

LAX

PROJECT ID:

5580-04-70

COUNTY:

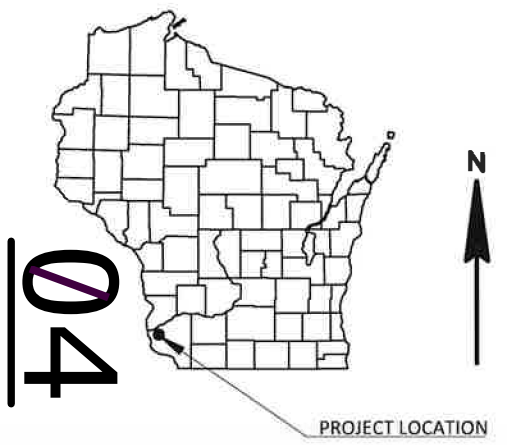
GRANT

JUNE 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 172



DESIGN DESIGNATION		
A.A.D.T.	2025	= 2000
A.A.D.T.	2045	= 2300
D.H.V.		= 292
D.D.		= 60/40
T.		= 22.3%
DESIGN SPEED		= 55 MPH
ESALS		= 850,000

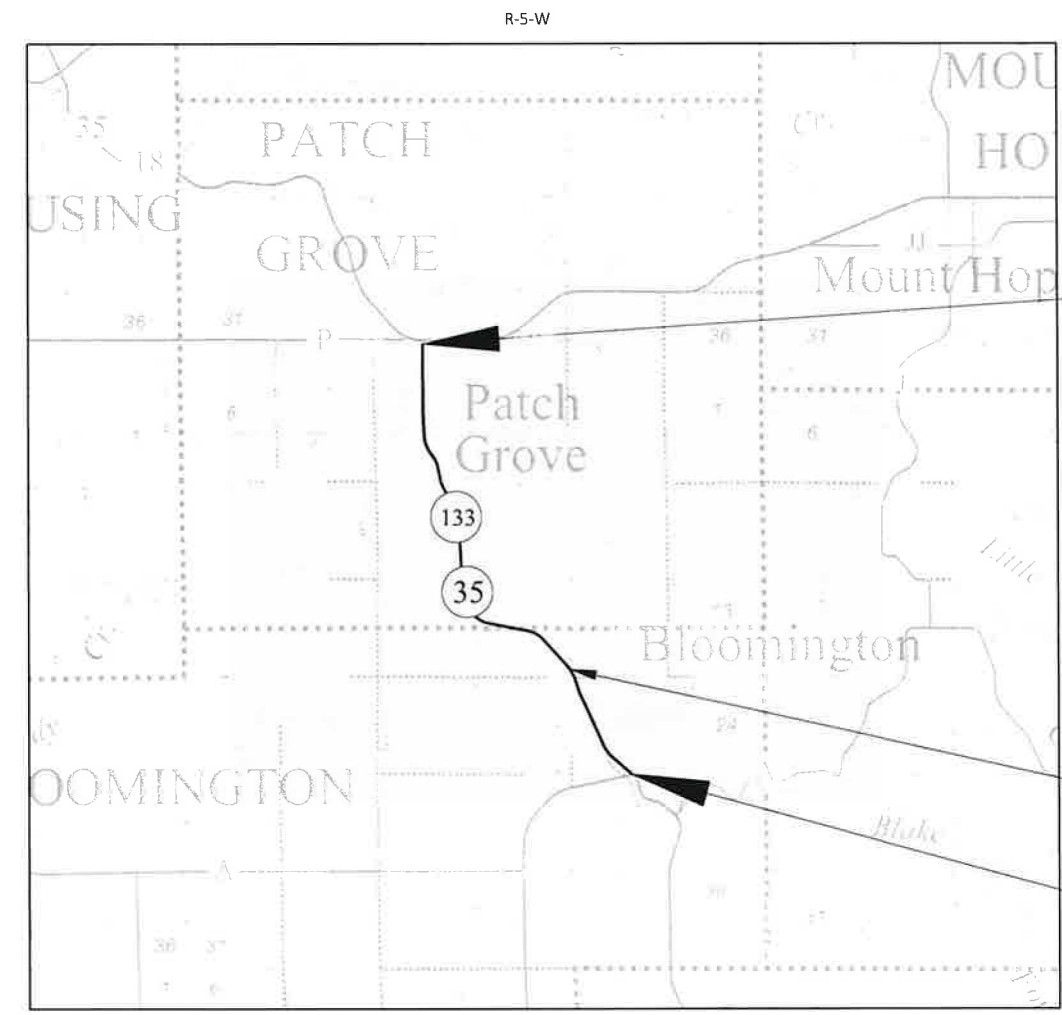
CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

BLOOMINGTON - PRAIRIE DU CHIEN
W JUNCTION STH 133 TO USH 18
STH 35
GRANT COUNTY

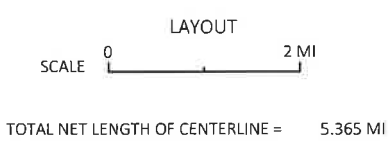
STATE PROJECT NUMBER
5580-04-70



END PROJECT
STA 384+64.85
Y = 561,594.126
X = 748,807.237

NET EXCEPTION TO CL LENGTH
B-22-59
STA 167+94 - STA 168+92

BEGIN PROJECT
STA 100+39.39
Y = 538,087.901
X = 760,232.466



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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5580-04-70		

ORIGINAL PLANS PREPARED BY

MSA

1230 SOUTH BOULEVARD, BARABOO, WI 53913
(608) 356-2771 www.msa-ps.com

WISCONSIN PROFESSIONAL ENGINEER

BOBBI L. MAXWELL
39012-006
BARABOO
WI

Bobbi L. Maxwell
4-14-23

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	WISDOT
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	JOHN BAINTER, P.E.
Regional Examiner	SW REGION
Regional Supervisor	JOHN BAINTER, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 4/16/2023

John Bainter

E

GENERAL NOTES

MISCELLANEOUS

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

ADJUST CULVERT PIPE ELEVATIONS, LENGTHS AND LOCATIONS TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNTIL CONSTRUCTION OPERATIONS REQUIRE THEM TO BE REMOVED/MOVED OR UNLESS THE ENGINEER APPROVES THEM TO BE REMOVED/MOVED.

EXISTING RIGHT OF WAY SHOWN IS APPROXIMATE.

REMOVALS

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

GRADING AND EROSION CONTROL

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

DO NOT STORE EQUIPMENT OR MATERIALS IN, NOR IMPACT ANY WETLANDS OR WATERWAYS OUTSIDE THE SLOPE INTERCEPTS SHOWN.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE FERTILIZED, PERMANENT SEEDED, TEMPORARILY SEEDED AND MULCH OR EMAT PLACED AS DIRECTED BY THE ENGINEER.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER WILL DETERMINE THE EXACT LOCATION OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. REMOVE ITEMS AT ENGINEER'S DIRECTION.

PAVING

CURVE DATA BASED ON ARC DEFINITION.

RADII DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLAG LINE.

HMA WEIGHT CALCULATIONS BASED ON 112 LBS/SY/IN.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

UNLESS OTHERWISE SHOWN ON THE PLAN, SAWCUT ALL MATCHING DRIVEWAYS AND STREETS. CUTTING IS TO BE PAID FOR UNDER "SAWING ASPHALT" FOR ASPHALT PAVEMENT OR "SAWING CONCRETE" FOR CONCRETE PAVEMENT.

SUPERELEVATIONS SHALL MATCH THAT OF THE EXISTING PAVEMENT ALONG HORIZONTAL CURVES.

STORM SEWER

INLET OFFSETS GIVEN TO THE CENTER OF THE STRUCTURE.

ORDER OF SECTION 2 SHEETS

- 1. GENERAL NOTES
- 2. PROJECT OVERVIEW
- 3. EXISTING TYPICAL SECTIONS
- 4. FINISHED TYPICAL SECTIONS
- 5. CONSTRUCTION DETAILS
- 6. GUARDRAIL DETAILS
- 7. CURB RAMP DETAILS
- 8. EROSION CONTROL
- 9. STORM SEWER
- 10. TRAFFIC CONTROL
- 11. PEDESTRIAN ACCESS

ABBREVIATIONS

AC	ACRES	G.V.	GAS VALVE
AC	ASPHALT CEMENT	INV	INVERT
AEW	APRON ENDWALL	IP	IRON PIPE
ASPH	ASPHALT	JCT	JUNCTION
AVG	AVERAGE	LHF	LEFT HAND FORWARD
ADT	AVERAGE DAILY TRAFFIC	L	LENGTH
BAD	BASE AGGREGATE DENSE	LS	LUMP SUM
BM	BENCHMARK	NC	NORMAL CROWN
CL	CENTERLINE	N	NORTH
CC	CENTER TO CENTER	Y	NORTH GRID COORDINATE
CONC	CONCRETE	PACS	PIPE ARCH CORRUGATED STEEL
CMCP	CORRUGATED METAL CULVERT PIPE	PT	POINT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PC	POINT OF CURVATURE
CSCP	CORRUGATED STEEL CULVERT PIPE	PI	POINT OF INTERSECTION
CSM	CERTIFIED SURVEY MAP	PT	POINT OF TANGENCY
CTH	COUNTY TRUNK HIGHWAY	PL	PROPERTY LINE
CULV	CULVERT	PE	PRIVATE ENTRANCE
CP	CULVERT PIPE	R	RADIUS
C&G	CURB & GUTTER	REQ'D	REQUIRED
D	DEGREE OF CURVE	R/W	RIGHT-OF-WAY
DHV	DESIGN HOURLY VOLUME	RHF	RIGHT HAND FORWARD
DIA	DIAMETER	SALV	SALVAGED
DWY	DRIVEWAY	SHLDR	SHOULDER
E	EAST	SDD	STANDARD DETAIL DRAWING
X	EAST GRID COORDINATE	STA	STATION
ELEV	ELEVATION	SE	SUPERELEVATION
EW	ENDWALL	TAN	TANGENT
ENT	ENTRANCE	TLE	TEMPORARY LIMITED EASEMENT
ESALS	EQUIVALENT SINGLE AXLE LOADS	T	TRUCKS
EXC	EXCAVATION	TYP	TYPICAL
EBS	EXCAVATION BELOW SUBGRADE	VERT	VERTICAL
EXIST	EXISTING	VC	VERTICAL CURVE
FF	FACE TO FACE	VOL	VOLUME
FERT	FERTILIZER	WV	WATER VALVE
FE	FIELD ENTRANCE	W	WELL
FG	FINISHED GRADE		
FT	FOOT		

UTILITY CONTACTS

ELECTRIC:
ATC MANAGEMENT, INC.
ATTN: DOUG VOSBERG
2489 RINDEN ROAD
COTTAGE GROVE, WI 53527
OFFICE: (608) 877-7650
EMAIL: DVOSBERG@ATCLLC.COM

COMMUNICATION:
SPECTRUM
ATTN: NEIL HUNTAMER
315 KING ST.
DODGEVILLE, WI 53533
MOBILE: (608) 219-1321
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WATER:
VILLAGE OF BLOOMINGTON
ATTN: MARK DOYLE, DELTA 3 ENGINEERING
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PLATTEVILLE, WI 53818
OFFICE: (608) 348-5355
MOBILE: (608) 482-4507
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MOBILE: (608) 482-4507
EMAIL: DOYLEM@DELTA3ENG.BIZ

COMMUNICATION:
WISCONSIN INDEPENDENT
NETWORK (WIN) TECHNOLOGY
ATTN: TODD ELLICKSON
4955 BULLIS FARM RD.
EAU CLAIRE, WI 54701
OFFICE: (715) 832-3750
MOBILE: (608) 852-4072
EMAIL: TODD.ELLICKSON@WINTechnology.COM

ELECTRIC:
ALLIANT ENERGY
ATTN: AL MUMM
2200 E CAMPION BLVD
PRAIRIE DU CHIEN, WI 53821
OFFICE: (608) 326-9481
MOBILE: (608) 732-7925
EMAIL: ALLANMUMM@ALLIANTENERGY.COM

ELECTRIC:
SCENIC RIVERS ENERGY COOPERATIVE
ATTN: CHAD OLMSTEAD
231 N SHERIDAN ST
LANCASTER, WI 53813
OFFICE: (608) 723-2121 EXT. 561
EMAIL: COLMSTEAD@SREC.NET

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875 S. CHESTNUT ST.
PLATTEVILLE, WI 53818
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MOBILE: (608) 482-4507
EMAIL: DOYLEM@DELTA3ENG.BIZ

SEWER:
VILLAGE OF PATCH GROVE
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PLATTEVILLE, WI 53818
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MOBILE: (608) 482-4507
EMAIL: DOYLEM@DELTA3ENG.BIZ

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TDS TELECOM
ATTN: DAVID O'BRIEN
525 JUNCTION ROAD
MADISON, WI 53717
MOBILE: (608) 577-9564
EMAIL: DAVID.OBRIEN@TDSTELECOM.COM

GAS:
WE ENERGIES
ATTN: ADAM MARING
N3025 14TH AVE.
MONROE, WI 53566
OFFICE: (608) 328-5679
MOBILE: (608) 426-1715
EMAIL: ADAM.MARING@WE-ENERGIES.COM

*NOT A DIGGERS HOTLINE MEMBER

DIGGERS

HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

WISDOT DESIGN CONTACT

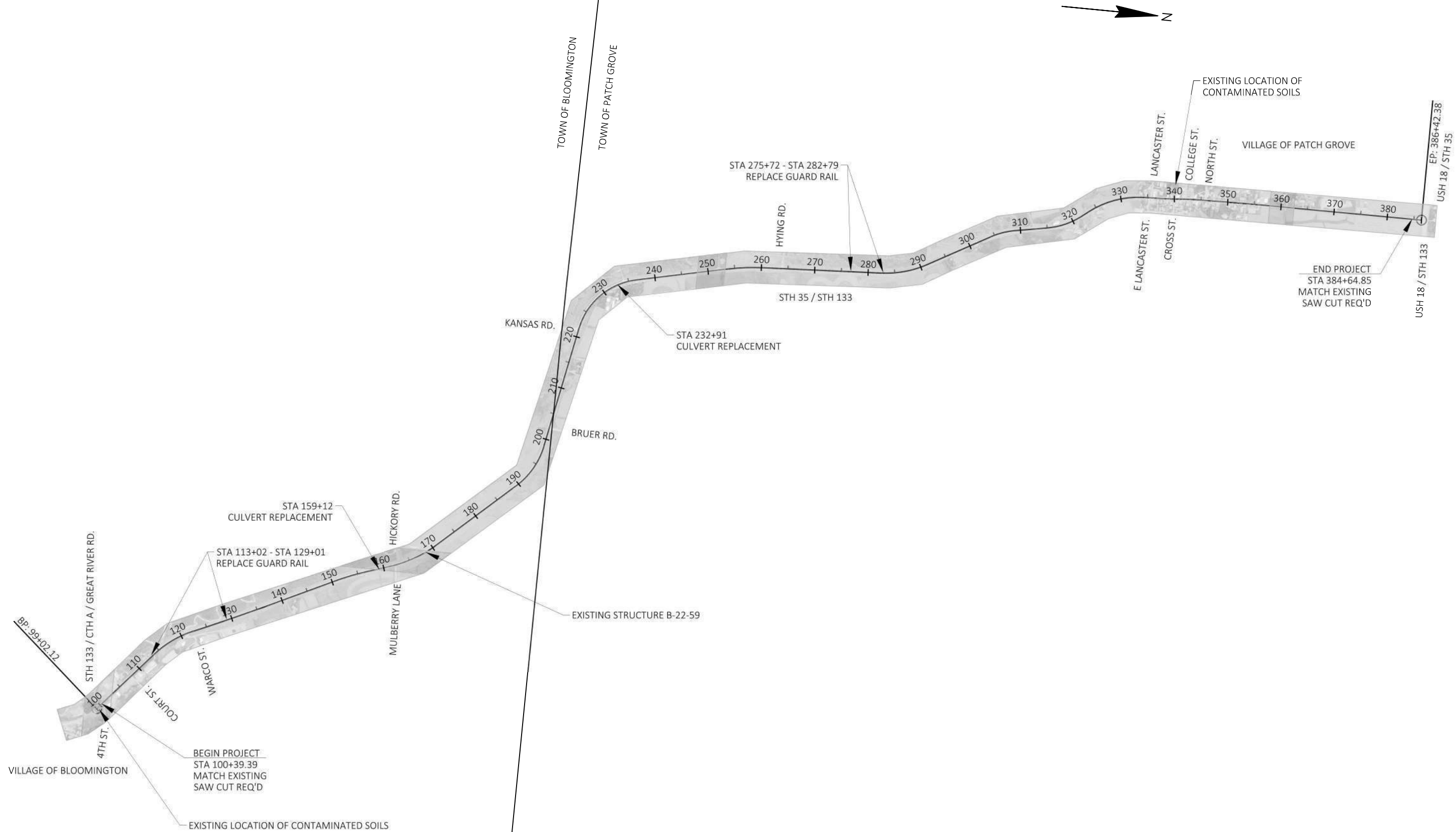
WISDOT SW REGION
ATTN: JOHN BANTER, P.E.
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
OFFICE: (608) 785-9729
EMAIL: JOHN.BANTER@DOT.WI.GOV

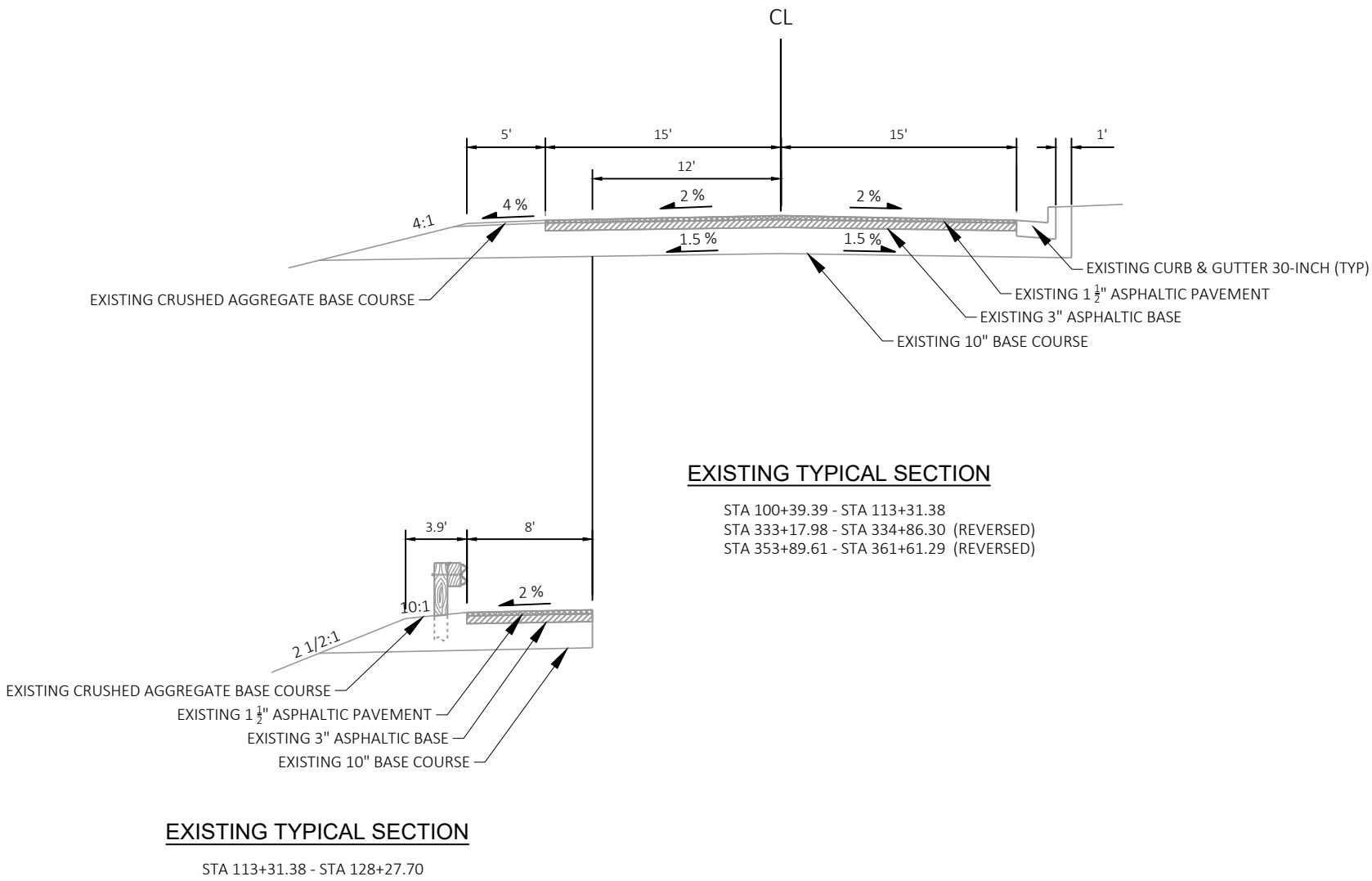
MSA DESIGN CONTACT

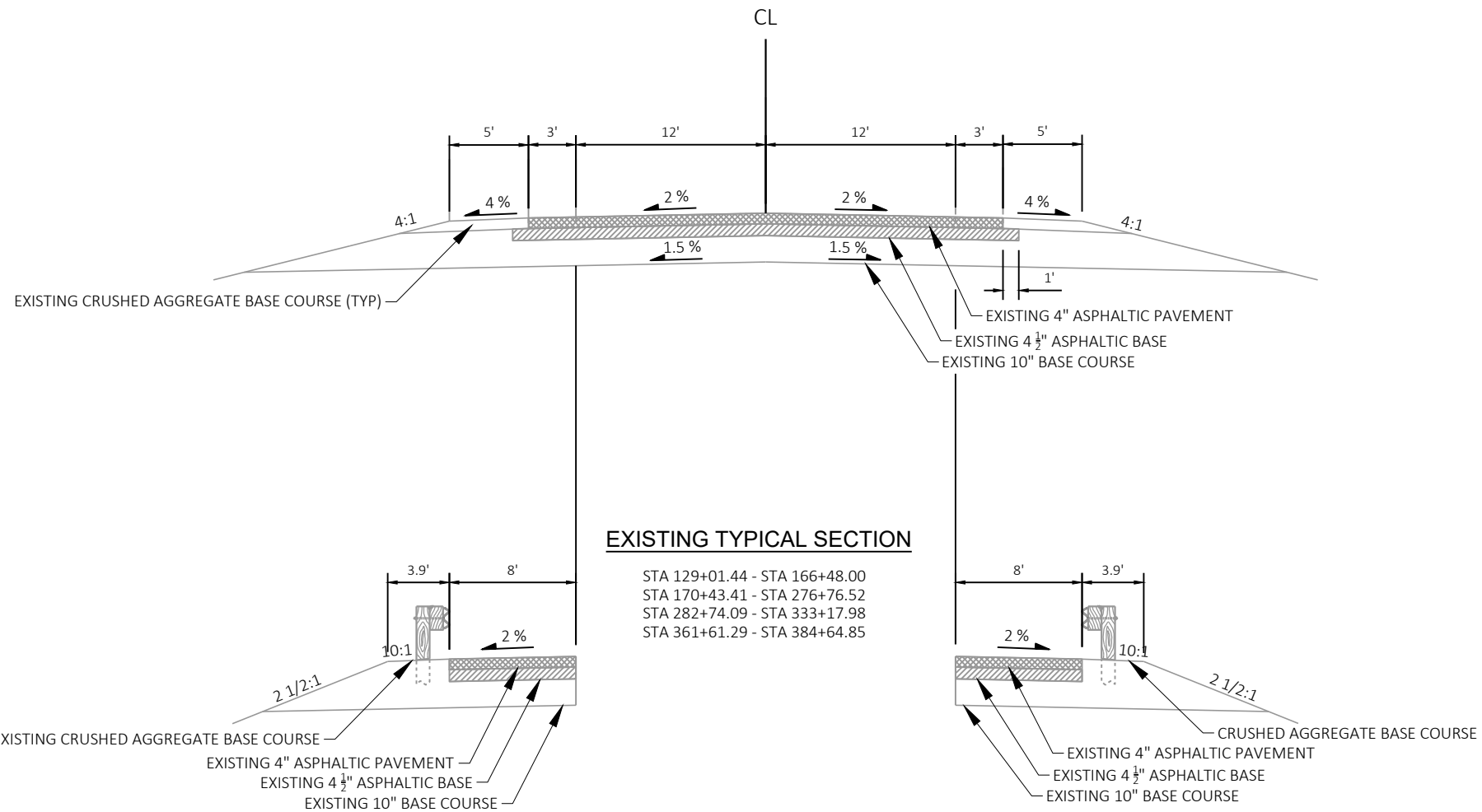
MSA PROFESSIONAL SERVICES, INC.
ATTN: BOBBI MAXWELL, P.E.
1230 SOUTH BOULEVARD
BARABOO, WI 53913
OFFICE: (608) 355-8861
EMAIL: BMAXWELL@MSA-PS.COM

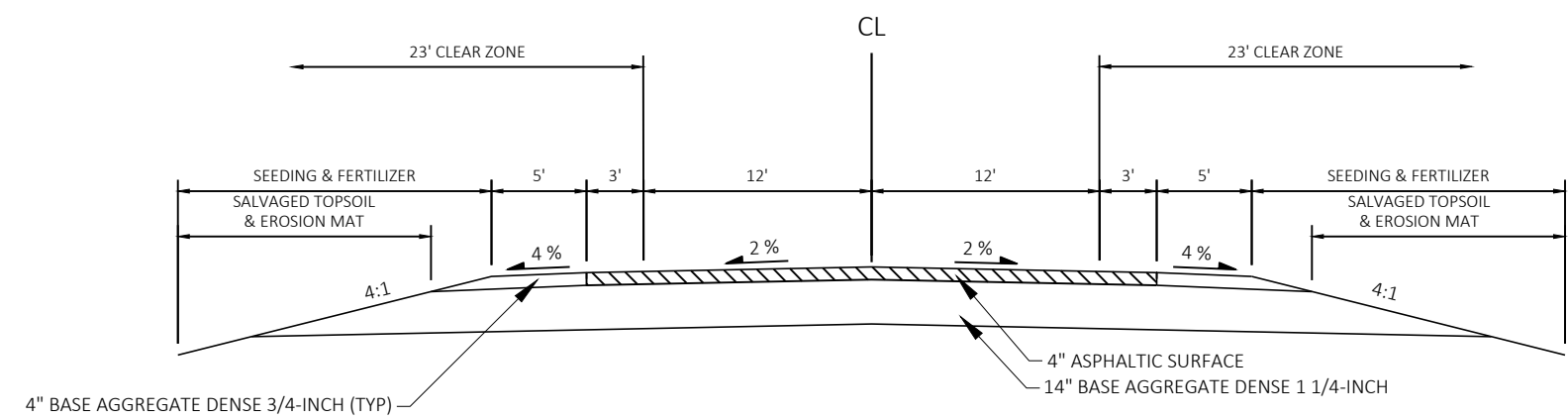
DNR LIAISON

DNR SOUTH CENTRAL REGION HEADQUARTERS
ATTN: ANDREW BARTA
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
OFFICE: (608) 235-2955
EMAIL: ANDREW.BARTA@WISCONSIN.GOV



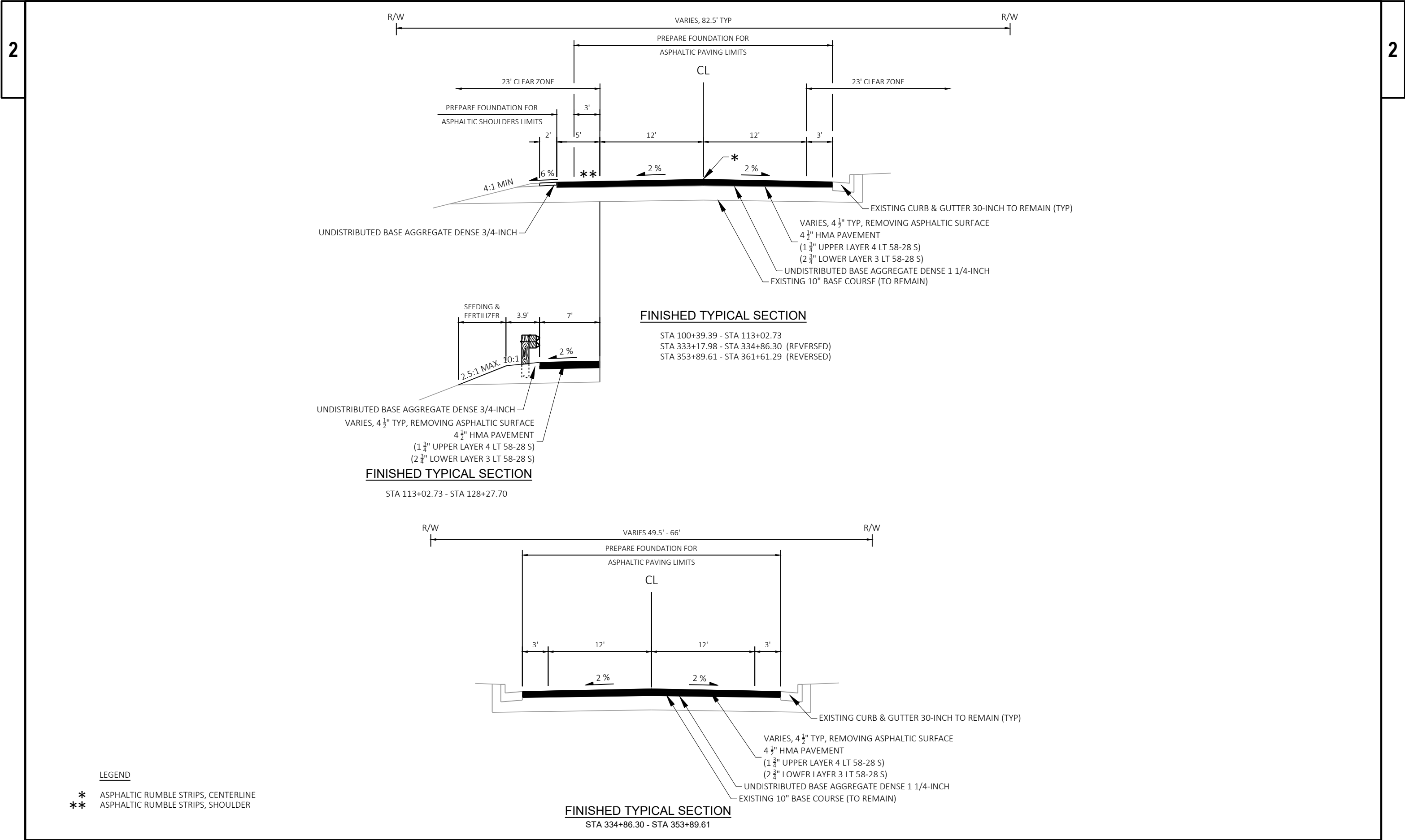




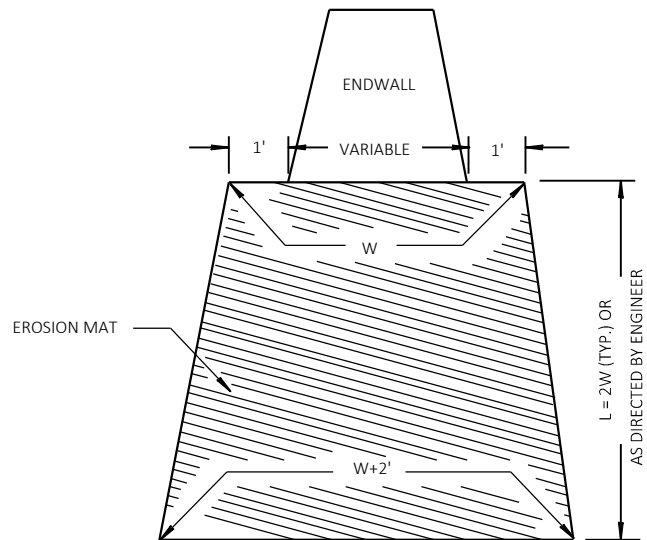


CULVERT REPLACEMENT TYPICAL SECTION PRIOR TO MILL AND OVERLAY

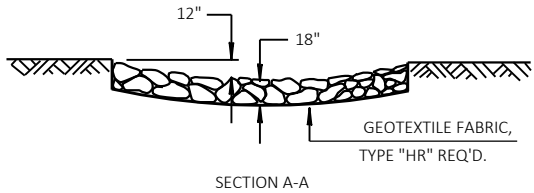
STA 158+80.21 - STA 159+44.21
STA 232+57.23 - STA 233+24.23



2



EROSION MAT TREATMENT AT CULVERTS

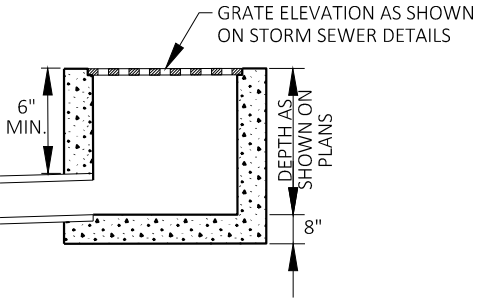


RIPRAP MEDIUM TREATMENT AT CULVERTS

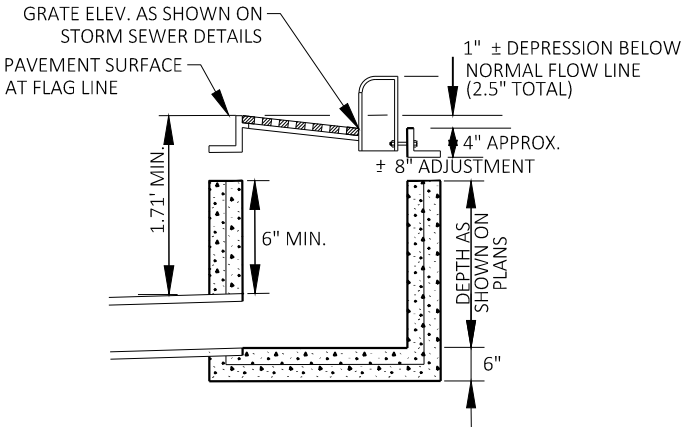
RUNOFF COEFFICIENT TABLE

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

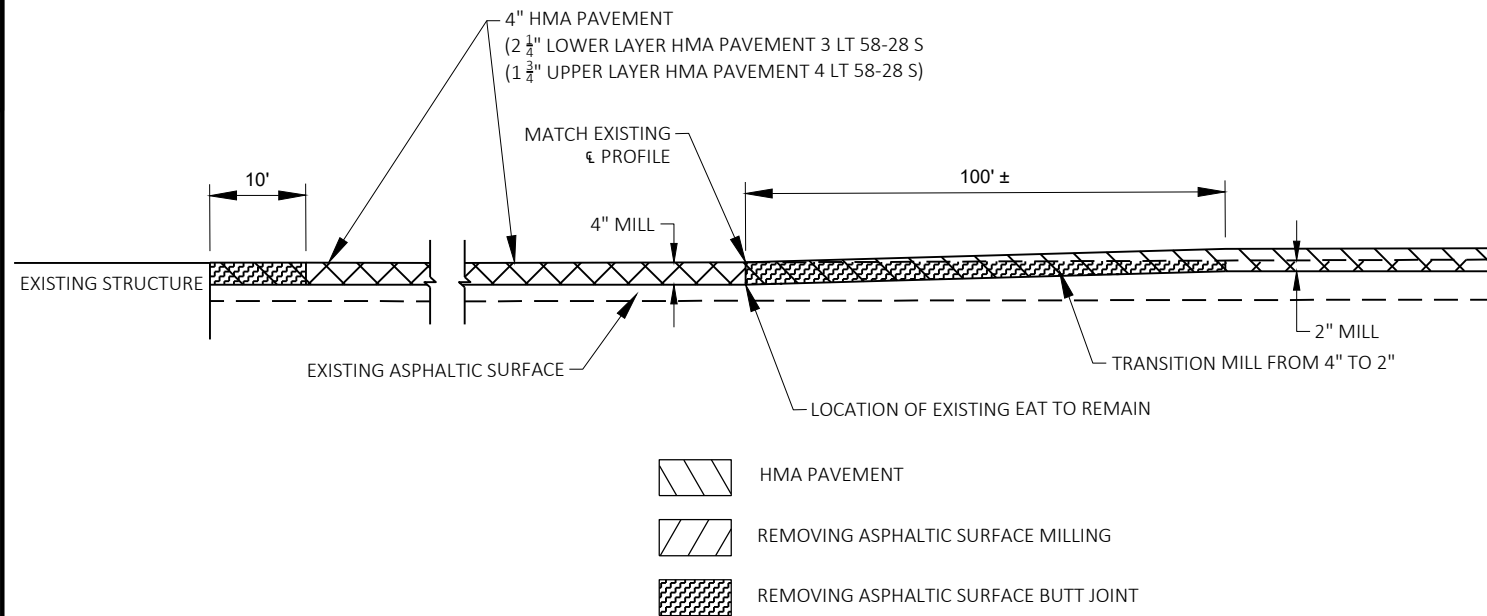
TOTAL PROJECT AREA = 54.64 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.24 ACRES



DETAIL FOR COMPUTING INLET ELEVATIONS
INLETS MEDIAN 1 GRATE

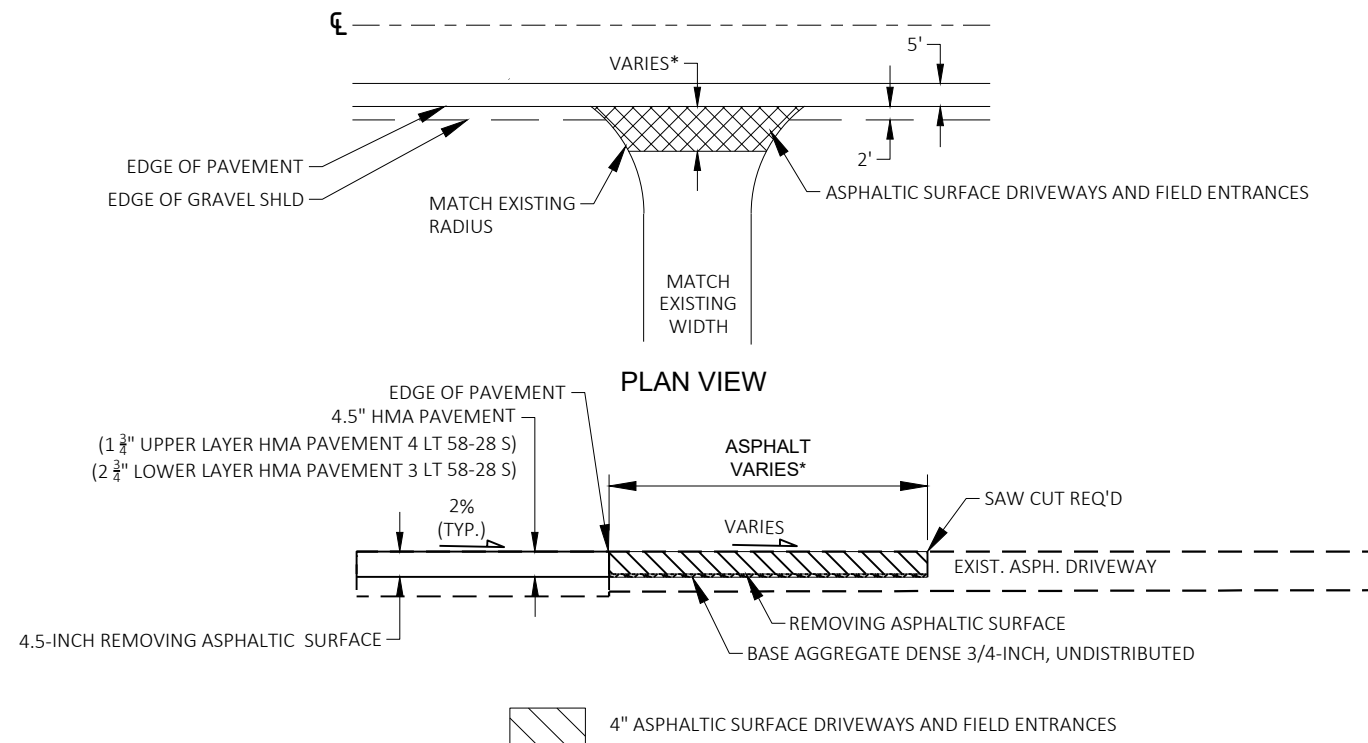


DETAIL FOR COMPUTING INLET ELEVATIONS
INLET COVERS - H



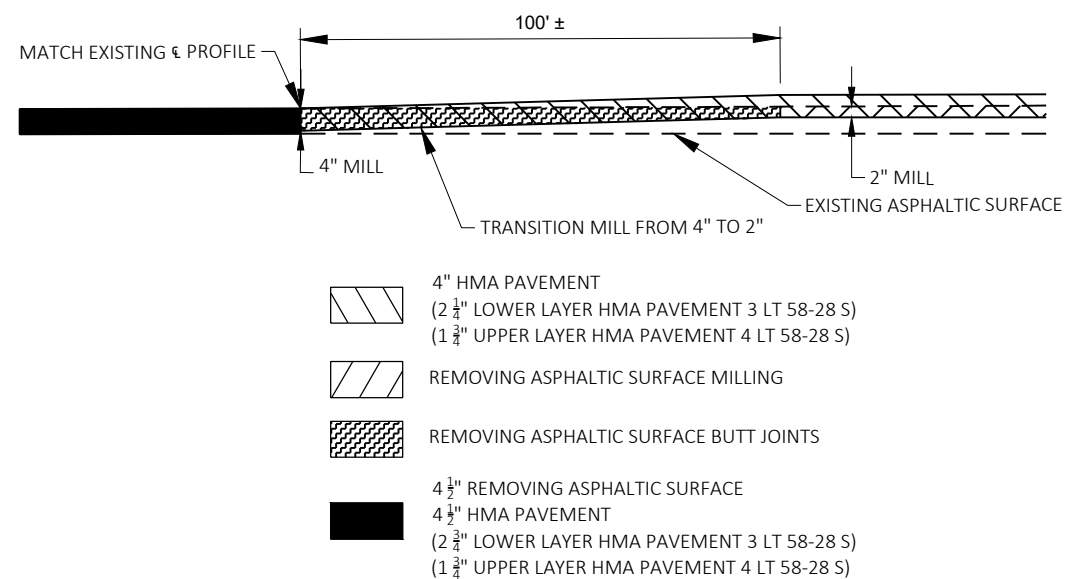
MILLING TRANSITION AND BUTT JOINT AT STRUCTURE DETAIL

NOT TO SCALE
STA 165+48 - STA 167+94
STA 168+92 - STA 171+44



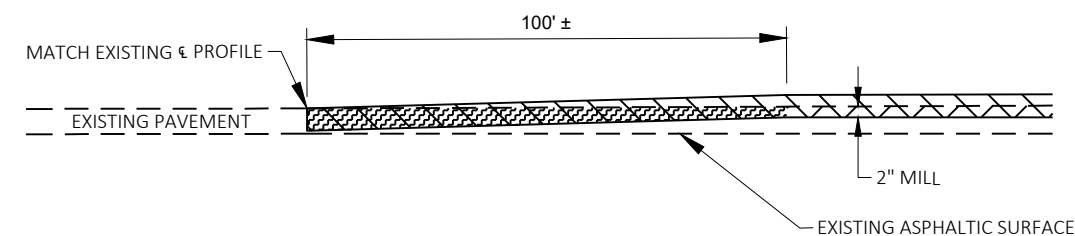
URBAN ASPHALTIC DRIVEWAY DETAIL

* EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD
STA 102+18 LT
STA 105+00 LT
STA 105+71 LT
STA 112+52 LT
STA 354+00 RT



MILLING TRANSITION DETAIL

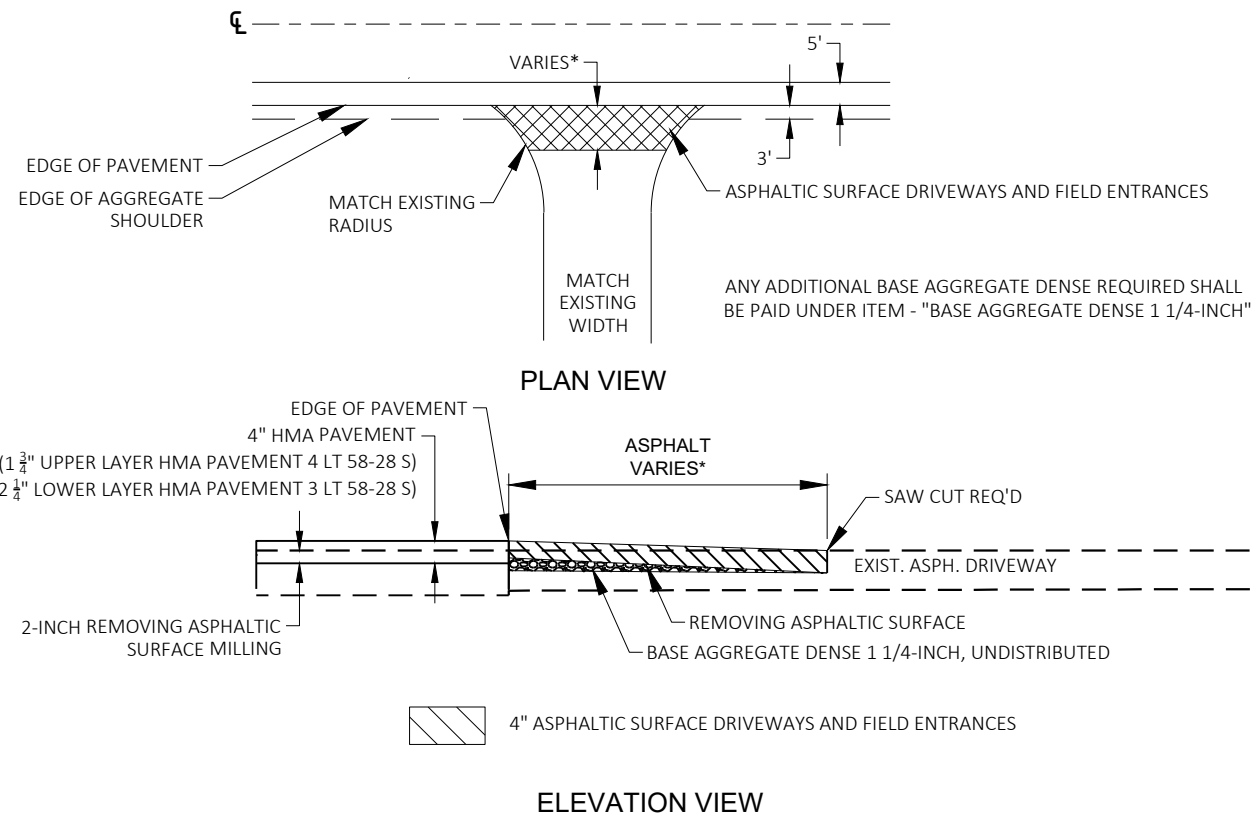
NOT TO SCALE
STA 128+28 - STA 129+28
STA 332+18 - STA 333+18
STA 361+61 - STA 362+61



BUTT JOINT DETAIL

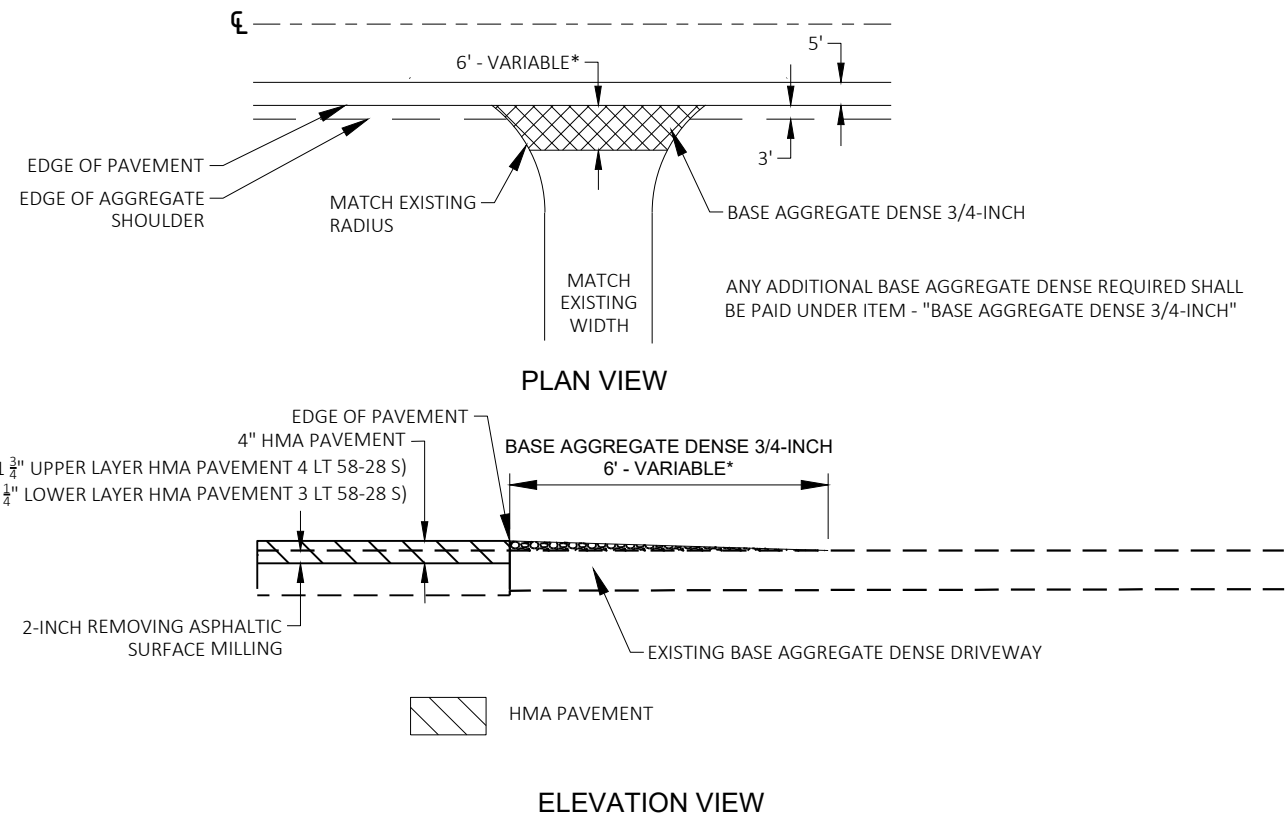
NOT TO SCALE
STA 383+64.85 - STA 384+64.85

SAWING IS INCIDENTAL TO "REMOVING
ASPHALTIC SURFACE BUTT JOINTS"



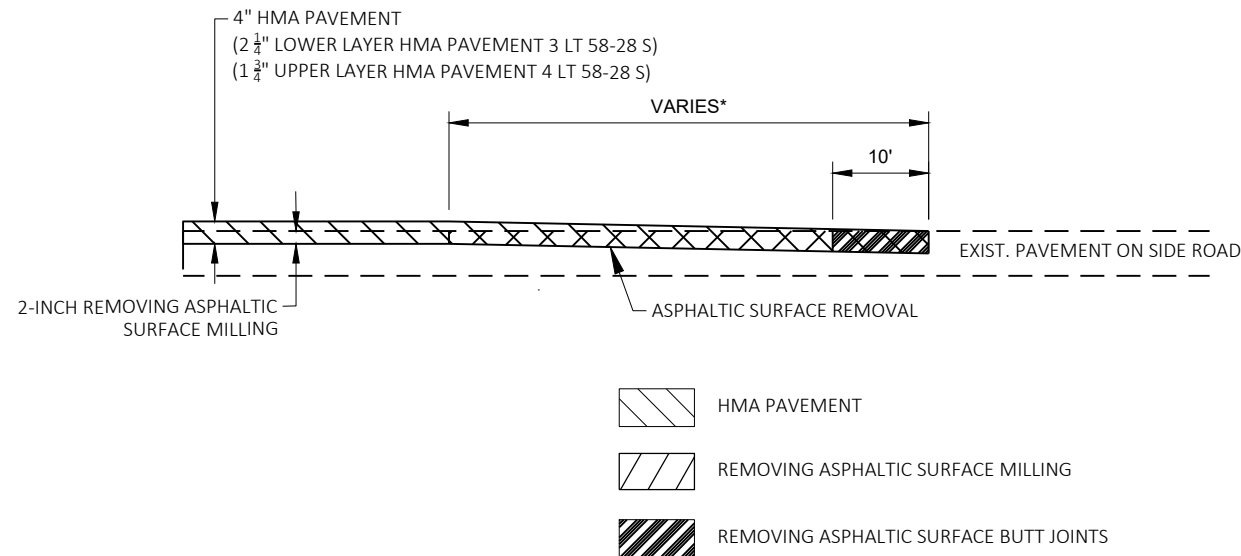
RURAL ASPHALTIC DRIVEWAY DETAIL

* EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD
STA 364+24 LT
STA 365+63 LT
STA 367+75 LT
STA 370+33 LT



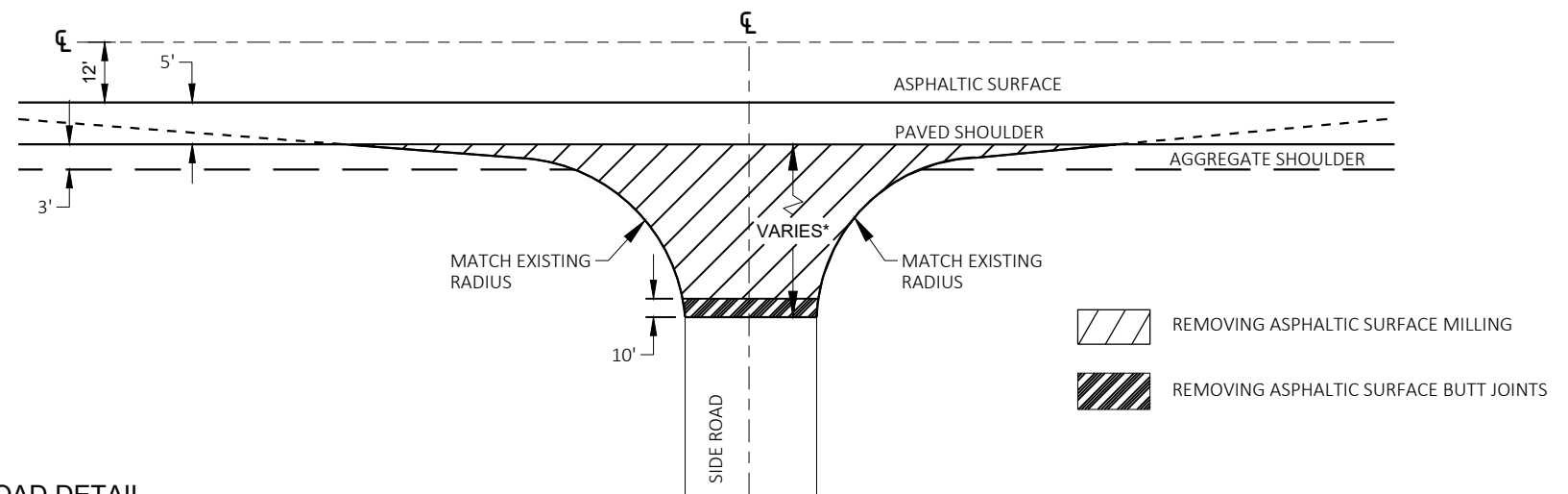
RURAL BASE AGGREGATE DRIVEWAY DETAIL

* EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD
STA 110+09 LT STA 213+32 RT STA 267+79 RT STA 312+53 LT STA 325+43 RT
STA 140+58 LT STA 229+54 RT STA 278+79 RT STA 316+25 LT STA 360+93 RT
STA 140+83 RT STA 234+19 LT STA 296+53 RT STA 319+86 RT STA 362+22 LT
STA 182+14 RT STA 252+07 LT STA 298+29 RT STA 321+07 RT STA 377+19 LT
STA 197+52 RT STA 252+96 RT STA 300+24 RT STA 322+87 LT STA 383+38 LT



SIDE ROAD DETAIL

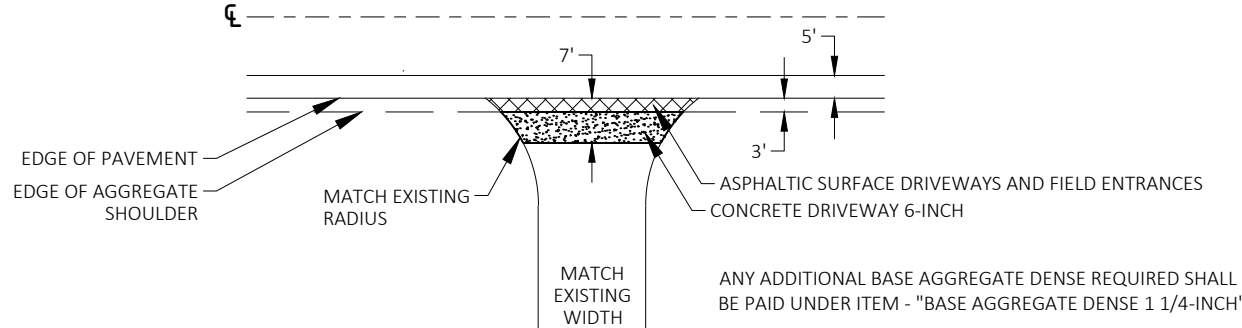
SAWING IS INCIDENTAL TO "REMOVING ASPHALTIC SURFACE BUTT JOINTS"
*EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD



ROADWAY	WIDTH AT MATCH IN PT (FT)	LENGTH (FT)
MULBERRY LN	35.7	25.7
HICKORY RD	20.8	13.4
BRUER RD	22.9	43.2

2

2



PLAN VIEW

EDGE OF 5' SHOULDER PAVEMENT

4" HMA PAVEMENT
(1 $\frac{3}{4}$ " UPPER LAYER HMA PAVEMENT 4 LT 58-28 S)
(2 $\frac{1}{4}$ " LOWER LAYER HMA PAVEMENT 3 LT 58-28 S)

2-INCH REMOVING ASPHALTIC SURFACE MILLING

ASPHALT 3'

CONC 4"

SAW CUT REQ'D

EXIST CONC DRIVEWAY

DRILLED TIE BARS (SEE SDD CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES)

REMOVING CONC PAVEMENT

BASE AGGREGATE DENSE 1 $\frac{1}{4}$ -INCH, UNDISTRIBUTED

4" ASPHALT

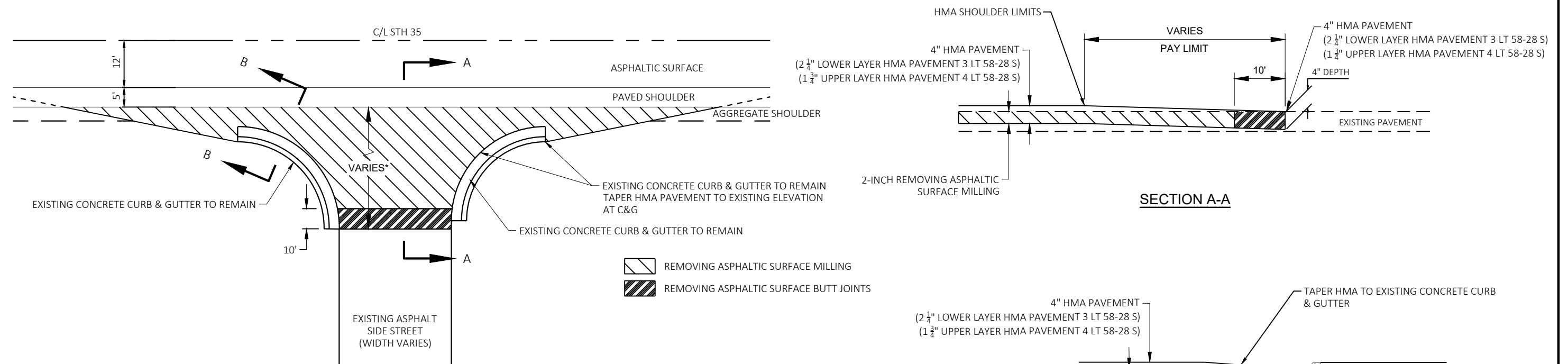
CONC DRIVEWAY

	4" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
	CONC DRIVEWAY 6-INCH

ELEVATION VIEW

RURAL CONCRETE DRIVEWAY DETAIL

* EXACT DIMENSIONS TO BE DETERMINED
BY ENGINEER IN THE FIELD
STA 355+85 RT



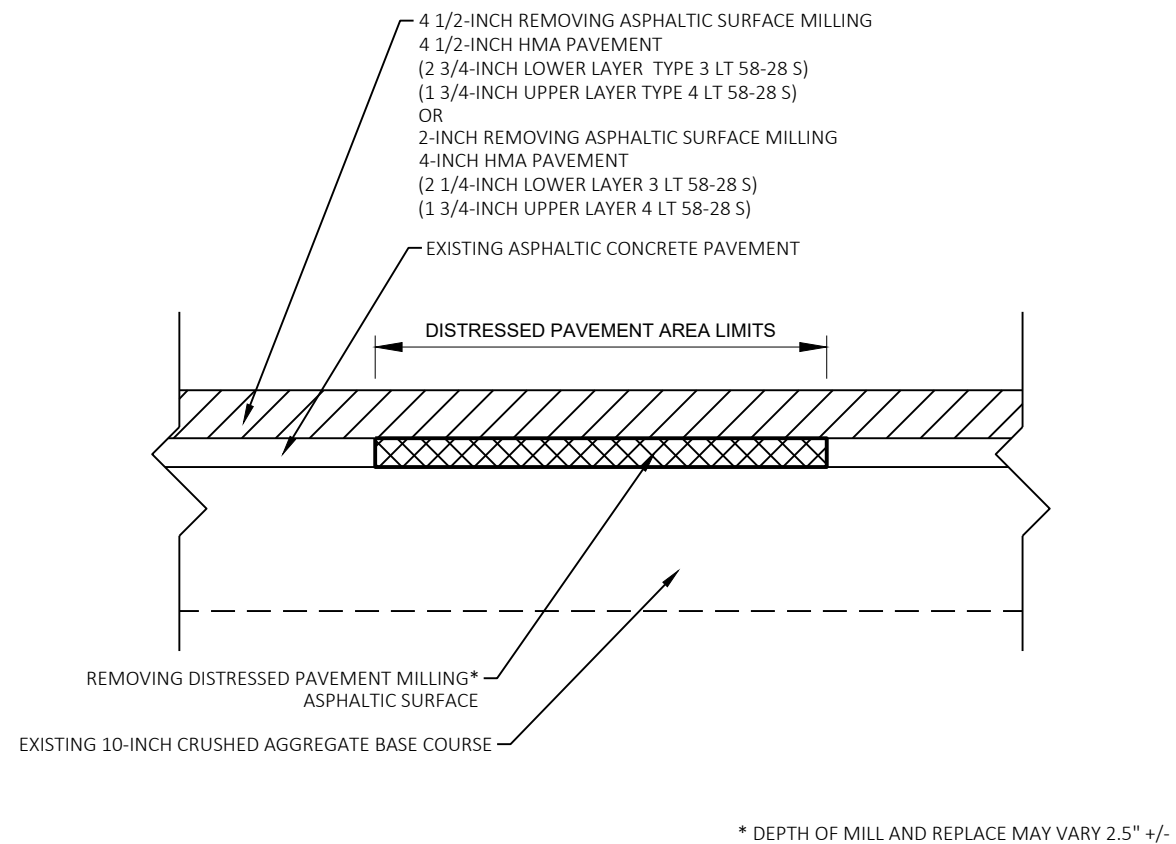
SECTION A-A

SECTION B-F

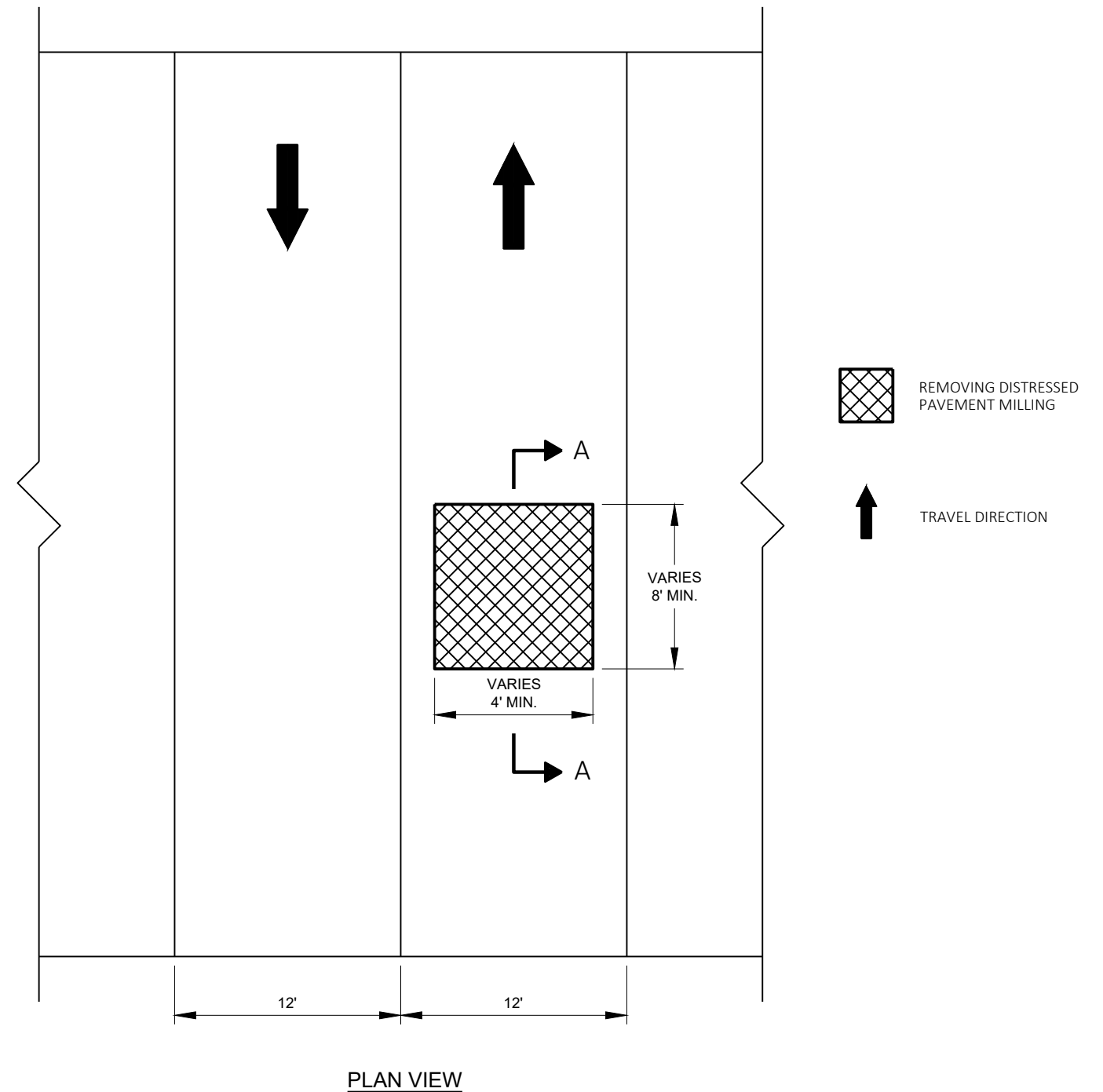
ROADWAY	WIDTH AT MATCH IN PT (FT)	LENGTH (FT)
KANSAS RD	49.0	32.3
HYING RD	32.9	72.7

RURAL SIDE ROAD WITH CURB AND GUTTER

*EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD

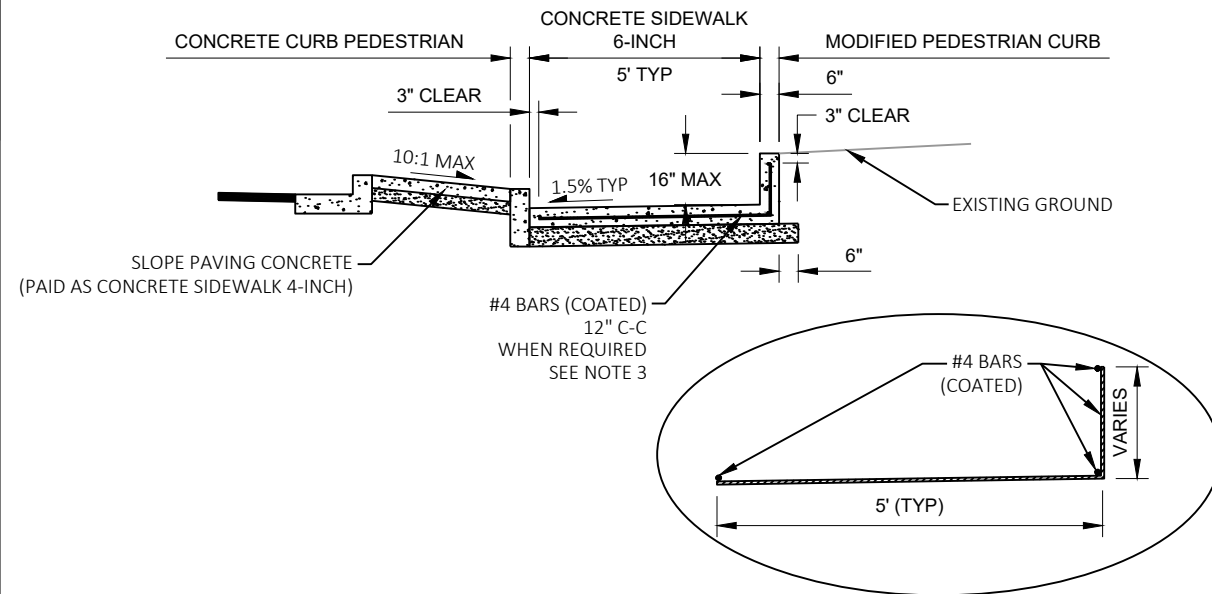


SECTION A-A
SECTION AT DISTRESSED PAVEMENT AREAS



DISTRESSED PAVEMENT MILLING DETAIL

PAID AS "REMOVING DISTRESSED PAVEMENT MILLING"

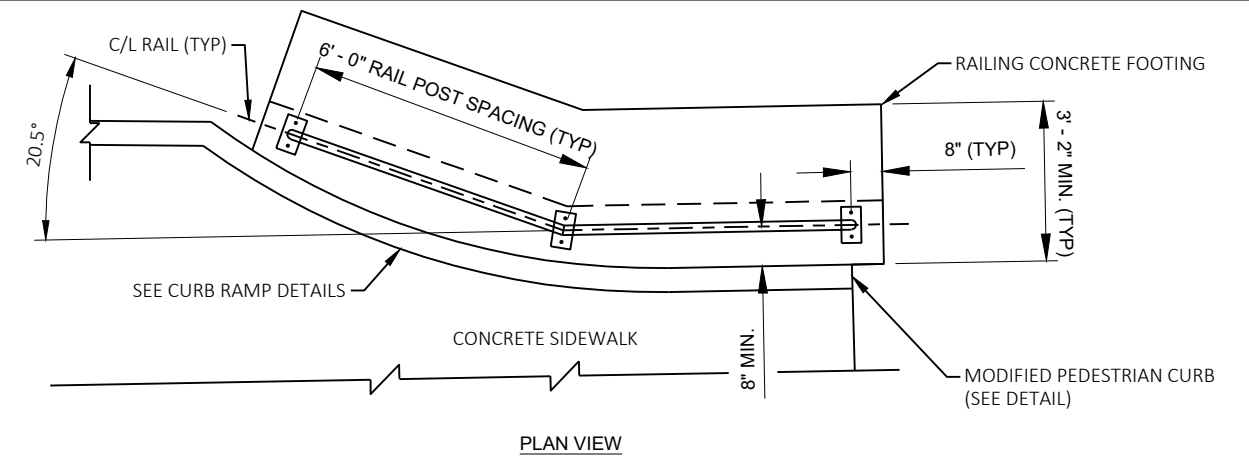


MODIFIED PEDESTRIAN CURB

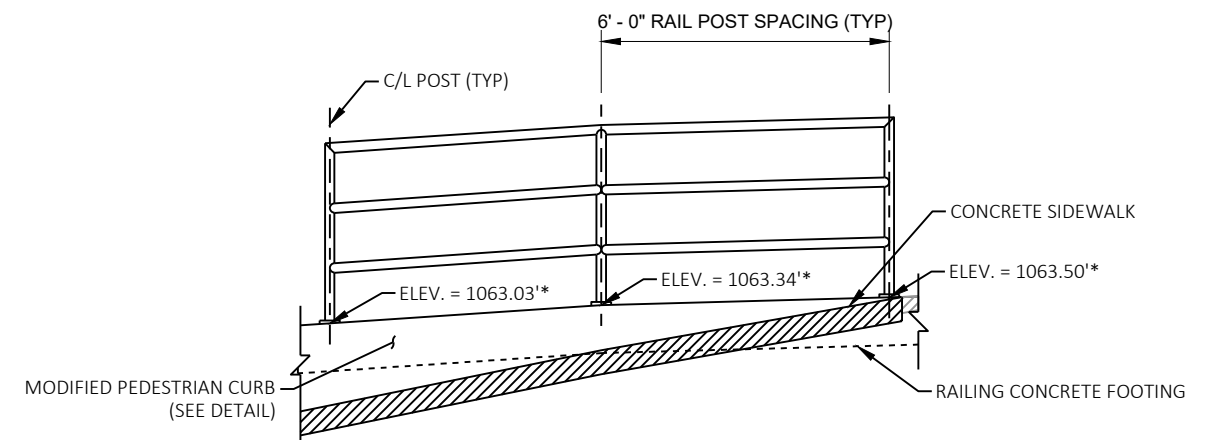
STA 335+91 - STA 336+14 LT

NOTES:

1. THE HEIGHT OF THE CURB SHALL VARY BETWEEN 0 INCHES AND 16 INCHES BASED ON THE EXISTING GROUND BEHIND THE PEDESTRIAN CURB.
2. THE MODIFIED PEDESTRIAN CURB SHALL BE POURED MONOLITHICALLY WITH THE CONCRETE SIDEWALK.
3. WHEN THE HEIGHT OF THE PEDESTRIAN CURB IS GREATER THAN 6 INCHES IN HEIGHT, THE CURB SHALL BE TIED TO THE SIDEWALK USING #4 TIE BARS SPACED 12" CENTER TO CENTER WITH #4 LONGITUDINAL BARS. STEEL REINFORCEMENT IS NOT REQUIRED WHEN THE HEIGHT OF THE MODIFIED PEDESTRIAN CURB IS 6 INCHES OR LESS.
4. THE TIE BARS AND LONGITUDINAL BARS ARE INCIDENTAL TO THE BID ITEM "MODIFIED PEDESTRIAN CURB".
5. ALL BAR STEEL SHALL BE COATED.
6. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

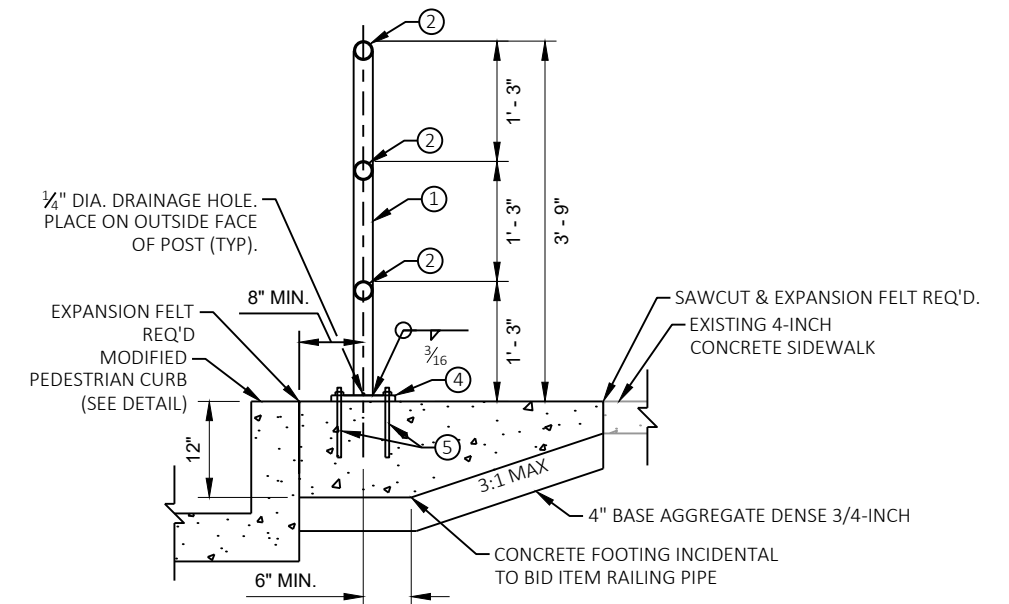


PLAN VIEW



ELEVATION VIEW

*MATCH EXISTING SIDEWALK ELEVATIONS. FIELD VERIFY EXISTING ELEVATIONS PRIOR TO RAILING FABRICATION.



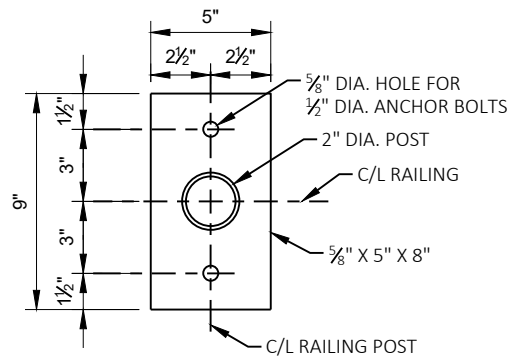
SECTION THRU RAILING IN SIDEWALK

RAILING PIPE DETAIL

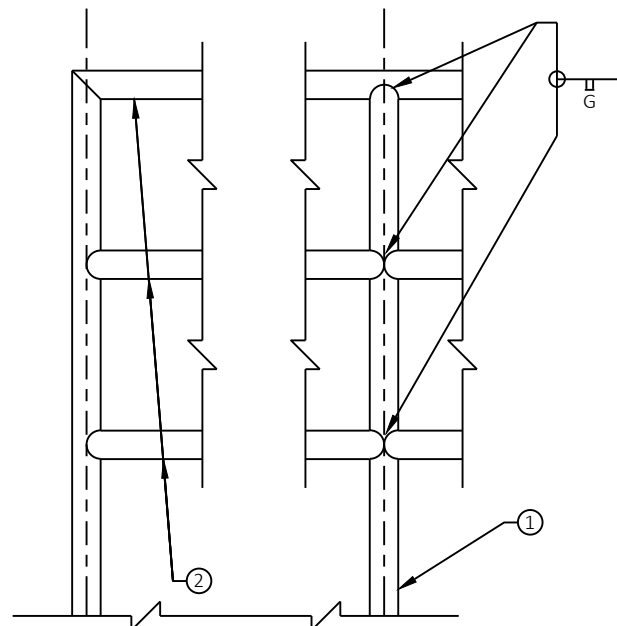
STA 336+02 - STA 336+14 LT
PAID AS "RAILING PIPE"

NOTE:

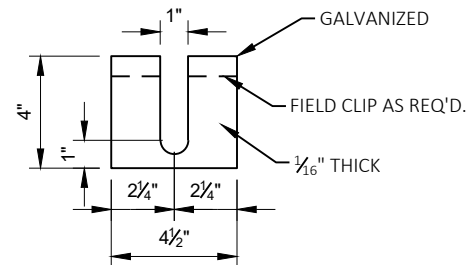
SEE GENERAL RAILING PIPE DETAILS



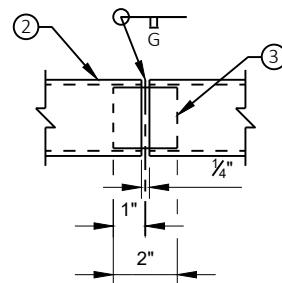
BASE PLATE DETAILS



PART ELEVATION OF RAILING



POST SHIM DETAILS
PROVIDE UP TO 4 SHIMS PER POST. USE
WHERE REQUIRED FOR ALIGNMENT.



SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP
DRAWINGS)

LEGEND

- ① 2" DIA. SCH. 40 STEEL PIPE FOR POSTS: CUT BOTTOM OF POSTS AS REQUIRED TO SET POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.
- ② 2" DIA. SCH. 40 STEEL PIPE FOR RAILS: WELD TO NO. 1
- ③ 1 1/2" DIA. SCH. 40 PIPE SLEEVE FOR NO. 2 PROVIDE "SLIDING FIT."
- ④ PLATE 3/4" X 5" X 6", WITH 5/8" DIA. HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.
- ⑤ CONCRETE ADHESIVE ANCHORS 1/2-INCH. EMBED 7" IN CONCRETE ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF STANDARD SPECIFICATIONS. 2 REQ'D. PER POST. PLACE NORMAL TO PLATE NO. 5.

NOTES

BID ITEM SHALL BE "RAILING PIPE" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

GALVANIZE ALL MATERIAL AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER S.S.P.C. SPECIFICATIONS.

DRILL VENT HOLES IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

ALL STEEL PLATE MATERIALS USED IN FABRICATIONS SHALL BE MADE FROM MATERIAL CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

GALVANIZED STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL STEEL RAILS, POST AND SLEEVES SHALL CONFORM TO A.S.T.M. DESIGNATION A53 GRADE B.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

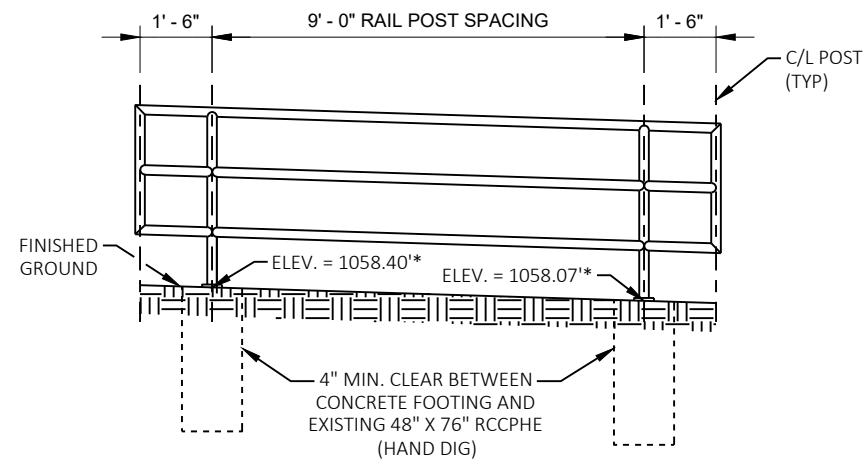
FIELD VERIFY ELEVATIONS AND REQUIRED CLEARANCES PRIOR TO RAILING FABRICATION.

ANTICIPATE HAND DIGGING CONCRETE FOOTINGS RAILING AT STA 343+07 RT.

GENERAL RAILING PIPE DETAILS

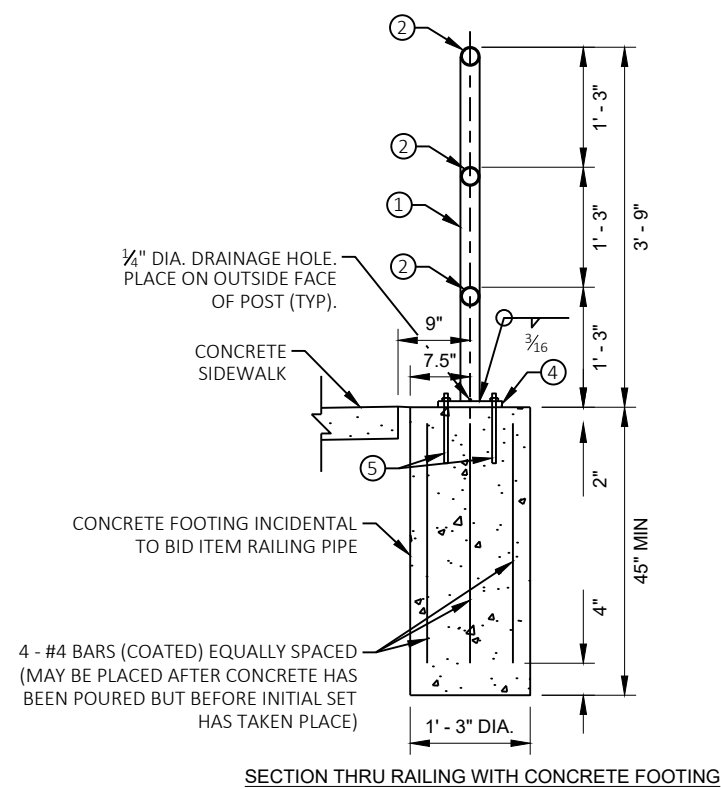
PAID AS "RAILING PIPE"
STA 336+02 - STA 336+14 LT
STA 343+00 - STA 343+12 RT

2



ELEVATION VIEW (FACING EAST)

*FIELD VERIFY FINISHED GROUND ELEVATIONS PRIOR TO RAILING FABRICATION.



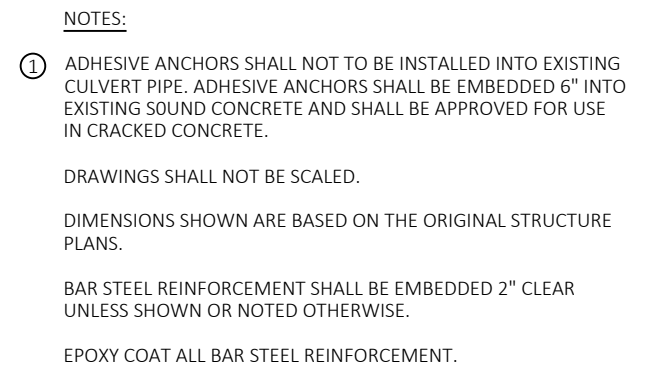
RAILING PIPE AT EXISTING 48" X 76" RCCPHE DETAIL

STA 343+00 - STA 343+12 RT
PAID AS "RAILING PIPE"

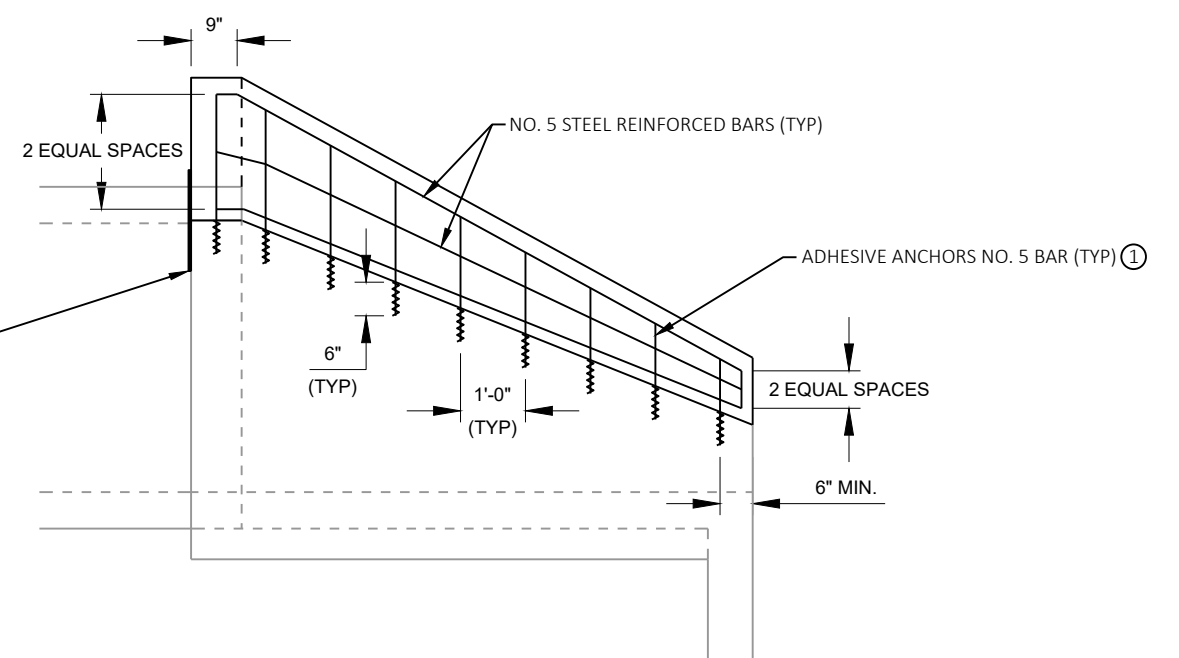
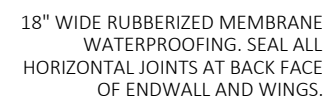
NOTE:

SEE GENERAL RAILING PIPE DETAILS

2 |

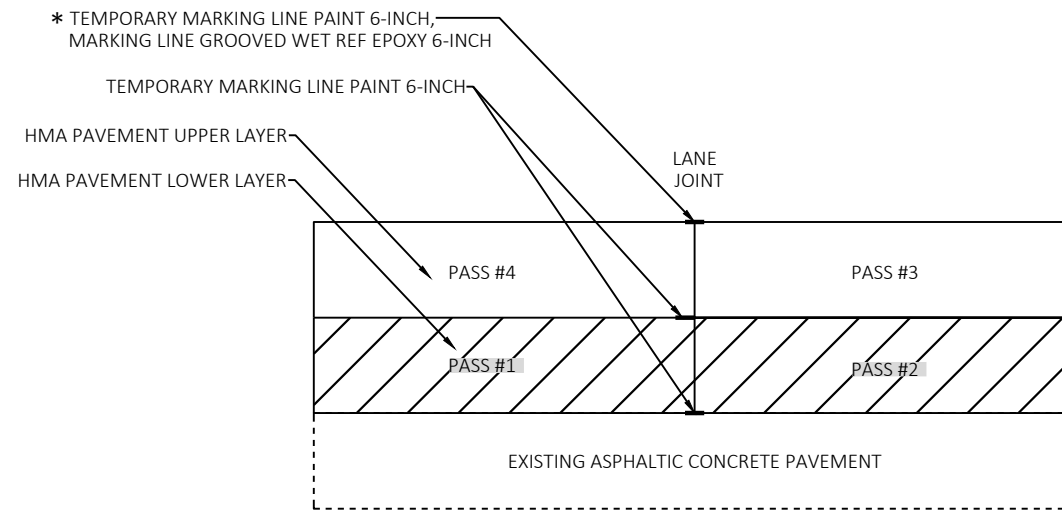


CONCRETE MASONRY----- $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60----- $f_y = 60,000$ P.S.I.



CULVERT ENDWALL HEADER EXTENSION DETAIL

* TEMPORARY MARKING LINE PAINT 6-INCH TO BE APPLIED BEFORE CENTERLINE RUMBLE STRIPS ARE INSTALLED.
MARKING LINE GROOVED WET REF EPOXY 6-INCH TO BE APPLIED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED.



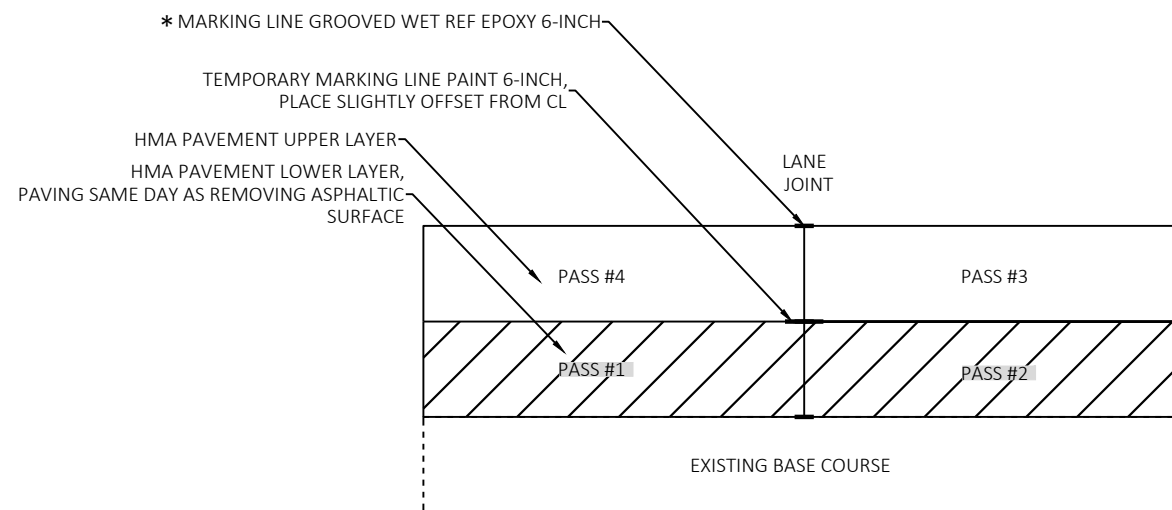
NOTES:

SEE SDD "HMA LONGITUDINAL JOINTS" FOR DETAILS PERTAINING TO THE JOINT LINE.

RURAL LONGITUDINAL JOINTS DETAIL

WITHOUT C&G
SCALE: NONE

* MARKING LINE GROOVED WET REF EPOXY 6-INCH TO BE APPLIED ON UPPER LAYER. NO RUMBLE STRIPS ARE APPLIED IN THE URBAN AREA.

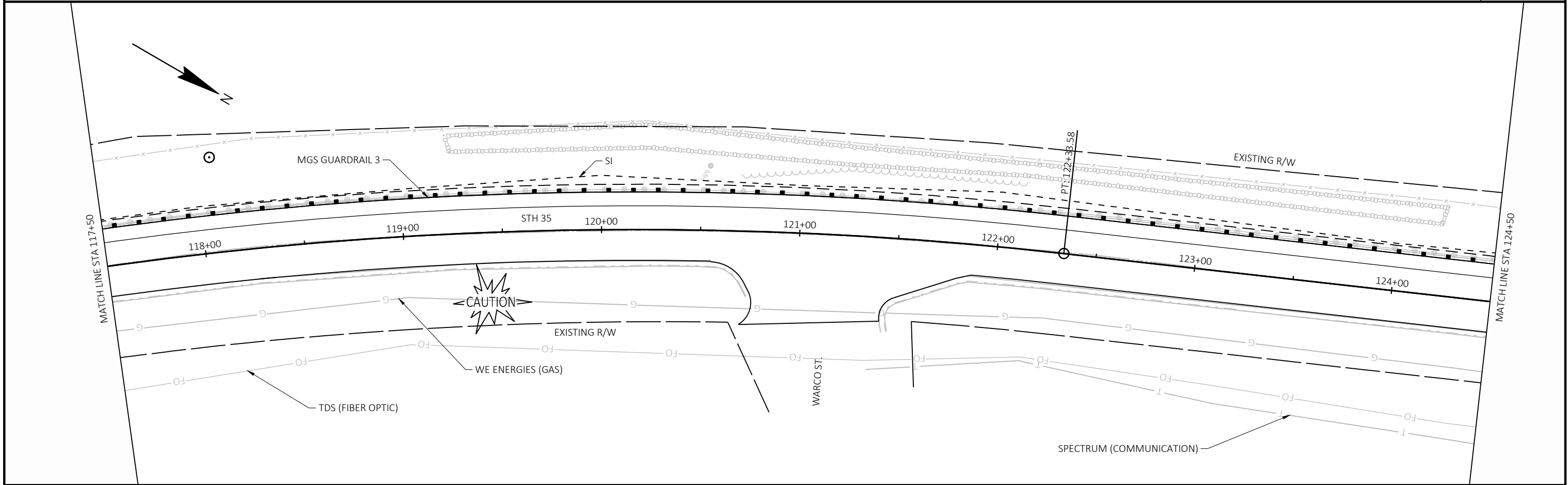
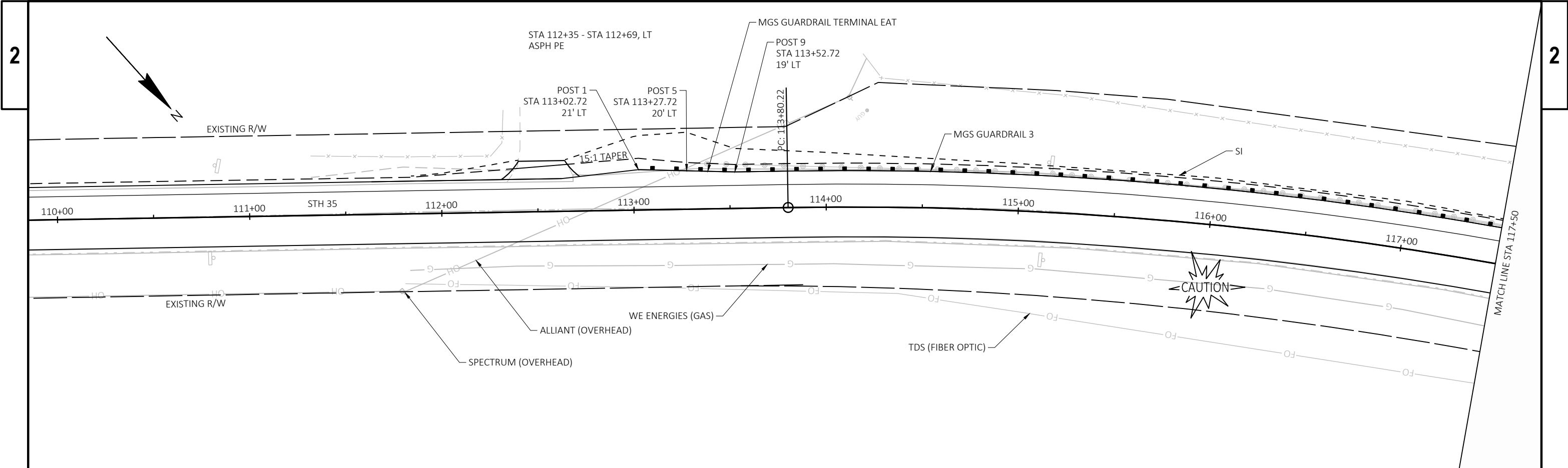


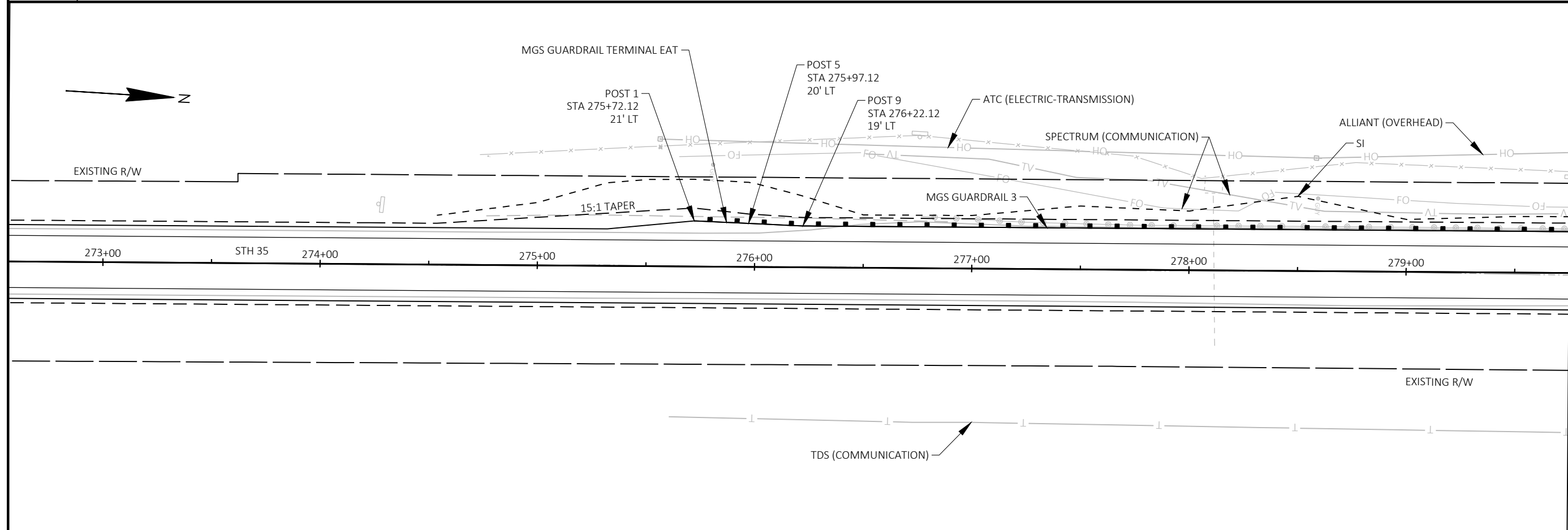
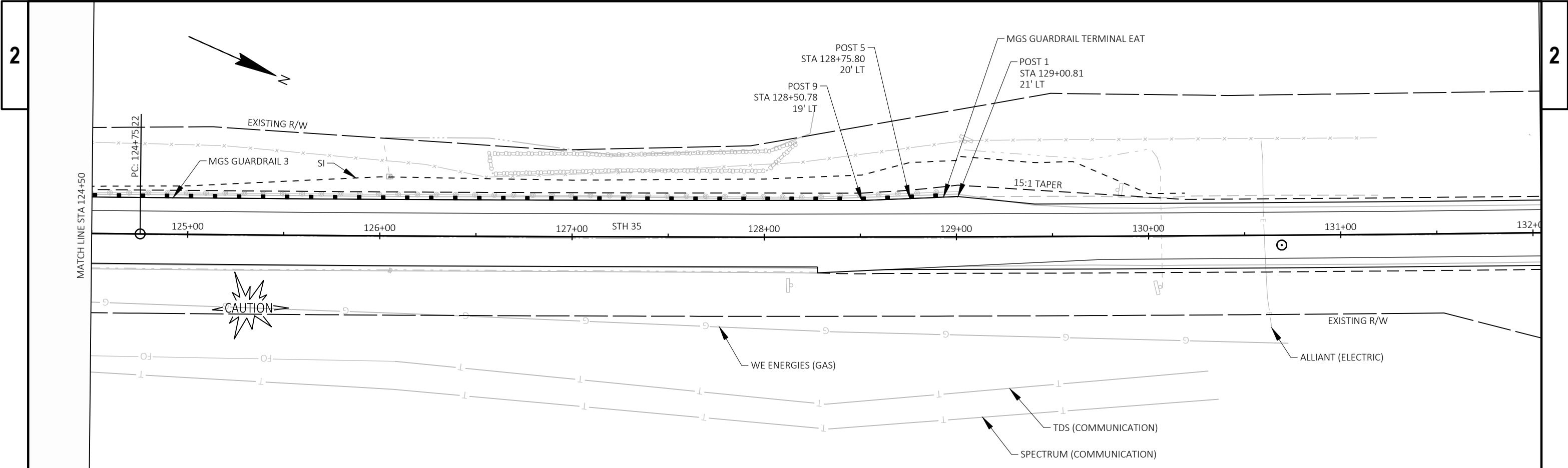
NOTES:

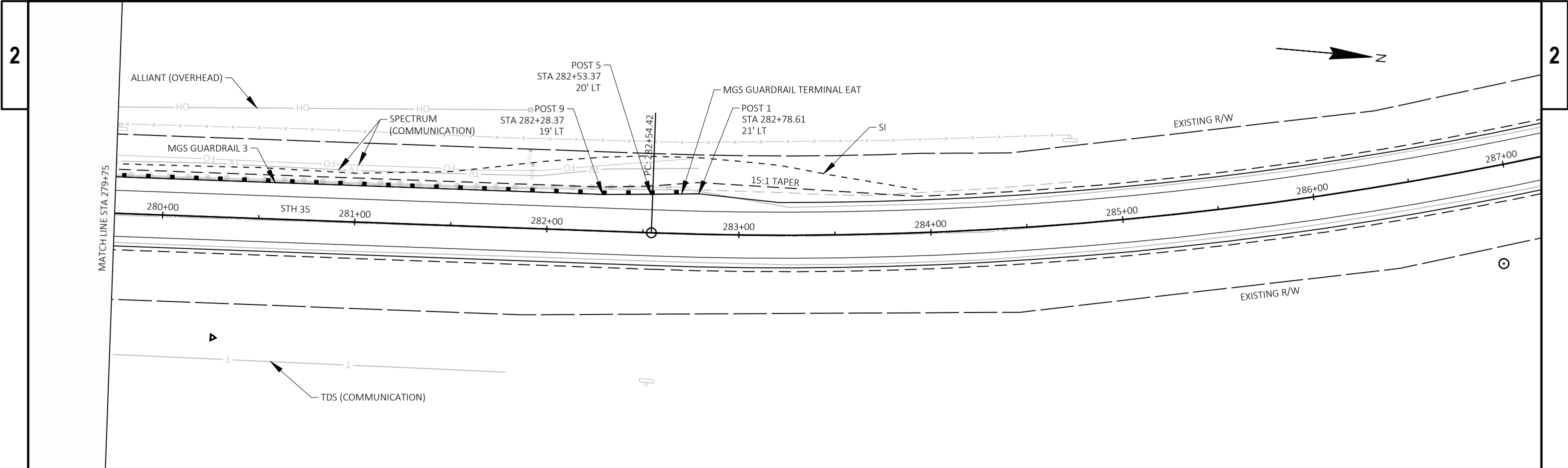
SEE SDD "HMA LONGITUDINAL JOINTS" FOR DETAILS PERTAINING TO THE JOINT LINE.

