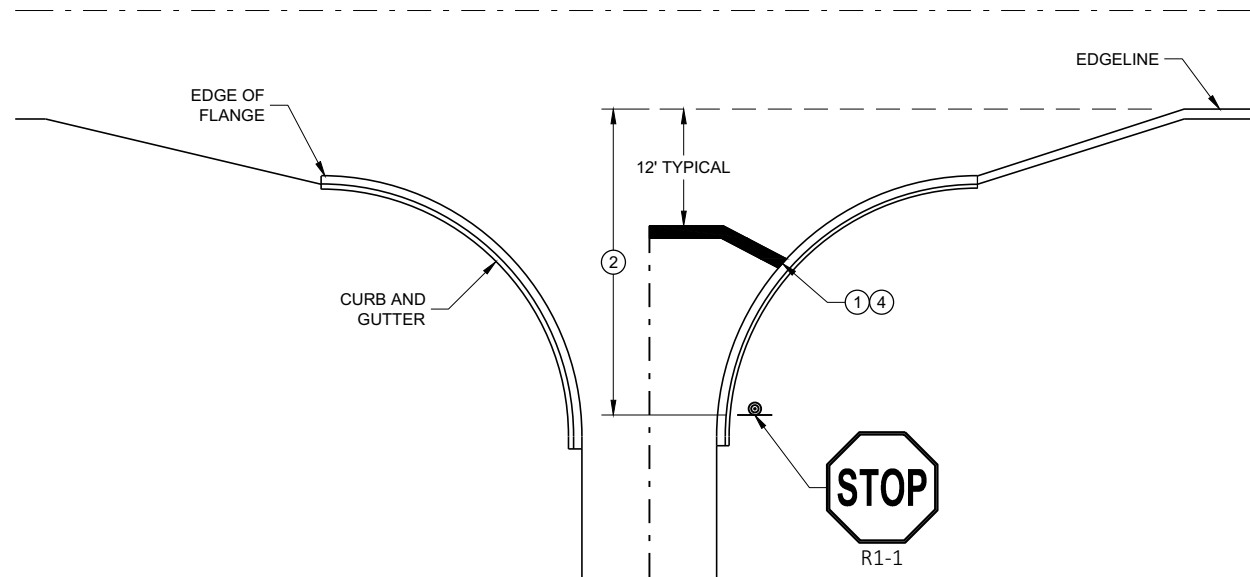
- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- 2 MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- 3 DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- 4 BIKE SYMBOLS OR WORDS MAY BE USED.
- 5 BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
- 6 OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
- 7 REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

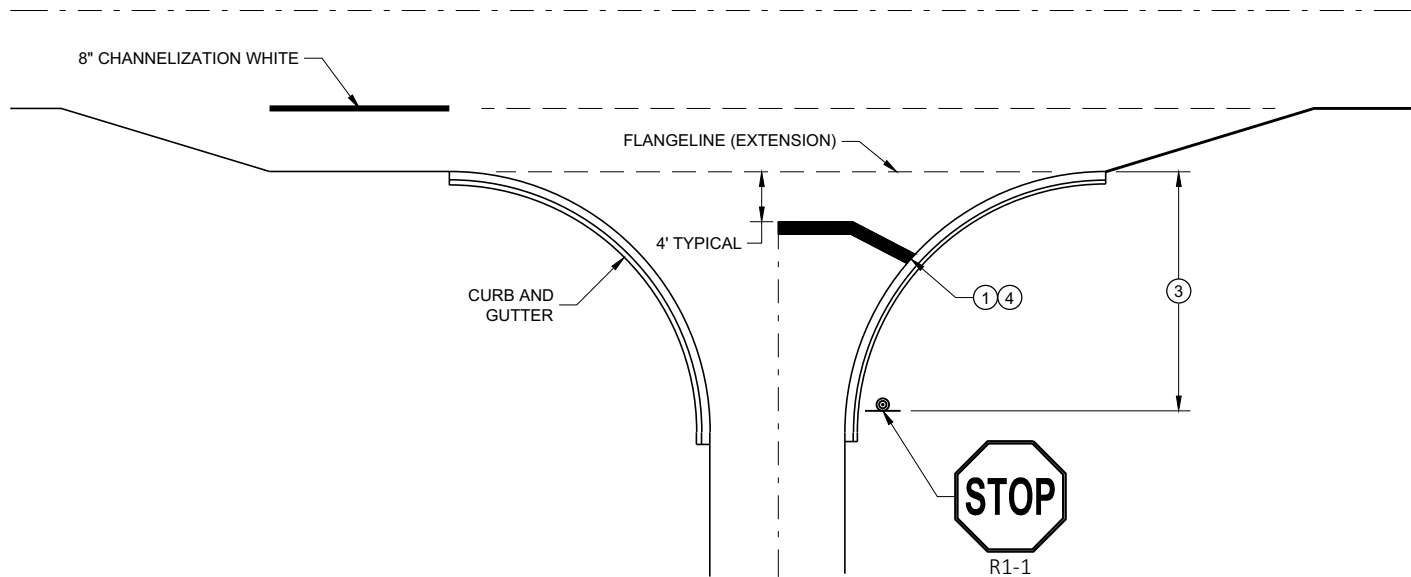
BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

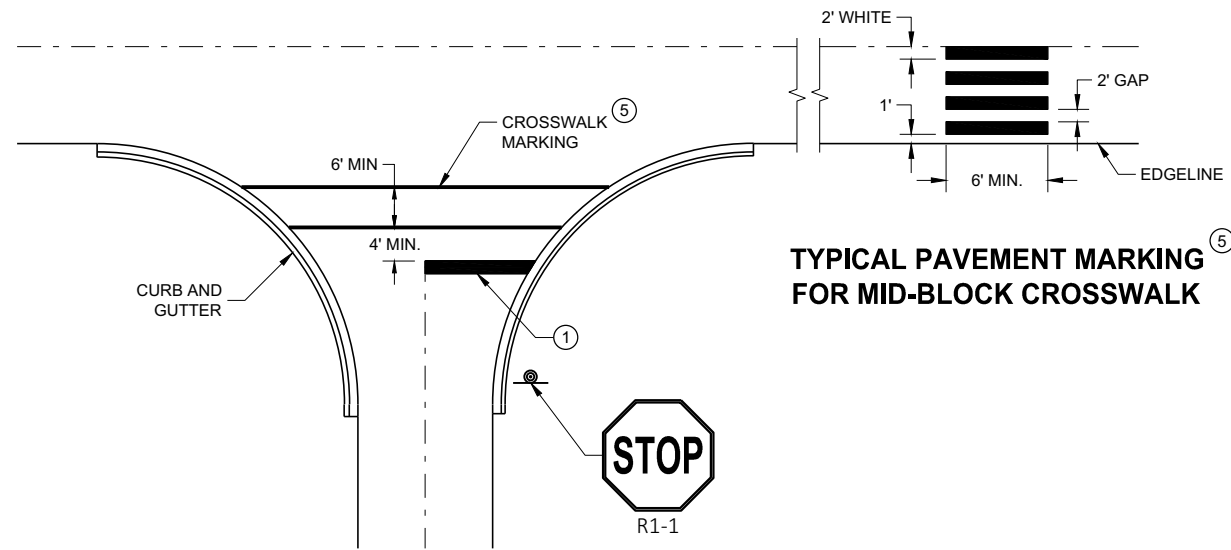
APPROVED
May 2023 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 194
FHWA



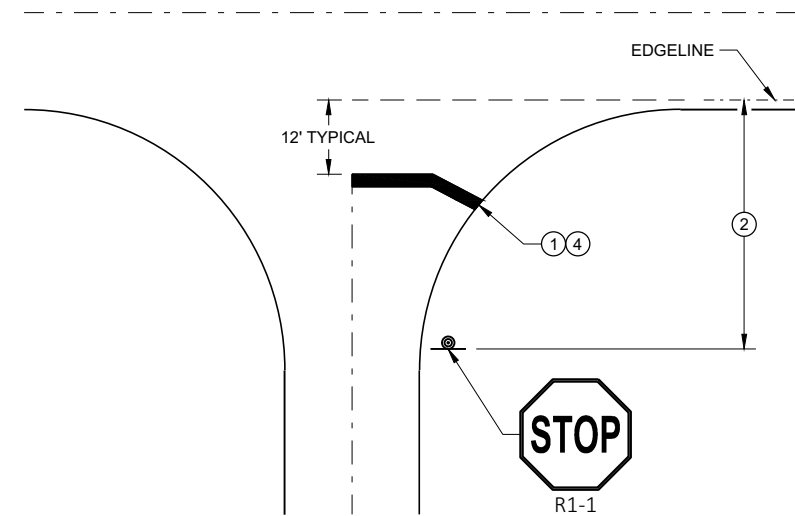
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

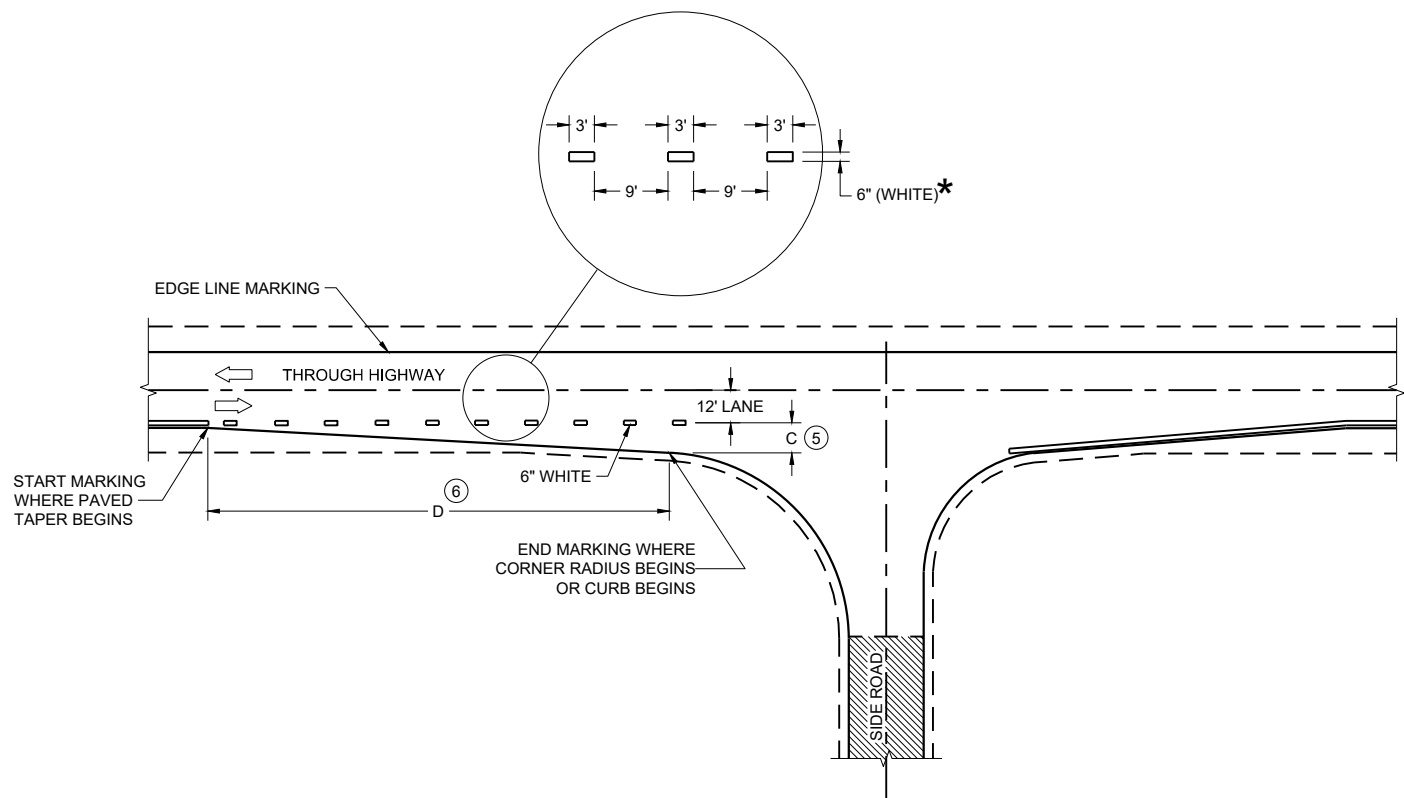
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- 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 EDGE LINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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 INSTEAD.

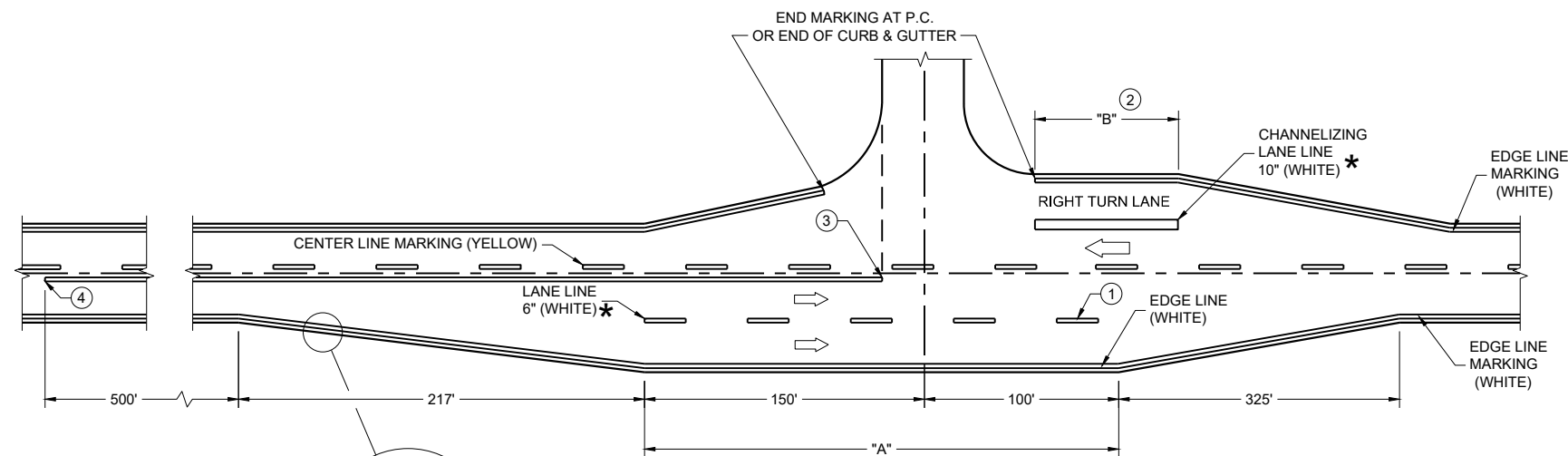
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 195
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MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

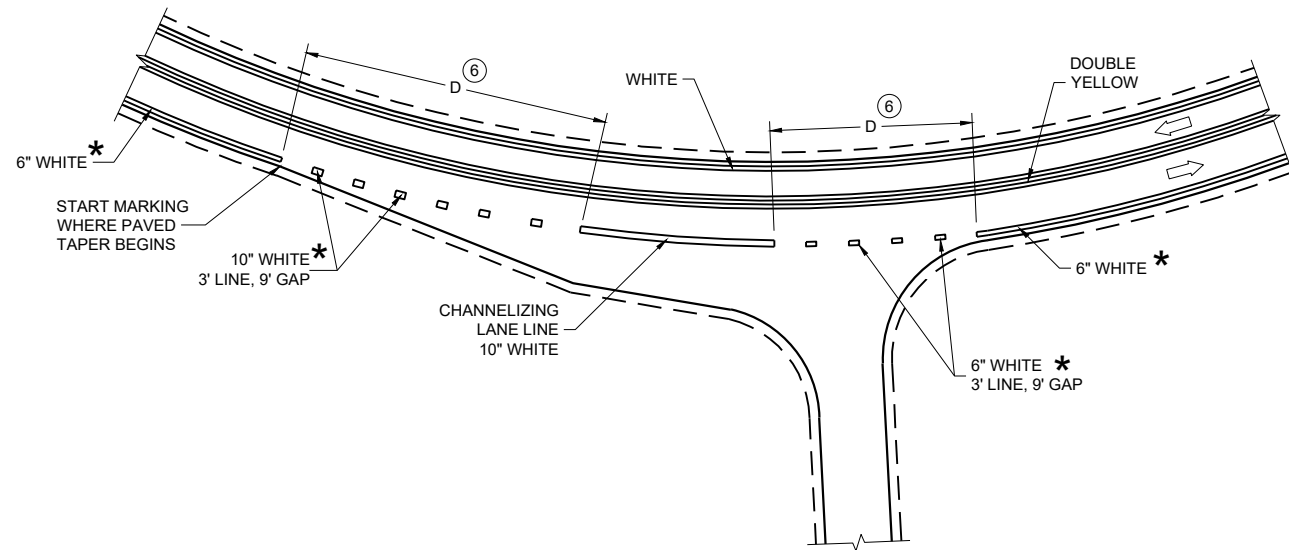
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

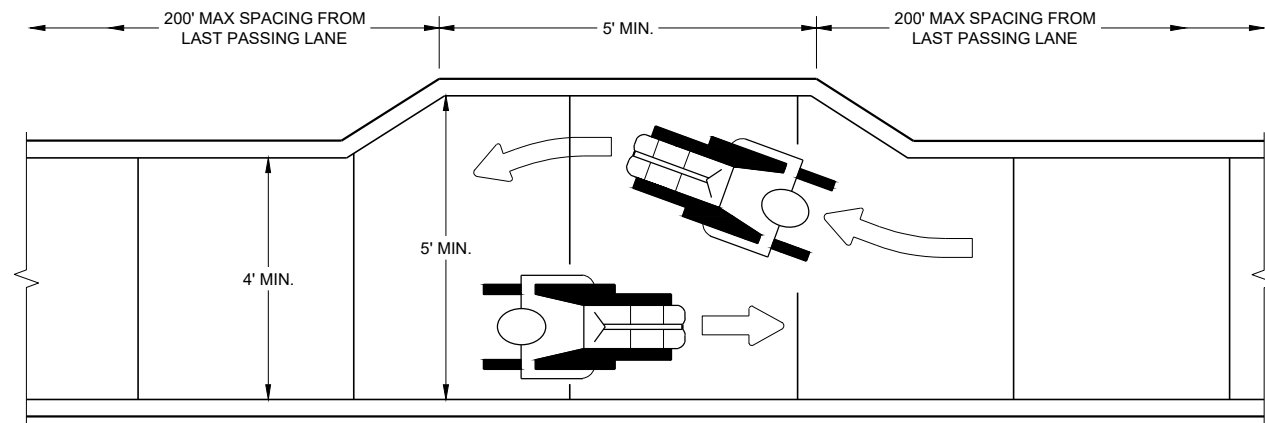
➡ DIRECTION OF TRAVEL



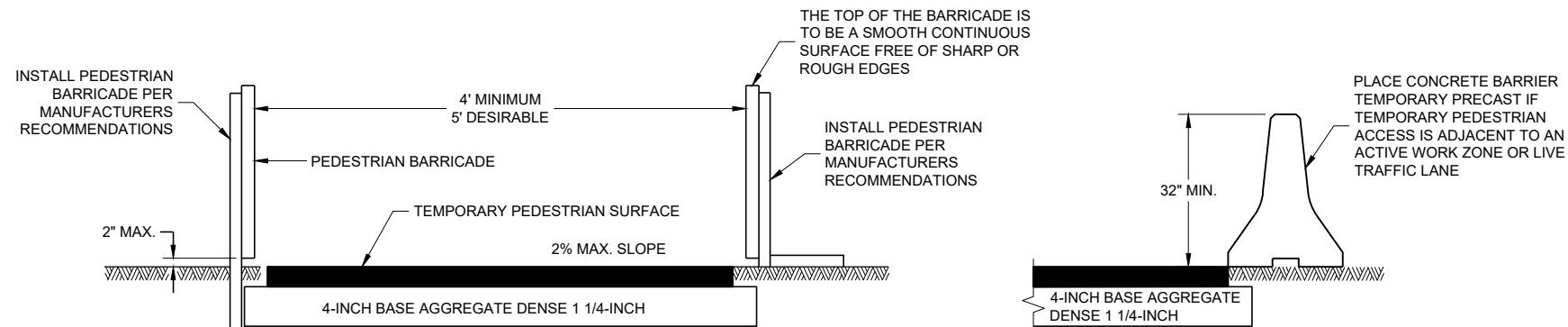
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NARROW SIDEWALK PASSING DETAIL



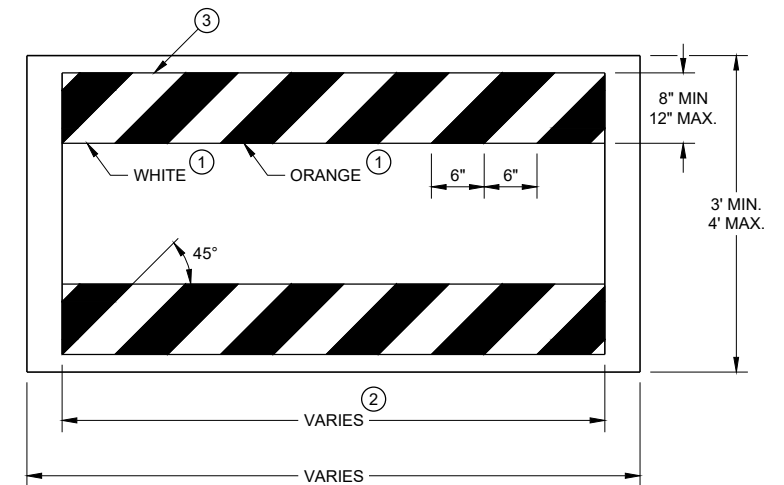
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

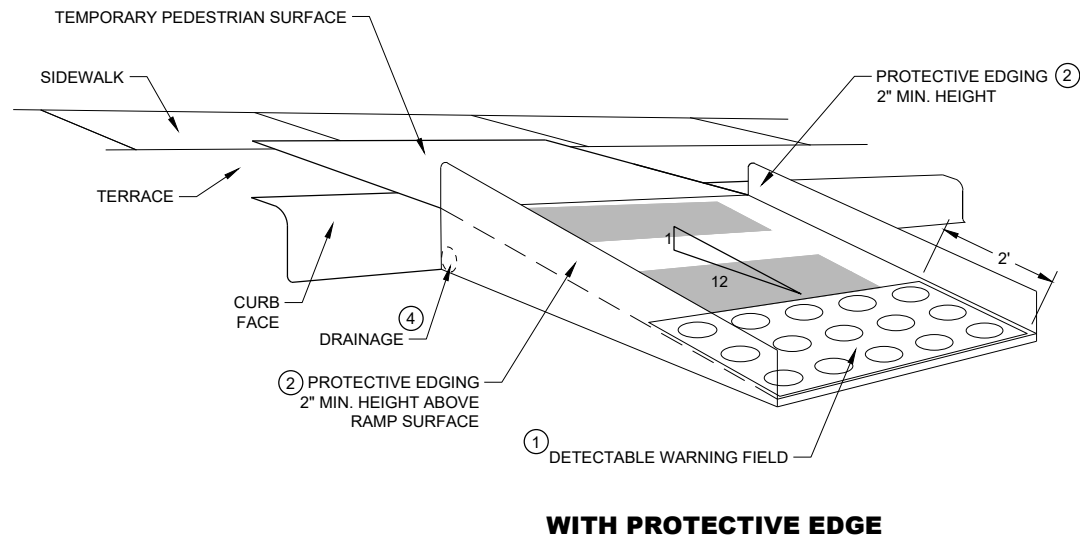
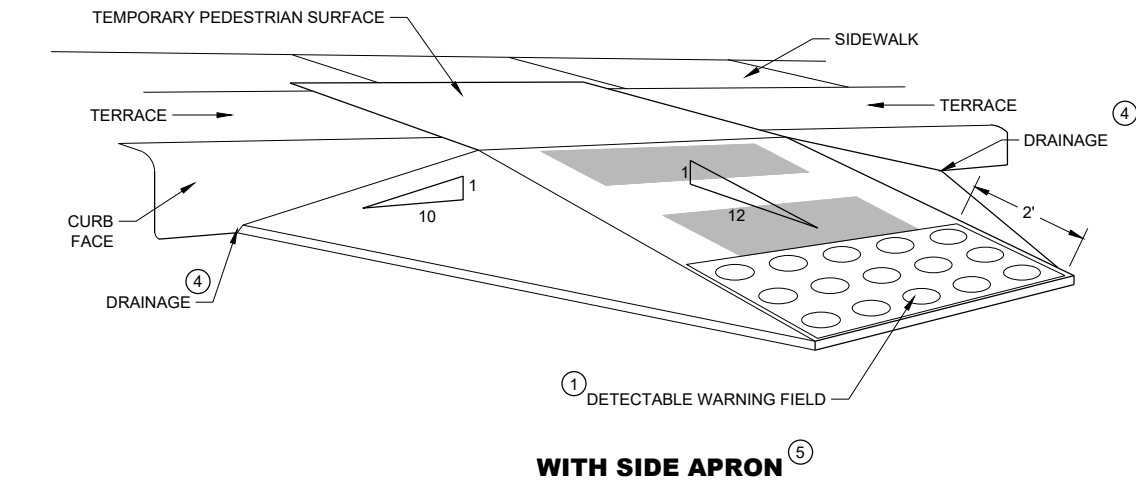


TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY CURB RAMP PARALLEL TO CURB

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.

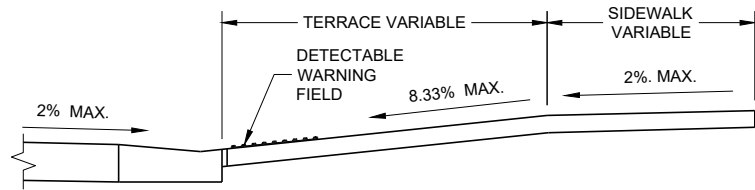


TEMPORARY CURB RAMP PERPENDICULAR TO CURB

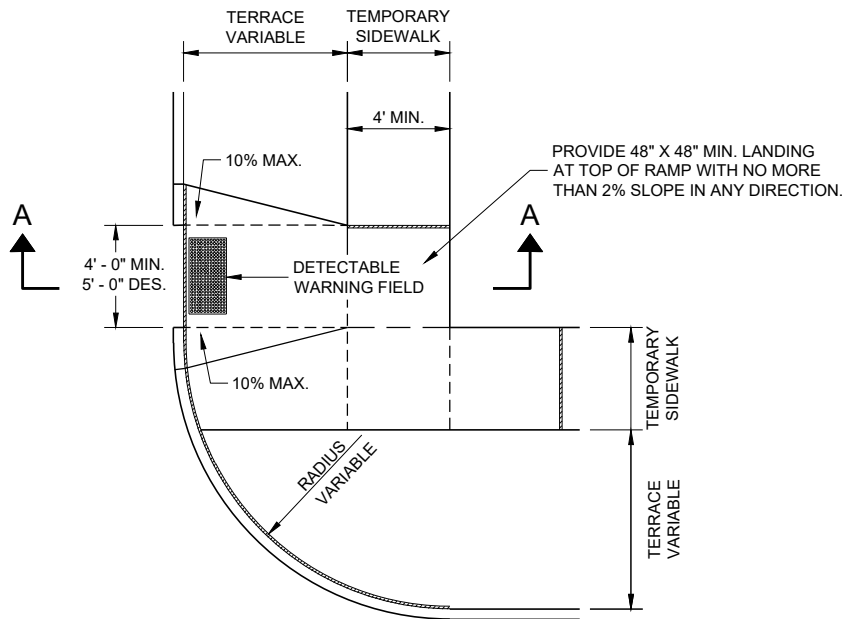
GENERAL NOTES

- CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.



SECTION A - A



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

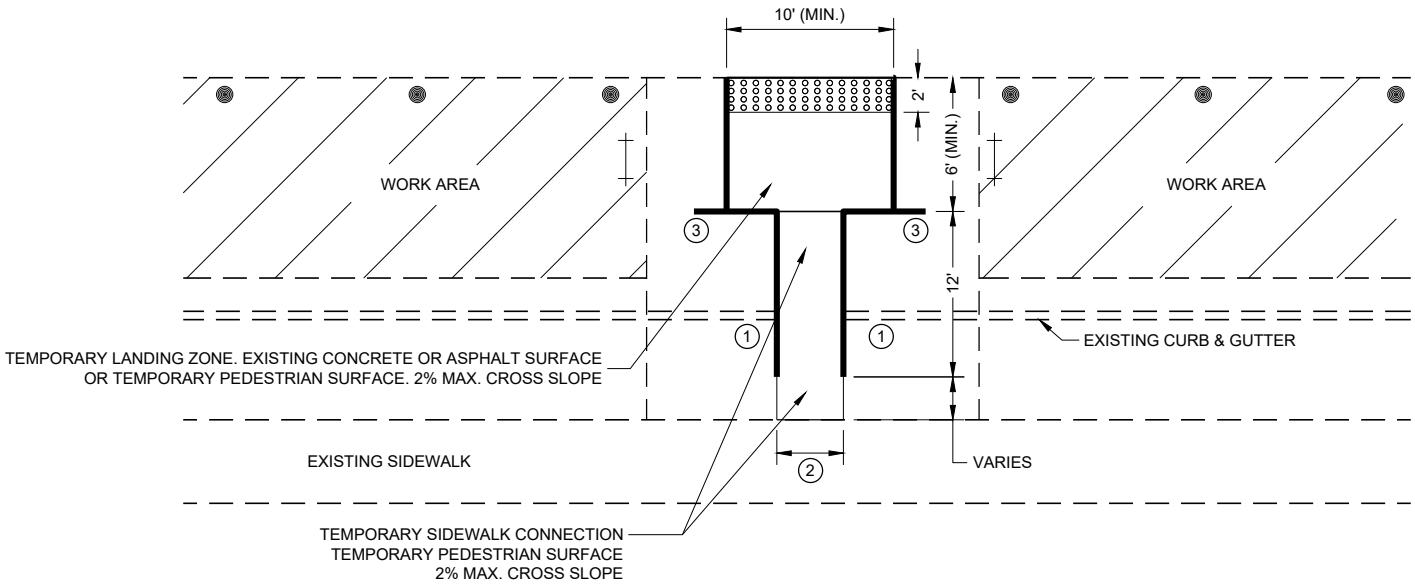
GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
 - ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
 - ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

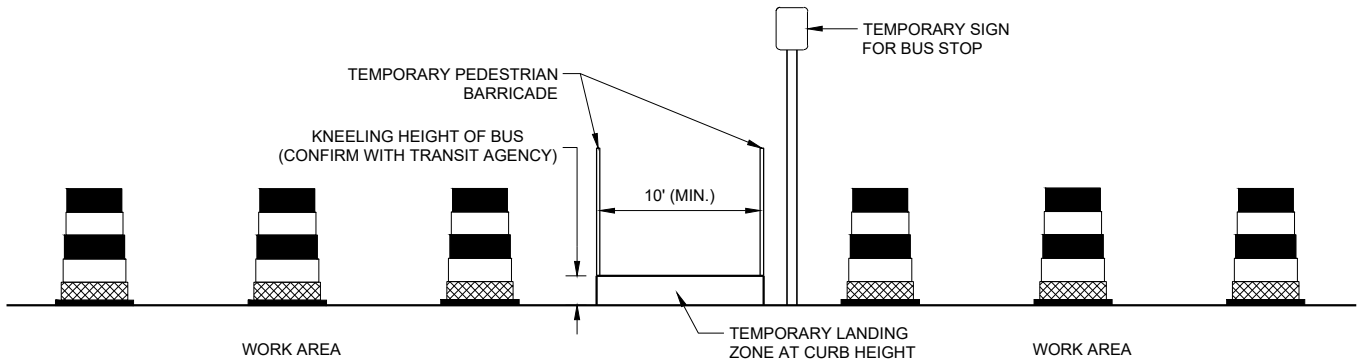
TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 200
FHWA



PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ⊞ TEMPORARY DETECTABLE WARNING FIELD
- ▨ WORK AREA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

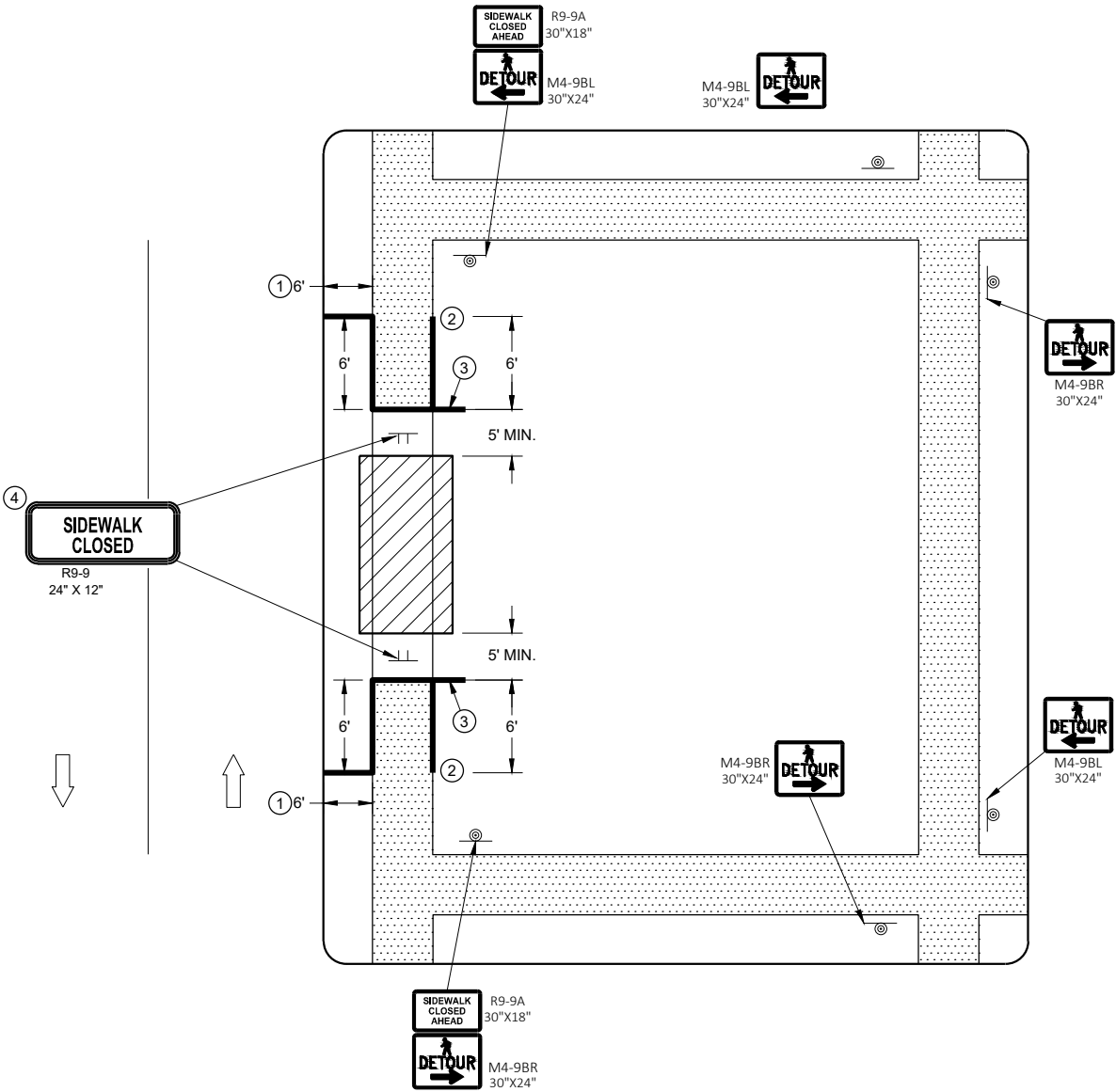
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- 1 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 2 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 3 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 4 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

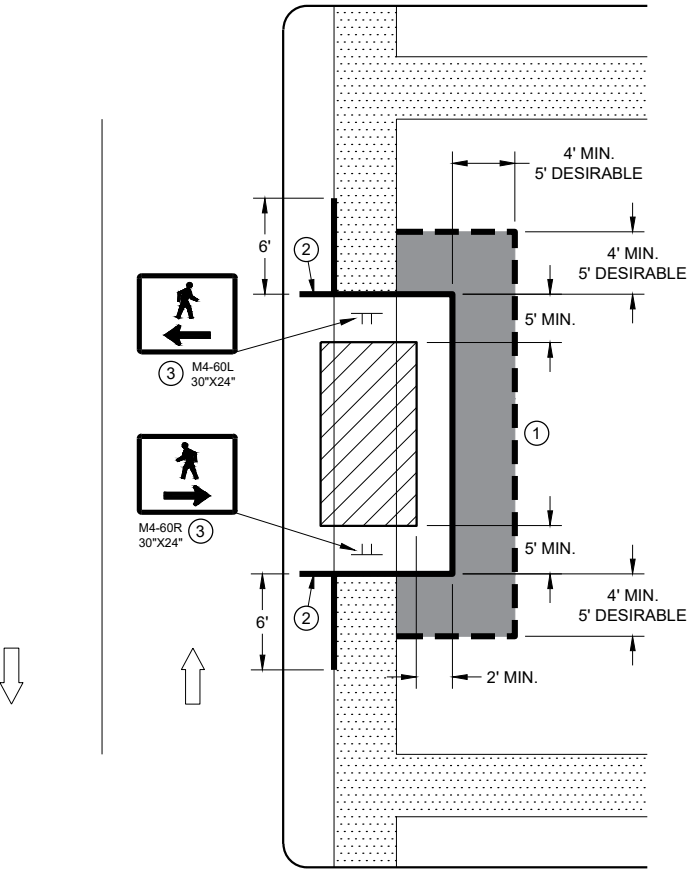
GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ①

USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ②

IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③

MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



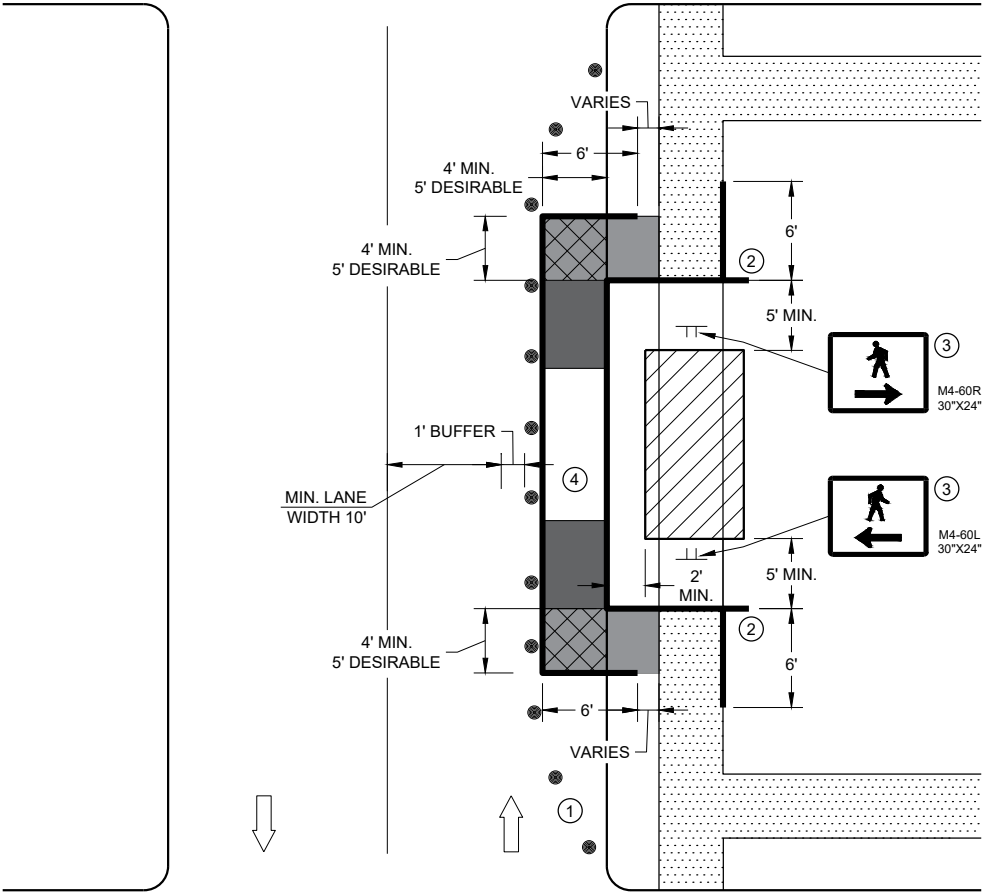
SIDEWALK DIVERSION
SINGLE SIDE

LEGEND

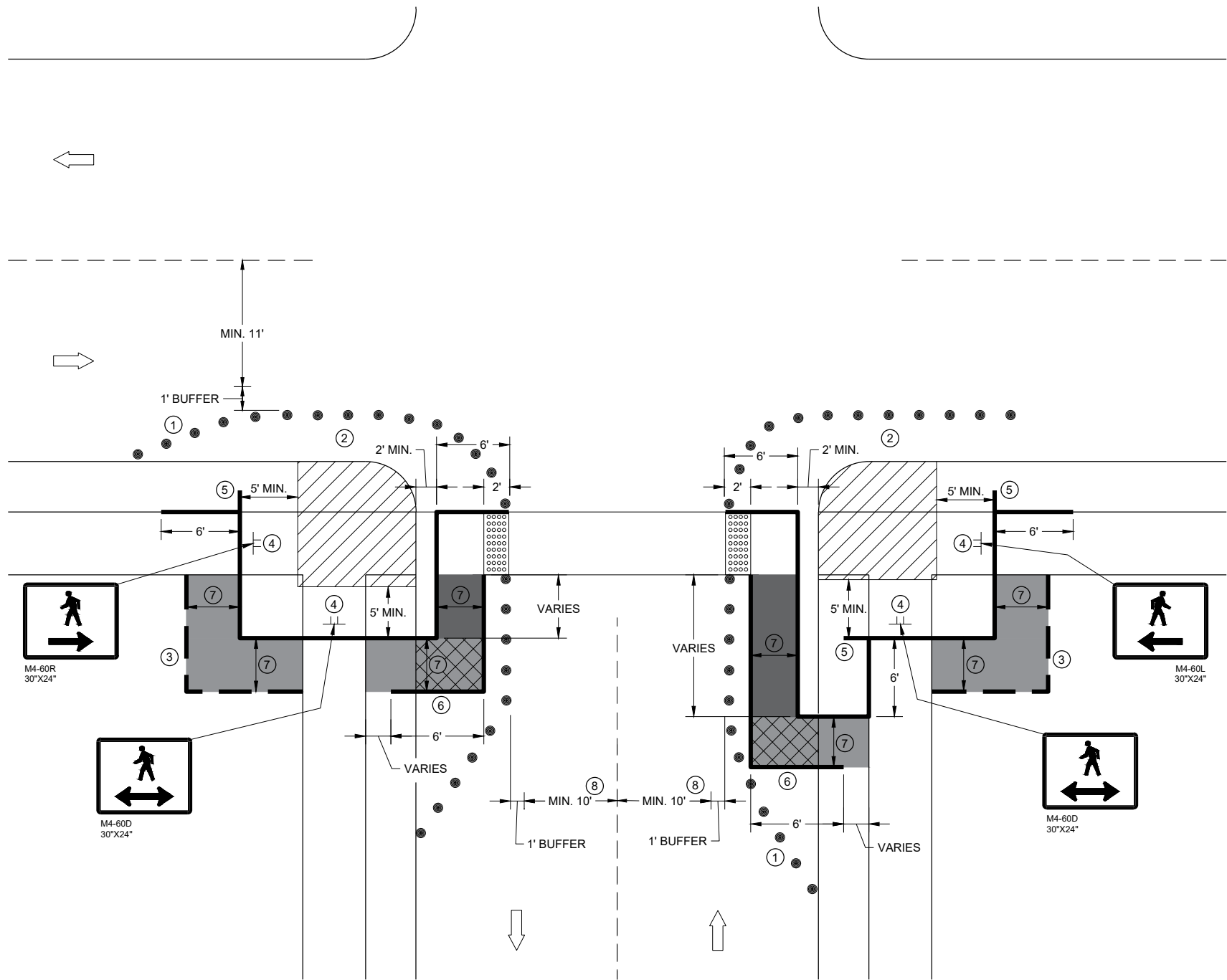
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
 - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
 - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
 - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE**

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

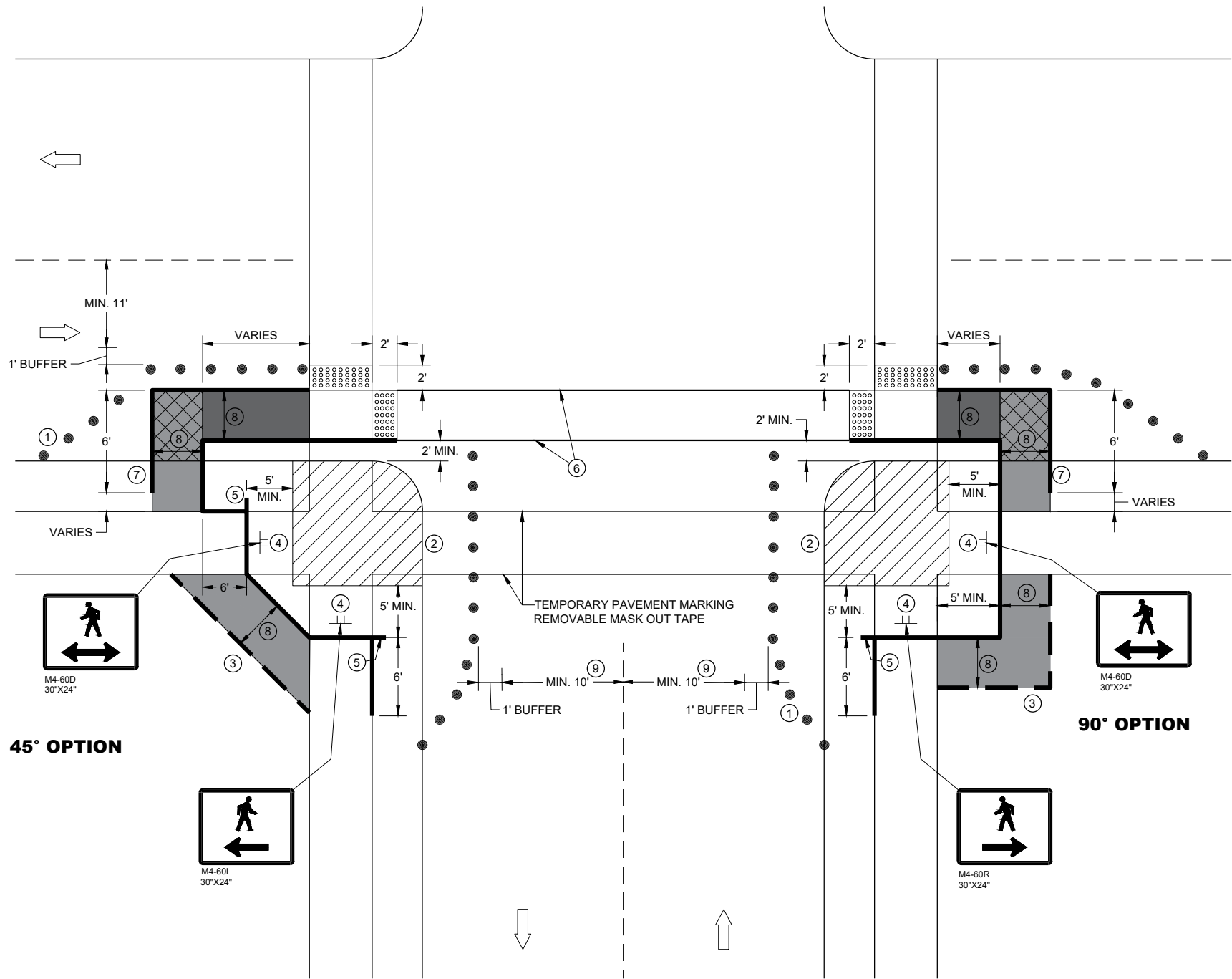
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 205



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

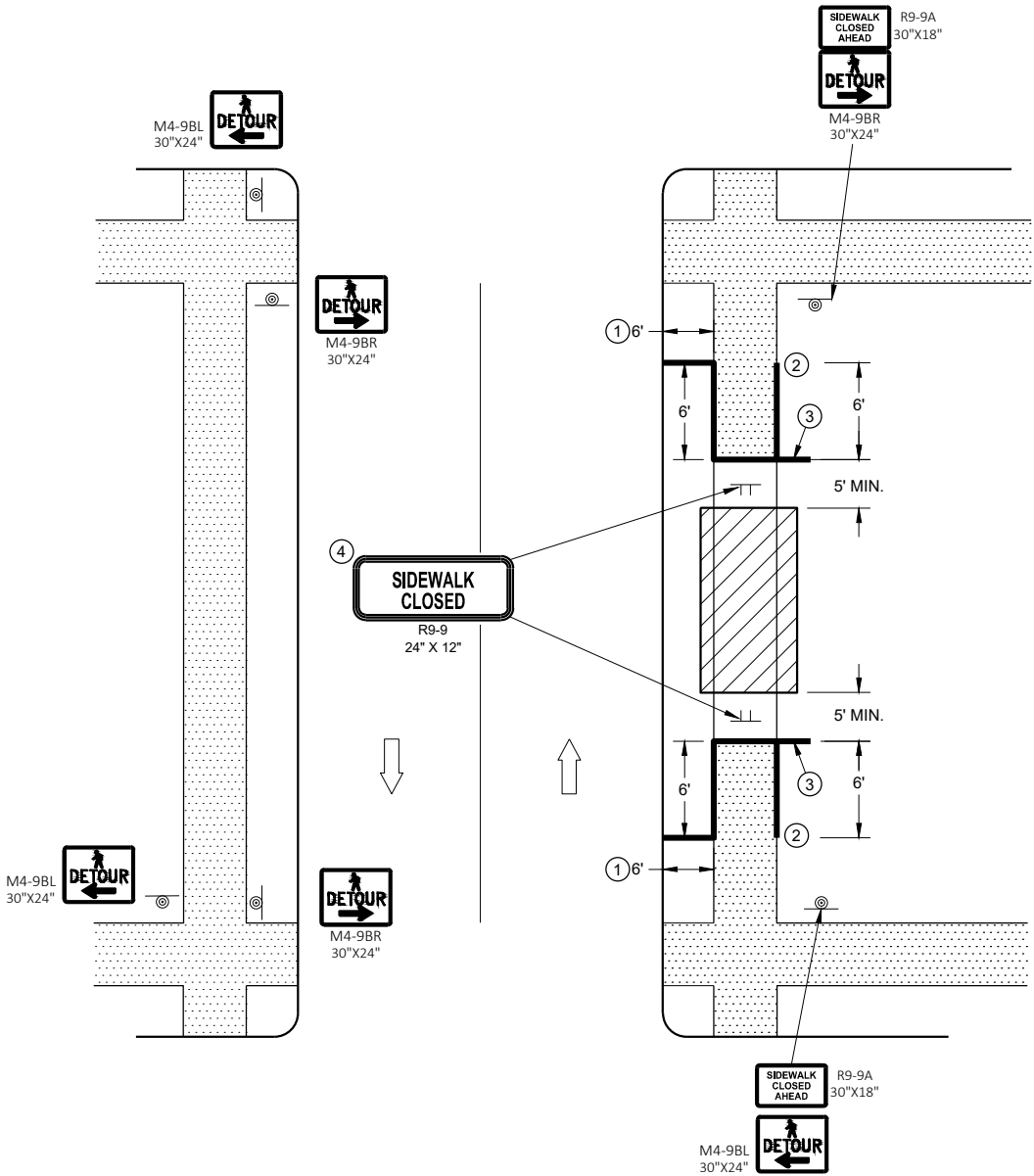
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

