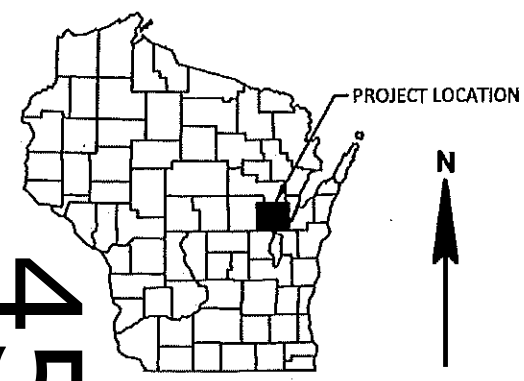


ORDER OF SHEETS

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 = 368

45



DESIGN DESIGNATION 4676-04-71

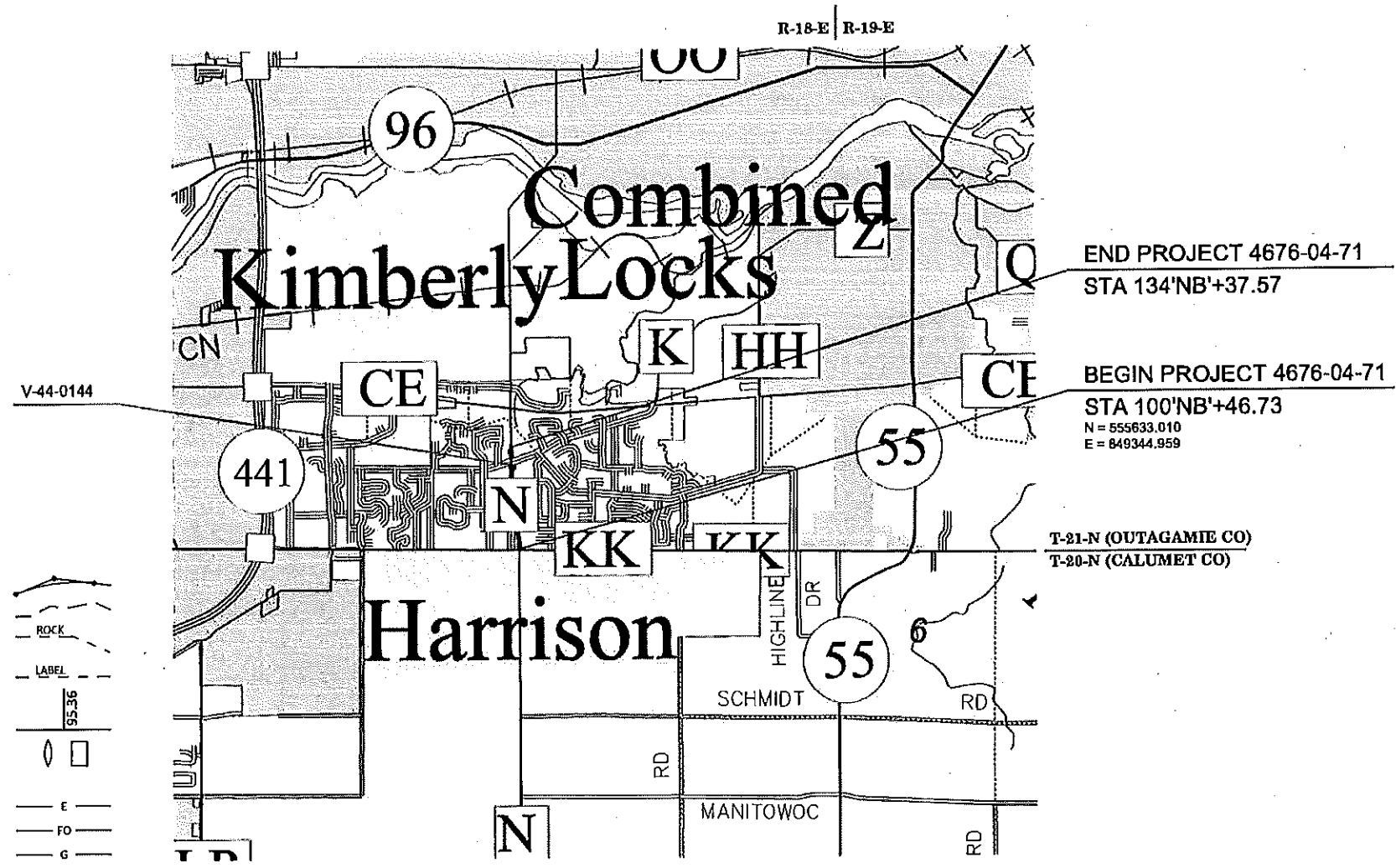
A.A.D.T. (2025)	=	12,200
A.A.D.T. (2045)	=	16,400
D.H.V.	=	1105
D.D.	=	59 / 41
T.	=	7.1%
DESIGN SPEED	=	40 MPH
ESALS	=	1,500,000

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
MARSH AREA	STORM SEWER
WODDED DR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PLAN OF PROPOSED IMPROVEMENT
T. BUCHANAN, CTH N
 CTH KK - CTH CE
CTH N
 OUTAGAMIE COUNTY

STATE PROJECT NUMBER
4676-04-71



LAYOUT
 SCALE 0 1 MI
 TOTAL NET LENGTH OF CENTERLINE = 0.642 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), OUTAGAMIE 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 (2011). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4676-04-71	WISC2026201	1

ACCEPTED FOR
 OUTAGAMIE COUNTY
 Date: 10/15/25
 (Signature and Title of Official)
 Interim Highway Commissioner

ORIGINAL PLANS PREPARED BY
Westwood
 WISCONSIN PROFESSIONAL ENGINEER
 CAMIER FERRIER
 E-39980
 SHERWOOD
 WI
 10-15-2025
 DATE: _____
 (Professional Engineer Signature)

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PREPARED BY
 Surveyor: WESTWOOD
 Designer: WESTWOOD
 Project Manager: MIKE COHEN
 Regional Examiner: _____
 Regional Supervisor: KIMBERLY SLEZAK

APPROVED FOR THE DEPARTMENT
 DATE: 10/15/25
 (Signature)

E

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIGGERS HOTLINE ALONG WITH OTHER UNLISTED UTILITIES.

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

IF EXCAVATION BELOW SUBGRADE (EBS) IS REQUIRED, IT WILL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. THE LIMITS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED, ARE TO BE TOPSOILED, FERTILIZED, AND E-MATTED EXCEPT WHERE NOTED.

THE COST OF CONNECTING NEW STORM SEWERS OR DRAINAGE STRUCTURES TO THE EXISTING STORM SEWER SHALL BE INCIDENTAL TO THE COST OF THE STORM SEWER.

IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS TO MINIMIZE SEDIMENTATION IN THE INLETS, STORM SEWER, AND CULVERTS.

THE EXACT LOCATIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

CURB AND GUTTER RADIUS ARE SHOWN TO THE CURB FACE.

ORDER OF "SECTION 2" SHEETS

TITLE SHEET	STORM SEWER DETAILS
GENERAL NOTES	PERMANENT SIGNING
PROJECT OVERVIEW	SIGNAL MODIFICATIONS
TYPICAL SECTIONS	PAVEMENT MARKING
CONSTRUCTION DETAILS	TRAFFIC CONTROL OVERVIEW
PAVING DETAILS	PEDESTRIAN STAGING
CURB RAMP DETAILS	DETOUR PLAN
EROSION CONTROL	

EROSION CONTROL NOTES

RUNOFF COEFFICIENT FOR THIS PROJECT:
EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30,
NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 11.9 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 10.3 ACRES

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	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP - TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE SLOPE - TURF			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

OTHER CONTACTS

DNR LIAISON MATT SCHAEVE
WDNR
2984 SHAWANO AVE.
GREEN BAY, WI 54307
TELEPHONE: 920-366-1544
EMAIL: MATTHEW.SCHAEVE@WISCONSIN.GOV

DESIGN CONTACT CAMIE FERRIER
WESTWOOD
1 N SYSTEMS DRIVE
APPLETON, WI 54914
TELEPHONE: 920-830-6324
EMAIL: CAMIE.FERRIER@WESTWOODPS.COM

PROJECT MANAGER MICHAEL COHEN
WISDOT - NORTHEAST REGION
944 VANDER PERREN WAY
GREEN BAY, WI 54304
TELEPHONE: 920-360-1476
EMAIL: MICHAEL.COHEN@DOT.WI.GOV

SURVEYOR TERRY VAN HOUT
WESTWOOD
1 N SYSTEMS DRIVE
APPLETON, WI 54914
TELEPHONE: 920-830-6185
EMAIL: TERRY.VANHOUT@WESTWOODPS.COM

HIGHWAY ENGINEER JOE ZELLMER
OUTAGAMIE COUNTY
320 S WALNUT ST
APPLETON, WI 54911
TELEPHONE: 920-832-5673
EMAIL: JOSEPH.ZELLMER@OUTAGAMIE.ORG

OUTAGAMIE COUNTY SURVEYOR DAVE YURK
OUTAGAMIE COUNTY
320 S WALNUT ST
APPLETON, WI 54911
TELEPHONE: 920-832-2039
EMAIL: DAVI.D.YURK@OUTAGAMIE.ORG

UTILITIES

AT&T - COMMUNICATION LINE
KYLE WEBER
221 W WASHINGTON ST
APPLETON, WI 54911
TELEPHONE: 920-221-5969
EMAIL: KW715W@ATT.COM

CHARTER - COMMUNICATION LINE
VINCE ALBIN
3520 DESTINATION DR
APPLETON, WI 54915
TELEPHONE: 920-831-9249
EMAIL: VINCE.ALBIN@CHARTER.COM

NETLEC - COMMUNICATION LINE
RANDY HEIMKE
470 SECURITY BLVD
GREEN BAY, WI 54313
TELEPHONE: 920-617-7114
EMAIL: RANDY.HEIMKE@NSIGHT.COM

TDS - COMMUNICATION LINE
TIM SMITH
229 E GREEN BAY ST
BONDUEL, WI 54107
TELEPHONE: 715-851-7588
EMAIL: TIM.SMITH@TDSTELECOM.COM

WE ENERGIES - ELECTRIC
HEATH HEMAUER
800 S LYNNDAL DR
APPELTON, WI 54914
TELEPHONE: 920-380-3450
EMAIL: HEATH.HEMAUER@WE-ENERGIES.COM

WE ENERGIES - GAS
JESUS VICTORIA
800 S LYNNDAL DRIVE
APPELTON, WI 54914
TELEPHONE: 920-380-3314
EMAIL: JESUS.VICTORIA@WE-ENERGIES.COM

DARBOY JOINT SANITARY DISTRICT - WATER & SANITARY
PAT HENNESSEY
N398 COUNTY ROAD N
APPLETON, WI 54915
TELEPHONE: 920-419-2611
EMAIL: PHENNESSEY@DARBOYSANITARY.COM

UPN COMMUNICATION- COMMUNICATION LINE
JEREMY JENSEN
1319 CONDE ST
JANESVILLE, WI 543546
TELEPHONE: 816-534-0303
EMAIL: JEREMY.JENSEN@SEGRAFI BER.COM

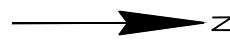




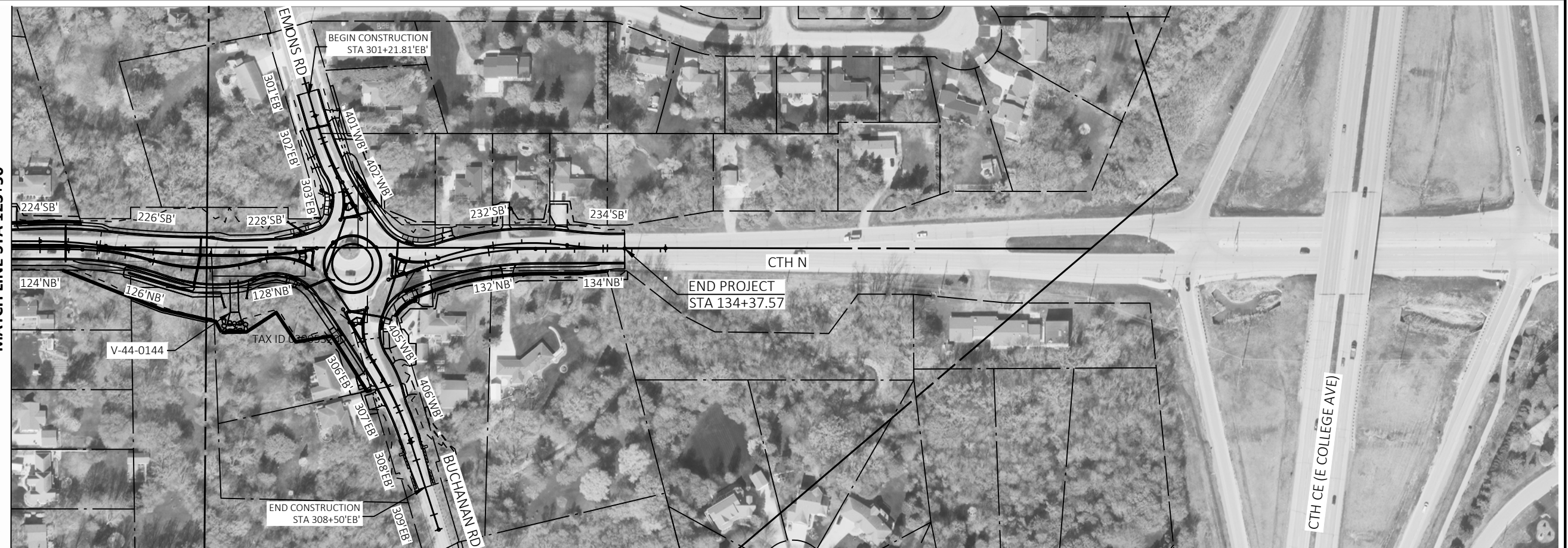
CALUMET COUNTY
VILLAGE OF HARRISON

BEGIN PROJECT
STA 100+46.73
Y=555,633.010
X=849,344.959

MATCH LINE STA 123+50



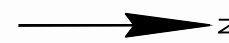
MATCH LINE STA 123+50



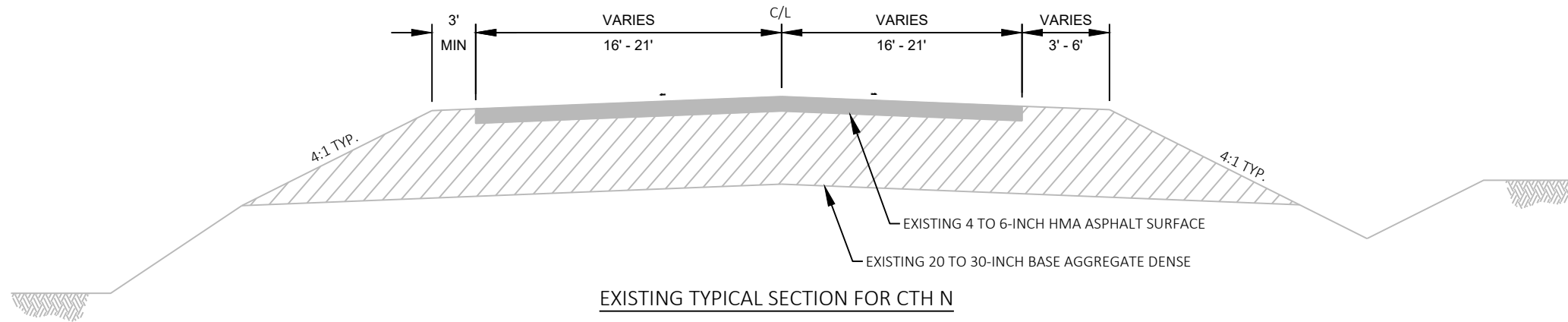
BEGIN CONSTRUCTION
STA 301+21.81'EB'

END PROJECT
STA 134+37.57

END CONSTRUCTION
STA 308+50'EB'

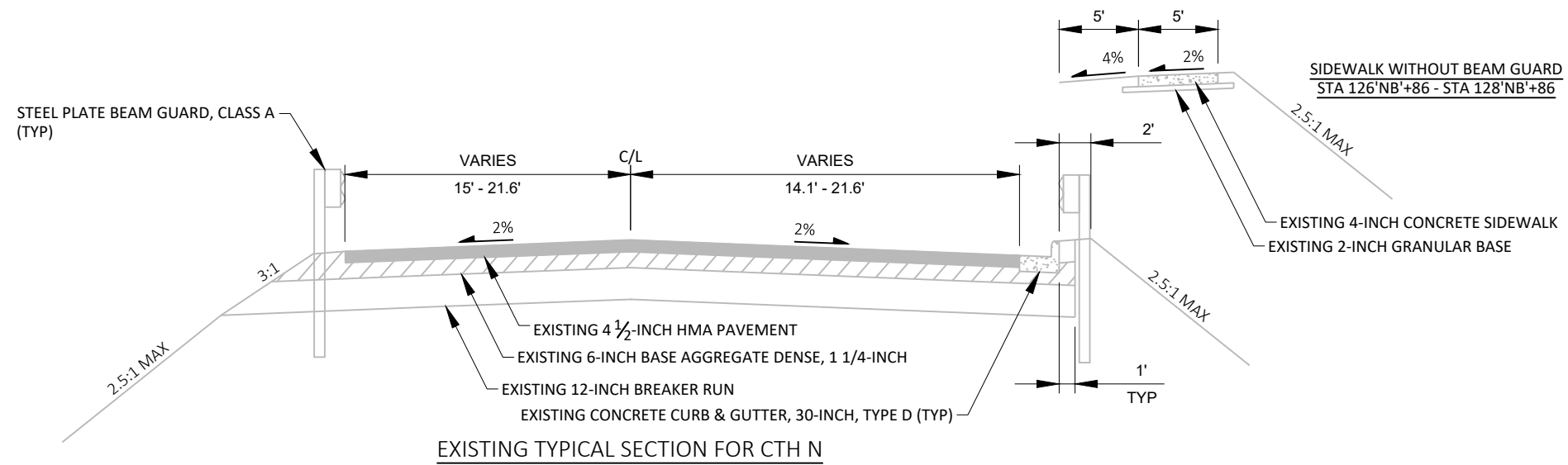


PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET	E
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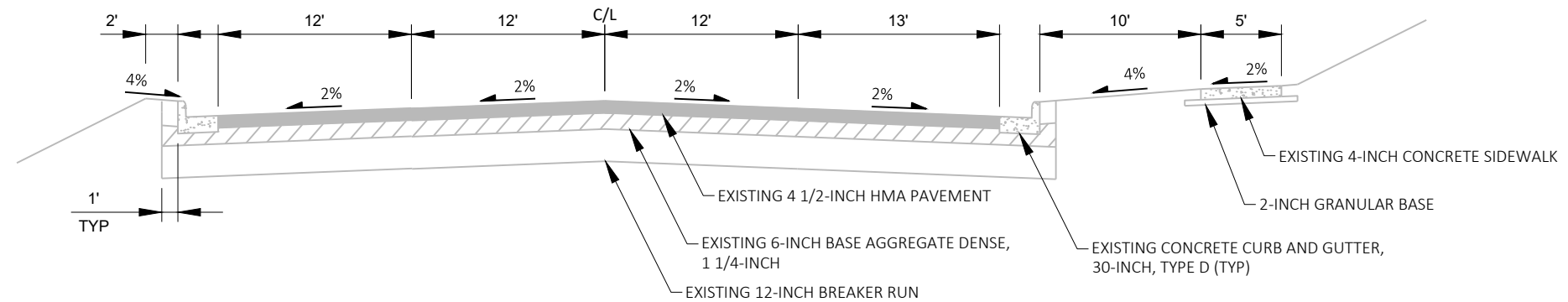
EXISTING TYPICAL SECTION FOR CTH N

STA 100'NB'+91 - STA 125'NB'+11



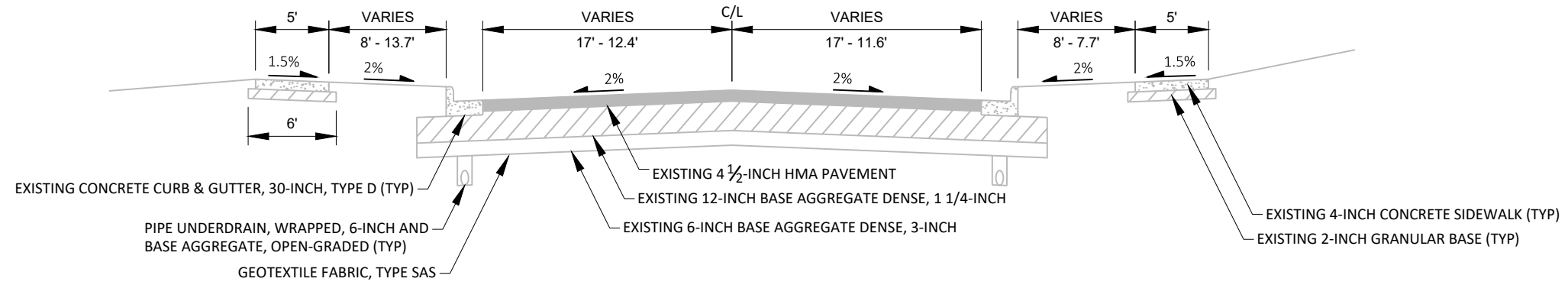
EXISTING TYPICAL SECTION FOR CTH N

STA 125'NB'+11 - STA 128'NB'+86



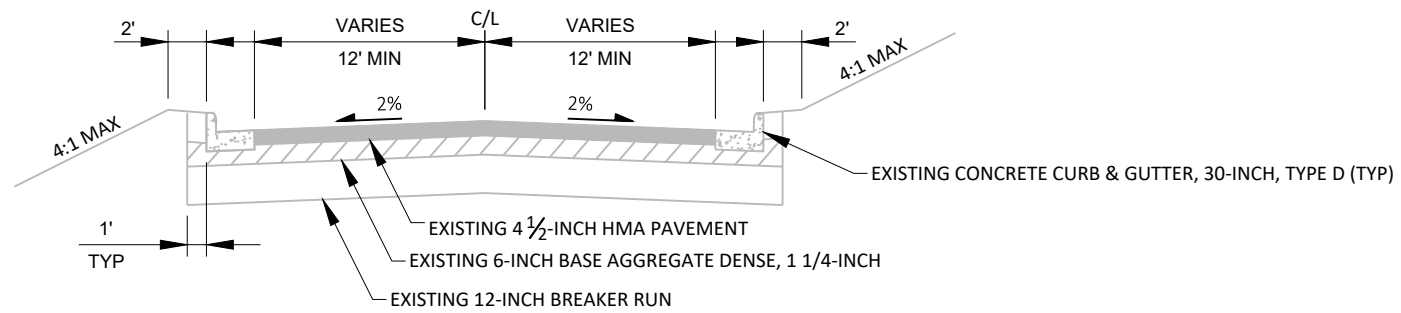
EXISTING TYPICAL SECTION FOR CTH N

STA 130'NB'+18 - STA 134'NB'+38



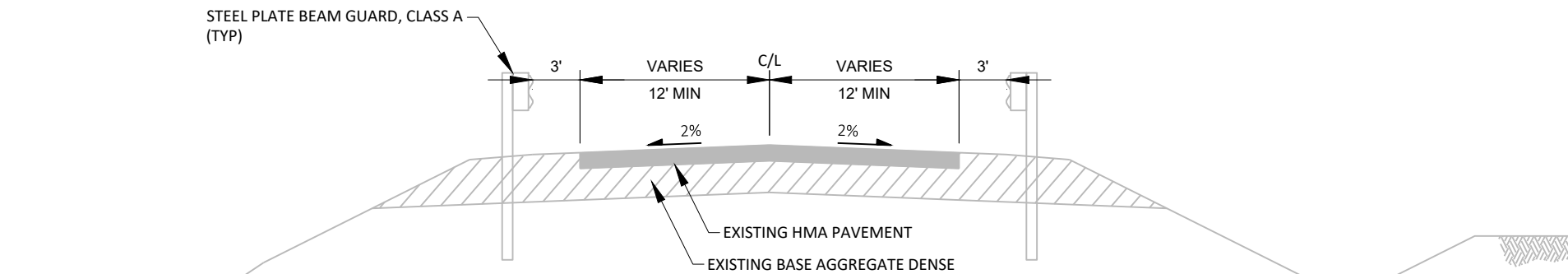
EXISTING TYPICAL SECTION FOR EMONS RD

STA 301'EB'+16 - STA 302'EB'+12



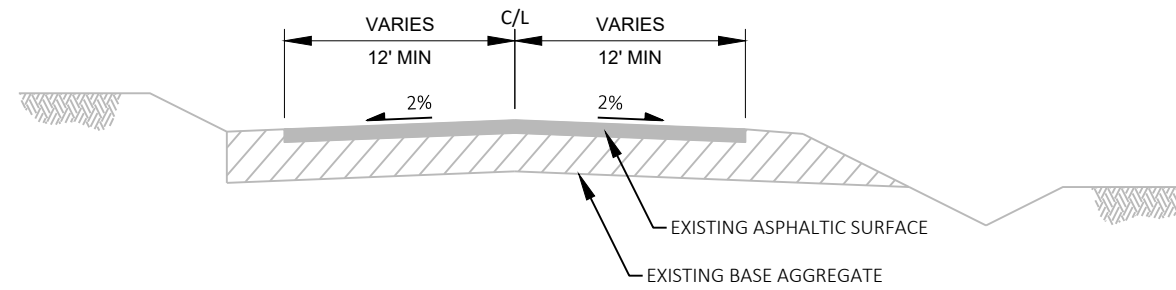
EXISTING TYPICAL SECTION FOR EMONS ROAD / BUCHANAN ROAD

STA 302'EB'+12 - STA 303'EB'+50 EMONS RD
 STA 304'EB'+25 - STA 307'EB'+58 BUCHANAN RD



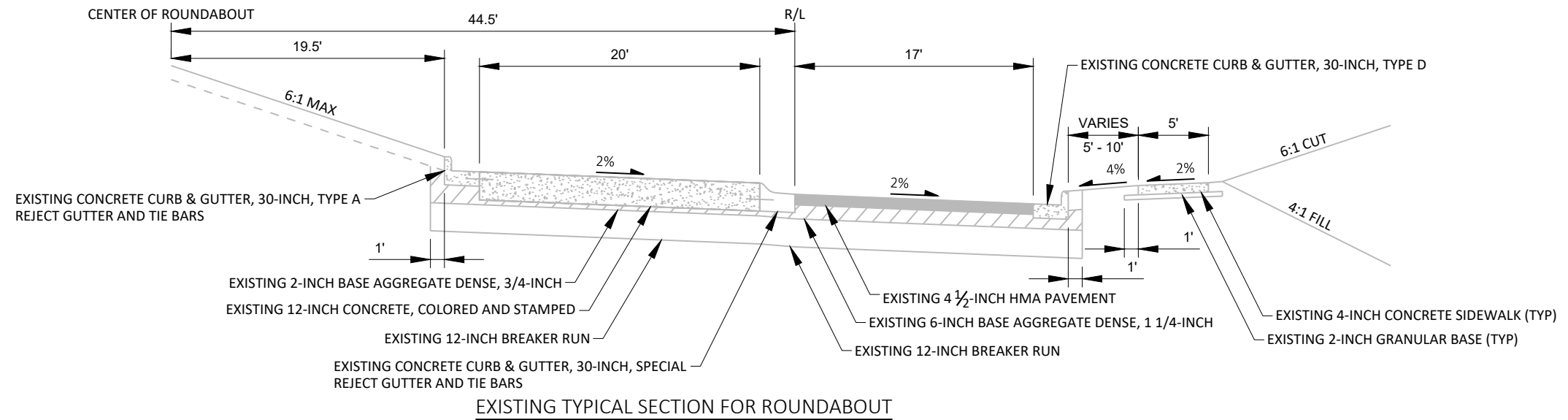
EXISTING TYPICAL SECTION FOR BUCHANAN ROAD

STA 307'EB'+58 - STA 308'EB'+50

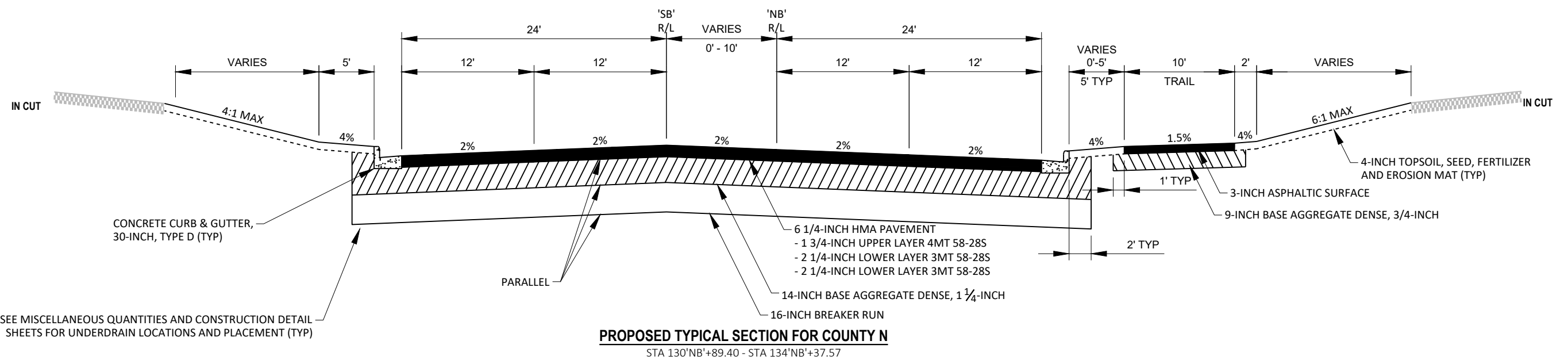
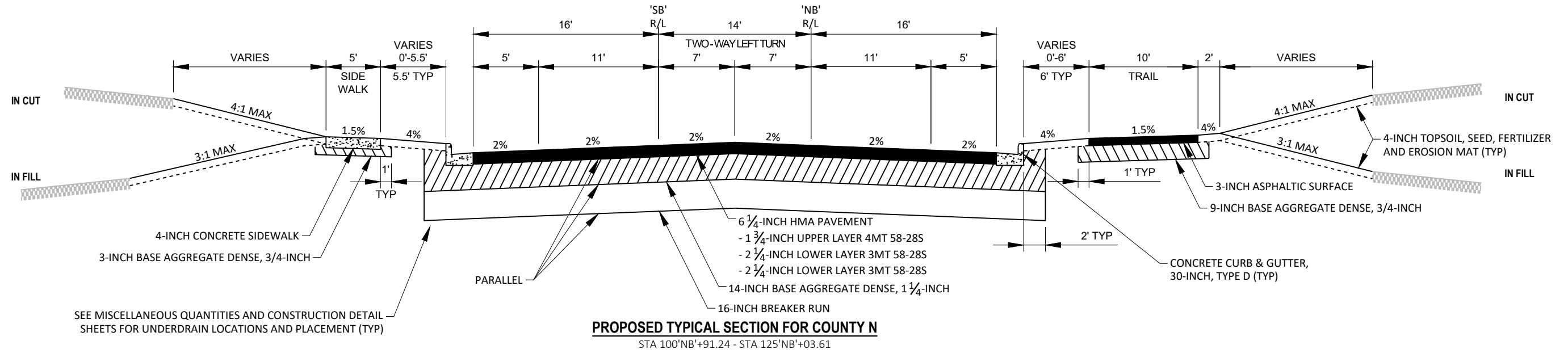


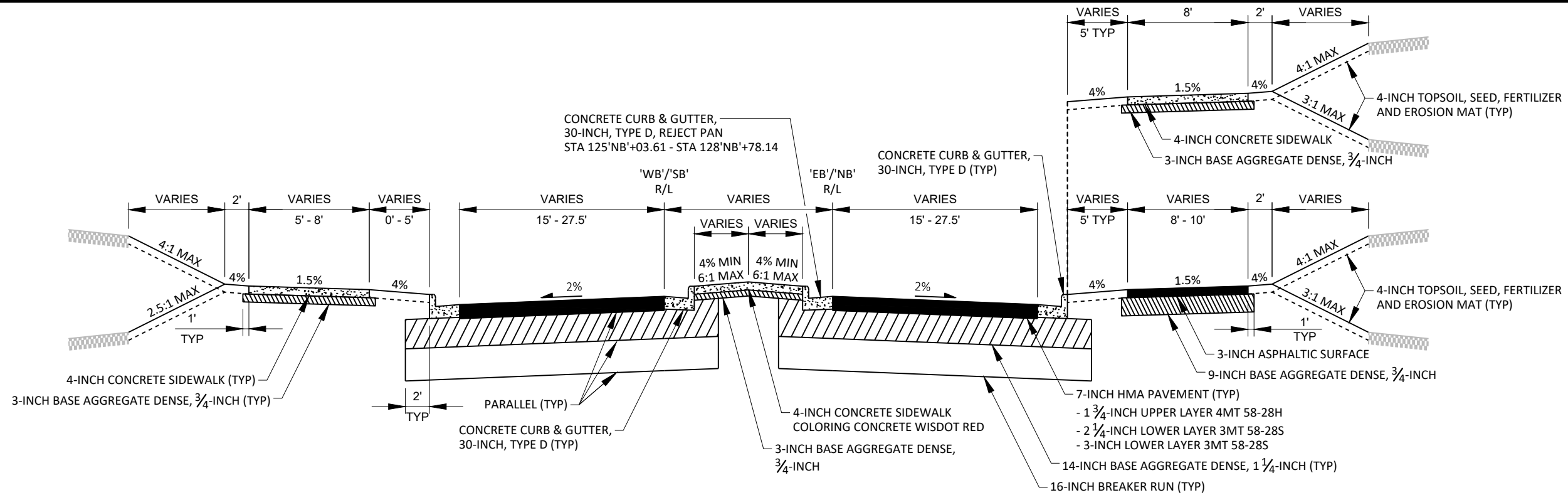
EXISTING TYPICAL SECTION FOR WHITETAIL RIDGE CT, SARATOGA DR, HILLSIDE DR

STA 20'WR'+31 - STA 21'WR'+04
 STA 30'SA'+30 - STA 31'SA'+54
 STA 40'HI'+30 - STA 41'HI'+54



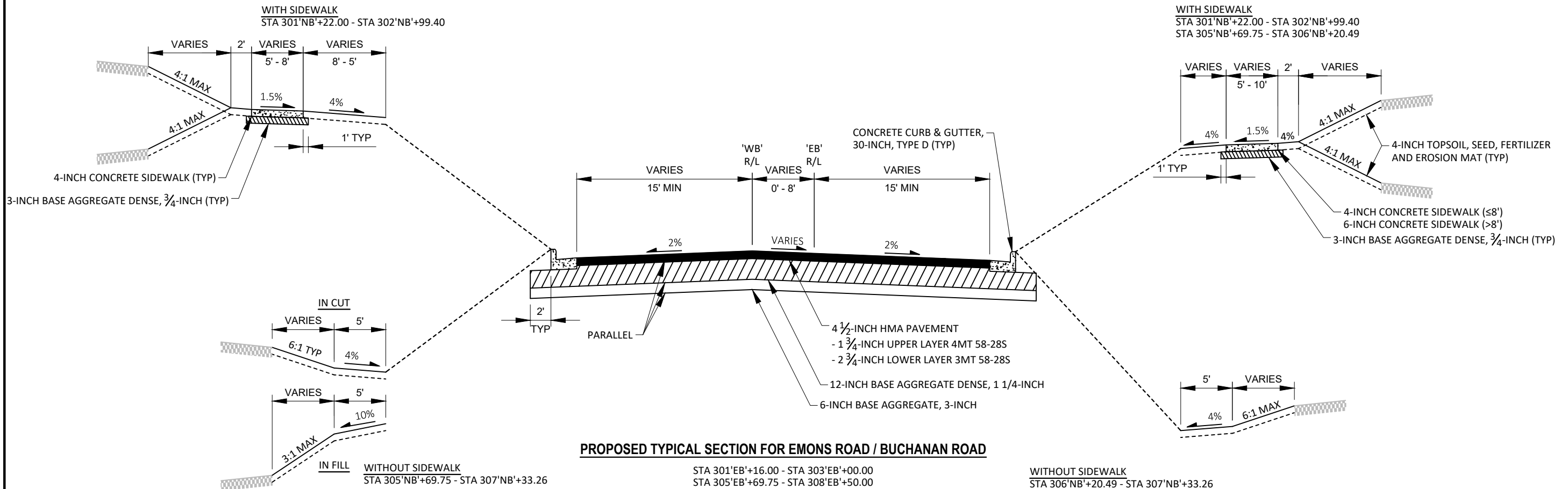
EXISTING TYPICAL SECTION FOR ROUNDABOUT





PROPOSED TYPICAL SECTION FOR CTH N / EMONS ROAD / BUCHANAN ROAD (SPLITTER ISLANDS)

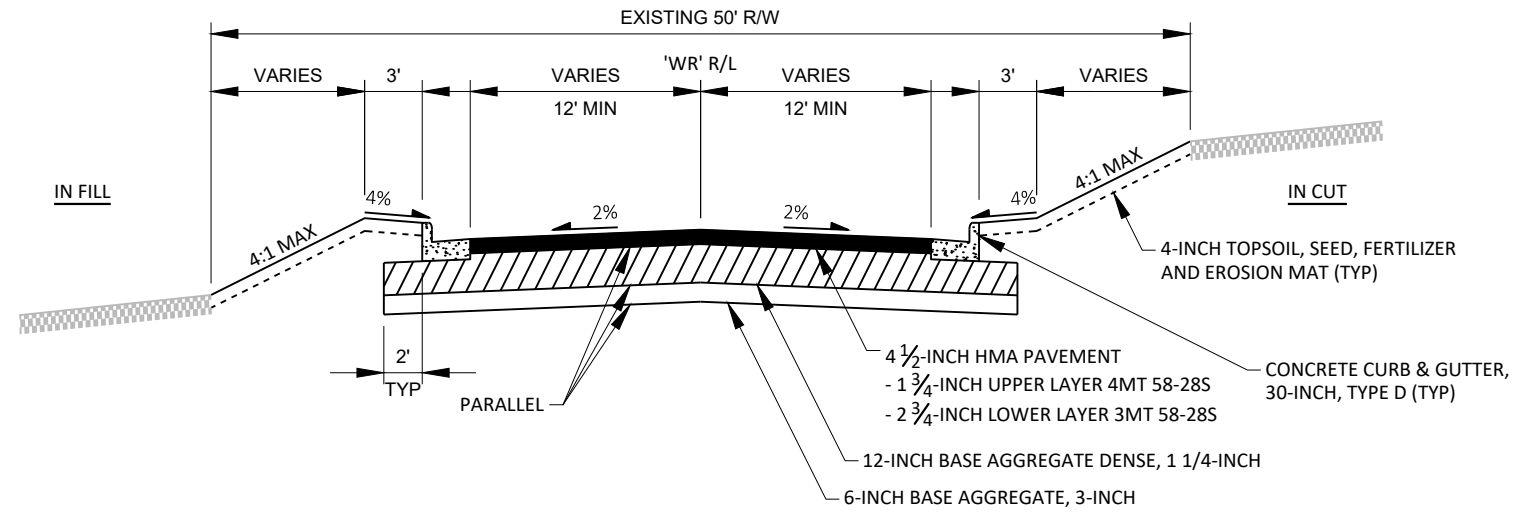
STA 125'NB'+61.00 - STA 128'NB'+78.14 (CTH N SOUTH)
 STA 130'NB'+29.07 - STA 130'NB'+89.40 (CTH N NORTH)
 STA 303'EB'+00.00 - STA 303'EB'+42.88 (EMONS RD)
 STA 305'EB'+16.83 - STA 305'EB'+69.75 (BUCHANAN RD)



PROPOSED TYPICAL SECTION FOR EMONS ROAD / BUCHANAN ROAD

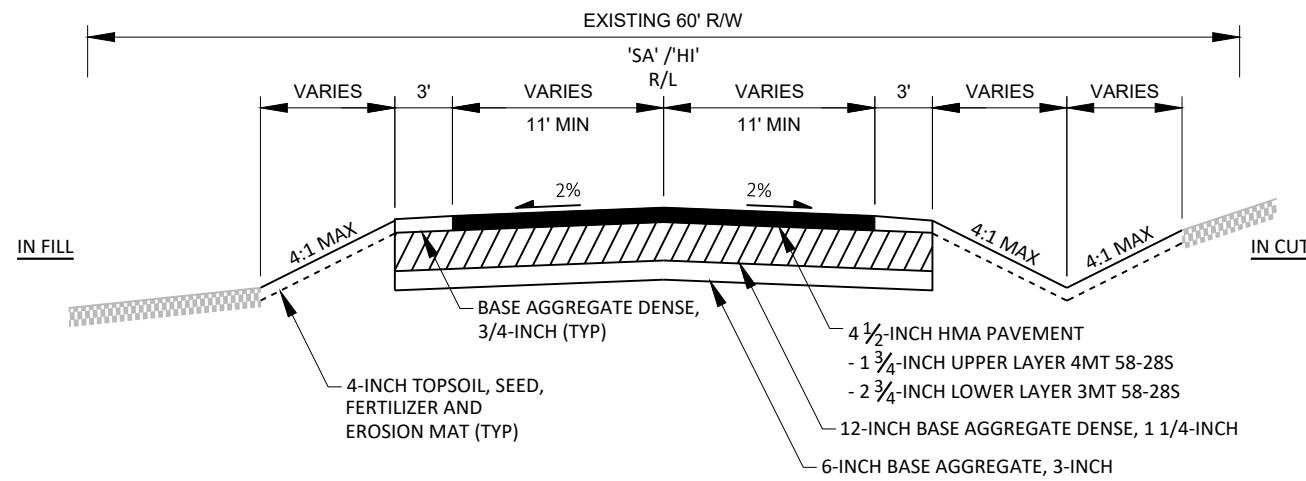
STA 301'EB'+16.00 - STA 303'EB'+00.00
 STA 305'EB'+69.75 - STA 308'EB'+50.00

WITHOUT SIDEWALK
 STA 306'NB'+20.49 - STA 307'NB'+33.26



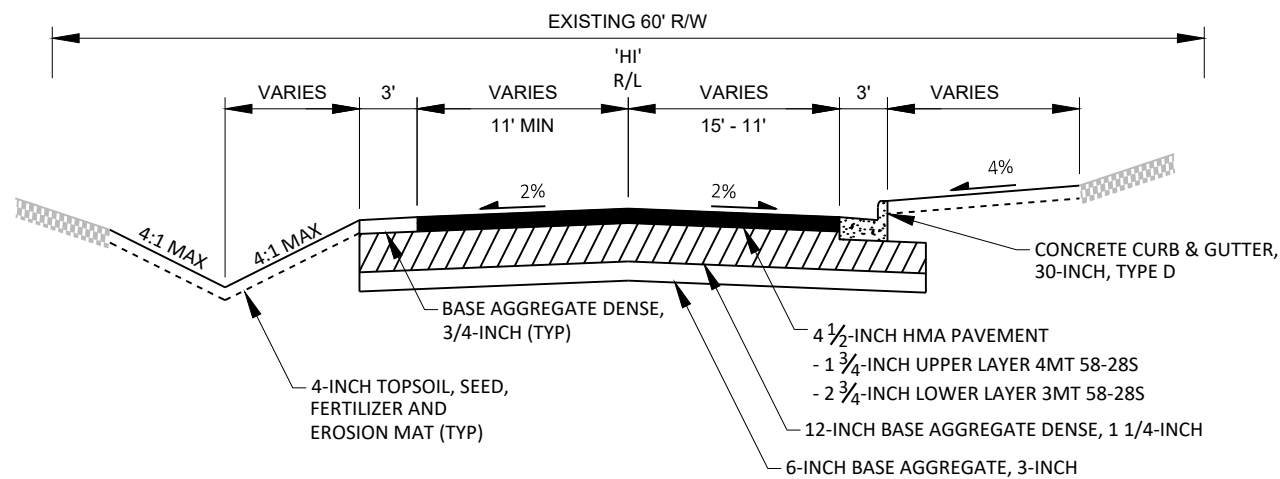
PROPOSED TYPICAL SECTION FOR WHITETAIL RIDGE COURT

STA 20'WR'+26.05 - STA 20'WR'+79.91



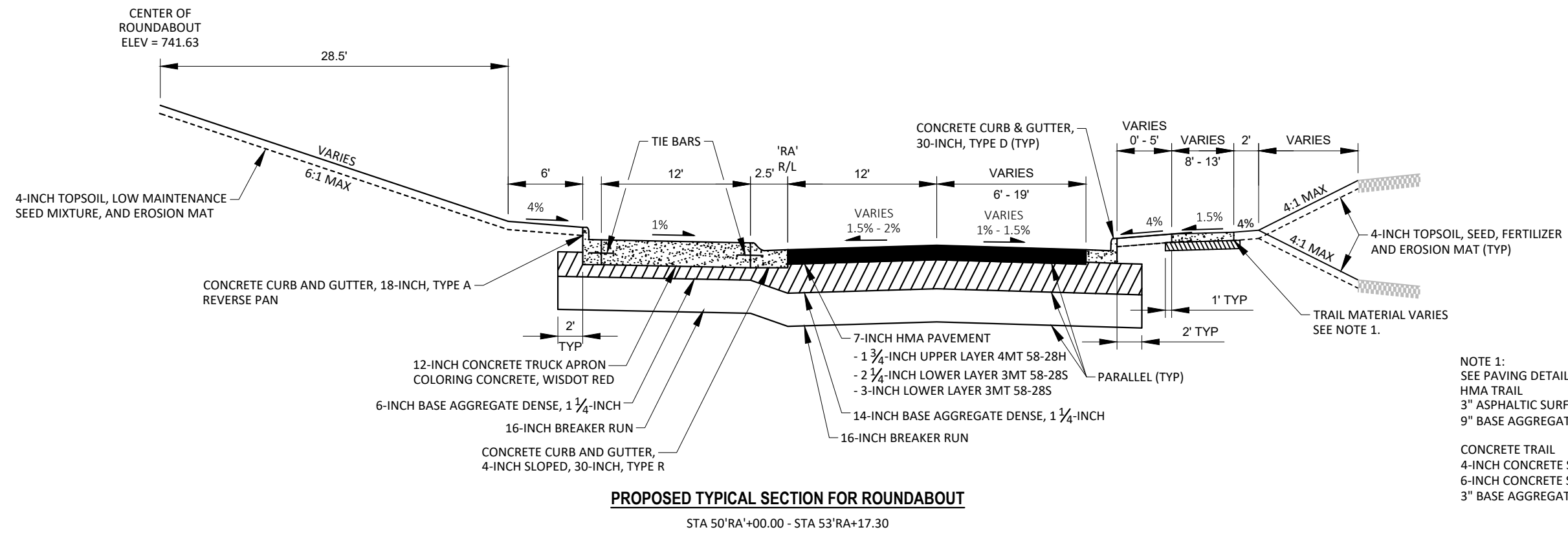
PROPOSED TYPICAL SECTION FOR SARATOGA DRIVE / HILLSIDE DR

STA 30'SA'+56.34 - STA 31'SA'+53.50
STA 41'HI'+19.62 - STA 41'HI'+53.50



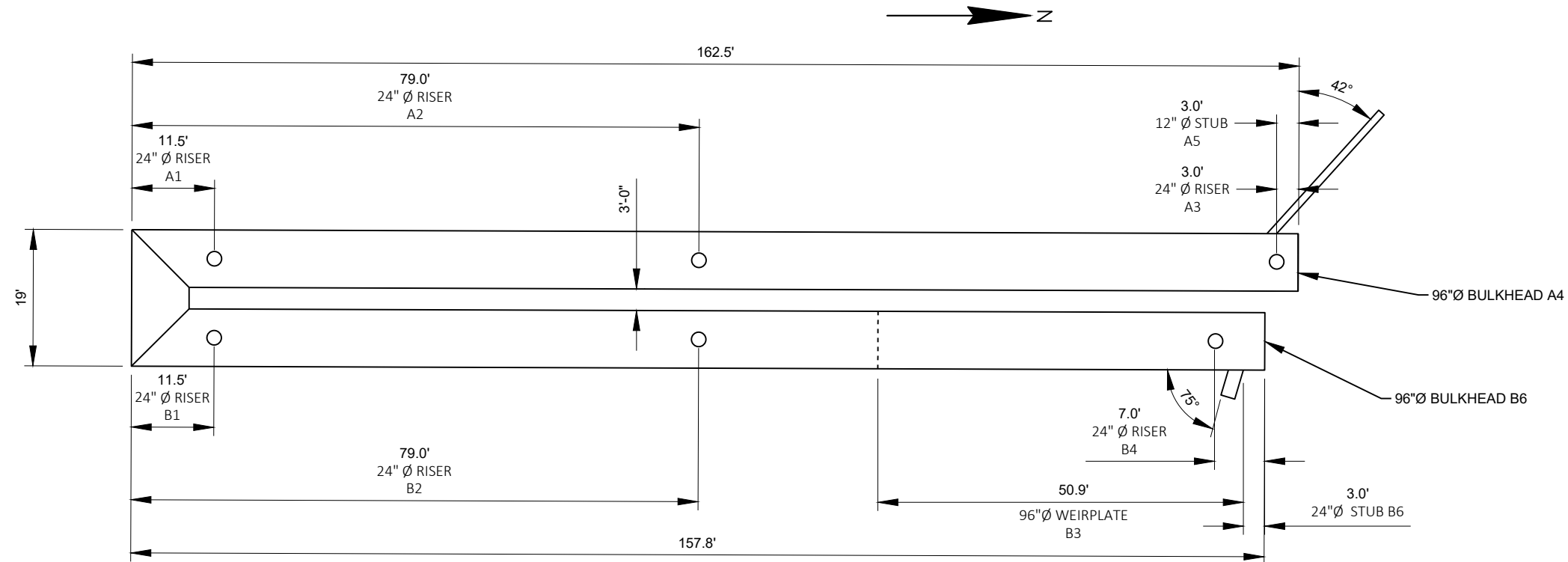
PROPOSED TYPICAL SECTION FOR HILLSIDE DRIVE

STA 40'HI'+55.70 - STA 41'HI'+19.62



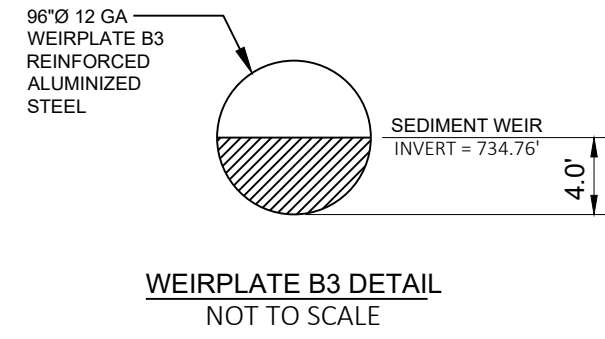
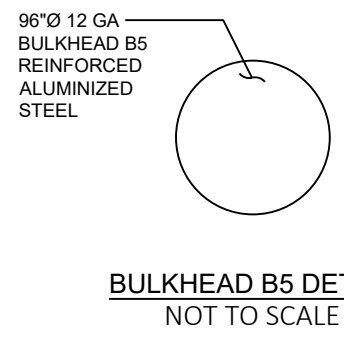
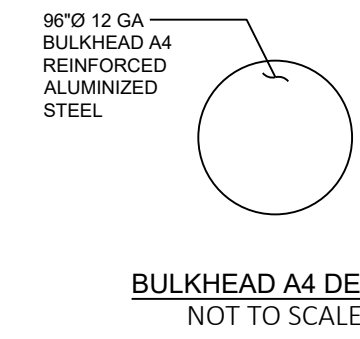
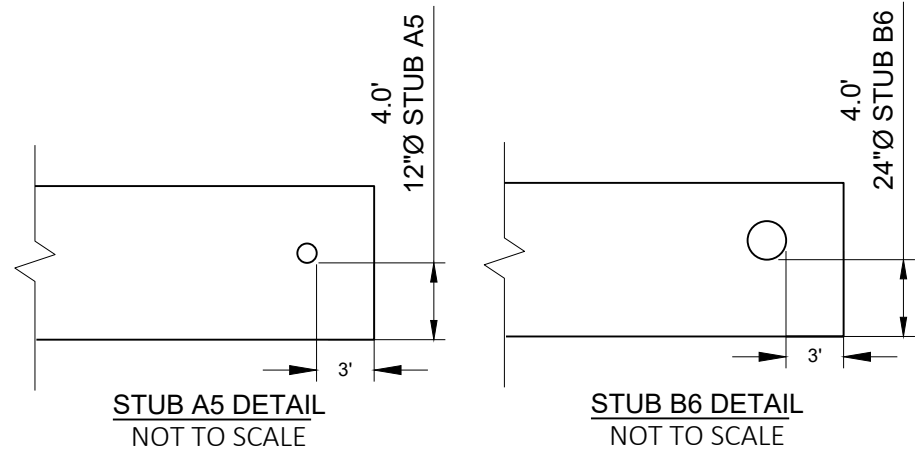
NOTE 1:
 SEE PAVING DETAIL FOR MORE INFORMATION
 HMA TRAIL
 3" ASPHALTIC SURFACE
 9" BASE AGGREGATE DENSE 3/4-INCH

CONCRETE TRAIL
 4-INCH CONCRETE SIDEWALK (≤8')
 6-INCH CONCRETE SIDEWALK (>8')
 3" BASE AGGREGATE DENSE 3/4-INCH



PLAN
 LOADING: H2O
 PIPE INV = 730.76'
 PIPE STORAGE = 16,246 CF
 MAINLINE PIPE GAUGE = 15
 WALL TYPE = SOLID
 DIAMETER = 96" (INSIDE)
 FINISH = ALT2
 CORRUGATION = 5X1

UNDERGROUND DETENTION SYSTEM 1



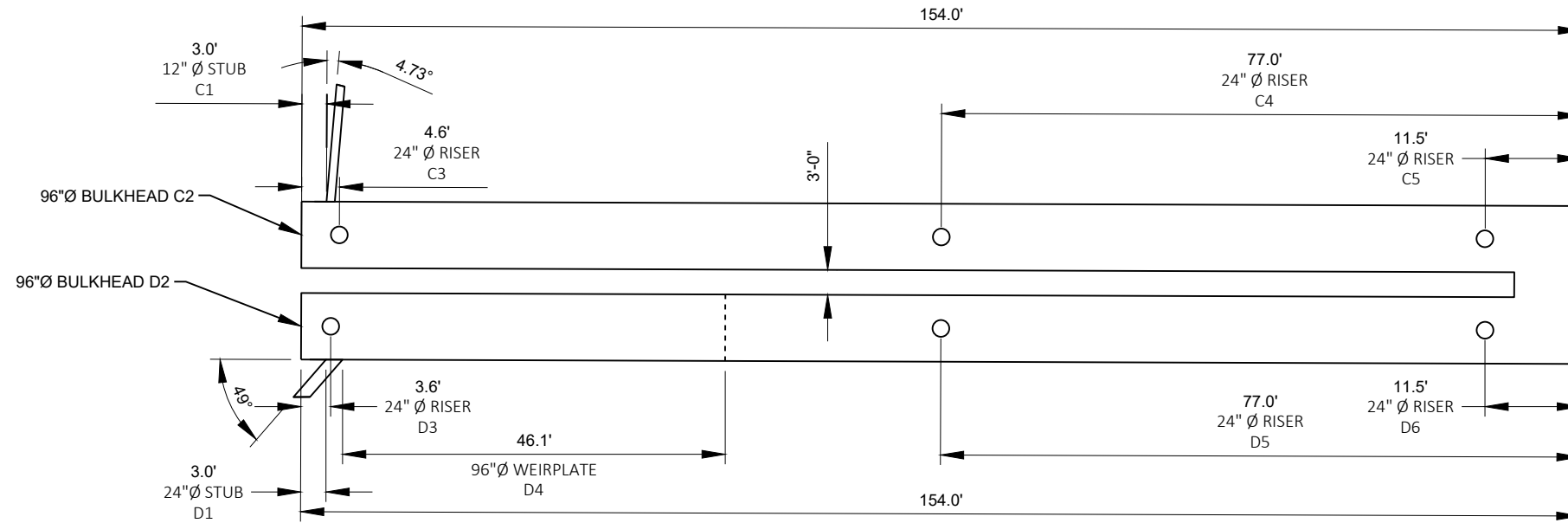
- NOTES**
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
 - ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
 - ALL RISERS AND STUBS ARE 2²/₃" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
 - RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
 - ALL PIPE SECTIONS SHALL BE BANDED PER DETAIL

STUB INFORMATION

PIECE	STUB INVERT	SYSTEM INVERT
12"Ø STUB A4	734.76	730.76
24"Ø STUB B6	734.76	730.76

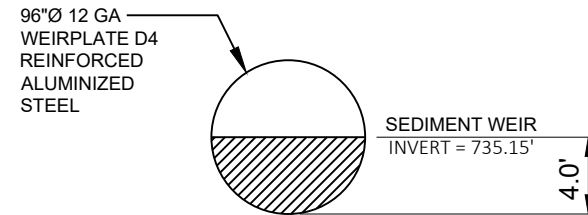
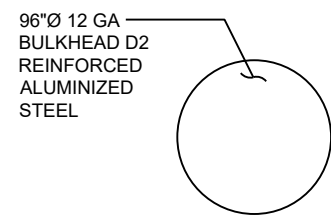
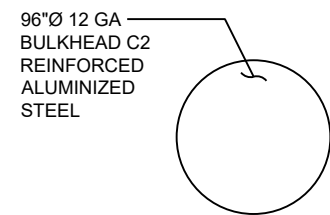
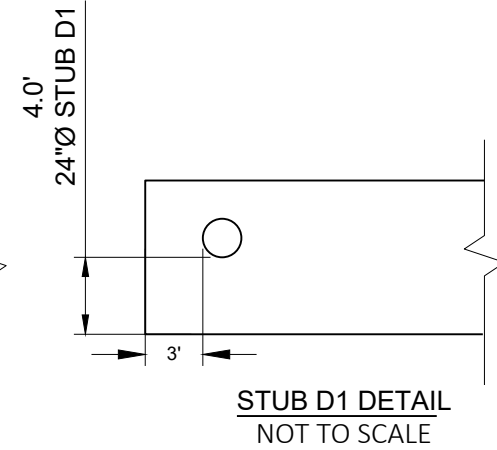
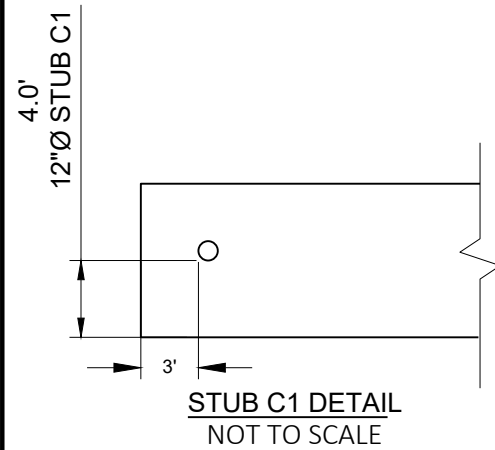
RISER INFORMATION

PIECE	RIM ELEV.	SYSTEM INVERT
24"Ø RISER A1	742.83	730.76
24"Ø RISER A2	740.70	730.76
24"Ø RISER A3	740.84	730.76
24"Ø RISER B1	742.87	730.76
24"Ø RISER B2	740.61	730.76
24"Ø RISER B4	741.06	730.76



LOADING: H2O
 PIPE INV = 731.15'
 PIPE STORAGE = 15,633 CF
 MAINLINE PIPE GAUGE = 15
 WALL TYPE = SOLID
 DIAMETER = 96" (INSIDE)
 FINISH = ALT2
 CORRUGATION = 5X1

UNDERGROUND DETENTION SYSTEM 2

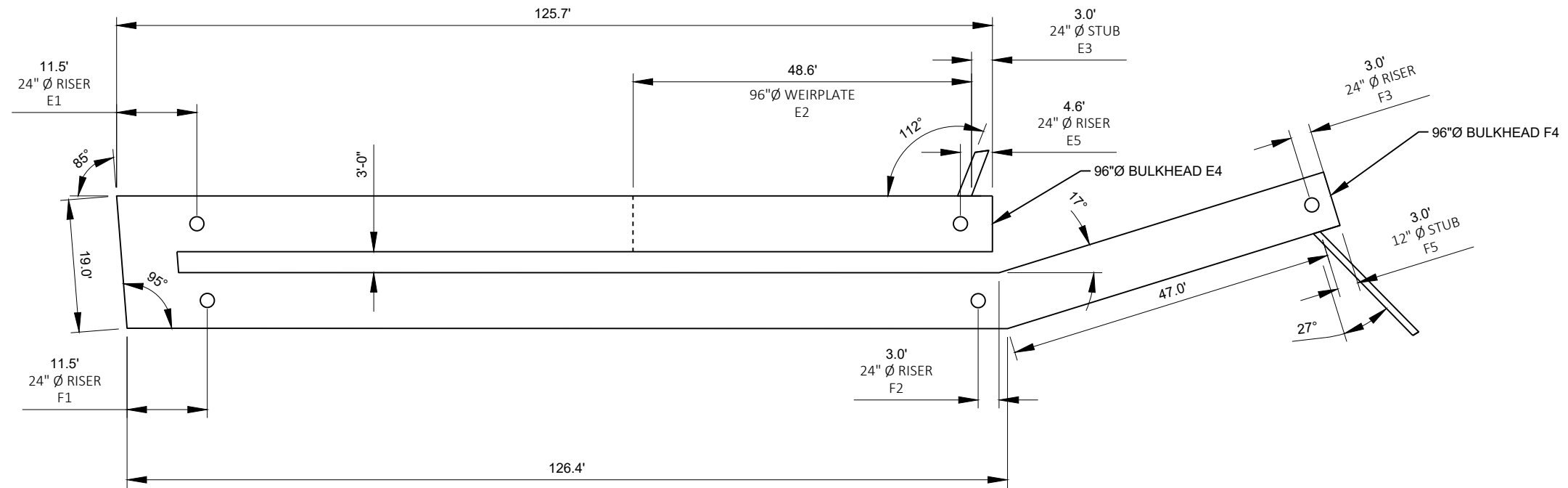


NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL RISERS AND STUBS ARE 2²/₃" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- ALL PIPE SECTIONS SHALL BE BANDED PER DETAIL

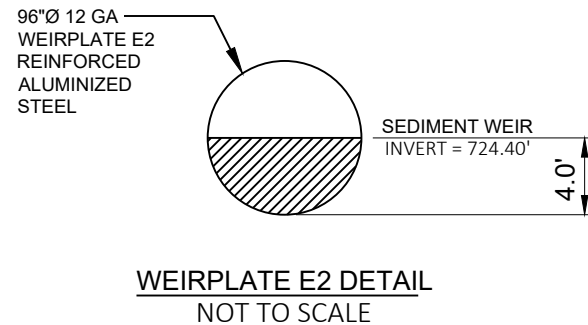
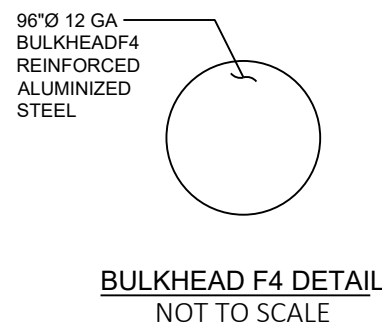
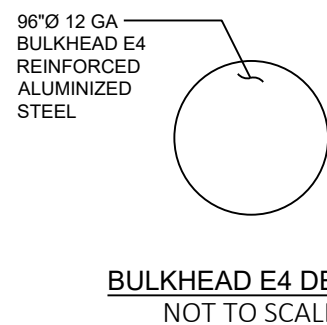
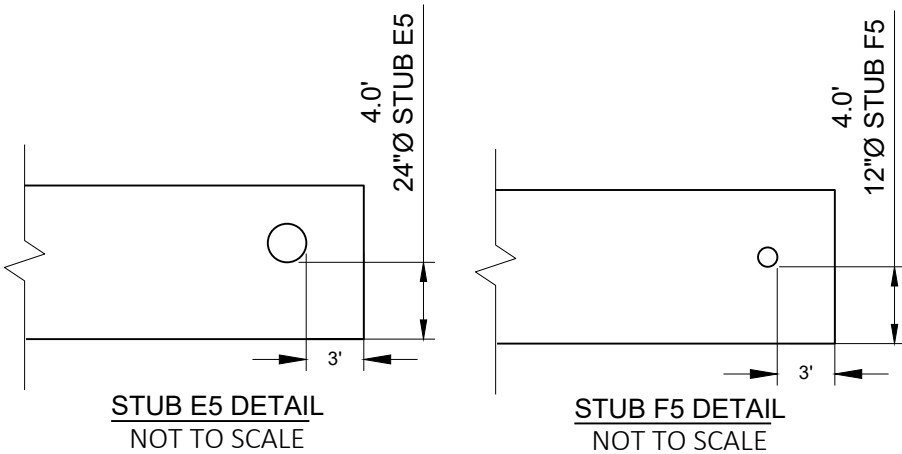
STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
12"Ø STUB C1	735.15	731.15
24"Ø STUB D1	735.15	731.15

RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
24"Ø RISER C3	740.47	731.15
24"Ø RISER C4	740.72	731.15
24"Ø RISER C5	741.05	731.15
24"Ø RISER D3	710.95	731.15
24"Ø RISER D5	741.20	731.15
24"Ø RISER D6	741.53	731.15



LOADING: H2O
 PIPE INV = 720.40'
 PIPE STORAGE = 15,281 CF
 MAINLINE PIPE GAUGE = 15
 WALL TYPE = SOLID
 DIAMETER = 96" (INSIDE)
 FINISH = ALT2
 CORRUGATION = 5X1

UNDERGROUND DETENTION SYSTEM 3

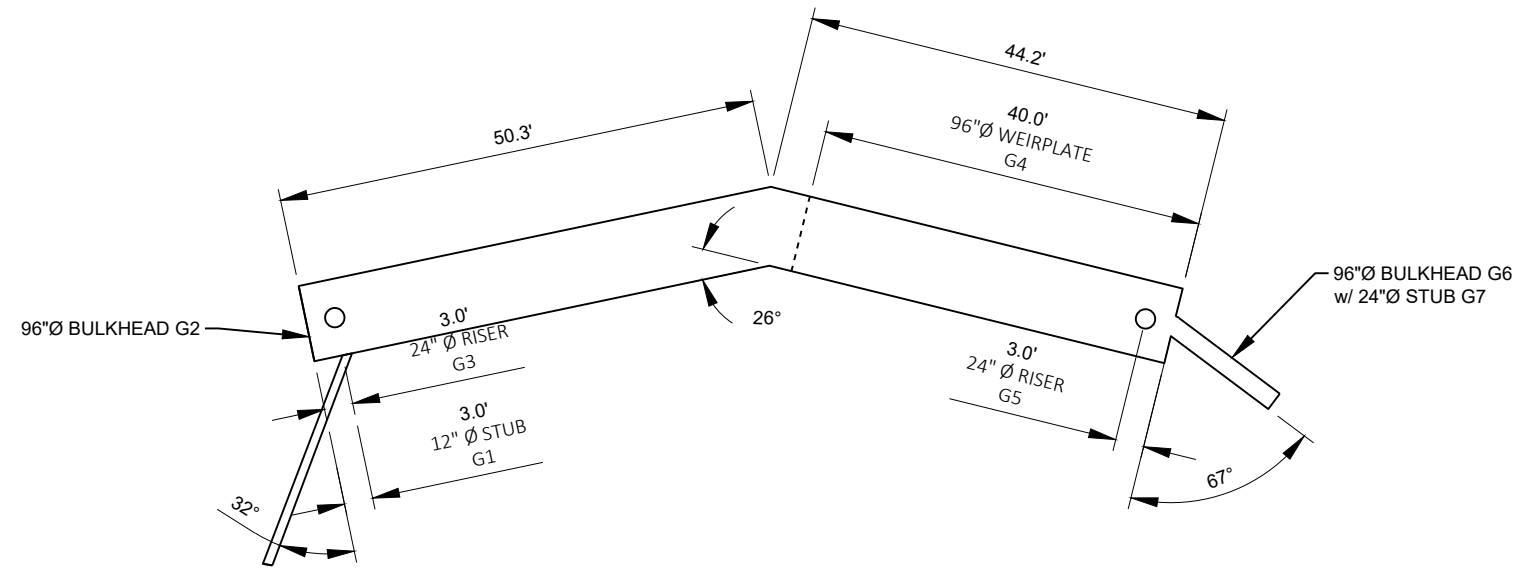


NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL RISERS AND STUBS ARE 2²/₃" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- ALL PIPE SECTIONS SHALL BE BANDED PER DETAIL

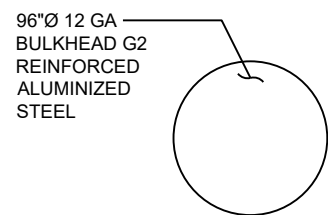
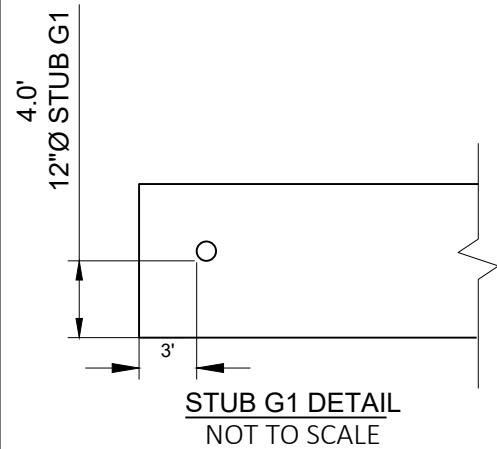
PIECE	STUB INVERT	SYSTEM INVERT
24"Ø STUB E5	724.40	720.40
12"Ø STUB F5	724.40	720.40

PIECE	RIM ELEV.	SYSTEM INVERT
24"Ø RISER E1	733.87	720.40
24"Ø RISER E3	733.24	720.40
24"Ø RISER F1	733.70	720.40
24"Ø RISER F2	731.81	720.40
24"Ø RISER F3	733.18	720.40

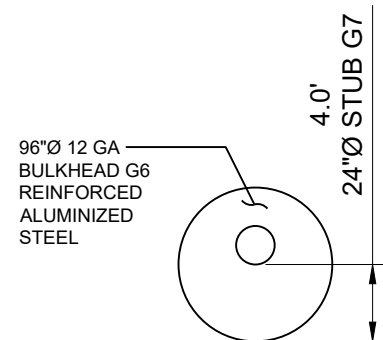


LOADING: H2O
 PIPE INV = 725.30'
 PIPE STORAGE = 4,675 CF
 MAINLINE PIPE GAUGE = 15
 WALL TYPE = SOLID
 DIAMETER = 96" (INSIDE)
 FINISH = ALT2
 CORRUGATION = 5X1

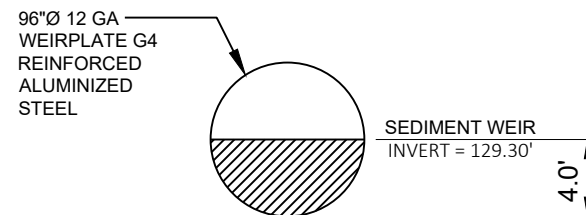
UNDERGROUND DETENTION SYSTEM 4



BULKHEAD G2 DETAIL
NOT TO SCALE



BULKHEAD G6 DETAIL
NOT TO SCALE



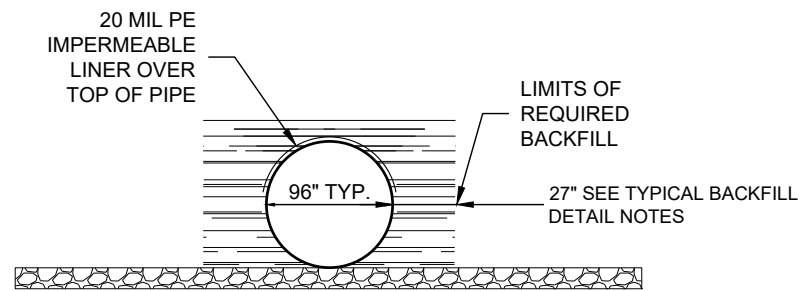
WEIRPLATE G4 DETAIL
NOT TO SCALE

NOTES

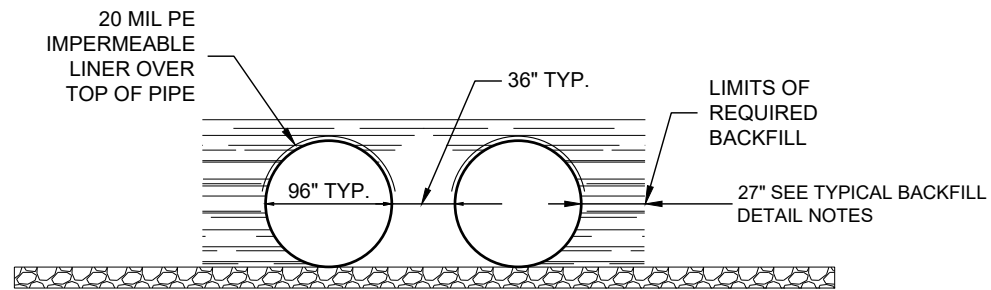
- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE.
- ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD (EOR) PRIOR TO RELEASING FOR FABRICATION.
- ALL RISERS AND STUBS ARE 2²/₃" x 1/2" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE AS REQUIRED, BY CONTRACTOR.
- ALL PIPE SECTIONS SHALL BE BANDED PER DETAIL

STUB INFORMATION		
PIECE	STUB INVERT	SYSTEM INVERT
12"Ø STUB G1	729.30	725.30
24"Ø STUB G7	729.30	725.30

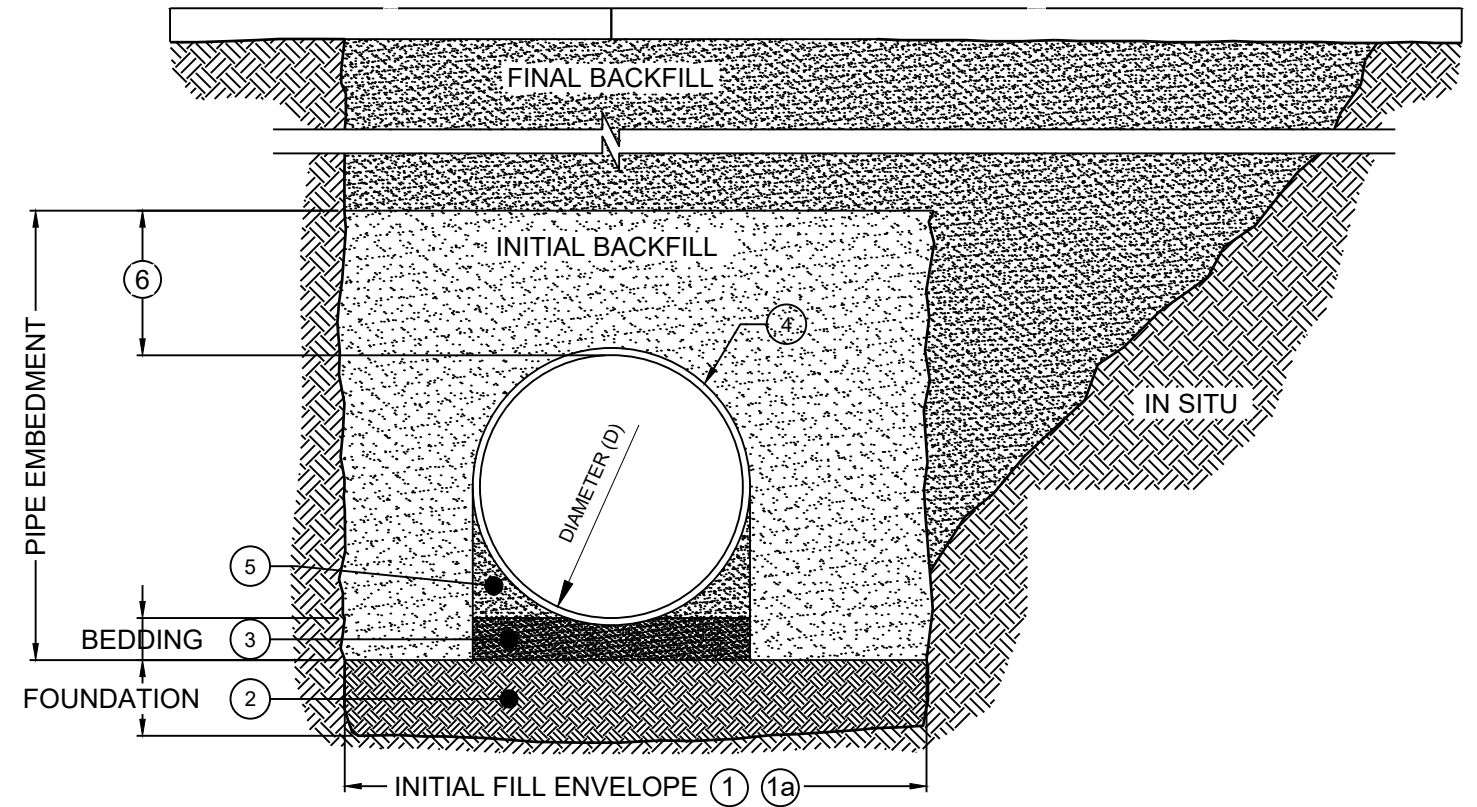
RISER INFORMATION		
PIECE	RIM ELEV.	SYSTEM INVERT
24"Ø RISER G3	733.88	725.30
24"Ø RISER G5	735.65	725.30



**TYPICAL SECTION VIEW
UNDERGROUND DETENTION SYSTEM 4**
NOT TO SCALE



**TYPICAL SECTION VIEW
UNDERGROUND DETENTION SYSTEM 1, 2, 3**
NOT TO SCALE

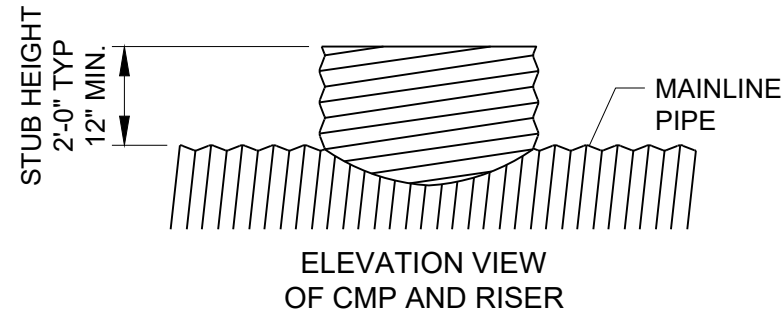


BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF AASHTO LRFD BRIDGE DESIGN (SEC 12) AND CONSTRUCTION (SEC 26)

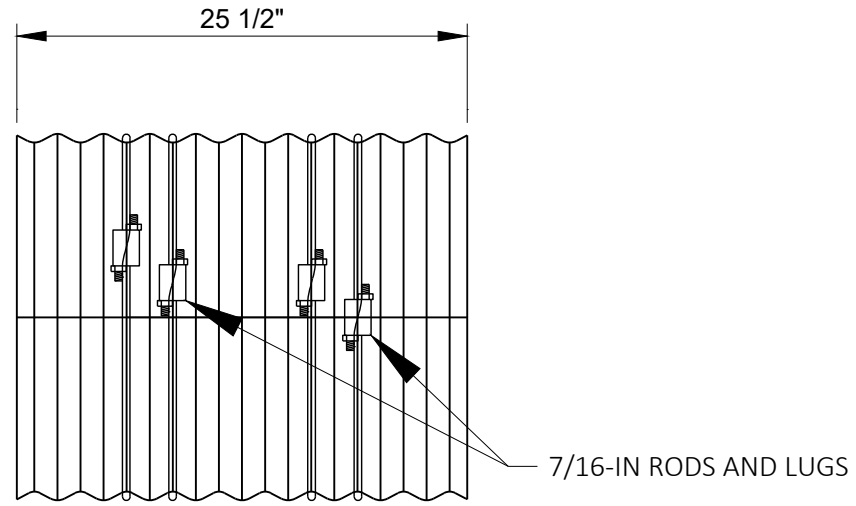
LEGEND:

- 1 MINIMUM TRENCH WIDTH MUST ALLOW ROOM FOR PROPER COMPACTION OF HAUNCH MATERIALS UNDER THE PIPE. THE MINIMUM TRENCH WIDTH (12.6.6.1): PIPE > 12": 1.5D + 12"
- 1a MINIMUM EMBANKMENT WIDTH (IN FEET) FOR INITIAL FILL ENVELOPE (12.6.6.2): PIPE 24" - 144": D + 4'0"
- 2 THE FOUNDATION UNDER THE PIPE AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (26.5.2).
- 3 CONSTRUCT BEDDING PER 608.3.2 OF THE STANDARD SPECIFICATIONS
- 4 CORRUGATED STEEL PIPE (CSP / HEL-COR).
- 5 HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (26.5.4).
- 6 INITIAL BACKFILL ABOVE PIPE MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE). MINIMUM COVER = 12 INCHES..

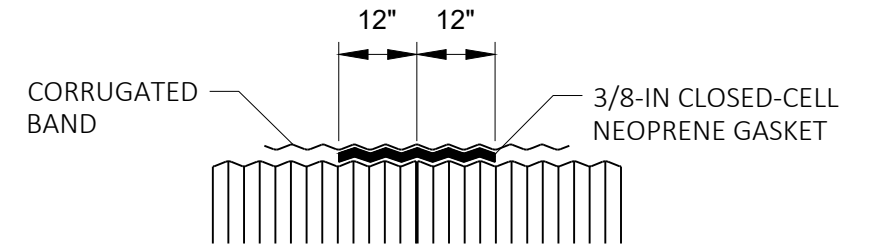
TYPICAL BACKFILL DETAIL
NOT TO SCALE



12" RISER BAND DETAIL
NOT TO SCALE



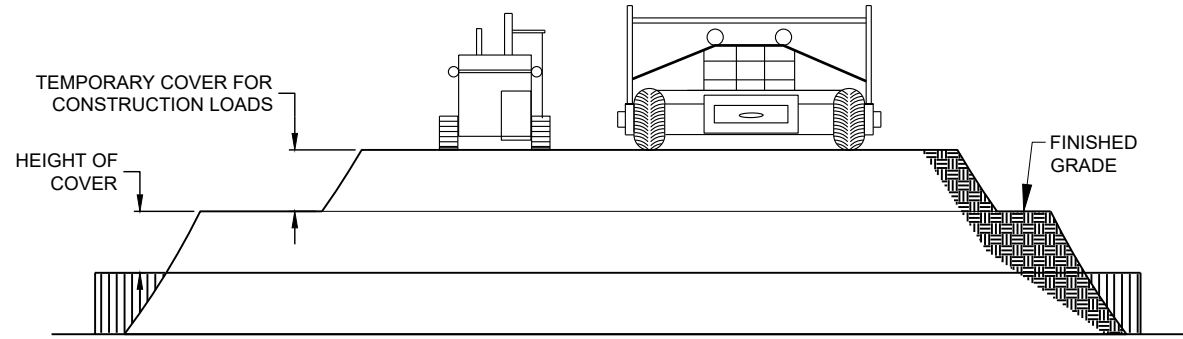
CONNECTION DETAIL
4 RODS AND LUGS
NOT TO SCALE
2 2/3"x1/2" RIVETED PIPE



FLAT GASKET
BAND DETAIL
NOT TO SCALE

GENERAL NOTES:

1. BAND FASTENERS ARE ATTACHED WITH SPOT WELDS, RIVETS OR HAND WELDS.
2. NEOPRENE GASKET REQUIRED (SEE DETAILS ABOVE).



CONSTRUCTION LOADS

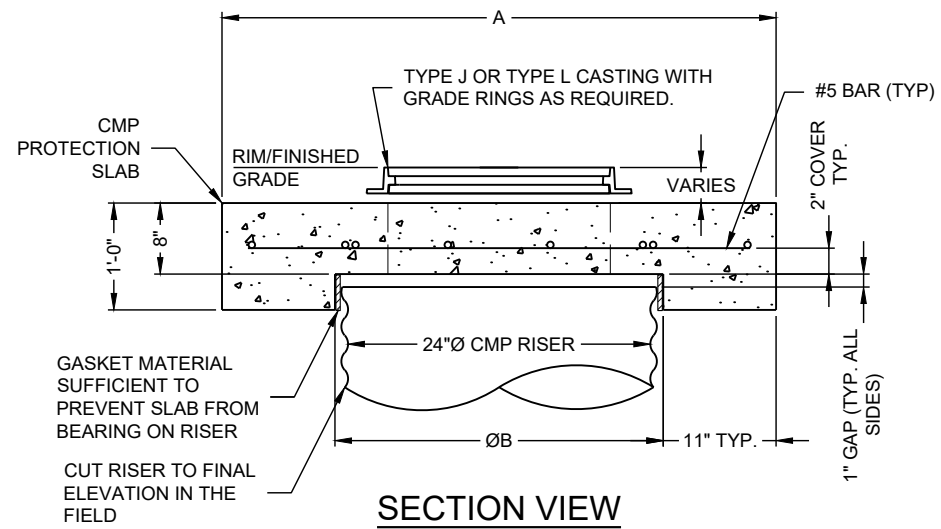
FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
78 -120	3.0	3.5	4.0	4.0

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

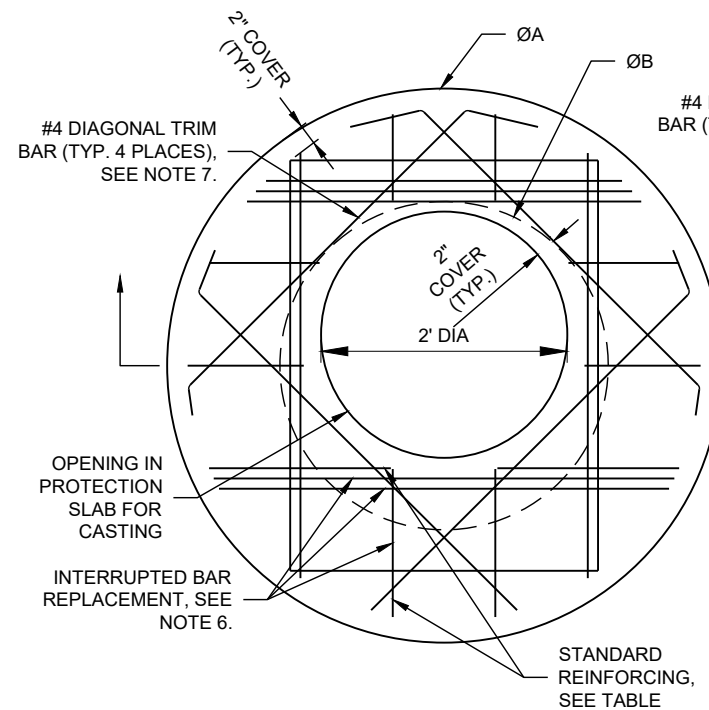
CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

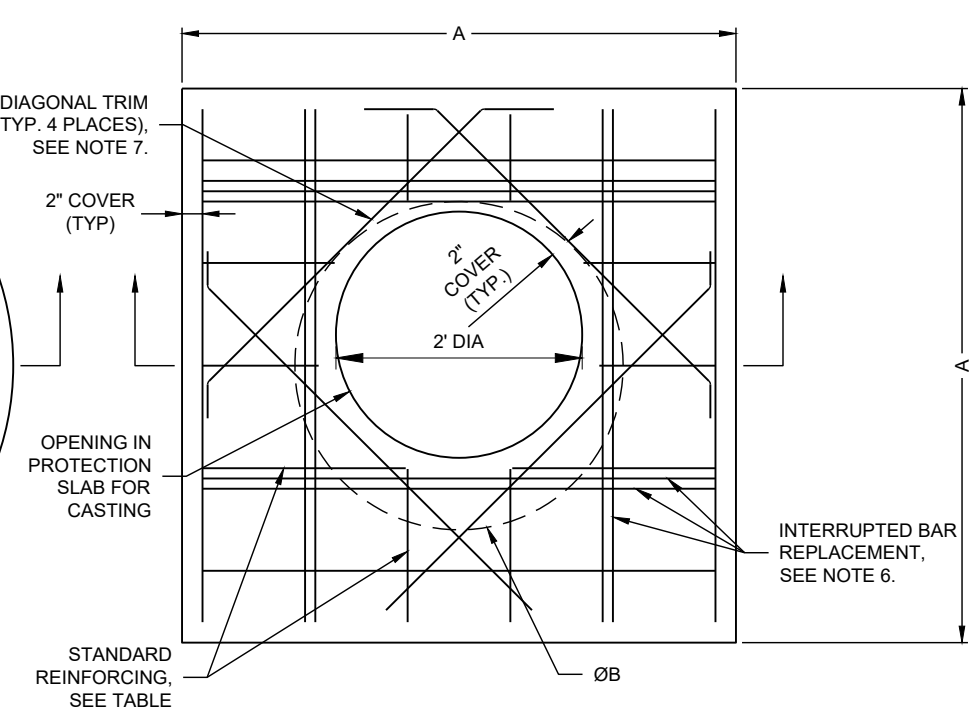


FOR 24" DIA CMP RISER:

A = 4' DIA. OR 4' X 4' SQUARE
 B = 26" DIA.
 REINFORCING: #5 @ 10" ON-CENTER EACH-WAY
 ASSUMED SOIL BEARING CAPACITY (PSF):
 2,540 ROUND
 1,900 SQUARE



ROUND OPTION PLAN VIEW



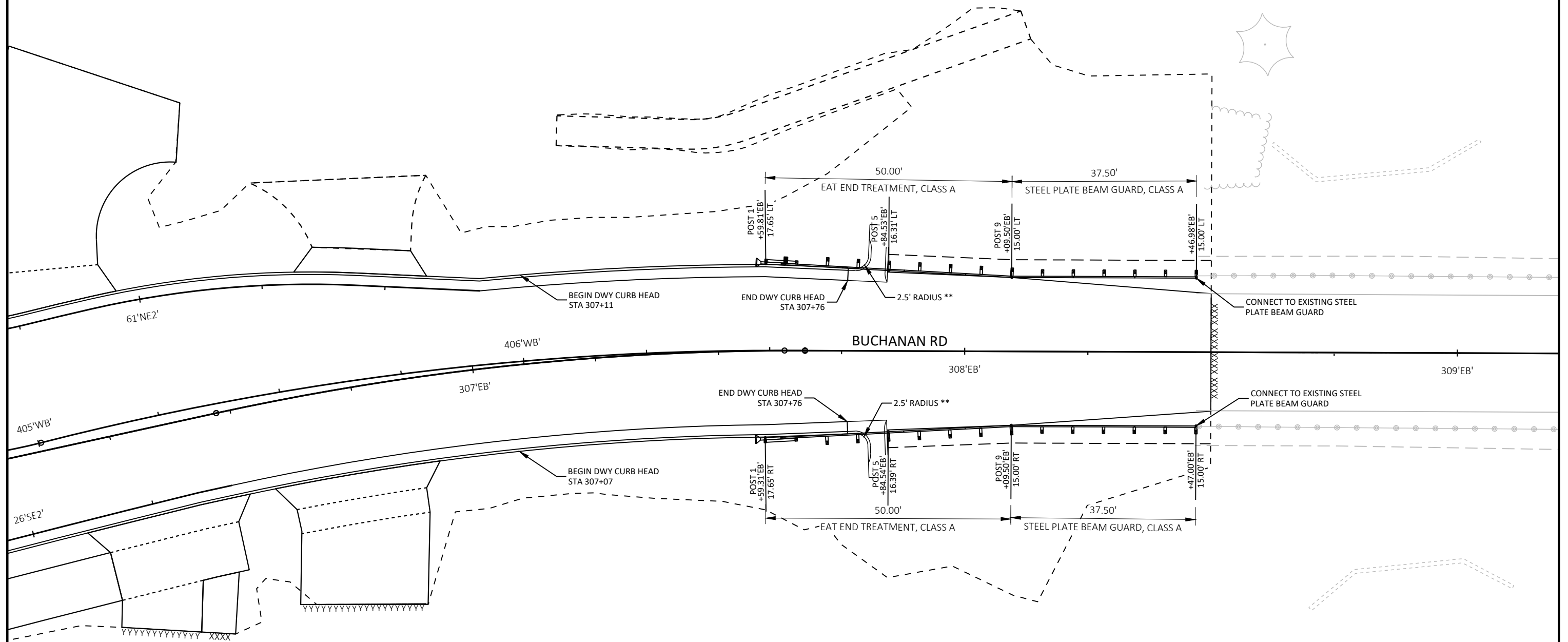
SQUARE OPTION PLAN VIEW

NOTES:

1. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
2. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
3. MANHOLE CAP SHALL BE PLACED ON PIPE BACKFILL MATERIAL.
4. GASKET MATERIAL BETWEEN MANHOLE CAP AND CMP RISER TO BE STIFF ENOUGH SO THAT CONCRETE CAN NEVER ENGAGE WITH THE RISER CORRUGATIONS.

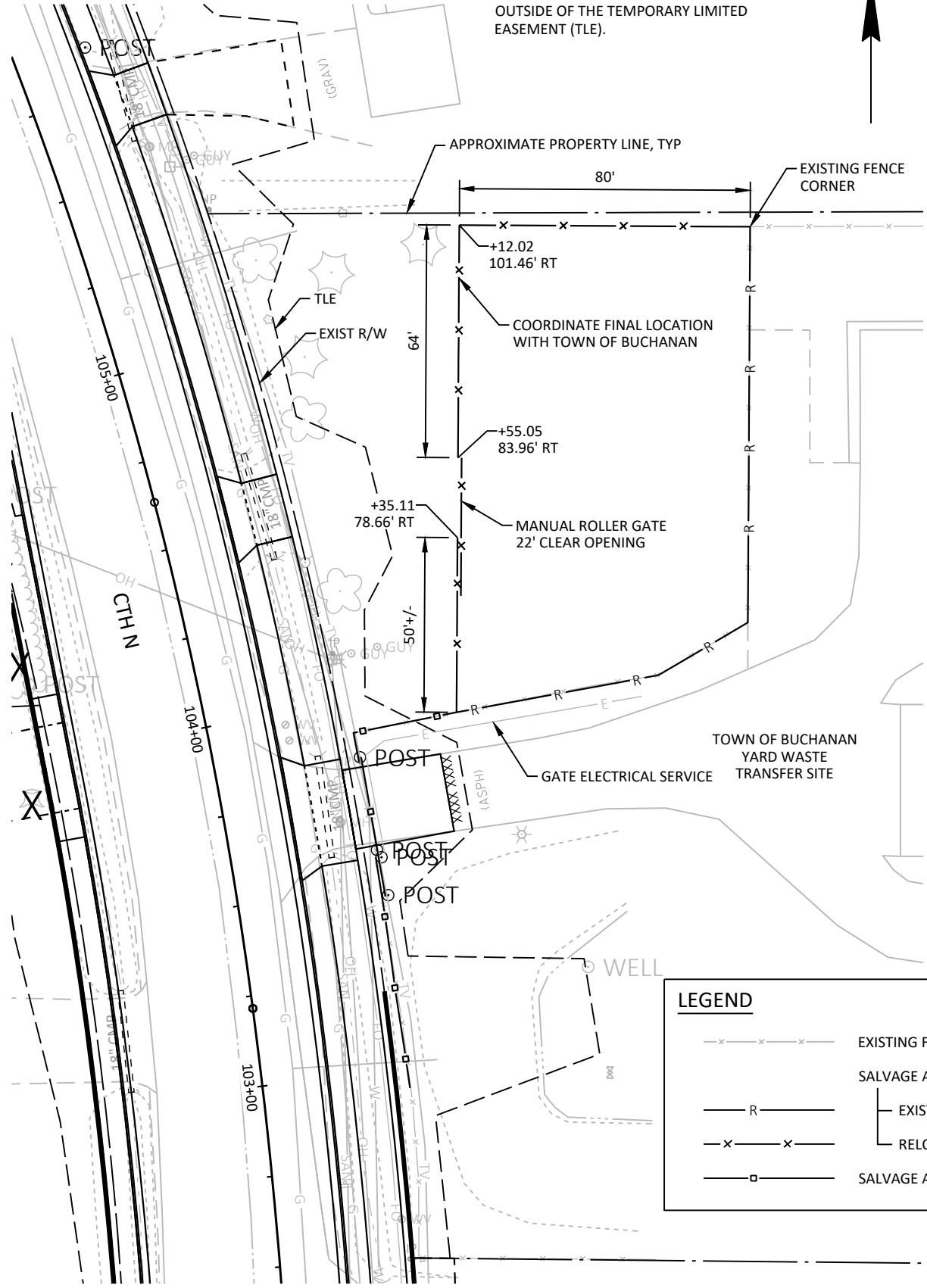
MANHOLE CAP DETAIL

NOT TO SCALE



NOTES:
 ** CONSTRUCT ASPHALTIC FLUME TO AVOID
 CONFLICT WITH POST 4 & 5 OF CLASS A
 EAT END TREATMENT.

NOTE: A CONSTRUCTION EASEMENT HAS BEEN OBTAINED FOR THE WORK SHOWN HEREON OUTSIDE OF THE TEMPORARY LIMITED EASEMENT (TLE).

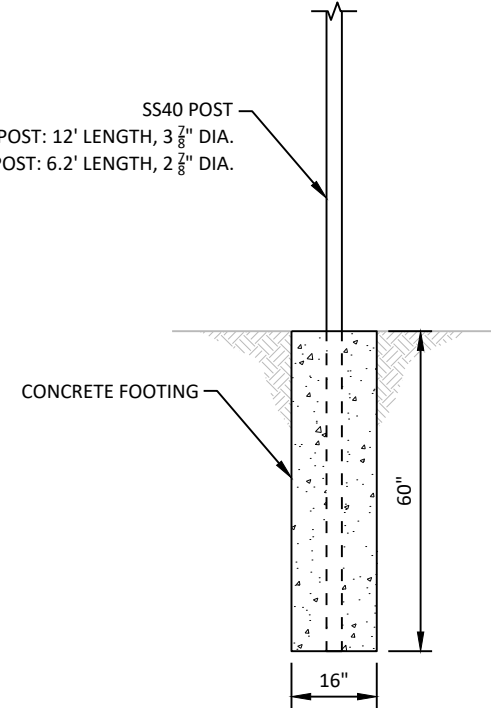


LEGEND

-x-x-x-	EXISTING FENCE
-R-	SALVAGE AND RELOCATE EXISTING FENCE
-x-x-	EXISTING FENCE TO BE RELOCATED
-x-x-	RELOCATED FENCE
-□-	SALVAGE AND RESET EXISTING FENCE

PLAN

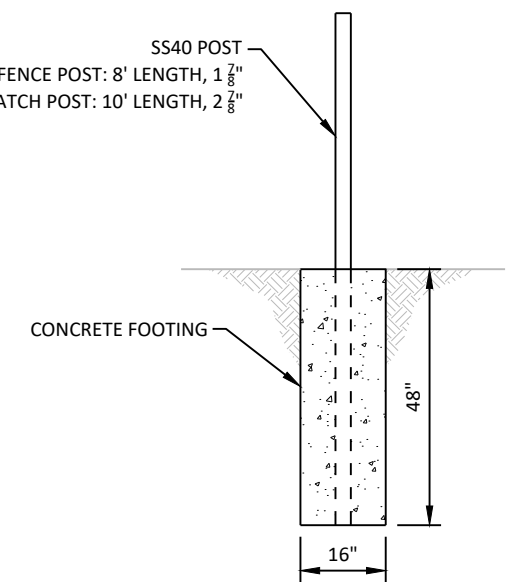
SS40 POST
GATE POST: 12' LENGTH, 3 7/8" DIA.
OPERATOR ANCHOR POST: 6.2' LENGTH, 2 7/8" DIA.



GATE AND OPERATOR ANCHOR POST FOOTING

FOR USE WITH REMOVE AND RESET EXISTING FENCE AND GATE ITEMS

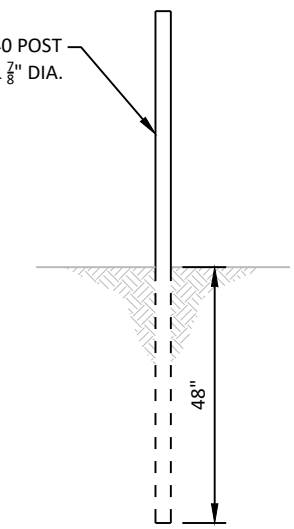
SS40 POST
FENCE POST: 8' LENGTH, 1 7/8" DIA.
LATCH POST: 10' LENGTH, 2 7/8" DIA.



FENCE AND LATCH POST FOOTING

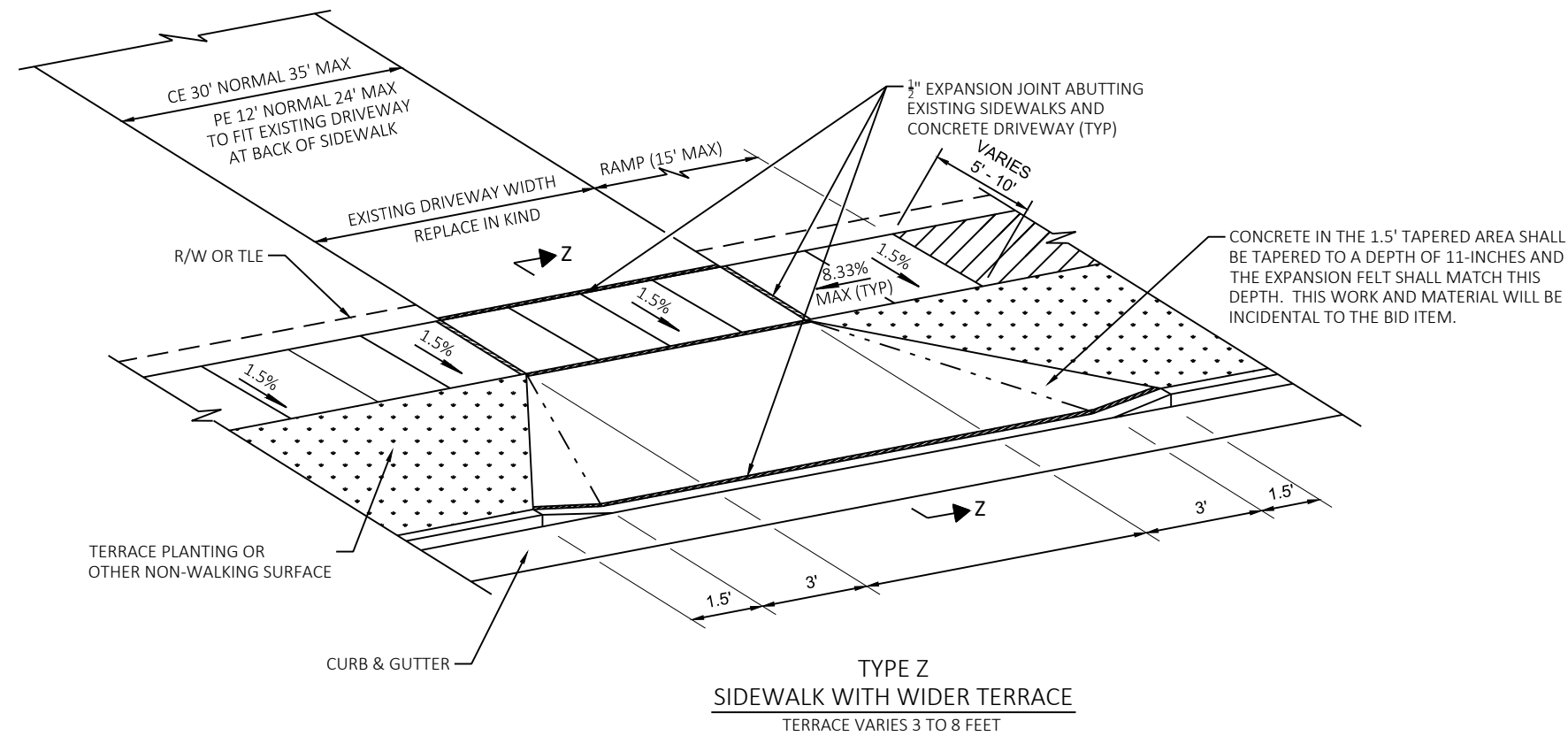
FOR USE WITH REMOVE AND RESET EXISTING FENCE AND GATE ITEMS

SS40 POST
FENCE POST: 8' LENGTH, 1 7/8" DIA.

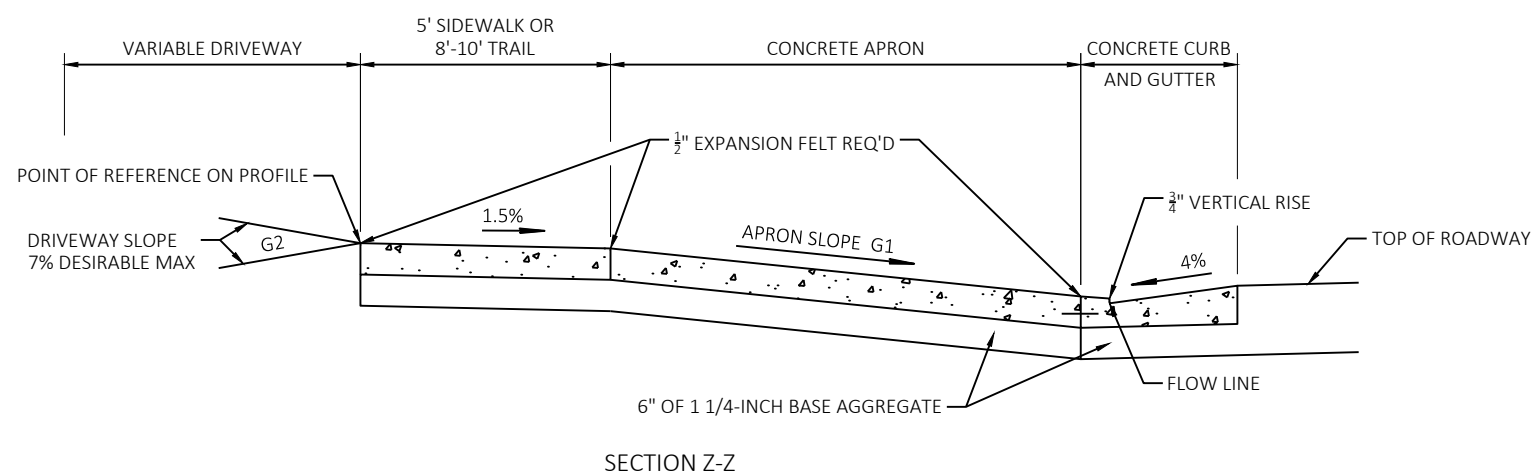


FENCE POST DIRECT DRIVE

FOR USE WITH REMOVE AND RELOCATE EXISTING FENCE ITEM



TYPE Z
SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 3 TO 8 FEET



SECTION Z-Z

SEE PLAN FOR ADDITIONAL INFORMATION

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

GENERAL NOTES

CONSTRUCTION TOLERANCE OF +/- 0.5% FOR SIDEWALK CROSS SLOPE. THE SIDEWALK/TRAIL CROSS SLOPE SHALL NOT EXCEED 2%.

12' MAXIMUM SPACING FOR CONTRACTION JOINTS IN DRIVEWAY APPROACHES.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN IN THE PLAN.

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

USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN PLANS.

DRIVEWAY TYPES

- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH.
- 3-INCH ASPHALTIC SURFACE OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH.
- 6-INCH BASE AGGREGATE DENSE 3/4-INCH.

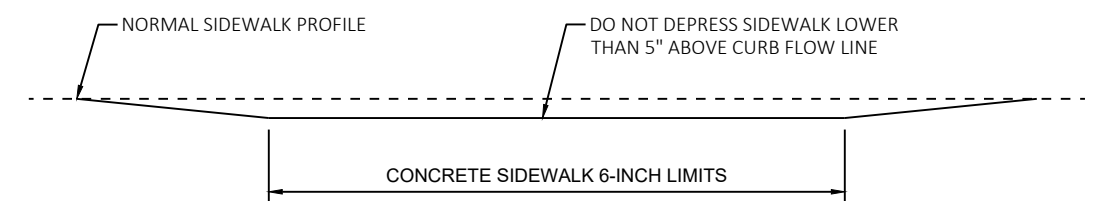
TERRACE WIDTH	APRON SLOPE G1		
	MIN %	DESIRABLE %	MAXIMUM %
3 FT	7.0	8.5	10.0
4 FT	5.0	7.0	10.0
5 FT	4.0	7.0	10.0
6 FT	4.0	7.0	10.0
7 FT	3.5	7.0	10.0
8 FT	3.0	7.0	10.0

NOTE:

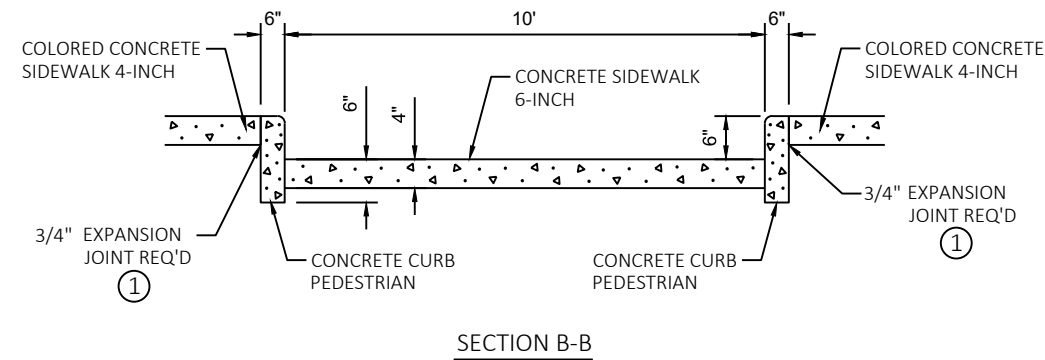
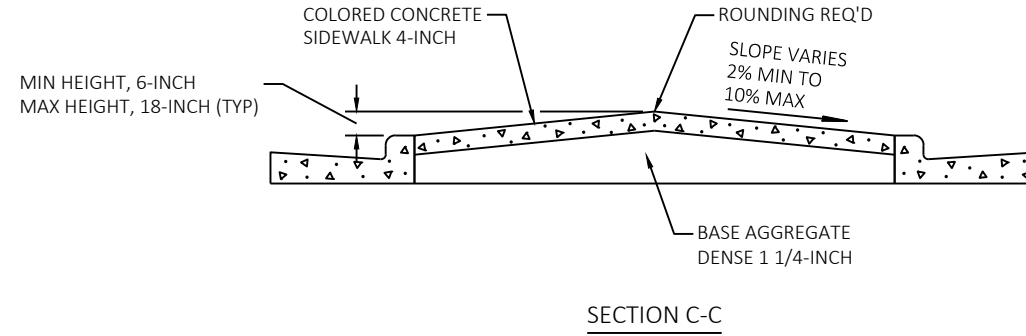
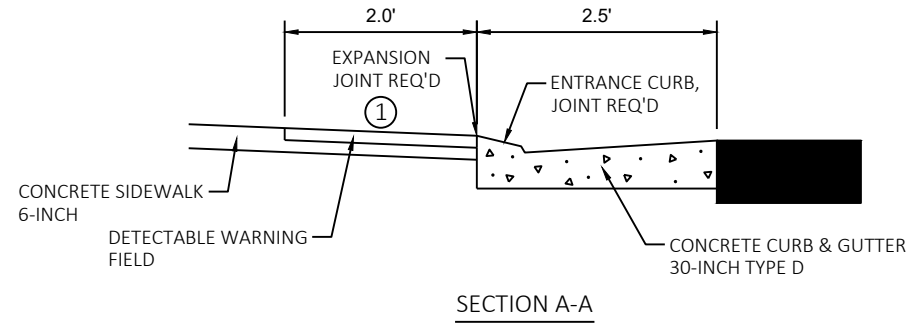
ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 NOT TO EXCEED 10% DESIRABLE MAXIMUM.

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAXIMUM SLOPE.

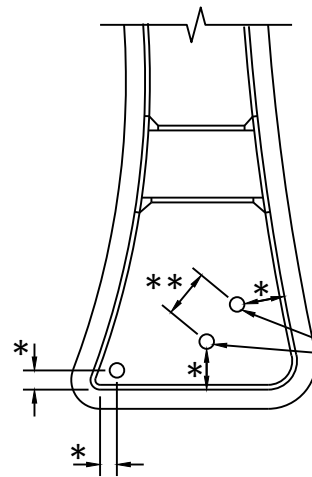
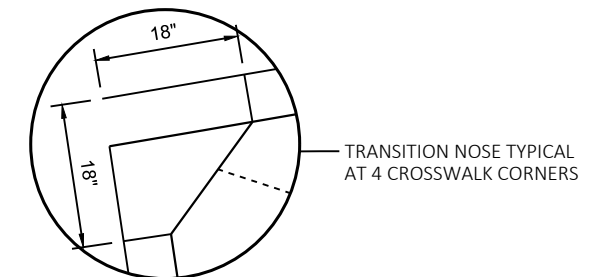
SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.



DEPRESSED SIDEWALK PROFILE DETAIL



① EXPANSION MATERIAL TO BE 1" LONGER THAN ABUTTING MEDIAN CONCRETE THICKNESS. (i.e. 5" IN HEIGHT WHEN ADJACENT TO CONCRETE SIDEWALK 4-INCH)



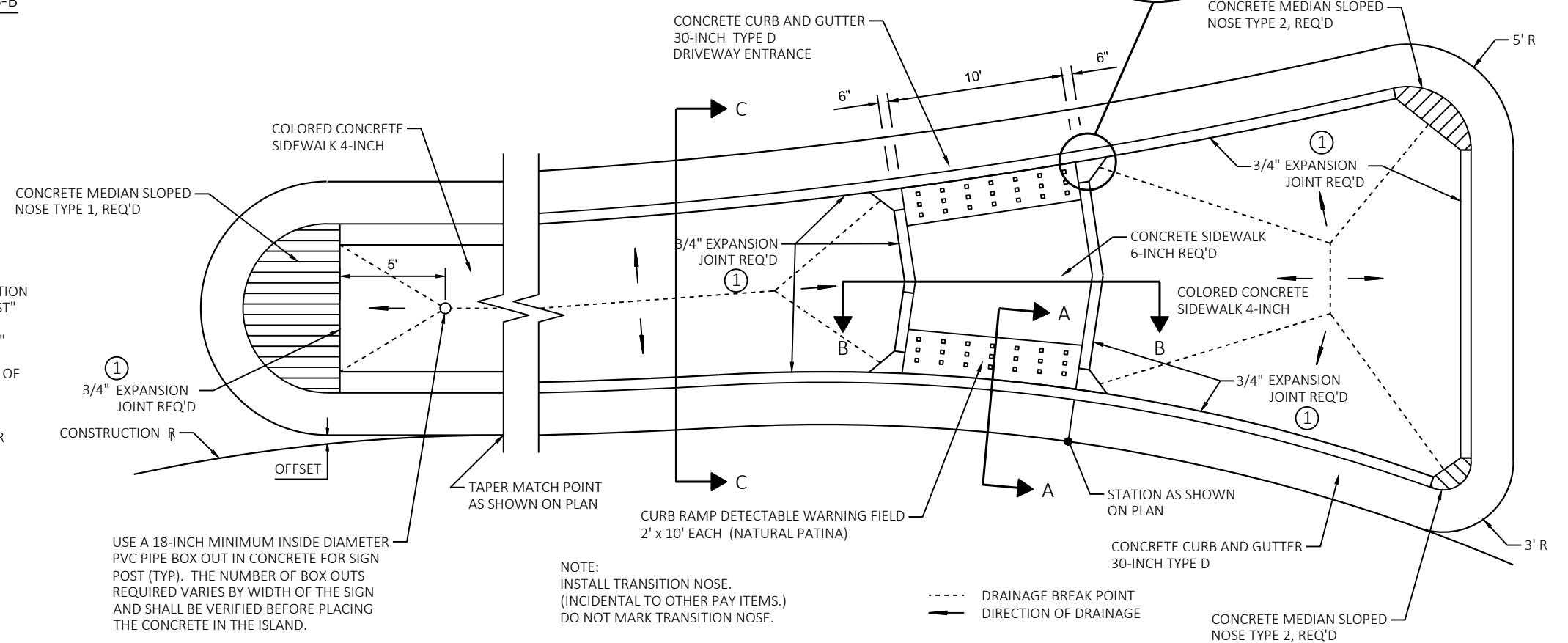
* DISTANCE TO LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.

SEE A4-3 SIGN PLATE FOR "TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POST"

SEE A4-3B SIGN PLATE "SIGN POST BOX-OUTS"

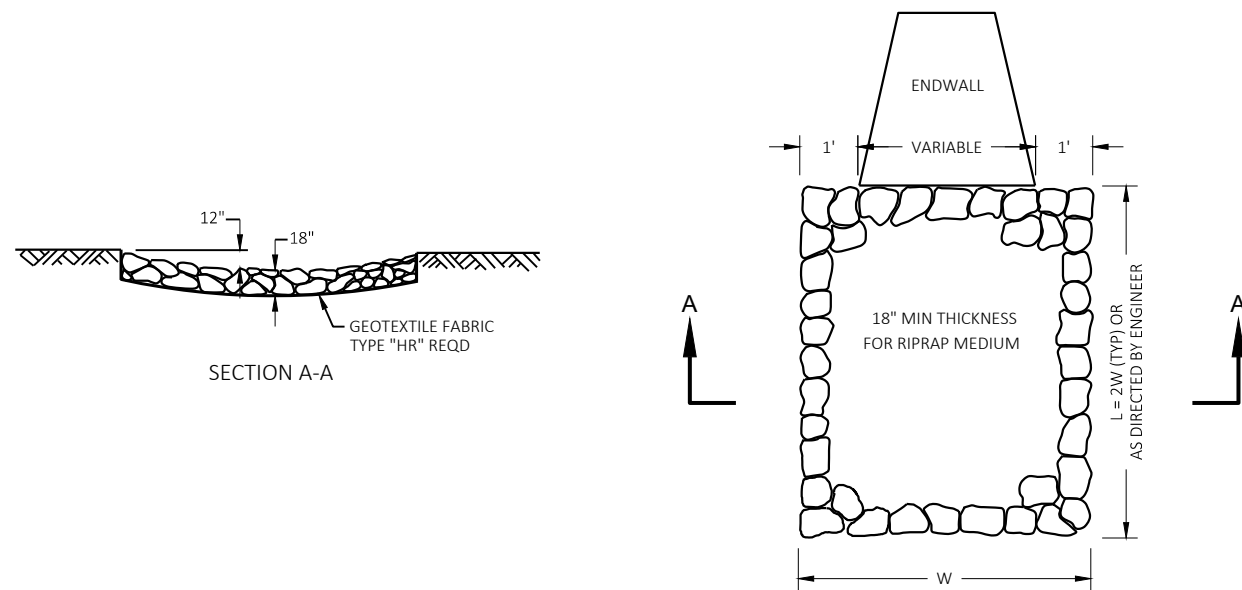
** SEE A4-4 SIGN PLATE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE SUPPORTS"

USE A 18-INCH MINIMUM INSIDE DIAMETER PVC PIPE BOX OUT IN CONCRETE FOR SIGN POST (TYP). THE NUMBER OF BOX OUTS REQUIRED VARIES BY WIDTH OF THE SIGN AND SHALL BE VERIFIED BEFORE PLACING THE CONCRETE IN THE ISLAND.

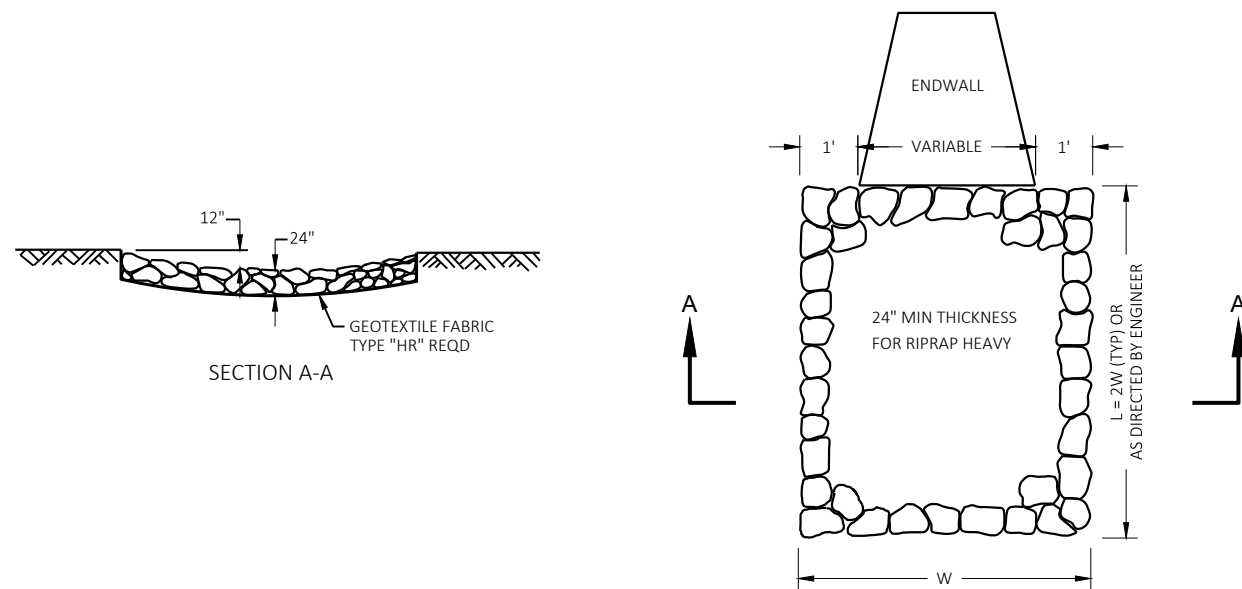


NOTE:
INSTALL TRANSITION NOSE.
(INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.

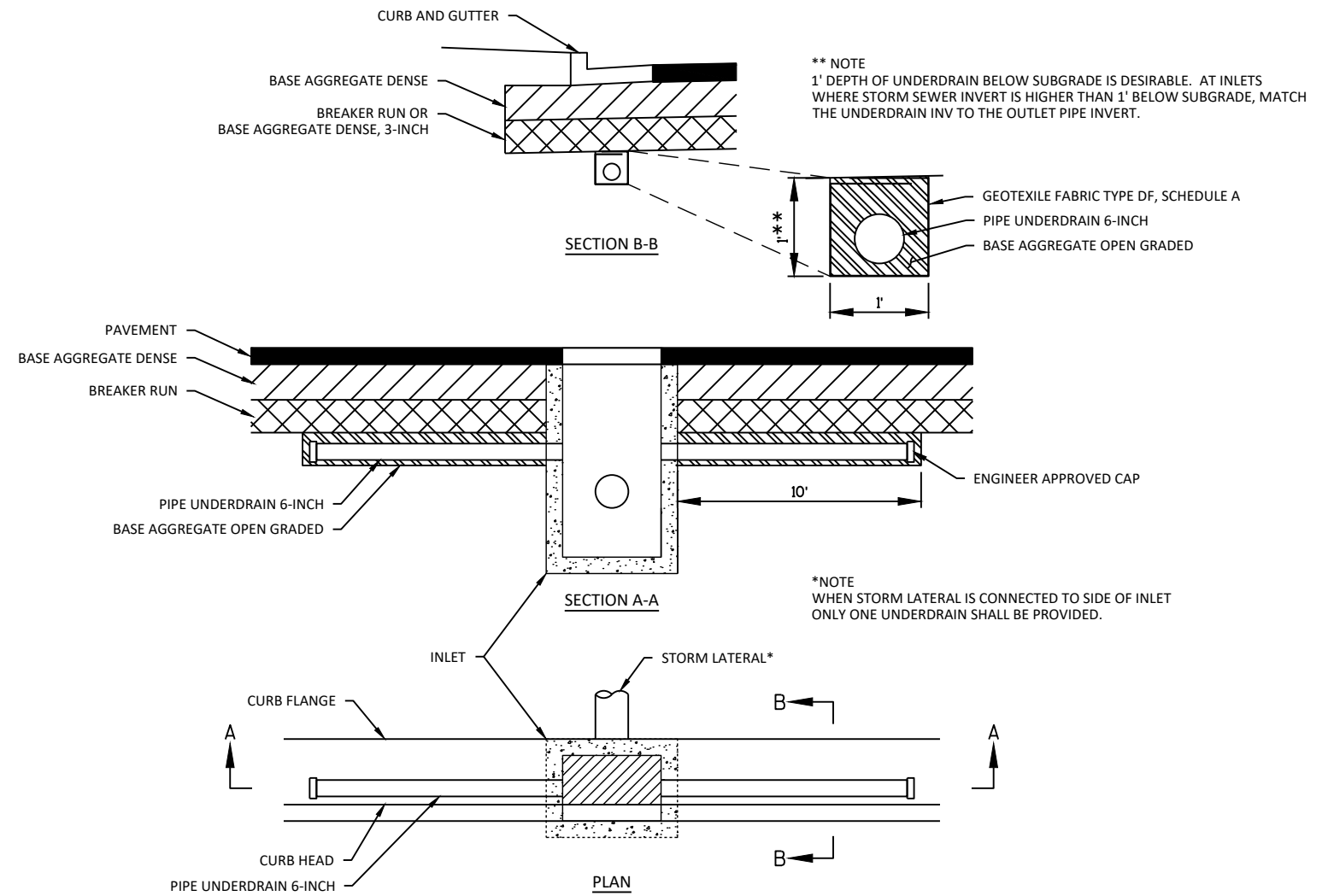
--- DRAINAGE BREAK POINT
--- DIRECTION OF DRAINAGE



RIPRAP MEDIUM TREATMENT AT CULVERTS

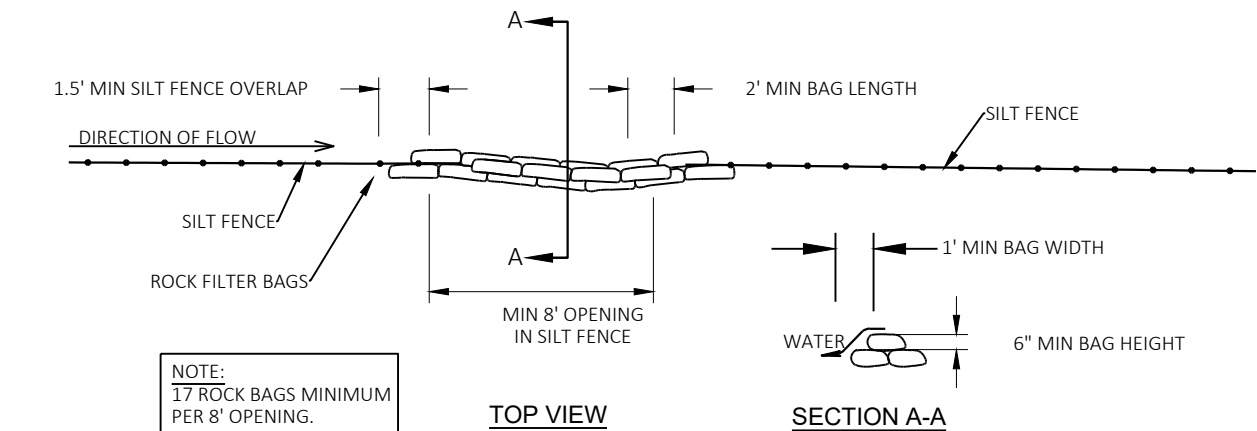


RIPRAP HEAVY TREATMENT AT CULVERTS



PIPE UNDERDRAIN DETAIL

SEE PAVING DETAILS & STORM SEWER SHEETS FOR LOCATIONS

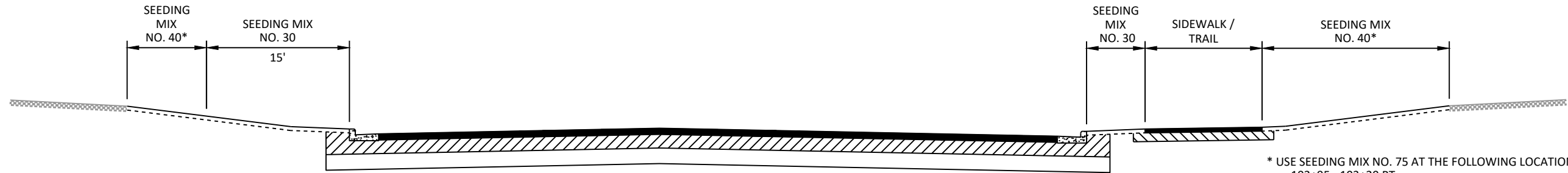


TOP VIEW

SECTION A-A

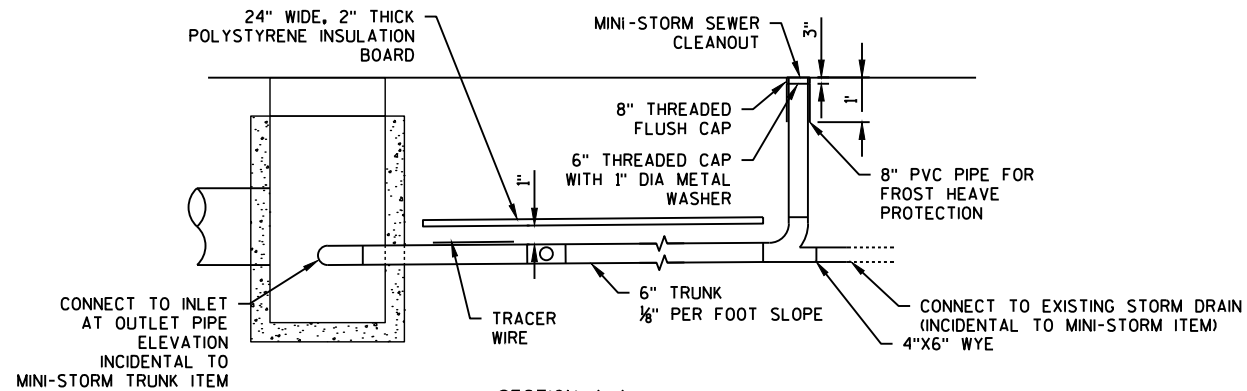
ROCK BAGS USED FOR SILT FENCE RELIEF

NOTE:
17 ROCK BAGS MINIMUM
PER 8' OPENING.

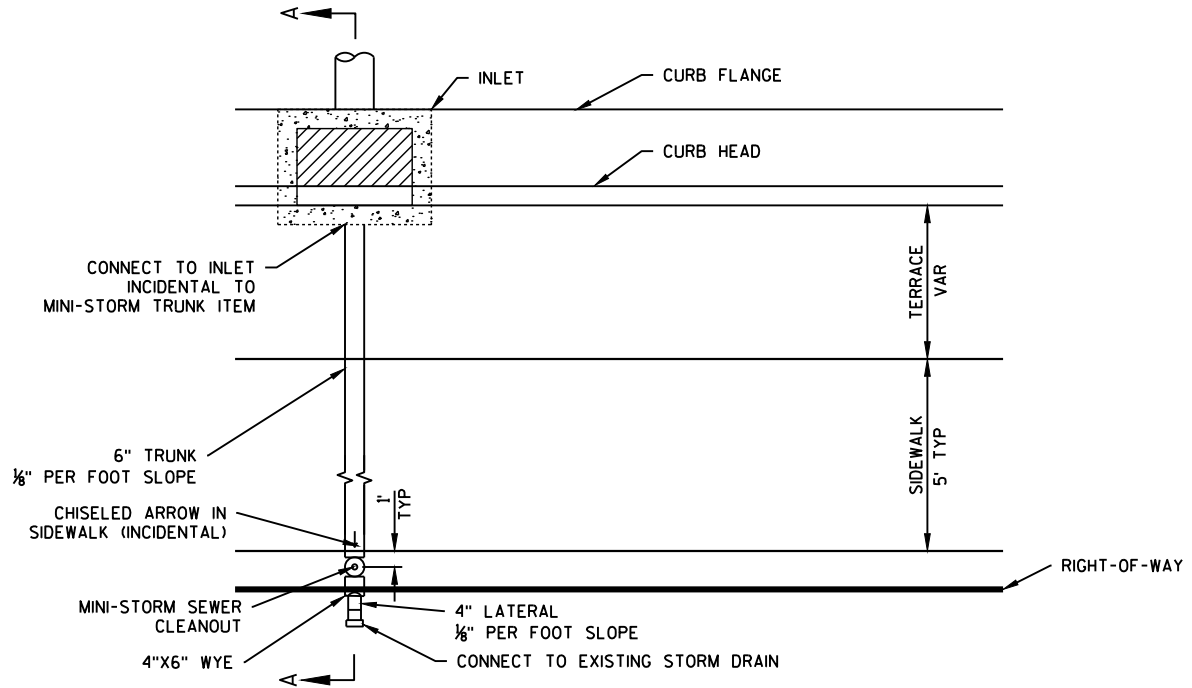


SEEDING MIX LIMITS

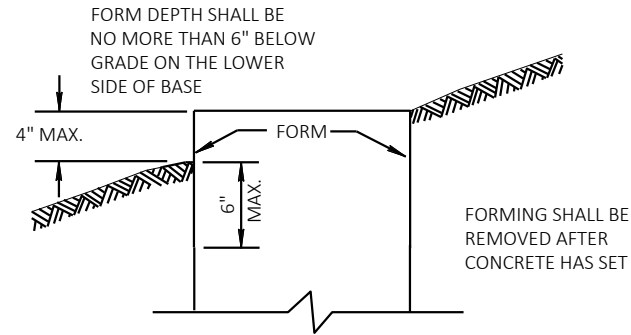
* USE SEEDING MIX NO. 75 AT THE FOLLOWING LOCATIONS
 102+95 - 103+20 RT
 114+40 - 117+50 RT
 114+60 - 117+90 LT
 124+75 - 128+25 LT
 124+75 - 129+25 RT



SECTION A-A



PLAN
MINI STORM TRUNK DETAIL



FORMING DETAIL

QUANTITY REQUIREMENTS		
	1	2
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57
LBS. OF HOOP BAR STEEL	NONE	23
LBS. OF VERTICAL BAR STEEL	NONE	60

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

MINIMUM BENDING RADIUS OF CONDUIT AS NOTED.

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

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

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES, CITY TYPE 1, BEFORE INSTALLATION OF CABLE OR WIRE.

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

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

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

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

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD, ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

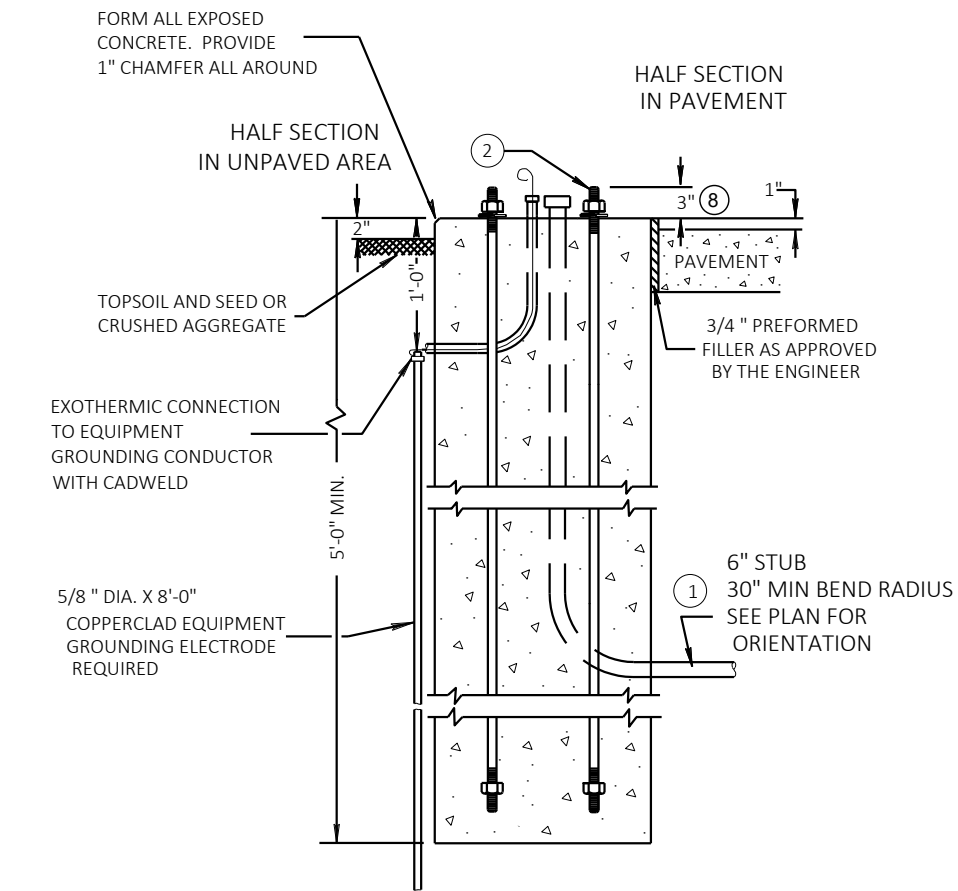
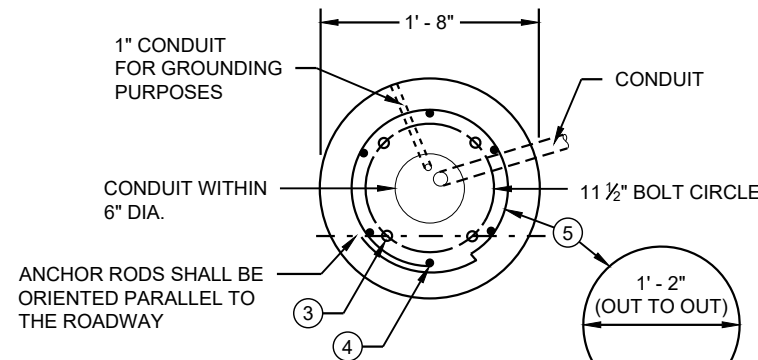
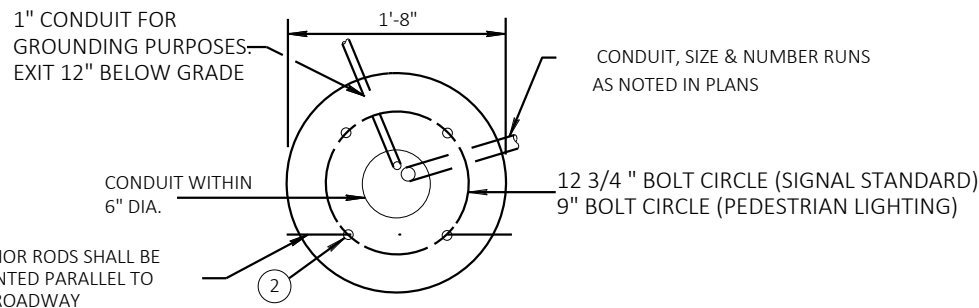
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1 :40 FROM VERTICAL PER SECTION 5.17.6.3, AASHTO 2001 4TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS.

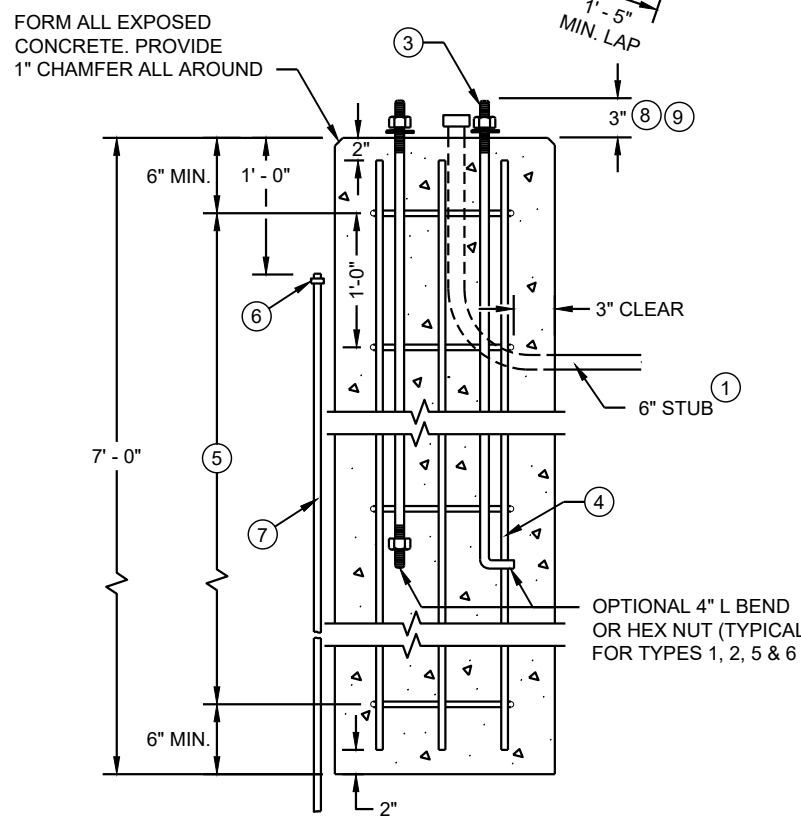
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

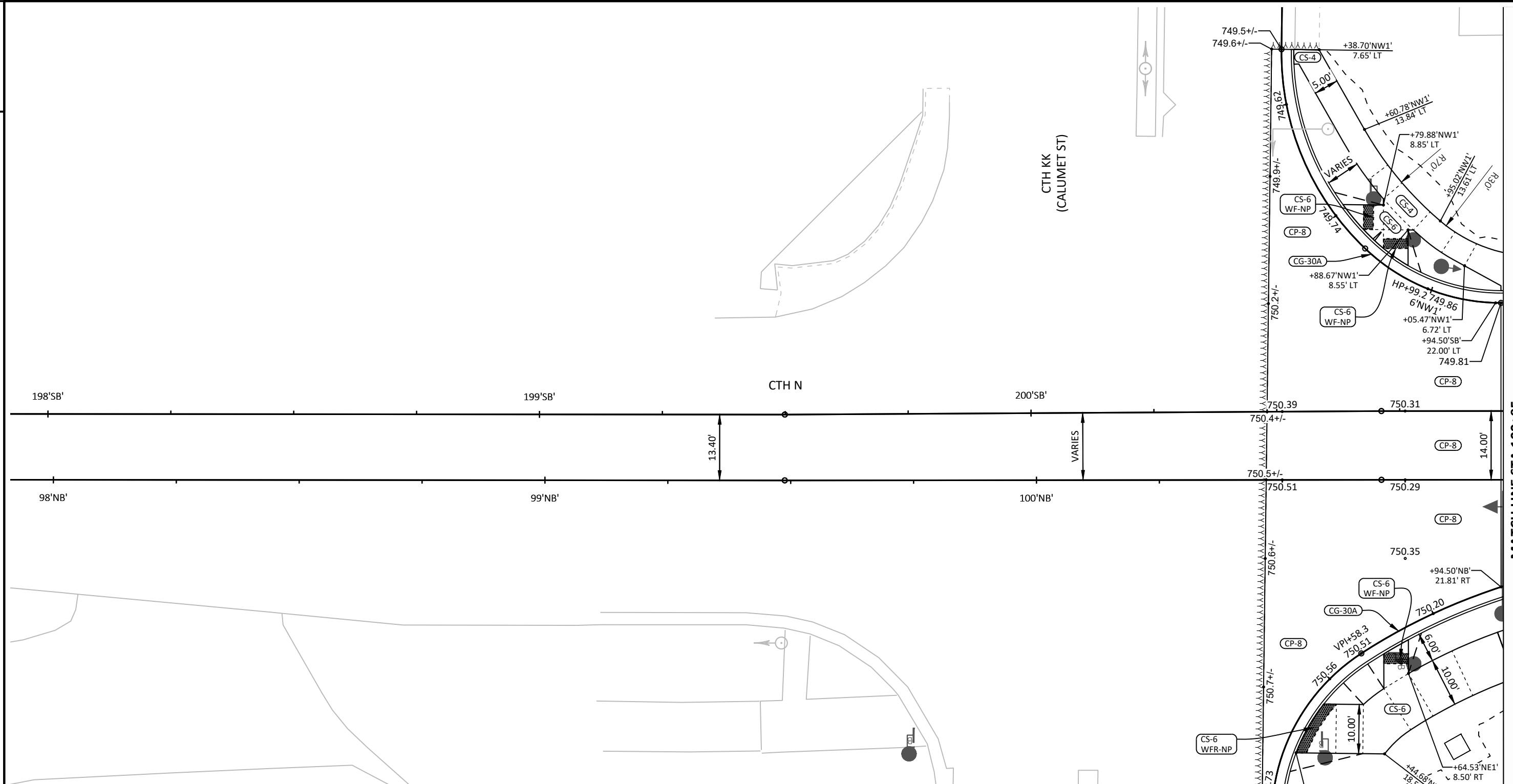
- ① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- ② (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- ③ (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- ④ (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- ⑤ (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑥ EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- ⑦ 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ⑧ ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑨ FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.



CONCRETE BASE, TYPE 1 SPECIAL

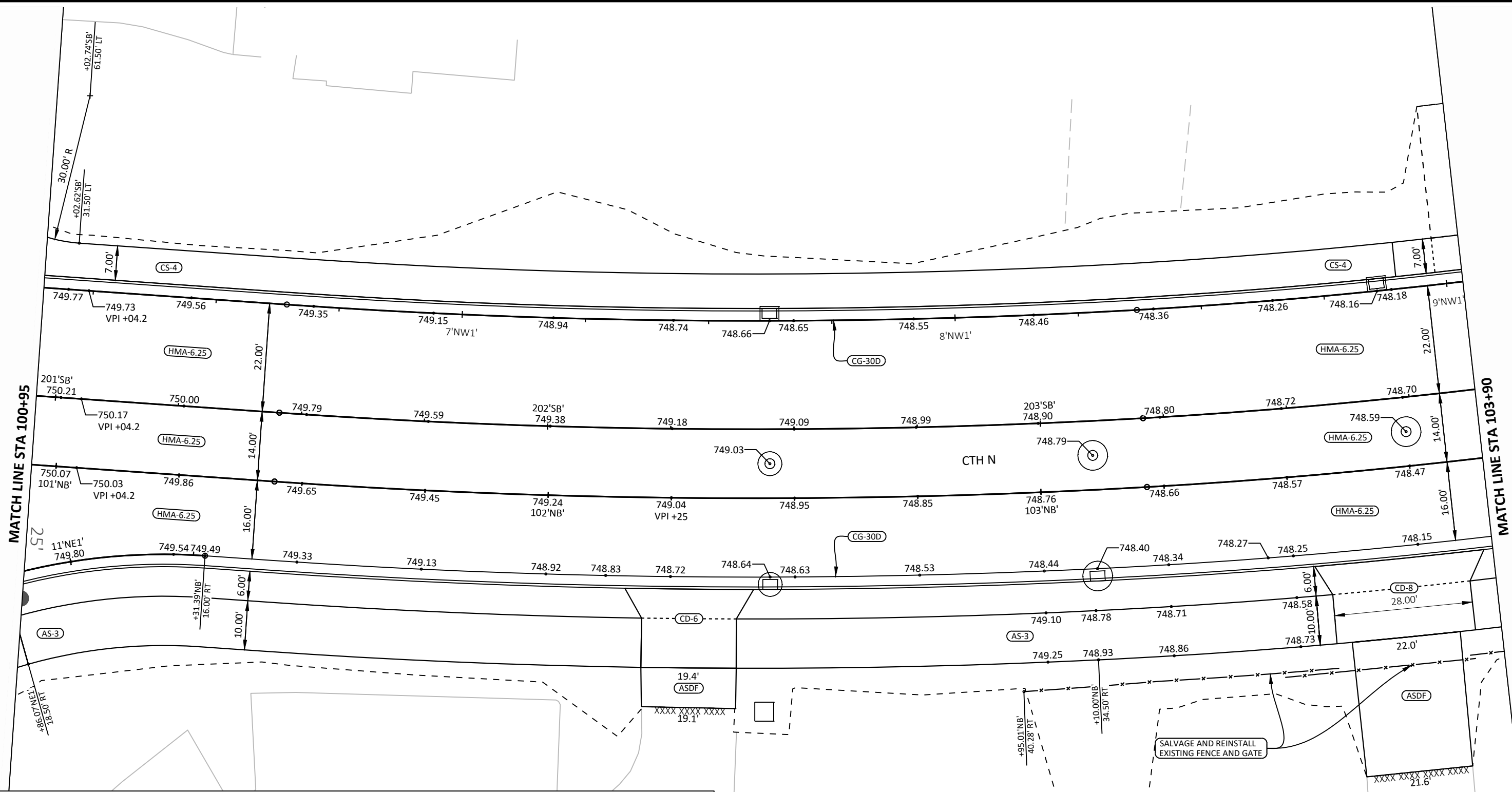


CONCRETE BASE, TYPE 2 SPECIAL



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

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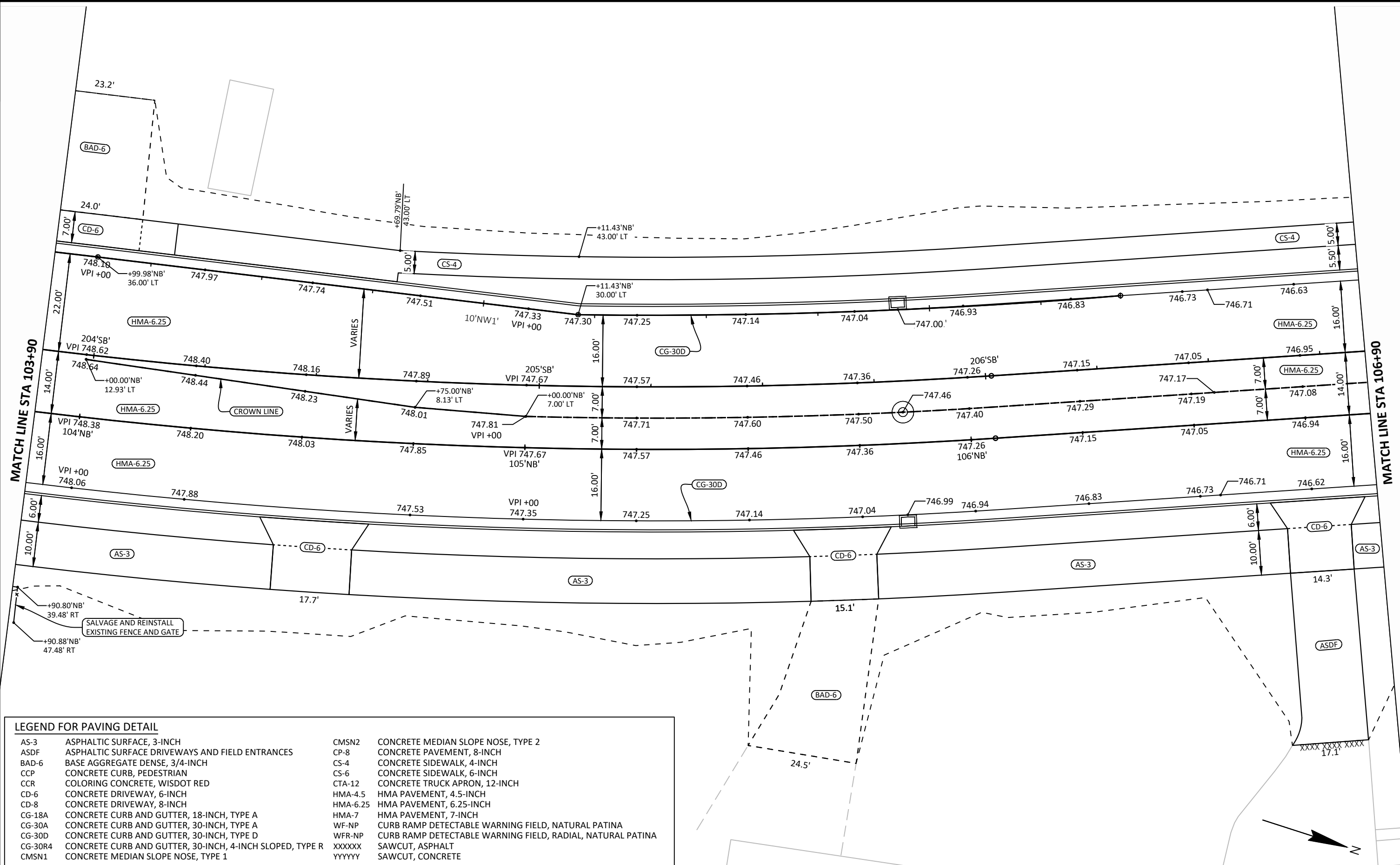
HWY: CTH N

COUNTY: OUTAGAMIE

PAVING DETAILS - CTH N

SHEET

E



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

PROJECT NO: 4676-04-71

HWY: CTH N

COUNTY: OUTAGAMIE

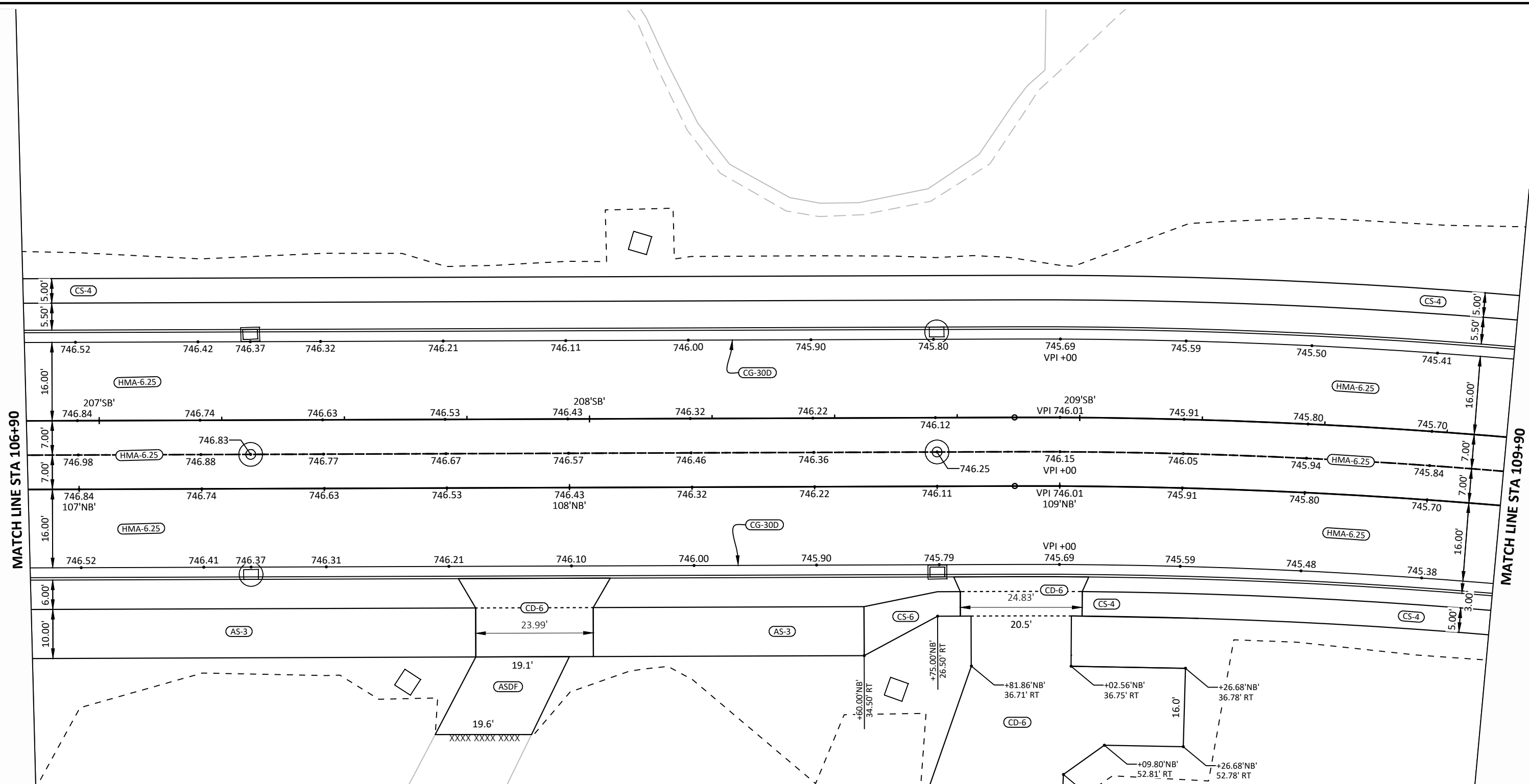
PAVING DETAILS - CTH N

SHEET

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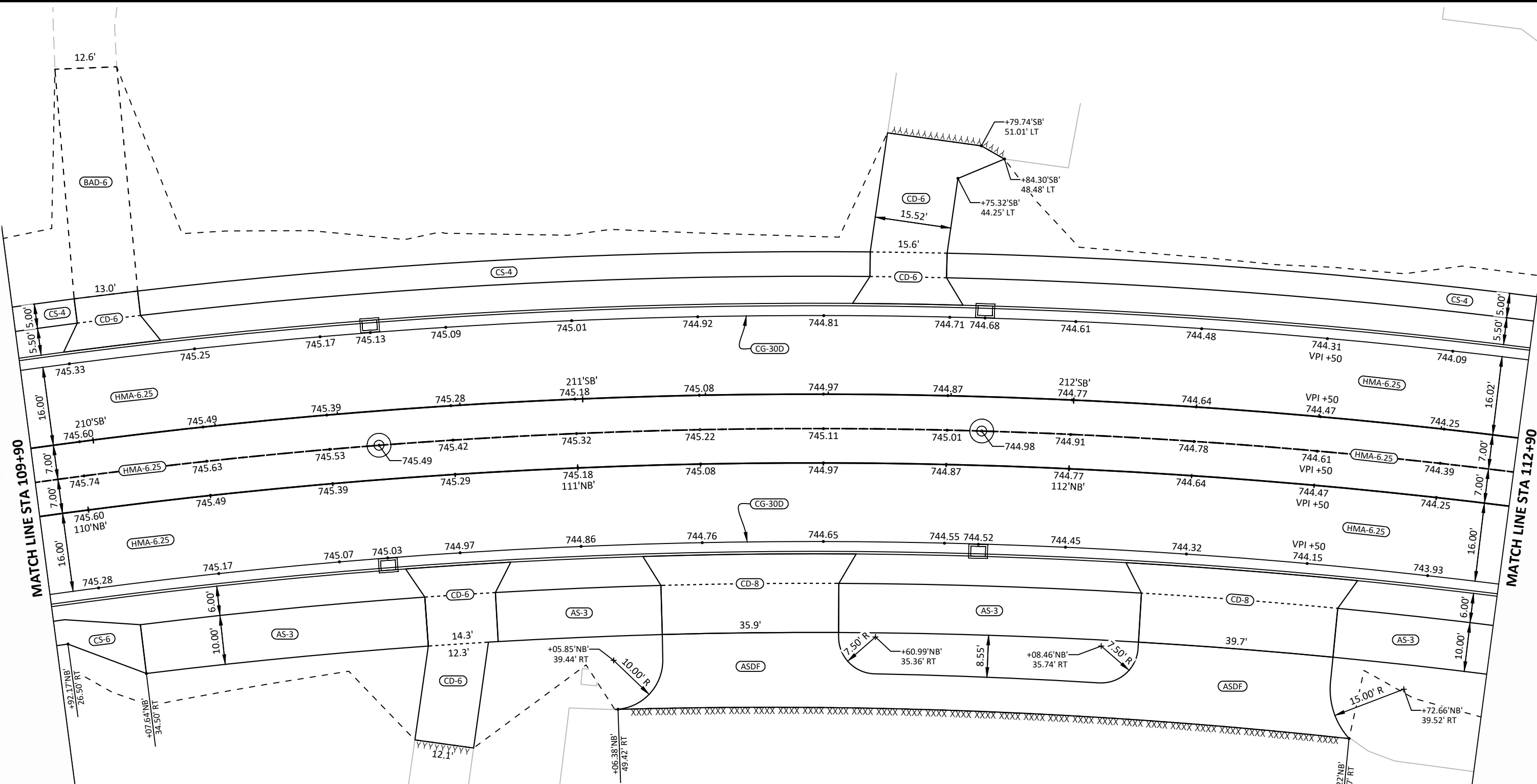
MATCH LINE STA 106+90

MATCH LINE STA 109+90



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

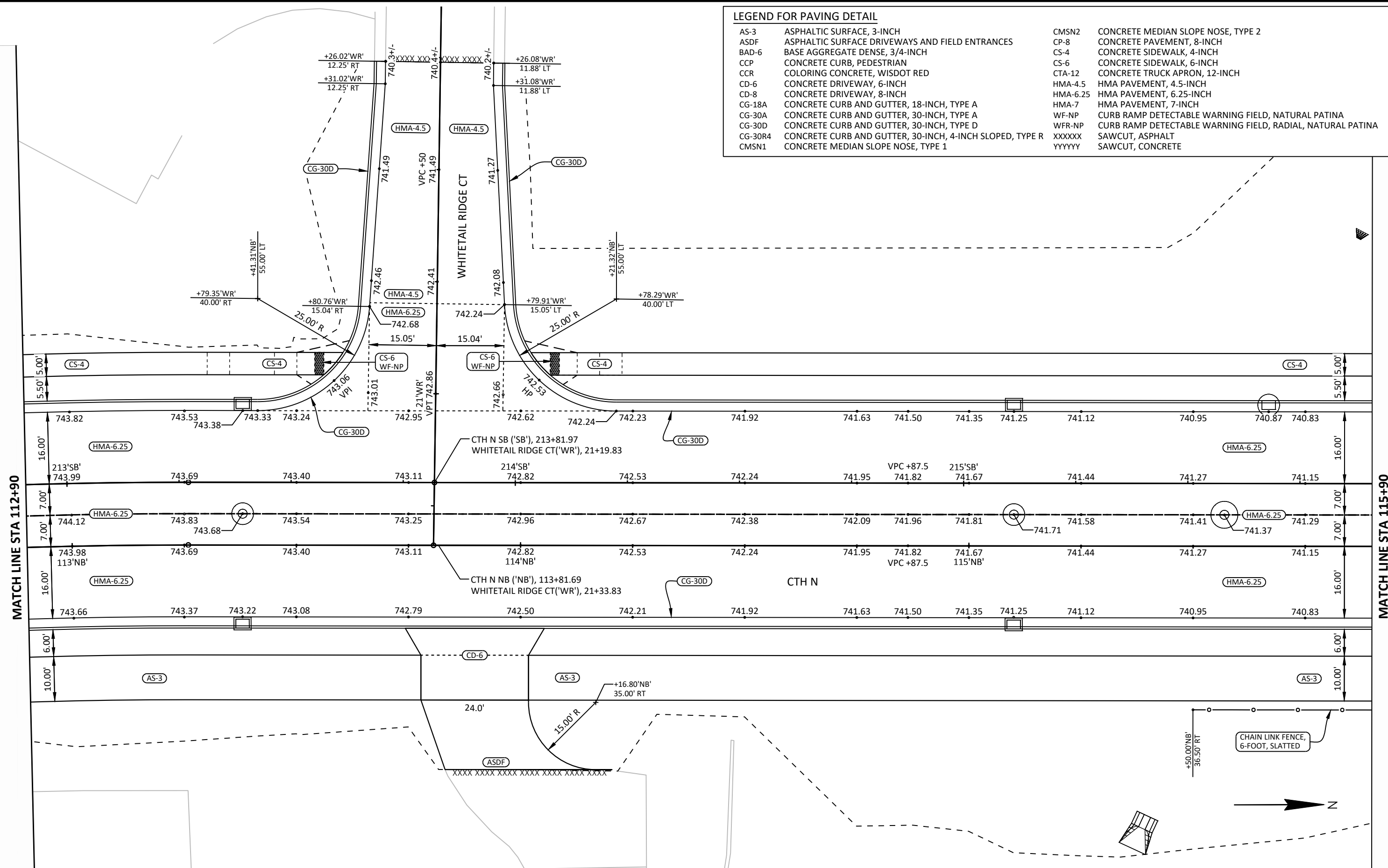


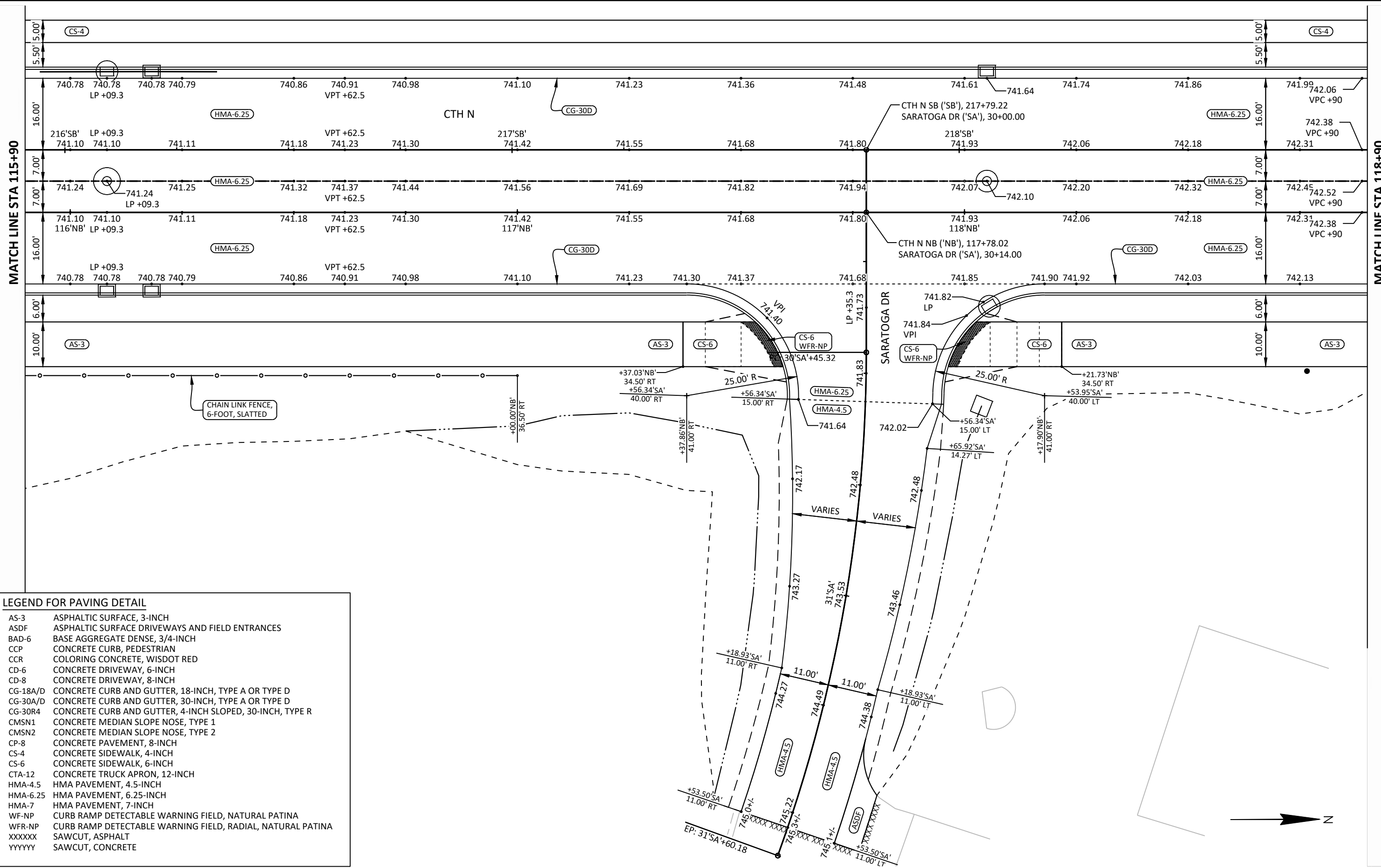
LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYY	SAWCUT, CONCRETE



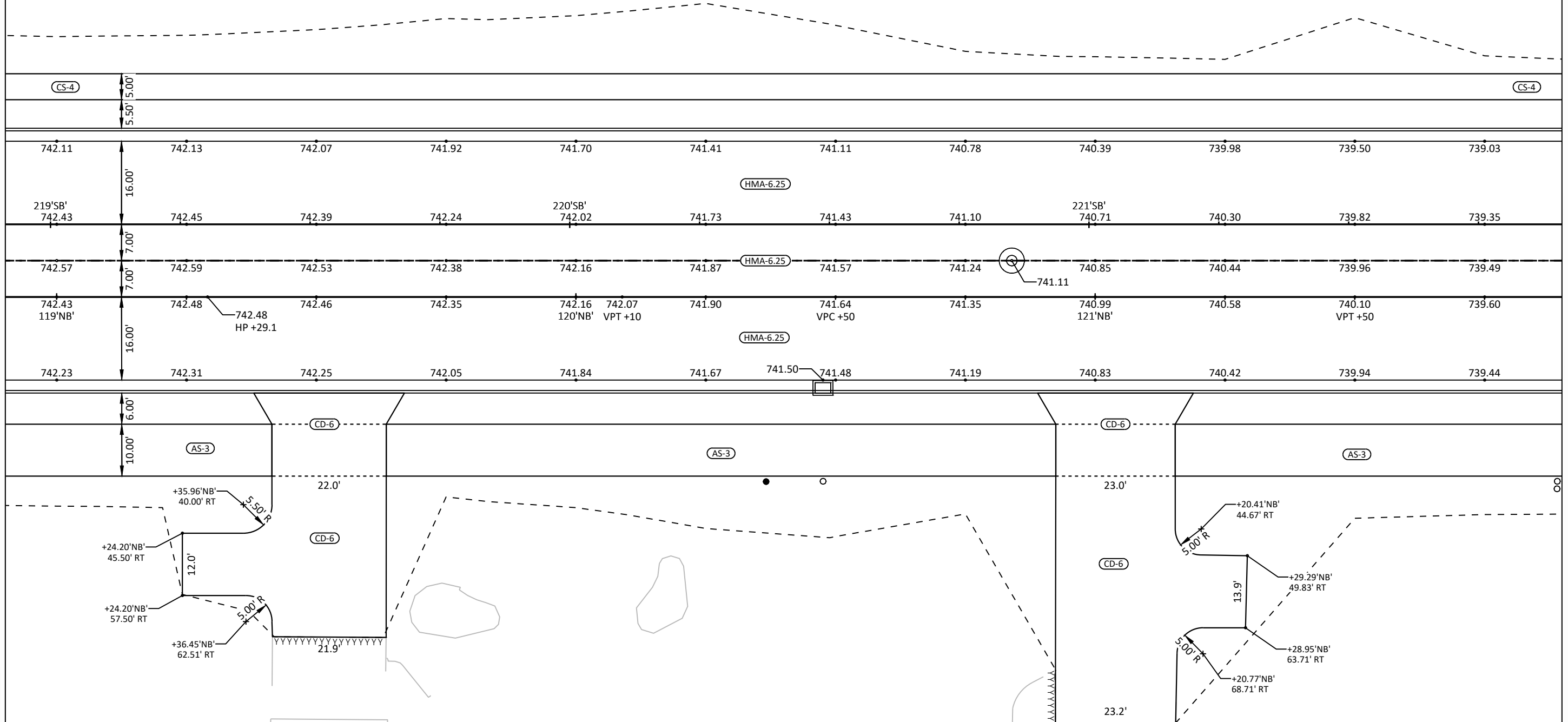


LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH
CCP	CONCRETE CURB, PEDESTRIAN
CCR	COLORING CONCRETE, WISDOT RED
CD-6	CONCRETE DRIVEWAY, 6-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH
CG-18A/D	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A OR TYPE D
CG-30A/D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A OR TYPE D
CG-30R4	CONCRETE CURB AND GUTTER, 4-INCH SLOPED, 30-INCH, TYPE R
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1
CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
CP-8	CONCRETE PAVEMENT, 8-INCH
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
CTA-12	CONCRETE TRUCK APRON, 12-INCH
HMA-4.5	HMA PAVEMENT, 4.5-INCH
HMA-6.25	HMA PAVEMENT, 6.25-INCH
HMA-7	HMA PAVEMENT, 7-INCH
WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
XXXXXX	SAWCUT, ASPHALT
YYYYYY	SAWCUT, CONCRETE

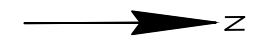
MATCH LINE STA 118+90

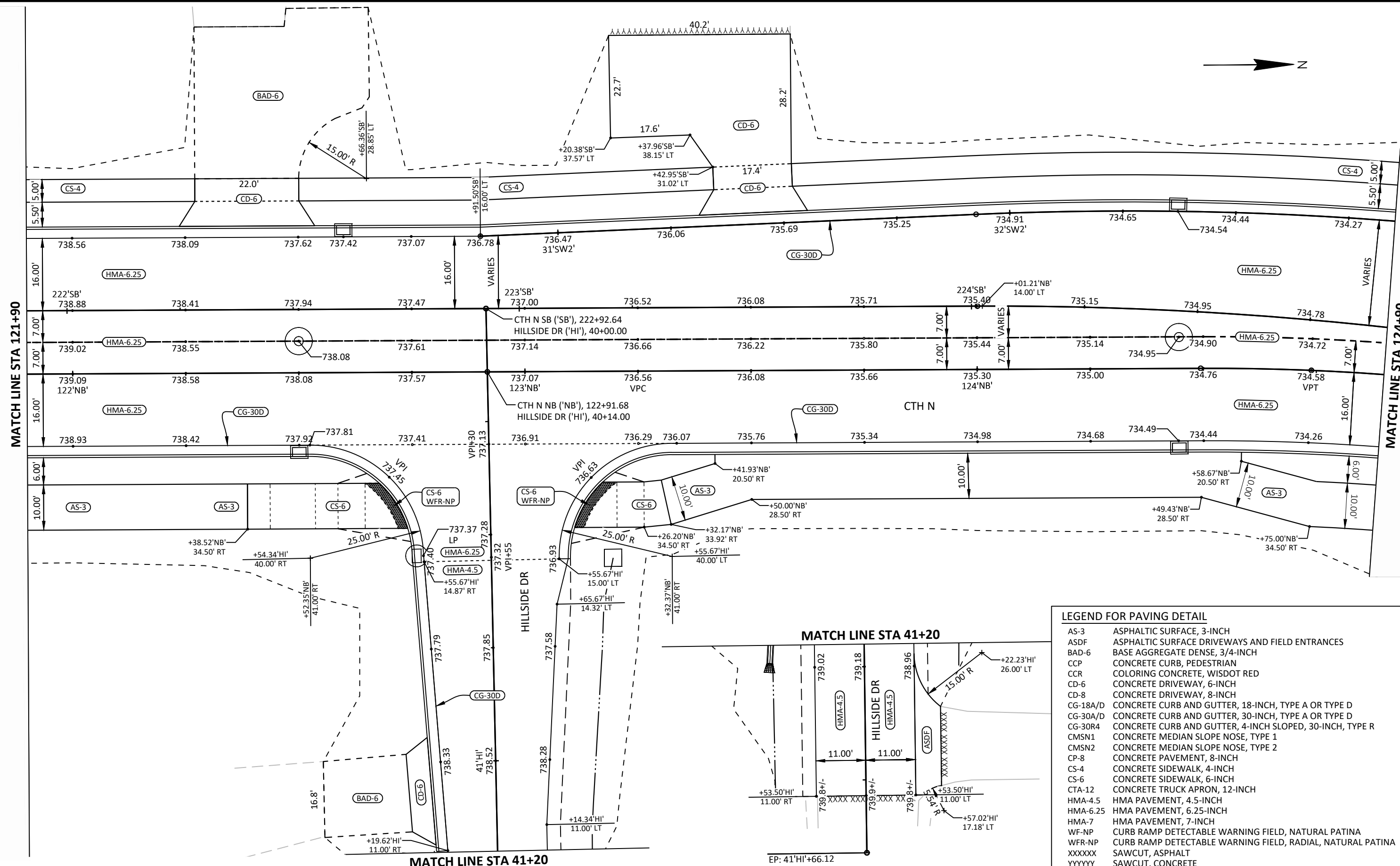
MATCH LINE STA 121+90



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE





MATCH LINE STA 121+90

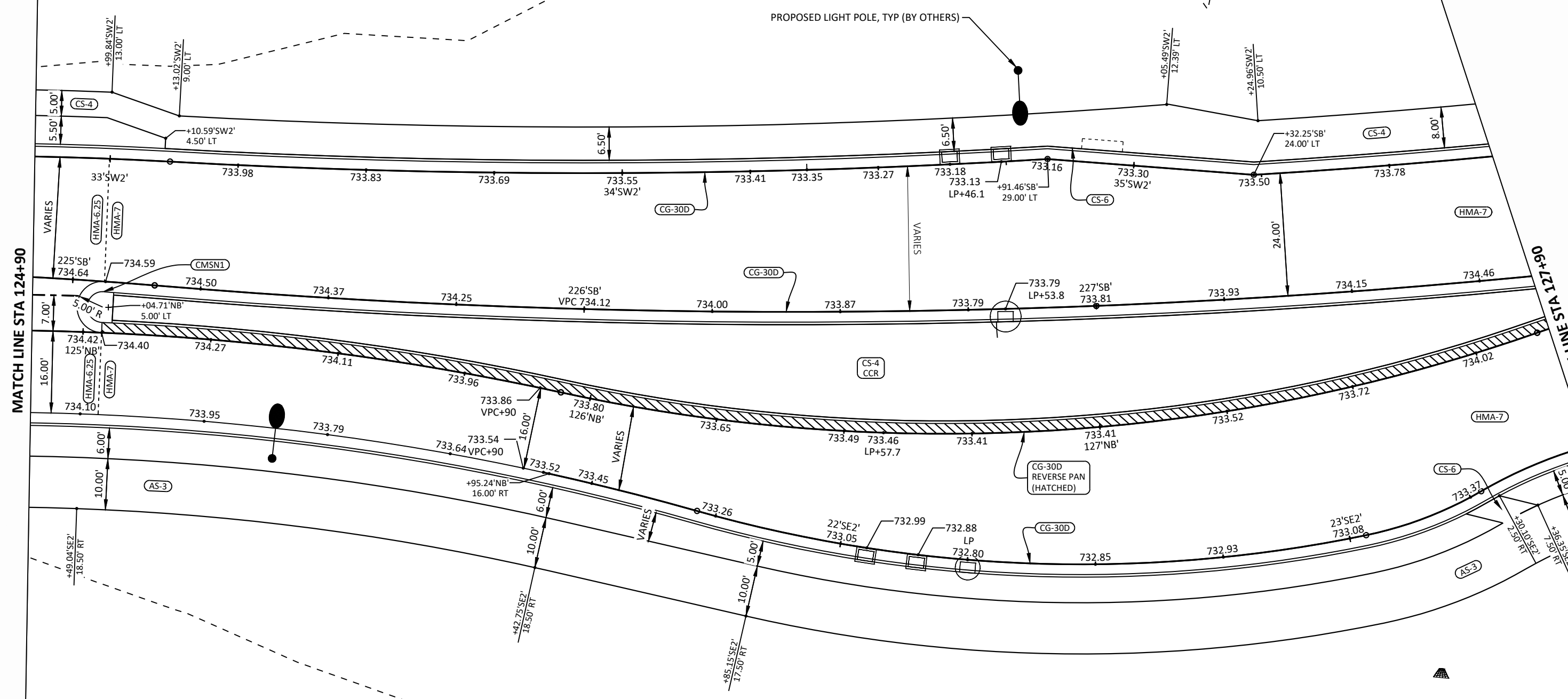
MATCH LINE STA 124+90

MATCH LINE STA 41+20

MATCH LINE STA 41+20

LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH
CCP	CONCRETE CURB, PEDESTRIAN
CCR	COLORING CONCRETE, WISDOT RED
CD-6	CONCRETE DRIVEWAY, 6-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH
CG-18A/D	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A OR TYPE D
CG-30A/D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A OR TYPE D
CG-30R4	CONCRETE CURB AND GUTTER, 4-INCH SLOPED, 30-INCH, TYPE R
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1
CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
CP-8	CONCRETE PAVEMENT, 8-INCH
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
CTA-12	CONCRETE TRUCK APRON, 12-INCH
HMA-4.5	HMA PAVEMENT, 4.5-INCH
HMA-6.25	HMA PAVEMENT, 6.25-INCH
HMA-7	HMA PAVEMENT, 7-INCH
WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
XXXXXX	SAWCUT, ASPHALT
YYYYYY	SAWCUT, CONCRETE



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

PROJECT NO: 4676-04-71

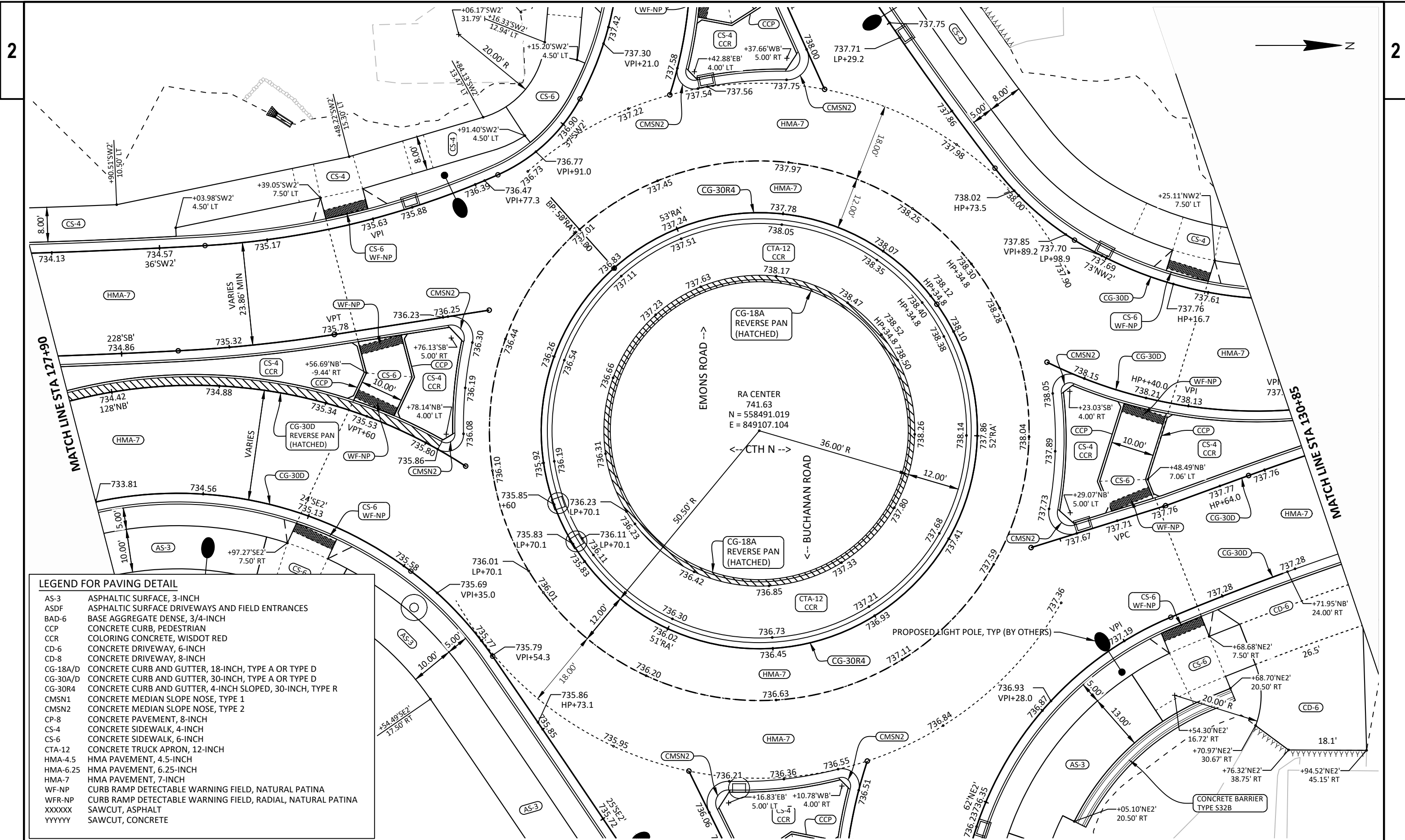
HWY: CTH N

COUNTY: OUTAGAMIE

PAVING DETAILS - CTH N

SHEET

E



LEGEND FOR PAVING DETAIL

- AS-3 ASPHALTIC SURFACE, 3-INCH
- ASDF ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- BAD-6 BASE AGGREGATE DENSE, 3/4-INCH
- CCP CONCRETE CURB, PEDESTRIAN
- CCR COLORING CONCRETE, WISDOT RED
- CD-6 CONCRETE DRIVEWAY, 6-INCH
- CD-8 CONCRETE DRIVEWAY, 8-INCH
- CG-18A/D CONCRETE CURB AND GUTTER, 18-INCH, TYPE A OR TYPE D
- CG-30A/D CONCRETE CURB AND GUTTER, 30-INCH, TYPE A OR TYPE D
- CG-30R4 CONCRETE CURB AND GUTTER, 4-INCH SLOPED, 30-INCH, TYPE R
- CMSN1 CONCRETE MEDIAN SLOPE NOSE, TYPE 1
- CMSN2 CONCRETE MEDIAN SLOPE NOSE, TYPE 2
- CP-8 CONCRETE PAVEMENT, 8-INCH
- CS-4 CONCRETE SIDEWALK, 4-INCH
- CS-6 CONCRETE SIDEWALK, 6-INCH
- CTA-12 CONCRETE TRUCK APRON, 12-INCH
- HMA-4.5 HMA PAVEMENT, 4.5-INCH
- HMA-6.25 HMA PAVEMENT, 6.25-INCH
- HMA-7 HMA PAVEMENT, 7-INCH
- WF-NP CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
- WFR-NP CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
- XXXXXX SAWCUT, ASPHALT
- YYYYYY SAWCUT, CONCRETE

PROJECT NO: 4676-04-71

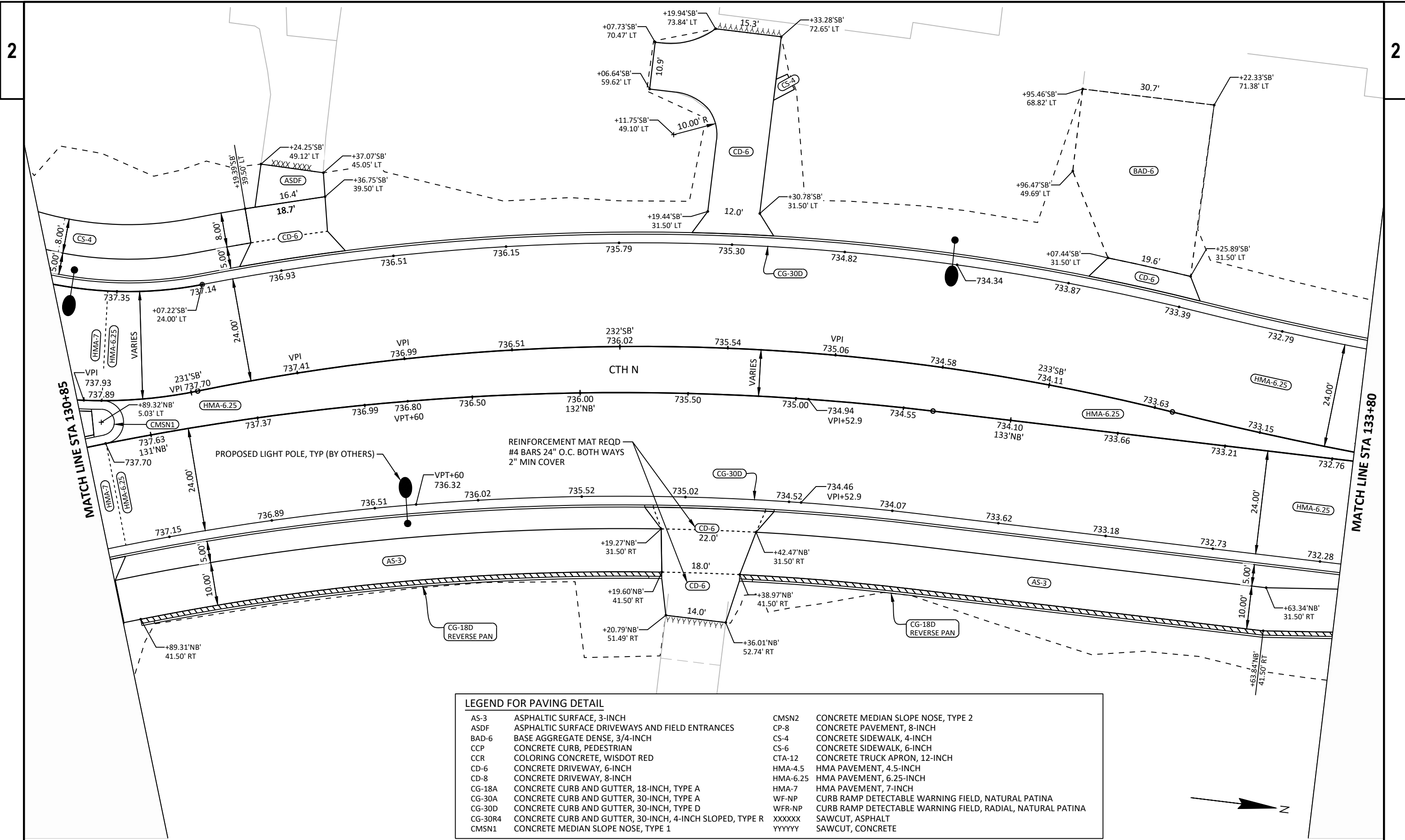
HWY: CTH N

COUNTY: OUTAGAMIE

PAVING DETAILS - CTH N

SHEET

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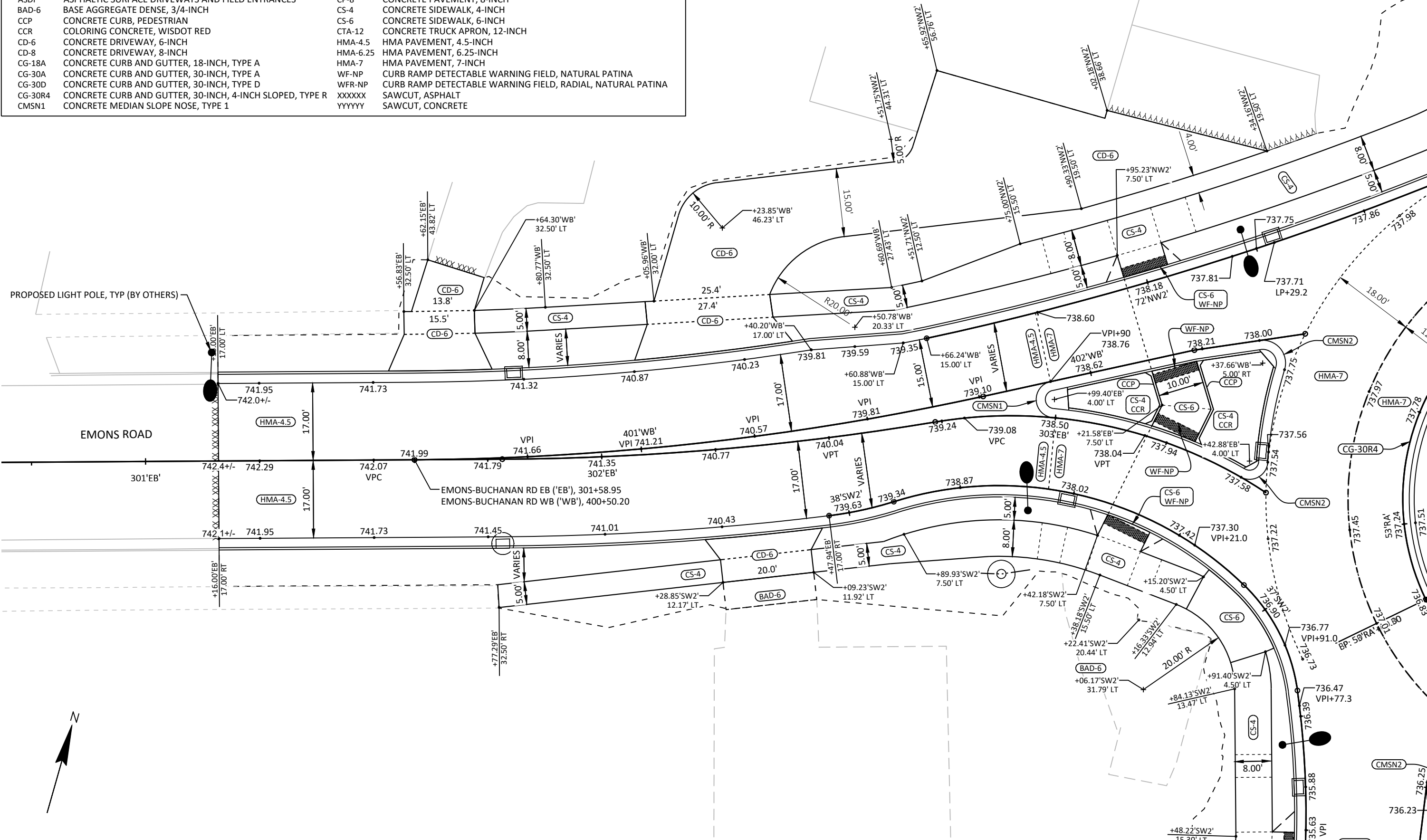


LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE

LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE



PROJECT NO: 4676-04-71

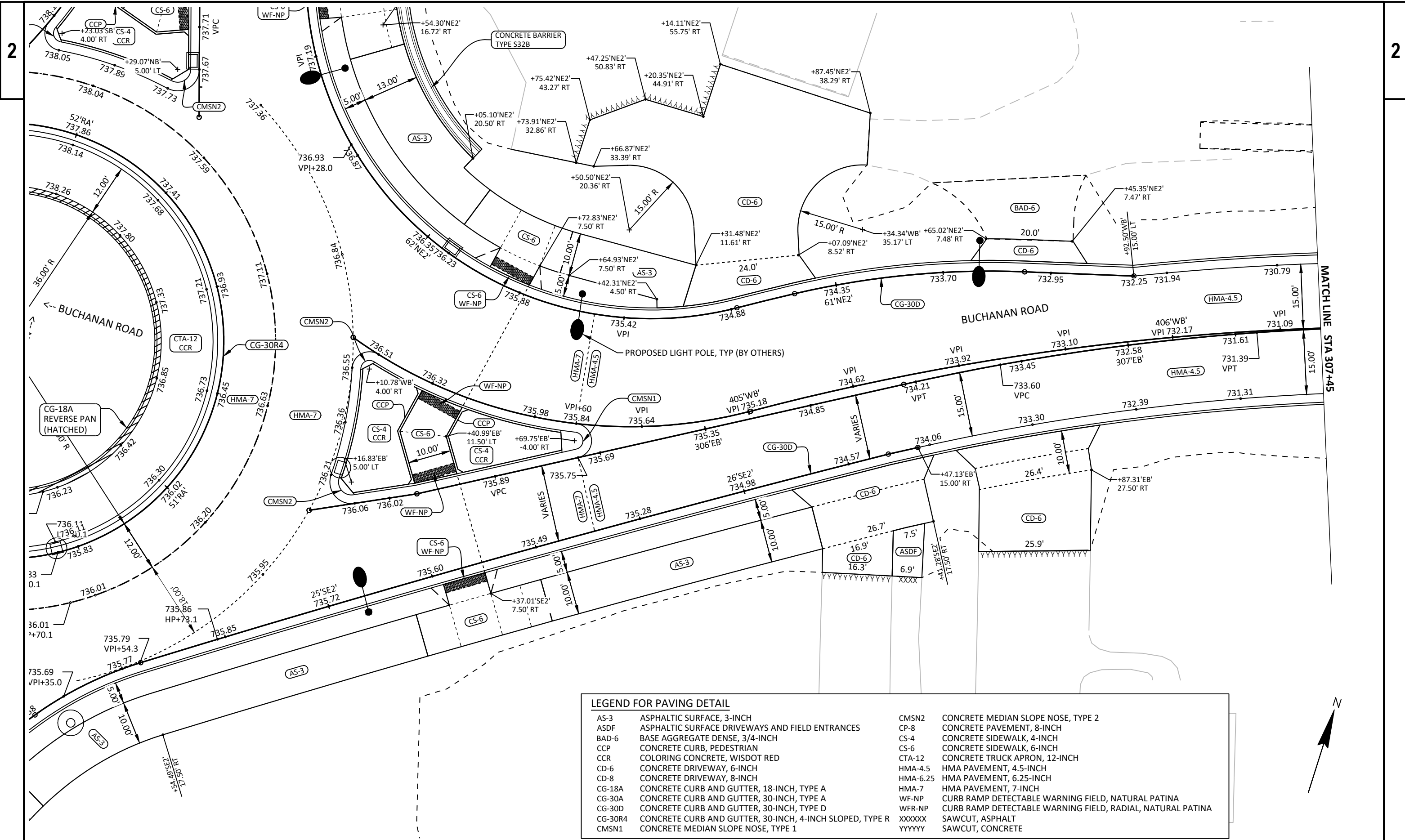
HWY: CTH N

COUNTY: OUTAGAMIE

PAVING DETAILS - EMONS ROAD

SHEET

E



LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYYY	SAWCUT, CONCRETE



PROJECT NO: 4676-04-71

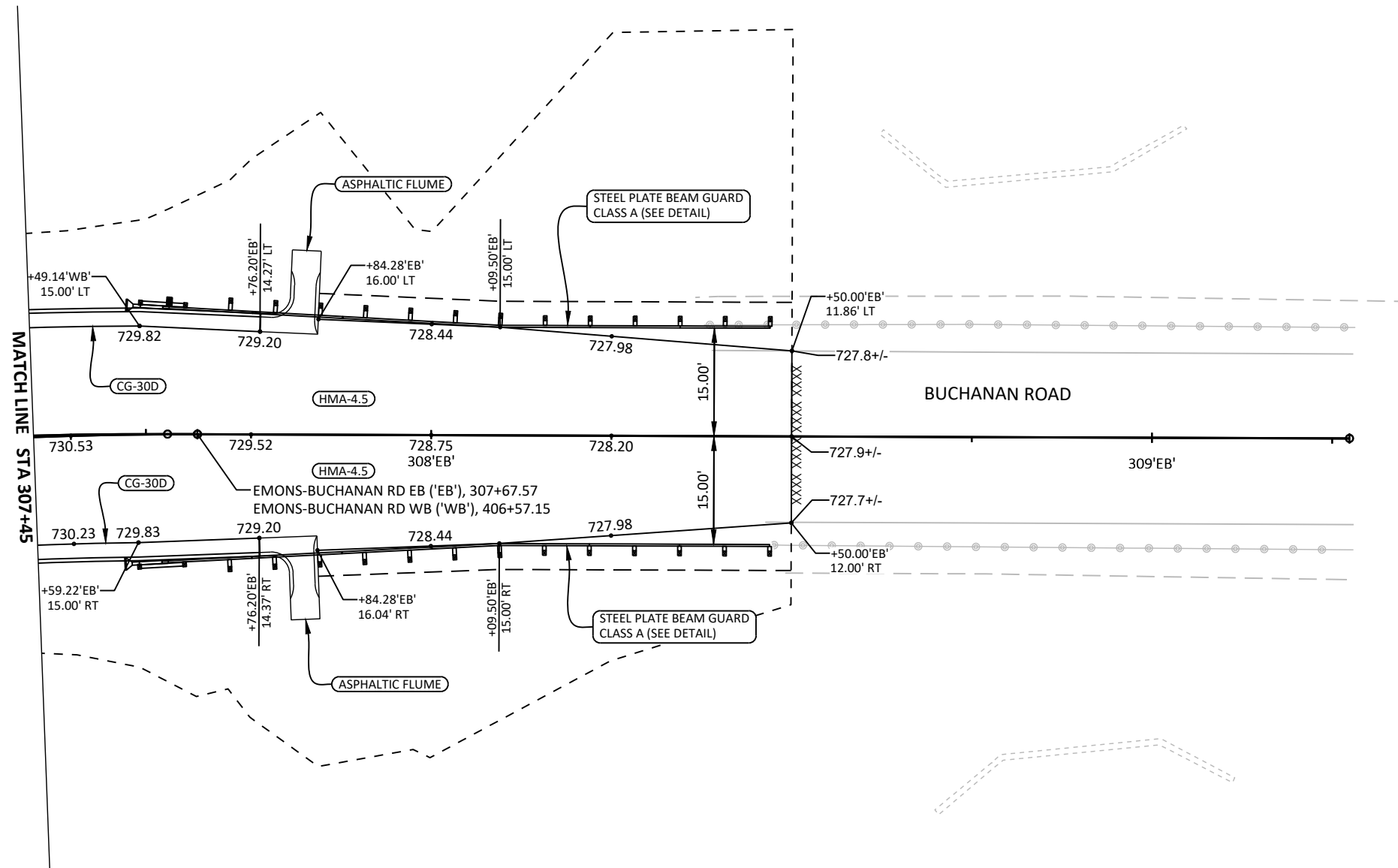
HWY: CTH N

COUNTY: OUTAGAMIE

PAVING DETAILS - BUCHANAN ROAD

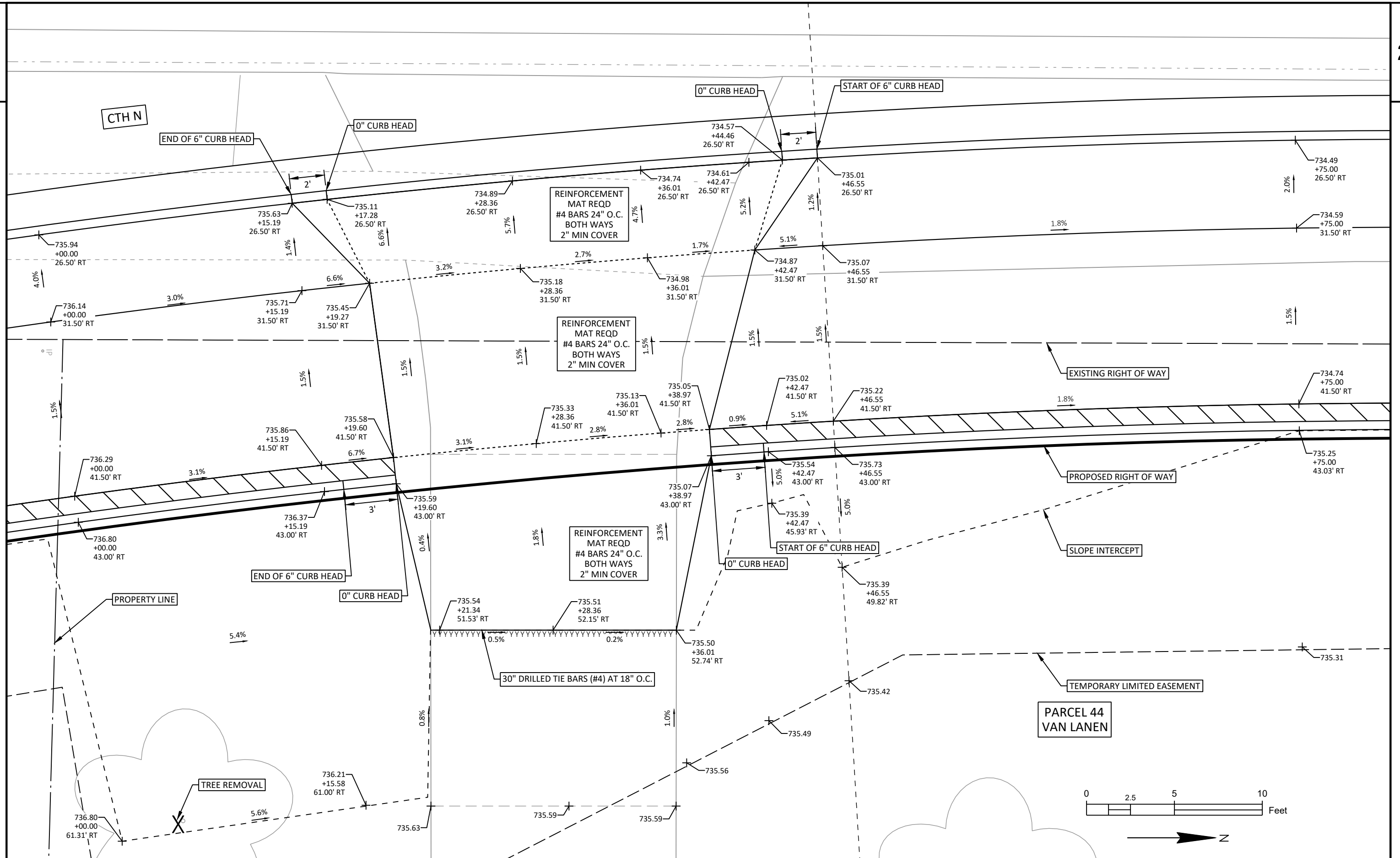
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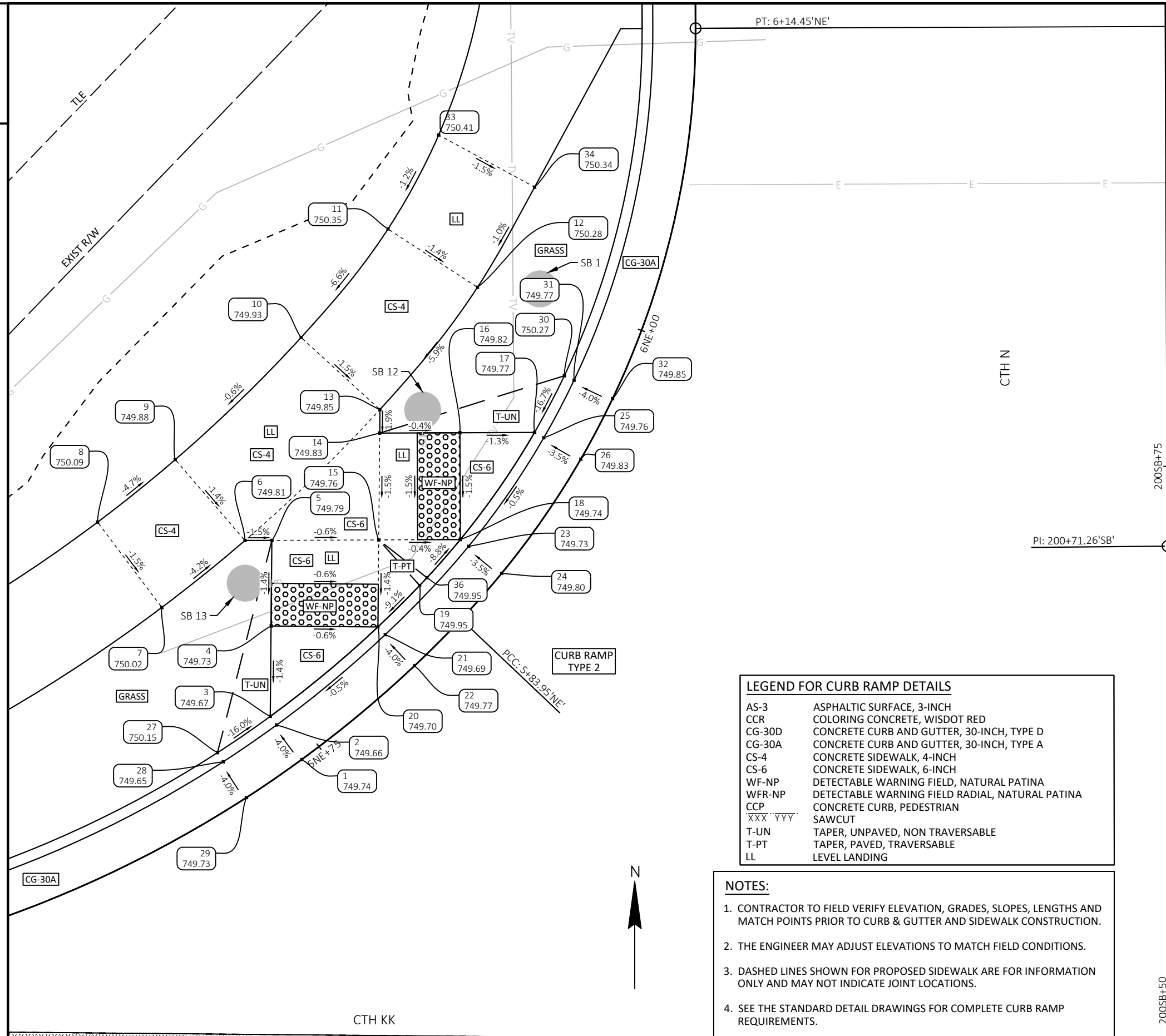
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LEGEND FOR PAVING DETAIL

AS-3	ASPHALTIC SURFACE, 3-INCH	CMSN2	CONCRETE MEDIAN SLOPE NOSE, TYPE 2
ASDF	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	CP-8	CONCRETE PAVEMENT, 8-INCH
BAD-6	BASE AGGREGATE DENSE, 3/4-INCH	CS-4	CONCRETE SIDEWALK, 4-INCH
CCP	CONCRETE CURB, PEDESTRIAN	CS-6	CONCRETE SIDEWALK, 6-INCH
CCR	COLORING CONCRETE, WISDOT RED	CTA-12	CONCRETE TRUCK APRON, 12-INCH
CD-6	CONCRETE DRIVEWAY, 6-INCH	HMA-4.5	HMA PAVEMENT, 4.5-INCH
CD-8	CONCRETE DRIVEWAY, 8-INCH	HMA-6.25	HMA PAVEMENT, 6.25-INCH
CG-18A	CONCRETE CURB AND GUTTER, 18-INCH, TYPE A	HMA-7	HMA PAVEMENT, 7-INCH
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A	WF-NP	CURB RAMP DETECTABLE WARNING FIELD, NATURAL PATINA
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D	WFR-NP	CURB RAMP DETECTABLE WARNING FIELD, RADIAL, NATURAL PATINA
CG-30R4	CONCRETE CURB AND GUTTER, 30-INCH, 4-INCH SLOPED, TYPE R	XXXXXX	SAWCUT, ASPHALT
CMSN1	CONCRETE MEDIAN SLOPE NOSE, TYPE 1	YYYYY	SAWCUT, CONCRETE





LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

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

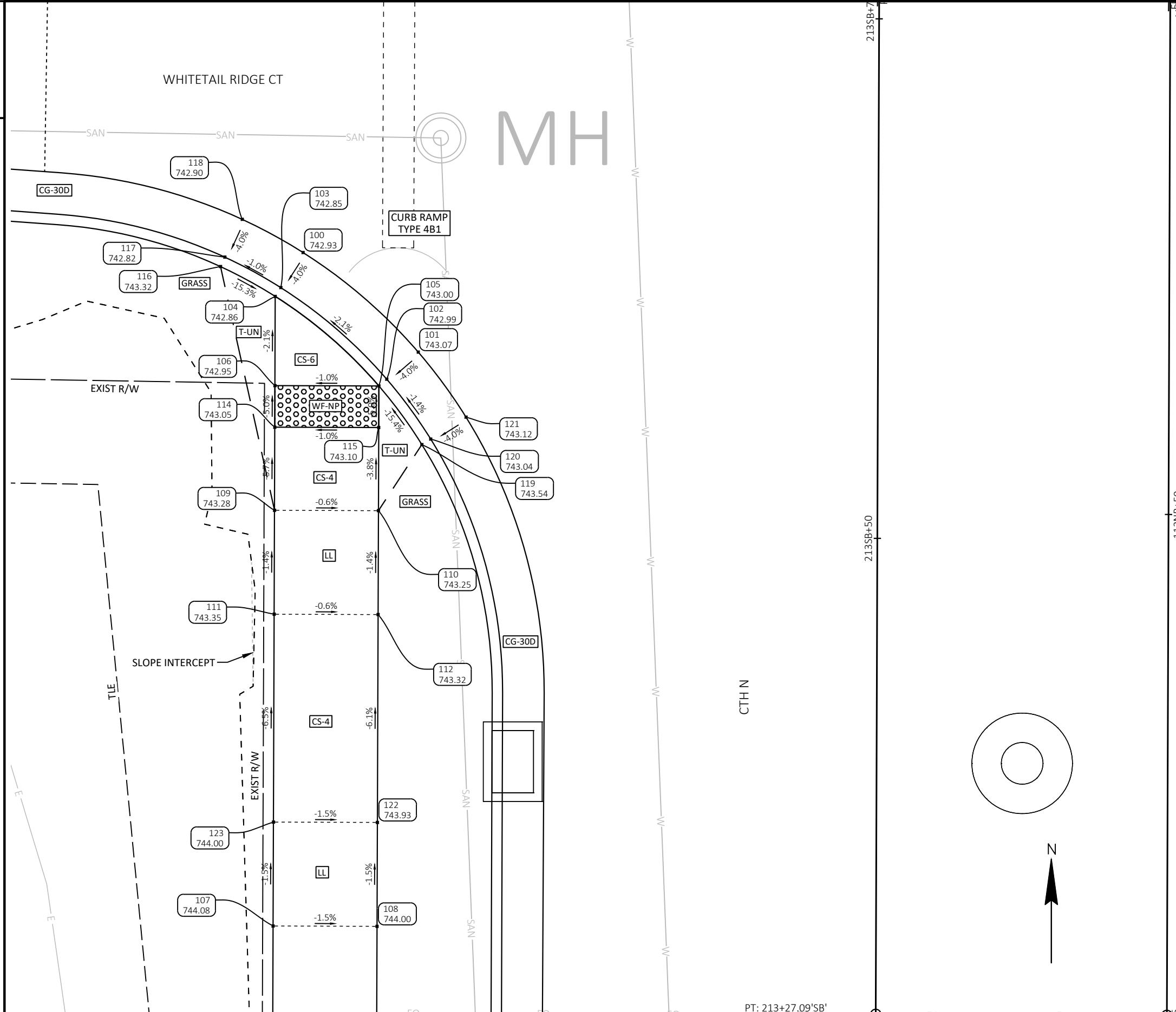
CTH KK NW QUAD						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
1	749.74	555,646.40	849,290.33	FLAG	5+74.00	0.00' RT
2	749.66	555,648.02	849,289.15	FL	5+74.00	2.00' LT
3	749.67	555,648.42	849,288.86	BOC	5+74.00	2.50' LT
4	749.73	555,652.66	849,288.89	DWF	5+76.83	5.83' LT
5	749.79	555,656.66	849,288.93	SW	5+79.88	8.85' LT
6	749.81	555,656.66	849,287.67	SW	5+78.74	9.68' LT
7	750.02	555,653.52	849,283.78	SW	5+72.68	9.60' LT
8	750.09	555,657.52	849,280.77	SW	5+72.42	14.60' LT
9	749.88	555,660.44	849,284.41	SW	5+78.78	14.68' LT
10	749.93	555,666.16	849,290.30	SW	5+90.82	14.13' LT
11	750.35	555,671.24	849,294.37	SW	6+00.44	12.78' LT
12	750.28	555,668.51	849,298.55	SW	5+99.01	7.89' LT
13	749.85	555,662.79	849,293.99	SW	5+89.82	9.18' LT
14	749.83	555,661.69	849,293.98	SW	5+88.67	8.55' LT
15	749.76	555,656.68	849,293.93	SW	5+84.00	5.36' LT
16	749.82	555,661.70	849,297.73	DWF	5+91.29	5.47' LT
17	749.77	555,661.72	849,301.23	BOC	5+93.33	2.50' LT
18	749.74	555,656.70	849,297.75	BOC	5+86.81	2.50' LT
19	749.95	555,654.55	849,295.85	BOC	5+83.75	2.50' LT
20	749.70	555,652.61	849,293.89	BOC	5+80.87	2.50' LT
21	749.69	555,652.25	849,294.24	FL	5+80.87	2.00' LT
22	749.77	555,650.79	849,295.61	FLAG	5+80.87	0.00' RT
23	749.73	555,656.38	849,298.14	FL	5+86.81	2.00' LT
24	749.80	555,655.12	849,299.69	FLAG	5+86.81	0.00' RT
25	749.76	555,661.47	849,301.66	FL	5+93.33	2.00' LT
26	749.83	555,660.47	849,303.39	FLAG	5+93.33	0.00' RT
27	750.15	555,646.72	849,286.38	BOC	5+70.85	2.50' LT
28	749.65	555,646.30	849,286.66	FL	5+70.85	2.00' LT
29	749.73	555,644.62	849,287.74	FLAG	5+70.85	0.00' RT
30	750.27	555,664.37	849,302.62	BOC	5+96.53	2.50' LT
31	749.77	555,664.16	849,303.07	FL	5+96.53	2.00' LT
32	749.85	555,663.30	849,304.88	FLAG	5+96.53	0.00' RT
33	750.41	555,675.64	849,296.74	SW	6+07.44	11.61' LT
34	750.34	555,673.20	849,301.23	SW	6+05.47	6.72' LT
36	749.95	555,654.91	849,296.19	BOC	5+84.28	2.50' LT

DETECTABLE WARNING FIELD DATA			
BACK OF CURB RADIUS	LANDING LENGTH	AREA SQ. FT	RADIAL LONG CHORD
37.5'	8.08'	23.85	11.46'

LEGEND FOR CURB RAMP DETAILS	
AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

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

CTH KK NE QUAD						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
50	750.32	555,660.86	849,375.20	FLAG	10+68.04	0.00' RT
51	750.44	555,655.77	849,378.13	FLAG	10+62.16	0.00' RT
52	750.59	555,642.92	849,388.98	FLAG	10+45.23	0.00' RT
53	750.67	555,636.95	849,399.59	FLAG	10+33.01	0.00' RT
54	750.59	555,638.82	849,400.30	FL	10+33.01	2.00' RT
55	750.51	555,644.49	849,390.22	FL	10+45.23	2.00' RT
56	750.36	555,656.81	849,379.84	FL	10+62.16	2.00' RT
57	750.24	555,661.82	849,376.95	FL	10+68.04	2.00' RT
58	750.25	555,662.06	849,377.39	BOC	10+68.04	2.50' RT
59	750.37	555,657.07	849,380.26	BOC	10+62.16	2.50' RT
60	750.52	555,644.89	849,390.52	BOC	10+45.23	2.50' RT
61	750.60	555,639.29	849,400.47	BOC	10+33.01	2.50' RT
62	750.53	555,647.45	849,390.55	DWF	10+47.00	4.50' RT
63	750.29	555,662.07	849,380.25	DWF	10+66.62	5.00' RT
64	750.43	555,657.09	849,384.28	SW	10+59.98	5.92' RT
65	750.35	555,662.09	849,384.26	SW	10+64.53	8.50' RT
66	750.88	555,670.95	849,379.62	SW	10+75.30	8.50' RT
67	751.03	555,675.18	849,388.68	SW	10+75.30	18.50' RT
68	750.50	555,667.12	849,392.90	SW	10+64.53	18.50' RT
69	750.58	555,662.59	849,395.70	SW	10+58.22	18.50' RT
70	750.63	555,659.75	849,397.92	SW	10+51.50	18.50' RT
71	750.69	555,657.29	849,400.64	SW	10+44.68	18.50' RT
72	750.67	555,652.86	849,400.60	SW	10+40.45	14.81' RT
73	750.64	555,647.36	849,400.55	SW	10+36.71	9.96' RT
74	750.56	555,652.95	849,390.60	SW	10+51.50	8.50' RT
75	750.48	555,657.10	849,387.34	SW	10+58.22	8.50' RT
76	750.69	555,664.71	849,375.99	BOC	10+71.10	2.50' RT
77	750.19	555,664.48	849,375.55	FL	10+71.10	2.00' RT
78	750.27	555,663.57	849,373.77	FLAG	10+71.10	0.00' RT
79	750.93	555,653.81	849,382.32	BOC	10+58.22	2.50' RT
80	750.97	555,648.86	849,386.20	BOC	10+51.50	2.50' RT
81	751.12	555,638.08	849,404.29	BOC	10+28.74	2.50' RT
82	750.62	555,637.60	849,404.16	FL	10+28.74	2.00' RT
83	750.70	555,635.66	849,403.66	FLAG	10+28.74	0.00' RT
84	750.94	555,680.19	849,375.79	SW	10+86.07	8.50' RT
85	750.99	555,683.59	849,385.20	SW	10+86.07	18.50' RT



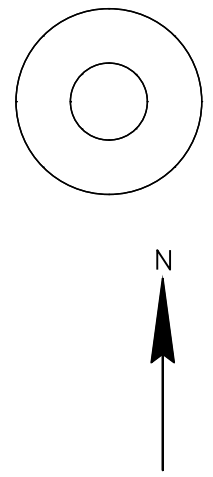
- NOTES:**
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB & GUTTER AND SIDEWALK CONSTRUCTION.
 2. THE ENGINEER MAY ADJUST ELEVATIONS TO MATCH FIELD CONDITIONS.
 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND MAY NOT INDICATE JOINT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

LEGEND FOR CURB RAMP DETAILS

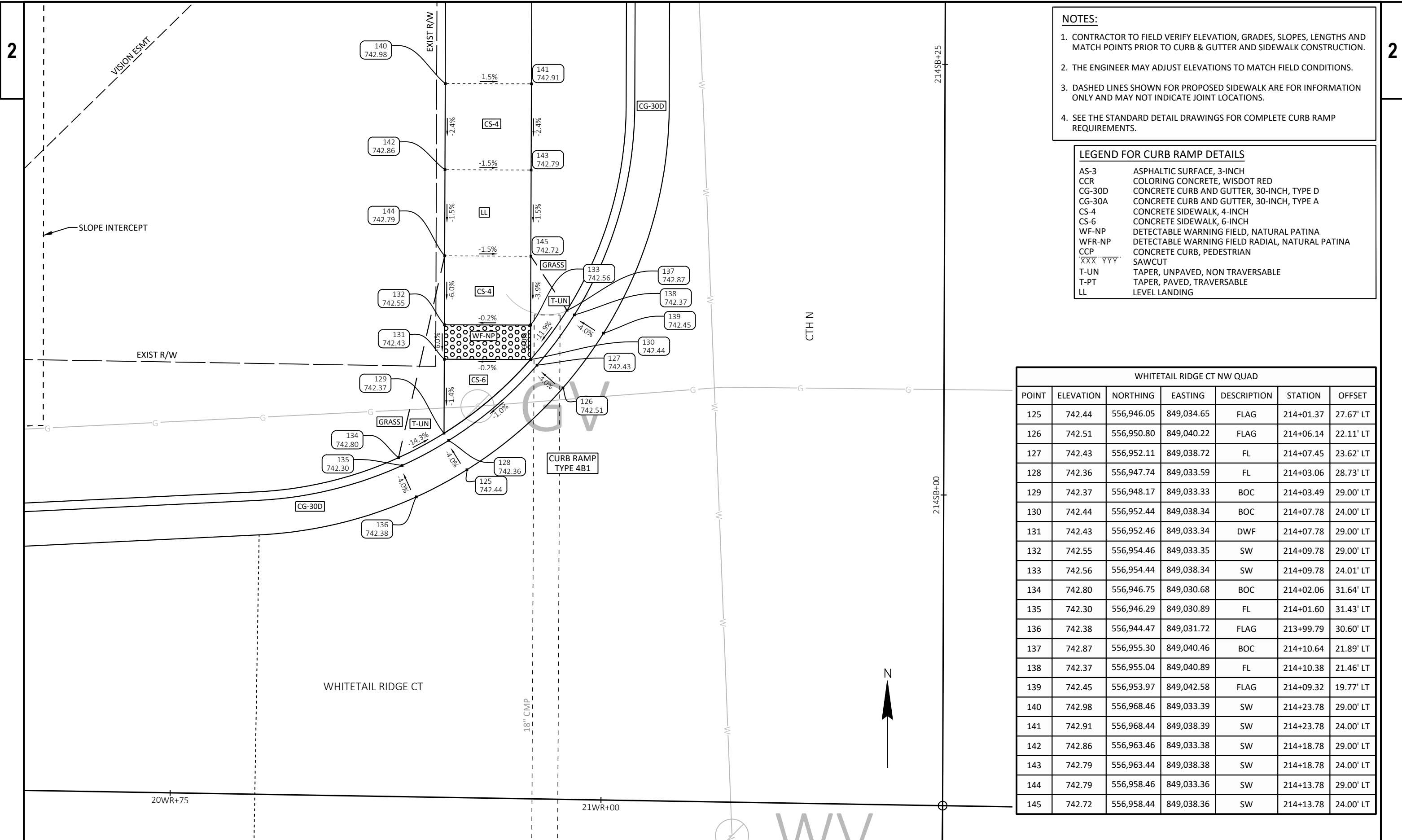
AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

WHITETAIL RIDGE CT SW QUAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
100	742.93	556,908.34	849,034.52	FLAG	213+63.66	27.67' LT
101	743.07	556,903.55	849,040.06	FLAG	213+58.89	22.11' LT
102	742.99	556,902.24	849,038.55	FL	213+57.58	23.62' LT
103	742.85	556,906.65	849,033.45	FL	213+61.97	28.73' LT
104	742.86	556,906.23	849,033.18	BOC	213+61.54	29.00' LT
105	743.00	556,901.92	849,038.17	BOC	213+57.25	24.00' LT
106	742.95	556,901.93	849,033.17	DWF	213+57.25	29.00' LT
107	744.08	556,875.93	849,033.08	SW	213+31.25	29.00' LT
108	744.00	556,875.92	849,038.08	SW	213+31.25	24.00' LT
109	743.28	556,895.93	849,033.15	DWF	213+51.25	29.00' LT
110	743.25	556,895.92	849,038.15	DWF	213+51.25	24.00' LT
111	743.35	556,890.93	849,033.13	SW	213+46.25	29.00' LT
112	743.32	556,890.92	849,038.13	SW	213+46.25	24.00' LT
114	743.05	556,899.93	849,033.16	DWF	213+55.25	29.00' LT
115	743.10	556,899.92	849,038.16	DWF	213+55.25	24.00' LT
116	743.32	556,907.66	849,030.55	BOC	213+62.97	31.64' LT
117	742.82	556,908.12	849,030.76	FL	213+63.43	31.43' LT
118	742.90	556,909.93	849,031.60	FLAG	213+65.24	30.60' LT
119	743.54	556,899.10	849,040.24	BOC	213+54.44	21.92' LT
120	743.04	556,899.36	849,040.66	FL	213+54.70	21.50' LT
121	743.12	556,900.41	849,042.36	FLAG	213+55.76	19.80' LT
122	743.93	556,880.92	849,038.10	SW	213+36.25	24.00' LT
123	744.00	556,880.93	849,033.10	SW	213+36.25	29.00' LT



PT: 213+27.09'SB'



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

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX YYY	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

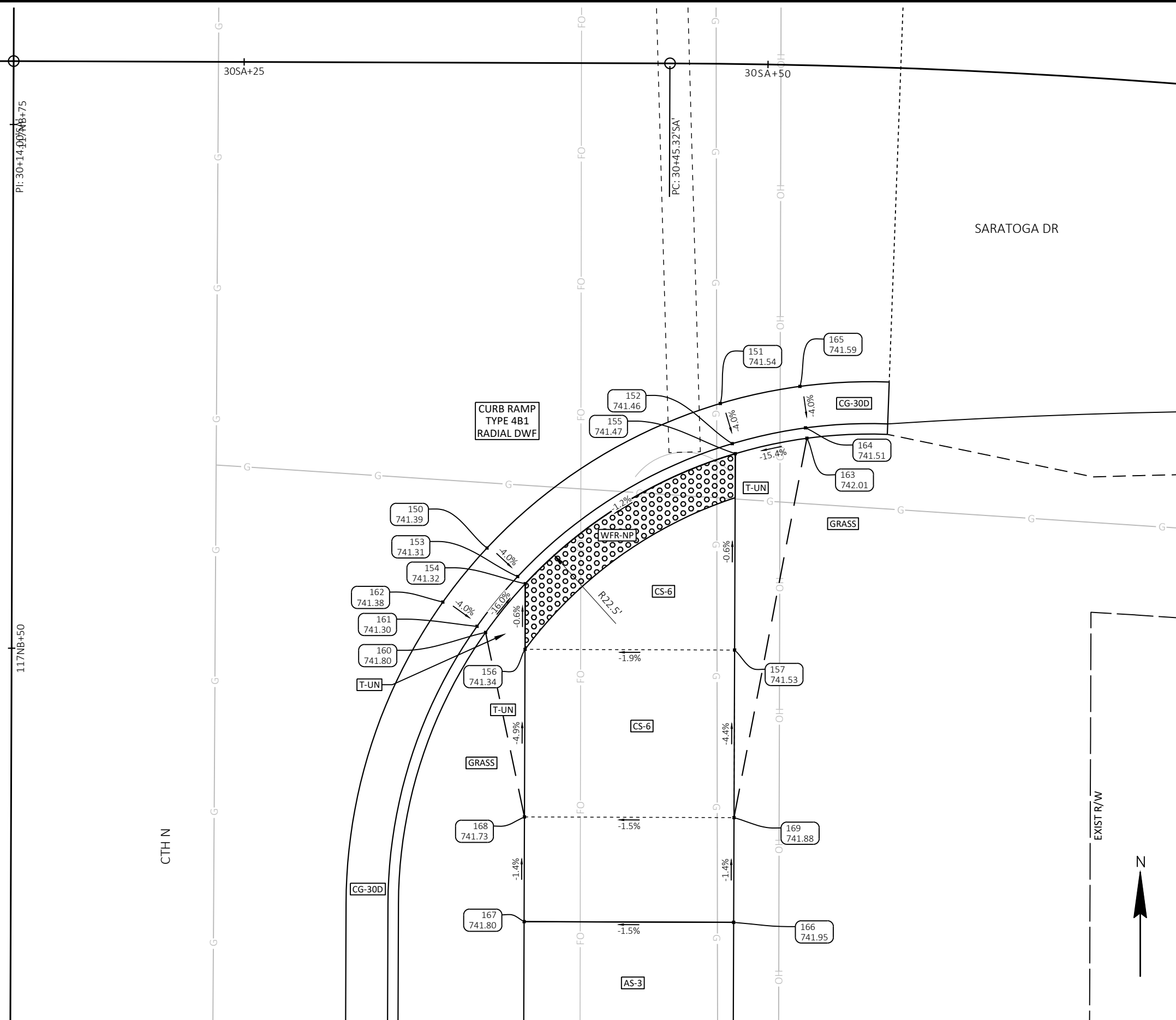
WHITETAIL RIDGE CT NW QUAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
125	742.44	556,946.05	849,034.65	FLAG	214+01.37	27.67' LT
126	742.51	556,950.80	849,040.22	FLAG	214+06.14	22.11' LT
127	742.43	556,952.11	849,038.72	FL	214+07.45	23.62' LT
128	742.36	556,947.74	849,033.59	FL	214+03.06	28.73' LT
129	742.37	556,948.17	849,033.33	BOC	214+03.49	29.00' LT
130	742.44	556,952.44	849,038.34	BOC	214+07.78	24.00' LT
131	742.43	556,952.46	849,033.34	DWF	214+07.78	29.00' LT
132	742.55	556,954.46	849,033.35	SW	214+09.78	29.00' LT
133	742.56	556,954.44	849,038.34	SW	214+09.78	24.01' LT
134	742.80	556,946.75	849,030.68	BOC	214+02.06	31.64' LT
135	742.30	556,946.29	849,030.89	FL	214+01.60	31.43' LT
136	742.38	556,944.47	849,031.72	FLAG	213+99.79	30.60' LT
137	742.87	556,955.30	849,040.46	BOC	214+10.64	21.89' LT
138	742.37	556,955.04	849,040.89	FL	214+10.38	21.46' LT
139	742.45	556,953.97	849,042.58	FLAG	214+09.32	19.77' LT
140	742.98	556,968.46	849,033.39	SW	214+23.78	29.00' LT
141	742.91	556,968.44	849,038.39	SW	214+23.78	24.00' LT
142	742.86	556,963.46	849,033.38	SW	214+18.78	29.00' LT
143	742.79	556,963.44	849,038.38	SW	214+18.78	24.00' LT
144	742.79	556,958.46	849,033.36	SW	214+13.78	29.00' LT
145	742.72	556,958.44	849,038.36	SW	214+13.78	24.00' LT

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

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



SARATOGA SE QUAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
150	741.39	557,300.51	849,100.19	FLAG	117+54.86	22.67' RT
151	741.54	557,307.41	849,111.33	FLAG	117+61.80	33.78' RT
152	741.46	557,305.50	849,111.90	FL	117+59.88	34.36' RT
153	741.31	557,299.15	849,101.66	FL	117+53.50	24.13' RT
154	741.32	557,298.81	849,102.02	BOC	117+53.16	24.50' RT
155	741.47	557,305.02	849,112.04	BOC	117+59.40	34.50' RT
156	741.34	557,295.67	849,102.01	DWF	117+50.03	24.50' RT
157	741.53	557,295.64	849,112.01	SW	117+50.03	34.50' RT
160	741.80	557,296.48	849,100.13	BOC	117+50.83	22.61' RT
161	741.30	557,296.77	849,099.72	FL	117+51.12	22.20' RT
162	741.38	557,297.93	849,098.09	FLAG	117+52.27	20.57' RT
163	742.01	557,305.75	849,115.46	BOC	117+60.15	37.92' RT
164	741.51	557,306.25	849,115.39	FL	117+60.65	37.85' RT
165	741.59	557,308.23	849,115.13	FLAG	117+62.63	37.57' RT
166	741.95	557,282.64	849,111.97	SW	117+37.03	34.50' RT
167	741.80	557,282.68	849,101.97	SW	117+37.03	24.50' RT
168	741.73	557,287.67	849,101.98	SW	117+42.03	24.50' RT
169	741.88	557,287.64	849,111.98	SW	117+42.03	34.50' RT

NOTES:

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3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND MAY NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DETECTABLE WARNING FIELD DATA