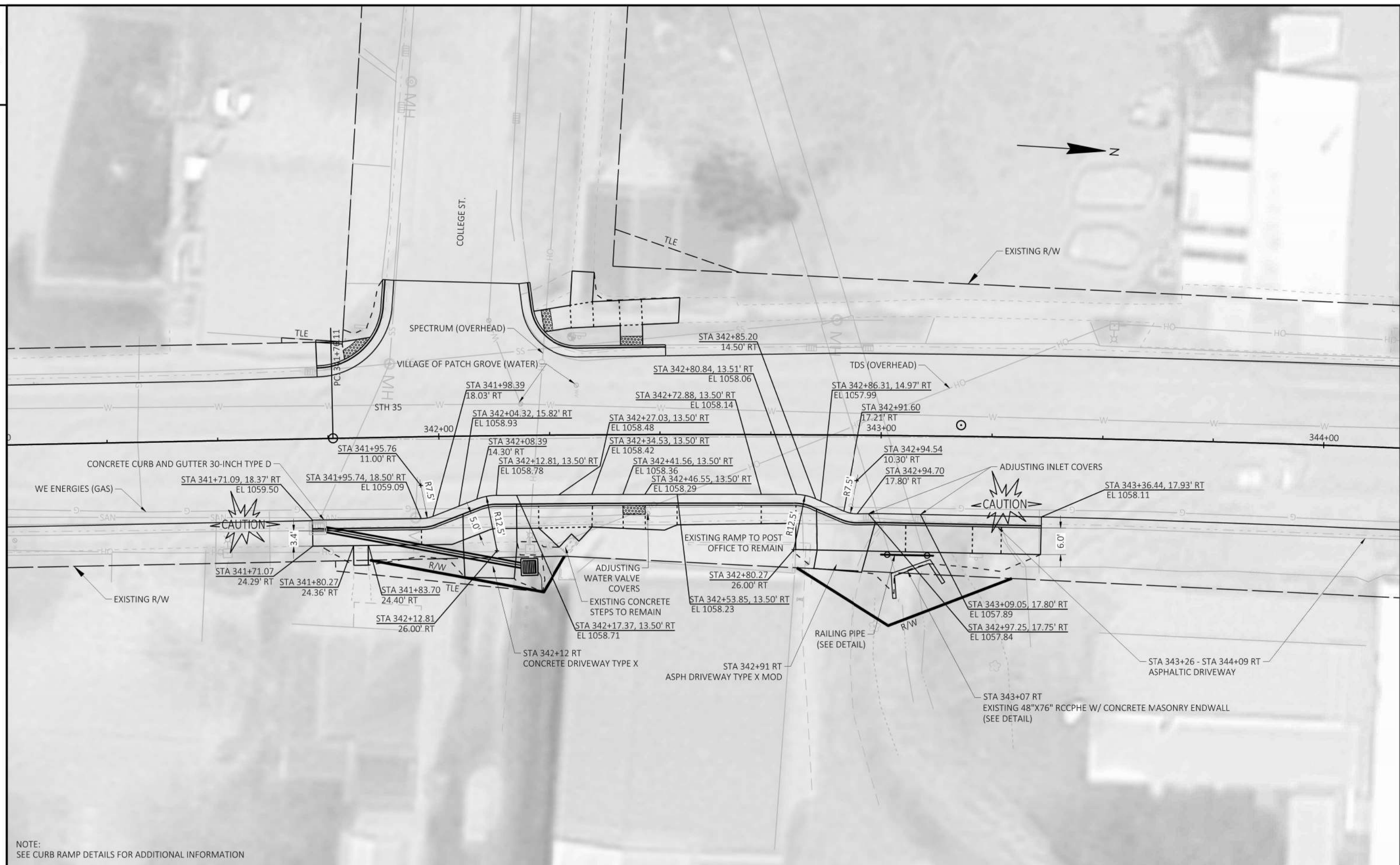
URBAN LONGITUDINAL JOINTS DETAIL (WITH CURB AND GUTTER)

SCALE: NONE









PROJECT NO: 5580-04-70

HWY: STH 35

COUNTY: GRANT

STH 35 BUMPOUT DETAIL

SHEET

23

E

FILE NAME: G:\00\00093\00093585\CADD\SHEETS\PLAN\021002-CD.DWG
LAYOUT NAME - 021012-cd

PLOT DATE: 4/16/2023 9:24 PM

PLOT BY: BOBBI MAXWELL

PLOT NAME:

PLOT SCALE: 1 IN=20 FT

WISDOT/CADD SHEET 42

CURB RAMPS - 4TH ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	99+90.41	22.38' RT	907.51	538072.68	760284.12
101	100+07.23	23.21' RT	907.72	538084.34	760271.97
102	100+15.11	29.58' RT	908.01	538094.31	760270.19
103	100+17.81	38.96' RT	908.21	538103.16	760274.31
104	99+90.41	24.88' RT	907.93	538074.57	760285.76
105	99+95.41	24.88' RT	907.93	538077.84	760281.98
106	100+00.41	24.88' RT	908.03	538081.12	760278.21
107	100+06.41	25.58' RT	907.66	538085.58	760274.14
108	100+12.97	30.88' RT	907.93	538093.89	760272.66
109	99+90.41	30.88' RT	908.03	538079.10	760289.69
110	99+95.41	30.88' RT	908.02	538082.37	760285.92
111	100+00.41	30.88' RT	908.12	538085.65	760282.14
112	100+06.41	30.88' RT	907.74	538089.59	760277.61

CURB RAMPS - 4TH ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
113	100+51.43	42.88' RT	908.03	538128.17	760251.49
114	100+60.41	29.55' RT	907.96	538123.99	760235.97
115	100+71.45	23.50' RT	907.83	538126.67	760223.67
116	100+91.79	21.78' RT	907.81	538138.71	760207.19
117	100+62.04	31.44' RT	907.88	538126.49	760235.98
118	100+72.17	25.90' RT	907.75	538128.95	760224.70
119	100+79.90	24.74' RT	908.10	538133.14	760218.11
120	100+85.89	24.51' RT	908.21	538136.90	760213.43
121	100+91.89	24.28' RT	908.07	538140.66	760208.75
122	100+72.37	31.04' RT	907.83	538132.96	760227.92
123	100+80.13	30.74' RT	908.18	538137.82	760221.86
124	100+86.12	30.51' RT	908.30	538141.58	760217.19
125	100+92.09	29.57' RT	908.09	538144.78	760212.06

- NOTES:
1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 2. THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND

XXXXXXX SAWCUT REQ'D

DETECTABLE WARNING FIELD

REJECT CURB

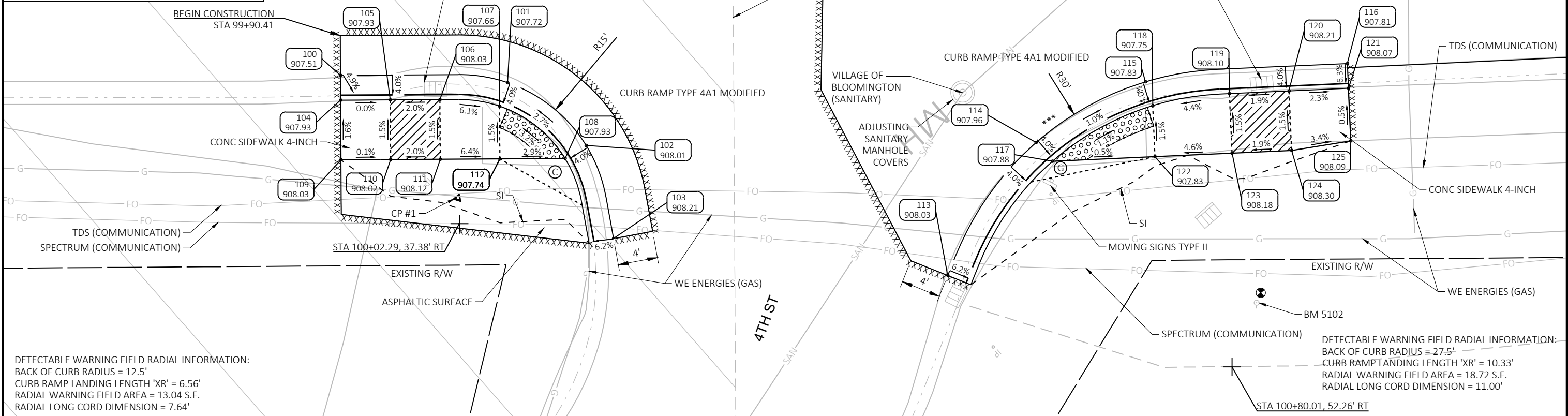
LANDING AREA (1.5% MAX SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL)

6:1 GRADED FLARE

10:1 CONCRETE FLARE

CONCRETE CURB PEDESTRIAN

POINT NUMBER & ELEVATION



DETECTABLE WARNING FIELD RADIAL INFORMATION:
BACK OF CURB RADIUS = 12.5'
CURB RAMP LANDING LENGTH 'XR' = 6.56'
RADIAL WARNING FIELD AREA = 13.04 S.F.
RADIAL LONG CORD DIMENSION = 7.64'

DETECTABLE WARNING FIELD RADIAL INFORMATION:
BACK OF CURB RADIUS = 27.5'
CURB RAMP LANDING LENGTH 'XR' = 10.33'
RADIAL WARNING FIELD AREA = 18.72 S.F.
RADIAL LONG CORD DIMENSION = 11.00'

CURB RAMPS - COURT ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
200	107+42.53	15.90' RT	913.94	538560.98	759712.02
201	107+59.29	16.94' RT	914.43	538572.74	759700.05
202	107+68.50	22.67' RT	915.18	538583.11	759696.85
203	107+74.58	36.44' RT	916.26	538597.49	759701.29
204	107+42.53	18.40' RT	914.32	538562.86	759713.66
205	107+47.53	18.40' RT	914.49	538566.14	759709.89
206	107+52.53	18.40' RT	914.59	538569.42	759706.11
207	107+58.53	19.32' RT	914.39	538574.05	759702.18
208	107+66.69	24.40' RT	915.10	538583.23	759699.36
209	107+42.53	24.40' RT	914.52	538567.39	759717.59
210	107+47.53	24.40' RT	914.58	538570.67	759713.82
211	107+52.53	24.40' RT	914.68	538573.95	759710.04
212	107+58.53	24.40' RT	914.49	538577.89	759705.51
213	108+07.11	34.04' RT	916.86	538617.02	759675.16
214	108+13.16	22.43' RT	916.36	538612.21	759662.97
215	108+22.91	16.58' RT	916.22	538614.19	759651.78
216	108+35.61	15.68' RT	916.11	538621.84	759641.60
217	108+14.47	24.68' RT	916.77	538614.77	759663.46
218	108+14.95	24.18' RT	916.28	538614.71	759662.77
219	108+23.61	18.98' RT	916.14	538616.46	759652.83
220	108+29.61	18.18' RT	916.44	538619.79	759647.77
221	108+35.61	18.18' RT	916.48	538623.73	759643.24
222	108+23.61	24.18' RT	916.22	538620.39	759656.23
223	108+23.61	24.68' RT	916.72	538620.76	759656.56
224	108+29.61	24.18' RT	916.53	538624.32	759651.70
225	108+29.61	24.68' RT	917.28	538624.70	759652.03
226	108+35.61	24.18' RT	916.57	538628.26	759647.17
227	108+35.61	24.68' RT	917.57	538628.63	759647.50

LEGEND

XXXXXXX	SAWCUT REQ'D
	DETECTABLE WARNING FIELD
	REJECT CURB
	LANDING AREA (1.5% MAX SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL)
	6:1 GRADED FLARE
	10:1 CONCRETE FLARE
	CONCRETE CURB PEDESTRIAN
	POINT NUMBER & ELEVATION

NOTES:

- FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
- DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DETECTABLE WARNING FIELD RADIAL INFORMATION:
BACK OF CURB RADIUS = 19.5'
CURB RAMP LANDING LENGTH 'XR' = 8.16'
RADIAL WARNING FIELD AREA = 15.09 S.F.
RADIAL LONG CORD DIMENSION = 8.92'

DETECTABLE WARNING FIELD RADIAL INFORMATION:
BACK OF CURB RADIUS = 20'
CURB RAMP LANDING LENGTH 'XR' = 8.66'
RADIAL WARNING FIELD AREA = 16.12 S.F.
RADIAL LONG CORD DIMENSION = 9.47'

PROJECT NO: 5580-04-70

HWY: STH 35

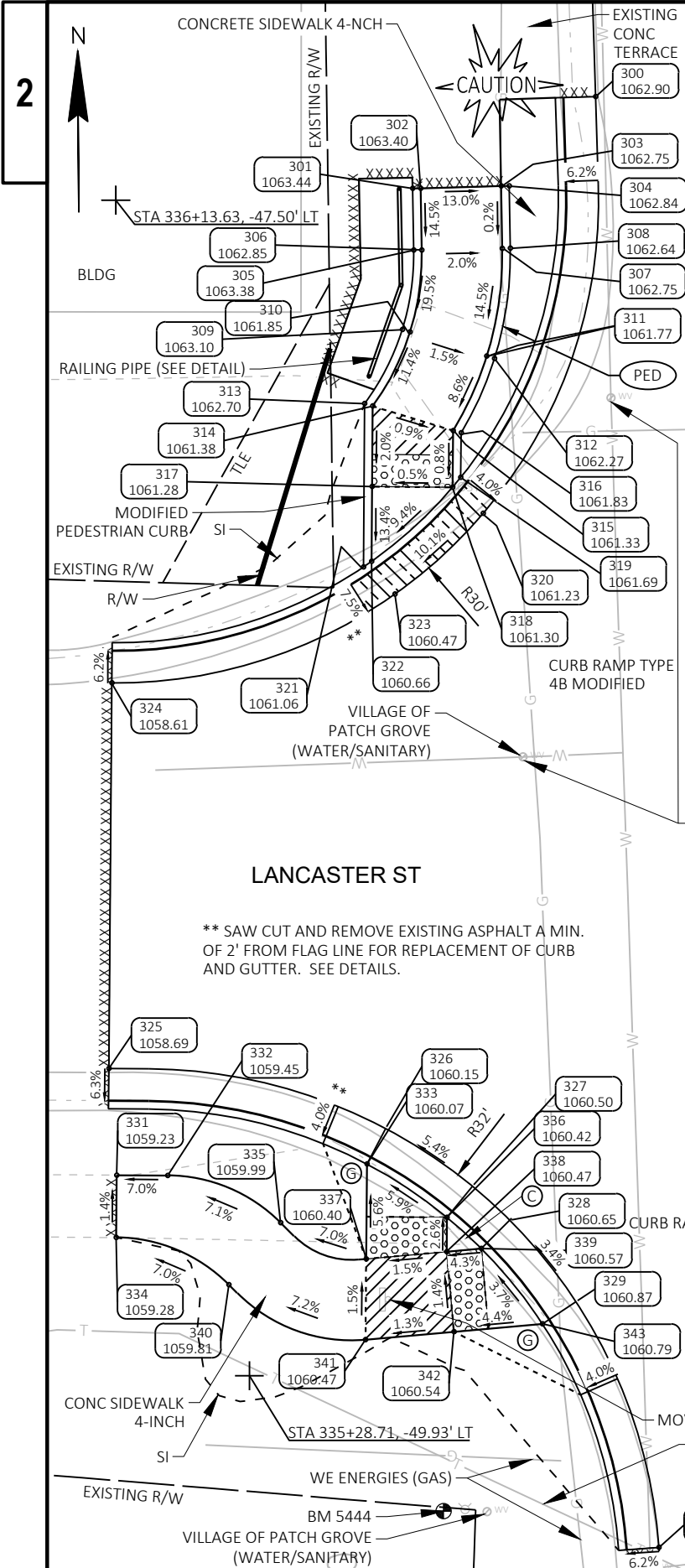
COUNTY: GRANT

CURB RAMP DETAILS

SHEET

25

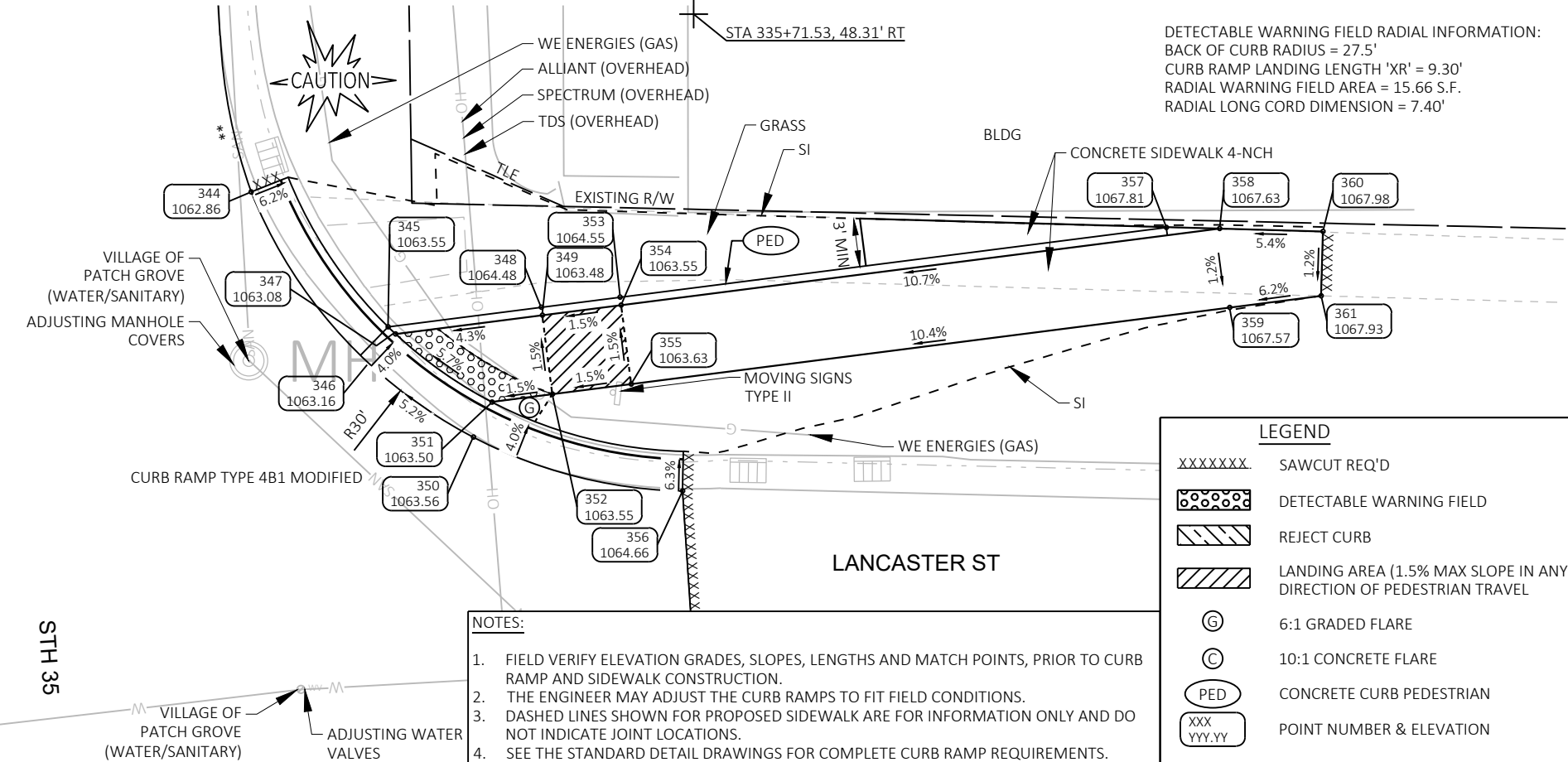
E



CURB RAMP - LANCASTER ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	336+19.09	17.50' LT	1062.90	556749.52	748868.21
301	336+13.75	29.05' LT	1063.44	556743.81	748856.84
302	336+13.75	28.55' LT	1063.40	556743.82	748857.34
303	336+13.72	23.55' LT	1062.75	556743.96	748862.34
304	336+13.72	23.05' LT	1062.84	556743.97	748862.84
305	336+09.92	29.10' LT	1063.38	556739.98	748856.91
306	336+09.91	28.60' LT	1062.85	556739.99	748857.41
307	336+09.85	23.60' LT	1062.75	556740.08	748862.41
308	336+09.84	23.10' LT	1062.64	556740.09	748862.91
309	336+05.01	29.97' LT	1063.10	556735.04	748856.20
310	336+04.84	29.49' LT	1061.85	556734.89	748856.68
311	336+03.19	24.78' LT	1061.77	556733.39	748861.45
312	336+03.03	24.30' LT	1062.27	556733.24	748861.92
313	336+00.50	32.45' LT	1062.70	556730.45	748853.87
314	336+00.32	31.96' LT	1061.38	556730.29	748854.36
315	335+98.64	27.02' LT	1061.33	556728.77	748859.35
316	335+98.48	26.52' LT	1061.83	556728.63	748859.85
317	335+96.01	32.19' LT	1061.28	556725.29	748854.33
318	335+95.71	27.20' LT	1061.30	556725.25	748859.33
319	335+96.29	26.67' LT	1061.69	556725.86	748859.83
320	335+93.99	25.39' LT	1061.23	556723.63	748861.23

CURB RAMP - LANCASTER ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
321	335+91.06	33.00' LT	1061.06	556720.30	748853.79
322	335+91.38	32.48' LT	1060.66	556720.65	748854.29
323	335+89.27	31.13' LT	1060.47	556718.62	748855.74
324	335+84.70	49.00' LT	1058.61	556713.09	748838.15
325	335+60.81	50.46' LT	1058.69	556689.16	748837.97
326	335+56.16	33.49' LT	1060.15	556685.43	748855.17
327	335+52.29	28.29' LT	1060.50	556681.84	748860.56
328	335+50.07	26.10' LT	1060.65	556679.74	748862.88
329	335+44.78	22.26' LT	1060.87	556674.67	748867.00
330	335+29.27	17.93' LT	1061.09	556659.41	748872.14
331	335+54.16	50.33' LT	1059.23	556682.53	748838.45
332	335+53.97	47.16' LT	1059.45	556682.51	748841.63
333	335+54.02	34.77' LT	1060.07	556683.22	748854.00
334	335+50.30	50.57' LT	1059.28	556678.66	748838.43
335	335+50.67	40.32' LT	1059.99	556679.57	748848.64
336	335+50.45	29.98' LT	1060.42	556679.91	748858.97
337	335+48.14	35.13' LT	1060.40	556677.33	748853.95
338	335+48.32	30.11' LT	1060.47	556677.78	748858.96
339	335+48.40	27.96' LT	1060.57	556677.98	748861.11
340	335+46.99	43.74' LT	1059.81	556675.72	748845.42
341	335+43.13	35.44' LT	1060.47	556672.31	748853.92

CURB RAMP - LANCASTER ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
342	335+43.33	29.93' LT	1060.54	556672.80	748859.41
343	335+43.53	24.42' LT	1060.79	556673.30	748864.90
344	335+61.84	19.91' RT	1062.86	556693.96	748908.19
345	335+52.91	28.07' RT	1063.55	556685.48	748916.81
346	335+50.71	26.71' RT	1063.16	556683.21	748915.57
347	335+52.44	28.51' RT	1063.08	556685.04	748917.28
348	335+53.63	37.75' RT	1064.48	556686.71	748926.44
349	335+53.13	37.78' RT	1063.48	556686.22	748926.50
350	335+45.70	33.05' RT	1063.56	556678.55	748922.17
351	335+47.84	34.34' RT	1063.50	556680.76	748923.35
352	335+48.14	38.15' RT	1063.55	556681.26	748927.14
353	335+53.99	42.73' RT	1064.55	556687.35	748931.40
354	335+53.49	42.77' RT	1063.55	556686.85	748931.46
355	335+48.51	43.14' RT	1063.63	556681.89	748932.10
356	335+41.62	46.00' RT	1064.66	556675.17	748935.32
357	335+56.54	77.27' RT	1067.81	556691.74	748965.75
358	335+56.28	80.60' RT	1067.63	556691.67	748969.09
359	335+51.30	80.97' RT	1067.57	556686.71	748969.72
360	335+55.76	87.09' RT	1067.98	556691.49	748975.60
361	335+51.72	86.75' RT	1067.93	556687.44	748975.48



2

CURB RAMPS - CROSS ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	340+17.24	21.74' LT	1062.51	557145.83	748844.45
401	340+17.23	21.24' LT	1062.51	557145.87	748844.95
402	340+24.67	21.62' LT	1062.39	557153.25	748843.94
403	340+24.66	21.11' LT	1062.07	557153.28	748844.45
404	340+29.67	21.54' LT	1062.31	557158.24	748843.60
405	340+29.66	21.04' LT	1062.00	557158.27	748844.10
406	340+33.24	21.48' LT	1062.25	557161.80	748843.35
407	340+33.23	20.98' LT	1062.23	557161.83	748843.85
408	340+33.73	20.98' LT	1062.21	557162.33	748843.82
409	340+38.27	20.91' LT	1062.06	557166.86	748843.50
410	340+17.16	16.88' LT	1062.52	557146.17	748849.29
411	340+17.11	14.39' LT	1062.26	557146.32	748851.79
412	340+24.59	16.73' LT	1062.00	557153.58	748848.82
413	340+24.54	14.22' LT	1062.09	557153.74	748851.33
414	340+29.59	16.63' LT	1061.93	557158.57	748848.50
415	340+29.54	14.13' LT	1061.98	557158.73	748850.99
416	340+33.16	16.57' LT	1062.18	557162.13	748848.25
417	340+33.66	16.57' LT	1062.18	557162.63	748848.22
418	340+38.21	16.46' LT	1061.86	557167.17	748847.93
419	340+38.16	13.95' LT	1061.81	557167.33	748850.44
420	340+18.31	30.41' RT	1064.29	557151.30	748896.32
421	340+20.79	30.67' RT	1064.50	557153.80	748896.37
422	340+26.87	31.32' RT	1064.52	557159.91	748896.51
423	340+21.04	28.40' RT	1064.11	557153.85	748894.09
424	340+27.13	29.16' RT	1063.97	557159.98	748894.33
425	340+24.09	22.74' RT	1063.69	557156.42	748888.19
426	340+30.44	27.81' RT	1063.15	557163.18	748892.71
427	340+30.51	17.82' RT	1062.84	557162.40	748882.74
428	340+30.50	20.32' RT	1063.00	557162.60	748885.23
429	340+35.51	17.85' RT	1062.64	557167.39	748882.35

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5580-04-70	HWY: STH 35
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FILE NAME : G:\00\00093\00093585\CADD\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 021304-cr

HWY: STH 35

COUNTY: GRANT

CURB RAMP DETAILS

SHEET 27 E

E

PLOT DATE : 4/24/2024 11:40 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

CURB RAMPS - COLLEGE ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
440	342+51.28	17.80' LT	1057.52	557379.76	748829.28
441	342+46.19	17.74' LT	1057.54	557374.66	748829.68
442	342+41.21	17.69' LT	1057.56	557369.67	748830.07
443	342+22.24	21.66' LT	1057.73	557350.38	748827.46
444	342+19.26	27.52' LT	1057.76	557346.96	748821.84
445	342+18.40	34.28' LT	1057.75	557345.59	748815.16
446	341+90.46	35.43' LT	1057.72	557317.41	748816.19
447	341+86.96	21.23' LT	1058.09	557315.05	748830.64
448	341+80.15	15.51' LT	1058.46	557308.71	748836.90
449	341+72.83	13.96' LT	1058.69	557301.53	748839.06
500	341+72.68	21.81' LT	1059.00	557300.71	748831.25
501	341+78.63	21.28' LT	1058.45	557306.70	748831.28
502	341+84.92	22.66' LT	1058.01	557312.89	748829.38
503	341+79.12	17.78' LT	1058.38	557307.48	748834.72
504	341+72.78	16.46' LT	1059.00	557301.27	748836.57
505	341+72.72	22.31' LT	1059.00	557300.71	748830.75
506	341+78.68	21.78' LT	1058.95	557306.70	748830.78
507	342+21.69	28.03' LT	1057.68	557349.36	748821.14
508	342+29.93	29.28' LT	1057.80	557357.54	748819.30
509	342+30.43	37.04' LT	1057.56	557357.50	748811.52
510	342+35.37	36.72' LT	1057.73	557362.50	748811.49
511	342+34.95	30.08' LT	1057.86	557362.54	748818.14
512	342+40.91	30.33' LT	1057.82	557368.50	748817.48
513	342+45.87	30.54' LT	1057.80	557373.47	748816.93
514	342+54.49	30.93' LT	1057.90	557382.12	748815.97
515	342+54.19	25.22' LT	1057.83	557382.19	748821.69
516	342+46.11	24.86' LT	1057.71	557374.10	748822.58
517	342+46.16	20.24' LT	1057.46	557374.46	748827.19
518	342+41.19	20.19' LT	1057.48	557369.48	748827.58
519	342+41.14	24.65' LT	1057.73	557369.13	748823.14
520	342+35.18	24.40' LT	1057.84	557363.16	748823.80
521	342+30.17	24.20' LT	1057.78	557358.15	748824.35
522	342+24.06	23.33' LT	1057.66	557352.08	748825.66

LEGEND

SAWCUT REQ'D

DETECTABLE WARNING FIELD

REJECT CURB

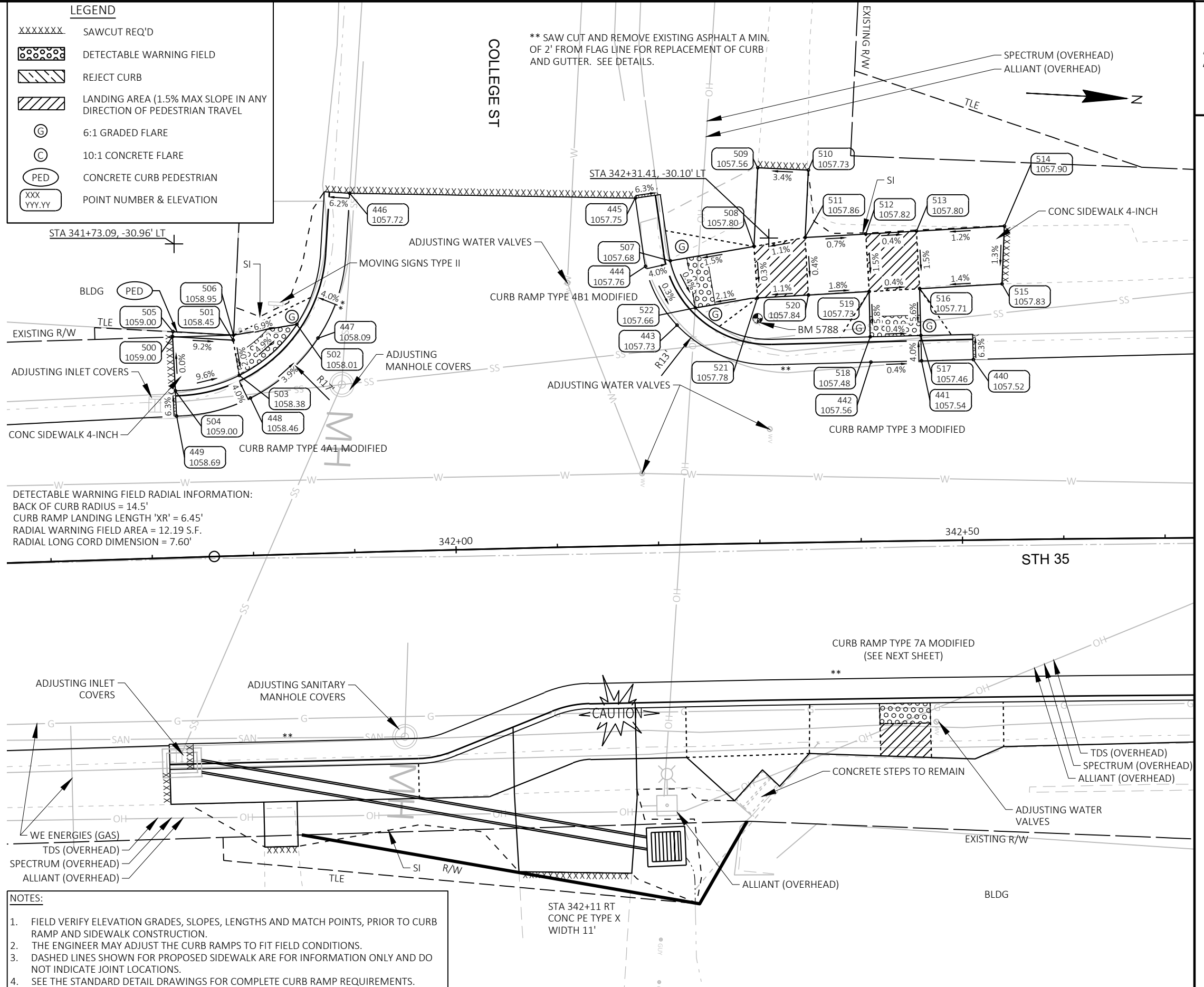
LANDING AREA (1.5% MAX SLOPE IN ANY
DIRECTION OF PEDESTRIAN TRAVEL)

6:1 GRADED FLARE

10:1 CONCRETE FLARE

CONCRETE CURB PEDESTRIAN

POINT NUMBER & ELEVATION



NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 5580-04-70

HWY: STH 35

COUNTY: GRANT

CURB RAMP DETAILS

SHEET

28

2

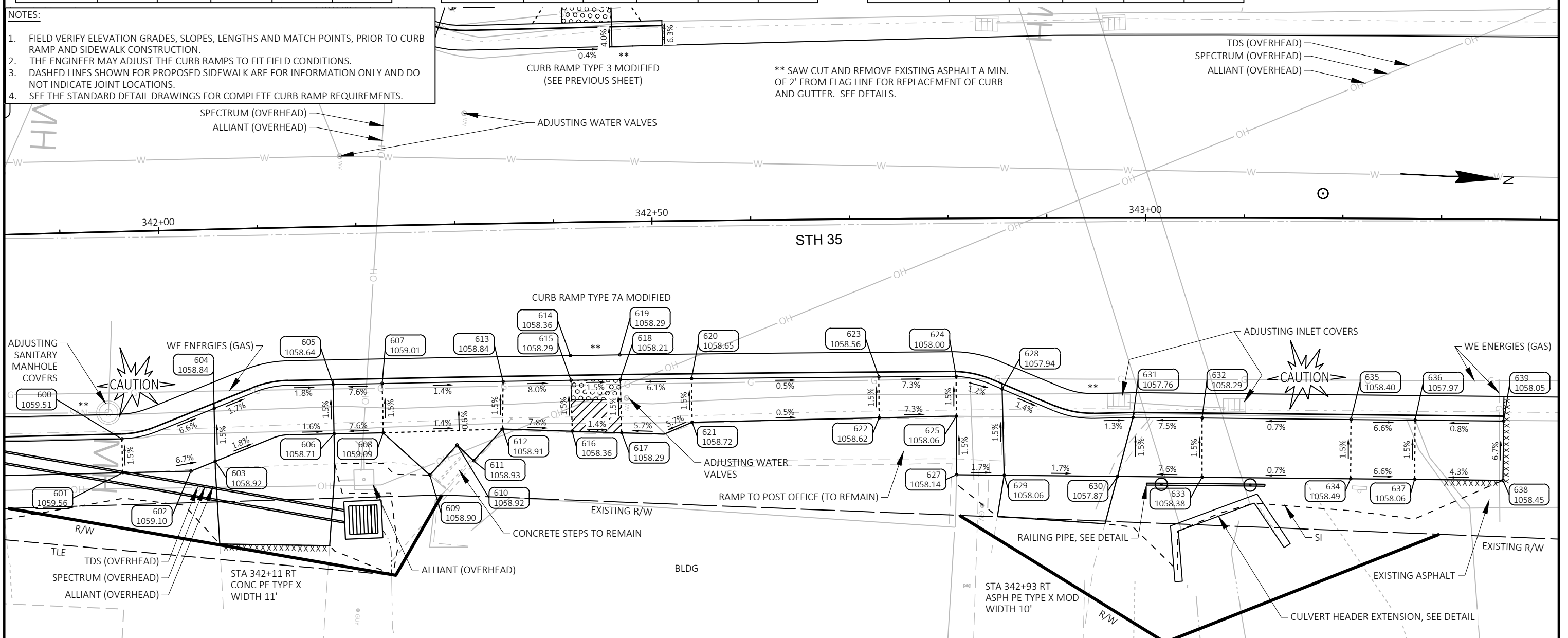
2

CURB RAMP - STA 343+50					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
600	341+95.73	21.00' RT	1059.51	557327.20	748872.02
601	341+95.73	24.43' RT	1059.56	557327.48	748875.43
602	342+02.69	24.44' RT	1059.10	557334.37	748874.90
603	342+05.19	23.51' RT	1058.92	557336.77	748873.78
604	342+05.20	18.16' RT	1058.84	557336.37	748868.45
605	342+17.35	16.00' RT	1058.64	557348.27	748865.38
606	342+17.35	21.00' RT	1058.71	557348.65	748870.36
607	342+22.36	16.00' RT	1059.01	557353.25	748865.01
608	342+22.36	21.00' RT	1059.09	557353.61	748870.00
609	342+27.03	25.36' RT	1058.90	557358.56	748874.01
610	342+29.85	22.37' RT	1058.92	557361.14	748870.82
611	342+31.52	24.00' RT	1058.93	557362.92	748872.33
612	342+34.53	20.83' RT	1058.91	557365.67	748868.96

CURB RAMP - STA 343+50					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
613	342+34.65	16.03' RT	1058.84	557365.46	748864.17
614	342+41.53	13.50' RT	1058.36	557372.13	748861.16
615	342+41.56	16.00' RT	1058.29	557372.32	748863.66
616	342+41.61	21.16' RT	1058.36	557372.73	748868.81
617	342+46.64	21.40' RT	1058.29	557377.74	748868.70
618	342+46.58	16.00' RT	1058.21	557377.31	748863.32
619	342+46.55	13.50' RT	1058.29	557377.11	748860.83
620	342+53.83	16.00' RT	1058.65	557384.52	748862.84
621	342+53.83	20.42' RT	1058.72	557384.80	748867.25
622	342+72.87	20.15' RT	1058.62	557403.70	748865.79
623	342+72.87	16.00' RT	1058.56	557403.45	748861.65
624	342+80.73	16.01' RT	1058.00	557411.27	748861.19
625	342+80.73	20.04' RT	1058.06	557411.50	748865.21

CURB RAMP - STA 343+50					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
627	342+80.73	25.96' RT	1058.14	557411.85	748871.15
628	342+85.41	17.31' RT	1057.94	557415.99	748862.21
629	342+85.58	26.03' RT	1058.06	557416.66	748870.92
630	342+97.13	26.18' RT	1057.87	557428.13	748870.42
631	342+98.72	20.21' RT	1057.76	557429.38	748864.38
632	343+05.76	20.27' RT	1058.29	557436.38	748864.06
633	343+05.76	26.27' RT	1058.38	557436.69	748870.05
634	343+20.91	26.38' RT	1058.49	557451.73	748869.40
635	343+20.91	20.38' RT	1058.40	557451.44	748863.40
636	343+27.45	20.41' RT	1057.97	557457.93	748863.12
637	343+27.45	26.41' RT	1058.06	557458.22	748869.12
638	343+36.44	26.43' RT	1058.45	557467.14	748868.73
639	343+36.47	20.43' RT	1058.05	557466.90	748862.73

NOTES:	
1.	FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2.	THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
3.	DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4.	SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



PROJECT NO:	5580-04-70
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HWY: STH 35

COUNTY: GRANT

CURB RAMP DETAILS

SHEET

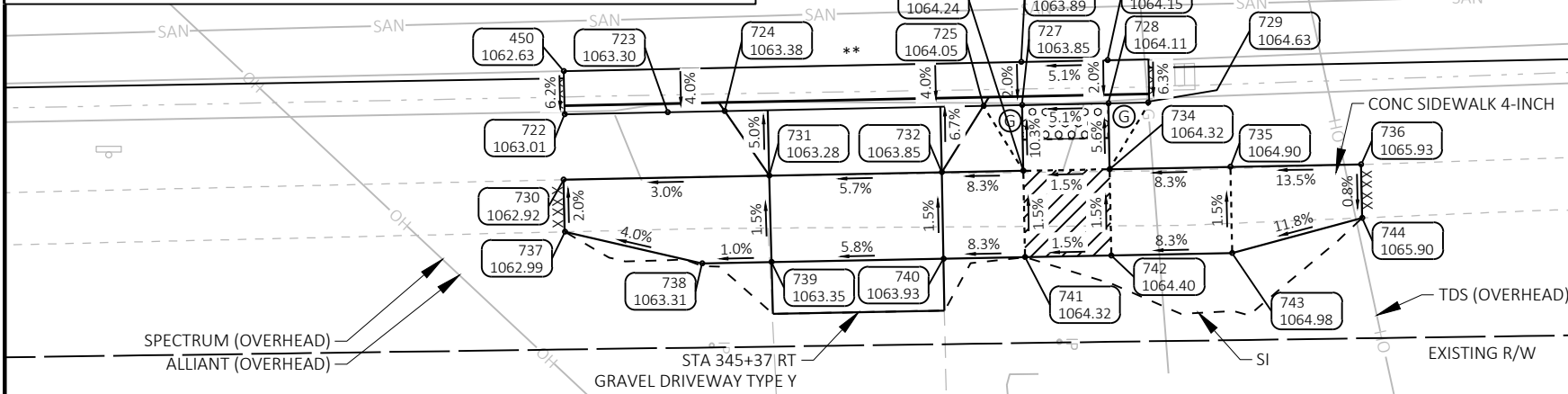
29

2

CURB RAMPS - NORTH ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
450	345+20.59	18.08' RT	1062.63	557650.34	748855.77
451	345+47.02	18.03' RT	1063.89	557676.83	748855.24
452	345+52.02	18.03' RT	1064.15	557681.83	748855.14
453	345+40.62	18.17' LT	1064.33	557669.70	748819.17
455	345+47.05	18.25' LT	1064.71	557676.13	748818.97
456	345+52.05	18.31' LT	1065.01	557681.13	748818.81
457	345+66.33	26.97' LT	1066.03	557695.23	748809.87
458	345+67.72	32.85' LT	1066.36	557696.50	748803.96
459	345+67.88	40.95' LT	1066.38	557696.50	748795.85
460	345+97.10	31.13' LT	1067.68	557725.91	748805.08
461	346+00.13	25.94' LT	1068.04	557729.04	748810.21
462	346+16.56	16.50' LT	1069.41	557745.66	748819.33
463	345+92.19	52.14' LT	1066.77	557720.58	748784.18
700	345+41.95	31.93' LT	1065.34	557670.76	748805.39
701	345+47.02	33.14' LT	1065.28	557675.81	748804.08
702	345+52.02	33.17' LT	1065.36	557680.80	748803.95
703	345+59.08	33.13' LT	1065.86	557687.86	748803.85
704	345+65.24	33.00' LT	1066.29	557694.02	748803.85
705	345+64.06	28.03' LT	1065.95	557692.94	748808.85
706	345+58.98	28.13' LT	1065.78	557687.86	748808.85
707	345+52.02	28.17' LT	1065.28	557680.90	748808.95
708	345+52.02	20.81' LT	1064.95	557681.05	748816.31
709	345+47.02	20.75' LT	1064.65	557676.05	748816.47
710	345+47.02	28.14' LT	1065.21	557675.91	748809.08
711	345+42.02	28.11' LT	1065.27	557670.91	748809.21
712	345+99.34	32.24' LT	1067.60	557728.13	748803.94
713	346+02.22	32.26' LT	1067.65	557731.01	748803.86
714	346+08.22	32.30' LT	1068.31	557737.01	748803.70

NOTES:

1. FIELD VERIFY ELEVATION GRADES, SLOPES, LENGTHS AND MATCH POINTS, PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST THE CURB RAMPS TO FIT FIELD CONDITIONS.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



LEGEND

XXXXXXX.

SAWCUT REQ'D

DETECTABLE WARNING FIELD

REJECT CURB

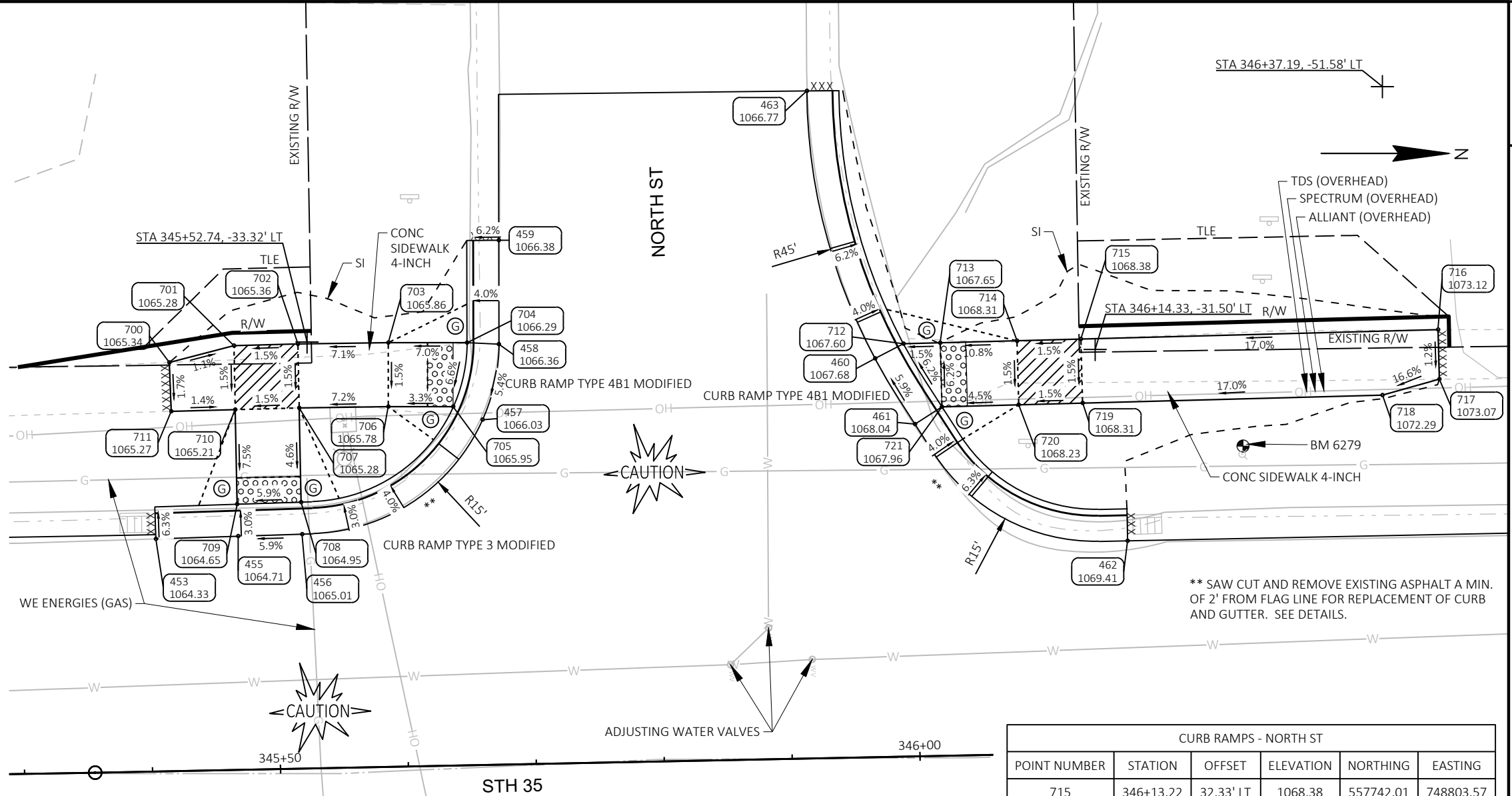
LANDING AREA (1.5% MAX SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL)

6:1 GRADED FLARE

10:1 CONCRETE FLARE

CONCRETE CURB PEDESTRIAN

POINT NUMBER & ELEVATION



CURB RAMPS - NORTH ST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
715	346+13.22	32.33' LT	1068.38	557742.01	748803.57
716	346+41.14	32.51' LT	1073.12	557769.91	748802.82
717	346+41.16	28.63' LT	1073.07	557770.02	748806.70
718	346+36.70	27.48' LT	1072.29	557765.57	748807.94
719	346+13.25	27.33' LT	1068.31	557742.14	748808.56
720	346+08.25	27.30' LT	1068.23	557737.14	748808.70
721	346+02.26	27.26' LT	1067.96	557731.14	748808.86
722	345+20.60	20.58' RT	1063.01	557650.39	748858.27
723	345+26.57	20.56' RT	1063.30	557656.36	748858.15
724	345+29.87	20.55' RT	1063.38	557659.66	748858.08
725	345+44.80	20.53' RT	1064.05	557674.65	748857.78
727	345+47.02	20.53' RT	1063.85	557676.88	748857.74
728	345+52.02	20.53' RT	1064.11	557681.88	748857.64
729	345+54.33	20.53' RT	1064.63	557684.19	748857.59
730	345+20.48	24.37' RT	1062.92	557650.33	748862.05
731	345+32.38	24.33' RT	1063.28	557662.23	748861.83
732	345+42.30	24.32' RT	1063.85	557672.23	748861.63

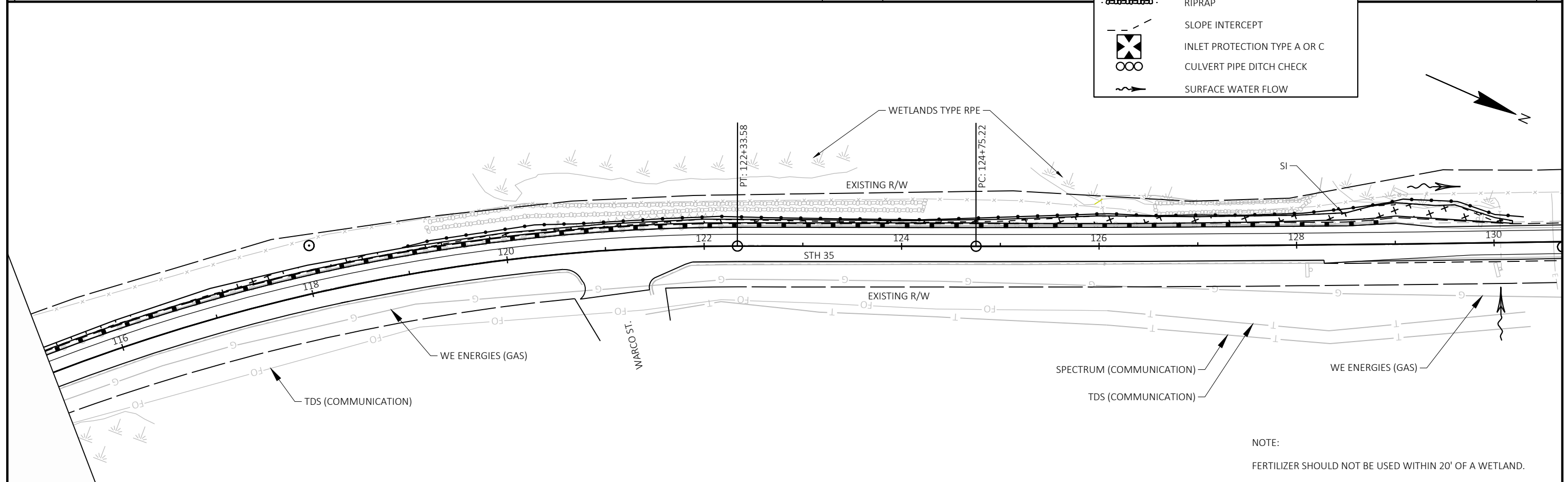
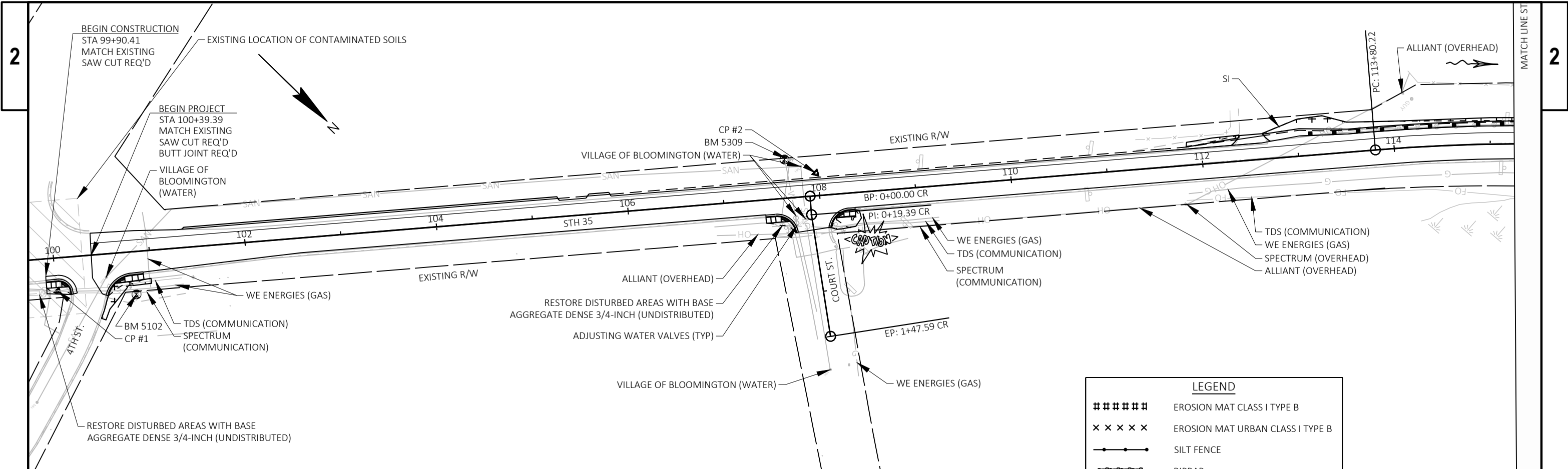
PROJECT NO: 5580-04-70

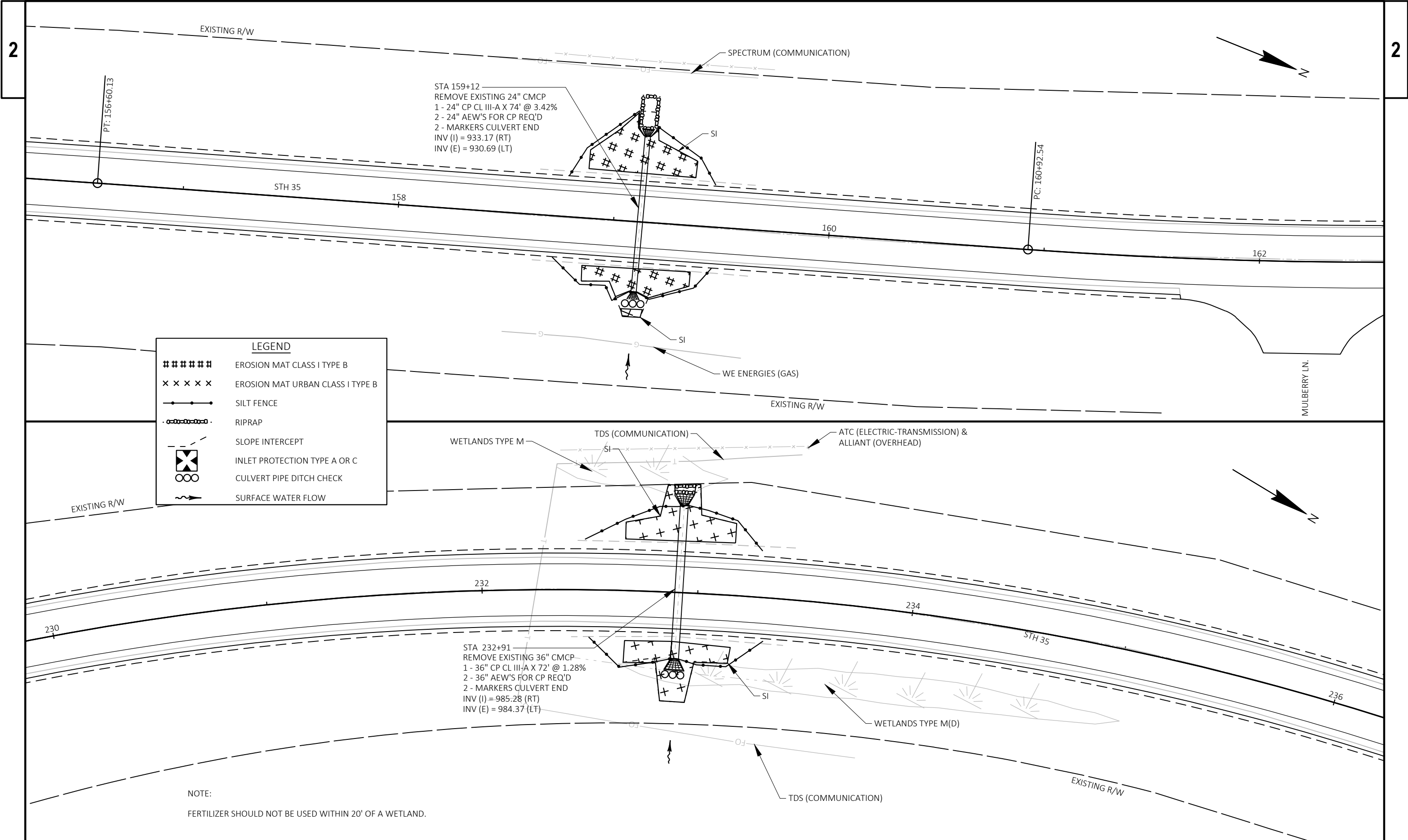
HWY: STH 35

COUNTY: GRANT

CURB RAMP DETAILS

SHEET





STA 159+12
REMOVE EXISTING 24" CMCP
1 - 24" CP CL III-A X 74' @ 3.42%
2 - 24" AEW'S FOR CP REQ'D
2 - MARKERS CULVERT END
INV (I) = 933.17 (RT)
INV (E) = 930.69 (LT)

STA 232+91
REMOVE EXISTING 36" CMCP
1 - 36" CP CL III-A X 72' @ 1.28%
2 - 36" AEW'S FOR CP REQ'D
2 - MARKERS CULVERT END
INV (I) = 985.28 (RT)
INV (E) = 984.37 (LT)

LEGEND

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EROSION MAT CLASS I TYPE B

xxxxxx

EROSION MAT URBAN CLASS I TYPE B

—●—●—●—●—

SILT FENCE

—○—○—○—○—

RIPRAP

—X—

SLOPE INTERCEPT

X

OO

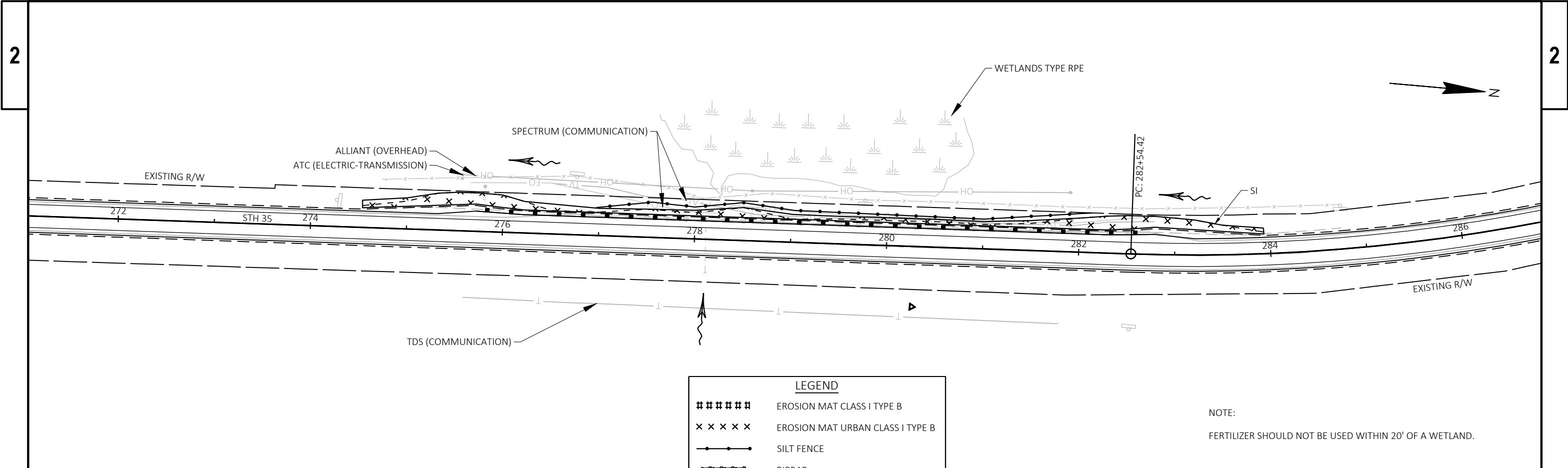
INLET PROTECTION TYPE A OR C

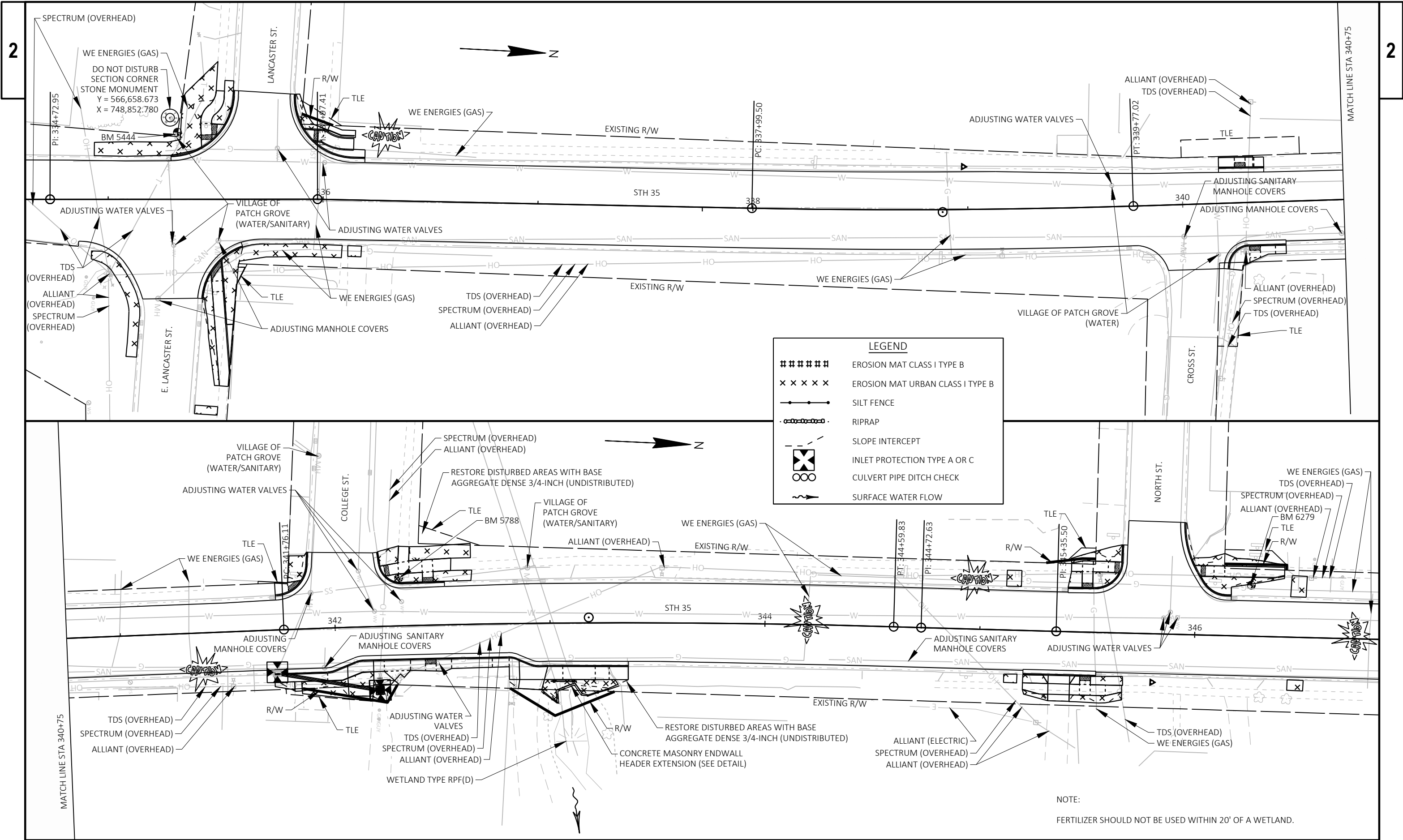
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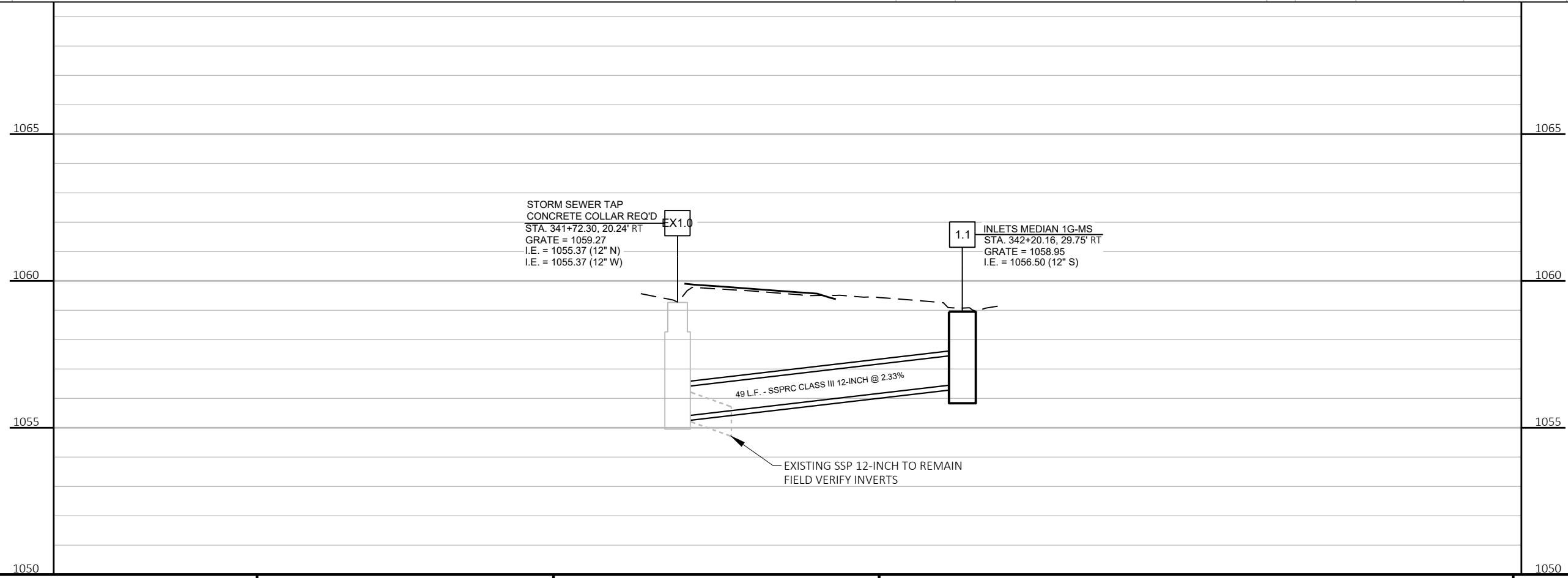
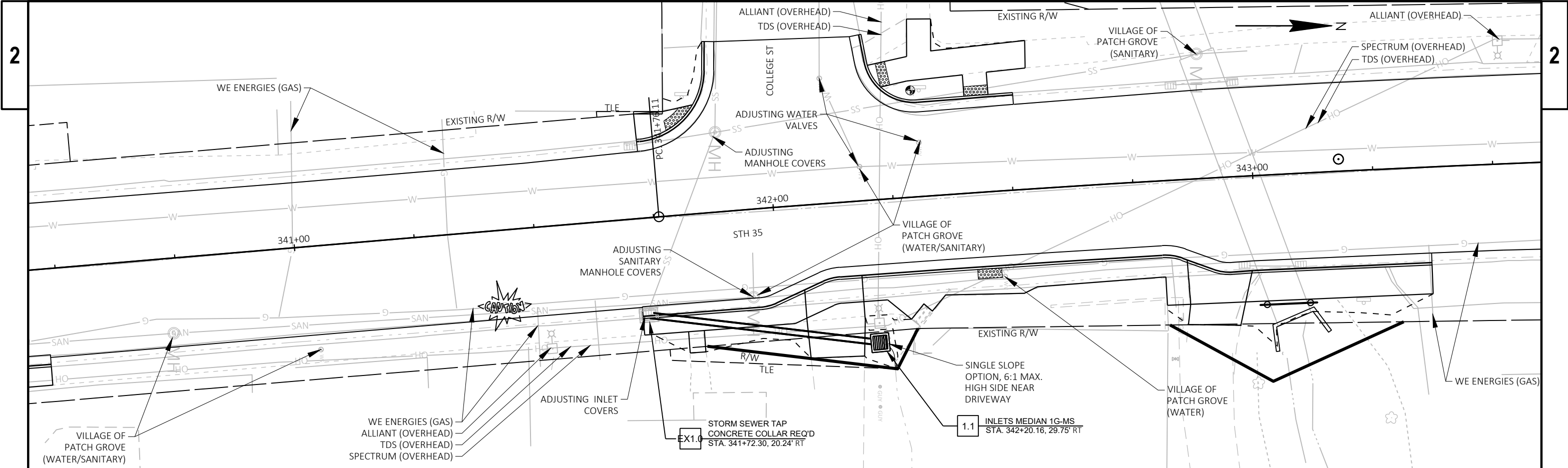
CULVERT PIPE DITCH CHECK

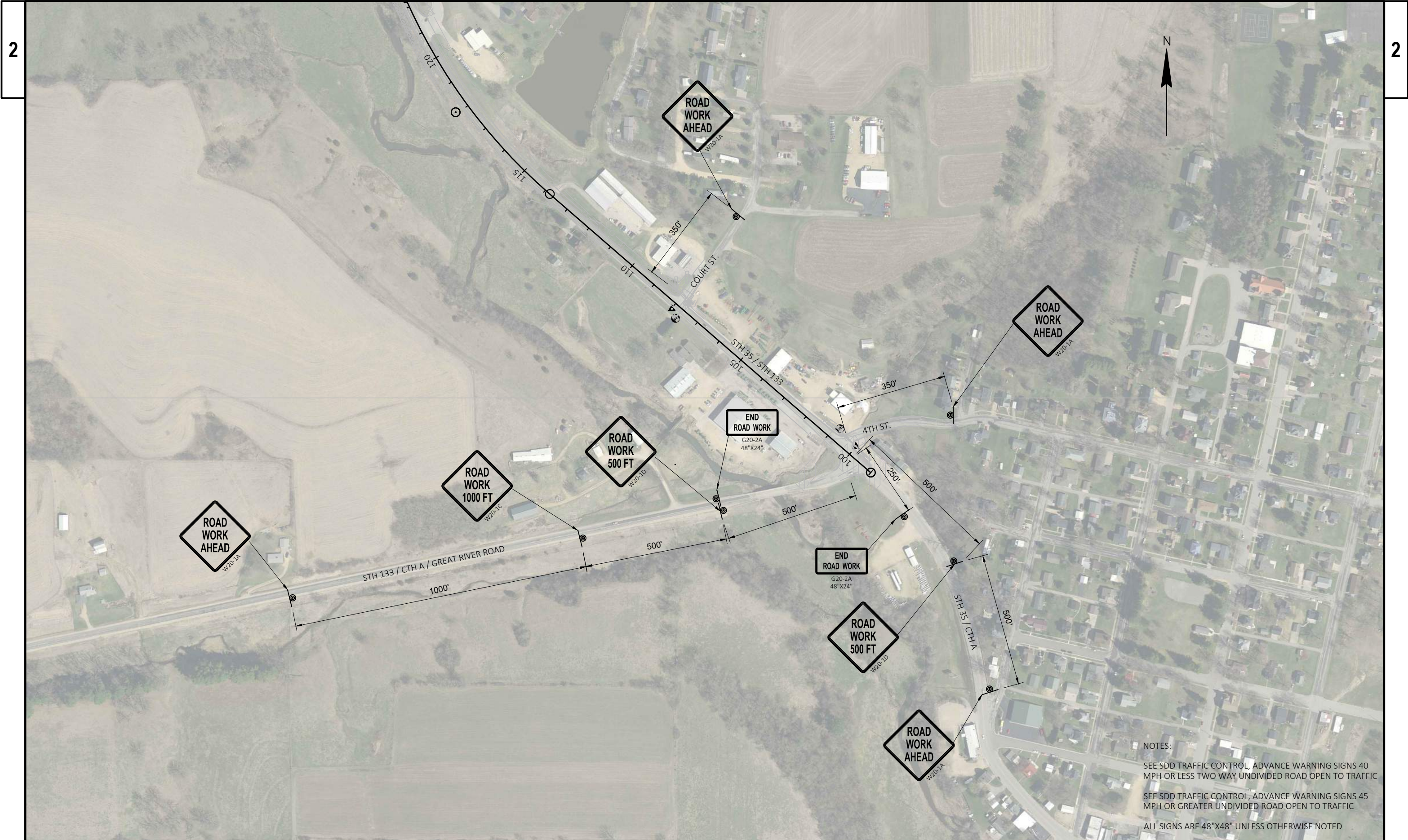
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SURFACE WATER FLOW

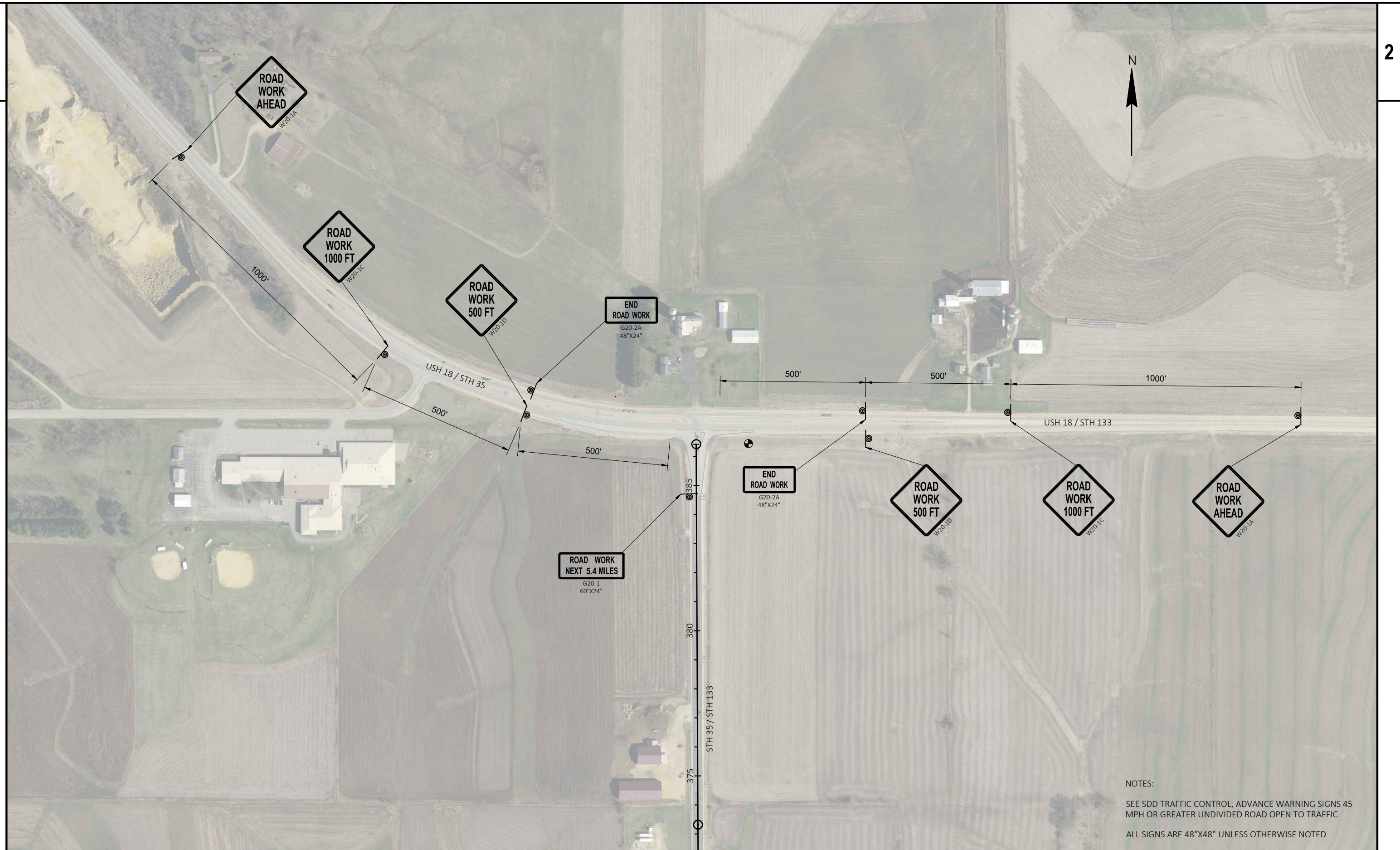








NOTES:
SEE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
SEE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED



NOTES:
SEE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45
MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

LEGEND

SIGN ON TEMPORARY SUPPORT

TEMPORARY PEDESTRIAN SURFACE ASPHALT

TEMPORARY PEDESTRIAN SURFACE PLATE

TEMPORARY PEDESTRIAN CURB RAMP WITH TEMPORARY DETECTABLE WARNING FIELD

DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL CONE 42-INCH

TEMPORARY PEDESTRIAN BARRICADE

PEDESTRIAN ACCESS NOTES

1. MAINTAIN AN ADA ACCESSIBLE PEDESTRIAN ACCESS, 6-FT WIDE DESIRABLE (4-FT MINIMUM) ON EITHER THE EXISTING SIDEWALK OR A TEMPORARY SURFACE TO ALL BUSINESS AND RESIDENTIAL ENTRANCES ALONG STH 35 THROUGH THE WORK ZONE AS LONG AS POSSIBLE. IF A 4-FT WIDE PEDESTRIAN ACCESS IS NECESSARY, INSTALL PASSING ZONES AS SHOWN ON S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION."

2. PROVIDE PROTECTION FROM ANY DROP-OFF EXCEEDING 6-INCHES AND INSTALL A TEMPORARY PEDESTRIAN BARRICADE BETWEEN THE PEDESTRIAN ACCESS AND THE WORK ZONE.

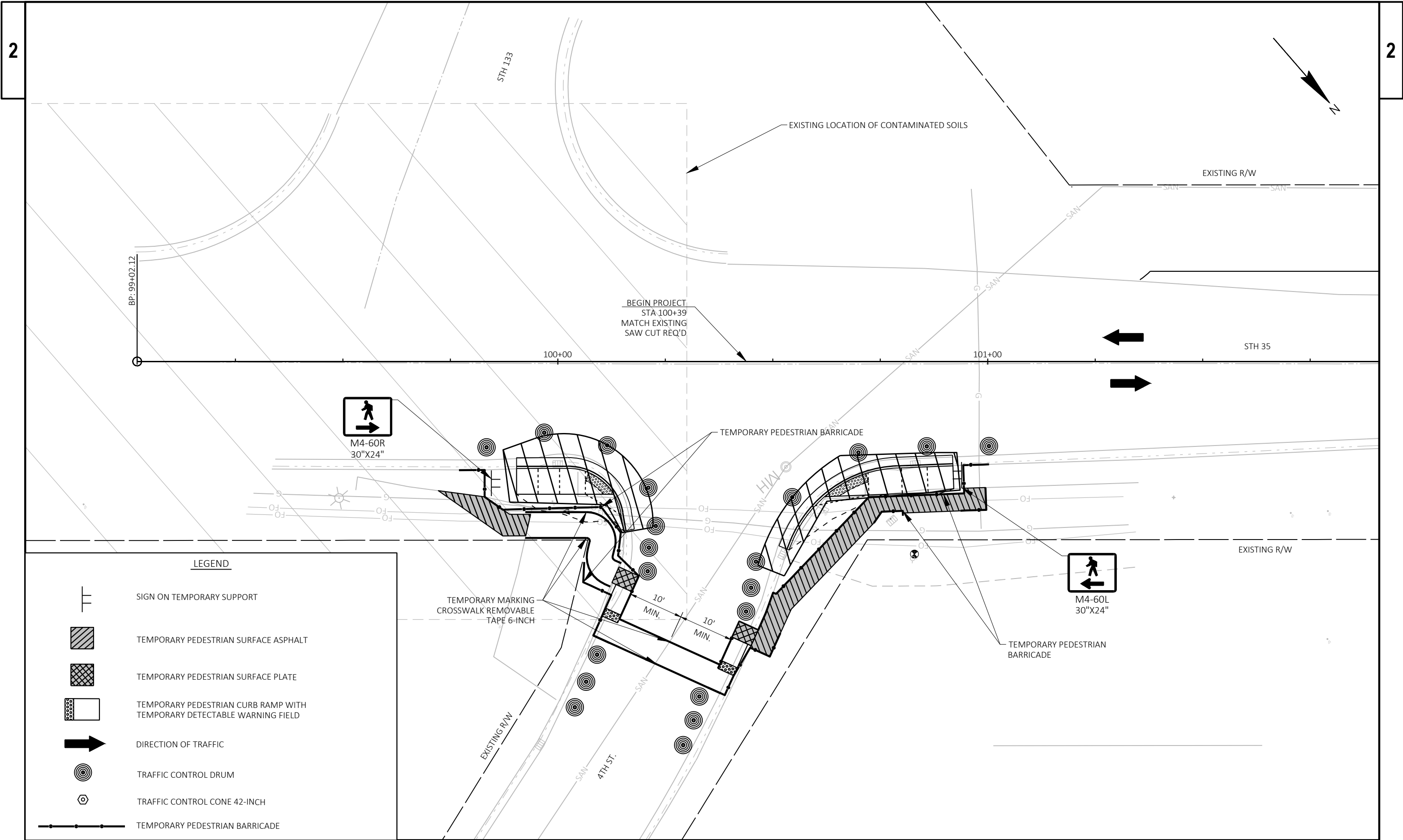
3. WHEN REMAINING SIDEWALKS NEED TO BE REMOVED FOR REPLACEMENT, LEVEL AND COMPACT THE COURSE MATERIAL IN THE REMOVAL AREAS WITHIN 24 HOURS, AND PLACE THE NEW CONCRETE SIDEWALK AND MAKE AVAILABLE FOR PEDESTRIAN USE WITHIN THE SAME WORK WEEK. CLOSURE OF SIDEWALK SHALL BE APPROVED BY THE ENGINEER AND BE LIMITED TO ONE SIDE OF THE STREET AT A TIME TO MAINTAIN PEDESTRIAN ACCESS ALONG STH 35 (THE CONTRACTOR WILL ONLY BE ABLE TO REMOVE THE SIDEWALK ON ONE SIDE OF THE STREET AT A TIME).

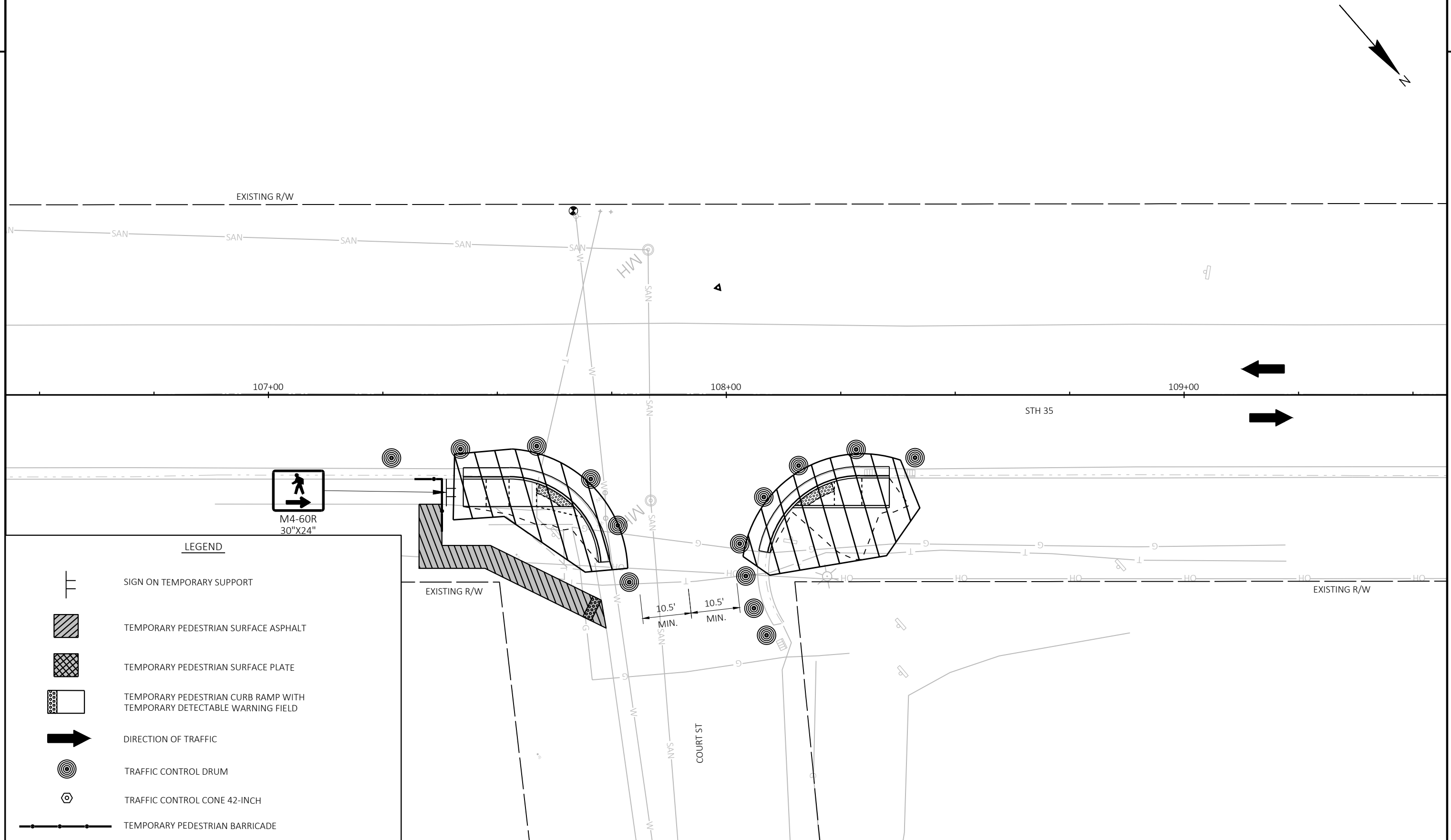
4. COORDINATE WITH LOCAL BUSINESSES WHEN ACCESS TO THE BUSINESS WILL BE CLOSED OFF FOR SIDEWALK INSTALLATION AND ANY OTHER WORK THAT MAY IMPACT PEDESTRIAN ACCESS.

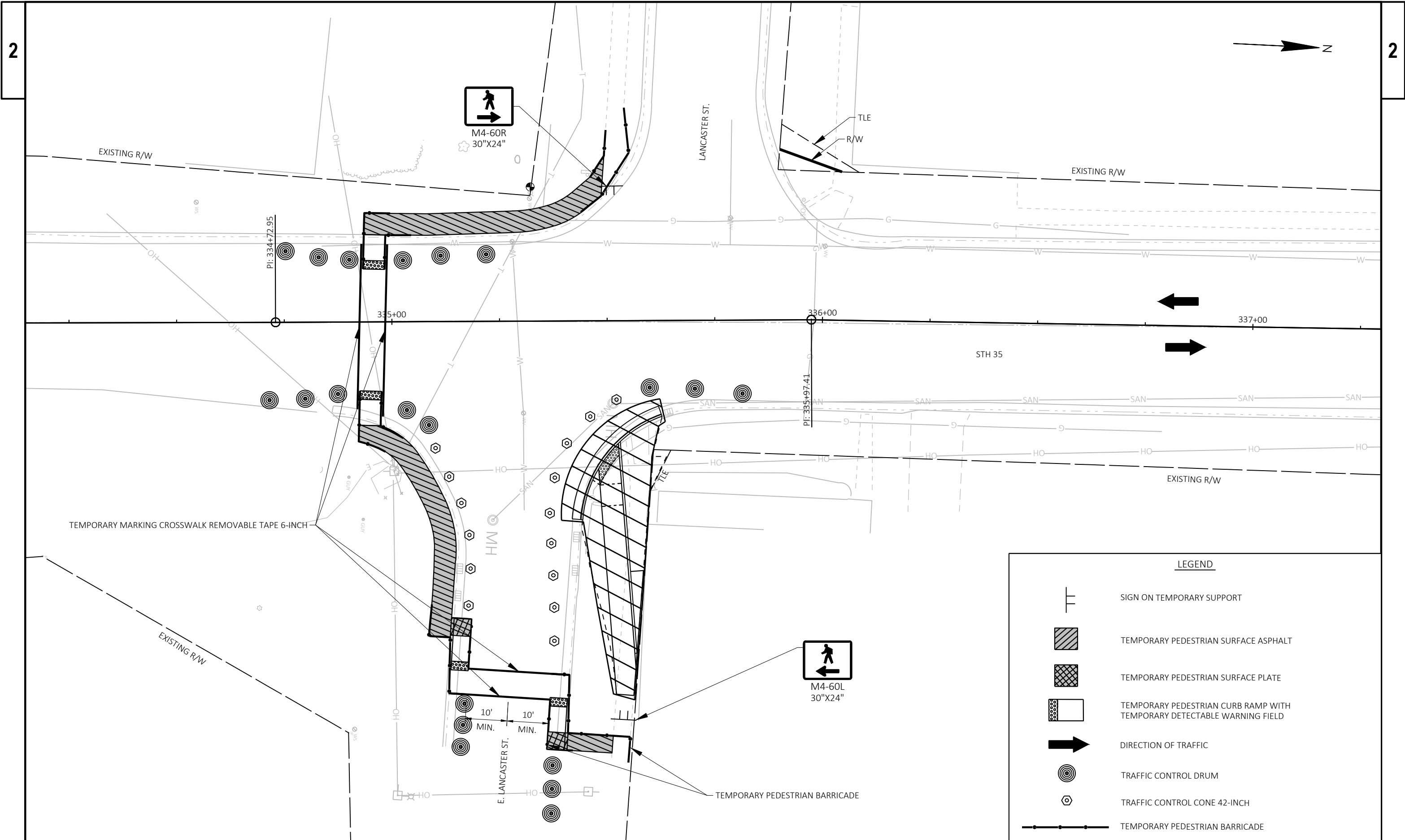
5. TEMPORARY CROSSWALKS SHALL BE MOVED AS NEEDED TO PROVIDE CONTINUOUS PEDESTRIAN ACCESS THROUGHOUT THE WORK ZONE.

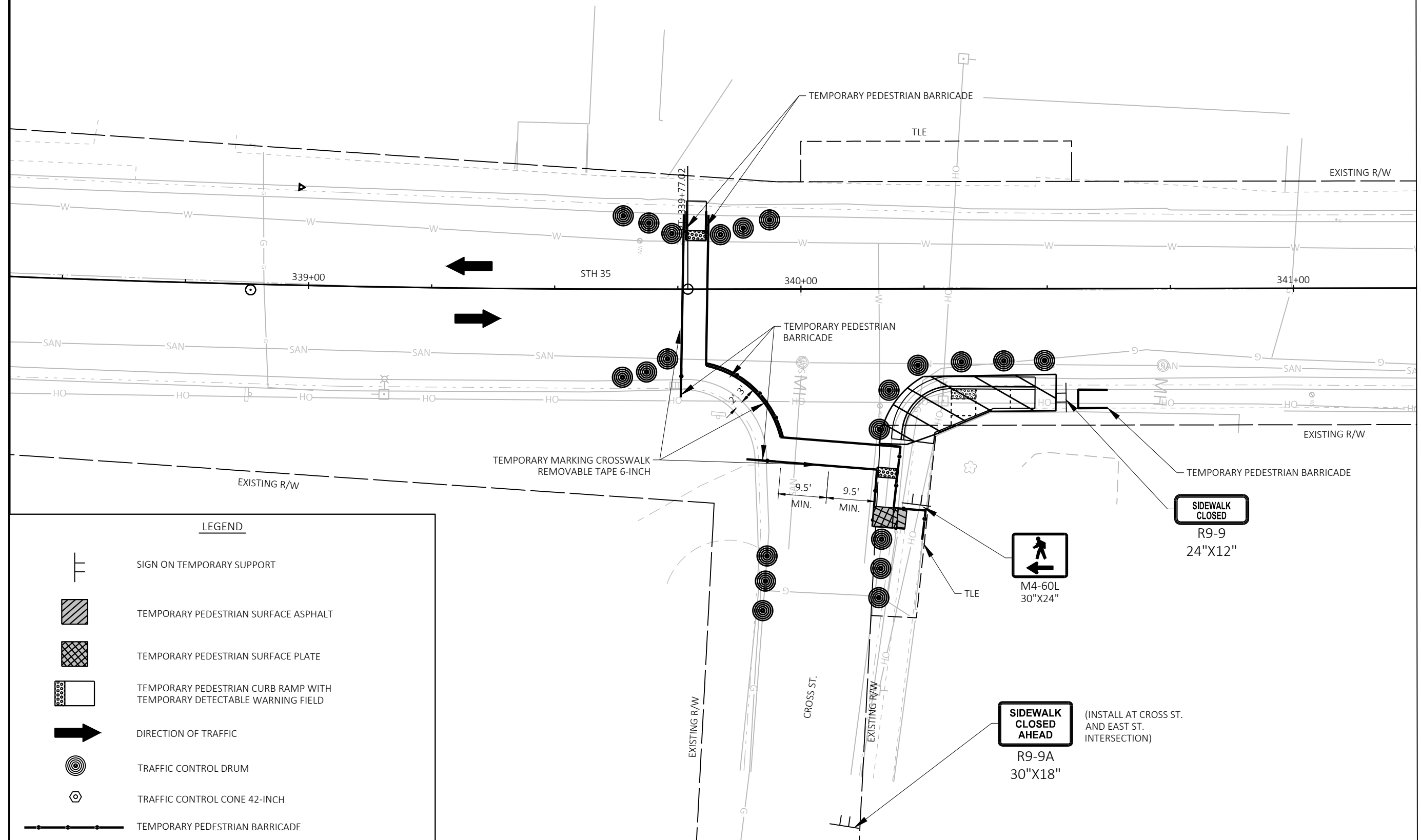
6. SURFACE APPLIED DETECTABLE WARNING FIELDS AND 4-INCH PVC PIPE (IF NECESSARY FOR DRAINAGE) SHALL BE INCIDENTAL TO THE "TEMPORARY CURB RAMP" BID ITEM.

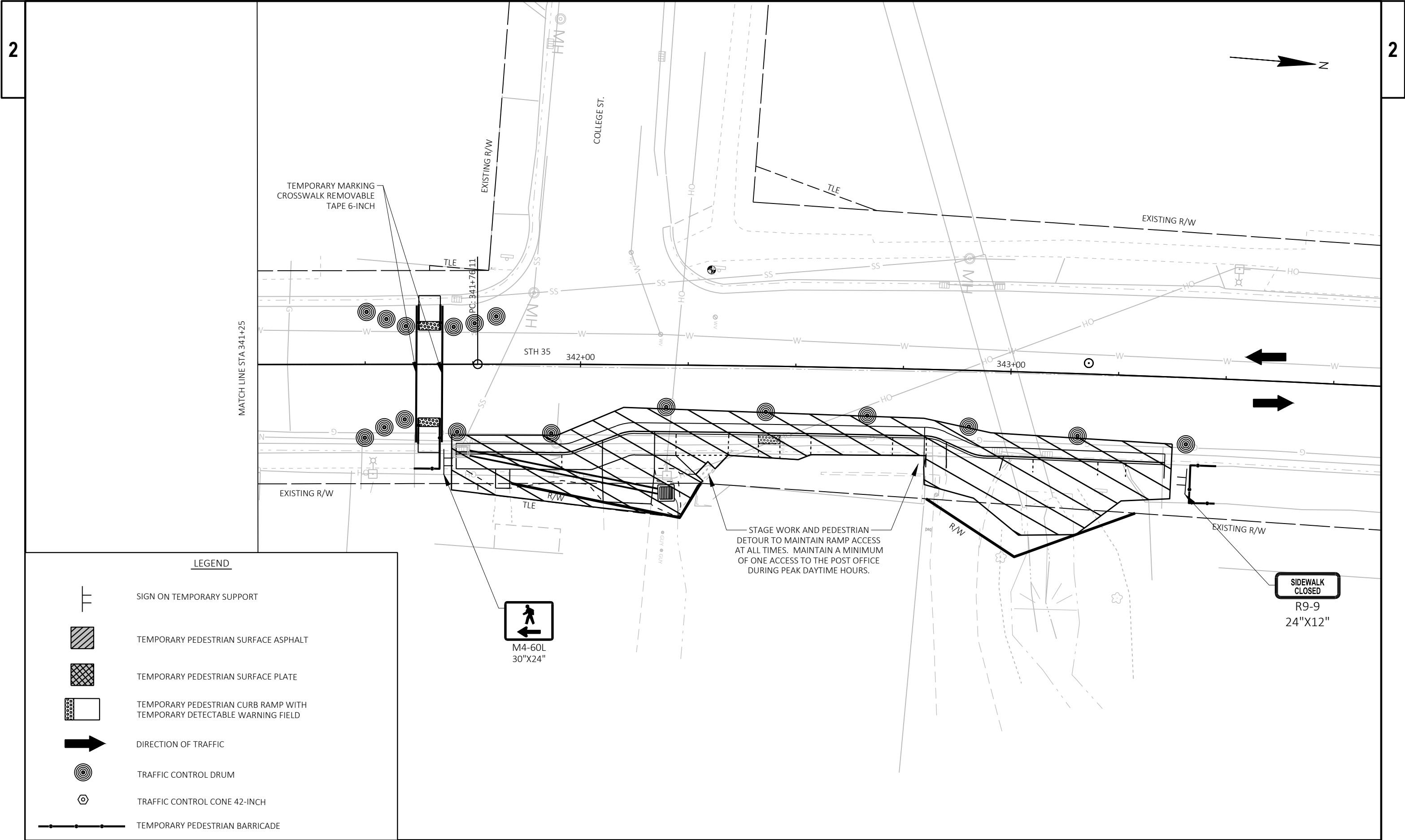
7. SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.