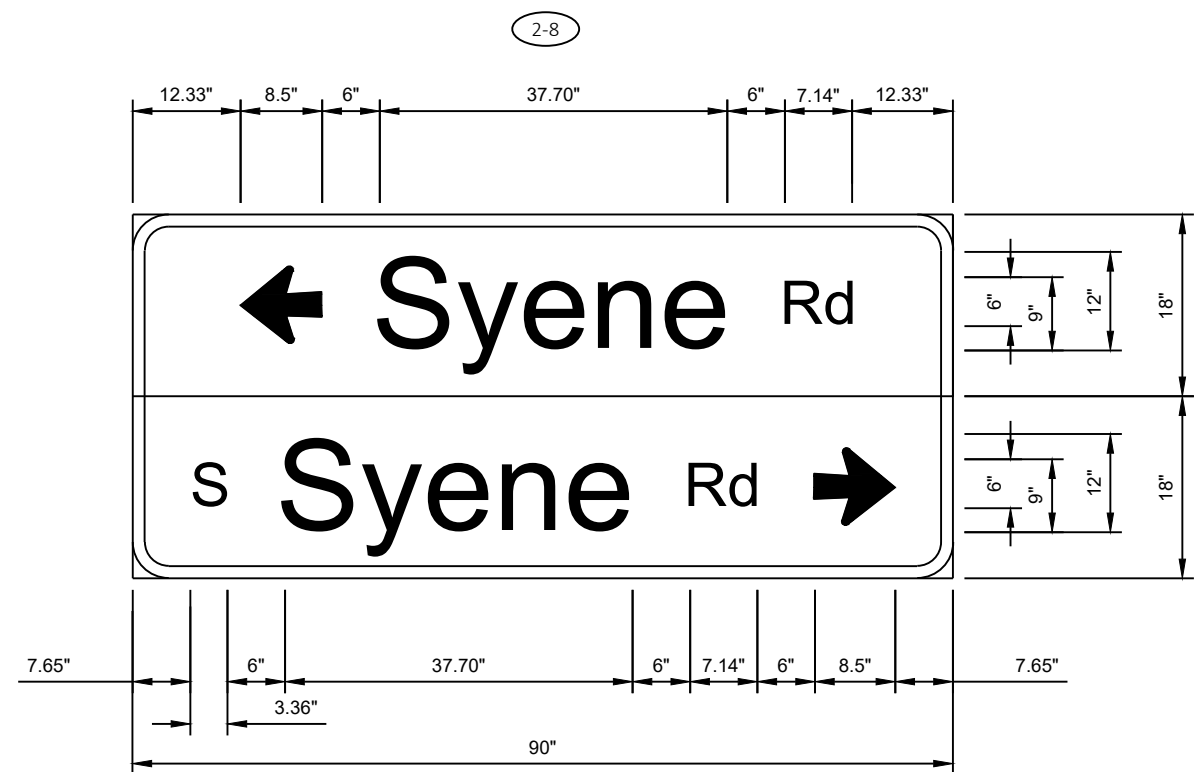
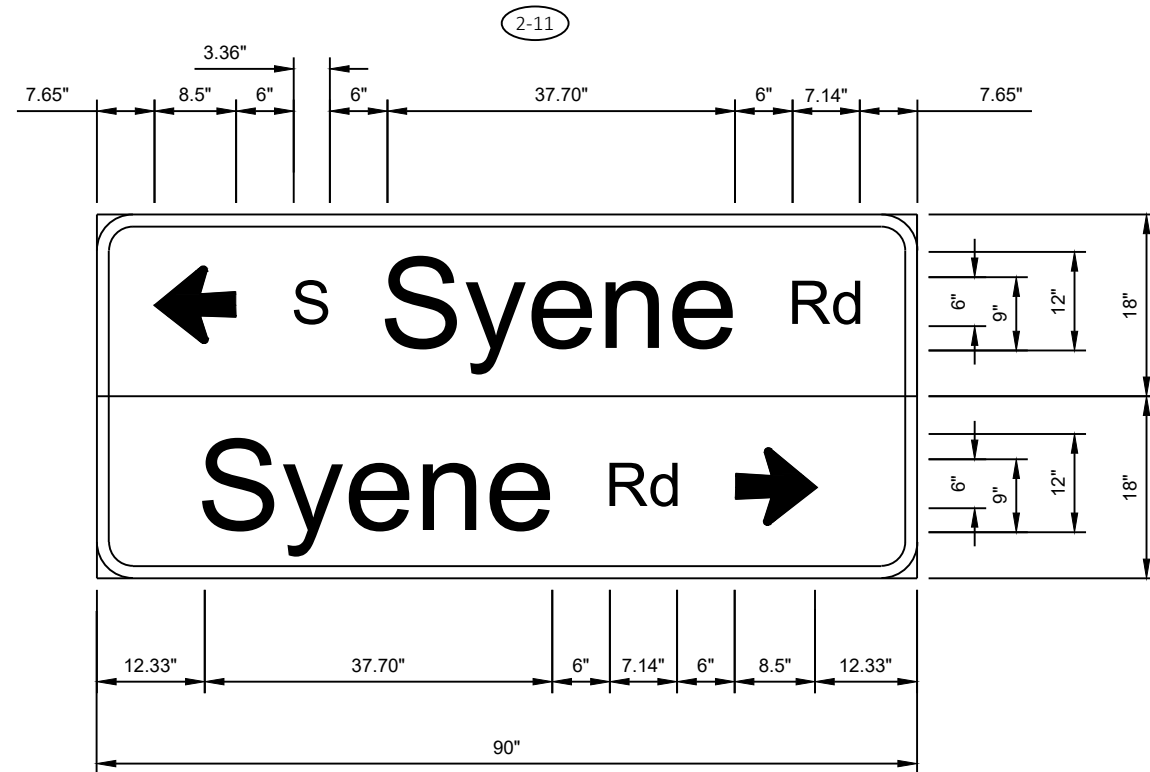
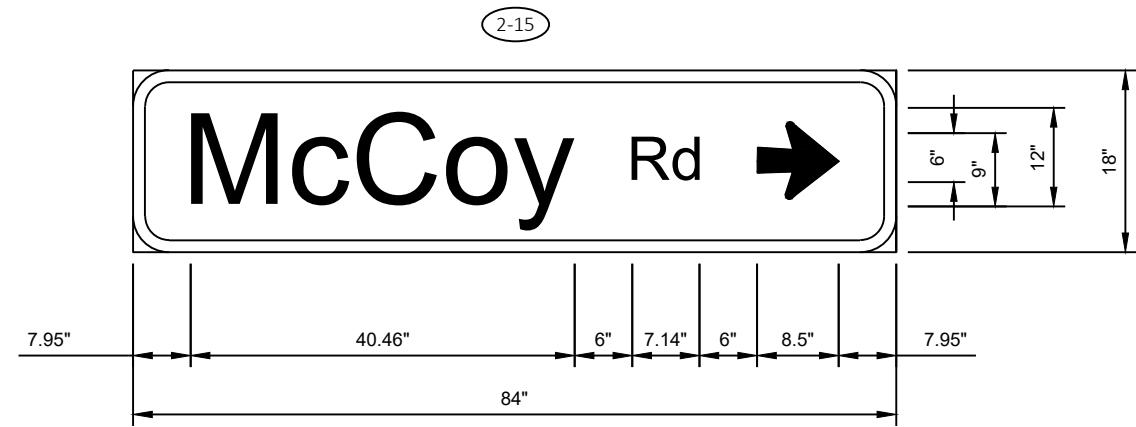
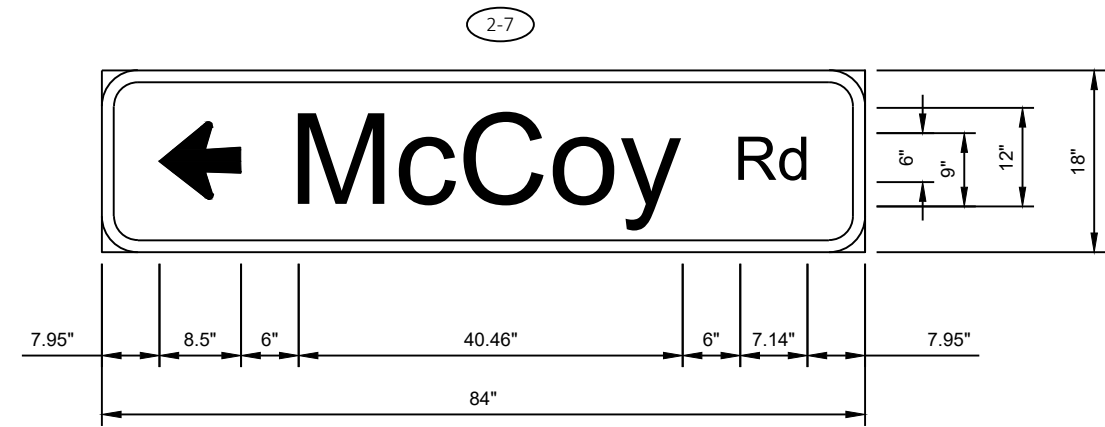
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

- ## LEGEND

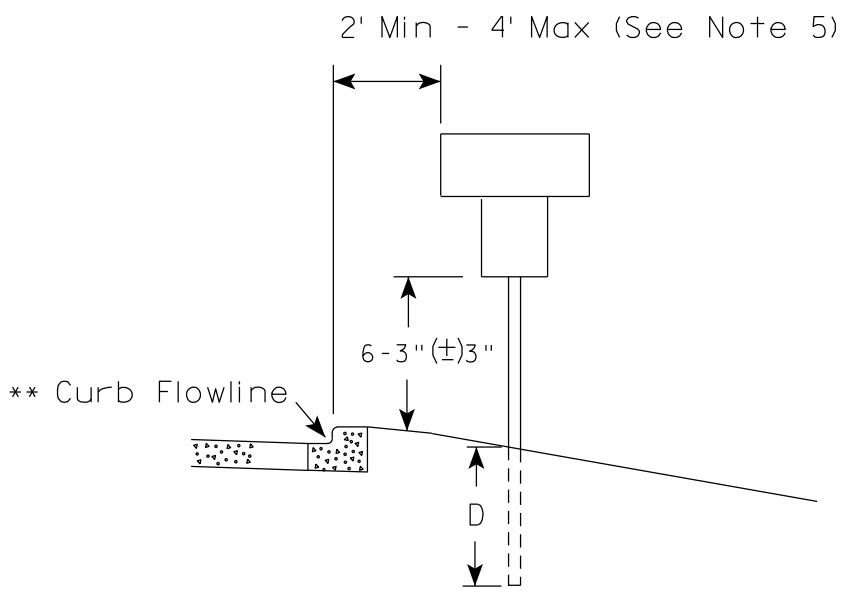
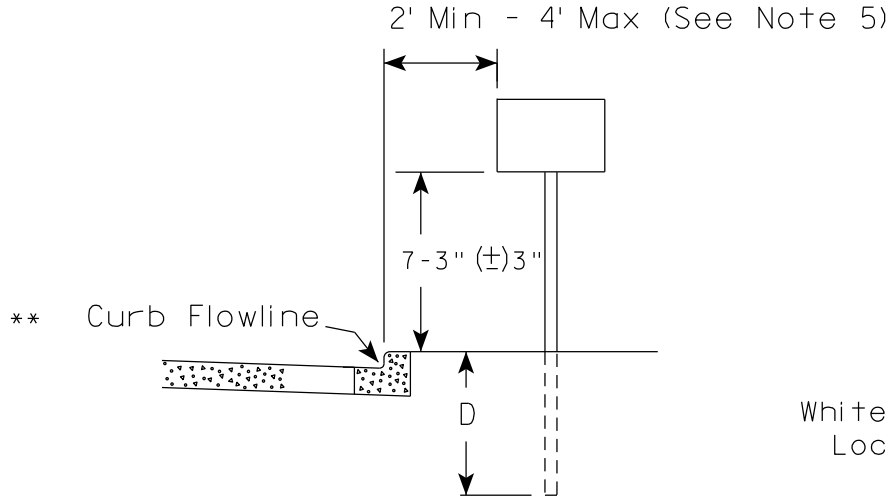
- ## TEMPORARY PEDESTRIAN CROSSING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 208

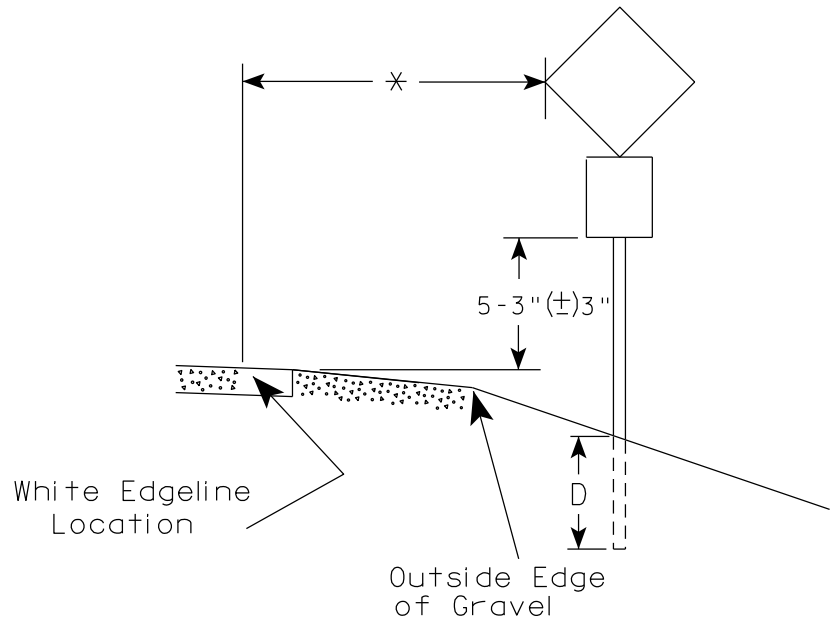
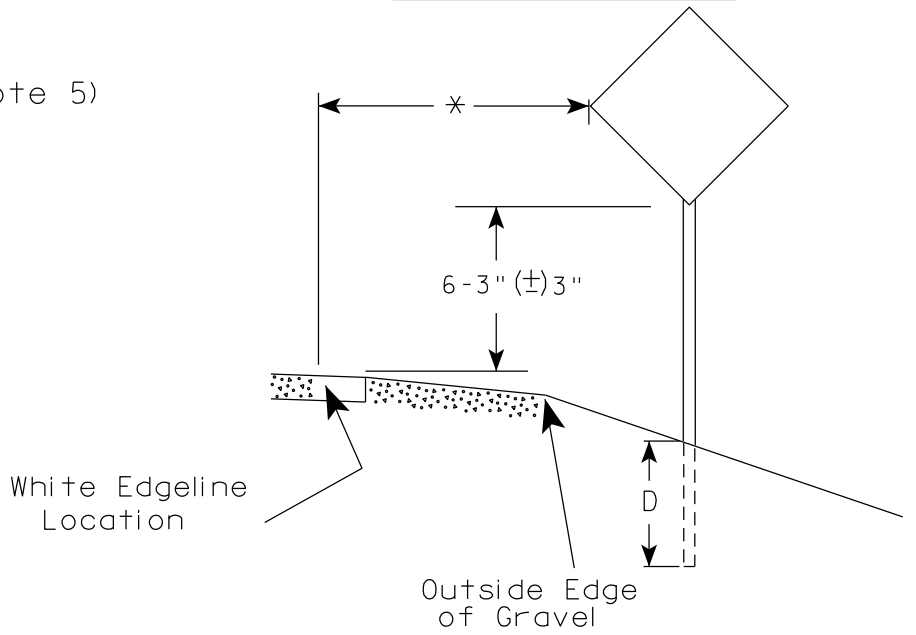
- NOTES
1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
 2. COLOR:
BACKGROUND - GREEN
MESSAGE - WHITE
 3. MESSAGE SERIES C



URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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 directed by the Engineer.

POST EMBEDMENT DEPTH

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

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

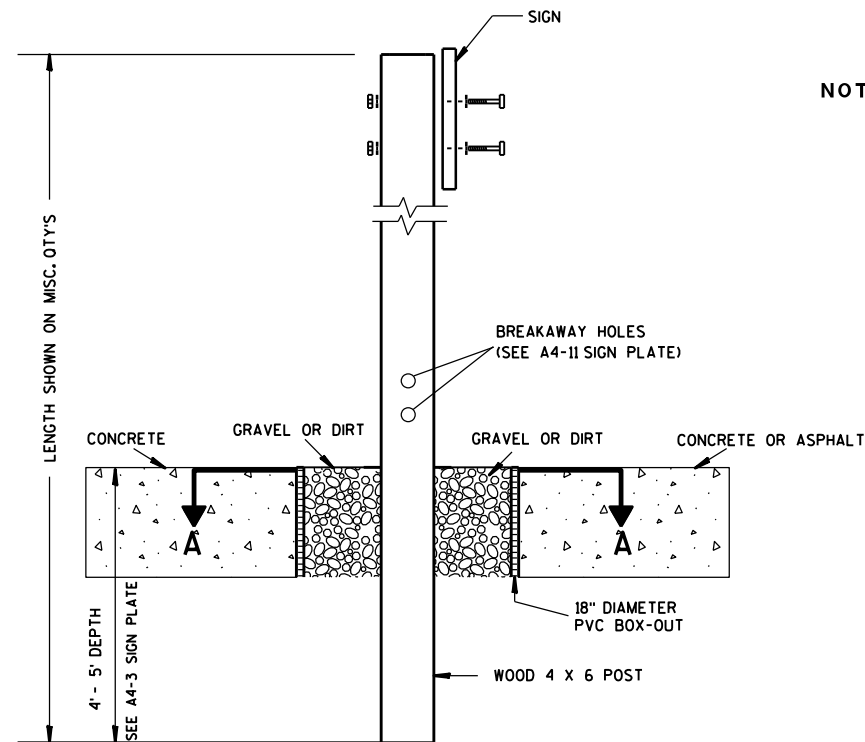
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

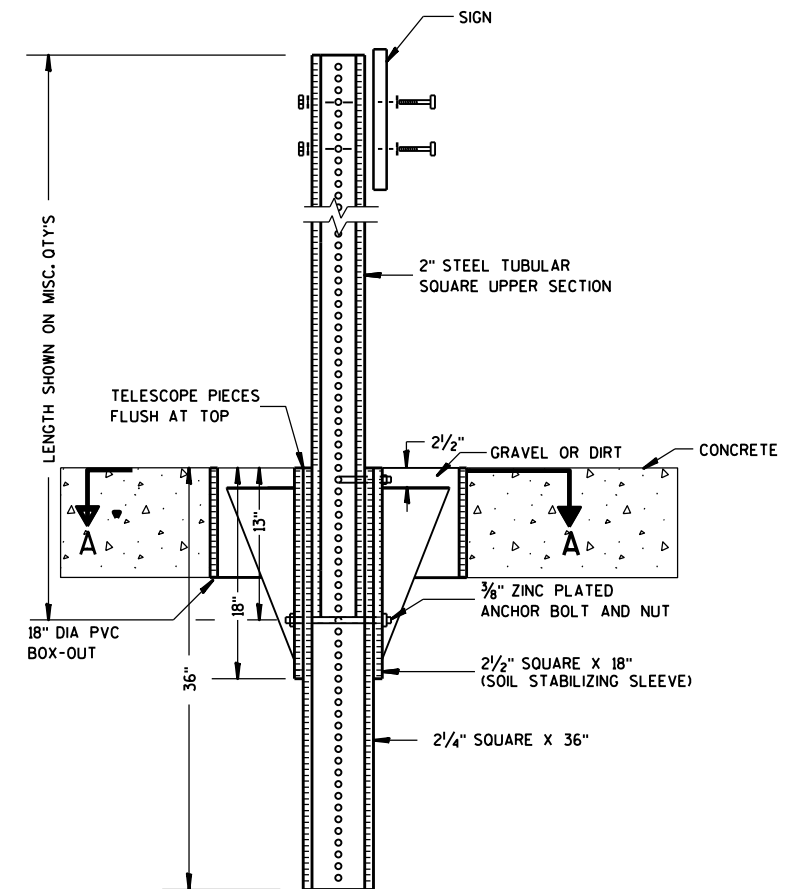
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

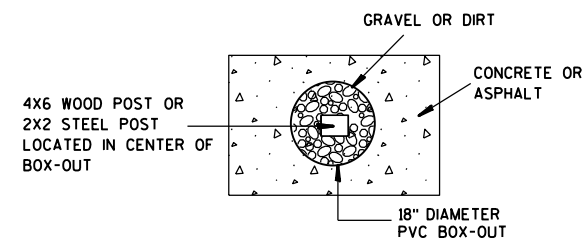
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 PLAT 211 A4-3B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

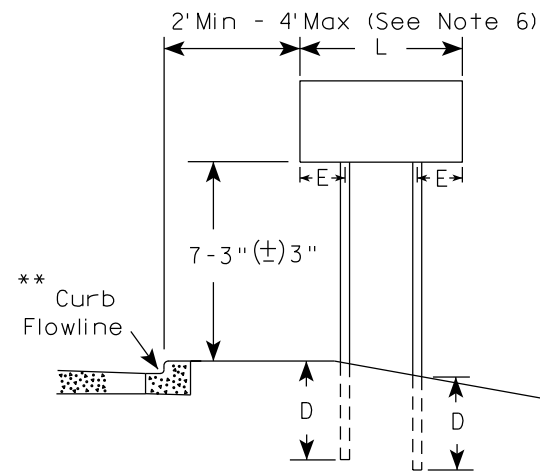
- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" ($\pm$ 3") or 6'-3" ($\pm$ 3") depending upon existence of sub-sign.
- The ($\pm$) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" ($\pm$ 3") or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" ($\pm$ 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" ($\pm$ 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.

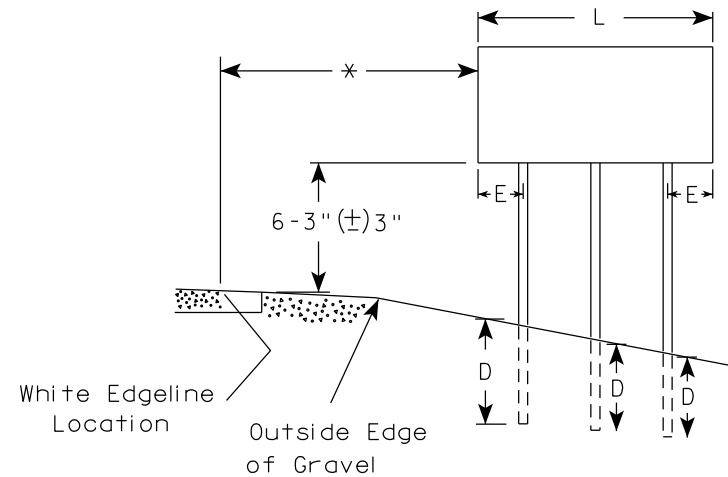
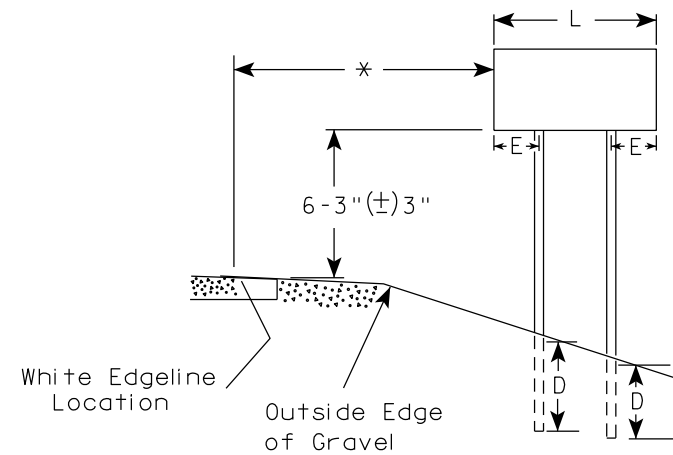
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

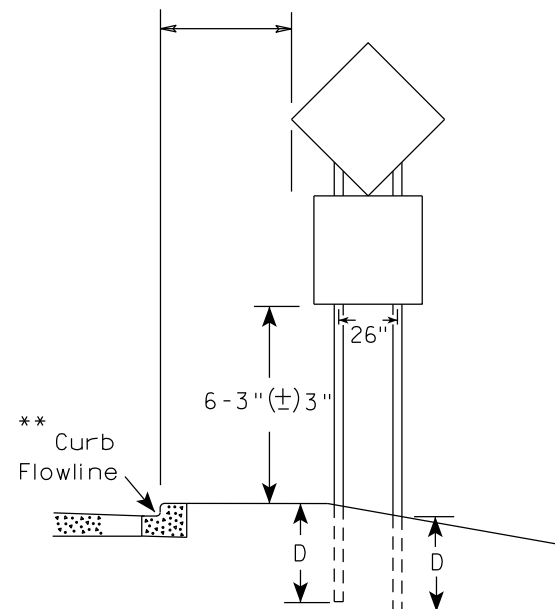
URBAN AREA



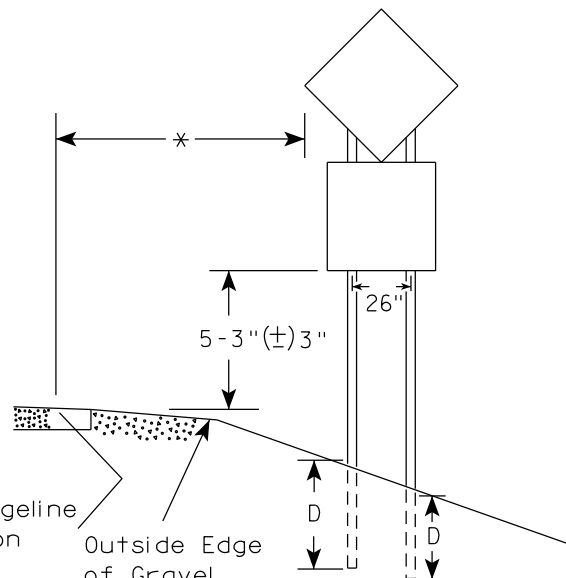
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

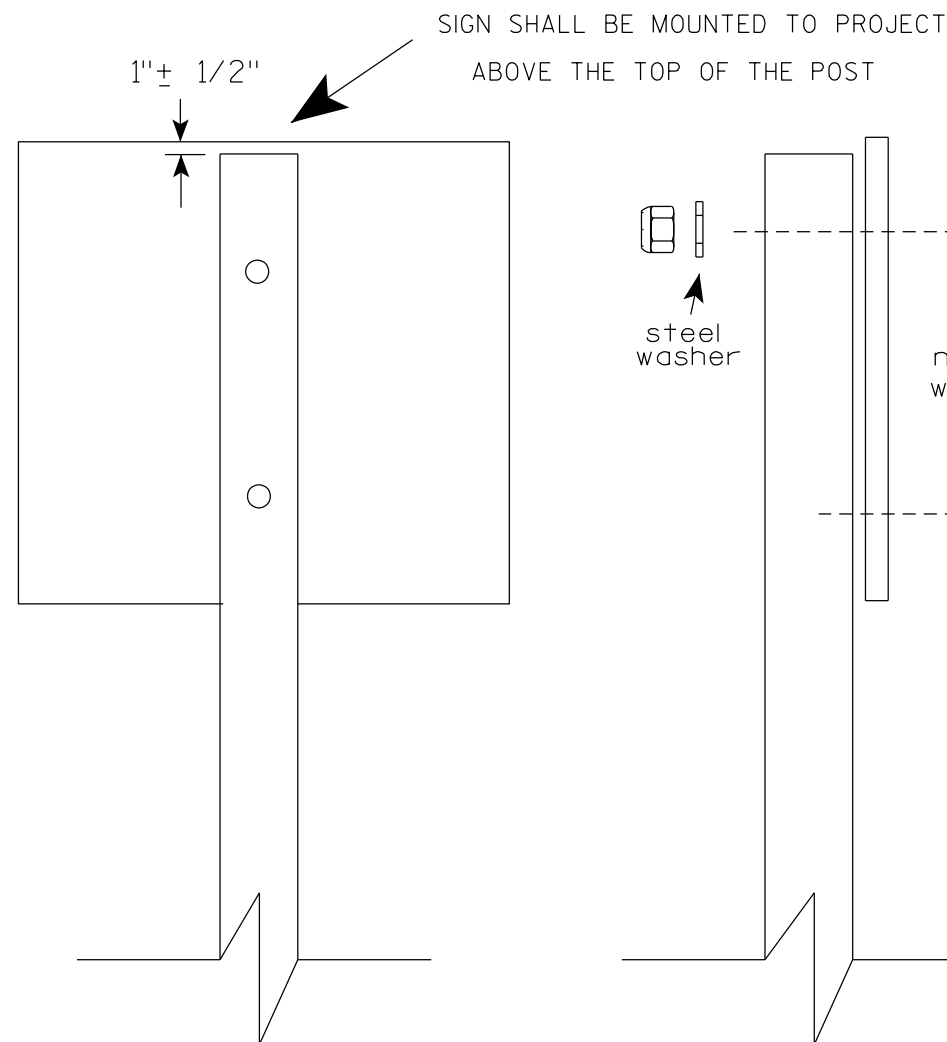
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 212

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.

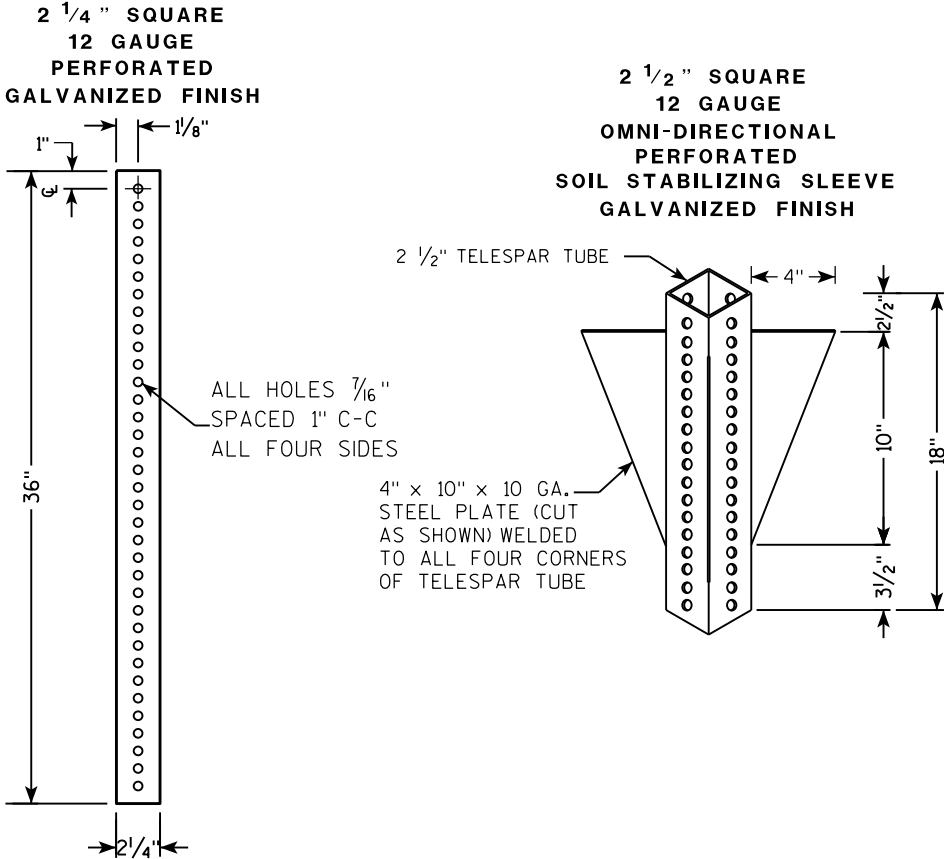
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

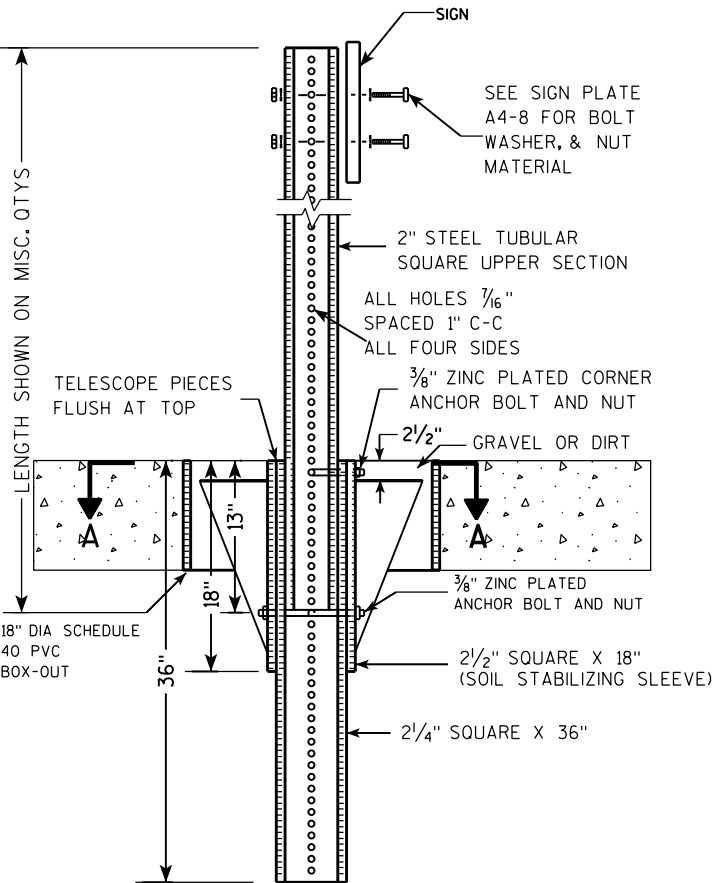
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

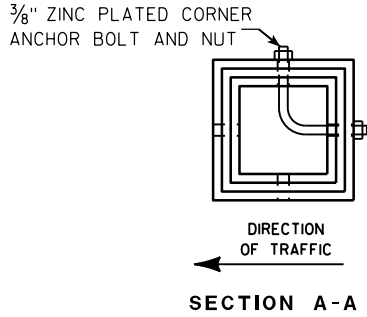
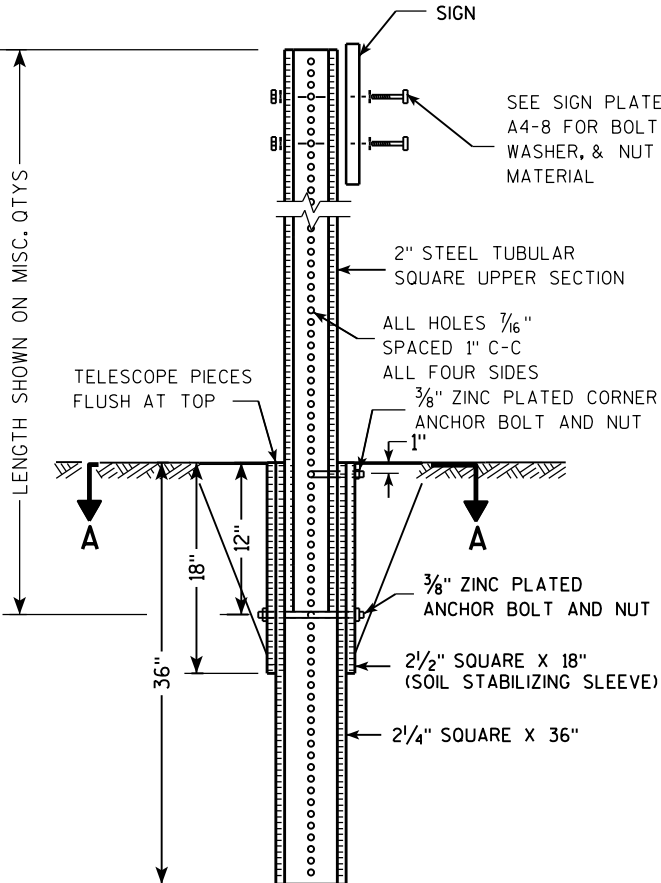
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

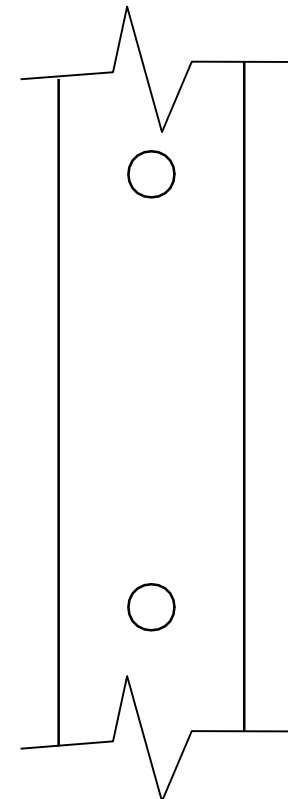
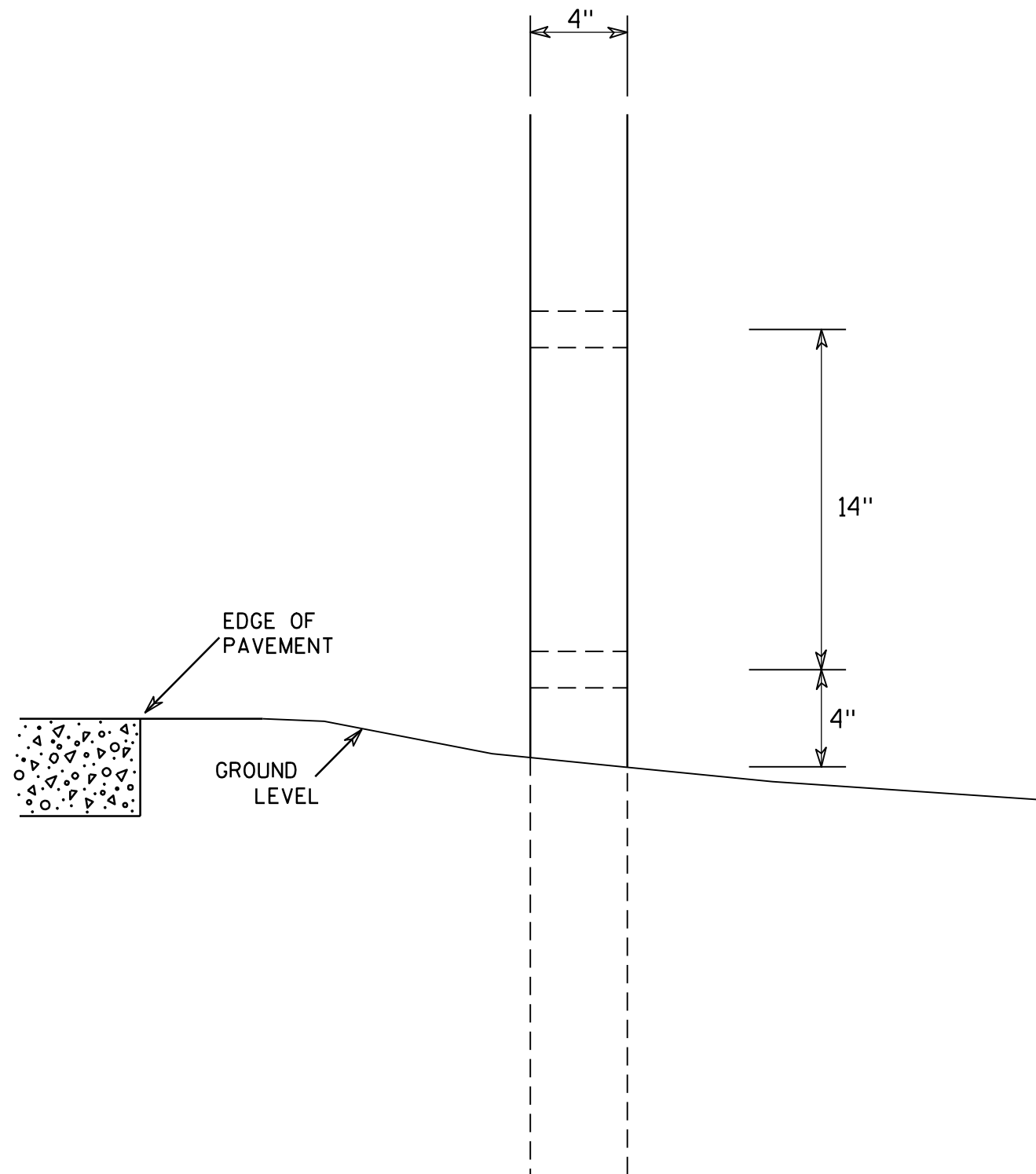
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 214 14-9.9



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

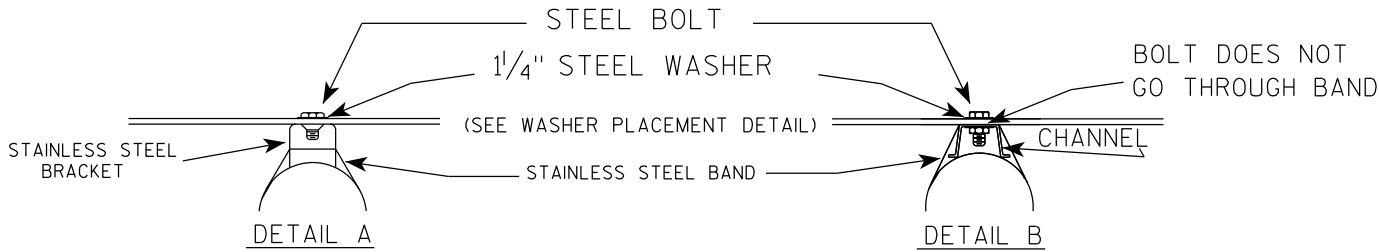
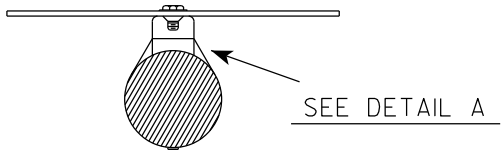
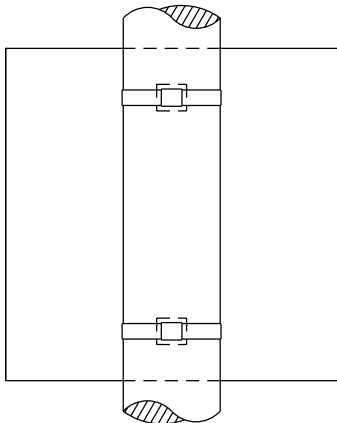
COUNTY:

SHEET NO: 215

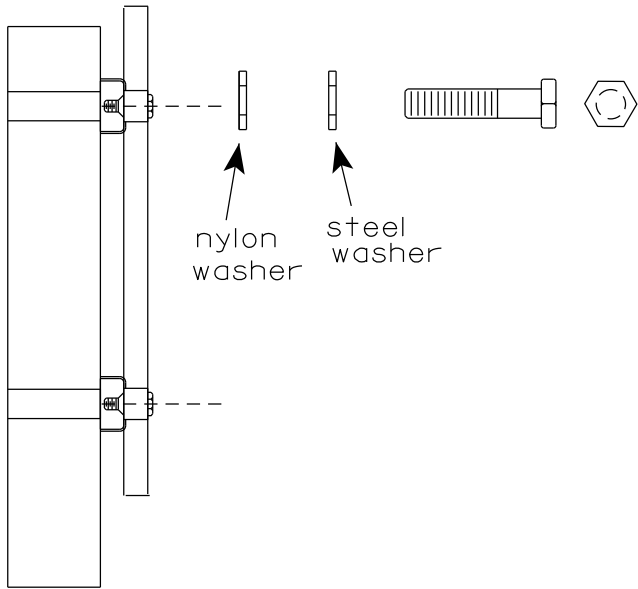
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

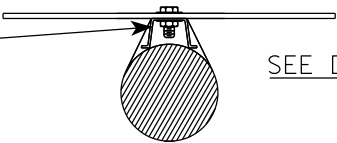
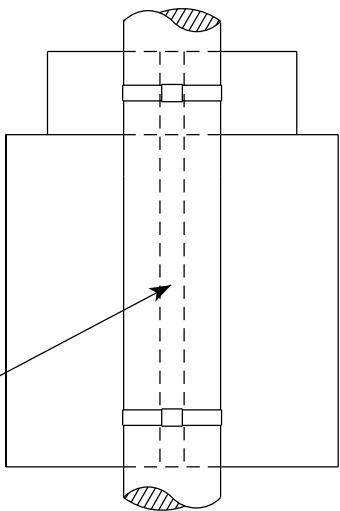


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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 3/4" 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

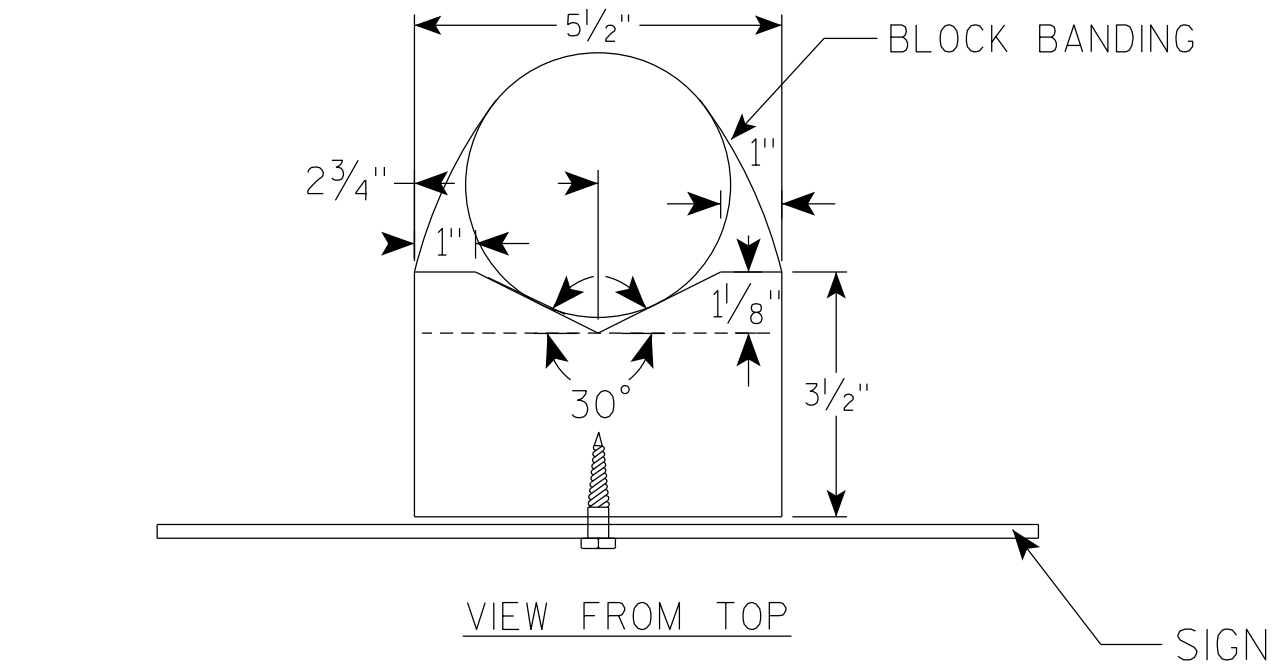
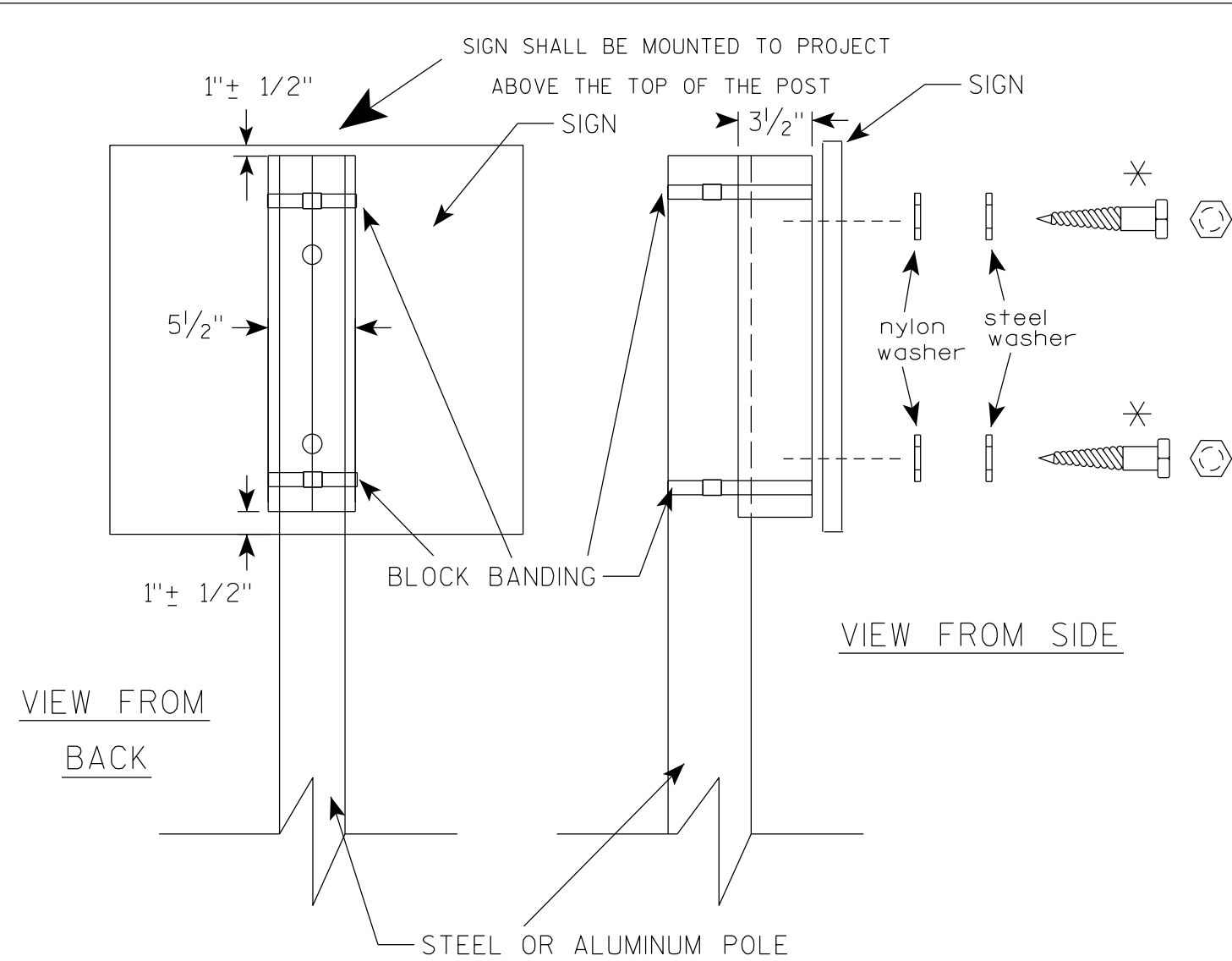
"J" ASSEMBLY