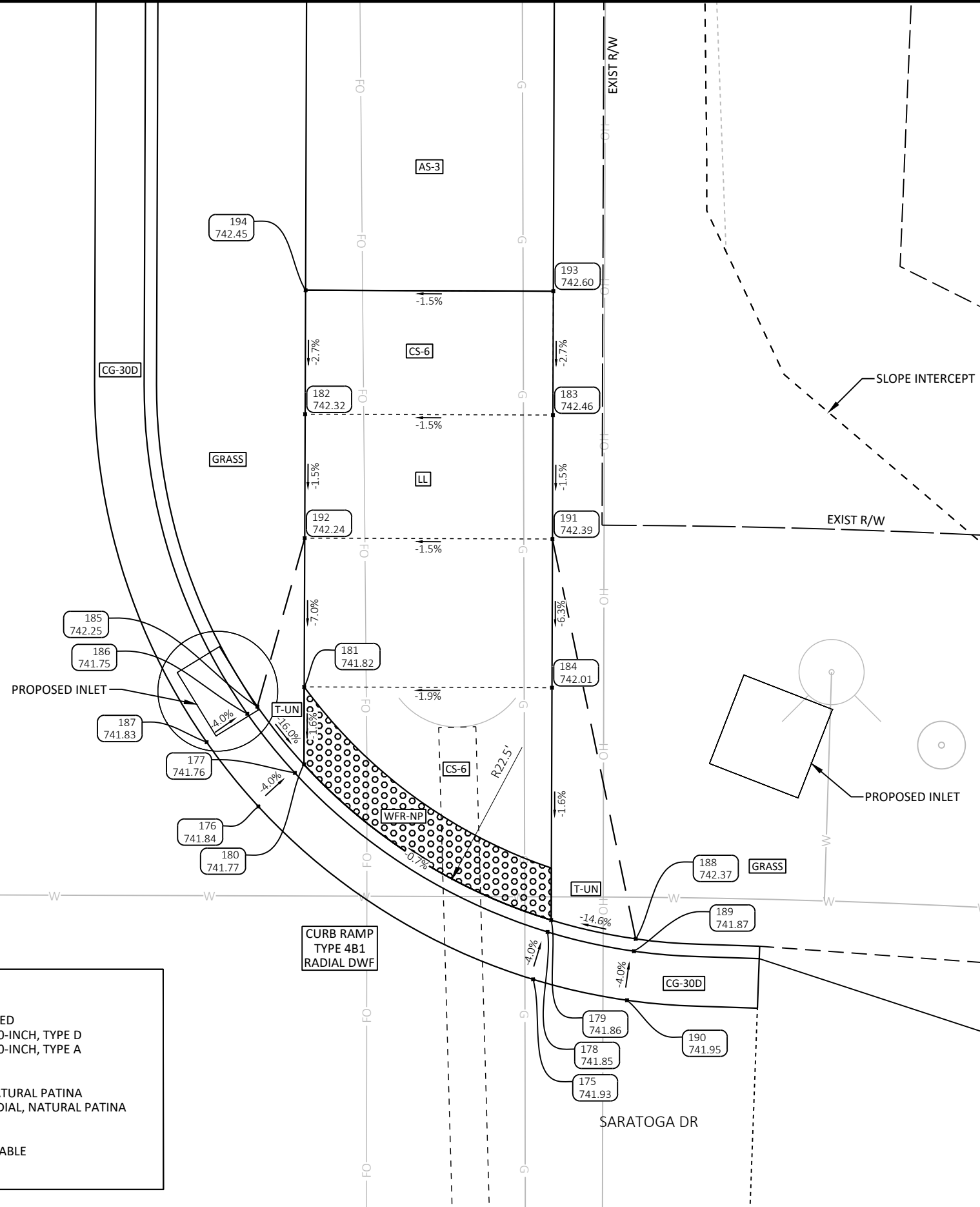
BACK OF CURB RADIUS	LANDING LENGTH	AREA SQ.FT	RADIAL LONG CHORD
22.5'	9.38'	29.72	11.92'

SARATOGA NE QUAD

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
175	741.93	557,339.58	849,111.44	FLAG	117+93.96	33.78' RT
176	741.84	557,346.55	849,100.35	FLAG	118+00.90	22.67' RT
177	741.76	557,347.91	849,101.82	FL	118+02.26	24.13' RT
178	741.85	557,341.49	849,112.02	FL	117+95.88	34.36' RT
179	741.86	557,341.97	849,112.17	BOC	117+96.36	34.50' RT
180	741.77	557,348.25	849,102.19	BOC	118+02.60	24.50' RT
181	741.82	557,351.38	849,102.20	DWF	118+05.73	24.50' RT
182	742.32	557,362.38	849,102.24	SW	118+16.73	24.50' RT
183	742.46	557,362.34	849,112.24	SW	118+16.73	34.50' RT
184	742.01	557,351.34	849,112.20	SW	118+05.73	34.50' RT
185	742.25	557,350.58	849,100.31	BOC	118+04.93	22.61' RT
186	741.75	557,350.30	849,099.90	FL	118+04.64	22.20' RT
187	741.83	557,349.15	849,098.26	FLAG	118+03.49	20.57' RT
188	742.37	557,341.21	849,115.58	BOCK	117+95.61	37.92' RT
189	741.87	557,340.72	849,115.51	FL	117+95.12	37.85' RT
190	741.95	557,338.74	849,115.23	FLAG	117+93.13	37.57' RT
191	742.39	557,357.34	849,112.22	SW	118+11.73	34.50' RT
192	742.24	557,357.38	849,102.22	SW	118+11.73	24.50' RT
193	742.60	557,367.34	849,112.26	SW	118+21.73	34.50' RT
194	742.45	557,367.38	849,102.26	SW	118+21.73	24.50' RT

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX' YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

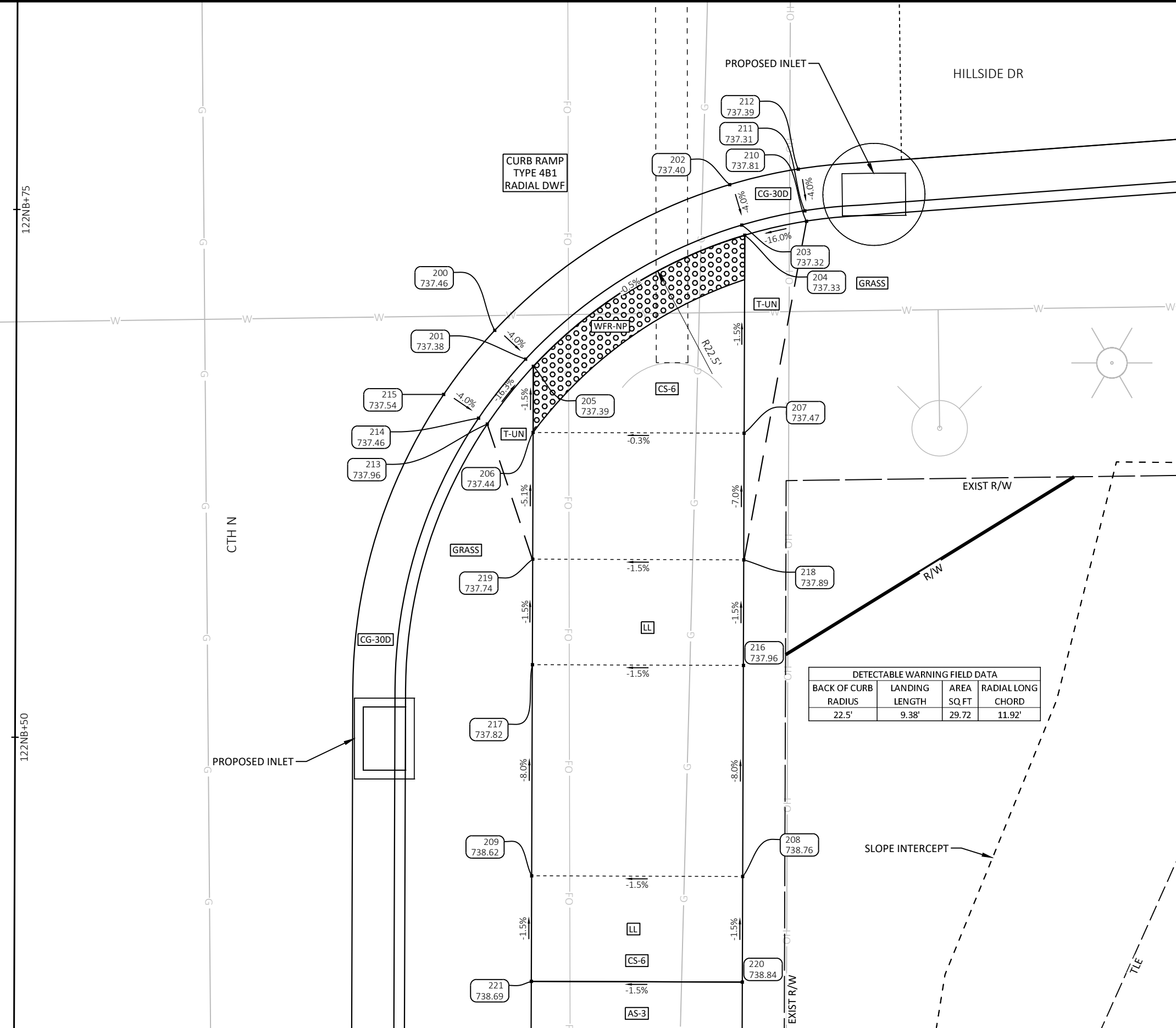


NOTES:

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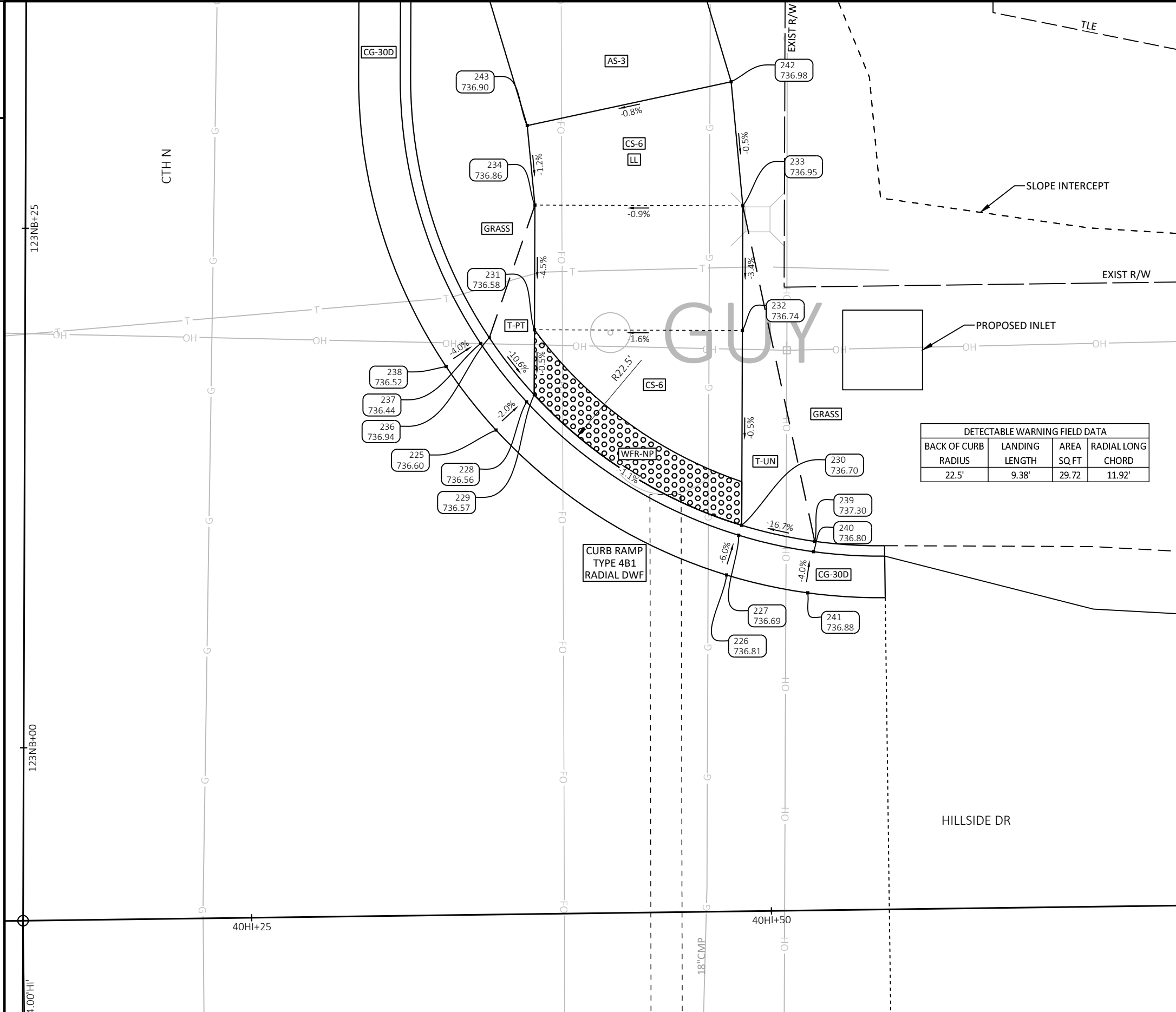
LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



BACK OF CURB RADIUS	LANDING LENGTH	AREA SQ. FT.	RADIAL LONG CHORD
22.5'	9.38'	29.72	11.92'

HILLSIDE SE QUAD						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
200	737.46	557,815.00	849,101.95	FLAG	122+69.35	22.67' RT
201	737.38	557,813.64	849,103.41	FL	122+67.99	24.13' RT
202	737.40	557,821.90	849,113.08	FLAG	122+76.29	33.78' RT
203	737.32	557,819.98	849,113.65	FL	122+74.37	34.36' RT
204	737.33	557,819.50	849,113.80	BOC	122+73.89	34.50' RT
205	737.39	557,813.29	849,103.78	BOC	122+67.65	24.50' RT
206	737.44	557,810.16	849,103.77	DWF	122+64.52	24.50' RT
207	737.47	557,810.13	849,113.77	SW	122+64.52	34.50' RT
208	738.76	557,789.13	849,113.70	SW	122+43.52	34.50' RT
209	738.62	557,789.16	849,103.70	SW	122+43.52	24.50' RT
210	737.81	557,820.17	849,116.72	BOC	122+74.57	37.42' RT
211	737.31	557,820.66	849,116.64	FL	122+75.06	37.34' RT
212	737.39	557,822.64	849,116.33	FLAG	122+77.04	37.02' RT
213	737.96	557,810.56	849,101.60	BOC	122+64.91	22.33' RT
214	737.46	557,810.84	849,101.18	FL	122+65.19	21.91' RT
215	737.54	557,811.96	849,099.53	FLAG	122+66.31	20.25' RT
216	737.96	557,799.13	849,113.74	SW	122+53.52	34.51' RT
217	737.82	557,799.16	849,103.74	SW	122+53.52	24.51' RT
218	737.89	557,804.13	849,113.75	SW	122+58.52	34.51' RT
219	737.74	557,804.16	849,103.75	SW	122+58.52	24.50' RT
220	738.84	557,784.13	849,113.68	SW	122+38.52	34.50' RT
221	738.69	557,784.16	849,103.68	SW	122+38.52	24.50' RT



- NOTES:**
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LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WFR-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

DETECTABLE WARNING FIELD DATA

BACK OF CURB RADIUS	LANDING LENGTH	AREA SQ. FT.	RADIAL LONG CHORD
22.5'	9.38'	29.72	11.92'

HILLSIDE NE QUAD

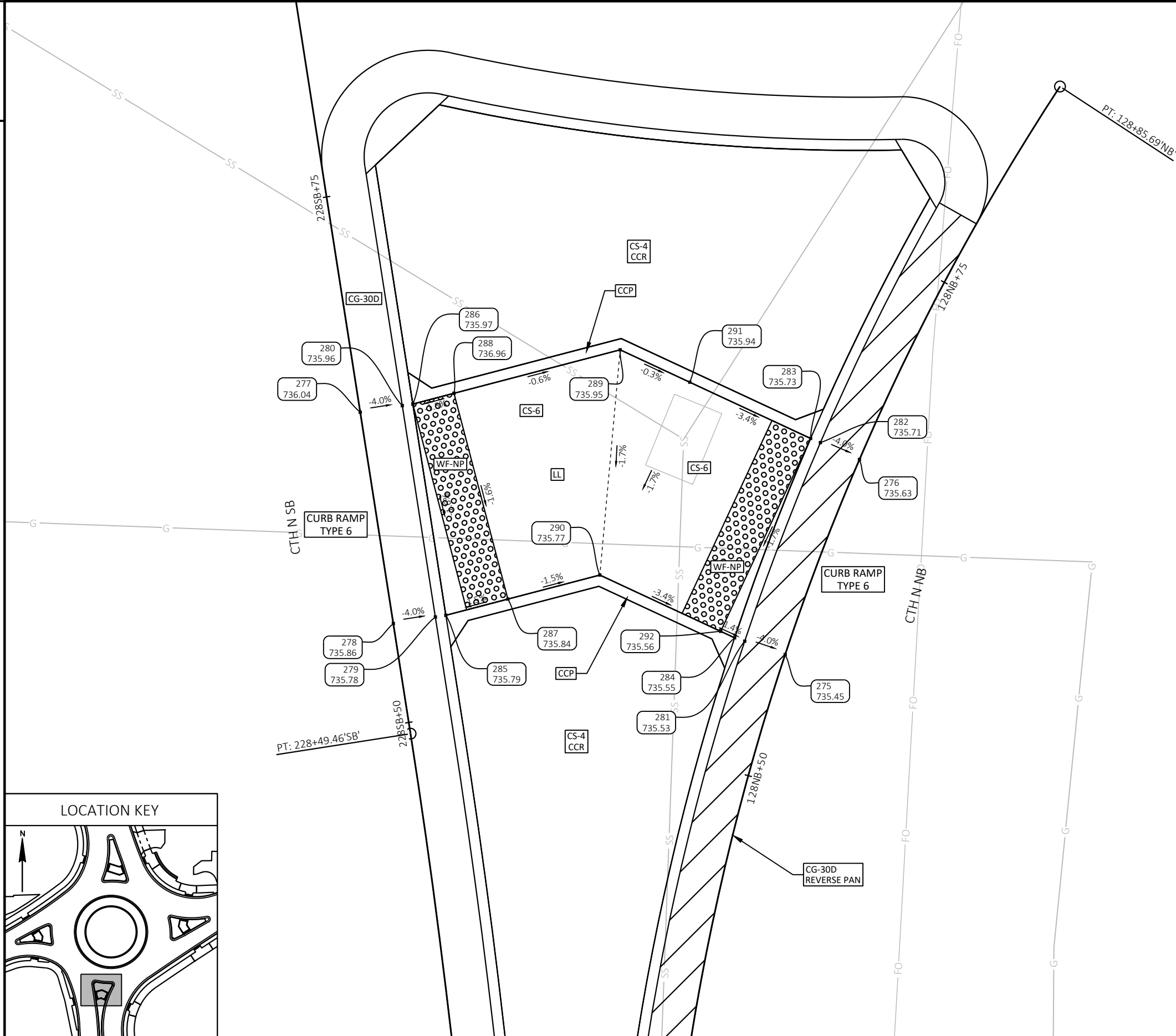
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
225	736.60	557,861.02	849,102.11	FLAG	123+15.37	22.67
226	736.81	557,854.04	849,113.19	FLAG	123+08.43	33.78
227	736.69	557,855.96	849,113.78	FL	123+10.35	34.36
228	736.56	557,862.37	849,103.58	FL	123+16.73	24.13
229	736.57	557,862.71	849,103.94	BOC	123+17.07	24.50
230	736.70	557,856.43	849,113.92	BOC	123+10.82	34.50
231	736.58	557,865.84	849,103.95	DWF	123+20.20	24.50
232	736.74	557,865.81	849,113.95	SW	123+20.20	34.50
233	736.95	557,871.81	849,113.98	SW	123+26.20	34.50
234	736.86	557,871.84	849,103.98	SW	123+26.20	24.50
236	736.94	557,865.46	849,101.78	BOC	123+19.81	22.33
237	736.44	557,865.18	849,101.37	FL	123+19.53	21.91
238	736.52	557,864.07	849,099.70	FLAG	123+18.41	20.25
239	737.30	557,855.66	849,117.44	BOC	123+10.06	38.01
240	736.80	557,855.17	849,117.37	FL	123+09.57	37.95
241	736.88	557,853.18	849,117.10	FLAG	123+07.59	37.68
242	736.98	557,877.78	849,113.41	SW	123+32.17	33.92
243	736.90	557,875.67	849,103.61	SW	123+30.02	24.12

NOTES:

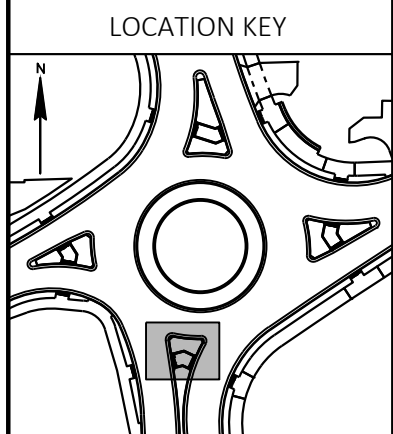
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LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



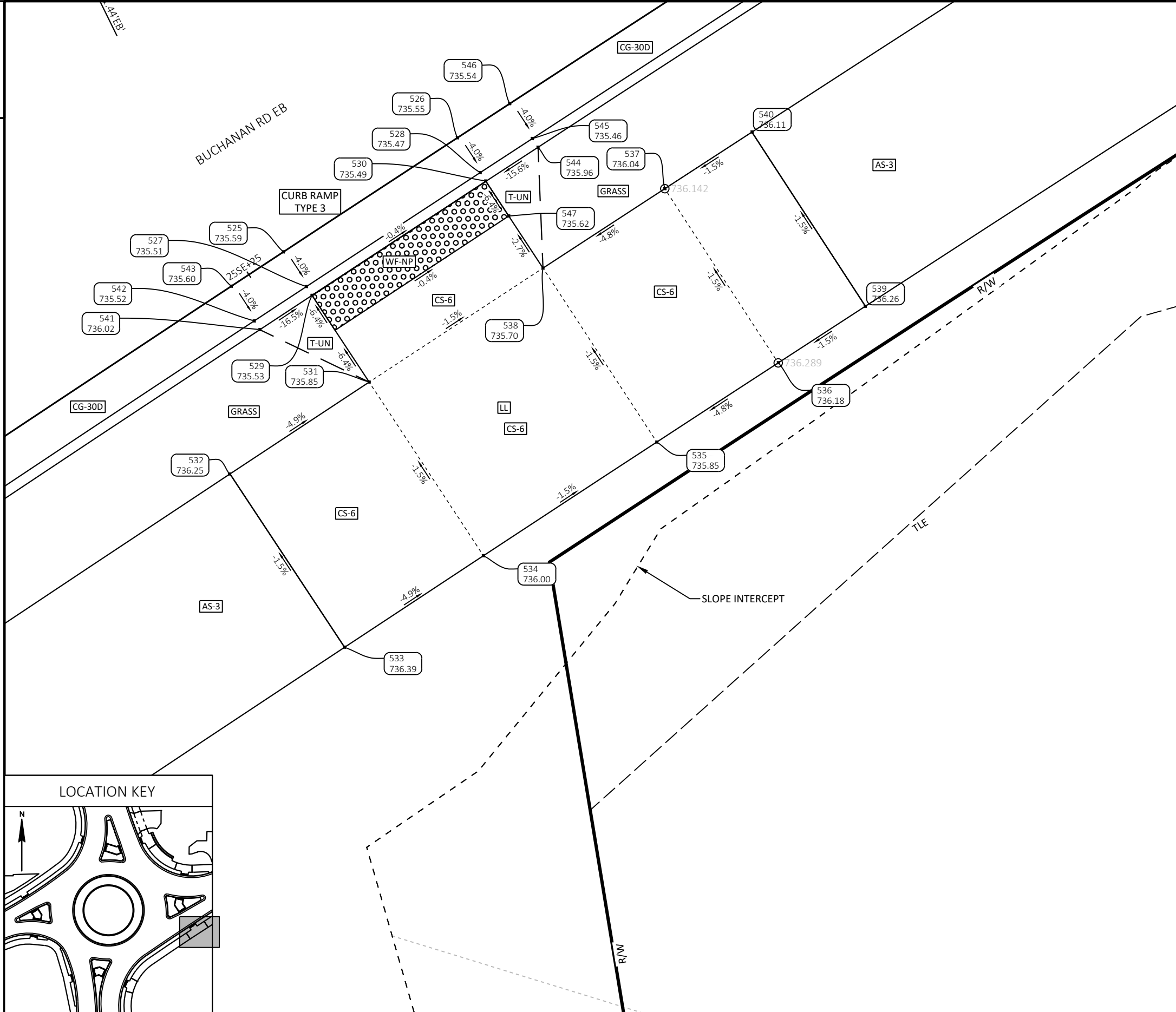
ROUNDABOUT N. CROSSING MEDIAN						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
275	735.45	558,396.31	849,102.34	FLAG	128+55.95	0.00' RT
276	735.63	558,405.48	849,105.83	FLAG	128+65.76	0.00' RT
277	736.04	558,407.70	849,082.38	FLAG	128+59.71	22.61' LT
278	735.86	558,397.77	849,083.93	FLAG	128+52.12	18.00' LT
279	735.78	558,398.07	849,085.90	FL	128+52.87	16.20' LT
280	735.96	558,408.00	849,084.35	FL	128+60.54	20.87' LT
281	735.53	558,396.94	849,100.44	FL	128+55.95	2.00' LT
282	735.71	558,406.27	849,104.00	FL	128+65.76	2.00' LT
283	735.73	558,406.46	849,103.54	BOC	128+65.76	2.50' LT
284	735.55	558,397.09	849,099.97	BOC	128+55.95	2.50' LT
285	735.79	558,398.15	849,086.40	BOC	128+53.06	15.75' LT
286	735.97	558,408.08	849,084.85	BOC	128+60.75	20.43' LT
287	735.84	558,398.91	849,089.31	DWF	128+54.48	13.20' LT
288	736.96	558,408.59	849,086.78	DWF	128+61.75	18.81' LT
289	735.95	558,410.63	849,094.59	SW	128+66.03	12.37' LT
290	735.77	558,400.04	849,093.63	SW	128+56.69	9.44' LT
291	735.94	558,409.11	849,097.86	SW	128+65.94	8.76' LT
292	735.56	558,397.40	849,099.31	DWF	128+56.03	3.22' LT



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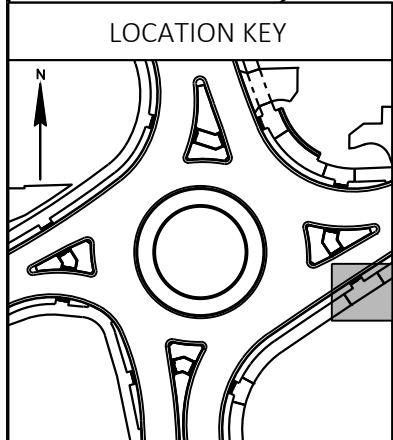
LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH COLORING CONCRETE, WISDOT RED
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



ROUNDABOUT E. CROSSING SOUTH

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
525	735.59	558,469.70	849,219.44	FLAG	25+26.99	0.00' RT
526	735.55	558,475.19	849,227.81	FLAG	25+37.00	0.00' RT
527	735.51	558,468.03	849,220.54	FL	25+26.99	2.00' RT
528	735.47	558,473.51	849,228.90	FL	25+37.00	2.00' RT
529	735.53	558,467.61	849,220.81	BOC	25+26.99	2.50' RT
530	735.49	558,473.11	849,229.17	BOC	25+37.00	2.48' RT
531	735.85	558,463.43	849,223.56	SW	25+26.99	7.50' RT
532	736.25	558,459.01	849,216.85	SW	25+18.93	7.50' RT
533	736.39	558,450.68	849,222.38	SW	25+18.95	17.50' RT
534	736.00	558,455.08	849,229.06	SW	25+26.99	17.50' RT
535	735.85	558,460.55	849,237.40	SW	25+37.01	17.50' RT
536	736.18	558,464.36	849,243.24	SW	25+44.03	17.50' RT
537	736.04	558,472.74	849,237.78	SW	25+44.03	7.50' RT
538	735.70	558,468.92	849,231.92	SW	25+37.01	7.50' RT
539	736.26	558,467.08	849,247.42	SW	25+49.04	17.50' RT
540	736.11	558,475.47	849,241.98	SW	25+49.04	7.50' RT
541	736.02	558,465.96	849,218.31	BOC	25+23.99	2.50' RT
542	735.52	558,466.38	849,218.03	FL	25+23.99	2.00' RT
543	735.60	558,468.05	849,216.93	FLAG	25+23.99	0.00' RT
544	735.96	558,474.74	849,231.68	BOC	25+40.00	2.50' RT
545	735.46	558,475.15	849,231.41	FL	25+40.00	2.00' RT
546	735.54	558,476.83	849,230.32	FLAG	25+40.00	0.00' RT
547	735.62	558,471.43	849,230.27	SW	25+37.00	4.50' RT
548	735.66	558,465.93	849,221.92	DWF	25+26.99	4.52' RT



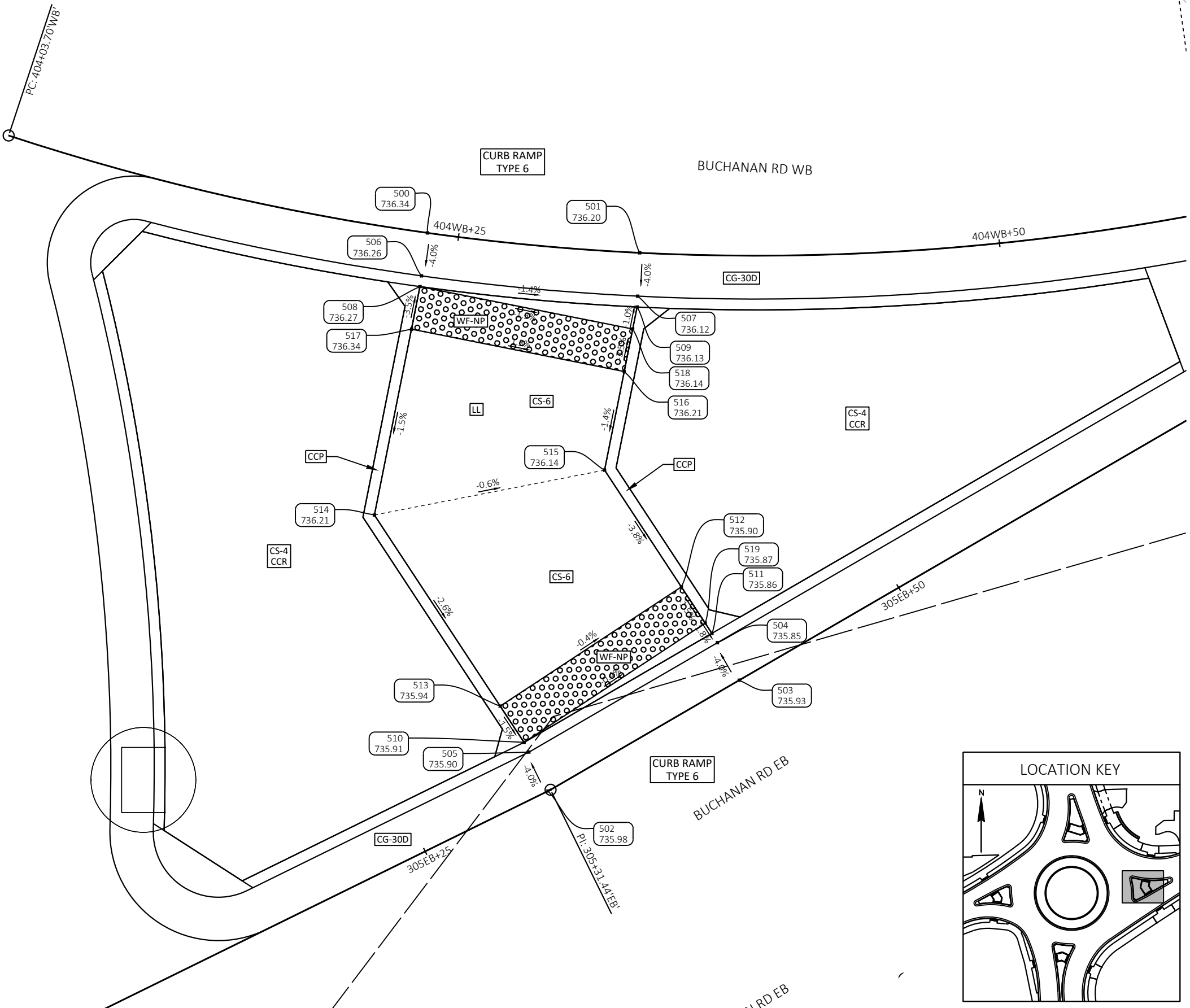
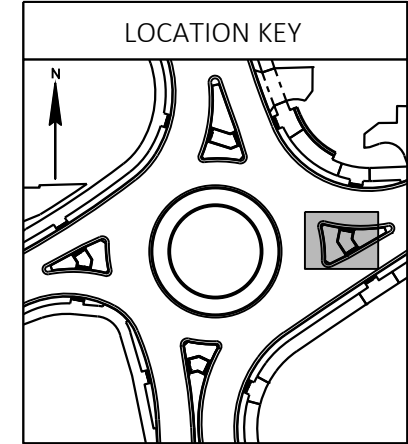
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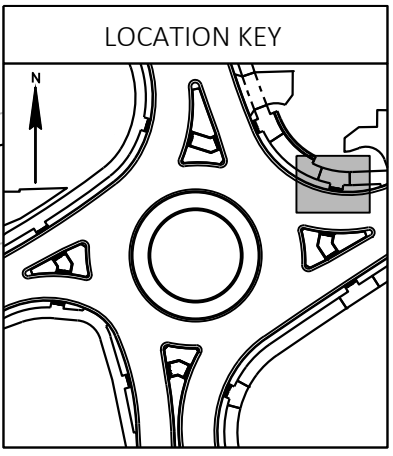
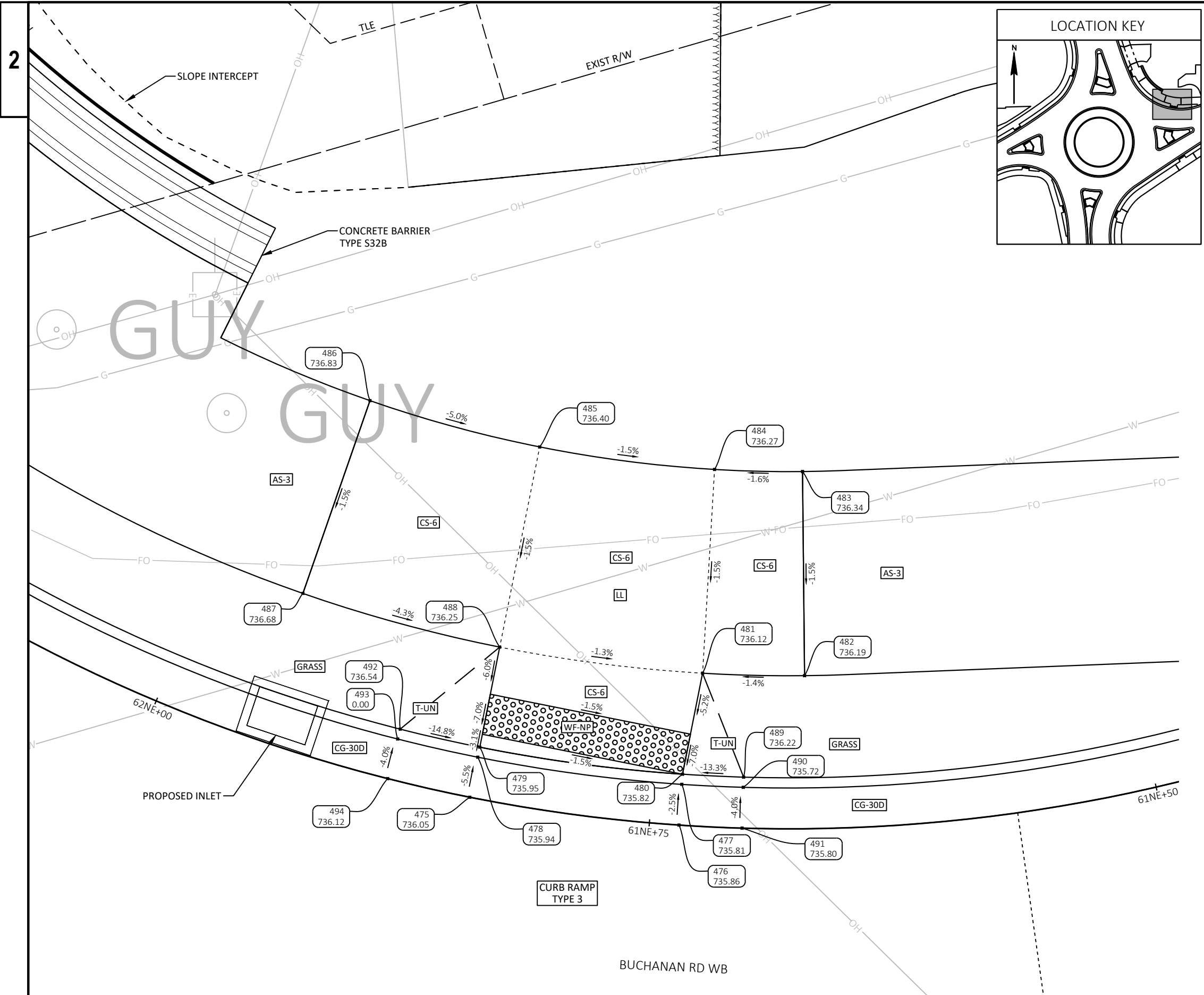
LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

ROUNDABOUT E. CROSSING MEDIAN

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
500	736.34	558,511.48	849,202.95	FLAG	305+39.43	25.05'
501	736.20	558,510.56	849,212.74	FLAG	305+47.43	19.35'
502	735.98	558,485.74	849,208.51	FLAG	305+31.31	0.00'
503	735.93	558,490.85	849,217.32	FLAG	305+41.50	0.00'
504	735.85	558,492.58	849,216.32	FL	305+41.50	2.00'
505	735.90	558,487.54	849,207.62	FL	305+31.31	2.00'
506	736.26	558,509.50	849,202.67	FL	305+38.19	23.48'
507	736.12	558,508.56	849,212.64	FL	305+46.34	17.67'
508	736.27	558,509.00	849,202.61	BOC	305+37.88	23.09'
509	736.13	558,508.06	849,212.62	BOC	305+46.07	17.25'
510	735.91	558,487.99	849,207.40	BOC	305+31.31	2.50'
511	735.86	558,493.02	849,216.07	BOC	305+41.50	2.50'
512	735.90	558,495.16	849,214.66	DWF	305+41.35	5.06'
513	735.94	558,489.66	849,206.30	DWF	305+31.06	4.48'
514	736.21	558,498.47	849,200.51	SW	305+29.74	14.95'
515	736.14	558,500.54	849,211.11	SW	305+40.99	11.50'
516	736.21	558,505.09	849,212.02	DWF	305+44.06	14.97'
517	736.34	558,507.04	849,202.21	DWF	305+36.56	21.59'
518	736.14	558,507.05	849,212.41	BOC	305+45.38	16.47'
519	735.87	558,493.49	849,215.76	DWF	305+41.47	3.06'





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

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX YYY	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

ROUNDABOUT E. CROSSING NORTH

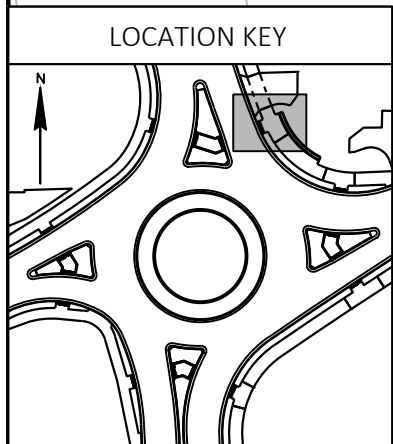
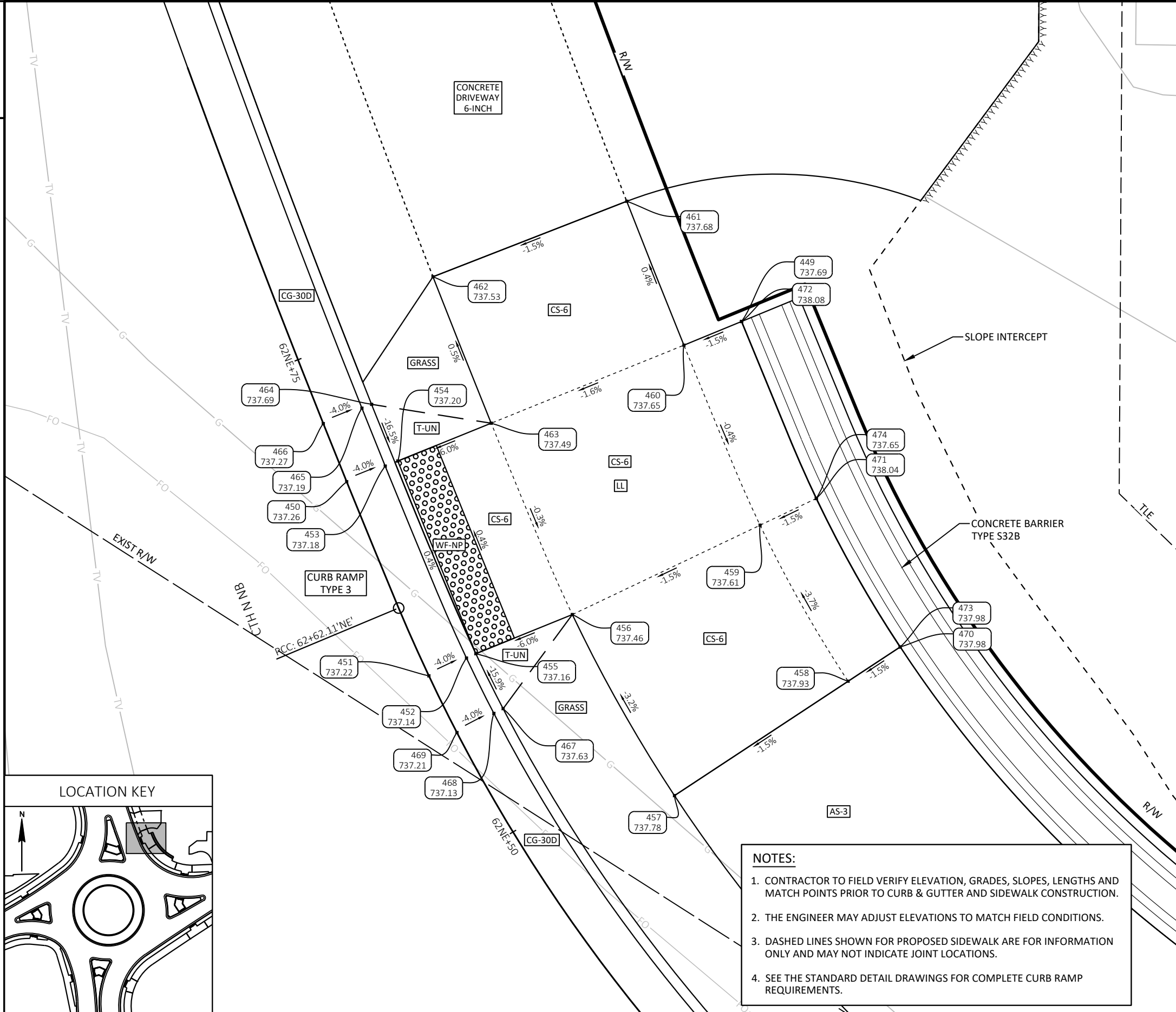
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
475	736.05	558,538.70	849,208.53	FLAG	61+83.90	0.00' RT
476	735.86	558,537.34	849,218.78	FLAG	61+73.54	0.00' RT
477	735.81	558,539.33	849,218.92	FL	61+73.54	2.00' RT
478	735.94	558,540.67	849,208.92	FL	61+83.90	2.00' RT
479	735.95	558,541.16	849,209.02	BOC	61+83.90	2.50' RT
480	735.82	558,539.83	849,218.95	BOC	61+73.54	2.50' RT
481	736.12	558,544.78	849,219.94	SW	61+72.83	7.50' RT
482	736.19	558,544.66	849,224.94	SW	61+67.31	7.50' RT
483	736.34	558,554.66	849,224.83	SW	61+67.31	17.50' RT
484	736.27	558,554.76	849,220.53	SW	61+72.83	17.50' RT
485	736.40	558,555.87	849,211.95	SW	61+83.90	17.50' RT
486	736.83	558,558.13	849,203.64	SW	61+94.94	17.50' RT
487	736.68	558,548.69	849,200.35	SW	61+94.94	7.50' RT
488	736.25	558,546.06	849,210.00	SW	61+83.90	7.50' RT
489	736.22	558,539.69	849,221.95	BOC	61+70.45	2.50' RT
490	735.72	558,539.19	849,221.93	FL	61+70.45	2.00' RT
491	735.80	558,537.19	849,221.88	FLAG	61+70.45	0.00' RT
492	736.54	558,542.04	849,205.12	BOC	61+88.02	2.50' RT
493	0.00	558,541.55	849,204.99	FL	61+88.02	2.00' RT
494	736.12	558,539.62	849,204.50	FLAG	61+88.02	0.00' RT
495	736.11	558,543.75	849,209.54	DWF	61+83.90	5.15' RT
496	735.96	558,541.79	849,219.34	DWF	61+73.27	4.48' RT
497	735.97	558,541.79	849,209.14	736.96	61+83.90	3.15' RT

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

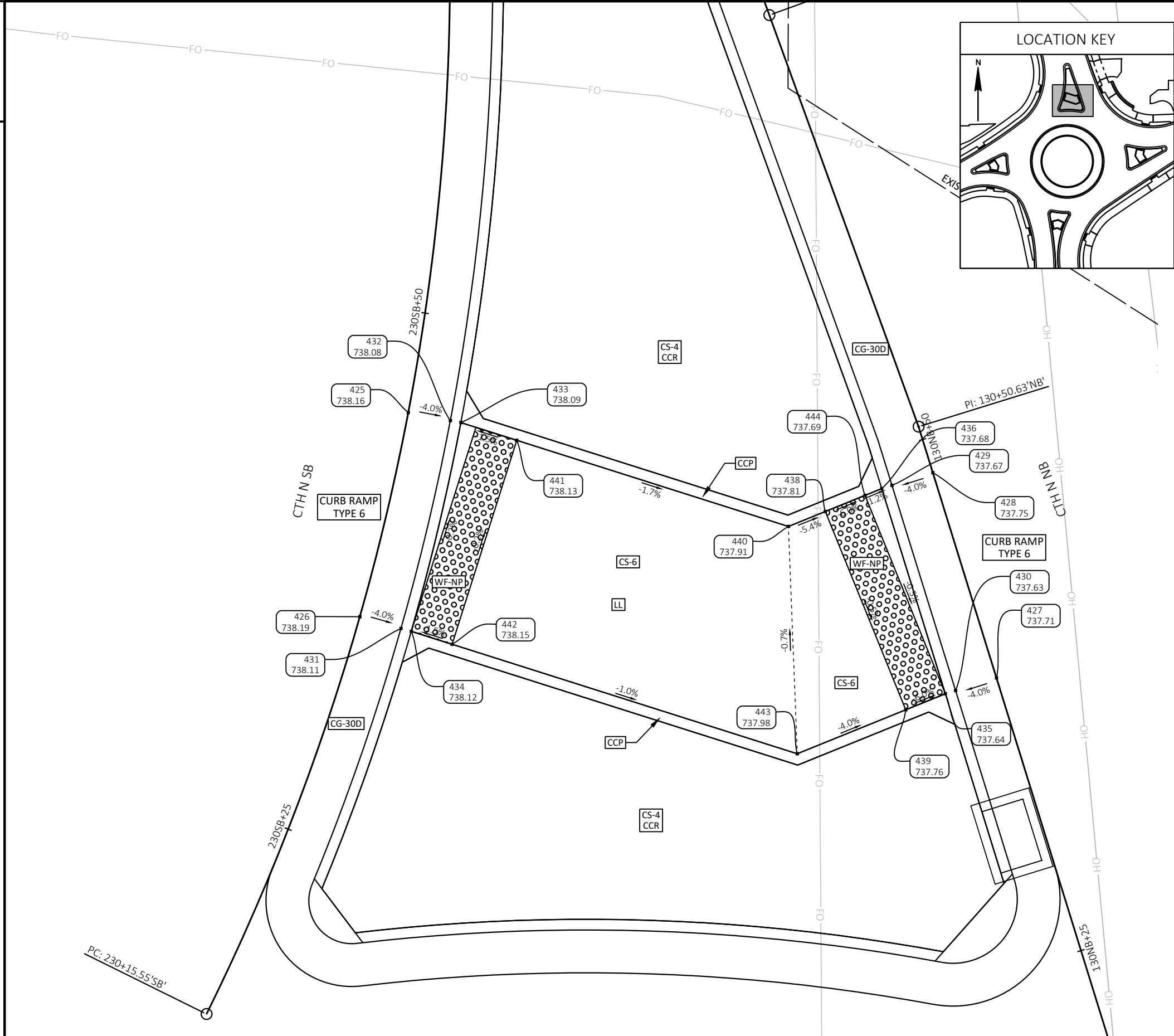
ROUNDABOUT N. CROSSING EAST

POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
449	737.69	558,600.08	849,166.87	BOW	62+68.70	20.49' RT
450	737.26	558,592.37	849,147.88	FLAG	62+68.68	0.00' RT
451	737.22	558,583.03	849,151.84	FLAG	62+58.54	0.00' RT
452	737.14	558,583.88	849,153.64	FL	62+58.54	2.00' RT
453	737.18	558,593.12	849,149.74	FL	62+68.68	2.00' RT
454	737.20	558,593.37	849,150.34	BOC	62+68.68	2.65' RT
455	737.16	558,584.10	849,154.10	BOC	62+58.54	2.50' RT
456	737.46	558,585.98	849,158.74	SW	62+58.23	7.50' RT
457	737.78	558,577.27	849,163.65	SW	62+47.19	7.50' RT
458	737.93	558,582.77	849,172.00	SW	62+47.19	17.50' RT
459	737.61	558,590.28	849,167.77	SW	62+58.23	17.50' RT
460	737.65	558,598.94	849,164.10	SW	62+68.68	17.50' RT
461	737.68	558,605.87	849,161.35	SW	62+76.36	17.50' RT
462	737.53	558,602.23	849,152.04	SW	62+76.36	7.50' RT
463	737.49	558,595.19	849,154.84	SW	62+68.68	7.50' RT
464	737.69	558,596.09	849,149.08	BOC	62+71.70	2.50' RT
465	737.19	558,595.91	849,148.62	FL	62+71.70	2.00' RT
466	737.27	558,595.17	849,146.76	FLAG	62+71.70	0.00' RT
467	737.63	558,581.45	849,155.41	BOC	62+55.49	2.50' RT
468	737.13	558,581.22	849,154.96	FL	62+55.49	2.00' RT
469	737.21	558,580.30	849,153.19	FLAG	62+55.49	0.00' RT
470	737.98	558,584.42	849,174.51	TOF	62+47.19	20.50' RT
471	738.04	558,591.57	849,170.48	TOF	62+58.23	20.50' RT
472	738.08	558,600.08	849,166.88	TOF	62+68.70	20.50' RT
473	737.98	558,584.42	849,174.50	BOW	62+47.19	20.49' RT
474	737.65	558,591.56	849,170.47	BOW	62+58.23	20.49' RT



NOTES:

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



ROUNDBOUT N. CROSSING MEDIAN						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
275	735.45	558,396.31	849,102.34	FLAG	128+55.95	0.00' RT
276	735.63	558,405.48	849,105.83	FLAG	128+65.76	0.00' RT
277	736.04	558,407.70	849,082.38	FLAG	128+59.71	22.61' LT
278	735.86	558,397.77	849,083.93	FLAG	128+52.12	18.00' LT
279	735.78	558,398.07	849,085.90	FL	128+52.87	16.20' LT
280	735.96	558,408.00	849,084.35	FL	128+60.54	20.87' LT
281	735.53	558,396.94	849,100.44	FL	128+55.95	2.00' LT
282	735.71	558,406.27	849,104.00	FL	128+65.76	2.00' LT
283	735.73	558,406.46	849,103.54	BOC	128+65.76	2.50' LT
284	735.55	558,397.09	849,099.97	BOC	128+55.95	2.50' LT
285	735.79	558,398.15	849,086.40	BOC	128+53.06	15.75' LT
286	735.97	558,408.08	849,084.85	BOC	128+60.75	20.43' LT
287	735.84	558,398.91	849,089.31	DWF	128+54.48	13.20' LT
288	736.96	558,408.59	849,086.78	DWF	128+61.75	18.81' LT
289	735.95	558,410.63	849,094.59	SW	128+66.03	12.37' LT
290	735.77	558,400.04	849,093.63	SW	128+56.69	9.44' LT
291	735.94	558,409.11	849,097.86	SW	128+65.94	8.76' LT
292	735.56	558,397.40	849,099.31	DWF	128+56.03	3.22' LT

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB & GUTTER AND SIDEWALK CONSTRUCTION.
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4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND FOR CURB RAMP DETAILS

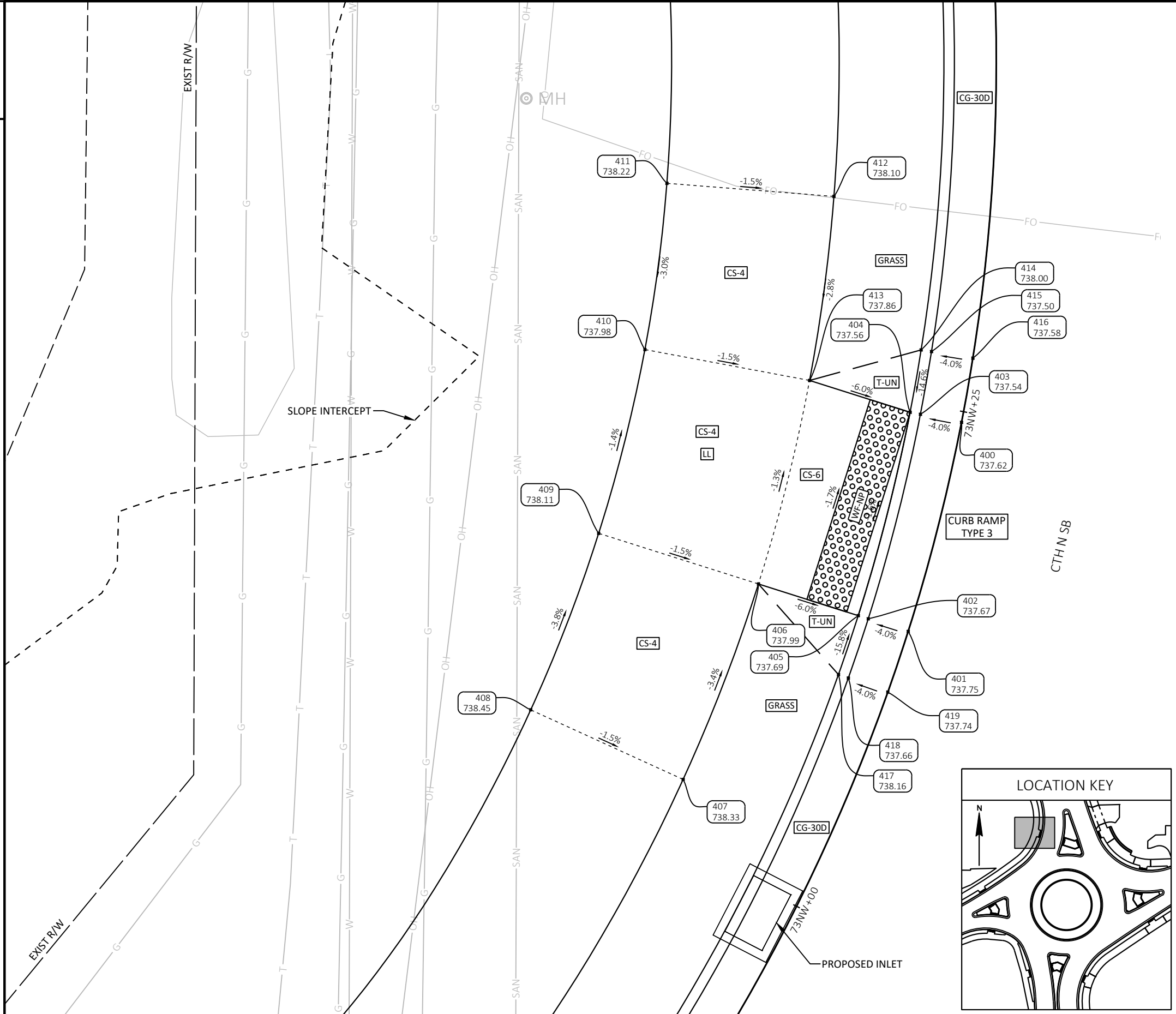
AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING

NOTES:

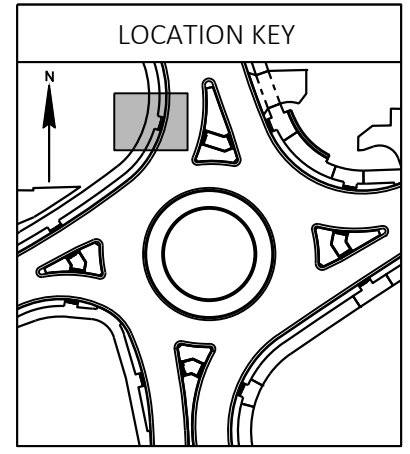
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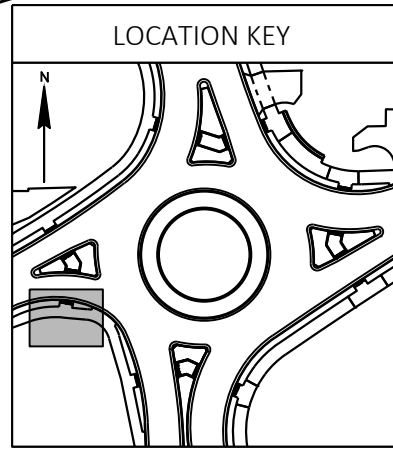
LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



ROUNDBOULT N. CROSSING WEST						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
400	737.62	558,594.52	849,075.04	FLAG	73+24.48	0.00' RT
401	737.75	558,584.54	849,072.49	FLAG	73+14.18	0.00' RT
402	737.67	558,585.14	849,070.58	FL	73+14.18	2.00' LT
403	737.54	558,594.91	849,073.07	FL	73+24.48	2.00' LT
404	737.56	558,595.00	849,072.58	BOC	73+24.48	2.50' LT
405	737.69	558,585.29	849,070.11	BOC	73+14.18	2.50' LT
406	737.99	558,586.81	849,065.34	SW	73+14.18	7.50' LT
407	738.33	558,577.47	849,061.75	SW	73+03.26	7.50' LT
408	738.45	558,580.80	849,054.47	SW	73+03.26	15.50' LT
409	738.11	558,589.22	849,057.72	SW	73+14.18	15.50' LT
410	737.98	558,598.00	849,059.92	SW	73+25.11	15.50' LT
411	738.22	558,605.93	849,060.97	SW	73+34.78	15.50' LT
412	738.10	558,605.31	849,068.95	SW	73+34.78	7.50' LT
413	737.86	558,596.52	849,067.78	SW	73+25.11	7.50' LT
414	738.00	558,597.98	849,073.11	BOC	73+27.59	2.50' LT
415	737.50	558,597.90	849,073.60	FL	73+27.59	2.00' LT
416	737.58	558,597.58	849,075.58	FLAG	73+27.59	0.00' RT
417	738.16	558,582.48	849,069.16	BOC	73+11.12	2.50' LT
418	737.66	558,582.31	849,069.63	FL	73+11.12	2.00' LT
419	737.74	558,581.64	849,071.52	FLAG	73+11.12	0.00' RT



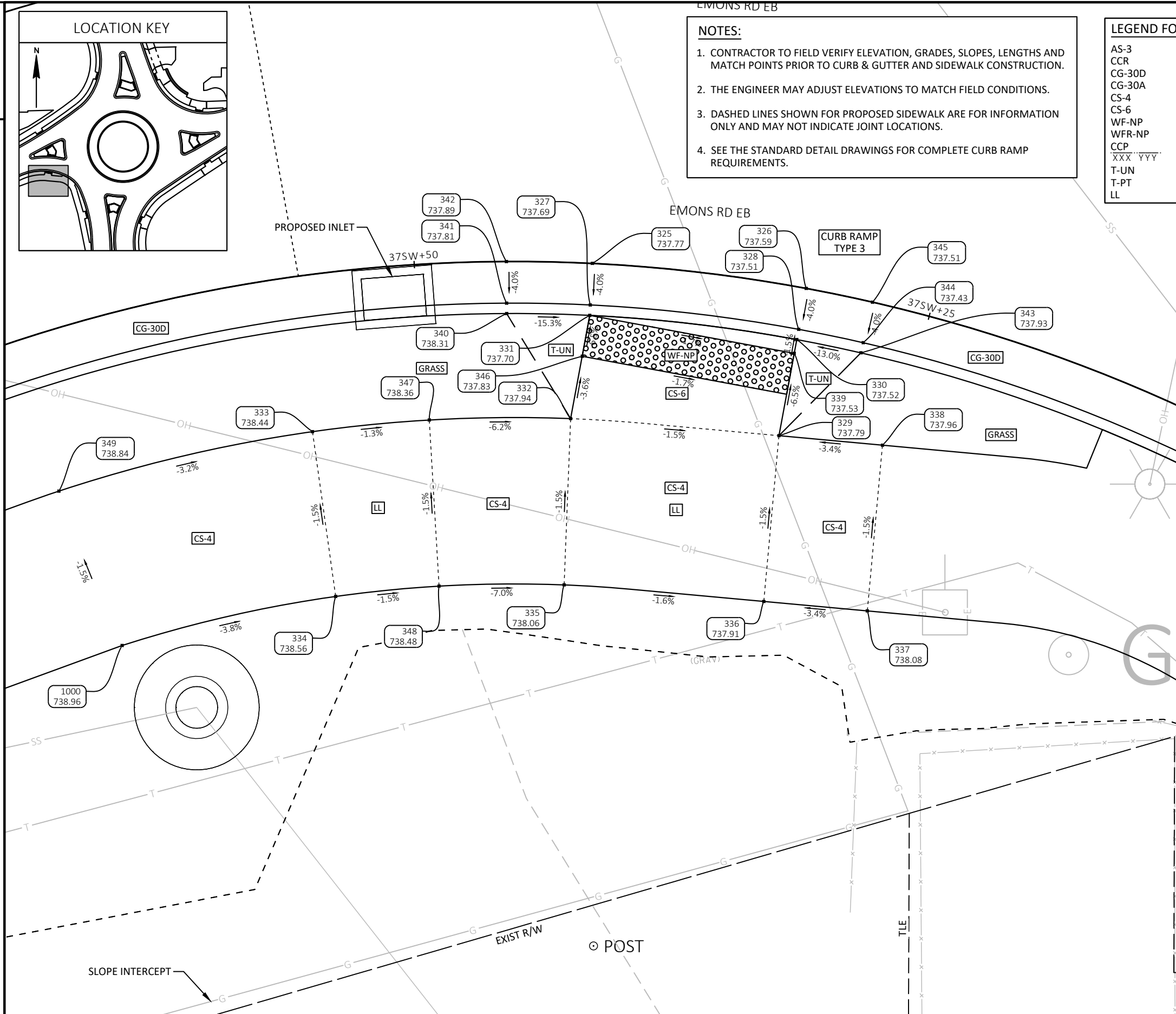


NOTES:

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

LEGEND FOR CURB RAMP DETAILS

AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX'YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



ROUNDAABOUT W. CROSSING SOUTH

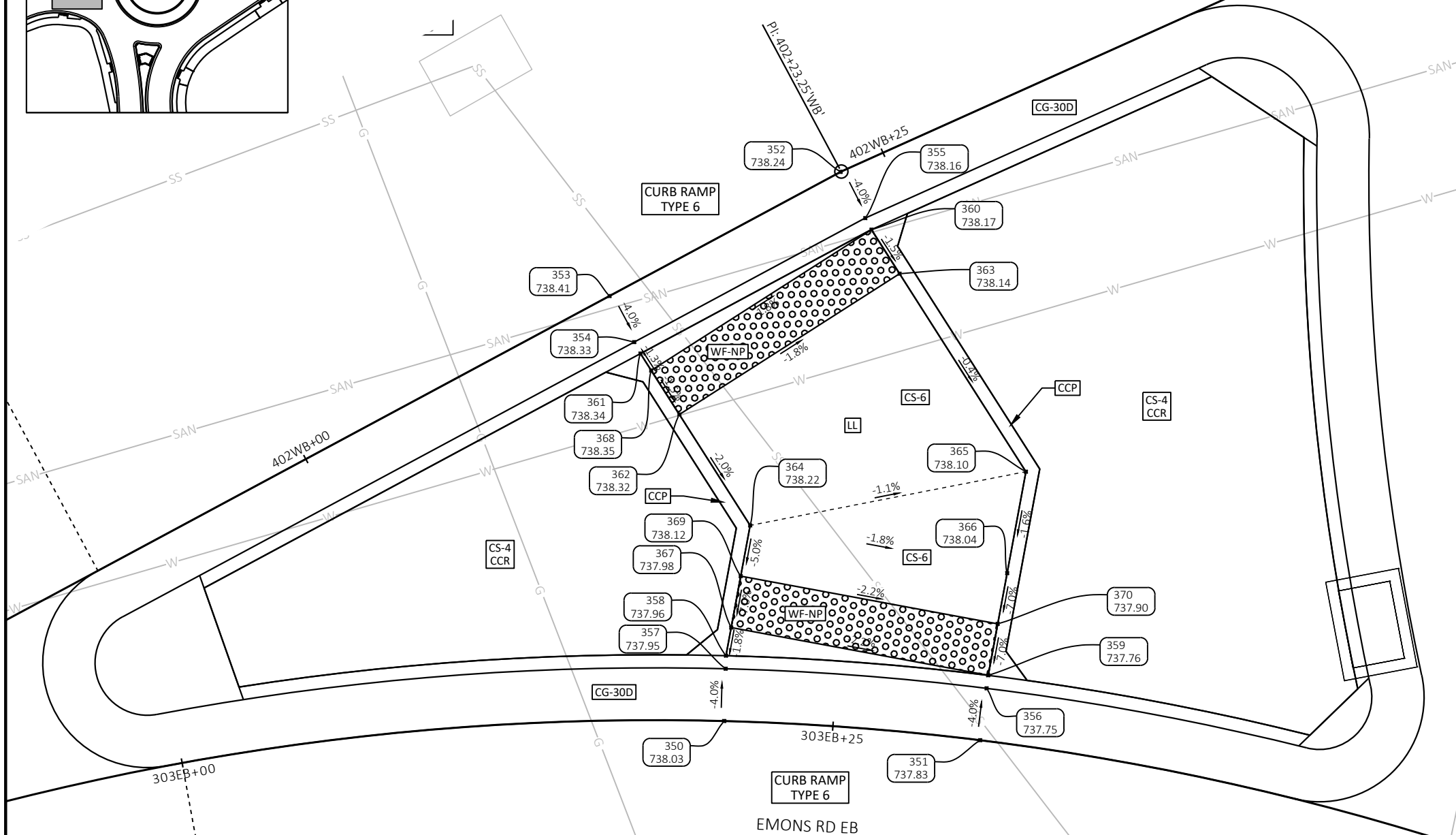
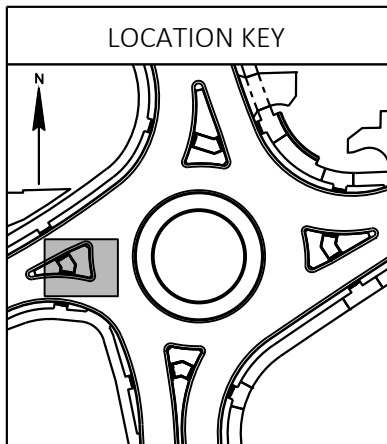
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
325	737.77	558,458.71	848,997.38	FLAG	37+41.43	0.00' RT
326	737.59	558,457.51	849,007.67	FLAG	37+31.06	0.00' RT
327	737.69	558,456.72	848,997.29	FL	37+41.43	2.00' LT
328	737.51	558,455.55	849,007.31	FL	37+31.06	2.00' LT
329	737.79	558,450.43	849,006.36	SW	37+31.06	7.20' LT
330	737.52	558,455.06	849,007.22	BOC	37+31.06	2.50' LT
331	737.70	558,456.22	848,997.26	BOC	37+41.43	2.50' LT
332	737.94	558,451.25	848,996.34	SW	37+42.18	7.50' LT
333	738.44	558,450.63	848,983.92	SW	37+55.97	7.50' LT
334	738.56	558,442.70	848,985.04	SW	37+55.97	15.50' LT
335	738.06	558,443.26	848,996.03	SW	37+42.18	15.50' LT
336	737.91	558,442.46	849,005.63	SW	37+30.15	15.16' LT
337	738.08	558,442.01	849,010.61	SW	37+24.02	14.45' LT
338	737.96	558,449.98	849,011.34	SW	37+25.62	6.56' LT
339	737.53	558,454.39	849,007.09	DWF	37+31.06	3.17' LT
340	738.31	558,456.31	848,993.26	BOC	37+45.57	2.50' LT
341	737.81	558,456.81	848,993.26	FL	37+45.57	2.00' LT
342	737.89	558,458.81	848,993.25	FLAG	37+45.57	0.00' RT
343	737.93	558,454.42	849,010.30	BOC	37+27.81	2.50' LT
344	737.43	558,454.90	849,010.41	FL	37+27.81	2.00' LT
345	737.51	558,456.85	849,010.86	FLAG	37+27.81	0.00' RT
346	737.83	558,454.25	848,996.90	SW	37+41.72	4.48' LT
347	738.36	558,451.19	848,989.54	SW	37+49.72	7.50' LT
348	738.48	558,443.20	848,990.01	SW	37+49.72	15.50' LT
349	738.84	558,447.77	848,971.73	SW	37+69.87	7.50' LT
1000	738.96	558,440.35	848,974.77	SW	37+69.19	15.50' LT

NOTES:

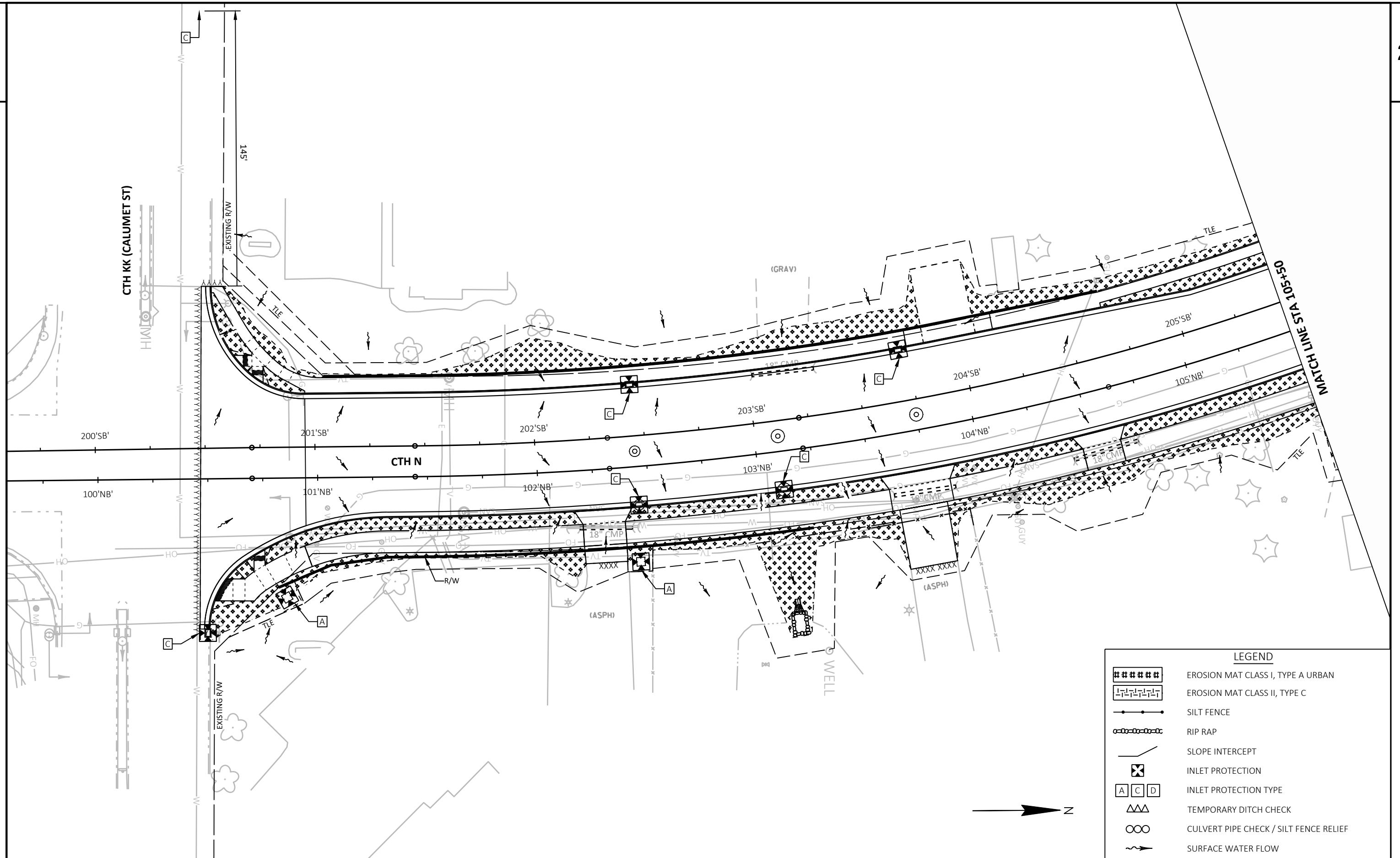
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2. THE ENGINEER MAY ADJUST ELEVATIONS TO MATCH FIELD CONDITIONS.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND MAY NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND FOR CURB RAMP DETAILS

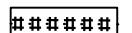
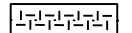
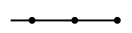
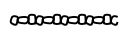
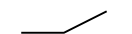





AS-3	ASPHALTIC SURFACE, 3-INCH
CCR	COLORING CONCRETE, WISDOT RED
CG-30D	CONCRETE CURB AND GUTTER, 30-INCH, TYPE D
CG-30A	CONCRETE CURB AND GUTTER, 30-INCH, TYPE A
CS-4	CONCRETE SIDEWALK, 4-INCH
CS-6	CONCRETE SIDEWALK, 6-INCH
WF-NP	DETECTABLE WARNING FIELD, NATURAL PATINA
WFR-NP	DETECTABLE WARNING FIELD RADIAL, NATURAL PATINA
CCP	CONCRETE CURB, PEDESTRIAN
XXX' YYY'	SAWCUT
T-UN	TAPER, UNPAVED, NON TRAVERSABLE
T-PT	TAPER, PAVED, TRAVERSABLE
LL	LEVEL LANDING



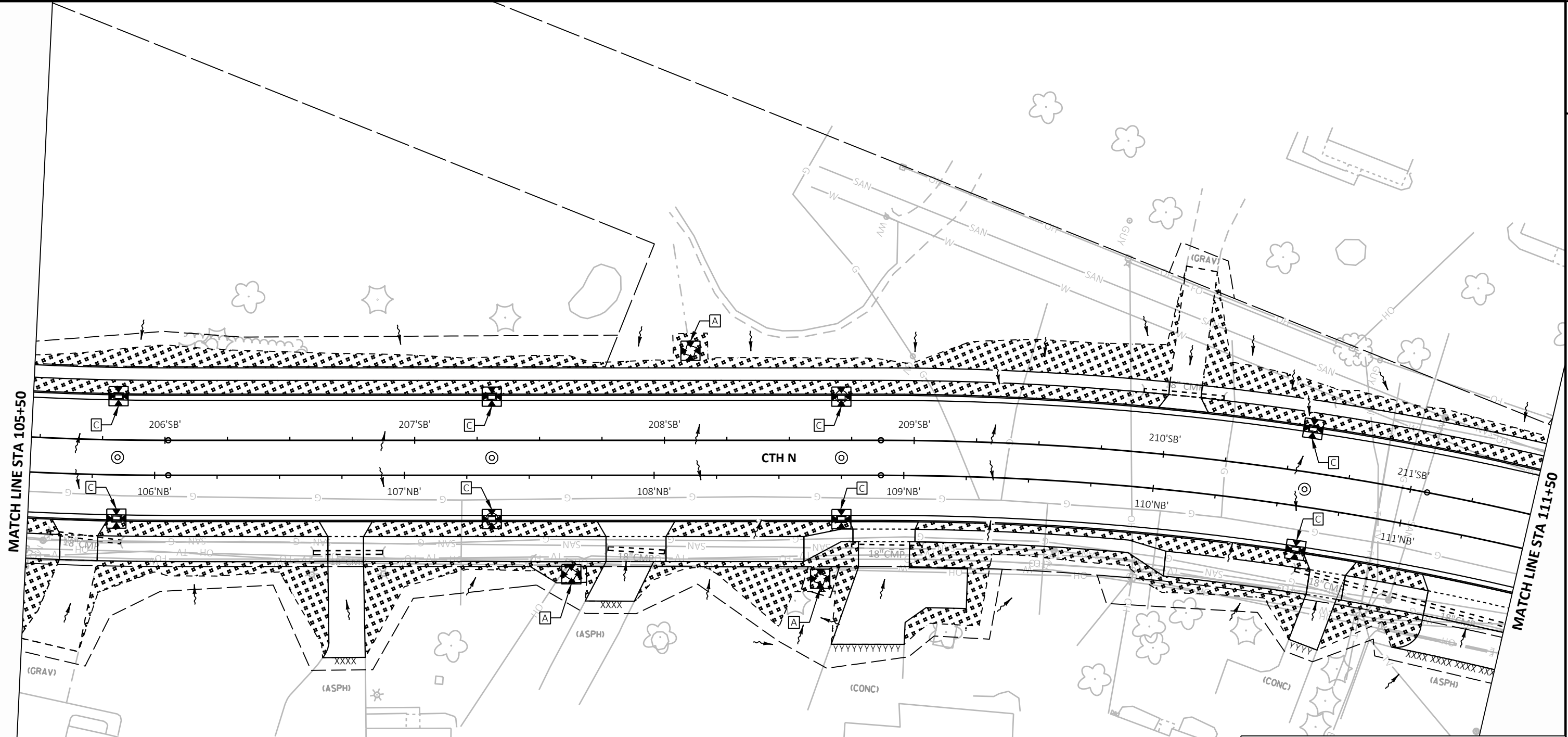
ROUNABOUT W. CROSSING MEDIAN						
POINT	ELEVATION	NORTHING	EASTING	DESCRIPTION	STATION	OFFSET
350	738.03	558,475.14	849,001.17	FLAG	303+20.84	0.00' RT
351	737.83	558,474.41	849,010.96	737.83	303+30.66	0.00' RT
352	738.24	558,496.13	849,005.62	FLAG	303+24.06	21.16' LT
353	738.41	558,491.39	848,996.78	FLAG	303+16.69	16.23' LT
354	738.33	558,489.63	848,997.73	FL	303+17.50	14.46' LT
355	738.16	558,494.37	849,006.57	FL	303+24.94	19.46' LT
356	737.75	558,476.39	849,011.21	FL	303+30.66	2.00' LT
357	737.95	558,477.14	849,001.22	FL	303+20.84	2.00' LT
358	737.96	558,477.64	849,001.24	BOC	303+20.84	2.50' LT
359	737.76	558,476.89	849,011.27	BOC	303+30.66	2.50' LT
360	738.17	558,493.93	849,006.80	BOC	303+25.16	19.04' LT
361	738.34	558,489.19	848,997.97	BOC	303+17.70	14.01' LT
362	738.32	558,486.86	848,999.45	DWF	303+19.02	11.69' LT
363	738.14	558,492.24	849,007.88	DWF	303+26.18	17.44' LT
364	738.22	558,482.62	849,002.16	SW	303+21.58	7.50' LT
365	738.10	558,484.67	849,012.71	SW	303+31.09	10.41' LT
366	738.04	558,480.79	849,011.99	SW	303+30.88	6.46' LT
367	737.98	558,478.71	849,001.44	DWF	303+21.00	3.58' LT
368	738.35	558,488.54	848,998.38	DWF	303+18.06	13.37' LT
369	738.12	558,480.68	849,001.80	SW	303+21.30	5.56' LT
370	737.90	558,478.85	849,011.63	SW	303+30.77	4.50' LT



LEGEND

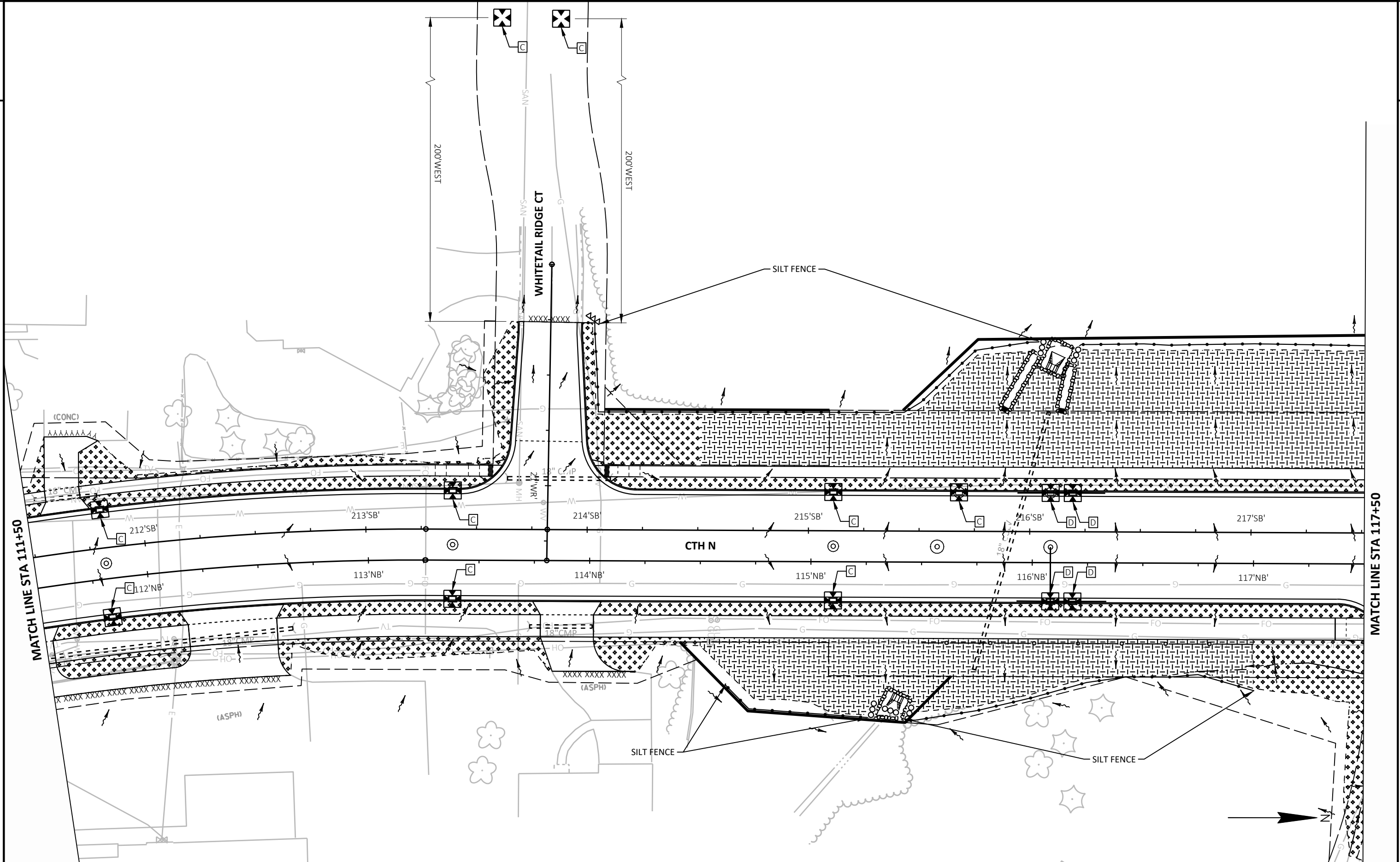
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	EROSION MAT CLASS II, TYPE C
	SILT FENCE
	RIP RAP
	SLOPE INTERCEPT
	INLET PROTECTION
	INLET PROTECTION TYPE
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK / SILT FENCE RELIEF
	SURFACE WATER FLOW

PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	EROSION CONTROL - CTH N SOUTH
SHEET			E



LEGEND

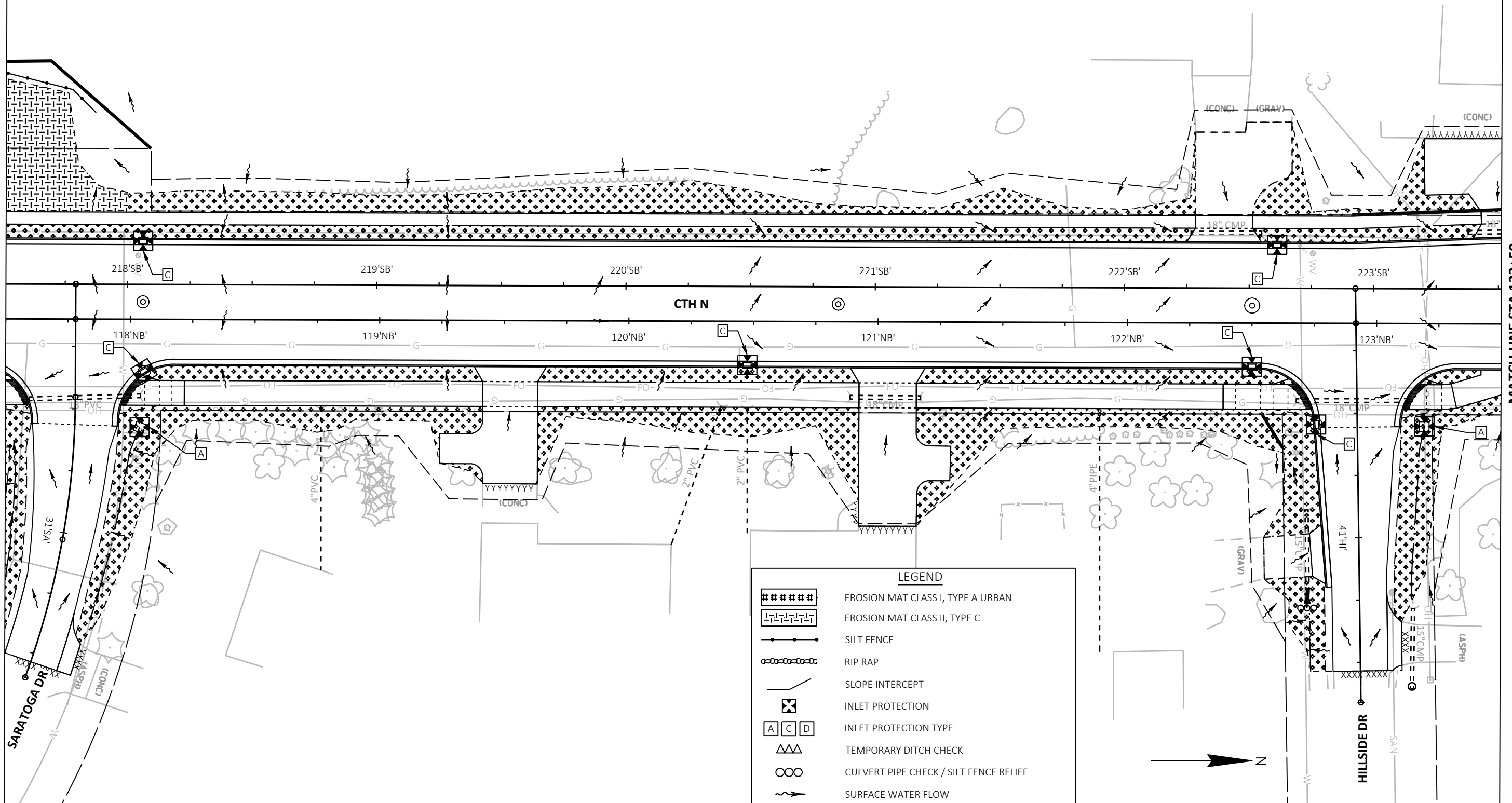
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	INLET PROTECTION TYPE
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK / SILT FENCE RELIEF
	SURFACE WATER FLOW













PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	EROSION CONTROL - CTH N SOUTH	SHEET	E
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MATCH LINE STA 117+50

MATCH LINE STA 123+50



LEGEND

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	EROSION MAT CLASS II, TYPE C
	SILT FENCE
	RIP RAP
	SLOPE INTERCEPT
	INLET PROTECTION
	INLET PROTECTION TYPE
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK / SILT FENCE RELIEF
	SURFACE WATER FLOW

PROJECT NO: 4676-04-71

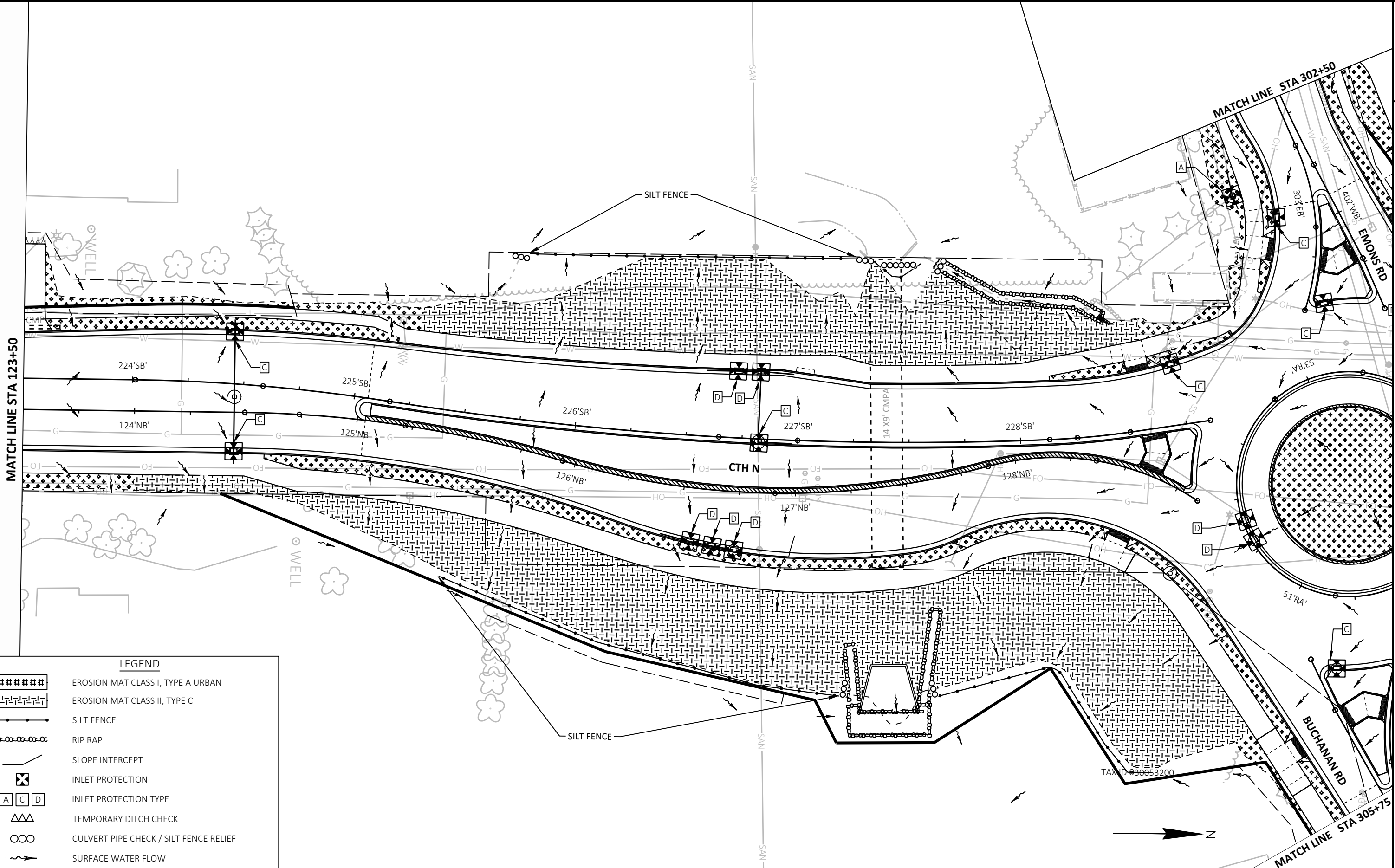
HWY: CTH N

COUNTY: OUTAGAMIE


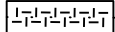
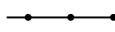




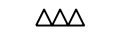

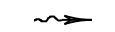
EROSION CONTROL - CTH N SOUTH

SHEET

E



LEGEND

-  EROSION MAT CLASS I, TYPE A URBAN
-  EROSION MAT CLASS II, TYPE C
-  SILT FENCE
-  RIP RAP
-  SLOPE INTERCEPT
-  INLET PROTECTION
-  INLET PROTECTION TYPE
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK / SILT FENCE RELIEF
-  SURFACE WATER FLOW

PROJECT NO: 4676-04-71

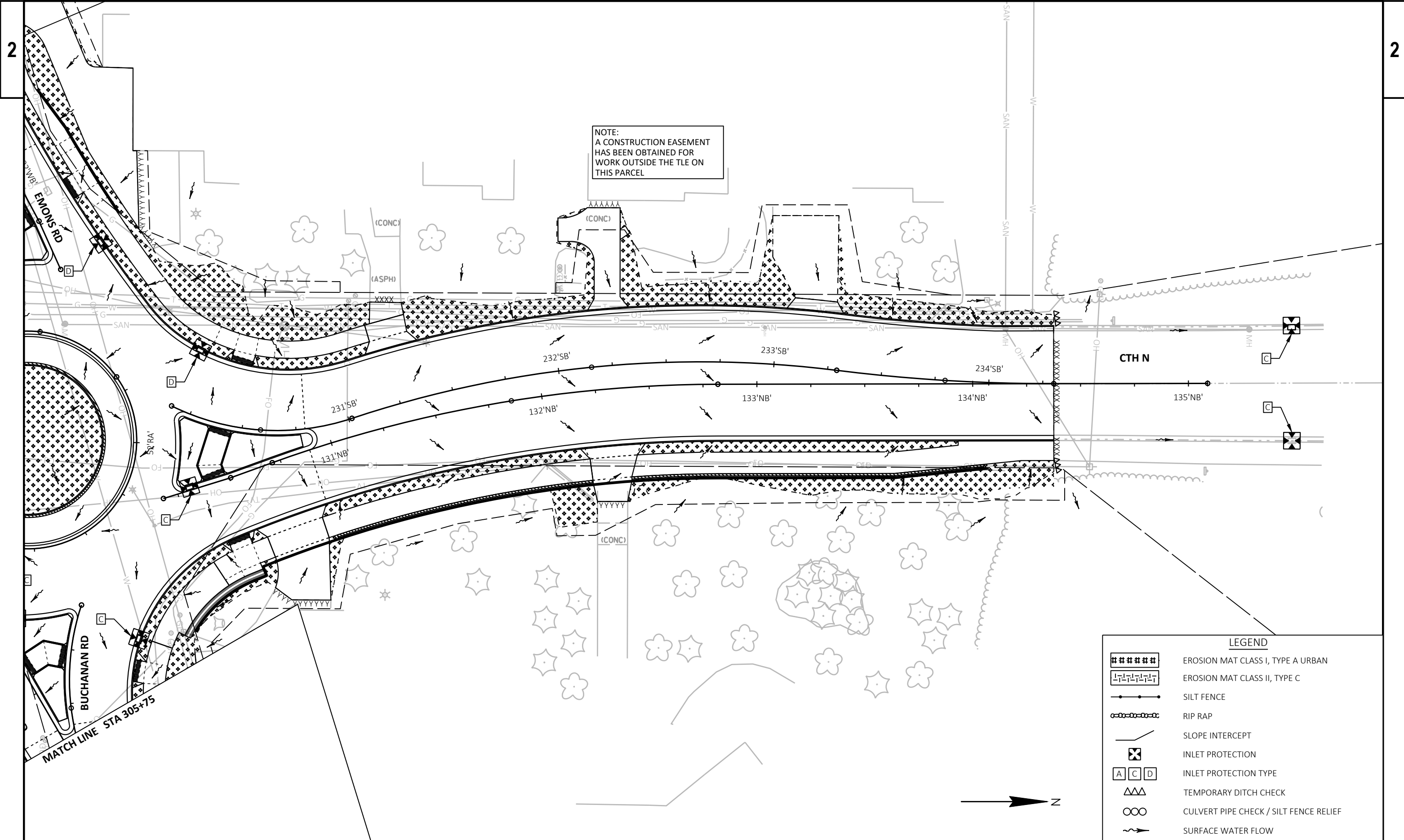
HWY: CTH N

COUNTY: OUTAGAMIE

EROSION CONTROL - CTH N SOUTH

SHEET

E



NOTE:
A CONSTRUCTION EASEMENT
HAS BEEN OBTAINED FOR
WORK OUTSIDE THE TLE ON
THIS PARCEL

LEGEND	
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	SLOPE INTERCEPT
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	TEMPORARY DITCH CHECK
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	SURFACE WATER FLOW

PROJECT NO: 4676-04-71

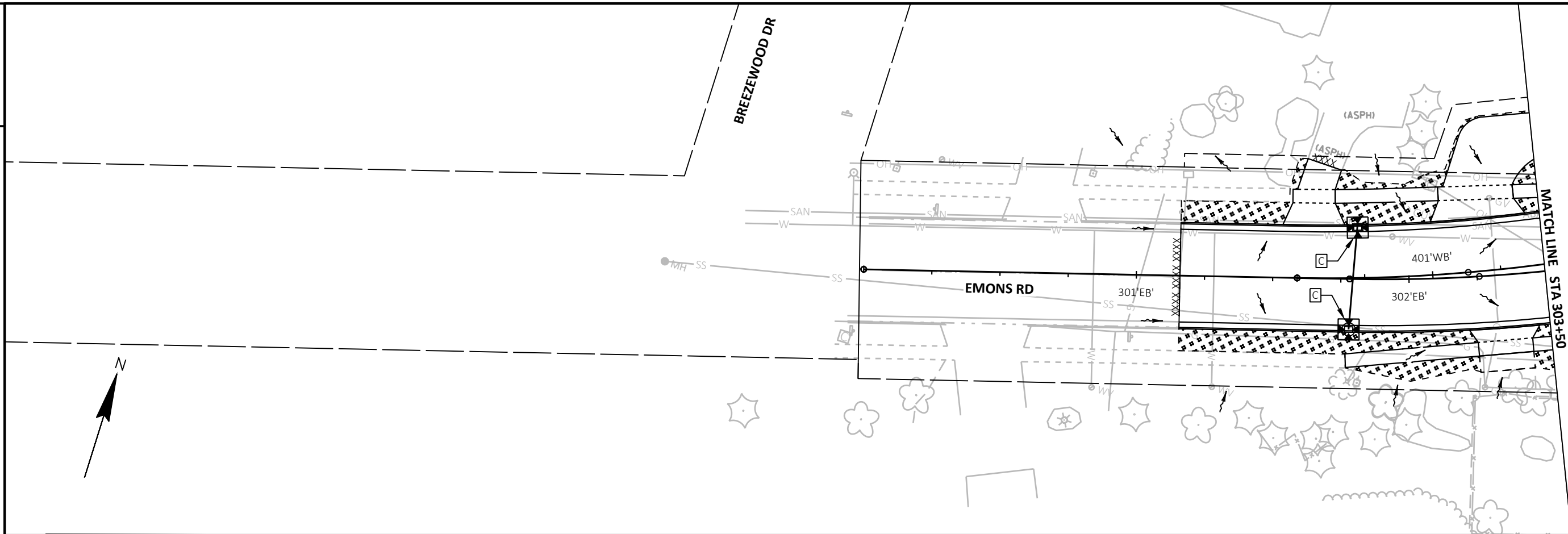
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COUNTY: OUTAGAMIE

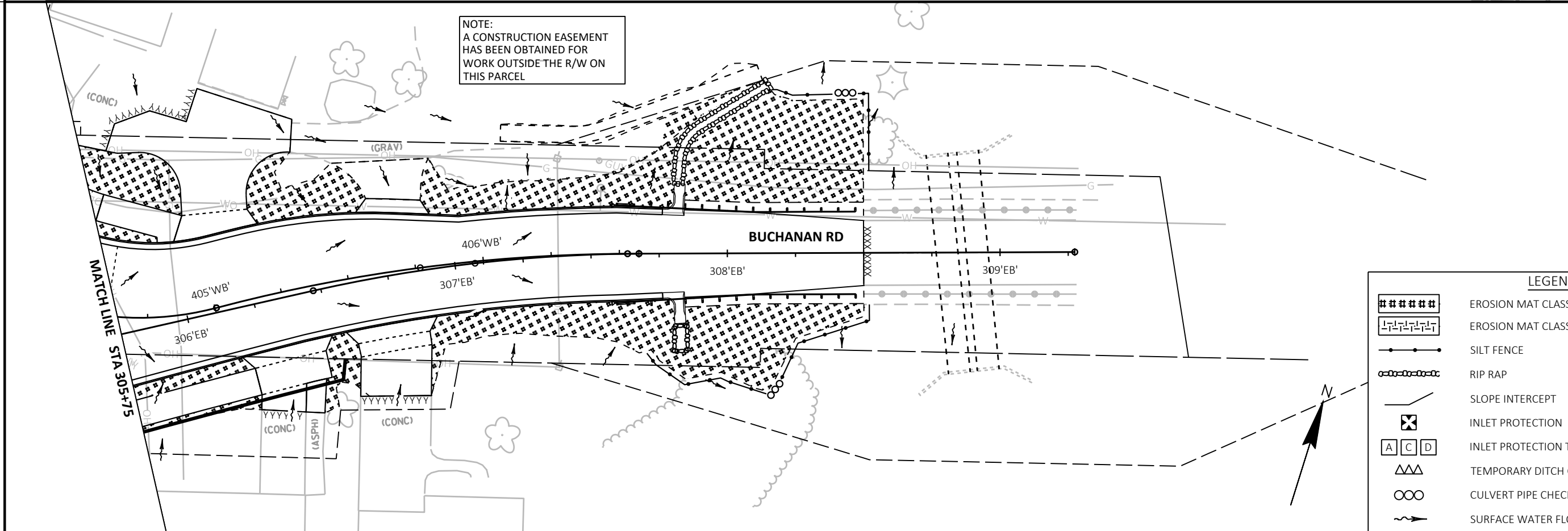
EROSION CONTROL - CTH N NORTH

SHEET

E

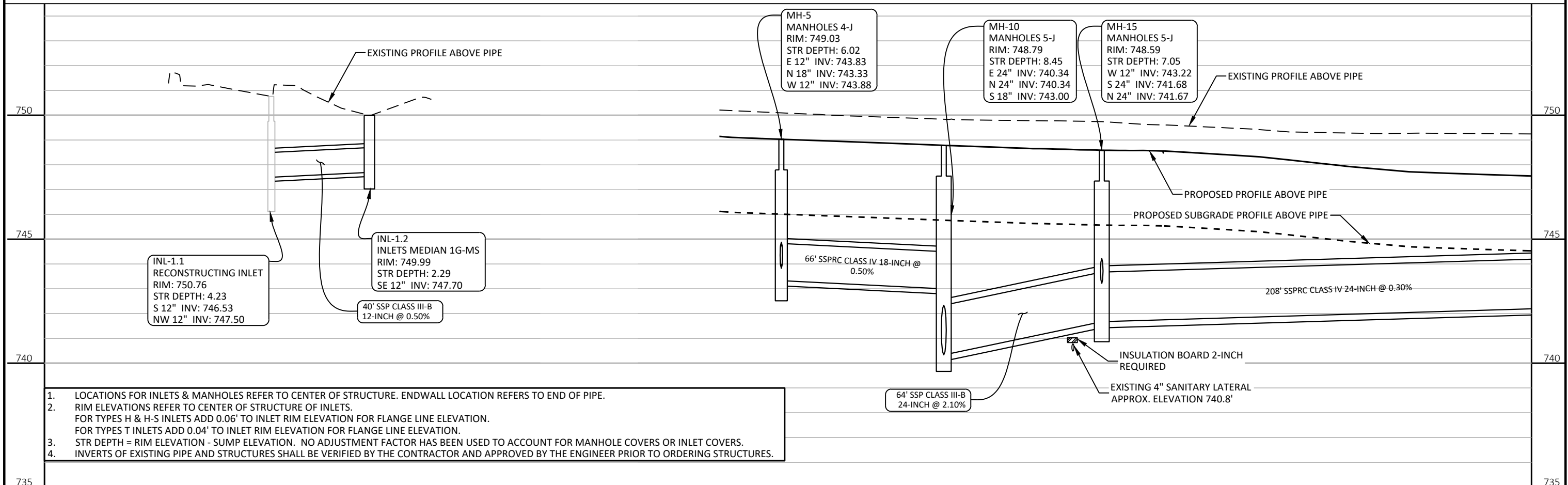
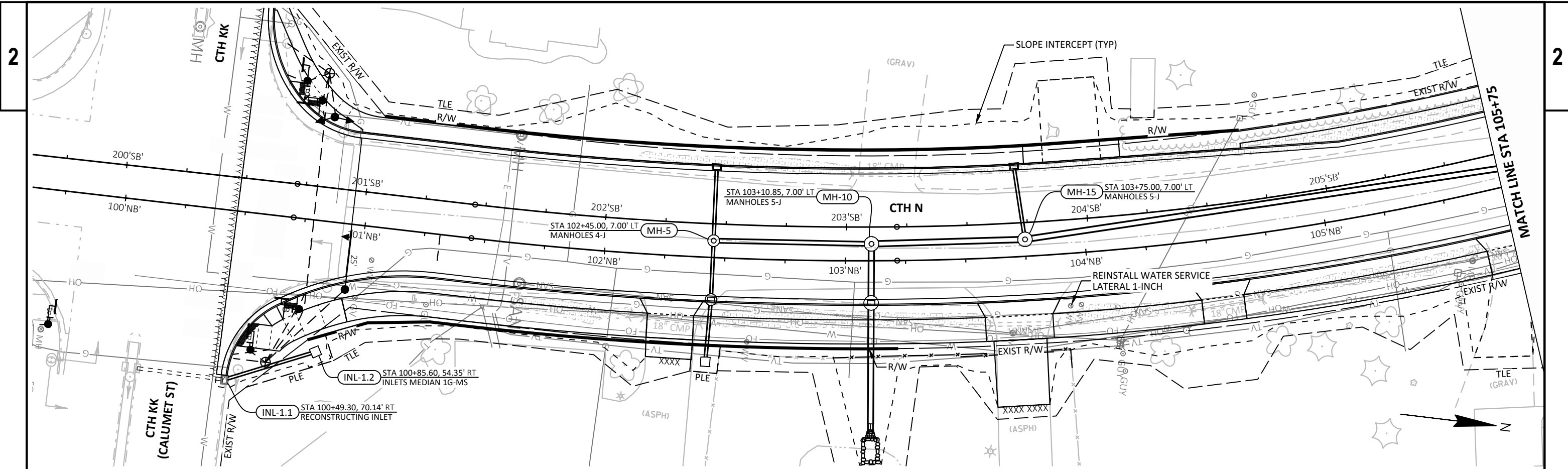


NOTE:
A CONSTRUCTION EASEMENT
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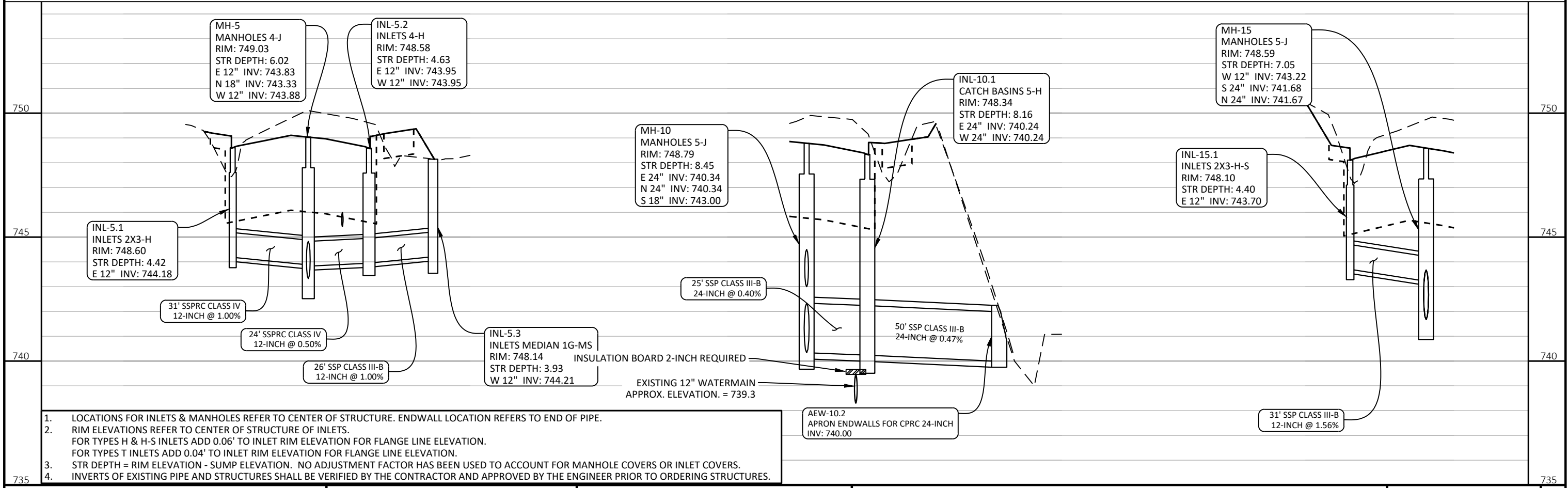
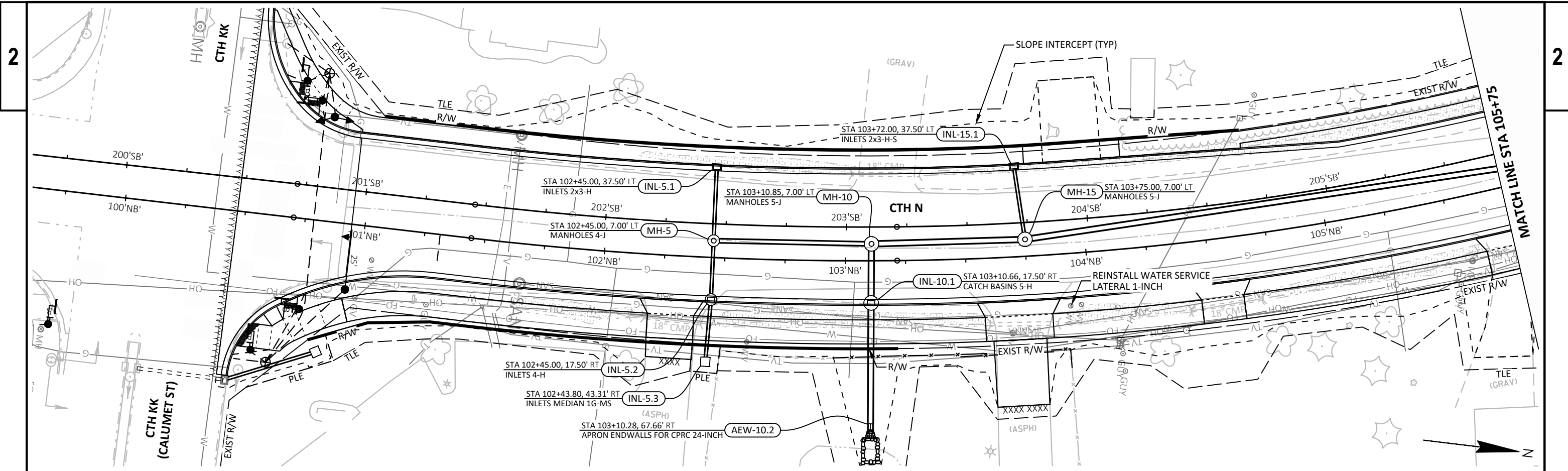


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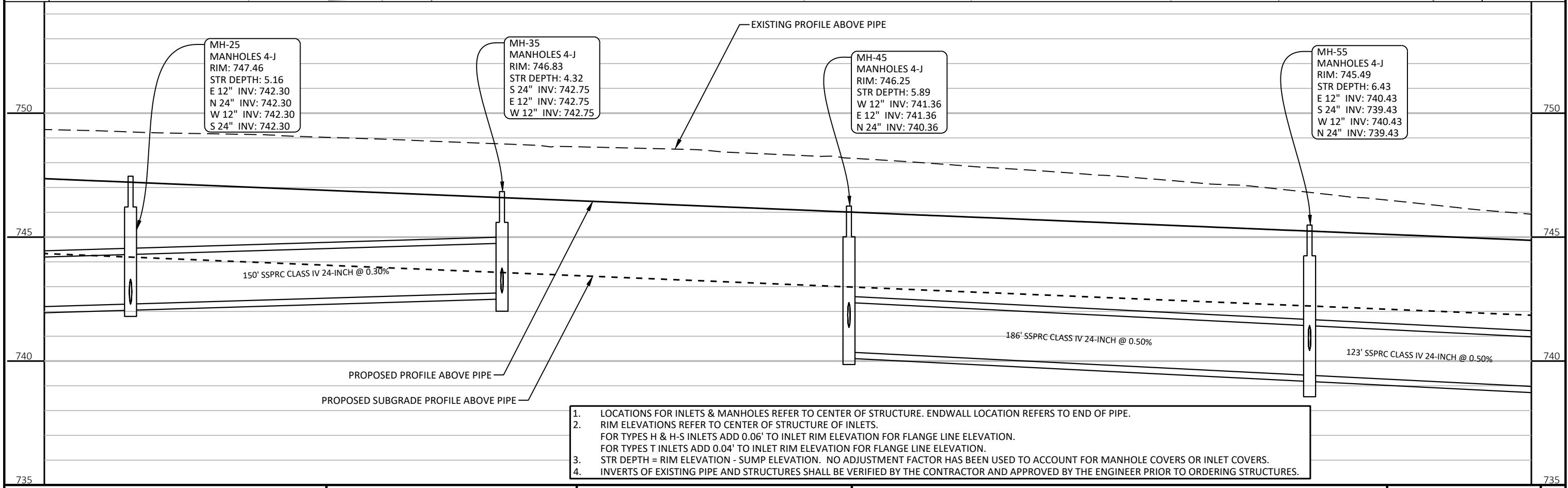
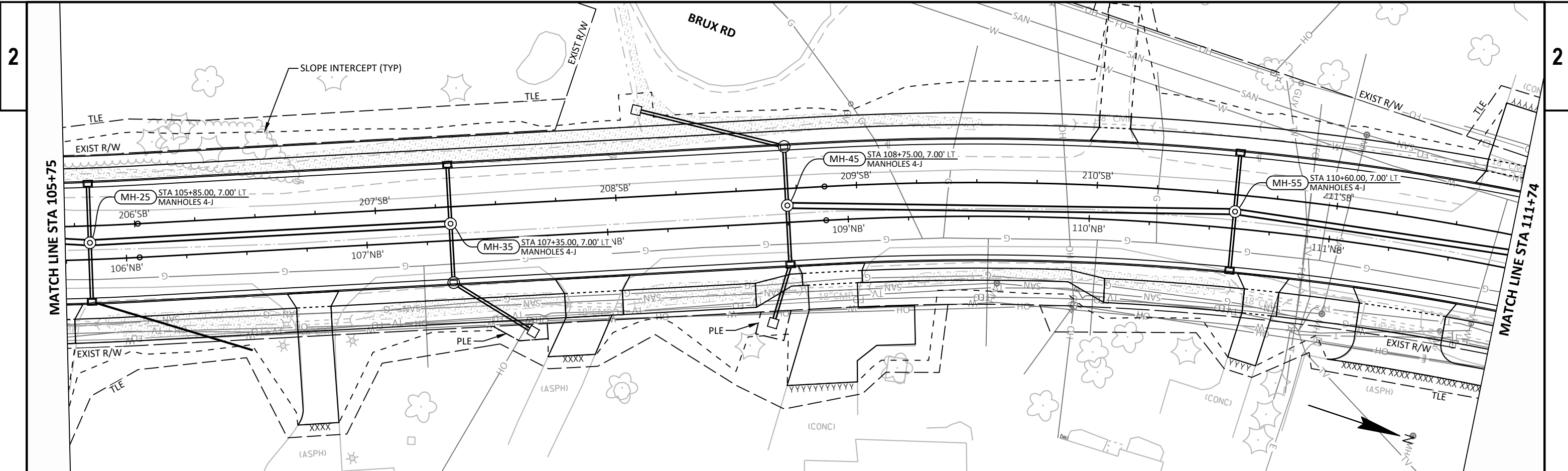
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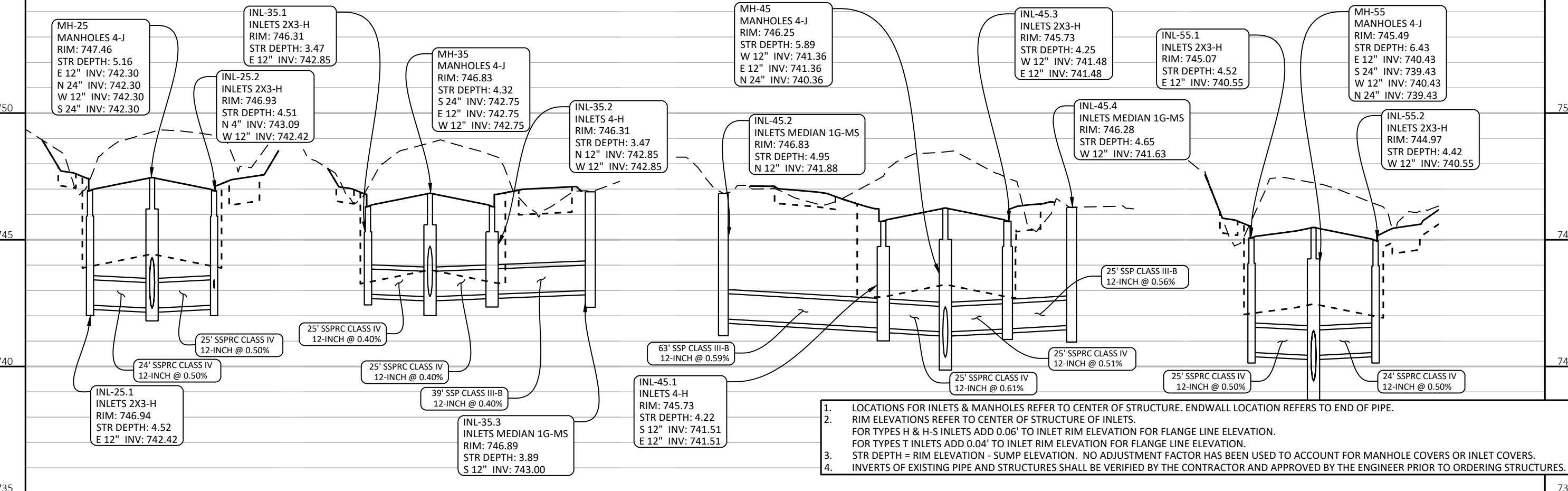
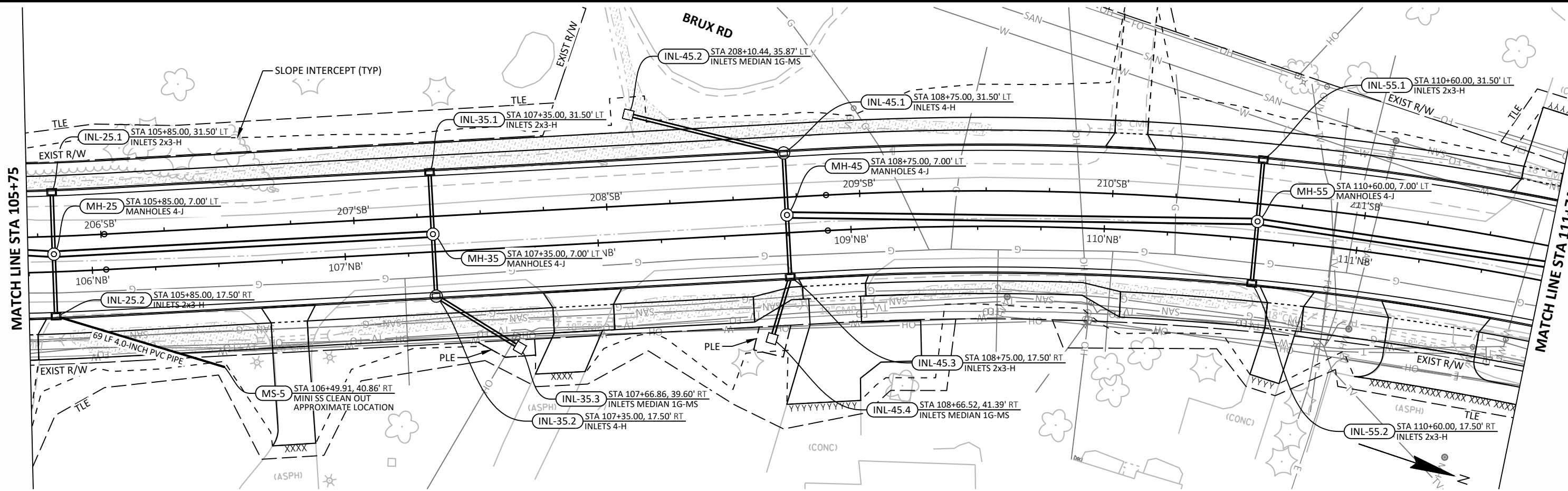
1. LOCATIONS FOR INLETS & MANHOLES REFER TO CENTER OF STRUCTURE. ENDWALL LOCATION REFERS TO END OF PIPE.
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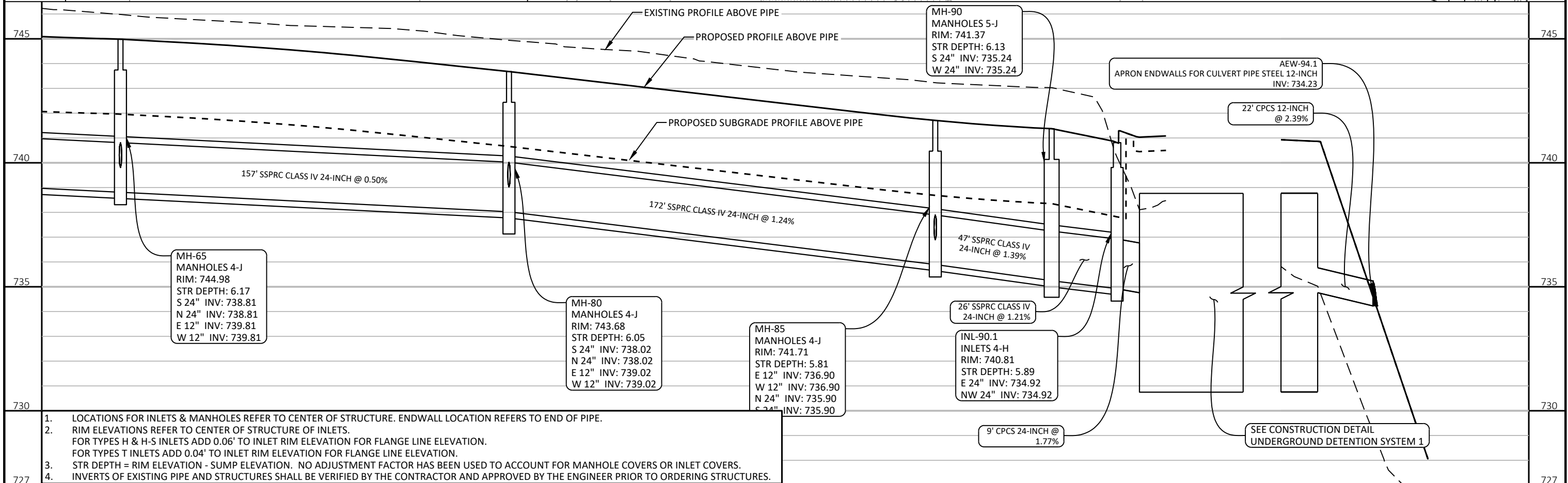
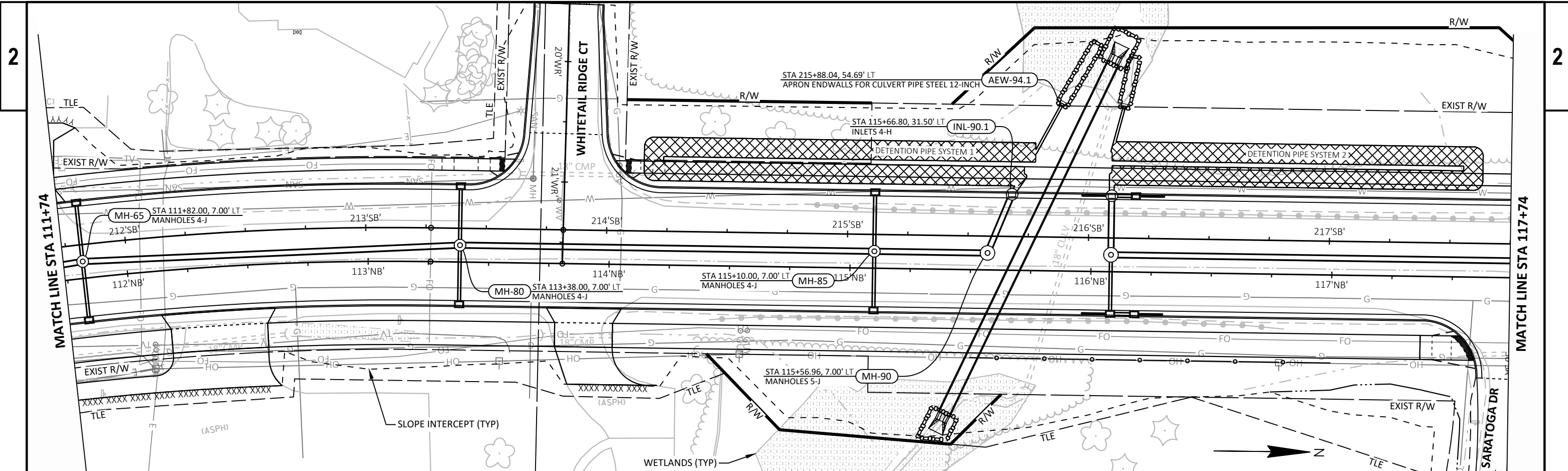


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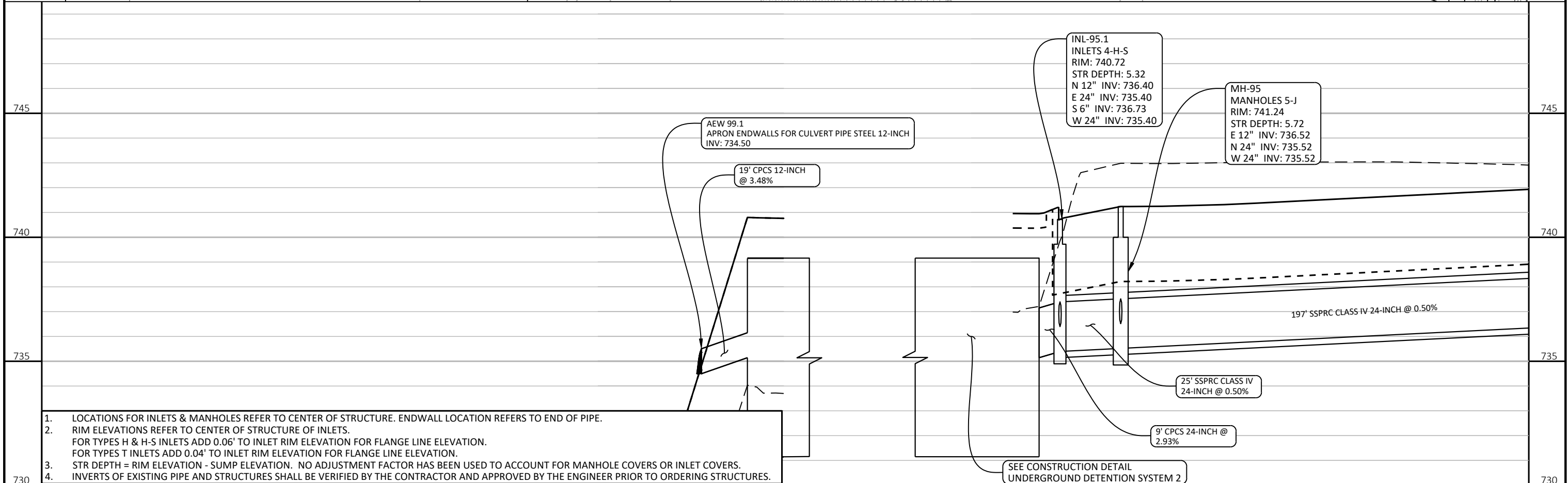
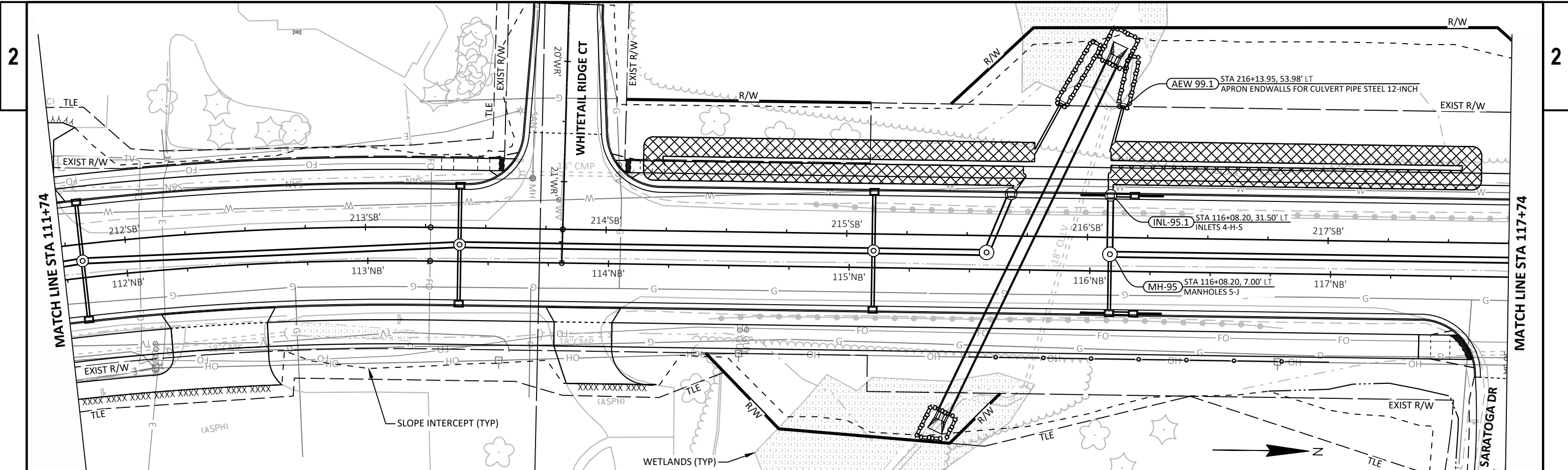


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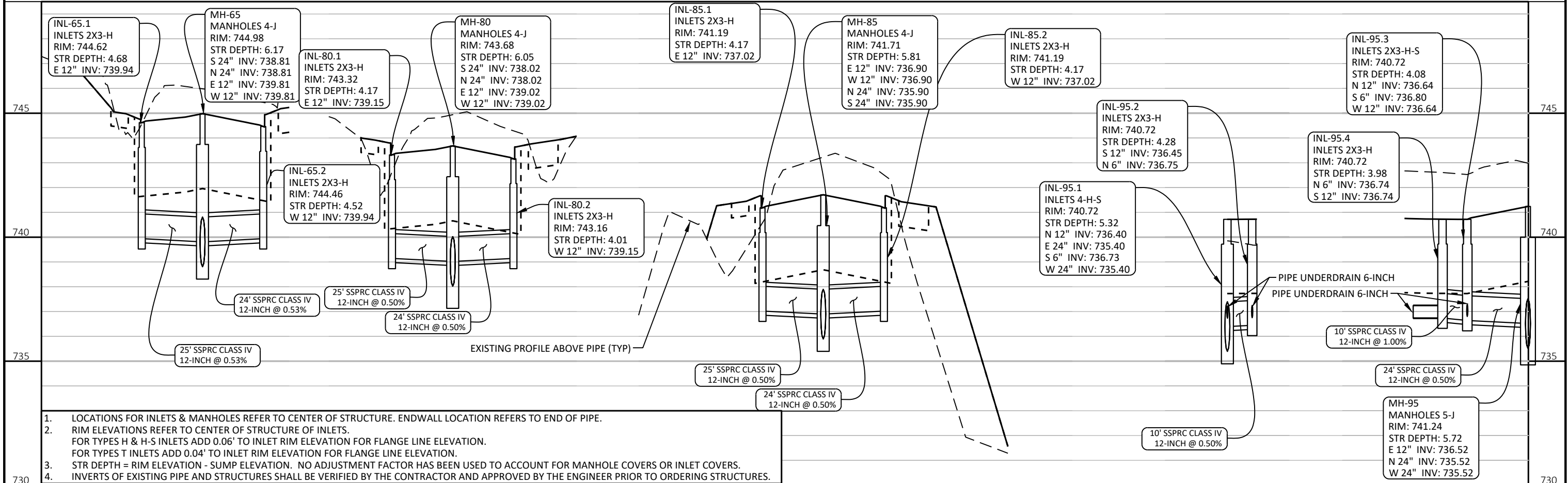
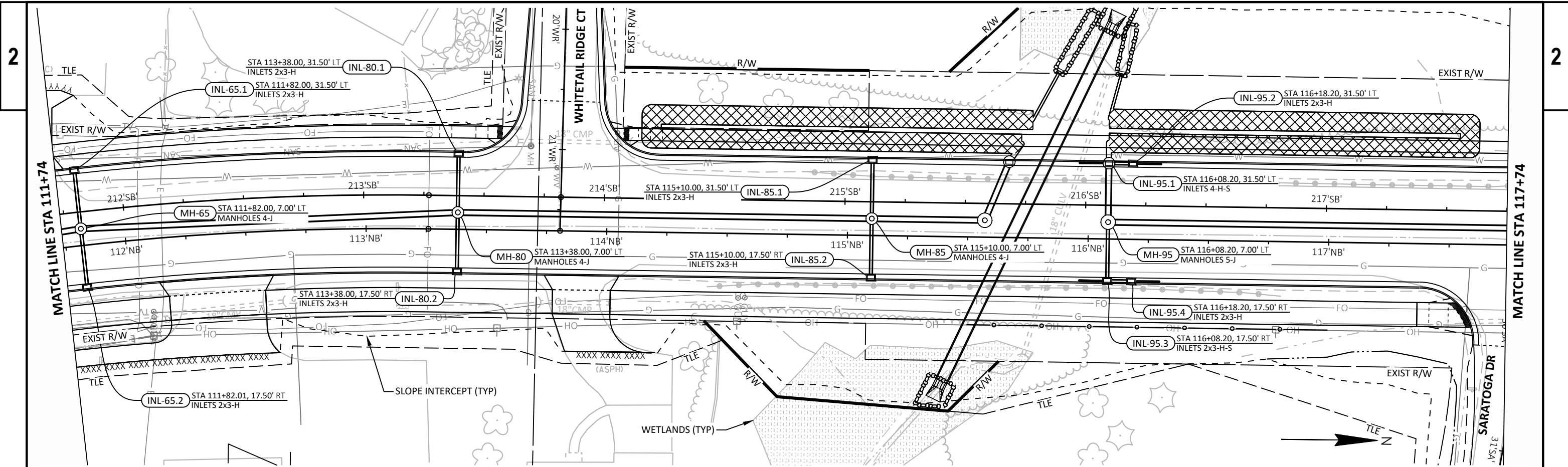




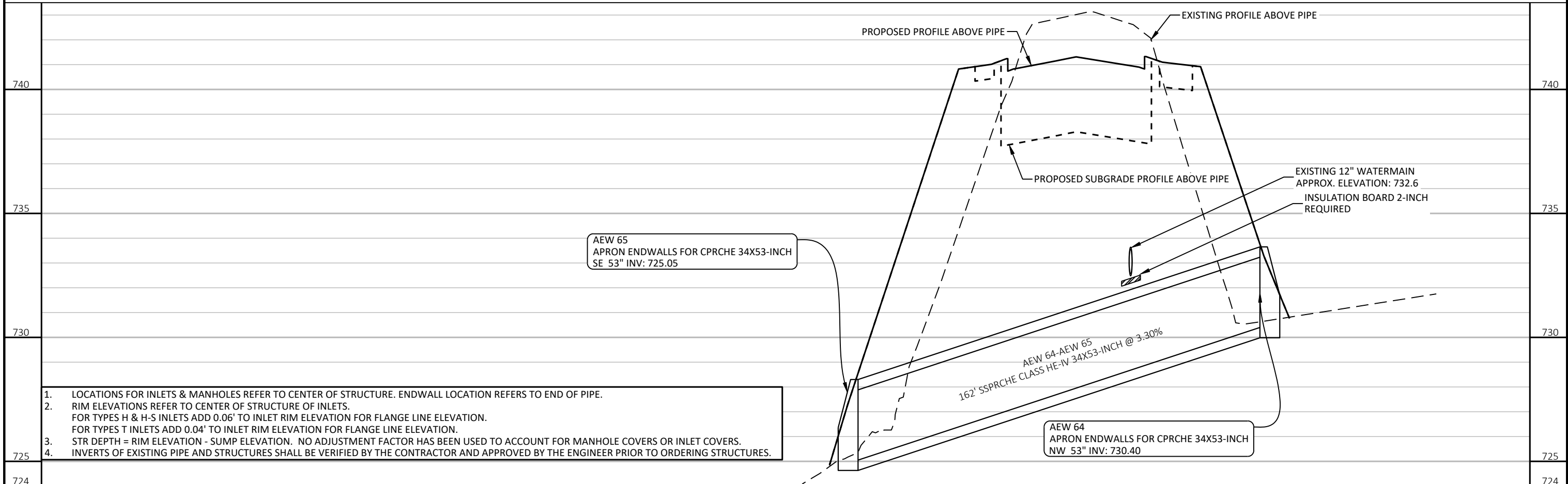
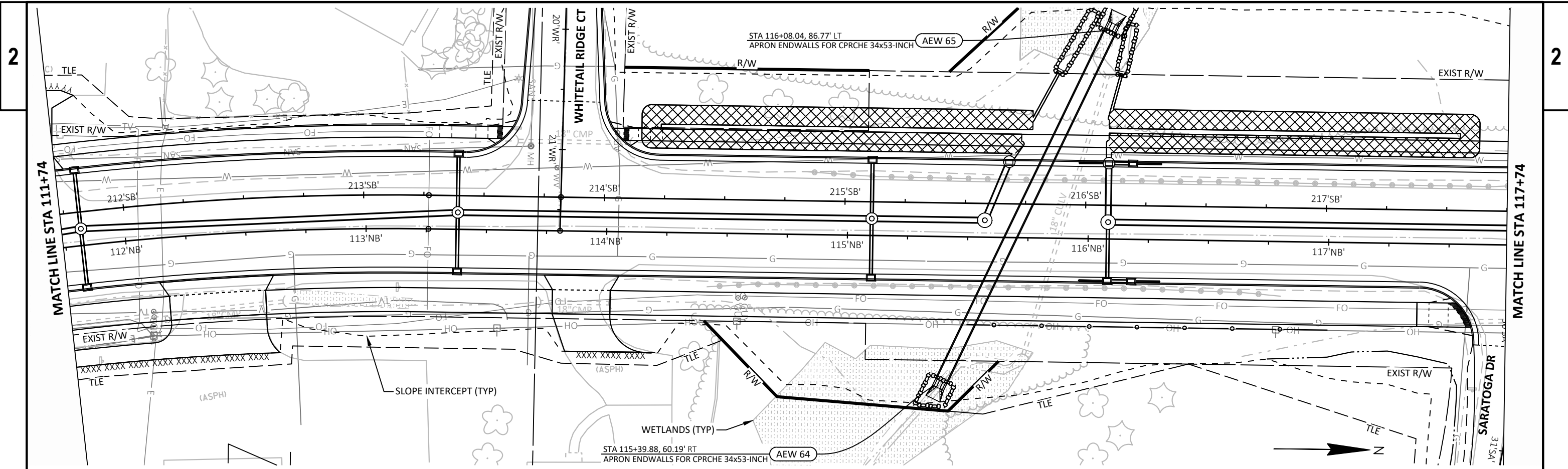
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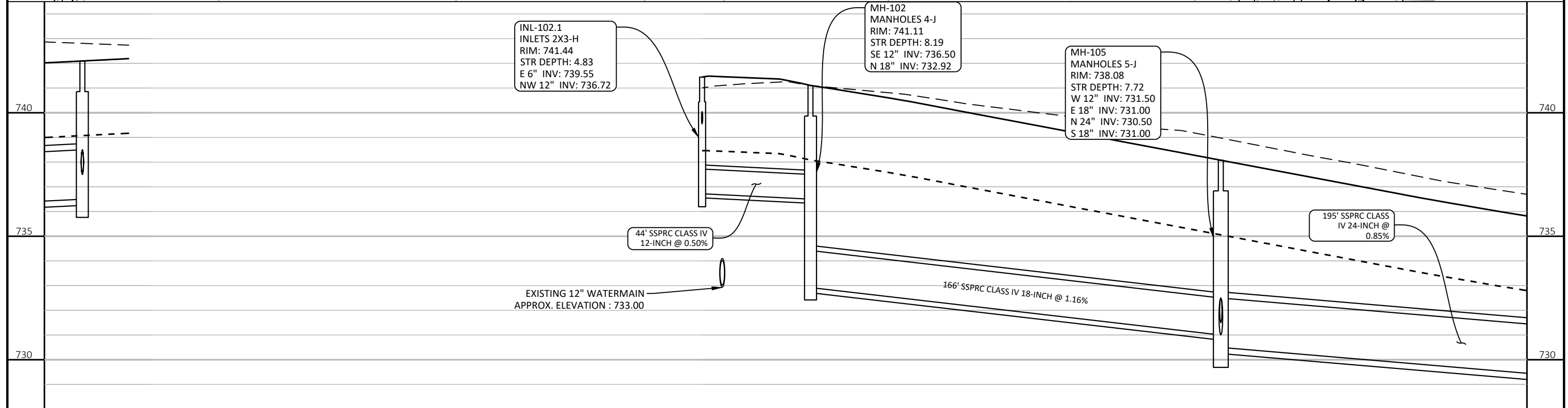
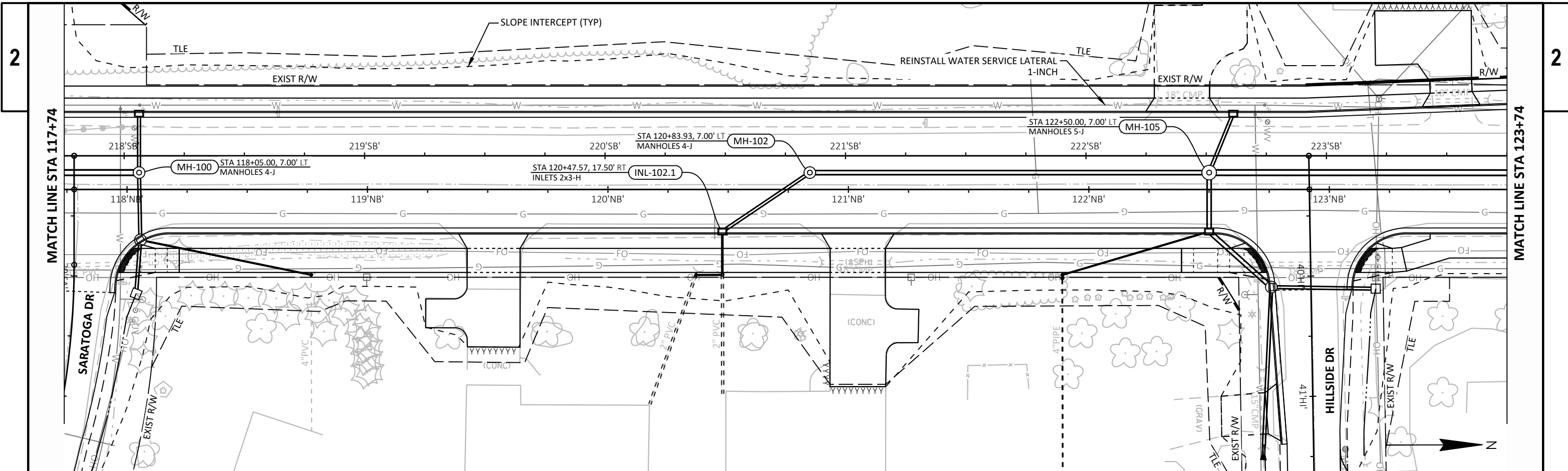
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PROJECT NO: 4676-04-71

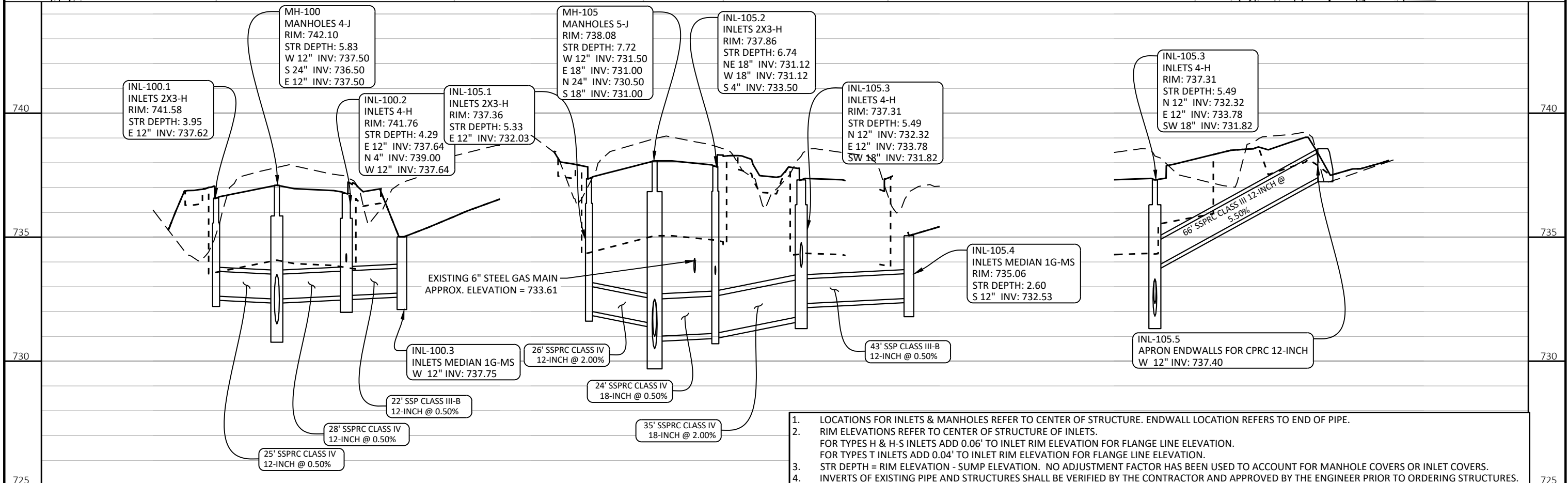
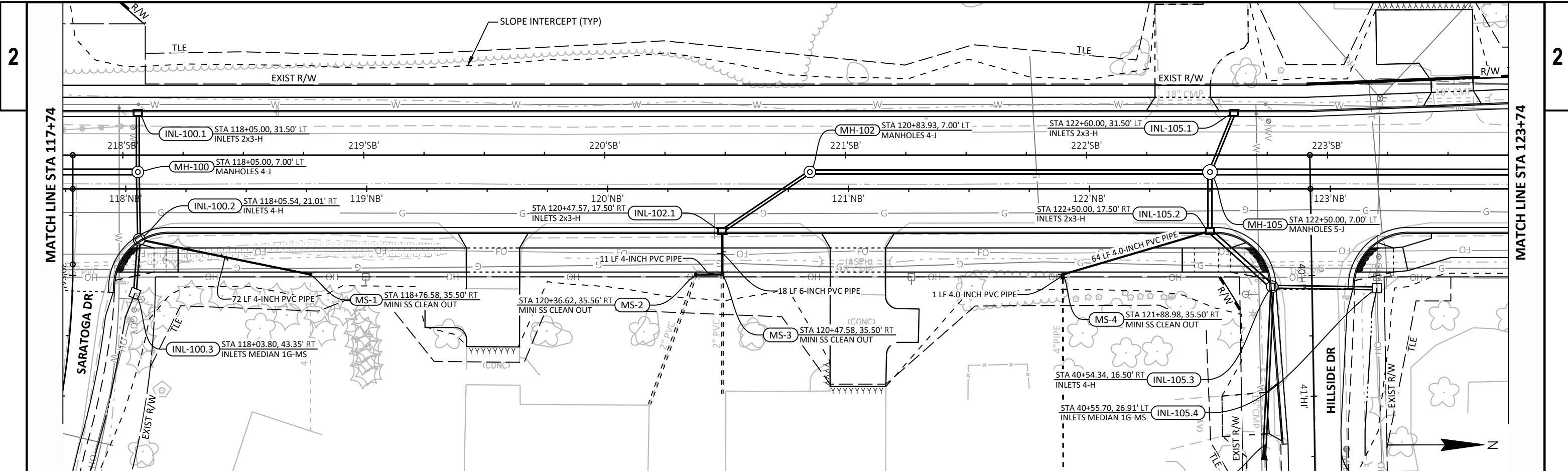
HWY: CTH N

COUNTY: OUTAGAMIE

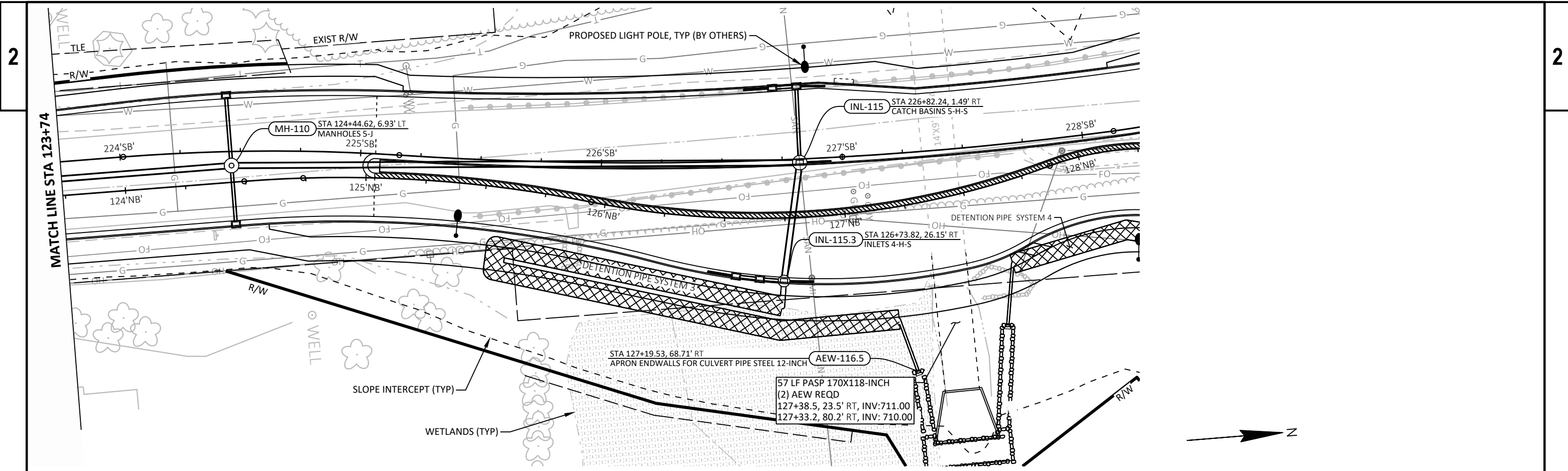
STORM SEWER

SHEET

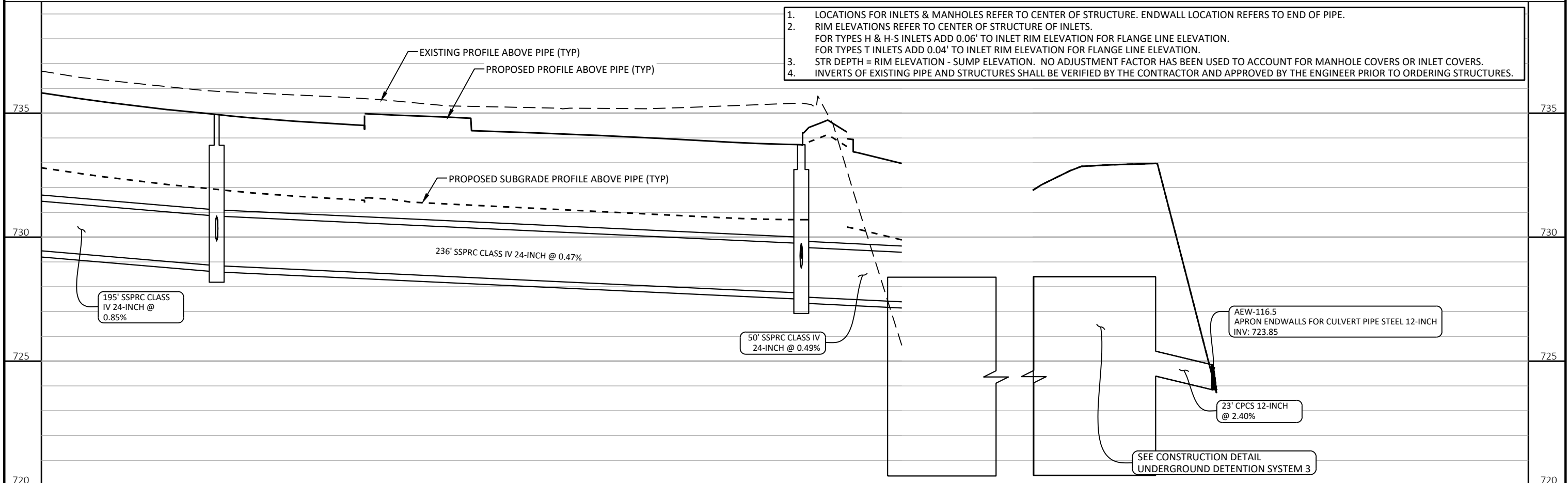
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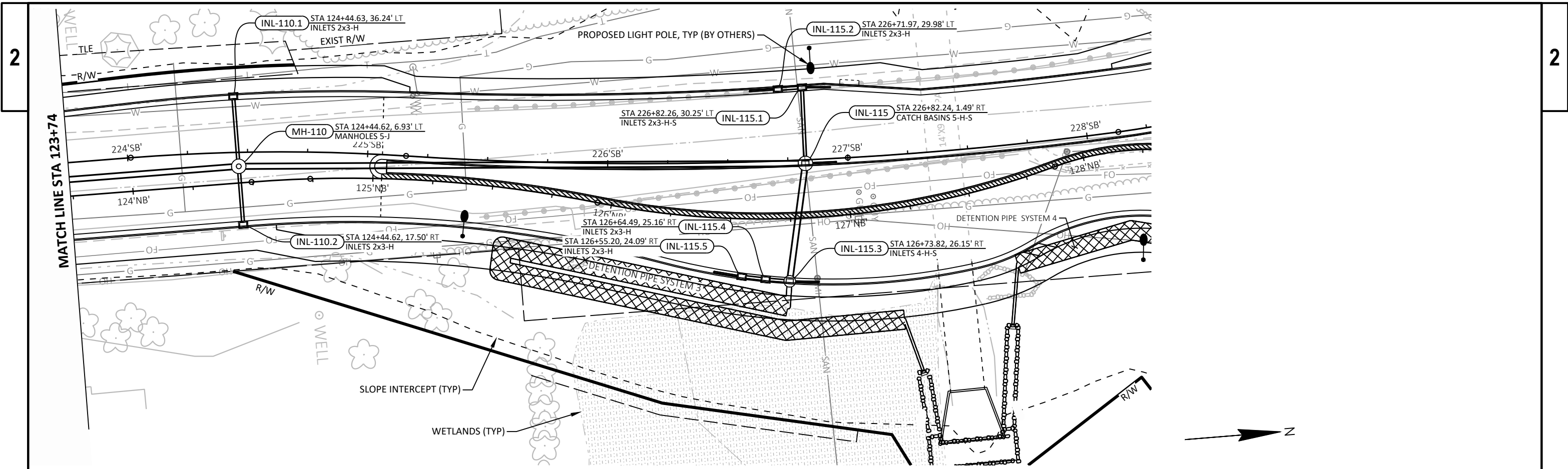


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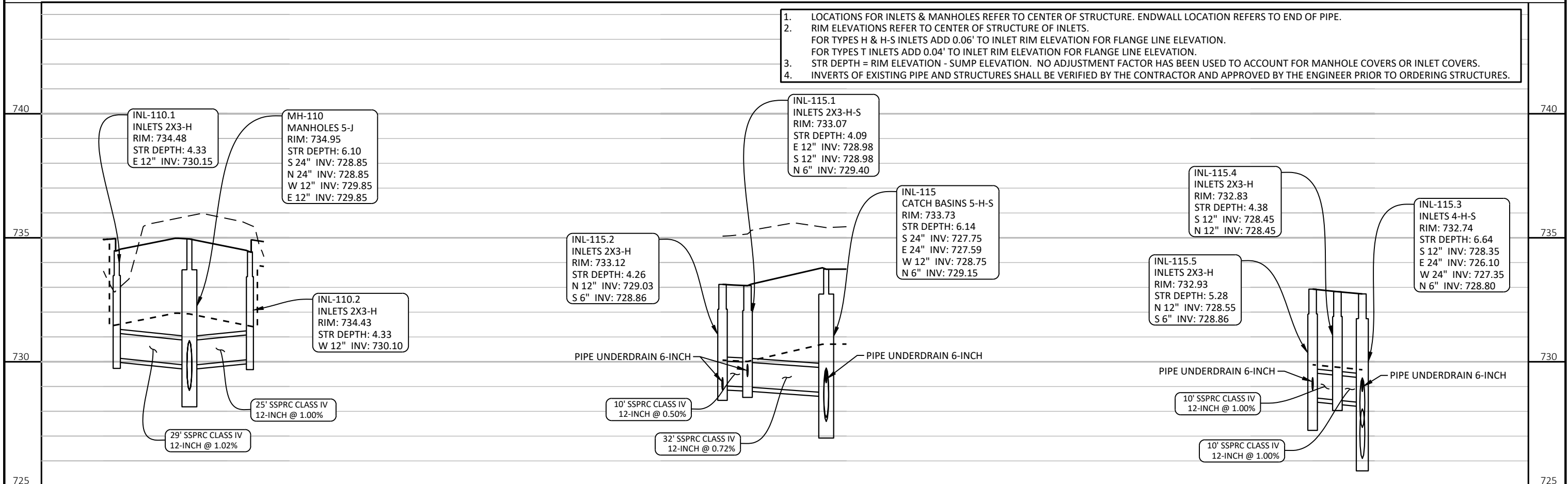


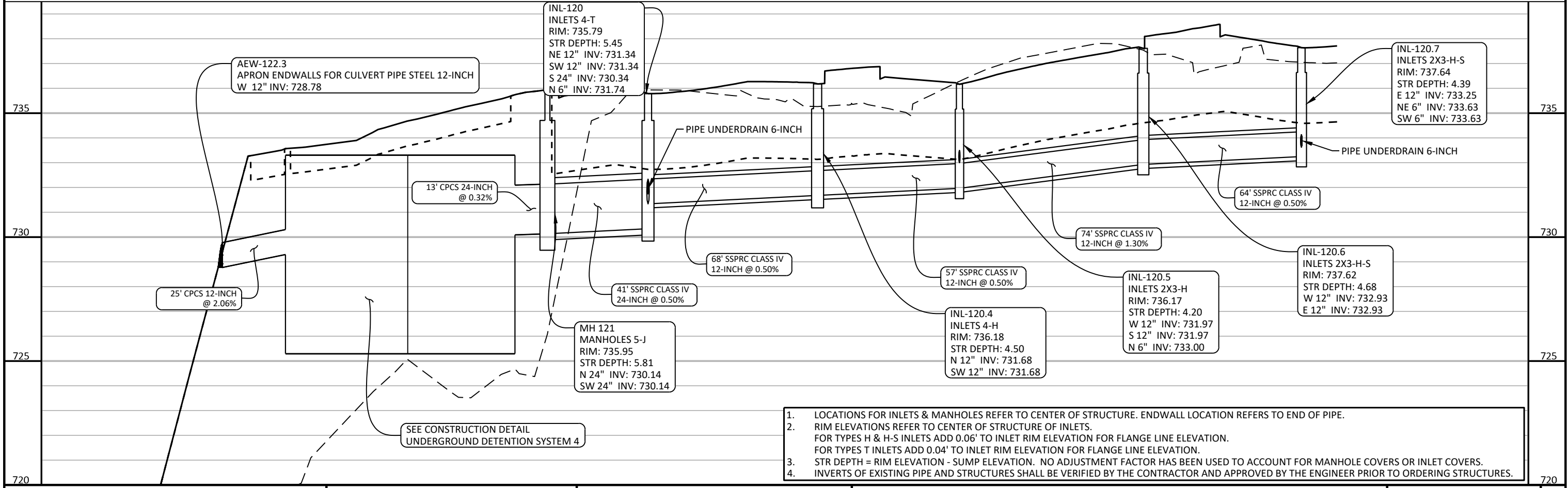
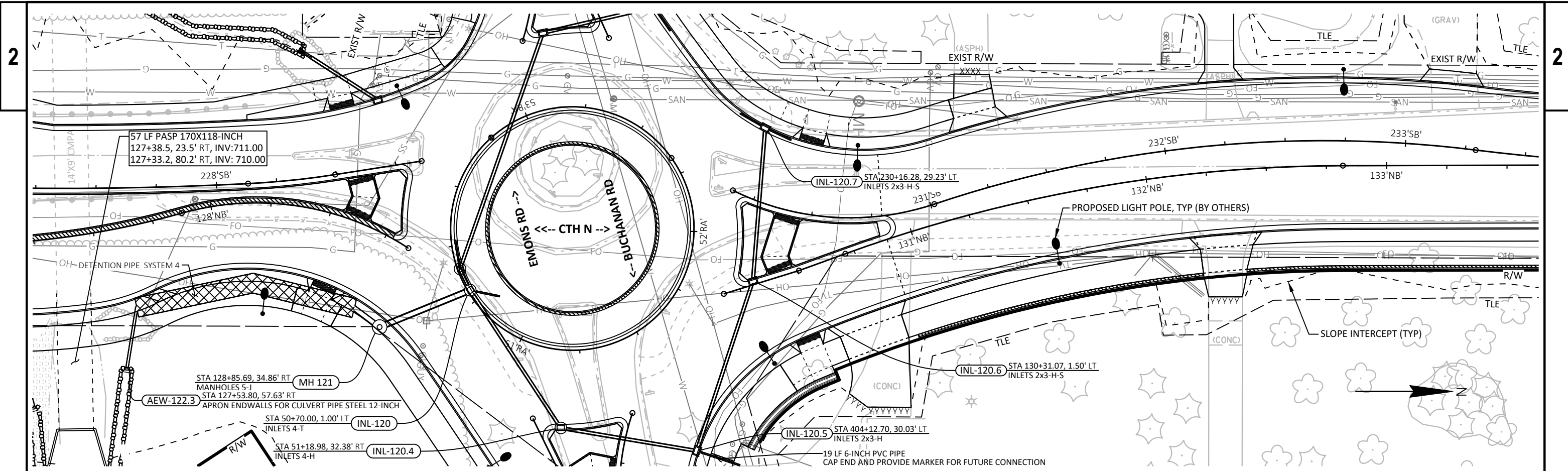
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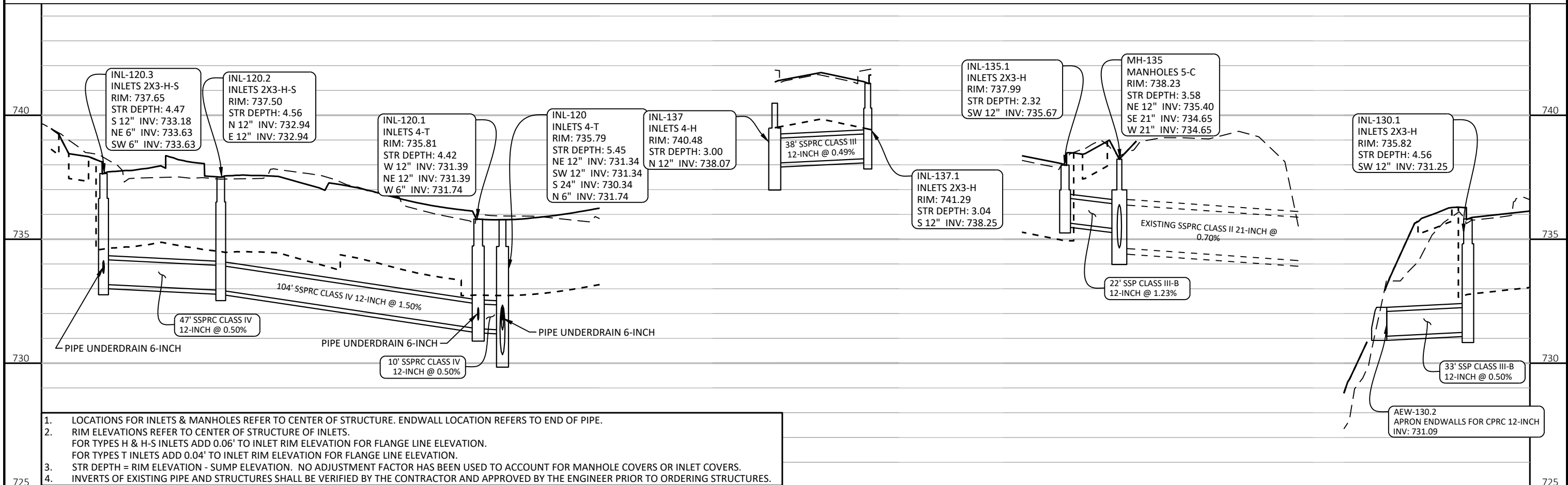
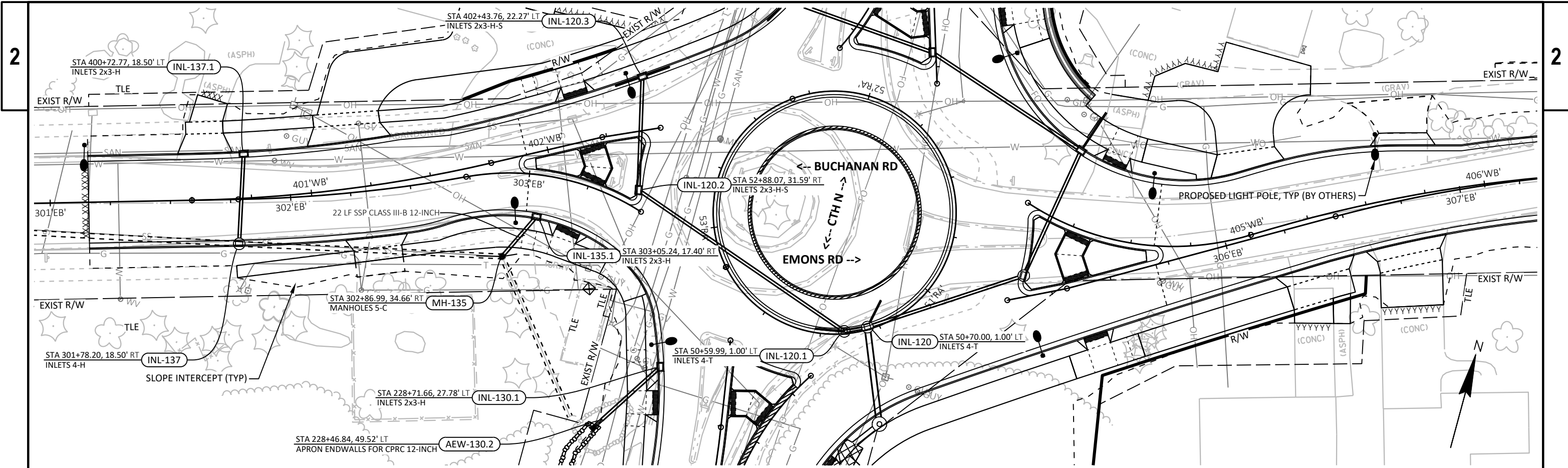


1. LOCATIONS FOR INLETS & MANHOLES REFER TO CENTER OF STRUCTURE. ENDWALL LOCATION REFERS TO END OF PIPE.
2. RIM ELEVATIONS REFER TO CENTER OF STRUCTURE OF INLETS.
FOR TYPES H & H-S INLETS ADD 0.06' TO INLET RIM ELEVATION FOR FLANGE LINE ELEVATION.
FOR TYPES T INLETS ADD 0.04' TO INLET RIM ELEVATION FOR FLANGE LINE ELEVATION.
3. STR DEPTH = RIM ELEVATION - SUMP ELEVATION. NO ADJUSTMENT FACTOR HAS BEEN USED TO ACCOUNT FOR MANHOLE COVERS OR INLET COVERS.
4. INVERTS OF EXISTING PIPE AND STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ORDERING STRUCTURES.





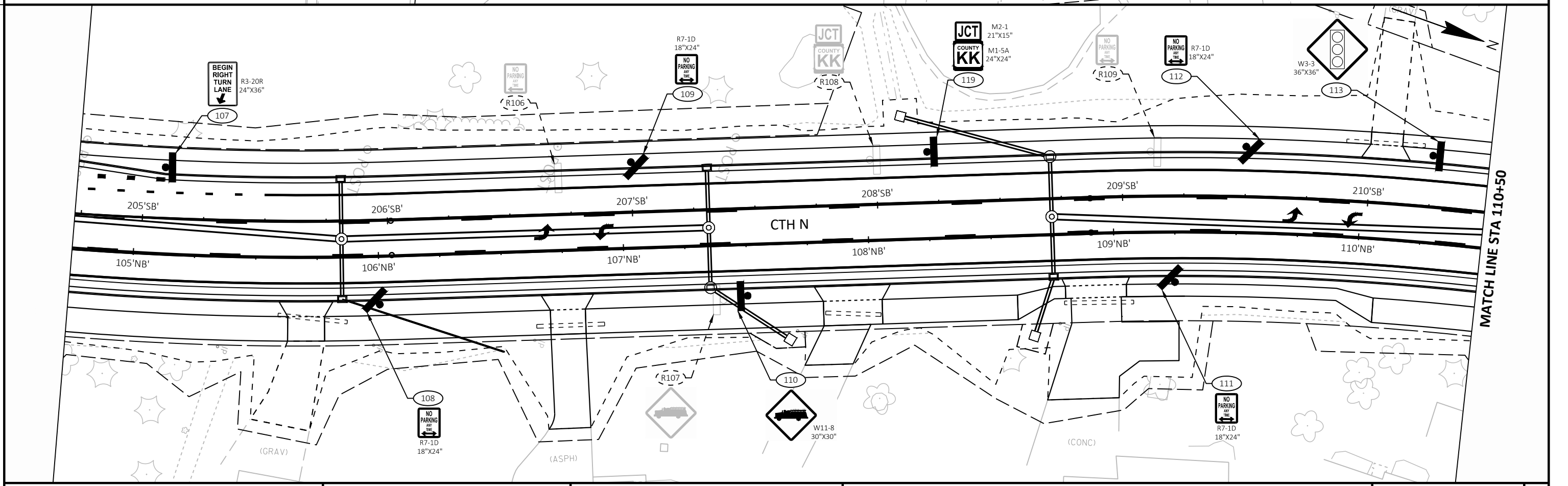
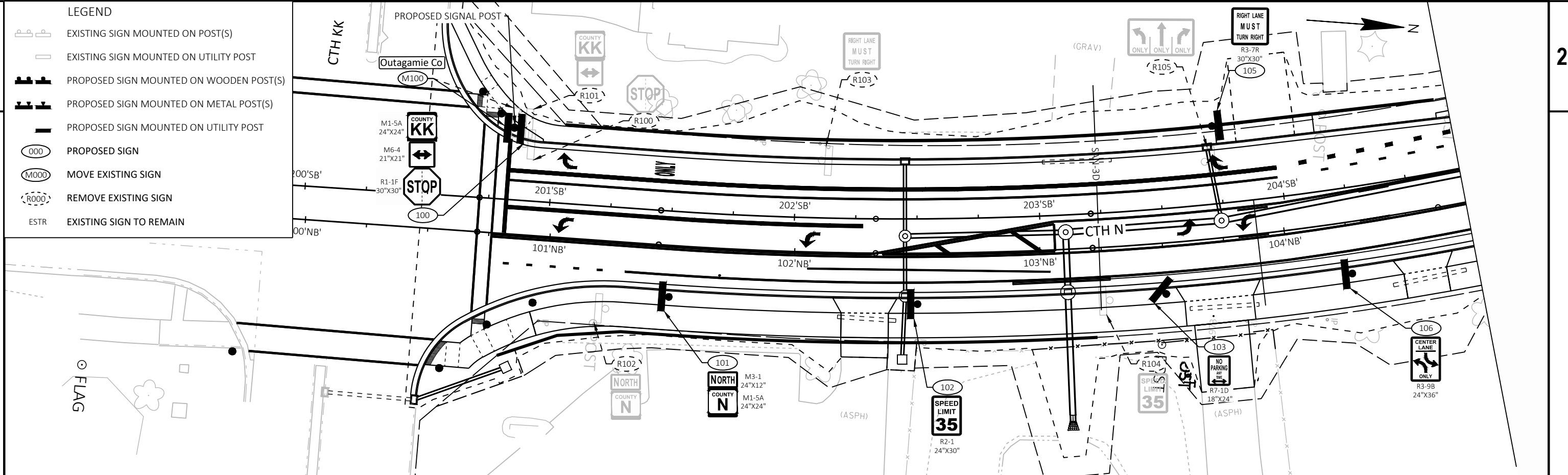
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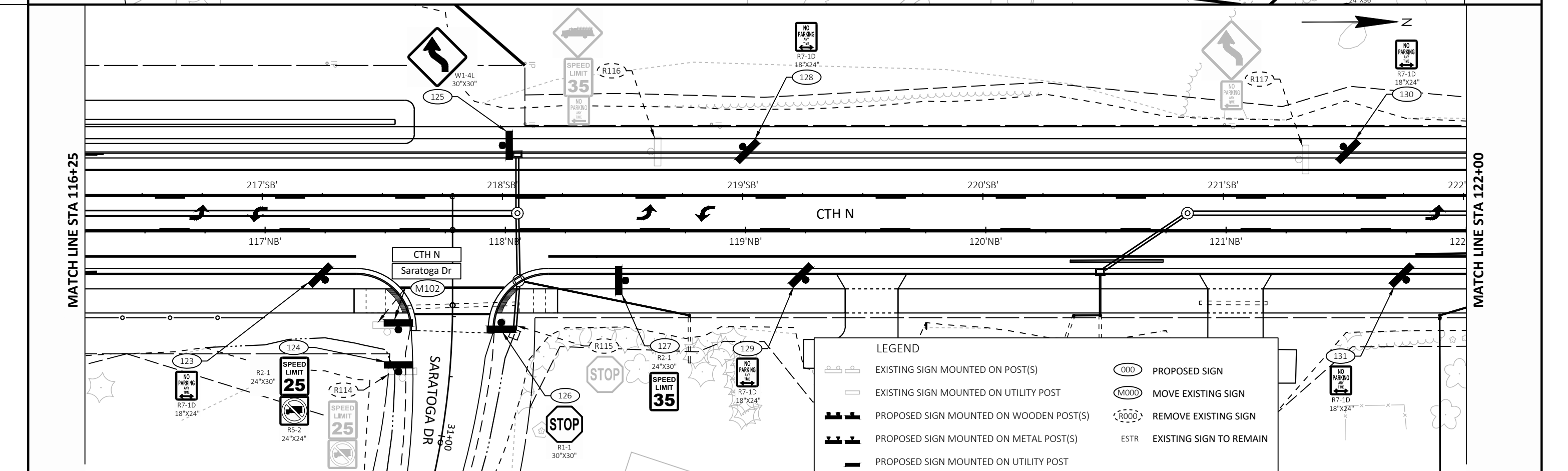
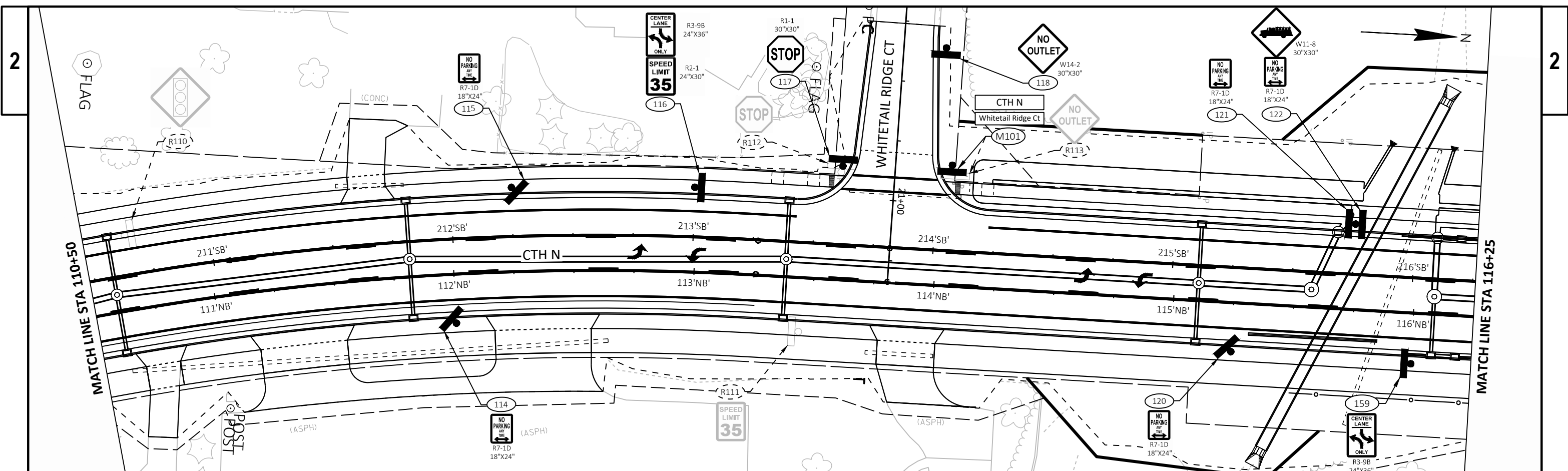
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LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON UTILITY POST
- PROPOSED SIGN MOUNTED ON WOODEN POST(S)
- PROPOSED SIGN MOUNTED ON METAL POST(S)
- PROPOSED SIGN MOUNTED ON UTILITY POST
- PROPOSED SIGN
- MOVE EXISTING SIGN
- REMOVE EXISTING SIGN
- EXISTING SIGN TO REMAIN



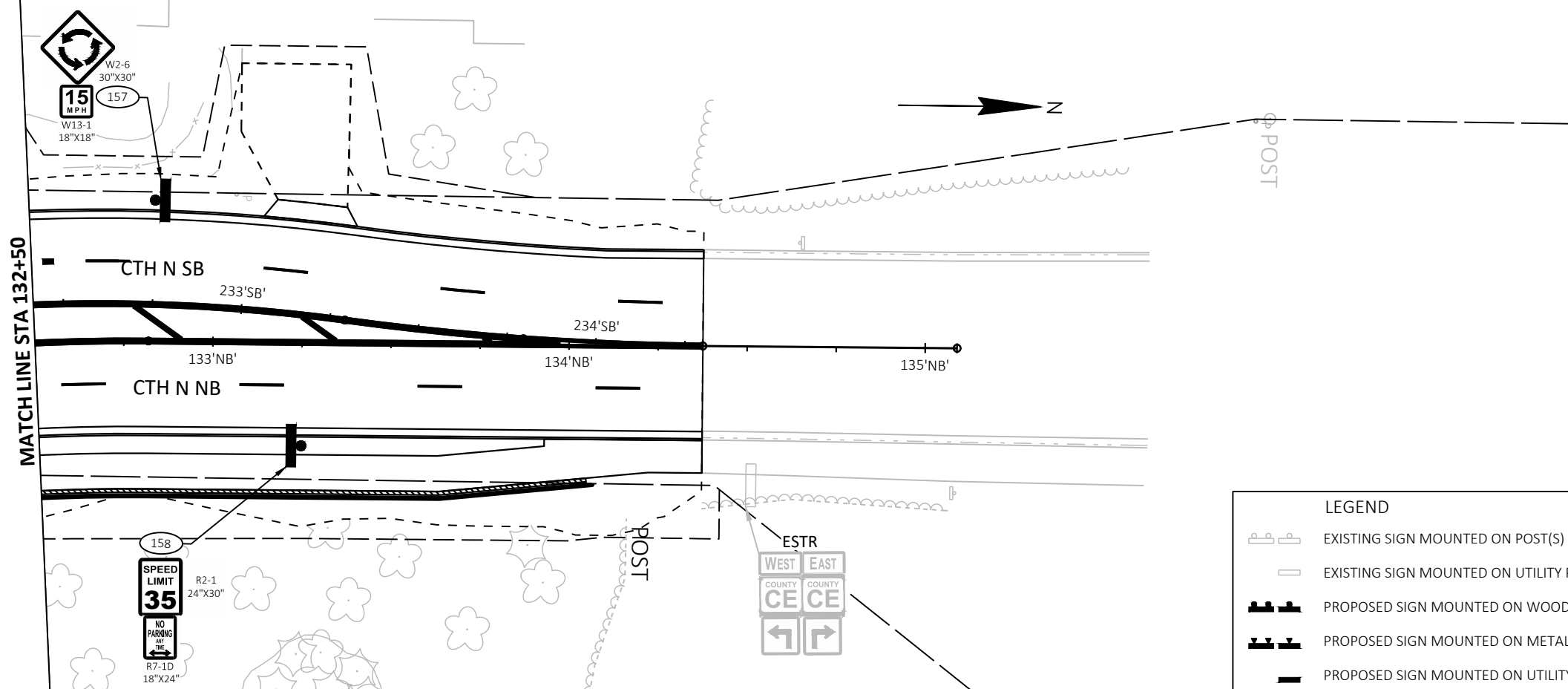
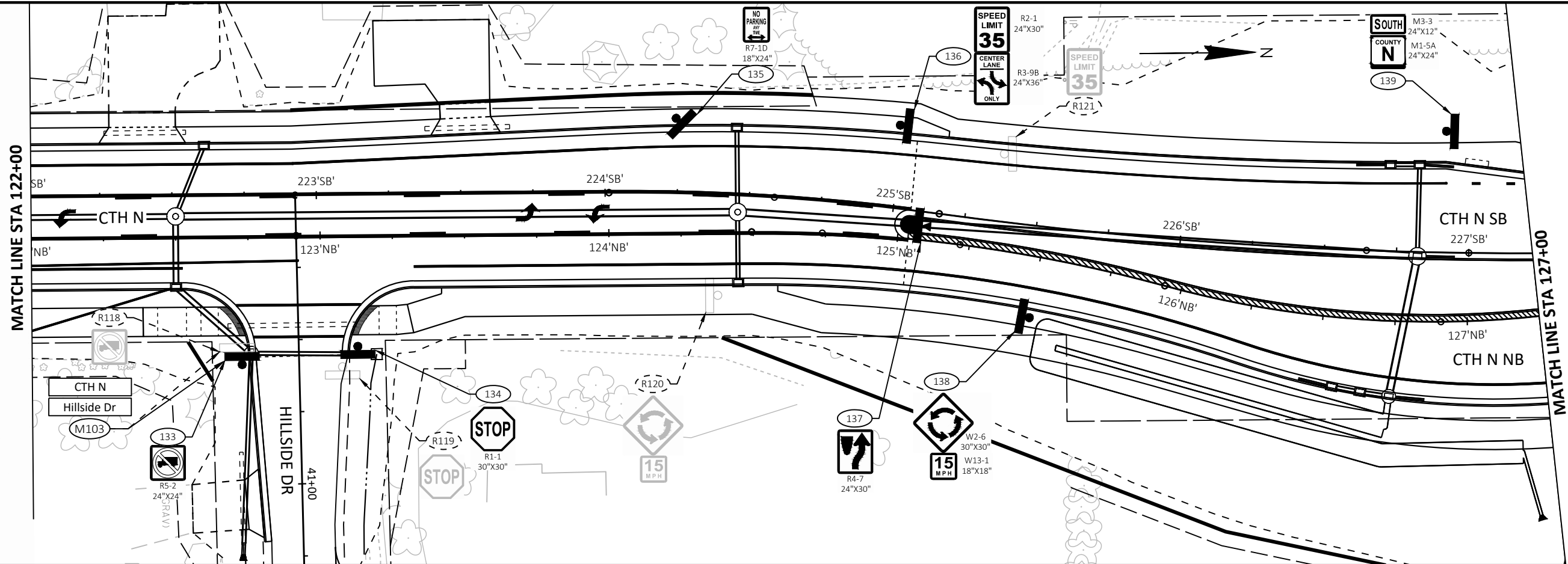
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PERMANENT SIGNING - CTH N
SHEET			E



LEGEND	
	EXISTING SIGN MOUNTED ON POST(S)
	EXISTING SIGN MOUNTED ON UTILITY POST
	PROPOSED SIGN MOUNTED ON WOODEN POST(S)
	PROPOSED SIGN MOUNTED ON METAL POST(S)
	PROPOSED SIGN MOUNTED ON UTILITY POST
	PROPOSED SIGN
	MOVE EXISTING SIGN
	REMOVE EXISTING SIGN
	EXISTING SIGN TO REMAIN

PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PERMANENT SIGNING - CTH N SHEET E

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-023201-PS.DWG PLOT DATE: 12/11/2025 7:22 AM PLOT BY: ANDY WESTBROOK PLOT NAME: PLOT SCALE: 1 IN:40 FT WISDOT/CADD'S SHEET 44



LEGEND	
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	EXISTING SIGN MOUNTED ON UTILITY POST
	PROPOSED SIGN MOUNTED ON WOODEN POST(S)
	PROPOSED SIGN MOUNTED ON METAL POST(S)
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	PROPOSED SIGN
	MOVE EXISTING SIGN
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	EXISTING SIGN TO REMAIN

PROJECT NO: 4676-04-71

HWY: CTH N

COUNTY: OUTAGAMIE

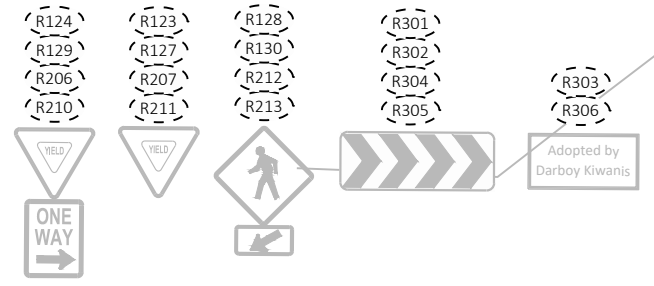
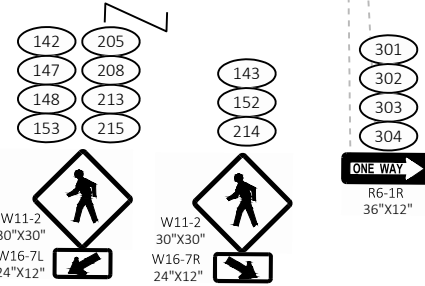
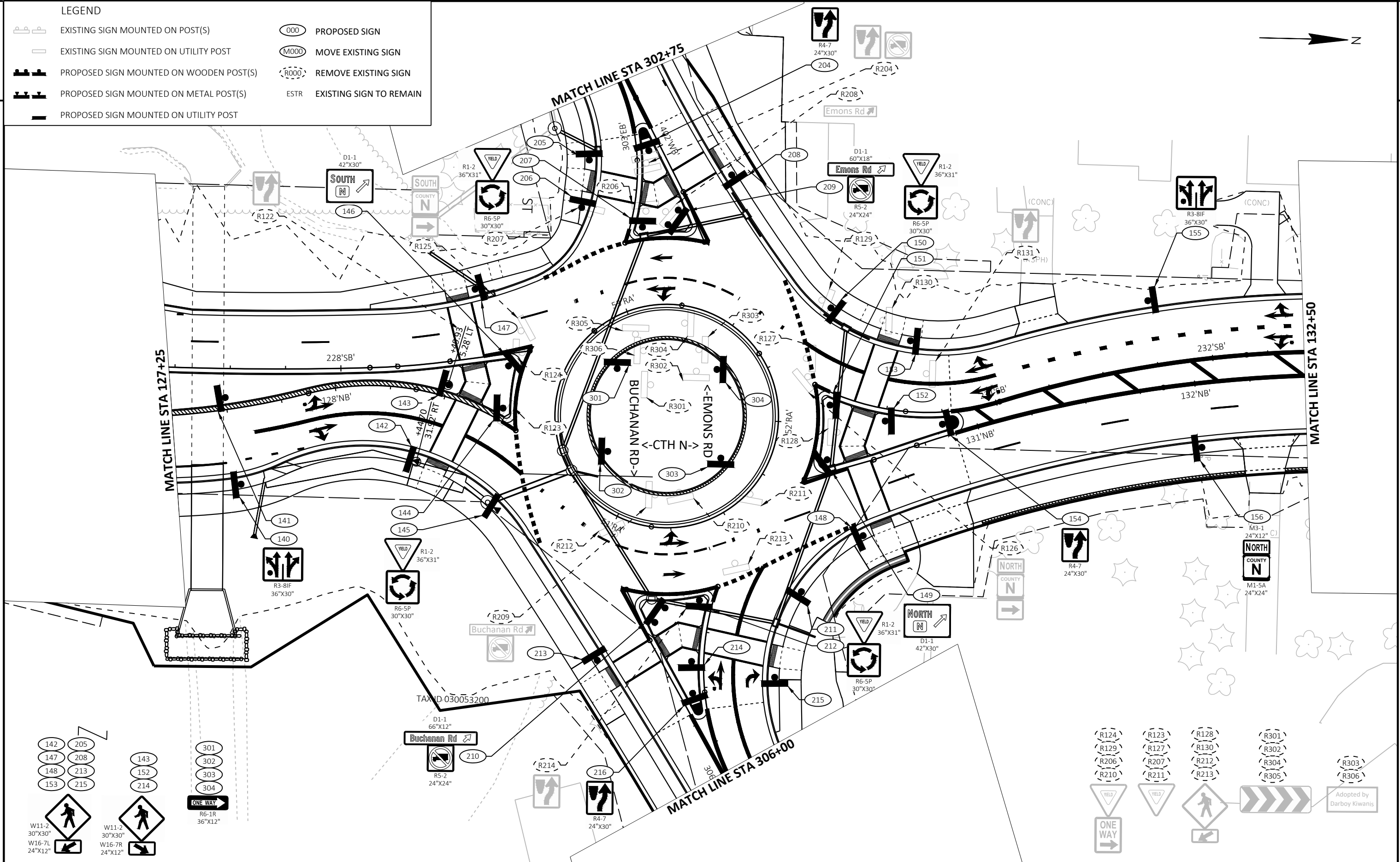
PERMANENT SIGNING - CTH N

SHEET










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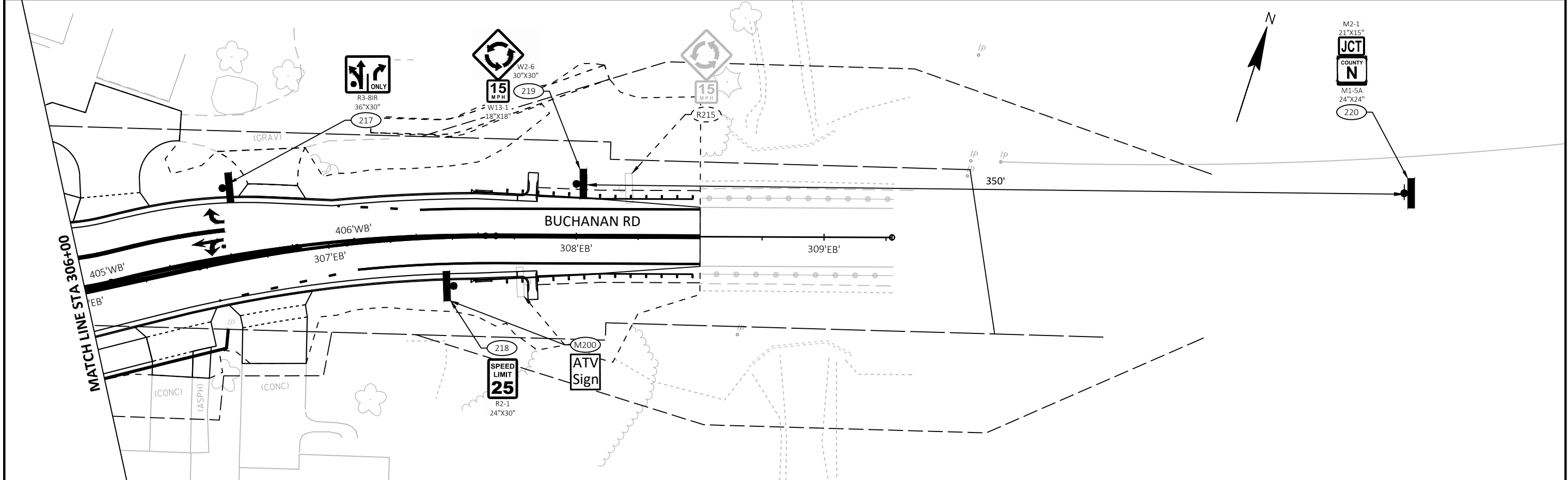
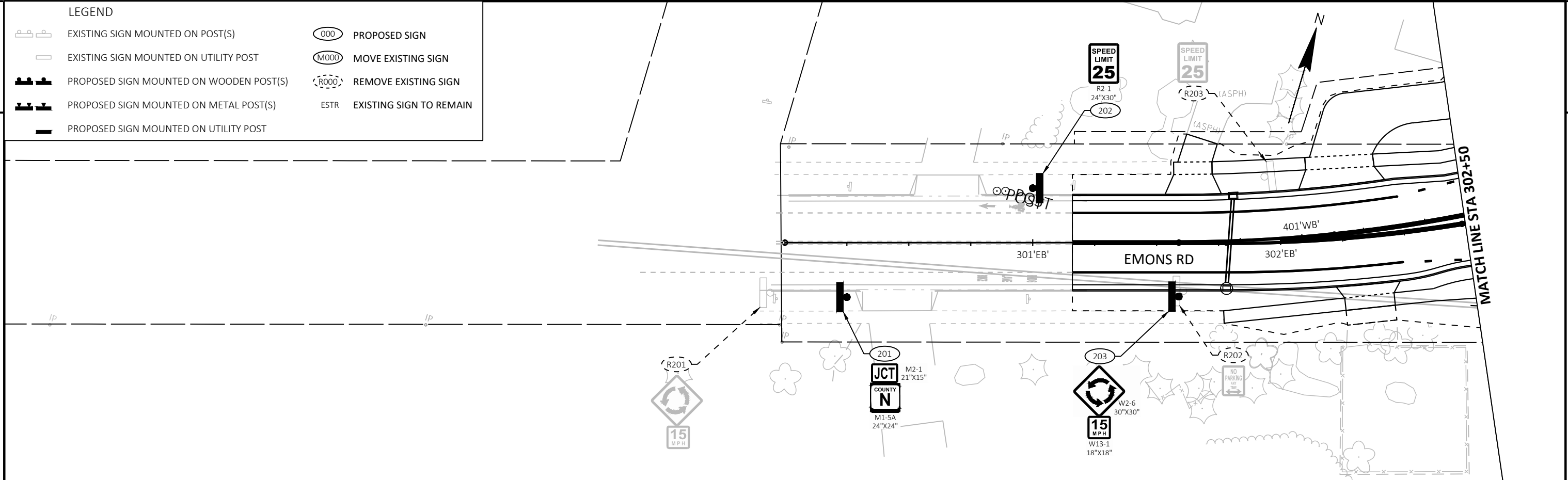
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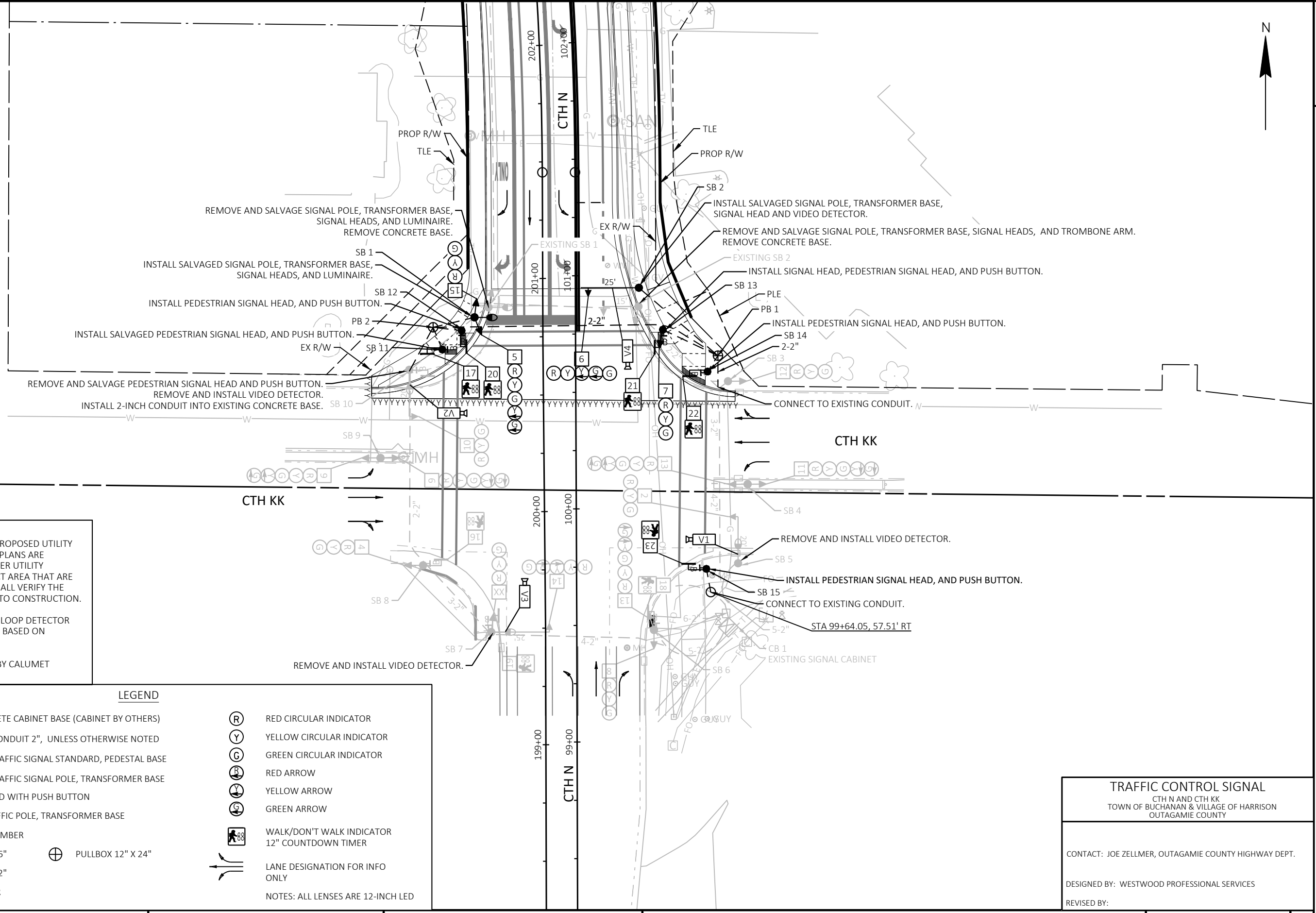
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- MOVE EXISTING SIGN
- REMOVE EXISTING SIGN
- EXISTING SIGN TO REMAIN



LEGEND

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-  EXISTING SIGN MOUNTED ON UTILITY POST
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-  PROPOSED SIGN
-  MOVE EXISTING SIGN
-  REMOVE EXISTING SIGN
-  EXISTING SIGN TO REMAIN





GENERAL NOTE
 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. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

EXISTING SIGNALS, PULLBOXES AND LOOP DETECTOR LOCATIONS ARE APPROXIMATE AND BASED ON AVAILABLE RECORDS.

SIGNAL IS OWNED AND OPERATED BY CALUMET COUNTY.

LEGEND	
	PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS)
	NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
	SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
	SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
	PEDESTRIAN HEAD WITH PUSH BUTTON
	LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
	SIGNAL HEAD NUMBER
	PULLBOX 24" X 36"
	PULLBOX 12" X 24"
	PULLBOX 24" X 42"
	VIDEO DETECTOR
	RED CIRCULAR INDICATOR
	YELLOW CIRCULAR INDICATOR
	GREEN CIRCULAR INDICATOR
	RED ARROW
	YELLOW ARROW
	GREEN ARROW
	WALK/DON'T WALK INDICATOR 12" COUNTDOWN TIMER
	LANE DESIGNATION FOR INFO ONLY
NOTES: ALL LENSES ARE 12-INCH LED	

TRAFFIC CONTROL SIGNAL
 CTH N AND CTH KK
 TOWN OF BUCHANAN & VILLAGE OF HARRISON
 OUTAGAMIE COUNTY

CONTACT: JOE ZELLMER, OUTAGAMIE COUNTY HIGHWAY DEPT.

DESIGNED BY: WESTWOOD PROFESSIONAL SERVICES

REVISED BY:

TRAFFIC SIGNAL WIRE COLOR CODE (CABINET TO POLE)

16 CONDUCTOR IMSA 20-1 CABLE

VEHICLE SIGNAL DISPLAYS - NB & WB DIRECTION		
R	RED	3-SECTION SIGNAL DISPLAY
Y	ORANGE	
G	GREEN	
R-ARROW	RED/BLACK (OR RED**)	4-SECTION SIGNAL DISPLAY
Y-ARROW	ORANGE/BLACK (OR ORANGE**)	
FY-ARROW	GREEN/BLACK (OR GREEN**)	
G-ARROW	BLACK/RED	
R	RED	5-SECTION SIGNAL DISPLAY
Y	ORANGE	
G	GREEN	
Y-ARROW	RED/WHITE	
G-ARROW	GREEN/WHITE	
VEHICLE SIGNAL DISPLAYS - SB & EB DIRECTION		
R	RED/BLACK	3-SECTION SIGNAL DISPLAY
Y	ORANGE/BLACK	
G	GREEN/BLACK	
R-ARROW	RED (OR RED/BLACK**)	4-SECTION SIGNAL DISPLAY
Y-ARROW	ORANGE (OR ORANGE/BLACK**)	
FY-ARROW	GREEN (OR GREEN/BLACK***)	
G-ARROW	BLACK/RED	
R	RED/BLACK	5-SECTION SIGNAL DISPLAY
Y	ORANGE/BLACK	
G	GREEN/BLACK	
Y-ARROW	RED/WHITE (OR BLUE****)	
G-ARROW	GREEN/WHITE (OR BLACK****)	
** USE WHEN NORMAL COLOR ASSIGNMENT ALREADY USED IN OPPOSING DIRECTION ON SAME POLE, 3-SECTION HAS PRIORITY OF COLOR ASSIGNMENT		
**** USE WHEN NORMAL COLOR ASSIGNMENT ALREADY USED IN OPPOSING DIRECTION ON SAME POLE		
PEDESTRIAN SIGNAL DISPLAYS		
W	BLUE	PEDESTRIAN CROSSING SIDE ST (WITH PHASE 2 & 6)
DW	BLACK	
W	BLUE/BLACK	PEDESTRIAN CROSSING MAIN ST (WITH PHASE 4 & 8)
DW	WHITE/BLACK	
PED BUTTON	BLUE/WHITE	PED BUTTONS
PED BUTTON	BLACK/WHITE	
NEUTRAL	WHITE	

TRAFFIC SIGNAL WIRE COLOR CODE (UP THE POLE)

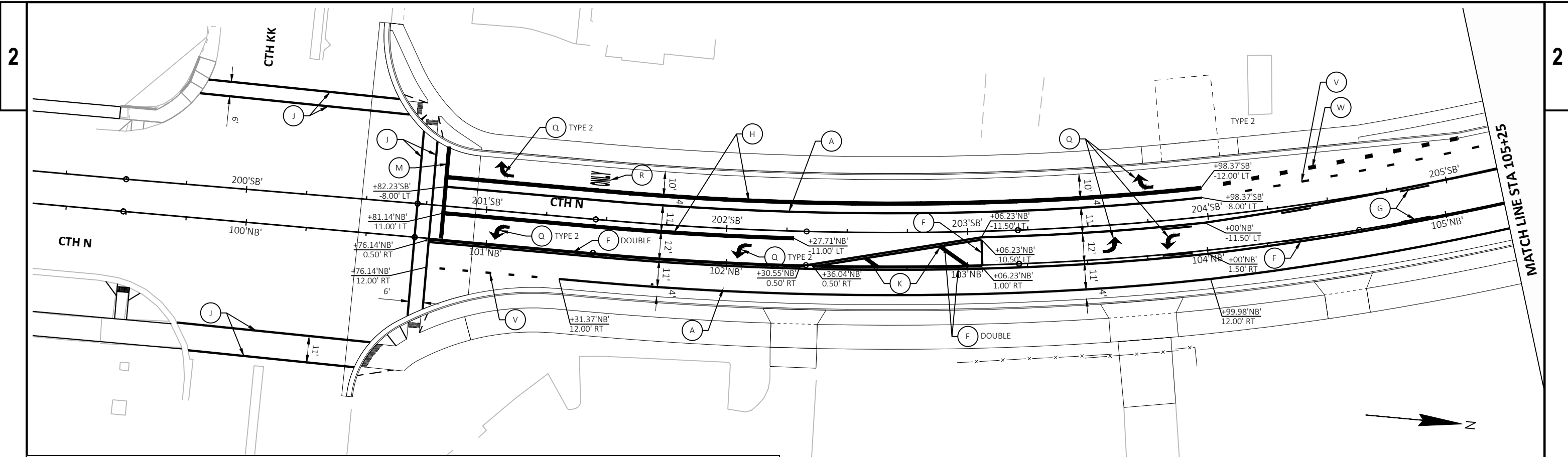
3 SECTION DISPLAY	4 SECTION FYA DISPLAY	5 SECTION DISPLAY
5 CONDUCTOR IMSA 20-1 CABLE	5 CONDUCTOR IMSA 20-1 CABLE	7 CONDUCTOR IMSA 20-1 CABLE
RED RED BALL	RED RED ARROW	RED RED BALL
ORANGE YELLOW BALL	ORANGE YELLOW ARROW	ORANGE YELLOW BALL
GREEN GREEN BALL	GREEN F-YELLOW ARROW	GREEN GREEN BALL
BLACK NOT USED	BLACK GREEN ARROW	WHITE/BLACK NOT USED
WHITE NEUTRAL	WHITE NEUTRAL	BLUE YELLOW ARROW
		BLACK GREEN ARROW
		WHITE NEUTRAL
3 SECTION WITH PEDESTRIAN DISPLAY	4 SECTION FYA PLUS PEDESTRIAN DISPLAY	5 SECTION WITH PEDESTRIAN DISPLAY
7 CONDUCTOR IMSA 20-1 CABLE	7 CONDUCTOR IMSA 20-1 CABLE	9 CONDUCTOR IMSA 20-1 CABLE
RED RED BALL	RED RED ARROW	RED RED BALL
ORANGE YELLOW BALL	ORANGE YELLOW ARROW	ORANGE YELLOW BALL
GREEN GREEN BALL	GREEN F-YELLOW ARROW	GREEN GREEN BALL
WHITE/BLACK NOT USED	WHITE/BLACK GREEN ARROW	RED/BLACK YELLOW ARROW
BLUE WALK	BLUE WALK	GREEN/BLACK GREEN ARROW
BLACK DON'T WALK	BLACK DON'T WALK	WHITE/BLACK NOT USED
WHITE NEUTRAL	WHITE NEUTRAL	BLUE WALK
		BLACK DON'T WALK
		WHITE NEUTRAL
PEDESTRIAN DISPLAY		
3 CONDUCTOR IMSA 20-1 CABLE		
BLACK WALK		
RED DON'T WALK		
WHITE NEUTRAL		

USE ANY COLOR, TWO (2) INDIVIDUAL 14 AWG THHN CONDUCTORS FOR PUSH BUTTON, TAPED FOR CIRCUIT ID

TAPE COLORS FOR CIRCUIT IDENTIFICATION

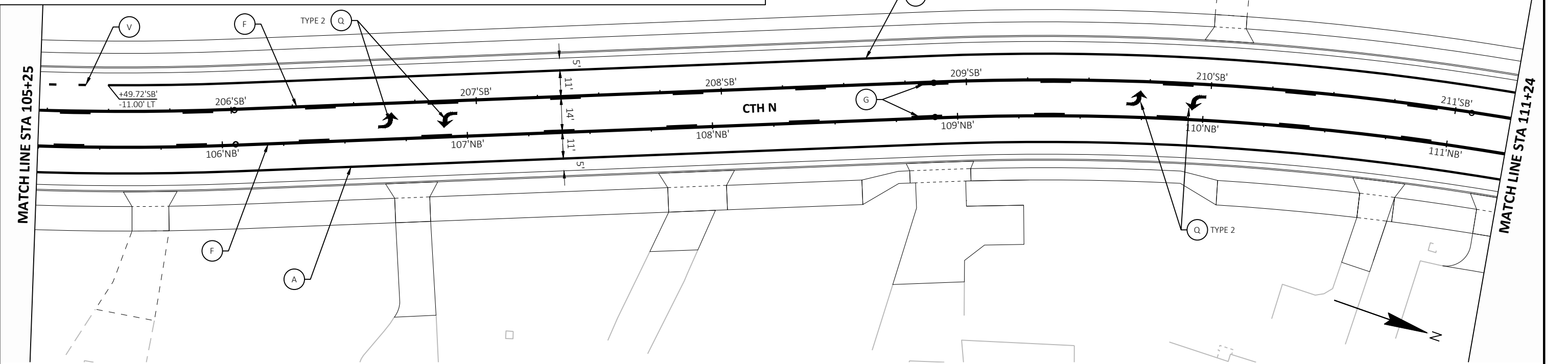
WHITE	N.B.
YELLOW	W.B.
ORANGE	S.B.
BLUE	E.B.
RED	PED BUTTON

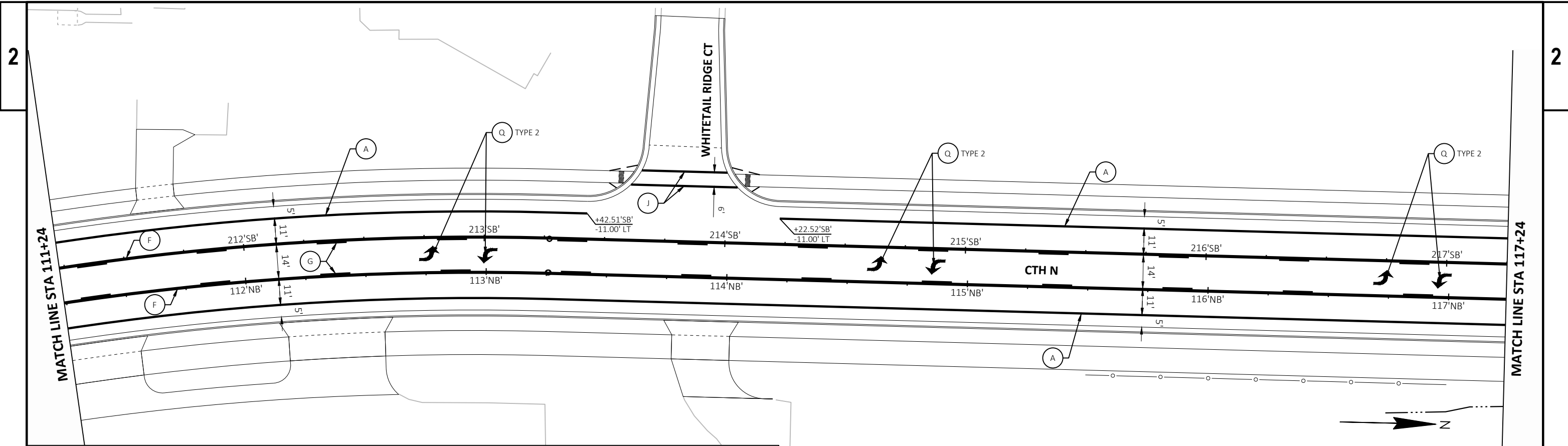
WIRE ASSIGNMENT TRAFFIC SIGNALS	
CITY OF APPLETON TRAFFIC SECTION	
06/26/2024 DATE	MICHAEL S. HARDY, PE ASSISTANT CITY TRAFFIC ENGINEER



LEGEND FOR PAVEMENT MARKING

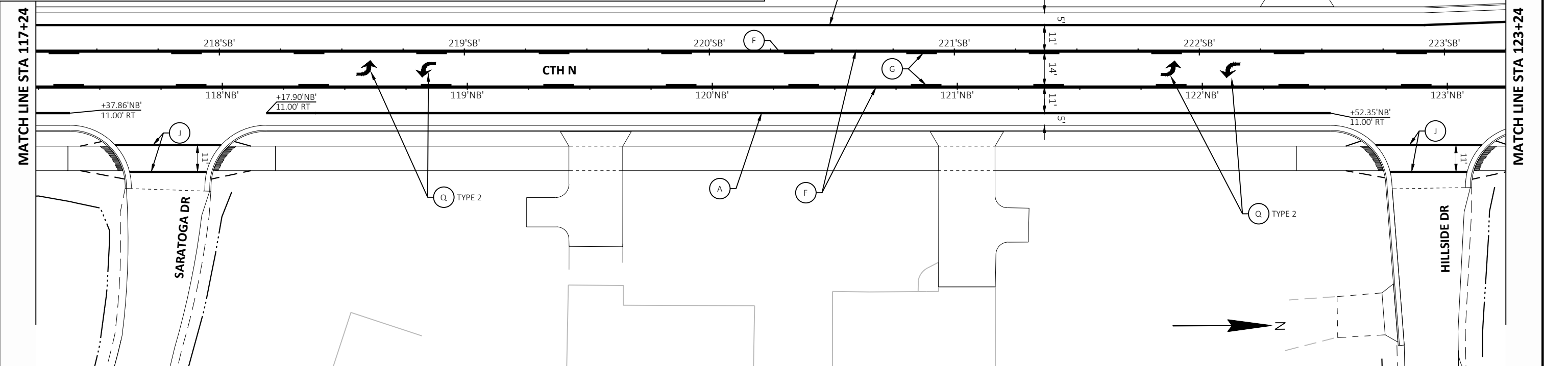
- | | | | |
|---|---|---|---|
| A | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) | K | DIAGONAL EPOXY 12-INCH (YELLOW) 25' SPACING TYPICAL |
| C | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 1' LINE, 12' GAP | L | DOTTED EXTENSION EPOXY 18-INCH (WHITE) 2' LINE, 2' GAP |
| D | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 6' LINE, 3' GAP | M | STOP LINE EPOXY 18-INCH (WHITE) |
| E | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) & GROOVED BLACK EPOXY 6-INCH - 12.5' WHITE, 12.5' BLACK, 25' GAP | O | ISLAND NOSE EPOXY (YELLOW) |
| F | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) | P | CURB EPOXY (YELLOW) (5-FT BEYOND PC) |
| G | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) 12.5' LINE, 37.5' GAP | Q | ARROW EPOXY (WHITE) |
| H | LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) | R | WORD EPOXY (WHITE) |
| J | CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) | V | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 3' LINE, 9' GAP |
| | | W | LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) 3' LINE, 9' GAP |



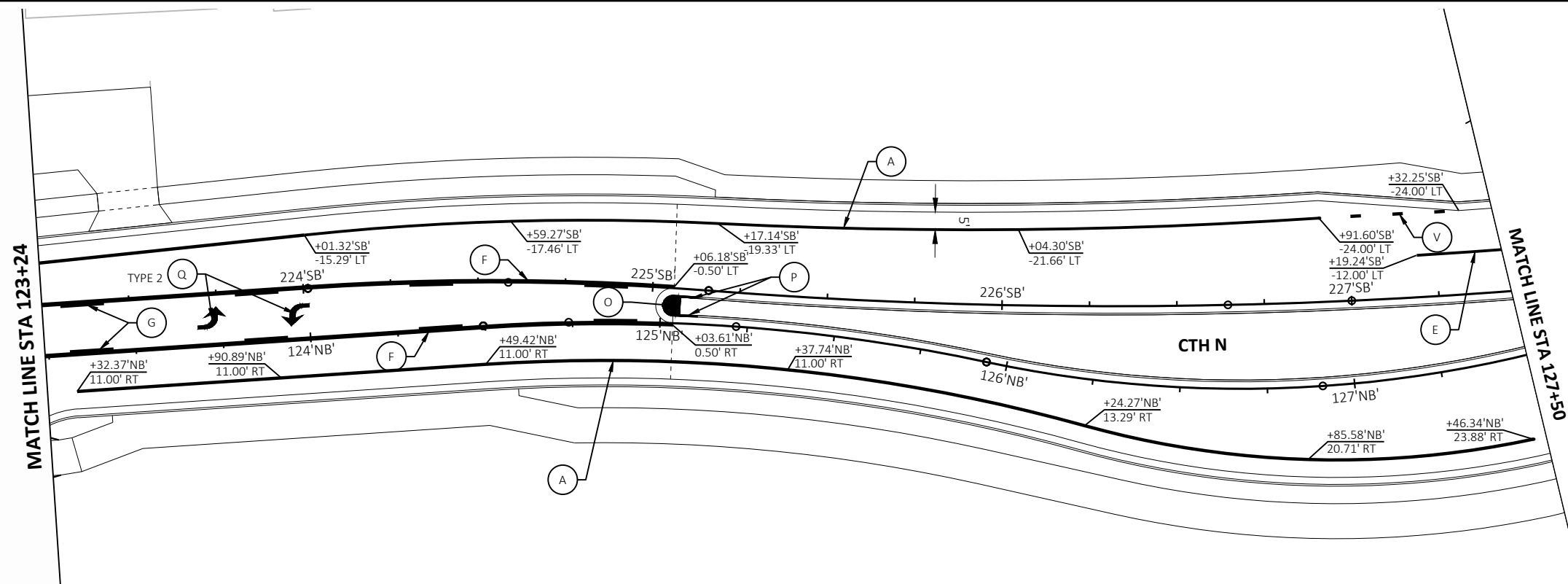


LEGEND FOR PAVEMENT MARKING

A	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)	K	DIAGONAL EPOXY 12-INCH (YELLOW) 25' SPACING TYPICAL
C	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 1' LINE, 12' GAP	L	DOTTED EXTENSION EPOXY 18-INCH (WHITE) 2' LINE, 2' GAP
D	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 6' LINE, 3' GAP	M	STOP LINE EPOXY 18-INCH (WHITE)
E	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) & GROOVED BLACK EPOXY 6-INCH - 12.5' WHITE, 12.5' BLACK, 25' GAP	O	ISLAND NOSE EPOXY (YELLOW)
F	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)	P	CURB EPOXY (YELLOW) (5-FT BEYOND PC)
G	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) 12.5' LINE, 37.5' GAP	Q	ARROW EPOXY (WHITE)
H	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE)	R	WORD EPOXY (WHITE)
J	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	V	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 3' LINE, 9' GAP
		W	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) 3' LINE, 9' GAP

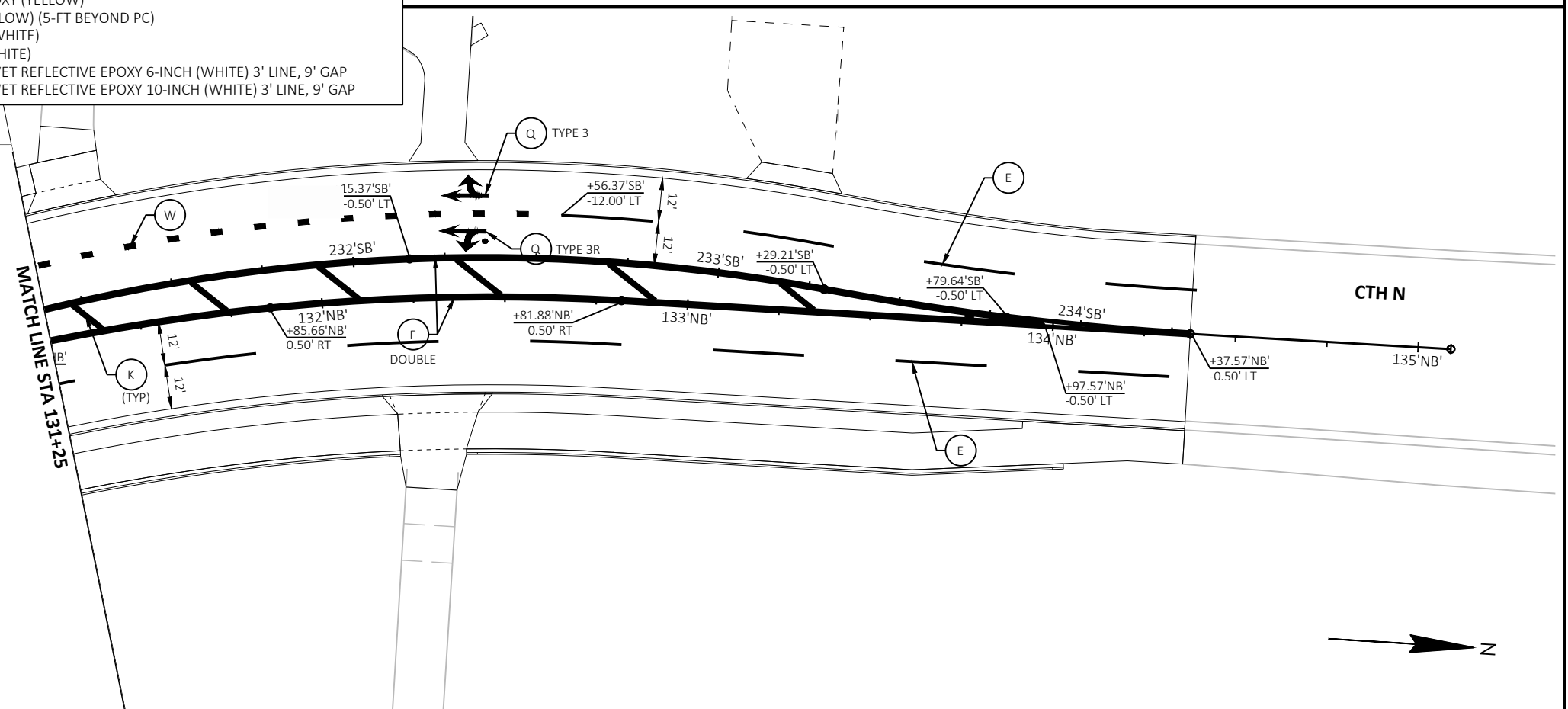


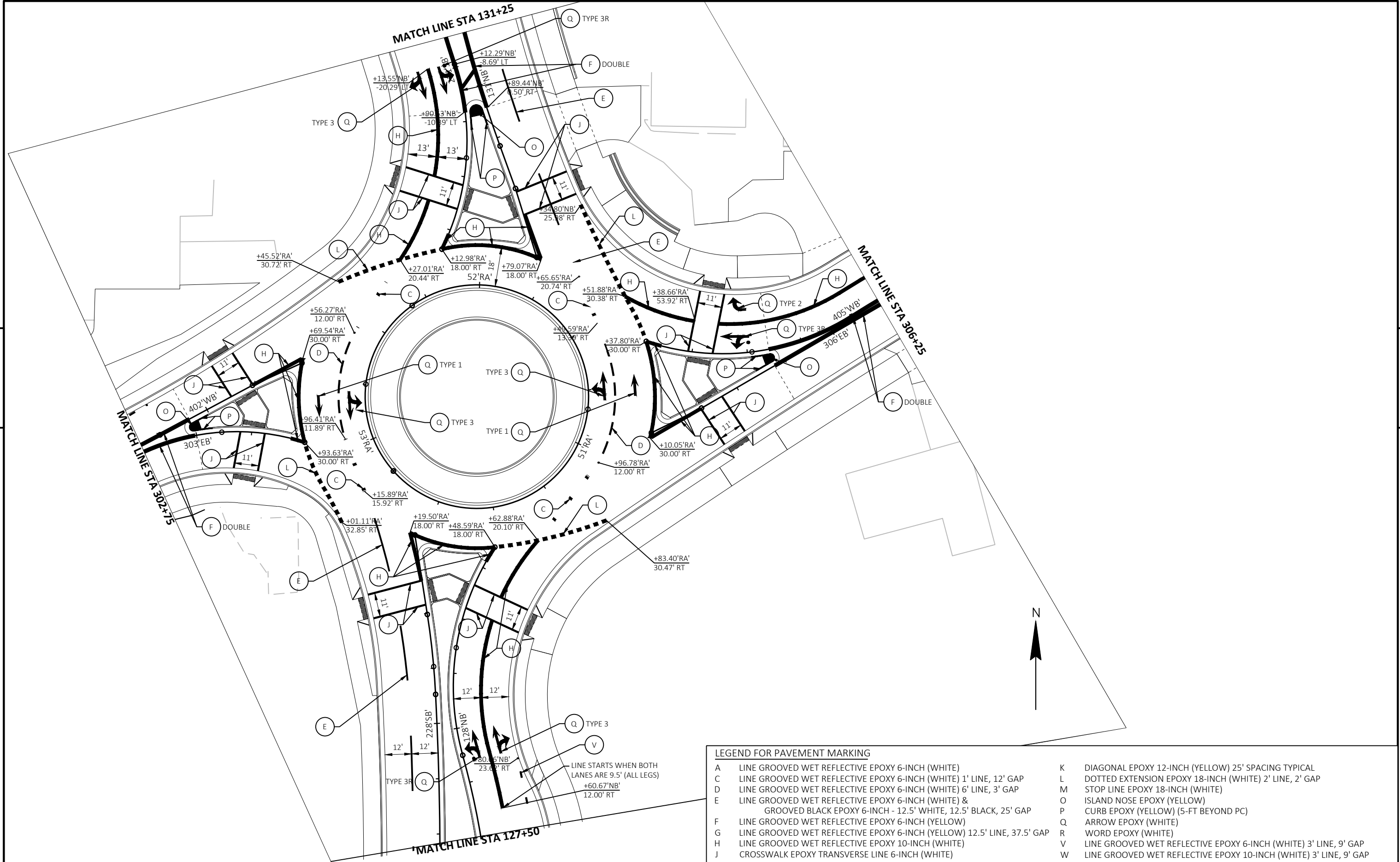
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PAVEMENT MARKING - CTH N	SHEET	E
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LEGEND FOR PAVEMENT MARKING

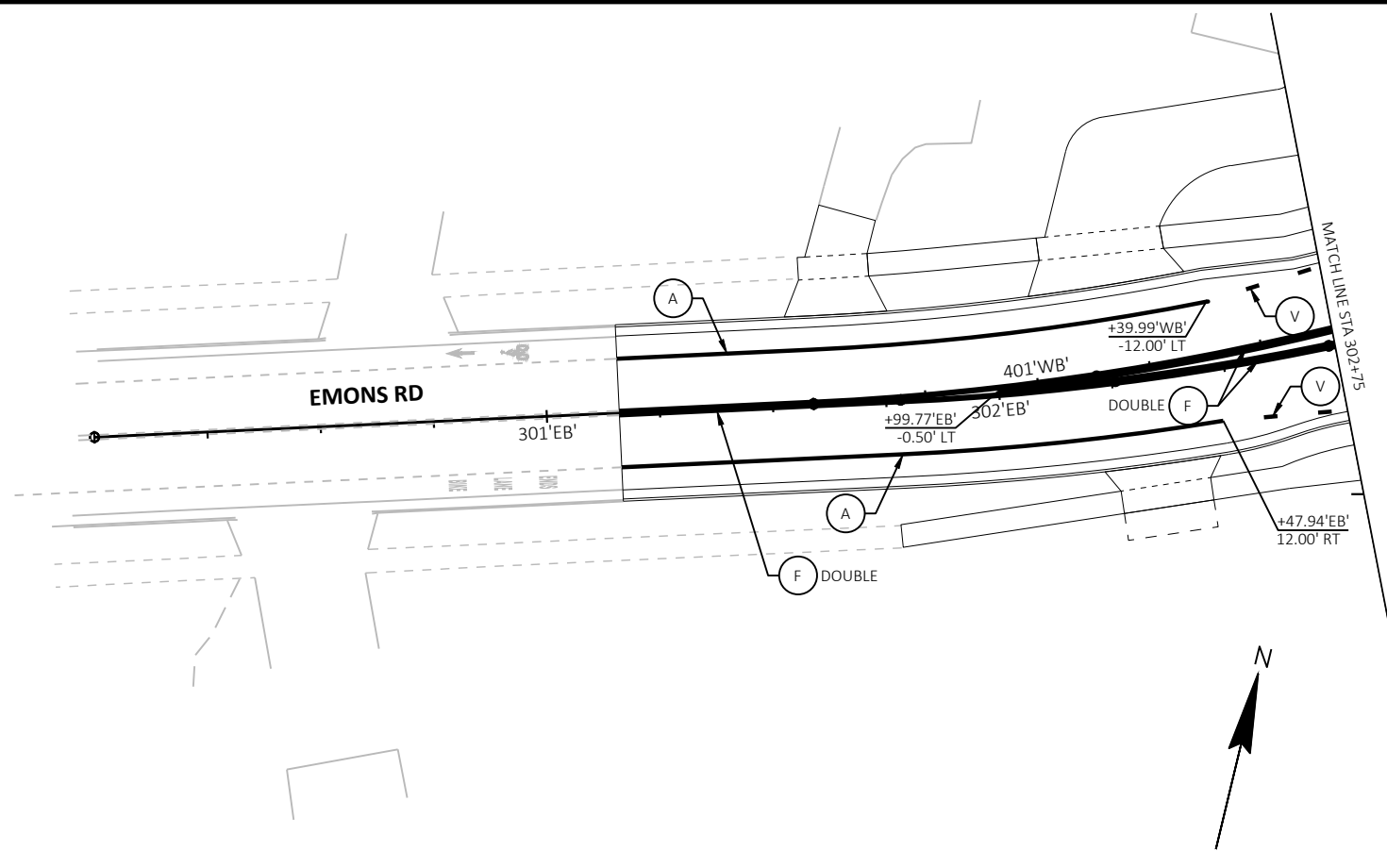
- | | | | |
|---|---|---|---|
| A | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) | K | DIAGONAL EPOXY 12-INCH (YELLOW) 25' SPACING TYPICAL |
| C | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 1' LINE, 12' GAP | L | DOTTED EXTENSION EPOXY 18-INCH (WHITE) 2' LINE, 2' GAP |
| D | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 6' LINE, 3' GAP | M | STOP LINE EPOXY 18-INCH (WHITE) |
| E | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) & GROOVED BLACK EPOXY 6-INCH - 12.5' WHITE, 12.5' BLACK, 25' GAP | O | ISLAND NOSE EPOXY (YELLOW) |
| F | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) | P | CURB EPOXY (YELLOW) (5-FT BEYOND PC) |
| G | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) 12.5' LINE, 37.5' GAP | Q | ARROW EPOXY (WHITE) |
| H | LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) | R | WORD EPOXY (WHITE) |
| J | CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) | V | LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 3' LINE, 9' GAP |
| | | W | LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) 3' LINE, 9' GAP |





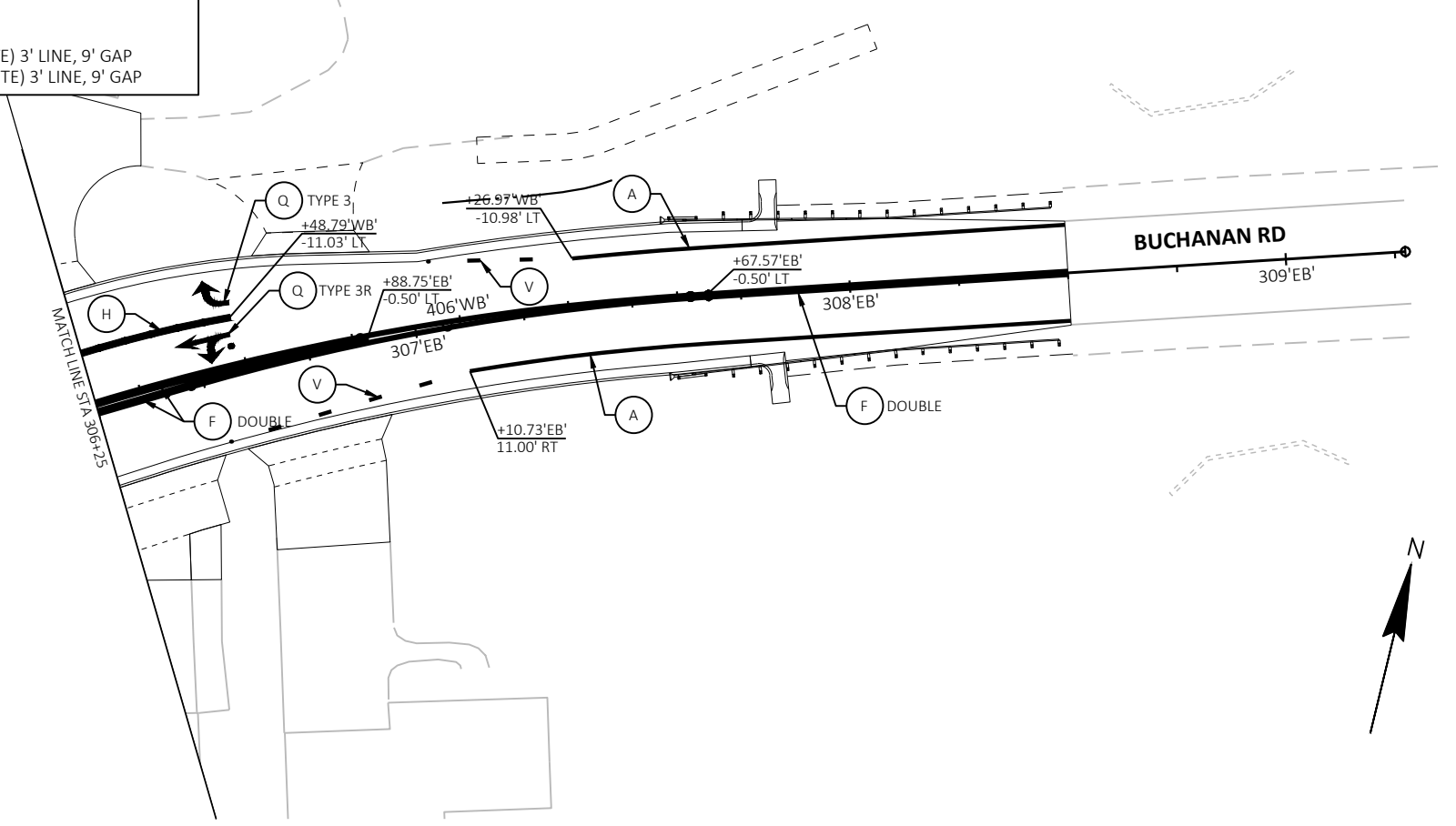
LEGEND FOR PAVEMENT MARKING

A	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)	K	DIAGONAL EPOXY 12-INCH (YELLOW) 25' SPACING TYPICAL
C	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 1' LINE, 12' GAP	L	DOTTED EXTENSION EPOXY 18-INCH (WHITE) 2' LINE, 2' GAP
D	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 6' LINE, 3' GAP	M	STOP LINE EPOXY 18-INCH (WHITE)
E	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) & GROOVED BLACK EPOXY 6-INCH - 12.5' WHITE, 12.5' BLACK, 25' GAP	O	ISLAND NOSE EPOXY (YELLOW)
F	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)	P	CURB EPOXY (YELLOW) (5-FT BEYOND PC)
G	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) 12.5' LINE, 37.5' GAP	Q	ARROW EPOXY (WHITE)
H	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE)	R	WORD EPOXY (WHITE)
J	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	V	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 3' LINE, 9' GAP
		W	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) 3' LINE, 9' GAP



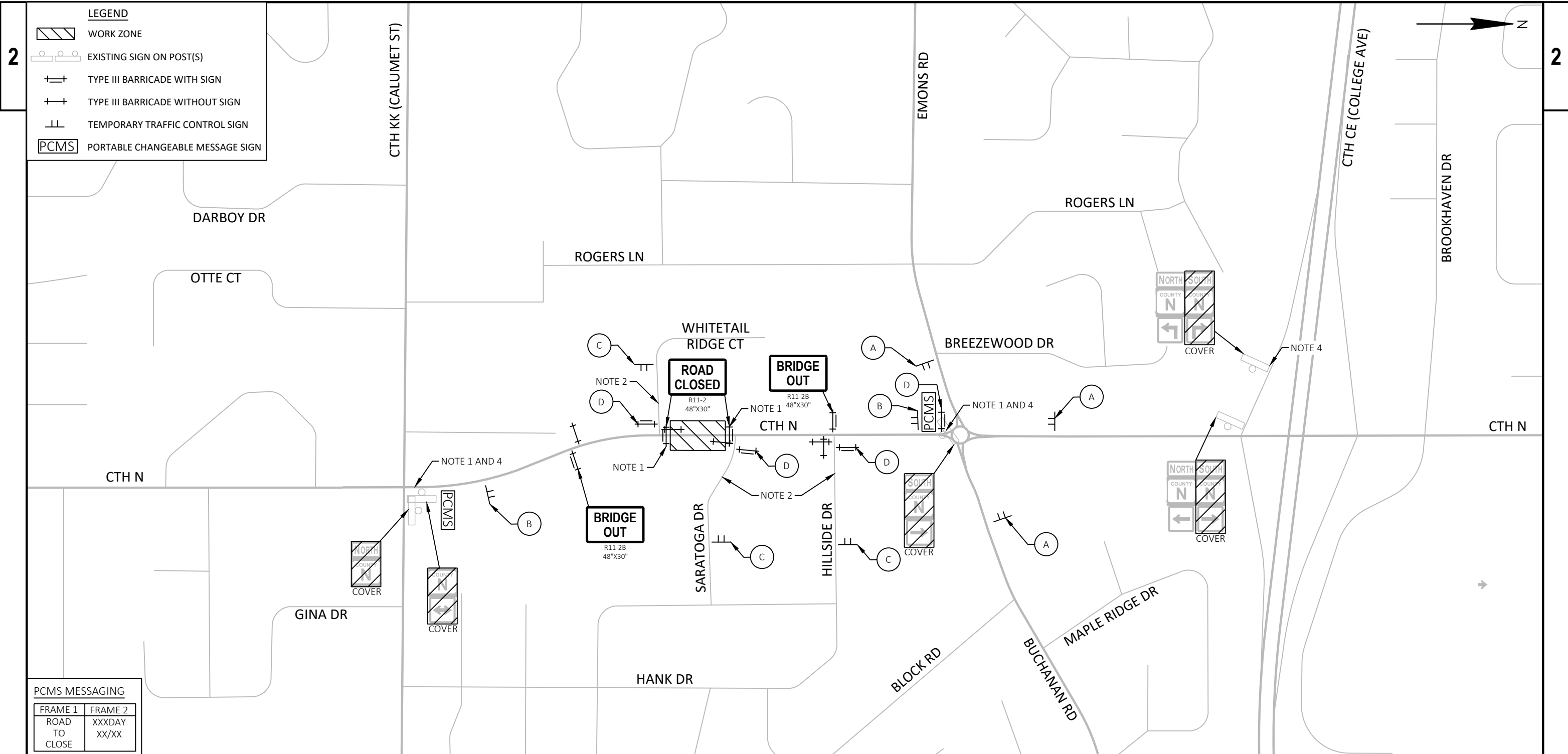
LEGEND FOR PAVEMENT MARKING

A	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)	K	DIAGONAL EPOXY 12-INCH (YELLOW) 25' SPACING TYPICAL
C	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 1' LINE, 12' GAP	L	DOTTED EXTENSION EPOXY 18-INCH (WHITE) 2' LINE, 2' GAP
D	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 6' LINE, 3' GAP	M	STOP LINE EPOXY 18-INCH (WHITE)
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F	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)	P	CURB EPOXY (YELLOW) (5-FT BEYOND PC)
G	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW) 12.5' LINE, 37.5' GAP	Q	ARROW EPOXY (WHITE)
H	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE)	R	WORD EPOXY (WHITE)
J	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)	V	LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE) 3' LINE, 9' GAP
		W	LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE) 3' LINE, 9' GAP



LEGEND

- WORK ZONE
- EXISTING SIGN ON POST(S)
- TYPE III BARRICADE WITH SIGN
- TYPE III BARRICADE WITHOUT SIGN
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN



PCMS MESSAGING

FRAME 1	FRAME 2
ROAD TO CLOSE	XXXDAY XX/XX

TRAFFIC CONTROL SIGNS

- A:** SOUTH COUNTY N M3-3 24"x12" M1-5A 24"x24"
- B:** ROAD CLOSED 500 FT W20-30
- C:** ROAD CLOSED AHEAD W20-3A
- D:** ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30"

NOTE 1
FOLLOW SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.