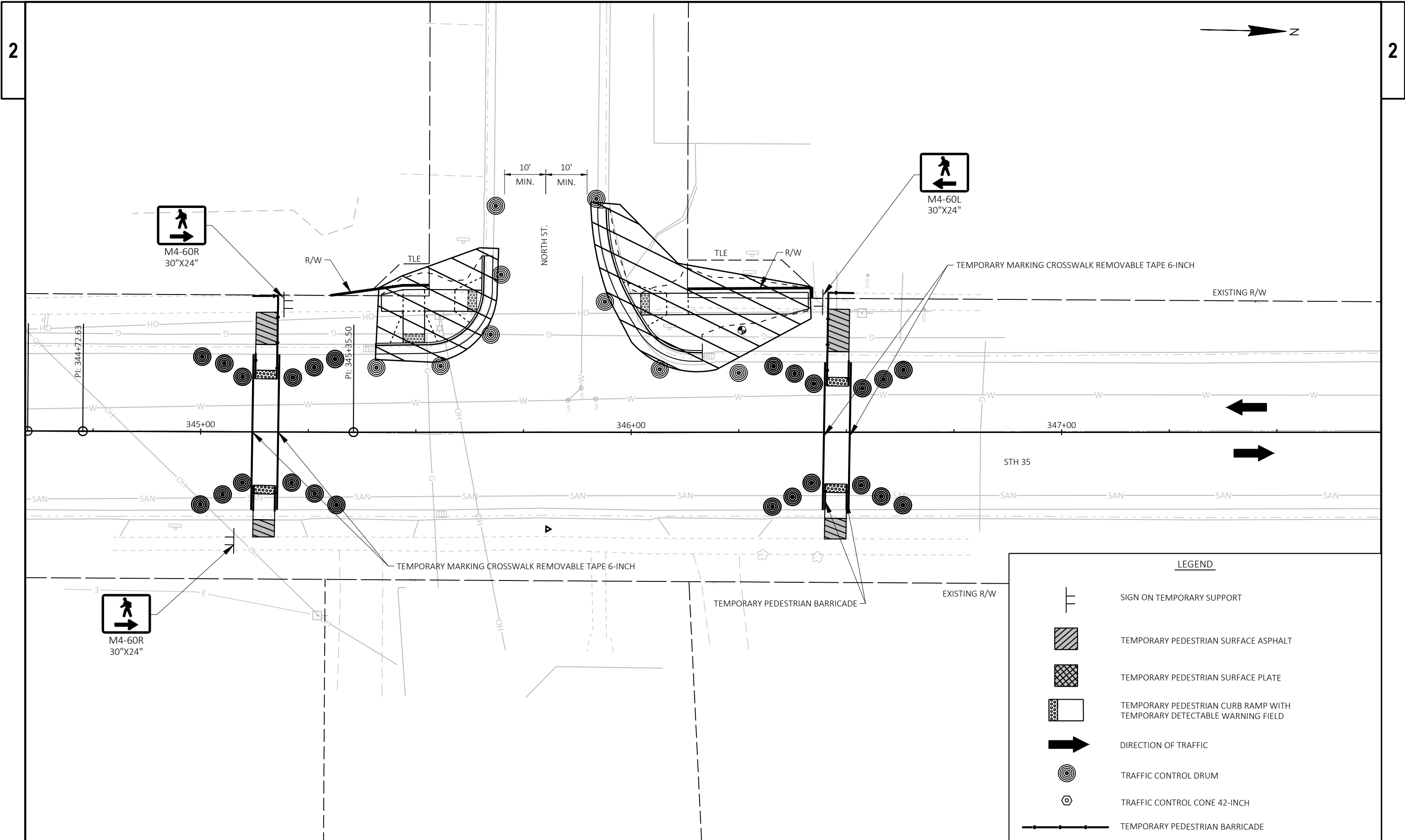


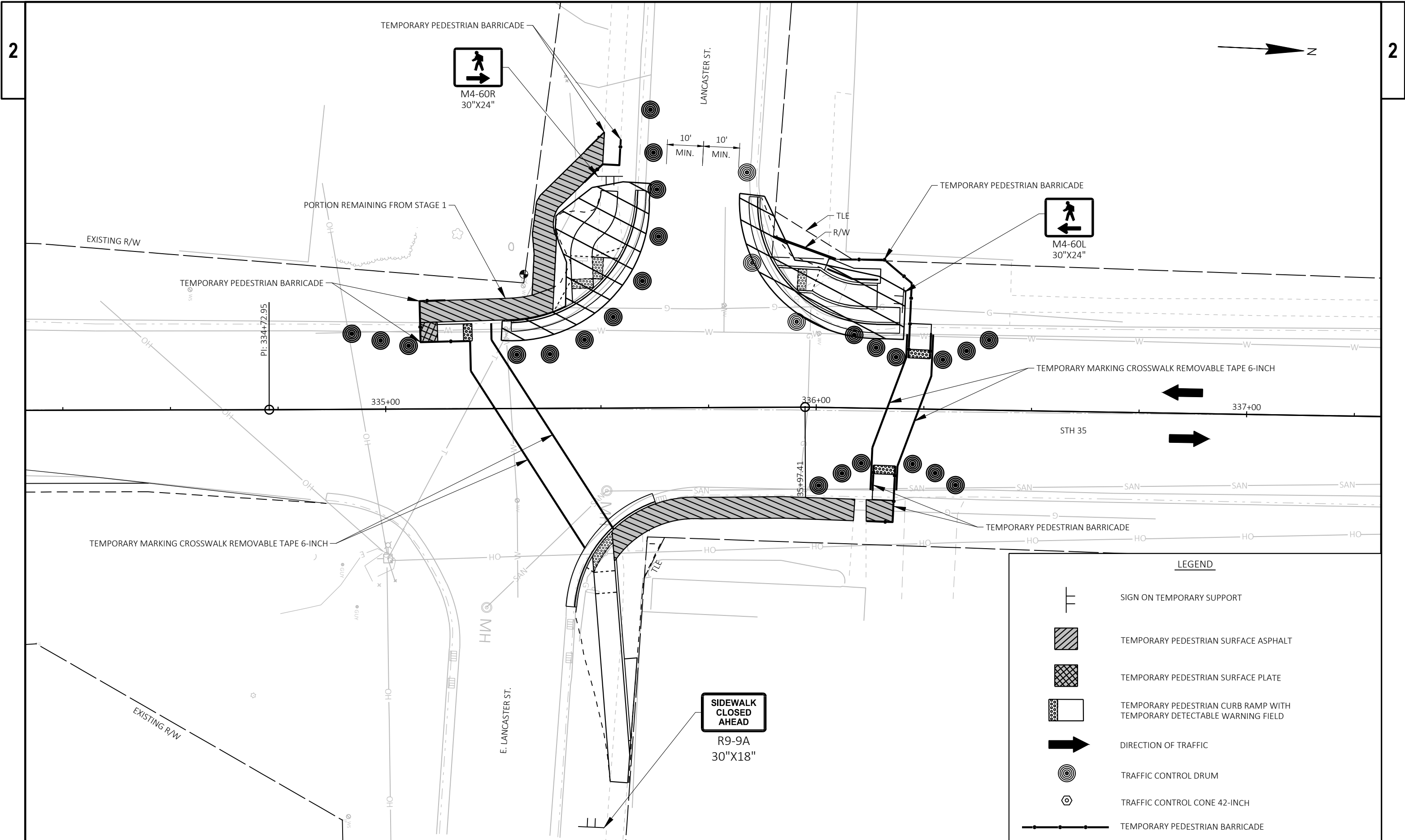


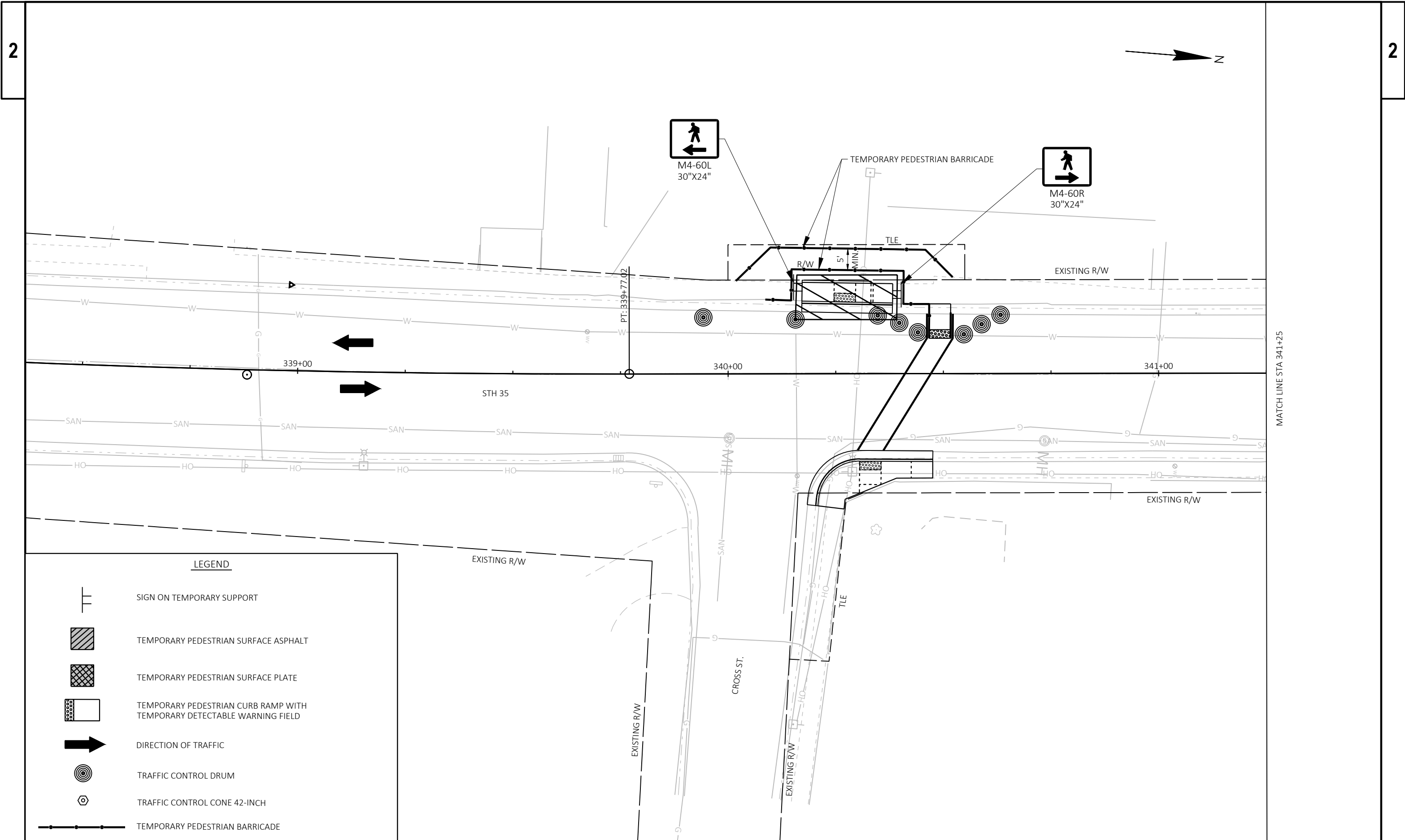












LEGEND

SIGN ON TEMPORARY SUPPORT

TEMPORARY PEDESTRIAN SURFACE ASPHALT

TEMPORARY PEDESTRIAN SURFACE PLATE

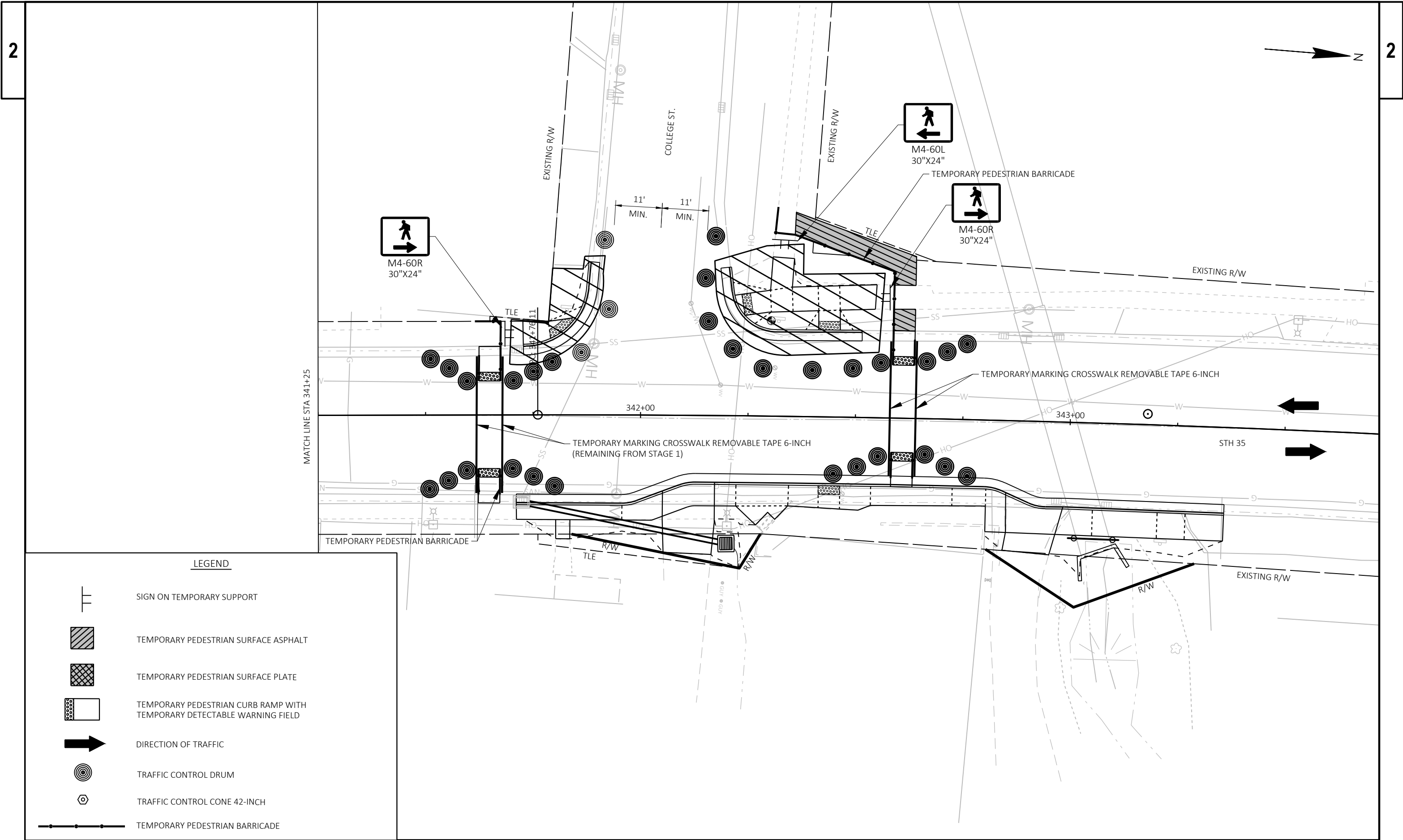
TEMPORARY PEDESTRIAN CURB RAMP WITH
TEMPORARY DETECTABLE WARNING FIELD

DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

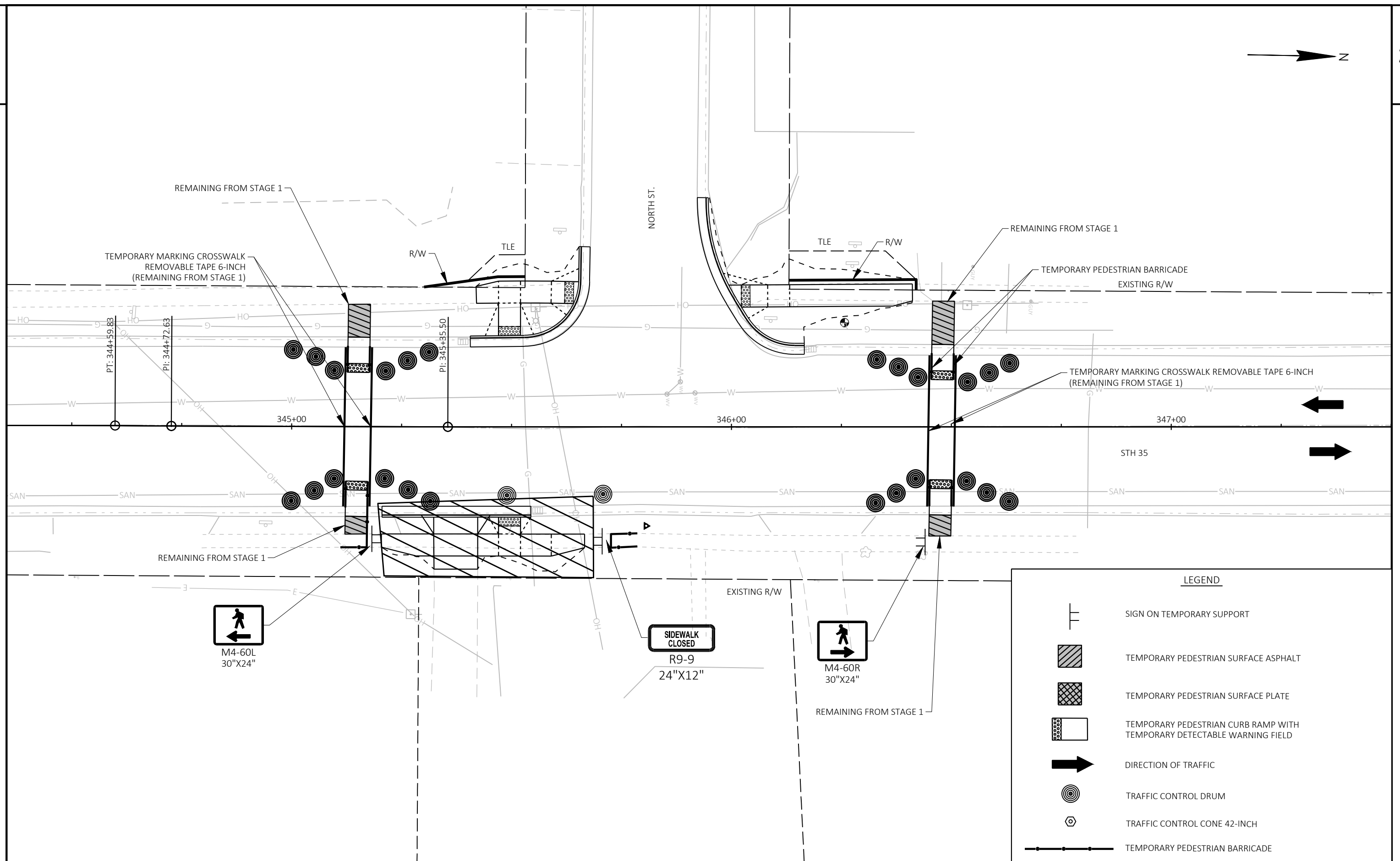
TRAFFIC CONTROL CONE 42-INCH

TEMPORARY PEDESTRIAN BARRICADE



LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TEMPORARY PEDESTRIAN SURFACE ASPHALT
-  TEMPORARY PEDESTRIAN SURFACE PLATE
-  TEMPORARY PEDESTRIAN CURB RAMP WITH TEMPORARY DETECTABLE WARNING FIELD
-  DIRECTION OF TRAFFIC
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL CONE 42-INCH
-  TEMPORARY PEDESTRIAN BARRICADE



Estimate Of Quantities

5580-04-70

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0004	204.0100	Removing Concrete Pavement	SY	84.000	84.000
0006	204.0110	Removing Asphaltic Surface	SY	22,860.000	22,860.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,462.000	2,462.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	75,515.000	75,515.000
0012	204.0150	Removing Curb & Gutter	LF	698.000	698.000
0014	204.0155	Removing Concrete Sidewalk	SY	215.000	215.000
0016	204.0165	Removing Guardrail	LF	2,179.000	2,179.000
0018	204.0270	Abandoning Culvert Pipes	EACH	1.000	1.000
0020	204.9060.S	Removing (item description) 01. Concrete Post	EACH	1.000	1.000
0022	205.0100	Excavation Common	CY	1,491.000	1,491.000
0024	208.0100	Borrow	CY	324.000	324.000
0026	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	2.000	2.000
0028	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5580-04-70	EACH	1.000	1.000
0030	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	861.000	861.000
0032	213.0100	Finishing Roadway (project) 01. 5580-04-70	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,090.000	1,090.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,621.000	1,621.000
0038	416.0610	Drilled Tie Bars	EACH	8.000	8.000
0040	455.0605	Tack Coat	GAL	10,997.000	10,997.000
0042	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0044	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0046	460.2005	Incentive Density PWL HMA Pavement	DOL	17,342.000	17,342.000
0048	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	11,340.000	11,340.000
0050	460.2010	Incentive Air Voids HMA Pavement	DOL	25,231.000	25,231.000
0052	460.5223	HMA Pavement 3 LT 58-28 S	TON	14,465.000	14,465.000
0054	460.5224	HMA Pavement 4 LT 58-28 S	TON	10,766.000	10,766.000
0056	465.0105	Asphaltic Surface	TON	174.000	174.000
0058	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	80.000	80.000
0060	465.0520	Asphaltic Rumble Strips, Shoulder	LF	38,107.000	38,107.000
0062	465.0560	Asphaltic Rumble Strips, Centerline	LF	18,442.000	18,442.000
0064	502.4205	Adhesive Anchors No. 5 Bar	EACH	22.000	22.000
0066	504.0900	Concrete Masonry Endwalls	CY	2.000	2.000
0068	513.2001	Railing Pipe	LF	24.000	24.000
0070	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0072	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	2.000	2.000
0074	520.3324	Culvert Pipe Class III-A 24-Inch	LF	74.000	74.000
0076	520.3336	Culvert Pipe Class III-A 36-Inch	LF	72.000	72.000
0078	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	699.000	699.000
0080	601.0600	Concrete Curb Pedestrian	LF	112.000	112.000
0082	602.0405	Concrete Sidewalk 4-Inch	SF	2,841.000	2,841.000
0084	602.0415	Concrete Sidewalk 6-Inch	SF	109.000	109.000
0086	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	113.000	113.000
0088	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	91.000	91.000
0090	602.0810	Concrete Driveway 6-Inch	SY	55.000	55.000
0092	606.0200	Riprap Medium	CY	10.000	10.000
0094	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	49.000	49.000
0096	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0098	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0100	611.8110	Adjusting Manhole Covers	EACH	3.000	3.000

Estimate Of Quantities

5580-04-70

Line	Item	Item Description	Unit	Total	Qty
0102	611.8115	Adjusting Inlet Covers	EACH	8.000	8.000
0104	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000
0106	614.2300	MGS Guardrail 3	LF	2,100.000	2,100.000
0108	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0110	618.0100	Maintenance and Repair of Haul Roads (project) 01. 5580-04-70	EACH	1.000	1.000
0112	619.1000	Mobilization	EACH	1.000	1.000
0114	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0116	624.0100	Water	MGAL	40.100	40.100
0118	625.0500	Salvaged Topsoil	SY	2,973.000	2,973.000
0120	627.0200	Mulching	SY	271.000	271.000
0122	628.1504	Silt Fence	LF	2,280.000	2,280.000
0124	628.1520	Silt Fence Maintenance	LF	2,280.000	2,280.000
0126	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0128	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0130	628.2004	Erosion Mat Class I Type B	SY	156.000	156.000
0132	628.2008	Erosion Mat Urban Class I Type B	SY	2,818.000	2,818.000
0134	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0136	628.7015	Inlet Protection Type C	EACH	1.000	1.000
0138	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0140	629.0210	Fertilizer Type B	CWT	3.000	3.000
0142	630.0120	Seeding Mixture No. 20	LB	70.000	70.000
0144	630.0140	Seeding Mixture No. 40	LB	18.000	18.000
0146	630.0200	Seeding Temporary	LB	55.000	55.000
0148	630.0500	Seed Water	MGAL	76.000	76.000
0150	633.5200	Markers Culvert End	EACH	4.000	4.000
0152	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	6.000	6.000
0154	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	4.000	4.000
0156	638.2102	Moving Signs Type II	EACH	9.000	9.000
0158	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0160	642.5001	Field Office Type B	EACH	1.000	1.000
0162	643.0300	Traffic Control Drums	DAY	4,217.000	4,217.000
0164	643.0900	Traffic Control Signs	DAY	3,126.000	3,126.000
0166	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0168	643.1070	Traffic Control Cones 42-Inch	DAY	240.000	240.000
0170	643.3165	Temporary Marking Line Paint 6-Inch	LF	57,888.000	57,888.000
0172	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	1,182.000	1,182.000
0174	643.5000	Traffic Control	EACH	1.000	1.000
0176	644.1410	Temporary Pedestrian Surface Asphalt	SF	2,377.000	2,377.000
0178	644.1430	Temporary Pedestrian Surface Plate	SF	135.000	135.000
0180	644.1440	Temporary Pedestrian Surface Matting	SF	1,189.000	1,189.000
0182	644.1601	Temporary Pedestrian Curb Ramp	DAY	400.000	400.000
0184	644.1605	Temporary Pedestrian Detectable Warning Field	SF	196.000	196.000
0186	644.1810	Temporary Pedestrian Barricade	LF	1,137.000	1,137.000
0188	645.0120	Geotextile Type HR	SY	32.000	32.000
0190	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	82,318.000	82,318.000
0192	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	82,318.000	82,318.000
0194	646.8120	Marking Curb Epoxy	LF	150.000	150.000
0196	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000
0198	650.4500	Construction Staking Subgrade	LF	132.000	132.000
0200	650.5000	Construction Staking Base	LF	132.000	132.000

Estimate Of Quantities

5580-04-70

Line	Item	Item Description	Unit	Total	Qty
0202	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	699.000	699.000
0204	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0206	650.8000	Construction Staking Resurfacing Reference	LF	28,426.000	28,426.000
0208	650.9000	Construction Staking Curb Ramps	EACH	18.000	18.000
0210	650.9500	Construction Staking Sidewalk (project) 01. 5580-04-70	EACH	1.000	1.000
0212	650.9911	Construction Staking Supplemental Control (project) 01. 5580-04-70	EACH	1.000	1.000
0214	650.9920	Construction Staking Slope Stakes	LF	2,934.000	2,934.000
0216	690.0150	Sawing Asphalt	LF	2,087.000	2,087.000
0218	690.0250	Sawing Concrete	LF	227.000	227.000
0220	740.0440	Incentive IRI Ride	DOL	21,462.000	21,462.000
0222	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	325.000	325.000
0224	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	250.000	250.000
0226	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	5.000	5.000
0228	SPV.0060	Special 02. Adjusting Water Valves	EACH	17.000	17.000
0230	SPV.0060	Special 03. Adjusting Sanitary Manhole Covers	EACH	7.000	7.000
0232	SPV.0060	Special 04. Storm Sewer Tap	EACH	1.000	1.000
0234	SPV.0060	Special 05. Research and Locate Existing Land Parcel Monuments	EACH	26.000	26.000
0236	SPV.0060	Special 06. Verify and Replace Existing Land Parcel Monuments	EACH	26.000	26.000
0238	SPV.0090	Special 01. Modified Pedestrian Curb	LF	24.000	24.000
0240	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	5,950.000	5,950.000

REMOVING AND ABANDONING CULVERT PIPES

CATEGORY	STATION	TO	STATION	LOCATION	203.0100	204.0270	REMARKS
					REMOVING	ABANDONING	
					SMALL PIPE	CULVERT PIPES	
					CULVERTS	EACH	
					EACH		
0010	159+12	-	---	STH 35	1	---	24" CMCP X 73'
0010	232+91	-	---	STH 35	1	---	36" CMCP X 72'
0010	342+23	-	342+27	RT	1	---	6" PLASTIC CP X 6.7'
0010	342+27	-	342+34	RT	---	1	6" PLASTIC CP X 9.5'
0010	342+34	-	342+35	RT	1	---	6" PLASTIC CP X 2.6'
TOTAL 0010					4	1	

REMOVING CONCRETE PAVEMENT

			204.0100	
			REMOVING	
			CONCRETE	
			PAVEMENT	
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	342+10	RT	12	DRIVEWAY
0010	345+38	RT	11	DRIVEWAY
0010	355+82	RT	61	DRIVEWAY
TOTAL 0010			84	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	TO	STATION	LOCATION	204.0115	REMARKS
					REMOVING	
					ASPHALTIC	
					SURFACE BUTT	
					JOINTS	
0010	128+28	-	129+28	STH 35	415	TRANSITION
0010	161+63	-	162+69	RT	46	MULBERRY LN
0010	162+57	-	162+99	LT	32	HICKORY RD
0010	165+48	-	166+48	STH 35	353	B-22-59 GUARDRAIL
0010	167+81	-	167+94	STH 35	52	B-22-59
0010	168+92	-	169+04	STH 35	51	B-22-59
0010	170+44	-	171+44	STH 35	355	B-22-59 GUARDRAIL
0010	201+38	-	202+74	RT	29	BRUER RD
0010	220+61	-	222+00	LT	66	KANSAS RD
0010	263+40	-	264+76	LT	38	HYING RD
0010	332+18	-	333+18	STH 35	346	TRANSITION
0010	361+61	-	362+61	STH 35	343	TRANSITION
0010	383+65	-	384+65	STH 35	336	END OF PROJECT
TOTAL 0010					2,462	

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	204.0110	204.0120	REMARKS
					REMOVING	REMOVING	
					ASPHALTIC	ASPHALTIC	
					SURFACE	SURFACE	
					SY	SY	
0010	99+95	-	100+20	RT	50	---	CURB RADII & BEHIND SIDEWALK
0010	100+53	-	100+91	RT	23	---	CURB & GUTTER
0010	107+42	-	107+73	RT	10	---	CURB & GUTTER
0010	108+09	-	108+36	RT	9	---	CURB & GUTTER
0010	335+29	-	335+59	LT	12	---	CURB & GUTTER
0010	335+43	-	335+63	RT	9	---	CURB & GUTTER
0010	335+86	-	336+19	LT	13	---	CURB & GUTTER
0010	340+17	-	340+39	LT	5	---	CURB & GUTTER
0010	340+20	-	340+48	RT	9	---	CURB & GUTTER
0010	341+72	-	341+88	LT	8	---	CURB & GUTTER
0010	341+71	-	343+37	RT	83	---	CURB & GUTTER
0010	342+20	-	342+51	LT	11	---	CURB & GUTTER
0010	345+20	-	345+54	RT	8	---	CURB & GUTTER
0010	345+40	-	345+66	LT	10	---	CURB & GUTTER
0010	345+94	-	346+17	LT	12	---	CURB & GUTTER
0010	100+39	-	128+28	STH 35	10,928	---	
0010	100+71	-	100+92	RT	13	---	EXISTING SIDEWALK
0010	102+18	-	---	LT	125	---	DRIVEWAY
0010	105+00	-	---	LT	44	---	DRIVEWAY
0010	105+71	-	---	LT	20	---	DRIVEWAY
0010	107+42	-	107+58	RT	11	---	EXISTING SIDEWALK
0010	112+52	-	---	LT	27	---	DRIVEWAY
0010	129+28	-	165+48	STH 35	---	12,223	
0010	166+48	-	167+81	STH 35	---	607	
0010	169+04	-	170+44	STH 35	---	644	
0010	171+44	-	332+18	STH 35	---	54,997	
0010	333+18	-	361+61	STH 35	9,916	---	
0010	362+61	-	383+65	STH 35	---	7,044	
0010	343+26	-	343+36	RT	6	---	EXISTING PART OF DRIVEWAY
0010	354+00	-	---	RT	22	---	DRIVEWAY
0010	364+24	-	---	LT	20	---	DRIVEWAY
0010	365+63	-	---	LT	24	---	DRIVEWAY
0010	367+75	-	---	LT	14	---	DRIVEWAY
0010	370+33	-	---	LT	44	---	DRIVEWAY
TOTAL 0010					21,486	75,515	
0020	335+95	-	339+59	RT	264	---	PARKING AREA
0020	336+39	-	339+13	LT	168	---	PARKING AREA
0020	342+51	-	345+52	LT	189	---	PARKING AREA
0020	343+15	-	353+55	RT	753	---	PARKING AREA
TOTAL 0020					1,374	0	
PROJECT TOTAL					22,860	75,515	

REMOVING CONCRETE CURB AND GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150	REMARKS
					REMOVING	
					CURB & GUTTER	
					LF	
0010	99+90	-	100+16	RT	34	4TH ST
0010	100+53	-	100+91	RT	47	4TH ST
0010	107+42	-	107+73	RT	40	COURT ST
0010	108+09	-	108+36	RT	35	COURT ST
0010	335+29	-	335+59	LT	48	LANCASTER ST
0010	335+43	-	335+63	RT	33	E LANCASTER ST
0010	335+86	-	336+19	LT	51	LANCASTER ST
0010	340+17	-	340+38	LT	21	MID-BLOCK
0010	340+20	-	340+48	RT	34	CROSS ST
0010	341+72	-	341+89	LT	29	COLLEGE ST
0010	341+71	-	343+37	RT	165	AT POST OFFICE
0010	342+20	-	342+51	LT	41	COLLEGE ST
0010	345+20	-	345+55	RT	34	MID-BLOCK
0010	345+40	-	345+66	LT	41	NORTH ST
0010	345+94	-	346+17	LT	45	NORTH ST
TOTAL 0010					698	

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165
					REMOVING
					GUARDRAIL
					LF
0010	113+31	-	129+02	LT	1,579
0010	276+76	-	282+74	LT	600
TOTAL 0010					2,179

REMOVING CONCRETE POST

CATEGORY	STATION	LOCATION	204.9060.S.01
			REMOVING (01.
			REMOVING
			CONCRETE POST)
			EACH
0010	335+96	27.9' LT	1
TOTAL 0010			1

3

REMOVING SIDEWALK					
CATEGORY	STATION	TO	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
0010	100+05	-	100+14	RT	5
0010	100+61	-	100+71	RT	4
0010	107+57	-	107+67	RT	4
0010	335+48	-	335+56	LT	10
0010	335+52	-	335+61	RT	32
0010	335+95	-	336+14	LT	22
0010	340+17	-	340+39	LT	12
0010	340+21	-	340+48	RT	17
0010	341+71	-	342+54	RT	28
0010	341+72	-	341+84	LT	5
0010	342+21	-	342+54	LT	27
0010	342+80	-	342+85	RT	3
0010	345+20	-	345+67	RT	16
0010	345+42	-	345+66	LT	12
0010	345+99	-	346+41	LT	18
TOTAL 0010					215

TEMPORARY LANE SHIFT DURING CULVERT WORK

208.1500.S TEMPORARY LANE SHIFT DURING CULVERT WORK			
CATEGORY	STATION	LOCATION	EACH
0010	159+12	MAINLINE	1
0010	232+91	MAINLINE	1
TOTAL 0010			2

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS					
CATEGORY	STATION	TO	STATION	LOCATION	STA
0050	105+29	-	105+58	LT	1
0050	105+84	-	112+35	LT	7
0050	128+62	-	161+63	RT	34
0050	129+26	-	162+57	LT	67
0050	162+68	-	166+42	RT	8
0050	162+99	-	166+16	LT	7
0050	170+60	-	220+16	LT	100
0050	170+72	-	201+46	RT	62
0050	202+55	-	334+45	RT	264
0050	222+32	-	263+01	LT	82
0050	265+33	-	275+72	LT	21
0050	282+79	-	332+92	LT	101
0050	354+18	-	355+60	RT	3
0050	356+17	-	384+65	RT	57
0050	361+61	-	384+65	LT	47
TOTAL 0050					861

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION				FACTOR 1.25				
DIVISION 1												
GUARDRAIL	111+75/130+25	LT	0	0	0	0	128	160	-160	0	160	
CULVERT REPLACEMENT	158+80/15945	STH 35	646	0	0	646	0	0	646	646	0	
CULVERT REPLACEMENT	232+58/233+25	STH 35	846	0	0	846	0	0	846	846	0	
GUARDRAIL	274+50/284+00	LT	0	0	0	0	131	164	-164	0	164	
DIVISION 1 SUBTOTAL			1,491	0	0	1,491	259	324	1,168	1,491	324	
GRAND TOTAL			1,491	0	0	1,491	259	324	1,168	1,491	324	
TOTAL COMMON EXC			1,491									

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.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.25
(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) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

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*ADDITIONAL QUANTITIES LISTED ELSEWHERE

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

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HMA PAVEMENT										
						455.0605	460.5223	460.5224	465.0105	
CATEGORY	STATION	TO	STATION	LOCATION	DEPTH	TACK COAT	HMA PAVEMENT	HMA PAVEMENT	ASPHALTIC	REMARKS
						GAL	3 LT 58-28 S	4 LT 58-28 S	SURFACE	
							TON	TON	TON	
0050	170+72	-	201+46	LOWER LAYER	2.25	---	87	---	---	SHOULDER RT
0050	170+72	-	201+46	UPPER LAYER	1.75	35	---	67	---	SHOULDER RT
0050	202+54	-	333+18	LOWER LAYER	2.25	---	366	---	---	SHOULDER RT
0050	202+54	-	333+18	UPPER LAYER	1.75	145	---	285	---	SHOULDER RT
0050	222+32	-	263+01	LOWER LAYER	2.25	---	115	---	---	SHOULDER LT
0050	222+32	-	263+01	UPPER LAYER	1.75	46	---	90	---	SHOULDER LT
0050	265+33	-	275+32	LOWER LAYER	2.25	---	28	---	---	SHOULDER LT
0050	265+33	-	275+32	UPPER LAYER	1.75	11	---	22	---	SHOULDER LT
0050	283+21	-	332+92	LOWER LAYER	2.25	---	139	---	---	SHOULDER LT
0050	283+21	-	332+92	UPPER LAYER	1.75	56	---	108	---	SHOULDER LT
0050	333+18	-	334+45	LOWER LAYER	2.75	---	5	---	---	SHOULDER RT
0050	333+18	-	334+45	UPPER LAYER	1.75	2	---	3	---	SHOULDER RT
0050	353+73	-	361+61	LOWER LAYER	2.75	---	27	---	---	SHOULDER RT
0050	353+73	-	361+61	UPPER LAYER	1.75	9	---	17	---	SHOULDER RT
0050	361+61	-	384+65	LOWER LAYER	2.25	---	65	---	---	SHOULDER RT
0050	361+61	-	384+65	UPPER LAYER	1.75	26	---	51	---	SHOULDER RT
0050	361+86	-	384+65	LOWER LAYER	2.25	---	64	---	---	SHOULDER LT
0050	361+86	-	384+65	UPPER LAYER	1.75	26	---	50	---	SHOULDER LT
TOTAL 0050						508	1,280	987	0	
0020	335+95	-	339+59	LOWER LAYER	2.75	---	41	---	---	PARKING AREA RT
0020	335+95	-	339+59	UPPER LAYER	1.75	14	---	26	---	PARKING AREA RT
0020	336+39	-	339+13	LOWER LAYER	2.75	---	26	---	---	PARKING AREA LT
0020	336+39	-	339+13	UPPER LAYER	1.75	9	---	17	---	PARKING AREA LT
0020	342+66	-	345+27	LOWER LAYER	2.75	---	29	---	---	PARKING AREA LT
0020	342+66	-	345+27	UPPER LAYER	1.75	10	---	19	---	PARKING AREA LT
0020	343+15	-	353+55	LOWER LAYER	2.75	---	116	---	---	PARKING AREA RT
0020	343+15	-	353+55	UPPER LAYER	1.75	38	---	74	---	PARKING AREA RT
TOTAL 0020						71	212	136	0	
PROJECT TOTAL						10,997	14,465	10,766	174	

PERCENT WITHIN LIMITS (PWL) MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE:	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	100+39 - 168+06; 168+82 - 384+65	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	7,409	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	100+39 - 128+28; 333+18 - 361+61	LOWER LAYER	EXISTING GRAVEL SURFACE	3 LT 58-28-S	2,313	2.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	128+28 - 333+18; 361+61 - 384+65	LOWER LAYER	EXISTING HMA SURFACE	3 LT 58-28-S	7,659	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
VARYING SHOULDER WIDTH	100+39 - 384+65	UPPER LAYER	3 LT 58-28 S	4 LT 58-28 S	2,995	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARYING SHOULDER WIDTH	100+39 - 128+28; 333+18 - 361+61	LOWER LAYER	EXISTING GRAVEL SURFACE	3 LT 58-28-S	912	2.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARYING SHOULDER WIDTH	128+28 - 333+18; 361+61 - 384+65	LOWER LAYER	EXISTING HMA SURFACE / EXISTING GRAVEL SURFACE	3 LT 58-28-S	3,069	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	SIDEROADS	UPPER LAYER	EXISTING HMA SURFACE	4 LT 58-28 S	189	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	SIDEROADS	LOWER LAYER	EXISTING HMA SURFACE	3 LT 58-28-S	243	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	158+80 - 159+45; 232+57 - 233+25	CULVERT PATCHES	BASE AGGREGATE	ASPHALTIC SURFACE	147	6" TOTAL	QMP AS PER SS 465	ACCEPTANCE BY ORDINARY COMPACTION

RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0560	465.0520
					ASPHALTIC RUMBLE STRIPS, CENTERLINE LF	ASPHALTIC RUMBLE STRIPS, SHOULDER LF
0010	130+05	-	160+20	CENTERLINE	3,015	---
0010	164+80	-	167+69	CENTERLINE	289	---
0010	169+17	-	200+07	CENTERLINE	3,090	---
0010	204+06	-	219+27	CENTERLINE	1,521	---
0010	223+27	-	262+02	CENTERLINE	3,875	---
0010	266+02	-	332+54	CENTERLINE	6,652	---
TOTAL 0010					18,442	0

0050	130+05	-	140+48	RT	---	1,043
0050	141+18	-	160+64	RT	---	1,946
0050	163+19	-	167+77	RT	---	458
0050	169+24	-	200+46	RT	---	3,122
0050	203+05	-	212+98	RT	---	993
0050	213+72	-	229+21	RT	---	1,549
0050	229+87	-	296+19	RT	---	6,632
0050	296+87	-	319+52	RT	---	2,265
0050	320+19	-	320+74	RT	---	55
0050	321+40	-	325+12	RT	---	372
0050	325+74	-	332+54	RT	---	680
0050	130+05	-	162+06	LT	---	3,201
0050	164+00	-	167+61	LT	---	361
0050	169+10	-	219+66	LT	---	5,056
0050	222+50	-	233+74	LT	---	1,124
0050	234+63	-	251+41	LT	---	1,678
0050	252+72	-	262+51	LT	---	979
0050	265+33	-	312+20	LT	---	4,687
0050	312+86	-	315+93	LT	---	307
0050	316+55	-	332+54	LT	---	1,599
TOTAL 0050					0	38,107
PROJECT TOTAL					18,442	38,107

CONCRETE CURB AND GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0411	650.5500	650.9000	REMARKS
					CONCRETE CURB & GUTTER 30- INCH TYPE D LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING CURB RAMPS EACH	
0010	99+90	-	100+16	RT	34	34	1	4TH ST
0010	100+53	-	100+91	RT	47	47	1	4TH ST
0010	107+42	-	107+73	RT	40	40	1	COURT ST
0010	108+09	-	108+36	RT	35	35	1	COURT ST
0010	335+29	-	335+59	LT	48	48	2	LANCASTER ST
0010	335+43	-	335+63	RT	33	33	1	E LANCASTER ST
0010	335+86	-	336+19	LT	51	51	1	LANCASTER ST
0010	340+17	-	340+39	LT	21	21	1	CURB RAMP
0010	340+20	-	340+48	RT	34	34	1	CROSS ST
0010	341+72	-	341+88	LT	29	29	1	COLLEGE ST
0010	341+71	-	343+37	RT	166	166	1	POST OFFICE
0010	342+20	-	342+51	LT	41	41	2	COLLEGE ST
0010	345+20	-	345+54	RT	34	34	1	CURB RAMP
0010	345+40	-	345+66	LT	41	41	2	NORTH ST
0010	345+94	-	346+17	LT	45	45	1	NORTH ST
TOTAL 0010					699	699	18	

CULVERT HEADER EXTENSION ITEMS

CATEGORY	STATION	LOCATION	502.4205	504.0900
			ADHESIVE ANCHORS NO. 5 BAR EACH	CONCRETE MASONRY ENDWALLS CY
0010	343+07	RT	22	2
TOTAL 0010			22	2

RAILING PIPE

CATEGORY	STATION	TO	STATION	LOCATION	513.2001
					RAILING PIPE LF
0010	336+02	-	336+14	LT	12
0010	343+00	-	343+12	RT	12
TOTAL 0010					24

CULVERT ITEMS

CATEGORY	STATION	LOCATION	INVERT	MIN. THICKNESS (INCHES) STEEL	520.1024	520.1036	520.3324	520.3336	633.5200	650.6000
					APRON	APRON				
					ENDWALLS FOR	ENDWALLS FOR	CULVERT PIPE	CULVERT PIPE		CONSTRUCTION
					CULVERT PIPE 24-	CULVERT PIPE 36-	CLASS III-A 24-	CLASS III-A 36-	MARKERS	STAKING PIPE
					INCH	INCH	INCH	INCH	CULVERT END	CULVERTS
					EACH	EACH	LF	LF	EACH	EACH
0010	159+12	ROADWAY	---	0.064	---	---	74	---	---	1
0010	159+12	32.6' RT	933.17	---	1	---	---	---	1	---
0010	159+12	39.9' LT	930.69	---	1	---	---	---	1	---
0010	232+91	ROADWAY	---	0.079	---	---	---	72	---	1
0010	232+91	30.8' RT	985.28	---	---	1	---	---	1	---
0010	232+91	40.4' LT	984.37	---	---	1	---	---	1	---
TOTAL 0010					2	2	74	72	4	2

CONCRETE SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	*	601.0600	602.0405	602.0415	602.0505	602.0605	SPV.0090.01
					305.0120 BASE AGGREGATE DENSE 1 1/4- INCH TON	CONCRETE CURB PEDESTRIAN LF	CONCRETE SIDEWALK 4- INCH SF	CONCRETE SIDEWALK 6- INCH SF	CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	SPECIAL (01. MODIFIED PEDESTRIAN CURB) LF
0010	99+90	-	100+13	RT	3	---	117	---	---	13	---
0010	100+62	-	100+92	RT	4	---	146	---	---	19	---
0010	107+42	-	107+67	RT	3	---	119	---	---	15	---
0010	108+15	-	108+36	RT	3	21	97	---	---	16	---
0010	335+43	-	335+54	LT	4	---	151	---	23	---	---
0010	335+47	-	335+58	RT	8	50	307	---	---	16	---
0010	335+91	-	336+19	LT	6	19	103	109	10	---	24
0010	340+17	-	340+38	LT	3	16	93	---	10	---	---
0010	340+20	-	340+48	RT	4	---	156	---	10	---	---
0010	341+72	-	341+85	LT	2	6	45	---	---	12	---
0010	341+71	-	342+05	RT	4	---	141	---	---	---	---
0010	342+17	-	342+85	RT	10	---	368	---	10	---	---
0010	342+97	-	343+36	RT	6	---	229	---	---	---	---
0010	342+21	-	342+55	LT	6	---	235	---	10	---	---
0010	345+20	-	345+32	RT	2	---	52	---	---	---	---
0010	345+42	-	345+66	RT	4	---	133	---	10	---	---
0010	345+42	-	345+65	LT	4	---	149	---	20	---	---
0010	345+99	-	346+41	LT	5	---	200	---	10	---	---
TOTAL 0010					81	112	2,841	109	113	91	24

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

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STORM SEWER ITEMS													
								608.0312	611.0642	611.3901	650.4000	SPV.0060.04	
								STORM SEWER PIPE					
				GRATE/RIM ELEV. FT	TOP OF STRUCTURE ELEV. FT	INVERT ELEV. FT	STRUCTURE DEPTH FT	REINFORCED CONCRETE CLASS III 12-INCH LF	INLET COVERS TYPE MS EACH	INLETS MEDIAN 1 GRATE EACH	CONSTRUCTION STAKING STORM SEWER EACH	SPECIAL (04. STORM SEWER TAP) EACH	
CATEGORY	STRUCTURE	STATION	OFFSET										REMARKS
0010	EX1.0	341+72	20.2' RT	1059.27	---	1055.37	---	---	---	---	---	1	
0010	1.1	342+20	29.8' RT	1058.95	1058.95	1056.50	2.62	---	1	1	1	---	SINGLE SLOPE 6:1 MAX.
0010	---	341+98	25.5' RT	---	---	---	---	49	---	---	---	---	
							TOTAL 0010	49	1	1	1	1	

RIPRAP ITEMS				
			606.0200	645.0120
			RIPRAP MEDIUM	GEOTEXTILE TYPE
CATEGORY	STATION	LOCATION	CY	HR SY
0010	159+12	LT	7	21
0010	232+91	LT	3	11
TOTAL 0010			10	32

<u>GUARDRAIL</u>					614.2300	614.2610
					MGS GUARDRAIL	MGS GUARDRAIL
CATEGORY	STATION	TO	STATION	LOCATION	3 LF	TERMINAL EAT EACH
0010	113+03	-	113+56	LT	---	1
0010	113+56	-	128+48	LT	1,500	---
0010	128+48	-	129+00	LT	---	1
0010	275+72	-	276+25	LT	---	1
0010	276+25	-	282+25	LT	600	---
0010	282+25	-	282+79	LT	---	1
TOTAL 0010					2,100	4

LANDMARK MONUMENTS					
			621.0100	SPV.0060.01 SPECIAL (01. VERIFY	
			LANDMARK REFERENCE MONUMENTS	LANDMARK REFERENCE MONUMENTS)	
CATEGORY	STATION	LOCATION	EACH	EACH	REMARKS
0010	360+49	21.5' LT	---	1	CORNER TIE
0010	360+56	37.9' RT	---	1	CORNER TIE
0010	360+80	1.0' LT	1	1	ALUMINUM MONUMENT
0010	361+02	21.7' LT	---	1	CORNER TIE
0010	361+10	37.7' RT	---	1	CORNER TIE
TOTAL 0010			1	5	

					ADJUSTING MANHOLES, INLETS & WATER VALVES				
1	SINGLE SLOPE 6:1 MAX.				611.8110	611.8115	611.8120.S	SPV.0060.02	SPV.0060.03
---									SPECIAL (03.
---									ADJUSTING
1					ADJUSTING	ADJUSTING	COVER PLATES	SPECIAL (02.	SANITARY
					MANHOLE	INLET COVERS	TEMPORARY	ADJUSTING	MANHOLE
CATEGORY	STATION	TO	STATION	LOCATION	COVERS	EACH	EACH	WATER VALVES)	COVERS)
					EACH			EACH	EACH
0010	100+00	-	---	23.8' RT	---	1	---	---	---
0010	100+83	-	---	24.3' RT	---	1	---	---	---
0010	108+31	-	---	17.6' RT	---	1	---	---	---
0010	120+70	-	---	18.5' RT	---	1	---	---	---
0010	121+36	-	---	20' RT	---	1	---	---	---
0010	335+23	-	---	46.2' RT	1	---	1	---	---
0010	335+51	-	---	19.2' RT	1	---	1	---	---
0010	341+72	-	---	20.1' RT	---	1	---	---	---
0010	341+89	-	---	16.6' LT	1	---	---	---	---
0010	342+97	-	---	19' RT	---	1	---	---	---
0010	343+09	-	---	19' RT	---	1	---	---	---
TOTAL 0010					3	8	2	0	0
0030	335+30	-	---	21.4' RT	---	---	---	1	---
0030	335+79	-	---	23.7' LT	---	---	---	1	---
0030	336+00	-	---	17.2' LT	---	---	---	1	---
0030	339+67	-	---	9.8' LT	---	---	---	1	---
0030	340+00	-	---	14.9' RT	---	---	---	---	1
0030	340+16	-	---	23.7' RT	---	---	---	1	---
0030	340+73	-	---	15.7' RT	---	---	---	---	1
0030	341+94	-	---	18.3' RT	---	---	---	---	1
0030	342+12	-	---	26.1' LT	---	---	---	1	---
0030	342+19	-	---	7.1' LT	---	---	---	1	---
0030	342+31	-	---	11.2' LT	---	---	---	1	---
0030	342+47	-	---	17.9' RT	---	---	---	1	---
0030	344+31	-	---	15.9' RT	---	---	---	---	1
0030	345+85	-	---	7.4' LT	---	---	---	1	---
0030	345+88	-	---	10.3' LT	---	---	---	1	---
0030	345+92	-	---	7.7' LT	---	---	---	1	---
0030	348+85	-	---	4.8' LT	---	---	---	1	---
0030	352+20	-	---	4.5' LT	---	---	---	1	---
0030	352+28	-	---	13.9' RT	---	---	---	---	1
0030	357+70	-	---	10.9' LT	---	---	---	1	---
TOTAL 0030					0	0	0	15	5
0040	100+53	-	---	24.5' RT	---	---	---	---	1
0040	107+74	-	---	21.4' RT	---	---	---	1	---
0040	107+74	-	---	27.0' RT	---	---	---	1	---
0040	107+83	-	---	23.1' RT	---	---	---	---	1
TOTAL 0040					0	0	0	2	2
PROJECT TOTAL					3	8	2	17	7

RESTORATION ITEMS														
					625.0500	627.0200	628.2004	628.2008 EROSION MAT URBAN CLASS I	628.7555	629.0210	630.0120	630.0140	630.0200	630.0500
					SALVAGED TOPSOIL	MULCHING	EROSION MAT CLASS I TYPE B	TYPE B	CULVERT PIPE CHECKS	FERTILIZER TYPE B	SEEDING MIXTURE NO. 20	SEEDING MIXTURE NO. 40	SEEDING TEMPORARY	SEED WATER
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY	SY	SY	EACH	CWT	LB	LB	LB	MGAL
0010	100+44	-	101+00	RT	56	---	---	56	---	0.1	---	1	1	2
0010	108+09	-	108+41	RT	38	---	---	38	---	0.1	---	1	1	1
0010	111+84	-	112+40	LT	27	---	---	27	---	0.1	1	---	1	1
0010	112+64	-	130+19	LT	1,043	---	---	1,043	---	0.5	29	---	15	24
0010	158+87	-	159+37	LT	87	---	87	---	---	0.1	3	---	2	2
0010	158+87	-	159+37	RT	54	---	54	---	3	0.1	2	---	1	2
0010	232+66	-	233+16	LT	80	---	---	80	---	0.1	3	---	2	2
0010	232+66	-	233+16	RT	76	---	---	76	7	---	3	---	2	2
0010	274+53	-	283+94	LT	813	---	---	813	---	0.5	22	---	11	19
0010	334+92	-	335+14	RT	31	---	---	31	---	0.1	---	1	1	1
0010	334+92	-	335+59	LT	84	---	---	84	---	0.1	---	2	2	2
0010	335+40	-	336+19	RT	80	---	---	80	---	0.1	---	2	2	2
0010	335+87	-	336+02	LT	8	---	---	8	---	0.1	---	1	1	1
0010	341+78	-	341+88	LT	11	---	---	11	---	0.1	---	1	1	1
0010	341+71	-	342+29	RT	43	---	---	43	---	0.1	---	1	1	1
0010	342+20	-	342+64	LT	45	---	---	45	---	0.1	---	1	1	1
0010	342+95	-	343+32	RT	20	---	---	20	---	---	---	1	1	1
0010	345+12	-	345+66	LT	31	---	---	31	---	0.1	---	1	1	1
0010	345+12	-	345+67	RT	29	---	---	29	---	0.1	---	1	1	1
0010	345+98	-	346+51	LT	42	---	---	42	---	0.1	---	1	1	1
0010	346+43	-	346+51	RT	4	---	---	4	---	0.1	---	1	1	1
0010	---	-	---	UNDISTRIBUTED	271	271	15	257	---	0.3	7	2	5	7
TOTAL 0010					2,973	271	156	2,818	10	3.0	70	18	55	76

MOBILIZATIONS EROSION CONTROL

		628.1905	628.1910
		MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL
CATEGORY	LOCATION	EACH	EACH
0010	PROJECT	3	2
TOTAL 0010		3	2

INLET PROTECTION

			628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH
CATEGORY	STATION	LOCATION		
0010	341+72	RT	---	1
0010	342+20	RT	1	---
TOTAL 0010			1	1

SILT FENCE

					628.1504	628.1520
					SILT FENCE	SILT FENCE MAINTENANCE
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF
0010	118+97	-	130+30	LT	1,142	1,142
0010	158+78	-	159+46	LT	105	105
0010	158+72	-	159+47	RT	90	90
0010	232+47	-	233+29	LT	95	95
0010	232+49	-	233+32	RT	90	90
0010	276+96	-	282+14	LT	520	520
0010	342+95	-	343+04	RT	10	10
0010	343+14	-	343+32	RT	20	20
0010		-		UNDISTRIBUTED	208	208
TOTAL 0010					2,280	2,280

MOVING SIGNS

		634.0614	634.0616	638.2102	638.3000		
		POSTS WOOD	POSTS WOOD		REMOVING		
		4X6-INCH X 14-	4X6-INCH X 16-	MOVING SIGNS	SMALL SIGN		
		FT	FT	TYPE II	SUPPORTS		
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	REMARKS	
0010	100+62	RT	1	---	1	1	STOP SIGN
0010	108+14	RT	1	---	1	1	STOP SIGN
0010	113+46	LT	---	1	1	1	JCT A SIGN
0010	115+15	LT	---	2	1	2	BLOOMINGTON POPULATION SIGN
0010	129+84	LT	---	1	1	1	SPEED LIMIT 45 MPH SIGN
0010	335+46	LT	1	---	1	1	STOP SIGN
0010	335+48	RT	1	---	1	1	STOP SIGN
0010	340+23	RT	1	---	1	1	STOP SIGN
0010	341+83	LT	1	---	1	1	STOP SIGN
TOTAL 0010			6	4	9	10	

3

3

TRAFFIC CONTROL ITEMS:

			* 643.0300		* 643.0900		643.1050		
			TRAFFIC CONTROL DRUMS EACH	TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL SIGNS EACH	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL SIGNS PCMS EACH	TRAFFIC CONTROL SIGNS PCMS DAY	
CATEGORY	LOCATION	DAYS							REMARKS
0010	99+90	7	---	---	---	---	1	7	BEGINNING OF PROJECT
0010	385+00	7	---	---	---	---	1	7	END OF PROJECT
0010	CANAL STREET, STH 35	89	---	---	3	267	---	---	W20-1A, W20-1D, G20-2A
0010	GREAT RIVER ROAD, STH 133	89	----	----	4	356	---	---	W20-1A, W20-1C, W20-1D, G20-2A
0010	USH 18 EB	89	---	---	5	445	---	---	W20-1A, W20-1C, W20-1D, G20-1, G20-2A
0010	USH 18 WB	89	----	----	4	356	---	---	W20-1A, W20-1C, W20-1D, G20-2A
0010	SIDERoads	89	---	---	13	1157	---	---	W20-1A
0010	GUARDRAIL REPLACEMENT STA 113+02 - 129+00	5	63	315	---	---	---	---	FLAGGING
0010	GUARDRAIL REPLACEMENT STA 275+72 - 282+79	5	45	225	---	---	---	---	FLAGGING
0010	CULVERT REPLACEMENT STA 159+12	2	12	24	---	---	---	---	LANE SHIFT FLAGGING
0010	CULVERT REPLACEMENT STA 232+91	2	12	24	---	---	---	---	LANE SHIFT FLAGGING
0010	UNDISTRIBUTED	---	---	29	---	129	---	---	
TOTAL 0010			617		2,710		14		

NOTES

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

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

SDD TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION

SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

*ADDITIONAL QUANTITIES LISTED WITH PEDESTRIAN ACCESS ITEM:

PEDESTRIAN ACCESS ITEM:

				* 643.0300		* 643.0900		643.1070		643.3350	644.1410	644.1430	644.1440	644.1601		644.1605	644.1810
				TRAFFIC CONTROL DRUMS EACH	TRAFFIC CONTROL DRUMS DAY	TRAFFIC CONTROL SIGNS EACH	TRAFFIC CONTROL SIGNS DAY	TRAFFIC CONTROL CONES 42-INCH EACH	TRAFFIC CONTROL CONES 42-INCH DAY	TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH LF	TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	TEMPORARY PEDESTRIAN SURFACE PLATE SF	TEMPORARY PEDESTRIAN SURFACE MATTING SF	TEMPORARY PEDESTRIAN CURB RAMP EACH	TEMPORARY PEDESTRIAN CURB RAMP DAY	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	TEMPORARY PEDESTRIAN BARRICADE LF
CATEGORY	LOCATION	STAGE	DAYS														
0010	4TH ST	1	16	20	320	2	32	---	---	125	417	40	---	2	32	16	240
0010	COURT ST	1	16	14	224	1	16	---	---	---	262	---	---	---	---	10	18
0010	LANCASTER ST WEST	1	16	6	96	1	16	---	---	---	294	---	---	1	16	10	74
0010	LANCASTER ST EAST	1	16	20	320	1	16	15	240	126	320	37	---	3	48	26	135
0010	CROSS ST	1	16	21	336	2	32	---	---	136	7	20	---	2	32	16	94
0010	COLLEGE ST	1	16	17	272	2	32	---	---	64	---	---	---	2	32	20	57
0010	NORTH ST (SOUTH)	1	16	12	192	2	32	---	---	72	57	---	---	2	32	20	43
0010	NORTH ST (NORTH)	1	16	12	192	1	16	---	---	72	73	---	---	2	32	20	46
0010	LANCASTER ST (SOUTH)	2	16	12	192	1	16	---	---	112	193	18	---	1	16	8	49
0010	LANCASTER ST (NORTH)	2	16	15	240	2	32	---	---	76	324	---	---	2	32	20	67
0010	CROSS ST	2	16	8	128	2	32	---	---	74	---	---	---	1	---	10	123
0010	COLLEGE ST (SOUTH)	2	16	15	240	1	16	---	---	64	---	---	---	2	32	---	38
0010	COLLEGE ST (NORTH)	2	16	17	272	2	32	---	---	64	186	---	---	2	32	20	75
0010	NORTH ST (SOUTH)	2	16	14	224	2	32	---	---	72	57	---	---	2	32	---	54
0010	NORTH ST (NORTH)	2	16	12	192	2	32	---	---	68	73	---	---	2	32	---	24
0010	UNDISTRIBUTED	---	16	10	160	2	32	---	---	57	114	20	1189	---	---	---	---
TOTAL 0010				3,600		416		240		1,182	2,377	135	1,189	400		196	1,137

NOTE:

SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

*ADDITIONAL QUANTITIES LISTED WITH TRAFFIC CONTROL ITEMS

PAVEMENT MARKINGS									
CATEGORY	STATION	TO	STATION	LOCATION	643.3165	646.2040	646.6466	646.8120	REMARKS
					TEMPORARY	MARKING LINE	COLD WEATHER	MARKING CURB	
					MARKING LINE PAINT 6-INCH LF	GROOVED WET REF EPOXY 6- INCH LF	MARKING EPOXY 6-INCH LF	EPOXY LF	
0010	100+39	-	120+28	CENTERLINE	---	3,978	3,978	---	YELLOW, SOLID *****
0010	120+28	-	130+06	CENTERLINE	---	1,223	1,223	---	YELLOW, SOLID & SKIPS*****
0010	130+06	-	169+37	CENTERLINE	---	983	983	---	YELLOW, SKIPS****
0010	169+37	-	175+96	CENTERLINE	---	824	824	---	YELLOW, SOLID & SKIPS****
0010	175+96	-	179+97	CENTERLINE	---	100	100	---	YELLOW, SKIPS****
0010	179+97	-	186+07	CENTERLINE	---	763	763	---	YELLOW, SOLID & SKIPS****
0010	186+07	-	190+84	CENTERLINE	---	119	119	---	YELLOW, SKIPS****
0010	190+84	-	201+25	CENTERLINE	---	1,301	1,301	---	YELLOW, SOLID & SKIPS****
0010	201+25	-	202+09	CENTERLINE	---	21	21	---	YELLOW, SKIPS****
0010	202+09	-	211+75	CENTERLINE	---	1,208	1,208	---	YELLOW, SOLID & SKIPS****
0010	211+75	-	214+55	CENTERLINE	---	70	70	---	YELLOW, SKIPS****
0010	214+55	-	227+88	CENTERLINE	---	1,666	1,666	---	YELLOW, SOLID & SKIPS****
0010	227+88	-	240+75	CENTERLINE	---	2,574	2,574	---	YELLOW, SOLID & SKIPS****
0010	240+75	-	251+10	CENTERLINE	---	1,294	1,294	---	YELLOW, SOLID & SKIPS****
0010	251+10	-	297+10	CENTERLINE	---	1,150	1,150	---	YELLOW, SKIPS****
0010	297+10	-	307+50	CENTERLINE	---	1,300	1,300	---	YELLOW, SOLID & SKIPS****
0010	307+50	-	332+54	CENTERLINE	---	5,008	5,008	---	YELLOW, SOLID & SKIPS****
0010	332+54	-	353+50	CENTERLINE	---	4,192	4,192	---	YELLOW, SOLID & SKIPS****
0010	353+50	-	358+81	CENTERLINE	---	664	664	---	YELLOW, SOLID & SKIPS****
0010	358+81	-	381+58	CENTERLINE	---	569	569	---	YELLOW, SKIPS*****
0010	381+58	-	384+65	CENTERLINE	---	384	384	---	YELLOW, SOLID & SKIPS*****
0010	100+39	-	128+28	CENTERLINE	4,842	---	---	---	YELLOW, SOLID & SKIPS**
0010	128+28	-	333+18	CENTERLINE	15,903	---	---	---	YELLOW, SOLID & SKIPS**
0010	333+18	-	361+61	CENTERLINE	4,660	---	---	---	YELLOW, SOLID & SKIPS**
0010	361+61	-	384+65	CENTERLINE	491	---	---	---	YELLOW, SOLID & SKIPS**
0010	128+28	-	333+18	CENTERLINE	15,903	---	---	---	YELLOW, 4' SKIPS ON MILLED SURFACE*
0010	361+61	-	384+65	CENTERLINE	491	---	---	---	YELLOW, 4' SKIPS ON MILLED SURFACE*
0010	130+05	-	332+54	CENTERLINE	15,598	---	---	---	YELLOW, SOLID & SKIPS***
0010	100+39	-	162+58	EDGELINES LT	---	6,225	6,225	---	WHITE
0010	128+28	-	161+65	EDGELINES RT	---	3,336	3,336	---	WHITE
0010	162+68	-	201+38	EDGELINES RT	---	3,881	3,881	---	WHITE
0010	162+99	-	220+01	EDGELINES LT	---	5,691	5,691	---	WHITE
0010	220+01	-	220+61	EDGELINE LT SKIPS	---	15	15	---	WHITE
0010	202+55	-	333+99	EDGELINES RT	---	13,129	13,129	---	WHITE
0010	221+99	-	222+50	EDGELINE LT SKIPS	---	13	13	---	WHITE
0010	222+50	-	262+86	EDGELINES LT	---	4,050	4,050	---	WHITE
0010	262+86	-	263+40	EDGELINE LT SKIPS	---	14	14	---	WHITE
0010	264+75	-	265+45	EDGELINE LT SKIPS	---	18	18	---	WHITE
0010	265+45	-	335+29	EDGELINES LT	---	6,984	6,984	---	WHITE
0010	333+99	-	334+86	EDGELINE RT SKIPS	---	27	27	---	WHITE
0010	335+72	-	339+77	EDGELINES RT	---	406	406	---	WHITE
0010	336+14	-	341+70	EDGELINES LT	---	556	556	---	WHITE
0010	340+30	-	384+65	EDGELINES RT	---	4,433	4,433	---	WHITE
0010	342+47	-	345+46	EDGELINES LT	---	299	299	---	WHITE
0010	346+14	-	384+65	EDGELINES LT	---	3,851	3,851	---	WHITE
0010	340+47	-	341+95	CURB	---	---	---	150	YELLOW, RT
TOTAL 0010					57,888	82,318	82,318	150	

NOTES:
* TO BE PLACED ON CL FOLLOWING MILLED LAYER OF PAVEMENT
** TO BE PLACED ON CL FOLLOWING LOWER LAYER OF PAVEMENT
*** TO BE PLACED ON CL FOLLOWING UPPER LAYER OF PAVEMENT PRIOR TO RUMBLE STRIPS
**** TO BE PLACED FOLLOWING CENTERLINE RUMBLE STRIP MILLING
***** TO BE PLACED ON UPPER LAYER, NO RUMBLE STRIPS INSTALLED

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.8000	650.9920	REMARKS
					CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING SLOPE STAKES LF	
0010	100+39	-	384+65	ROADWAY	---	---	28,426	---	
0010	111+84	-	130+19	LT	---	---	---	1,835	GUARDRAIL
0010	158+80	-	159+45	ROADWAY	65	65	---	65	CULVERT REPLACEMENT
0010	232+58	-	233+25	ROADWAY	67	67	---	67	CULVERT REPLACEMENT
0010	274+53	-	283+94	LT	---	---	---	941	GURADRAIL
0010	342+94	-	343+20	RT	---	---	---	26	CONCRETE MASONRY ENDWALL
TOTAL 0010					132	132	28,426	2,934	

EXISTING MONUMENTS

CATEGORY	POINT NUMBER	LOCATION	SPV.0060.05	SPV.0060.06
			SPECIAL (05. RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS) EACH	SPECIAL (06. VERIFY AND REPLACE EXISTING LAND PARCEL MONUMENTS) EACH
0010	20	LT	1	1
0010	21	LT	1	1
0010	22	LT	1	1
0010	23	LT	1	1
0010	24	LT	1	1
0010	25	LT	1	1
0010	26	LT	1	1
0010	50	RT	1	1
0010	51	RT	1	1
0010	52	RT	1	1
0010	56	RT	1	1
0010	26	LT	1	1
0010	27	LT	1	1
0010	28	LT	1	1
0010	29	LT	1	1
0010	30	LT	1	1
0010	31	LT	1	1
0010	32	LT	1	1
0010	33	LT	1	1
0010	57	RT	1	1
0010	58	RT	1	1
0010	59	RT	1	1
0010	60	RT	1	1
0010	61	RT	1	1
0010	62	RT	1	1
0010	63	RT	1	1
TOTAL 0010			26	26

REMOVING DISTRESSED PAVEMENT MILLING

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.01
					SPECIAL (01. REMOVING DISTRESSED PAVEMENT MILLING) SY
0010	100+39	-	128+28	TRAVEL LANE	1,048
0010	128+28	-	333+18	TRAVEL LANE	3,431
0010	333+18	-	361+61	TRAVEL LANE	1,103
0010	361+61	-	384+65	TRAVEL LANE	368
TOTAL 0010					5,950

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150	690.0250	REMARKS
					SAWING ASPHALT LF	SAWING CONCRETE LF	
0010	99+90	-	100+16	RT	37	---	BEHIND CURB AND GUTTER
0010	99+94	-	100+22	RT	47	5	C&G
0010	100+39	-	100+47	STH 35	72	---	ROADWAY
0010	100+47	-	100+75	RT	62	3	4' OFFSET
0010	100+92	-	---	RT	6	3	SIDEWALK & CURB
0010	101+37	-	105+27	LT	390	---	DRIVEWAY
0010	105+61	-	105+82	LT	21	---	DRIVEWAY
0010	107+42	-	107+77	RT	56	3	SIDEWALK & CURB
0010	107+75	-	108+10	RT	33	3	COURT ST. & CURB
0010	108+05	-	108+35	RT	44	3	CURB
0010	112+40	-	112+64	LT	24	---	DRIVEWAY
0010	120+70	-	121+43	RT	71	---	WARCO ST
0010	158+80	-	---	STH 35	30	---	CULVERT REPLACEMENT
0010	159+45	-	---	STH 35	30	---	CULVERT REPLACEMENT
0010	162+02	-	162+38	RT	36	---	MULBERRY LN
0010	162+69	-	162+91	LT	21	---	HICKORY RD
0010	201+95	-	202+18	RT	23	---	BRUER RD
0010	221+02	-	221+52	LT	49	---	KANSAS RD
0010	232+58	-	---	STH 35	30	---	CULVERT REPLACEMENT
0010	233+25	-	---	STH 35	30	---	CULVERT REPLACEMENT
0010	263+82	-	264+21	LT	38	---	HYING RD
0010	335+16	-	335+40	RT	24	---	E LANCASTER ST
0010	335+40	-	335+62	RT	41	9	SIDEWALK & CURB
0010	335+63	-	335+83	LT	20	---	LANCASTER ST
0010	335+29	-	335+63	LT	57	9	SIDEWALK & CURB
0010	335+83	-	336+19	LT	61	32	SIDEWALK & CURB
0010	339+92	-	340+18	RT	26	---	CROSS ST
0010	340+18	-	340+48	RT	44	15	SIDEWALK & CURB
0010	340+17	-	340+38	LT	25	36	SIDEWALK & CURB
0010	341+72	-	341+92	LT	39	11	SIDEWALK & CURB
0010	341+90	-	342+18	LT	29	---	COLLEGE ST
0010	342+16	-	342+54	LT	51	16	SIDEWALK & CURB
0010	341+71	-	343+37	RT	170	23	SIDEWALK, DWY, & CURB
0010	345+40	-	345+70	LT	50	9	SIDEWALK & CURB
0010	345+68	-	345+92	LT	24	---	NORTH ST
0010	345+90	-	346+41	LT	55	9	SIDEWALK & CURB
0010	345+20	-	345+67	RT	38	11	SIDEWALK & CURB
0010	353+86	-	354+12	RT	26	---	DRIVEWAY
0010	355+73	-	356+00	RT	---	27	DRIVEWAY
0010	364+14	-	364+32	LT	18	---	DRIVEWAY
0010	365+51	-	365+74	LT	23	---	DRIVEWAY
0010	367+74	-	367+96	LT	43	---	DRIVEWAY
0010	370+09	-	370+51	LT	42	---	DRIVEWAY
0010	384+65	-	---	STH 35	31	---	ROADWAY
TOTAL 0010					2,087	227	

TRANSPORTATION PROJECT PLAT NO: 5580-04-20 - 4.01 AMENDMENT NO: 1 - ADDS PARCELS 3, 4, & 6, AND REVISES THE EXISTING RIGHT OF WAY OF TRANSPORTATION PROJECT PLAT NO: 5580-04-20 - 4.01 RECORDED AS DOCUMENT NUMBER 829438

PART OF LOT 14 OF BLOCK 1 OF THE ORIGINAL PLAT OF THE VILLAGE OF PATCH GROVE, IN THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4, PART OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4, ALSO PART OF LOT 2 CSM 1813, IN THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, AND PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, ALL IN SECTION 4, TOWNSHIP 5 NORTH, RANGE 5 WEST, VILLAGE OF PATCH GROVE, GRANT COUNTY, WISCONSIN.
RELOCATION ORDER STH 35 BLOOMINGTON - PRAIRIE DU CHIEN, (W JUNCTION STH 133 TO USH 18) GRANT COUNTY
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 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 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES

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

FOR THE CURRENT ACCESS DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

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

EXISTING HIGHWAY RIGHT OF WAY OF STH 35 AND EXISTING RIGHT OF WAY OF ALL SIDE ROADS ARE BASED ON CSM 1444 (DOC 711575), CSM 1813 (DOC 774286), ORIGINAL PLAT OF THE VILLAGE OF PATCH GROVE, PLATS OF SURVEY, OCCUPATION LINES, AND FOUND MONUMENTS LOCATED IN THE FIELD.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS, IN GRANT COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 829438.

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 DEPARTMENT.

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W ACRES OR SF REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
1	DENNIS PLAMERE	TLE	...	...	...	14 SF
2	BRUCE J & JUDY A CLIFF	FEE & TLE	35 SF	542 SF	577 SF	68 SF
3	DAN & JAYNE DRESSLER	TLE	...	...	...	403 SF
4	LEO F & SARA A BREUER	TLE	...	...	...	451 SF
6	YODD FISCHER & JULIE FISCHER	TLE	...	...	...	8 SF
7	ROCHARD A MULPOONEY	FEE	...	818 SF	818 SF	...

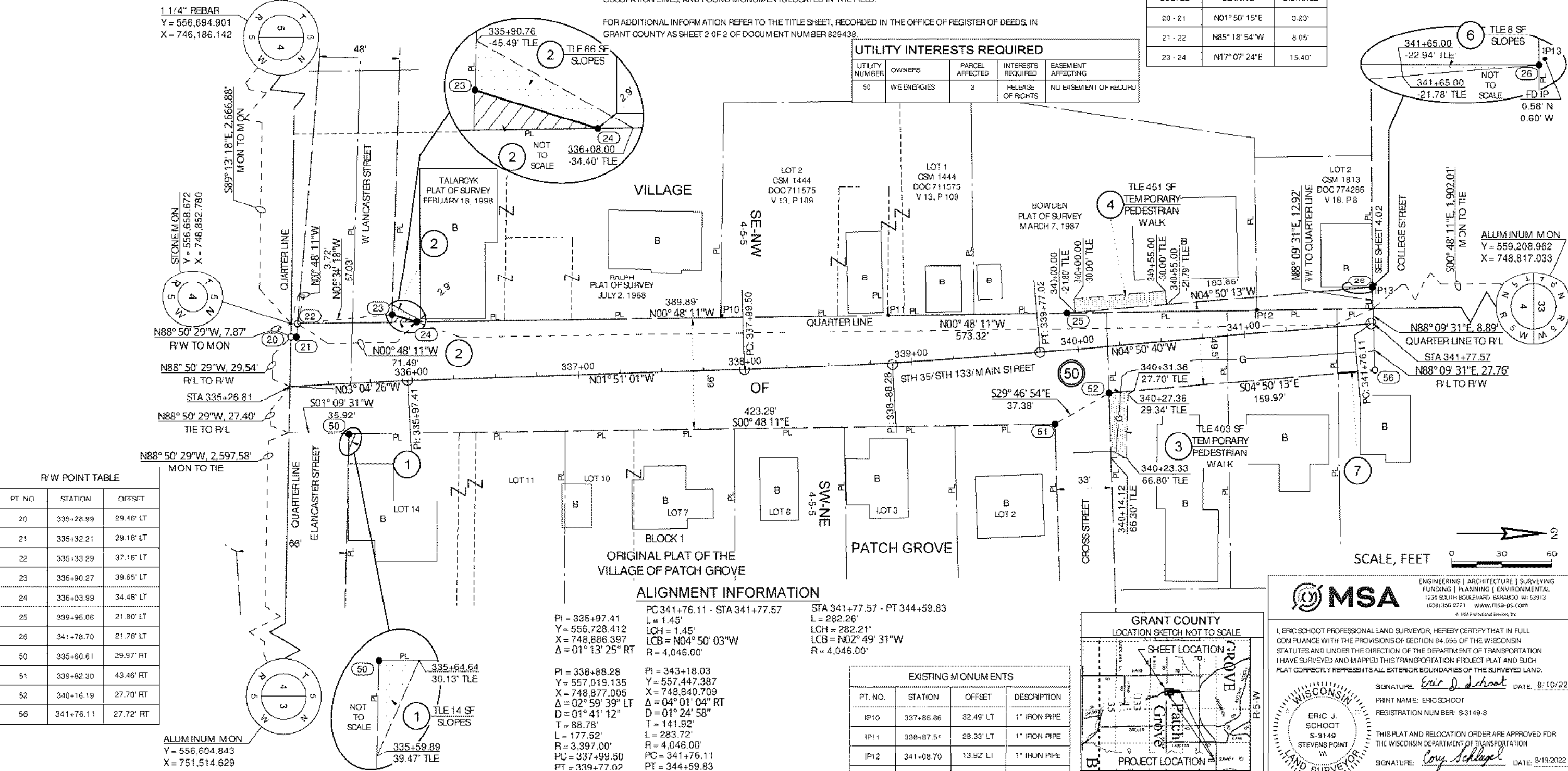
ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
20 - 21	N01° 50' 15" E	3.23'
21 - 22	N85° 18' 54" W	8.05'
23 - 24	N17° 07' 24" E	15.40'

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNERS	PARCEL AFFECTED	INTERESTS REQUIRED	EASEMENT AFFECTING
50	WE ENERGIES	3	RELEASE OF RIGHTS	NO EASEMENT OF RECORD

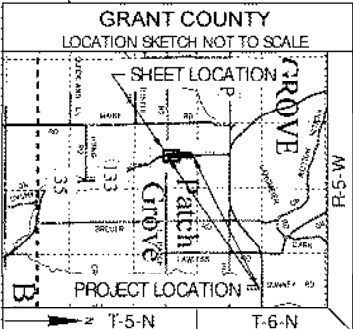


R/W POINT TABLE		
PT. NO.	STATION	OFFSET
20	335+28.99	29.46' LT
21	335+32.21	29.16' LT
22	335+33.29	37.15' LT
23	335+90.27	39.65' LT
24	336+03.99	34.48' LT
25	339+95.06	21.80' LT
26	341+78.70	21.78' LT
50	335+60.61	29.97' RT
51	339+82.30	43.46' RT
52	340+16.19	27.70' RT
56	341+78.11	27.72' RT

ALIGNMENT INFORMATION

PI = 335+97.41 Y = 556,728.412 X = 748,886.397 Δ = 01° 13' 25" RT	PC 341+76.11 - STA 341+77.57 L = 1.45' LCH = 1.45' LCB = N04° 50' 03" W R = 4,046.00'	STA 341+77.57 - PT 344+59.83 L = 282.26' LCH = 282.21' LCB = N02° 49' 31" W R = 4,046.00'
PI = 338+88.28 Y = 557,019.135 X = 748,877.005 Δ = 02° 59' 39" LT D = 01° 41' 12" T = 88.78' L = 177.62' R = 3,397.00' PC = 337+99.50 PT = 339+77.02	PI = 343+18.03 Y = 557,447.387 X = 748,840.709 Δ = 04° 01' 04" RT D = 01° 24' 58" T = 141.92' L = 283.72' R = 4,046.00' PC = 341+76.11 PT = 344+59.83 DA = N00° 49' 36" W	

EXISTING MONUMENTS			
PT. NO.	STATION	OFFSET	DESCRIPTION
IP10	337+86.86	32.49' LT	1" IRON PIPE
IP11	338+87.51	28.33' LT	1" IRON PIPE
IP12	341+08.70	13.92' LT	1" IRON PIPE
IP13	341+79.32	22.33' LT	3/4" REBAR



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I, ERIC SCHOOT 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 DEPARTMENT OF TRANSPORTATION I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.
SIGNATURE: *Eric J. Schoot* DATE: 8/10/22
PRINT NAME: ERIC SCHOOT
REGISTRATION NUMBER: S-3149-8
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: *Cory Schlager* DATE: 8/19/2022
PRINT NAME: CORY SCHLAGER

TRANSPORTATION PROJECT PLAT NO: 5580-04-20 - 4.01

PART OF LOT 14 OF BLOCK 1 OF THE ORIGINAL PLAT OF THE VILLAGE OF PATCH GROVE, IN THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4, AND PART OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4, ALL IN SECTION 4, TOWNSHIP 5 NORTH, RANGE 5 WEST, VILLAGE OF PATCH GROVE, GRANT COUNTY, WISCONSIN.

RELOCATION ORDER STH 35 BLOOMINGTON - PRAIRIE DU CHIEN. (W JUNCTION STH 133 TO USH 18) GRANT COUNTY TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE. THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 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 84.02 (3), 84.05, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. 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.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (W/SCRS). GRANT COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"x24" IRON REBAR) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
EXISTING HIGHWAY RIGHT OF WAY OF STH 35 AND EXISTING RIGHT OF WAY OF ALL SIDE ROADS ARE BASED ON PLAT OF RIGHT OF WAY REQUIRED STATE PROJECT NO. 9346, CSM 1444 (DOC 711575), CSM 1813 (DOC 774286), ORIGINAL PLAT OF THE VILLAGE OF PATCH GROVE, PLATS OF SURVEY, AND FOUND MONUMENTS LOCATED IN THE FIELD.
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.

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 DEPARTMENT.

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W ACRES OR SF REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
1	DENNIS PLAMERE	TLE	---	---	---	14 SF
2	BRUCE J & JUDY A CLIFF	FE & TLE	35 SF	642 SF	577 SF	88 SF

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

R/W COURSE TABLE

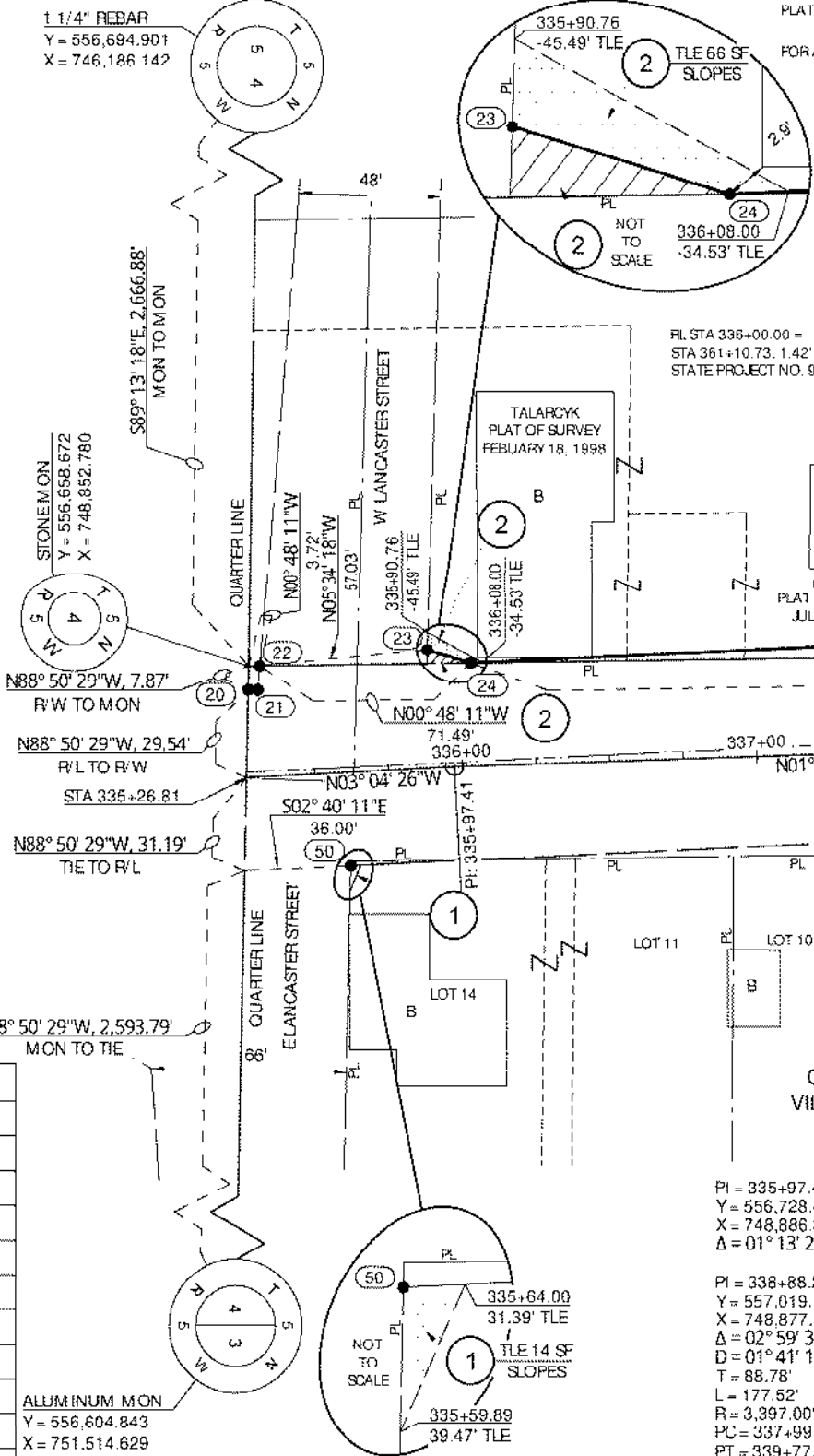
COURSE	BEARING	DISTANCE
20 - 21	N01° 50' 15" E	9.23'
21 - 22	N85° 18' 54" W	8.05'
23 - 24	N17° 07' 24" E	15.40'

829438
GRANT COUNTY, WI
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BOOK: PAGE:
PAGES RECORDED: 7

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PROJECT NUMBER 5580-04-20 - 4.01
SHEET 1 OF 2

R/W POINT TABLE		
PT. NO.	STATION	OFFSET
20	335+28.99	29.46' LT
21	335+32.21	29.10' LT
22	335+33.29	37.16' LT
23	335+90.27	39.65' LT
24	336+03.99	34.48' LT
25	341+79.14	27.52' LT
50	335+60.51	31.36' RT
51	339+82.96	31.08' RT
52	340+15.94	32.33' RT
53	341+79.14	38.53' RT

1 1/4" REBAR
Y = 556,694.901
X = 746,186.142



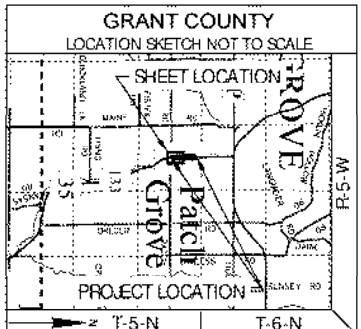
RL STA 336+00.00 =
STA 361+10.73, 1.42' RT
STATE PROJECT NO. 9346

RL STA 341+00.00 =
STA 366+10.66, 2.50' LT
STATE PROJECT NO. 9346

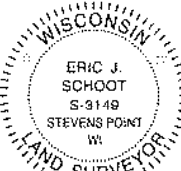
ALIGNMENT INFORMATION

PI = 335+97.41 Y = 556,728.412 X = 748,886.397 Δ = 01° 13' 25" RT	PC 341+76.11 - STA 341+79.14 L = 3.03' LCH = 3.03' LCB = N04° 49' 23" W R = 4,046.00'	STA 341+79.14 - PT 344+59.83 L = 280.69' LCH = 280.64' LCB = N02° 48' 51" W R = 4,046.00'
PI = 338+88.28 Y = 557,019.135 X = 748,877.005 Δ = 02° 59' 39" LT D = 01° 41' 12" T = 88.78' L = 177.62' R = 3,397.00' PC = 337+99.50 PT = 339+77.02	PI = 343+18.03 Y = 557,447.387 X = 748,840.709 Δ = 04° 01' 04" RT D = 01° 24' 58" T = 141.92' L = 283.72' R = 4,046.00' PC = 341+76.11 PT = 344+59.83 DA = N00° 49' 36" W	

EXISTING MONUMENTS			
PT. NO.	STATION	OFFSET	DESCRIPTION
IP10	337+86.86	32.49' LT	1" IRON PIPE
IP11	338+87.51	28.33' LT	1" IRON PIPE
IP12	341+08.70	13.92' LT	1" IRON PIPE
IP13	341+79.32	22.33' LT	3/4" REBAR



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I, ERIC SCHOOT 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 DEPARTMENT OF TRANSPORTATION I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Eric J. Schoot* DATE: 4/25/22
PRINT NAME: ERIC SCHOOT
REGISTRATION NUMBER: S-3149-8
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: *Cory Schlager* DATE: 4/25/22
PRINT NAME: CORY SCHLAGER
66

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5580-04-20
BLOOMINGTON - PRAIRIE DU CHIEN
W JUNCTION STH 133 TO USH 18

STH 35
GRANT COUNTY



CONVENTIONAL SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	POC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	(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	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	TLE
GRID NORTH	GN	EASEMENT	EASEMENT
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED	PLE		
EASEMENT			
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

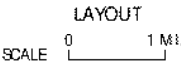
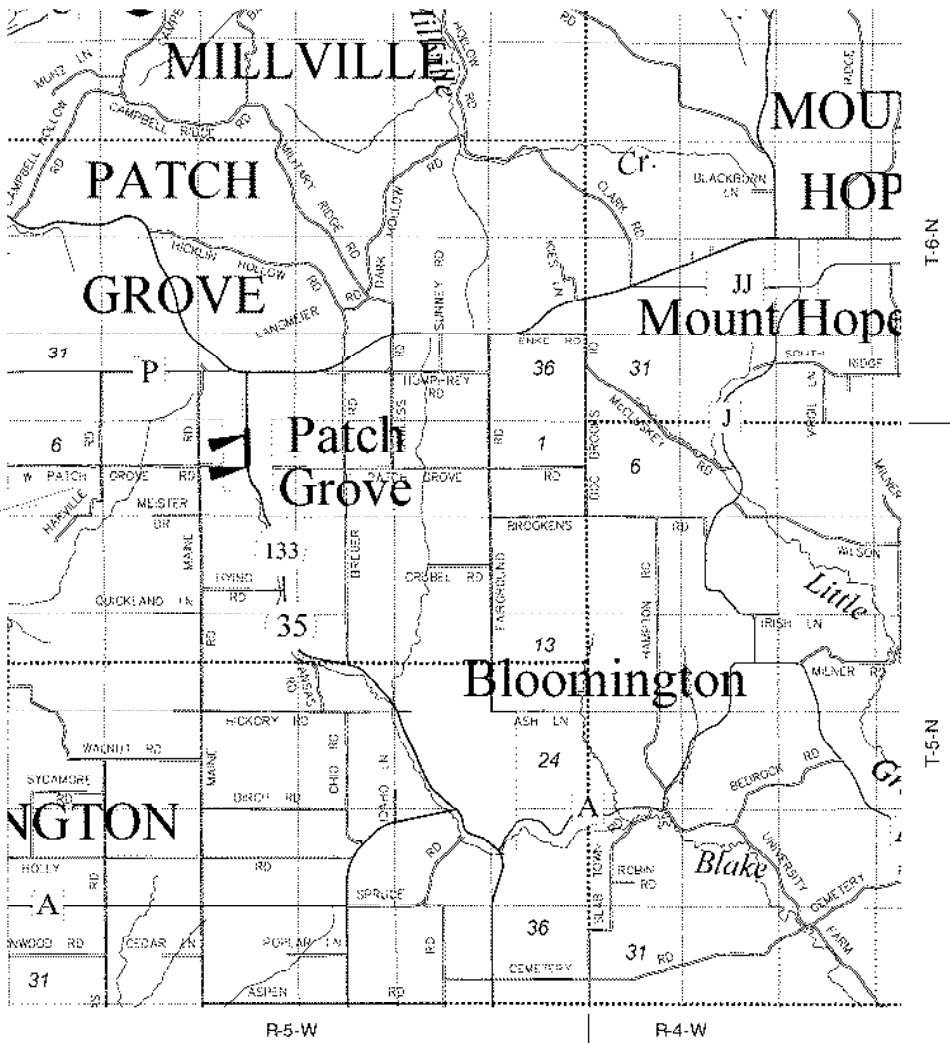
CURVE DATA ABBREVIATIONS

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	---

PROJECT LOCATION



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5580-04-20

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), GRANT 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.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

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 UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

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

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

PROJECT NUMBER 5580-04-20 - 4.01
SHEET 2 OF 2

TRANSPORTATION PROJECT PLAT NO: 5580-04-20 - 4.02

PART OF THE SOUTHEAST ¼ OF THE NORTHWEST ¼, AND PART OF THE SOUTHWEST ¼ OF THE NORTHEAST ¼, ALL IN SECTION 4, TOWNSHIP 5 NORTH, RANGE 5 WEST, VILLAGE OF PATCH GROVE, GRANT COUNTY, WISCONSIN.

RELOCATION ORDER STH 35 BLOOMINGTON - PRAIRIE DU CHIEN, (W JUNCTION STH 133 TO USH 18) GRANT COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION (DEEMED) 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 84.02 (3), 84.05, AND 84.36, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES

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

FOR THE CURRENT ACCESS DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

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.

EXISTING HIGHWAY RIGHT OF WAY OF STH 35 AND EXISTING RIGHT OF WAY OF ALL SIDE ROADS ARE BASED ON PLATS OF SURVEY, OCCUPATION LINES, AND FOUND MONUMENTS LOCATED IN THE FIELD.

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 DEPARTMENT.

PARCEL NUMBER	OWNER'S	INTERESTS REQUIRED	R/W ACRES OR SF REQUIRED			TLE SF
			NEW	EXISTING	TOTAL	
7	RICHARD A MULPOONEY	FEE & TLE	69 SF	1,541 SF	1,610 SF	77 SF
8	GRANT COUNTY	TLE	---	---	---	121 SF
9	ALAN NOISES	FEE & TLE	217 SF	2,635 SF	2,846 SF	7 SF
11	DIANNE VON BERGEN	FEE	189 SF	---	189 SF	---
12	MICHAEL R PETERSON & GARA L YENOR	FEE & TLE	36 SF	4,363 SF	4,399 SF	56 SF
13	VILLAGE OF PATCH GROVE	FEE & TLE	64 SF	---	64 SF	167 SF

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED

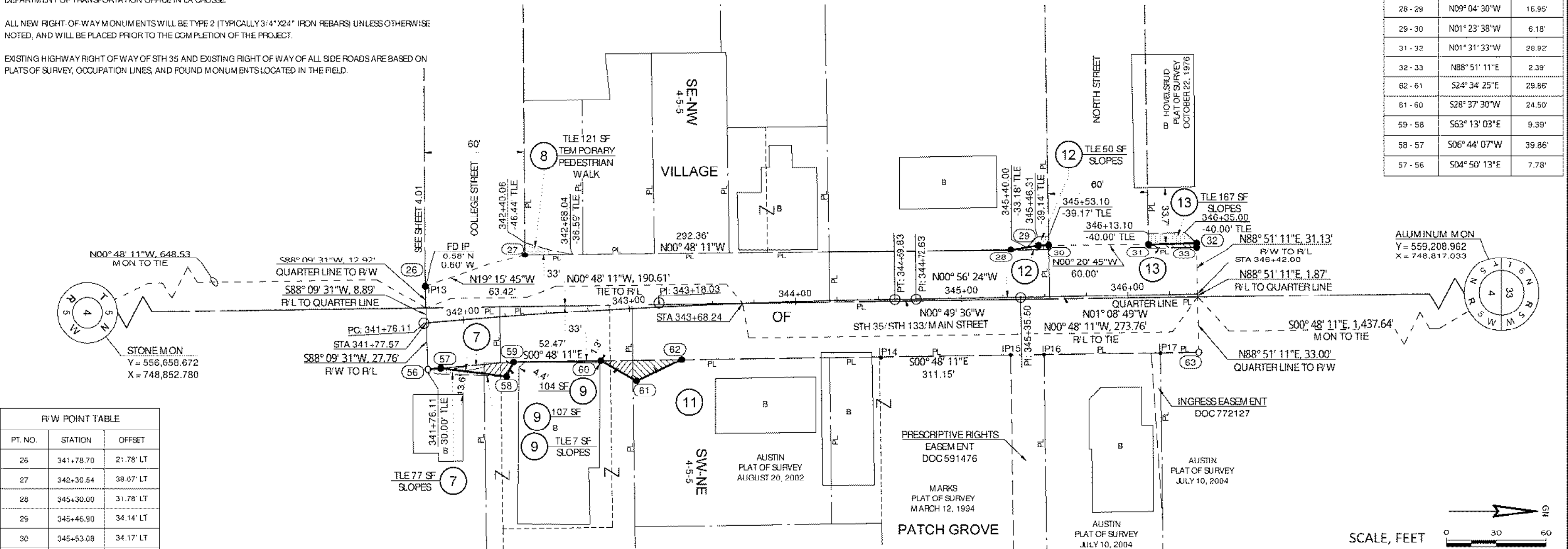
FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN GRANT COUNTY AS SHEET 2 OF 2 OF DOCUMENT #829438.

831863
GRANT COUNTY, WI
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ANDREA NOEHE, REGISTER
BOOK: C PAGE: 87C
PAGES RECORDED: 1

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5580-04-20 - 4.02

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
28 - 29	N09° 04' 30" W	16.95'
29 - 30	N01° 23' 38" W	6.18'
31 - 32	N01° 31' 33" W	28.92'
32 - 33	N88° 51' 11" E	2.39'
62 - 61	S24° 34' 25" E	29.86'
61 - 60	S28° 37' 30" W	24.50'
59 - 58	S63° 13' 03" E	9.39'
58 - 57	S06° 44' 07" W	39.86'
57 - 56	S04° 50' 13" E	7.78'



R/W POINT TABLE

PT. NO.	STATION	OFFSET
26	341+78.70	21.78' LT
27	342+35.54	38.07' LT
28	345+30.00	31.78' LT
29	345+46.90	34.14' LT
30	345+53.08	34.17' LT
31	346+13.08	33.33' LT
32	346+42.00	33.52' LT
33	346+42.00	31.13' LT
56	341+76.11	27.72' RT
57	341+83.95	27.72' RT
58	342+23.36	35.45' RT
59	342+28.22	27.40' RT
60	342+81.00	30.08' RT
61	343+02.00	43.00' RT
62	343+30.00	31.95' RT
63	346+42.00	34.87' RT

EXISTING MONUMENTS

PT. NO.	STATION	OFFSET	DESCRIPTION
IP13	341+79.32	22.33' LT	3/4" REBAR
IP14	344+50.75	34.48' RT	3/4" REBAR
IP15	346+28.89	34.11' RT	3/4" REBAR
IP16	345+48.90	34.31' RT	1" IRON PIPE
IP17	346+18.90	34.73' RT	1" IRON PIPE

ALIGNMENT INFORMATION

PC 341+76.11 - STA 341+77.57
L = 1.45'
LOH = 1.45'
LCB = N04° 50' 03" W
R = 4,046.00'

STA 341+77.57 - STA 343+68.24
L = 190.67'
LOH = 190.65'
LCB = N03° 28' 26" W
R = 4,046.00'

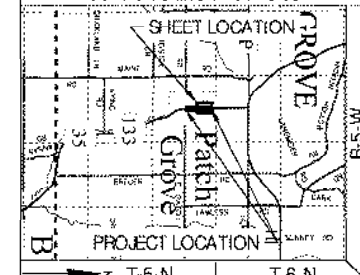
PI = 343+18.03
Y = 557,447.387
X = 748,840.709
Δ = 04° 01' 04" RT
D = 01° 24' 58"
T = 141.92'
L = 283.72'
R = 4,046.00'
PC = 341+76.11
PT = 344+59.83
DB = S04° 50' 40" E

STA 343+68.24 - PT 344+59.83
L = 91.60'
LOH = 91.58'
LCB = N01° 28' 31" W
R = 4,046.00'

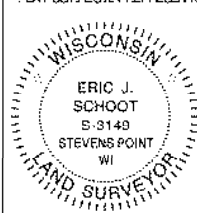
PI = 344+72.63
Y = 557,602.086
X = 748,838.476
Δ = 00° 06' 47" LT
PI = 345+35.50
Y = 557,664.949
X = 748,837.445
Δ = 00° 12' 26" LT

GRANT COUNTY

LOCATION SKETCH NOT TO SCALE



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1230 SOUTH BOULEVARD, SUITE 200, WISCONSIN
53091-3500
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A MSA Professional Services, Inc.