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



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, $\frac{3}{4}$ " 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 NORMALLY 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 $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

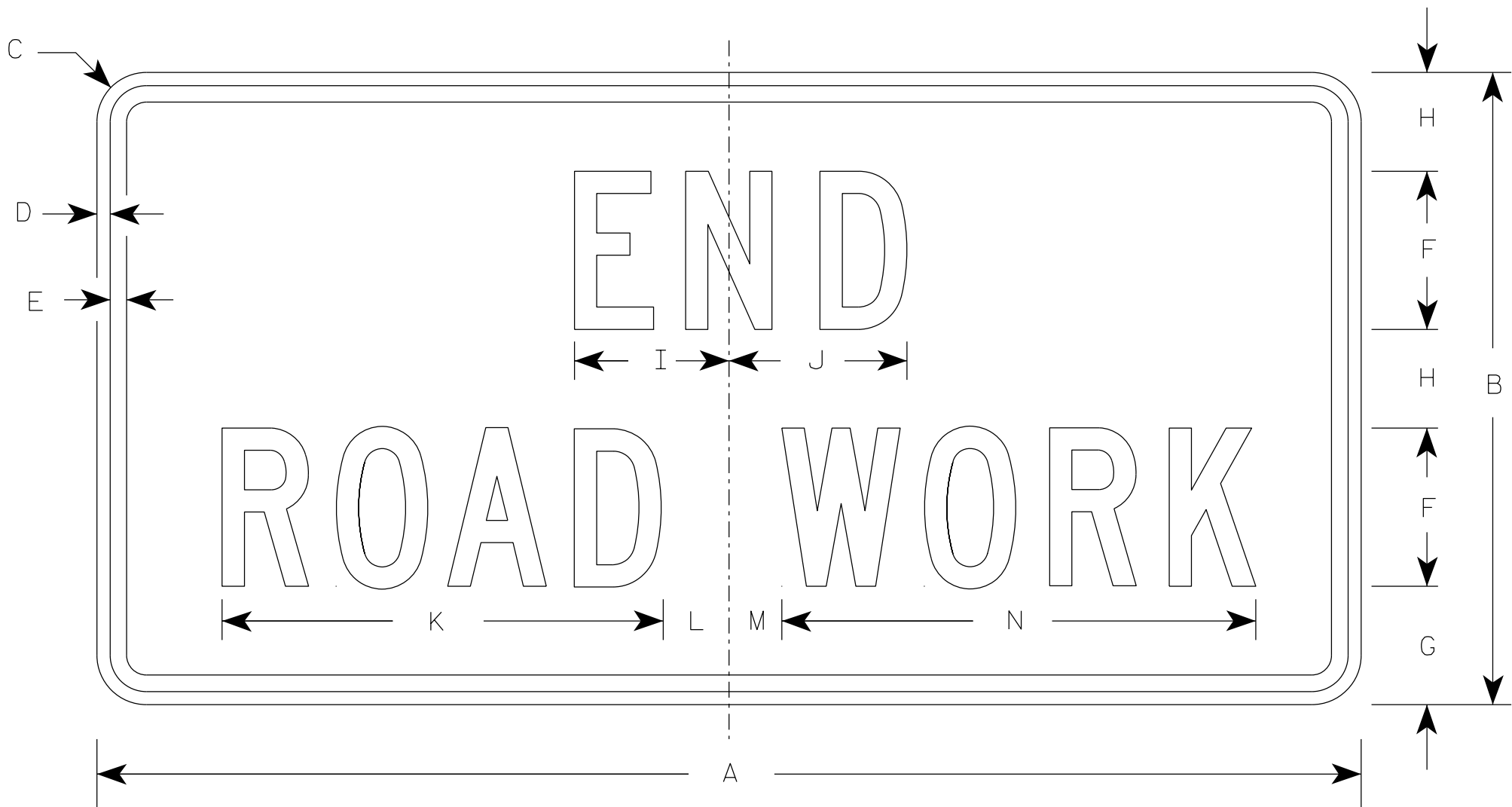
DATE 4/19/2022 PLATE NO. A5-10.3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:

Background - Orange

Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

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	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

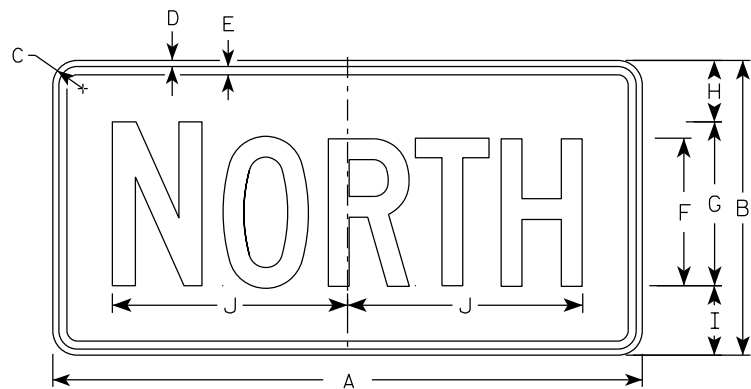
PROJECT NO:

HWY:

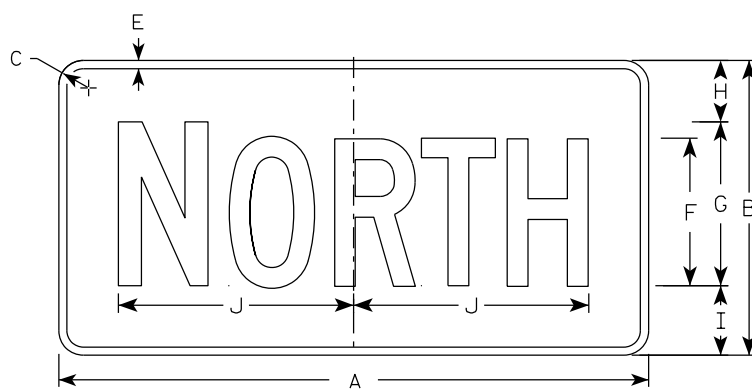
COUNTY:

SHEET NO: 218

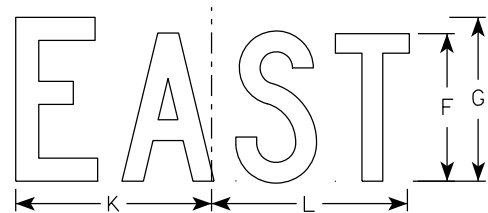
E



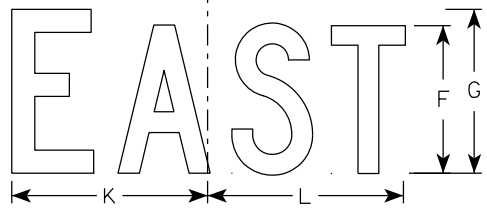
M3-1
MM3-1
MP3-1



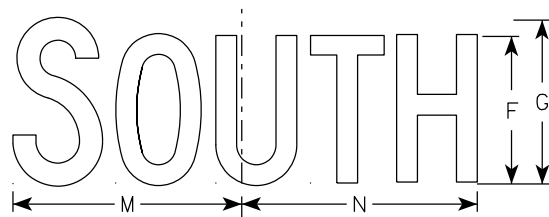
MB3-1
MK3-1
MN3-1



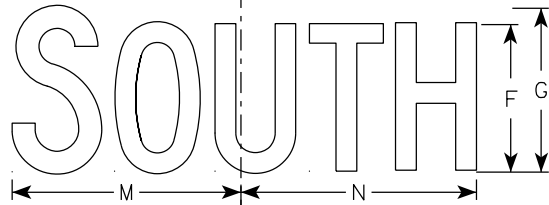
M3-2
MM3-2
MP3-2



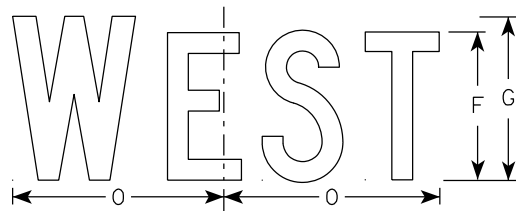
MB3-2
MK3-2
MN3-2



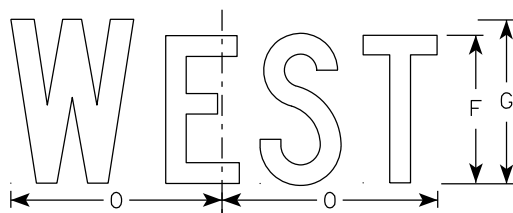
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS M3-1 THRU M3-4 SERIES

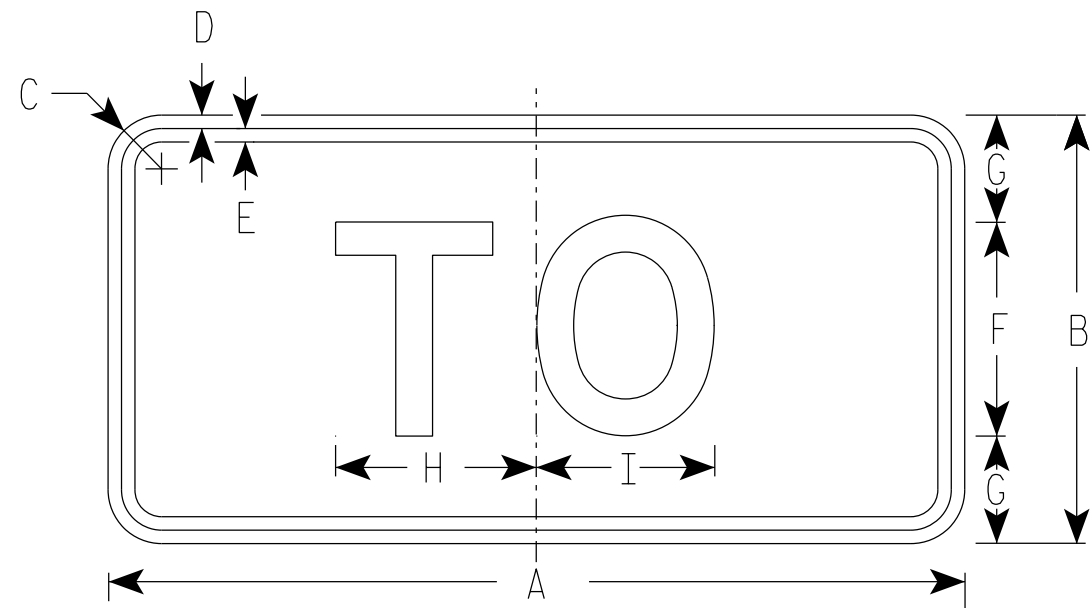
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

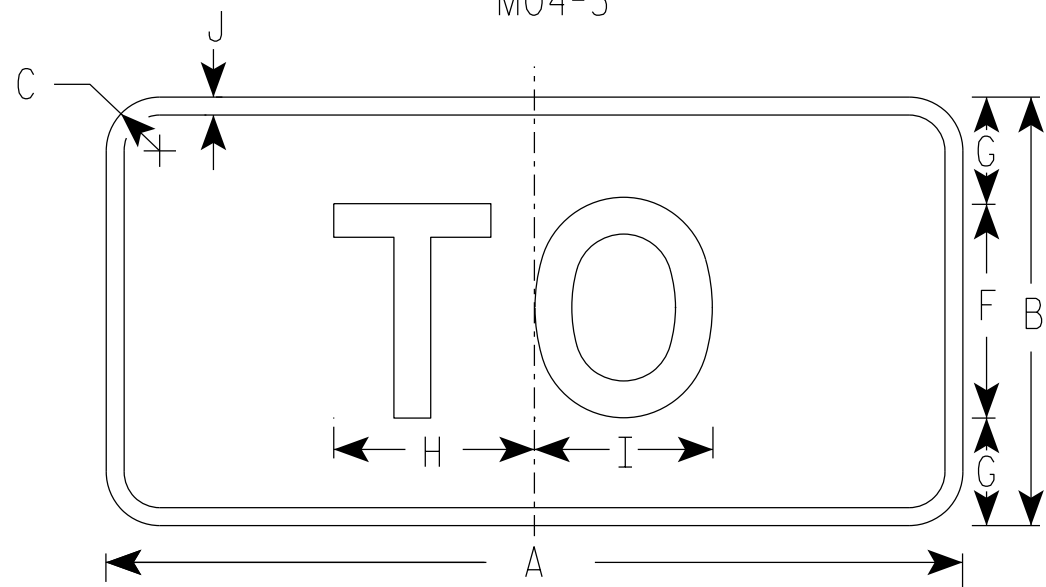
DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: HWY: COUNTY: SHEET NO: 219 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate-M31.dgn PLOT DATE : 8-FEB 2023 11:00 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : \$\$.....plotscale.....\$\$WISDOT/CADDs SHEET 42



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
Message - Black
MB4-5 Background - Blue
Message - White
MK4-5 Background - Green
Message - White
MM4-5 Background - White
Message - Green
MN4-5 Background - Brown
Message - White
MP4-5 Background - White
Message - Blue
M04-5 Background - Orange Type F Reflective
Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
2M	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
3	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 220

E

STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

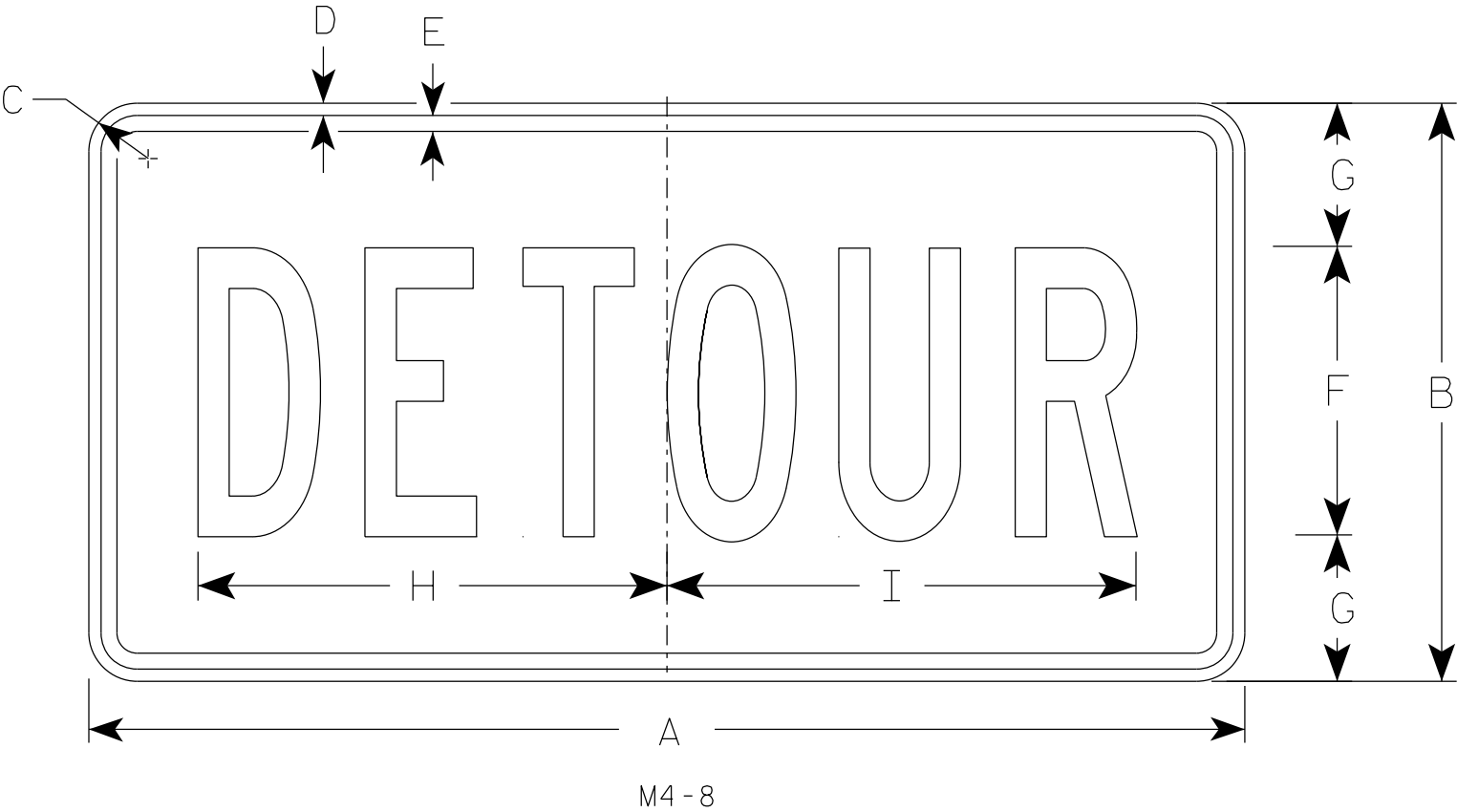
DATE 2/8/2023 PLATE NO. M4-5.11

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.



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

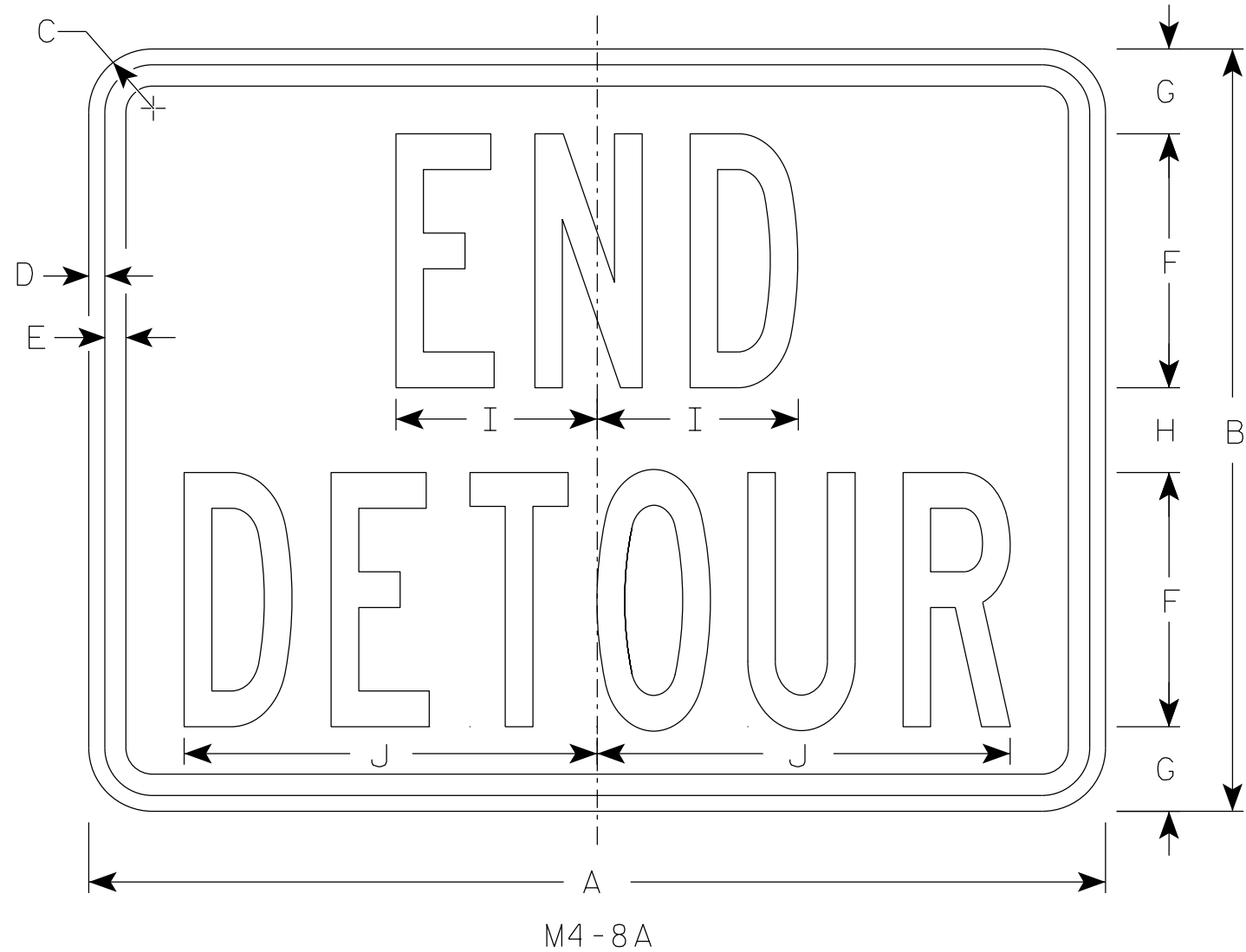
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

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.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

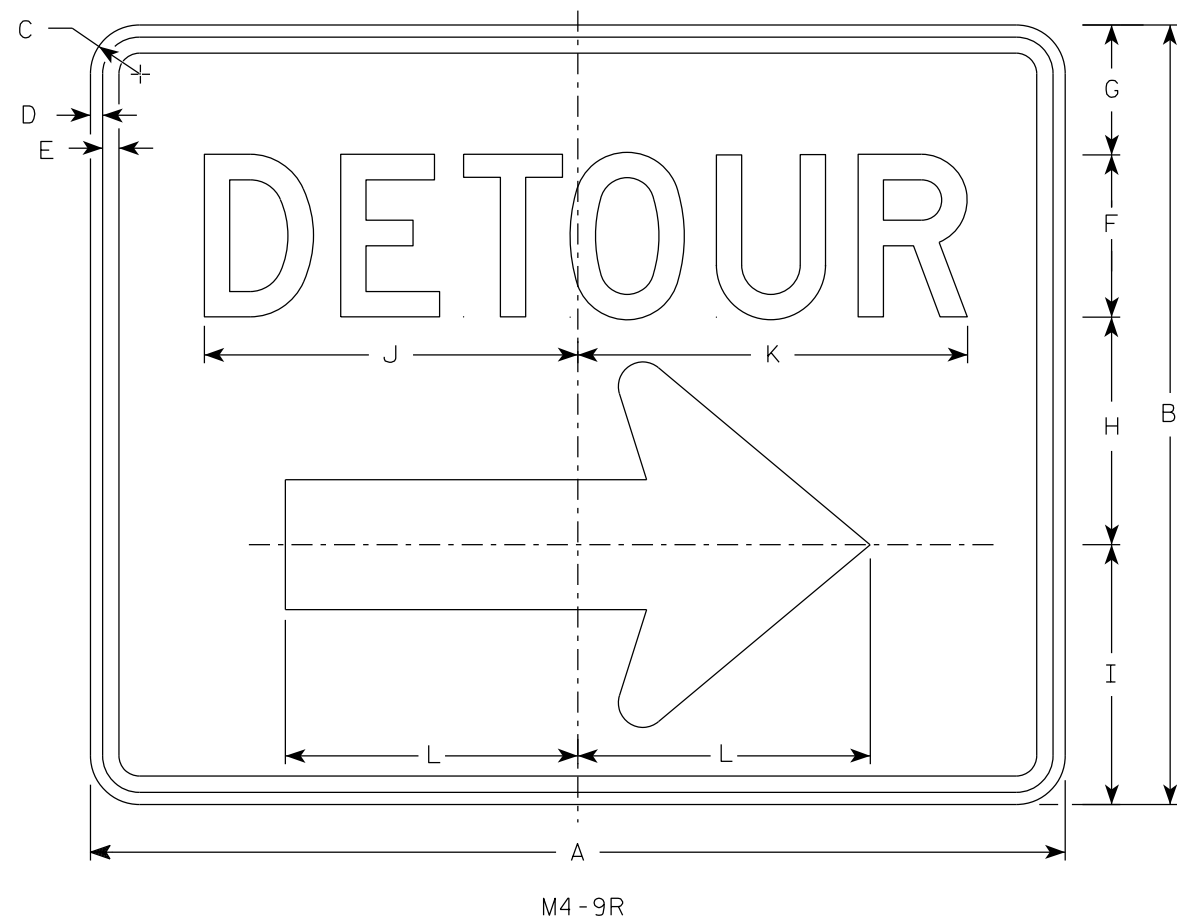
STANDARD SIGN

M4-8A

WISCONSIN DEPT OF TRANSPORTATION

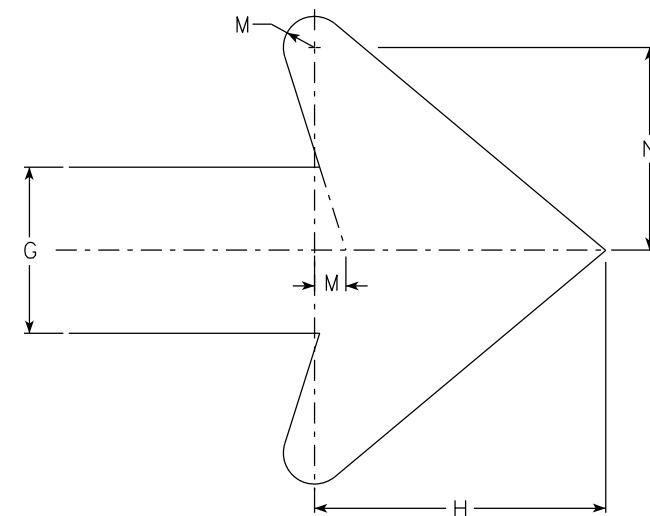
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4



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

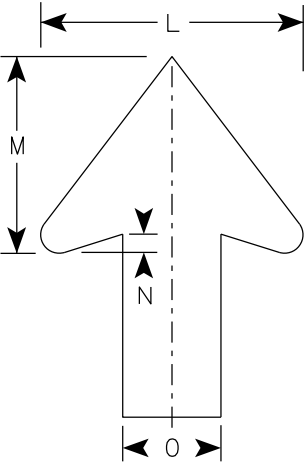
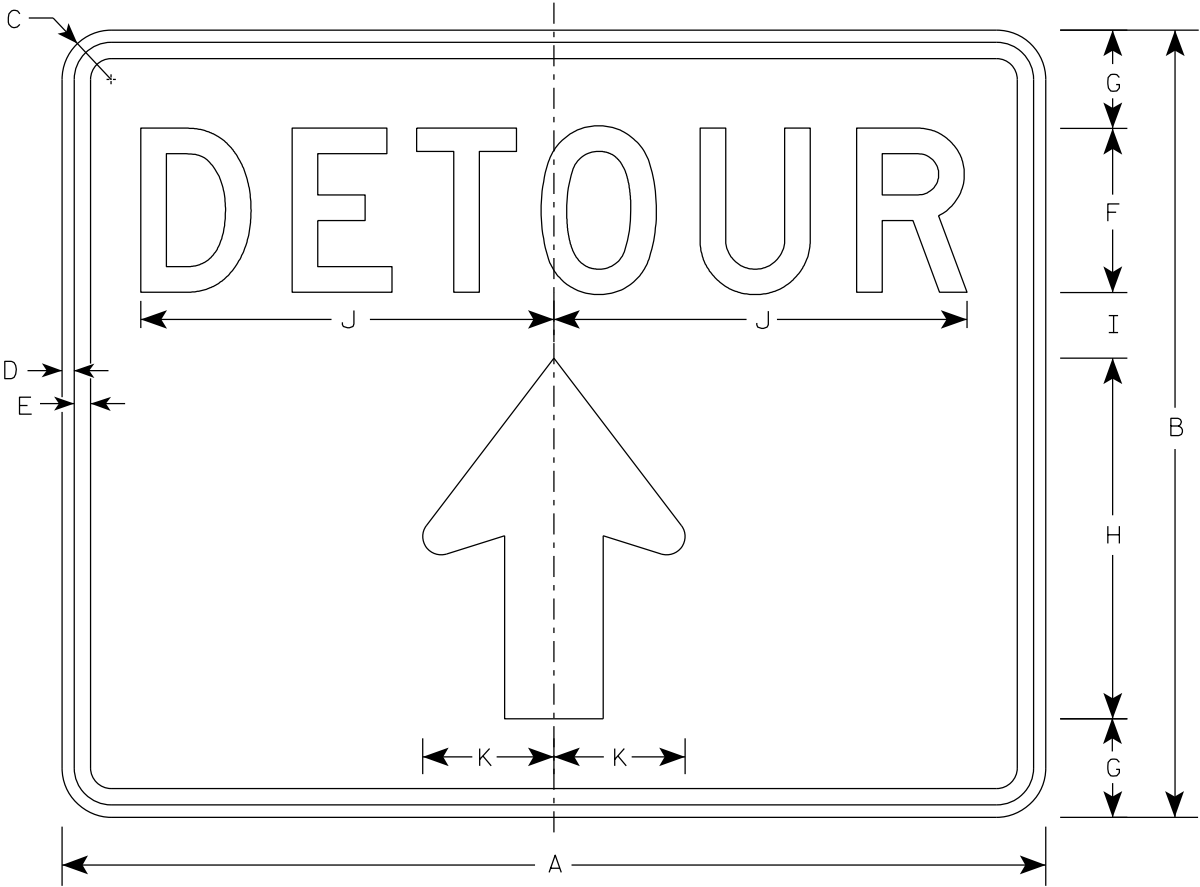
PROJECT NO: HWY: COUNTY: SHEET NO: 223 E

7

7

NOTES

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



Arrow Detail

M4 - 9RA

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
2M	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
3																											
4																											
5																											

STANDARD SIGN

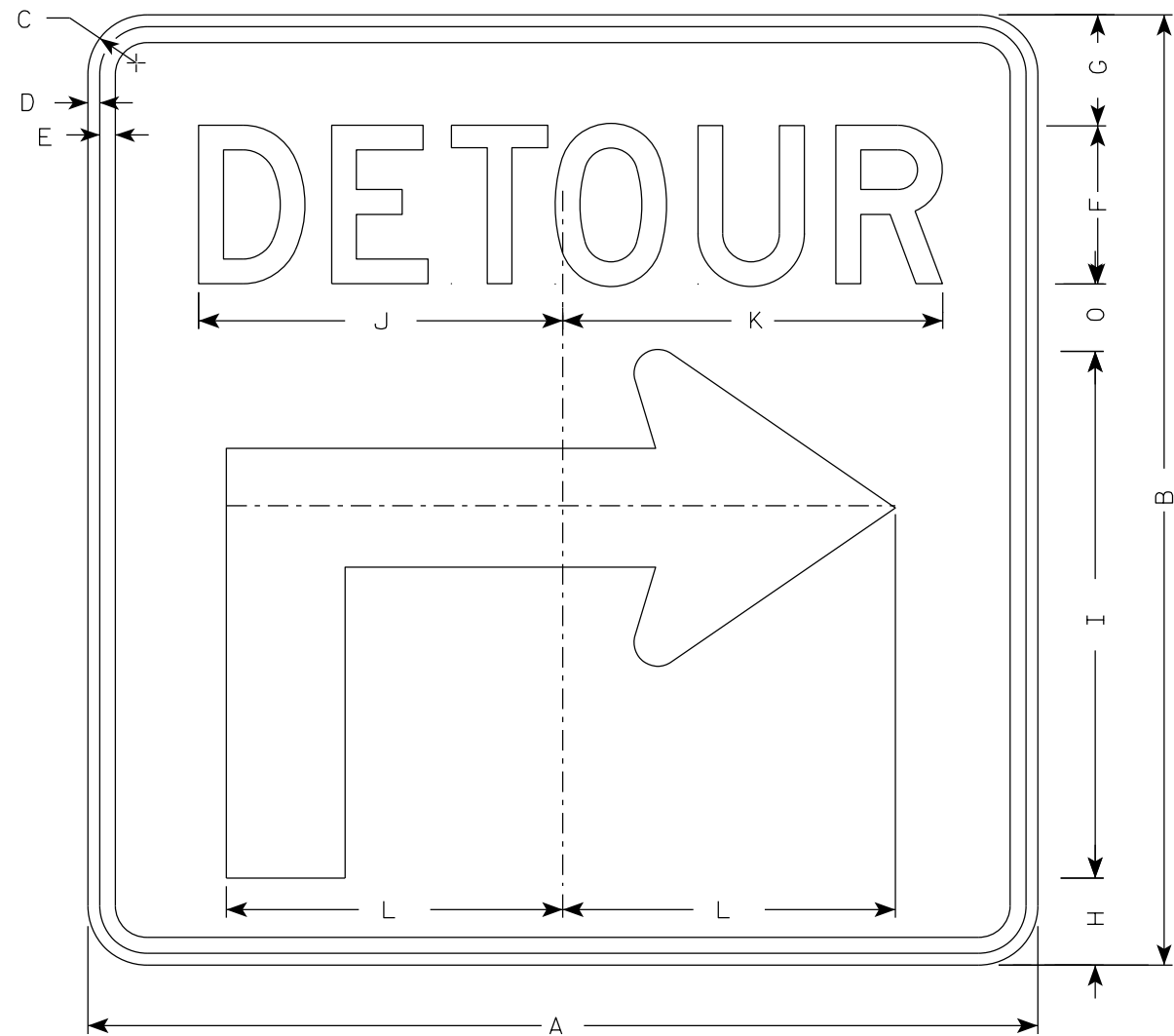
M4-9RA

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9RA.3

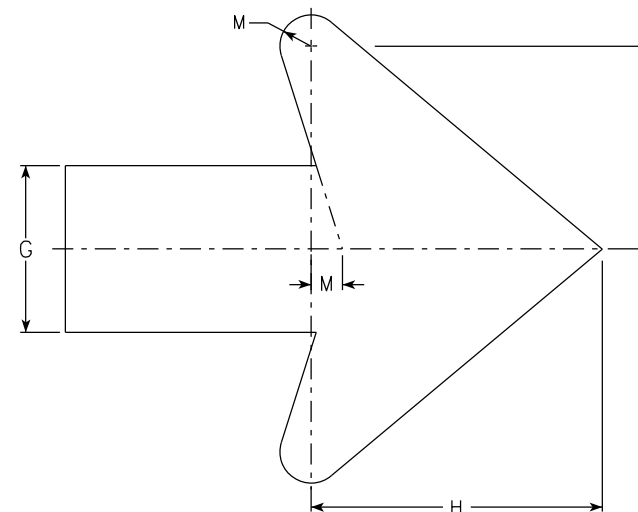
7



M4-59R

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.
5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
2M	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

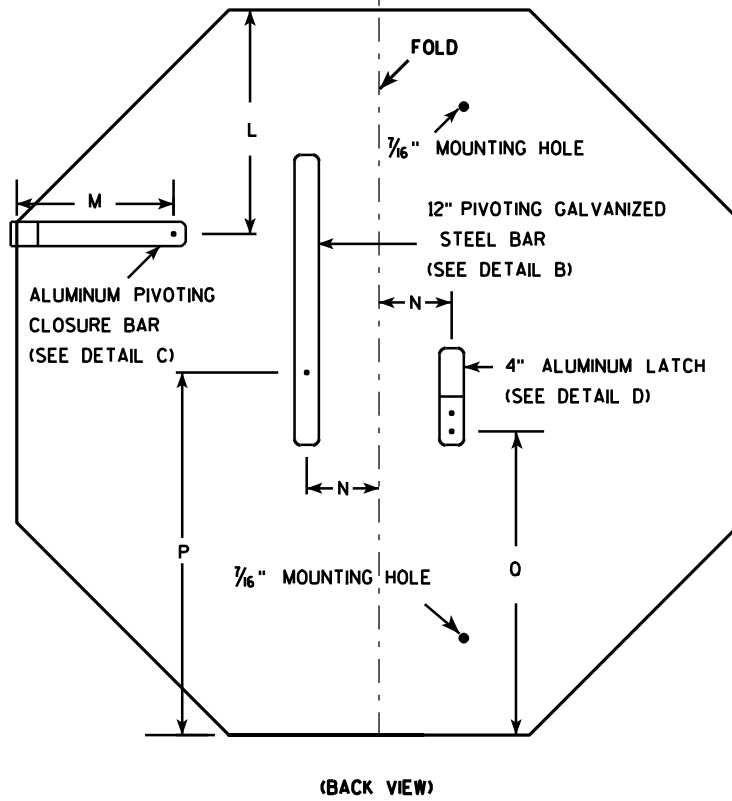
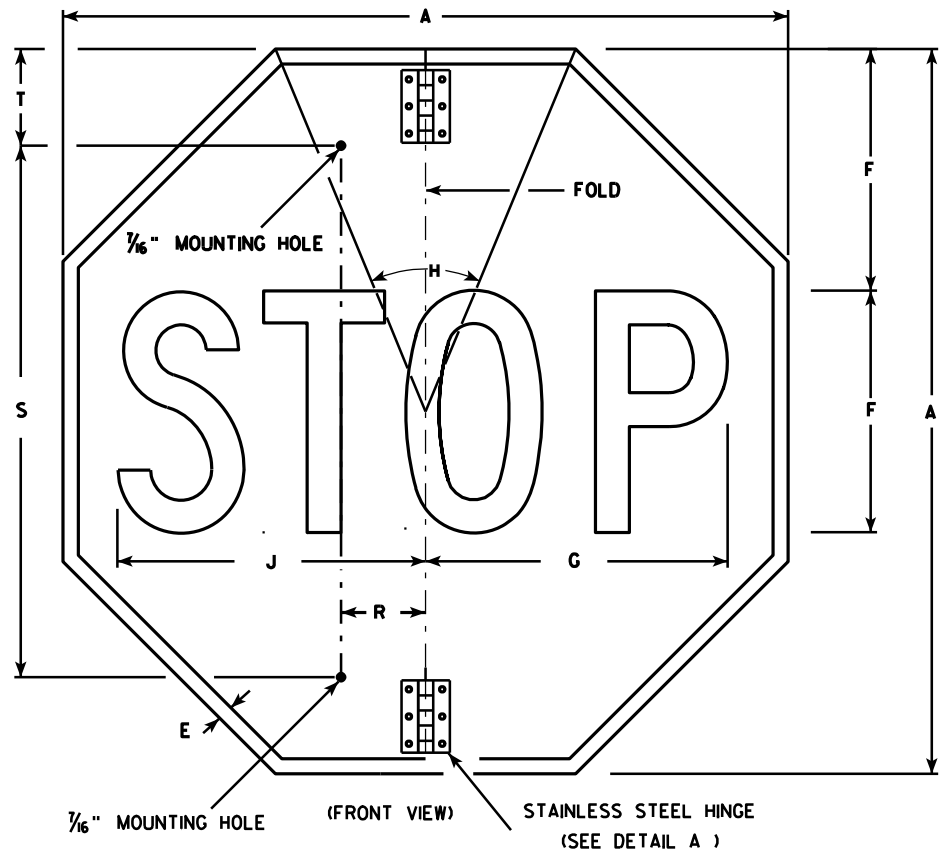
PROJECT NO:

HWY:

COUNTY:

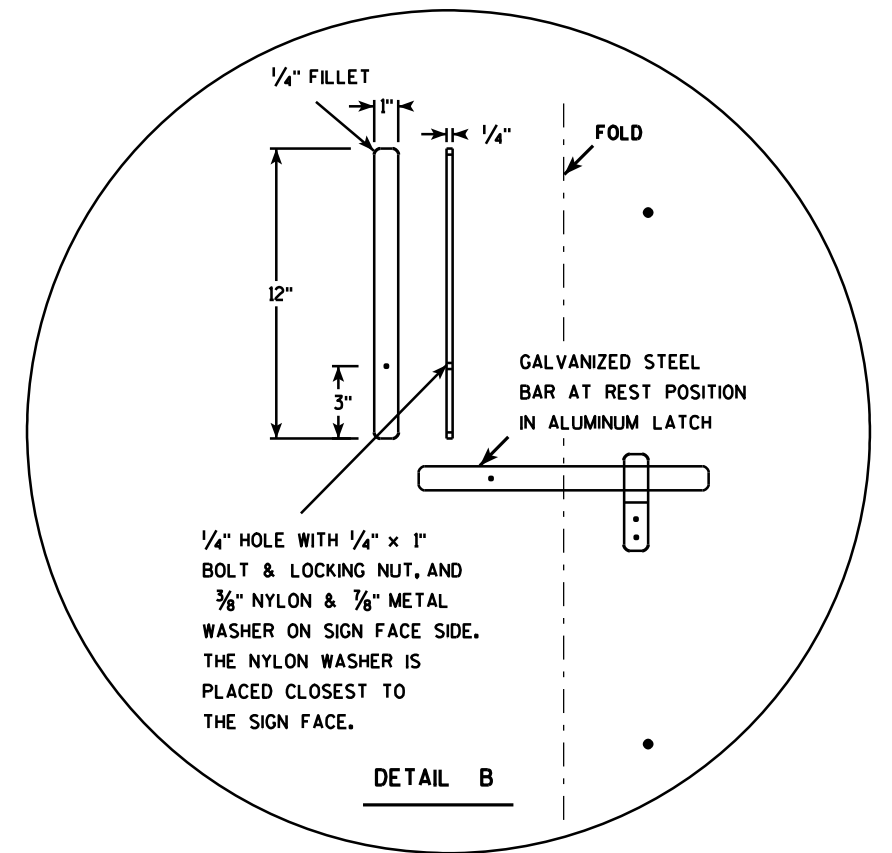
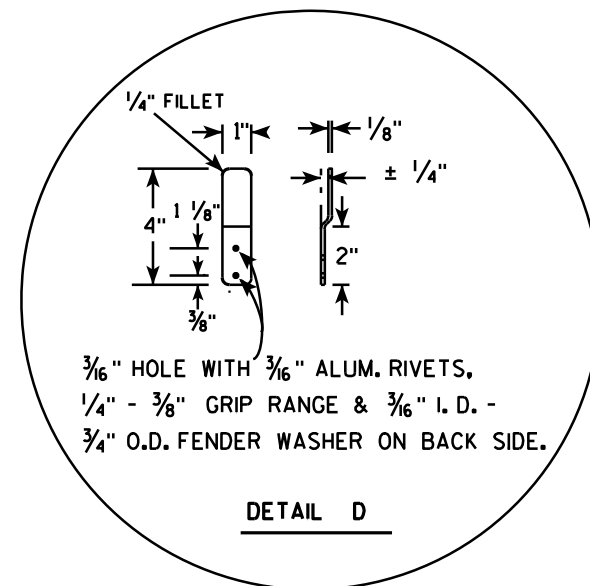
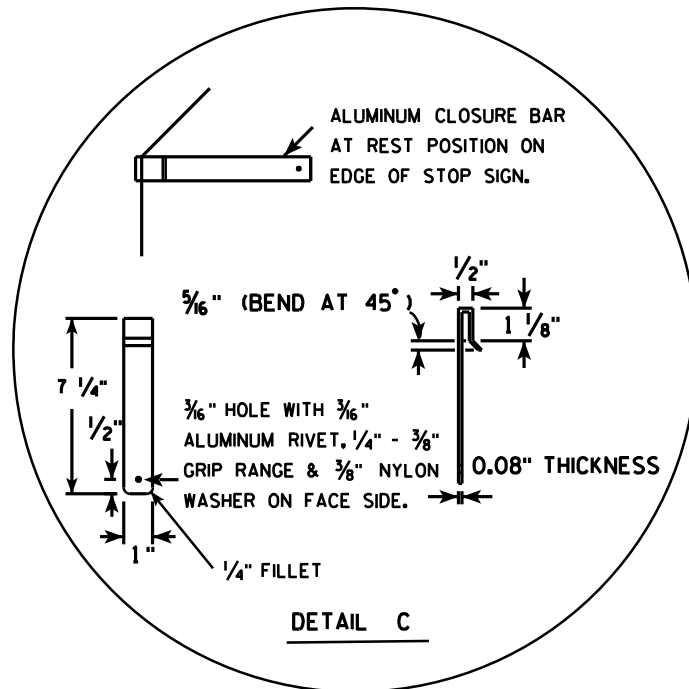
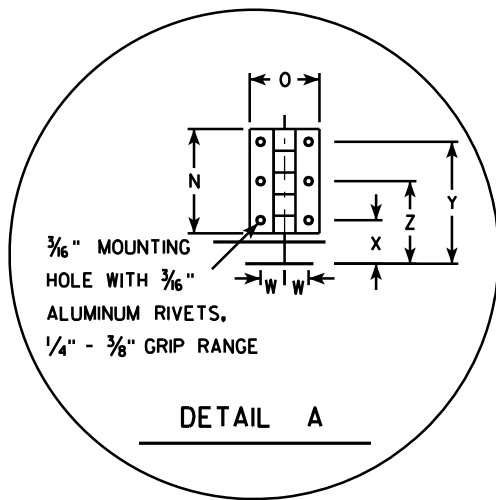
SHEET NO: 225

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
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 226	E
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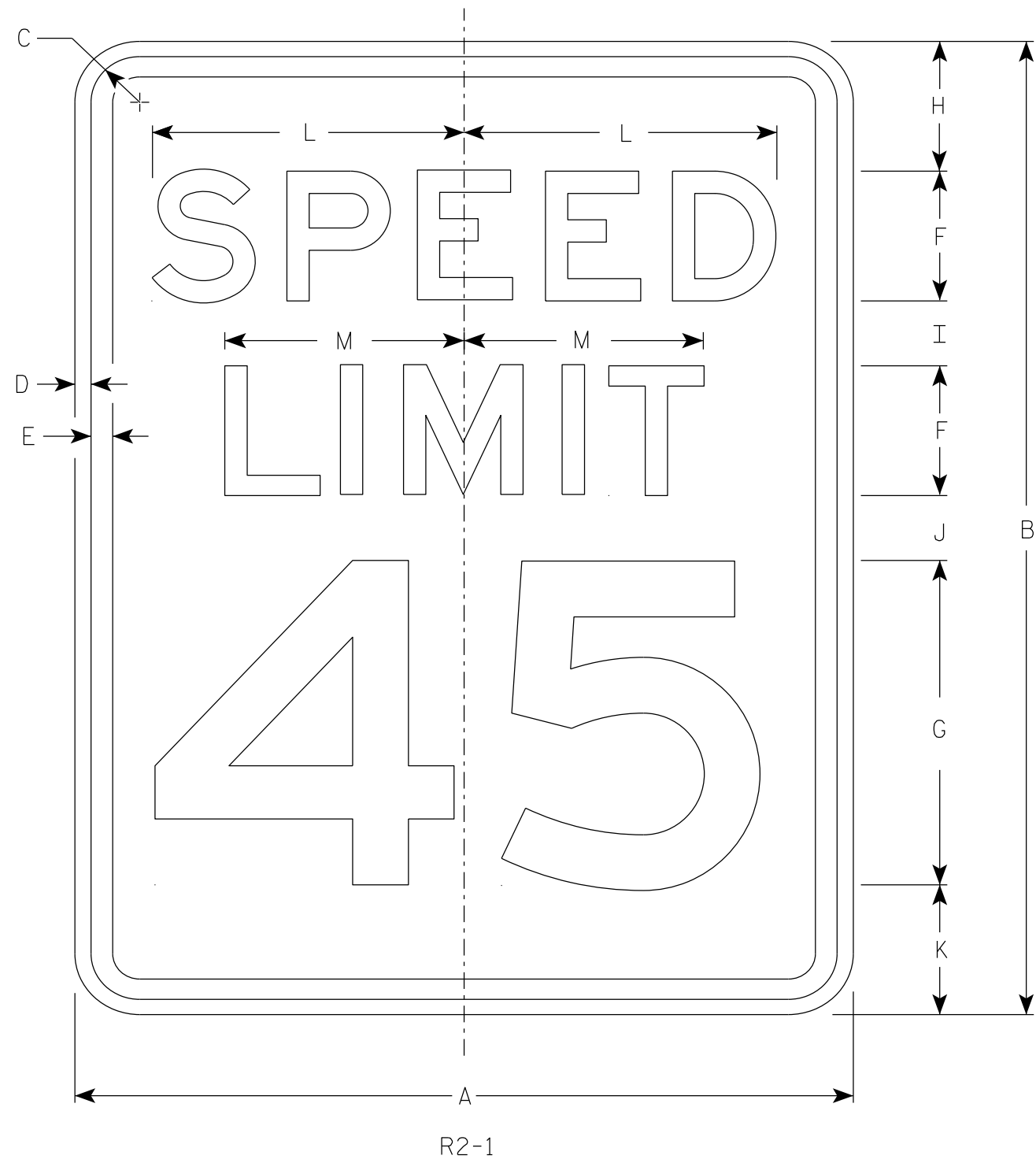
STANDARD SIGN R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

7



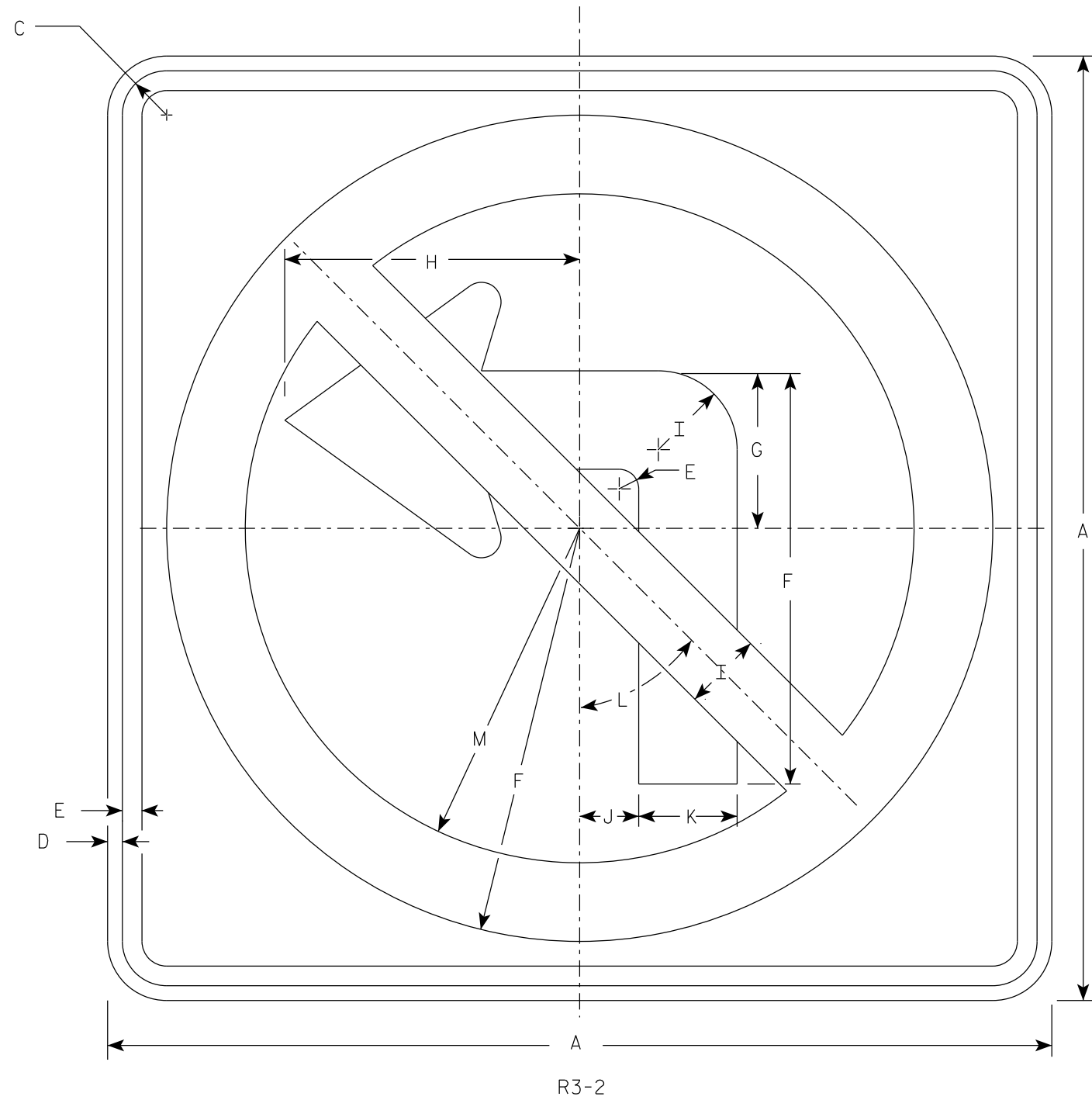
NOTES

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.