NOTE 2
FOLLOW SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4.

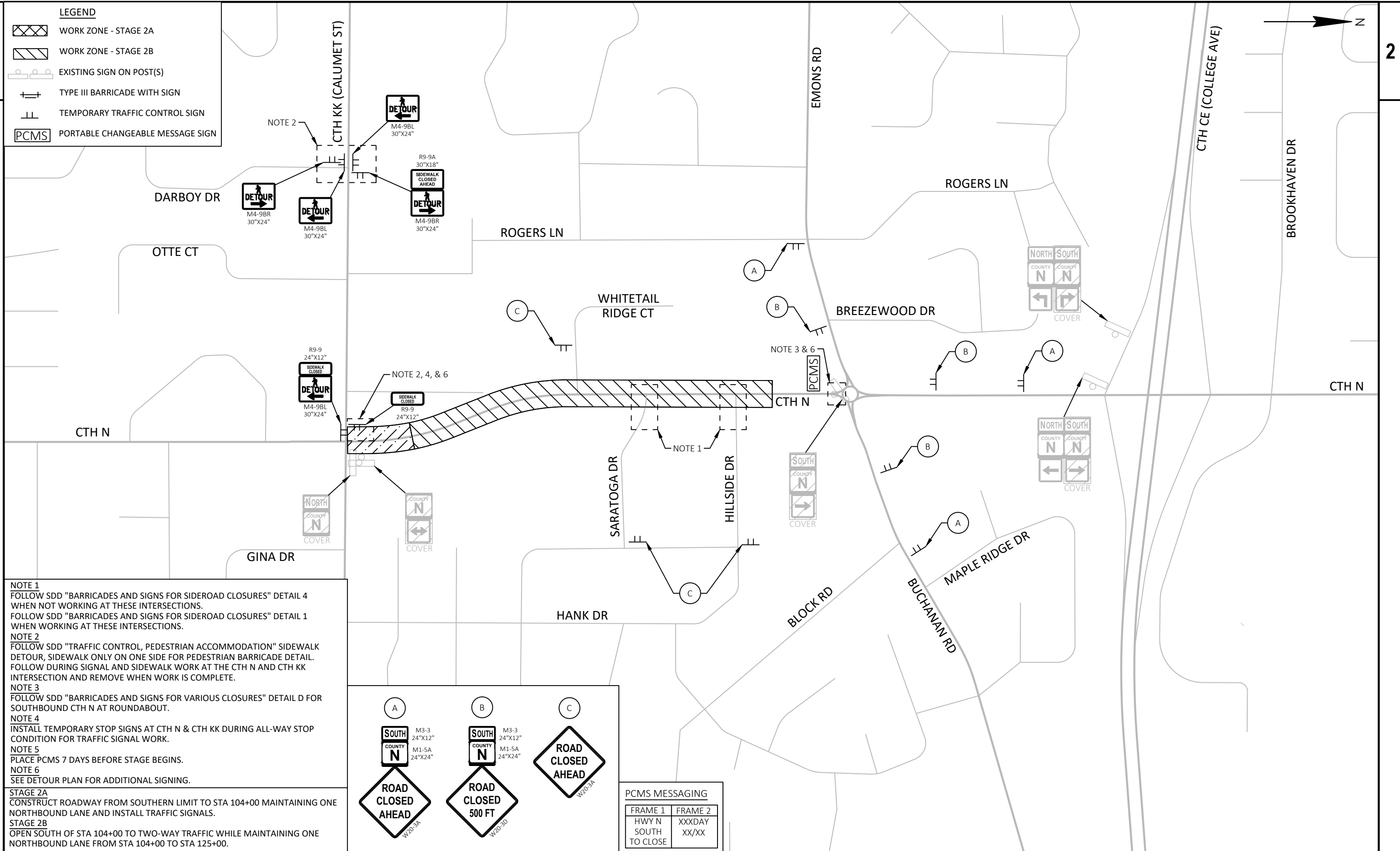
NOTE 3
PLACE PCMS 7 DAYS BEFORE CONSTRUCTION.

NOTE 4
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

STAGE 1
REMOVE AND INSTALL CROSS CULVERT AT STA 115+75. ALLOW TWO-WAY TRAFFIC ON CTH N NORTH AND SOUTH OF THE CLOSURE.

LEGEND

- WORK ZONE - STAGE 2A
- WORK ZONE - STAGE 2B
- EXISTING SIGN ON POST(S)
- TYPE III BARRICADE WITH SIGN
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN



NOTE 1
 FOLLOW SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4 WHEN NOT WORKING AT THESE INTERSECTIONS.
 FOLLOW SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 1 WHEN WORKING AT THESE INTERSECTIONS.

NOTE 2
 FOLLOW SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE FOR PEDESTRIAN BARRICADE DETAIL. FOLLOW DURING SIGNAL AND SIDEWALK WORK AT THE CTH N AND CTH KK INTERSECTION AND REMOVE WHEN WORK IS COMPLETE.

NOTE 3
 FOLLOW SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" DETAIL D FOR SOUTHBOUND CTH N AT ROUNDABOUT.

NOTE 4
 INSTALL TEMPORARY STOP SIGNS AT CTH N & CTH KK DURING ALL-WAY STOP CONDITION FOR TRAFFIC SIGNAL WORK.

NOTE 5
 PLACE PCMS 7 DAYS BEFORE STAGE BEGINS.

NOTE 6
 SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

STAGE 2A
 CONSTRUCT ROADWAY FROM SOUTHERN LIMIT TO STA 104+00 MAINTAINING ONE NORTHBOUND LANE AND INSTALL TRAFFIC SIGNALS.

STAGE 2B
 OPEN SOUTH OF STA 104+00 TO TWO-WAY TRAFFIC WHILE MAINTAINING ONE NORTHBOUND LANE FROM STA 104+00 TO STA 125+00.

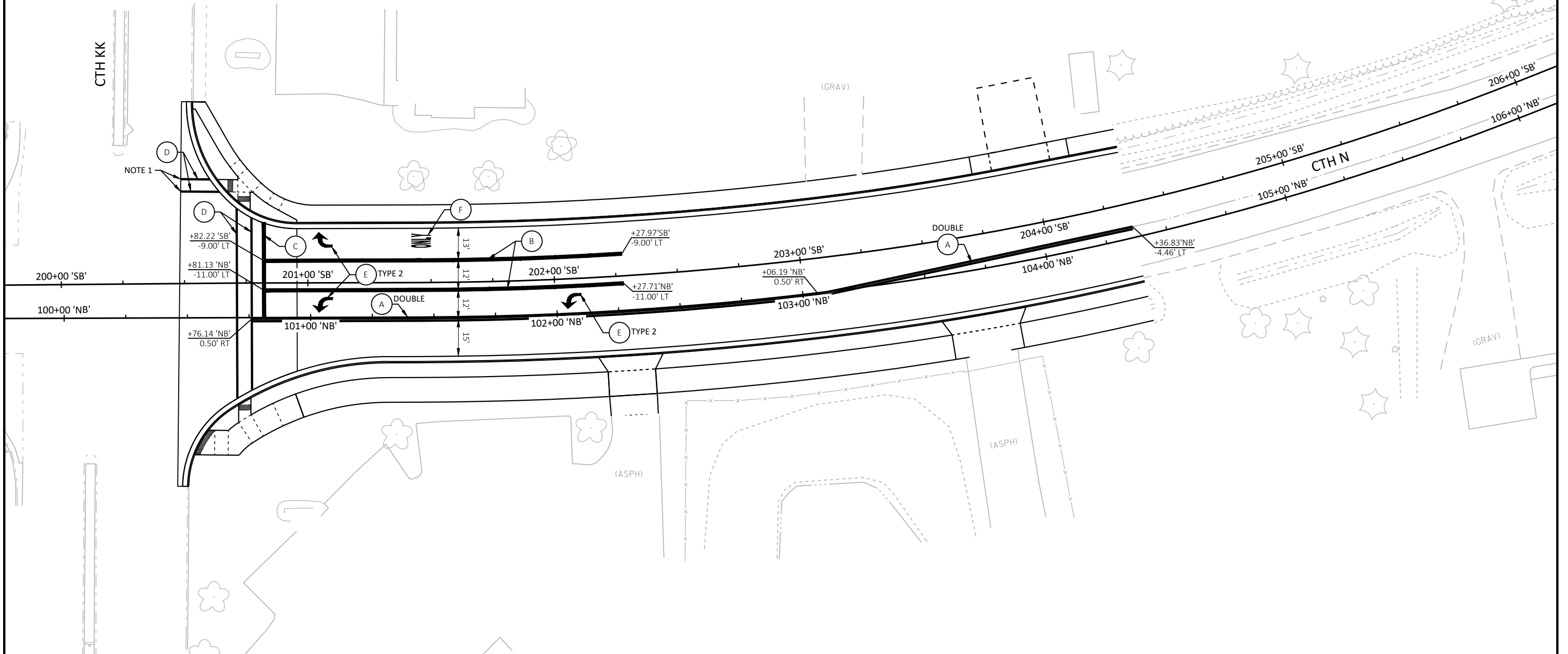
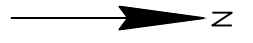
Sign A: SOUTH COUNTY N, ROAD CLOSED AHEAD (W20-3A)

Sign B: SOUTH COUNTY N, ROAD CLOSED 500 FT (W20-3D)

Sign C: ROAD CLOSED AHEAD (W20-3A)

PCMS MESSAGING

FRAME 1	FRAME 2
HWY N SOUTH TO CLOSE	XXXDAY XX/XX



LEGEND FOR TEMPORARY PAVEMENT MARKING

A	TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
B	TEMPORARY MARKING LINE PAINT 10-INCH (WHITE)
C	TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
D	TEMPORARY MARKING CROSSWALK PAINT 6-INCH (WHITE)
E	TEMPORARY MARKING ARROW PAINT (WHITE)
F	TEMPORARY MARKING WORD PAINT (WHITE)

NOTES

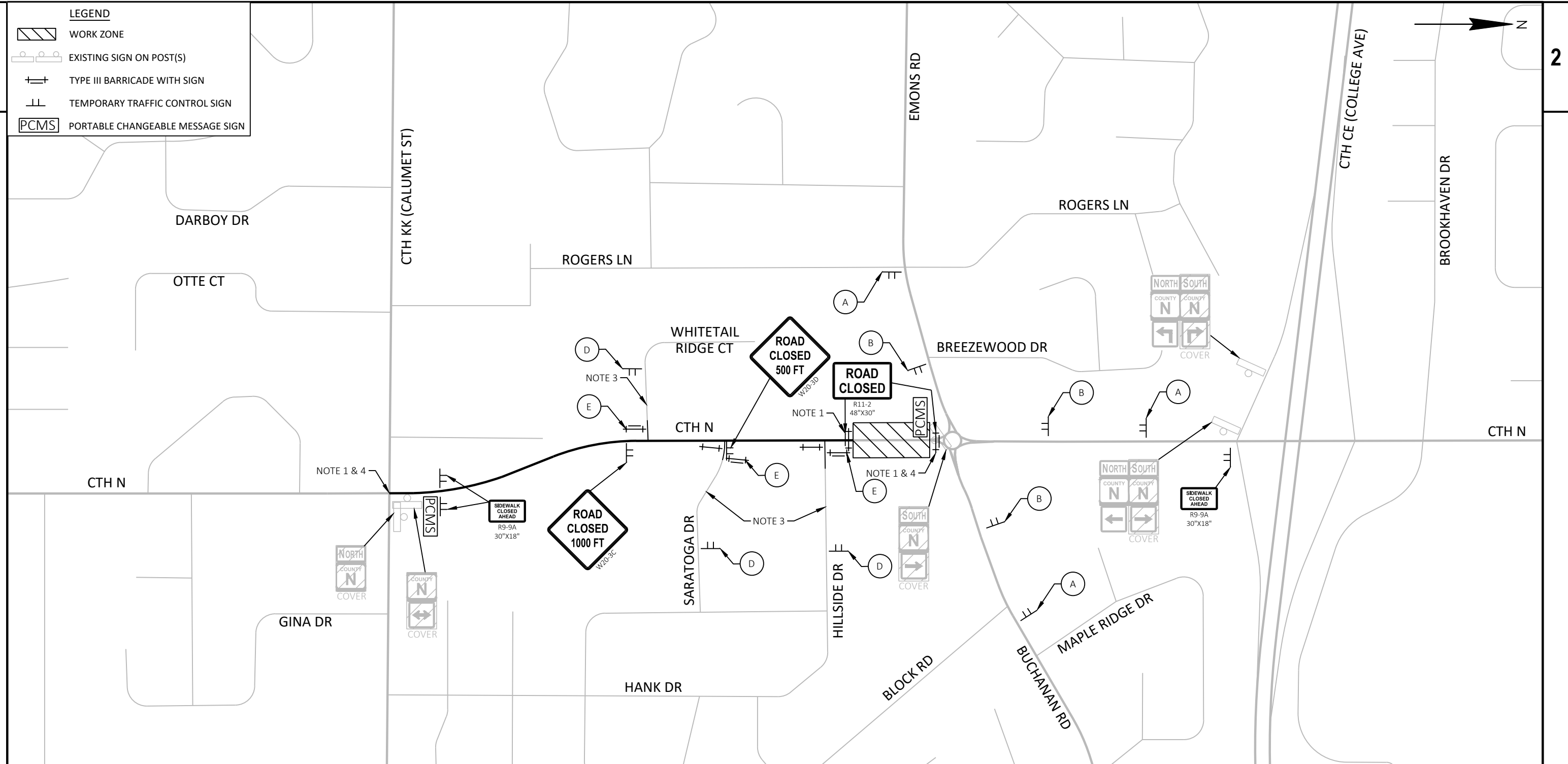
1	FIELD MATCH PAVEMENT MARKING TO EXISTING MARKINGS.
2	SEE TRAFFIC CONTROL PLAN AND DETOUR PLAN FOR SIGNING.

LEGEND

- WORK ZONE
- EXISTING SIGN ON POST(S)
- TYPE III BARRICADE WITH SIGN
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN

2

2



M3-3 24"x12" M1-5A 24"x24"	M3-3 24"x12" M1-5A 24"x24"	M3-1 24"x12" M1-5A 24"x24"	W20-3A	R11-4 60"x30"

NOTE 1
FOLLOW SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" DETAIL B & D.

NOTE 2
PLACE PCMS 7 DAYS BEFORE STAGE TO BEGIN.

NOTE 3
FOLLOW SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4.

NOTE 4
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

STAGE 3A
CONSTRUCT FROM HILLSIDE DR TO EMONS RD/BUCHANAN RD. MAINTAIN TWO WAY TRAFFIC SOUTH OF CLOSURE. WORK CAN BE DONE CONCURRENT WITH STAGE 3B. MAINTAIN EXISTING PEDESTRIAN FACILITIES AT THE ROUNDABOUT AT CTH N AND EMONS RD/BUCHANAN RD.

PROJECT NO: 4676-04-71

HWY: CTH N






COUNTY: OUTAGAMIE

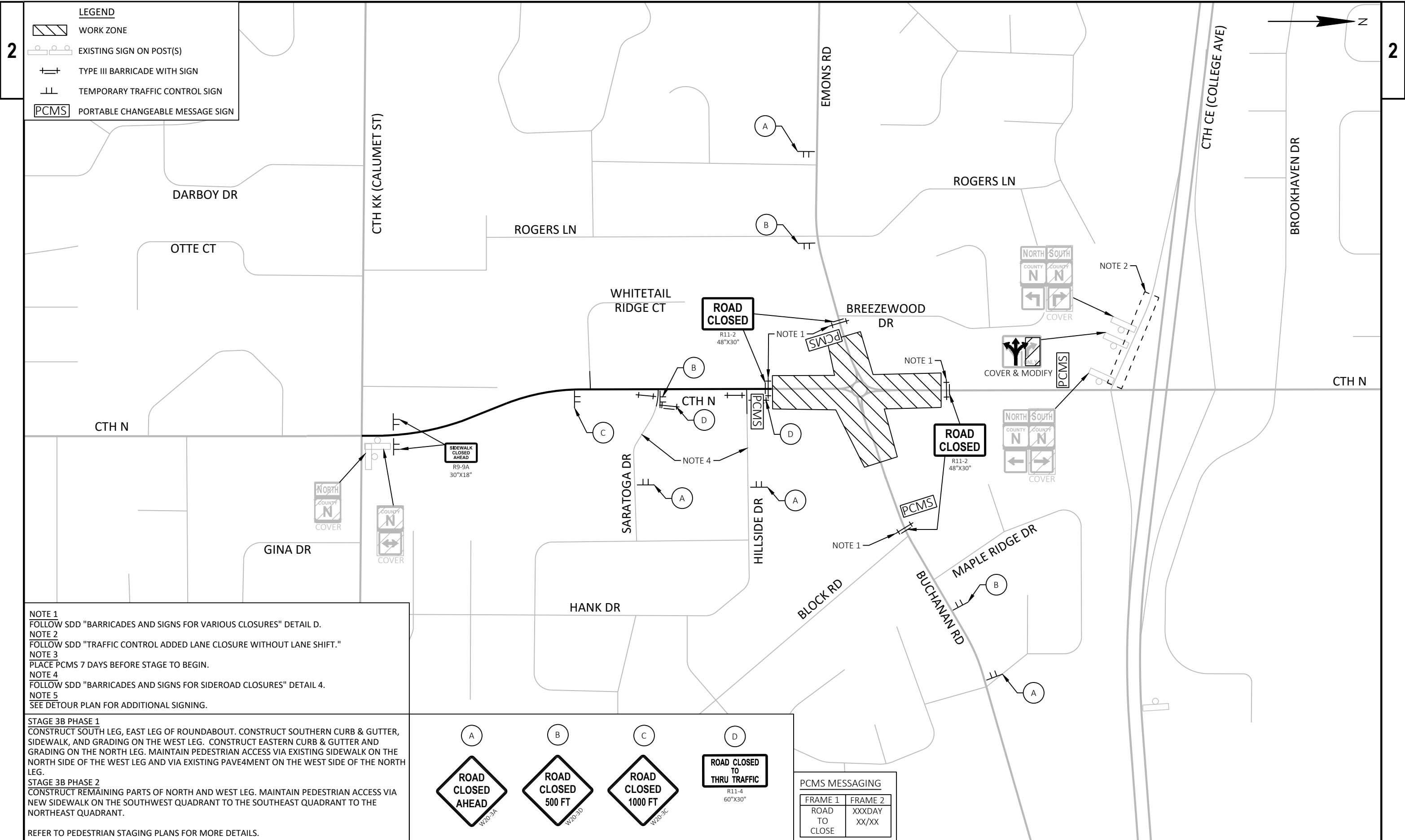
TRAFFIC CONTROL - STAGE 3A OVERVIEW

SHEET

E

LEGEND

-  WORK ZONE
-  EXISTING SIGN ON POST(S)
-  TYPE III BARRICADE WITH SIGN
-  TEMPORARY TRAFFIC CONTROL SIGN
-  PORTABLE CHANGEABLE MESSAGE SIGN



NOTE 1
FOLLOW SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES" DETAIL D.

NOTE 2
FOLLOW SDD "TRAFFIC CONTROL ADDED LANE CLOSURE WITHOUT LANE SHIFT."

NOTE 3
PLACE PCMS 7 DAYS BEFORE STAGE TO BEGIN.




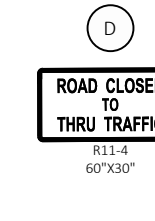
NOTE 4
FOLLOW SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4.

NOTE 5
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

STAGE 3B PHASE 1
CONSTRUCT SOUTH LEG, EAST LEG OF ROUNDABOUT. CONSTRUCT SOUTHERN CURB & GUTTER, SIDEWALK, AND GRADING ON THE WEST LEG. CONSTRUCT EASTERN CURB & GUTTER AND GRADING ON THE NORTH LEG. MAINTAIN PEDESTRIAN ACCESS VIA EXISTING SIDEWALK ON THE NORTH SIDE OF THE WEST LEG AND VIA EXISTING PAVE4MENT ON THE WEST SIDE OF THE NORTH LEG.

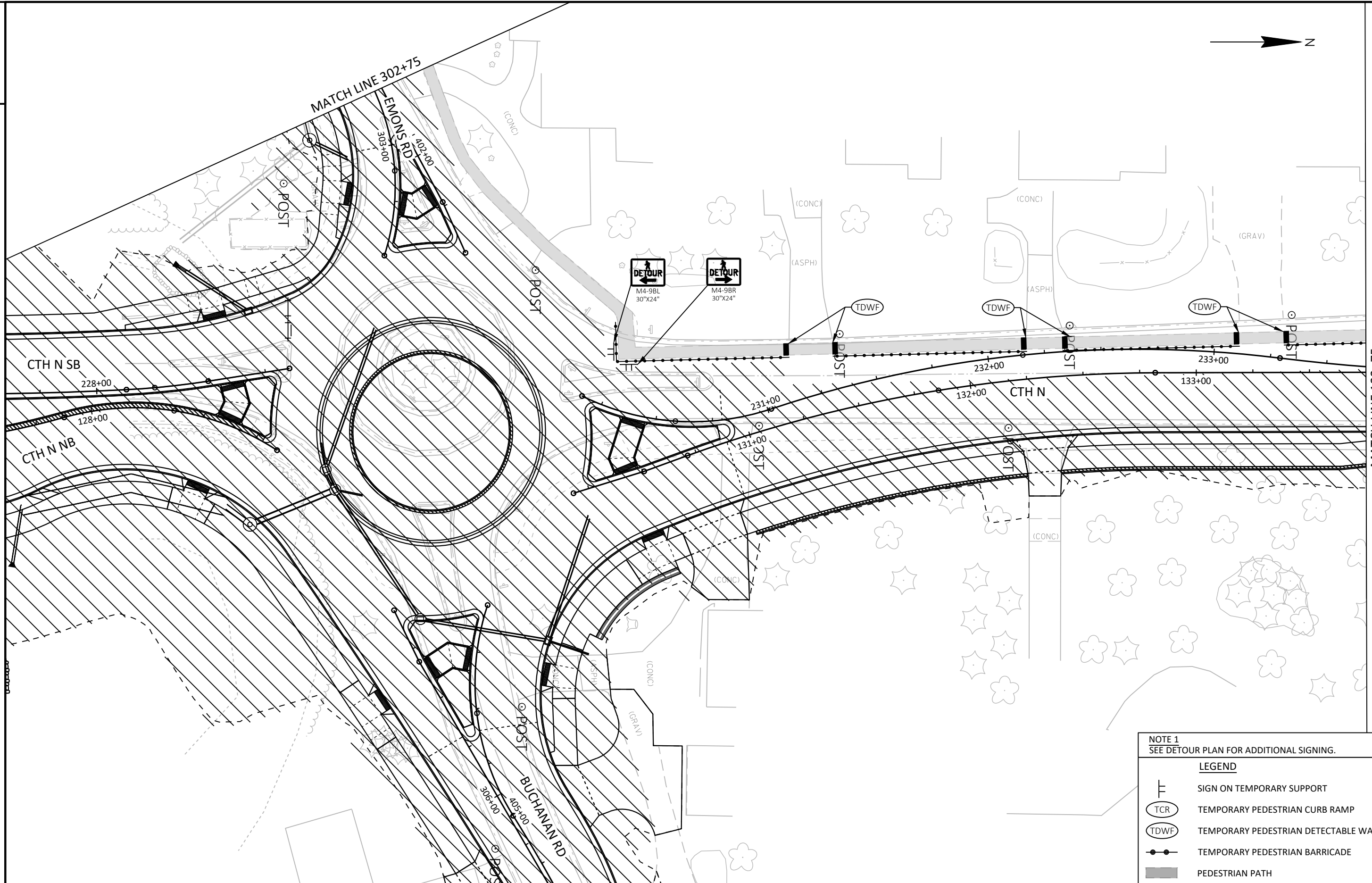
STAGE 3B PHASE 2
CONSTRUCT REMAINING PARTS OF NORTH AND WEST LEG. MAINTAIN PEDESTRIAN ACCESS VIA NEW SIDEWALK ON THE SOUTHWEST QUADRANT TO THE SOUTHEAST QUADRANT TO THE NORTHEAST QUADRANT.

REFER TO PEDESTRIAN STAGING PLANS FOR MORE DETAILS.

			
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PCMS MESSAGING






FRAME 1	FRAME 2
ROAD TO CLOSE	XXDAY XX/XX

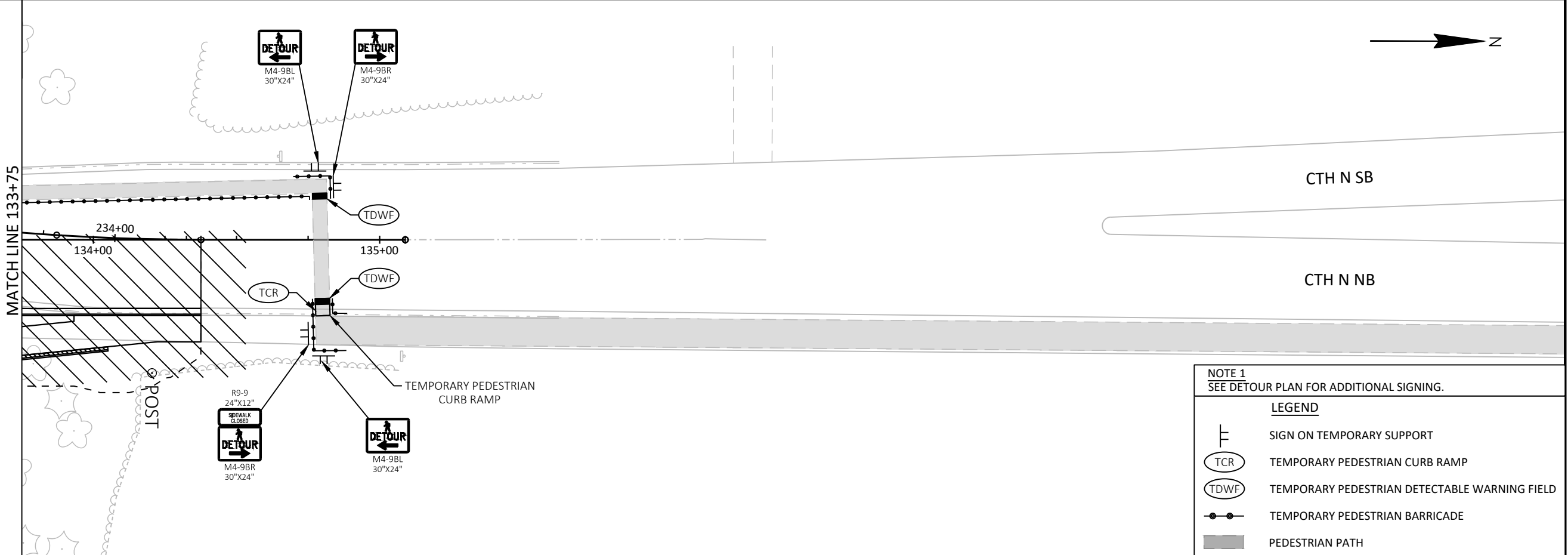
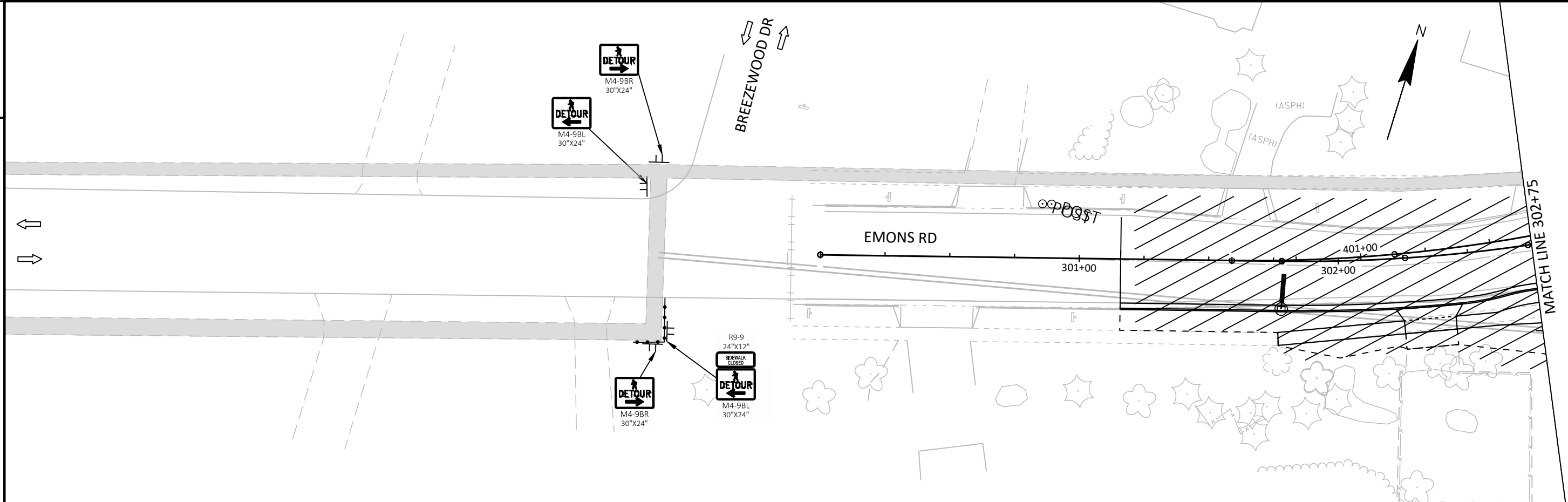


MATCH LINE 133+75

NOTE 1
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

LEGEND

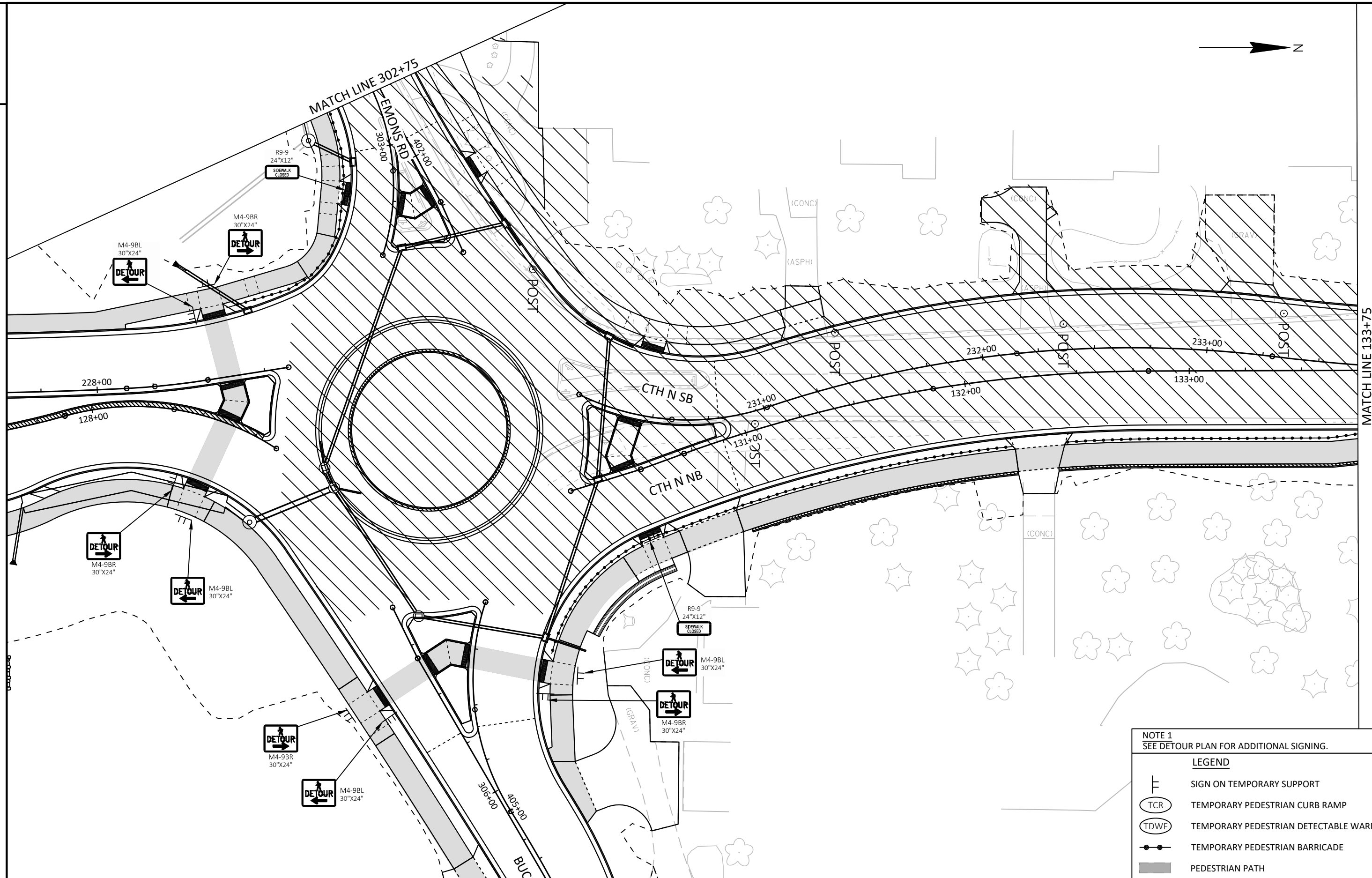
-  SIGN ON TEMPORARY SUPPORT
-  TEMPORARY PEDESTRIAN CURB RAMP
-  TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  PEDESTRIAN PATH



NOTE 1
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- PEDESTRIAN PATH








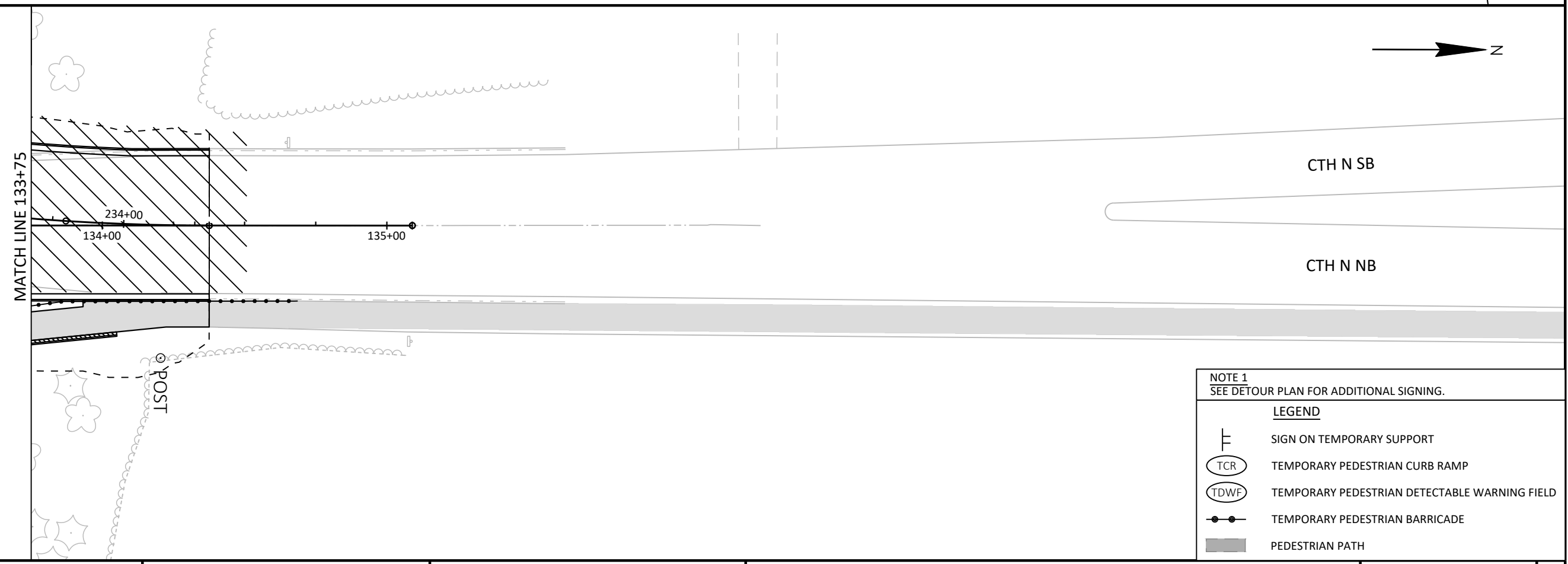
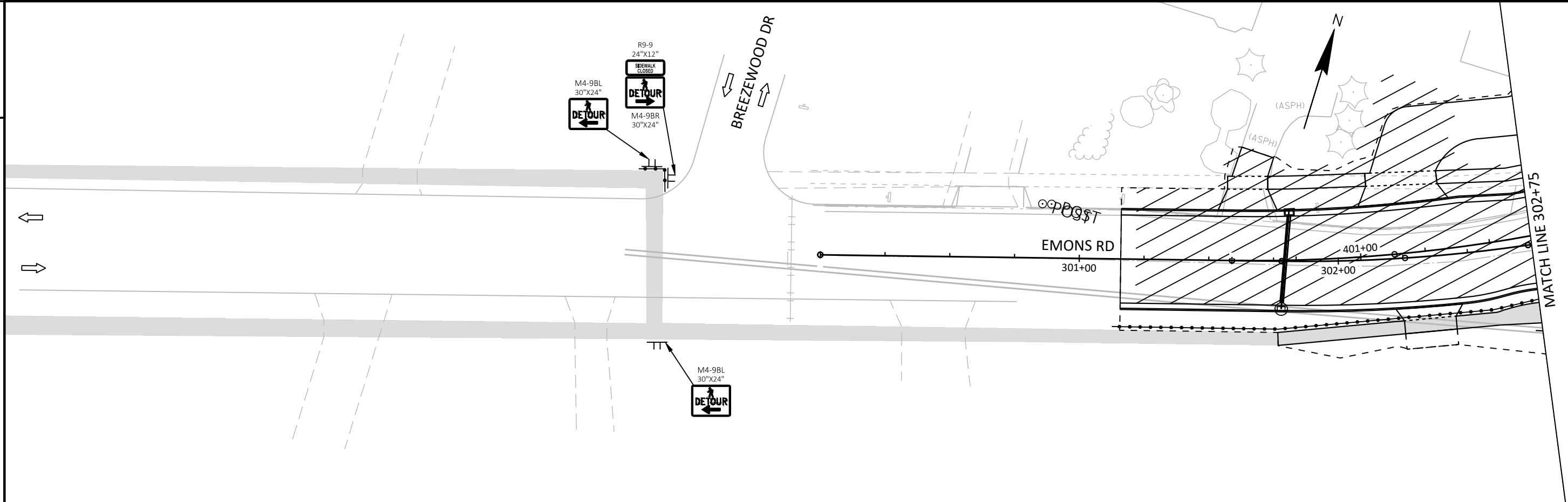
MATCH LINE 133+75

MATCH LINE 302+75

NOTE 1
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

LEGEND




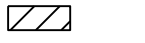

-  SIGN ON TEMPORARY SUPPORT
-  TEMPORARY PEDESTRIAN CURB RAMP
-  TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  PEDESTRIAN PATH

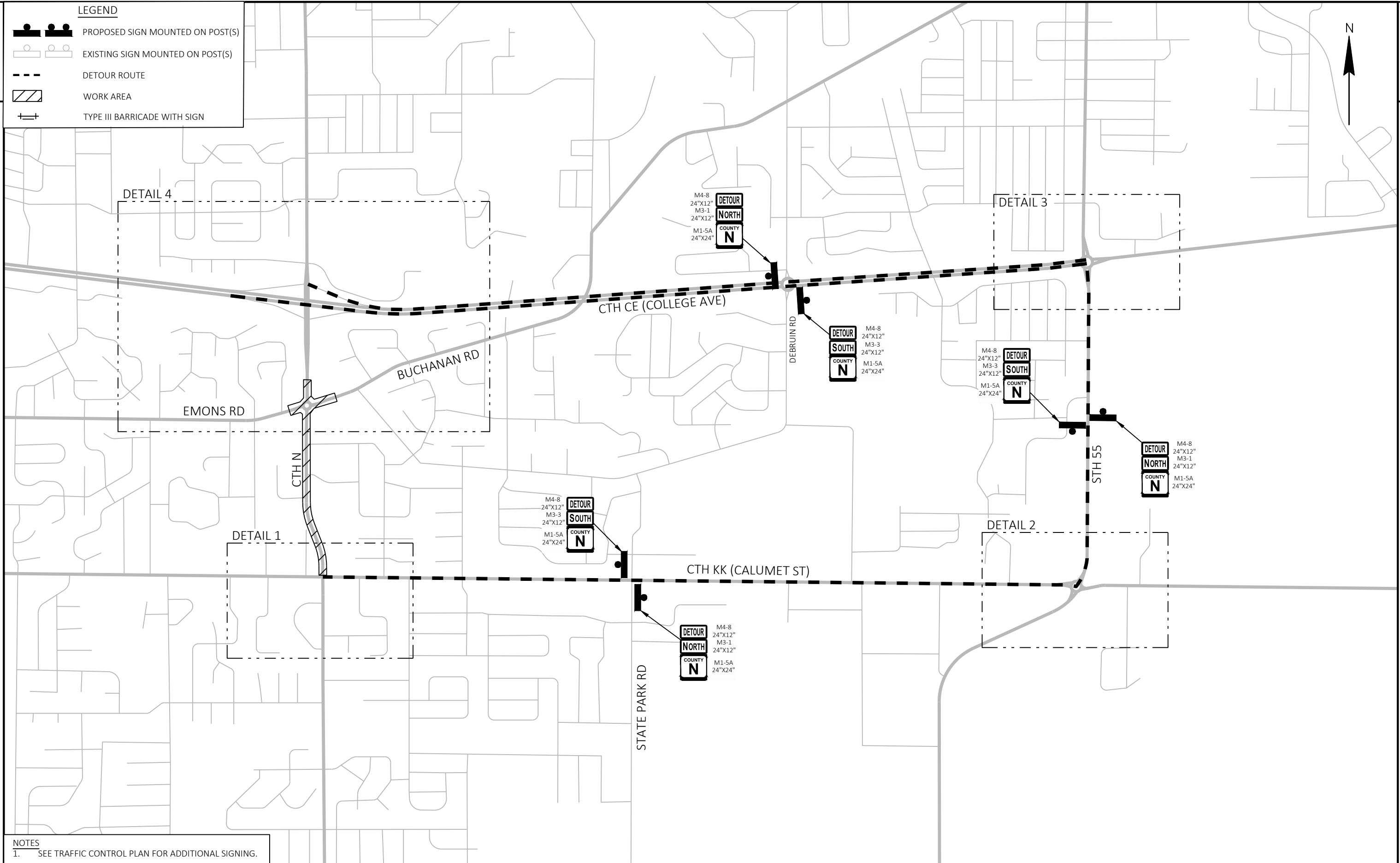


NOTE 1
SEE DETOUR PLAN FOR ADDITIONAL SIGNING.

LEGEND	
	SIGN ON TEMPORARY SUPPORT
	TEMPORARY PEDESTRIAN CURB RAMP
	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
	TEMPORARY PEDESTRIAN BARRICADE
	PEDESTRIAN PATH




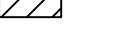
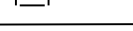
LEGEND

-  PROPOSED SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON POST(S)
-  DETOUR ROUTE
-  WORK AREA
-  TYPE III BARRICADE WITH SIGN



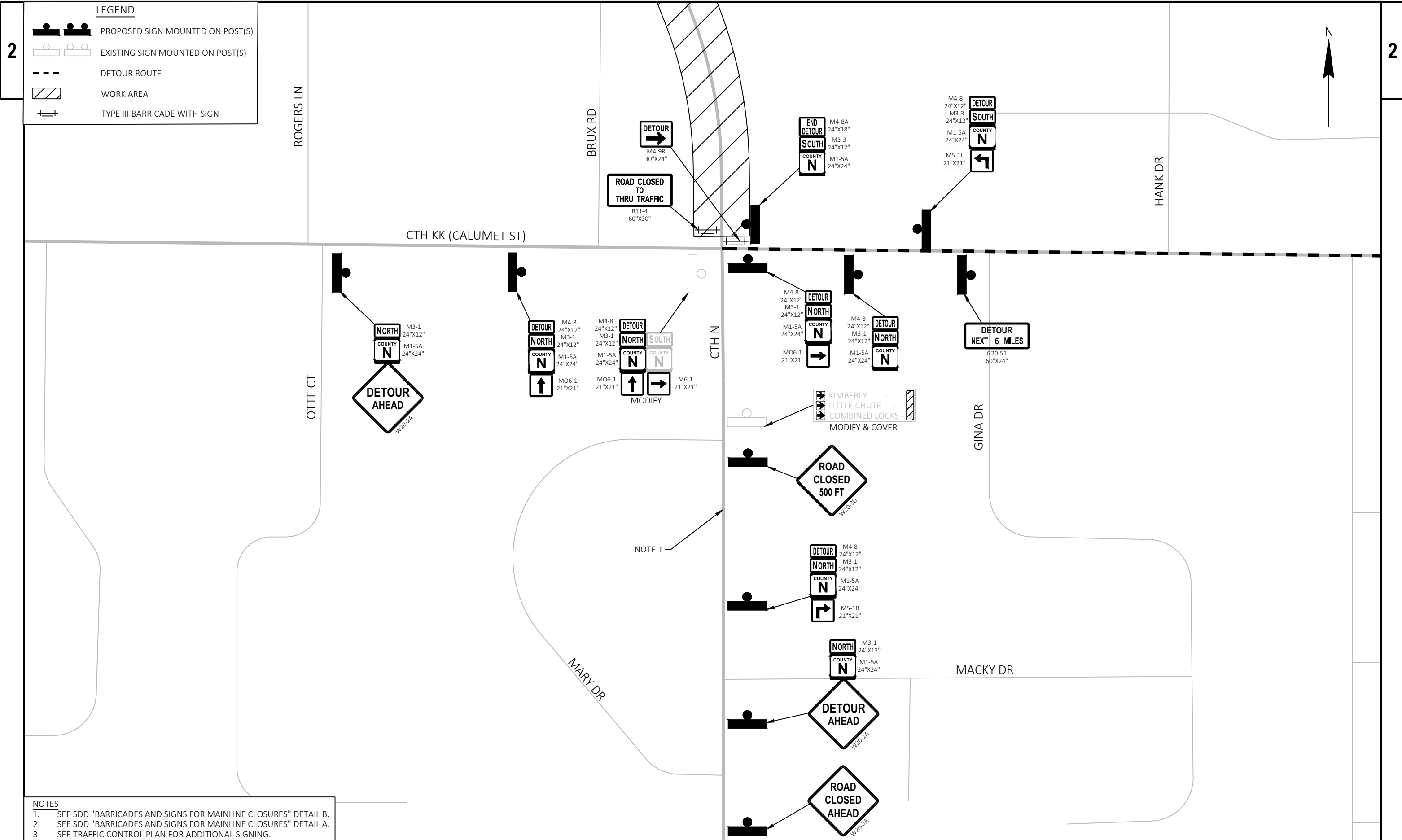
NOTES
 1. SEE TRAFFIC CONTROL PLAN FOR ADDITIONAL SIGNING.

LEGEND

-  PROPOSED SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON POST(S)
-  DETOUR ROUTE
-  WORK AREA
-  TYPE III BARRICADE WITH SIGN

2

2



- NOTES**
1. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A.
 3. SEE TRAFFIC CONTROL PLAN FOR ADDITIONAL SIGNING.

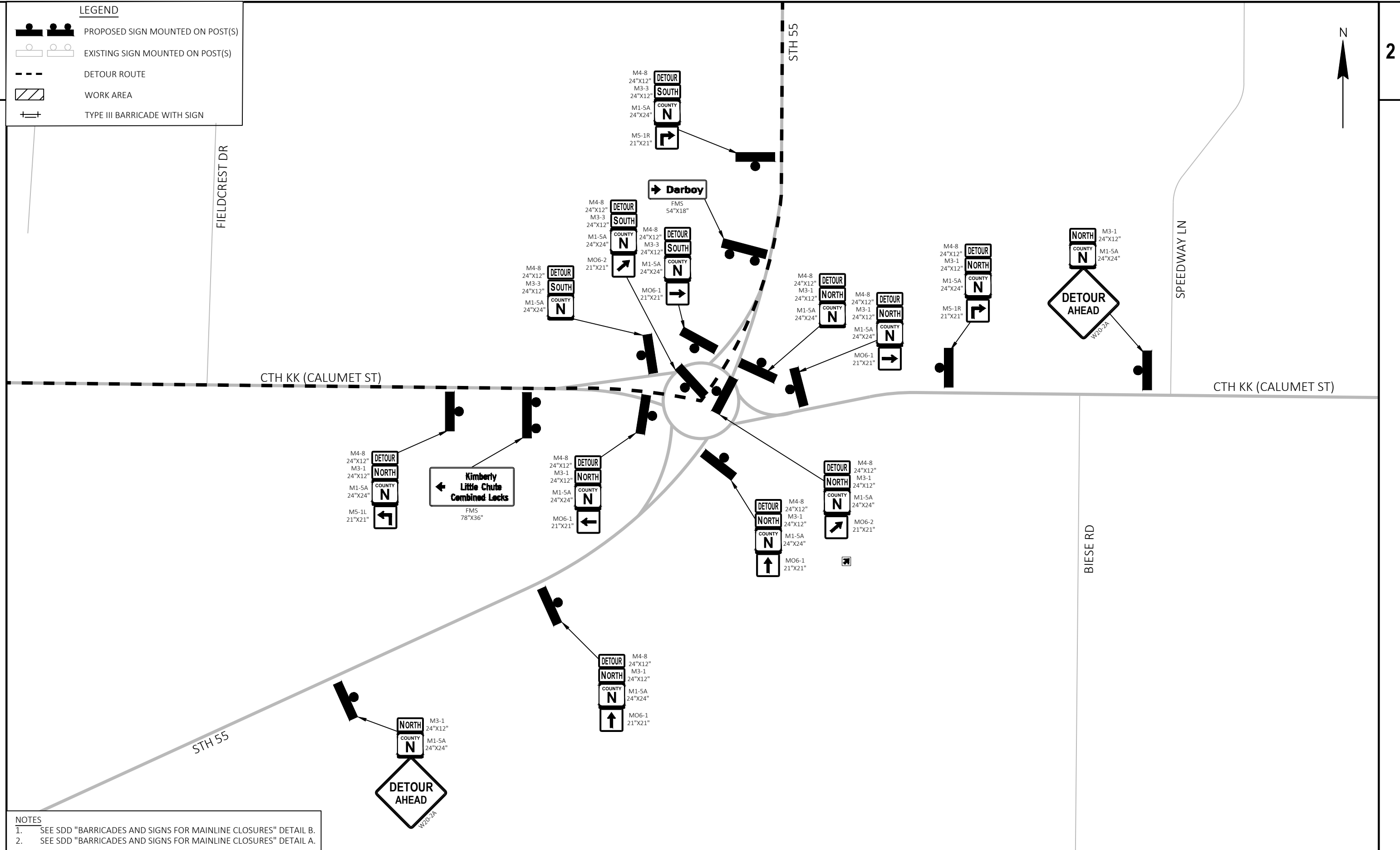
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	DETOUR - DETAIL 1	SHEET	E
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LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- DETOUR ROUTE
- WORK AREA
- TYPE III BARRICADE WITH SIGN

2




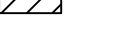
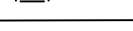
2



NOTES
 1. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A.

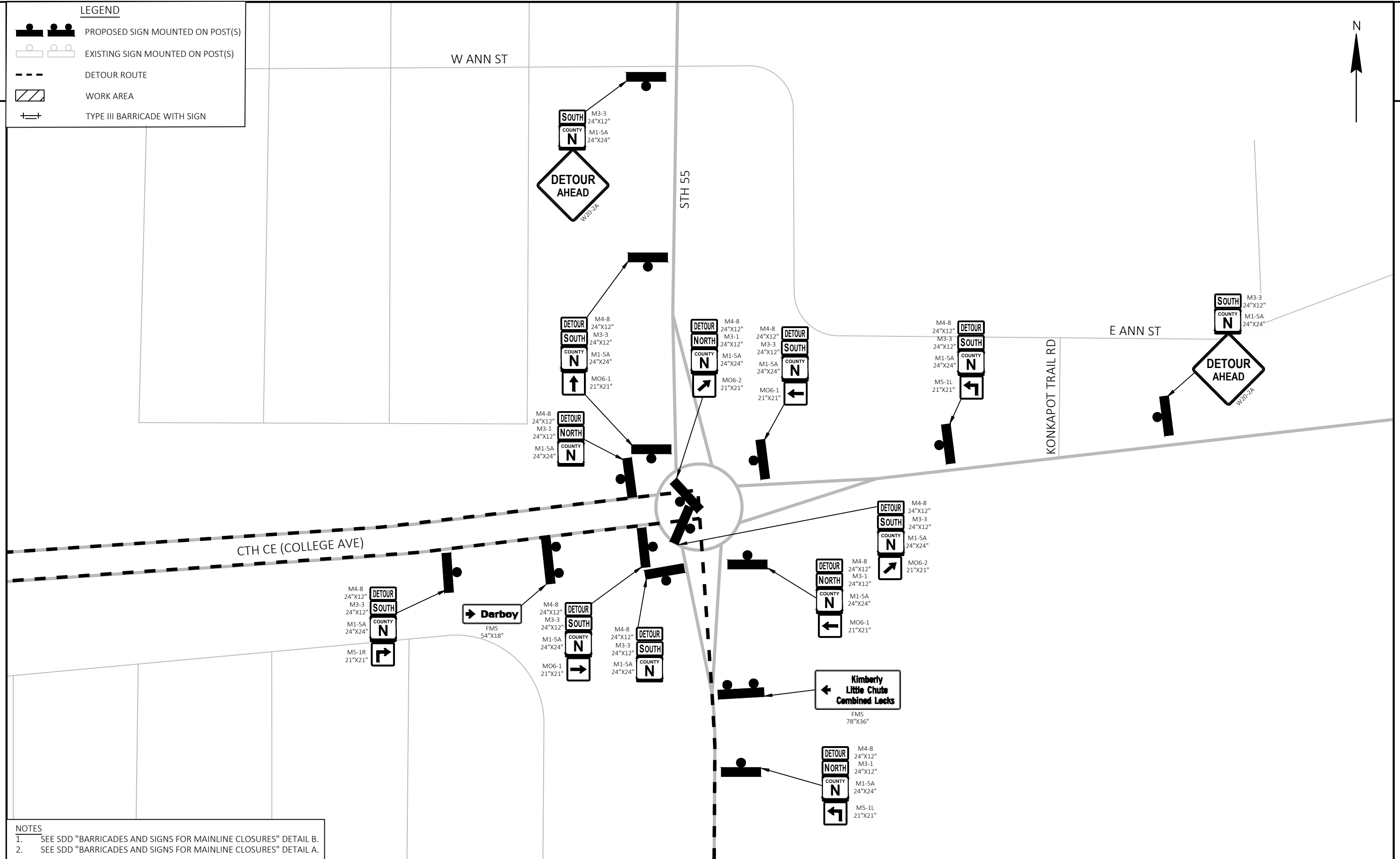
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	DETOUR - DETAIL 2	SHEET	E
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LEGEND

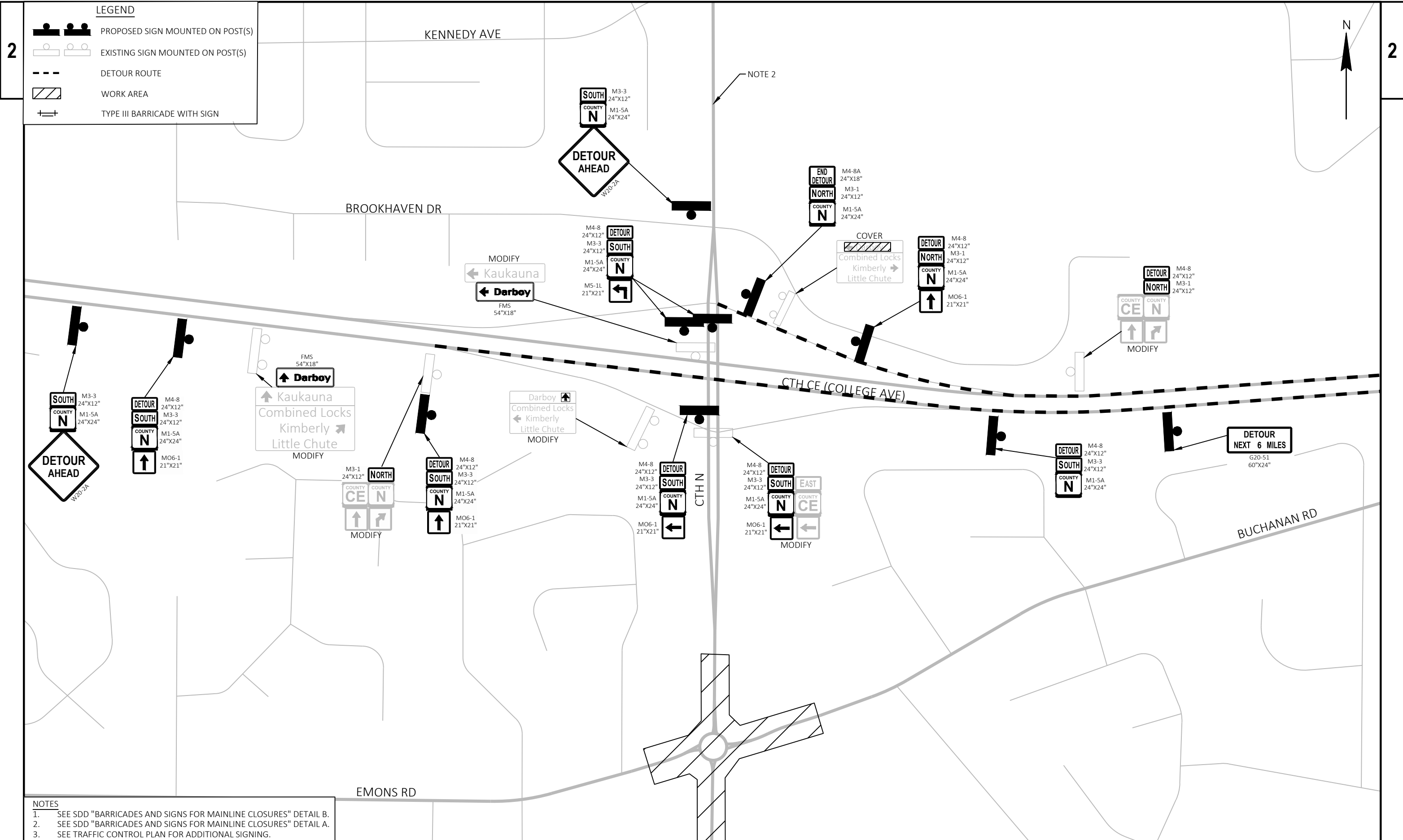
-  PROPOSED SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON POST(S)
-  DETOUR ROUTE
-  WORK AREA
-  TYPE III BARRICADE WITH SIGN

2

2

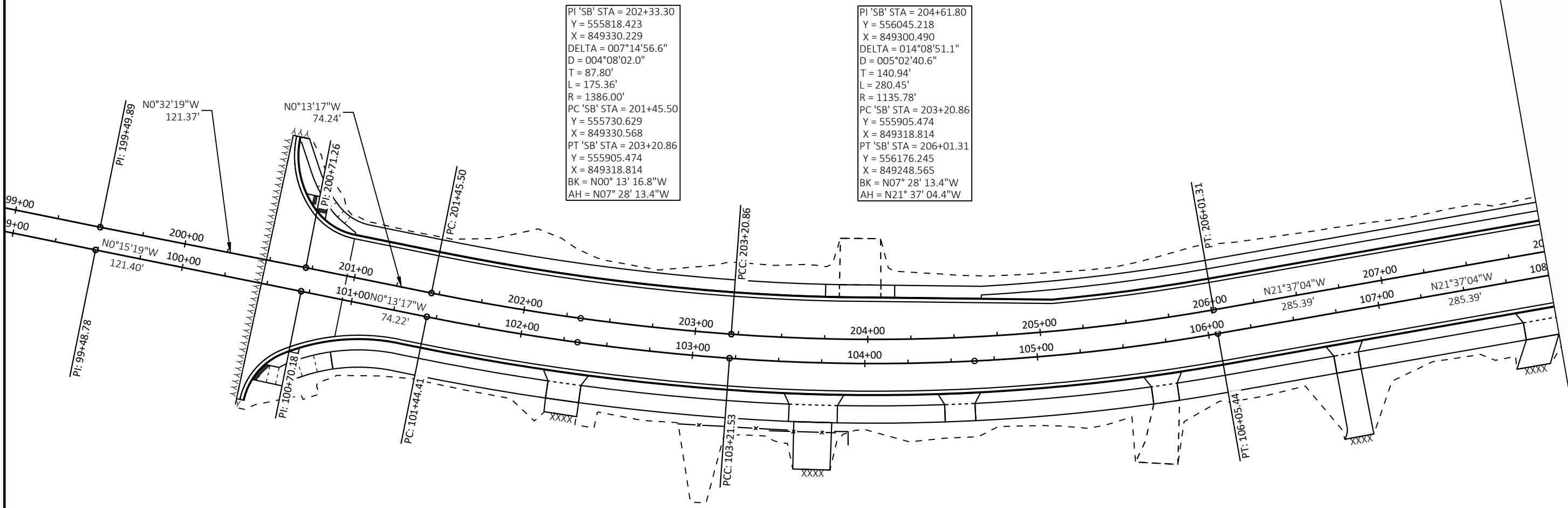


- NOTES**
1. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A.



- NOTES**
1. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
 2. SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A.
 3. SEE TRAFFIC CONTROL PLAN FOR ADDITIONAL SIGNING.

PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	DETOUR - DETAIL 4	SHEET	E
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PI 'SB' STA = 202+33.30
 Y = 555818.423
 X = 849330.229
 DELTA = 007°14'56.6"
 D = 004°08'02.0"
 T = 87.80'
 L = 175.36'
 R = 1386.00'
 PC 'SB' STA = 201+45.50
 Y = 555730.629
 X = 849330.568
 PT 'SB' STA = 203+20.86
 Y = 555905.474
 X = 849318.814
 BK = N00° 13' 16.8"W
 AH = N07° 28' 13.4"W

PI 'SB' STA = 204+61.80
 Y = 556045.218
 X = 849300.490
 DELTA = 014°08'51.1"
 D = 005°02'40.6"
 T = 140.94'
 L = 280.45'
 R = 1135.78'
 PC 'SB' STA = 203+20.86
 Y = 555905.474
 X = 849318.814
 PT 'SB' STA = 206+01.31
 Y = 556176.245
 X = 849248.565
 BK = N07° 28' 13.4"W
 AH = N21° 37' 04.4"W

PI 'NB' STA = 102+33.09
 Y = 555819.364
 X = 849344.225
 DELTA = 007°14'56.6"
 D = 004°05'33.2"
 T = 88.68'
 L = 177.13'
 R = 1400.00'
 PC 'NB' STA = 101+44.41
 Y = 555730.683
 X = 849344.568
 PT 'NB' STA = 103+21.53
 Y = 555907.294
 X = 849332.695
 BK = N00° 13' 16.8"W
 AH = N07° 28' 13.4"W

PI 'NB' STA = 104+64.21
 Y = 556048.761
 X = 849314.145
 DELTA = 014°08'51.1"
 D = 004°58'59.5"
 T = 142.68'
 L = 283.90'
 R = 1149.78'
 PC 'NB' STA = 103+21.53
 Y = 555907.294
 X = 849332.695
 PT 'NB' STA = 106+05.44
 Y = 556181.403
 X = 849261.581
 BK = N07° 28' 13.4"W
 AH = N21° 37' 04.4"W

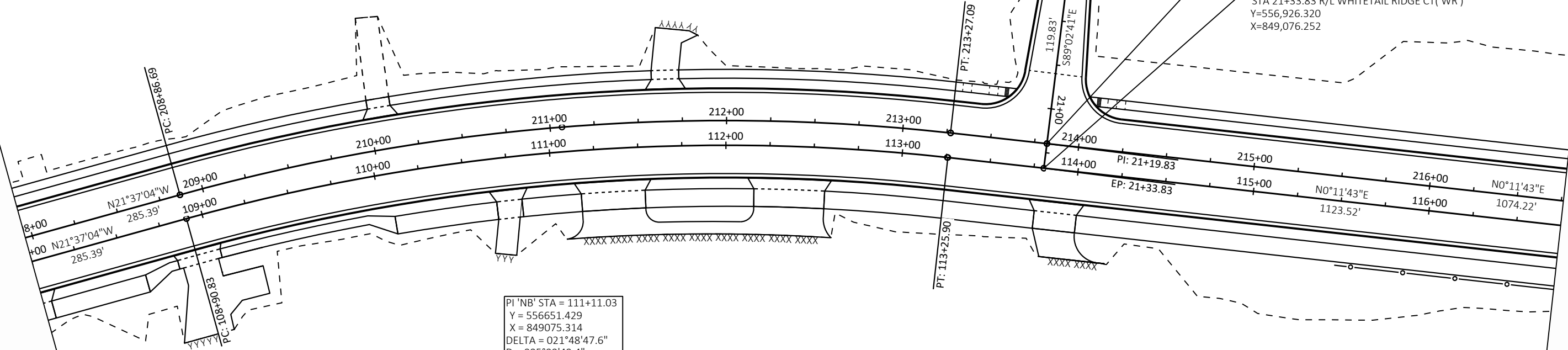


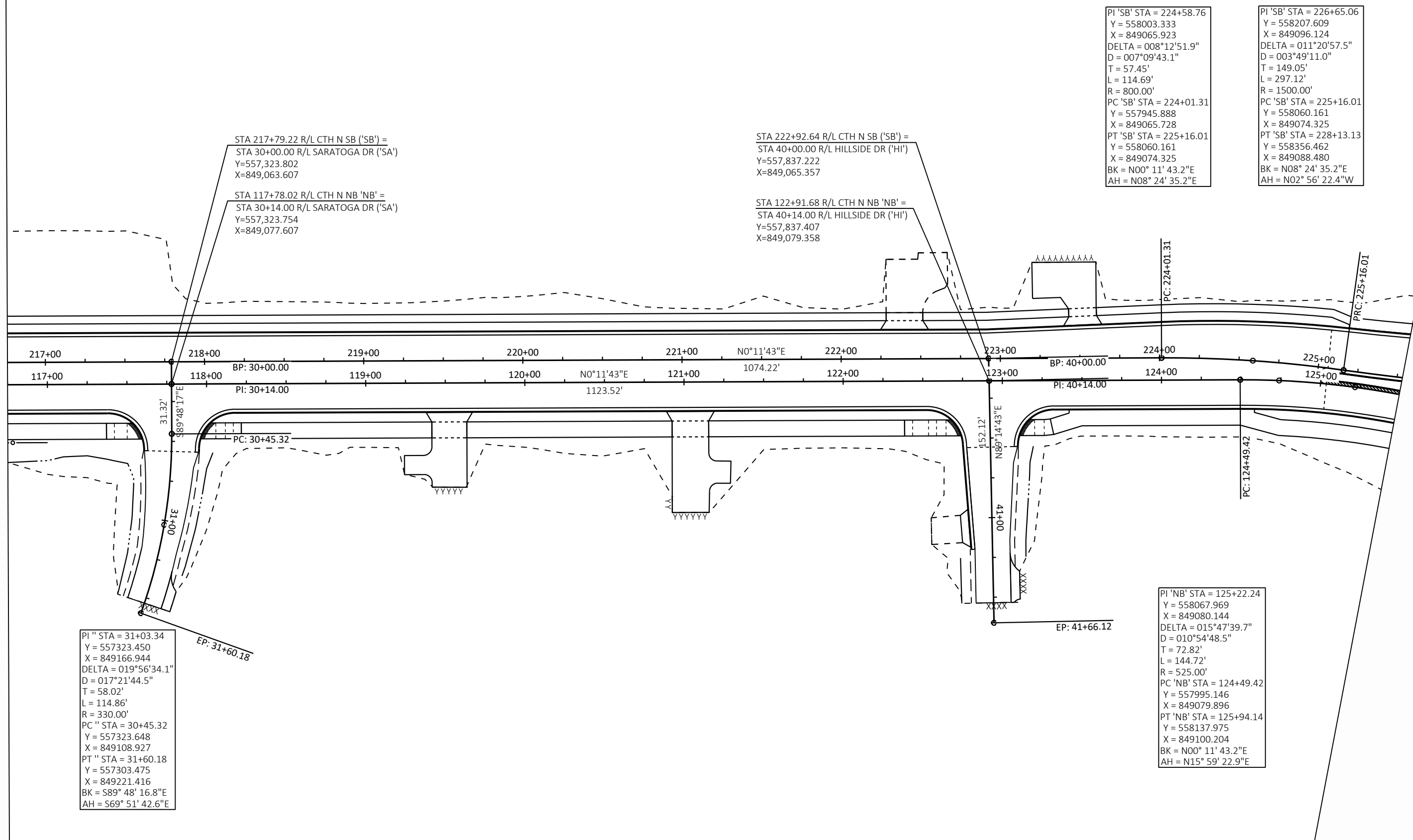
PI 'SB' STA = 211+09.59
 Y = 556648.779
 X = 849061.305
 DELTA = 021°48'47.7"
 D = 004°57'11.0"
 T = 222.90'
 L = 440.40'
 R = 1156.78'
 PC 'SB' STA = 208+86.69
 Y = 556441.558
 X = 849143.425
 PT 'SB' STA = 213+27.09
 Y = 556871.677
 X = 849062.065
 BK = N21° 37' 04.4"W
 AH = N00° 11' 43.3"E

STA 213+81.97 R/L CTH N SB ('SB') =
 STA 21+19.83 R/L WHITETAIL RIDGE CT('WR')
 Y=556,926.557
 X=849,062.252

STA 113+80.59 R/L CTH N NB ('NB') =
 STA 21+33.83 R/L WHITETAIL RIDGE CT('WR')
 Y=556,926.320
 X=849,076.252

PI 'NB' STA = 111+11.03
 Y = 556651.429
 X = 849075.314
 DELTA = 021°48'47.6"
 D = 005°00'49.4"
 T = 220.20'
 L = 435.07'
 R = 1142.78'
 PC 'NB' STA = 108+90.83
 Y = 556446.716
 X = 849156.440
 PT 'NB' STA = 113+25.90
 Y = 556871.629
 X = 849076.065
 BK = N21° 37' 04.4"W
 AH = N00° 11' 43.2"E





STA 217+79.22 R/L CTH N SB ('SB') =
 STA 30+00.00 R/L SARATOGA DR ('SA')
 Y=557,323.802
 X=849,063.607

STA 117+78.02 R/L CTH N NB 'NB' =
 STA 30+14.00 R/L SARATOGA DR ('SA')
 Y=557,323.754
 X=849,077.607

STA 222+92.64 R/L CTH N SB ('SB') =
 STA 40+00.00 R/L HILLSIDE DR ('HI')
 Y=557,837.222
 X=849,065.357

STA 122+91.68 R/L CTH N NB 'NB' =
 STA 40+14.00 R/L HILLSIDE DR ('HI')
 Y=557,837.407
 X=849,079.358

PI 'SB' STA = 224+58.76
 Y = 558003.333
 X = 849065.923
 DELTA = 008°12'51.9"
 D = 007°09'43.1"
 T = 57.45'
 L = 114.69'
 R = 800.00'
 PC 'SB' STA = 224+01.31
 Y = 557945.888
 X = 849065.728
 PT 'SB' STA = 225+16.01
 Y = 558060.161
 X = 849074.325
 BK = N00° 11' 43.2"E
 AH = N08° 24' 35.2"E

PI 'SB' STA = 226+65.06
 Y = 558207.609
 X = 849096.124
 DELTA = 011°20'57.5"
 D = 003°49'11.0"
 T = 149.05'
 L = 297.12'
 R = 1500.00'
 PC 'SB' STA = 225+16.01
 Y = 558060.161
 X = 849074.325
 PT 'SB' STA = 228+13.13
 Y = 558356.462
 X = 849088.480
 BK = N08° 24' 35.2"E
 AH = N02° 56' 22.4"W

PI " STA = 31+03.34
 Y = 557323.450
 X = 849166.944
 DELTA = 019°56'34.1"
 D = 017°21'44.5"
 T = 58.02'
 L = 114.86'
 R = 330.00'
 PC " STA = 30+45.32
 Y = 557323.648
 X = 849108.927
 PT " STA = 31+60.18
 Y = 557303.475
 X = 849221.416
 BK = S89° 48' 16.8"E
 AH = S69° 51' 42.6"E

PI 'NB' STA = 125+22.24
 Y = 558067.969
 X = 849080.144
 DELTA = 015°47'39.7"
 D = 010°54'48.5"
 T = 72.82'
 L = 144.72'
 R = 525.00'
 PC 'NB' STA = 124+49.42
 Y = 557995.146
 X = 849079.896
 PT 'NB' STA = 125+94.14
 Y = 558137.975
 X = 849100.204
 BK = N00° 11' 43.2"E
 AH = N15° 59' 22.9"E



PI 'SB' STA = 226+65.06
 Y = 558207.609
 X = 849096.124
 DELTA = 011°20'57.5"
 D = 003°49'11.0"
 T = 149.05'
 L = 297.12'
 R = 1500.00'
 PC 'SB' STA = 225+16.01
 Y = 558060.161
 X = 849074.325
 PT 'SB' STA = 228+13.13
 Y = 558356.462
 X = 849088.480
 BK = N08° 24' 35.2"E
 AH = N02° 56' 22.4"W

PI 'SB' STA = 228+31.31
 Y = 558374.621
 X = 849087.548
 DELTA = 005°56'51.8"
 D = 016°22'12.8"
 T = 18.18'
 L = 36.33'
 R = 350.00'
 PC 'SB' STA = 228+13.13
 Y = 558356.462
 X = 849088.480
 PT 'SB' STA = 228+49.46
 Y = 558392.585
 X = 849084.739
 BK = N02° 56' 22.4"W
 AH = N08° 53' 14.2"W

PI 'SB' STA = 228+85.81
 Y = 558428.494
 X = 849079.124

PI 'SB' STA = 230+60.87
 Y = 558598.299
 X = 849111.359
 DELTA = 044°46'56.2"
 D = 052°05'13.5"
 T = 45.32'
 L = 85.98'
 R = 110.00'
 PC 'SB' STA = 230+15.55
 Y = 558557.668
 X = 849091.287
 PT 'SB' STA = 231+01.53
 Y = 558641.278
 X = 849096.984
 BK = N26° 17' 20.4"E
 AH = N18° 29' 35.8"W

PI 'SB' STA = 232+17.30
 Y = 558751.069
 X = 849060.263
 DELTA = 025°34'42.7"
 D = 011°14'04.1"
 T = 115.77'
 L = 227.68'
 R = 510.00'
 PC 'SB' STA = 231+01.53
 Y = 558641.278
 X = 849096.984
 PT 'SB' STA = 233+29.21
 Y = 558865.953
 X = 849074.542
 BK = N18° 29' 35.8"W
 AH = N07° 05' 07.0"E

PI 'SB' STA = 233+79.71
 Y = 558916.069
 X = 849080.772
 DELTA = 007°13'27.1"
 D = 007°09'43.1"
 T = 50.50'
 L = 100.87'
 R = 800.00'
 PC 'SB' STA = 233+29.21
 Y = 558865.953
 X = 849074.542
 PT 'SB' STA = 234+30.08
 Y = 558966.570
 X = 849080.649
 BK = N07° 05' 07.0"E
 AH = N00° 08' 20.1"W

STA 134+37.57 R/L CTH N NB 'NB' =
 STA 234+30.08 R/L CTH N SB ('SB')
 Y=558,966.570
 X=849,080.649

PI 'NB' STA = 125+22.24
 Y = 558067.969
 X = 849080.144
 DELTA = 015°47'39.7"
 D = 010°54'48.5"
 T = 72.82'
 L = 144.72'
 R = 525.00'
 PC 'NB' STA = 124+49.42
 Y = 557995.146
 X = 849079.896
 PT 'NB' STA = 125+94.14
 Y = 558137.975
 X = 849100.204
 BK = N00° 11' 43.2"E
 AH = N15° 59' 22.9"E

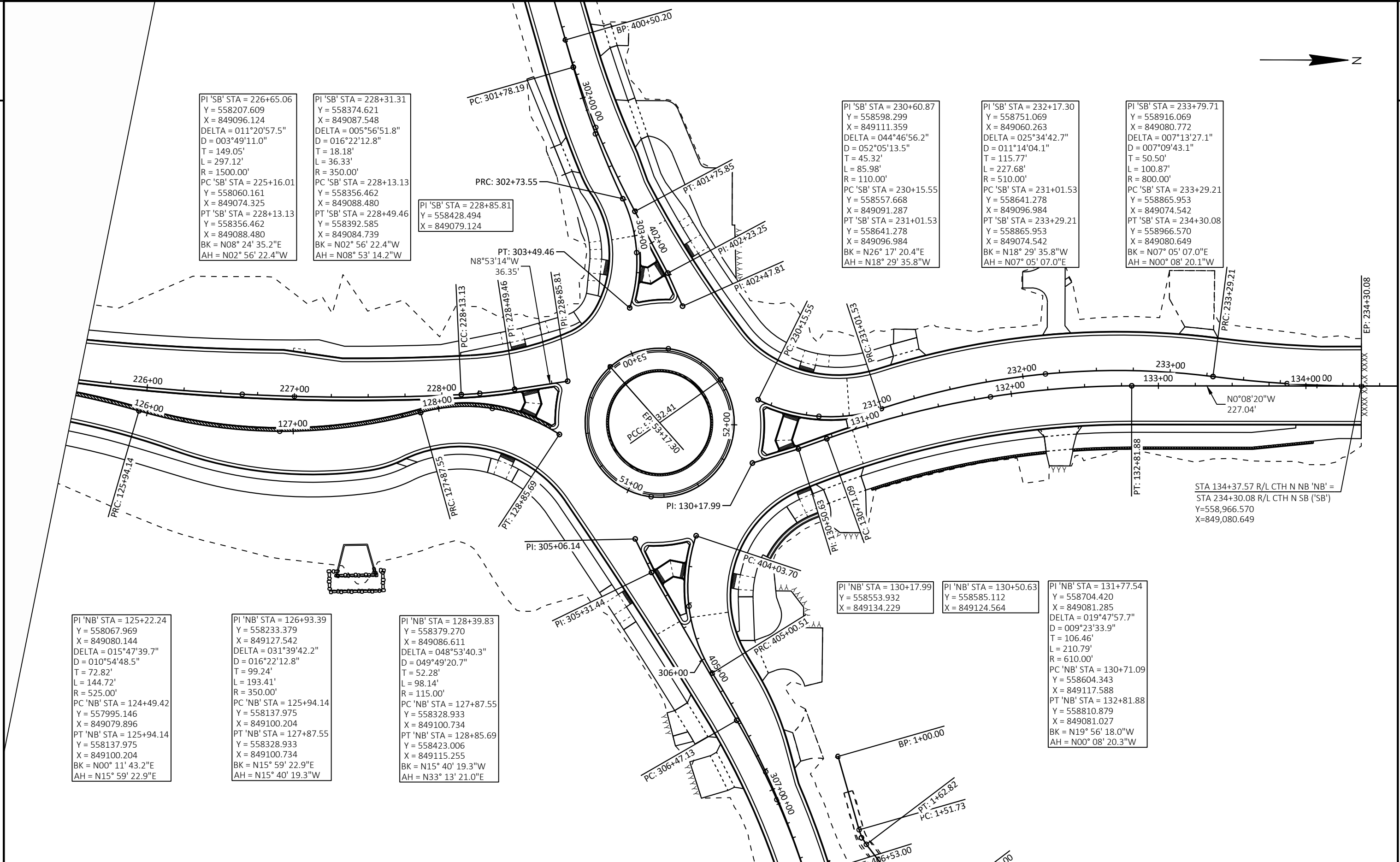
PI 'NB' STA = 126+93.39
 Y = 558233.379
 X = 849127.542
 DELTA = 031°39'42.2"
 D = 016°22'12.8"
 T = 99.24'
 L = 193.41'
 R = 350.00'
 PC 'NB' STA = 125+94.14
 Y = 558137.975
 X = 849100.204
 PT 'NB' STA = 127+87.55
 Y = 558328.933
 X = 849100.734
 BK = N15° 59' 22.9"E
 AH = N15° 40' 19.3"W

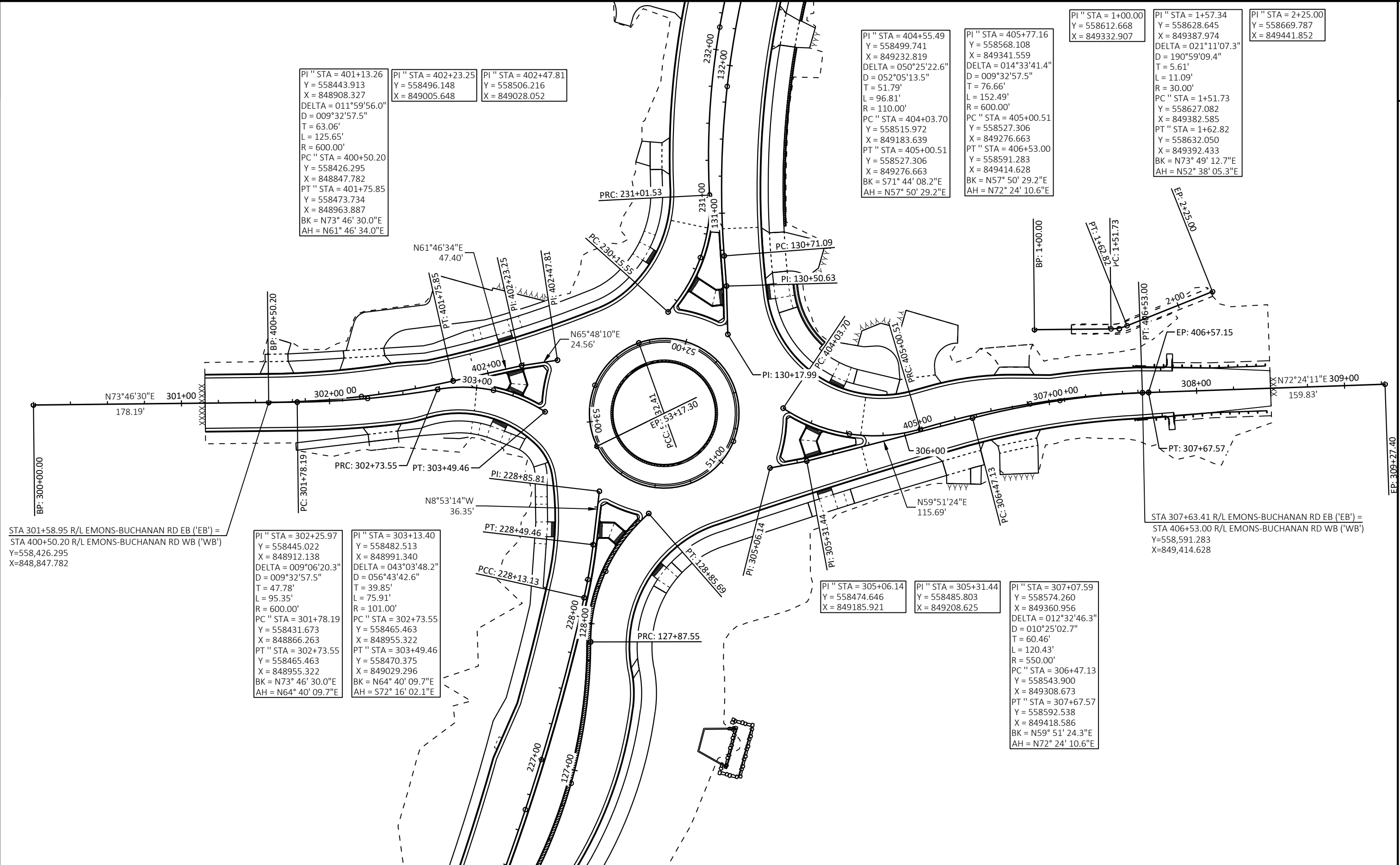
PI 'NB' STA = 128+39.83
 Y = 558379.270
 X = 849086.611
 DELTA = 048°53'40.3"
 D = 049°49'20.7"
 T = 52.28'
 L = 98.14'
 R = 115.00'
 PC 'NB' STA = 127+87.55
 Y = 558328.933
 X = 849100.734
 PT 'NB' STA = 128+85.69
 Y = 558423.006
 X = 849115.255
 BK = N15° 40' 19.3"W
 AH = N33° 13' 21.0"E

PI 'NB' STA = 130+17.99
 Y = 558553.932
 X = 849134.229

PI 'NB' STA = 130+50.63
 Y = 558585.112
 X = 849124.564

PI 'NB' STA = 131+77.54
 Y = 558704.420
 X = 849081.285
 DELTA = 019°47'57.7"
 D = 009°23'33.9"
 T = 106.46'
 L = 210.79'
 R = 610.00'
 PC 'NB' STA = 130+71.09
 Y = 558604.343
 X = 849117.588
 PT 'NB' STA = 132+81.88
 Y = 558810.879
 X = 849081.027
 BK = N19° 56' 18.0"W
 AH = N00° 08' 20.3"W





PI " STA = 401+13.26
 Y = 558443.913
 X = 848908.327
 DELTA = 011°59'56.0"
 D = 009°32'57.5"
 T = 63.06'
 L = 125.65'
 R = 600.00'
 PC " STA = 400+50.20
 Y = 558426.295
 X = 848847.782
 PT " STA = 401+75.85
 Y = 558473.734
 X = 848963.887
 BK = N73° 46' 30.0"E
 AH = N61° 46' 34.0"E

PI " STA = 402+23.25
 Y = 558496.148
 X = 849005.648

PI " STA = 402+47.81
 Y = 558506.216
 X = 849028.052

PI " STA = 404+55.49
 Y = 558499.741
 X = 849232.819
 DELTA = 050°25'22.6"
 D = 052°05'13.5"
 T = 51.79'
 L = 96.81'
 R = 110.00'
 PC " STA = 404+03.70
 Y = 558515.972
 X = 849183.639
 PT " STA = 405+00.51
 Y = 558527.306
 X = 849276.663
 BK = S71° 44' 08.2"E
 AH = N57° 50' 29.2"E

PI " STA = 405+77.16
 Y = 558568.108
 X = 849341.559
 DELTA = 014°33'41.4"
 D = 009°32'57.5"
 T = 76.66'
 L = 152.49'
 R = 600.00'
 PC " STA = 405+00.51
 Y = 558527.306
 X = 849276.663
 PT " STA = 406+53.00
 Y = 558591.283
 X = 849414.628
 BK = N57° 50' 29.2"E
 AH = N72° 24' 10.6"E

PI " STA = 1+00.00
 Y = 558612.668
 X = 849332.907

PI " STA = 1+57.34
 Y = 558628.645
 X = 849387.974
 DELTA = 021°11'07.3"
 D = 190°59'09.4"
 T = 5.61'
 L = 11.09'
 R = 30.00'
 PC " STA = 1+51.73
 Y = 558627.082
 X = 849382.585
 PT " STA = 1+62.82
 Y = 558632.050
 X = 849392.433
 BK = N73° 49' 12.7"E
 AH = N52° 38' 05.3"E

PI " STA = 2+25.00
 Y = 558669.787
 X = 849441.852

STA 301+58.95 R/L EMONS-BUCHANAN RD EB ('EB') =
 STA 400+50.20 R/L EMONS-BUCHANAN RD WB ('WB')
 Y=558,426.295
 X=848,847.782

PI " STA = 302+25.97
 Y = 558445.022
 X = 848912.138
 DELTA = 009°06'20.3"
 D = 009°32'57.5"
 T = 47.78'
 L = 95.35'
 R = 600.00'
 PC " STA = 301+78.19
 Y = 558431.673
 X = 848866.263
 PT " STA = 302+73.55
 Y = 558465.463
 X = 848955.322
 BK = N73° 46' 30.0"E
 AH = N64° 40' 09.7"E

PI " STA = 303+13.40
 Y = 558482.513
 X = 848991.340
 DELTA = 043°03'48.2"
 D = 056°43'42.6"
 T = 39.85'
 L = 75.91'
 R = 101.00'
 PC " STA = 302+73.55
 Y = 558465.463
 X = 848955.322
 PT " STA = 303+49.46
 Y = 558470.375
 X = 849029.296
 BK = N64° 40' 09.7"E
 AH = S72° 16' 02.1"E

PI " STA = 305+06.14
 Y = 558474.646
 X = 849185.921

PI " STA = 305+31.44
 Y = 558485.803
 X = 849208.625

PI " STA = 307+07.59
 Y = 558574.260
 X = 849360.956
 DELTA = 012°32'46.3"
 D = 010°25'02.7"
 T = 60.46'
 L = 120.43'
 R = 550.00'
 PC " STA = 306+47.13
 Y = 558543.900
 X = 849308.673
 PT " STA = 307+67.57
 Y = 558592.538
 X = 849418.586
 BK = N59° 51' 24.3"E
 AH = N72° 24' 10.6"E

STA 307+63.41 R/L EMONS-BUCHANAN RD EB ('EB') =
 STA 406+53.00 R/L EMONS-BUCHANAN RD WB ('WB')
 Y=558,591.283
 X=849,414.628

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Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	16.000	16.000
0004	201.0205	Grubbing	STA	27.000	27.000
0006	203.0100	Removing Small Pipe Culverts	EACH	20.000	20.000
0008	203.0220	Removing Structure (structure) 01. V-44-0144	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	1,960.000	1,960.000
0012	204.0110	Removing Asphaltic Surface	SY	1,110.000	1,110.000
0014	204.0150	Removing Curb & Gutter	LF	3,390.000	3,390.000
0016	204.0155	Removing Concrete Sidewalk	SY	695.000	695.000
0018	204.0165	Removing Guardrail	LF	1,235.000	1,235.000
0020	204.0170	Removing Fence	LF	128.000	128.000
0022	204.0210	Removing Manholes	EACH	1.000	1.000
0024	204.0220	Removing Inlets	EACH	4.000	4.000
0026	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	417.000	417.000
0028	205.0100	Excavation Common	CY	33,747.000	33,747.000
0030	206.2001	Excavation for Structures Culverts (structure) 01. V-44-0144	EACH	1.000	1.000
0032	210.2500	Backfill Structure Type B	TON	1,499.000	1,499.000
0034	213.0100	Finishing Roadway (project) 01. 4676-04-71	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,810.000	2,810.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	21,919.000	21,919.000
0040	305.0130	Base Aggregate Dense 3-Inch	TON	1,140.000	1,140.000
0042	310.0110	Base Aggregate Open-Graded	TON	11.000	11.000
0044	311.0110	Breaker Run	TON	19,751.000	19,751.000
0046	405.0100	Coloring Concrete WisDOT Red	CY	190.000	190.000
0048	415.0080	Concrete Pavement 8-Inch	SY	450.000	450.000
0050	415.2010	Concrete Truck Apron 12-Inch	SY	350.000	350.000
0052	455.0605	Tack Coat	GAL	2,049.000	2,049.000
0054	460.2000	Incentive Density HMA Pavement	DOL	4,970.000	4,970.000
0056	460.6223	HMA Pavement 3 MT 58-28 S	TON	5,567.000	5,567.000
0058	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,770.000	1,770.000
0060	460.7224	HMA Pavement 4 HT 58-28 S	TON	433.000	433.000
0062	465.0105	Asphaltic Surface	TON	520.000	520.000
0064	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	78.000	78.000
0066	465.0125	Asphaltic Surface Temporary	TON	50.000	50.000
0068	465.0315	Asphaltic Flumes	SY	14.000	14.000
0070	504.0100	Concrete Masonry Culverts	CY	36.000	36.000
0072	505.0400	Bar Steel Reinforcement HS Structures	LB	840.000	840.000
0074	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,670.000	2,670.000
0076	516.0500	Rubberized Membrane Waterproofing	SY	96.000	96.000
0078	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	4.000	4.000
0080	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	94.000	94.000
0082	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	41.000	41.000
0084	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0086	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0088	522.2434	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	LF	162.000	162.000
0090	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	2.000	2.000
0092	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	220.000	220.000
0094	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	285.000	285.000
0096	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	141.000	141.000
0098	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	8,835.000	8,835.000

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Line	Item	Item Description	Unit	Total	Qty
0100	601.0581	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type R	LF	308.000	308.000
0102	601.0600	Concrete Curb Pedestrian	LF	153.000	153.000
0104	602.0405	Concrete Sidewalk 4-Inch	SF	24,090.000	24,090.000
0106	602.0415	Concrete Sidewalk 6-Inch	SF	4,265.000	4,265.000
0108	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	370.000	370.000
0110	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	120.000	120.000
0112	602.0810	Concrete Driveway 6-Inch	SY	2,104.000	2,104.000
0114	602.0820	Concrete Driveway 8-Inch	SY	192.000	192.000
0116	603.1332	Concrete Barrier Type S32B	LF	49.000	49.000
0118	606.0200	Riprap Medium	CY	71.000	71.000
0120	606.0300	Riprap Heavy	CY	57.000	57.000
0122	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	140.000	140.000
0124	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	1,107.000	1,107.000
0126	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	291.000	291.000
0128	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	1,813.000	1,813.000
0130	608.3612	Storm Sewer Pipe Class III-B 12-Inch	LF	344.000	344.000
0132	608.3624	Storm Sewer Pipe Class III-B 24-Inch	LF	139.000	139.000
0134	611.0420	Reconstructing Manholes	EACH	3.000	3.000
0136	611.0530	Manhole Covers Type J	EACH	17.000	17.000
0138	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0140	611.0624	Inlet Covers Type H	EACH	38.000	38.000
0142	611.0639	Inlet Covers Type H-S	EACH	10.000	10.000
0144	611.0642	Inlet Covers Type MS	EACH	7.000	7.000
0146	611.0652	Inlet Covers Type T	EACH	2.000	2.000
0148	611.1005	Catch Basins 5-FT Diameter	EACH	2.000	2.000
0150	611.2004	Manholes 4-FT Diameter	EACH	10.000	10.000
0152	611.2005	Manholes 5-FT Diameter	EACH	8.000	8.000
0154	611.3004	Inlets 4-FT Diameter	EACH	12.000	12.000
0156	611.3230	Inlets 2x3-FT	EACH	36.000	36.000
0158	611.3901	Inlets Median 1 Grate	EACH	7.000	7.000
0160	611.8110	Adjusting Manhole Covers	EACH	8.000	8.000
0162	612.0106	Pipe Underdrain 6-Inch	LF	150.000	150.000
0164	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	6.000	6.000
0166	614.0305	Steel Plate Beam Guard Class A	LF	75.000	75.000
0168	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000
0170	616.0700.S	Fence Safety	LF	300.000	300.000
0172	619.1000	Mobilization	EACH	1.000	1.000
0174	620.0300	Concrete Median Sloped Nose	SF	380.000	380.000
0176	624.0100	Water	MGAL	224.000	224.000
0178	625.0100	Topsoil	SY	18,560.000	18,560.000
0180	628.1504	Silt Fence	LF	1,670.000	1,670.000
0182	628.1520	Silt Fence Maintenance	LF	1,670.000	1,670.000
0184	628.2006	Erosion Mat Urban Class I Type A	SY	12,130.000	12,130.000
0186	628.2027	Erosion Mat Class II Type C	SY	6,430.000	6,430.000
0188	628.7005	Inlet Protection Type A	EACH	9.000	9.000
0190	628.7015	Inlet Protection Type C	EACH	43.000	43.000
0192	628.7020	Inlet Protection Type D	EACH	15.000	15.000
0194	628.7504	Temporary Ditch Checks	LF	90.000	90.000
0196	628.7555	Culvert Pipe Checks	EACH	20.000	20.000

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Line	Item	Item Description	Unit	Total	Qty
0198	628.7570	Rock Bags	EACH	180.000	180.000
0200	629.0210	Fertilizer Type B	CWT	17.200	17.200
0202	630.0130	Seeding Mixture No. 30	LB	259.000	259.000
0204	630.0140	Seeding Mixture No. 40	LB	244.000	244.000
0206	630.0175	Seeding Mixture No. 75	LB	72.200	72.200
0208	630.0200	Seeding Temporary	LB	48.000	48.000
0210	630.0400	Seeding Nurse Crop	LB	115.600	115.600
0212	630.0500	Seed Water	MGAL	620.000	620.000
0214	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	57.000	57.000
0216	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	20.000	20.000
0218	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	4.000	4.000
0220	637.2210	Signs Type II Reflective H	SF	520.270	520.270
0222	637.2215	Signs Type II Reflective H Folding	SF	5.180	5.180
0224	638.2102	Moving Signs Type II	EACH	5.000	5.000
0226	638.2602	Removing Signs Type II	EACH	45.000	45.000
0228	638.3000	Removing Small Sign Supports	EACH	44.000	44.000
0230	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0232	642.5001	Field Office Type B	EACH	1.000	1.000
0234	643.0300	Traffic Control Drums	DAY	12,983.000	12,983.000
0236	643.0420	Traffic Control Barricades Type III	DAY	5,024.000	5,024.000
0238	643.0705	Traffic Control Warning Lights Type A	DAY	5,620.000	5,620.000
0240	643.0715	Traffic Control Warning Lights Type C	DAY	1,410.000	1,410.000
0242	643.0900	Traffic Control Signs	DAY	38,025.000	38,025.000
0244	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000
0246	643.1000	Traffic Control Signs Fixed Message	SF	66.000	66.000
0248	643.1050	Traffic Control Signs PCMS	DAY	77.000	77.000
0250	643.3165	Temporary Marking Line Paint 6-Inch	LF	722.000	722.000
0252	643.3265	Temporary Marking Line Paint 10-Inch	LF	290.000	290.000
0254	643.3305	Temporary Marking Crosswalk Paint 6-inch	LF	175.000	175.000
0256	643.3505	Temporary Marking Arrow Paint	EACH	3.000	3.000
0258	643.3605	Temporary Marking Word Paint	EACH	1.000	1.000
0260	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	40.000	40.000
0262	643.5000	Traffic Control	EACH	1.000	1.000
0264	644.1601	Temporary Pedestrian Curb Ramp	DAY	39.000	39.000
0266	644.1605	Temporary Pedestrian Detectable Warning Field	SF	80.000	80.000
0268	644.1810	Temporary Pedestrian Barricade	LF	1,218.000	1,218.000
0270	645.0105	Geotextile Type C	SY	75.000	75.000
0272	645.0111	Geotextile Type DF Schedule A	SY	88.000	88.000
0274	645.0120	Geotextile Type HR	SY	338.000	338.000
0276	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	14,720.000	14,720.000
0278	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,159.000	1,159.000
0280	646.5020	Marking Arrow Epoxy	EACH	36.000	36.000
0282	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0284	646.6120	Marking Stop Line Epoxy 18-Inch	LF	38.000	38.000
0286	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	200.000	200.000
0288	646.7120	Marking Diagonal Epoxy 12-Inch	LF	115.000	115.000
0290	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,060.000	1,060.000
0292	646.8120	Marking Curb Epoxy	LF	40.000	40.000
0294	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000

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Line	Item	Item Description	Unit	Total	Qty
0296	650.4000	Construction Staking Storm Sewer	EACH	76.000	76.000
0298	650.4500	Construction Staking Subgrade	LF	4,502.000	4,502.000
0300	650.5000	Construction Staking Base	LF	4,502.000	4,502.000
0302	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	9,789.000	9,789.000
0304	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0306	650.6501	Construction Staking Structure Layout (structure) 01. V-44-0144	EACH	1.000	1.000
0308	650.8501	Construction Staking Electrical Installations (project) 01. 4676-04-71	EACH	1.000	1.000
0310	650.9000	Construction Staking Curb Ramps	EACH	20.000	20.000
0312	650.9500	Construction Staking Sidewalk (project) 01. 4676-04-71	EACH	1.000	1.000
0314	650.9911	Construction Staking Supplemental Control (project) 01. 4676-04-71	EACH	1.000	1.000
0316	650.9920	Construction Staking Slope Stakes	LF	4,502.000	4,502.000
0318	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	180.000	180.000
0320	652.0605	Conduit Special 2-Inch	LF	252.000	252.000
0322	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0324	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	2.000	2.000
0326	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,093.000	1,093.000
0328	655.0240	Cable Traffic Signal 7-14 AWG	LF	74.000	74.000
0330	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,480.000	1,480.000
0332	655.0610	Electrical Wire Lighting 12 AWG	LF	135.000	135.000
0334	655.0700	Loop Detector Lead In Cable	LF	30.000	30.000
0336	657.0100	Pedestal Bases	EACH	5.000	5.000
0338	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	5.000	5.000
0340	657.0595	Trombone Arms 25-FT	EACH	1.000	1.000
0342	658.0416	Pedestrian Signal Face 16-Inch	EACH	4.000	4.000
0344	658.0500	Pedestrian Push Buttons	EACH	4.000	4.000
0346	658.5070	Signal Mounting Hardware (location) 01. CTH N and CTH KK	EACH	1.000	1.000
0348	690.0150	Sawing Asphalt	LF	541.000	541.000
0350	690.0250	Sawing Concrete	LF	539.000	539.000
0352	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0354	715.0603	Incentive Strength Concrete Barrier	DOL	25.000	25.000
0356	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0358	740.0440	Incentive IRI Ride	DOL	2,115.000	2,115.000
0360	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0362	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	2,100.000	2,100.000
0364	SPV.0060	Special 01. Mini Storm Sewer Cleanout	EACH	5.000	5.000
0366	SPV.0060	Special 02. Underground Detention System 1	EACH	1.000	1.000
0368	SPV.0060	Special 03. Underground Detention System 2	EACH	1.000	1.000
0370	SPV.0060	Special 04. Underground Detention System 3	EACH	1.000	1.000
0372	SPV.0060	Special 05. Underground Detention System 4	EACH	1.000	1.000
0374	SPV.0060	Special 06. Salvage and Reinstall Traffic Signal (CTH N and CTH KK)	EACH	1.000	1.000
0376	SPV.0060	Special 07. Video Vehicle Detection System (CTH N and CTH KK)	EACH	1.000	1.000
0378	SPV.0060	Special 08. Salvage and Reset Existing Gate	EACH	1.000	1.000
0380	SPV.0060	Special 09. Temporary Access Gate	EACH	1.000	1.000
0382	SPV.0060	Special 10. Adjusting Water Valve Boxes	EACH	12.000	12.000
0384	SPV.0060	Special 12. Adjusting Water Service Curb Stops	EACH	13.000	13.000
0386	SPV.0060	Special 13. Concrete Bases Type 1 Special	EACH	5.000	5.000
0388	SPV.0060	Special 14. Concrete Bases Type 2 Special	EACH	2.000	2.000
0390	SPV.0060	Special 15. Connect to Existing Conduit	EACH	2.000	2.000
0392	SPV.0060	Special 16. Utility Line Opening	EACH	1.000	1.000

Estimate Of Quantities

4676-04-71

Line	Item	Item Description	Unit	Total	Qty
0394	SPV.0060	Special 17. Manual Roller Gate 22-FT	EACH	1.000	1.000
0396	SPV.0085	Special 01. Low Maintenance Seed Mixture	LB	28.000	28.000
0398	SPV.0090	Special 01. Mini Storm Sewer 4-Inch	LF	217.000	217.000
0400	SPV.0090	Special 02. Mini Storm Sewer 6-Inch	LF	37.000	37.000
0402	SPV.0090	Special 03. Cable Traffic Signal 16-14 AWG	LF	502.000	502.000
0404	SPV.0090	Special 04. Tray Cable for Street Lighting 3 Conductor 12 AWG	LF	270.000	270.000
0406	SPV.0090	Special 05. Slatted Chain Link Fence 6-FT	LF	150.000	150.000
0408	SPV.0090	Special 06. Pipe Arch Structural Plate 162x114-Inch	LF	57.000	57.000
0410	SPV.0090	Special 07. Reinstall Water Service Lateral 1-Inch	LF	100.000	100.000
0412	SPV.0090	Special 08. Salvage and Reset Existing Fence	LF	100.000	100.000
0414	SPV.0090	Special 09. Salvage and Relocate Existing Fence	LF	200.000	200.000
0416	SPV.0180	Special 01. Topsoil Special	SY	165.000	165.000

CLEARING AND GRUBBING

STATION TO STATION	DIR	ROADWAY	201.0105 CLEARING STA	201.0205 GRUBBING STA
PROJECT 4676-04-71				
CATEGORY 0010				
103+00 - 107+00	LT	CTH N NB	3	4
109+00 - 110+00	RT	CTH N NB	---	1
114+00 - 119+00	LT/RT	CTH N NB	5	5
120+00 - 121+00	LT	CTH N NB	1	1
121+00 - 123+00	RT	CTH N NB	---	2
124+00 - 129+00	LT/RT	CTH N NB	5	5
130+00 - 131+00	LT/RT	CTH N NB	---	1
132+00 - 134+00	RT	CTH N NB	---	2
305+00 - 306+00	RT	BUCHANAN RD EB	---	1
307+00 - 308+50	LT/RT	BUCHANAN RD EB	2	2
401+00 - 402+00	LT	EMONS RD WB	---	1
52+00 - 53+00	LT	RAB	---	1
30+00 - 31+00	LT	SARATOGA DR	---	1
PROJECT TOTAL			16	27

REMOVING SMALL PIPE CULVERTS

203.0100

STATION	DIR	ROADWAY	EA	REMARKS
PROJECT 4676-04-71				
CATEGORY 0010				
102+25	RT	CTH N NB	1	18" CMP
103+15	LT	CTH N NB	1	18" CMP
103+70	RT	CTH N NB	1	18" CMP
104+50	RT	CTH N NB	1	18" CMP
105+70	RT	CTH N NB	1	18" CMP
106+75	RT	CTH N NB	1	18" CMP
107+90	RT	CTH N NB	1	18" CMP
108+90	RT	CTH N NB	1	18" CMP
110+10	LT	CTH N NB	1	18" CMP
111+50	RT	CTH N NB	1	18" CMP
111+65	LT	CTH N NB	1	18" CMP
113+80	LT	CTH N NB	1	18" CMP
113+90	RT	CTH N NB	1	18" CMP
115+85	-	CTH N NB	1	18" PVC
117+75	RT	CTH N NB	1	18" PVC
121+00	RT	CTH N NB	1	18" CMP
122+40	LT	CTH N NB	1	18" CMP
122+90	RT	CTH N NB	1	18" CMP
123+50	LT	CTH N NB	1	18" CMP
41+00	RT	HILLSIDE DR	1	15" CMP
PROJECT TOTAL			20	

REMOVING GUARDRAIL

204.0165

REMOVING
GUARDRAIL

STATION TO STATION	DIR	ROADWAY	LF
PROJECT 4676-04-71			
CATEGORY 0010			
114+43 - 116+82	RT	CTH N	240
114+83 - 118+08	LT	CTH N	325
125+38 - 128+23	LT	CTH N	275
125+47 - 127+76	RT	CTH N	225
307+56 - 308+47	RT	BUCHANAN	90
307+67 - 308+47	LT	BUCHANAN	80
PROJECT TOTAL			1,235

REMOVING STORM SEWER STRUCTURES

204.0210

REMOVING
MANHOLES

204.0220

REMOVING
INLETS

STATION	OFFSET	DIR	ROADWAY	EA	EA
PROJECT 4676-04-71					
CATEGORY 0010					
127+95	4.3'	LT	CTH N	1	---
128+64	8.0'	LT	CTH N	---	1
129+08	3.5'	RT	CTH N	---	1
303+14	25.2'	LT	BUCHANAN RD	---	1
303+54	25.5'	RT	BUCHANAN RD	---	1
PROJECT TOTAL				1	4

REMOVING STORM SEWER

204.0245.01

18-INCH

STATION TO STATION	ROADWAY	LF
PROJECT 4676-04-71		
CATEGORY 0010		
127+64 - 127+95	CTH N	54
127+95 - 128+64	CTH N	70
128+64 - 129+08	CTH N	45
128+64 - 128+70	CTH N	74
302+12 - 303+13	BUCHANAN RD	104
303+12 - 303+53	BUCHANAN RD	70
PROJECT TOTAL		417

3

REMOVING CONCRETE PAVEMENT

204.0100

STATION TO STATION	ROADWAY	SY	REMARKS
PROJECT 4676-04-71			
CATEGORY 0010			
100+46 - 100+91	CTH N NB	415	CALUMET ST INTERSECTION LT/RT
50+00 - 53+17	CTH N RAB	425	TRUCK APRON
108+70 - 109+27	CTH N NB	130	DRIVEWAY RT
110+54 - 110+79	CTH N NB	20	DRIVEWAY RT
111+59 - 111+85	CTH N NB	45	DRIVEWAY LT
119+24 - 119+64	CTH N NB	85	DRIVEWAY RT
120+92 - 121+30	CTH N NB	110	DRIVEWAY RT
123+19 - 123+60	CTH N NB	110	DRIVEWAY LT
130+52 - 131+03	CTH N NB	130	DRIVEWAY RT
132+17 - 132+45	CTH N NB	50	DRIVEWAY RT
132+27 - 132+42	CTH N NB	20	DRIVEWAY LT
301+52 - 301+77	EMONS RD EB	35	DRIVEWAY LT
302+68 - 303+42	EMONS RD EB	215	DRIVEWAY LT
305+48 - 305+89	BUCHANAN RD EB	55	DRIVEWAY LT
306+19 - 306+39	BUCHANAN RD EB	25	DRIVEWAY RT
306+56 - 306+93	BUCHANAN RD EB	90	DRIVEWAY RT
PROJECT TOTAL		1,960	

REMOVING ASPHALTIC SURFACE

204.0110

STATION TO STATION	ROADWAY	SY	REMARKS
PROJECT 4676-04-71			
CATEGORY 0010			
102+20 - 102+38	CTH N	60	DRIVEWAY RT
103+06 - 103+30	CTH N	115	DRIVEWAY LT
103+61 - 103+81	CTH N	110	DRIVEWAY RT
106+69 - 106+84	CTH N	100	DRIVEWAY RT
108+81 - 109+03	CTH N	50	DRIVEWAY RT
111+18 - 112+56	CTH N	255	ENTRANCE RT
111+58 - 111+74	CTH N	45	DRIVEWAY LT
113+75 - 113+97	CTH N	80	DRIVEWAY RT
119+41 - 119+64	CTH N	55	DRIVEWAY RT
120+92 - 121+15	CTH N	65	DRIVEWAY RT
131+27 - 131+45	CTH N	40	DRIVEWAY LT
132+27 - 132+40	CTH N	45	DRIVEWAY LT
301+51 - 301+73	EMONS RD	15	DRIVEWAY LT
305+64 - 305+79	BUCHANAN RD	20	DRIVEWAY LT
306+24 - 306+51	BUCHANAN RD	55	DRIVEWAY RT
31+36 - 31+54	SARATOGA DR	10	DRIVEWAY LT
41+29 - 41+54	HILLSIDE DR	15	DRIVEWAY LT
PROJECT TOTAL		1,110	

3

REMOVING CURB AND GUTTER

204.0150
REMOVING CURB
AND GUTTER

STATION TO STATION	DIR	ROADWAY	LF	REMARKS
PROJECT 4676-04-71				
CATEGORY 0010				
110+95 - 112+67	RT	CTH N	170	TOWN HALL ENTRANCE
50+50 - 51+00	RT	CTH N ROUNDABOUT	615	CTH N SE RADIUS
51+50 - 52+00	RT	CTH N ROUNDABOUT	710	CTH N NE RADIUS
53+85 - 53+10	RT	CTH N ROUNDABOUT	300	CTH N SW RADIUS
52+25 - 52+75	RT	CTH N ROUNDABOUT	700	CTH N NW RADIUS
128+09 - 128+80	LT	CTH N	120	SOUTH SPLITTER ISLAND
130+18 - 130+81	LT	CTH N	150	NORTH SPLITTER ISLAND
20+26 - 20+31	LT	WHITETAIL RIDGE CT	5	EXISTING SLOPED END
20+26 - 20+31	RT	WHITETAIL RIDGE CT	5	EXISTING SLOPED END
302+87 - 303+43	LT	EMONS RD	130	EAST SPLITTER ISLAND
299+55 - 300+10	LT	BUCHANAN RD	120	WEST SPLITTER ISLAND
50+00 - 53+17	LT	CTH N ROUNDABOUT	365	C&G AROUND RAB
PROJECT TOTAL			3,390	

REMOVING CONCRETE SIDEWALK

204.0155

STATION TO STATION	ROADWAY	SY	REMARKS
PROJECT 4676-04-71			
CATEGORY 0010			
50+50 - 51+00	CTH N	110	CTH N RAB SE RADIUS
51+50 - 52+00	CTH N	145	CTH N RAB NE RADIUS
53+85 - 53+10	CTH N	135	CTH N RAB SW RADIUS
52+25 - 52+75	CTH N	130	CTH N RAB NW RADIUS
100+56 - 100+56	CTH N	25	CTH KK NW CORNER
128+09 - 128+80	CTH N	25	SOUTH SPLITTER ISLAND
130+18 - 130+81	CTH N	50	NORTH SPLITTER ISLAND
302+87 - 303+43	CTH N	50	EAST SPLITTER ISLAND
299+55 - 300+10	CTH N	25	WEST SPILTTER ISLAND
PROJECT TOTAL		695	

REMOVING FENCE

204.0170

STATION TO STATION	DIR	ROADWAY	LF	REMARKS
PROJECT 4676-04-71				
CATEGORY 0010				
127+78 - 129+02	RT	CTH N NB	128	WOOD FENCE
PROJECT TOTAL			128	

EARTHWORK SUMMARY

ROADWAY	STATION TO STATION	205.0100 EXCAVATION COMMON	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AVAILABLE MATERIAL	FILL	EXPANDED FILL EXP FACTOR 1.25	MASS ORDINATE	NOTE 3	COMMENT
PROJECT 4676-04-71									
CATEGORY 0010									
STAGES 1 AND 2									
CTH N NB	100+50 - 125+00	23,411	1,272	22,139	3,803	4,754	17,385		INSUFFICIENT FILL MATERIAL GENERATED IN STAGE 1 FOR SIDE SLOPE FILLS. CONSTRUCT ROAD CORE AND COMPLETE SIDE SLOPE FILLS WITH MATERIAL FROM STAGE 2.
WHITETAIL RIDGE	20+26 - 20+75	133	---	133	1	1	132		
SARATOGA DR	30+75 - 31+50	267	---	267	---	---	267		
HILLSIDE DR	40+66 - 41+50	292	---	292	8	10	282		
STAGE 1 AND 2 SUBTOTALS		24,103	1,272	22,831	3,812	4,765	18,066		
STAGE 3									
CTH N NB	125+00 - 128+75	1,106	54	1,052	7,477	9,346	-8,294		USE WASTE MATERIAL FROM STAGE 2
CTH N NB	130+50 - 134+38	3,228	175	3,053	4	5	3,048		
CTH N SB	225+50 - 228+75	1,702	122	1,580	178	223	1,358		
CTH N SB	230+50 - 231+30	209	30	179	20	25	154		
EMONS RD EB	301+16 - 303+25	774	68	706	6	8	699		
BUCHANAN RD EB	305+25 - 308+50	612	85	527	315	394	133		
EMONS ED WB	401+75 - 402+25	144	6	138	2	3	136		
BUCHANAN RD WB	404+25 - 405+08	220	22	198	3	4	194		
ROUNDAABOUT	50+00 - 53+17	1,643	141	1,502	1,342	1,678	-176		
PARCEL 42 PATH	1+25 - 2+24	6	---	6	---	---	6		
STAGE 3 SUBTOTALS		9,644	703	8,941	9,347	11,684	-2,743		
PROJECT TOTALS		33,747	1,975	31,772	13,159	16,449	15,323		

- NOTES:
- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
 - 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED
DOES NOT APPEAR IN CROSS SECTIONS
 - 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

BASE AGGREGATE DENSE

STATION	TO STATION	ROADWAY	305.0110 *	305.0120 *	305.0130	311.0110	624.0100
			TON	TON	TON	TON	MGAL
PROJECT 4676-04-71							
CATEGORY 0010							
100+47	- 100+95	CTH N	---	400	---	420	4
100+95	- 113+80	CTH N	---	6,360	---	6,540	64
113+80	- 117+80	CTH N	---	1,960	---	2,010	20
117+80	- 125+05	CTH N	---	3,610	---	3,720	36
125+05	- 128+56	CTH N	---	1,990	---	2,050	20
130+90	- 134+39	CTH N	---	1,940	---	2,000	19
301+16	- 303+00	EMONS	---	590	320	---	9
305+70	- 308+50	BUCHANAN	10	890	490	---	14
20+26	- 20+80	WHITETAIL RIDGE	---	140	80	---	2
30+56	- 31+54	SARATOGA	20	220	120	---	4
40+56	- 41+54	HILLSIDE	10	230	130	---	4
50+00	- 53+13	RAB	---	2,550	---	2,620	26
50+01	- 53+14	TRUCK APRON	---	150	---	350	2
1+25	- 2+24	PARCEL 42 PATH	10	---	---	---	---
PROJECT TOTAL			50*	21,030*	1,140	19,710	224

*ADDITIONAL QUANTITIES IN DRIVEWAYS AND SIDEWALK TABLES

CONCRETE BARRIER

LOCATION	LF
PROJECT 4676-04-71	
CATEGORY 0010	
RAB NE QUADRANT	49
PROJECT TOTAL	49

CONCRETE MEDIAN SLOPED NOSE

LOCATION	SF
PROJECT 4676-04-71	
CATEGORY 0010	
NORTH SPLITTER ISLAND	100
SOUTH SPLITTER ISLAND	100
EAST SPLITTER ISLAND	90
WEST SPLITTER ISLAND	90
PROJECT TOTAL	380

CONCRETE PAVEMENT AND TRUCK APRON

STATION	- STATION	LOCATION	405.0100 ***	415.0080	415.2010
			CONCRETE WISDOT RED	CONCRETE PAVEMENT 8-INCH	CONCRETE TRUCK APRON 12-INCH
STATION	- STATION	LOCATION	CY	SY	SY
PROJECT 4676-04-71					
CATEGORY 0010					
100+47	- 100+95	CTH N NB	---	450	---
50+00	- 53+13	CTH N RAB	117	---	350
PROJECT TOTAL			117***	450	350

*** ADDITIONAL QUANTITIES SHOWN IN SIDEWALK TABLE

CONCRETE CURB AND GUTTER

STATION	TO STATION	DIR	ROADWAY	601.0405	601.0407	601.0409	601.0411	601.0581	650.5500
				18-INCH TYPE A	18-INCH TYPE D	30-INCH TYPE A	30-INCH TYPE D	4-INCH SLOPED 30-INCH TYPE R	CONSTRUCTION STAKING CURB AND GUTTER
STATION	TO STATION	DIR	ROADWAY	LF	LF	LF	LF	LF	LF
PROJECT 4676-04-71									
CATEGORY 0010									
100+46	- 113+80	RT	CTH N NB	---	---	68	1,286	---	1,354
100+46	- 113+80	LT	CTH N NB	---	---	73	1,280	---	1,353
113+80	- 117+80	RT	CTH N NB	---	---	---	394	---	394
113+80	- 117+80	LT	CTH N NB	---	---	---	392	---	392
117+80	- 125+05	RT	CTH N NB	---	---	---	715	---	715
117+80	- 125+05	LT	CTH N NB	---	---	---	730	---	730
125+05	- 128+65	RT	CTH N NB	---	---	---	355	---	355
125+05	- 128+48	LT	CTH N NB	---	---	---	348	---	348
130+89	- 134+39	RT	CTH N NB	---	285	---	340	---	625
130+97	- 134+39	LT	CTH N NB	---	---	---	352	---	352
301+16	- 303+00	RT	EMONS RD EB	---	---	---	183	---	183
301+16	- 302+94	LT	EMONS RD EB	---	---	---	180	---	180
305+70	- 307+75	RT	BUCHANAN RD EB	---	---	---	202	---	202
305+81	- 307+76	LT	BUCHANAN RD EB	---	---	---	201	---	201
RAB NE QUADRANT				---	---	---	148	---	148
RAB SE QUADRANT				---	---	---	155	---	155
RAB NW QUADRANT				---	---	---	171	---	171
RAB SW QUADRANT				---	---	---	103	---	103
RAB				220	---	---	---	308	528
SOUTH SPLITTER ISLAND				---	---	---	763	---	763
NORTH SPLITTER ISLAND				---	---	---	139	---	139
EAST SPLITTER ISLAND				---	---	---	121	---	121
WEST SPLITTER ISLAND				---	---	---	104	---	104
20+26	- 20+80	RT	WHITETAIL RIDGE CT	---	---	---	55	---	55
20+26	- 20+80	LT	WHITETAIL RIDGE CT	---	---	---	54	---	54
40+55	- 41+20	RT	HILLSIDE DR	---	---	---	64	---	64
PROJECT TOTAL				220	285	141	8,835	308	9,789

DRIVEWAYS

UNDERDRAIN

STATION	DIR	ROADWAY	305.0110**	305.0120**	602.0810	602.0820	465.0120	COMMENT
			BASE AGGREGATE DENSE		CONCRETE	CONCRETE	ASPHALTIC SURFACE	
			3/4-INCH	1 1/4-INCH	DRIVEWAY	DRIVEWAY	DRIVEWAYS AND FIELD ENTRANCES	
TON	TON	SY	SY	TON				
PROJECT 4676-04-71								
CATEGORY 0010								
102+25	RT	CTH N NB	-	18	36	-	3	
103+70	RT	CTH N NB	-	39	-	52	11	
104+00	LT	CTH N NB	23	10	31	-	-	
104+50	RT	CTH N NB	-	11	34	-	-	
105+70	RT	CTH N NB	25	10	29	-	-	
106+75	RT	CTH N NB	-	30	28	-	11	
107+90	RT	CTH N NB	-	26	45	-	6	
108+90	RT	CTH N NB	-	58	175	-	-	
110+10	LT	CTH N NB	22	6	17	-	-	
110+75	RT	CTH N NB	-	18	55	-	-	
111+35	RT	CTH N NB	-	51	-	67	15	
111+65	LT	CTH N NB	-	22	65	-	-	
112+35	RT	CTH N NB	-	57	-	73	17	
113+90	RT	CTH N NB	-	29	45	-	7	
119+50	RT	CTH N NB	-	47	142	-	-	
121+00	RT	CTH N NB	-	63	188	-	-	
122+40	LT	CTH N NB	44	10	29	-	-	
123+50	LT	CTH N NB	-	46	137	-	-	
130+75	RT	CTH N NB	-	37	112	-	-	
131+40	LT	CTH N NB	-	14	28	-	2	
132+35	RT	CTH N NB	-	19	56	-	-	REINFORCMENT REQUIRED SEE PAVING DETAIL SHEET
132+35	LT	CTH N NB	-	30	91	-	-	
133+25	LT	CTH N NB	40	4	13	-	-	
301+65	LT	EMONS EB	-	13	40	-	-	
302+25	LT	EMONS EB	-	107	322	-	-	
302+32	RT	EMONS EB	4	8	23	-	-	
306+20	LT	BUCHANAN EB	-	70	209	-	-	
306+30	RT	BUCHANAN EB	-	23	61	-	2	
306+75	RT	BUCHANAN EB	-	-	82	-	-	
31+40	LT	SARATOGA DR	-	4	-	-	2	
41+00	RT	HILLSIDE DR	12	4	11	-	-	
41+40	LT	HILLSIDE DR	-	5	-	-	2	
PROJECT TOTAL			170**	889**	2,104	192	78	

STATION	OFFSET	DIR	STRUCTURE	ROADWAY	310.0110	612.0106	645.0111
					BASE AGGREGATE OPEN GRADED	PIPE UNDERDRAIN 6-INCH	GEOTEXTILE TYPE DF SCHEDULE A
TON	LF	SY					
PROJECT 4676-04-71							
CATEGORY 0010							
116+08	31.5'	LT	INL 95.1	CTH N NB	0.7	10	6
116+08	17.5'	RT	INL 95.3	CTH N NB	0.7	10	6
116+18	31.5'	LT	INL 95.2	CTH N NB	0.7	10	6
116+18	17.5'	RT	INL 95.4	CTH N NB	0.7	10	6
126+55	24.1'	RT	INL 115.5	CTH N NB	0.7	10	6
126+74	26.2'	RT	INL 115.3	CTH N NB	0.7	10	6
226+72	30.0'	LT	INL 115.2	CTH N SB	0.7	10	6
226+82	30.2'	LT	INL 115.1	CTH N SB	0.7	10	6
226+82	1.5'	RT	INL 115.0	CTH N SB	0.7	10	6
230+16	29.2'	LT	INL 120.7	CTH N SB	1.4	20	11
402+44	22.3'	LT	INL 120.3	EMONS WB	1.4	20	11
50+60	1.5'	LT	INL 120.1	RAB	0.7	10	6
50+70	1.5'	LT	INL 120.0	RAB	0.7	10	6
PROJECT TOTALS					11	150	88

** ADDITIONAL QUANTITIES SHOWN IN BASE AGGREGATE DENSE AND SIDEWALK TABLES

ASPHALTIC ITEMS

STATION	TO	STATION	ROADWAY	AREA	PAVEMENT AVG DEPTH IN	455.0605	460.6223	460.6224	460.6424	465.0125
						TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 H TON	ASPHALTIC SURFACE TEMPORARY TON
PROJECT 4676-04-71										
CATEGORY 0010										
100+94	-	113+80	CTH N NB	LT MEDIAN	6.25	172	446	173	---	---
				MAINLINE	6.25	157	407	158	---	---
				RT SHOULDER	6.25	72	187	73	---	---
113+80	-	117+80	CTH N NB	LT MEDIAN	6.25	62	160	62	---	---
				MAINLINE	6.25	49	126	49	---	---
				RT SHOULDER	6.25	22	57	22	---	---
117+80	-	125+03	CTH N NB	LT MEDIAN	6.25	110	286	111	---	---
				MAINLINE	6.25	89	229	89	---	---
				RT SHOULDER	6.25	40	104	40	---	---
125+03	-	128+86	CTH N NB	MAINLINE	7	51	154	---	51	---
				RT TURN LANE	7	33	99	---	33	---
				RT SHOULDER	7	15	45	---	15	---
130+18	-	130+90	CTH N NB	MAINLINE	7	11	33	---	11	---
				TURN LANE	7	13	39	---	13	---
130+90	-	134+38	CTH N NB	LT MEDIAN	6.25	29	74	29	---	---
				MAINLINE	6.25	46	119	46	---	---
				TURN LANE	6.25	46	118	46	---	---
200+95	-	213+82	CTH N SB	LT TURN LANE	6.25	22	57	22	---	---
				LT SHOULDER	6.25	48	123	48	---	---
				MAINLINE	6.25	162	419	163	---	---
				RT TURN LANE	6.25	48	125	49	---	---
213+82	-	217+79	CTH N SB	LT SHOULDER	6.25	22	57	22	---	---
				MAINLINE	6.25	49	126	49	---	---
217+79	-	225+06	CTH N SB	LT SHOULDER	6.25	41	105	41	---	---
				TURN LANE	6.25	8	20	8	---	---
				MAINLINE	6.25	91	236	92	---	---
225+06	-	228+86	CTH N SB	LT SHOULDER	7	11	34	---	11	---
				TURN LANE	7	46	138	---	46	---
				MAINLINE	7	52	156	---	52	---
230+15	-	230+79	CTH N SB	TURN LANE	7	11	35	---	12	---
				MAINLINE	7	10	30	---	10	---
230+79	-	234+30	CTH N SB	TURN LANE	6.25	47	122	47	---	---
				MAINLINE	6.25	47	121	47	---	---
SUBTOTAL						1,730	4,586	1,487	254	0

ASPHALTIC ITEMS - CONTINUED

STATION	TO	STATION	ROADWAY	AREA	PAVEMENT AVG DEPTH IN	TACK COAT GAL	455.0605	460.6223	460.6224	460.7224	465.0125
							HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	HMA PAVEMENT 4 HT 58-28 S TON	ASPHALTIC SURFACE TEMPORARY TON	
PROJECT 4676-04-71											
CATEGORY 0010											
301+16	-	303+00	EMONS EB	LT MEDIAN	4.5	2	5	3			
				MAINLINE	4.5	13	41	26			
				RT SHOULDER	4.5	4	13	8			
303+00	-	303+50	EMONS EB	MAINLINE	7	11	32		11		
305+06	-	305+70	BUCHANAN EB	MAINLINE	7	18	54		18		
305+70	-	308+50	BUCHANAN EB	LT MEDIAN	4.5	2	5	3			
				MAINLINE	4.5	23	74	47			
400+08	-	401+91	EMONS WB	LT SHOULDER	4.5	5	14	9			
				MAINLINE	4.5	12	39	25			
401+91	-	402+48	EMONS WB	MAINLINE	7	14	43		14		
404+03	-	404+60	BUCHANAN WB	TURN LANE	7	12	37		12		
				MAINLINE	7	9	28		9		
				LT SHOULDER	4.5	3	8	5			
404+60	-	407+39	BUCHANAN WB	TURN LANE	4.5	8	25	16			
				MAINLINE	4.5	17	55	35			
20+26	-	21+04	WHITETAIL	INTERSECTION	4.5	14	43	27			
30+30	-	31+54	SARATOGA	INTERSECTION	4.5	20	62	39			
40+30	-	41+54	HILLSIDE	INTERSECTION	4.5	19	61	39			
50+00	-	53+17	RAB	ROUNDABOUT	7	114	344		115		
				TEMPORARY RAMPING							50
SUBTOTAL						318	981	283	179		50
PROJECT TOTAL						2,049	5,567	1,770	433		50

ASPHALTIC FLUMES

STATION	DIR	LOCATION	465.0315
			ASPHALTIC FLUMES SY
PROJECT 4676-04-71			
CATEGORY 0010			
307+76	LT	BUCHANAN RD EB	7
307+76	RT	BUCHANAN RD EB	7
PROJECT TOTAL			14

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CULVERT PIPES

521.3112	521.3124		522.2434	650.6000
CULVERT PIPE CORRUGATED STEEL 12-INCH	CULVERT PIPE CORRUGATED STEEL 24-INCH	MINIMUM WALL THICKNESS	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS IV 34X53-INCH	CONSTRUCTION STAKING PIPE CULVERT

FROM	TO	LOCATION	LF	LF	IN	LF	EA
PROJECT 4676-04-71							
CATEGORY 0010							
AEW 64	-	AEW 65	CTH N NB 'NB'	---	---	162	1
INL-90.1	-	JCT-91	CTH N NB 'NB'	---	9	0.064	---
INL-95.1	-	JCT-96	CTH N NB 'NB'	---	9	0.064	---
INL-115.3	-	JCT-116	CTH N NB 'NB'	---	10	0.064	---
JCT-94	-	AEW-94.1	CTH N NB 'NB'	22	---	0.064	---
JCT-94	-	AEW-94.1	CTH N NB 'NB'	22	---	0.064	---
JCT-95	-		CTH N NB 'NB'	---	---	0.064	---
JCT-122.2	-	AEW-122.3	CTH N NB 'NB'	25	---	0.064	---
JCT-122.2	-	AEW-122.3	CTH N NB 'NB'	25	---	0.064	---
MH 121	-	JCT-122	CTH N NB 'NB'	---	13	0.064	---
PROJECT TOTAL				94	41	162	1

CULVERT APRON ENDWALLS

521.1012	522.1012	522.1024	522.2634
APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH

STRUCTURE	STATION	OFFSET*	LOCATION	EACH	EACH	EACH	EACH
PROJECT 4676-04-71							
CATEGORY 0010							
AEW 64	115+39.88	60.19' RT	CTH N NB 'NB'	---	---	---	1
AEW 65	116+08.04	86.77' LT	CTH N NB 'NB'	---	---	---	1
AEW 99.1	216+13.95	53.98' LT	CTH N SB ('SB')	1	---	---	---
AEW-10.2	103+10.28	67.66' RT	CTH N NB 'NB'	---	---	1	---
AEW-94.1	215+88.04	54.69' LT	CTH N SB ('SB')	1	---	---	---
AEW-116.5	127+19.53	68.71' RT	CTH N NB 'NB'	1	---	---	---
AEW-122.3	127+53.80	57.63' RT	CTH N NB 'NB'	1	---	---	---
AEW-130.2	228+46.84	49.52' LT	CTH N SB ('SB')	---	1	---	---
INL-105.5	41+19.95	20.65' RT	HILLSIDE DR ('HI')	---	1	---	---
PROJECT TOTAL				4	2	1	2

3

SIDEWALK & MULTI USE TRAIL

STATION	TO	STATION	DIR	ROADWAY	305.0110 ** BASE AGGREGATE DENSE 3/4-INCH	405.0100 ** COLORING CONCRETE WISDOT RED	465.0105 ASPHALTIC SURFACE	601.0600 CONCRETE CURB PEDESTRIAN	602.0405 CONCRETE SIDEWALK 4-INCH	602.0415 CONCRETE SIDEWALK 6-INCH	601.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA	650.9000 CONSTRUCTION STAKING CURB RAMPS	650.9500 CONSTRUCTION STAKING SIDEWALK 01. 4676-04-71	
PROJECT 4676-04-71					CATEGORY 0010		CATEGORY 0040					CATEGORY 0010			
BEGIN PROJECT	-	114+00	RT	CTH N NB	680	---	180	---	430	855	10	23	1	---	
BEGIN PROJECT	-	114+00	LT	CTH N NB	180	---	---	---	6,895	130	30	---	2	---	
114+00	-	117+75	RT	CTH N NB	240	---	65	---	---	---	---	24	1	---	
114+00	-	117+75	LT	CTH N NB	50	---	---	---	1,825	40	10	---	1	---	
117+75	-	125+00	RT	CTH N NB	385	---	105	---	---	805	---	73	2	---	
117+75	-	125+00	LT	CTH N NB	95	---	---	---	3,450	---	---	---	---	---	
125+00	-	RAB	RT	CTH N NB	240	---	65	---	---	275	20	---	2	---	
125+00	-	RAB	LT	CTH N NB	60	---	---	---	2,660	50	20	---	1	---	
RAB	-	END PROJECT	RT	CTH N NB	250	---	60	---	---	370	20	---	1	---	
RAB	-	END PROJECT	LT	CTH N NB	15	---	---	---	585	50	20	---	1	---	
301+22	-	303+00	RT	EMONS RD	20	---	---	---	865	240	20	---	1	---	
301+22	-	303+00	LT	EMONS RD	20	---	---	---	1,475	50	20	---	1	---	
50+00	-	53+17	LT	RAB	130	---	30	---	---	---	---	---	---	---	
305+70	-	307+33	RT	BUCHANAN RD	55	---	10	---	---	350	20	---	1	---	
305+70	-	307+33	LT	BUCHANAN RD	40	---	5	---	---	285	20	---	1	---	
NORTH SPLITTER ISLAND					20	9	---	47	705	235	40	---	1	---	
SOUTH SPLITTER ISLAND					85	52	---	34	4,195	170	40	---	1	---	
EAST SPLITTER ISLAND					15	7	---	40	570	200	40	---	1	---	
WEST SPLITTER ISLAND					10	5	---	32	435	160	40	---	1	---	
UNDISTRIBUTED					---	---	---	---	---	---	---	---	---	1	
PROJECT TOTAL					2,590	73	520	153	24,090	4,265	370	120	20	1	

** ADDITIONAL QUANTITIES SHOWN IN CONCRETE TRUCK APRON, DRIVEWAYS, AND BASE AGGREGATE DENSE TABLES

STORM SEWER STRUCTURES																		
STRUCTURE	STATION	OFFSET*	LOCATION	611.0530	611.0612	611.0624	611.0639	611.0642	611.0652	611.1005	611.2004	611.2005	611.3004	611.3230	611.3901	650.4000		
				MANHOLE COVERS	INLET COVERS					CATCH BASINS	MANHOLES		INLETS			CONSTRUCTION		
				TYPE J	TYPE C	TYPE H	TYPE H-S	TYPE MS	TYPE T	5-FT DIAMETER	4-FT DIAMETER	5-FT DIAMETER	4-FT DIAMETER	2X3-FT	MEDIAN 1 GRATE	STAKING STORM SEWER		
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
PROJECT 4676-04-71																		
CATEGORY 0010																		
INL-1.1	100+49.30	70.14' RT	CTH N NB 'NB'			1								1		1		
INL-1.2	100+85.60	54.35' RT	CTH N NB 'NB'					1							1	1		
INL-5.1	102+45.00	37.50' LT	CTH N NB 'NB'			1								1		1		
INL-5.2	102+45.00	17.50' RT	CTH N NB 'NB'			1							1			1		
INL-5.3	102+43.80	43.31' RT	CTH N NB 'NB'					1							1	1		
INL-10.1	103+10.66	17.50' RT	CTH N NB 'NB'			1				1						1		
INL-15.1	103+72.00	37.50' LT	CTH N NB 'NB'				1							1		1		
INL-25.1	105+85.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-25.2	105+85.00	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-35.1	107+35.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-35.2	107+35.00	17.50' RT	CTH N NB 'NB'			1							1			1		
INL-35.3	107+66.86	39.60' RT	CTH N NB 'NB'					1							1	1		
INL-45.1	108+75.00	31.50' LT	CTH N NB 'NB'			1							1			1		
INL-45.2	208+10.44	35.87' LT	CTH N SB ('SB')					1							1	1		
INL-45.3	108+75.00	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-45.4	108+66.52	41.39' RT	CTH N NB 'NB'					1							1	1		
INL-55.1	110+60.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-55.2	110+60.00	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-65.1	111+82.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-65.2	111+82.01	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-80.1	113+38.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-80.2	113+38.00	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-85.1	115+10.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-85.2	115+10.00	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-90.1	115+66.80	31.50' LT	CTH N NB 'NB'			1							1			1		
INL-95.1	116+08.20	31.50' LT	CTH N NB 'NB'				1						1			1		
INL-95.2	116+18.20	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-95.3	116+08.20	17.50' RT	CTH N NB 'NB'				1							1		1		
INL-95.4	116+18.20	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-100.1	118+05.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-100.2	118+05.54	21.01' RT	CTH N NB 'NB'			1							1			1		
INL-100.3	118+03.80	43.35' RT	CTH N NB 'NB'					1							1	1		
INL-102.1	120+47.57	17.50' RT	CTH N NB 'NB'			1								1		1		
INL-105.1	122+60.00	31.50' LT	CTH N NB 'NB'			1								1		1		
INL-105.2	122+50.00	17.50' RT	CTH N NB 'NB'			1								1		1		
SUBTOTAL						0	0	26	3	6	0	1	0	0	6	22	6	35

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STORM SEWER STRUCTURES																	
			611.0530	611.0612	611.0624	611.0639	611.0642	611.0652	611.1005	611.2004	611.2005	611.3004	611.3230	611.3901	650.4000		
			MANHOLE COVERS	INLET COVERS					CATCH BASINS	MANHOLES		INLETS			CONSTRUCTION		
STRUCTURE	STATION	OFFSET*	LOCATION	TYPE J	TYPE C	TYPE H	TYPE H-S	TYPE MS	TYPE T	5-FT DIAMETER	4-FT DIAMETER	5-FT DIAMETER	4-FT DIAMETER	2X3-FT	MEDIAN 1 GRATE	STAKING	STORM SEWER
				EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
PROJECT 4676-04-71																	
CATEGORY 0010																	
INL-105.3	40+54.34	16.50' RT	HILLSIDE DR ('HI')			1							1				1
INL-105.4	40+55.70	26.91' LT	HILLSIDE DR ('HI')					1							1		1
INL-105.5	41+19.95	20.65' RT	HILLSIDE DR ('HI')														1
INL-110.1	124+44.63	36.24' LT	CTH N NB 'NB'			1								1			1
INL-110.2	124+44.62	17.50' RT	CTH N NB 'NB'			1								1			1
INL-115	226+82.24	1.49' RT	CTH N SB ('SB')				1		1								1
INL-115.1	226+82.26	30.25' LT	CTH N SB ('SB')				1							1			1
INL-115.2	226+71.97	29.98' LT	CTH N SB ('SB')			1								1			1
INL-115.3	126+73.82	26.15' RT	CTH N NB 'NB'				1						1				1
INL-115.4	126+64.49	25.16' RT	CTH N NB 'NB'			1								1			1
INL-115.5	126+55.20	24.09' RT	CTH N NB 'NB'			1								1			1
INL-120	50+70.00	1.00' LT	CTH N & EMONS-BUCHANAN RD RAB ('RA')						1					1			1
INL-120.1	50+59.99	1.00' LT	CTH N & EMONS-BUCHANAN RD RAB ('RA')						1					1			1
INL-120.2	52+88.07	31.59' RT	CTH N & EMONS-BUCHANAN RD RAB ('RA')				1							1			1
INL-120.3	402+43.76	22.27' LT	EMONS-BUCHANAN RD WB ('WB')				1							1			1
INL-120.4	51+18.98	32.38' RT	CTH N & EMONS-BUCHANAN RD RAB ('RA')			1							1				1
INL-120.5	404+12.70	30.03' LT	EMONS-BUCHANAN RD WB ('WB')			1								1			1
INL-120.6	130+31.07	1.50' LT	CTH N NB 'NB'				1							1			1
INL-120.7	230+16.28	29.23' LT	CTH N SB ('SB')				1							1			1
INL-130.1	228+71.66	27.78' LT	CTH N SB ('SB')			1								1			1
INL-135.1	303+05.24	17.40' RT	EMONS-BUCHANAN RD EB ('EB')			1								1			1
INL-137	301+78.20	18.50' RT	EMONS-BUCHANAN RD EB ('EB')			1							1				1
INL-137.1	400+72.77	18.50' LT	EMONS-BUCHANAN RD WB ('WB')			1								1			1
MH 121	128+85.69	34.86' RT	CTH N NB 'NB'	1										1			1
MH-5	102+45.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-10	103+10.85	7.00' LT	CTH N NB 'NB'	1										1			1
MH-15	103+75.00	7.00' LT	CTH N NB 'NB'	1										1			1
MH-25	105+85.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-35	107+35.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-45	108+75.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-55	110+60.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-65	111+82.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-80	113+38.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-85	115+10.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-90	115+56.96	7.00' LT	CTH N NB 'NB'	1									1				1
MH-95	116+08.20	7.00' LT	CTH N NB 'NB'	1									1				1
MH-100	118+05.00	7.00' LT	CTH N NB 'NB'	1							1						1
MH-102	120+83.93	7.00' LT	CTH N NB 'NB'	1							1						1
MH-105	122+50.00	7.00' LT	CTH N NB 'NB'	1									1				1
MH-110	124+44.62	6.93' LT	CTH N NB 'NB'	1									1				1
MH-135	302+86.99	34.66' RT	EMONS-BUCHANAN RD EB ('EB')		1									1			1
SUBTOTAL				17	1	12	7	1	2	1	10	8	6	14	1		41
PROJECT TOTAL				17	1	38	10	7	2	2	10	8	12	36	7		76

		STORM SEWER PIPES						
		608.0312	608.0412	608.0418	608.0424	608.3612	608.3624	
		STORM SEWER	STORM SEWER	STORM SEWER PIPE	STORM SEWER PIPE	STORM SEWER PIPE	STORM SEWER	
		PIPE REINFORCED	PIPE REINFORCED	REINFORCED	REINFORCED	CLASS III-B	PIPE CLASS III-B	
		CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS IV	CONCRETE CLASS IV	12-INCH	24-INCH	
FROM	TO	III 12-INCH	IV 12-INCH	18-INCH	24-INCH	LF	LF	
	LOCATION	LF	LF	LF	LF			
PROJECT 4676-04-71								
CATEGORY 0010								
EX INL-1.0	- INL-1.1	CTH N NB 'NB'	36					
INL-1.2	- INL-1.1	CTH N NB 'NB'				40		
INL-5.1	- MH-5	CTH N NB 'NB'		31				
MH-5	- INL-5.2	CTH N NB 'NB'		24				
INL-5.3	- INL-5.2	CTH N NB 'NB'				26		
INL-10.1	- AEW-10.2	CTH N NB 'NB'					50	
INL-15.1	- MH-15	CTH N NB 'NB'				31		
INL-25.1	- MH-25	CTH N NB 'NB'		24				
MH-25	- INL-25.2	CTH N NB 'NB'		25				
INL-35.1	- MH-35	CTH N NB 'NB'		25				
MH-35	- INL-35.2	CTH N NB 'NB'		25				
INL-35.3	- INL-35.2	CTH N NB 'NB'				39		
INL-45.1	- MH-45	CTH N NB 'NB'		25				
INL-45.2	- INL-45.1	CTH N NB 'NB'				63		
MH-45	- INL-45.3	CTH N NB 'NB'		25				
INL-45.4	- INL-45.3	CTH N NB 'NB'				25		
INL-55.1	- MH-55	CTH N NB 'NB'		25				
MH-55	- INL-55.2	CTH N NB 'NB'		24				
INL-65.1	- MH-65	CTH N NB 'NB'		25				
INL-65.2	- MH-65	CTH N NB 'NB'		24				
INL-80.1	- MH-80	CTH N NB 'NB'		25				
MH-80	- INL-80.2	CTH N NB 'NB'		24				
INL-85.1	- MH-85	CTH N NB 'NB'		25				
INL-85.2	- MH-85	CTH N NB 'NB'		24				
INL-95.2	- INL-95.1	CTH N NB 'NB'		10				
INL-95.3	- MH-95	CTH N NB 'NB'		24				
INL-95.4	- INL-95.3	CTH N NB 'NB'		10				
INL-100.1	- MH-100	CTH N NB 'NB'		25				
MH-100	- INL-100.2	CTH N NB 'NB'		28				
INL-100.3	- INL-100.2	CTH N NB 'NB'				22		
INL-102.1	- MH-102	CTH N NB 'NB'		44				
INL-105.1	- MH-105	CTH N NB 'NB'		26				
MH-105	- INL-105.2	CTH N NB 'NB'			24			
INL-105.3	- INL-105.2	CTH N NB 'NB'			35			
INL-105.4	- INL-105.3	CTH N NB 'NB'				43		
SUBTOTAL			36	567	59	0	289	50

		STORM SEWER PIPES							
		608.0312	608.0412	608.0418	608.0424	608.3612	608.3624		
		STORM SEWER	STORM SEWER	STORM SEWER PIPE	STORM SEWER PIPE	STORM SEWER PIPE	STORM SEWER		
		PIPE REINFORCED	PIPE REINFORCED	REINFORCED	REINFORCED	CLASS III-B	PIPE CLASS III-B		
		CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS IV	CONCRETE CLASS IV	12-INCH	24-INCH		
FROM	TO	LOCATION	LF	LF	LF	LF	LF	LF	LF
PROJECT 4676-04-71									
CATEGORY 0010									
INL-105.5	-	INL-105.3	CTH N NB 'NB'	66					
INL-110.1	-	MH-110	CTH N NB 'NB'		29				
INL-110.2	-	MH-110	CTH N NB 'NB'		25				
INL-115	-	INL-115.3	CTH N NB 'NB'			50			
INL-115	-	INL-115.1	CTH N NB 'NB'		32				
INL-115.2	-	INL-115.1	CTH N NB 'NB'		10				
INL-115.4	-	INL-115.3	CTH N NB 'NB'		10				
INL-115.5	-	INL-115.4	CTH N NB 'NB'		10				
INL-120	-	MH 121	CTH N NB 'NB'			41			
INL-120.1	-	INL-120	CTH N NB 'NB'		10				
INL-120.2	-	INL-120.1	CTH N NB 'NB'		104				
INL-120.3	-	INL-120.2	CTH N NB 'NB'		47				
INL-120.4	-	INL-120	CTH N NB 'NB'		68				
INL-120.5	-	INL-120.4	CTH N NB 'NB'		57				
INL-120.6	-	INL-120.5	CTH N NB 'NB'		74				
INL-120.7	-	INL-120.6	CTH N NB 'NB'		64				
INL-130.1	-	AEW-130.2	CTH N NB 'NB'				33		
INL-135.1	-	MH-135	CTH N NB 'NB'				22		
INL-137	-	MH-135	CTH N NB 'NB'						
INL-137.1	-	INL-137	CTH N NB 'NB'	38					
MH-5	-	MH-10	CTH N NB 'NB'			66			
MH-10	-	INL-10.1	CTH N NB 'NB'					25	
MH-15	-	MH-10	CTH N NB 'NB'					64	
MH-15	-	MH-25	CTH N NB 'NB'				208		
MH-25	-	MH-35	CTH N NB 'NB'				150		
MH-45	-	MH-55	CTH N NB 'NB'				186		
MH-55	-	MH-65	CTH N NB 'NB'				123		
MH-65	-	MH-80	CTH N NB 'NB'				157		
MH-80	-	MH-85	CTH N NB 'NB'				172		
MH-85	-	MH-90	CTH N NB 'NB'				47		
MH-90	-	INL-90.1	CTH N NB 'NB'				26		
MH-95	-	INL-95.1	CTH N NB 'NB'				25		
MH-100	-	MH-95	CTH N NB 'NB'				197		
MH-102	-	MH-105	CTH N NB 'NB'			166			
MH-105	-	MH-110	CTH N NB 'NB'				195		
MH-110	-	INL-115	CTH N NB 'NB'				236		
		SUBTOTAL		104	540	232	1813	55	89
		PROJECT TOTALS		140	1107	291	1813	344	139

UNDERGROUND DETENTION SYSTEM

LOCATION	SPV.0060.02 SPV.0060.03 SPV.0060.04 SPV.0060.05			
	UNDERGROUND DETENTION			
	SYSTEM 1	SYSTEM 2	SYSTEM 3	SYSTEM 4
	EACH	EACH	EACH	EACH
PROJECT 4676-04-71				
CATEGORY 0010				
UNDERGROUND DETENTION SYSTEM 1	1	---	---	---
UNDERGROUND DETENTION SYSTEM 2	---	1	---	---
UNDERGROUND DETENTION SYSTEM 3	---	---	1	---
UNDERGROUND DETENTION SYSTEM 4	---	---	---	1
PROJECT TOTAL	1	1	1	1

BEAM GUARD

STATION TO	STATION	DIR	ROADWAY	614.0305	614.0370
				STEEL PLATE BEAM GUARD CLASS A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
				LF	EACH
PROJECT 4676-04-71					
CATEGORY 0010					
307+59 -	308+47	LT	BUCHANAN	37.5	1
307+59 -	308+47	RT	BUCHANAN	37.5	1
PROJECT TOTAL				75	2

EROSION CONTROL AND RESTORATION

STATION TO	STATION	DIR	LOCATION	625.0100	SPV.0180.01	628.1504	628.1520	628.2006	628.2027	628.7005	628.7015	628.7020	628.7555	628.7504	628.7570
				TOPSOIL	TOPSOIL SPECIAL	SILT FENCE	SILT FENCE MAINTENANCE	EROSION MAT		INLET PROTECTION			CULVERT PIPE CHECKS	TEMPORARY DITCH CHECKS	ROCK BAGS
				SY	SY	LF	LF	URBAN CLASS I TYPE A	URBAN CLASS II TYPE C	TYPE A	TYPE C	TYPE D	EA	EA	EA
PROJECT 4676-04-71															
CATEGORY 0010															
100+47 -	113+80	RT	CTH N	1,830	---	---	---	1,830	---	4	9	---	---	---	---
100+47 -	113+80	LT	CTH N	1,490	---	---	---	1,490	---	1	10	---	---	---	---
113+80 -	117+80	RT	CTH N	1,200	---	235	235	540	660	---	1	2	5	30	20
113+80 -	117+80	LT	CTH N	1,920	---	430	430	380	1,540	---	3	2	---	40	20
117+80 -	125+05	RT	CTH N	1,300	---	---	---	1,220	80	2	5	---	5	---	---
117+80 -	125+05	LT	CTH N	950	---	---	---	950	---	---	3	---	---	---	---
125+05 -	RAB	RT	CTH N	2,040	---	320	320	200	1,840	---	---	3	10	---	20
125+05 -	RAB	LT	CTH N	1,050	---	180	180	30	1,020	---	1	3	---	---	20
RAB -	132+00	RT	CTH N	140	---	---	---	140	---	---	1	4	---	---	---
132+00 -	134+07	RT	CTH N	240	165	---	---	240	---	---	---	---	---	---	---
134+07 -	134+28	RT	CTH N	40	---	---	---	40	---	---	---	---	---	---	---
RAB -	134+38	LT	CTH N	360	---	---	---	360	---	---	1	---	---	---	---
50+00 -	53+13	RT	RAB	490	---	---	---	490	---	---	4	---	---	---	---
301+22 -	RAB	RT	EMONS RD	210	---	---	---	210	---	1	2	---	---	---	---
301+22 -	RAB	LT	EMONS RD	230	---	---	---	230	---	---	1	---	---	---	---
RAB -	308+50	RT	BUCHANAN RD	390	---	105	105	390	---	---	---	---	---	---	20
RAB -	308+50	LT	BUCHANAN RD	580	---	65	65	580	---	---	---	---	---	---	20
50+00 -	53+13	RT	RAB CENTER	420	---	---	---	420	---	---	---	---	---	---	---
			UNDISTRIBUTED	3,680	---	335	335	2,390	1,290	1	2	1	---	20	60
PROJECT TOTAL				18,560	165	1,670	1,670	12,130	6,430	9	43	15	20	90	180

NOTE: SEEDING TEMPORARY PROVIDED FOR STABILIZATION OF FILL SLOPES CONSTRUCTED PARTIALLY IN STAGE 1 AND COMPLETED IN STAGE 2

3

MINI STORM SEWER

STRUCTURE		SPV.0090.01	SPV.0090.02
FROM	TO	4-INCH	6-INCH
LF	LF		
PROJECT 4676-04-71			
CATEGORY 0010			
MS-1	- INL 100.3	72	---
MS-2	- MS-3	11	---
MS-3	- INL 102.1	---	18
EXISTING	- MS-4	1	---
MS-4	- INL 105.2	64	---
MS-5	- INL 25.2	69	---
END CAP	- INL 120.5	---	19
PROJECT TOTAL		217	37

MINI STORM SEWER CLEANOUT

STRUCTURE	EACH
PROJECT 4676-04-71	
CATEGORY 0010	
MS-1	1
MS-2	1
MS-3	1
MS-4	1
MS-5	1
PROJECT TOTAL	5

3

SEEDING

STATION	TO	STATION	DIR	LOCATION	629.0210	630.0130	630.0140	630.0175	630.0200	630.0400	630.0500	SPV.0085.01
					FERTILIZER TYPE B	SEEDING MIX NO. 30	SEEDING MIX NO. 40	SEEDING MIX NO. 75	SEEDING TEMPORARY	SEEDING NURSE CROP	SEED WATER	LOW MAINTENANCE SEED MIXTURE
CWT	LB	LB	LB	LB	LB	MGAL	LB					
PROJECT 4676-04-71												
CATEGORY 0010												
100+47	-	113+80	RT	CTH N	1.2	30	49	0.4	---	0.7	41	---
100+47	-	113+80	LT	CTH N	0.9	27	40	---	---	---	33	---
113+80	-	117+80	RT	CTH N	0.7	14	---	3.7	16	6.0	26	---
113+80	-	117+80	LT	CTH N	1.2	12	---	7.5	22	12.0	43	---
117+80	-	125+05	RT	CTH N	0.8	30	25	0.4	---	0.6	29	---
117+80	-	125+05	LT	CTH N	0.6	19	24	0.1	---	0.2	22	---
125+05	-	RAB	RT	CTH N	5.9	9	---	41.3	---	66.2	210	---
125+05	-	RAB	LT	CTH N	0.6	1	---	4.3	---	6.8	22	---
RAB	-	134+38	RT	CTH N	0.3	7	12	---	---	---	10	---
RAB	-	134+38	LT	CTH N	0.2	15	2	---	---	---	8	---
50+00	-	53+13	RT	RAB	0.4	8	22	---	---	---	15	---
301+22	-	RAB	RT	EMONS RD	0.1	5	4	---	---	---	5	---
301+22	-	RAB	LT	EMONS RD	0.1	5	5	---	---	---	5	---
RAB	-	308+50	RT	BUCHANAN RD	0.2	11	5	---	---	---	8	---
RAB	-	308+50	LT	BUCHANAN RD	0.3	14	7	---	---	---	10	---
50+00	-	53+13	RT	RAB CENTER	---	---	---	---	---	---	9	22
				UNDISTRIBUTED	3.4	52	49	14.4	9.5	23.1	124	6
PROJECT TOTAL					17.2	259	244	72.2	48	115.6	620	28

3

3

SIGNS TYPE II AND SIGN SUPPORTS

SIGN NO.	STATION	DIR	ROADWAY	FACE DIR	SIGN CODE	DESCRIPTION	634.0614	634.0616	634.0812	637.2210	637.2215	REMARKS
							POSTS WOOD 4 X 6-INCH		POSTS TUBULAR STEEL 2X2-INCH	SIGNS TYPE II		
							14-FT EA	16-FT EA	12-FT EA	REFLECTIVE H SF	REFLECTIVE H FOLDING SF	
PROJECT 4676-04-71												
CATEGORY 0010												
100	200+85	SB	CTH N	N	M1-5A	COUNTY KK				4.00		
				N	M6-4	LEFT/RIGHT ARROW				3.06		ON SIGNAL POST
				N	R1-1F	STOP (FOLDING)					5.18	
101	101+50	NB	CTH N	S	M3-1	NORTH	1			2.00		
				S	M1-5A	COUNTY N				4.00		
102	102+50	NB	CTH N	S	R2-1	SPEED LIMIT (35 MPH)	1			5.00		
103	103+50	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
105	203+75	SB	CTH N	N	R3-7R	RIGHT LANE MUST TURN RIGHT	1			6.25		
106	104+25	NB	CTH N	S	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL		1		6.00		
107	205+10	SB	CTH N	N	R3-20R	BEGIN RIGHT TURN LANE - DOWN LEFT ARROW		1		6.00		
108	106+00	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
109	207+00	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
110	108+50	NB	CTH N	S	W11-8	FIRE STATION TRUCK CROSSING SYMBOL	1			6.25		
111	109+25	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
112	209+50	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
113	210+25	SB	CTH N	N	W3-3	SIGNAL AHEAD	1			6.25		
114	112+00	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
115	212+25	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
116	213+00	SB	CTH N	N	R2-1	SPEED LIMIT (35 MPH)		1		5.00		
				S	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL				6.00		
117	20+85	--	WHITETAIL RIDGE CT	W	R1-1	STOP	1			5.18		
118	20+35	--	WHITETAIL RIDGE CT	E	W14-2	NO OUTLET	1		1	6.25		
119	208+25	SB	CTH N	N	M2-1	JUNCTION	1			2.19		
				N	M1-5A	COUNTY KK				4.00		
120	115+25	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
121	215+75	SB	CTH N	S	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW				3.00		SHARES POST WITH 122
122	215+75	SB	CTH N	N	W11-8	FIRE STATION TRUCK CROSSING SYMBOL		1		6.25		
				N	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW				3.00		
123	117+25	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
124	30+75	--	SARATOGA DR	W	R2-1	SPEED LIMIT (25 MPH)		1		5.00		
				W	R5-2	NO TRUCKS SYMBOL				4.00		
125	218+00	SB	CTH N	N	W1-4L	LEFT REVERSE CURVE	1			6.25		
126	301+55	--	SARATOGA DR	W	R1-1	STOP	1			5.18		
127	118+50	NB	CTH N	S	R2-1	SPEED LIMIT (35 MPH)	1			5.00		
128	219+00	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
129	119+25	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
130	221+50	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
131	121+50	NB	CTH N	SW	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
133	40+60	--	HILLSIDE DR	W	R5-2	NO TRUCKS SYMBOL	1			4.00		
134	40+60	--	HILLSIDE DR	W	R1-1	STOP	1			5.18		
135	224+25	SB	CTH N	NE	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1			3.00		
136	225+00	SB	CTH N	N	R2-1	SPEED LIMIT (35 MPH)		1		5.00		
				N	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL				6.00		
137	125+10	NB	CTH N	S	R4-7	KEEP RIGHT			1	5.00		
138	125+50	NB	CTH N	S	W2-6	CIRCULAR INTERSECTION SIGN		1		6.25		
				S	W13-1	ADVISORY SPEED PLATE (15 MPH)				2.25		
139	227+00	SB	CTH N	N	M3-3	SOUTH	1			2.00		
				N	M1-5A	COUNTY N				4.00		
140	127+50	NB	CTH N	S	R3-8IF	LANE CONTROL (RAB LEFT-AHEAD/AHEAD-RIGHT)	1			7.50		
141	127+50	NB	CTH N	S	R3-8IF	LANE CONTROL (RAB LEFT-AHEAD/AHEAD-RIGHT)	1			7.50		
142	128+45	NB	CTH N	S	W11-2	PEDESTRIAN CROSSING SYMBOL			1	6.25		
				S	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)				2.00		
143	128+50	NB	CTH N	S	W11-2	PEDESTRIAN CROSSING SYMBOL	1			6.25		
				S	W16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)				2.00		
PAGE TOTAL							30	7	3	216.10	5.18	

SIGNS TYPE II AND SIGN SUPPORTS - CONTINUED

SIGN NO.	STATION	DIR	ROADWAY	FACE DIR	SIGN CODE	DESCRIPTION	634.0614	634.0616	634.0812	637.2210	637.2215	REMARKS
							POSTS WOOD 4 X 6-INCH		POSTS TUBULAR STEEL 2X2-INCH	SIGN TYPE II		
							14-FT	16-FT	12-FT	REFLECTIVE H	REFLECTIVE H FOLDING	
EA	EA	EA	SF	SF								
PROJECT 4676-04-71												
CATEGORY 0010												
144	128+75	NB	CTH N	S	R1-2	YIELD	---	1	---	3.88	---	
				S	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
145	128+90	NB	CTH N	S	R1-2	YIELD	---	1	---	3.88	---	
				S	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
146	228+75	SB	CTH N	NW	D1-1	SOUTH COUNTY N RIGHT ARROW	1	---	---	8.75	---	
147	228+65	SB	CTH N	N	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				N	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
148	130+35	NB	CTH N	S	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				S	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
149	130+30	NB	CTH N	SE	D1-1	NORTH COUNTY N RIGHT ARROW	---	---	1	8.75	---	
150	230+15	SB	CTH N	N	R1-2	YIELD	---	1	---	3.88	---	
				N	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
151	230+25	SB	CTH N	NE	R1-2	YIELD	---	1	---	3.88	---	
				NE	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
152	230+50	SB	CTH N	N	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				N	W16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
153	230+55	SB	CTH N	N	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				N	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
154	130+90	NB	CTH N	N	R4-7	KEEP RIGHT	1	---	---	5.00	---	
155	231+75	SB	CTH N	N	R3-8IF	LANE CONTROL (RAB LEFT-AHEAD/AHEAD-RIGHT)	1	---	---	7.50	---	
156	132+00	NB	CTH N	S	M3-1	NORTH	1	---	---	2.00	---	
				S	M1-5A	COUNTY N	---		---	4.00	---	
157	233+75	SB	CTH N	N	W2-6	CIRCULAR INTERSECTION SIGN	---	1	---	6.25	---	
				N	W13-1	ADVISORY SPEED PLATE (15 MPH)	---		---	2.25	---	
158	133+25	NB	CTH N	S	R2-1	SPEED LIMIT (35 MPH)	---		---	5.00	---	
				S	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	---	1	---	3.00	---	
				X	XX-XX		---		---	0.00	---	
159	116+00	NB	CTH N	S	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL	---	1	---	6.00	---	
201	300+15	EB	EMONS RD	W	M2-1	JUNCTION	1	---	---	2.19	---	
				W	M1-5A	COUNTY N	---		---	4.00	---	
202	300+90	EB	EMONS RD	W	R2-1	SPEED LIMIT (25 MPH)	1	---	---	5.00	---	
203	301+60	EB	EMONS RD	W	W2-6	CIRCULAR INTERSECTION SIGN	---	1	---	6.25	---	
				W	W13-1	ADVISORY SPEED PLATE (15 MPH)	---		---	2.25	---	
204	303+10	EB	EMONS RD	W	R4-7	KEEP RIGHT	1	---	---	5.00	---	
205	303+10	EB	EMONS RD	W	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				W	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
206	303+30	EB	EMONS RD	W	R1-2	YIELD	---	1	---	3.88	---	
				W	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
207	303+35	EB	EMONS RD	W	R1-2	YIELD	---	1	---	3.88	---	
				W	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
208	402+25	EB	EMONS RD	W	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				W	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
209	402+35	WB	EMONS RD	NE	D1-1	EMONS RD RIGHT ARROW	2	---	---	7.50	---	
				NE	R5-2	NO TRUCKS SYMBOL	---		---	4.00	---	
210	305+15	EB	BUCHANAN RD	SW	D1-1	BUCHANAN RD RIGHT ARROW	2	---	---	5.50	---	
				SW	R5-2	NO TRUCKS SYMBOL	---		---	4.00	---	
211	405+00	WB	BUCHANAN RD	W	R1-2	YIELD	---	1	---	3.88	---	
				W	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
212	405+10	WB	BUCHANAN RD	W	R1-2	YIELD	---	1	---	3.88	---	
				W	R6-5P	ROUNDBOUT (SQUARE)	---		---	6.25	---	
213	305+30	EB	BUCHANAN RD	W	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				W	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
214	404+40	WB	BUCHANAN RD	E	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				E	W16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
215	100+00	WB	BUCHANAN RD	E	W11-2	PEDESTRIAN CROSSING SYMBOL	1	---	---	6.25	---	
				E	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	---		---	2.00	---	
216	405+50	WB	BUCHANAN RD	E	R4-7	KEEP RIGHT	1	---	---	5.00	---	
PAGE TOTALS							21	11	1	258.48	0.00	

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SIGNS TYPE II AND SIGN SUPPORTS - CONTINUED

SIGN NO.	STATION	DIR	ROADWAY	FACE DIR	SIGN CODE	DESCRIPTION	634.0614	634.0616	634.0812	637.2210	637.2215	REMARKS
							POSTS WOOD 4 X 6-INCH	POSTS TUBULAR STEEL 2X2-INCH	SIGNS TYPE II			
							14-FT EA	16-FT EA	12-FT EA	---	---	
0												
137												
217	405+50	WB	BUCHANAN RD	E	R3-8IR	LANE CONTROL (RAB LEFT-AHEAD/RIGHT)	---	1	---	14.00	---	
218	307+50	EB	BUCHANAN RD	W	R2-1	SPEED LIMIT (25 MPH)	1	---	---	5.00	---	
219	308+00	EB	BUCHANAN RD	E	W2-6	CIRCULAR INTERSECTION SIGN	---	1	---	6.25	---	
					W13-1	ADVISORY SPEED PLATE (15 MPH)	---	---	2.25	---		
220	311+50	EB	BUCHANAN RD	E	M2-1	JUNCTION	1	---	---	2.19	---	
				E	M1-5A	COUNTY N	---	---	4.00	---		
301	50+05	--	ROUNDABOUT	W	R6-1R	ONE WAY RIGHT ARROW	1	---	---	3.00	---	
302	50+75	--	ROUNDABOUT	S	R6-1R	ONE WAY RIGHT ARROW	1	---	---	3.00	---	
303	51+70	--	ROUNDABOUT	E	R6-1R	ONE WAY RIGHT ARROW	1	---	---	3.00	---	
304	52+40	--	ROUNDABOUT	N	R6-1R	ONE WAY RIGHT ARROW	1	---	---	3.00	---	
PAGE TOTAL							6	2	0	45.69	0.00	
PROJECT TOTAL							57	20	4	520.27	5.18	

MOVING SIGNS

SIGN NO.	FROM STATION	TO STATION	LOCATION	DESCRIPTION	638.2102	638.4000	REMARKS	
					MOVING SIGNS TYPE II EACH	MOVING SMALL SIGN SUPPORTS EACH		
PROJECT 4676-04-71								
CATEGORY 0010								
M100	200+90	SB	200+85	SB	CTH N	OUTAGAMIE CO	1	---
M101	215+05	SB	215+05	SN	CTH N	CTH N/WHITETAIL RIDGE CT	1	1
M102	117+50	NB	117+50	NB	CTH N	CTH N/SARATOGA DR	1	1
M103	122+75	NB	122+75	NB	CTH N	CTH N/HILLSIDE DR	1	---
M200	307+75	EB	307+50	EB	BUCHANAN RD	LOCAL ATV SIGN	1	---
PROJECT TOTAL							5	2

REMOVING SIGNS

SIGN NO.	STATION	DIR	ROADWAY	DESCRIPTION	638.2602	638.3000	REMARKS
					REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
PROJECT 4676-04-71							
CATEGORY 0010							
R101	200+90	SB	CTH N	COUNTY KK/DOUBLE ARROW	1	1	
R102	101+20	NB	CTH N	NORTH/COUNTY N	1	1	
R103	202+10	SB	CTH N	RIGHT LANE MUST TURN RIGHT	1	1	
R104	102+60	NB	CTH N	SPEED LIMIT (35 MPH)	1	1	
R105	203+75	SB	CTH N	LANE CONTROL (LEFT ONLY/AHEAD ONLY/RIGHT ONLY)	1	1	
R106	206+70	SB	CTH N	NO PARKING ANY TIME (LEFT ARROW)	1	1	
R107	107+35	NB	CTH N	FIRE STATION TRUCK CROSSING SYMBOL	1	1	
R108	208+00	SB	CTH N	JUNCTION/COUNTY KK	1	1	
R109	209+15	SB	CTH N	NO PARKING ANY TIME (DOUBLE ARROW)	1	1	
R110	210+70	SB	CTH N	SIGNAL AHEAD	1	1	
R111	113+40	NB	CTH N	SPEED LIMIT (35 MPH)	1	1	
R112	20+80	--	WHITETAIL RIDGE CT	STOP	1	1	
R113	20+80	--	WHITETAIL RIDGE CT	NO OUTLET	1	--	
M100	20+80	--	WHITETAIL RIDGE CT	WHITETAIL RIDGE CT/CTH N	--	--	
R114	30+75	--	SARATOGA DR	SPEED LIMIT (25 MPH)/NO TRUCKS SYMBOL	1	1	
M101	30+55	--	SARATOGA DR	SARATOGA DR/CTH N	--	--	
R115	30+55	--	SARATOGA DR	STOP	1	1	
R116	218+65	SB	CTH N	FIRE STATION TRUCK CROSSING SYMBOL/SPEED LIMIT (35 MPH)/NO PARKING ANY TIME (LEFT ARROW)	1	1	
R117	221+30	SB	CTH N	LEFT REVERSE CURVE/NO PARKING ANY TIME (LEFT ARROW)	1	1	
R118	40+50	--	HILLSIDE DR	NO TRUCKS SYMBOL	1	--	
M102	40+50	--	HILLSIDE DR	HILLSIDE DR/CTH N	--	--	
R119	40+50	--	HILLSIDE DR	STOP	1	1	
R120	124+35	NB	CTH N	CIRCULAR INTERSECTION SIGN/ADVISORY SPEED PLATE (15 MPH)	1	1	
R121	225+40	SB	CTH N	SPEED LIMIT (35 MPH)	1	1	
R122	128+50	NB	CTH N	KEEP RIGHT	1	1	
R123	128+75	NB	CTH N	YIELD	1	1	
R124	128+75	NB	CTH N	YIELD/ONE WAY (RIGHT ARROW)	1	1	
R125	288+75	SB	CTH N	SOUTH/COUNTY N/RIGHT ARROW	1	1	
R126	130+50	NB	CTH N	NORTH/COUNTY N/RIGHT ARROW	1	1	
R127	230+50	SB	CTH N	YIELD	1	1	
R128	130+50	NB	CTH N	PEDESTRIAN CROSSING SYMBOL/DOWN LEFT ARROW	1	1	
R129	230+50	NB	CTH N	YIELD/ONE WAY (RIGHT ARROW)	1	1	
R130	230+60	NB	CTH N	PEDESTRIAN CROSSING SYMBOL/DOWN LEFT ARROW	1	1	
R131	131+00	NB	CTH N	KEEP RIGHT	1	1	
R201	299+90	EB	EMONS RD	CIRCULAR INTERSECTION SIGN/ADVISORY SPEED PLATE (15 MPH)	1	1	
R202	201+60	EB	EMONS RD	NO PARKING ANY TIME (DOUBLE ARROW)	1	1	
R203	104+00	WB	EMONS RD	SPEED LIMIT (25 MPH)	1	1	
R204	303+00	EB	EMONS RD	KEEP RIGHT/NO TRUCKS	1	1	
R206	300+30	EB	EMONS RD	YIELD/ONE WAY (RIGHT ARROW)	1	1	
R207	300+30	EB	EMONS RD	YIELD	1	1	
R208	402+30	WB	EMONS RD	EMONS RD (RIGHT ARROW)	1	1	
R209	304+50	EB	BUCHANAN RD	BUCHANAN RD/NO TRUCKS SYMBOL	1	1	
R210	304+50	EB	BUCHANAN RD	YIELD/ONE WAY (RIGHT ARROW)	1	1	
R211	304+50	EB	BUCHANAN RD	YIELD	1	1	
R212	304+50	EB	BUCHANAN RD	PEDESTRIAN CROSSING SYMBOL/DOWN LEFT ARROW	1	1	
R213	305+25	EB	BUCHANAN RD	PEDESTRIAN CROSSING SYMBOL/DOWN LEFT ARROW	1	1	
R214	305+25	EB	BUCHANAN RD	KEEP RIGHT	1	1	
R216	308+25	EB	BUCHANAN RD	CIRCULAR INTERSECTION SIGN/ADVISORY SPEED PLATE (15 MPH)	1	1	BEHIND EXISTING GUARDRAIL
M200	307+75	EB	BUCHANAN RD	LOCAL ATV SIGN	--	1	BEHIND EXISTING GUARDRAIL
PROJECT TOTAL					45	44	

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RIPRAP & GEOTEXTILE

STATION	DIR	ROADWAY	606.0200	606.0300	645.0120
			RIRRAP MEDIUM	RIPRAP HEAVY	GEOTEXTILE TYPE
			CY	CY	HR SY
PROJECT 4676-04-71					
CATEGORY 0010					
103+10	RT	CTH N NB	4	---	13
115+40	RT	CTH N NB	-	13	32
115+87	LT	CTH N NB	8	---	28
116+07	LT	CTH N NB	-	13	32
116+13	LT	CTH N NB	6	---	21
127+20	RT	CTH N NB	8	---	27
127+54	RT	CTH N NB	12	---	41
128+28	LT	CTH N NB	22	---	71
307+83	LT	BUCHANAN EB	8	---	28
307+83	RT	BUCHANAN EB	3	---	11
PROJECT TOTAL			71	26	304

CONSTRUCTION STAKING

STATION TO STATION	ROADWAY	650.4500	650.5000	650.9911	650.8501	650.9920
		SUBGRADE	BASE	SUPPLEMENTAL CONTROL 01.4676-04-71	ELECTRICAL INSTALLTIONS 01.4676-04-71	SLOPE STAKES
		LF	LF	EA	EA	LF
PROJECT 4676-04-71						
CATEGORY 0010						
100+47 - 128+86	CTH N NB	2,839	2,839	---	---	2,839
130+18 - 134+38	CTH N NB	420	420	---	---	420
301+16 - 303+49	EMONS RD EB	233	233	---	---	233
305+06 - 308+50	BUCHANAN EB	344	344	---	---	344
20+26 - 20+80	WHITETAIL RIDGE	54	54	---	---	54
30+56 - 31+54	SARATOGA	98	98	---	---	98
40+56 - 41+54	HILLSIDE	98	98	---	---	98
50+00 - 53+17	RAB	317	317	---	---	317
1+25 - 2+24	PARCEL 42 PATH	99	99	---	---	99
UNDISTRIBUTED		---	---	1	---	---
TOTAL 0010		4,502	4,502	1	0	4,502
CATEGORY 0020						
UNDISTRIBUTED		---	---	---	1	---
TOTAL 0020		0	0	0	1	0
CATEGORY 0030						
UNDISTRIBUTED		---	---	---	---	---
TOTAL 0030		0	0	0	0	0
PROJECT TOTALS		4,502	4,502	1	1	4,502

NOTE: CONSTRUCTION STAKING STORM SEWER, CURB AND GUTTER, PIPE CULVERTS, CURB RAMPS, AND SIDEWALK IN RESPECTIVE QUANTITY TABLES

SAWING

STATION	ROADWAY	DIR	690.0150	690.0250
			ASPHALT LF	CONCRETE LF
PROJECT 4676-04-71				
CATEGORY 0010				
100+47	CTH N NB	R/L	---	165
102+25	CTH N NB	RT	19	---
103+70	CTH N NB	RT	22	---
106+75	CTH N NB	RT	17	---
107+82	CTH N NB	RT	20	---
109+00	CTH N NB	RT	---	30
110+75	CTH N NB	RT	---	12
111+71	CTH N NB	LT	---	25
112+00	CTH N NB	RT	150	---
113+90	CTH N NB	RT	37	---
119+50	CTH N NB	RT	---	22
121+00	CTH N NB	RT	---	23
123+50	CTH N NB	LT	---	40
130+75	CTH N NB	RT	---	27
131+30	CTH N NB	LT	15	---
132+30	CTH N NB	RT	---	14
132+30	CTH N NB	LT	16	---
134+38	CTH N NB	R/L	58	5
301+16	EMONS RD	R/L	34	5
301+75	EMONS RD	LT	---	13
302+50	EMONS RD	LT	---	60
305+80	BUCHANAN RD	LT	15	51
306+35	BUCHANAN RD	RT	7	16
306+50	BUCHANAN RD	RT	---	26
307+33	BUCHANAN RD	R/L	24	---
20+26	WHITETAIL RIDGE	R/L	24	5
31+50	SARATOGA	LT	13	---
31+53	SARATOGA	R/L	28	---
41+50	HILLSIDE	LT	18	---
41+53	HILLSIDE	R/L	24	---
PROJECT TOTAL			541	539

TRAFFIC CONTROL

STAGE	ROADWAY	LOCATION	APPROXIMATE SERVICE PERIOD DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0420 * TRAFFIC CONTROL BARRICADES TYPE III		643.0705 * TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0900 ** TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS	
				NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY
PROJECT 4676-04-71															
CATEGORY 0010															
STAGE 1	CTH N	CTH KK	15	---	---	---	---	---	---	---	---	---	---	1	7
	CTH N	CTH KK TO WHITETAIL RIDGE CT	15	---	---	2	30	2	30	---	---	2	30	---	---
	WHITETAIL RIDGE	CTH N	15	---	---	2	30	2	30	---	---	2	30	---	---
	CTH N	WHITETAIL RIDGE CT TO SARATOGA DR	15	---	---	10	150	12	180	---	---	2	30	---	---
	SARATOGA DR	CTH N	15	---	---	2	30	2	30	---	---	2	30	---	---
	HILLSIDE DR	CTH N	15	---	---	2	30	2	30	---	---	2	30	---	---
	CTH N	HILLSIDE DR TO EMONS RD/BUCHANAN RD	15	---	---	2	30	2	30	---	---	2	30	---	---
	CTH N	EMONS RD/BUCHANAN RD TO CTH CE	15	---	---	---	---	---	---	---	---	1	15	1	7
	EMONS RD	ROGERS LN TO CTH N	15	---	---	---	---	---	---	---	---	1	15	---	---
	BUCHANAN RD	CTH N TO MAPLE RIDGE DR	15	---	---	---	---	---	---	---	---	1	15	---	---
CTH CE	EB EXIT RAMP	15	---	---	---	---	---	---	---	---	---	---	---	---	
STAGE 1 SUBTOTAL				0		300		330		0		225		14	
STAGE 2	CTH N	CTH KK TO STA 104+50'NB'	33	16	528	1	33	2	66	---	---	10	82	4	28
	CTH N	STA 104+50'NB' TO EMONS RD/BUCHANAN RD	100	98	9,800	4	400	8	800	---	---	4	400	---	---
	WHITETAIL RIDGE	CTH N TO MAPLE RIDGE DR	100	10	1,000	---	---	---	---	10	1,000	---	1	---	---
	SARATOGA DR	OPEN TO TRAFFIC	80	---	---	---	---	---	---	---	---	2	160	---	---
	SARATOGA DR	CLOSED TO TRAFFIC	20	---	---	3	60	4	80	---	---	3	60	---	---
	HILLSIDE DR	OPEN TO TRAFFIC	80	---	---	---	---	---	---	---	---	2	160	---	---
	HILLSIDE DR	CLOSED TO TRAFFIC	20	---	---	3	60	4	80	---	---	3	60	---	---
	CTH N	EMONS RD/BUCHANAN RD	100	---	---	3	300	6	600	---	---	1	100	1	7
	CTH N	EMONS RD/BUCHANAN RD TO CTH CE	100	---	---	---	---	---	---	---	---	6	600	---	---
	EMONS RD	ROGERS LN TO CTH N	100	---	---	---	---	---	---	---	---	6	600	---	---
BUCHANAN RD	CTH N TO MAPLE RIDGE DR	100	---	---	---	---	---	---	---	---	6	600	---	---	
STAGE 2 SUBTOTAL				11,328		853		1,626		1,000		2,823		35	
STAGE 3	CTH N	CTH KK TO HILLSIDE DR	69	---	---	---	---	---	---	---	---	4	276	---	---
	WHITETAIL RIDGE	CTH N	69	---	---	2	138	2	138	---	---	2	138	---	---
	SARATOGA DR	CTH N	69	---	---	2	138	2	138	---	---	2	138	---	---
	HILLSIDE DR	CTH N	69	---	---	2	138	2	138	---	---	2	138	---	---
	CTH N	NORTH OF HILLSIDE DR	69	---	---	6	414	7	483	---	---	---	---	1	7
	CTH N	EMONS RD/BUCHANAN RD TO CTH CE	69	---	---	12	828	14	16	---	---	2	138	1	7
	EMONS RD	RANDYS LN TO CTH N	69	---	---	5	345	6	414	---	---	3	207	1	7
	BUCHANAN RD	CTH N TO MAPLE RIDGE DR	69	---	---	5	345	6	414	---	---	3	207	1	7
CTH CE	EB EXIT RAMP	69	15	1,035	1	69	2	138	5	345	1	69	---	---	
STAGE 3 SUBTOTAL				1,035		2,415		1,879		345		1,311		28	
TOTAL 0010				12,363		3,568		3,835		1,345		4,359		77	
PROJECT SUBTOTAL				12,363		3,568		3,835		1,345		4,359		77	
UNDISTRIBUTED				620		180		190		65		220		0	
PROJECT TOTAL				12,983		3,748		4,025		1,410		4,579		77	

* ADDITIONAL QUANTITIES FOUND IN TRAFFIC CONTROL - DETOUR TABLE

** ADDITIONAL QUANTITIES FOUND IN TRAFFIC CONTROL - DETOUR TABLE AND TRAFFIC CONTROL - PEDESTRIAN ACCOMMODATIONS TABLE

TRAFFIC CONTROL - DETOUR

STAGE	ROADWAY	LOCATION	APPROXIMATE SERVICE PERIOD	643.0420 *		643.0705 *		643.0900 **		643.1000
				TRAFFIC CONTROL BARRICADES TYPE III	NO.	TRAFFIC CONTROL WARNING LIGHTS TYPE A	NO.	TRAFFIC CONTROL SIGNS	NO.	DAY
PROJECT 4676-04-71										
CATEGORY 0010										
DETOUR	CTH KK	OTTE CT TO CTH N		---	---	---	---	11	1,672	---
	CTH N	MACKY DR TO CTH KK		---	---	---	---	16	2,432	---
	CTH N	NORTH OF CTH KK		8	1,216	10	1,520	2	304	---
	CTH KK	CTH N TO GINA DR		---	---	---	---	11	1,672	---
	CTH KK	STATE PARK RD		---	---	---	---	6	912	---
	CTH KK	FIELDCREST DR TO STH 55		---	---	---	---	15	2,280	19.5
	STH 55	FRIENDSHIP DR TO CTH KK		---	---	---	---	11	1,672	---
	CTH KK	STH 55 TO SPEEDWAY LN		---	---	---	---	11	1,672	---
	STH 55	CTH KK TO RIDGECREST LN		---	---	---	---	21	3,192	6.75
	STH 55	MORNINGSIDE DR TO CTH CE		---	---	---	---	15	2,280	19.5
	CTH CE	KANKAPOT CREEK TO STH 55	152	---	---	---	---	11	1,672	---
	STH 55	CTH CE TO ANN ST		---	---	---	---	11	1,672	---
	CTH CE	FIELDCREST DR TO STH 55		---	---	---	---	15	2,280	6.75
	CTH CE	DEBRUIN RD		---	---	---	---	6	912	---
	CTH CE	CTH N TO BUCHANAN RD		---	---	---	---	6	912	---
	CTH CE	WB EXIT RAMP		---	---	---	---	7	1,064	---
	CTH N	KENNEDY AVE TO CTH CE		---	---	---	---	8	1,216	6.75
	CTH CE	EISENHOWER DR TO CTH N		---	---	---	---	12	1,824	6.75
	CTH CE	EB EXIT RAMP		---	---	---	---	1	152	---
	CTH N	CTH CE TO EMONS RD/BUCHANAN RD		---	---	---	---	8	1,216	---
					1,216		1,520		31,008	66.0
PROJECT SUBTOTAL					1,216		1,520		31,008	66.0
UNDISTRIBUTED					60		75		1,550	---
PROJECT TOTAL					1,276		1,595		32,558	66.0

* ADDITIONAL QUANTITIES FOUND IN TRAFFIC CONTROL TABLE

** ADDITIONAL QUANTITIES FOUND IN TRAFFIC CONTROL TABLE AND TRAFFIC CONTROL - PEDESTRIAN ACCOMMODATIONS TABLE

TRAFFIC CONTROL - COVERING SIGNS

STAGE	ROADWAY	LOCATION	643.0920		
			TRAFFIC CONTROL COVERING SIGNS TYPE II	NO. OF EACH	NO. OF CYCLES
PROJECT 4676-04-71					
CATEGORY 0010					
STAGE 1	CTH N	CTH KK	2	1	2
	CTH N	EMONS RD/BUCHANAN RD TO CTH CE	1	1	1
	CTH CE	EB EXIT RAMP	2	1	2
STAGE 3	CTH CE	EB EXIT RAMP	1	1	1
DETOUR	CTH N	MACKY DR TO CTH KK	1	1	1
	CTH CE	WB EXIT RAMP	1	1	1
TOTAL 0010			8		
PROJECT TOTAL			8		

TRAFFIC CONTROL - PEDESTRIAN ACCOMMODATIONS

STAGE	ROADWAY	LOCATION	DAYS	643.0900 * APPROXIMATE TRAFFIC CONTROL SIGNS		644.1601 TEMPORARY PEDESTRIAN CURB RAMP		644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD		644.1810 TEMPORARY PEDESTRIAN BARRICADE	
				NO.	DAY	NO.	DAY	SF	LF		
PROJECT 4676-04-71											
CATEGORY 0010											
STAGE 3B PHASE 1	EMONS RD	ROGERS LN TO ROUNDABOUT	39	5	195	--	--	--	--	--	--
	ROUNDABOUT	--	39	2	78	--	--	60	--	--	--
	CTH N	ROUNDABOUT TO CTH CE	39	5	195	1	39	20	--	462	--
STAGE 3B PHASE 1 SUBTOTAL					468		39	80		462	
STAGE 3B PHASE 2	EMONS RD	ROGERS LN TO ROUNDABOUT	30	4	120	--	--	--	--	--	150
	ROUNDABOUT	--	30	10	300	--	--	--	--	--	252
	CTH N	ROUNDABOUT TO CTH CE	30	--	--	--	--	--	--	--	354
STAGE 3B PHASE 2 SUBTOTAL					420		0	0		756	
PROJECT TOTAL					888		39	80		1,218	

* ADDITIONAL QUANTITIES INCLUDED IN TRAFFIC CONTROL TABLE AND DETOUR TABLE

TEMPORARY MARKING

STAGE	ROADWAY	STATION	TO	STATION	DIR	643.3165	643.3265	643.3305	643.3505	643.3605	643.3805
						TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)	TEMPORARY MARKING LINE PAINT 10-INCH (WHITE)	TEMPORARY MARKING CROSSWALK PAINT 6-INCH (WHITE)	TEMPORARY MARKING ARROW PAINT (WHITE)	TEMPORARY MARKING WORD PAINT (WHITE)	TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
LF	LF	LF	EACH	EACH	LF						
PROJECT 4676-04-71											
CATEGORY 0010											
STAGE 2	CTH N	200+75	-	104+50	NB	722	290	175	3	1	40
PROJECT TOTAL						722	290	175	3	1	40

		MARKING									
		646.2040		646.4040		646.5020	646.5120	646.6120	646.6320		
		LINE GROOVED WET REFLECTIVE EPOXY									
		6-INCH			10-INCH		ARROW	WORD	STOP LINE	DOTTED	
		(YELLOW)	(BLACK)	(WHITE)	(WHITE)	(WHITE)	(WHITE)	(WHITE)	18-INCH	EXTENSION	
STATION TO STATION	ROADWAY	LF	LF	LF	LF	EA	EA	LF	EPOXY 18-INCH (WHITE)		
LF									LF	LF	
PROJECT 4676-04-71											
CATEGORY 0010											
99+75 - 113+80	CTH N NB	3,283	---	2,407	487	12	1	38	---		
113+80 - 117+80	CTH N NB	993	---	714	---	4	---	---	---		
117+80 - 125+00	CTH N NB	1,811	---	1,334	---	6	---	---	---		
125+00 - RAB	CTH N NB	---	50	501	188	2	---	---	---		
RAB - 134+38	CTH N NB	1,318	150	150	195	4	---	---	---		
301+16 - RAB	EMONS EB	567	---	279	71	---	---	---	---		
RAB - 308+50	BUCHANAN WB	798	---	276	218	4	---	---	---		
50+00 - 53+17	RAB	---	---	89	---	4	---	---	200		
21+03 - 21+00	WHITETAIL	---	---	---	---	---	---	---	---		
30+30 - 31+53	SARATOGA	---	---	---	---	---	---	---	---		
40+30 - 41+54	HILLSIDE	---	---	---	---	---	---	---	---		
PROJECT TOTAL		8,770	200	5,750	1,159	36	1	38	200		

		MARKING			
		646.7120	646.7420	646.8120	646.8220
		DIAGONAL	CROSSWALK	CURB	ISLAND NOSE
		EPOXY	EPOXY	EPOXY	EPOXY
		12-INCH	TRANSVERSE LINE	6-INCH	
		(YELLOW)	(WHITE)	(YELLOW)	(YELLOW)
STATION TO STATION	ROADWAY	LF	LF	LF	EA
PROJECT 4676-04-71					
CATEGORY 0010					
99+75 - 113+80	CTH N NB	22	464	---	---
113+80 - 117+80	CTH N NB	---	---	---	---
117+80 - 125+00	CTH N NB	---	---	---	---
125+00 - RAB	CTH N NB	---	103	10	1
RAB - 134+38	CTH N NB	93	104	10	1
301+16 - RAB	EMONS EB	---	68	10	1
RAB - 308+50	BUCHANAN WB	---	93	10	1
50+00 - 53+17	RAB	---	---	---	---
21+03 - 21+00	WHITETAIL	---	80	---	---
30+30 - 31+53	SARATOGA	---	74	---	---
40+30 - 41+54	HILLSIDE	---	74	---	---
PROJECT TOTAL		115	1,060	40	4

CONDUIT

FROM	TO	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
PROJECT 4676-04-71				
CATEGORY 0010				
EXIST CONDUIT	SB 15	11	--	--
EXIST CONDUIT	PB 1	27	--	--
PB1	SB 2	45	--	--
PB1	SB 13	26	--	--
PB1	SB 14	8	--	--
PB1	PB2	--	252	--
PB 2	SB 1	19	--	--
PB 2	SB 12	12	--	--
PB 2	SB 11	10	--	--
PB 2	EXIST SB 10	22	--	1
PROJECT TOTAL		180	252	1

CABLE TRAFFIC SIGNAL AND ELECTRICAL WIRE (ABOVE GROUND)

FROM SIGNAL BASE	TO SIGNAL HEAD	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF
PROJECT 4676-04-71					
CATEGORY 0010					
SB 1	HEAD 5	--	22	--	--
	HEAD 15	20	--	--	--
	LUMINAIRE	--	--	135	--
SB 2	HEAD 6	--	52	--	--
SB 11	HEAD 17	15	--	--	--
	BUTTON	--	--	--	6
SB 12	HEAD 20	15	--	--	--
	BUTTON	--	--	--	6
SB 13	HEAD 7	20	--	--	--
	HEAD 21	15	--	--	--
	BUTTON	--	--	--	6
SB 14	HEAD 22	15	--	--	--
	BUTTON	--	--	--	6
SB 15	HEAD 23	15	--	--	--
	BUTTON	--	--	--	6
PROJECT TOTAL		115	74	135	30

PULLBOXES

INTERSECTION	PULLBOX NUMBER	STATION	REFERENCE LINE	OFFSET	653.0164 PULL BOXES NON-CONDUCTIVE 24 X 42-INCH EACH
PROJECT 4676-04-71					
CATEGORY 0010					
CTH N & CTH KK	PB 1	100+65	CTH N NB	61.0 RT	1
	PB 2	100+75	CTH N NB	61.1 LT	1
PROJECT TOTAL					2

CONCRETE BASES

BASE NUMBER	INTERSECTION	STATION	OFFSET	TOP ELEVATION	SPV.0060.13 CONCRETE BASES TYPE 1 SPECIAL EACH	SPV.0060.14 CONCRETE BASES TYPE 2 SPECIAL EACH
PROJECT 4676-04-71						
CATEGORY 0010						
SB 1	CTH N & CTH KK	100+82	43.3 LT	750.47	--	1
SB 2	CTH N & CTH KK	100+94	27.3 RT	750.59	--	1
SB 11	CTH N & CTH KK	100+69	57.2 LT	750.00	1	--
SB 12	CTH N & CTH KK	100+77	48.8 LT	750.06	1	--
SB 13	CTH N & CTH KK	100+76	37.5 RT	750.61	1	--
SB 14	CTH N & CTH KK	100+58	56.6 RT	751.02	1	--
SB 15	CTH N & CTH KK	99+74	55.6 RT	751.74	1	--
PROJECT TOTAL					5	2

TRAFFIC SIGNAL CABLE (BELOW GROUND)

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	SPV.0090.03 ELECTRIC WIRE FOR SIGNALS 16-14 AWG LF	655.0515 ELECTRIC WIRE FOR SIGNALS 10 AWG LF	SPV.0090.04 TRAY CABLE FOR STREET LIGHTING 3 CONDUCTOR 12 AWG LF
PROJECT 4676-04-71					
CATEGORY 0010					
CB 1	SB 1	--	309	309	270
CB 1	SB 2	--	193	193	--
CB 1	SB 11	300	--	300	--
CB 1	SB 12	302	--	302	--
CB 1	SB 13	174	--	174	--
CB 1	SB 14	157	--	157	--
CB 1	SB 15	44	--	44	--
PROJECT TOTAL		978	502	1,480	270

TRAFFIC SIGNAL POLES, ARMS, & BASES

BASE NO.	INTERSECTION	STA	OFFSET	SPV.0060.06		657.0100		657.0430		657.0595		658.0416		658.0500				
				SALVAGE AND REINSTALL TRAFFIC SIGNAL (CTH N AND CTH KK) EACH	PEDESTAL BASES EACH	SALVAGED TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SALVAGED POLES TYPE 2 EACH	SALVAGED POLES TYPE 4 EACH	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SALVAGED TROMBONE ARMS 15-FT EACH	TROMBONE ARMS 25-FT EACH	SALVAGED LUMINAIRE ARM AND LUMINARE EACH	SALVAGED TRAFFIC SIGNAL FACE 3S 12-INCH EACH	SALVAGED TRAFFIC SIGNAL FACE 5S 12-INCH EACH	PEDESTRIAN SIGNAL FACE 16-INCH EACH	SALVAGED PEDESTRIAN SIGNAL FACE 16-INCH EACH	PEDESTRIAN PUSH BUTTONS EACH	SALVAGED PEDESTRIAN PUSH BUTTONS EACH
PROJECT 4676-04-71																		
CATEGORY 0010																		
SB 1	CTH N & CTH KK	100+82	43.3	LT	--	--	1-SALV ¹	--	1-SALV ¹	--	--	--	1-SALV ¹	1-SALV ¹	1-SALV ¹	--	--	--
SB 2	CTH N & CTH KK	100+94	27.3	RT	--	--	1-SALV ¹	1-SALV ¹	--	1-SALV ²	1	--	--	1-SALV ¹	--	--	--	--
SB 11	CTH N & CTH KK	100+69	57.2	LT	--	1	--	--	--	1	--	--	--	--	--	1-SALV ¹	--	1-SALV ¹
SB 12	CTH N & CTH KK	100+77	48.8	LT	--	1	--	--	--	1	--	--	--	--	--	1	--	1
SB 13	CTH N & CTH KK	100+76	37.5	RT	--	1	--	--	--	1	--	--	--	--	1	--	1	--
SB 14	CTH N & CTH KK	100+58	56.6	RT	--	1	--	--	--	1	--	--	--	--	1	--	1	--
SB 15	CTH N & CTH KK	99+74	55.6	RT	--	1	--	--	--	1	--	--	--	--	1	--	1	--
	CTH N & CTH KK	-	-	-	1	--	--	--	--	--	--	--	--	--	--	--	--	--
PROJECT TOTAL					1	5			5		1				4		4	

NOTES:
 1-SALV¹ = QUANTITY; SALVAGED EQUIPMENT FROM EXISTING TRAFFIC SIGNAL INSTALLATION TO BE REINSTALLED
 1-SALV² = QUANTITY; SALVAGED EQUIPMENT FROM EXISTING TRAFFIC SIGNAL INSTALLATION TO BE DELIVERED TO OUTAGAMIE COUNTY

TOWN OF BUCHANAN YARD WASTE SITE FENCE

<u>SIGNAL MOUNTING HARDWARE</u>		<u>VIDEO DETECTION</u>		SPV.0060.08		SPV.0060.09		SPV.0060.17		616.0700.S		SPV.0090.08		SPV.0090.09	
658.5070		SPV.0060.07		SALVAGE AND RESET EXISTING GATE		TEMPORARY ACCESS GATE		MANUAL ROLLER GATE 22-FT		FENCE SAFTEY		SALVAGE AND RESET EXISTING FENCE		SALVAGE AND RELOCATE EXISTING FENCE	
INTERSECTION	EA	LOCATION	EA	EA	EA	EA	EA	EA	EA	LF	LF	LF	LF	LF	LF
PROJECT 4676-04-71															
CATEGORY 0010															
01. CTH N AND CTH KK	1	CTH N AND CTH KK	1	102+95 - 103+90	1	1	---	---	---	100	100	---	---	---	---
PROJECT TOTAL															
CATEGORY 0030															
UNDISTRUBUTED															
CATEGORY 0030 TOTALS															
PROJECT TOTALS															

SLATTED CHAIN LINK FENCE

CONNECT TO EXISTING CONDUIT

SPV.0090.05		SPV.0060.15	
6-FT		CONNECT TO EXISTING CONDUIT	
STATION TO STATION	LF	STATION OFFSET DIR	EACH
PROJECT 4676-04-71			
CATEGORY 0010			
115+50 - 117+00	150	99+65 57.5 RT	1
PROJECT TOTAL		100+51 61.5 RT	1
		PROJECT TOTAL	
		2	

RECONSTRUCTING & ADJUSTING MANHOLES

611.0420 611.8110
 RECONSTRUCTING MANHOLES ADJUSTING MANHOLE COVERS

STATION	DIR	ROADWAY	EACH	EACH
PROJECT 4676-04-71				
CATEGORY 0030				
101+65	17' RT	CTH N NB	1	---
103+70	31' RT	CTH N NB	1	---
105+55	27' RT	CTH N NB	---	1
109+60	28' RT	CTH N NB	---	1
111+00	31' RT	CTH N NB	---	1
211+10	31' LT	CTH N SB	---	1
213+70	21' LT	CTH N SB	---	1
41+20	13' LT	HILLSIDE DR	---	1
126+85	26' RT	CTH N NB	1	---
52+65	6' RT	RAB	---	1
243+10	25' RT	CTH N SB	---	1
TOTAL 0030			3	8
PROJECT TOTAL			3	8

ADJUSTING WATER VALVE BOXES

SPV.0060.10
 ADJUSTING WATER VALVE BOXES

STATION	DIR	ROADWAY	EACH
PROJECT 4676-04-71			
CATEGORY 0030			
101+05	14' RT	CTH N NB	1
102+60	35' RT	CTH N NB	1
103+95	21' RT	CTH N NB	1
111+50	30' RT	CTH N NB	1
111+65	25' RT	CTH N NB	1
213+80	12' LT	CTH N SB	1
218+05	12' LT	CTH N SB	1
222+75	14' LT	CTH N SB	1
225+20	25' LT	CTH N SB	1
234+20	15' LT	CTH N SB	1
400+85	7' RT	EMONS RD WB	1
305+70	33' LT	BUCHANAN RD EB	1
TOTAL 0030			12
PROJECT TOTAL			12

ADJUSTING WATER SERVICE CURB STOPS

SPV.0060.12
 ADJUSTING WATER SERVICE CURB STOPS

STATION	DIR	ROADWAY	EACH
PROJECT 4676-04-71			
CATEGORY 0030			
101+91	RT	CTH N NB	1
103+96	RT	CTH N NB	1
106+01	RT	CTH N NB	1
107+53	RT	CTH N NB	1
108+48	RT	CTH N NB	1
109+86	RT	CTH N NB	1
109+89	RT	CTH N NB	1
111+28	LT	CTH N NB	1
113+90	RT	CTH N NB	1
122+16	LT	CTH N NB	1
123+82	LT	CTH N NB	1
132+68	LT	CTH N NB	1
132+87	RT	CTH N NB	1
TOTAL 0030			13
PROJECT TOTAL			13

REINSTALL WATER SERVICE LATERAL

SPV.0090.07
 REINSTALL WATER SERVICE LATERAL 1-INCH LF

STATION	DIR	ROADWAY	LF
PROJECT 4676-04-71			
CATEGORY 0030			
103+89	LT	CTH N NB	50
122+17	LT	CTH N NB	50
TOTAL 0030			100

INSULATION BOARD

612.0902.S
 INSULATION BOARD POLYSTYRENE 2-INCH SY

STATION	DIR	ROADWAY	SY
PROJECT 4676-04-71			
CATEGORY 0030			
103+10	RT	CTH N NB	2
103+89	LT	CTH N NB	1
115+60	RT	CTH N NB	3
TOTAL 0030			6

UTILITY LINE OPENING

SPV.0060.16
 UTILITY LINE OPENING EACH COMMENT

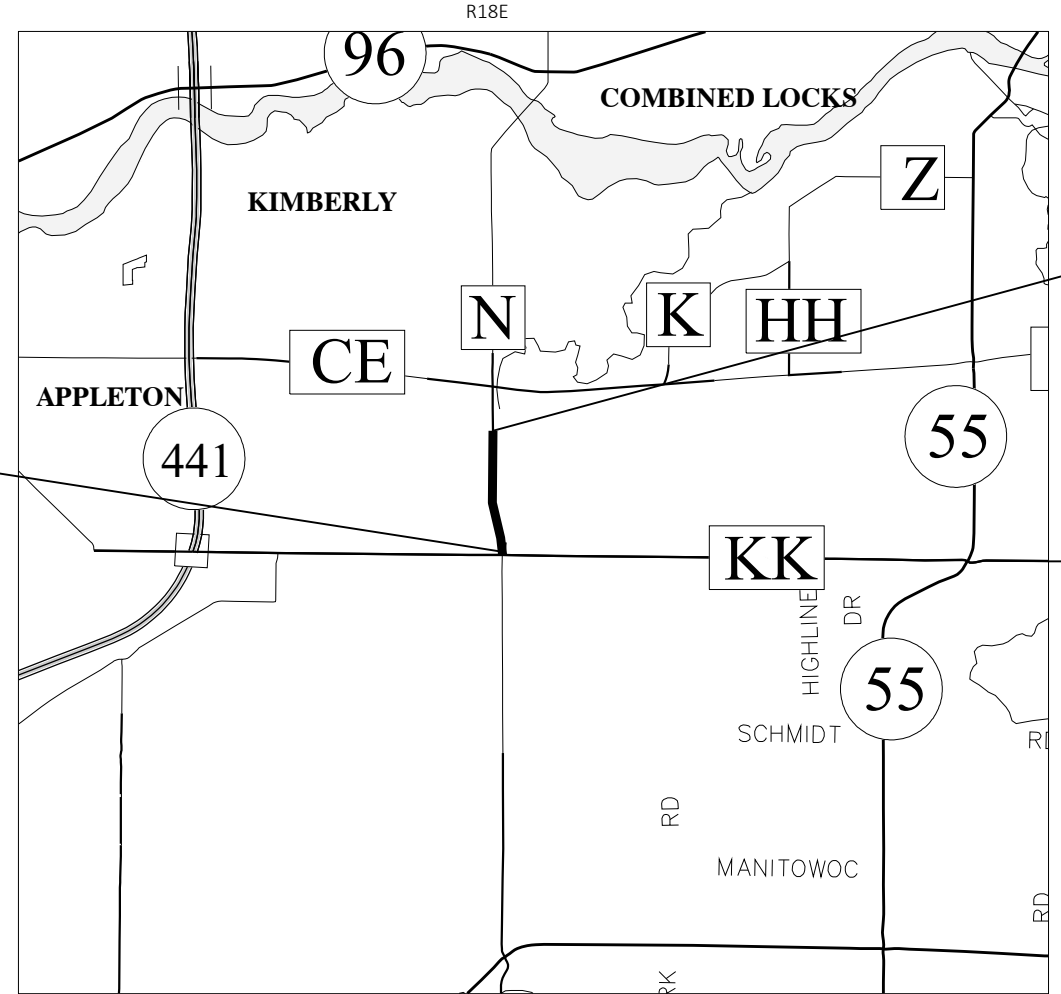
STATION	DIR	ROADWAY	UTILITY LINE OPENING EACH	COMMENT
PROJECT 4676-04-71				
CATEGORY 0010				
133+50	RT	CTH N NB	1	TREE ROOT INVESTIGATION
PROJECT TOTAL			1	

R/W PROJECT NUMBER 4676-04-00	SHEET NUMBER 4.01	TOTAL SHEETS 11
CONSTRUCTION PROJECT NUMBER 4676-04-71		
PLAT OF RIGHT OF WAY REQUIRED FOR CTH N CTH KK - CTH CE		
CTH N, TOWN OF BUCHANAN		OUTAGAMIE COUNTY

CONVENTIONAL SYMBOLS		
SECTION LINE		SECTION CORNER SYMBOL
QUARTER LINE		SECTION CORNER MONUMENT
SIXTEENTH LINE		GEODETIC SURVEY MONUMENT
NEW REFERENCE LINE		SIXTEENTH CORNER MONUMENT
NEW R/W LINE		SIGN
EXISTING R/W OR HE LINE		OFF-PREMISE SIGN
PROPERTY LINE		
LOT, TIE & OTHER MINOR LINES		
SLOPE INTERCEPT		
CORPORATE LIMITS		
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		
TEMPORARY LIMITED EASEMENT AREA		
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		
TRANSMISSION STRUCTURES		
BUILDING TO BE REMOVED		
BRIDGE		
CULVERT		
		PARCEL NUMBER (25)
		UTILITY NUMBER (40)
		TRAIL PARCEL NUMBER (2501)
		PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS		CURVE DATA ABBREVIATIONS	
WATER		LONG CHORD	LCH
GAS		LONG CHORD BEARING	LCB
TELEPHONE		RADIUS	R
OVERHEAD TRANSMISSION LINES		DEGREE OF CURVE	D
ELECTRIC		CENTRAL ANGLE	Δ/DELTA
CABLE TELEVISION		LENGTH OF CURVE	L
FIBER OPTIC		TANGENT	T
SANITARY SEWER		DIRECTION AHEAD	DA
STORM SEWER		DIRECTION BACK	DB
ELECTRIC TOWER			

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



END RELOCATION ORDER
STATION 535+00
733.44 FEET SOUTH OF AND 2.47 FEET WEST OF NORTH 1/4 CORNER BEING SEC. 33 T21N, R18E, TOWN OF BUCHANAN, OUTAGAMIE COUNTY, WISCONSIN
CORNER ID: 42118333020
Y: 559047.136
X: 849079.982

BEGIN RELOCATION ORDER
STATION 500+06.69
2.90 FEET SOUTH OF AND 271.37 FEET EAST OF SOUTH 1/4 CORNER BEING SEC. 33 T21N, R18E, TOWN OF BUCHANAN, OUTAGAMIE COUNTY, WISCONSIN
CORNER ID: 42118330020
Y: 555594.289
X: 849339.595



Terry L. Van Hout
DATE: 1/18/2023

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD83 (2012) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT OUTAGAMIE COUNTY.