I, ERIC SCHOOT 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 DEPARTMENT OF TRANSPORTATION I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

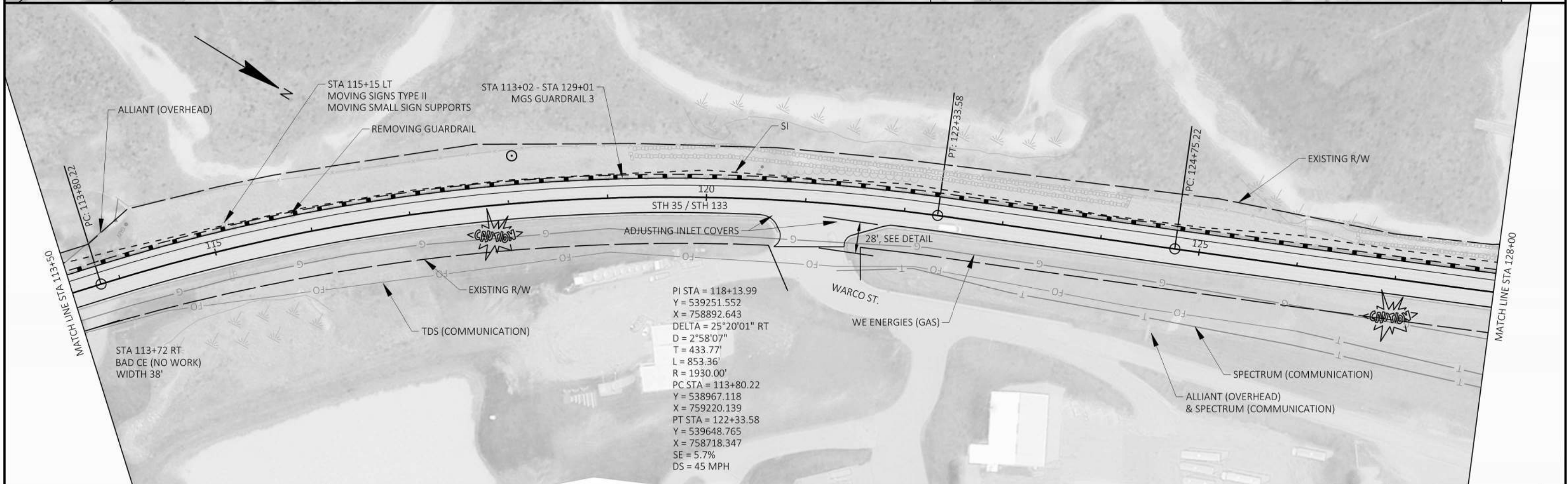
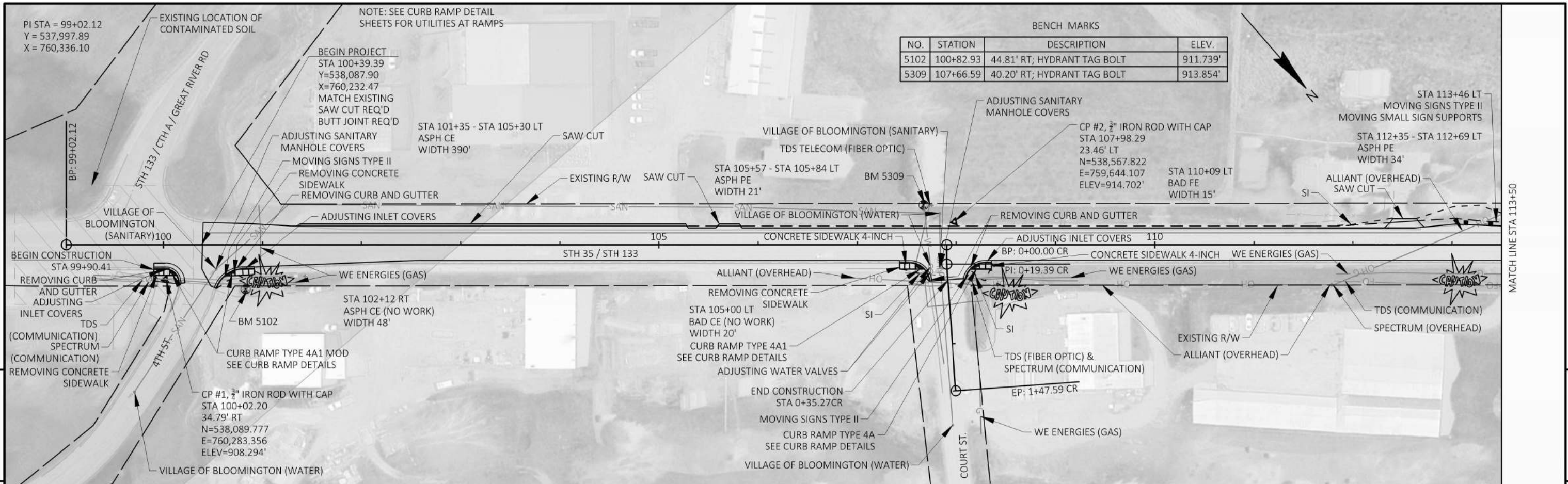
SIGNATURE: *Eric J. Schoot* DATE: 8/10/22

PRINT NAME: ERIC SCHOOT
REGISTRATION NUMBER: S-3149-8

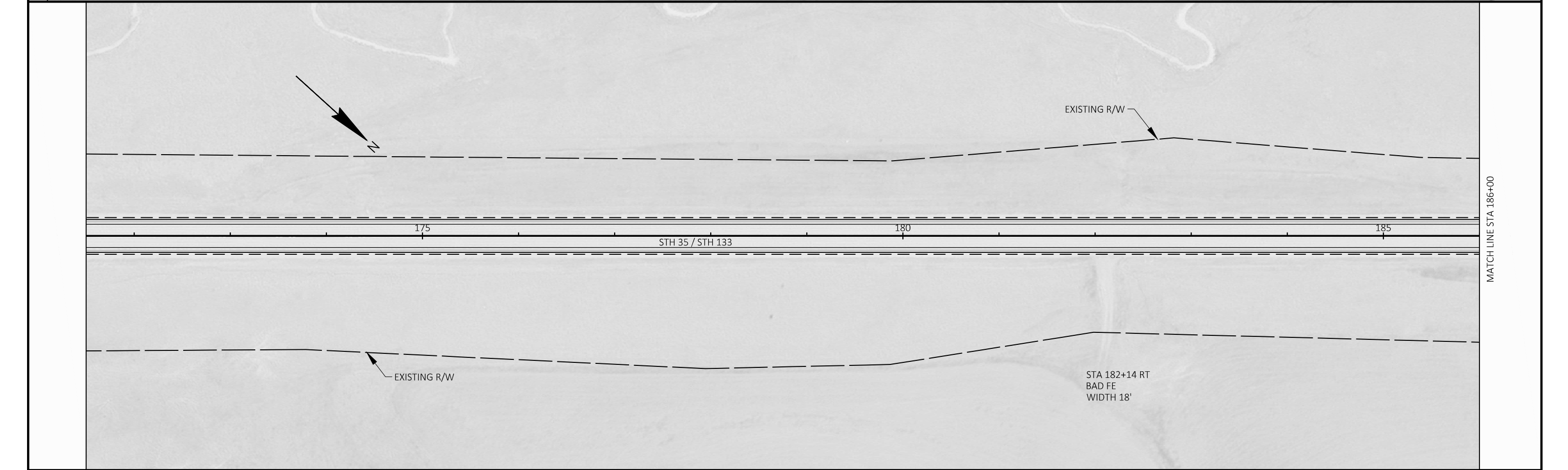
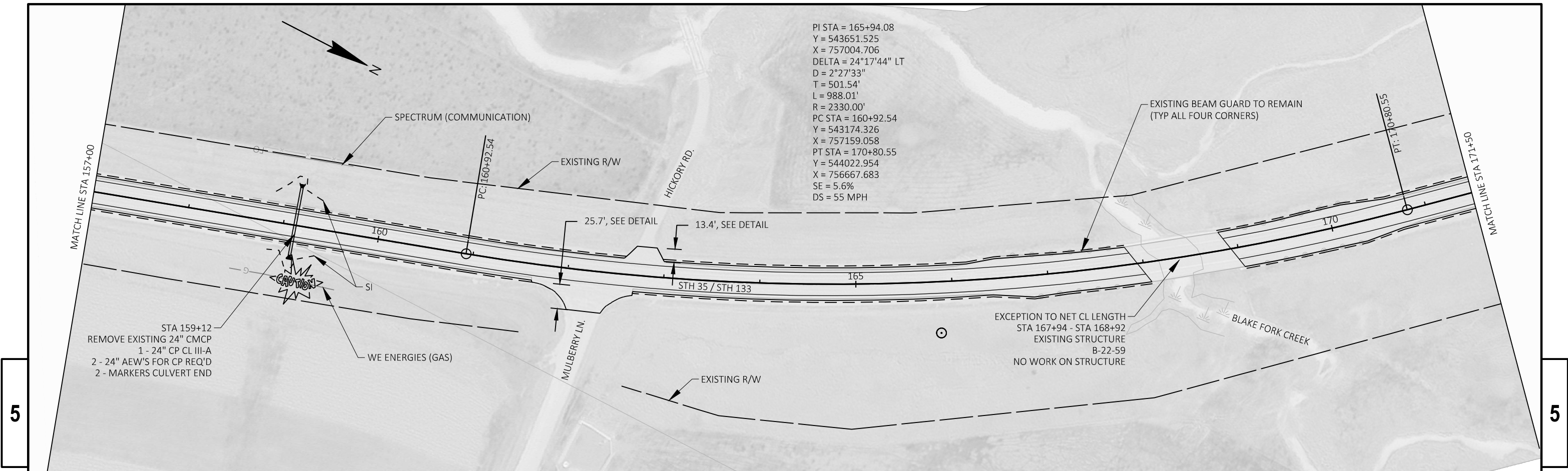
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

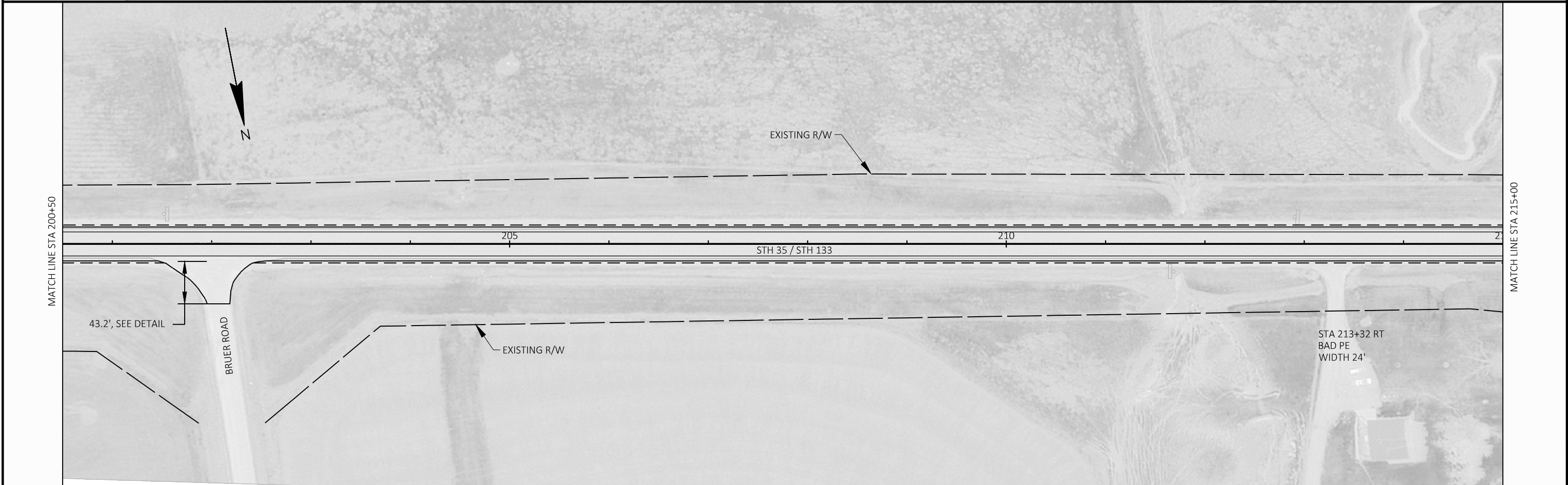
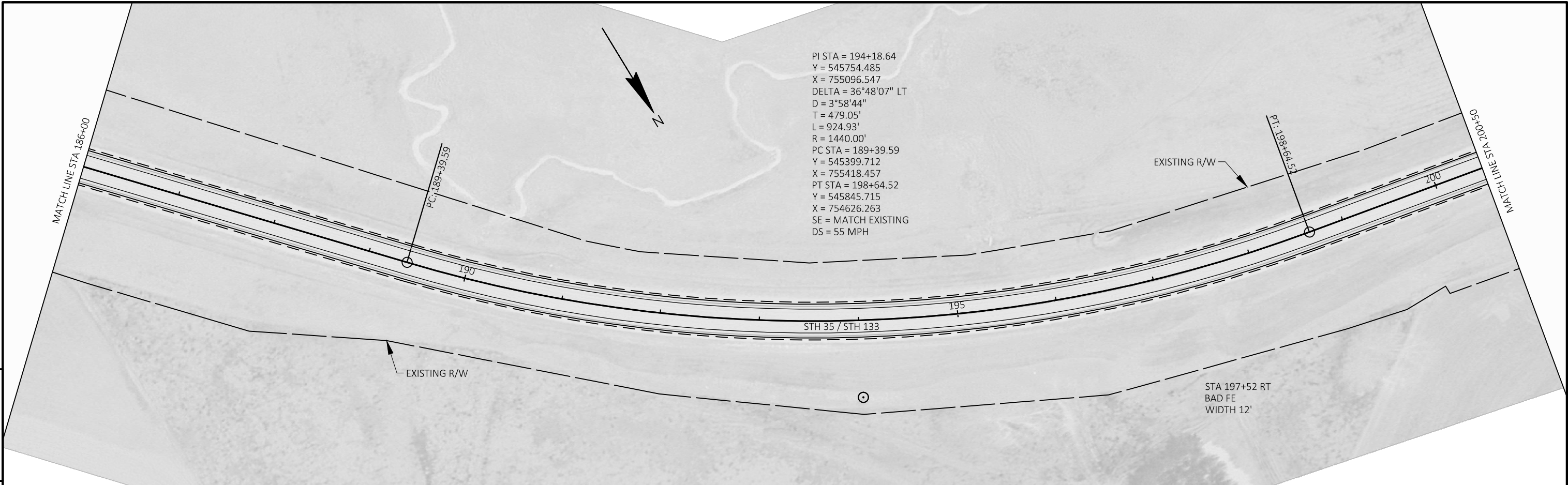
SIGNATURE: *Cory Schlager* DATE: 8/19/2022

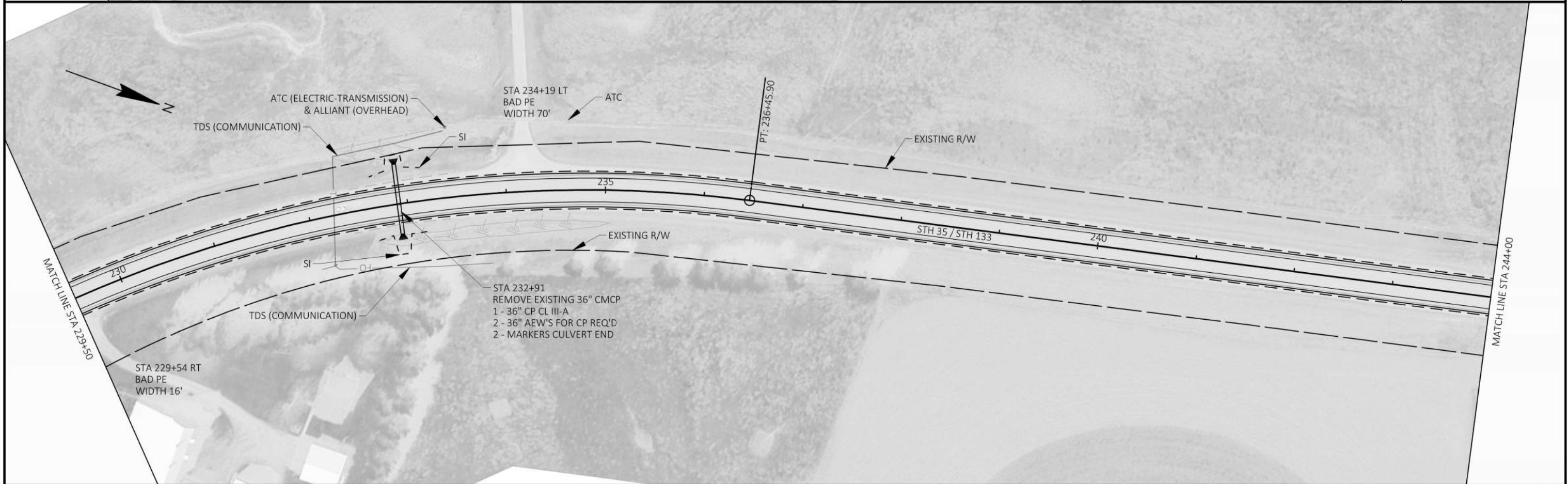
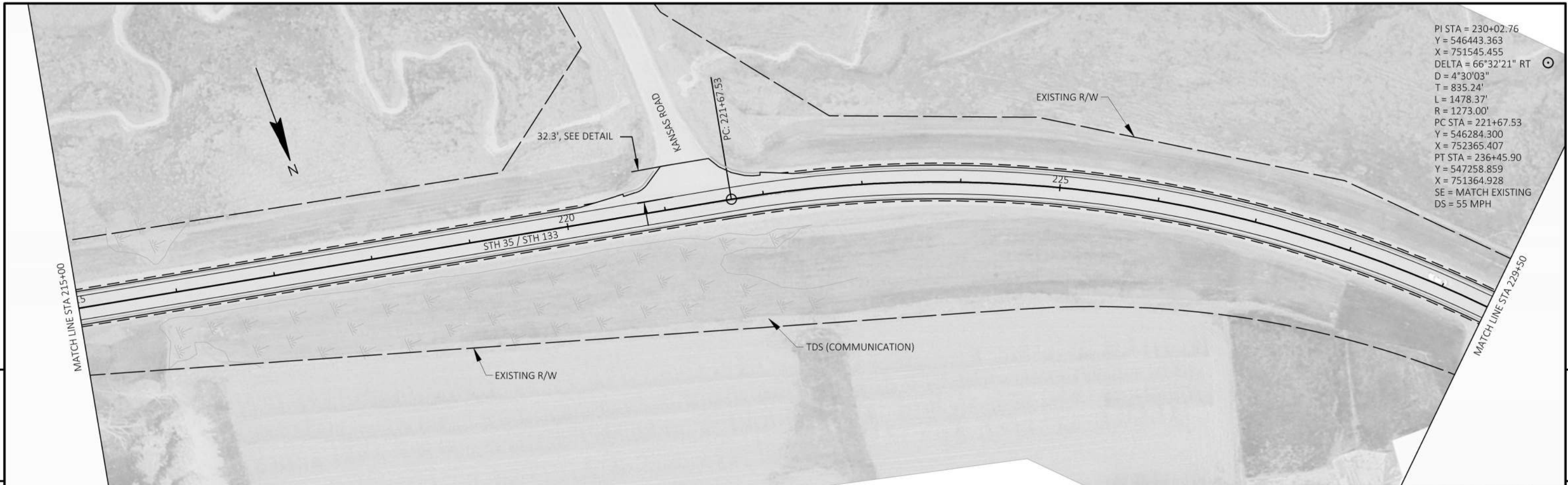
PRINT NAME: CORY SCHLAGER 68

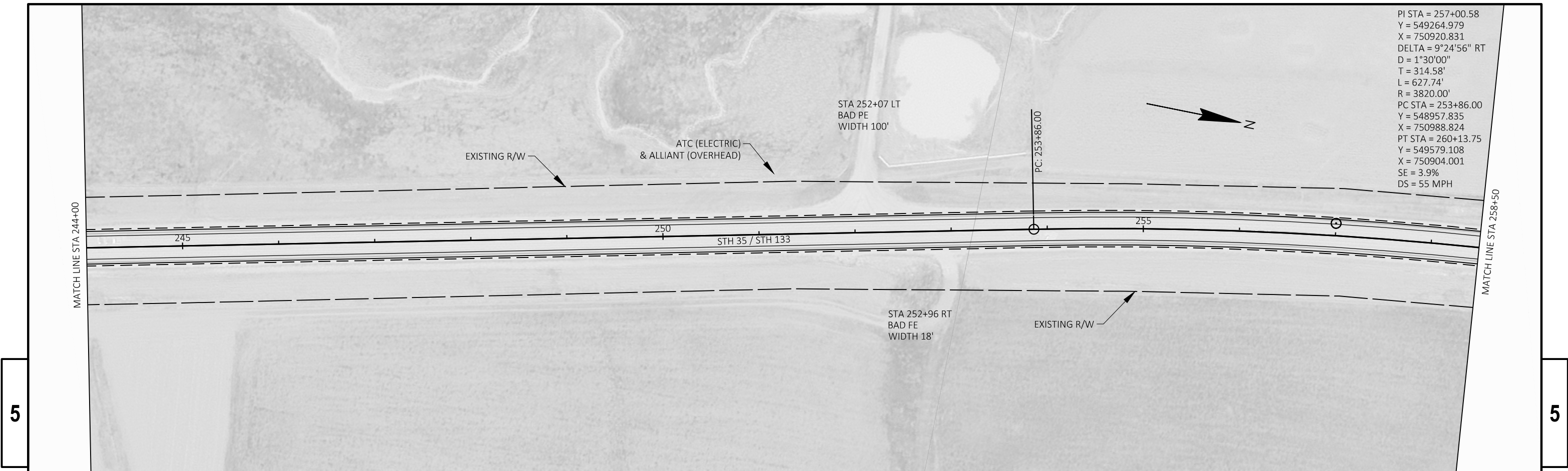




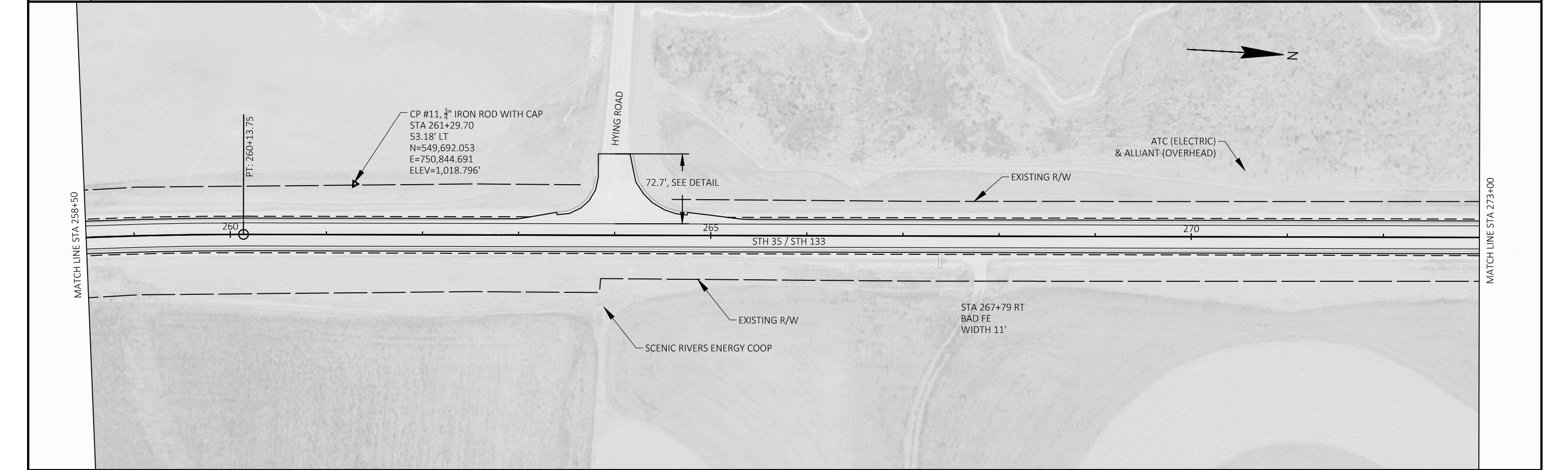


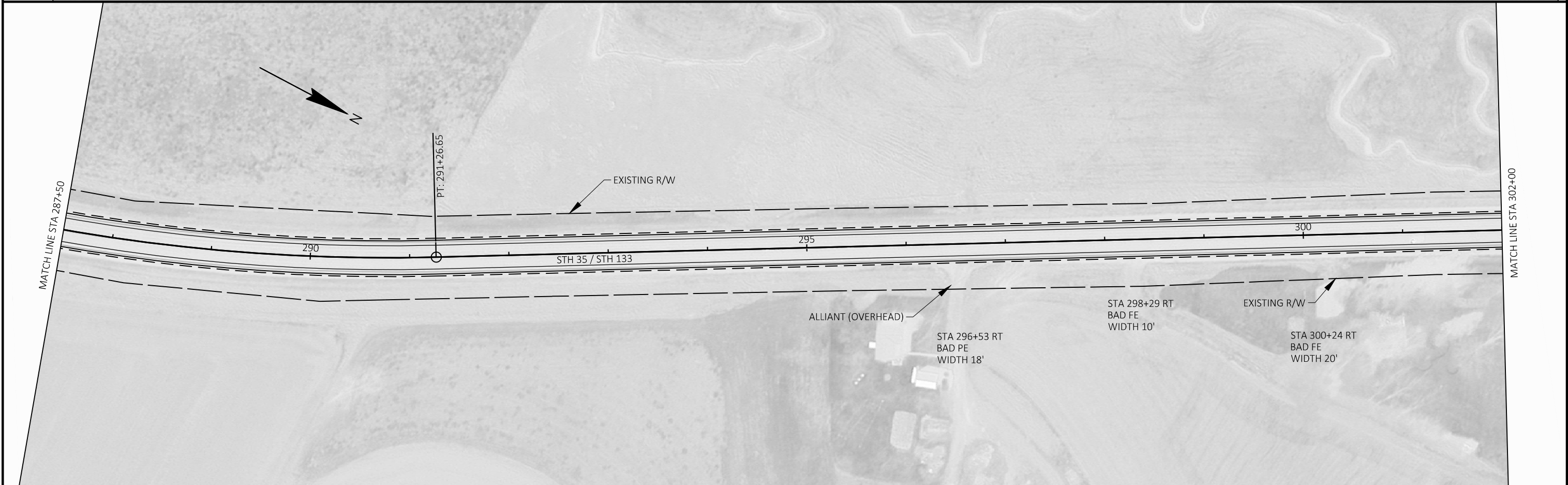
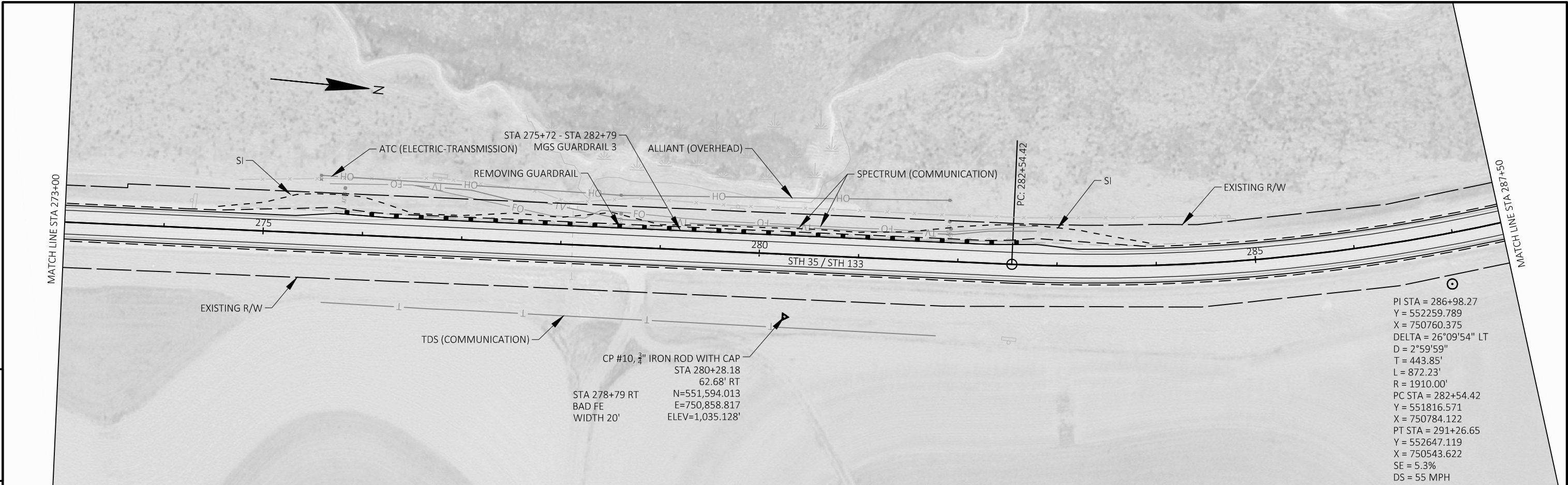


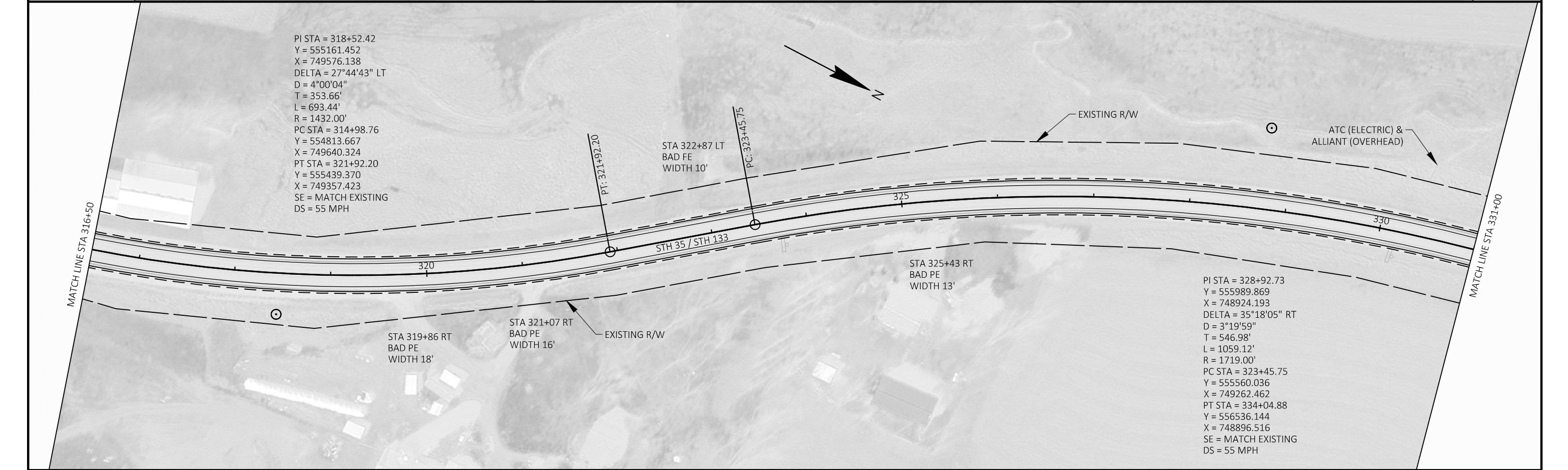
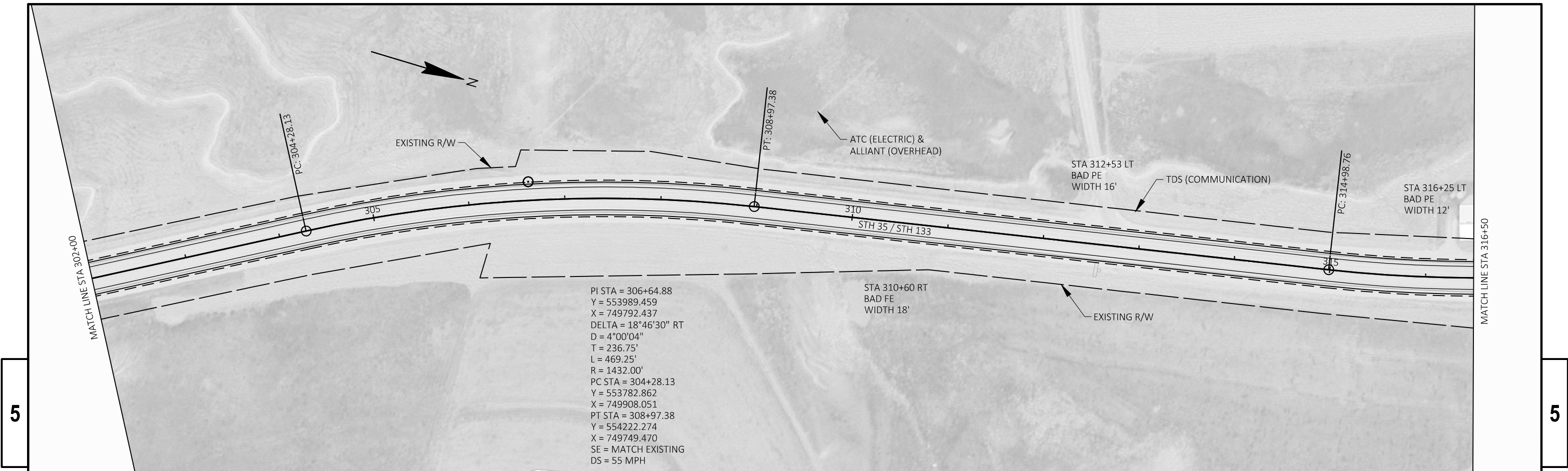




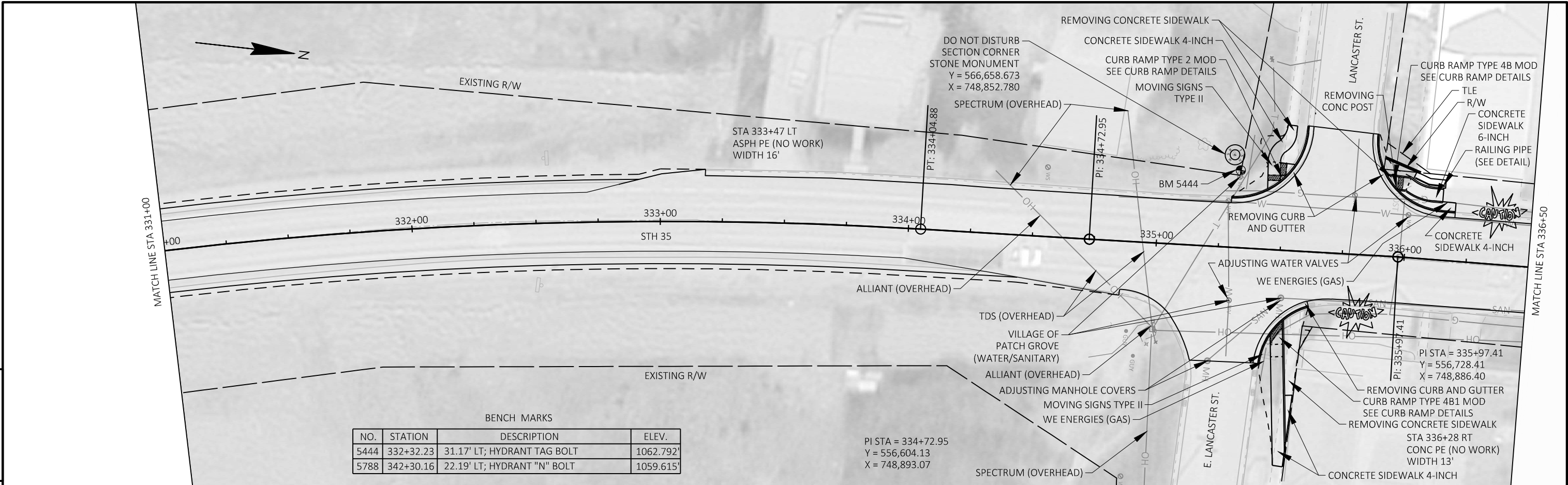
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X = 750920.831
DELTA = 9°24'56" RT
D = 1°30'00"
T = 314.58'
L = 627.74'
R = 3820.00'
PC STA = 253+86.00
Y = 548957.835
X = 750988.824
PT STA = 260+13.75
Y = 549579.108
X = 750904.001
SE = 3.9%
DS = 55 MPH



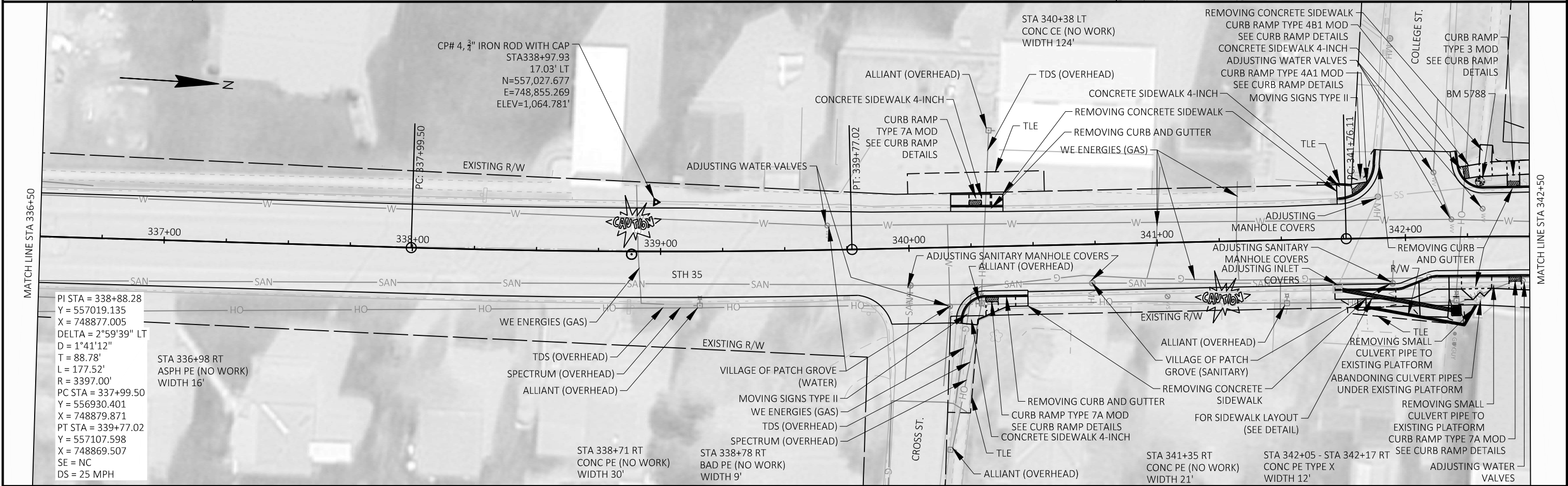


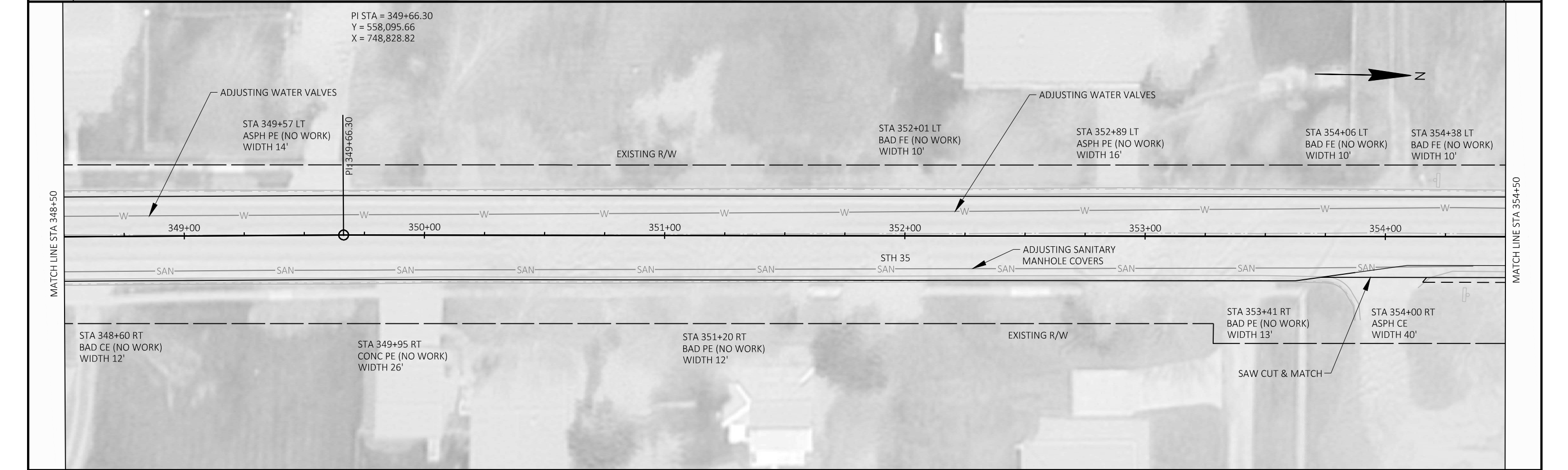
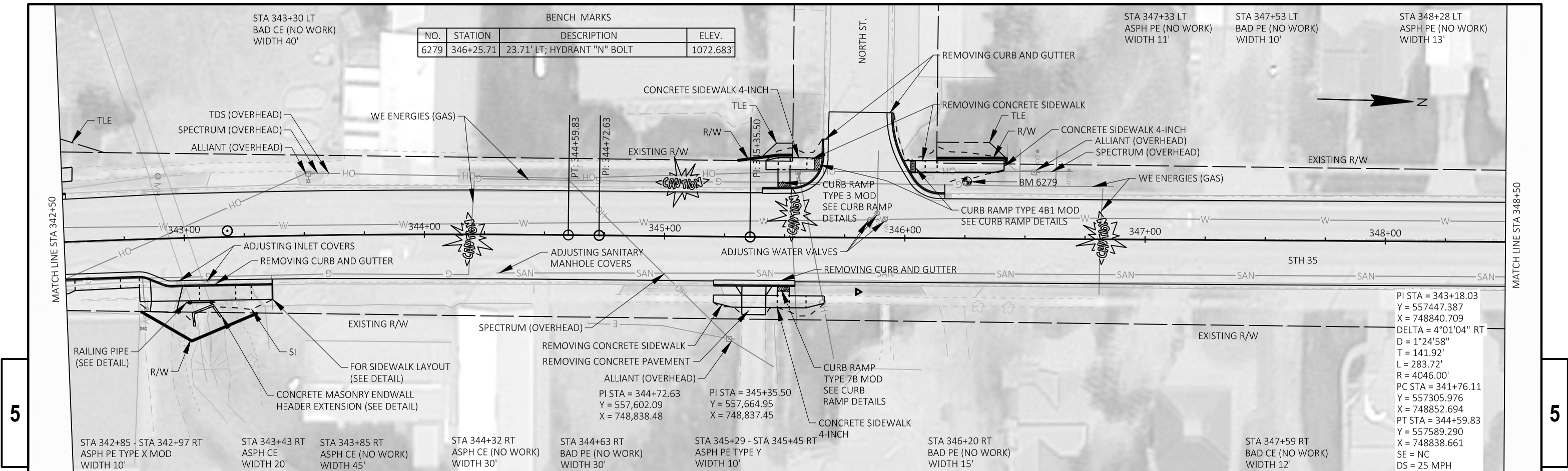


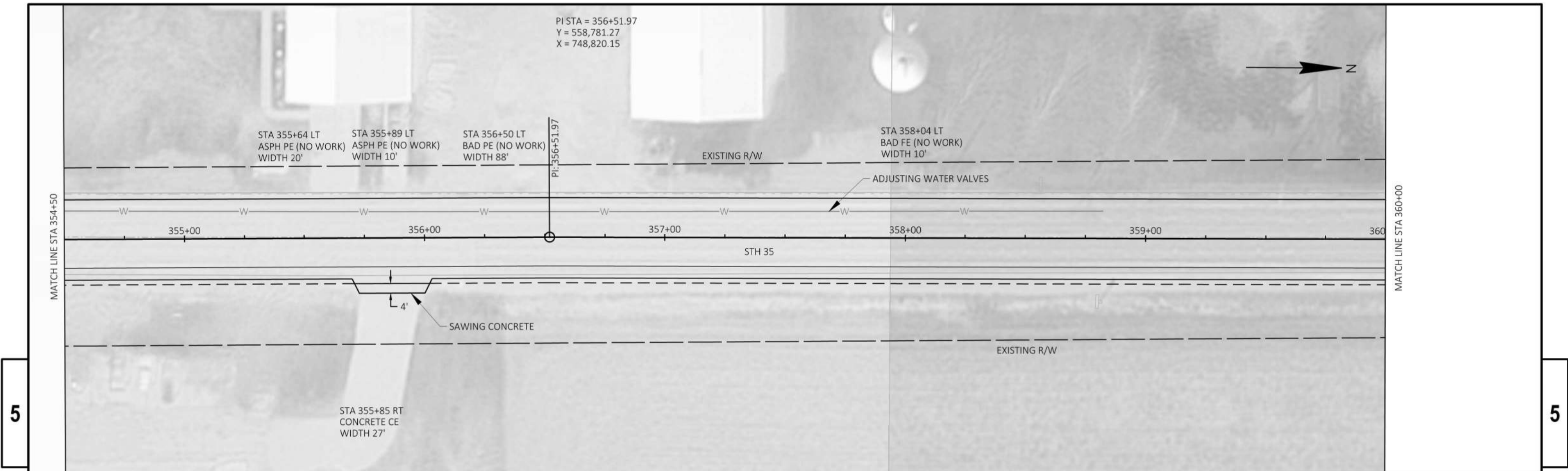
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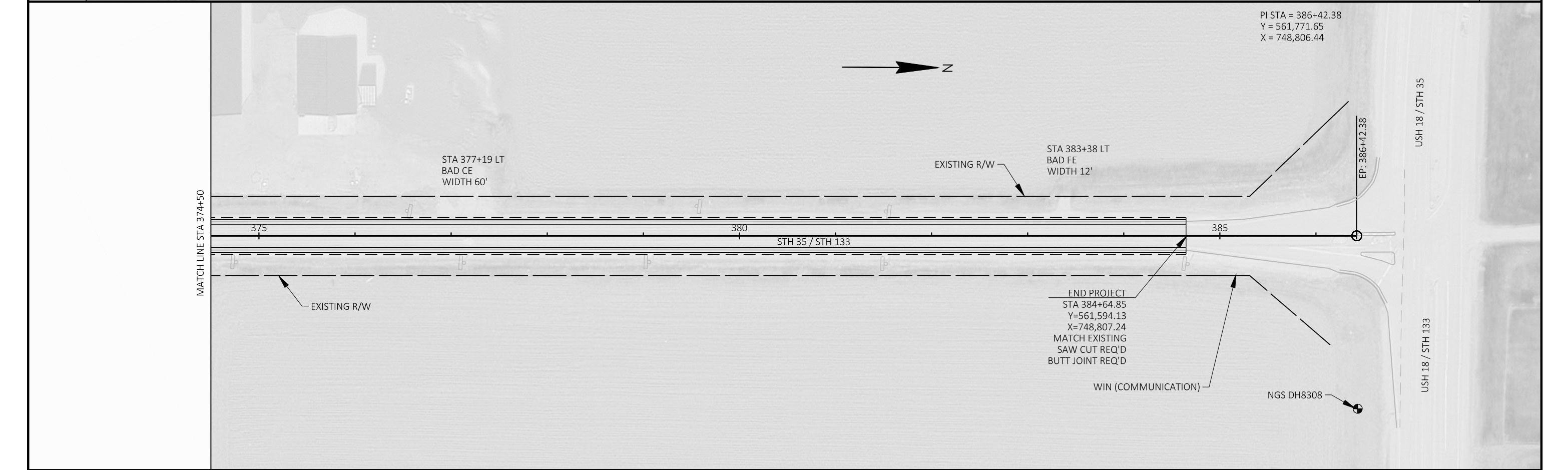
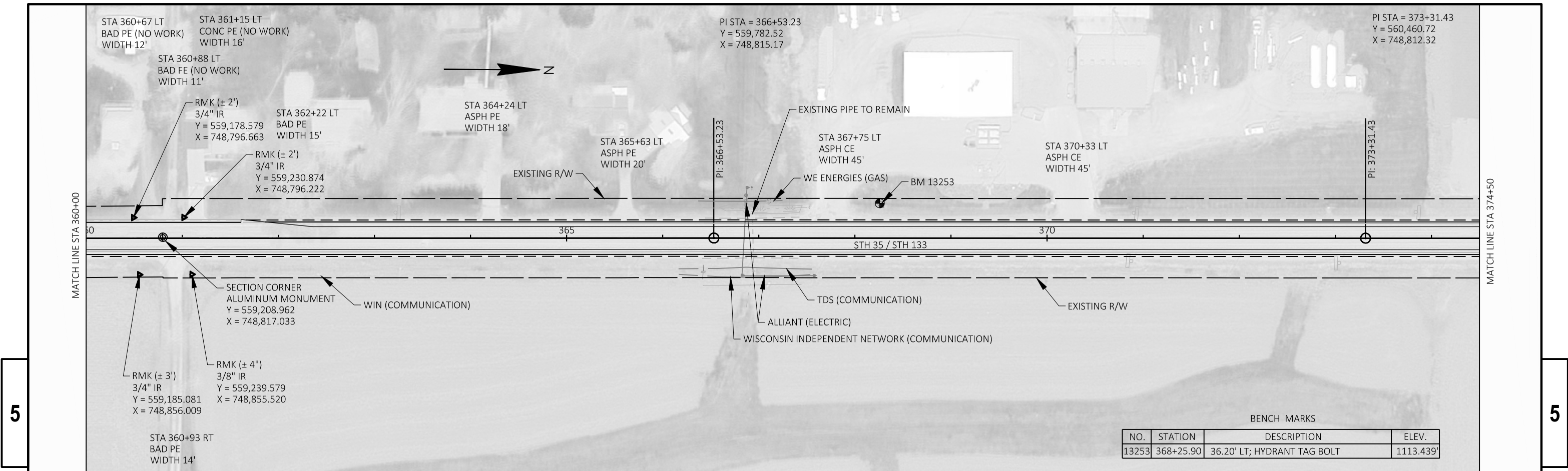
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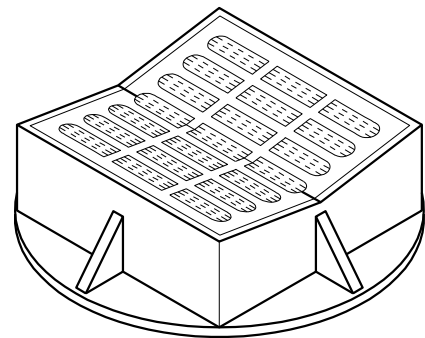
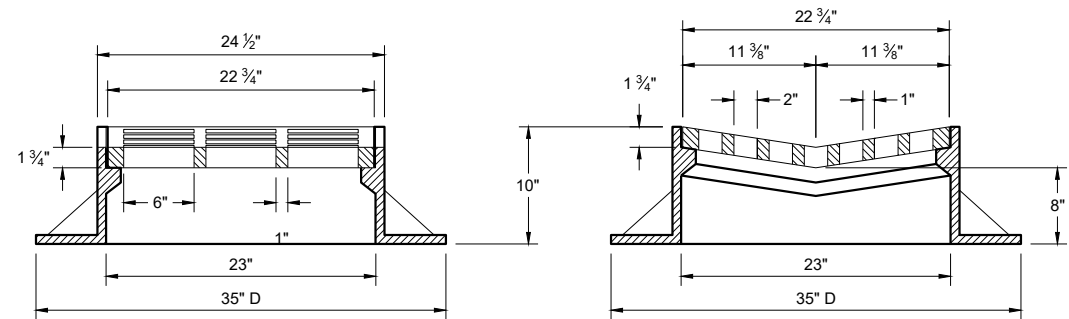


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Standard Detail Drawing List

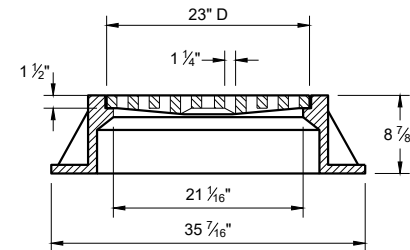
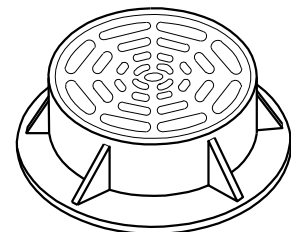
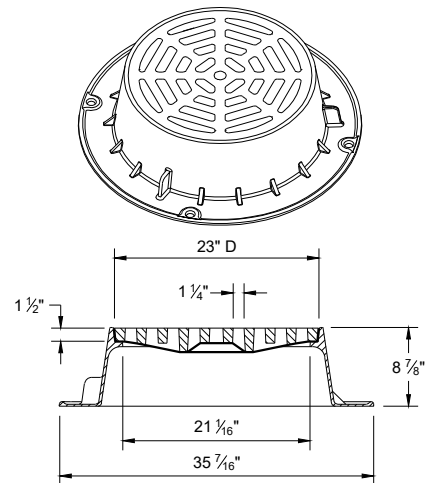
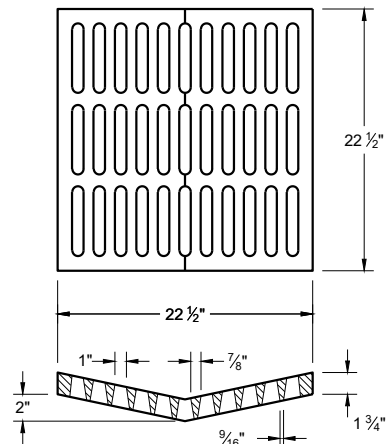
08A05-20B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-04	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
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
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



TYPE "B"

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

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



TYPE "C"

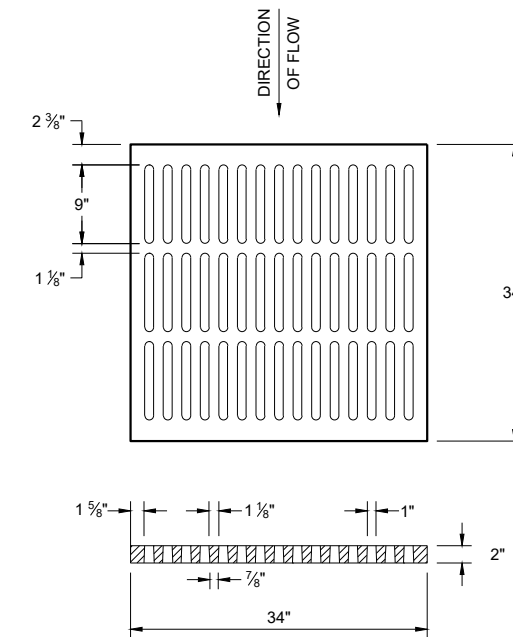
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

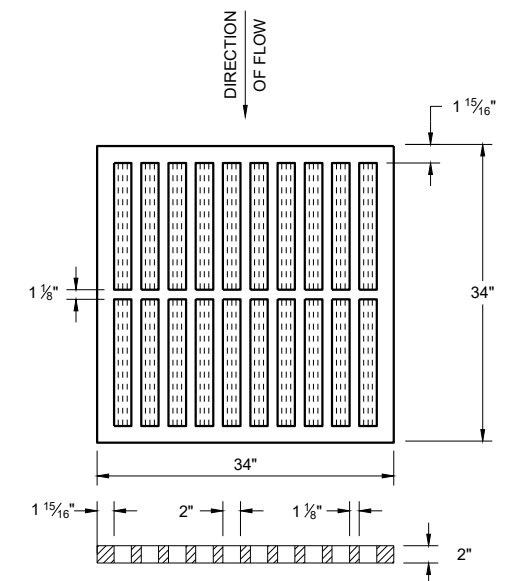
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

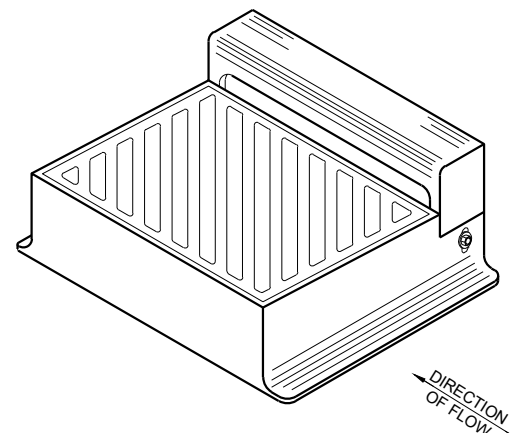
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



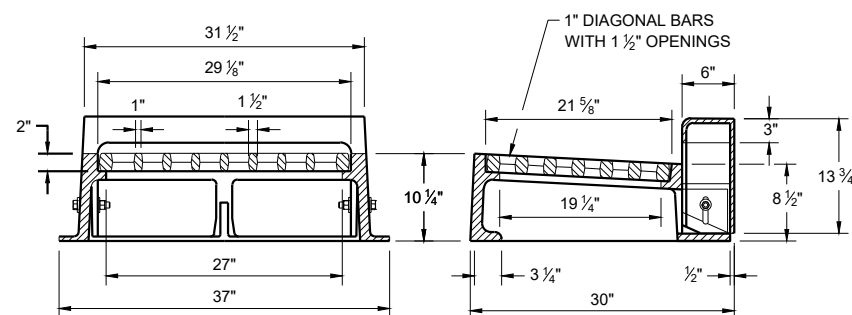
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



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



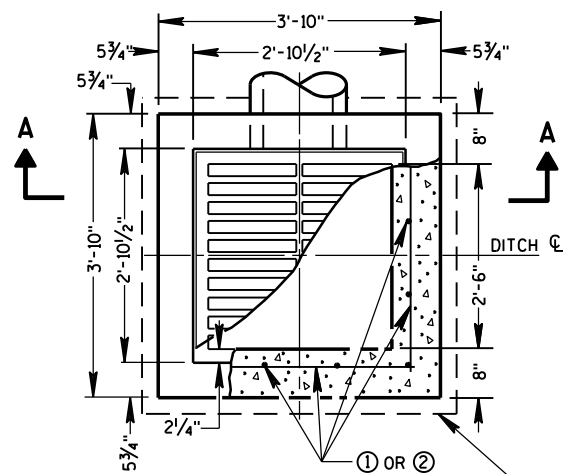
TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

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

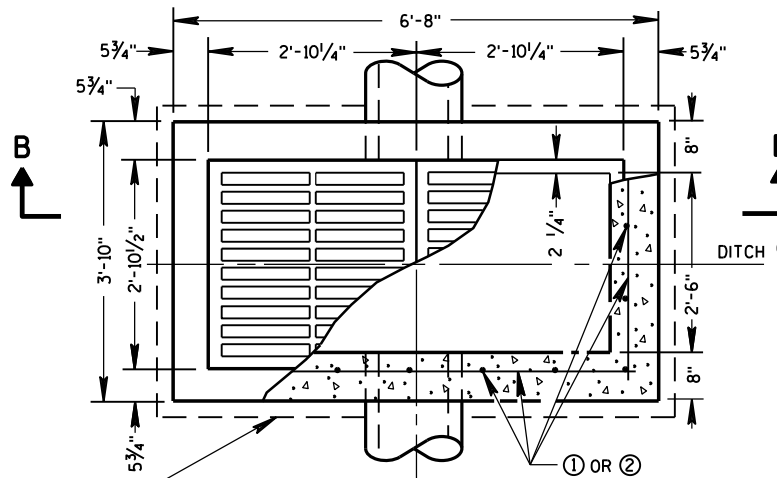
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

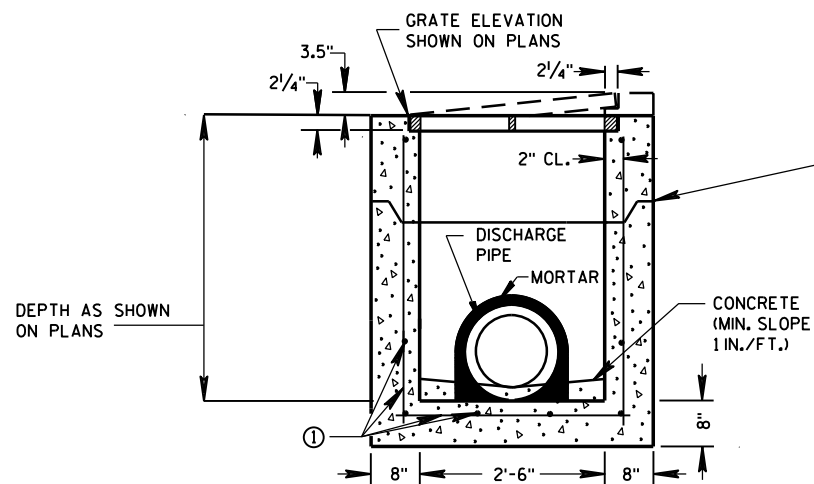


PLAN VIEW

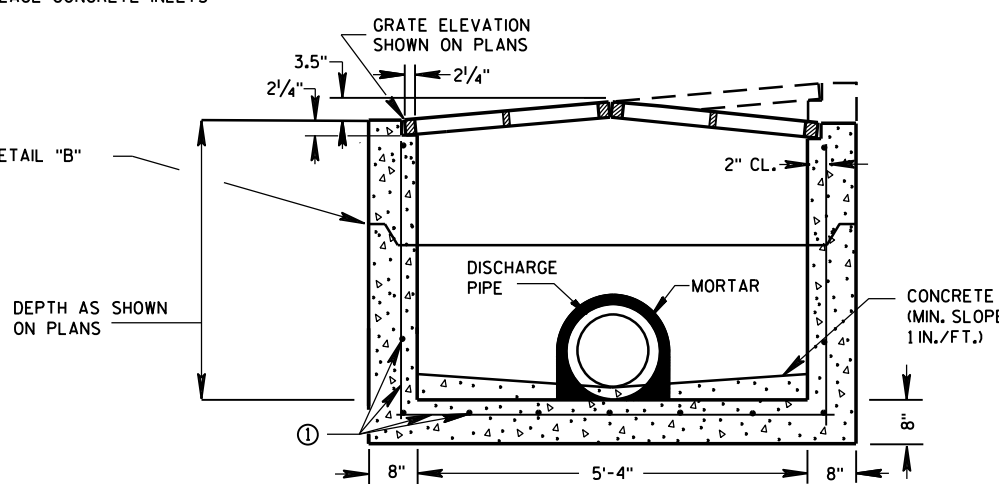
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



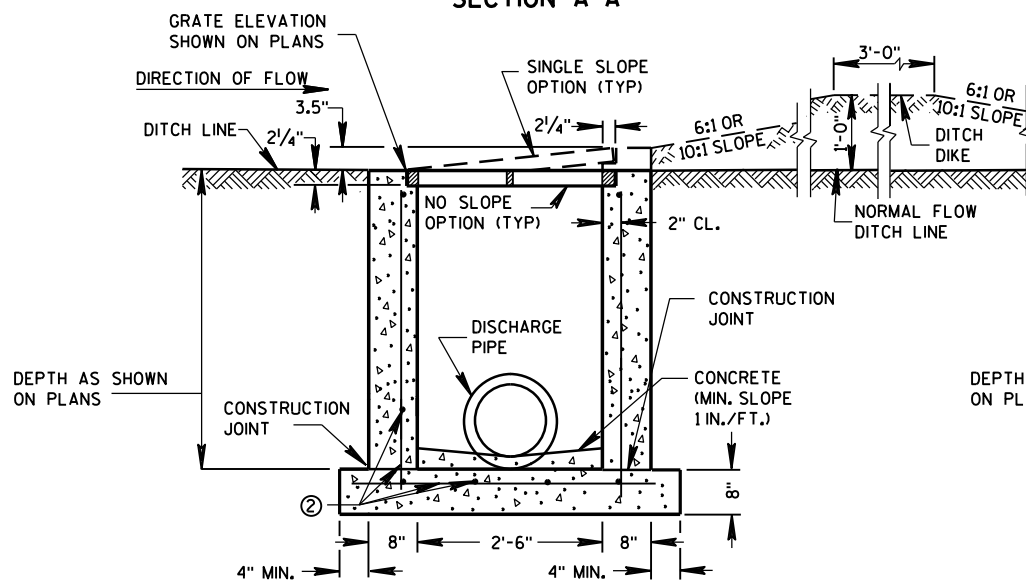
PLAN VIEW



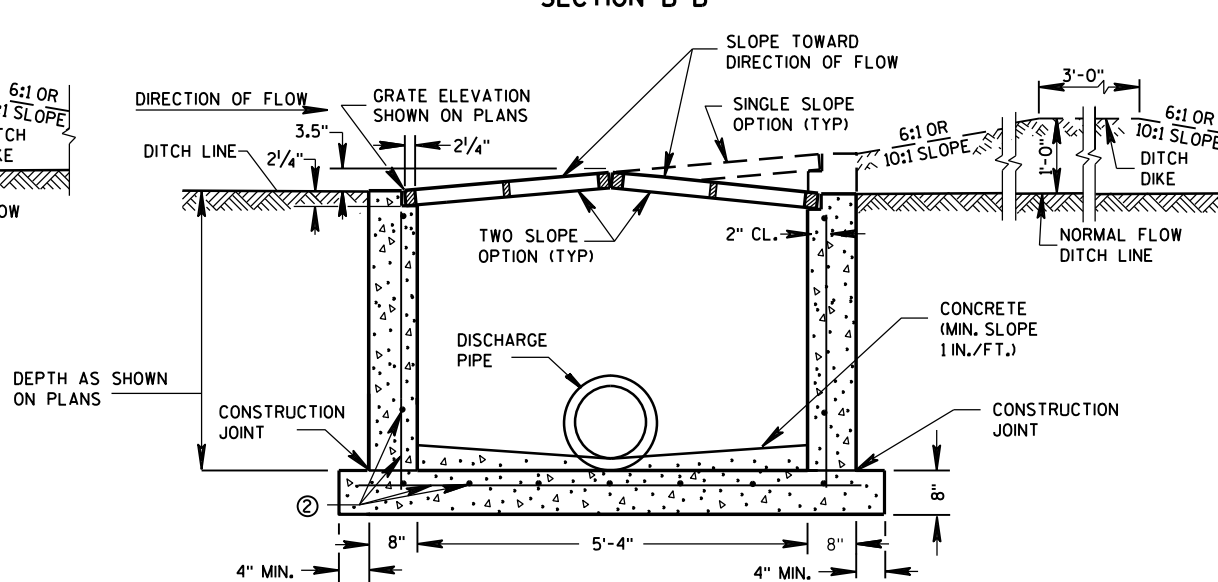
PRECAST REINFORCED CONCRETE
SECTION A-A



PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

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, IG-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 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.

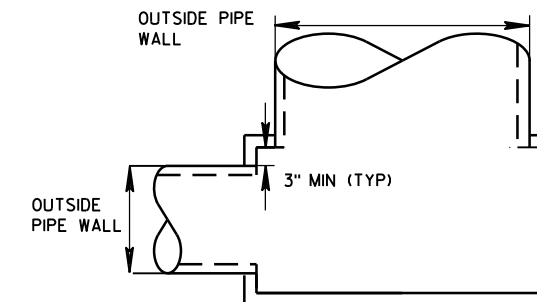
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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 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.

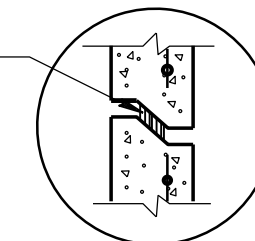
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

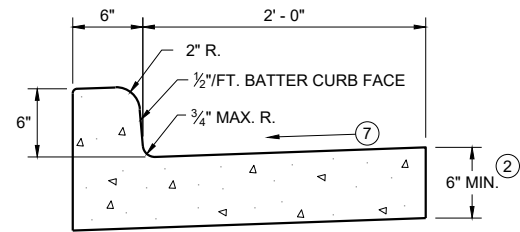
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

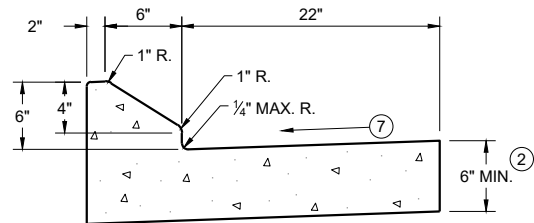
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

INLETS MEDIAN 2 GRATE

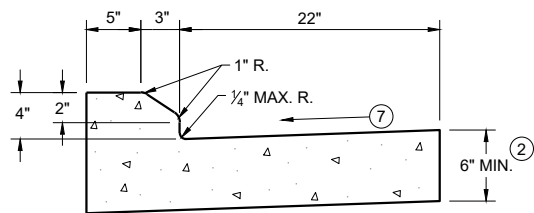
INLETS MEDIAN 1 GRATE



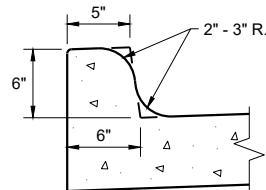
TYPES A^① & D



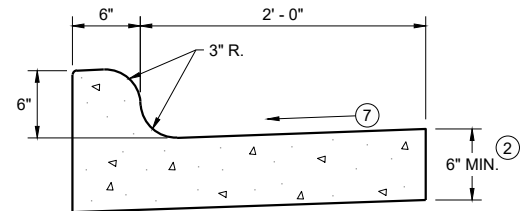
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

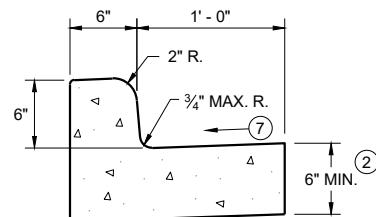


TYPES K^① & L
(OPTIONAL CURB SHAPE)



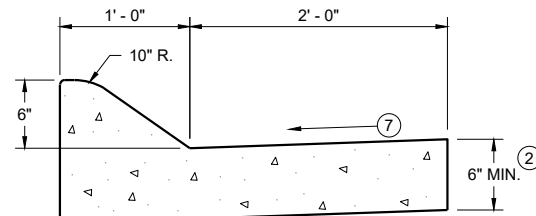
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

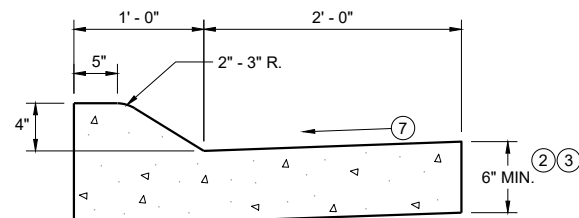


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

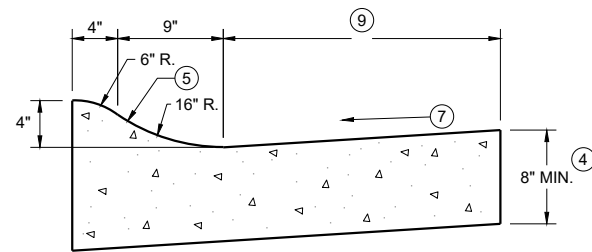


6" SLOPED CURB TYPES A^① & D



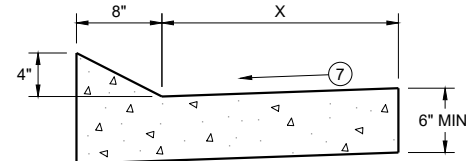
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

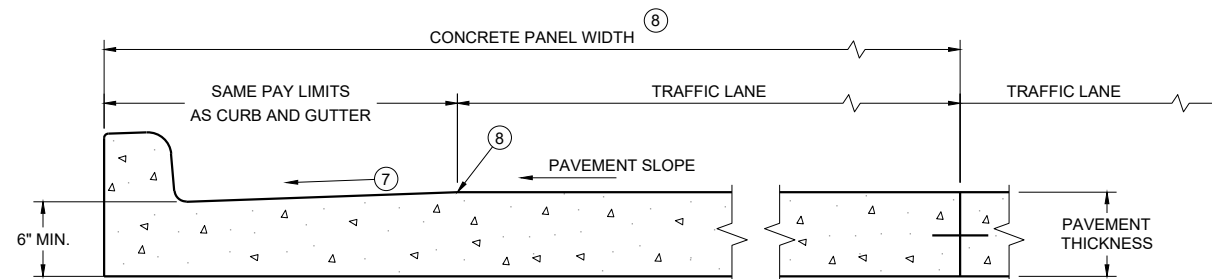


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

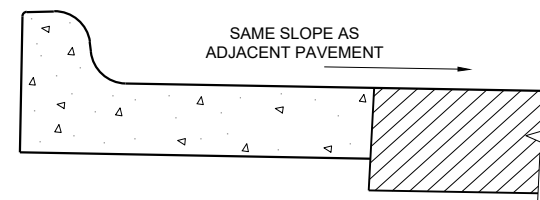
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

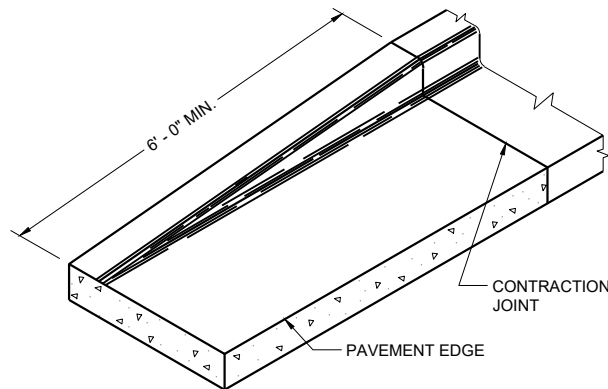
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

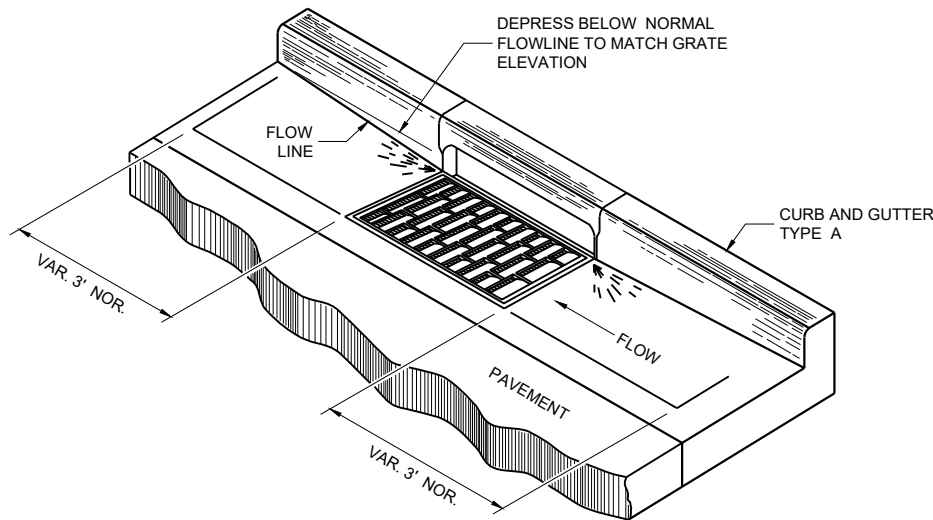
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

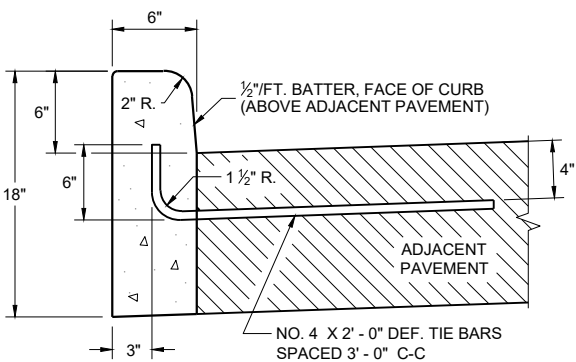


END SECTION CURB AND GUTTER

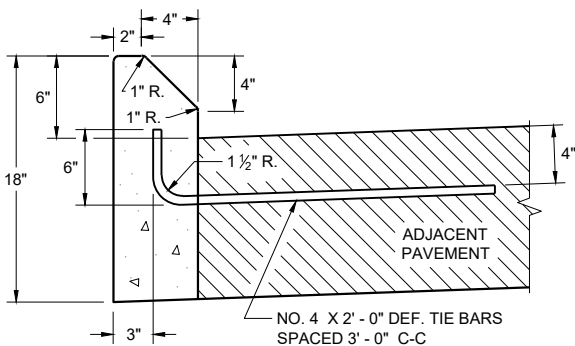


DETAIL OF CURB AND GUTTER AT INLETS

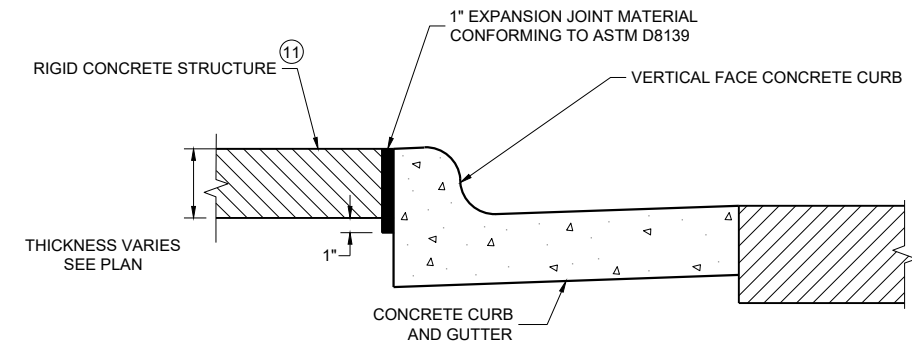
(TYPICAL H INLET COVER SHOWN)



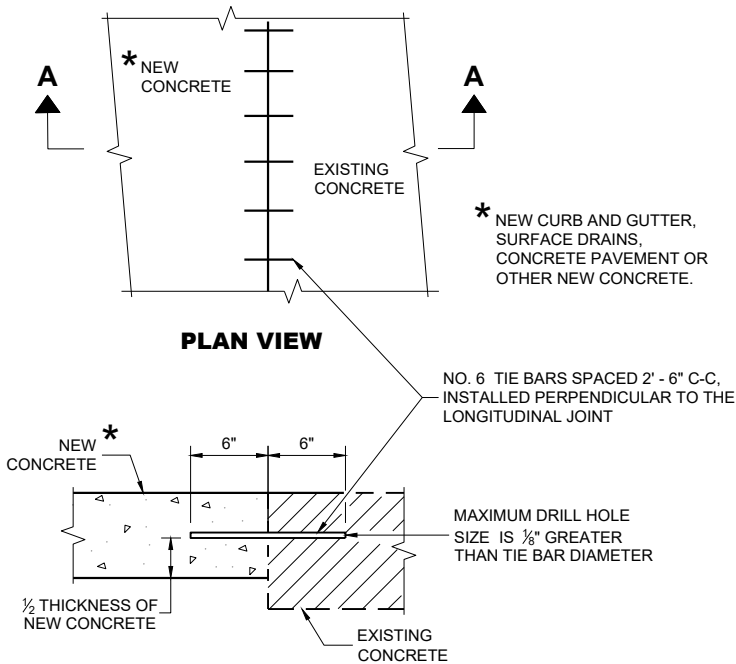
TYPES A^① & D



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

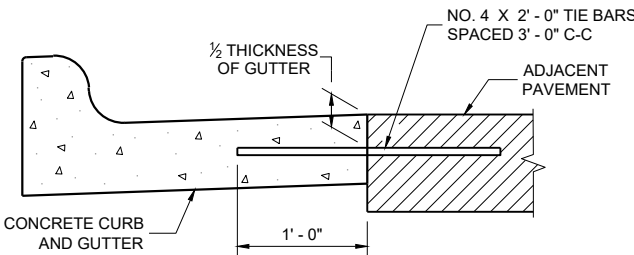
GENERAL NOTES

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

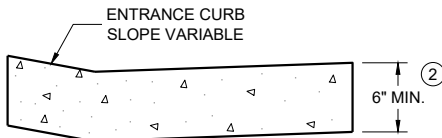
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

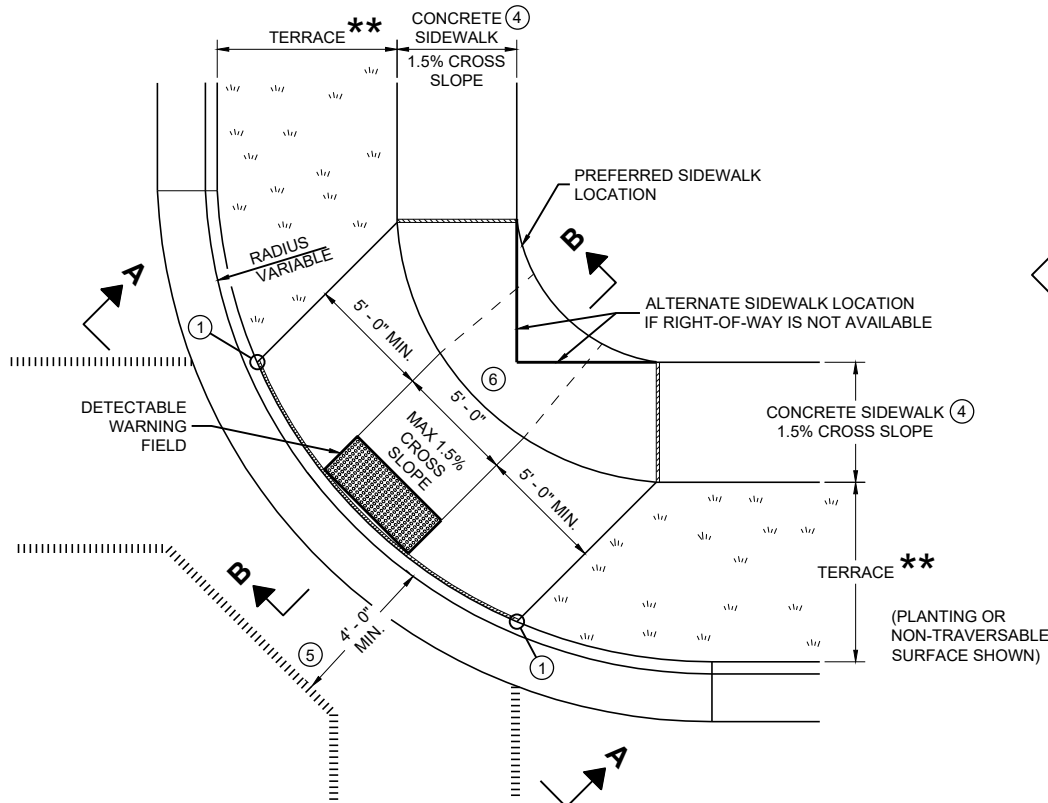


DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

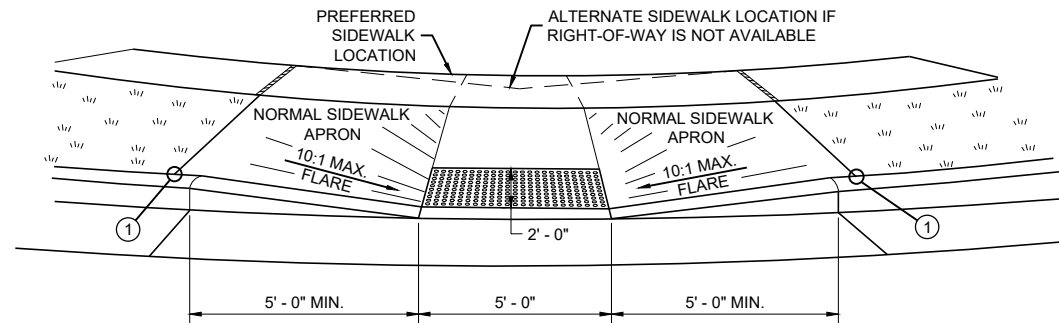
CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

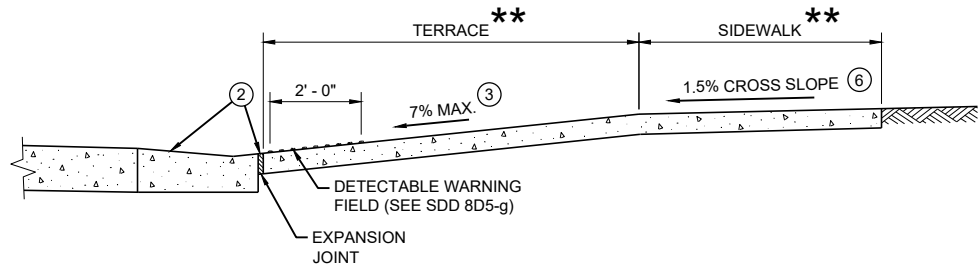


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

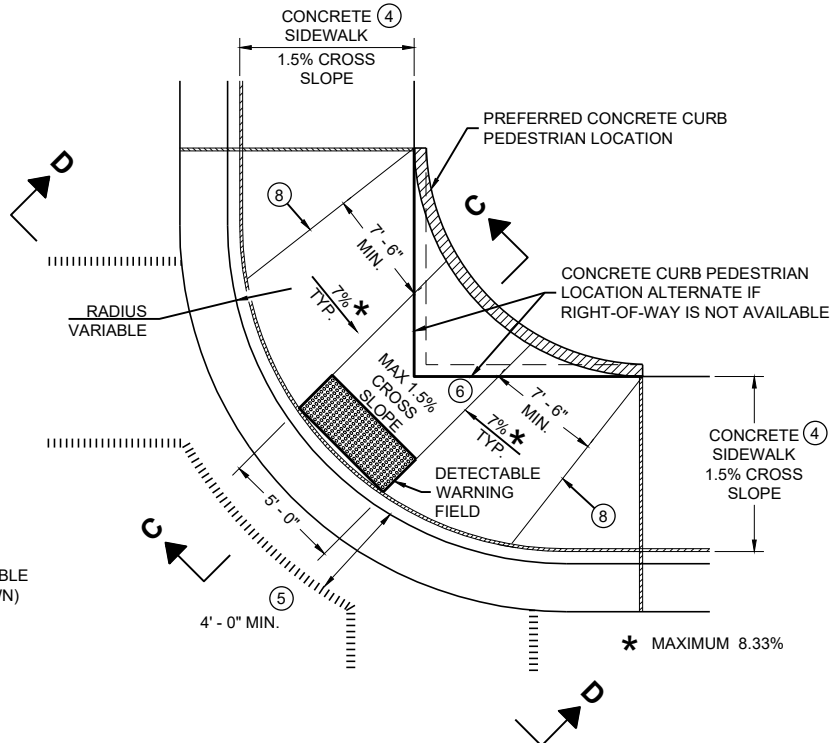


VIEW A - A FOR TYPE 1

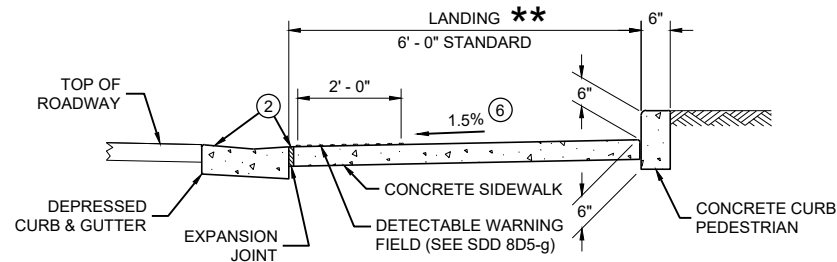
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



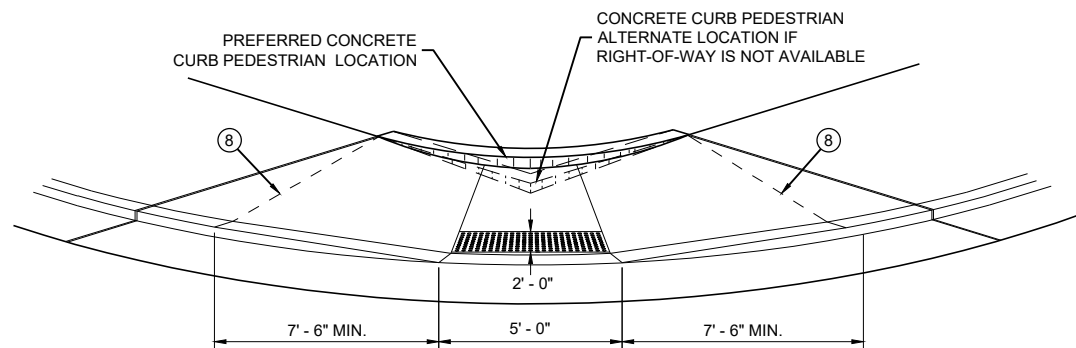
SECTION B - B FOR TYPE 1



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.

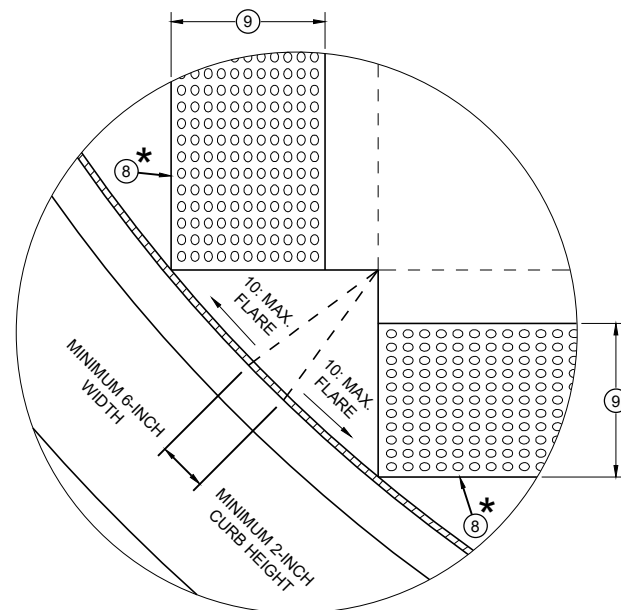
- 1 THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. 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

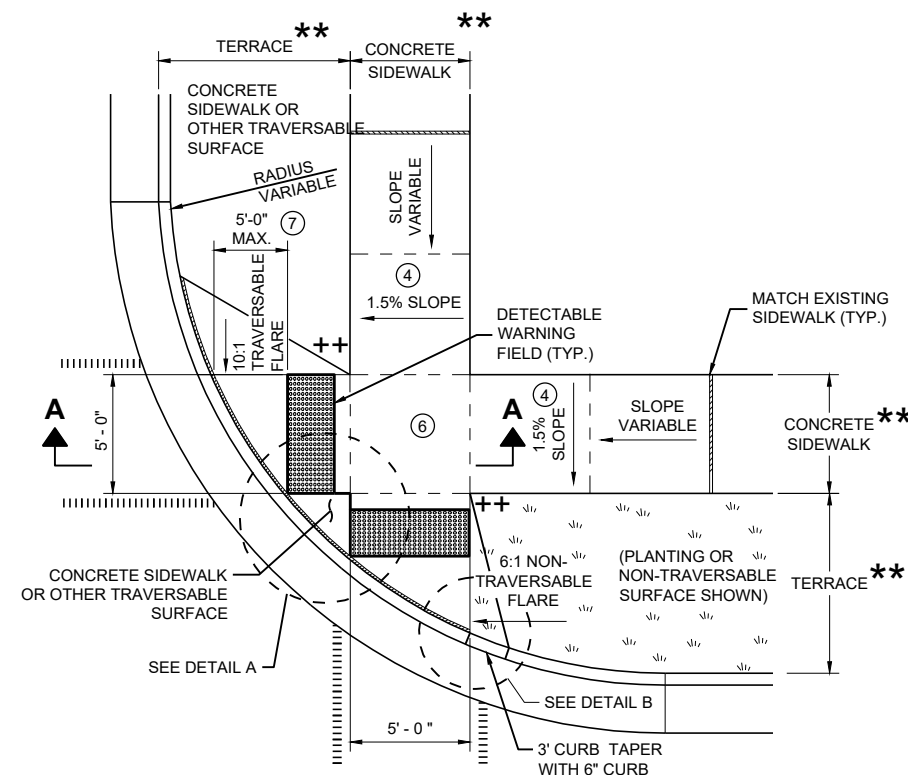
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

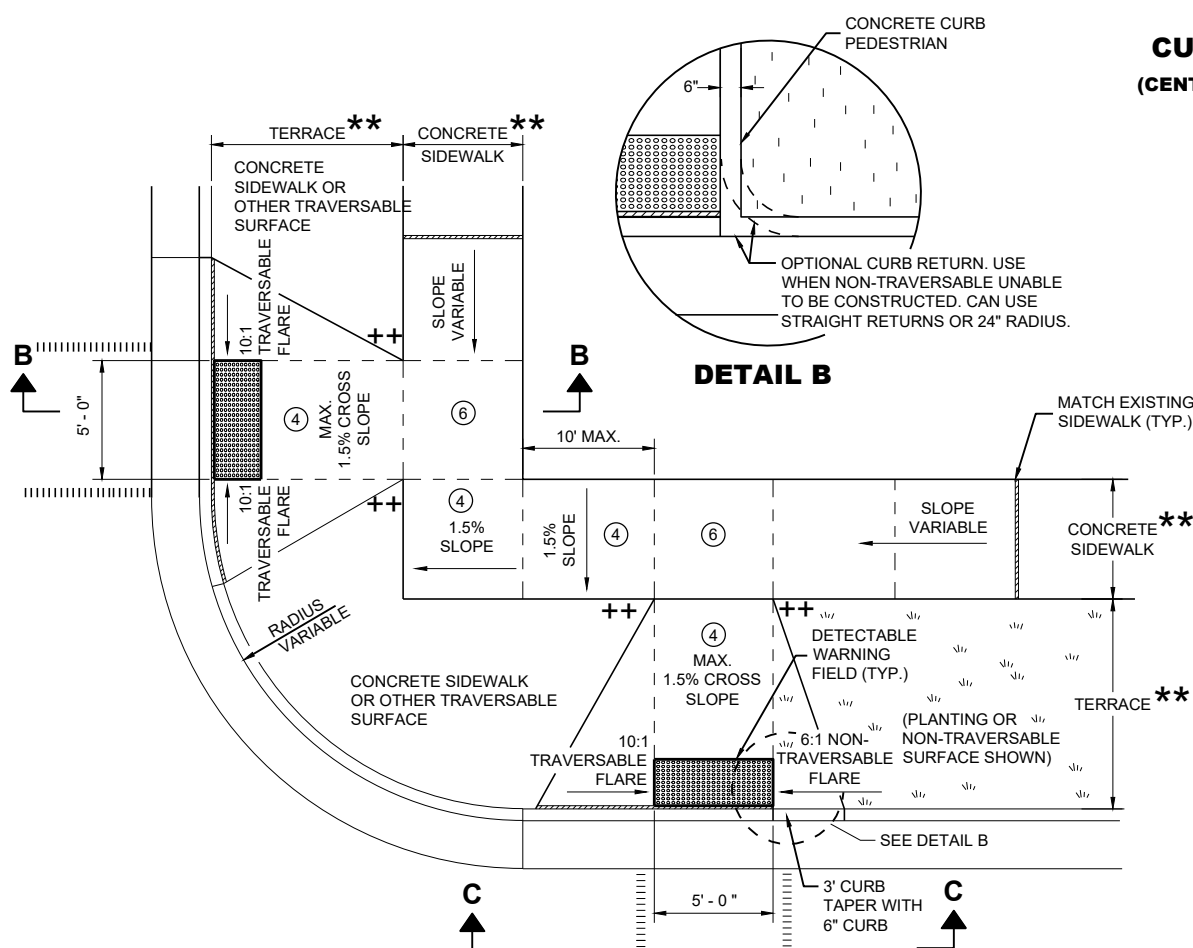
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



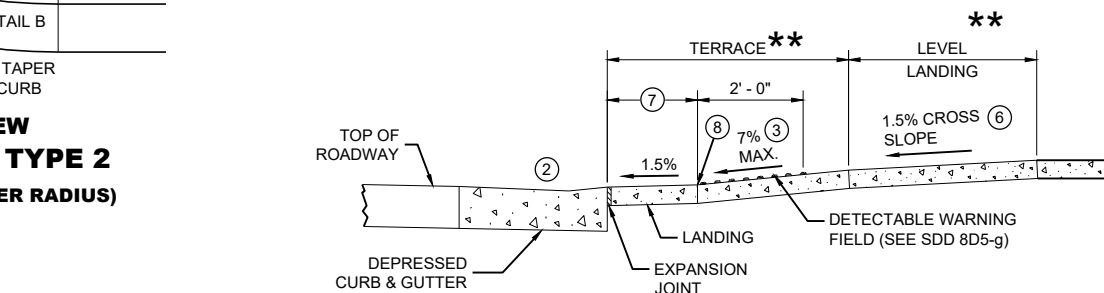
DETAIL A



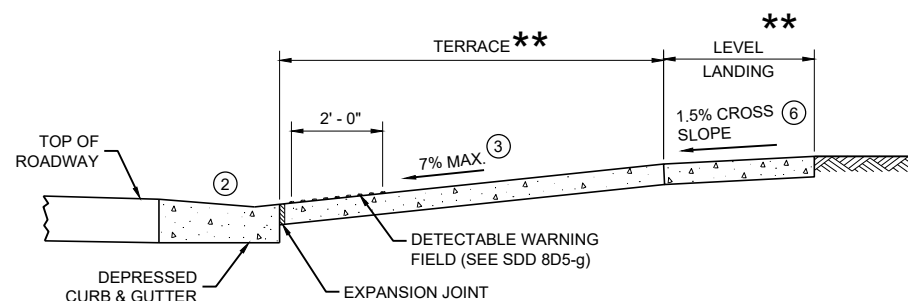
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



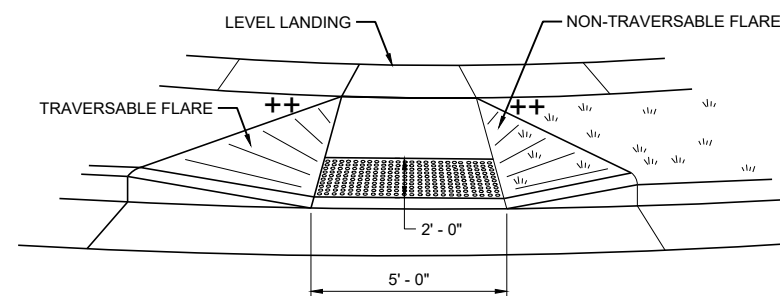
**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



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.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

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

★★ WIDTH SHOWN ELSEWHERE
IN THE PLANS

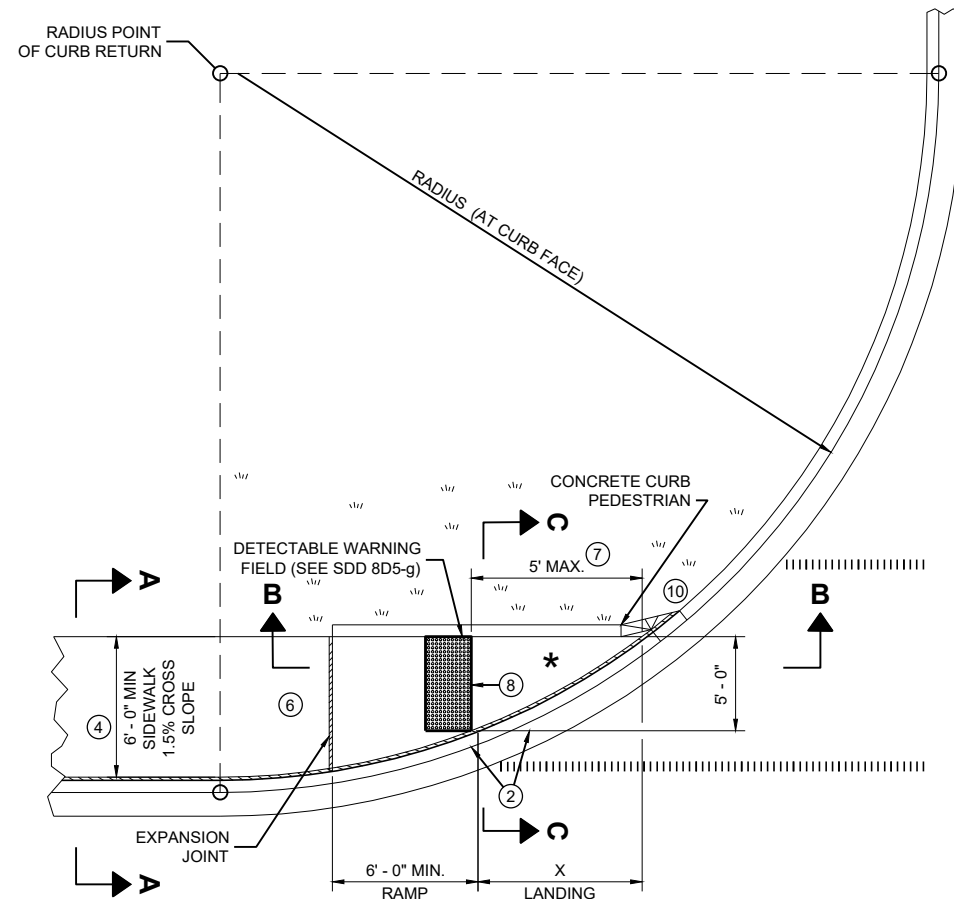
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

LEGEND

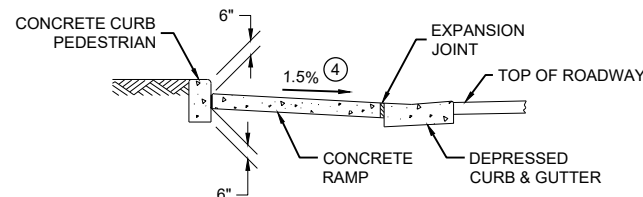
- 1/2" EXPANSION JOINT SIDEWALK
- - - - CONTRACTION JOINT SIDEWALK
- |||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 2 AND 3**

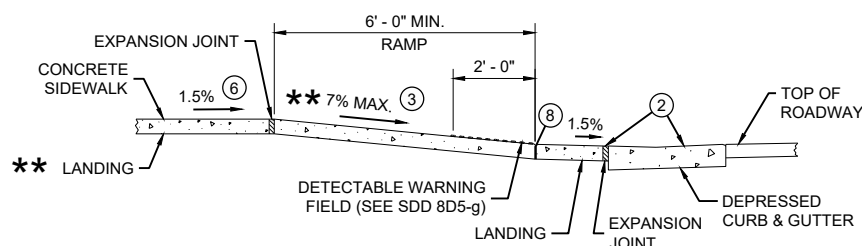
STATE OF WISCONSIN
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**PLAN VIEW
CURB RAMP TYPE 4A**



SECTION C - C FOR TYPE 4A



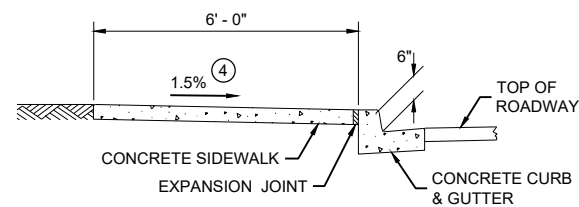
**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

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

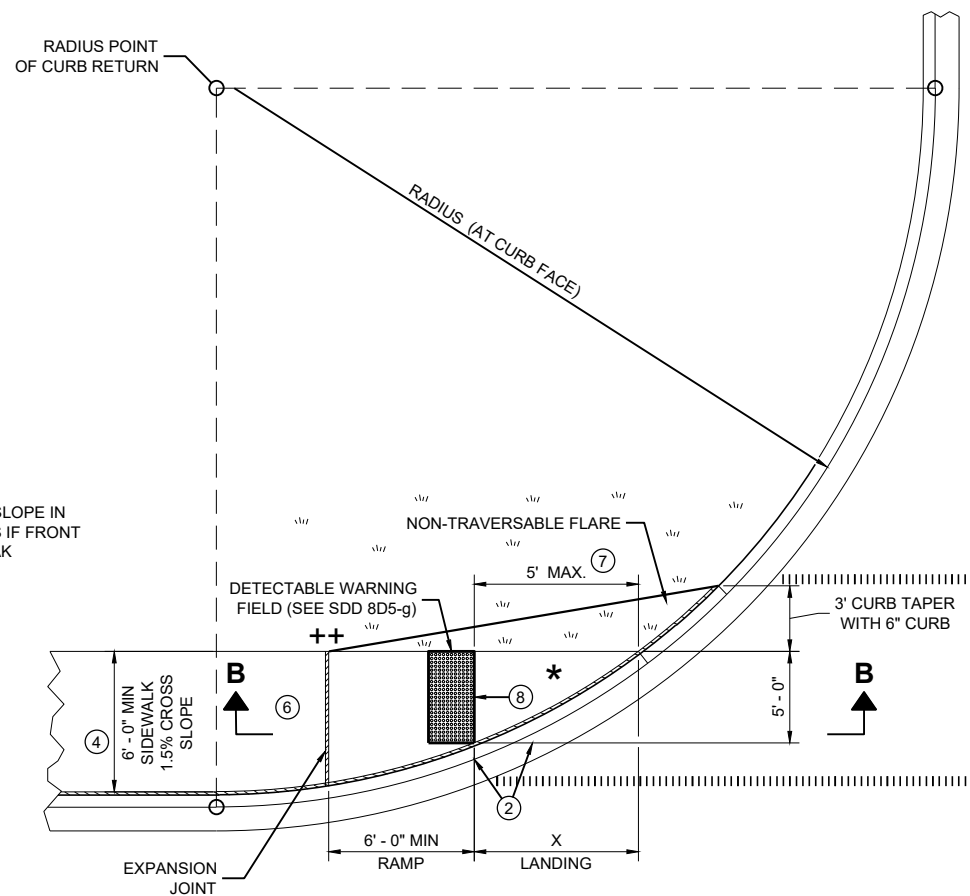
*** MAXIMUM 2.0% SLOPE IN
ALL DIRECTIONS IF FRONT
OF GRADE BREAK**

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.

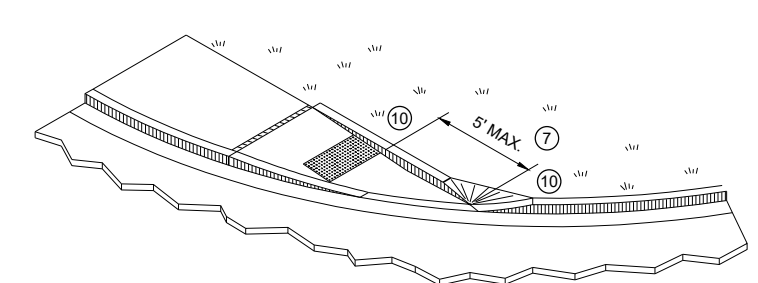
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

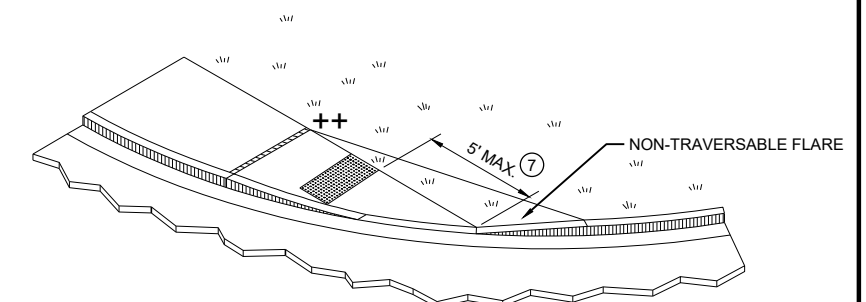
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL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

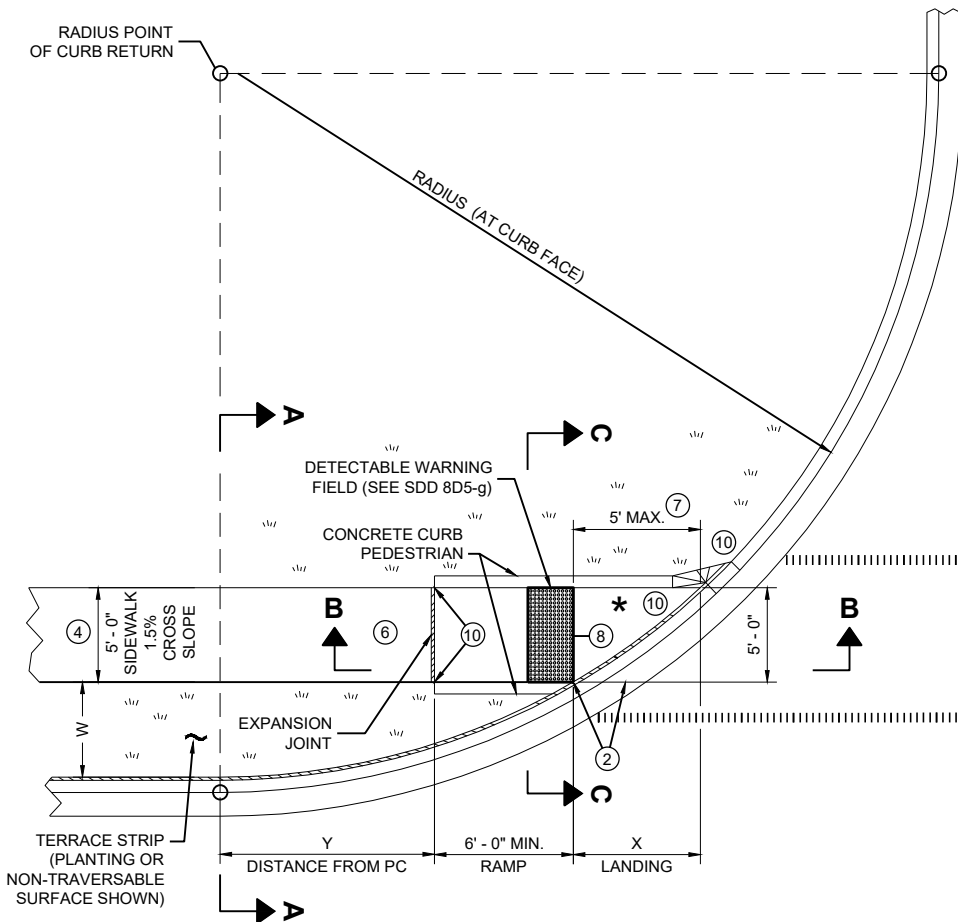


ISOMETRIC VIEW FOR TYPE 4A1

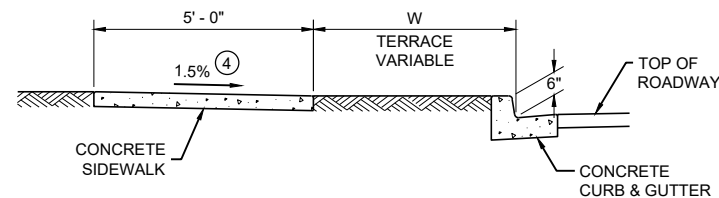
**++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE**

CURB RAMPS TYPE 4A AND 4A1

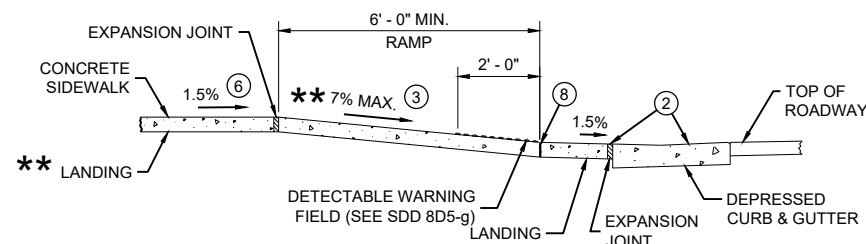
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**PLAN VIEW
CURB RAMP TYPE 4B**



SECTION A - A FOR TYPE 4B



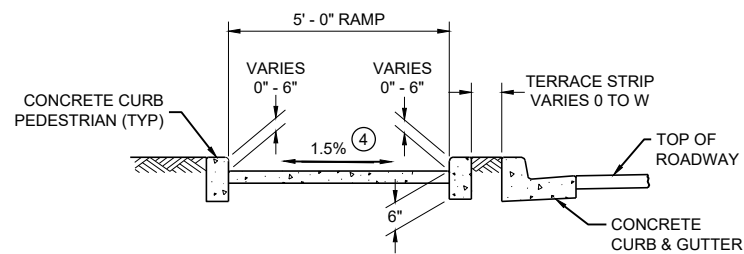
**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED**

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

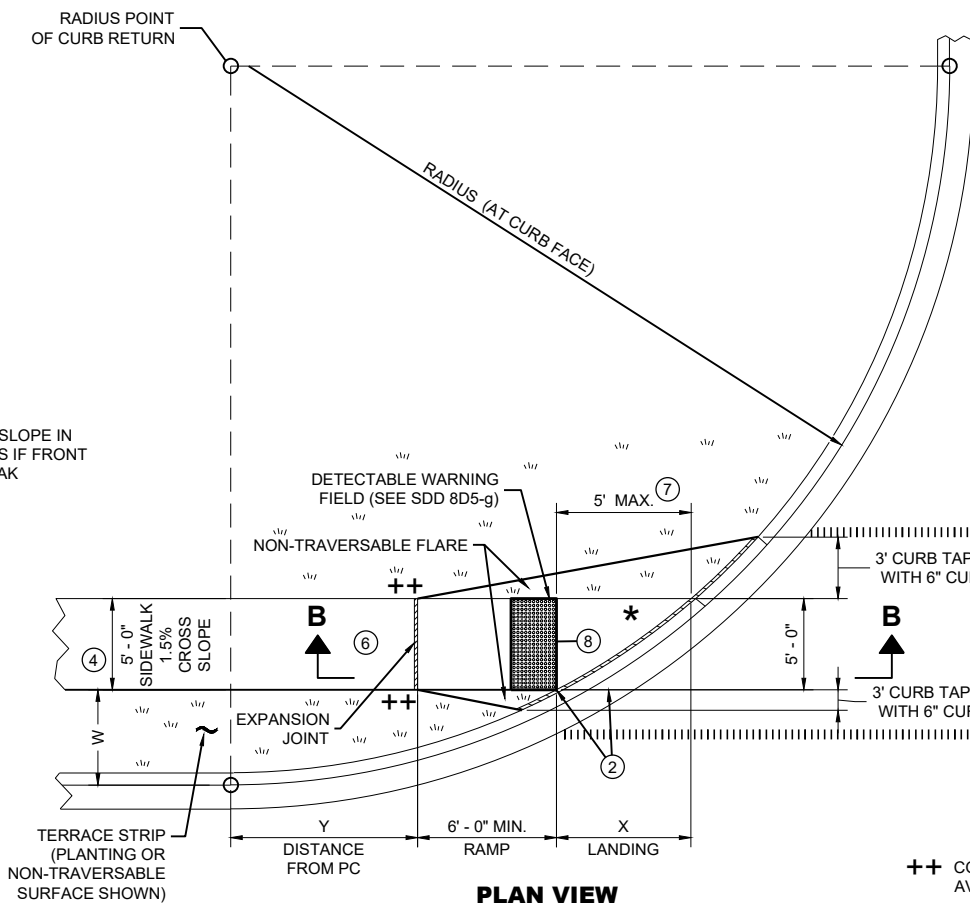
*** MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK**

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



SECTION C - C FOR TYPE 4B



**PLAN VIEW
CURB RAMP TYPE 4B1**

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

LEGEND

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

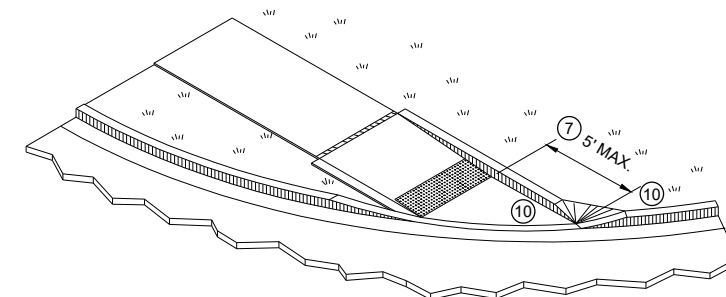
GENERAL NOTES

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

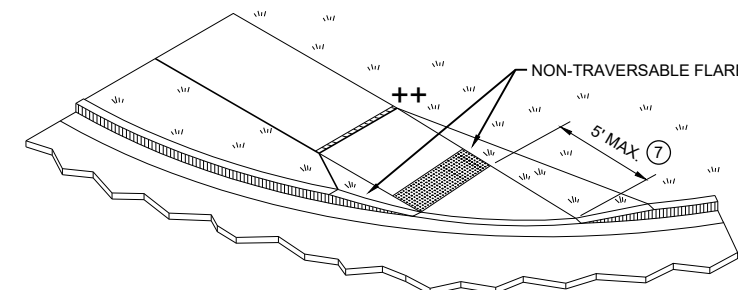
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- 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.