7

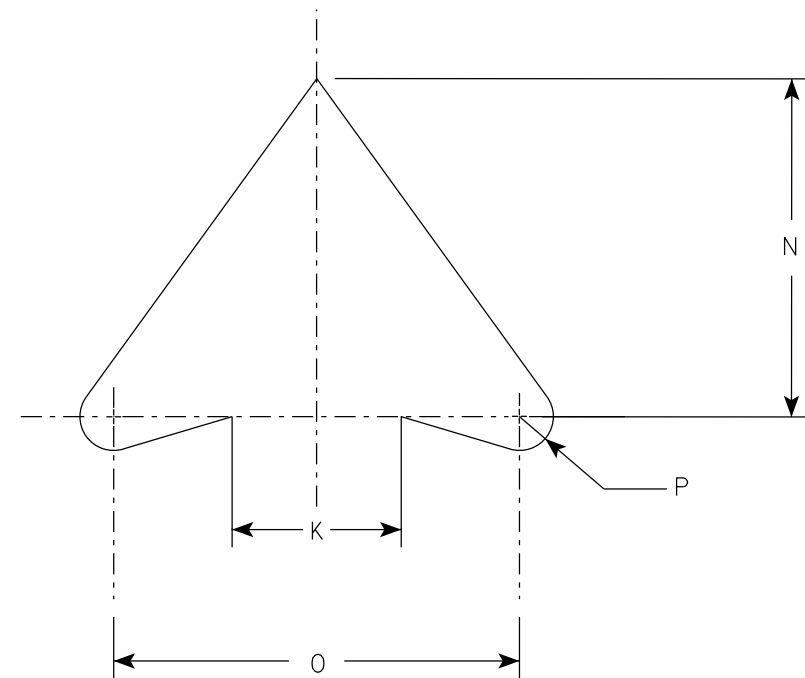
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8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

PROJECT NO:		HWY:		COUNTY:		SHEET NO: 227										E
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NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



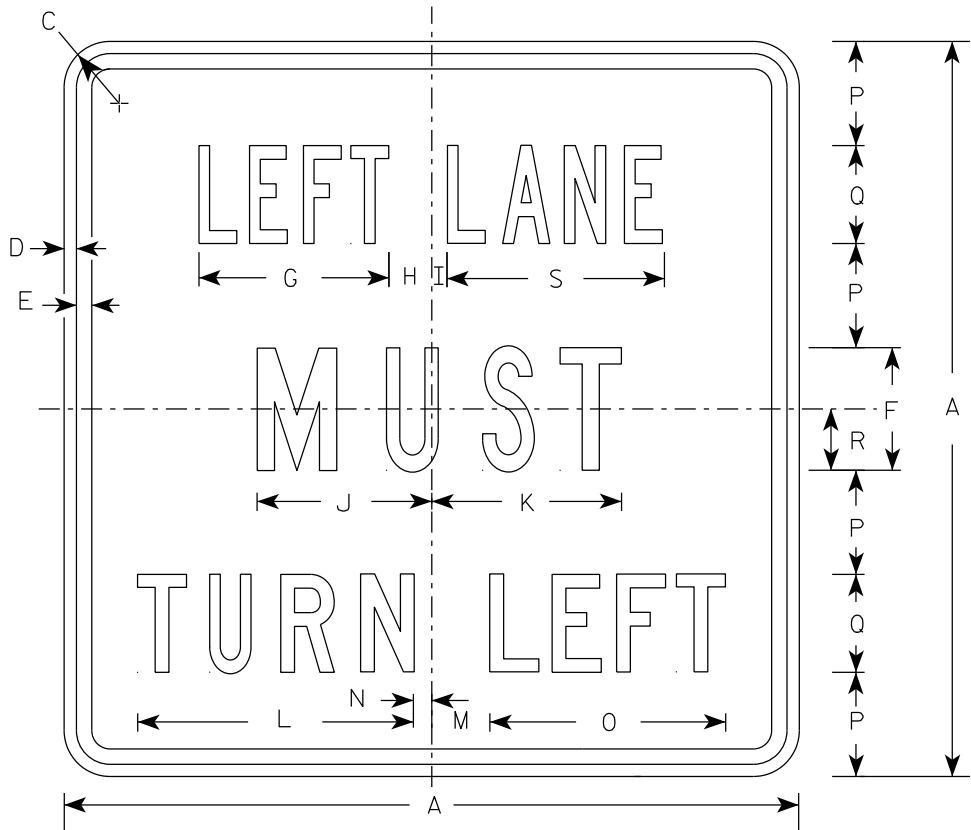
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

PROJECT NO:					HWY:					COUNTY:															SHEET NO: 228					E
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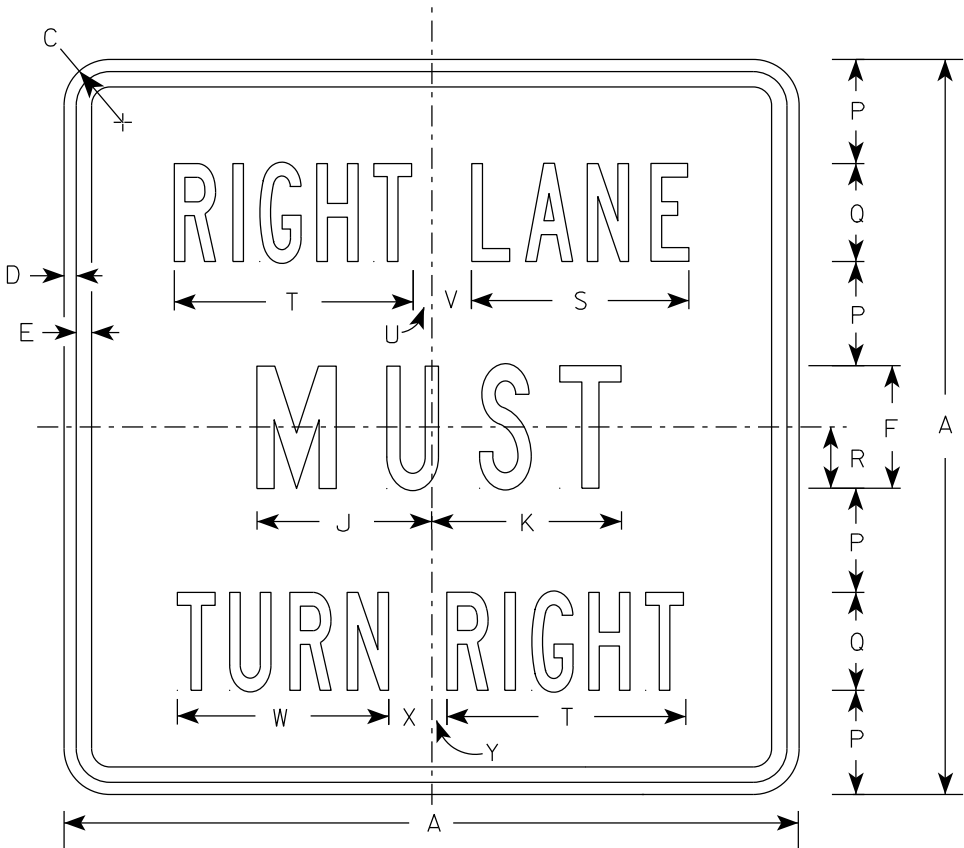
7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - Line 1 is Series B.
Line 2 is Series C.
Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.



R3-7L



R3-7R

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	5	7 3⁄4	1 3⁄4	5⁄8	7 1⁄8	7 3⁄4	11 1⁄4	2 3⁄8	3⁄4	9 5⁄8	4 1⁄4	4	2 1⁄2	8 7⁄8	9 3⁄4	3⁄4	1 5⁄8	8 5⁄8	1 5⁄8	5⁄8		6.25
2S	30		1 7⁄8	1⁄2	5⁄8	5	7 3⁄4	1 3⁄4	5⁄8	7 1⁄8	7 3⁄4	11 1⁄4	2 3⁄8	3⁄4	9 5⁄8	4 1⁄4	4	2 1⁄2	8 7⁄8	9 3⁄4	3⁄4	1 5⁄8	8 5⁄8	1 5⁄8	5⁄8		6.25
2M	30		1 7⁄8	1⁄2	5⁄8	5	7 3⁄4	1 3⁄4	5⁄8	7 1⁄8	7 3⁄4	11 1⁄4	2 3⁄8	3⁄4	9 5⁄8	4 1⁄4	4	2 1⁄2	8 7⁄8	9 3⁄4	3⁄4	1 5⁄8	8 5⁄8	1 5⁄8	5⁄8		6.25
3	36		2 1⁄4	5⁄8	3⁄4	6	9 5⁄8	2	1 1⁄8	8 3⁄4	9	13 1⁄2	3 7⁄8	1 1⁄2	12 1⁄2	5	5	3	10 5⁄8	12	7⁄8	2 1⁄4	10 5⁄8	2 1⁄8	1		9.00
4	48		2 1⁄4	3⁄4	1	8	13 1⁄2	2 3⁄8	1 1⁄2	11 1⁄2	11 7⁄8	17 3⁄4	3 5⁄8	2 1⁄2	16 3⁄8	6 1⁄2	7	4	14 3⁄8	16 7⁄8	5⁄8	3 1⁄4	15 1⁄8	2 3⁄4	1 1⁄8		16.00
5																											

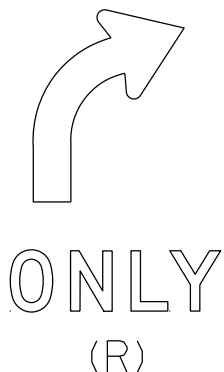
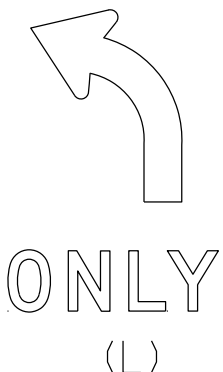
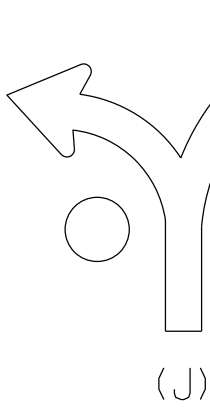
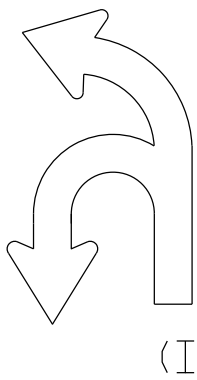
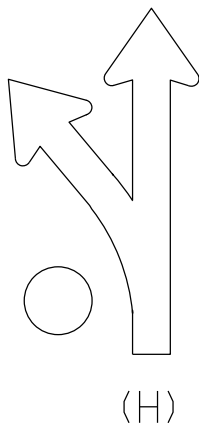
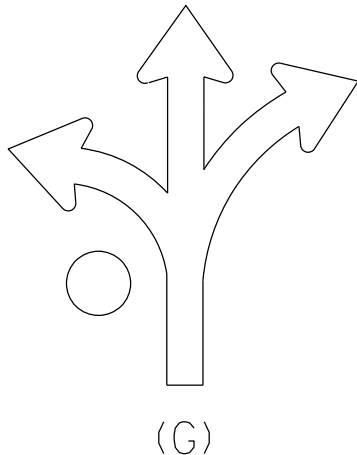
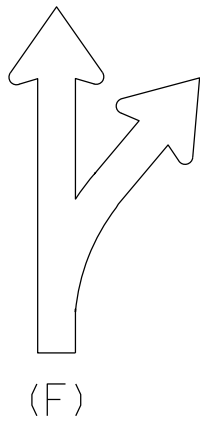
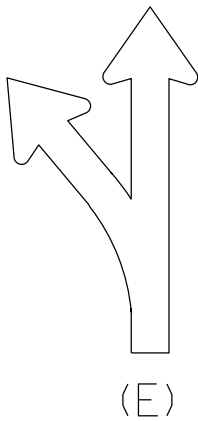
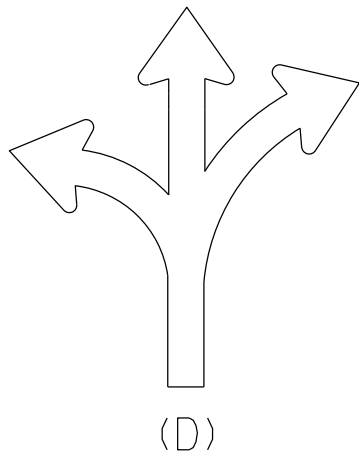
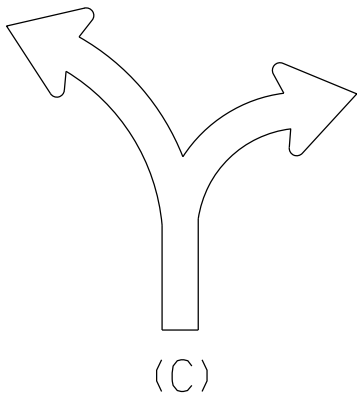
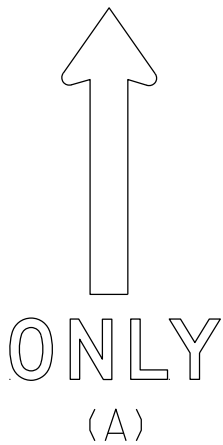
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-7.4

7



NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter = 3.75 sq ft for Size 2
6.0 sq ft for Size 3
10.0 sq ft for Size 4 or 5

2 Letters = 7.5 sq ft for Size 2
12.0 sq ft for Size 3
20.0 sq ft for Size 4 or 5

3 Letters = 11.25 sq ft for Size 2
18.0 sq ft for Size 3
30.0 sq ft for Size 4 or 5

4 Letters = 15.0 sq ft for Size 2
24.0 sq ft for Size 3
40.0 sq ft for Size 4 or 5

5 Letters = 18.75 sq ft for Size 2
30.0 sq ft for Size 3
50.0 sq ft for Size 4 or 5

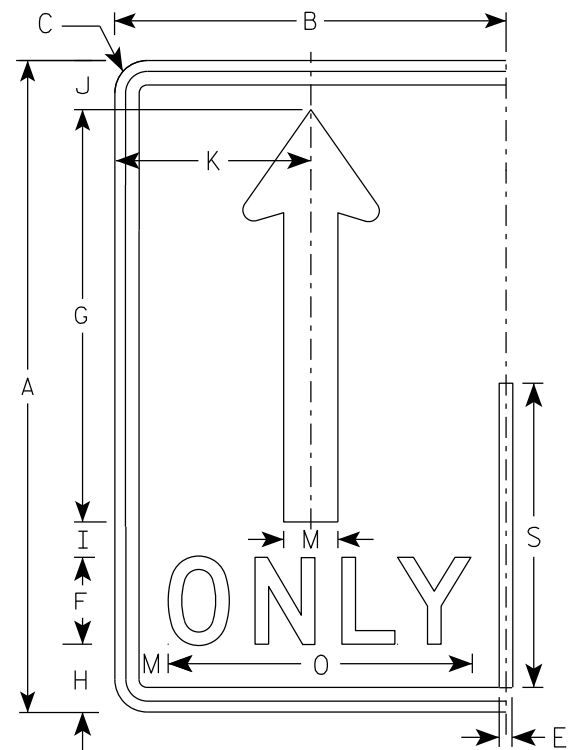
6 Letters = 22.5 sq ft for Size 2
36.0 sq ft for Size 3
60.0 sq ft for Size 4 or 5

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq.Ft. changes.
Add the amounts when these letters are used:
1.25 sq ft for Size 2
1.5 sq ft for Size 3
2.0 sq ft for Size 4 or 5

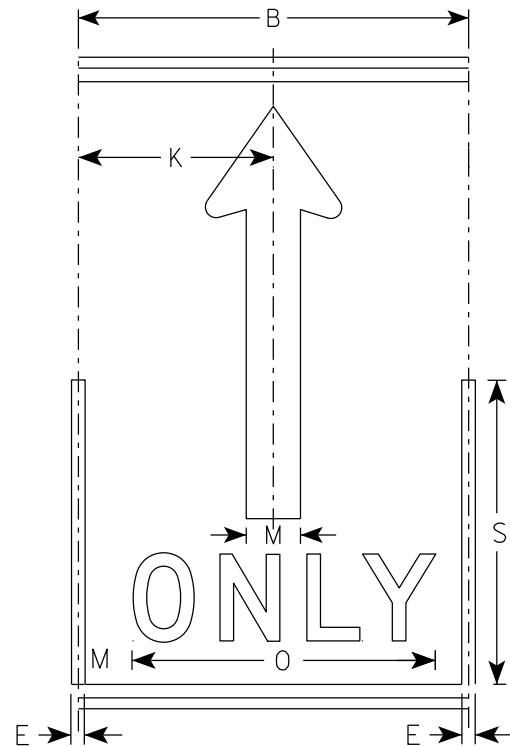
STANDARD SIGN R3-8 Series	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 2/14/23	PLATE NO. R3-8.2

NOTES

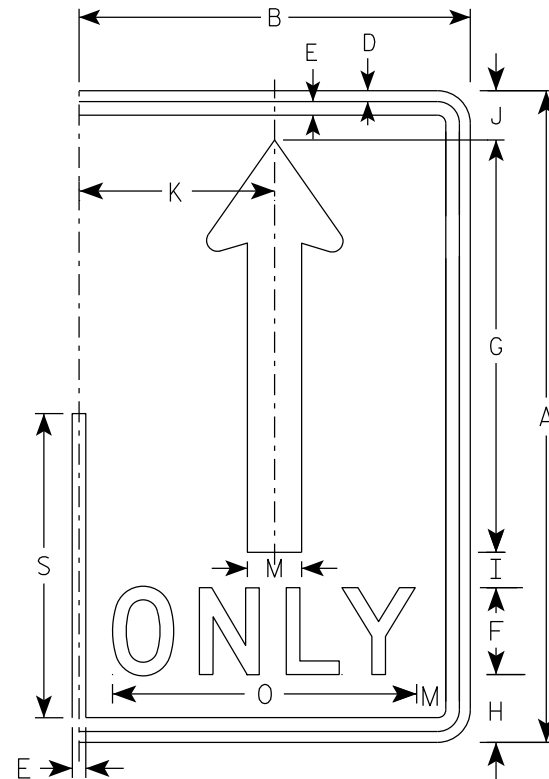
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



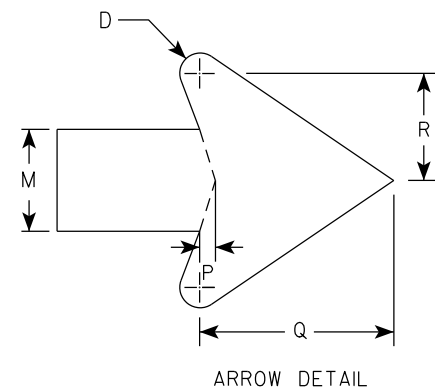
(A)



(A)



(A)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

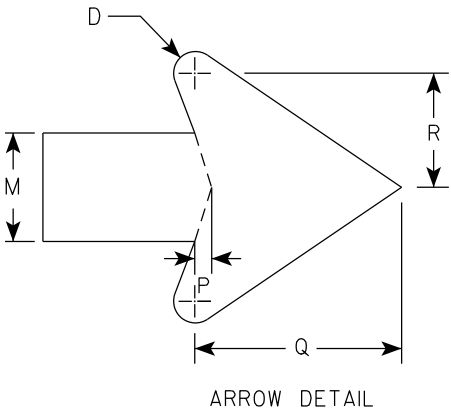
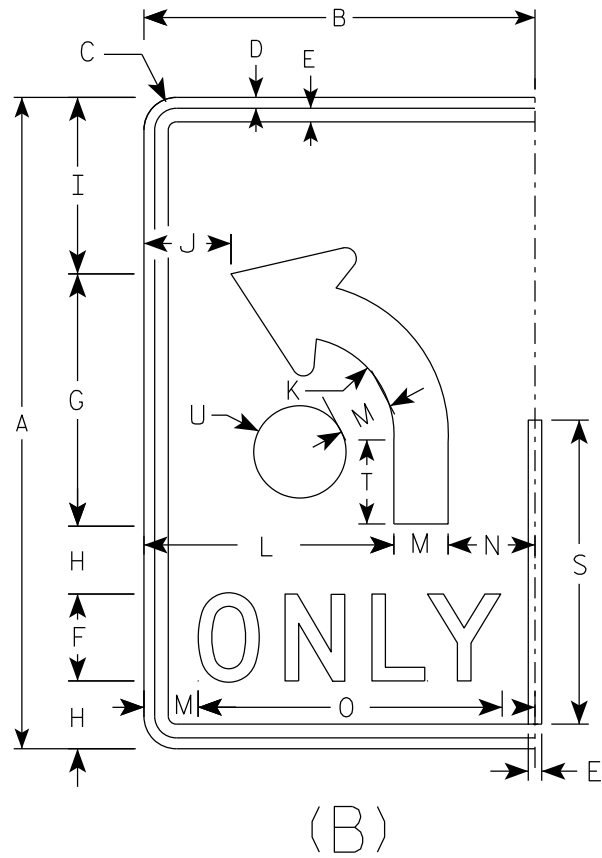
NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black

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	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

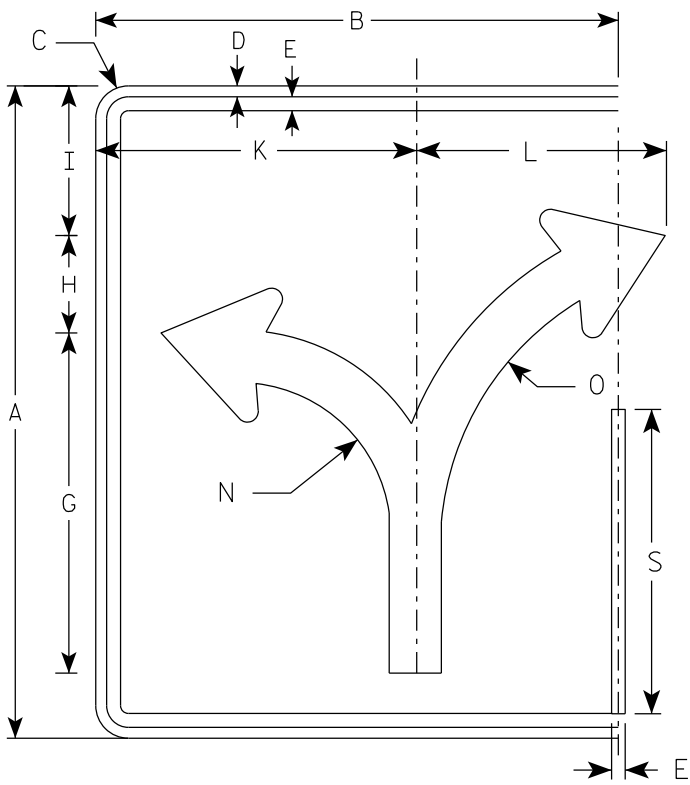
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

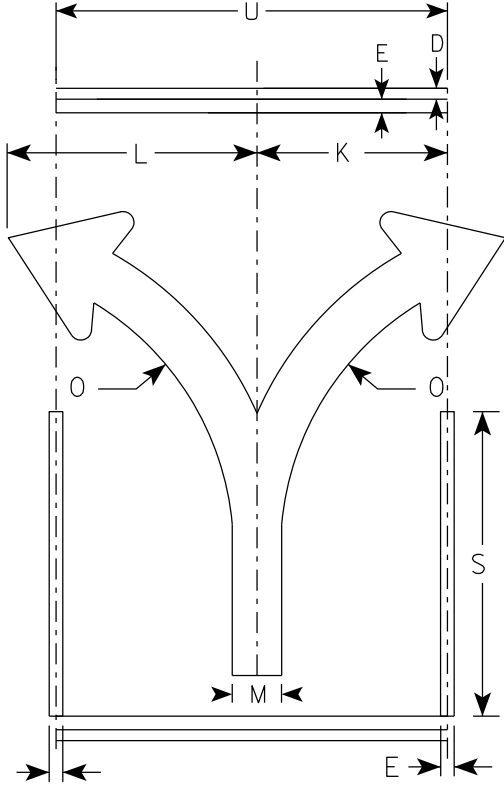
7

NOTES

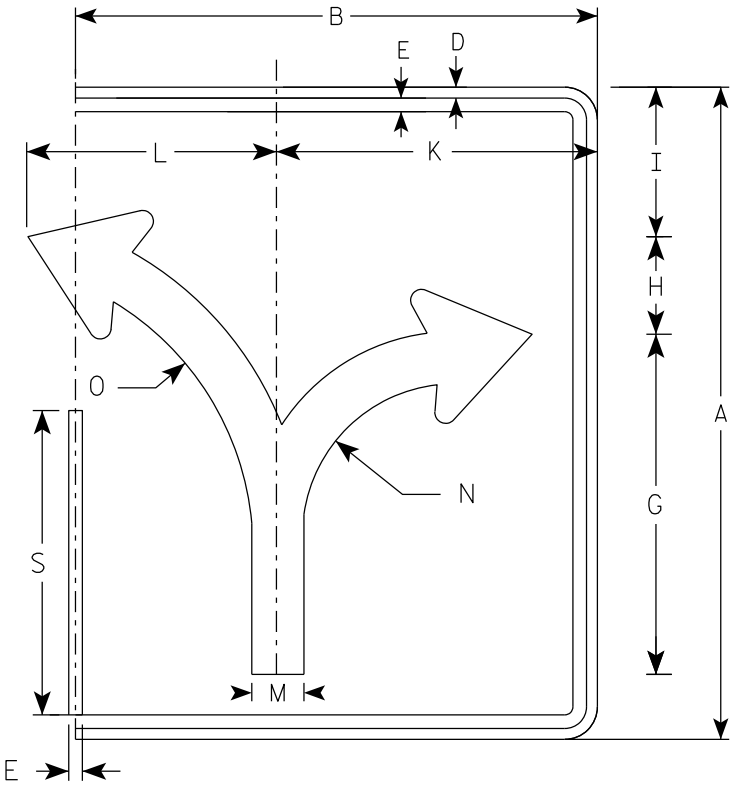
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



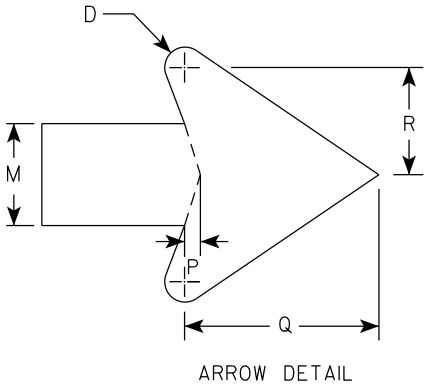
(C)



(C)



(C)



																											ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

PROJECT NO:

HWY:

COUNTY:

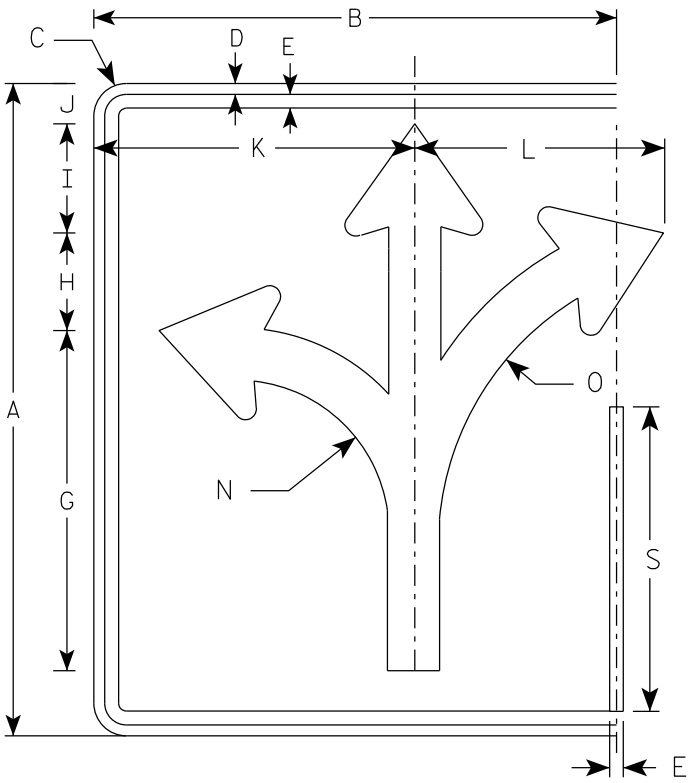
SHEET NO: 233

E

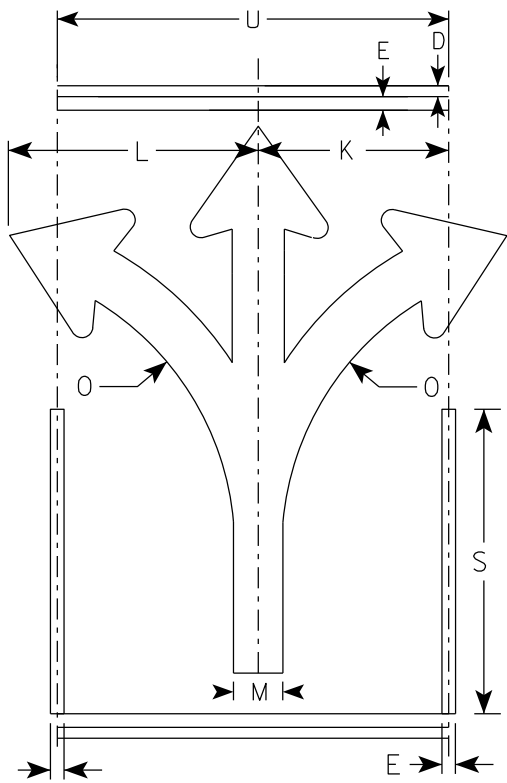
7

NOTES

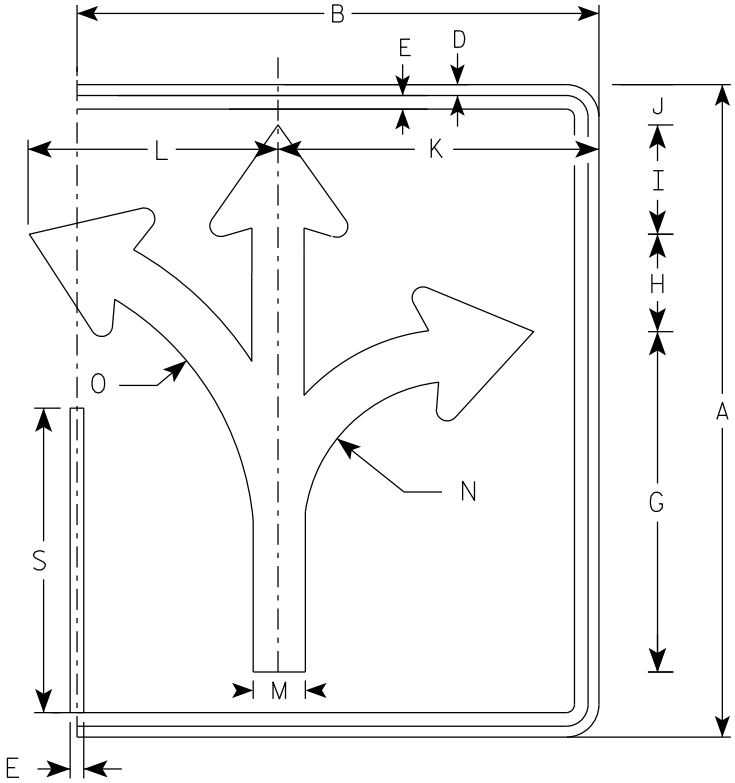
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



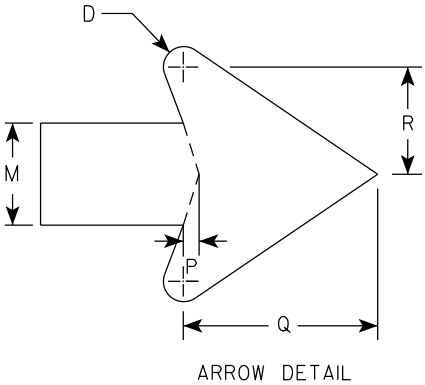
(D)



(D)



(D)



ARROW DETAIL

																												ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.	
1																													
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	

PROJECT NO:

HWY:

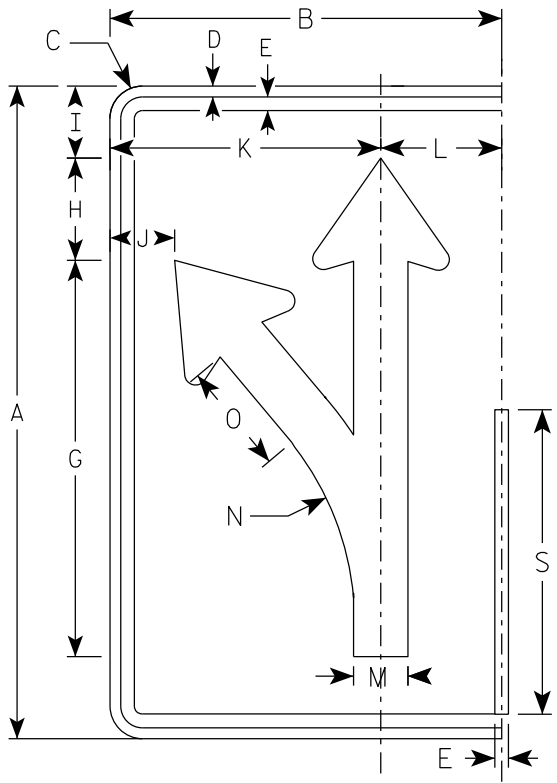
COUNTY:

SHEET NO: 234

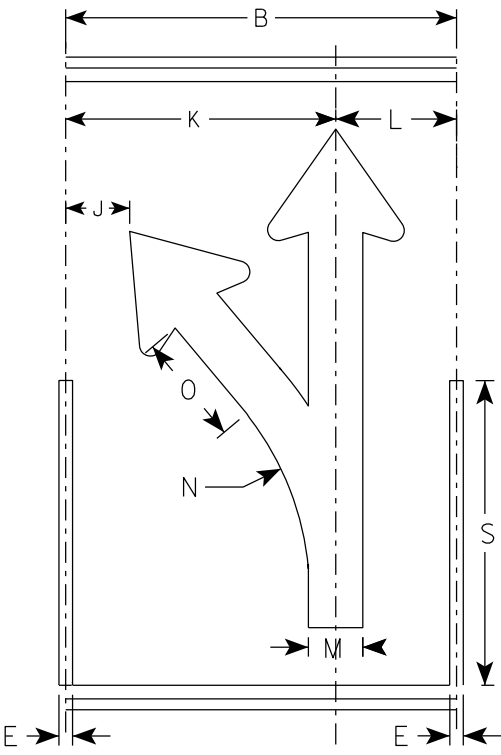
E

NOTES

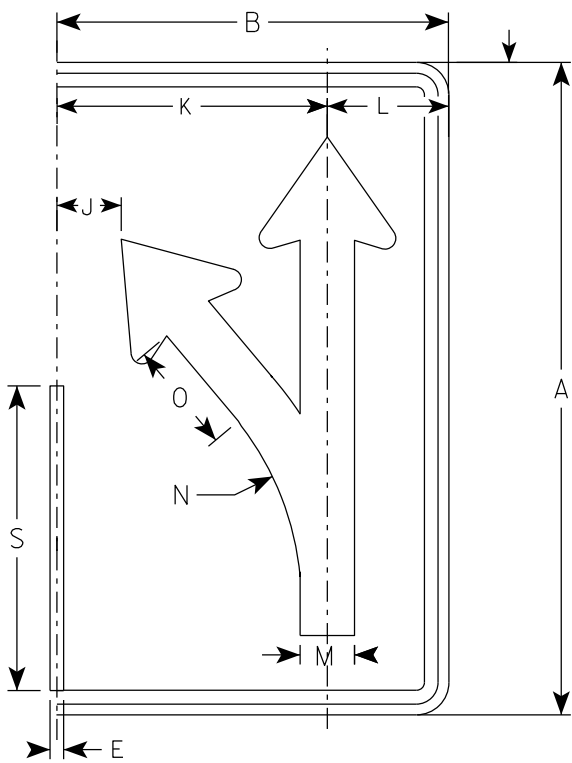
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



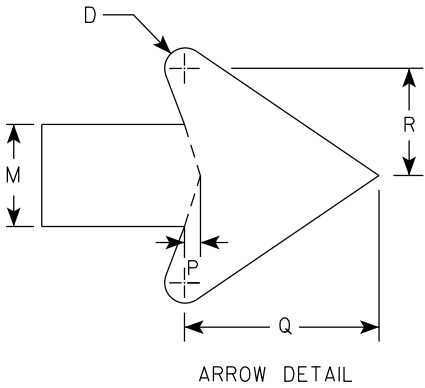
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 235

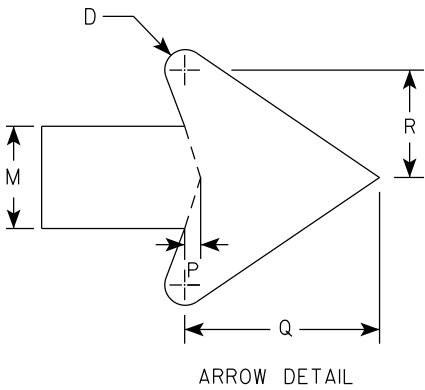
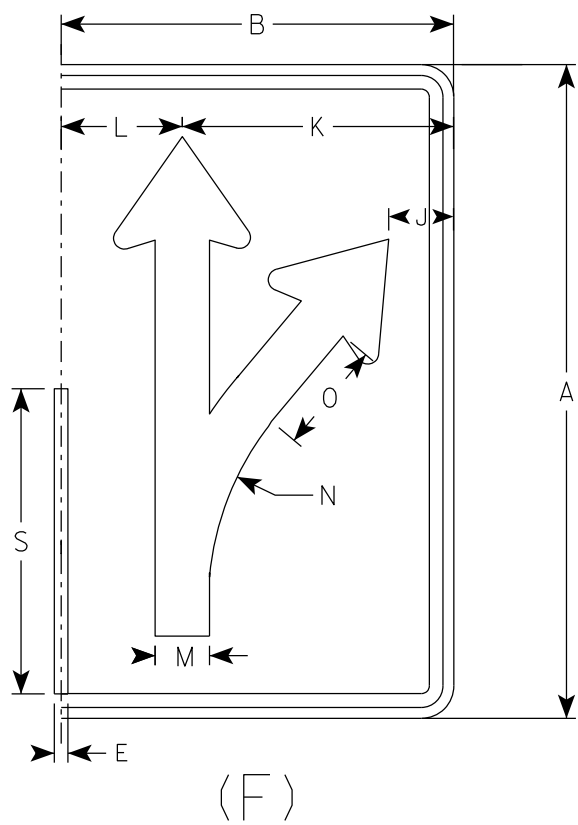
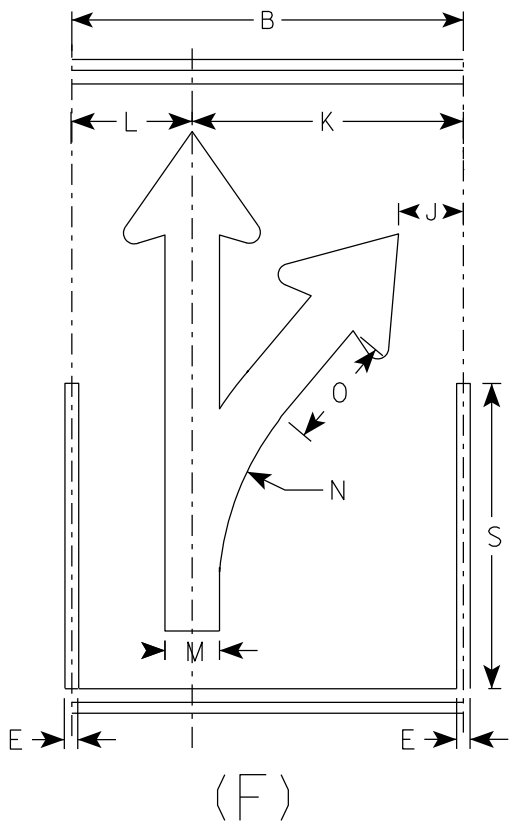
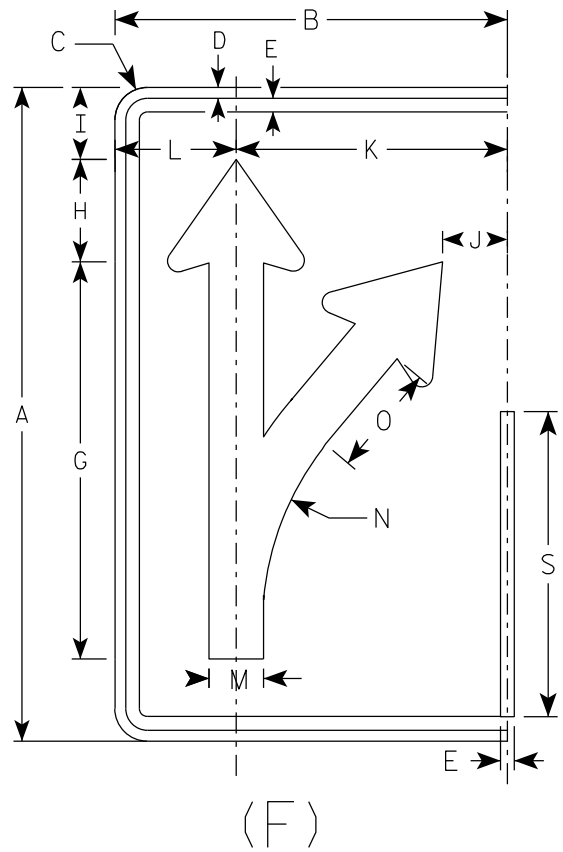
E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 236

E

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

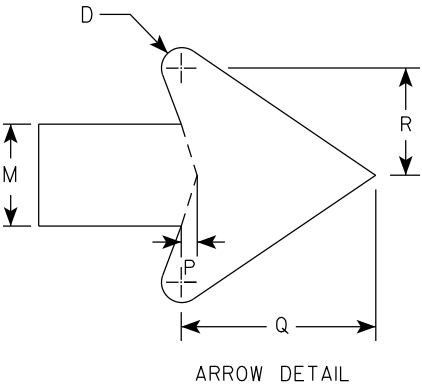
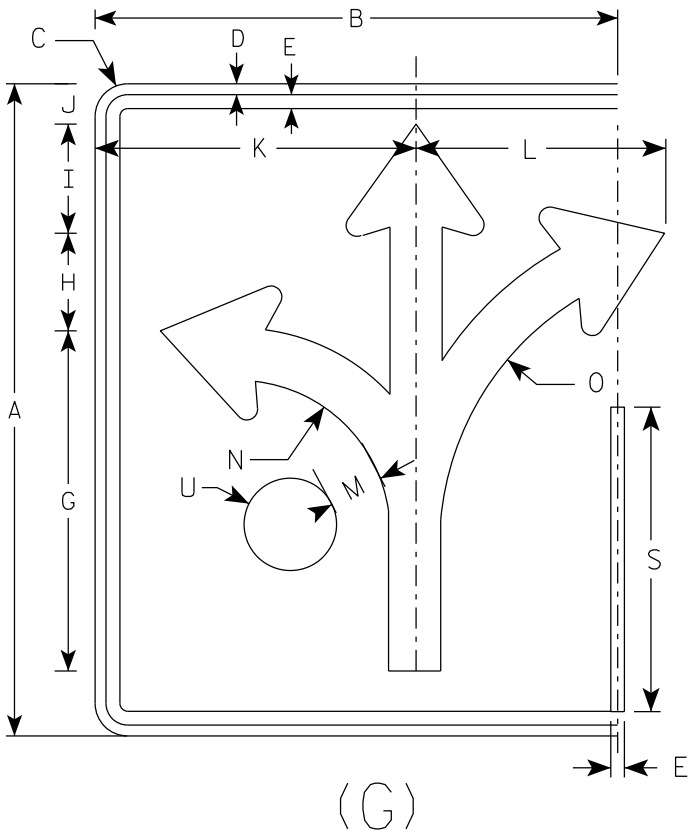
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 237

E

STANDARD SIGN

R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

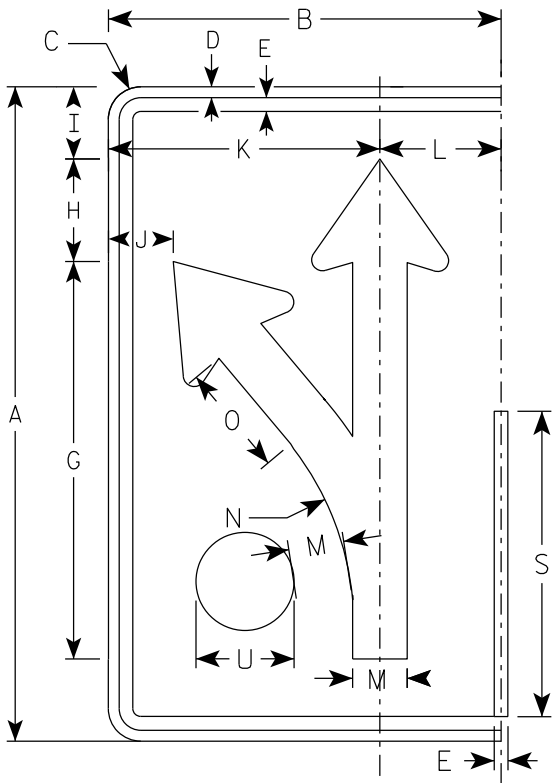
7

NOTES

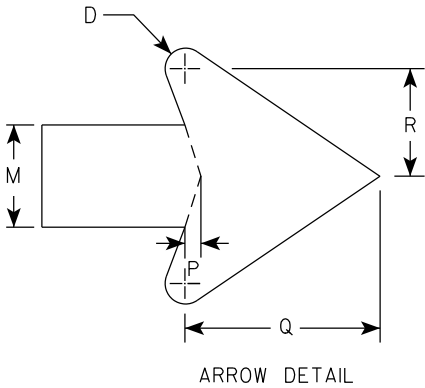
1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 238

