LAX

NOVEMBER 2022

PROJECT ID: 7720-00-72

WITH: N/A

COUNTY: BUFFALO

ORDER OF SHEETS

TOTAL SHEETS = 116

51

N

DESIGN DESIGNATION

A.A.D.T.	2022	=	610
A.A.D.T.	2042	=	610
D.H.V.		=	N/A
D.D.		=	60/40
T.		=	7.7%
DESIGN SPEED		=	30 MPH/ 45 MPH/ 60 MPH
ESALS		=	90,000

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

FOUNTAIN CITY - ARCADIA

0.2 MI N OF JEFFERSON ST TO CTH G

STH 95

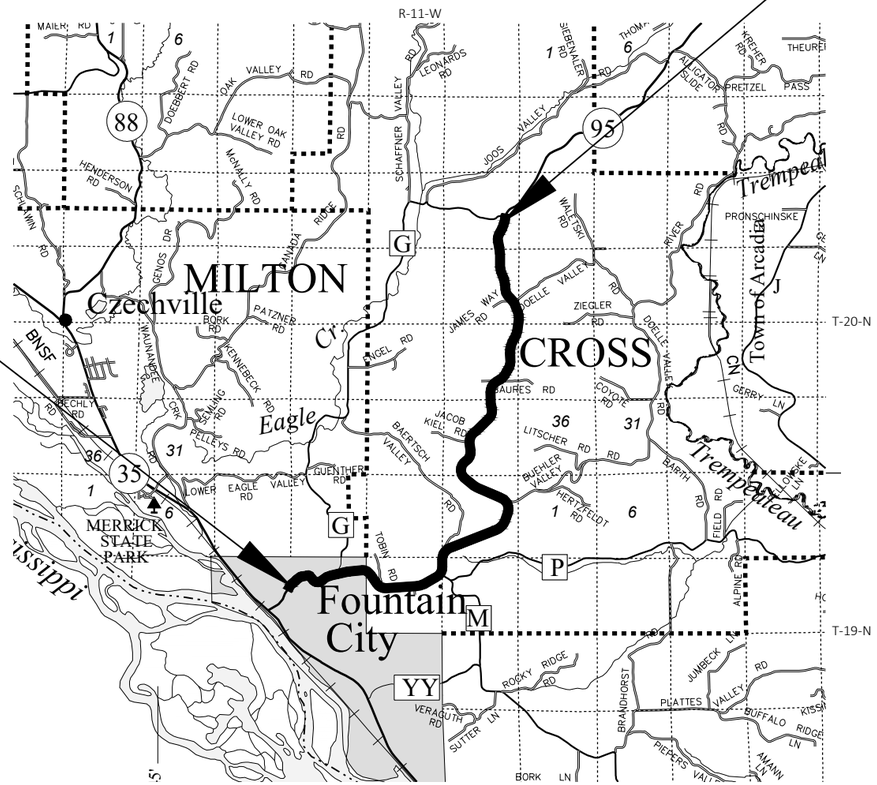
BUFFALO COUNTY

STATE PROJECT NUMBER
7720-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7720-00-72	WISC 2023053	1

BEGIN PROJECT
STA 527+87.00
Y=238682.514
X=597074.746

END PROJECT
STA 959+30.00
Y=264290.964
X=612096.470



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 8.171 MI

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

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

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

ORIGINAL PLANS PREPARED BY

JT ENGINEERING, INC Consultant Services

WISCONSIN
MATTHEW J. SOLIN
E-42459
CHIPPEWA FALLS WI
PROFESSIONAL ENGINEER

DATE: 7/18/2022 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING, INC
Designer	JT ENGINEERING, INC
Project Manager	BRIAN MEYER
Regional Examiner	SW REGION
Regional Supervisor	JAMES SAVOLDELLI

APPROVED FOR THE DEPARTMENT

DATE: 7/18/2022 (Signature)

E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 7/18/2022 10:08 AM PLOT BY : MATT SOLIN PLOT NAME :

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 32.805 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.772 ACRES

STANDARD ABBREVIATIONS

AP	ACCESS POINT	INTERS	INTERSECTION
AC	ACRE	INV	INVERT
AGG	AGGREGATE	JT	JOINT
ASPH	ASPHALTIC	LT	LEFT
BL	BASELINE	LF	LINEAR FOOT
BM	BENCH MARK	MH	MANHOLE
CB	CATCH BASIN	MP	MARKER POST
CL	CENTER LINE	MB	MESSAGE BOARD
CONC	CONCRETE	NOM	NOMINAL
CO	COUNTY	NB	NORTHBOUND
CABC	CRUSHED AGGREGATE BASE COURSE	PAVT	PAVEMENT
		PERM	PERMENANT
CY	CUBIC YARD	PU	PIPE UNDERDRAIN
CULV	CULVERT	PCC	PORTLAND CEMENT CONCRETE
CP	CULVERT PIPE	PE	PRIVATE ENTRANCE
C&G	CURB AND GUTTER	PROJ	PROJECT
DIA	DIAMETER	PL	PROPERTY LINE
DWY	DRIVEWAY	RL	REFERENCE LINE
EB	EASTBOUND	RT	RIGHT
ELEV	ELEVATION	R/W	RIGHT OF WAY
EW	ENDWALL	RDWY	ROADWAY
ENT	ENTRANCE	SHLDR	SHOULDER
EXC	EXCAVATION	SB	SOUTHBOUND
FP	FENCE POST	SS	STORM SEWER
FERT	FERTILIZE	TEL	TELEPHONE
F	FILL	TEMP	TEMPORARY
FG	FINISHED GRADE	TER	TERRACE
FL	FLOW LINE	TV	TELEVISION
FO	FIBER OPTIC	UG	UNDERGROUND
FT	FOOT	VOL	VOLUME
HYD	HYDRANT	W	WATER
INL	INLET	WB	WESTBOUND

GENERAL NOTES

THERE MAY BE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

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

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED, AND COMPACTED UNLESS SHOWN OTHERWISE.

3.0 TO 3.5 INCH REMOVING ASPHALTIC SURFACE MILLING OPERATIONS ARE EXPECTED TO ENCOUNTER UNDERLYING BASE COURSE MATERIAL.

THE EXISTING RIGHT OF WAY SHOWN IS APPROXIMATE BASED OFF BUFFALO COUNTY GIS AND AS-BUILT PLANS.

EXISTING AS-BUILT SUPERELEVATIONS OF CURVE INFORMATION IN PLAN ARE FOR INFORMATION ONLY. EXISTING SUPERELEVATIONS ARE TO BE MAINTAINED WITH MILLING AND PAVING OPERATIONS.

TRAFFIC CONTROL GENERAL NOTES

PLACE ADVANCED SIGNING IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

ALL SIDE ROADS TO FOLLOW THE "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL".

ALL CONSTRUCTION WITHIN THE PROJECT LIMITS AS WELL AS GUARDRAIL REPLACEMENT, CONCRETE CURB & GUTTER REPLACEMENT, AND ALL CULVERTS DESIGNATED FOR FULL REPLACEMENT, SHALL FOLLOW SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". ALL CULVERTS DESIGNATED FOR FULL REPLACEMENT ARE TO BE CONSTRUCTED 1/2 AT A TIME UTILIZING THE SDD.

USE "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" SDD FOR THE FOLLOWING:

- IN CULVERT REPAIR AND CLEANING LOCATIONS

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

WISCONSIN DNR LIAISON

AMY LESIK
DNR WEST CENTRAL REGION
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
(715) 495-1903
AmyL.Lesik@wisconsin.gov

WISDOT CONTACT

BRIAN MEYER, PE
WISDOT SOUTHWEST PROJECT MANAGER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 789-5676
Brian.Meyer@dot.wi.gov

DESIGN CONTACT

MATT SOLIN, PE
CONSULTANT PROJECT MANAGER
1403 122ND STREET, SUITE C
CHIPPEWA FALLS, WI 54729
(715) 861-4823
(715) 382-3140
matts@jt-engineering.com

UTILITY CONTACTS

TOM MURRAY
CENTURY LINK - COMMUNICATION LINE
333 NORTH FRONT STREET
LA CROSSE, WI 54601
(608) 615-4169 (OFFICE)
(608) 780-0895 (MOBILE)
Tom.L.Murray@lumen.com

GIL ADAMS
CITY OF FOUNTAIN CITY - SEWER
S 3173 COUNTY RD M
FOUNTAIN CITY, WI 54629
(507) 429-9779 (MOBILE)
gil@fountaincitywisconsin.com

GIL ADAMS
CITY OF FOUNTAIN CITY - WATER
S 3173 COUNTY RD M
FOUNTAIN CITY, WI 54629
(507) 429-9779 (MOBILE)
gil@fountaincitywisconsin.com

MIKE LYDON
DAIRYLAND POWER COOPERATIVE - ELECTRICITY
3200 EAST AVENUE SOUTH
P.O. BOX 817
LA CROSSE, WI 54602-0817
(608) 787-1381 (OFFICE)
michael.lydon@dairylandpower.com

TIM HOLTAN
RIVERLAND ENERGY COOPERATIVE- ELECTRICITY
N28988 STATE ROAD 93
P.O. BOX 277
ARCADIA, WI 54612-0277
(608) 323-3381 (OFFICE)
(608) 797-0102 (MOBILE)
Tholtan@Riverlandenergy.com

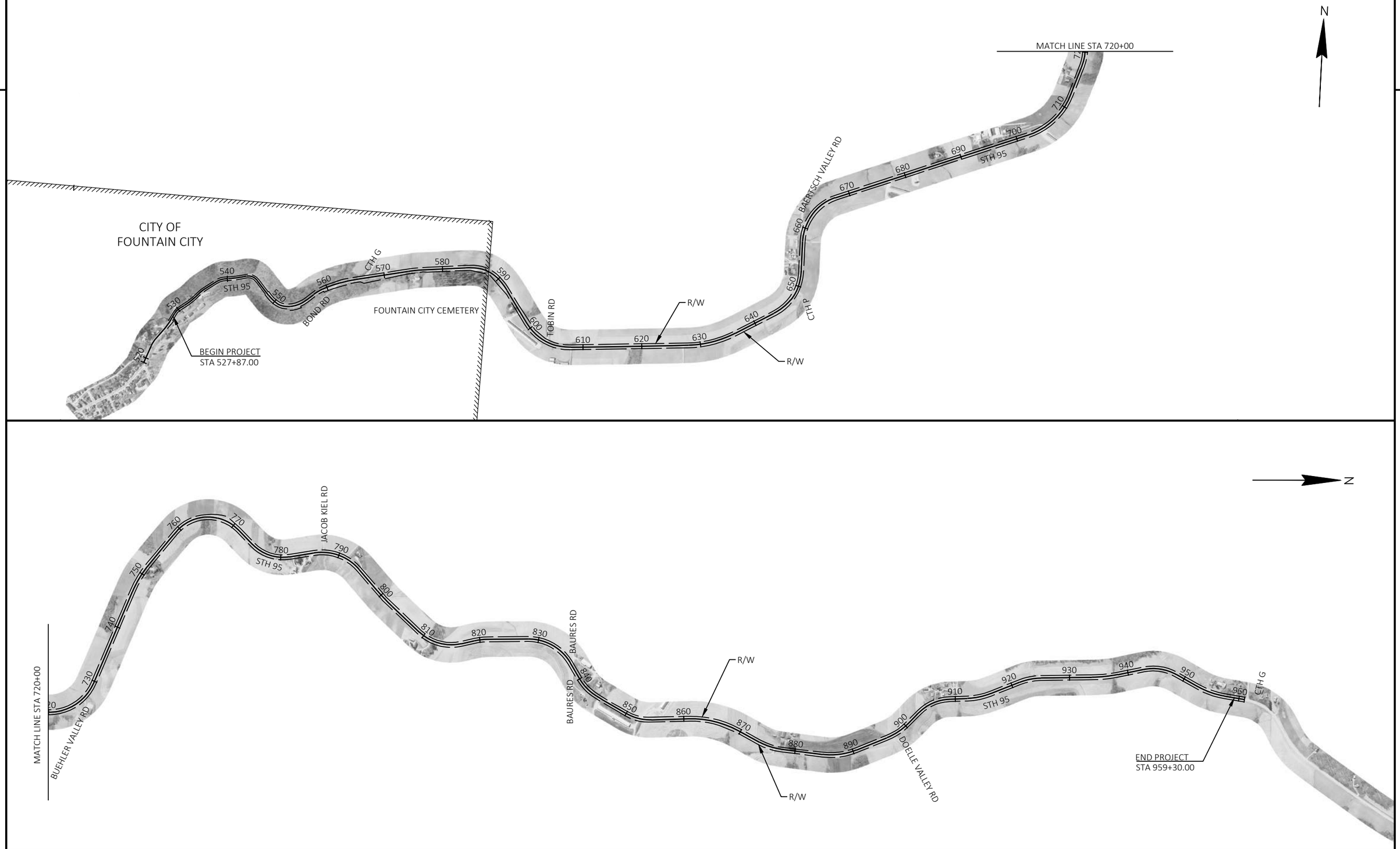
PERRY MCCLELLAN
SPECTRUM - COMMUNICATION LINE
1228 12TH AVE S
ONALASKA, WI 54650
(608) 317-6213 (MOBILE)
perry.mcclellan@charter.com

ERIC BECKER
WINDSTREAM KDL, LLC - COMMUNICATION LINE
314 N DANZ AVE
GREEN BAY, WI 54302-3526
(920) 461-9825 (OFFICE)
eric.becker@windstream.com

JASON MCROBERTS
XCEL ENERGY - ELECTRICITY
3215 COMMERCE ST
LA CROSSE, WI 54663
(608) 789-3689 (OFFICE)
(715) 577-1132 (MOBILE)
jason.l.mcroberts@xcelenergy.com

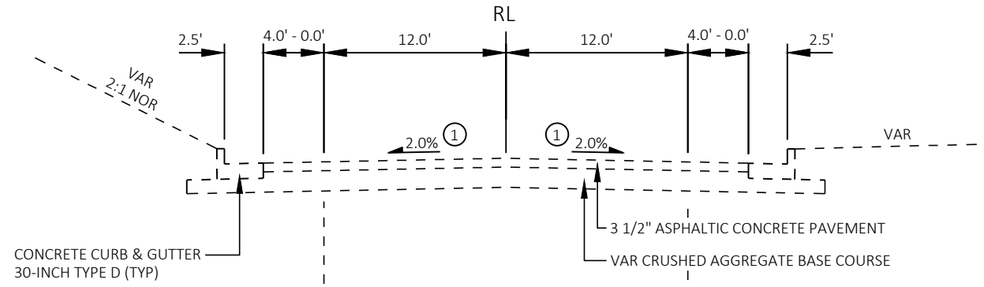
MITCHELL DIENGER
XCEL ENERGY - ELECTRICITY-TRANSMISSION
414 NICOLLET MALL 5TH FLOOR
MINNEAPOLIS, MN 55401
(612) 321-3109 (OFFICE)
mitchell.a.dienger@xcelenergy.com

2



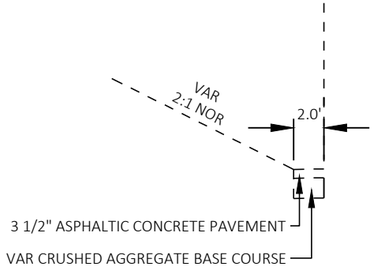
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01
PLOT DATE : 7/25/2022 1:49 PM
PLOT BY : ERIC BENSON
PLOT NAME :
PLOT SCALE : 1 IN:1500 FT
WISDOT/CADDS SHEET 44



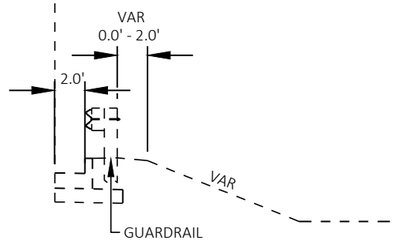
TYPICAL EXISTING SECTION

STH 95
STA 527+87.0 TO STA 529+51.9



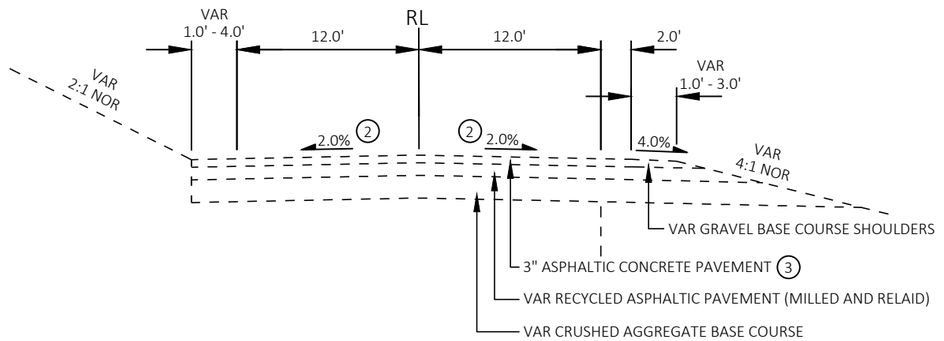
TYPICAL EXISTING SECTION

STA 529+00 TO STA 529+51.9



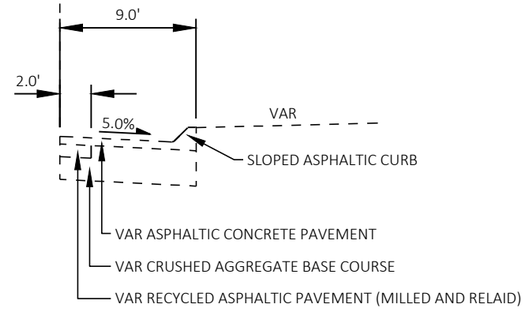
TYPICAL EXISTING SECTION

STA 528+79.4 TO STA 529+51.9



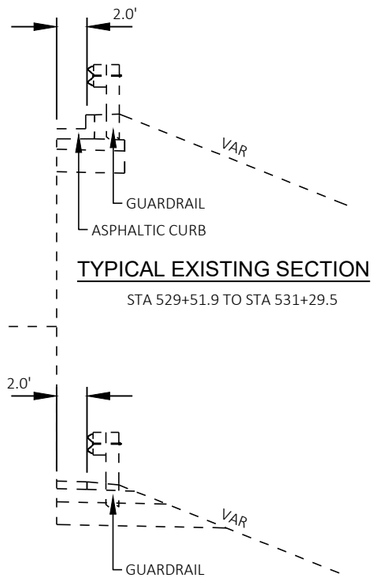
TYPICAL EXISTING SECTION

STH 95
STA 529+51.9 TO STA 565+48.4



TYPICAL EXISTING SECTION

STA 562+25.3 TO STA 565+48.4



TYPICAL EXISTING SECTION

STA 529+51.9 TO STA 531+29.5

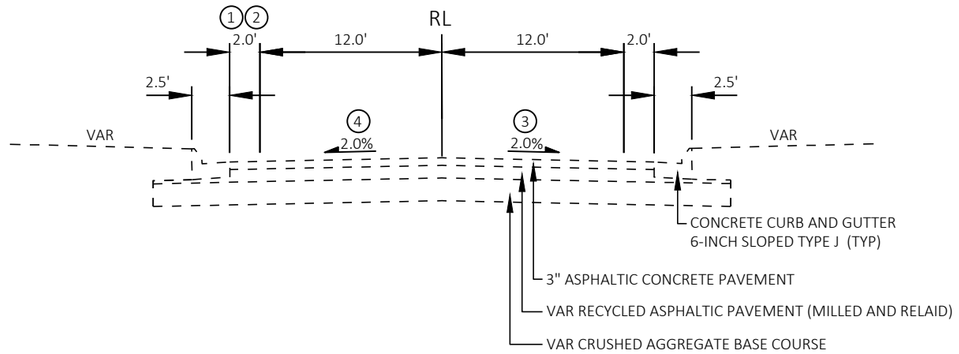
TYPICAL EXISTING SECTION

STA 531+29.5 TO STA 531+39.0
STA 542+83.1 TO STA 545+64.3
STA 547+21.1 TO STA 560+58.7

NOTES:

1. PAVEMENT CROSS SLOPE VARIES 1.0% TO 4.0% WHICH INCLUDES SUPERELEVATION.
2. PAVEMENT CROSS SLOPE VARIES 2.0% TO 12.0% WHICH INCLUDES SUPERELEVATION.
3. ASPHALTIC PAVEMENT THICKNESS = 3 1/2" STA 529+51.9 TO STA 529+67.5

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 4	E

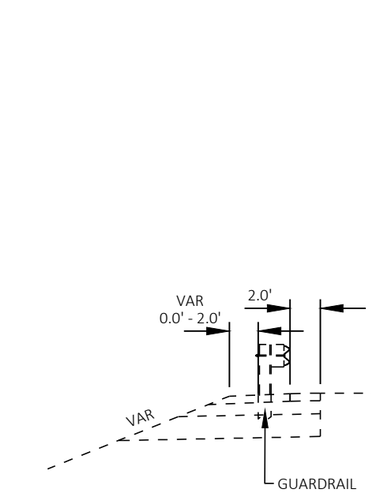


TYPICAL EXISTING SECTION

STH 95
STA 565+48.4 TO STA 573+54.5

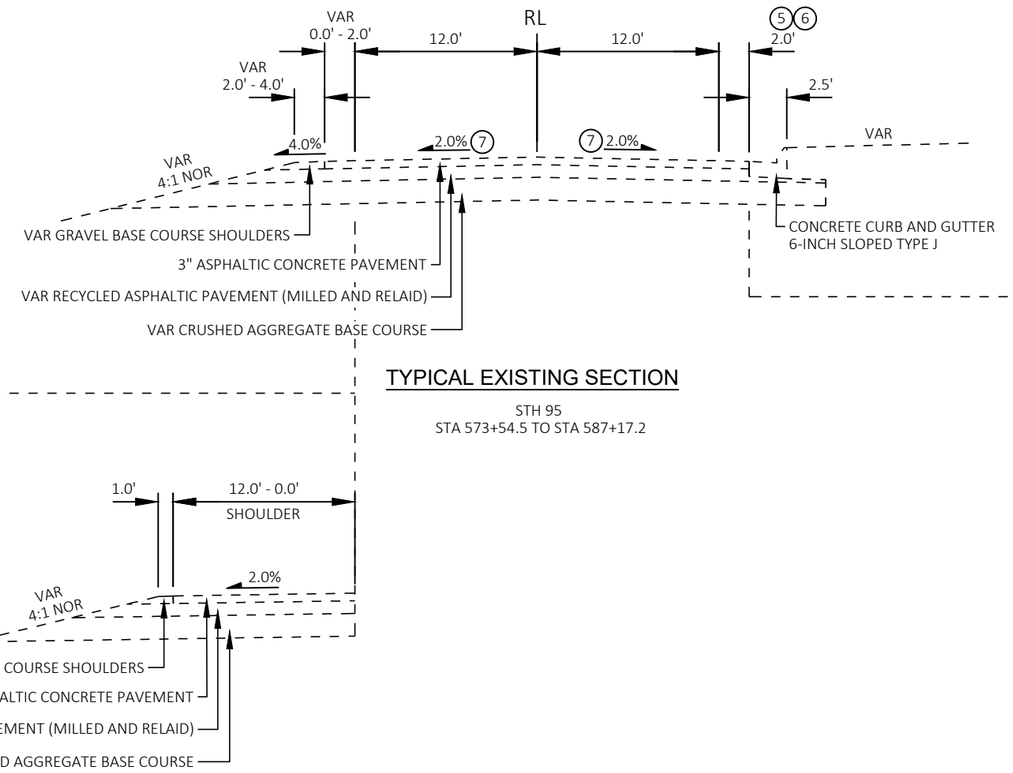
NOTES:

1. PAVED SHOULDER WIDTH 4.0' STA 565+48.4 TO STA 566+38.1
2. PAVED SHOULDER WIDTH VARIES 2.0'-12.0' STA 571+68.9 TO STA 573+54.5
3. PAVEMENT CROSS SLOPE VARIES 1.5% TO 3.5%
4. PAVEMENT CROSS SLOPE VARIES 2.0% TO 5.0%
5. PAVED SHOULDER WIDTH = 3.0' STA 581+31.0 TO STA 587+17.2 RT
6. PAVED SHOULDER WIDTH VARIES 2.0'-3.0' STA 580+75.0 TO STA 581+31.0
7. PAVEMENT CROSS SLOPE VARIES 1.0% TO 6.0% WHICH INCLUDES SUPERELEVATION.



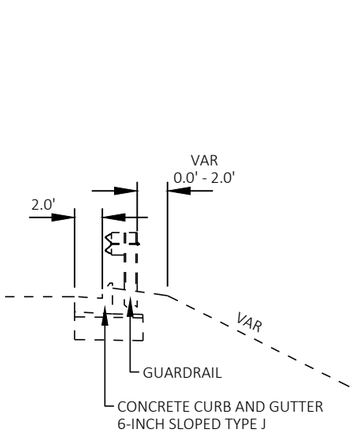
TYPICAL EXISTING SECTION

STA 584+51.0 TO STA 587+17.2



TYPICAL EXISTING SECTION

STH 95
STA 573+54.5 TO STA 587+17.2



TYPICAL EXISTING SECTION

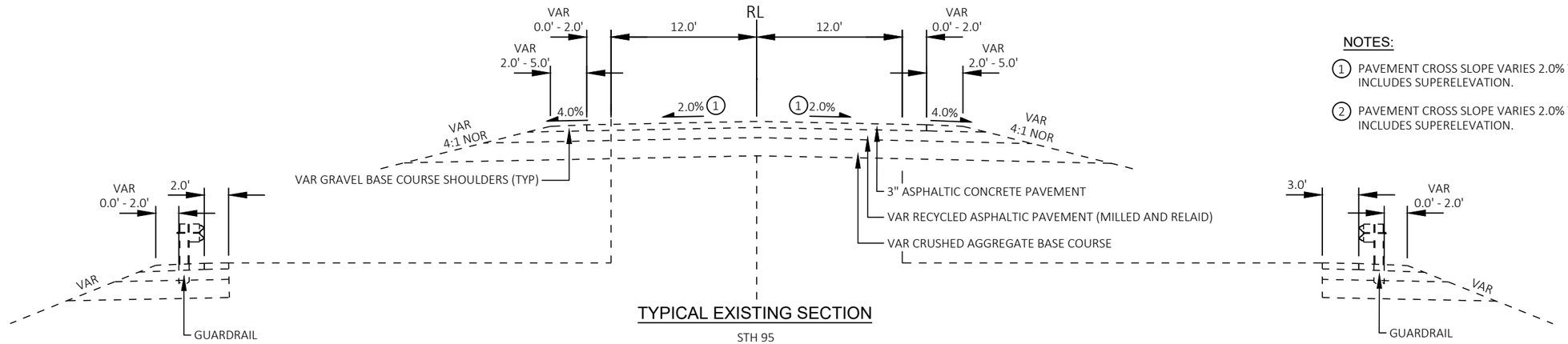
STA 577+15.7 TO STA 581+18.2

TYPICAL EXISTING SECTION

STA 573+54.5 TO STA 579+87.5

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 5	E

2



NOTES:

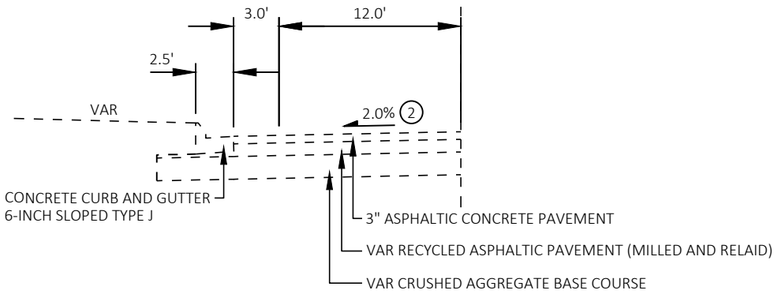
1. PAVEMENT CROSS SLOPE VARIES 2.0% TO 8.0% WHICH INCLUDES SUPERELEVATION.
2. PAVEMENT CROSS SLOPE VARIES 2.0% TO 6.0% WHICH INCLUDES SUPERELEVATION.

TYPICAL EXISTING SECTION

STA 587+17.2 TO STA 588+78.8

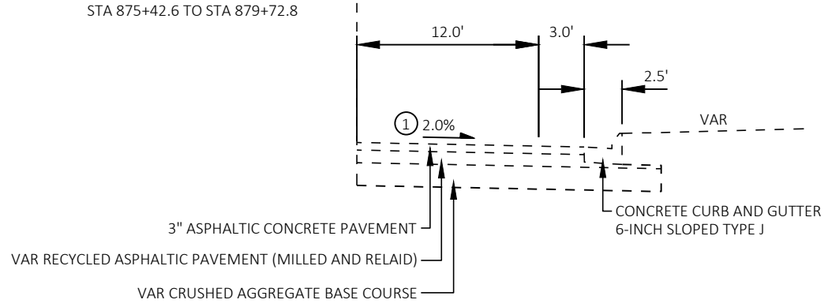
TYPICAL EXISTING SECTION

STH 95
STA 587+17.2 TO STA 959+30.0



TYPICAL EXISTING SECTION

STA 693+17.8 TO STA 698+06.8
STA 875+42.6 TO STA 879+72.8



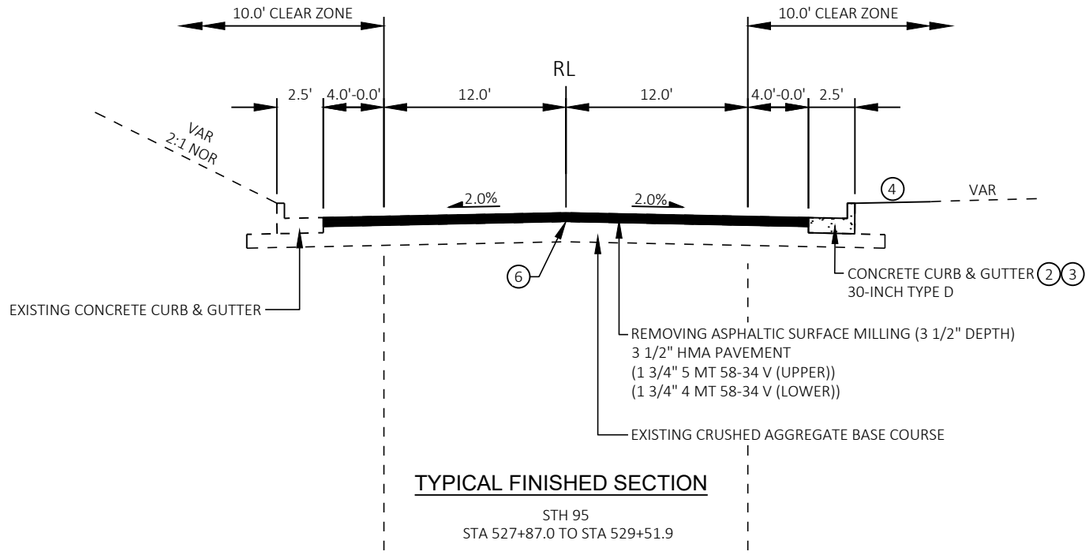
TYPICAL EXISTING SECTION

STA 592+92.6 TO STA 596+41.6
STA 749+76.9 TO STA 752+59.9

TYPICAL EXISTING SECTION

STA 715+75.5 TO STA 713+03.0
STA 720+55.7 TO STA 722+41.7

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 6	E

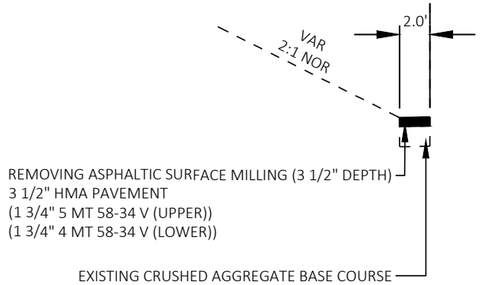


TYPICAL FINISHED SECTION

STH 95
STA 527+87.0 TO STA 529+51.9

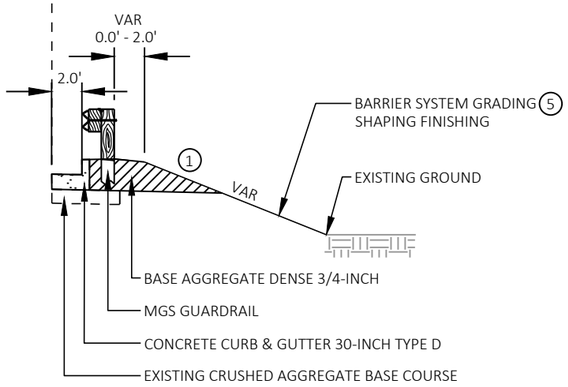
NOTES:

1. SLOPED PAVING CRUSHED AGGREGATE (6-INCH DEPTH). TIE INTO RETAINING WALL.
   STA 529+11.0 TO STA 529+51.9
2. SAWING CONCRETE, FULL CURB HEAD ALONG CURB FACE TO CONSTRUCT DRIVEWAY CURB. DO NOT DISTURB ASPHALT DRIVEWAY.
   STA 528+68.3 TO STA 528+71.3
3. CONCRETE CURB & GUTTER 30-INCH TYPE D (DRIVEWAY)
   STA 528+71.3 TO STA 528+97.1
4. RESTORE GRASSED AREA BEHIND CURB & GUTTER UNDER BARRIER, SYSTEM GRADING, SHAPING, FINISHING BID ITEM (INCIDENTAL TO BID ITEM).
5. FOR BARRIER SYSTEM GRADING SHAPING FINISHING PROVIDE EROSION MAT URBAN CLASS I TYPE B, SEEDING MIXTURE NO. 40, AND FERTILIZER TYPE B.
6. POINT REFERRED TO ON CROSS SECTION WHERE CROSS SECTIONS ARE INCLUDED IN PLANS.



TYPICAL FINISHED SECTION

STA 529+00 TO STA 529+51.9



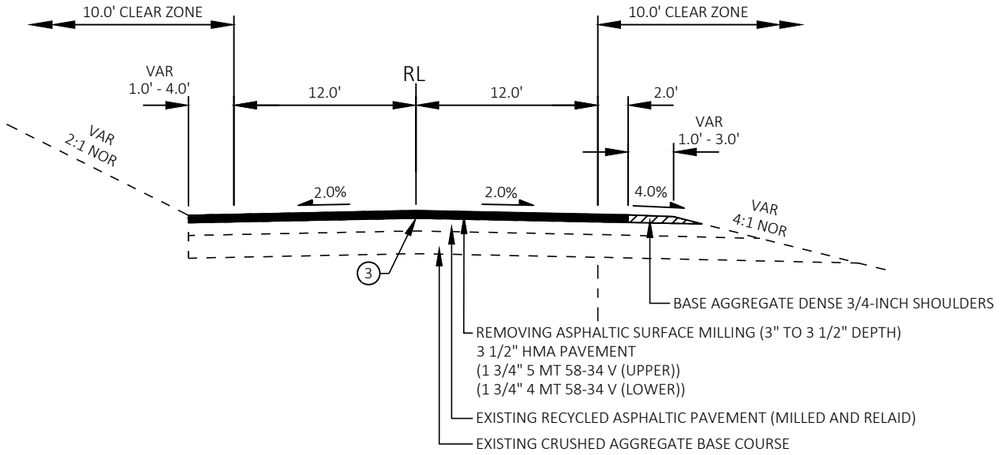
TYPICAL FINISHED SECTION

STA 528+84.6 TO STA 529+51.9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 7	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 04
PLOT DATE : 7/25/2022 3:04 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1:10
WISDOT/CADDS SHEET 42

2

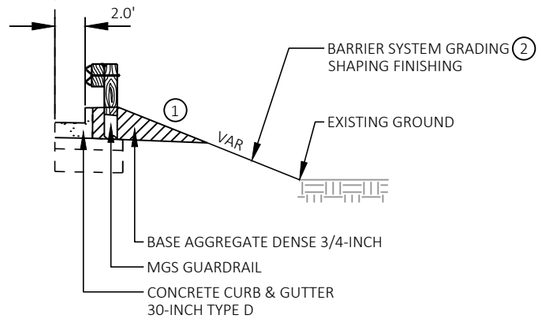


TYPICAL FINISHED SECTION

STH 95
STA 529+51.9 TO STA 533+65.0

NOTES:

1. SLOPED PAVING CRUSHED AGGREGATE (6-INCH DEPTH). TIE INTO RETAINING WALL
   STA 529+51.9 TO STA 530+57.0
2. FOR BARRIER SYSTEM GRADING SHAPING FINISHING PROVIDE EROSION MAT URBAN CLASS I TYPE B, SEEDING MIXTURE NO. 40, AND FERTILIZER TYPE B.
3. POINT REFERRED TO ON CROSS SECTION WHERE CROSS SECTIONS ARE INCLUDED IN PLANS.

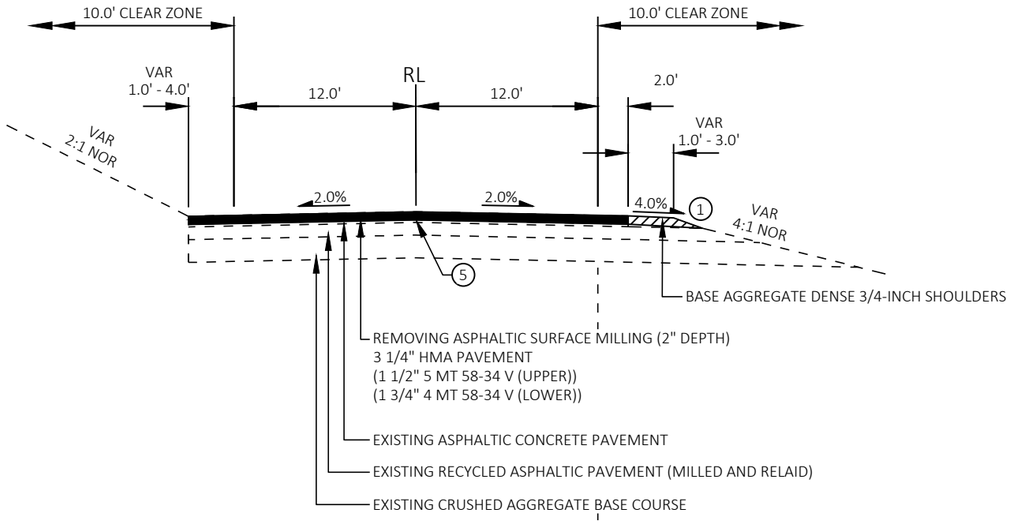


TYPICAL FINISHED SECTION

STA 529+51.9 TO STA 531+94.0

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 8	E

2

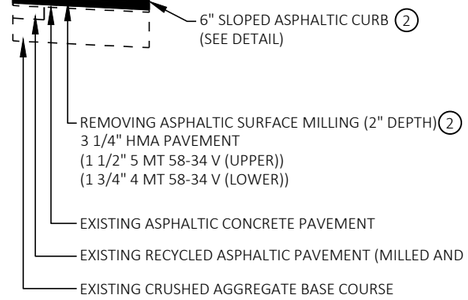


TYPICAL FINISHED SECTION

STH 95
STA 533+65.0 TO STA 565+48.4

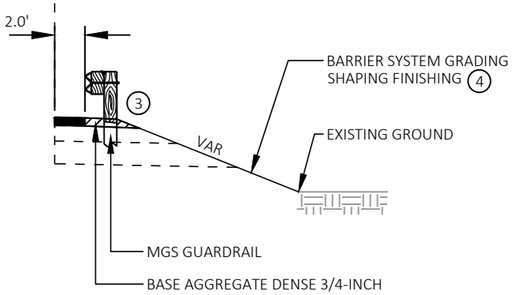
NOTES:

1. SHAPING SHOULDERS. PAYMENT FOR THIS ITEM INCLUDES BLADING, SHAPING AND COMPACTING THE EXISTING SHOULDER AGGREGATE ACCORDING TO THE STANDARD SPECIFICATION AFTER THE PAVEMENT LAYER IS CONSTRUCTED.
2. REMOVAL OF EXISTING SLOPED ASPHALTIC CURB IS INCIDENTAL TO REMOVING ASPHALTIC SURFACE MILLING BID ITEM.
3. GUARDRAIL MOW STRIP EMULSIFIED ASPHALT.
   STA 547+72.5 TO STA 551+50.0
   STA 556+06.3 TO STA 560+16.8
4. FOR BARRIER SYSTEM GRADING SHAPING FINISHING PROVIDE EROSION MAT URBAN CLASS I TYPE B, SEEDING MIXTURE NO. 20, AND FERTILIZER TYPE B.
5. POINT REFERRED TO ON CROSS SECTION WHERE CROSS SECTIONS ARE INCLUDED IN PLANS.