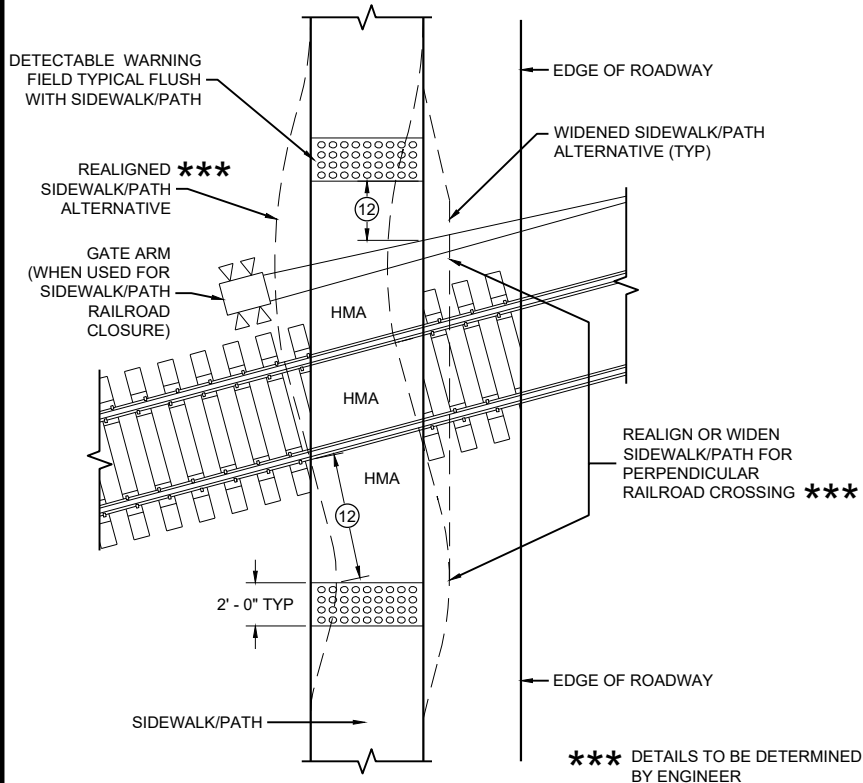
ISOMETRIC VIEW FOR TYPE 4B



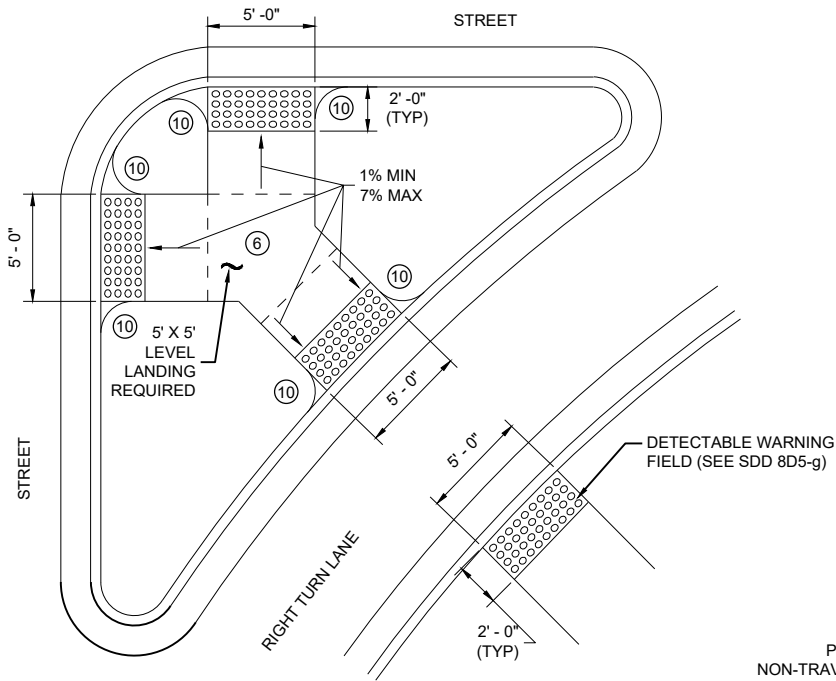
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
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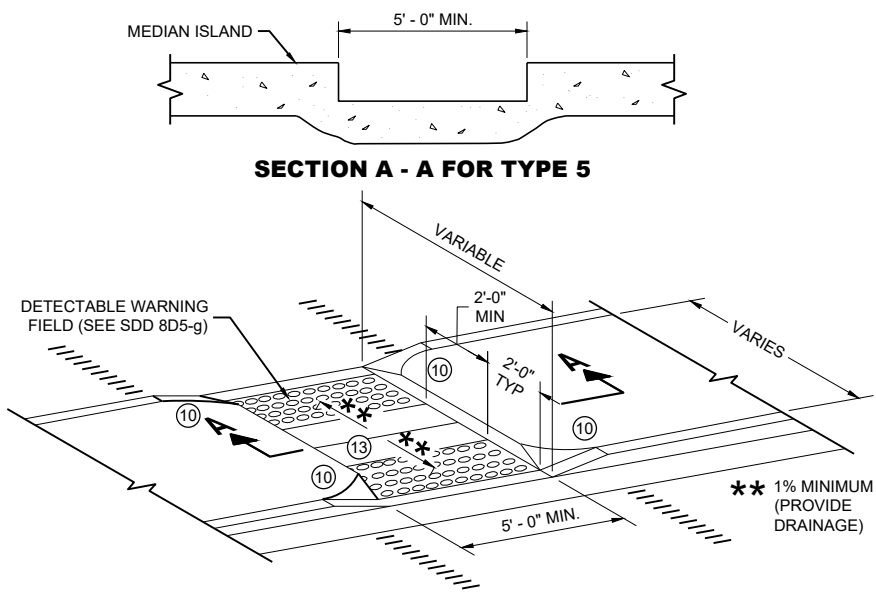


CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS

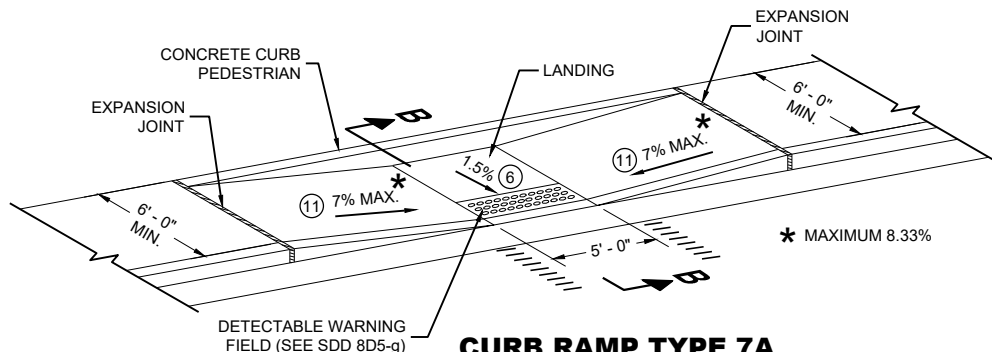


CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

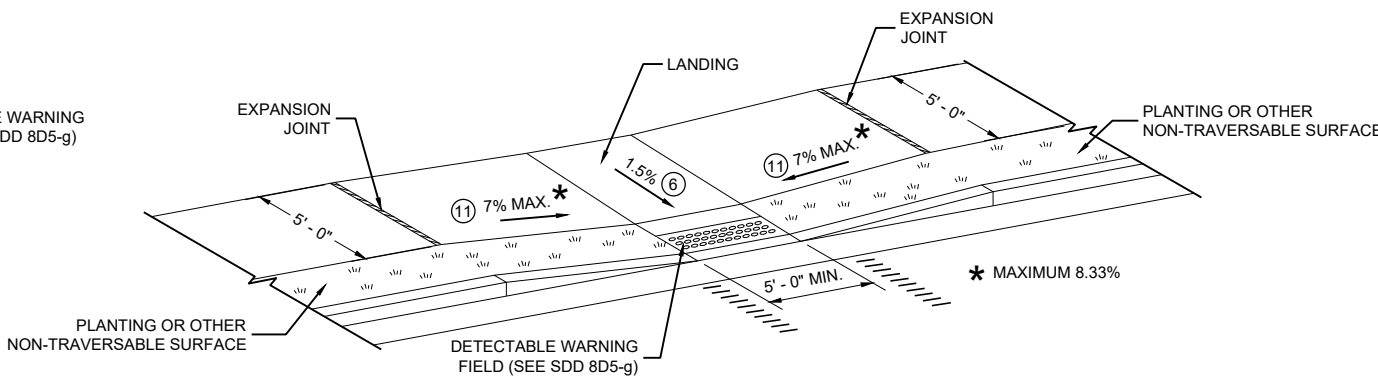
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



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.

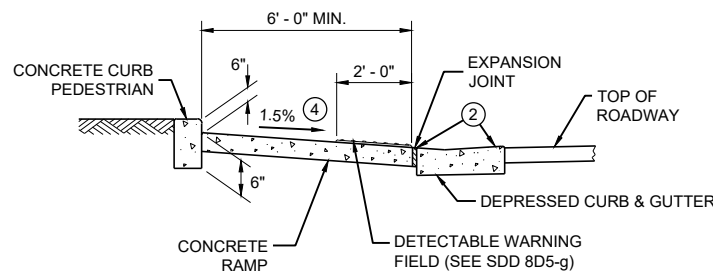
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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

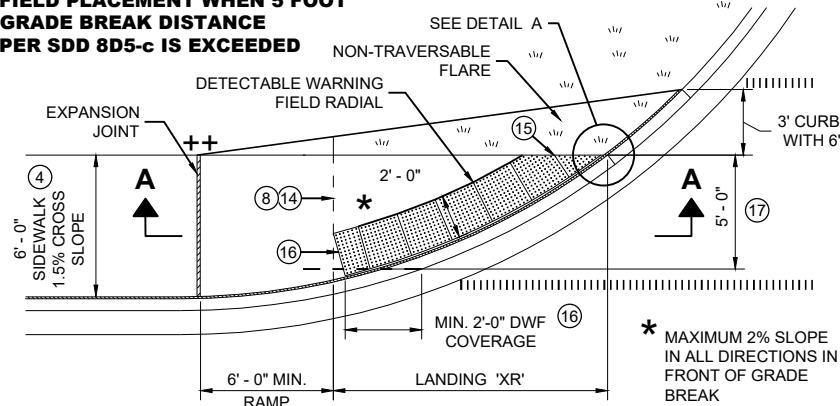


SECTION B - B FOR TYPE 7A

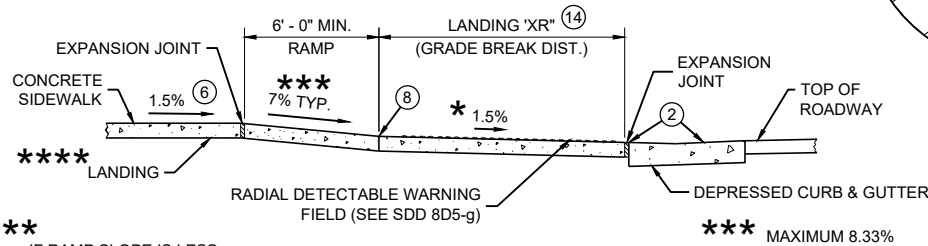
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

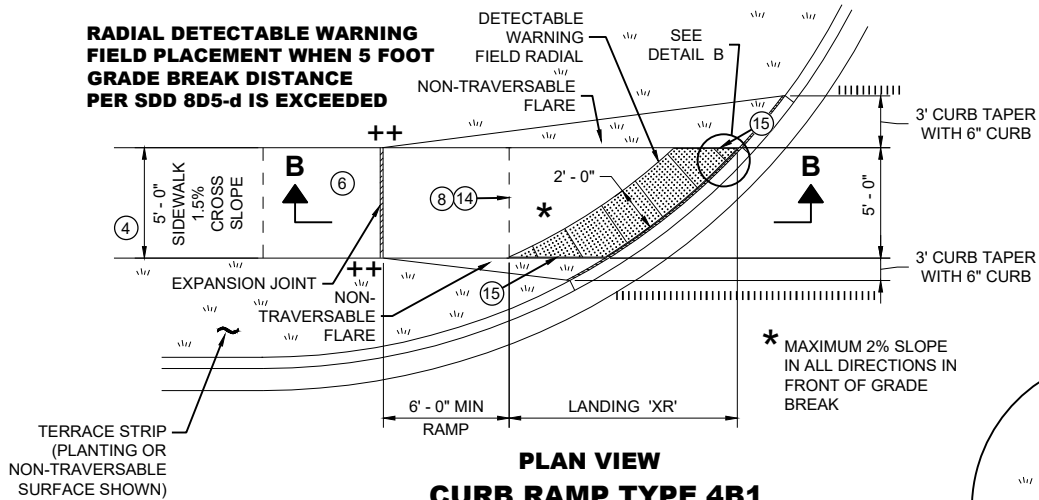


**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

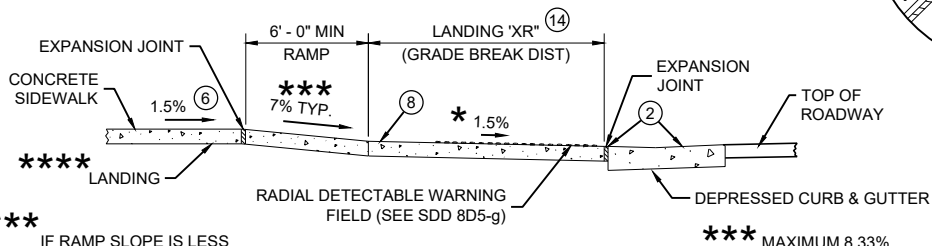


SECTION A - A FOR TYPE 4A1

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



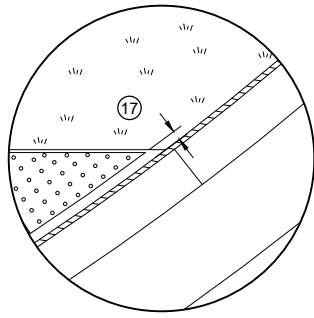
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



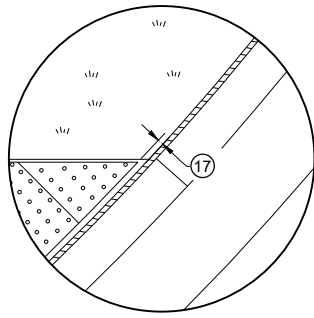
SECTION B - B FOR TYPE 4B1

LEGEND

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



DETAIL A



DETAIL B

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.

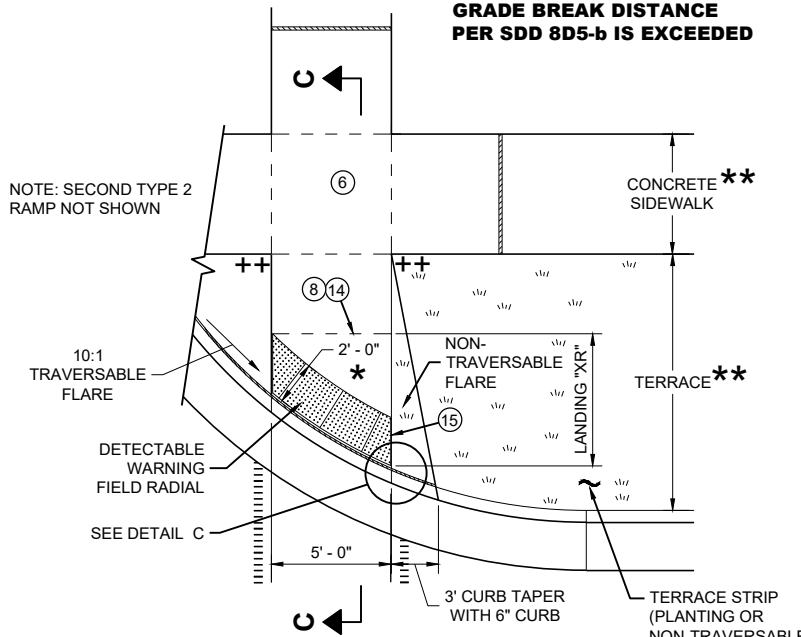
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

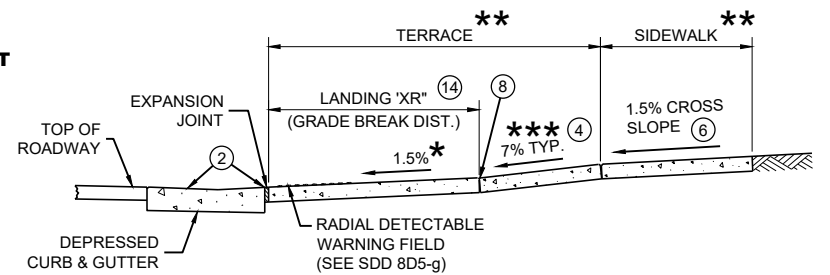
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- 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.

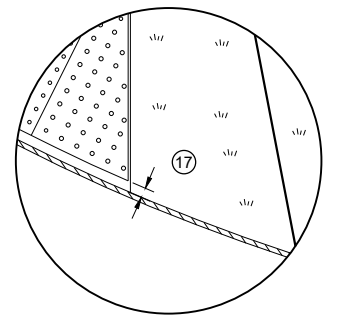
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**



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



SECTION C - C FOR TYPE 2



DETAIL C

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

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

*** MAXIMUM 8.33%

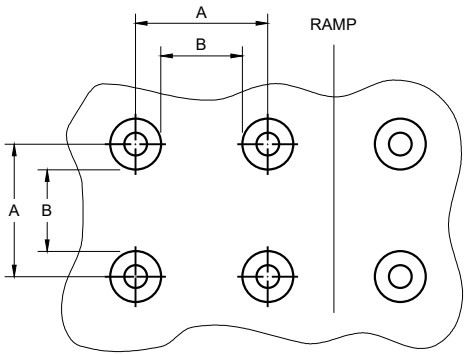
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

**CURB RAMPS
RADIAL DETECTABLE WARNING**

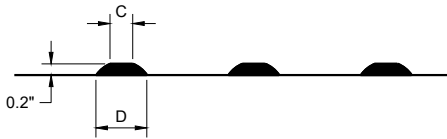
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

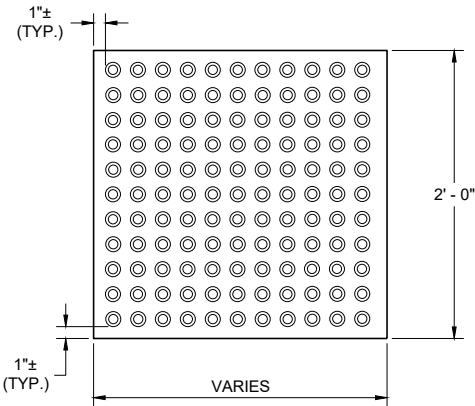


PLAN VIEW

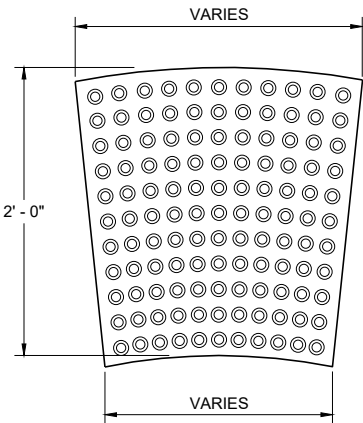


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

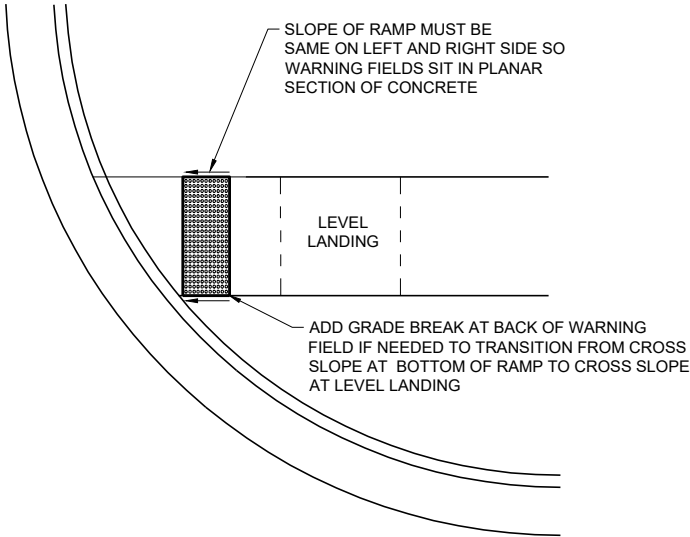


RECTANGULAR
PLATES



RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

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

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

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

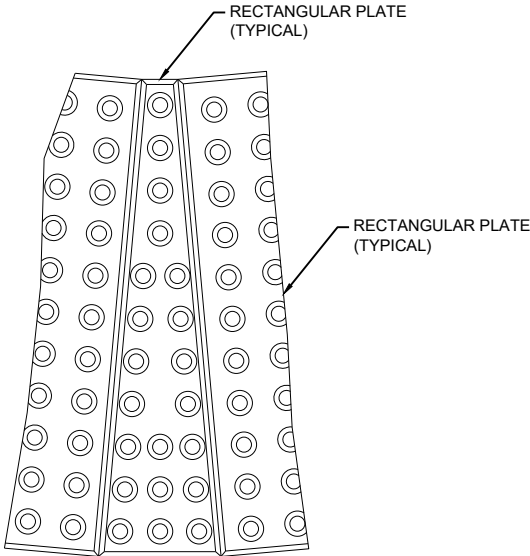
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

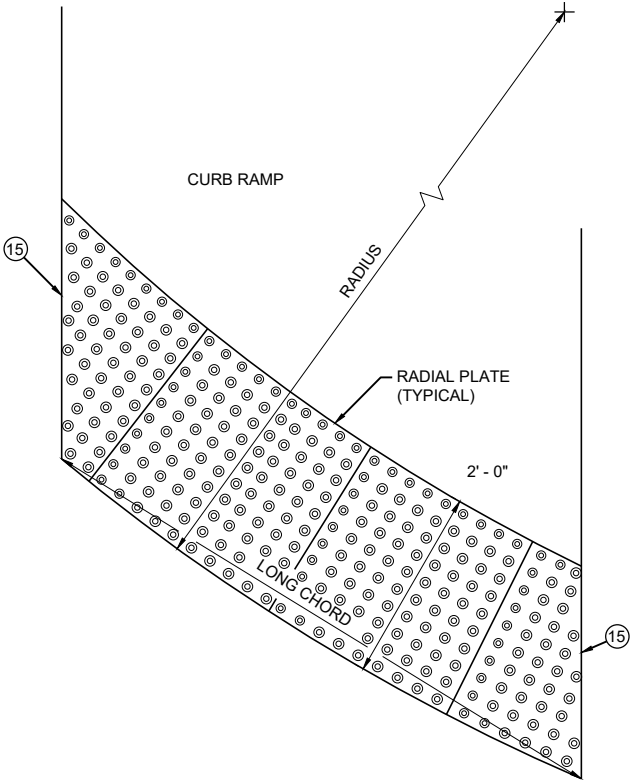
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

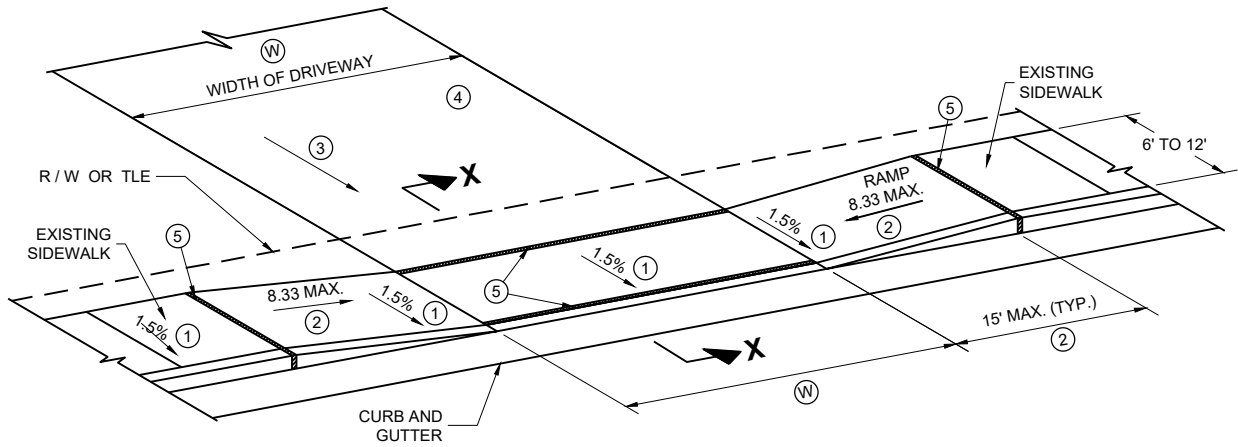


PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

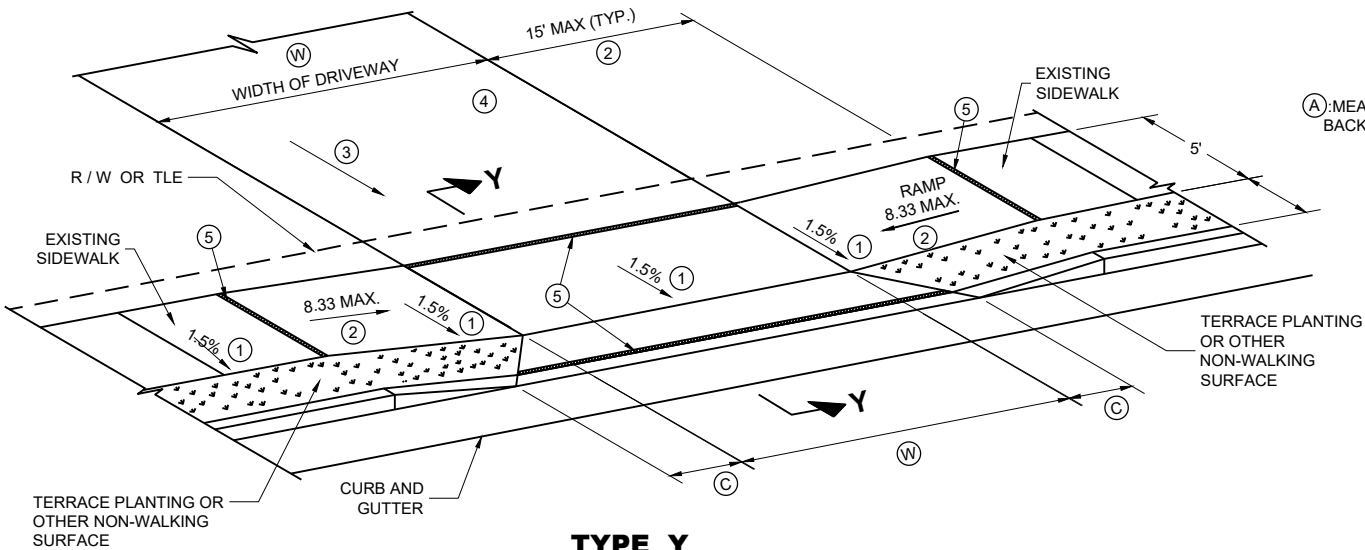
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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



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

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

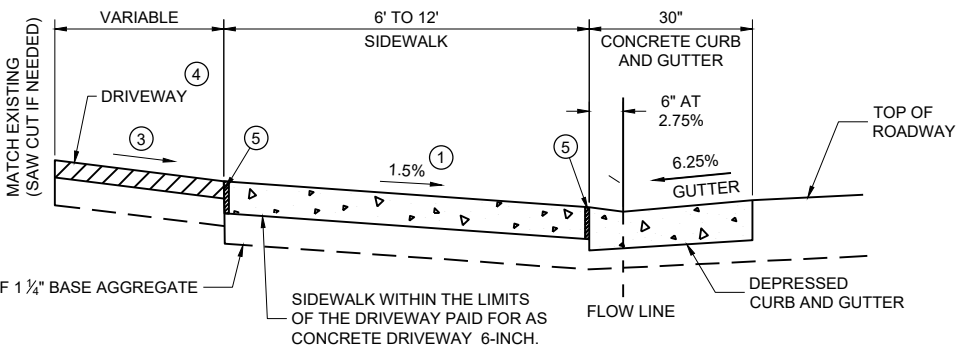
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

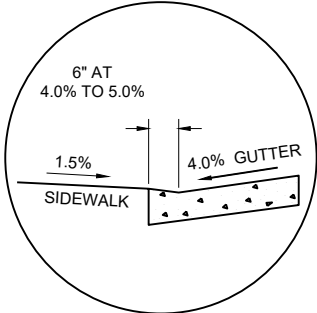
(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

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

(5) ½" EXPANSION JOINT FILLER



SECTION X - X



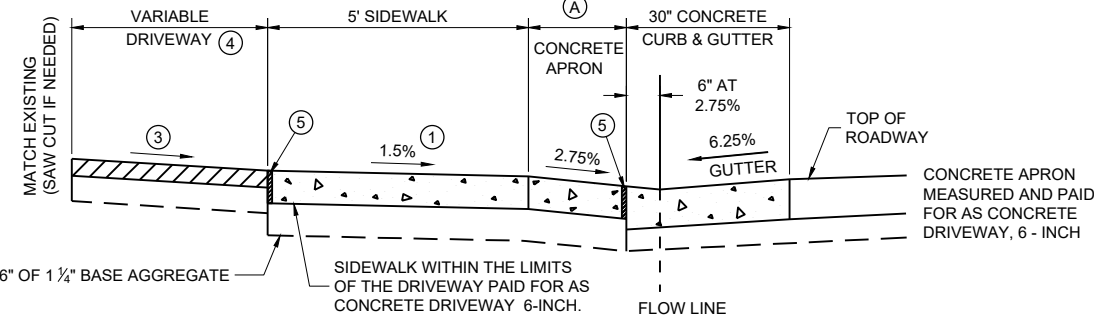
SECTION X - X
4% GUTTER SLOPE

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

TABLE Y

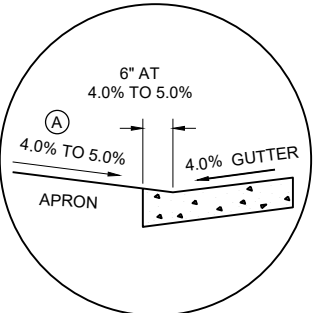
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

(A): MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

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

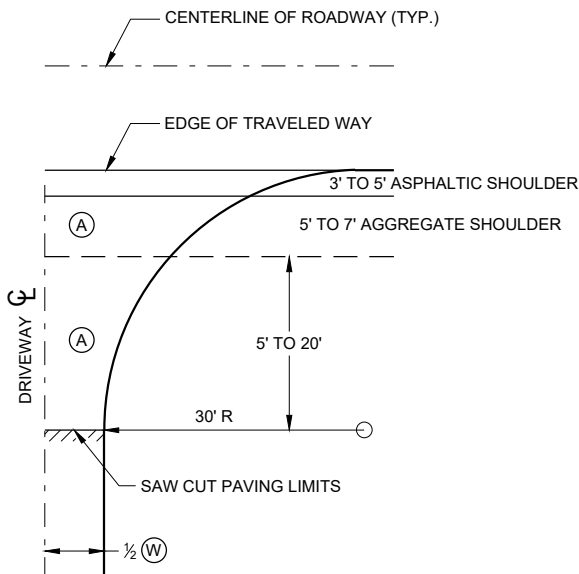


SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X AND Y

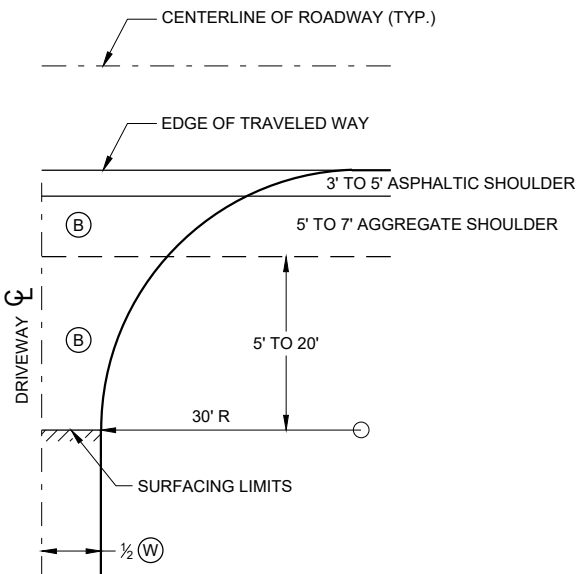
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

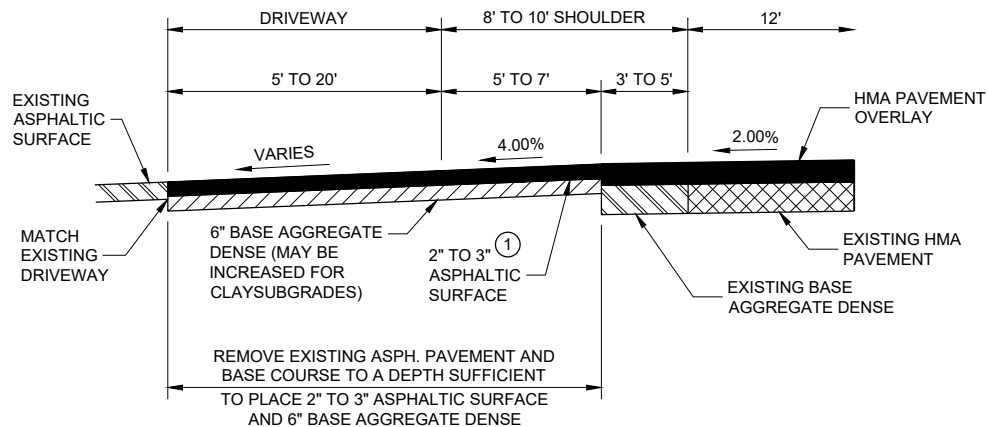


PLAN VIEW
HALF SECTION

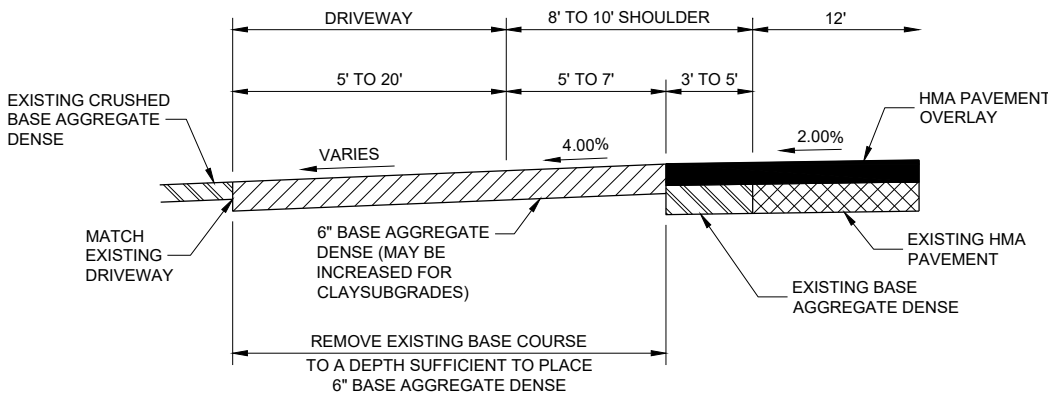
- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS



PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

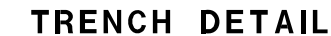
DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 94
FHWA



- 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.

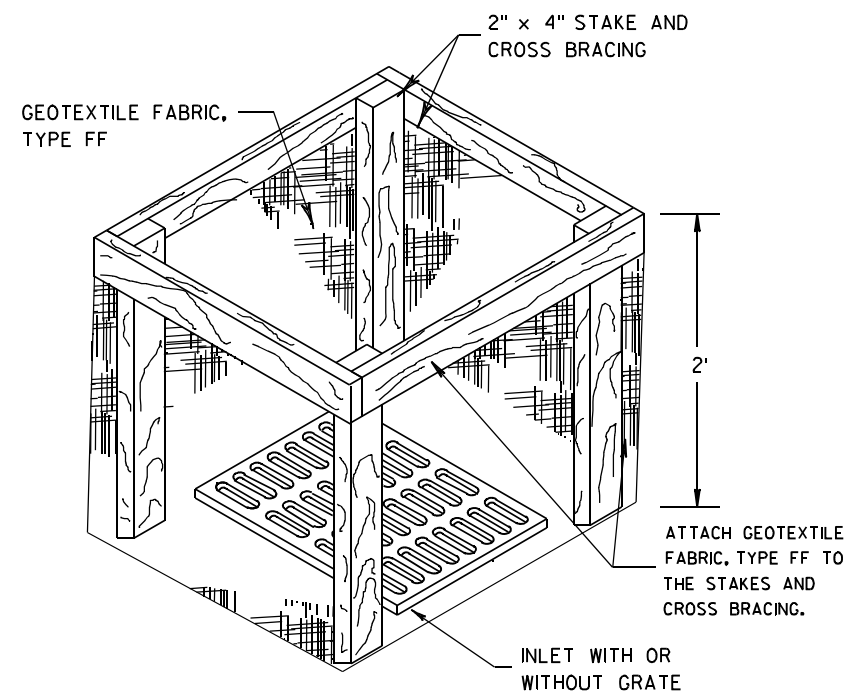
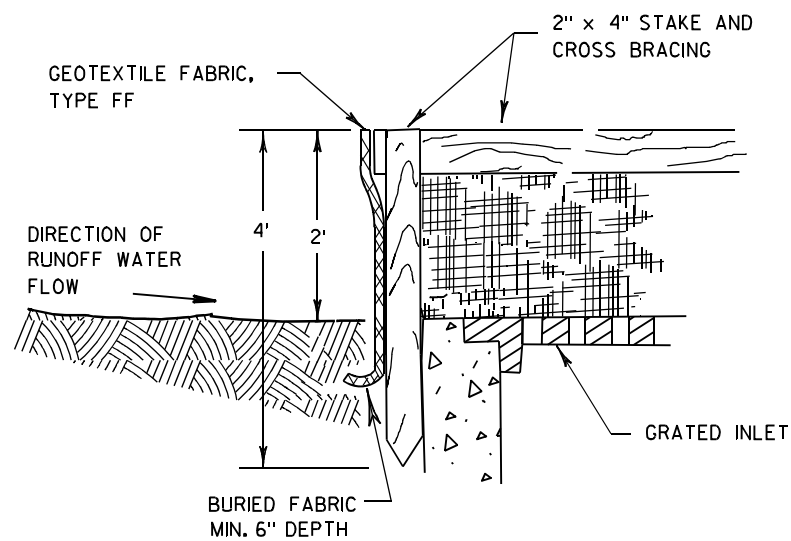


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



INLET PROTECTION, TYPE A

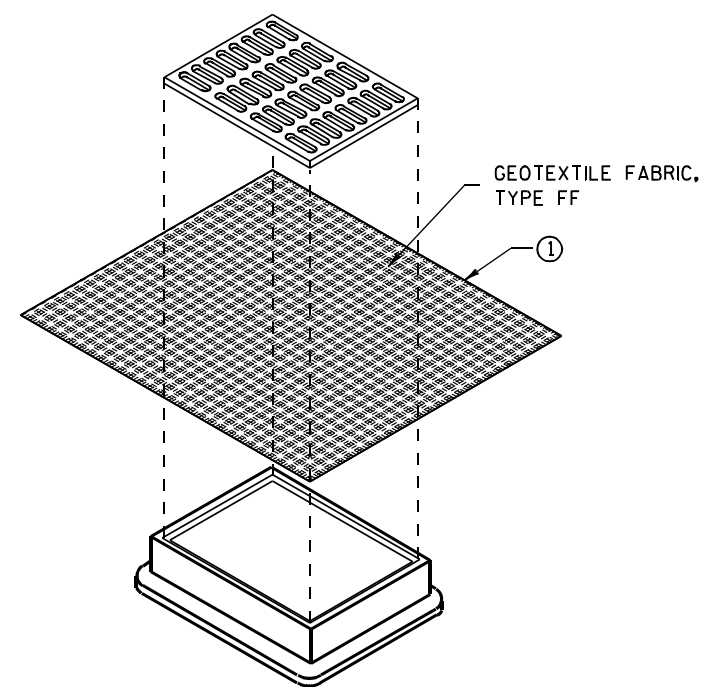
GENERAL NOTES

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.

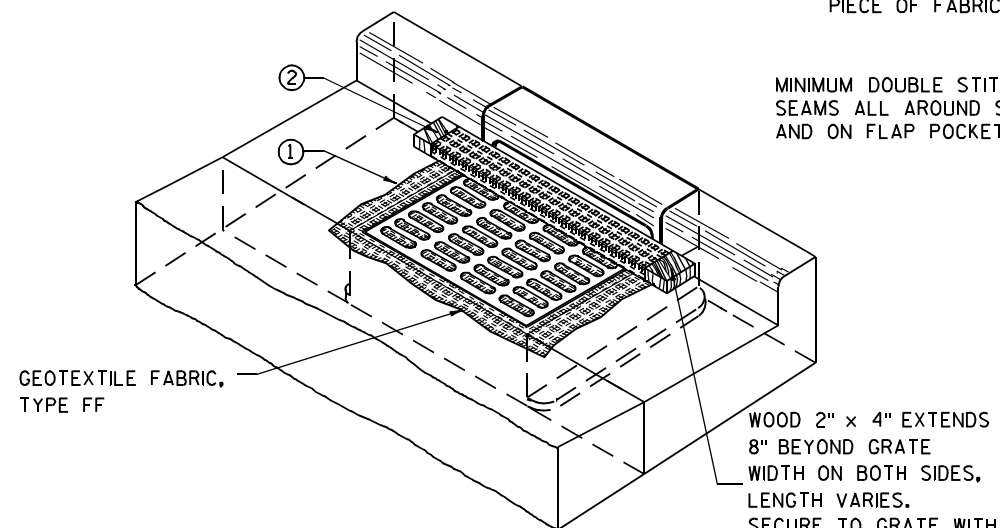
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

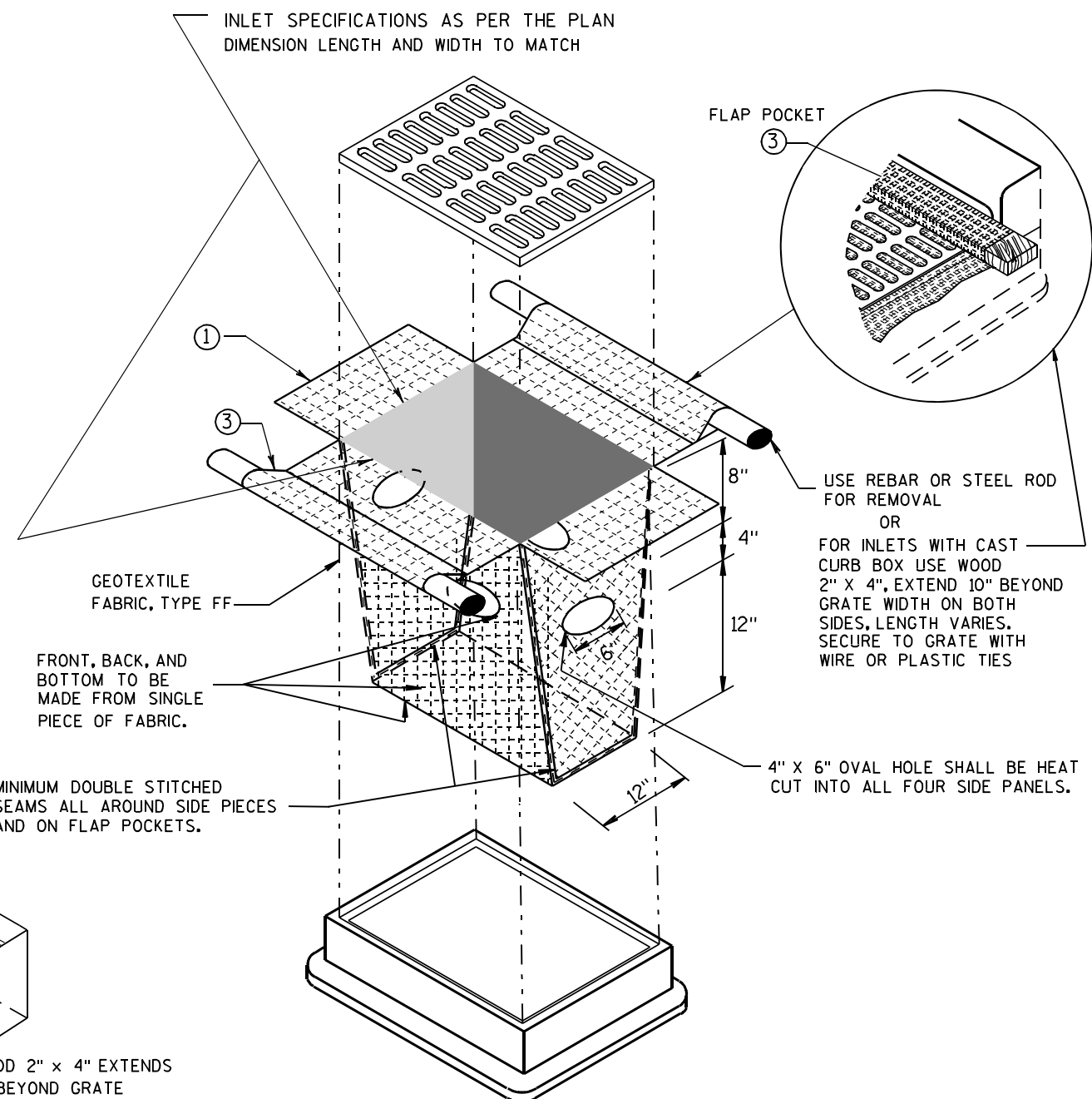
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



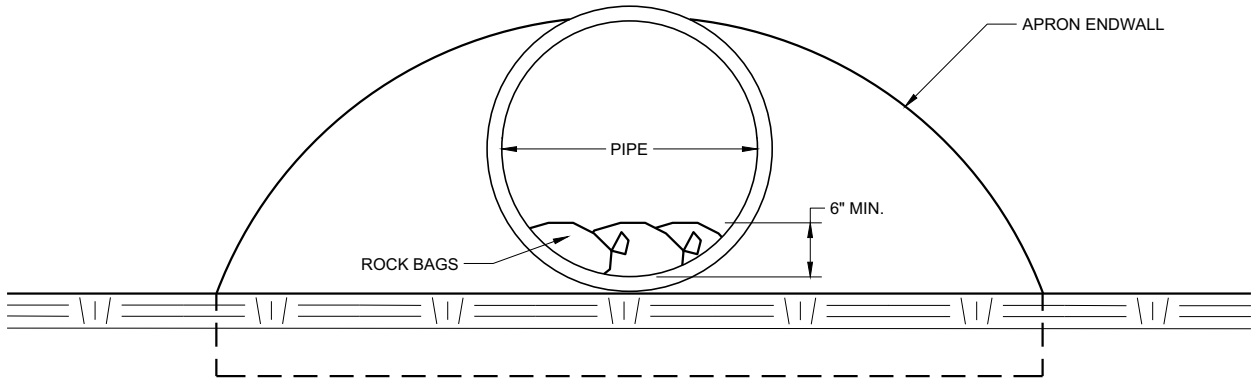
INLET PROTECTION, TYPE D

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

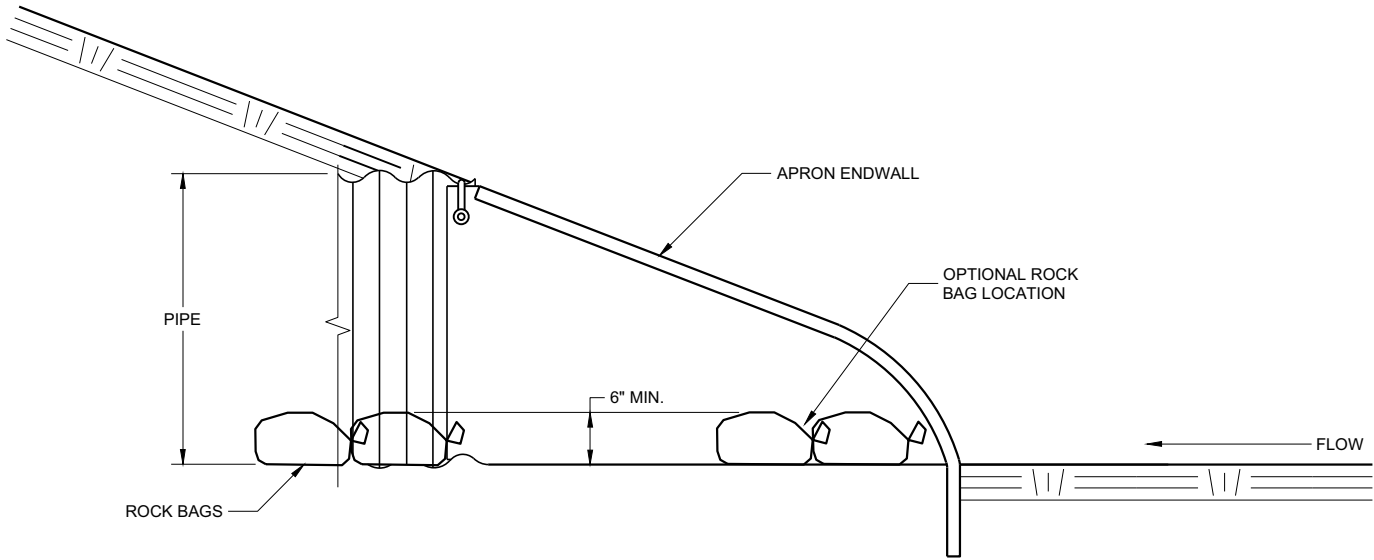
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 96
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



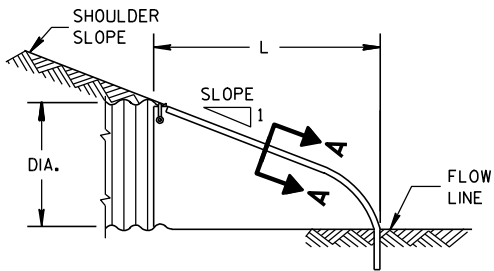
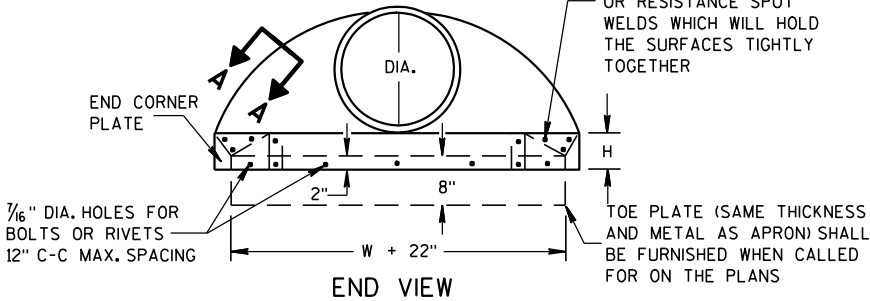
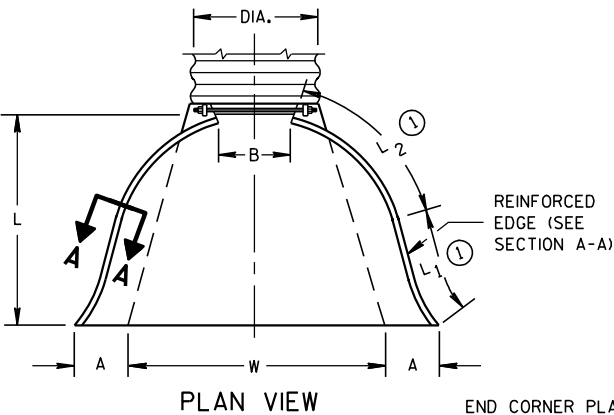
SIDE VIEW

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 ENGR 97
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	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	3 Pc.

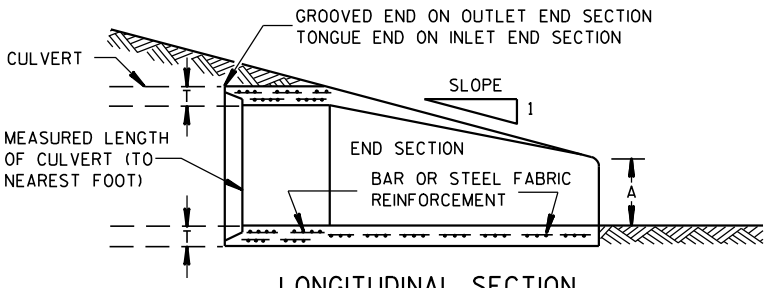
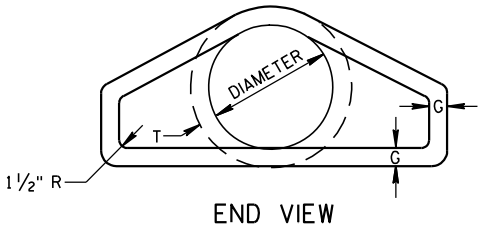
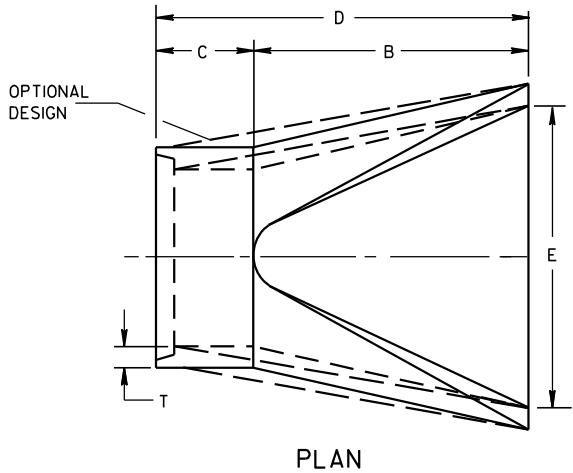
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



METAL ENDWALLS

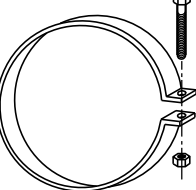
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1				
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1				
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1				
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1				
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1				
48	5	24	72	26	98	84	5	3 to 1				
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 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

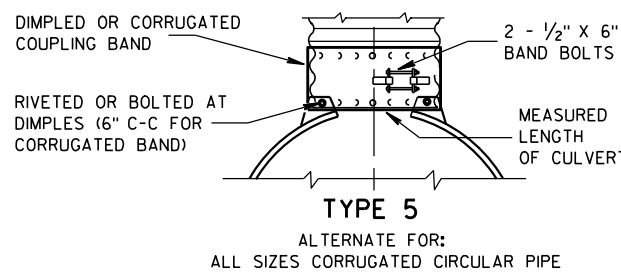
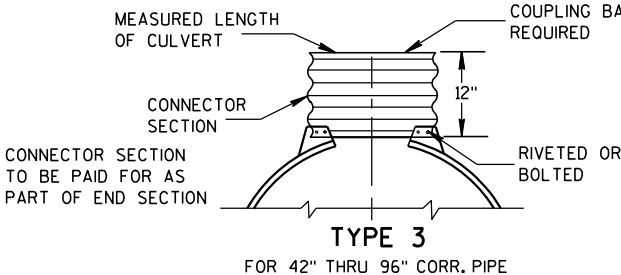
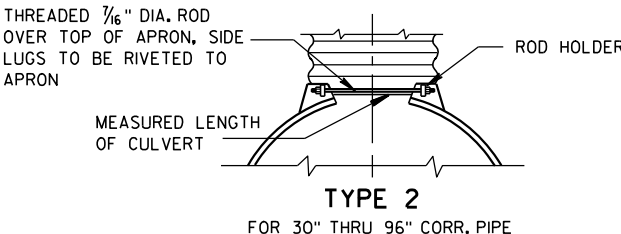
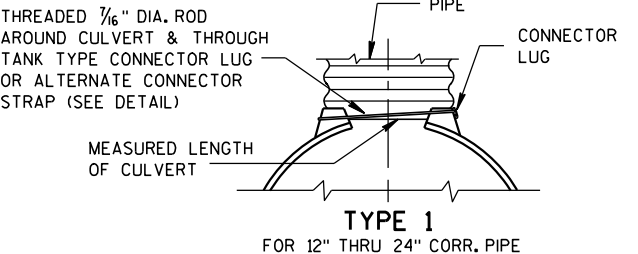


CONCRETE ENDWALLS

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



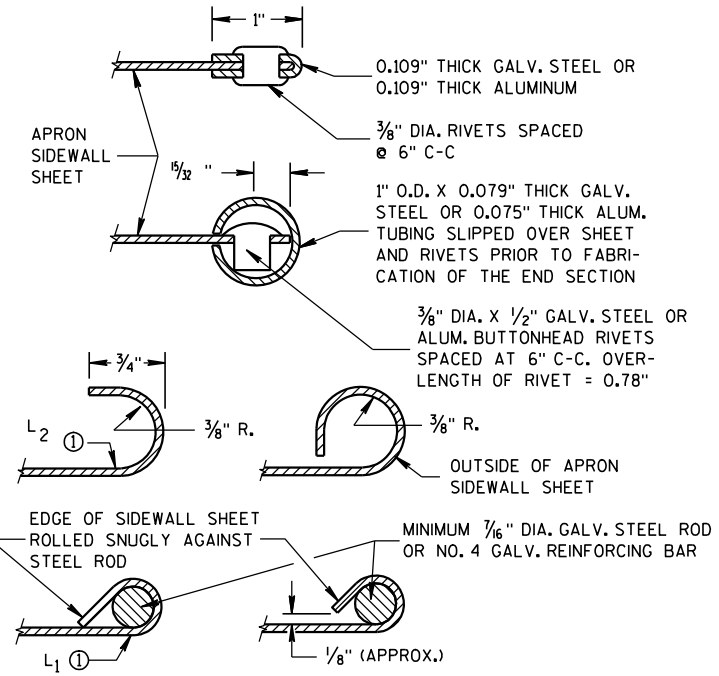
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

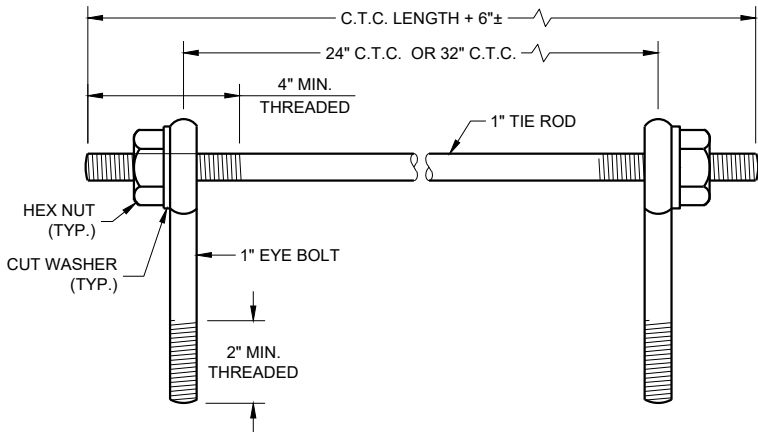
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

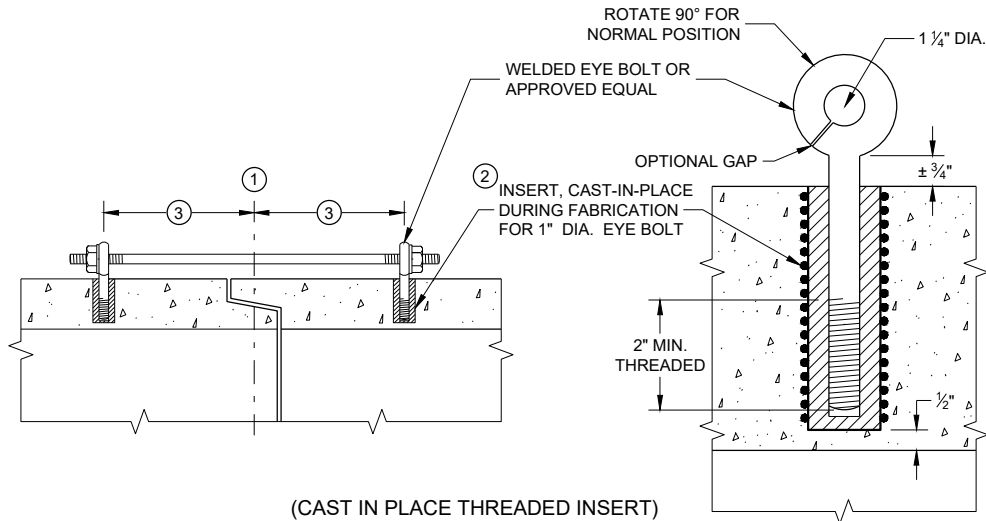
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP 98	NEER	
FHWA			



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

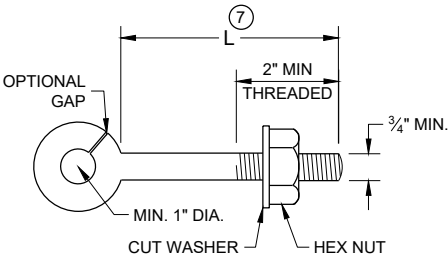
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

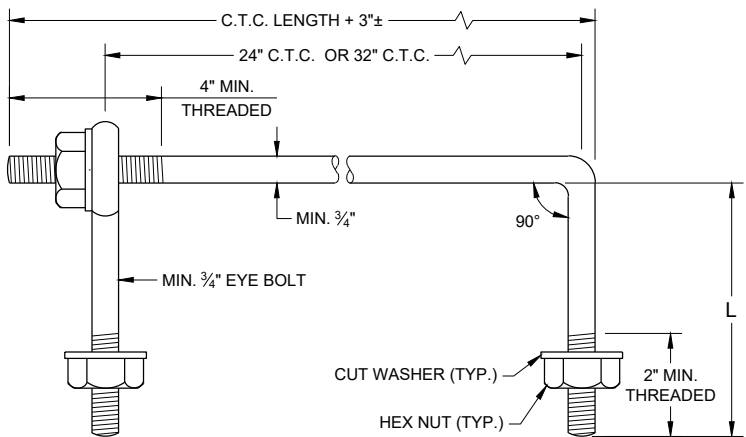
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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.

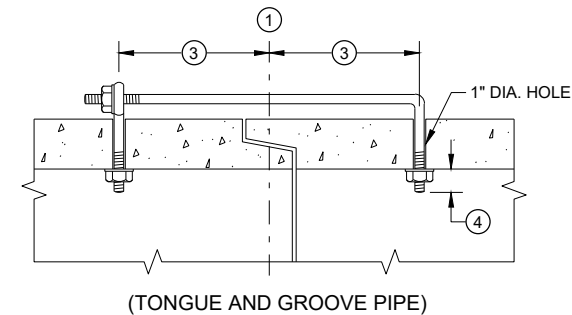


EYE BOLT 7

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

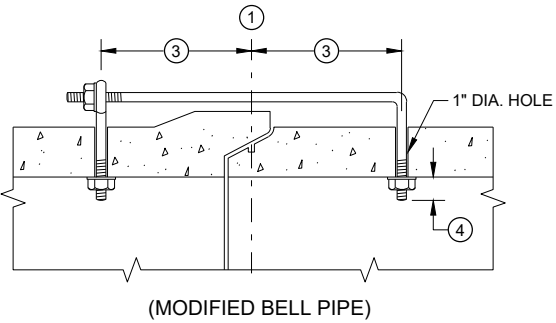


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

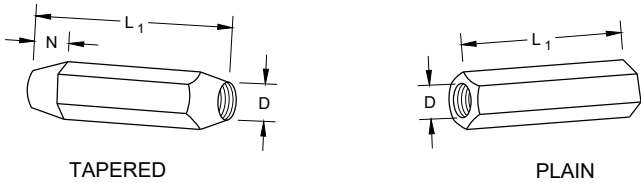


(MODIFIED BELL PIPE)

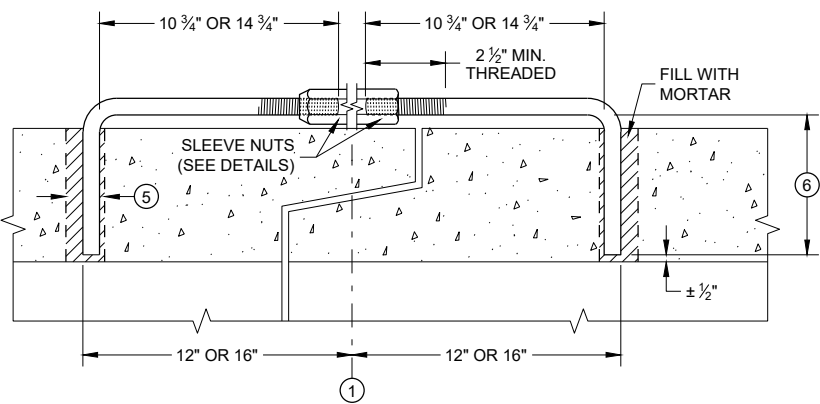
ADJUSTABLE TIE ROD TABLE

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

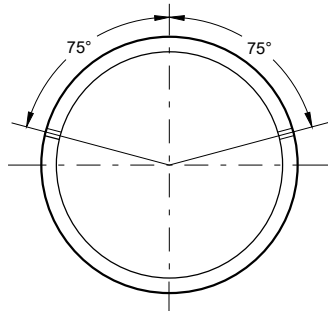


RIGHT AND LEFT THREADS
SLEEVE NUTS



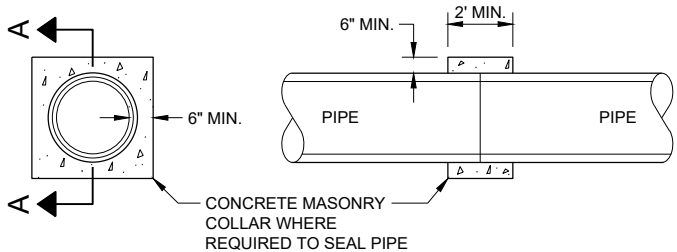
LONGITUDINAL SECTION

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



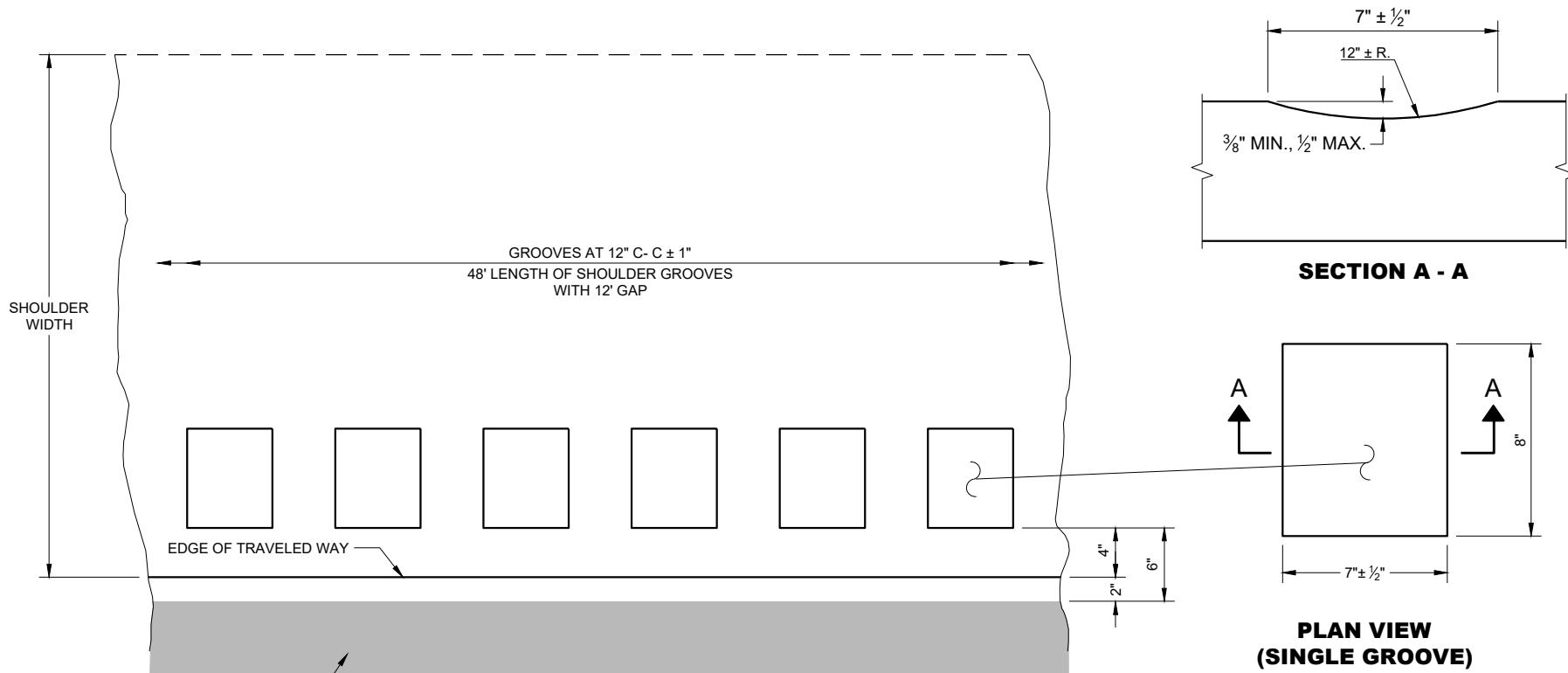
SECTION A - A

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
FHWA

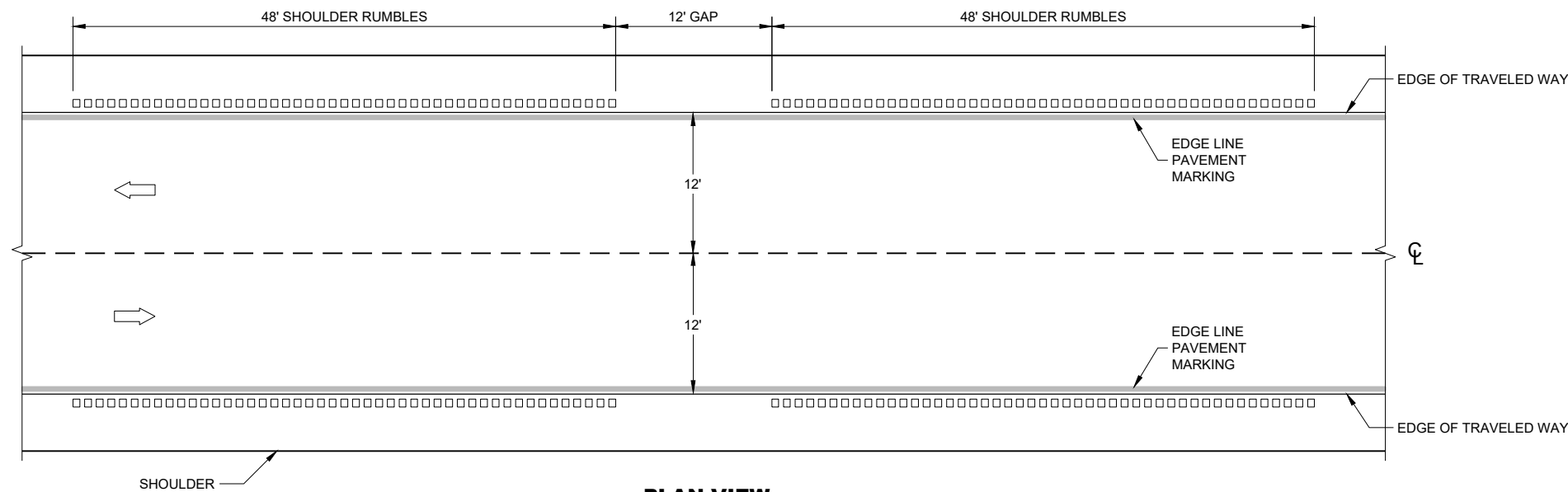
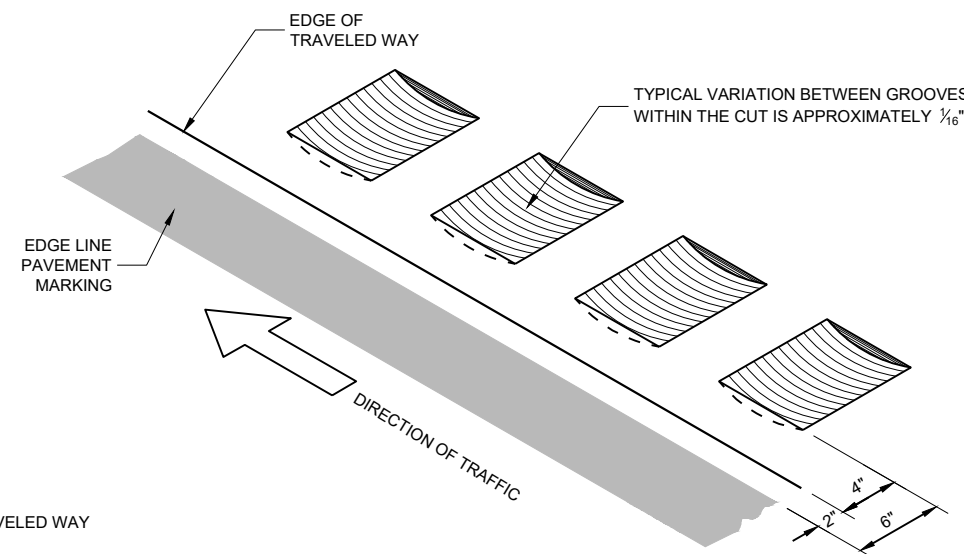


GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

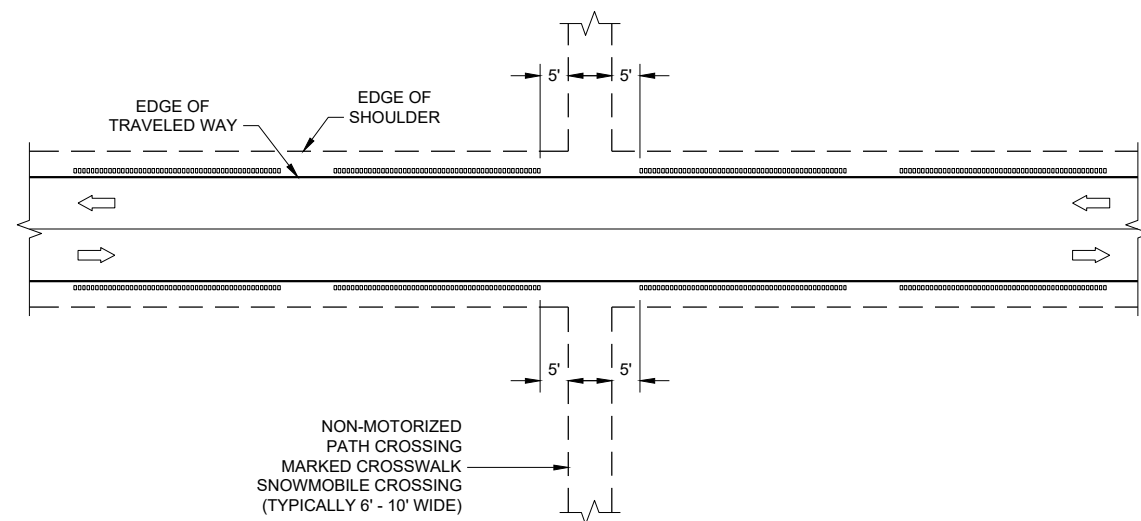
**PLAN DETAIL VIEW
SHOULDER WITH GROOVES**



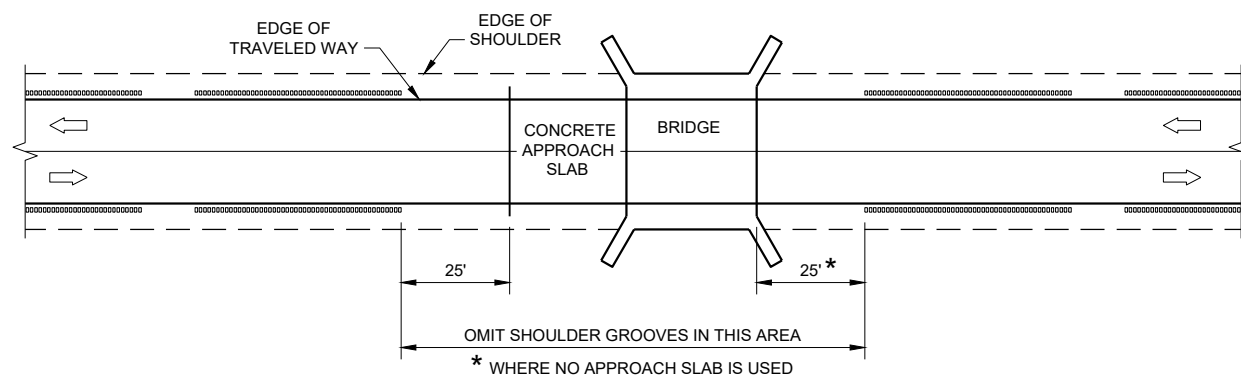
SHOULDER RUMBLE STRIPS - ASPHALT

**SHOULDER RUMBLE
STRIPS ASPHALT**

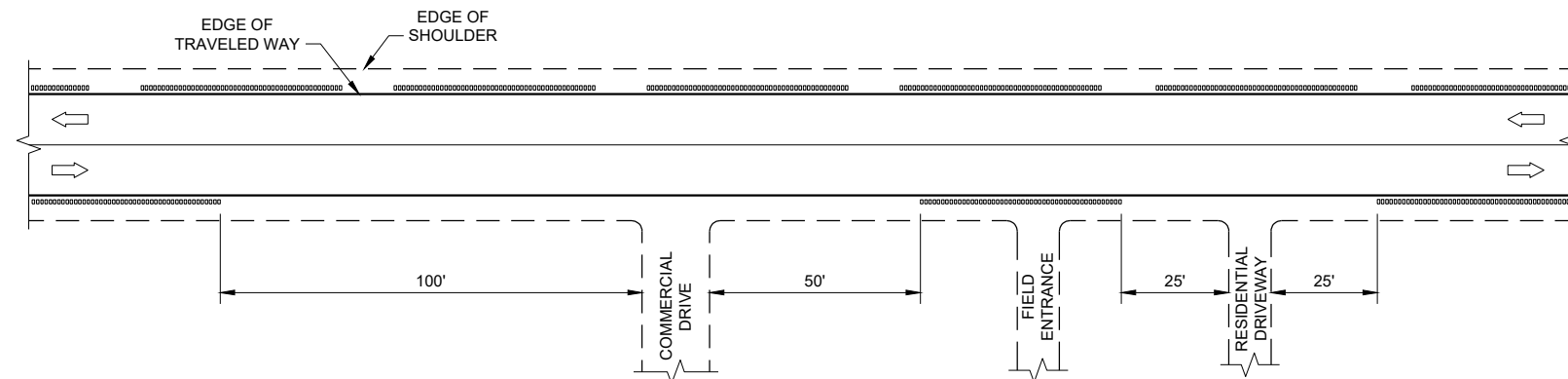
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 100



GROOVES AT MISCELLANEOUS CROSSINGS

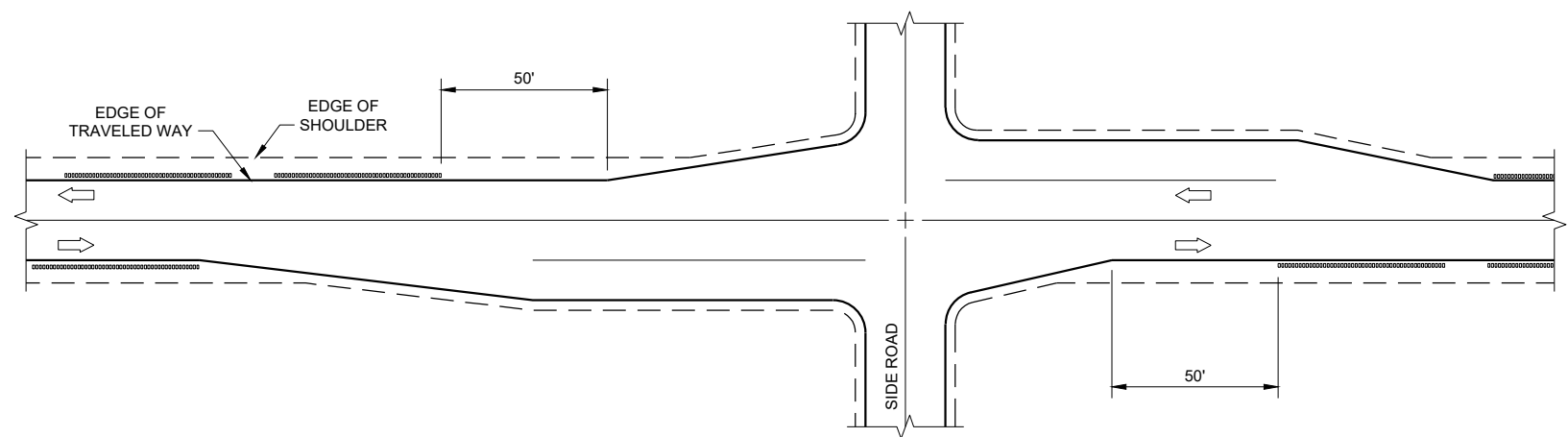


GROOVES AT BRIDGES

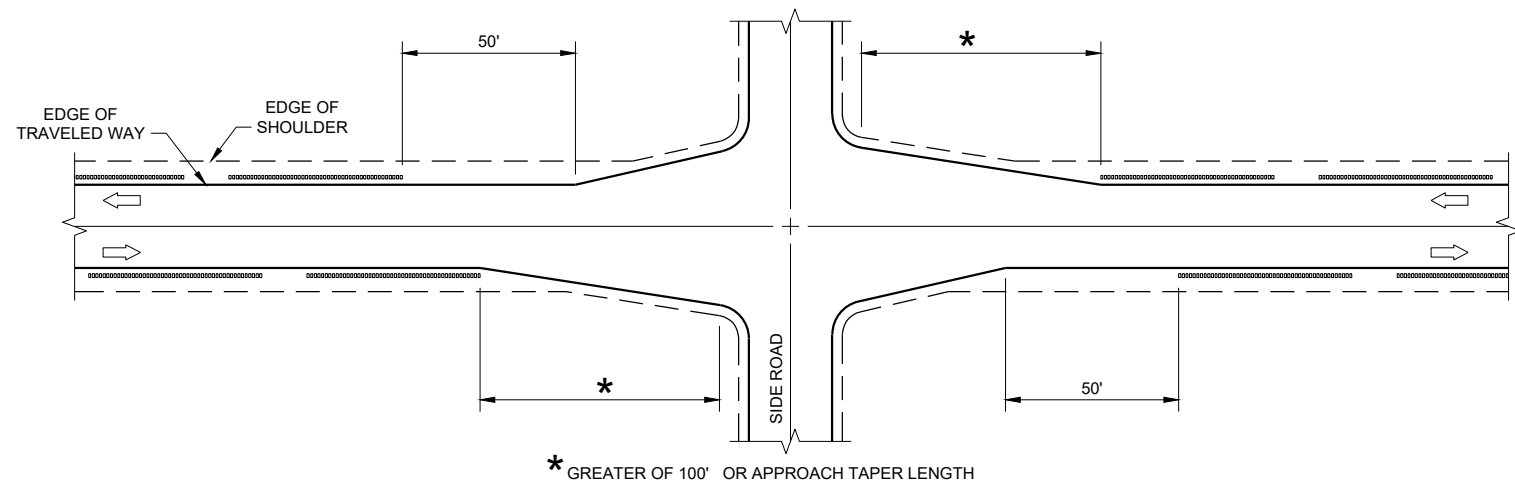


GROOVES AT DRIVEWAYS

①



GROOVES AT RIGHT TURN LANE



GROOVES AT INTERSECTIONS WITH APPROACH TAPER

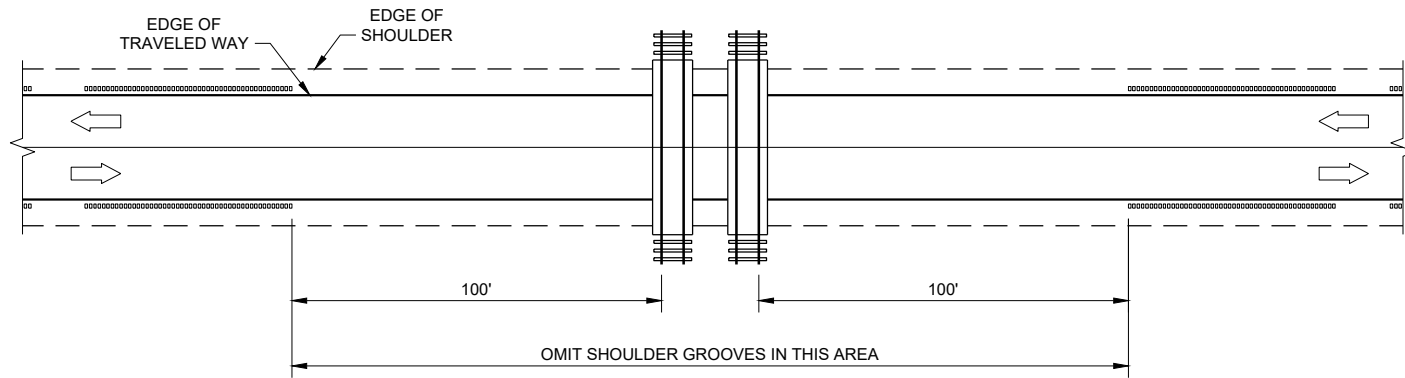
* GREATER OF 100' OR APPROACH TAPER LENGTH

GENERAL NOTES

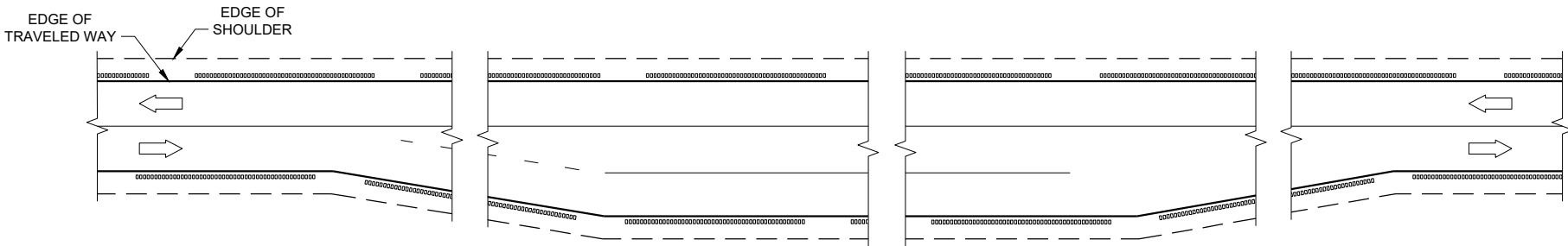
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

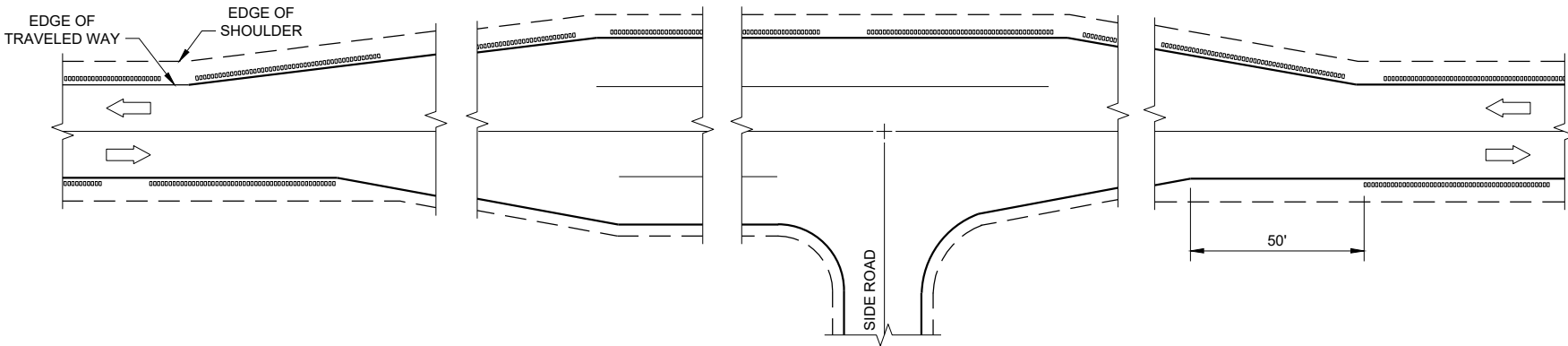
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 101



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES

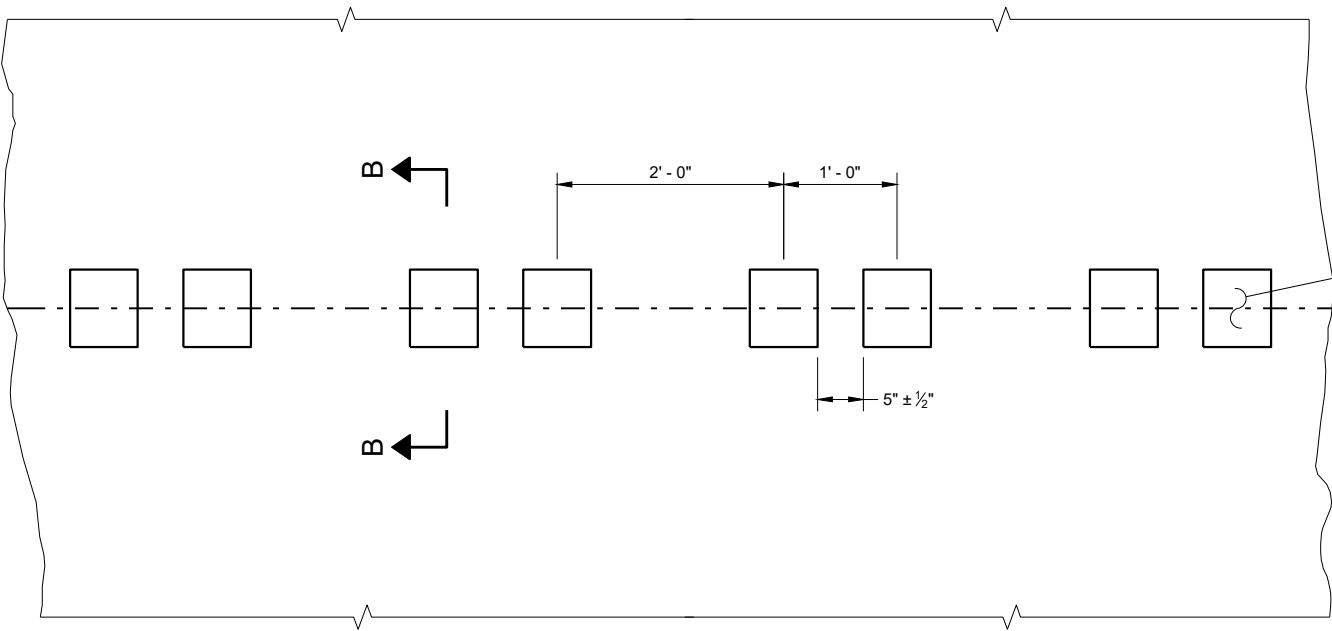


GROOVES AT BYPASS LANES

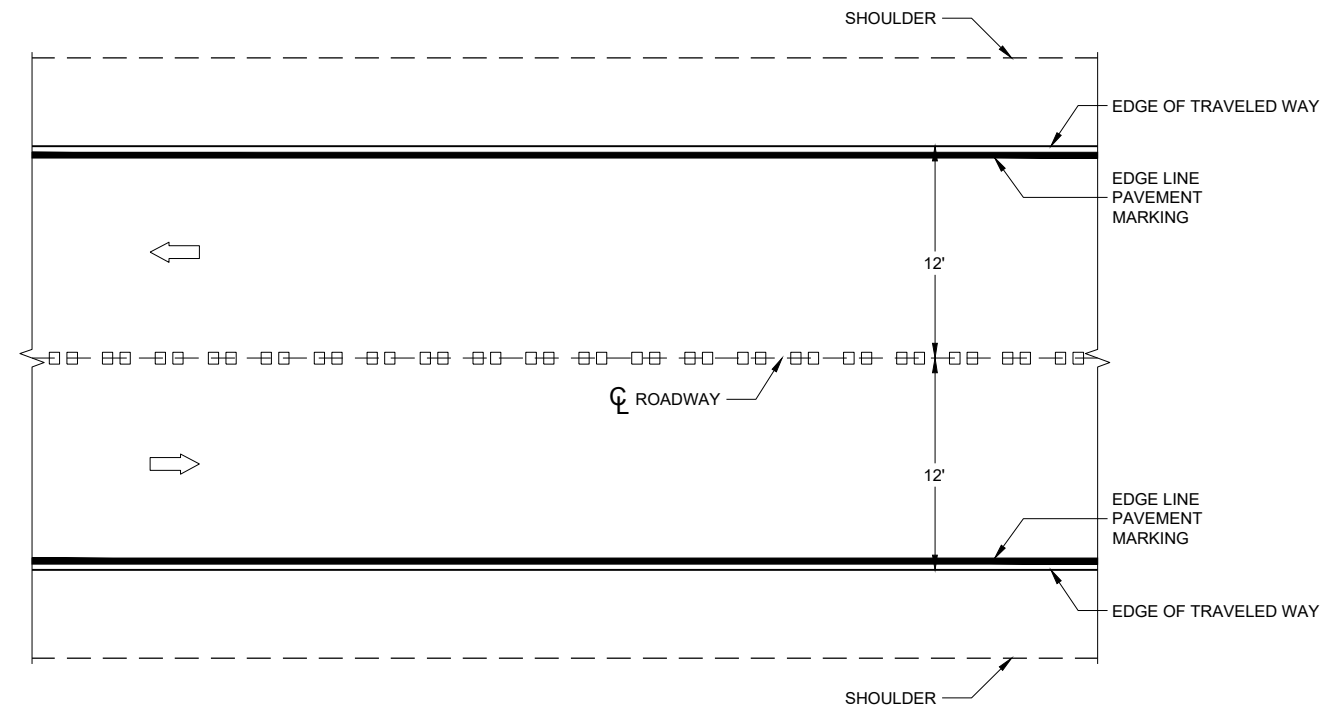
**SHOULDER AND EDGE LINE
RUMBLE STRIPS -
RAILROAD, PASSING,
CLIMBING AND BYPASS LANES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ John Jenkins
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA 102

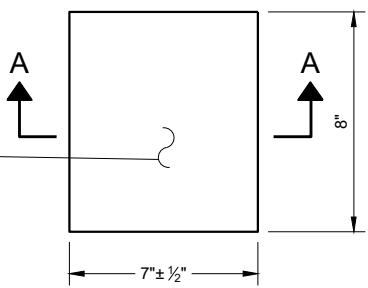


PLAN DETAIL VIEW

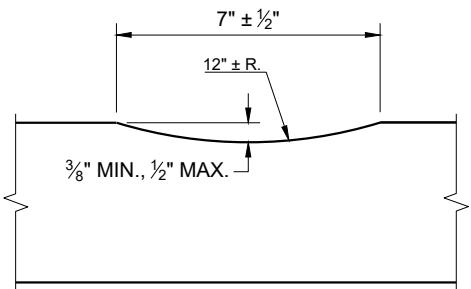


PLAN VIEW

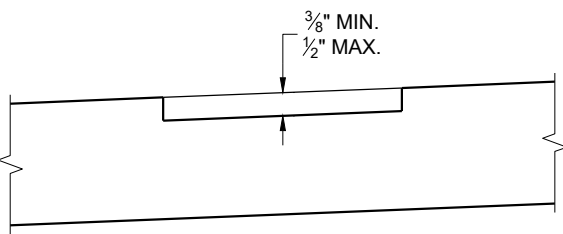
CENTERLINE RUMBLE STRIPS - ASPHALT



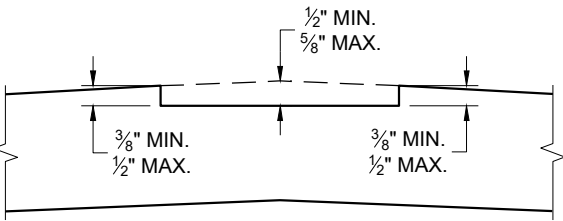
PLAN VIEW
(SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

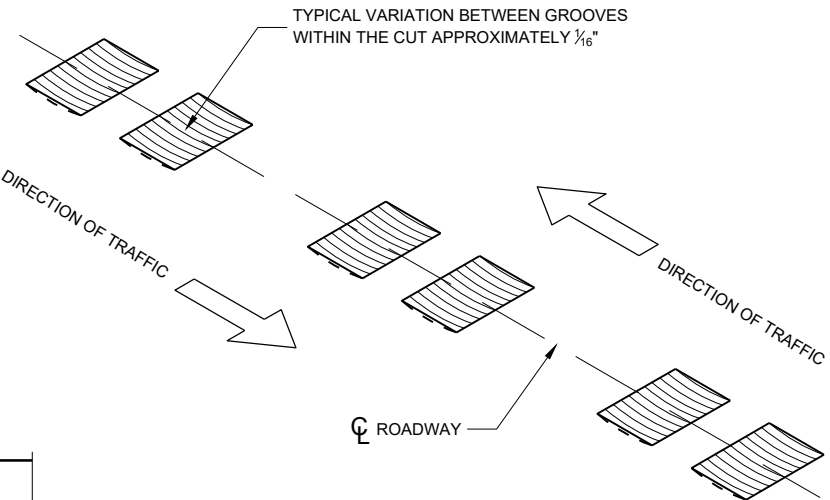


SECTION B - B
CROWNED ROADWAY

GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

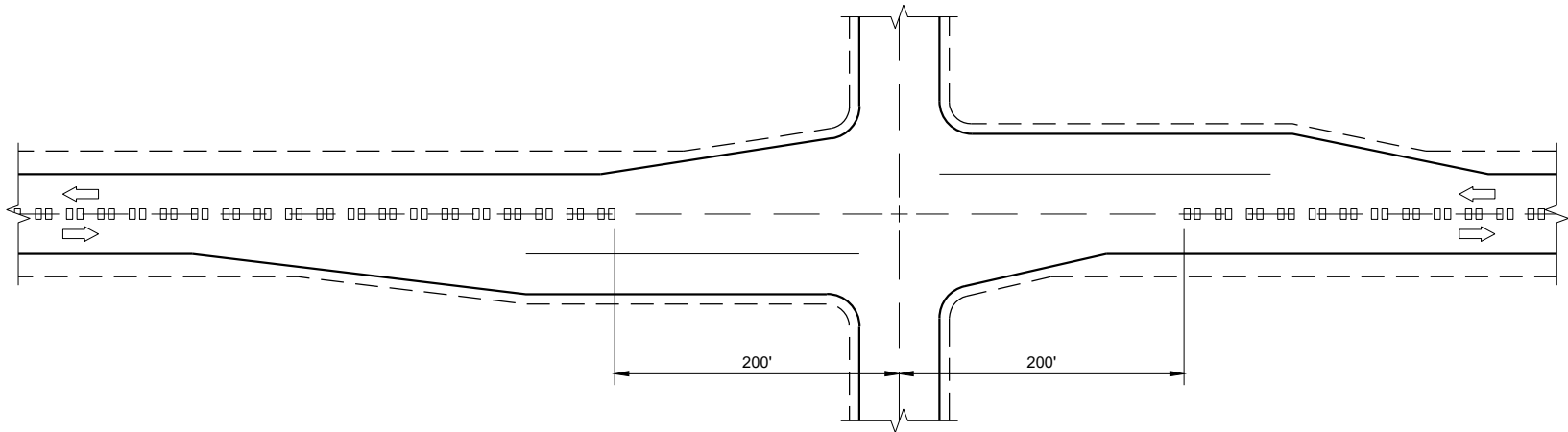
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



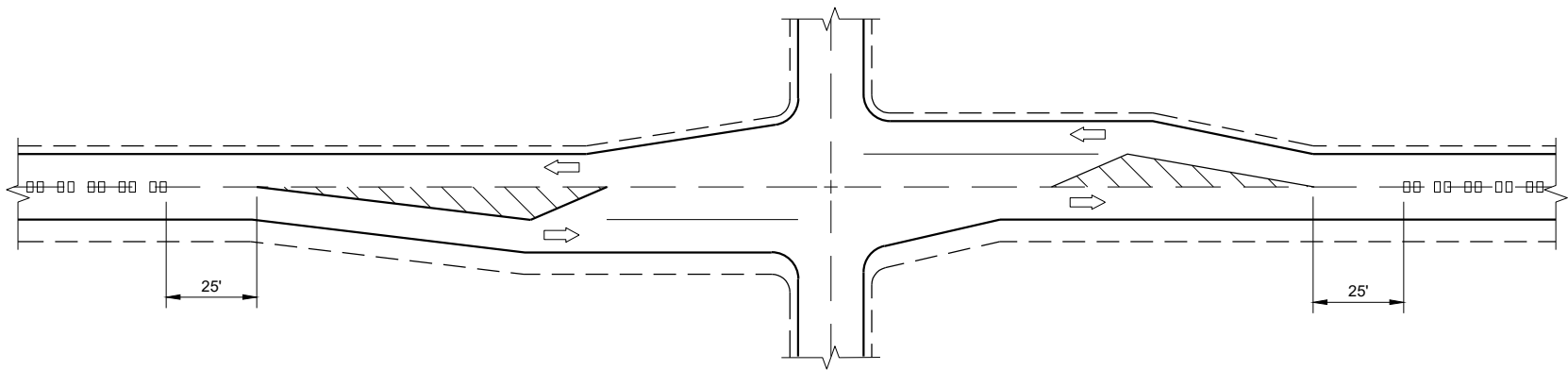
ISOMETRIC

CENTERLINE RUMBLE STRIPS - ASPHALT

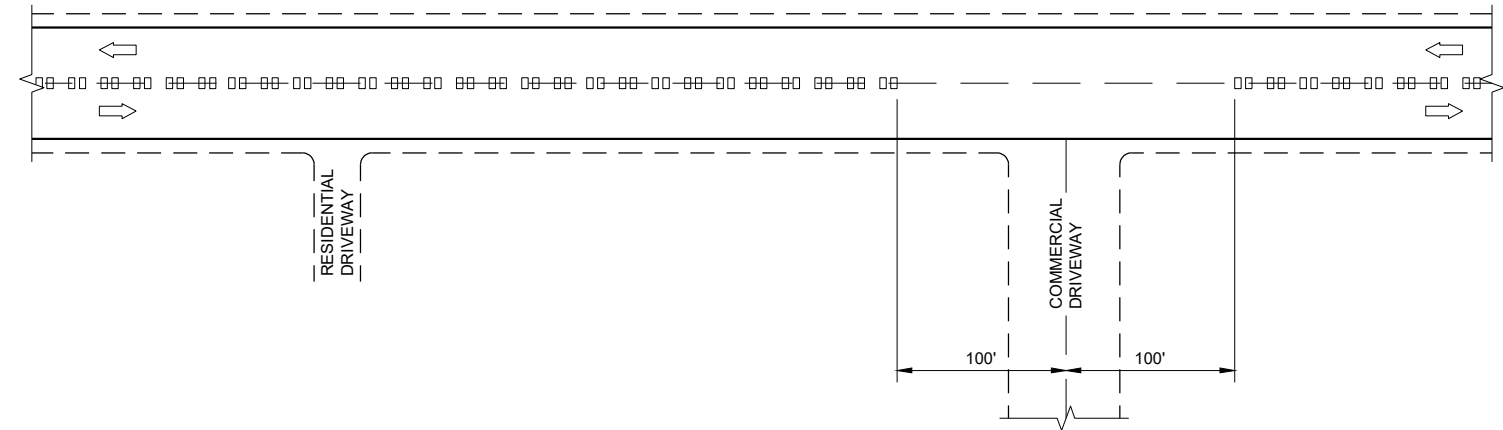
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 103



CENTERLINE GROOVES AT INTERSECTIONS



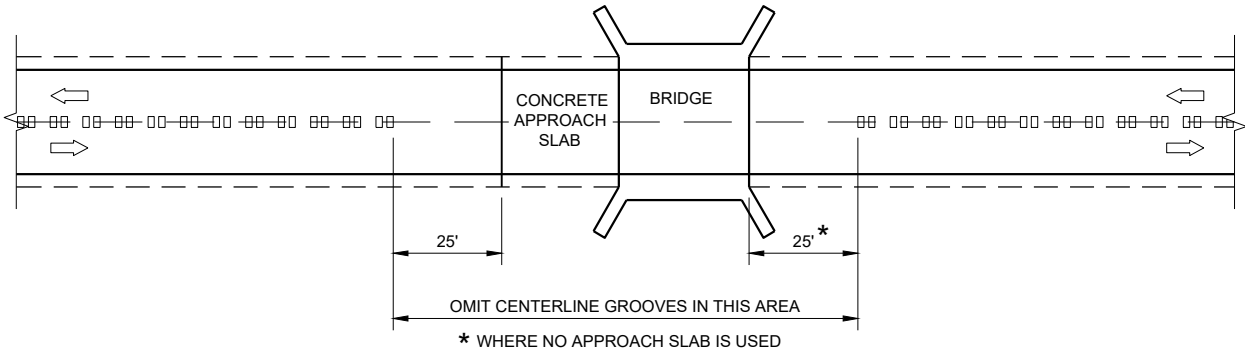
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



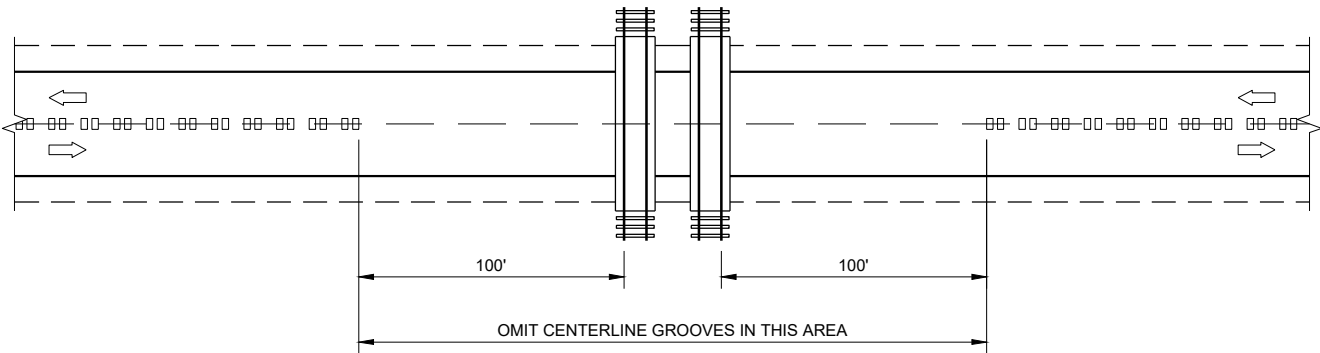
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES

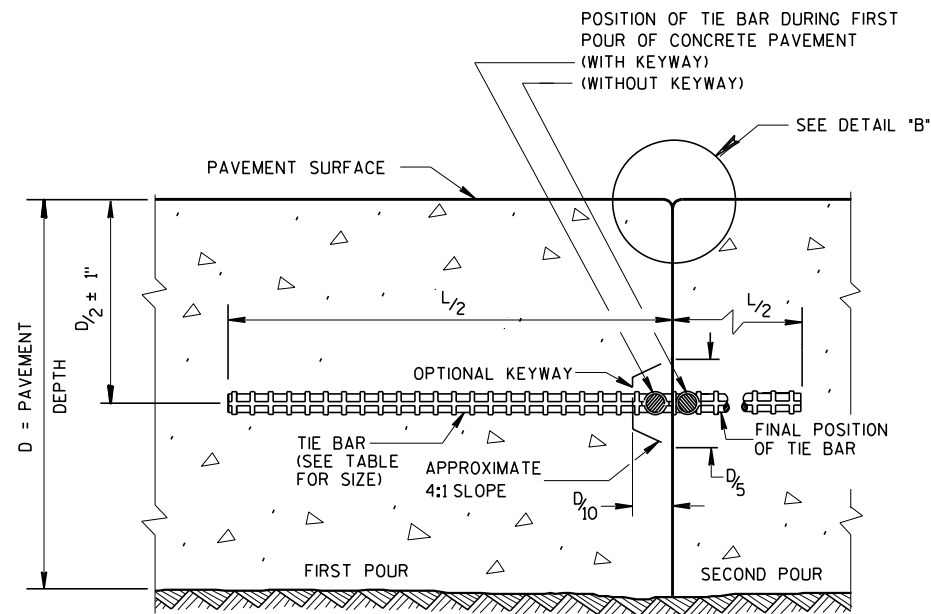


CENTERLINE GROOVES AT RAILROADS

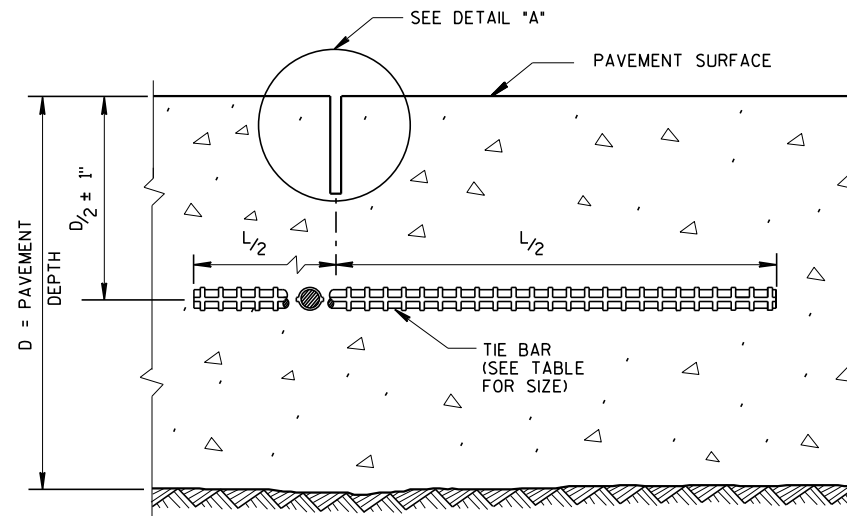
CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT ENGINEER