E

STANDARD SIGN

R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

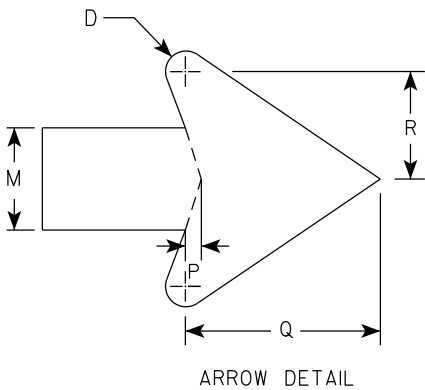
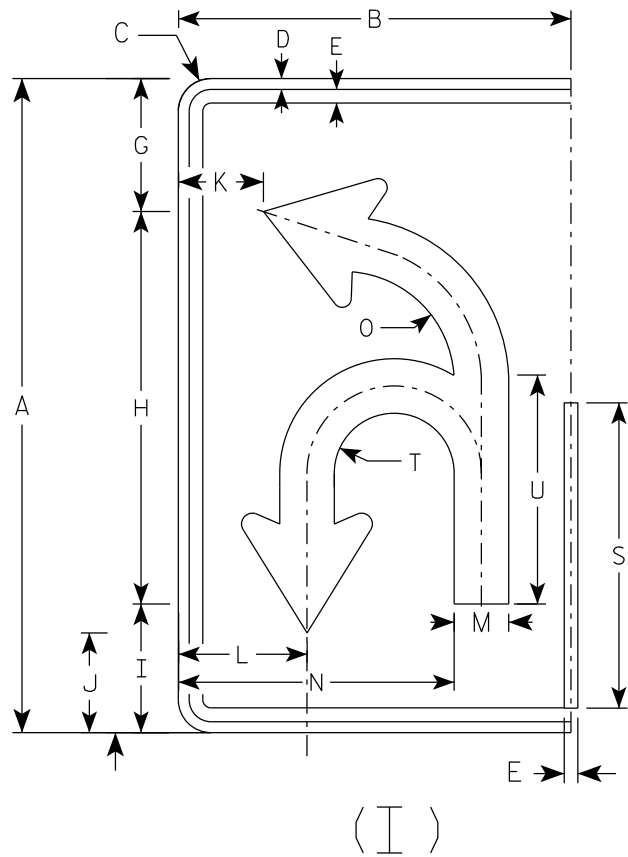
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 239

E

STANDARD SIGN

R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

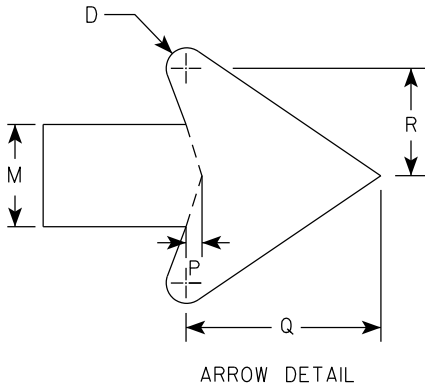
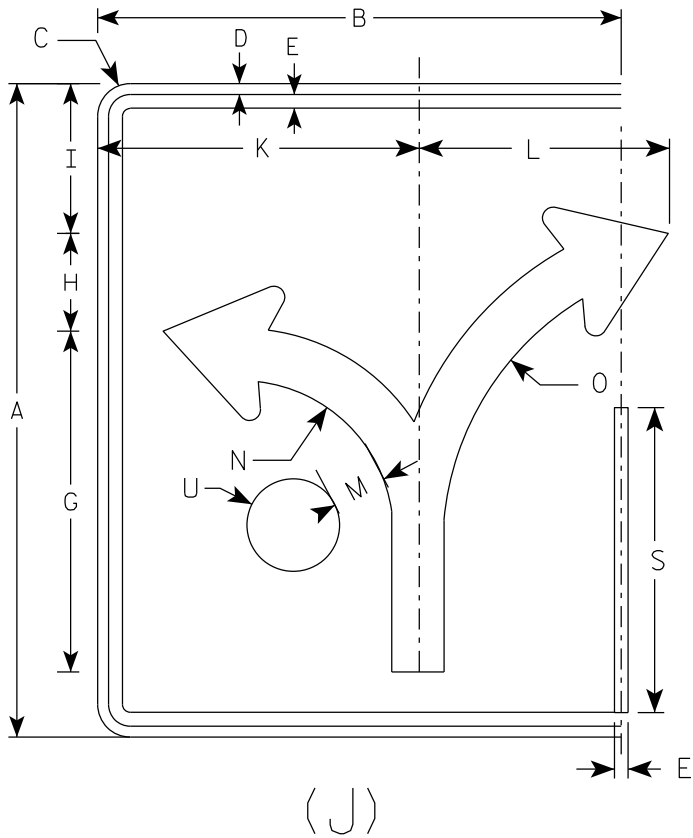
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 240

E

STANDARD SIGN

R3-8 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

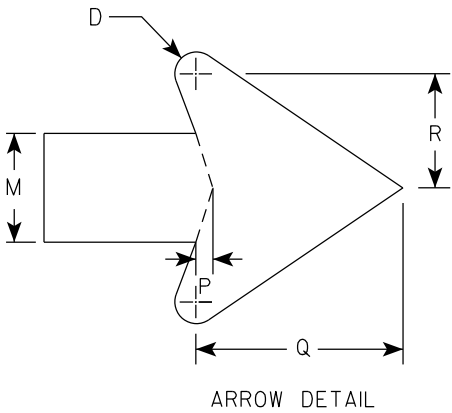
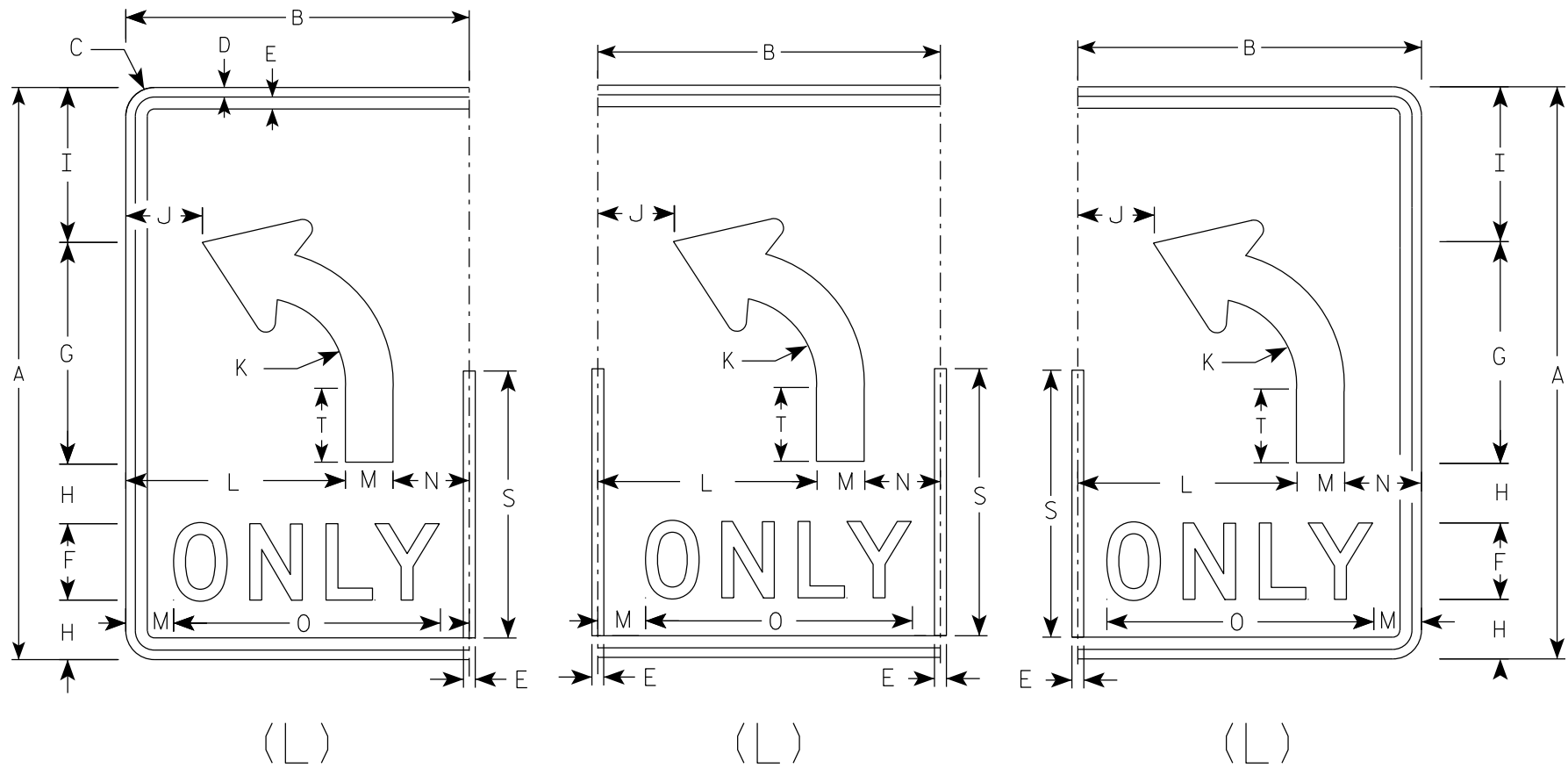
DATE 2/14/23

PLATE NO. R3-8.2

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

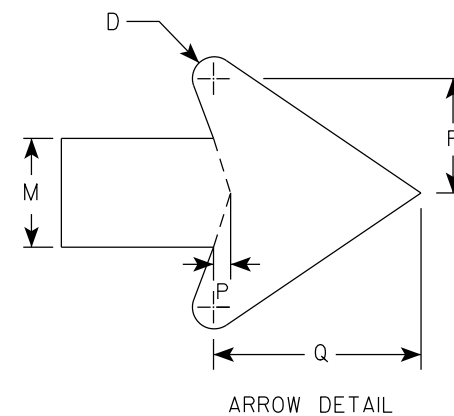
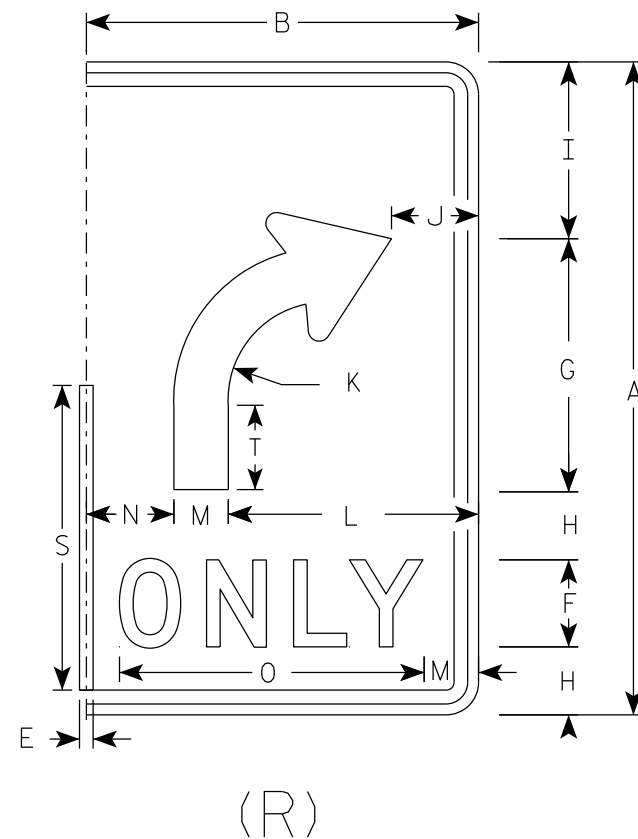
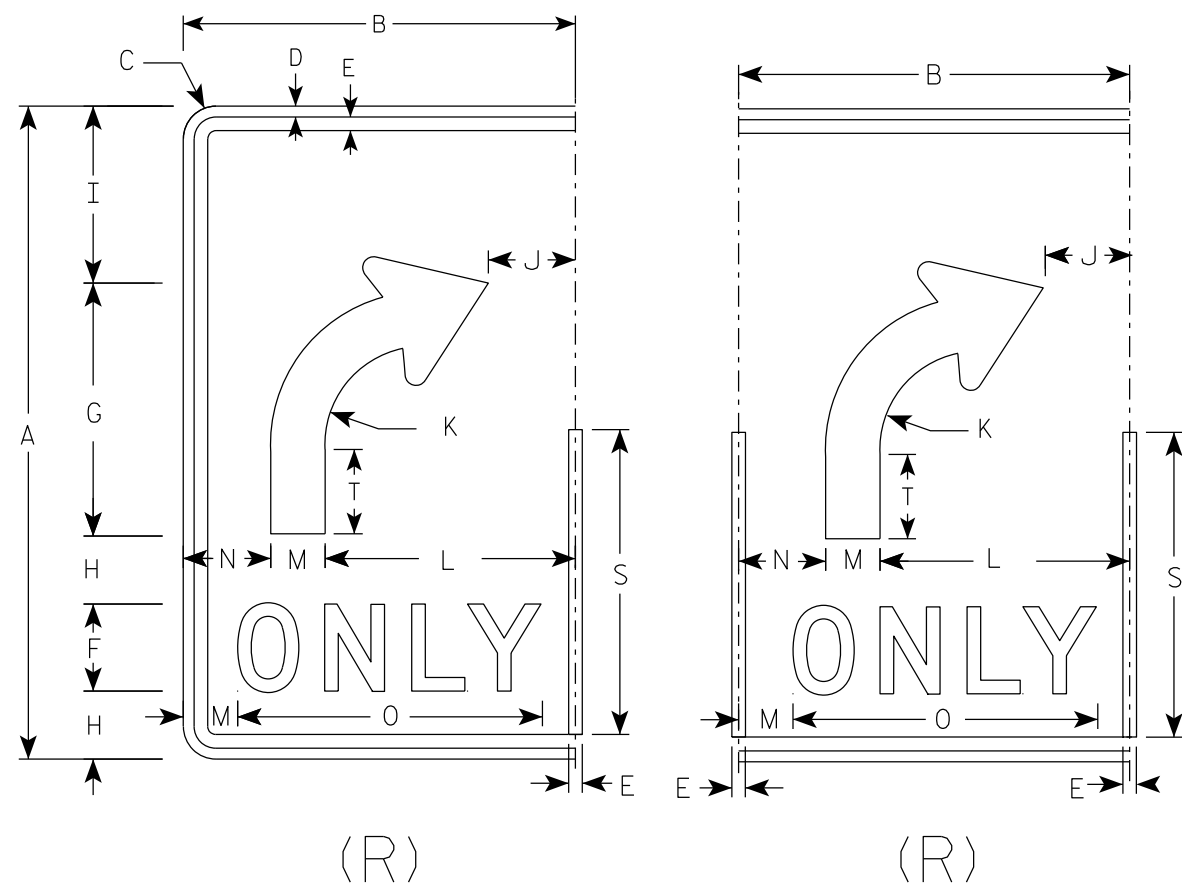
DATE 2/14/23

PLATE NO. R3-8.2

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

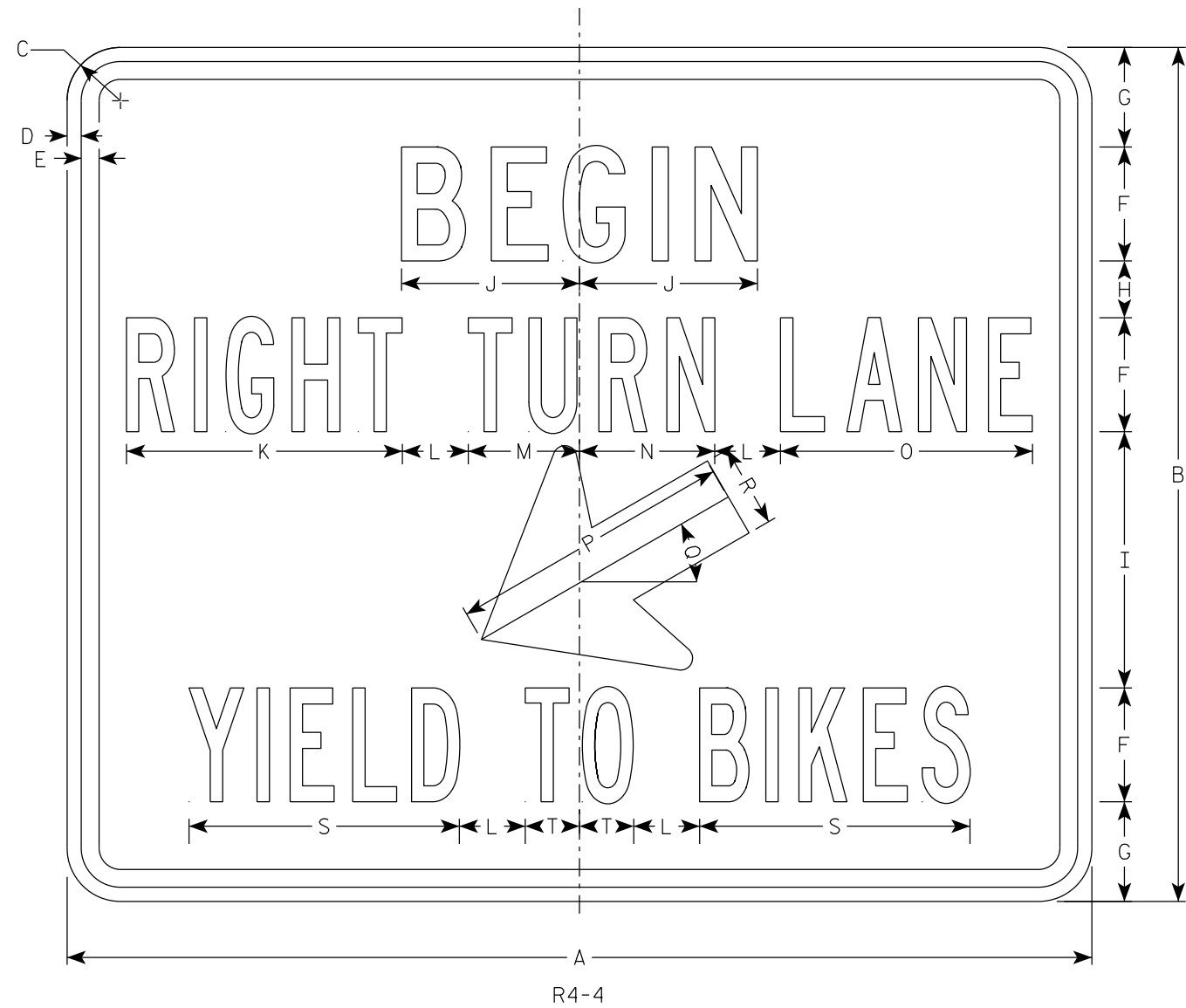
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

PLATE NO. R3-8.2

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - See Note 5
- 4. Line 1 is Series C
Lines 2 & 3 are Series B

7

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

PROJECT NO:

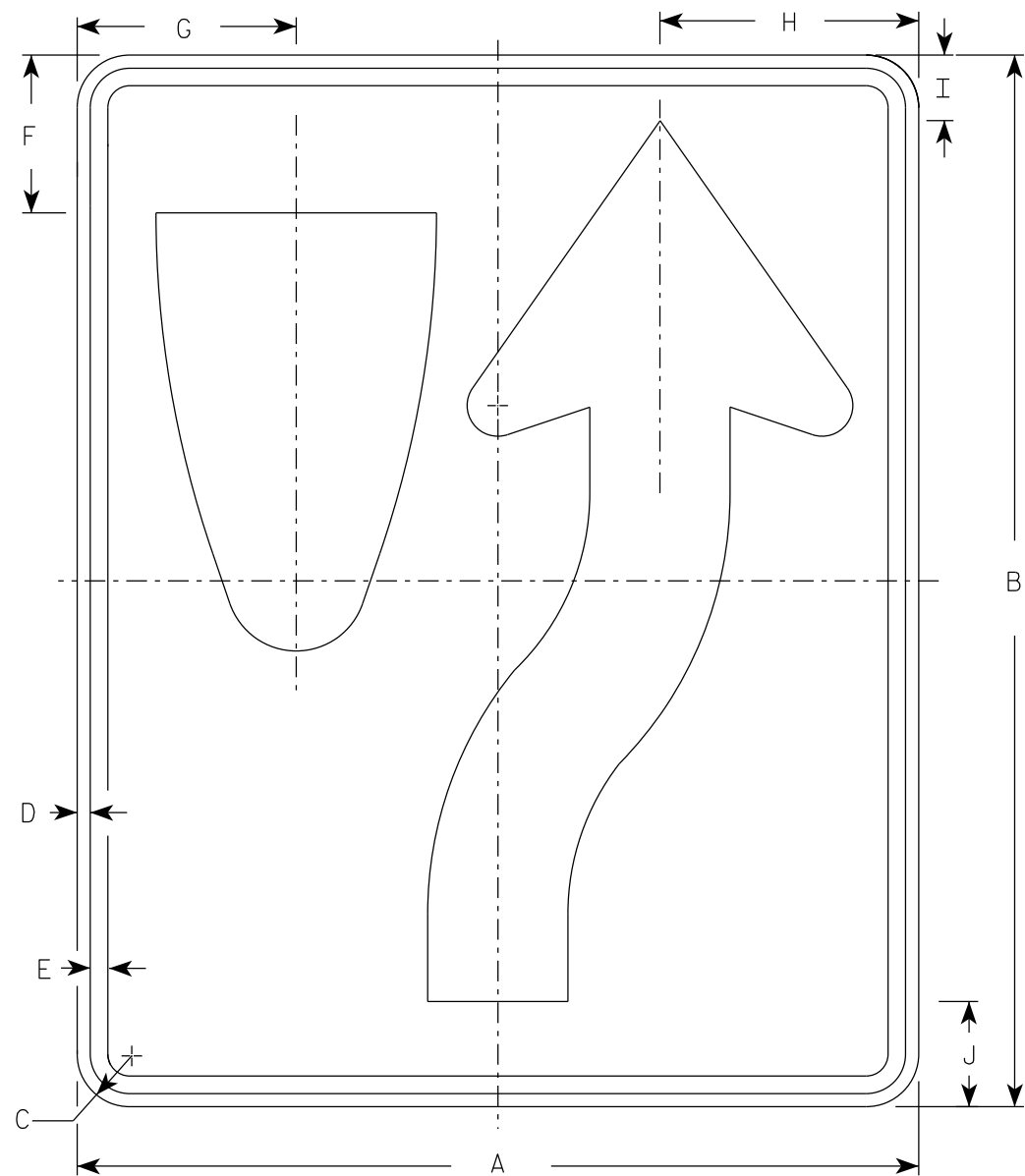
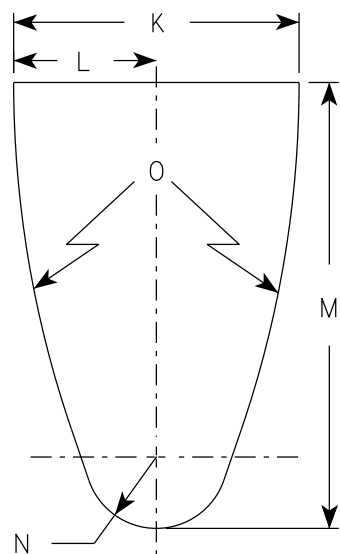
HWY:

COUNTY:

SHEET NO: 243

E

DIVIDER DETAIL

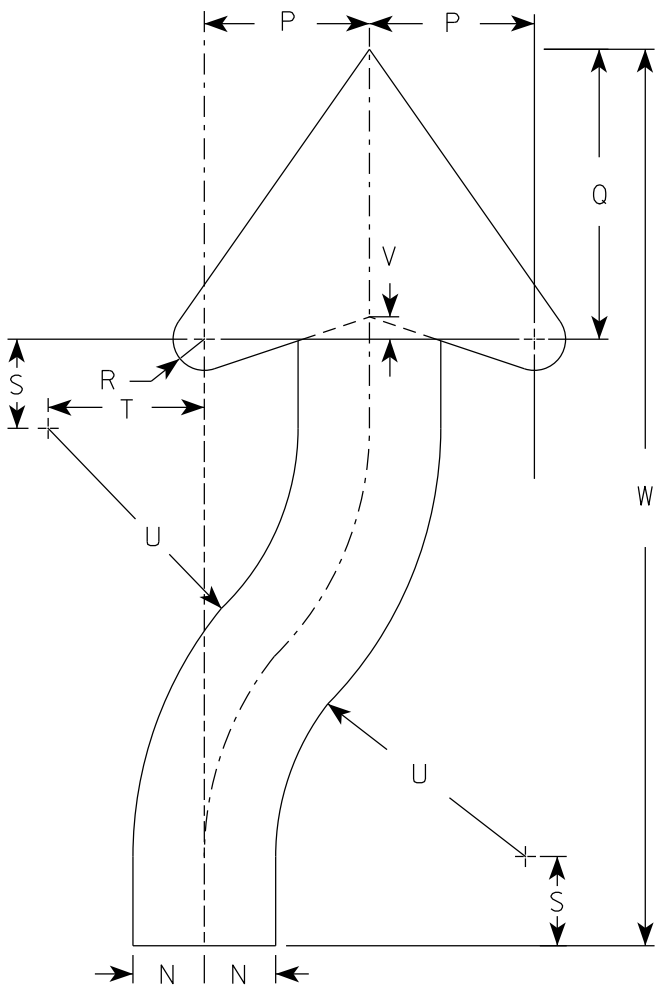


R4-7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. R4-8 is the same as R4-7 except Legend 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	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

PROJECT NO:

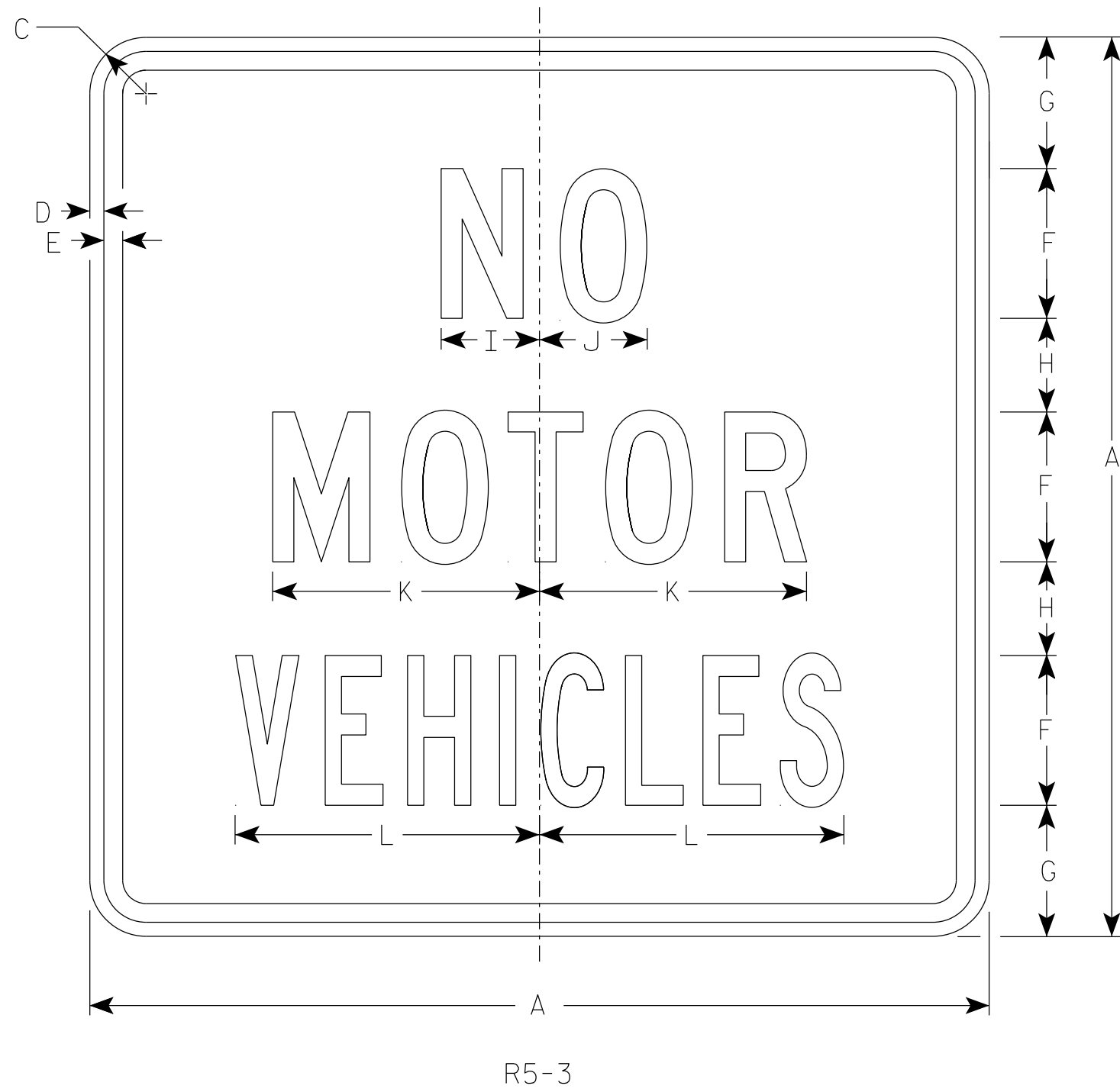
HWY:

COUNTY:

SHEET NO: 244

E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - See Note 4
4. Lines 1 & 2 are Series C.
Line 3 is Series B.

7

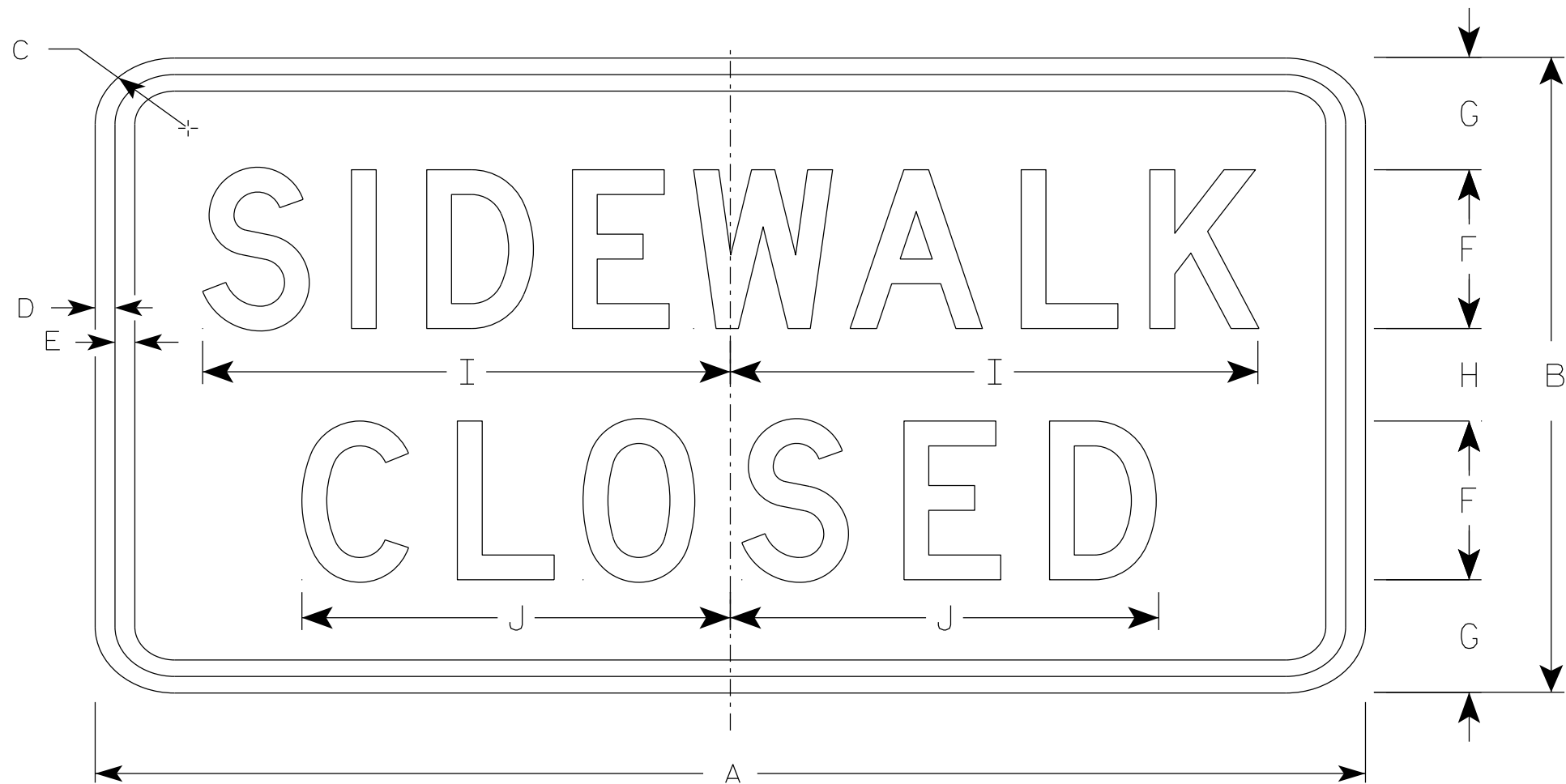
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/2	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
2M	24		1 1/2	3/8	1/2	4	3 1/2	2 1/2	2 5/8	2 7/8	7 1/8	8 1/8															4.0
3																											
4																											
5																											

STANDARD SIGN
R5 - 3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 8/17/23 PLATE NO. R5-3.3

7



R9-9

NOTES

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

7

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

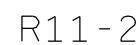
PROJECT NO:

HWY:

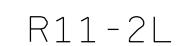
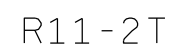
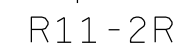
COUNTY:

SHEET NO: 246

E



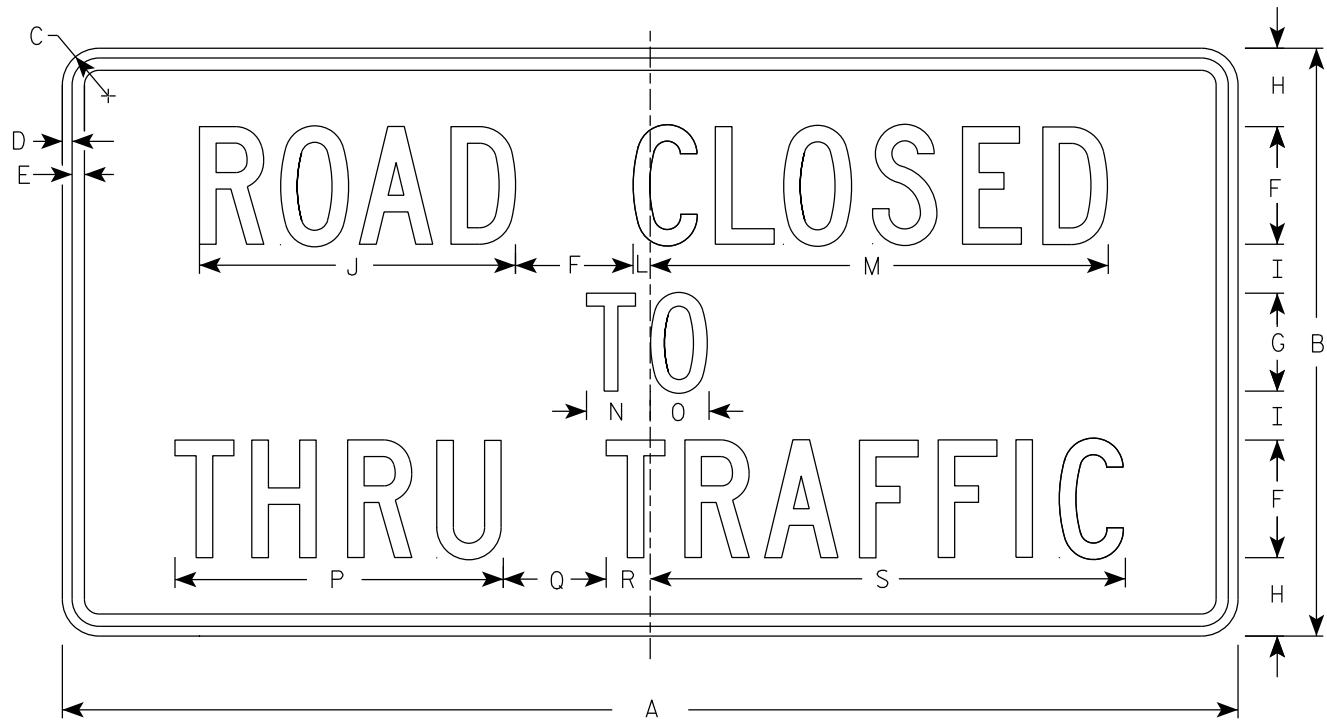
1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R Rauch</u> for State Traffic Engineer
DATE <u>2/5/24</u>	PLATE NO. <u>R11-2.12</u>

FILE NAME : C:\Users\PROJECTS\tr_stdp\plate\N112.dgn	PLOT DATE : 5-FEB 2024 2:10	PLOT BY : mscj9h	PLOT NAME :	PLOT SCALE : \$\$.....plot\$scale.....\$\$	24/	WISDOT/CADD\$ SHEET 42
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7



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.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	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																											

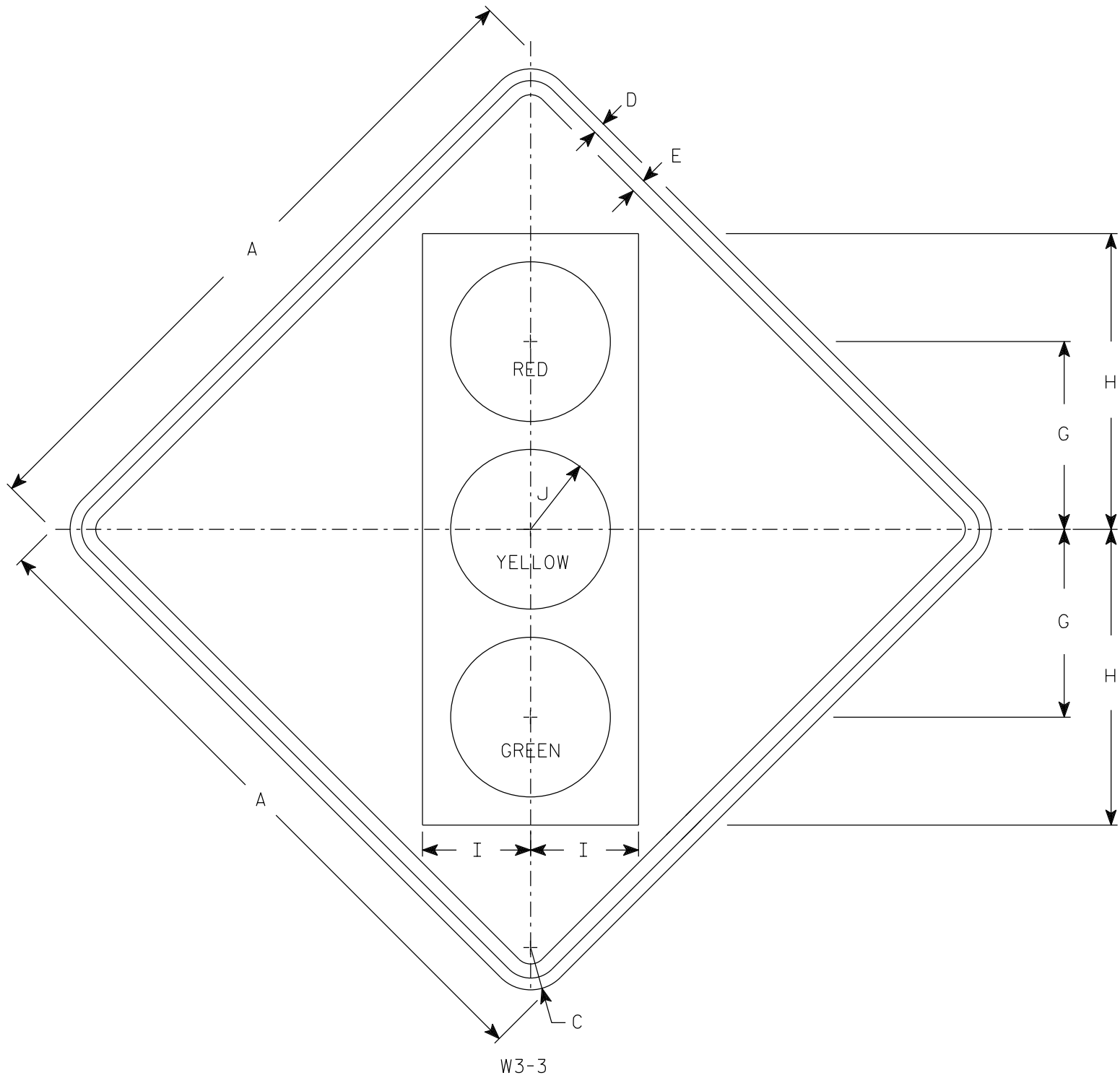
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 248

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - See Note 3
- 3. Symbol and border are non-reflective black.
 - Top circle - Type H Reflectorized Red
 - Center circle - Same as background
 - Bottom circle - Type H Reflectorized Green

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		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0

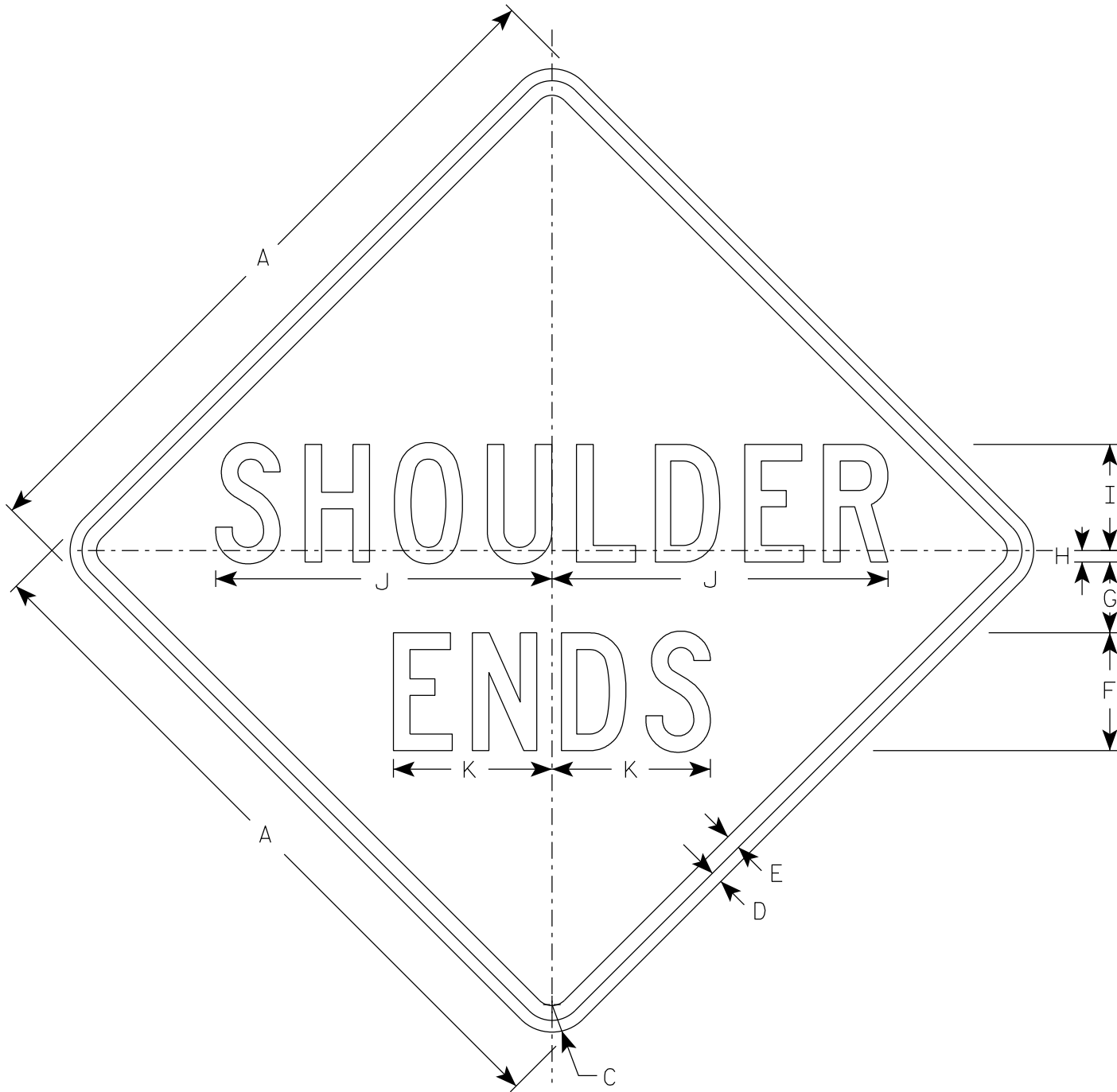
STANDARD SIGN

W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/2023 PLATE NO. W3-3.12



W8-25

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - C

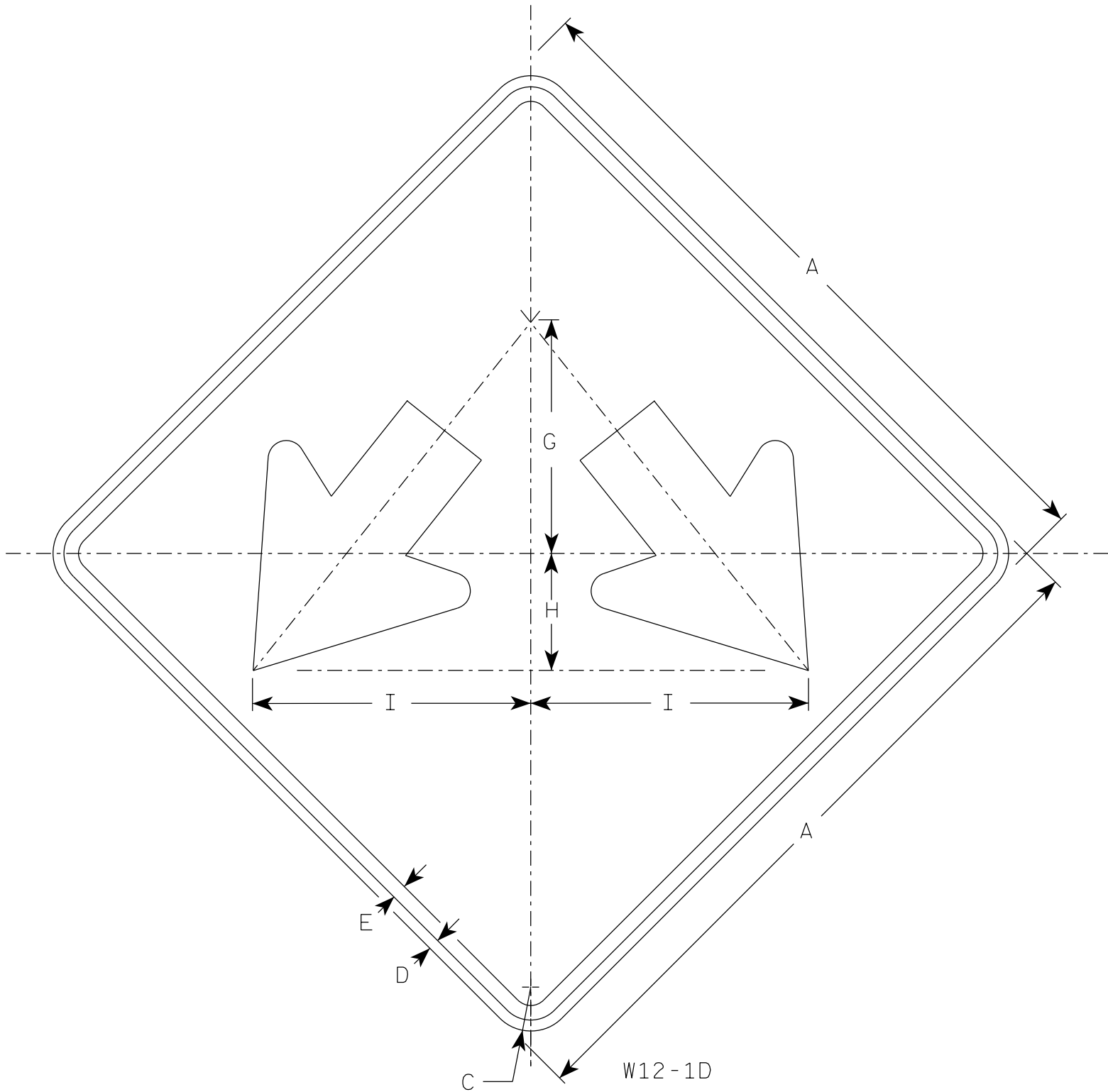
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	3	1/2	4 1/2	14 1/4	6 3/4																6.25
2S	36		2 1/4	5/8	3/4	6	3 1/2	1/2	5 1/2	17 1/8	8 1/8																9.0
2M	36		2 1/4	5/8	3/4	6	3 1/2	1/2	5 1/2	17 1/8	8 1/8																9.0
3	36		2 1/4	5/8	3/4	6	3 1/2	1/2	5 1/2	17 1/8	8 1/8																9.0
4	36		2 1/4	5/8	3/4	6	3 1/2	1/2	5 1/2	17 1/8	8 1/8																9.0
5	48		3	3/4	1	8	4	1/2	7 1/2	22 3/4	10 3/4																16.0