TYPICAL FINISHED SECTION

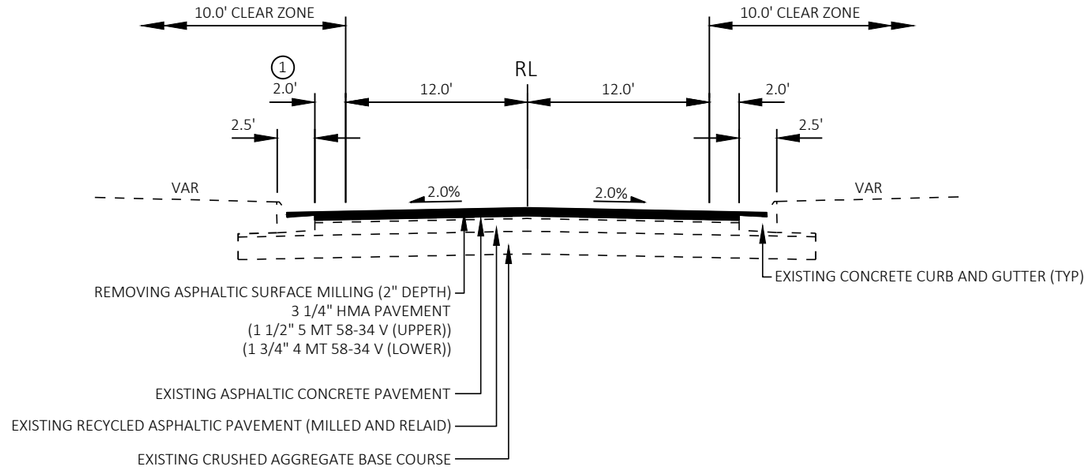
STA 562+25.3 TO STA 565+48.4



TYPICAL FINISHED SECTION

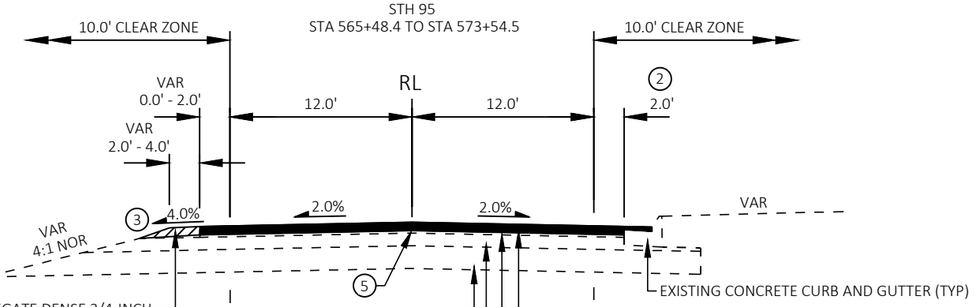
STA 542+66.5 TO STA 545+64.3
STA 547+19.3 TO STA 560+70.4

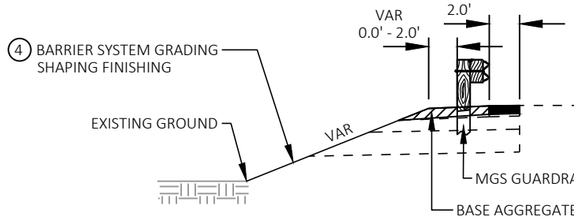
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 9	E



TYPICAL FINISHED SECTION

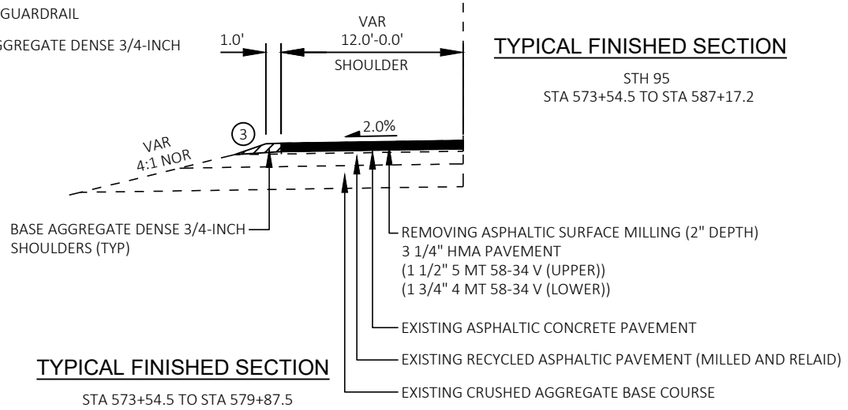
STH 95
STA 565+48.4 TO STA 573+54.5





TYPICAL FINISHED SECTION

STA 583+54.7 TO STA 587+17.2

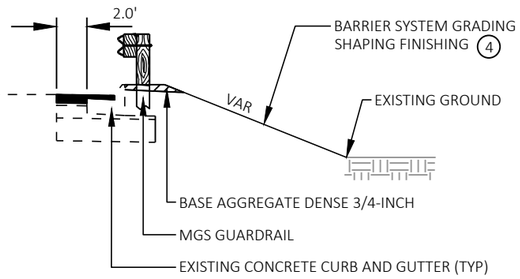


TYPICAL FINISHED SECTION

STA 573+54.5 TO STA 579+87.5

TYPICAL FINISHED SECTION

STH 95
STA 573+54.5 TO STA 587+17.2

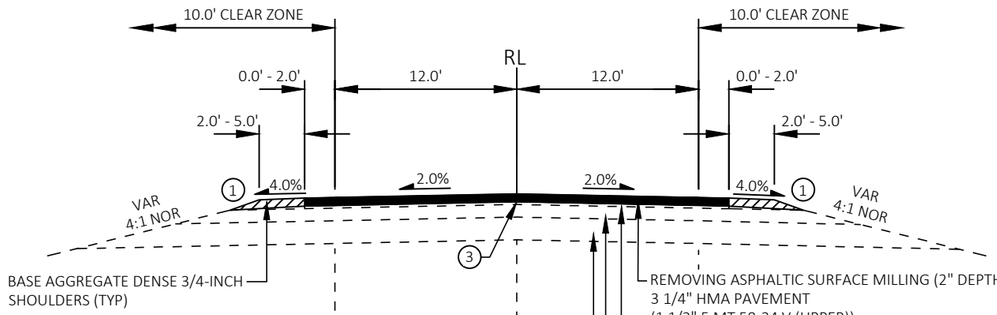


TYPICAL FINISHED SECTION

STA 577+15.7 TO STA 581+18.2

NOTES:

1. WITDH VARIES 2.0'-12.0'
   STA 571+68.9 TO STA 573+54.5
2. PAVED SHOULDER WIDTH = 3.0'
   STA 581+31.0 TO STA 587+17.2
3. SHAPING SHOULDERS. PAYMENT FOR THIS ITEM INCLUDES BLADING, SHAPING AND COMPACTING THE EXISTING SHOULDER AGGREGATE ACCORDING TO THE STANDARD SPECIFICATION AFTER THE PAVEMENT LAYER IS CONSTRUCTED.
4. FOR BARRIER SYSTEM GRADING SHAPING FINISHING PROVIDE EROSION MAT URBAN CLASS I TYPE B, SEEDING MIXTURE NO. 20, AND FERTILIZER TYPE B.
5. POINT REFERRED TO ON CROSS SECTION WHERE CROSS SECTIONS ARE INCLUDED IN PLANS.

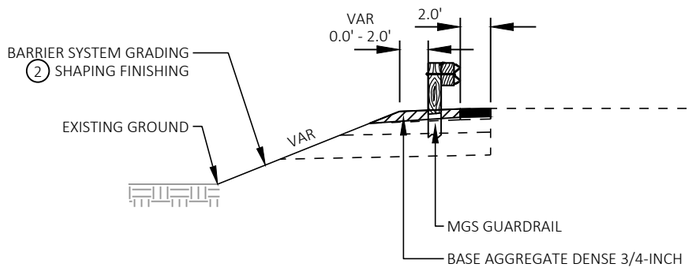


TYPICAL FINISHED SECTION

STH 95
STA 587+17.2 TO STA 959+30.0

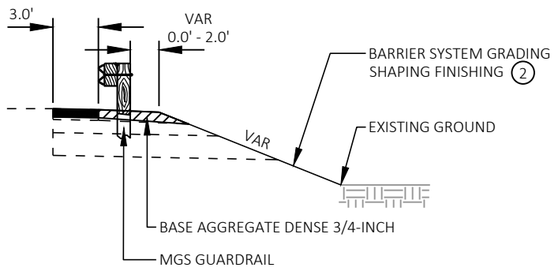
NOTES:

1. SHAPING SHOULDERS. PAYMENT FOR THIS ITEM INCLUDES BLADING, SHAPING AND COMPACTING THE EXISTING SHOULDER AGGREGATE ACCORDING TO THE STANDARD SPECIFICATION AFTER THE PAVEMENT LAYER IS CONSTRUCTED.
2. FOR BARRIER SYSTEM GRADING SHAPING FINISHING PROVIDE EROSION MAT URBAN CLASS I TYPE B, SEEDING MIXTURE NO. 20, AND FERTILIZER TYPE B.
3. POINT REFERRED TO ON CROSS SECTION WHERE CROSS SECTIONS ARE INCLUDED IN PLANS.



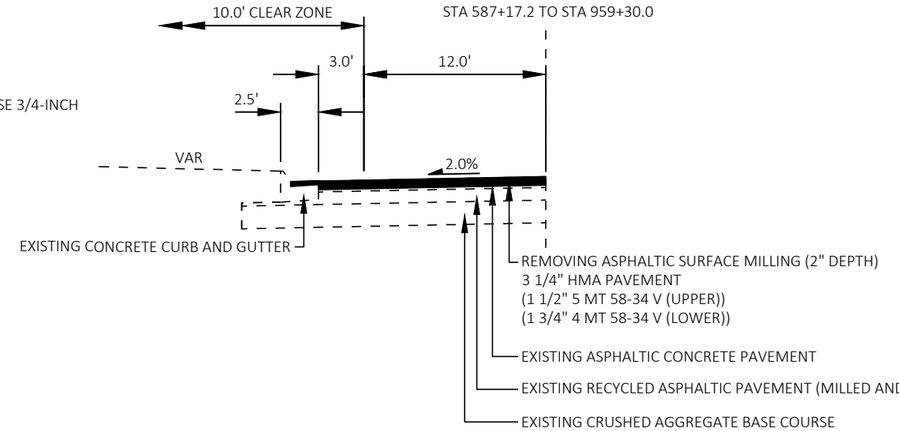
TYPICAL FINISHED SECTION

STA 587+17.2 TO STA 588+80.1



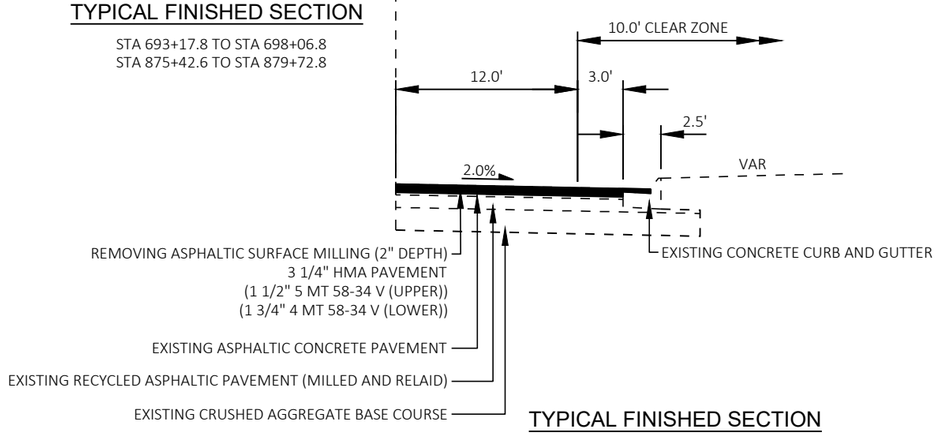
TYPICAL FINISHED SECTION

STA 714+14.0 TO STA 717+19.0
STA 720+02.0 TO STA 722+41.0



TYPICAL FINISHED SECTION

STA 693+17.8 TO STA 698+06.8
STA 875+42.6 TO STA 879+72.8



TYPICAL FINISHED SECTION

STA 592+92.6 TO STA 596+41.6
STA 749+76.9 TO STA 752+59.9

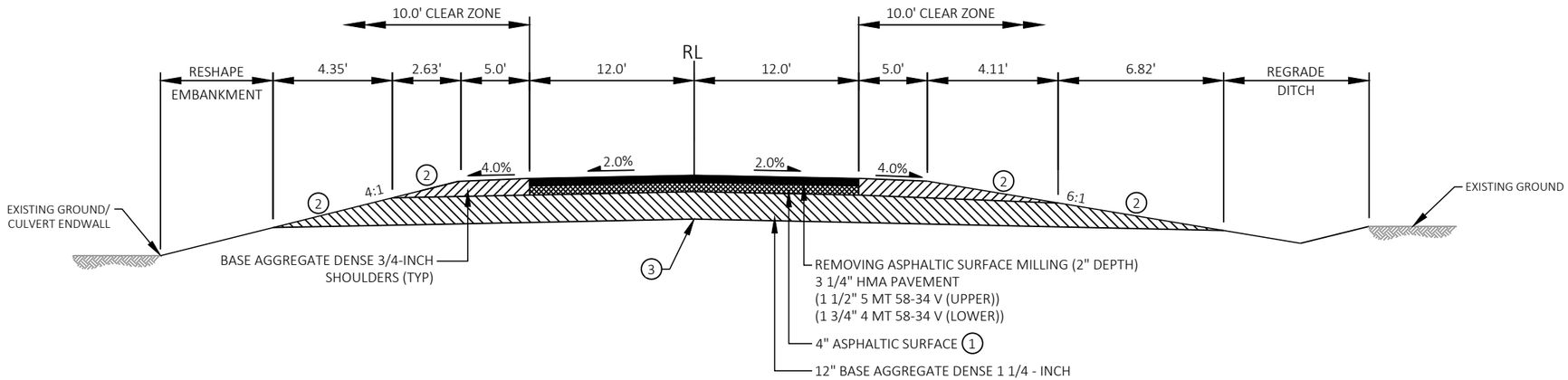
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 11	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 08
PLOT DATE : 7/25/2022 1:49 PM
PLOT BY : ERIC BENSON
PLOT NAME :
PLOT SCALE : 1:10
WISDOT/CADDS SHEET 42

2

NOTES:

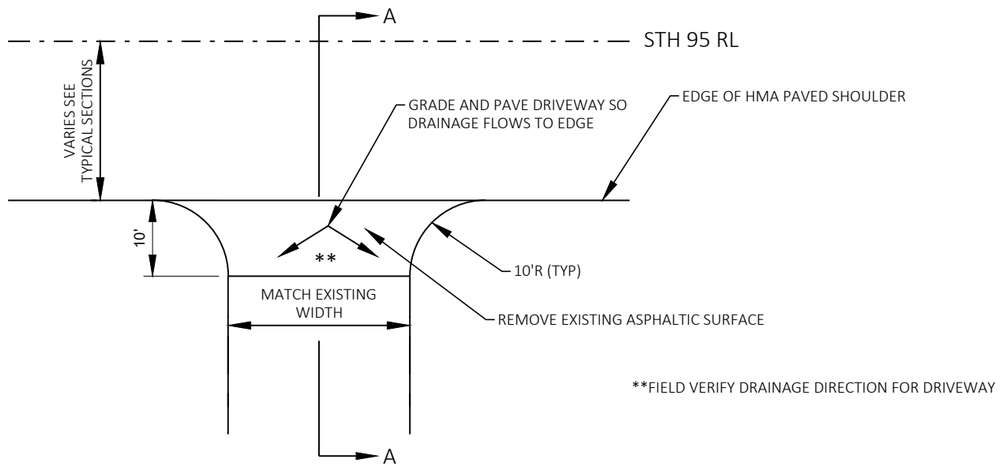
1. 4" ASPHALTIC SURFACE
   (2" LOWER, 2" UPPER)
   4 MT 58-34S OR GREATER
2. FERTILIZER AND SEED BETWEEN EDGE OF SHOULDER AND SHOULDER POINT AS PART OF REGRADE DITCH OR RESHAPE EMBANKMENT AND PIPE END.
3. POINT REFERRED TO ON CROSS SECTIONS.



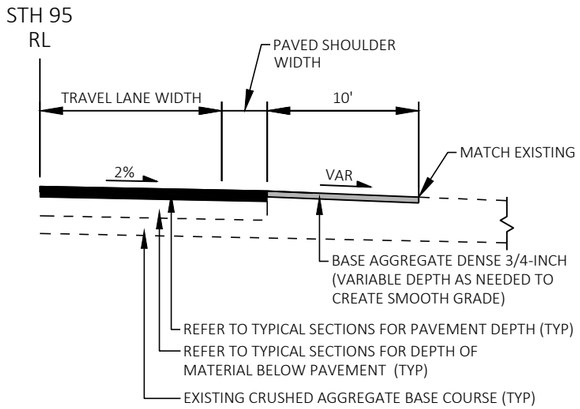
TYPICAL FINISHED SECTION

STH 95
STA 845+20.0 TO STA 845+85.0

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TYPICAL SECTIONS	SHEET 12	E

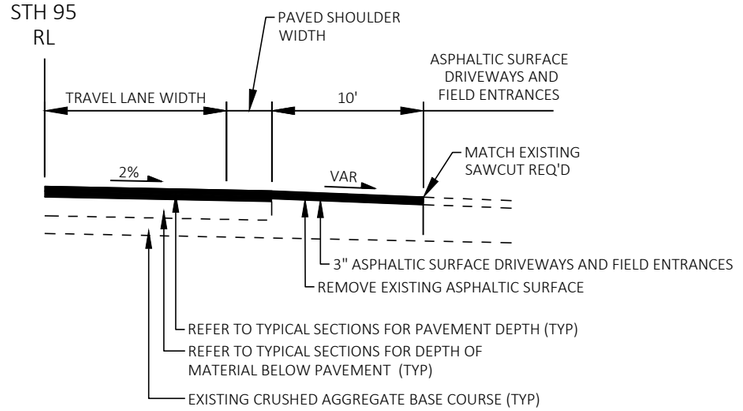


DRIVEWAY



SECTIONS A-A DRIVEWAY PAVING - AGGREGATE DRIVEWAY

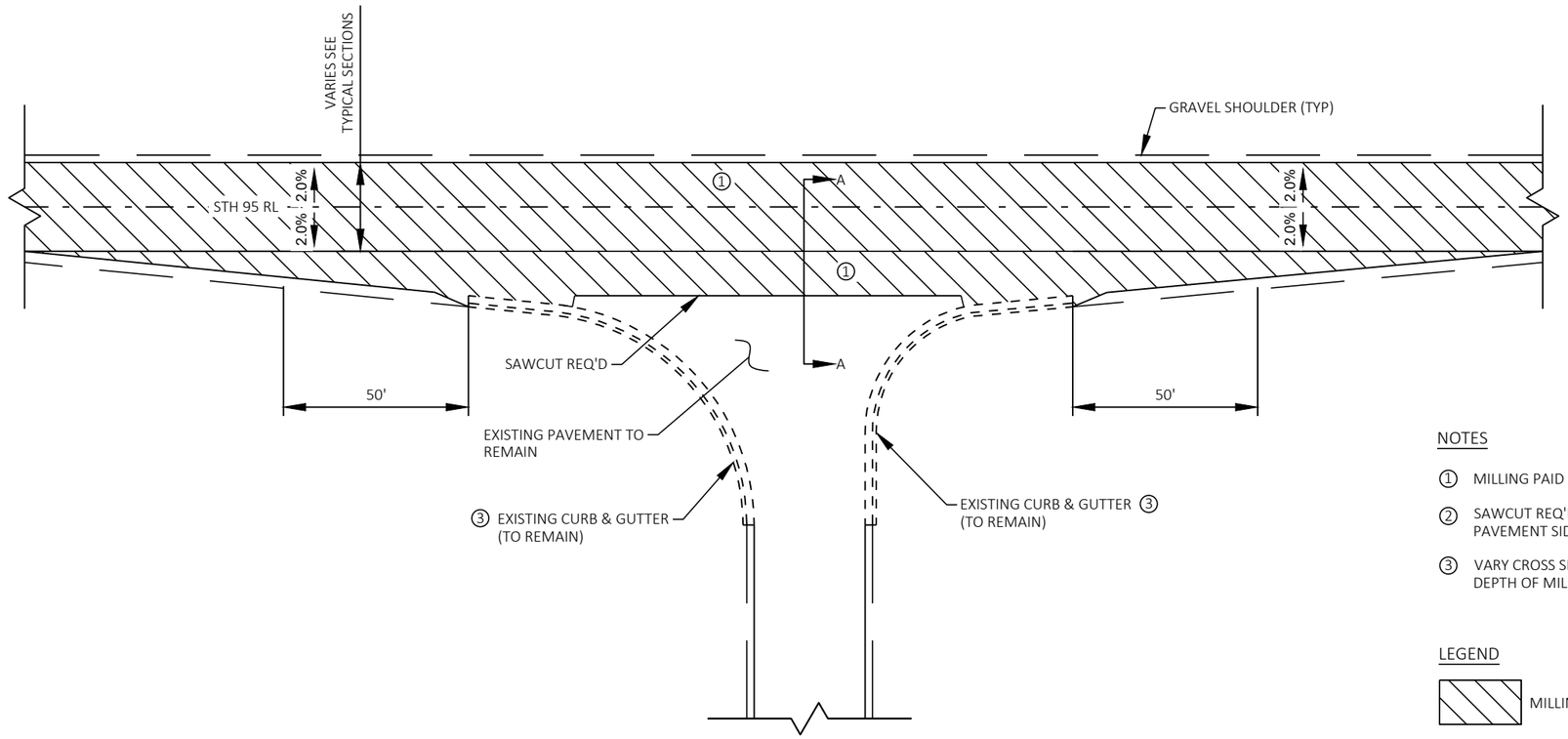
SEE PLAN FOR LOCATIONS



SECTIONS A-A DRIVEWAY PAVING - ASPHALTIC DRIVEWAY

STA 528+03 RT
STA 533+33 RT
STA 576+99 RT
STA 582+75 RT
STA 585+21 RT
STA 587+11 TO STA 588+37 RT
STA 695+52 RT
STA 898+98 LT

2



NOTES

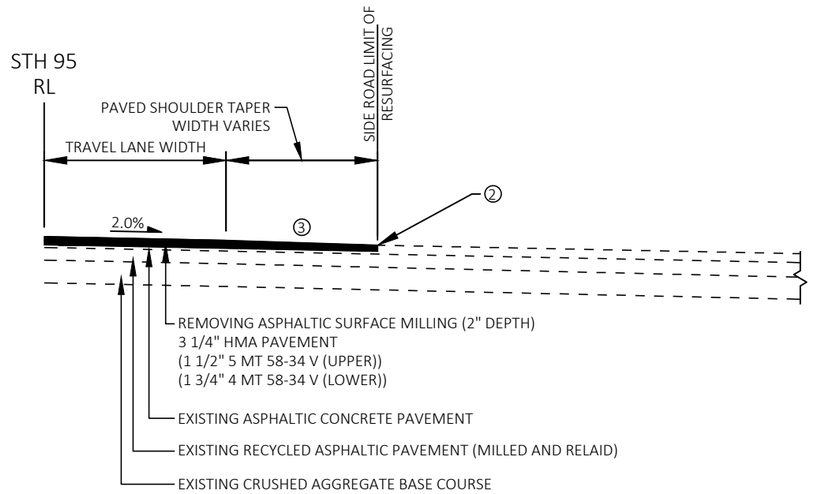
1. MILLING PAID AS "REMOVING ASPHALTIC SURFACE MILLING"
2. SAWCUT REQ'D TO 2" DEPTH ON CONTINUOUS ASPHALTIC PAVEMENT SIDE ROADS.
3. VARY CROSS SLOPE TO MATCH EDGE OF GUTTER OVER 50'. VARY DEPTH OF MILLING TO PROVIDE A CONSISTENT 2" HMA PAVEMENT.

LEGEND

MILLING

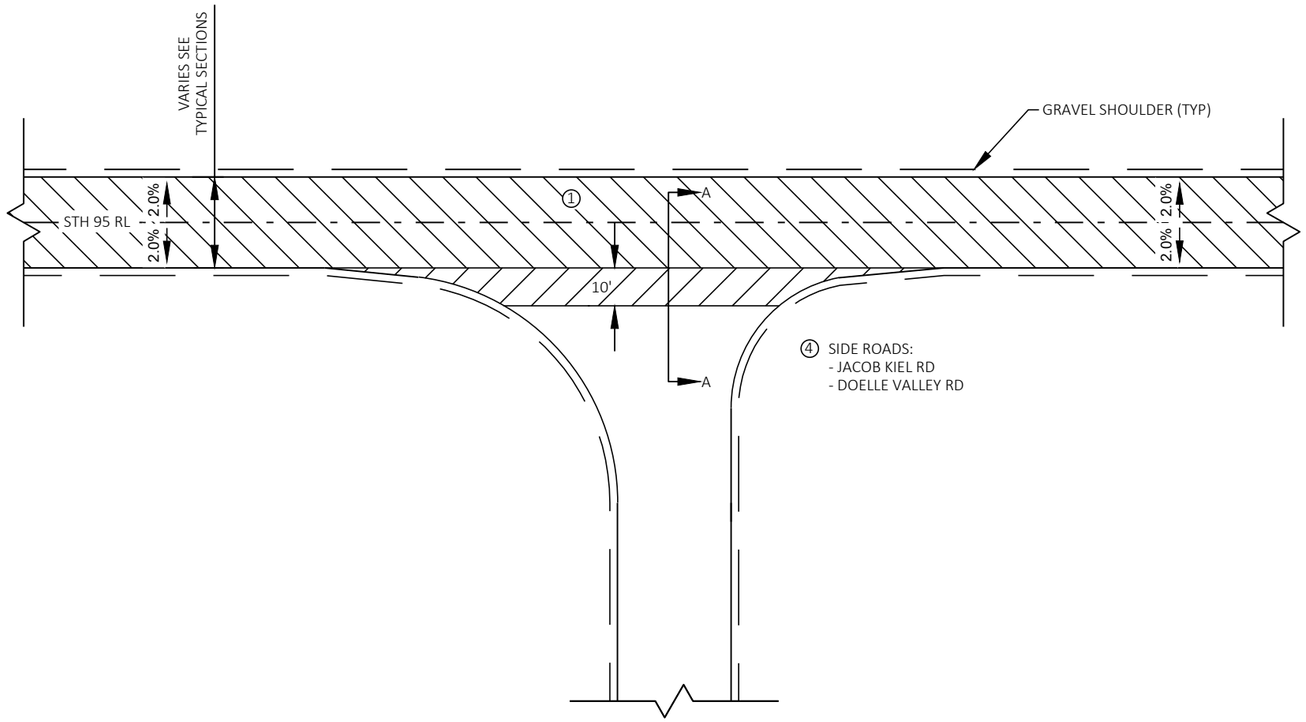
INTERSECTION MILLING AND PAVING

WITH CURB AND GUTTER AROUND RADII
SIDE ROAD:
CTH P
BEUHLER VALLEY RD



SECTION A-A

2



NOTES

① MILLING PAID AS "REMOVING ASPHALTIC SURFACE MILLING"

② SAWCUT REQ'D TO 2" DEPTH ON CONTINUOUS ASPHALTIC PAVEMENT SIDE ROADS. RESURFACE TO ASPHALTIC LIMITS ON GRAVEL SIDE ROADS BY MILLING TO A 2" DEPTH AND RESURFACE WITH 2" HMA PAVEMENT.

③ MILLING LAST 10' PAID AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"

④ REMOVE ASPHALTIC SURFACE AND REPLACE WITH 3" ASPHALTIC SURFACE FOR SIDE ROADS:
- TOBIN RD
- BAERTSCH VALLEY RD
- BAURES RD

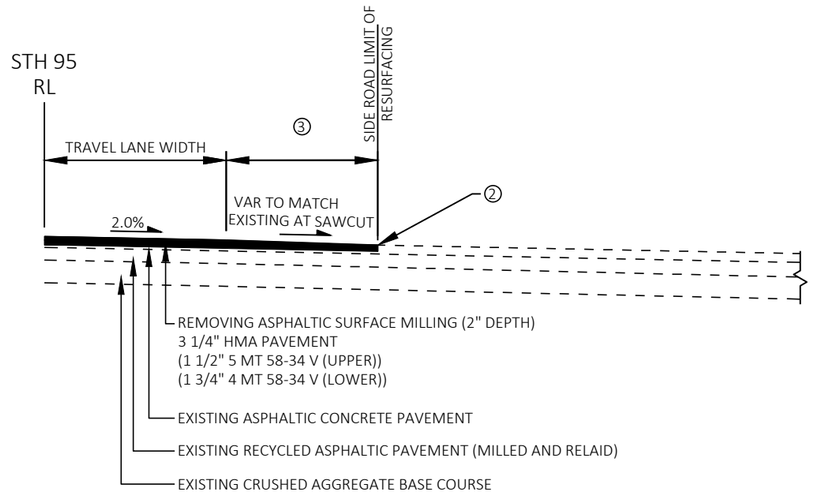
LEGEND

MILLING

BUTT JOINT

INTERSECTION MILLING AND PAVING

WITH NO CURB AND GUTTER AROUND RADII



SECTION A-A

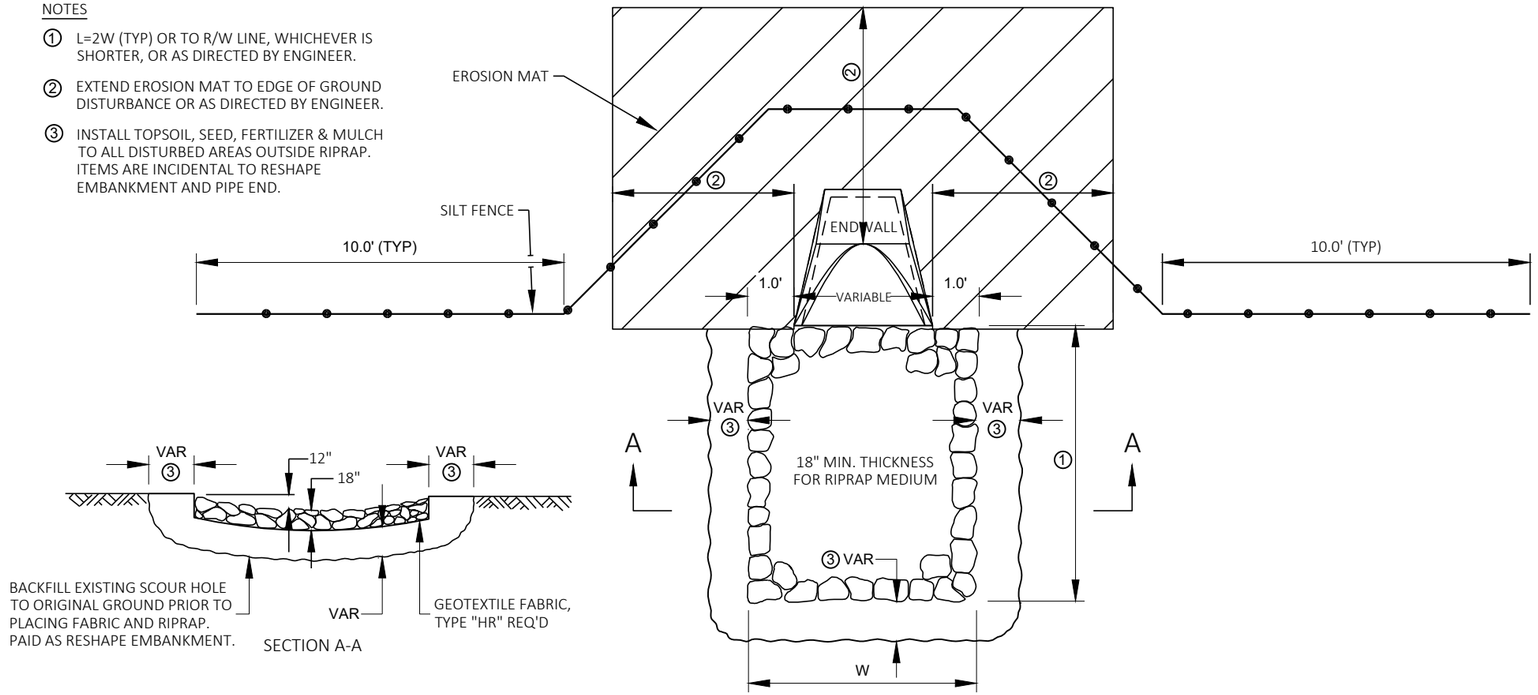
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CONSTRUCTION DETAILS	SHEET 15	E

NOTES

① L=2W (TYP) OR TO R/W LINE, WHICHEVER IS SHORTER, OR AS DIRECTED BY ENGINEER.

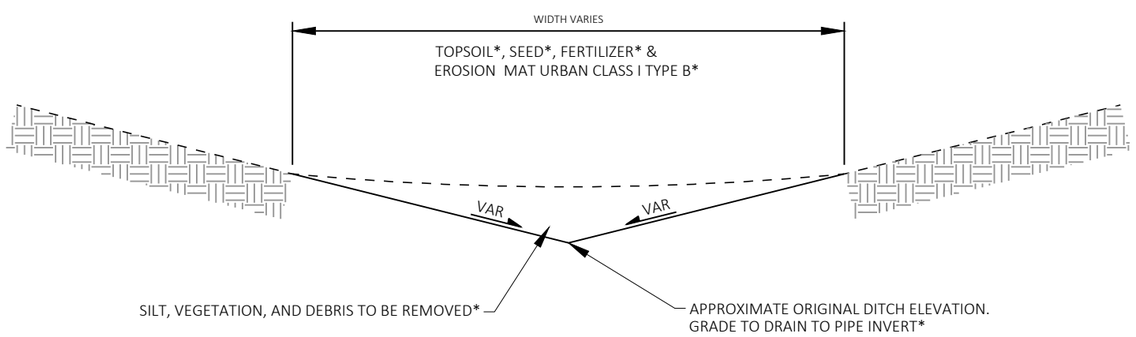
② EXTEND EROSION MAT TO EDGE OF GROUND DISTURBANCE OR AS DIRECTED BY ENGINEER.

③ INSTALL TOPSOIL, SEED, FERTILIZER & MULCH TO ALL DISTURBED AREAS OUTSIDE RIPRAP. ITEMS ARE INCIDENTAL TO RESHAPE EMBANKMENT AND PIPE END.



RIPRAP AND EROSION MAT TREATMENT AT CULVERT ENDWALLS

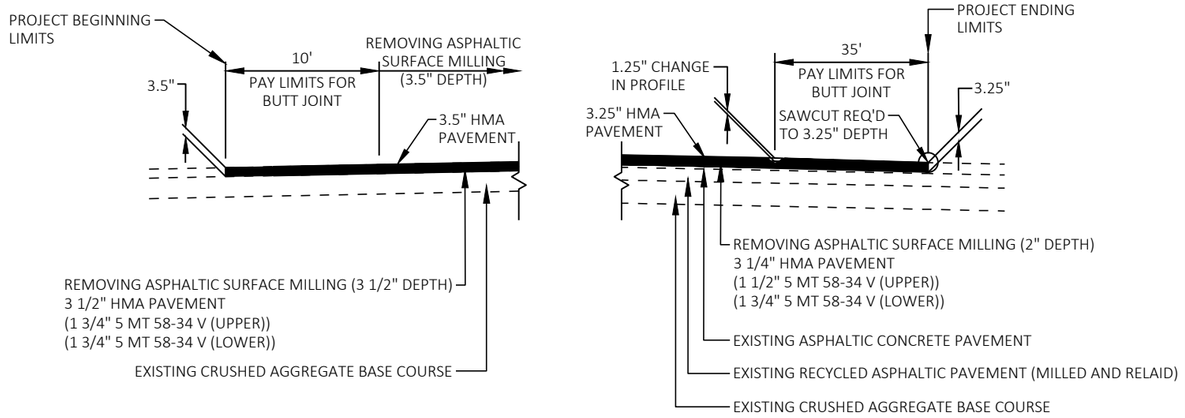
SEE PLAN VIEW SHEETS FOR LOCATIONS



REGRADE DITCH

SEE PLAN VIEW SHEETS FOR LOCATIONS

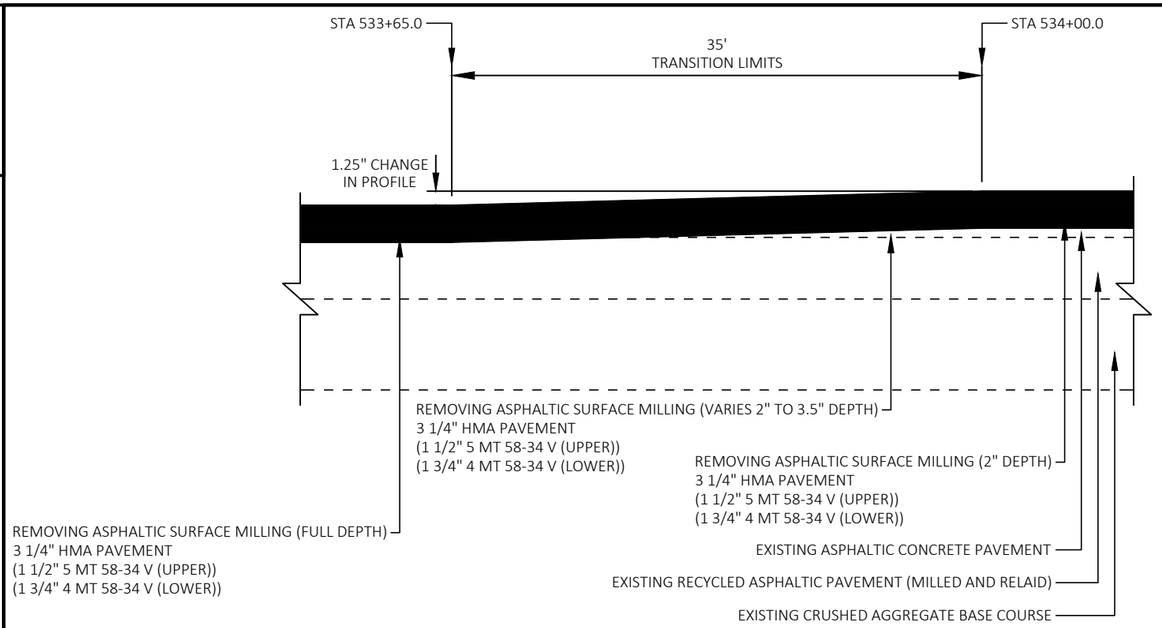
* ITEMS ARE INCIDENTAL TO REGRADE DITCH ITEM



STH 95 BUTT JOINT

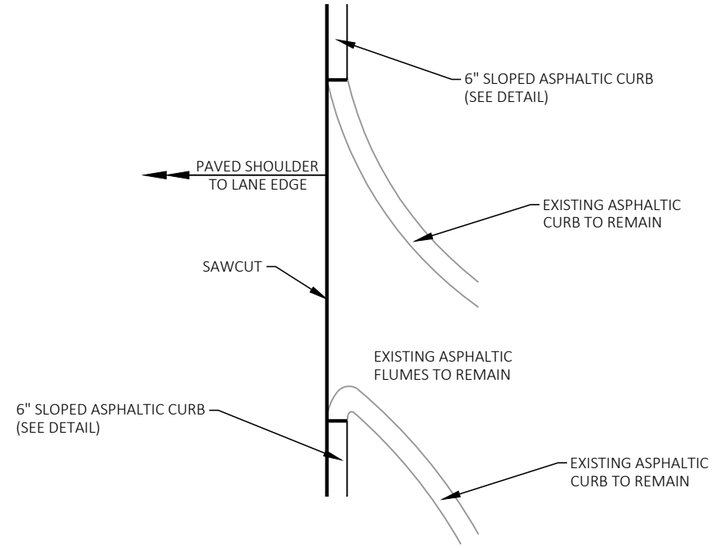
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CONSTRUCTION DETAILS	SHEET 16	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\021001-CD_DRIVEWAY & INT.DWG
LAYOUT NAME - 04
PLOT DATE : 7/25/2022 3:16 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



TRANSITION DETAIL

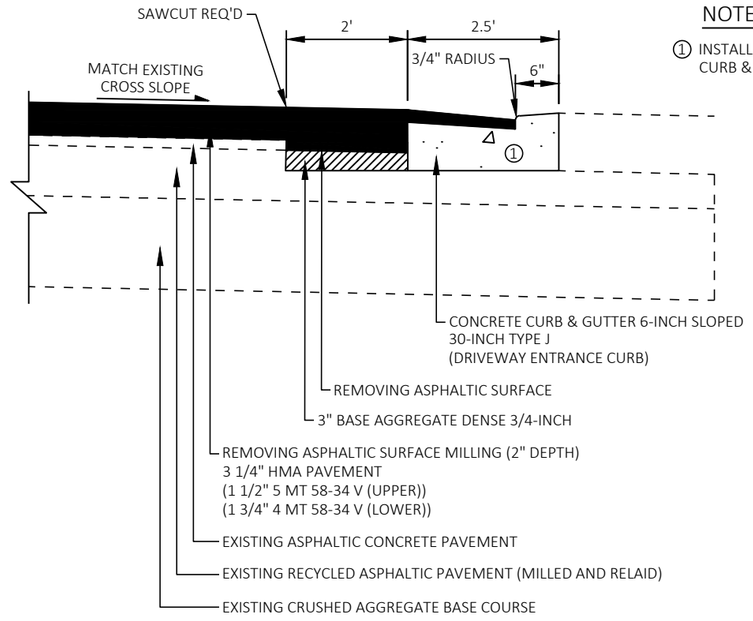
STA 533+65.0 TO STA 534+00.0



ASPHALTIC FLUME DETAIL

STA 562+00.0 TO STA 566+00.0

2

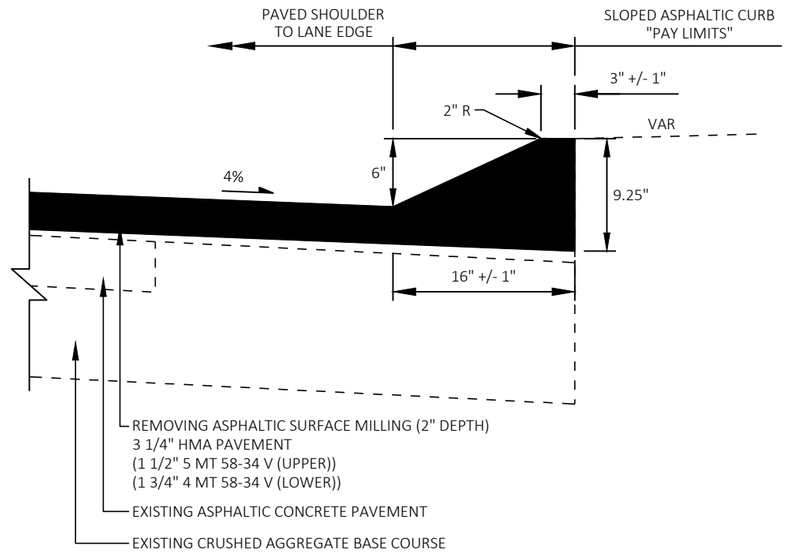


NOTES:

1. INSTALL DRILLED TIE BARS AT EXISTING CURB & GUTTER LOCATIONS.

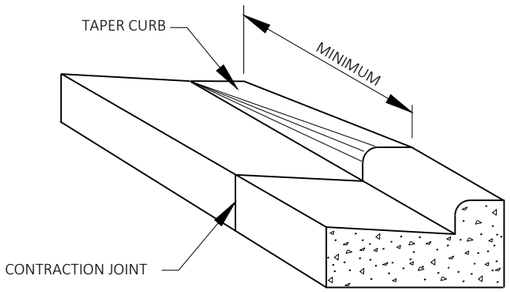
CURB & GUTTER REPLACEMENT

STA 576+75.0 TO STA 577+35.0

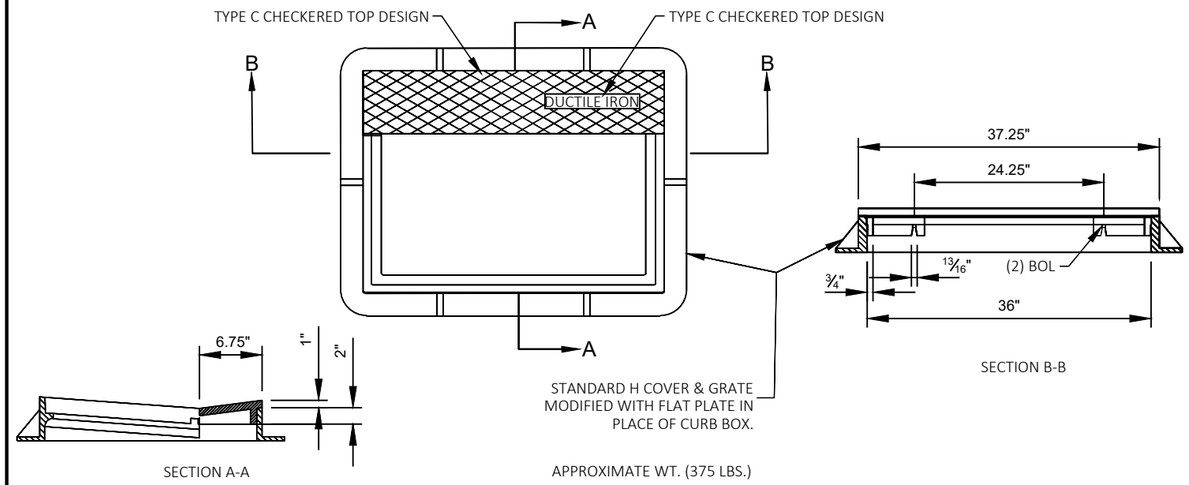


SLOPED ASPHALTIC CURB

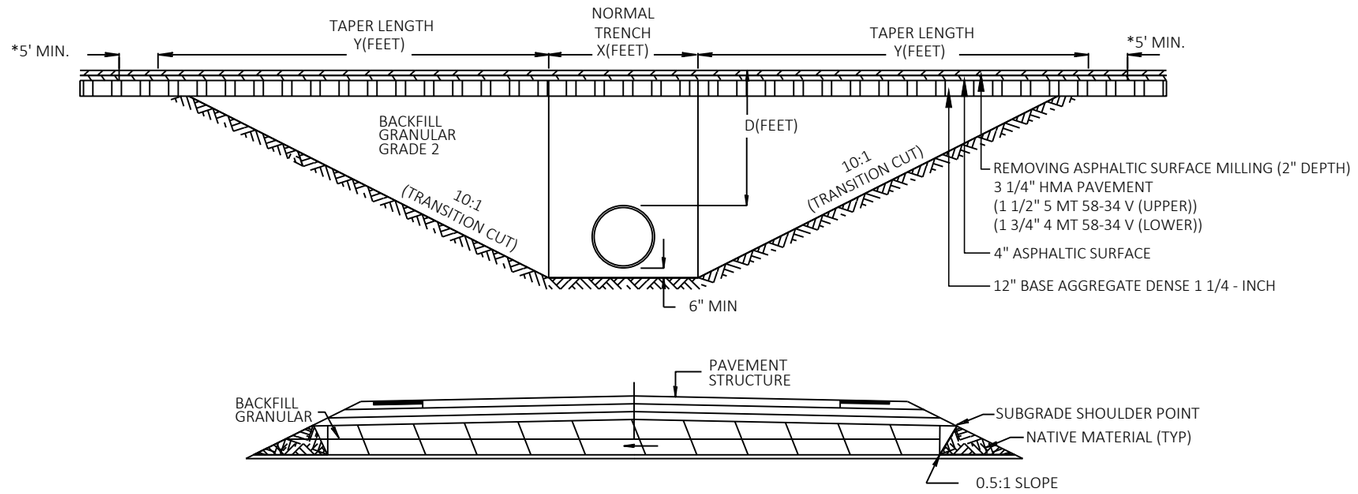
STA 562+25.3 TO STA 565+48.4



DETAIL OF CURB & GUTTER TERMINI



INLET COVERS TYPE H-D
(WITH MOUNTABLE CURB PLATE)



STATION	DIAMETER	X(FT) MIN.	D(FT)	Y(FT)
845+48.5	24"	4.00'	4.92'	74.2

CROSS DRAIN INSTALLATION DETAIL
FOR D ≤ 5'

* PAVEMENT REMOVAL LIMITS (TYP)

NOTES:

ALL PIPE EXCAVATION IS INCIDENTAL TO THE ITEM REMOVING SMALL PIPE CULVERTS.