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

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

LAYOUT
SCALE 0 5280'
TOTAL NET LENGTH OF CENTERLINE = 3493.31' (0.66 MILES)

REVISION DATE 1-24-2023 6-30-2023 03-11-2025	VARIOUS TRAIL PARCEL #22 FEE TO TLE, CHANGES TO ROUNDAABOUT AREA, & #4 ADDITIONAL TLE TLE & FEE CHANGES #34 TLE CHANGE #18% TLE CHANGE #39 DISTANCE	OUTAGAMIE COUNTY APPROVED FOR THE COUNTY DATE: 12/22/2025 <i>Joe Zellmer</i> (Signature)
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SCHEDULE OF LANDS AND INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLE OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	SHEET NUMBER(S)	OWNER(S)	INTEREST REQUIRED	R/W AREA REQUIRED - SQUARE FEET ()			PLE REQUIRED	TLE REQUIRED
				NEW	EXISTING	TOTAL		
1	4.06	WAGNER ENTERPRISES, LLC	FEE, TLE	540	0	540	0	4,856
2	4.06	CAPITAL CREDIT UNION	FEE, PLE, TLE	381	0	381	388	1,330
3	4.06	RAYMOND N. SEIDLE & HELEN PATRICK	FEE, TLE	70	0	70	0	4,155
4	4.06, 4.07	TOWN OF BUCHANAN	FEE, TLE	10	0	10	0	10,236
6	4.06	JAY J. GIORDANA & NANCY L. GIORDANA	TLE	0	0	0	0	2,528
8	4.06	JUSTIN F. KEMPF & SAMANTHA R. KEMPF	PLE, TLE	0	0	0	78	2,202
11	4.07	BRUCE E. MEULEMANS	TLE	0	0	0	0	314
12	4.06, 4.07	MEEK TRUST DATED OCTOBER 12, 2000	PLE, TLE	0	0	0	167	2,054
13	4.07	PAUL E. SABOTTA & RACHAEL SABOTTA	TLE	0	0	0	0	1,310
14	4.07	JUSTIN C. & HEATHER J. BURNS	TLE	0	0	0	0	2,199
16	4.07	CHRISTOPHER J. VANGOMPEL	TLE	0	0	0	0	1,447
17	4.07	MICHAEL E. POSSIN & MEGAN L. POSSIN	TLE	0	0	0	0	1,008
18	4.07	JONATHON MARTZAHN	FEE, TLE	2,563	0	2,563	0	1,390
19	4.07, 4.08	PIERCE M. BUCHINGER & MICHELLE M. BUCHINGER	FEE	2,841	0	2,841	0	0
21	4.08	BRIAN P. DOVI & NATALIE J. DOVI	FEE	5,289	0	5,289	0	0
22	4.07, 4.08	AMBER M. JOHNSON	TLE	0	0	0	0	3,175
23	4.08	CHAD ROHLOFF & MELANIE J. ROHLOFF	FEE	2,148	0	2,148	0	0
24	4.08	JEFFERY L. EVERS	TLE	0	0	0	0	1,459
26	4.08	THOMAS E. LAMERS & ELIZABETH A LAMERS	TLE	0	0	0	0	2,640
27	4.08	LARRY D. NAVARRETE & SUSAN J. NAVARRETE	TLE	0	0	0	0	3,043
28	4.08	WILLIAM J. LARSON & ALYSSA LARSON	TLE	0	0	0	0	3,247
29	4.08	GERALD J. BONGERS	TLE	0	0	0	0	3,523
31	4.09	KAREN WOODWARD	FEE, TLE	565	0	565	0	3,267
32	4.08	KRISTINA ERDMANN	FEE, TLE	56	0	56	0	2,334
34	4.09	DENNIS P. SHEA & CAROLYN S. SHEA	FEE, TLE	2,824	0	2,824	0	677
36	4.09	MARK INGERSOLL & KHANH INGERSOLL	FEE, TLE	5,889	0	5,889	0	696
37	4.09, 4.11	DANIEL R. CHRISTENSON & NANCY A. CHRISTENSON	TLE	0	0	0	0	29
38	4.09, 4.11	GARRETT HAEN	FEE, TLE	18,283	13,242	31,525	0	1,641
39	4.10, 4.11	NORMAN R. MEMMOTT & SANDRA A. MEMMOTT	FEE, TLE	293	12,616	12,909	0	4,398

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4

REVISION DATE	04-14-2025	_____	_____
1-24-2023	05-05-2025	_____	_____
6-30-2023	06-04-2025	_____	_____
03-11-2025	12-18-2025 NC	_____	_____

DATE	_____
GRID FACTOR	_____



HWY:	CTH N
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.02
PS&E SHEET	_____

E

SCHEDULE OF LANDS AND INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLE OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	SHEET NUMBER(S)	OWNER(S)	INTEREST REQUIRED	R/W AREA REQUIRED - SQUARE FEET ()			PLE REQUIRED	TLE REQUIRED
				NEW	EXISTING	TOTAL		
42	4.10, 4.11	MARK A. ZIETLOW & DIANA K. ZIETLOW	FEE	4,719	0	4,719	0	0
43	4.10	WILLIAM J. HORN & DEBRA A. HORN	TLE	0	0	0	0	1,759
44	4.10	MICHAEL J. VAN LANEN & SHARON J. VAN LANEN	FEE, TLE	1,094	0	1,094	0	2,842
46	4.10	DARBOY JOINT SANITARY DISTRICT NO. 1	TLE	0	0	0	0	507
47	4.10	CLAYT EMMER & JANAL MEYER	TLE	0	0	0	0	1,751
48	4.11	PHILIP P. BEHLING AND SUSAN J. BEHLING, AS TRUSTEES OF THE PHILIP P. BEHLING AND SUSAN J. BEHLING REVOCABLE LIVING TRUST	TLE	0	0	0	0	746
49	4.11	JEREMIAH M. FALCK & KARI A. FALCK	TLE	0	0	0	0	434
101	4.06, 4.07, 4.09, 4.10, 4.11	CHARTER COMMUNICATIONS (SPECTRUM)	RELEASE OF RIGHTS					
102	4.07, 4.10	NET LEC	RELEASE OF RIGHTS					
103	4.06, 4.07, 4.09, 4.10, 4.11	AT&T	RELEASE OF RIGHTS					
104	4.06, 4.07, 4.08, 4.09, 4.10, 4.11	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS					
106	4.06, 4.07, 4.09, 4.10, 4.11	WE ENERGIES (GAS)	RELEASE OF RIGHTS					
107	4.08, 4.09	DARBOY SANITARY DISTRICT (SANITARY)	RELEASE OF RIGHTS					
108	4.06, 4.07	DARBOY SANITARY DISTRICT (WATER)	RELEASE OF RIGHTS					
2301	4.08	CHAD ROHLOFF & MELANIE J. ROHLOFF	TLE	0	0	0	0	1,014
4201	4.10, 4.11	MARK A. ZIETLOW & DIANA K. ZIETLOW	TLE	0	0	0	0	2,279

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4

REVISION DATE	04-14-2025	_____	_____
1-24-2023 NC	05-05-2025 NC	_____	_____
6-30-2023	06-04-2025	_____	_____
03-11-2025	12-18-2025 NC	_____	_____

DATE	_____
GRID FACTOR	_____



HWY:	CTH N
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.03
PS&E SHEET	_____

E



REVISION DATE	04-14-2025 NC		
	1-24-2023 NC		
	6-30-2023		
	03-11-2025 NC		
	05-05-2025 NC		
	06-04-2025 NC		
	12-18-2025 NC		

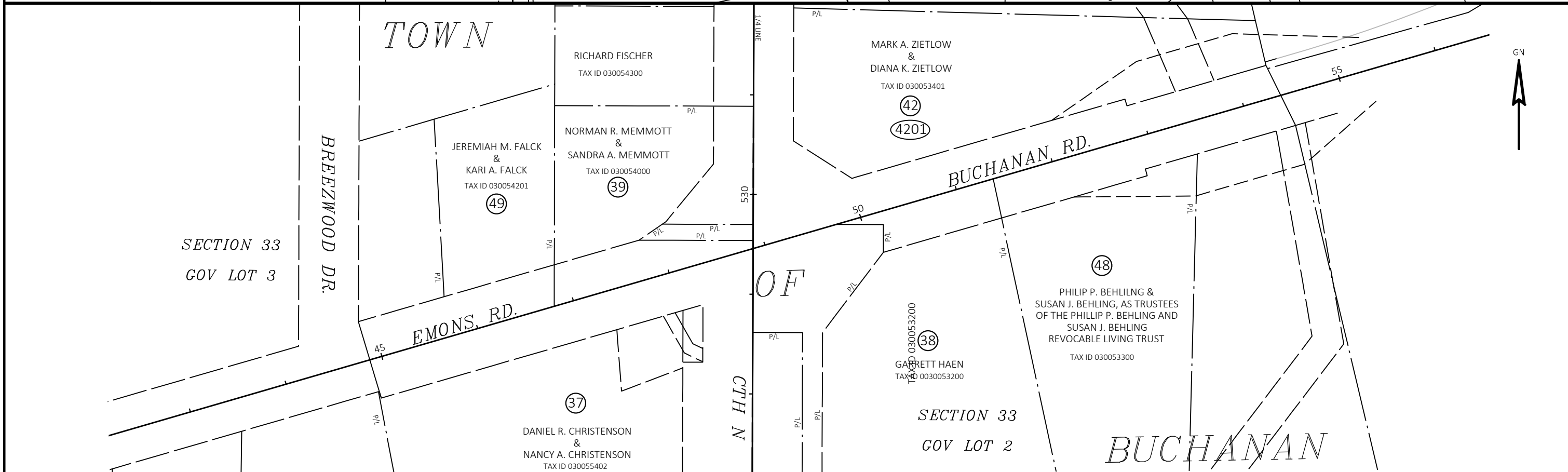
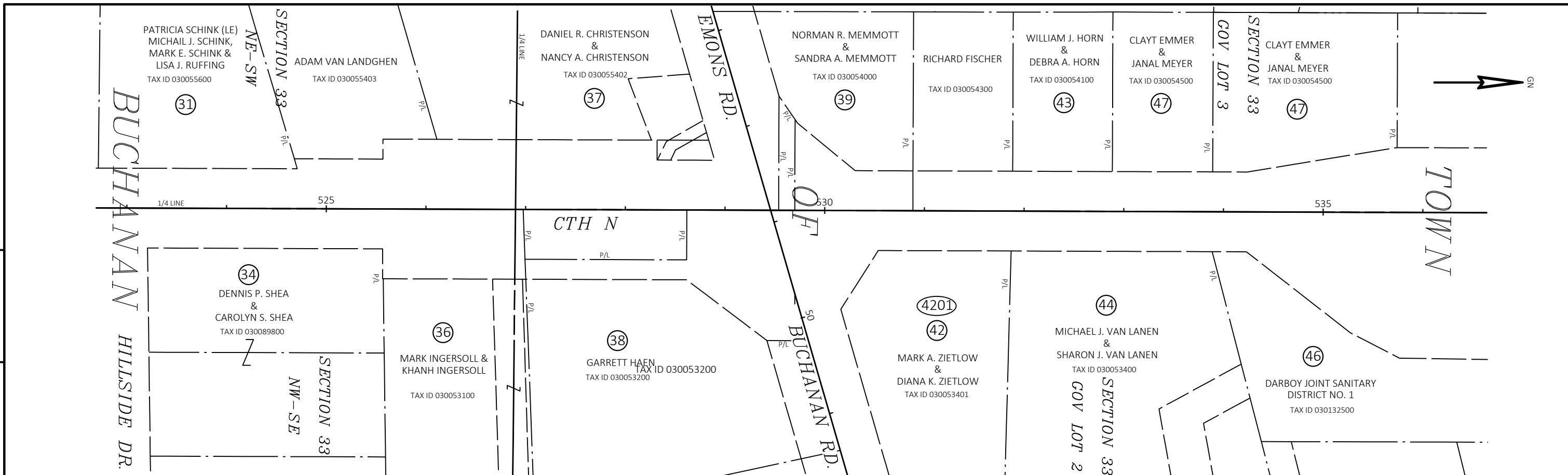
DATE	
GRID FACTOR	



HWY:	CTH N
COUNTY:	OUTAGAMIE

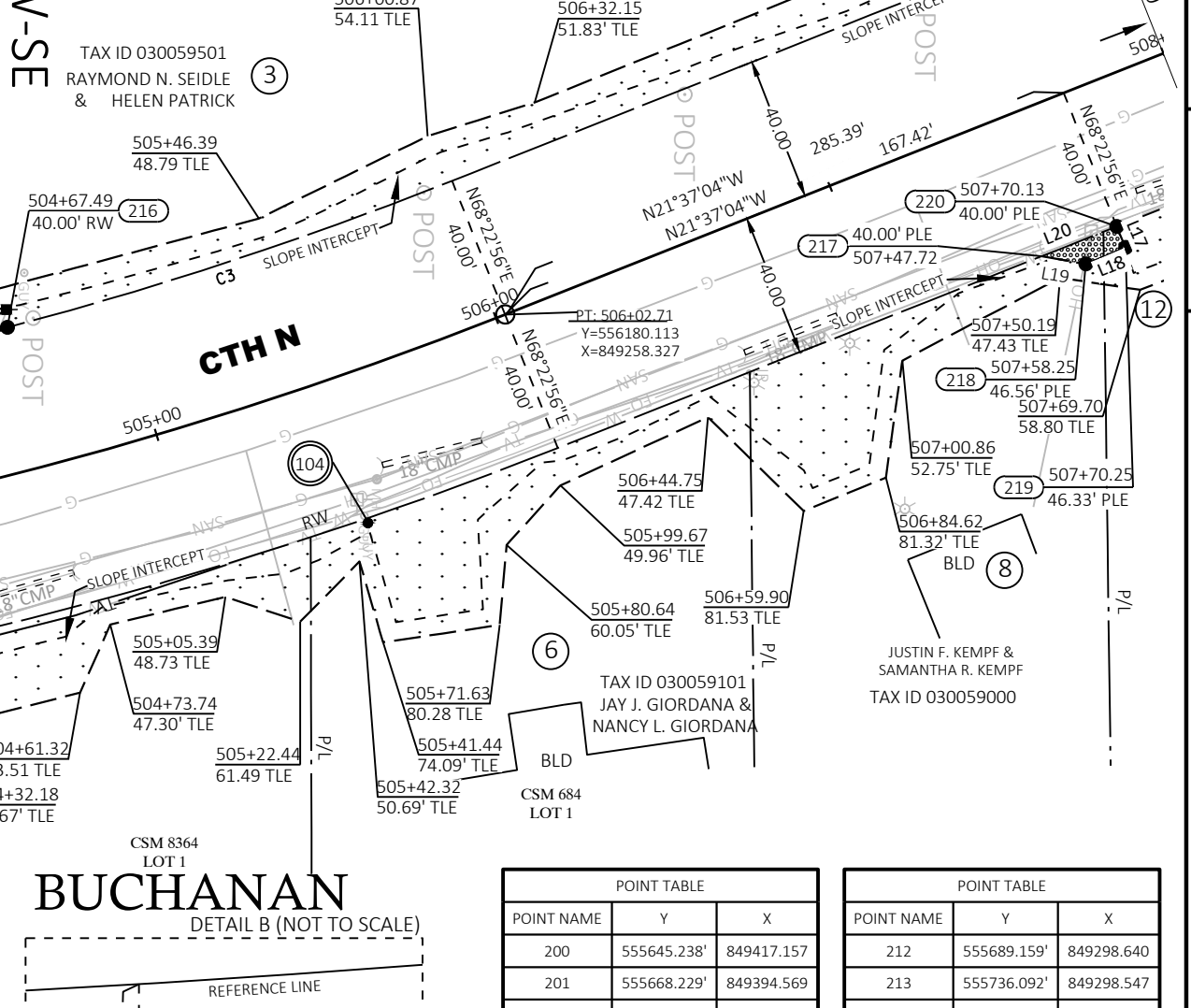
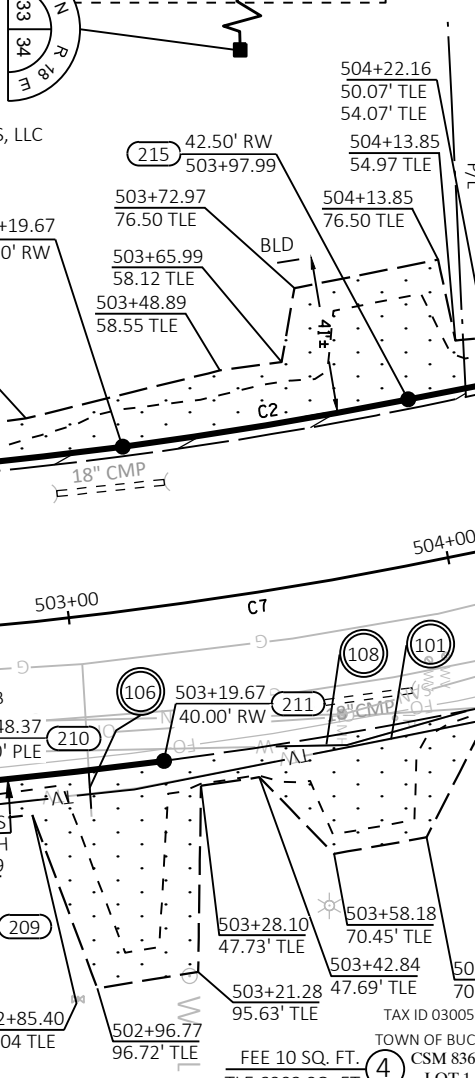
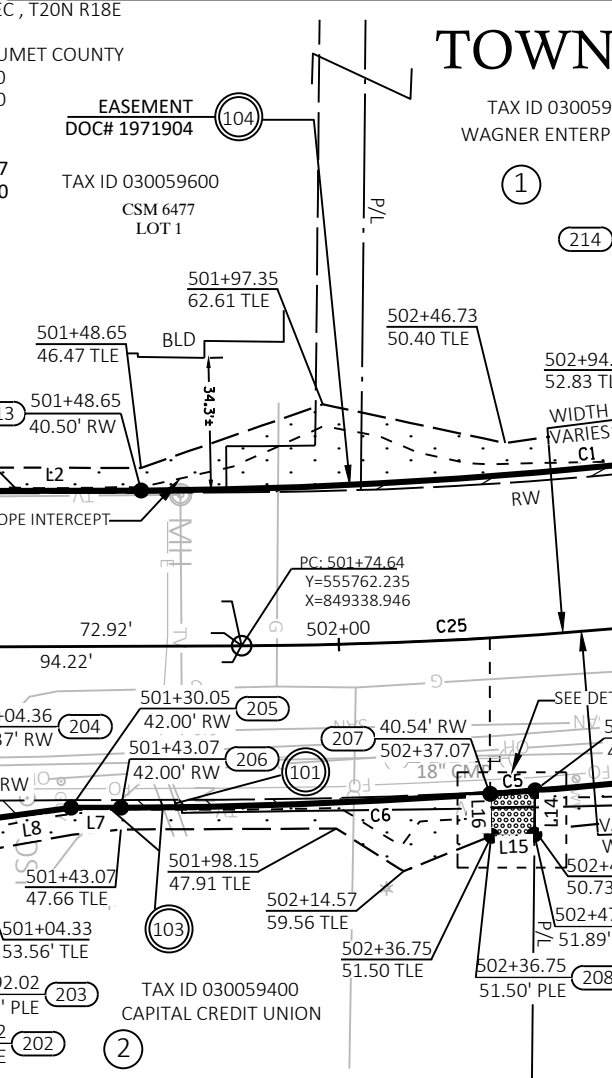
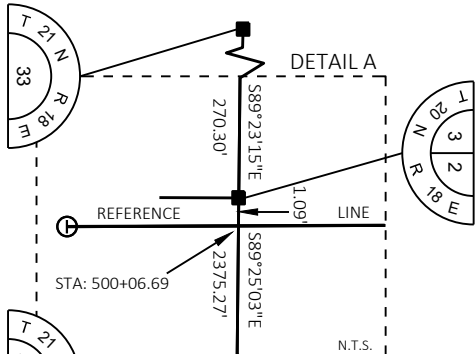
STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.04
PS&E SHEET	
E	



REVISION DATE 1-24-2023 NC 6-30-2023 03-11-2025	04-14-2025 05-05-2025 NC 06-04-2025 NC 12-18-2025 NC	DATE _____ GRID FACTOR _____	SCALE, FEET 	HWY: CTH N COUNTY: OUTAGAMIE	STATE R/W PROJECT NUMBER 4676-04-00 CONSTRUCTION PROJECT NUMBER 4676-04-71	PLAT SHEET 4.05 PS&E SHEET _____	E
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CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
C1	165.72	1354.00	165.62	N03° 58' 05"W	7°00'46"
C2	75.41	1103.78	75.40	N09° 25' 40"W	3°54'53"
C3	130.50	1106.28	130.42	N18° 14' 19"W	6°45'31"
C4	292.92	1186.28	292.17	S14° 32' 39"E	14°08'51"
C5	11.70	1436.50	11.70	N04° 17' 37"W	0°28'00"
C6	181.75	1436.50	181.62	S03° 50' 45"E	7°14'57"
C7	428.07	1146.28	425.58	N10° 55' 11"W	21°23'48"
C25	64.70	1146.31	64.69	S01° 50' 18"E	3°14'02"



BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L2	N00° 06' 50"W	46.93'
L3	N10° 59' 10"W	67.04'
L7	S00° 13' 17"E	13.02'
L8	S07° 42' 03"E	25.90'
L9	S22° 39' 37"E	25.90'
L10	S22° 39' 37"E	7.68'
L11	N66° 13' 48"E	11.26'
L12	S23° 46' 12"E	37.83'

BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L13	N44° 29' 32"W	32.23'
L14	S89° 24' 27"E	11.52'
L15	S01° 38' 13"E	11.24'
L16	S88° 21' 47"W	10.97'

BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L17	S67° 17' 41"W	6.33'
L18	N22° 42' 19"W	12.00'
L19	S10° 17' 13"W	12.41'
L20	N21° 37' 04"W	22.41'

POINT TABLE			
POINT NAME	Y	X	
200	555645.238'	849417.157	
201	555668.229'	849394.569	
202	555675.321'	849391.609	
203	555679.857'	849401.909	
204	555692.134'	849384.589	
205	555717.805'	849381.118	
206	555730.824'	849381.068	
207	555826.986'	849377.473	
208	555827.300'	849388.438	
209	555838.537'	849388.117	
210	555838.656'	849376.597	
211	555912.039'	849368.886	

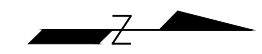
POINT TABLE			
POINT NAME	Y	X	
212	555689.159'	849298.640	
213	555736.092'	849298.547	
214	555901.313'	849287.086	
215	555975.694'	849274.735	
216	556041.508'	849261.959	
217	556329.662'	849242.088	
218	556341.869'	849244.304	
219	556352.939'	849239.672	
220	556350.496'	849233.832	

BEGIN RELOCATION ORDER
STATION 500+06.69
 2.90 FEET SOUTH OF AND 271.37 FEET EAST OF SOUTH CORNER BEING SEC. 33 T21N, R18E, TOWN OF BUCHANAN, OUTAGAMIE COUNTY, WISCONSIN
 Y: 555594.289
 X: 849339.595

REVISION DATE 1-24-2023 NC 6-30-2023 03-11-2025 NC	DATE 04-14-2025 05-05-2025 NC 06-04-2025 12-18-2025 NC	SCALE, FEET 0 25 50	HWY: CTH N	STATE R/W PROJECT NUMBER 4676-04-00	PLAT SHEET 4.06
GRID FACTOR	DATE		COUNTY: OUTAGAMIE	CONSTRUCTION PROJECT NUMBER 4676-04-71	PS&E SHEET E

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
C11	436.40	1146.28	433.77	N10° 42' 41"W	21° 48' 48"

TLE NOTE: ALL TEMPORARY LIMITED EASEMENTS ON THIS RIGHT OF WAY PLAT ARE FOR SLOPING AND CONSTRUCTION PURPOSES



WHITETAIL RIDGE PLAT

S CORNER SEC 33, T21N R18E
 CORNER ID: 42118330020
 MAG NAIL FOUND
 Y: 555597.19
 X: 849068.22

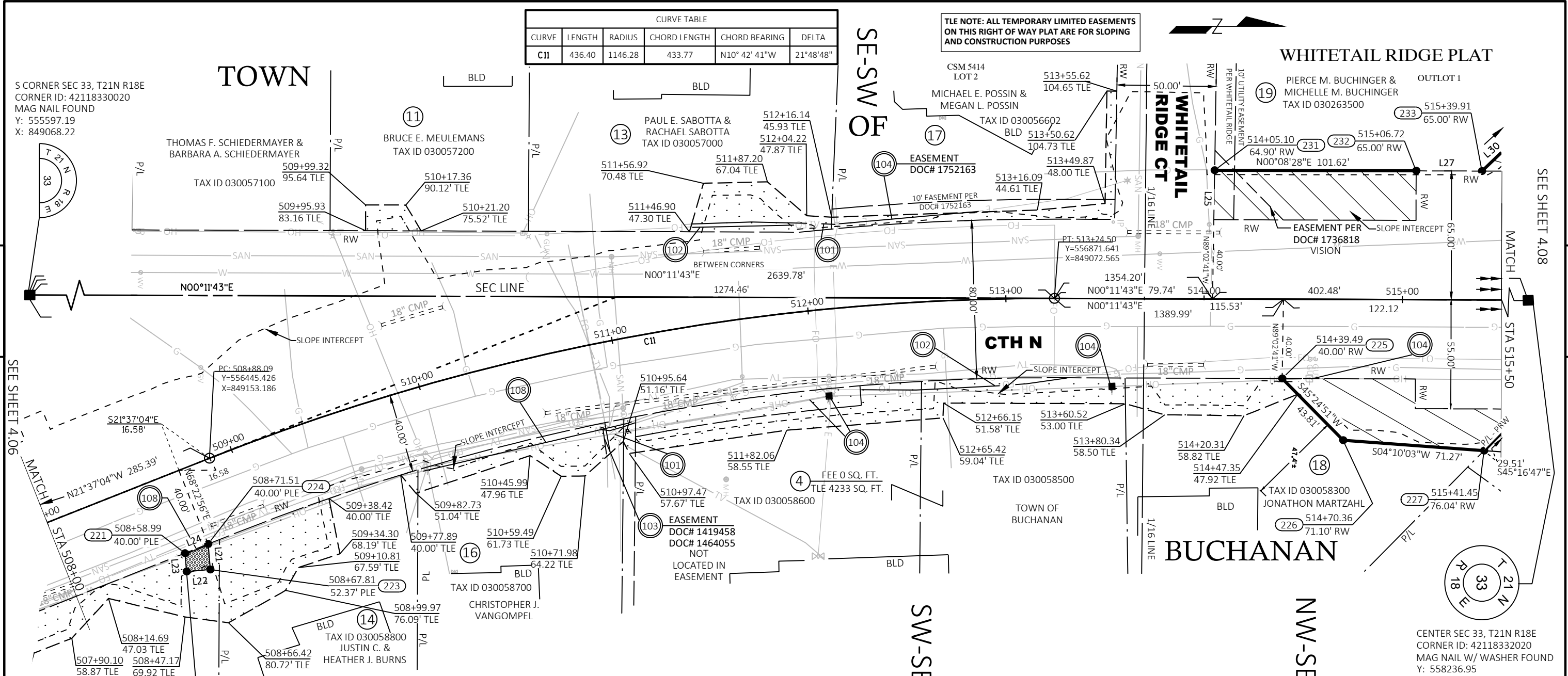
TOWN

SE-SW OF

SEE SHEET 4.08

SEE SHEET 4.06

4



BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L21	N85° 01' 56"E	12.91'
L22	S04° 58' 04"E	12.00'
L23	S85° 01' 56"W	9.33'
L24	N21° 37' 04"W	12.53'
L25	S89° 02' 41"E	24.91'
L25	S89° 02' 41"E	24.91'
L27	N00° 11' 43"E	33.19'
L30	N43° 25' 36"W	46.68'

POINT TABLE		
POINT NAME	Y	X
221	556433.102'	849201.097
222	556433.909'	849210.387
223	556445.864'	849209.348
224	556444.746'	849196.482
225	556986.500'	849112.957
226	557017.257'	849144.161
227	557088.337'	849149.340
231	556952.463'	849007.936
232	557054.085'	849008.187
233	557087.271'	849008.300

CENTER SEC 33, T21N R18E
 CORNER ID: 42118332020
 MAG NAIL W/ WASHER FOUND
 Y: 558236.95
 X: 849077.22

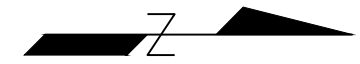
REVISION DATE 1-24-2023 6-30-2023 03-11-2025	DATE 04-14-2025 05-05-2025 NC 06-04-2025 NC 12-18-2025 NC	SCALE, FEET 0 25 50	HWY: CTH N	STATE R/W PROJECT NUMBER 4676-04-00	PLAT SHEET 4.07
GRID FACTOR			COUNTY: OUTAGAMIE	CONSTRUCTION PROJECT NUMBER 4676-04-71	PS&E SHEET E

S CORNER SEC 33, T21N R18E
 CORNER ID: 42118330020
 MAG NAIL FOUND
 Y: 555597.19
 X: 849068.22

WHITETAIL RIDGE PLAT

TLE NOTE: ALL TEMPORARY LIMITED EASEMENTS
 ON THIS RIGHT OF WAY PLAT ARE FOR SLOPING
 AND CONSTRUCTION PURPOSES

CENTER SEC 33, T21N R18E
 CORNER ID: 42118332020
 MAG NAIL W/ WASHER FOUND
 Y: 558236.95
 X: 849077.22

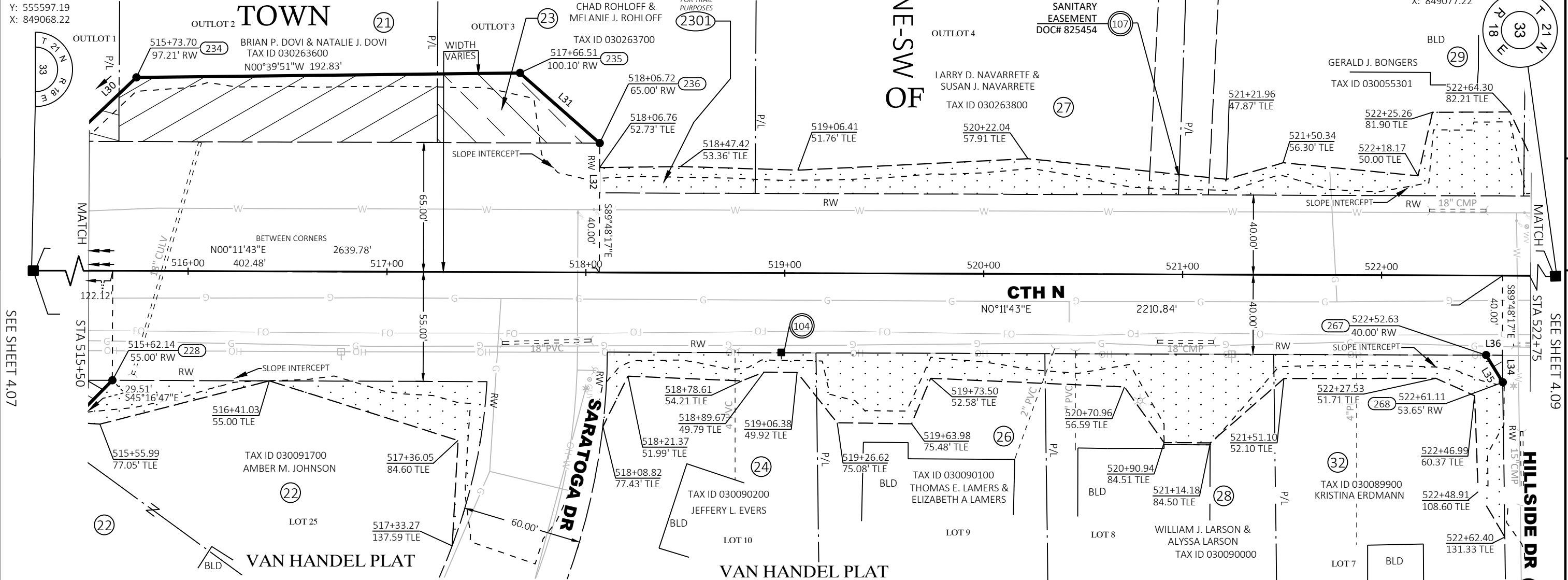


NE-SW
 OF

NW-SE

4

4



POINT TABLE		
POINT NAME	Y	X
228	557109.098'	849128.375'
234	557121.174'	848976.210'
235	557313.995'	848973.974'
236	557354.083'	849009.210'
267	557799.636'	849115.729'
268	557808.063'	849129.406'

BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L30	N43° 25' 36"W	46.68'
L31	N41° 18' 51"E	53.37'
L32	S89° 48' 17"E	25.00'
L34	N89° 14' 43"E	13.65'
L35	S58° 21' 30"W	16.06'
L36	N00° 11' 43"E	8.25'

REVISION DATE	04-14-2025 NC		
	1-24-2023 NC		
	6-30-2023		
	03-11-2025		
	05-05-2025 NC		
	06-04-2025 NC		
	12-18-2025 NC		

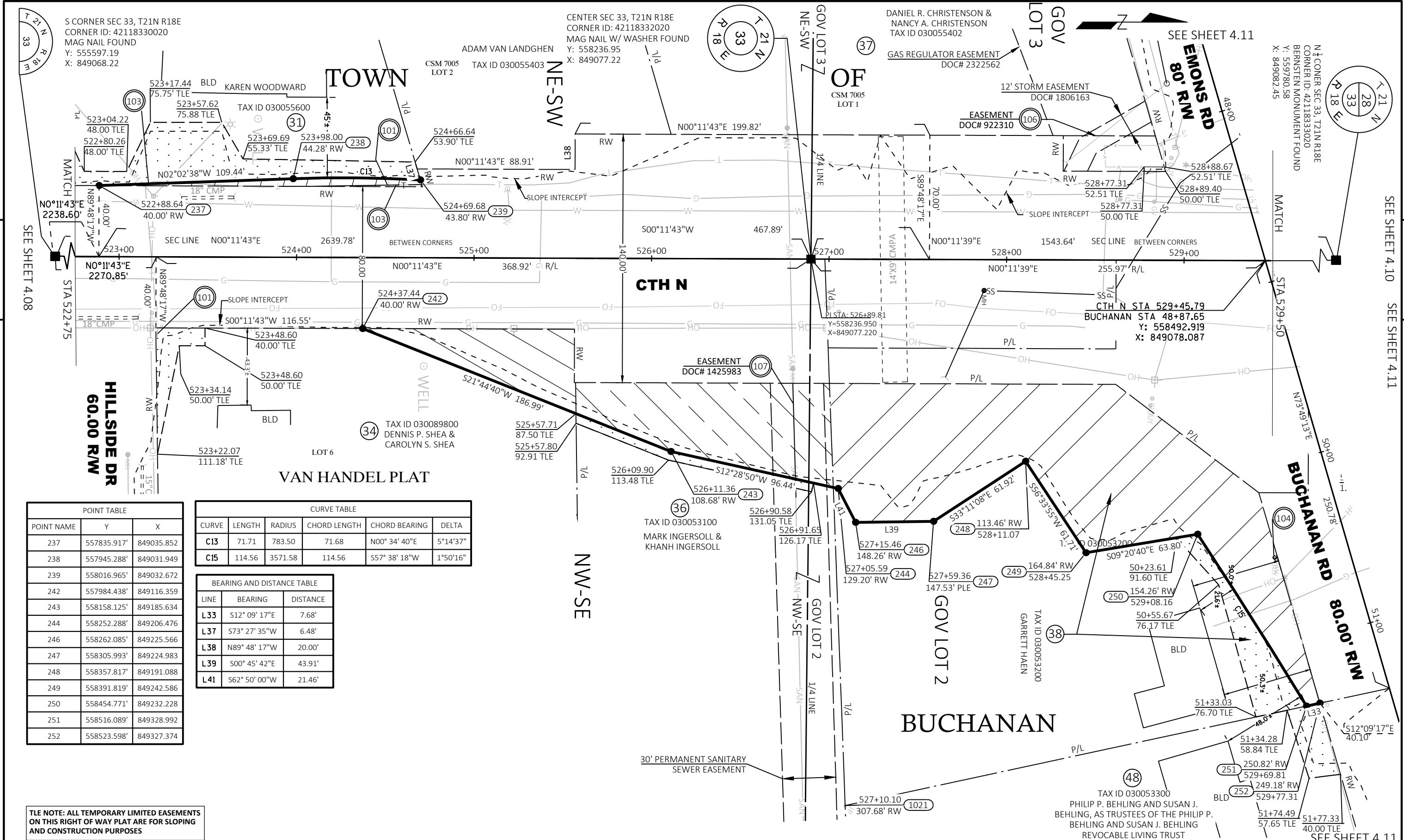
DATE	
GRID FACTOR	



HWY:	CTH N
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.08
PS&E SHEET	



S CORNER SEC 33, T21N R18E
 CORNER ID: 42118330020
 MAG NAIL FOUND
 Y: 555597.19
 X: 849068.22

CENTER SEC 33, T21N R18E
 CORNER ID: 42118332020
 MAG NAIL W/ WASHER FOUND
 Y: 558236.95
 X: 849077.22

DANIEL R. CHRISTENSON &
 NANCY A. CHRISTENSON
 TAX ID 030055402

SEE SHEET 4.11

N 1/4 CORNER SEC 33, T21N R18E
 CORNER ID: 42118333020
 BENNSTEN MONUMENT FOUND
 Y: 559780.58
 X: 849082.45

4

4

POINT NAME	Y	X
237	557835.917'	849035.852
238	557945.288'	849031.949
239	558016.965'	849032.672
242	557984.438'	849116.359
243	558158.125'	849185.634
244	558252.288'	849206.476
246	558262.085'	849225.566
247	558305.993'	849224.983
248	558357.817'	849191.088
249	558391.819'	849242.586
250	558454.771'	849232.228
251	558516.089'	849328.992
252	558523.598'	849327.374

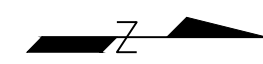
CURVE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
C13	71.71	783.50	71.68	N00° 34' 40"E	5° 14' 37"
C15	114.56	3571.58	114.56	S57° 38' 18"W	1° 50' 16"

LINE	BEARING	DISTANCE
L33	S12° 09' 17"E	7.68'
L37	S73° 27' 35"W	6.48'
L38	N89° 48' 17"W	20.00'
L39	S00° 45' 42"E	43.91'
L41	S62° 50' 00"W	21.46'

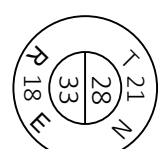
TLE NOTE: ALL TEMPORARY LIMITED EASEMENTS ON THIS RIGHT OF WAY PLAT ARE FOR SLOPING AND CONSTRUCTION PURPOSES

REVISION DATE 1-24-2023 NC 6-30-2023 03-11-2025	DATE 04-14-2025 05-05-2025 06-04-2025 12-18-2025 NC	SCALE, FEET 0 25 50	HWY: CTH N	STATE R/W PROJECT NUMBER 4676-04-00	PLAT SHEET 4.09
GRID FACTOR			COUNTY: OUTAGAMIE	CONSTRUCTION PROJECT NUMBER 4676-04-71	PS&E SHEET E

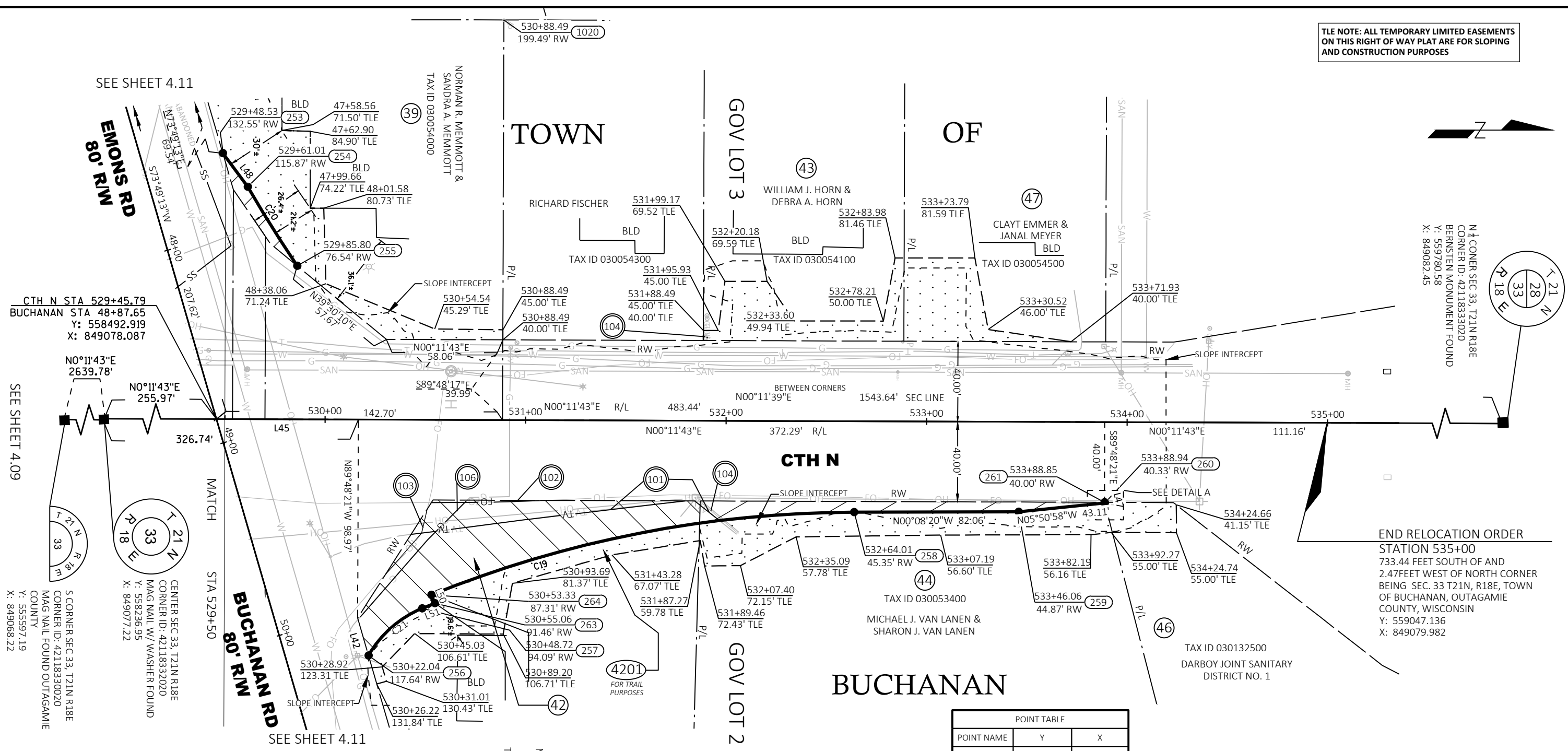
TLE NOTE: ALL TEMPORARY LIMITED EASEMENTS ON THIS RIGHT OF WAY PLAT ARE FOR SLOPING AND CONSTRUCTION PURPOSES



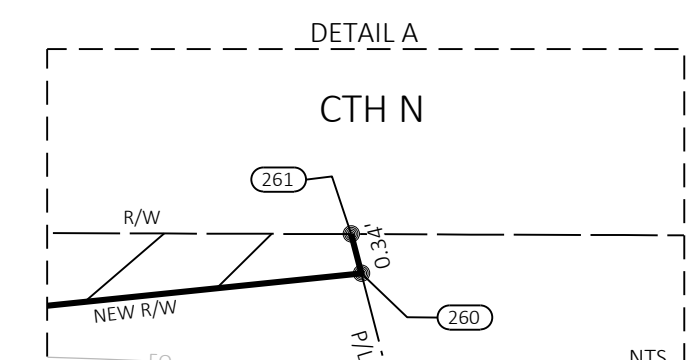
N 1/4 CORNER SEC 33, T21N R18E
 CORNER ID: 4211833020
 Y: 559780.58
 X: 849082.45



TOWN OF BUCHANAN



END RELOCATION ORDER
 STATION 535+00
 733.44 FEET SOUTH OF AND
 2.47 FEET WEST OF NORTH CORNER
 BEING SEC. 33 T21N, R18E, TOWN
 OF BUCHANAN, OUTAGAMIE
 COUNTY, WISCONSIN
 Y: 559047.136
 X: 849079.982



LINE	BEARING	DISTANCE
L42	S73° 49' 13"W	19.46'
L45	N00° 11' 59"E	70.77'
L47	N75° 29' 23"E	0.34'
L50	N67° 37' 46"E	4.50'
L51	S22° 22' 14"E	6.86'

POINT NAME	Y	X
253	558496.115'	848945.555
254	558508.542'	848962.278
255	558533.198'	849001.694
256	558568.777'	849195.988
257	558595.535'	849172.535
258	558810.984'	849124.527
259	558893.043'	849124.328
260	558935.930'	849119.934
261	558935.844'	849119.603
263	558601.877'	849169.925
264	558600.166'	849165.766

CURVE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
C19	216.12	566.50	214.81	N11° 04' 06"W	21°51'31"
C20	46.50	684.00	46.49	N57° 58' 21"E	3°53'43"
C21	36.21	56.00	35.58	S41° 14' 02"E	37°02'51"

REVISION DATE	04-14-2025	DATE	
1-24-2023 NC	05-05-2025 NC		
6-30-2023	06-04-2025 NC		
03-11-2025	12-18-2025		

GRID FACTOR	
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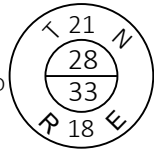


HWY:	CTH N
COUNTY:	OUTAGAMIE

STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.10
PS&E SHEET	

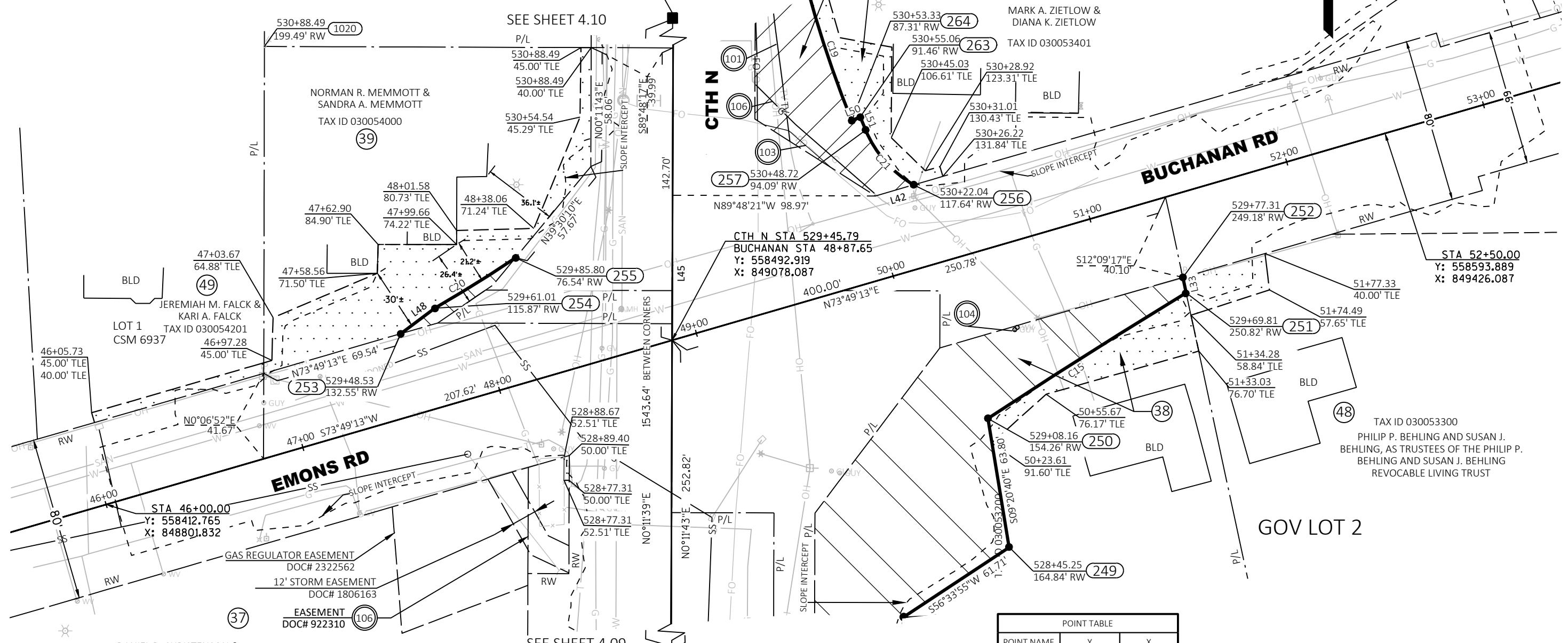
N 1/4 CONER SEC 33, T21N R18E
 CORNER ID: 4211833020
 BERNSTEN MONUMENT FOUND
 Y: 559780.58
 X: 849082.45



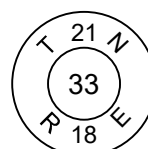
TLE NOTE: ALL TEMPORARY LIMITED EASEMENTS ON THIS RIGHT OF WAY PLAT ARE FOR SLOPING AND CONSTRUCTION PURPOSES

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CENTER SEC 33, T21N R18E
 CORNER ID: 4211833020
 MAG NAIL W/ WASHER FOUND
 Y: 558236.95
 X: 849077.22



CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	DELTA
C19	216.12	566.50	214.81	N11° 04' 06"W	21°51'31"
C20	46.50	684.00	46.49	N57° 58' 21"E	3°53'43"
C21	36.21	56.00	35.58	S41° 14' 02"E	37°02'51"

BEARING AND DISTANCE TABLE		
LINE	BEARING	DISTANCE
L33	S12° 09' 17"E	7.68'
L42	S73° 49' 13"W	19.46'
L45	N00° 11' 59"E	70.77'
L48	N53° 23' 01"E	20.83'
L50	N67° 37' 46"E	4.50'
L51	S22° 22' 14"E	6.86'

POINT TABLE		
POINT NAME	Y	X
249	558391.819'	849242.586
250	558454.771'	849232.228
251	558516.089'	849328.992
252	558523.598'	849327.374
253	558496.115'	848945.555
254	558508.542'	848962.278
255	558533.198'	849001.694
256	558568.777'	849195.988
257	558595.535'	849172.535
263	558601.877'	849169.925
264	558600.166'	849165.766

REVISION DATE	04-14-2025		
1-24-2023 NC	05-05-2025 NC		
6-30-2023	06-04-2025		
03-11-2025	12-18-2025 NC		

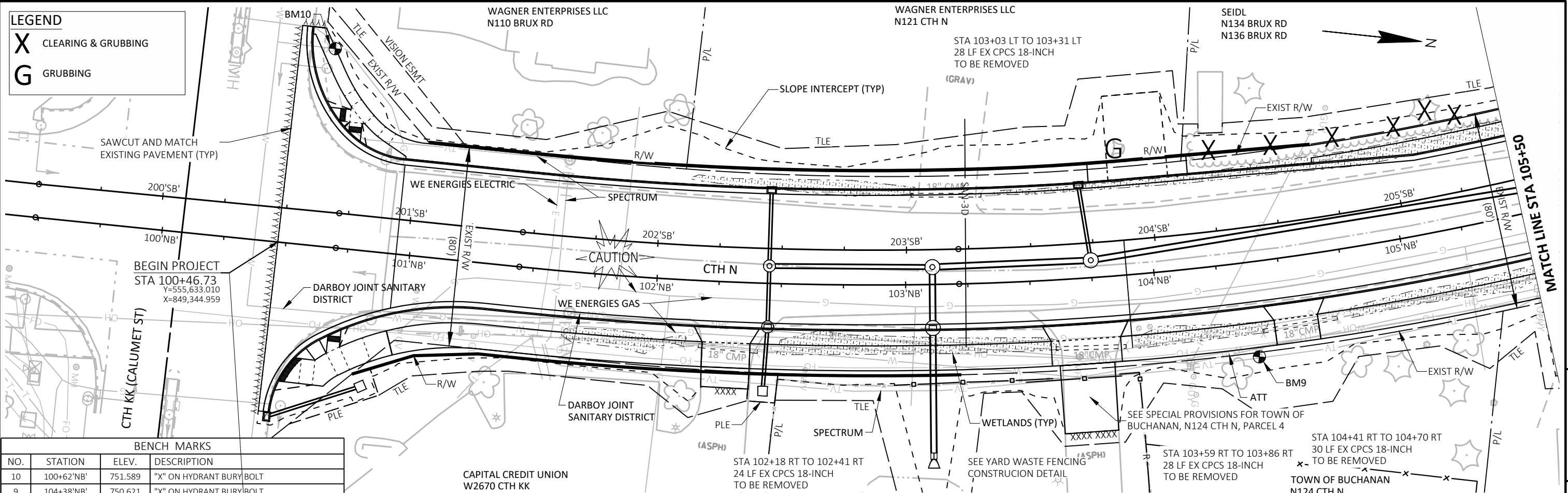
DATE	
GRID FACTOR	



HWY:	CTH N
COUNTY:	OUTAGAMIE

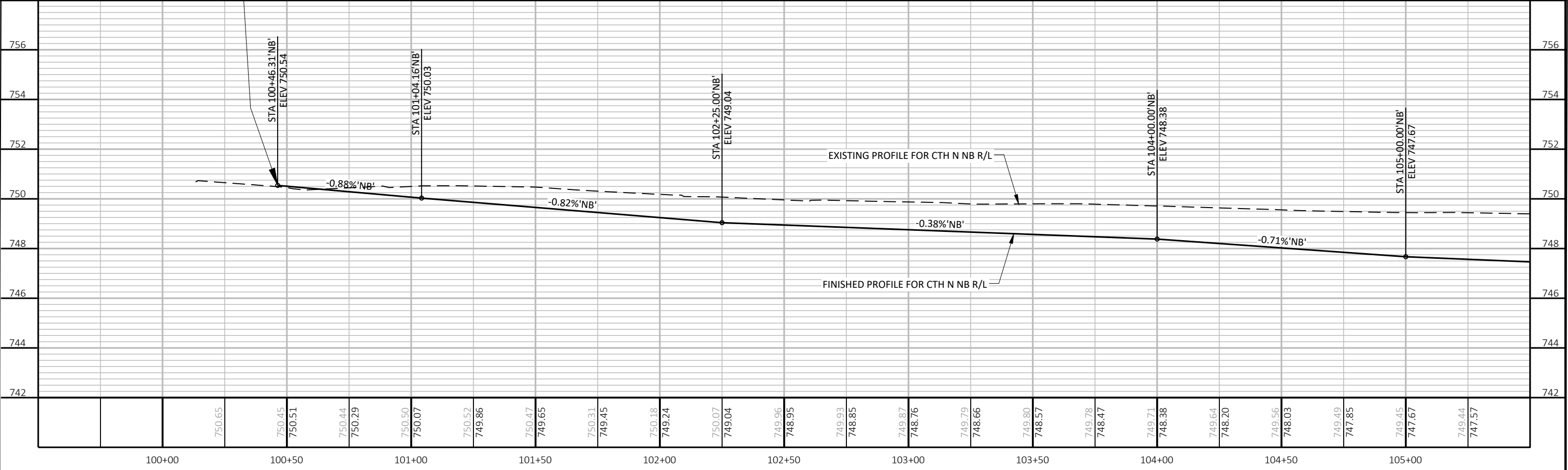
STATE R/W PROJECT NUMBER	4676-04-00
CONSTRUCTION PROJECT NUMBER	4676-04-71

PLAT SHEET	4.11
PS&E SHEET	



BENCH MARKS

NO.	STATION	ELEV.	DESCRIPTION
10	100+62'NB'	751.589	"X" ON HYDRANT BURY BOLT
9	104+38'NB'	750.621	"X" ON HYDRANT BURY BOLT



PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH N NB SOUTH	SHEET	E
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BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
2	108+25'NB'	749.250	DISC IN CONCRETE

SEIDL
N134 BRUX RD
N136 BRUX RD

BRUX RD

DARBOY JOINT
SANITARY DISTRICT

TLE
STA 109+93 LT TO 110+24 LT
32 LF EX CPCS 18-INCH
TO BE REMOVED

MEULEMANS
N173 CTH N

WETLANDS (TYP)

TLE

EXIST R/W

BM2

WE ENERGIES GAS

SECTION LINE

(GRAV)

EXIST R/W

NET LEC

NET LEC/
SPECTRUM

ATT

MATCH LINE STA 105+50

MATCH LINE STA 111+50

CAUTION

206'SB'

207'SB'

208'SB'

209'SB'

210'SB'

211'SB'

106'NB'

107'NB'

108'NB'

109'NB'

110'NB'

111'NB'

WE ENERGIES GAS

DARBOY JOINT
SANITARY DISTRICT

STA 105+59 RT TO 105+87 RT
28 LF EX CPCS 18-INCH
TO BE REMOVED

GIORDANA
N138 CTH N

STA 106+64 RT TO 106+91 RT
28 LF EX CPCS 18-INCH
TO BE REMOVED

KEMPFF
N148 CTH N

SLOPE INTERCEPT (TYP)

STA 107+82 RT TO 108+04 RT
23 LF EX CPCS 18-INCH
TO BE REMOVED

DORN
N154 CTH N

SAWCUT AND MATCH
EXISTING PAVEMENT (TYP)

STA 108+79 RT TO 109+08 RT
28 LF EX CPCS 18-INCH
TO BE REMOVED

(CONC)

BURNS
N160 CTH N

VANGOMPEL
N172 CTH N

WE ENERGIES ELECTRIC

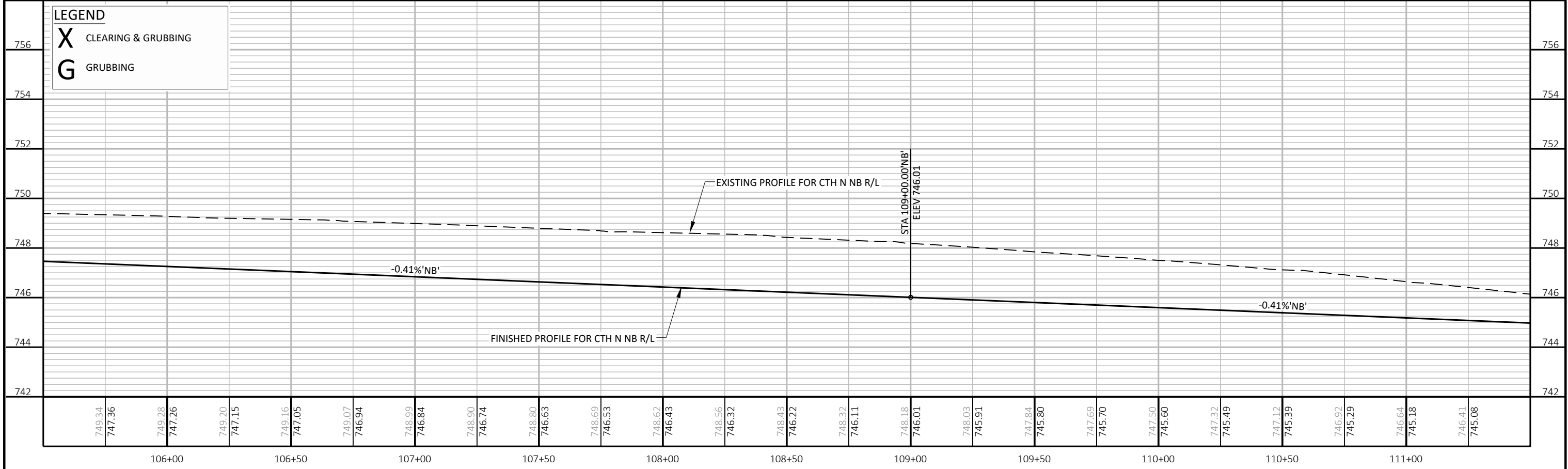
STA 110+61 RT TO 112+64 RT
198 LF EX CPCS 18-INCH
TO BE REMOVED

ATT

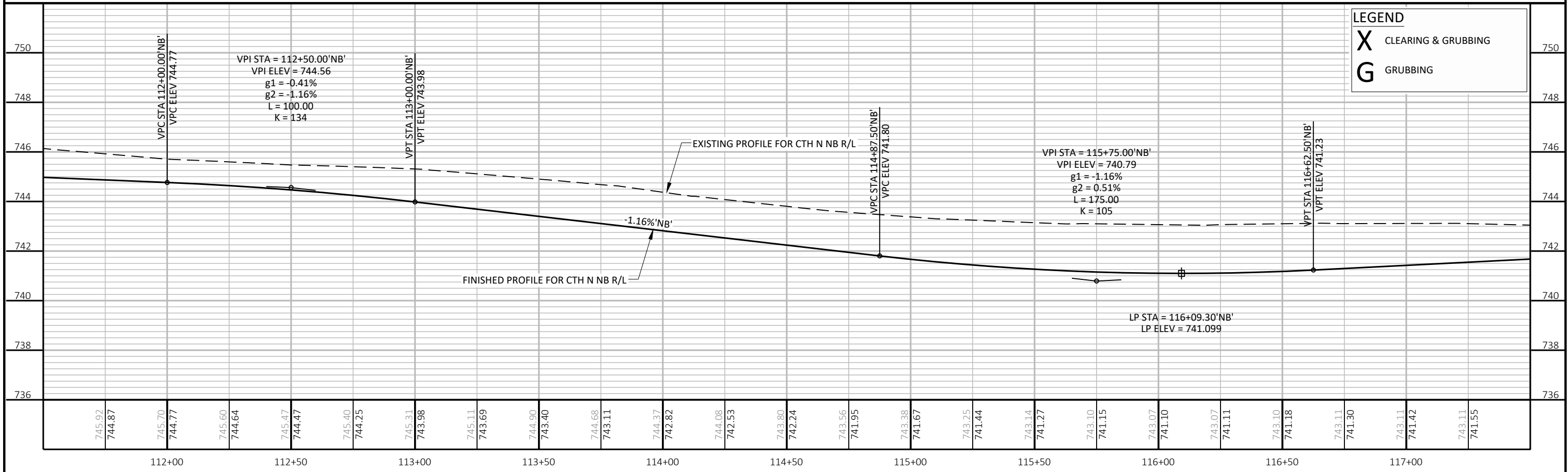
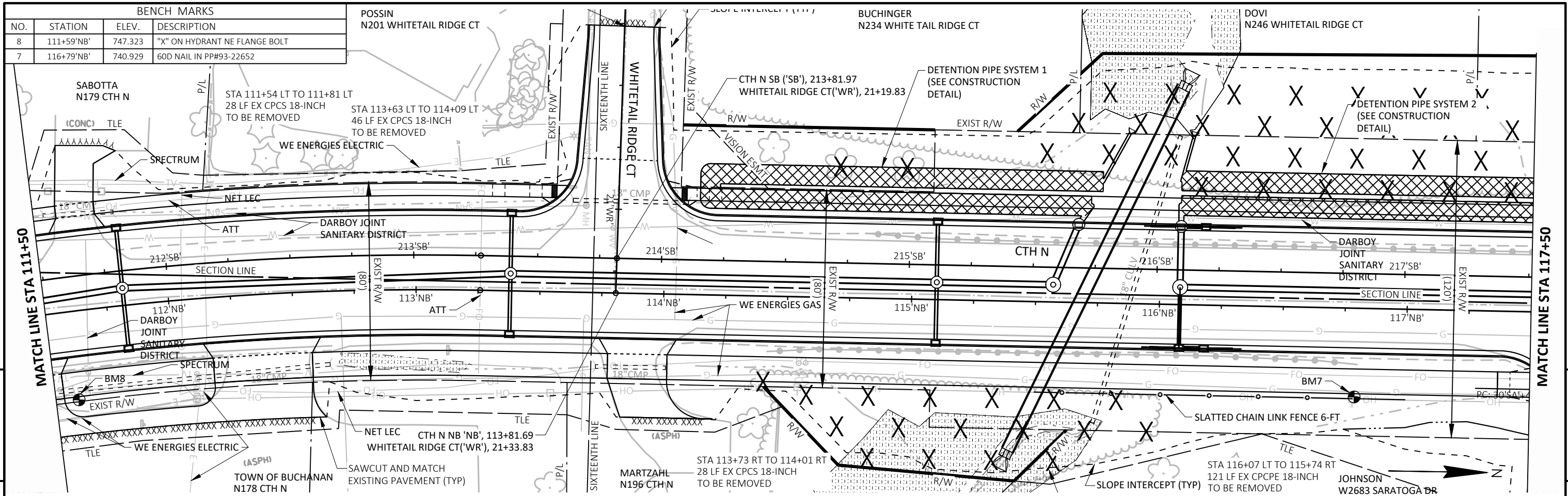
EXIST R/W

(ASPH) TLE

LEGEND	
X	CLEARING & GRUBBING
G	GRUBBING

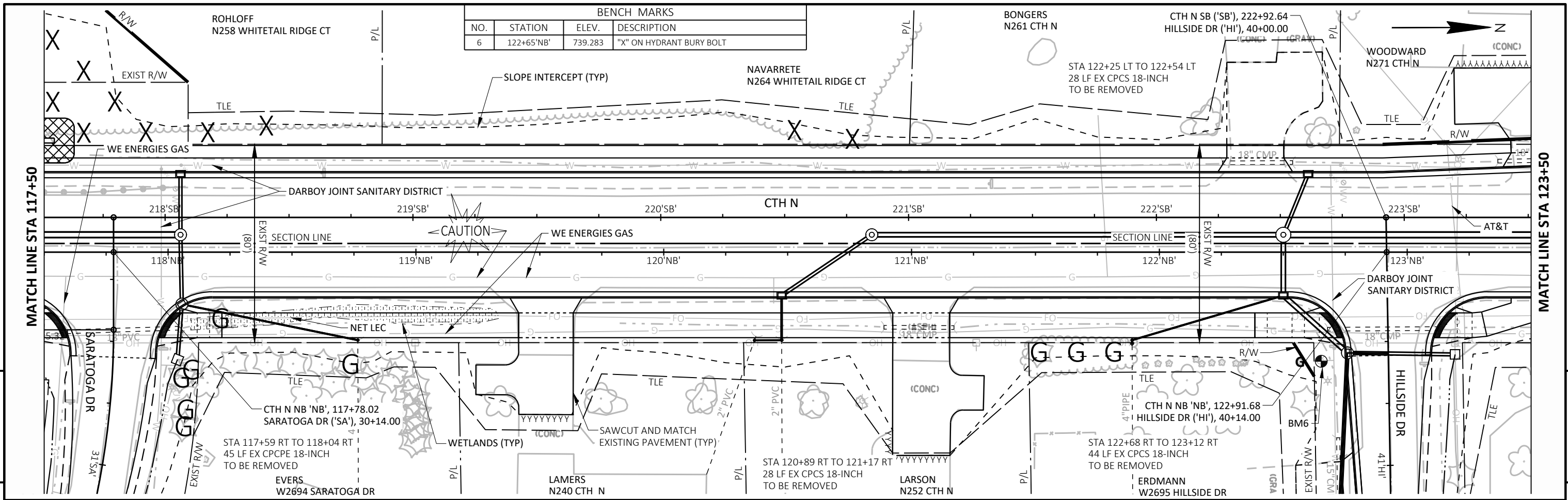


PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH N NB SOUTH	SHEET 5
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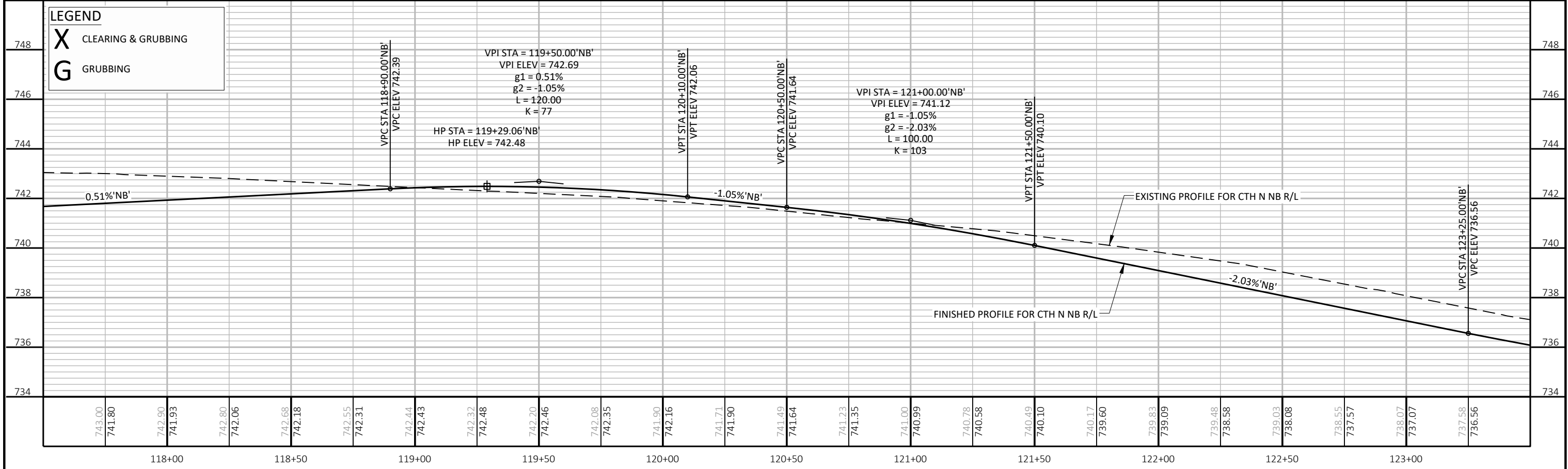


PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH N NB SOUTH	SHEET	E
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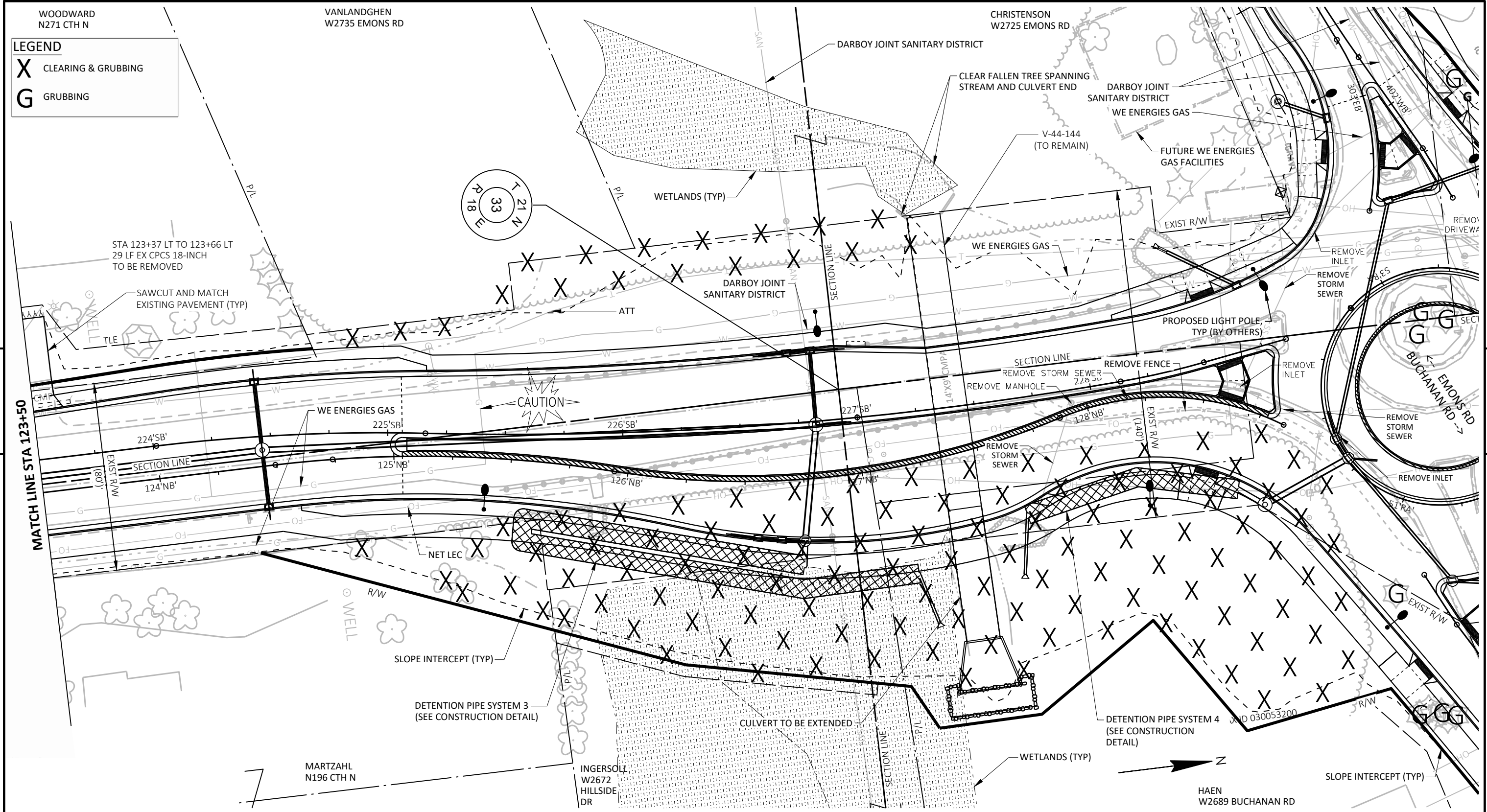
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
6	122+65'NB'	739.283	"X" ON HYDRANT BURY BOLT



LEGEND	
X	CLEARING & GRUBBING
G	GRUBBING



PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH N NB SOUTH	SHEET 5
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LEGEND

X CLEARING & GRUBBING

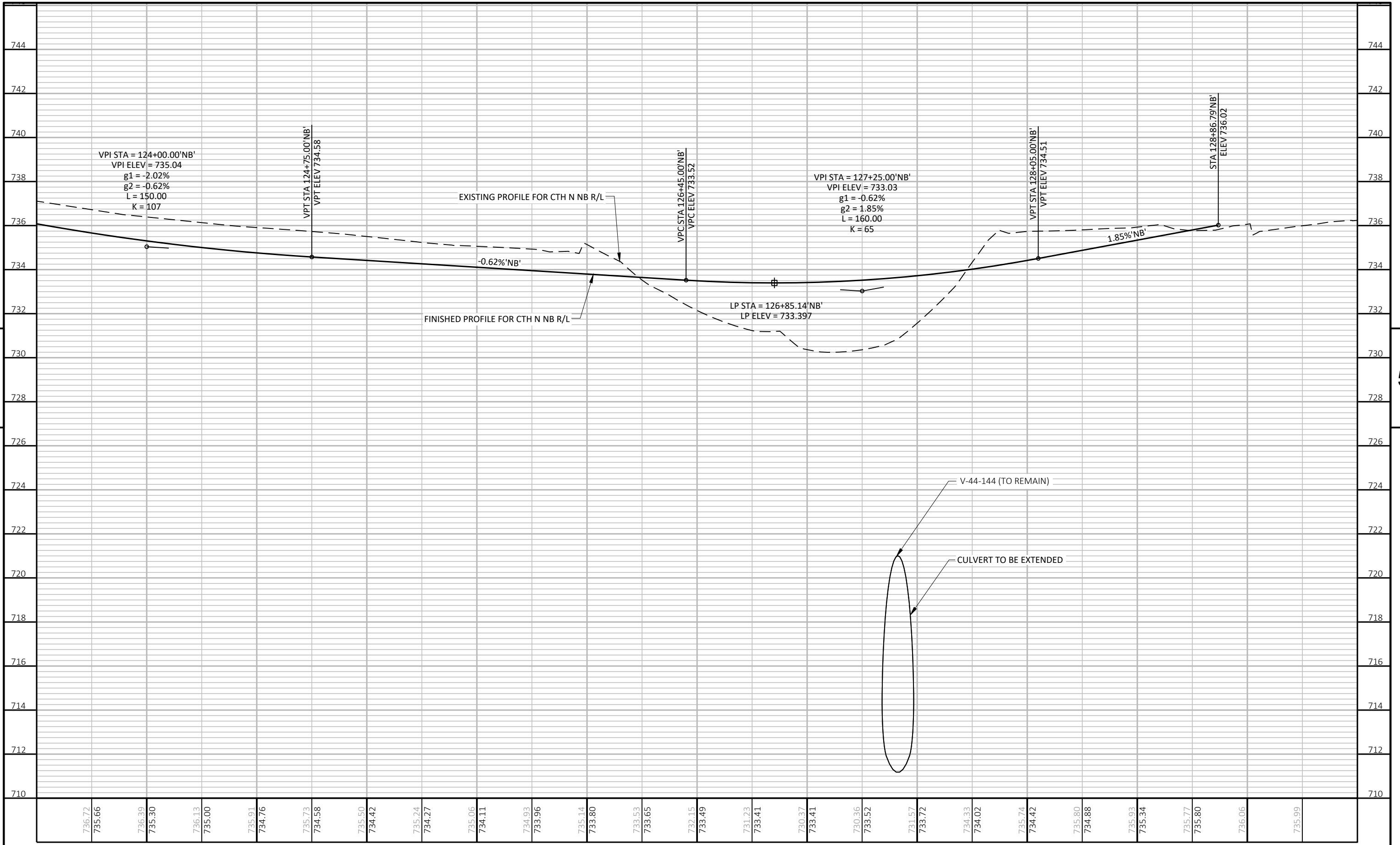
G GRUBBING

MATCH LINE STA 123+50

MATCH LINE STA 123+50

PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN - CTH N NB SOUTH	SHEET	E
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FILE NAME : F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-050101-PP.DWG PLOT DATE : 1/27/2026 6:42 AM PLOT BY : MATT TOMSOVIC PLOT NAME : PLOT SCALE : #####

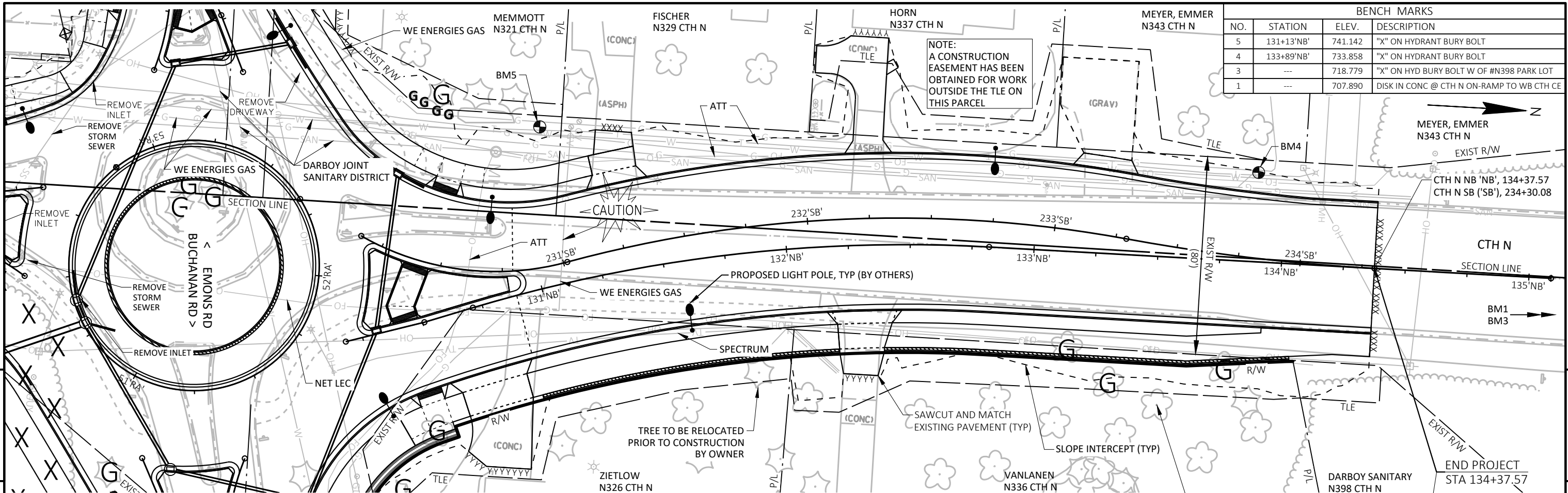


5

5

736.72	735.66	736.39	735.30	736.13	735.00	735.91	734.76	735.73	734.58	735.50	734.42	735.24	734.27	735.06	734.11	734.93	733.96	735.14	733.80	733.53	733.65	732.15	733.49	731.23	733.41	730.37	733.41	730.36	733.52	731.57	733.72	734.33	734.02	735.74	734.42	735.80	734.88	735.93	735.34	735.77	735.80	736.06	735.99							
124+00	124+10	124+20	124+30	124+40	124+50	124+60	124+70	124+80	124+90	125+00	125+10	125+20	125+30	125+40	125+50	125+60	125+70	125+80	125+90	126+00	126+10	126+20	126+30	126+40	126+50	126+60	126+70	126+80	126+90	127+00	127+10	127+20	127+30	127+40	127+50	127+60	127+70	127+80	127+90	128+00	128+10	128+20	128+30	128+40	128+50	128+60	128+70	128+80	128+90	129+00

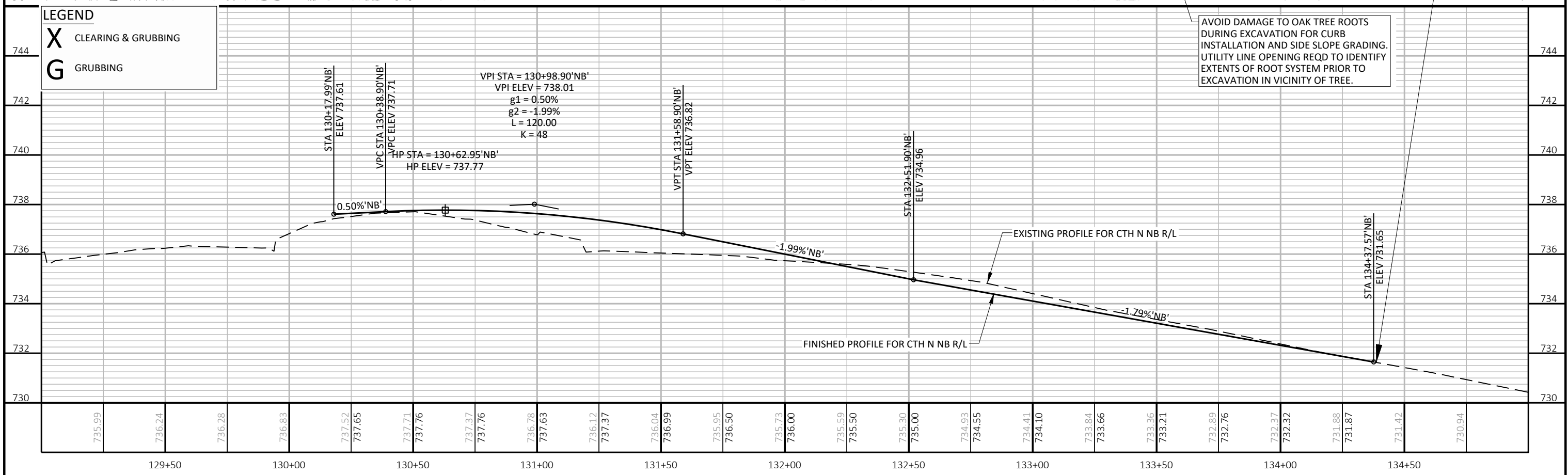
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PROFILE - CTH N NB SOUTH SHEET E



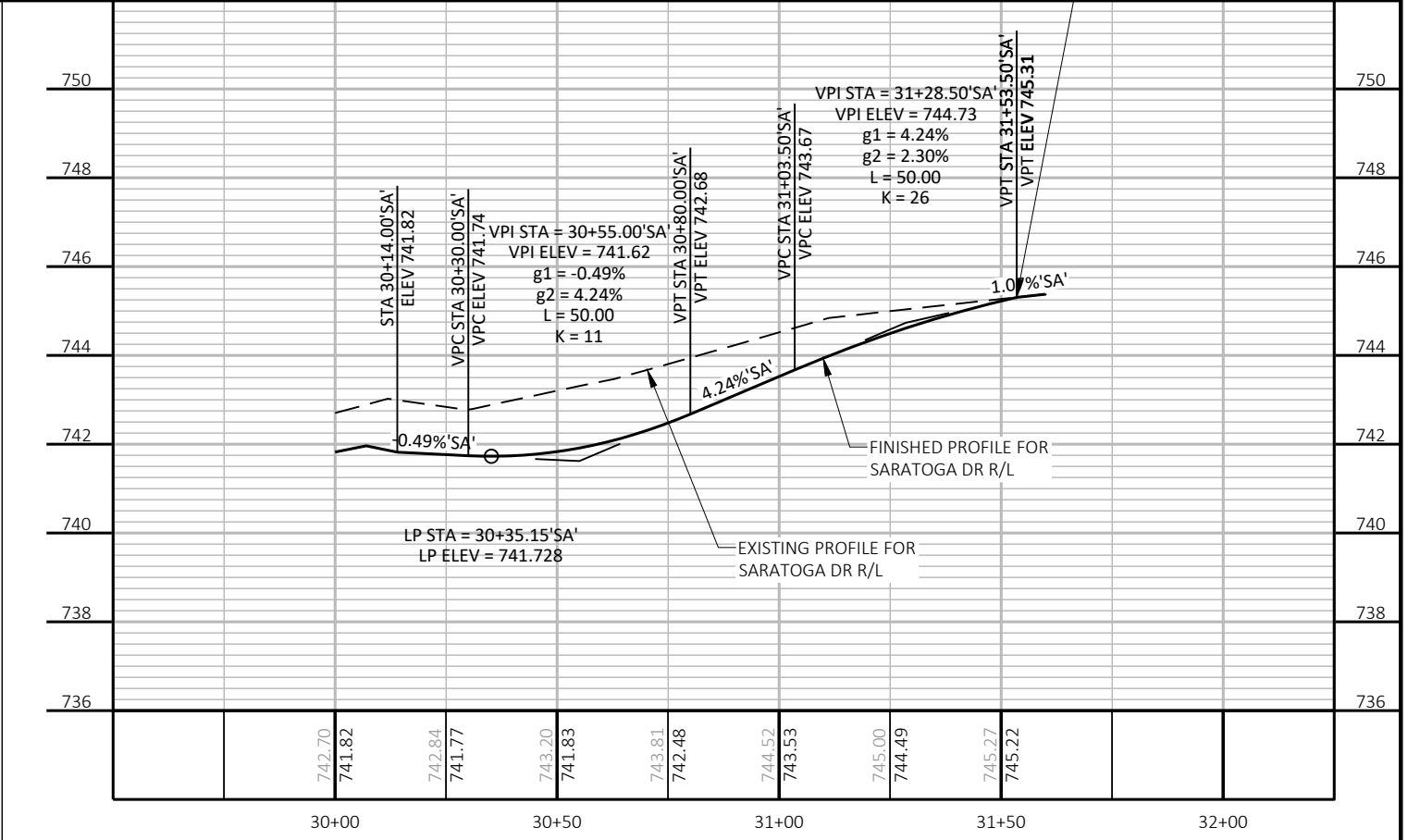
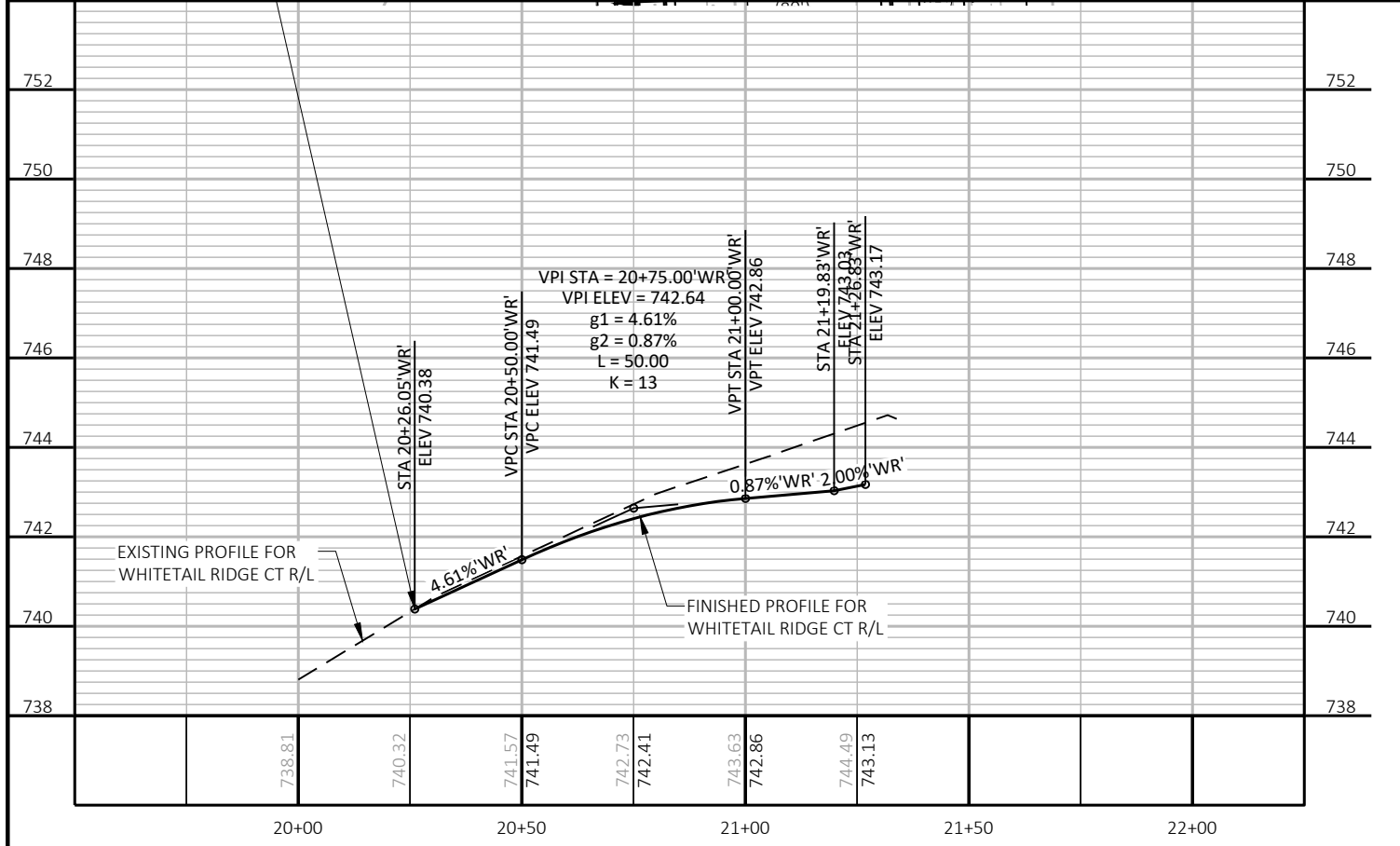
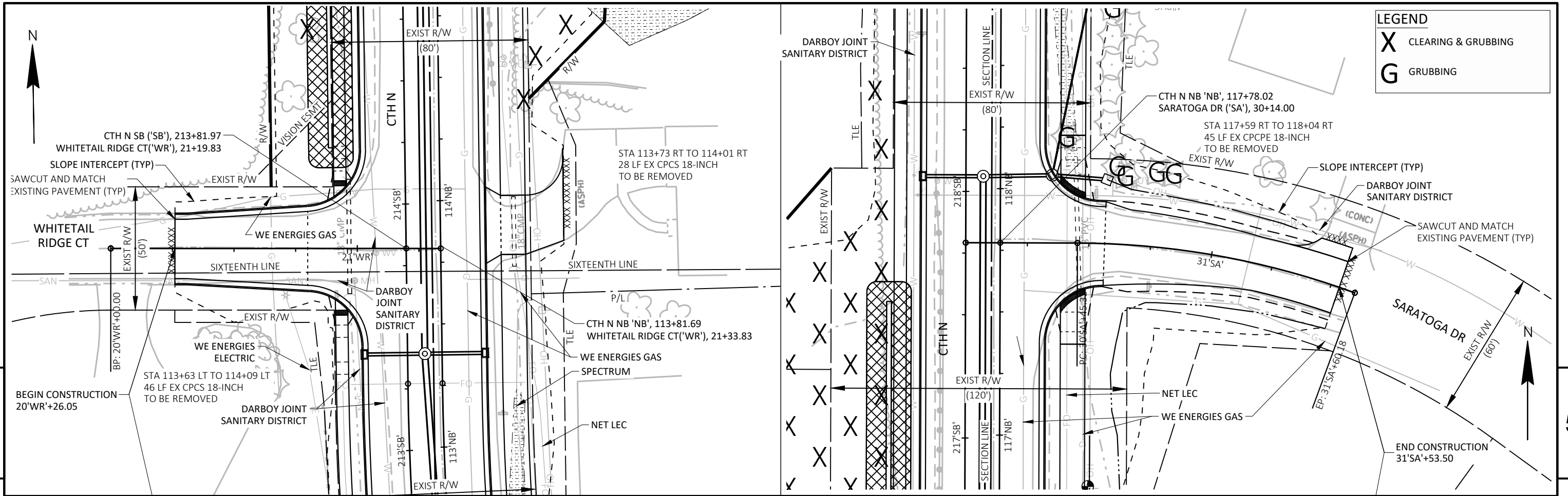
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
5	131+13'NB'	741.142	"X" ON HYDRANT BURY BOLT
4	133+89'NB'	733.858	"X" ON HYDRANT BURY BOLT
3	---	718.779	"X" ON HYD BURY BOLT W OF #N398 PARK LOT
1	---	707.890	DISK IN CONC @ CTH N ON-RAMP TO WB CTH CE

LEGEND	
X	CLEARING & GRUBBING
G	GRUBBING

AVOID DAMAGE TO OAK TREE ROOTS DURING EXCAVATION FOR CURB INSTALLATION AND SIDE SLOPE GRADING. UTILITY LINE OPENING REQD TO IDENTIFY EXTENTS OF ROOT SYSTEM PRIOR TO EXCAVATION IN VICINITY OF TREE.



PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH N NB NORTH	SHEET	E
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PLAN AND PROFILE: WHITETAIL RIDGE CT & SARATOGA DR SHEET: E

LEGEND

X CLEARING & GRUBBING

G GRUBBING

28 LF EX CPCS 18-INCH TO BE REMOVED

CTH N SB ('SB'), 222+92.64
HILLSIDE DR ('HI'), 40+00.00

STA 122+25 LT TO 122+54 LT
28 LF EX CPCS 18-INCH
TO BE REMOVED

STA 40+00.00' HI'
ELEV 737.13

STA 40+14.00' HI'
ELEV 737.23

STA 40+30.00' HI'
ELEV 737.13

STA 40+55.00' HI'
ELEV 737.32

STA 40+07.00' HI'
ELEV 737.27

STA 41+53.50' HI'
ELEV 739.94

EXISTING PROFILE FOR
HILLSIDE DR R/L

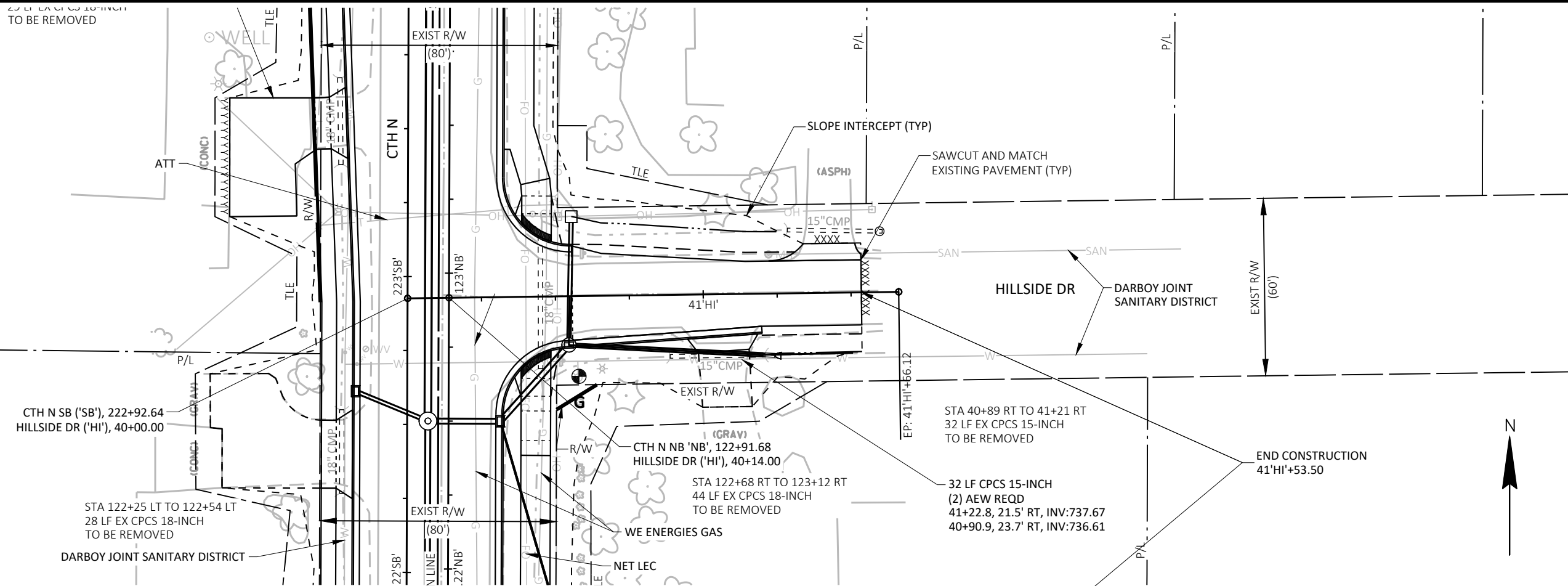
FINISHED PROFILE FOR
HILLSIDE DR R/L

-0.52% HI'

-0.64% HI'

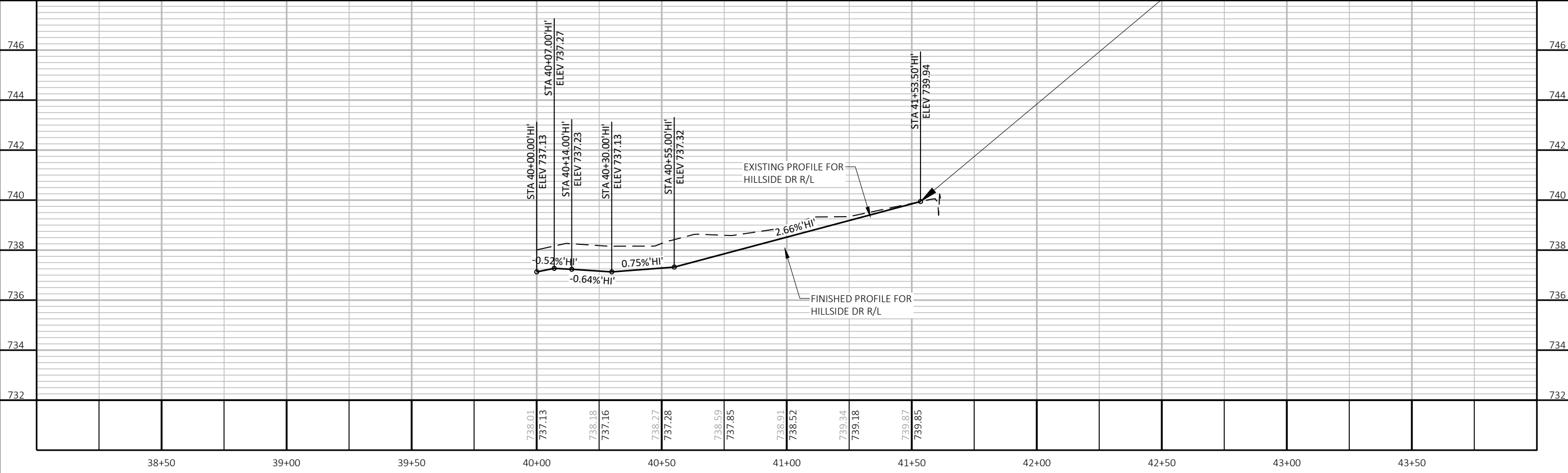
0.75% HI'

2.66% HI'



5

5



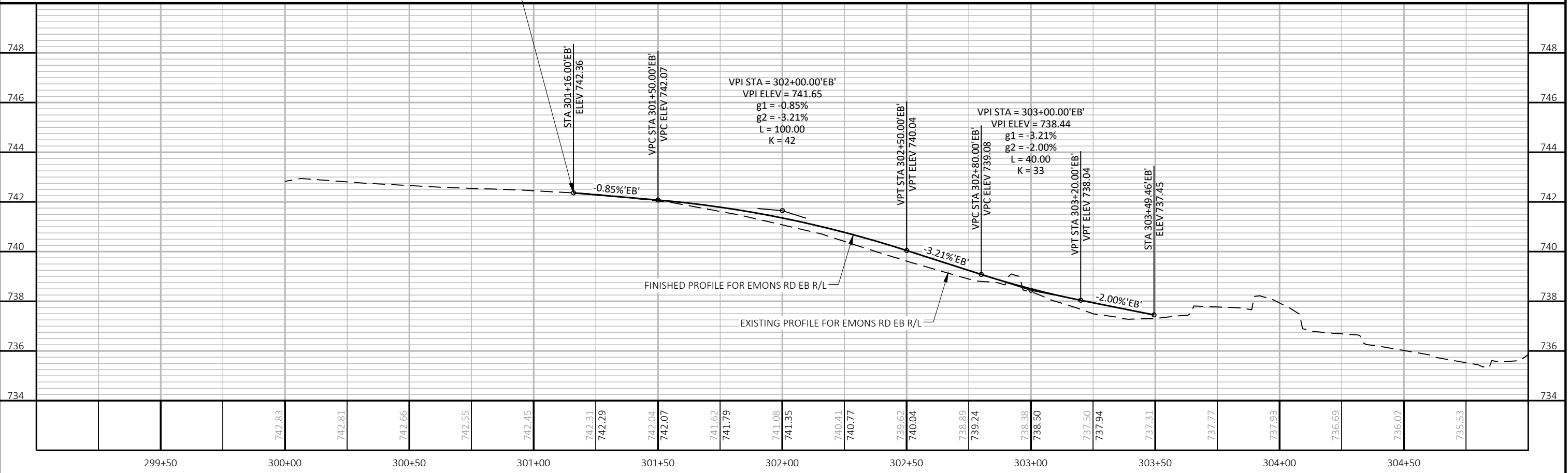
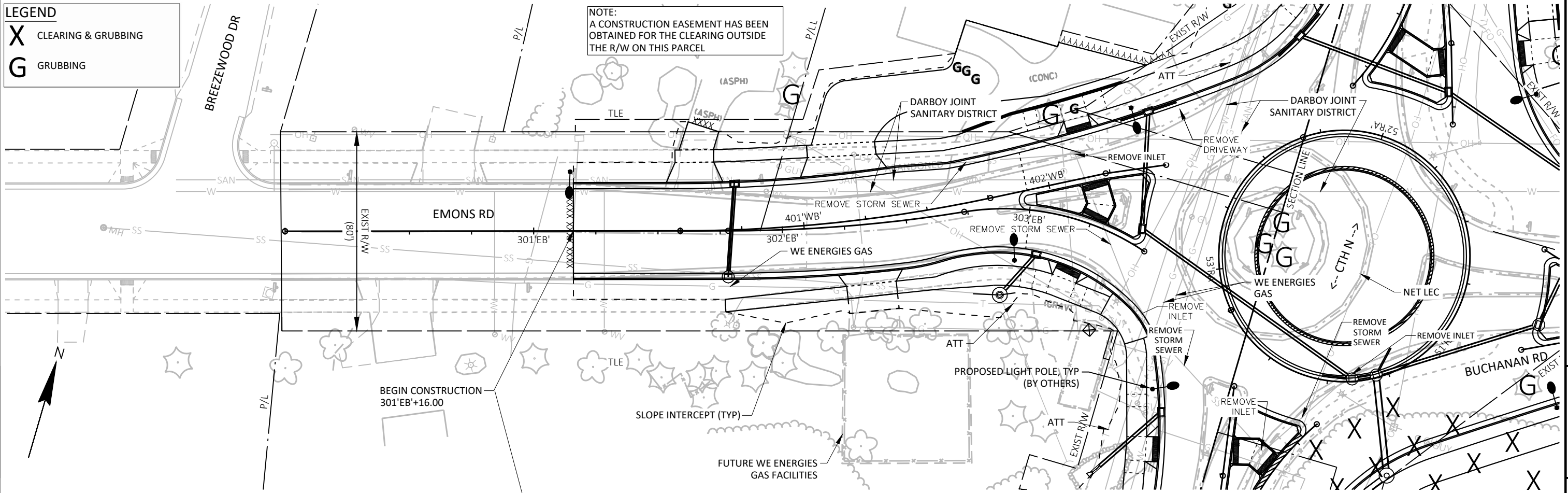
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: HILLSIDE DR	SHEET E
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LEGEND

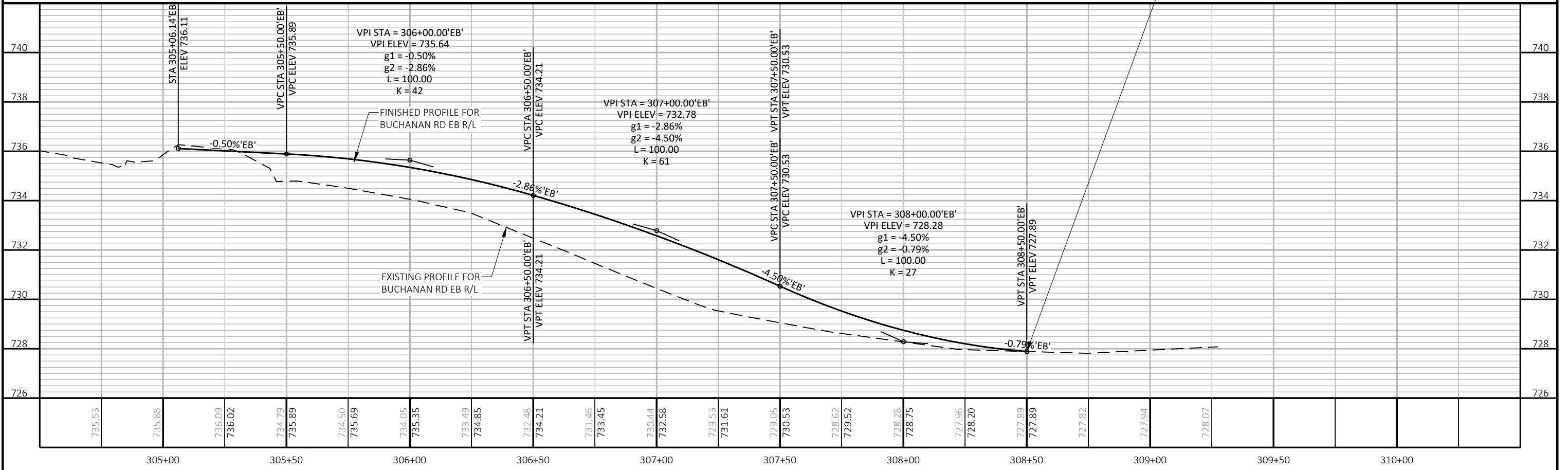
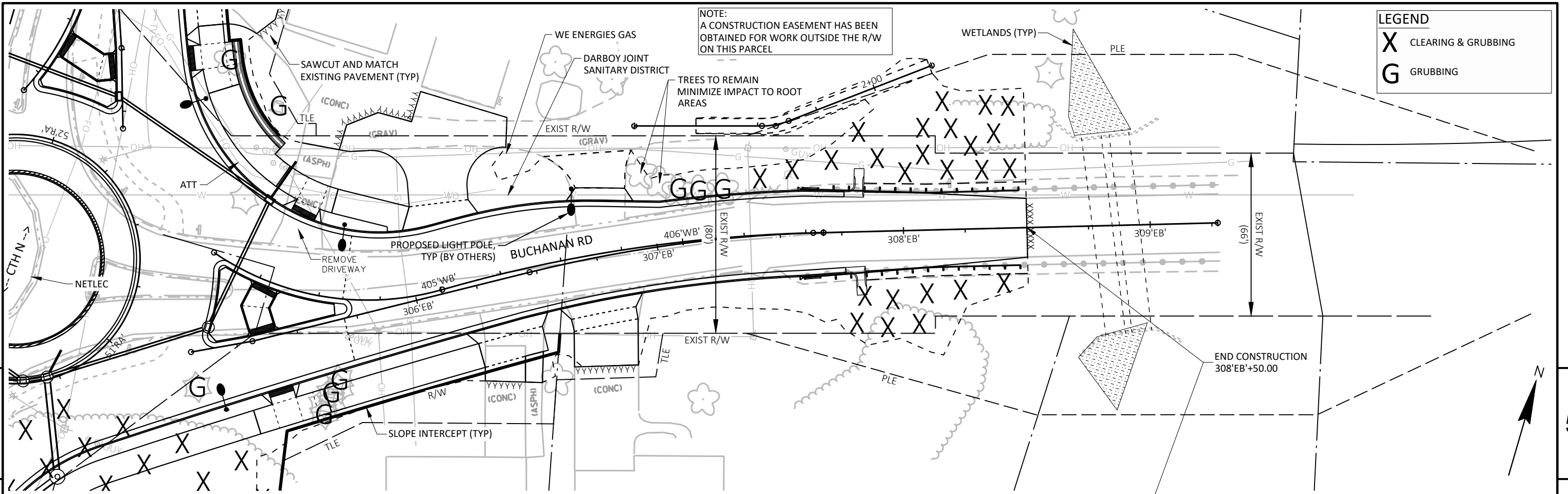
X CLEARING & GRUBBING

G GRUBBING

NOTE:
A CONSTRUCTION EASEMENT HAS BEEN OBTAINED FOR THE CLEARING OUTSIDE THE R/W ON THIS PARCEL



PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	PLAN AND PROFILE: EMONS ROAD EASTBOUND	SHEET 5
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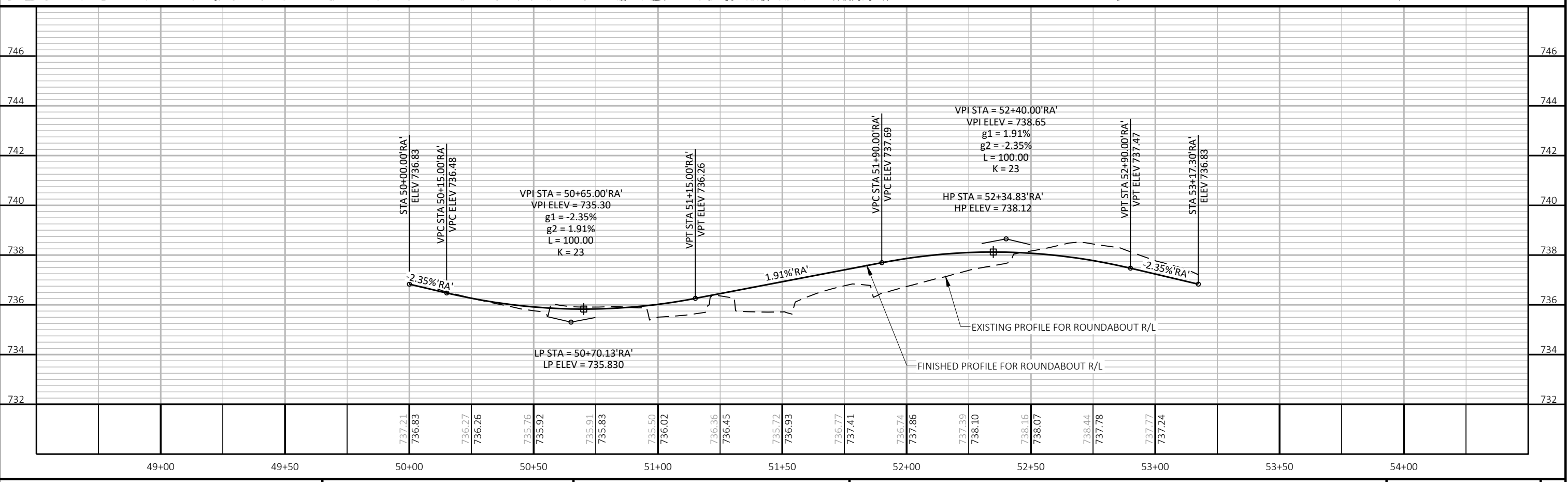
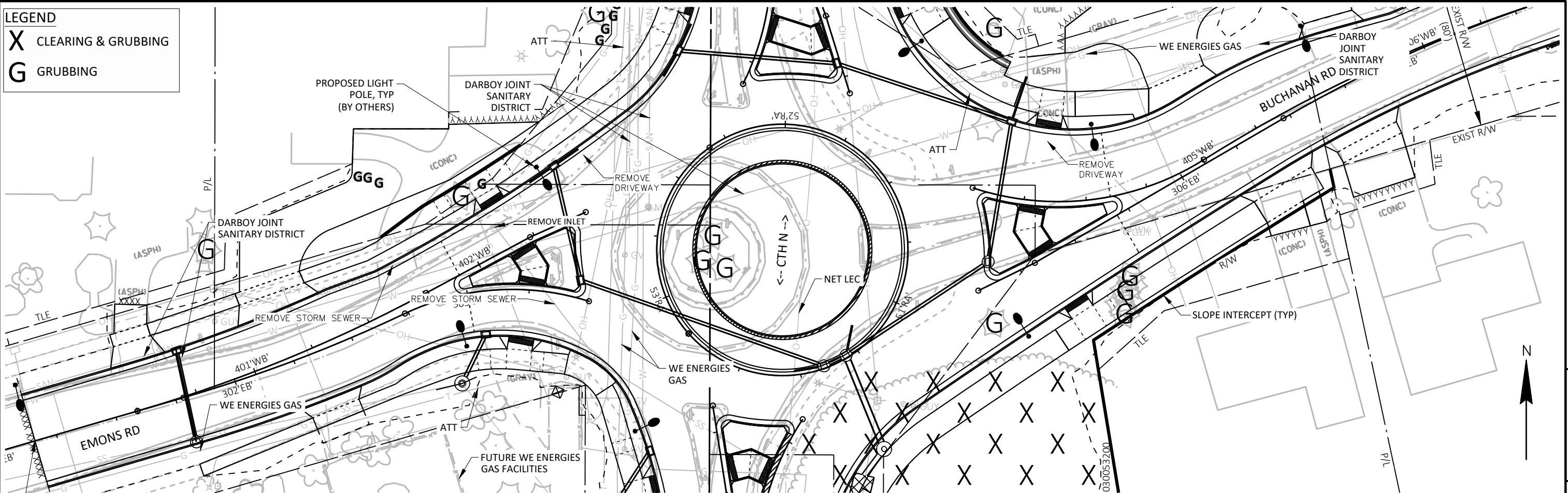


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PLAN AND PROFILE: BUCHANAN ROAD EASTBOUND SHEET: **E**

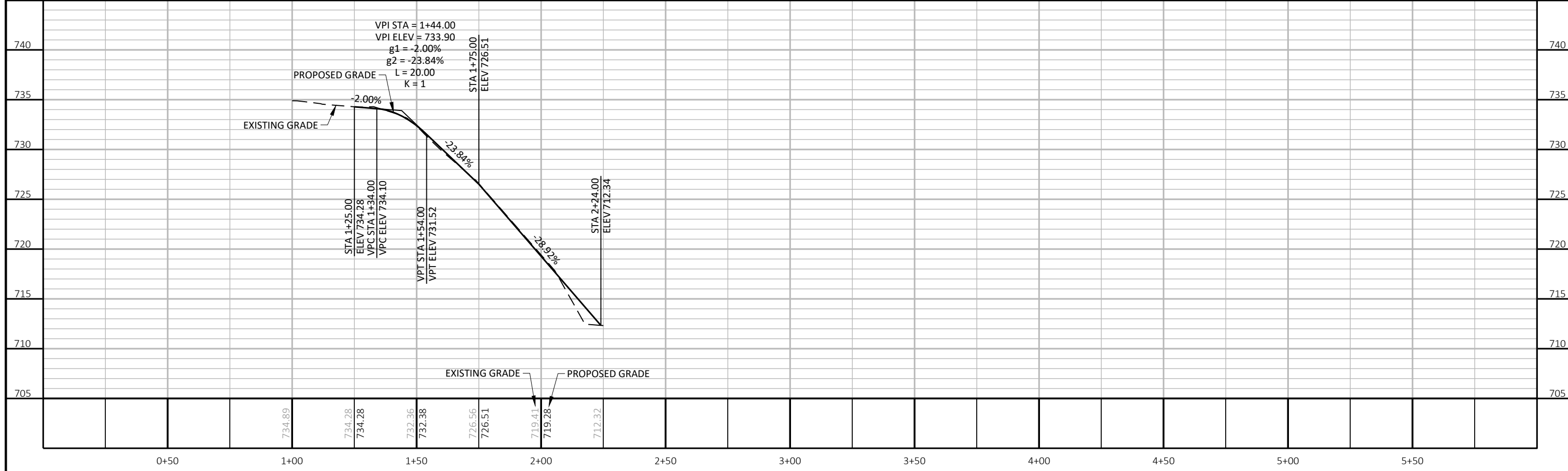
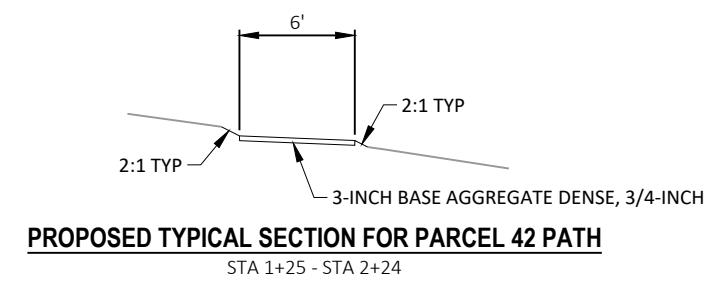
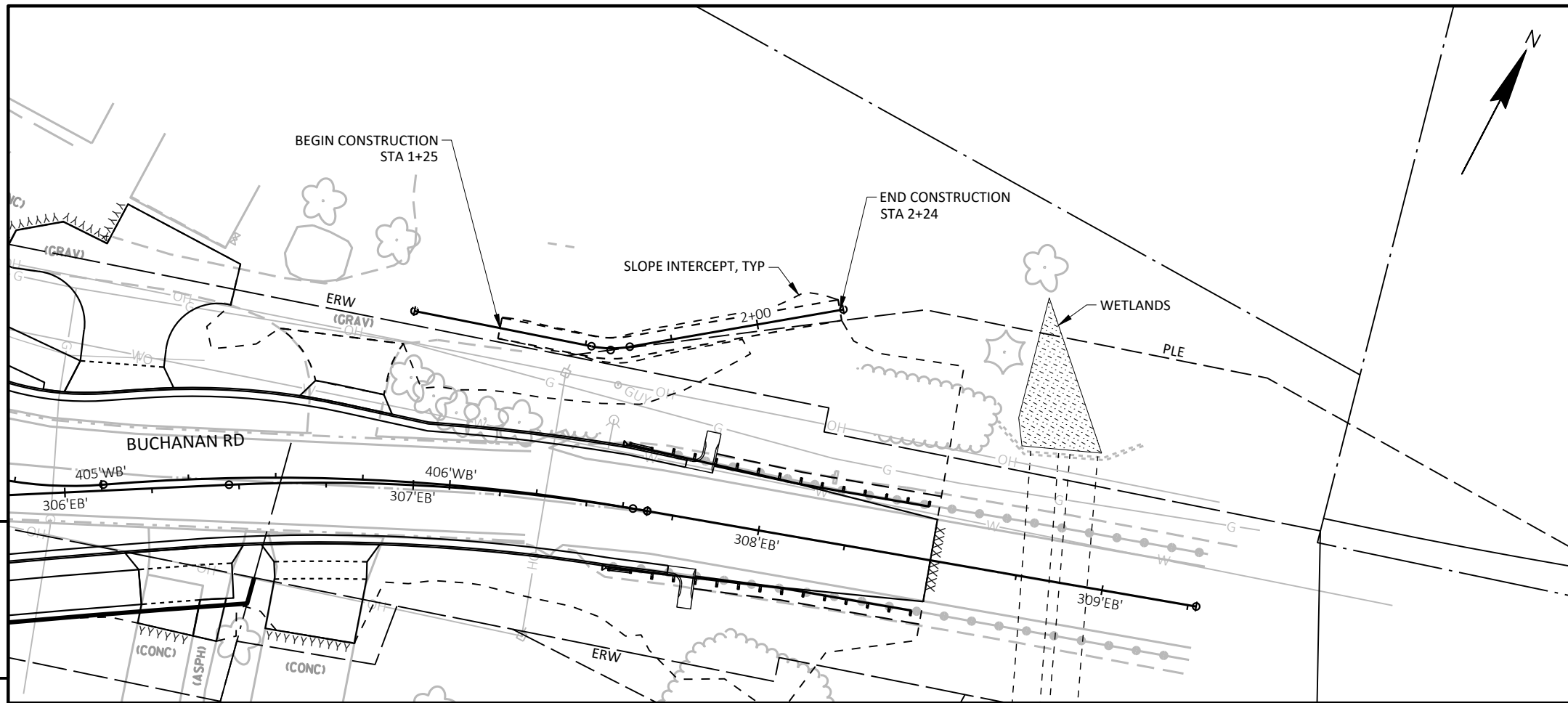
LEGEND

X CLEARING & GRUBBING

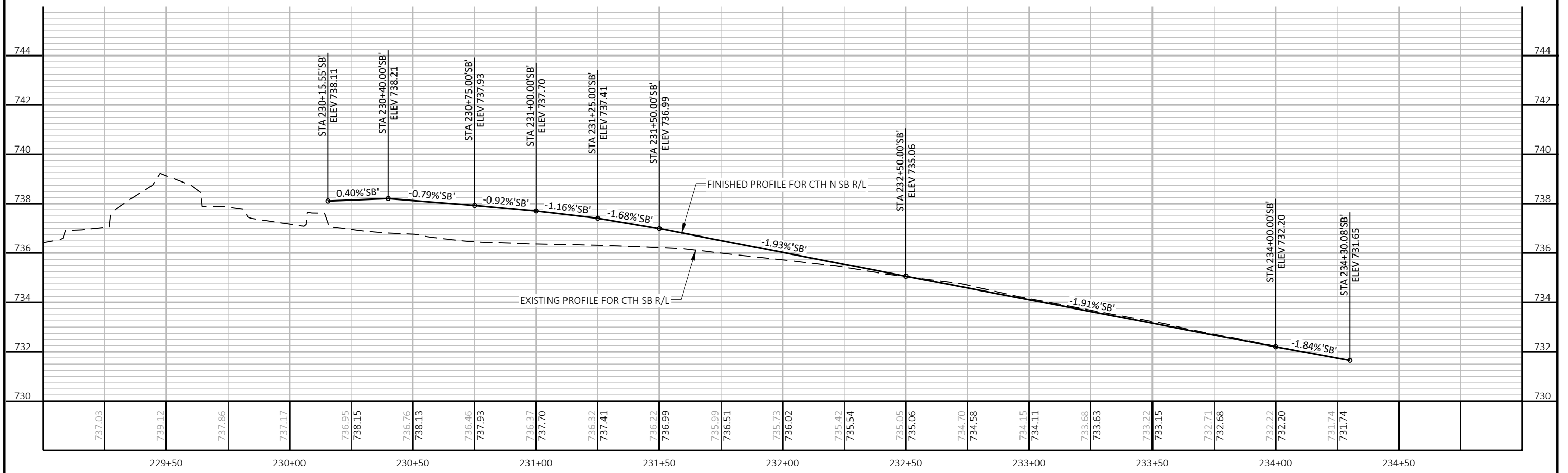
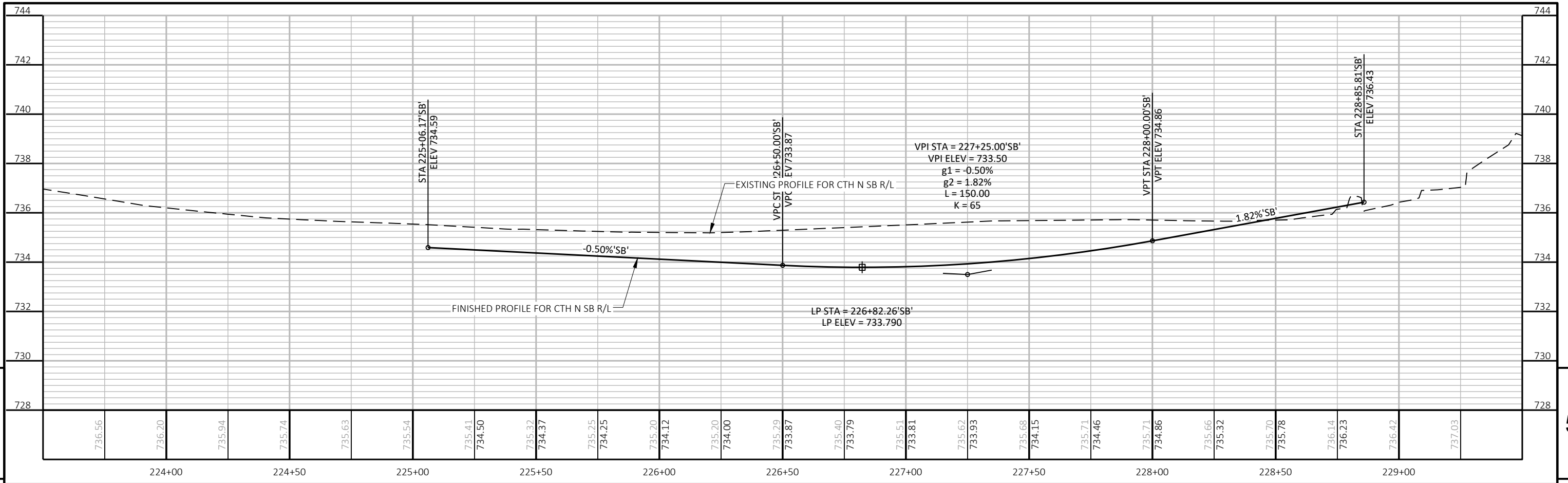
G GRUBBING



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PLAN AND PROFILE: ROUNDABOUT SHEET: 5

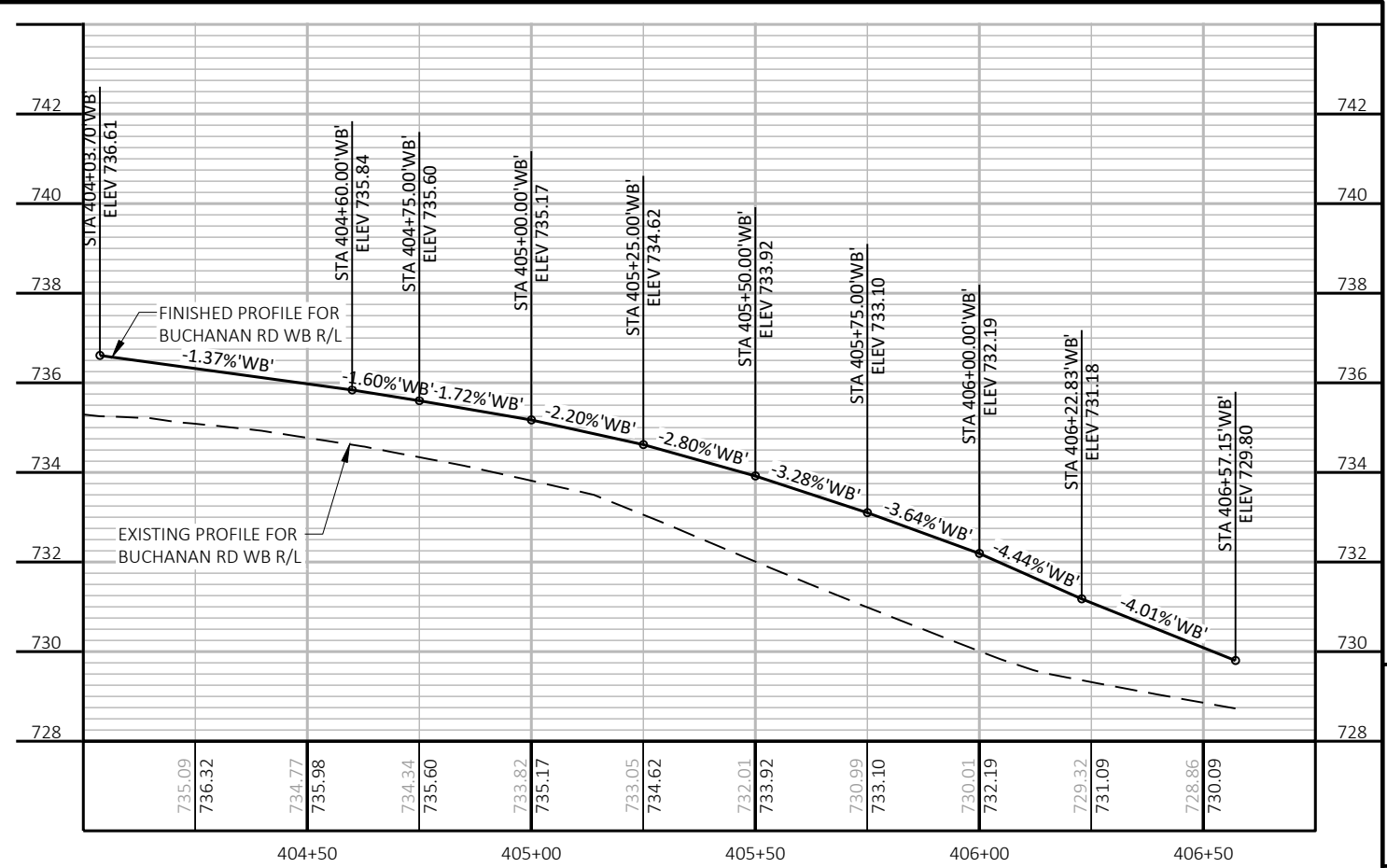
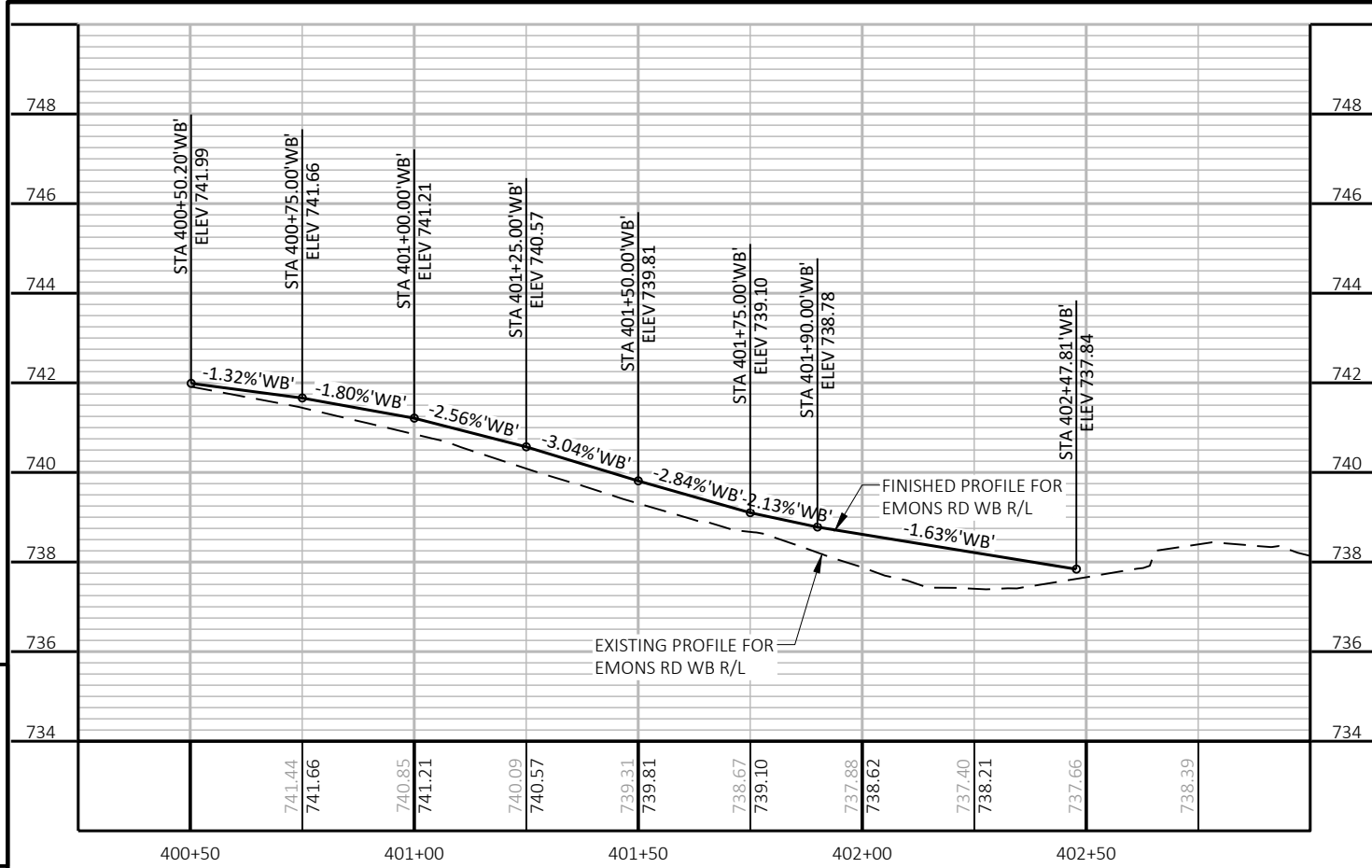


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PLAN AND PROFILE: PARCEL 42 PATH SHEET: E



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE PROFILE - CTH N SOUTH & NORTH SOUTHBOUND SHEET **E**

5



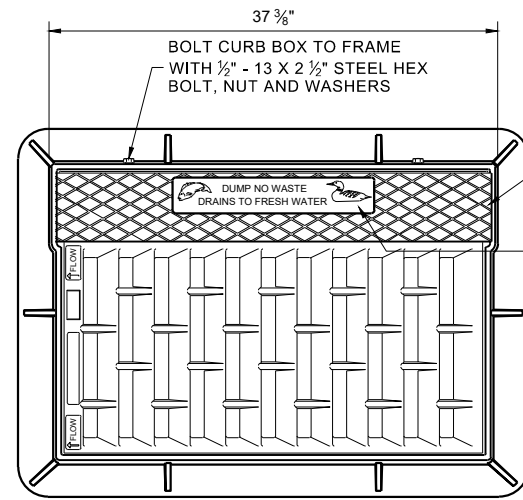
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Standard Detail Drawing List

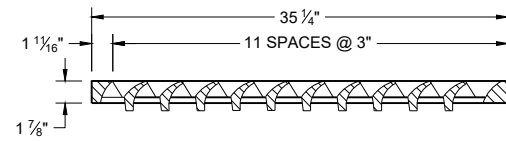
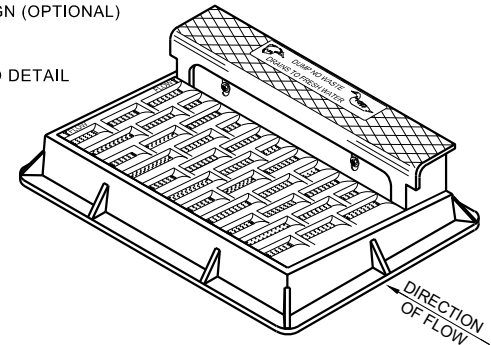
08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW & WM
08A05-22C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-03	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-03	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-17	URBAN NON-DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08E	CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B34-02A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C07-16D	ROUNDABOUT ARROWS
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24C	PAVEMENT MARKING (TURN LANES)
15C08-24D	PAVEMENT MARKING (TURN LANES)

Standard Detail Drawing List

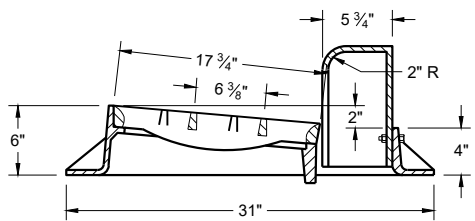
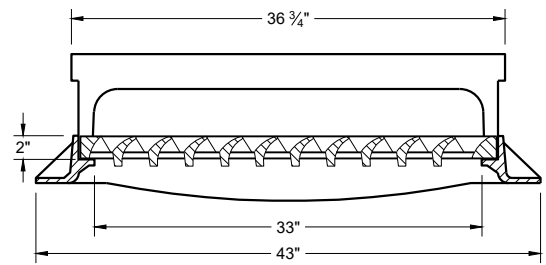
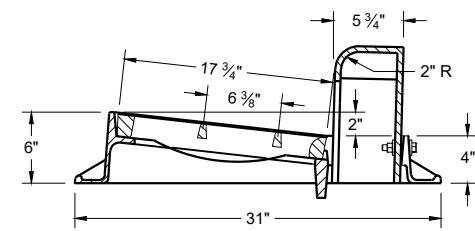
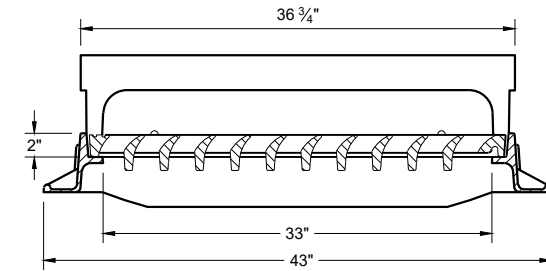
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D50-04A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT



NOTE: EITHER CASTING IS ACCEPTABLE

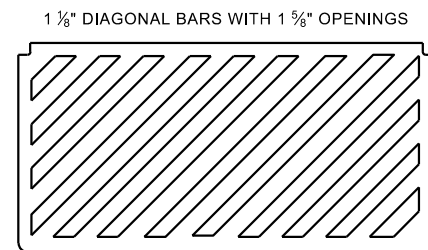


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



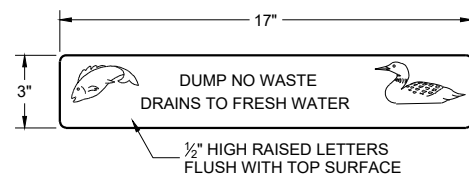
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR TYPE "H" COVER

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



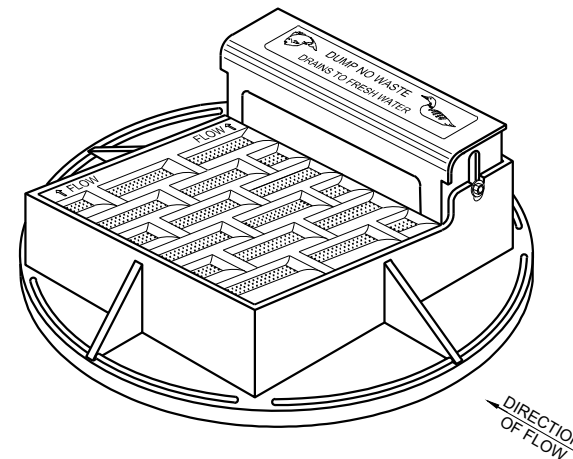
LOGO DETAIL

GENERAL NOTES

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

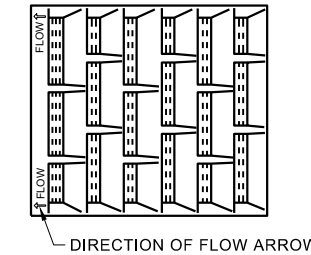
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

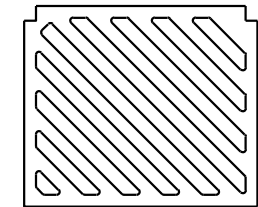


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE

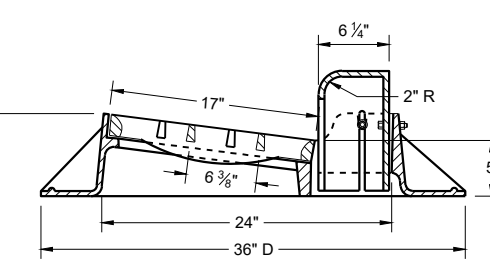
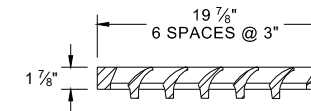
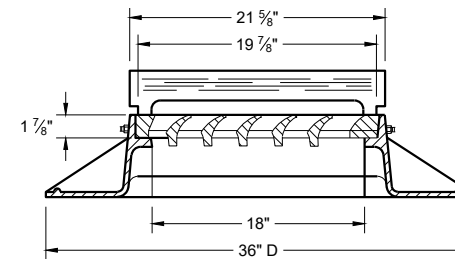


1" DIAGONAL BARS WITH 1 1/2" OPENINGS

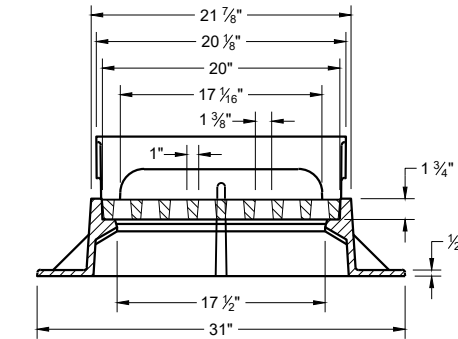
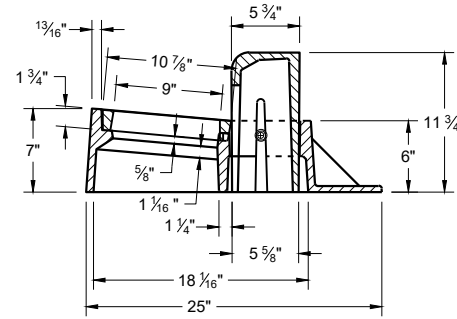


SPECIAL GRATE FOR TYPE "A" COVER

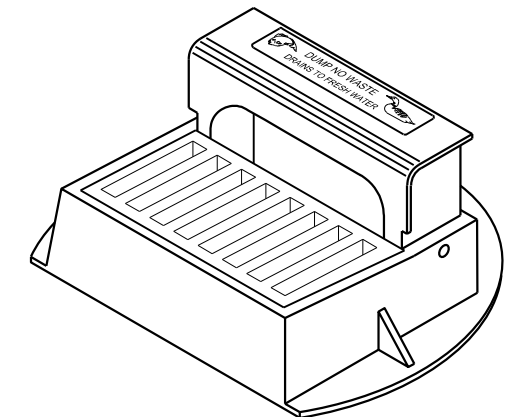
(MEASURES 19 3/4" X 17" X 1 7/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



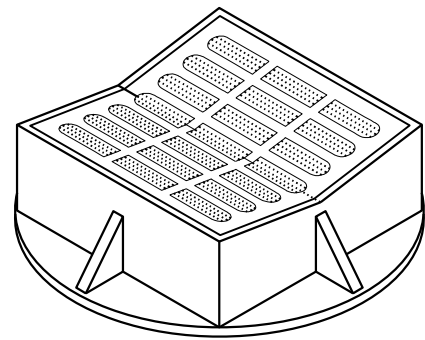
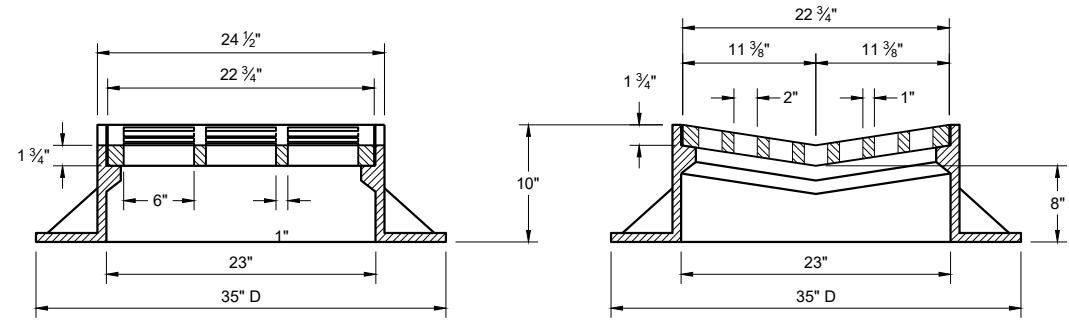
TYPE "Z"



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

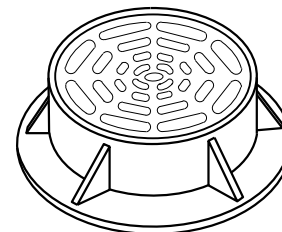
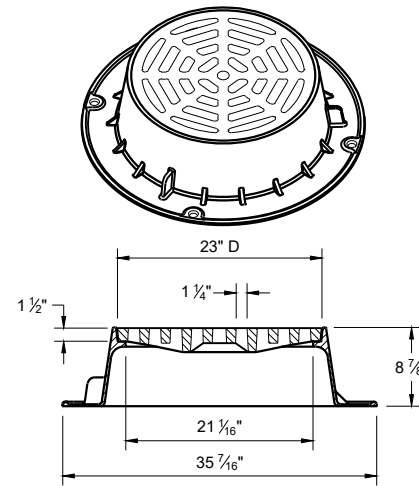
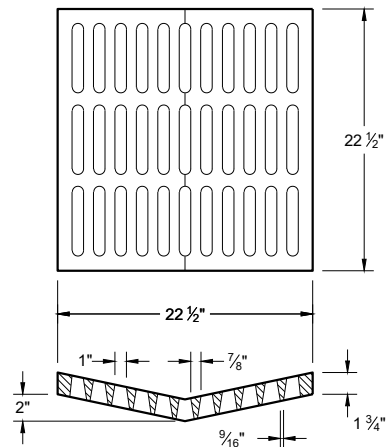
APPROVED
February 2025 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



TYPE "B"

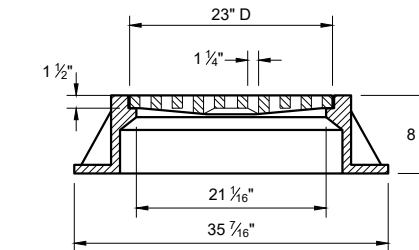
ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE

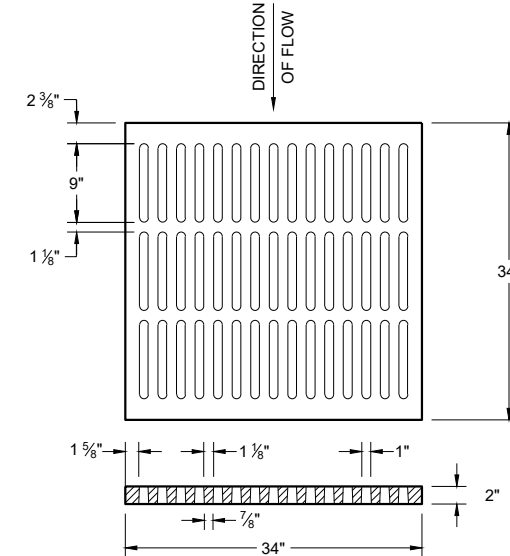


GENERAL NOTES

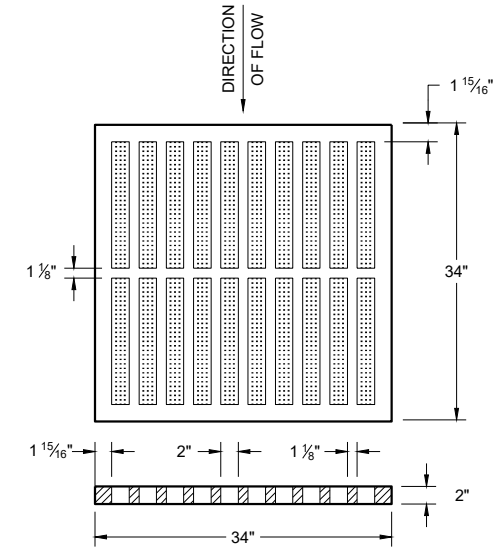
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

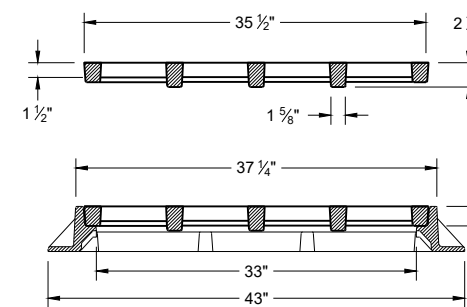
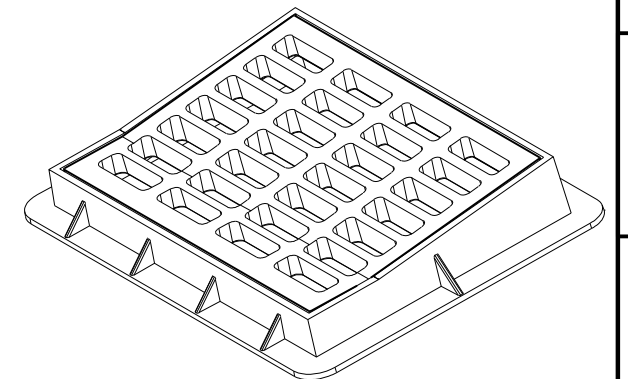
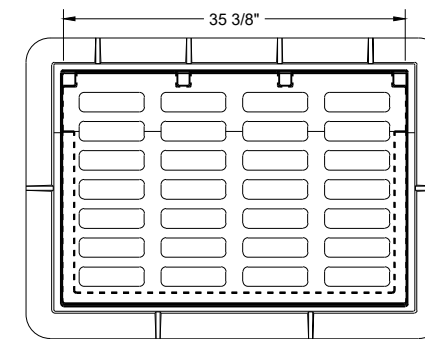
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"
 USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

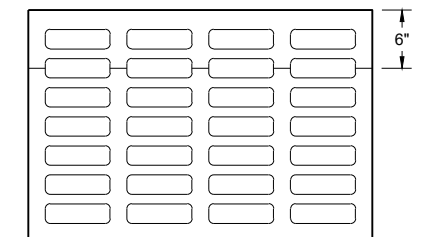


TYPE "MS"
 USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON THE DRAINAGE TABLE



TYPE "DW"

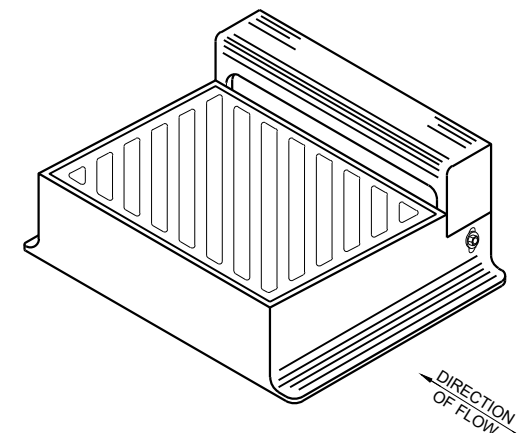
NOTES: FOR USE IN A SUMP CONDITION. THIS OPTION IS ONLY TO BE USED IF NO OTHER INLETS ARE APPLICABLE.



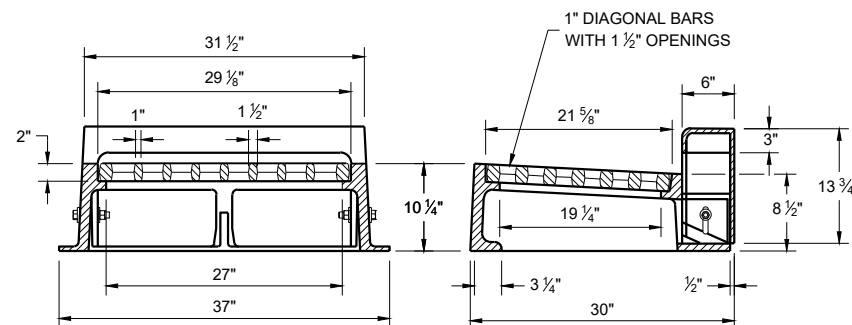
INLET COVERS TYPES B, B-A, C, MS, MS-A, DW AND WM

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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 DATE ROADWAY STANDARDS DEVELOPMENT
 FHWA UNIT SUPERVISOR



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



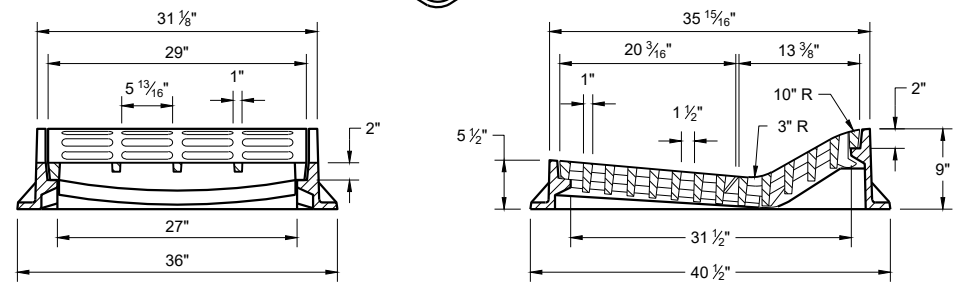
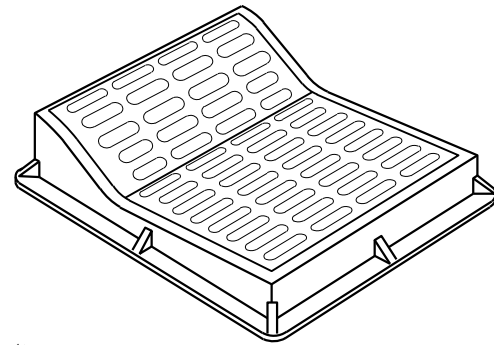
TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

GENERAL NOTES

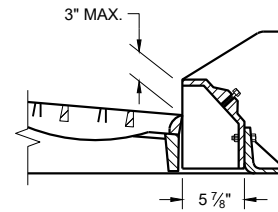
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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



TYPE "F"

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

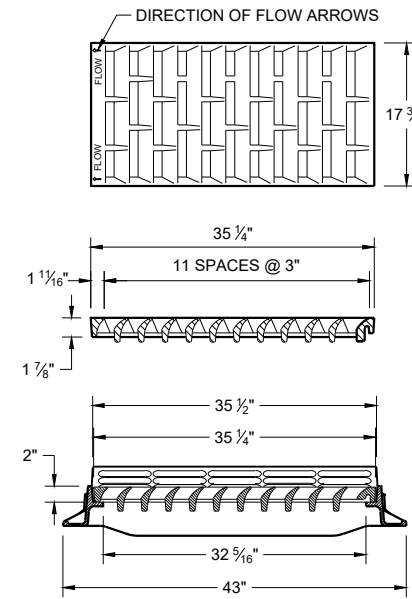


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

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

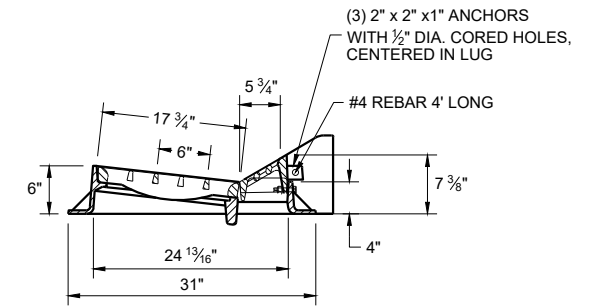
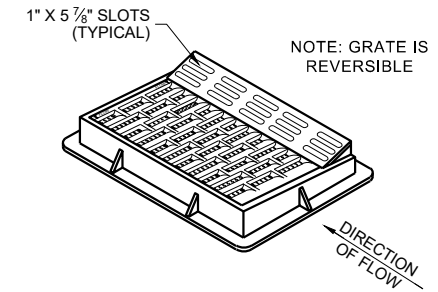
NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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



TYPE "HM"

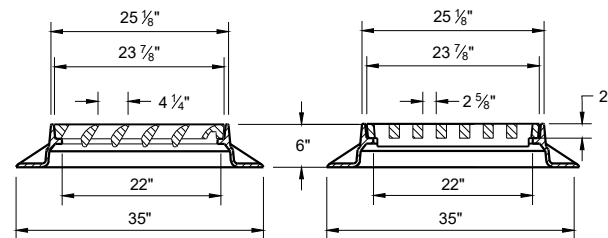
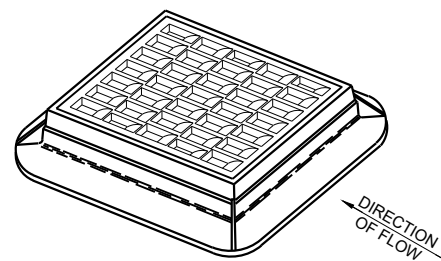
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



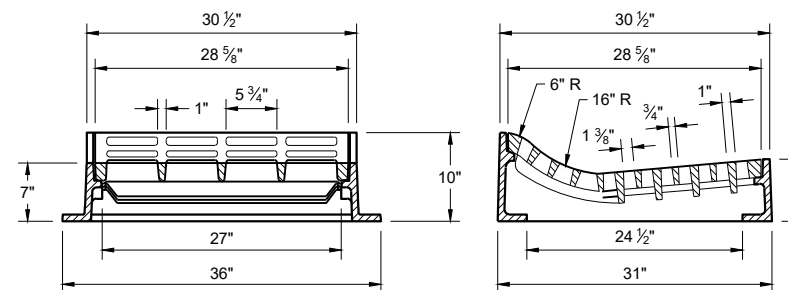
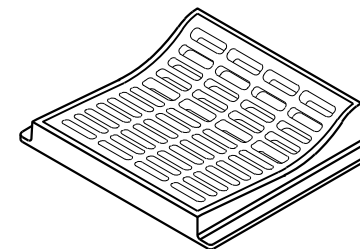
NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

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

6



TYPE "S"



TYPE "T"

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

SDD 08A05-22c

SDD 08A05-22c

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

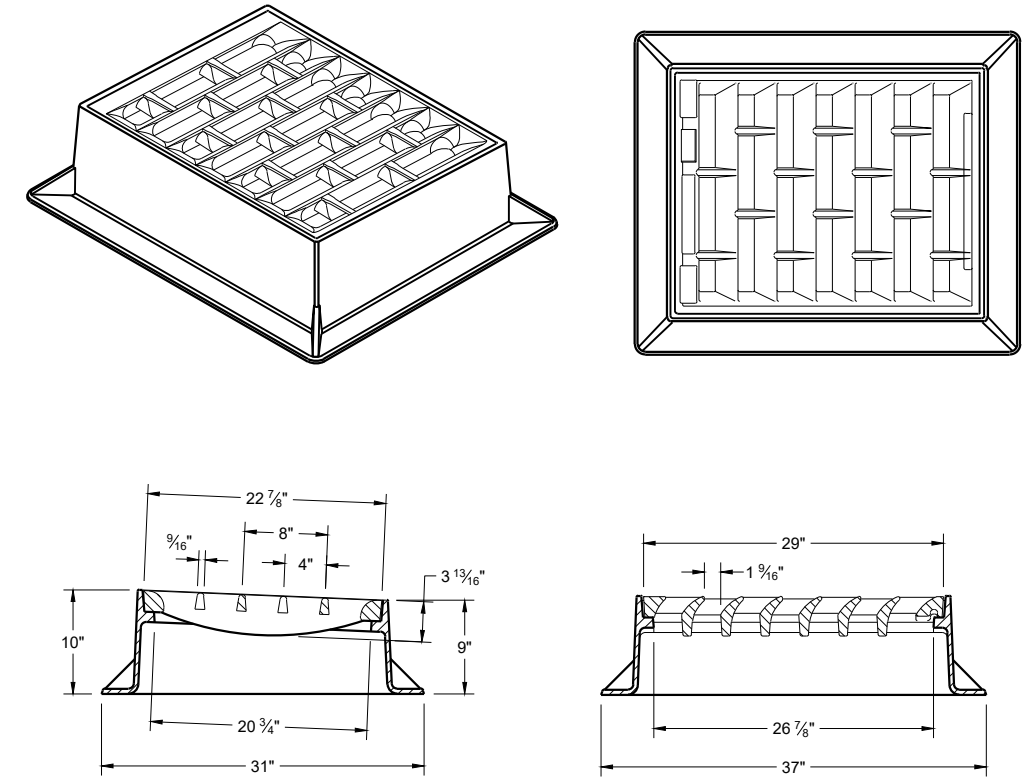
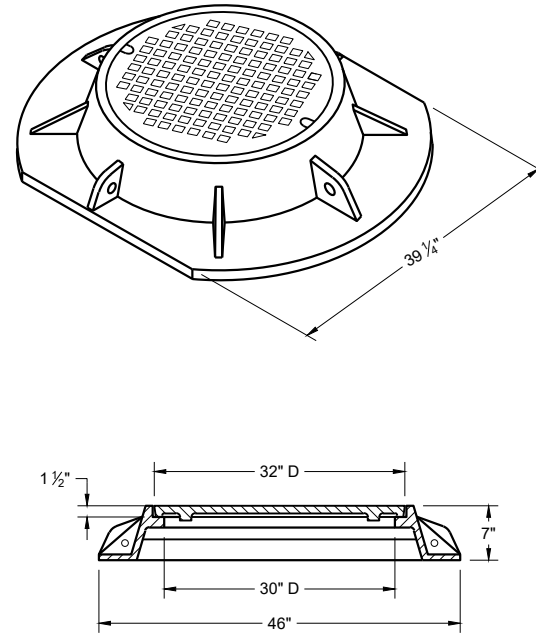
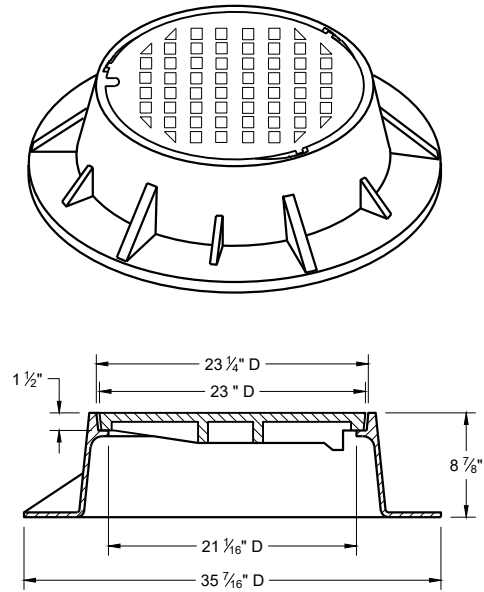
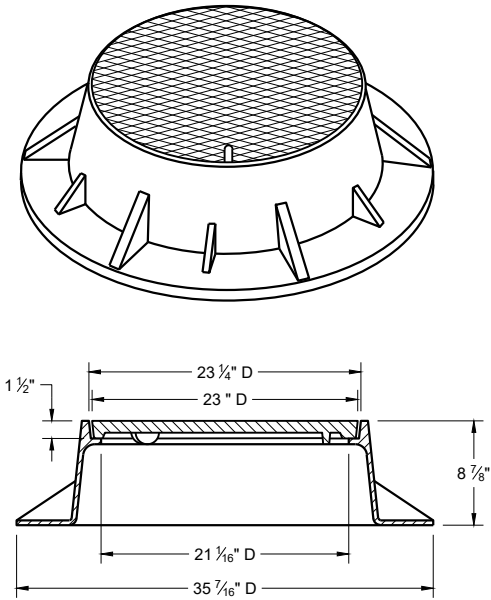
APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

GENERAL NOTES

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

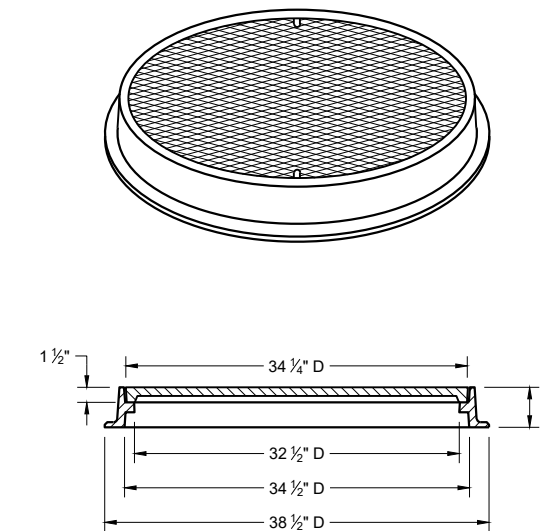
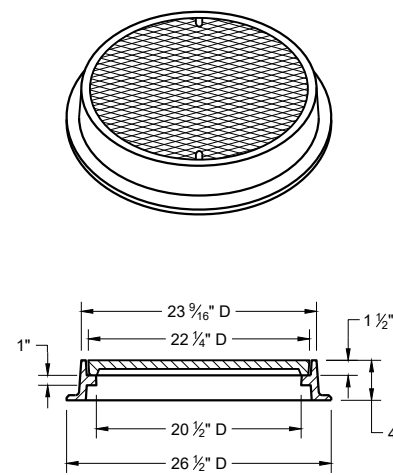
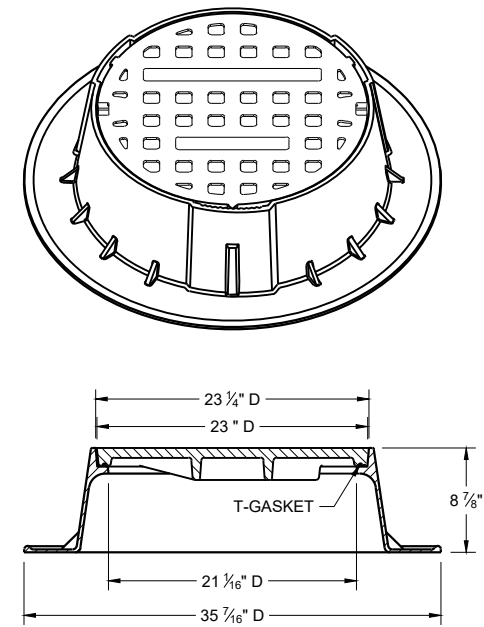
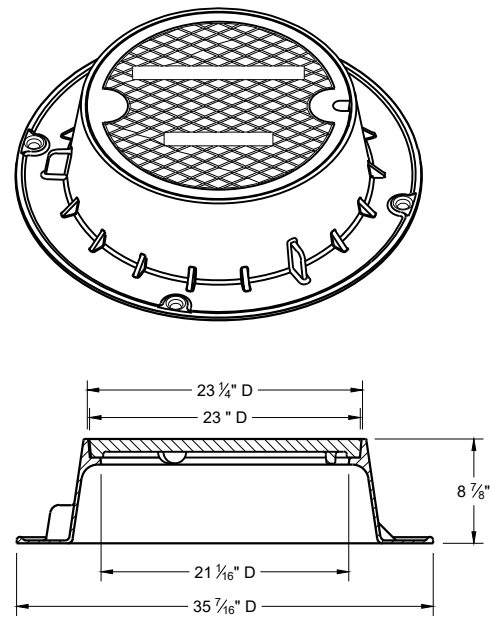
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



TYPE "K"

INLET COVER TYPE "BW"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "J" SPECIAL

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

NOTE: EITHER CASTING IS ACCEPTABLE

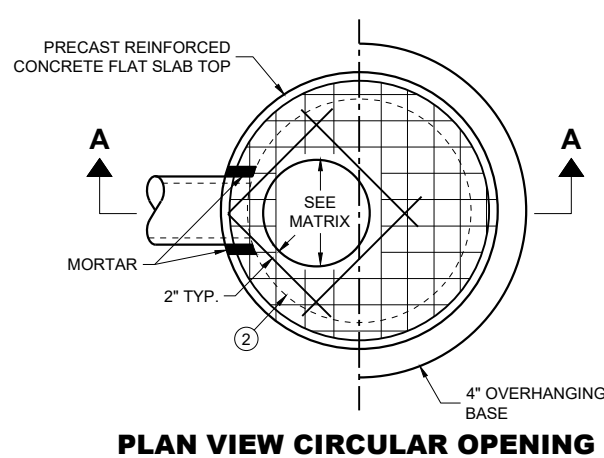
TYPE "L"

TYPE "M"

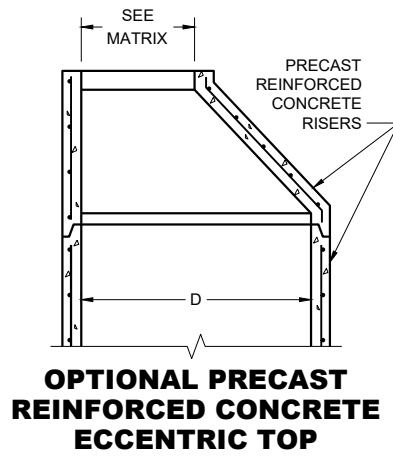
**INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

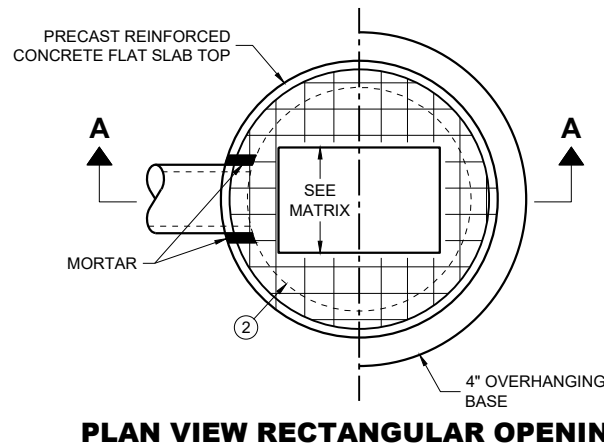
APPROVED
February 2025 DATE /S/ Rodney Taylor
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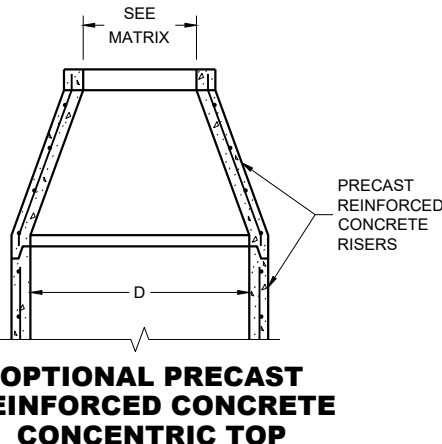
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

COVER MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	VV-B	WM	Z
		OPENING SIZE (FT.)											
3-FT	2 X 2	X	X					X		X			
	2 DIA.				X								X
4-FT TO 6-FT	2 X 2	X	X					X		X			
	2 X 2.5			X				X	X	X		X	
	2 DIA.				X								X
	2 X 3						X						
	2.5 X 3					X							
	2 X 3.5*										X*		

* REQUIRES 5-FT DIAMETER OR LARGER STRUCTURE

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

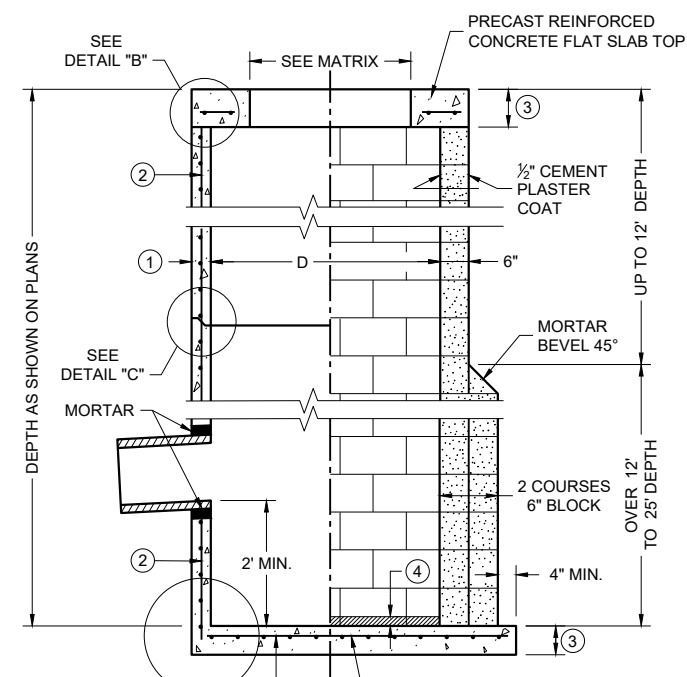
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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

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

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

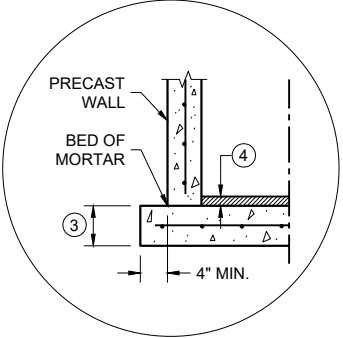
- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- ② FOR PRECAST CATCH BASINS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- ④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.
- ⑤ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



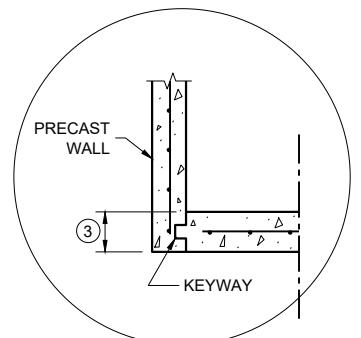
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

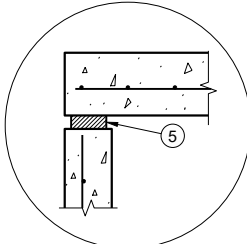


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



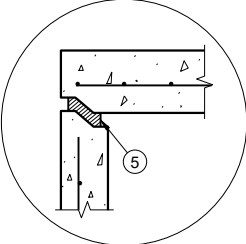
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

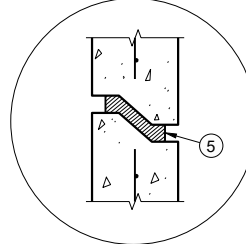


TOP WITH PLAIN END JOINT

DETAIL "B"

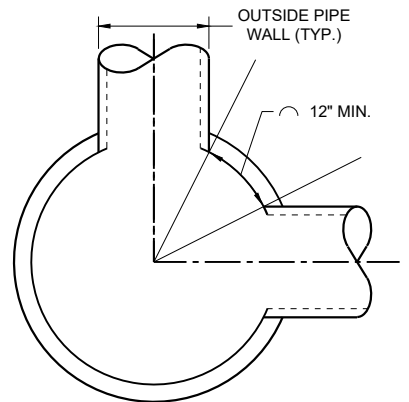


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

6

6

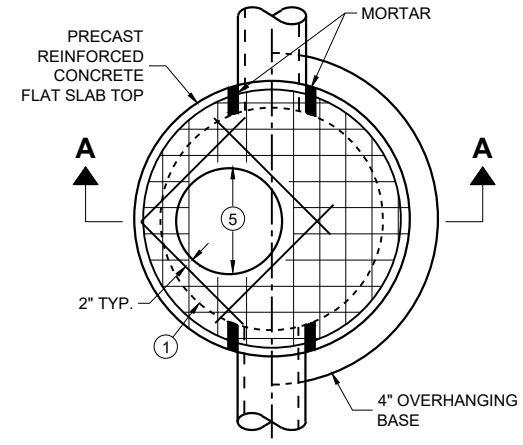
SDD 08A08-03

SDD 08A08-03

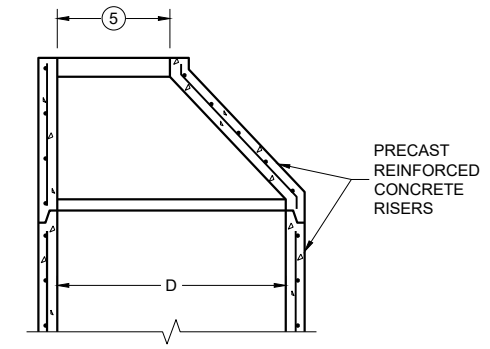
CATCH BASINS, 3-FT. 4-FT., 5 FT., AND 6-FT. DIAMETER

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

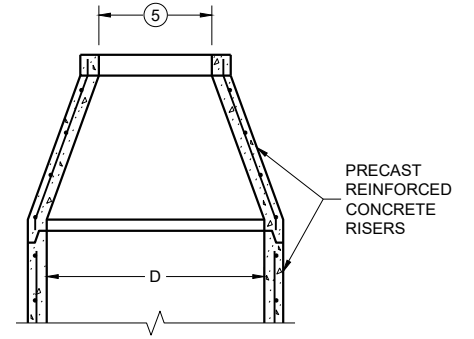
APPROVED December 2023 /S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR



**PLAN VIEW
CIRCULAR OPENING**



**OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP**



**OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP**

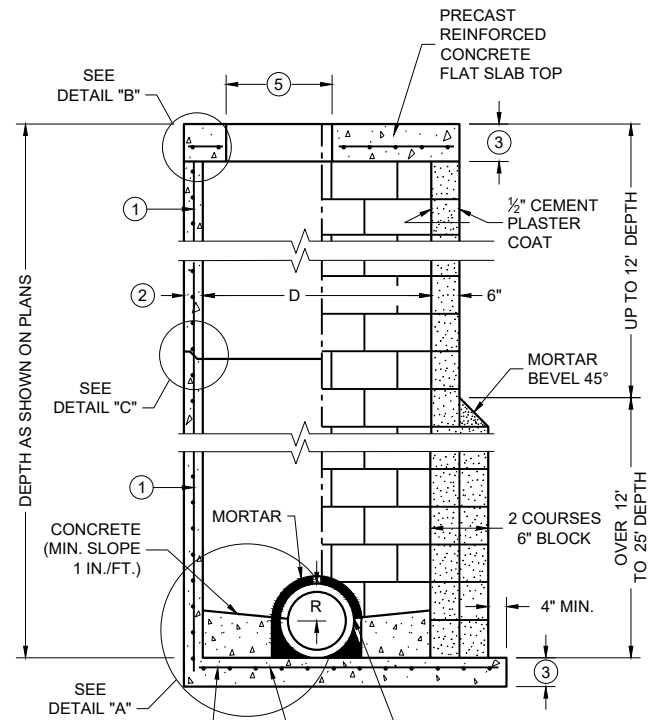
MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

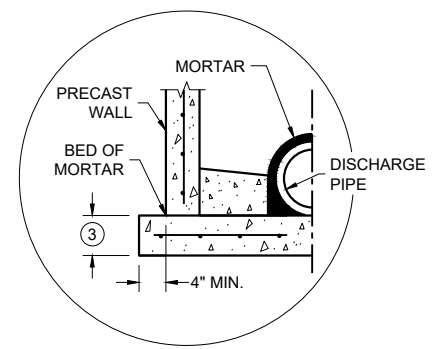
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



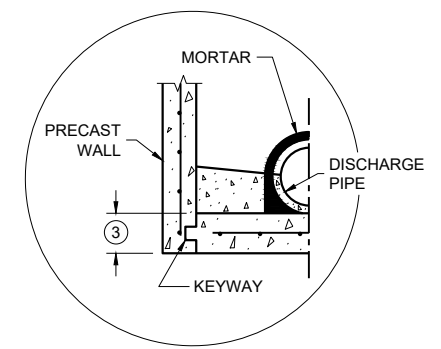
SECTION A - A

**PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE**

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

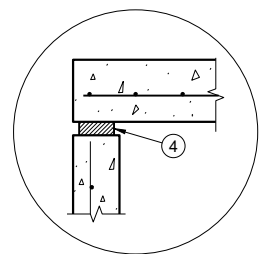


**SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION**

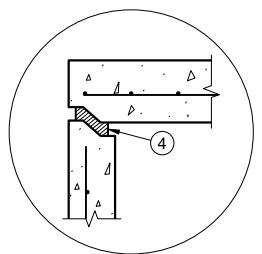


**PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION**

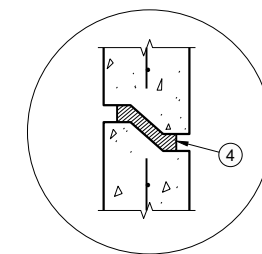
DETAIL "A"



**TOP WITH PLAIN
END JOINT**



**TOP WITH TONGUE
AND GROOVE JOINT**

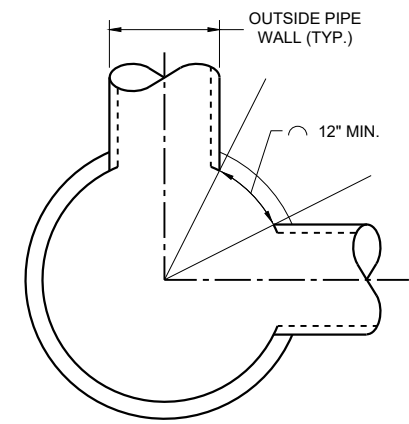


**RISER WITH TONGUE
AND GROOVE JOINT**

DETAIL "B"

DETAIL "C"

- ① FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ② SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- ③ SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- ④ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- ⑤ SEE MANHOLE COVER OPENING MATRIX.



**MINIMUM HORIZONTAL
PIPE SEPARATION
DETAIL "D"**

GENERAL NOTES

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF #4 AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN. CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

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

6

6

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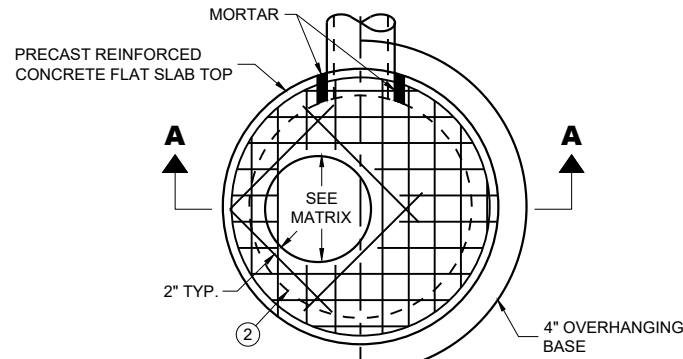
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

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

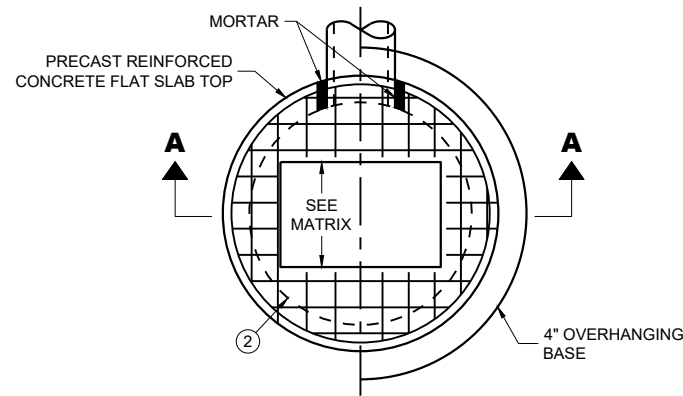
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

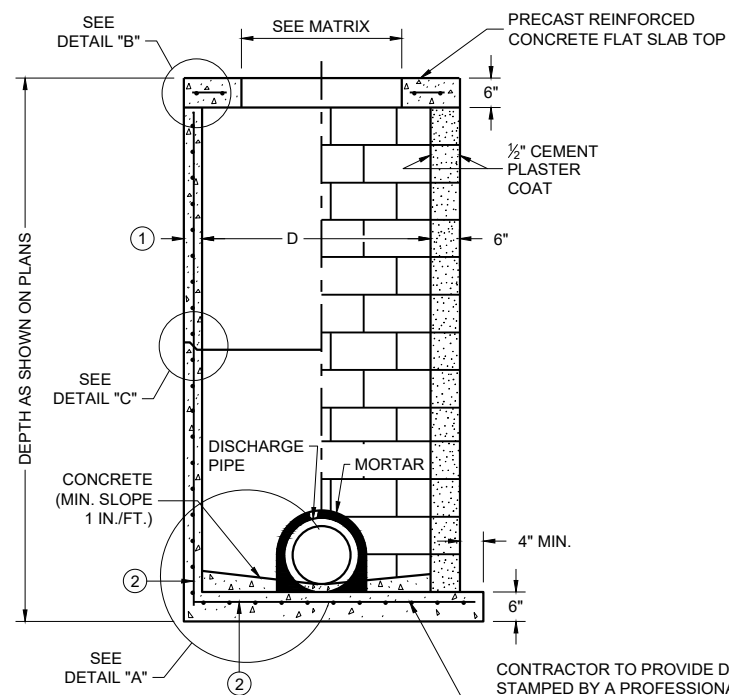
FHWA



PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE ②

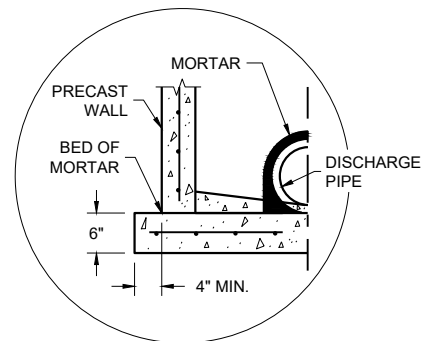
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

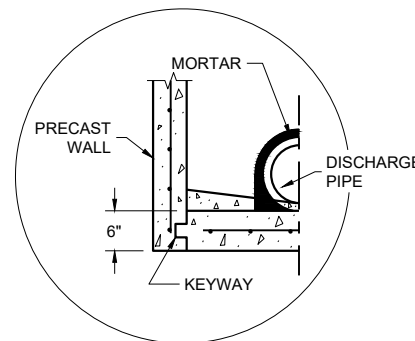
INLET SIZE	INLET COVER TYPE OPENING SIZE (FT.)	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	WM	Z
		3-FT	2 DIA.				X					
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X	X	X		
	2 X 2.5			X				X	X	X	X	
	2 X 3					X						
	2.5 X 3					X						

PIPE MATRIX

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

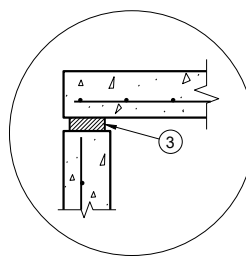


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

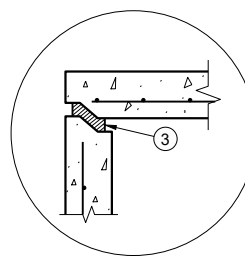


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

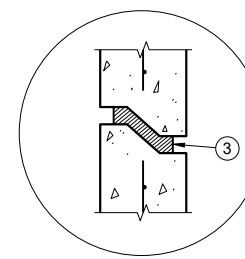
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

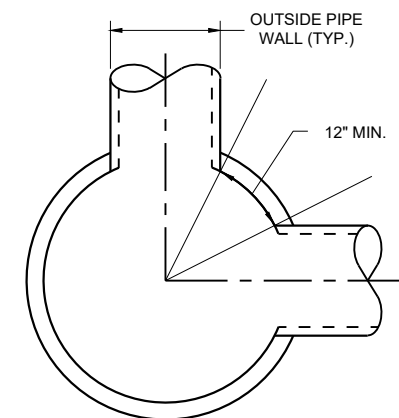
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

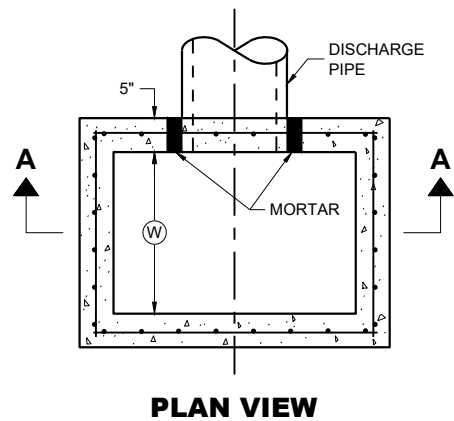


**MINIMUM HORIZONTAL PIPE SEPARATION
DETAIL "D"**

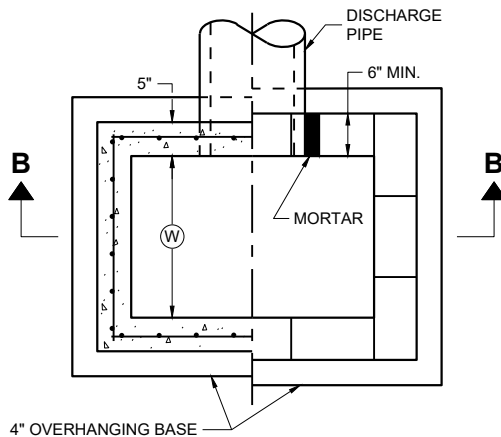
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

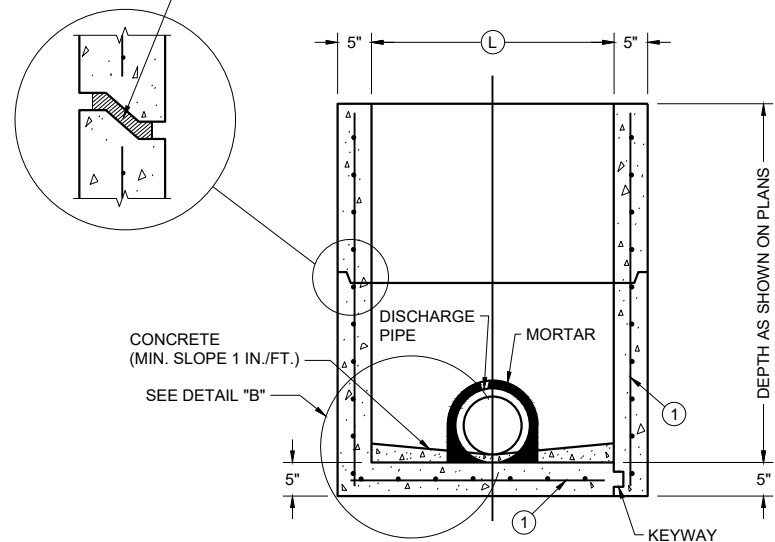


PLAN VIEW



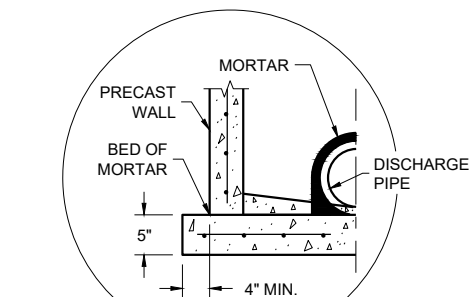
PLAN VIEW

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



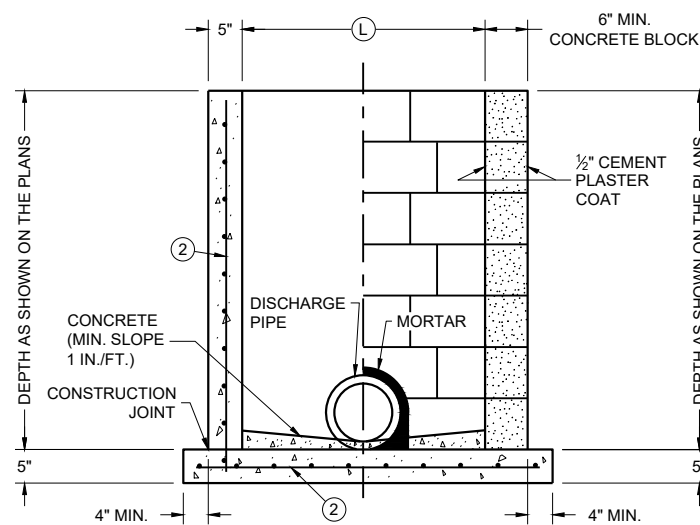
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

SECTION A - A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

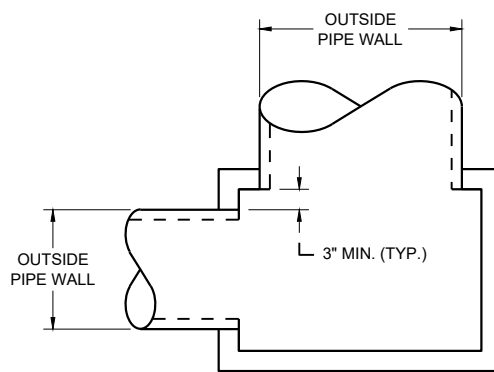
DETAIL "B"



CAST IN PLACE REINFORCED CONCRETE

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

SECTION B - B



DETAIL "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.

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

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

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

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

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

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

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

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

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

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

CATCH BASIN COVER MATRIX

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

PIPE MATRIX

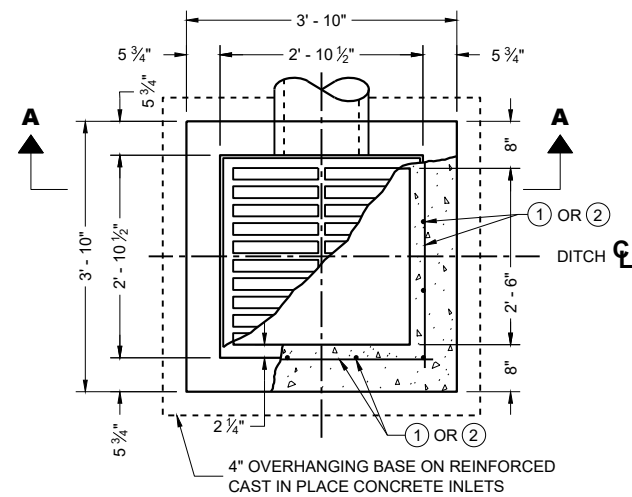
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

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

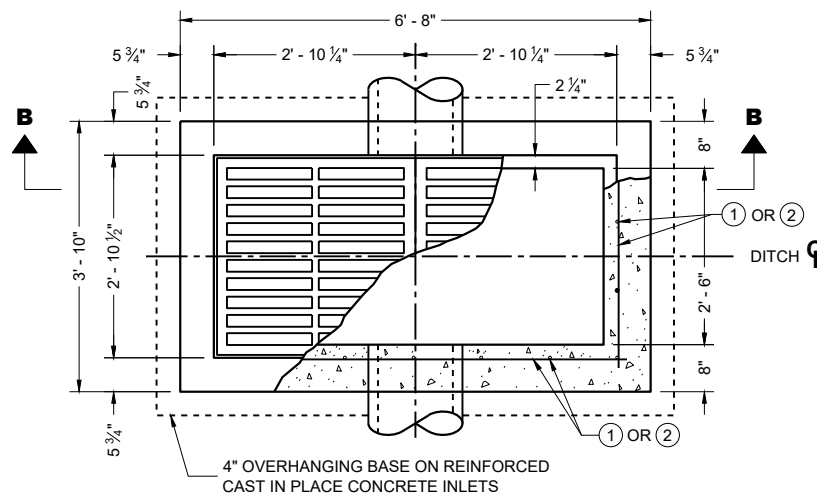
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

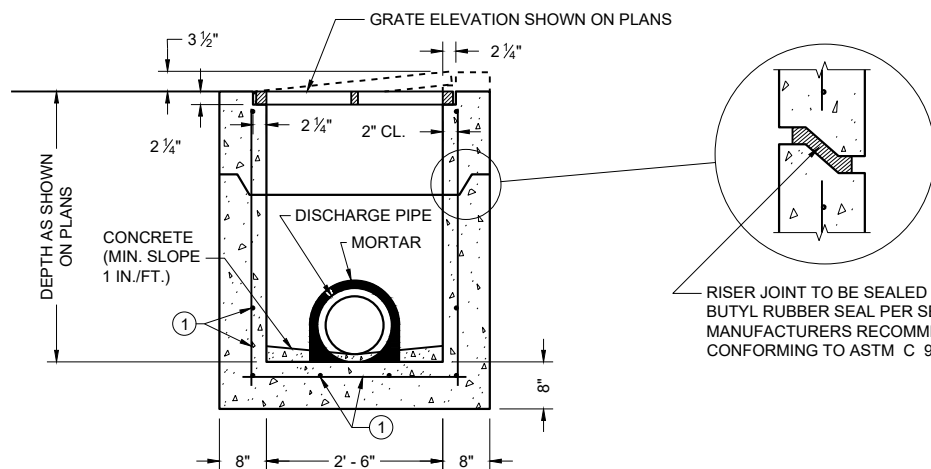
INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT



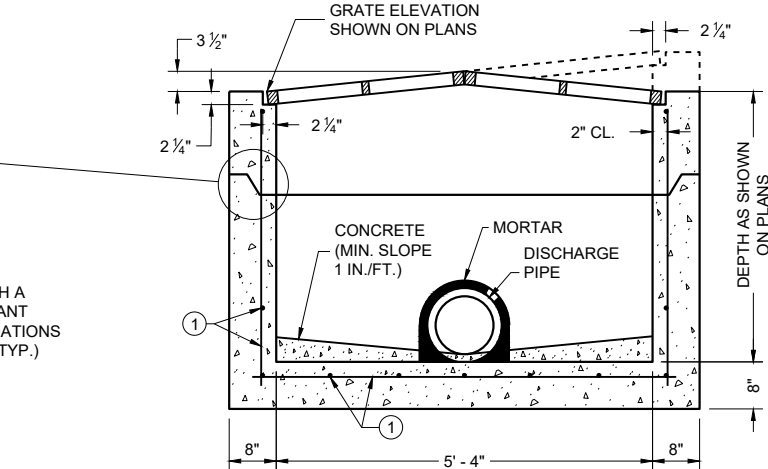
PLAN VIEW



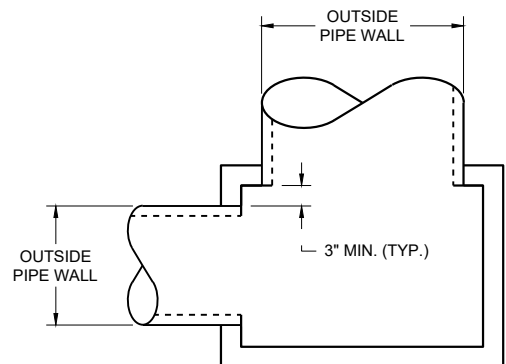
PLAN VIEW



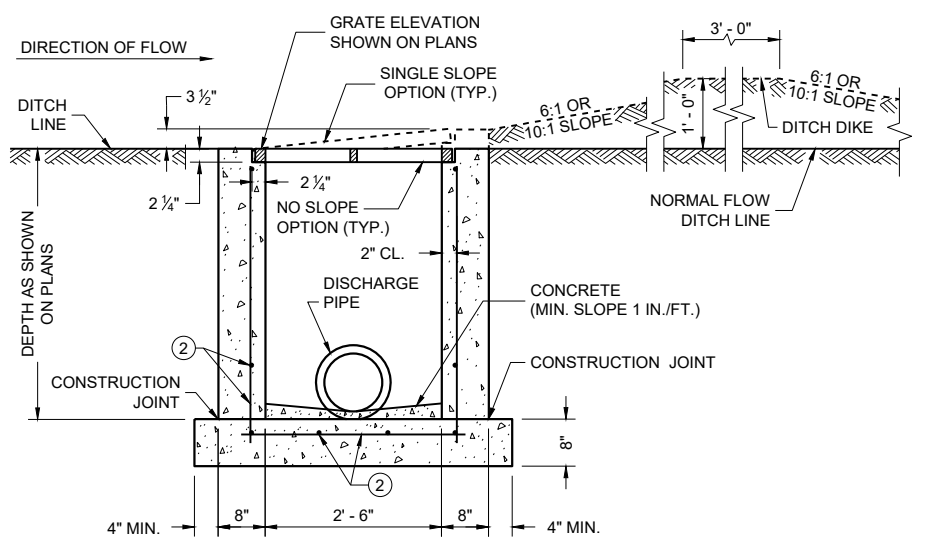
PRECAST REINFORCED CONCRETE SECTION A - A



PRECAST REINFORCED CONCRETE SECTION B - B

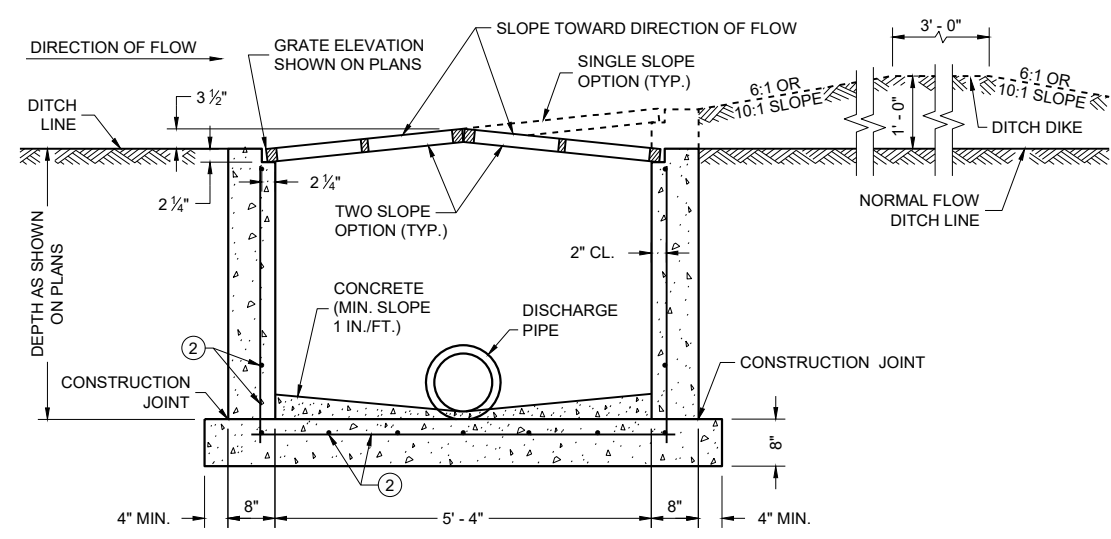


DETAIL "A"



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

PIPE MATRIX

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

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

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

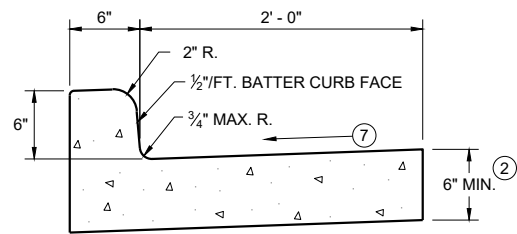
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

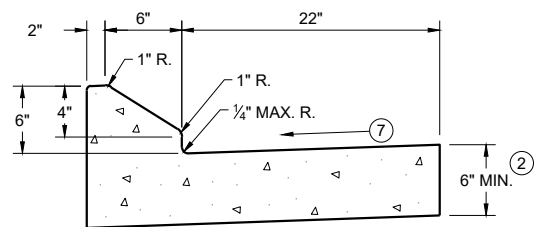
**INLETS
MEDIAN 1 AND 2 GRATE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

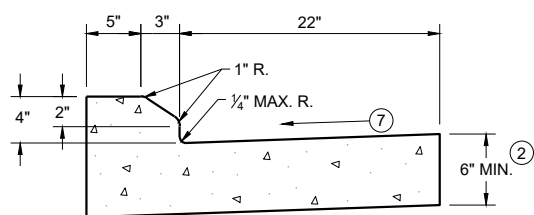
APPROVED
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DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



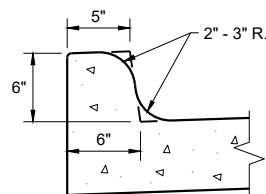
TYPES A^① & D



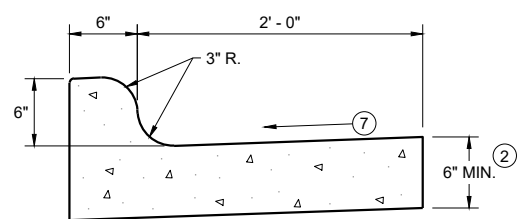
6" SLOPED CURB TYPES G^① & J



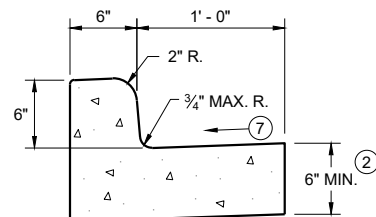
4" SLOPED CURB TYPES G^① & J



TYPES K^① & L
(OPTIONAL CURB SHAPE)

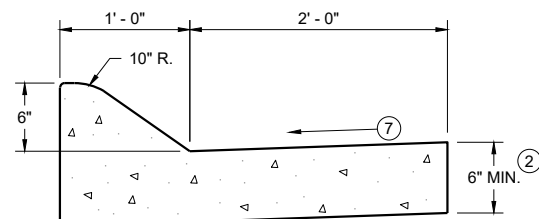


TYPES K^① & L
CONCRETE CURB AND GUTTER 30"

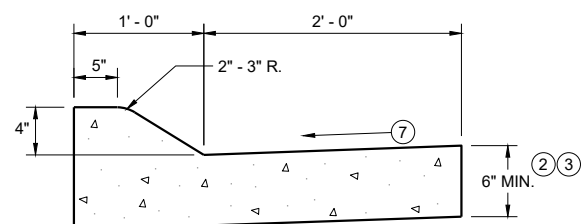


TYPES A^① & D

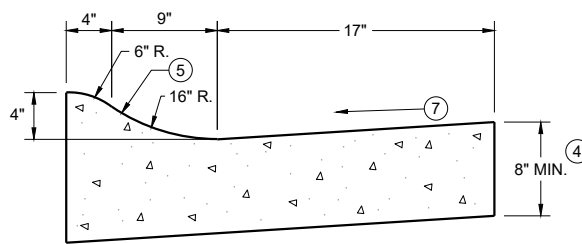
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D

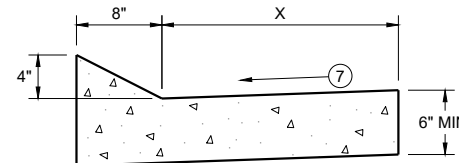


4" SLOPED CURB TYPES A^① & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

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

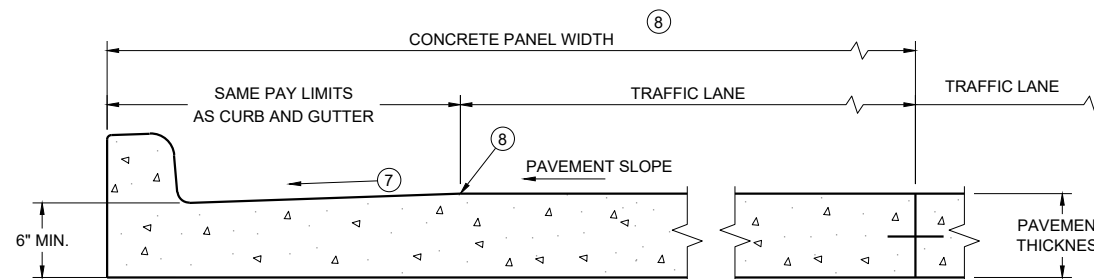


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

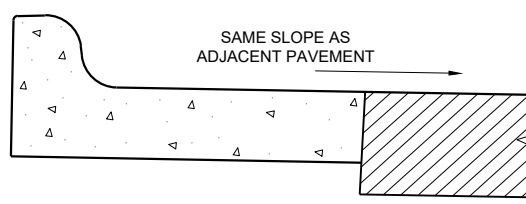
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

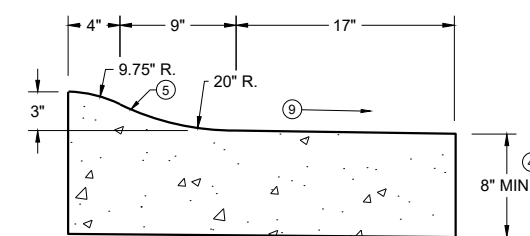
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.

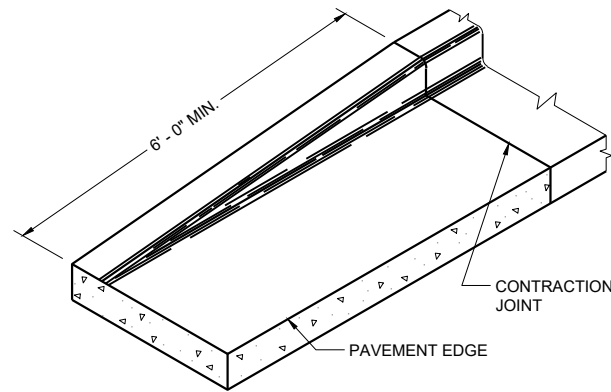
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH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



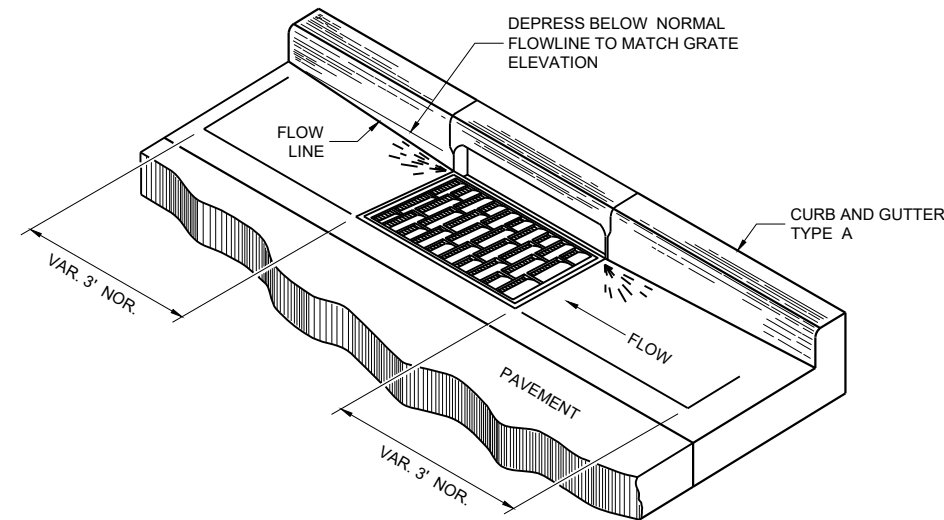
3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

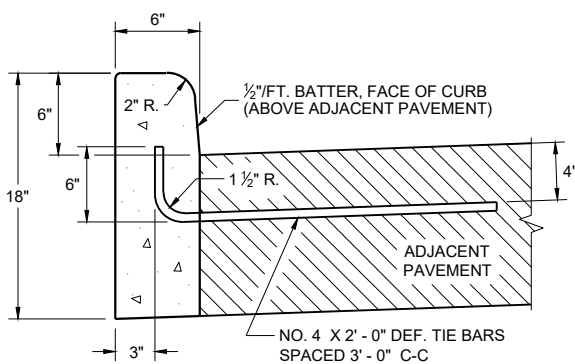
GENERAL NOTES

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

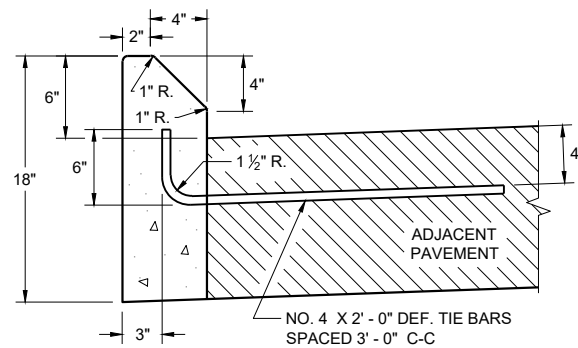
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

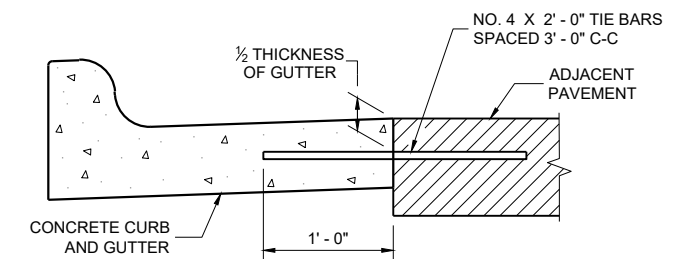
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



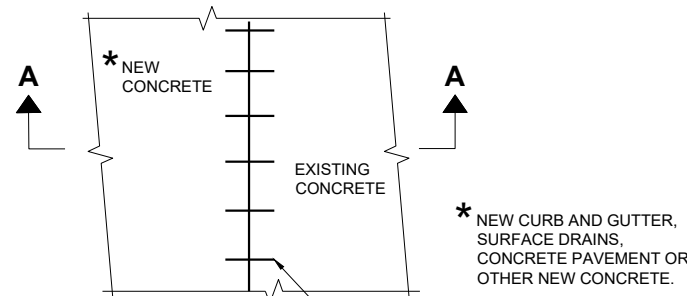
TYPES A ① & D



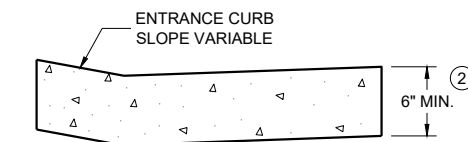
**TYPES G ① & J
CONCRETE CURB**



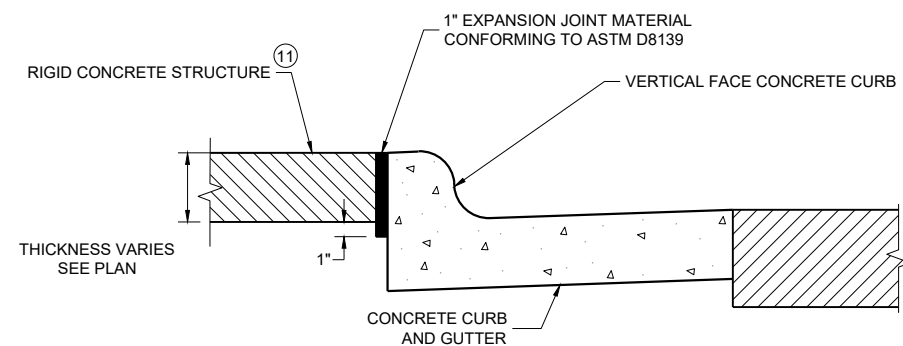
TYPICAL TIE BAR LOCATION ①



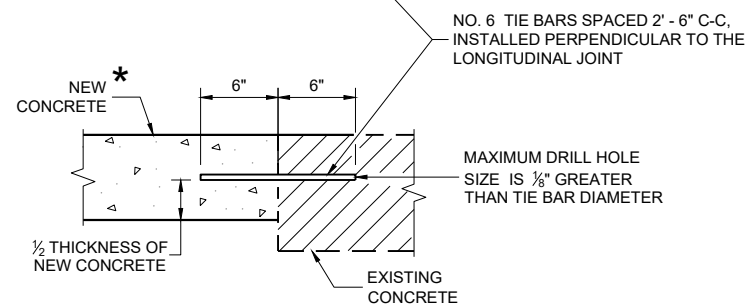
PLAN VIEW



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



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE ⑪



**SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT**

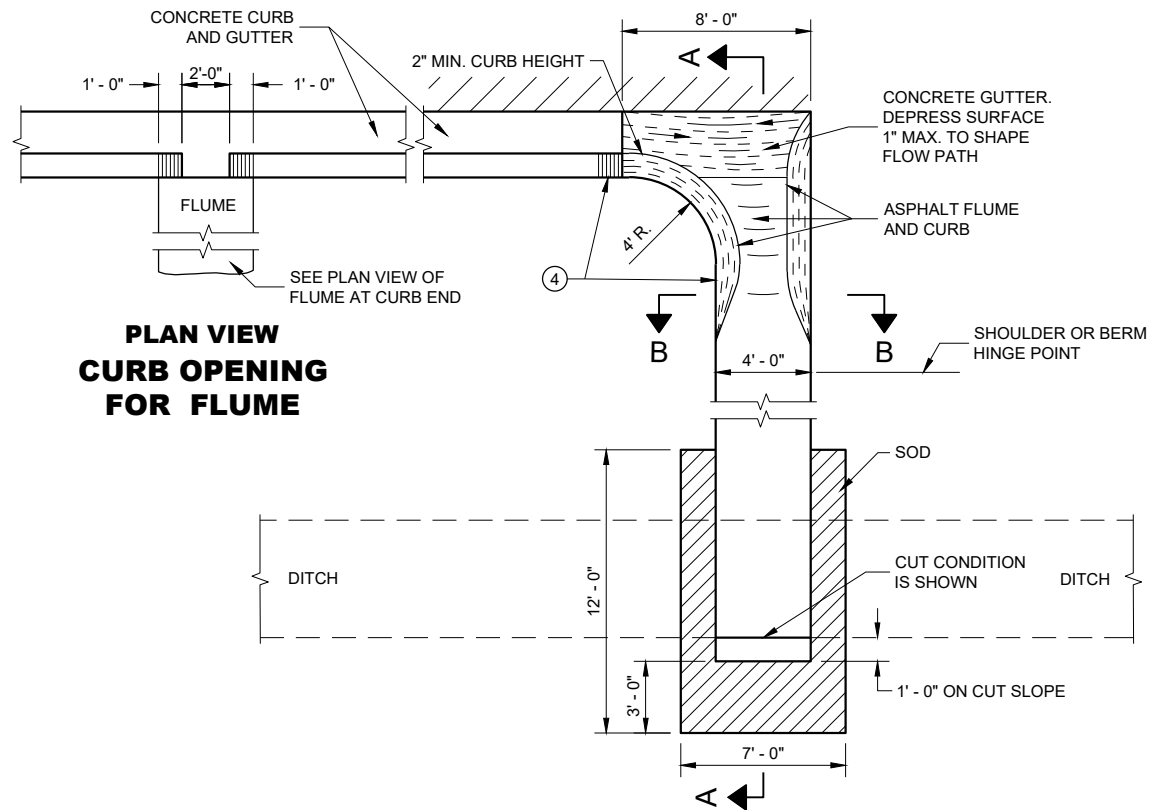
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

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

ASPHALTIC FLUME



**PLAN VIEW
CURB OPENING
FOR FLUME**

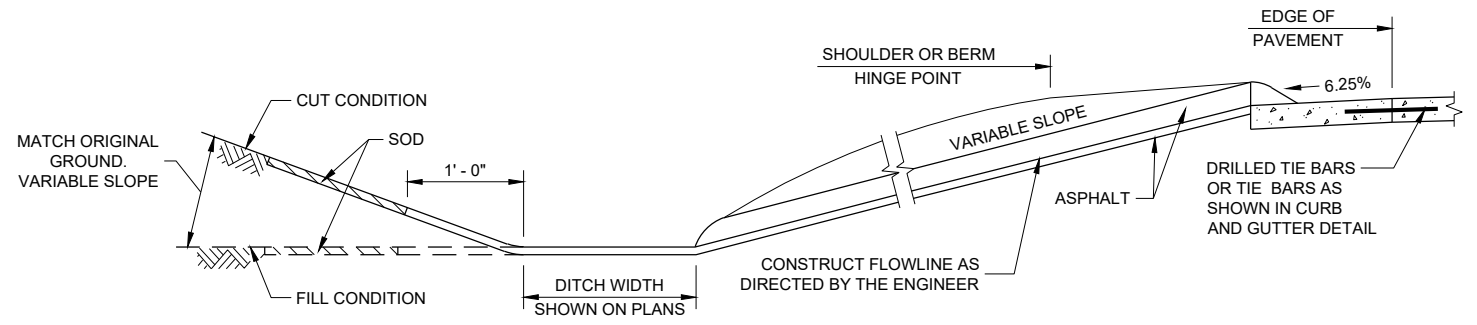
**PLAN VIEW
FLUME AT CURB END**

GENERAL NOTES

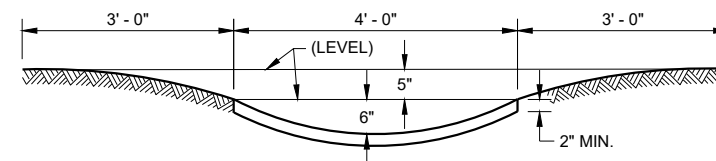
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

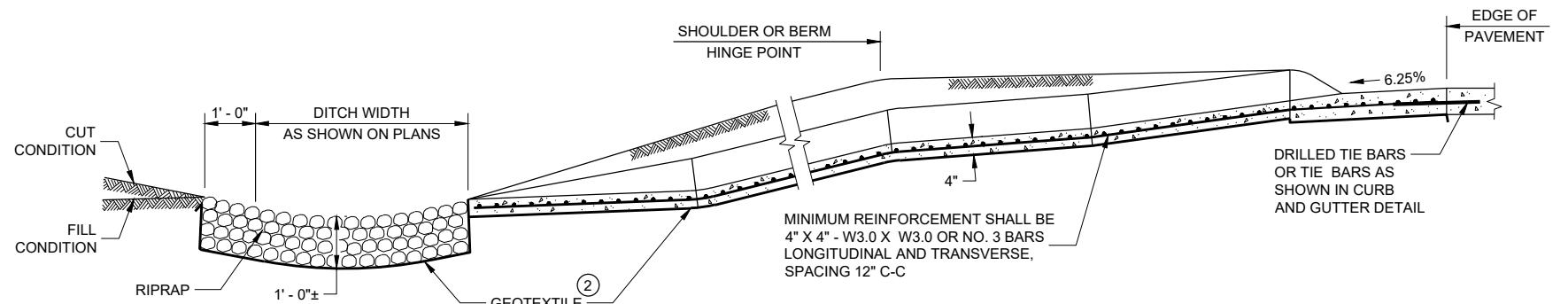
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.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



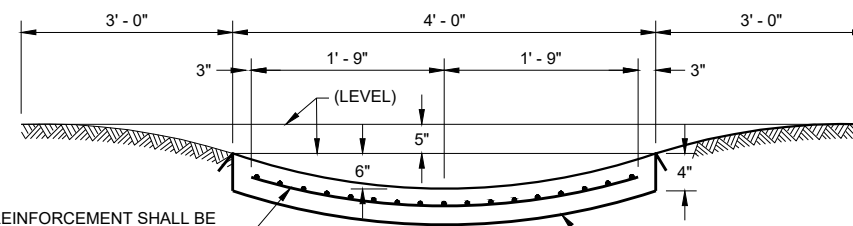
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE, SPACING 12" C-C

6

6

SDD 08D04 - 07

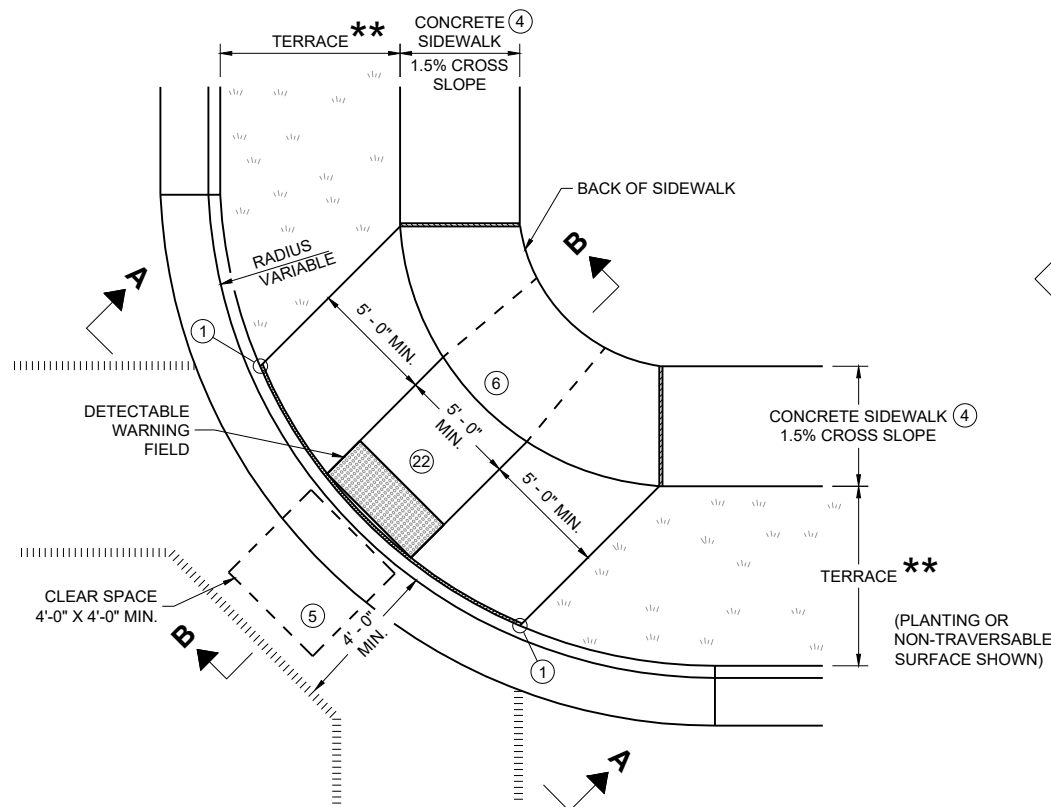
SDD 08D04 - 07

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

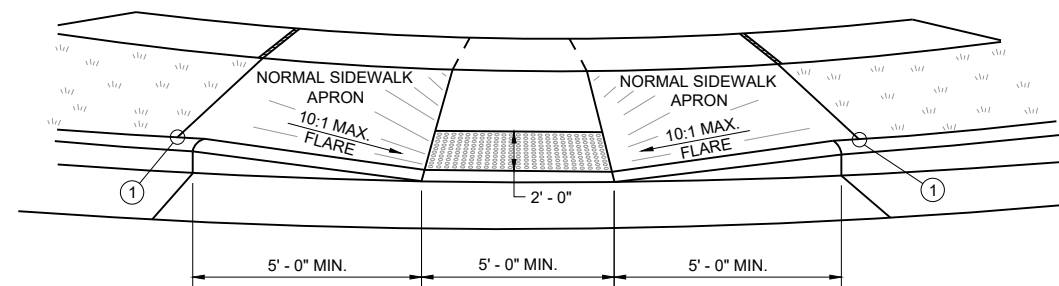
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

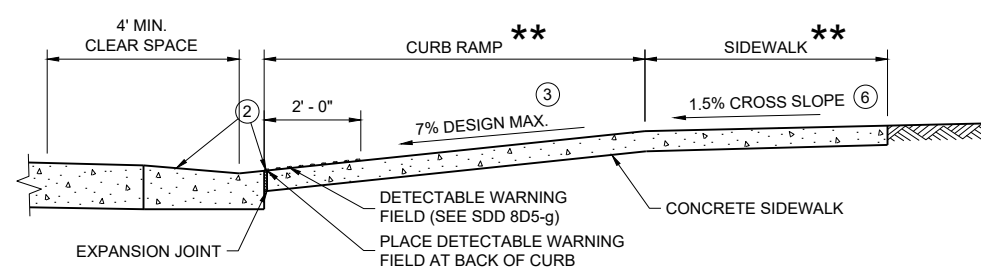
FHWA



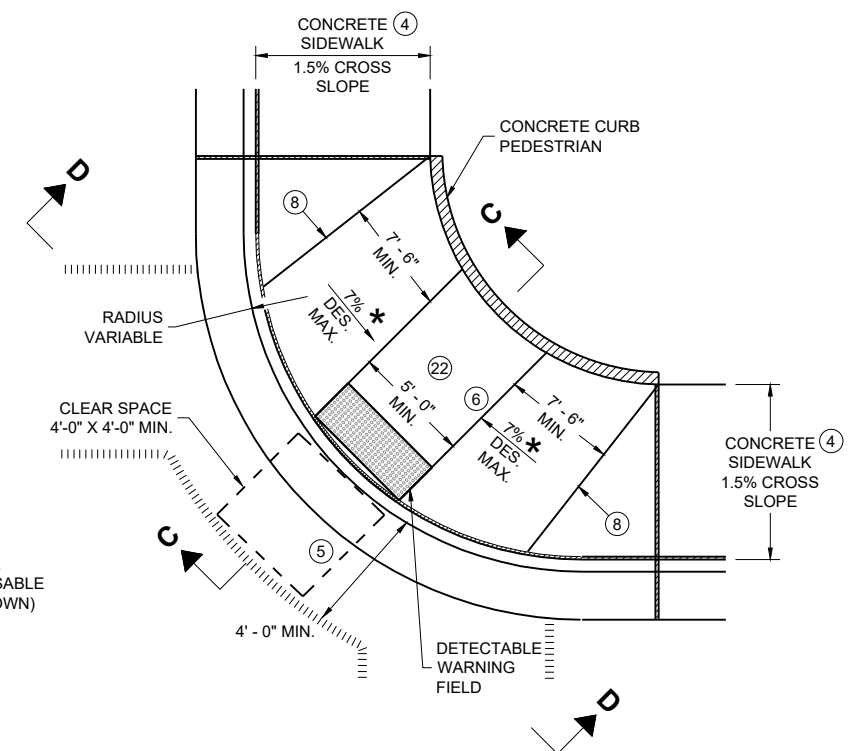
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



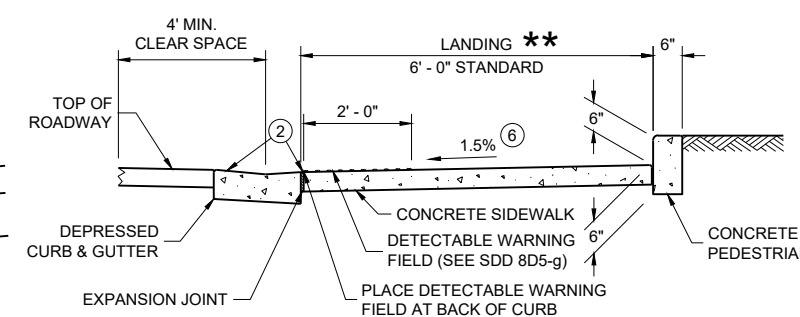
VIEW A - A FOR TYPE 1



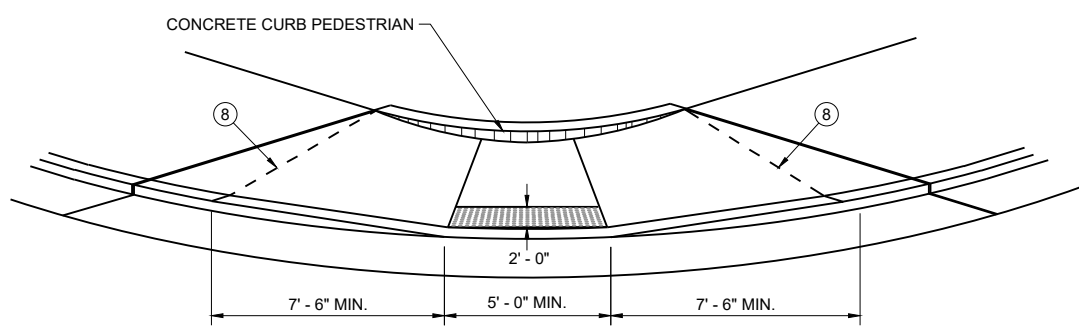
SECTION B - B FOR TYPE 1



**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 CURB 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 CURB RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB 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 CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
 - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - ⑤ PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).
 - ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
 - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
 - ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- — — — — 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

**CURB RAMPS
TYPE 1 AND 1-A**

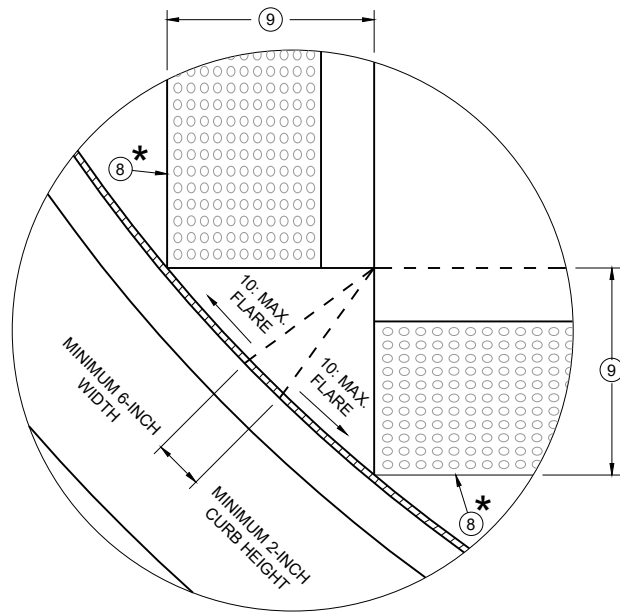
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

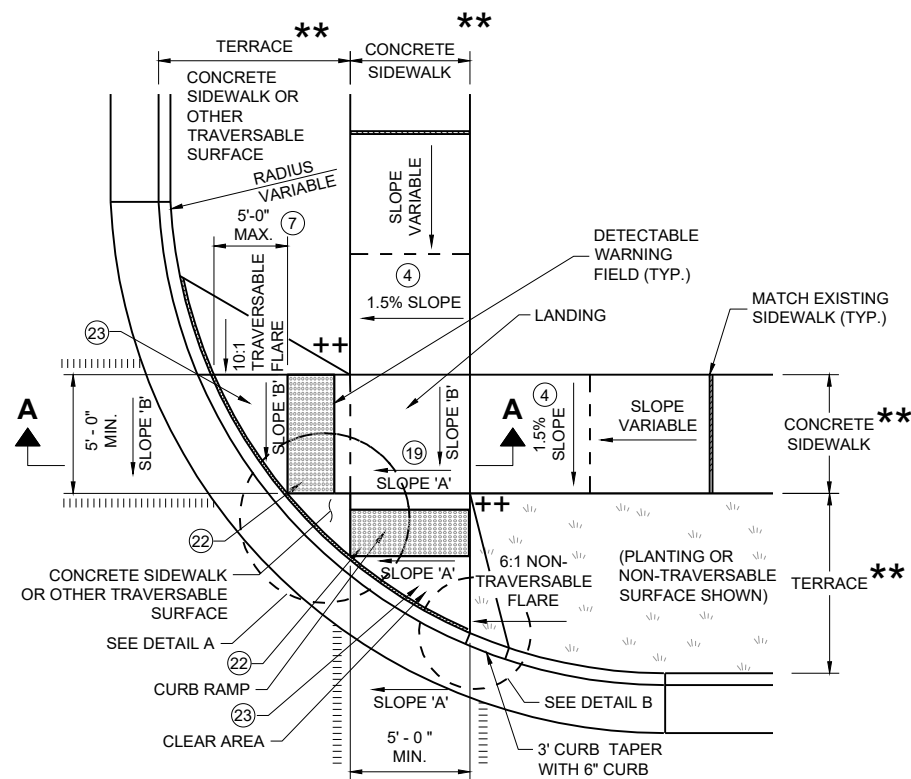
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SDD 08D05-22a

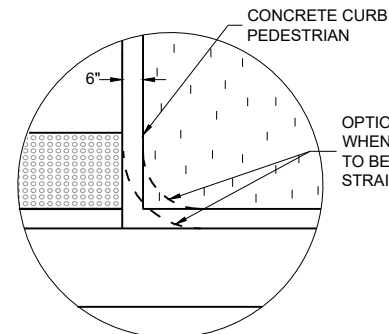
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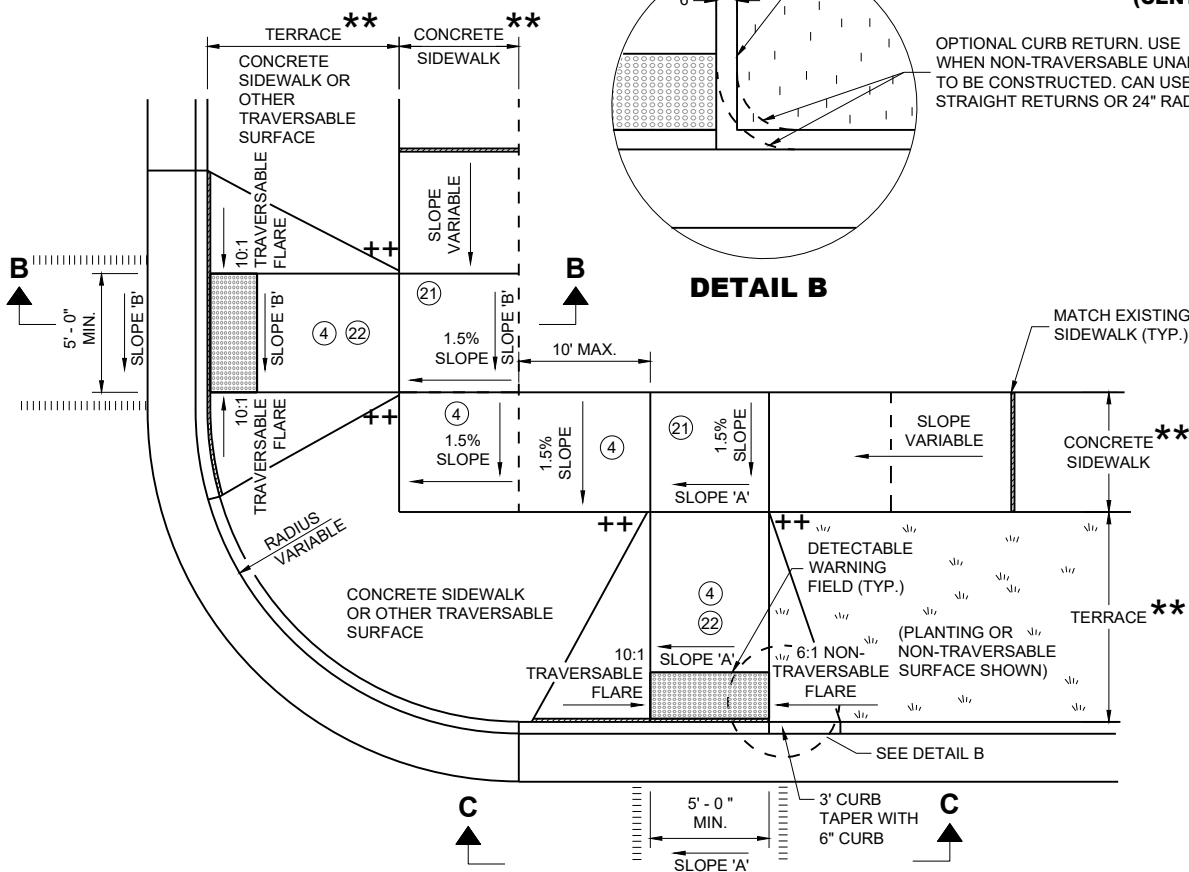
DETAIL A



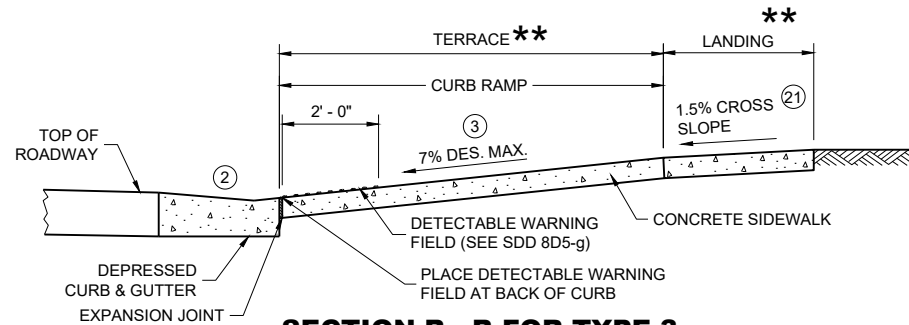
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



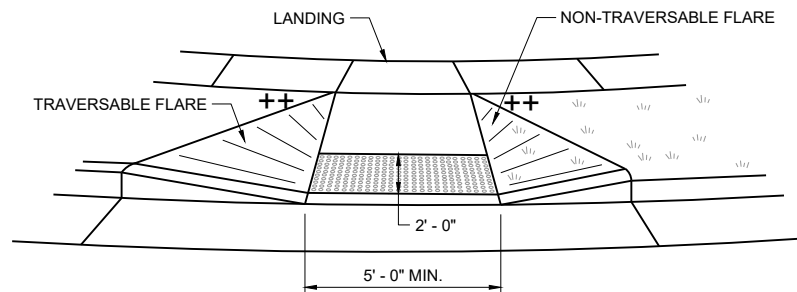
DETAIL B



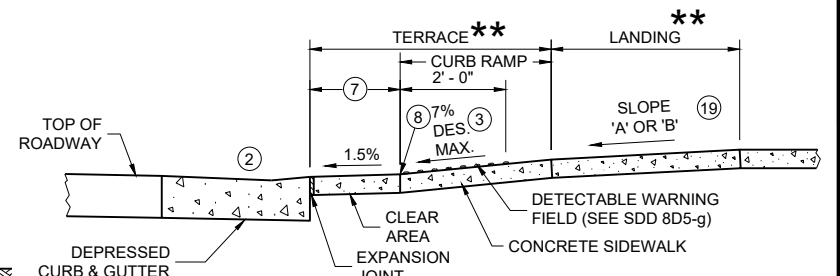
**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3



SECTION A - A FOR TYPE 2

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

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

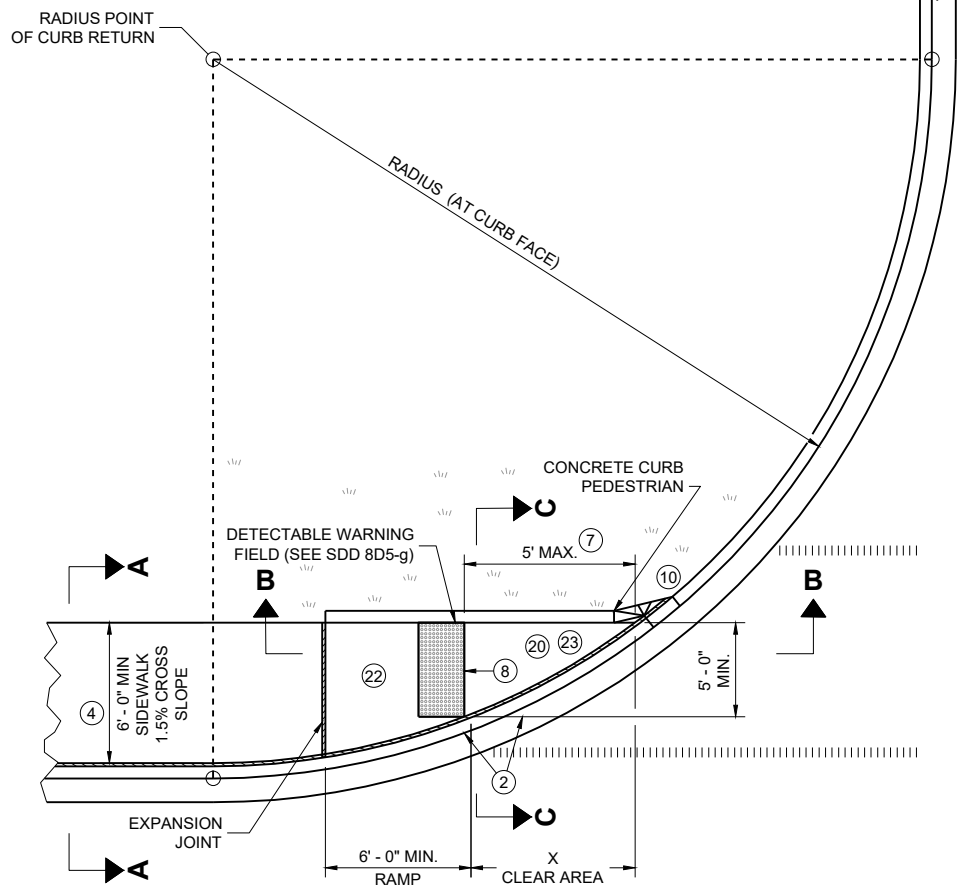
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-4.
- 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% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- ⑬ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑭ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑮ PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑯ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ⑰ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**CURB RAMPS
TYPE 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

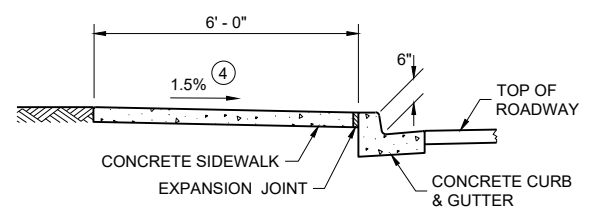


PLAN VIEW
CURB RAMP TYPE 4A

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - - - CONTRACTION JOINT SIDEWALK
 - ||||| PAVEMENT MARKING CROSSWALK (WHITE)
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

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

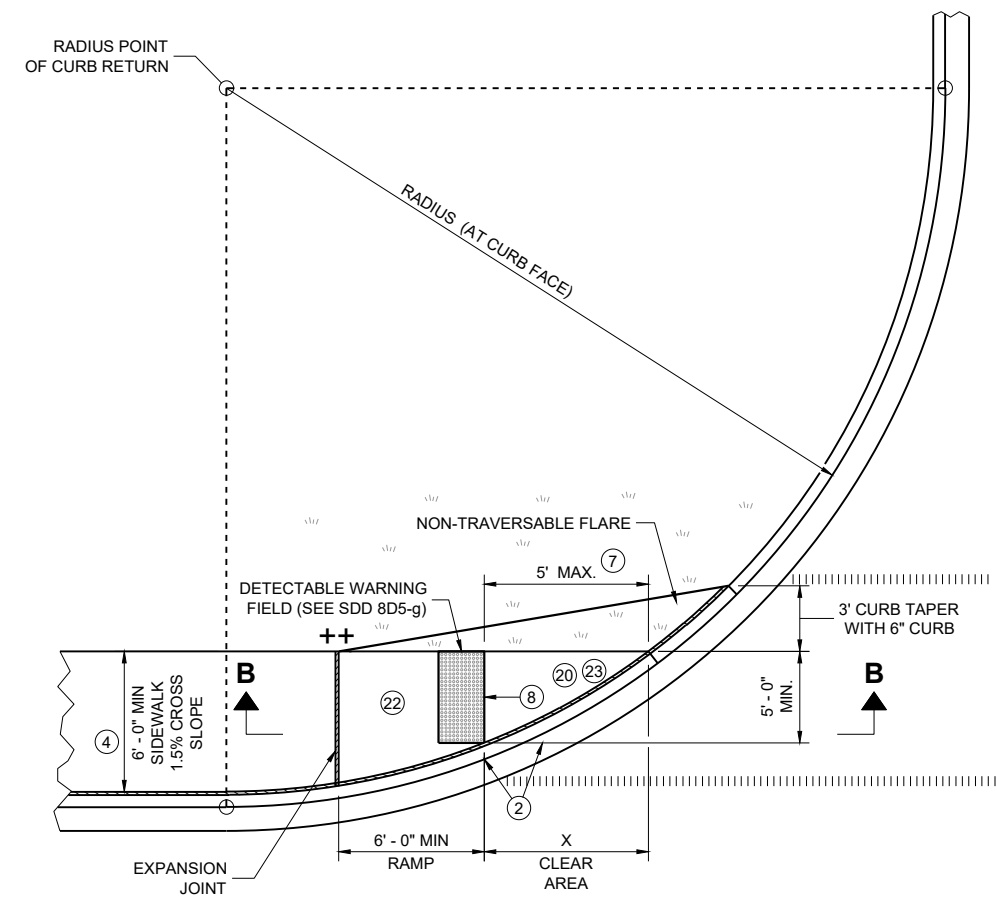
INTERMEDIATE RADII CAN BE INTERPOLATED



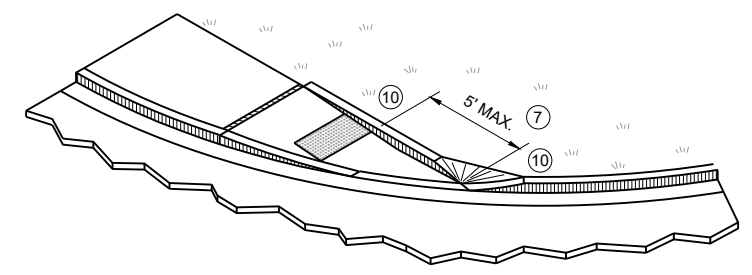
SECTION A - A FOR TYPE 4A

GENERAL NOTES

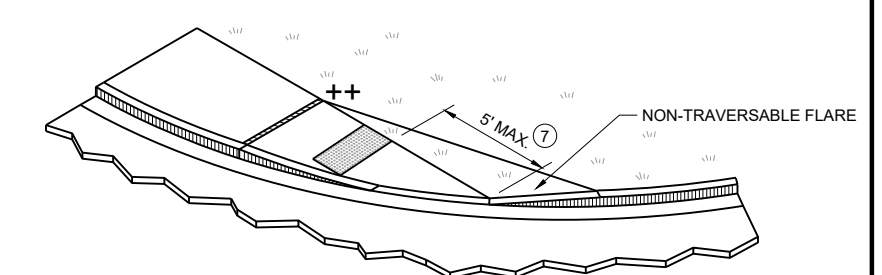
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (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.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- (23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



PLAN VIEW
CURB RAMP TYPE 4A1



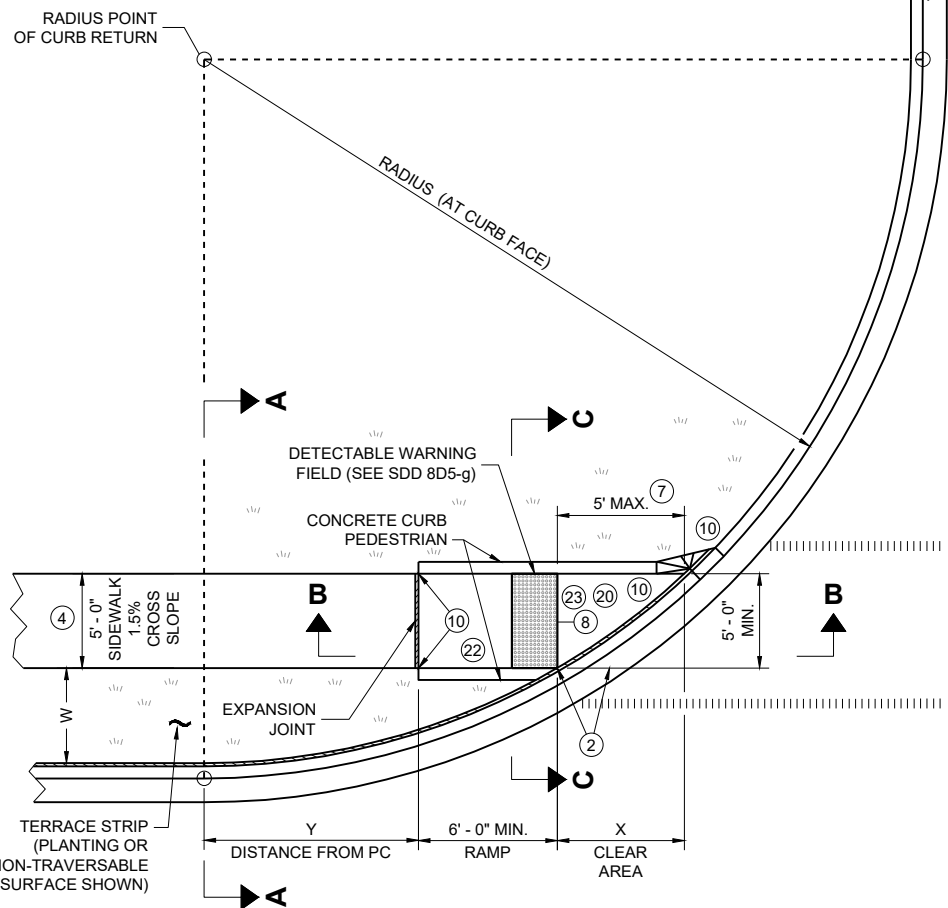
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

**CURB RAMPS
TYPE 4A AND 4A1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



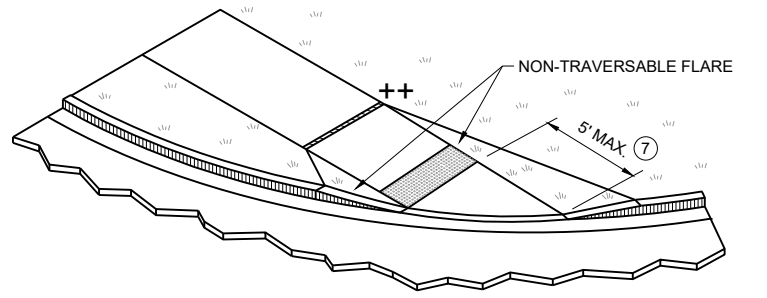
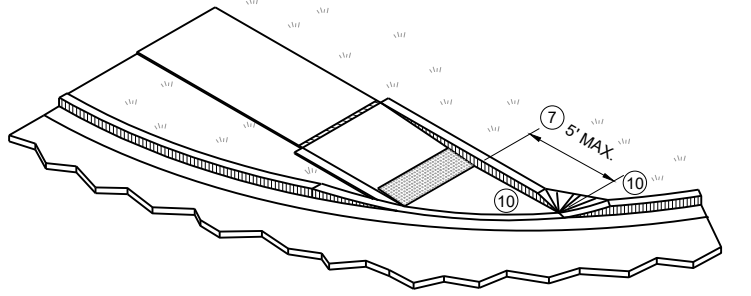
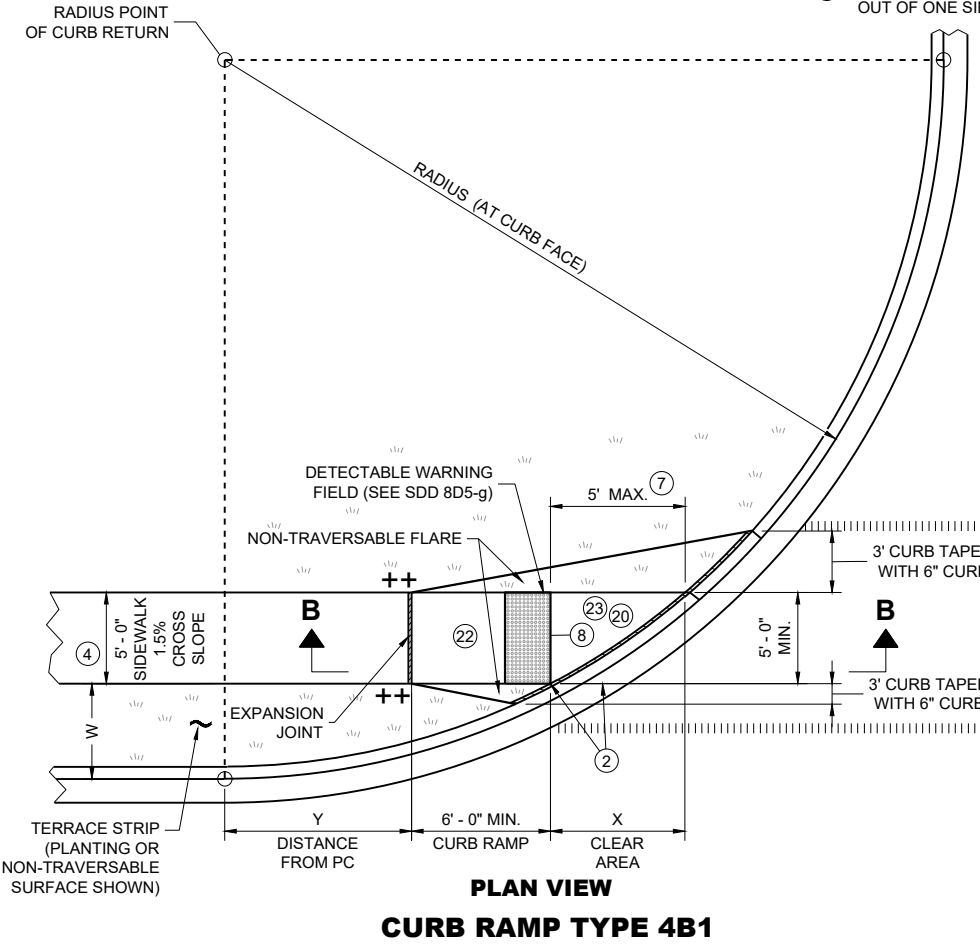
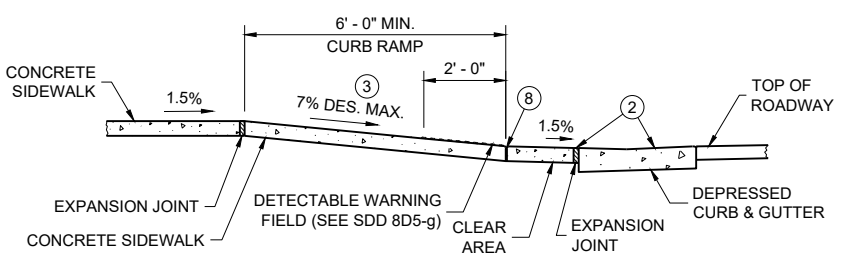
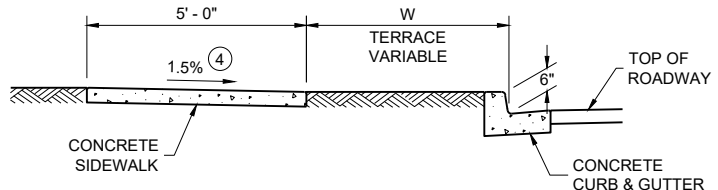
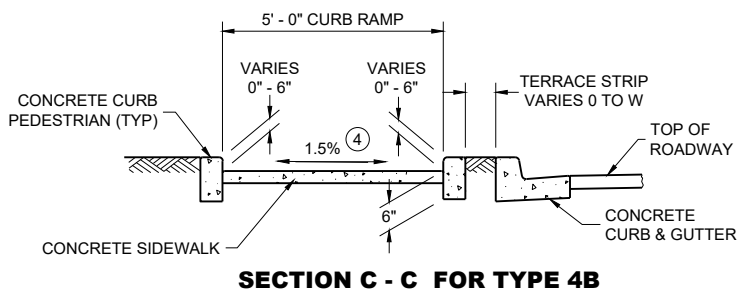
RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 3/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 3/4"	3'-1 1/4"	4'-6"	2'-6 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"

- LEGEND**
- ===== 1/2" EXPANSION JOINT SIDEWALK
 - - - - - CONTRACTION JOINT SIDEWALK
 - ||||| PAVEMENT MARKING CROSSWALK (WHITE)
 - * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

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

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (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.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- (23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



CURB RAMPS TYPE 4B AND 4B1

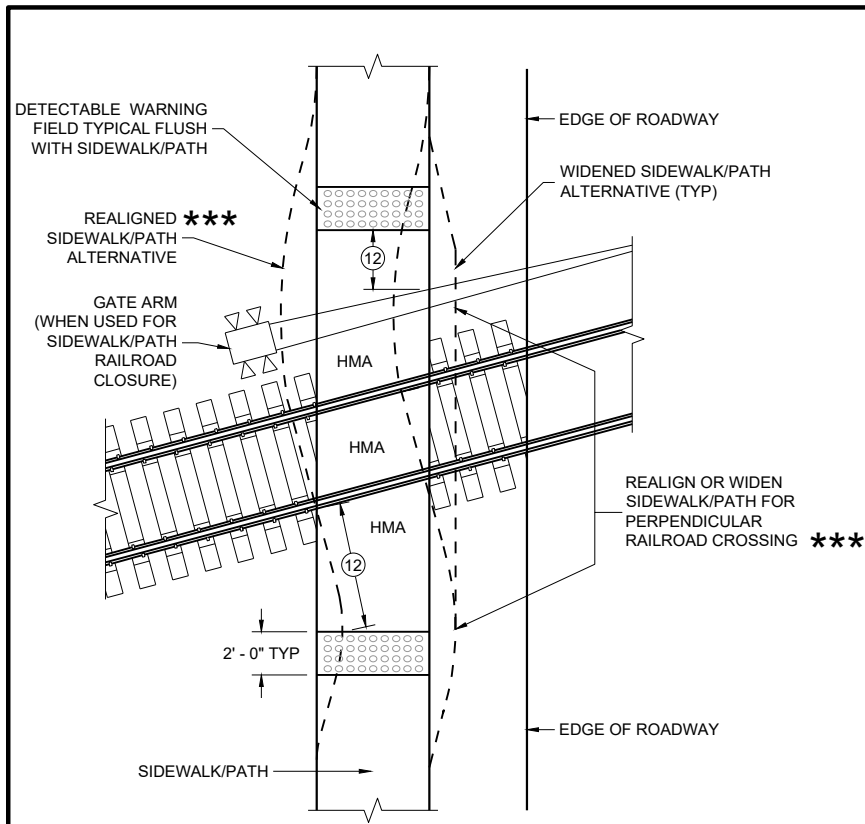
STATE OF WISCONSIN
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6

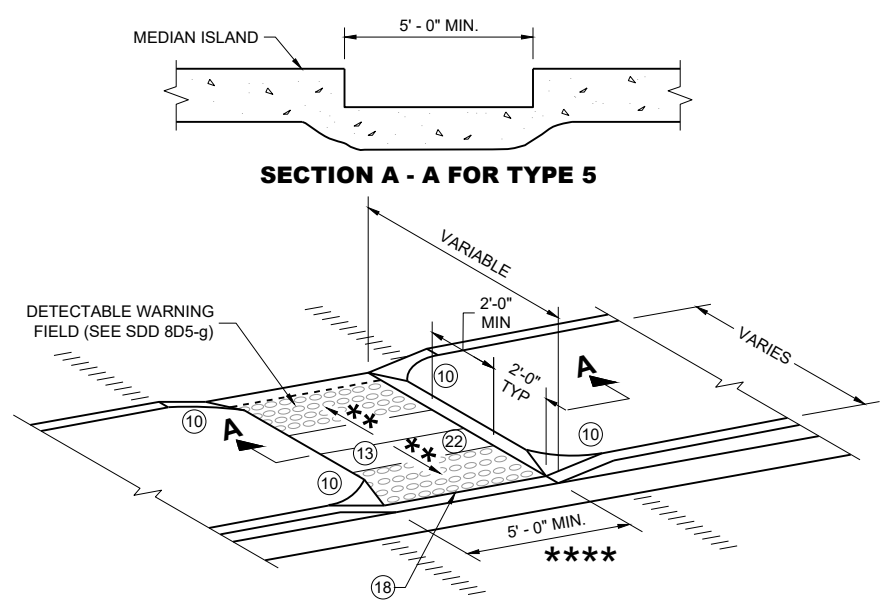
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SDD 08D05-22d

SDD 08D05-22d

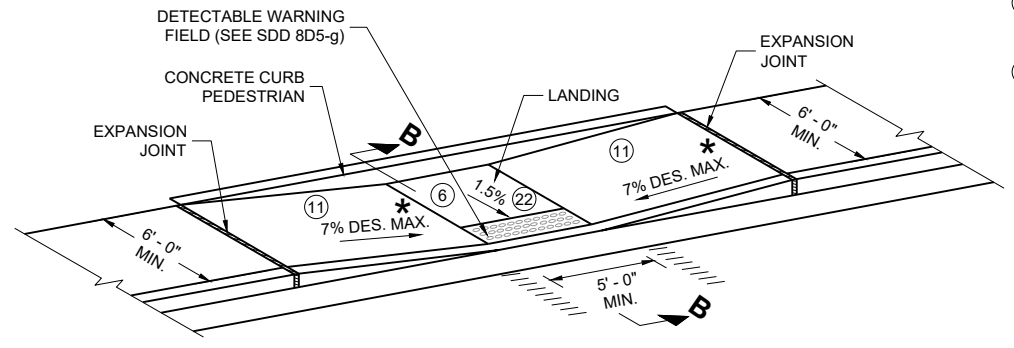


CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS

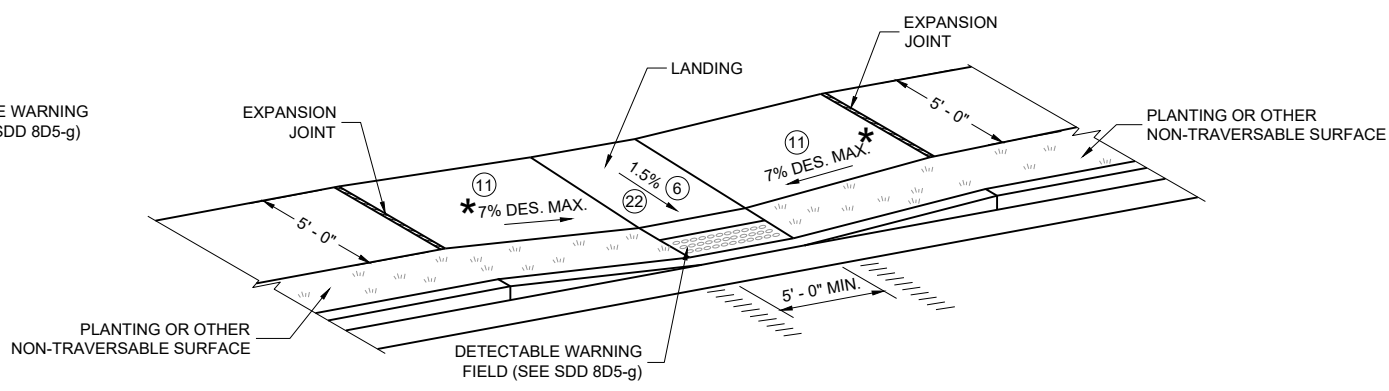


SECTION A - A FOR TYPE 5

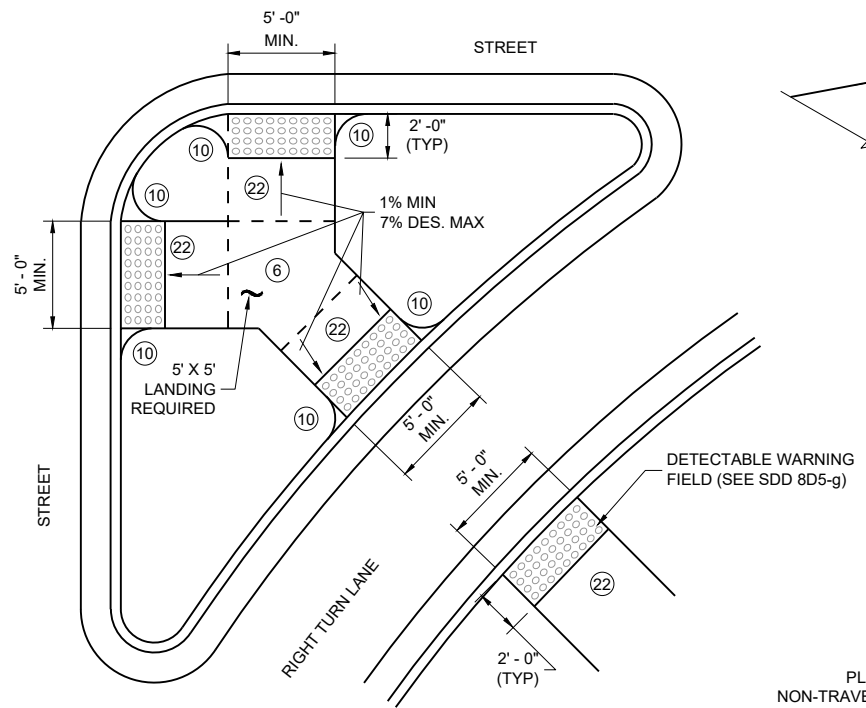
CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 7B
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

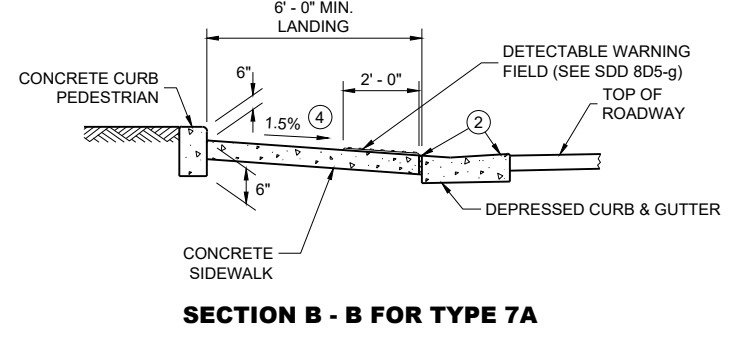
REFER TO GENERAL NOTES (2) AND (3)
 FOR ALL ISLAND CURB RAMPS

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 2.1%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- (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 STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (18) WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- MAXIMUM 8.3%
- 1% MINIMUM (PROVIDE DRAINAGE)
- DETAILS TO BE DETERMINED BY ENGINEER
- FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK

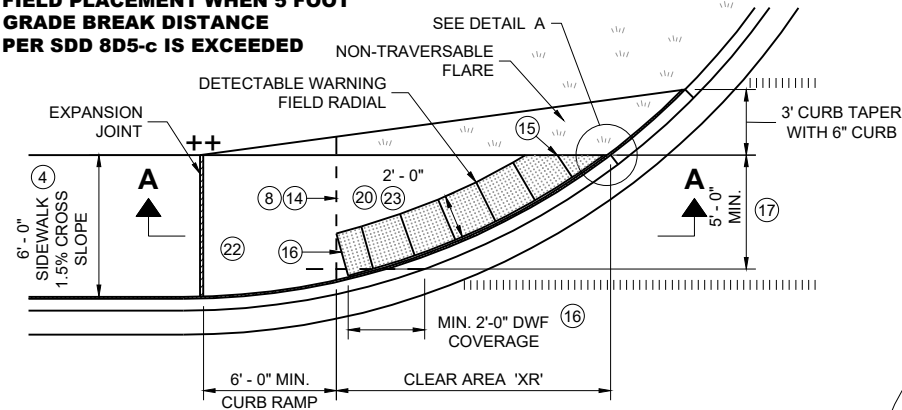


SECTION B - B FOR TYPE 7A

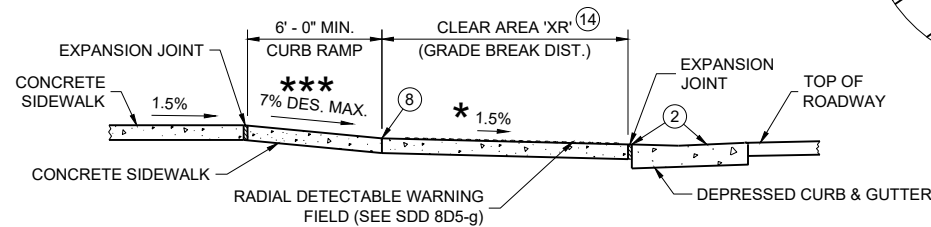
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

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 DEPARTMENT OF TRANSPORTATION

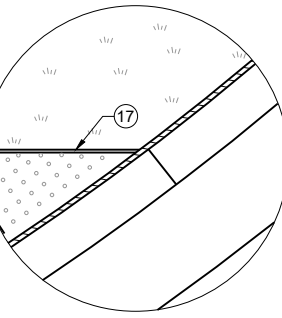
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



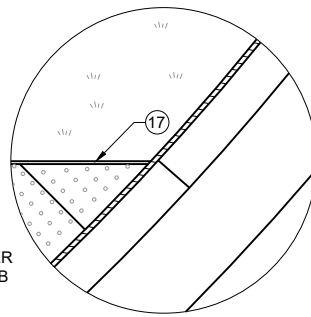
**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



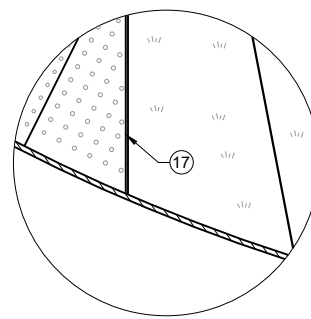
SECTION A - A FOR TYPE 4A1



DETAIL A

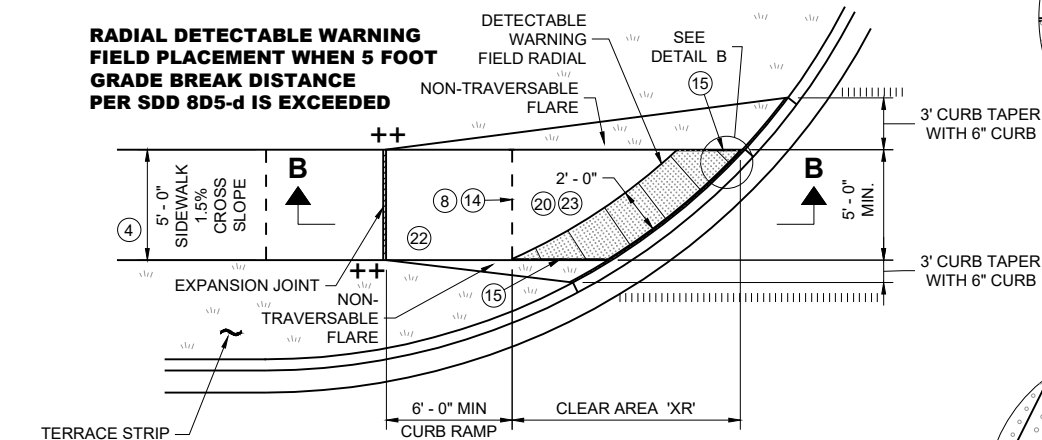


DETAIL B

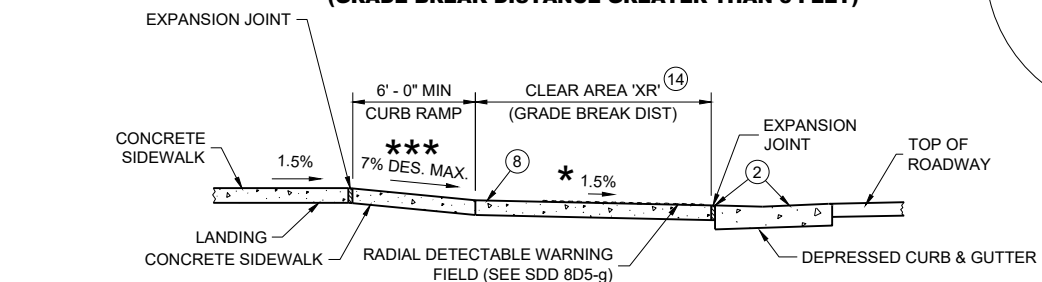


DETAIL C

**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)**

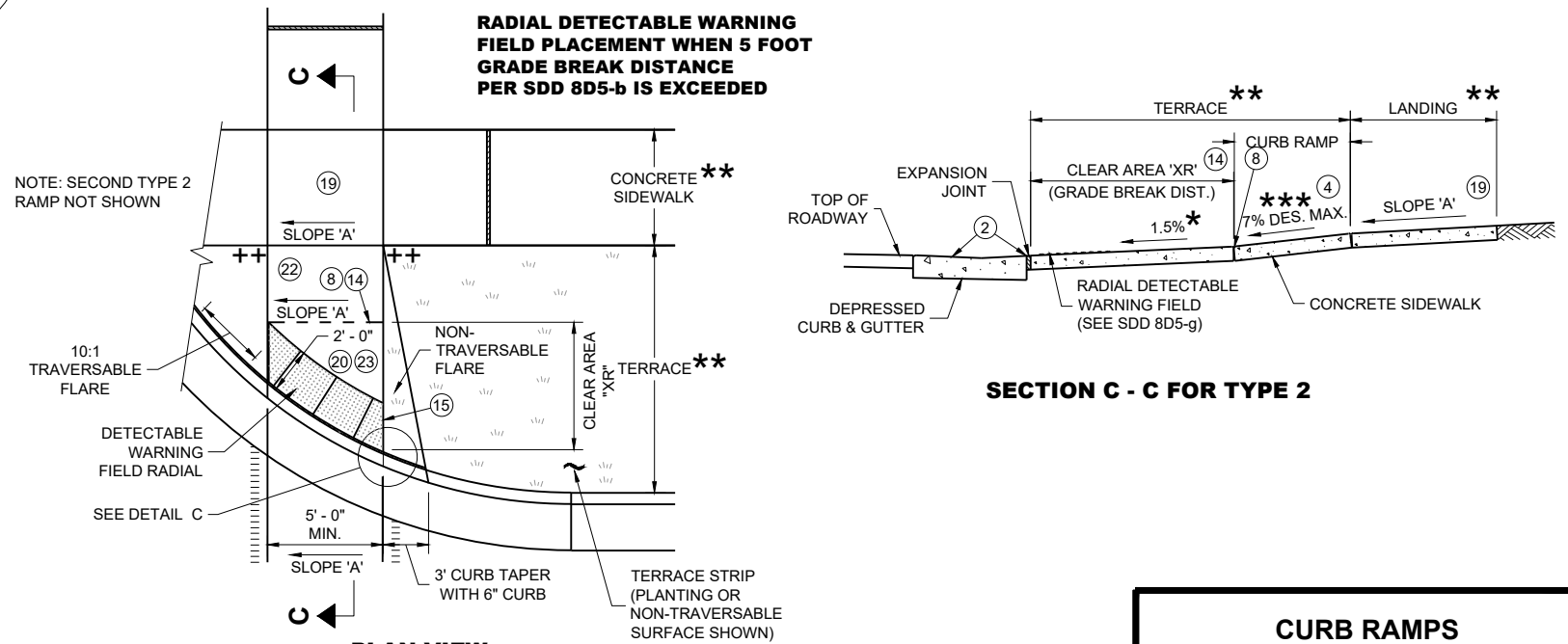


SECTION B - B FOR TYPE 4B1

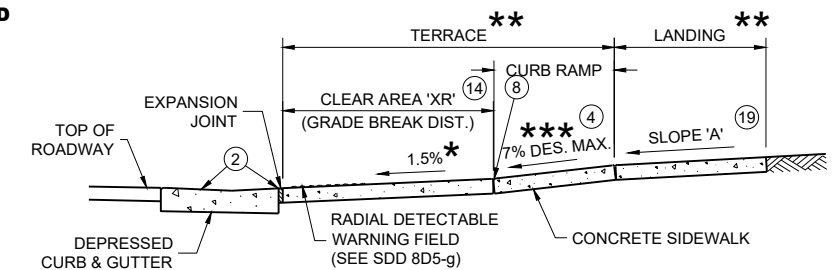
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB 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 COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- 4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- 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 1/8" 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 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- 19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- 20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- 22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- 23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**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)**



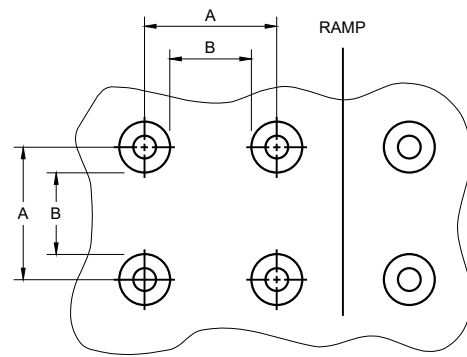
SECTION C - C FOR TYPE 2

**CURB RAMPS
RADIAL DETECTABLE WARNING**

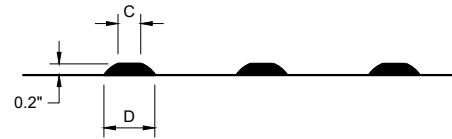
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

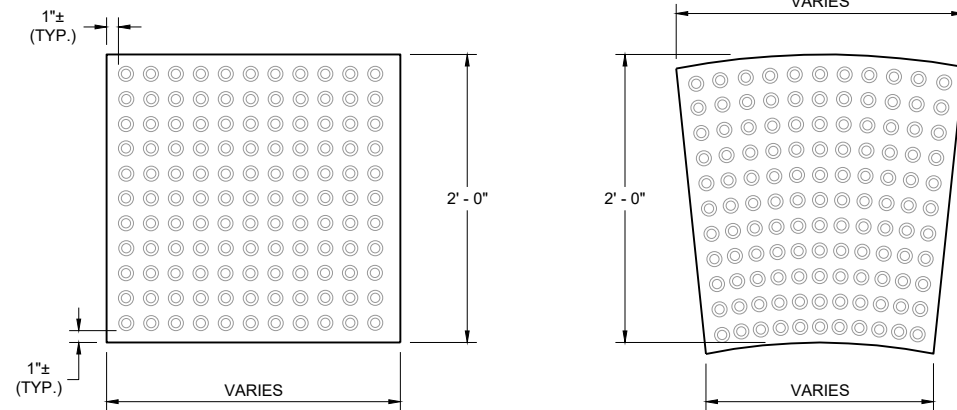


PLAN VIEW



ELEVATION VIEW

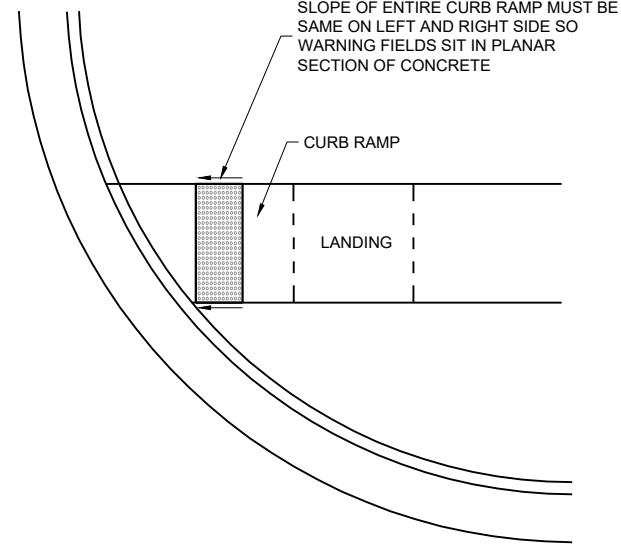
**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**



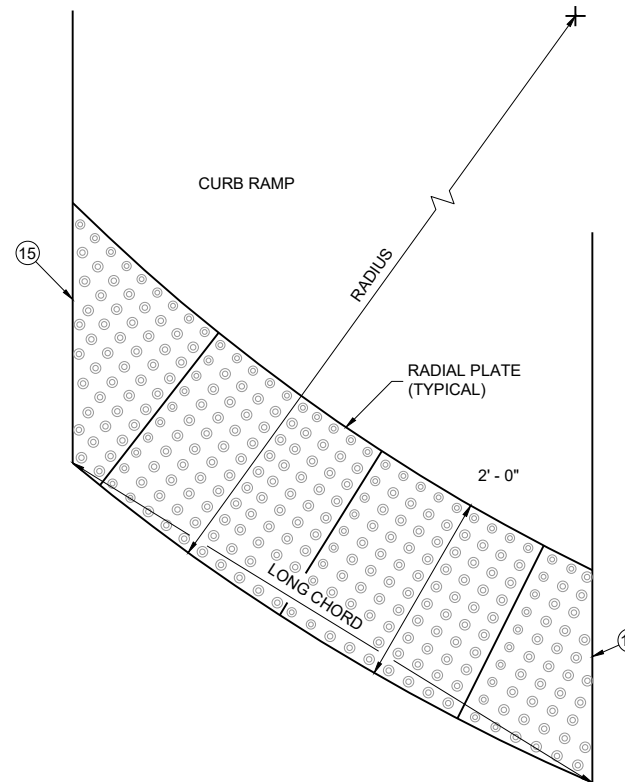
**RECTANGULAR
PLATES**

**RADIAL
PLATES**

**PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)**



**DETECTABLE WARNING FIELD
PLANAR INSTALLATION**

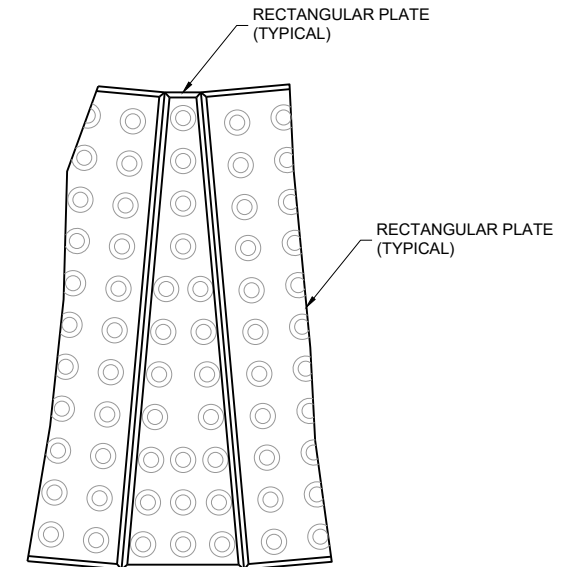


**PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES**

GENERAL NOTES

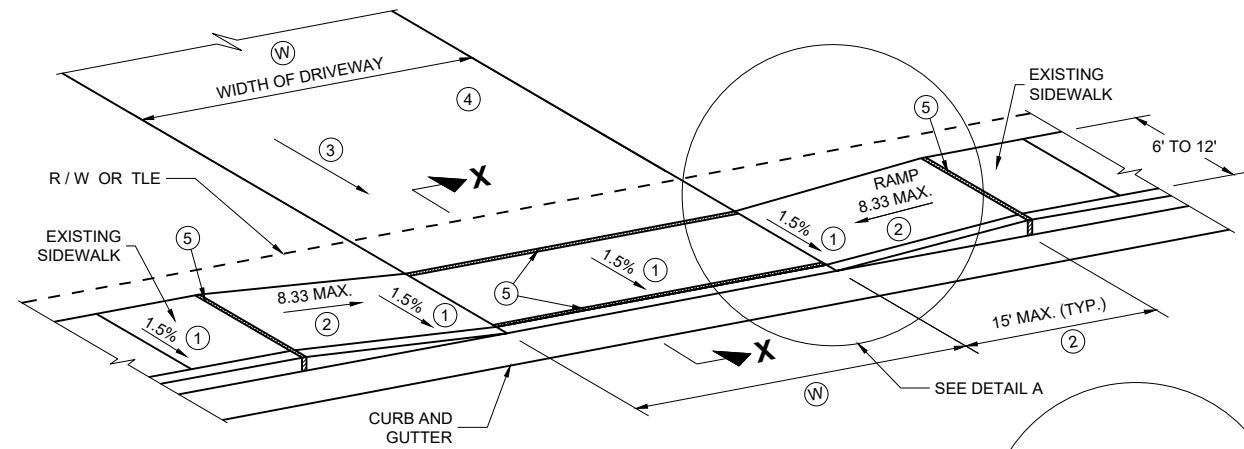
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.
- PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE 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.
- 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.