STANDARD SIGN
W8-25

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

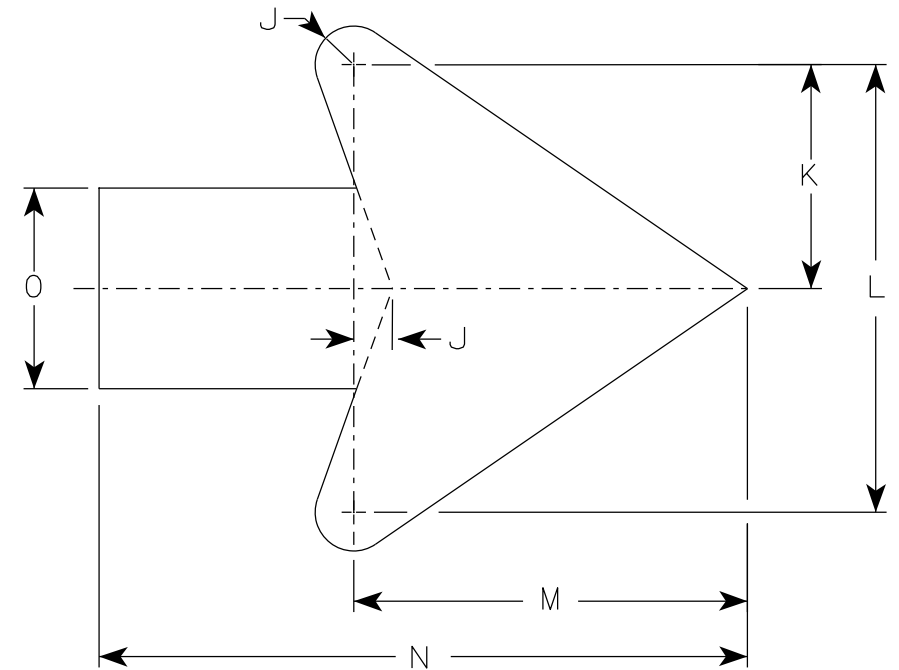
DATE 11/2/2023 PLATE NO. W8-25.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E
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NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black

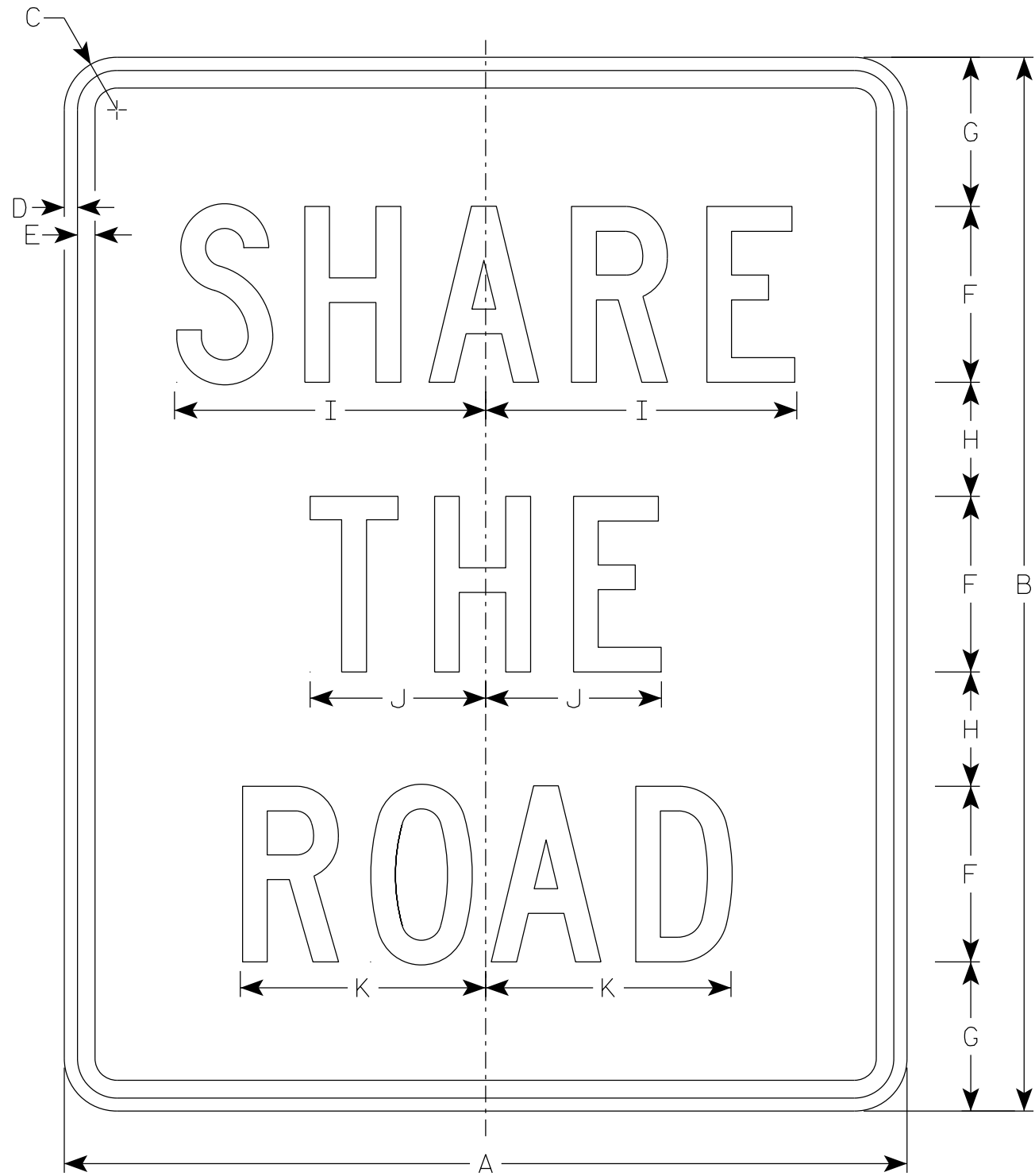


Arrow Detail

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	24		1 1/2	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/2	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 7/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		2 1/4	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		3	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN W12-1D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/30/2023	PLATE NO. W12-1D.16

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 251		E
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W16 - 1P

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 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																											
2S	18	24	1 1/2	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/2	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/2	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/2	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

STANDARD SIGN
W16 - 1P

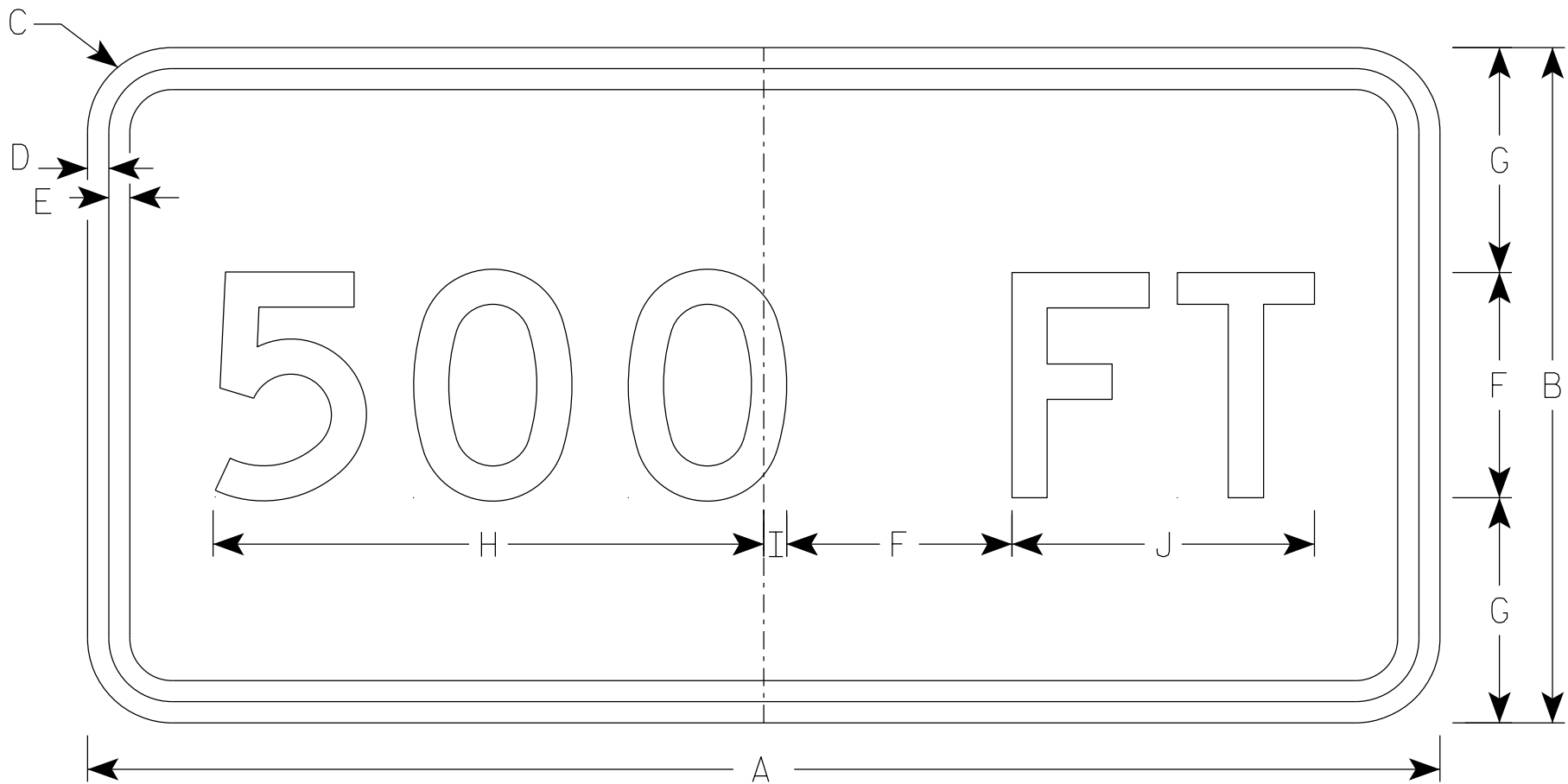
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/8/2024 PLATE NO. W16-1P.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 252		E
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W16-2A

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Message Series - D

7

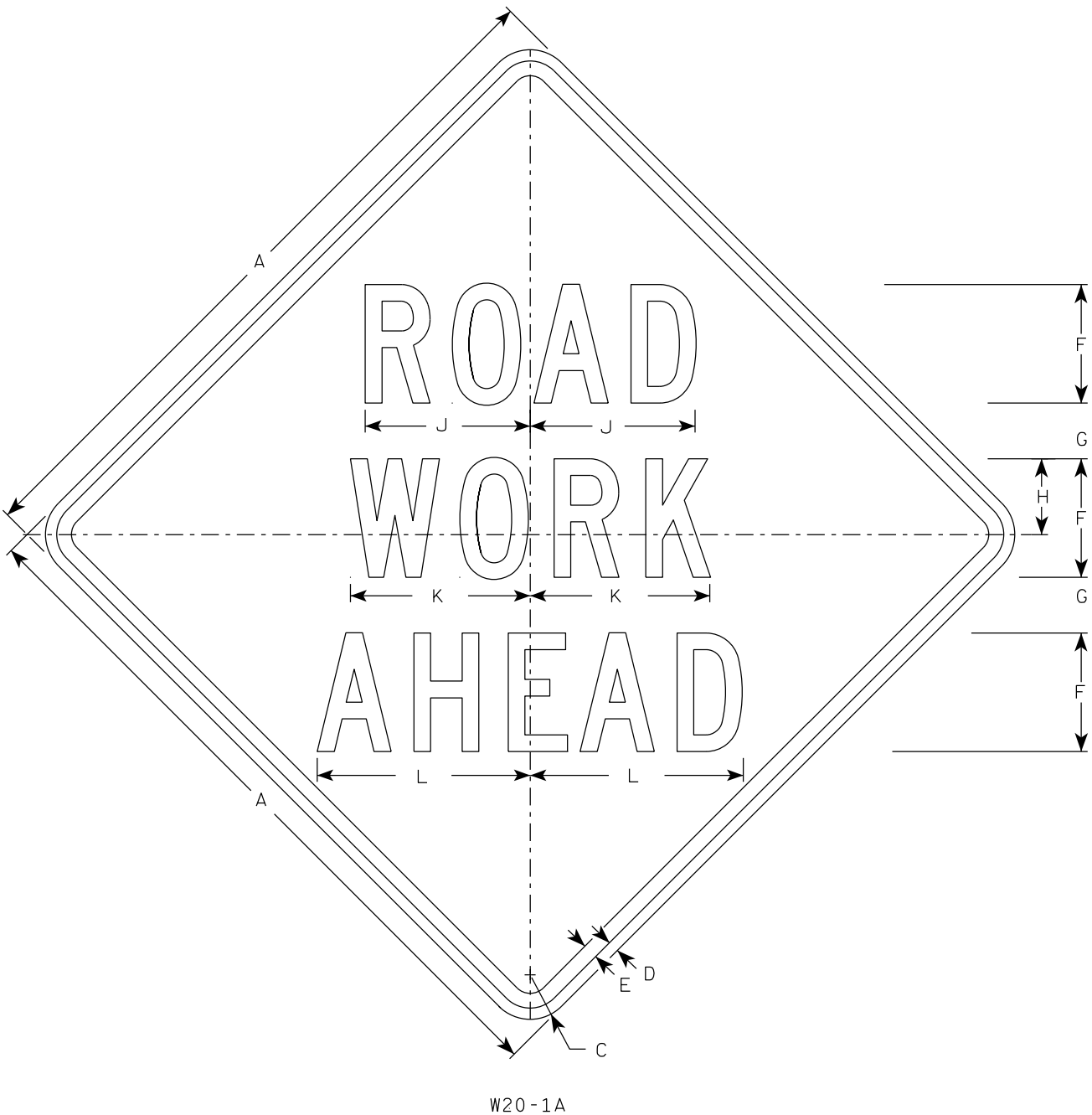
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	4	4	9 3/4	3/8	5 3/8																	2.0
2M	24	12	1 1/2	3/8	3/8	4	4	9 3/4	3/8	5 3/8																	2.0
3	30	18	1 1/2	3/8	1/2	5	5 1/2	12 1/4	1/2	6 3/4																	3.75
4	42	21	1 7/8	1/2	5/8	7	7	16 5/8	1 1/8	9 3/8																	6.13
5	42	21	1 7/8	1/2	5/8	7	7	16 5/8	1 1/8	9 3/8																	

STANDARD SIGN
W16-2A

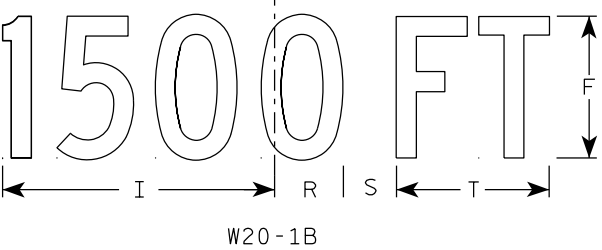
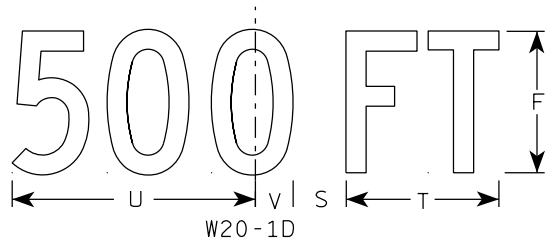
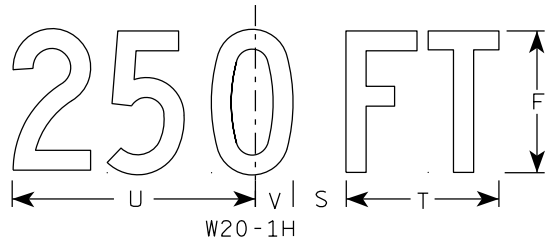
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/16/2024 PLATE NO. W16-2A.3

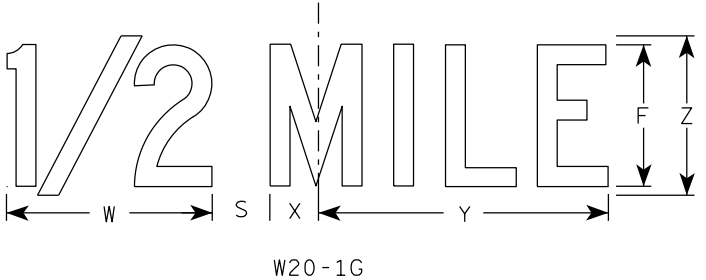


W20-1A

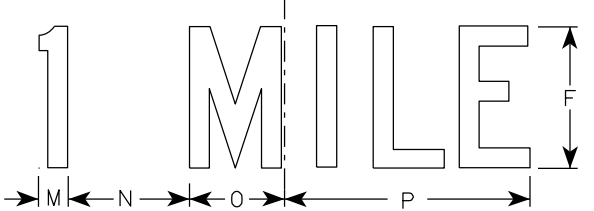


W20-1B

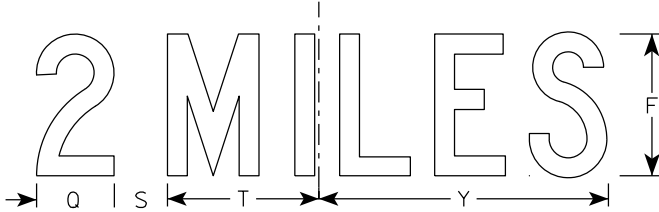
- NOTES
- 1. Sign is Type II - Type F Reflective
 - 2. Color:
Background - Orange
Message - Black
 - 3. Message Series - C
 - 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G

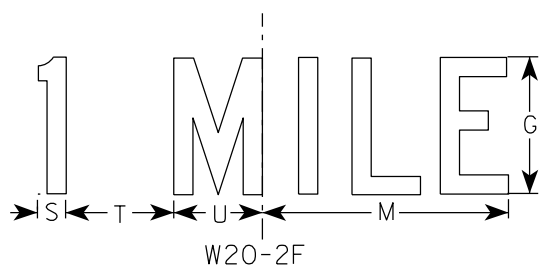
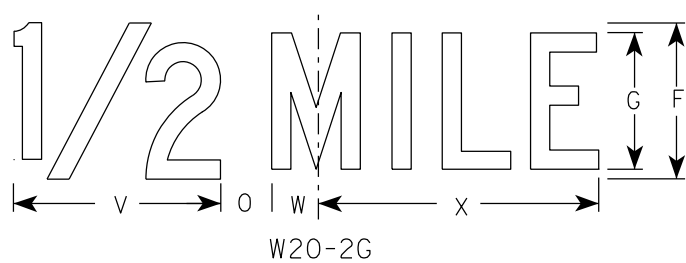
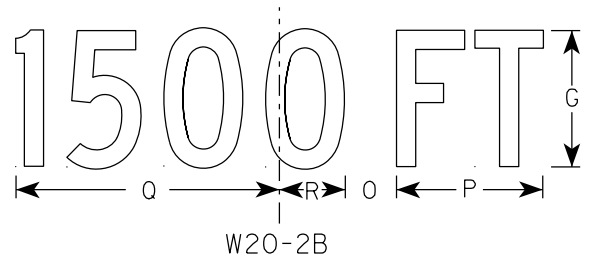
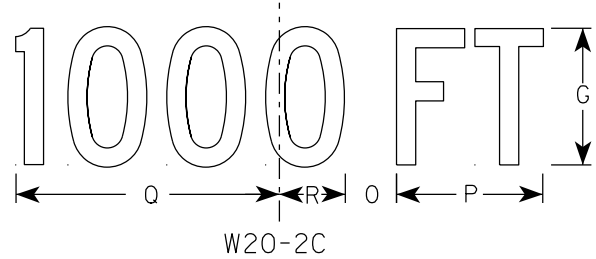
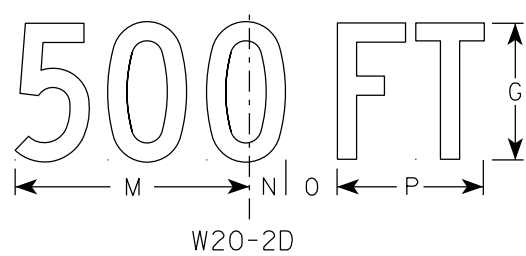
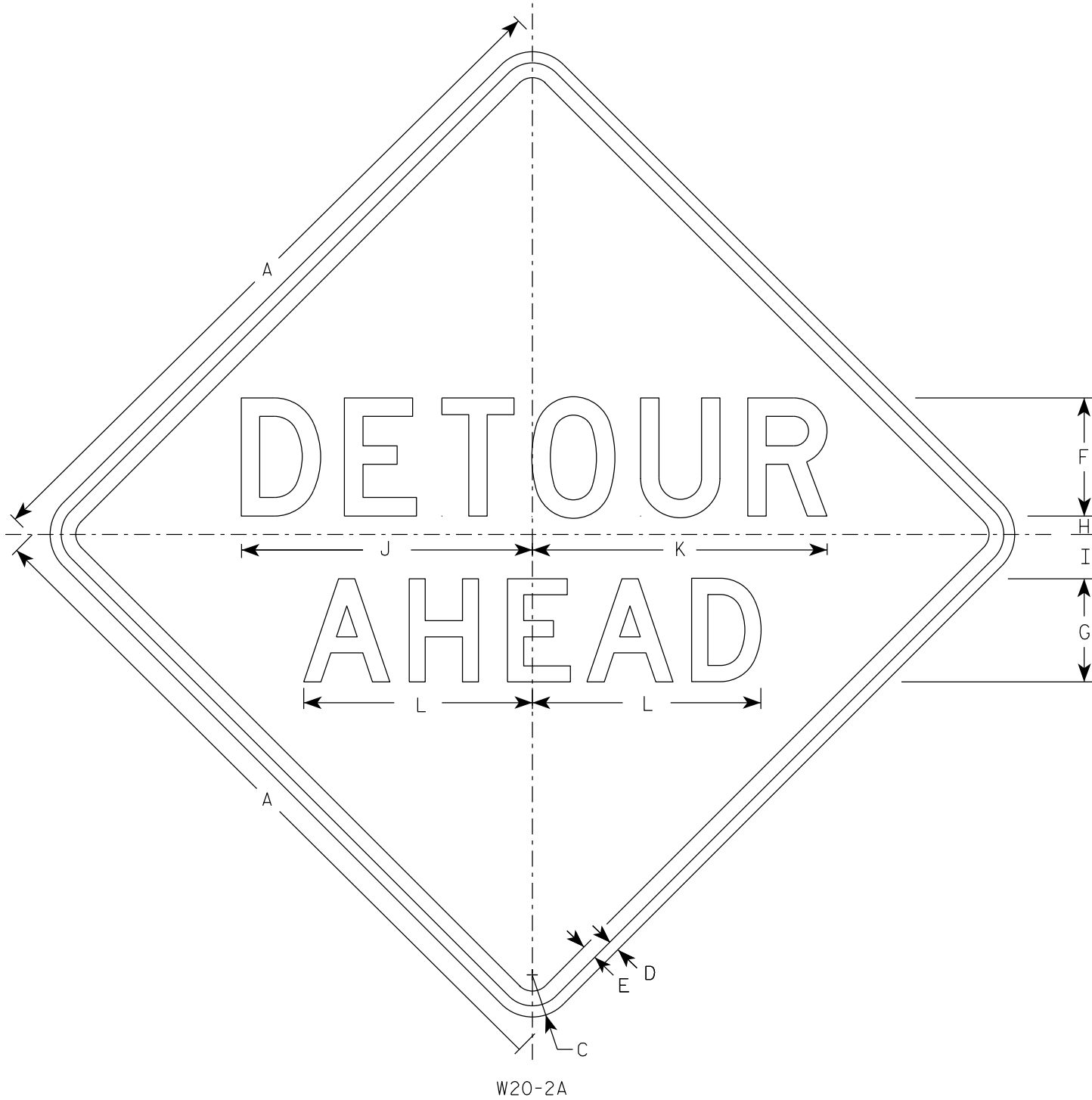


W20-1F



W20-1E

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	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0



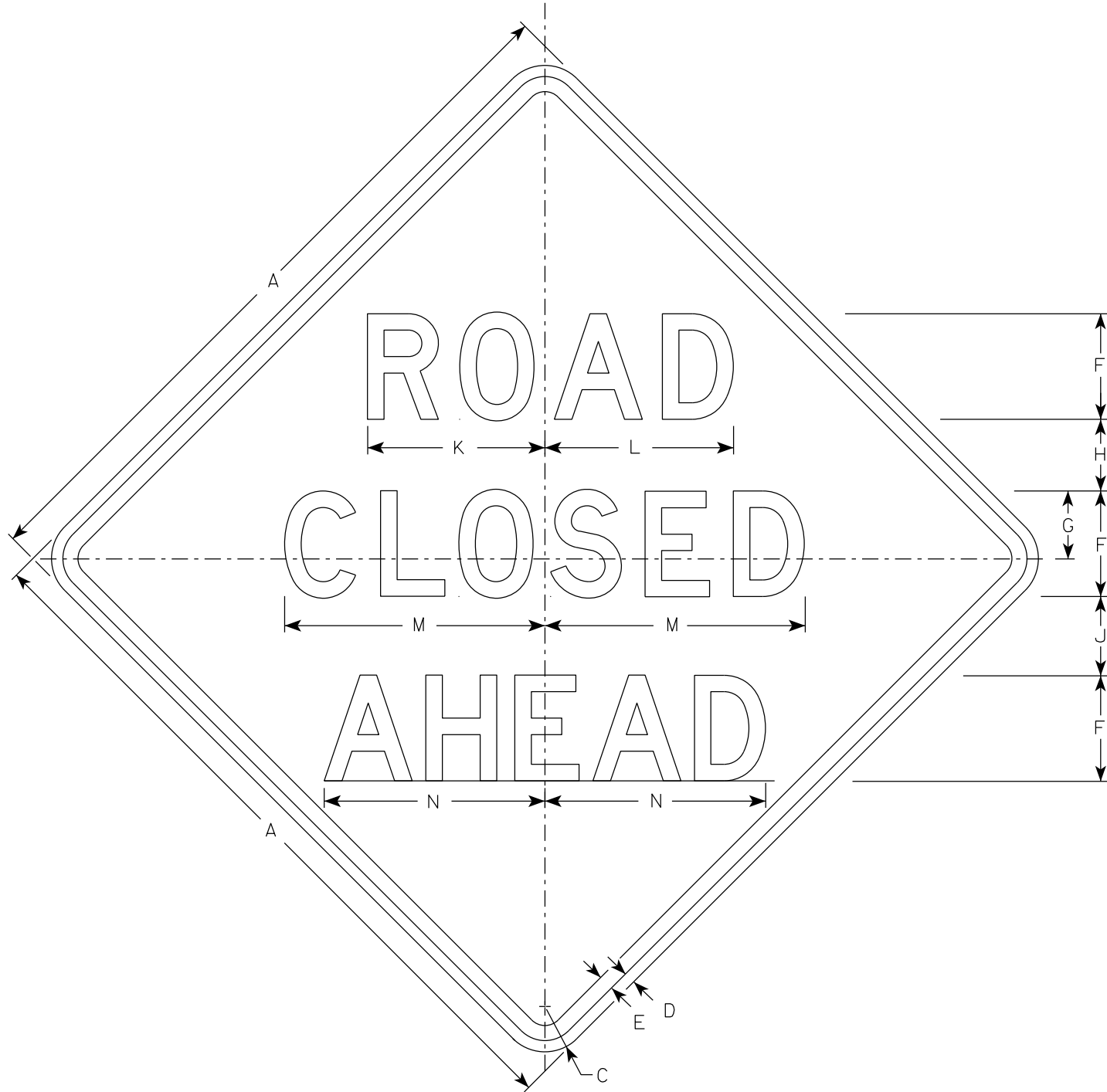
NOTES

- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

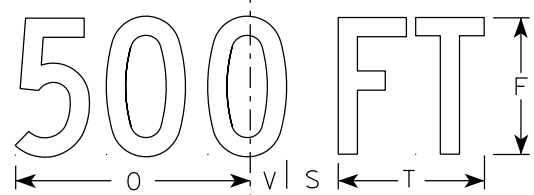
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	w	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7

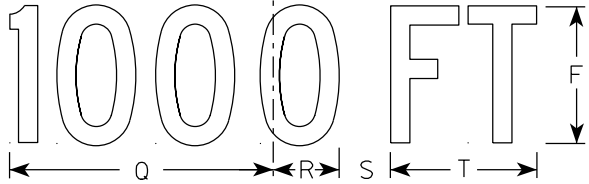
7



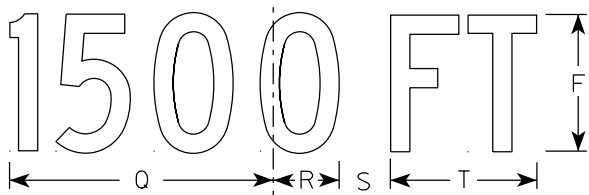
W20-3A



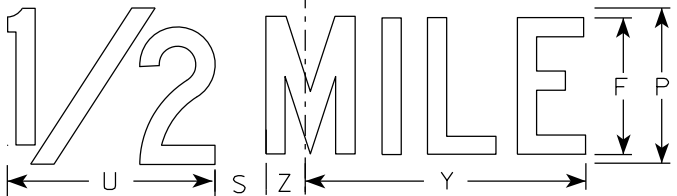
W20-3D



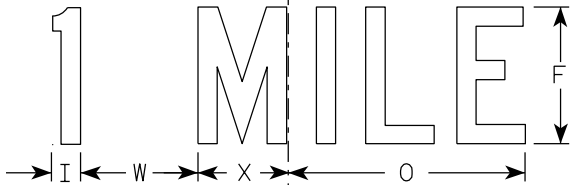
W20-3C



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.

7

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

DIVISION - ALI-SYENE ROAD NB PHASE 3													
STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	EXPANDED FILL	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	1.25	NOTE 4
670+36.00	67036.00	0.00	104.56	0.00	0.21	0.00	0	0	0	0	0	0	0
670+50.00	67050.00	14.00	104.56	0.00	0.21	4.20	54	0	0	1	54	0	54
670+58.73	67058.73	8.73	107.02	0.00	0.00	3.20	34	0	0	1	88	0	88
670+63.22	67063.22	4.49	105.54	0.00	0.00	1.70	18	0	0	0	106	0	106
671+00.00	67100.00	36.78	140.81	0.00	6.96	2.20	168	0	5	3	274	6	268
671+50.00	67150.00	50.00	103.63	0.00	5.93	3.70	226	0	12	5	500	21	479
671+65.04	67165.04	15.04	109.76	0.00	0.66	3.40	59	0	2	2	559	24	535
672+00.00	67200.00	34.96	130.76	0.00	8.37	3.50	156	0	6	4	715	31	684
672+50.00	67250.00	50.00	176.50	0.00	5.86	2.60	285	0	13	6	1,000	48	953
673+00.00	67300.00	50.00	238.78	0.00	15.37	7.70	385	0	20	10	1,385	73	1,313
673+50.00	67350.00	50.00	311.69	0.00	17.04	100.40	510	0	30	100	1,895	110	1,785
673+50.00	67350.00	0.00	311.69	0.00	17.04	100.40	0	0	0	0	1,895	110	1,785
674+00.00	67400.00	50.00	316.44	0.00	67.95	99.80	582	0	79	185	2,477	209	2,268
674+00.00	67400.00	0.00	316.44	0.00	67.95	99.80	0	0	0	0	2,477	209	2,268
674+50.00	67450.00	50.00	328.43	0.00	133.64	241.20	597	0	187	316	3,074	443	2,632
674+50.00	67450.00	0.00	328.43	0.00	133.64	241.20	0	0	0	0	3,074	443	2,632
674+92.32	67492.32	42.32	238.56	0.00	155.62	248.10	444	0	227	383	3,518	726	2,792
674+92.32	67492.32	0.00	238.56	0.00	155.62	248.10	0	0	0	0	3,518	726	2,792
675+00.00	67500.00	7.68	251.94	0.00	159.24	255.90	70	0	45	72	3,588	783	2,806
675+00.00	67500.00	0.00	251.94	0.00	159.24	255.90	0	0	0	0	3,588	783	2,806
675+16.63	67516.63	16.63	277.09	0.00	160.71	240.40	163	0	99	153	3,751	906	2,845
675+16.63	67516.63	0.00	277.09	0.00	160.71	240.40	0	0	0	0	3,751	906	2,845
675+40.95	67540.95	24.32	326.55	0.00	138.44	203.50	272	0	135	200	4,023	1,075	2,948
675+40.95	67540.95	0.00	326.55	0.00	138.44	203.50	0	0	0	0	4,023	1,075	2,948
675+50.00	67550.00	9.05	355.11	0.00	120.62	81.00	114	0	43	48	4,137	1,129	3,008
675+50.00	67550.00	0.00	355.11	0.00	120.62	81.00	0	0	0	0	4,137	1,129	3,008
675+84.80	67584.80	34.80	572.68	0.00	0.00	4.00	598	0	78	55	4,735	1,226	3,509
675+84.80	67584.80	0.00	572.68	0.00	0.00	4.00	0	0	0	0	4,735	1,226	3,509
676+00.00	67600.00	15.20	671.40	0.00	0.00	5.30	350	0	0	3	5,085	1,226	3,859
676+00.00	67600.00	0.00	671.40	0.00	0.00	5.30	0	0	0	0	5,085	1,226	3,859
676+50.00	67650.00	50.00	267.95	0.00	132.70	1.70	870	0	123	6	5,955	1,380	4,575
676+50.00	67650.00	0.00	267.95	0.00	132.70	1.70	0	0	0	0	5,955	1,380	4,575
677+00.00	67700.00	50.00	131.60	0.00	154.22	14.70	370	0	266	15	6,325	1,713	4,613
677+00.00	67700.00	0.00	131.60	0.00	154.22	14.70	0	0	0	0	6,325	1,713	4,613
677+50.00	67750.00	50.00	62.50	0.00	140.87	10.40	180	0	273	23	6,505	2,054	4,451
677+50.00	67750.00	0.00	62.50	0.00	140.87	10.40	0	0	0	0	6,505	2,054	4,451
678+00.00	67800.00	50.00	95.34	0.00	41.16	19.00	146	0	169	27	6,651	2,265	4,386
678+50.00	67850.00	50.00	197.78	0.00	0.03	0.00	271	0	38	18	6,922	2,313	4,610
679+00.04	67900.04	50.04	105.75	0.00	1.52	0.00	281	0	1	0	7,203	2,314	4,889
679+50.00	67950.00	49.96	91.34	0.00	2.63	0.00	182	0	4	0	7,385	2,319	5,066
679+81.54	67981.54	31.54	51.74	0.00	33.72	59.40	84	0	21	35	7,469	2,345	5,124
680+00.00	68000.00	18.46	45.75	0.00	53.06	137.00	33	0	30	67	7,502	2,383	5,120
680+50.00	68050.00	50.00	128.35	0.00	33.72	143.40	161	0	80	260	7,663	2,483	5,181
681+00.00	68100.00	50.00	112.27	0.00	35.49	131.30	223	0	64	254	7,886	2,563	5,324
681+50.00	68150.00	50.00	71.46	0.00	40.01	98.50	170	0	70	213	8,056	2,650	5,406
682+00.00	68200.00	50.00	72.99	0.00	43.17	116.90	134	0	77	199	8,190	2,746	5,444
682+50.00	68250.00	50.00	39.42	0.00	26.68	70.00	104	0	65	173	8,294	2,828	5,467
683+00.00	68300.00	50.00	42.15	0.00	16.43	52.70	76	0	40	114	8,370	2,878	5,493
683+50.00	68350.00	50.00	51.30	0.00	11.46	44.00	87	0	26	90	8,457	2,910	5,547
684+00.00	68400.00	50.00	60.47	0.00	8.39	32.00	103	0	18	70	8,560	2,933	5,628
684+29.00	68429.00	29.00	60.47	0.00	8.39	0.00	65	0	9	17	8,625	2,944	5,681

DIVISION - ALI-MCCOY ROAD EB

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1		NOTE 4
500+05.00	50005.00	0.00	45.74	0.00	1.16	0.00	0	0	0	0	0	0	0
500+50.00	50050.00	45.00	44.00	0.00	1.16	121.50	0	0	0	101	0	0	0
500+77.36	50077.36	27.36	6.29	0.00	42.69	187.60	25	0	22	157	25	28	-3
501+00.00	50100.00	22.64	89.63	0.00	41.66	378.20	40	0	35	237	65	71	-6
501+24.97	50124.97	24.97	115.98	0.00	96.90	230.10	95	0	64	281	160	151	9
501+50.33	50150.33	25.36	175.05	0.00	58.18	133.60	137	0	73	171	297	243	55
501+58.00	50158.00	7.67	210.32	0.00	17.76	148.60	55	0	11	40	352	256	96
501+81.56	50181.56	23.56	290.57	0.00	2.55	0.00	219	0	9	65	571	268	304
501+87.89	50187.89	6.33	301.27	0.00	0.11	0.00	69	0	0	0	640	268	373
502+00.00	50200.00	12.11	316.20	0.00	0.00	0.00	138	0	0	0	778	268	511
502+06.94	50206.94	6.94	440.60	0.00	0.00	0.00	97	0	0	0	875	268	608
502+28.53	50228.53	21.59	391.00	0.00	0.00	0.00	332	0	0	0	1,207	268	940
502+38.29	50238.29	9.76	364.22	0.00	0.01	0.00	136	0	0	0	1,343	268	1,076
502+50.00	50250.00	11.71	342.05	0.00	0.00	0.00	153	0	0	0	1,496	268	1,229
502+55.26	50255.26	5.26	332.04	0.00	0.00	0.00	66	0	0	0	1,562	268	1,295
502+60.00	50260.00	4.74	323.85	0.00	0.00	0.00	58	0	0	0	1,620	268	1,353
503+00.00	50300.00	40.00	261.55	0.00	0.00	0.00	434	0	0	0	2,054	268	1,787
503+50.00	50350.00	50.00	207.37	0.00	0.33	0.00	434	0	0	0	2,488	268	2,221
504+00.00	50400.00	50.00	173.91	0.00	0.00	0.00	353	0	0	0	2,841	268	2,574
504+20.61	50420.61	20.61	159.75	0.00	0.00	0.00	127	0	0	0	2,968	268	2,701
504+50.00	50450.00	29.39	147.12	0.00	0.00	0.00	167	0	0	0	3,135	268	2,868
505+00.00	50500.00	50.00	117.58	0.00	0.00	0.00	245	0	0	0	3,380	268	3,113
505+50.00	50550.00	50.00	101.20	0.00	0.00	0.00	203	0	0	0	3,583	268	3,316
506+00.00	50600.00	50.00	92.15	0.00	0.00	0.00	179	0	0	0	3,762	268	3,495
506+28.98	50628.98	28.98	92.10	0.00	0.00	0.00	99	0	0	0	3,861	268	3,594
506+50.00	50650.00	21.02	94.35	0.00	0.00	0.00	73	0	0	0	3,934	268	3,667
506+55.00	50655.00	5.00	94.35	0.00	0.00	0.00	17	0	0	0	3,951	268	3,684

DIVISION - ALI-CAPITAL CITY TRAIL

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1		NOTE 4
103+29.00	10329.00	0.00	17.02	0.00	0.00	0.00	0	0	0	0	0	0	0
103+50.00	10350.00	21.00	17.02	0.00	0.00	0.00	13	0	0	0	13	0	13
103+75.00	10375.00	25.00	12.90	0.00	0.00	0.00	14	0	0	0	27	0	27
104+00.00	10400.00	25.00	21.45	0.00	0.00	0.00	16	0	0	0	43	0	43
105+00.00	10500.00	100.00	11.18	0.00	0.00	0.00	60	0	0	0	103	0	103
105+50.00	10550.00	50.00	19.59	0.00	0.00	0.00	28	0	0	0	131	0	131
105+75.00	10575.00	25.00	15.54	0.00	0.03	0.00	16	0	0	0	147	0	147
105+75.00	10575.00	0.00	15.54	0.00	0.03	0.00	0	0	0	0	147	0	147

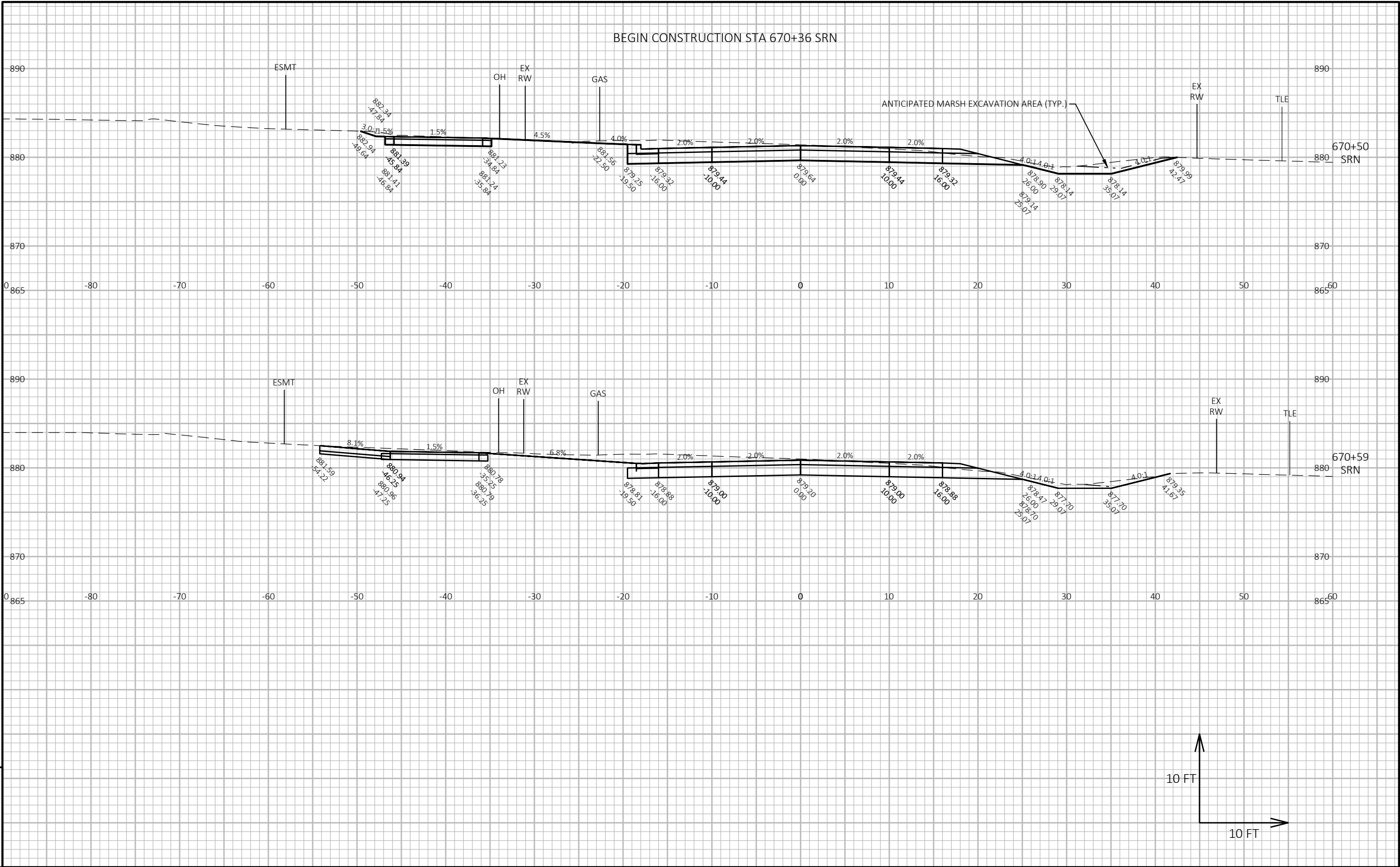
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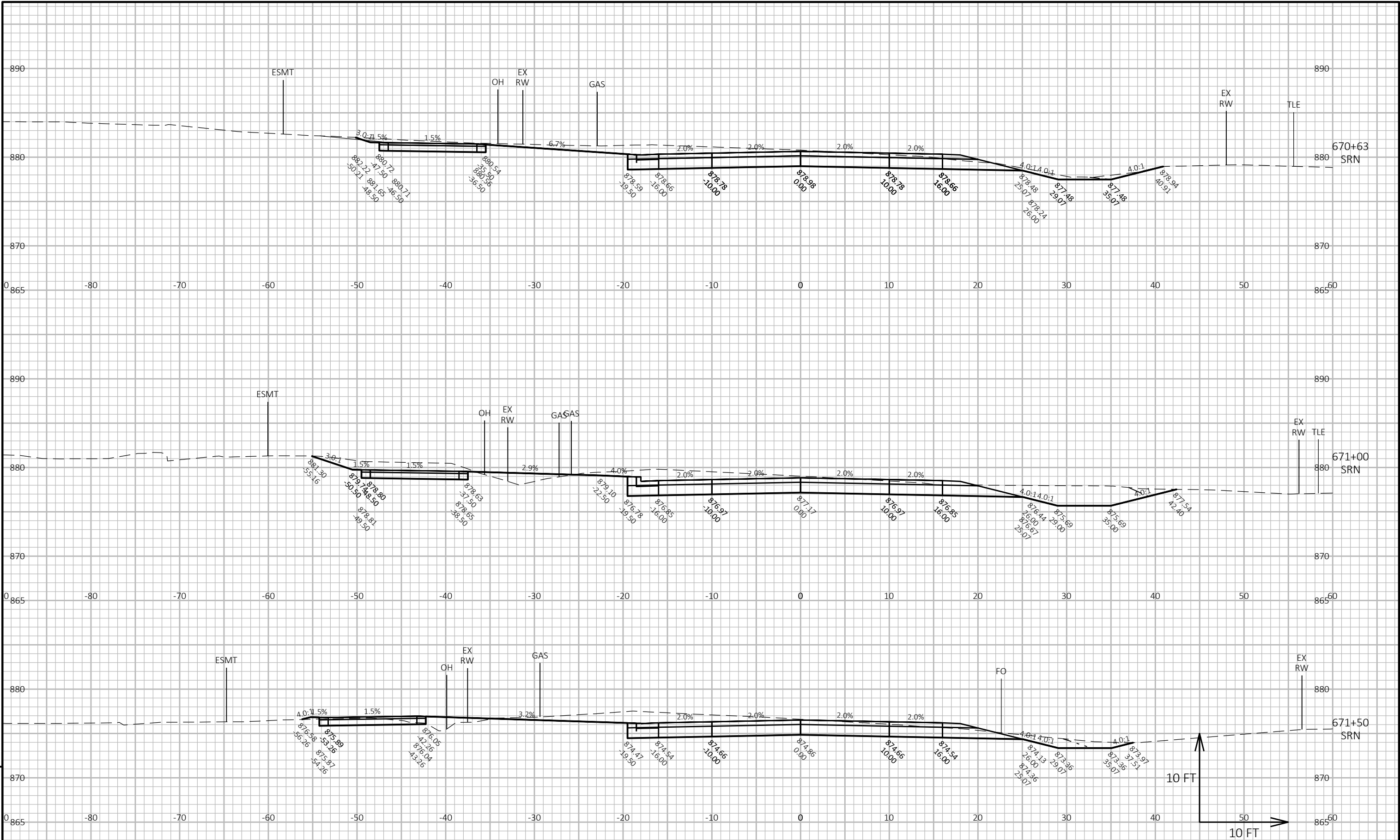
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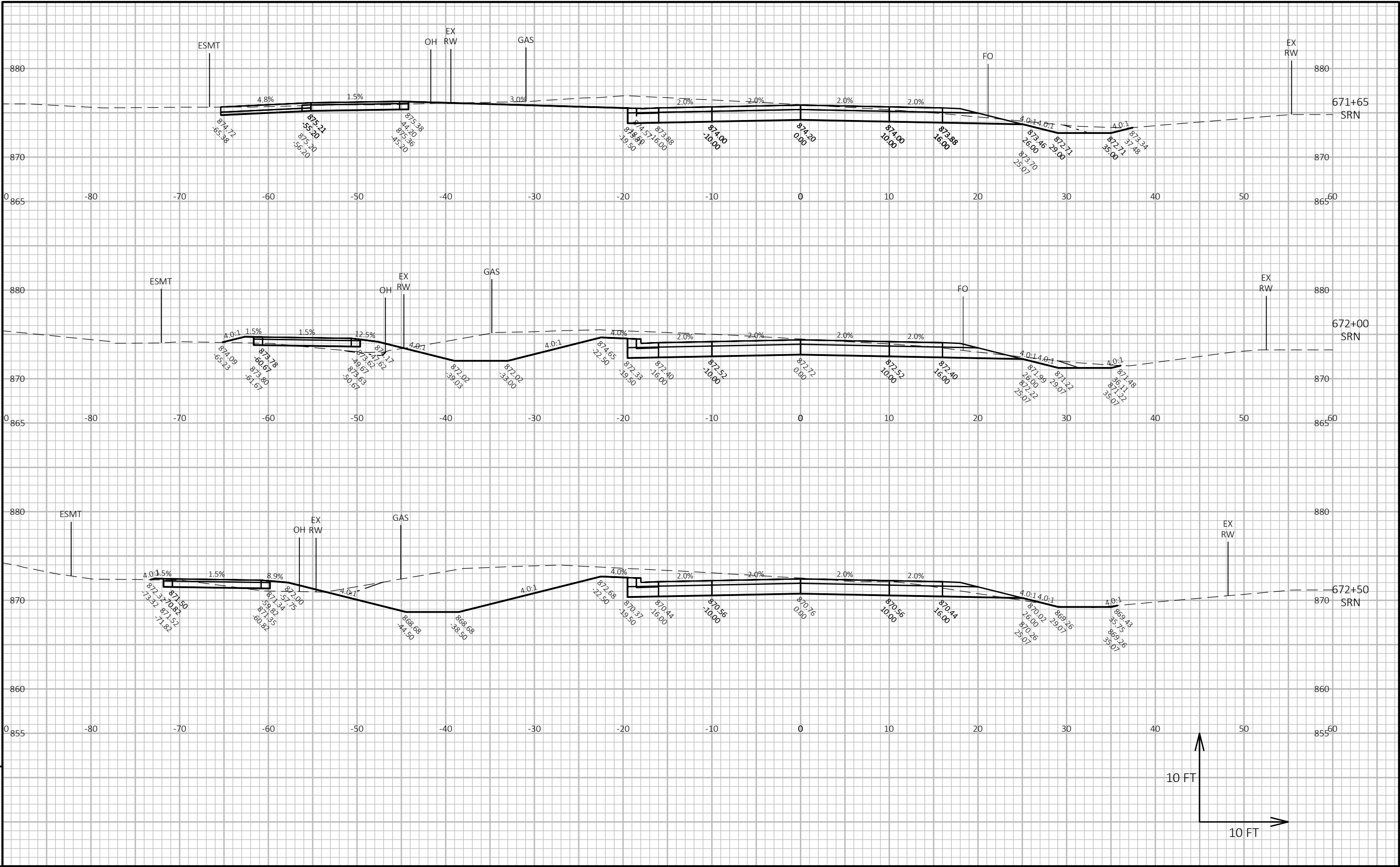
DIVISION - ALI-TRAILHEAD PARKING LOT DRIVEWAY