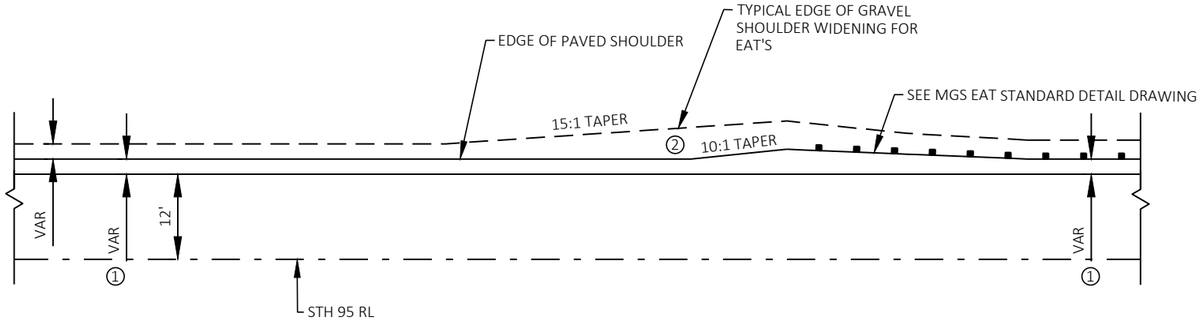
BACKFILL IN ACCORDANCE WITH STANDARD SPEC 520.2.5. BACKFILL WITHIN PIPE TRENCH AND TRANSITION CUT IS INCIDENTAL TO CULVERT PIPE ITEM.

NOTES:

① SHOULDER WIDTH = 2'
STA 528+84.6 TO STA 531+47.7
STA 542+66.5 TO STA 545+64.3
STA 547+19.3 TO STA 560+70.4
STA 577+15.7 TO STA 581+18.2
STA 583+54.7 TO STA 588+80.1

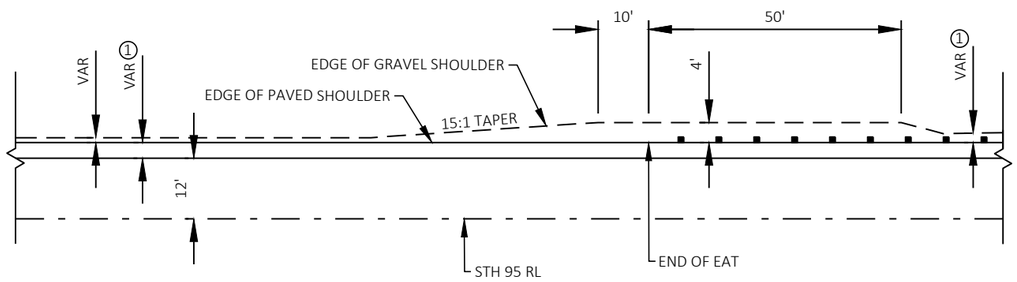
SHOULDER WIDTH = 3'
STA 714+13.8 TO STA 717+19.7
STA 720+02.3 TO STA 722+41.7

② PAVED SHOULDER TAPERS WITHIN EAT AREA



ASPHALTIC SHOULDER AT GUARDRAIL W/ STANDARD GRADING (FLARED EAT)

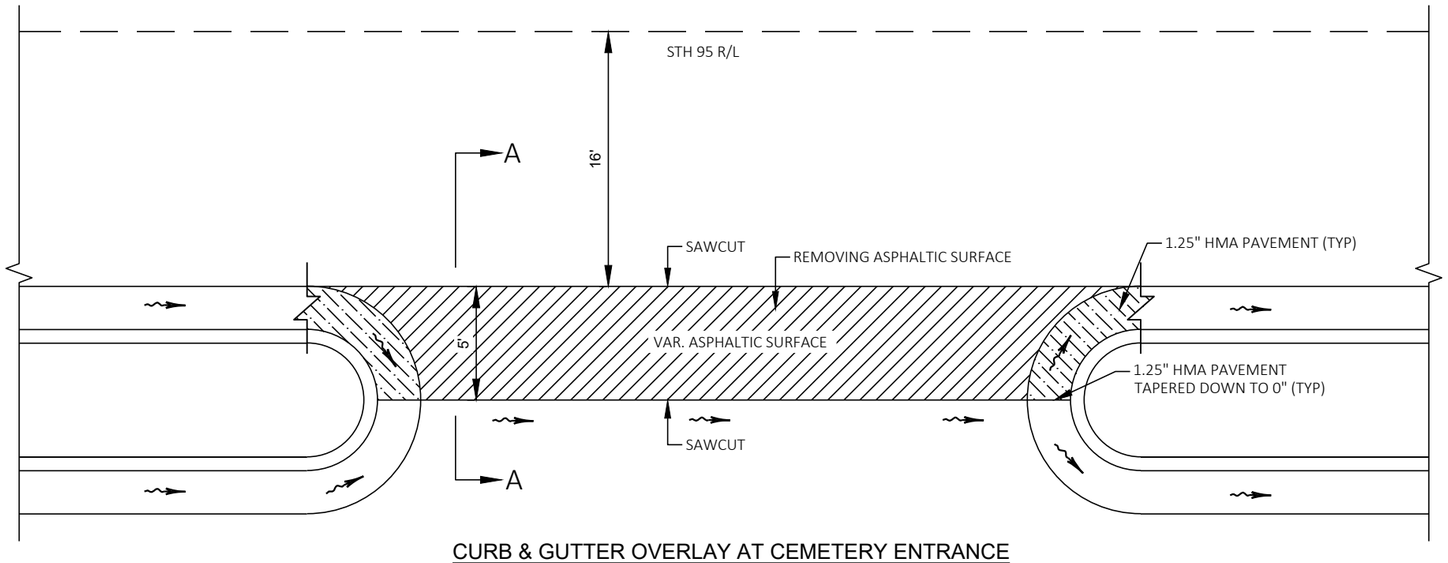
STA 542+66.5 TO STA 543+19.6
STA 545+11.2 TO STA 545+64.3
STA 547+19.3 TO STA 547+72.4
STA 560+17.3 TO STA 560+70.4
STA 577+15.7 TO STA 577+68.8
STA 580+65.1 TO STA 581+18.2
STA 583+54.7 TO STA 584+07.8
STA 588+27.0 TO STA 588+80.1
STA 716+66.6 TO STA 717+19.7
STA 720+02.3 TO STA 720+55.4
STA 721+88.6 TO STA 722+41.7



ASPHALTIC SHOULDER AT GUARDRAIL W/ ALTERNATIVE GRADING (NO EAT FLARE)

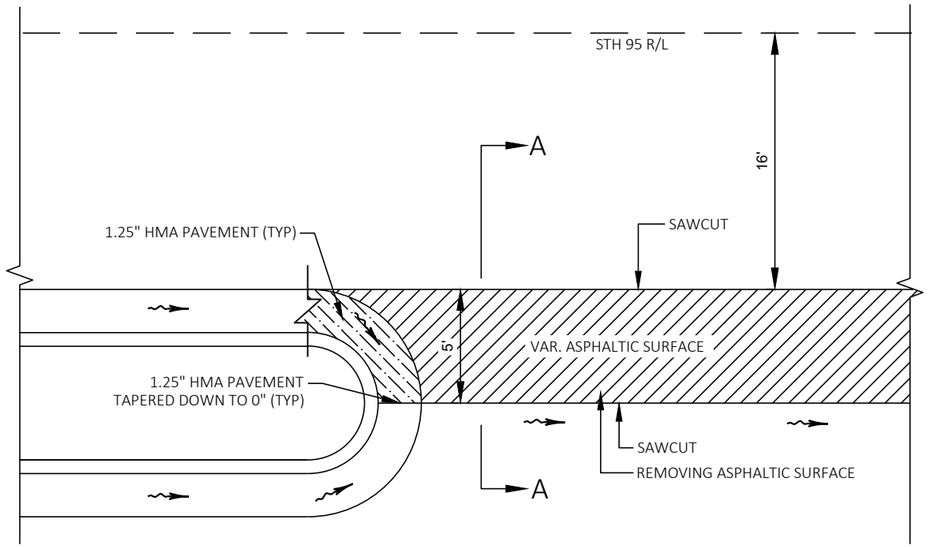
STA 528+84.6 TO STA 529+37.7
STA 530+94.6 TO STA 531+47.7
STA 714+13.8 TO STA 714+66.9

2



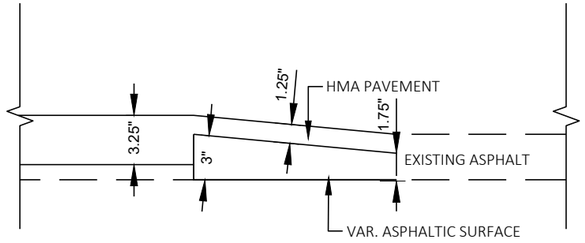
CURB & GUTTER OVERLAY AT CEMETERY ENTRANCE

STA 582+74.00 (WEST)
STA 585+21.00 (CENTER)



CURB & GUTTER OVERLAY AT CEMETERY ENTRANCE

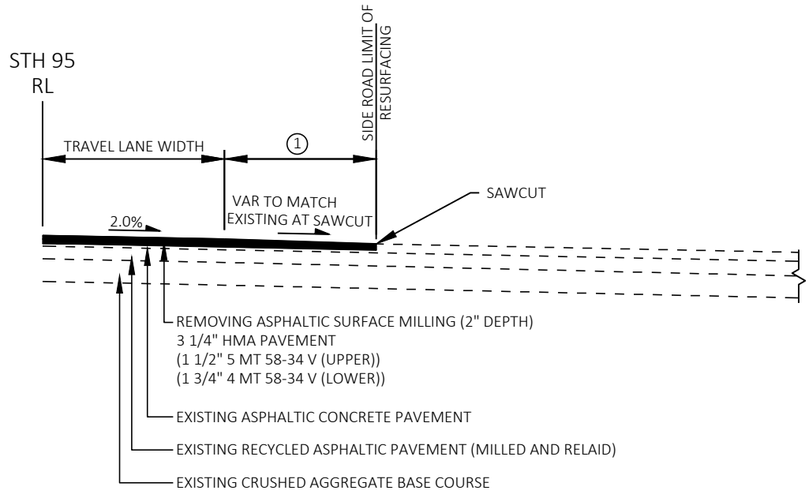
STA 587+14.00 TO STA 588+36.00 (EAST)



SECTION A-A

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CONSTRUCTION DETAILS	SHEET 20	E

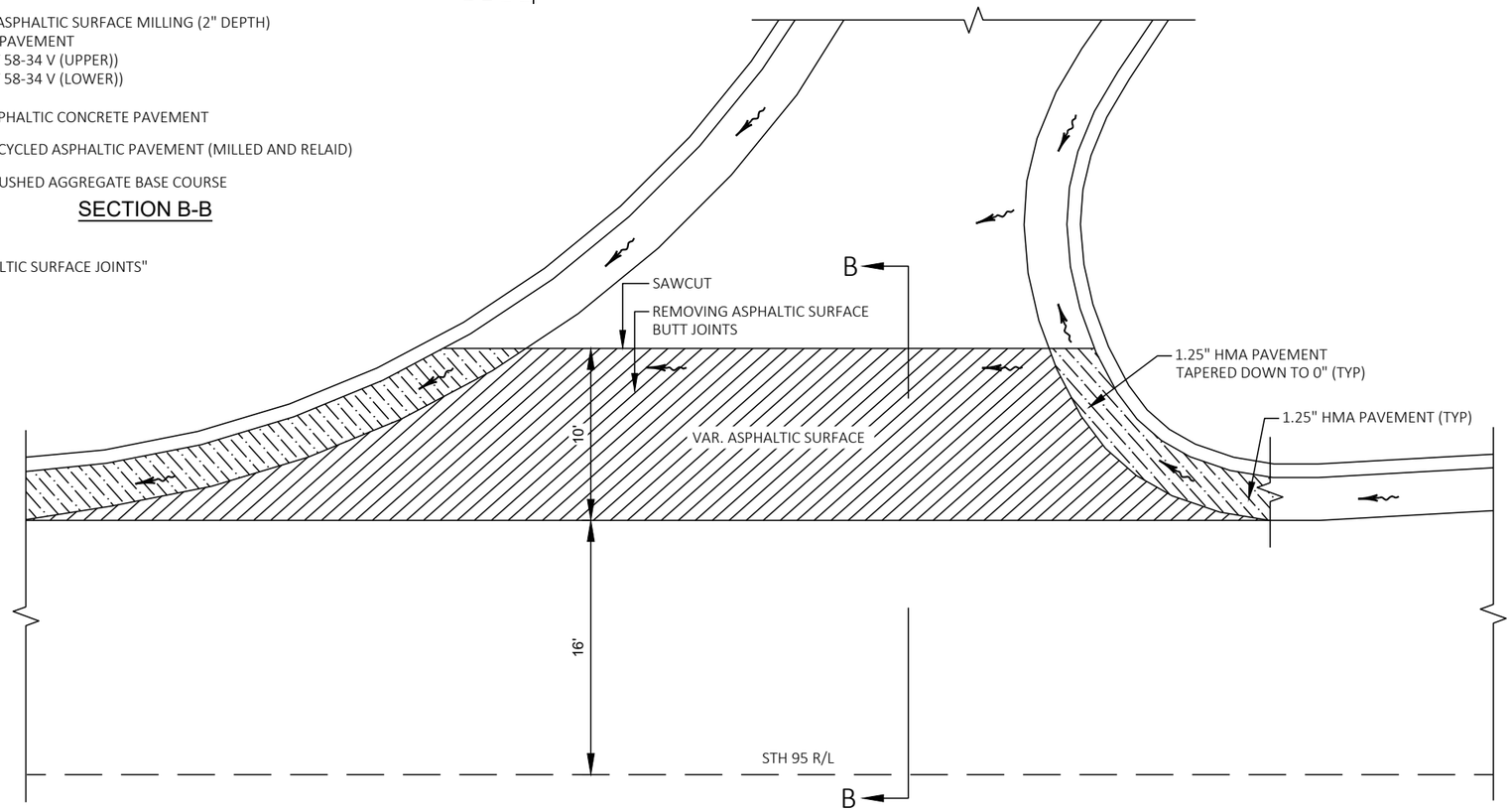
2



SECTION B-B

NOTES:

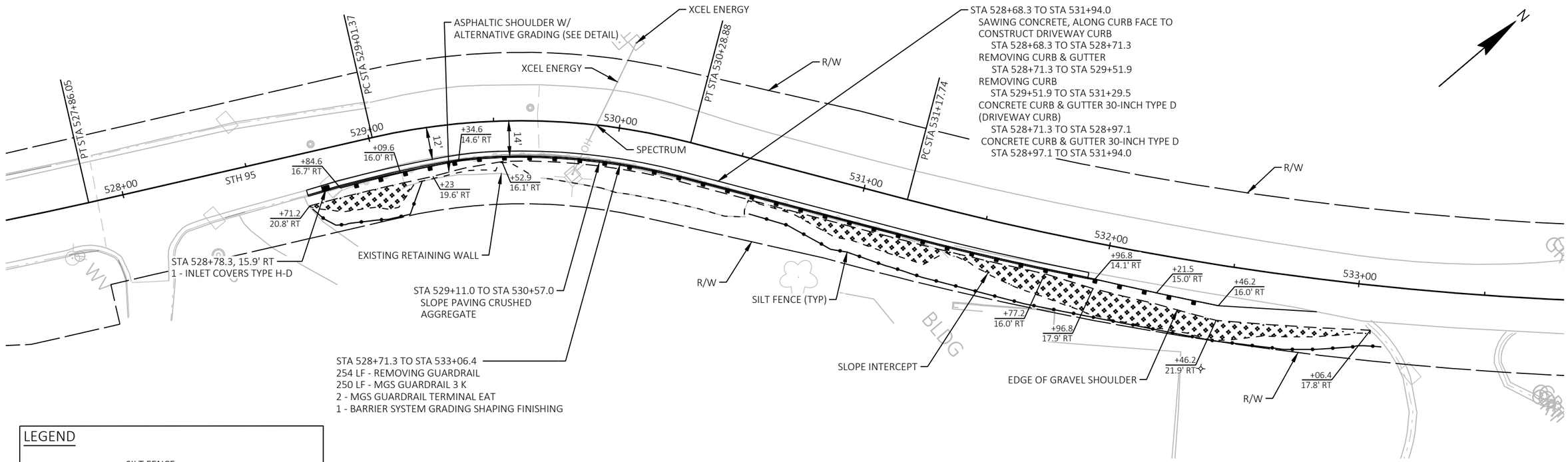
① MILLING LAST 10' PAID AS "REMOVING ASPHALTIC SURFACE JOINTS"



CURB & GUTTER OVERLAY AT CTH G

STA 566+93.0

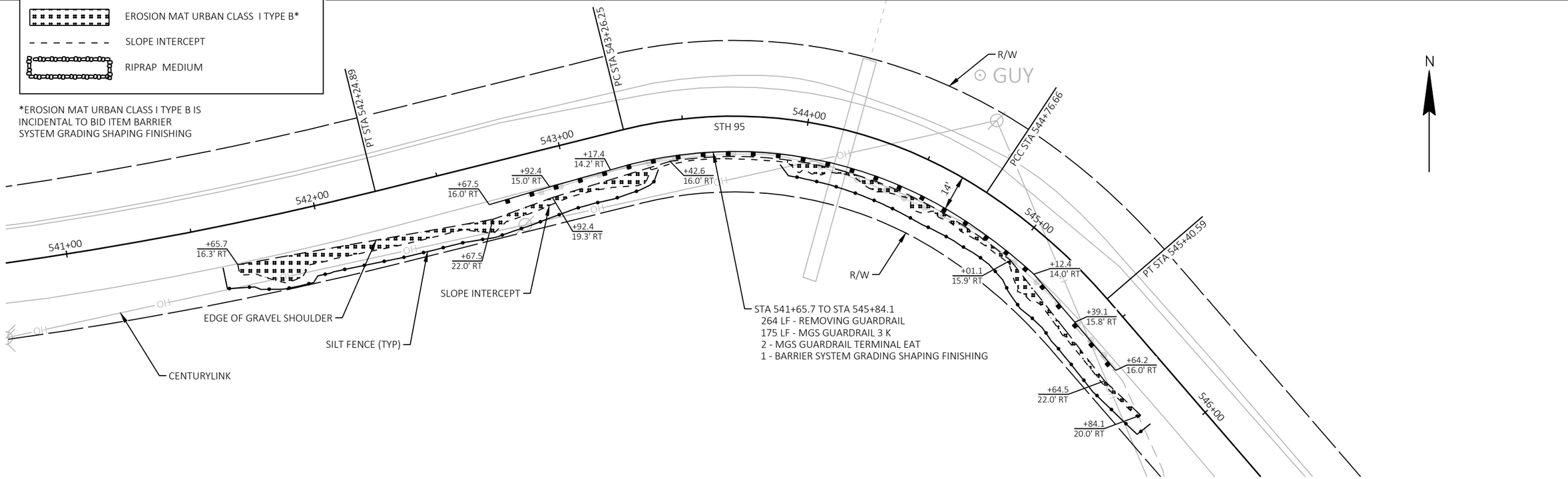
2



LEGEND

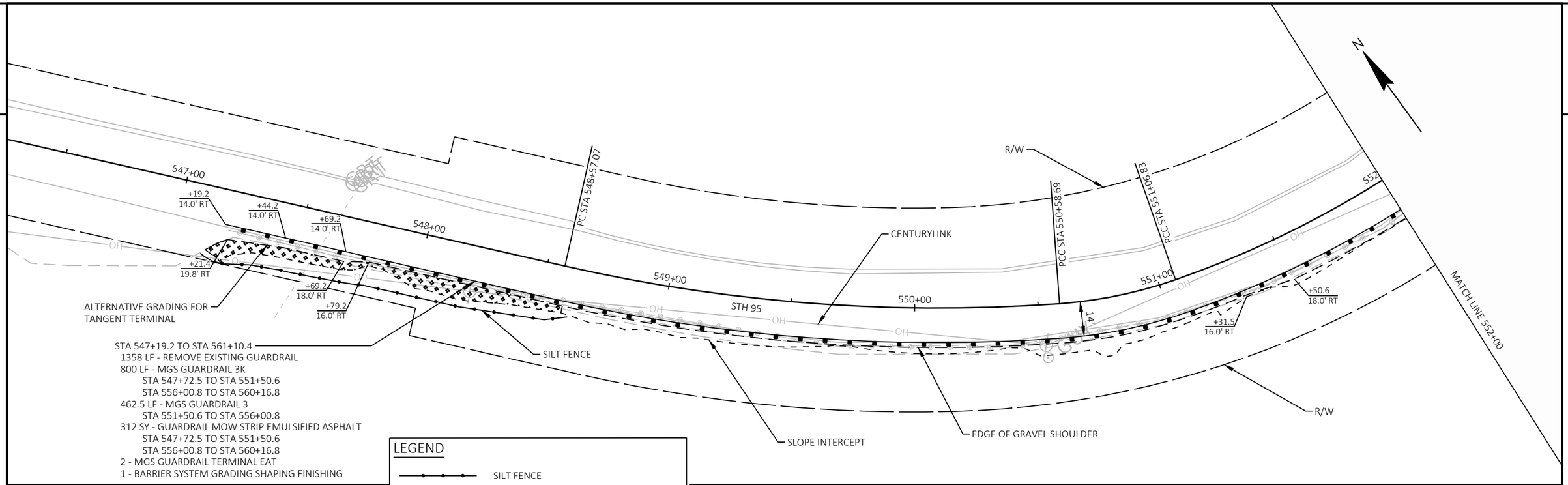
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B*
- SLOPE INTERCEPT
- RIPRAP MEDIUM

*EROSION MAT URBAN CLASS I TYPE B IS
INCIDENTAL TO BID ITEM BARRIER
SYSTEM GRADING SHAPING FINISHING



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN DETAILS - GUARDRAIL	SHEET 22	E

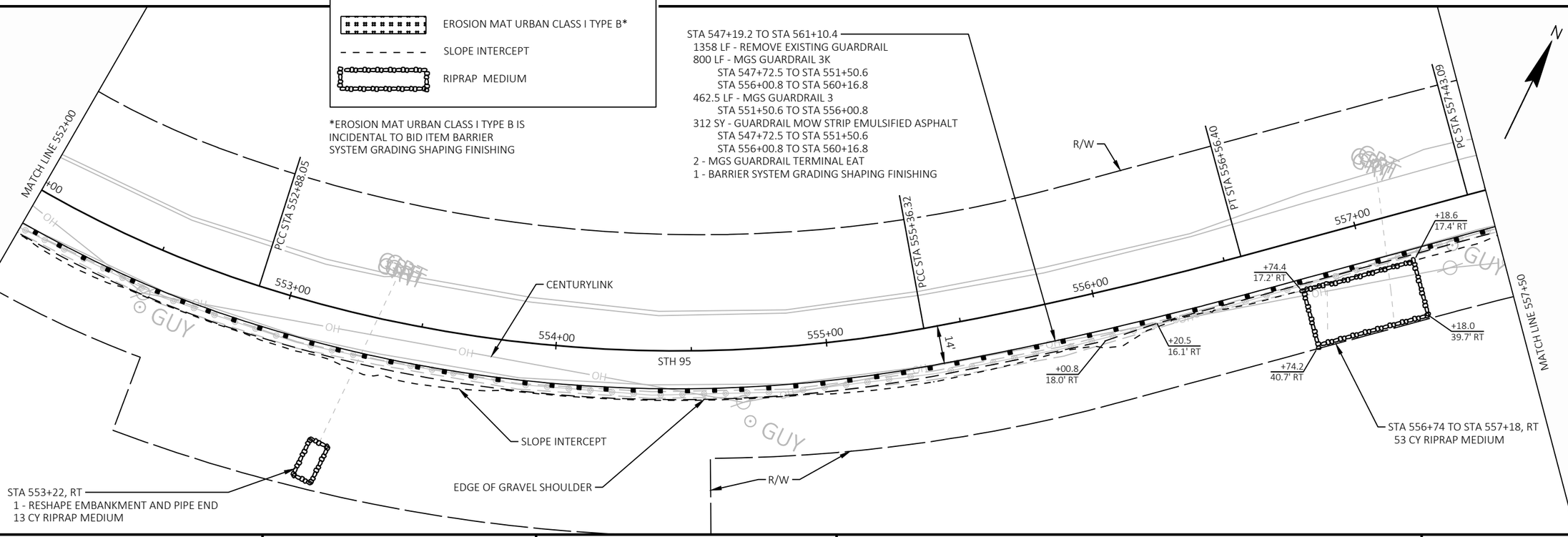
2



LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B*
- SLOPE INTERCEPT
- RIPRAP MEDIUM

*EROSION MAT URBAN CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN DETAILS - GUARDRAIL	SHEET 23	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Guardrail 3
PLOT DATE : 8/23/2022 11:01 AM PLOT BY : MATT SOLIN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

STA 547+19.2 TO STA 561+10.4
1358 LF - REMOVE EXISTING GUARDRAIL
800 LF - MGS GUARDRAIL 3K
STA 547+72.5 TO STA 551+50.6
STA 556+00.8 TO STA 560+16.8
462.5 LF - MGS GUARDRAIL 3
STA 551+50.6 TO STA 556+00.8
312 SY - GUARDRAIL MOW STRIP EMULSIFIED ASPHALT
STA 547+72.5 TO STA 551+50.6
STA 556+00.8 TO STA 560+16.8
2 - MGS GUARDRAIL TERMINAL EAT
1 - BARRIER SYSTEM GRADING SHAPING FINISHING

MATCH LINE 557+50

PCC STA 559+20.82

PT STA 562+25.32

R/W

STH 95

558+00 559+00 560+00 561+00 562+00

14'

+19.9 14.0' RT
+45.1 15.2' RT
+70.3 16.0' RT
+09.6 16.0' RT
+19.7 18.0' RT
+70.3 20.0' RT
+10.4 16.3' RT

SLOPE INTERCEPT

CENTURYLINK

SILT FENCE (TYP)

EDGE OF GRAVEL SHOULDER

R/W

N

2

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B*
- SLOPE INTERCEPT
- RIPRAP MEDIUM

*EROSION MAT URBAN CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING

N

R/W

PT STA 576+53.47

PI STA 580+75.01

CENTURYLINK

RIVERLAND ENERGY COOP

6+00 577+00 578+00 579+00 580+00 581+00 582+00

16'

STH 95

+15.7 18.0' RT
+40.7 17.0' RT
+65.7 16.0' RT
+12.2 20.1' RT
+65.7 18.0' RT
+71.9 16.0' RT
+96.9 17.0' RT
+21.8 18.0' RT
+71.8 18.0' RT
+21.8 20.0' RT

SILT FENCE

SLOPE INTERCEPT

STA 576+75.0 TO STA 577+35.0
60 LF REMOVING CURB & GUTTER
60 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J
DRIVEWAY ENTRANCE CURB (SEE DETAIL)
STA 576+75.0 TO STA 577+28.5

STA 577+12.2 TO STA 581+21.8
404 LF - REMOVING GUARDRAIL
300 LF - MGS GUARDRAIL 3 K
2 - MGS GUARDRAIL TERMINAL EAT
1 - BARRIER SYSTEM GRADING SHAPING FINISHING

EDGE OF GRAVEL SHOULDER

R/W

EXISTING RETAINING WALL

RIVERLAND ENERGY COOP

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN DETAILS - GUARDRAIL	SHEET 24	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Guardrail 3 & 4

PLOT DATE : 8/23/2022 11:01 AM PLOT BY : MATT SOLIN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

STA 582+74.1 TO STA 589+04.9
439 LF - REMOVING GUARDRAIL
425 LF - MGS GUARDRAIL 3 K
2 - MGS GUARDRAIL TERMINAL EAT
1 - BARRIER SYSTEM GRADING SHAPING FINISHING

CENTURYLINK

SILT FENCE

EDGE OF GRAVEL SHOULDER

PCC STA 583+91.33

+74.1
-16.3' LT

+58.3
-16.0' LT

+58.3
-21.9' LT

+83.3
-15.0' LT

+08.1
-18.0' LT

+28.8
-16.0' LT

+08.1
-14.0' LT

583+00

584+00

585+00

14'

PCC STA 585+85.37

EDGE OF GRAVEL SHOULDER

586+00

587+00

STH 95

588+00

SLOPE INTERCEPT

R/W

PCC STA 588+10.69

+10.8
-16.0' LT

+31.2
-14.0' LT

+26.9
-17.8' LT

+55.7
-15.0' LT

+80.1
-16.0' LT

+80.1
-21.9' LT

+04.9
-20.2' LT

589+00

CENTURYLINK

R/W

RIVERLAND ENERGY COOP

N

LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B*
- SLOPE INTERCEPT
- RIPRAP MEDIUM

*EROSION MAT URBAN CLASS I TYPE B IS INCIDENTAL TO BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING

CENTURYLINK

STA 716+44.0 TO STA 716+59.0, LT
1 - RESHAPE EMBANKMENT AND PIPE END, LT
4 CY RIPRAP MEDIUM

R/W

N

00

714+00

715+00

716+00

717+00

718+00

719+00

PC STA 717+52.54

STH 95

+38.8
15.5' RT

+13.5
15.0' RT

+38.5
15.0' RT

+63.5
15.0' RT

+03.5
19.0' RT

15'

+69.7
15.0' RT

+94.7
16.0' RT

+19.7
17.0' RT

+69.7
18.9' RT

+94.7
20.3' RT

+19.7
22.9' RT

+84
15.9' RT

EDGE OF GRAVEL SHOULDER

ASPHALTIC SHOULDER W/
ALTERNATIVE GRADING (SEE DETAIL)

SLOPE INTERCEPT

STA 713+38.8 TO STA 717+84.0
129 LF - REMOVING GUARDRAIL
200 LF - MGS GUARDRAIL 3
2 - MGS GUARDRAIL TERMINAL EAT
1 - BARRIER SYSTEM GRADING SHAPING FINISHING

SILT FENCE

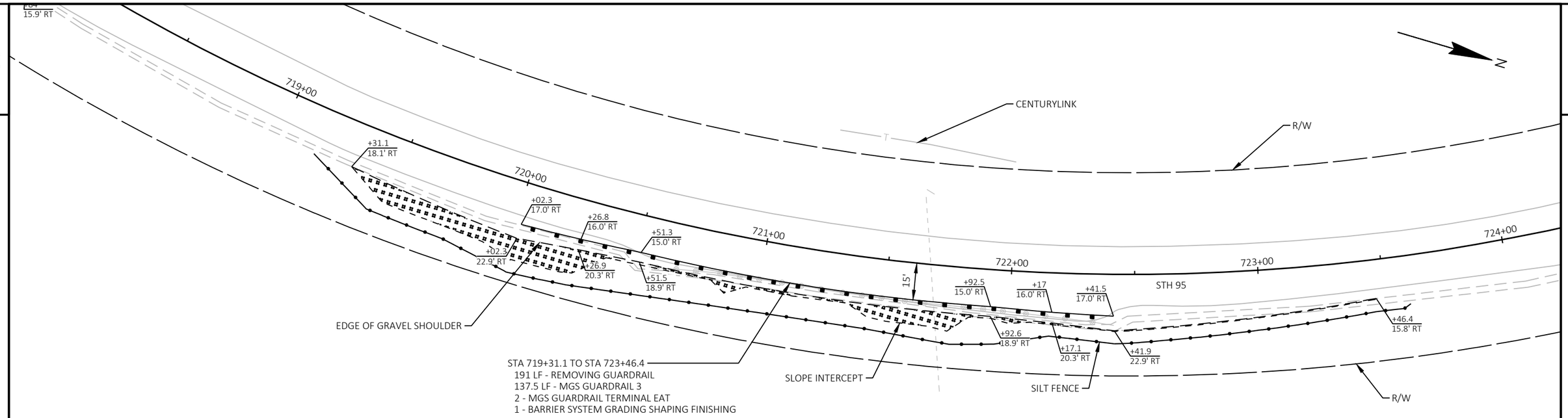
R/W

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN DETAILS - GUARDRAIL	SHEET 25	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Guardrail 5 & 6

PLOT DATE : 8/23/2022 11:01 AM PLOT BY : MATT SOLIN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



LEGEND

- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B*
- SLOPE INTERCEPT
- RIPRAP MEDIUM

*EROSION MAT URBAN CLASS I TYPE B IS
INCIDENTAL TO BID ITEM BARRIER
SYSTEM GRADING SHAPING FINISHING

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN DETAILS - GUARDRAIL	SHEET 26	E

TRAFFIC CONTROL GENERAL NOTES:

DRAWING IS NOT TO SCALE.

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS .

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

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

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

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

INSTALL PCMS'S WHERE NOTED ON PLANS ONE WEEK PRIOR TO ROAD WORK.

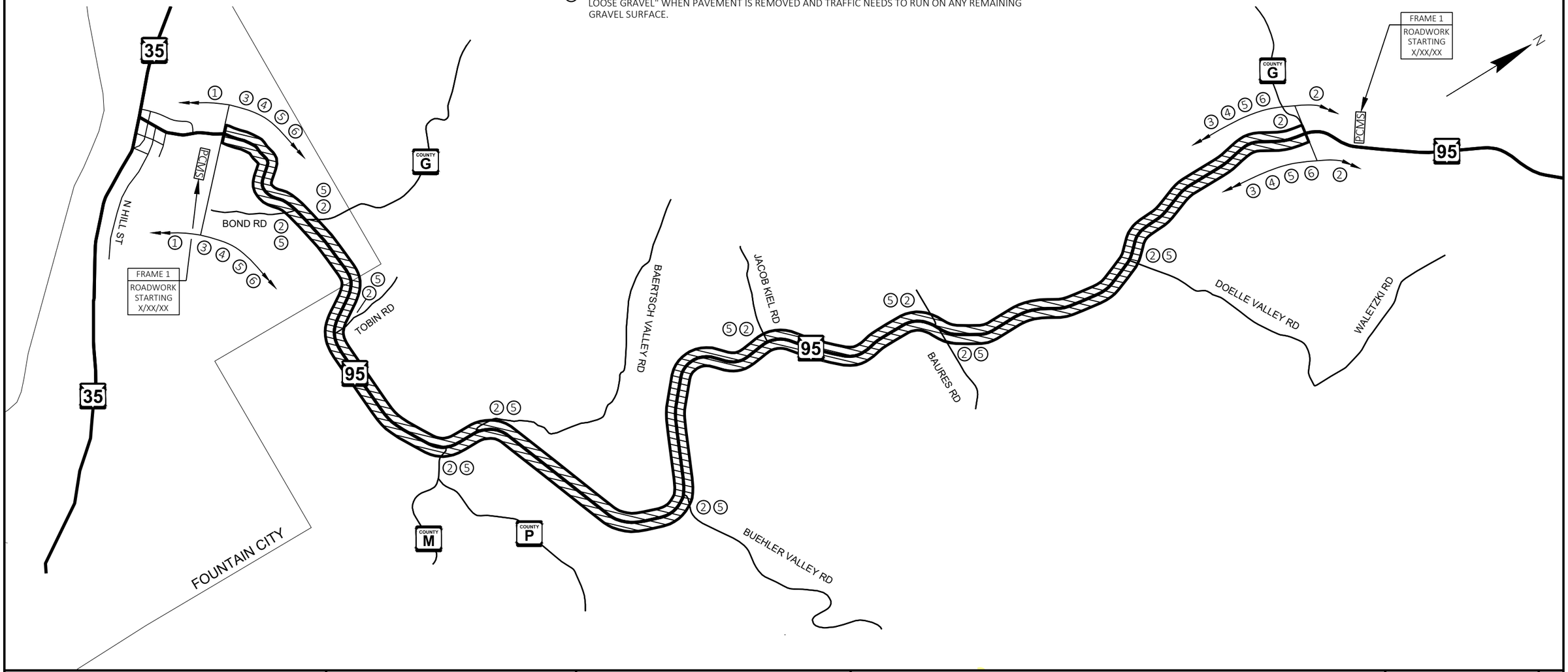
TRAFFIC CONTROL NOTES:

1. INSTALL ADVANCED WARNING SIGNS ON STH 95 PRIOR TO THE PROJECT BEGINNING WORK ZONE AND ON ALL SIDEROADS LOCATED WITHIN THE PROJECT LIMITS WITH SPEED LIMITS 40 MPH OR LESS, IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
2. INSTALL ADVANCED WARNING SIGNS ON STH 95 PRIOR TO THE PROJECT ENDING WORK ZONE AND ON ALL SIDEROADS LOCATED WITHIN THE PROJECT LIMITS WITH SPEED LIMITS 45 MPH OR GREATER, IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
3. UTILIZE FLAGGING OPERATIONS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" AND CONFORMING TO THE STANDARD SPECIFICATIONS WHEN CLOSING A LANE FOR CONSTRUCTION OPERATIONS.
4. INSTALL TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, DROP-OFF SIGNING" DURING WORK OPERATIONS THAT CREATE DROP-OFFS OR HAZARDS AS DEFINED BY THE STANDARD SPECIFICATIONS.
5. INSTALL SIGNING IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" DURING THE MILLING OPERATIONS.
6. INSTALL SIGNING IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL" WHEN PAVEMENT IS REMOVED AND TRAFFIC NEEDS TO RUN ON ANY REMAINING GRAVEL SURFACE.