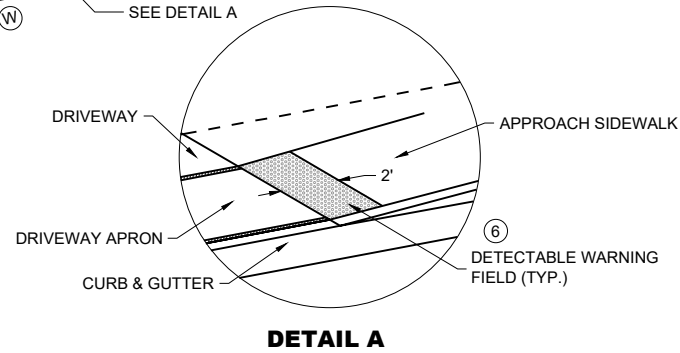


**PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL**

CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2025 DATE	/s/ Rodney Taylor <position>
FHWA	

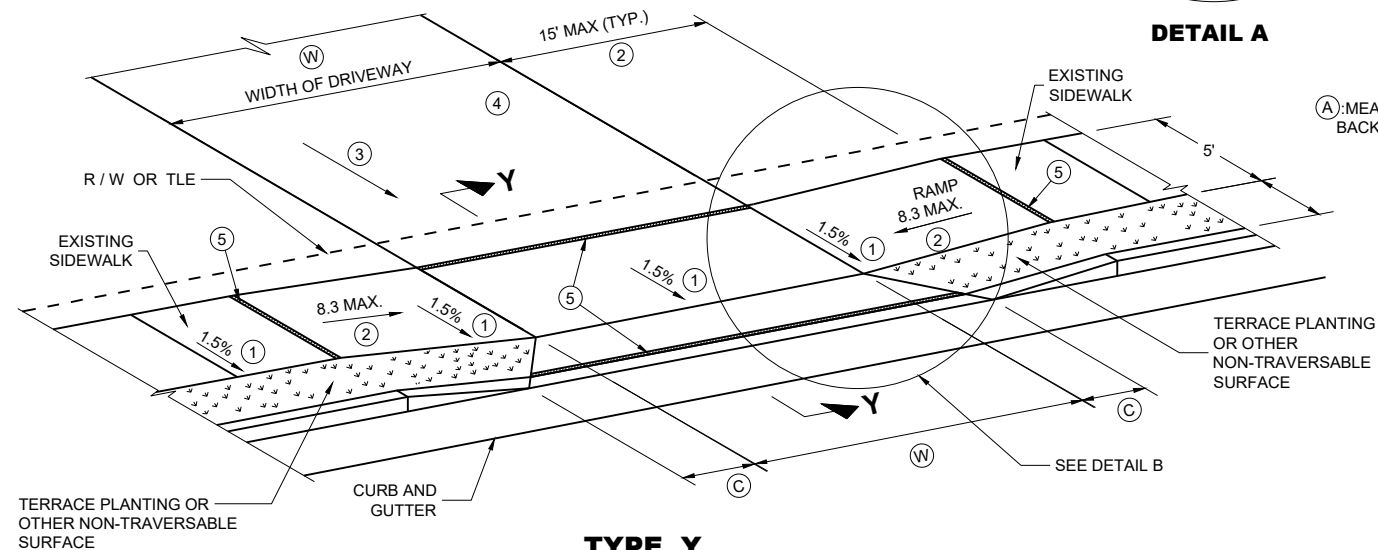


TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



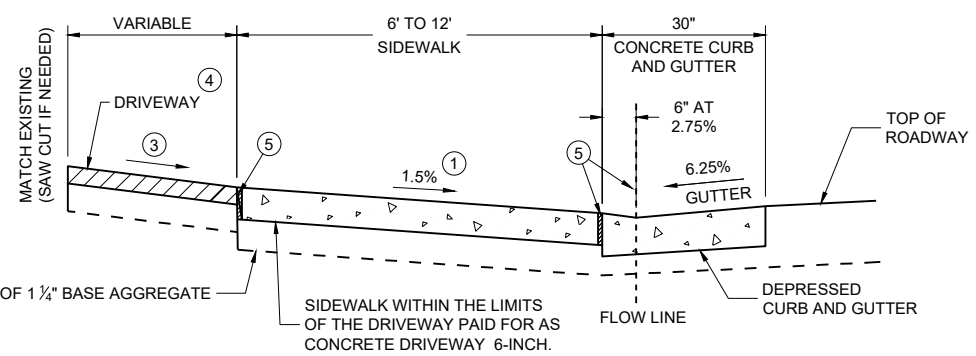
DETAIL A

(A): MEASURE FROM BACK OF CURB

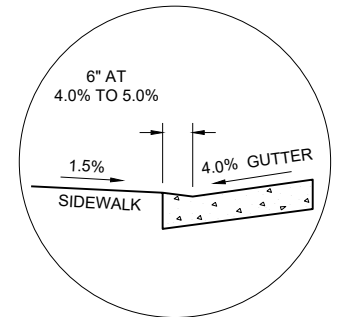


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

TERRACE PLANTING OR OTHER NON-TRAVERSABLE SURFACE



SECTION X - X

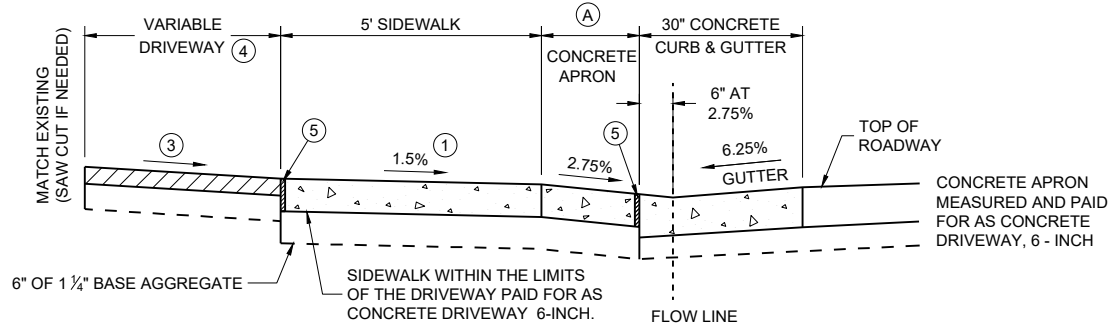


SECTION X - X
4% GUTTER SLOPE

TABLE Y

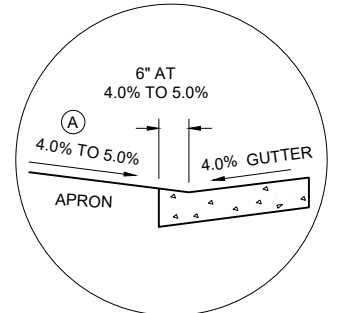
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

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



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

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

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

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

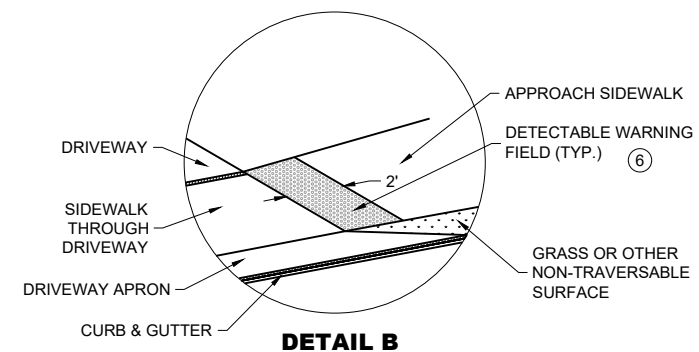
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL 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 1/2" EXPANSION JOINT FILLER

⑥ DETECABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



DETAIL B

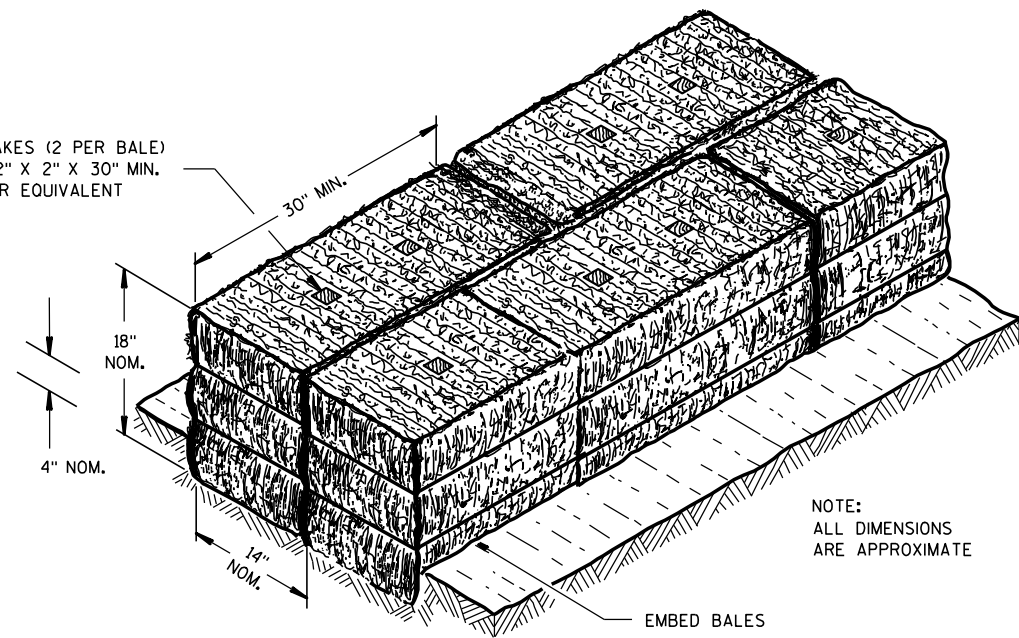
DRIVEWAY AND SIDEWALK RAMPS
TYPES X AND Y

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 February 2025 /S/ Rodney Taylor
 DATE

FHWA

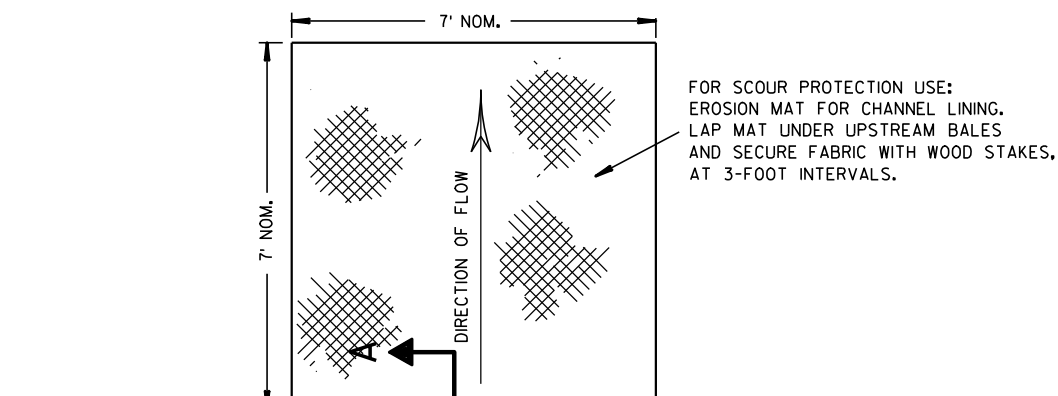
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



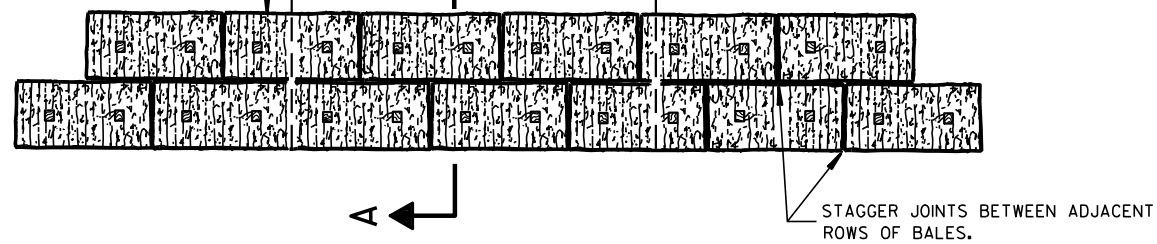
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



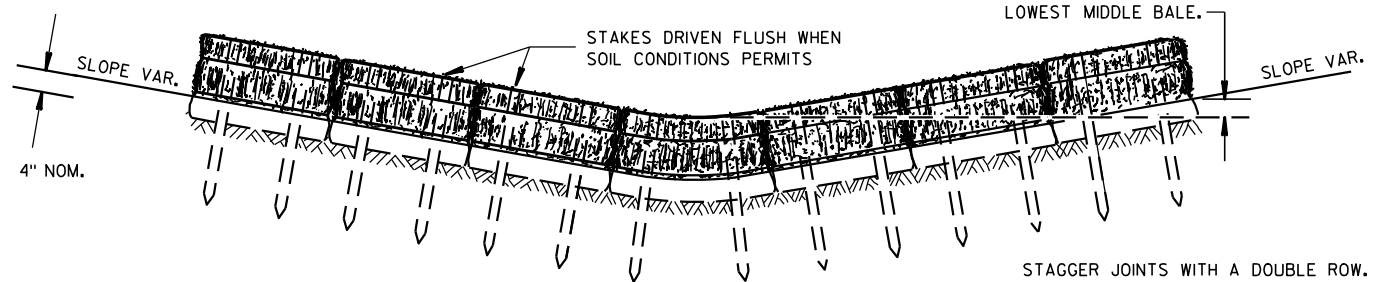
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



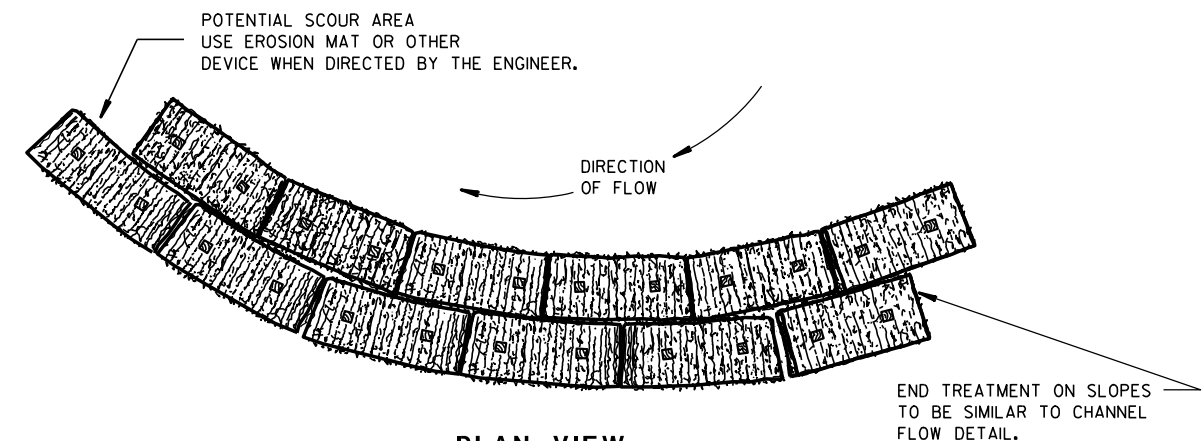
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

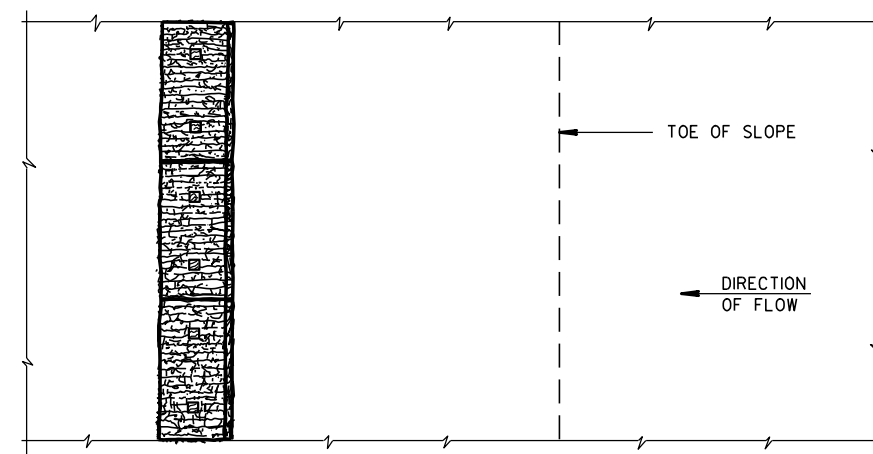
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

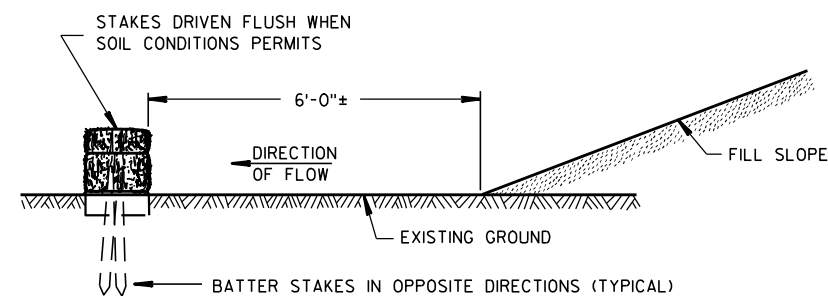


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

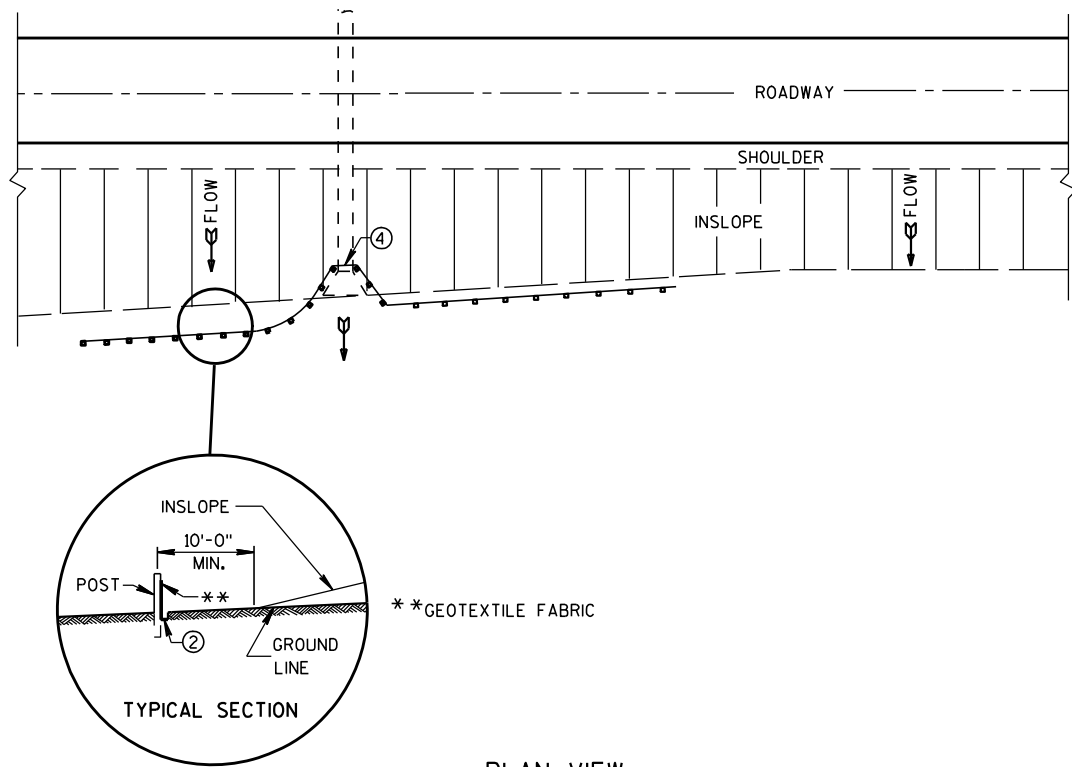
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

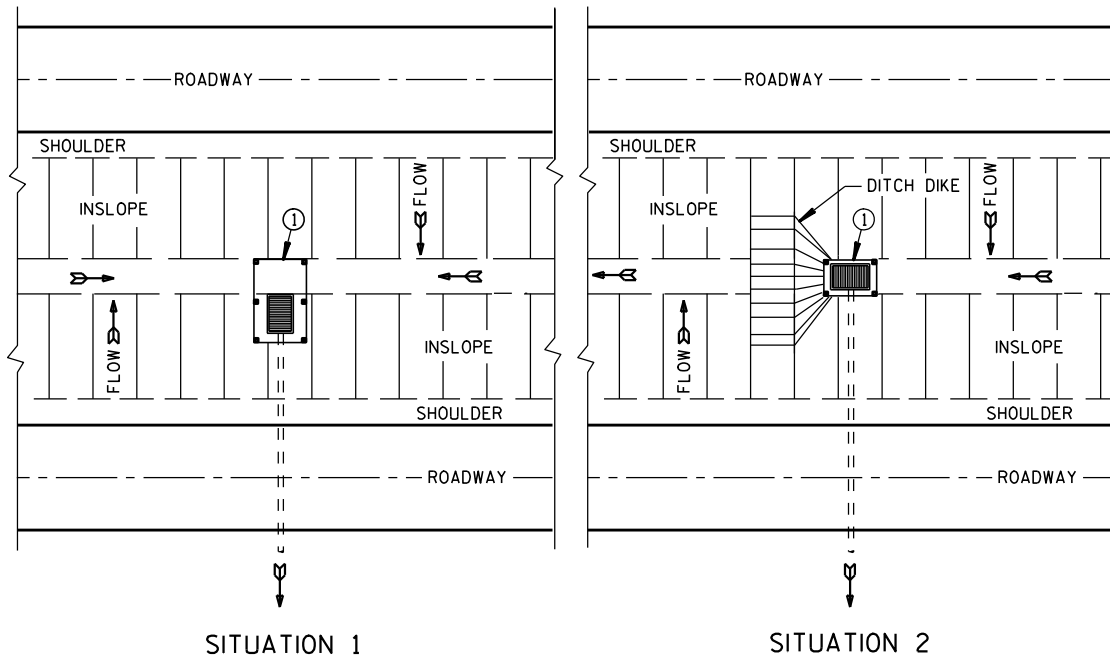
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

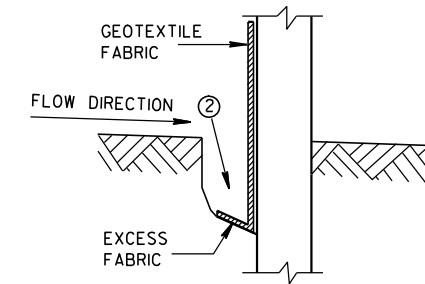


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

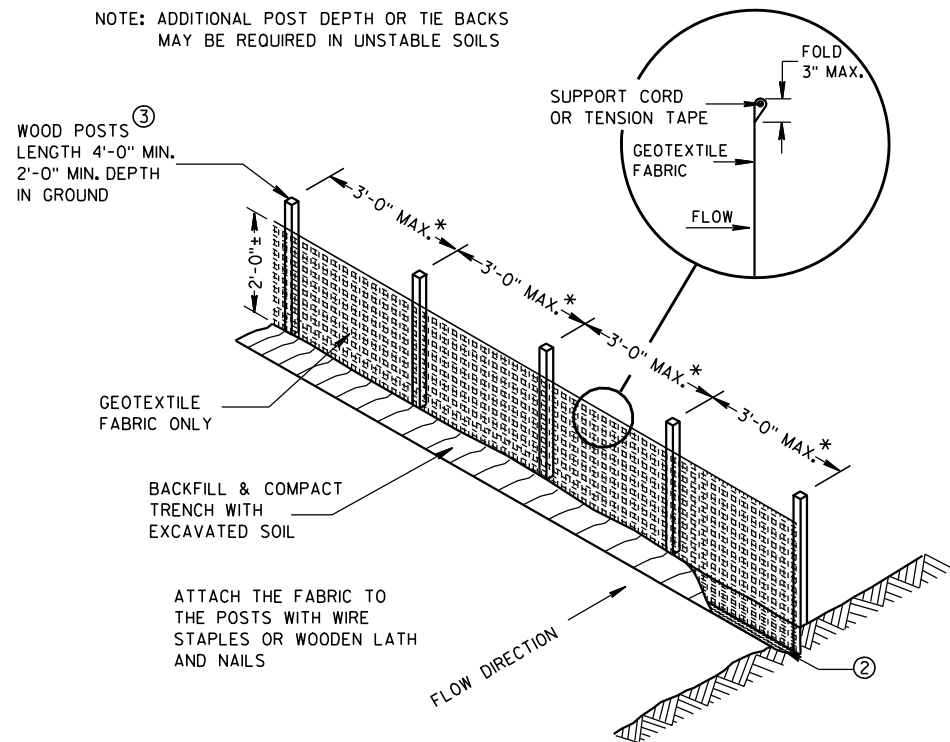
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



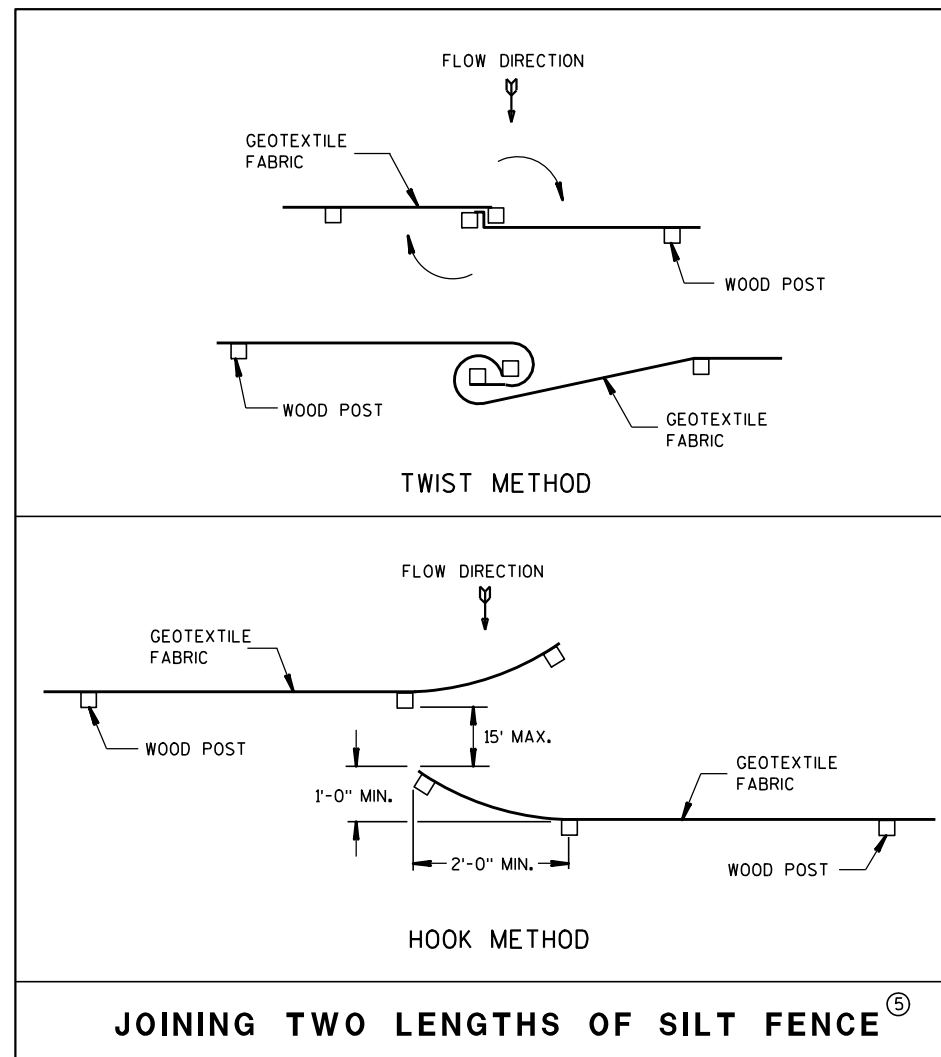
TRENCH DETAIL

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

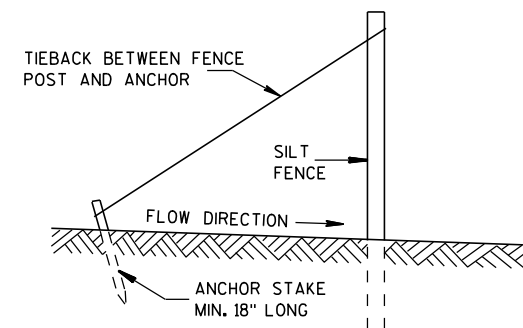


SILT FENCE

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

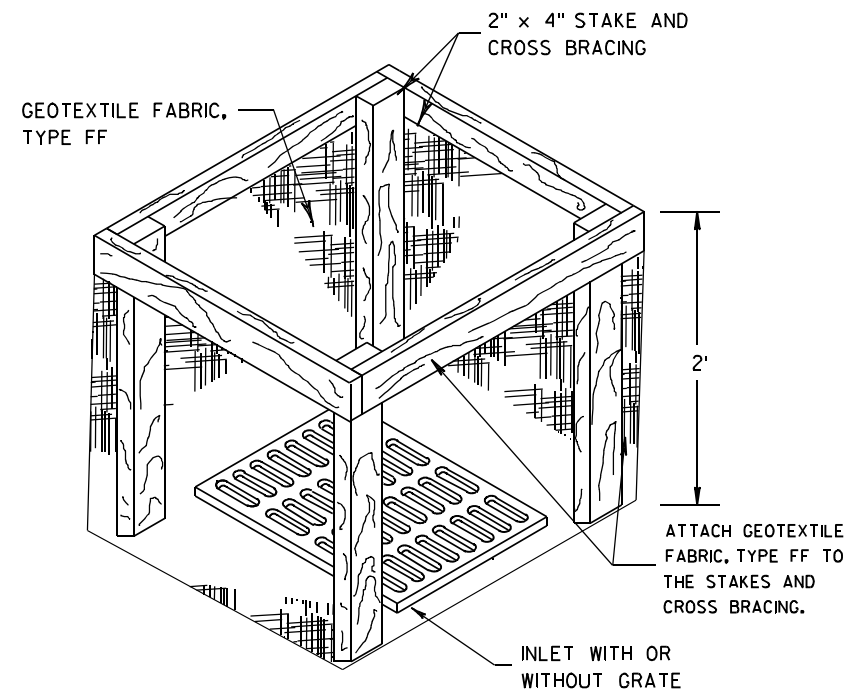
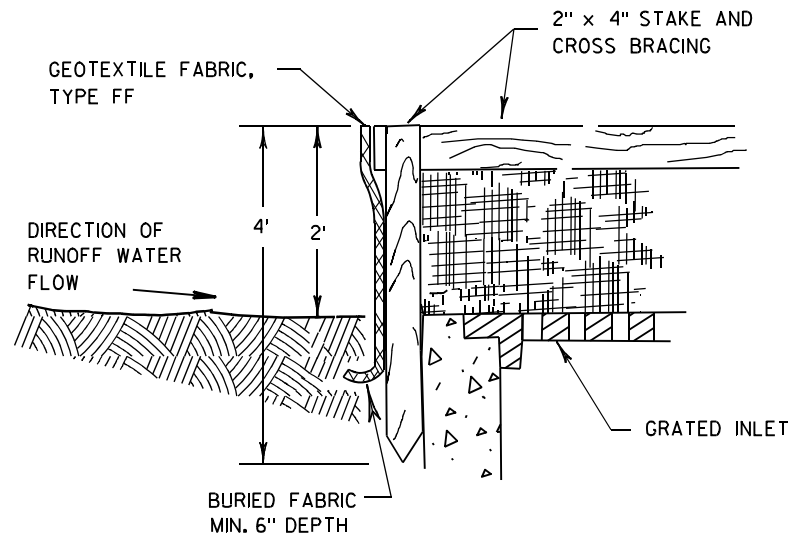


JOINING TWO LENGTHS OF SILT FENCE



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

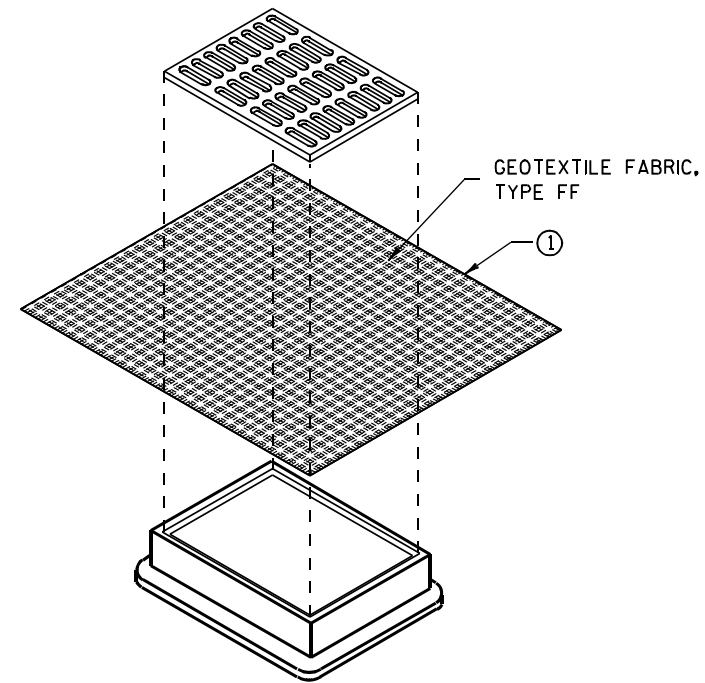
GENERAL NOTES

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.

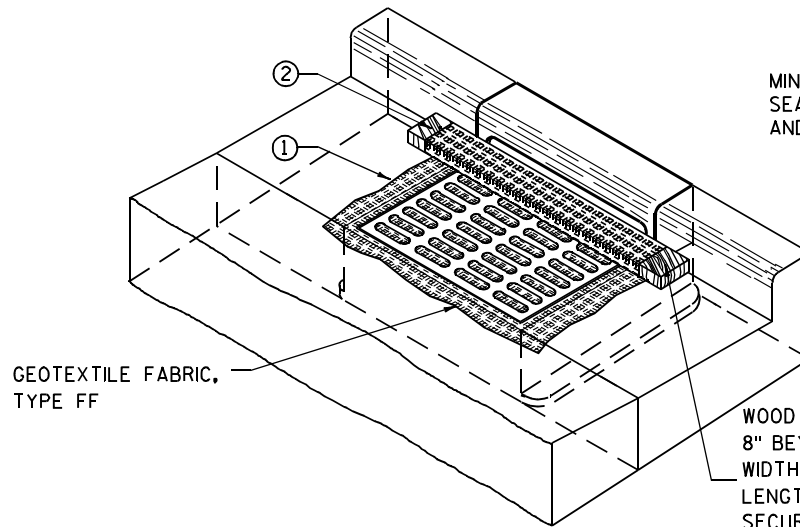
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

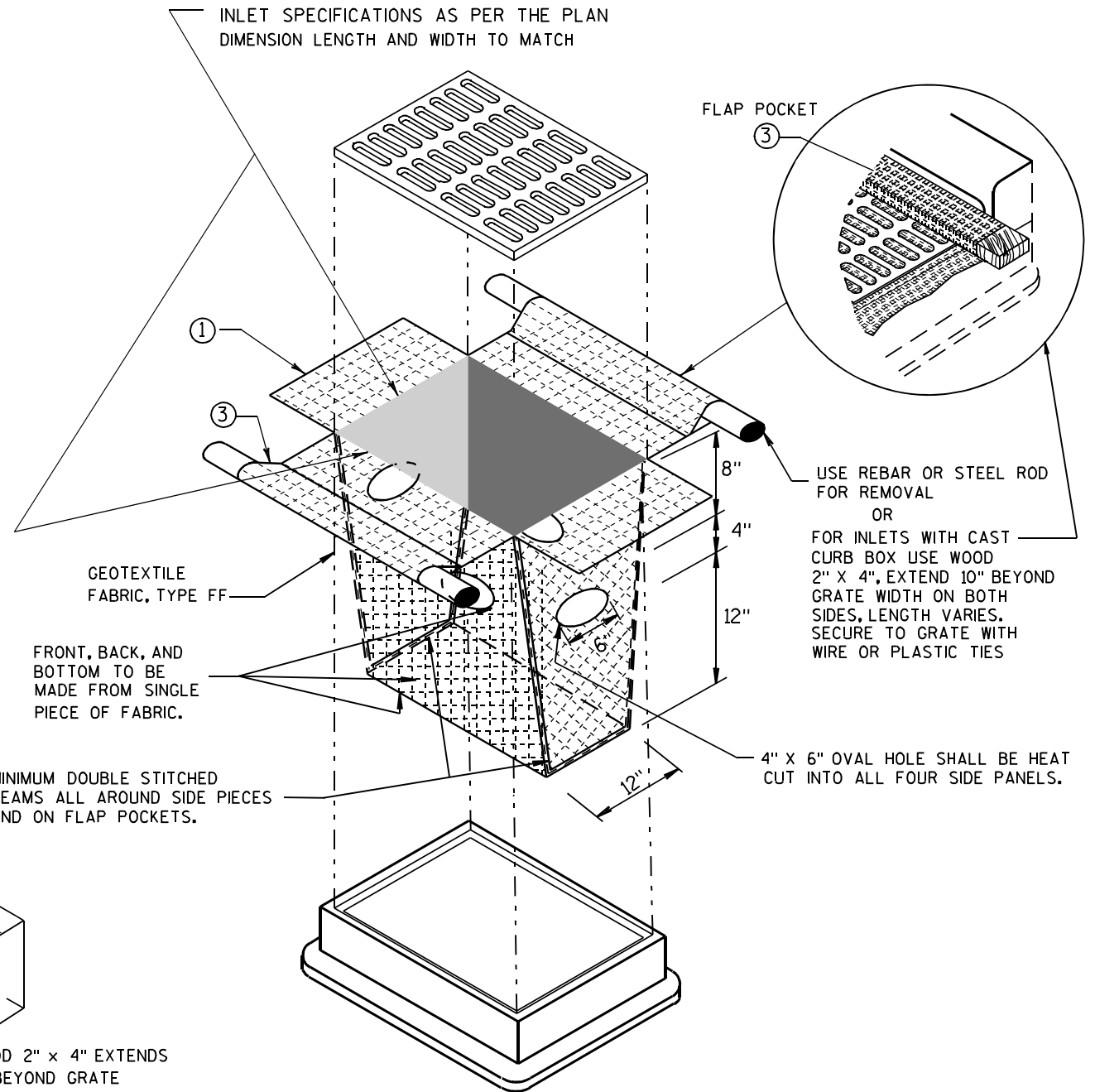
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.

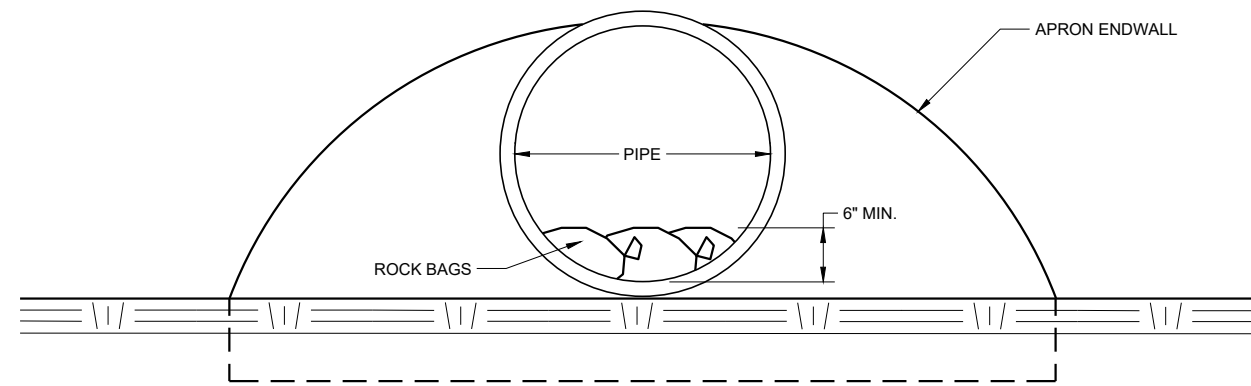
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



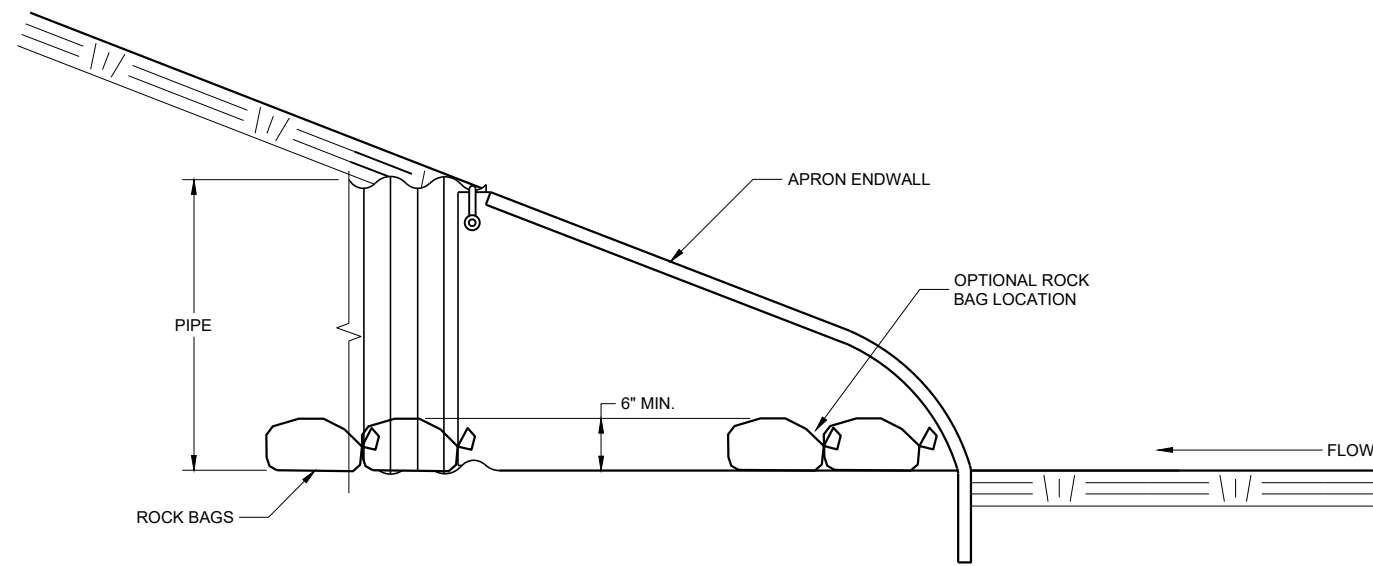
INLET PROTECTION, TYPE D

(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 DATE	/S/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Daniel Schave
DATE EROSION CONTROL ENGINEER

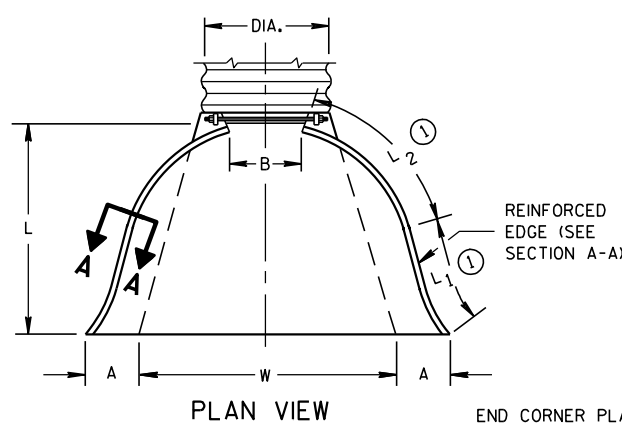
FHWA

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	L2	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

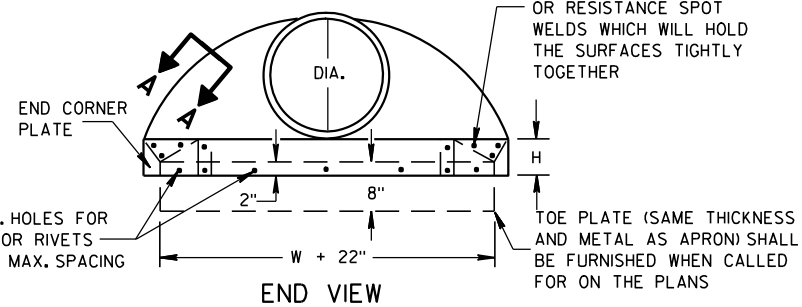
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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	

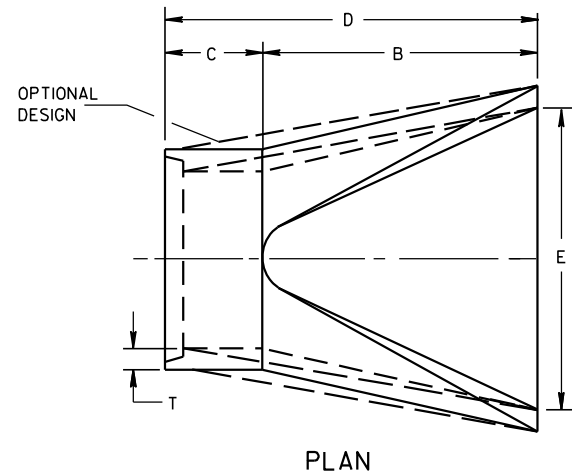
* MINIMUM
** MAXIMUM



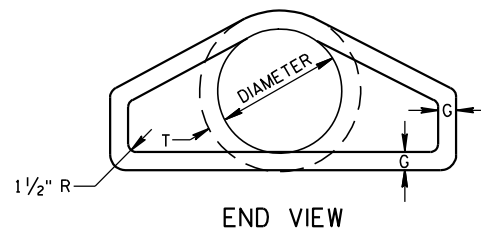
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



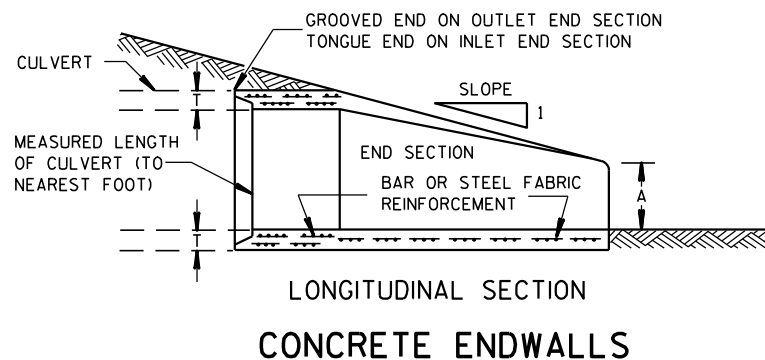
SIDE ELEVATION
METAL ENDWALLS



PLAN

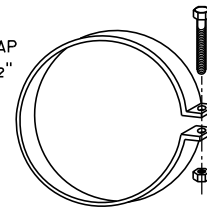


END VIEW

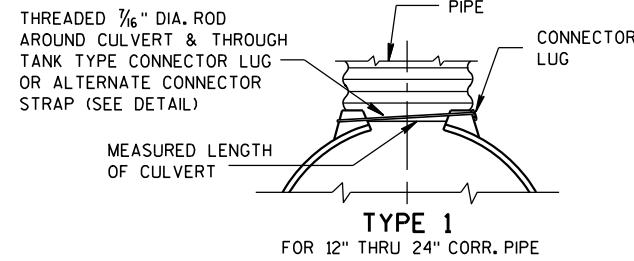


LONGITUDINAL SECTION
CONCRETE ENDWALLS

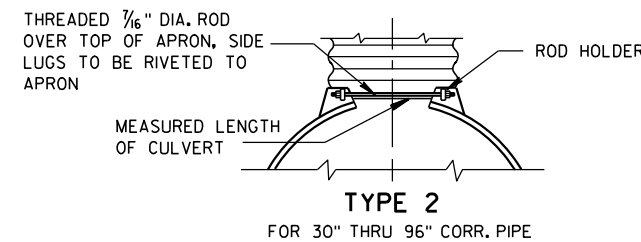
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



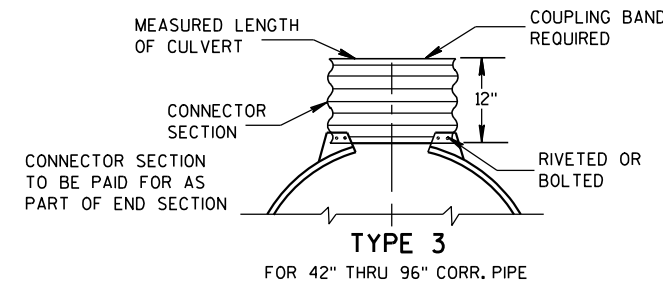
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



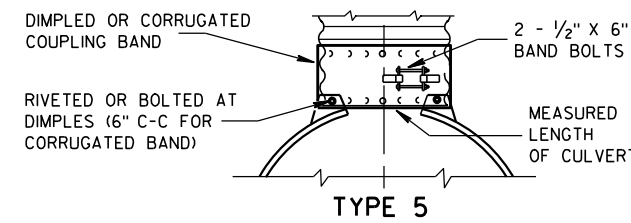
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

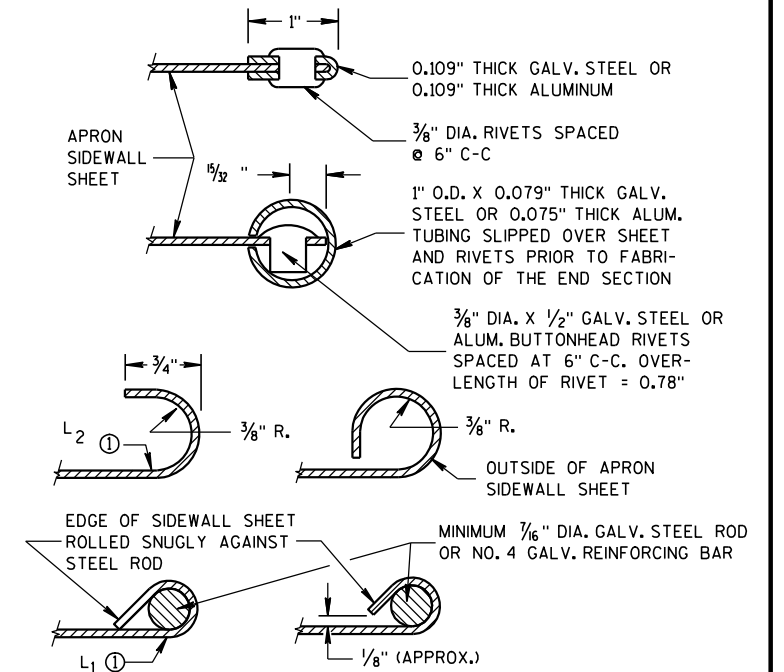
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

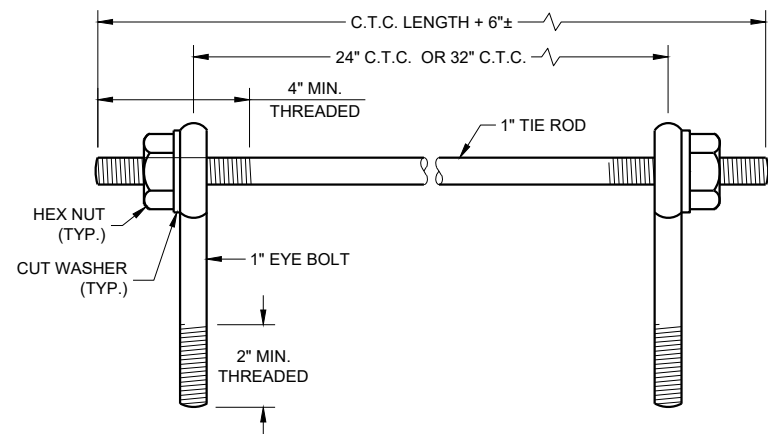
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

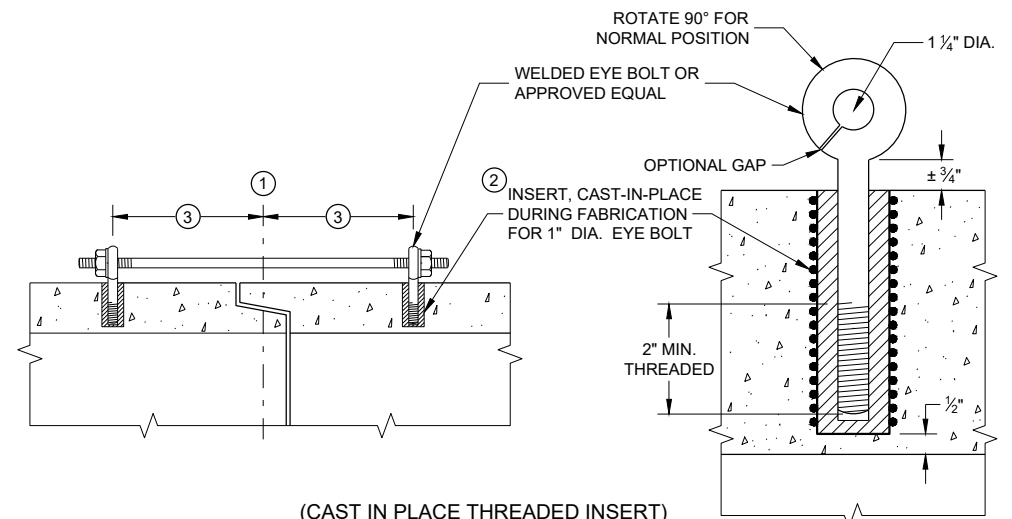
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

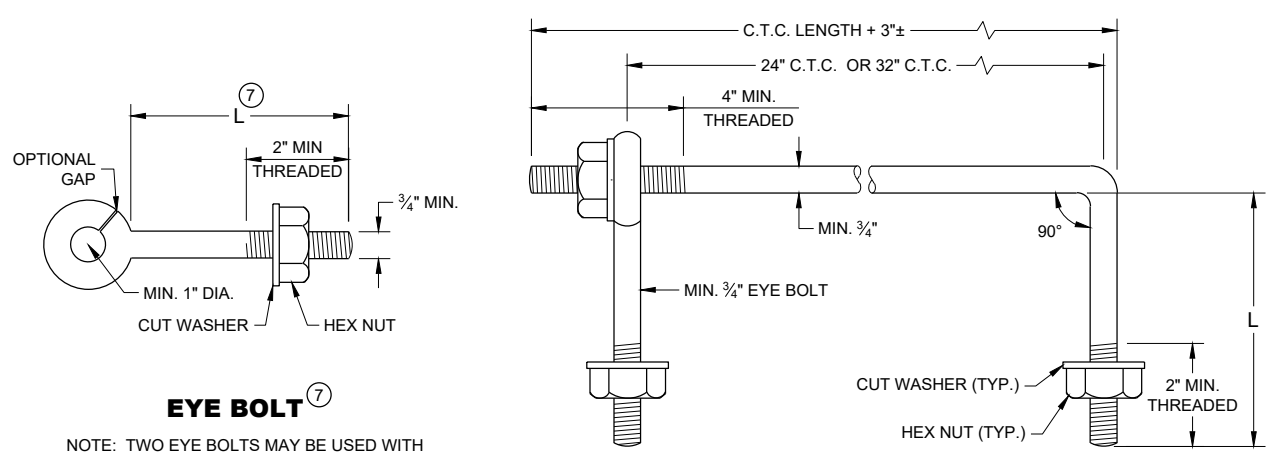
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

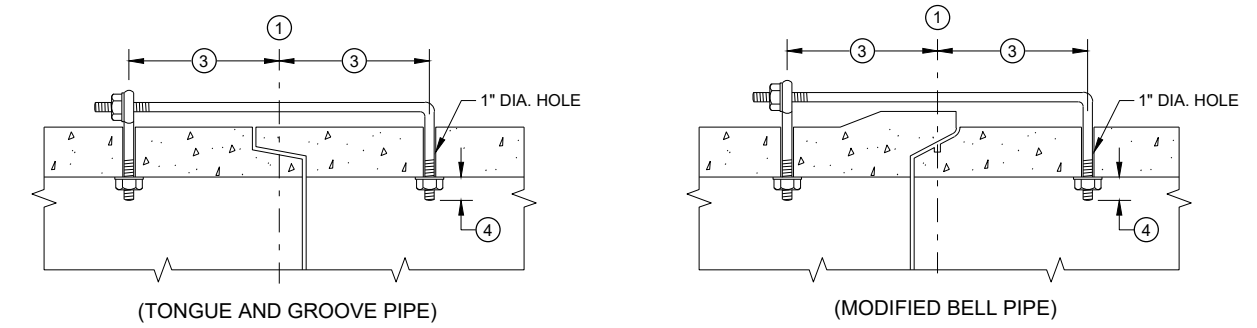
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION 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



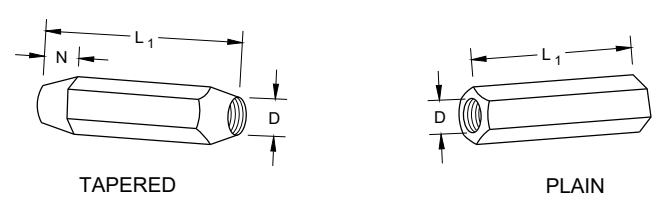
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

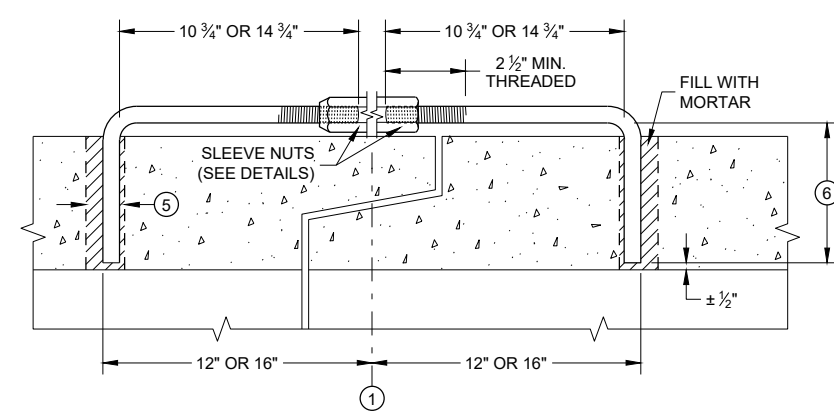
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

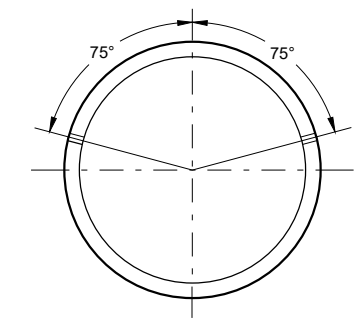


RIGHT AND LEFT THREADS SLEEVE NUTS



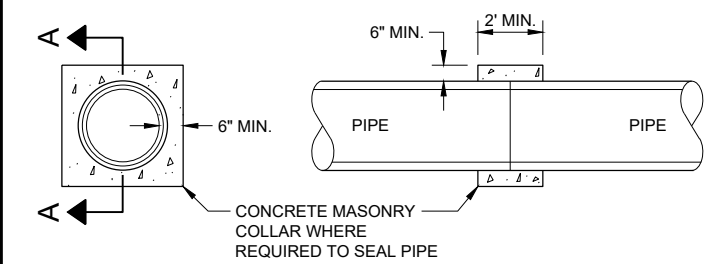
LONGITUDINAL SECTION

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

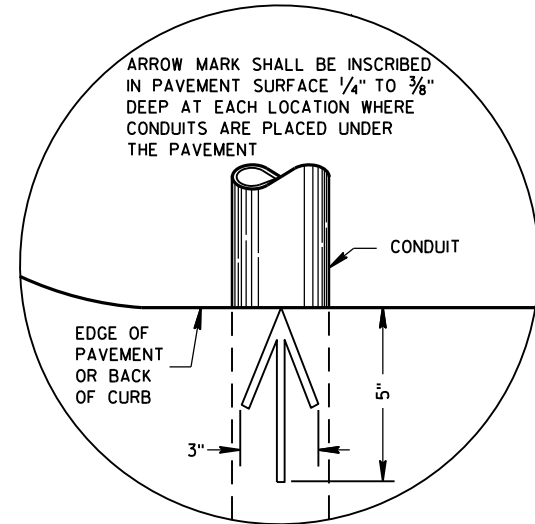
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

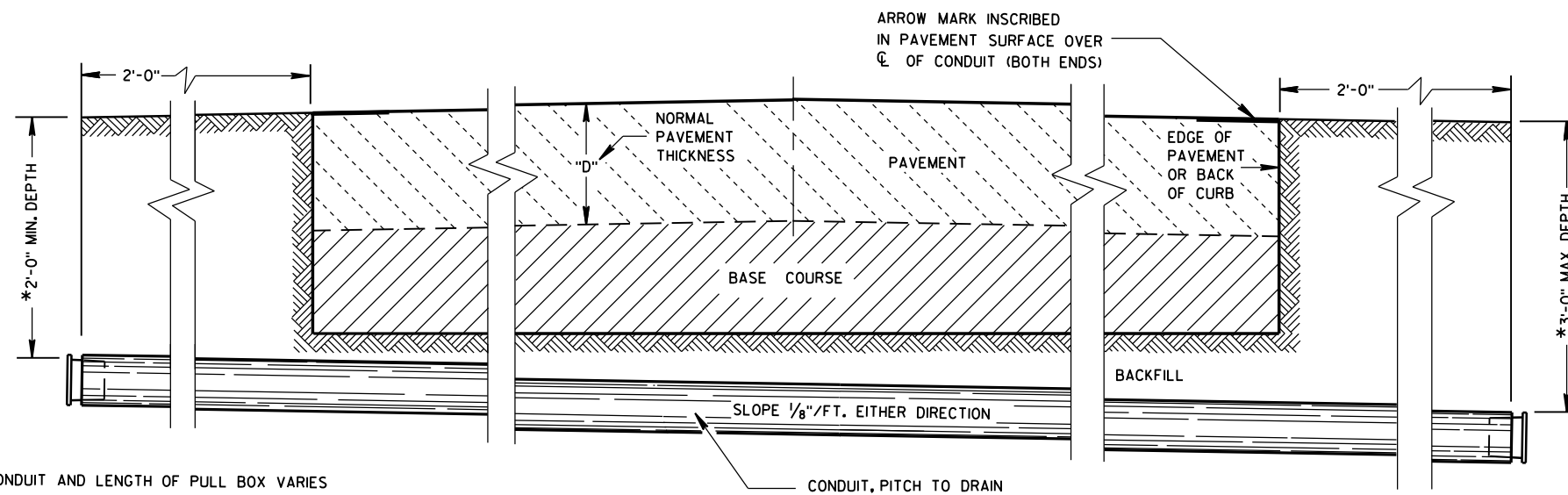
FHWA

SDD 08F04 - 08

SDD 08F04 - 08



**PLAN VIEW
ARROW MARK**



**SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS**

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

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

6

6

S.D.D. 9 B 2-10

S.D.D. 9 B 2-10

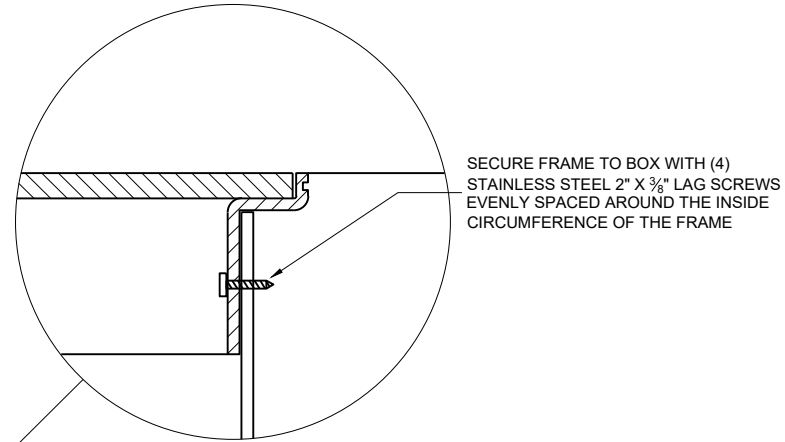
CONDUIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March, 2017 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

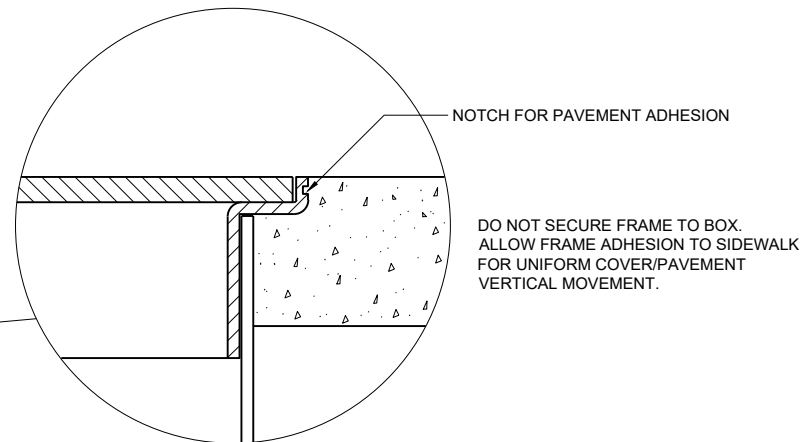
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

*THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

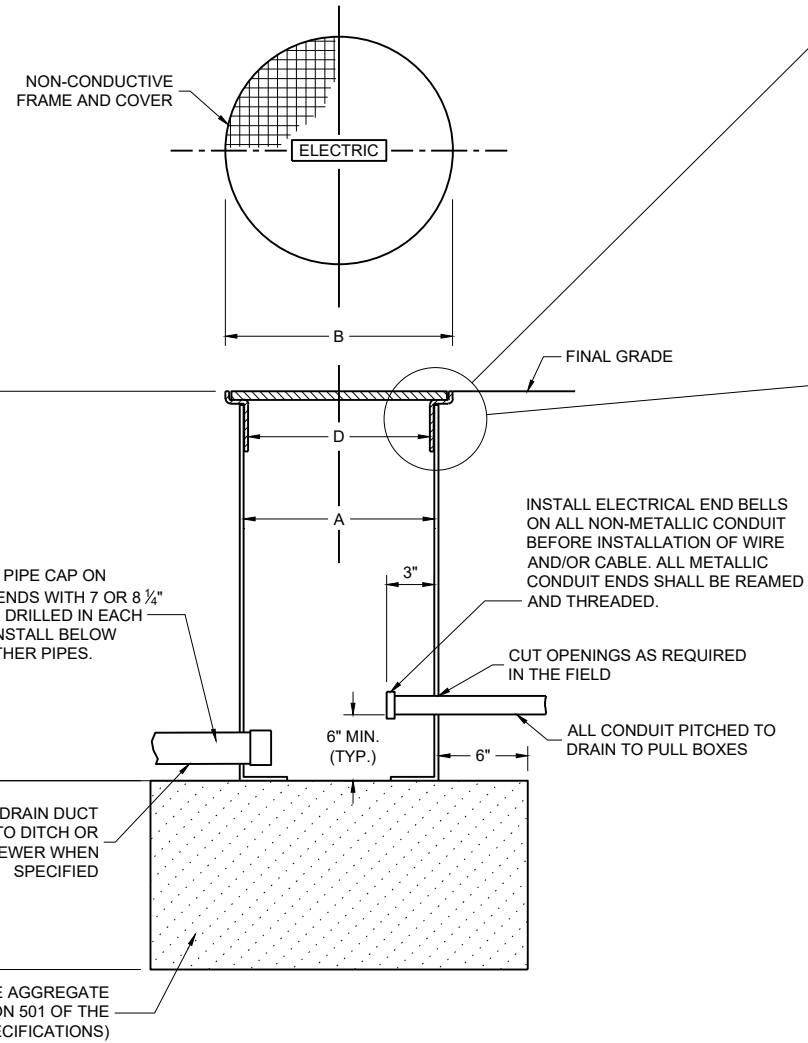
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

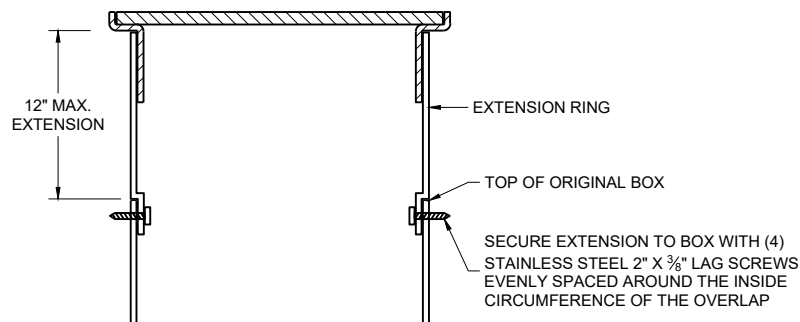
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

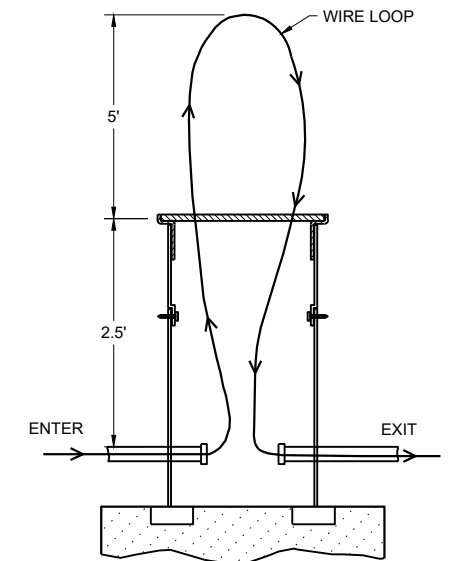
LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



NON-CONDUCTIVE PULL BOX



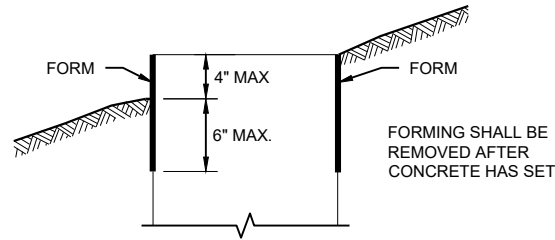
BOX EXTENSION



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

PULL BOXES NON-CONDUCTIVE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2024 DATE	/S/ Ahmet Demirebilek STATE ELECTRICAL ENGINEER
FHWA	

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

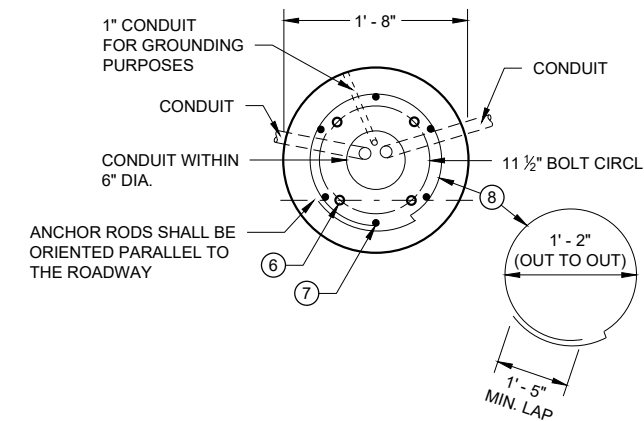
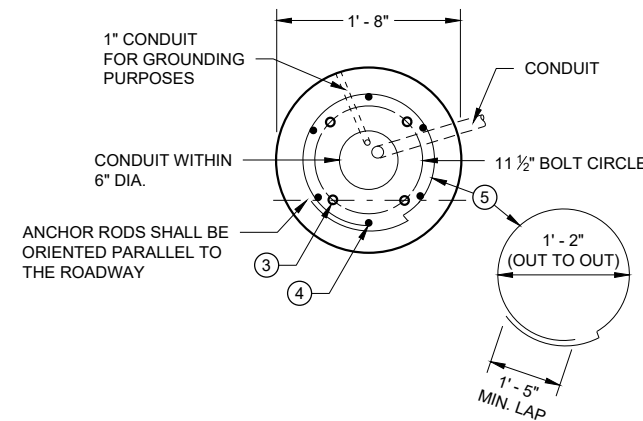
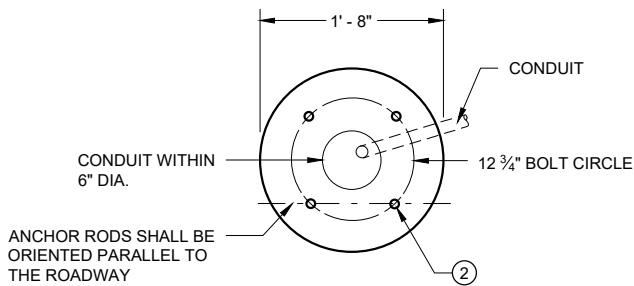
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

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

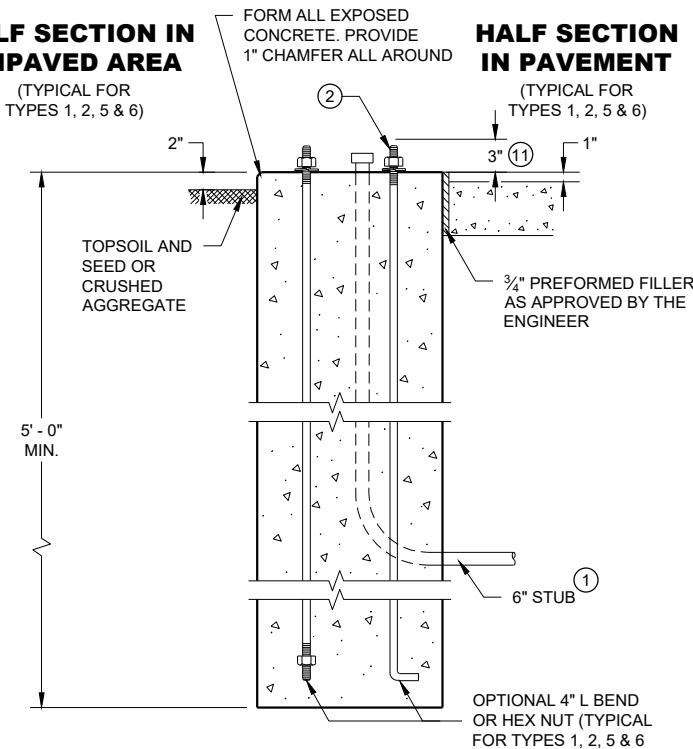
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

- ① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- ② (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- ③ (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- ④ (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- ⑤ (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑥ (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- ⑦ (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- ⑧ (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑨ EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- ⑩ 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ⑪ ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑫ FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

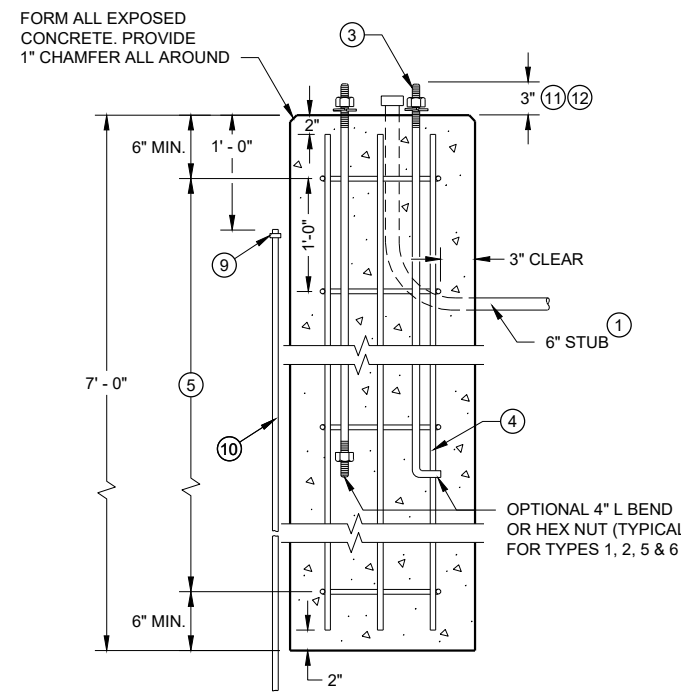


HALF SECTION IN UNPAVED AREA

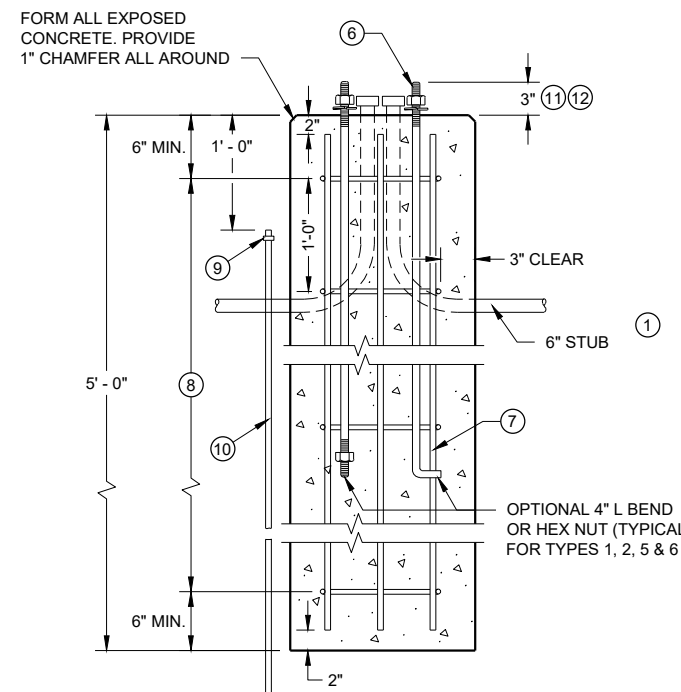


TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2



TYPE 5 & 6

CONCRETE BASES

**CONCRETE BASES
TYPES 1, 2, 5, & 6**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

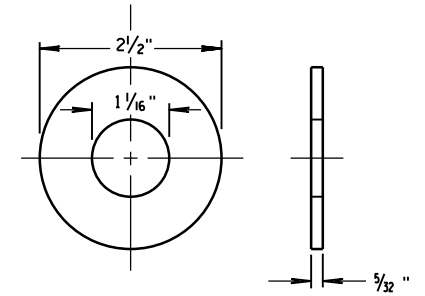
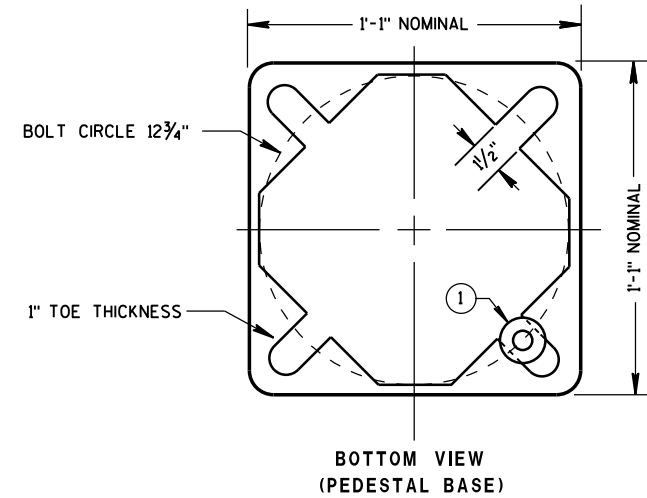
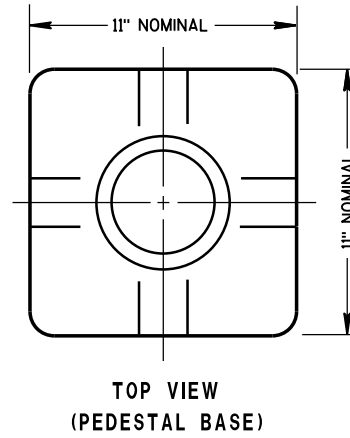
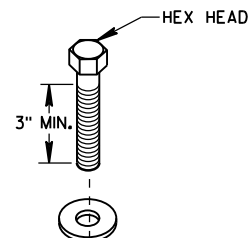
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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

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

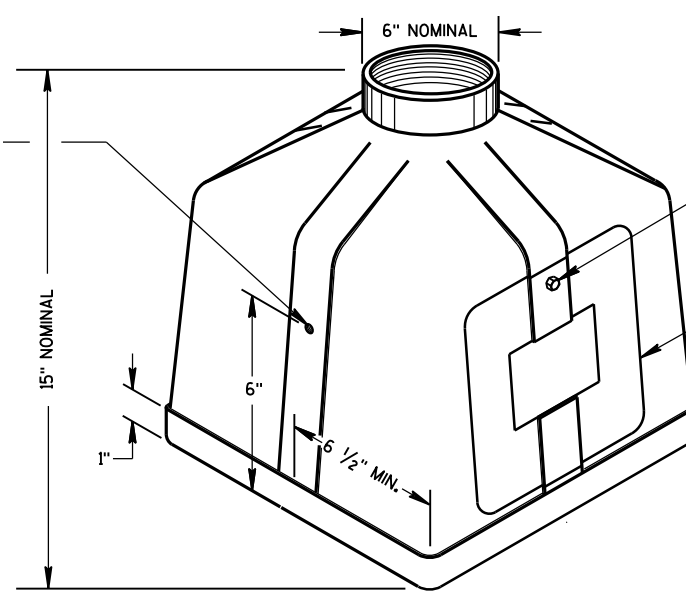
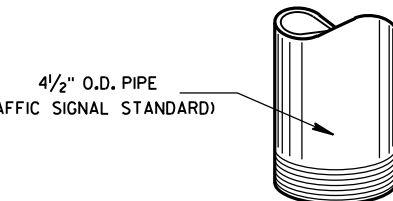
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

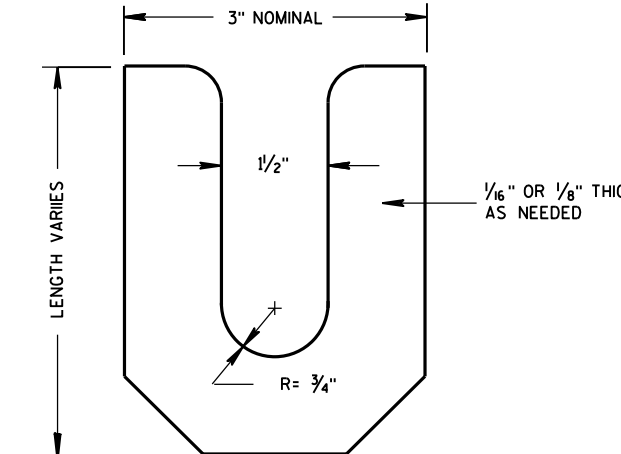
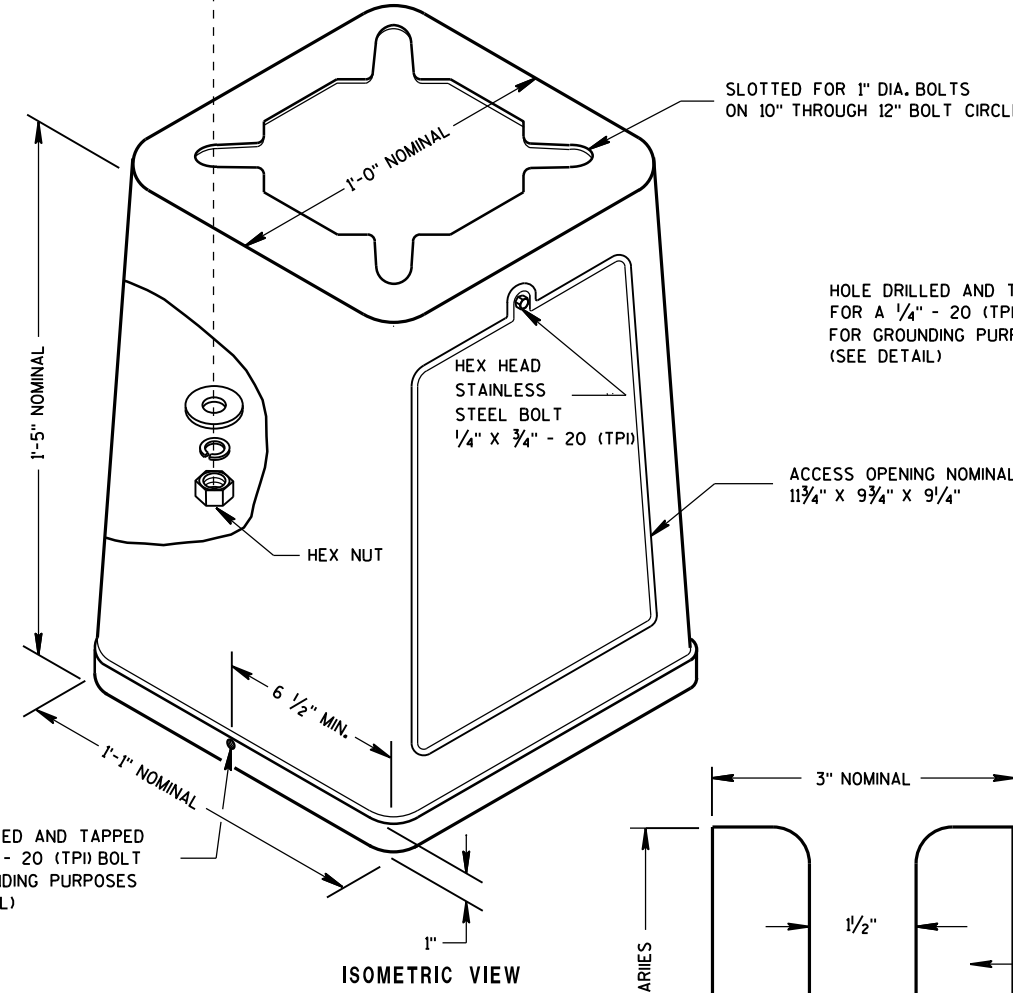


ZINC COATED STEEL WASHER TO BE PROVIDED BY THE CONTRACTOR

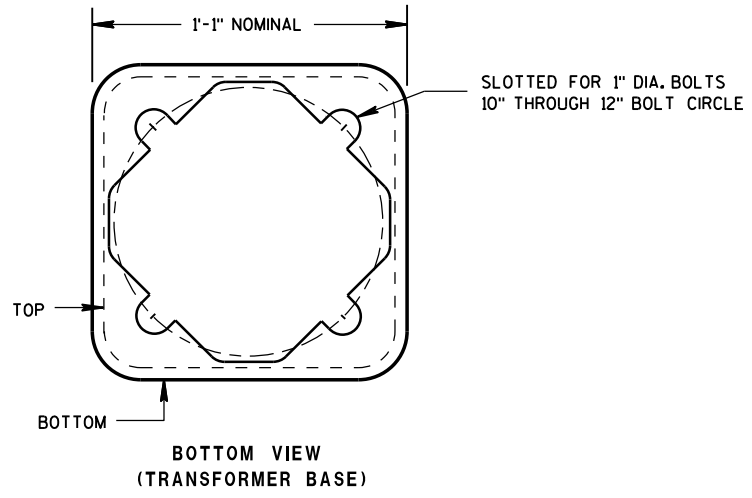
PEDESTAL BASE WASHER ①



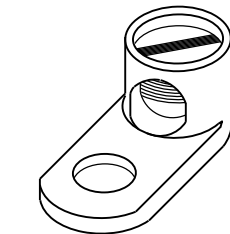
ISOMETRIC VIEW PEDESTAL BASE



LEVELING SHIM



BOTTOM VIEW (TRANSFORMER BASE)



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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

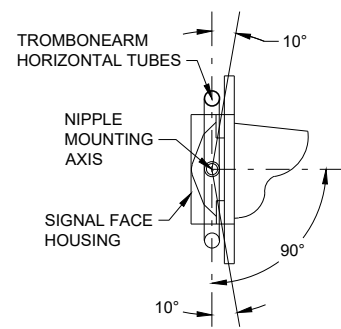
TRANSFORMER/PEDESTAL BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

6

6

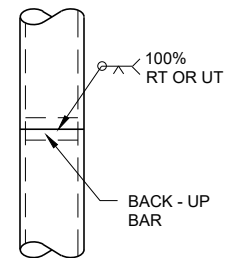
S.D.D. 9 C 3-4

S.D.D. 9 C 3-4

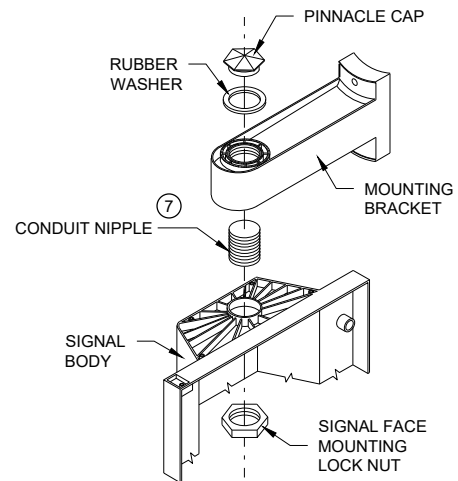


SECTION A-A
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

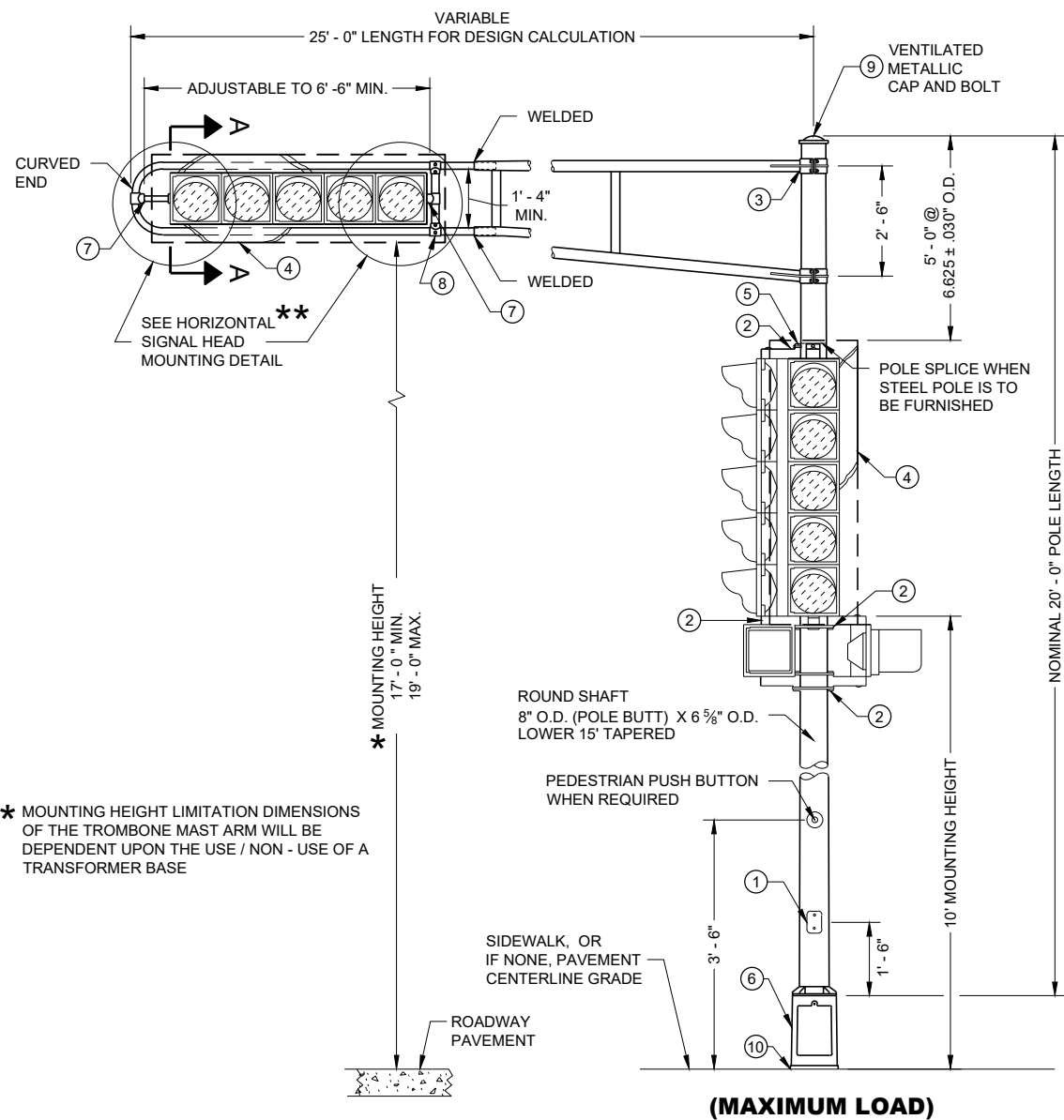
FOR MANUFACTURERS USE ONLY
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



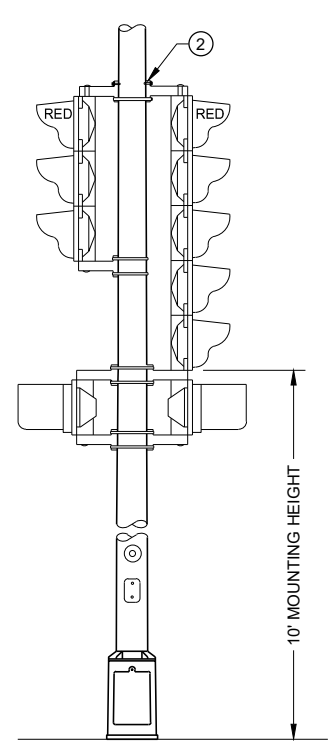
POLE SPLICE DETAIL



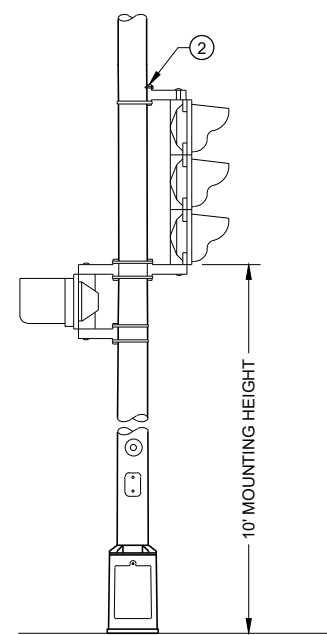
SIGNAL FACE MOUNTING DETAIL (BANDED)



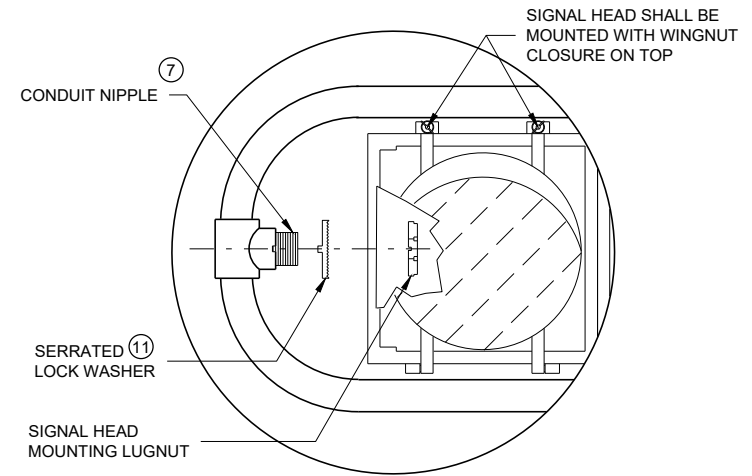
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

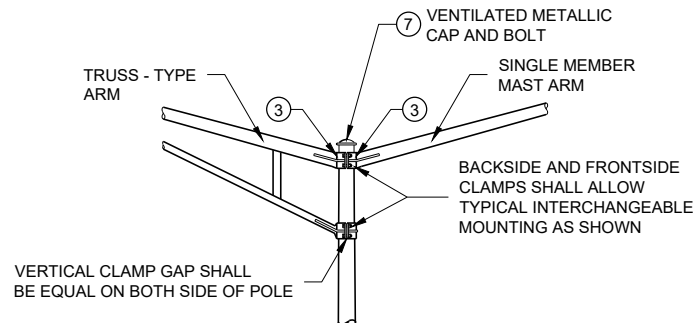
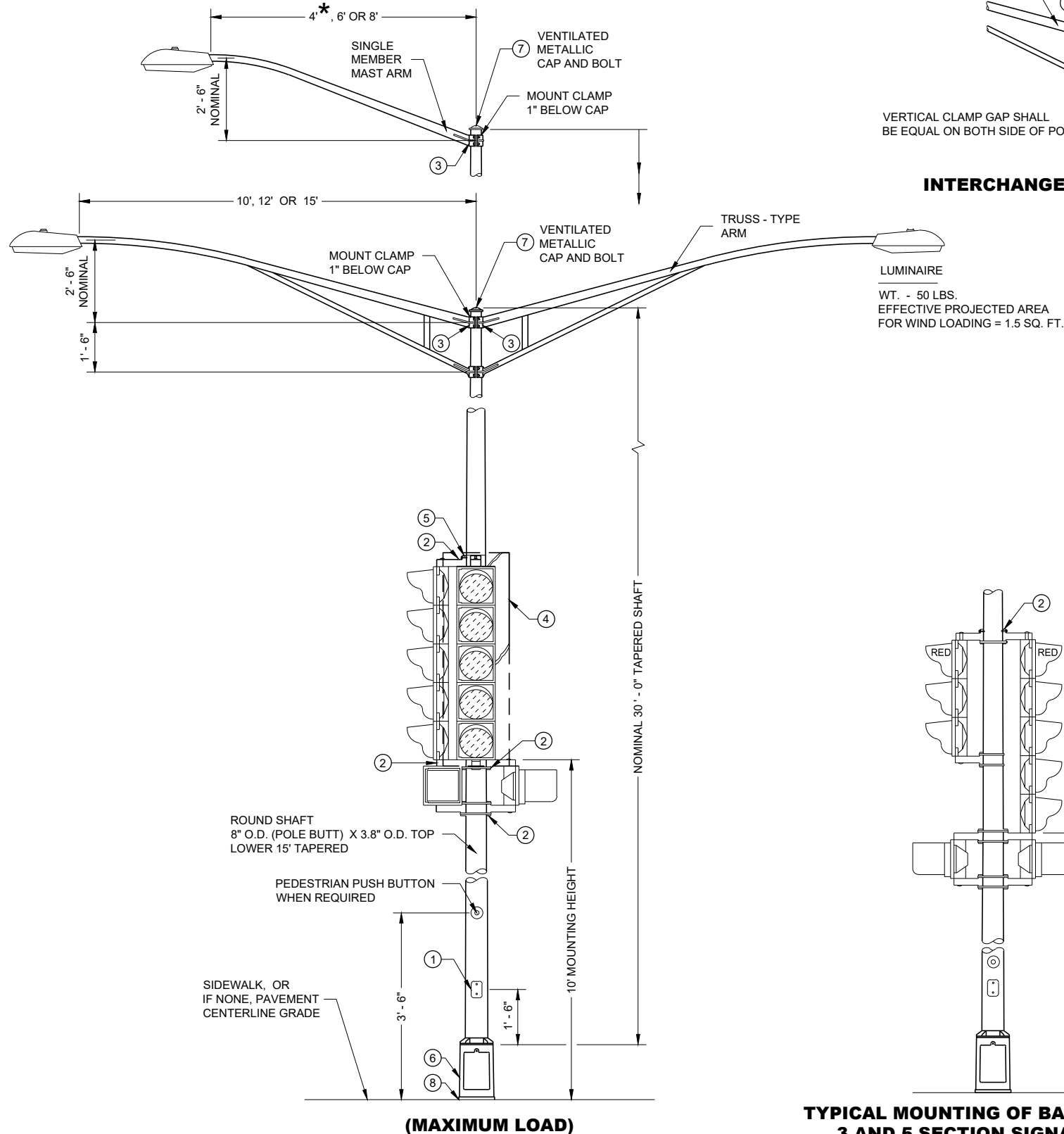
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.
- SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.
- A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.
- TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.
- WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI, STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.
- ⑧ VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
- ⑨ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑩ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.
- ⑪ USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

* RISE FOR 4' ARM SHALL BE 2'-0".



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE
WT. - 50 LBS.
EFFECTIVE PROJECTED AREA
FOR WIND LOADING = 1.5 SQ. FT.

GENERAL NOTES

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

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

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

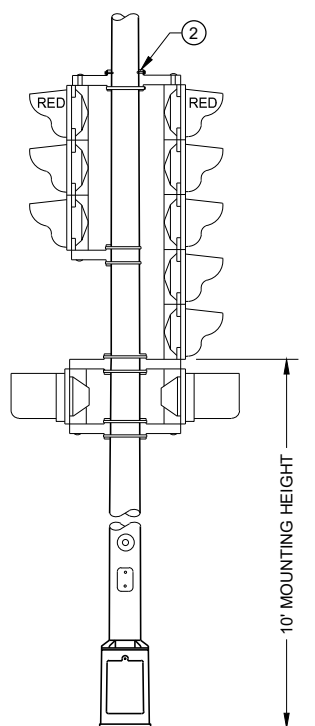
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

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

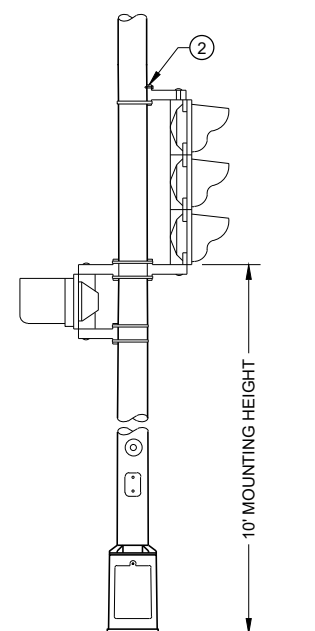
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

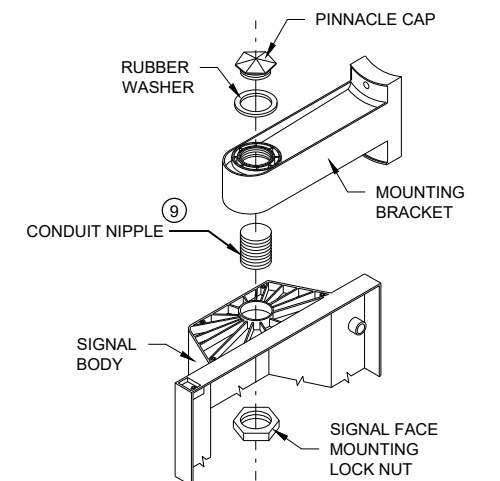
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/2" X 3/4" - 20 TPI, STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑧ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑨ USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



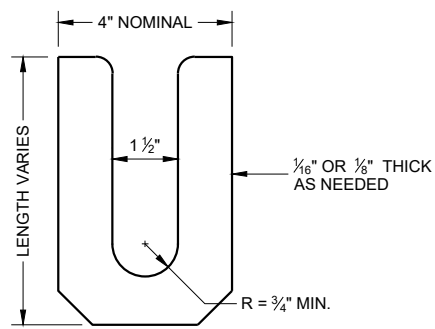
TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



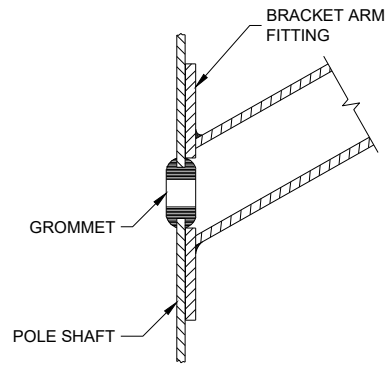
SIGNAL FACE MOUNTING DETAIL (BANDED)

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

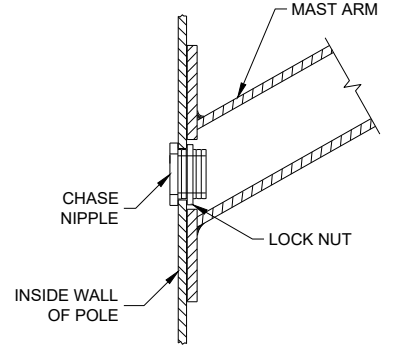
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



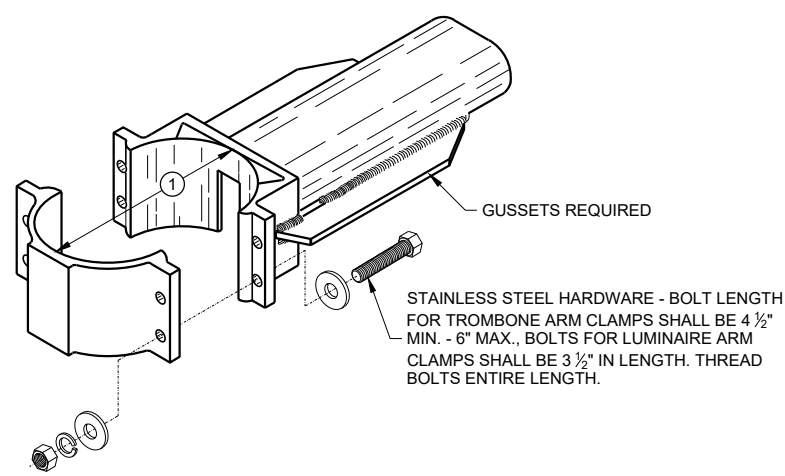
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

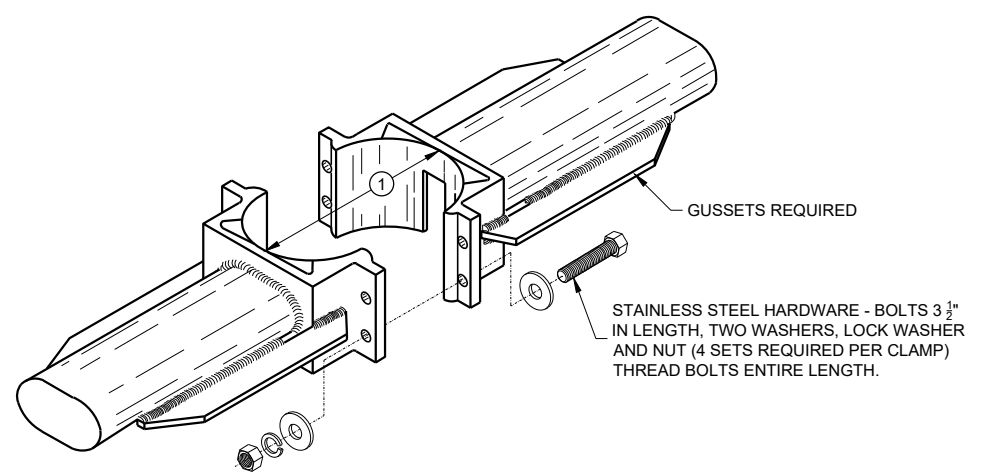
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- ① 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- ② INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- ③ BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- ④ LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

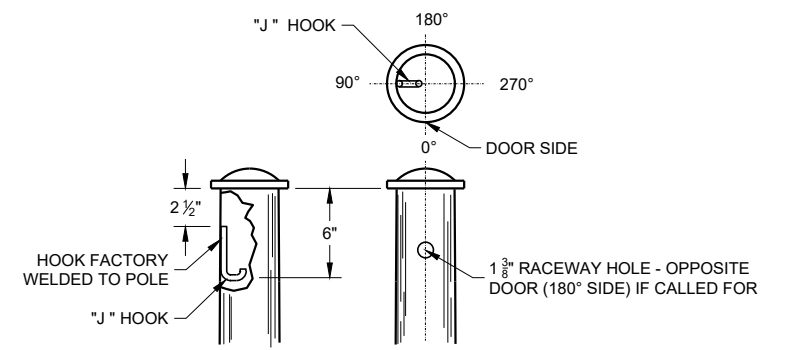
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



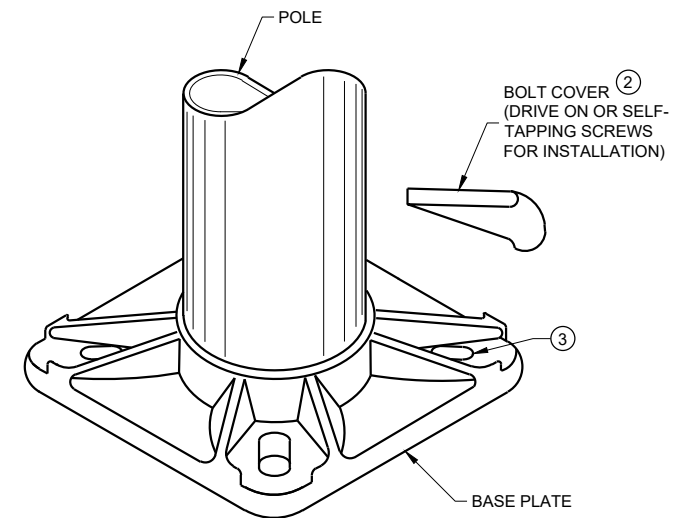
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



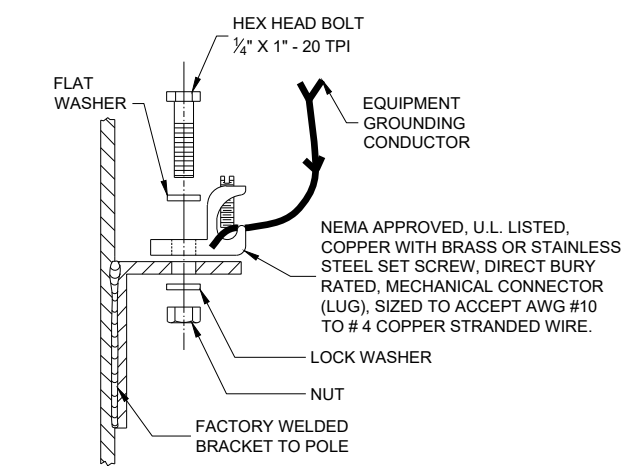
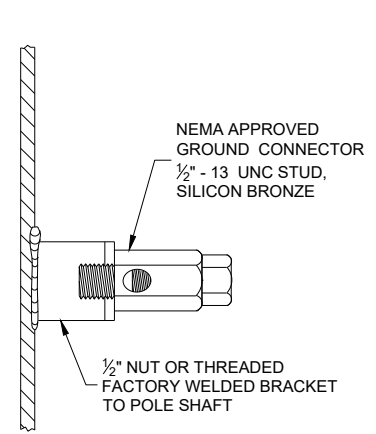
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



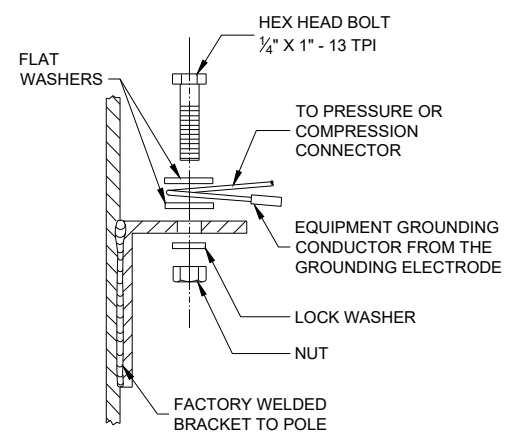
TYPICAL "J" HOOK LOCATION



BASE PLATE



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



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

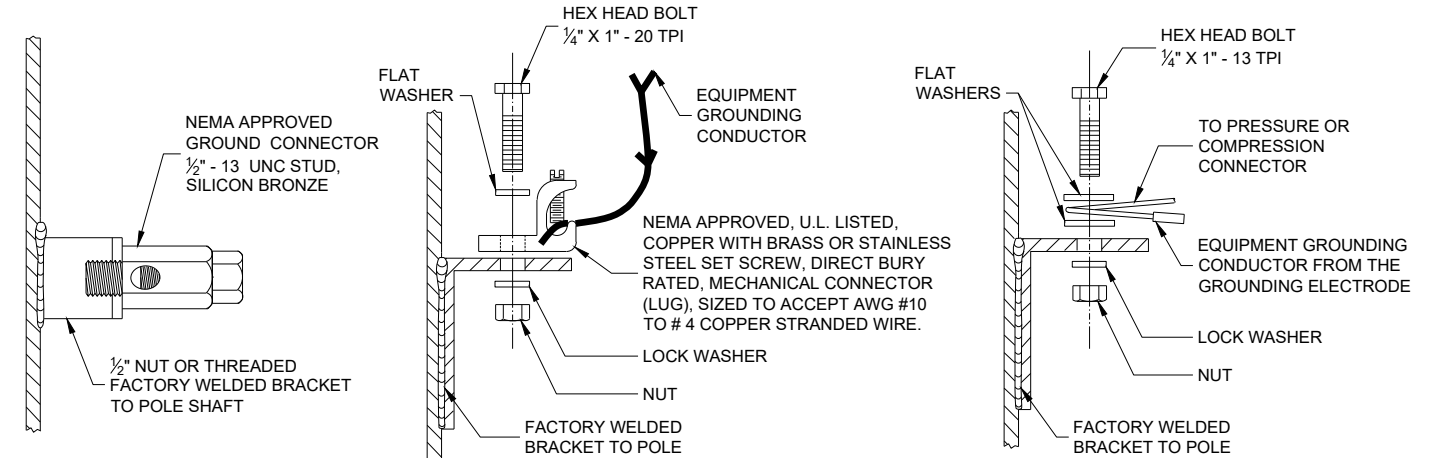
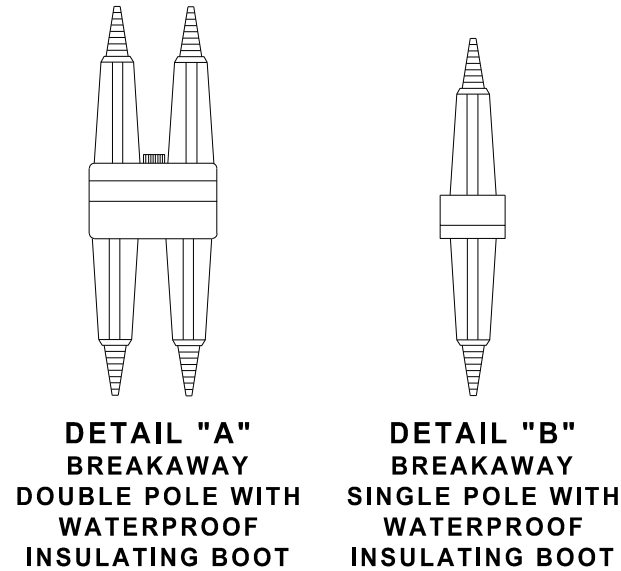
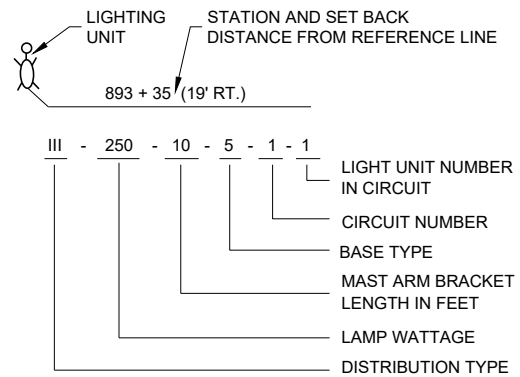
APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA

GENERAL NOTES

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

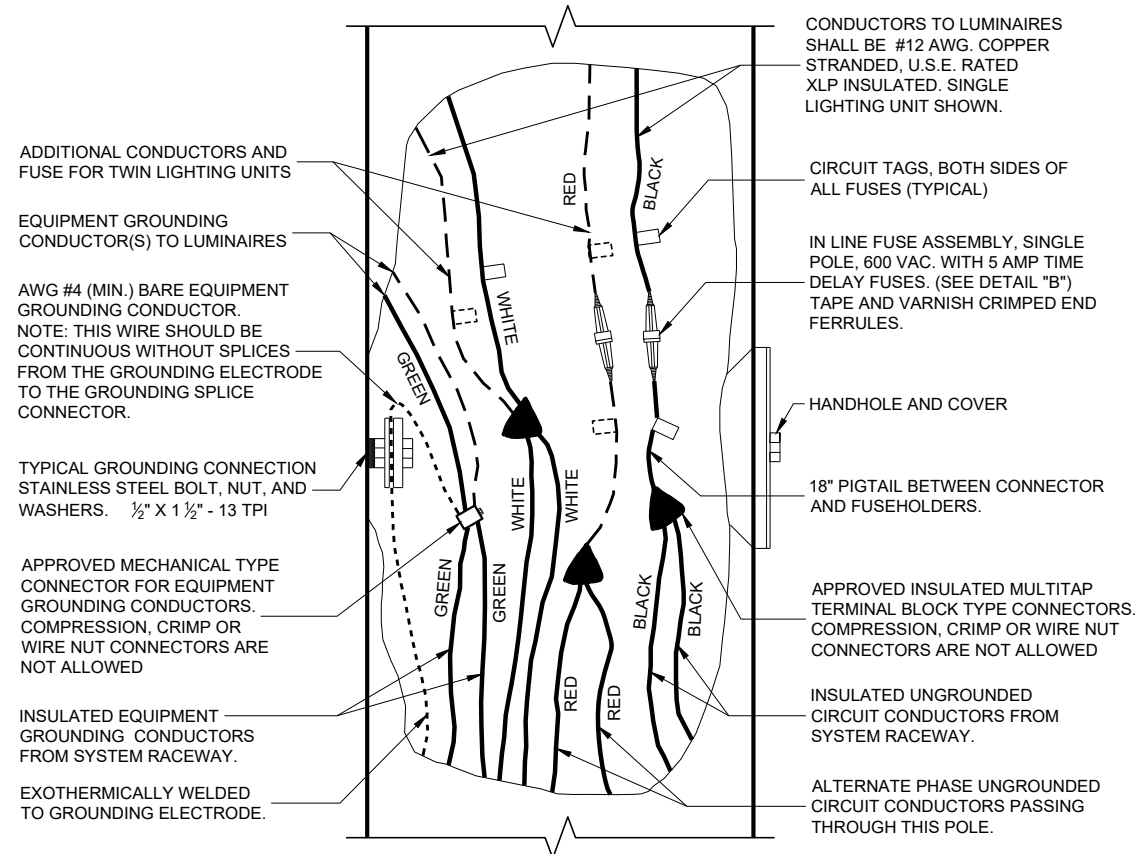
THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

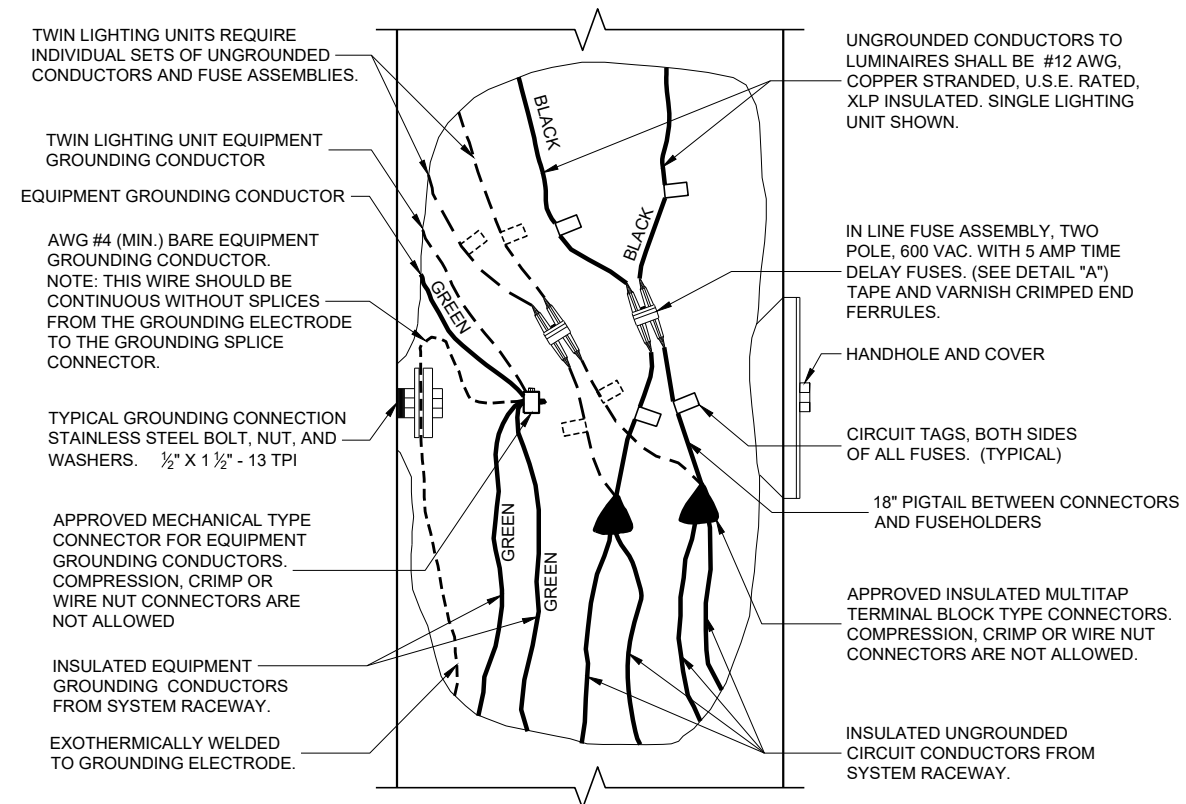


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

LIGHTING UNIT CODE (TYPICAL)



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDING CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



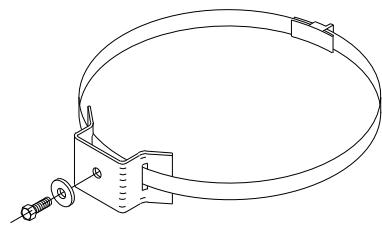
2 WIRE - 240 OR 480 VAC (UNGROUNDING CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

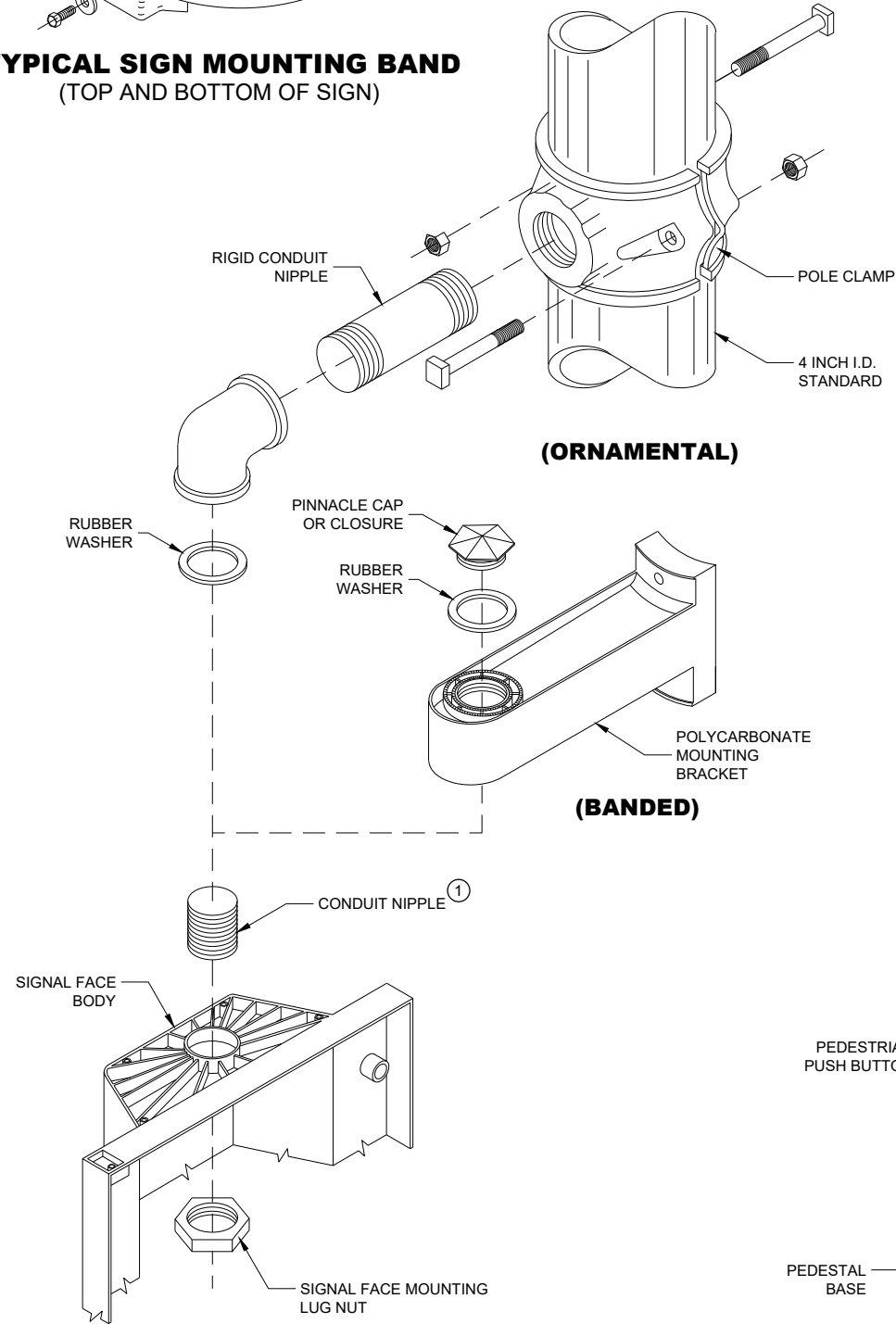
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

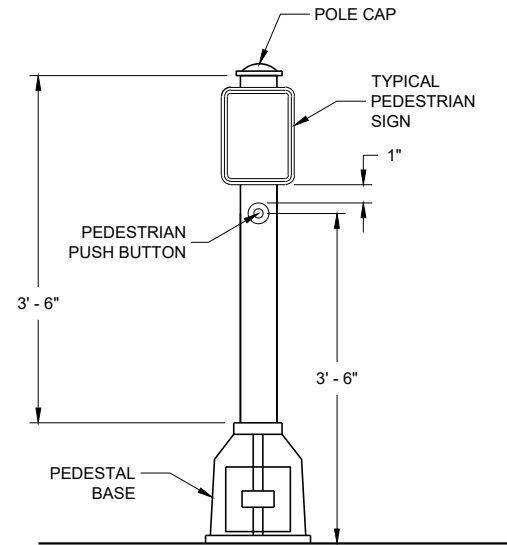
FHWA



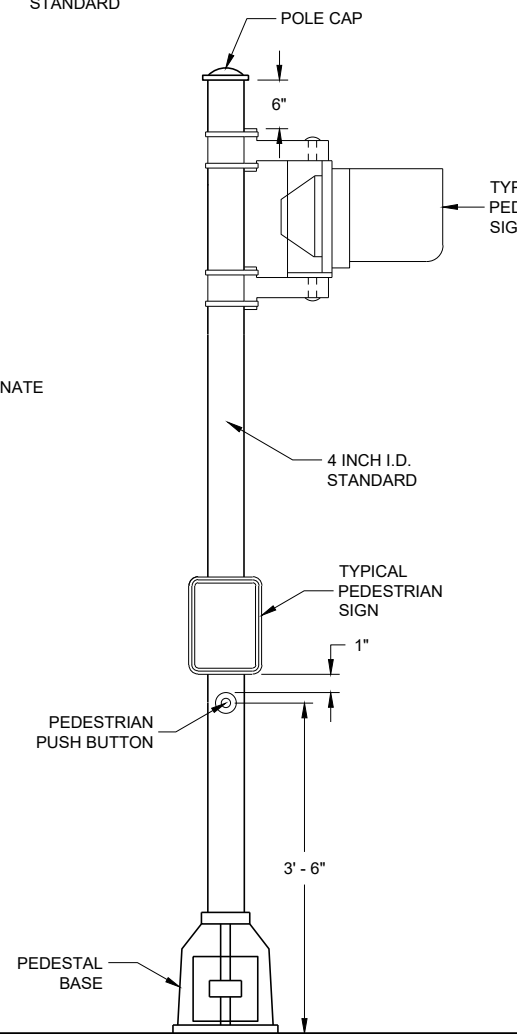
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



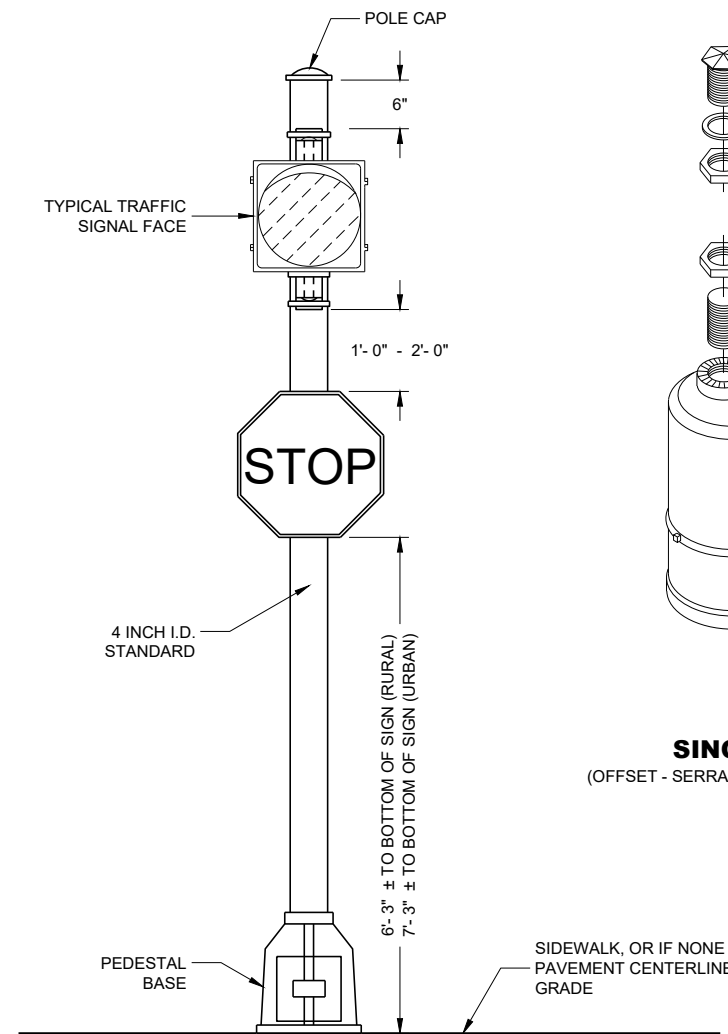
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON
TYPICAL MOUNTING



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



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

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

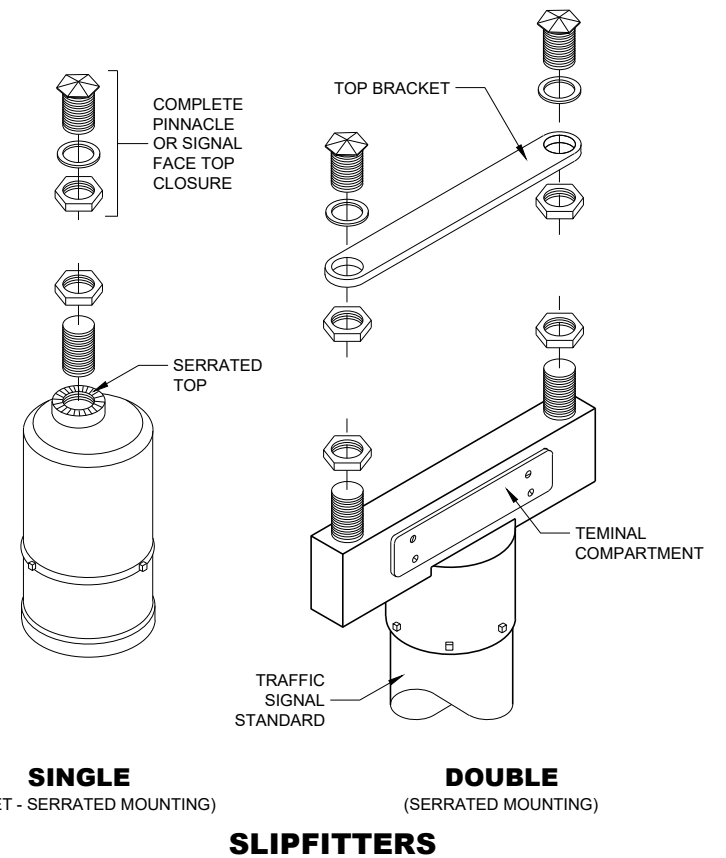
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

- ① USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

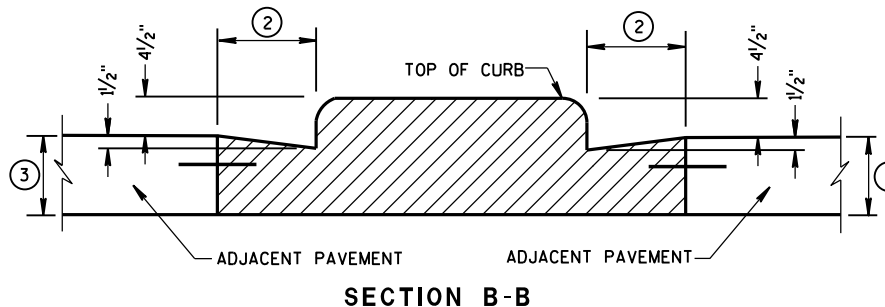
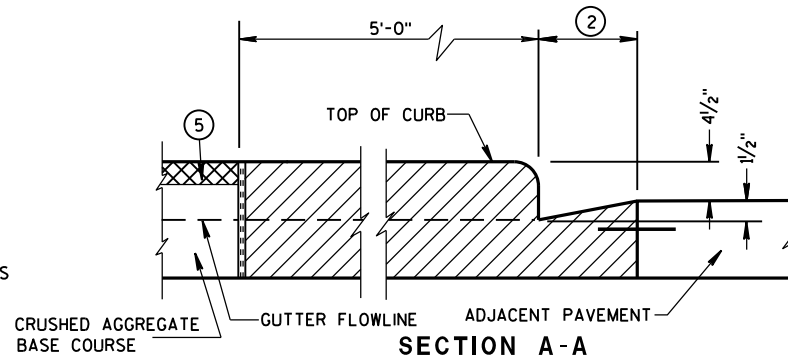
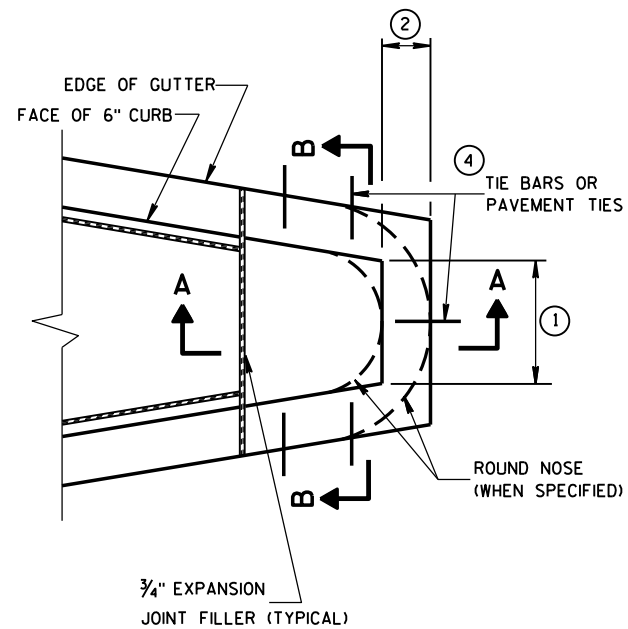
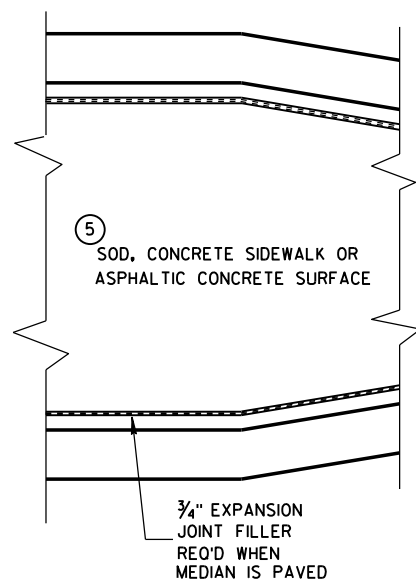
DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER
FHWA

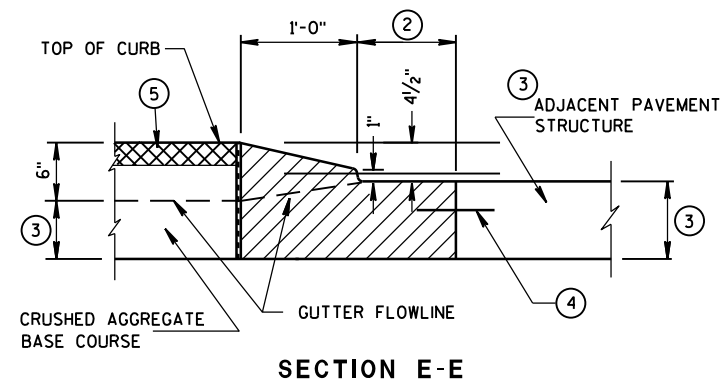
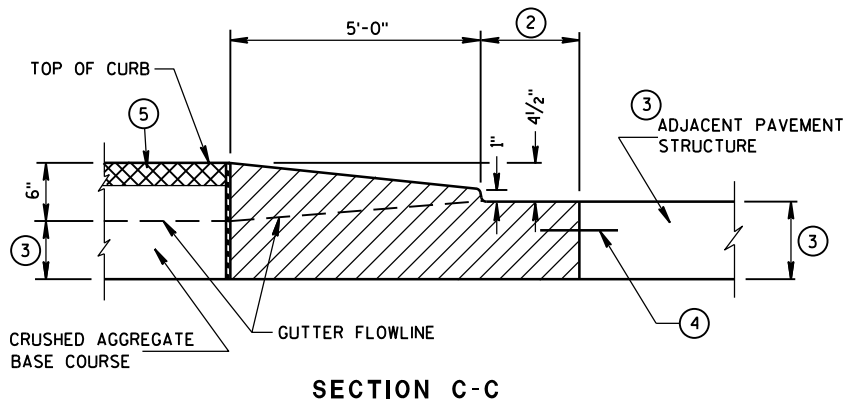
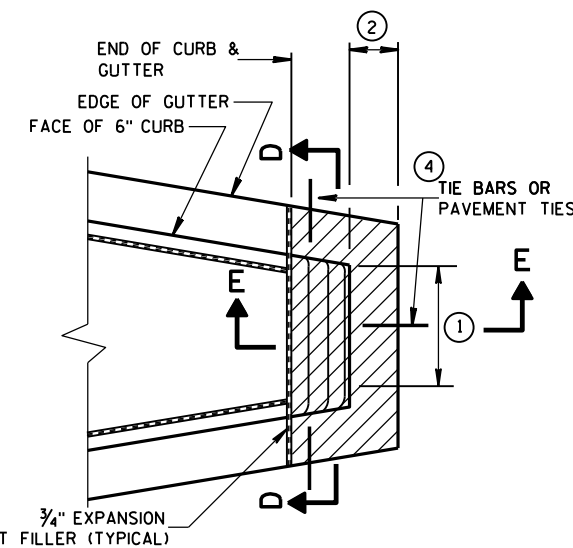


CONCRETE MEDIAN BLUNT NOSE DETAIL

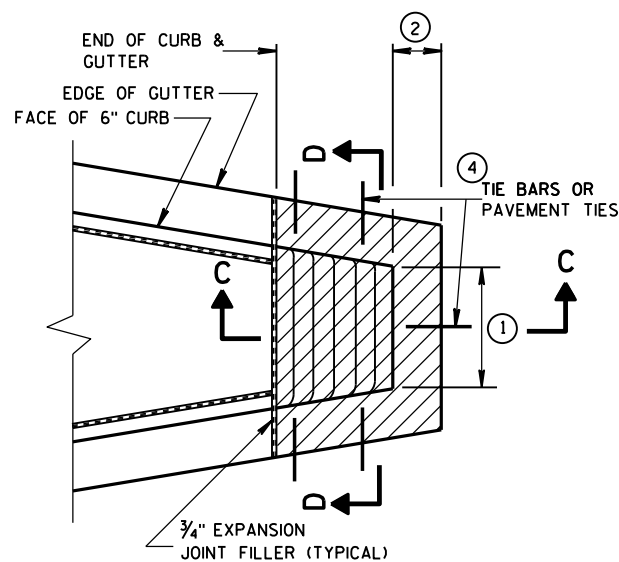
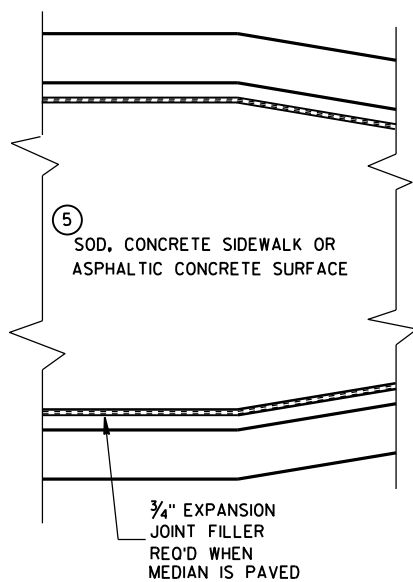
GENERAL NOTES

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

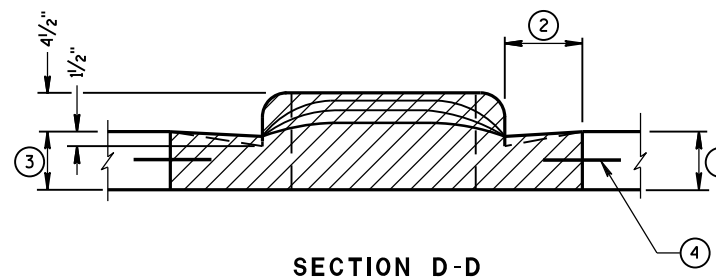
- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
- PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



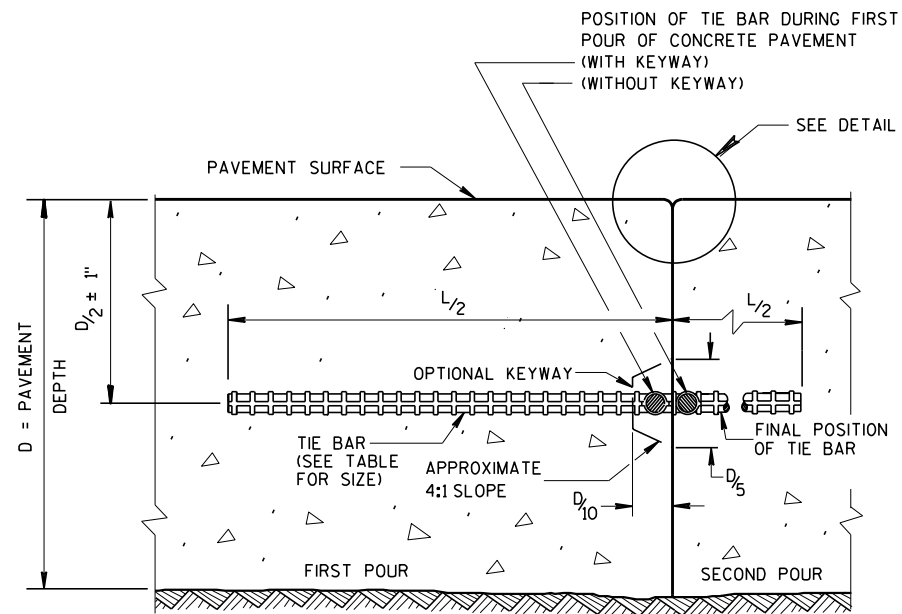
CONCRETE MEDIAN SLOPED NOSE TYPE 2



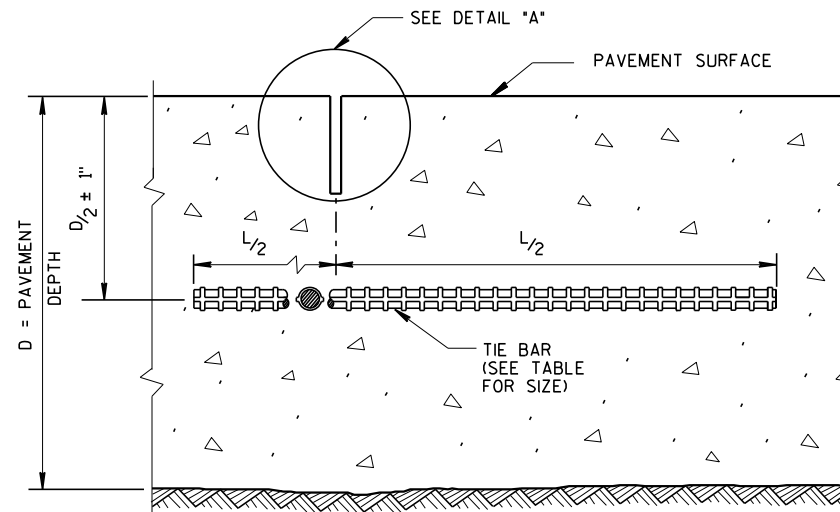
CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



CONSTRUCTION JOINT



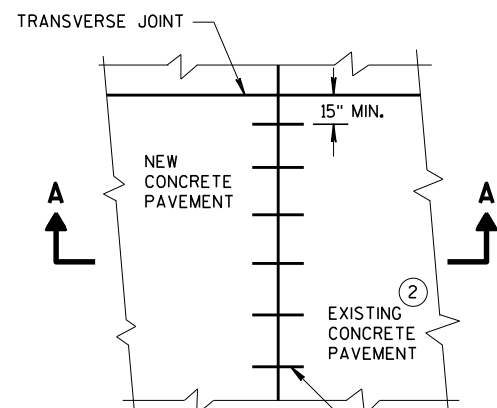
SAWED JOINT

GENERAL NOTES

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

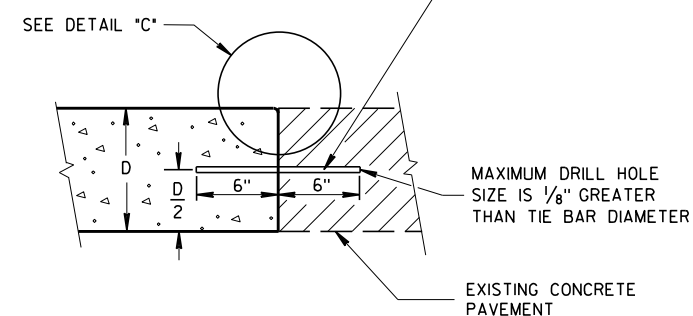
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

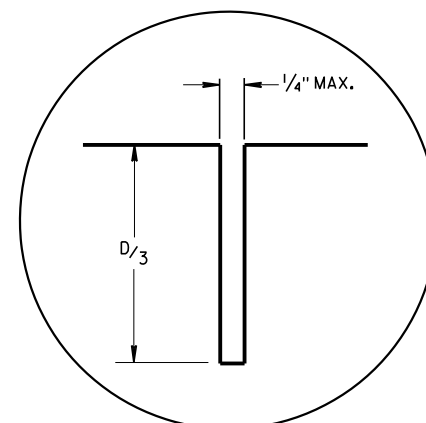


PLAN VIEW

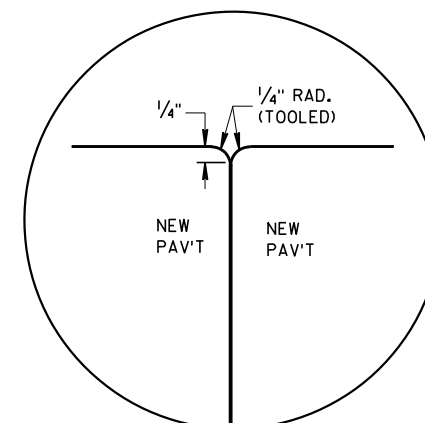
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



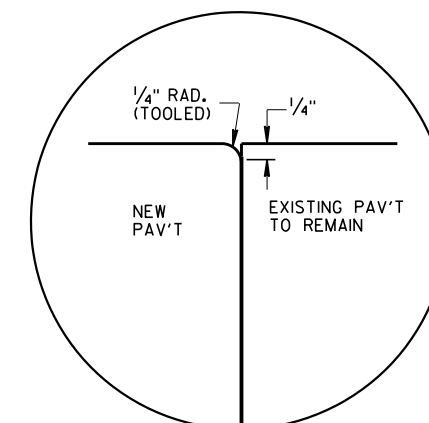
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"



DETAIL "B"



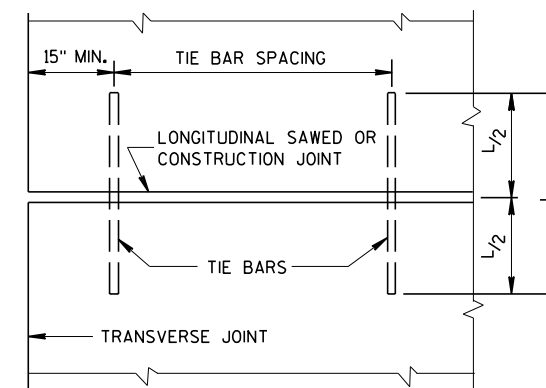
DETAIL "C"

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.

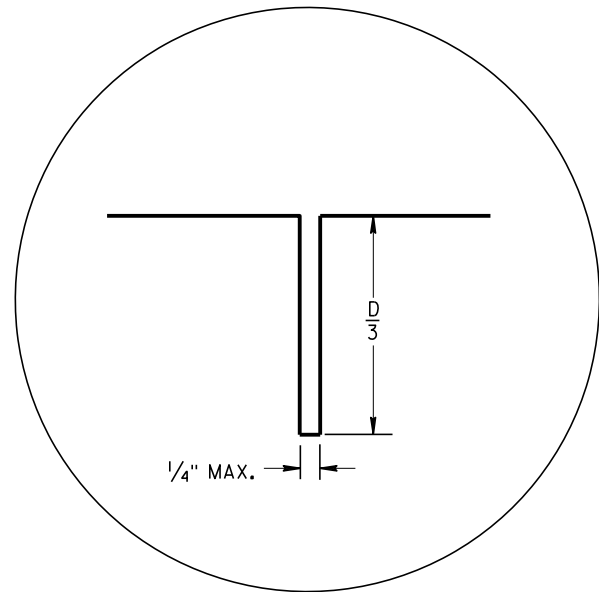


**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

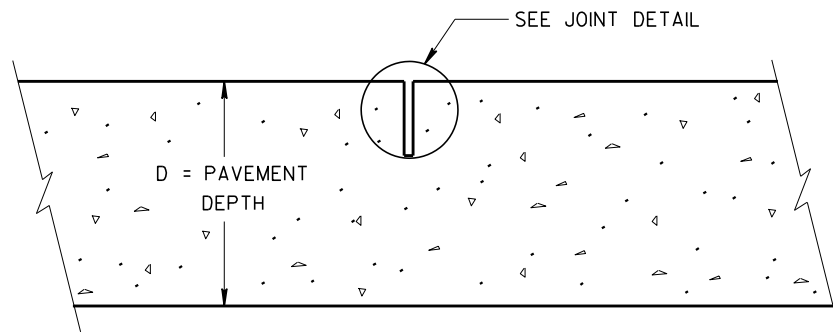
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



JOINT DETAIL

PAVEMENT DEPTH AND JOINT SPACING TABLE

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



CONTRACTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

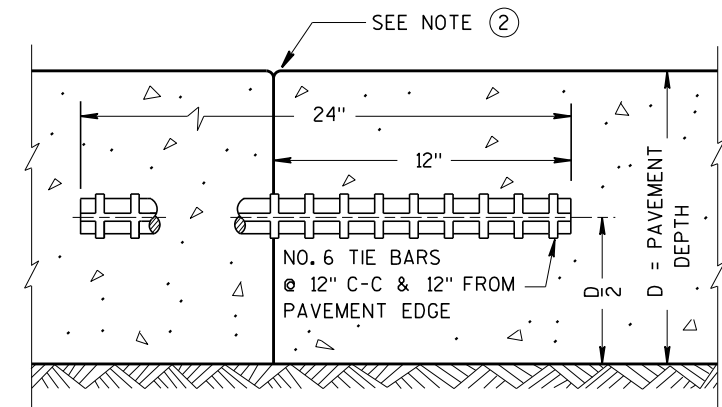
CONSTRUCTION JOINTS

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

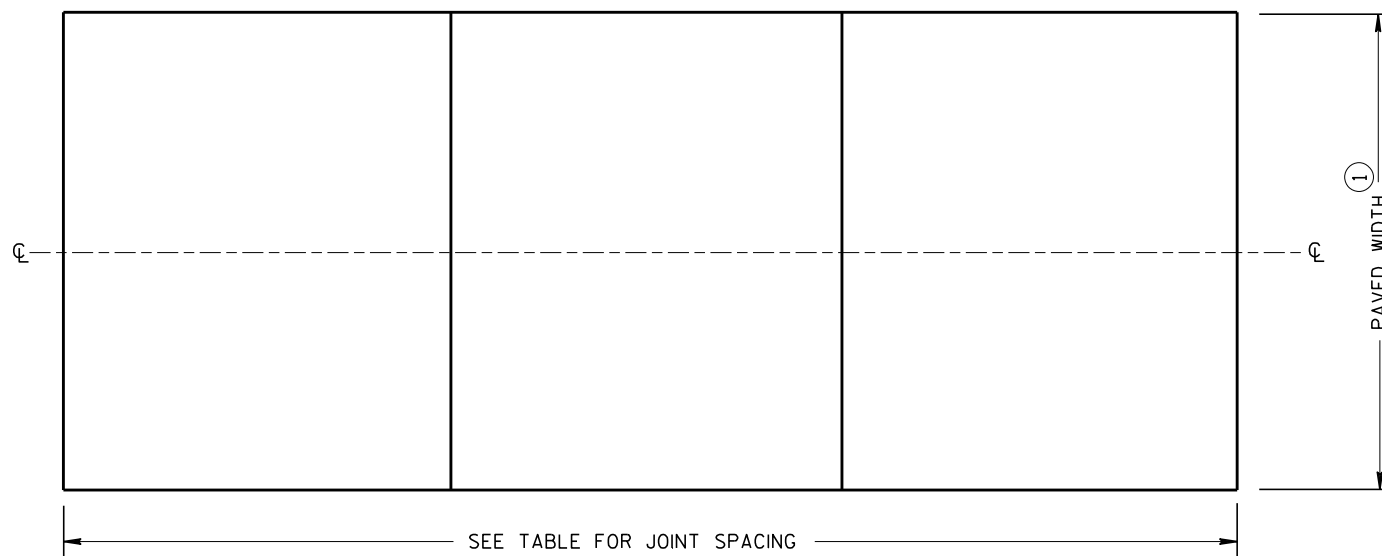
FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

- ① REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.
- ② PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

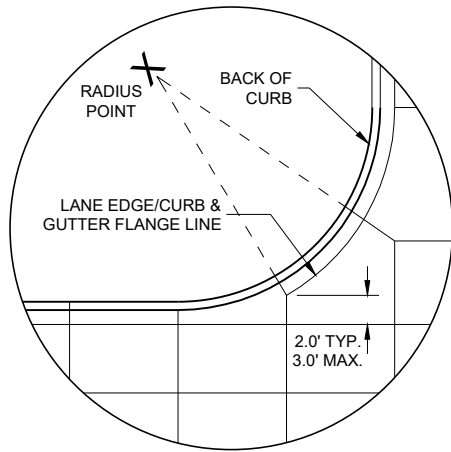


TIED TRANSVERSE CONSTRUCTION JOINT

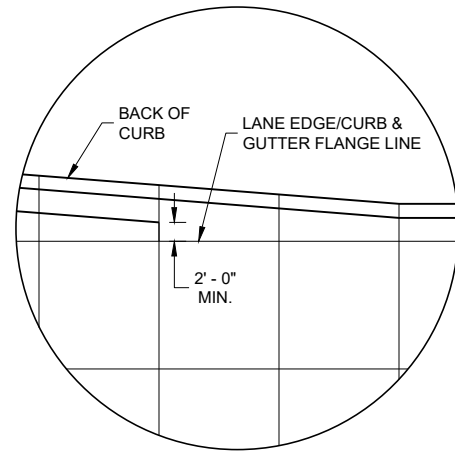


CONTRACTION JOINT LOCATIONS

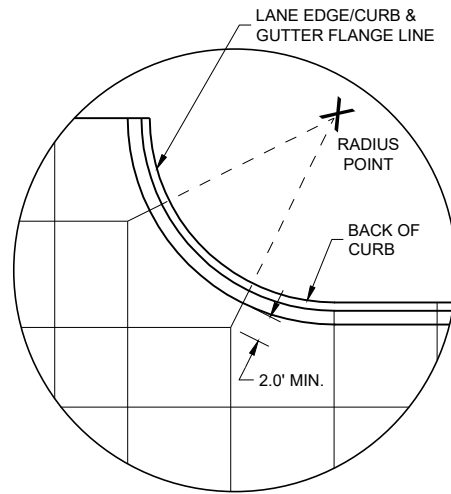
URBAN NON-DOWELED CONCRETE PAVEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



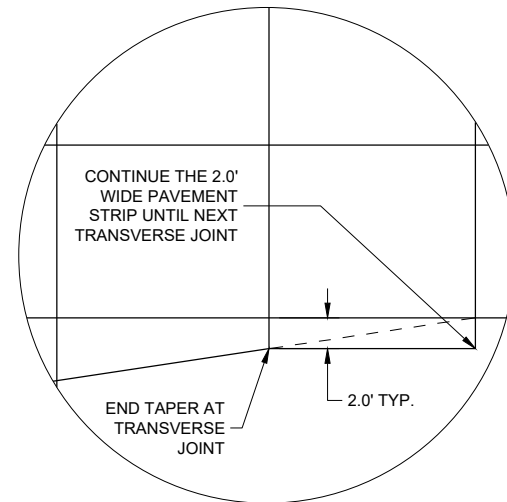
DETAIL "A"



DETAIL "B"



DETAIL "C"

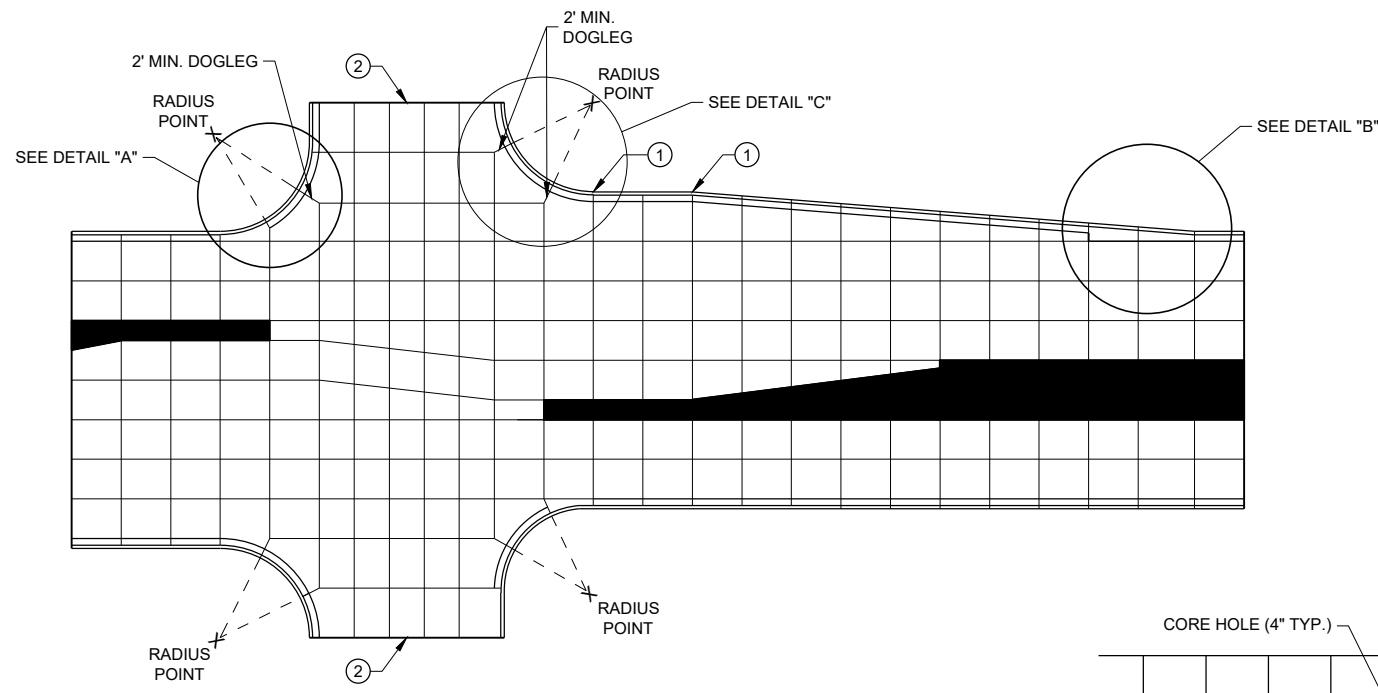


DETAIL "D"

GENERAL NOTES

- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

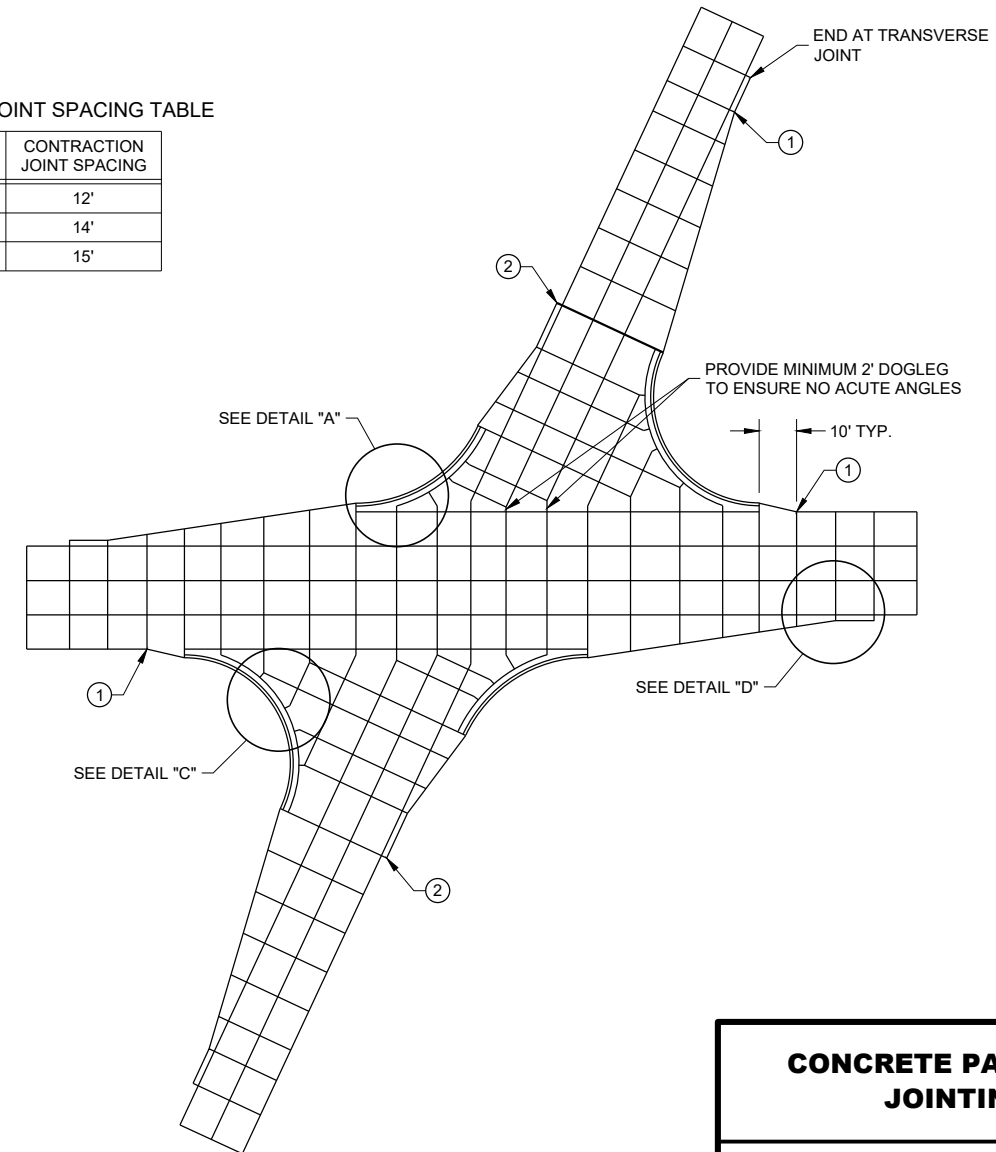
- ① PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
- ② CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
- ③ THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



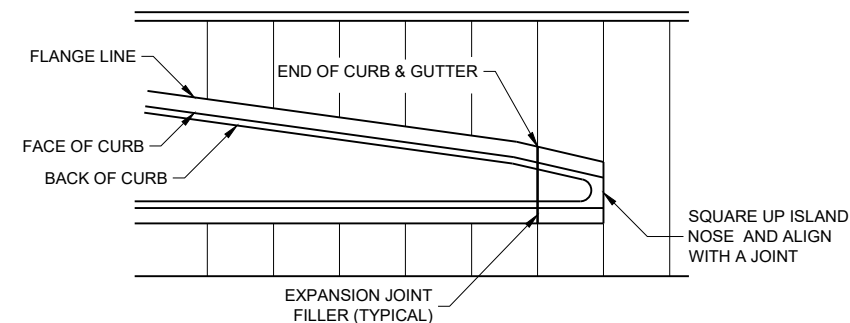
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

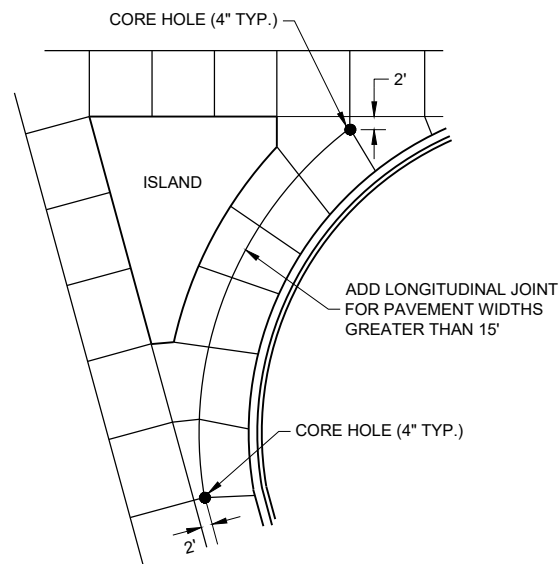
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

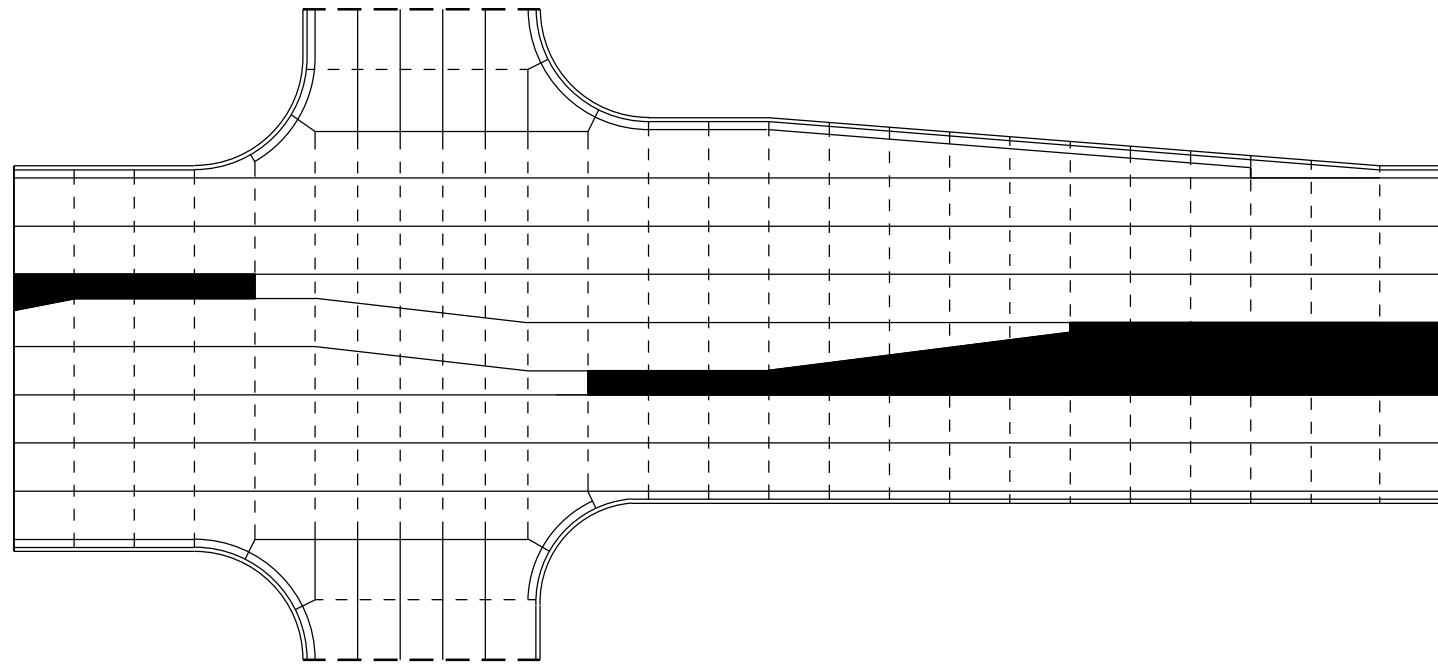
LEGEND

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

GENERAL NOTES

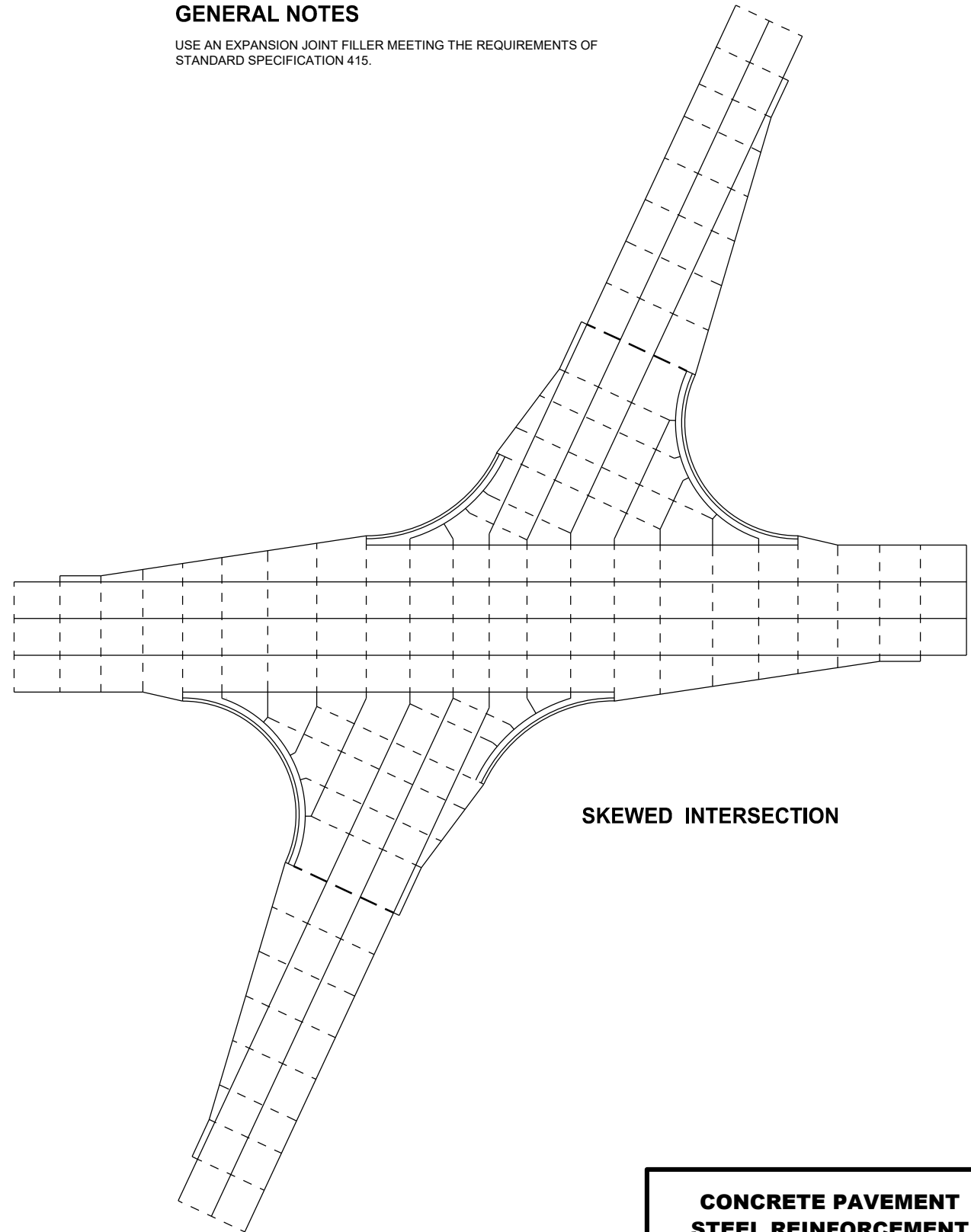
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

6



STANDARD INTERSECTION

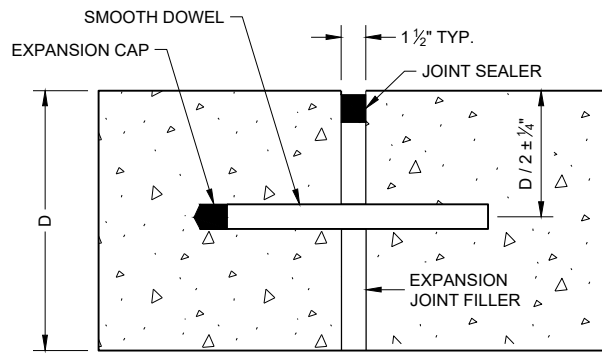
6



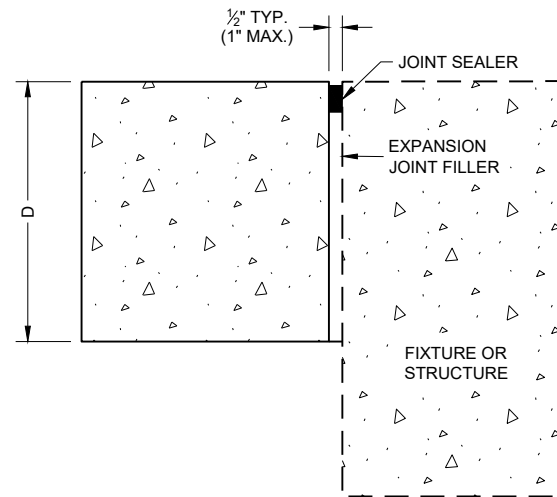
SKewed INTERSECTION

**CONCRETE PAVEMENT
STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DOWELED TRANSVERSE ①



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

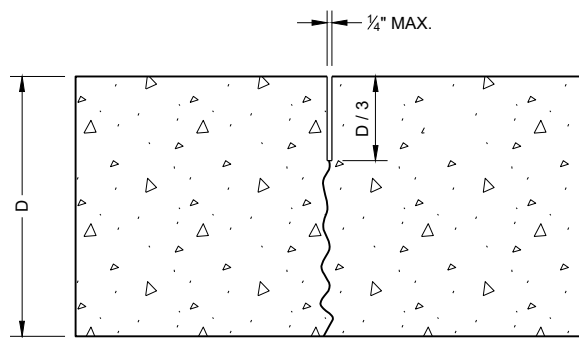
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

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

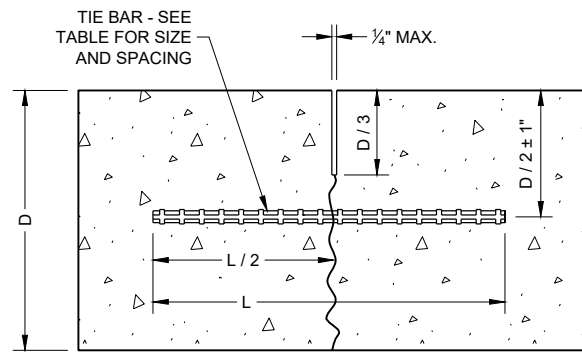
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

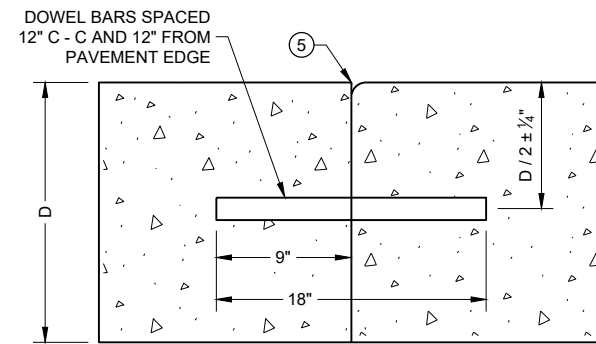
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM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



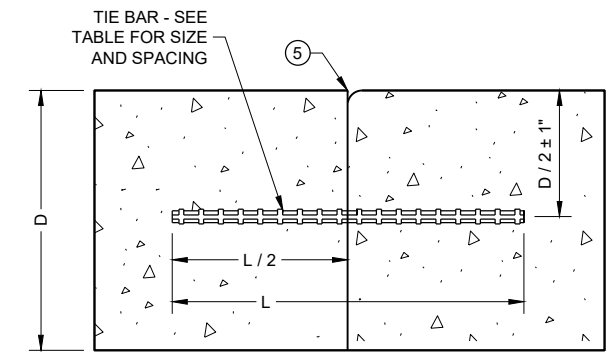
UNDOWELED TRANSVERSE



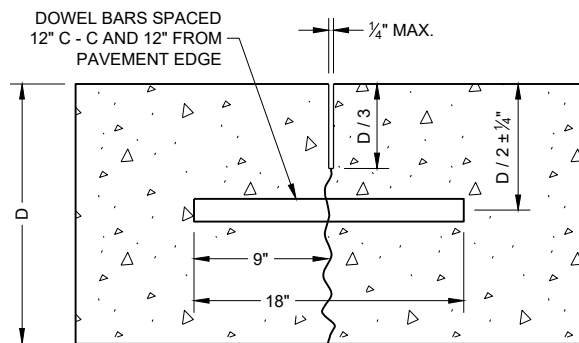
TIED LONGITUDINAL



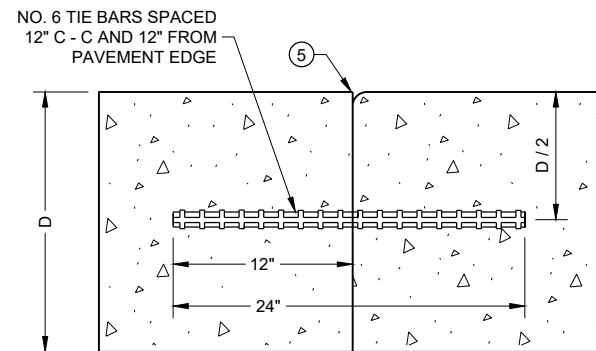
DOWELED TRANSVERSE ③



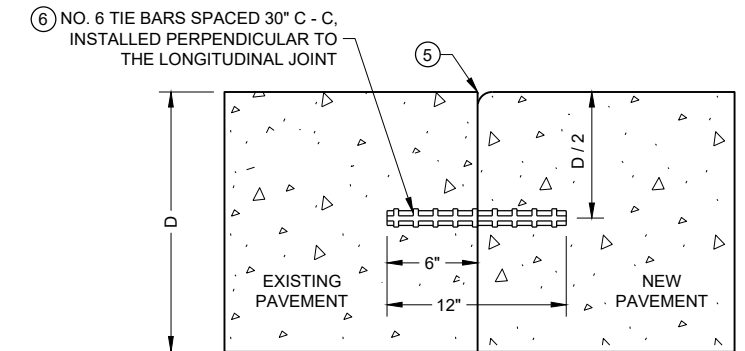
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



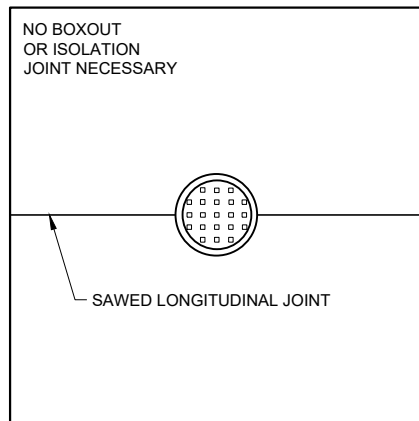
TIED LONGITUDINAL TO EXISTING

CONTRACTION JOINTS ②

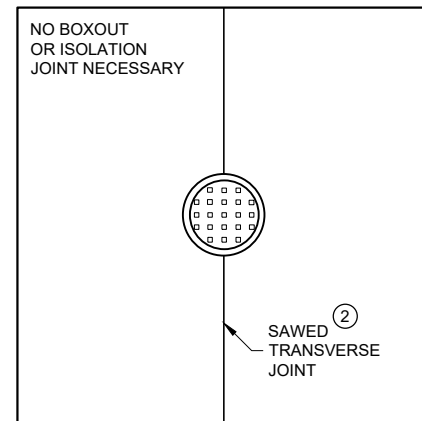
CONSTRUCTION JOINTS ④

**CONCRETE PAVEMENT
JOINT TYPES**

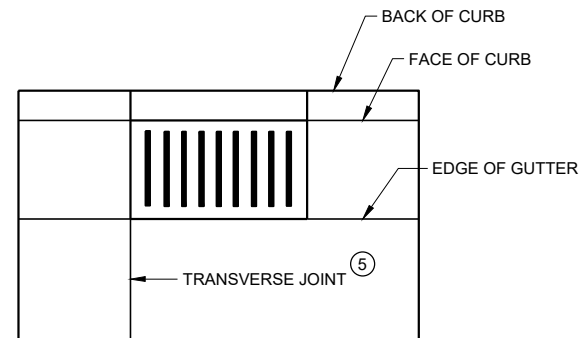
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MANHOLE WITH LONGITUDINAL JOINT



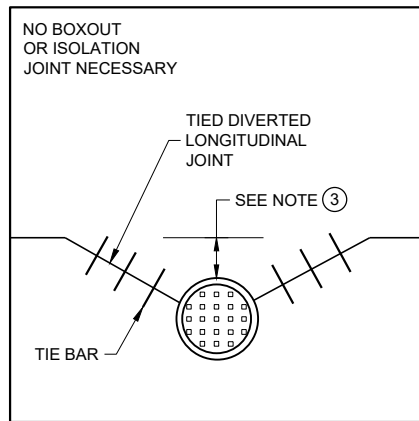
MANHOLE WITH TRANSVERSE JOINT



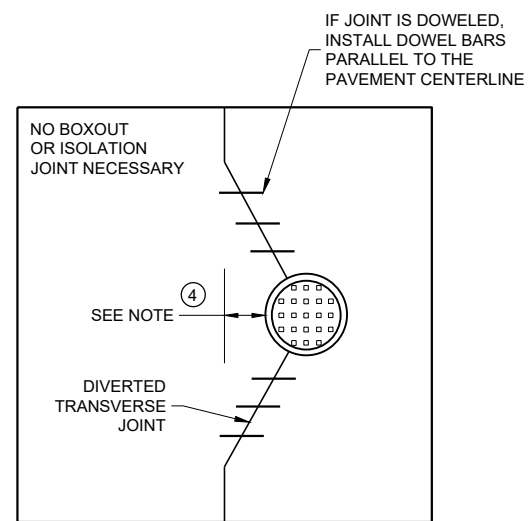
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

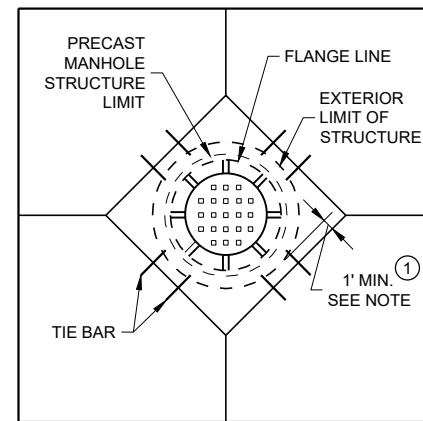
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE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



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

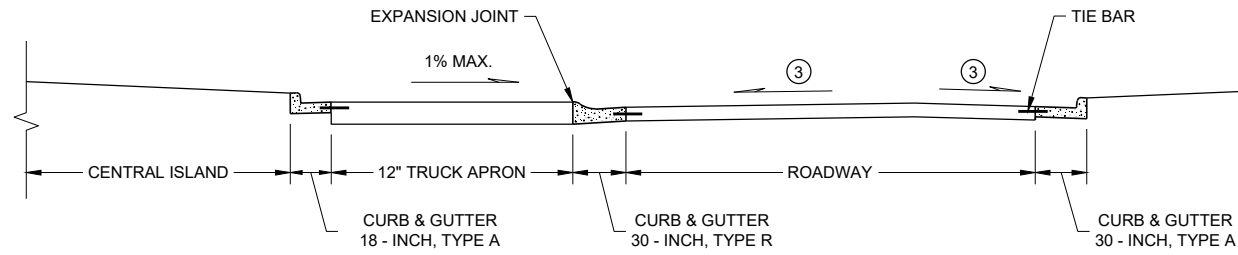


DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

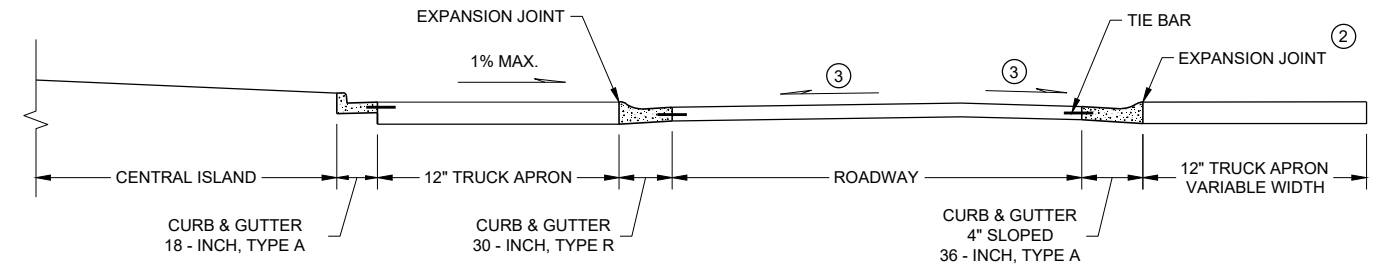
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

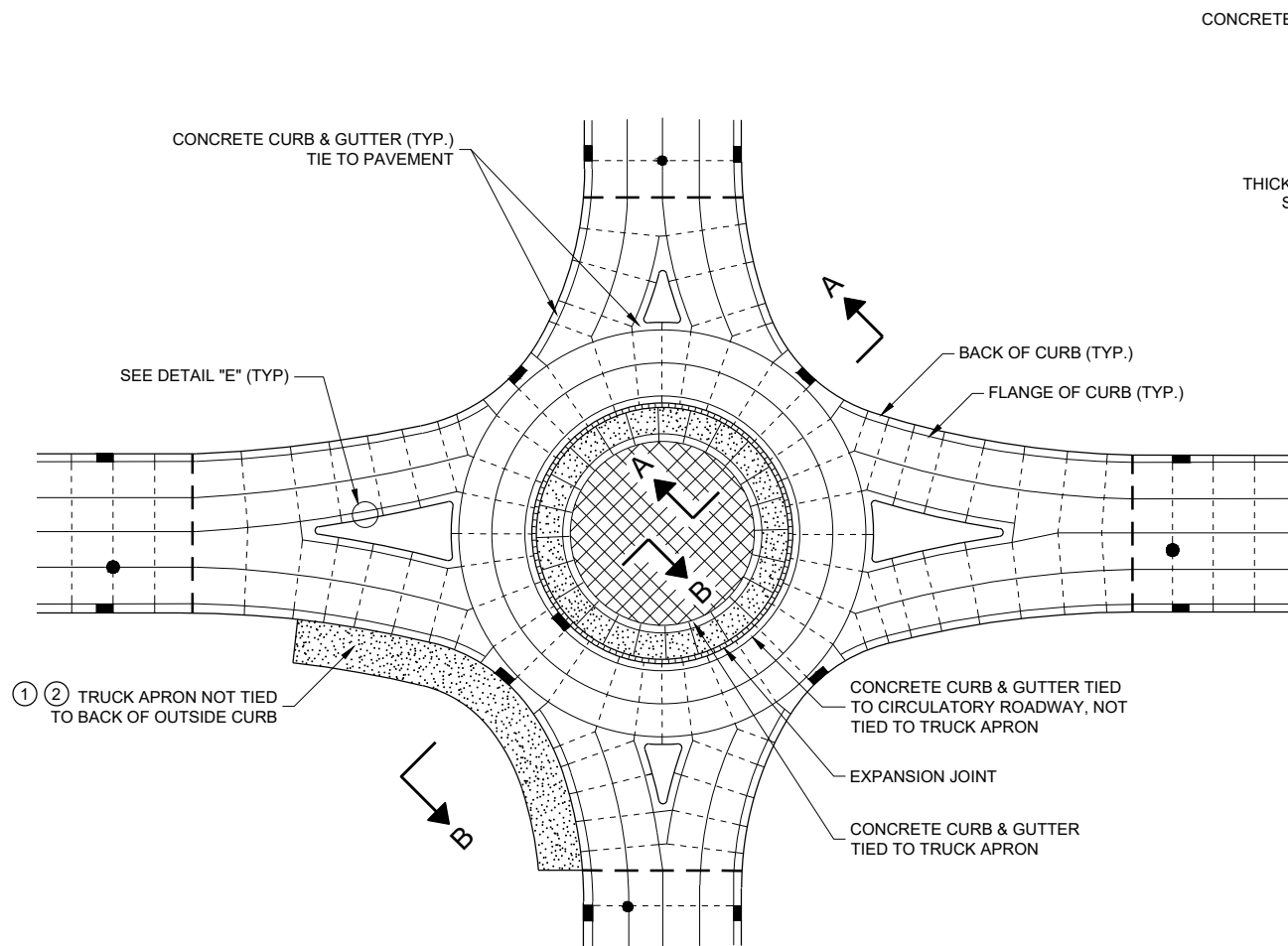
APPROVED
 May 2023 /S/ Peter Kemp P.E.
 DATE PAVEMENT SUPERVISOR



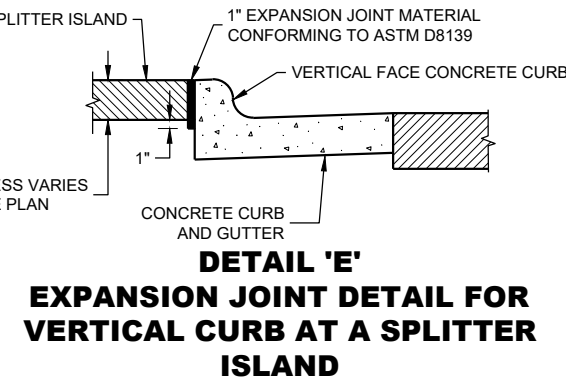
SECTION A - A



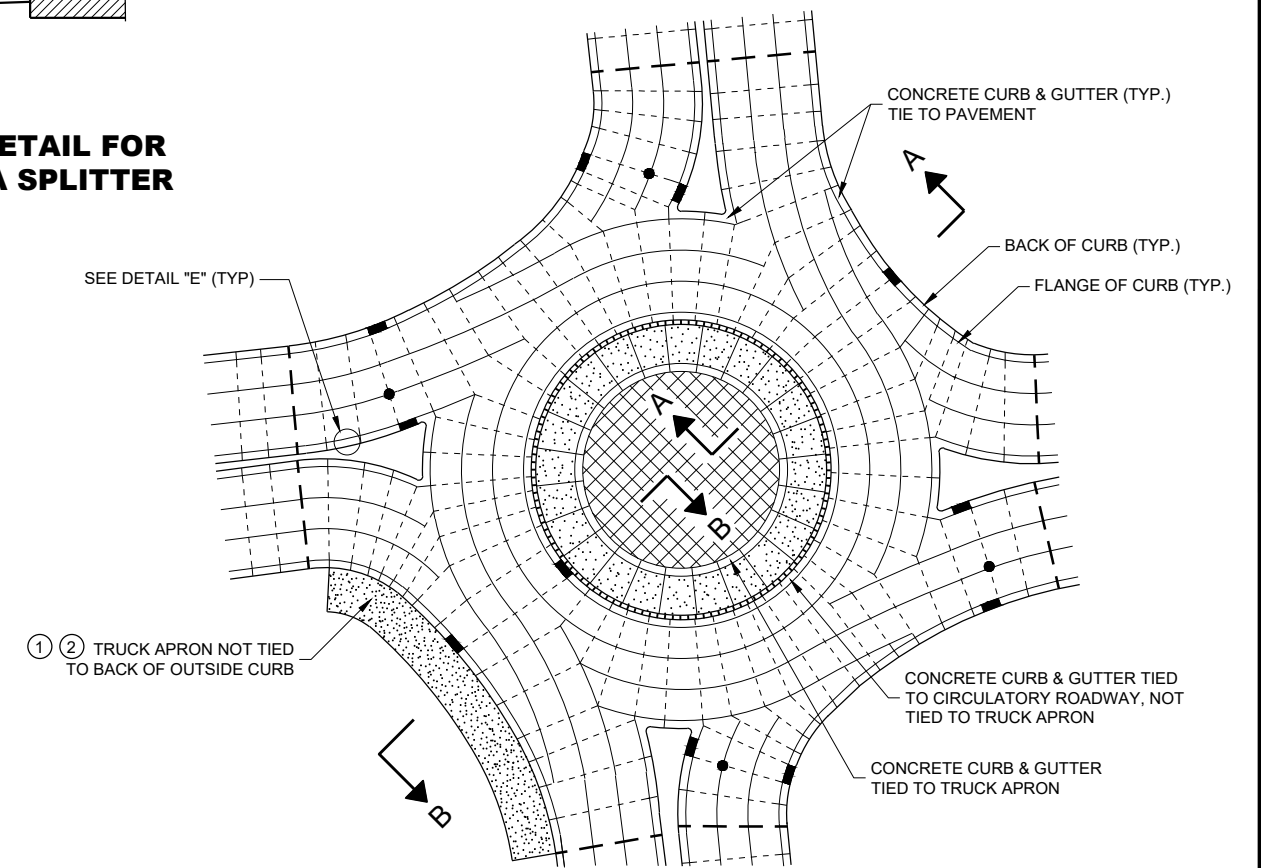
SECTION B - B



ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS



**DETAIL 'E'
EXPANSION JOINT DETAIL FOR
VERTICAL CURB AT A SPLITTER
ISLAND**



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"
 USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.
 DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

- ① DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.
- ② TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.
- ③ CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.

LEGEND

- DOWELED JOINT
- TIED JOINT
- ===== EXPANSION JOINT
- — — — POTENTIAL DOWELED EXPANSION JOINT
- [Pattern] TRUCK APRON
- [Pattern] CENTRAL ISLAND
- ● UTILITY STRUCTURES

**CONCRETE PAVEMENT JOINTING
AND STEEL REINFORCEMENT
IN ROUNDABOUTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2023 /S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

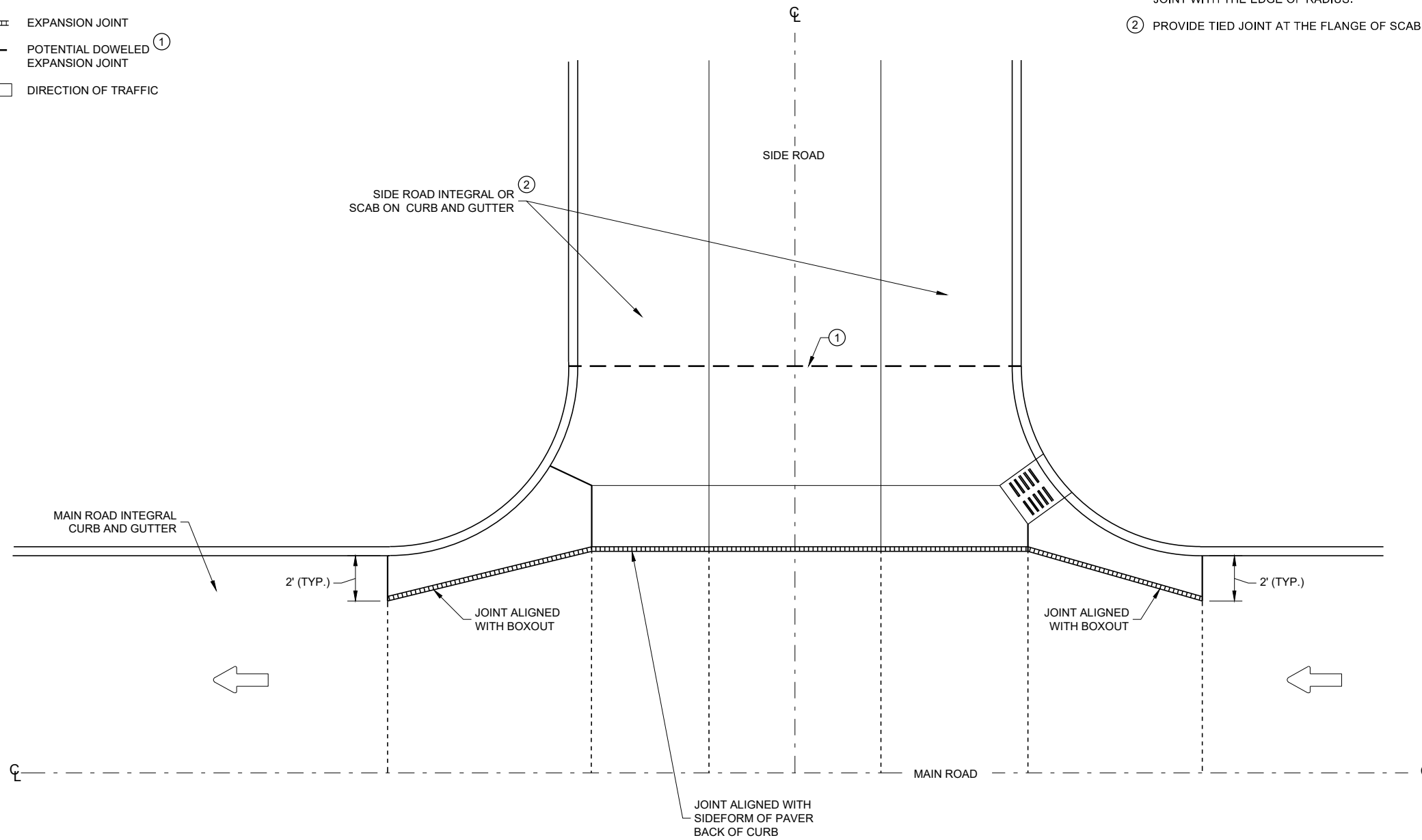
FHWA

LEGEND

- DOWELED JOINT
- TIED JOINT
- ▨▨▨▨ EXPANSION JOINT
- — — — POTENTIAL DOWELED ^① EXPANSION JOINT
- ← DIRECTION OF TRAFFIC

GENERAL NOTES

- ① CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.



INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

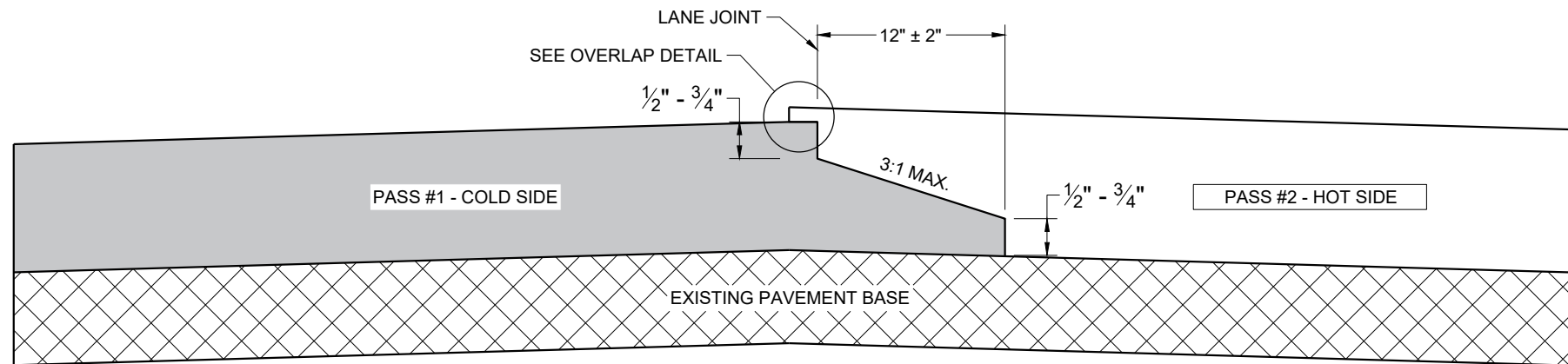
CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR
FHWA	

6

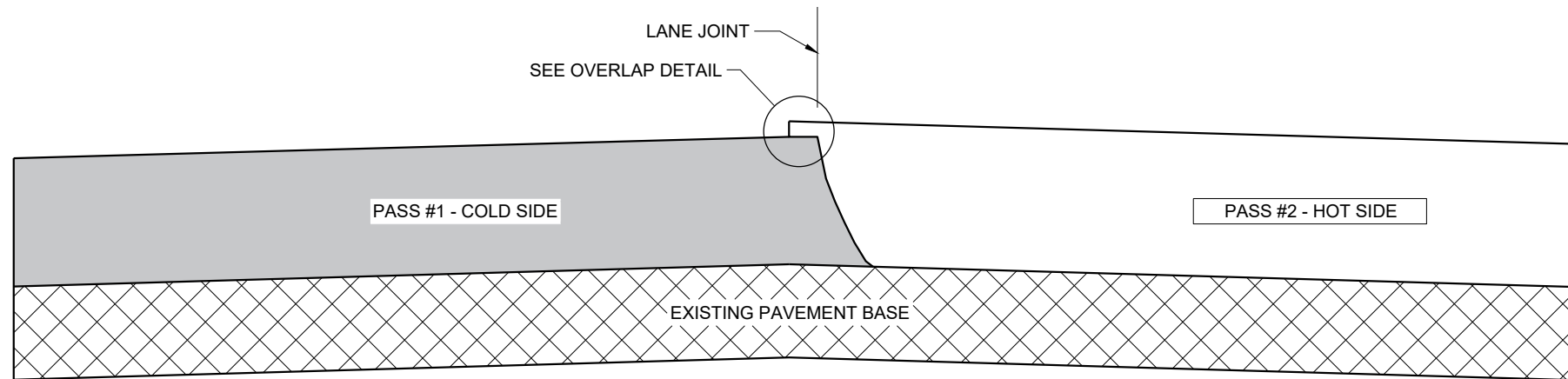
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SDD 13C18 - 08f

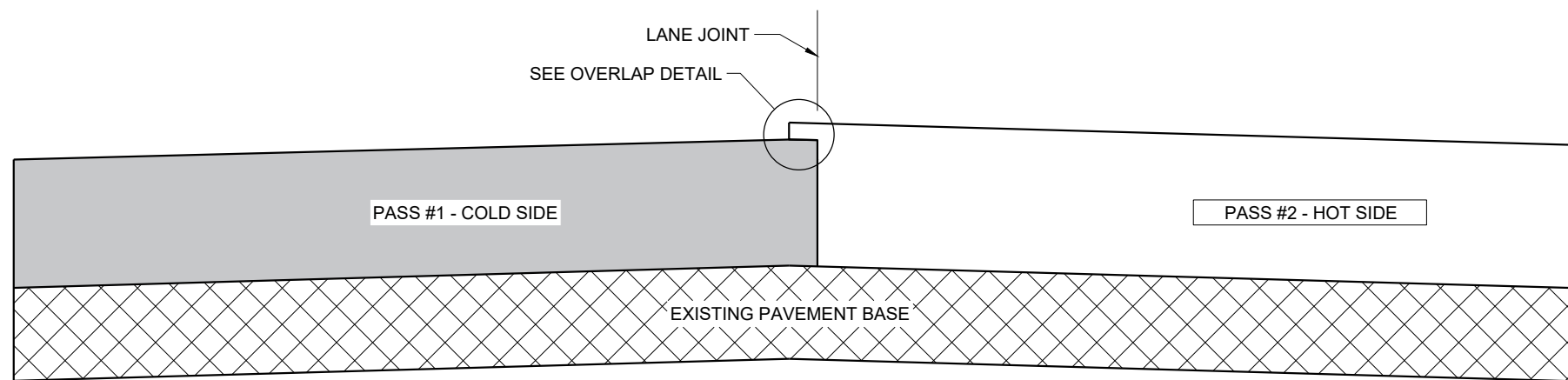
SDD 13C18 - 08f



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

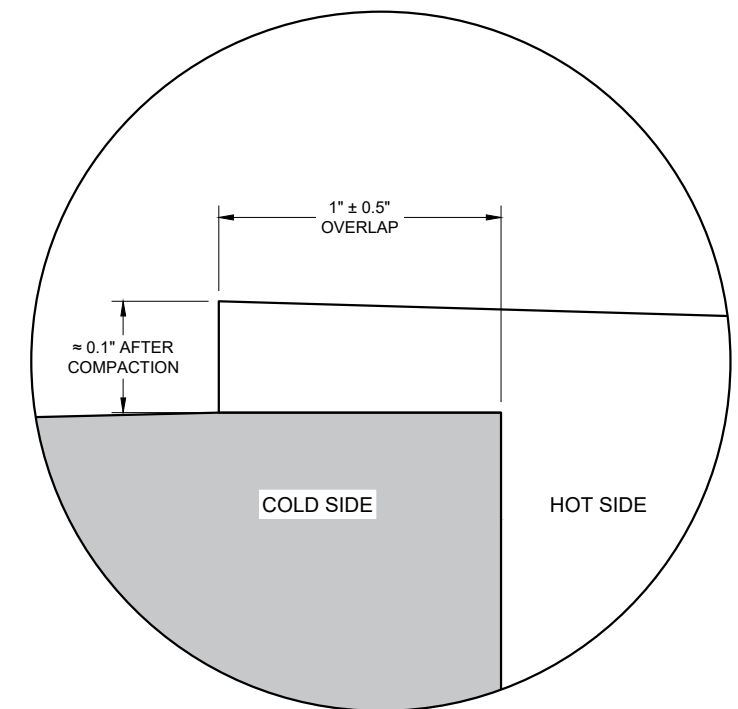
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

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



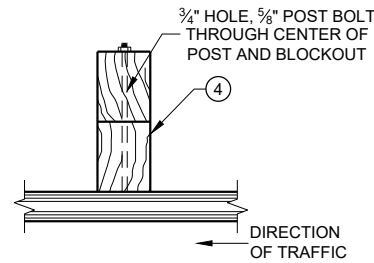
SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

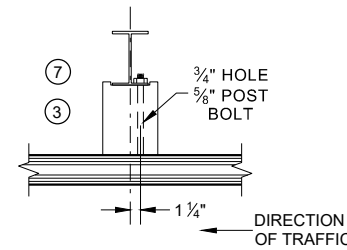
- WOOD OR STEEL POSTS (w6x9 OR w6x8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"x8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.
- USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPALTER COATING ON GALVANIZED POSTS.
- INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- IF THE DISTANCE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.
- WHEN USING STEEL POSTS 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.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

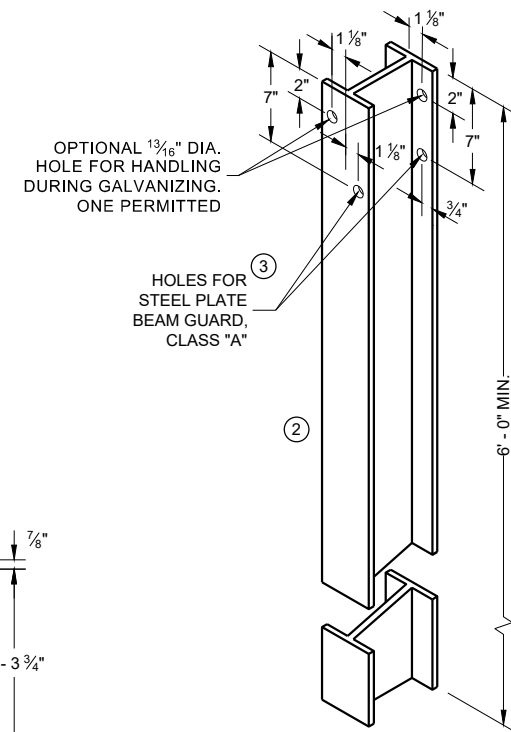
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

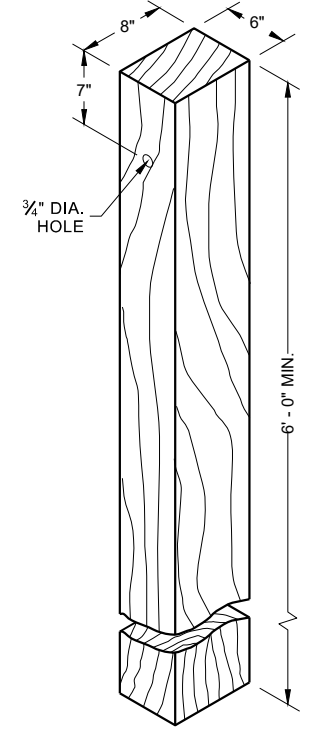


PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

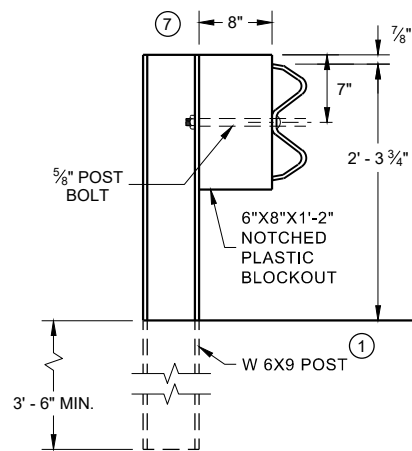


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

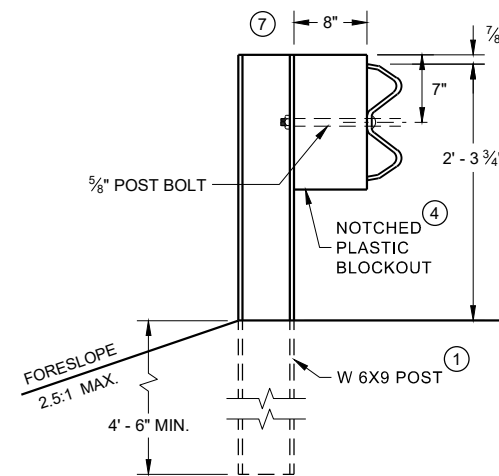
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



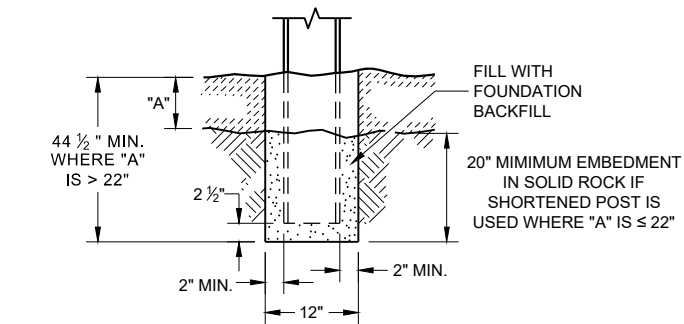
WOOD POST (6" X 8") NOMINAL



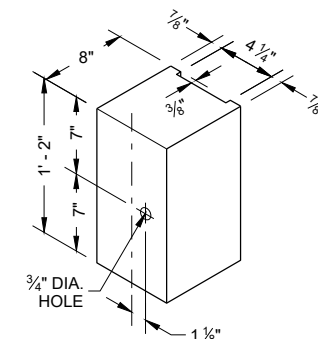
END VIEW
STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



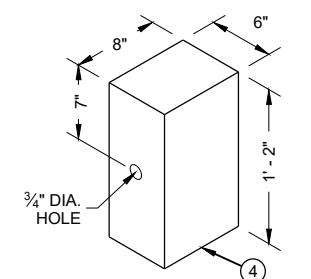
END VIEW
LONGER POST AT HALF POST SPACING W BEAM (LHW)



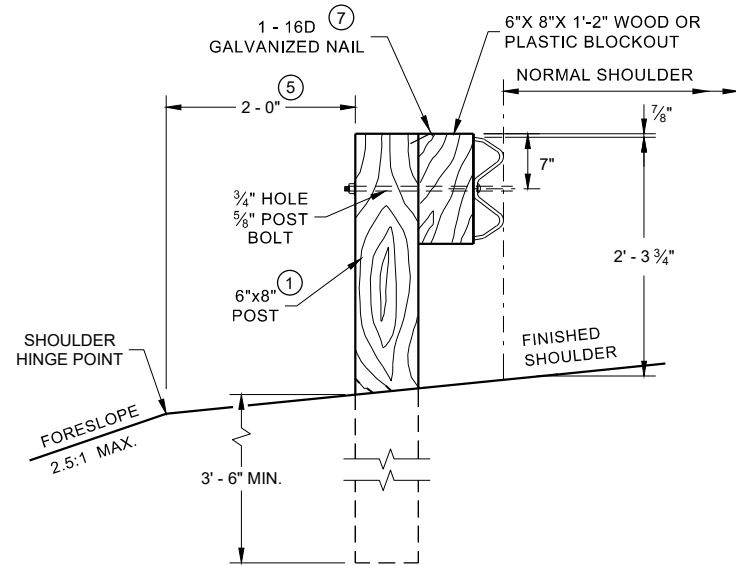
END VIEW
SETTING STEEL OR WOOD POST IN ROCK



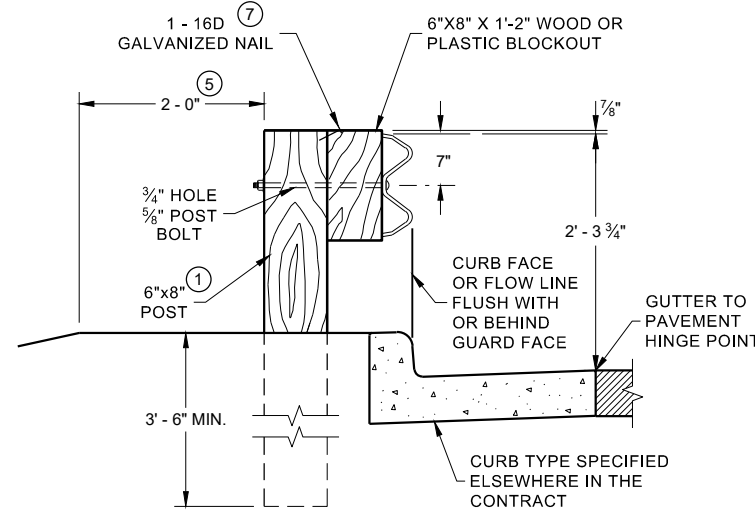
TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



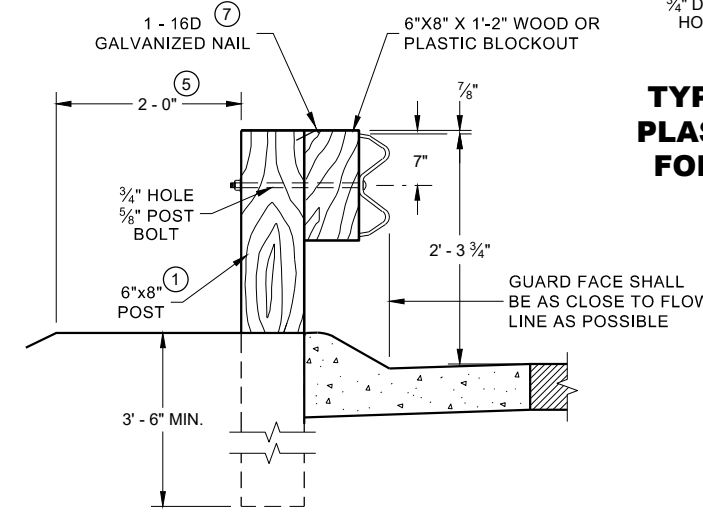
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



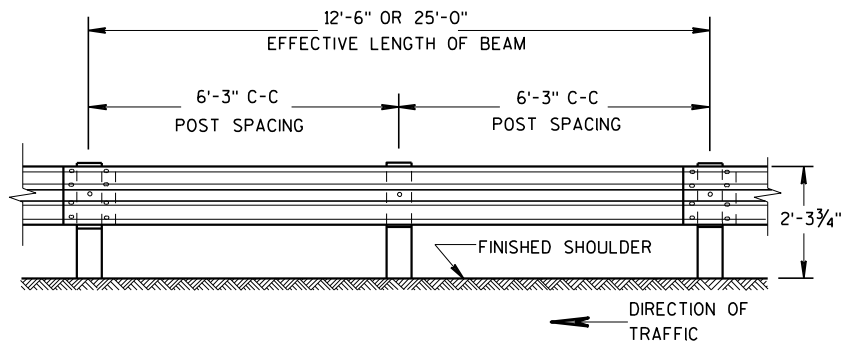
END VIEW
LOCATED ALONG A CURBED ROADWAY



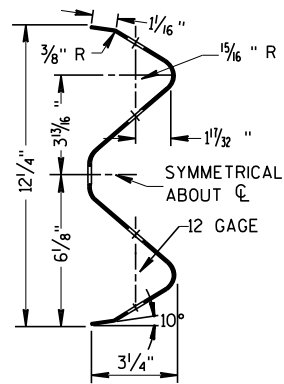
END VIEW
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION AND ELEMENTS

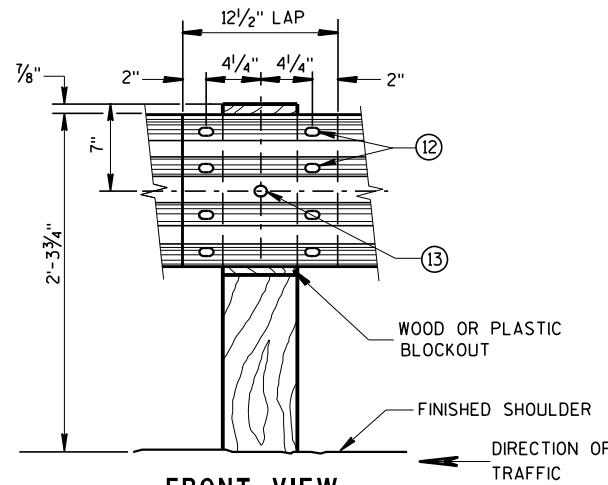
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



SECTION THRU W BEAM

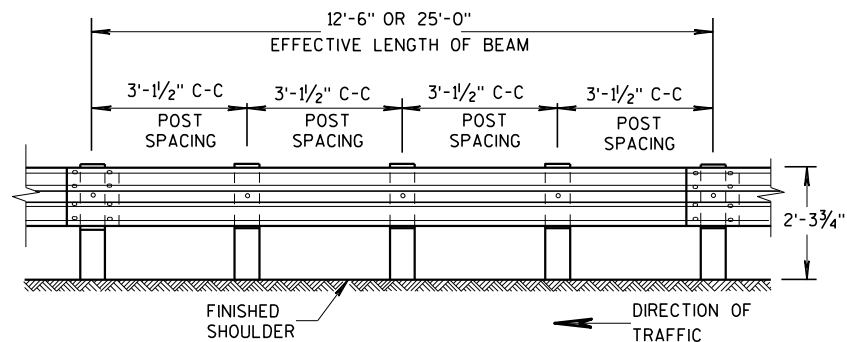


**FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL**

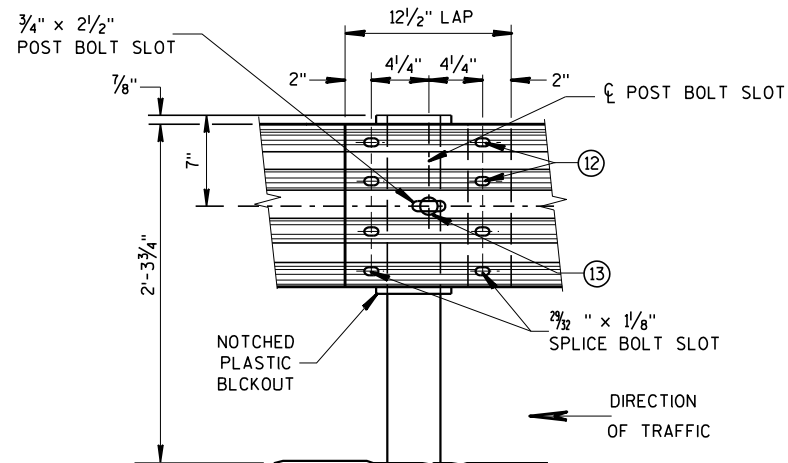
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

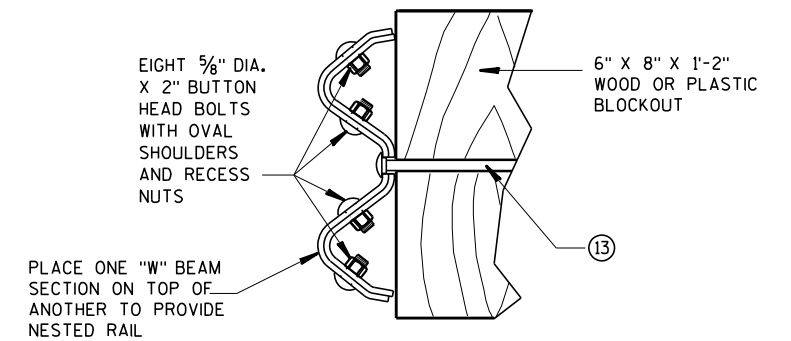
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



**FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)**



**FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD**

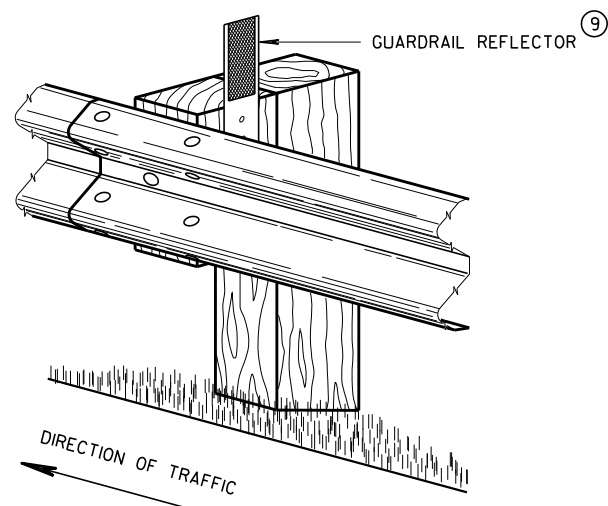


NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

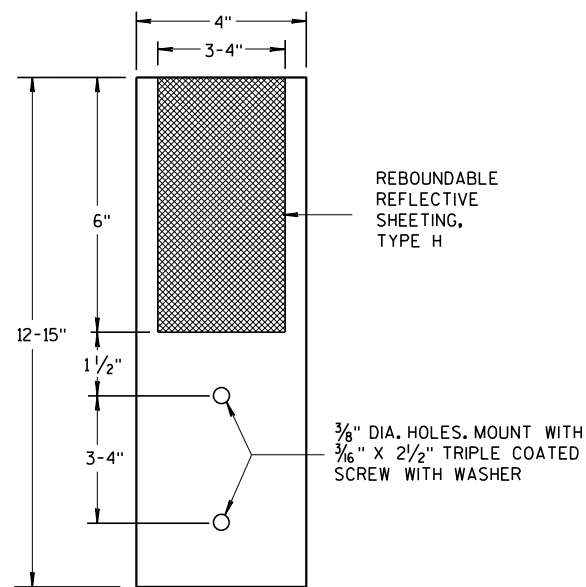
6

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* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



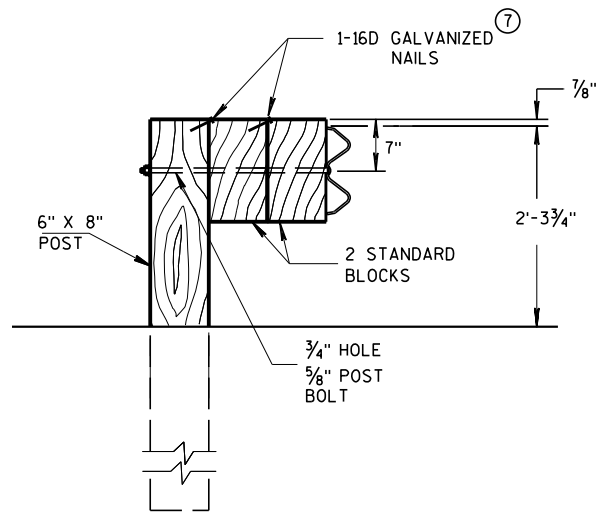
**4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION ***



4" x 12" GUARDRAIL REFLECTOR

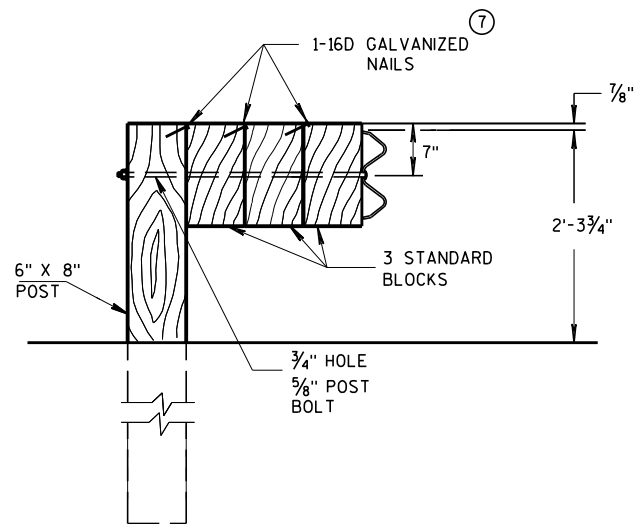
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

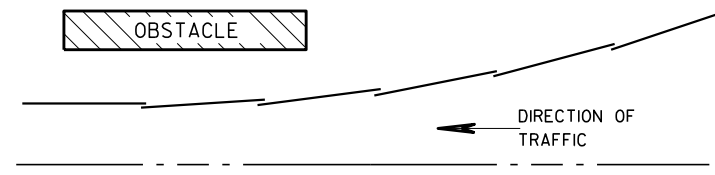


DETAIL FOR TRIPLE BLOCKS

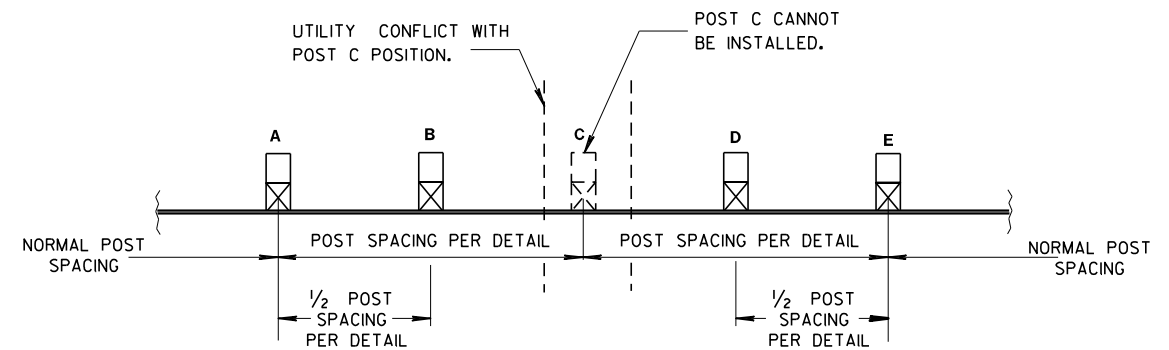
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



**PLAN VIEW
BEAM LAPPING DETAIL**



**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017	/s/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

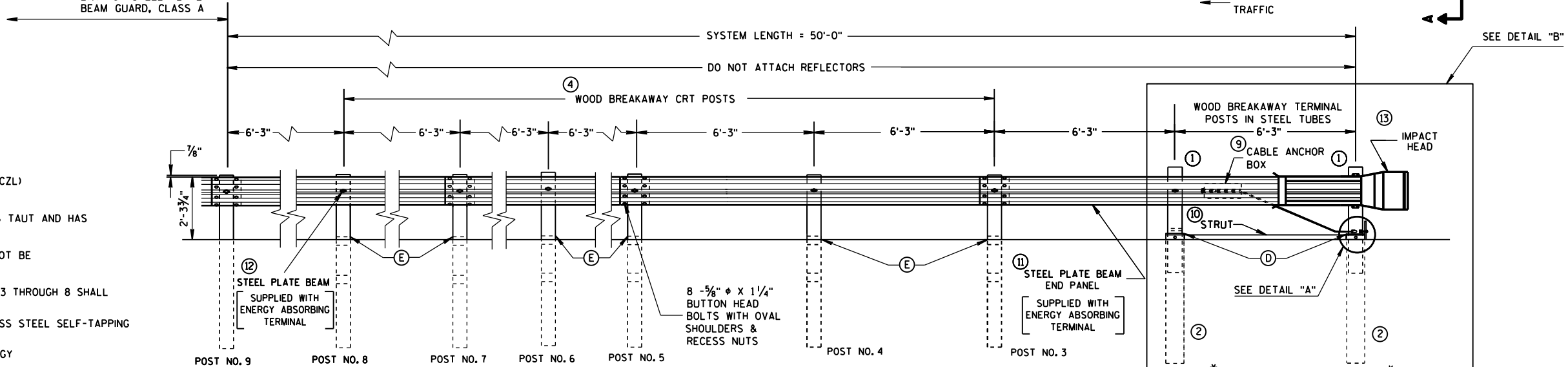
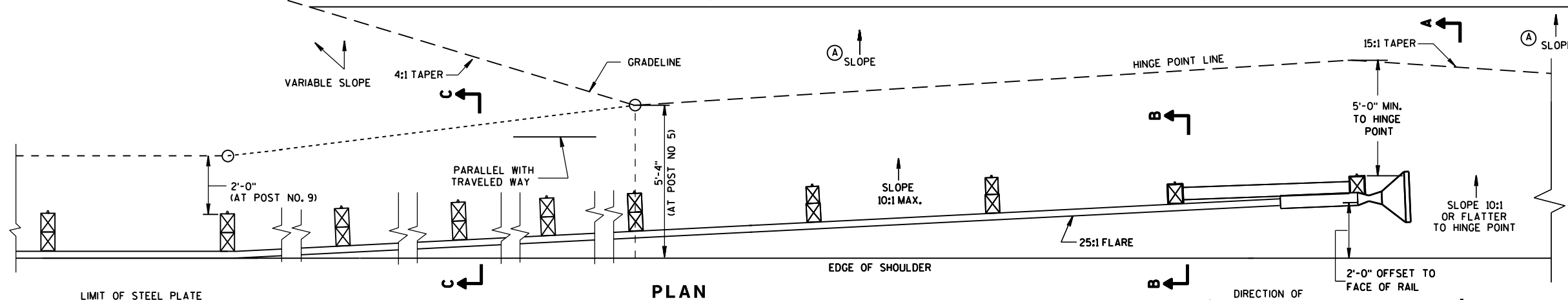
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

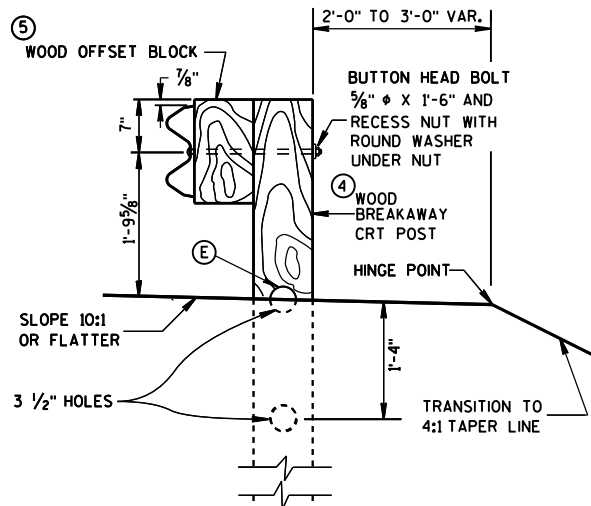
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



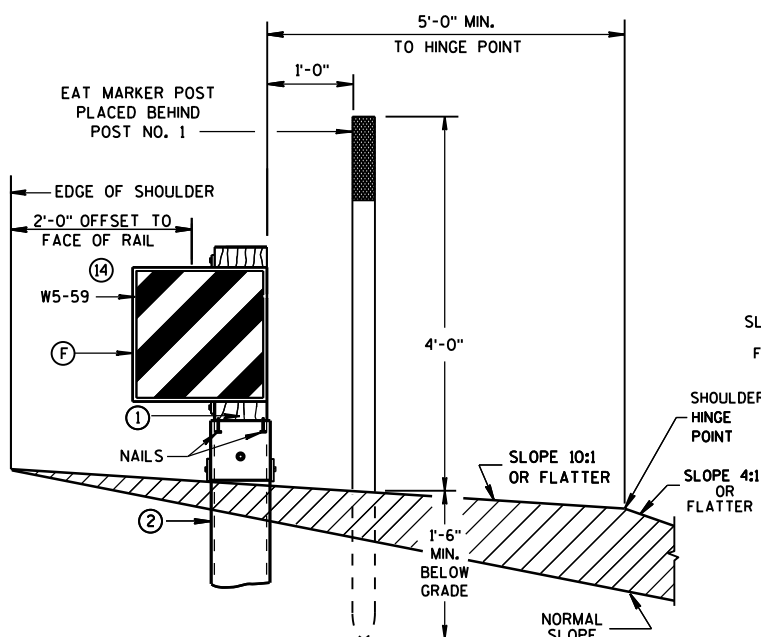
ELEVATION

DETAIL "A"

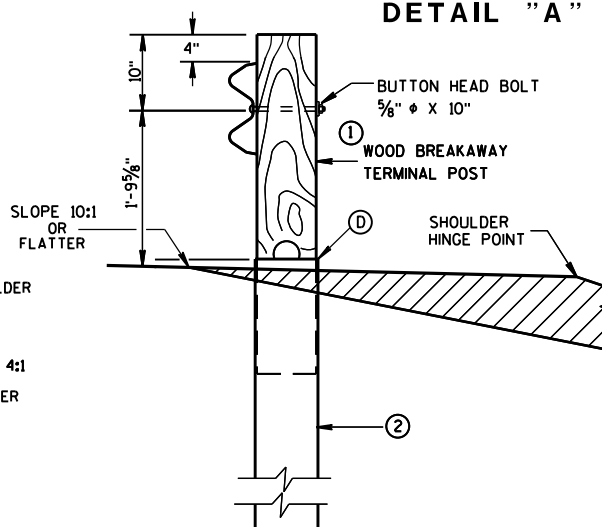
DETAIL "B"



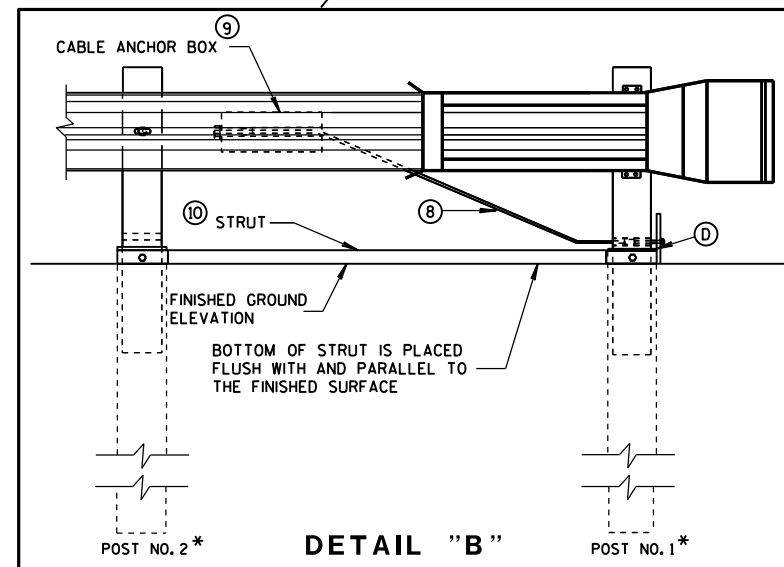
SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION A-A
TYPICAL AT POST NO. 1*

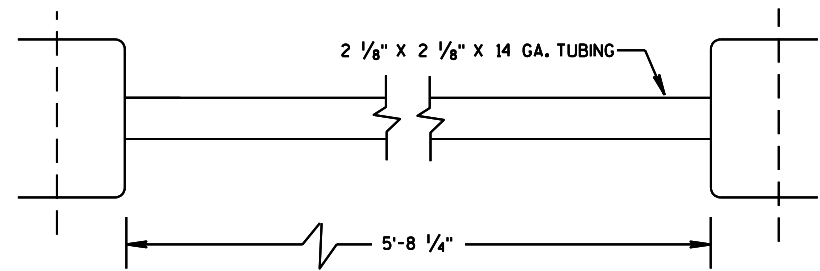


SECTION B-B
TYPICAL AT POST NO. 2*

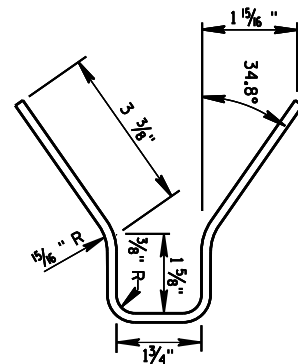
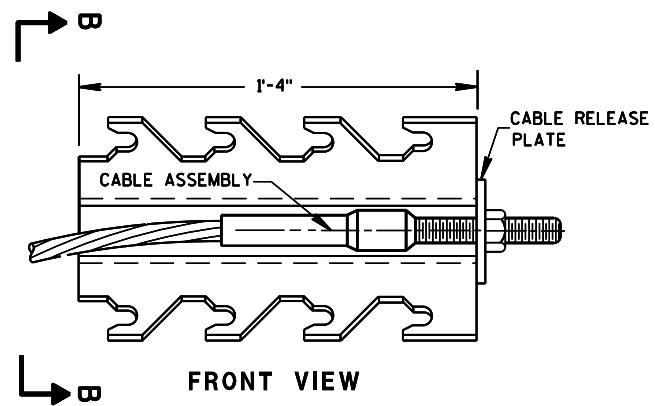


**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

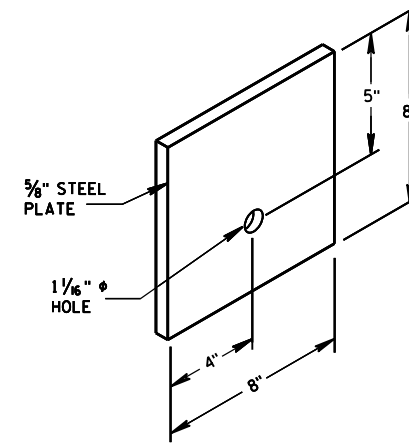
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



⑩ STRUT DETAIL



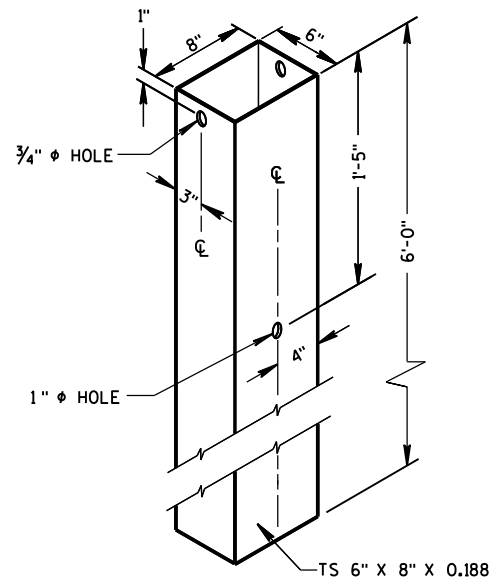
⑨ CABLE ANCHOR BOX



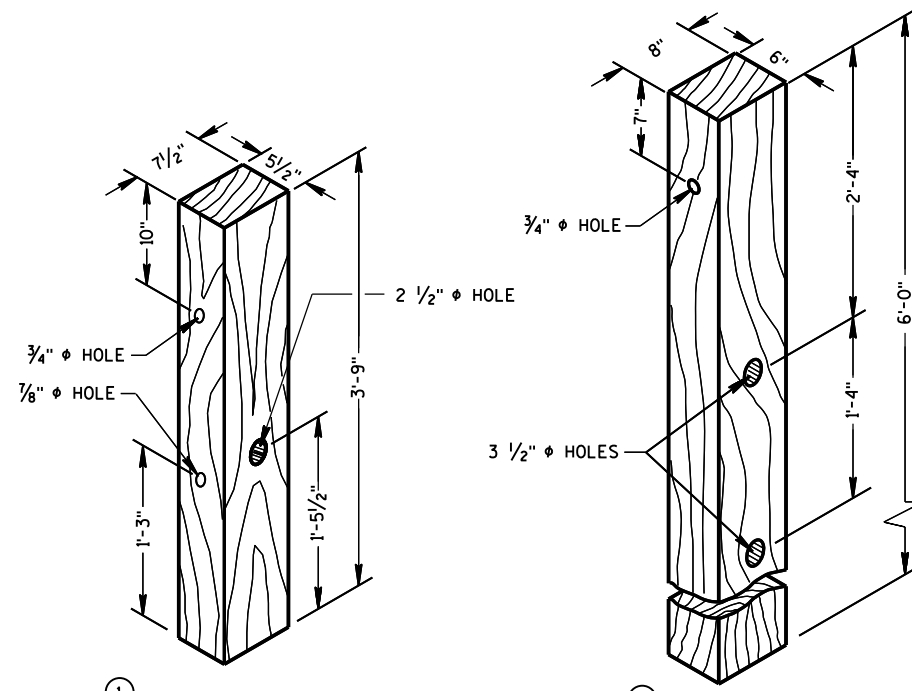
⑦ STEEL BEARING PLATE

6

6



② 72" STEEL TUBE
(POSTS NO. 1-2)



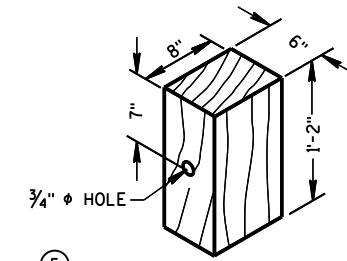
① TERMINAL POST

④ CRT POST
(POSTS NO'S 5-8)

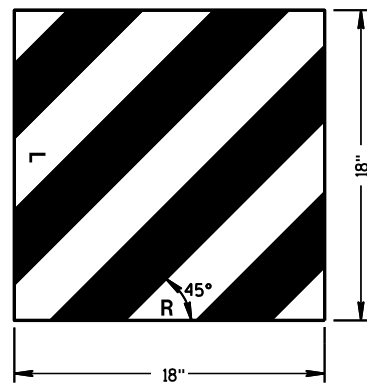
WOOD BREAKAWAY POSTS

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

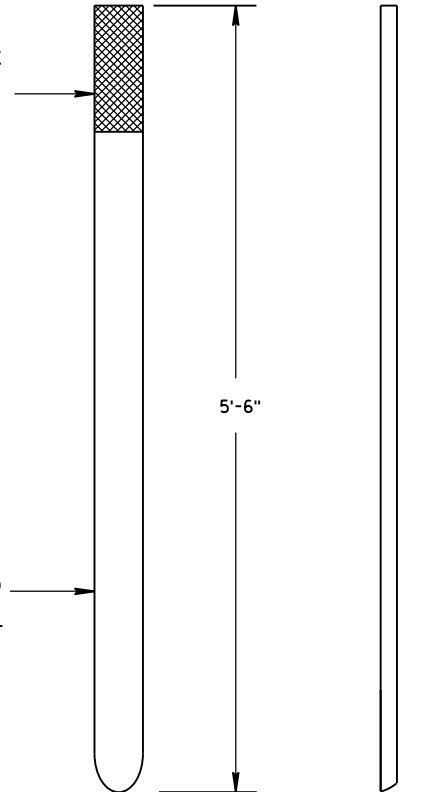


⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST

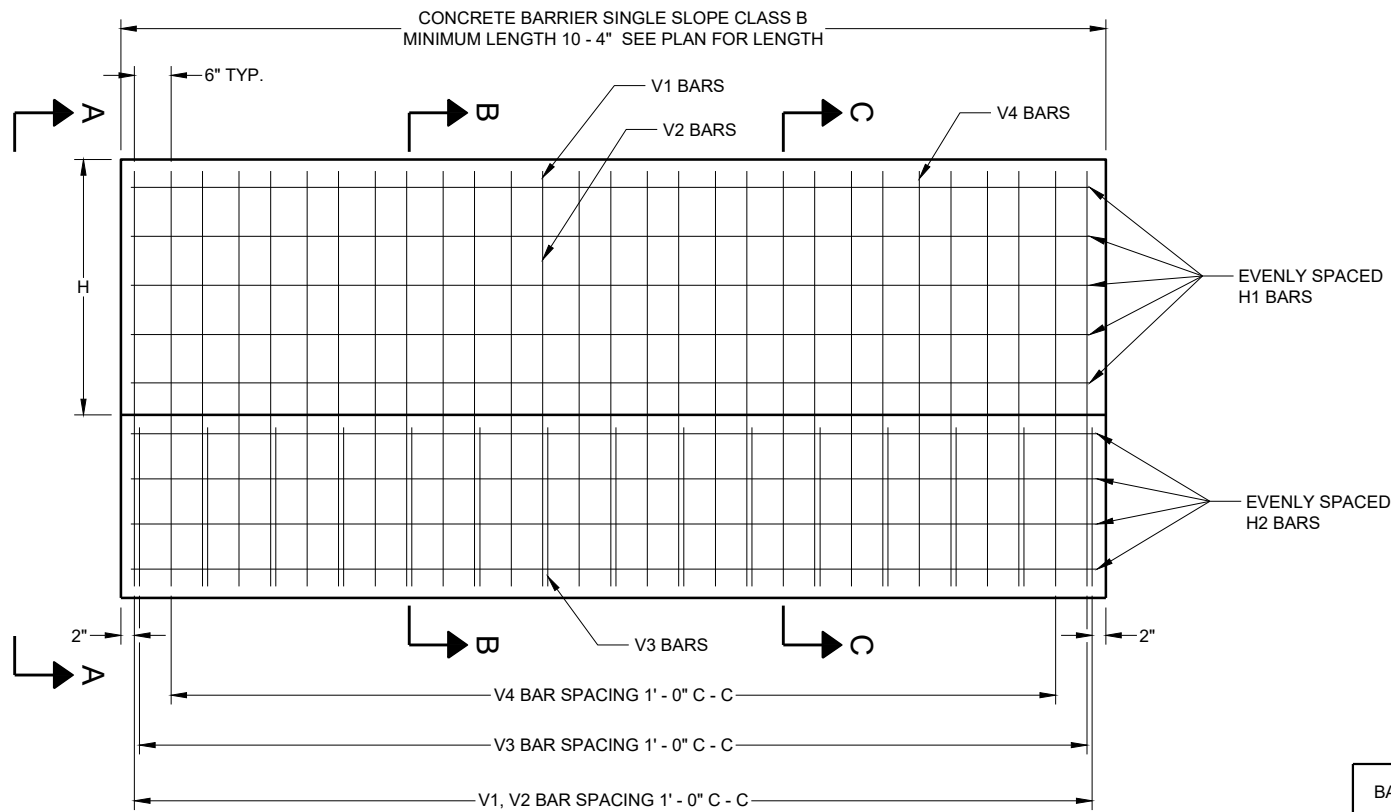
FRONT VIEW SIDE VIEW

E.A.T. MARKER POST

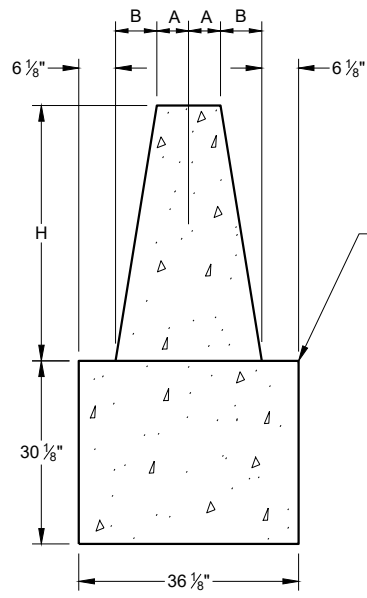
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

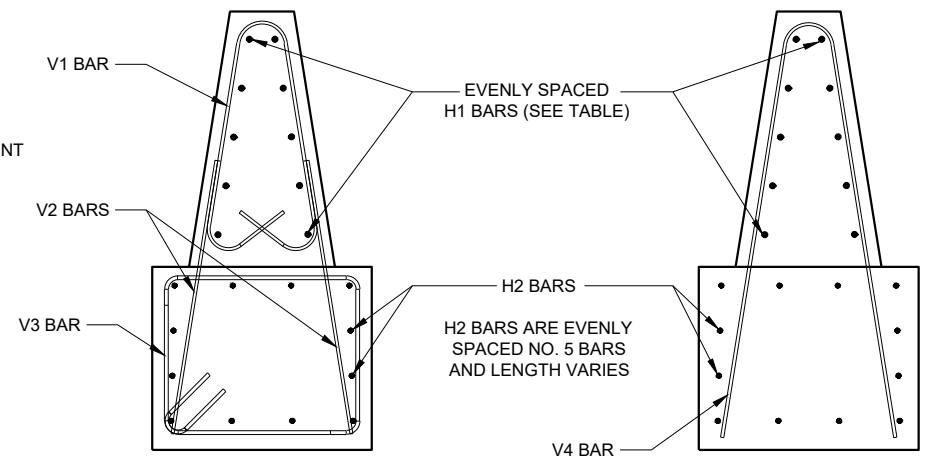
APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



ELEVATION VIEW



SECTION A - A

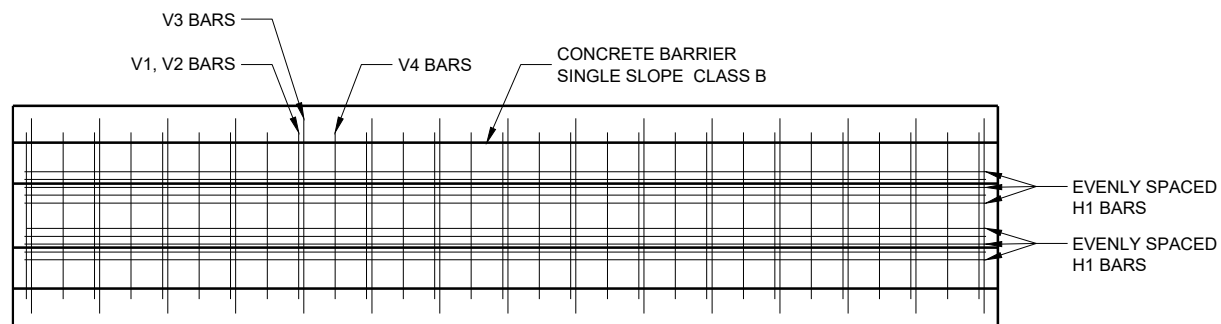


SECTION B - B

SECTION C - C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6 1/4	5 3/4	8
42	5 1/4	6 3/4	10

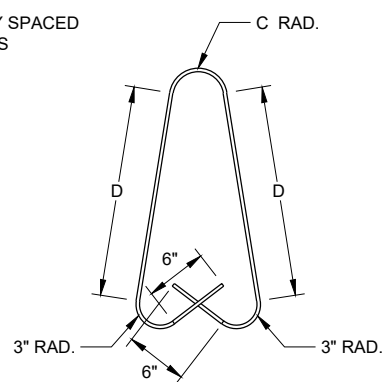
BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5 5/8	18 3/4	5 1/2	53 3/4
36	4 3/4	23 3/4	4 7/8	58 3/8
42	3 5/8	30 1/2	3 5/8	65 3/8



PLAN VIEW

GENERAL NOTES

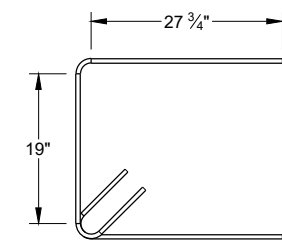
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.
- 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.
- USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
- PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL.
- PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
- WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
- IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



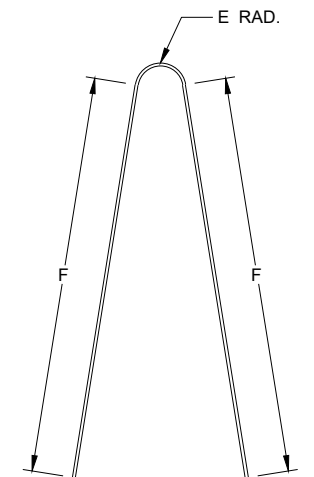
V1 BAR BENDING DETAIL
V1 BARS ARE NO. 4 BARS



V2 BAR DETAIL
V2 BARS ARE NO. 5 BARS



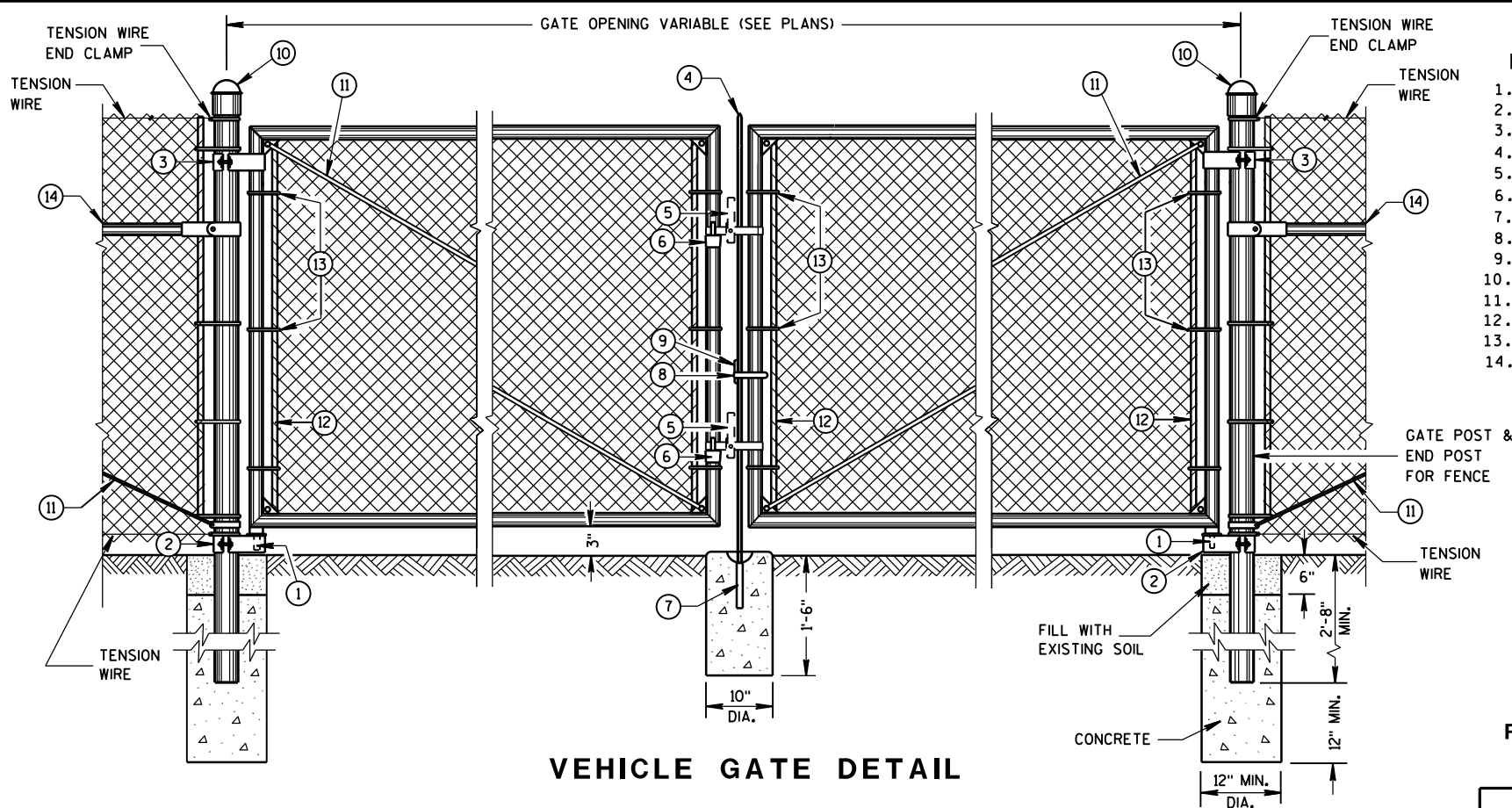
V3 BAR BENDING DETAIL
V3 BARS ARE NO. 6 BARS



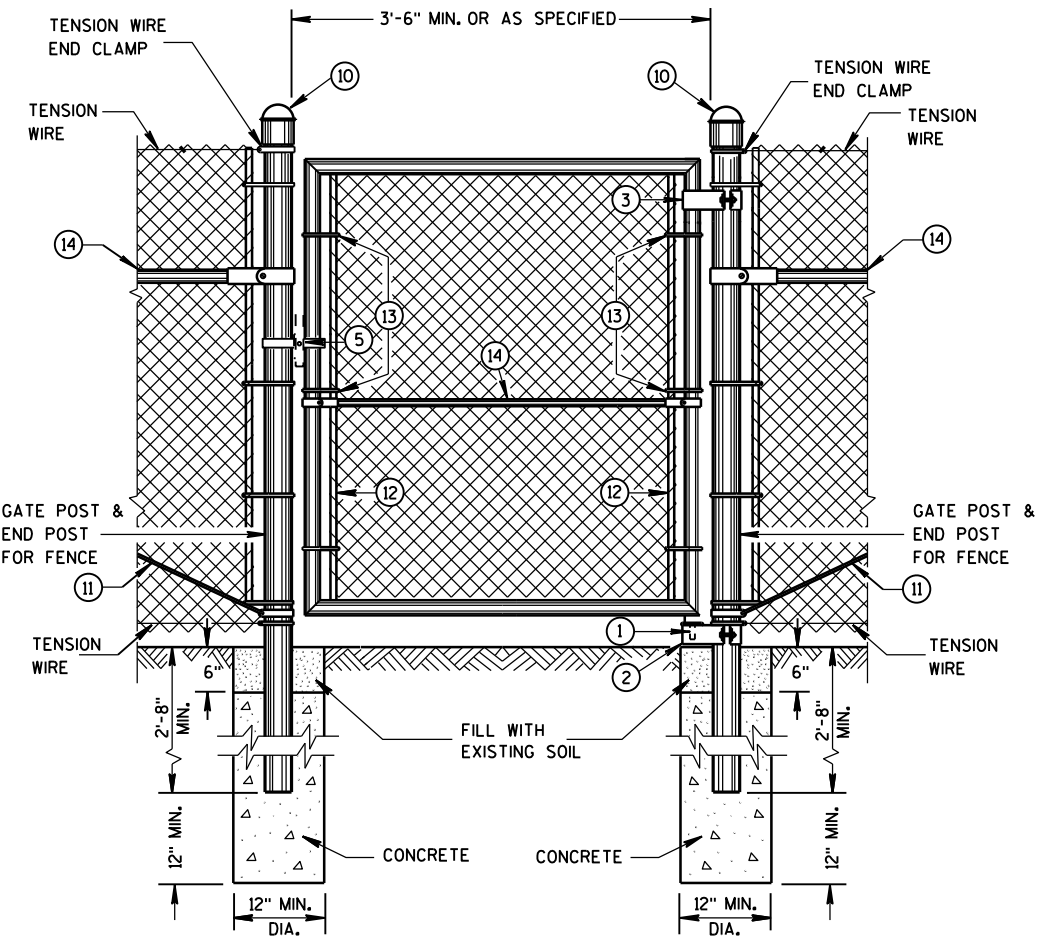
V4 BAR BENDING DETAIL
V4 BARS ARE NO. 6 BARS

32", 36", & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

- LEGEND**
1. STRAIGHT PLUG
 2. BOTTOM HINGE
 3. TOP HINGE
 4. PLUNGER ROD
 5. FULCRUM LATCH
 6. FORK CATCH *
 7. PLUNGER ROD CATCH
 8. LOCK KEEPER GUIDE
 9. LOCK KEEPER
 10. DOME TOPS
 11. TRUSS RODS
 12. TENSION BAR
 13. TENSION BANDS
 14. BRACE RAIL
- *NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

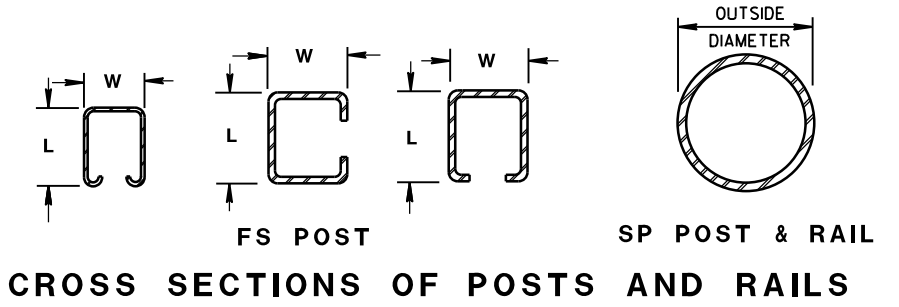
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

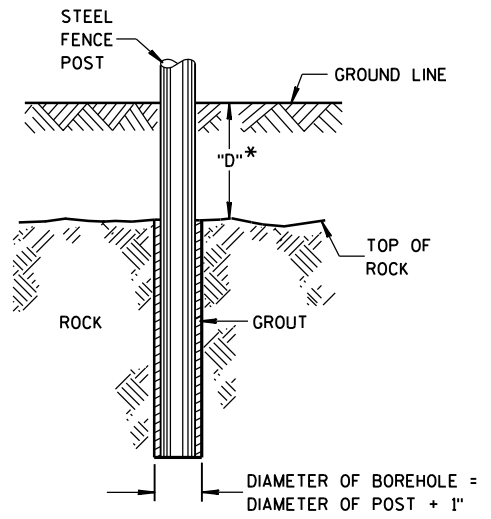
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

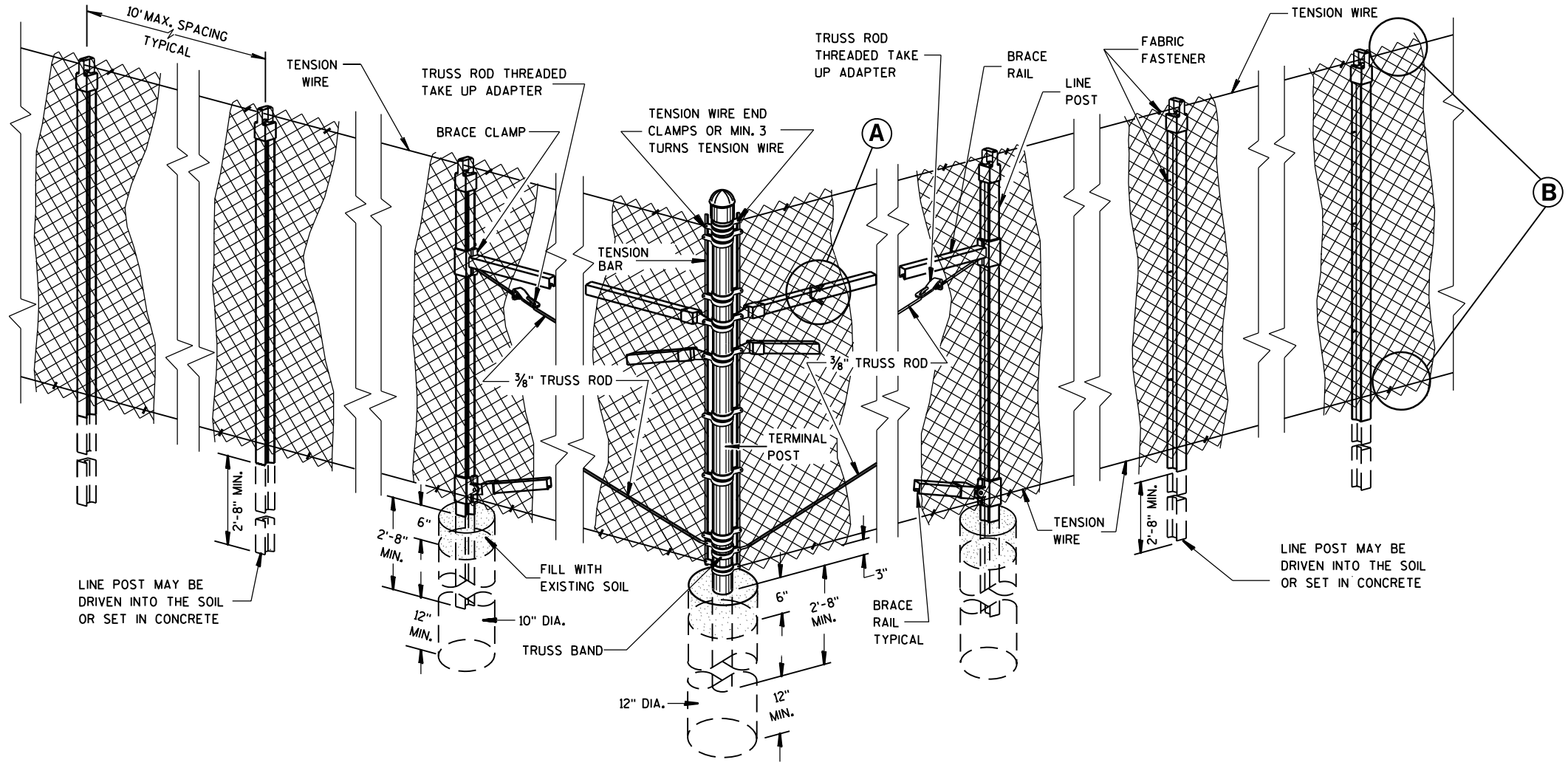
S.D.D. 15 B 3-15a

S.D.D. 15 B 3-15a

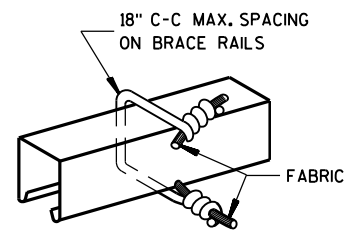


* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

**ROCK INSTALLATION
OF LINE POST**

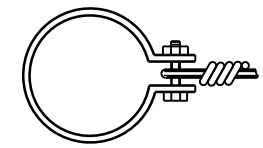


**END, CORNER, ANGLE
INTERSECTION & INTERMEDIATE
BRACED POSTS**

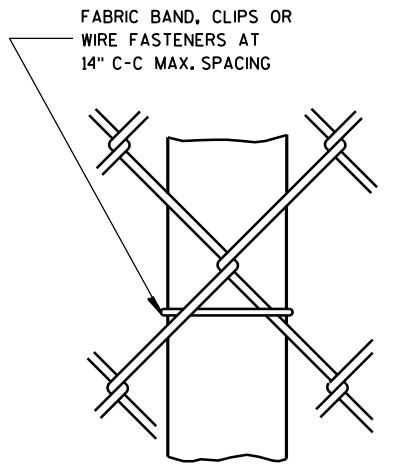


**BRACE RAIL
FABRIC FASTENER**

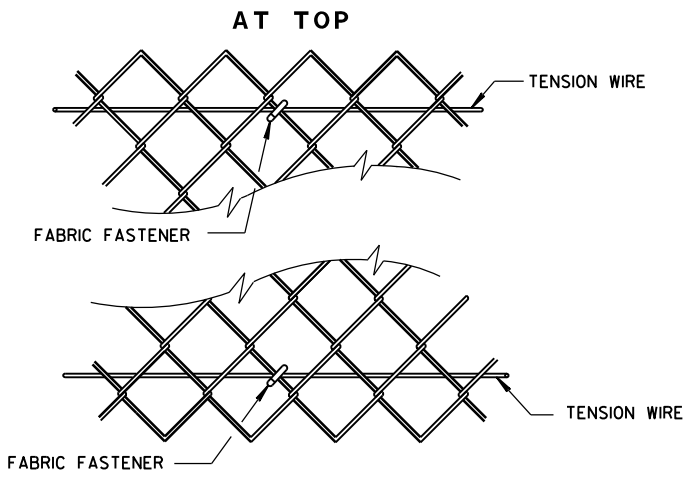
(A)



TENSION WIRE END CLAMP

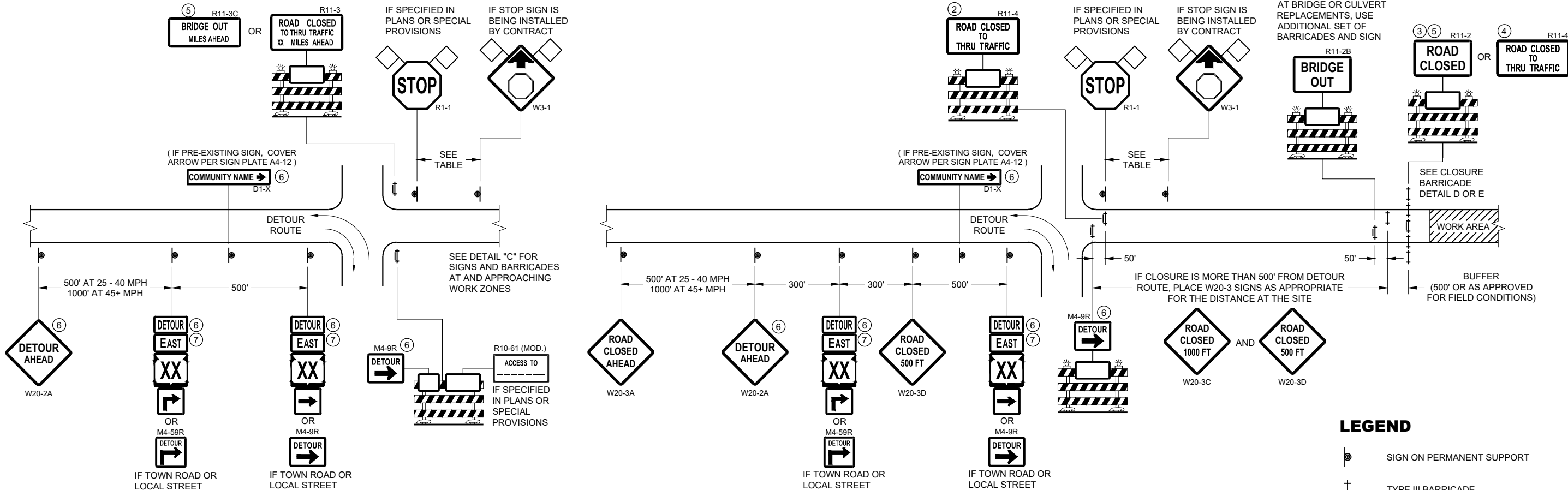


**LINE POST
FABRIC FASTENER**



(B)

FENCE CHAIN LINK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

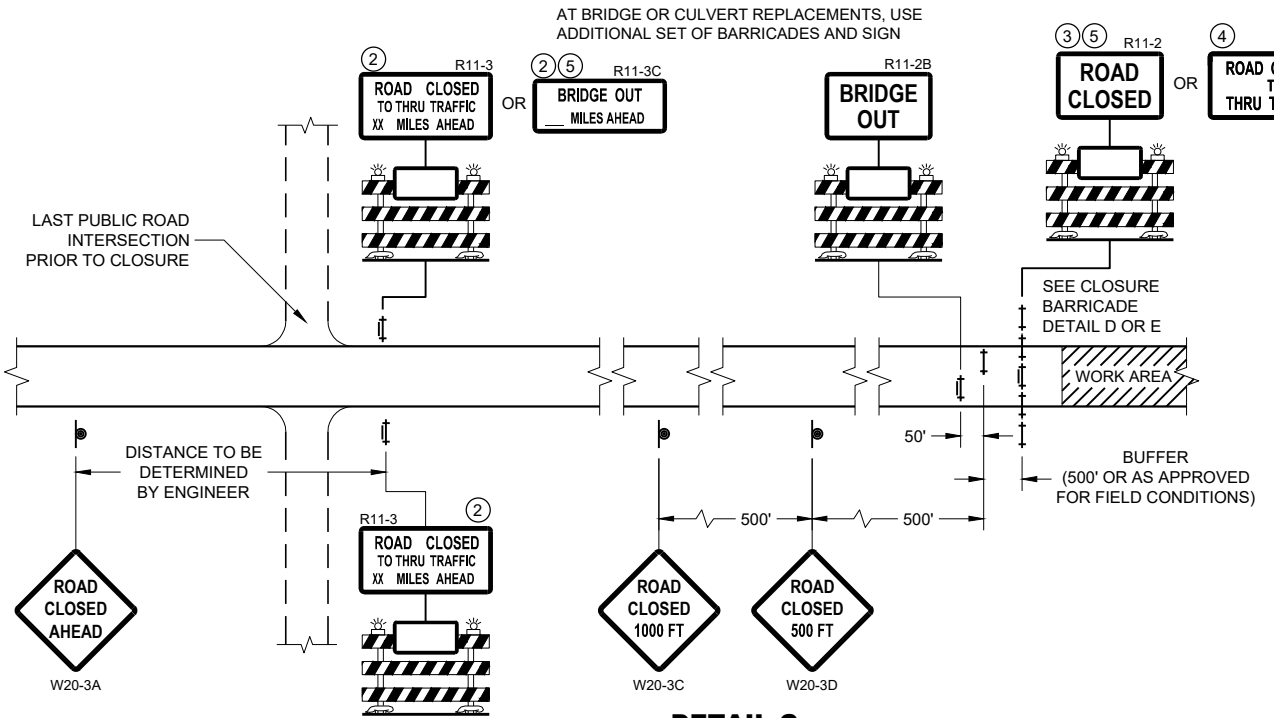
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



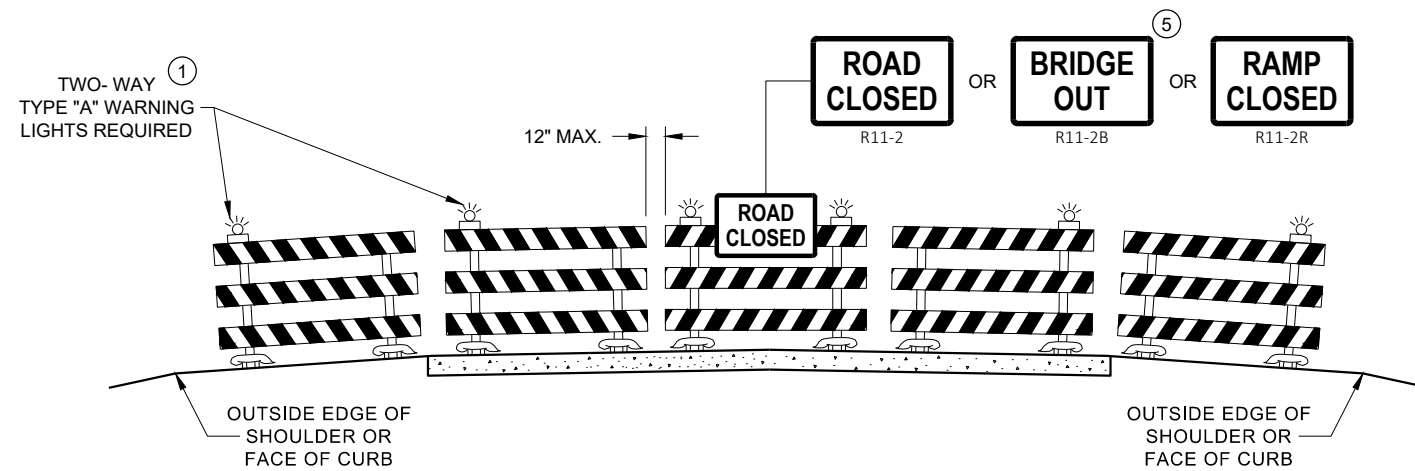
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

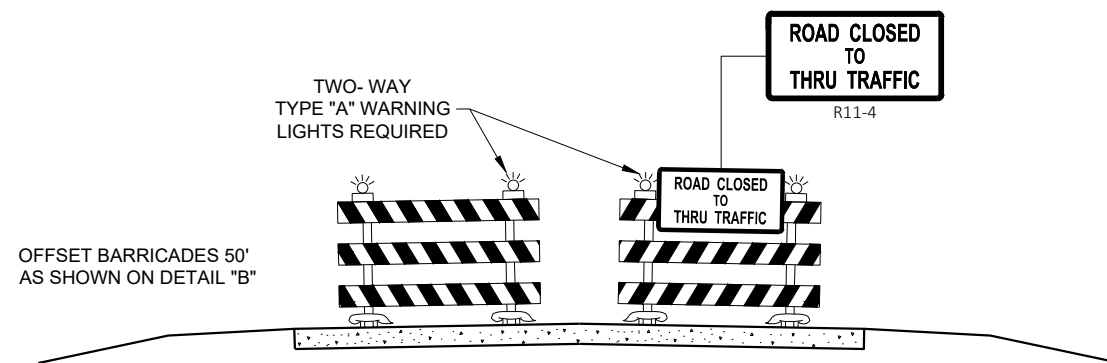
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

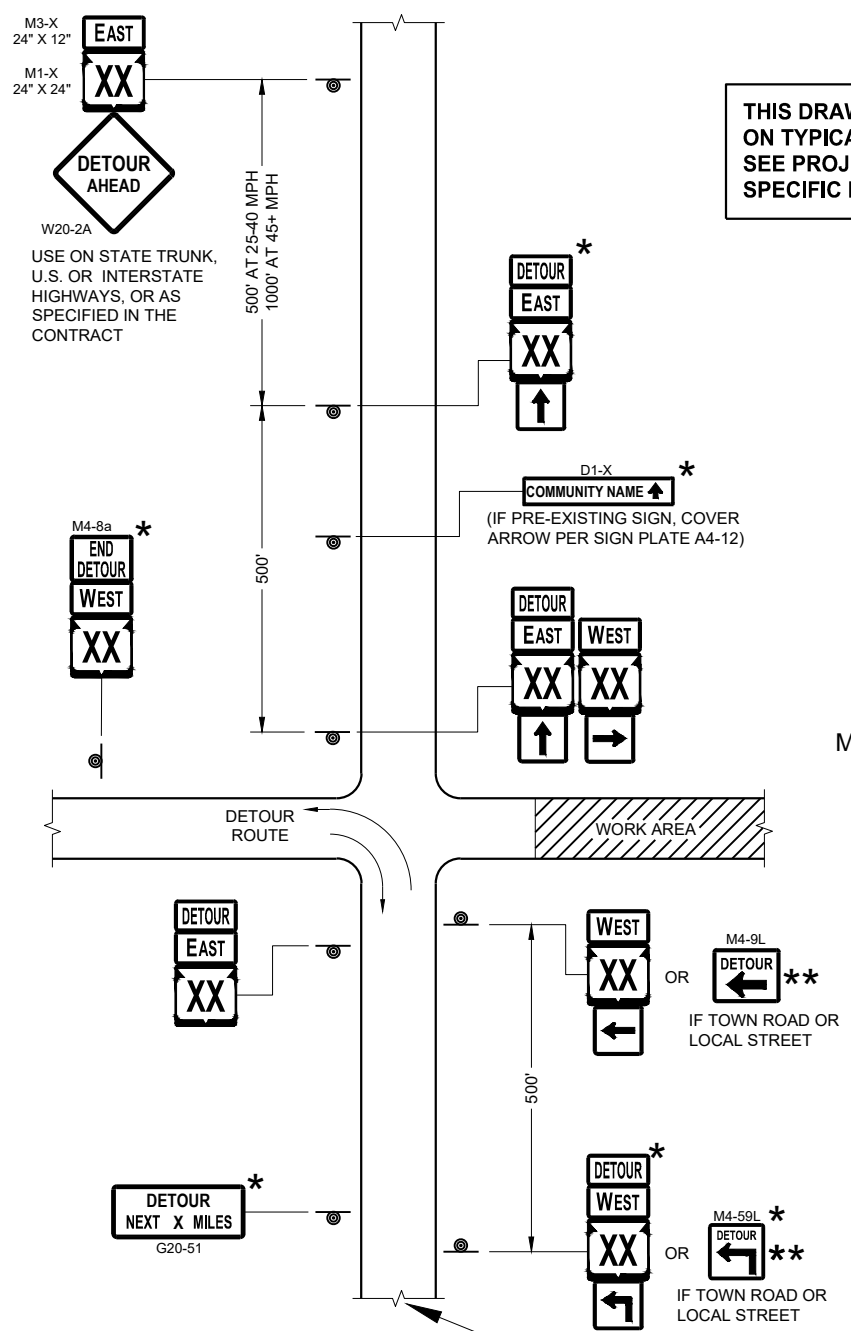
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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

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

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

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

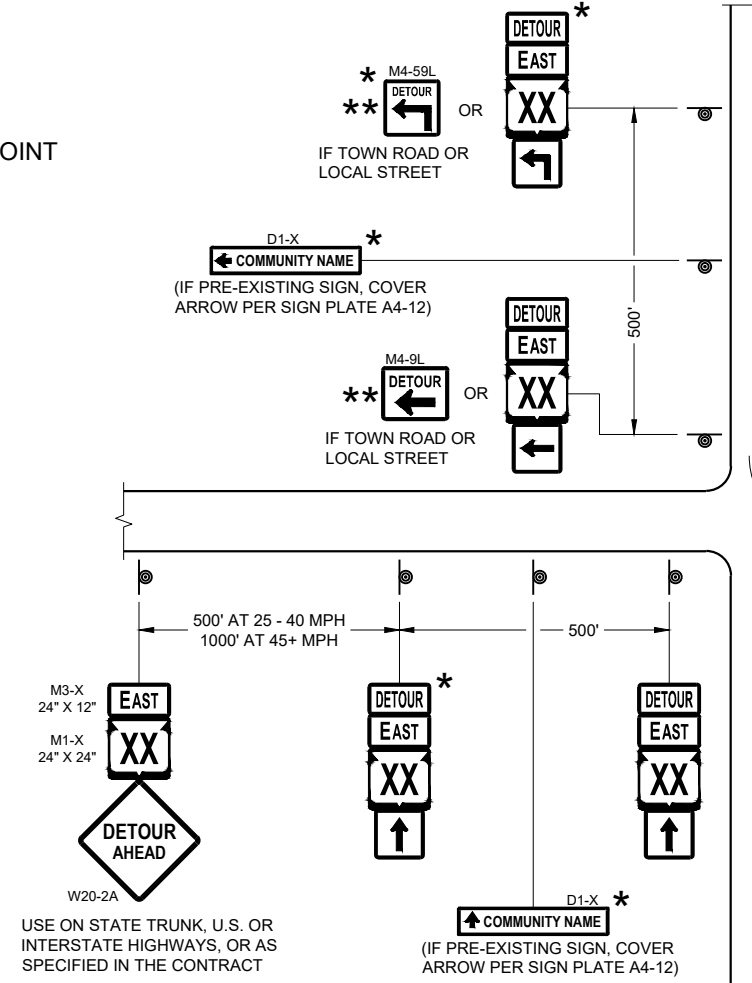
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

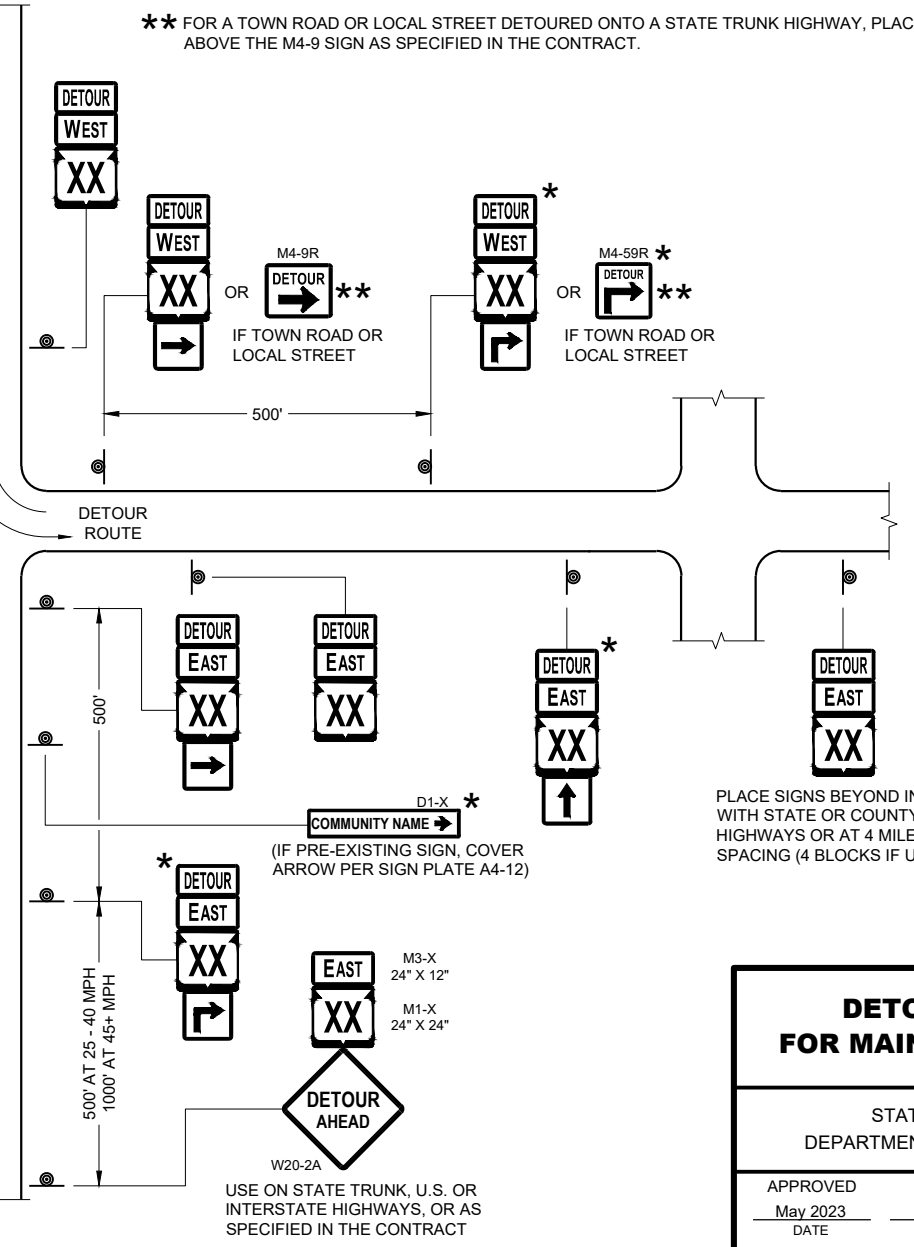
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-9R SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



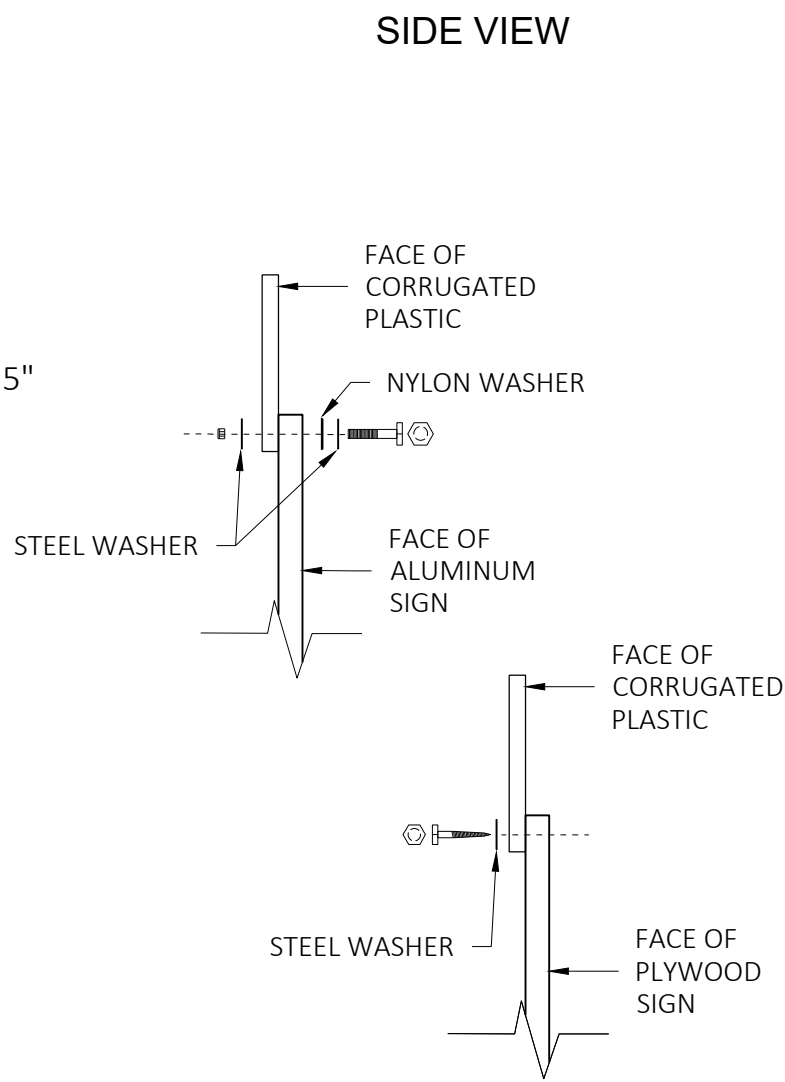
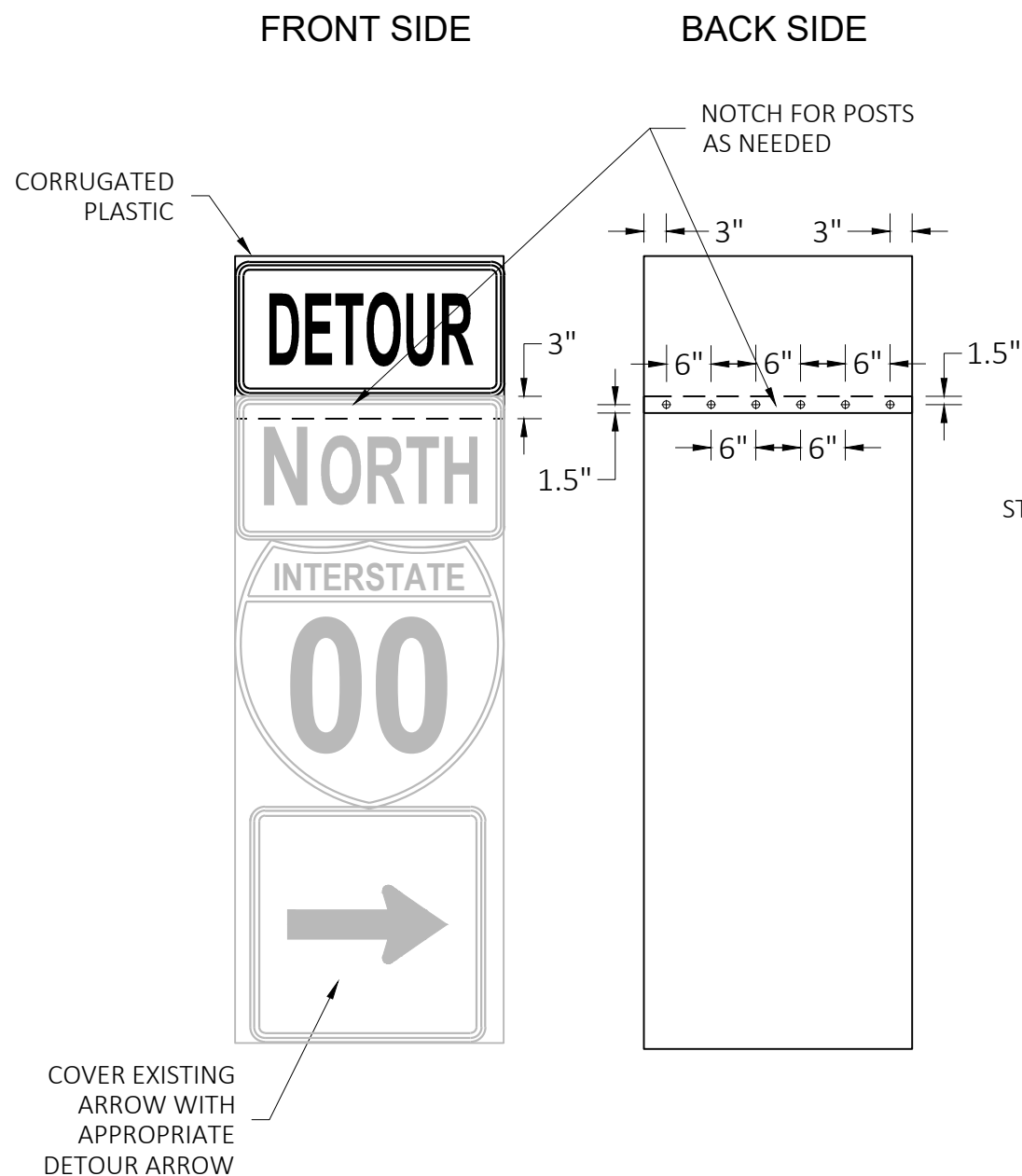
**DETAIL F
DETOUR SIGNING**



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

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

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:

LAG SCREWS - 5/16" x 1"

ALUMINUM SIGNS:

MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS

WASHERS:

1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL

1-1/4" O.D. x 3/8" I.D. x .080 NYLON

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

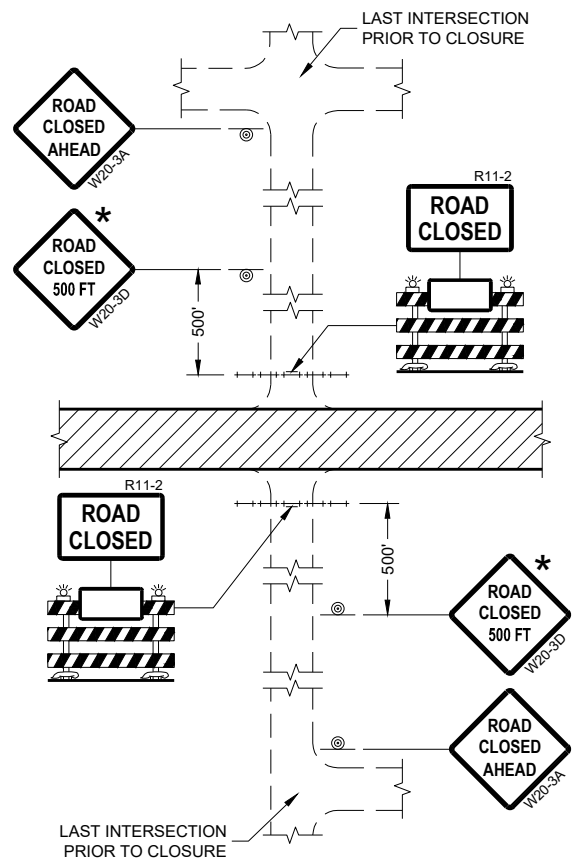
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

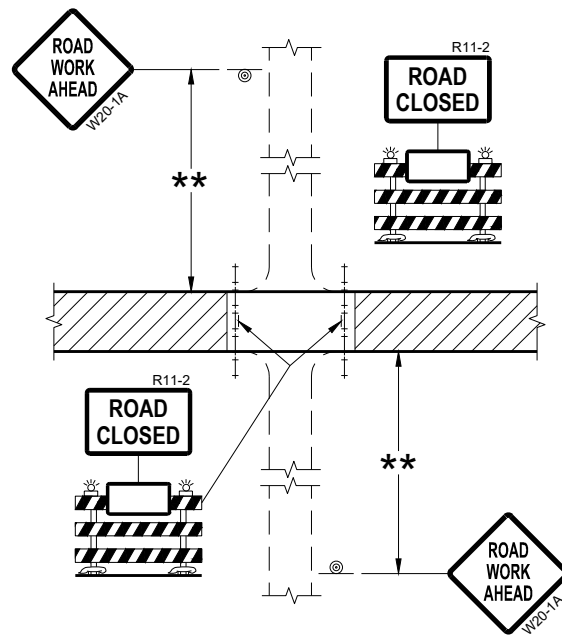
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

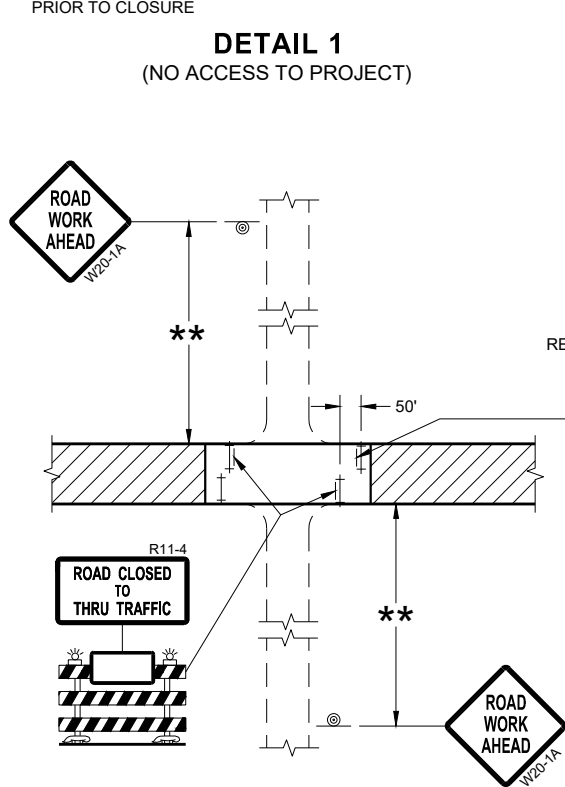
FHWA



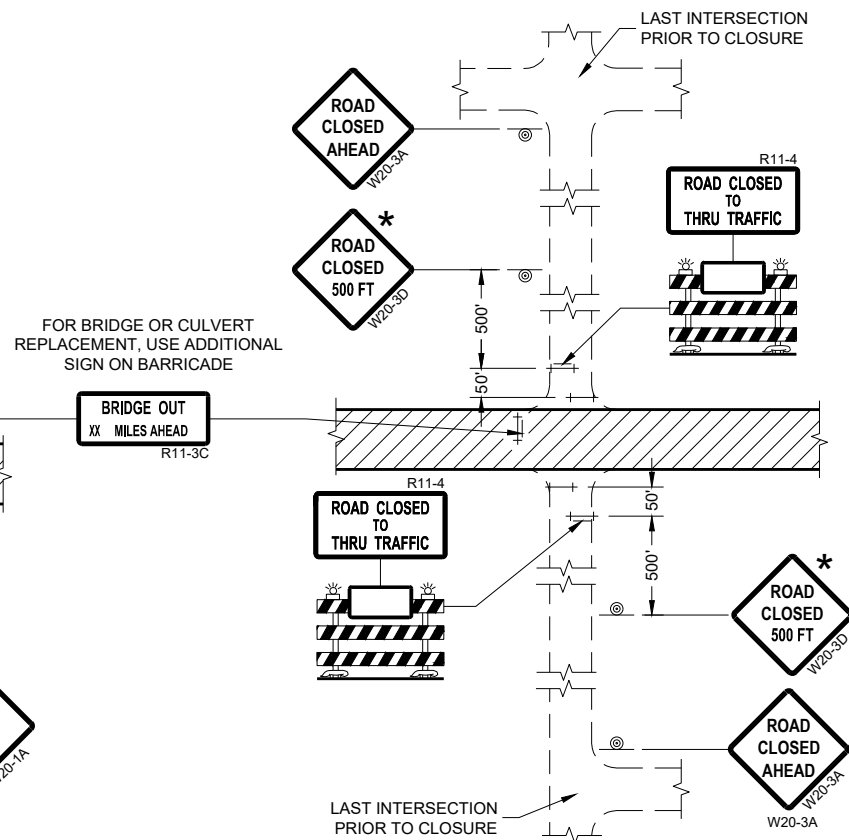
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

LEGEND

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

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

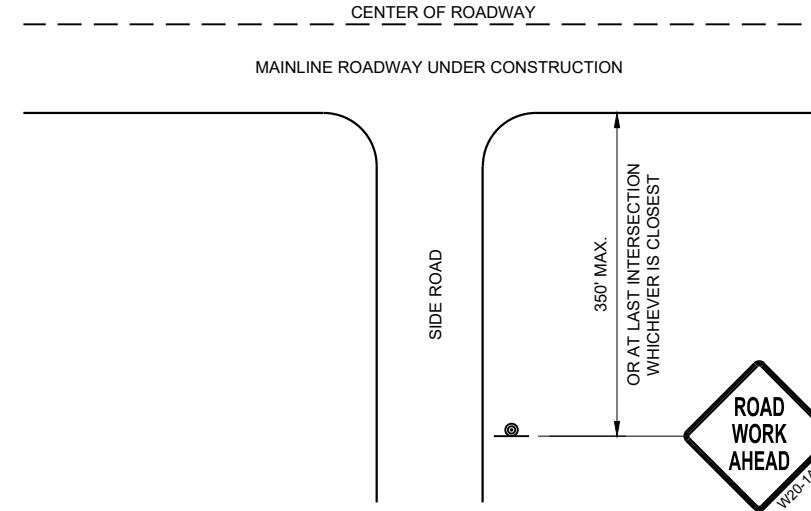
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

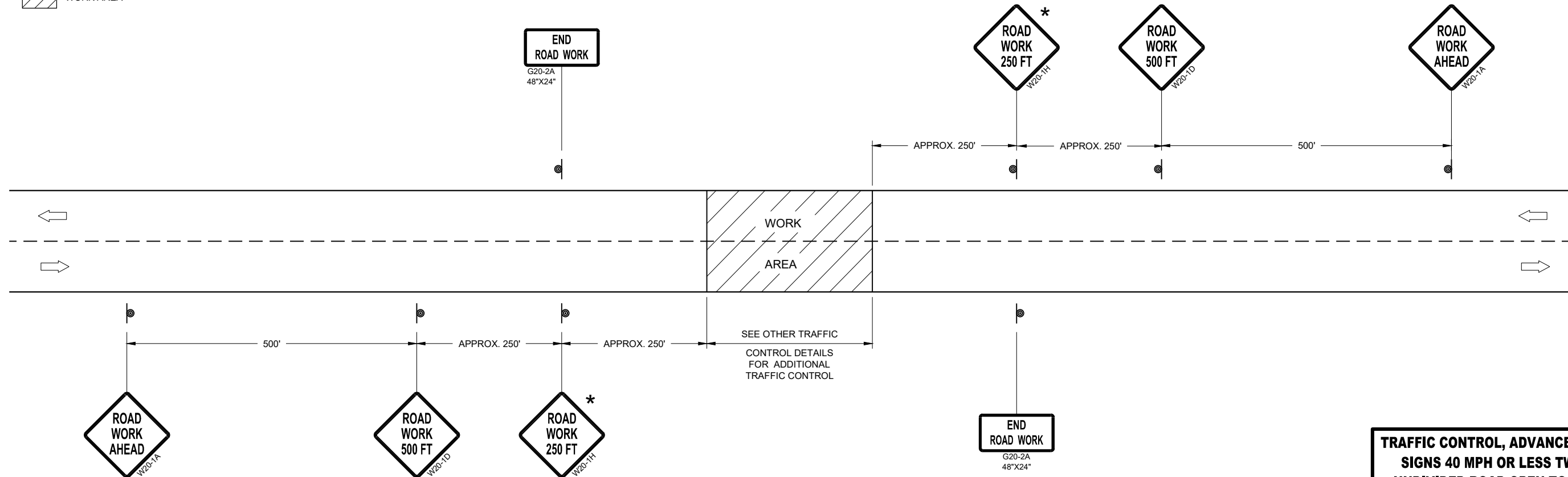
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



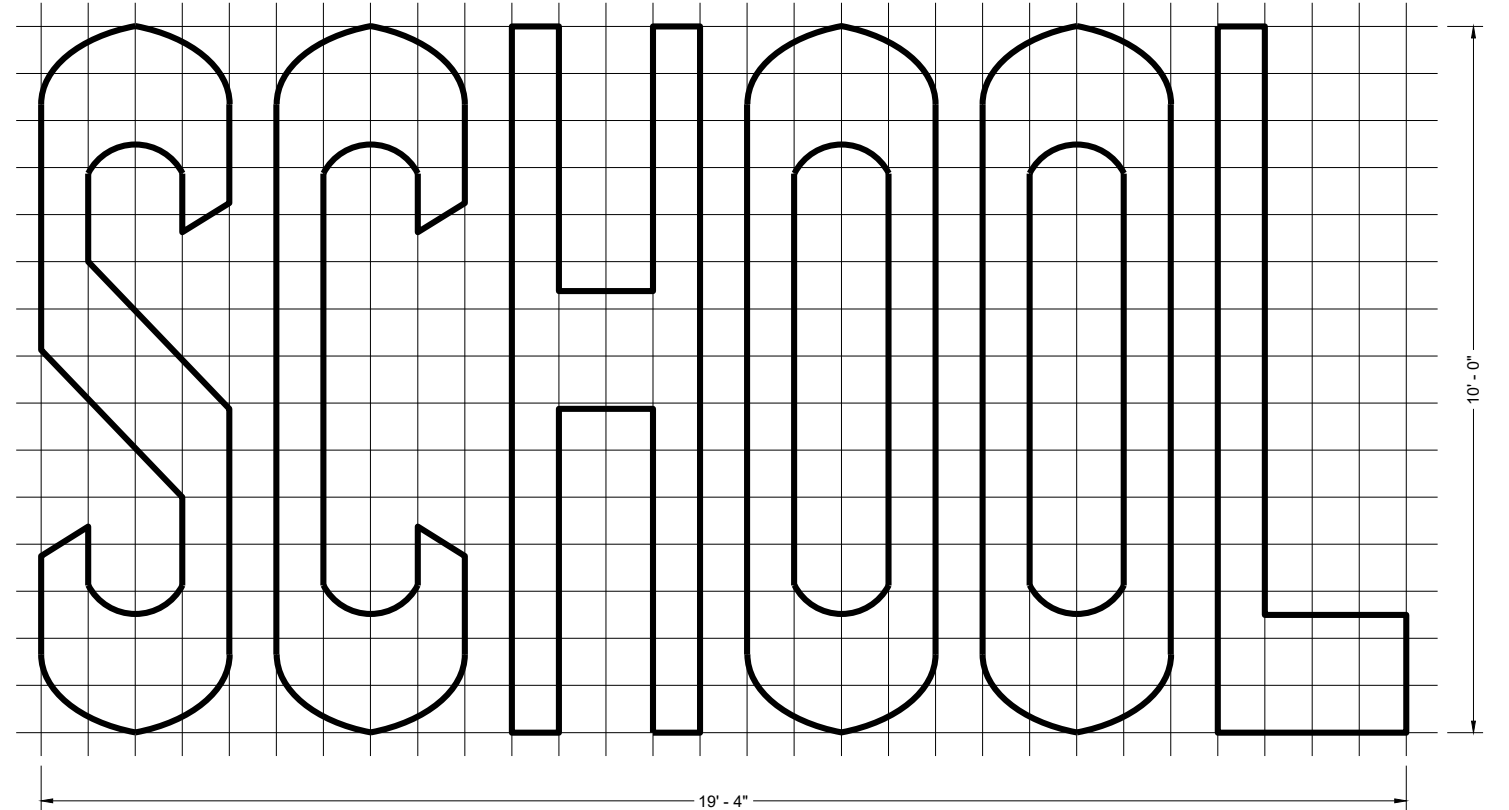
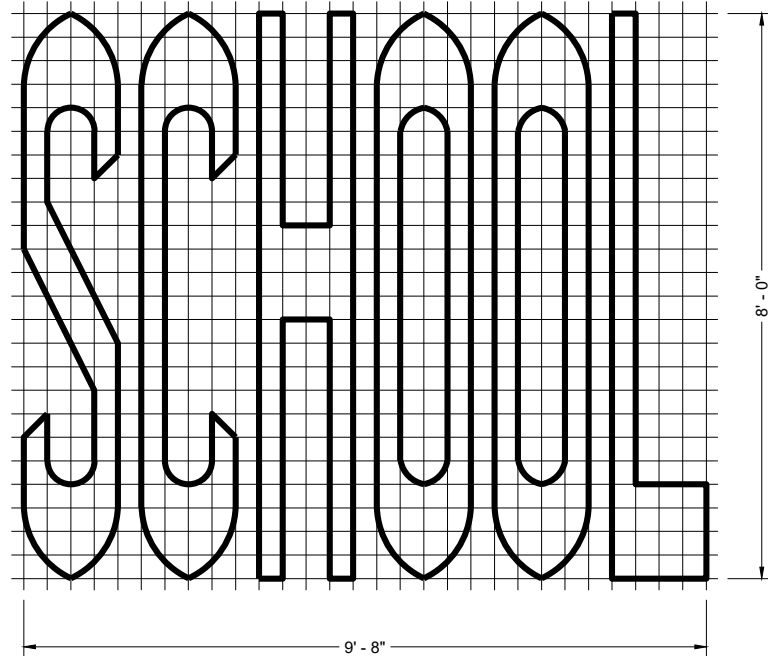
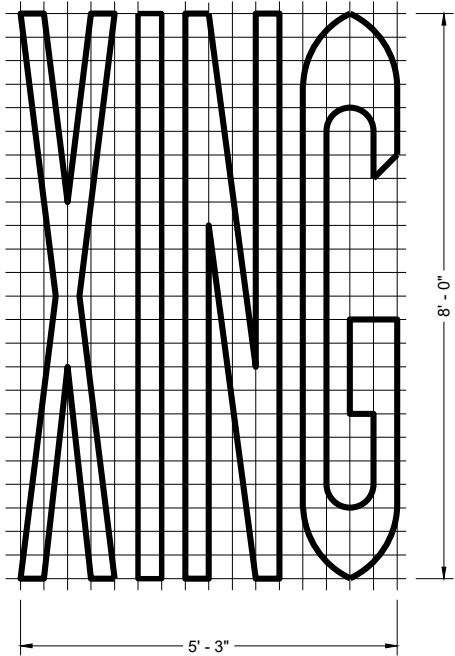
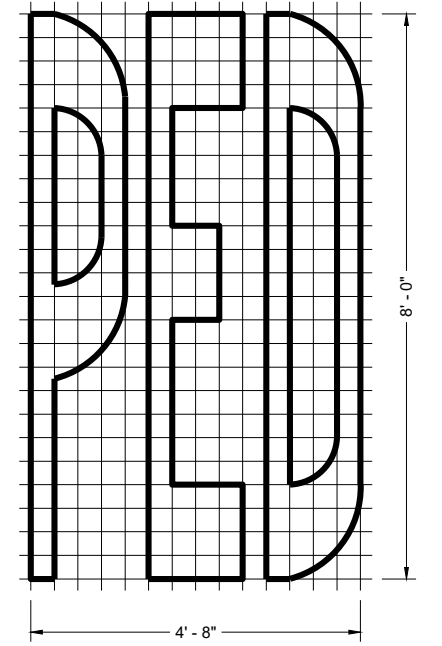
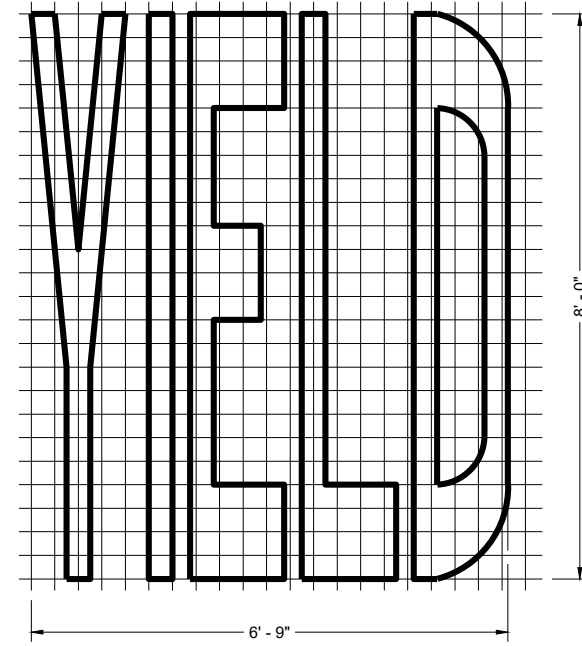
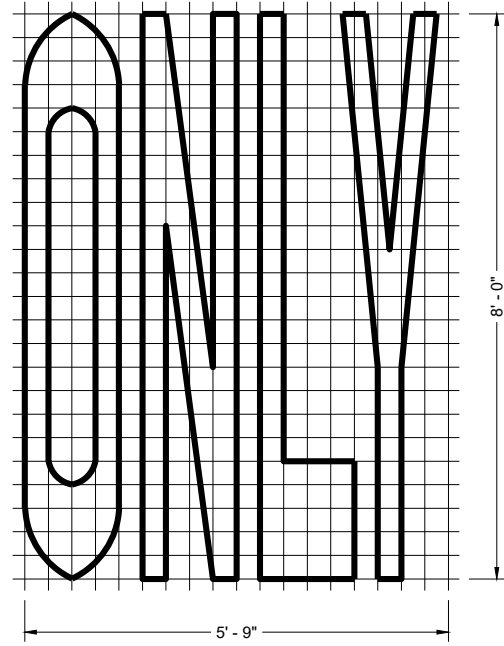
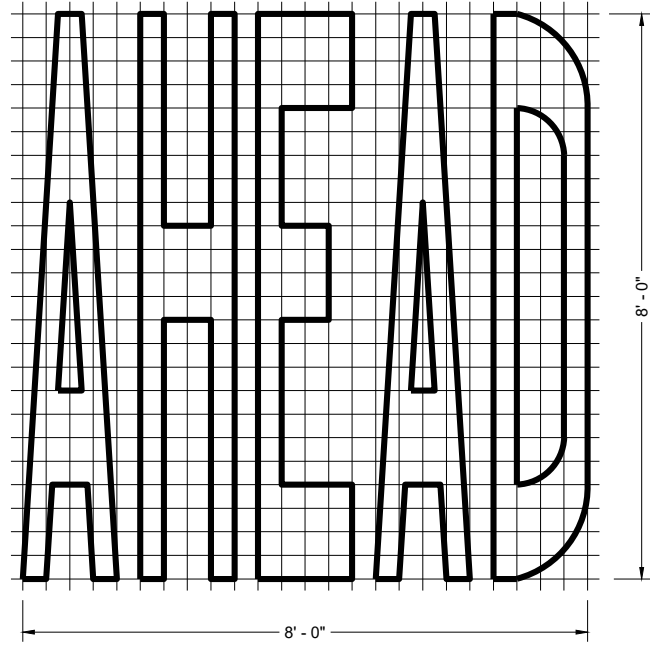
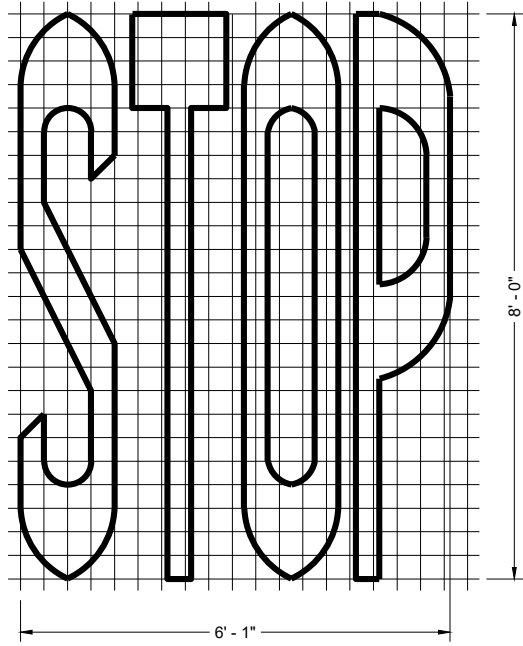
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

**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

FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

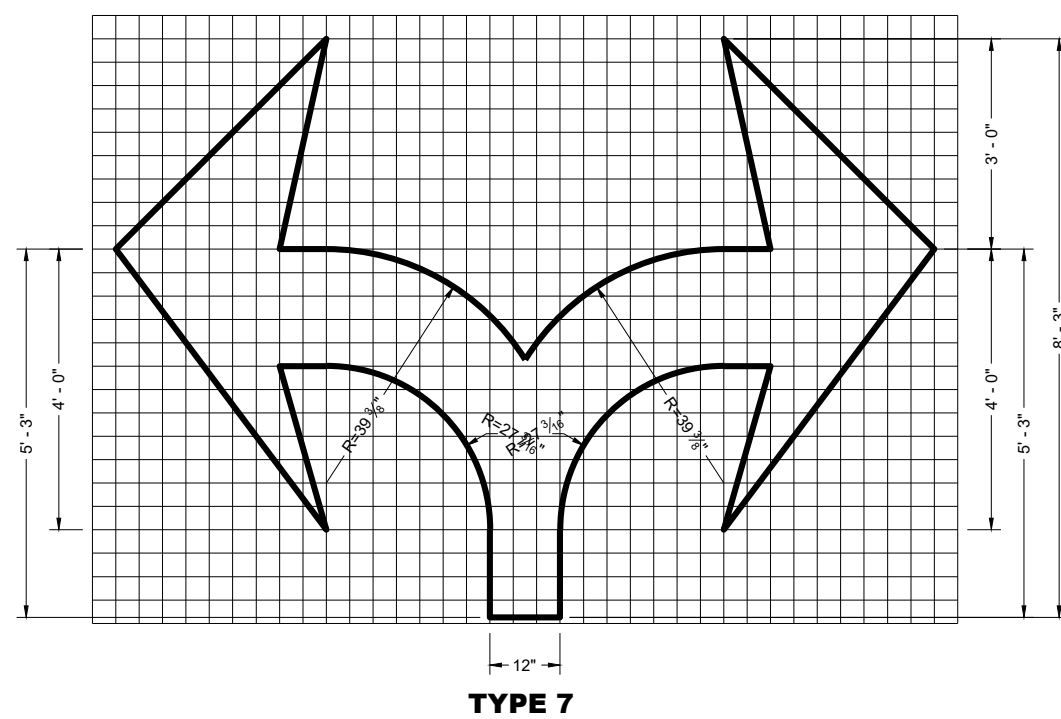
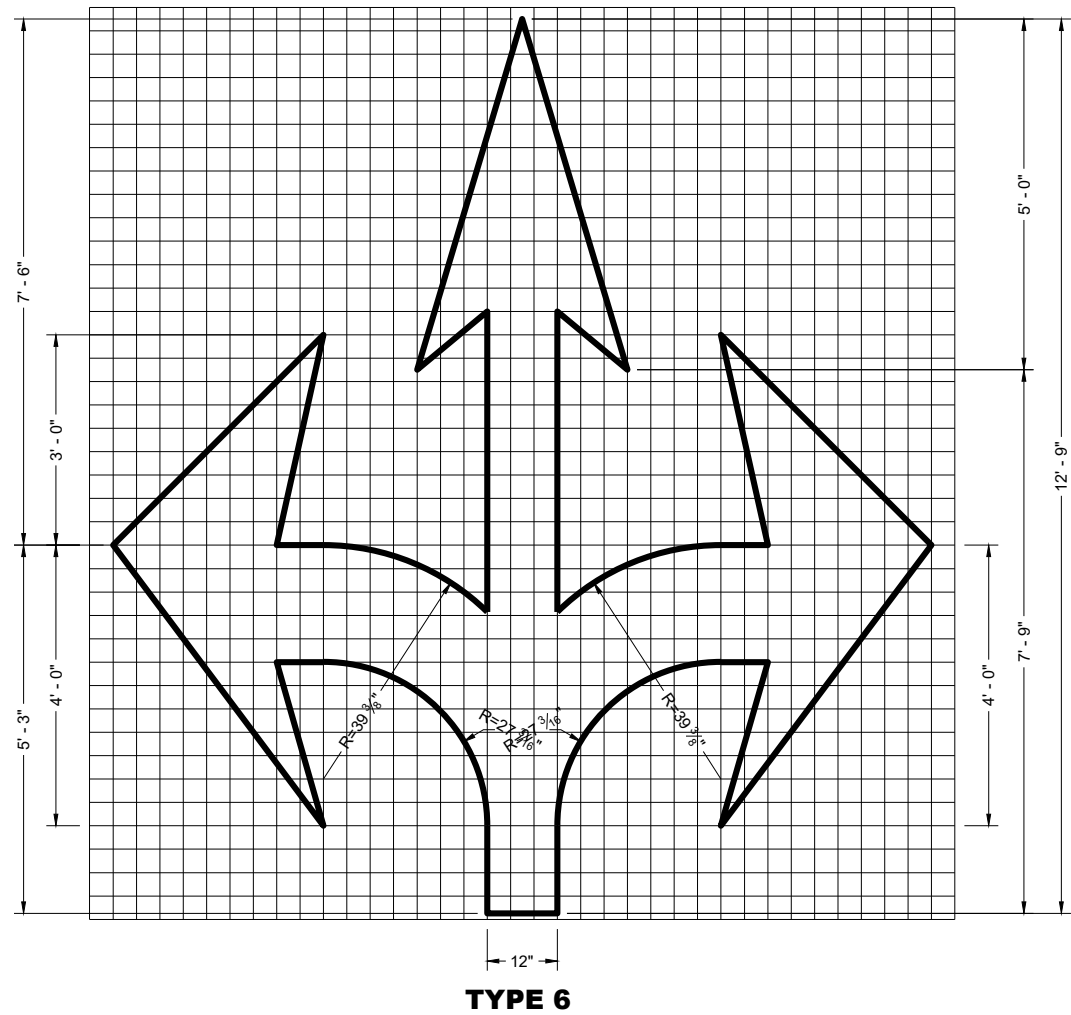
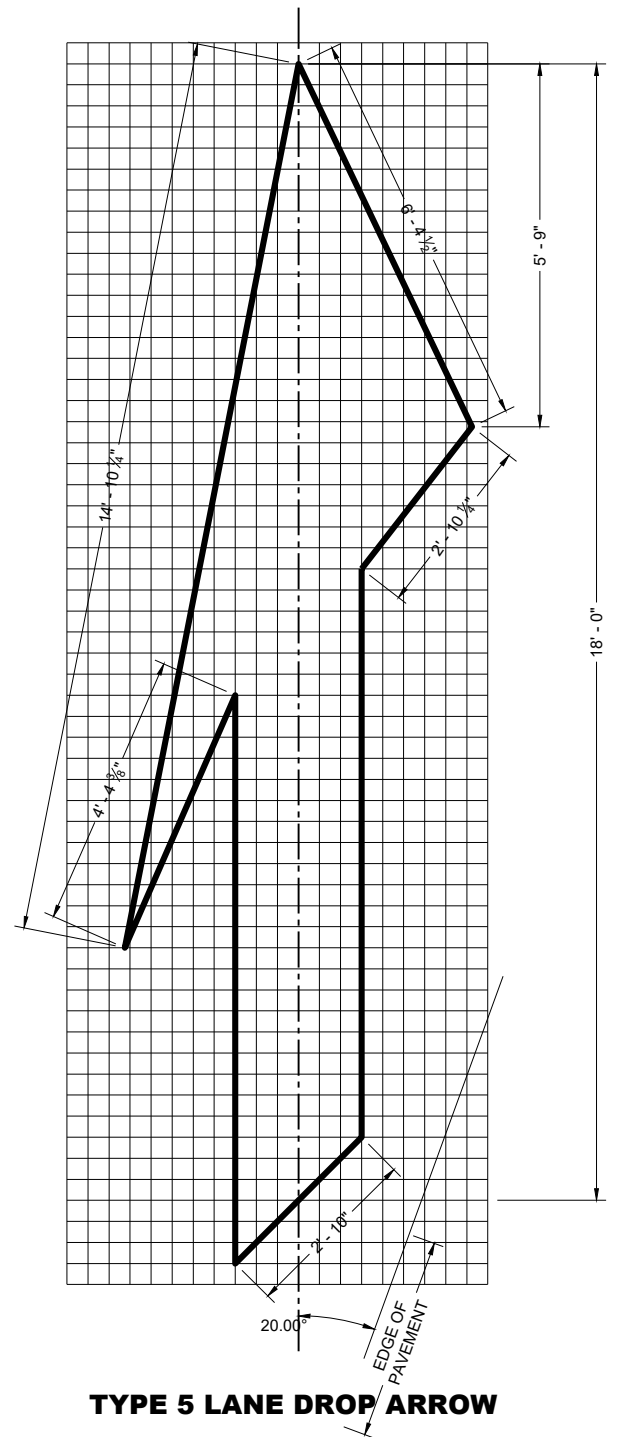
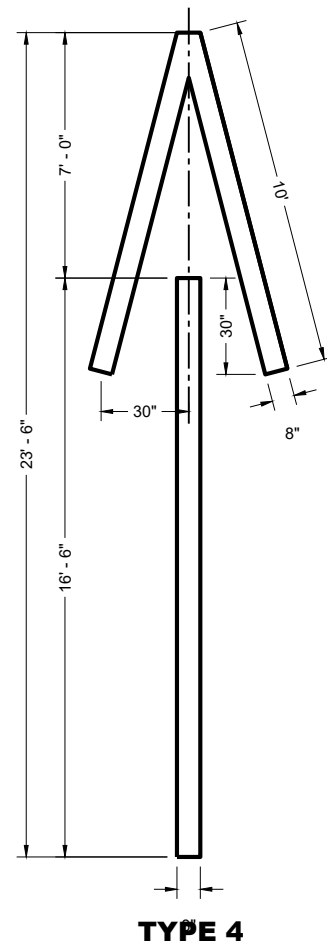
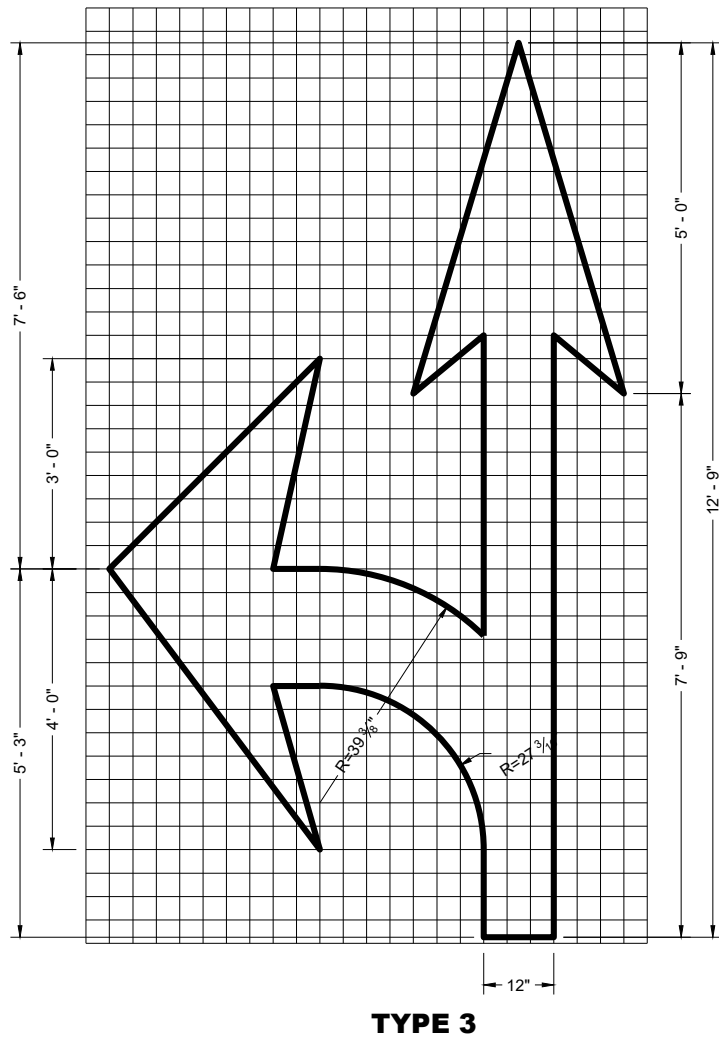
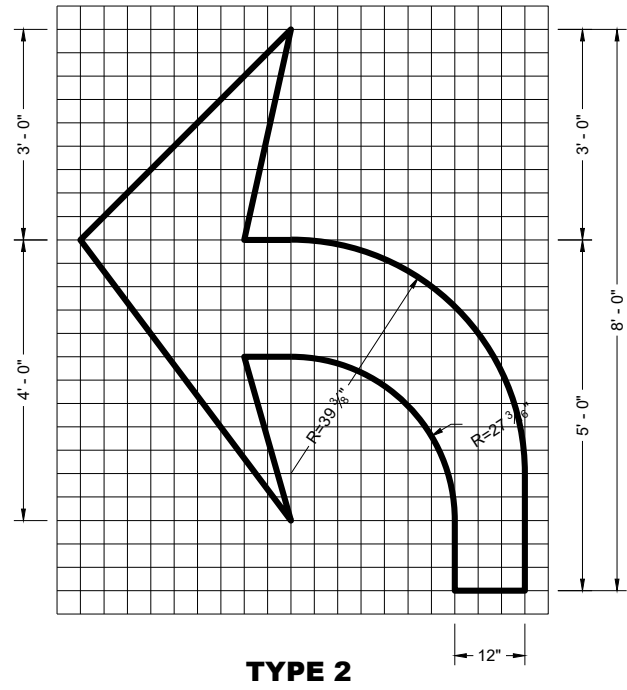
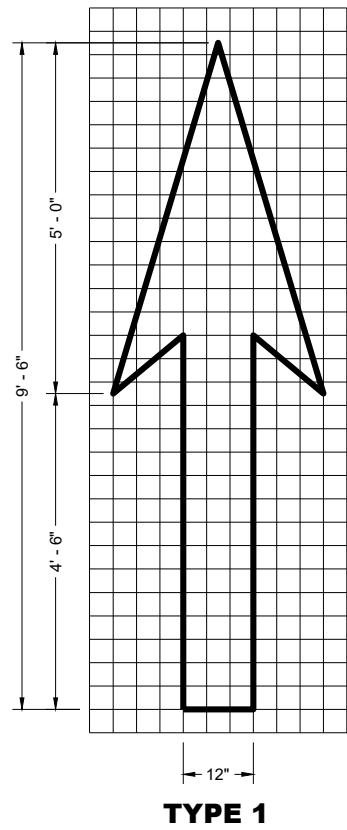
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



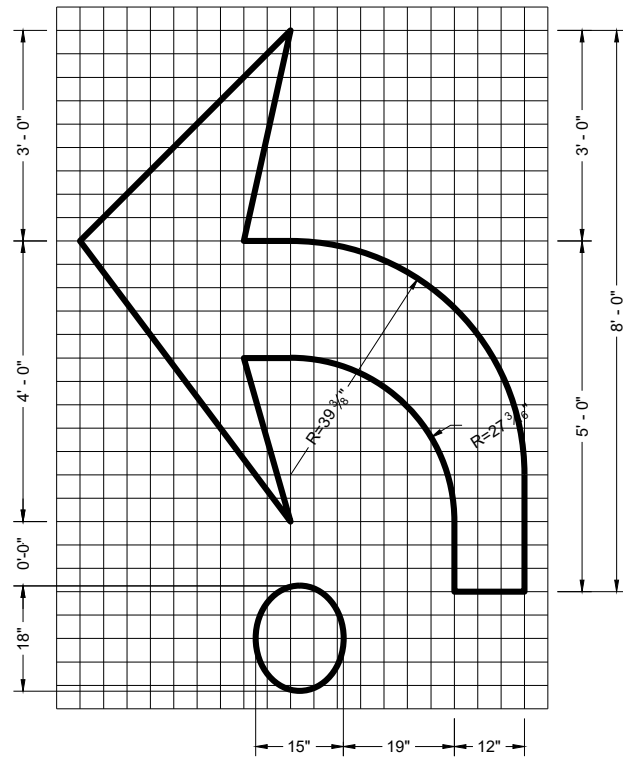
GENERAL NOTES

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

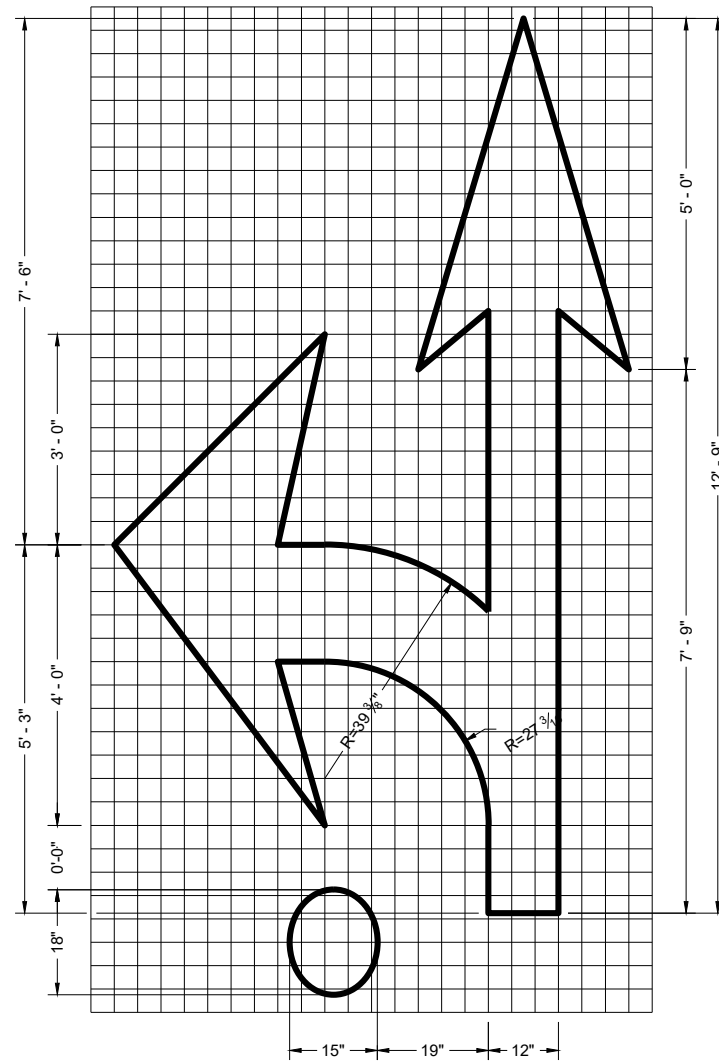
PAVEMENT MARKING ARROWS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2024 DATE	/s/ Jeannie Silver STATE SIGNING AND MARKING ENGINEER
FHWA	

GENERAL NOTES

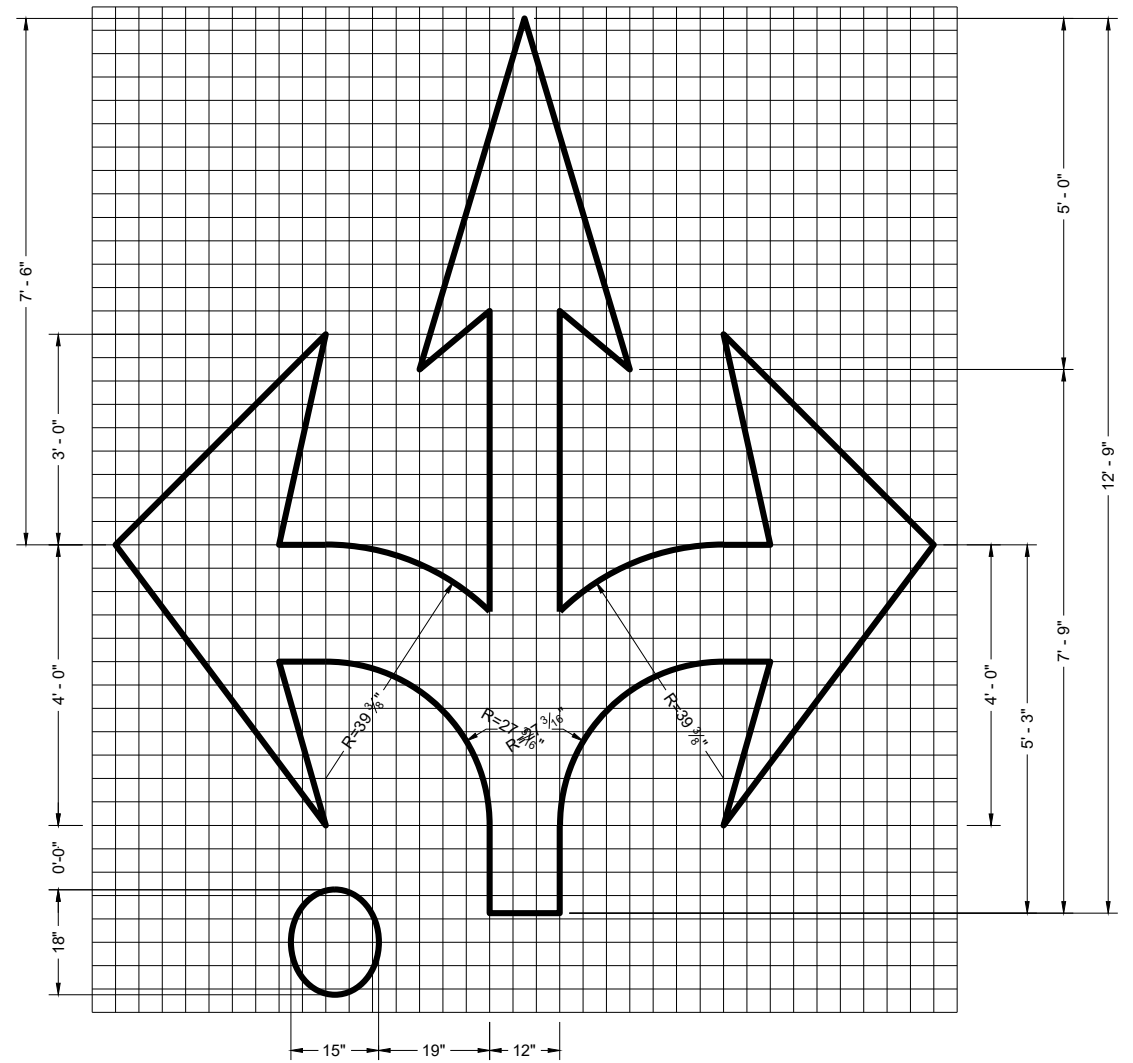
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



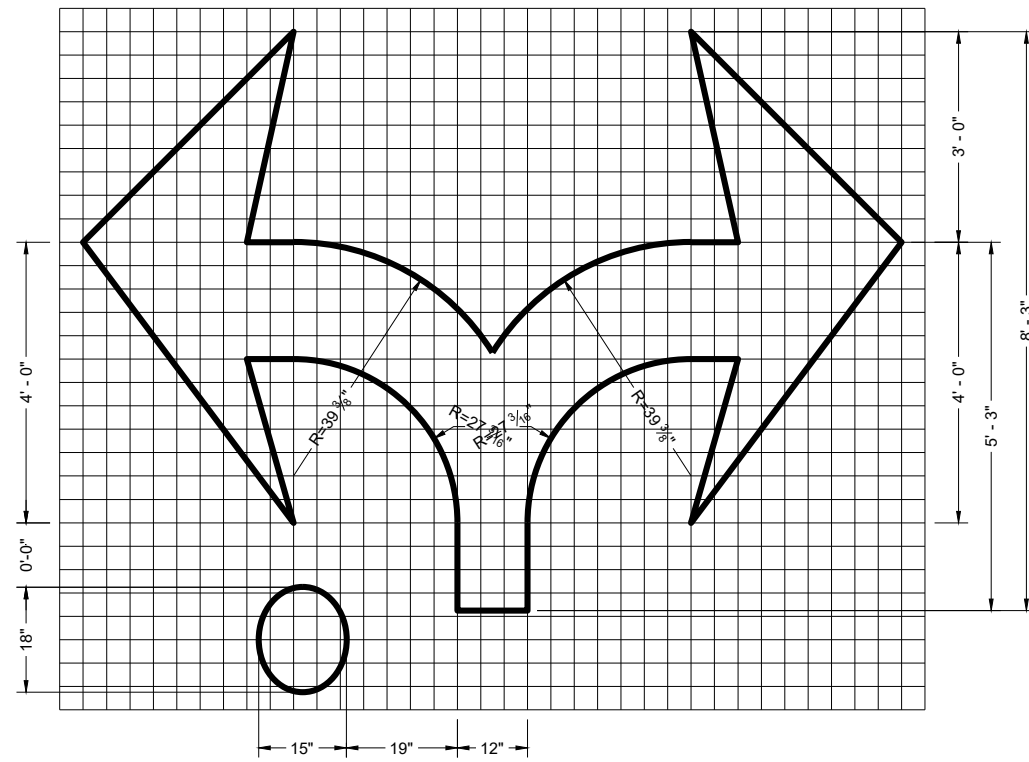
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

**ROUNDABOUT
MARKING ARROWS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER




FHWA

GENERAL NOTES

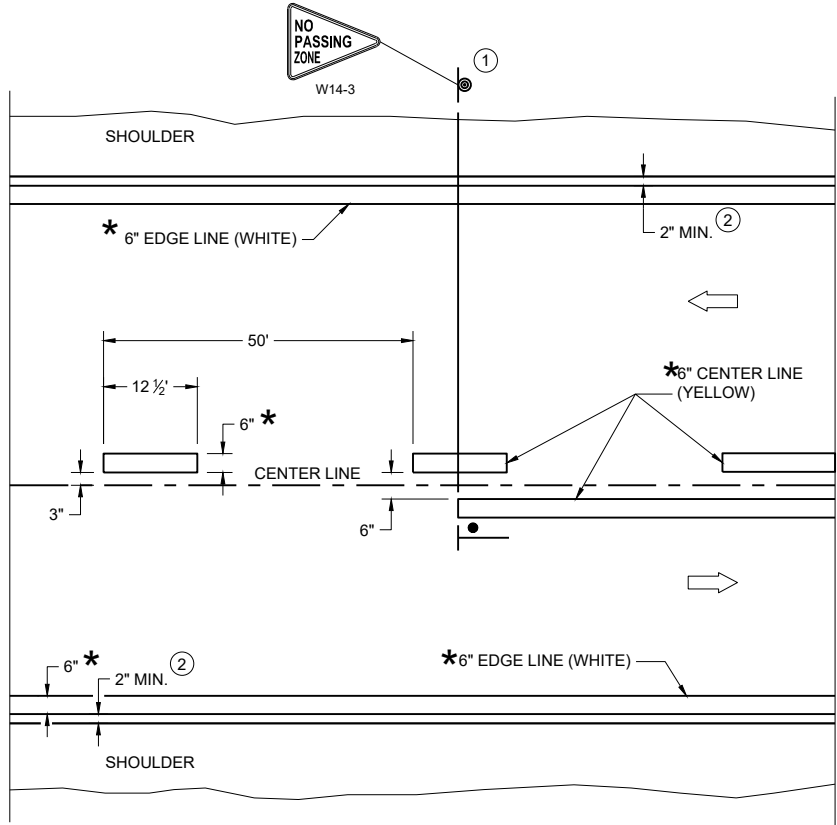
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

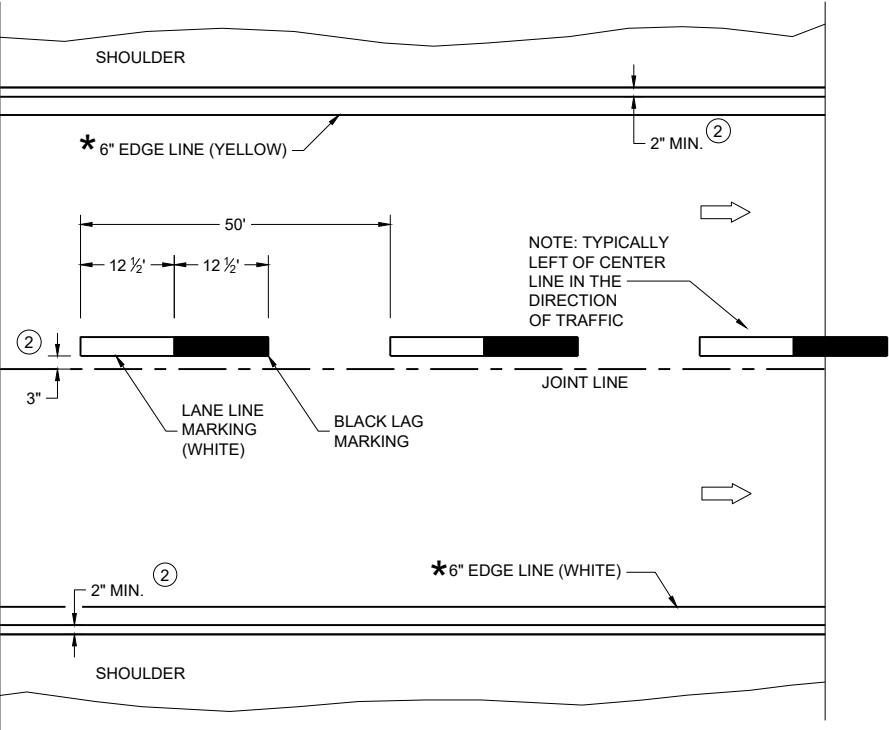
LEGEND

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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

SDD 15C08-24a

SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

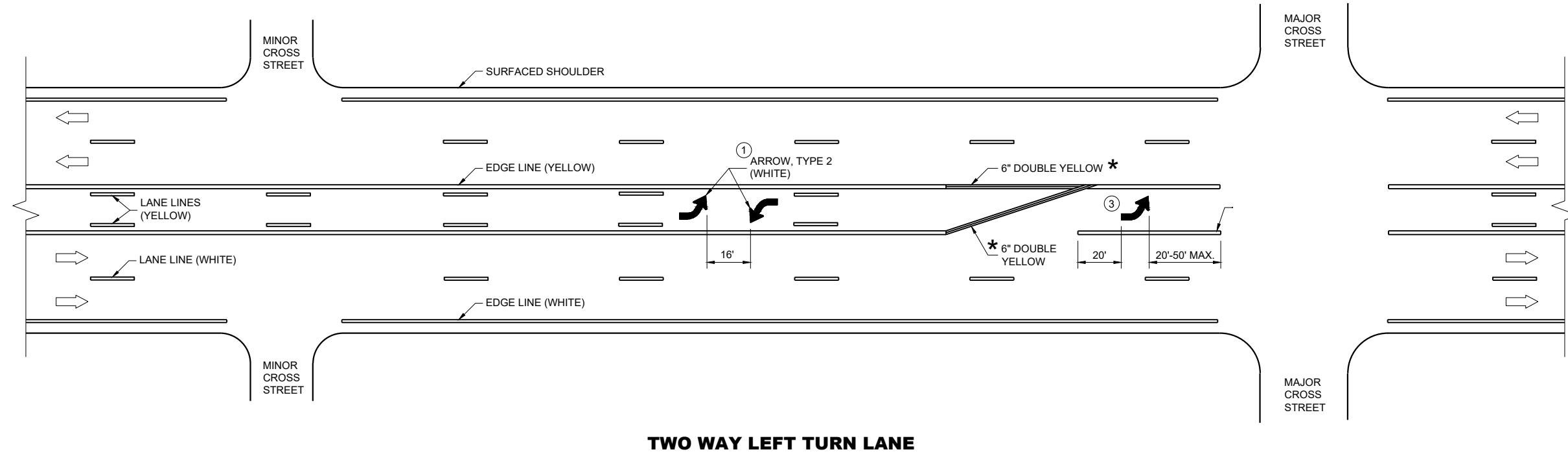
FHWA

GENERAL NOTES

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

➡ DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



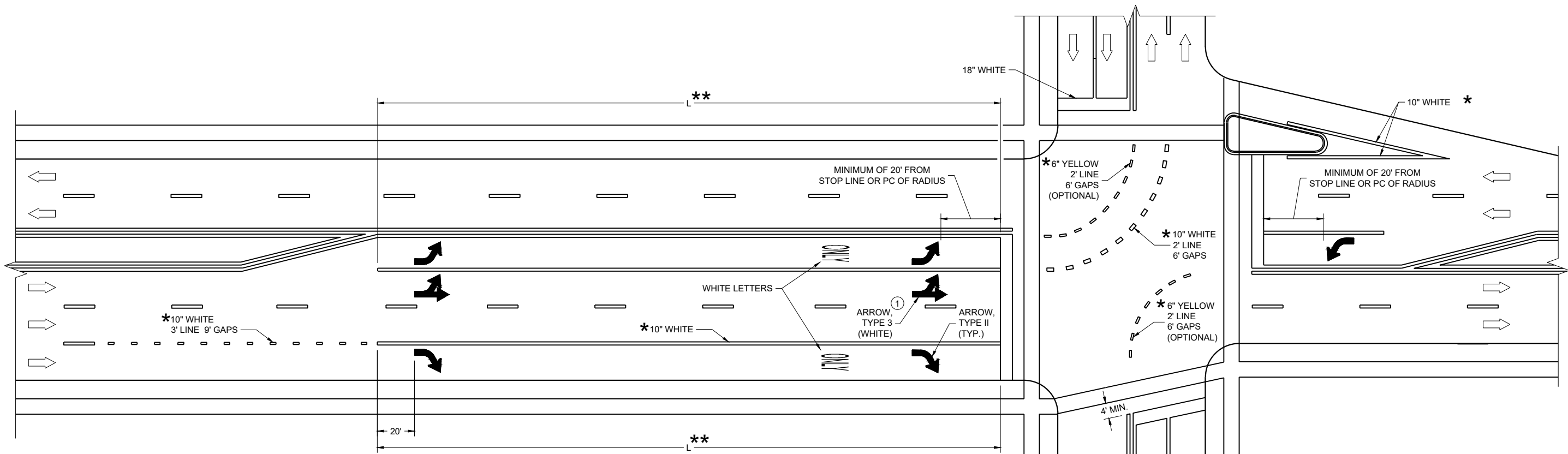
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SDD 15C08-24c

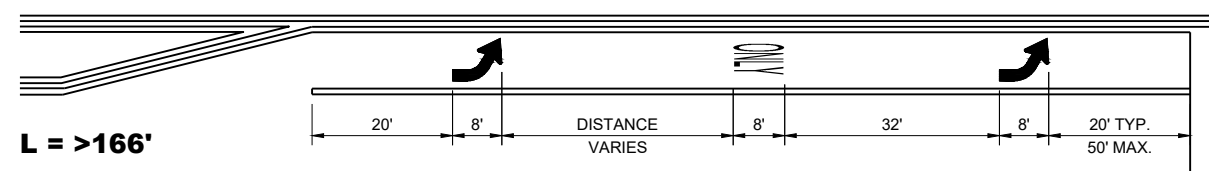
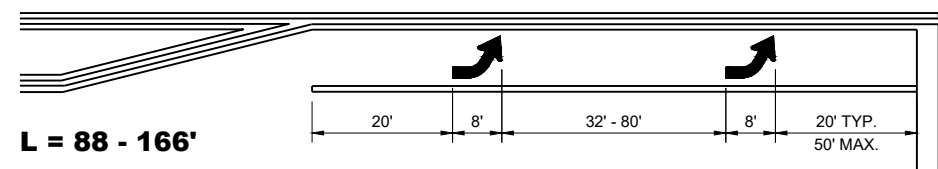
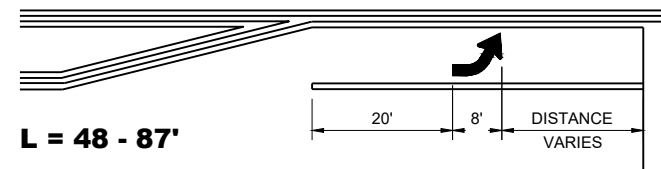
SDD 15C08-24c

PAVEMENT MARKING (TURN LANES)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



TURN LANE OPTIONS

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



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

GENERAL NOTES

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

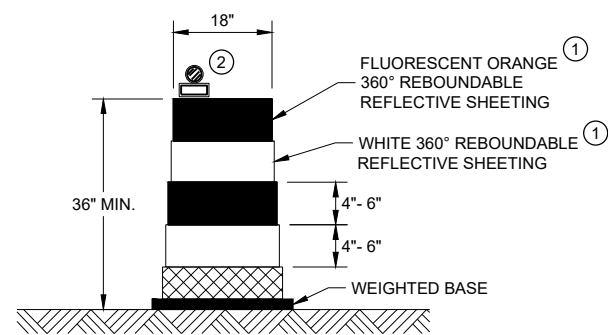
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

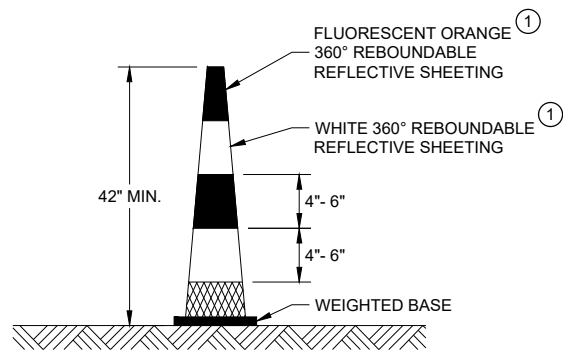
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



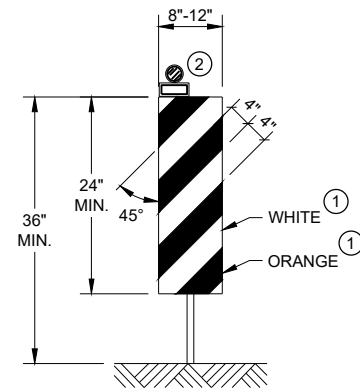
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

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

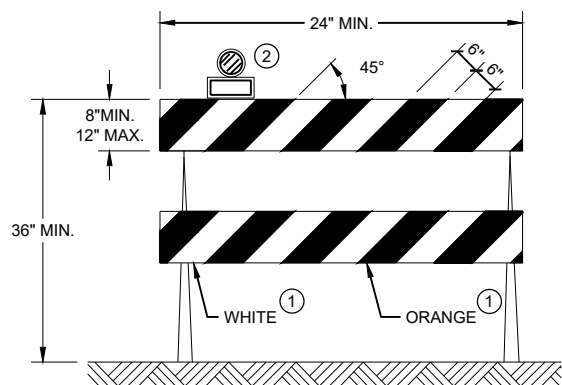


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

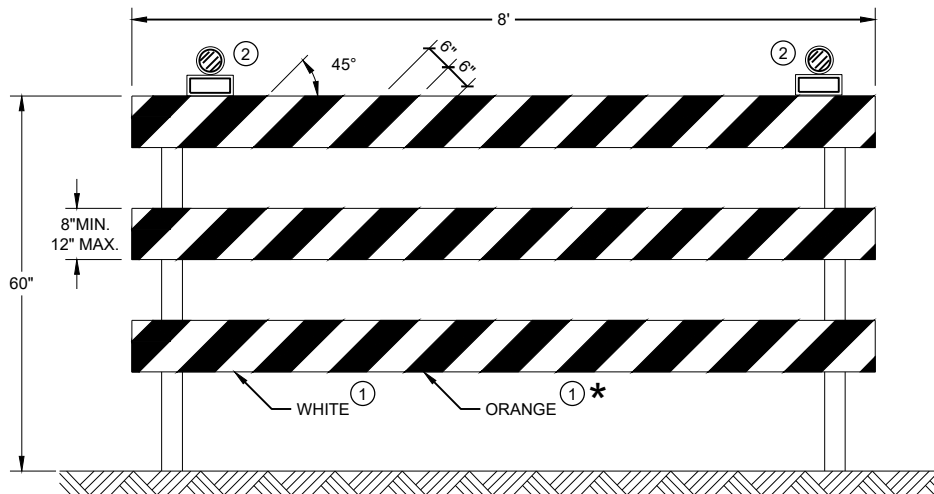
GENERAL NOTES

- 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.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

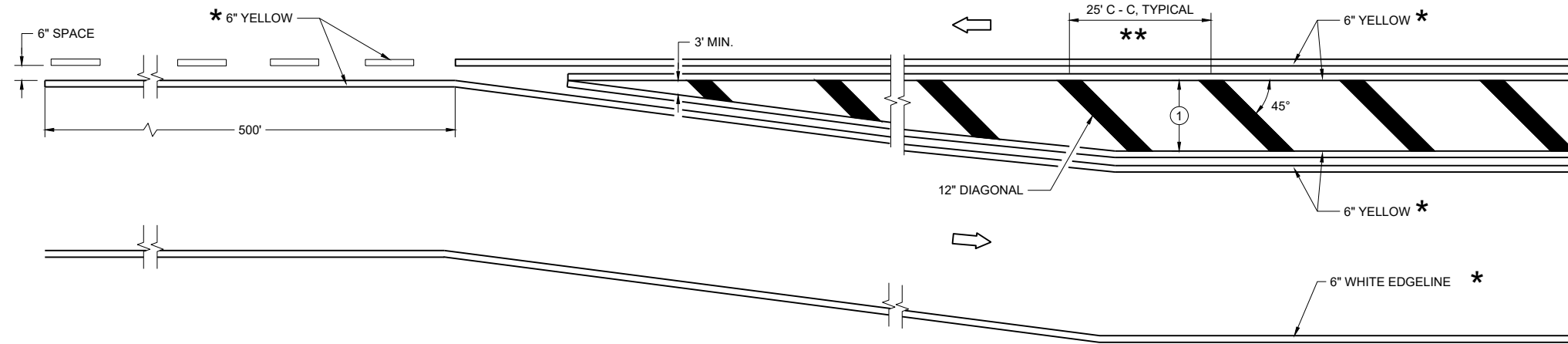
GENERAL NOTES

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

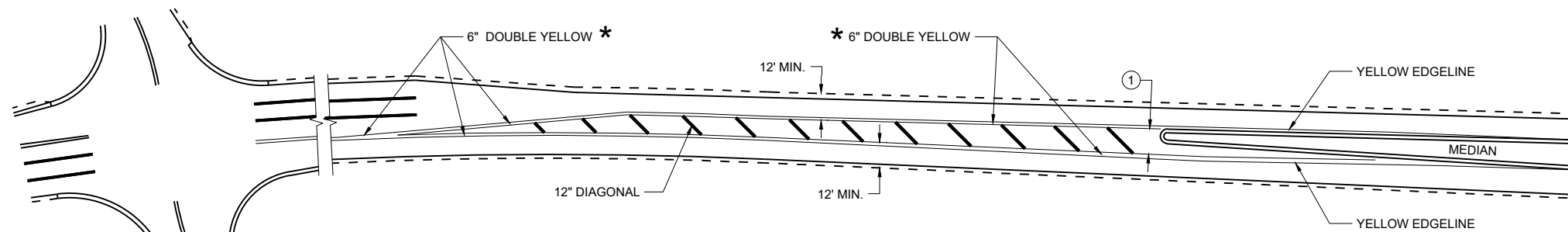
➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

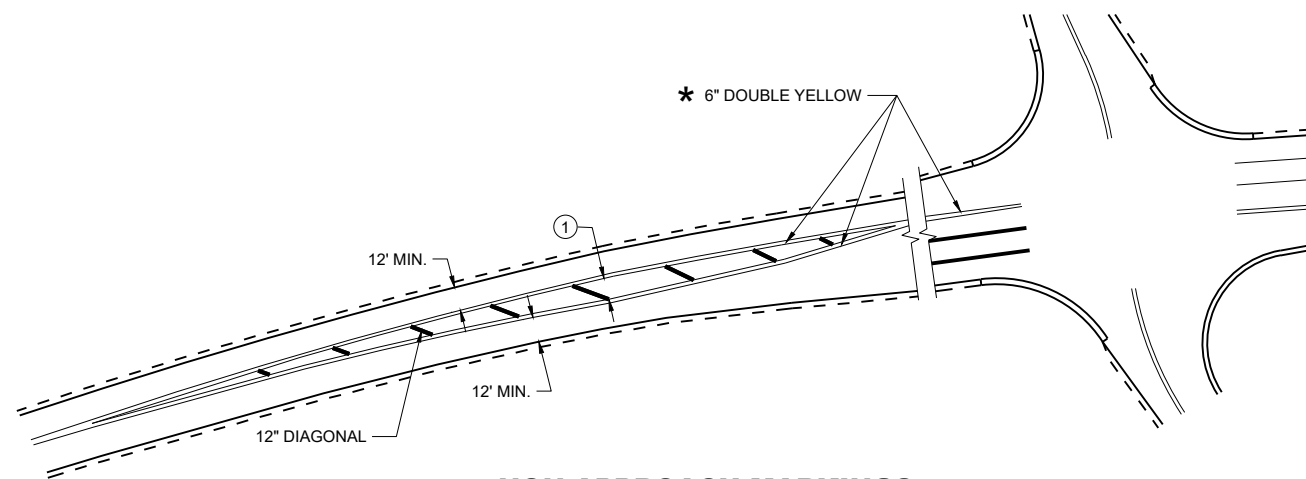
** WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

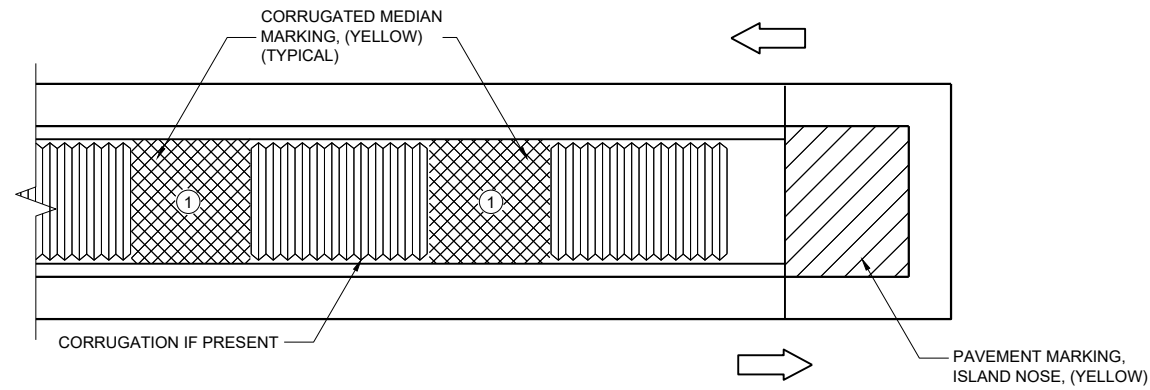
6

6

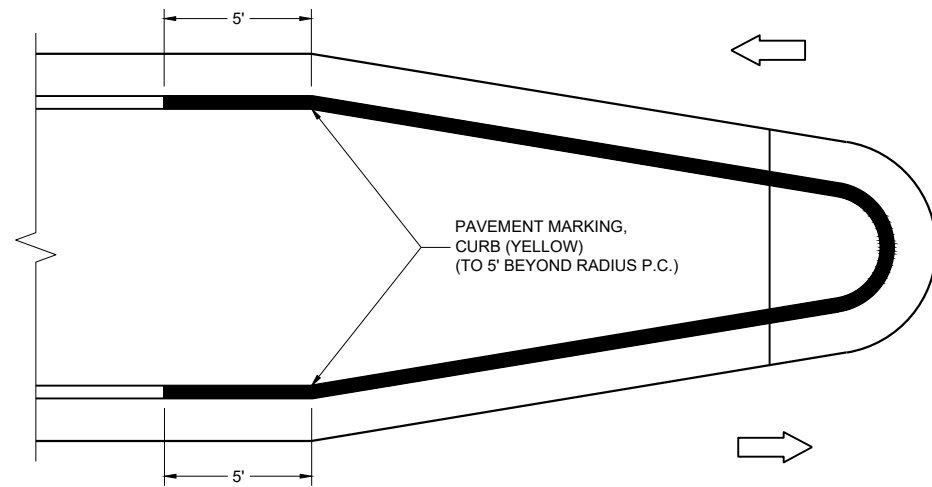
SDD 15C18-09a

SDD 15C18-09a

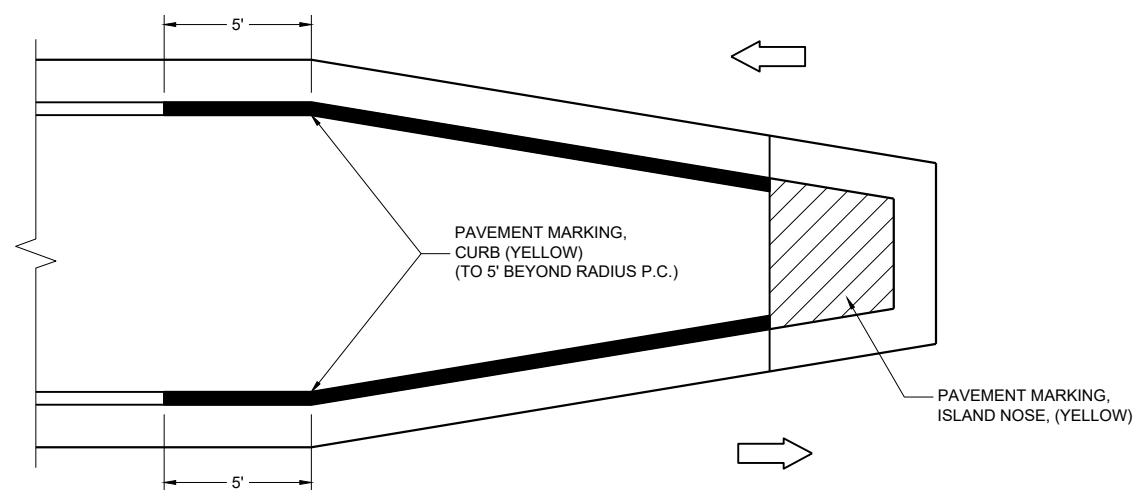
MEDIAN ISLAND PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



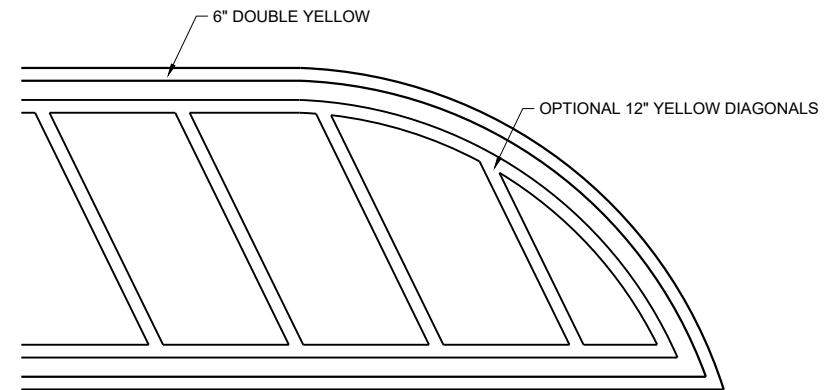
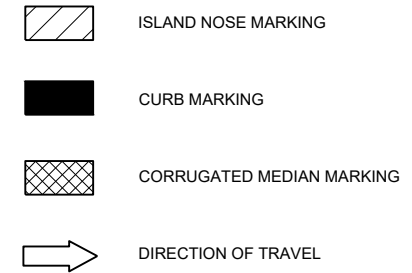
MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

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

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



FLUSH MEDIAN ISLAND NOSE

6

SDD 15C18-09b

6

SDD 15C18-09b

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

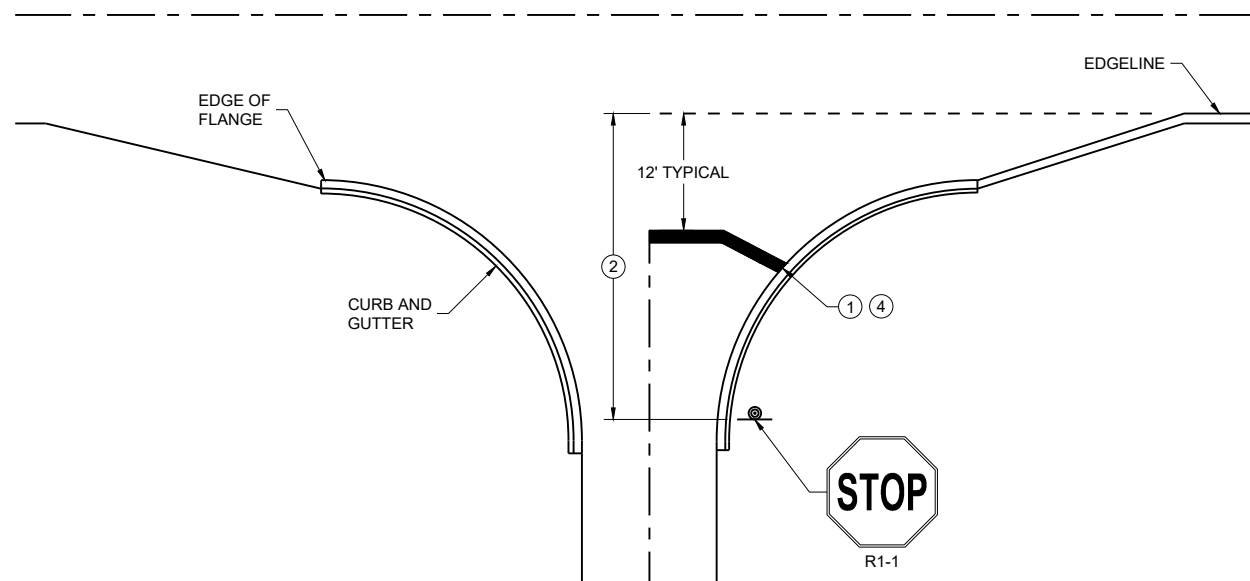
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA

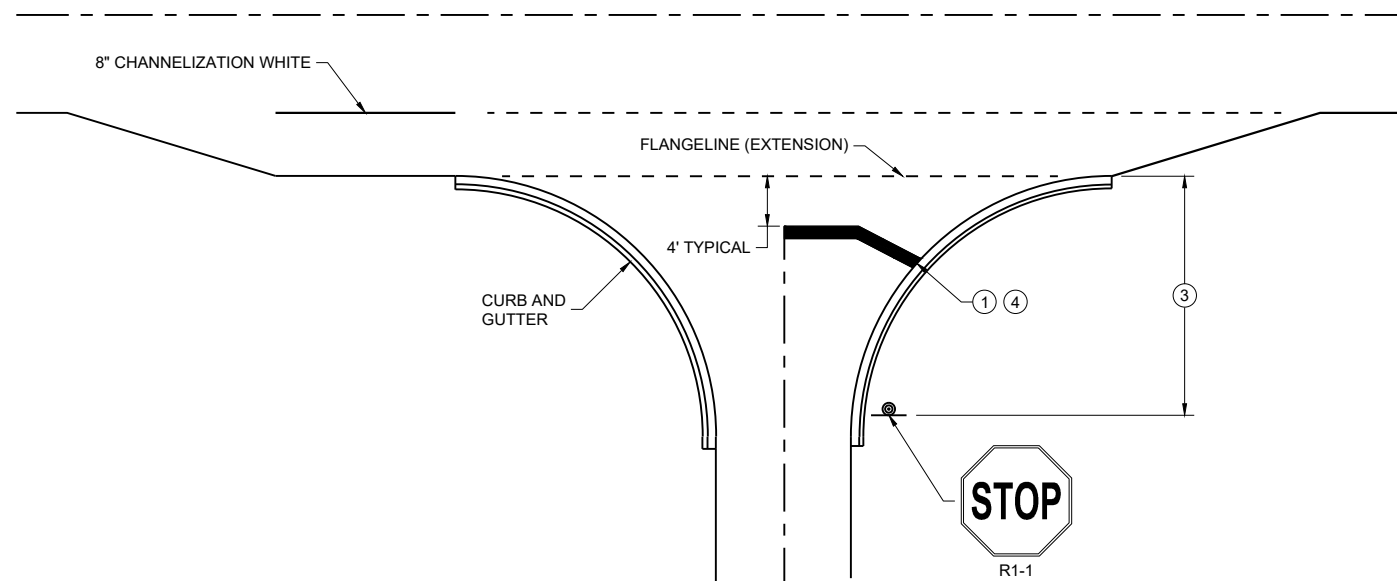
GENERAL NOTES

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

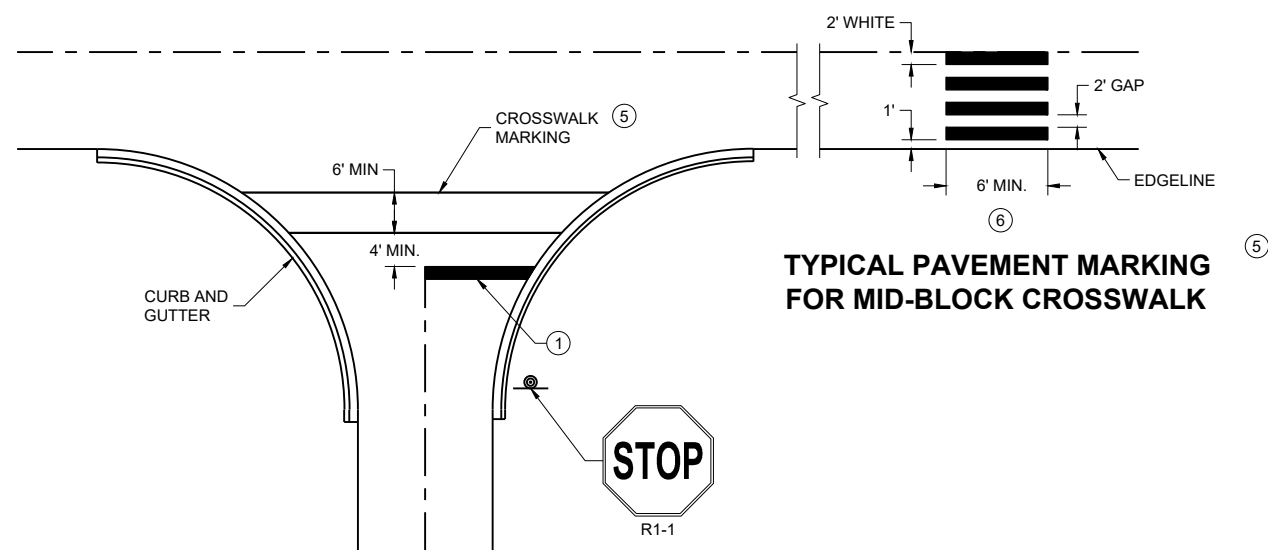
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



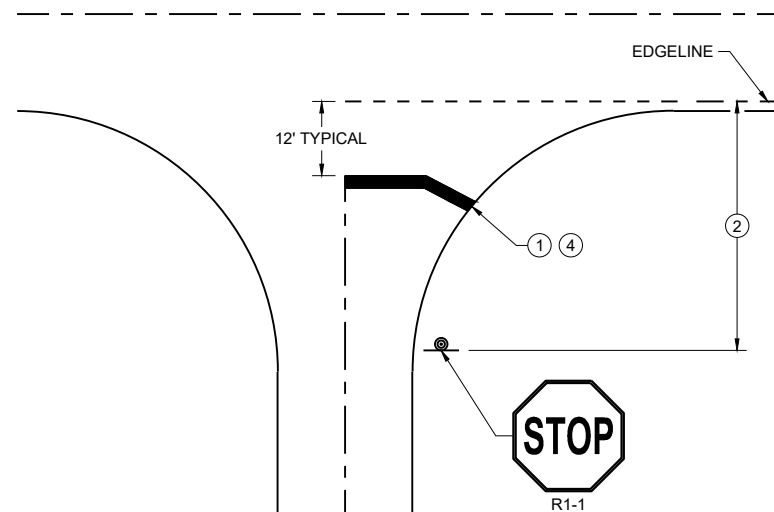
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



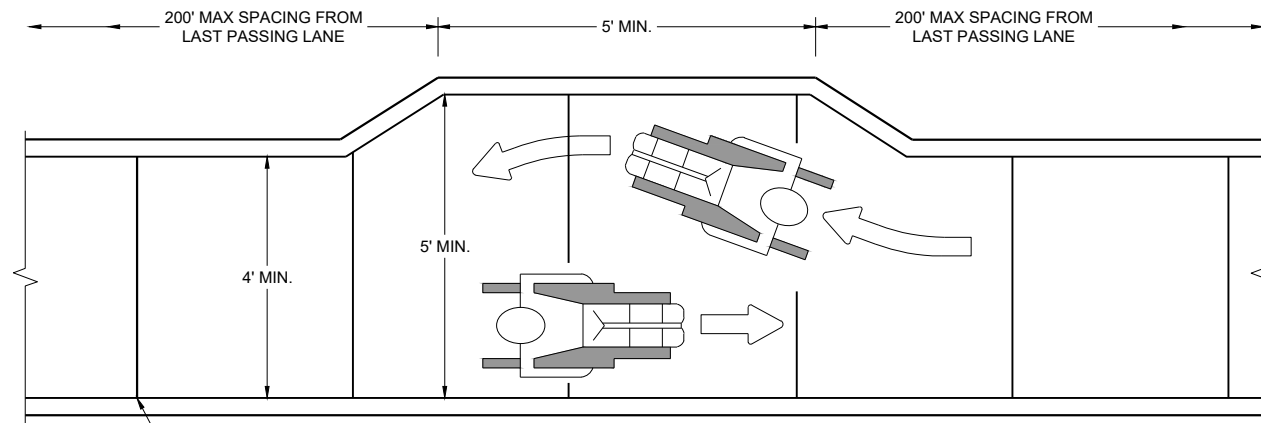
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK

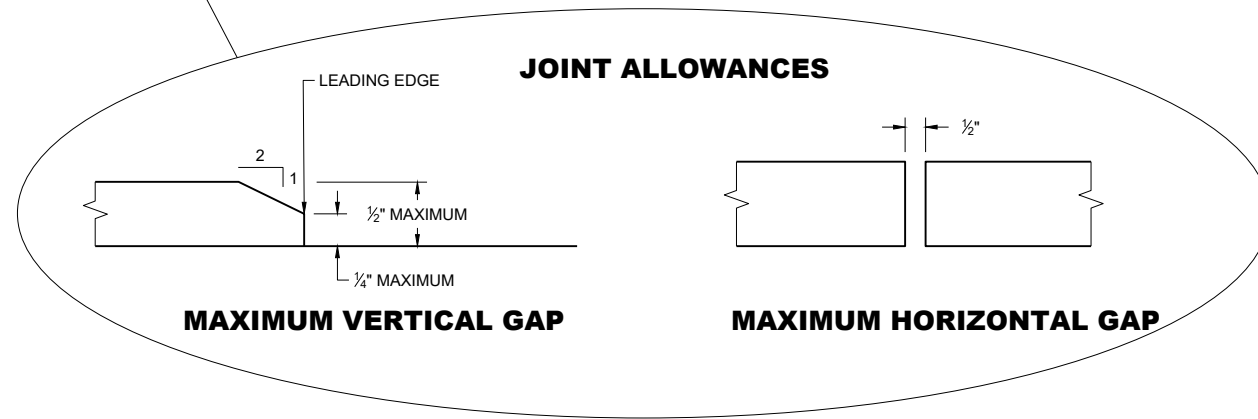
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER



NARROW SIDEWALK PASSING DETAIL

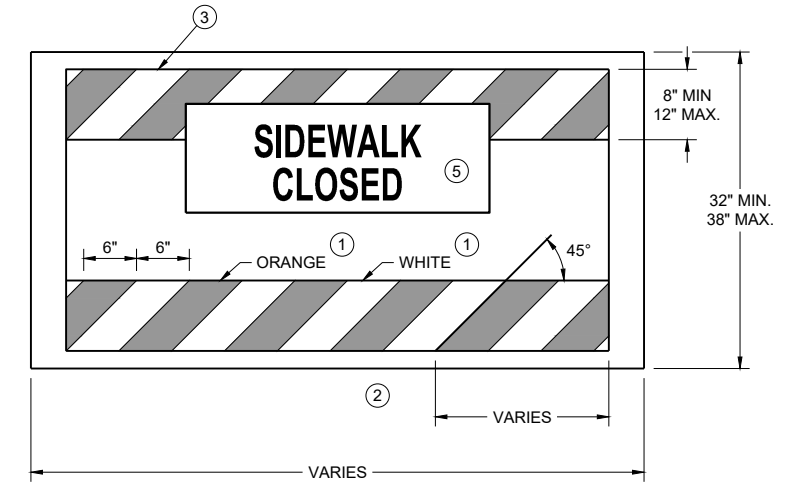


MAXIMUM VERTICAL GAP

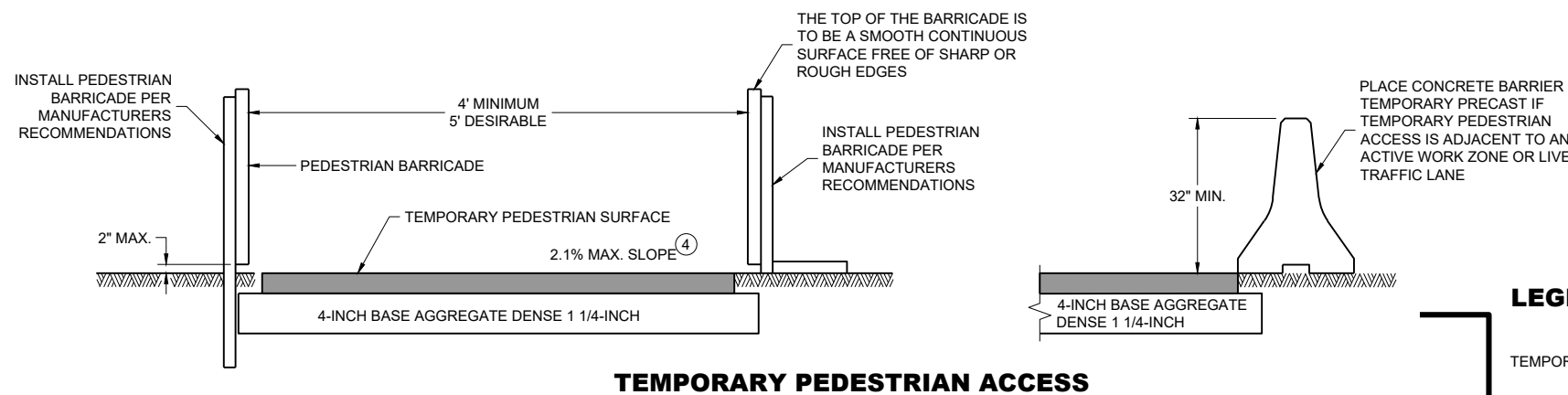
MAXIMUM HORIZONTAL GAP

GENERAL NOTES

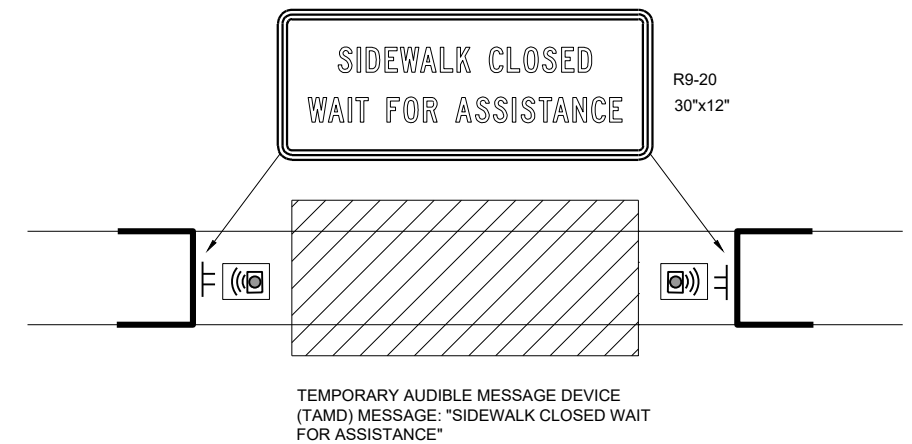
- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
- ④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ⑤ WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.



TEMPORARY PEDESTRIAN BARRICADE *



TEMPORARY PEDESTRIAN ACCESS



TEMPORARY PEDESTRIAN FLAGGING

- LEGEND**
- TEMPORARY PEDESTRIAN BARRICADE
 - AUDIBLE MESSAGE DEVICE
 - TEMPORARY SIGN SUPPORT
 - WORK AREA

**TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

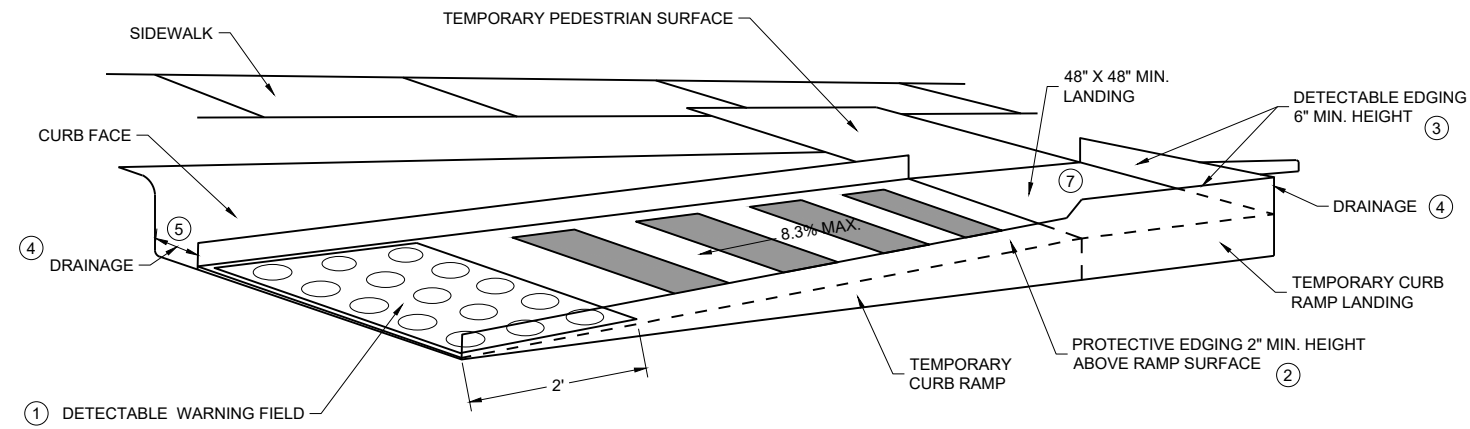
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

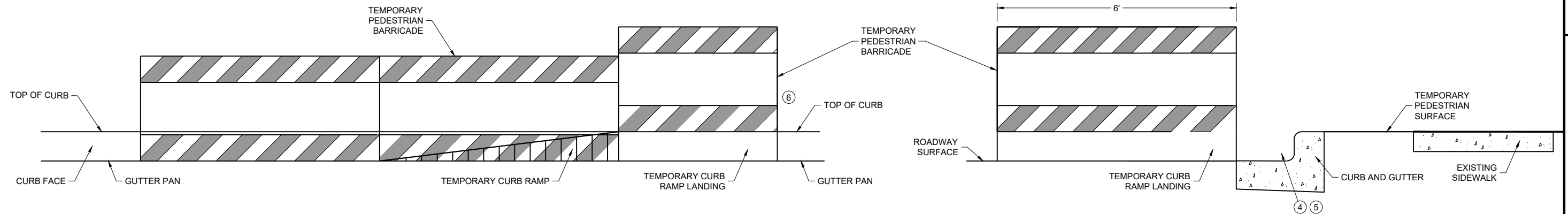
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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.
- ⑦ LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



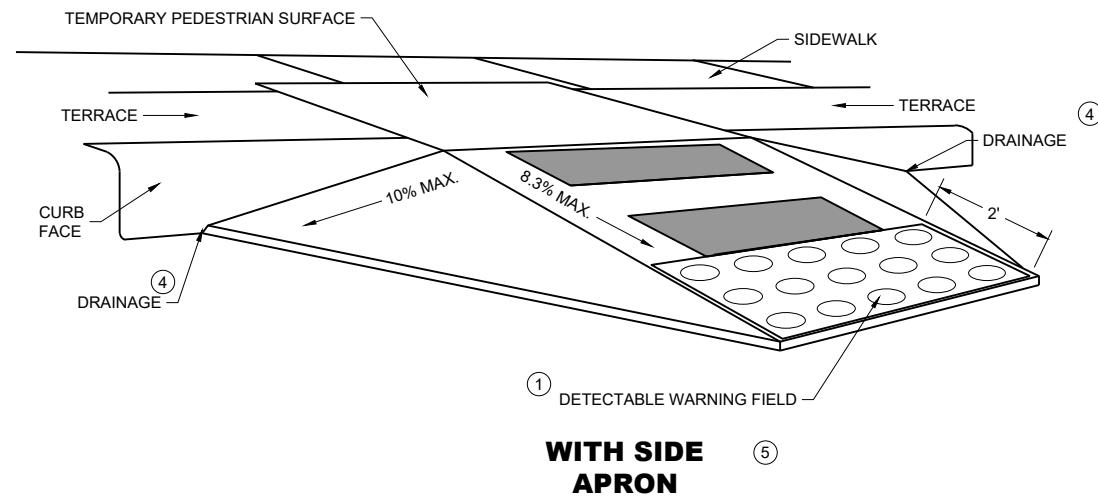
PERSPECTIVE VIEW



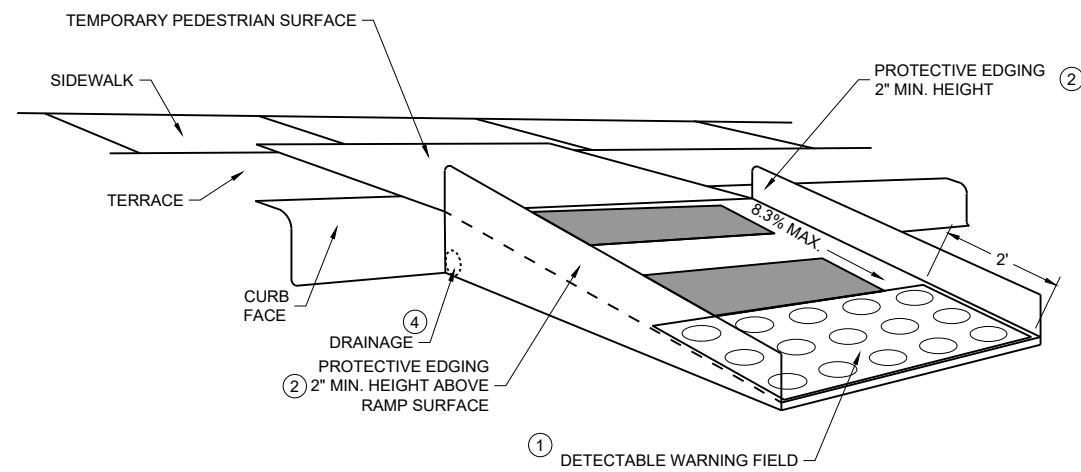
FRONT VIEW

SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB



WITH SIDE APRON



WITH PROTECTIVE EDGE

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 1:48 (2.1%) 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 CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

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.












TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

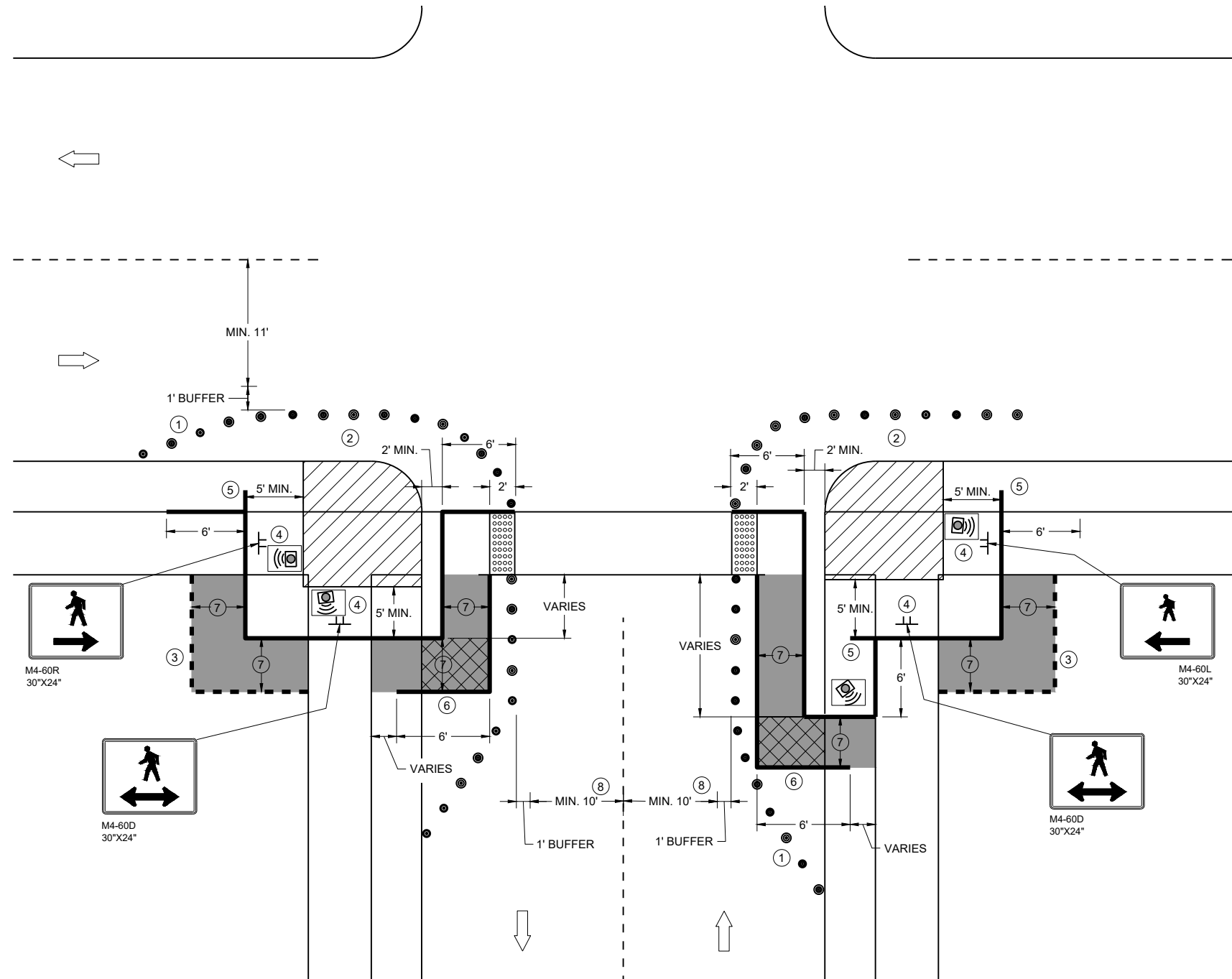
WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- 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
-  TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)










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

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

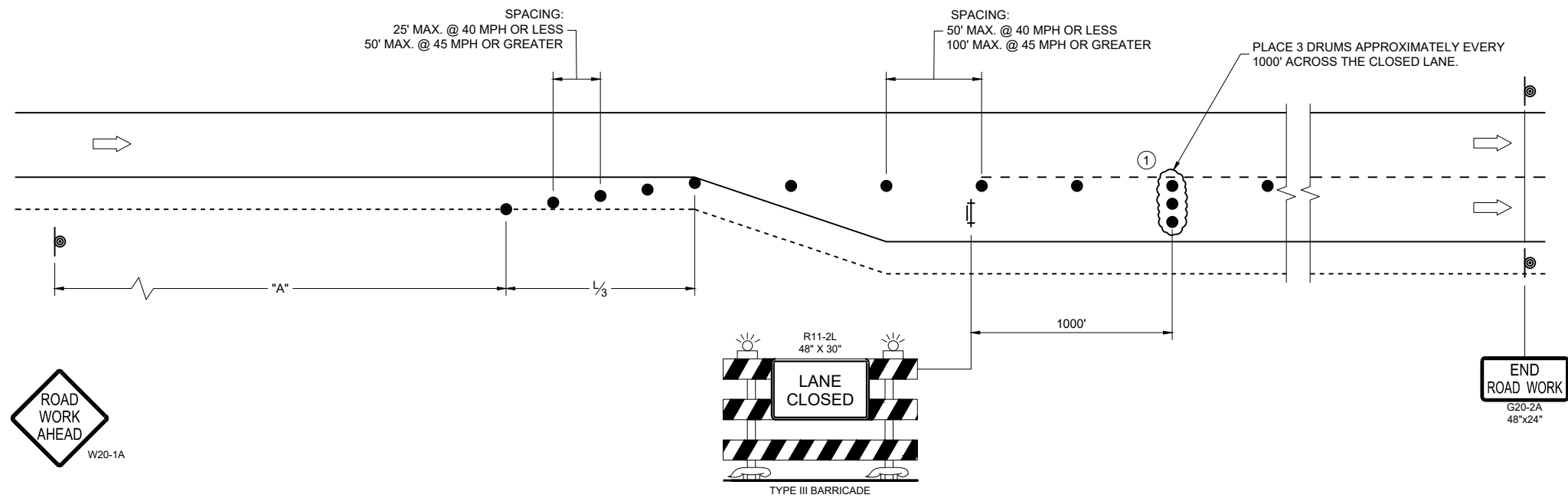
LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $L/2$					
		W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

GENERAL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.
- "WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- 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.
- W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.
- ① DRUMS IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



6

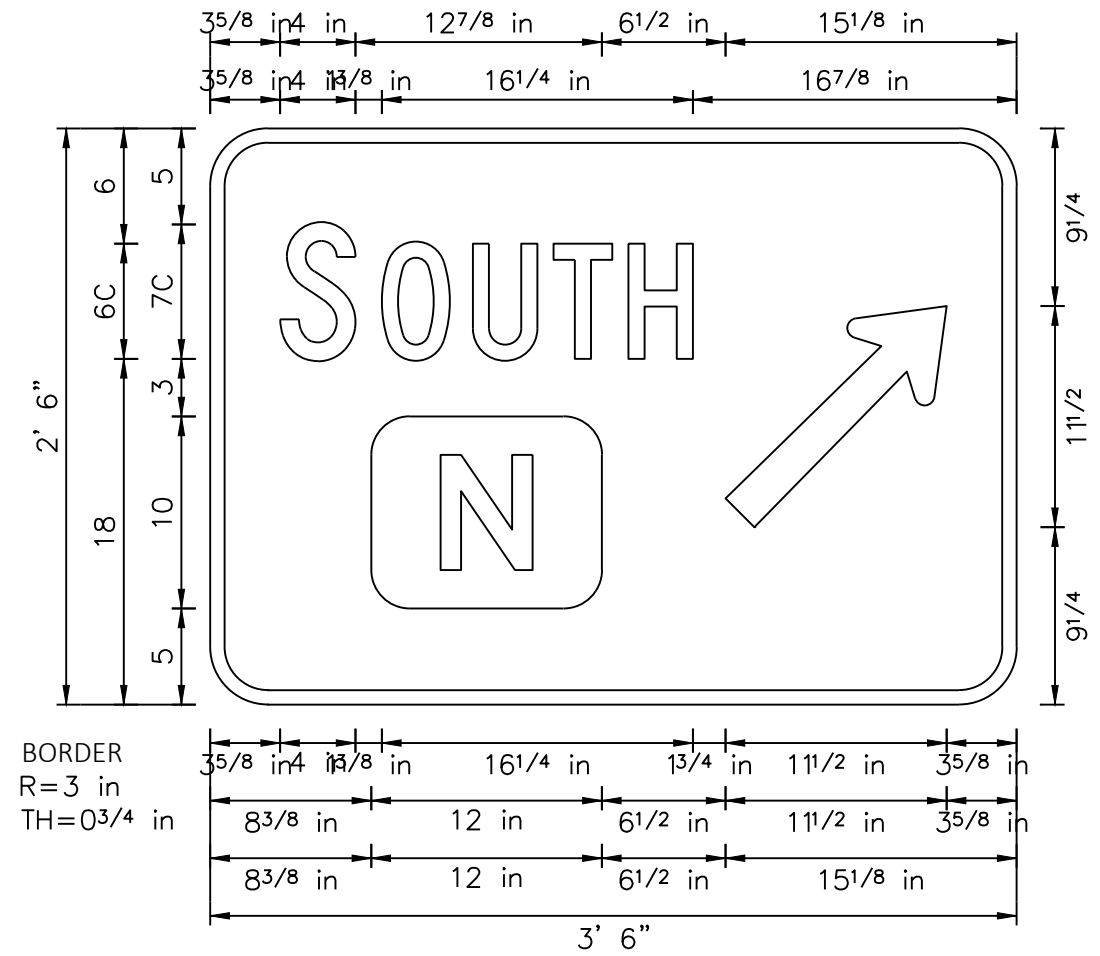
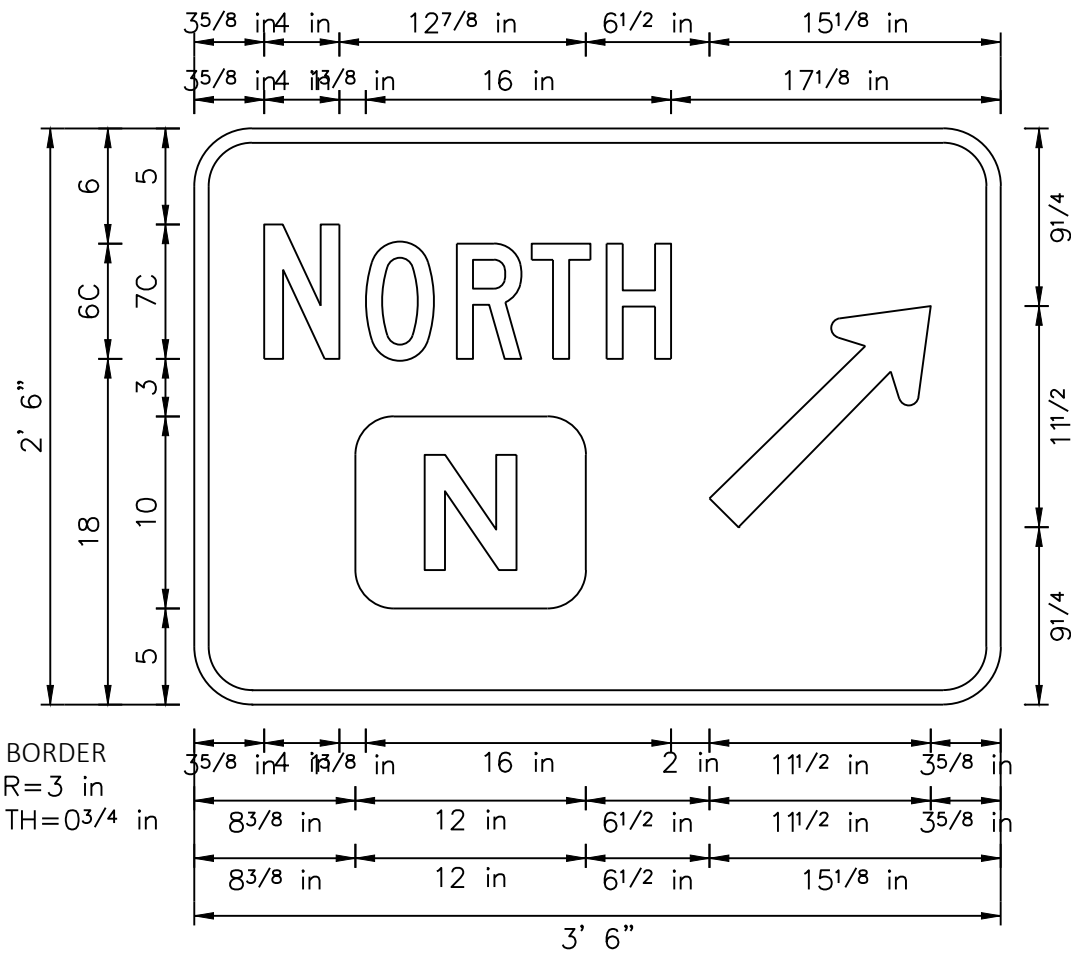
6

SDD 15D50-04a

SDD 15D50-04a

TRAFFIC CONTROL ADDED LANE CLOSURE WITHOUT LANE SHIFT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2025 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

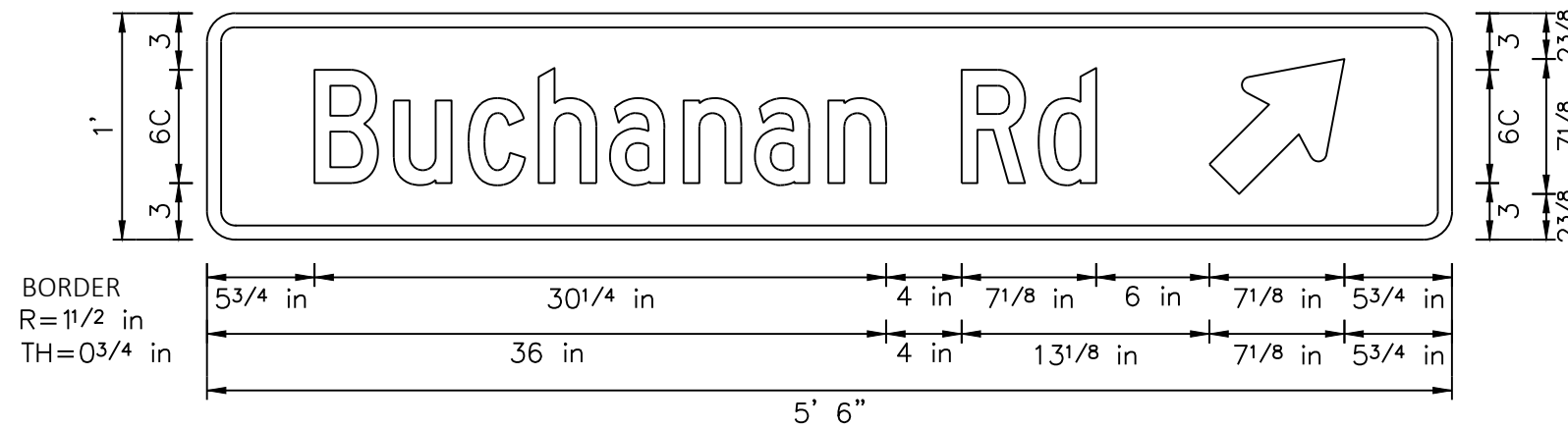
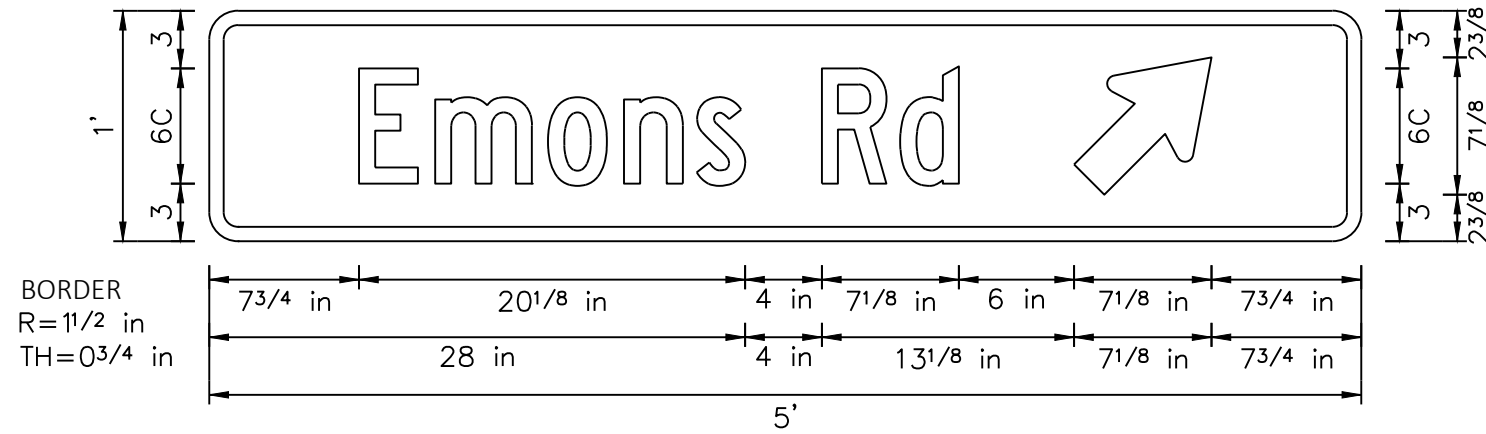
- NOTES
 1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
 2. COLOR:
 BACKGROUND - GREEN
 MESSAGE - WHITE
 3. MESSAGE SERIES - C



7

7

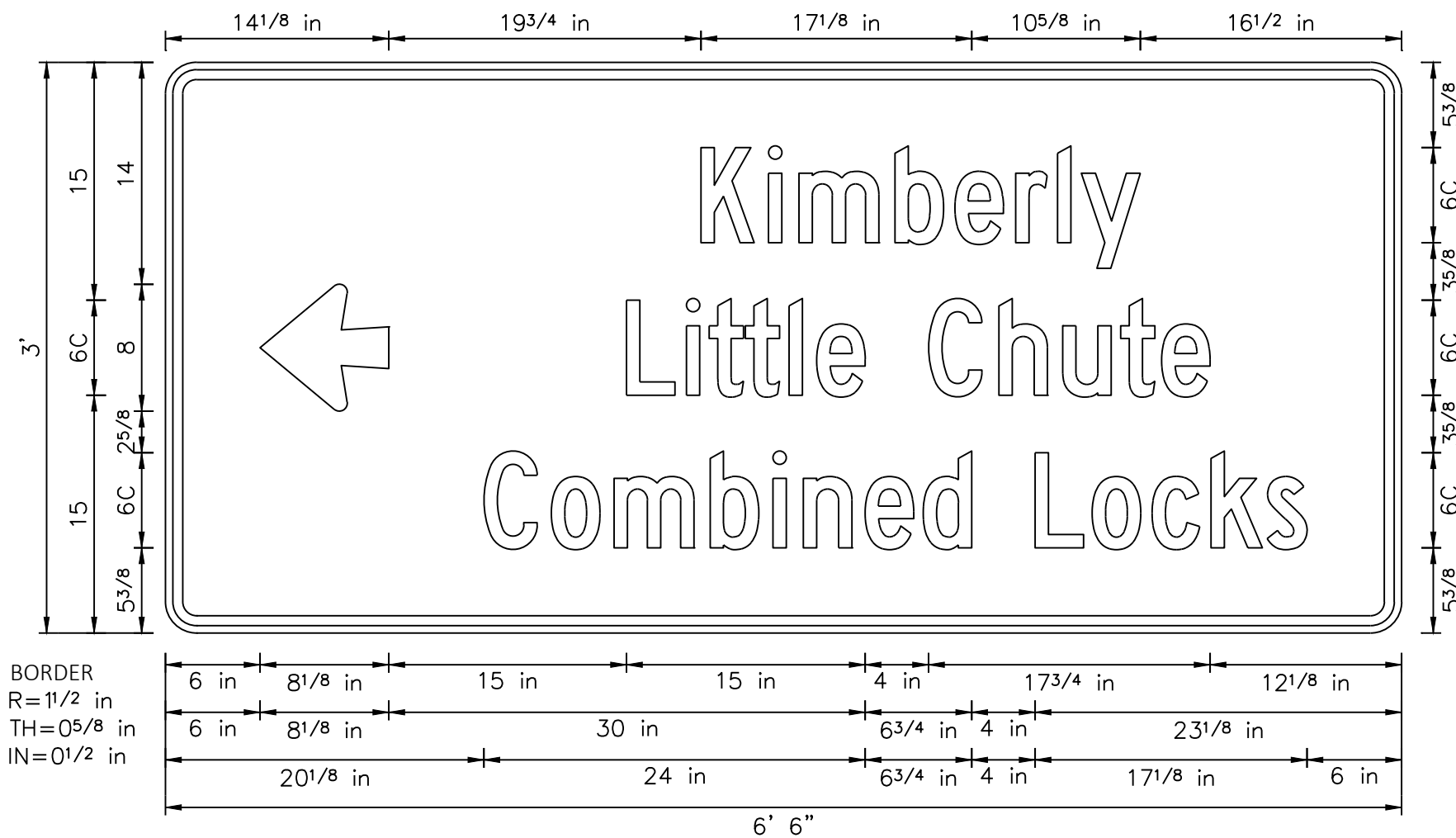
- NOTES
1. ALL SIGNS TYPE II - TYPE H REFLECTIVE
 2. COLOR:
BACKGROUND - GREEN
MESSAGE - WHITE
 3. MESSAGE SERIES - C



7

7

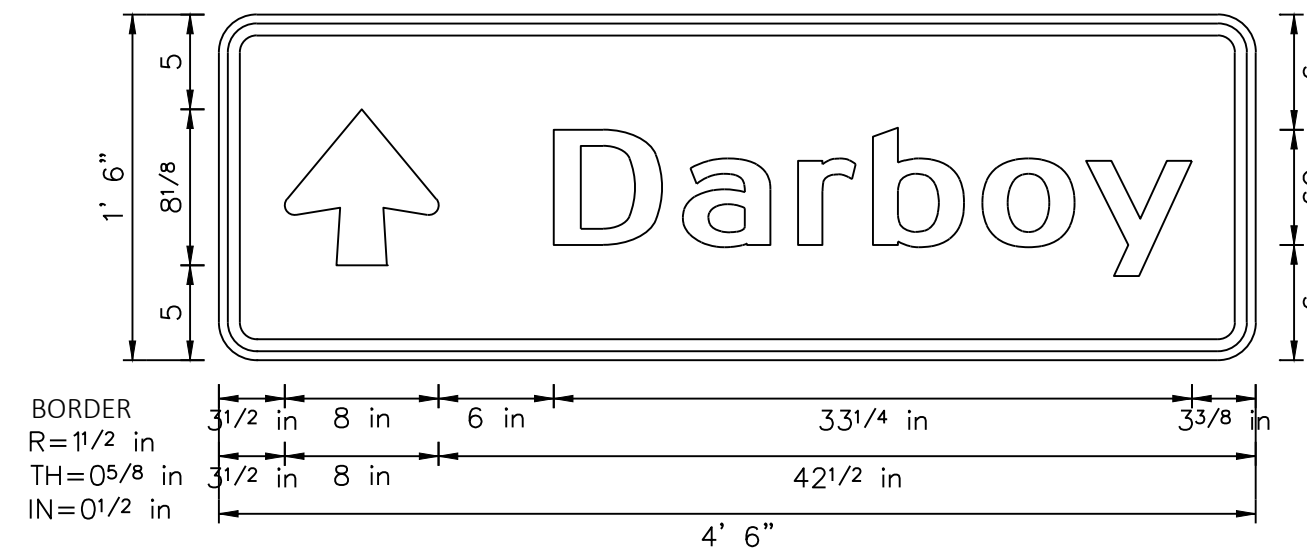
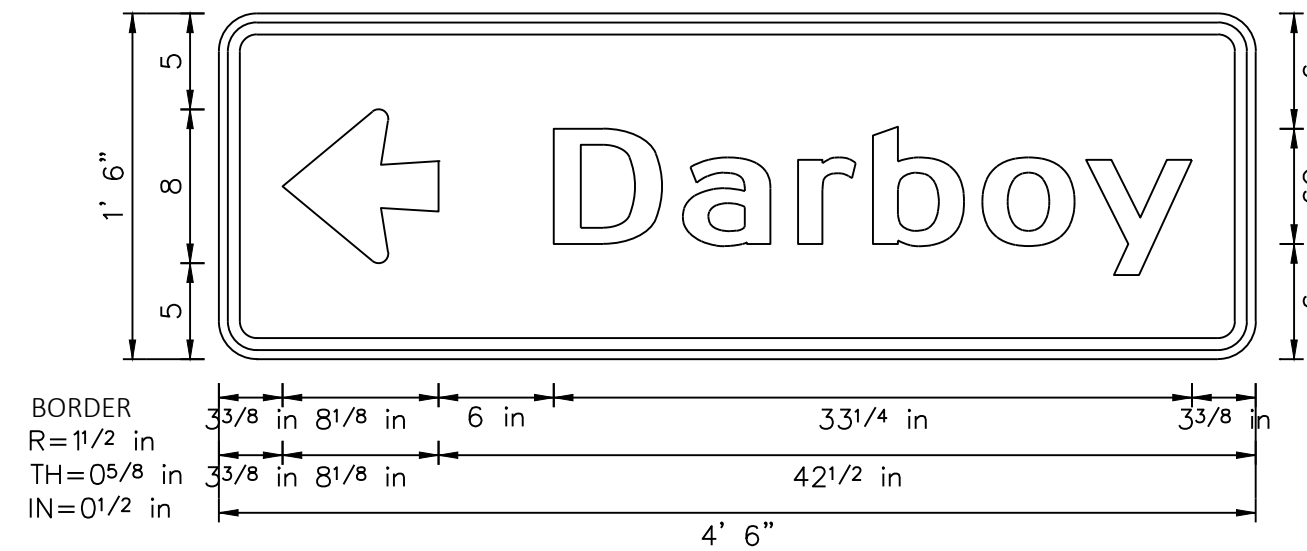
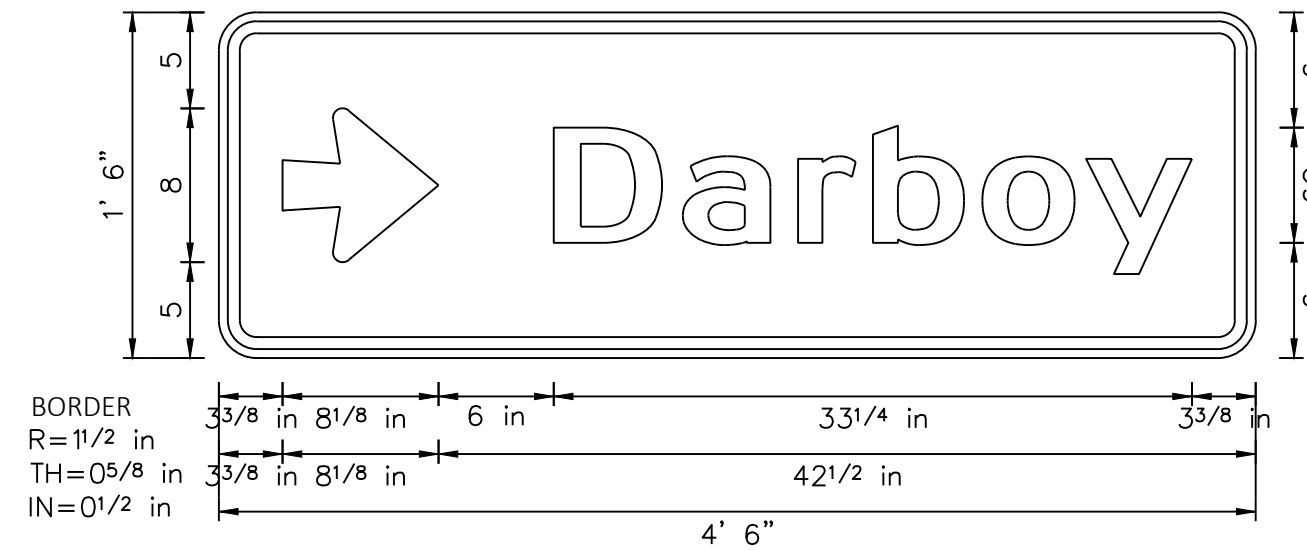
- NOTES
1. ALL SIGNS TYPE II - TYPE F REFLECTIVE
 2. COLOR:
BACKGROUND - ORANGE
MESSAGE - BLACK
 3. MESSAGE SERIES - C



7

7

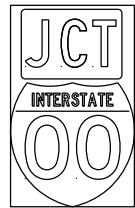
- NOTES
1. ALL SIGNS TYPE II - TYPE F REFLECTIVE
 2. COLOR:
BACKGROUND - ORANGE
MESSAGE - BLACK
 3. MESSAGE SERIES - C



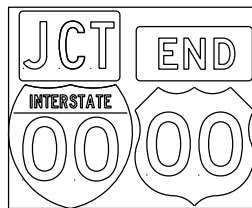
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7

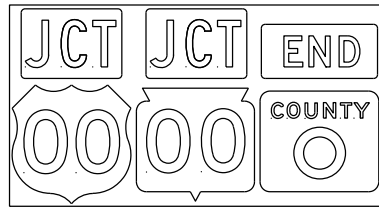
TYPICAL ASSEMBLIES



J1-1



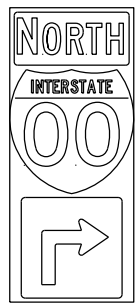
J1-2



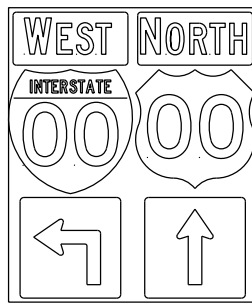
J1-3



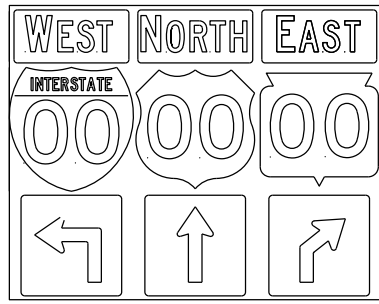
JR1-1



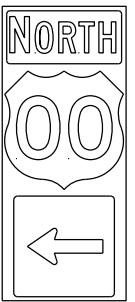
J2-1



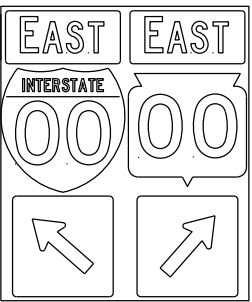
J2-2



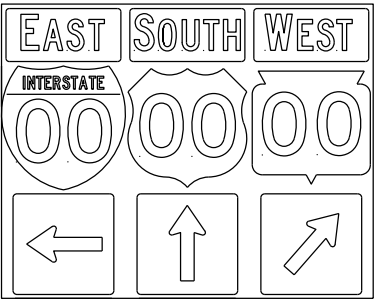
J2-3



J3-1



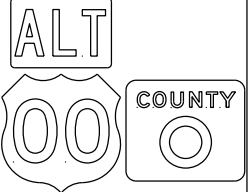
J3-2



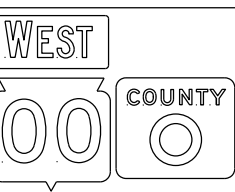
J3-3



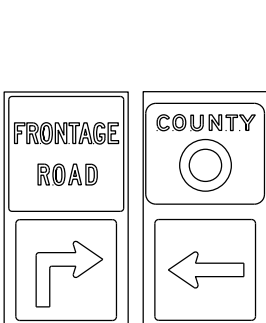
J4-1



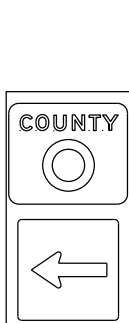
J4-2



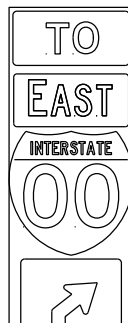
J4-2



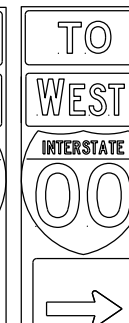
J12-1



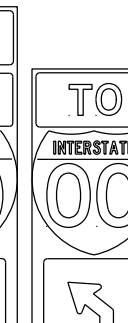
J13-1



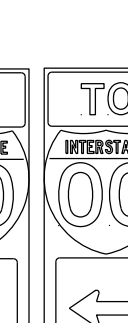
J32-1



J33-1



J22-1



J23-1



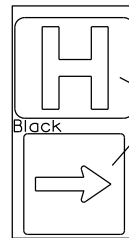
JR13-1



JR23-1



JR99-1

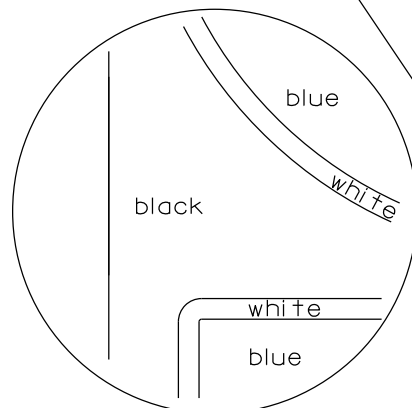


JH-1

Blue Background

Black

blue background with interstate

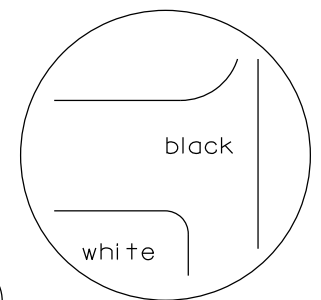
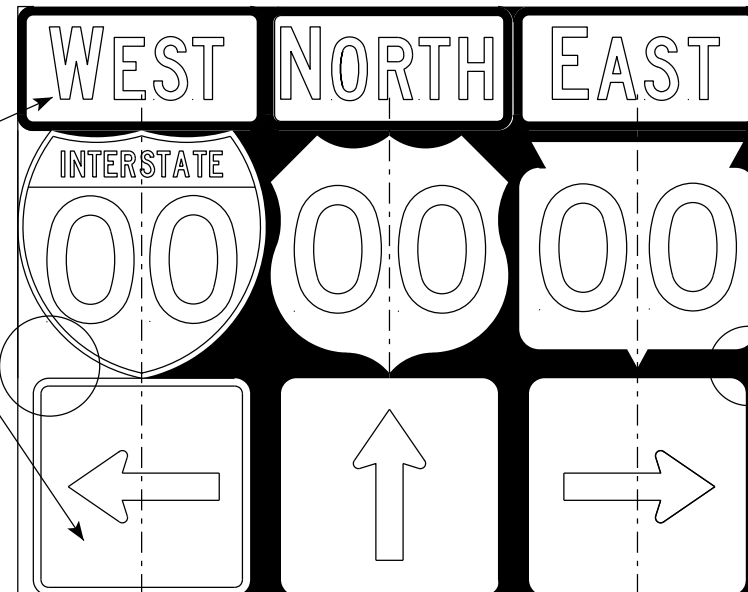


JV

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

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Black Non-reflective
 - Message - see Note 4
- Message Series - See Note 4
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
- For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.



black background

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
For State Traffic Engineer

DATE 6/7/23 PLATE NO. A2-1S.10

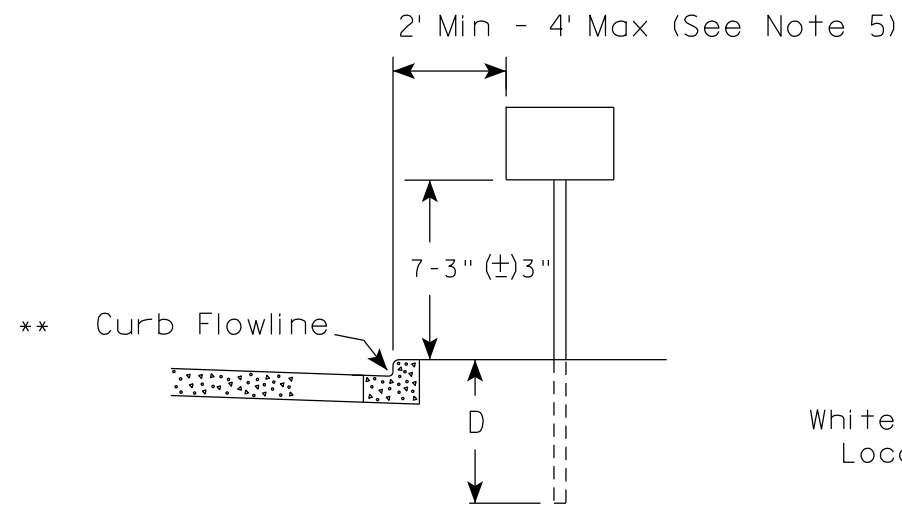
PROJECT NO:

SHEET NO:

E

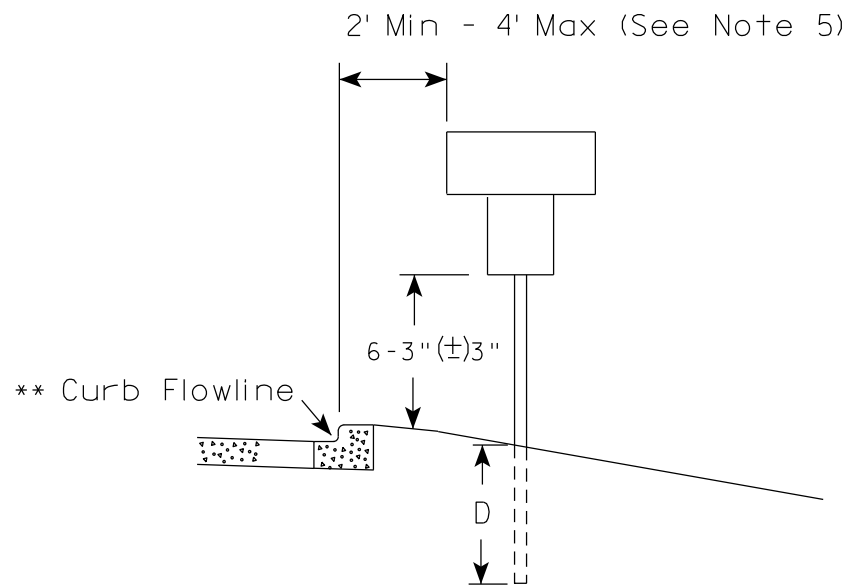
URBAN AREA

RURAL AREA (See Note 2)



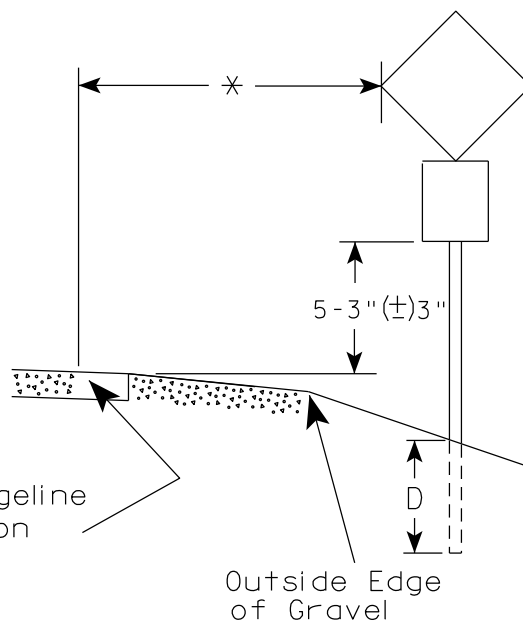
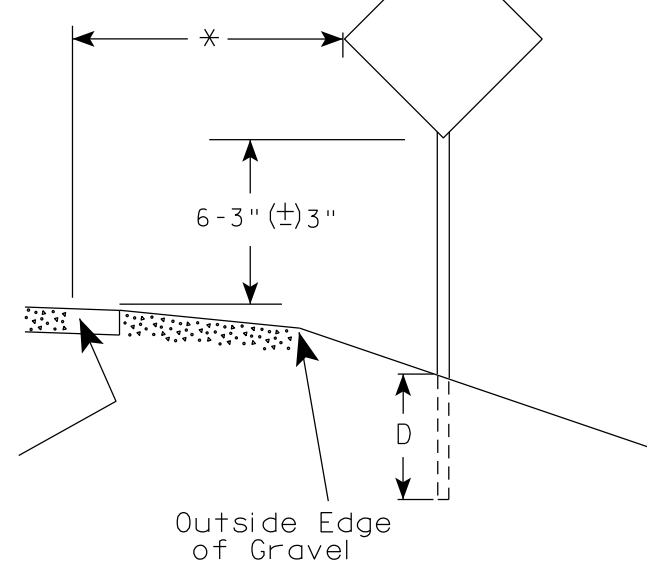
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the 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.

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Raub
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23



ELEVATION VIEW

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

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

GENERAL NOTES

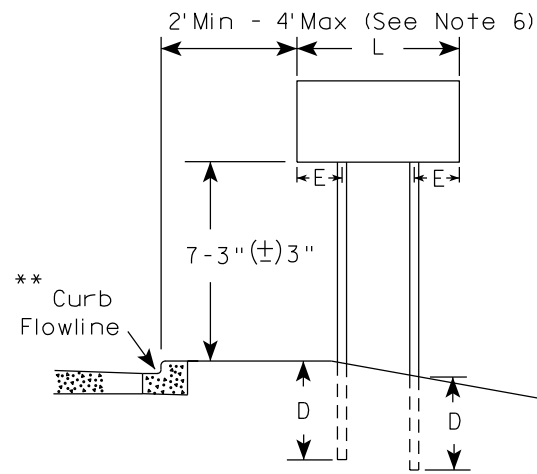
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (\pm 3") or 6'-3" (\pm 3") depending upon existence of sub-sign.
4. The (\pm) tolerance for mounting height 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" (\pm 3") or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm 3"). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (\pm 3").