CONSTRUCTION JOINT



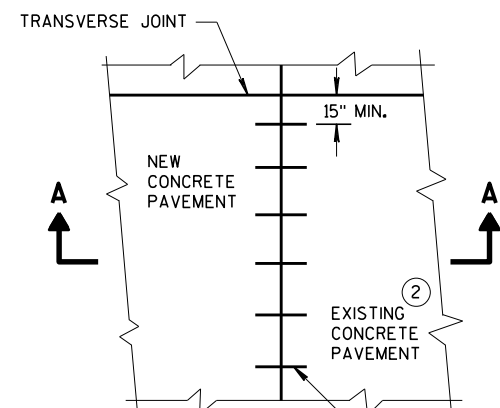
SAWED JOINT

GENERAL NOTES

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

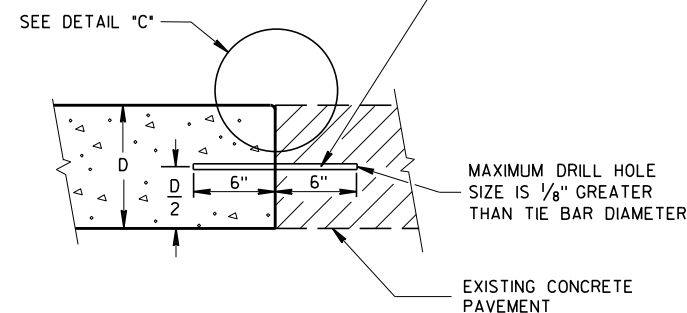
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

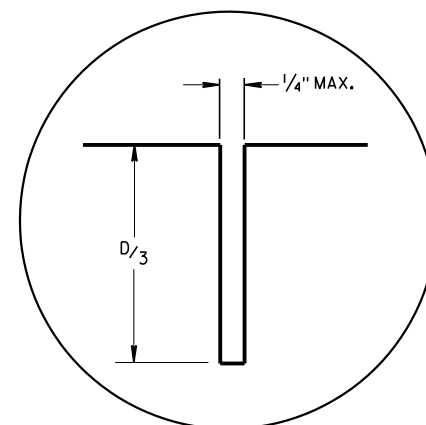


PLAN VIEW

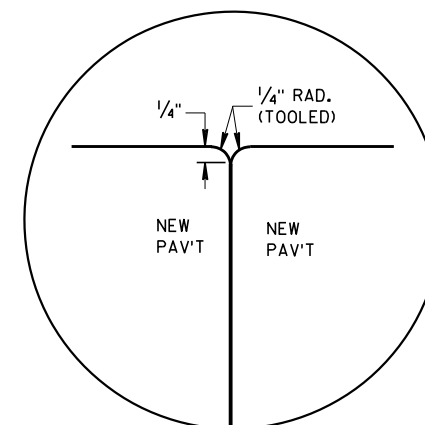
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



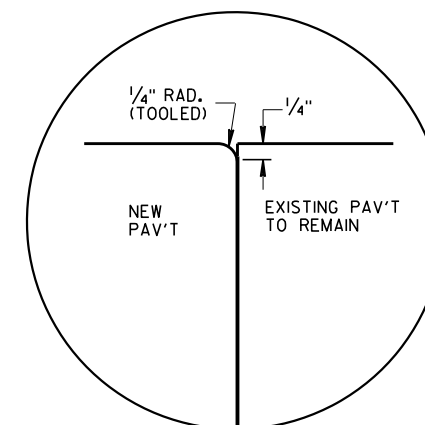
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



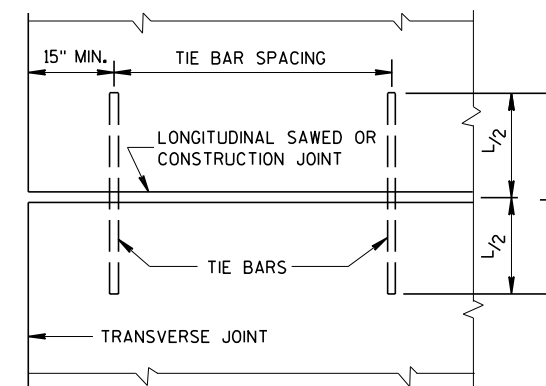
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

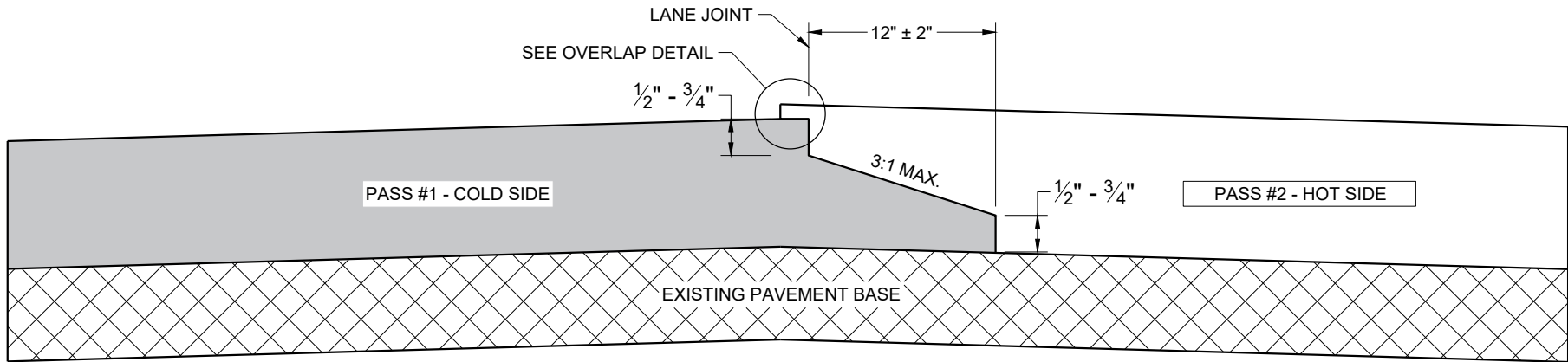


PLAN VIEW
SHOWING LOCATION OF TIE BARS

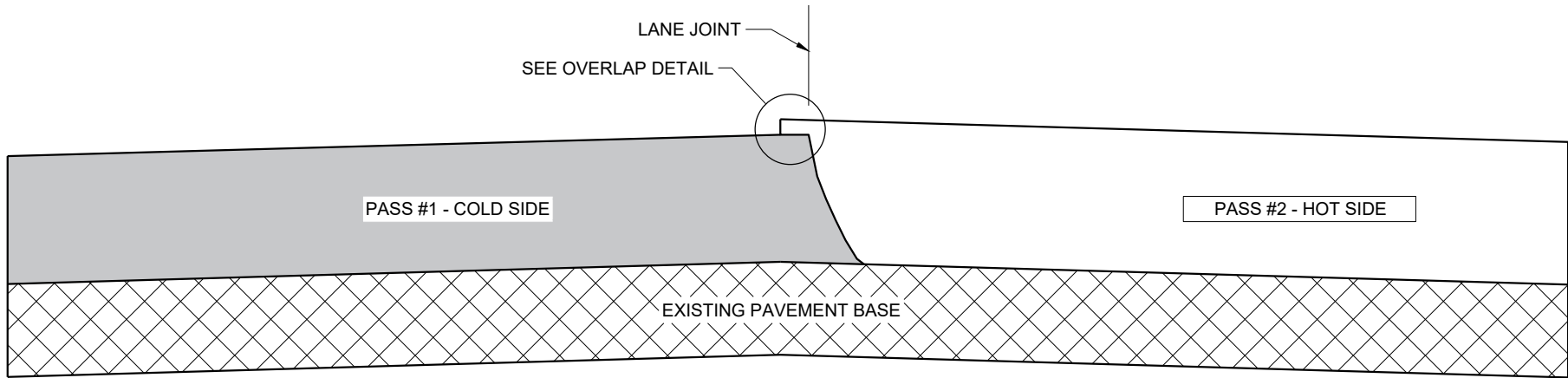
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

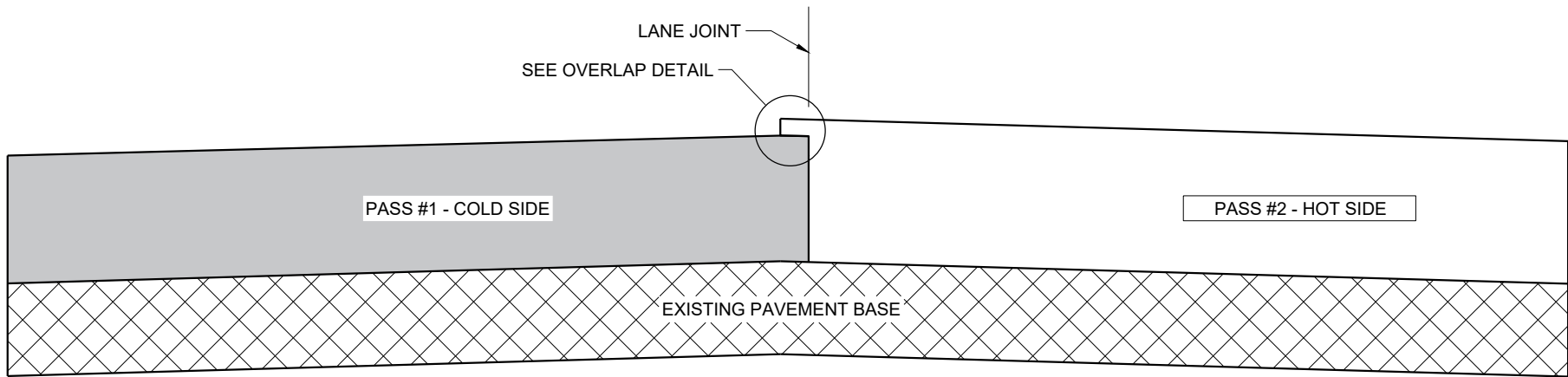
APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 105
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

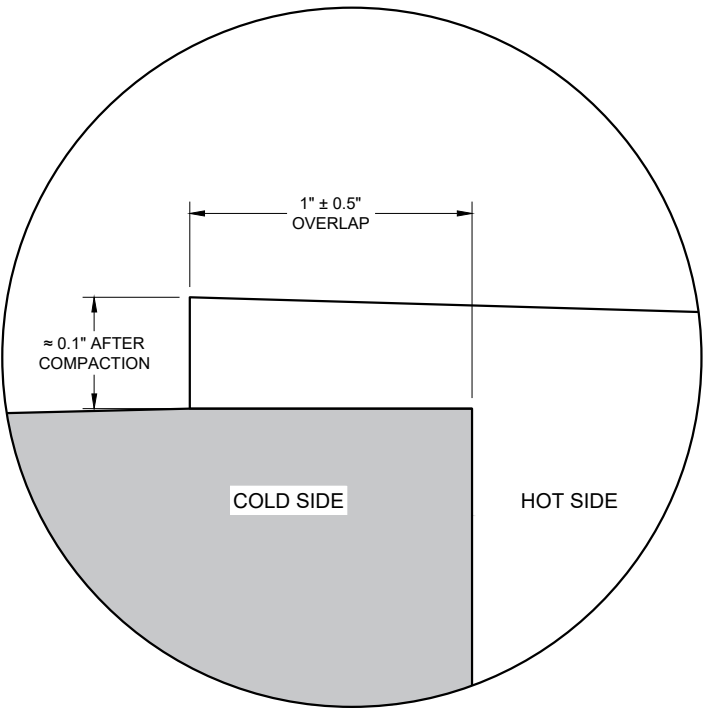
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

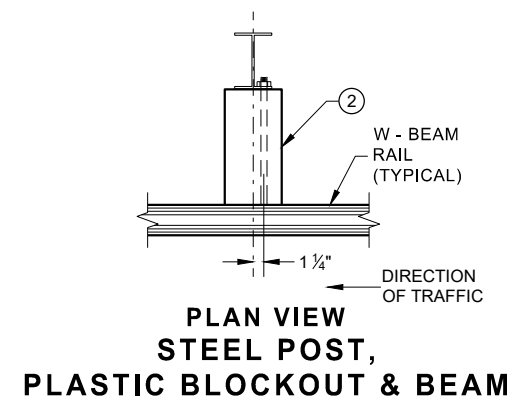
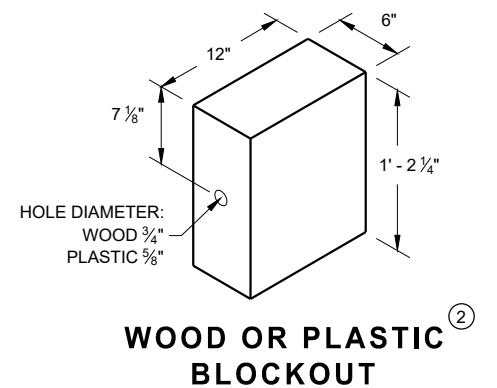
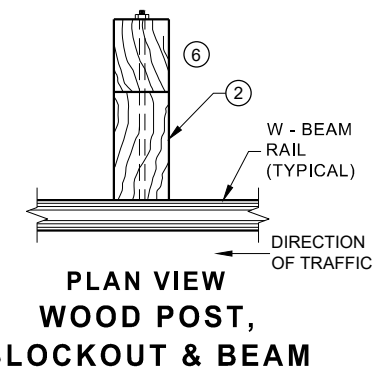
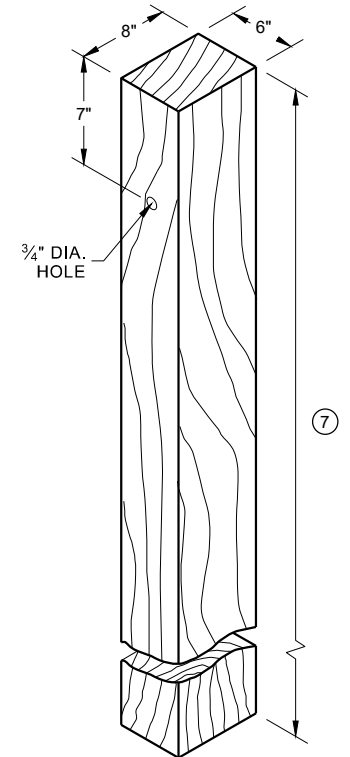
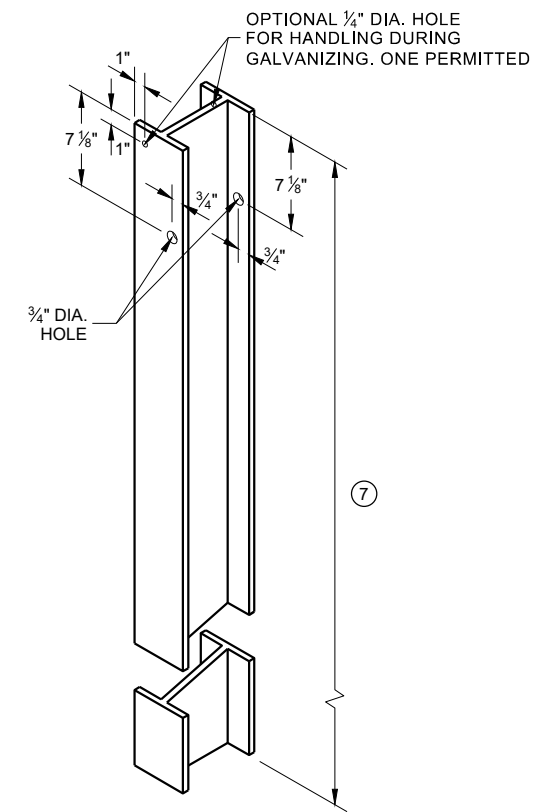
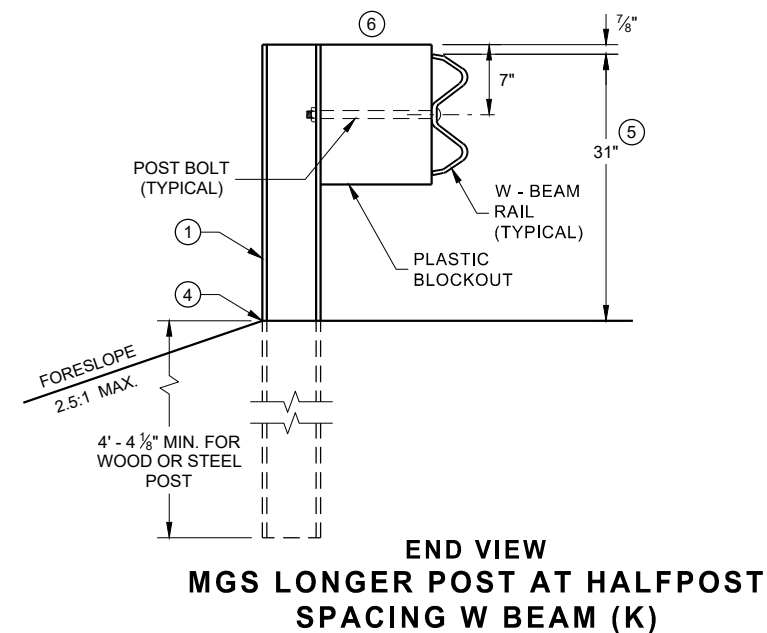
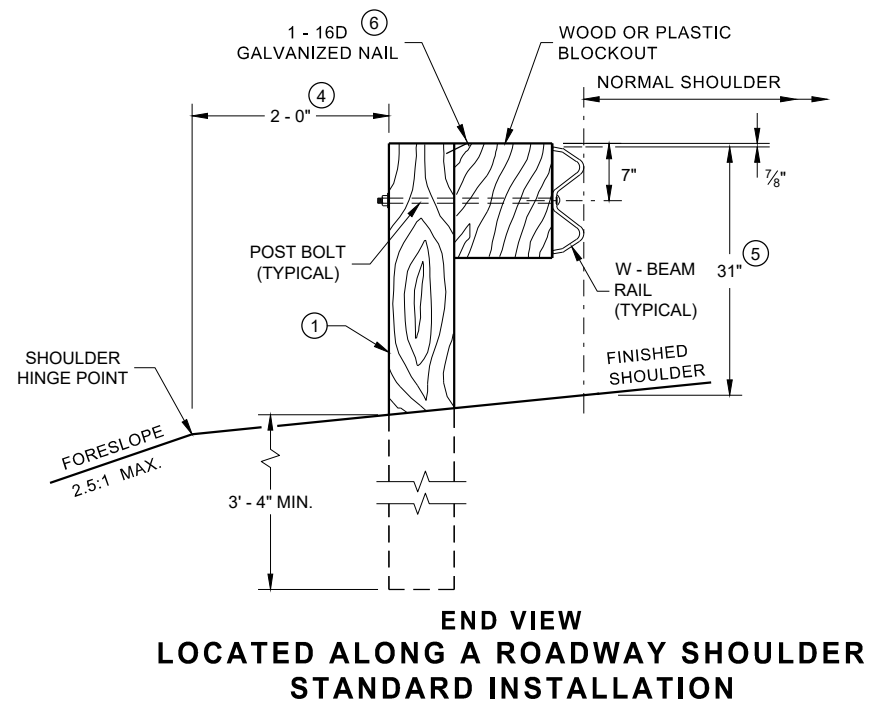
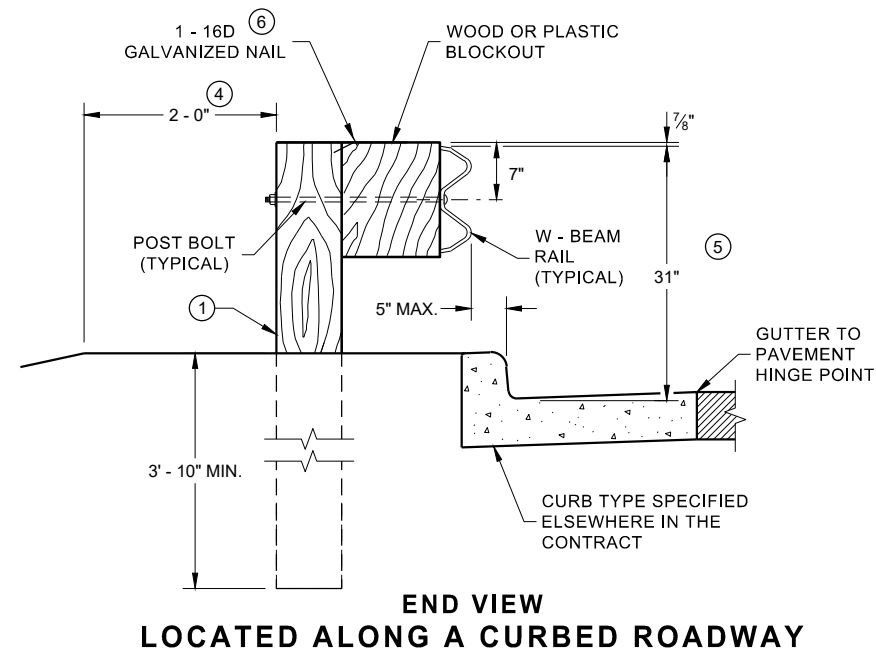
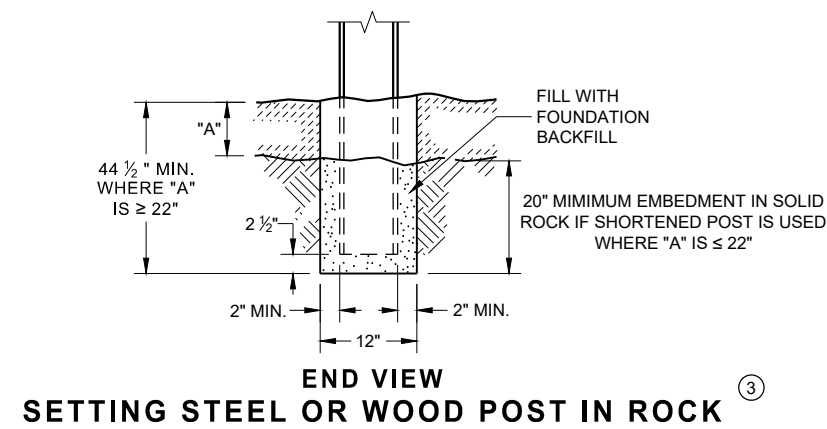
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 106

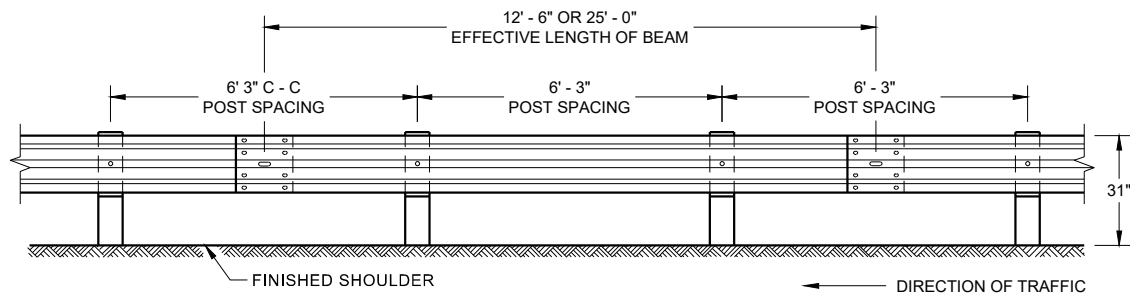
FHWA

- 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 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".

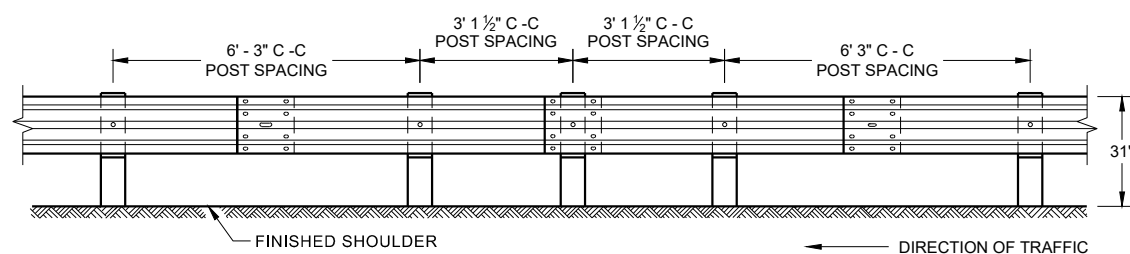


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

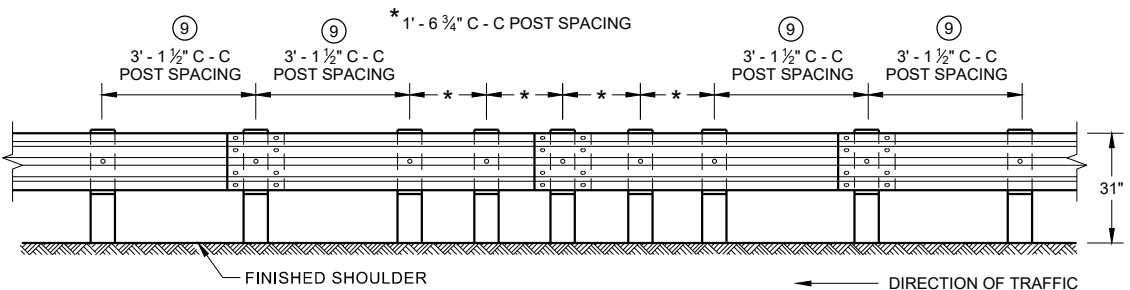
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 107



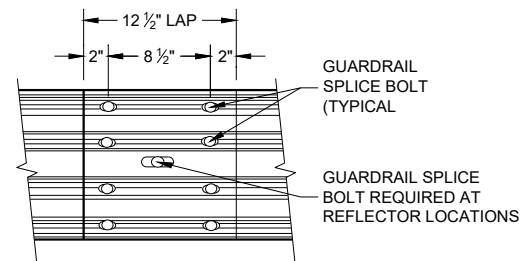
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



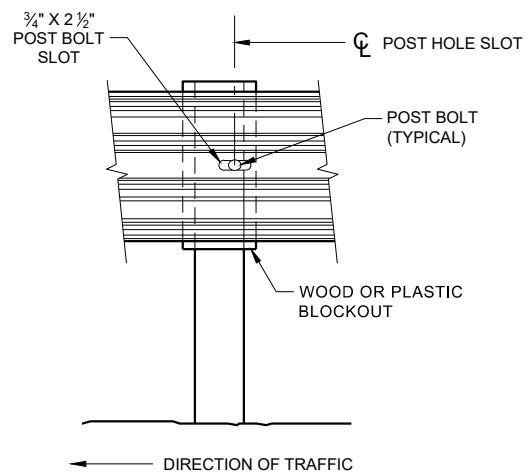
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



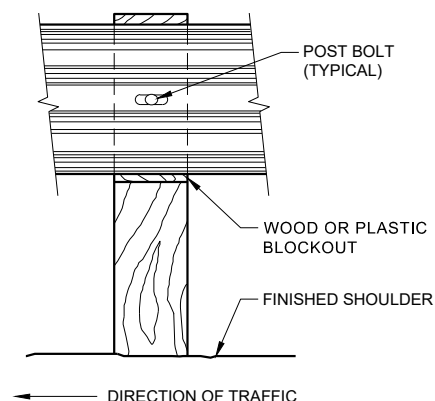
**FRONT VIEW
QUARTER POST SPACING (QS)**



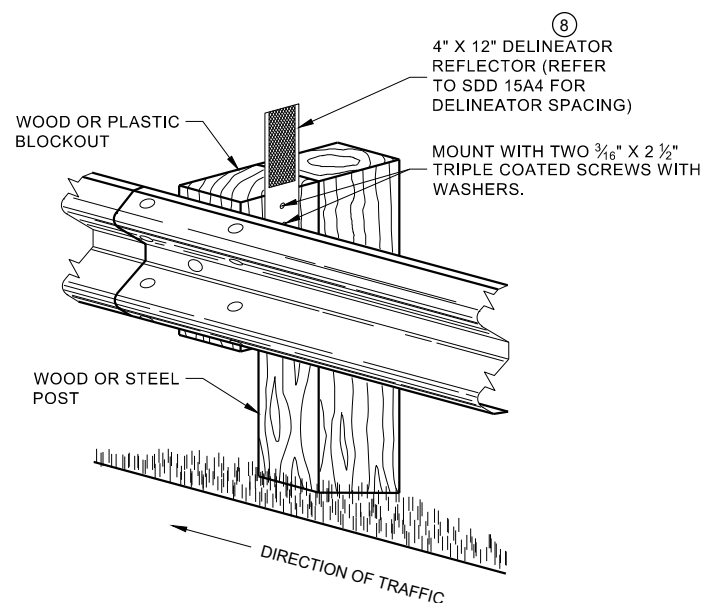
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



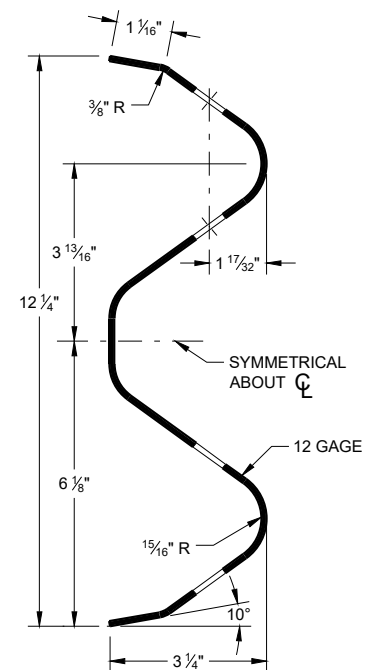
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

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 3/4" 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.

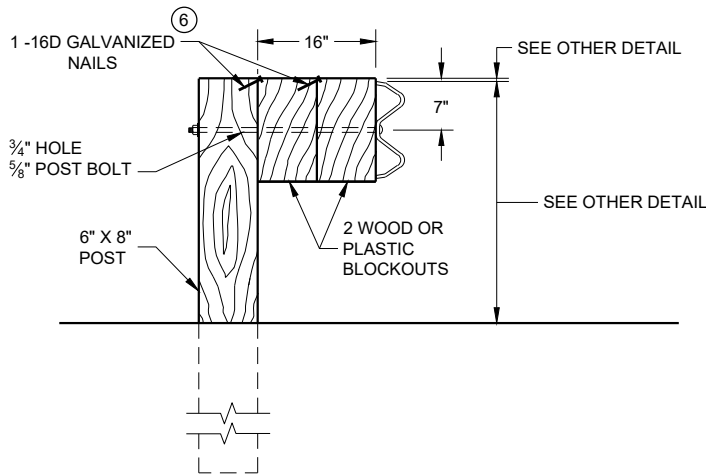
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

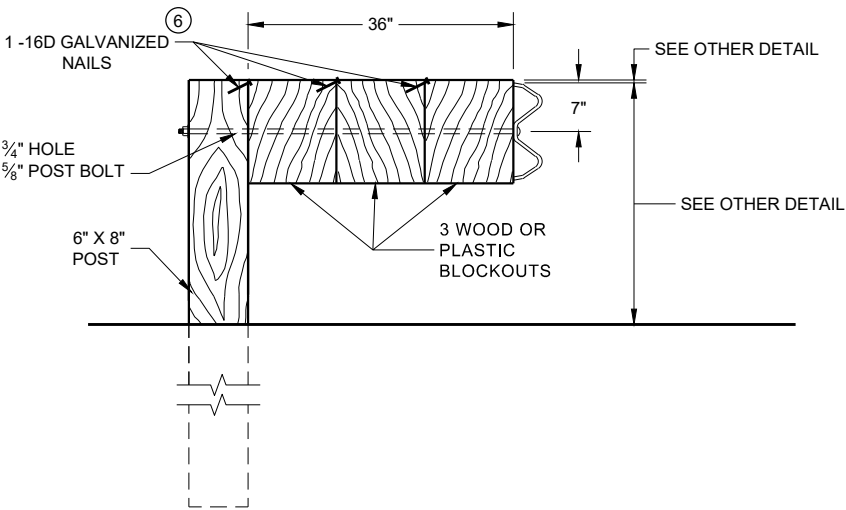
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 108



DETAIL FOR 16" BLOCKOUT DEPTH

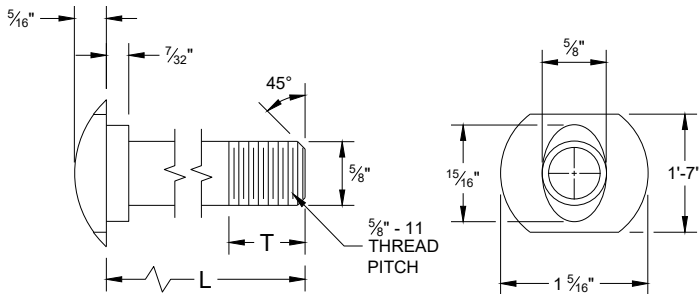
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



DETAIL FOR 36" BLOCKOUT DEPTH

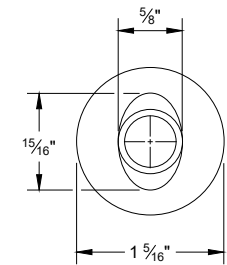
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

- NOTE:
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
 - 2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

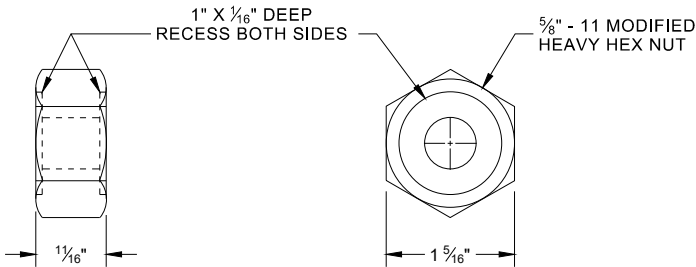


POST BOLT TABLE

L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

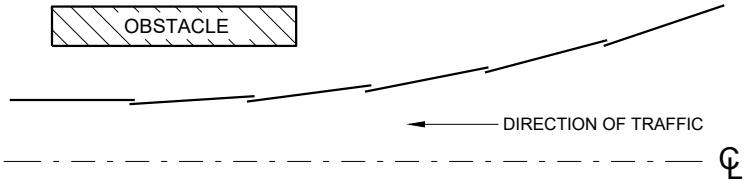


ALTERNATE BOLT HEAD

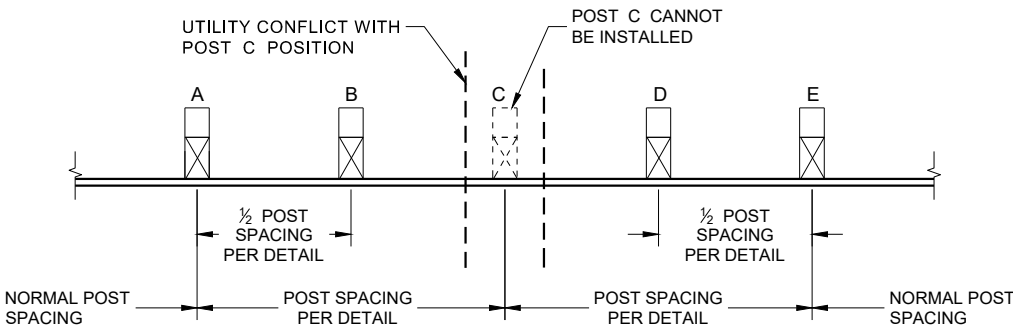


POST BOLT, SPLICE BOLT
AND RECESS NUT

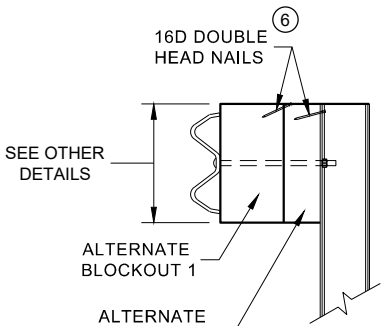
- 6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



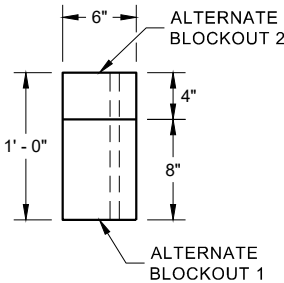
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW

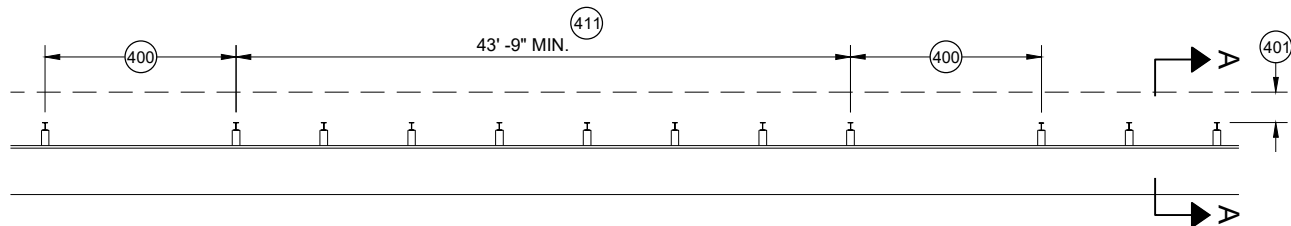


PLAN VIEW

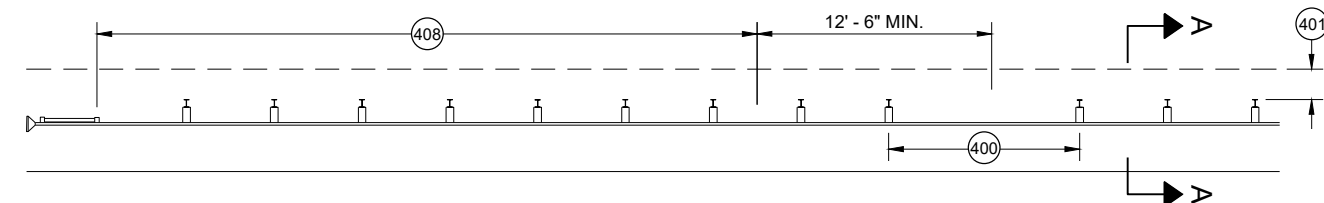
ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

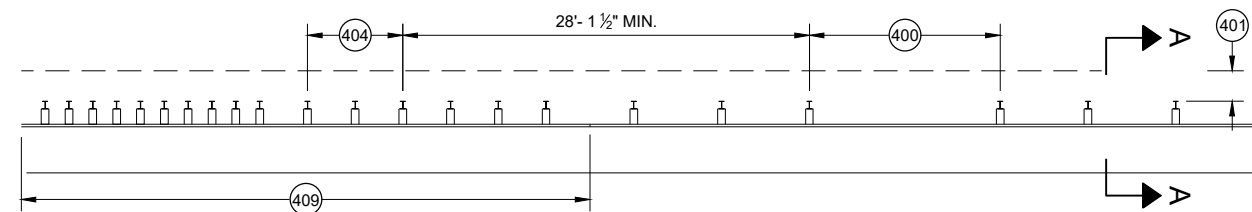
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 109



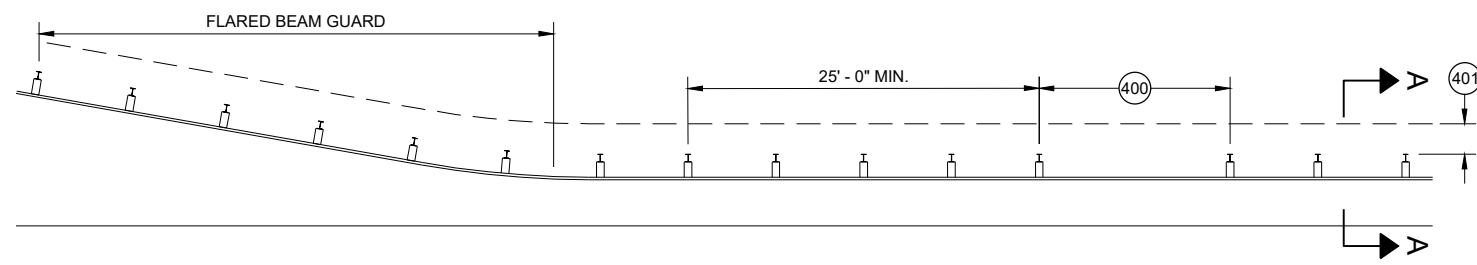
MISSING POST IN MGS GUARDRAIL



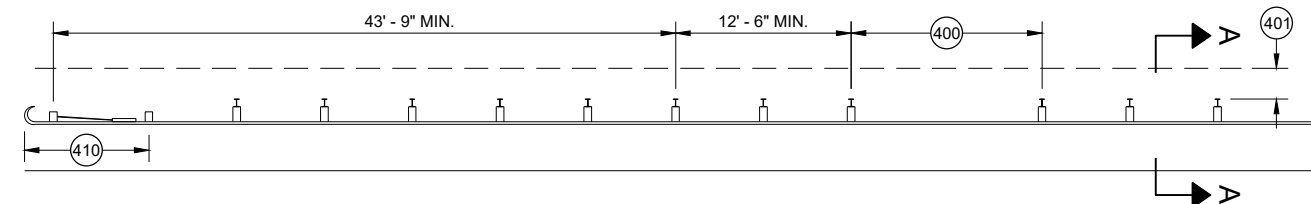
MISSING POST IN MGS GUARDRAIL NEAR EAT



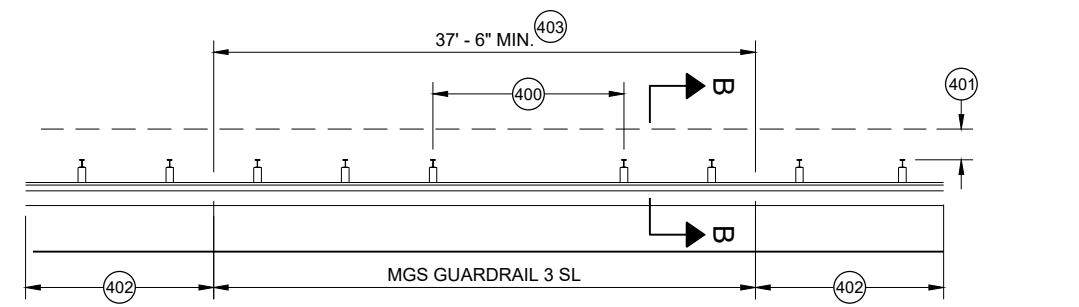
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

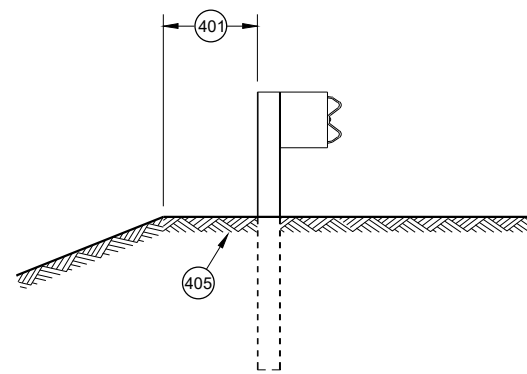


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

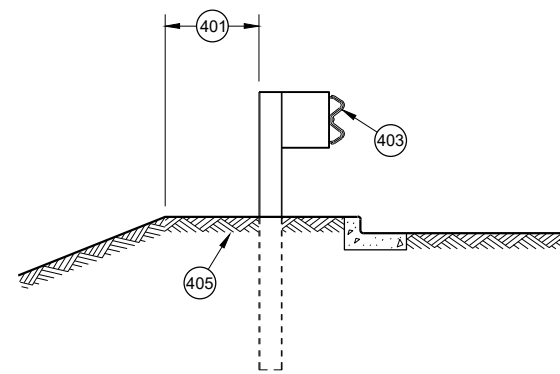


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (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

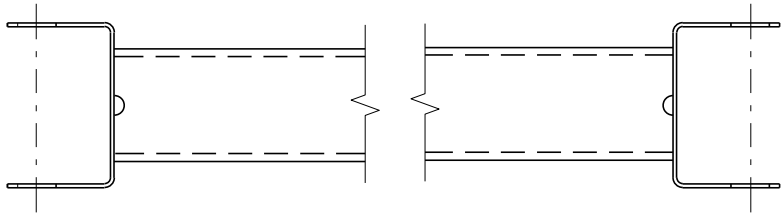
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

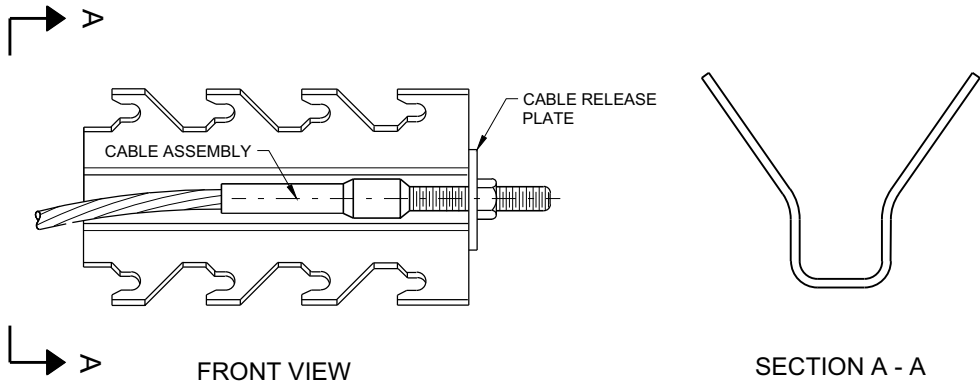
FHWA

SDD14B44 - 04a

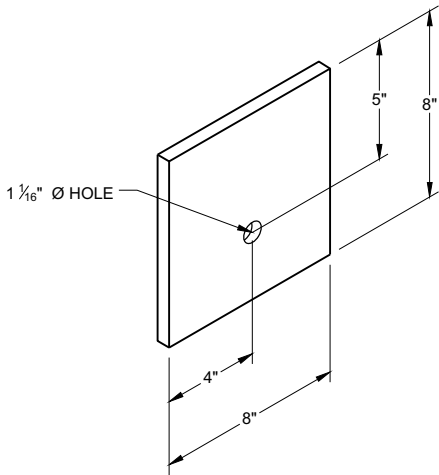


GENERIC GROUND STRUT⁹ ^E

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



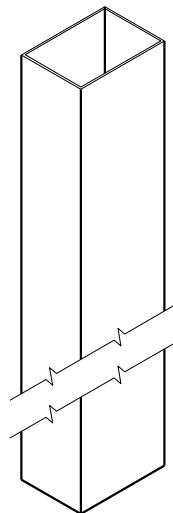
GENERIC ANCHOR CABLE BOX⁹ ^E



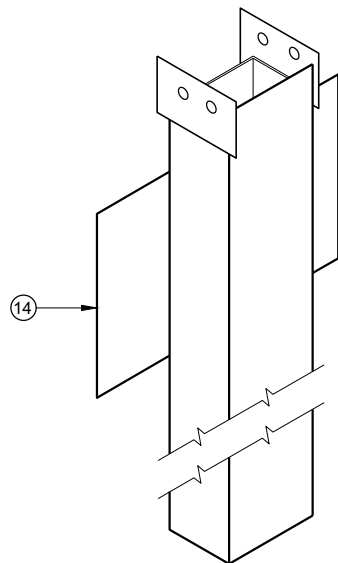
BEARING PLATE⁶ ^E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

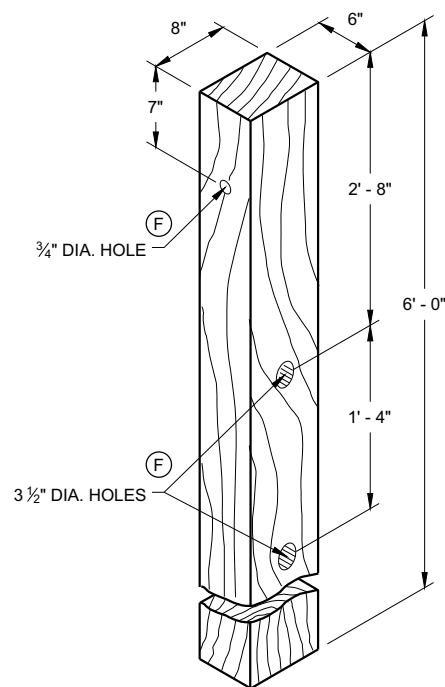
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



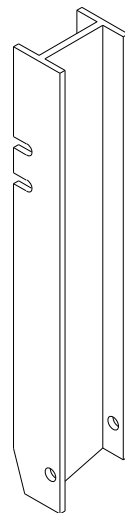
UPPER POST NO. 1 ⁽¹⁾ (E)



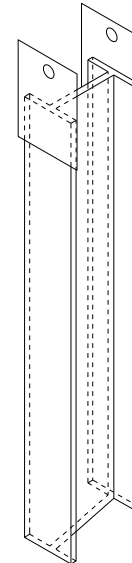
LOWER POST NO. 1 ⁽²⁾ (E)



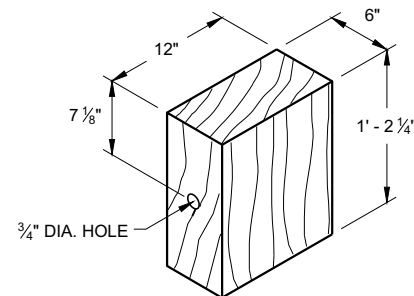
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



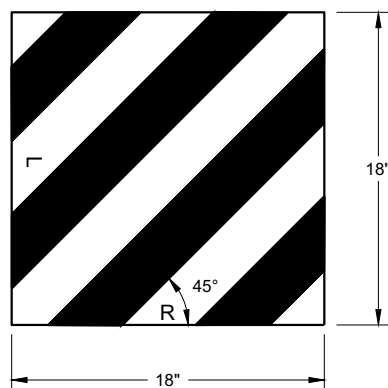
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



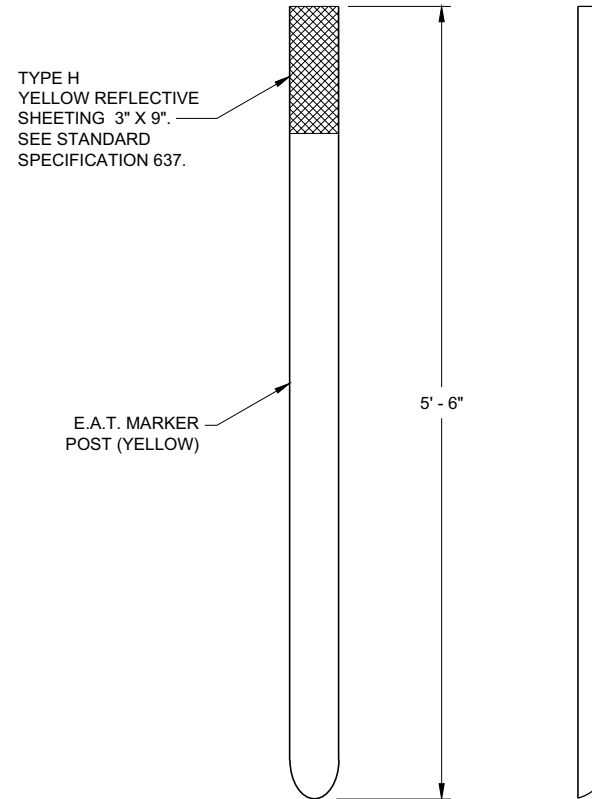
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



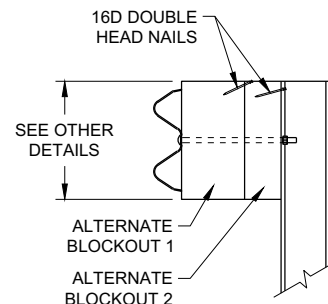
WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



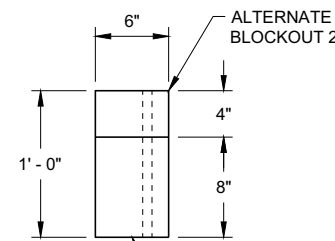
REFLECTIVE SHEETING DETAIL ^(E)



E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

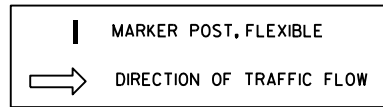
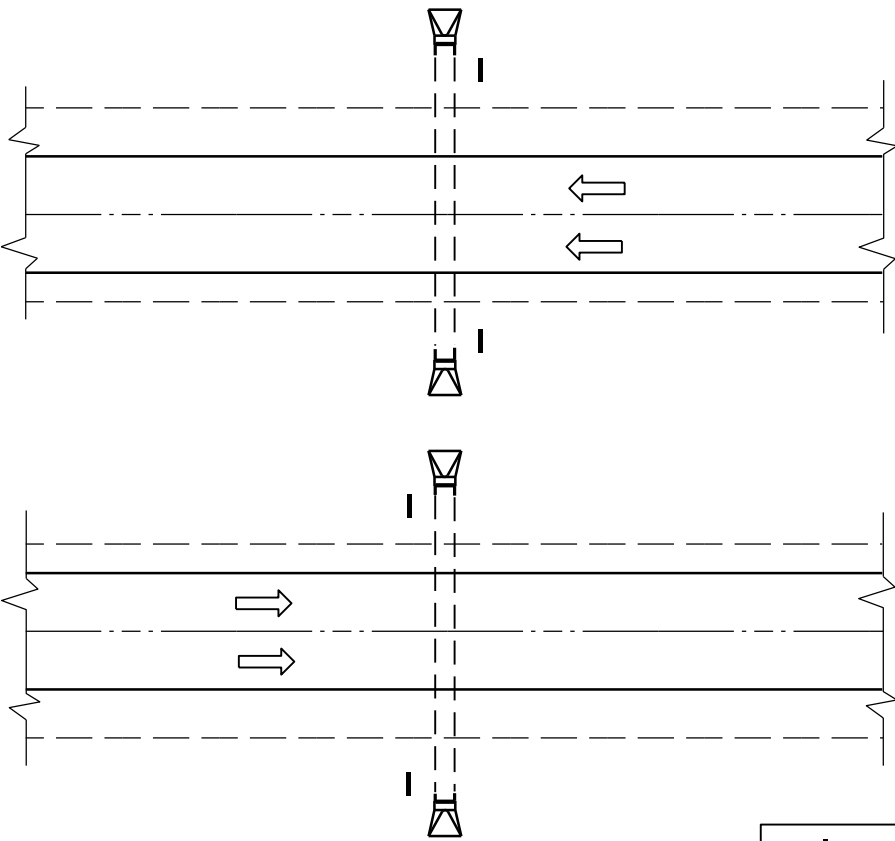
ALTERNATE WOOD
BLOCKOUT DETAIL

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

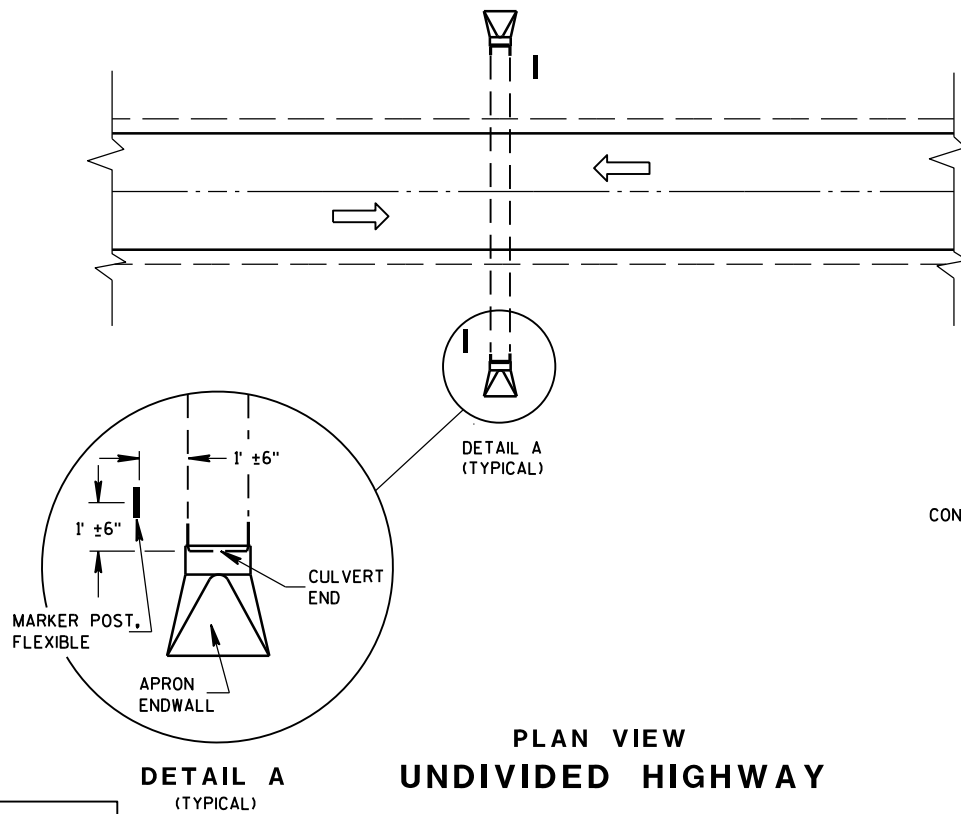
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 113

PLAN VIEW
DIVIDED HIGHWAY

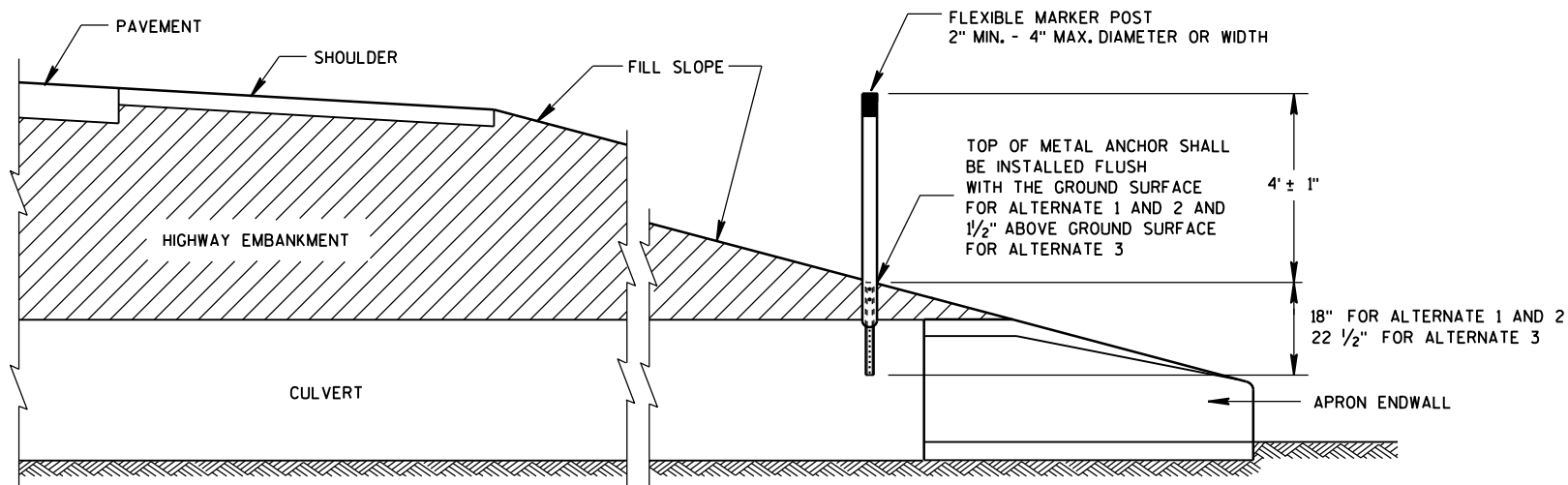


PLAN VIEW
UNDIVIDED HIGHWAY



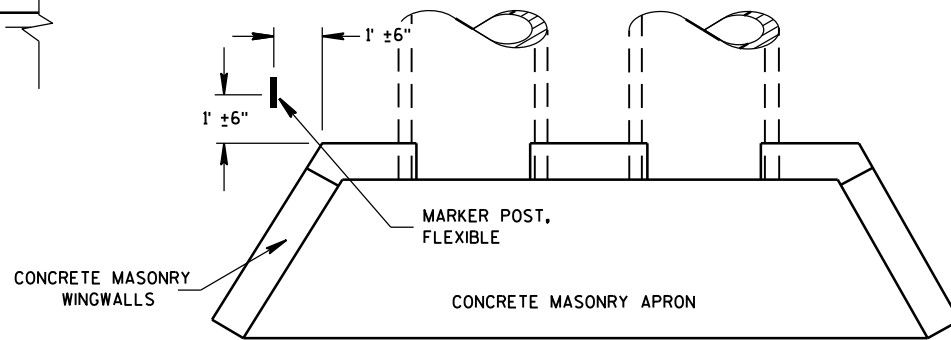
FLEXIBLE MARKER POST LOCATION

CROSS SECTION
FLEXIBLE MARKER POST



GENERAL NOTES

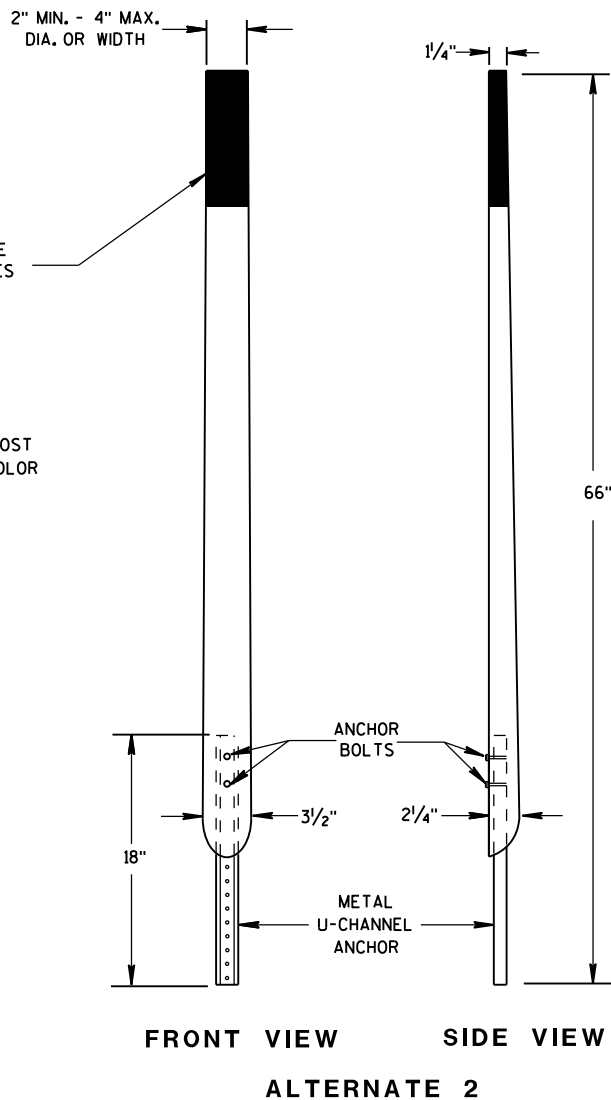
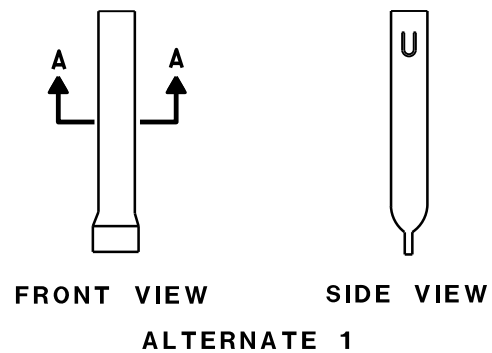
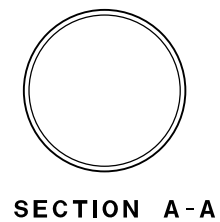
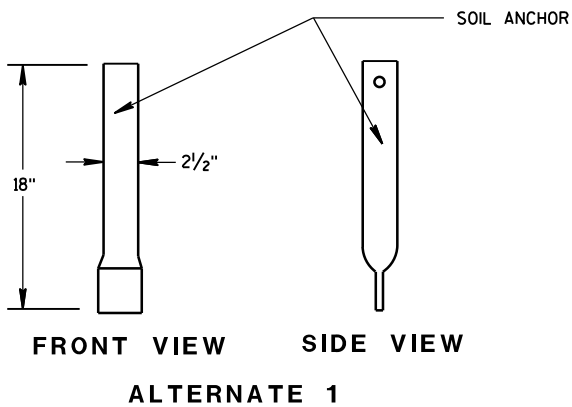
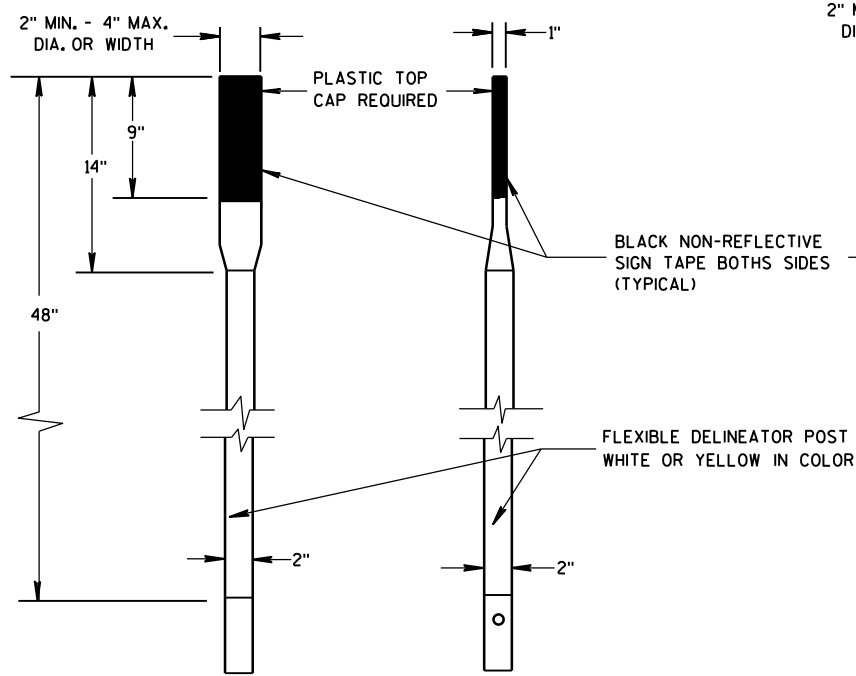
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



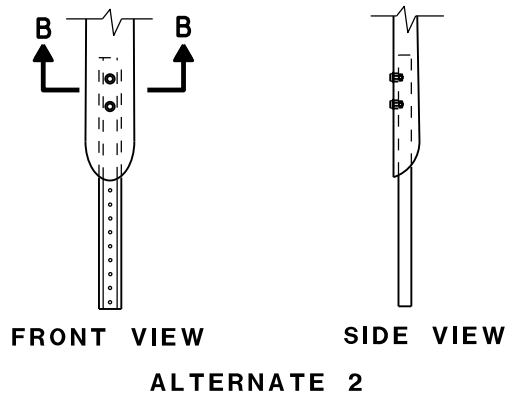
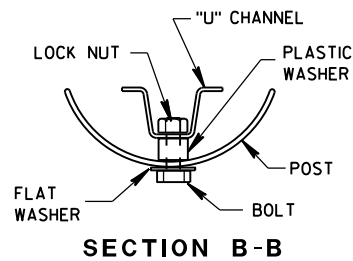
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST
FOR CULVERT END

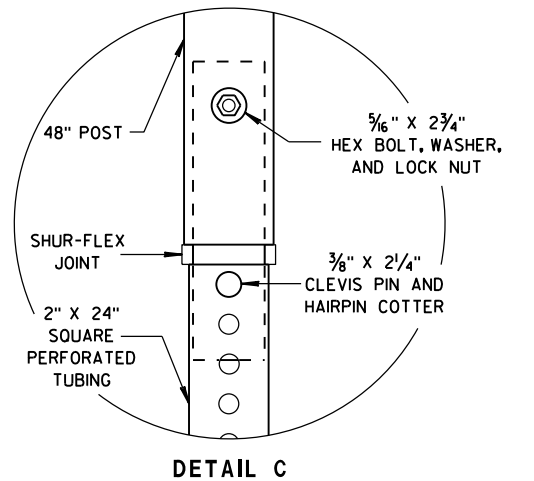
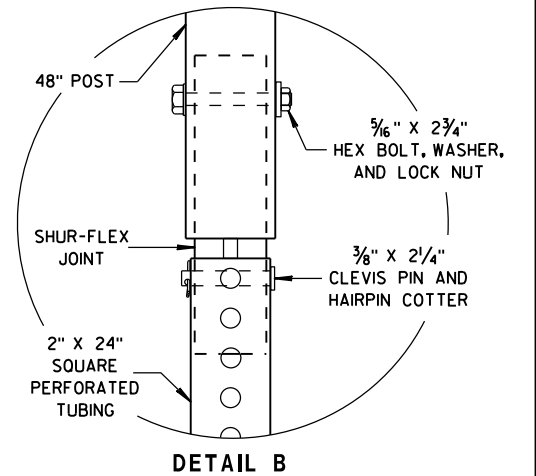
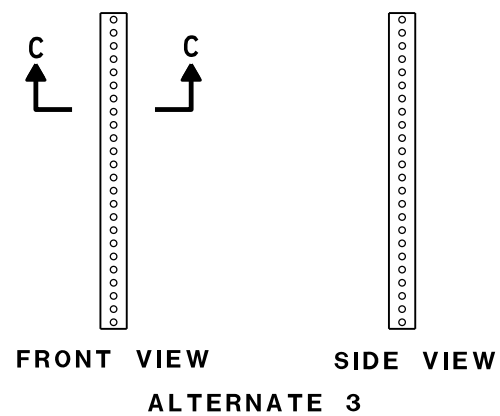
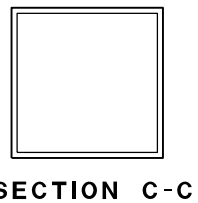
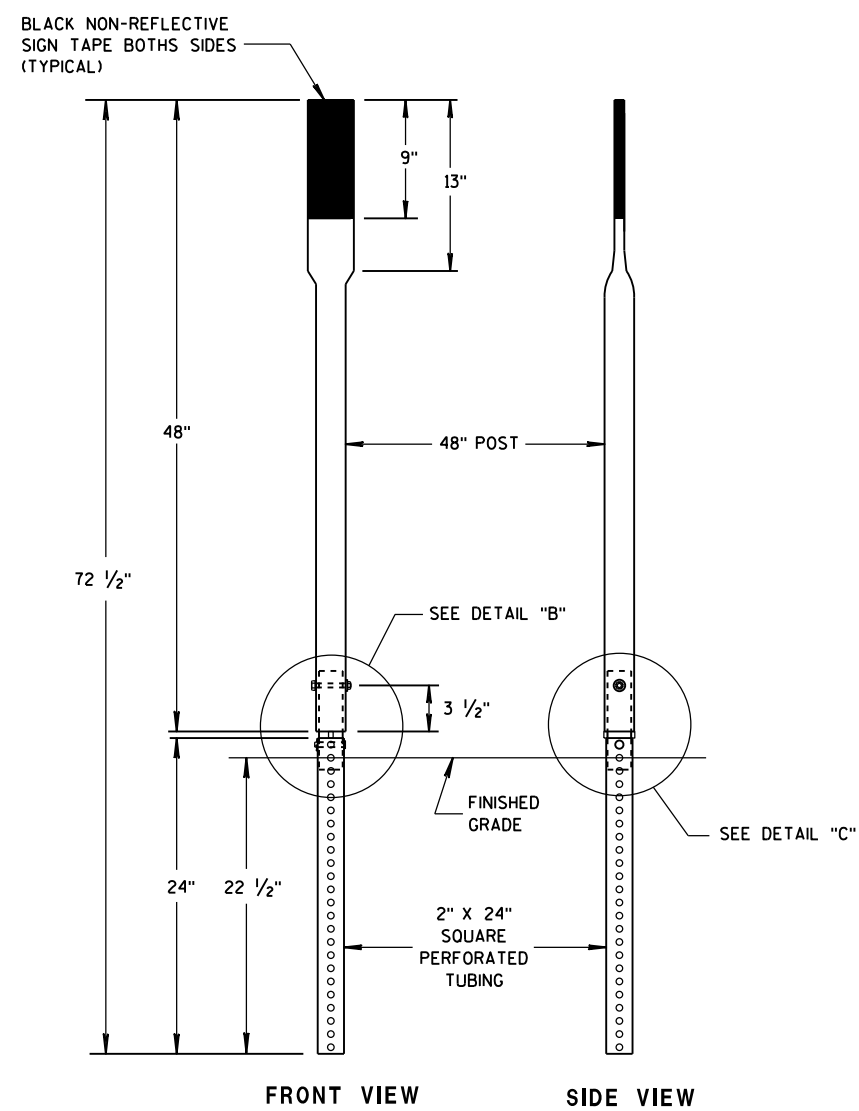
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 114



FLEXIBLE MARKER POSTS



FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER 115 IGN
FHWA	

GENERAL NOTES

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

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

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

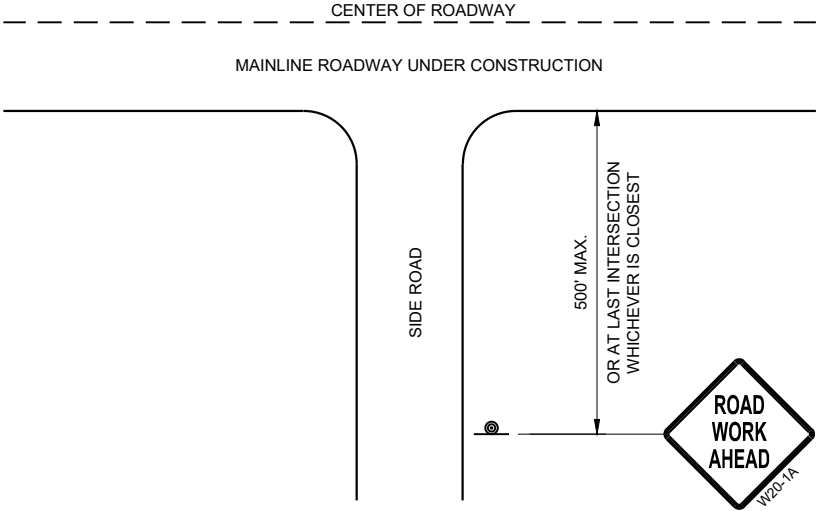
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

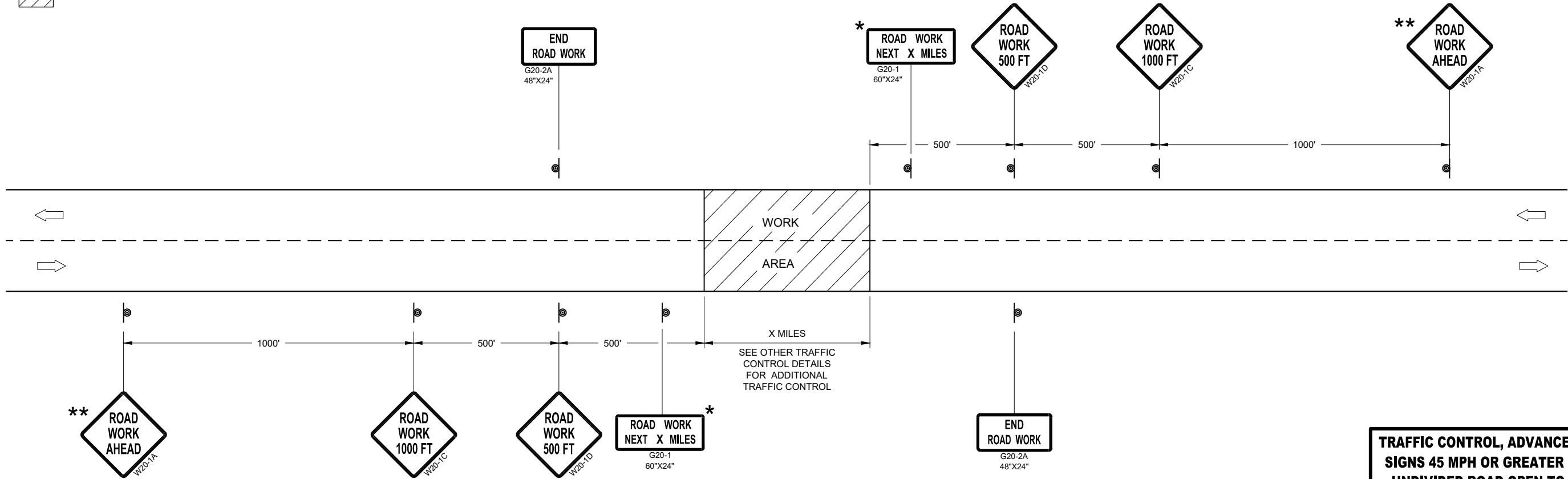
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 116

FHWA

GENERAL NOTES

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

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

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

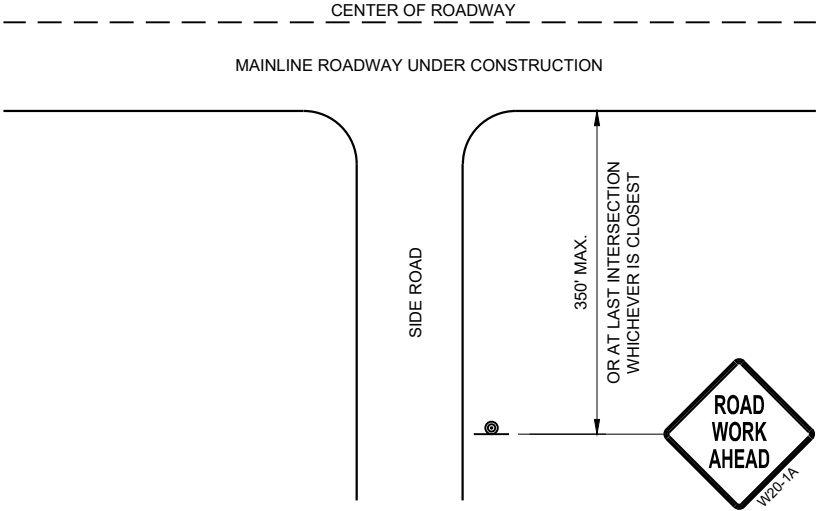
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

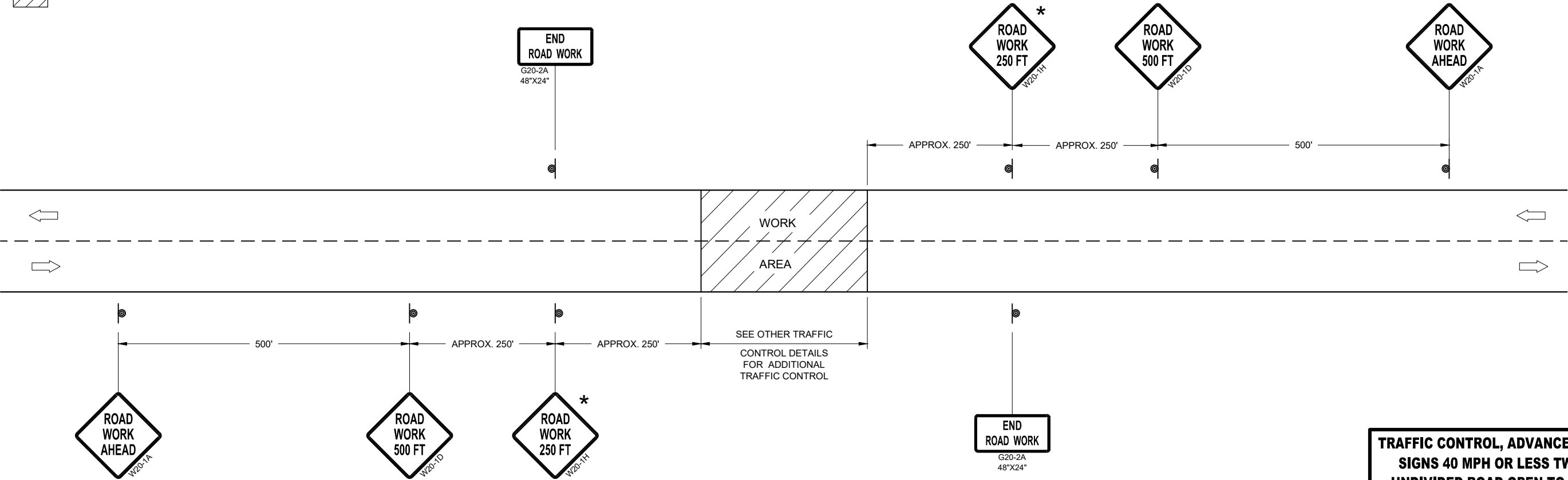
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 117

FHWA



PERMANENT PAVEMENT MARKING

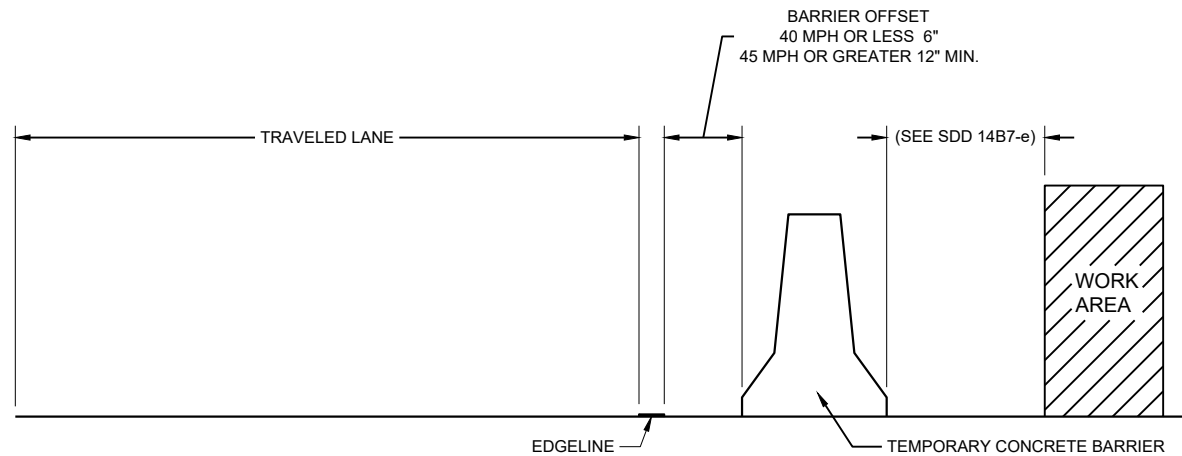
GENERAL NOTES

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

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



TEMPORARY BARRIER OFFSET FROM EDGE LINE

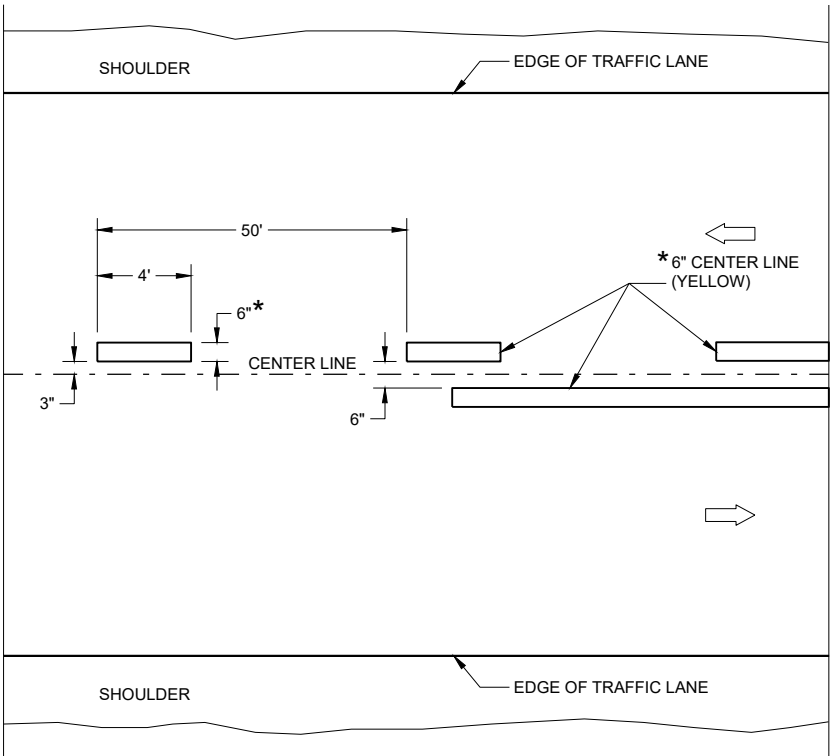
GENERAL NOTES

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

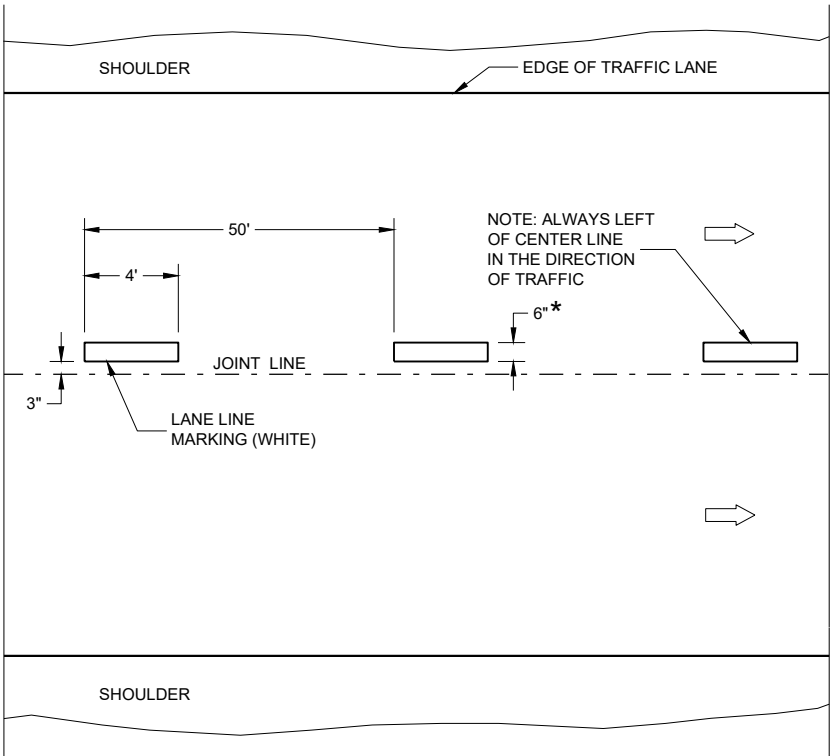
LEGEND

DIRECTION OF TRAFFIC

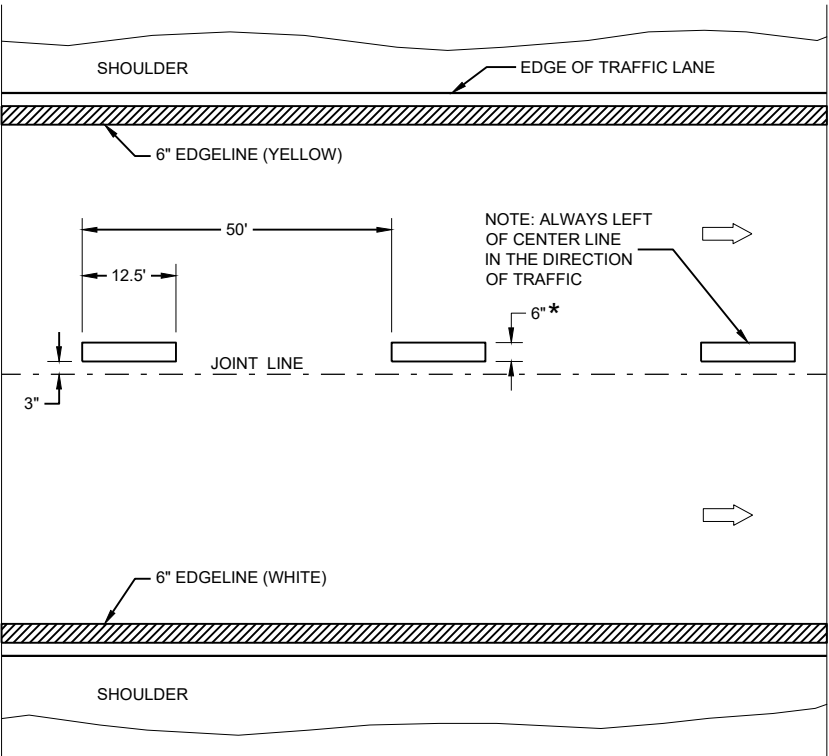
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



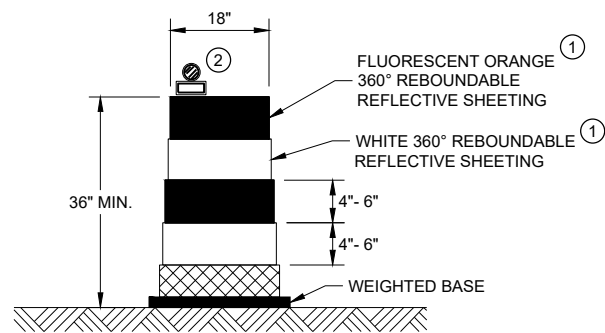
FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

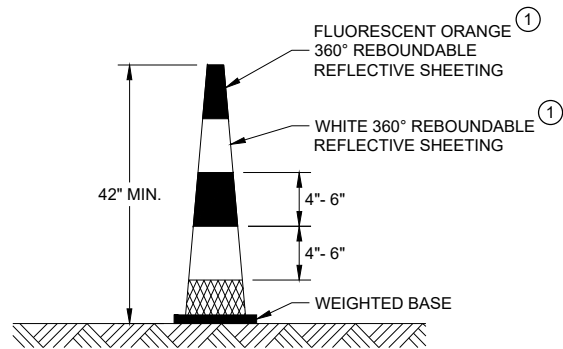
TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

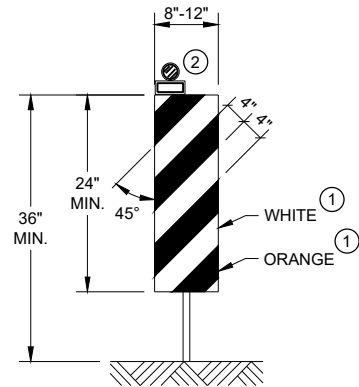
APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER



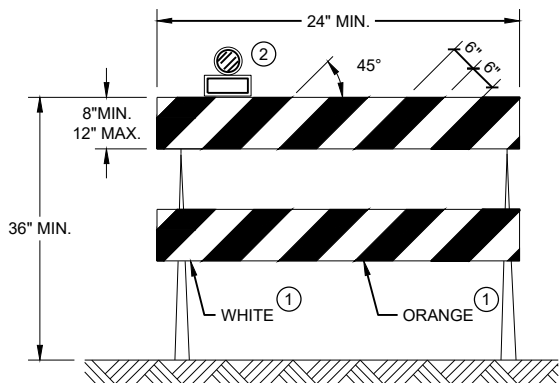
DRUM
BALLAST WIDTHS
RANGE FROM 24"-36"



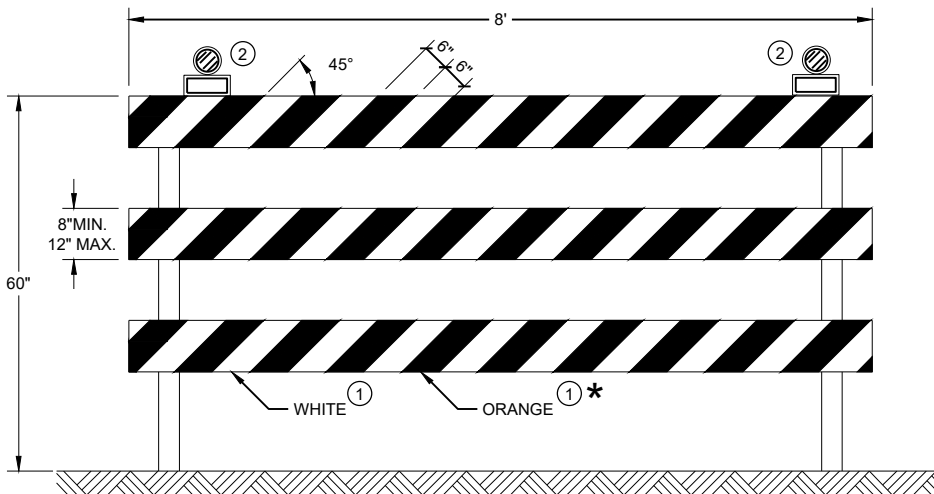
42" CONE
DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



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 120
FHWA	

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

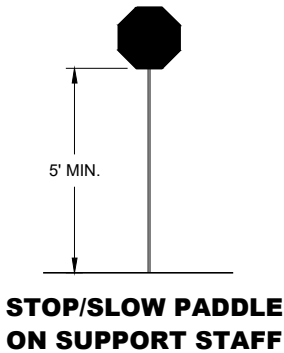
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

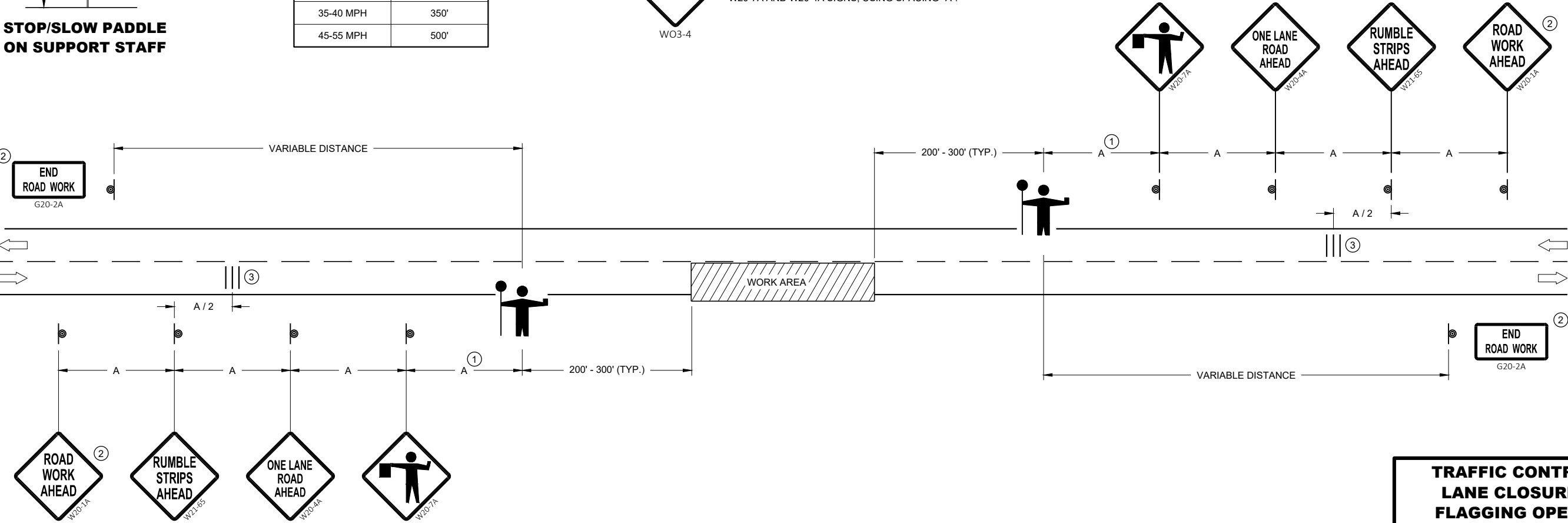


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 121
FHWA	

	SIGN ON PERMANENT SUPPORT
	TRAFFIC CONTROL CONE 42-INCH
	TRAFFIC CONTROL DRUM
	TEMPORARY PORTABLE RUMBLE STRIP ARRAY
	DIRECTION OF TRAFFIC
	WORK AREA
	AFAD
	AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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

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

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

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

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

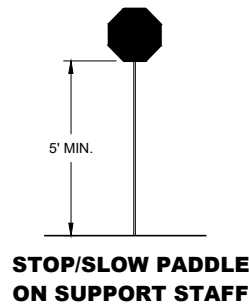
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

IF THE AUTOMATED FLAGGING ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

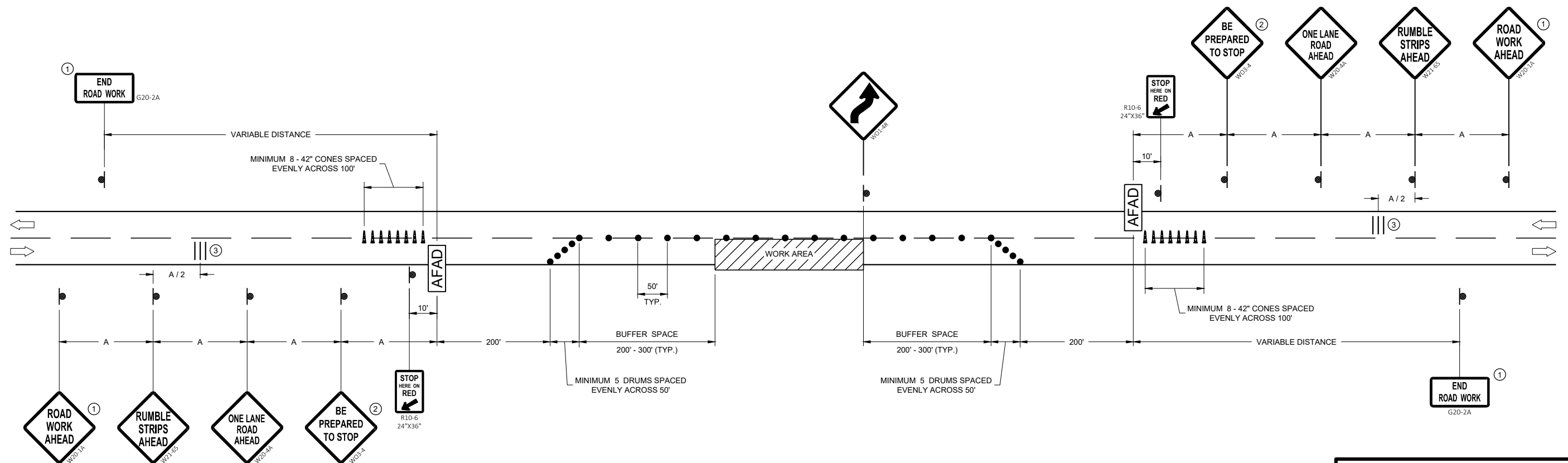
WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE W03-4 SIGNS WITH W20-7A SIGNS.