LEGEND:

WORK ZONE

PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	TRAFFIC CONTROL	SHEET 27	E

Estimate Of Quantities

7720-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0006	203.0100	Removing Small Pipe Culverts	EACH	8.000	8.000
0008	204.0110	Removing Asphaltic Surface	SY	932.000	932.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	304.000	304.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	121,600.000	121,600.000
0014	204.0130	Removing Curb	LF	178.000	178.000
0016	204.0150	Removing Curb & Gutter	LF	159.000	159.000
0018	204.0220	Removing Inlets	EACH	2.000	2.000
0020	205.0100	Excavation Common	CY	140.000	140.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 7720-00-72	EACH	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 7720-00-72	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	5,490.000	5,490.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	190.000	190.000
0030	305.0500	Shaping Shoulders	STA	745.000	745.000
0032	416.0610	Drilled Tie Bars	EACH	15.000	15.000
0034	455.0605	Tack Coat	GAL	17,100.000	17,100.000
0036	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0038	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0040	460.2005	Incentive Density PWL HMA Pavement	DOL	21,050.000	21,050.000
0042	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	43,143.000	43,143.000
0044	460.2010	Incentive Air Voids HMA Pavement	DOL	22,430.000	22,430.000
0046	460.6644	HMA Pavement 4 MT 58-34 V	TON	12,040.000	12,040.000
0048	460.6645	HMA Pavement 5 MT 58-34 V	TON	10,390.000	10,390.000
0050	460.9000.S	Material Transfer Vehicle 01. 7720-00-72	EACH	1.000	1.000
0052	465.0105	Asphaltic Surface	TON	585.000	585.000
0054	465.0110	Asphaltic Surface Patching	TON	300.000	300.000
0056	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	70.000	70.000
0058	465.0310	Asphaltic Curb	LF	323.000	323.000
0060	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	36,165.000	36,165.000
0062	520.8700	Cleaning Culvert Pipes	EACH	3.000	3.000
0064	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	1.000	1.000
0066	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	7.000	7.000
0068	521.1036	Apron Endwalls for Culvert Pipe Steel 36-Inch	EACH	1.000	1.000
0070	521.3124	Culvert Pipe Corrugated Steel 24-Inch	LF	12.000	12.000
0072	521.3136	Culvert Pipe Corrugated Steel 36-Inch	LF	20.000	20.000
0074	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	56.000	56.000
0076	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0078	524.0124	Culvert Pipe Salvaged 24-Inch	LF	6.000	6.000
0080	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	323.000	323.000
0082	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	91.000	91.000
0084	604.0500	Slope Paving Crushed Aggregate	SY	130.000	130.000
0086	606.0200	Riprap Medium	CY	109.000	109.000
0088	611.3902	Inlets Median 2 Grate	EACH	2.000	2.000
0090	611.8110	Adjusting Manhole Covers	EACH	2.000	2.000
0092	614.0010	Barrier System Grading Shaping Finishing	EACH	7.000	7.000
0094	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	312.000	312.000
0096	614.0920	Salvaged Rail	LF	3,039.000	3,039.000
0098	614.2300	MGS Guardrail 3	LF	801.000	801.000

Estimate Of Quantities

7720-00-72

Line	Item	Item Description	Unit	Total	Qty
0100	614.2330	MGS Guardrail 3 K	LF	1,950.000	1,950.000
0102	614.2610	MGS Guardrail Terminal EAT	EACH	14.000	14.000
0104	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7720-00-72	EACH	1.000	1.000
0106	619.1000	Mobilization	EACH	1.000	1.000
0108	624.0100	Water	MGAL	550.000	550.000
0110	628.1504	Silt Fence	LF	3,100.000	3,100.000
0112	628.1520	Silt Fence Maintenance	LF	3,100.000	3,100.000
0114	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0116	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0118	628.7005	Inlet Protection Type A	EACH	3.000	3.000
0120	628.7015	Inlet Protection Type C	EACH	2.000	2.000
0122	628.7555	Culvert Pipe Checks	EACH	35.000	35.000
0124	633.5200	Markers Culvert End	EACH	75.000	75.000
0126	642.5001	Field Office Type B	EACH	1.000	1.000
0128	643.0300	Traffic Control Drums	DAY	3,750.000	3,750.000
0130	643.0900	Traffic Control Signs	DAY	3,200.000	3,200.000
0132	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0134	643.3105	Temporary Marking Line Paint 4-Inch	LF	166,660.000	166,660.000
0136	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	83,330.000	83,330.000
0138	643.5000	Traffic Control	EACH	1.000	1.000
0140	645.0120	Geotextile Type HR	SY	370.000	370.000
0142	646.1020	Marking Line Epoxy 4-Inch	LF	169,616.000	169,616.000
0144	648.0100	Locating No-Passing Zones	MI	8.170	8.170
0146	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
0148	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	414.000	414.000
0150	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000
0152	650.8000	Construction Staking Resurfacing Reference	LF	43,143.000	43,143.000
0154	650.9911	Construction Staking Supplemental Control (project) 01. 7720-00-72	EACH	1.000	1.000
0156	690.0150	Sawing Asphalt	LF	950.000	950.000
0158	690.0250	Sawing Concrete	LF	16.000	16.000
0160	740.0440	Incentive IRI Ride	DOL	32,685.000	32,685.000
0162	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
0164	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	350.000	350.000
0166	SPV.0060	Special 01. Cleaning Cattle Pass	EACH	1.000	1.000
0168	SPV.0060	Special 02. Cleaning Culvert Pipes Minimal	EACH	5.000	5.000
0170	SPV.0060	Special 03. Reshape Embankment and Pipe End	EACH	19.000	19.000
0172	SPV.0060	Special 04. Clean Inlet	EACH	5.000	5.000
0174	SPV.0060	Special 05. Repair Inlet	EACH	6.000	6.000
0176	SPV.0060	Special 06. Adjusting Valve Box	EACH	1.000	1.000
0178	SPV.0060	Special 07. Inlet Covers Type H-D	EACH	1.000	1.000
0180	SPV.0090	Special 01. Regrade Ditch	LF	225.000	225.000

3

CLEARING AND GRUBBING ITEMS

STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
565+00	-	566+00	RT	1	1
ITEM TOTAL				1	1

REMOVING CULVERTS & INLETS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0220 REMOVING INLETS EACH	REMARKS
661+51	RT	1	-	24" CPCS - 4 LF RT & AEW RT
666+91	LT & RT	1	-	24" CPCS - AEW ONLY LT & RT
733+57	LT	1	-	24" CPCS - AEW ONLY LT
845+48	CROSSING	1	1	24" CPCS - 54 LF & AEW LT, BLOCK INLET RT
867+70	RT	1	-	24" CPCS - AEW ONLY RT
880+38	LT	-	1	BLOCK INLET LT
891+11	RT	1	-	36" CPCS - 20 LF RT & AEW RT
906+06	LT	1	-	24" CPCS - AEW ONLY LT
946+45	RT	1	-	24" CPCS - 8 LF RT & AEW RT
ITEM TOTAL		8	2	

REMOVING ASPHALTIC SURFACE ITEMS

STATION	TO	STATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
527+87	-	582+00	197	121	18,370
582+00	-	636+00	356	-	14,970
636+00	-	690+00	102	-	14,690
690+00	-	744+00	36	-	14,910
744+00	-	798+00	72	-	14,520
798+00	-	852+00	114	44	14,630
852+00	-	906+00	55	37	14,910
906+00	-	959+30	-	102	14,600
ITEM TOTAL			932	304	121,600

REMOVING CURB & GUTTER ITEMS

STATION	TO	STATION	LOCATION	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF
528+71.3	-	529+51.9	RT	-	68
529+51.9	-	531+29.5	RT	178	-
566+07	-	566+38	LT	-	31
576+75	-	577+35	RT	-	60
ITEM TOTAL				178	159

EXCAVATION COMMON

STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	REMARKS
845+20	-	845+85	MAINLINE	140	CULVERT REPLACEMENT
ITEM TOTAL				140	

MISCELLANEOUS ITEMS

STATION	TO	STATION	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 7720-00-72) EACH	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 7720-00-72) EACH	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) (01. 7720-00-72) EACH
527+87	-	959+30	1	1	1
			1	1	1

3

AGGREGATE ITEMS

STATION	TO	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL
527+87	-	582+00	811	-	15	81
582+00	-	636+00	673	-	101	67
636+00	-	690+00	622	-	107	62
690+00	-	744+00	802	-	100	80
744+00	-	798+00	655	-	103	66
798+00	-	852+00	660	190	108	67
852+00	-	906+00	605	-	104	61
906+00	-	959+30	661	-	107	66
ITEM TOTAL			5,490	190	745	550

HMA PAVEMENT ITEMS

STATION	TO	STATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
527+87	-	959+30	2	2
			2	2

ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL

STATION	TO	STATION	465.0475 LF
563+65	-	582+00	1,435
582+00	-	636+00	5,000
636+00	-	690+00	4,600
690+00	-	744+00	4,800
744+00	-	798+00	5,000
798+00	-	852+00	5,000
852+00	-	906+00	5,000
906+00	-	959+30	5,330
ITEM TOTAL			36,165

ASPHALTIC ITEMS

STATION	TO	STATION	455.0605 TACK COAT GAL	460.6644 HMA PAVEMENT 4 MT 58-34 V TON	460.6645 HMA PAVEMENT 5 MT 58-34 V TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	REMARKS
527+87	-	582+00	2,595	1,840	1,638	-	-	22	
582+00	-	636+00	2,105	1,488	1,275	45	-	17	
636+00	-	690+00	2,065	1,450	1,242	-	-	-	
690+00	-	744+00	2,091	1,471	1,262	-	-	8	
744+00	-	798+00	2,039	1,433	1,229	-	-	13	
798+00	-	852+00	2,060	1,449	1,242	40	-	-	
852+00	-	906+00	2,095	1,465	1,268	-	-	10	
906+00	-	959+30	2,051	1,445	1,235	-	-	-	
UNDISTRIBUTED			-	-	-	500	-	-	WEDGING/LOWER LAYER PAVEMENT REPAIR
UNDISTRIBUTED			-	-	-	-	300	-	POT HOLES, POP OUTS, RAMPING
ITEM TOTAL			17,100	12,040	10,390	585	300	70	

PWL MIXTURE USE TABLE

LOCATION	STATION	TO STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
DRIVING LANES 2-12 FOOT LANES	527+87	529+51	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	50	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	527+87	529+51	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	20	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	527+87	529+51	LOWER LAYER	BASE AGGREGATE	HMA PAVEMENT 4 MT 58 - 34 V	50	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	527+87	529+51	LOWER LAYER	BASE AGGREGATE	HMA PAVEMENT 4 MT 58 - 34 V	20	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	529+51	533+65	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	110	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	529+51	533+65	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	10	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	529+51	533+65	LOWER LAYER	BASE AGGREGATE	HMA PAVEMENT 4 MT 58 - 34 V	110	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	529+51	533+65	LOWER LAYER	BASE AGGREGATE	HMA PAVEMENT 4 MT 58 - 34 V	10	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	533+65	565+48	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	720	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	533+65	565+48	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	200	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	533+65	565+48	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	840	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	533+65	565+48	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	230	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	565+48	573+54	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	190	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	565+48	573+54	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	50	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	565+48	573+54	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	220	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	565+48	573+54	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	60	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	573+54	579+87	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	150	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER (12 FOOT LT. VARIES RT)	573+54	579+87	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	80	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	573+54	579+87	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	170	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER (12 FOOT LT. VARIES RT)	573+54	579+87	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	90	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	579+87	587+17	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	170	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	579+87	587+17	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	40	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	579+87	587+17	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	200	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	579+87	587+17	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	40	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	587+17	959+30	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	8340	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	587+17	959+30	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	140	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
DRIVING LANES 2-12 FOOT LANES	587+17	959+30	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	9730	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
MAINLINE SHOULDER	587+17	959+30	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	170	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SIDE ROADS / INTERSECTIONS	527+87	959+30	UPPER LAYER	HMA PAVEMENT 4 MT 58 - 34 V	HMA PAVEMENT 5 MT 58 - 34 V	120	1.5	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SIDE ROADS / INTERSECTIONS	527+87	959+30	LOWER LAYER	MILLED SURFACE	HMA PAVEMENT 4 MT 58 - 34 V	100	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
VARIOUS	-	-	WEDGING/LOWER LAYER PAVEMENT REPAIR, CULVERT REPLACEMENT	BASE AGGREGATE	ASPHALTIC SURFACE	585	VARIES	QMP AS PER SS 465	ACCEPTANCE TESTING BY ORDINARY COMPACTION
VARIOUS	-	-	POT HOLES, POP OUTS, RAMPING	BASE AGGREGATE	ASPHALTIC SURFACE PATCHING	300	VARIES	QMP AS PER SS 465	ACCEPTANCE TESTING BY ORDINARY COMPACTION

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CULVERT PIPE ITEMS

STATION	LOCATION	520.8700 CLEANING CULVERT PIPES EACH	521.1018 APRON ENDWALLS EOR CULVERT PIPE STEEL 18-INCH EACH	521.1024 APRON ENDWALLS EOR CULVERT PIPE STEEL 24-INCH EACH	521.1036 APRON ENDWALLS EOR CULVERT PIPE STEEL 36-INCH EACH	521.3124 CULVERT PIPE CORRUGATED STEEL 24-INCH LE	521.3136 CULVERT PIPE CORRUGATED STEEL 36-INCH LE	522.0424 CULVERT PIPE REINEORCED CONCRETE CLASS IV 24-INCH LE	522.1024 APRON ENDWALLS EOR CULVERT PIPE REINEORCED CONCRETE 24-INCH EACH	524.0124 CULVERT PIPE SALVAGED 24-INCH LE	628.7555 CULVERT PIPE CHECKS EACH	633.5200 MARKERS CULVERT END EACH	SPV.0060.01 SPECIAL (CLEANING CATTLE PASS) EACH	SPV.0060.02 SPECIAL (CLEANING CULVERT PIPES MINIMAL) EACH	SPV.0060.03 SPECIAL (RESHAPE EMBANKMENT AND PIPE END) EACH	REMARKS
538+46	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
547+62	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
553+32	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	1	
557+03	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
559+58	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
562+88	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
565+95	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
578+46	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
597+35	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
604+06	LT & RT	1	-	-	-	-	-	-	-	-	-	2	-	-	1	
608+55	LT & RT	1	-	-	-	-	-	-	-	-	-	2	-	-	1	
617+81	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
641+25	LT & RT	-	-	-	-	-	-	-	-	-	3	2	-	1	1	CLEAN RT END ONLY
661+51	LT & RT	-	-	1	-	4	-	-	-	-	3	2	-	-	1	WRAP JOINT
666+91	LT & RT	-	-	2	-	-	-	-	-	-	3	2	-	-	2	
673+72	LT & RT	-	-	-	-	-	-	-	-	-	3	2	-	1	1	CLEAN LT END ONLY
678+21	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
699+42	LT & RT	-	-	-	-	-	-	-	-	-	3	1	-	1	1	CLEAN RT ONLY
716+43	LT & RT	-	-	-	-	-	-	-	-	-	-	2	1	-	1	
721+69	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
733+57	LT & RT	-	-	1	-	-	-	-	-	6	3	2	-	1	1	WRAP JOINT LT, CLEAN RT END ONLY
739+95	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
753+16	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
764+81	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
778+63	LT & RT	-	1	-	-	-	-	-	-	-	-	2	-	-	1	
780+08	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
811+18	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
819+72	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
831+79	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
845+49	LT & RT	-	-	-	-	-	-	56	1	-	-	1	-	-	1	
851+03	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
859+58	LT & RT	-	-	-	-	-	-	-	-	-	3	2	-	1	1	CLEAN RT ONLY
867+70	LT & RT	-	-	1	-	-	-	-	-	-	3	2	-	-	1	
880+38	LT & RT	-	-	-	-	-	-	-	-	-	-	1	-	-	1	
885+53	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
891+11	LT & RT	1	-	-	1	-	20	-	-	-	5	2	-	-	1	
906+06	LT & RT	-	-	1	-	-	-	-	-	-	3	2	-	-	1	
946+45	LT & RT	-	-	1	-	8	-	-	-	-	3	2	-	-	1	WRAP JOINT
953+98	LT & RT	-	-	-	-	-	-	-	-	-	-	2	-	-	-	
		3	1	7	1	12	20	56	1	6	35	75	1	5	19	

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CURB & GUTTER ITEMS

STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	465.0310 ASPHALTIC CURB LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF
528+71.3	-	531+94	RT	3	-	323	-
562+25	-	565+48	RT	-	323	-	-
566+07	-	566+38	LT	6	-	-	31
576+75	-	577+35	RT	6	-	-	60
ITEM TOTAL				15	323	323	91

GUARDRAIL ITEMS

STATION	TO	STATION	LOCATION	604.0500 SLOPE PAVING CRUSHED AGGREGATE SY	614.0397 GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	614.0920 SALVAGED RAIL LF	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
528+71.2	-	533+06.4	RT	130	-	254	-	250	2
541+65.7	-	545+84.1	RT	-	-	264	-	175	2
547+19.2	-	561+10.4	RT	-	312	1,358	463	800	2
577+12.2	-	581+21.8	RT	-	-	404	-	300	2
582+74.1	-	589+04.9	LT	-	-	439	-	425	2
713+38.8	-	717+84.0	RT	-	-	129	200	-	2
719+31.1	-	723+46.4	RT	-	-	191	138	-	2
ITEM TOTAL				130	312	3,039	801	1,950	14

BARRIER SYSTEM GRADING SHAPING FINISHING

STATION	TO	STATION	LOCATION	614.0010 EACH	SALVAGED TOPSOIL* SY	FERTILIZER TYPE B* CMT	SEEDING MIXTURE NO. 20* LB	SEED WATER* MGAL	EROSION MAT URBAN CLASS I TYPE B* SY	BORROW* CY	COMMON* CY
528+71.2	-	533+06.4	RT	1	184	1	10	8.0	354	96.6	6.7
541+65.7	-	545+84.1	RT	1	127	1	10	7.6	337	9.1	3.5
547+19.2	-	561+10.4	RT	1	139	1	10	7.6	337	35.4	21.0
577+12.2	-	581+21.8	RT	1	12	1	2	1.3	56	2.6	8.1
582+74.1	-	589+04.9	LT	1	195	1	9	7.5	333	26.4	35.0
713+38.8	-	717+84.0	RT	1	323	1	12	9.8	433	58.9	9.9
719+31.1	-	723+46.4	RT	1	139	1	7	5.7	250	18.0	27.9
ITEM TOTAL				7							

* ITEMS SHOWN FOR REFERENCE ONLY. ITEMS INCIDENTAL TO THE ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

RIPRAP ITEMS

STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
553+32	RT	13	33
556+74	RT	53	153
565+22	RT	35	136
716+43	LT	4	27
778+63	LT	4	21
ITEM TOTAL		109	370

MOBILIZATION

STATION	TO	STATION	619.1000 EACH
527+87	-	959+30	1
ITEM TOTAL			1

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INLET, MANHOLE, & VALVE BOX ITEMS

STATION	LOCATION	611.3902 INLETS MEDIAN 2 GRATE EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	SPV.0060.04 SPECIAL (CLEAN INLET) EACH	SPV.0060.05 SPECIAL (REPAIR INLET) EACH	SPV.0060.06 SPECIAL (ADJUSTING VALVE BOX) EACH	SPV.0060.07 SPECIAL (INLET COVERS TYPE H-D) EACH	REMARKS
527+87	RT	-	-	-	-	-	-	1	-	
528+48	LT	-	-	-	1	-	-	-	-	
528+77	LT	-	1	-	-	-	-	-	-	
528+78	RT	-	-	-	1	-	-	-	1	
529+64	LT	-	1	-	-	-	-	-	-	
547+62	LT	-	-	-	-	1	1	-	-	MORTAR PIPE INLET
553+32	LT	-	-	-	-	1	1	-	-	MORTAR PIPE INLET
557+03	LT	-	-	-	-	1	1	-	-	MORTAR PIPE INLET
559+58	LT	-	-	-	-	1	1	-	-	MORTAR PIPE INLET
608+55	RT	-	-	-	-	1	-	-	-	
678+21	RT	-	-	-	-	-	1	-	-	RE-ANCHOR BAR GRATES
699+42	LT	-	-	1	-	-	1	-	-	MORTAR PIPE INLET
845+53	RT	1	-	1	-	-	-	-	-	
880+38	LT	1	-	1	-	-	-	-	-	
ITEM TOTAL		2	2	3	2	5	6	1	1	

SILT FENCE ITEMS

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	REMARKS
527+87	-	582+00	LT & RT	1,174	1,174	CULVERT AND GUARDRAIL LOCATIONS
582+00	-	636+00	LT & RT	305	305	CULVERT AND GUARDRAIL LOCATIONS
636+00	-	690+00	LT & RT	150	150	CULVERT LOCATIONS
690+00	-	744+00	LT & RT	980	980	CULVERT AND GUARDRAIL LOCATIONS
744+00	-	798+00	LT & RT	50	50	CULVERT LOCATIONS
798+00	-	852+00	LT & RT	50	50	CULVERT LOCATIONS
852+00	-	906+00	LT & RT	100	100	CULVERT LOCATIONS
906+00	-	959+30	LT & RT	100	100	CULVERT LOCATIONS
UNDISTRIBUTED			LT & RT	191	191	
ITEM TOTAL				3,100	3,100	

REGRADE DITCH ITEM

STATION	LOCATION	SPV.0090.01 SPECIAL (REGRADE DITCH) LF	REMARKS
641+25	LT	50	
699+42	LT	25	REPAIR SINKHOLE
845+53	RT	75	INCLUDES AREA FOR INLET REMOVAL AND REPLACEMENT
880+38	LT	75	INCLUDES AREA FOR INLET REMOVAL AND REPLACEMENT
ITEM TOTAL		225	

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TURF ESTABLISHMENT & EROSION CONTROL ITEMS FOR CULVERTS AND INLETS

STATION	LOCATION	*SALVAGED TOPSOIL SY	*EROSION MAT URBAN CLASS I TYPE B SY	*EERTILIZER TYPE B CWT	*SEEDING MIXTURE NO. 20 LB	*SEEDING MIXTURE NO. 40 LB	*SEED WATER MGAL
553+52	RT	33.00	33	0.02	1	-	0.8
604+06	LT	25.00	25	0.02	1	-	0.6
608+55	LT	25.00	25	0.02	1	-	0.6
641+25	LT & RT	164.00	164	0.10	5	-	3.7
661+51	RT	42.00	42	0.03	2	-	1.0
666+91	LT & RT	67.00	67	0.04	2	-	1.6
673+72	LT	25.00	25	0.02	1	-	0.6
699+42	LT	95.00	95	0.06	-	2	2.2
716+43	LT	27.00	27	0.02	1	-	0.7
733+57	LT	81.00	81	0.05	3	-	1.9
778+63	LT	42.00	42	0.03	2	-	1.0
845+53	LT & RT	278.00	278	0.18	-	6	6.3
859+58	RT	25.00	25	0.02	1	-	0.6
867+70	RT	42.00	42	0.03	2	-	1.0
880+38	LT	209.00	209	0.13	-	4	4.7
891+11	RT	109.00	109	0.07	3	-	2.5
906+06	LT	42.00	42	0.03	2	-	1.0
946+45	RT	84.00	84	0.05	3	-	1.9
ITEM TOTAL							

* ITEMS SHOWN FOR REFERENCE ONLY. ITEMS INCIDENTAL TO THE ITEMS REGRADE DITCH AND RESHAPE EMBANKMENT AND PIPE END.

EROSION CONTROL MOBILIZATION ITEMS

STATION	TO	STATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
527+87	-	959+30	3	3
ITEM TOTAL			3	3

TRAFFIC CONTROL ITEMS

STATION	TO	STATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	643.5000 TRAFFIC CONTROL EACH
527+87	-	959+30	3,750	3,200	14	1
ITEM TOTAL			3,750	3,200	14	1

3

PAVEMENT MARKING ITEMS

STATION	TO	STATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW) LF	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH (YELLOW) LE	646.1020 *MARKING LINE EPOXY 4-INCH (YELLOW) LE	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF
527+87	-	582+00	21,652	10,826	10,826	10,826
582+00	-	636+00	18,744	9,372	9,372	10,800
636+00	-	690+00	21,600	10,800	10,800	10,800
690+00	-	744+00	19,248	9,624	9,624	10,800
744+00	-	798+00	20,896	10,448	10,448	10,800
798+00	-	852+00	21,600	10,800	10,800	10,800
852+00	-	906+00	21,600	10,800	10,800	10,800
906+00	-	959+30	21,320	10,660	10,660	10,660
TOTAL			166,660	83,330	83,330	86,286
ITEM TOTAL			166,660	83,330	169,616	

*PLACED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED

SAWCUT ITEMS

STATION	TO	STATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
527+87	-	582+00	370	16
582+00	-	636+00	160	-
636+00	-	690+00	153	-
690+00	-	744+00	117	-
744+00	-	798+00	15	-
798+00	-	852+00	48	-
852+00	-	906+00	61	-
906+00	-	959+30	26	-
ITEM TOTALS			950	16

CONSTRUCTION STAKING

STATION	TO	STATION	650.4000 CONSTRUCTION STAKING STORM EACH	650.5500 CURB GUTTER AND CURB & GUTTER LE	650.6000 PIPE CULVERTS EACH	650.8000 RESUREACING REEERENCE LE	650.9911.01 SUPPLEMENTAL CONTROL (7720-00-72) EACH
527+87	-	959+30	2	414	5	43,143	1
ITEM TOTAL			2	414	5	43,143	1

LOCATING NO-PASSING ZONES

STATION	TO	STATION	648.0100 MI
527+87	-	959+30	8.17
ITEM TOTAL			8.17

PAVEMENT MARKING OTHER NOTES:

REFER TO SDD 15C8 "LONGITUDINAL MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE AND EDGELINE MARKINGS.

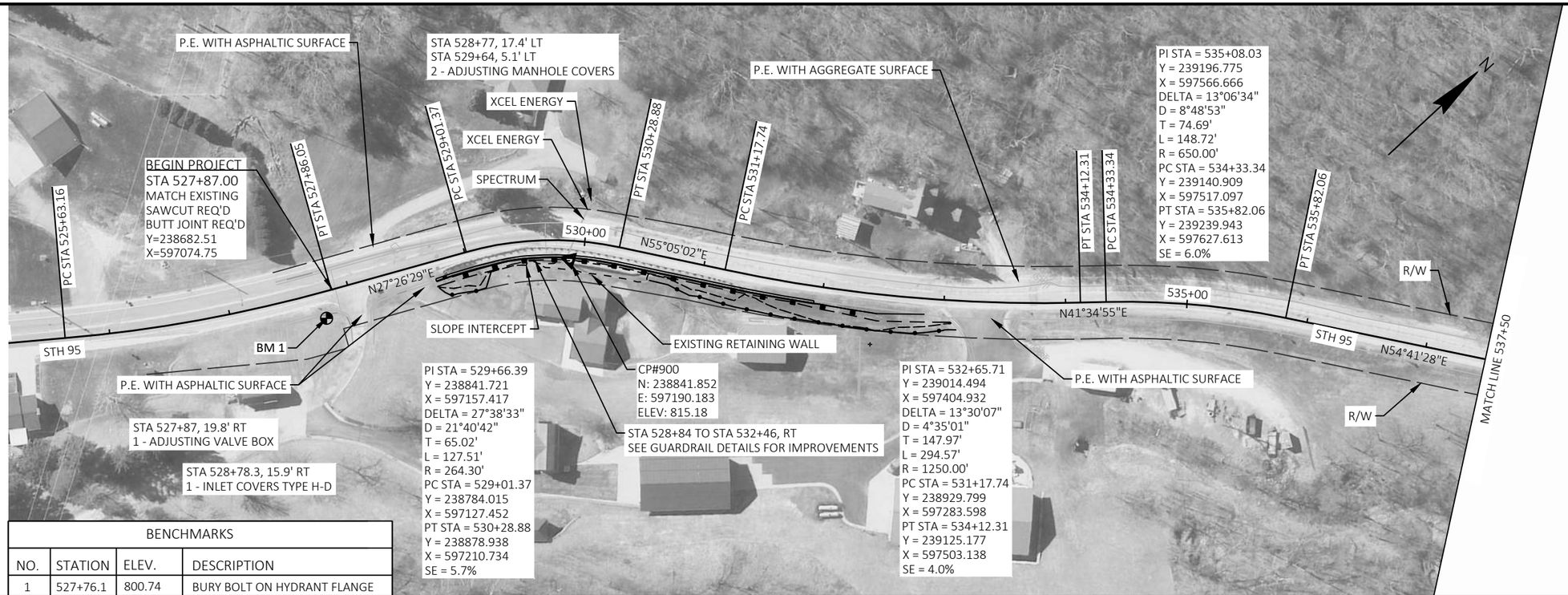
REPLACE THE PASSING AND NON-PASSING ZONES PER LOCATING NO-PASSING ZONES.

REFER TO SDD 15C35 "PAVEMENT MARKING (INTERSECTION)" FOR PLACEMENT OF MARKINGS AT ALL INTERSECTIONS.

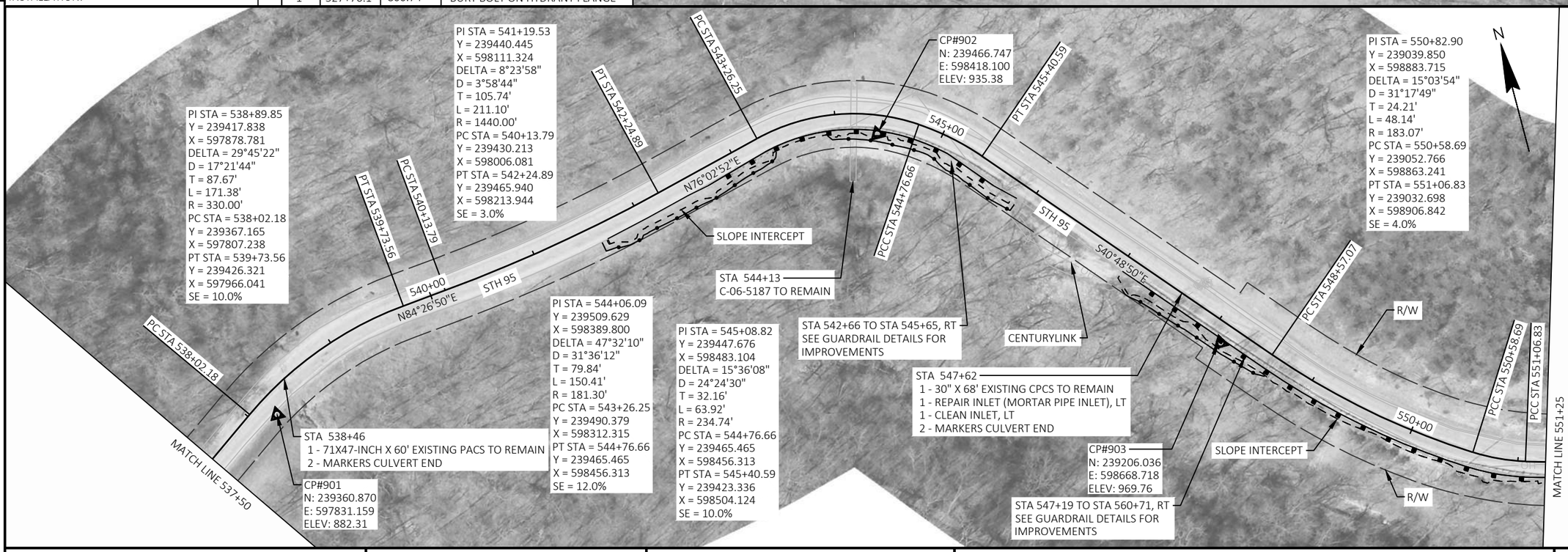
ALL INTERSECTIONS SHALL BE MARKED AS MINOR INTERSECTIONS.

PLACE CENTERLINE TEMPORARY MARKING LINE PAINT 4-INCH ON MILLED SURFACES AND LOWER LAYER OF PAVEMENT PRIOR TO OPENING TO TRAFFIC, UNLESS PAVING SAME DAY. SEE SDD "TEMPORARY LONGITUDINAL PAVEMENT MARKING".

PLACE CENTERLINE TEMPORARY MARKING LINE EPOXY 4-INCH ON UPPER PAVEMENT LAYER PRIOR TO OPENING TO TRAFFIC. SEE SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS". PLACE TEMPORARY MARKING ON THE UPPER PAVEMENT LAYER IN EXACT LOCATION OF ULTIMATE PERMANENT MARKING INSTALLATION.



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	527+76.1	800.74	BURY BOLT ON HYDRANT FLANGE



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 38	E

MATCH LINE 551+25

PI STA = 551+98.94
Y = 239005.486
X = 598994.847
DELTA = 25°18'53"
D = 13°58'07"
T = 92.12'
L = 181.23'
R = 410.18'
PC STA = 551+06.83
Y = 239032.698
X = 598906.842
PT STA = 552+88.05
Y = 239018.517
X = 599086.037
SE = 4.0%

R/W

CP#904
N: 239006.310
E: 599120.729
ELEV: 1015.74

R/W

STA 553+32
1 - 24" X 70' EXISTING CPCS TO REMAIN
1 - REPAIR INLET (MORTAR PIPE INLET), LT
1 - CLEAN INLET, LT
1 - RESHAPE EMBANKMENT AND PIPE END, RT
13 CY RIPRAP MEDIUM, RT
2 - MARKERS CULVERT END

PC STA 552+88.05

PI STA = 549+58.62
Y = 239106.953
X = 598777.352
DELTA = 16°56'19"
D = 8°24'04"
T = 101.55'
L = 201.63'
R = 682.01'
PC STA = 548+57.07
Y = 239183.812
X = 598710.976
PT STA = 550+58.69
Y = 239052.766
X = 598863.241
SE = 4.0%

PC STA 555+36.32

PT STA 556+56.40

PC STA 557+43.09

PI STA = 554+14.72
Y = 239036.435
X = 599211.433
DELTA = 28°01'04"
D = 11°17'07"
T = 126.67'
L = 248.27'
R = 507.71'
PC STA = 552+88.05
Y = 239018.517
X = 599086.037
PT STA = 555+36.32
Y = 239111.158
X = 599313.716
SE = 6.0%

555+00

STH 95

PI STA = 555+96.40
Y = 239146.596
X = 599362.224
DELTA = 4°51'21"
D = 4°02'38"
T = 60.07'
L = 120.08'
R = 1416.81'
PC STA = 555+36.32
Y = 239111.158
X = 599313.716
PT STA = 556+56.40
Y = 239186.013
X = 599407.559
SE = 4.0%

N48°59'39"E

CENTURYLINK

CP#905
N: 239219.870
E: 599471.693
ELEV: 1049.48

STA 556+85
1 - 15" EXISTING CPCS TO REMAIN
RIPRAP MEDIUM (SEE GUARDRAIL DETAIL)

STA 557+03
1 - 24" X 60' EXISTING CPCS TO REMAIN
1 - REPAIR INLET (MORTAR PIPE INLET), LT
1 - CLEAN INLET, LT
RIPRAP MEDIUM (SEE GUARDRAIL DETAIL)
2 - MARKERS CULVERT END

PC STA 559+20.82

STA 559+58
1 - 24" X 68' EXISTING CPCS TO REMAIN
1 - REPAIR INLET (MORTAR PIPE INLET), LT
1 - CLEAN INLET, LT
2 - MARKERS CULVERT END

PI STA = 558+32.33
Y = 239301.444
X = 599540.319
DELTA = 12°47'55"
D = 7°12'04"
T = 89.24'
L = 177.73'
R = 795.65'
PC STA = 557+43.09
Y = 239242.892
X = 599472.977
PT STA = 559+20.82
Y = 239343.622
X = 599618.958
SE = 3.5%

560+00

CP#906
N: 239408.846
E: 599812.710
ELEV: 1083.27

PT STA 562+25.32

PC STA 562+53.54

STA 562+88
1 - 48" X 52' EXISTING CPCS TO REMAIN
2 - MARKERS CULVERT END

N71°48'19"E

STH 95

BOND RD

PI STA = 560+73.46
Y = 239415.768
X = 599753.468
DELTA = 10°00'45"
D = 3°17'18"
T = 152.64'
L = 304.50'
R = 1742.44'
PC STA = 559+20.82
Y = 239343.622
X = 599618.958
PT STA = 562+25.32
Y = 239463.429
X = 599898.473
SE = 3.5%

PI STA = 563+88.99
Y = 239514.537
X = 600053.965
DELTA = 6°07'45"
D = 2°15'53"
T = 135.45'
L = 270.64'
R = 2530.00'
PC STA = 562+53.54
Y = 239472.243
X = 599925.288
PT STA = 565+24.18
Y = 239542.850
X = 600186.423
SE = 3.5%

MATCH LINE 565+00

N

5

5

MATCH LINE 565+00

+00

PT STA 565+24.18

STA 566+07 TO STA 566+38
REMOVING ASPHALTIC SURFACE
31 LF REMOVING CURB & GUTTER
31 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

CP#907
N: 239585.011
E: 600283.186
ELEV: 1129.27

CTH G

R/W

570+00

STH 95

N77°56'03"E

CENTURYLINK

STA 565+94
1 - 24" X 86' EXISTING CPCS TO REMAIN
1 STA - CLEARING, RT
1 STA - GRUBBING, RT
2 - MARKERS CULVERT END

R/W

STA 565+22 TO STA 565+65, RT
35 CY RIPRAP MEDIUM

P.E. WITH AGGREGATE SURFACE

PI STA = 575+33.79
Y = 239753.893
X = 601173.729
DELTA = 6°02'49"
D = 2°31'27"
T = 119.90'
L = 239.57'
R = 2270.00'
PC STA = 574+13.90
Y = 239728.831
X = 601056.480
PT STA = 576+53.47
Y = 239766.465
X = 601292.965
SE = 1.0%

PC STA 574+13.90

F.E. WITH AGGREGATE SURFACE

575+00

P.E. WITH ASPHALTIC SURFACE

STA 576+75 TO STA 577+35,
REMOVING ASPHALTIC SURFACE
60 LF REMOVING CURB & GUTTER
60 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J
DRIVEWAY ENTRANCE CURB (SEE DETAIL)
STA 576+75 TO STA 577+28.5

PT STA 576+53.47

STA 578+46
1 - 24"/15" X 94' EXISTING CPCS TO REMAIN
2 - MARKERS CULVERT END

CENTURYLINK

STH 95

N83°58'52"E

STA 577+15 TO STA 581+19, RT
SEE GUARDRAIL DETAILS FOR IMPROVEMENTS

CP#908
N: 239769.660
E: 601498.373
ELEV: 1189.97

MATCH LINE 578+75

N

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 39	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-2
PLOT DATE : 7/25/2022 1:31 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

5

5

MATCH LINE S78+75

580+00

STH 95

N83°57'52"E

R/W

P.I. STA 580+75.01
Δ=23°01'00" LT
Y=238310.67
X=601712.18

SLOPE INTERCEPT

FOUNTAIN CITY CEMETERY

R/W

P.E. WITH ASPHALTIC SURFACE
(SEE OVERLAY GUTTER DETAIL)

PC STA 583+91.33

CENTURYLINK

PC STA 585+85.37

585+00

STA 583+54 TO STA 588+80, LT
SEE GUARDRAIL DETAILS FOR
IMPROVEMENTS

CP#909
N: 239831.972
E: 602391.845
ELEV: 1192.09

PC STA 588+10.69

CENTURYLINK

P.E. WITH AGGREGATE SURFACE

PC STA 590+05.26

590+00

STH 95

MATCH LINE 592+50

P.E. WITH ASPHALTIC SURFACE
(SEE OVERLAY GUTTER AT
CEMETERY ENTRANCE DETAIL)

RIVERLAND ENERGY COOP

P.E. WITH ASPHALTIC SURFACE

P.E. WITH ASPHALTIC SURFACE
(SEE OVERLAY GUTTER AT CEMETERY
ENTRANCE (EAST) DETAIL)

PI STA = 584+88.54
Y = 239854.147
X = 602123.418
DELTA = 8°39'07"
D = 4°27'32"
T = 97.21'
L = 194.04'
R = 1285.00'
PC STA = 583+91.33
Y = 239843.926
X = 602026.750
PT STA = 585+85.37
Y = 239849.710
X = 602220.524
SE = 8.0%

PI STA = 586+99.63
Y = 239844.494
X = 602334.665
DELTA = 23°28'19"
D = 10°25'03"
T = 114.26'
L = 225.32'
R = 550.00'
PC STA = 585+85.37
Y = 239849.710
X = 602220.524
PT STA = 588+10.69
Y = 239794.247
X = 602437.284
SE = 8.0%

PI STA = 589+08.71
Y = 239751.141
X = 602525.317
DELTA = 17°09'04"
D = 8°48'53"
T = 98.02'
L = 194.57'
R = 650.00'
PC STA = 588+10.69
Y = 239794.247
X = 602437.284
PT STA = 590+05.26
Y = 239683.993
X = 602596.724
SE = 8.0%

PI STA = 591+26.64
Y = 239600.843
X = 602685.147
DELTA = 12°22'13"
D = 5°06'57"
T = 121.38'
L = 241.81'
R = 1120.00'
PC STA = 590+05.26
Y = 239683.993
X = 602596.724
PT STA = 592+47.08
Y = 239500.681
X = 602753.704
SE = 8.0%

PI STA = 592+47.08

MATCH LINE 592+50

F.E. WITH AGGREGATE SURFACE

R/W

STH 95

595+00

S34°23'24"E

STA 597+35
1 - 24" X 84' EXISTING CPCS TO REMAIN
2 - MARKERS CULVERT END

RIVERLAND ENERGY COOP

PC STA 599+05.16

600+00

STH 95

RIVERLAND ENERGY COOP

P.E. WITH AGGREGATE SURFACE

CENTURYLINK

R/W

PI STA = 605+00.06
Y = 238619.154
X = 603600.171
DELTA = 9°26'24"
D = 9°05'48"
T = 52.00'
L = 103.77'
R = 629.86'
PC STA = 604+48.06
Y = 238635.746
X = 603550.884
PT STA = 605+51.83
Y = 238610.871
X = 603651.512
SE = 7.0%

PI STA = 606+74.26
Y = 238591.370
X = 603772.377
DELTA = 12°47'21"
D = 5°14'42"
T = 122.43'
L = 243.84'
R = 1092.40'
PC STA = 605+51.83
Y = 238610.871
X = 603651.512
PT STA = 607+95.67
Y = 238599.109
X = 603894.560
SE = 7.0%

TOBIN RD

PC STA 604+48.06

PC STA 605+51.83

605+00

MATCH LINE 606+25

RIVERLAND ENERGY COOP

STA 604+06
1 - 24" X 48' EXISTING CPCS TO REMAIN
1 - CLEANING CULVERT PIPES
1 - RESHAPE EMBANKMENT AND PIPE END, LT
2 - MARKERS CULVERT END

CENTURYLINK

R/W

PI STA = 601+86.46
Y = 238725.492
X = 603284.288
DELTA = 37°00'18"
D = 6°48'58"
T = 281.30'
L = 542.90'
R = 840.59'
PC STA = 599+05.16
Y = 238957.621
X = 603125.405
PT STA = 604+48.06
Y = 238635.746
X = 603550.884
SE = 7.0%

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 40	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-3

PLOT DATE : 7/25/2022 1:31 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 41	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-4

PLOT DATE : 7/25/2022 1:32 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 42	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-5
PLOT DATE : 7/25/2022 1:32 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

5

RIVERLAND ENERGY COOP

CENTURYLINK

PCC STA 661+58.48

MATCH LINE 661+25

STH 95

665+00

PI STA = 664+69.49
Y = 241280.639
X = 607946.072
DELTA = 43°43'54"
D = 7°23'35"
T = 311.01'
L = 591.53'
R = 775.00'
PC STA = 661+58.48
Y = 240998.783
X = 607814.600
PT STA = 667+50.01
Y = 241393.420
X = 608235.913
SE = 7.0%

CENTURYLINK

STA 661+51
1 - 24" X 60' EXISTING CPCS TO REMAIN
1 - REMOVING SMALL PIPE CULVERTS (4 LF & AEW RT)
4 LF CULVERT PIPE CORRUGATED STEEL 24-INCH, RT (WRAP JOINT)
1 - APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH, RT
1 - RESHAPE EMBANKMENT AND PIPE END, RT
2 - MARKERS CULVERT END

PT STA 667+50.01

STA 666+91
1 - 24" X 60' EXISTING CPCS TO REMAIN
1 - REMOVING SMALL PIPE CULVERTS (AEW LT & RT)
2 - APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH
2 - RESHAPE EMBANKMENT AND PIPE END, LT & RT
2 - MARKERS CULVERT END

R/W

670+00

R/W

STA 673+72
1 - 24" X 56' EXISTING CPCS TO REMAIN
1 - CLEANING CULVERT PIPES MINIMAL (LT ONLY)
1 - RESHAPE EMBANKMENT AND PIPE END, LT
2 - MARKERS CULVERT END

CENTURYLINK

STH 95

N68°44'18"E

675

MATCH LINE 675+00

N

5

STA 678+21
1 - 24" X 62' EXISTING CPCS TO REMAIN
1 - REPAIR INLET (RE-ANCHOR BAR GRATE(S)), RT
2 - MARKERS CULVERT END

CENTURYLINK

RIVERLAND ENERGY COOP

MATCH LINE 675+00

+00

STH 95

PI STA 679+54.80
Δ =0°14'51", LT
Y=241830.31
X=609358.70

680+00

R/W

P.E. WITH AGGREGATE SURFACE

R/W

P.E. WITH AGGREGATE SURFACE

685+00

N68°29'27"E

P.E. WITH AGGREGATE SURFACE

PI STA 688+67.00

STH 95

F.E. WITH AGGREGATE SURFACE

MATCH LINE 688+75

N

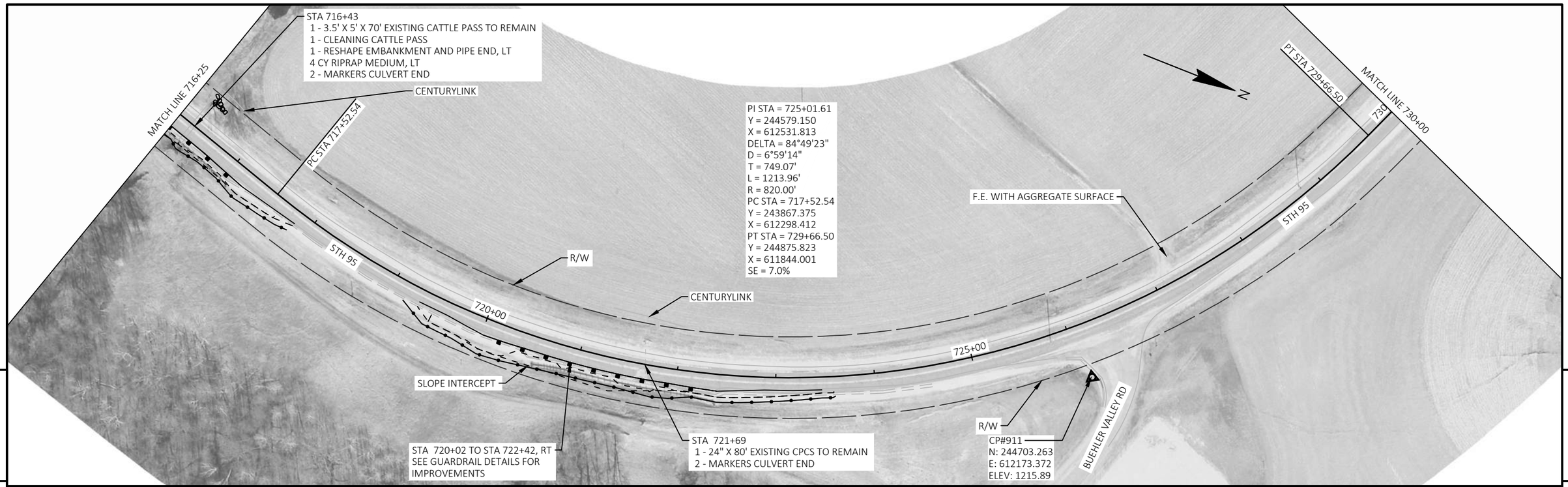
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 43	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-6

PLOT DATE : 7/25/2022 1:32 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

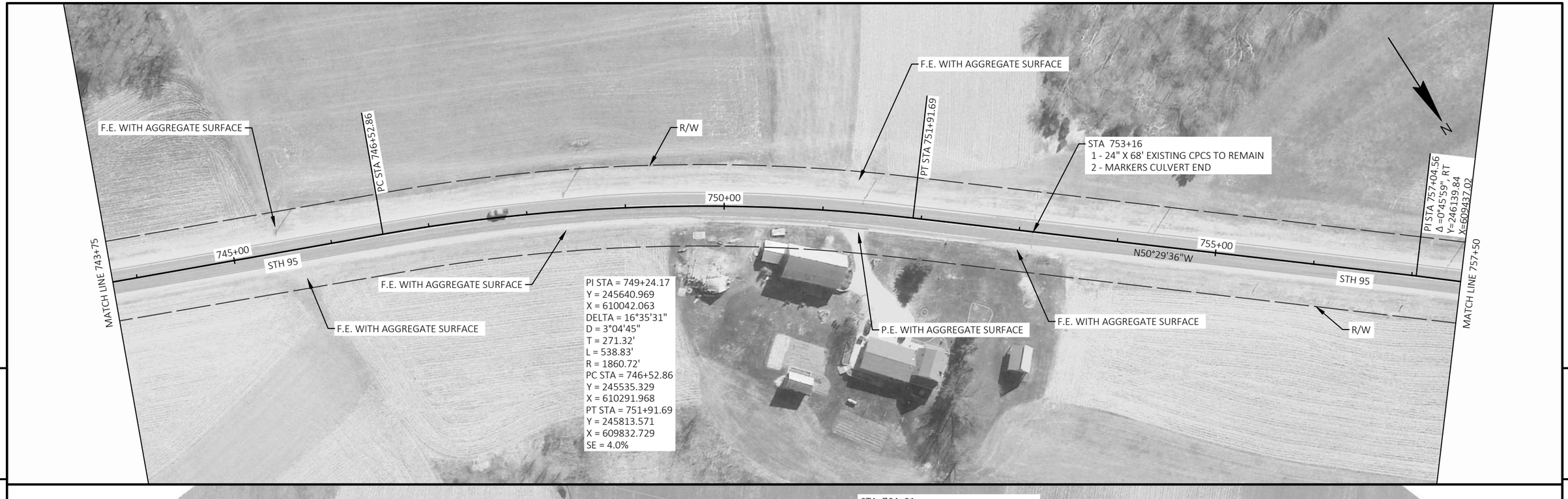
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 44	E