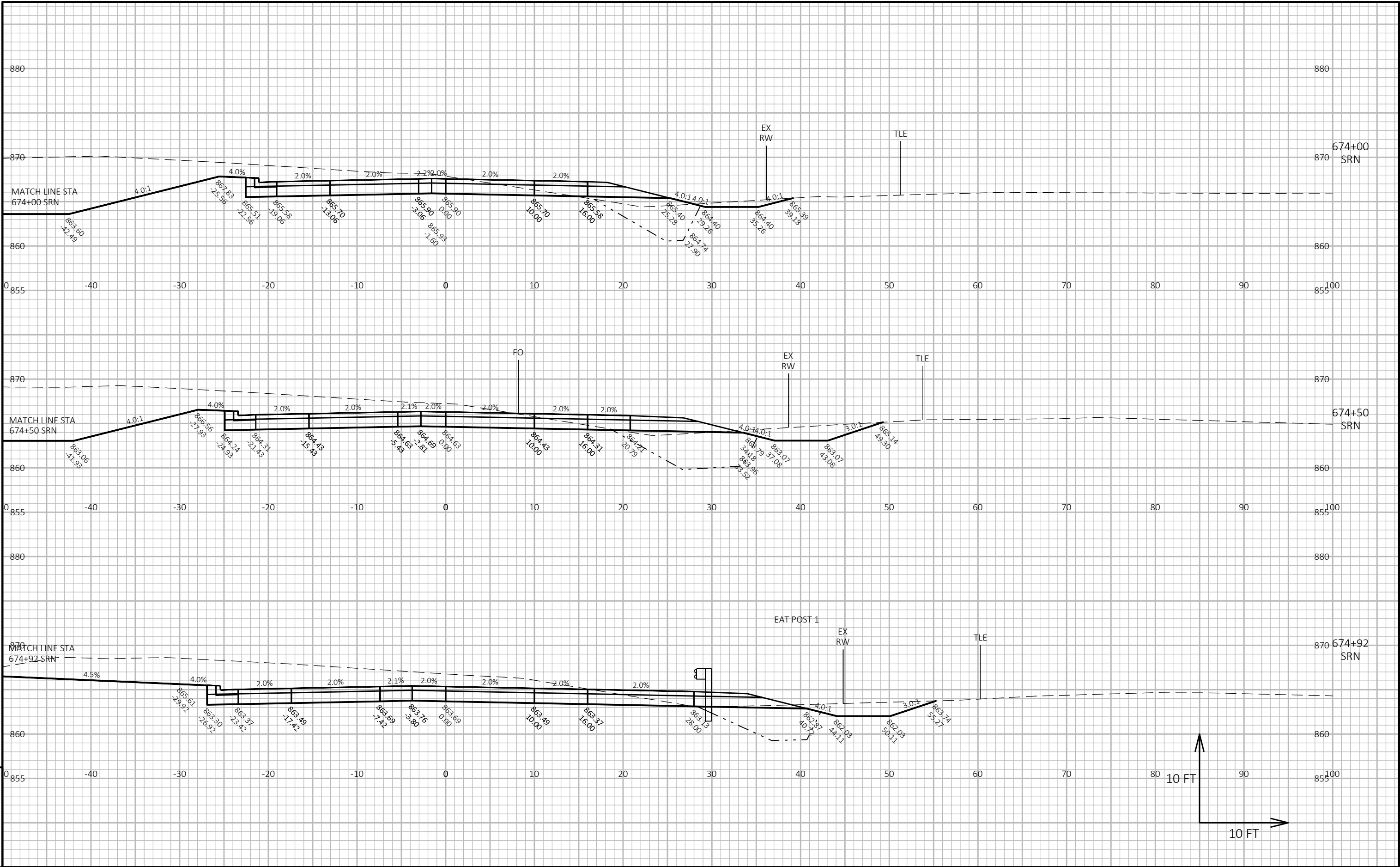
STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	MARSH EXC	CUT	EXPANDED FILL	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	NOTE 1	NOTE 4
800+85.00	80085.00	0.00	47.29	0.00	2.02	0.00	0	0	0	0	0	0	0
801+00.00	80100.00	15.00	47.29	0.00	2.02	0.00	26	0	1	0	26	1	25
801+25.00	80125.00	25.00	23.39	0.00	2.67	16.90	33	0	2	8	59	4	55
801+50.00	80150.00	25.00	21.79	0.00	17.44	43.20	21	0	9	28	80	15	65
801+75.00	80175.00	25.00	4.91	0.00	16.55	33.80	12	0	16	36	92	35	57
802+00.00	80200.00	25.00	25.73	0.00	5.47	17.50	14	0	10	24	106	48	59
802+14.00	80214.00	14.00	25.73	0.00	5.47	17.50	13	0	3	9	119	51	68

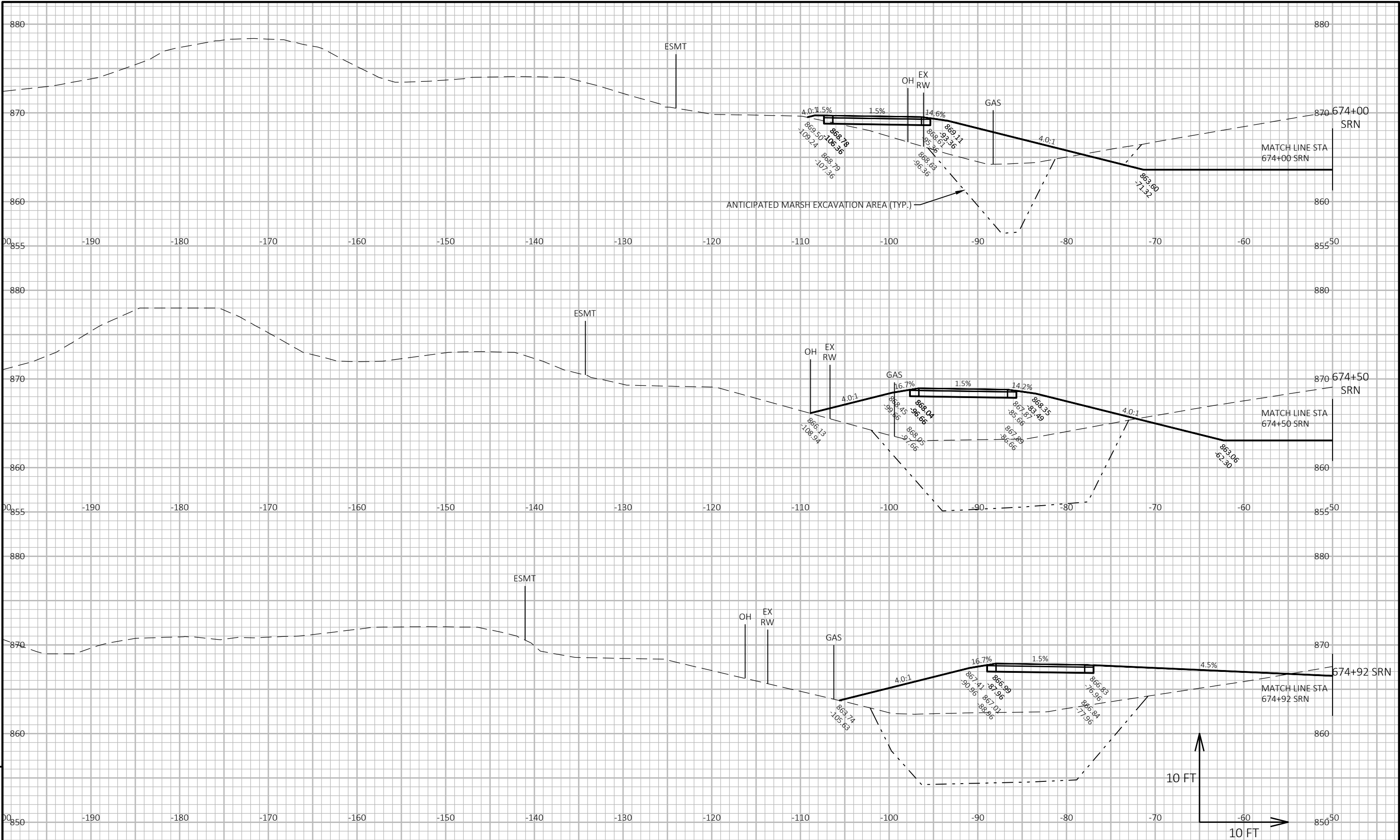
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATER	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - MASS ORDINATE	MASS ORDINATE = CUT - SALVAGED/UNUSABLE MATERIAL - EXPANDED FILL

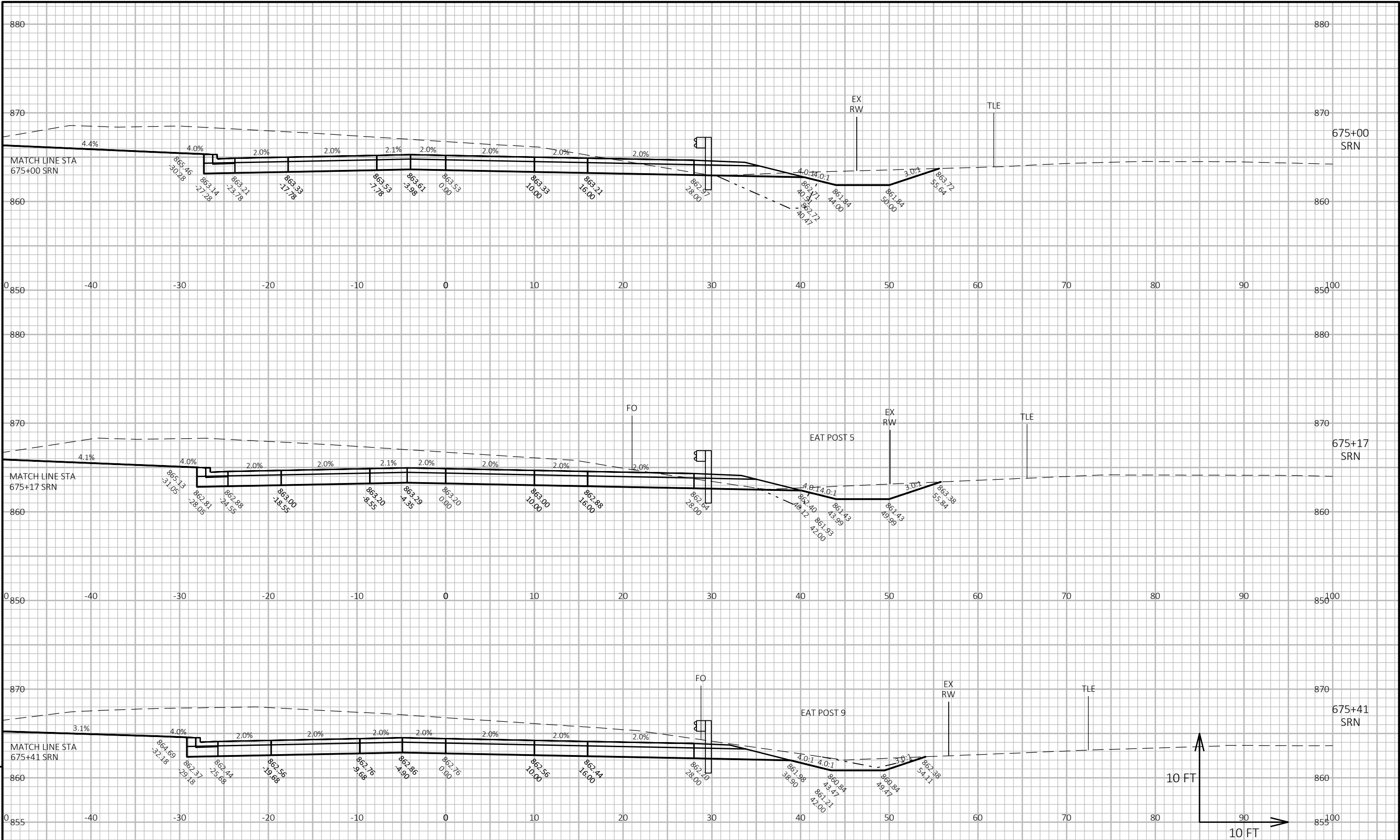


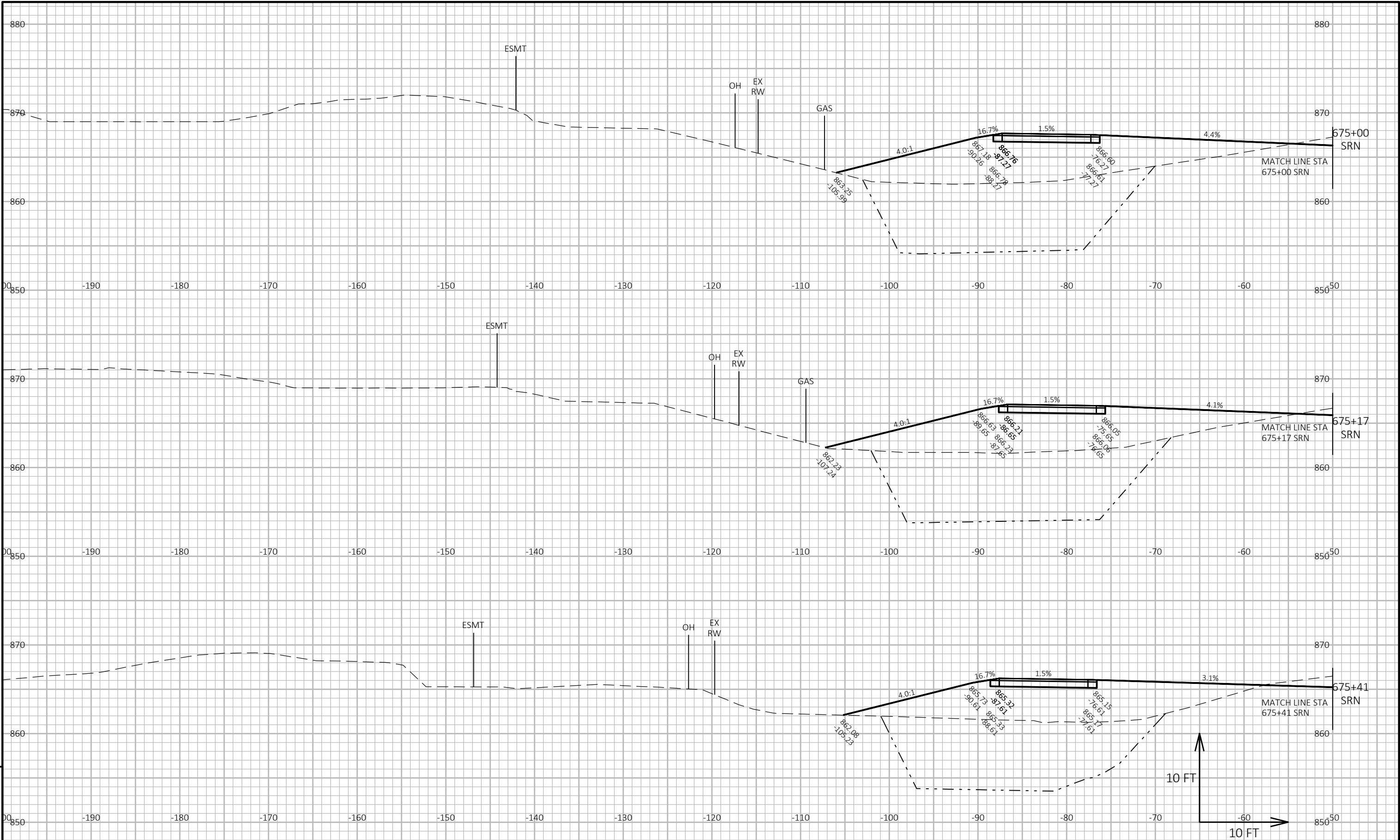


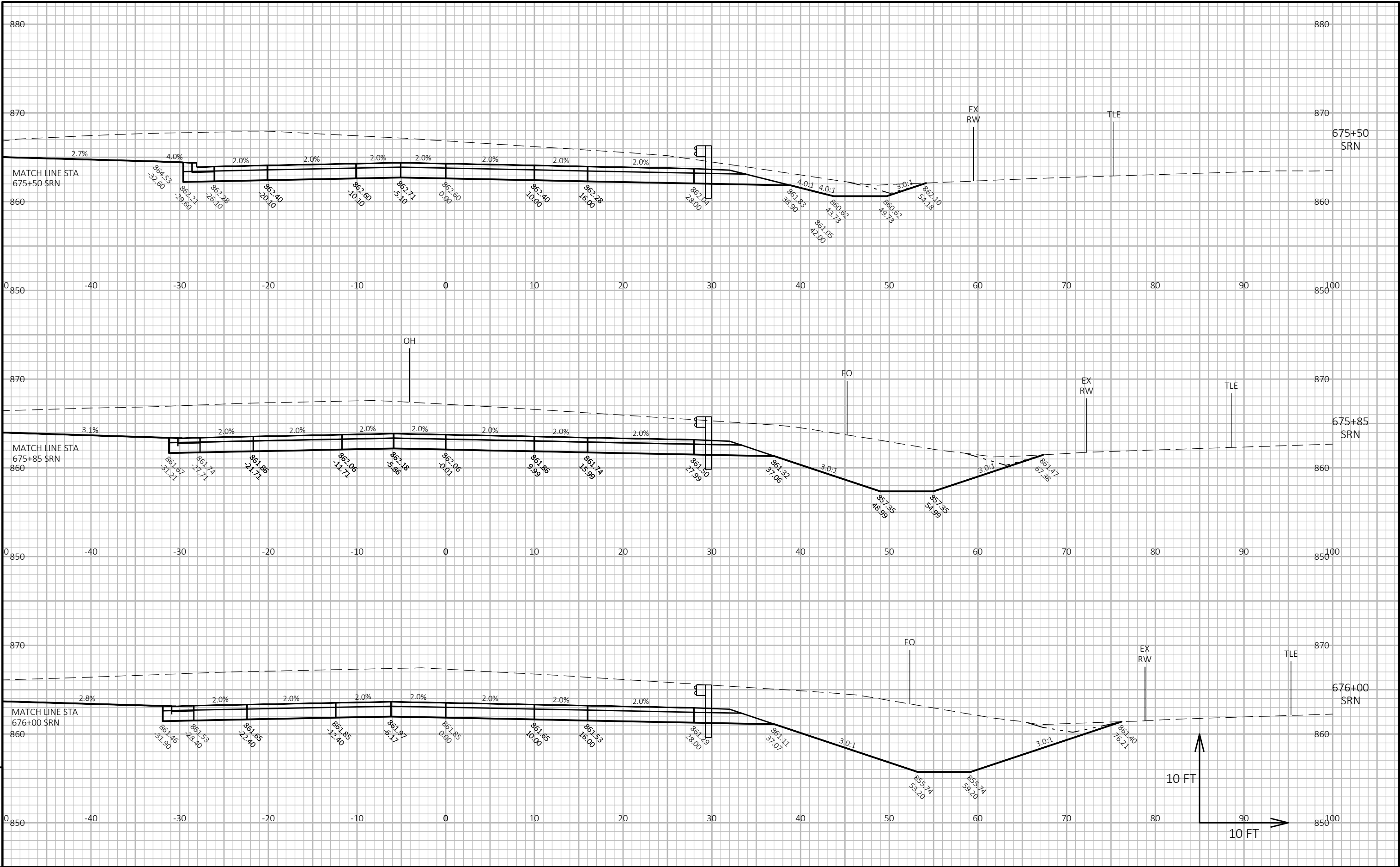


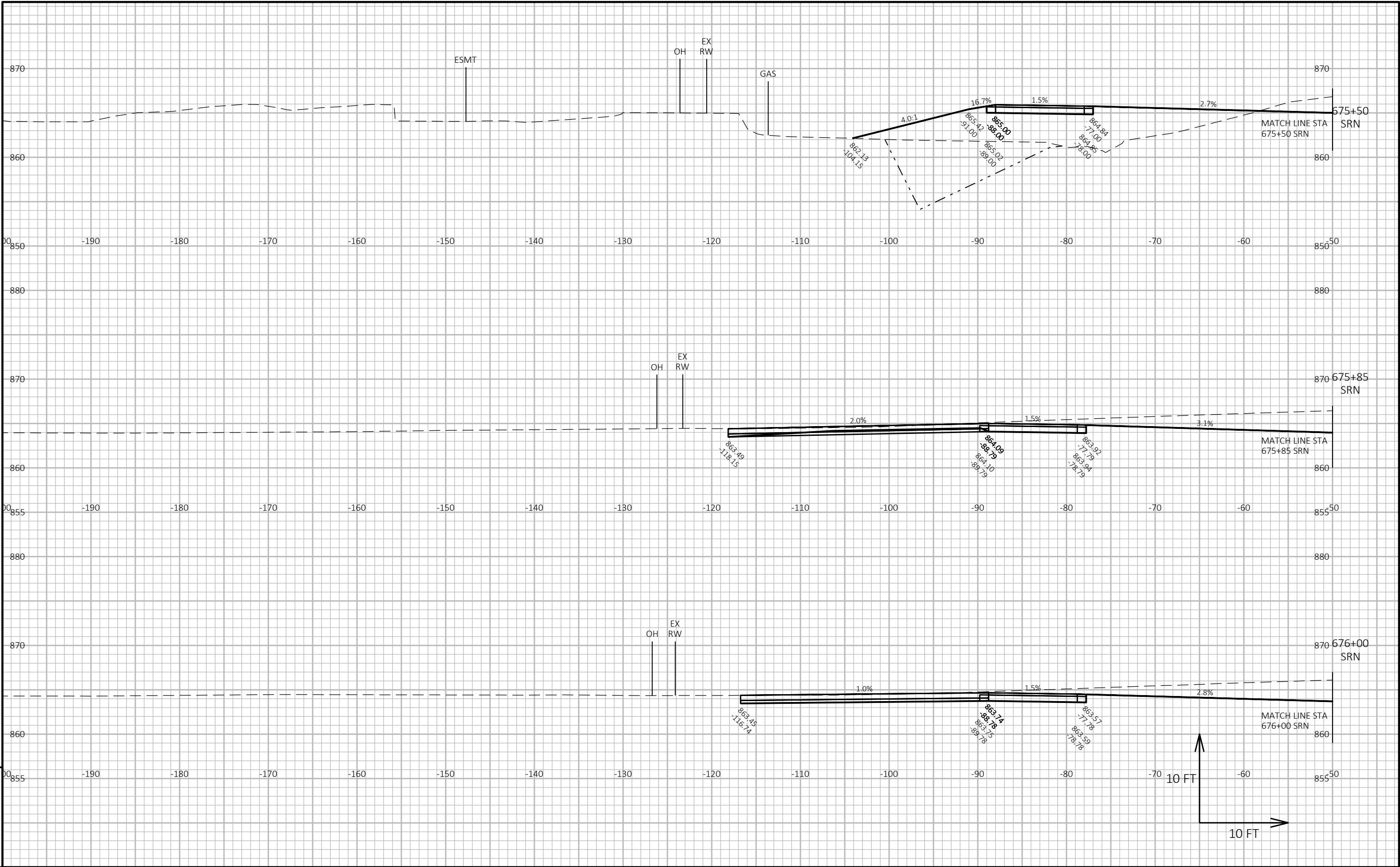


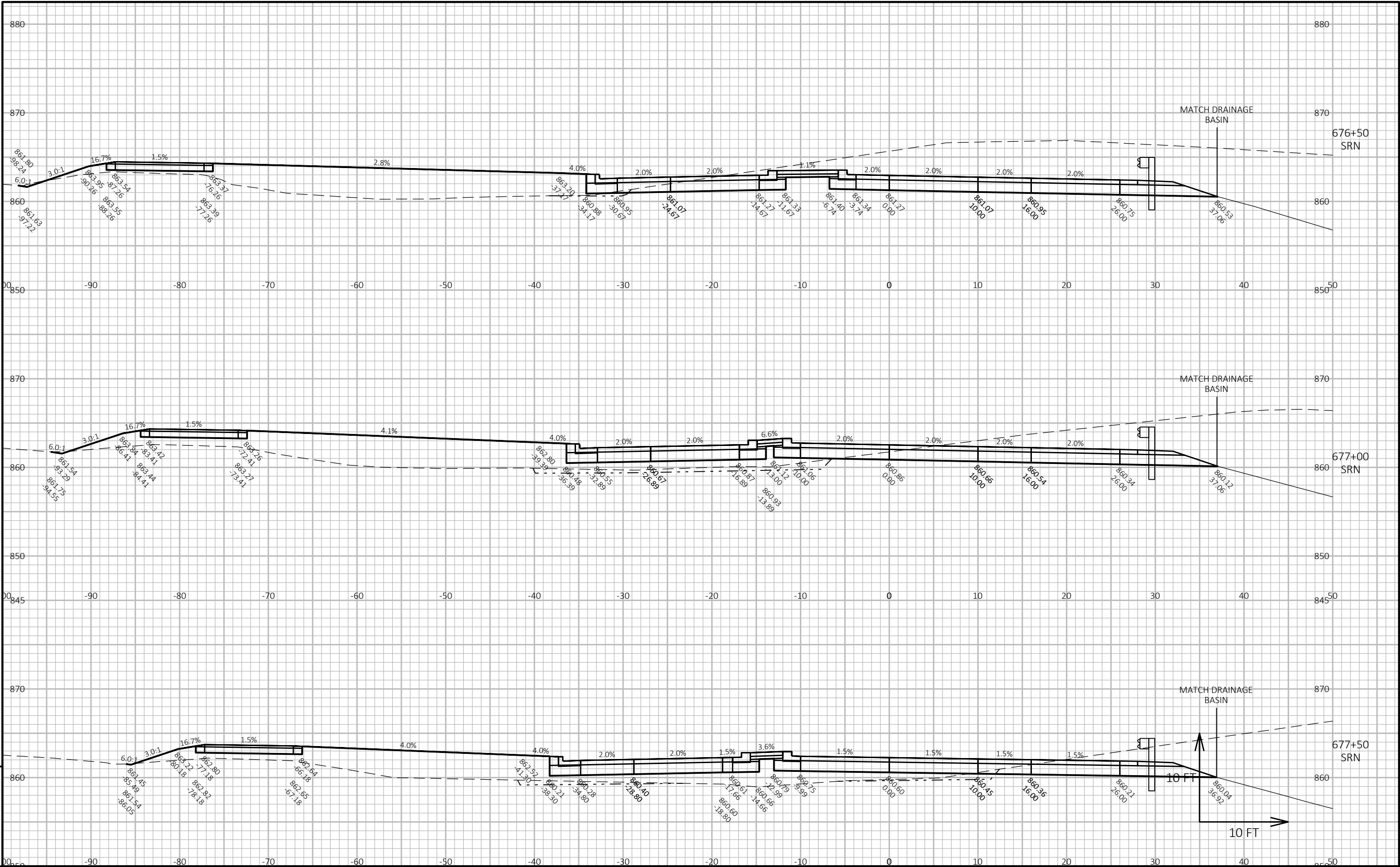


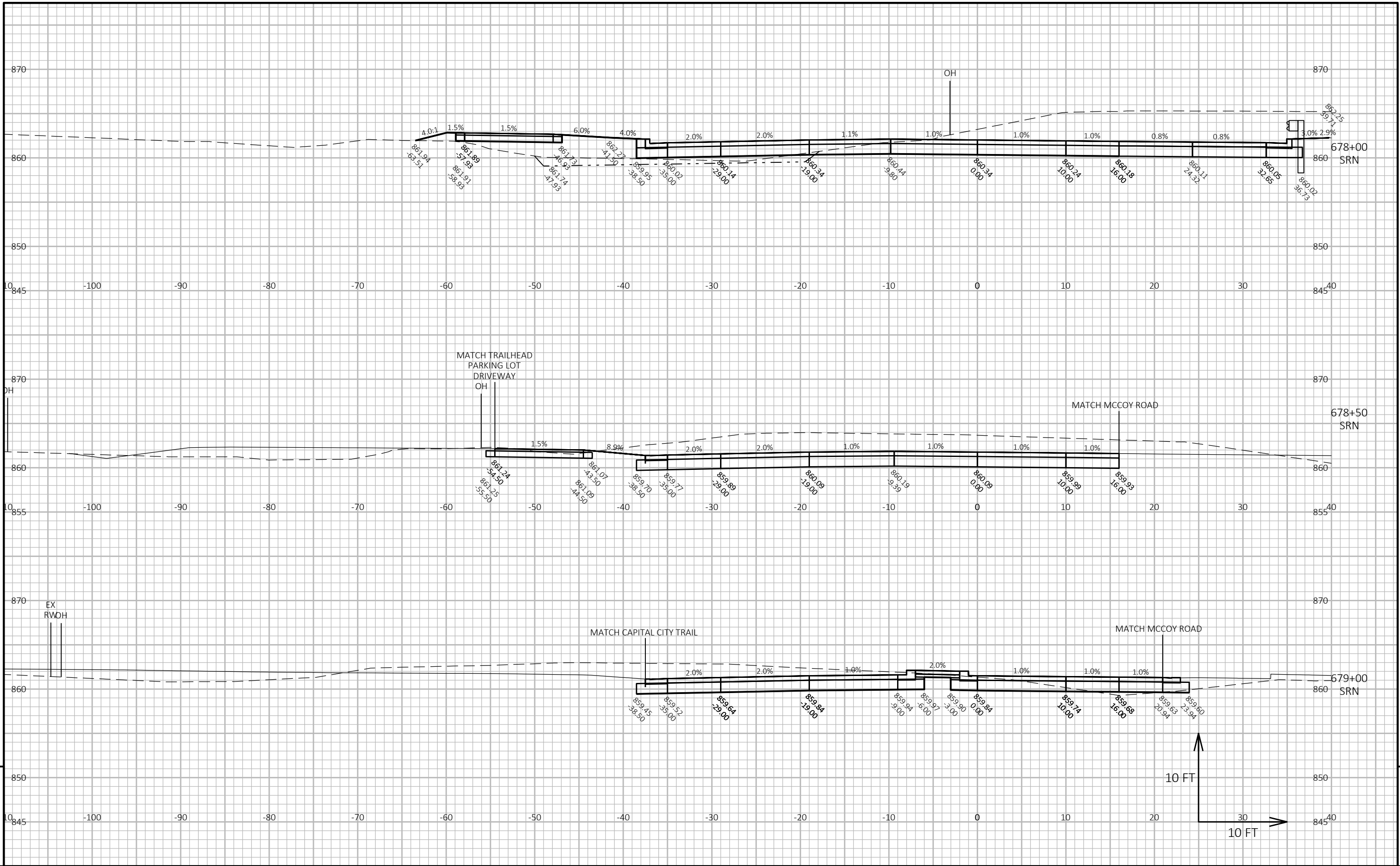


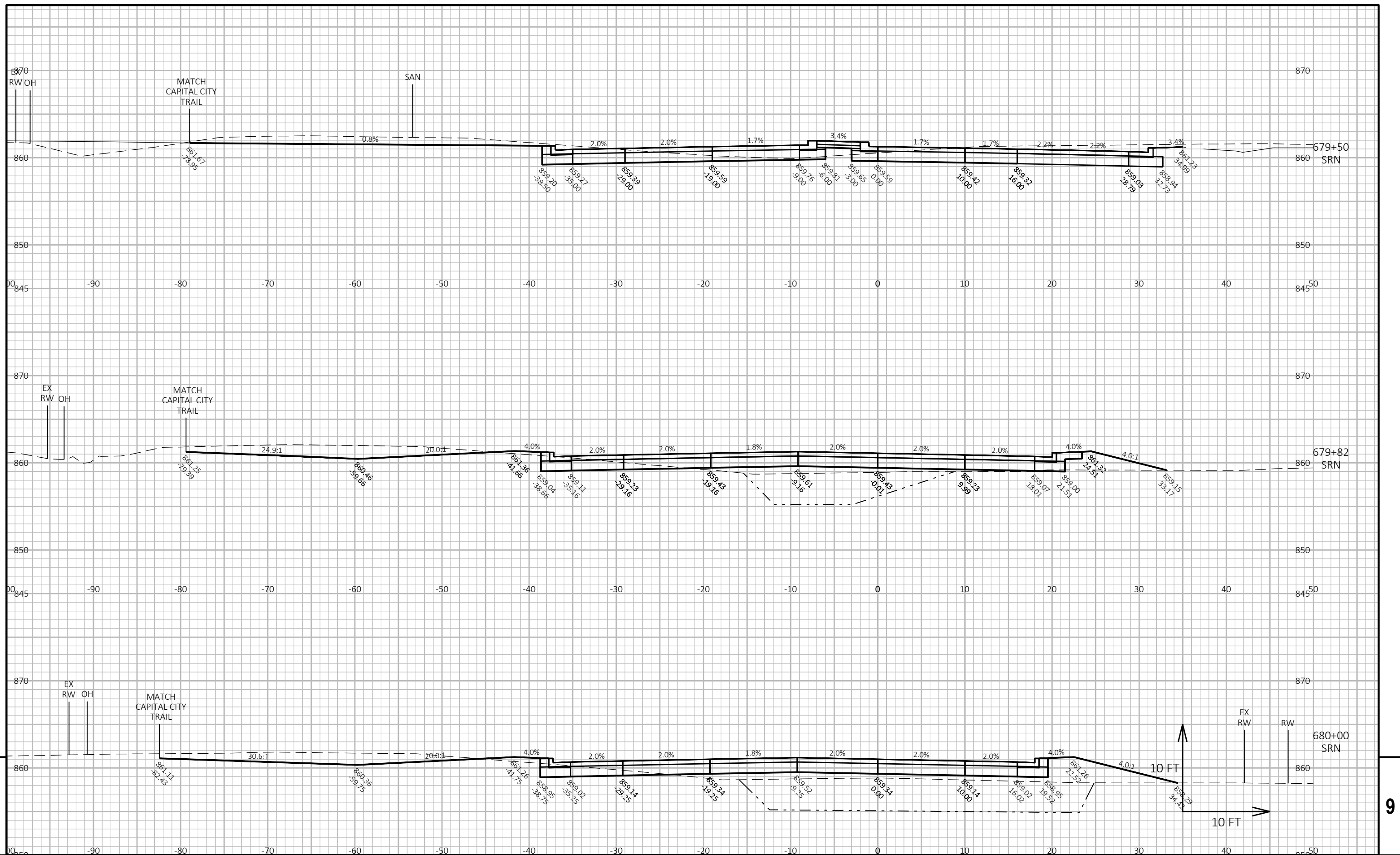












PROJECT NO:	5849-02-07
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HWY: LOCAL STREET - SYENE ROAD

COUNTY: DANE

CROSS SECTIONS: SYENE ROAD

SHEET 272

FILE NAME : G:\FITCHBRG\20087-000 SYENE ROAD\CIVIL 3D\SHEETSPLAN\PHASE 3 SHEET FILES - W CLAYTON TO MCCOY\090101_XS_P3.DWG
LAYOUT NAME - SR10

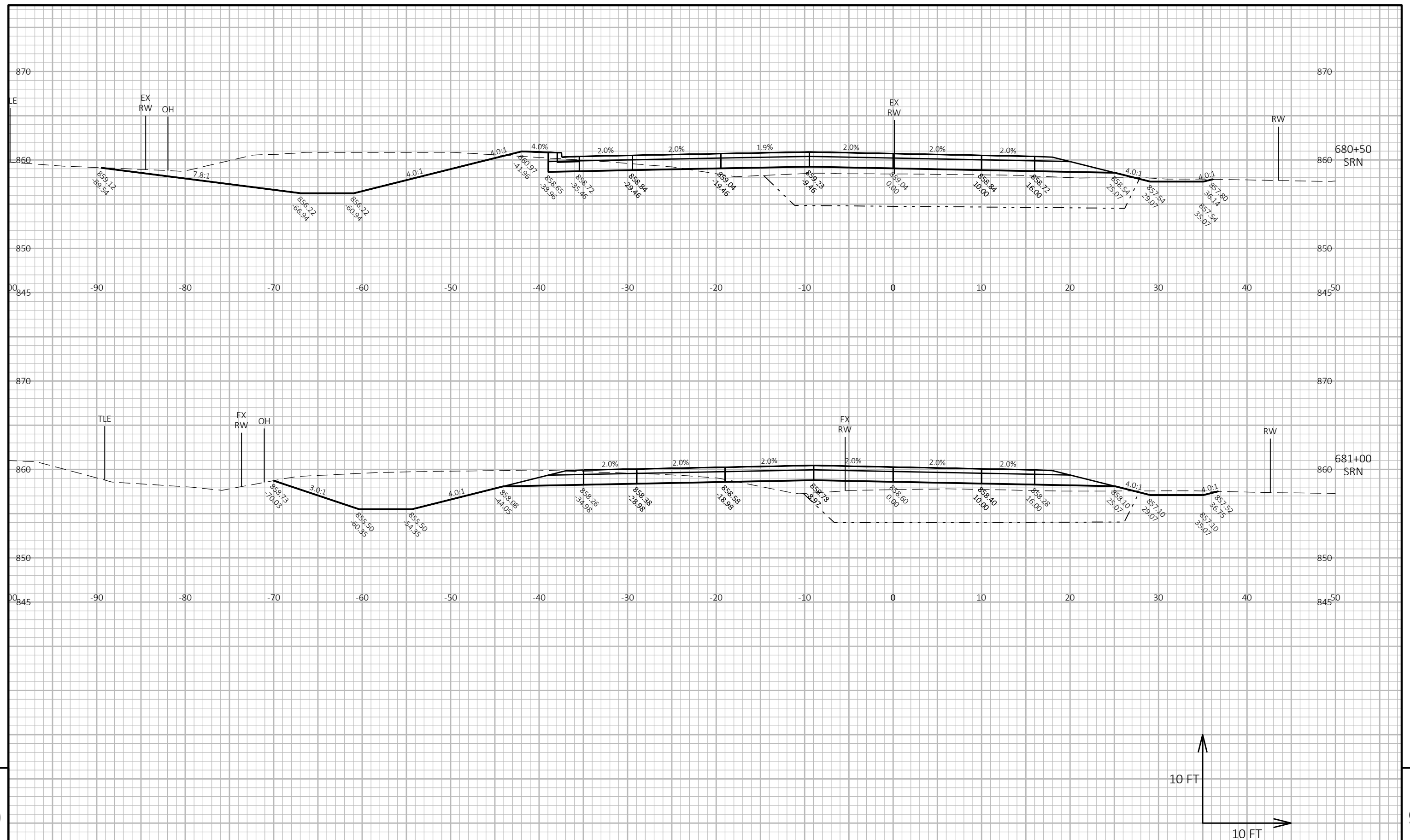
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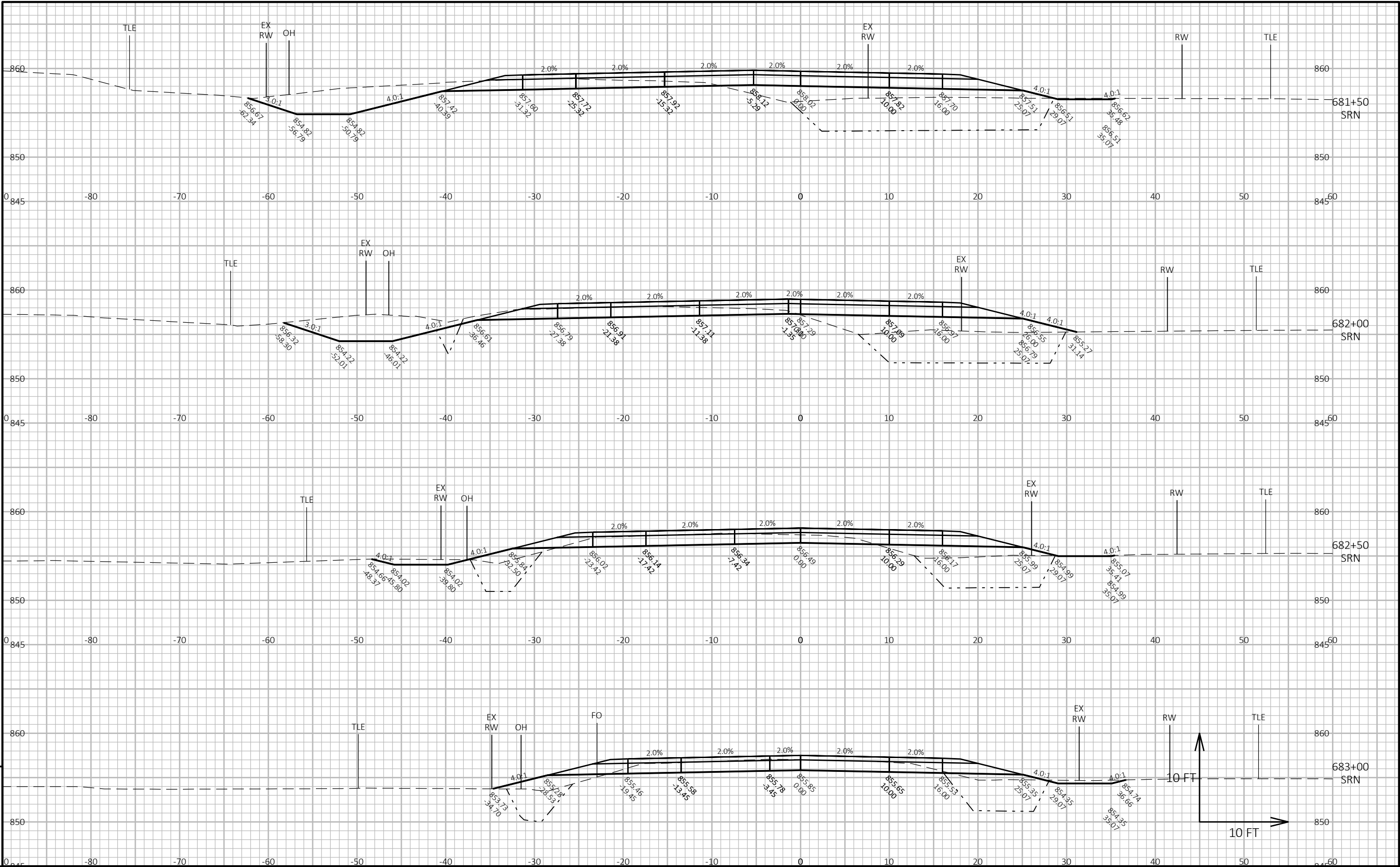
PLOT BY : BRIAN ST. VINCENT

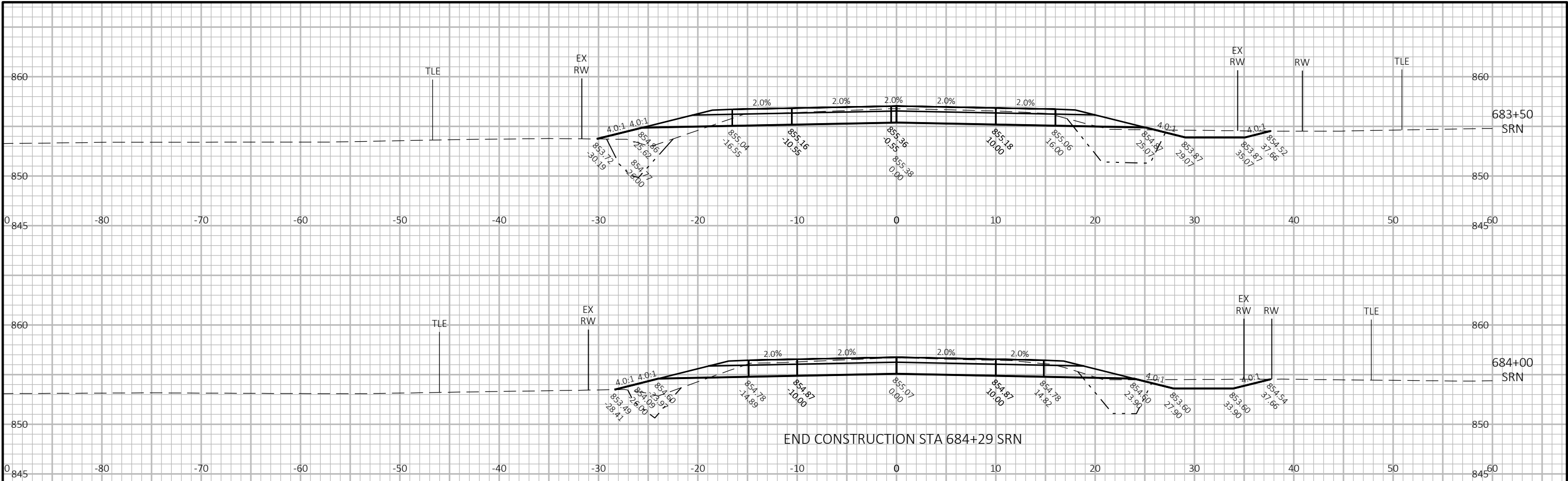
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