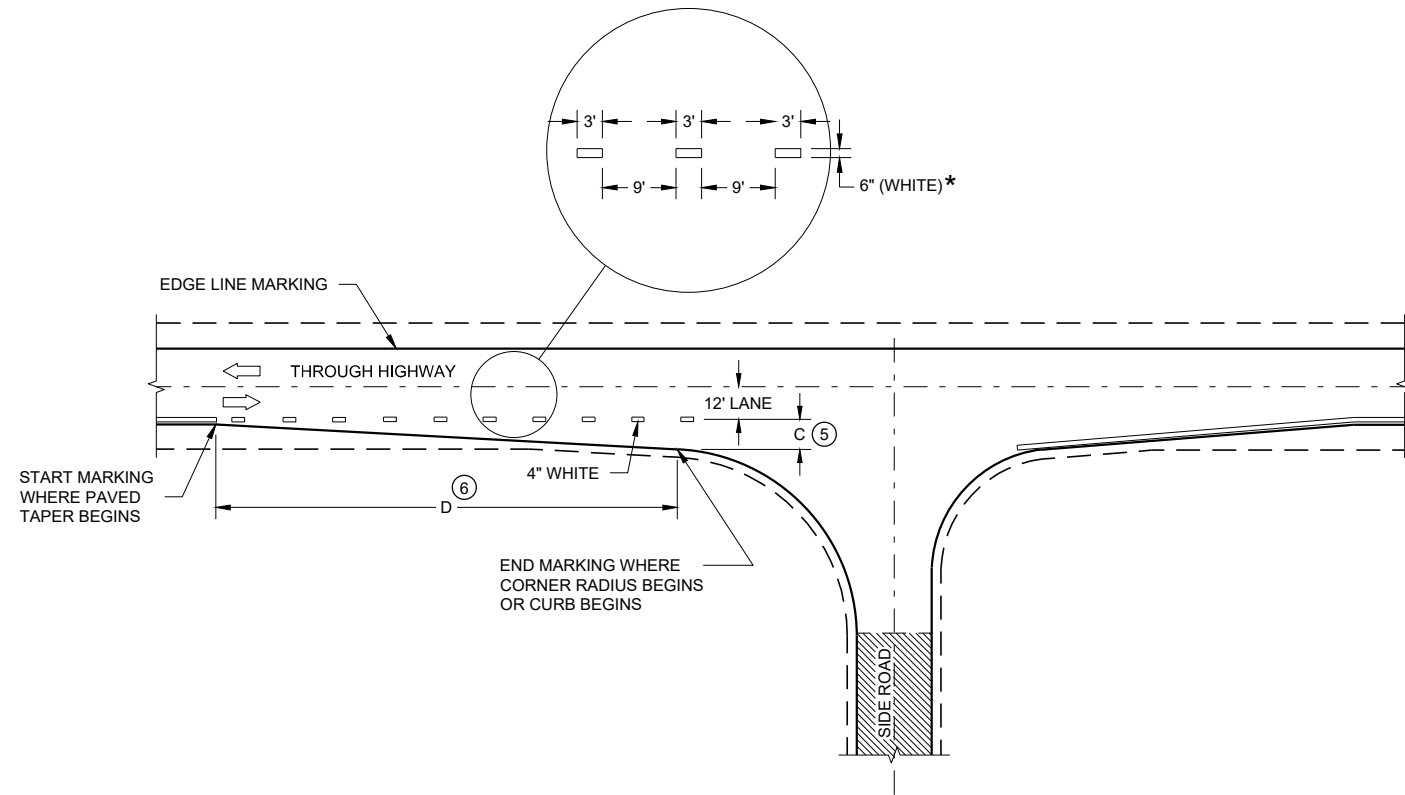
- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



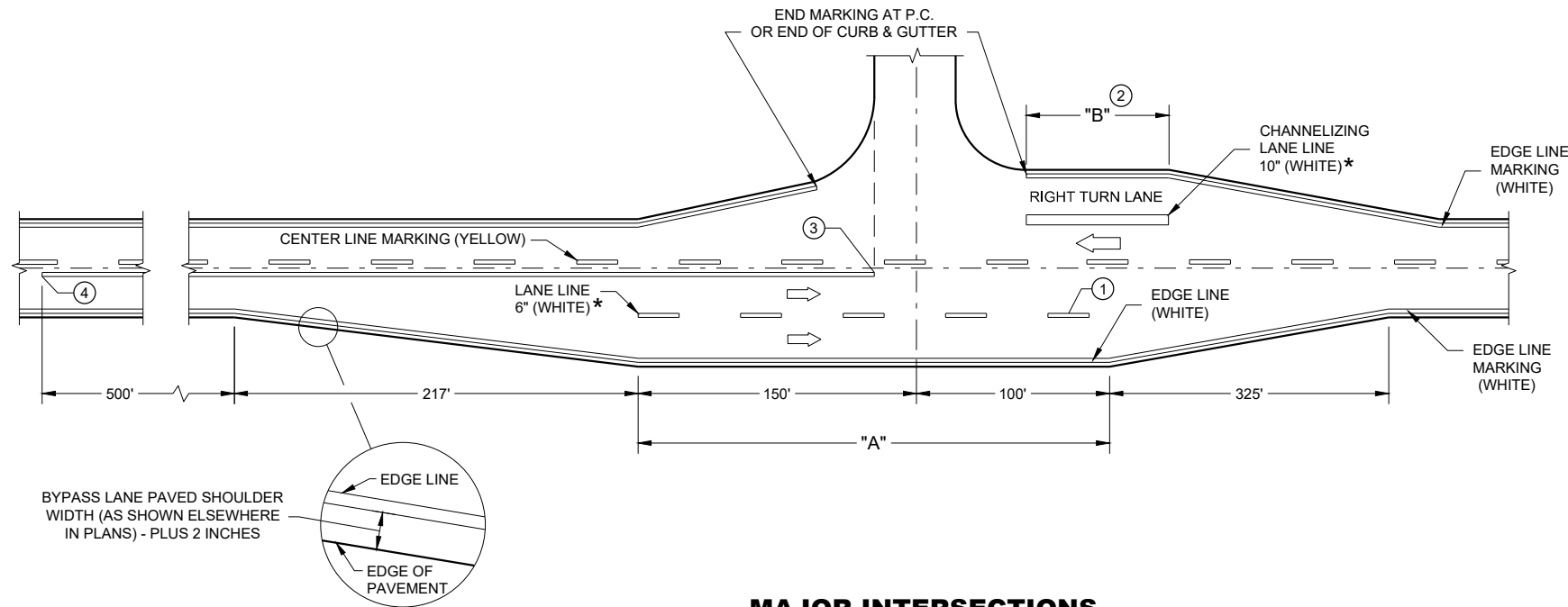
SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 122



MINOR INTERSECTION



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

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

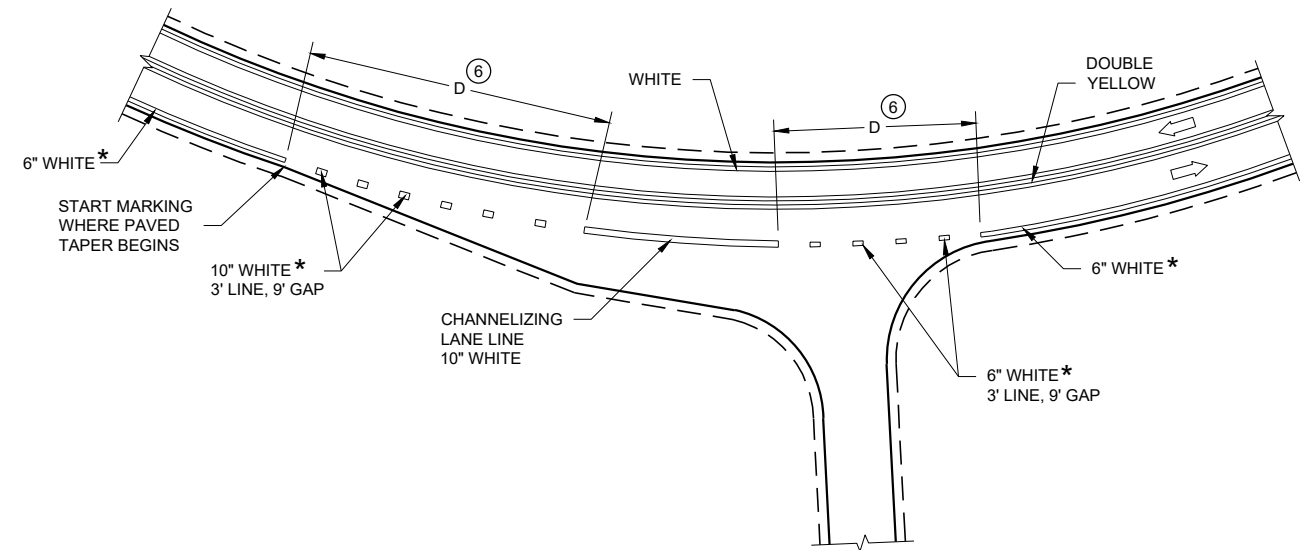
GENERAL NOTES

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 123

LEGEND

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

GENERAL NOTES

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

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

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

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

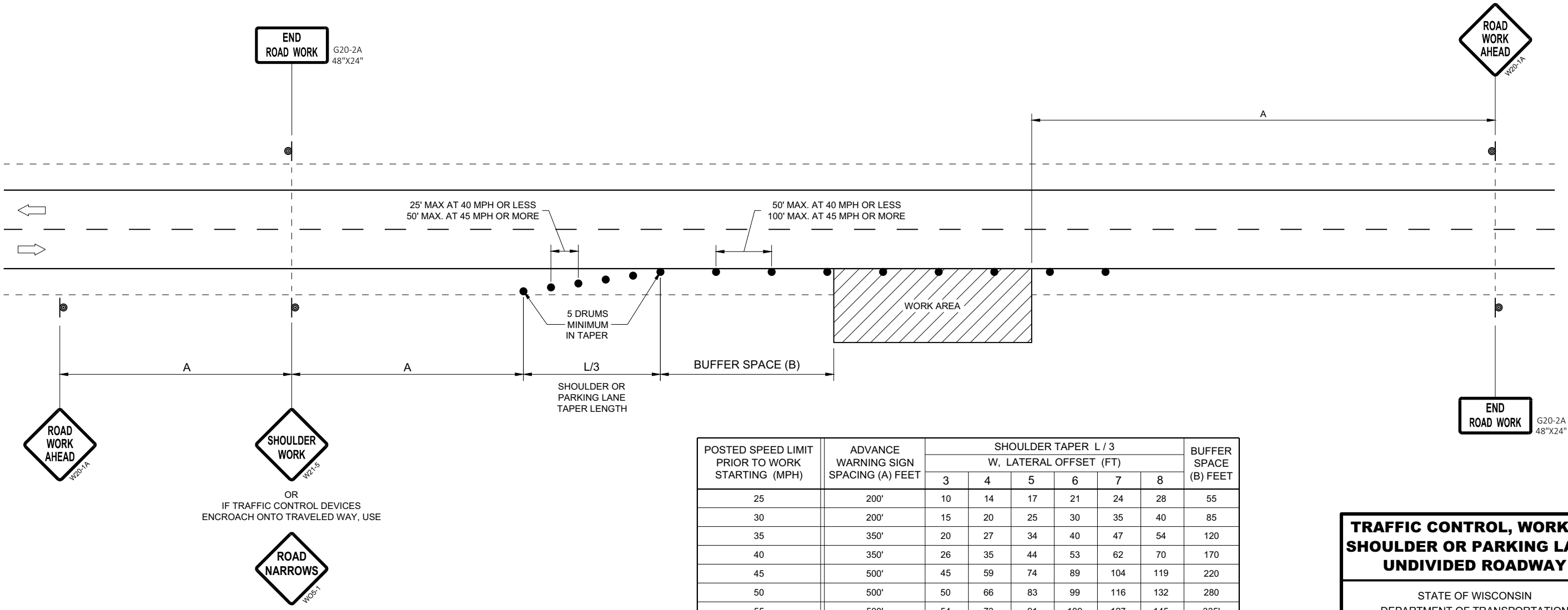
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

6

SDD 15D28 - 04



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T
SAFETY ENGINEER

124

FHWA

6

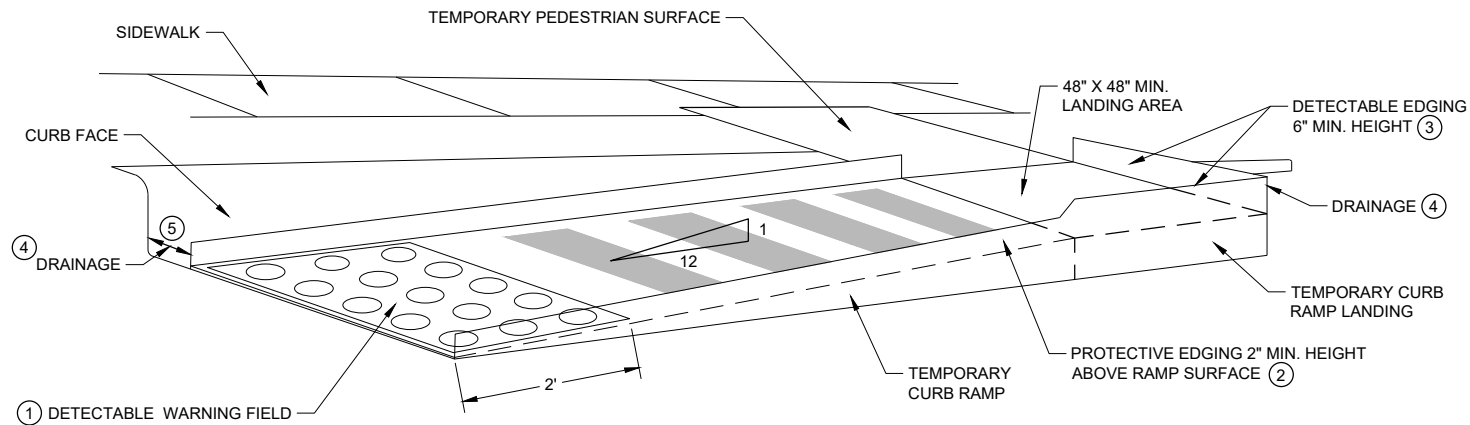
SDD 15D28 - 04



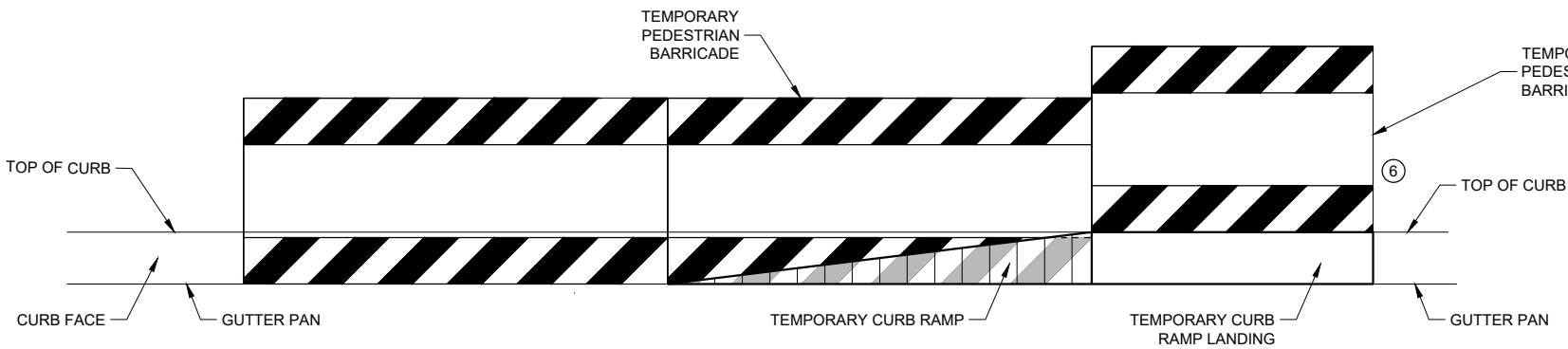
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- * USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

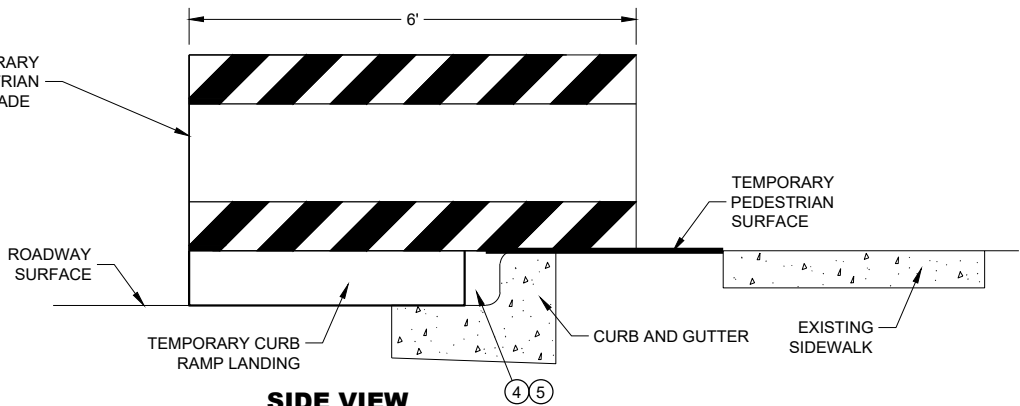




PERSPECTIVE VIEW



FRONT VIEW



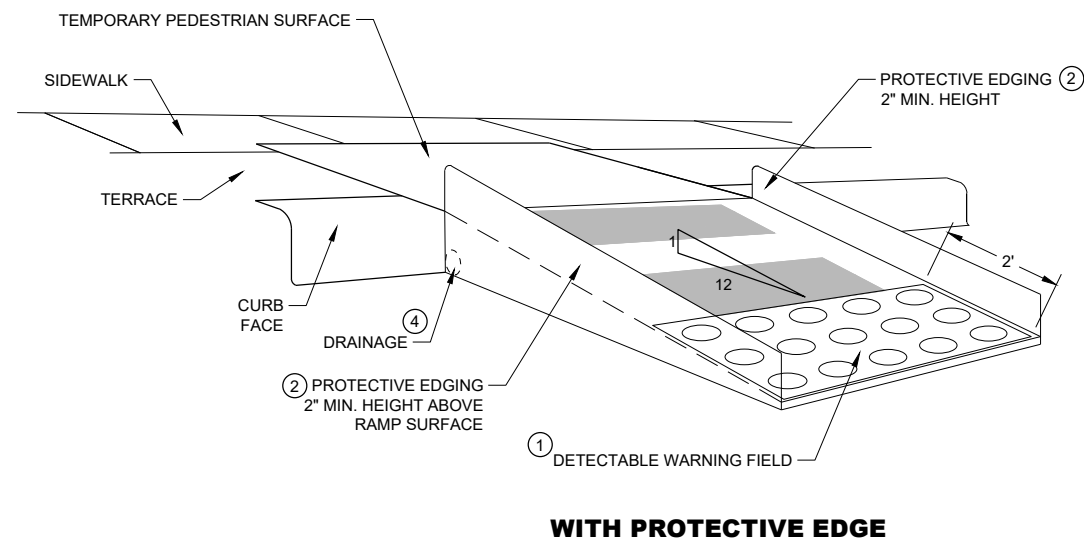
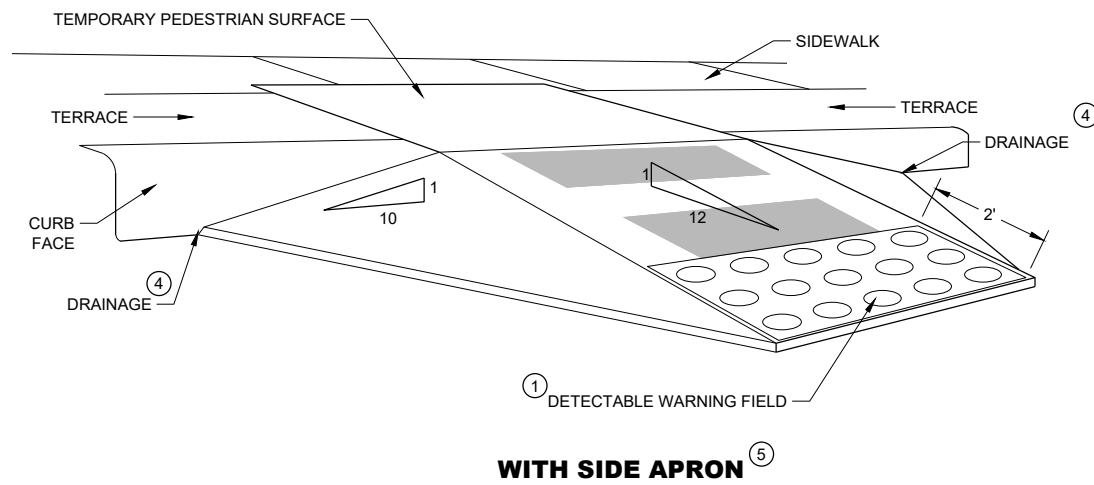
SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

- CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- 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 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- 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.

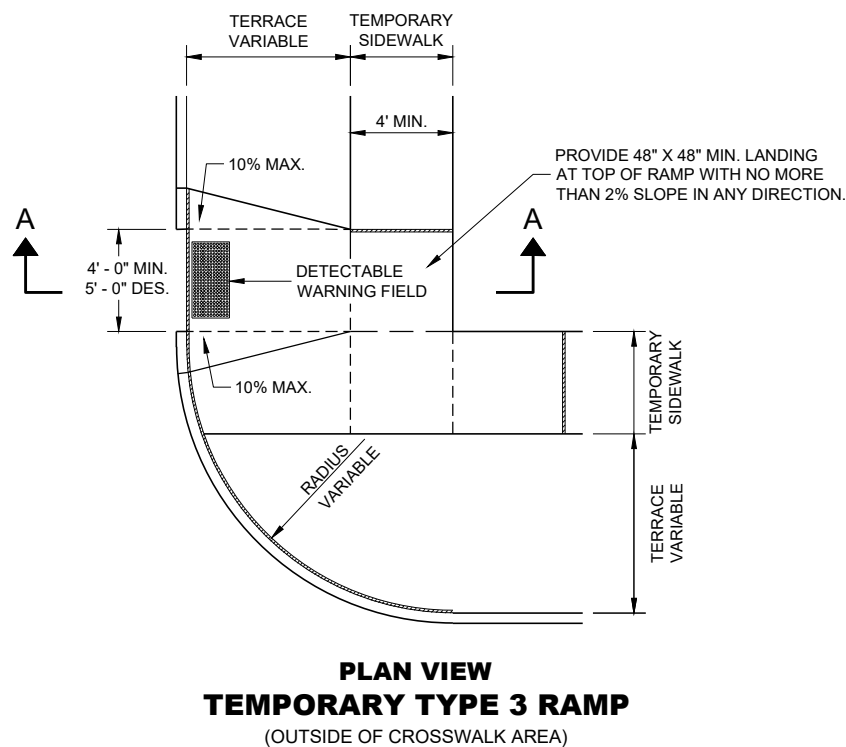
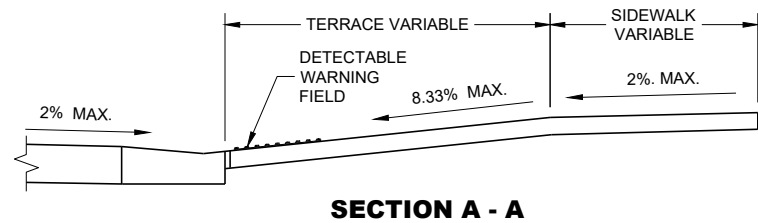
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

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.

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 127



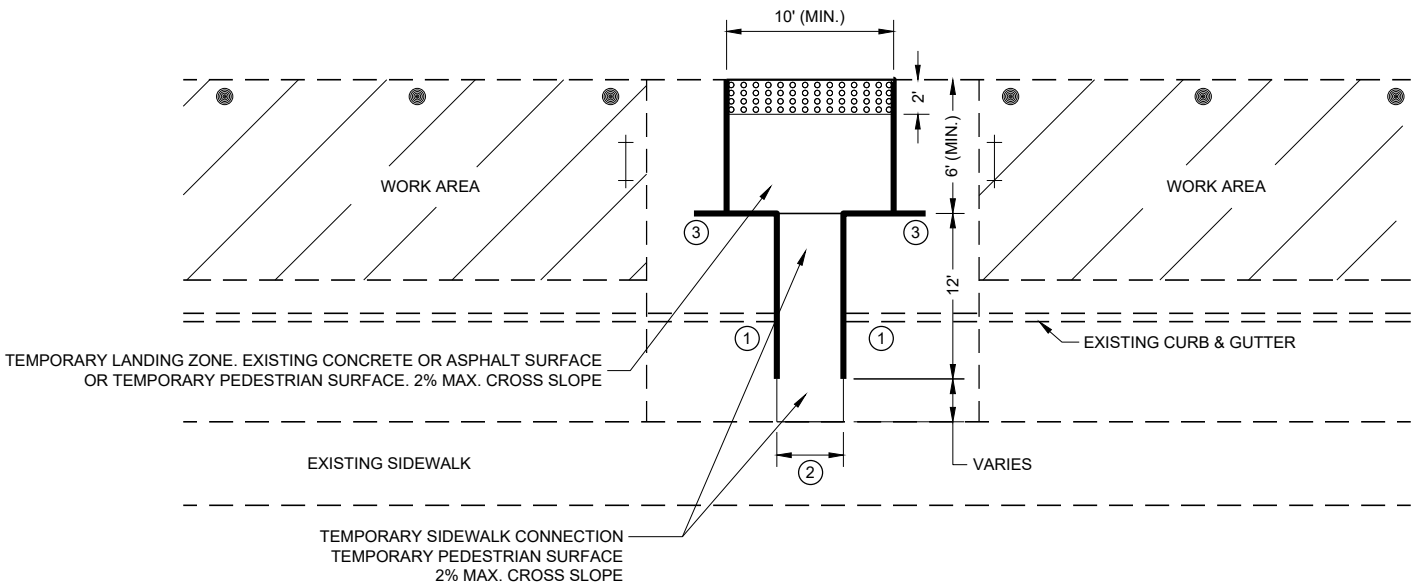
GENERAL NOTES

- 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.

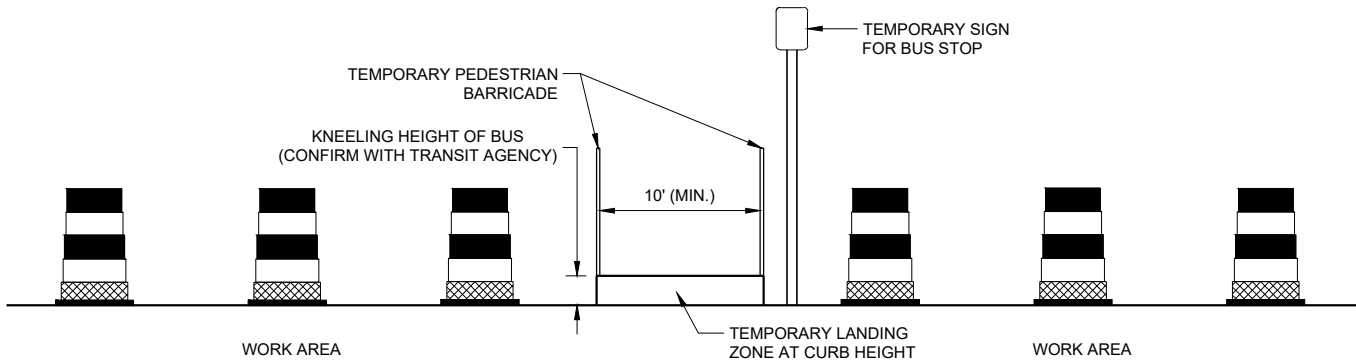
TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 128
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

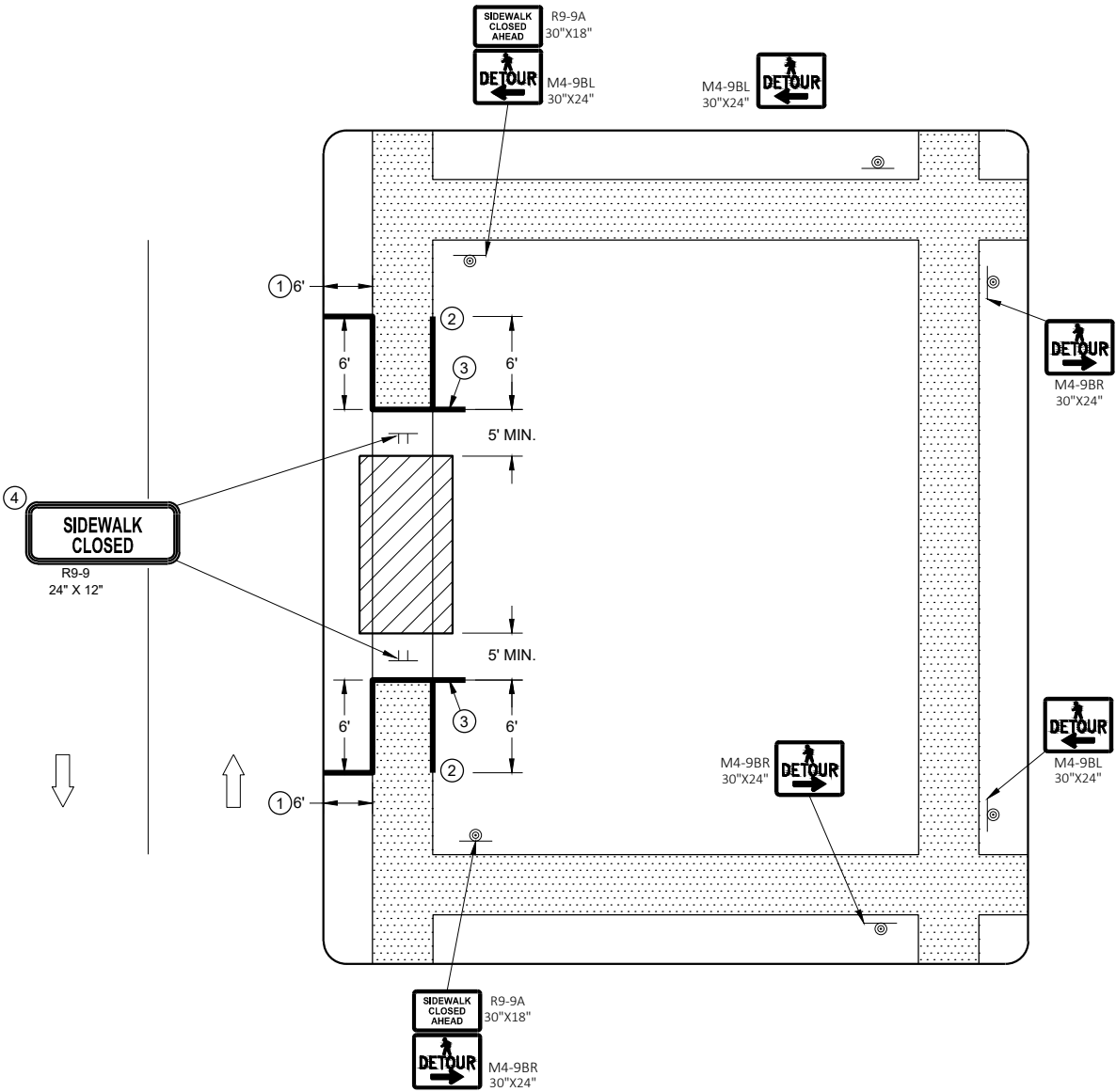
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

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

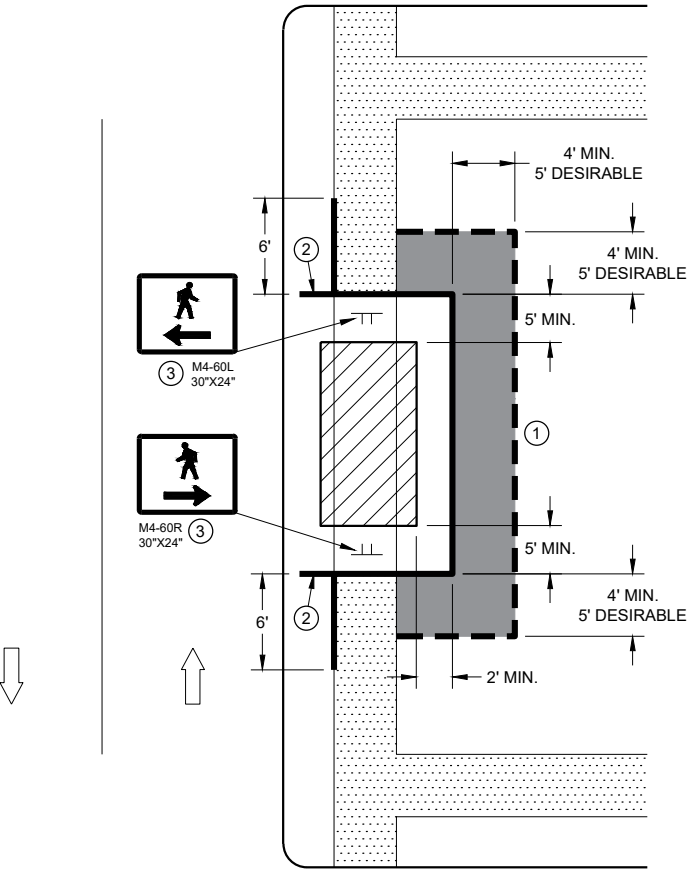
GENERAL NOTES

- 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.



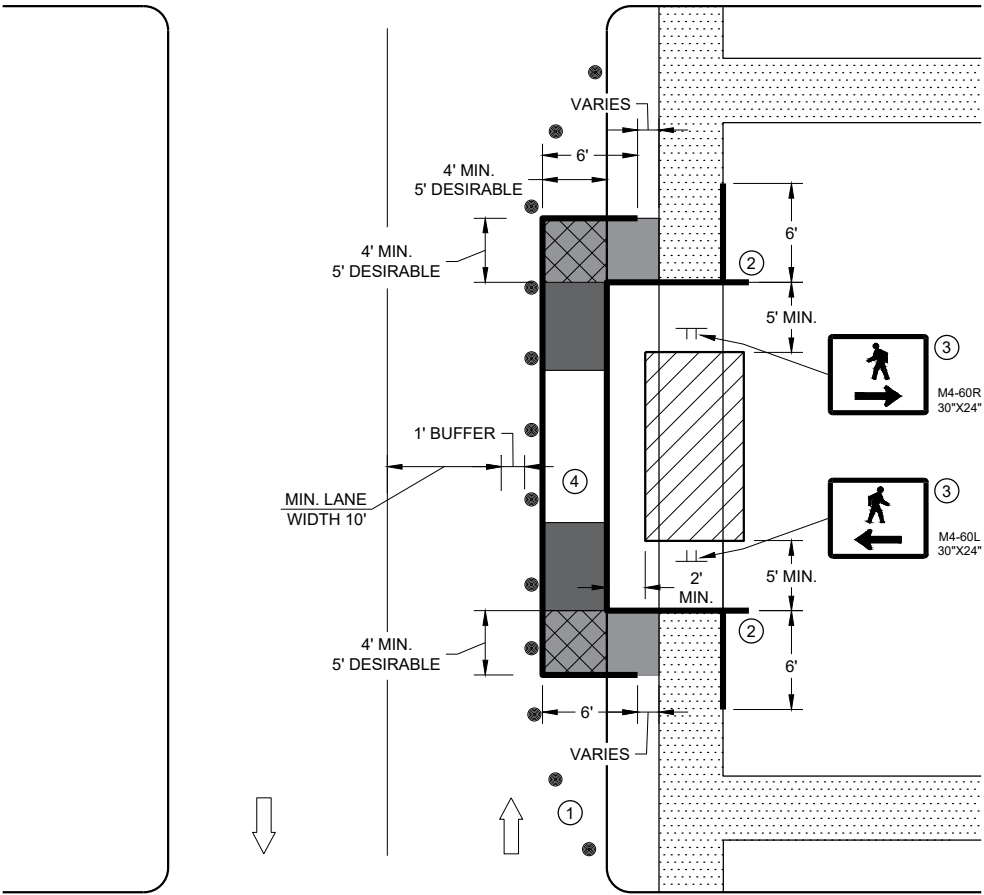
SIDEWALK DIVERSION
SINGLE SIDE

LEGEND

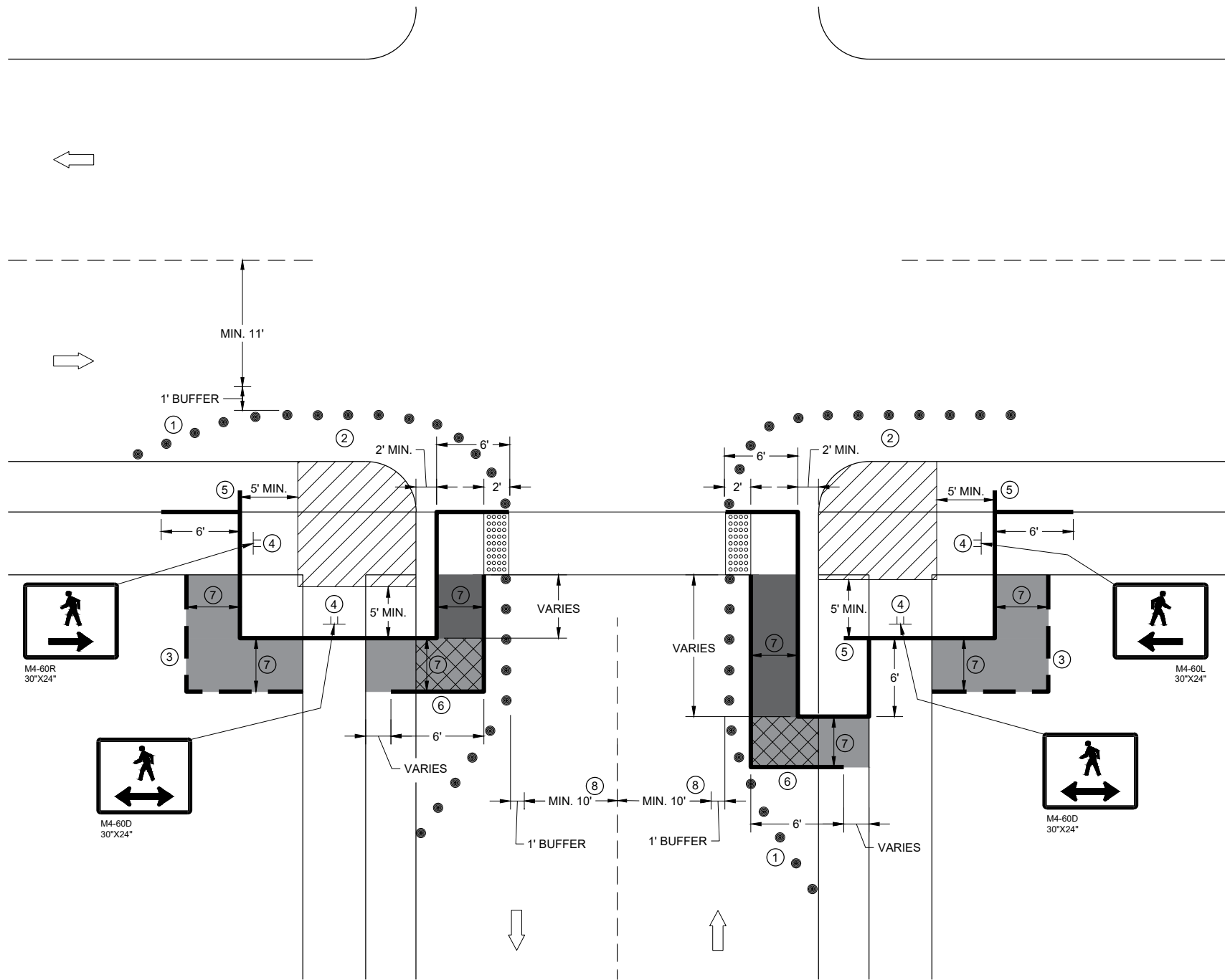
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

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.

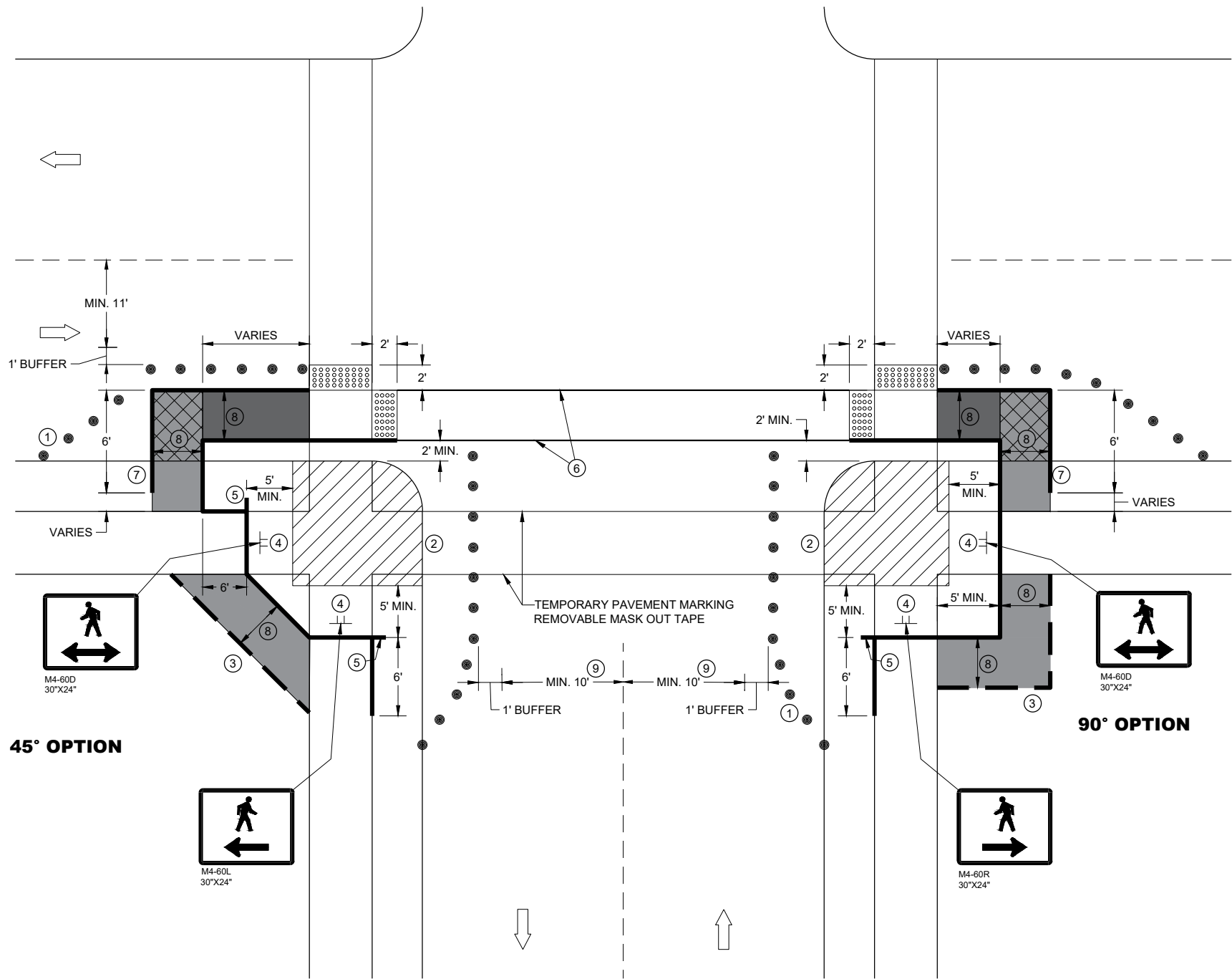
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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



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.

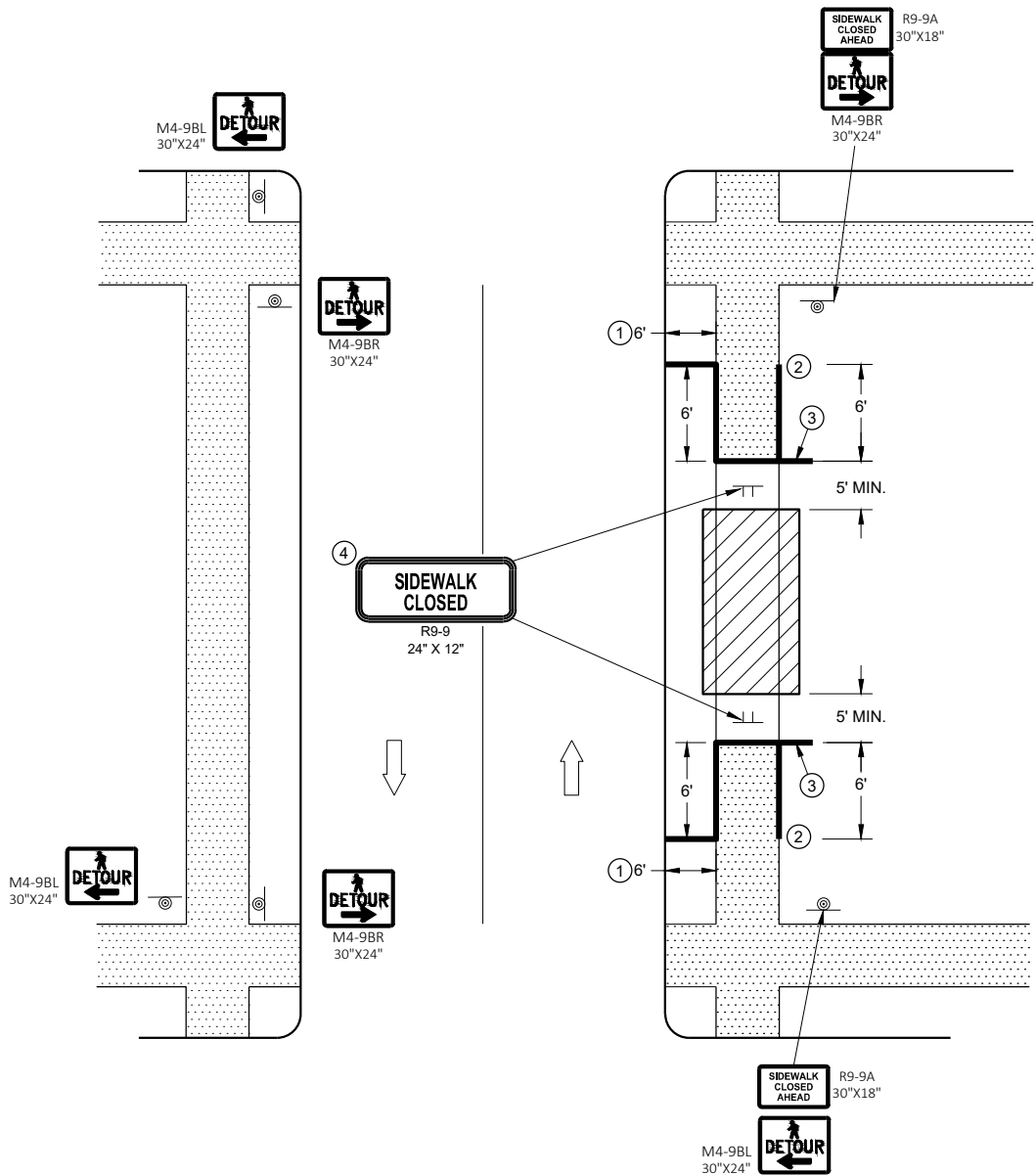
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE 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

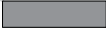
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.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

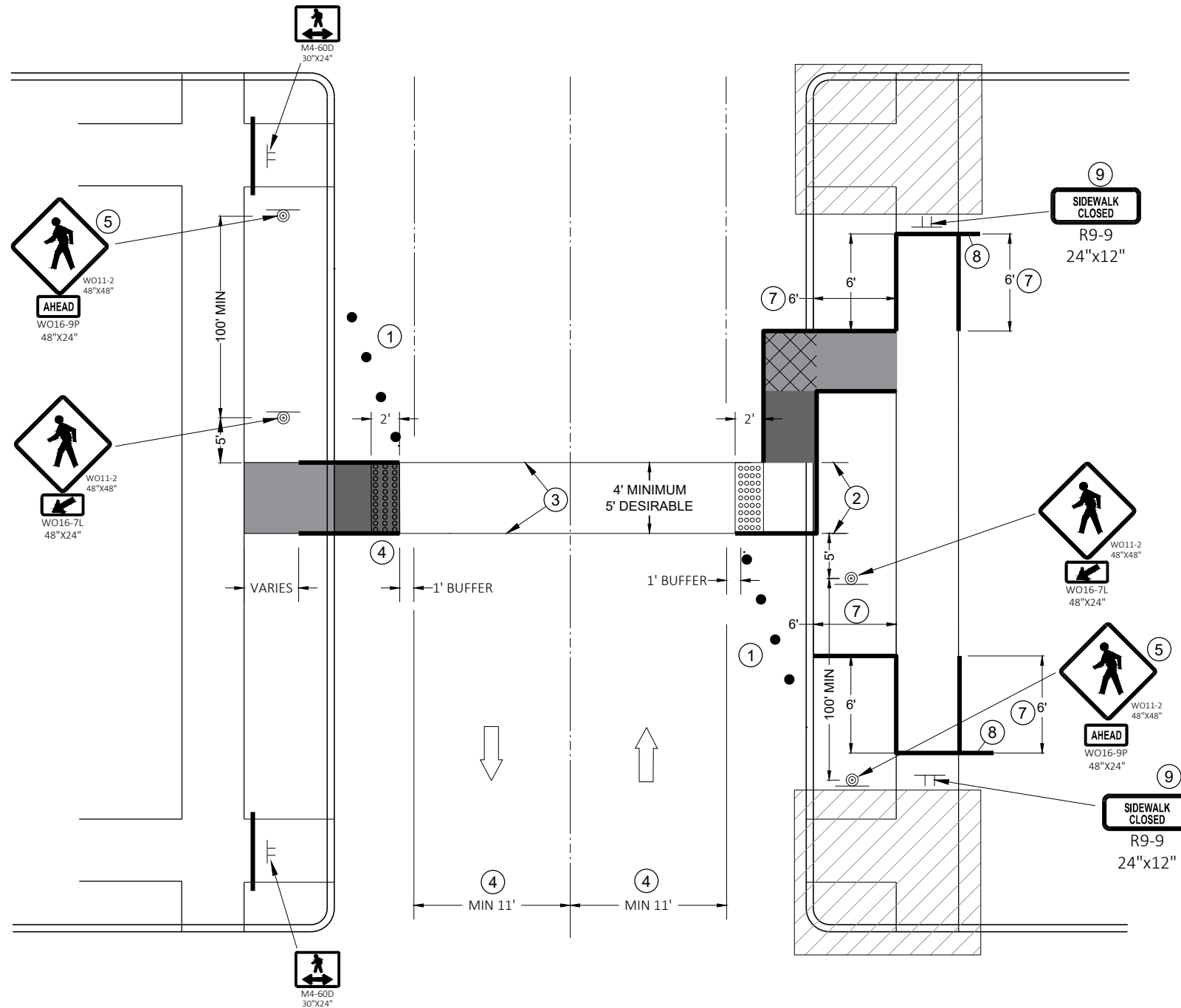
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

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

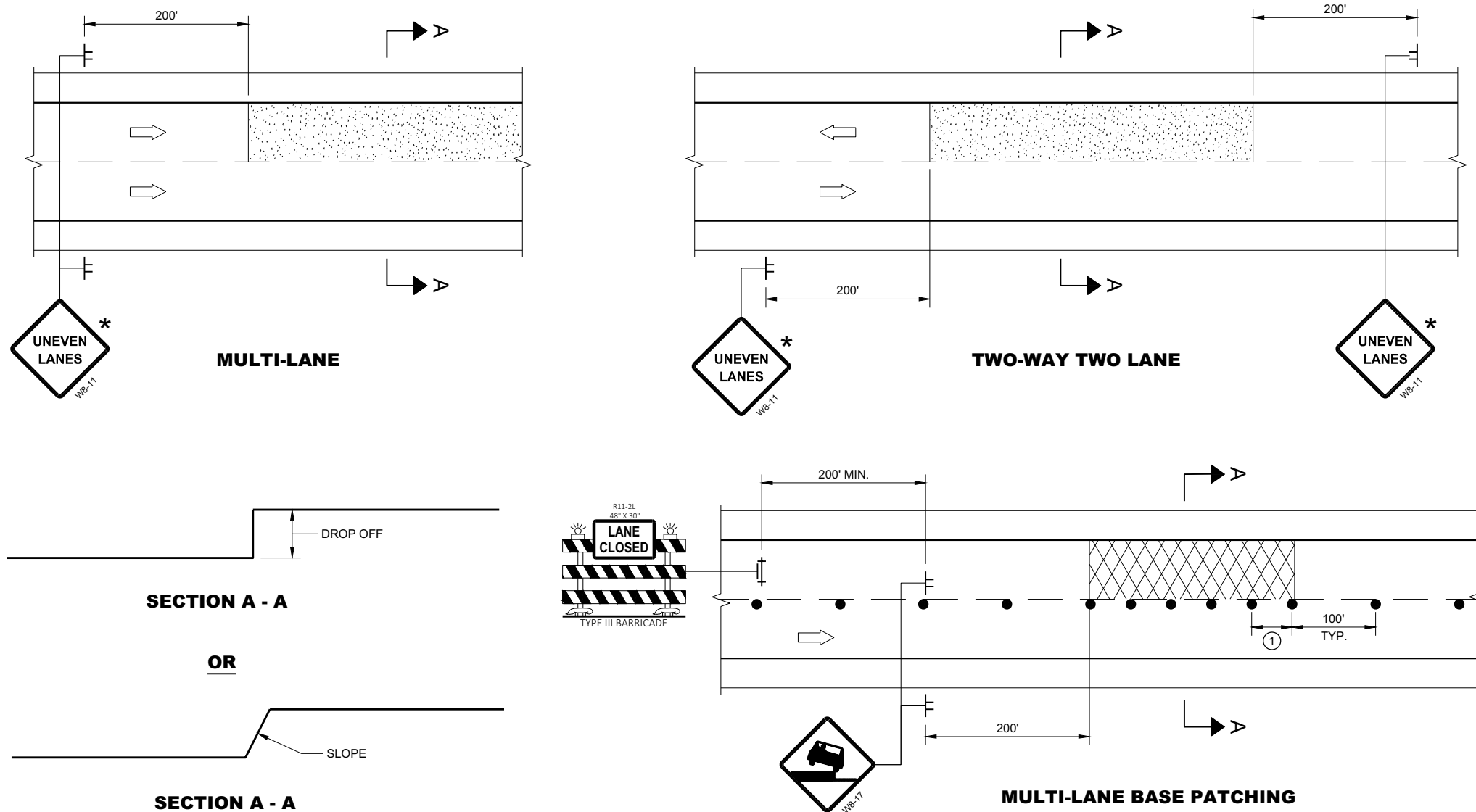
- | | |
|---|------------------------------------|
|  | TRAFFIC CONTROL DRUM |
|  | SIGN ON TEMPORARY SUPPORT |
|  | TEMPORARY CURB RAMP |
|  | TEMPORARY DETECTABLE WARNING FIELD |
|  | TEMPORARY PEDESTRIAN SURFACE "A" |
|  | TEMPORARY PEDESTRIAN SURFACE "B" |
|  | WORK AREA |
|  | TEMPORARY PEDESTRIAN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



TEMPORARY PEDESTRIAN CROSSING

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 136

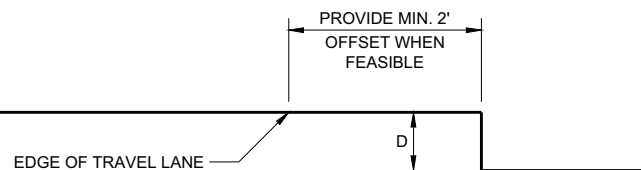
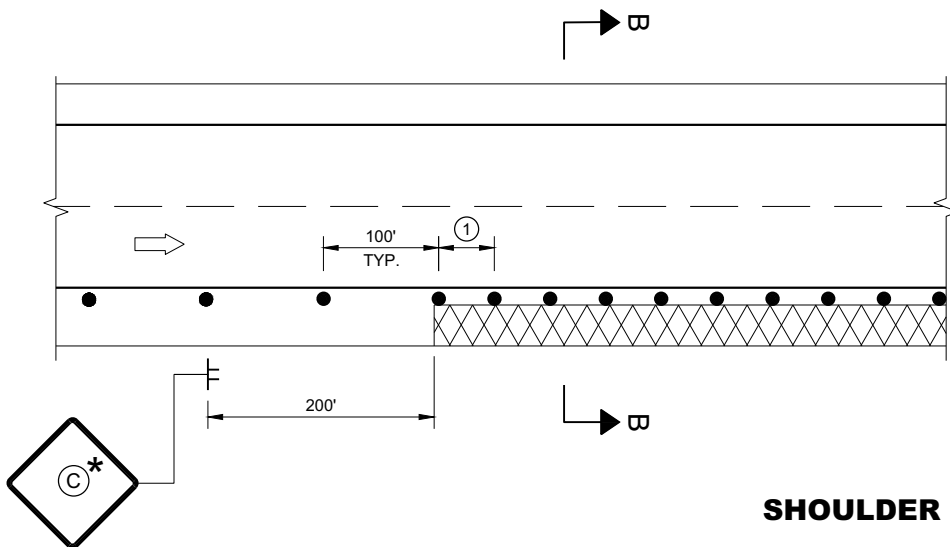


GENERAL NOTES

- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- ├── SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- ├── TYPE III BARRICADE WITH ATTACHED SIGN
- ☀ TYPE "A" WARNING LIGHT (FLASHING)
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA WITH DROP-OFF
- ▨ MILLED SURFACE



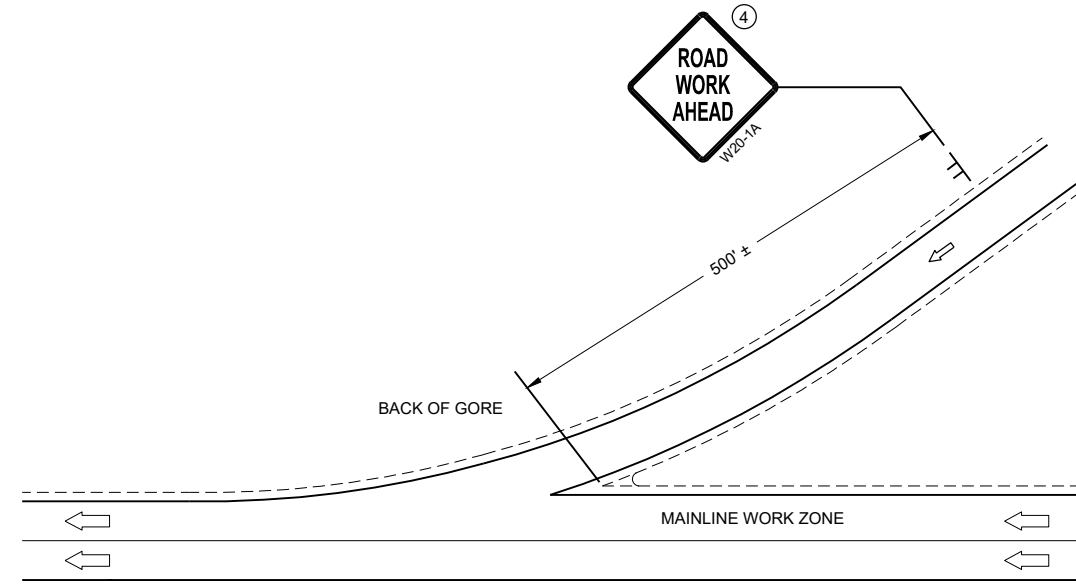
D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 137
FHWA

V1	SHADOW VEHICLE 1
V2	SHADOW VEHICLE 2
V3	ADVANCE WARNING TRUCK
●	TRAFFIC CONTROL DRUM
	TRUCK MOUNTED ATTENUATOR (TMA)
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW PANEL (MERGE)
	FLASHING ARROW PANEL (CAUTION)
	PORTABLE CHANGEABLE MESSAGE SIGN
	WORK AREA



SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

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

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

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

WHEN WORK ACTIVITY BLOCKS THE RIGHT LANE, REVERSE TRAFFIC CONTROL.

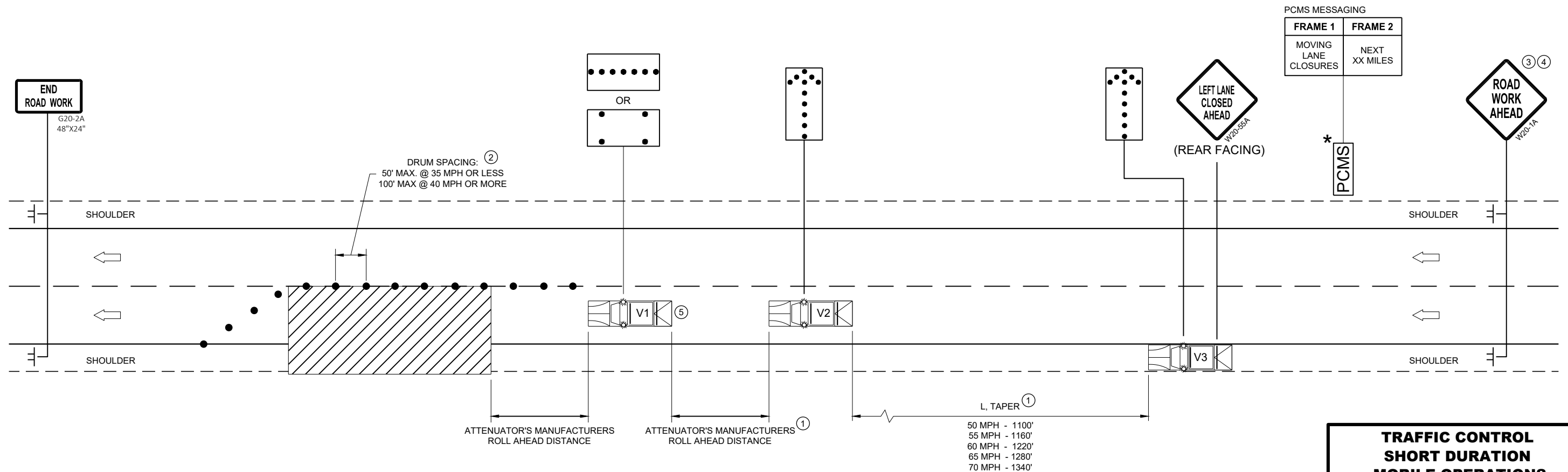
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

- ① DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.
- ③ WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.
- ④ SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ⑤ SHADOW VEHICLE 1 (V1) IS OPTIONAL

* PCMS OPTIONAL



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

138

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

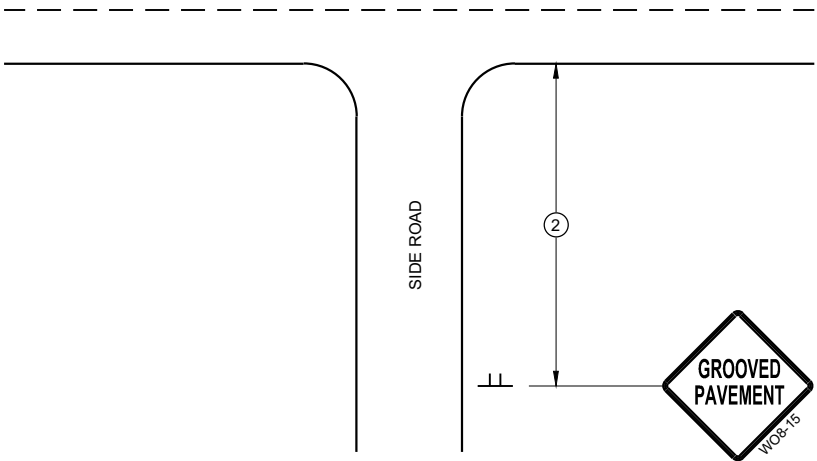
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

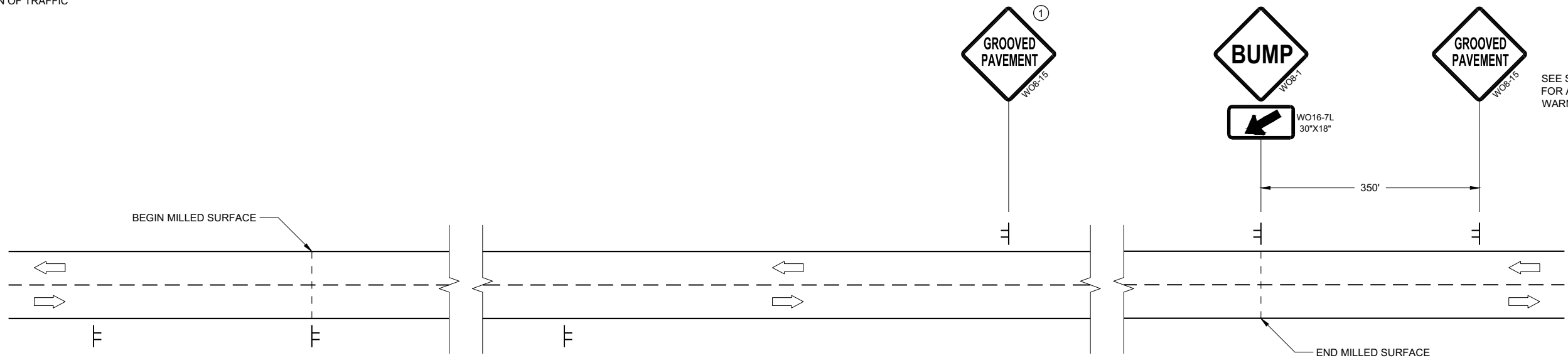
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 139

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

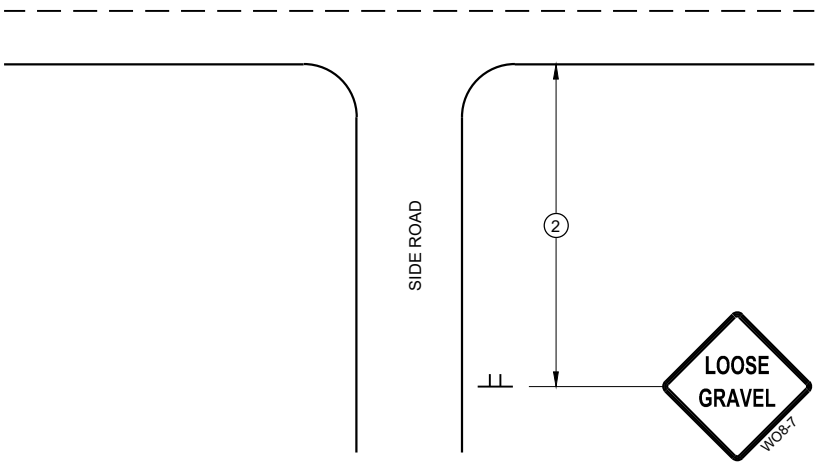
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

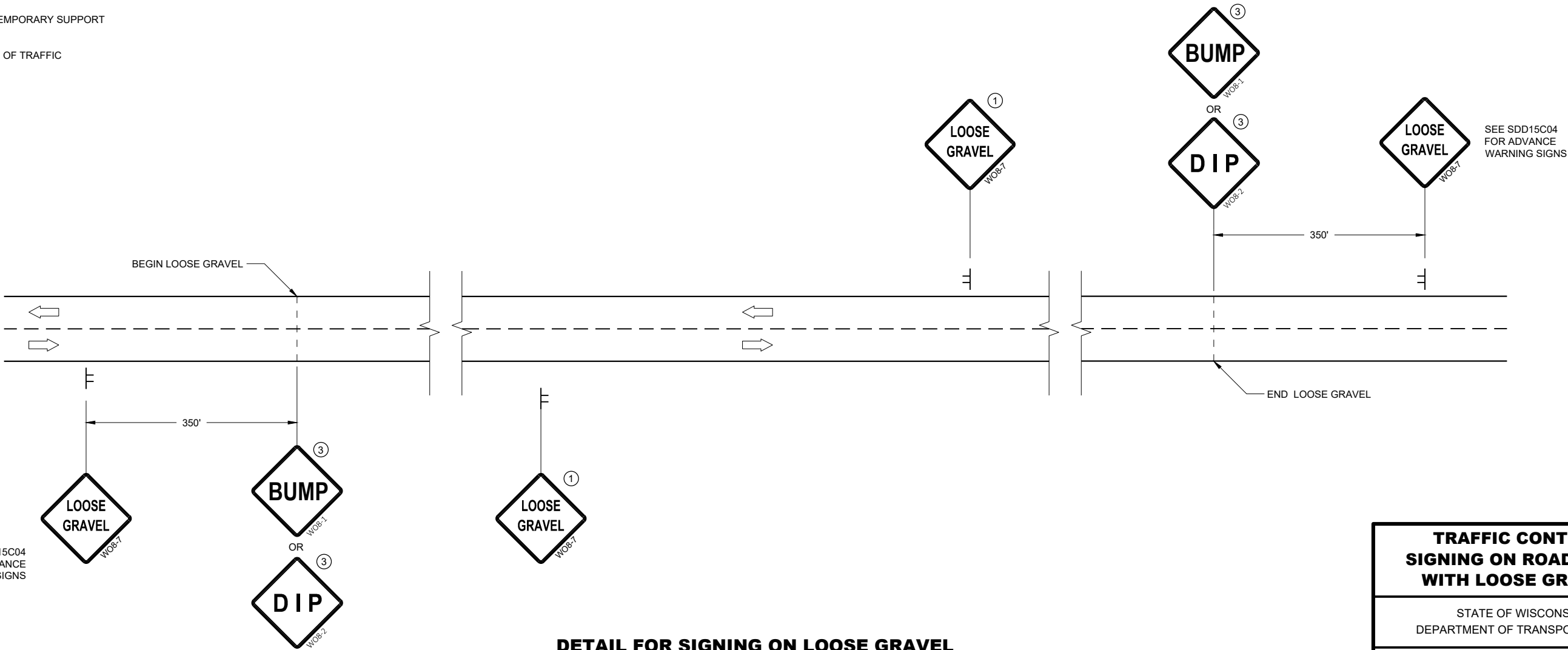
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

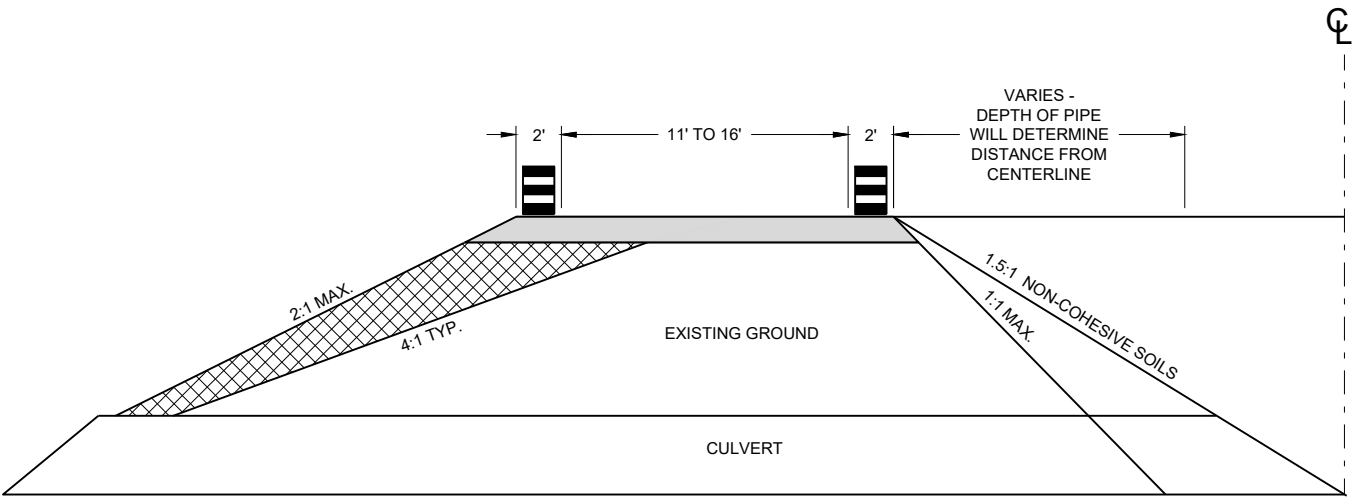
SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 140
FHWA



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

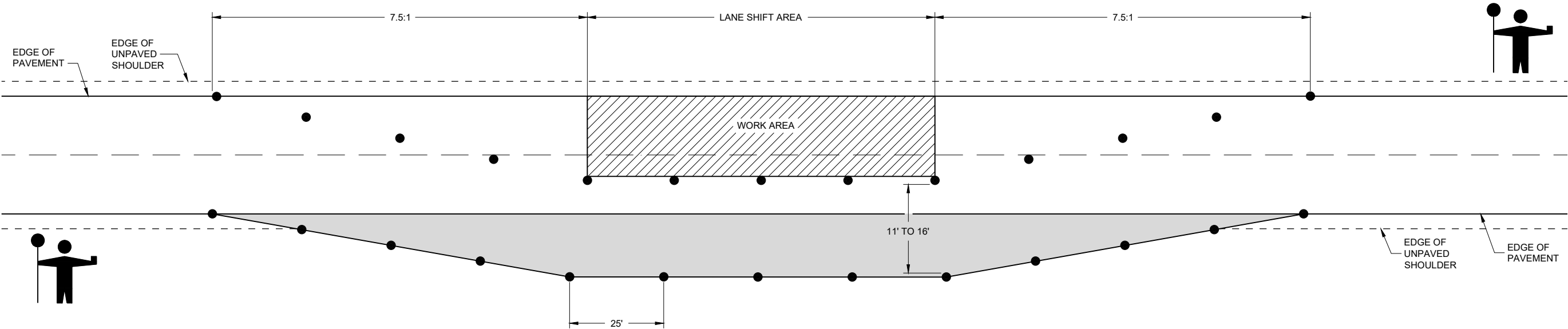
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 1/4" - INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

**TRAFFIC CONTROL,
TEMPORARY LANE SHIFT
DURING CULVERT WORK**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 141

FHWA

LEGEND

- V1

WORK VEHICLE
- V2

SHADOW VEHICLE
- 

TRUCK MOUNTED ATTENUATOR (TMA)
- 

FLASHING ARROW PANEL (CAUTION)
- 

WORK AREA
- 

DIRECTION OF TRAFFIC

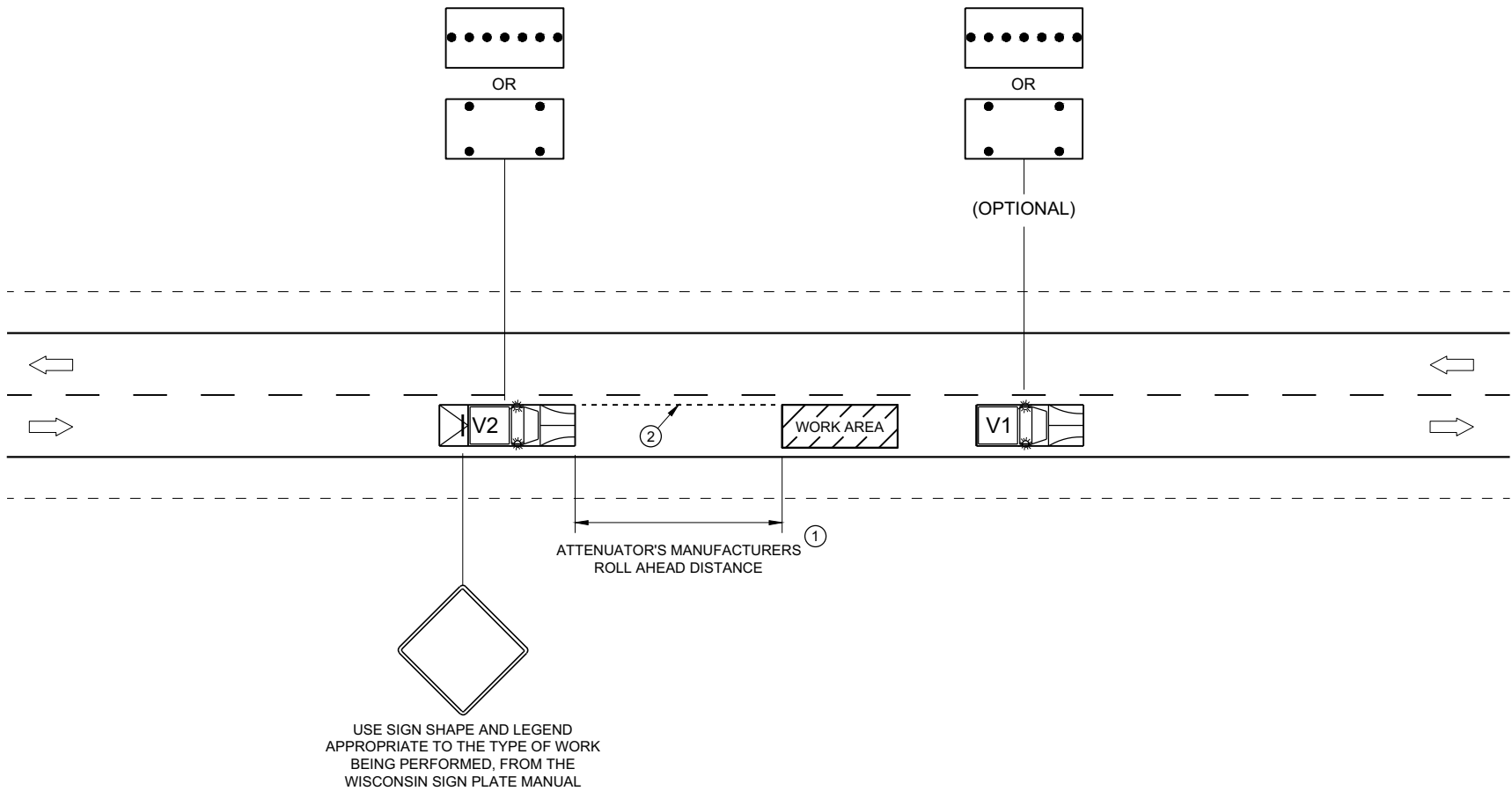
POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- ①

DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ②

ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



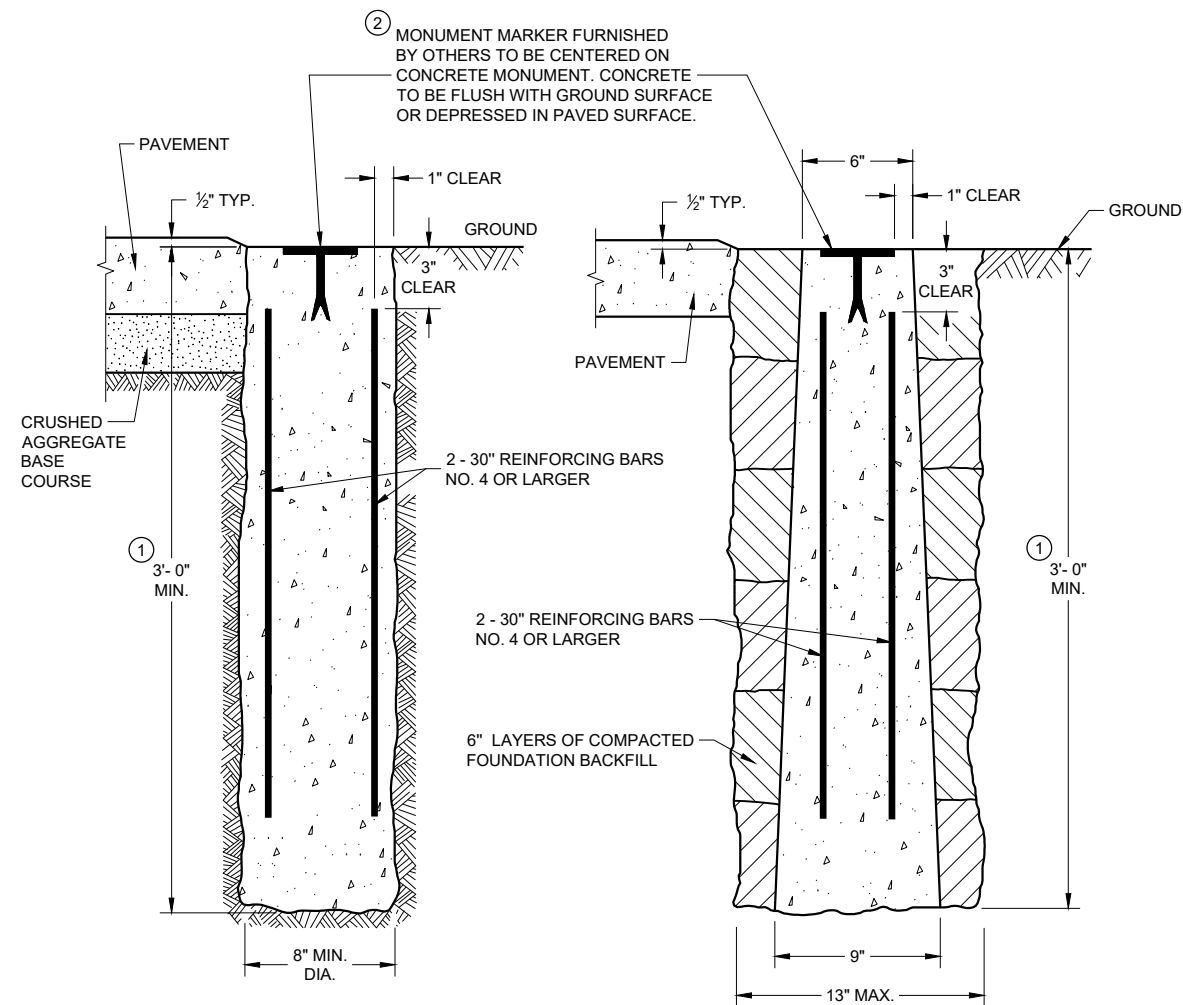
TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T
SAFETY ENGINEER

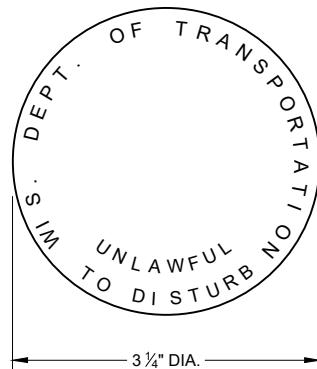
FHWA 142



CAST-IN-PLACE

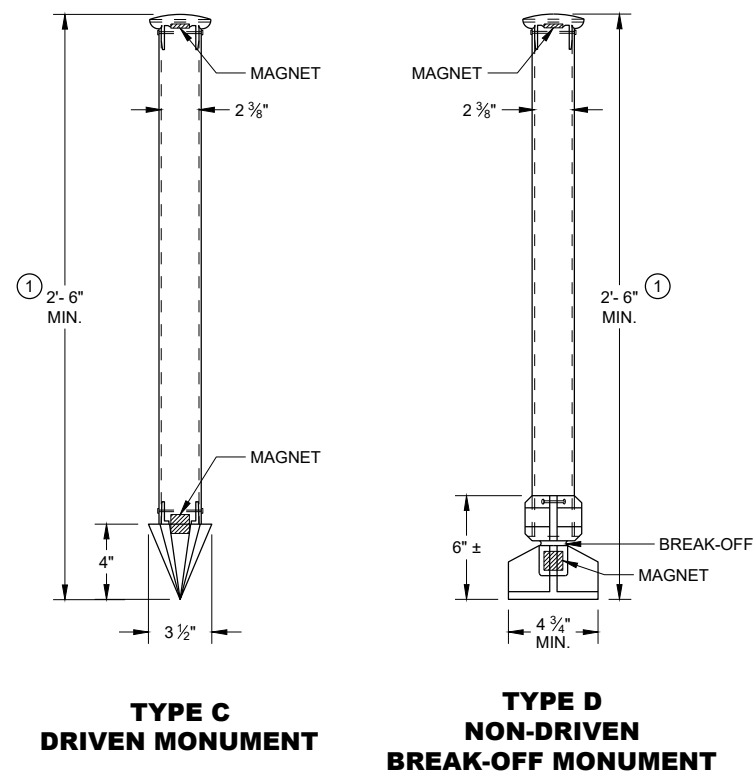
CONCRETE MONUMENTS

TYPE A

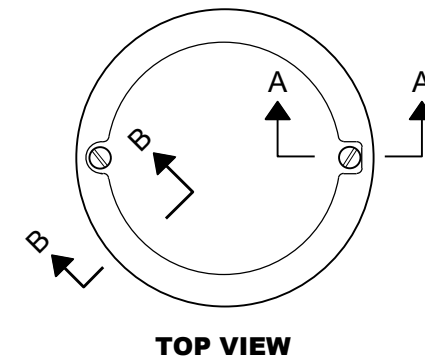


② **WIS DOT MONUMENT
MARKER LOGO**

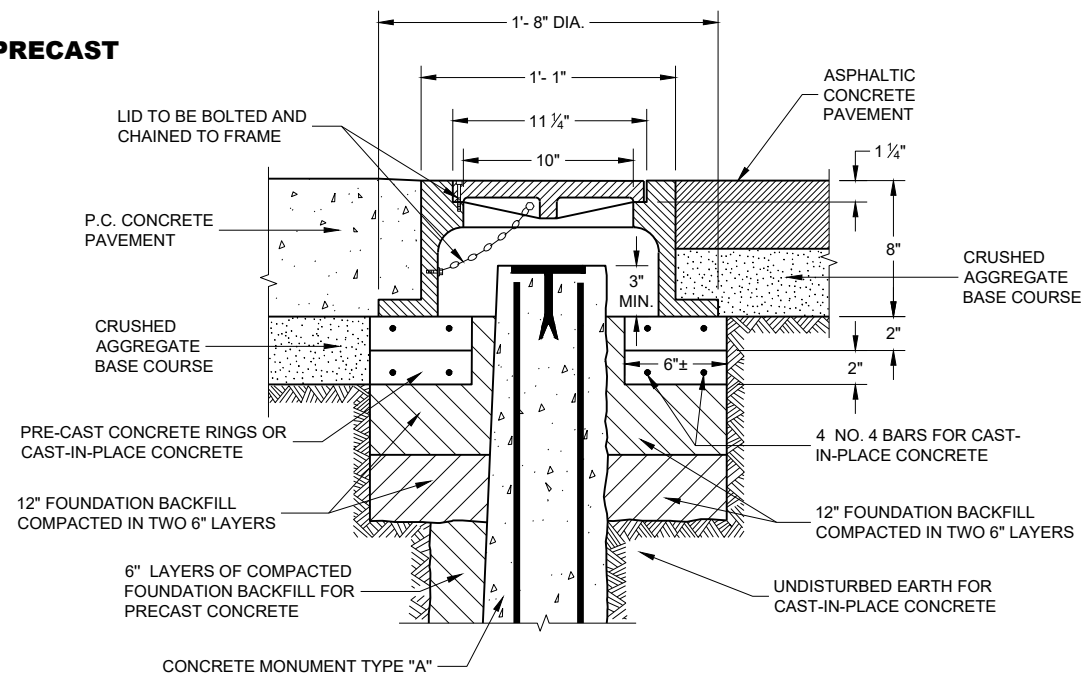
FOR TYPES "A", "C" & "D"



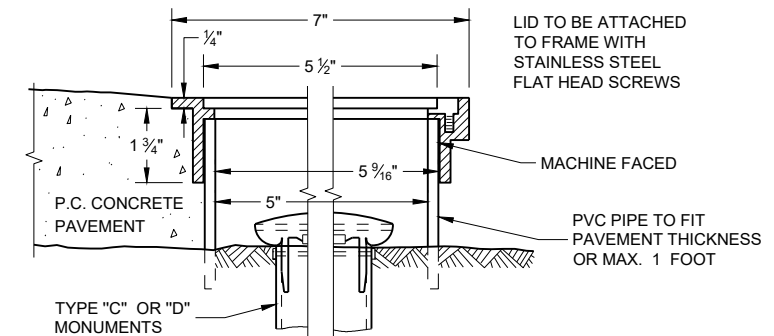
ALUMINUM MONUMENTS
(INCLUDES MARKER)



TOP VIEW



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B **SECTION A-A**
ALUMINUM MONUMENT COVER
 (APPROXIMATE WEIGHT 2 LBS)
 (FOR CONCRETE PAVEMENT ONLY)

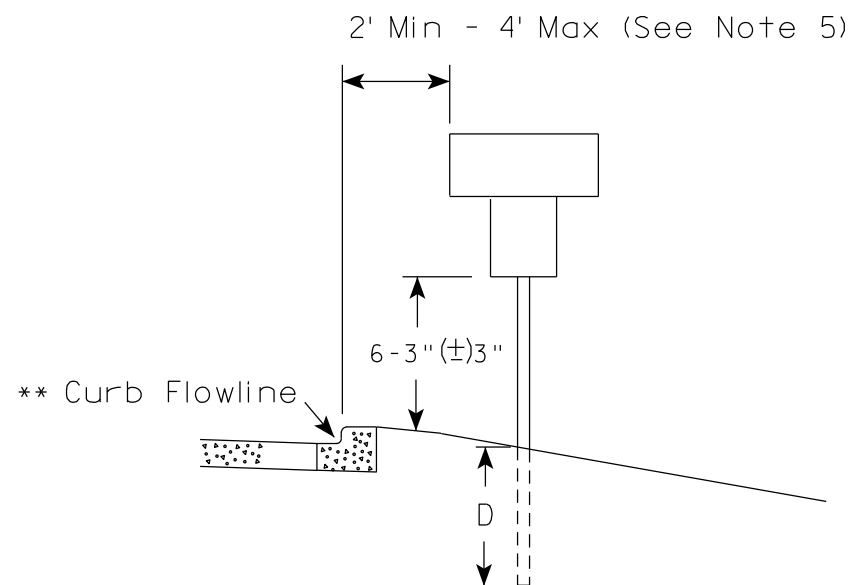
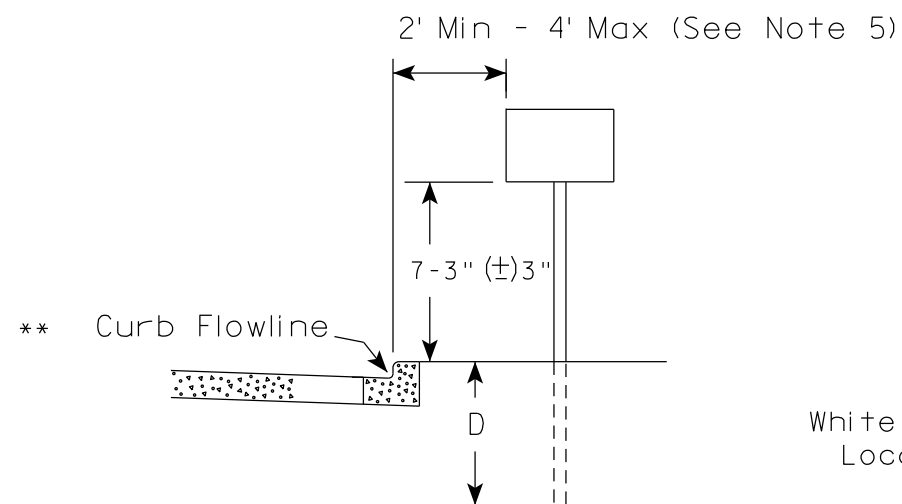
LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

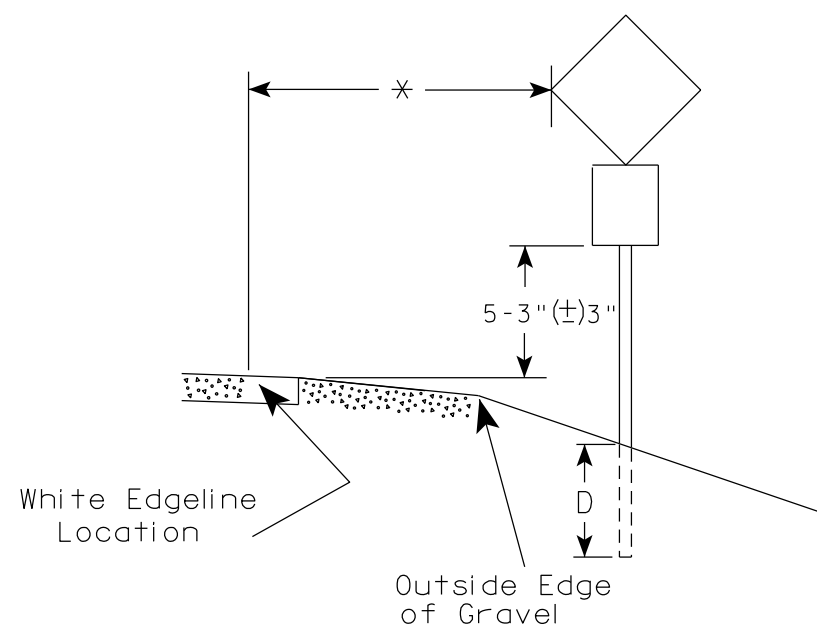
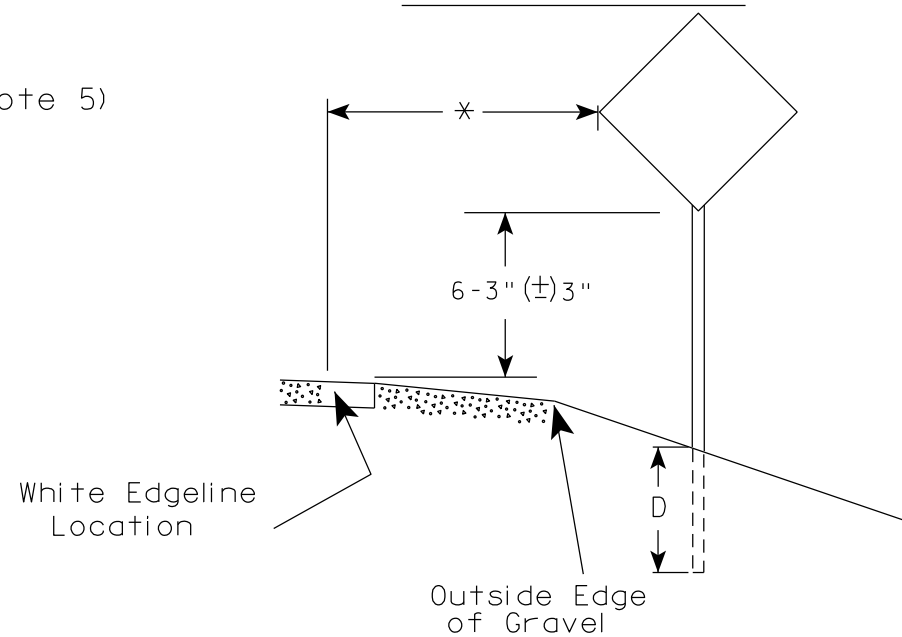
/S/ Raymond A. Kumapavii
CHIEF SURVEYING AND M/
ENGINEER 143

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



* 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.

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- 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".
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±) 3".
- 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" (±) 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'

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

PROJECT NO:

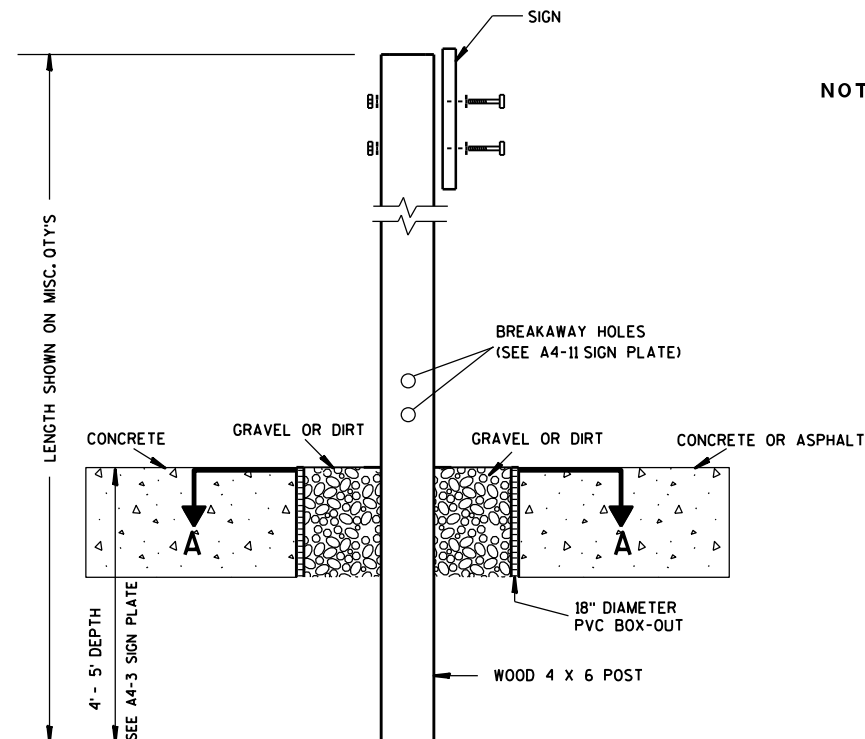
HWY:

COUNTY:

SHEET NO:

144

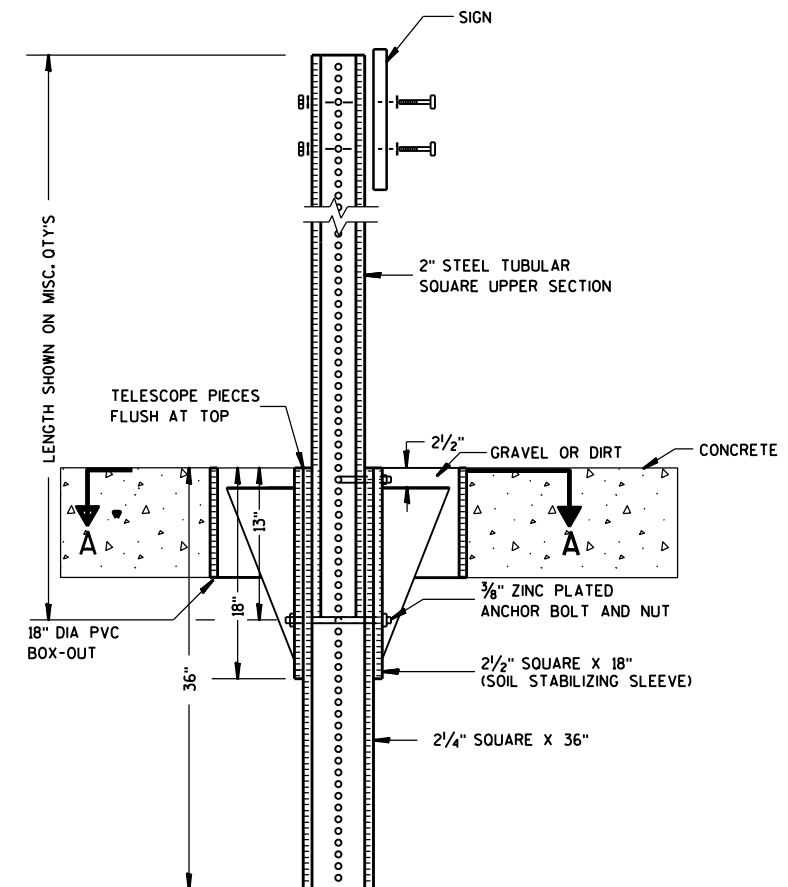
E



ELEVATION VIEW

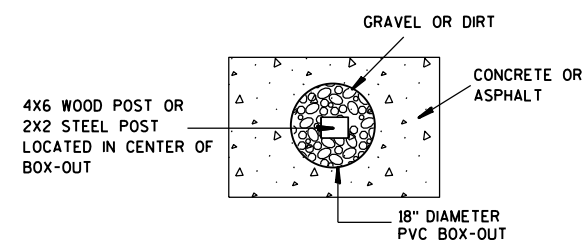
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

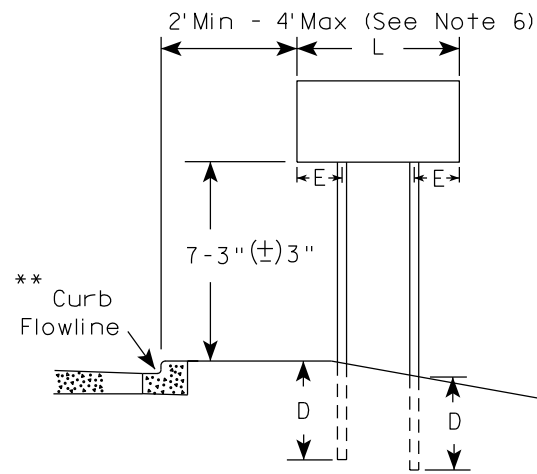
**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

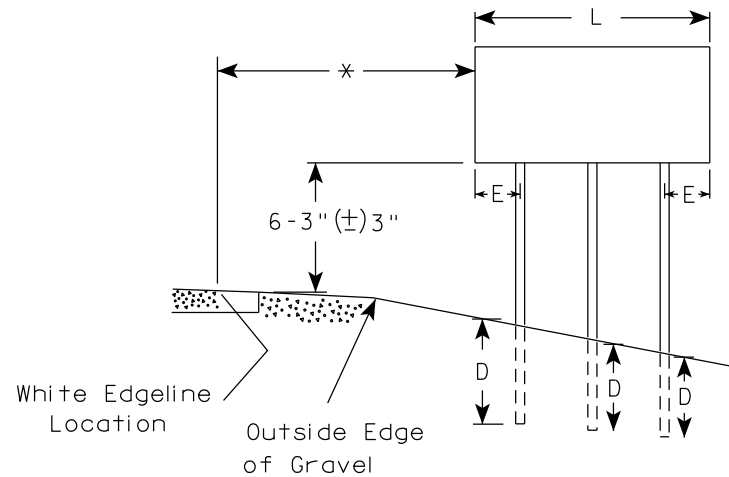
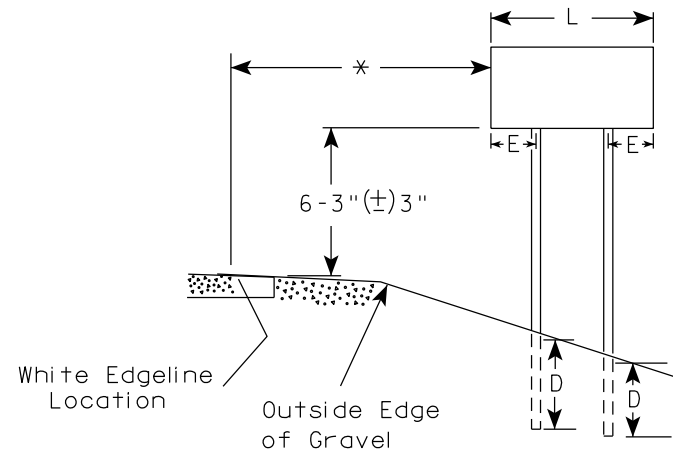
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 145 A4-3B.1

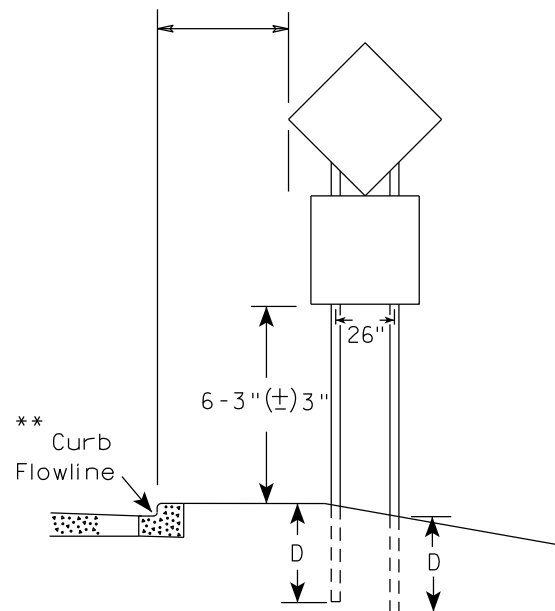
URBAN AREA



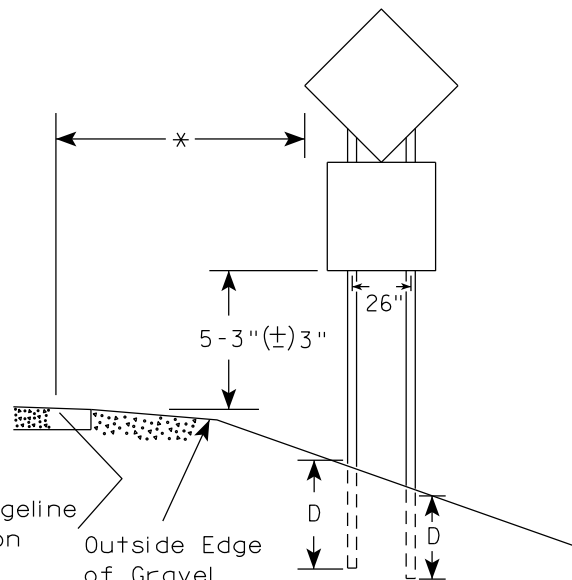
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

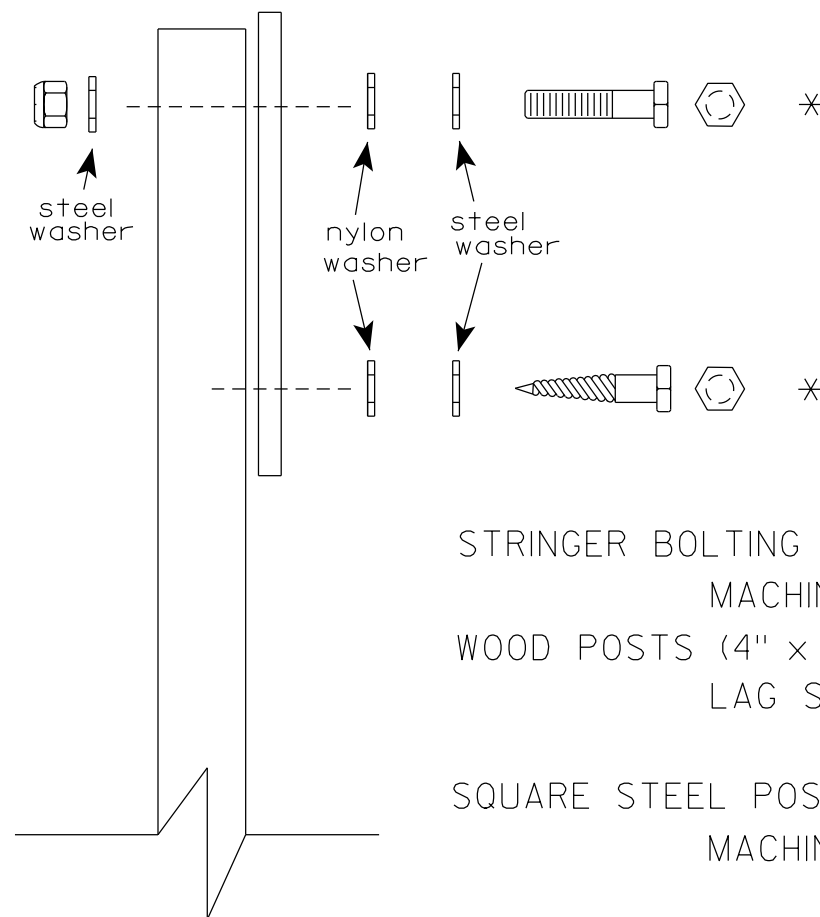
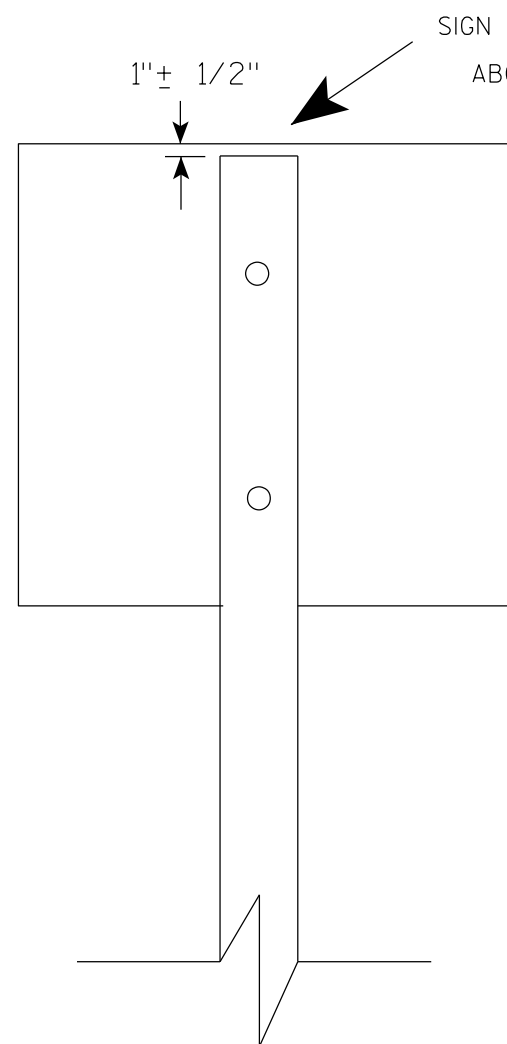
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 146

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.

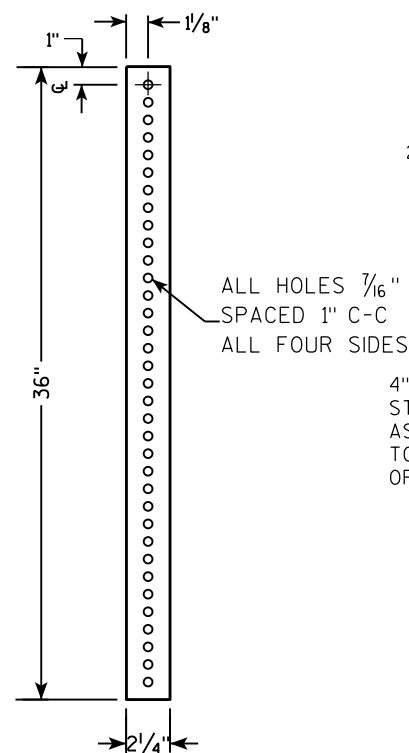
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

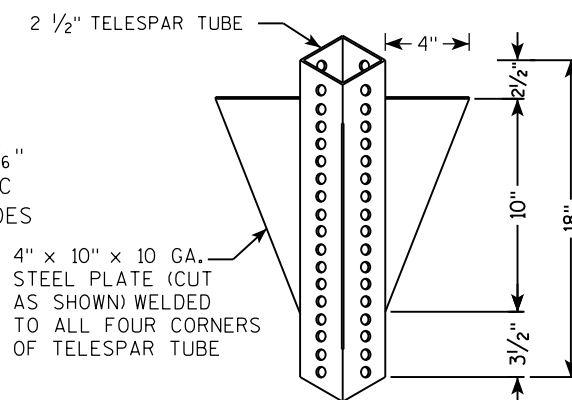
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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



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



TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- SIGN**: Indicated at the top of the post.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to sign plate details.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the upper section's holes.
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Detail of the corner fastener.
- 2 $\frac{1}{2}$ " GRAVEL OR DIRT**: Material filling the base around the anchor bolts.
- TELESCOPE PIECES FLUSH AT TOP**: Description of the joint between sections.
- 18" DIA SCHEDULE 40 PVC BOX-OUT**: The lower section of the post.
- $\frac{3}{16}$ " ZINC PLATED ANCHOR BOLT AND NUT**: Detail of the anchor bolt for the box-out.
- 2 $\frac{1}{2}$ " SQUARE X 18" (SOIL STABILIZING SLEEVE)**: Sleeve connecting the two sections.
- 2 $\frac{1}{4}$ " SQUARE X 36"**: The bottom-most section of the post.
- Dimensions**:
 - Total height of the lower section: 36"
 - Height from ground to top of box-out: 18"
 - Height of box-out: 13"

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View (Left):

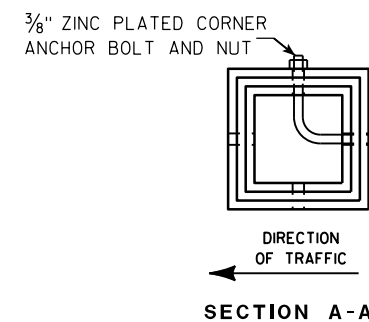
- Overall height dimension: LENGTH SHOWN ON MISC. Q'TYS
- Top section: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Telescope pieces: TELESCOPE PIECES FLUSH AT TOP
- Dimensions from ground line: 36" (total height), 18" (upper section), 12" (lower section).
- Ground line with downward arrow 'A'.