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

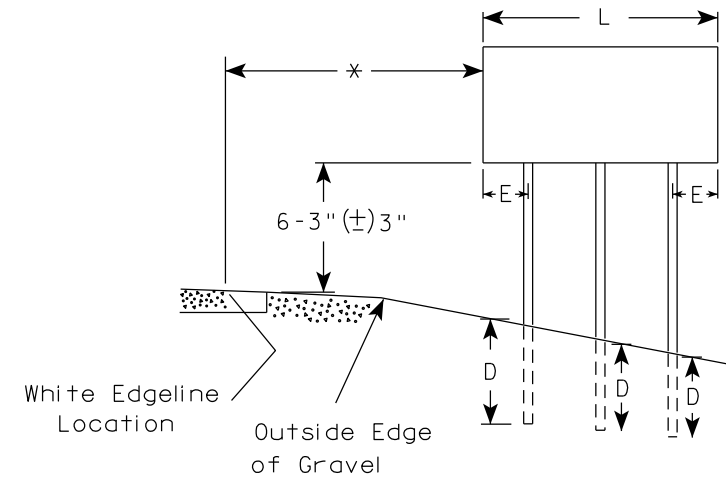
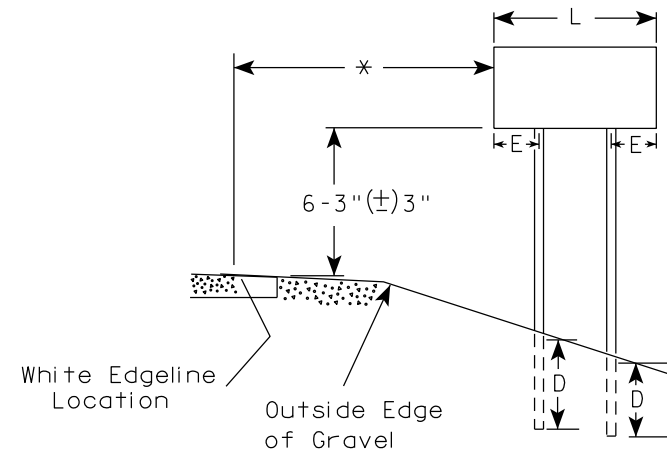
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

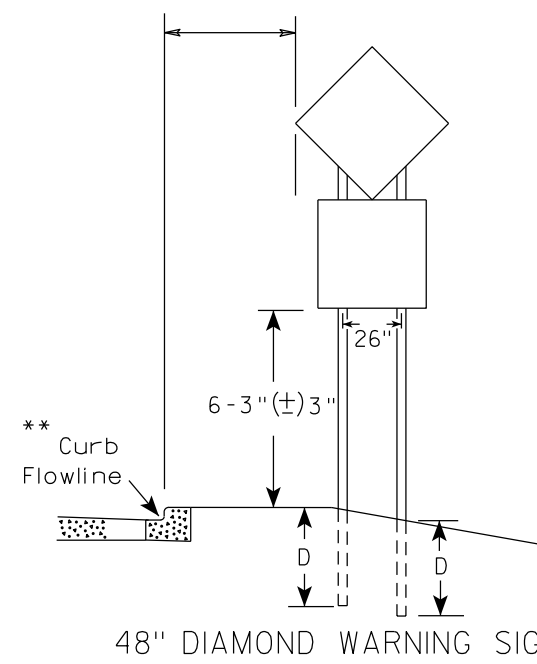
URBAN AREA



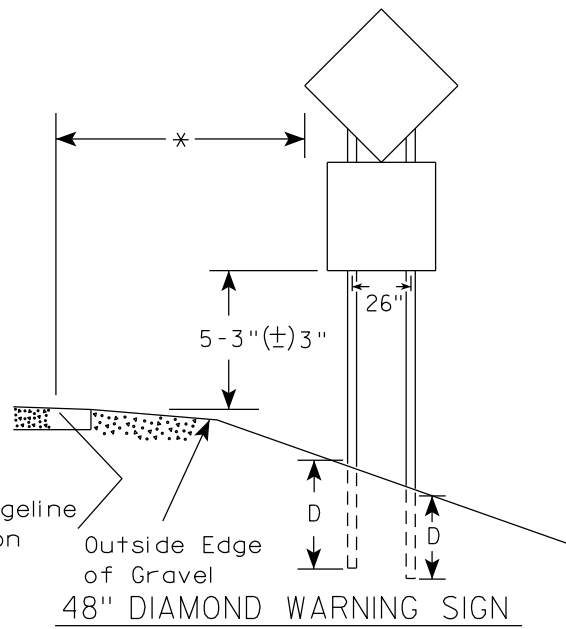
RURAL AREA (See Note 3)



URBAN AREA



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

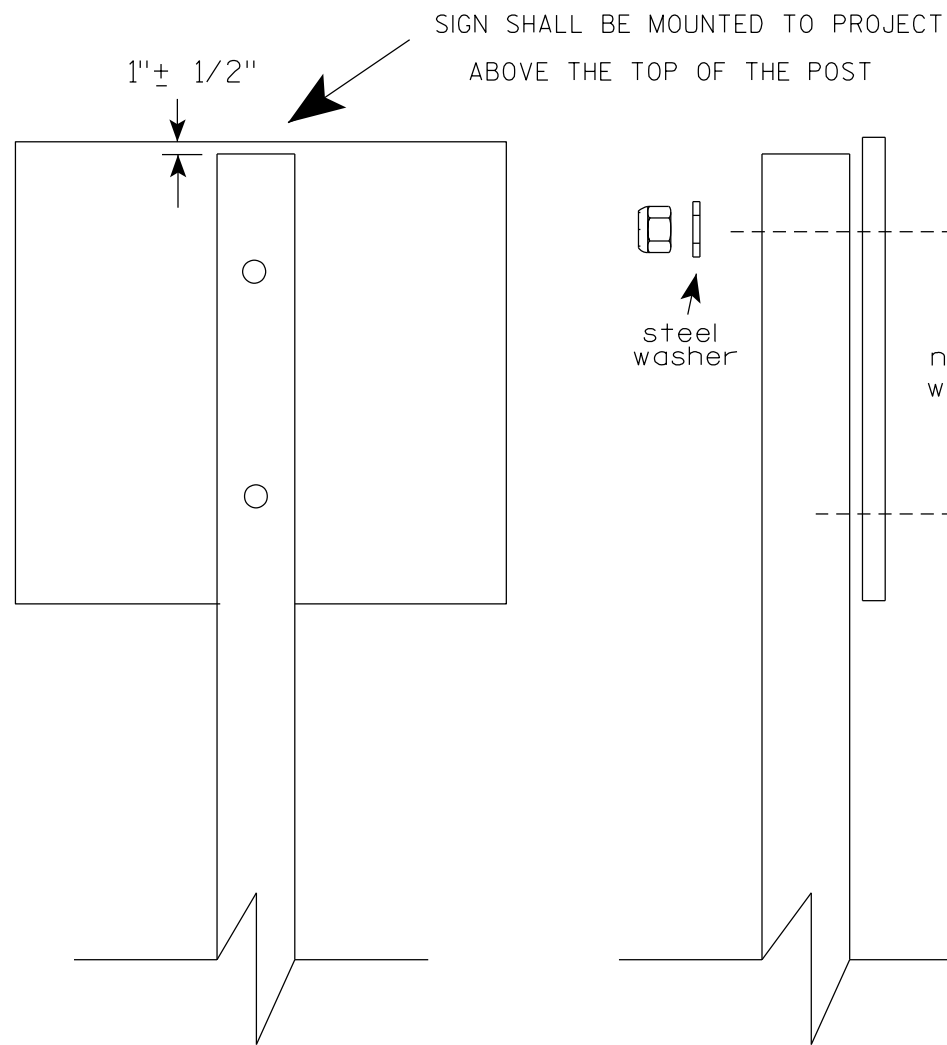
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

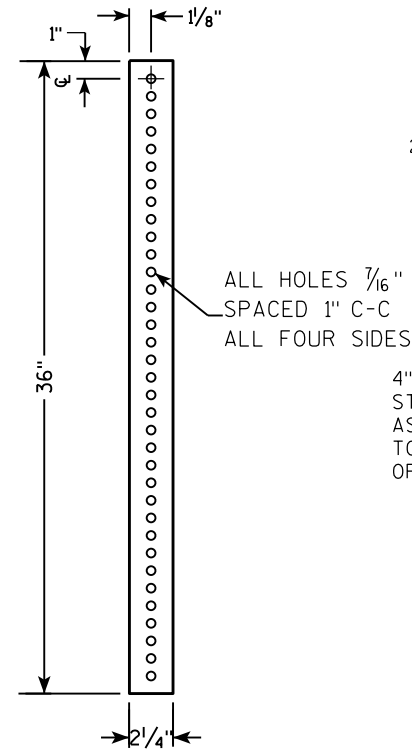
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

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

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

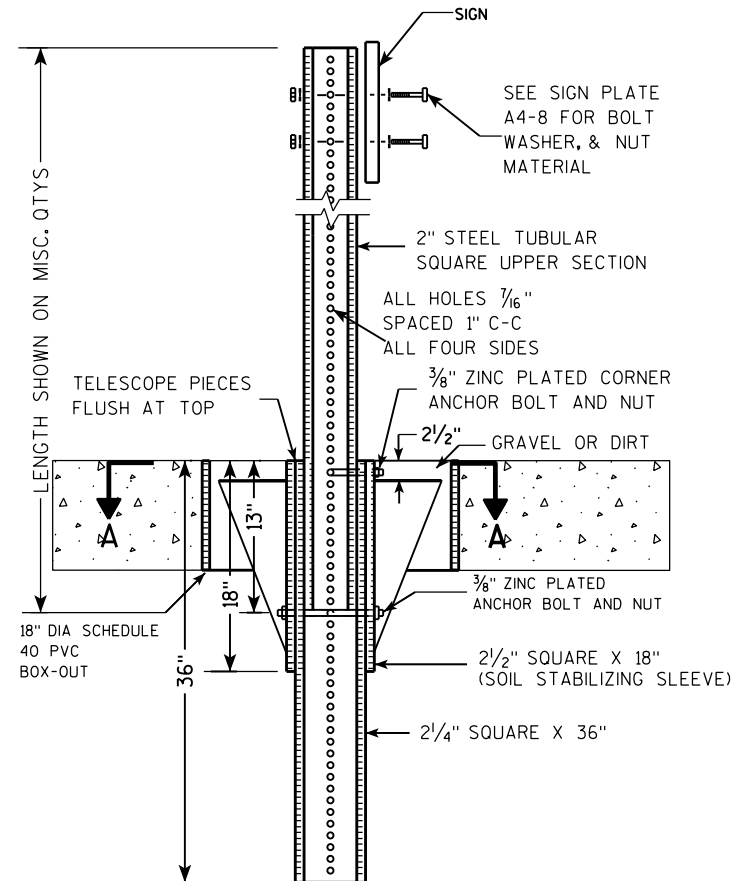
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



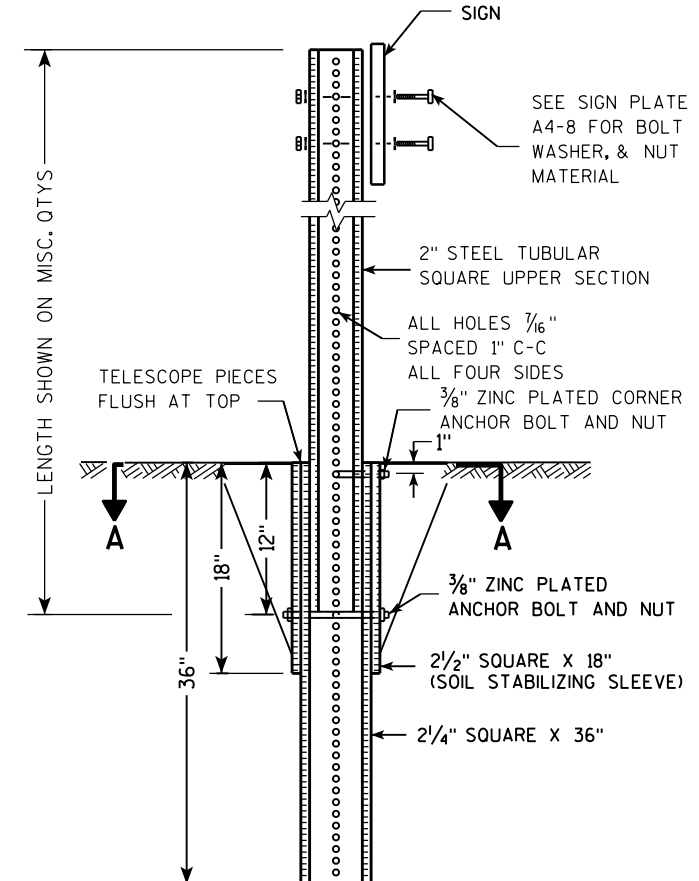
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

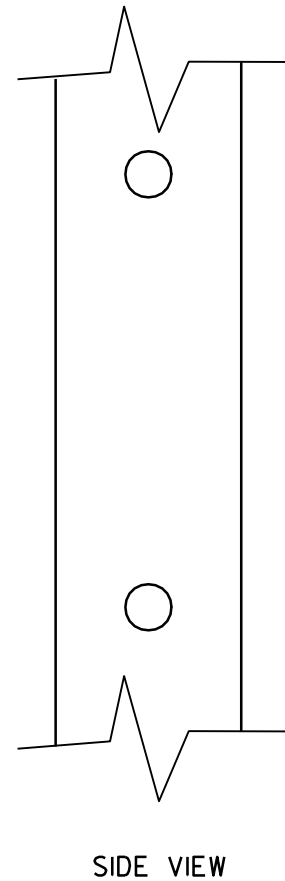
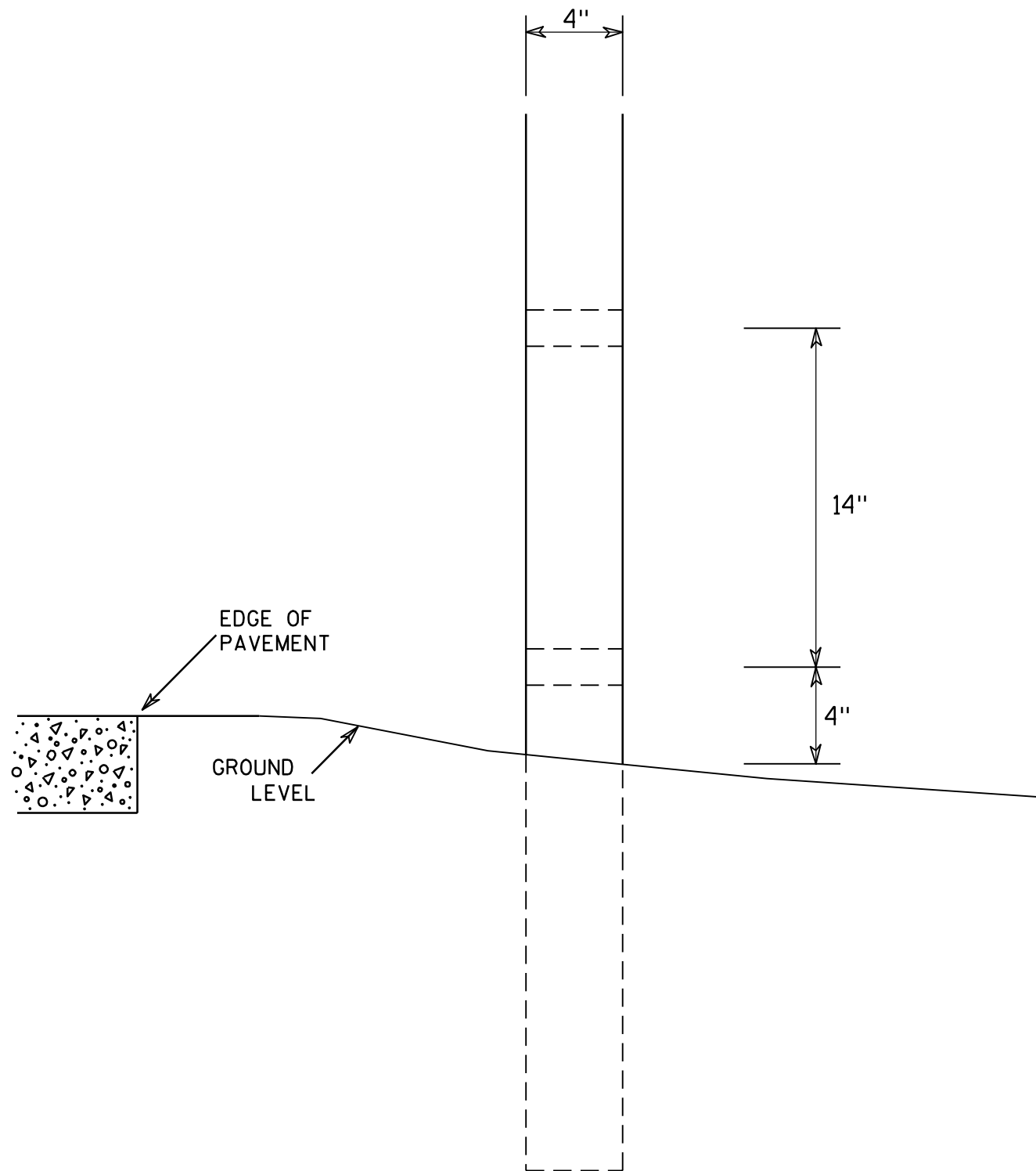
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



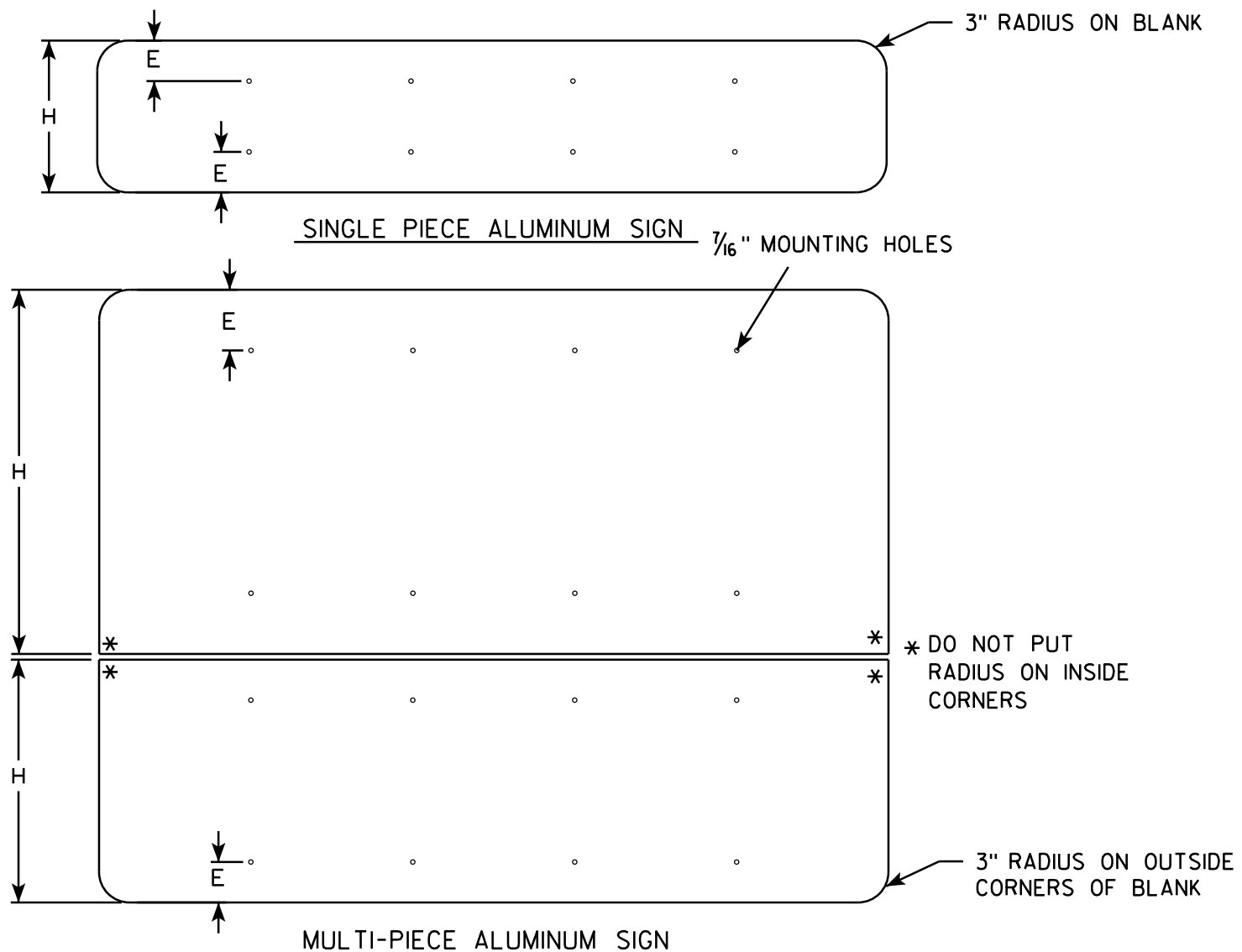
GENERAL NOTES

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

7

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



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE $\frac{7}{16}$ " DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

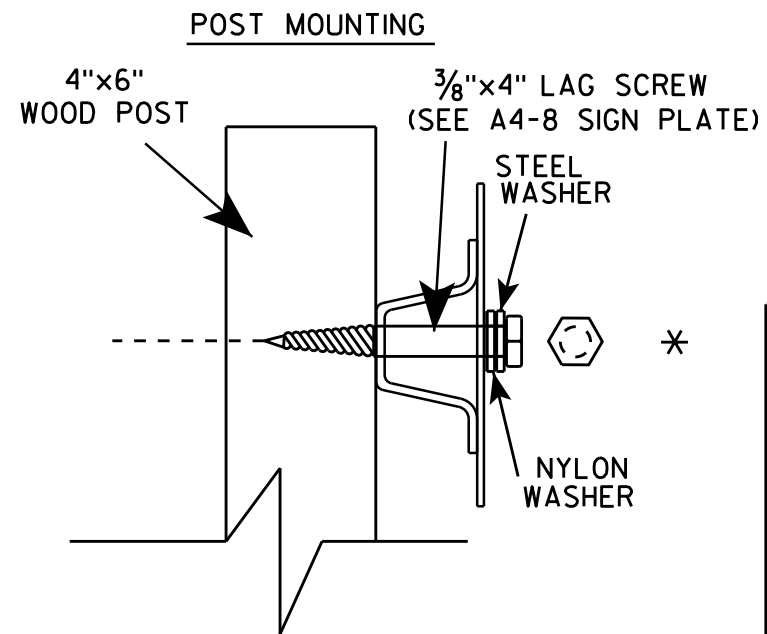
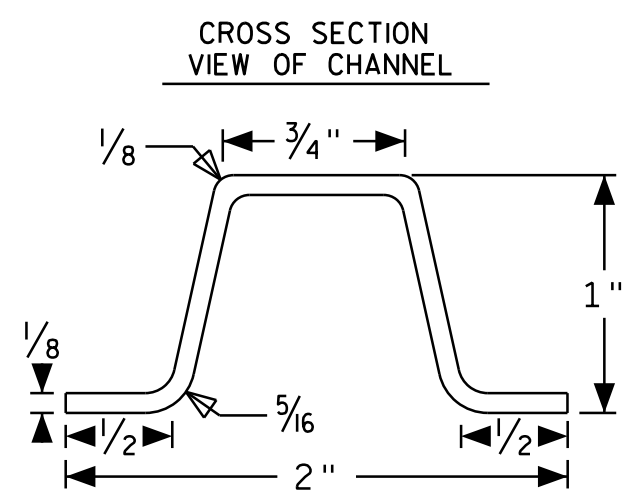
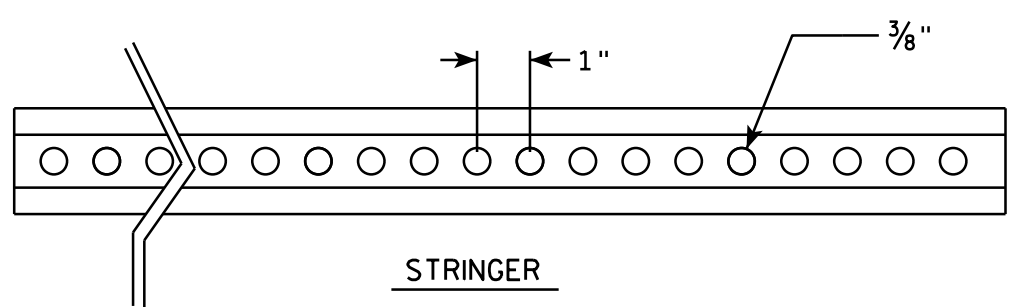
SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16 $\frac{1}{2}$ " 33 $\frac{1}{2}$ " 50 $\frac{1}{2}$ " 67 $\frac{1}{2}$ "
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19 $\frac{1}{2}$ " 38 $\frac{1}{2}$ " 57 $\frac{1}{2}$ " 76 $\frac{1}{2}$ "
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22 $\frac{1}{2}$ " 43 $\frac{1}{2}$ " 64 $\frac{1}{2}$ " 85 $\frac{1}{2}$ "
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

* DO NOT PUT RADIUS ON INSIDE CORNERS

3" RADIUS ON OUTSIDE CORNERS OF BLANK

7

7



SIGN STRINGER MOUNTING REQUIREMENTS

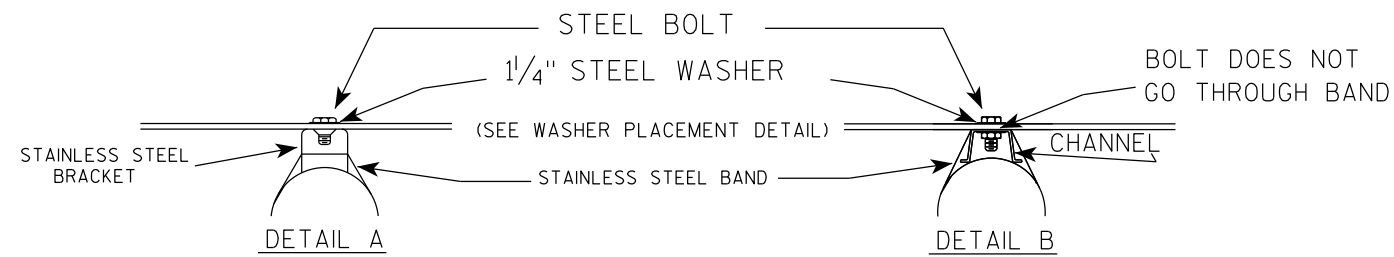
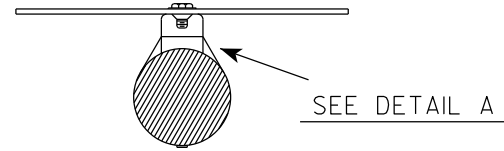
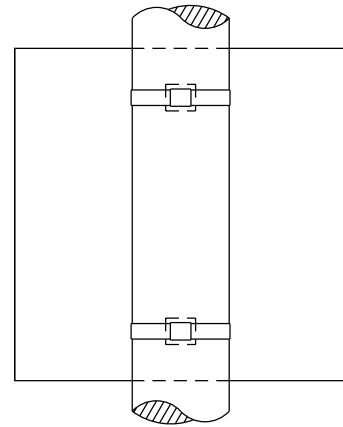
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

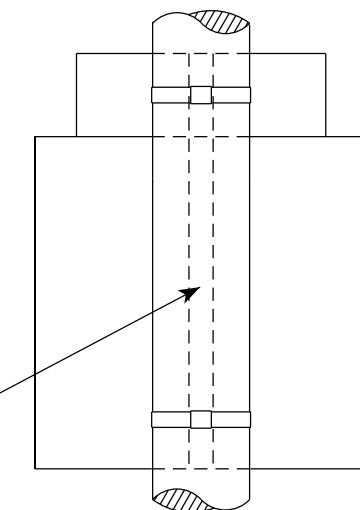
DATE 4/26/16 PLATE NO. A4-18.1

BANDING

SINGLE SIGN



"J" ASSEMBLY

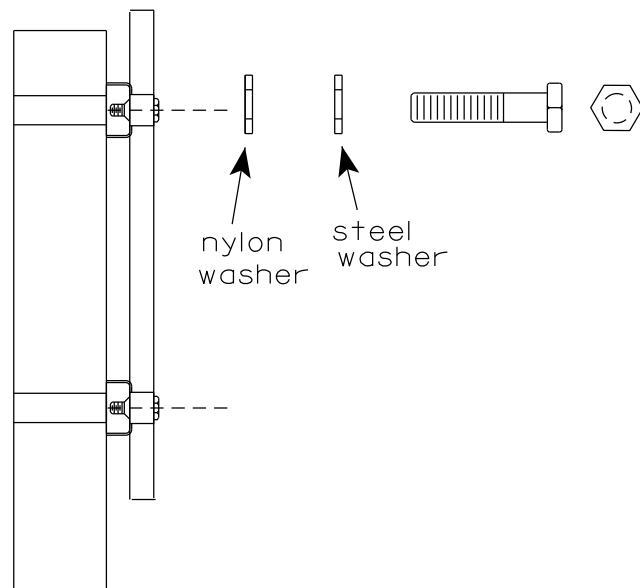


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



- GENERAL NOTES**
- Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
 - 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.
 - Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
 - ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

WASHER PLACEMENT



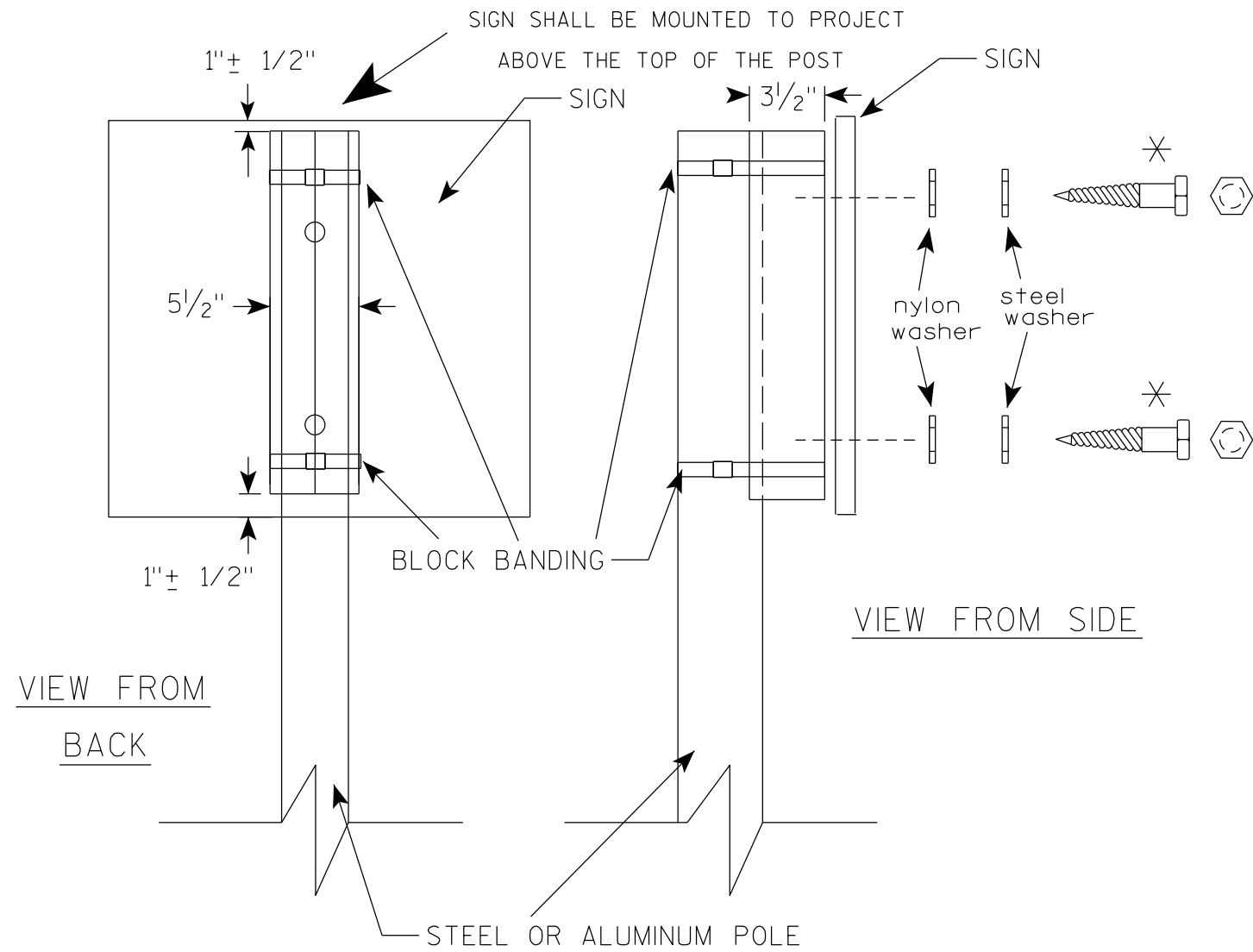
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

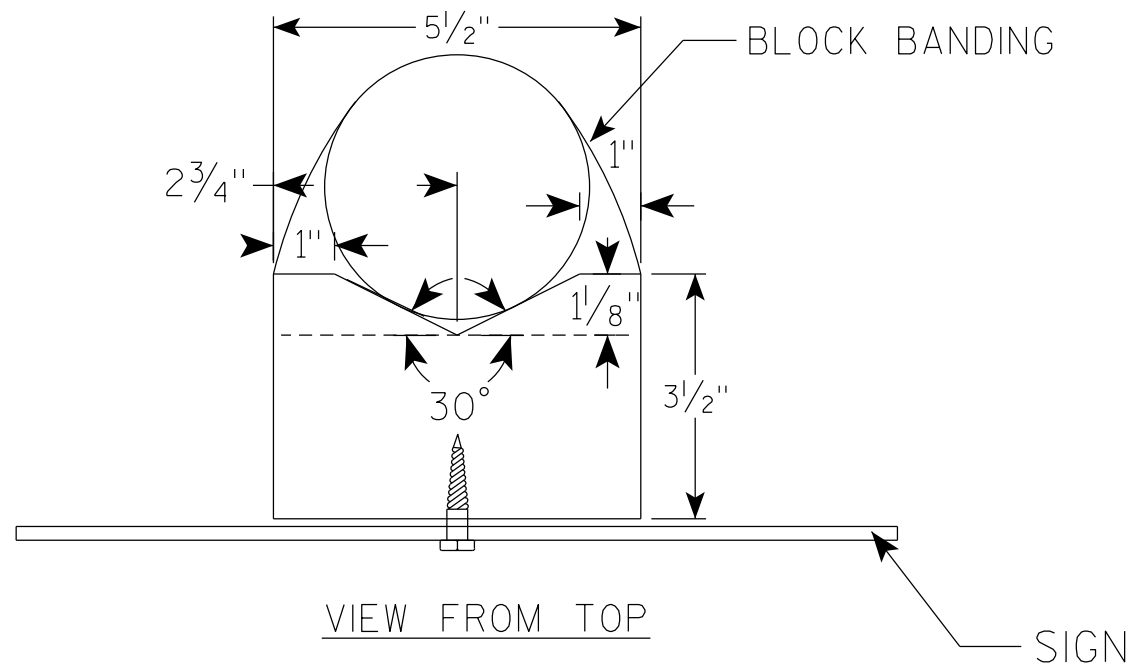
DATE 6/10/19 PLATE NO. A5-9.4



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, 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

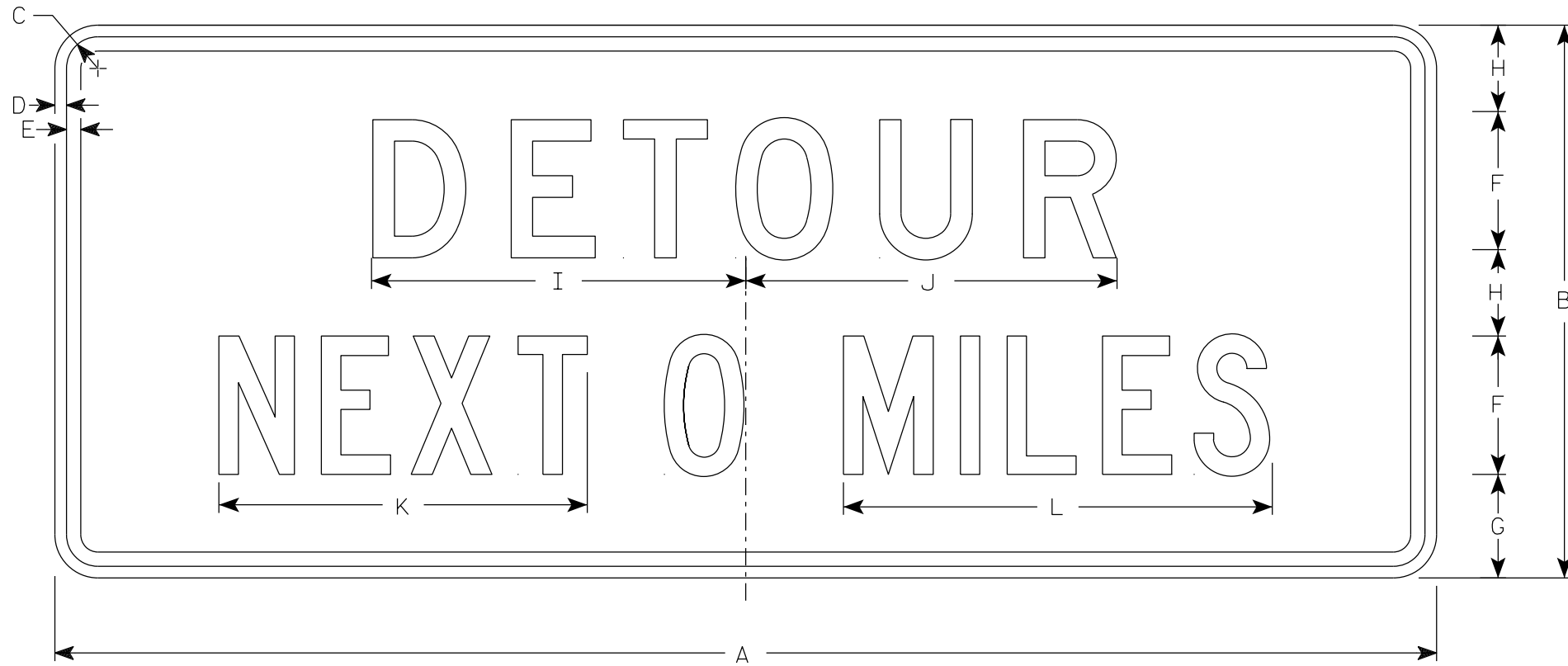
* LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

NOTES

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



G20-51

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
5	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0

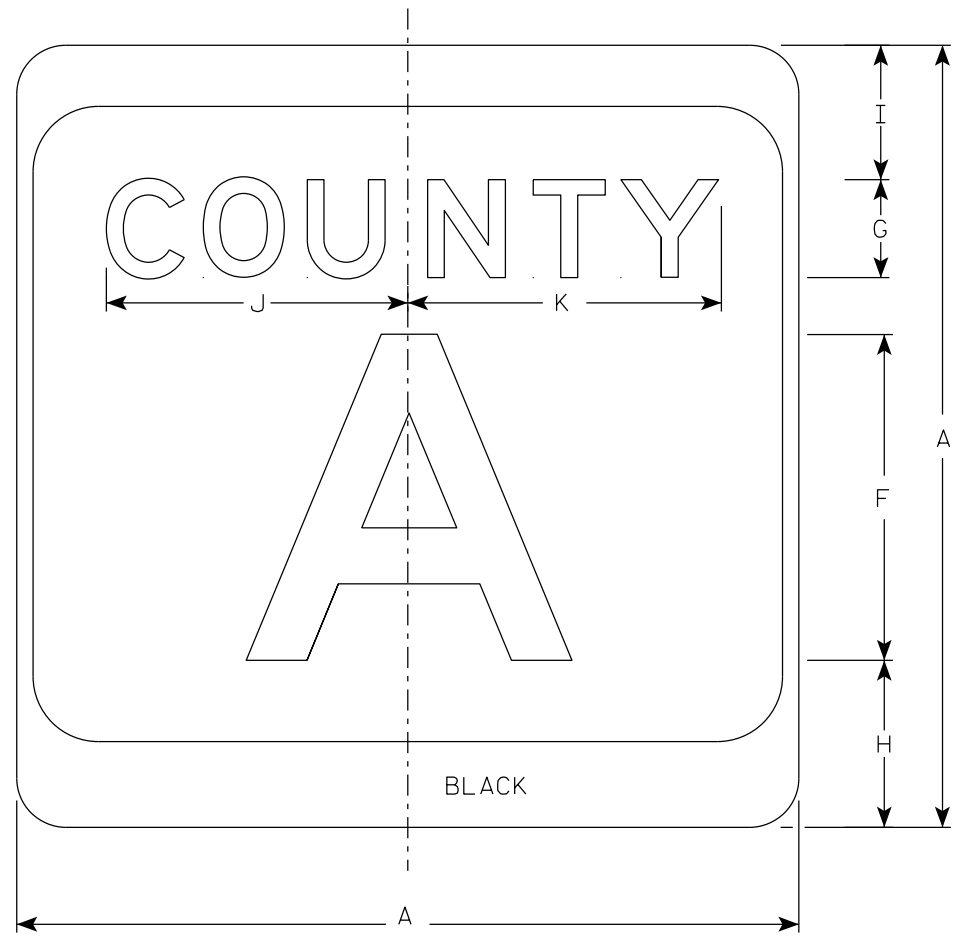
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

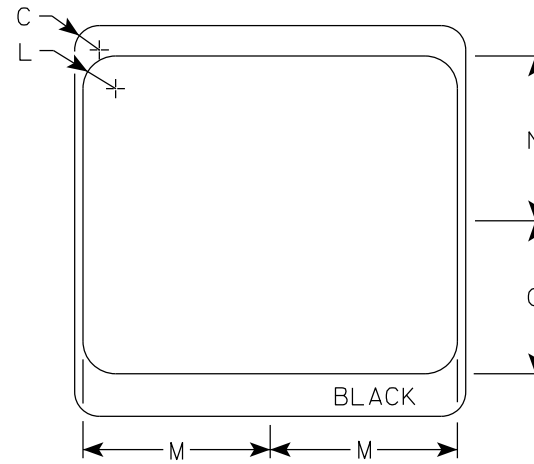
APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

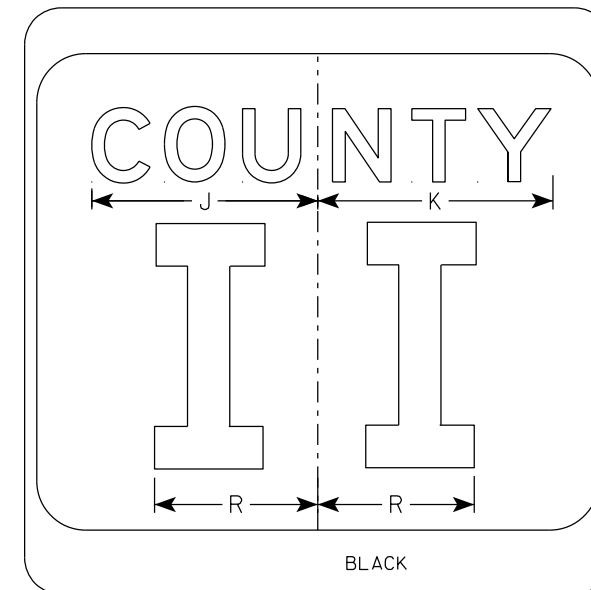
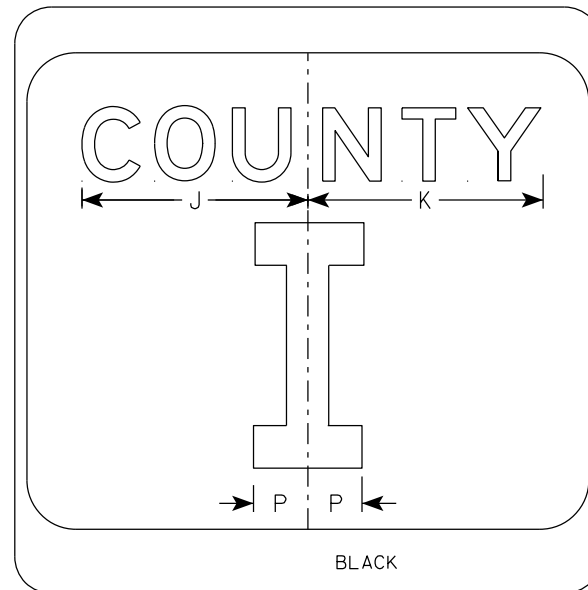


M1-5A



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White & Black
Message - Black
3. Message Series - see Note 4
4. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
5. Substitute appropriate letters & optically center to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
2M	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-5A.9

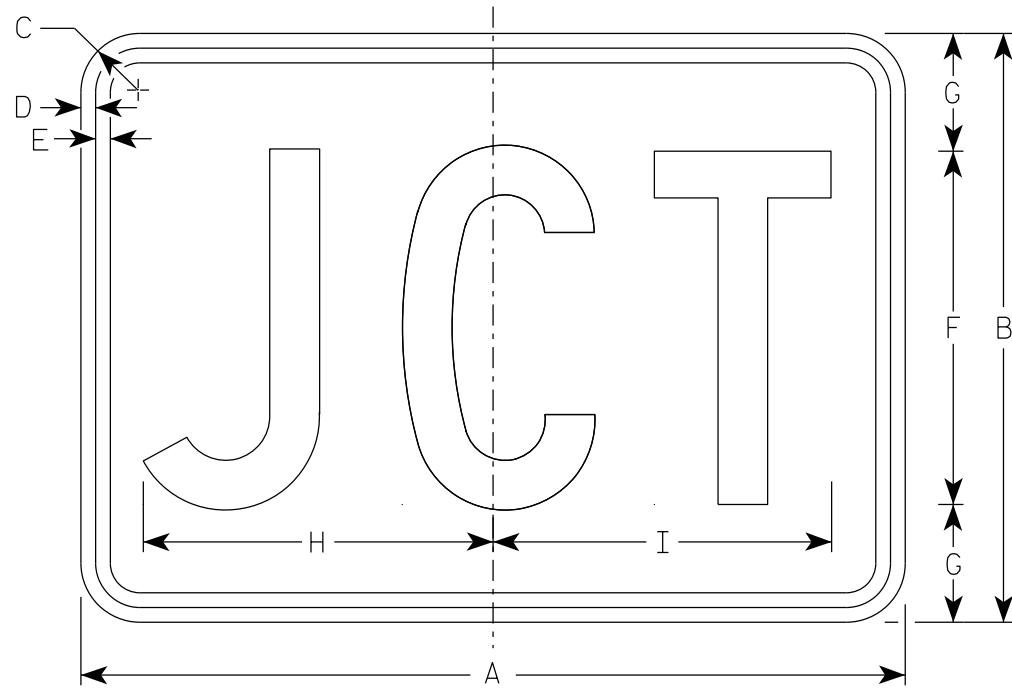
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

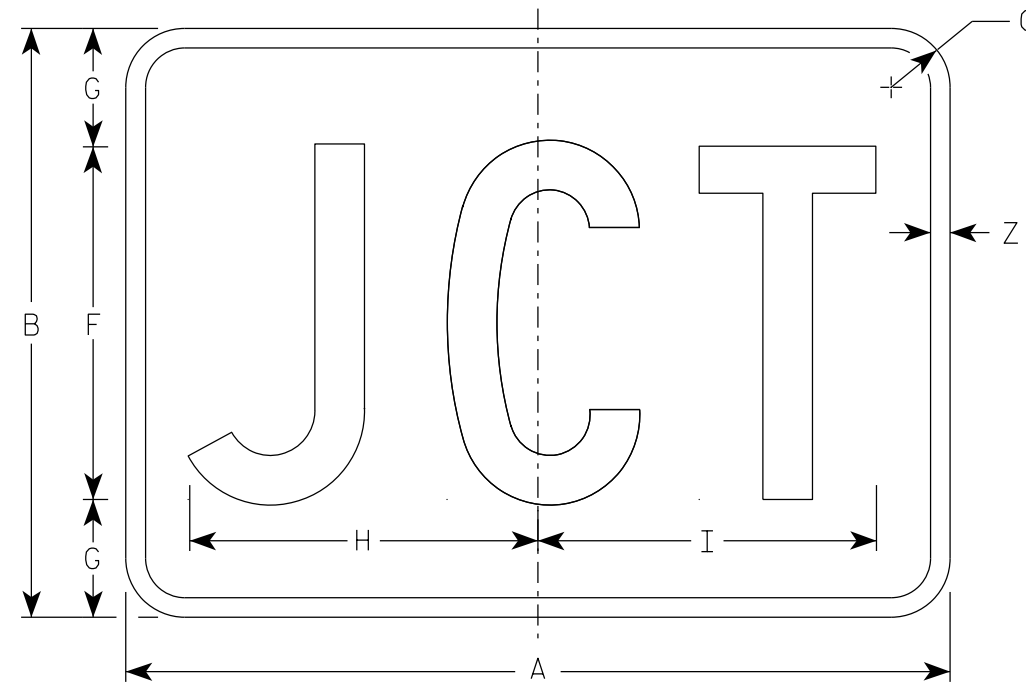
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - See note 5
 - Message - See note 5
3. Message Series - C
4. M2-1 Background - White
Message - Black
- MB2-1 Background - Blue
Message - White
- MK2-1 Background - Green
Message - White
- MM2-1 Background - White
Message - Green
- MN2-1 Background - Brown
Message - White
- MP2-1 Background - White
Message - Blue
- MR2-1 Background - Brown
Message - Yellow



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
2M	21	15	1 1/2	3/8	3/8	9	3	8 7/8	8 5/8																	1/2	2.20
3	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
4	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40
5	30	21	1 1/2	3/8	3/8	13	4	12 7/8	12 3/8																	1/2	4.40

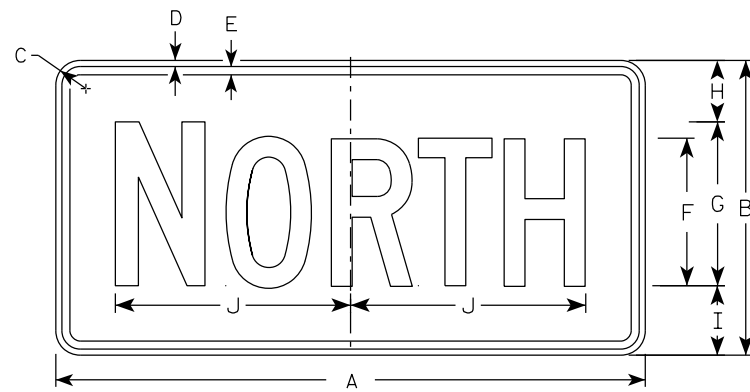
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

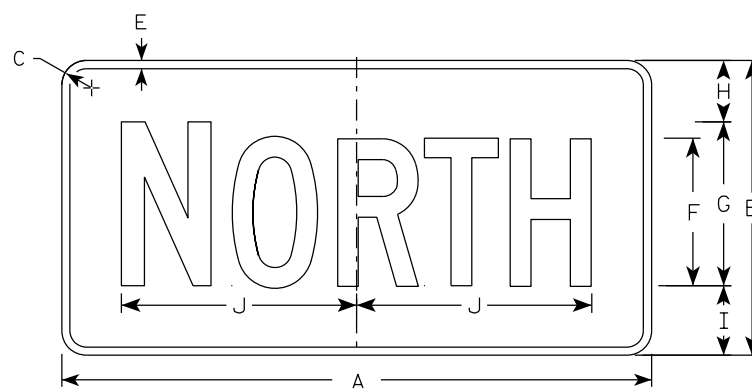
APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 2/8/2023 PLATE NO. M2-1.14

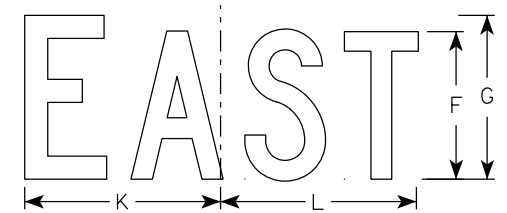
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



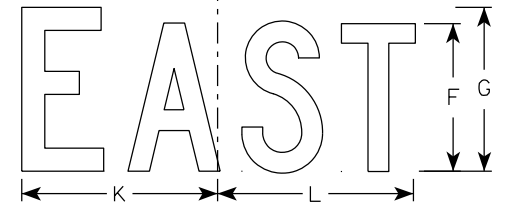
M3-1
MM3-1
MP3-1



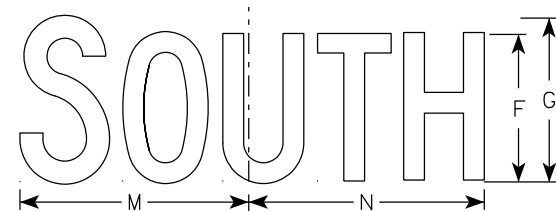
MB3-1
MK3-1
MN3-1



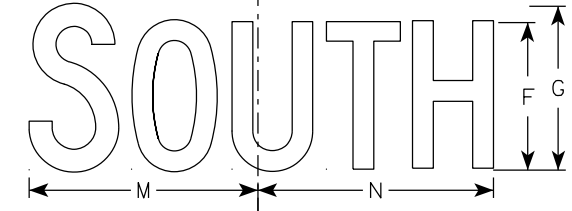
M3-2
MM3-2
MP3-2



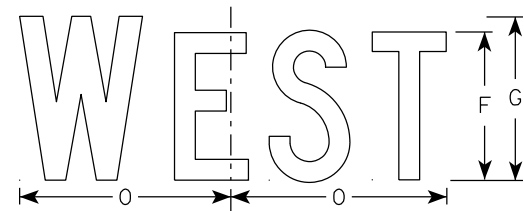
MB3-2
MK3-2
MN3-2



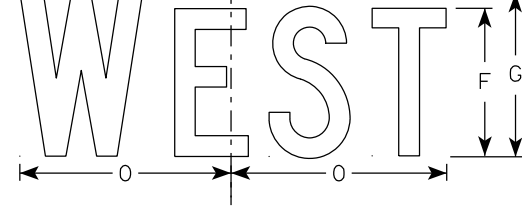
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

7

7

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

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

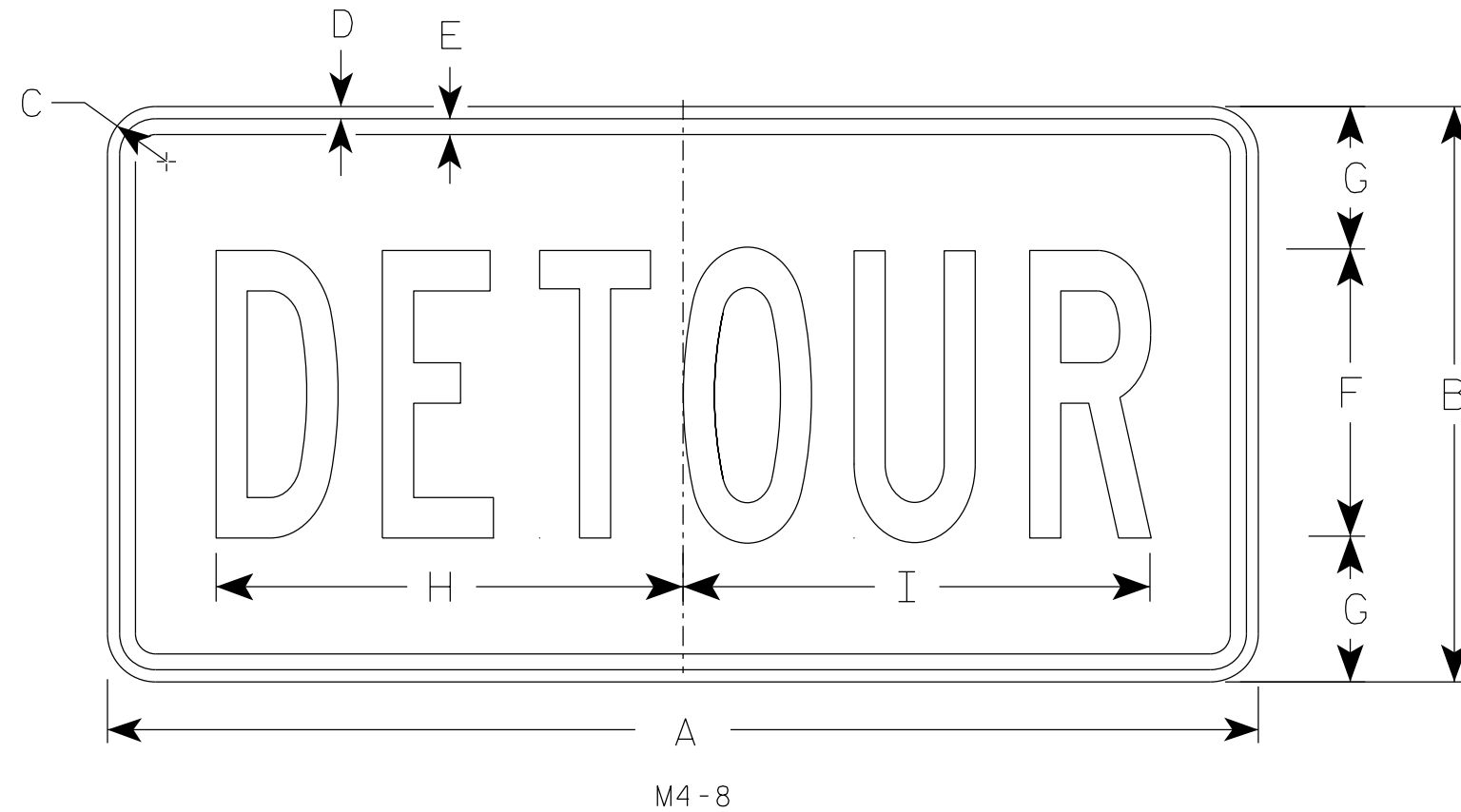
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

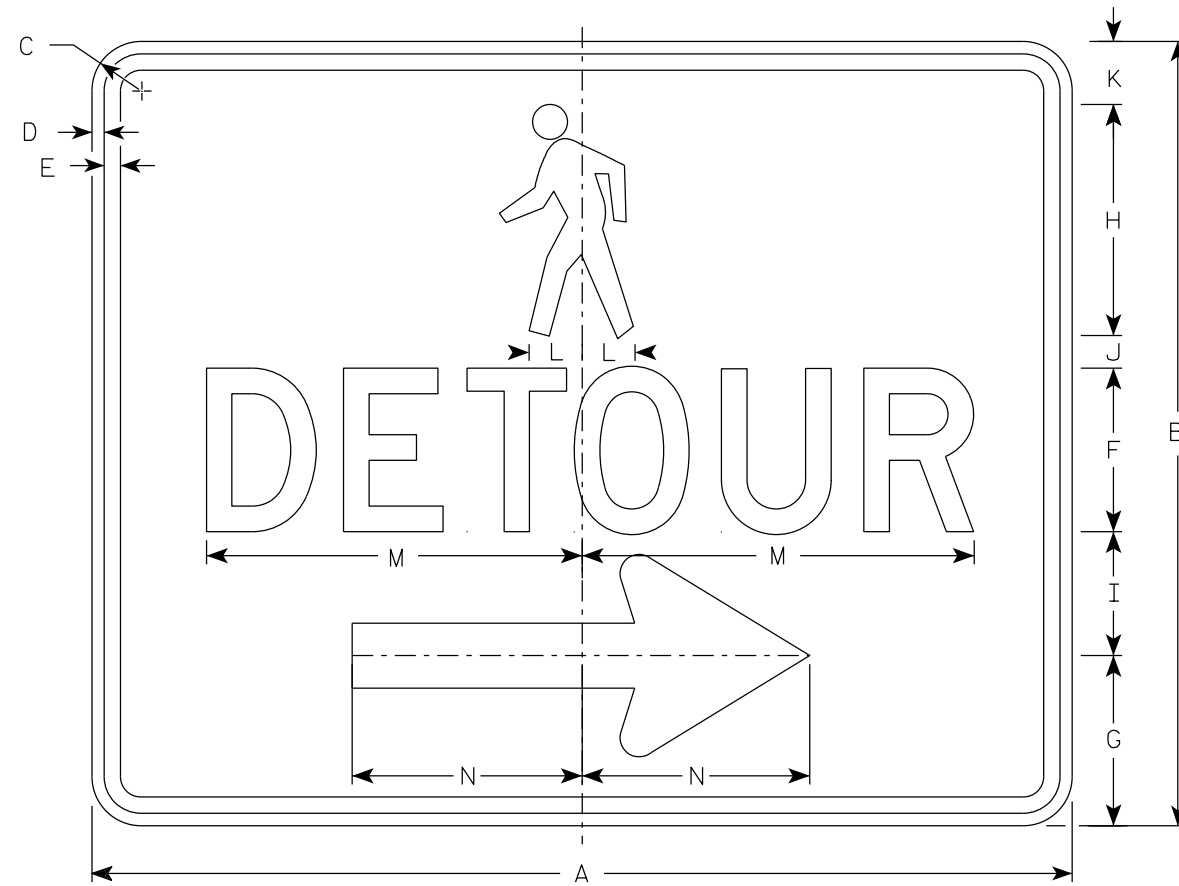
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

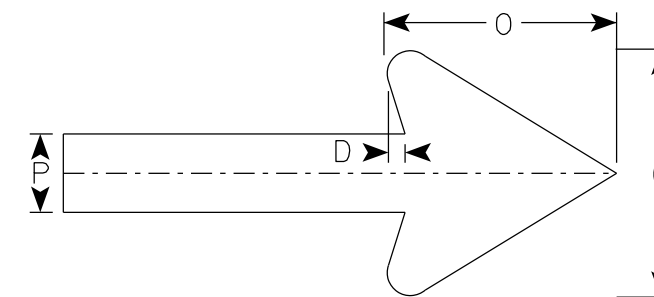
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



M4-9BR



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	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

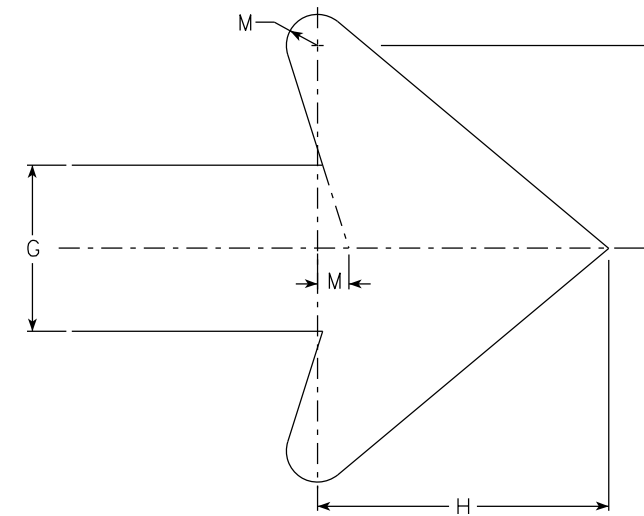
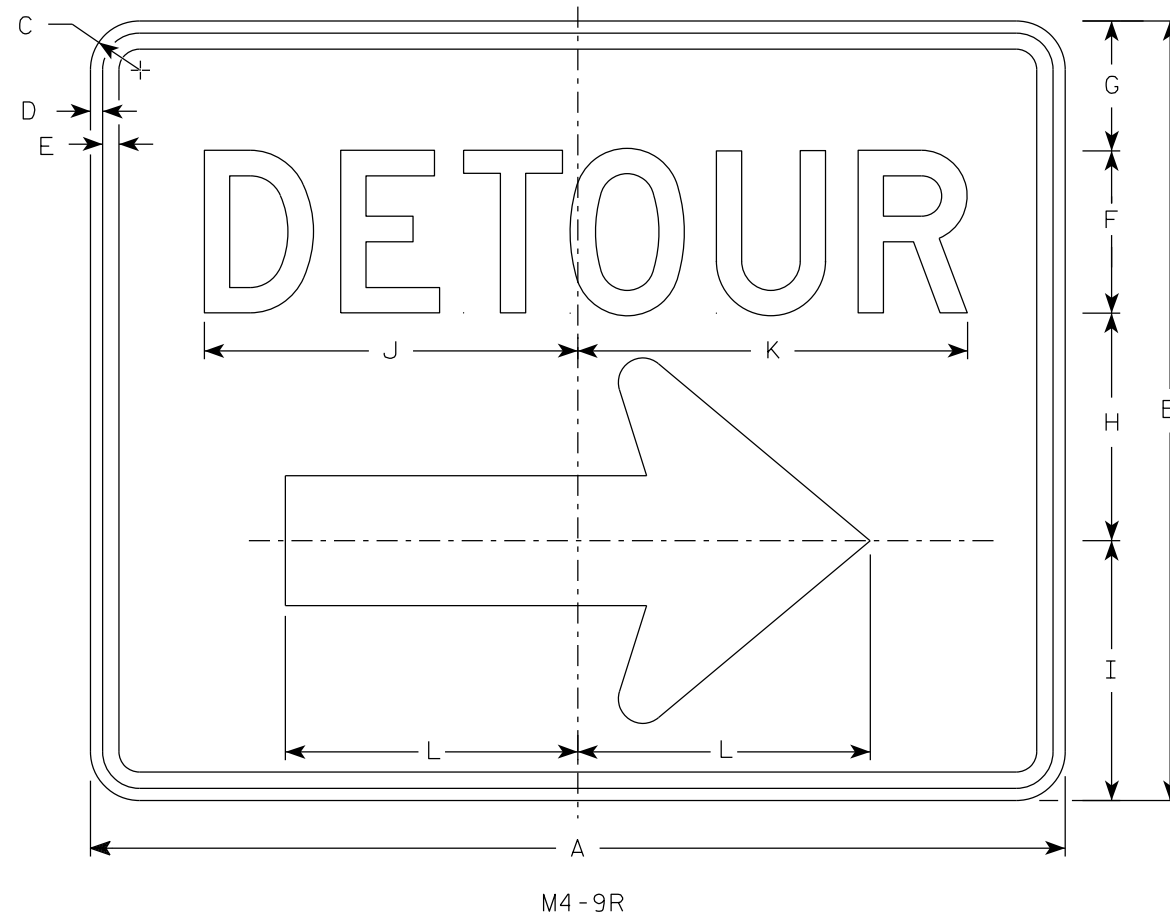
DATE 2/9/2023 PLATE NO. M4-9B.4

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

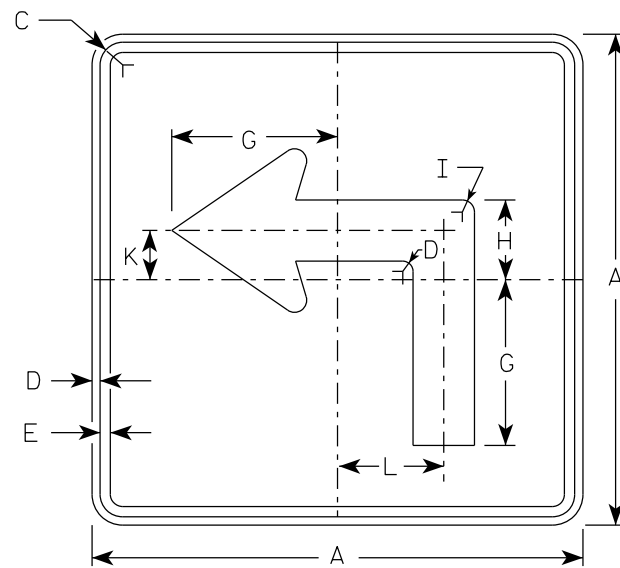
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

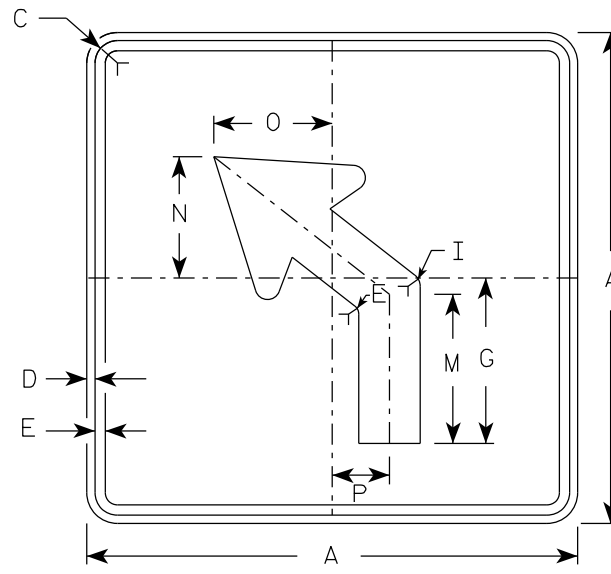
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

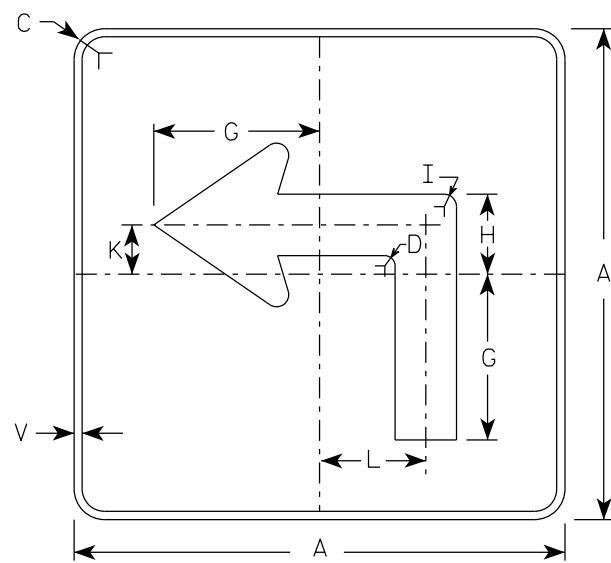
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



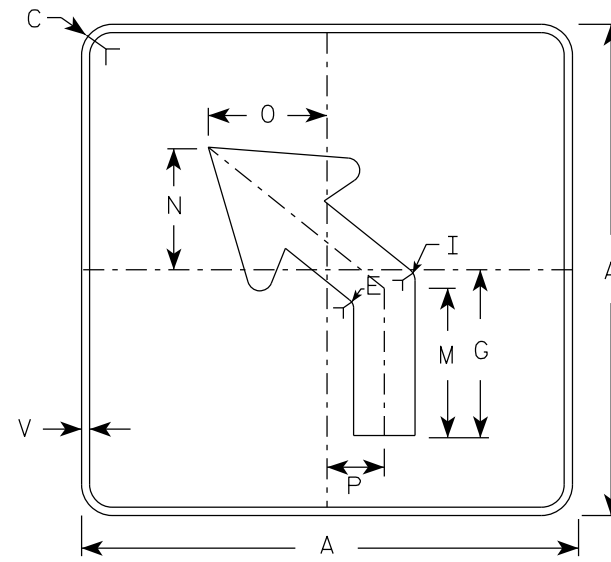
M5-1L
MM5-1L
M05-1L
MP5-1L



M5-2L
MM5-2L
M05-2L
MP5-2L

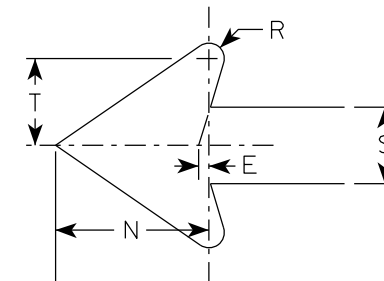


MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L

ARROW DETAIL



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

7

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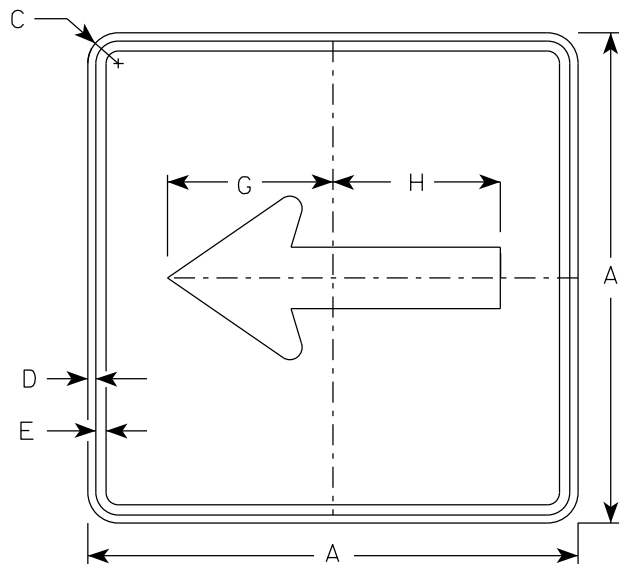
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

STANDARD SIGN
M5-1 & M5-2

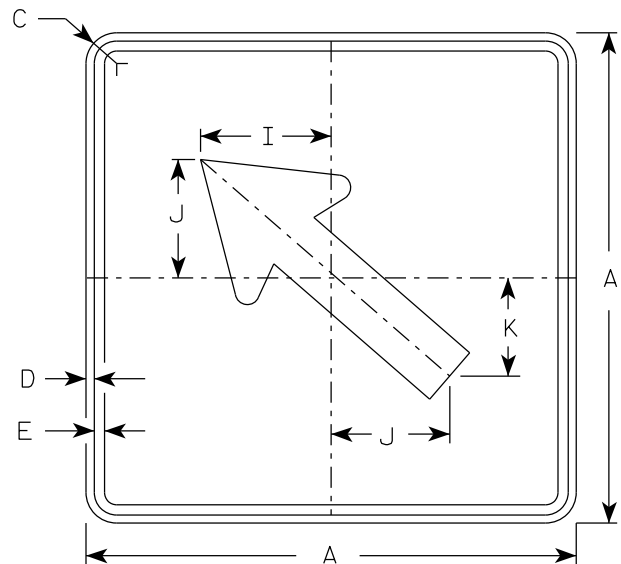
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

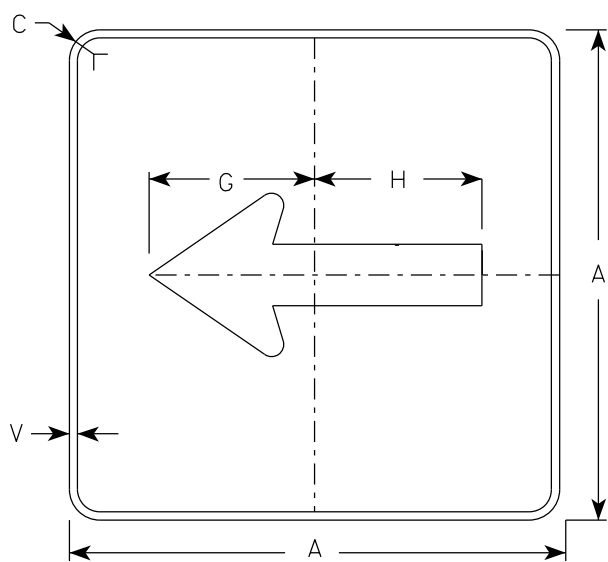
DATE 2/13/2023 PLATE NO. M5-1.15



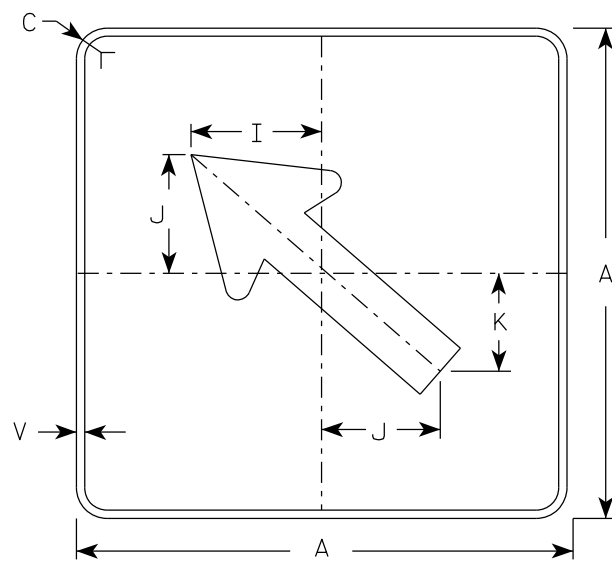
M6-1
MM6-1
M06-1
MP6-1



M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

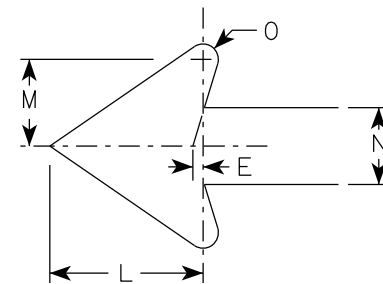


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
 - Background - See note 4
 - Message - See note 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.
- M6-1 and M6-2 Background - White
Message - Black
 MB6-1 and MB6-2 Background - Blue
Message - White
 MK6-1 and MK6-2 Background - Green
Message - White
 MM6-1 and MM6-2 Background - White
Message - Green
 MN6-1 and MN6-2 Background - Brown
Message - White
 M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
 MP6-1 and MP6-2 Background - White
Message - Blue
 MR6-1 and MR6-2 Background - Brown
Message - Yellow

ARROW DETAIL



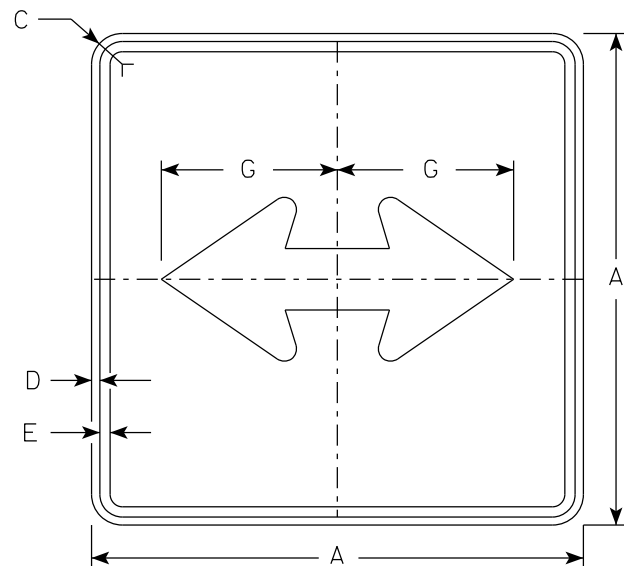
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

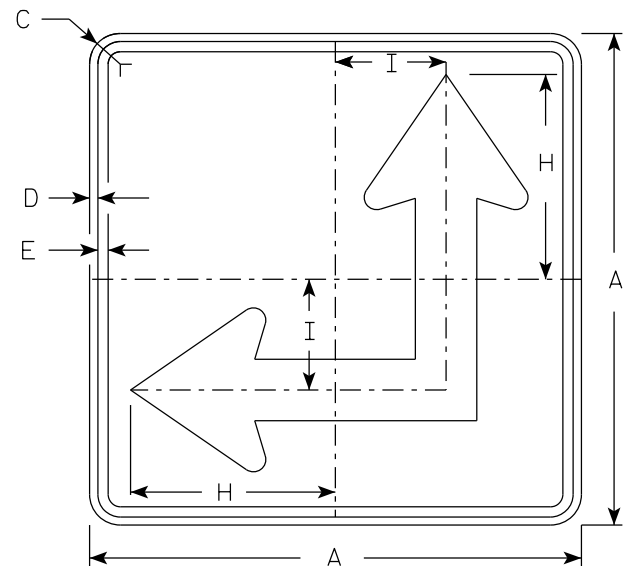
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

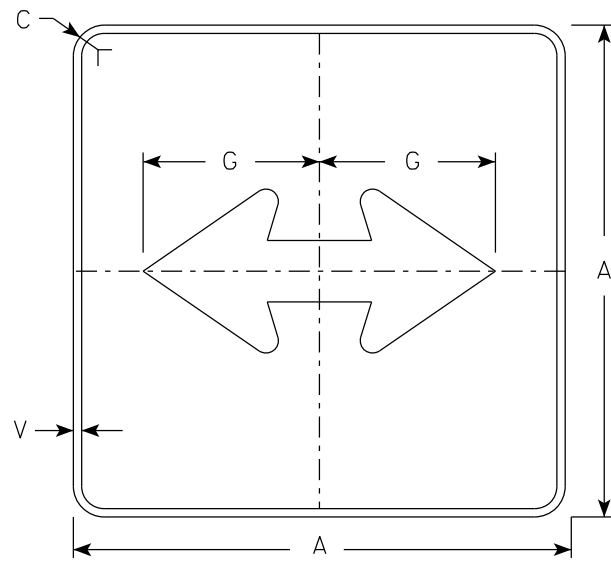
DATE 2/13/2023 PLATE NO. M6-1.16



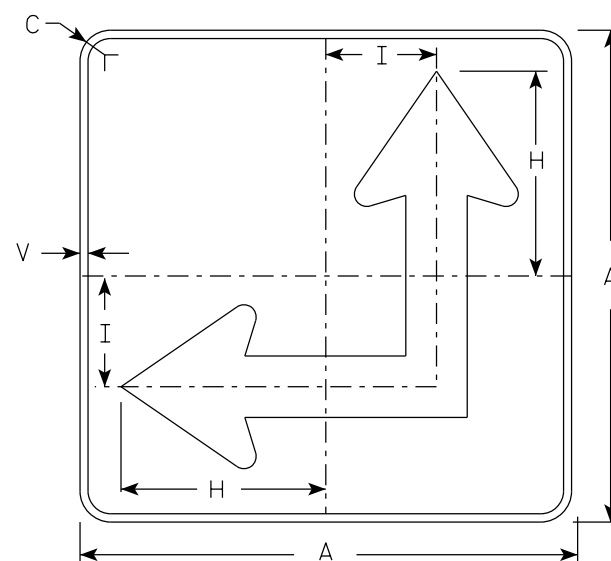
M6-4
MM6-4
M06-4
MP6-4



M6-6
MM6-6
M06-6
MP6-6



MB6-4
MK6-4
MN6-4
MR6-4

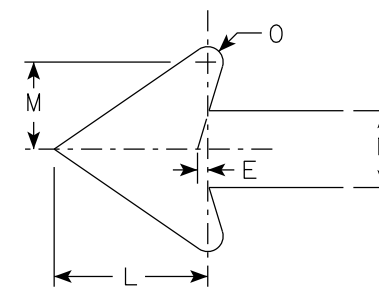


MB6-6
MK6-6
MN6-6
MR6-6

NOTES

- Signs are Type II - Type H Reflective except as Shown
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

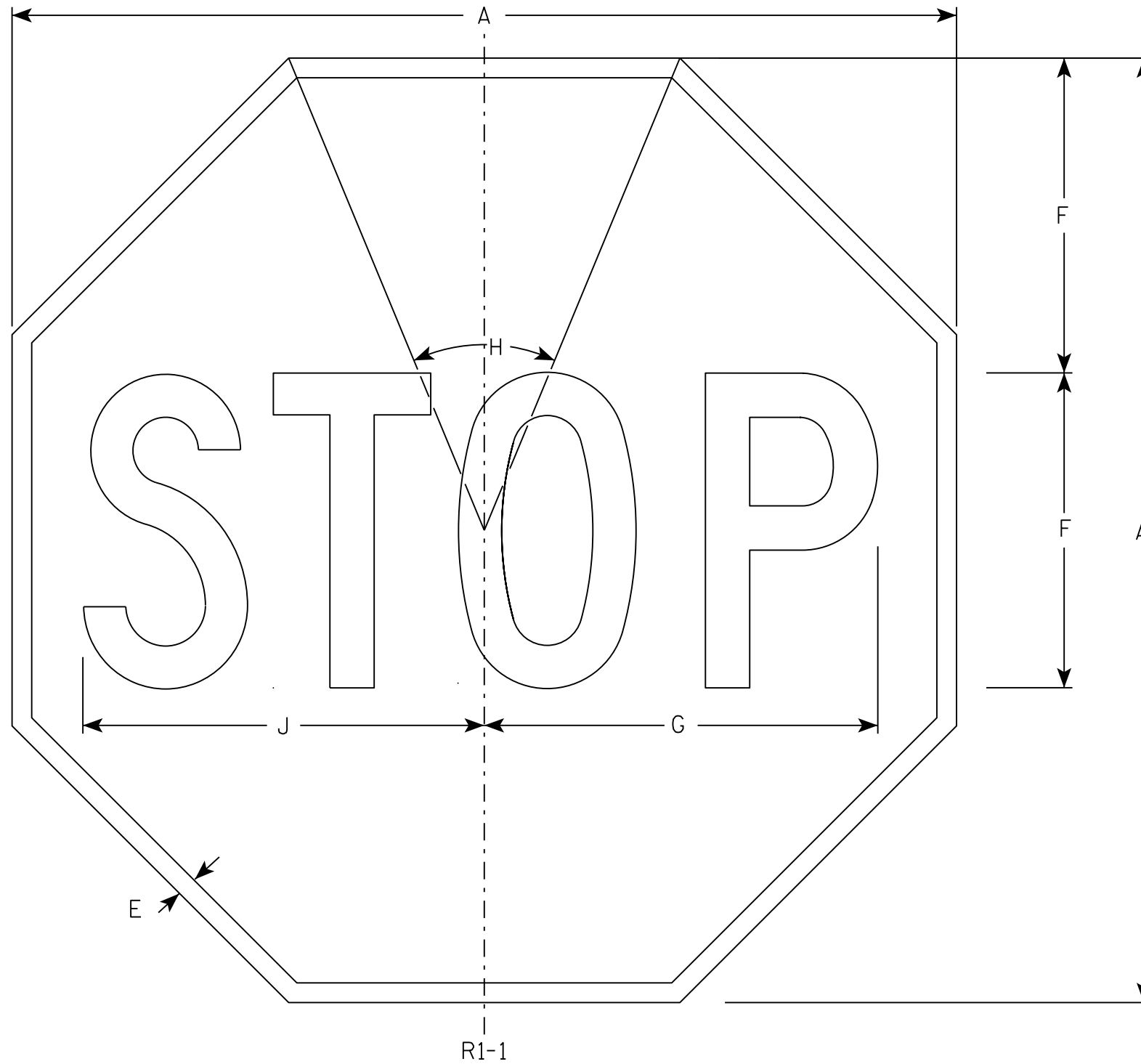
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-4.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



7

7

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

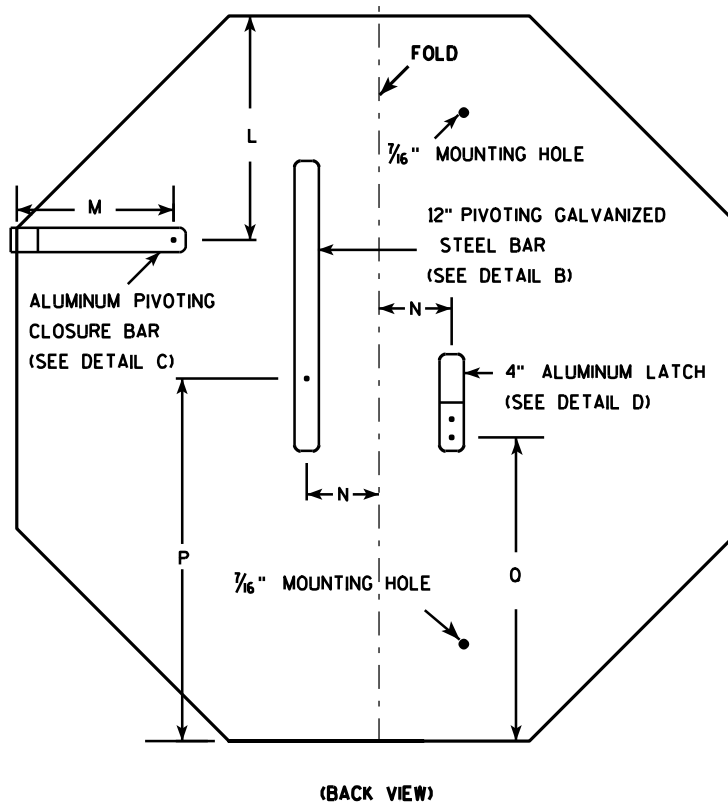
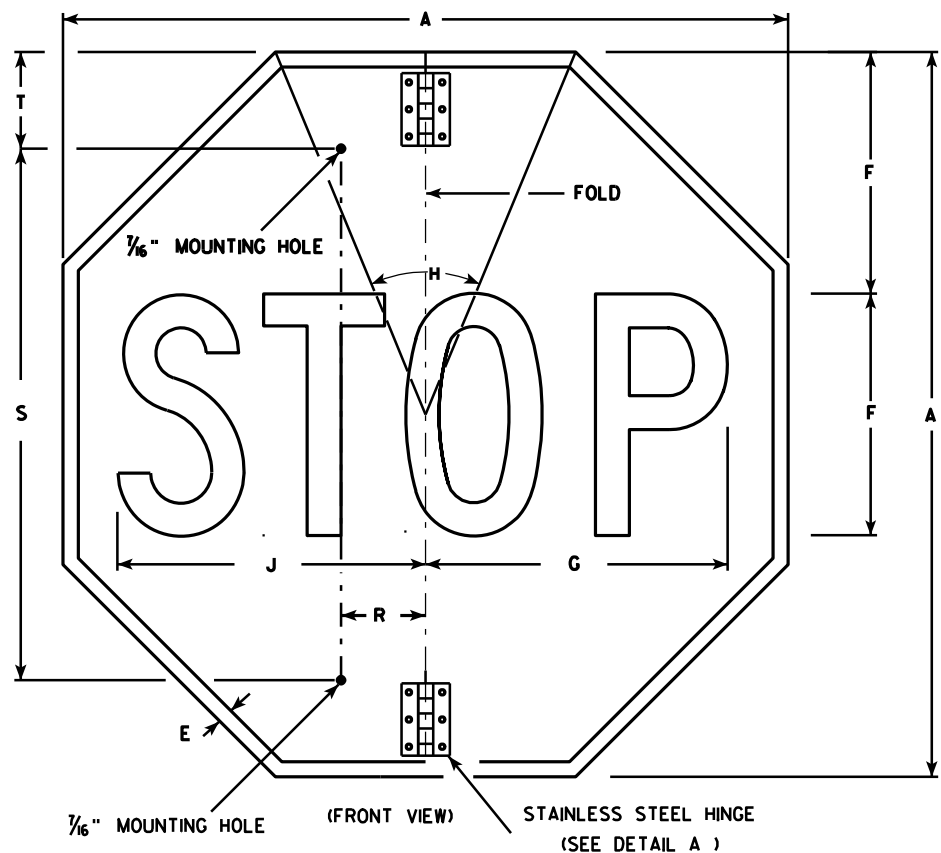
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

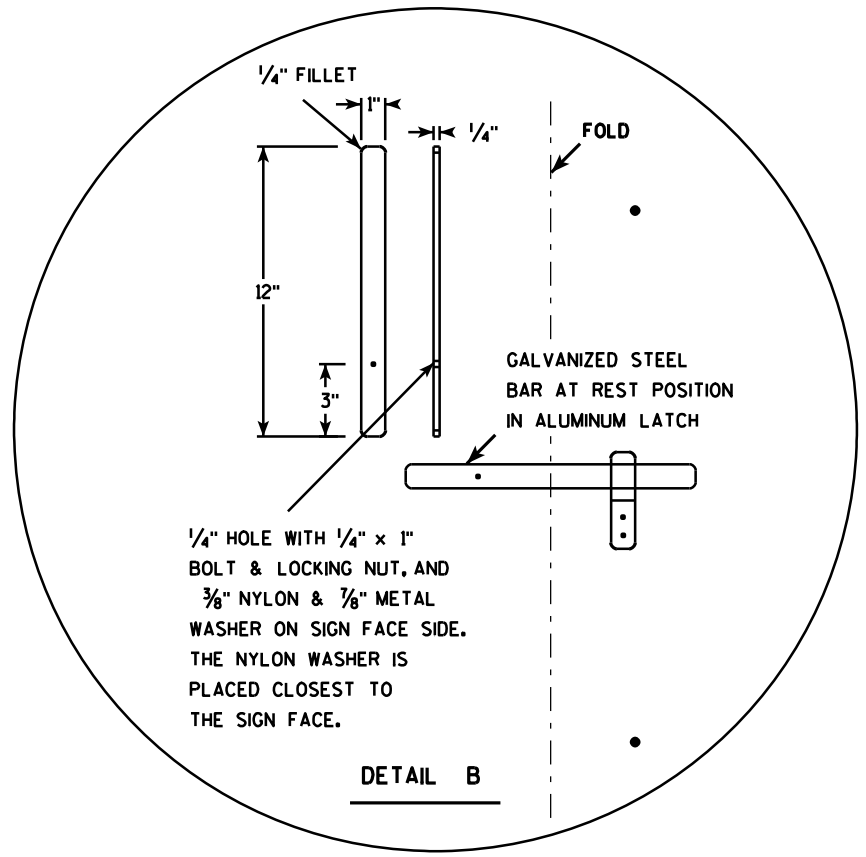
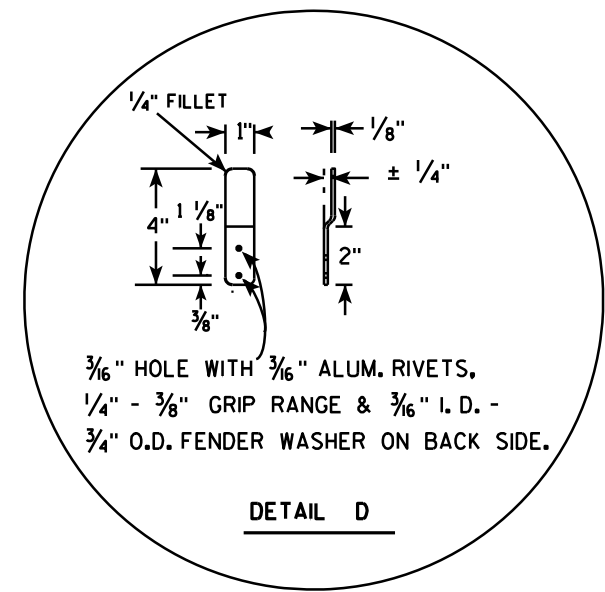
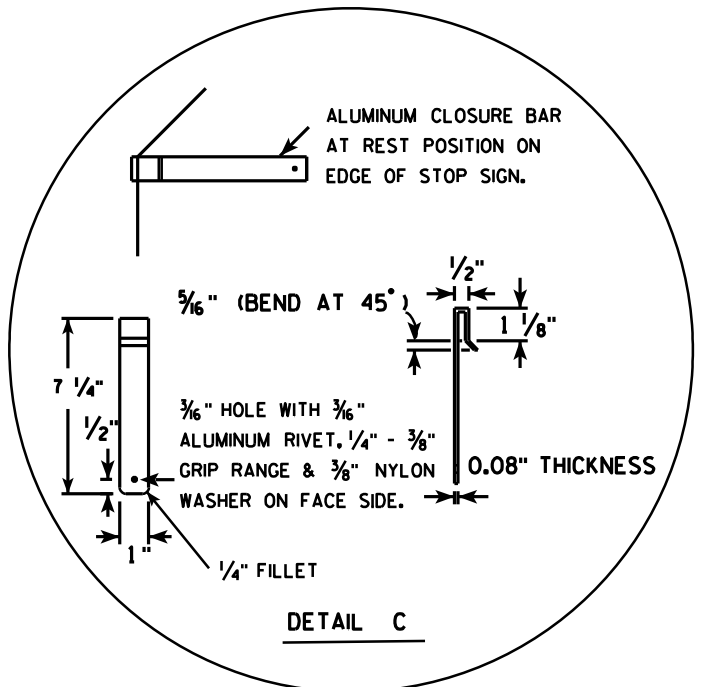
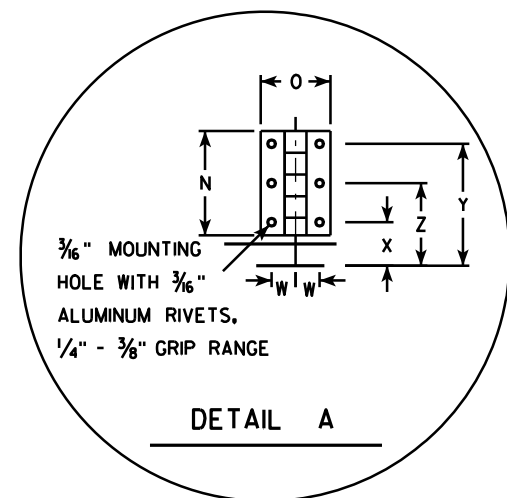
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



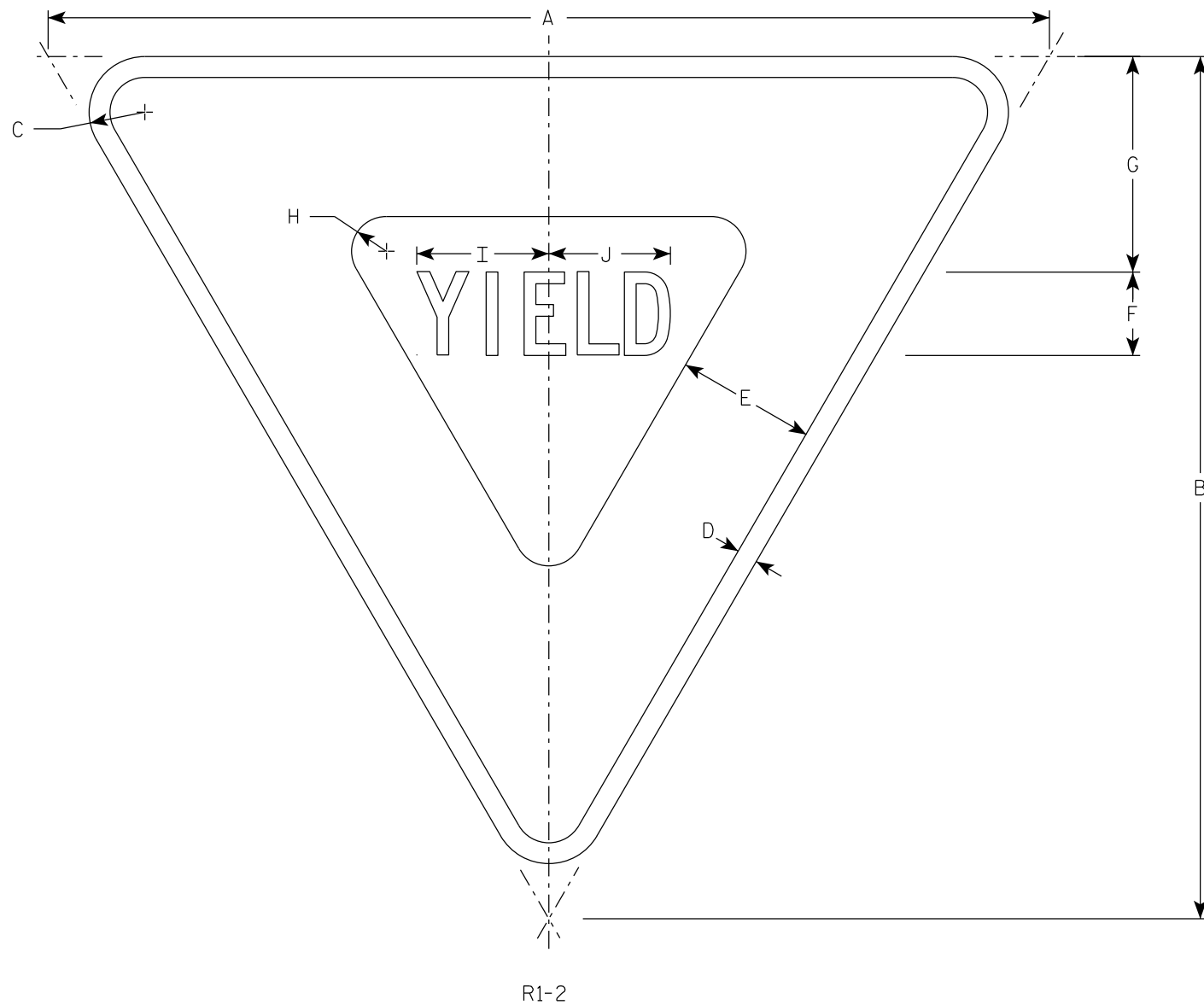
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			1 1/8	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			1 1/8	1 1/4	3 1/2	2 3/8	7.46
3	36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

STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 4
3. Message Series - C
4. The border strip and word message are reflectorized red.

7

7

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

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

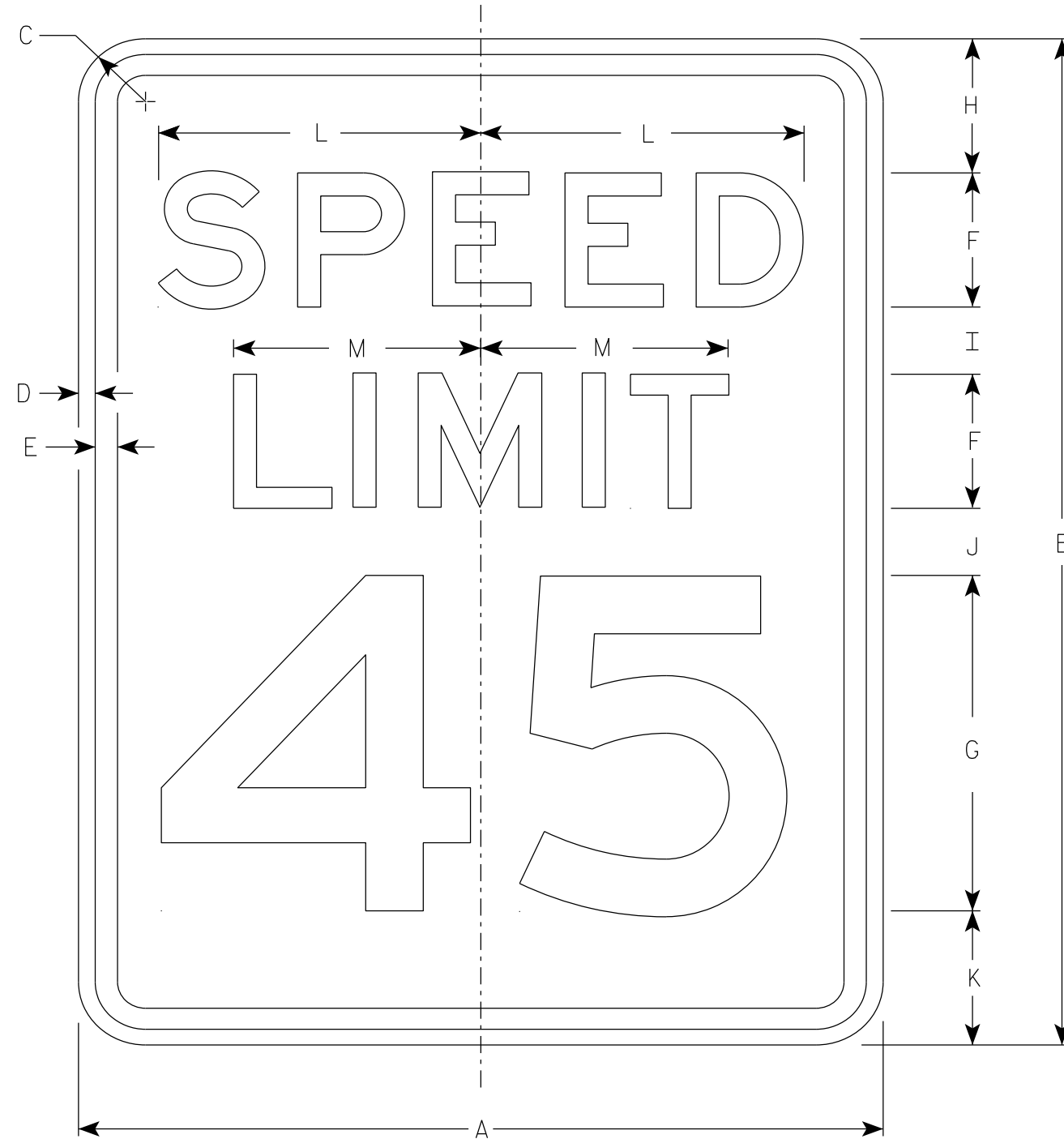
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/10/2024 PLATE NO. R1-2.13

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.



R2-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

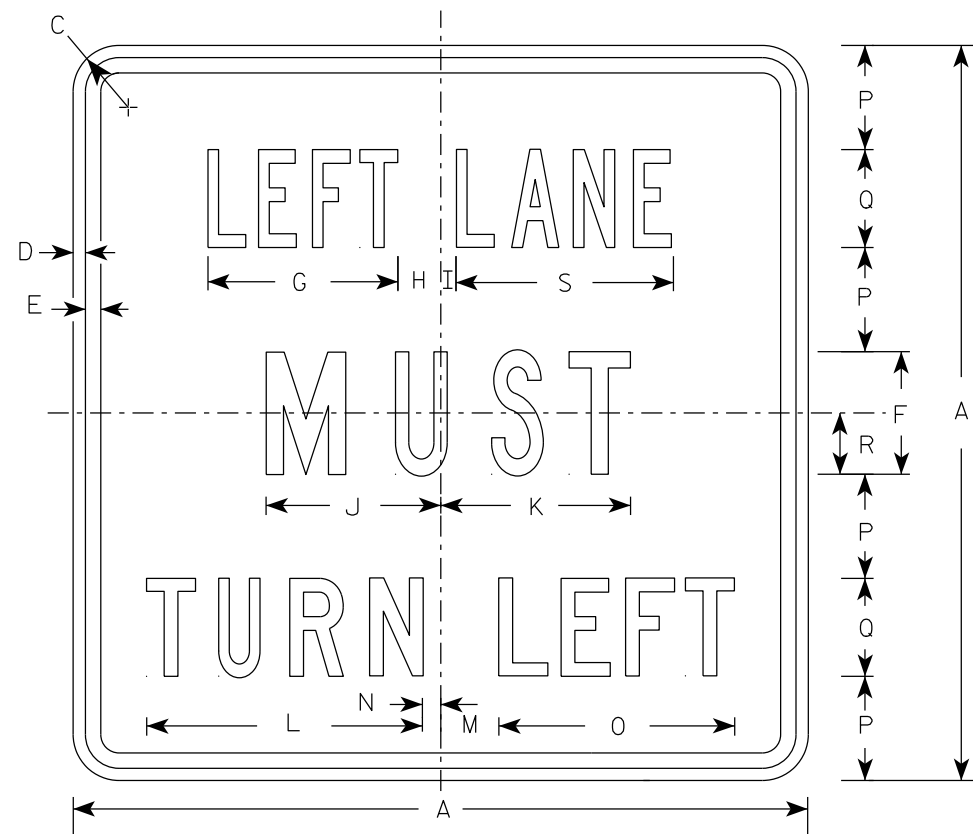
APPROVED *Matthew R Rauch*
State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

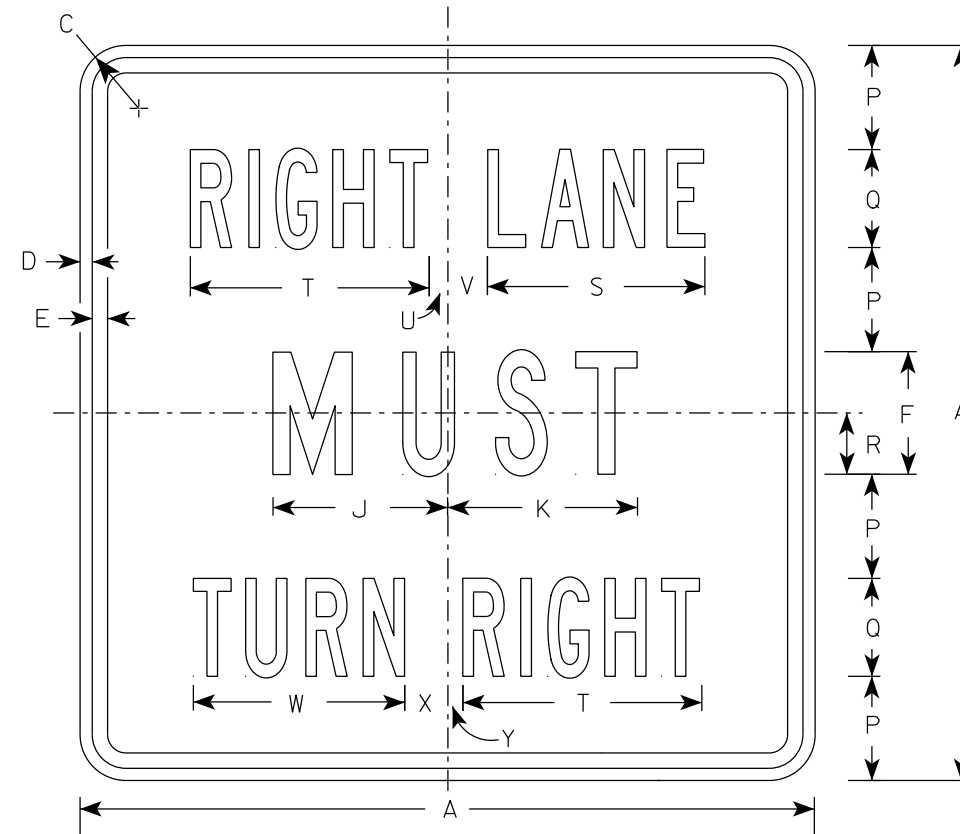
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B.
Line 2 is Series C.
Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.



R3-7L



R3-7R

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		2 1/4	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-7.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

- | | |
|-------------|----------------------------|
| 1 Letter = | 3.75 sq ft for Size 2 |
| | 6.0 sq ft for Size 3 |
| | 10.0 sq ft for Size 4 or 5 |
| 2 Letters = | 7.5 sq ft for Size 2 |
| | 12.0 sq ft for Size 3 |
| | 20.0 sq ft for Size 4 or 5 |
| 3 Letters = | 11.25 sq ft for Size 2 |
| | 18.0 sq ft for Size 3 |
| | 30.0 sq ft for Size 4 or 5 |
| 4 Letters = | 15.0 sq ft for Size 2 |
| | 24.0 sq ft for Size 3 |
| | 40.0 sq ft for Size 4 or 5 |
| 5 Letters = | 18.75 sq ft for Size 2 |
| | 30.0 sq ft for Size 3 |
| | 50.0 sq ft for Size 4 or 5 |
| 6 Letters = | 22.5 sq ft for Size 2 |
| | 36.0 sq ft for Size 3 |
| | 60.0 sq ft for Size 4 or 5 |

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq. Ft. changes.

Add the amounts when these letters are used:

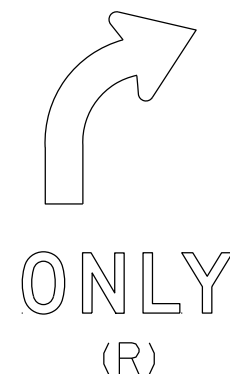
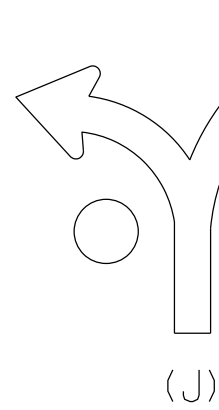
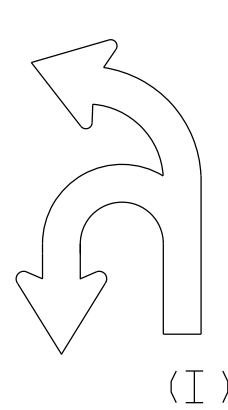
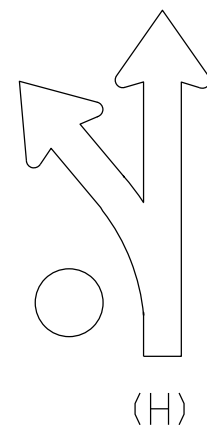
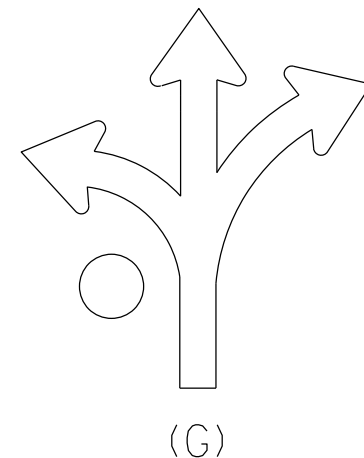
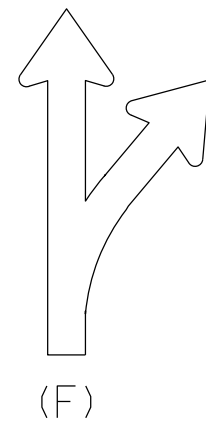
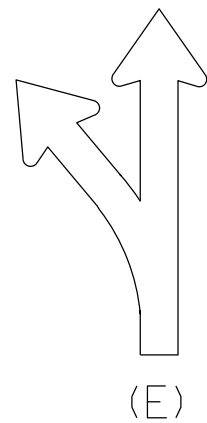
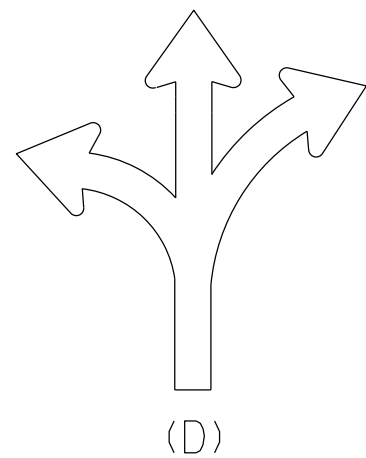
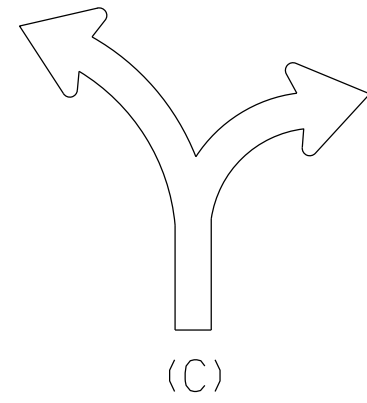
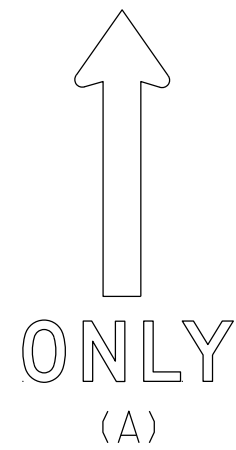
- 1.25 sq ft for Size 2
- 1.5 sq ft for Size 3
- 2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Raub*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

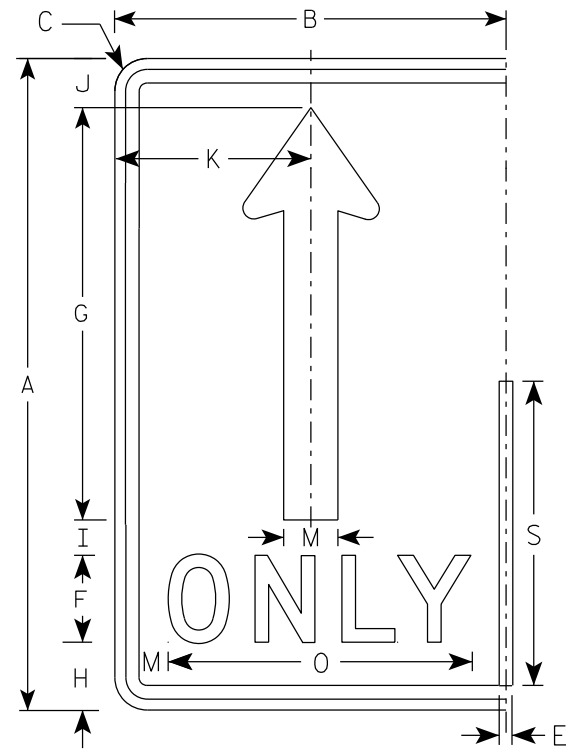


7

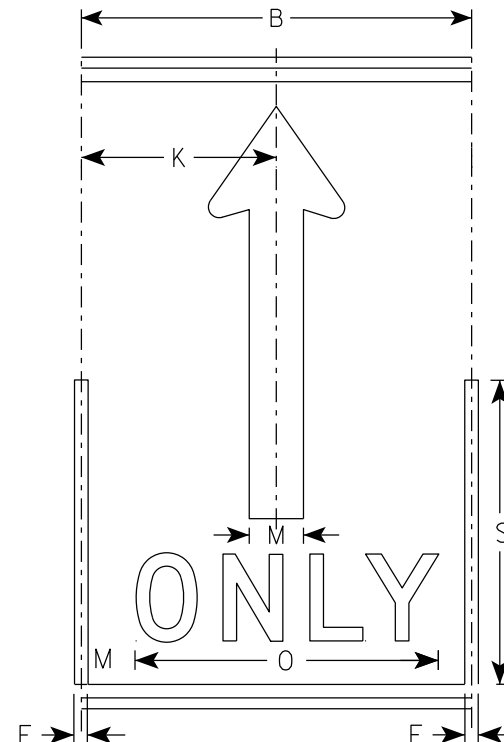
7

NOTES

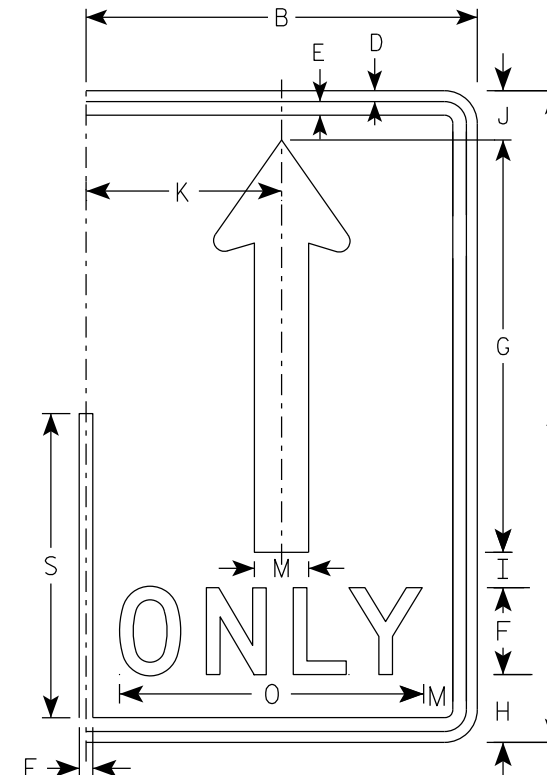
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D



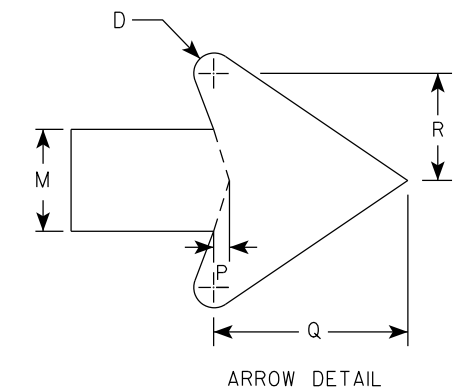
(A)



(A)



(A)



ARROW DETAIL

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

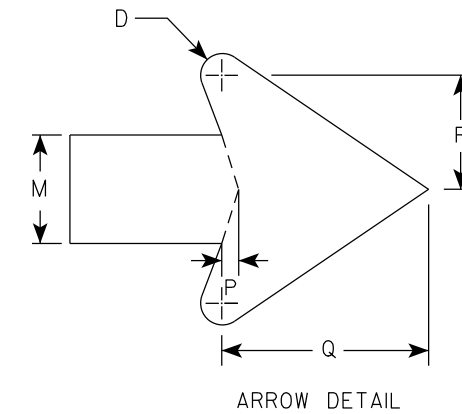
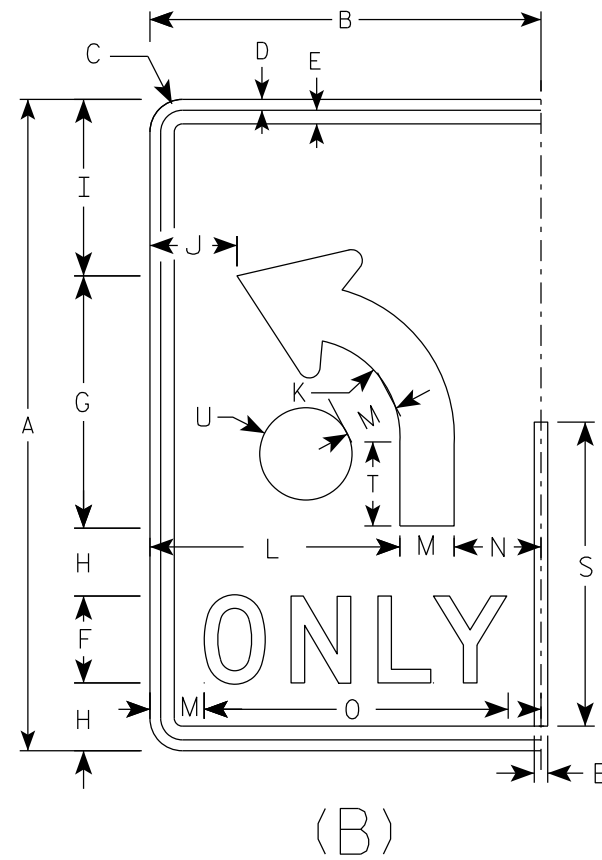
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN
R3-8 (B) Arrow

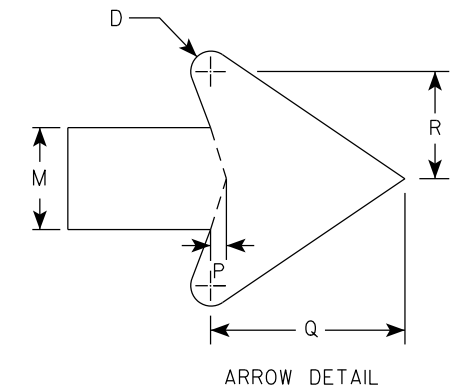
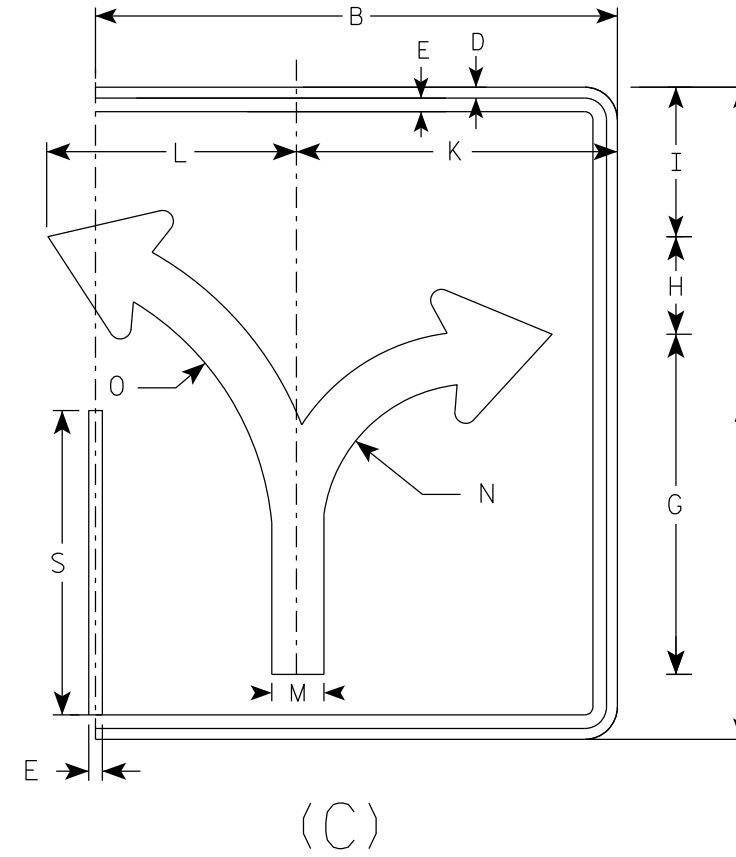
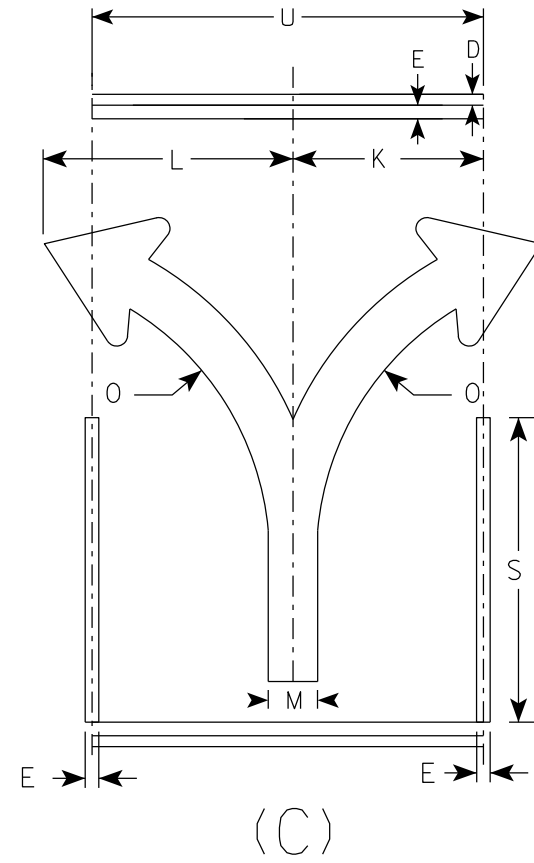
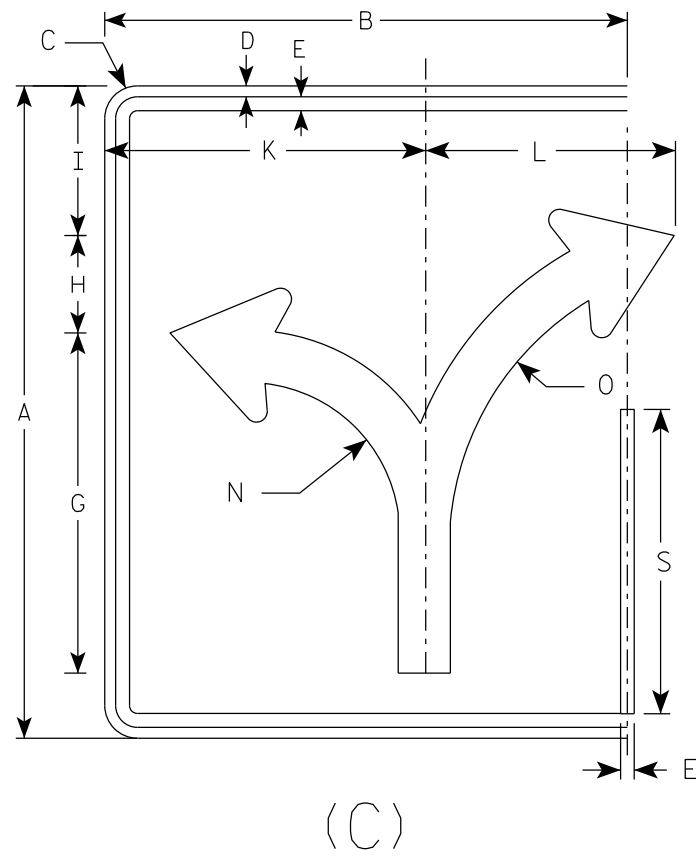
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS	MIDDLE
																											Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18					5.0	3.75	
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24					7.5	6.0	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30					12.0	10.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30					12.0	10.0	

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

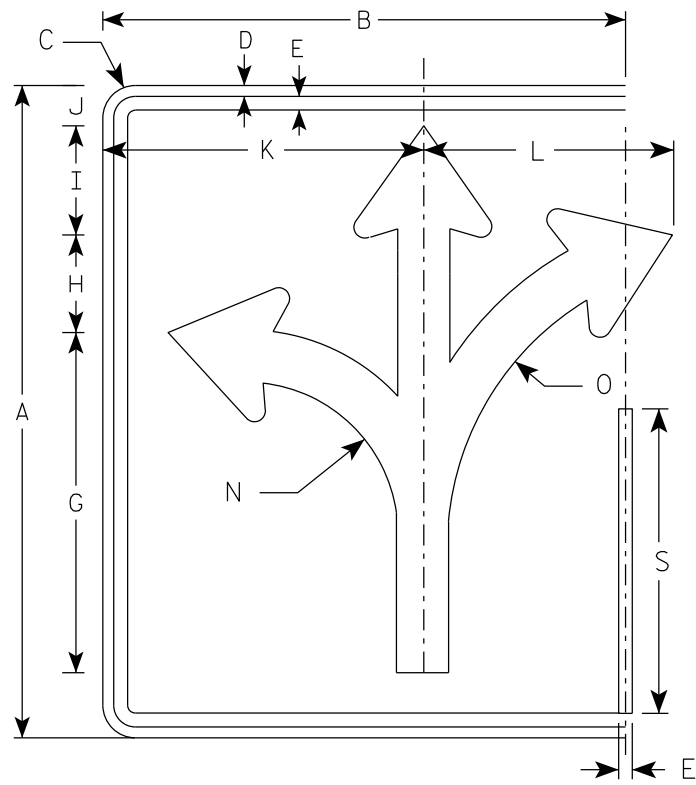
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

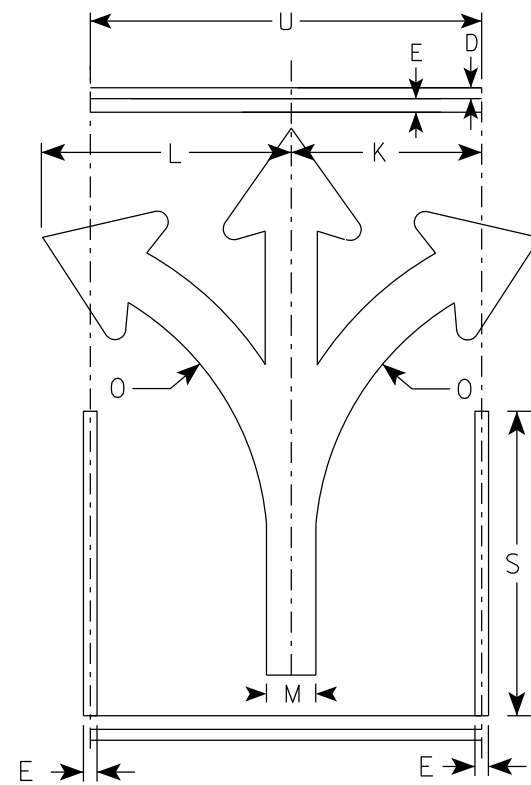
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

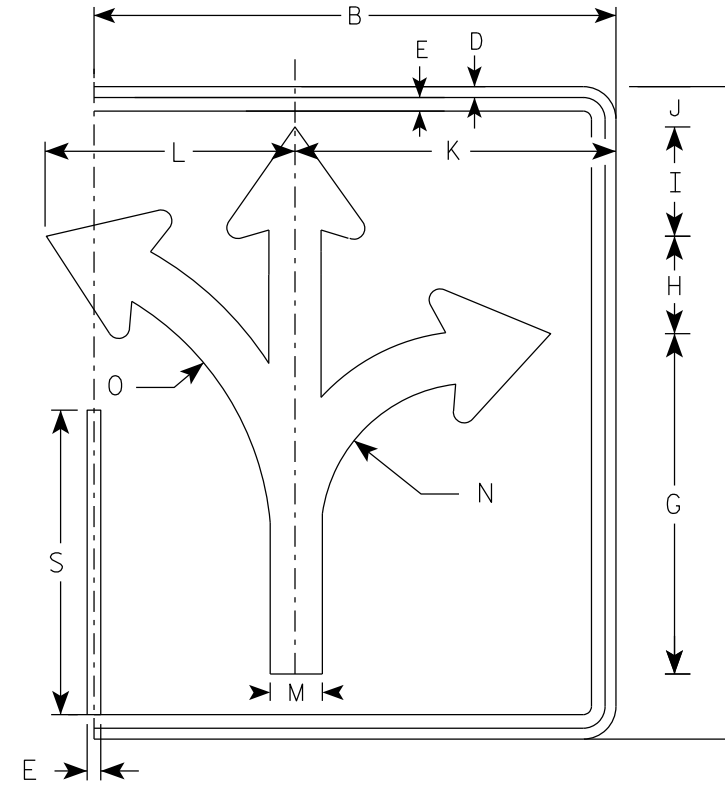
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



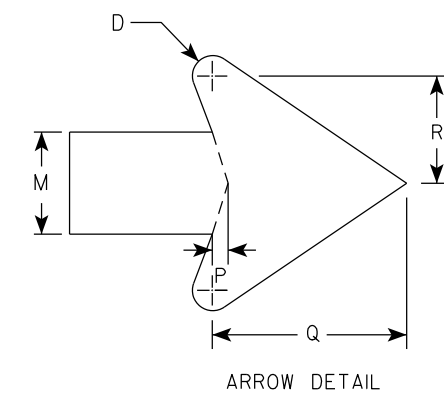
(D)



(D)



(D)



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

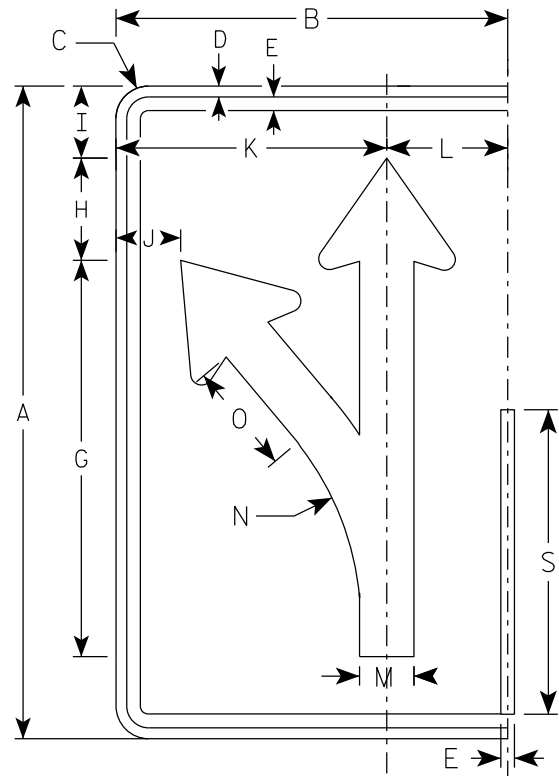
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

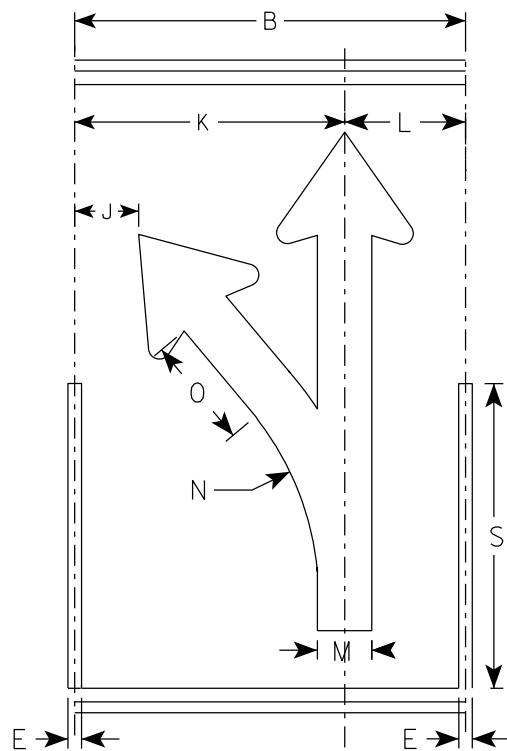
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

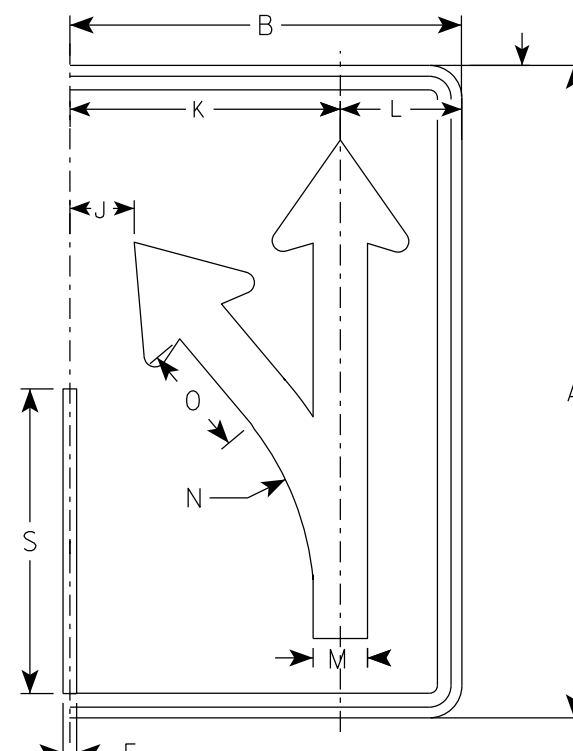
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



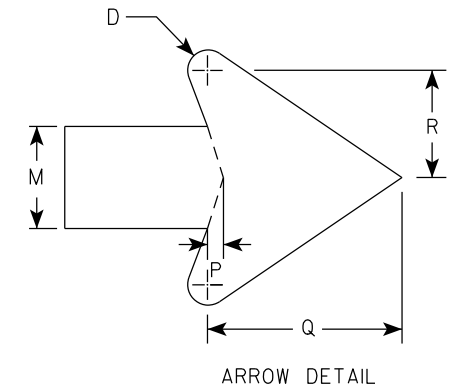
(E)



(E)



(E)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

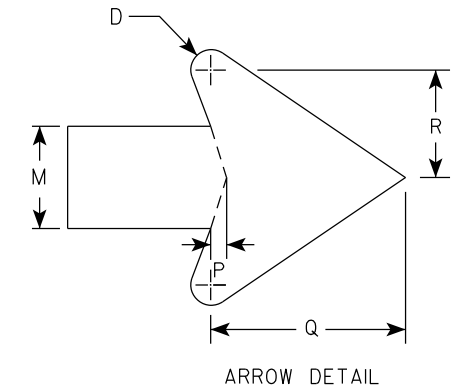
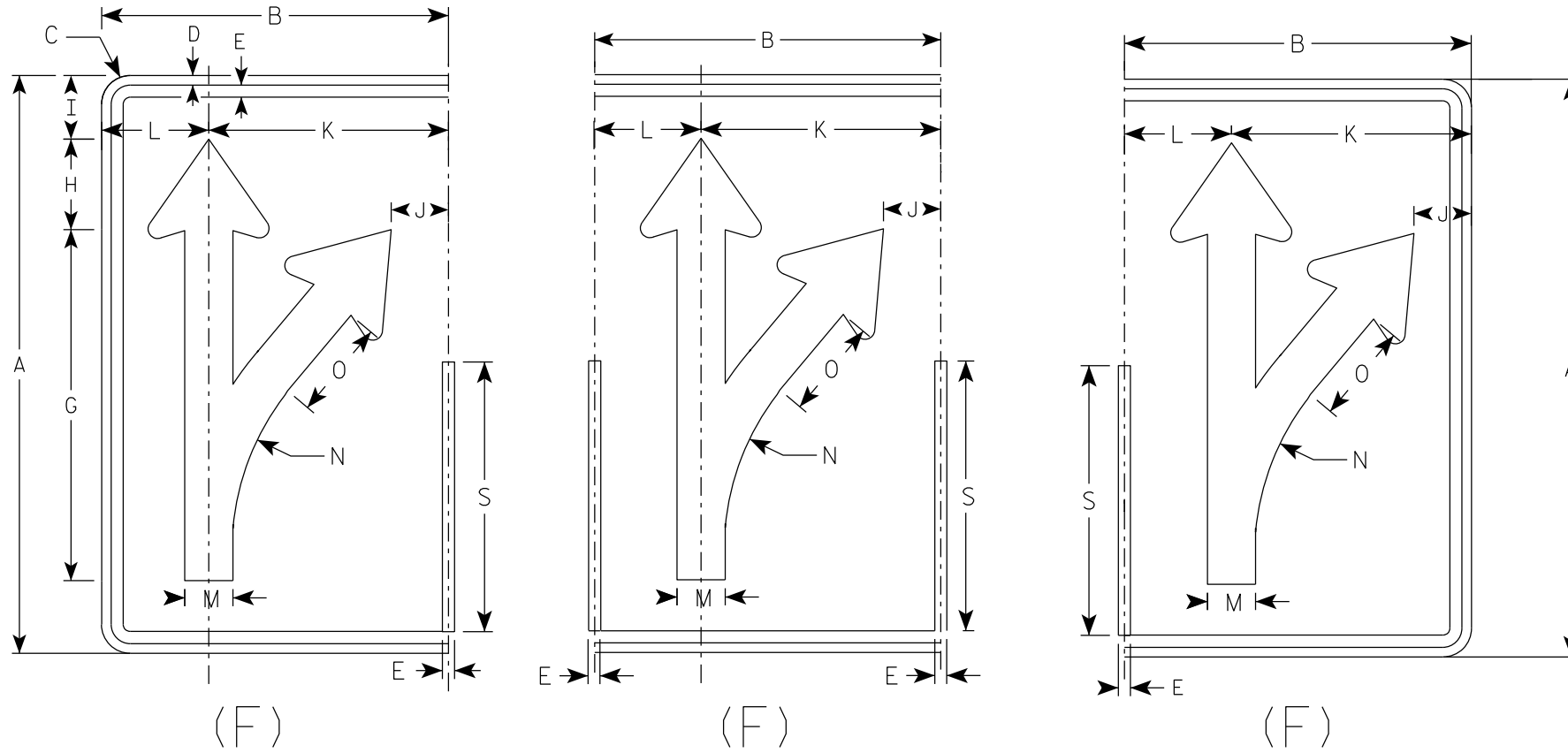
DATE 2/14/23 PLATE NO. R3-8.2

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

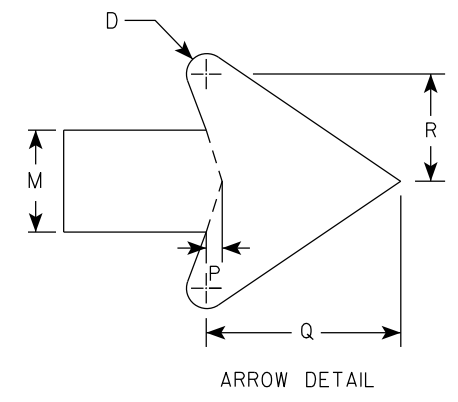
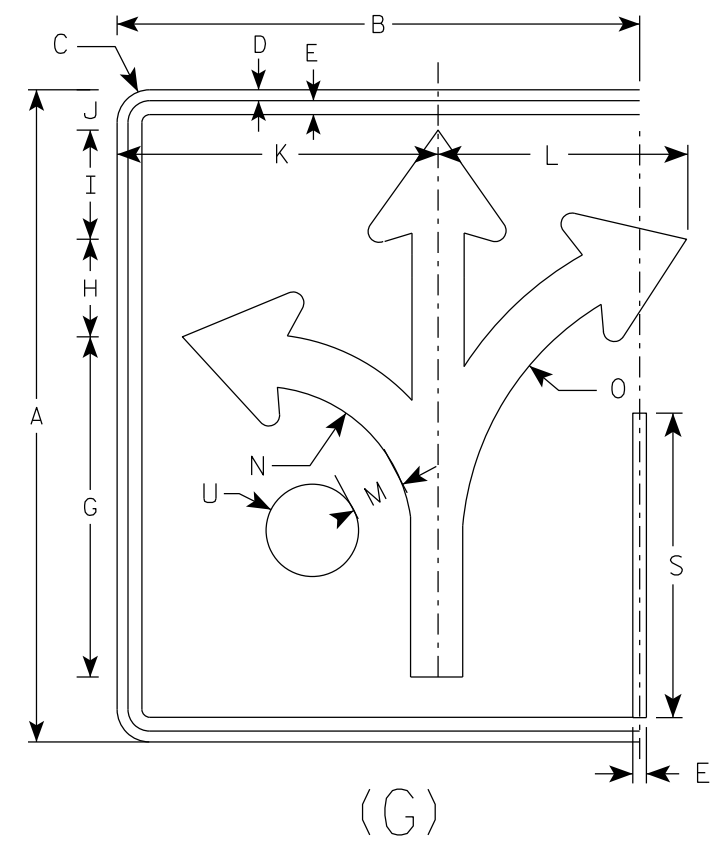
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



(G)

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2					7.5	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8					12.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8					12.0	

STANDARD SIGN
R3-8 (G) Arrow

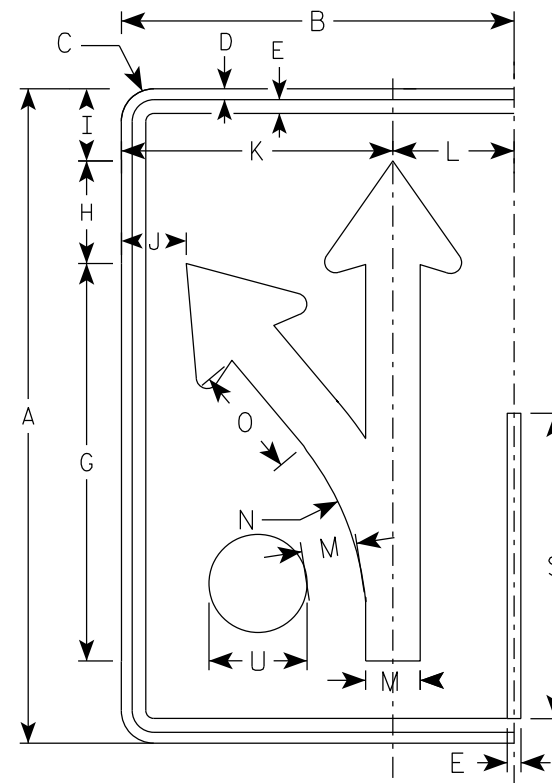
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

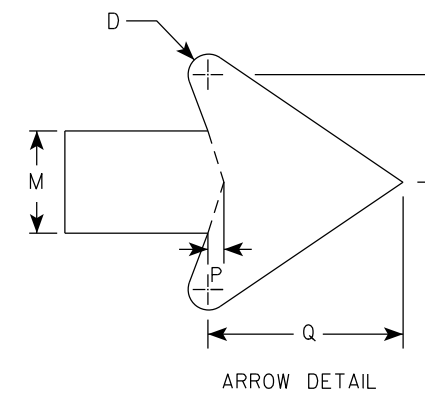
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



(H)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

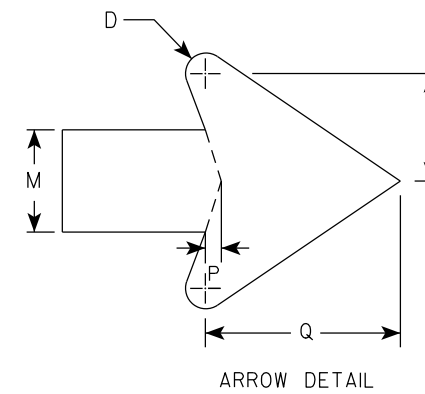
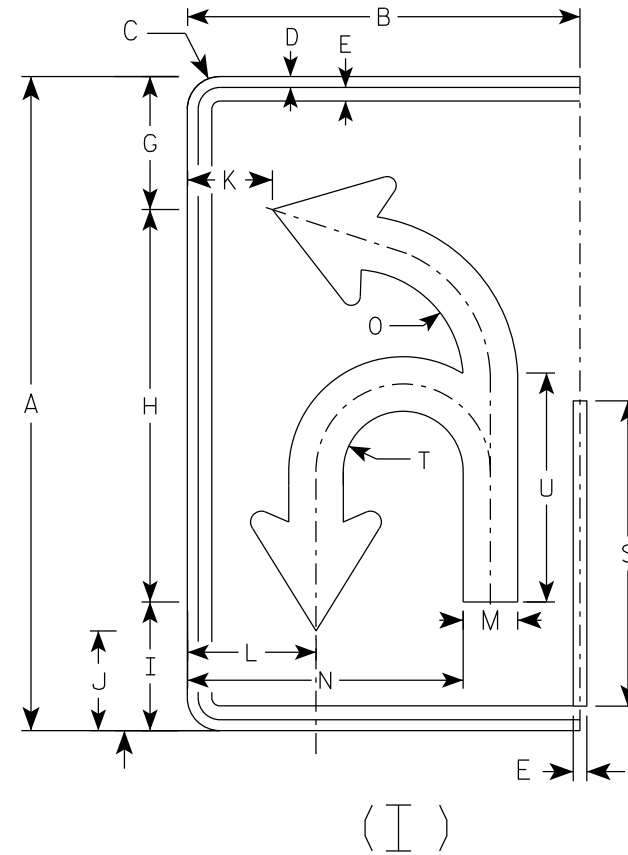
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2					3.75	
2M	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2					3.75	
3	36	24	1 1/2	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8					6.0	
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4					10.0	
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4					10.0	

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

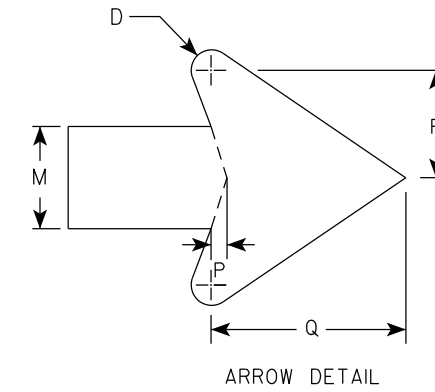
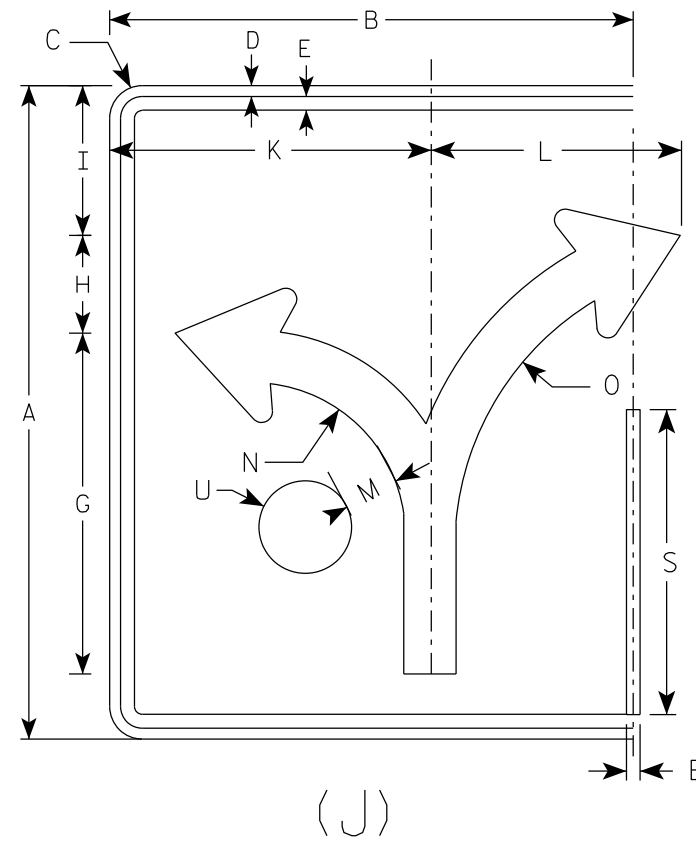
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (J) Arrow

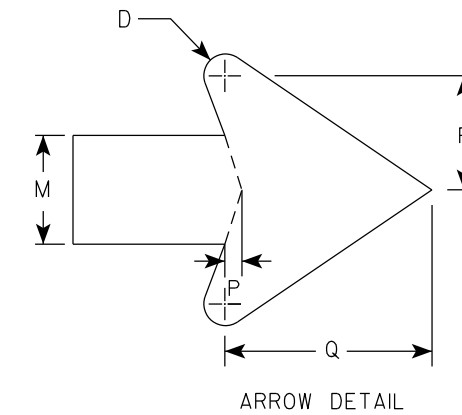
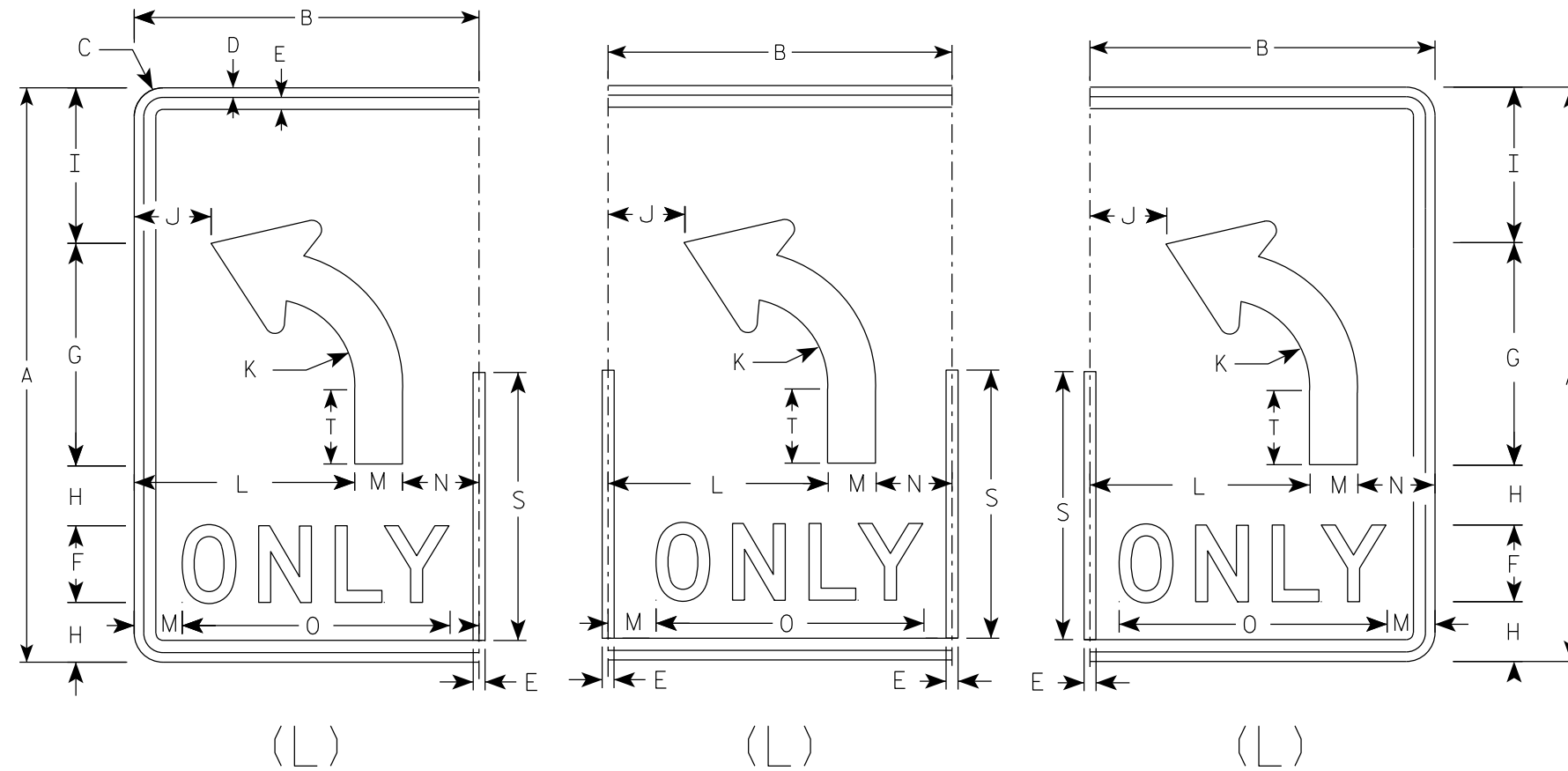
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

NOTES

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



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (L) Arrow

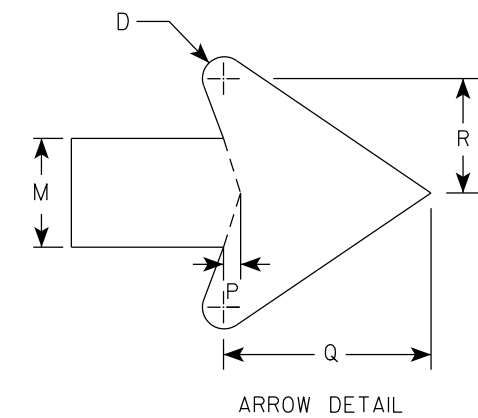
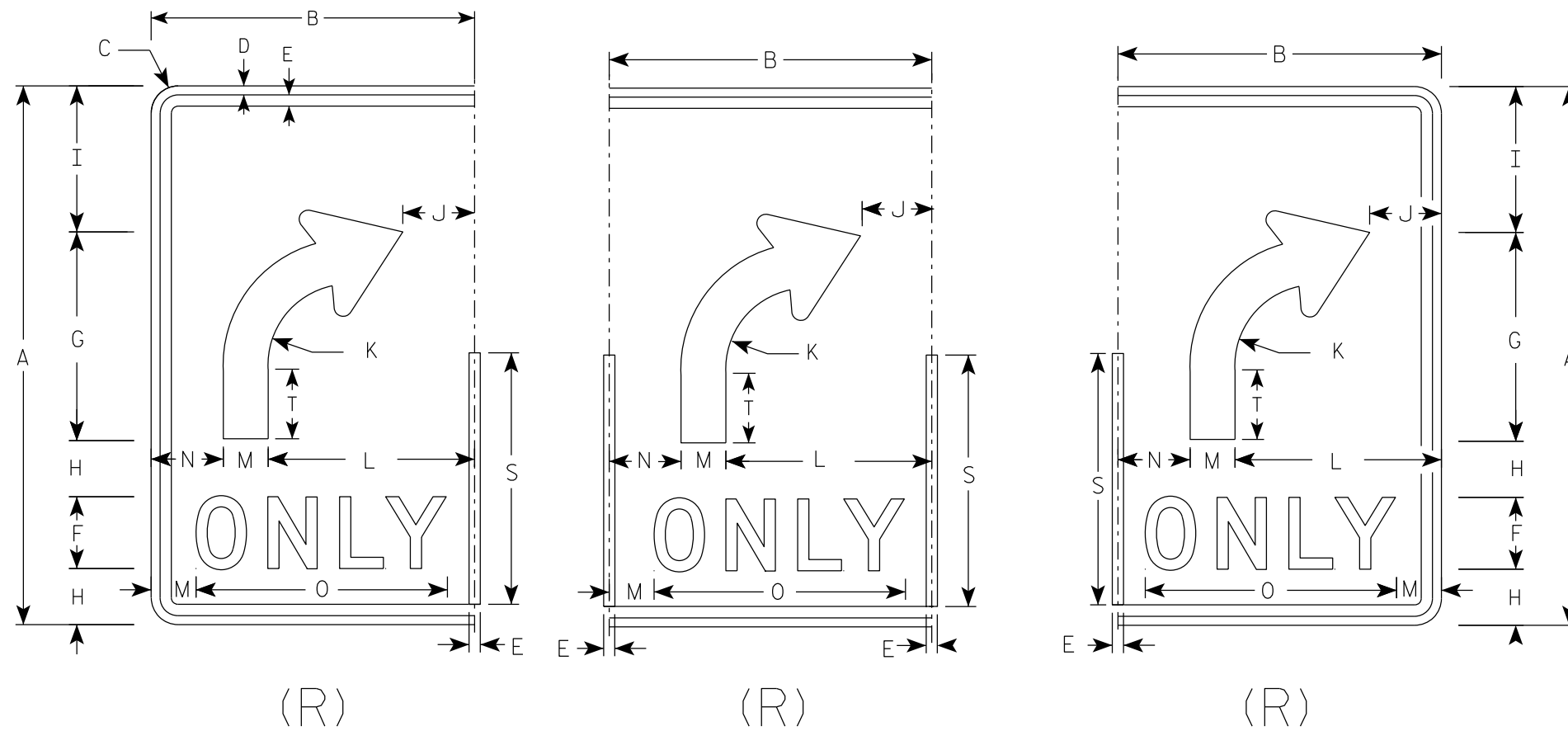
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

NOTES

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



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

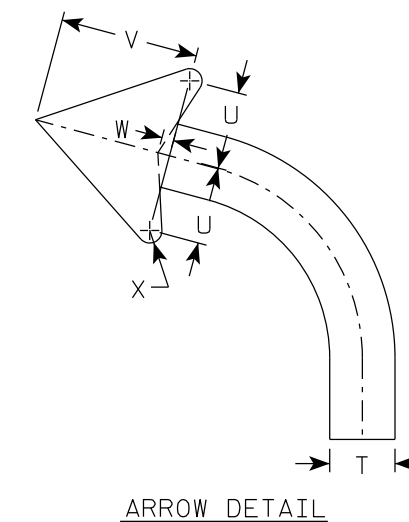
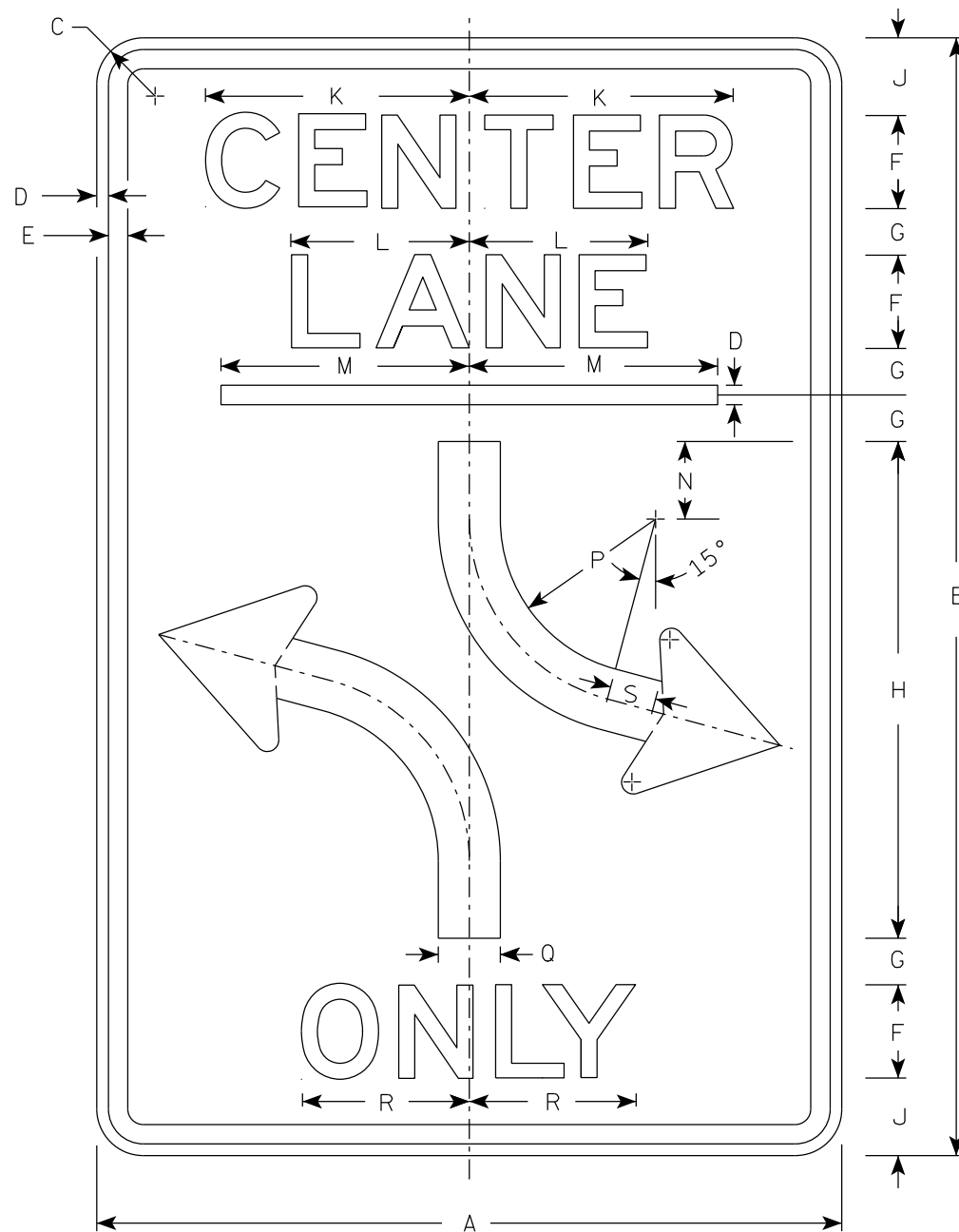
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

NOTES

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



ARROW DETAIL

R3-9B

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	36	1 1/2	3/8	1/2	3	1 1/2	16		2 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	1 1/2	3/8	1/2	3	1 1/2	16		2 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	1 7/8	5/8	7/8	5	1 1/2	20		3 1/2	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/15/23 PLATE NO. R3-9B.6

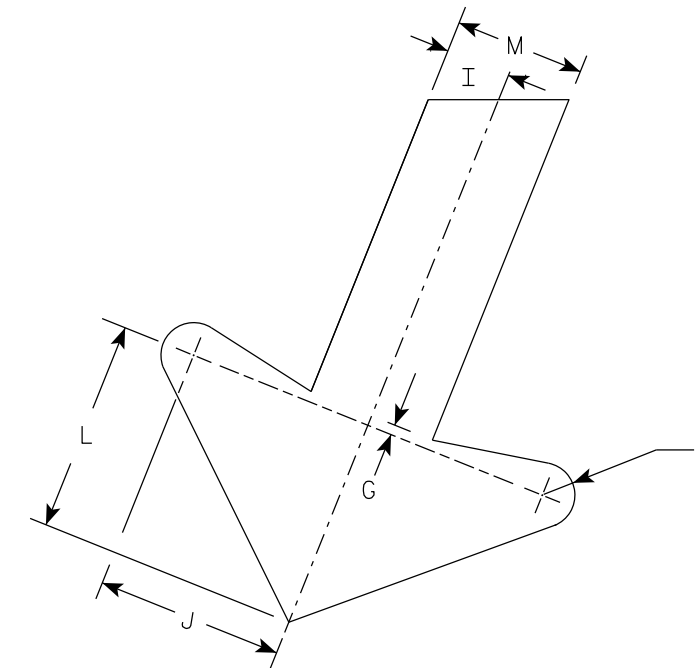
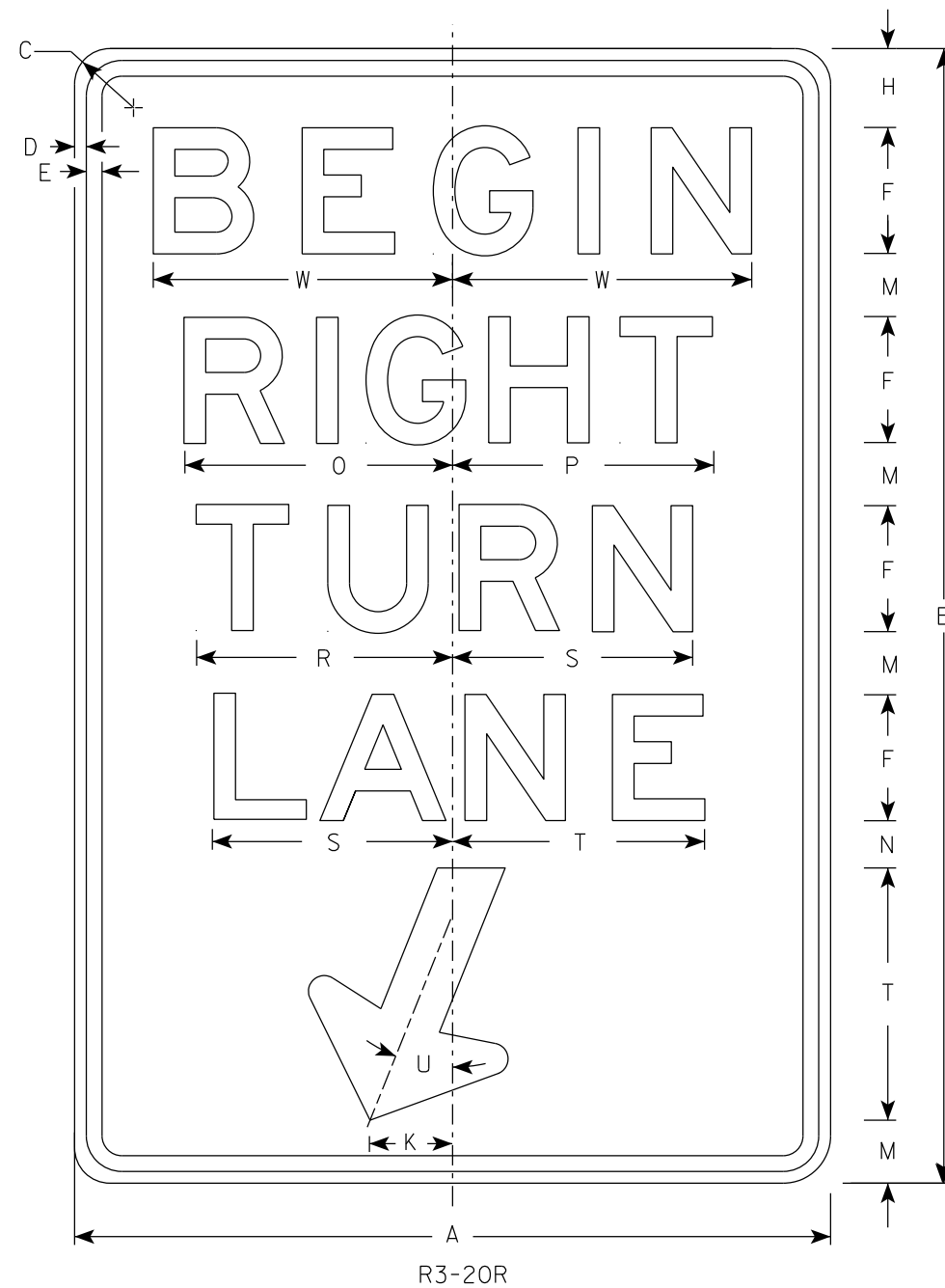
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2			6.0	
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2			6.0	
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4			13.5	
4																											
5																											

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

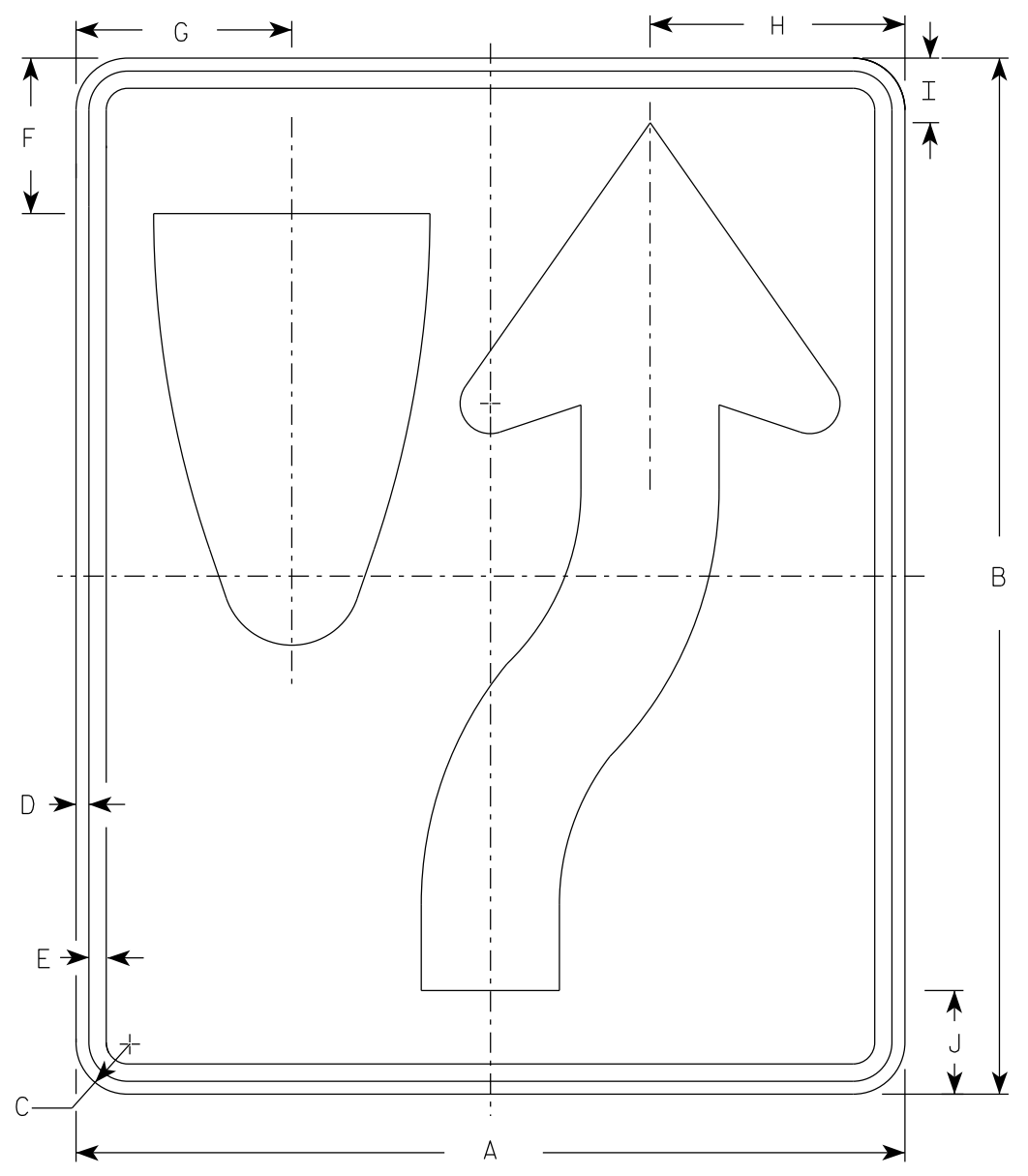
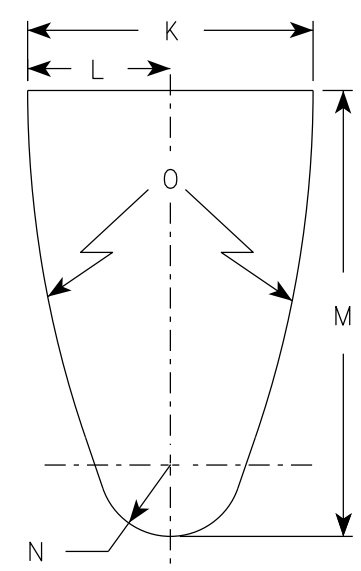
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20R.7

NOTES

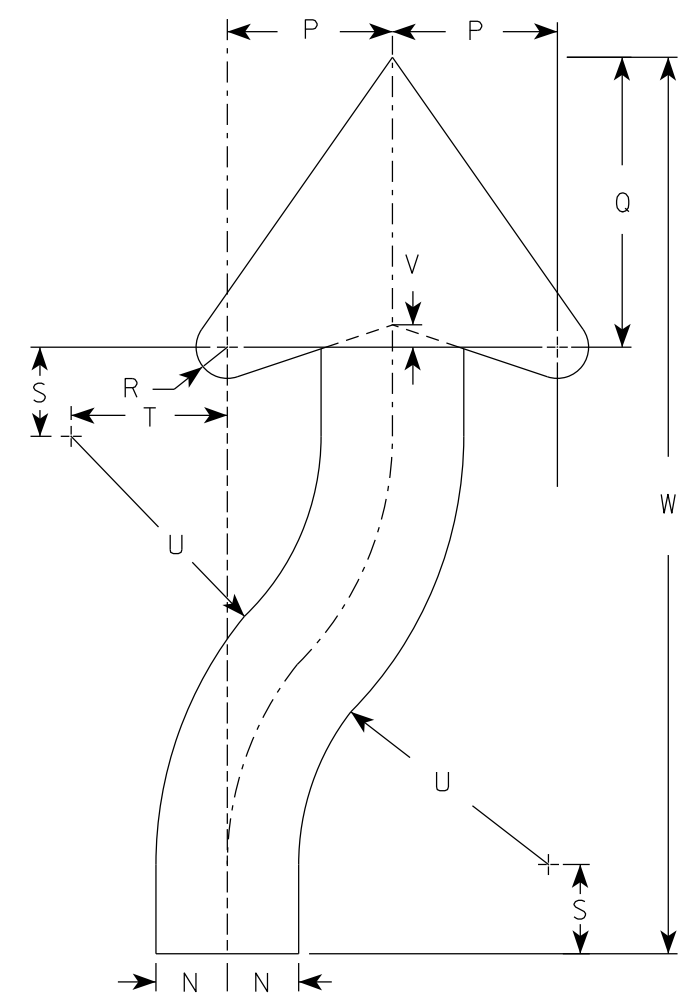
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. R4-8 is the same as R4-7 except Legend is reversed.

DIVIDER DETAIL



R4-7

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

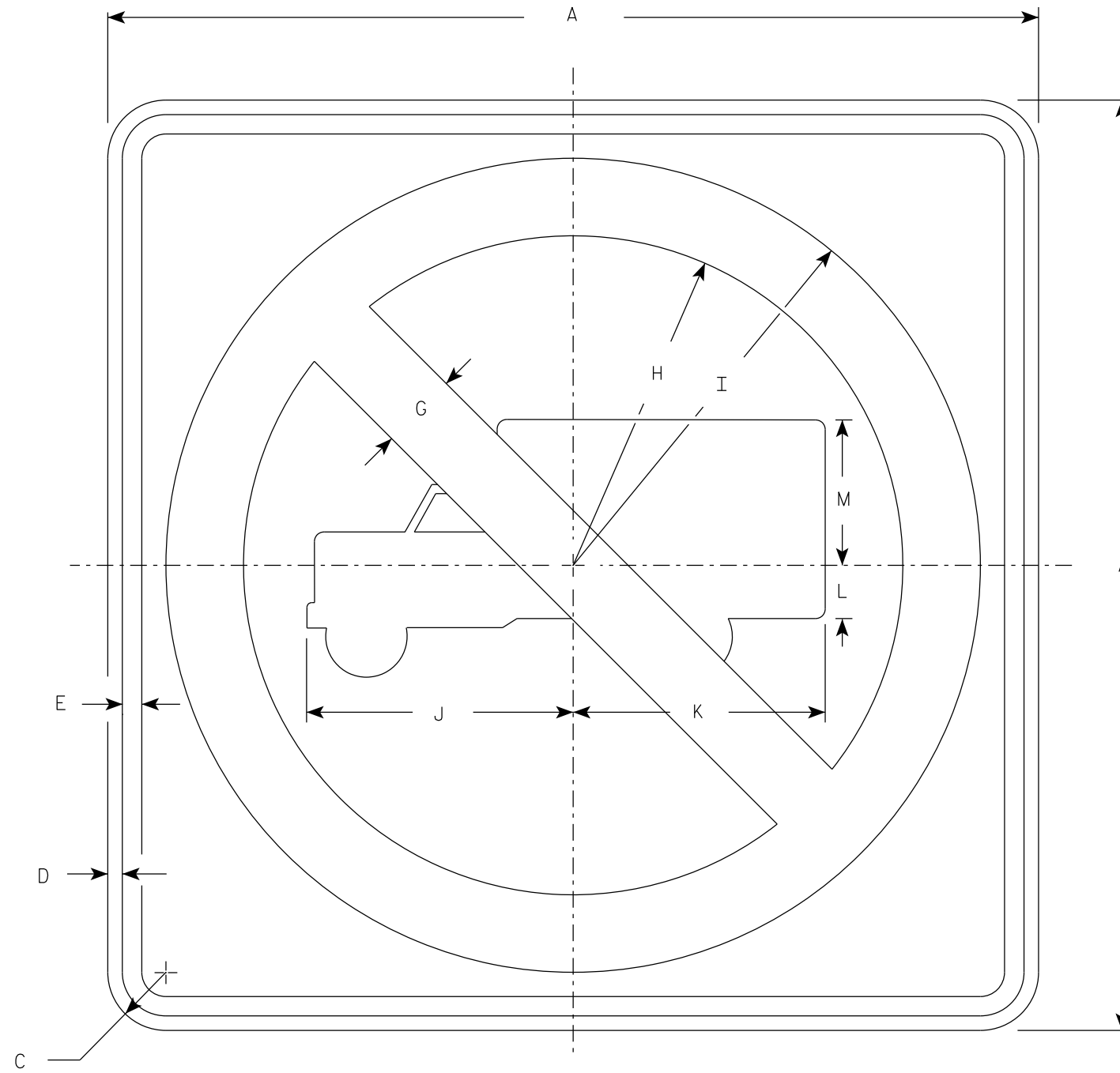
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/17/23 PLATE NO. R4-7.9

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - See Note 3
3. Circle & Diagonal - Red
 - Truck Symbol & Border - Black



R5-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/2	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/2	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 7/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		2 1/4	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/17/23 PLATE NO. R5-2.7

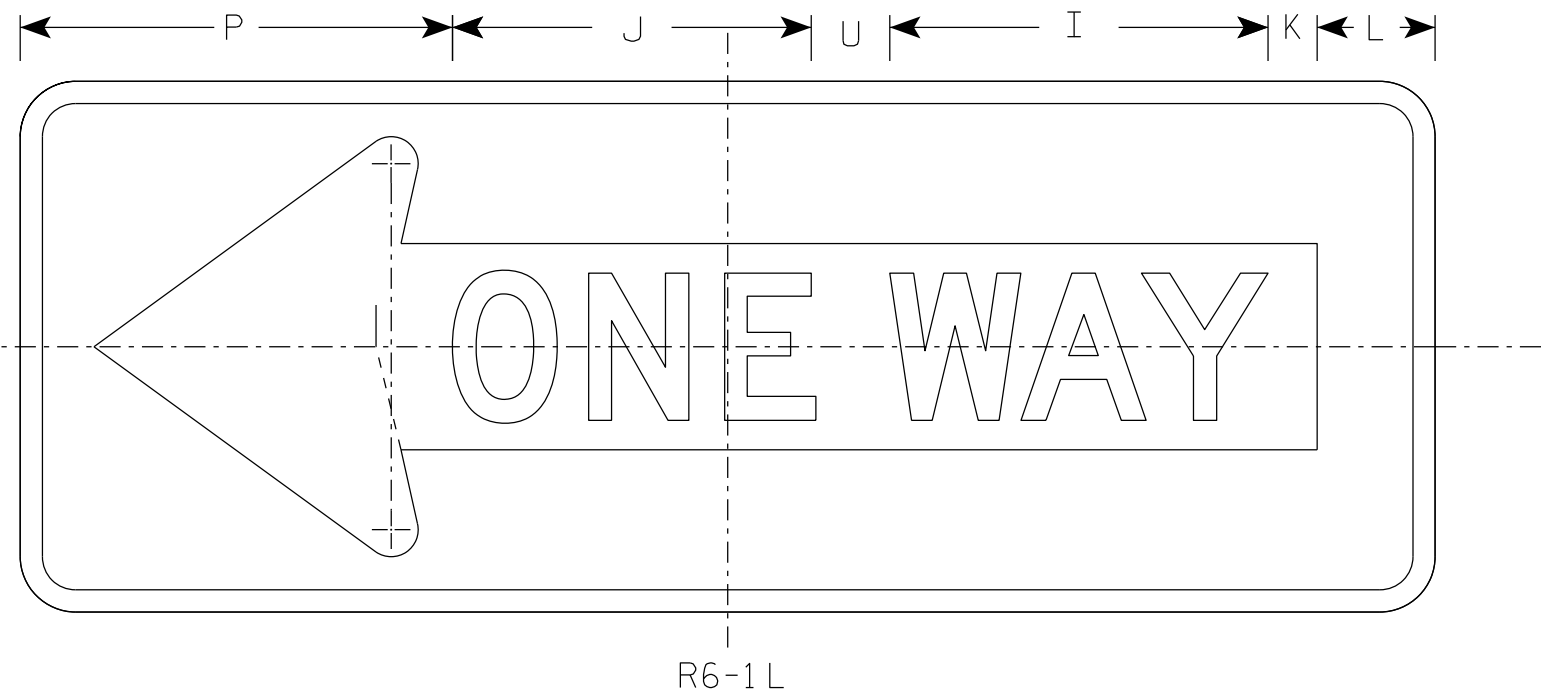
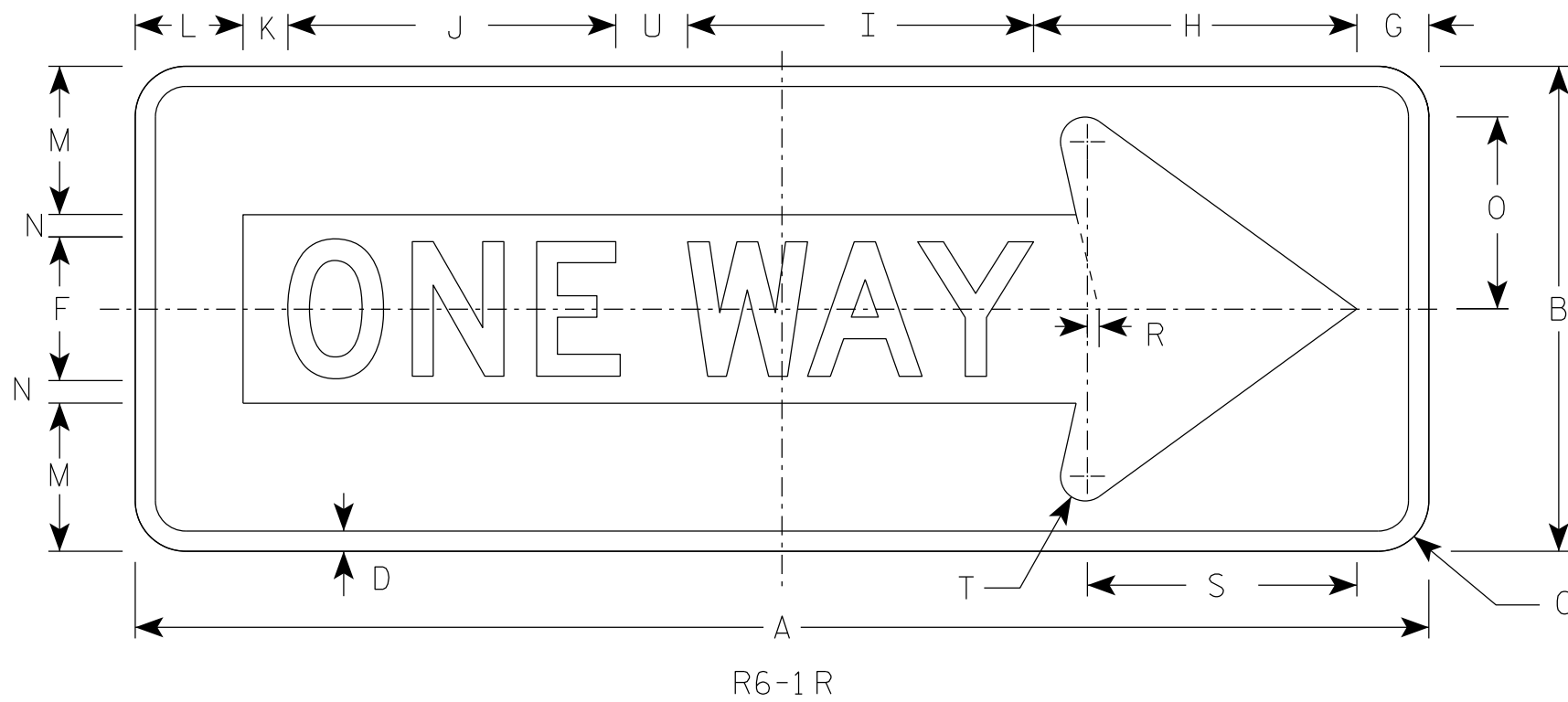
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

7

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2	3/4	2						3.0
2M	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
3	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
4	48	18	1 7/8	3/4		5	2 1/2	11	13	12 1/4	2 3/4	3 1/2	5 1/2	1	7 1/8	13 1/2		1/2	10 1/8	7/8	3						6.0
5																											

STANDARD SIGN
R6-1 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

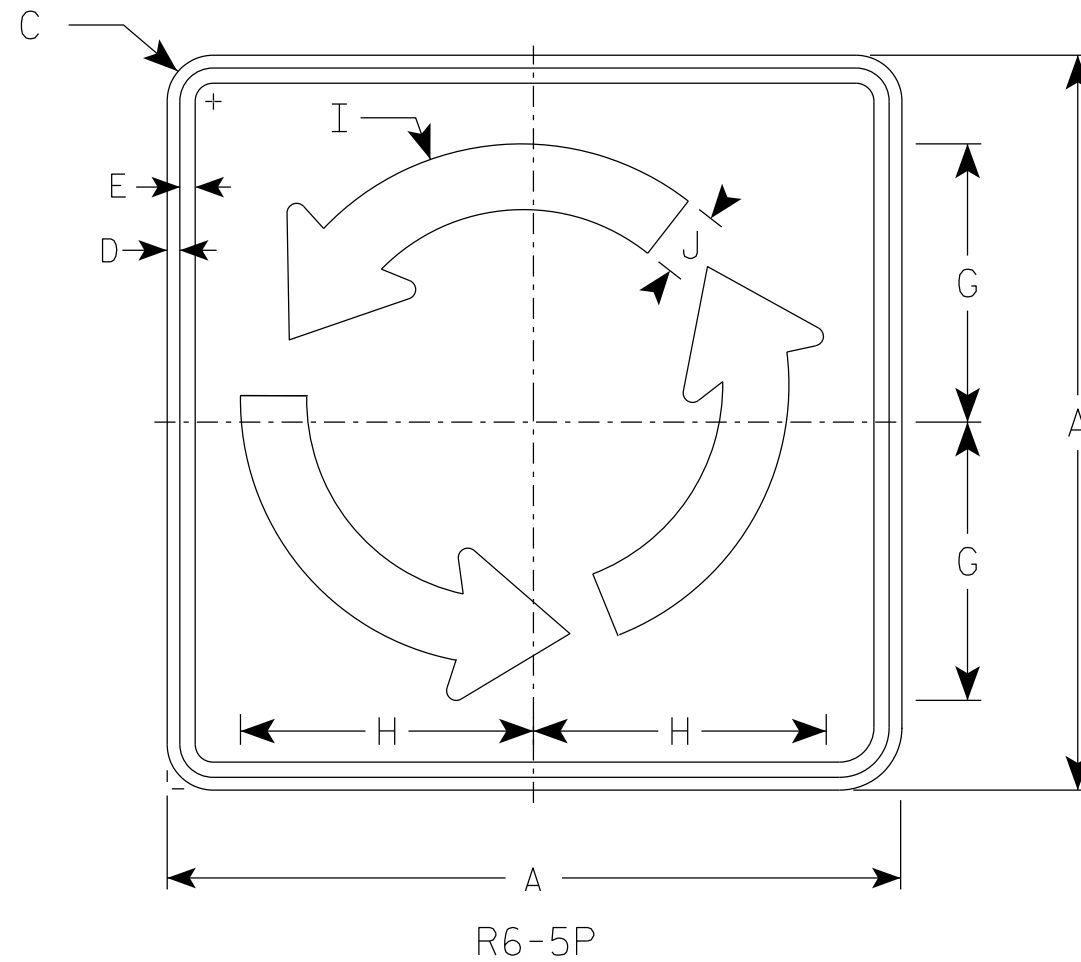
DATE 4/7/2025 PLATE NO. R6-1.5

7

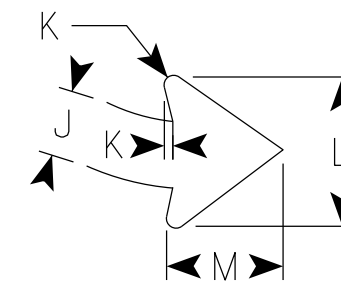
7

NOTES

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



Arrow Detail



7

7

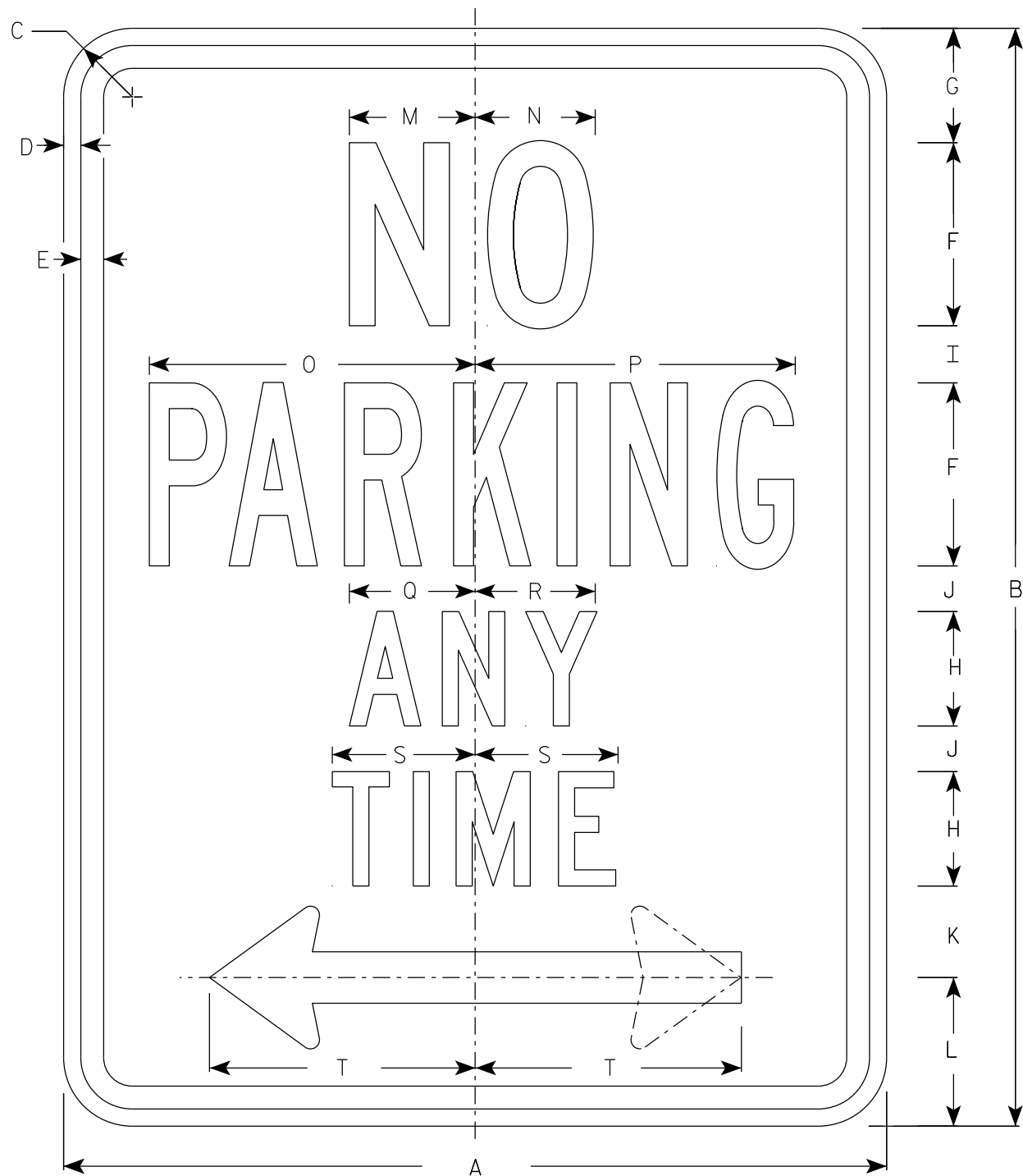
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Area sq. ft.
1																									
2S	30		1 7/8	1/2	5/8		11 3/8	12	11 1/8	2 3/4	3/8	6	4 3/4												6.25
2M	30		1 7/8	1/2	5/8		11 3/8	12	11 1/8	2 3/4	3/8	6	4 3/4												6.25
3																									
4																									
5																									

STANDARD SIGN
R6-5P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R6-5P.2

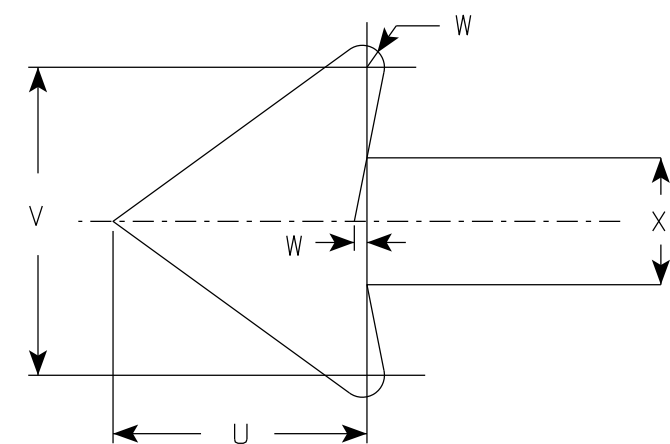


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)

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	12	18	1 1/2	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/2	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

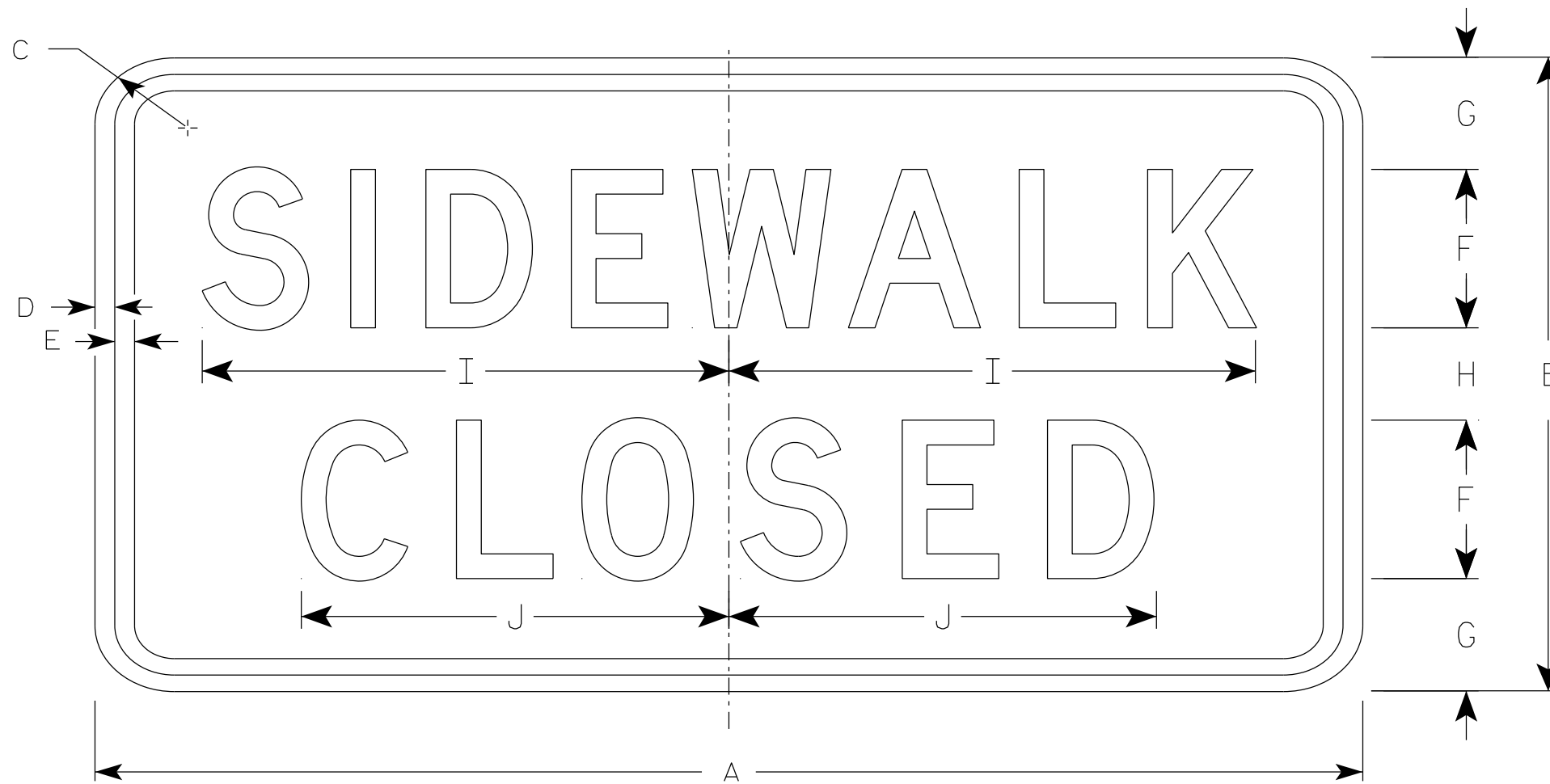
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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.



R9-9

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	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																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

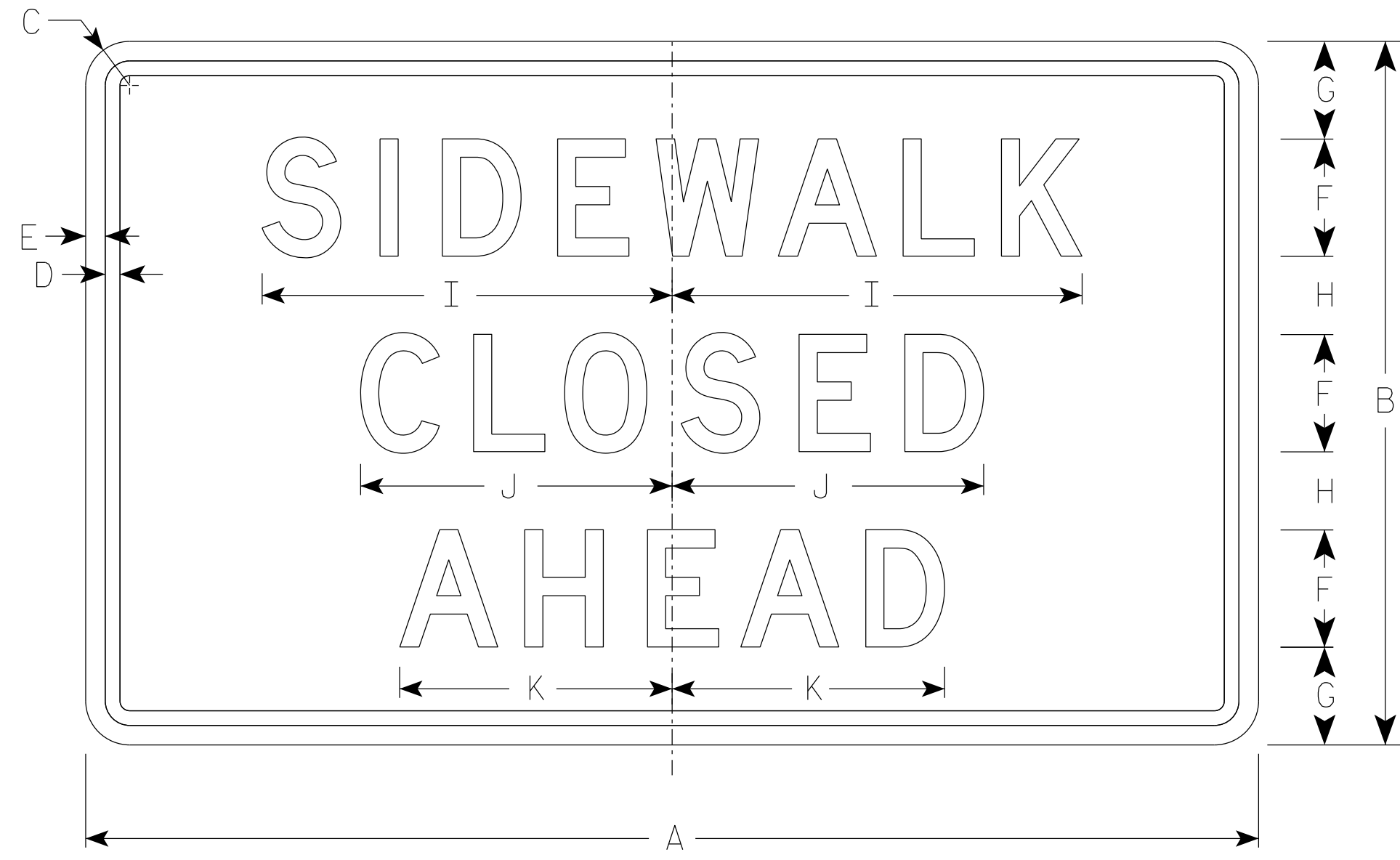
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



R9-9A

7

7

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

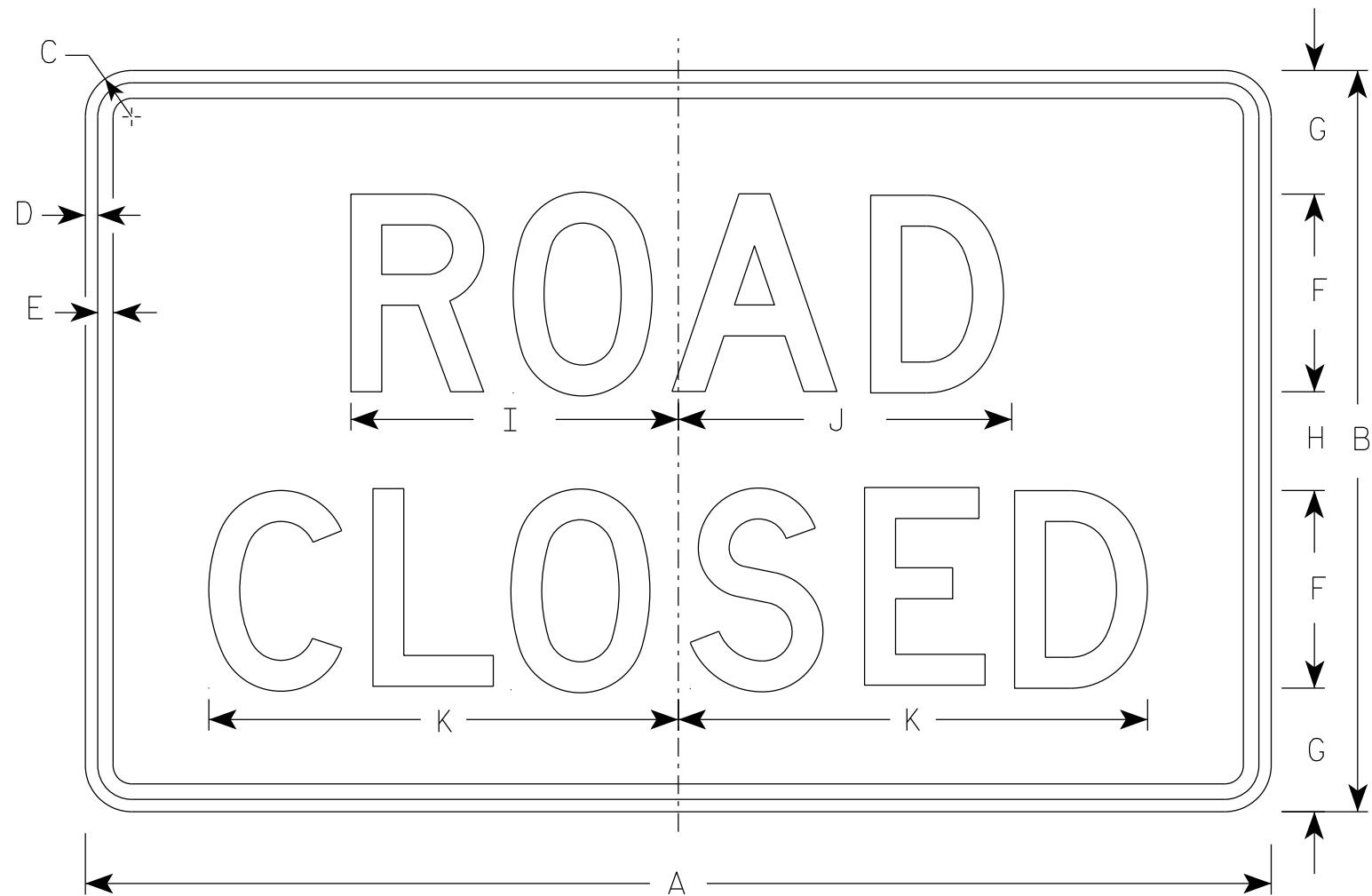
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

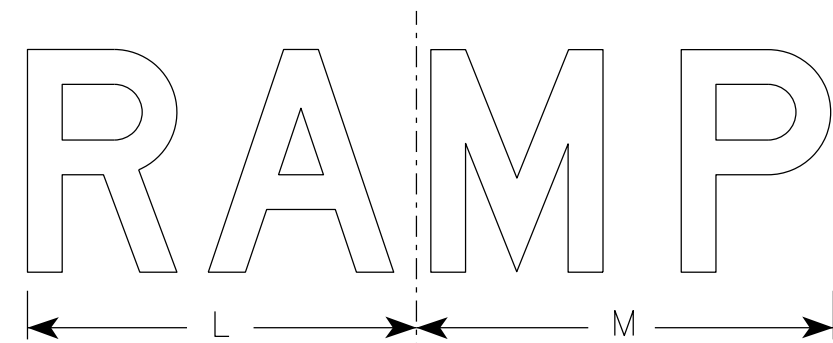
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

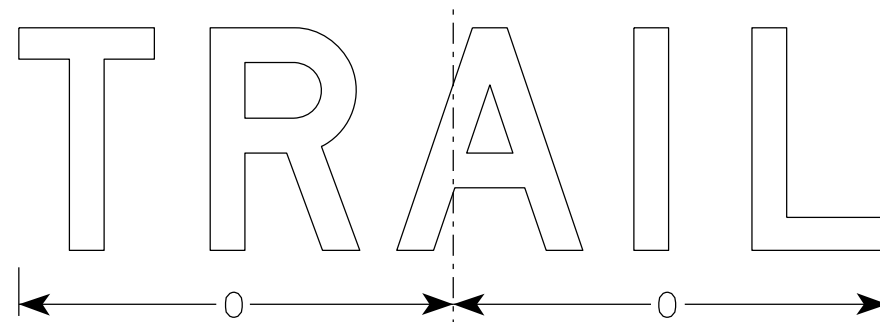
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



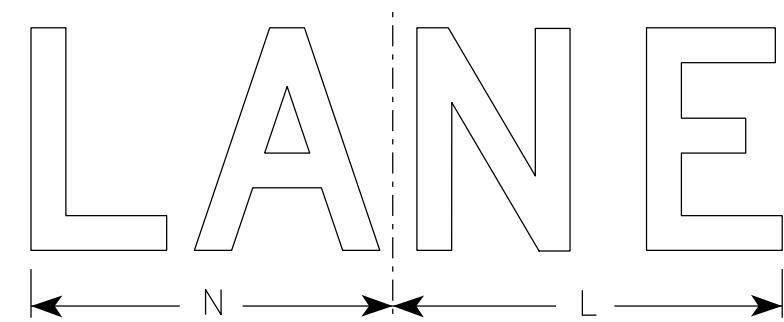
R11-2



R11-2R



R11-2T



R11-2L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

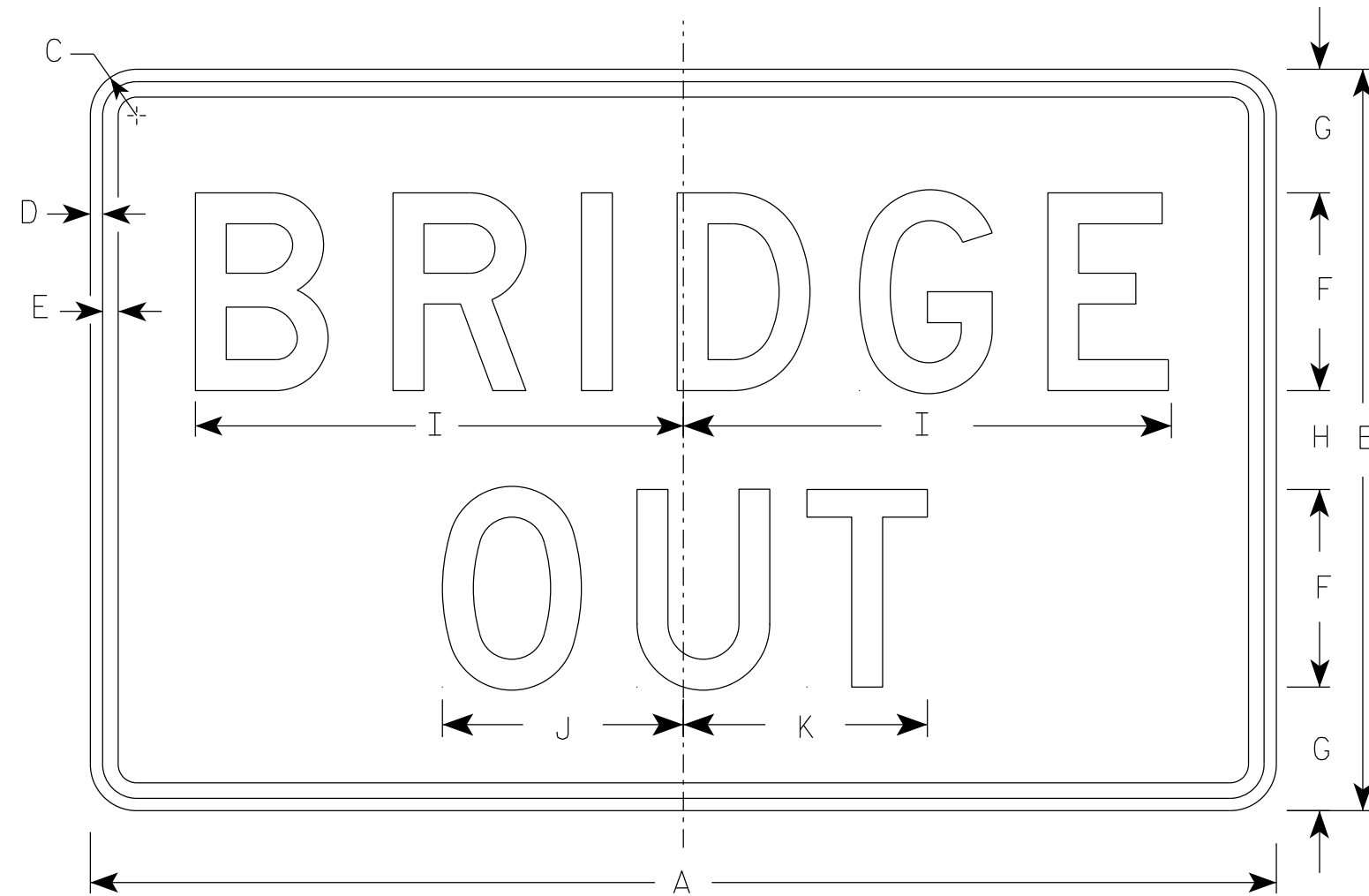
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



R11-2B

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

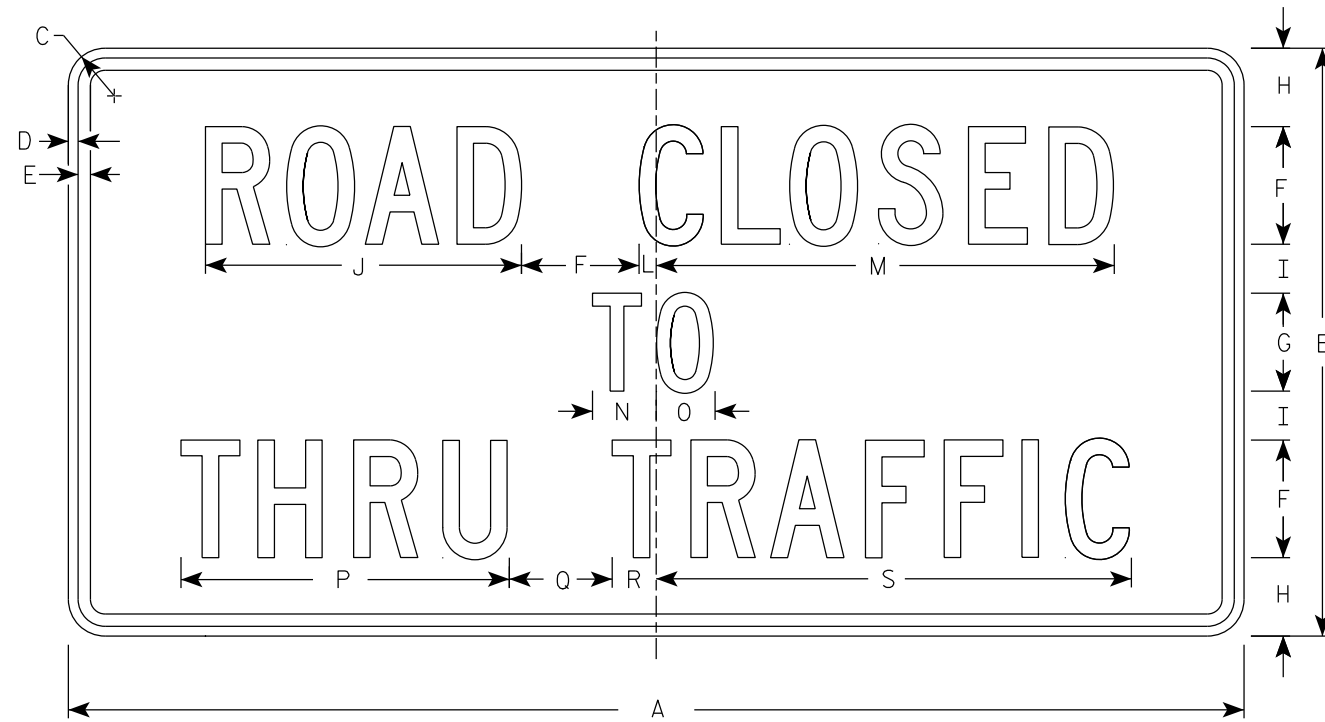
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2B.3

NOTES

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



R11-4

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

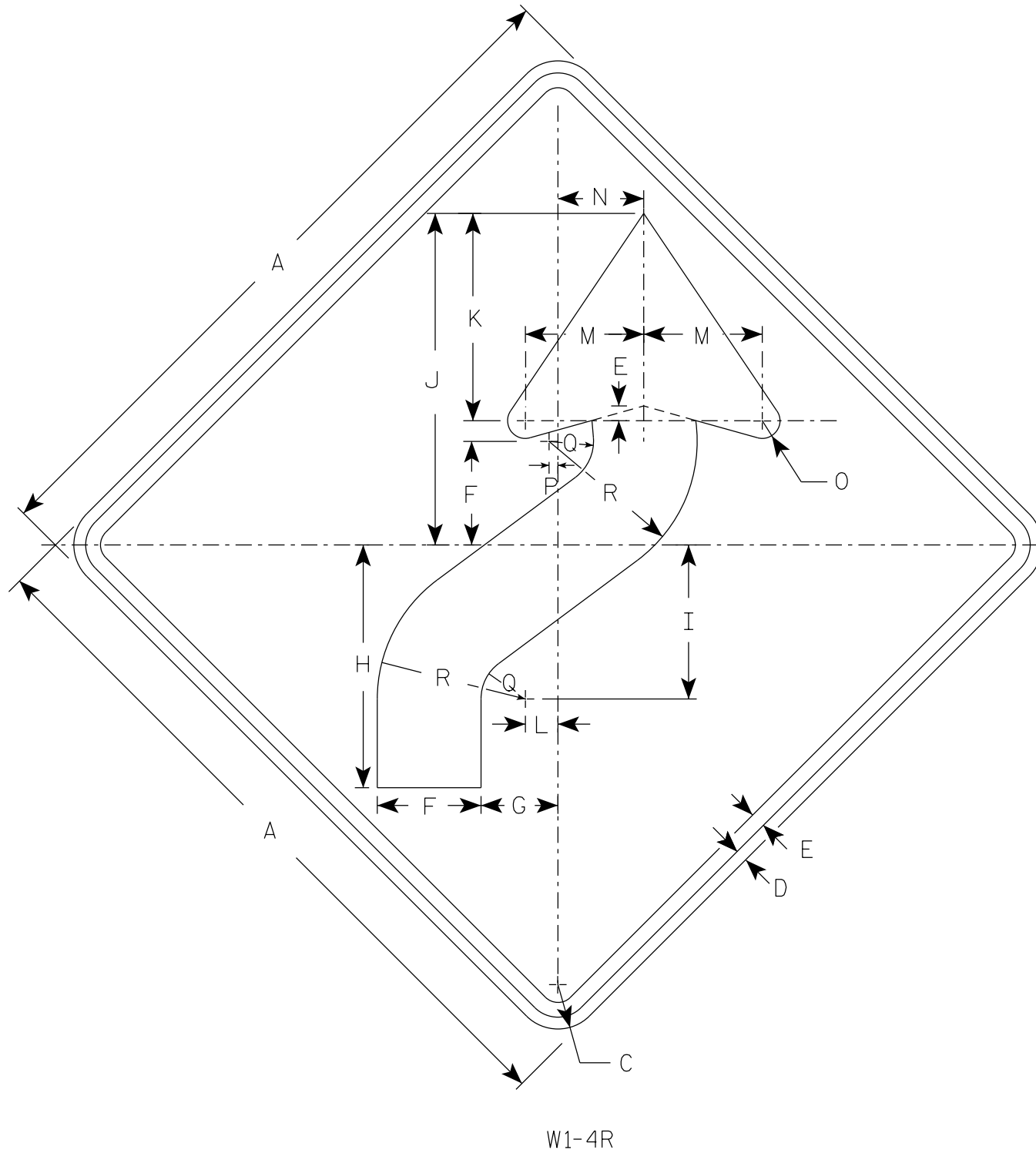
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W1-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 7/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W1-4

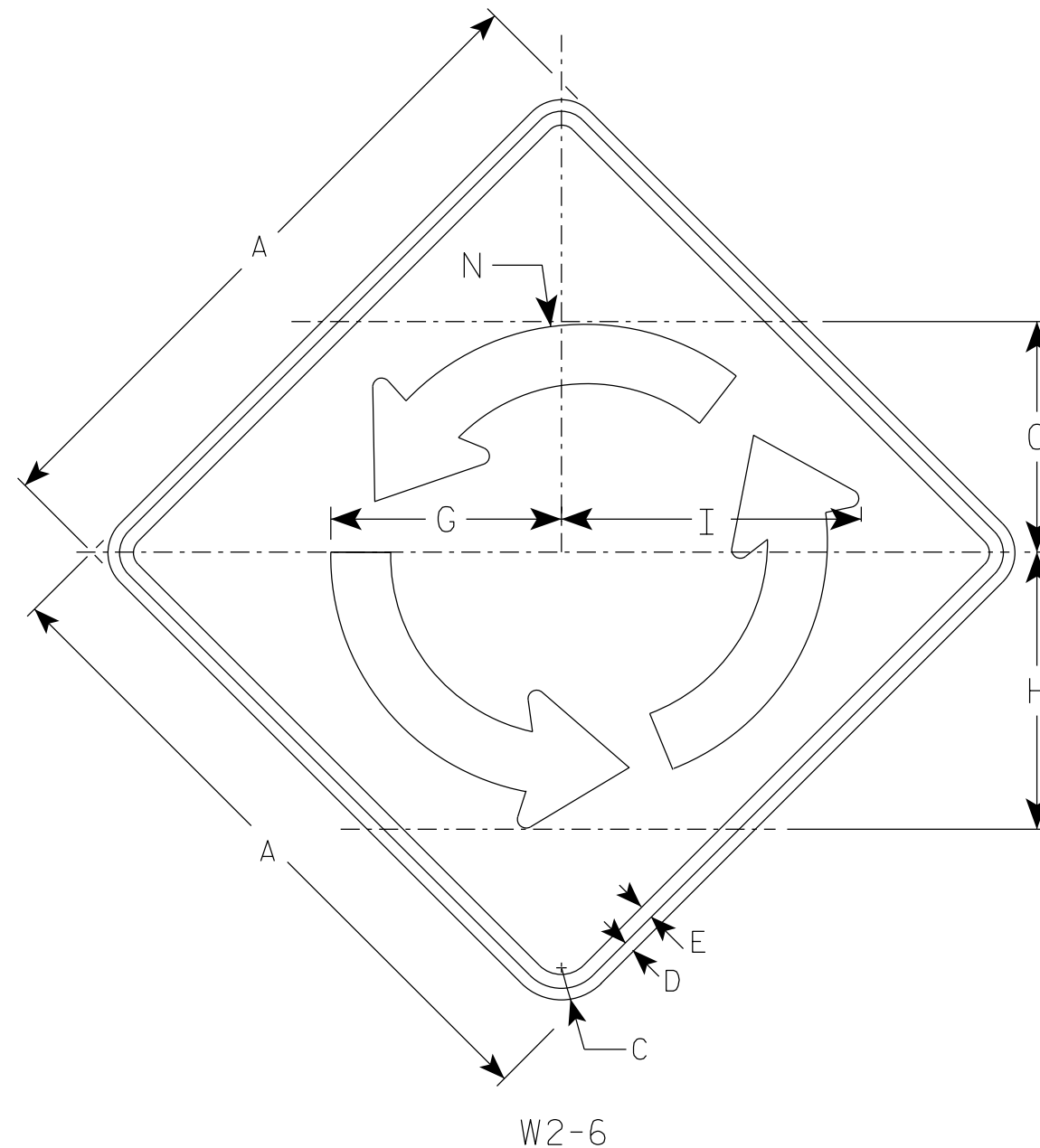
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 3/23/2023 PLATE NO. W1-4.12

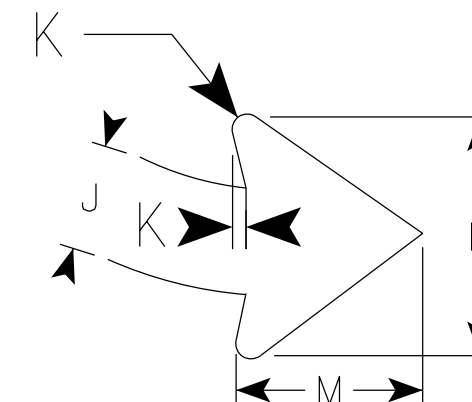
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black



Arrow Detail



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Area sq. ft.
1																									
2S	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
2M	30		1 7/8	1/2	5/8		10 3/8	12 1/2	13 1/2	2 3/4	3/8	6	4 3/4	11 1/8											6.25
3	36		2 1/4	5/8	3/4		12 1/2	15	16 1/4	3 1/4	1/2	7 3/8	5 3/4	13 3/8											9.00
4	48		3	3/4	1		16 5/8	20	16 1/4	4 3/8	5/8	9 3/4	7 5/8	17 7/8											16.0
5																									

STANDARD SIGN
W2-6

WISCONSIN DEPT OF TRANSPORTATION

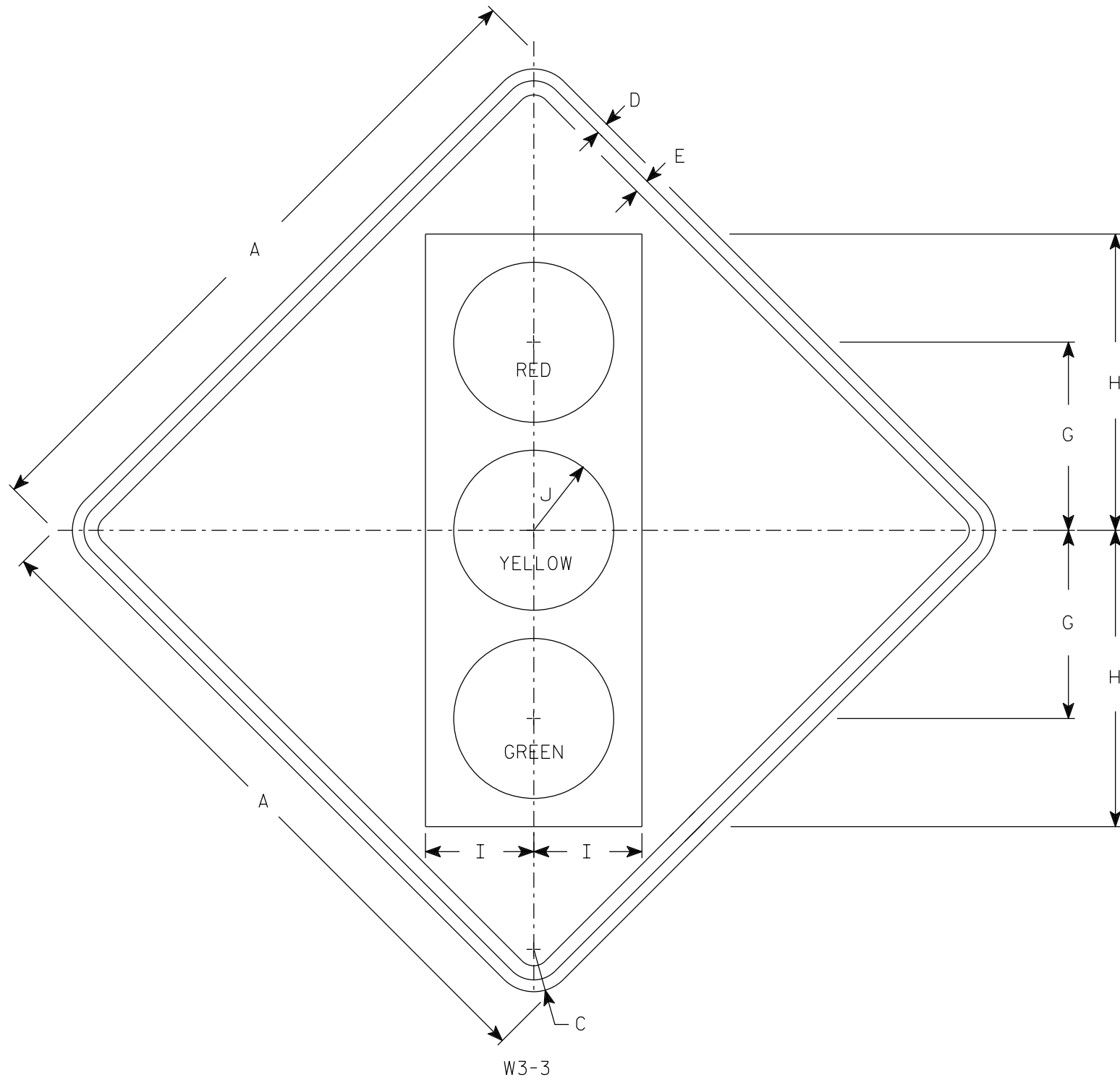
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/17/2023 PLATE NO. W2-6.8

PROJECT NO:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 - Background - Yellow
 - Message - See Note 3
3. Symbol and border are non-reflective black.
 - Top circle - Type H Reflectorized Red
 - Center circle - Same as background
 - Bottom circle - Type H Reflectorized Green

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		2 1/4	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		3	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

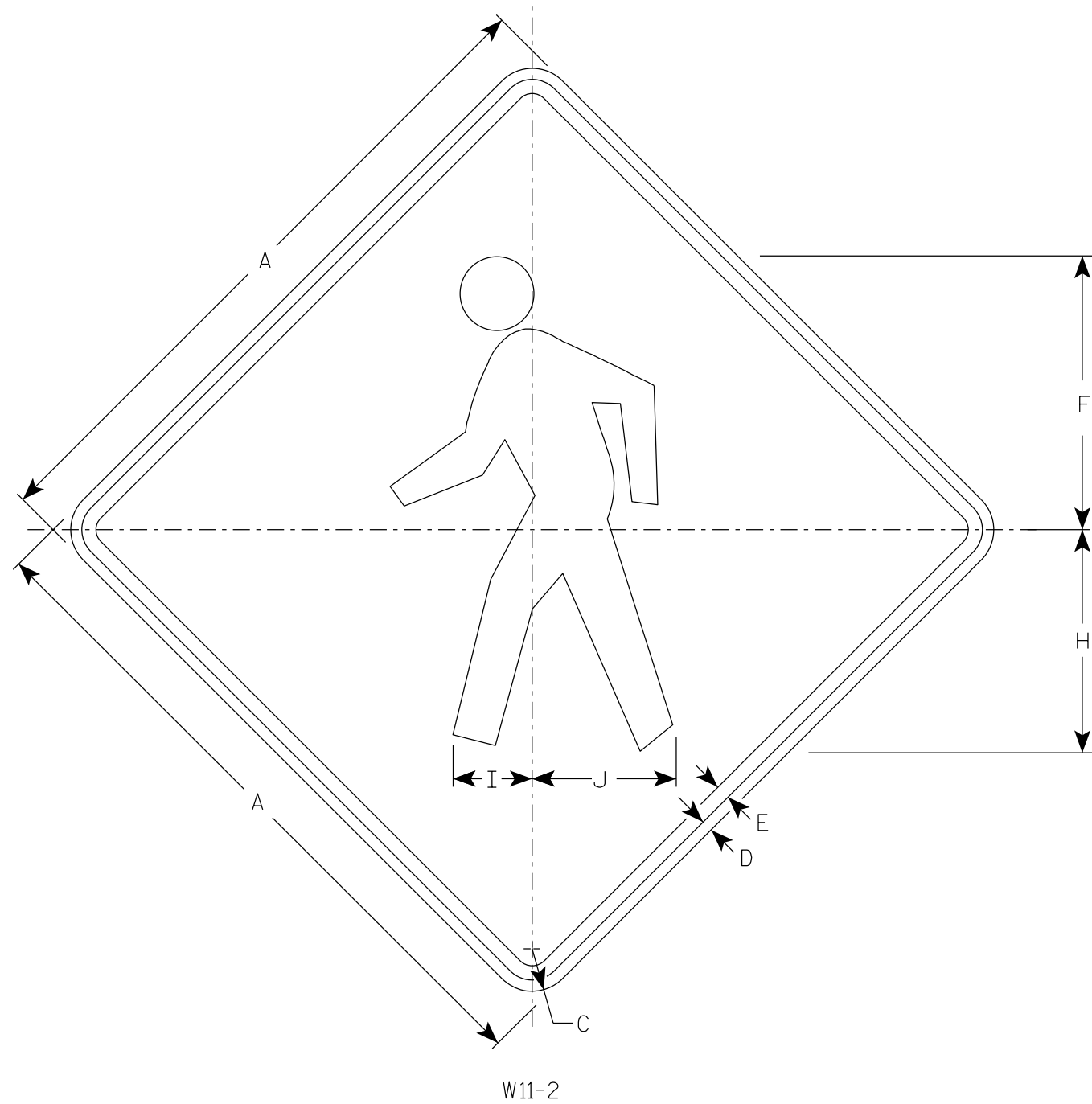
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/21/2023 PLATE NO. W3-3.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 Background - Yellow
 Message - Black



W11-2

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

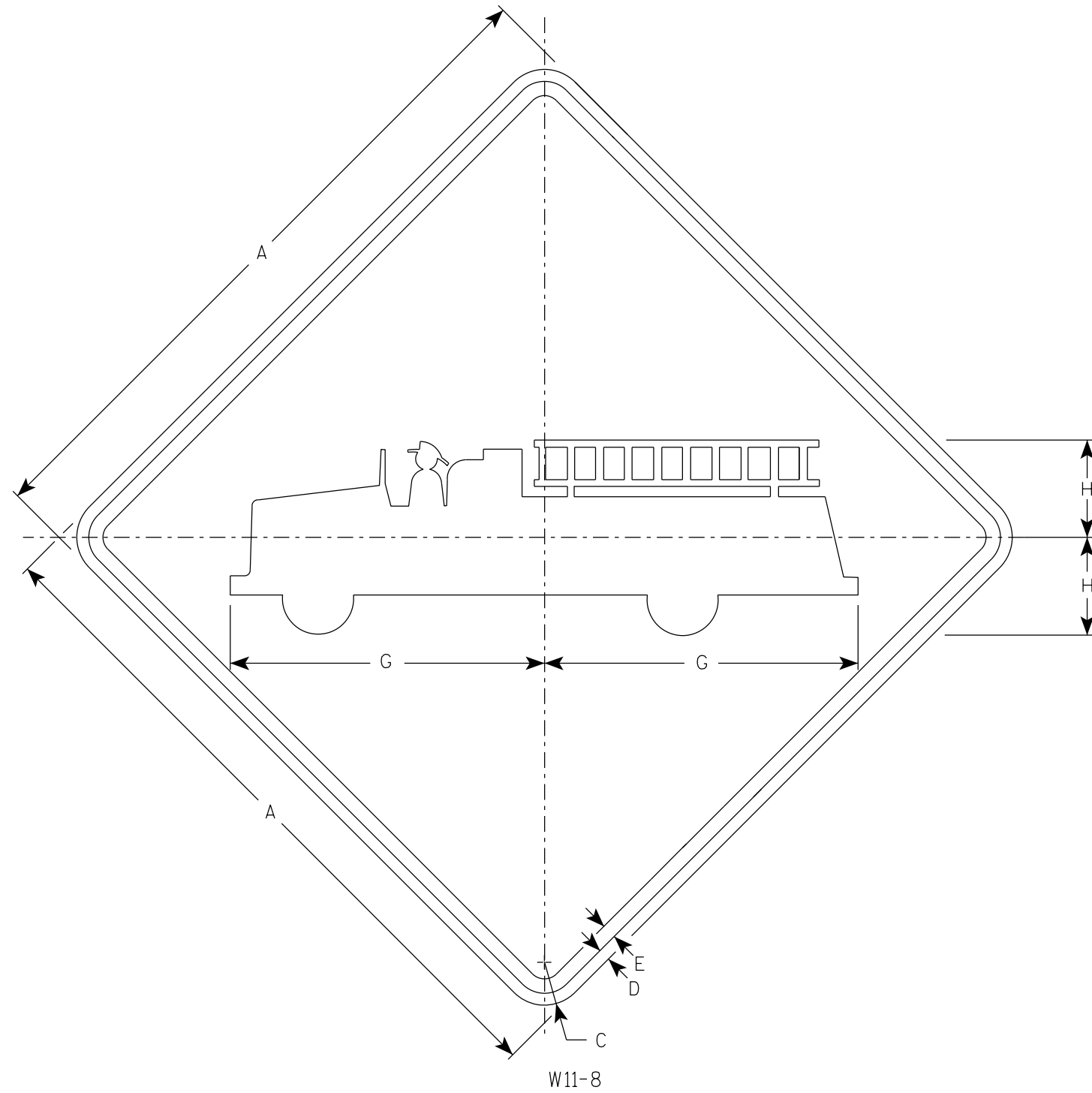
APPROVED *Matthew R. Rauch*
 For State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 Background - Yellow
 Message - Black



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2		11	3 3/8																			4.0
2S	30		1 7/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 7/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		2 1/4	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		3	3/4	1		22	7																			16.0
5																											

STANDARD SIGN

W11-8

WISCONSIN DEPT OF TRANSPORTATION

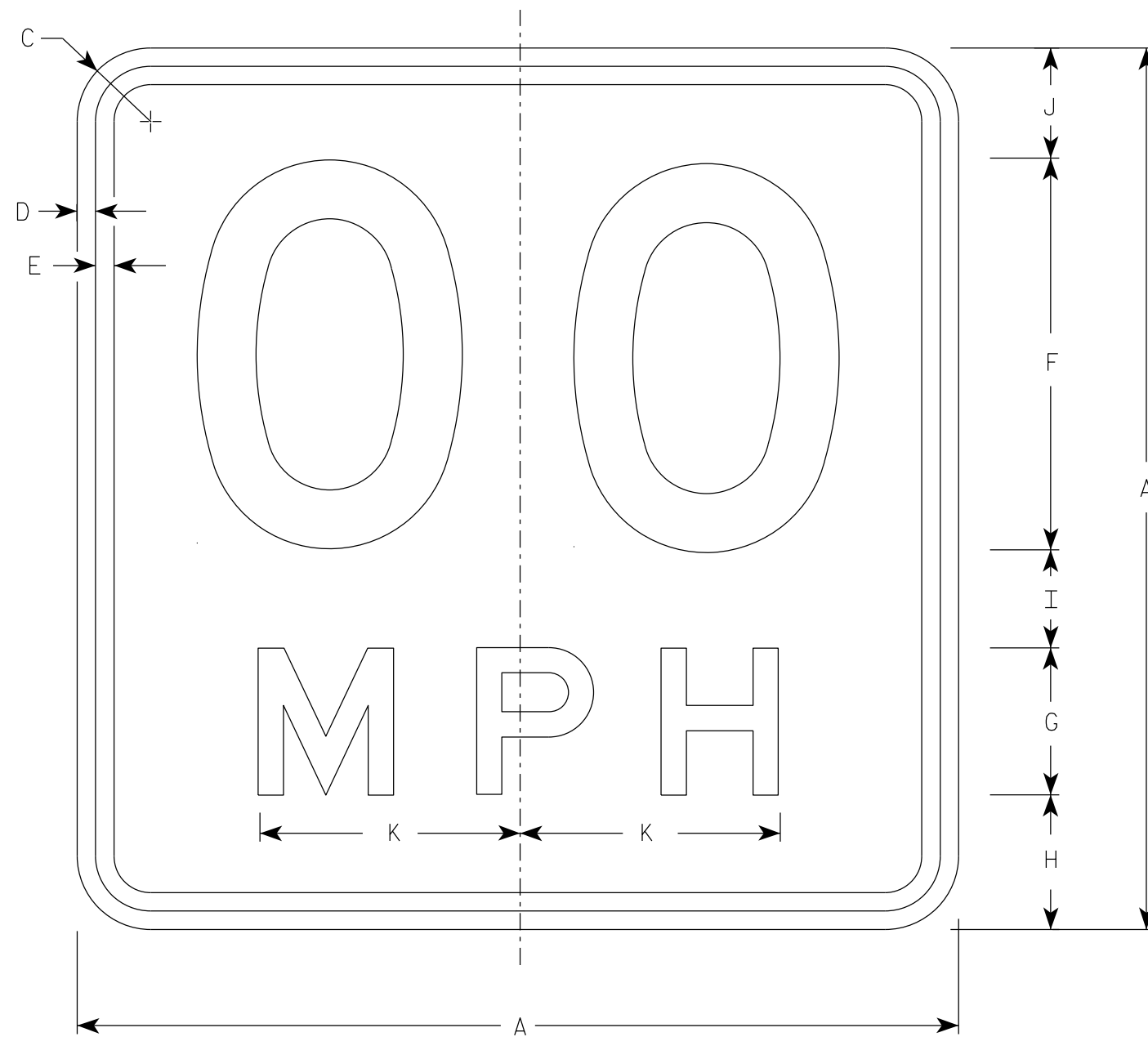
APPROVED
Matthew R. Rauch
 for State Traffic Engineer

DATE 11/20/2023 PLATE NO. W11-8.8

PROJECT NO:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
Line 2 is Series E

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
* 2S	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
* 2M	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8															2.25	
3	24		1 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8															4.00	
4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	

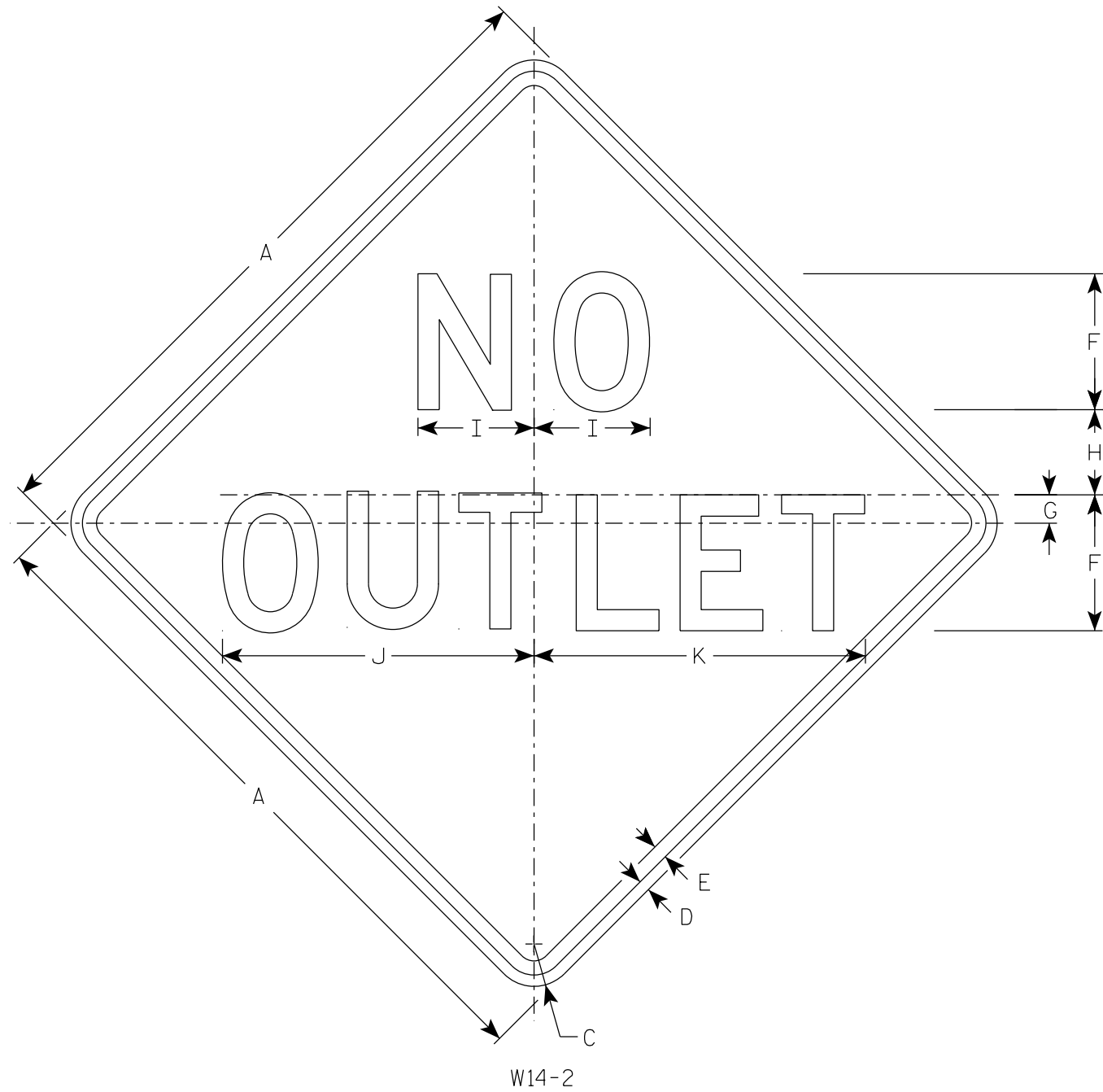
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**



NOTES

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

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 7/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 7/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		2 1/4	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

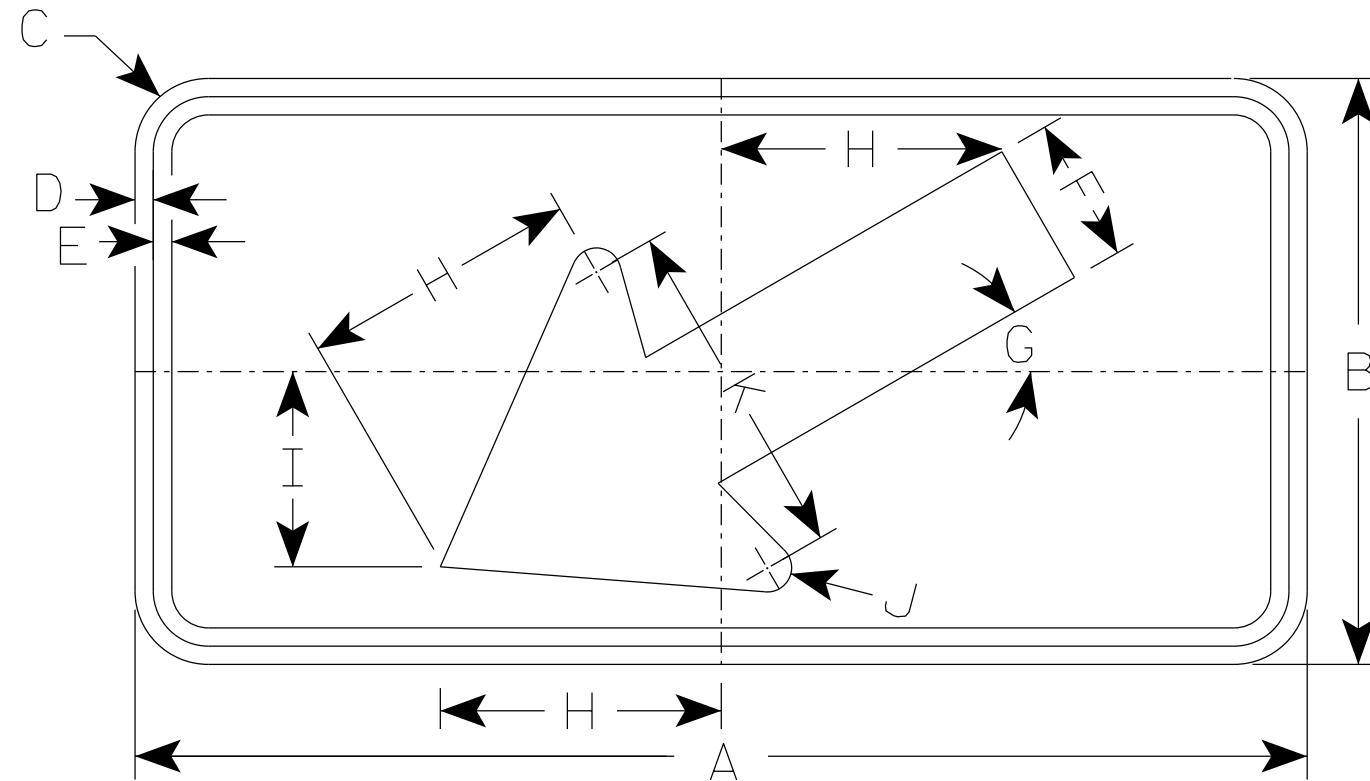
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W14-2.4

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W16-7R is the same as W16-7L
except the arrow is reversed along
the vertical centerline.