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 45	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-8

PLOT DATE : 8/23/2022 9:21 AM PLOT BY : MATT SOLIN PLOT NAME : PLOT SCALE : 1 IN:100 FT



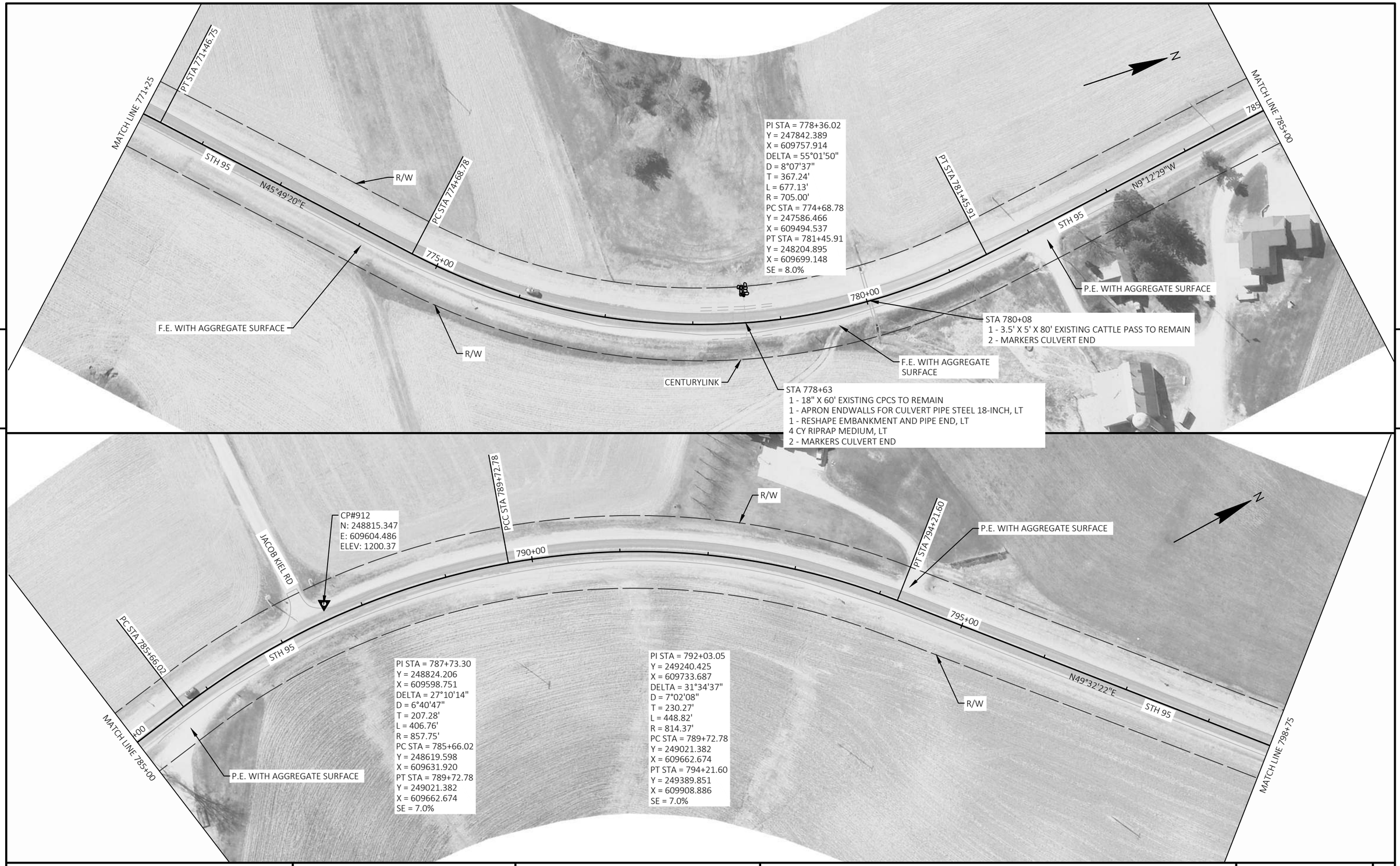
5

5

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 46	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-9

PLOT DATE : 7/25/2022 1:33 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

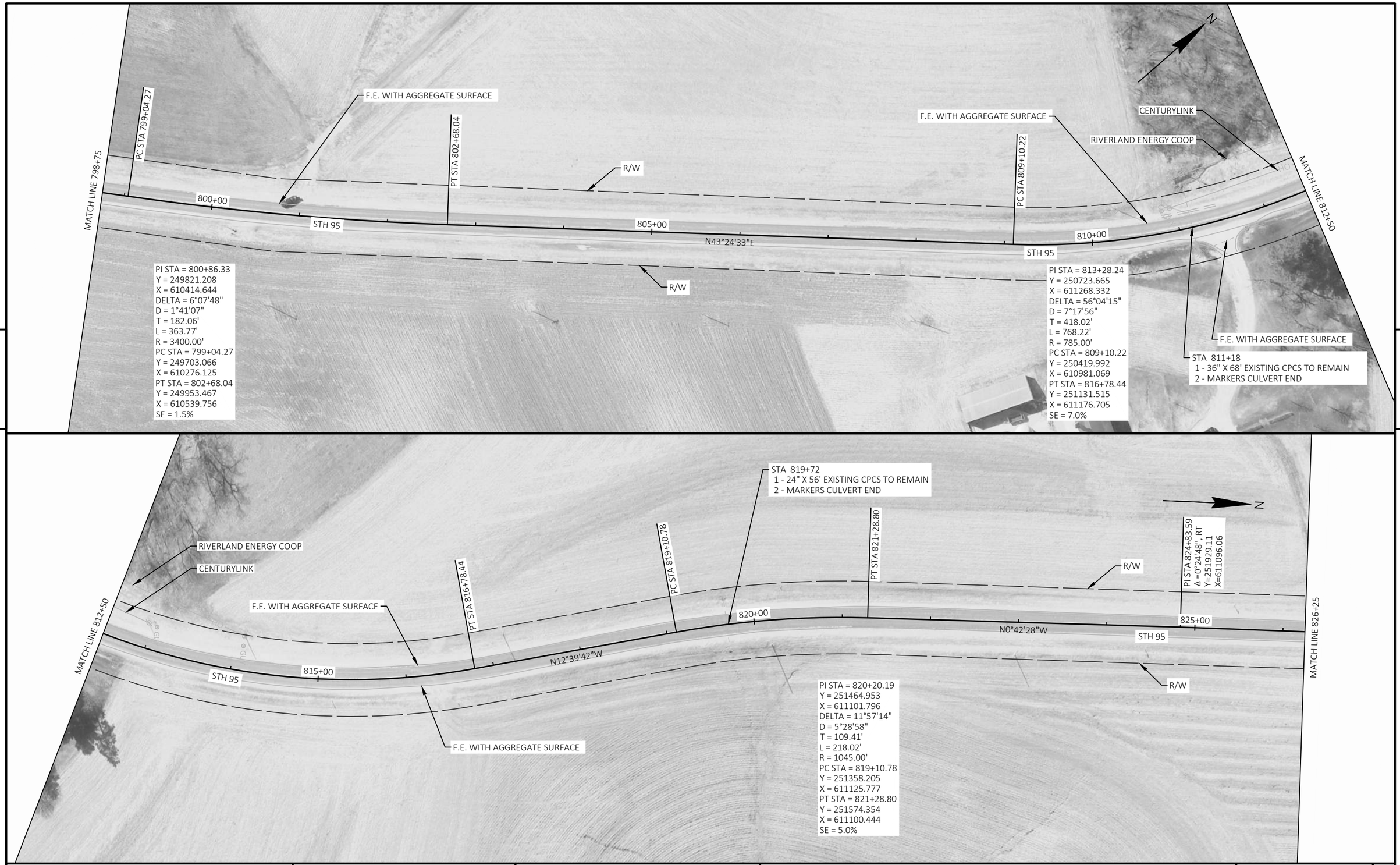


PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 47	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-10

PLOT DATE : 7/25/2022 1:33 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 48	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-11

PLOT DATE : 7/25/2022 1:33 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

STA 831+79
1 - 24" X 58' EXISTING CPCS TO REMAIN
2 - MARKERS CULVERT END

F.E. WITH AGGREGATE SURFACE

F.E. WITH AGGREGATE SURFACE

R/W

PC STA 828+24.13

830+00

835+00

BAURES RD

PT STA 836+84.00

CP#913
N: 253066.695
E: 611603.256
ELEV: 1236.06

F.E. WITH AGGREGATE SURFACE

R/W

N

MATCH LINE 826+25

N0°17'40"W

STH 95

PI STA = 832+97.74
Y = 252743.247
X = 611091.876
DELTA = 59°43'04"
D = 6°56'42"
T = 473.61'
L = 859.88'
R = 825.00'
PC STA = 828+24.13
Y = 252269.644
X = 611094.310
PT STA = 836+84.00
Y = 252984.168
X = 611499.629
SE = 7.0%

N59°25'24"E

STH 95

840

BAURES RD

MATCH LINE 840+00

5

5

STA 845+48.50
1 - 24" X 54' EXISTING CPCS TO BE REMOVED
1 - REMOVING SMALL PIPE CULVERTS (54 LF & AEW LT)
1 - REMOVING INLETS (RETAINING BLOCK INLET), RT
1 - INLETS MEDIAN 2 GRATE, RT
56 LF CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH
1 - APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH, LT
1 - RESHAPE EMBANKMENT AND PIPE END, LT
75 LF REGRADE DITCH, RT (STA 845+15 TO STA 845+90)
1 - MARKERS CULVERT END

MATCH LINE 840+00

PC STA 840+04.91

+00

P.E. WITH AGGREGATE SURFACE

PT STA 844+14.65

PI STA 845+50.00
Δ =0°50'44", LT
Y=253547.45
X=612135.69

R/W

PC STA 850+05.46

STA 851+03
1 - 36" X 70' EXISTING CPCS TO REMAIN
2 - MARKERS CULVERT END

N

MATCH LINE 853+75

STH 95

845+00

N31°28'31"E

N30°11'38"E

850+00

STH 95

PI STA = 842+13.94
Y = 253253.743
X = 611955.880
DELTA = 27°56'53"
D = 6°49'15"
T = 209.03'
L = 409.74'
R = 840.00'
PC STA = 840+04.91
Y = 253147.411
X = 611775.916
PT STA = 844+14.65
Y = 253432.018
X = 612065.022
SE = 7.0%

P.E. WITH AGGREGATE SURFACE

P.E. WITH AGGREGATE SURFACE

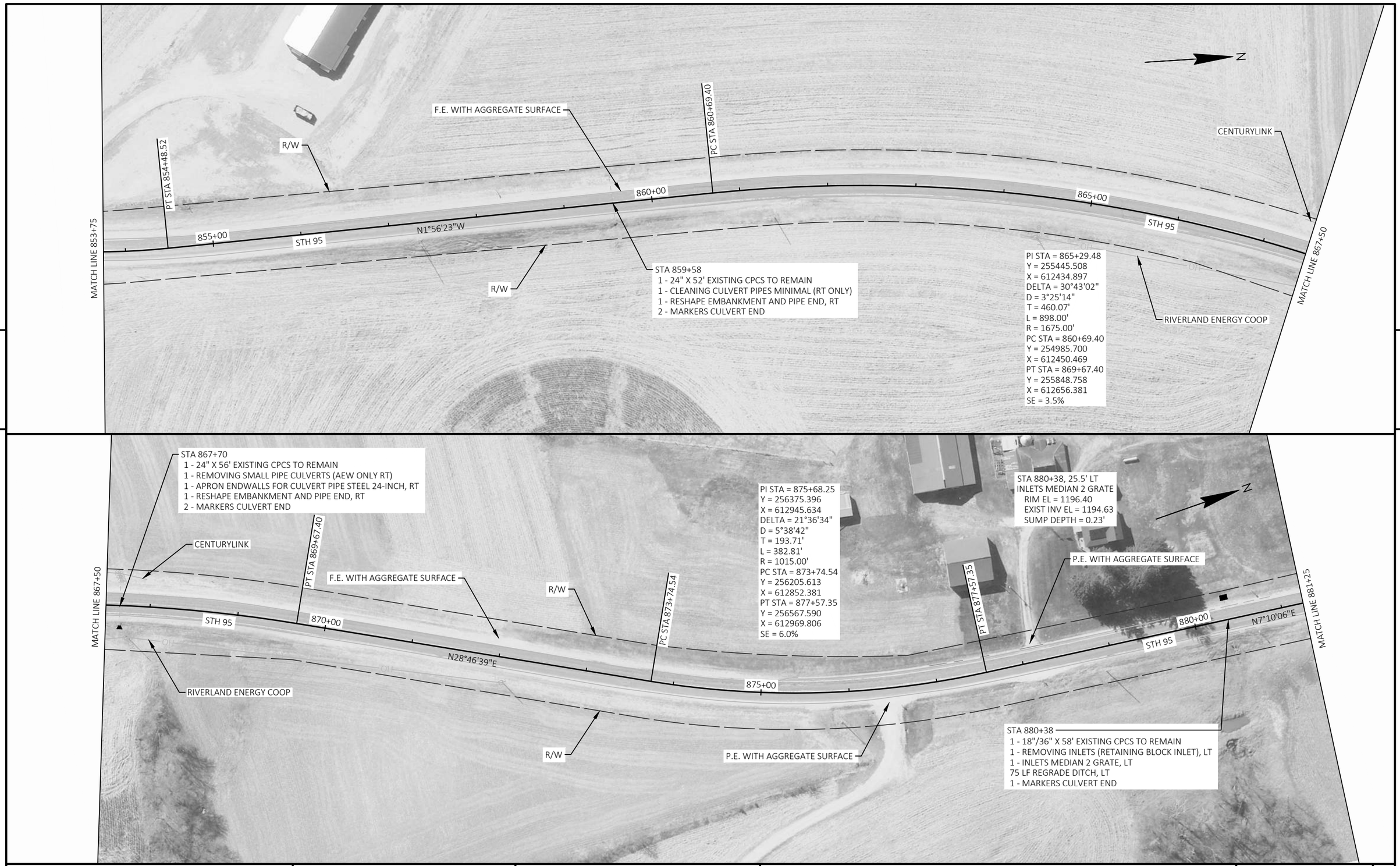
R/W

RIVERLAND ENERGY COOP

STA 845+48.5, 30.5' RT
INLETS MEDIAN 2 GRATE
RIM EL = 1220.30
INV EL = 1217.80
SUMP DEPTH = 0.25'

PI STA = 852+32.99
Y = 254137.777
X = 612479.186
DELTA = 32°08'01"
D = 7°15'09"
T = 227.53'
L = 443.06'
R = 790.00'
PC STA = 850+05.46
Y = 253941.120
X = 612364.756
PT STA = 854+48.52
Y = 254365.174
X = 612471.485
SE = 7.0%

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 49	E

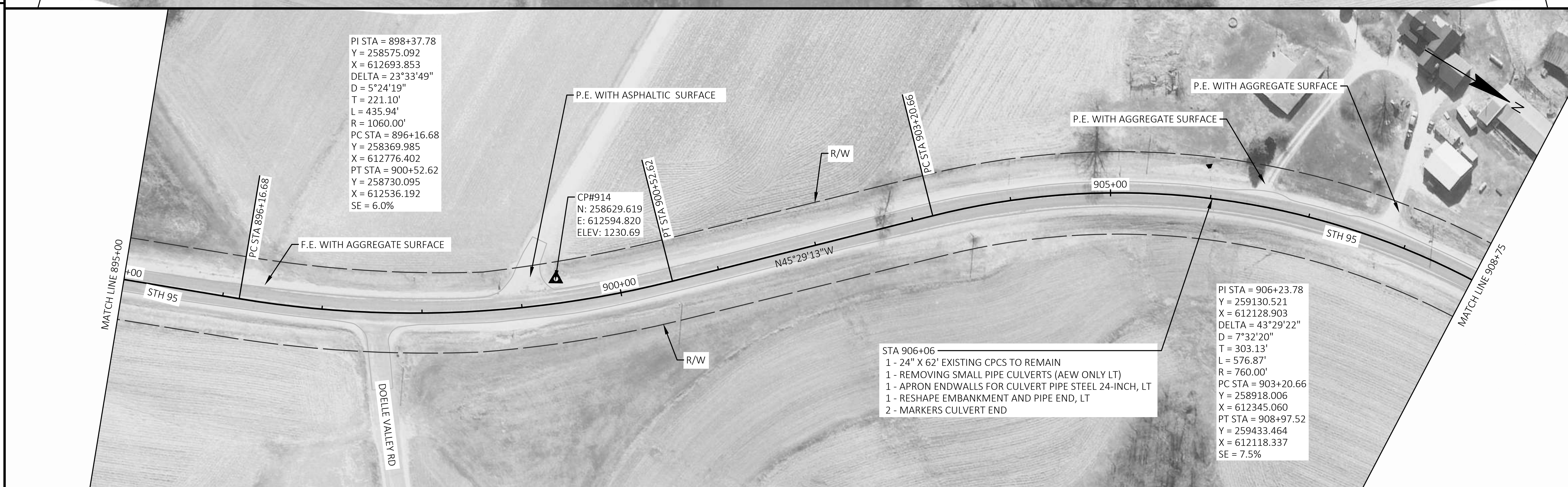


PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 50	E

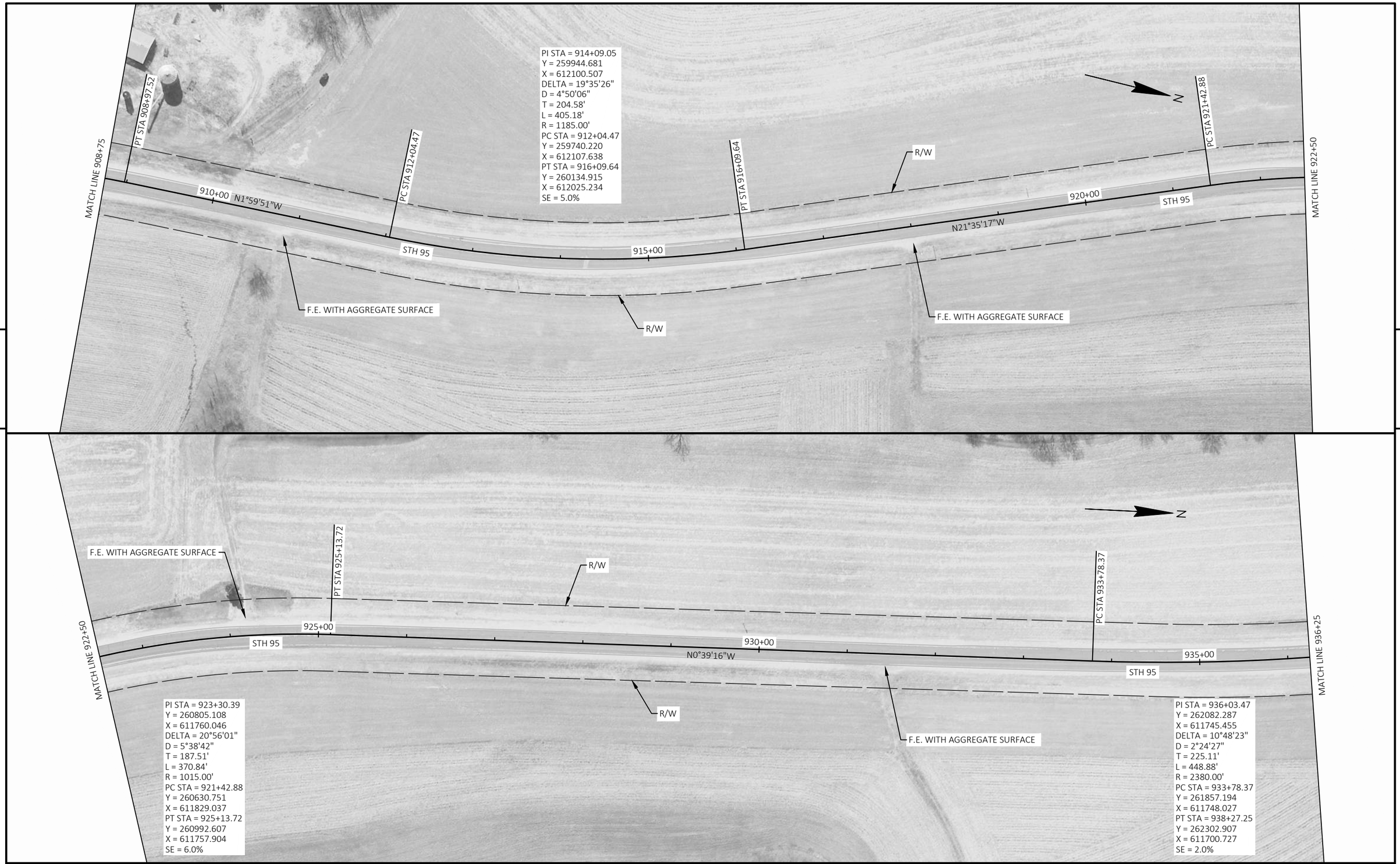
FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-13

PLOT DATE : 7/25/2022 1:33 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 51	E



5

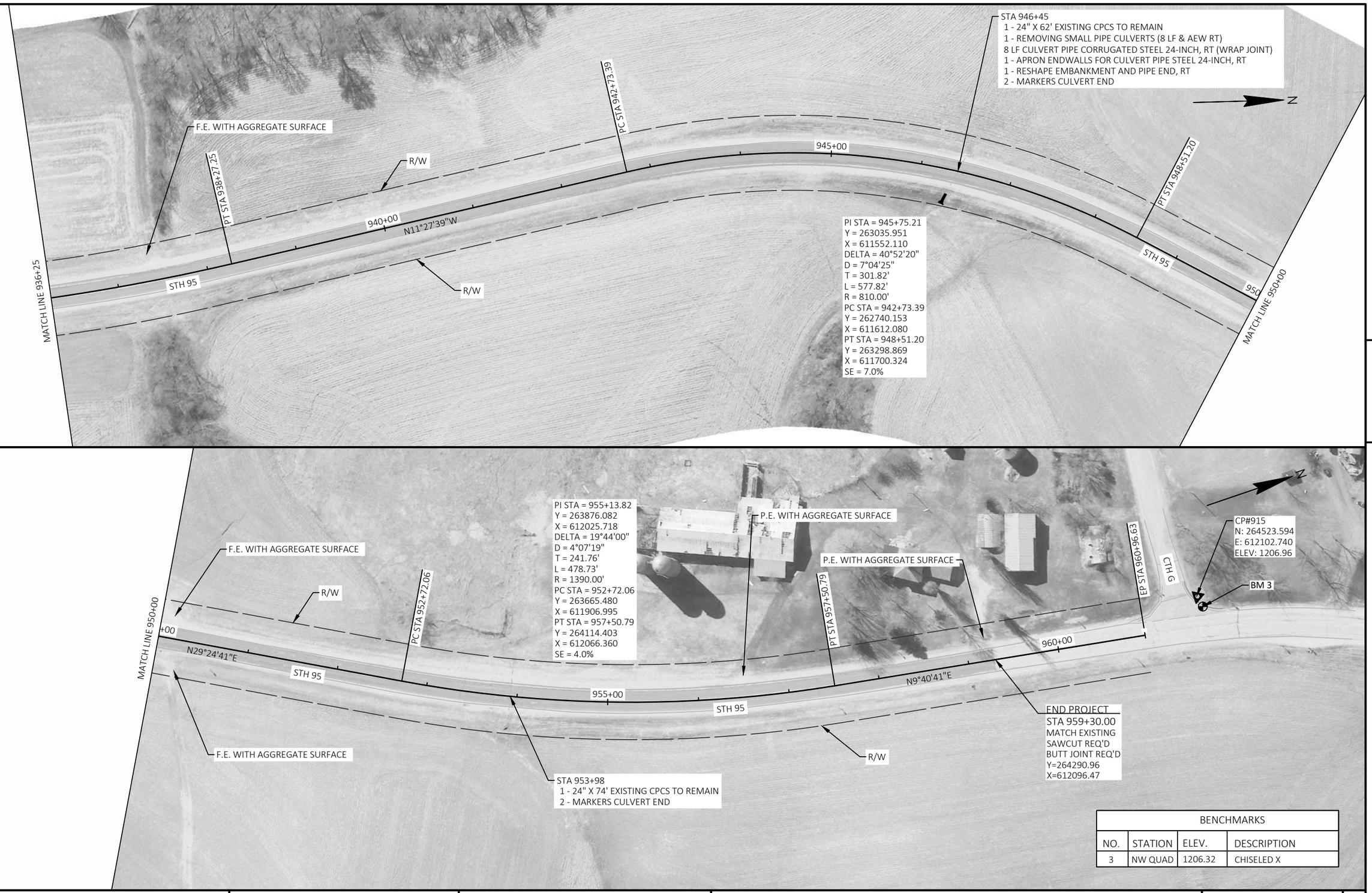
5

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 52	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-15

PLOT DATE : 7/25/2022 1:34 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
3	NW QUAD	1206.32	CHISELED X

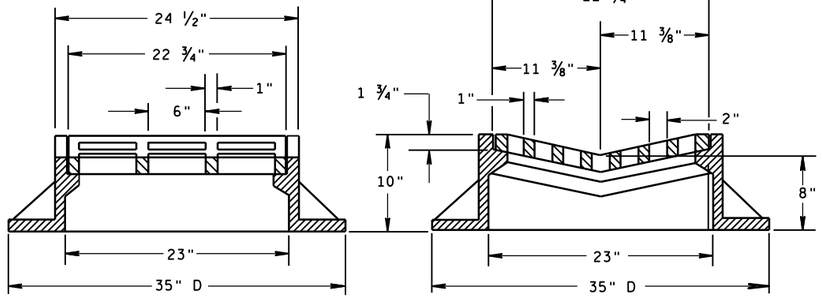
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	PLAN	SHEET 53	E

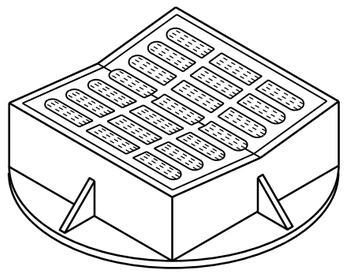
FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\050101-PN.DWG
LAYOUT NAME - 050101-16
PLOT DATE : 7/25/2022 1:34 PM PLOT BY : ERIC BENSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

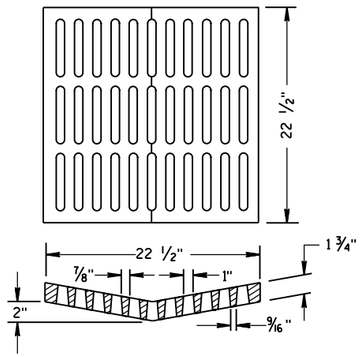
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B28-04A	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C08-21B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-07A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

6



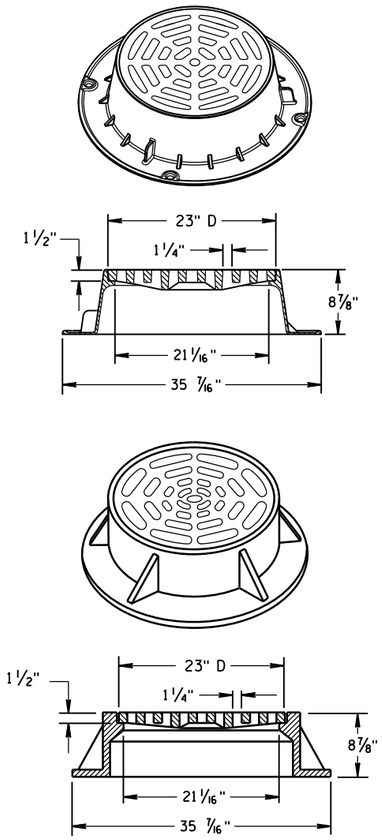


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

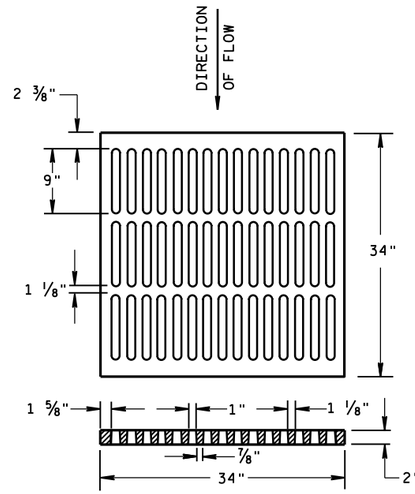
NOTE: EITHER CASTING IS ACCEPTABLE

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.

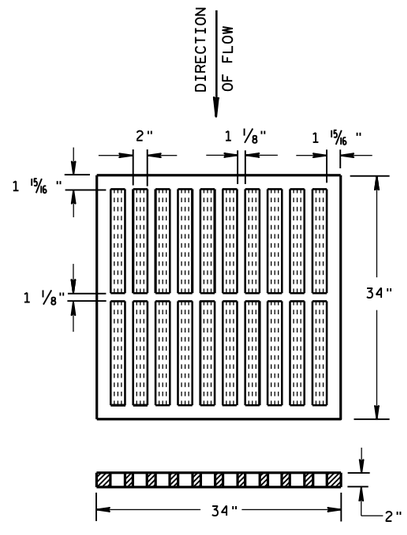
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



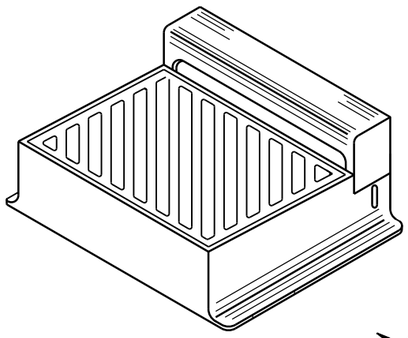
ALTERNATIVE TYPE "MS"

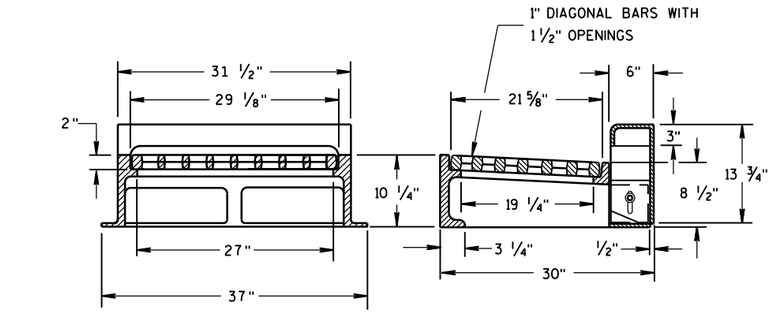
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

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





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIRECTION OF FLOW

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

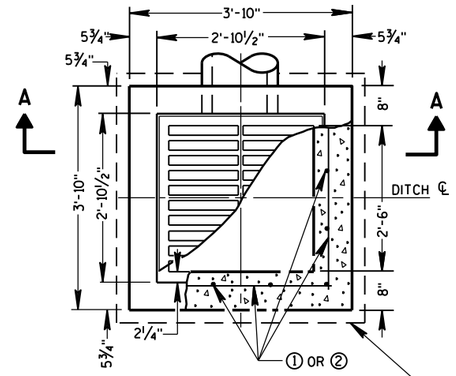
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

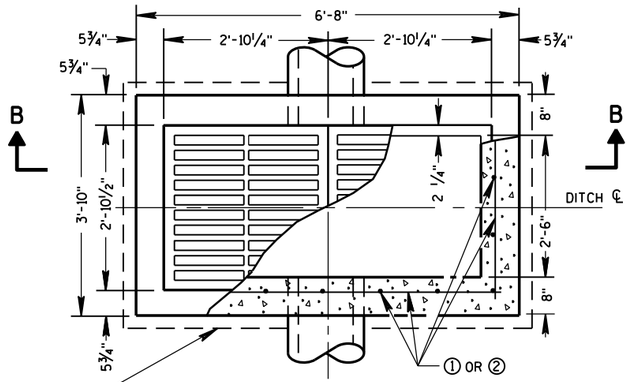
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 A 5-19b

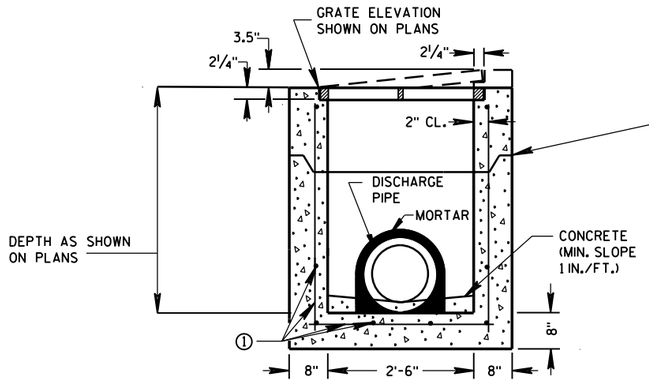


PLAN VIEW

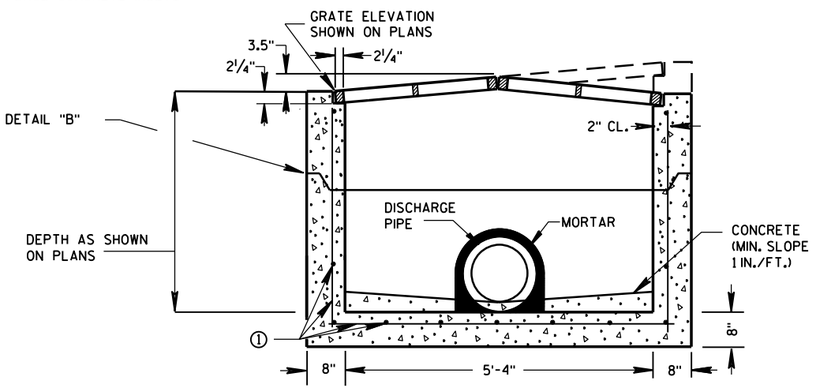


PLAN VIEW

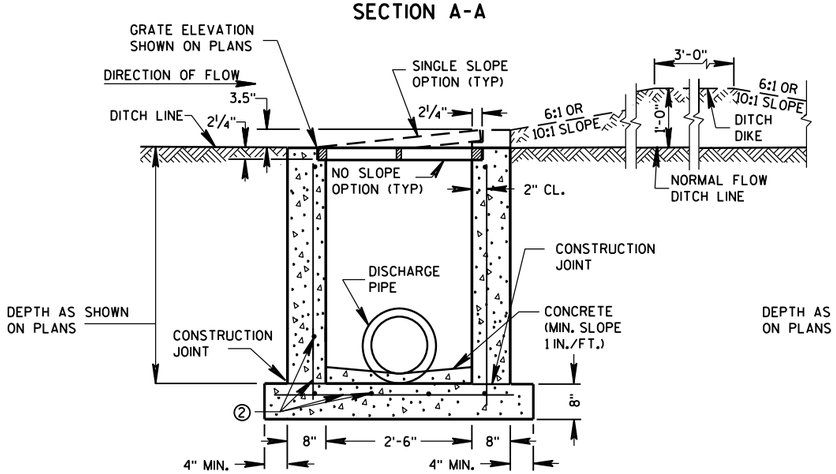
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



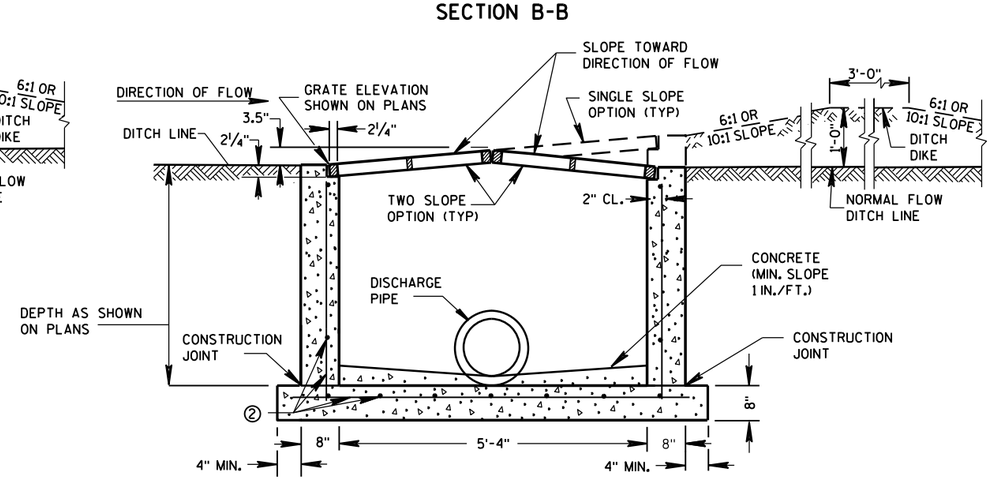
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

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

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

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

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

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

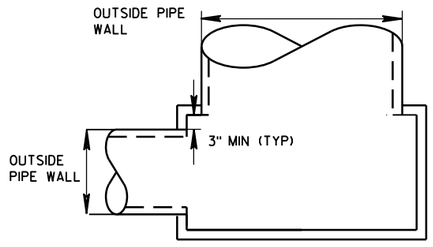
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

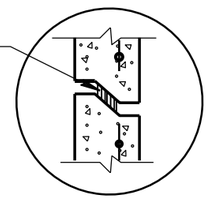
PIPE MATRIX

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



DETAIL "A"

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



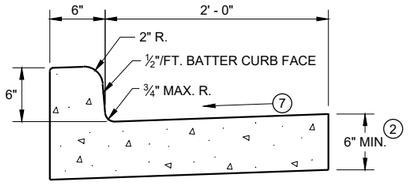
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

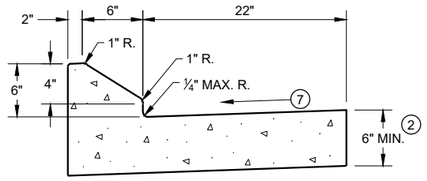
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
FHWA

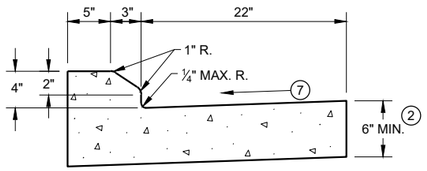
6
S.D.D. 8 C 8-2



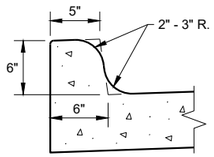
TYPES A[1] & D



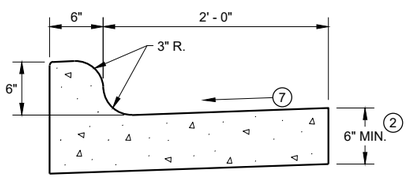
6" SLOPED CURB TYPES G[1] & J



4" SLOPED CURB TYPES G[1] & J

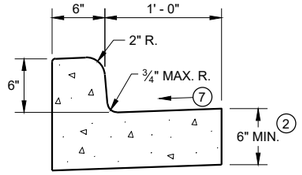


TYPES K[1] & L
(OPTIONAL CURB SHAPE)



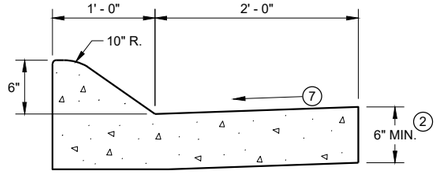
TYPES K[1] & L

CONCRETE CURB AND GUTTER 30"

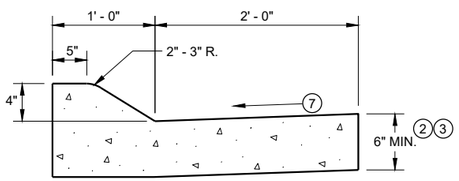


TYPES A[1] & D

CONCRETE CURB AND GUTTER 18"

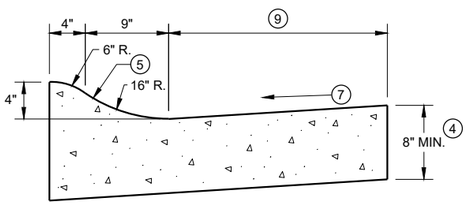


6" SLOPED CURB TYPES A[1] & D



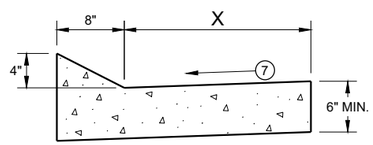
4" SLOPED CURB TYPES A[1] & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R[1] & T

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

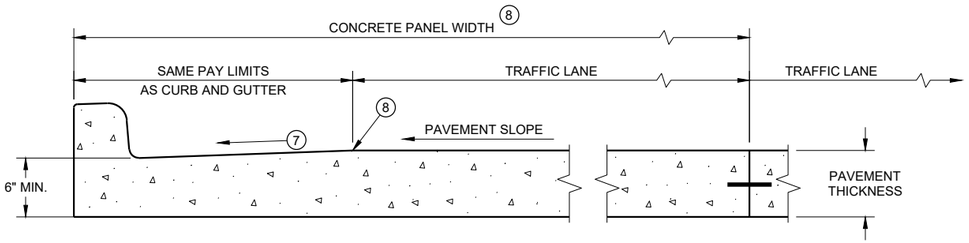


TYPES TBT & TBTT[1]

CONCRETE CURB AND GUTTER

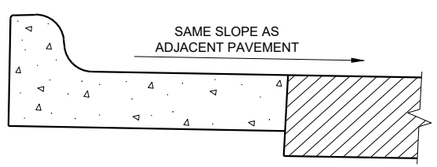
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

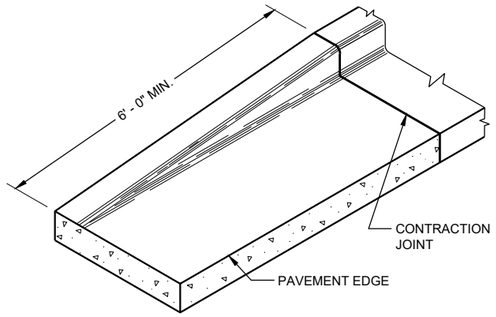
1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
3. USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
4. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
5. UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
6. WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
7. USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
8. INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
9. CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
   CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

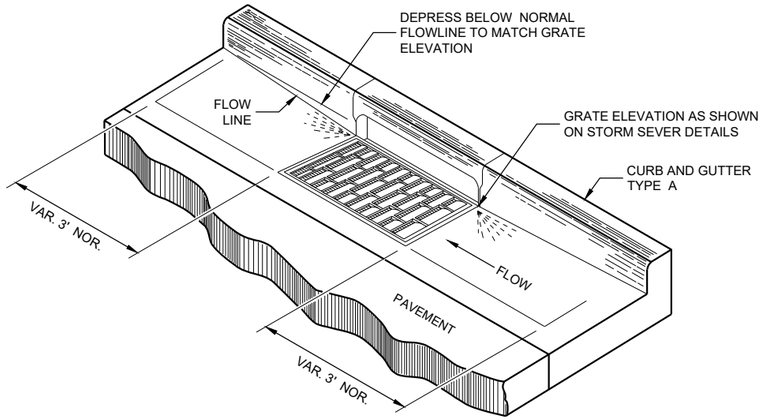
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB 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.