End View (Right):

- Top section: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Sign: SIGN (indicated by a bracket)
- Sign mounting: SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- Anchor bolts: 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT (indicated by a bracket)
- Dimensions: 1" (spacing between anchor bolts)
- Ground line with downward arrow 'A'.
- Lower section: 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Bottom section: 2 1/4" SQUARE X 36"

Common Specifications:

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



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 Matthaeus R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 148 14-9.9

PROJECT NO:

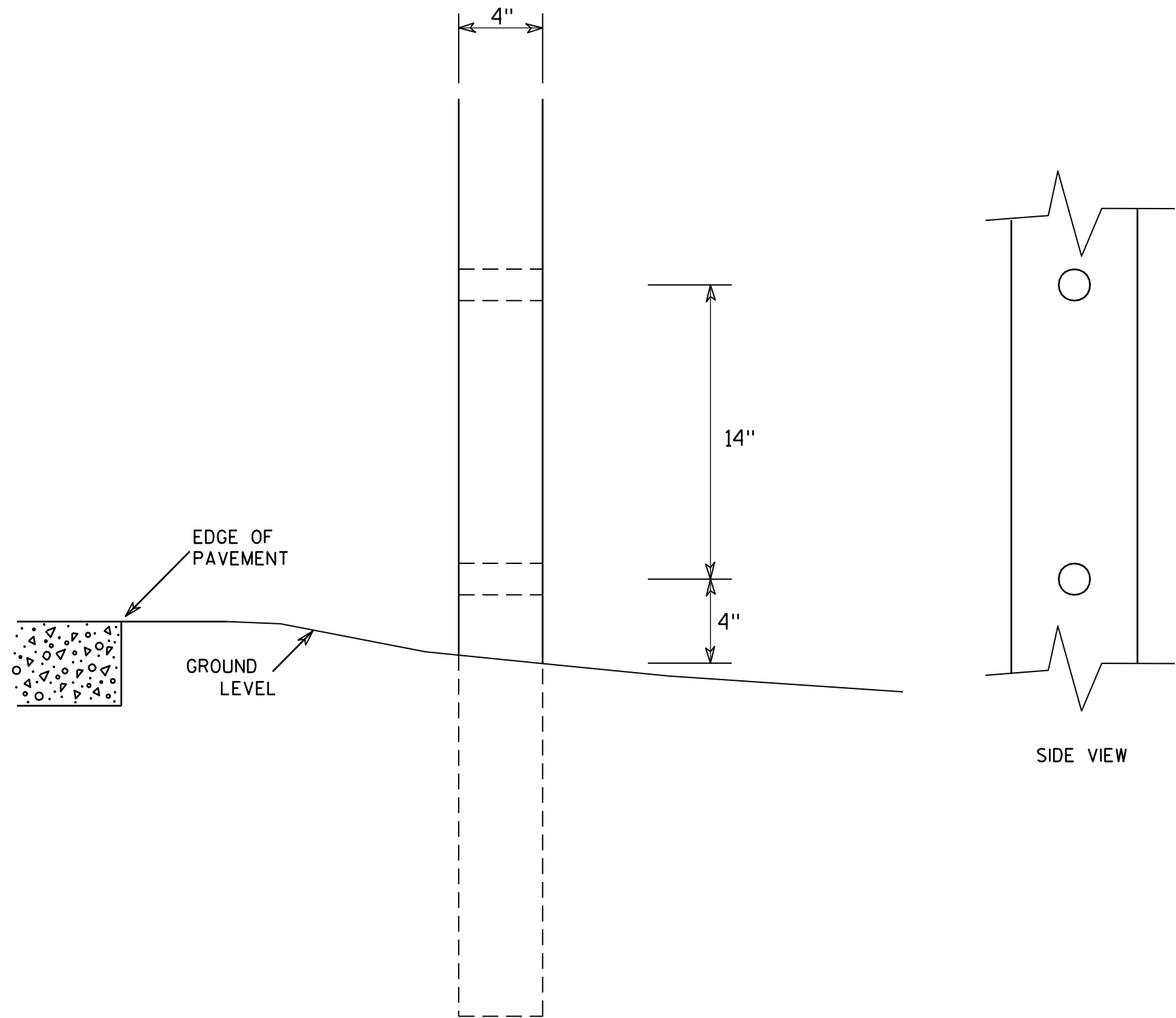
HWY:

COUNTY:

SHEET NO:

E

7



GENERAL NOTES

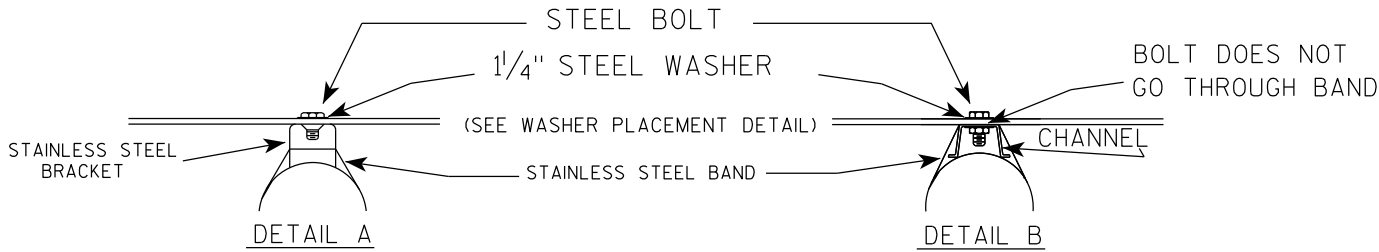
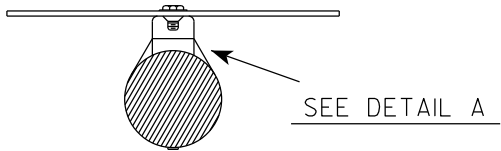
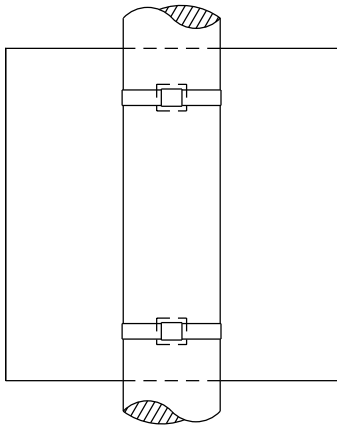
1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Chester J. Spang</i> for State Traffic Engineer
DATE 3/27/97	PLATE NO. A4-11.2

BANDING

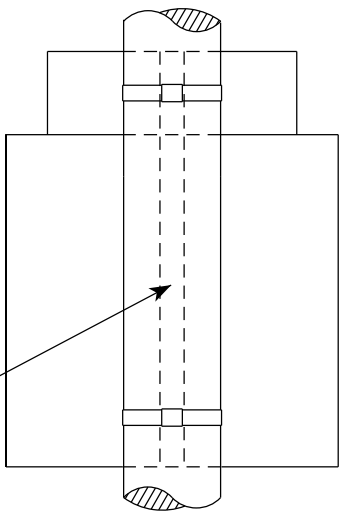
SINGLE SIGN



GENERAL NOTES

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

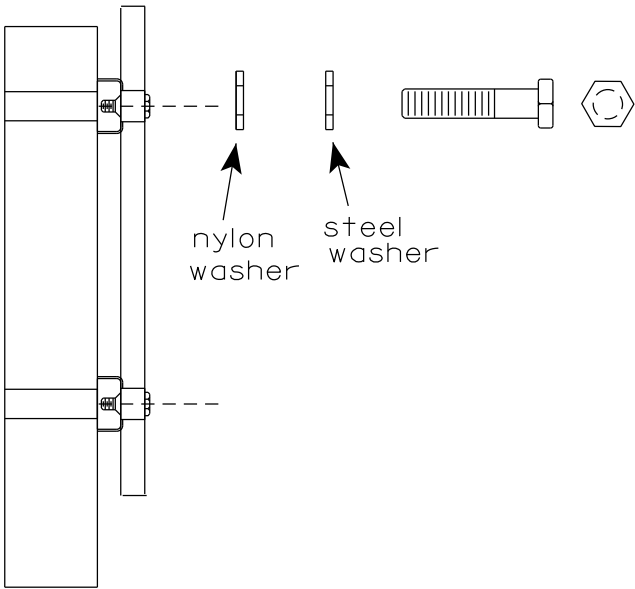
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

WASHER PLACEMENT

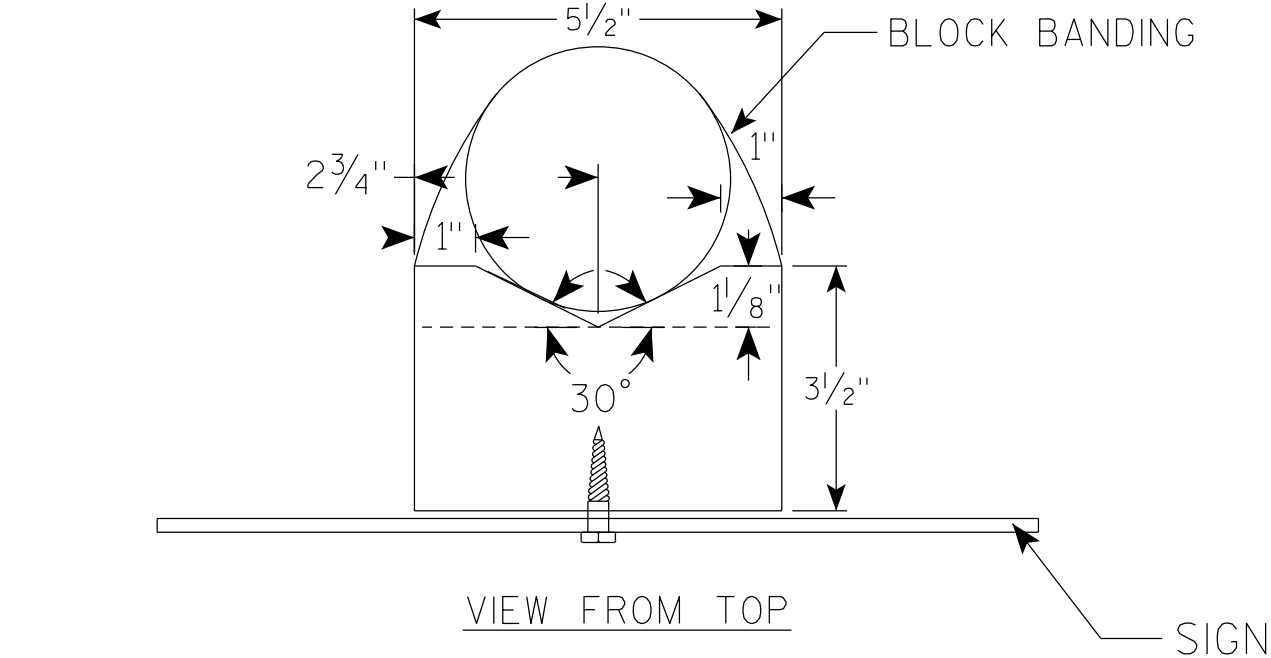
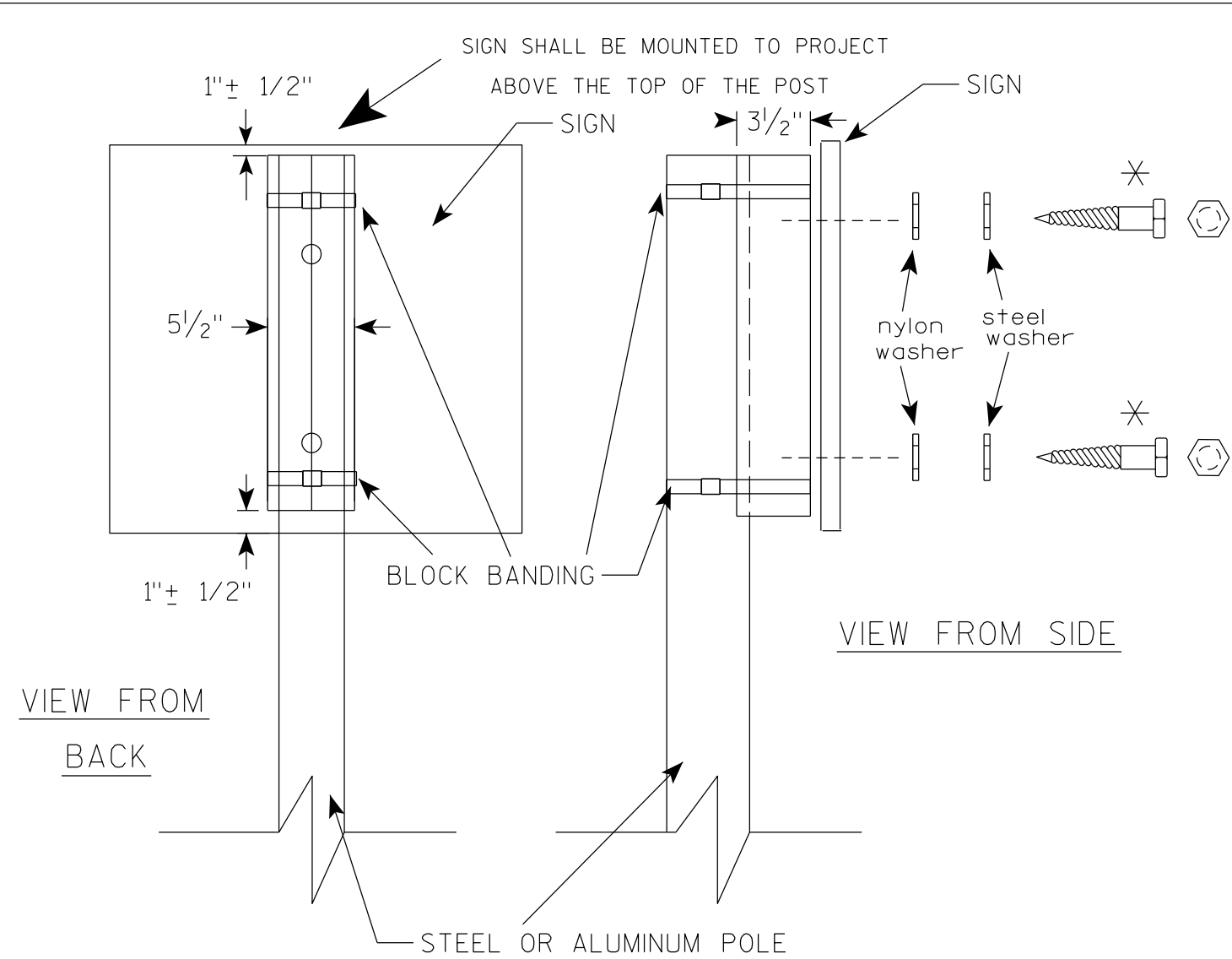


WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 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

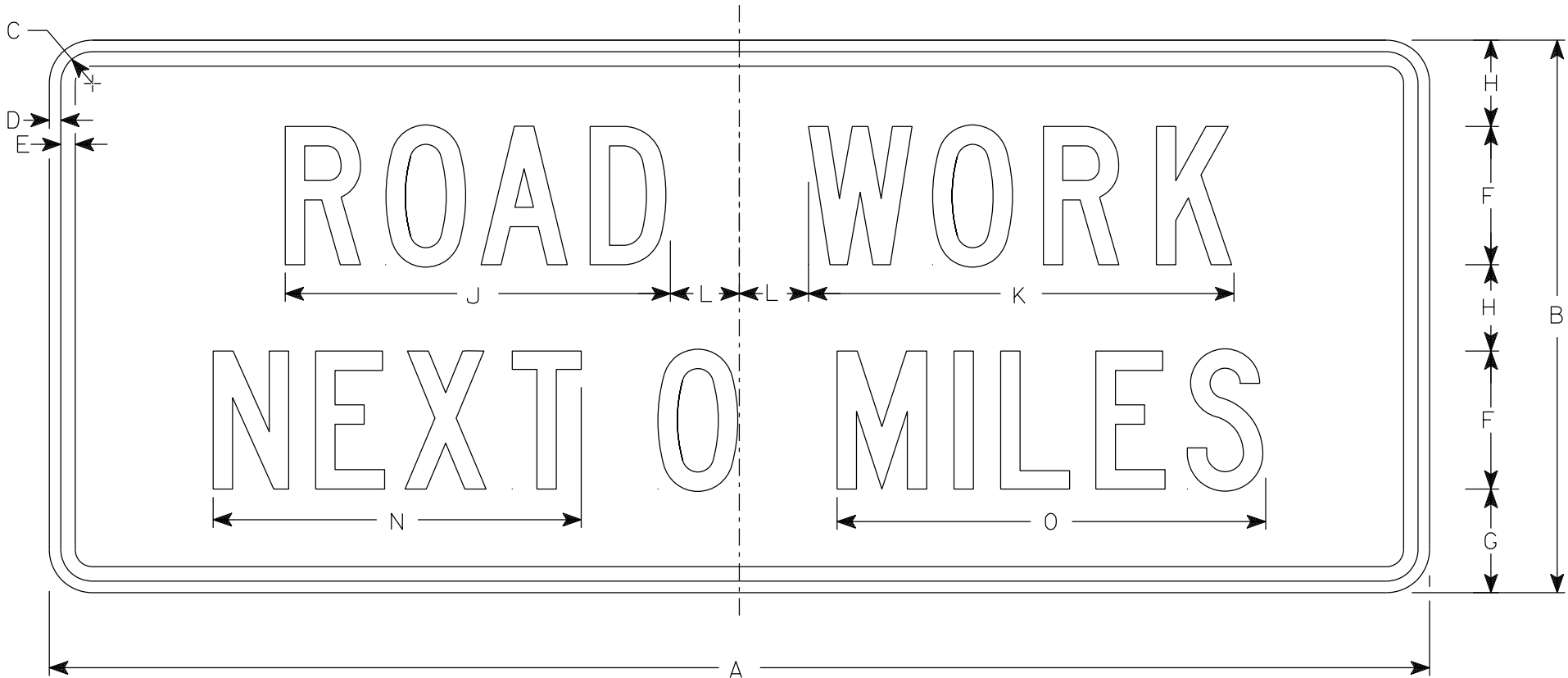
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 151

E

7



G20-1

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.
- 5. Round distance to nearest whole Mile and 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																											
2S	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
2M	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
3	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
4	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0
5	60	24	1 7⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10.0

STANDARD SIGN

G20-1

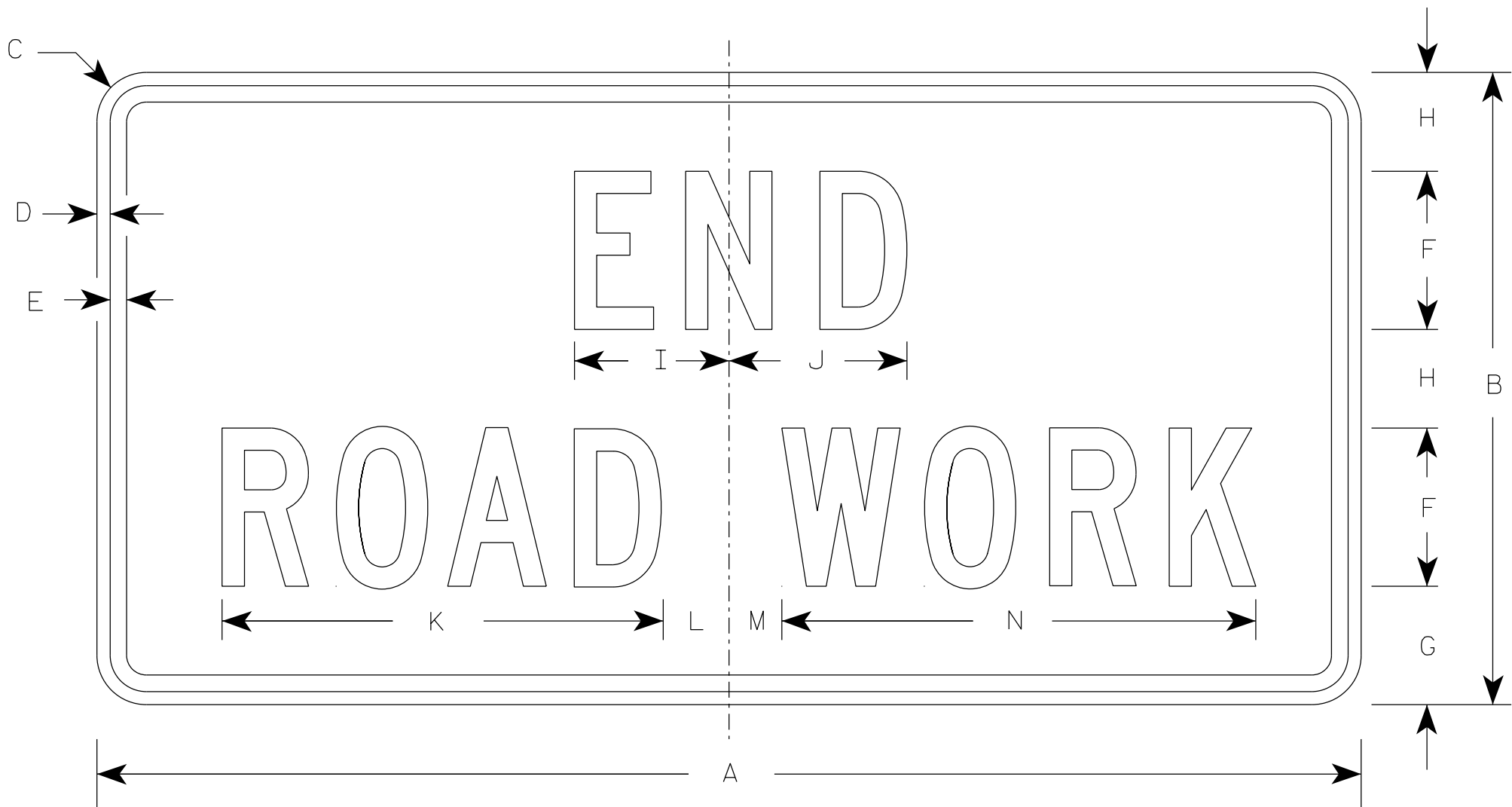
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-1.9

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

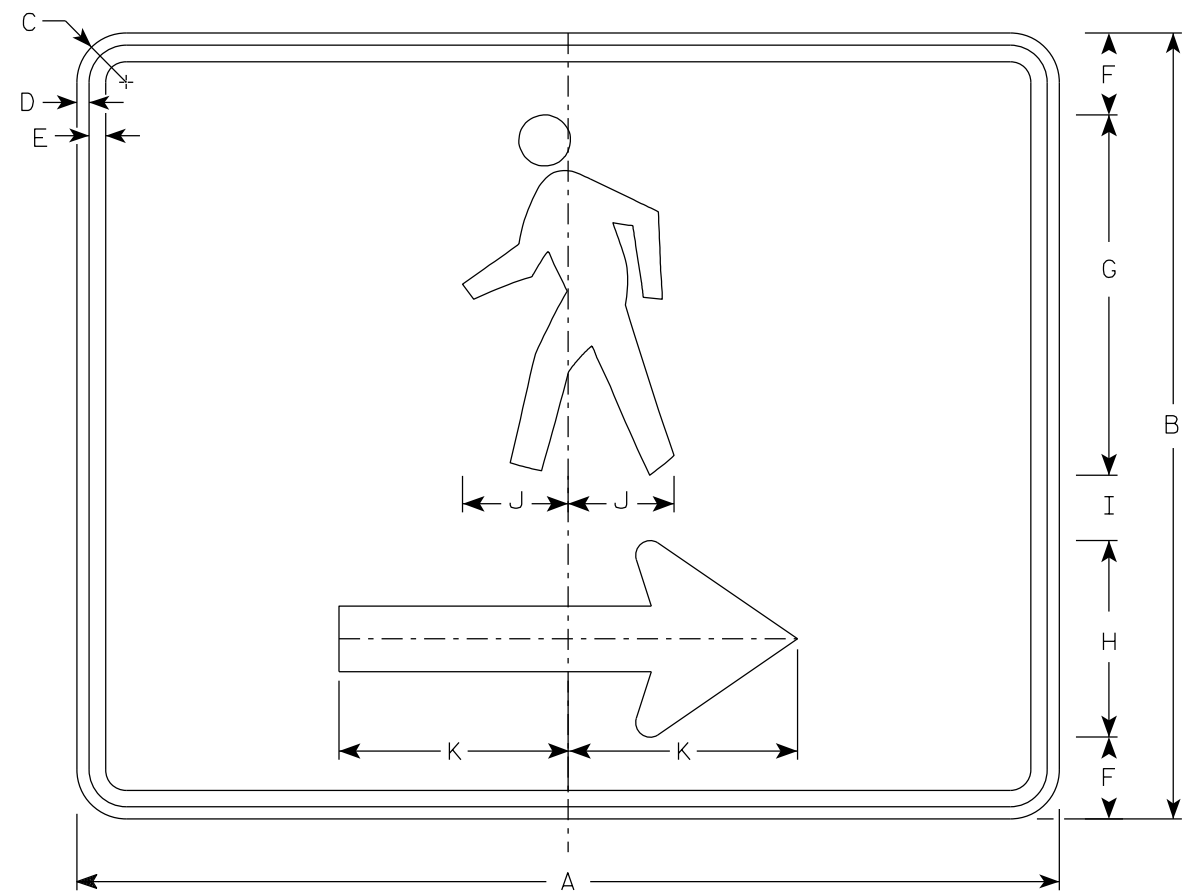
STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

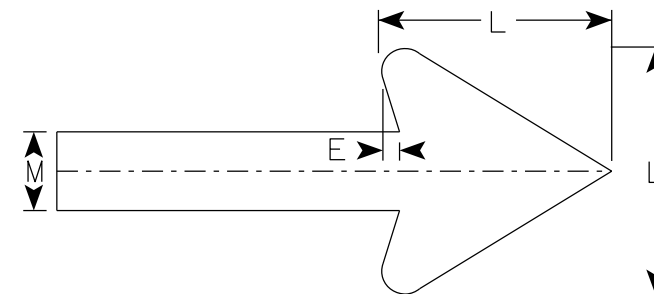
DATE 1/26/2023 PLATE NO. G20-2A.10



M4-60R

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.

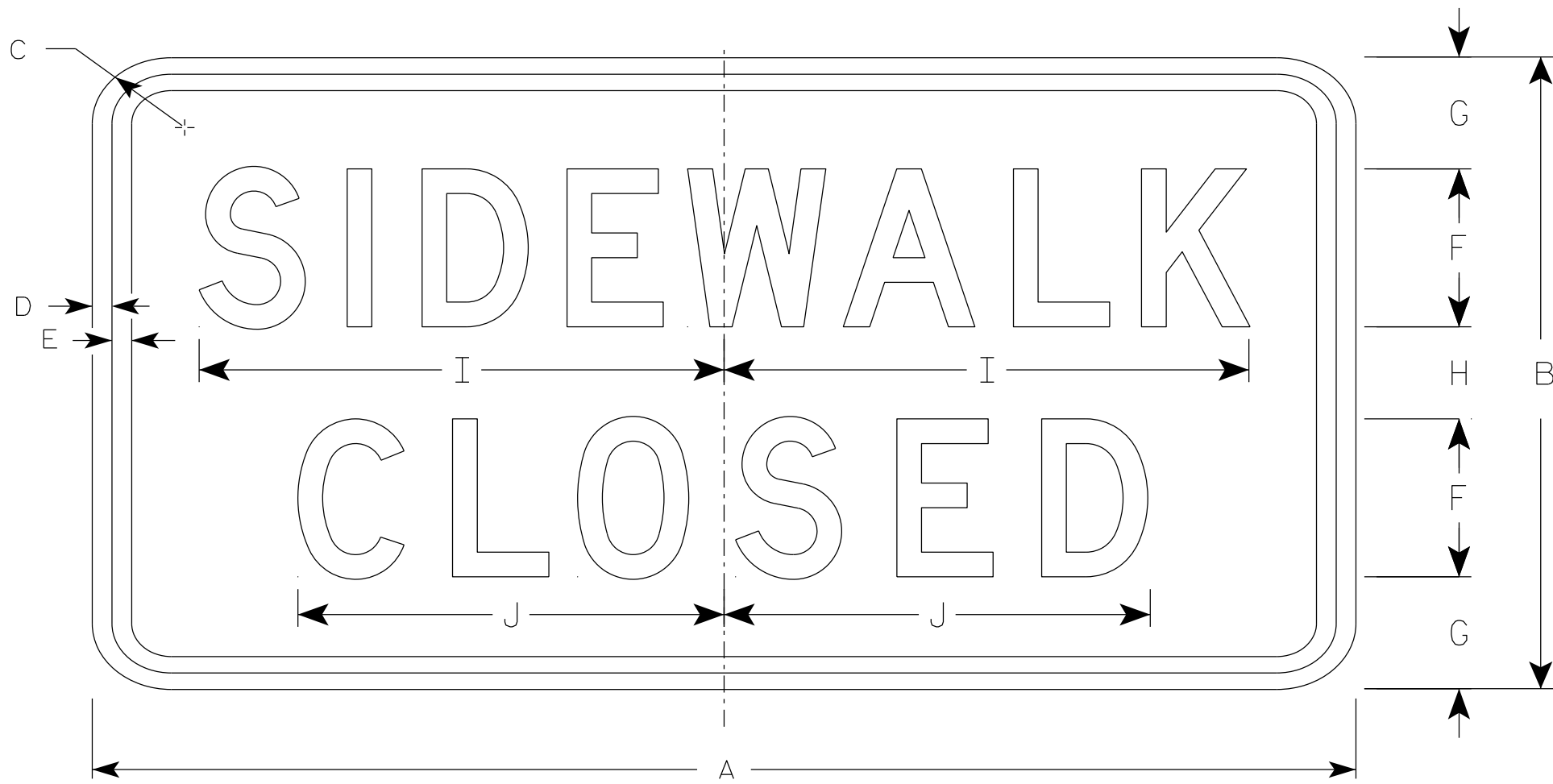


Arrow Detail

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																											
2S	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

PROJECT NO:		HWY:		COUNTY:		SHEET NO: 154		E
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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:

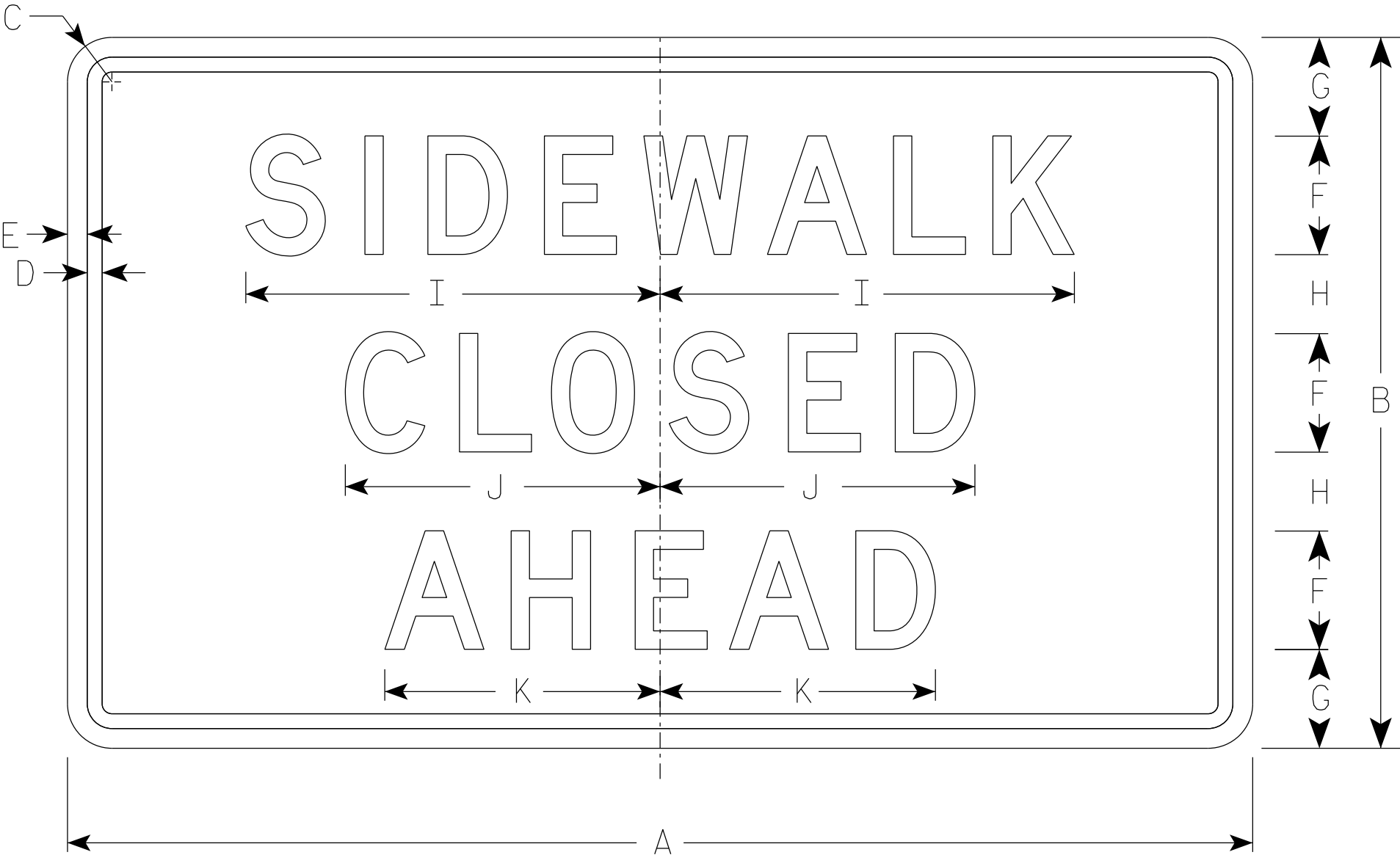
COUNTY:

SHEET NO: 155

E

NOTES

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



R9-9A

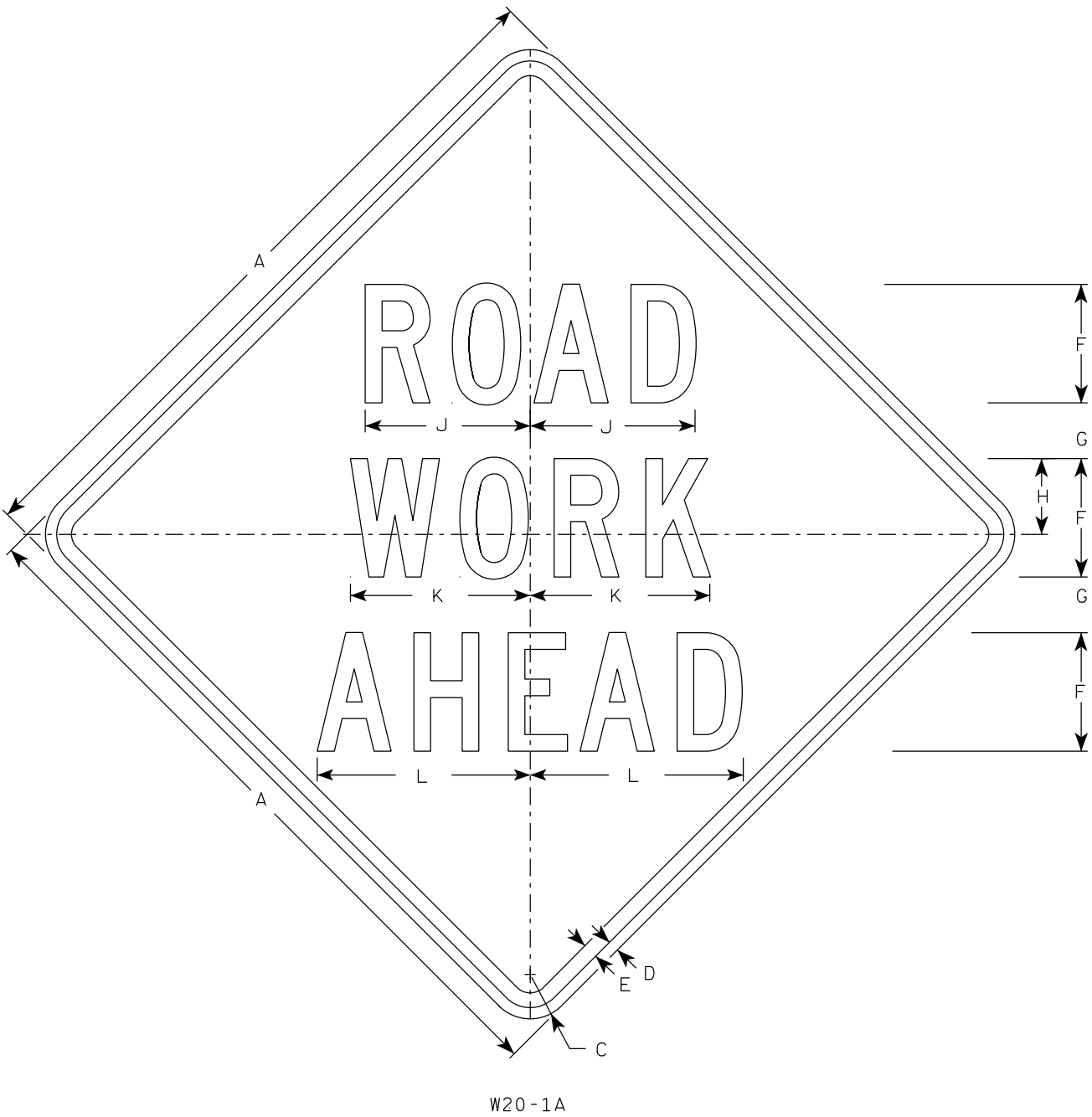
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

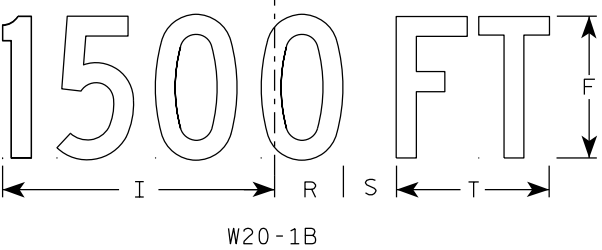
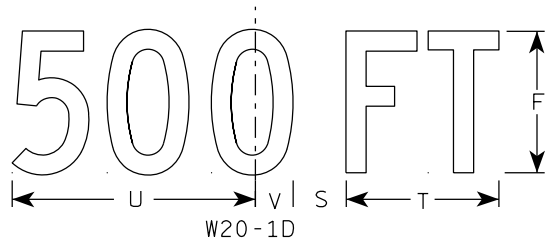
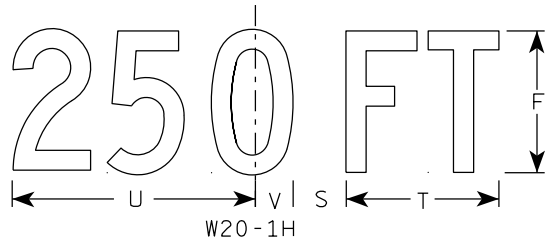
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

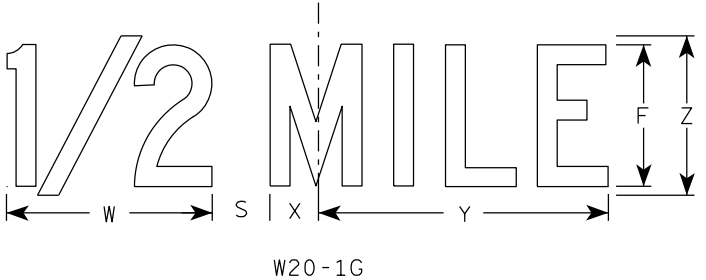


W20-1A

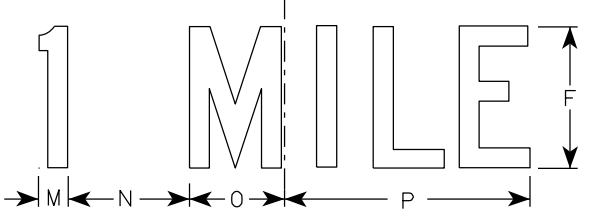


W20-1B

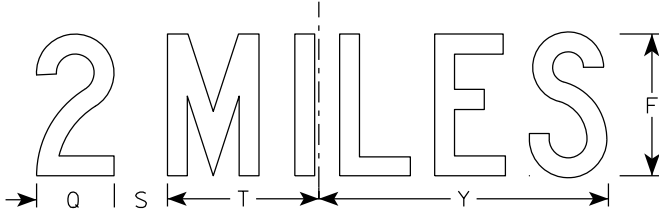
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

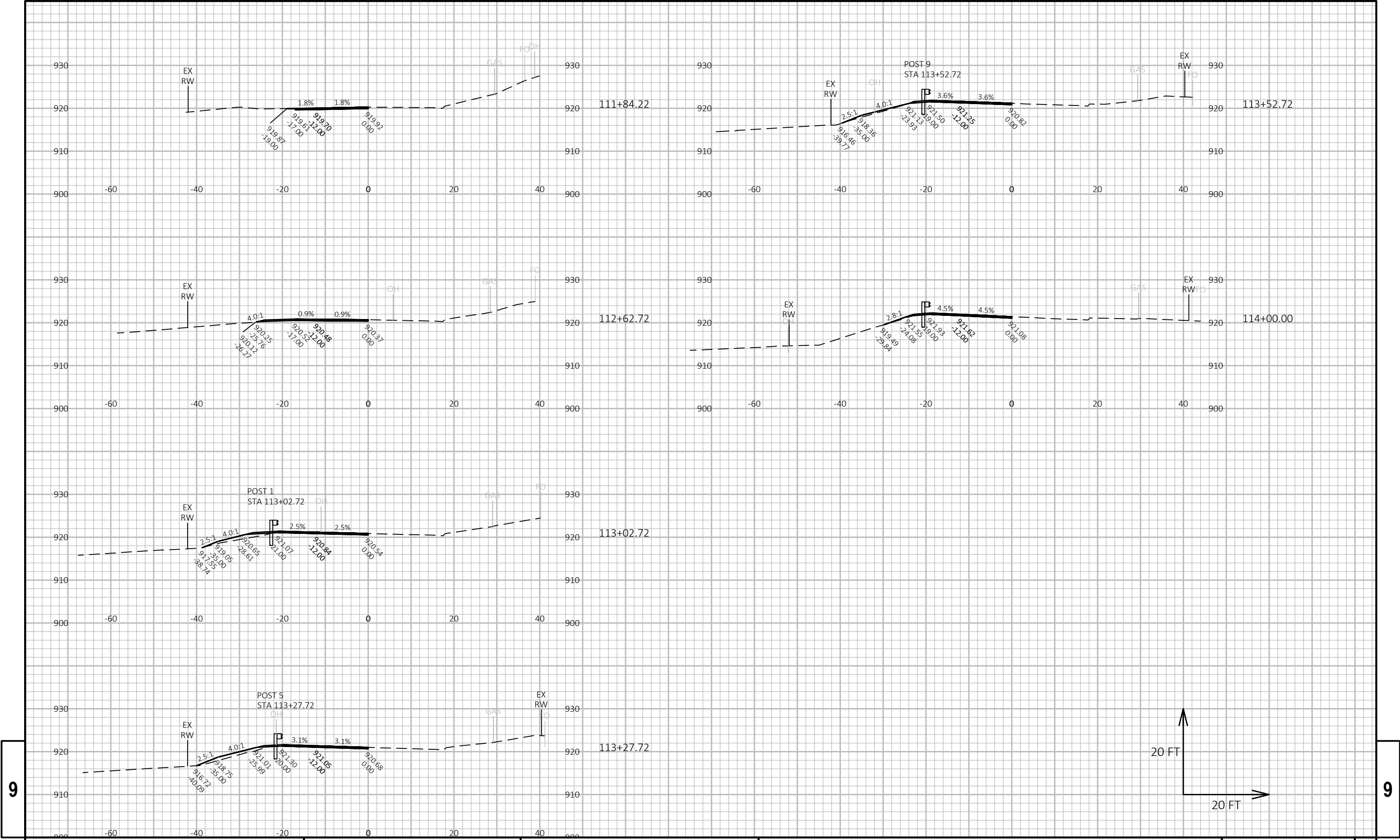
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13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

DIVISION 1 - STH 35, GUARDRAIL

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDNATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
111+75	11175.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0
111+84.223	11184.22	9.22	0.00	0.00	0.00	0	0	0	0	0	0
112+00	11200.00	15.78	0.00	0.00	0.00	0	0	0	0	0	0
112+42.725	11242.72	42.72	0.00	0.00	0.00	0	0	0	0	0	0
112+62.725	11262.72	20.00	0.00	0.00	0.10	0	0	0	0	0	0
113+00	11300.00	37.28	0.00	0.00	8.67	0	0	6	0	8	-8
113+02.725	11302.72	2.72	0.00	0.00	8.61	0	0	1	0	9	-9
113+27.725	11327.72	25.00	0.00	0.00	9.62	0	0	8	0	19	-19
113+52.725	11352.72	25.00	0.00	0.00	4.13	0	0	6	0	26	-26
114+00	11400.00	47.28	0.00	0.00	0.99	0	0	4	0	31	-31
115+00	11500.00	100.00	0.00	0.00	0.28	0	0	2	0	34	-34
116+00	11600.00	100.00	0.00	0.00	0.23	0	0	1	0	35	-35
117+00	11700.00	100.00	0.00	0.00	1.22	0	0	3	0	39	-39
118+00	11800.00	100.00	0.00	0.00	0.05	0	0	2	0	41	-41
119+00	11900.00	100.00	0.00	0.00	0.05	0	0	0	0	41	-41
120+00	12000.00	100.00	0.00	0.00	2.30	0	0	4	0	46	-46
121+00	12100.00	100.00	0.00	0.00	0.09	0	0	4	0	51	-51
122+00	12200.00	100.00	0.00	0.00	1.47	0	0	3	0	55	-55
123+00	12300.00	100.00	0.00	0.00	0.62	0	0	4	0	60	-60
124+00	12400.00	100.00	0.00	0.00	0.01	0	0	1	0	61	-61
125+00	12500.00	100.00	0.00	0.00	0.37	0	0	1	0	63	-63
126+00	12600.00	100.00	0.00	0.00	2.54	0	0	5	0	69	-69
127+00	12700.00	100.00	0.00	0.00	3.05	0	0	10	0	81	-81
128+00	12800.00	100.00	0.00	0.00	3.82	0	0	13	0	98	-98
128+50.782	12850.78	50.78	0.00	0.00	0.10	0	0	4	0	103	-103
128+75.795	12875.80	25.01	0.00	0.00	8.18	0	0	4	0	108	-108
129+00	12900.00	24.20	0.00	0.00	14.85	0	0	10	0	120	-120
129+00.809	12900.81	0.81	0.00	0.00	16.67	0	0	0	0	120	-120
129+40.945	12940.95	40.14	0.00	0.00	10.01	0	0	20	0	145	-145
129+60.835	12960.84	19.89	0.00	0.00	7.61	0	0	6	0	153	-153
130+00	13000.00	39.16	0.00	0.00	0.06	0	0	6	0	160	-160
130+18.998	13019.00	19.00	0.00	0.00	0.00	0	0	0	0	160	-160
130+25	13025.00	6.00	0.00	0.00	0.00	0	0	0	0	160	-160
						0		128			

DIVISION 1 - STH 35, GUARDRAIL

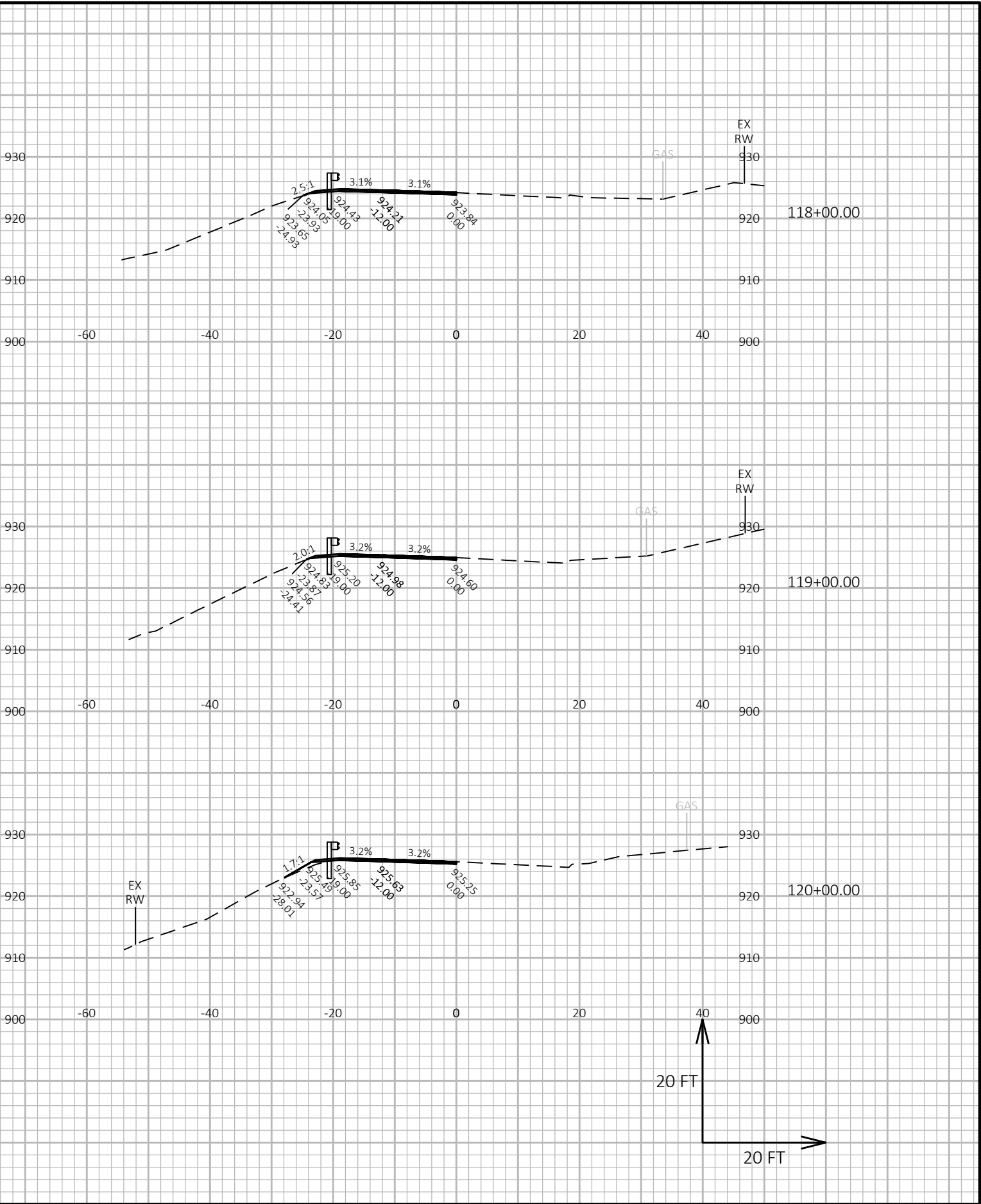
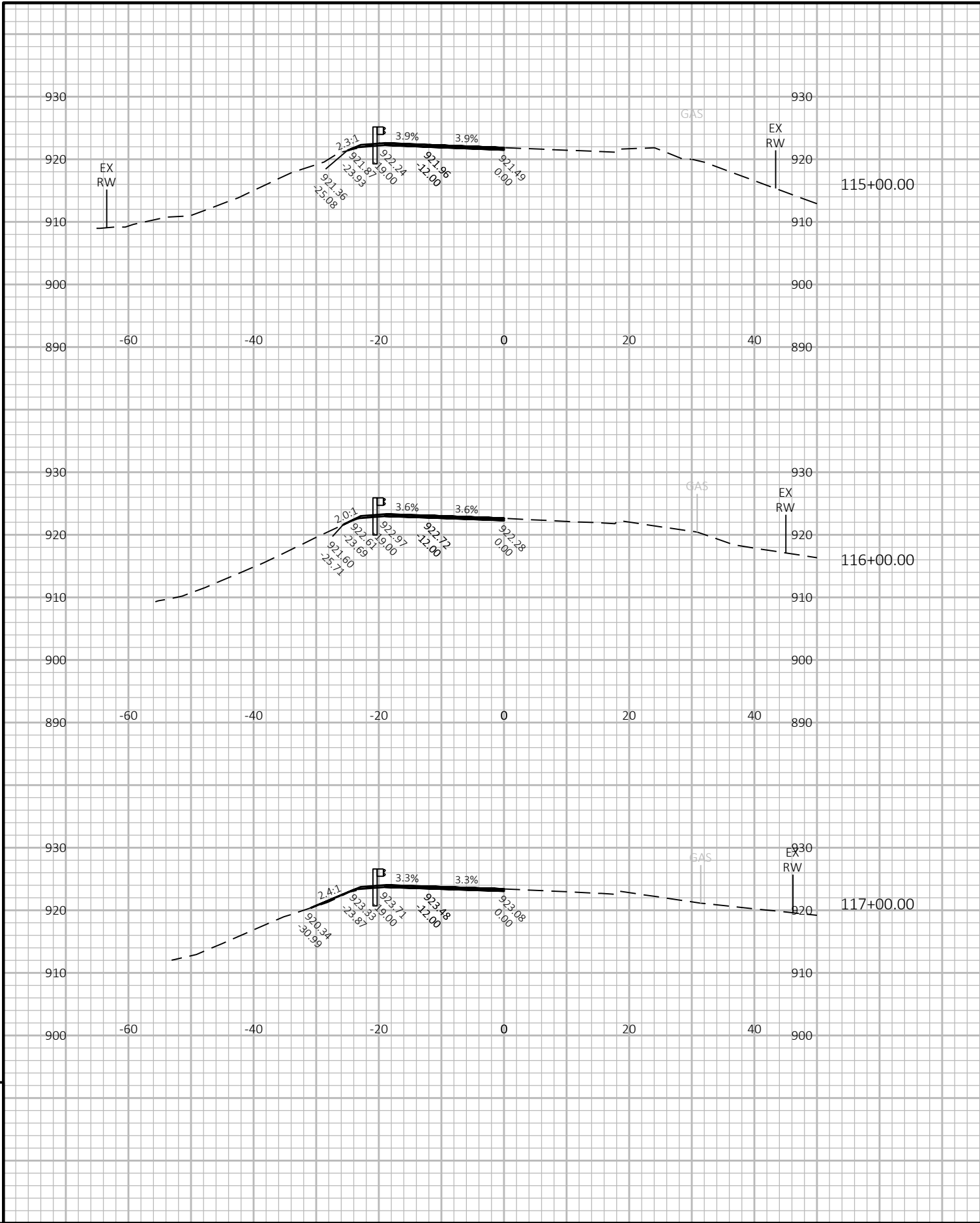
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
			NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2	NOTE 3	NOTE 1		
274+50	27450.00	0.00	0.00	0.00	1.26	0	0	0	0	0	0
274+53.62	27453.62	3.62	0.00	0.00	1.17	0	0	0	0	0	0
275+00	27500.00	46.38	0.00	0.00	0.53	0	0	1	0	1	-1
275+32.12	27532.12	32.12	0.00	0.00	7.32	0	0	5	0	8	-8
275+50	27550.00	17.88	0.00	0.00	12.33	0	0	7	0	16	-16
275+72.12	27572.12	22.12	0.00	0.00	17.10	0	0	12	0	31	-31
275+97.12	27597.12	25.00	0.00	0.00	8.99	0	0	12	0	46	-46
276+00	27600.00	2.88	0.00	0.00	7.89	0	0	1	0	48	-48
276+22.12	27622.12	22.12	0.00	0.00	1.25	0	0	4	0	53	-53
276+50	27650.00	27.88	0.00	0.00	0.01	0	0	1	0	54	-54
277+00	27700.00	50.00	0.00	0.00	0.00	0	0	0	0	54	-54
277+50	27750.00	50.00	0.00	0.00	0.98	0	0	1	0	55	-55
278+00	27800.00	50.00	0.00	0.00	3.65	0	0	4	0	60	-60
278+50	27850.00	50.00	0.00	0.00	5.42	0	0	8	0	70	-70
279+00	27900.00	50.00	0.00	0.00	0.00	0	0	5	0	76	-76
279+50	27950.00	50.00	0.00	0.00	0.30	0	0	0	0	76	-76
280+00	28000.00	50.00	0.00	0.00	0.50	0	0	1	0	78	-78
280+50	28050.00	50.00	0.00	0.00	0.85	0	0	1	0	79	-79
281+00	28100.00	50.00	0.00	0.00	0.74	0	0	1	0	80	-80
281+50	28150.00	50.00	0.00	0.00	2.16	0	0	3	0	84	-84
282+00	28200.00	50.00	0.00	0.00	3.51	0	0	5	0	90	-90
282+28.37	28228.37	28.37	0.00	0.00	5.01	0	0	4	0	95	-95
282+50	28250.00	21.63	0.00	0.00	14.40	0	0	8	0	105	-105
282+53.37	28253.37	3.37	0.00	0.00	15.03	0	0	2	0	108	-108
282+78.61	28278.61	25.24	0.00	0.00	16.56	0	0	15	0	126	-126
283+00	28300.00	21.39	0.00	0.00	11.72	0	0	11	0	140	-140
283+20.975	28320.97	20.97	0.00	0.00	7.88	0	0	8	0	150	-150
283+50	28350.00	29.03	0.00	0.00	4.55	0	0	7	0	159	-159
283+93.613	28393.61	43.61	0.00	0.00	0.16	0	0	4	0	164	-164
284+00	28400.00	6.39	0.00	0.00	0.15	0	0	0	0	164	-164
						0.00		131.00			



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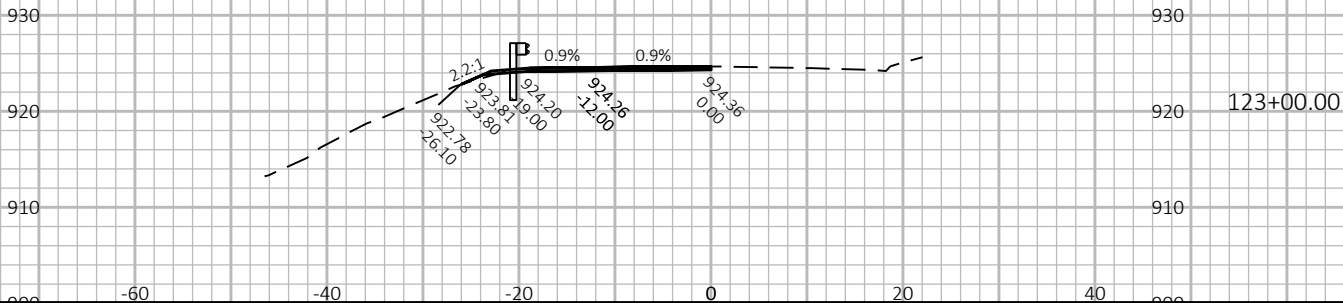
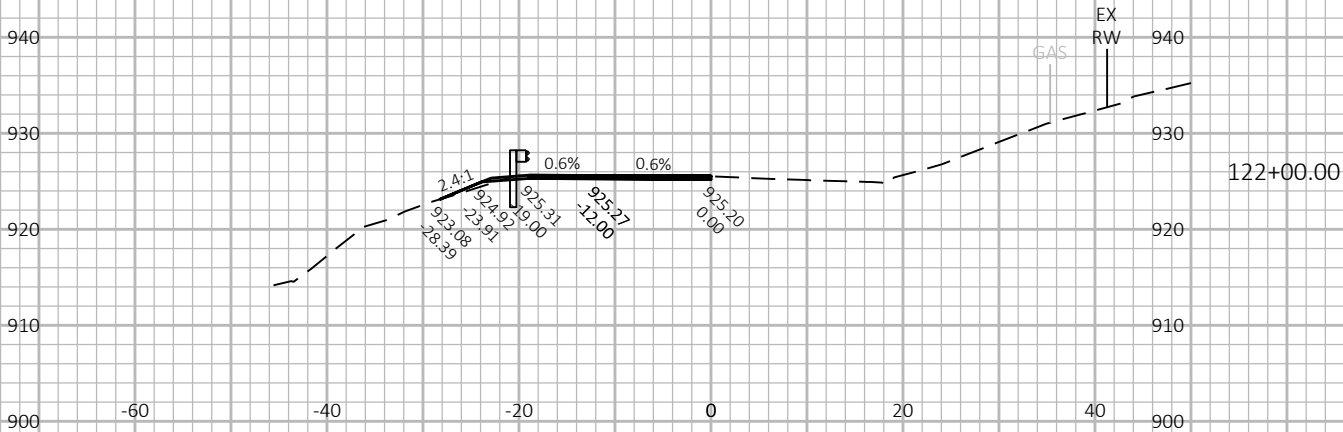
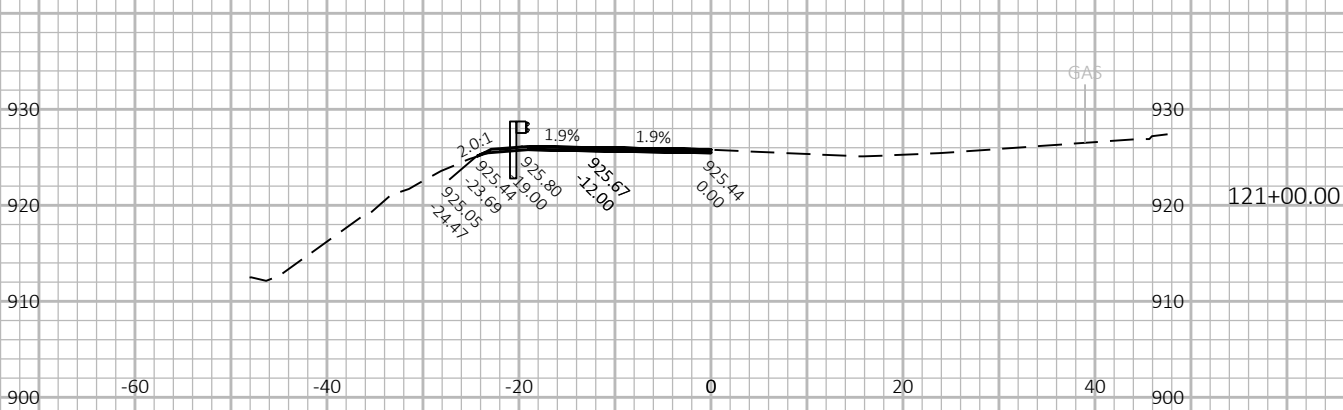
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PROJECT NO: 5580-04-70

HWY: STH 35

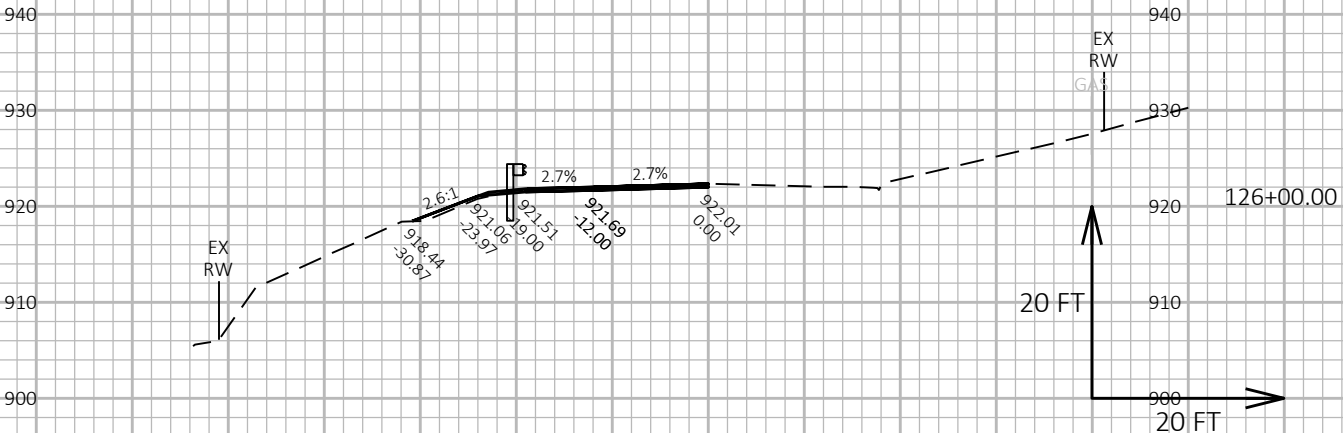
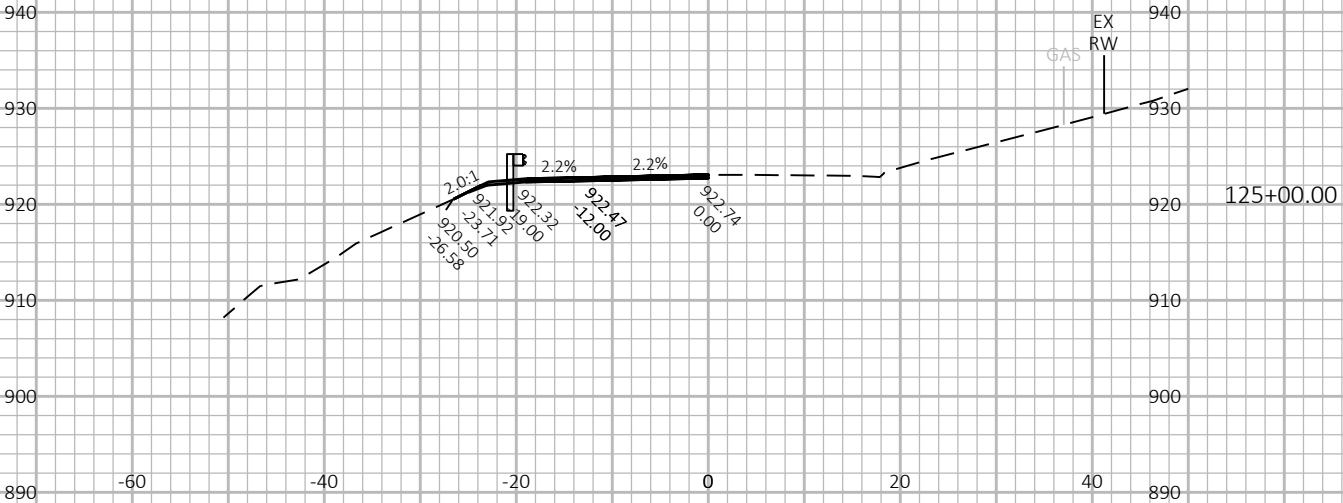
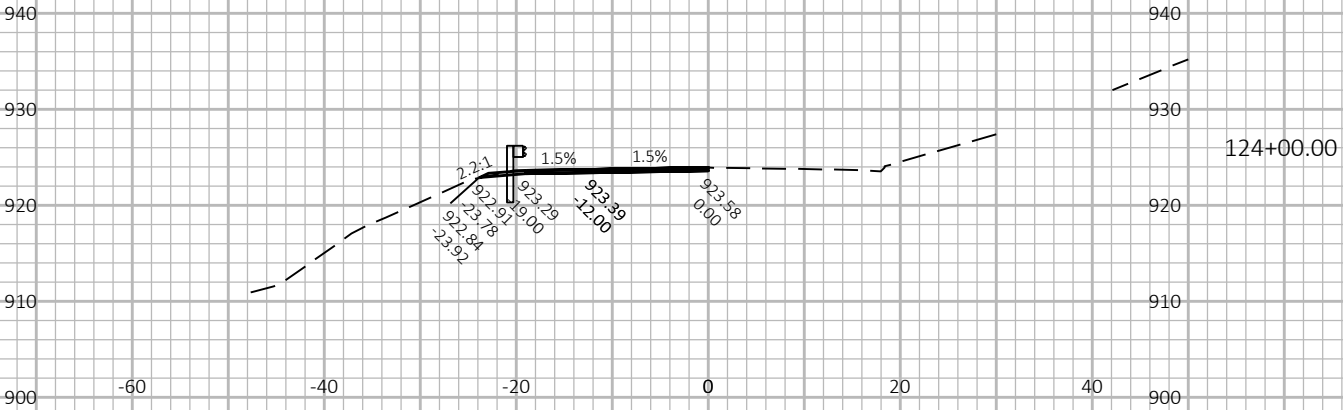
COUNTY: GRANT

CROSS SECTIONS: STH 35

SHEET

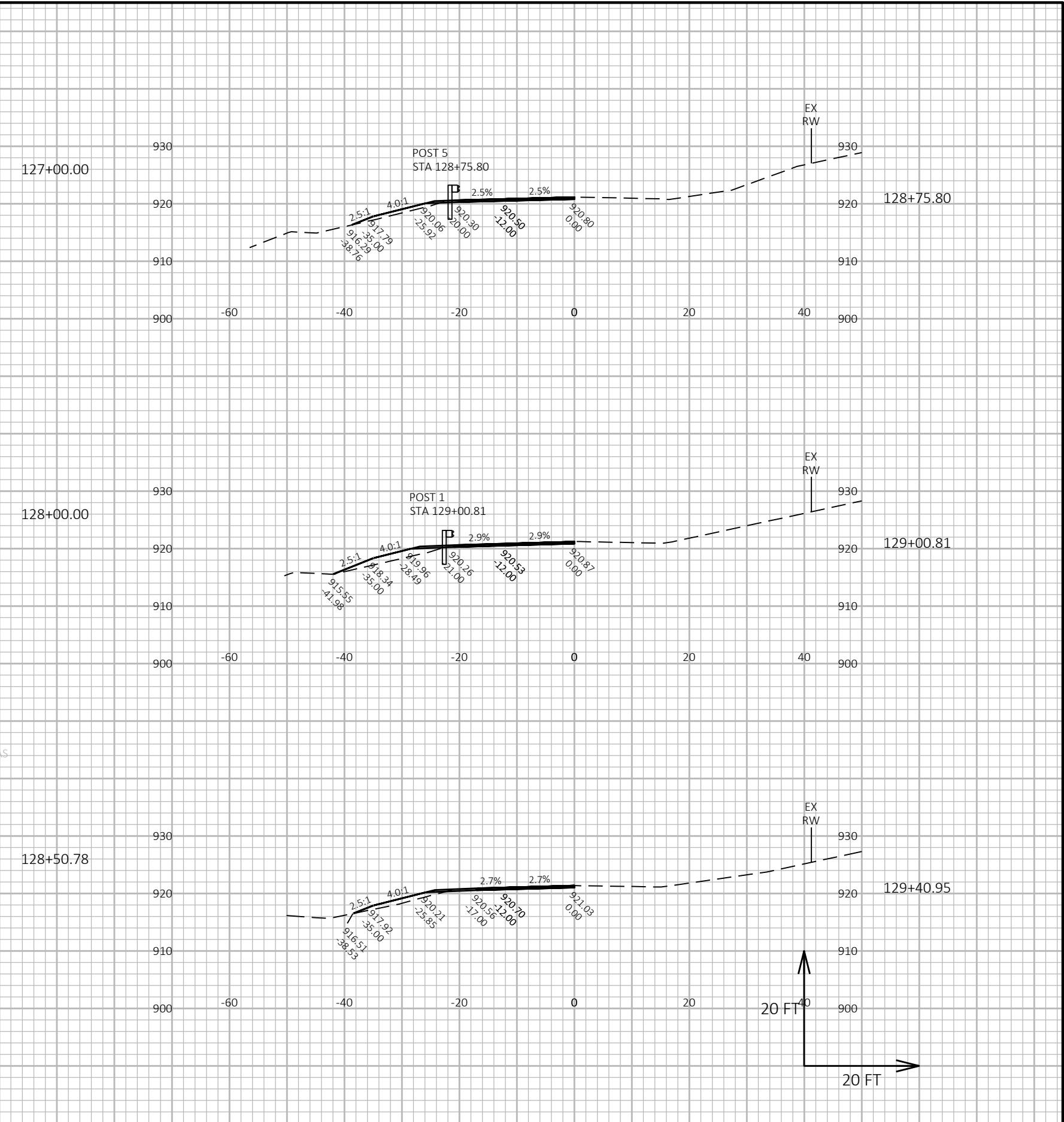
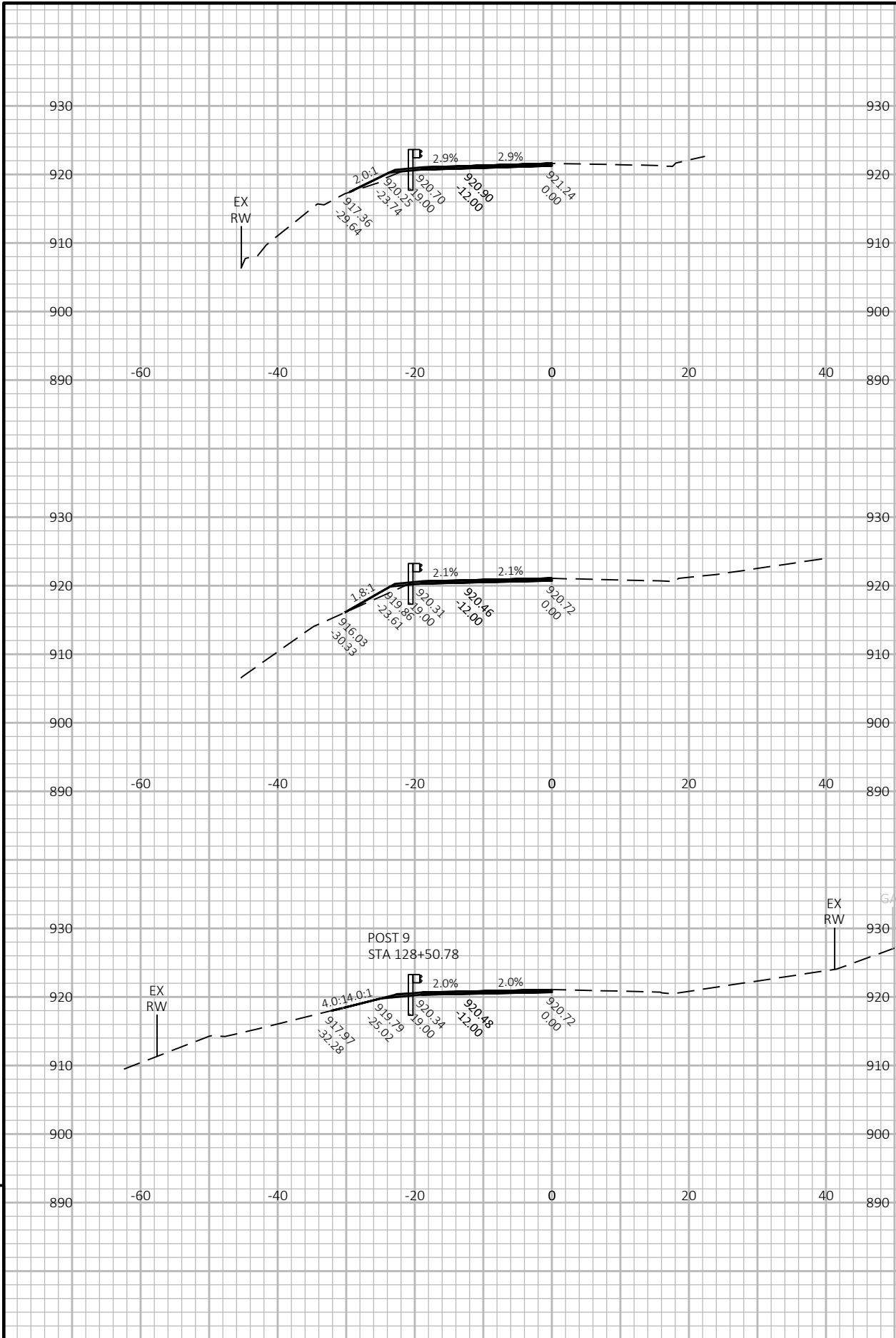
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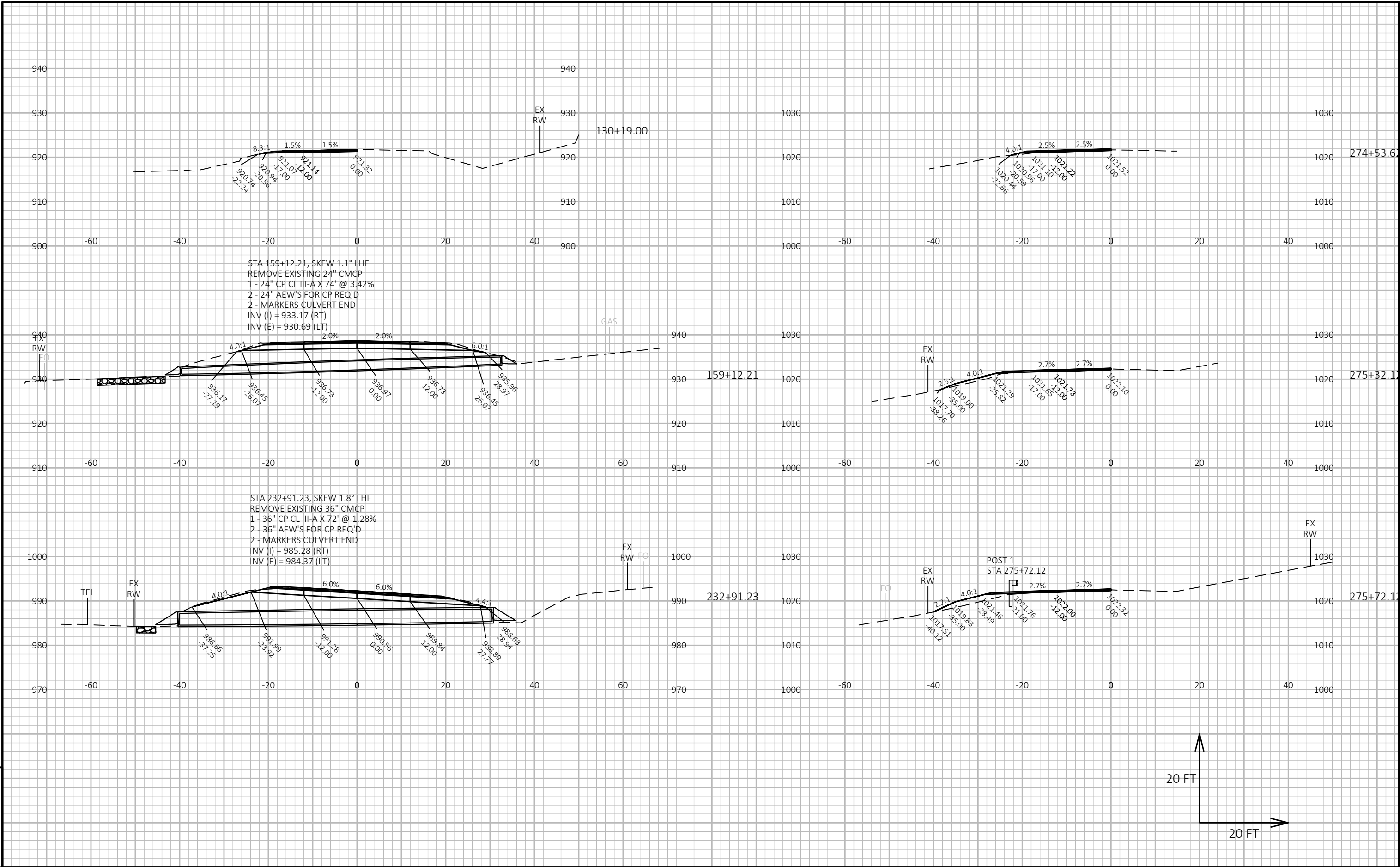


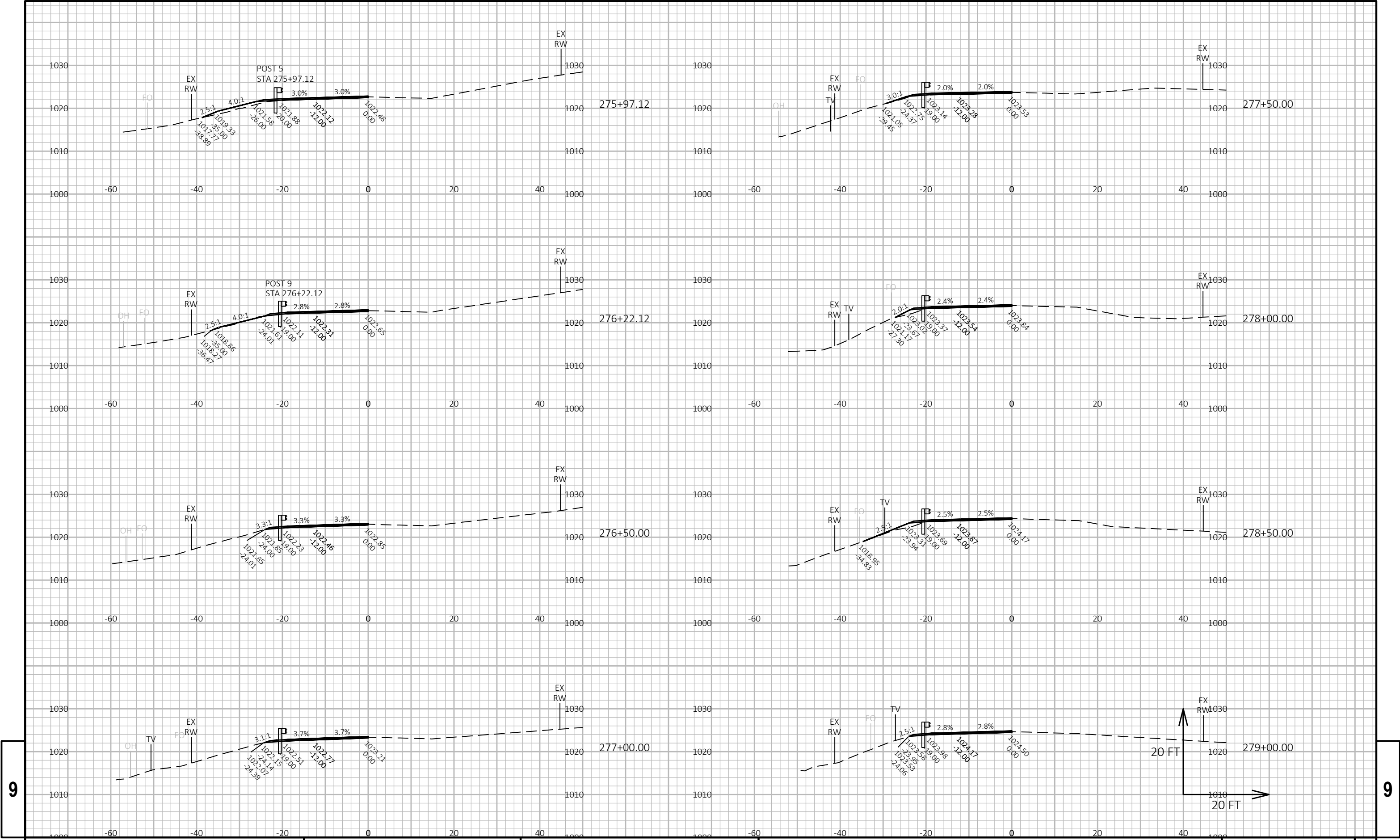
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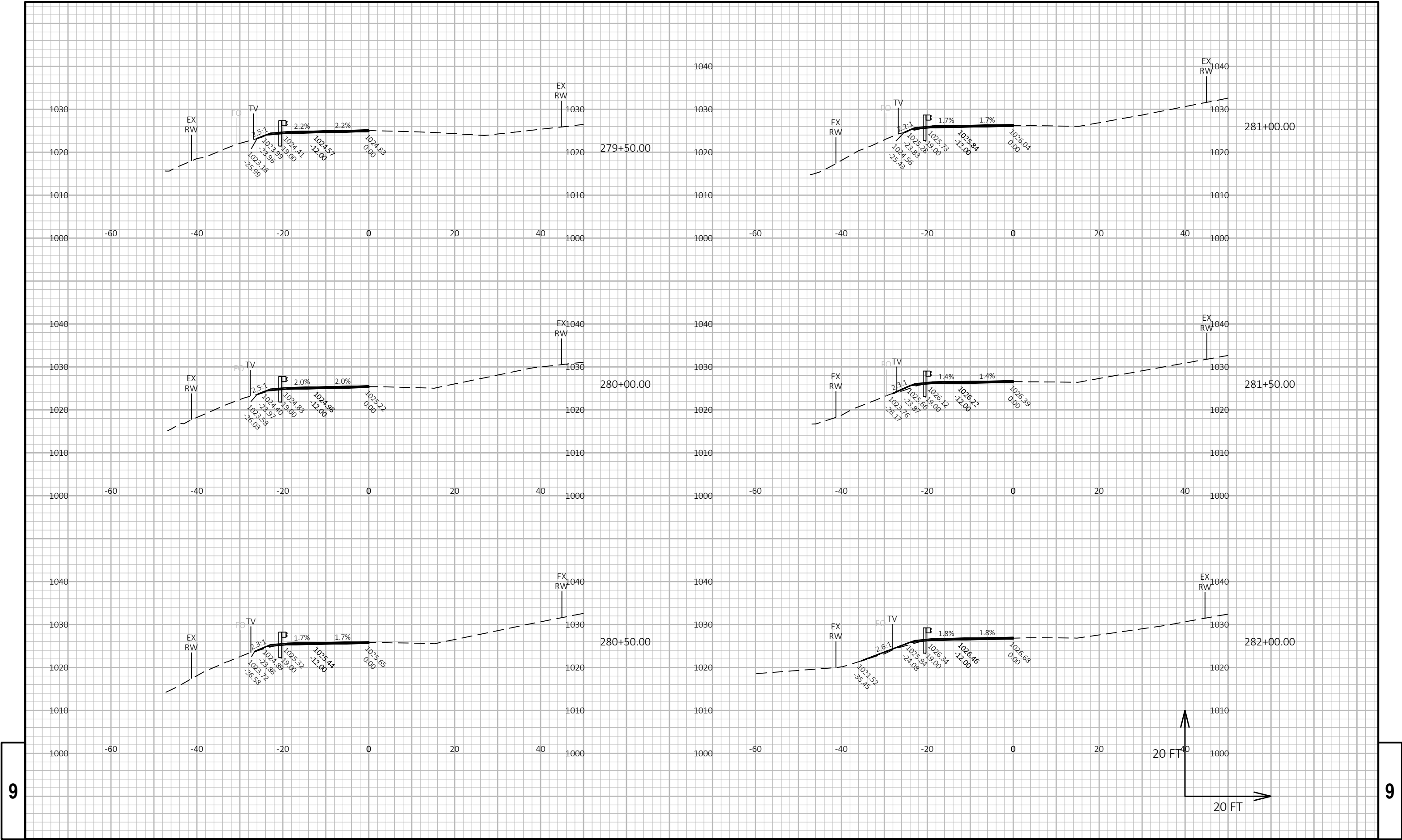
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PROJECT NO: 5580-04-70

HWY: STH 35

COUNTY: GRANT

CROSS SECTIONS: STH 35

SHEET 166

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FILE NAME : G:\00\00093\00093585\CADD\SHETSPLAN\090201-XS.DWG
LAYOUT NAME - 090207-xs

PLOT DATE : 4/4/2023 10:58 AM

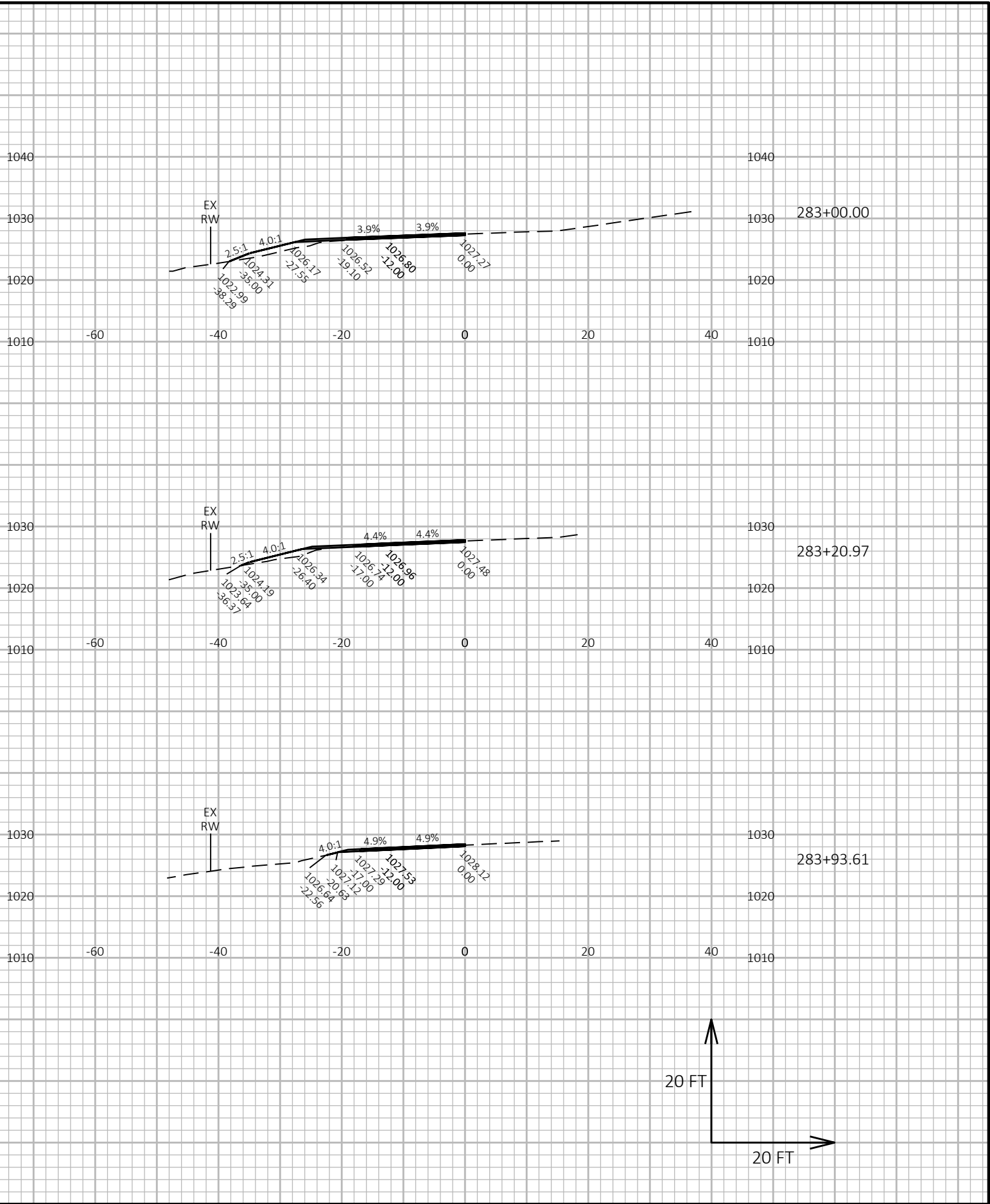
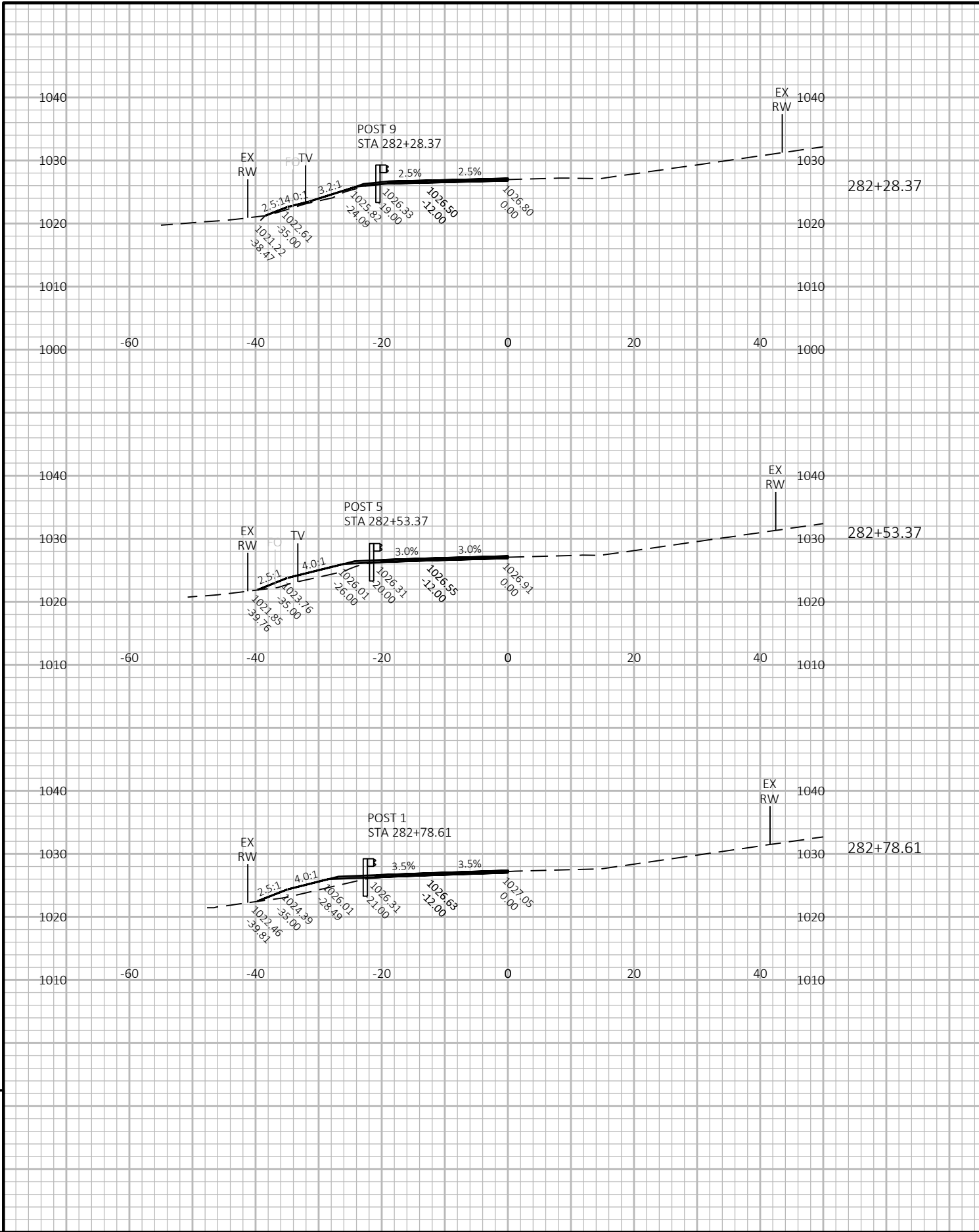
PLOT BY : CONNOR GIRTEN

PLOT NAME :

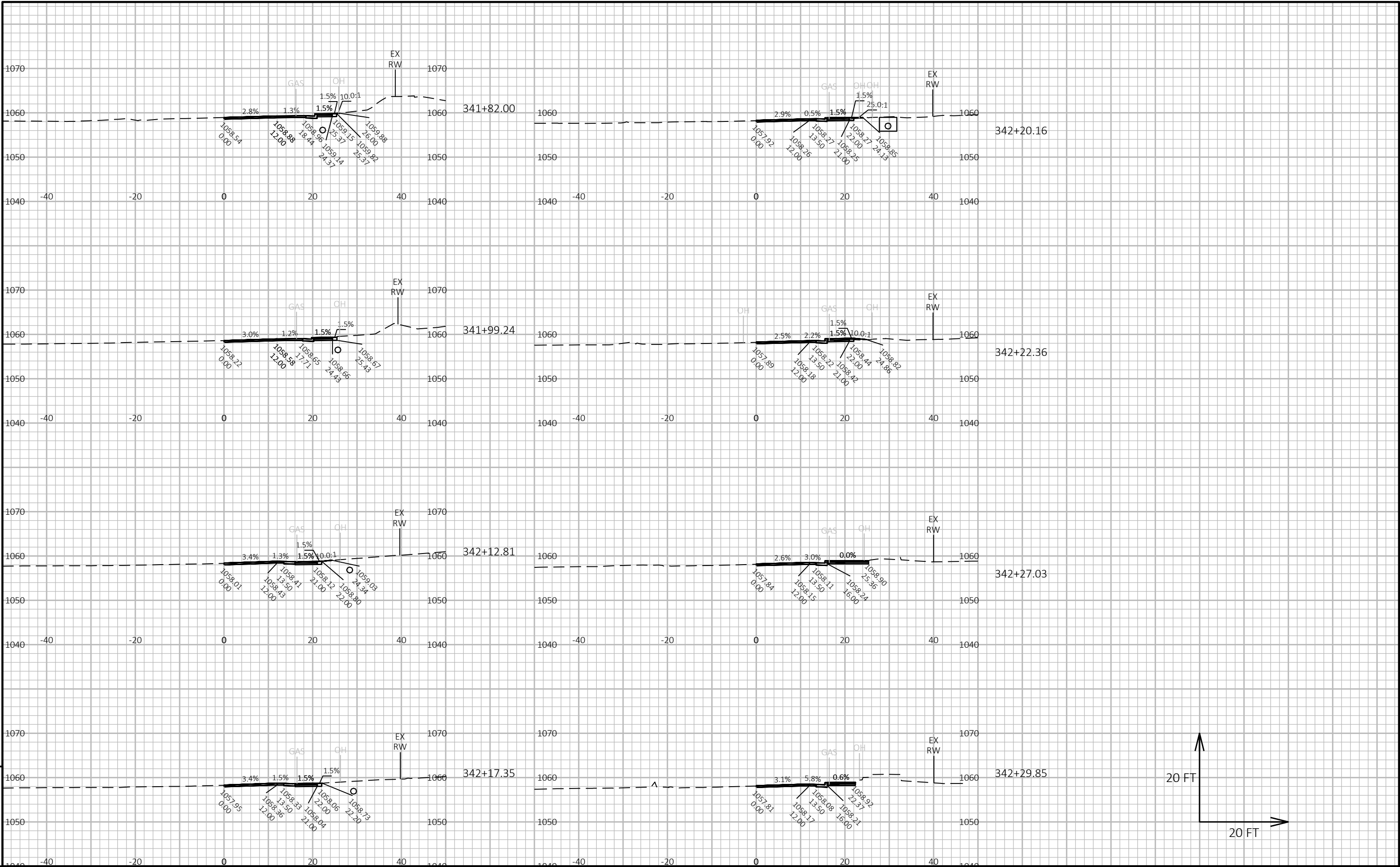
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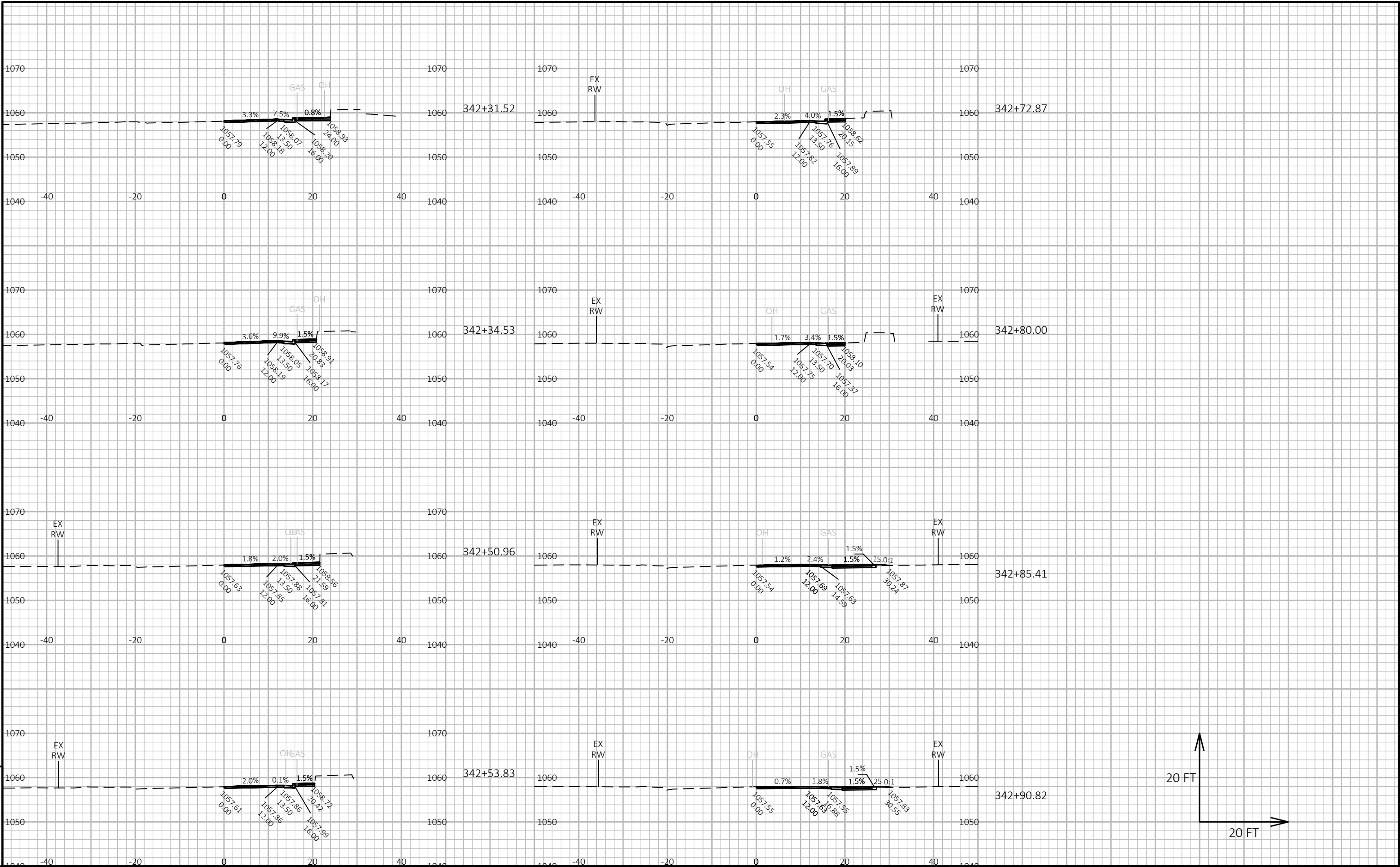
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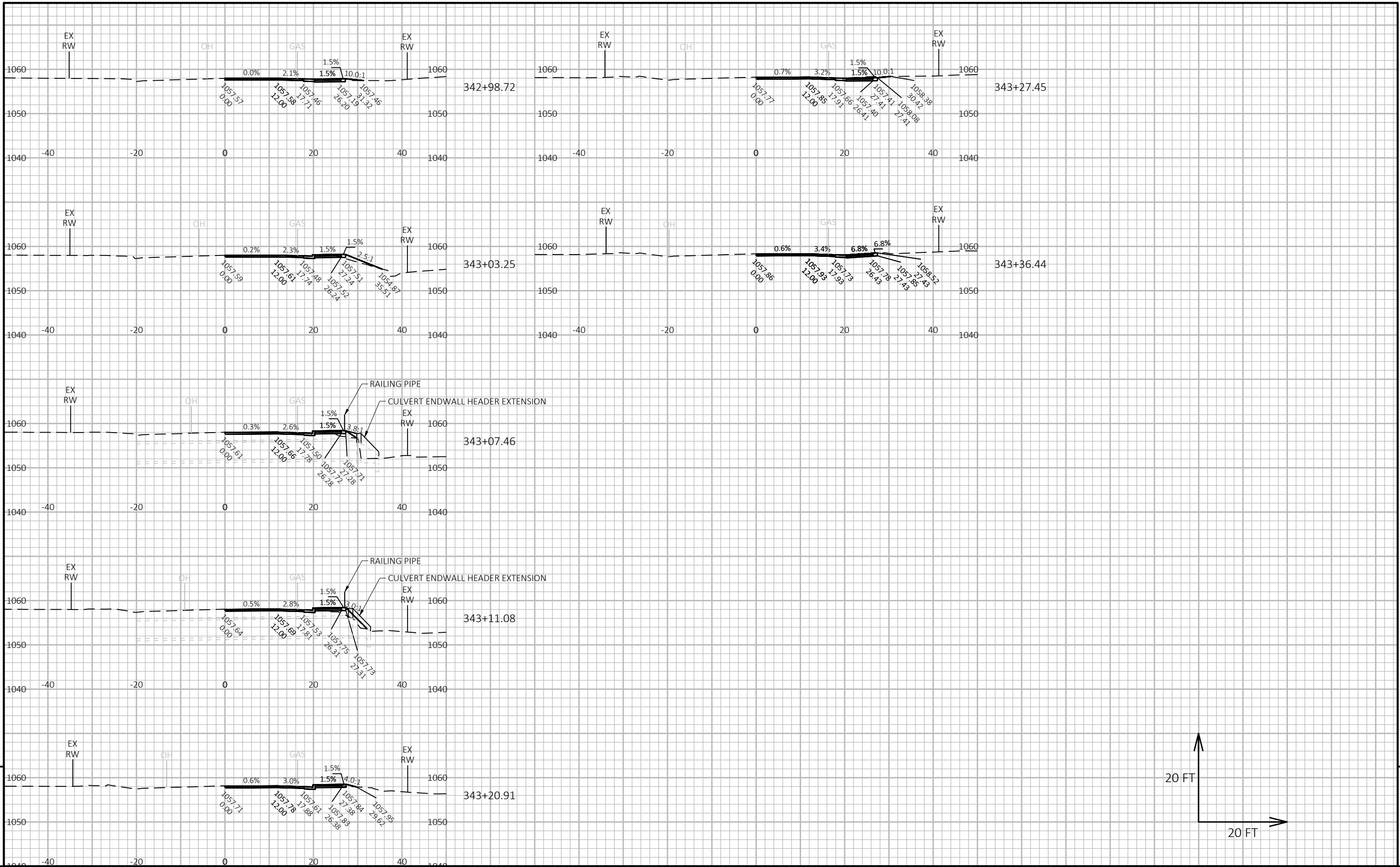
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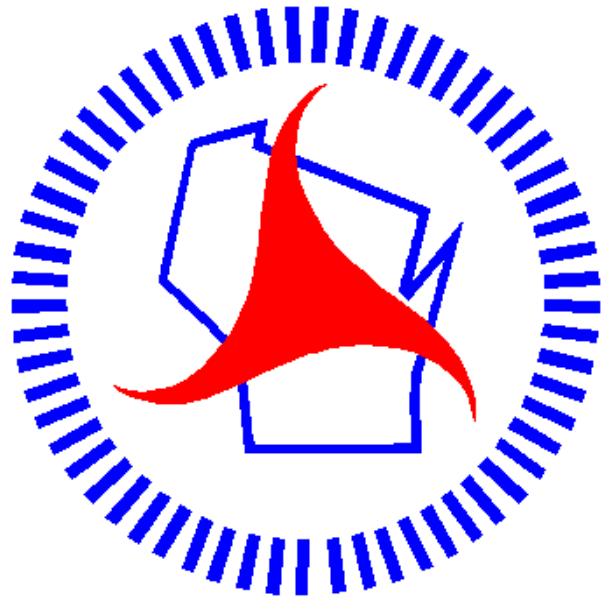
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Notes



Wisconsin Department of Transportation

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