W16-7L

- * For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

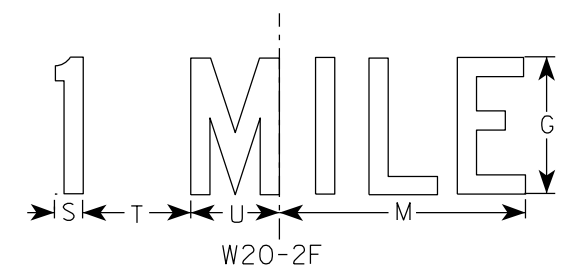
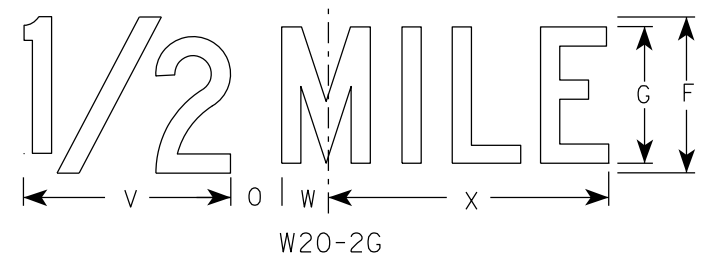
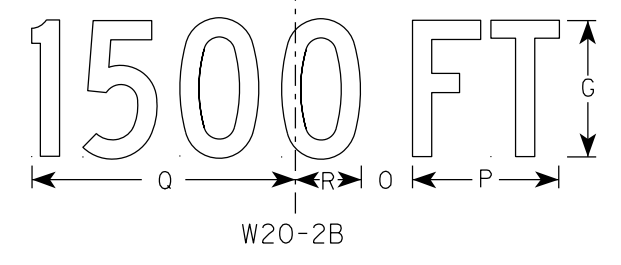
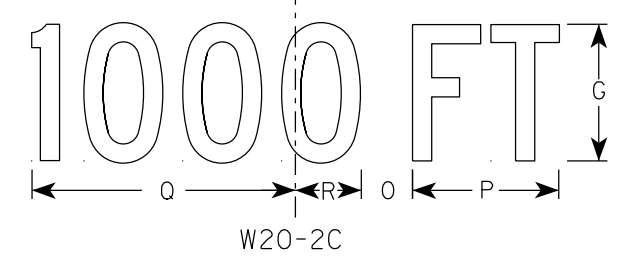
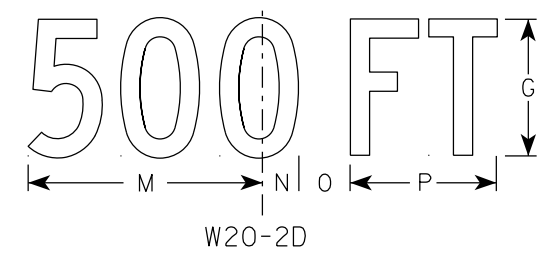
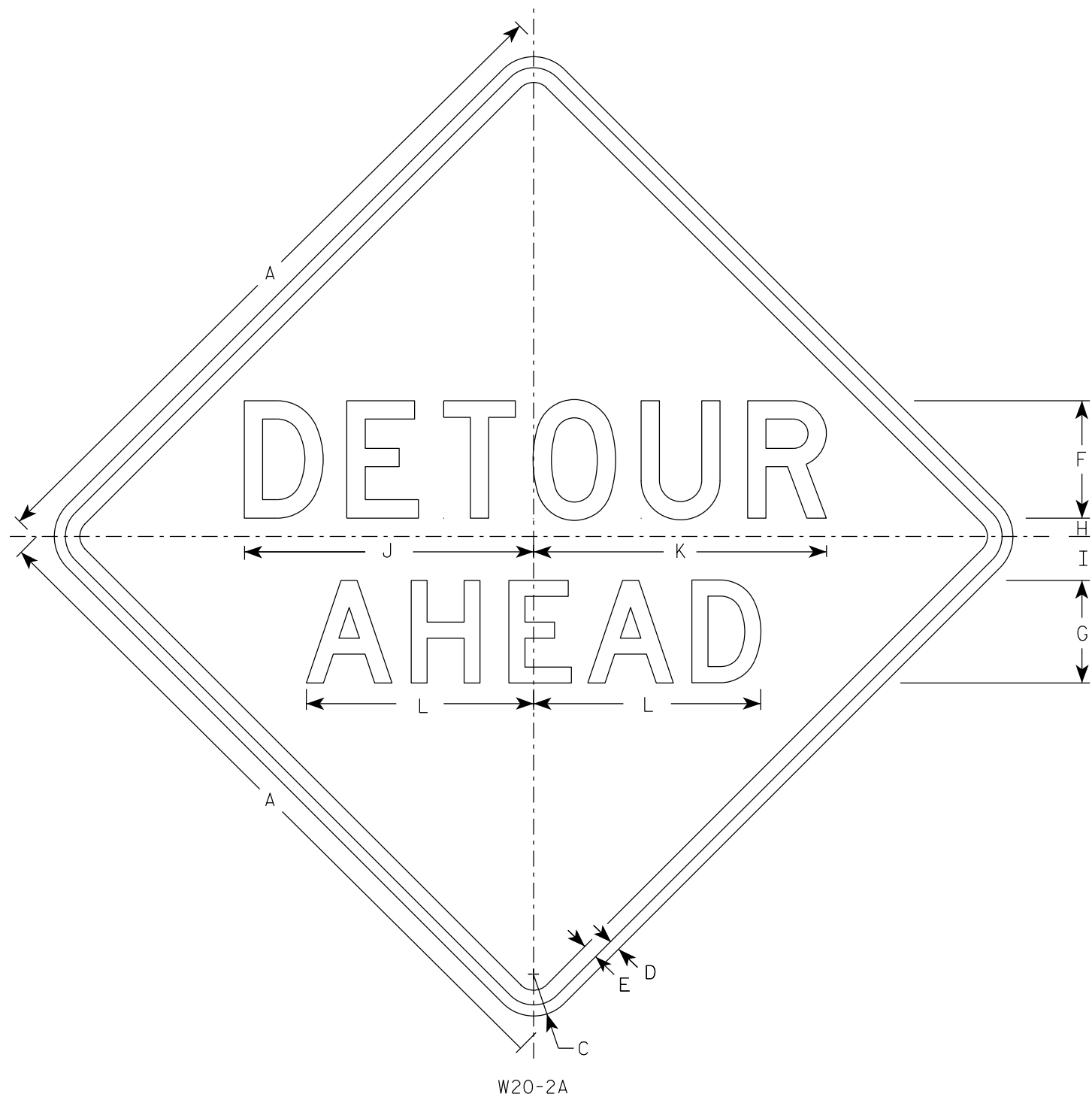
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
* 2M	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 3	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-7.9



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

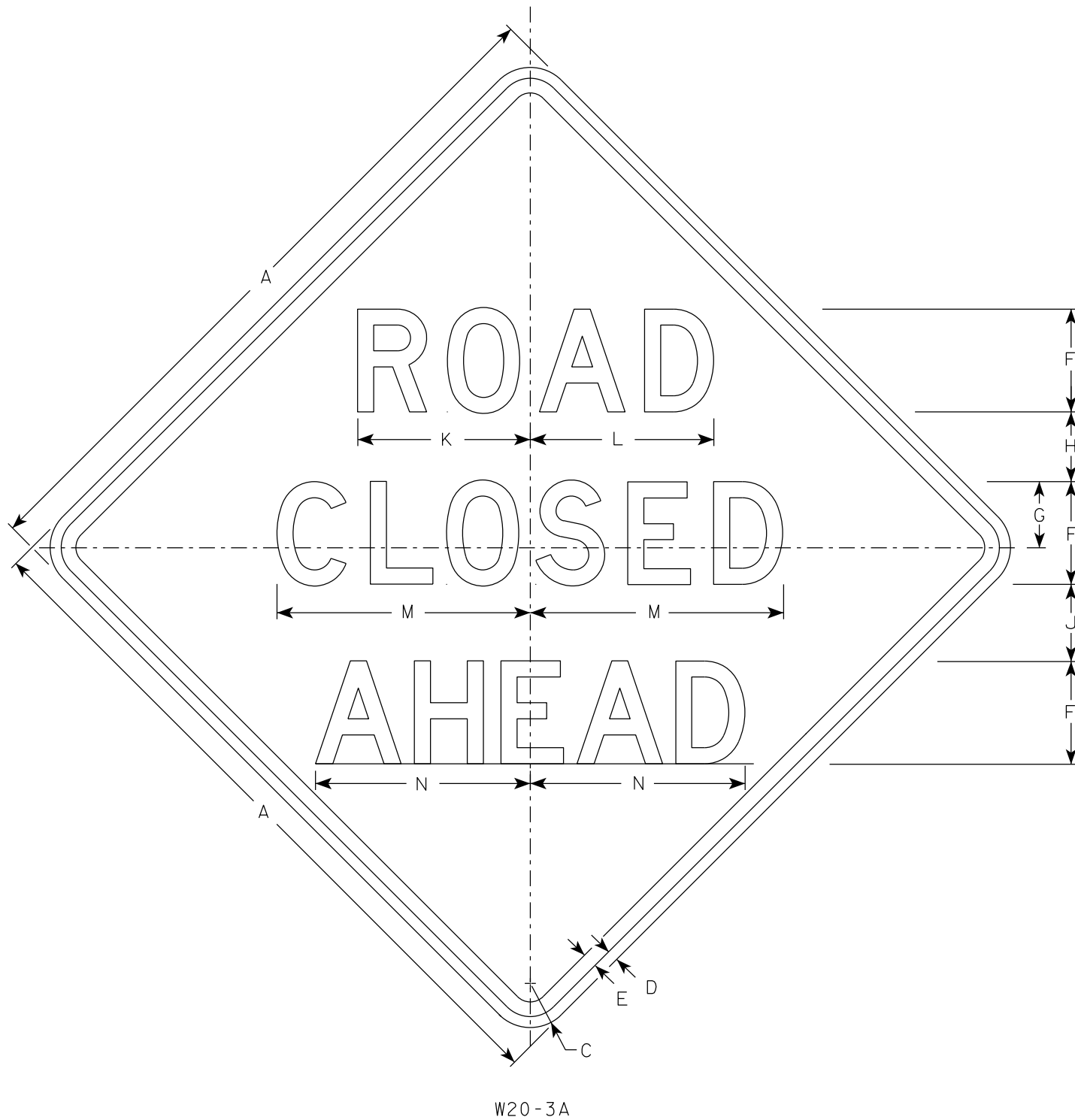
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

STANDARD SIGN
W20-2A, B, C, D, F & G

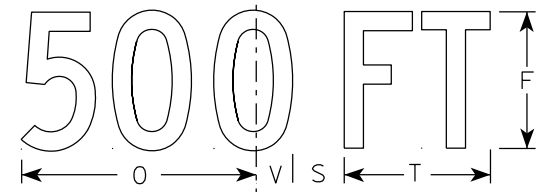
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

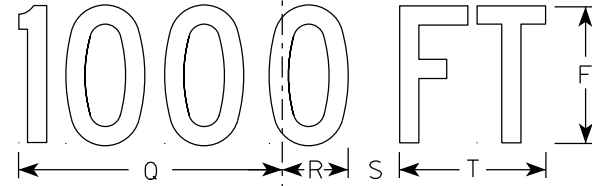
DATE 1/10/2024 PLATE NO. W20-2.7



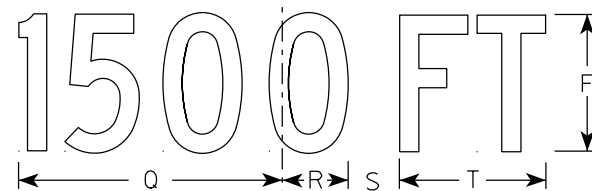
W20-3A



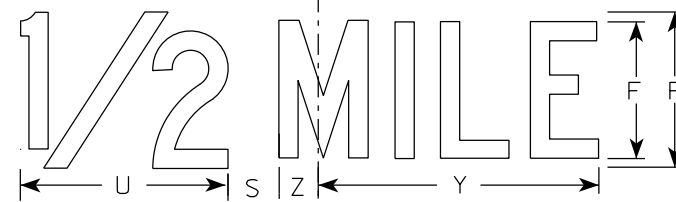
W20-3D



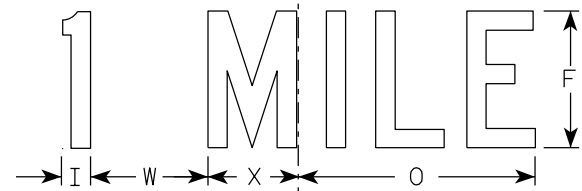
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



SCOPE OF WORK

- EXTEND EXISTING PIPE ARCH TO EAST.
- REMOVE EXISTING MITERED PIPE END AT EAST SIDE.
- CONSTRUCT APRON AND WINGWALLS AT EAST SIDE.
- INSTALL RIPRAP AT EAST SIDE.

HYDRAULIC DATA

100-YEAR FREQUENCY:
 Q_{100} = 990 C.F.S.
 V_{100} = 10.5 F.P.S.
 HW_{100} = EL. 724.09
 WATERWAY AREA = 94 SQ. FT.
 DRAINAGE AREA = 3.2 SQ. MI.
 SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:
 Q_2 = 243 C.F.S.
 V_2 = 5.16 F.P.S.
 HW_2 = EL. 715.79

TRAFFIC DATA

CTH N:
 ADT = 12,200 (2025)
 16,400 (2045)
 R.D.S. = 40 MPH

MATERIAL PROPERTIES:

CONCRETE MASONRY:
 GRADE A-FA f'_c = 3,500 PSI

HIGH STRENGTH BAR STEEL REINFORCEMENT
 GRADE 60 f_y = 60,000 PSI

SHEAR CONNECTORS
 HEX HEAD 1/2" DIA., ASTM F1554, GRADE 36

EARTH LOAD:

ENDWALL DESIGNED FOR 1 FOOT SURCHARGE.

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Westwood

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

ACCEPTED  J.L.R. 11/12/25
 CHIEF STRUCTURES DESIGN ENGINEER DATE

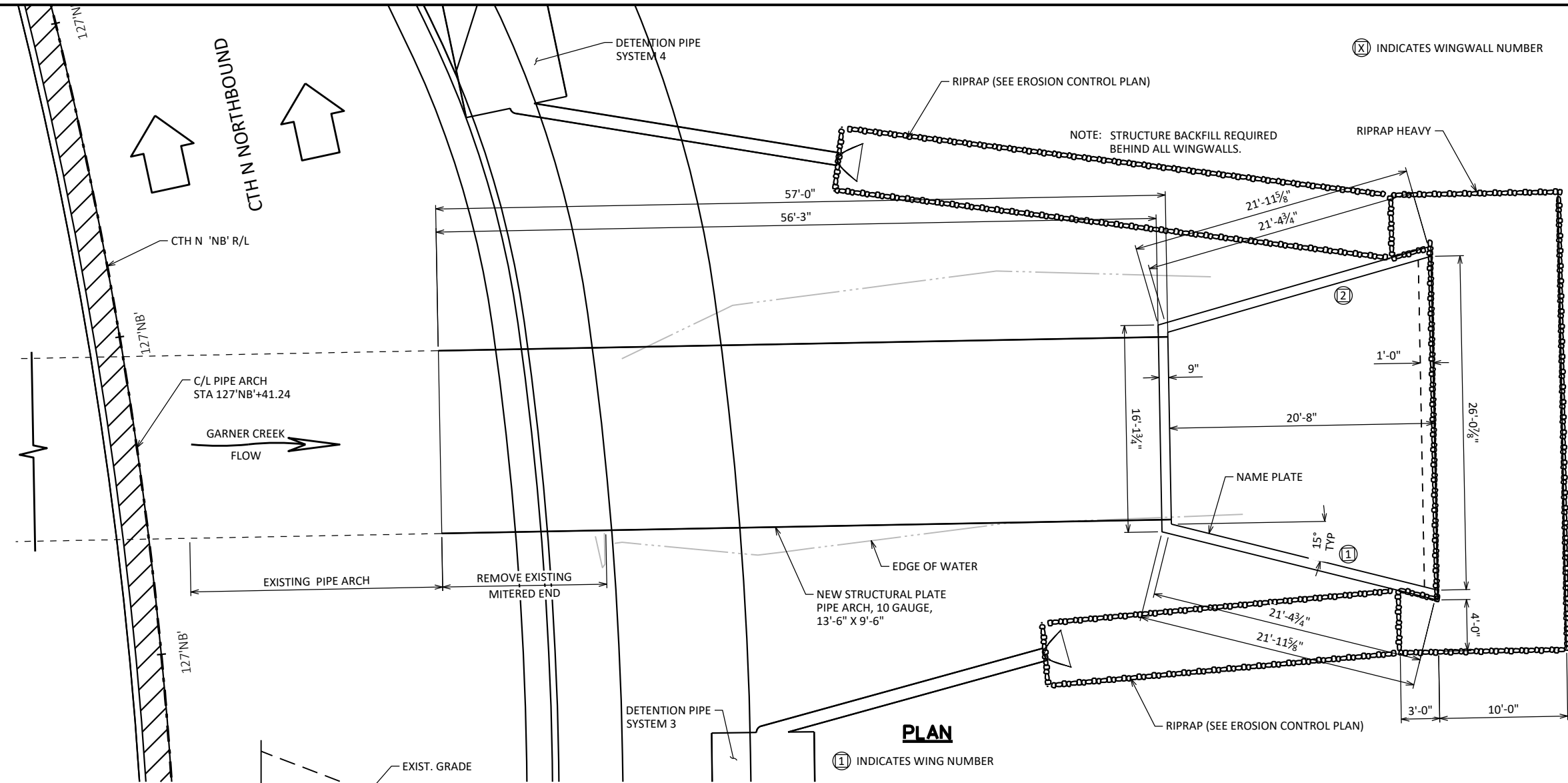
STRUCTURE V-44-0144

CTH N OVER GARNER CREEK

COUNTY OUTAGAMIE TOWN BUCHANAN

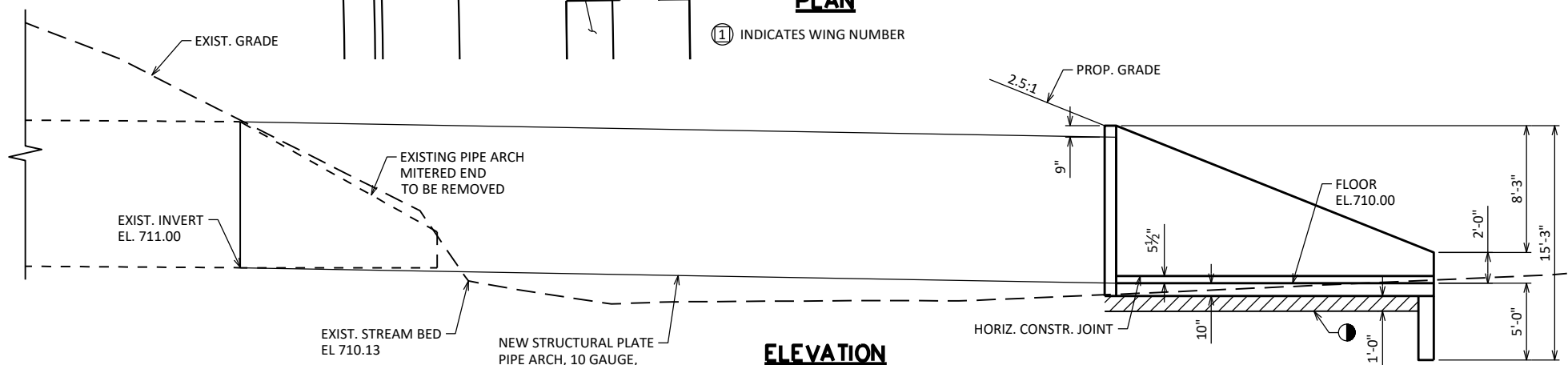
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION
 DESIGNED BY HN DESIGN CK'D RFS DRAWN BY CRK PLANS CK'D RFS

GENERAL PLAN SHEET 1 OF 3



PLAN

① INDICATES WING NUMBER



ELEVATION

(LOOKING NORTH)

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE UPPER LIMITS OF THE "EXCAVATION FOR STRUCTURES CULVERTS V-44-0144" SHALL BE THE EXISTING GROUND LINE.
- ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW CULVERT AND APRONS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE CULVERT AS SHOWN IN THE ROADWAY PLAN CONSTRUCTION DETAILS.
- THE APRONS AND WINGWALLS SHALL BE CAST IN PLACE.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.
- UNDERCUT APRON 1'-0" (INCLUDED IN EXCAVATION FOR STRUCTURES), PLACE GEOTEXTILE TYPE 'C', AND BACKFILL WITH "BREAKER RUN". EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE APRON AND AS SHOWN IN THE ROADWAY PLAN CONSTRUCTION DETAILS.
- THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	QUANTITY
203.0220	REMOVING STRUCTURE V-44-144	EA	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS V-44-144	EA	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,499
311.0110	BREAKER RUN	TON	41
504.0100	CONCRETE MASONRY CULVERTS	CY	36
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	840
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,670
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	96
606.0300	RIPRAP HEAVY	CY	31
645.0105	GEOTEXTILE TYPE C	SY	75
645.0120	GEOTEXTILE TYPE HR	SY	34
SPV.0090.06	PIPE ARCH STRUCTURAL PLATE 162 X 114-INCH	LF	57

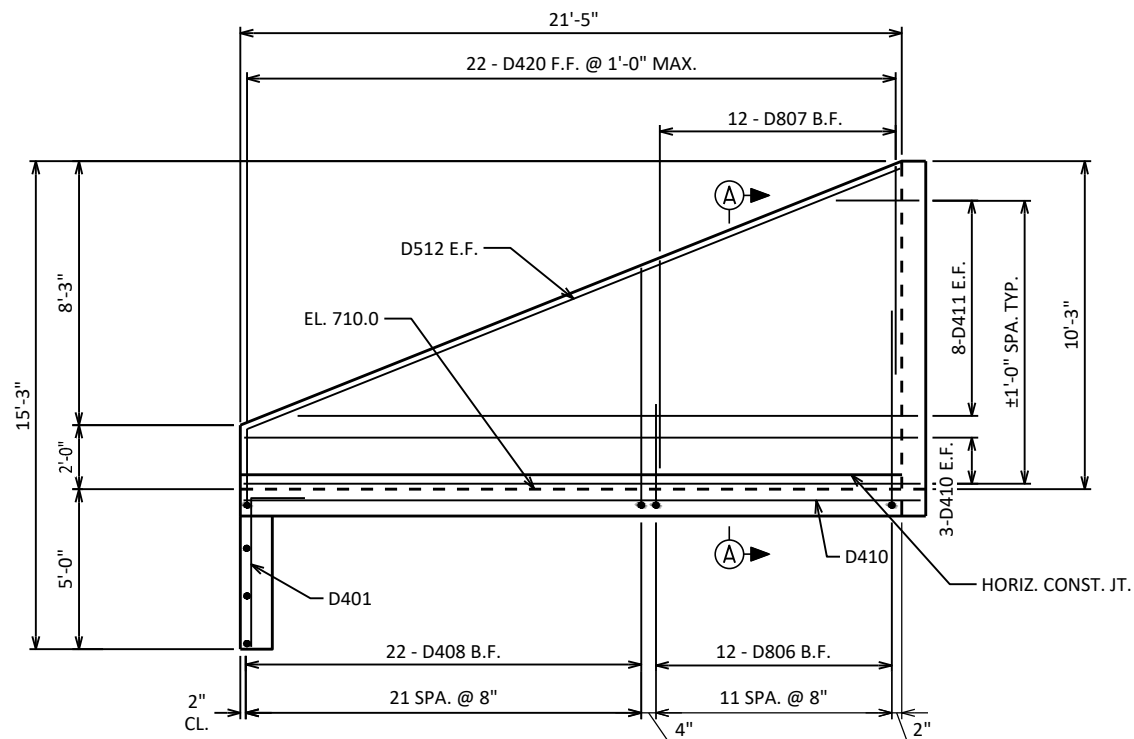


LIST OF DRAWINGS:

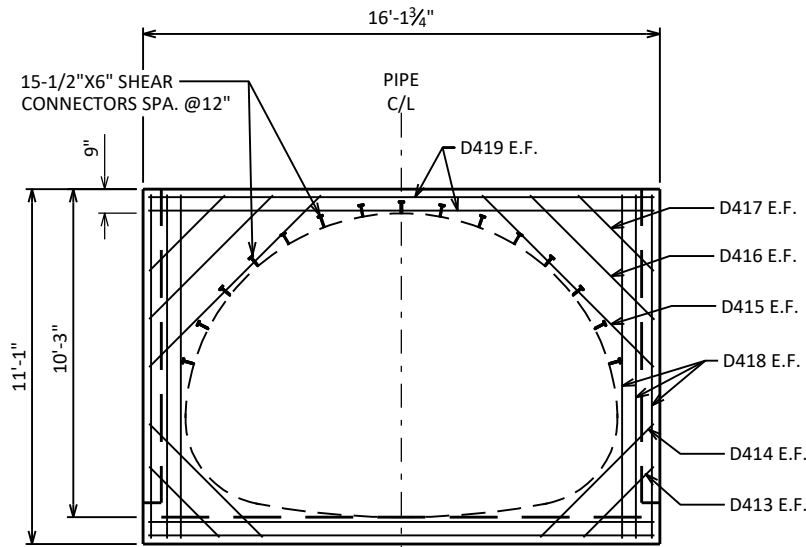
- GENERAL PLAN
- EAST APRON DETAILS
- SUBSURFACE EXPLORATION

CONSULTANT CONTACT:
 ROB SISTO PHONE NUMBER
 WESTWOOD (920) 830-6108

STRUCTURE DESIGN CONTACTS:
 AARON BONK PHONE NUMBER
 (608) 261-0261



WINGWALL ELEVATION
(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)

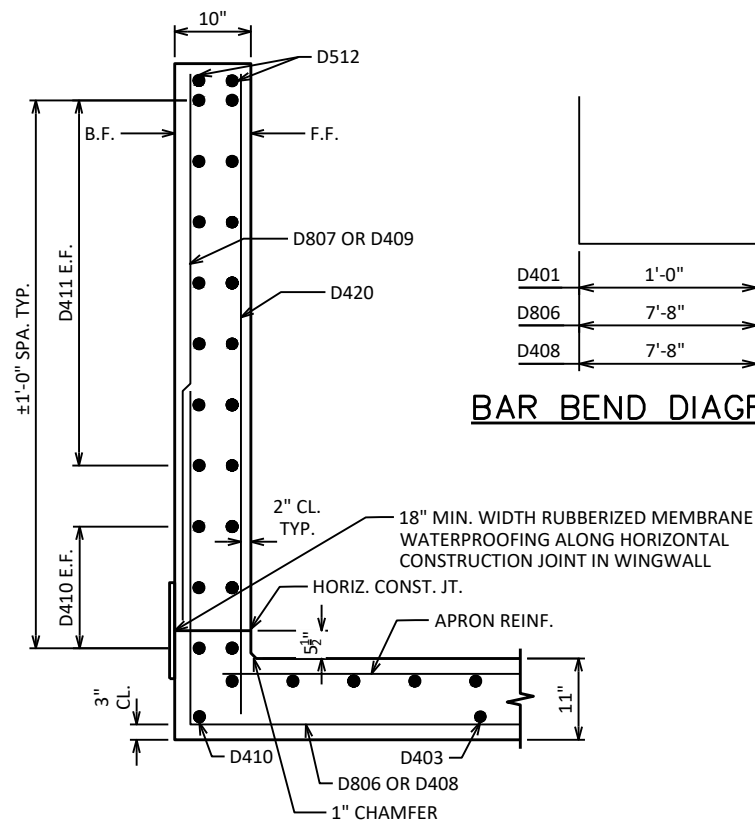


BACKWALL FRONT FACE ELEVATION

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	SERIES	BENT	LOCATION
D401		29	5'-4"		X	OUTLET CUTOFF WALL
D402		5	27'-4"			OUTLET CUTOFF WALL
D403		19	20'-4"			OUTLET APRON
D404		10	9'-11"	△		OUTLET APRON
D405		22	21'-7"	△		OUTLET APRON
D806	X	24	14'-3"		X	OUTLET WINGWALLS CORNER B.F.
D807	X	24	6'-5"	△		OUTLET WINGWALLS VERTICAL B.F.
D408	X	44	10'-6"		X	OUTLET WINGWALLS CORNER B.F.
D409	X	44	3'-7"	△		OUTLET WINGWALLS VERTICAL F.F.
D410	X	12	20'-4"			OUTLET WINGWALLS HORIZONTAL
D411	X	32	10'-8"	△		OUTLET WINGWALLS HORIZONTAL
D512	X	4	22'-7"			OUTLET WINGWALLS HORIZONTAL, TOP
D413	X	4	2'-4"			OUTLET BACKWALL
D414	X	4	4'-8"			OUTLET BACKWALL
D415	X	4	10'-7"			OUTLET BACKWALL
D416	X	4	7'-0"			OUTLET BACKWALL
D417	X	4	3'-6"			OUTLET BACKWALL
D418	X	12	10'-9"			OUTLET BACKWALL
D419	X	8	15'-10"			OUTLET BACKWALL
D420	X	44	6'-8"	△		OUTLET WINGWALLS VERTICAL F.F.

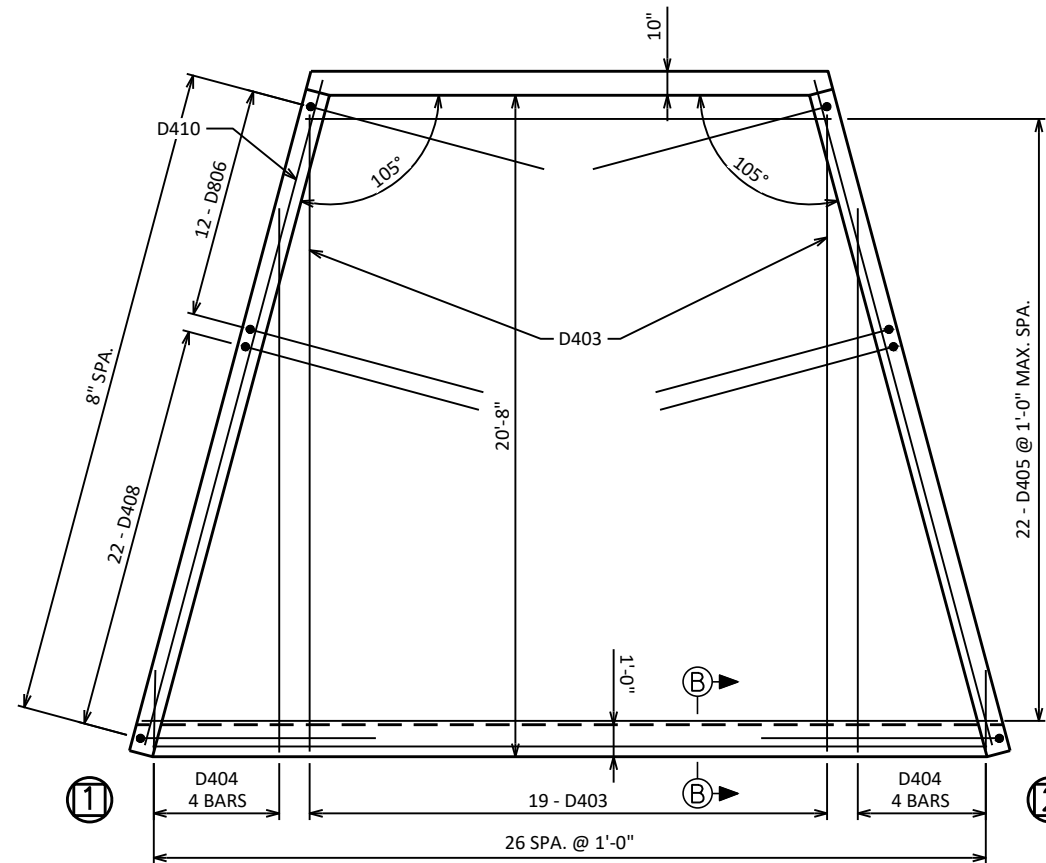
△ INDICATES BAR SERIES



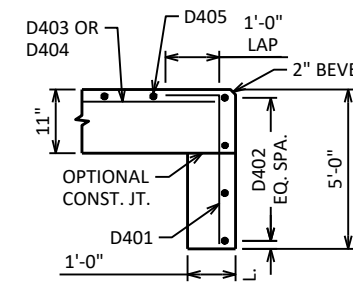
SECTION A-A
(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)

BAR BEND DIAGRAMS

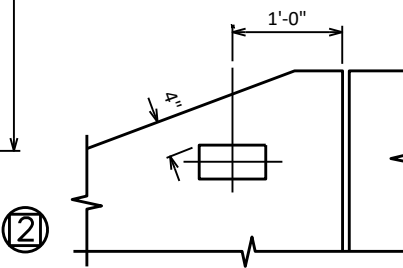
D401	1'-0"
D806	7'-8"
D408	7'-8"



APRON PLAN



SECTION B-B



NAME PLATE LOCATION WINGWALL 1

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
D404	2 SERIES OF 5	2'-10" TO 17'-1"
D405	1 SERIES OF 22	15'-9" TO 27'-4"
D807	2 SERIES OF 12	2'-11" TO 9'-11"
D409	2 SERIES OF 22	1'-8" TO 5'-7"
D411	4 SERIES OF 8	2'-10" TO 18'-5"
D420	2 SERIES OF 22	2'-6" TO 10'-9"

NOTES:
PLACE BARS AS SHOWN. SPACE AT 1'-0"
UNLESS OTHERWISE NOTED

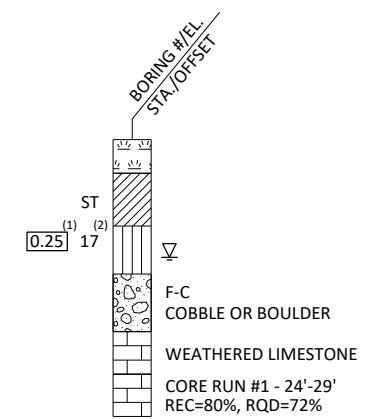
ⓧ INDICATES WINGWALL NUMBER

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE V-44-0144			
DRAWN BY		CRK	PLANS CK'D RFS
EAST APRON DETAILS			SHEET 2 of 3

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

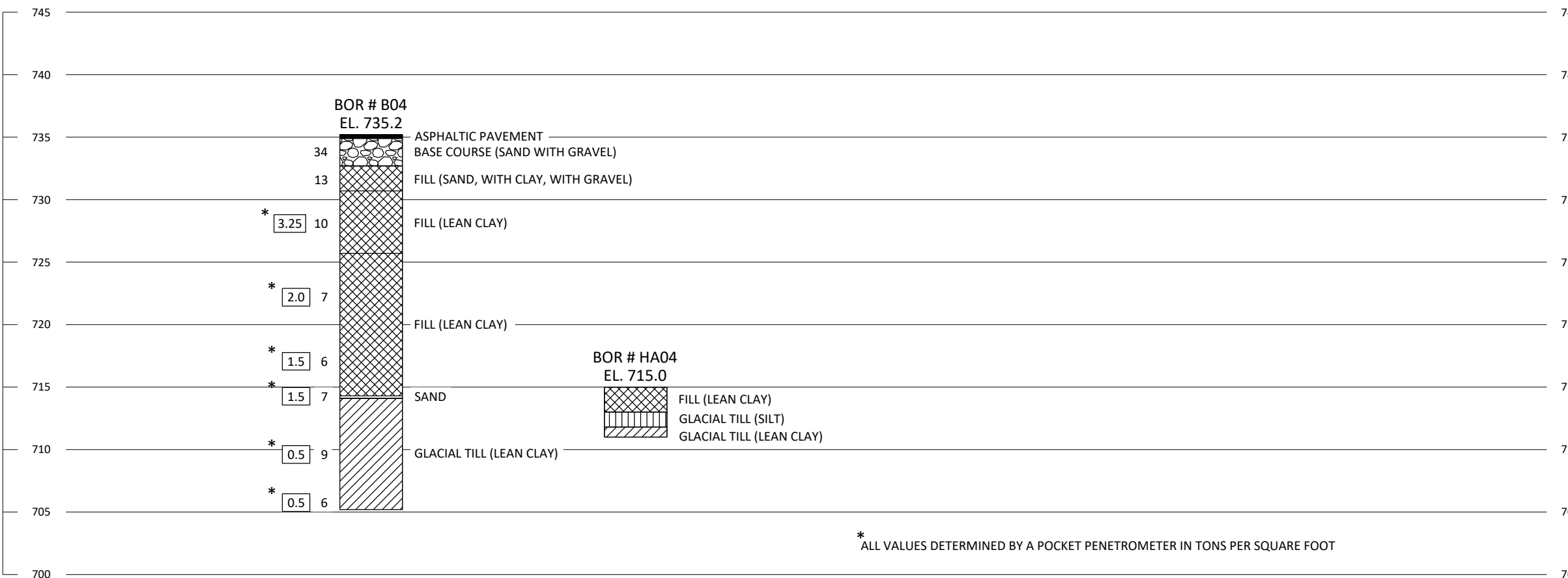
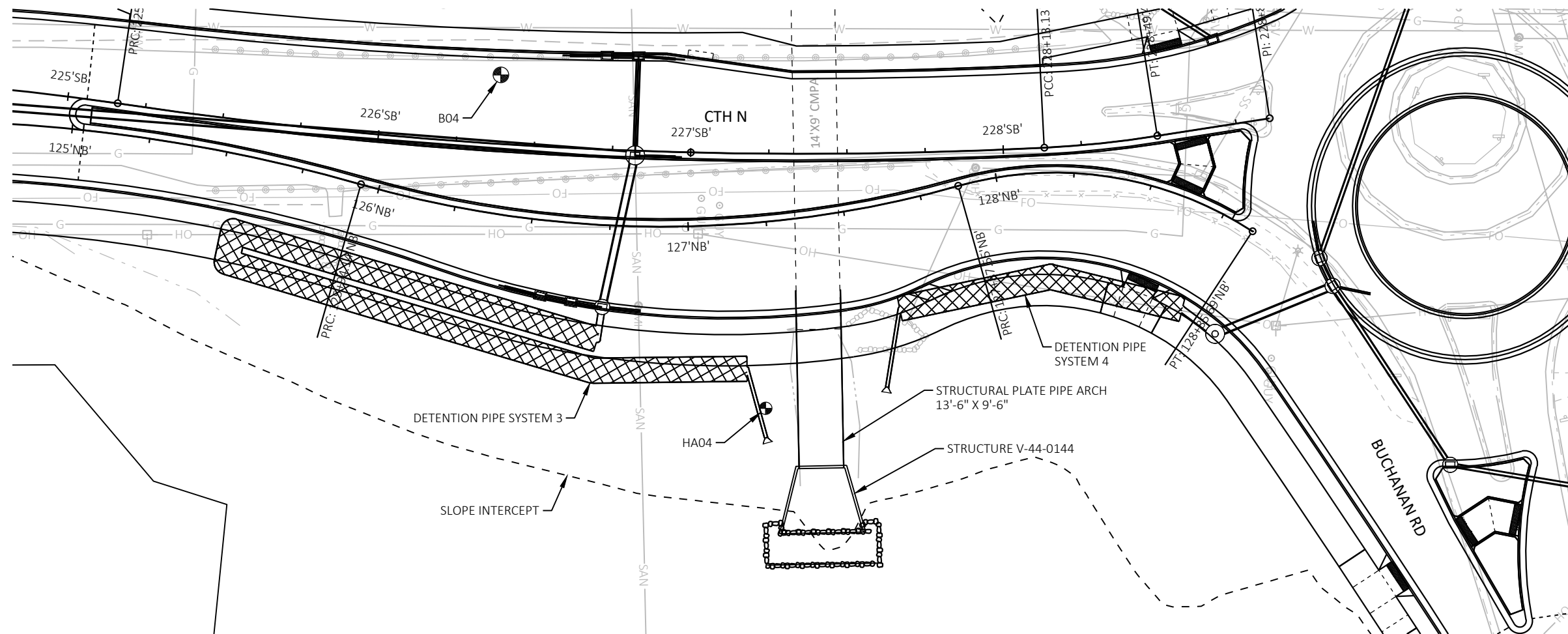
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE V-44-0144

DRAWN BY	CRK	PLANS CK'D	RFS
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SUBSURFACE EXPLORATION

SHEET 3 OF 3



* ALL VALUES DETERMINED BY A POCKET PENETROMETER IN TONS PER SQUARE FOOT

EARTHWORK DETAIL - CTH N NB STAGES 1 AND 2

EARTHWORK DETAIL - CTH N NB STAGES 1 AND 2 - CONTINUED

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2		NOTE 1	NOTE 3	
100+50	446.48	0.00	0.00	0	0	0	0	0	0
101+00	227.78	20.85	2.61	624	19	2	624	3	603
101+50	227.14	19.93	0.22	421	38	3	1,045	6	982
102+00	221.12	18.77	7.23	415	36	7	1,460	15	1,352
102+30	252.73	17.85	2.51	263	20	5	1,723	21	1,589
102+50	218.37	17.21	12.58	174	13	6	1,897	29	1,742
103+00	233.42	15.31	8.83	418	30	20	2,315	54	2,105
103+21	266.14	14.95	4.27	194	12	5	2,509	60	2,281
103+50	250.74	14.63	2.85	278	16	4	2,787	65	2,538
103+70	329.78	14.45	0.00	215	11	1	3,002	66	2,741
104+00	288.93	14.32	5.60	344	16	3	3,346	70	3,065
104+50	287.18	14.21	0.01	533	26	5	3,879	76	3,566
105+00	256.78	13.95	4.12	504	26	4	4,383	81	4,039
105+50	266.38	12.95	4.21	484	25	8	4,867	91	4,488
105+70	370.69	12.39	1.97	236	9	2	5,103	94	4,712
106+00	272.14	12.06	3.92	357	14	3	5,460	98	5,052
106+50	280.23	12.05	1.90	511	22	5	5,971	104	5,534
106+76	392.38	11.98	1.50	324	12	2	6,295	106	5,844
107+00	282.87	12.03	1.38	300	11	1	6,595	108	6,132
107+50	275.58	12.04	1.41	517	22	3	7,112	111	6,623
107+90	327.25	12.02	0.89	447	18	2	7,559	114	7,049
108+00	306.59	11.98	1.00	117	4	0	7,676	114	7,162
108+50	291.07	11.94	0.74	553	22	2	8,229	116	7,691
109+00	385.38	11.88	0.06	626	22	1	8,855	118	8,294
109+50	283.31	11.94	1.39	619	22	1	9,474	119	8,889
110+00	333.38	11.70	0.08	571	22	1	10,045	120	9,437
110+10	437.47	11.63	0.68	143	4	0	10,188	120	9,576
110+50	267.28	13.39	3.37	522	19	3	10,710	124	10,075
110+72	316.01	14.12	4.37	238	11	3	10,948	128	10,299
111+00	261.15	14.86	7.43	299	15	6	11,247	135	10,575
111+25	274.63	15.02	11.86	248	14	9	11,495	146	10,798
111+50	272.48	15.11	13.64	253	14	12	11,748	161	11,022
111+68	312.13	14.85	0.00	195	10	5	11,943	168	11,201
112+00	227.71	14.47	8.47	320	17	5	12,263	174	11,497
112+50	244.74	14.62	7.50	437	27	15	12,700	193	11,889
113+00	220.46	14.54	14.05	431	27	20	13,131	218	12,268
113+50	226.95	14.42	13.62	414	27	26	13,545	250	12,622
113+82	357.51	14.85	0.00	346	17	8	13,891	260	12,941
114+00	352.79	14.33	0.00	237	10	0	14,128	260	13,168
114+50	228.20	14.24	23.21	538	26	21	14,666	286	13,654
115+00	233.47	13.95	143.84	427	26	155	15,093	480	13,861
115+50	242.14	13.79	256.18	440	26	370	15,533	943	13,813
116+00	249.29	13.79	324.39	455	26	538	15,988	1,615	13,569
116+50	247.02	13.79	317.87	460	26	595	16,448	2,359	13,259
117+00	237.00	13.85	298.39	448	26	571	16,896	3,073	12,968
117+50	268.35	13.92	198.87	468	26	460	17,364	3,648	12,835
117+79	359.00	13.95	46.29	337	15	132	17,701	3,813	12,992
118+00	272.73	13.96	30.02	246	11	30	17,947	3,850	13,189
118+50	169.77	13.93	49.98	410	26	74	18,357	3,943	13,481
119+00	145.75	13.92	46.26	292	26	89	18,649	4,054	13,635

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
				NOTE 1	NOTE 2		NOTE 1	NOTE 3	
119+50	186.13	13.88	28.78	307	26	69	18,956	4,140	13,830
120+00	140.20	13.83	48.49	302	26	72	19,258	4,230	14,016
120+50	146.64	13.92	49.35	266	26	91	19,524	4,344	14,142
121+00	228.62	14.01	10.02	347	26	55	19,871	4,413	14,395
121+50	168.68	14.08	33.22	368	26	40	20,239	4,463	14,687
122+00	188.17	14.14	24.30	330	26	53	20,569	4,529	14,924
122+40	276.80	14.28	11.41	344	21	26	20,913	4,561	15,215
122+50	287.16	14.31	12.92	104	5	5	21,017	4,568	15,308
123+00	318.87	14.21	8.88	561	26	20	21,578	4,593	15,818
123+50	287.27	14.05	4.35	561	26	12	22,139	4,608	16,338
124+00	221.42	14.08	10.69	471	26	14	22,610	4,625	16,765
124+50	215.29	14.11	17.77	404	26	26	23,014	4,658	17,111
125+00	213.57	14.06	65.67	397	26	77	23,411	4,754	17,385

- NOTES:
- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
 - 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED DOES NOT APPEAR IN CROSS SECTIONS
 - 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

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NOTES:

- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED
DOES NOT APPEAR IN CROSS SECTIONS
- 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

EARTHWORK DETAIL - CTH N NB STAGE 3 SOUTH OF RAB

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
125+00	213.57	14.06	65.67	0	0	0	0	0	0
125+50	119.23	8.18	151.07	308	21	201	308	251	36
126+00	81.78	5.38	295.93	186	13	414	494	769	-309
126+50	50.22	3.10	493.91	122	8	731	616	1,683	-1,109
127+00	35.06	1.57	704.74	79	4	1,110	695	3,070	-2,421
127+38	32.51	0.79	1229.42	48	2	1,361	743	4,771	-4,076
127+50	38.32	0.64	841.52	16	0	460	759	5,346	-4,635
128+00	85.48	0.44	601.95	115	1	1,337	874	7,018	-6,193
128+50	89.16	3.23	693.97	162	3	1,200	1,036	8,518	-7,534
128+75	62.62	1.79	737.30	70	2	663	1,106	9,346	-8,294

EARTHWORK DETAIL - CTH N NB STAGE 3 NORTH OF RAB

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
130+50	195.10	2.57	0.00	0	0	0	0	0	0
130+75	208.58	0.00	0.00	187	1	0	187	0	186
131+00	130.32	0.54	0.00	157	0	0	344	0	343
131+50	201.95	12.75	0.00	308	12	0	652	0	639
132+00	232.46	13.48	0.00	402	24	0	1,054	0	1,017
132+35	312.00	14.05	0.00	353	18	0	1,407	0	1,352
132+50	246.83	14.31	1.92	155	8	1	1,562	1	1,498
133+00	259.73	15.20	0.00	469	27	2	2,031	4	1,937
133+25	313.03	15.65	0.00	265	14	0	2,296	4	2,188
133+50	234.90	16.12	0.00	254	15	0	2,550	4	2,427
134+00	204.34	17.73	0.00	407	31	0	2,957	4	2,803
134+38	185.34	18.15	1.17	271	25	1	3,228	5	3,048

NOTES:

- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED DOES NOT APPEAR IN CROSS SECTIONS
- 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

EARTHWORK DETAIL - CTH N SB STAGE 3 SOUTH OF RAB

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
225+50	115.59	7.74	49.26	0	0	0	0	0	0
226+00	135.68	9.09	34.75	233	16	78	233	98	120
226+50	159.42	10.26	19.90	273	18	51	506	161	311
227+00	174.17	10.99	7.32	309	20	25	815	193	569
227+38	172.84	11.17	0.00	244	16	5	1,059	199	790
227+50	165.33	11.31	0.00	75	5	0	1,134	199	860
228+00	129.90	11.53	0.00	273	21	0	1,407	199	1,112
228+50	93.64	8.80	13.41	207	19	12	1,614	214	1,285
228+75	96.61	5.28	0.64	88	7	7	1,702	223	1,358

EARTHWORK DETAIL - CTH N SB STAGE 3 NORTH OF RAB

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
230+50	74.17	9.05	4.50	0	0	0	0	0	0
231+00	64.71	11.34	10.18	129	19	14	129	18	93
231+30	78.69	7.97	0.00	80	11	6	209	25	154

EARTHWORK DETAIL - PARCEL 42 PATH

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
1+25	2.00	0.00	0.00	0	0	0	0	0	0
1+50	1.00	0.00	0.00	1	0	0	1	0	1
1+75	2.00	0.00	0.00	1	0	0	2	0	2
2+00	2.00	0.00	0.00	2	0	0	4	0	4
2+24	2.00	0.00	0.00	2	0	0	6	0	6

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NOTES:

EARTHWORK DETAIL - EMONS EB STAGE 3

- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED
DOES NOT APPEAR IN CROSS SECTIONS
- 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 1	1.25	NOTE 3	
301+16	83.65	0.00	0.13	0	0	0	0	0	0
301+50	84.83	11.50	0.00	106	7	0	106	0	99
301+69	100.34	10.74	0.49	65	8	0	171	0	156
302+00	87.13	9.49	2.53	108	12	2	279	3	250
302+28	131.13	9.14	0.00	114	10	1	393	4	352
302+50	112.04	9.50	1.72	98	8	1	491	5	441
302+70	96.72	9.56	2.22	76	7	1	567	6	509
303+00	92.34	6.97	0.19	106	9	1	673	8	605
303+25	125.93	8.51	0.00	101	7	0	774	8	699

EARTHWORK DETAIL - BUCHANAN EB STAGE 3

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 1	1.25	NOTE 3	
305+25	156.98	3.42	6.82	0	0	0	0	0	0
305+50	138.12	6.37	0.66	137	5	3	137	4	128
306+00	36.60	3.17	1.37	162	9	2	299	6	279
306+25	41.54	4.08	0.00	36	3	1	335	8	311
306+50	29.30	9.09	13.74	33	6	6	368	15	330
306+70	33.54	9.06	7.09	23	7	8	391	25	336
306+81	21.78	9.05	9.39	11	4	3	402	29	339
307+00	11.69	9.04	25.17	12	6	12	414	44	330
307+33	11.19	9.03	36.16	14	11	37	428	90	287
307+50	19.22	9.45	53.35	10	6	29	438	126	255
307+60	17.88	9.00	56.75	7	3	20	445	151	234
307+85	39.62	9.00	71.36	27	8	59	472	225	179
308+00	59.00	9.00	41.11	27	5	31	499	264	162
308+10	54.68	9.00	50.24	21	3	17	520	285	159
308+50	69.48	3.15	67.33	92	9	87	612	394	133

EARTHWORK DETAIL - EMONS WB STAGE 3

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 1	1.25	NOTE 3	
401+75	55.98	2.87	0.47	0	0	0	0	0	0
402+00	86.74	3.05	0.76	66	3	1	66	1	62
402+25	81.36	3.41	0.96	78	3	1	144	3	136

EARTHWORK DETAIL - BUCHANAN WB STAGE 3

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2	NOTE 1	1.25	NOTE 3	
404+25	116.92	10.02	1.90	0	0	0	0	0	0
404+50	82.01	6.37	1.47	92	8	2	92	3	82
404+83	39.27	6.41	0.00	74	8	1	166	4	146
405+08	76.26	5.39	0.00	54	6	0	220	4	194

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NOTES:

- 1 CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 ASSUMED 4.5" ASPHALTIC PAVEMENT SALVAGED DOES NOT APPEAR IN CROSS SECTIONS
- 3 MASS ORDINATE = CUT - SALVAGED PAVT - EXPANDED FILL

EARTHWORK DETAIL - ROUNDABOUT CIRCLE STAGE 3

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
50+00	156.63	9.63	74.51	0	0	0	0	0	0
50+35	157.09	24.80	79.04	203	22	100	203	125	56
50+75	36.90	10.57	84.54	144	26	121	347	276	23
50+75	68.50	0.00	586.18	0	0	0	347	276	23
50+90	32.56	12.27	86.79	28	3	187	375	510	-186
50+90	119.04	0.00	348.11	0	0	0	375	510	-186
51+25	140.27	14.48	95.49	168	9	287	543	869	-386
51+63	172.96	11.91	103.20	220	19	140	763	1,044	-360
51+96	103.62	13.79	101.81	169	16	125	932	1,200	-363
52+39	120.88	10.90	102.80	179	20	163	1,111	1,404	-408
52+84	230.20	7.57	59.83	293	15	136	1,404	1,574	-300
53+17	156.64	9.63	74.51	239	11	83	1,643	1,678	-176

EARTHWORK DETAIL - WHITETAIL RIDGE STAGE 2

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
20+26	64.21	0.00	0.39	0	0	0	0	0	0
20+50	71.23	0.00	0.66	60	0	0	60	0	60
20+75	87.23	0.00	0.82	73	0	1	133	1	132

EARTHWORK DETAIL - SARATOGA DR STAGE 2

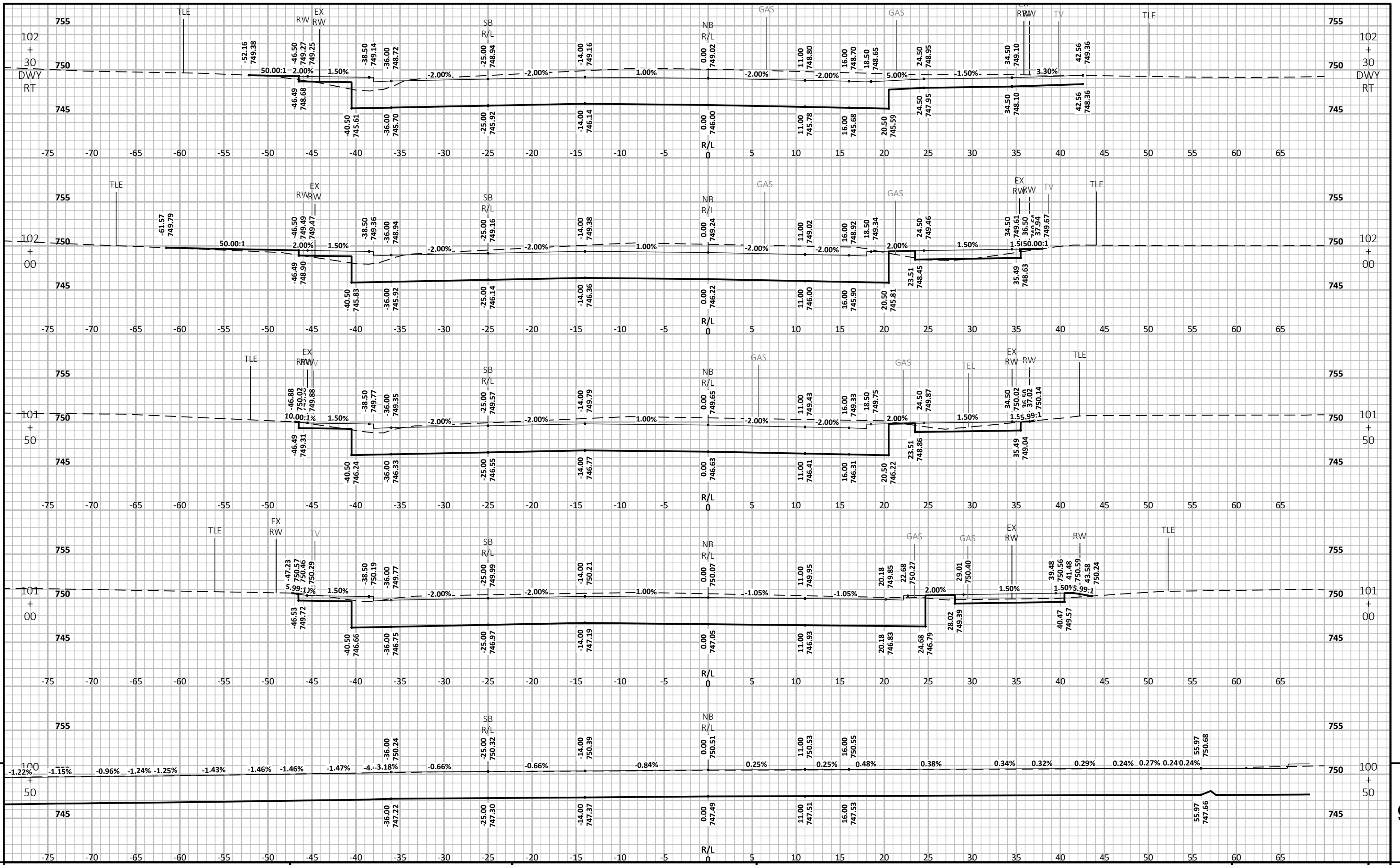
STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
30+75	145.52	0.00	0.00	0	0	0	0	0	0
31+00	109.86	0.00	0.00	118	0	0	118	0	118
31+50	51.30	0.00	0.47	149	0	0	267	0	267

EARTHWORK DETAIL - HILLSIDE DR STAGE 2

STATION	CROSS SECTION AREA (SF)			UNADJUSTED INCREMENTAL VOLUME (CY)			CUMULATIVE VOLUME (CY)		
	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	SALVAGED PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
				NOTE 1	NOTE 2		NOTE 1	1.25	NOTE 3
40+66	109.34	0.00	11.87	0	0	0	0	0	0
41+00	109.53	0.00	0.00	139	0	8	139	10	129
41+50	55.58	0.00	0.43	153	0	0	292	10	282

9

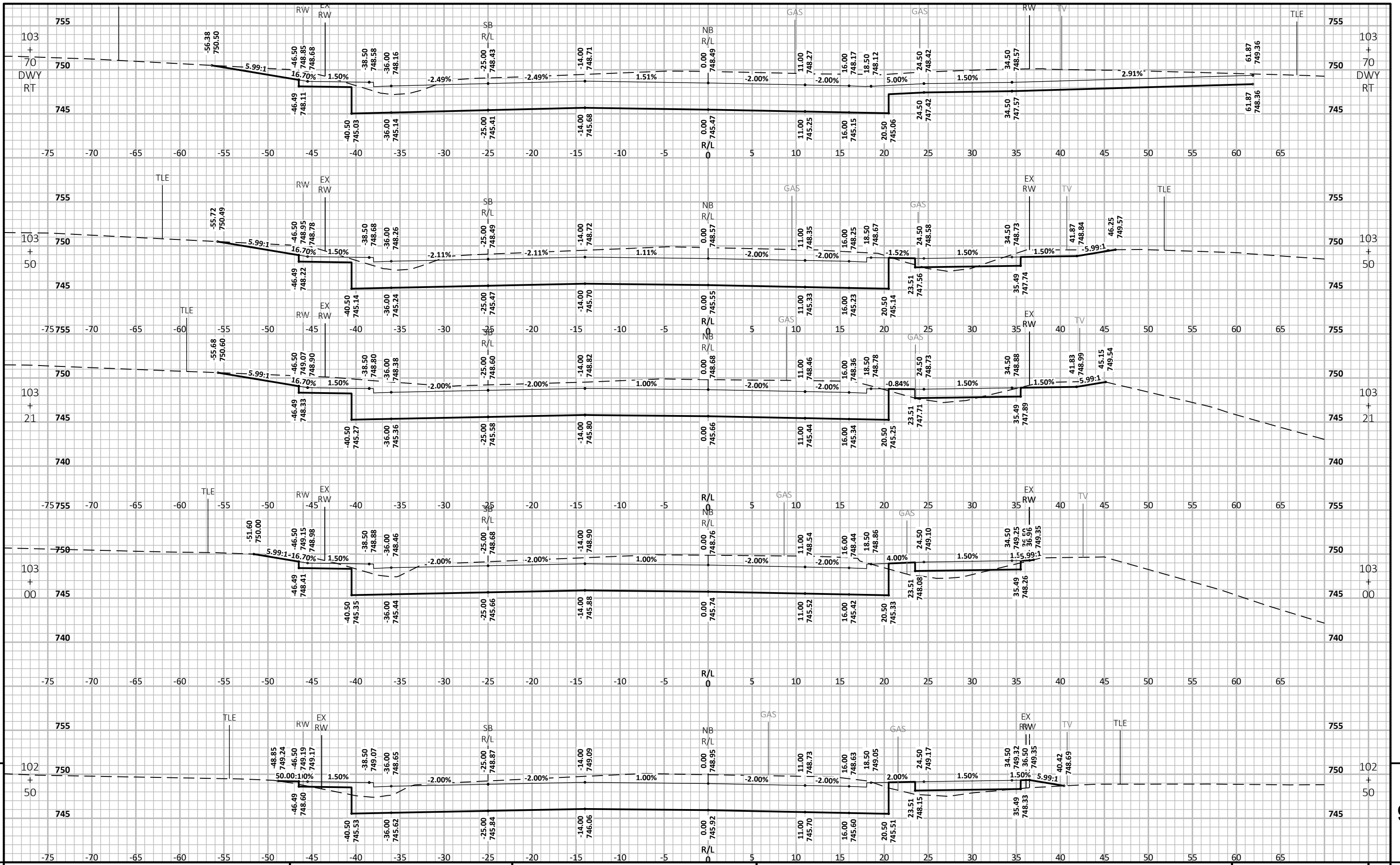
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

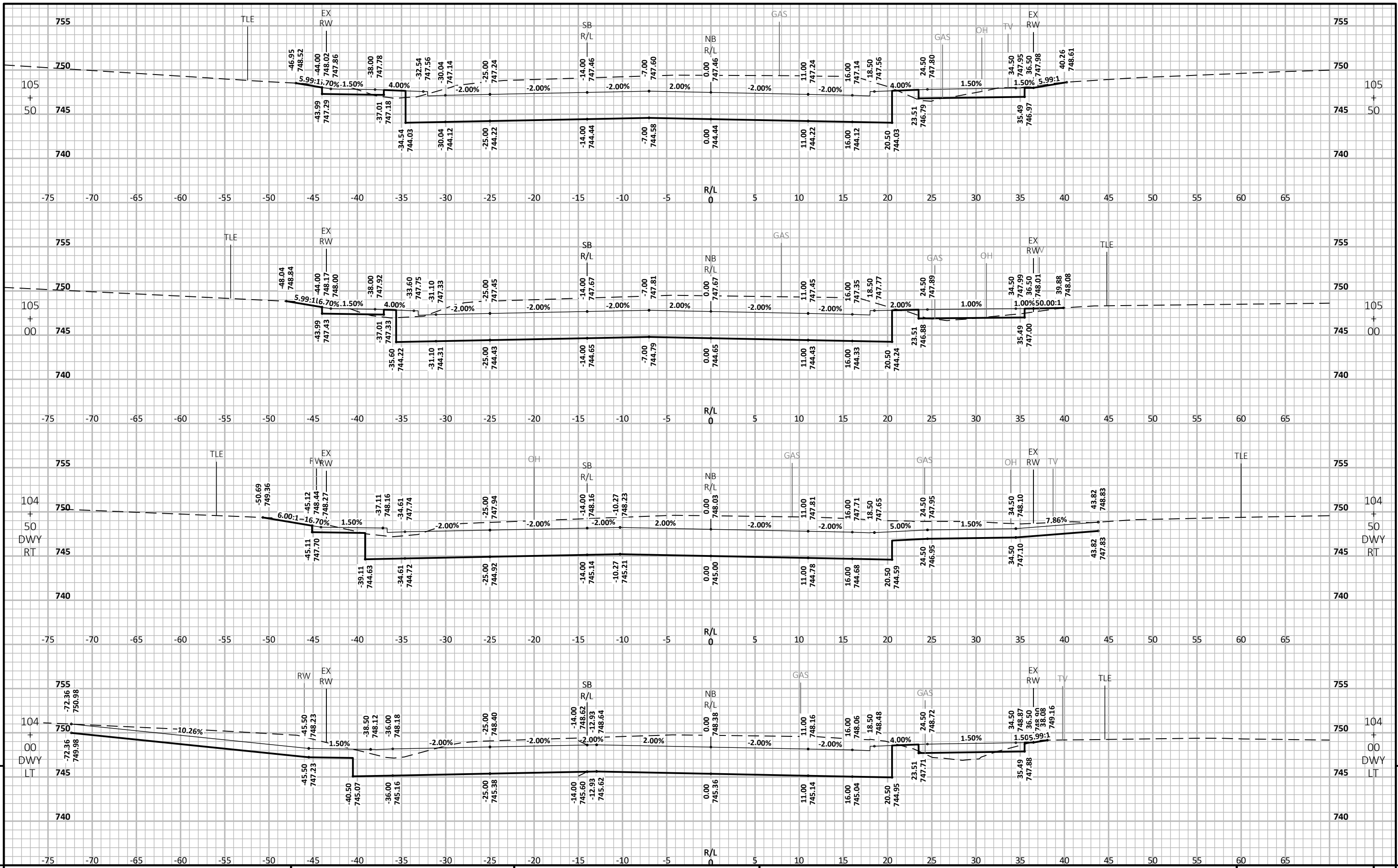
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LAYOUT NAME: 467604-090201-xs



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

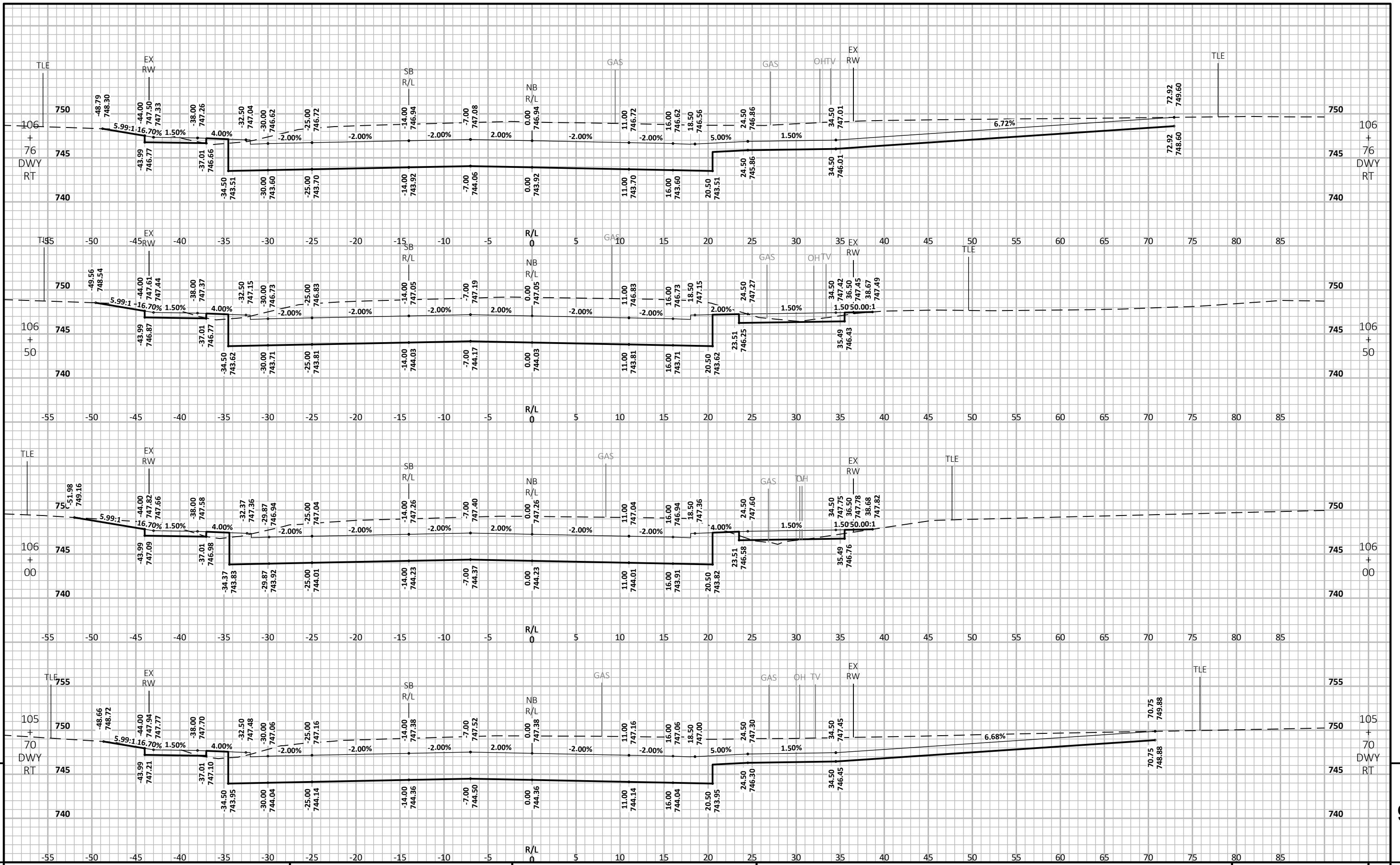
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

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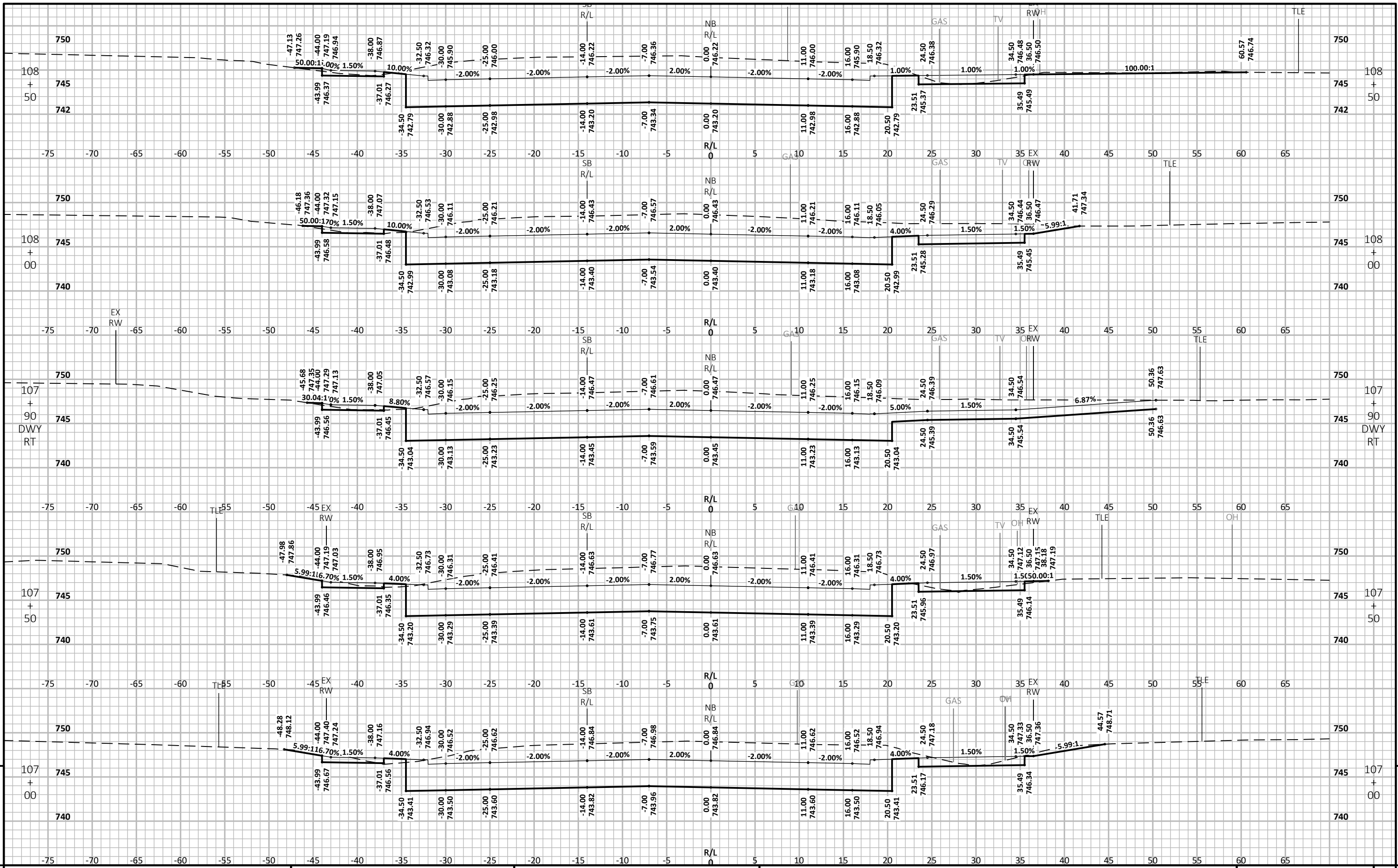
LAYOUT NAME: 467604-090203-XS



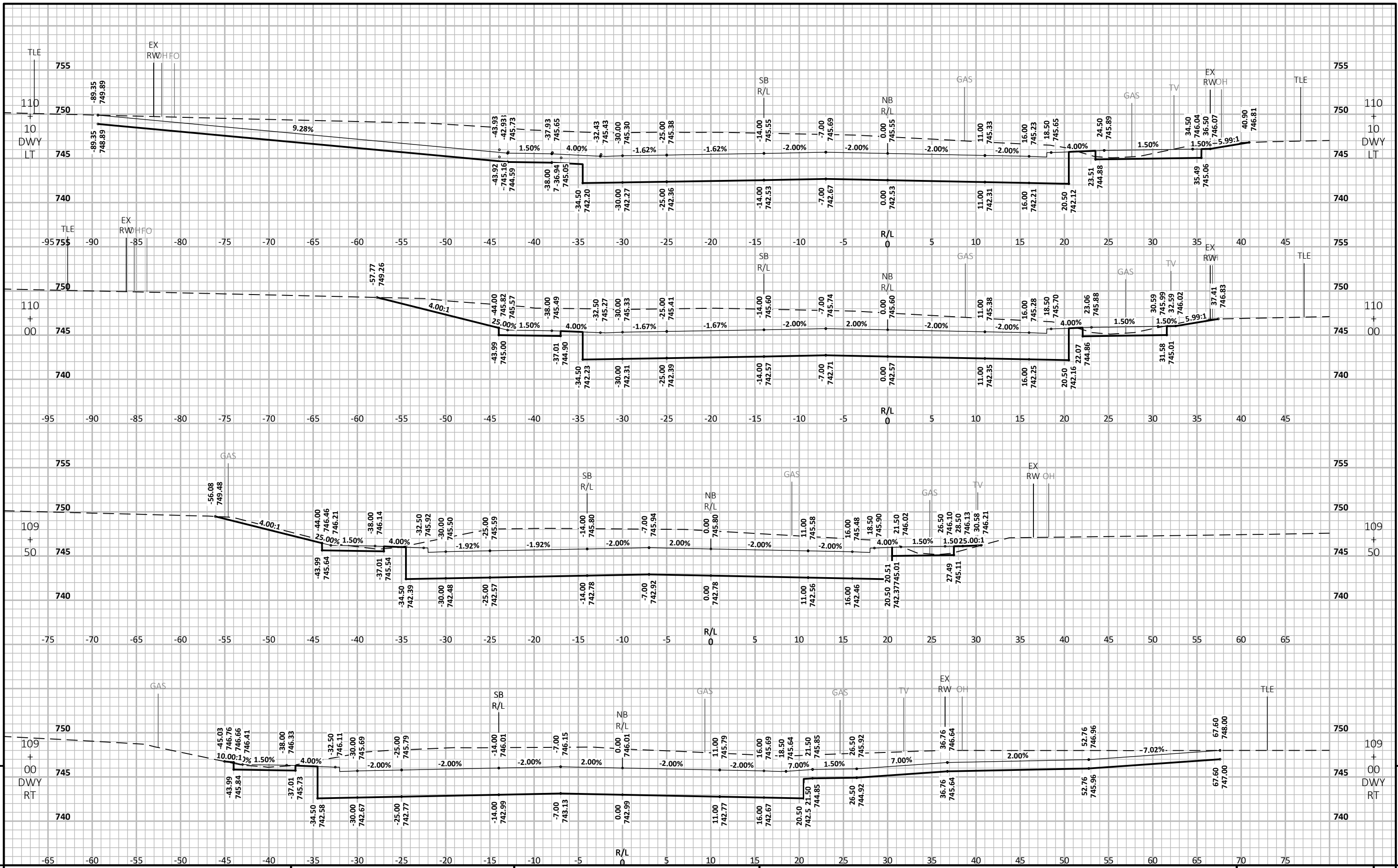
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET E

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG PLOT DATE: 5/27/2025 2:08 PM PLOT BY: CRAIG KNUTH PLOT NAME: PLOT SCALE: 1 IN=10 FT HORZ. / 1 IN=10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME: 467604-090204-XS



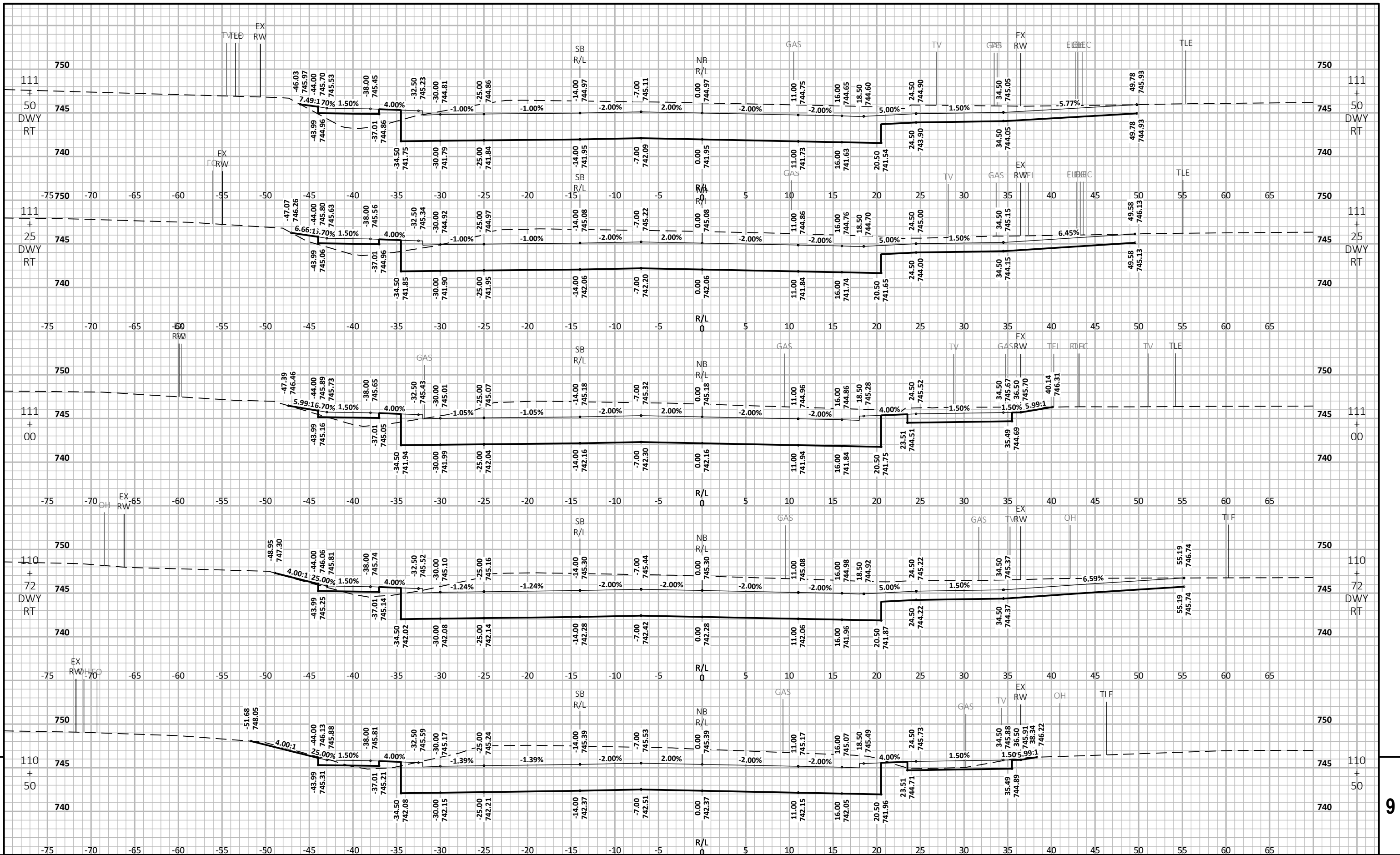
PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH N SOUTH NB
SHEET			E



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG PLOT DATE: 5/27/2025 2:08 PM PLOT BY: CRAIG KNUTH PLOT NAME: PLOT SCALE: 1 IN:10 FT HORIZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME: 467604-090206-xs



PROJECT NO: 4676-04-71

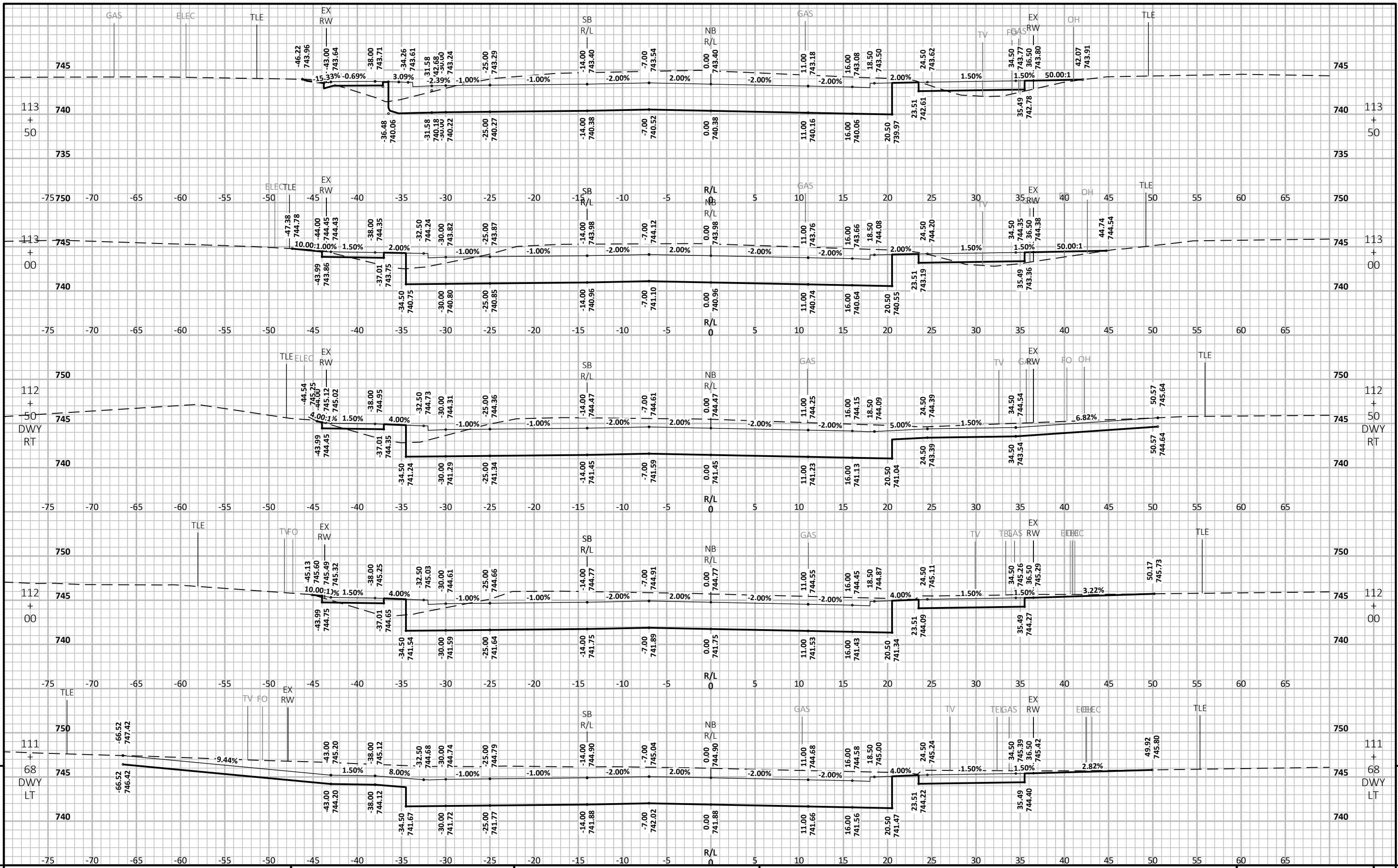
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: CTH N SOUTH NB

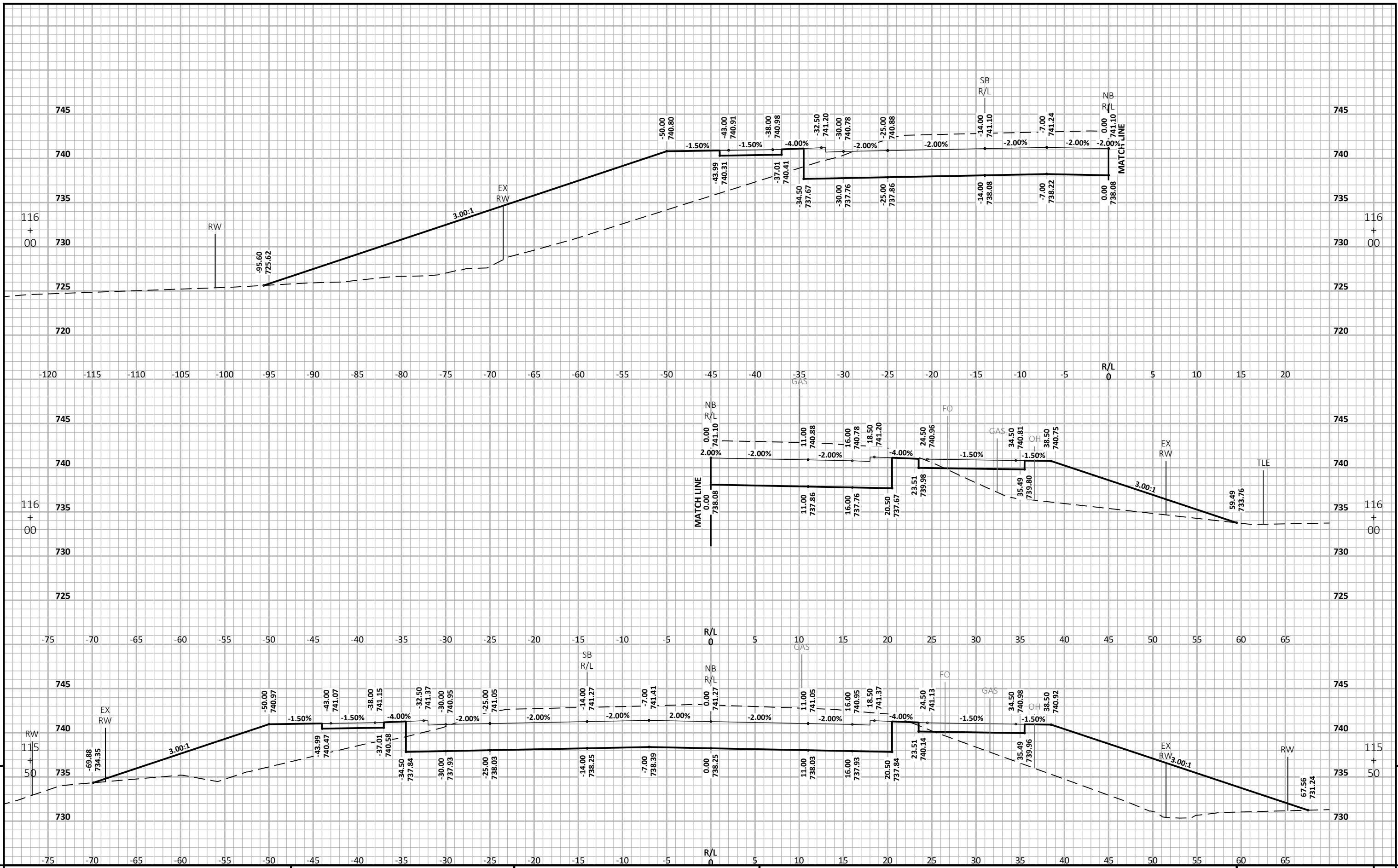
SHEET

E

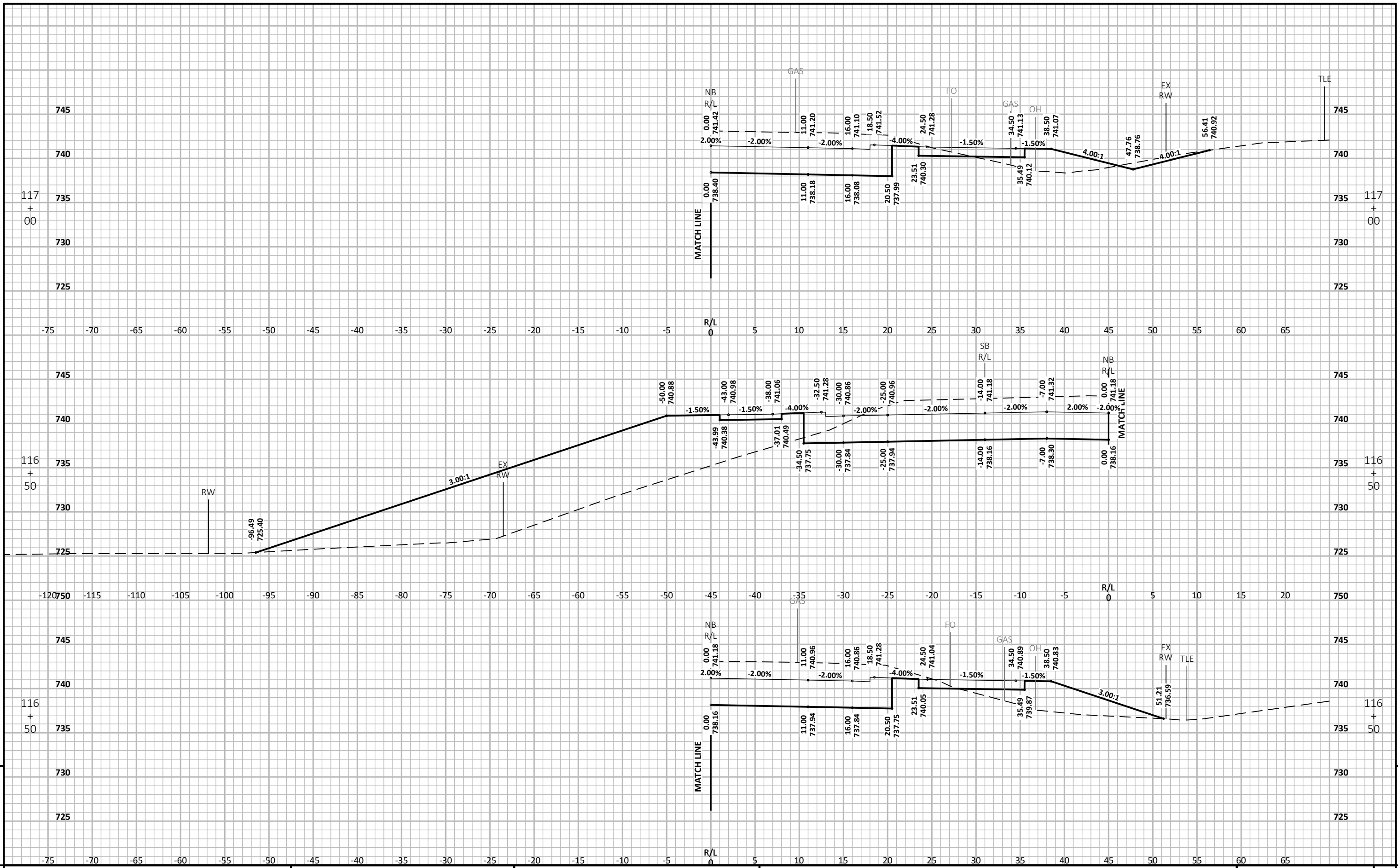


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET: E



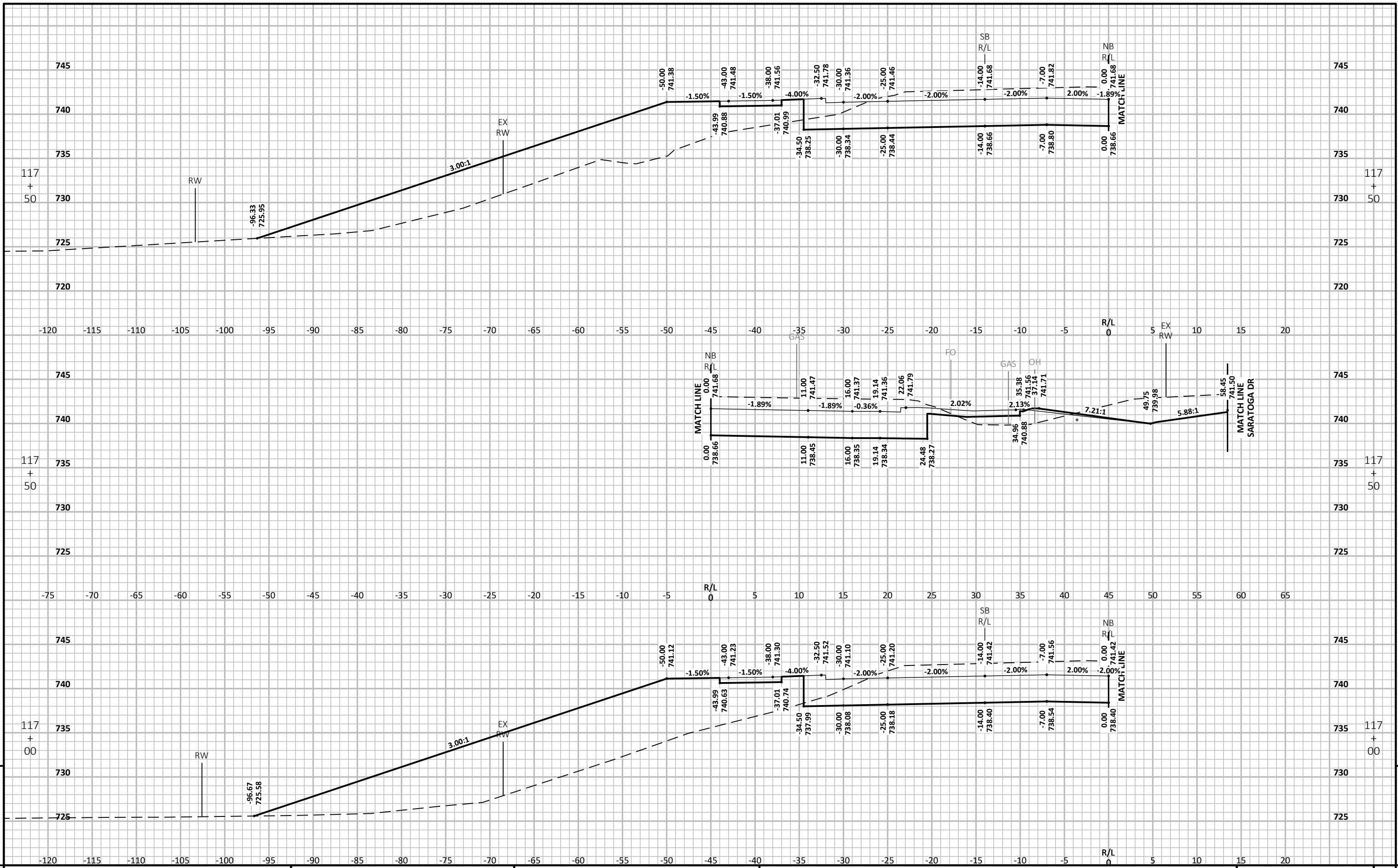
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET E

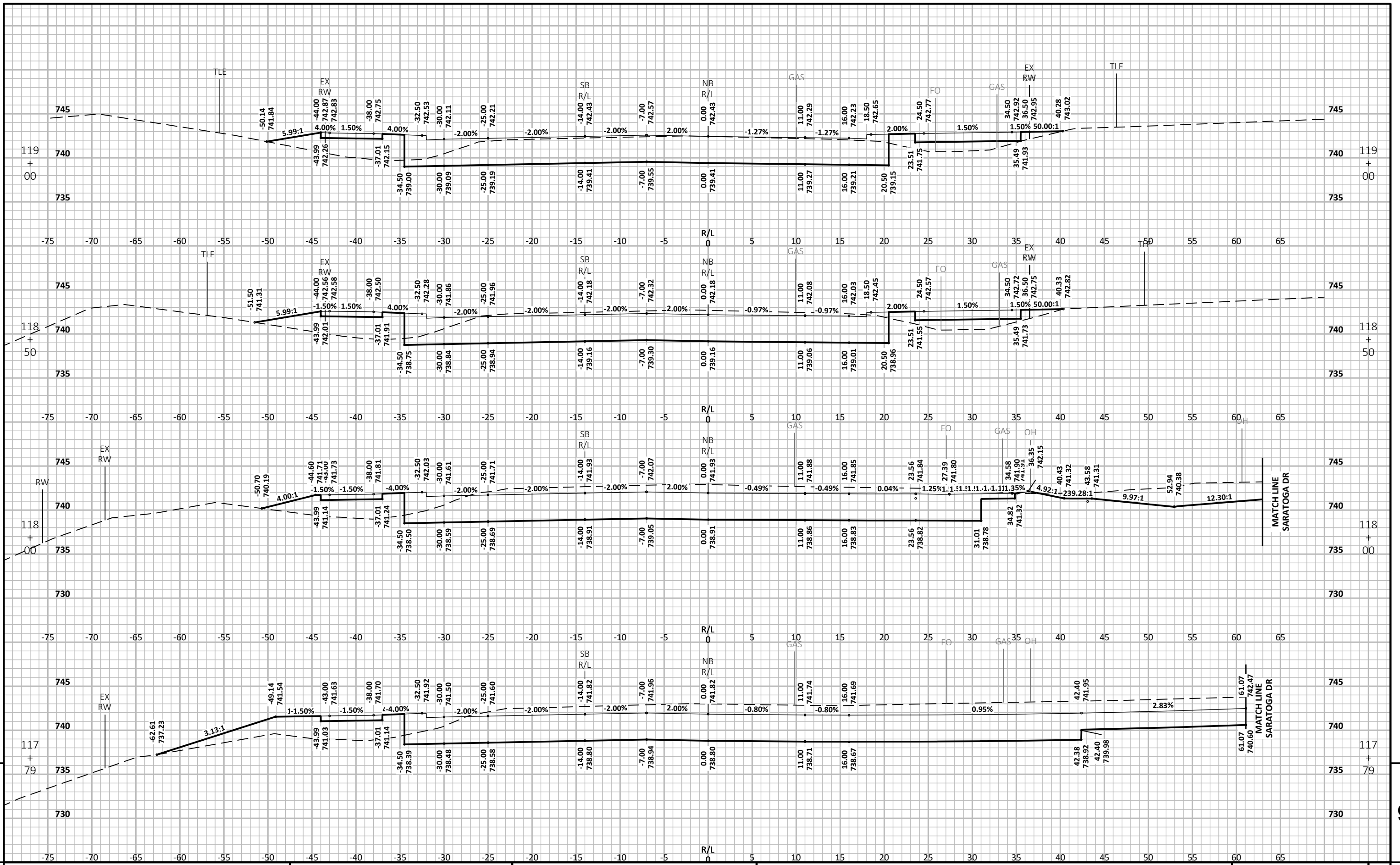
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LAYOUT NAME - 467604-090211-xs



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

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PROJECT NO: 4676-04-71

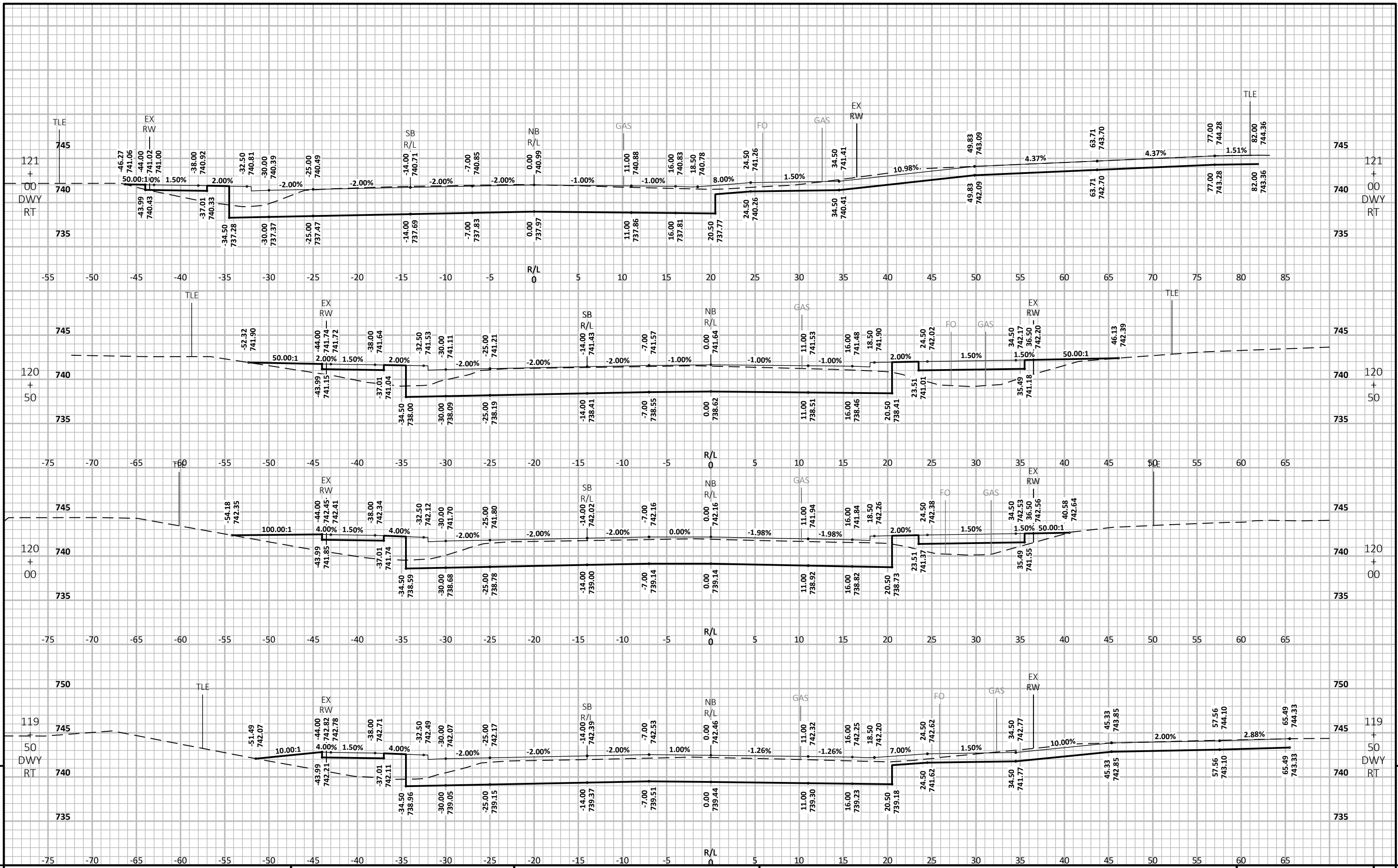
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: CTH N SOUTH NB

SHEET

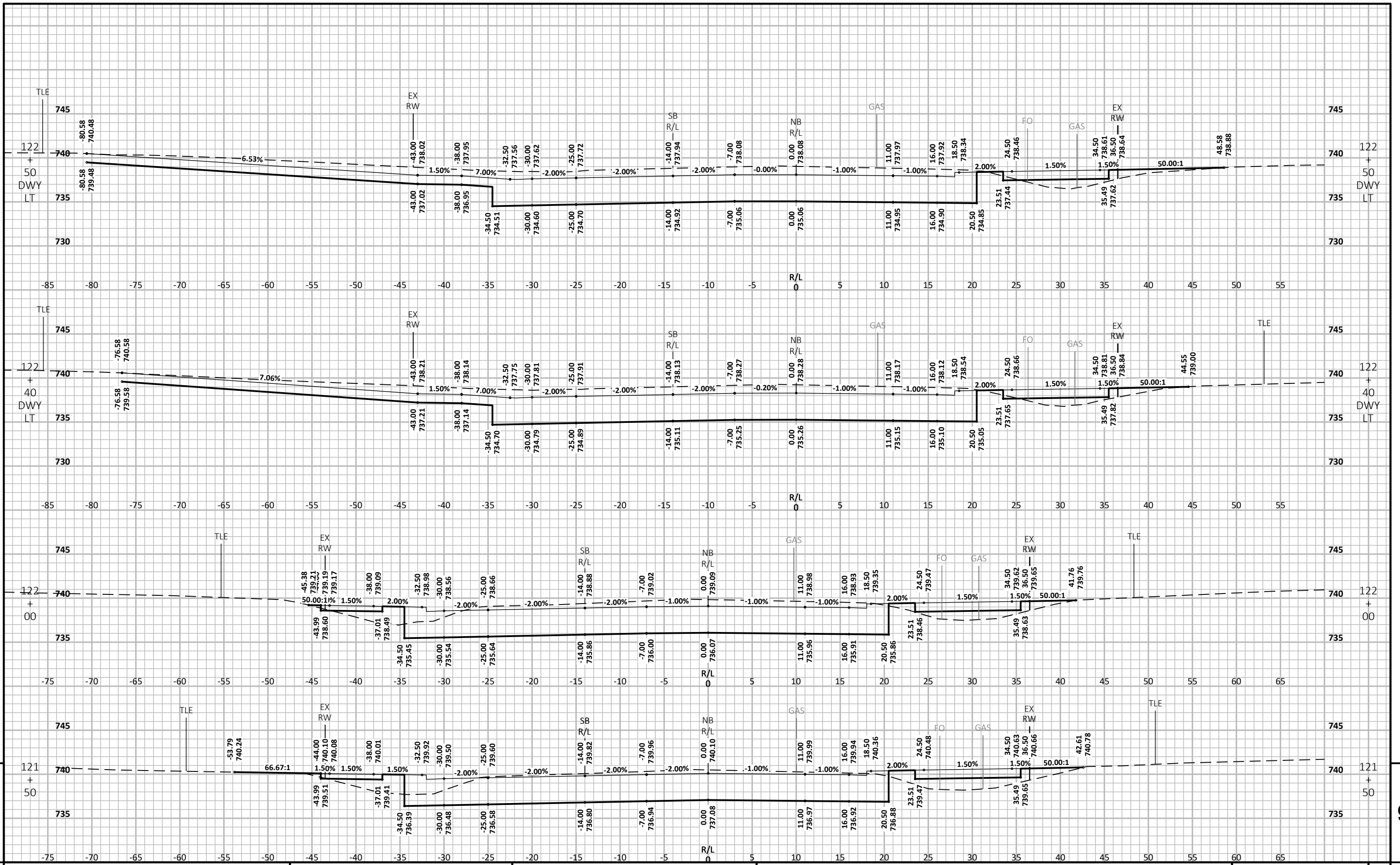
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

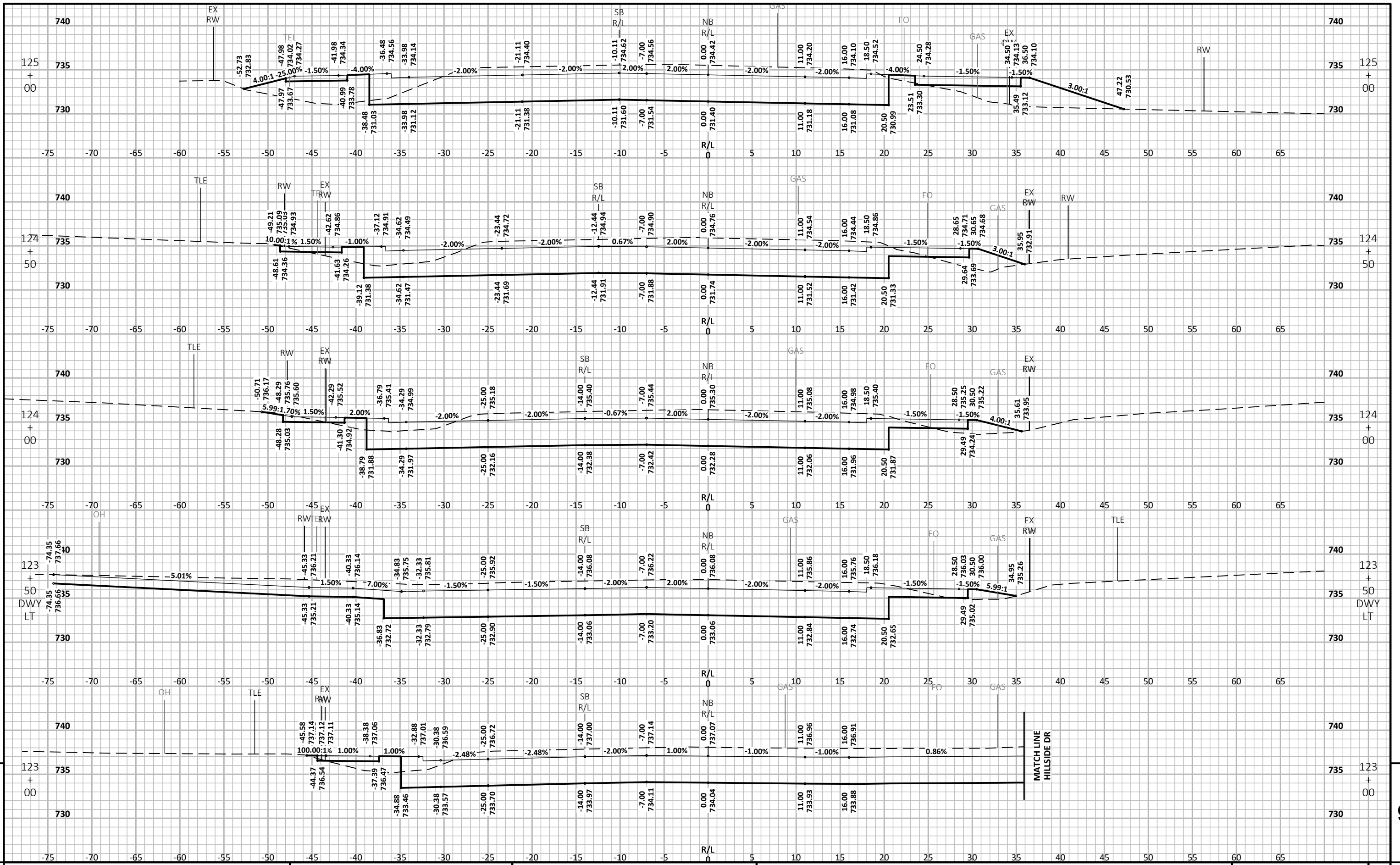
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LAYOUT NAME: 467604-090214-XS



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET 9

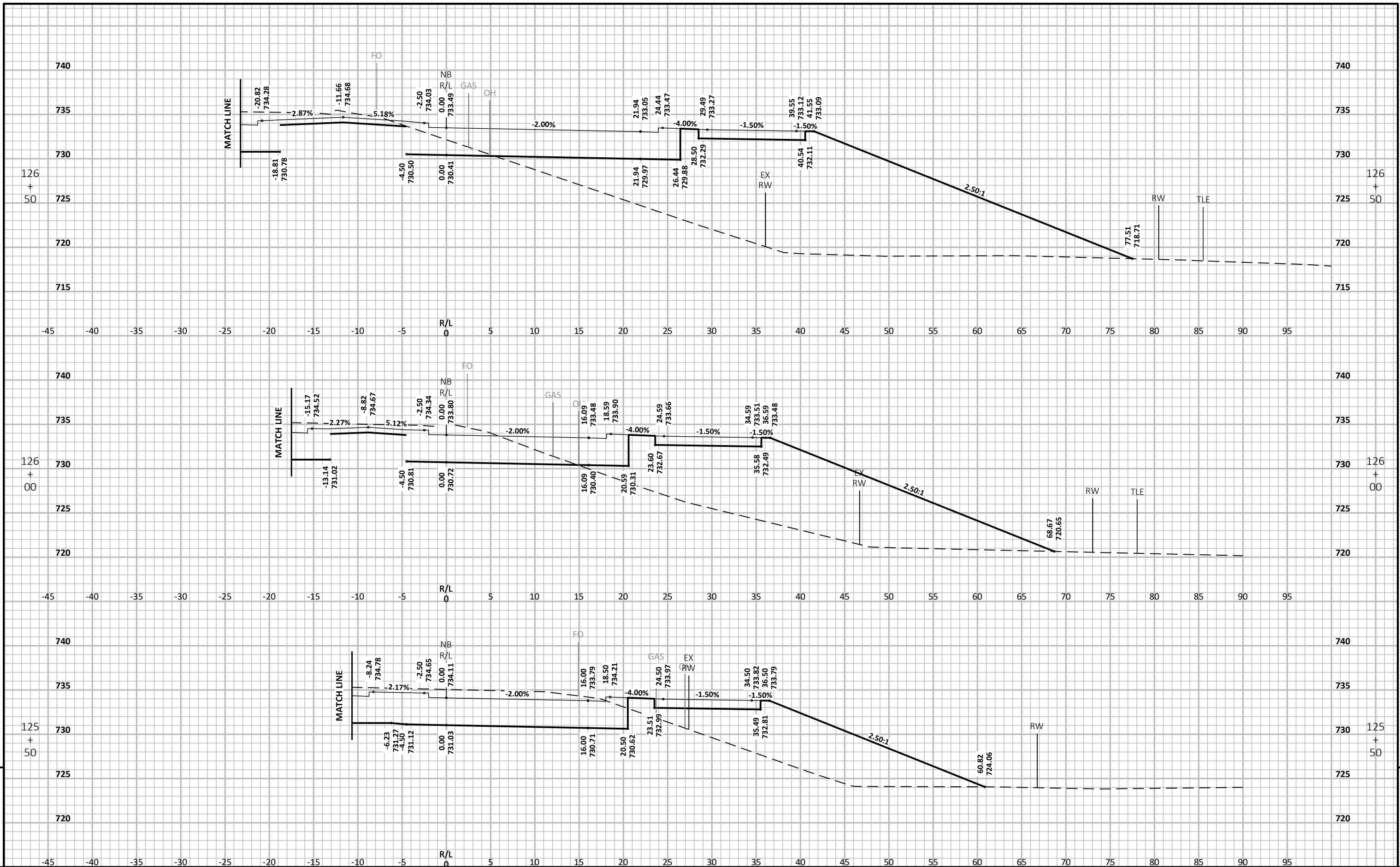
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET: 9

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LAYOUT NAME: 467604-090216-xs



PROJECT NO: 4676-04-71

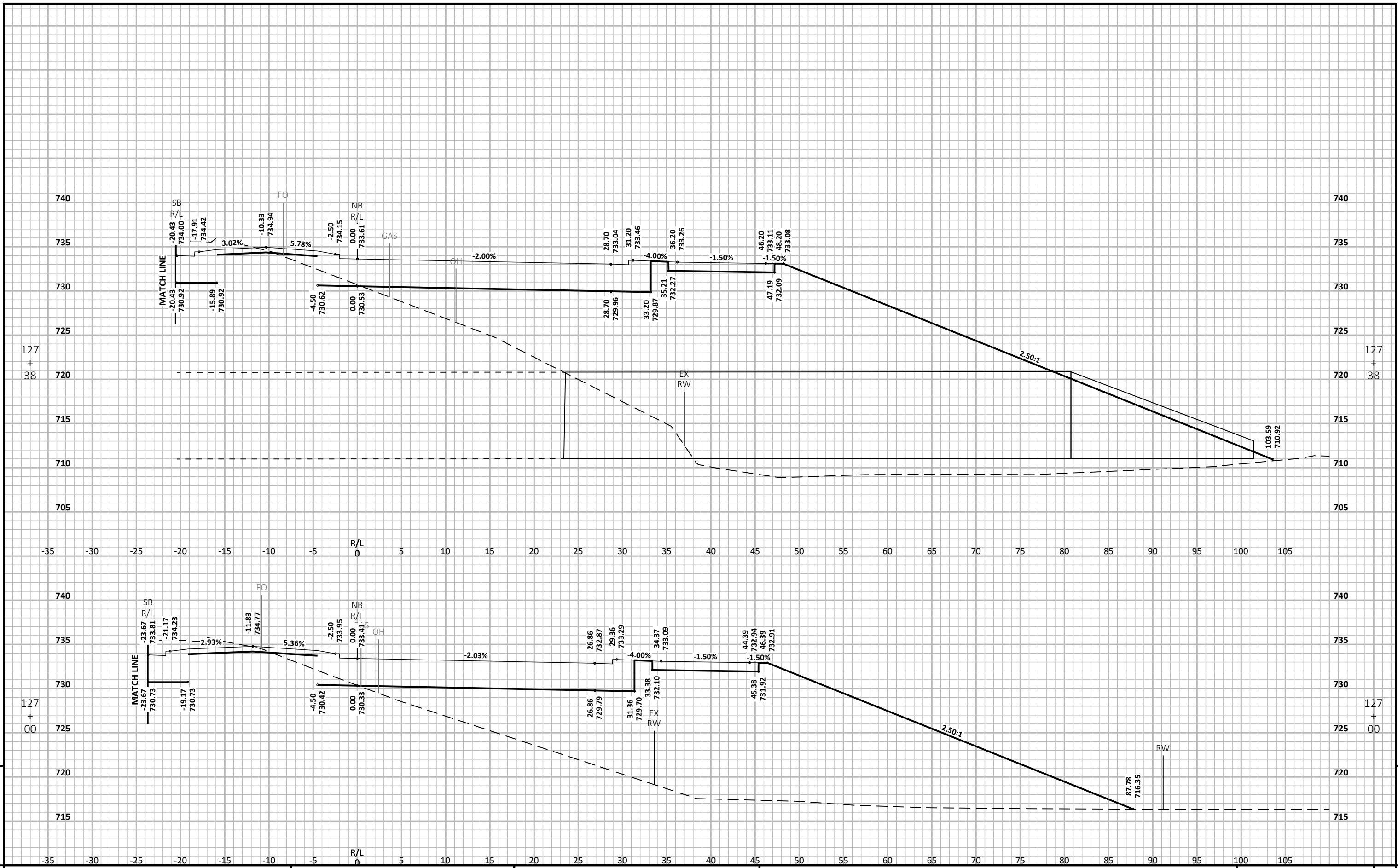
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: CTH N SOUTH NB

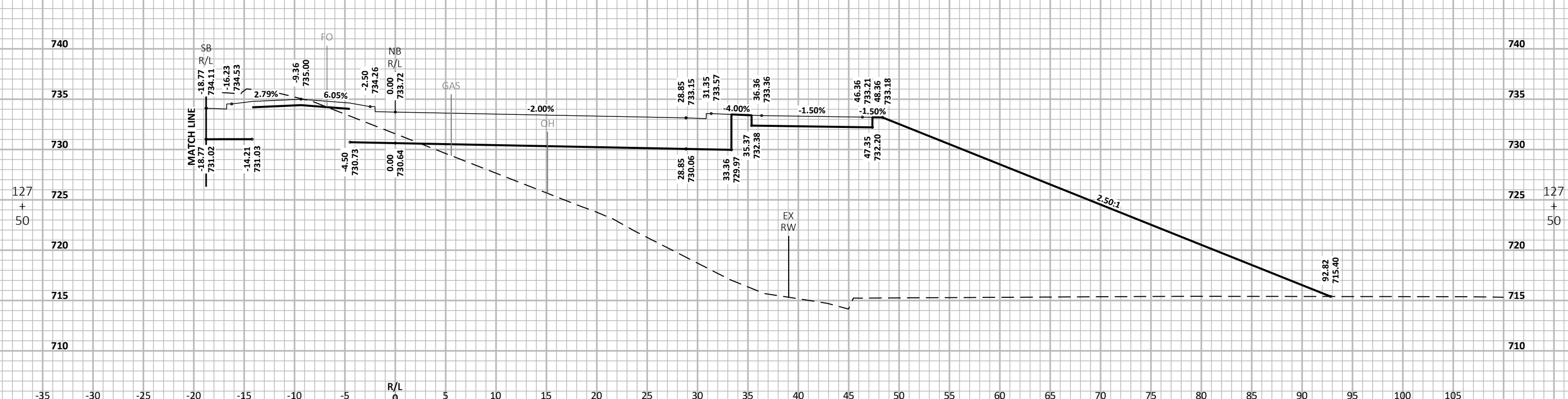
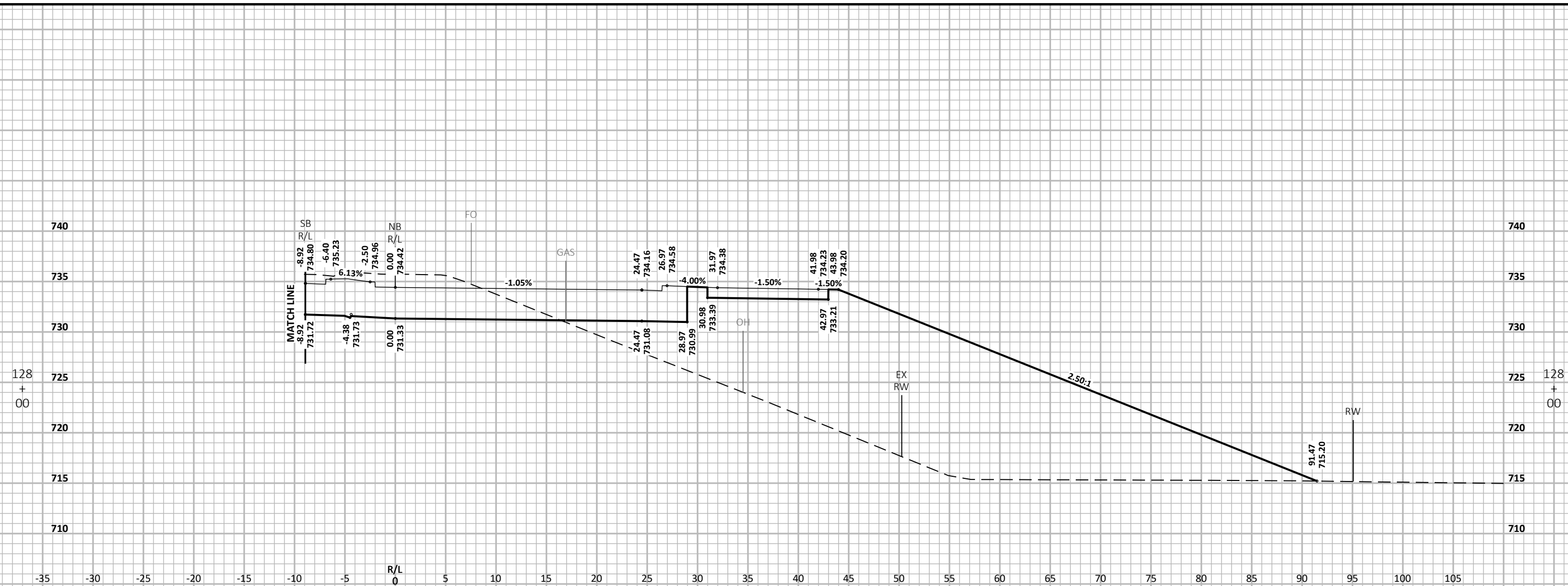
SHEET

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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH NB SHEET E

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PROJECT NO: 4676-04-71

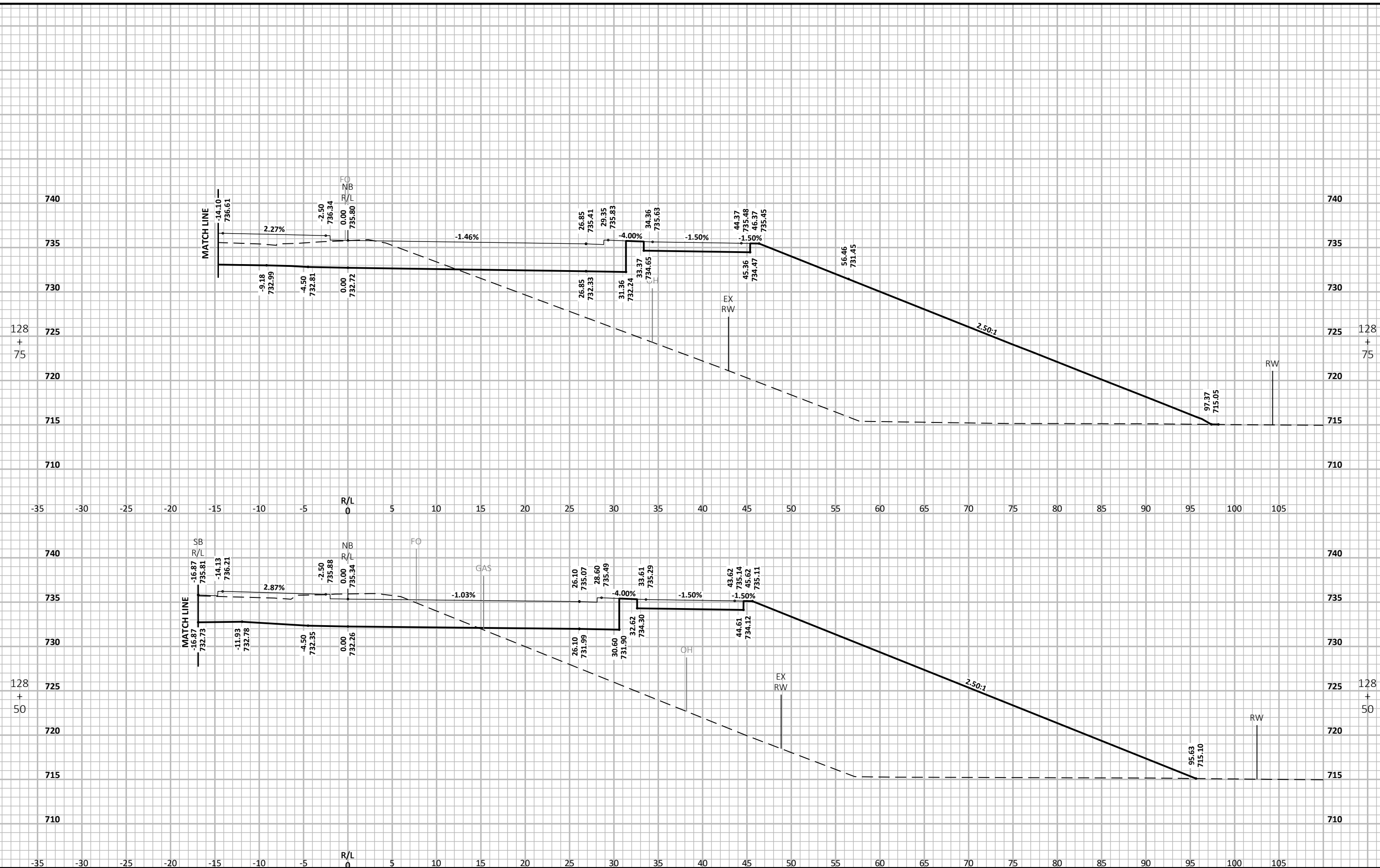
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: CTH N SOUTH NB

SHEET

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PROJECT NO: 4676-04-71

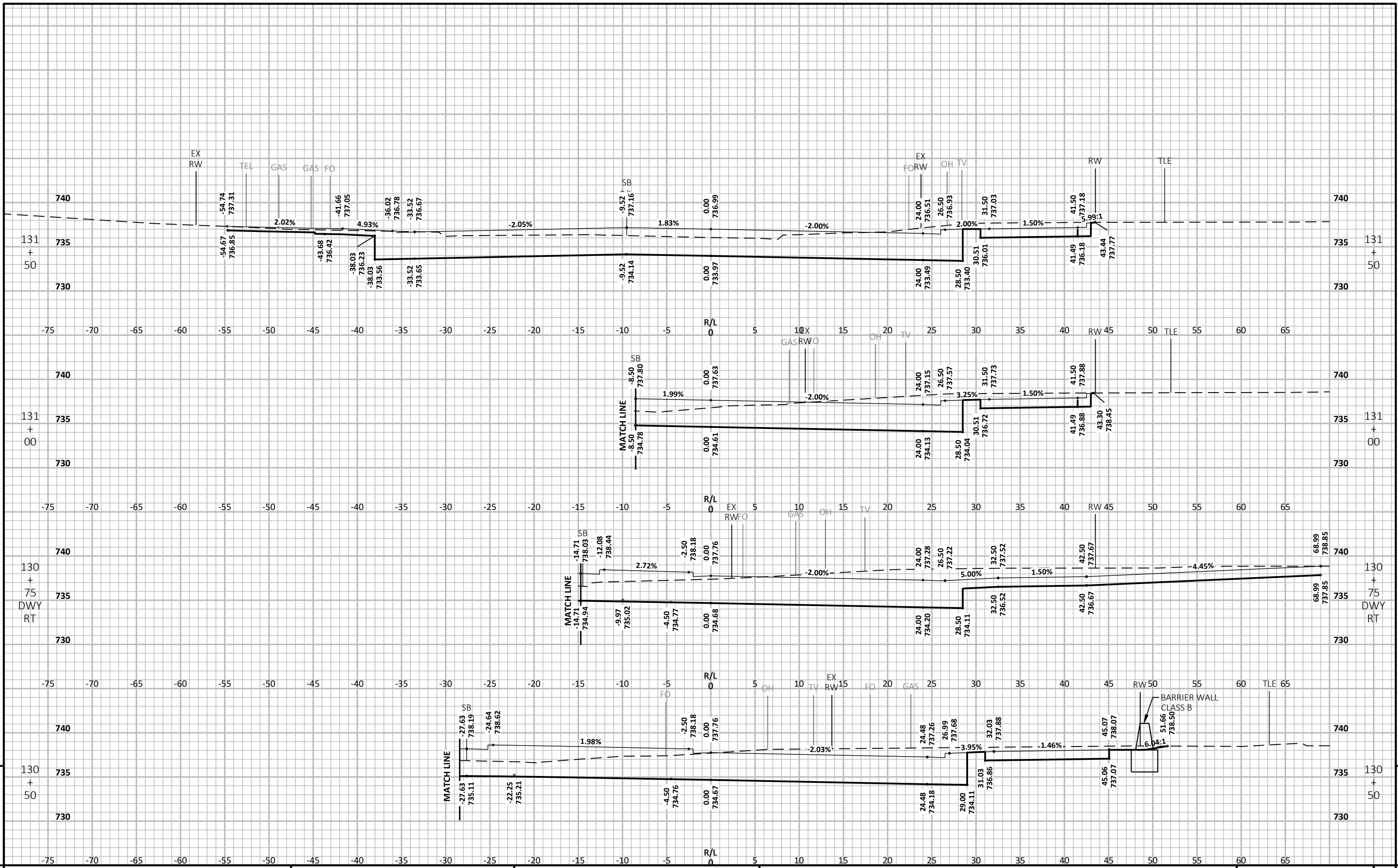
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: CTH N SOUTH NB

SHEET

E



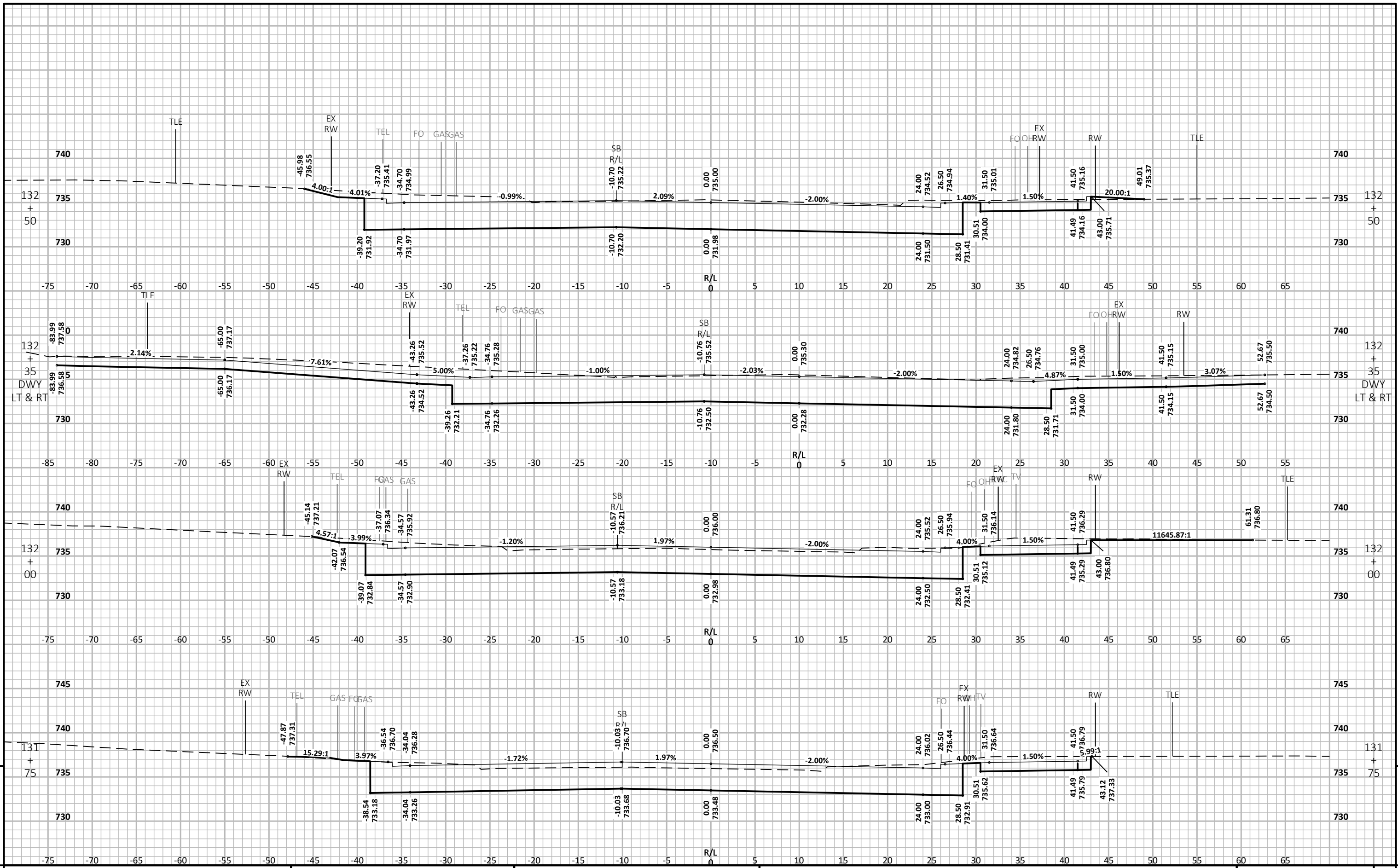
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N NORTH NB SHEET E

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LAYOUT NAME: 467604-090231-xs



PROJECT NO: 4676-04-71

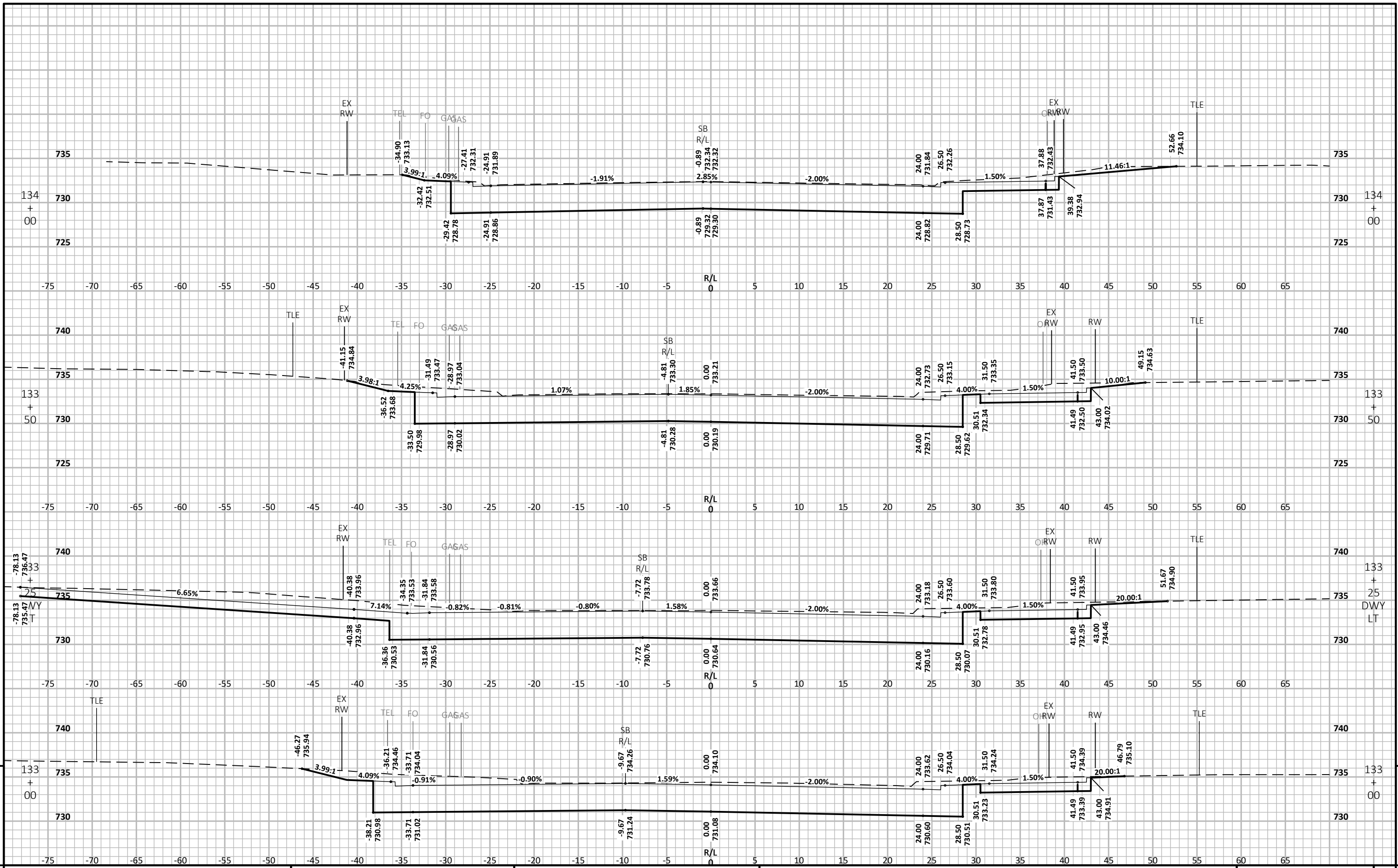
HWY: CTH N

COUNTY: OUTAGAMIE

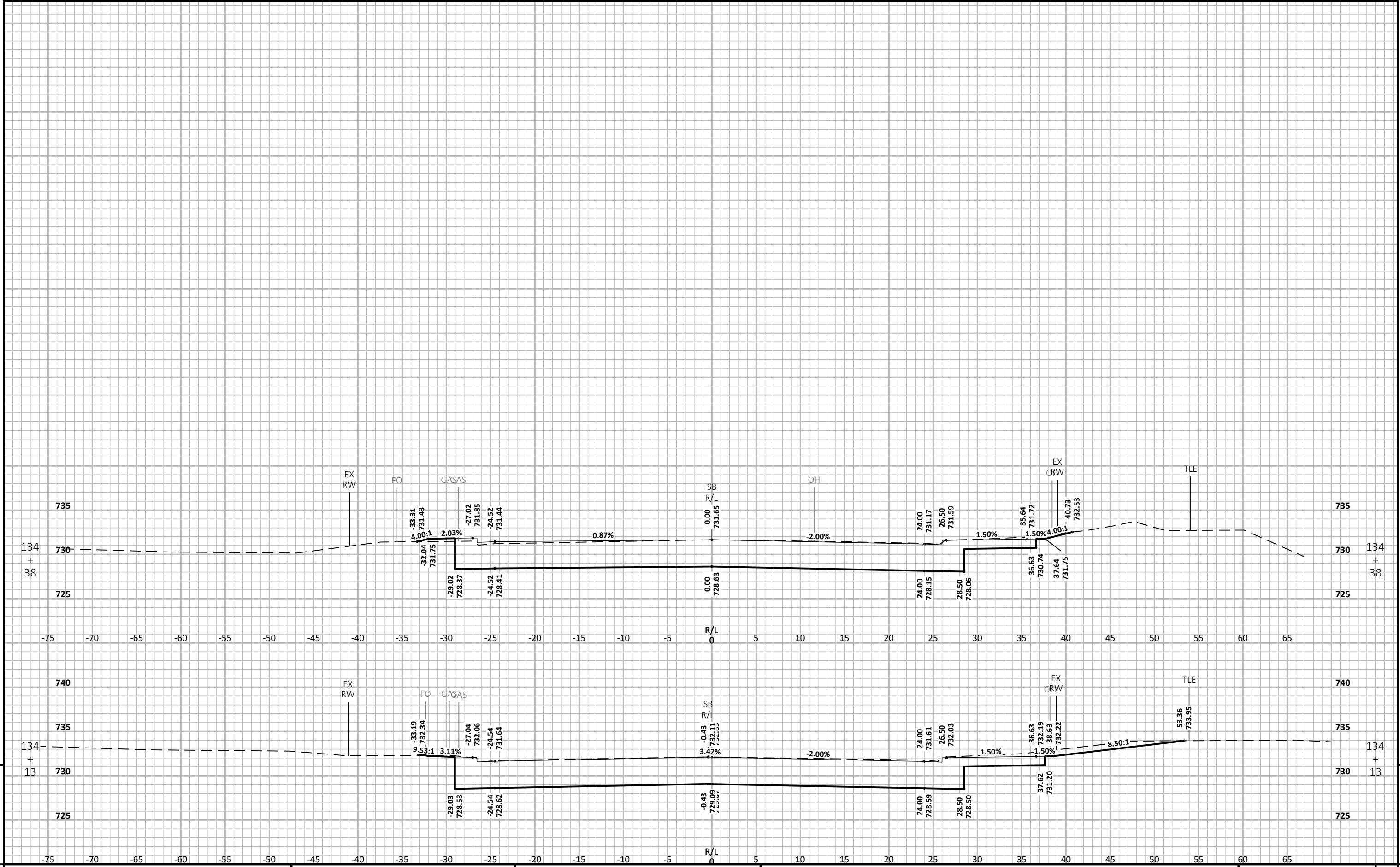
CROSS SECTIONS: CTH N NORTH NB

SHEET

E



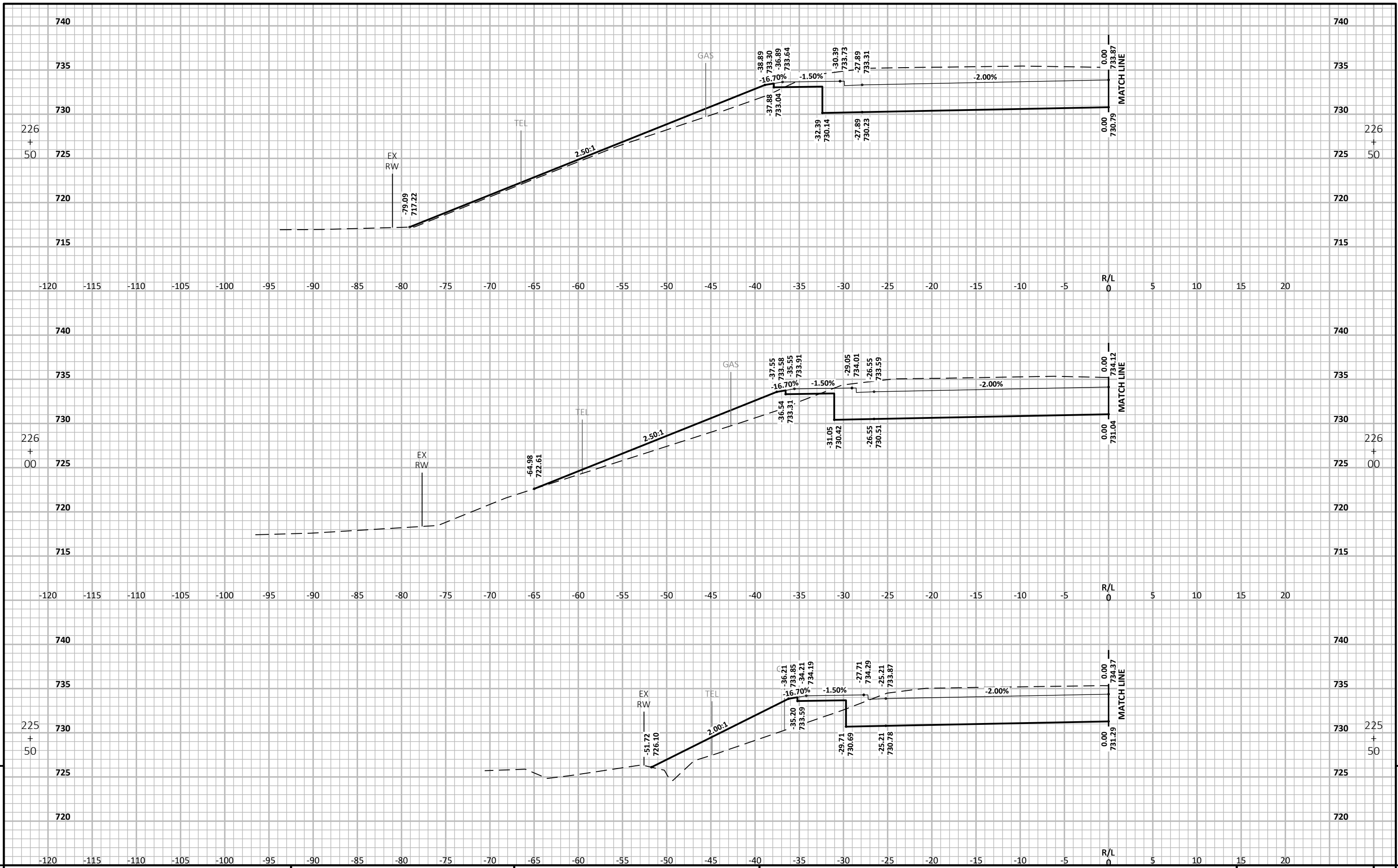
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N NORTH NB SHEET 9



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N NORTH NB SHEET 9

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG PLOT DATE: 8/27/2025 12:33 PM PLOT BY: ANDY WESTBROOK PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 467604-090234-xs



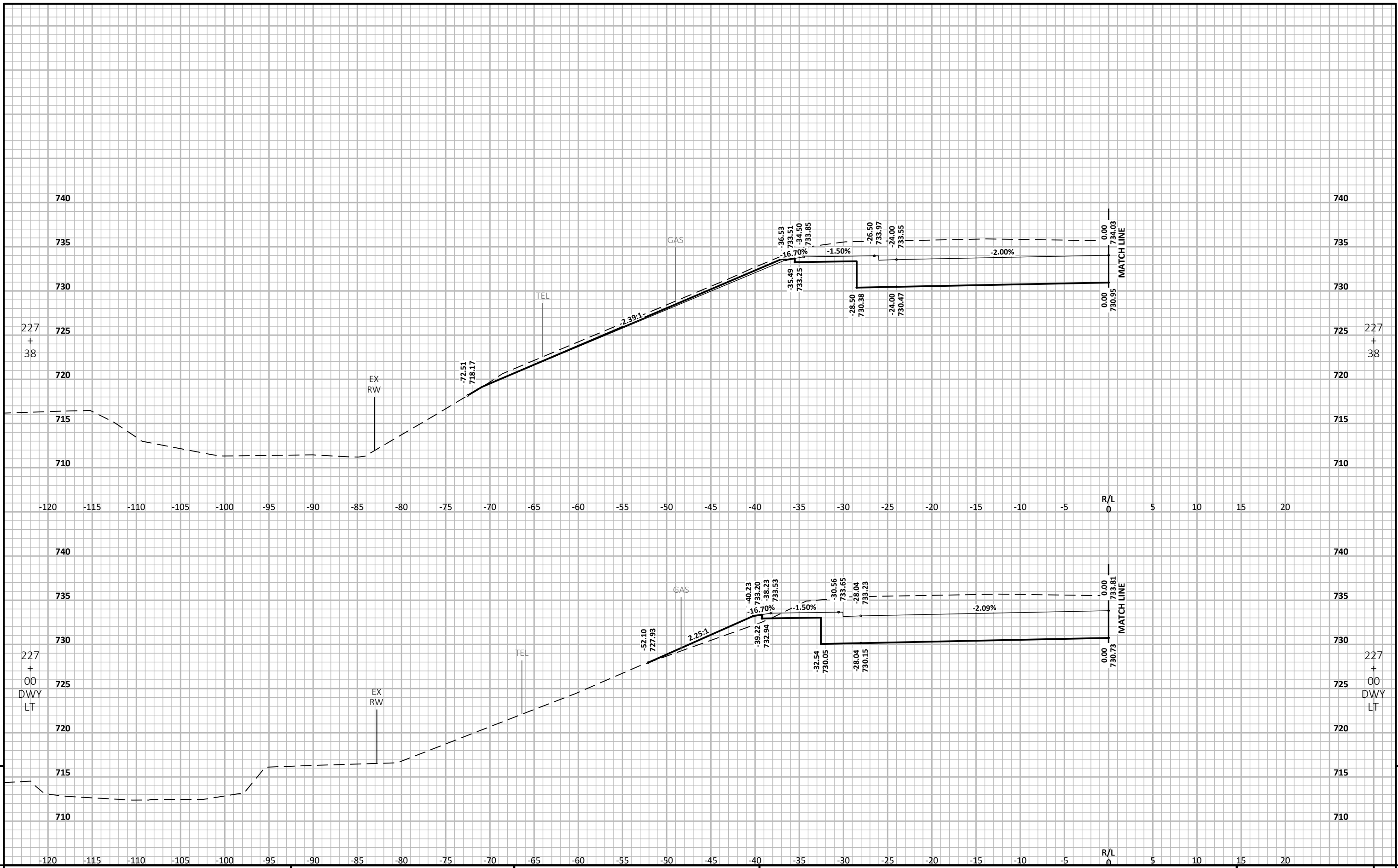
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH SB SHEET E

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LAYOUT NAME - 467604-090241-xs

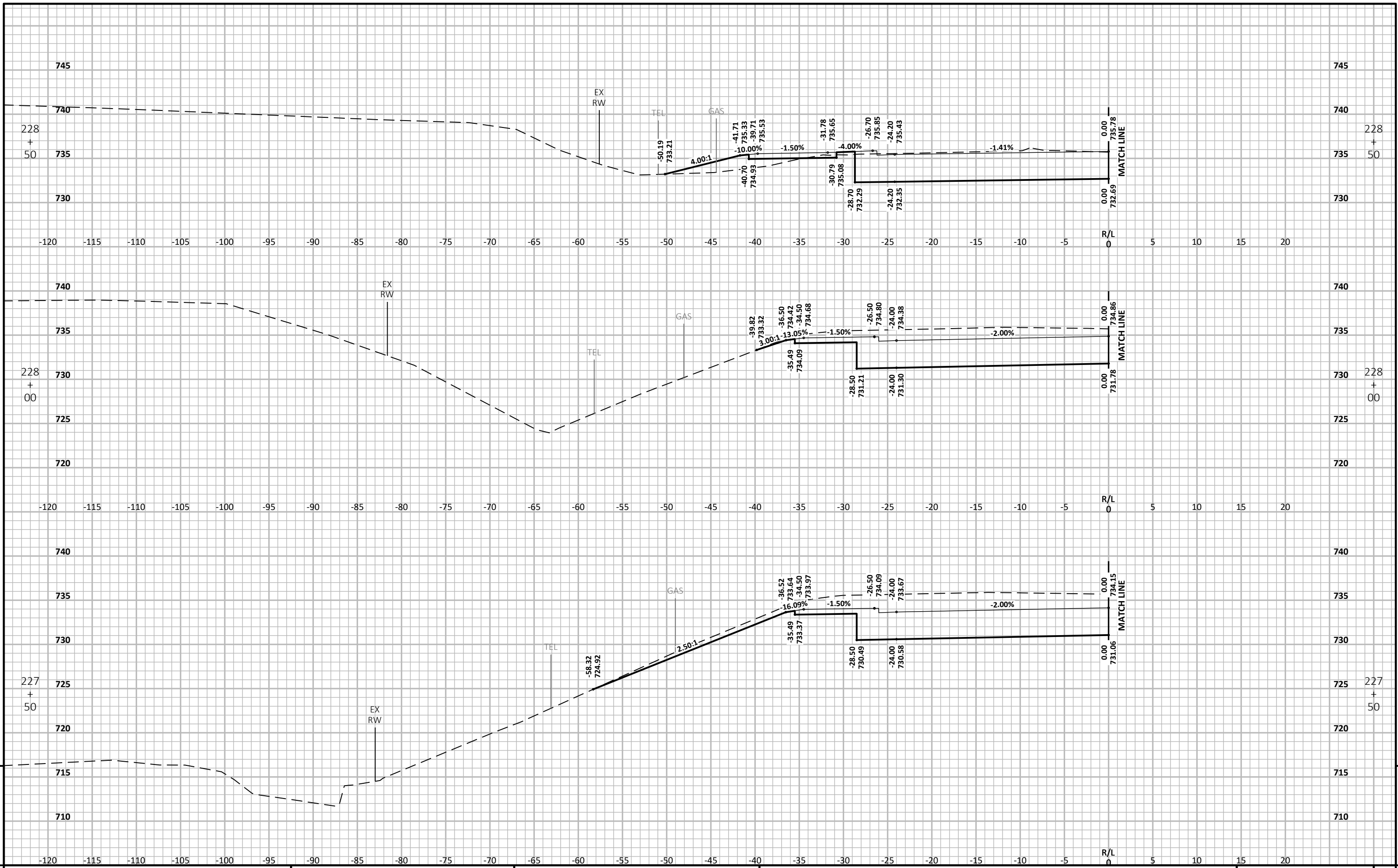


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH SB SHEET E

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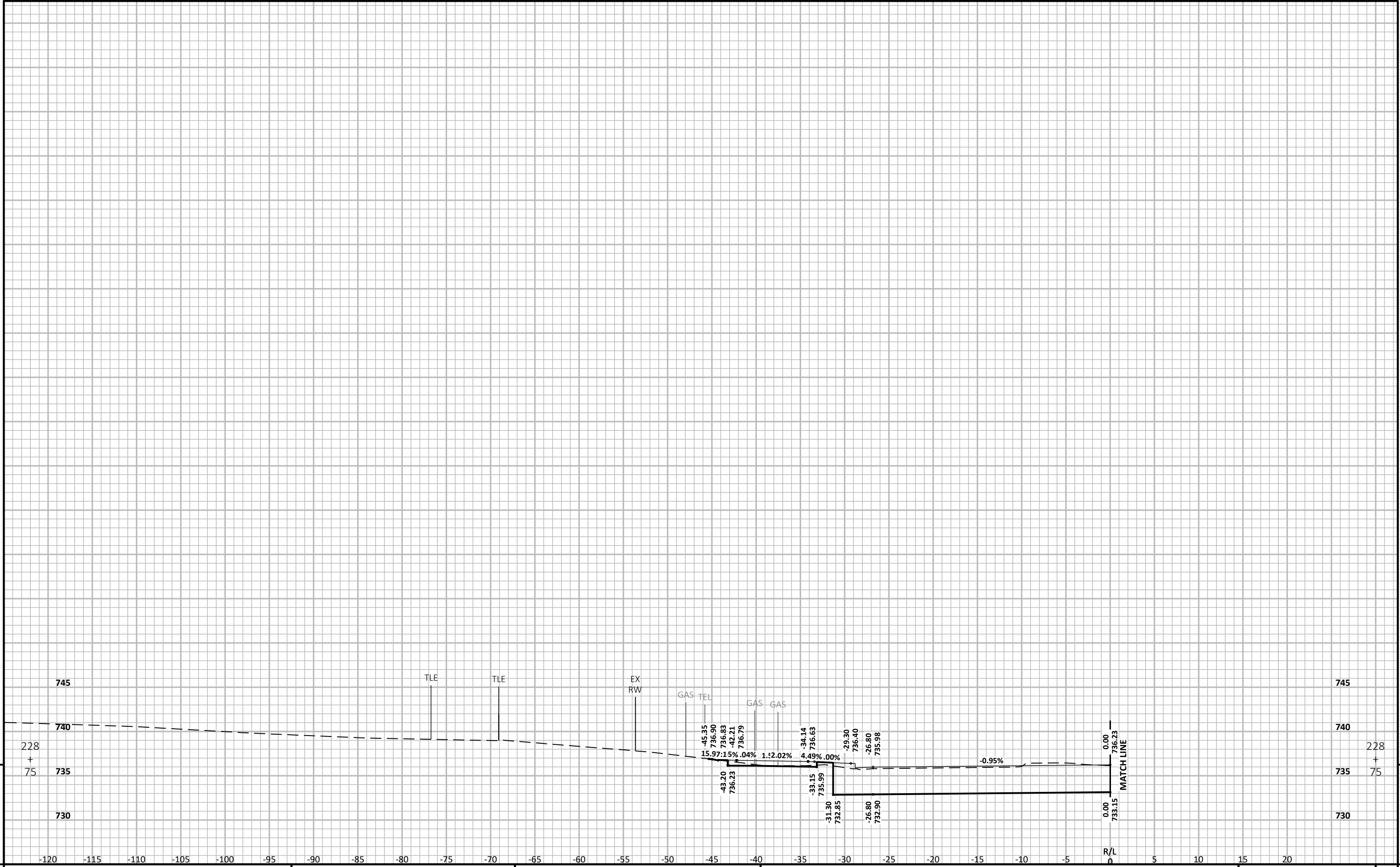
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N SOUTH SB SHEET 9

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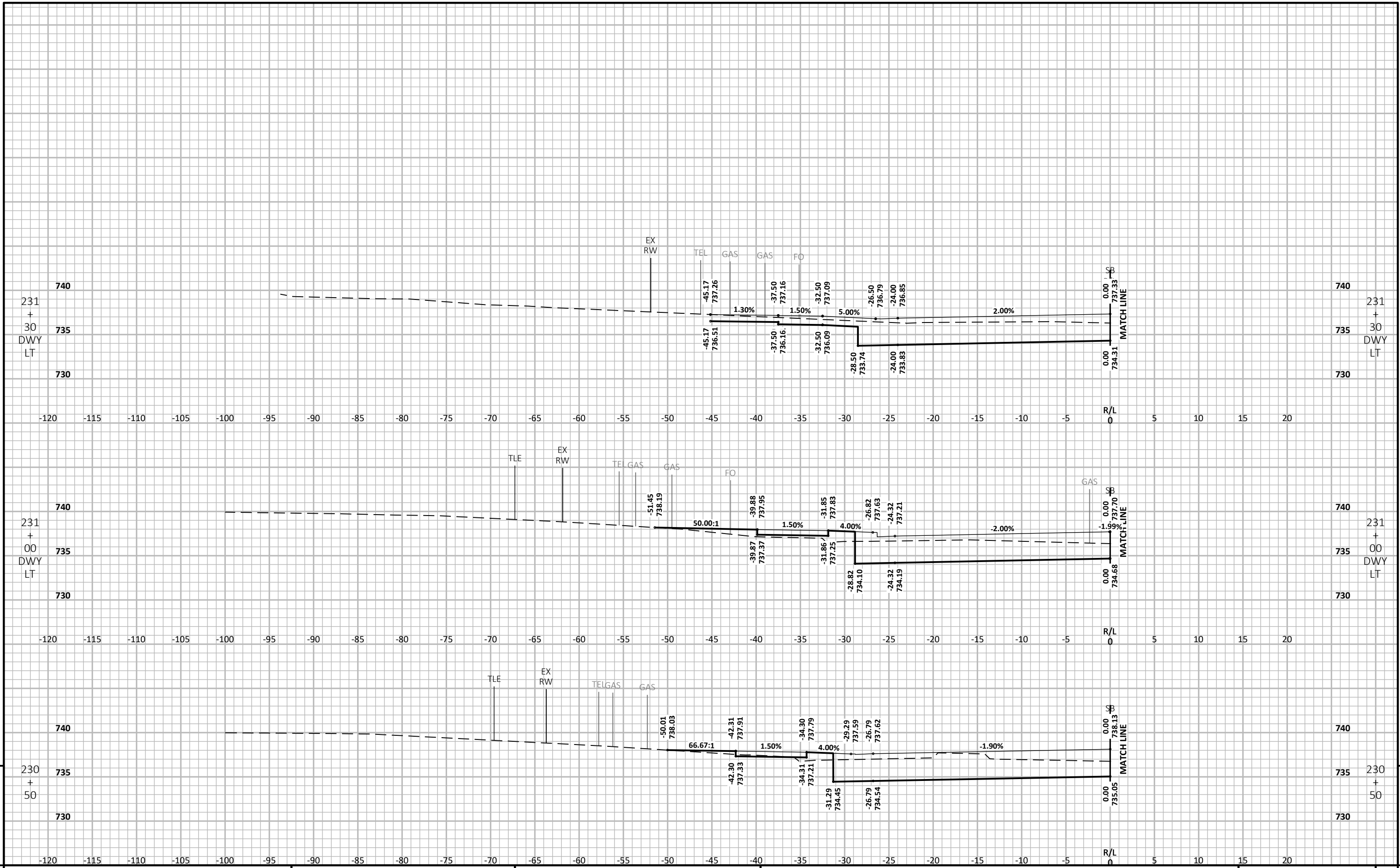
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PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH N SOUTH SB	SHEET	E
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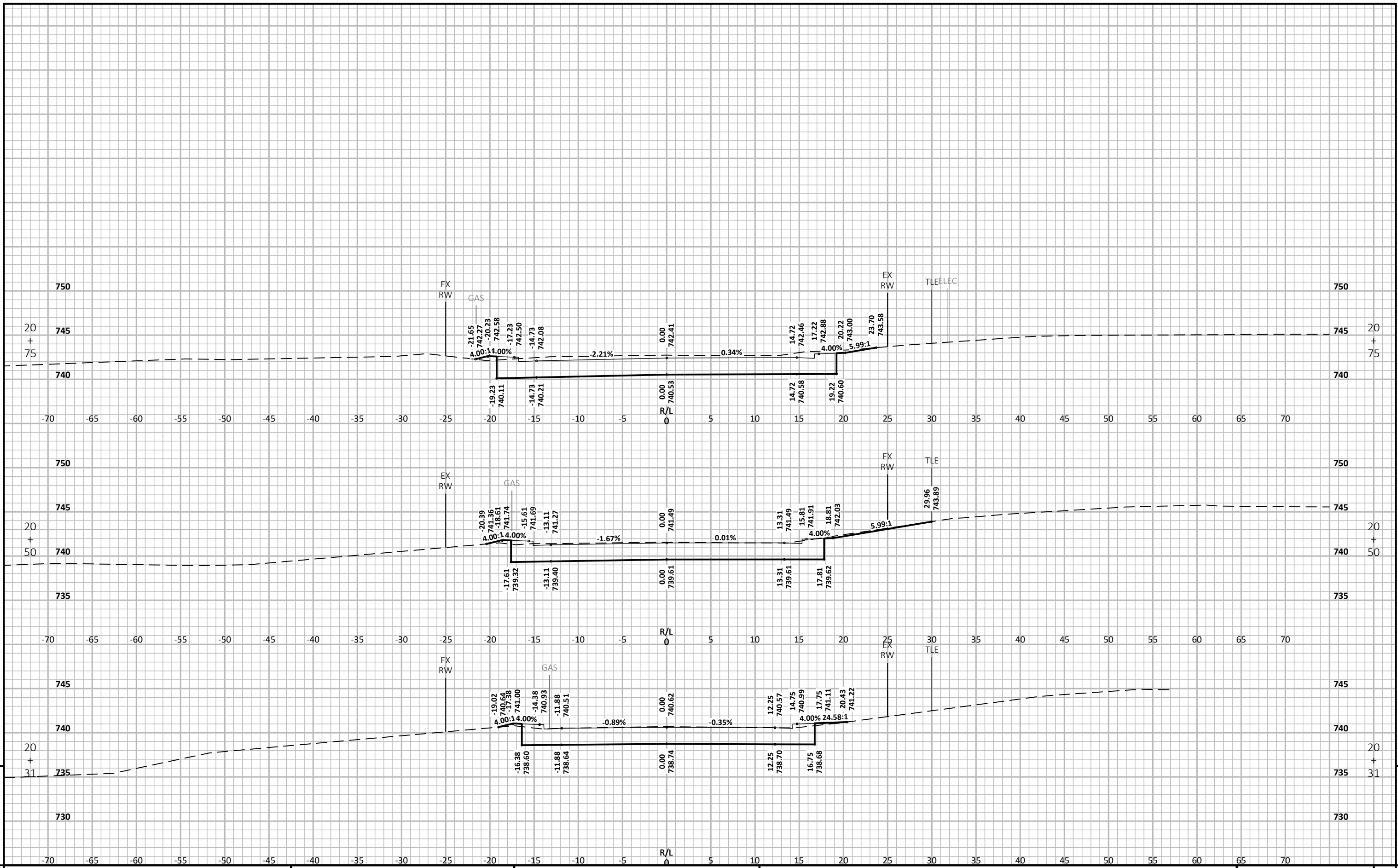
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: CTH N NORTH SB SHEET 9

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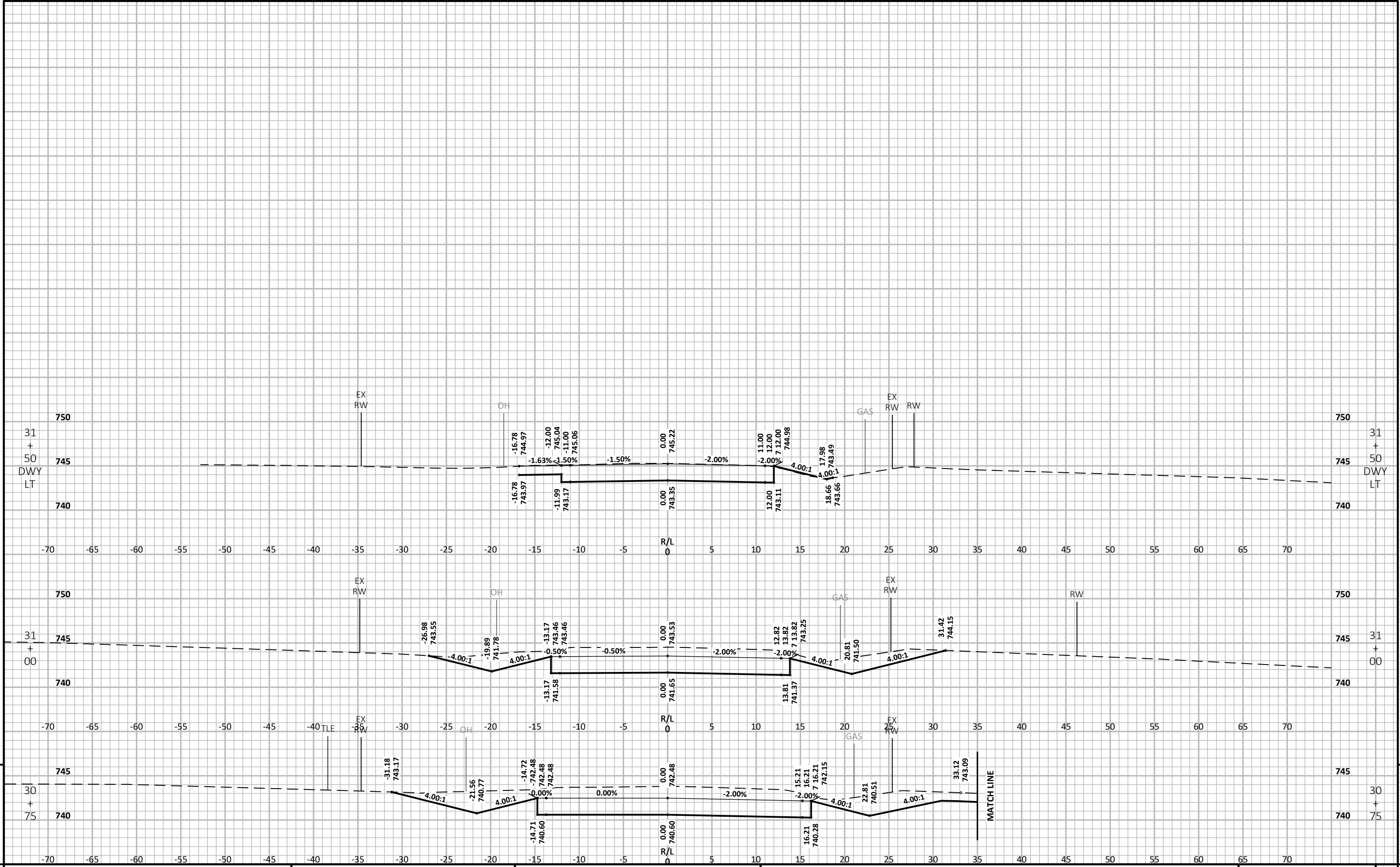
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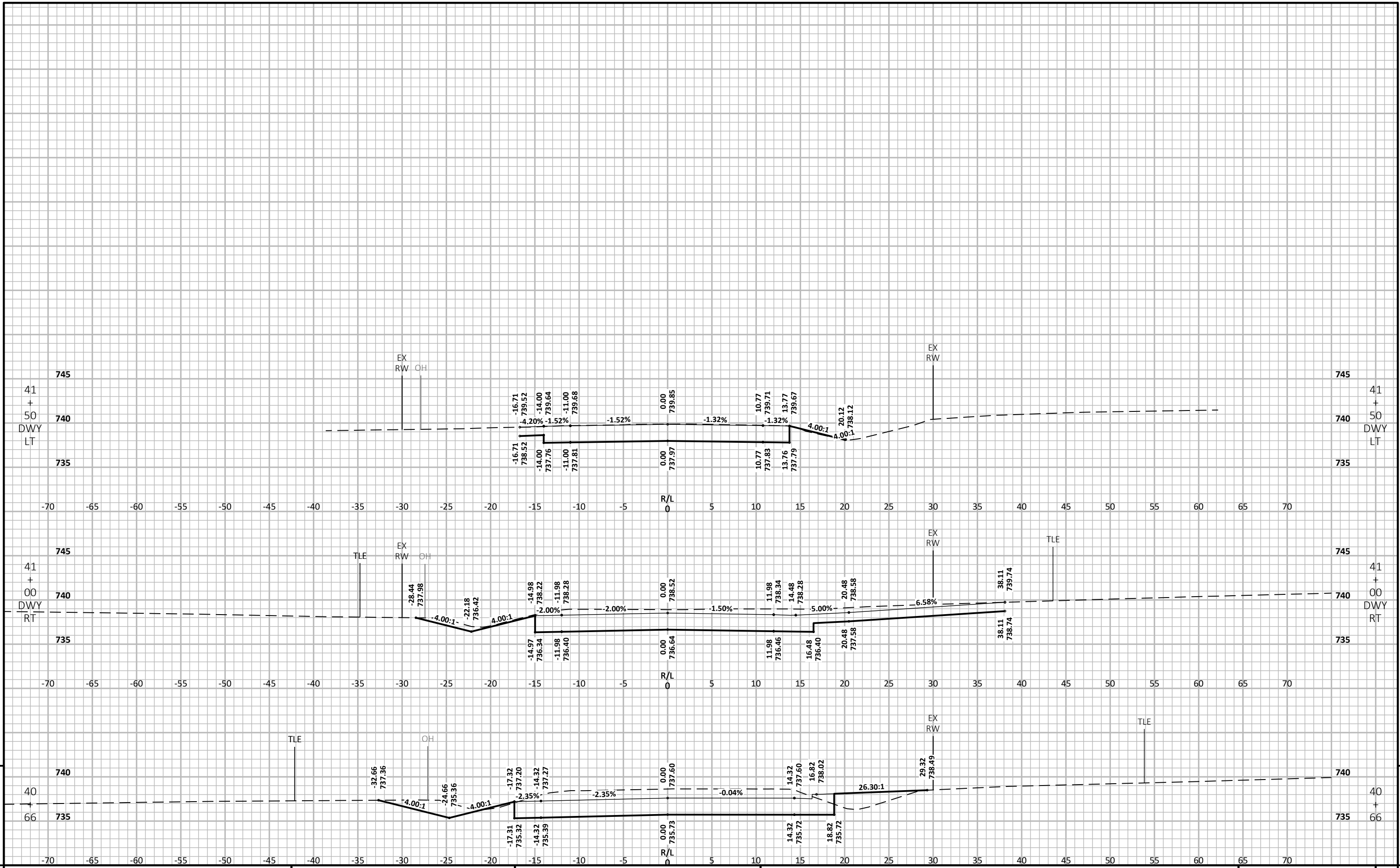
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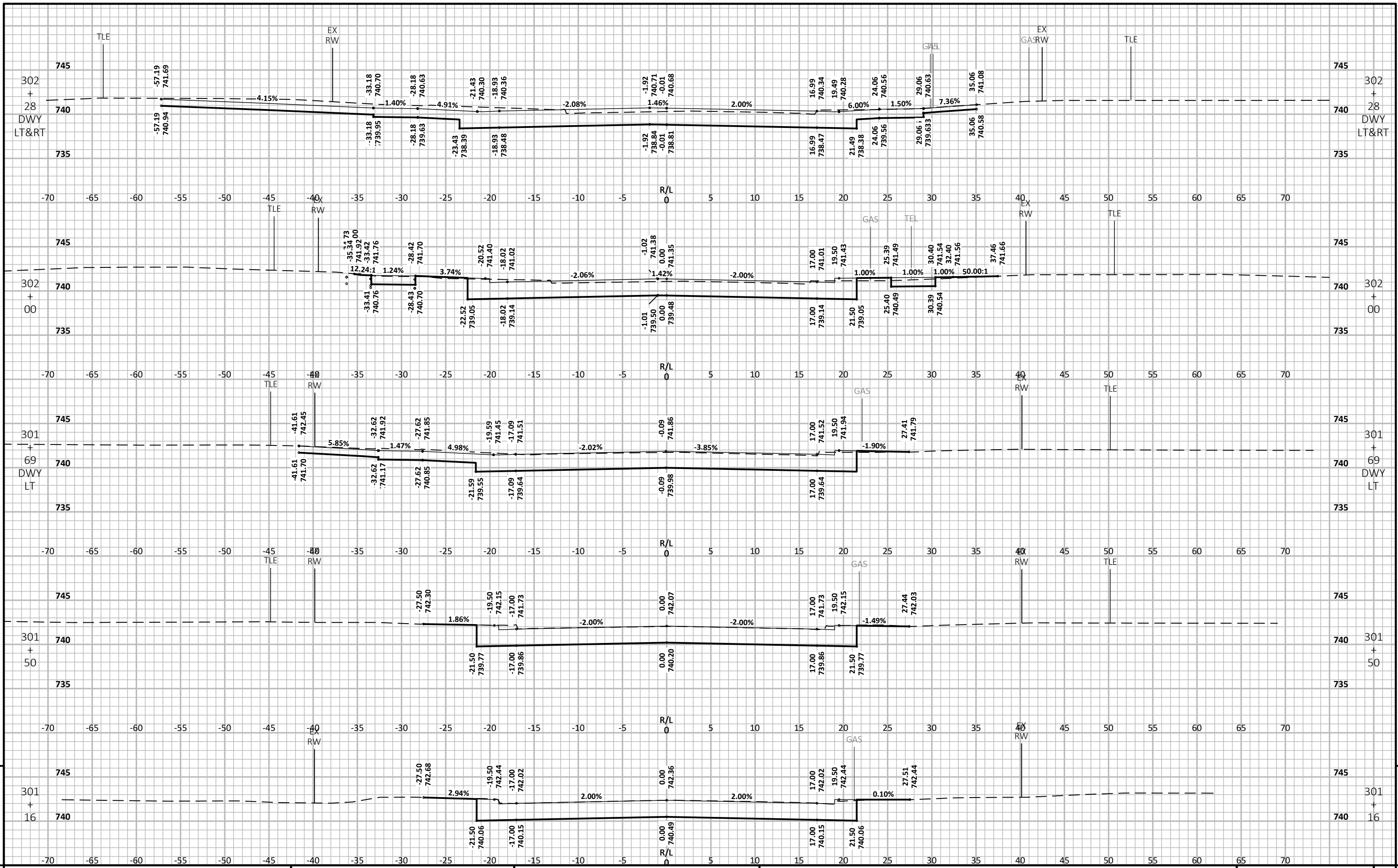
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: SARATOGA DR SHEET E

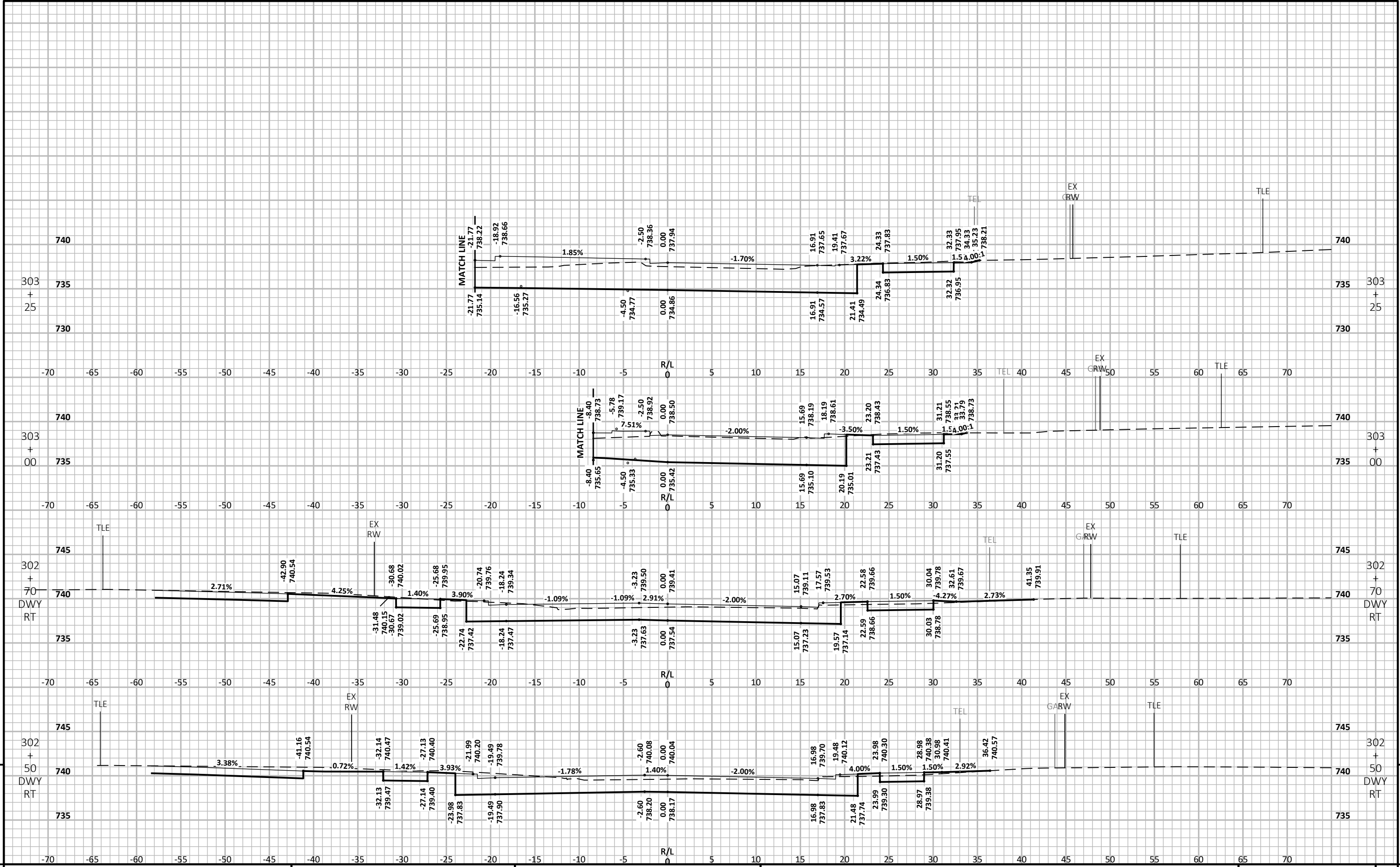


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: HILLSIDE DR SHEET 9



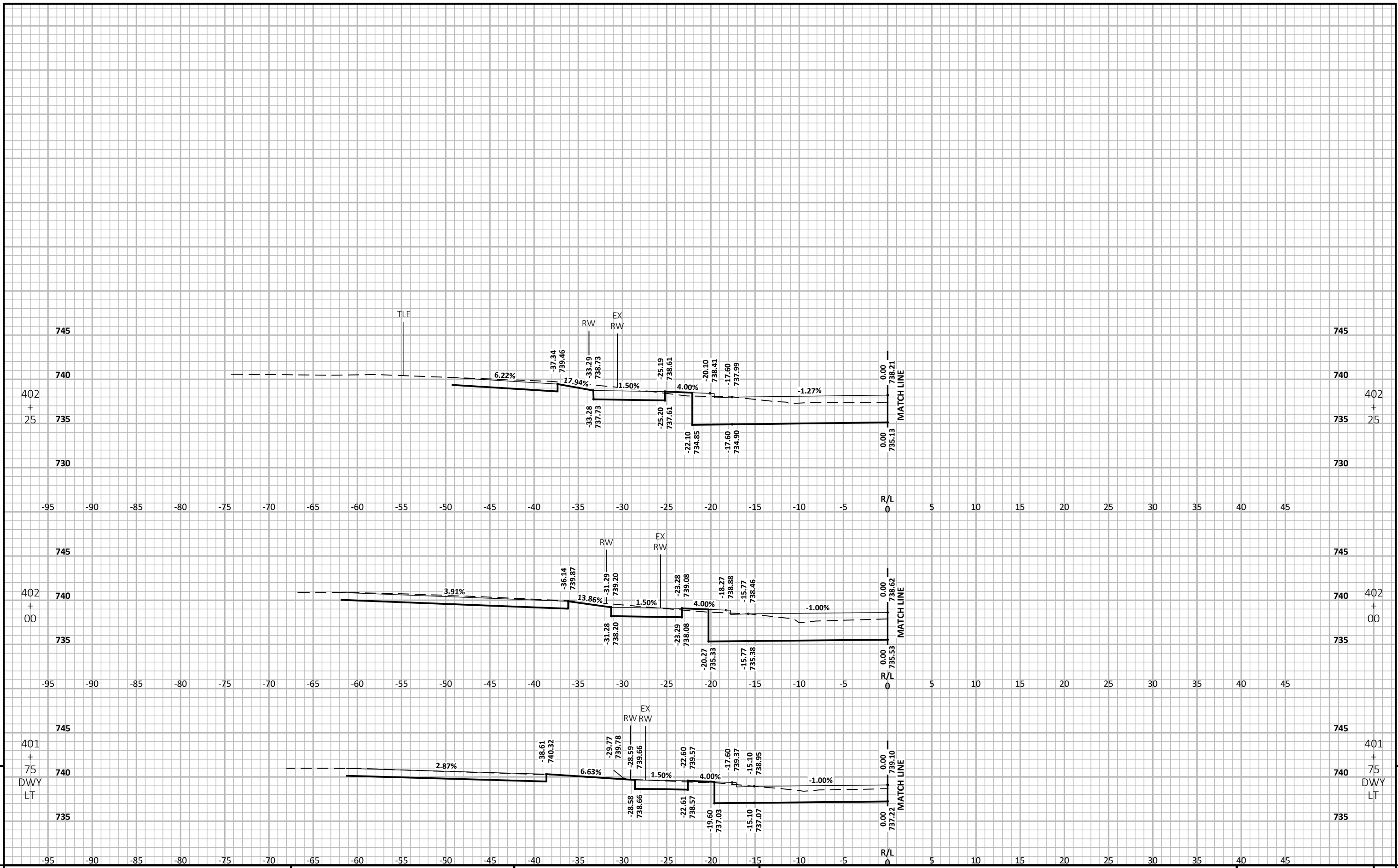
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: EMONS RD EASTBOUND SHEET 9

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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: EMONS RD EASTBOUND SHEET 9

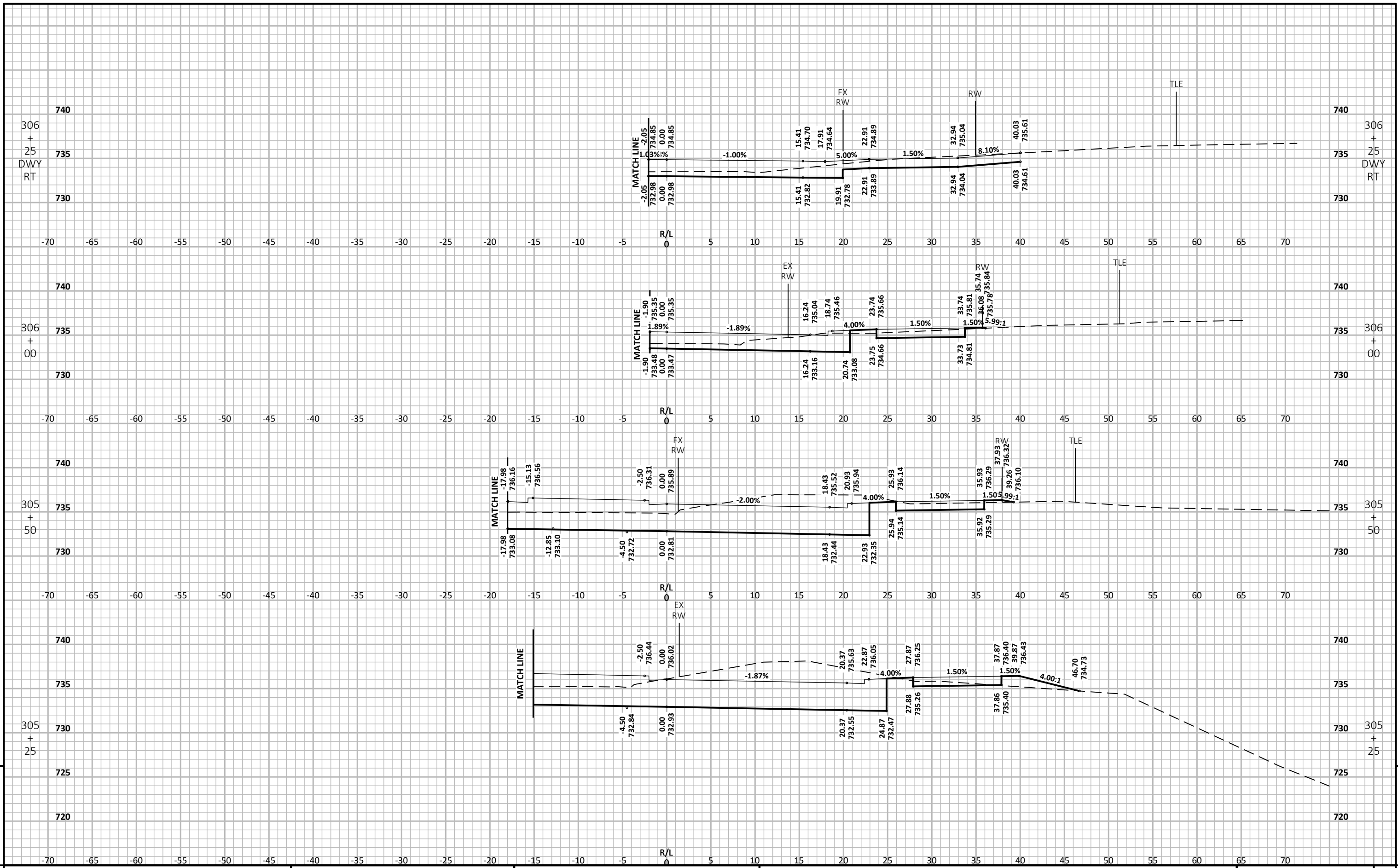
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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: EMONS RD WESTBOUND SHEET E

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG PLOT DATE: 5/27/2025 2:09 PM PLOT BY: CRAIG KNUTH PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME: 467604-090265-xs

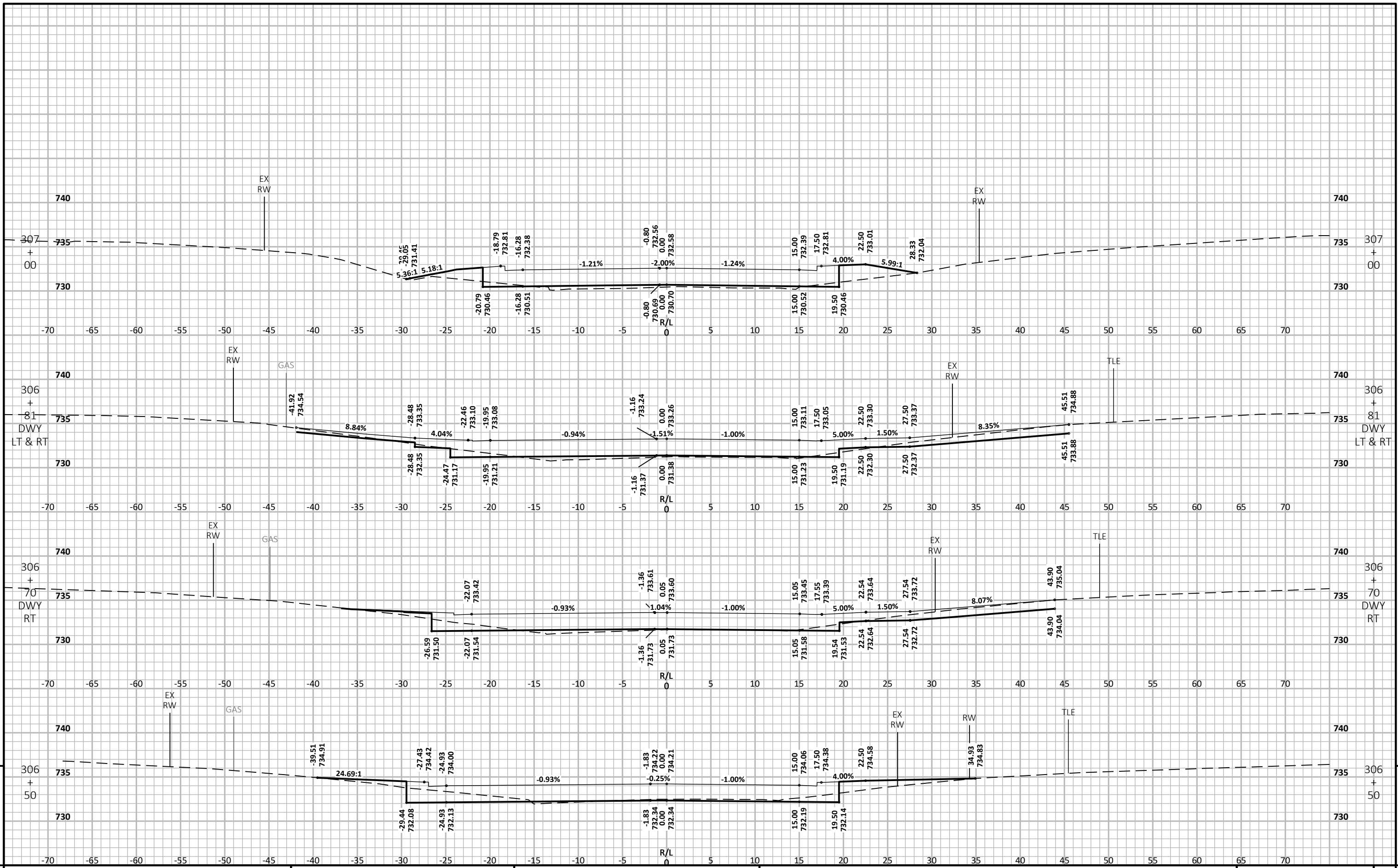


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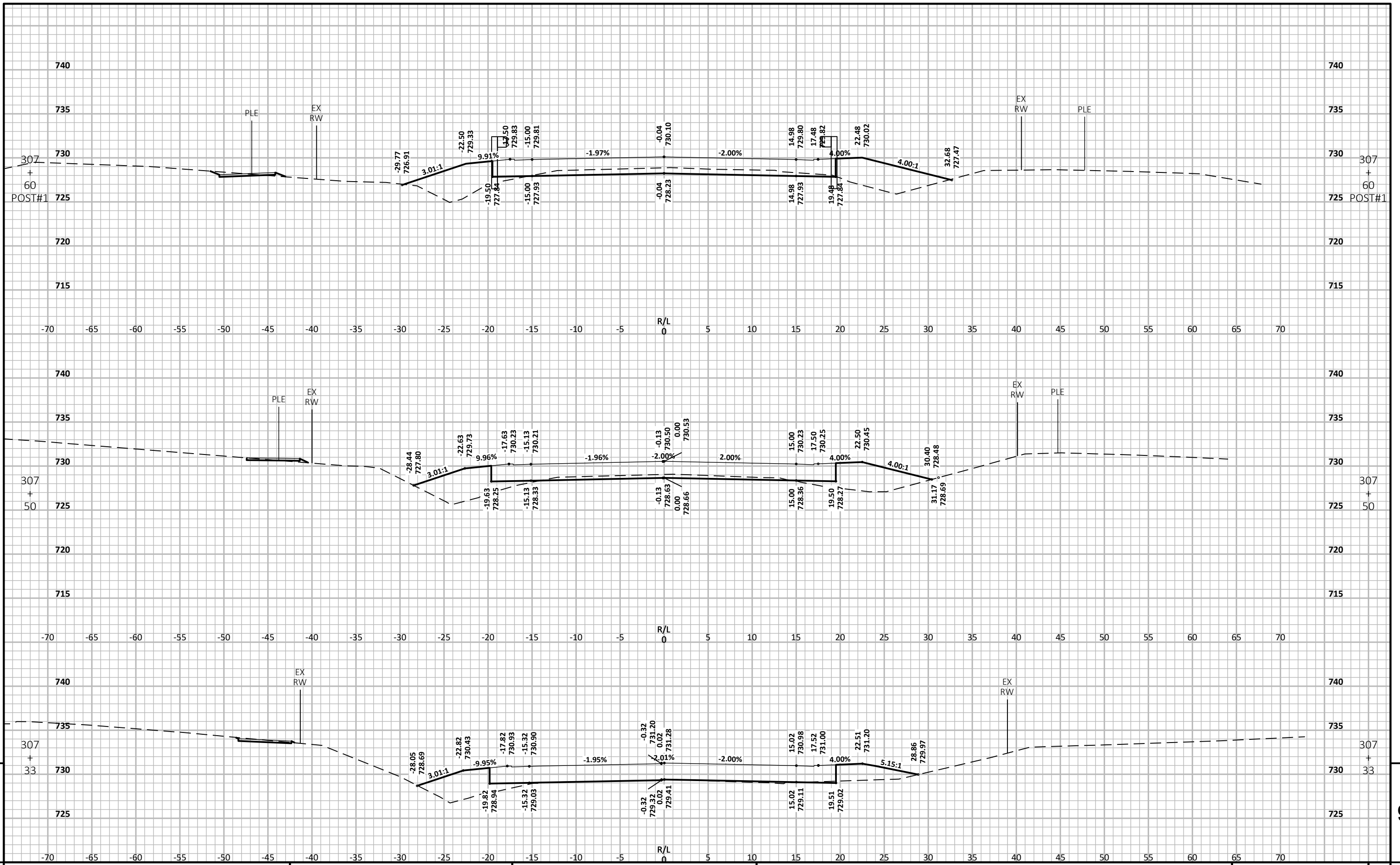
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: BUCHANAN RD EASTBOUND SHEET E

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG LAYOUT NAME: 467604-090271-xs PLOT DATE: 8/18/2025 11:15 AM PLOT BY: ANDY WESTBROOK PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: BUCHANAN RD EASTBOUND SHEET 9

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PROJECT NO: 4676-04-71

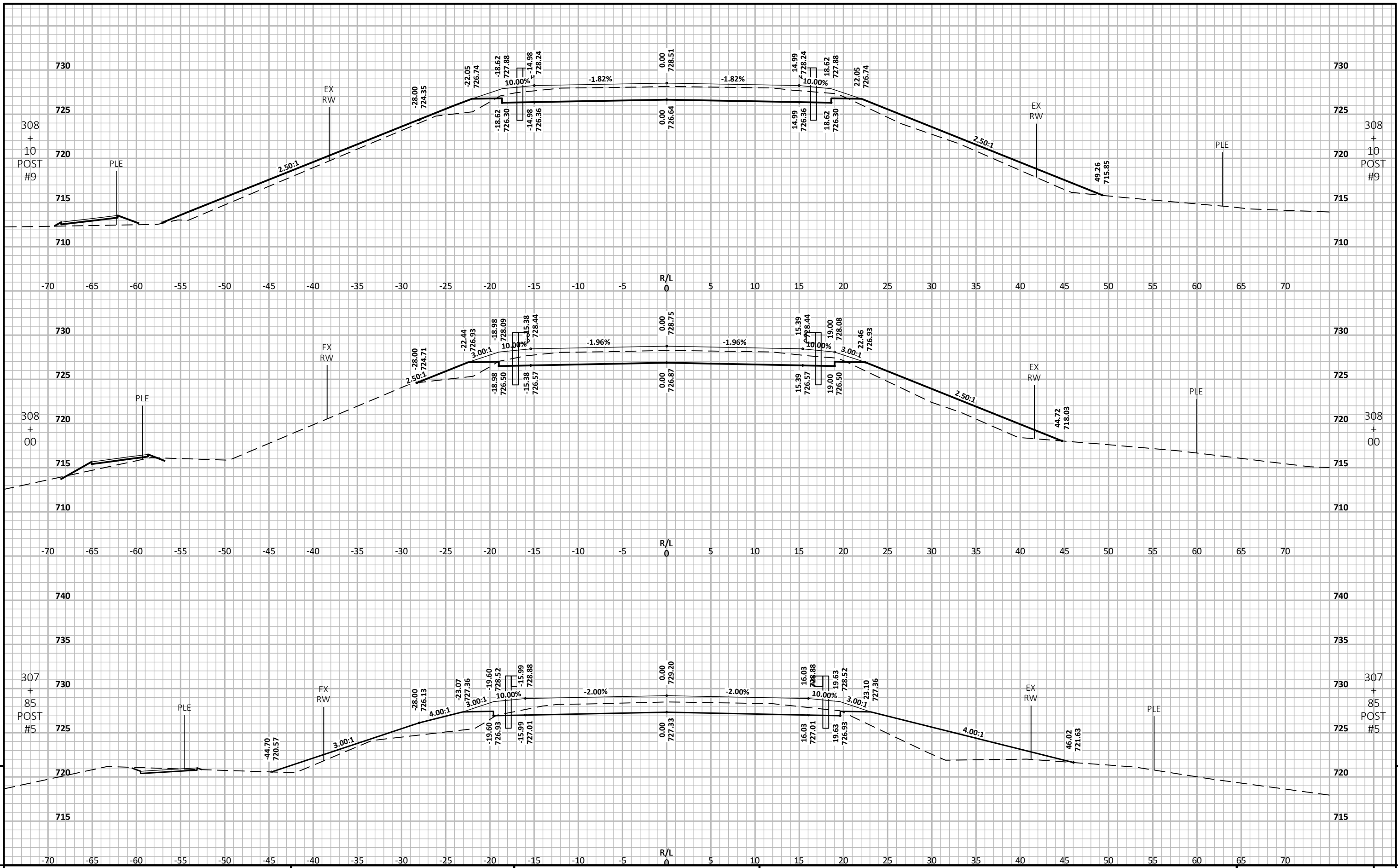
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: BUCHANAN RD EASTBOUND

SHEET

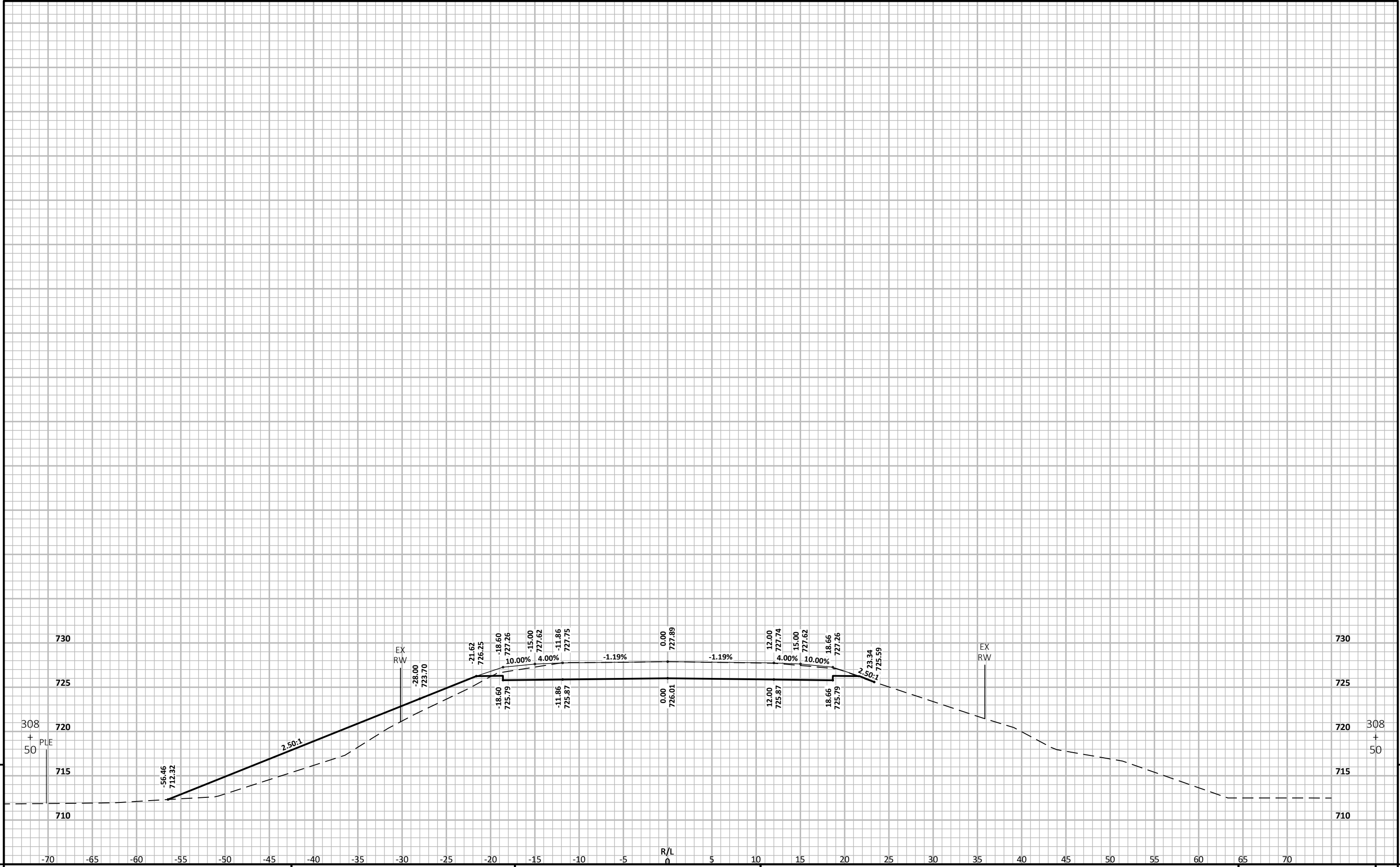
E



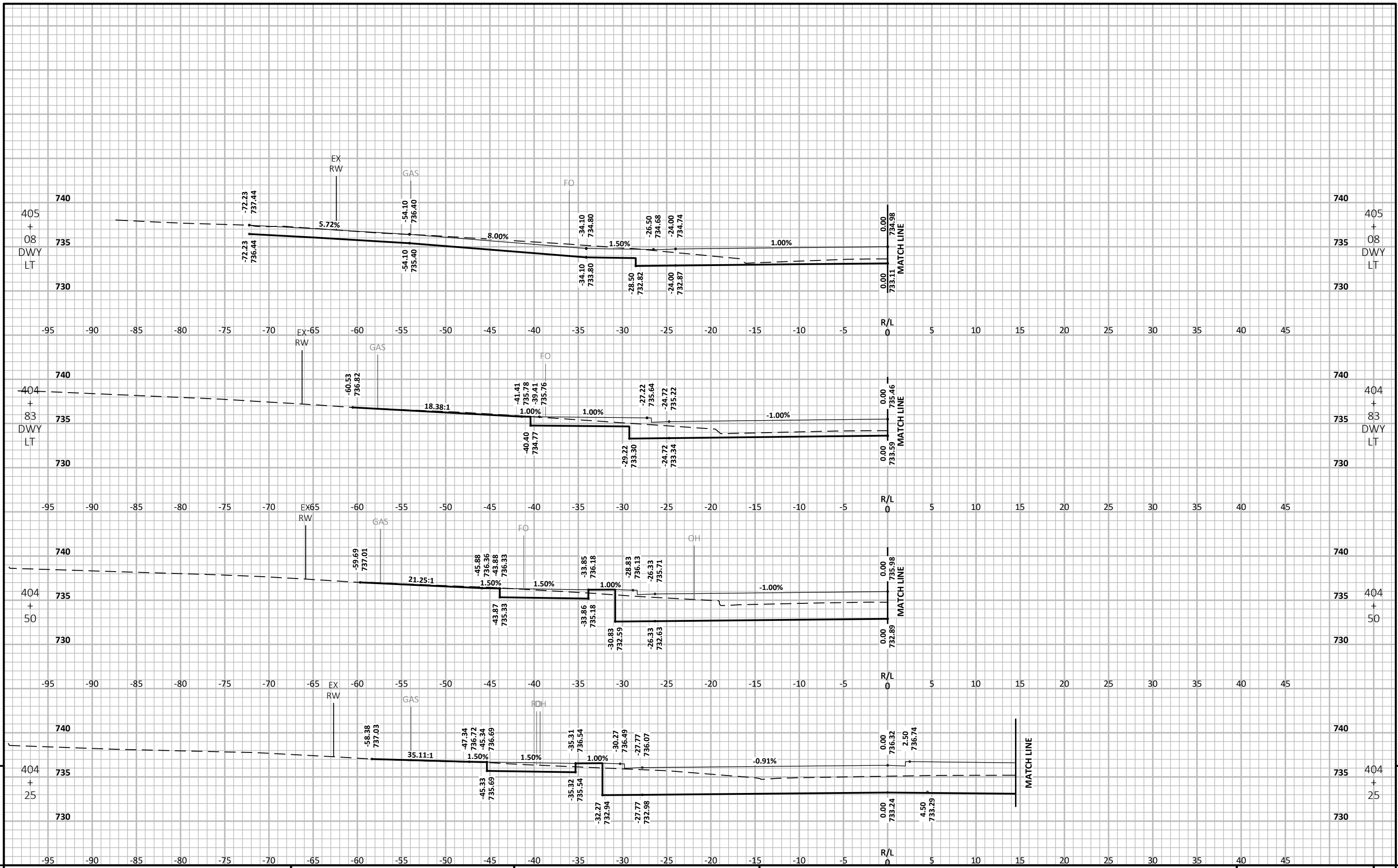
PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: BUCHANAN RD EASTBOUND SHEET 9

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LAYOUT NAME: 467604-090274a-xs

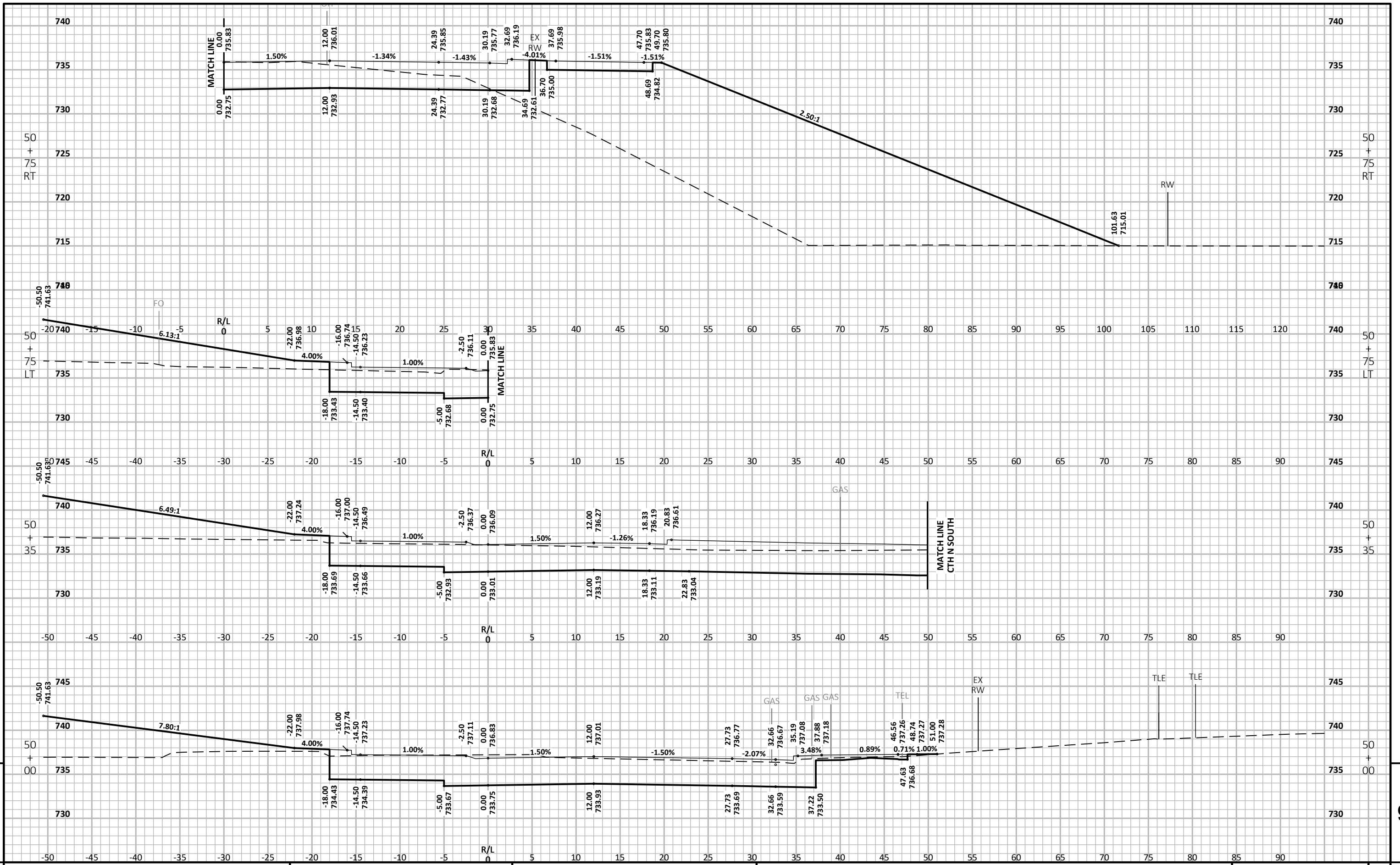


PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: BUCHANAN RD EASTBOUND SHEET 9



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: BUCHANAN RD WESTBOUND SHEET 9

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG LAYOUT NAME - 467604-090275-XS PLOT DATE: 8/18/2025 11:19 AM PLOT BY: ANDY WESTBROOK PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 4676-04-71

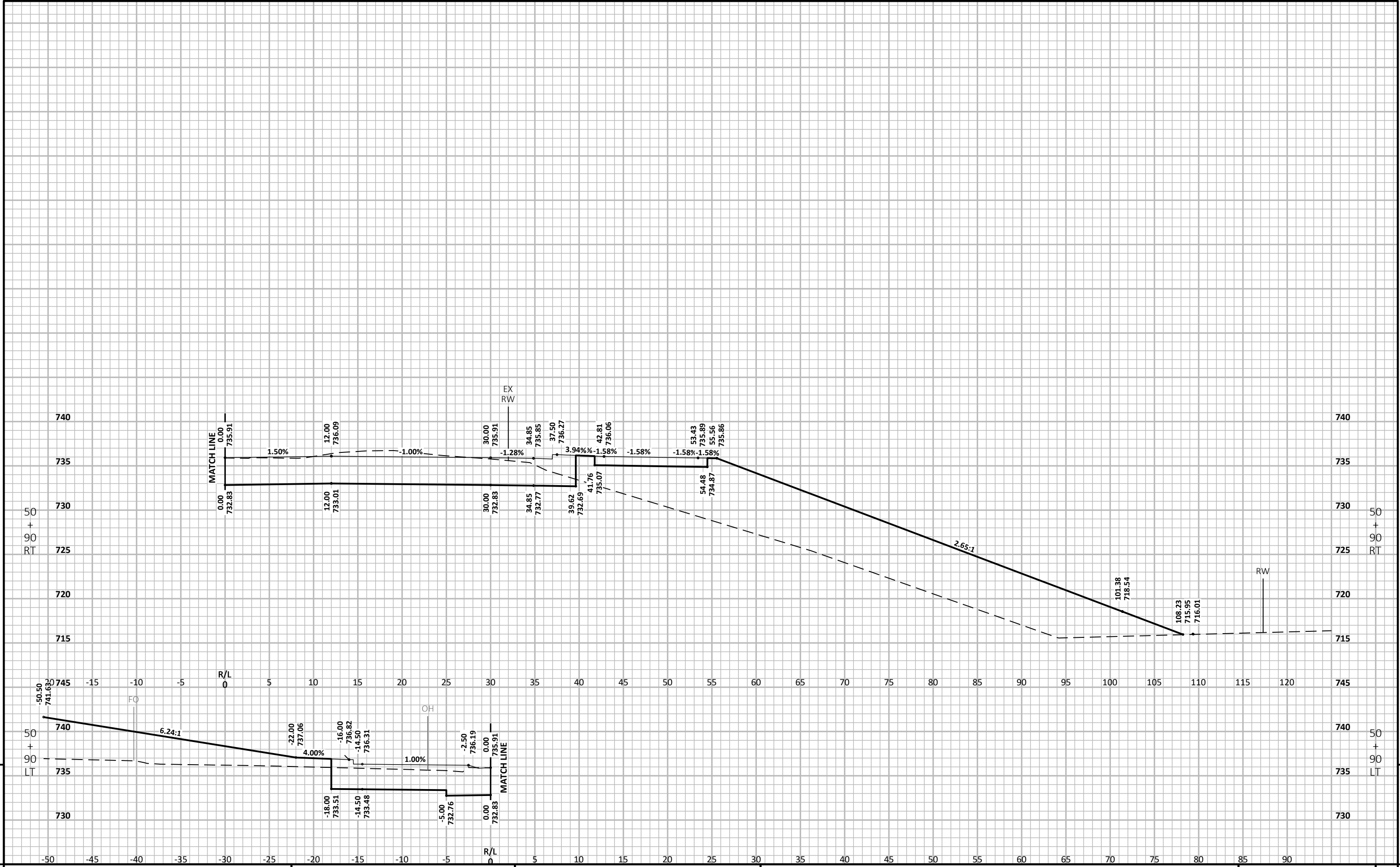
HWY: CTH N

COUNTY: OUTAGAMIE

CROSS SECTIONS: ROUNDABOUT

SHEET

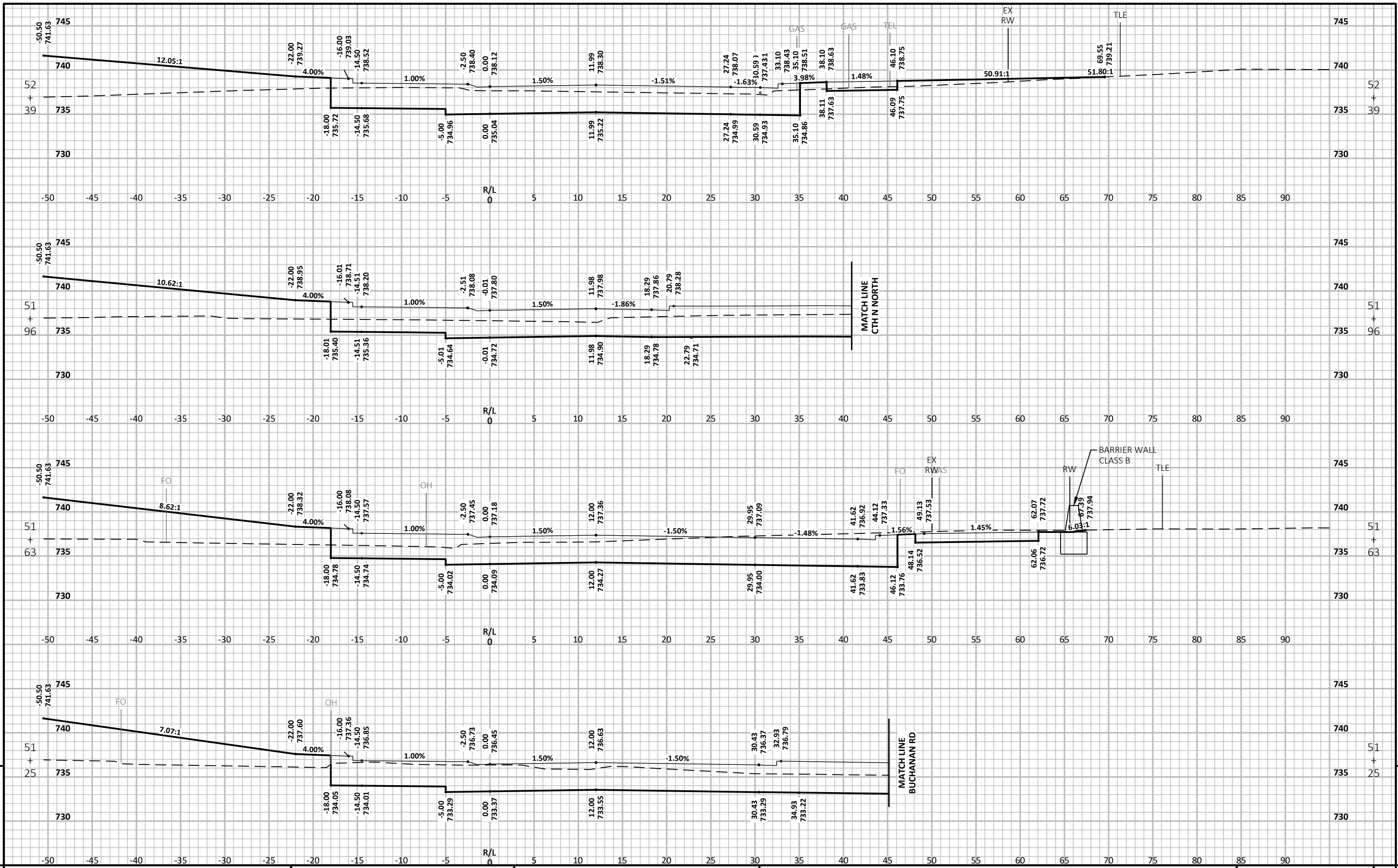
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PROJECT NO: 4676-04-71	HWY: CTH N	COUNTY: OUTAGAMIE	CROSS SECTIONS: ROUNDABOUT
SHEET			E

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PROJECT NO: 4676-04-71

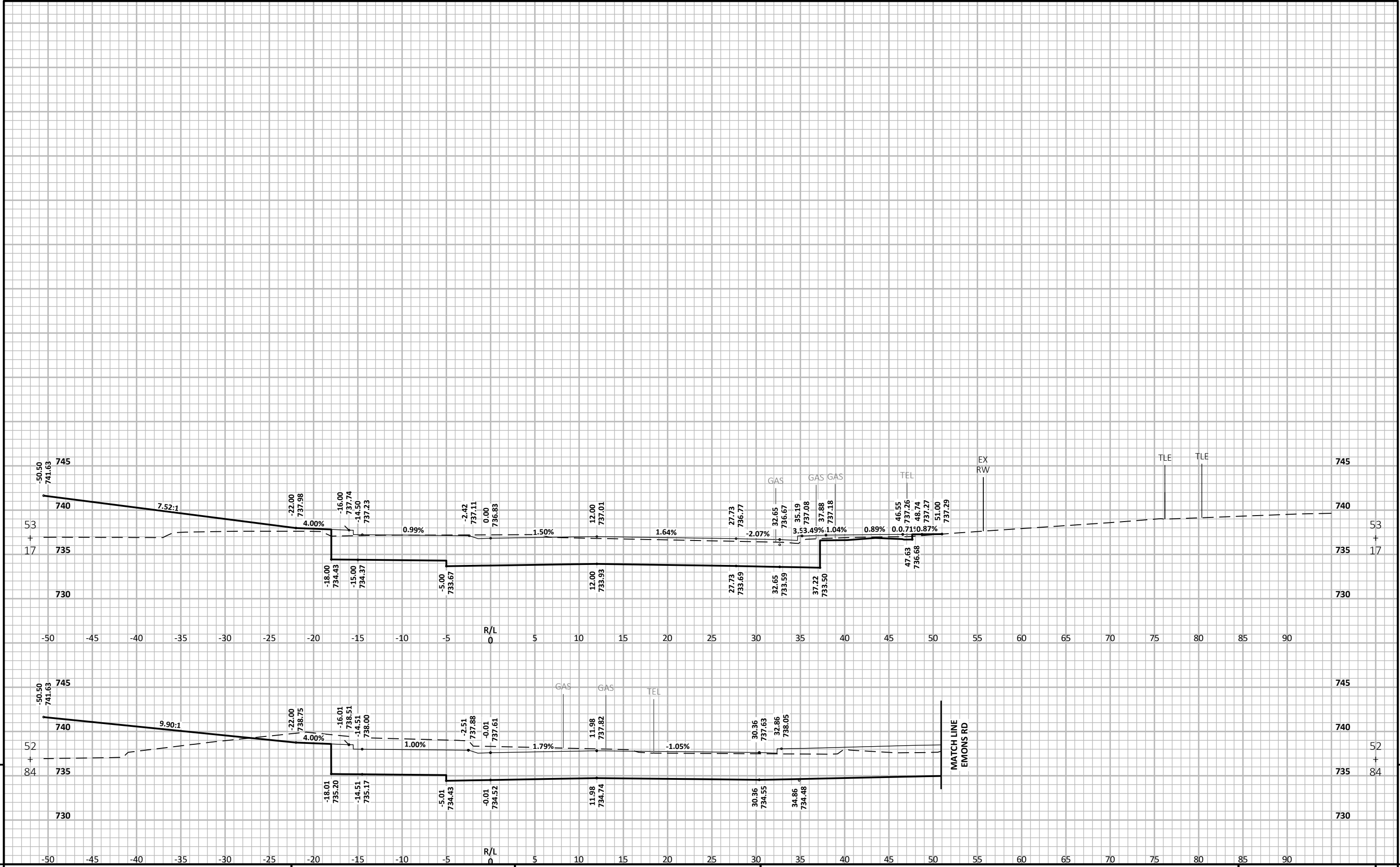
HWY: CTH N

COUNTY: OUTAGAMIE

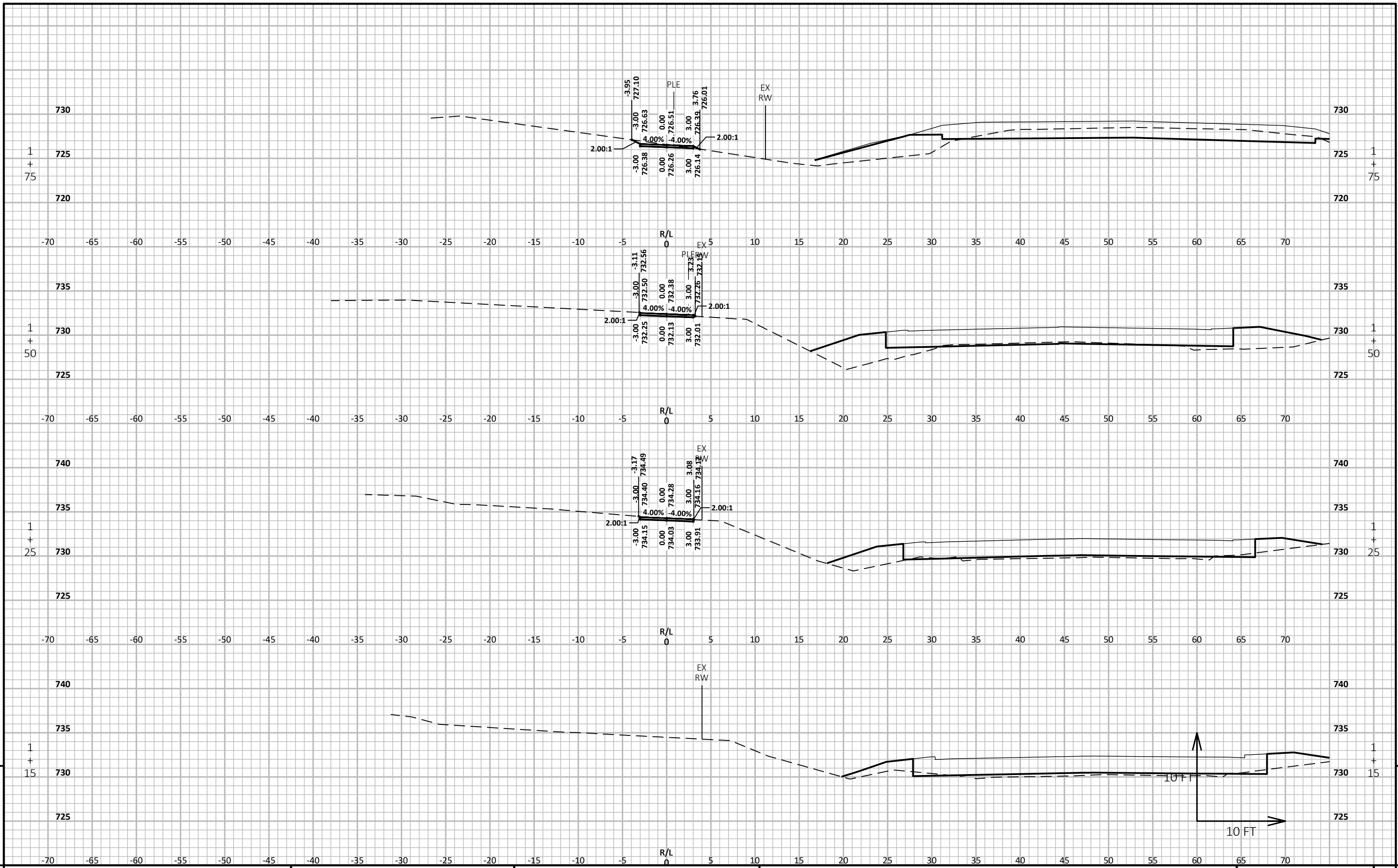
CROSS SECTIONS: ROUNDABOUT

SHEET

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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: ROUNDABOUT SHEET E

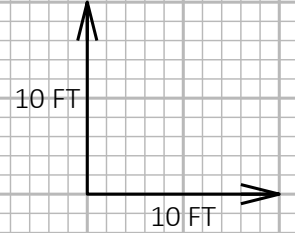
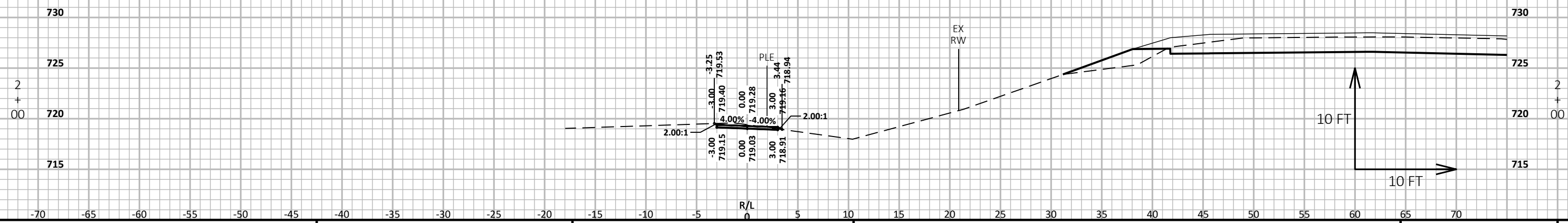
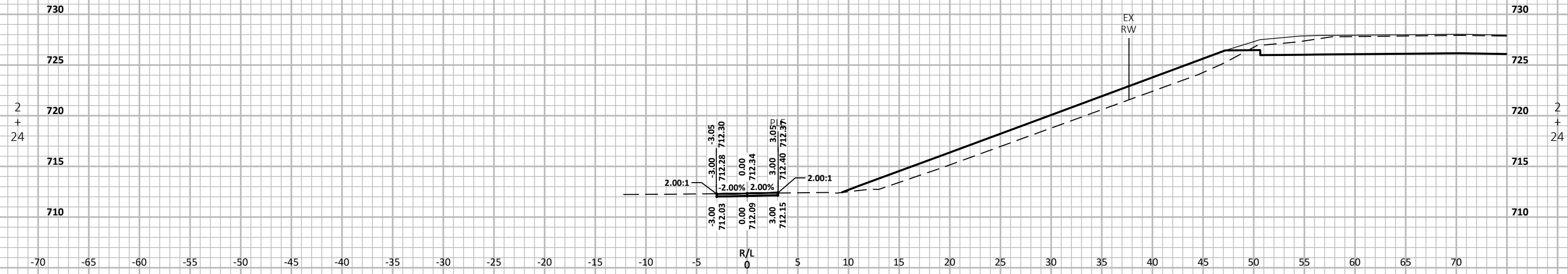


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PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: PARCEL 42 PATH SHEET E

FILE NAME: F:\TR\JOBS\E2292A17\CIVIL 3D 2016\SHEETS\PLAN\467604-090200-XS.DWG PLOT DATE: 8/27/2025 1:37 PM PLOT BY: ANDY WESTBROOK PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 4676-04-71 HWY: CTH N COUNTY: OUTAGAMIE CROSS SECTIONS: PARCEL 42 PATH SHEET E

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Notes



Wisconsin Department of Transportation

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