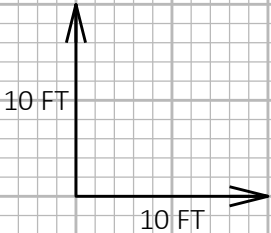
WISDOT/CADDS SHEET 49



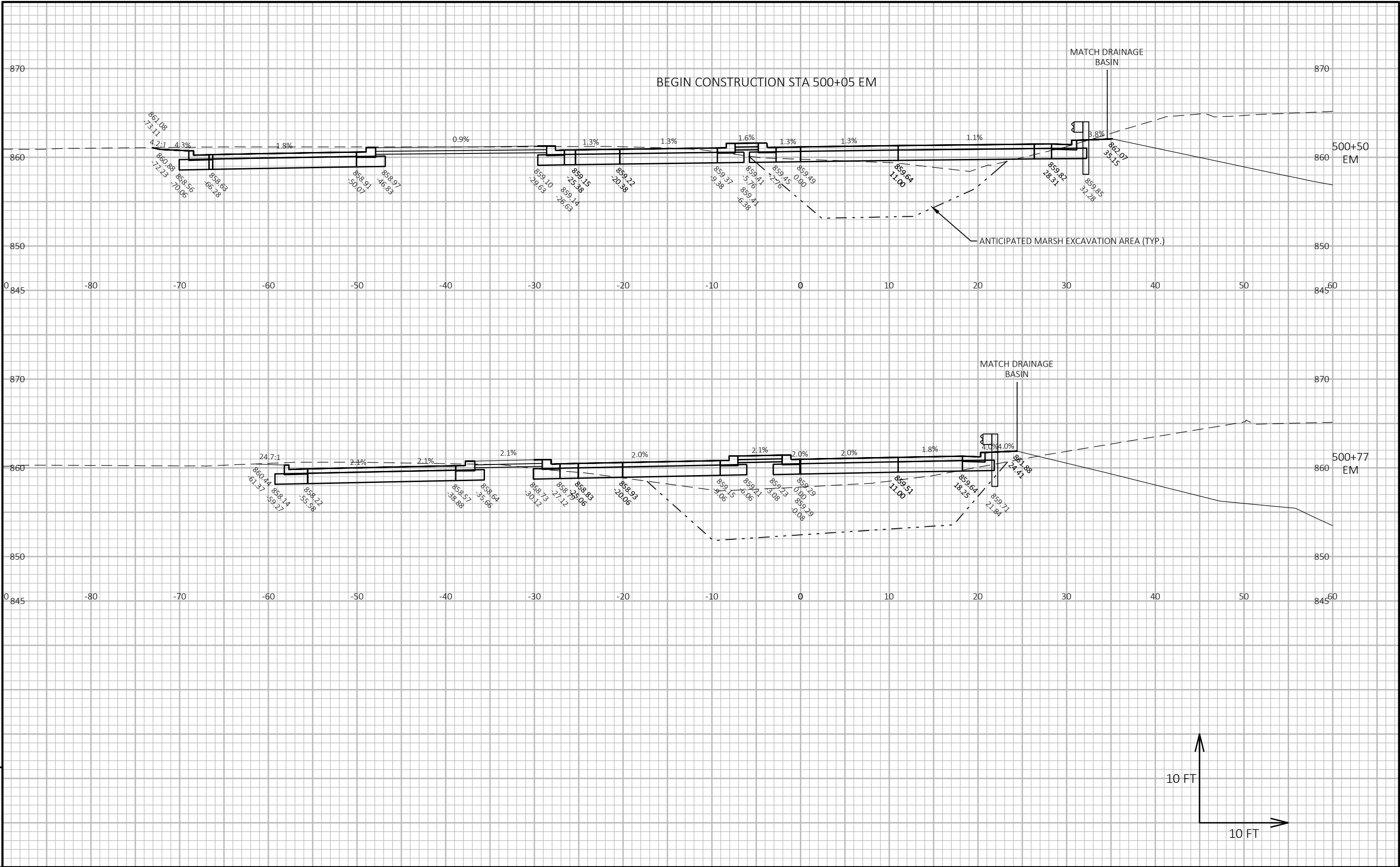


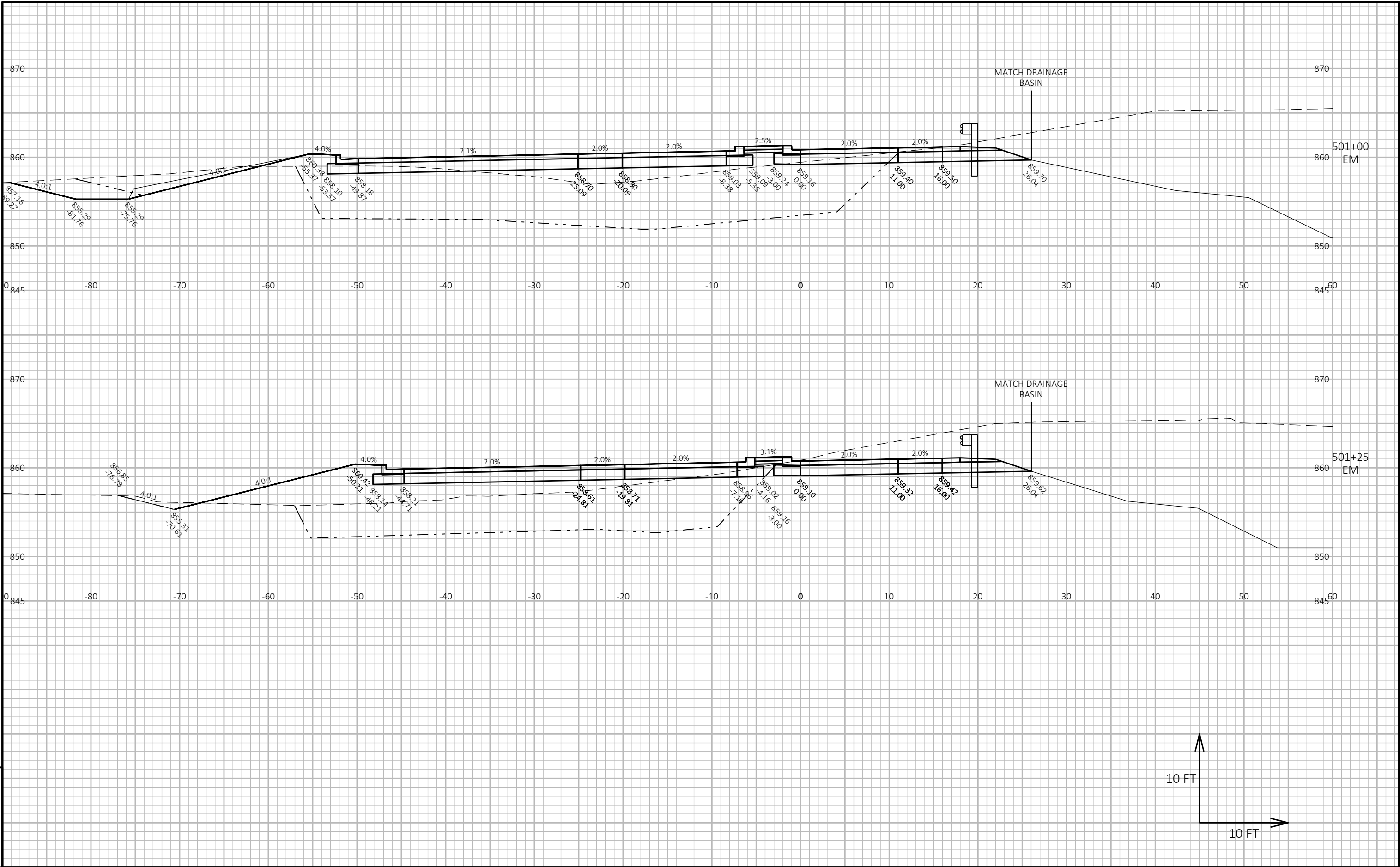


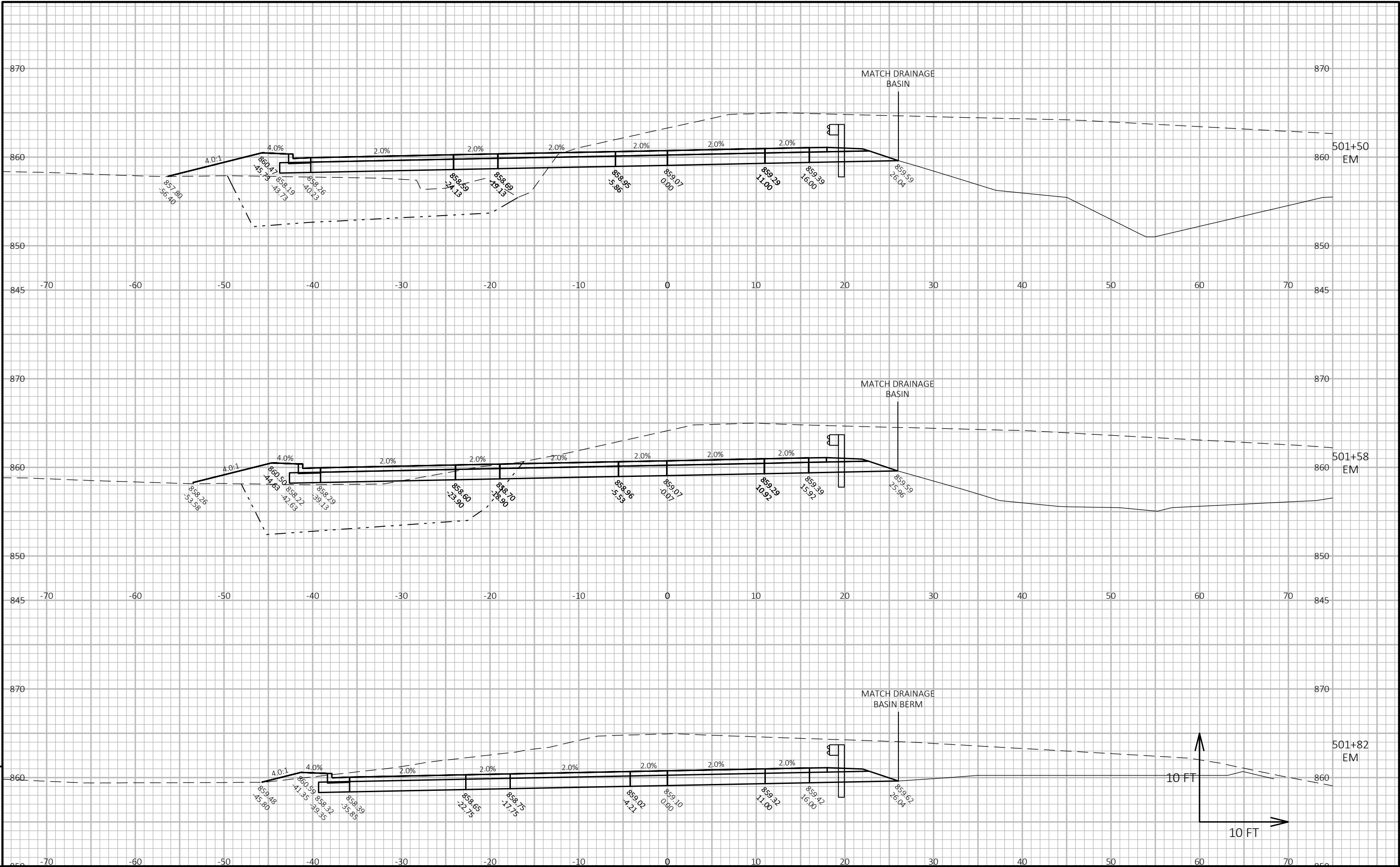
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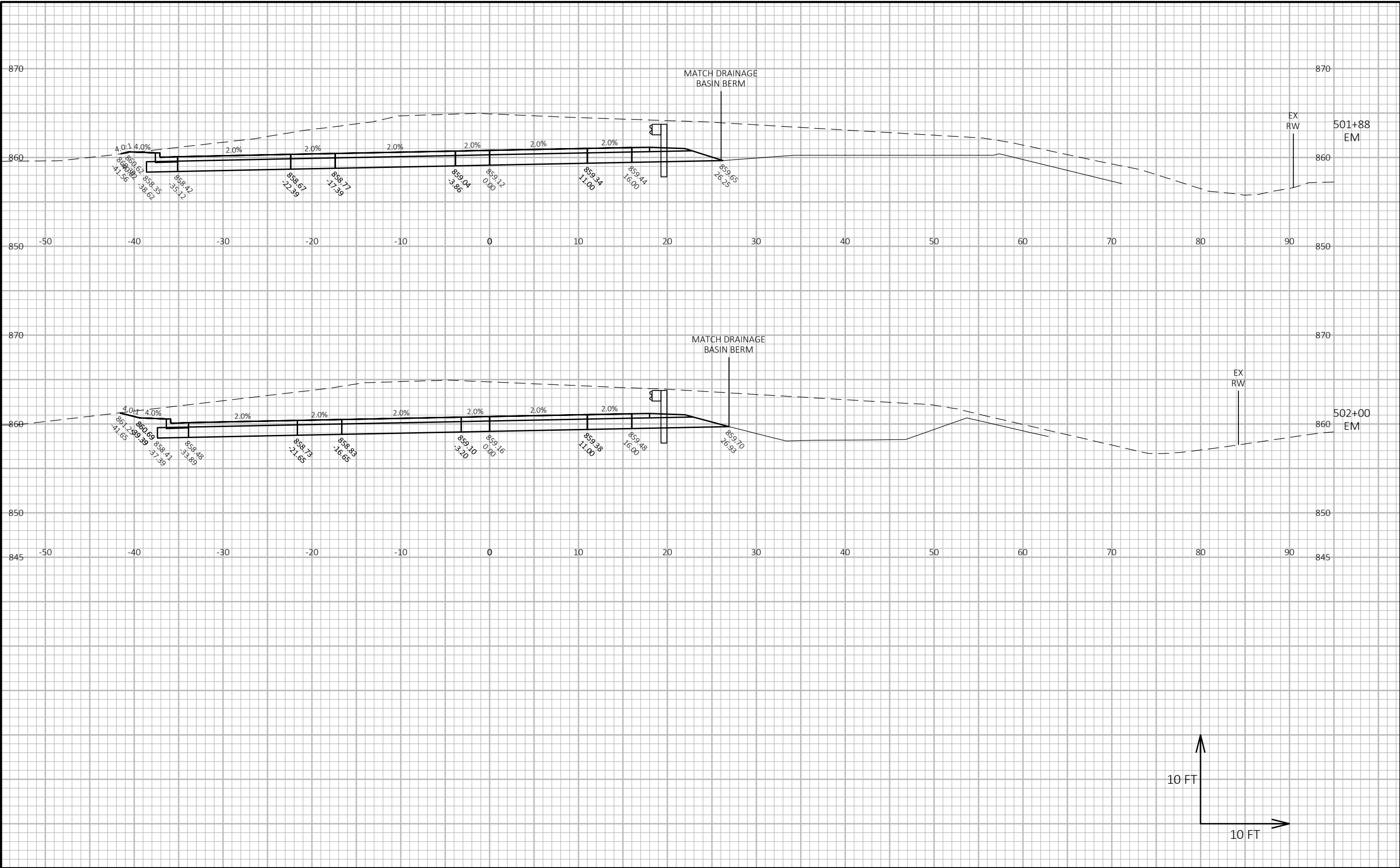


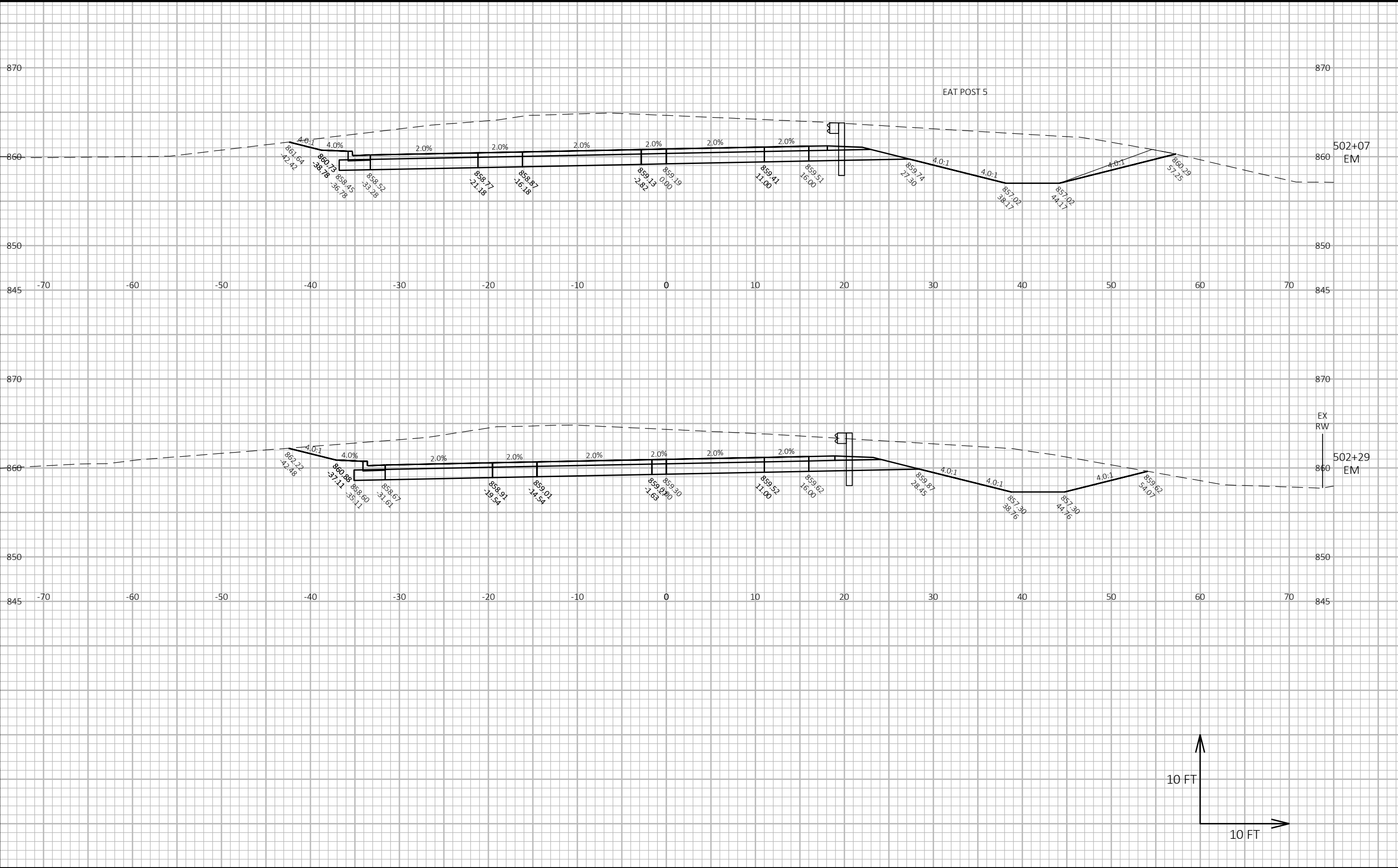
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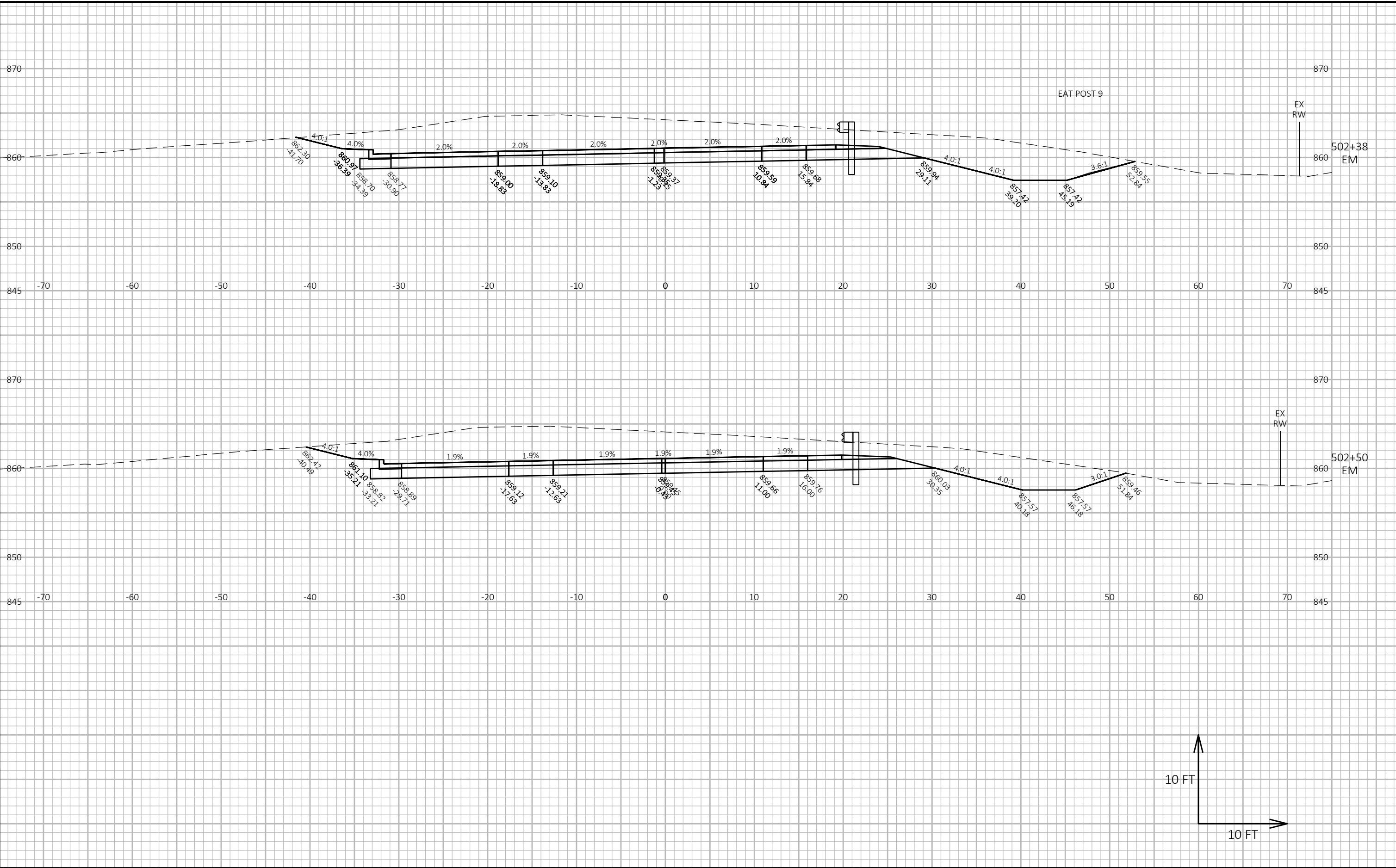


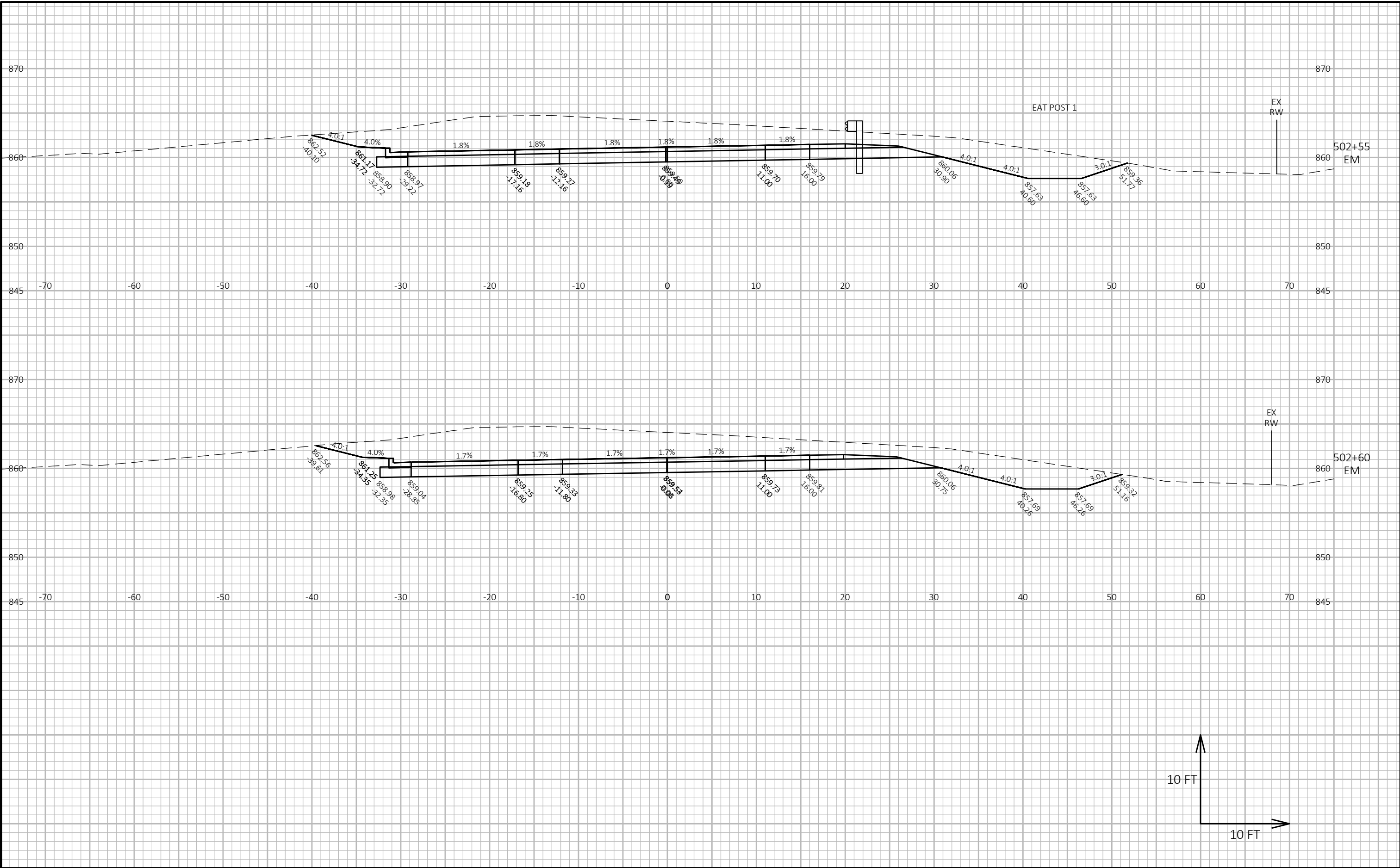


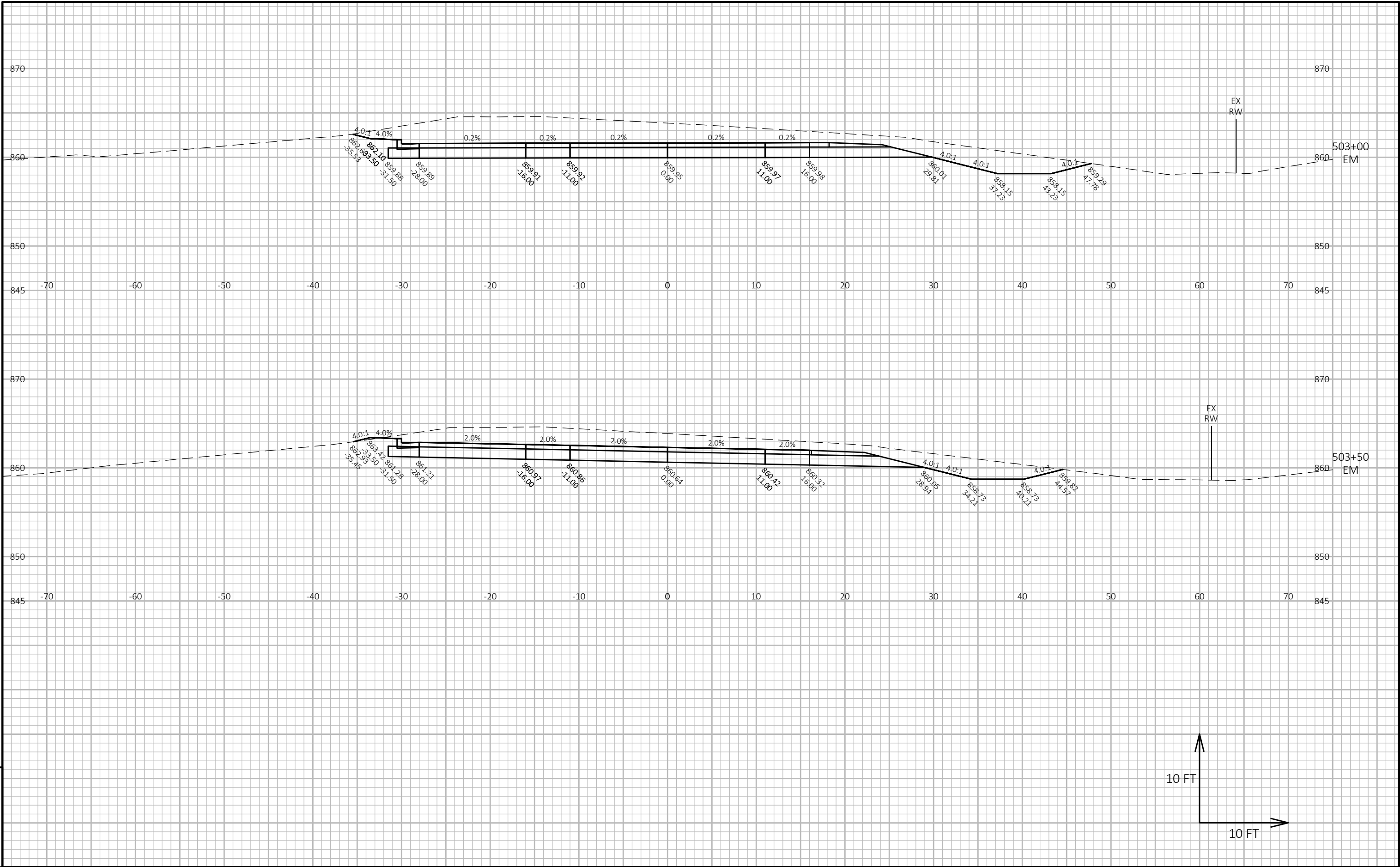






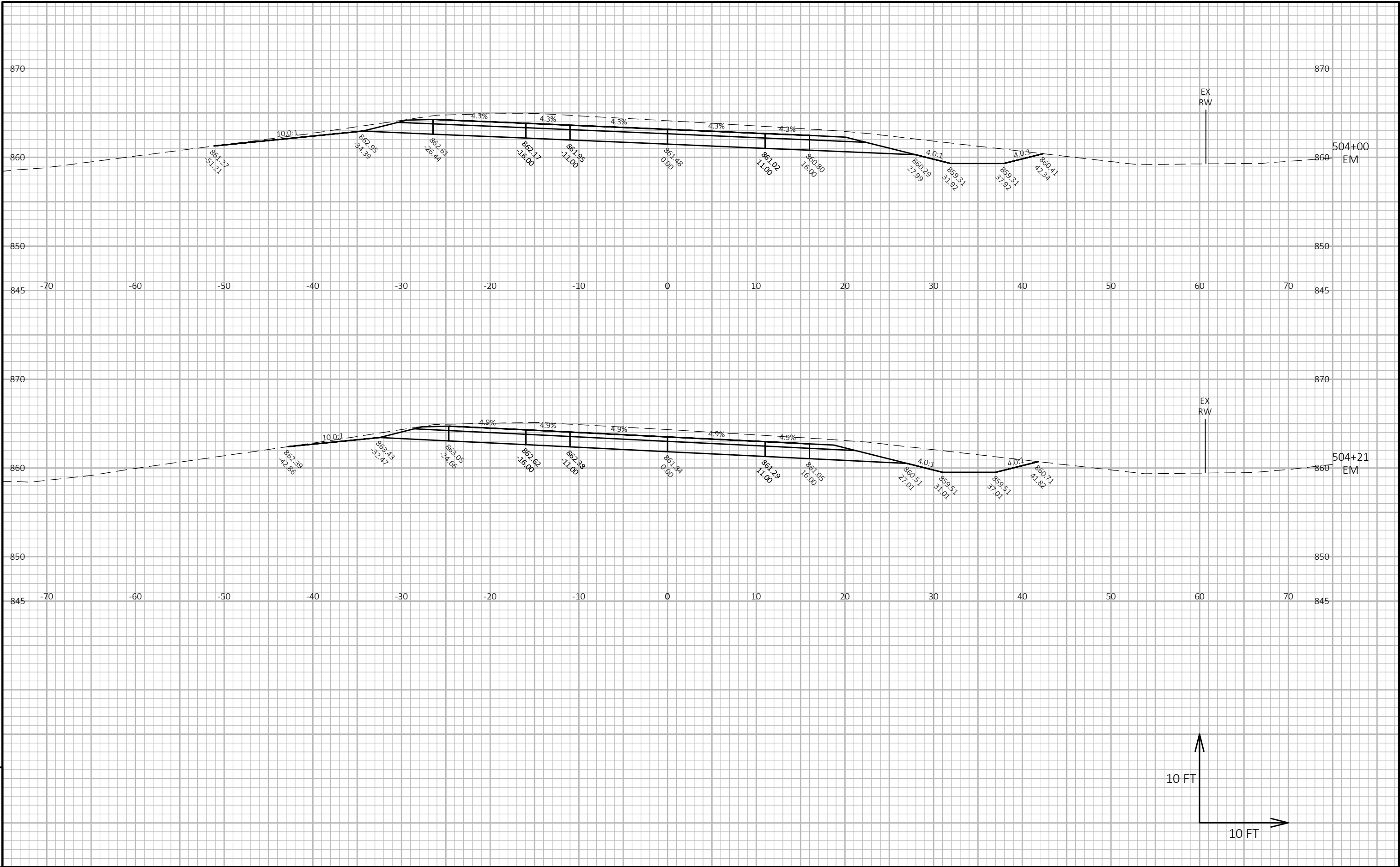


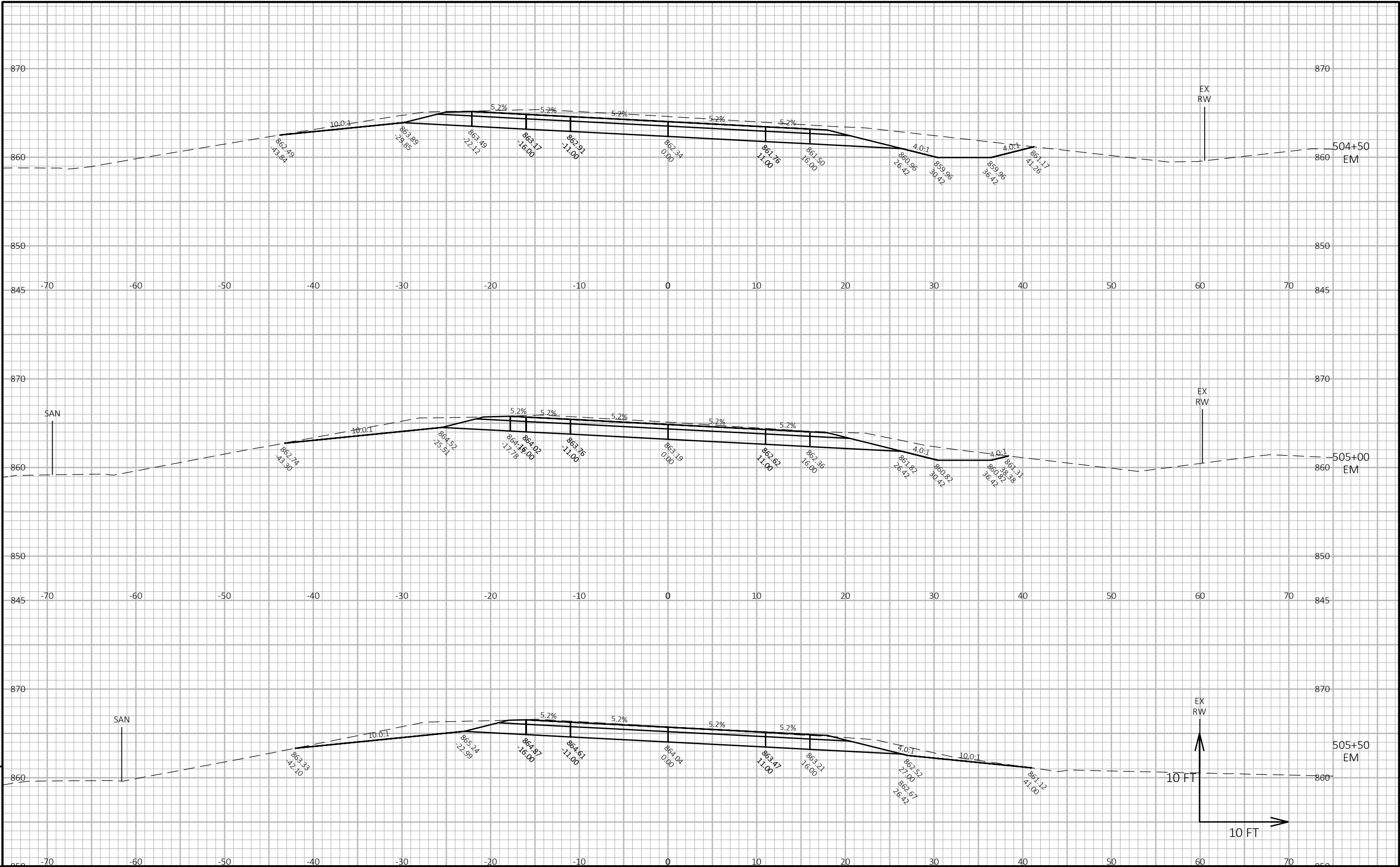


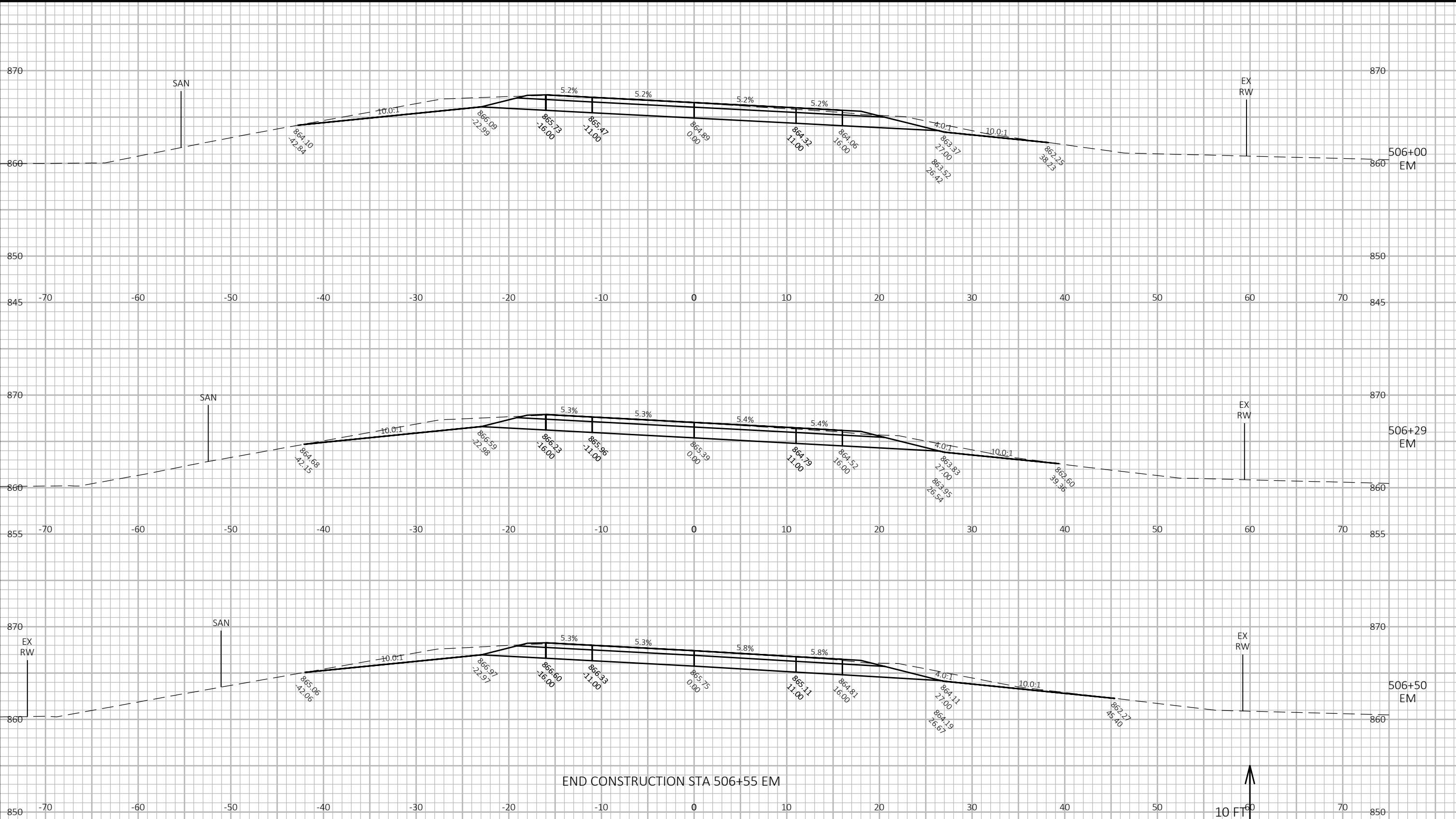


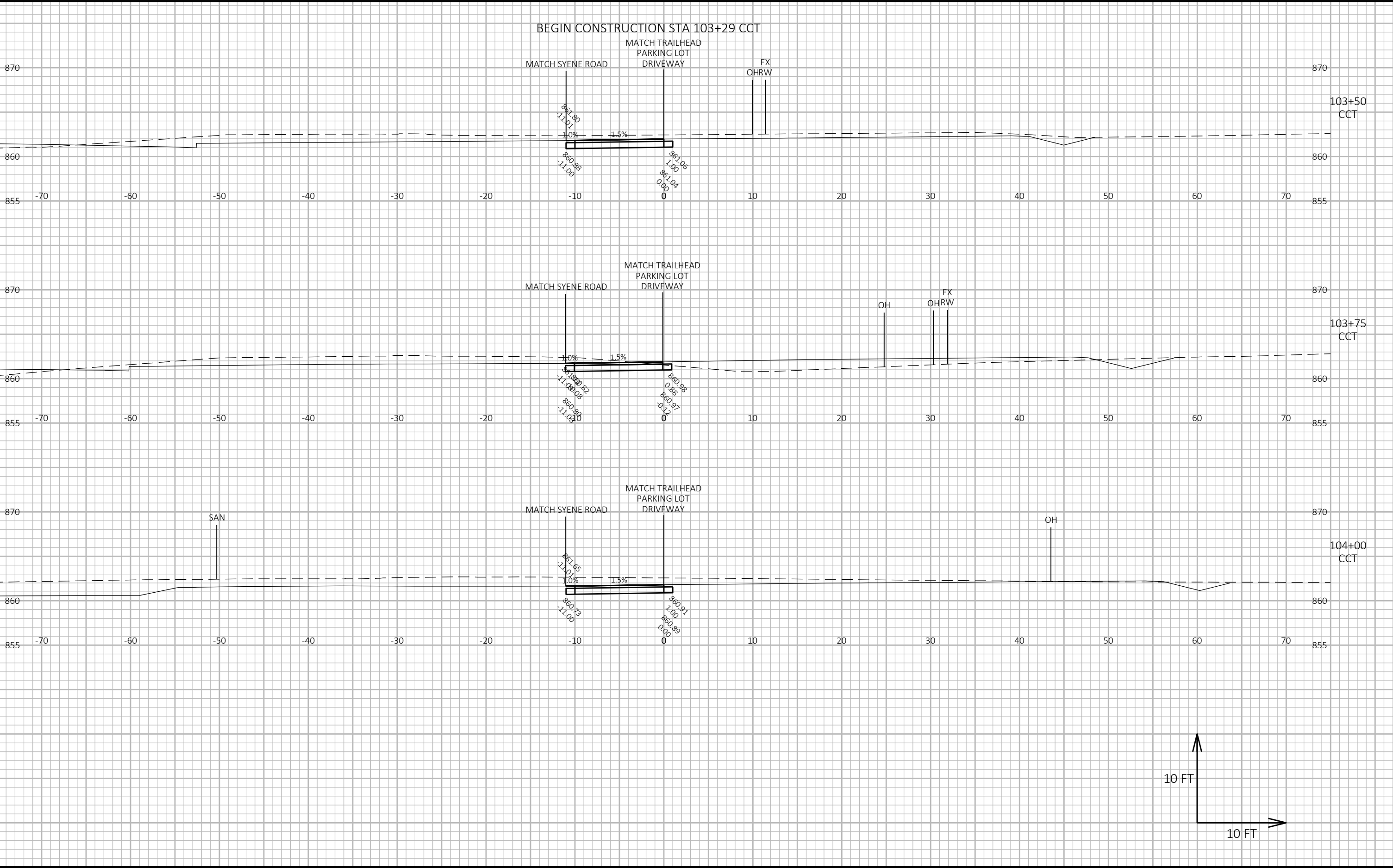
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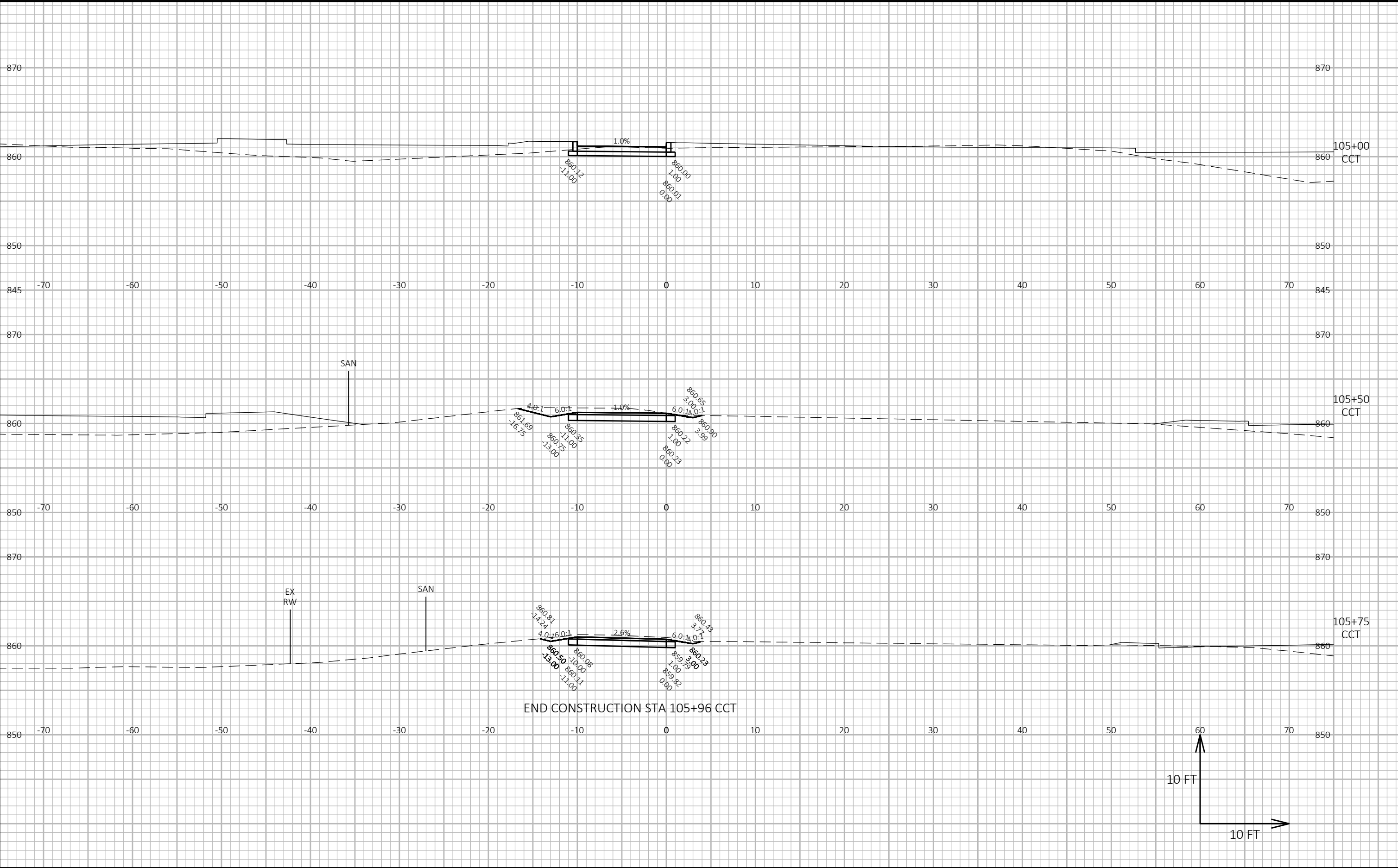
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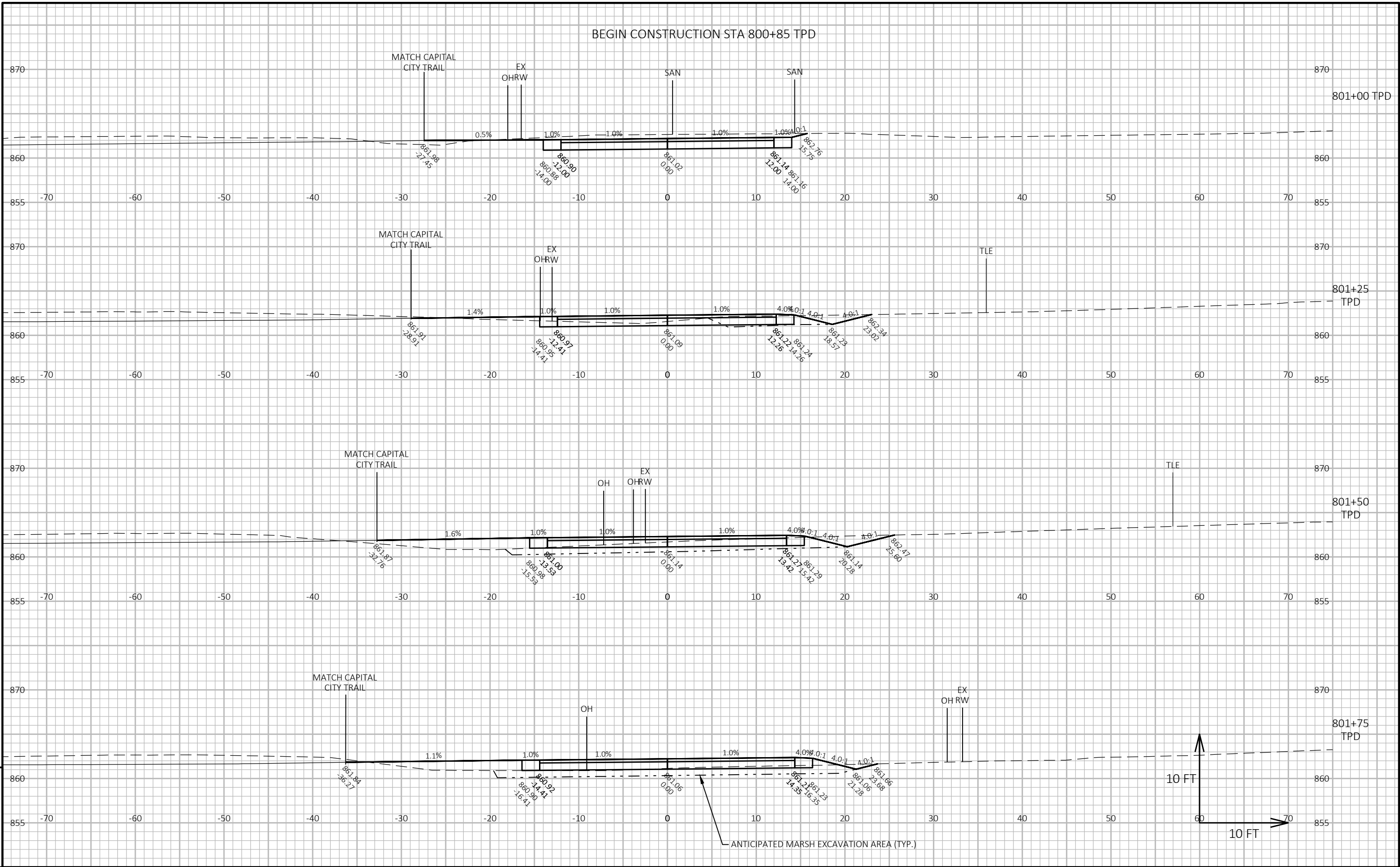


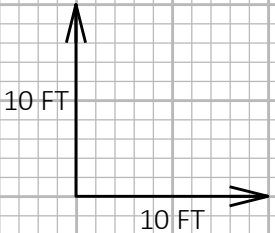
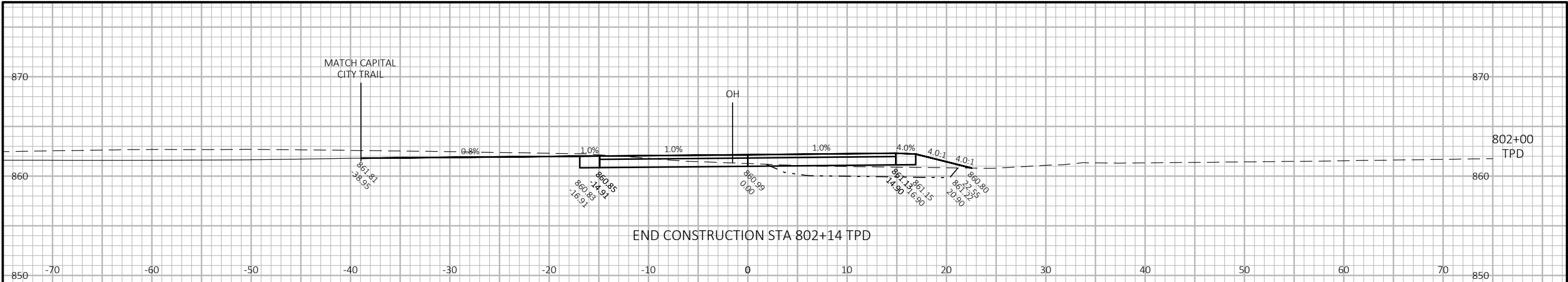




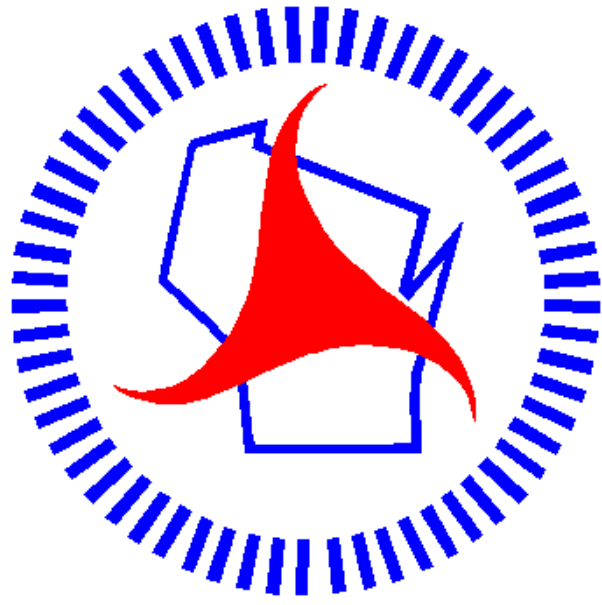








Notes



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