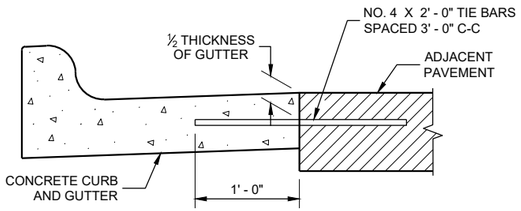
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

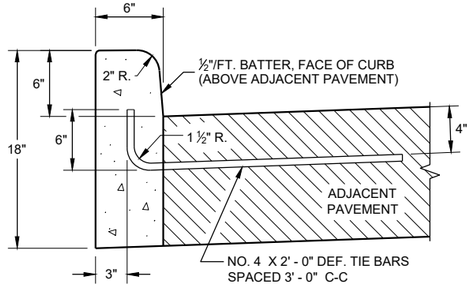
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

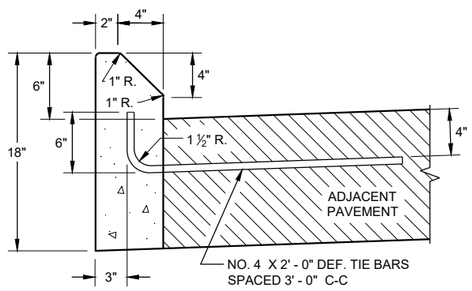
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

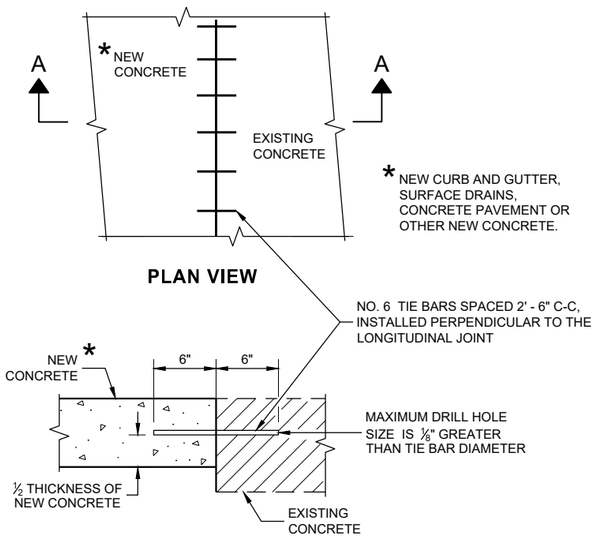


TYPES A (1) & D



TYPES G (1) & J

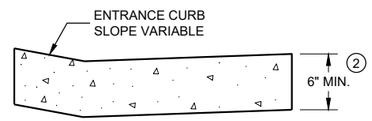
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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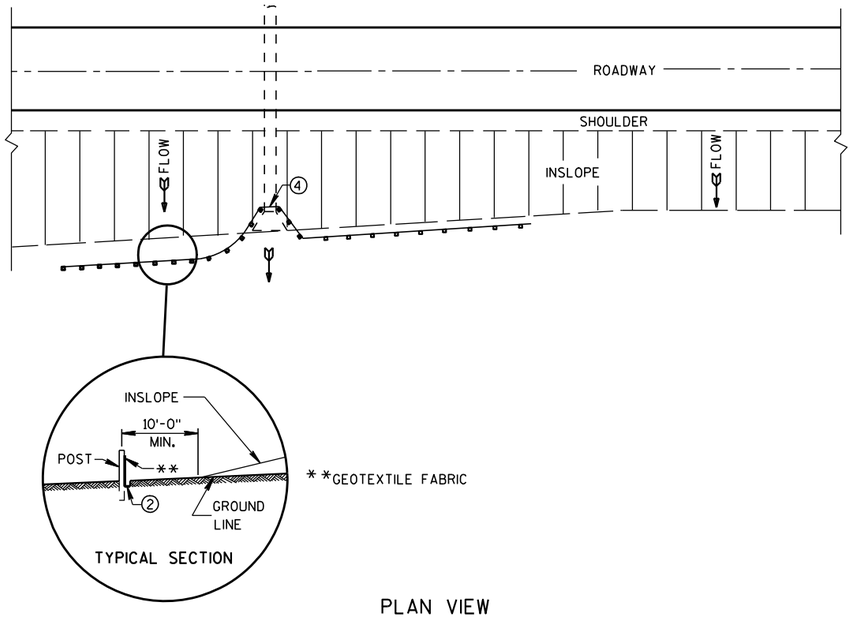
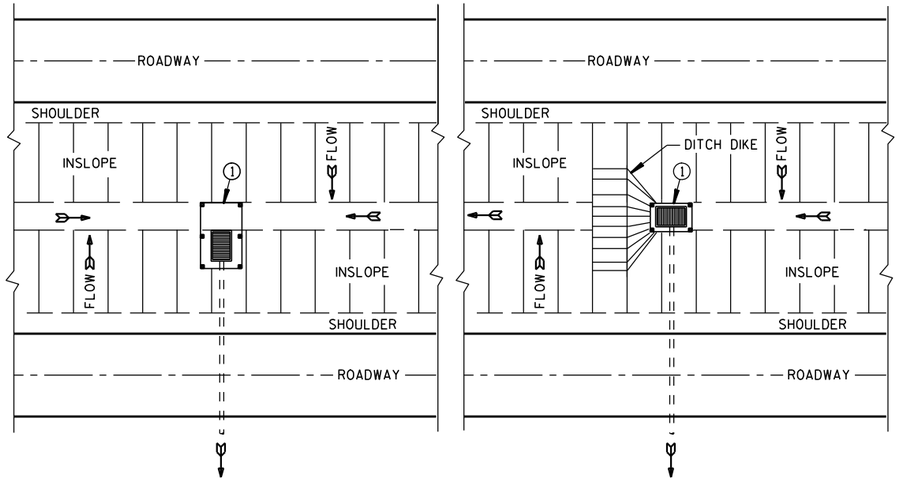
SDD08D01 - 22b



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



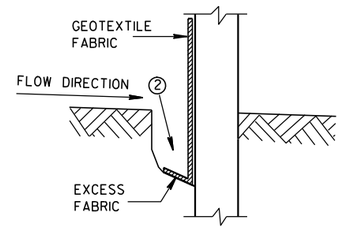
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

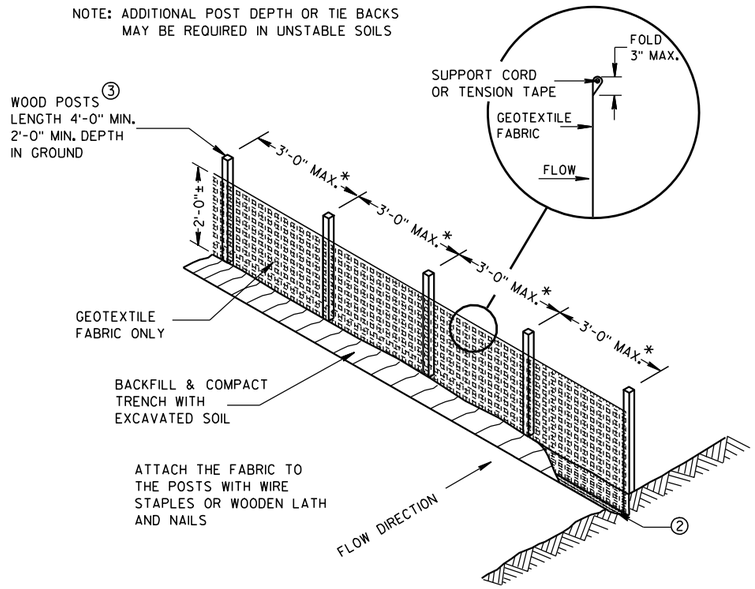
GENERAL NOTES

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

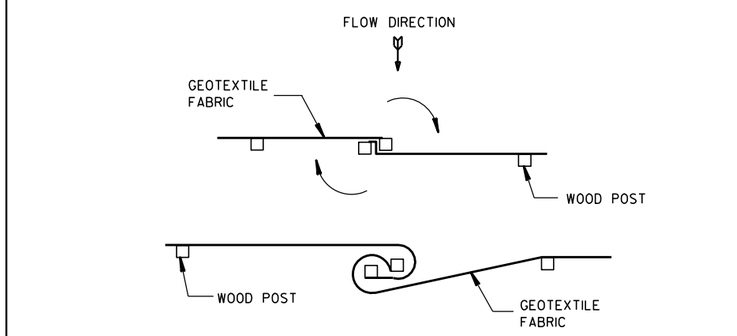
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



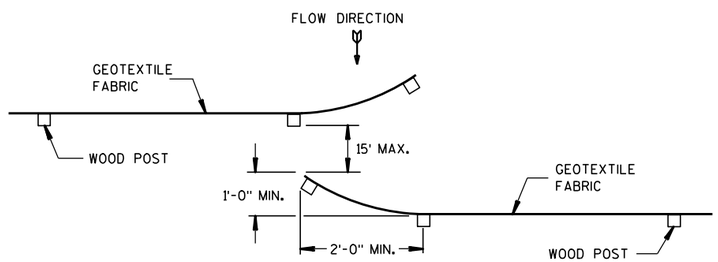
TRENCH DETAIL



SILT FENCE

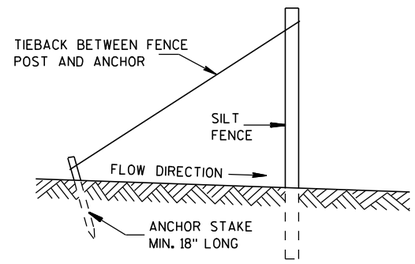


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

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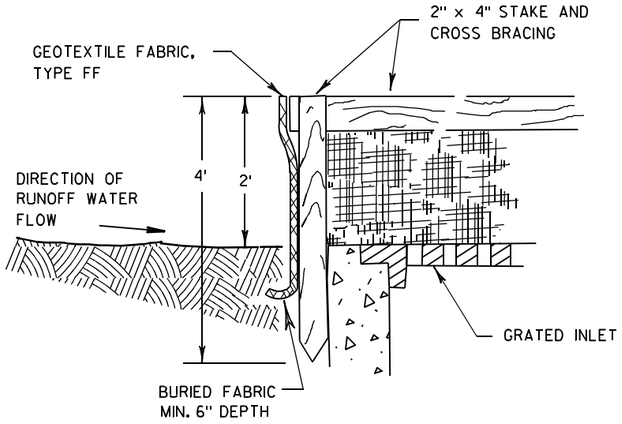
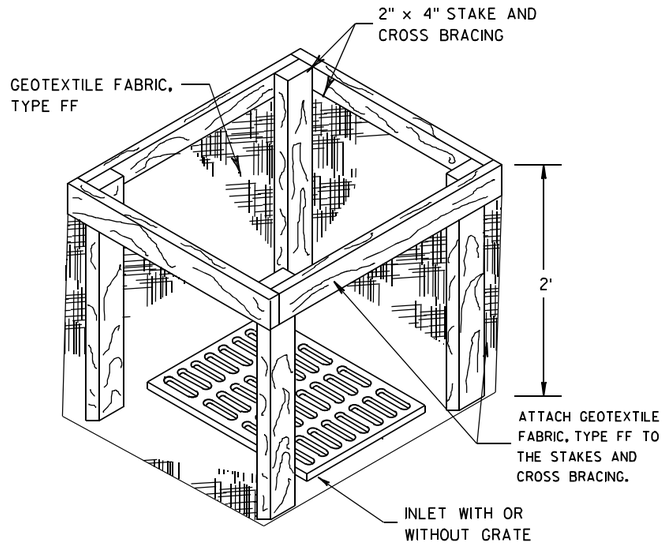
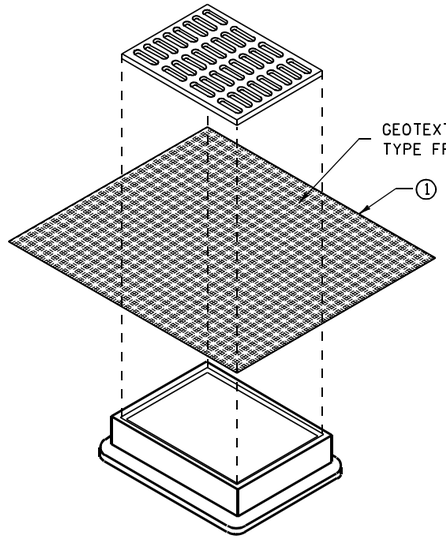
S.D.D. 8 E 9-6



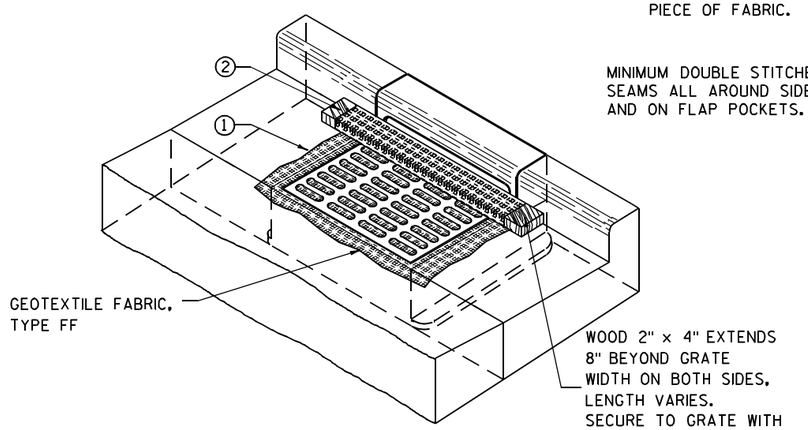


INLET PROTECTION, TYPE A

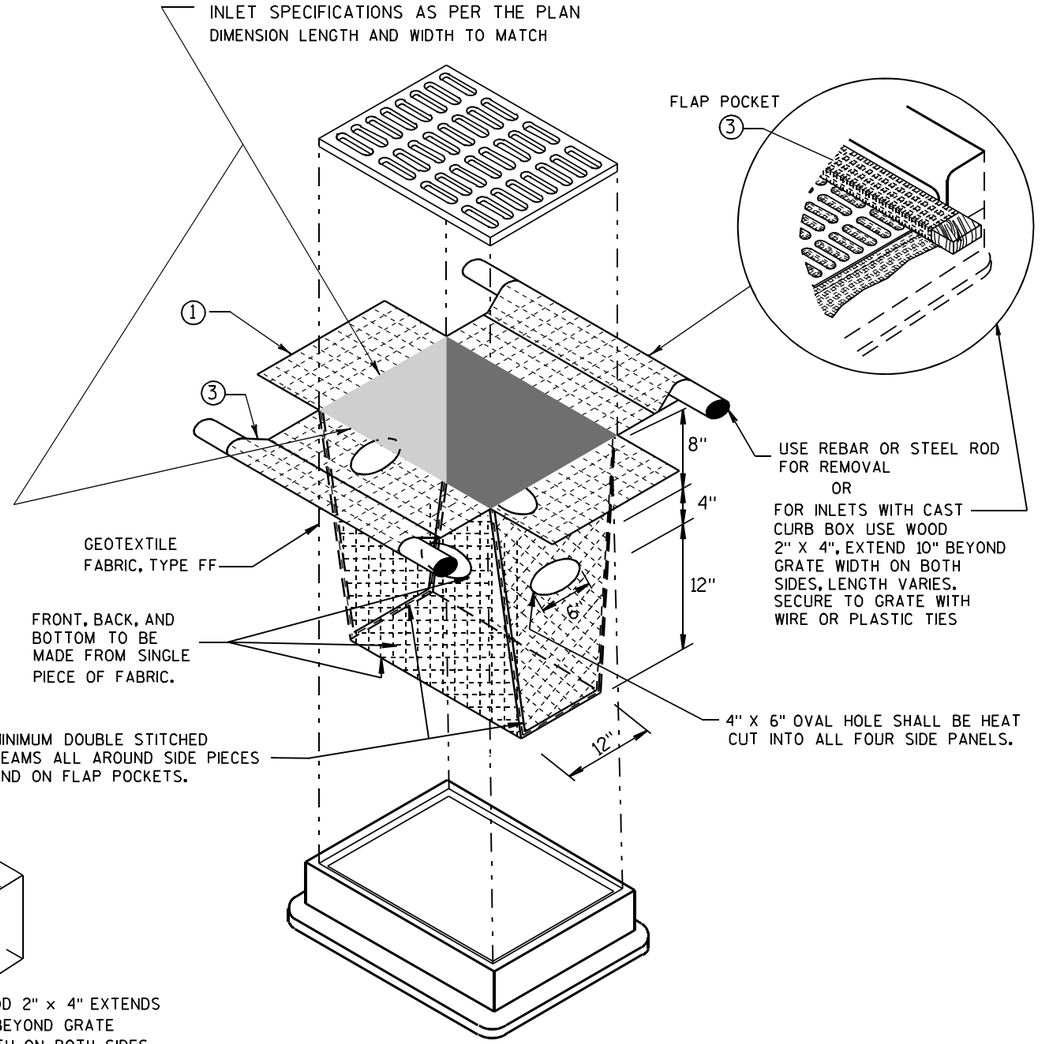


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

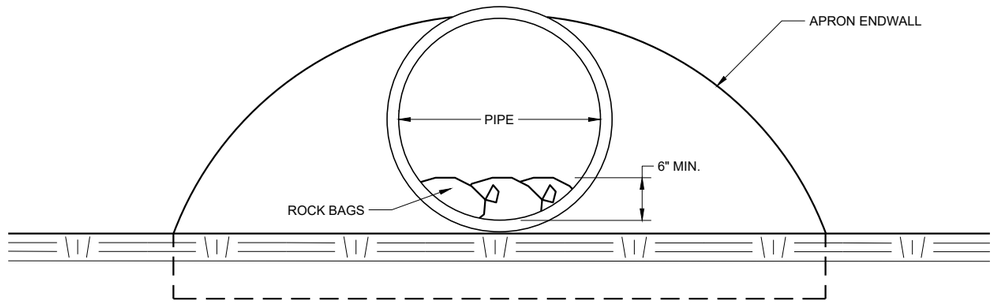
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

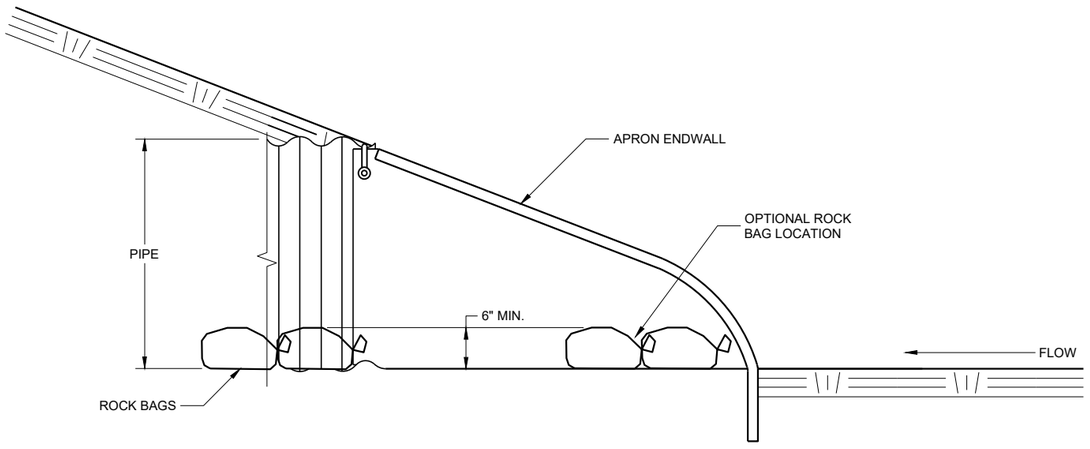
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

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SDD 08E15 - 01

METAL APRON ENDWALLS

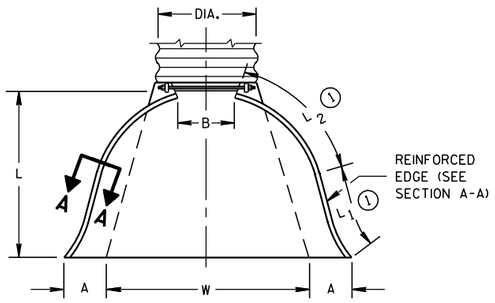
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

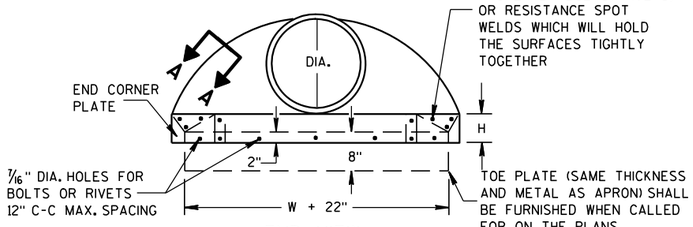
REINFORCED CONCRETE APRON ENDWALLS

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

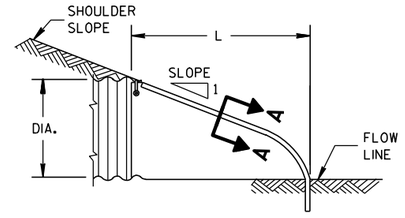
*MINIMUM
**MAXIMUM



PLAN VIEW

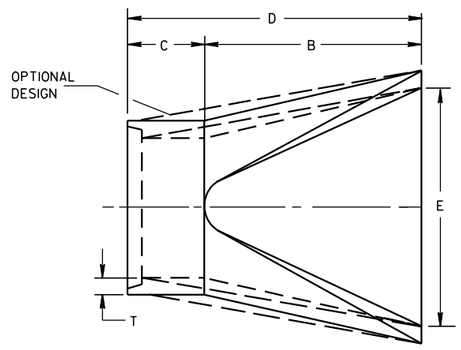


END VIEW

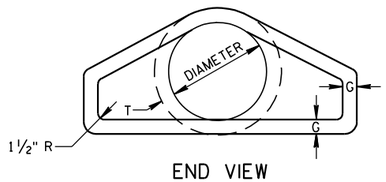


SIDE ELEVATION

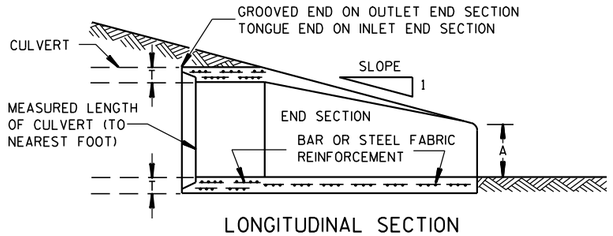
METAL ENDWALLS



PLAN

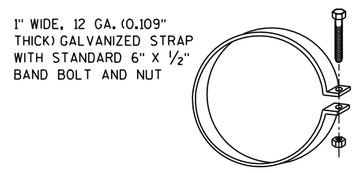


END VIEW



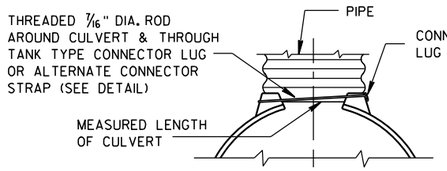
LONGITUDINAL SECTION

CONCRETE ENDWALLS

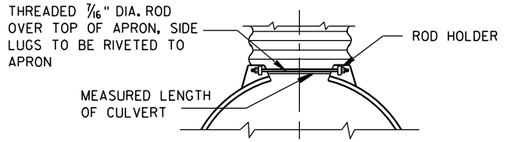


ALTERNATE FOR TYPE 1 CONNECTION

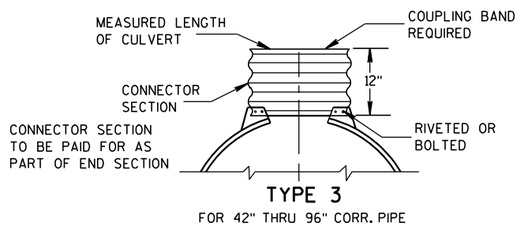
END SECTION CONNECTOR STRAP



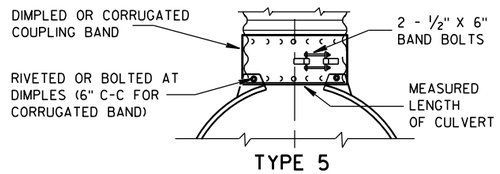
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

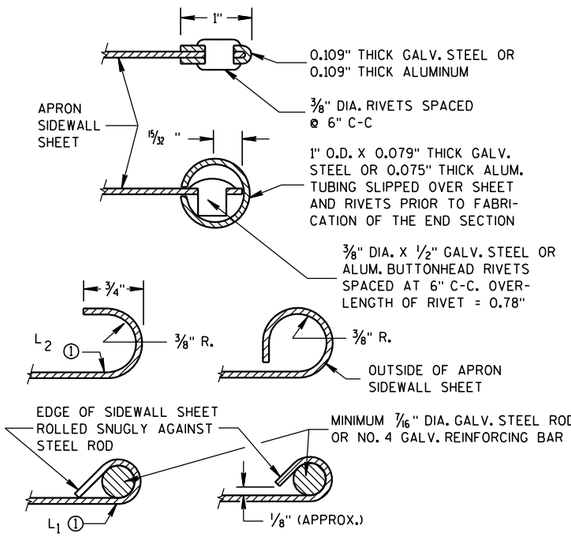
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

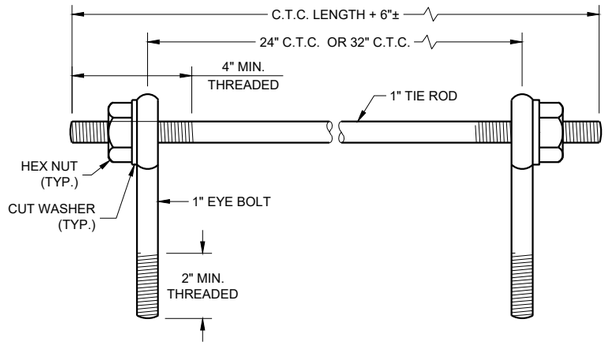
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

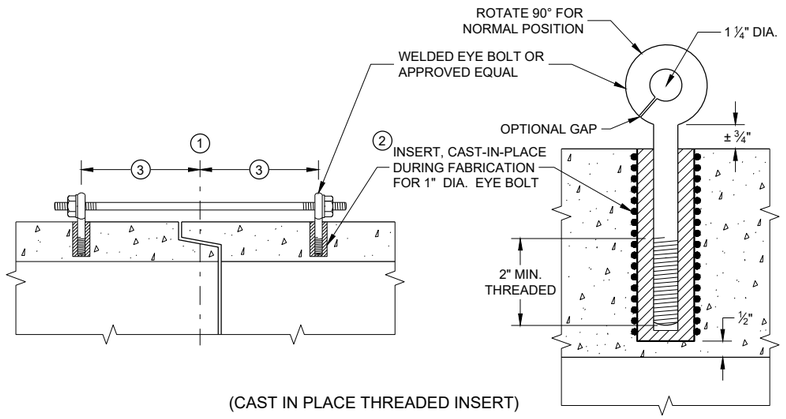
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

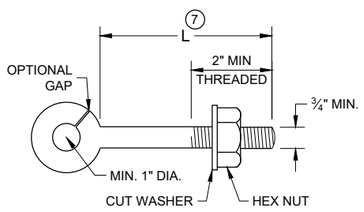
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

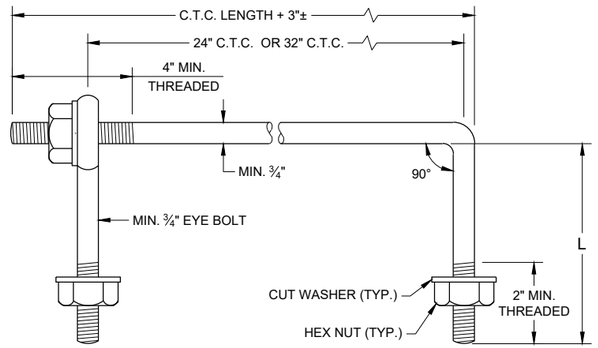
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

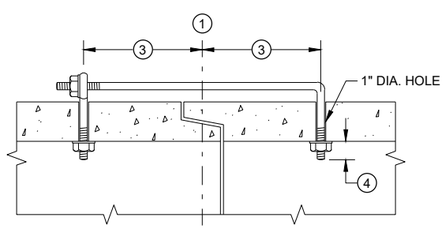


EYE BOLT (7)

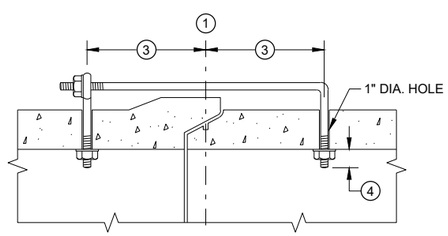
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

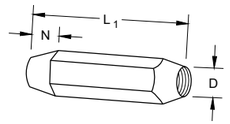
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



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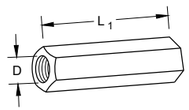
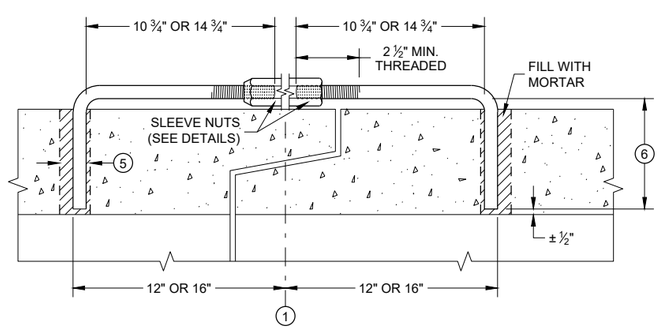


PLAIN

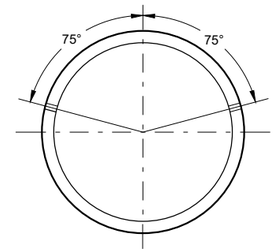
RIGHT AND LEFT THREADS

SLEEVE NUTS



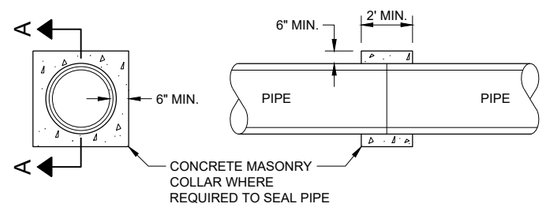
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

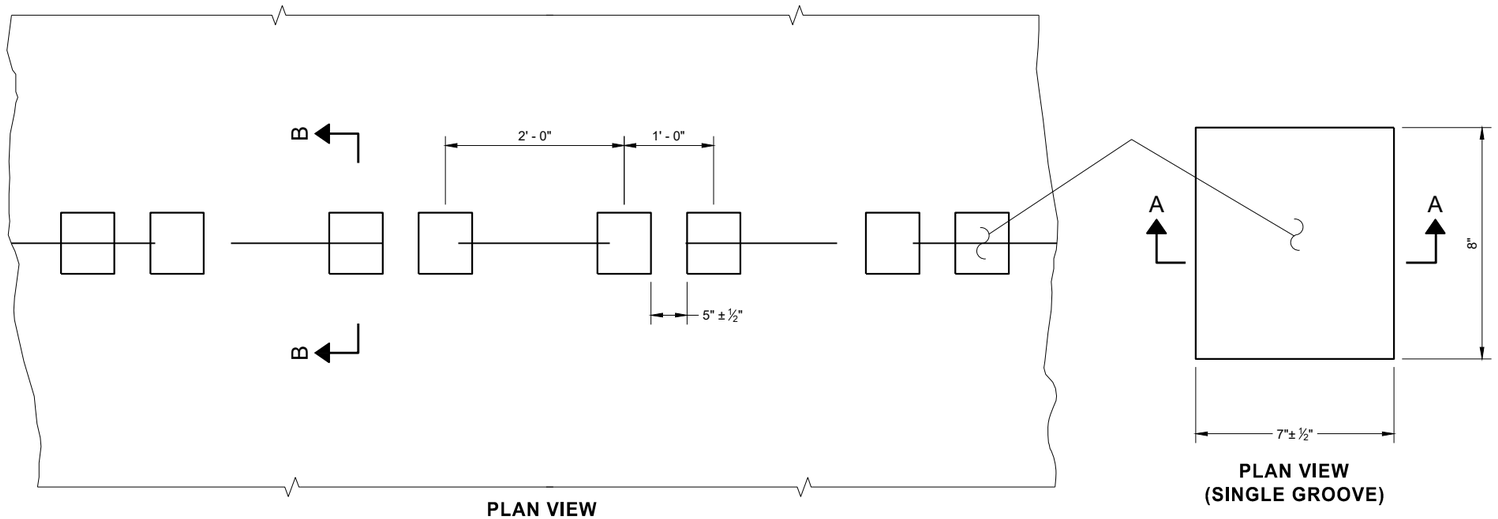
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

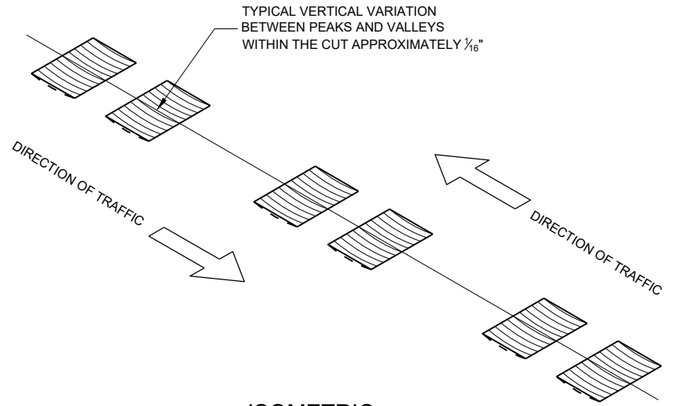
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

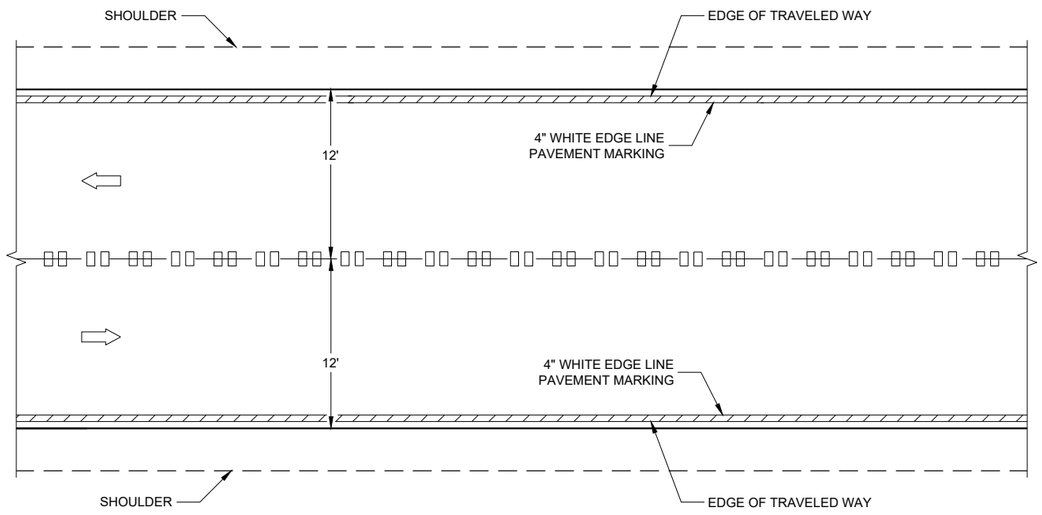
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

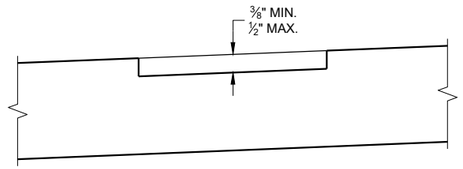
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



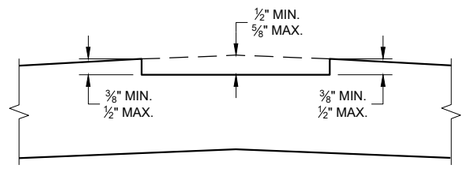
ISOMETRIC



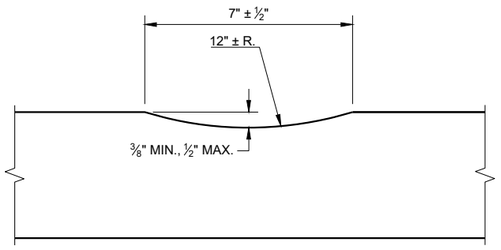
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

6

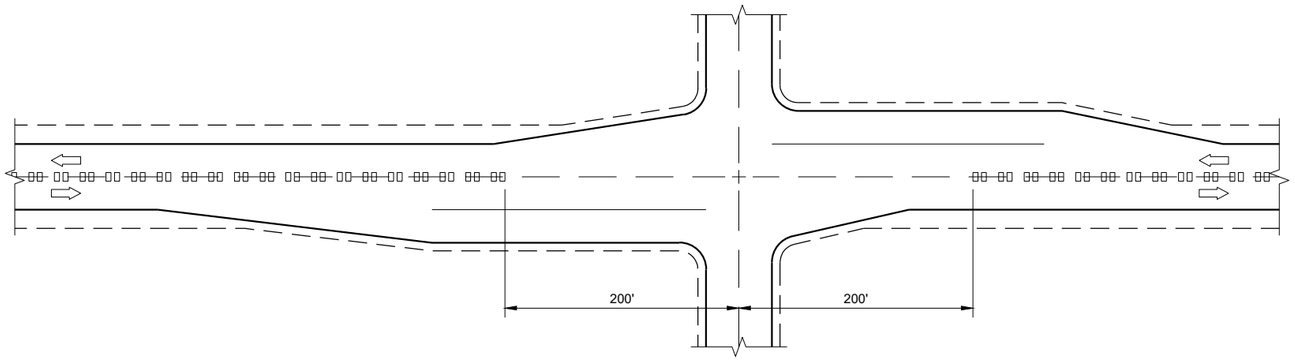
SDD 13A11 - 03a

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

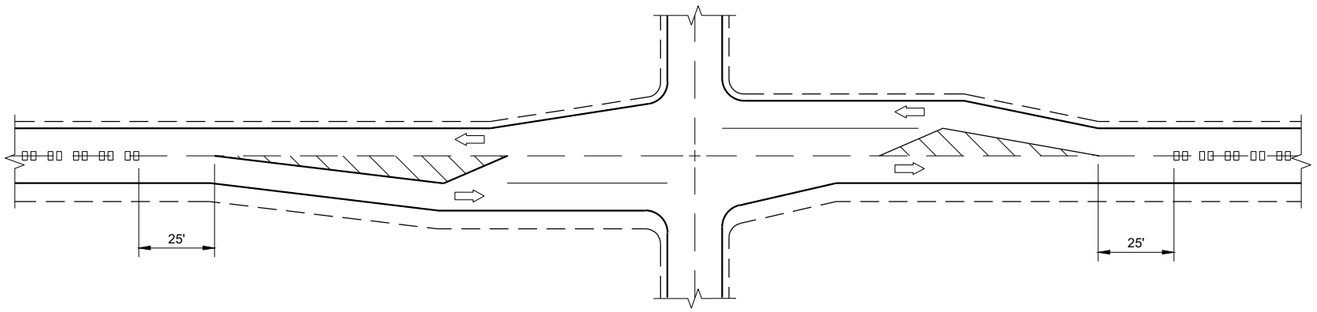
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

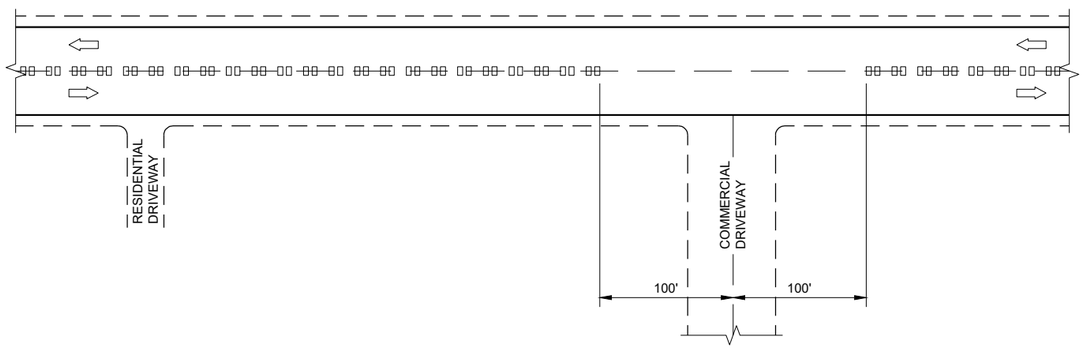
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



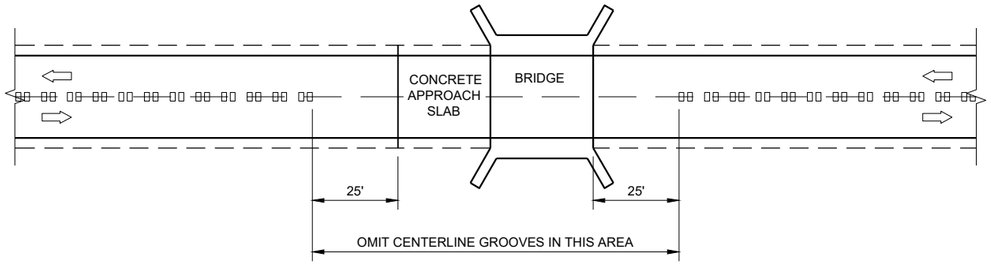
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



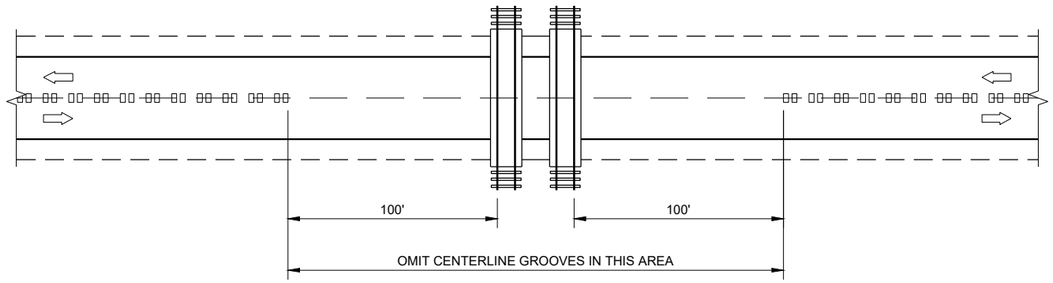
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

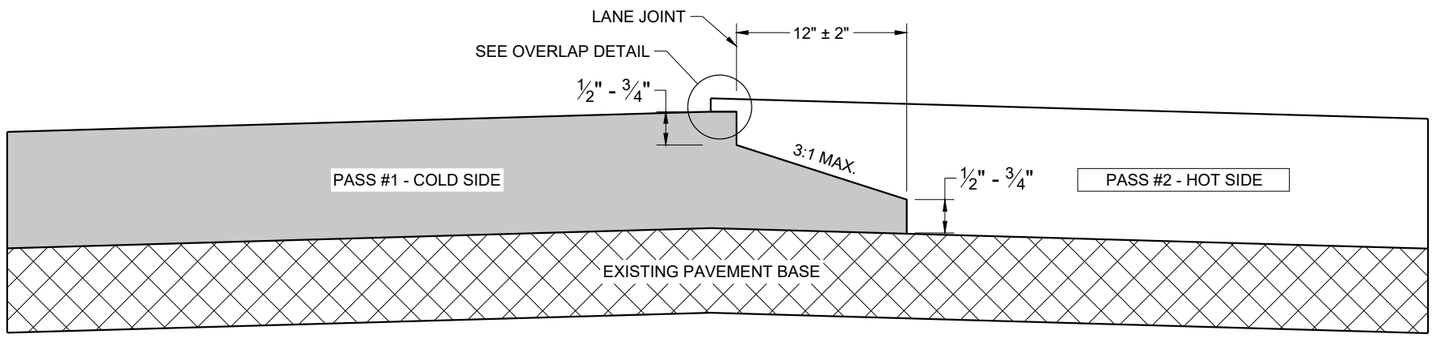
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

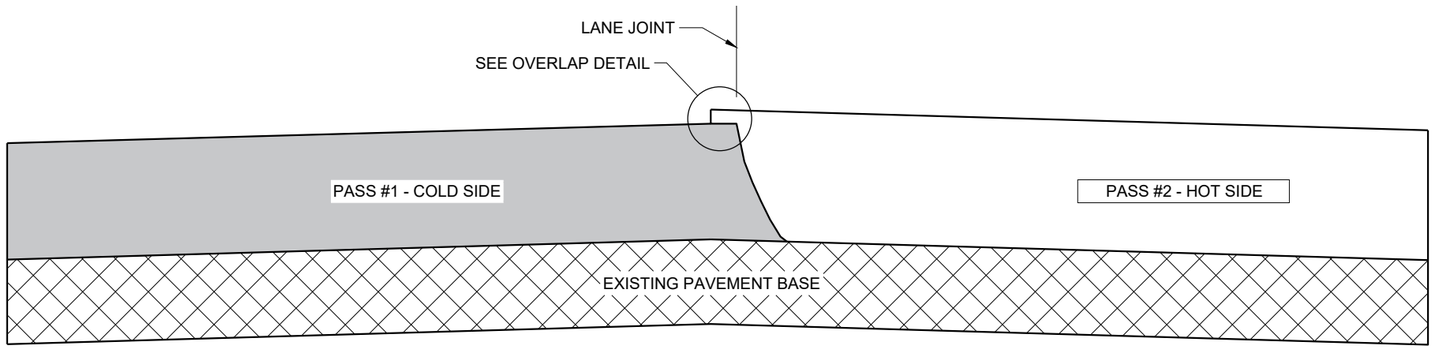
FHWA

6

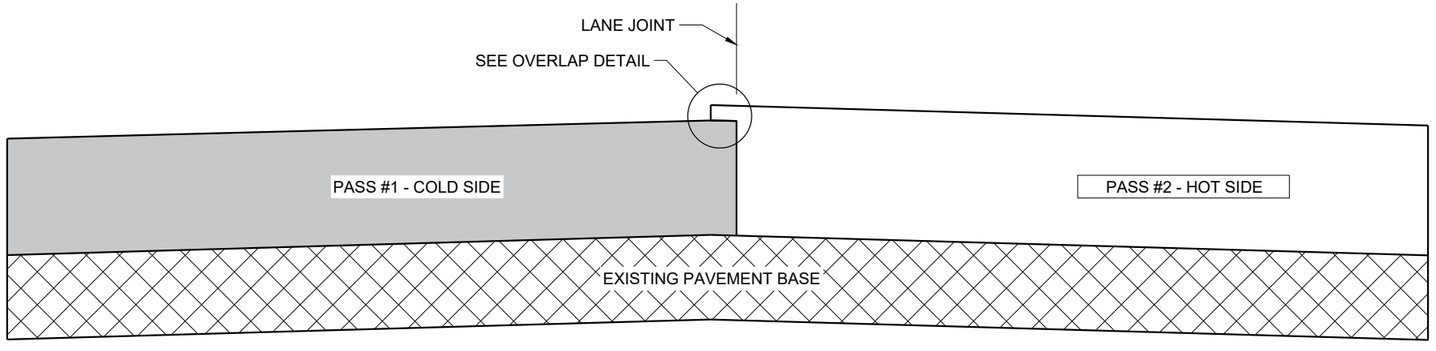
SDD 13A11 - 03b
SDD 13A11 - 03b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

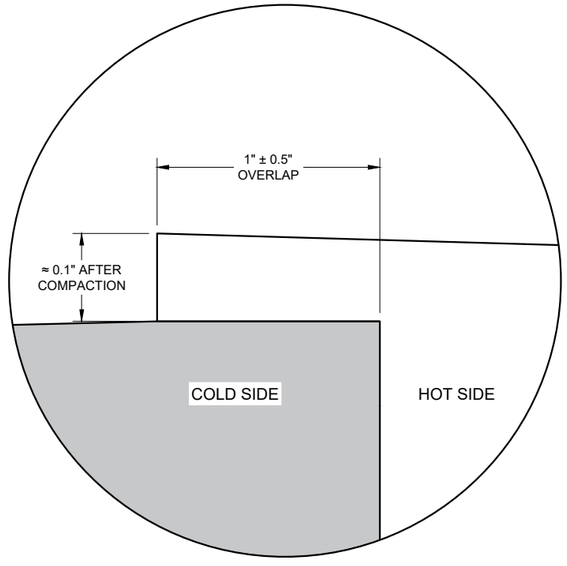
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

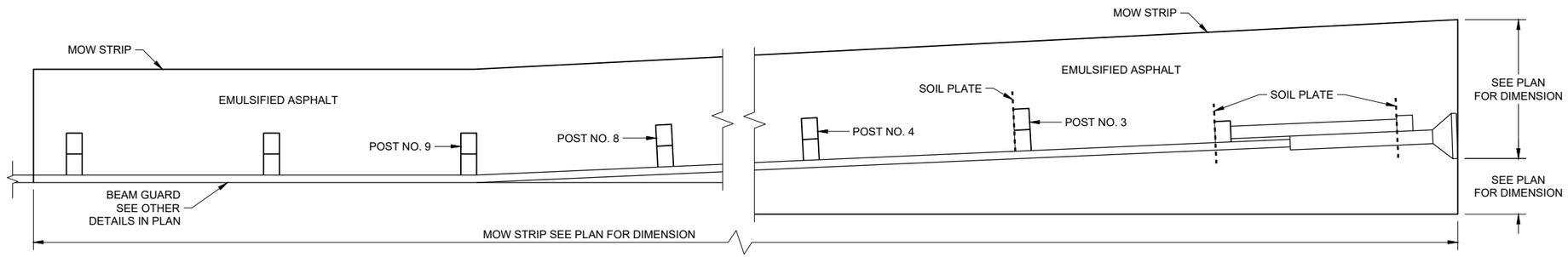
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



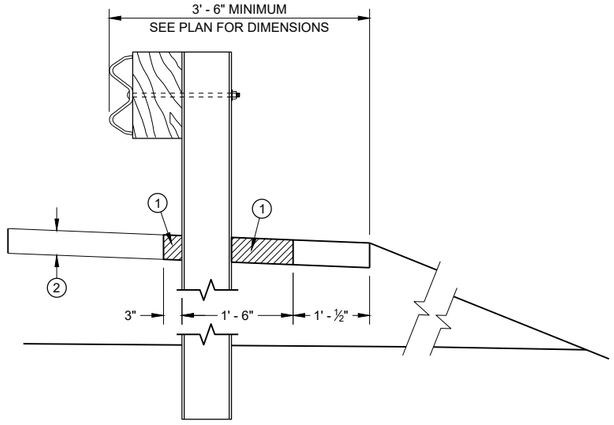
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

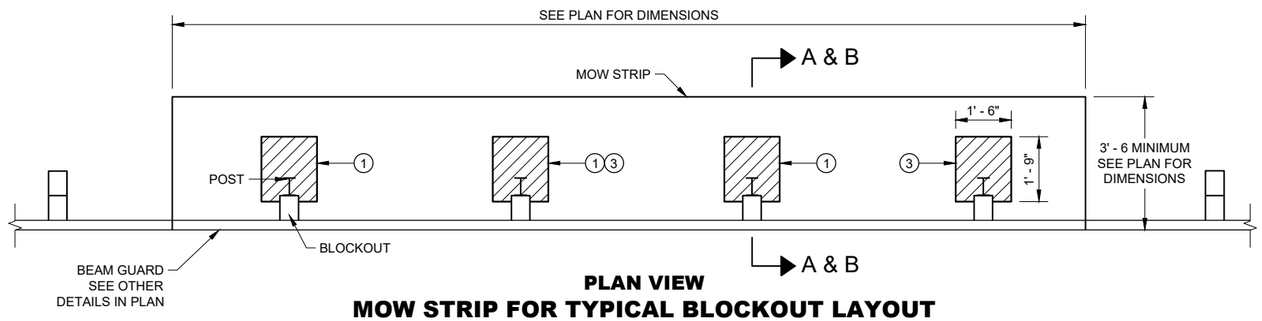
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

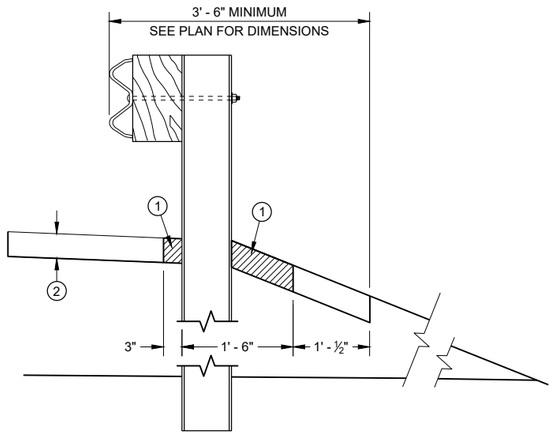


SECTION A - A

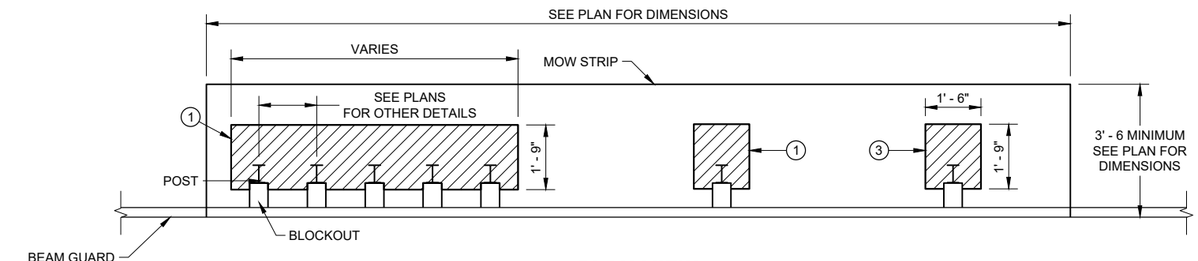


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

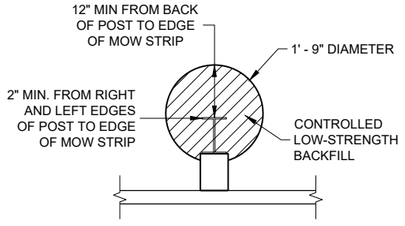


SECTION B - B

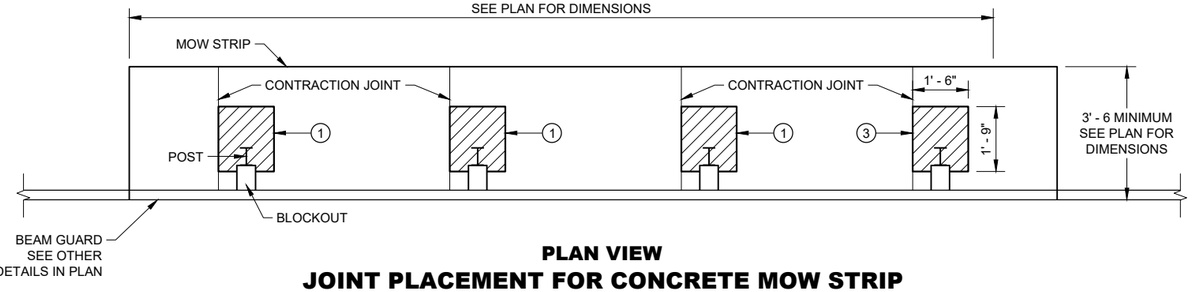


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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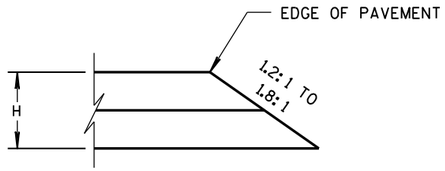
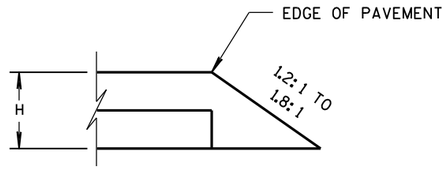
SDD 14B28 - 04a



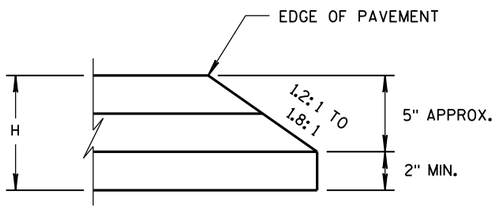
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



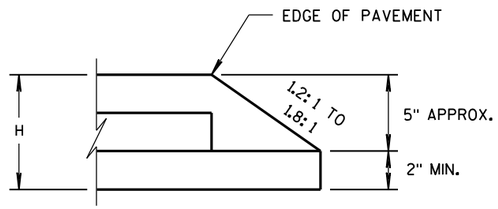
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

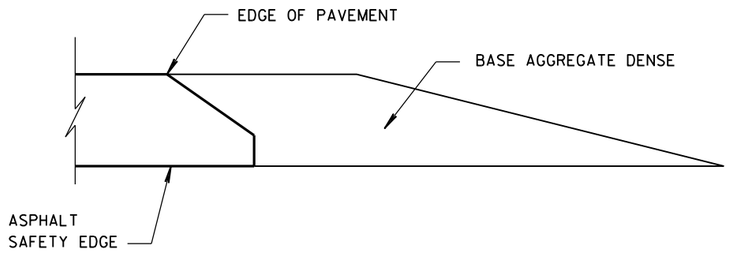
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

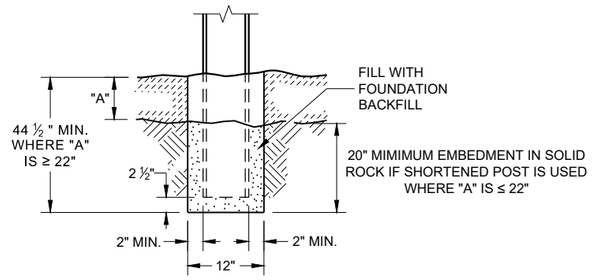
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

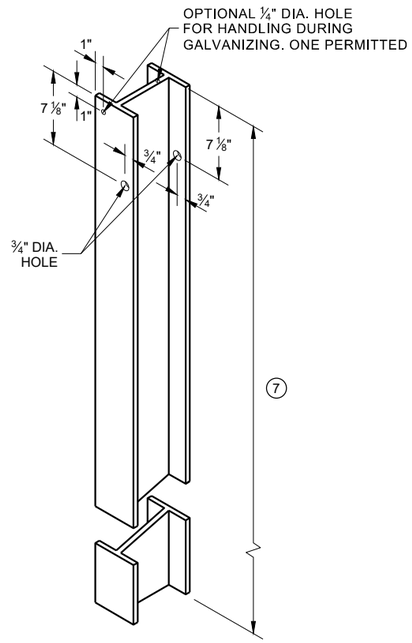
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

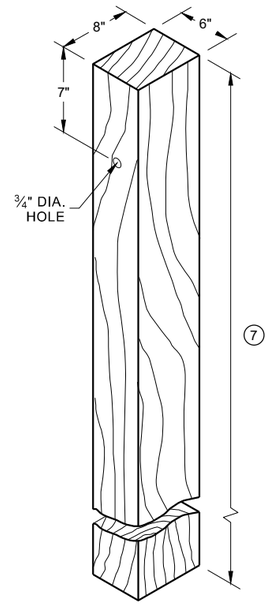
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



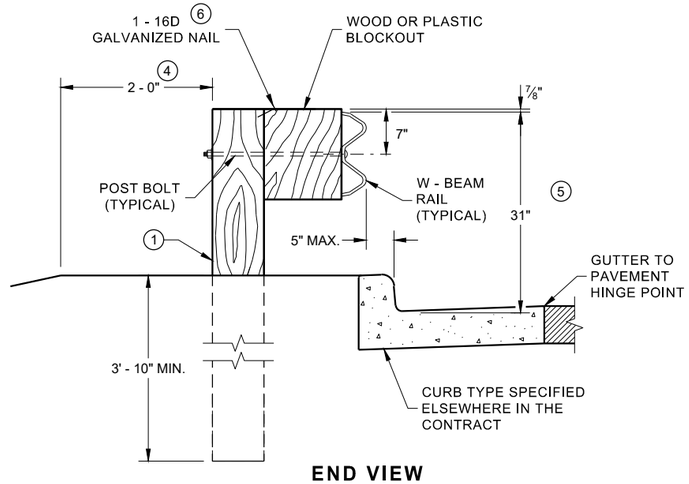
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



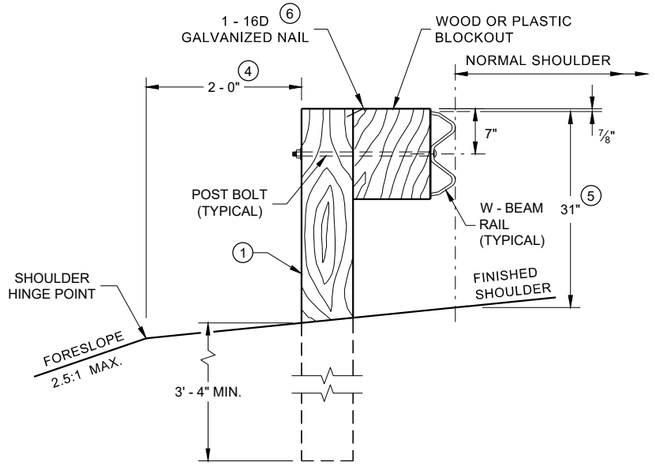
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



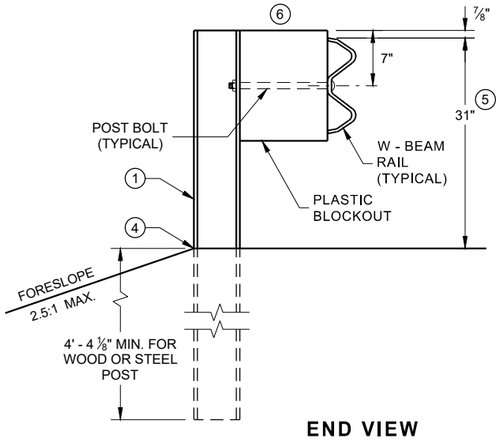
WOOD POST (6" X 8") NOMINAL (1)



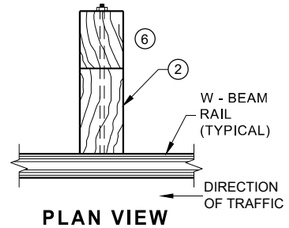
END VIEW
LOCATED ALONG A CURBED ROADWAY



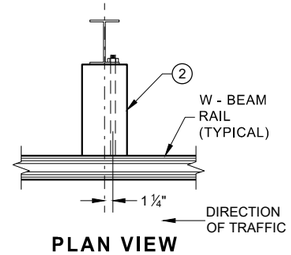
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



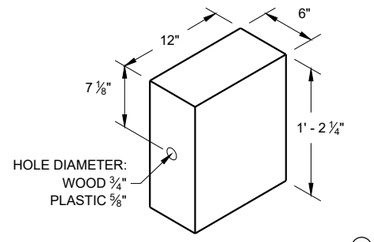
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

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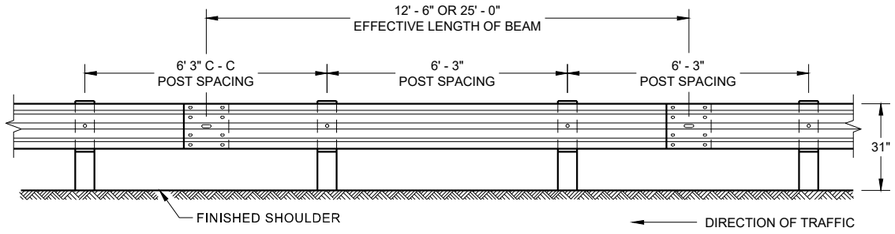
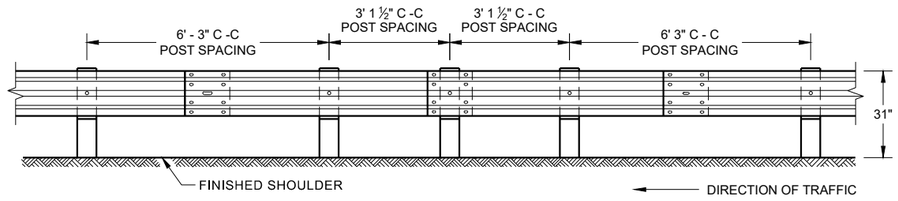
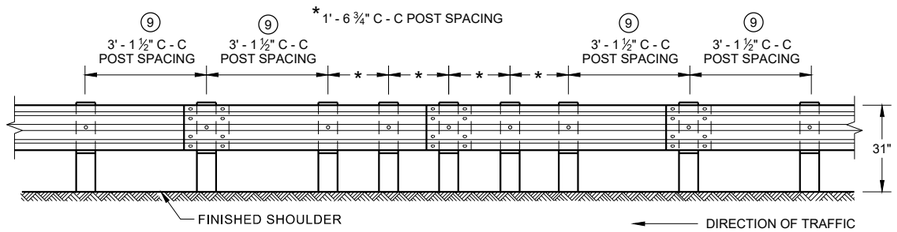


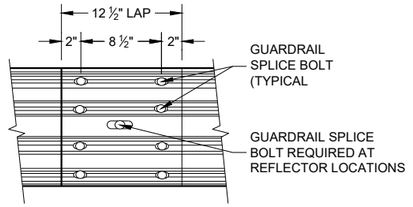
FRONT VIEW
POST SPACING STANDARD INSTALLATION



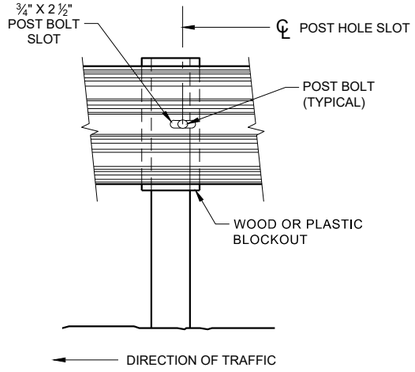
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



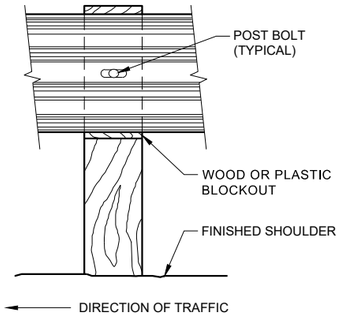
FRONT VIEW
QUARTER POST SPACING (QS)



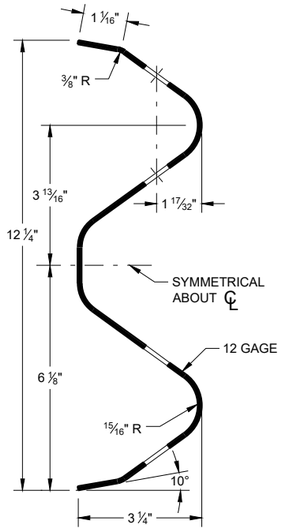
FRONT VIEW
MID-SPAN BEAM SPLICE



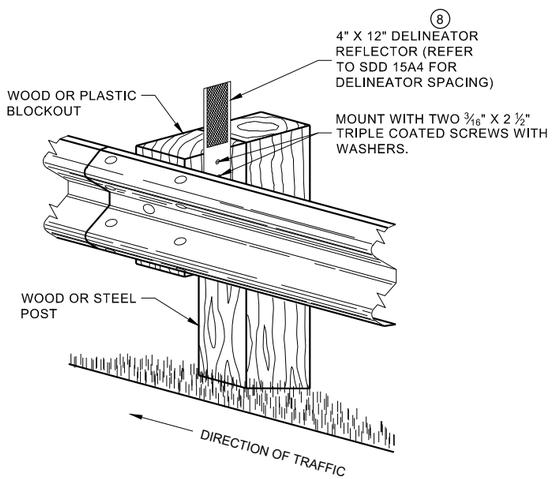
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
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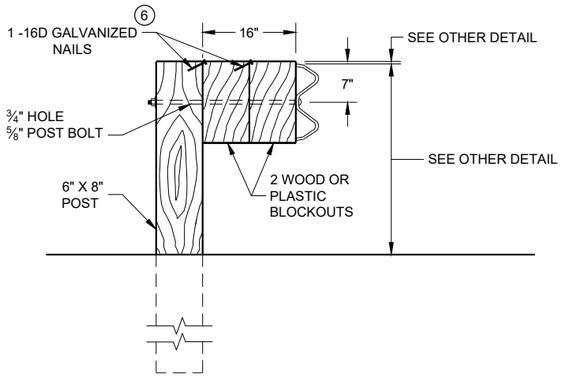
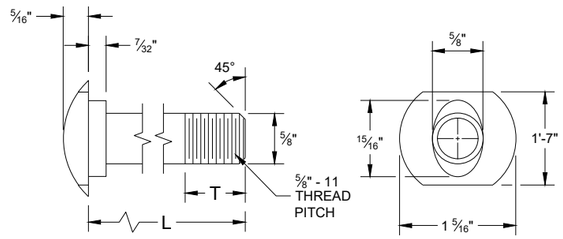


DETAIL FOR 16" BLOCKOUT DEPTH

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

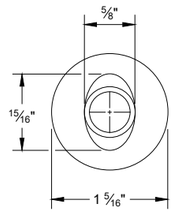
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

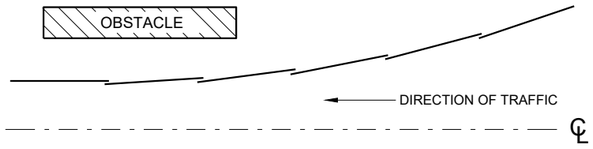


POST BOLT TABLE

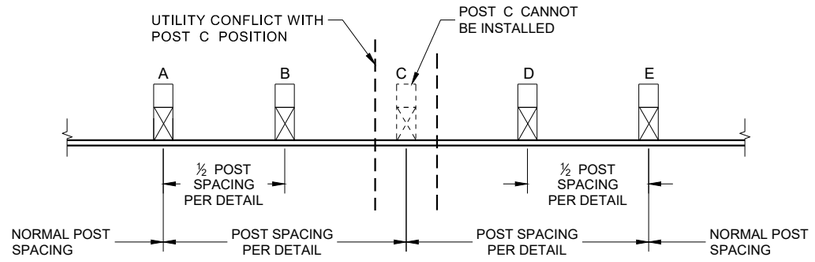
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



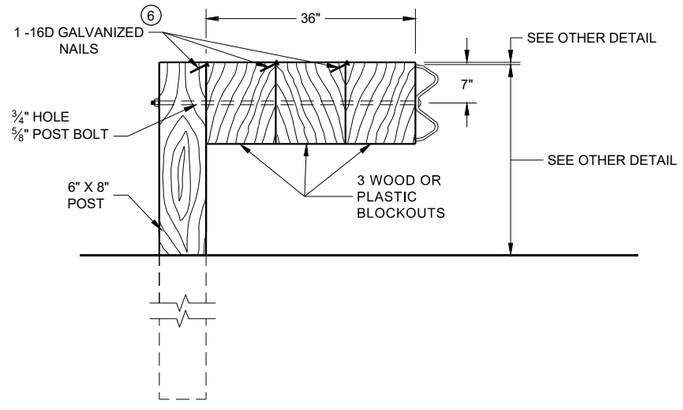
ALTERNATE BOLT HEAD



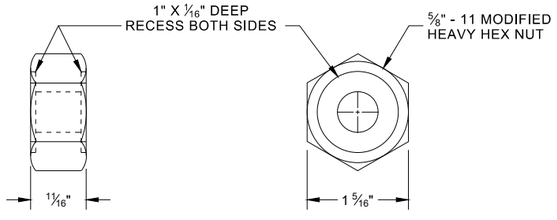
PLAN VIEW
BEAM LAPPING DETAIL



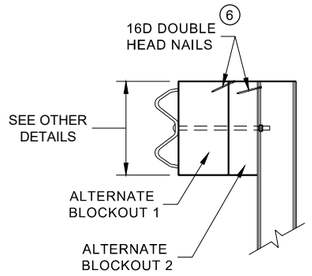
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



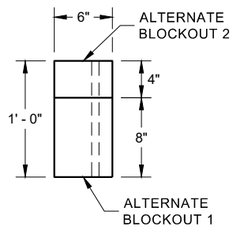
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

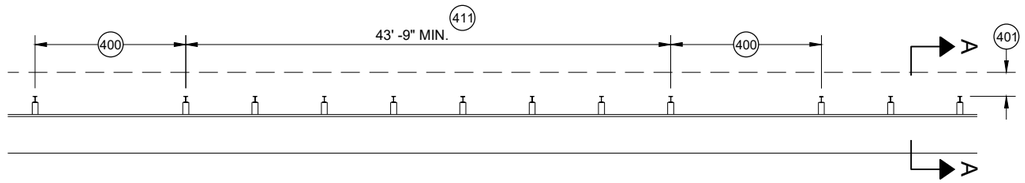
ALTERNATE WOOD BLOCKOUT DETAIL

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

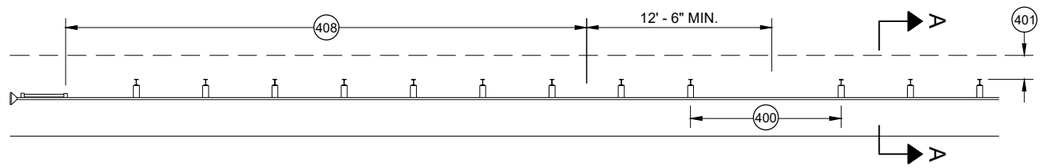
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

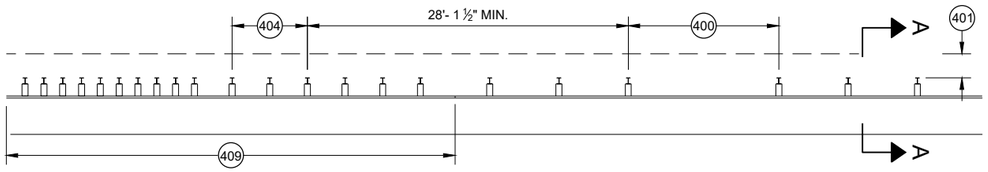
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



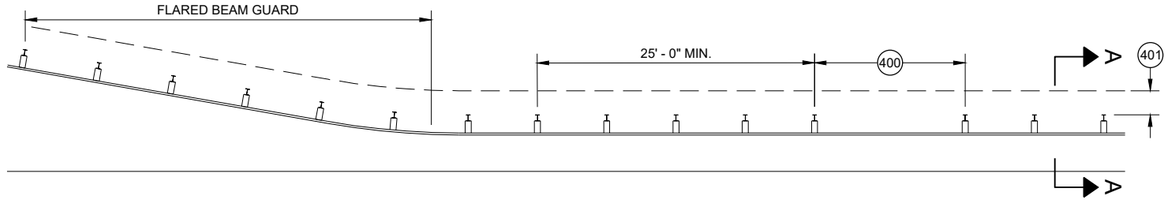
MISSING POST IN MGS GUARDRAIL



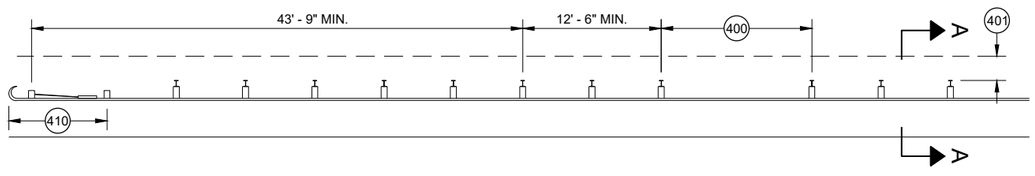
MISSING POST IN MGS GUARDRAIL NEAR EAT



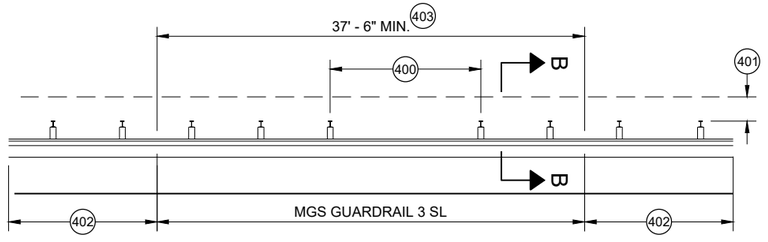
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

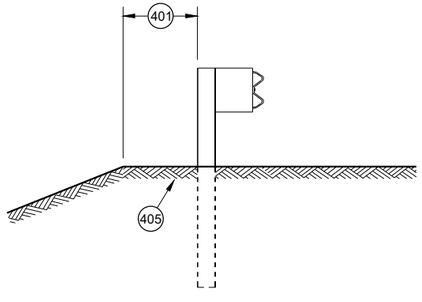


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

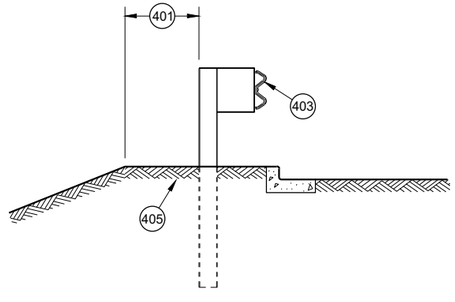


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

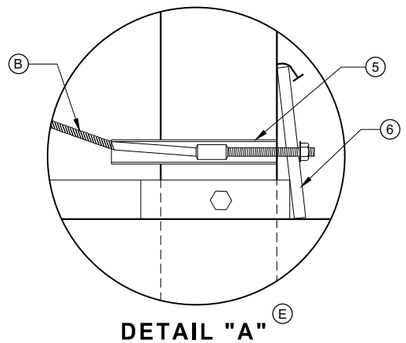
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

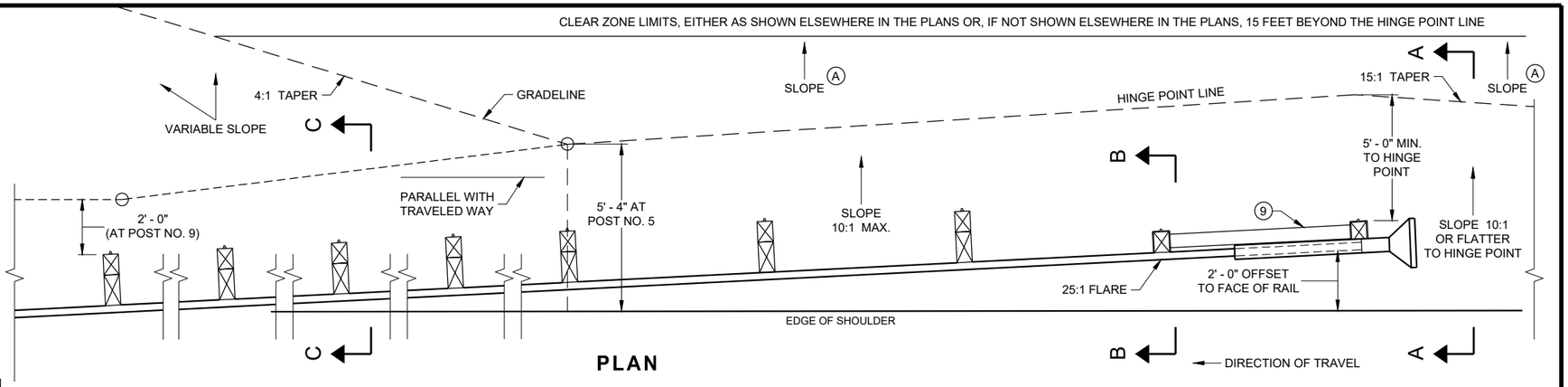
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

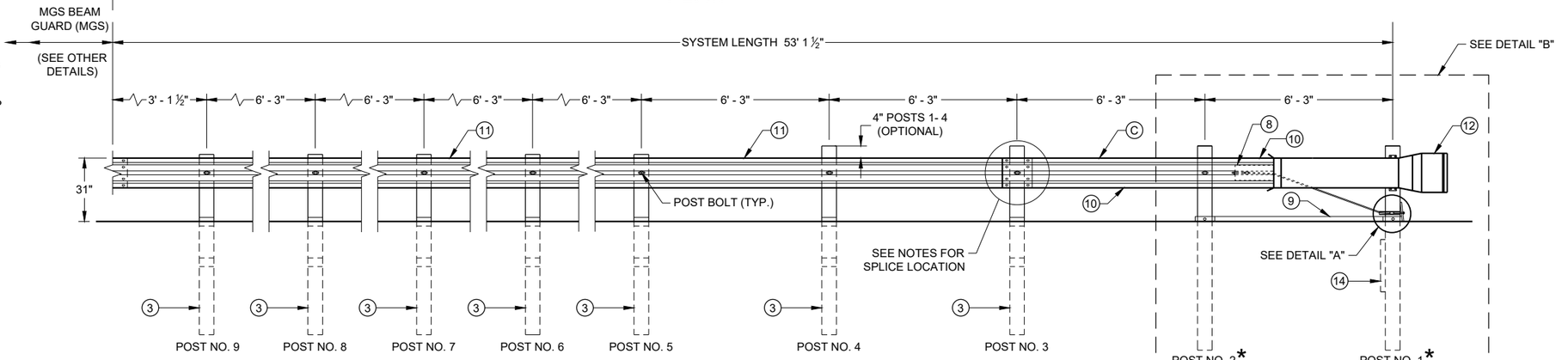
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



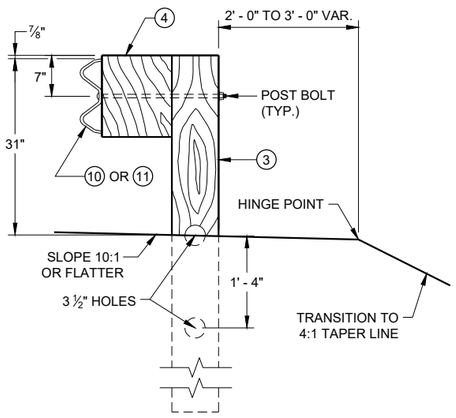
DETAIL "A" (E)



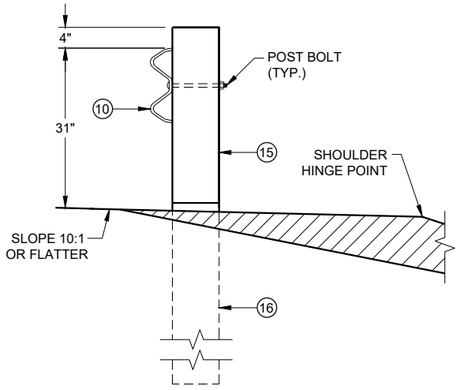
PLAN



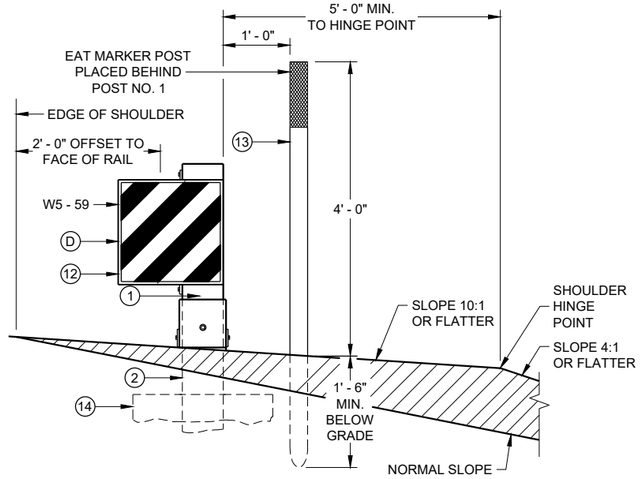
ELEVATION



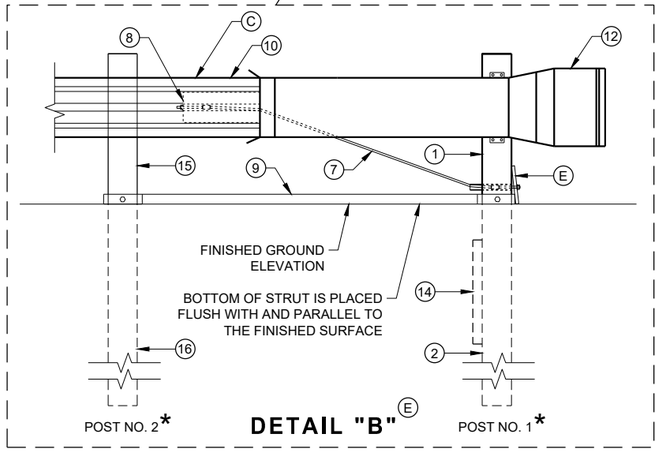
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



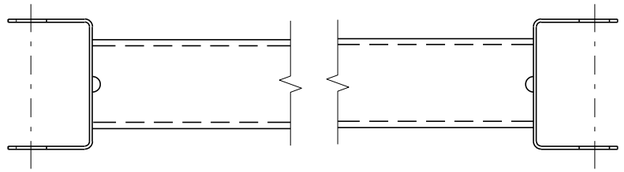
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

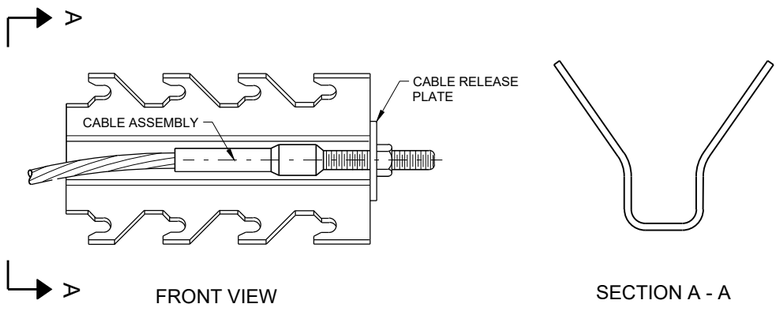
SDD 14B44 - 04a



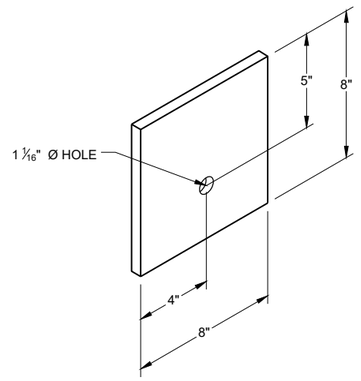
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

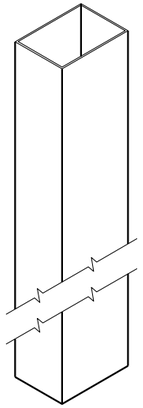
6

SDD 14B44 - 04b

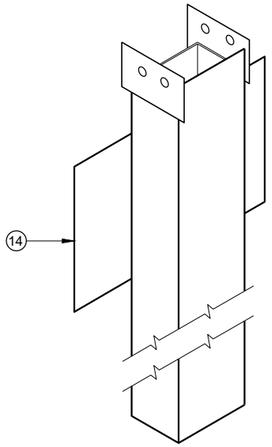
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

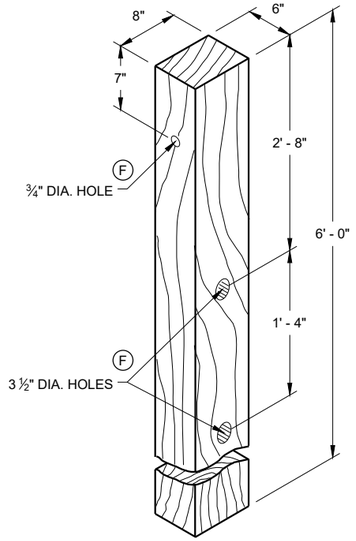
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



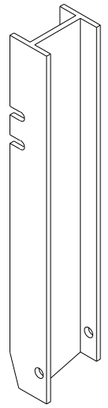
UPPER POST NO. 1 (1) (E)



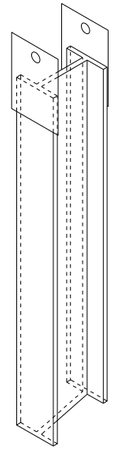
LOWER POST NO. 1 (2) (E)



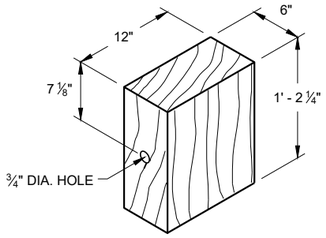
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



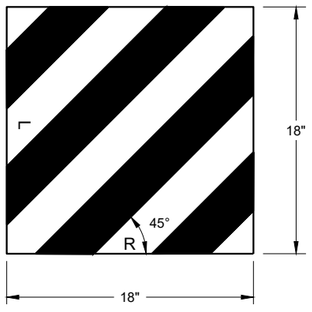
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

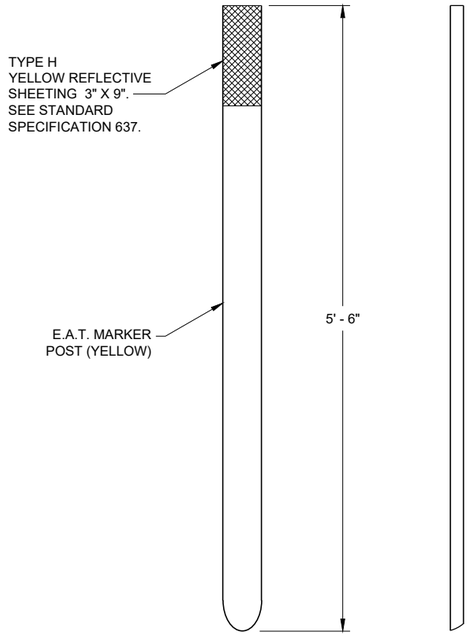


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



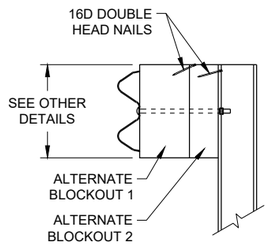
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

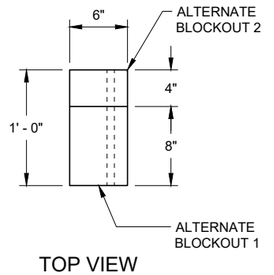


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

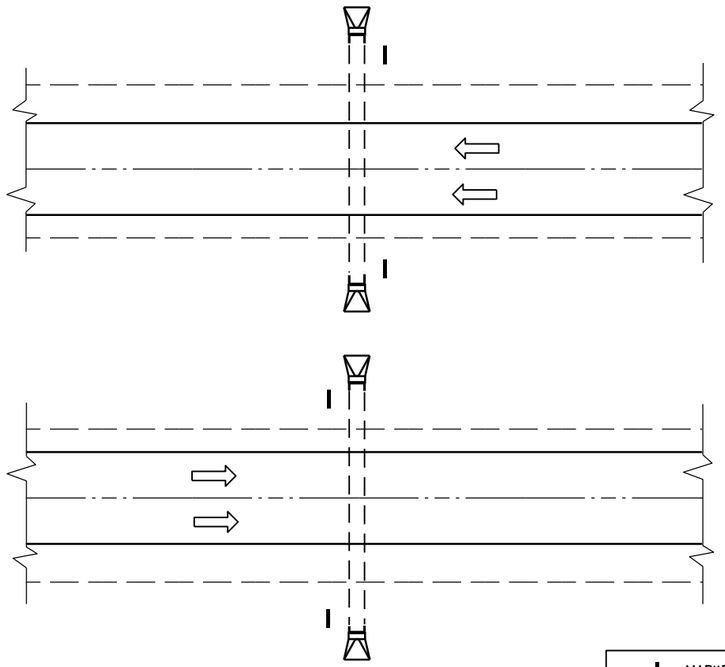
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

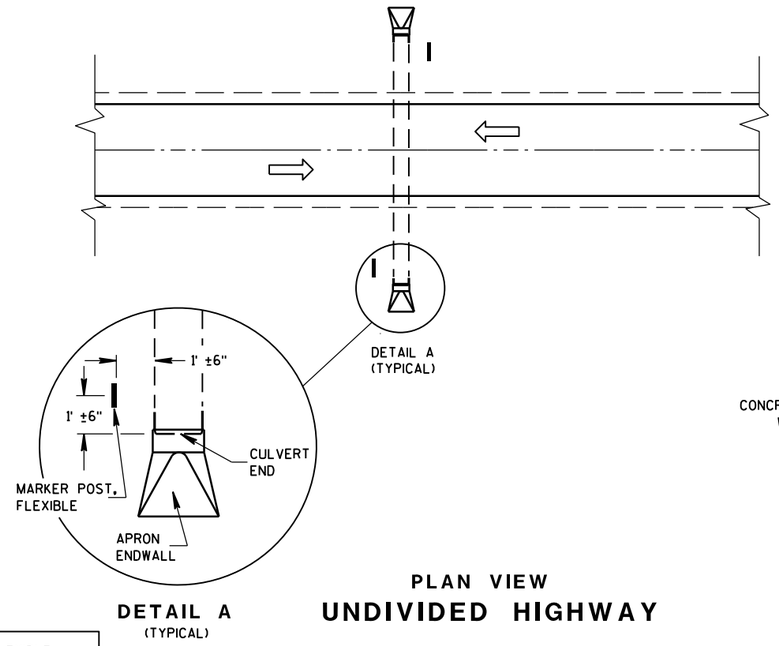
6

SDD 14B44 - 04c
SDD 14B44 - 04c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

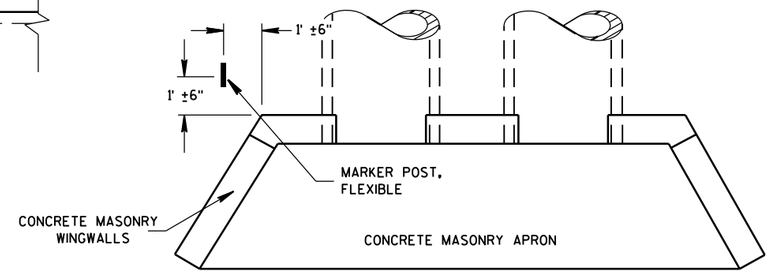
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

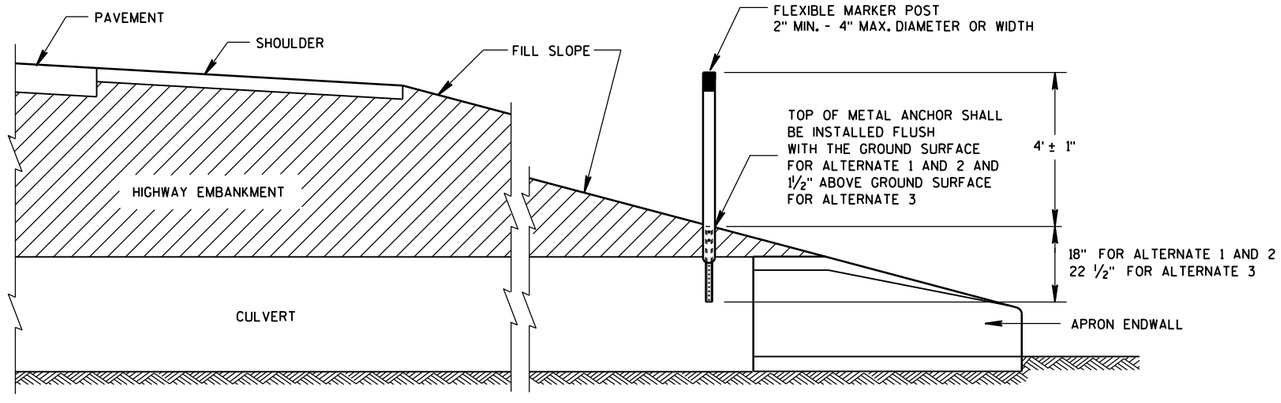
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

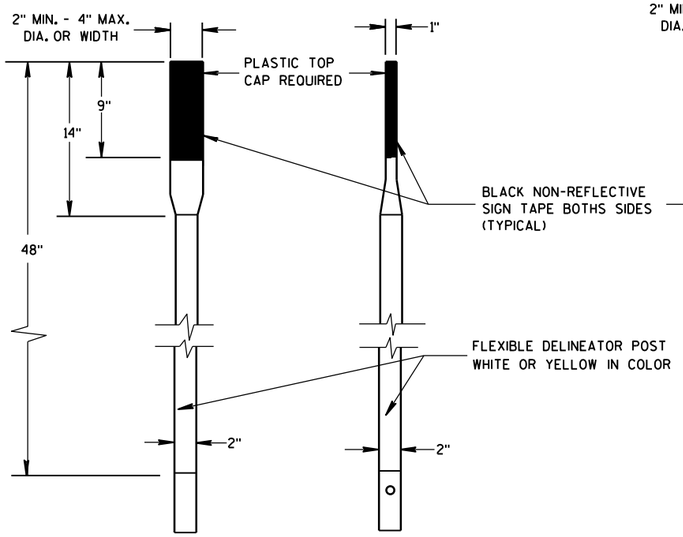
FLEXIBLE MARKER POST

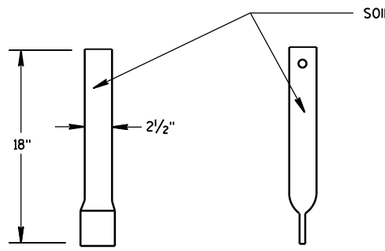
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

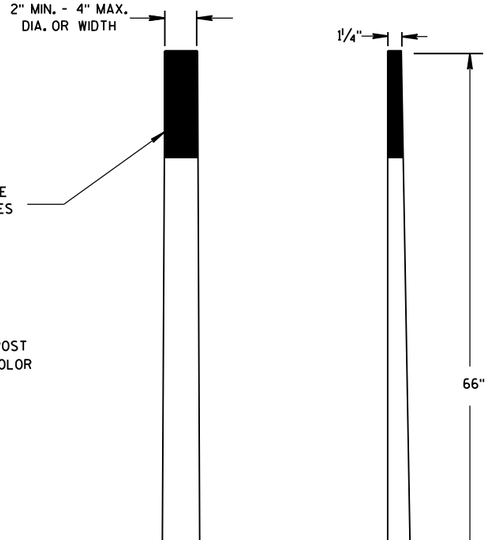
S.D.D. 15 A 3-2a





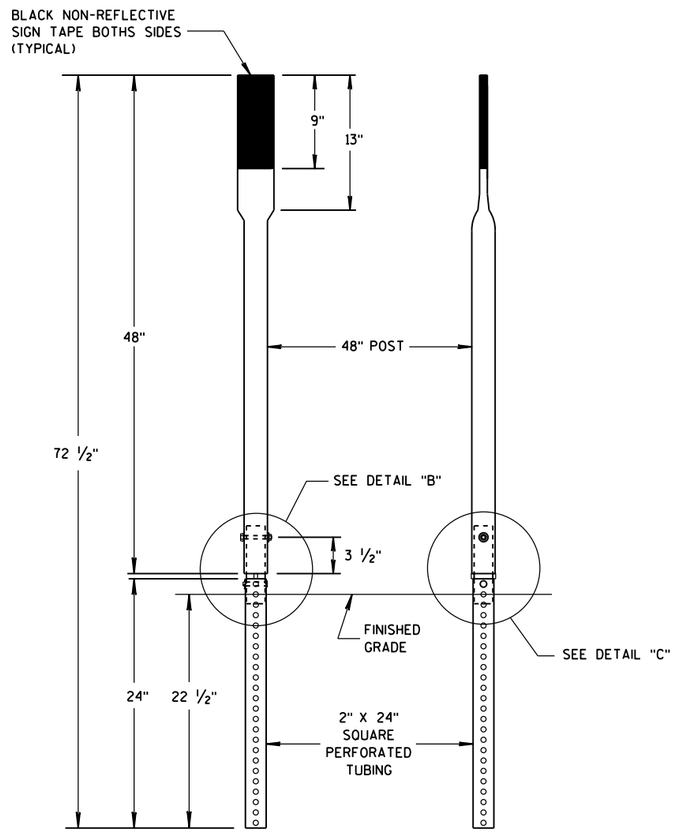
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

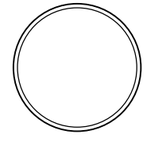
ALTERNATE 2



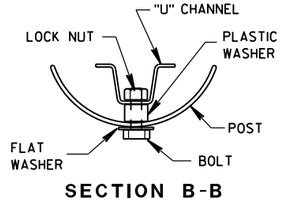
FRONT VIEW SIDE VIEW

ALTERNATE 3

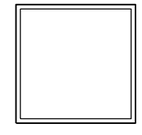
FLEXIBLE MARKER POSTS



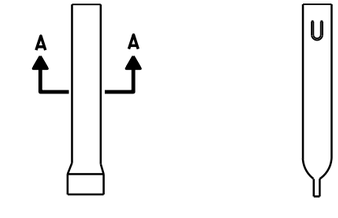
SECTION A-A



SECTION B-B

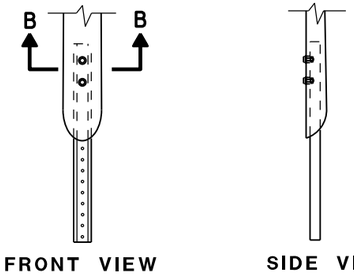


SECTION C-C



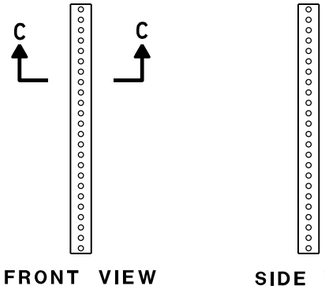
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

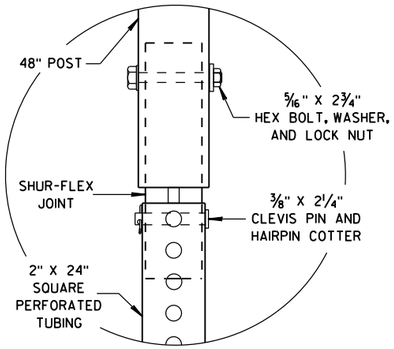
ALTERNATE 2



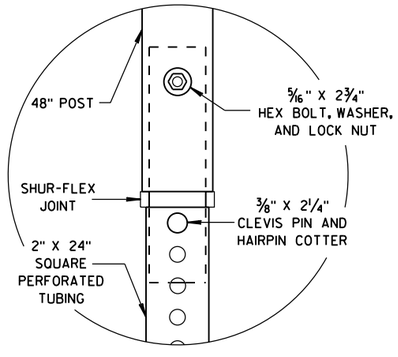
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
77
IGN
FHWA

6

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

6

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

GENERAL NOTES

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

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

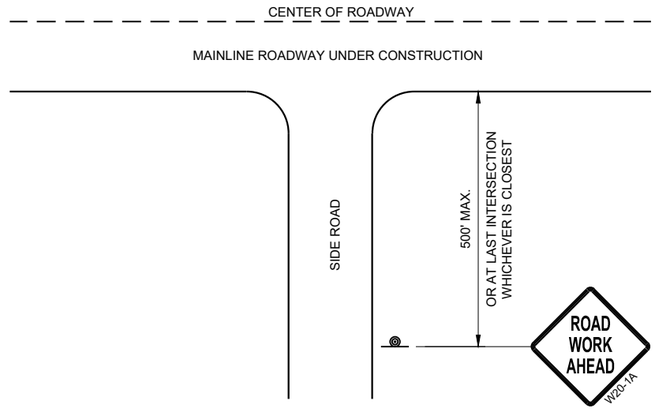
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



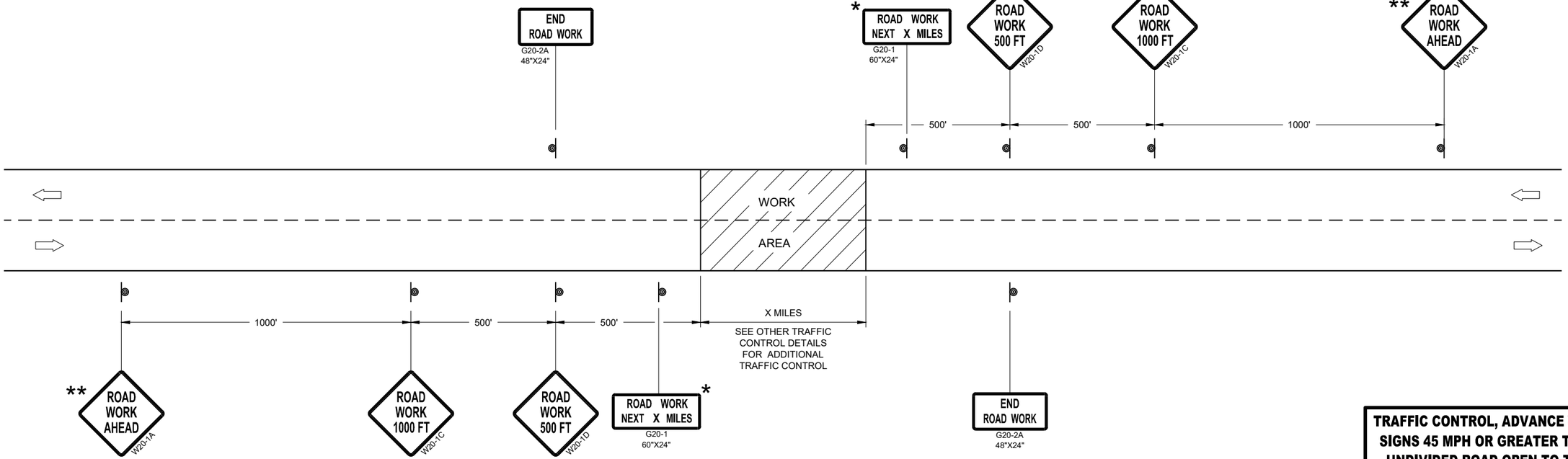
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

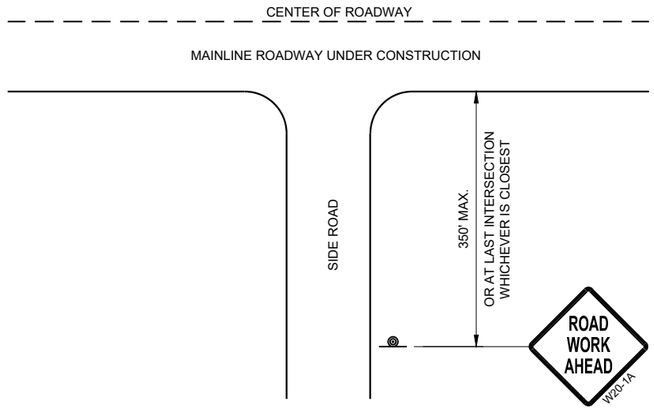
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



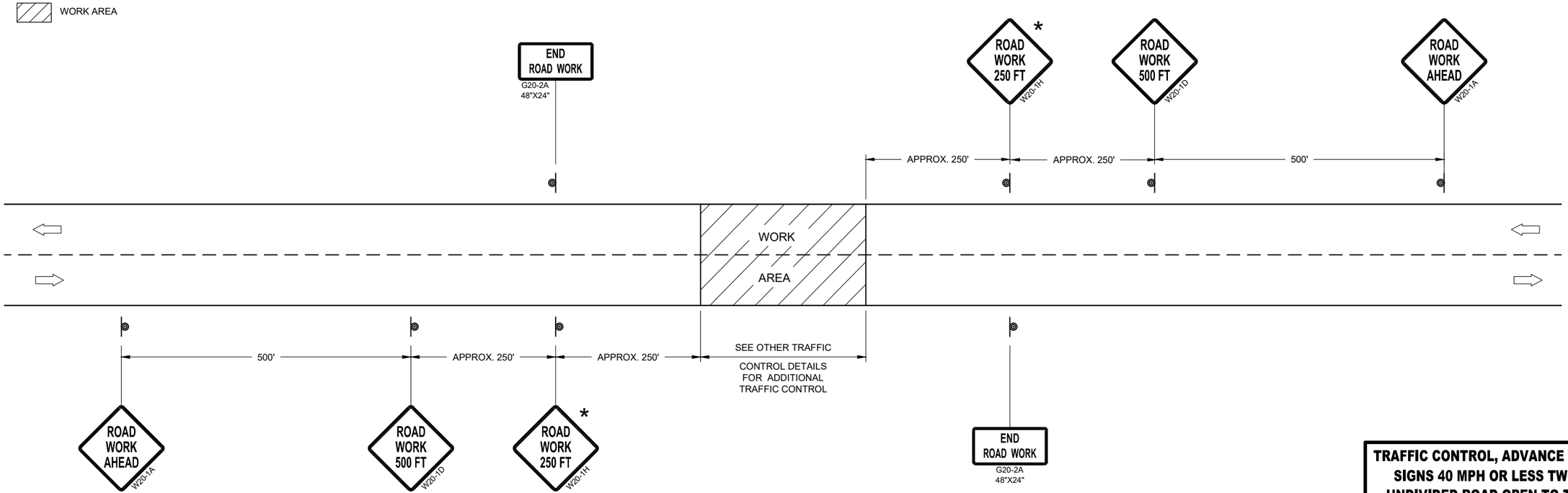
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C05 - 05

GENERAL NOTES

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

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

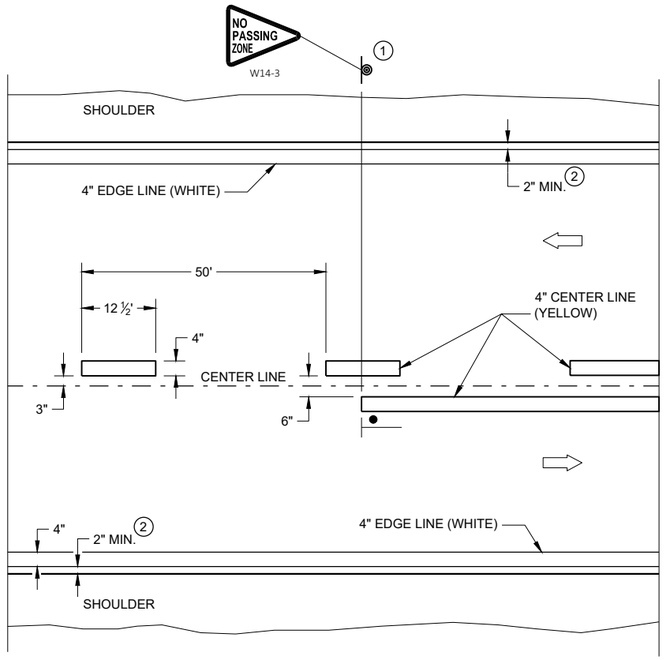
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

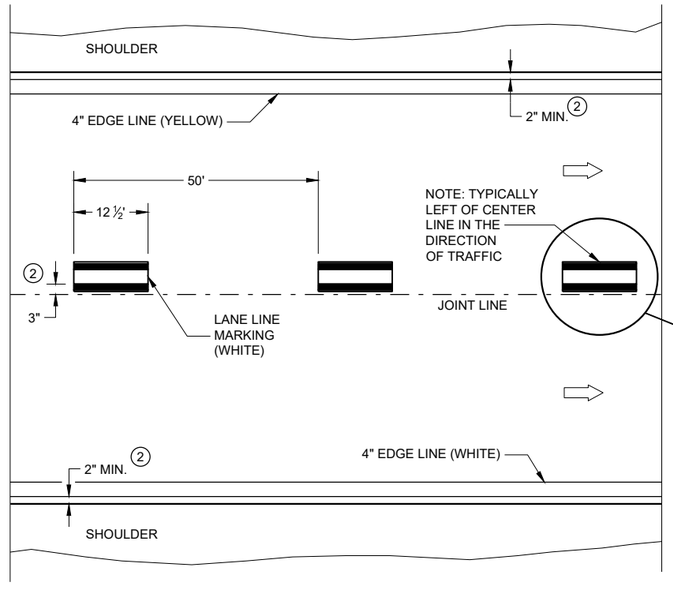
"T" MARKING

SIGN ON PERMANENT SUPPORT

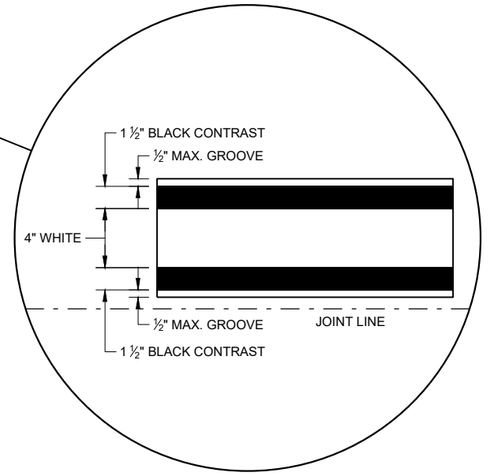
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

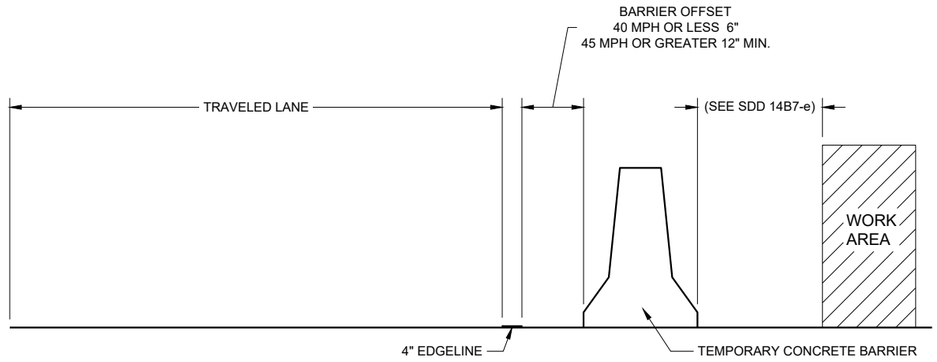
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

SDD 15C08 - 21a

SDD 15C08 - 21a



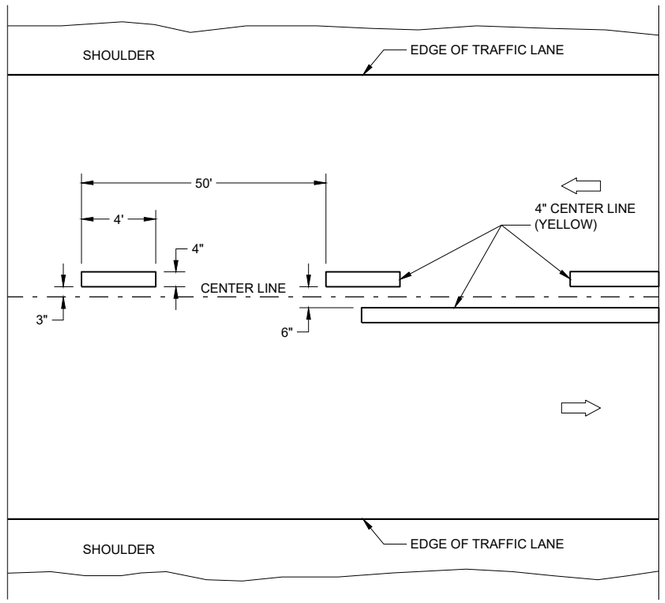
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

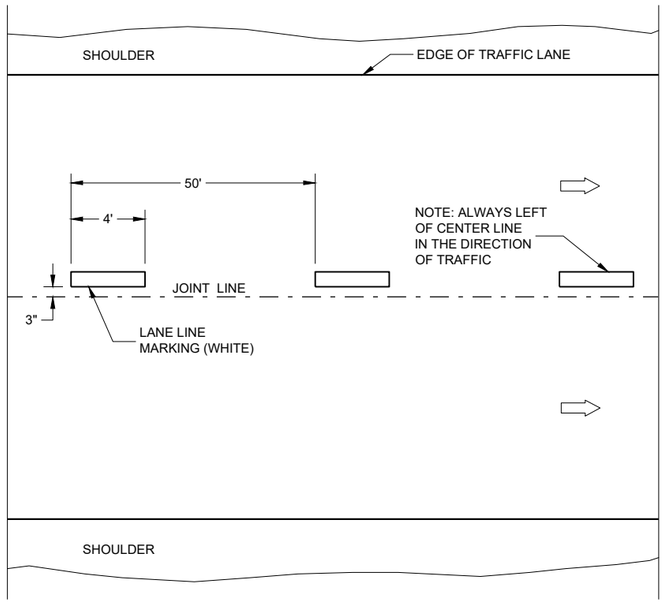
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

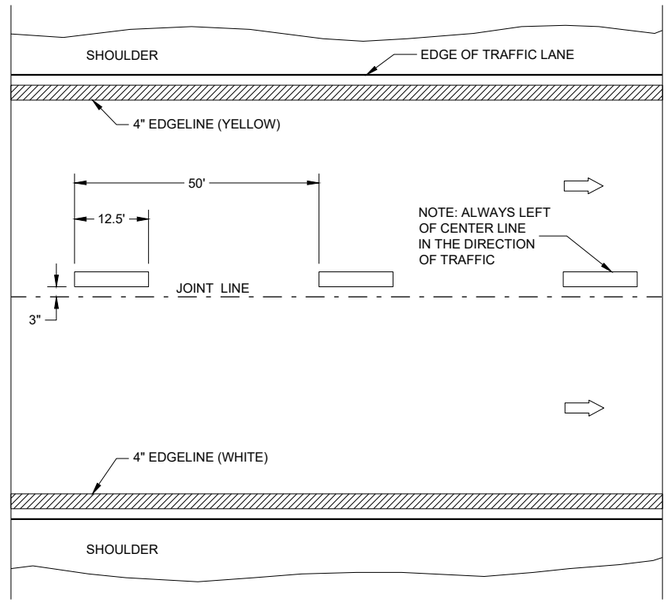
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

6

SDD 15C08 - 21b

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

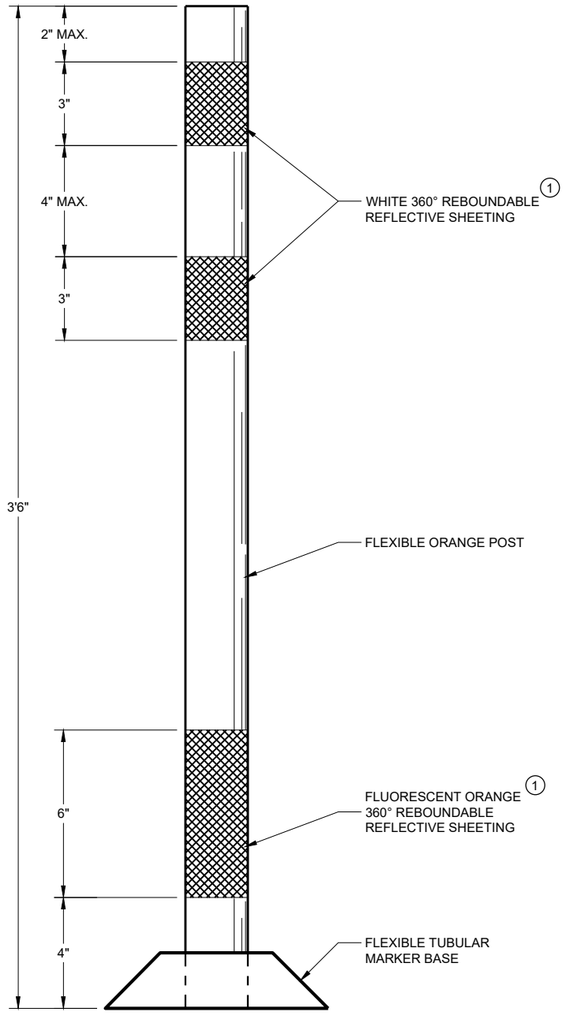
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA

6

SDD 15C08 - 21b



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

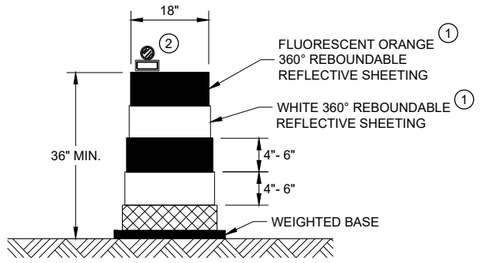
APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C11 - 09a

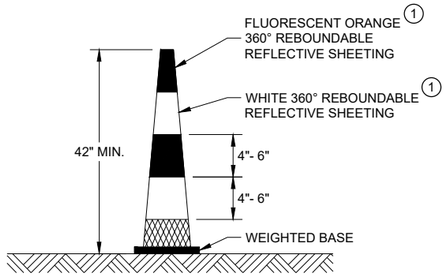
SDD 15C11 - 09a

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

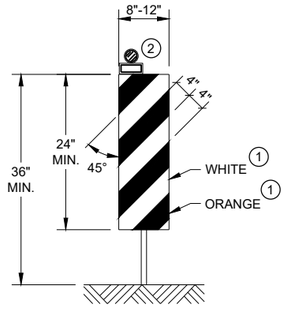


DRUM



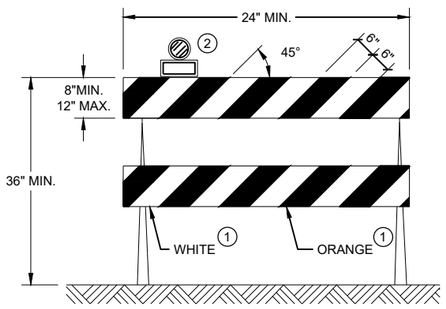
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



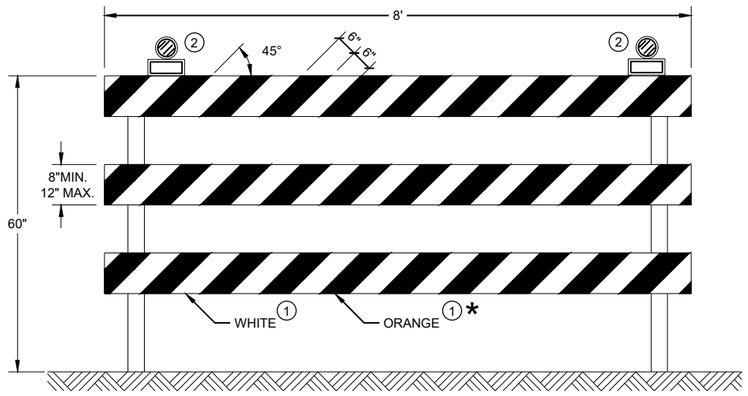
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD15C11 - 09b

6

SDD15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

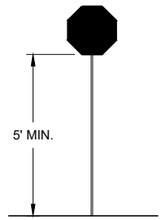
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



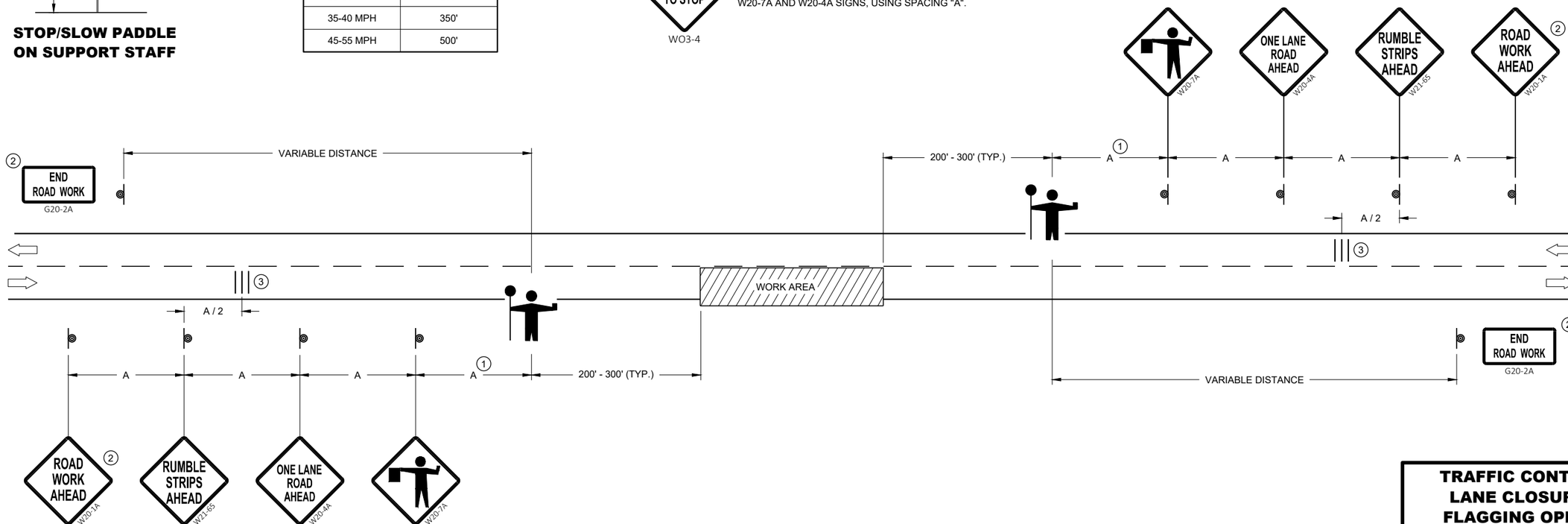
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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

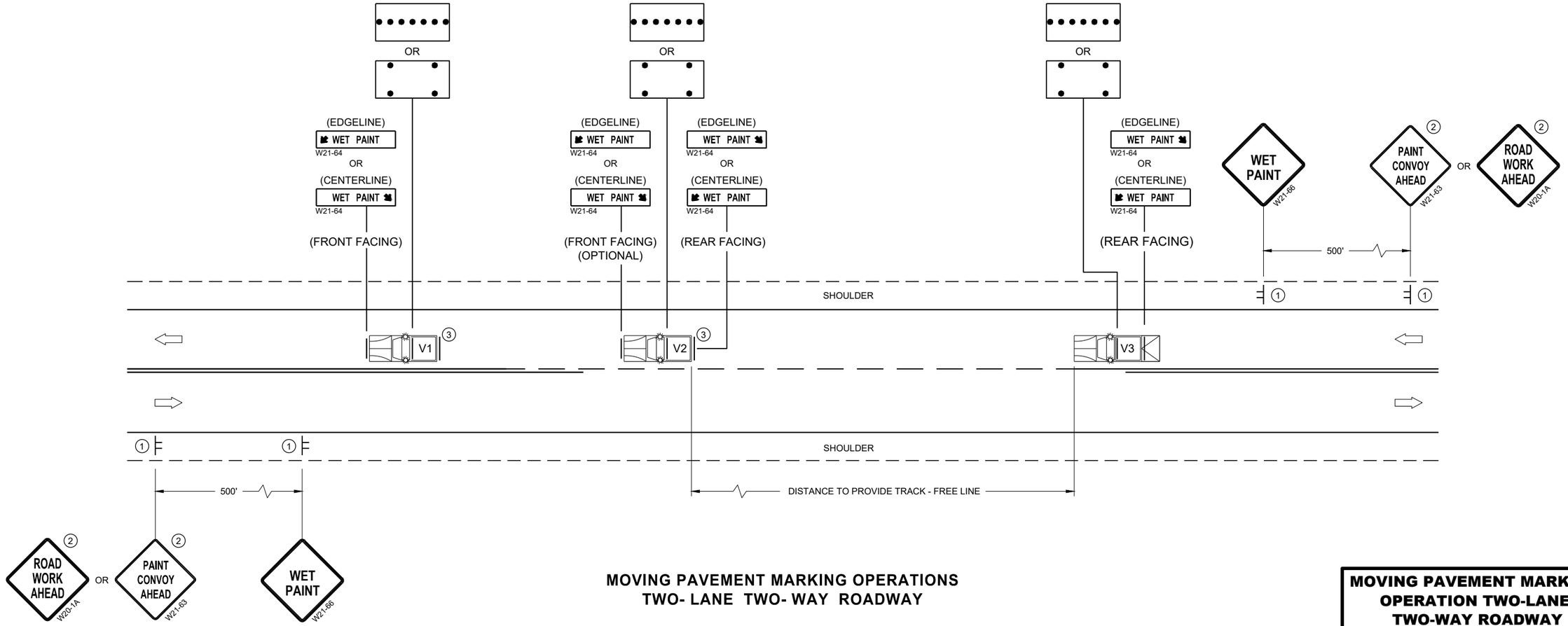
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

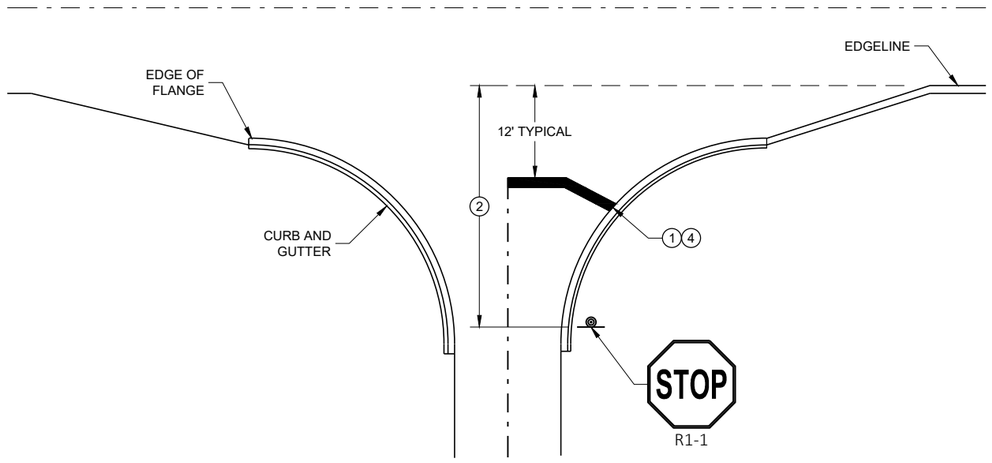
SDD 15C19 - 07a

SDD 15C19 - 07a

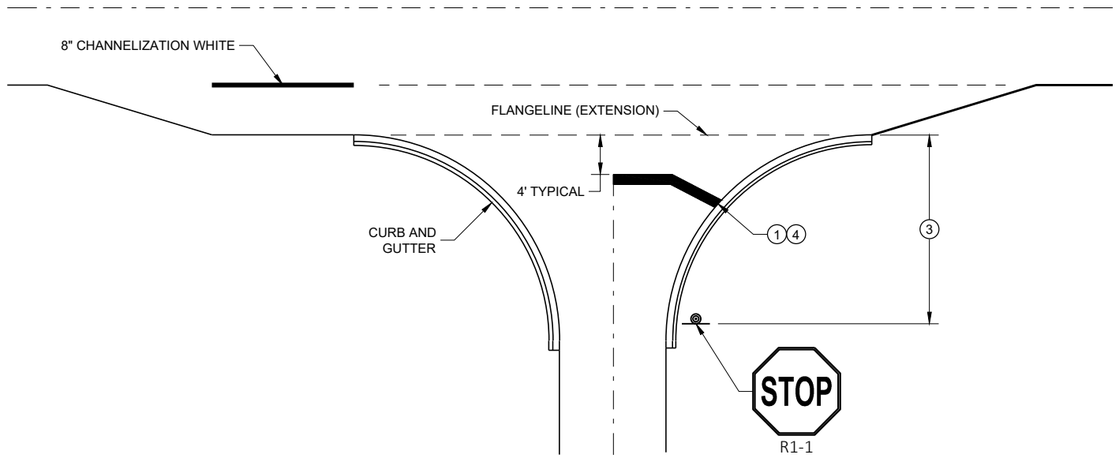
GENERAL NOTES

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

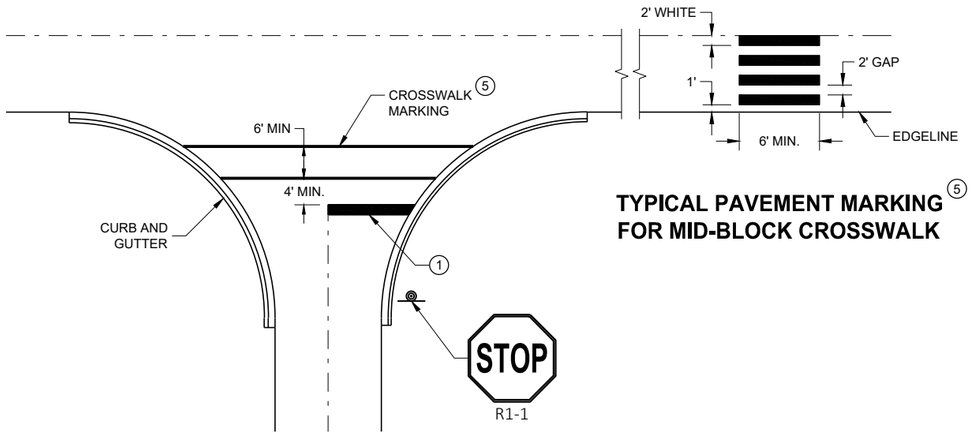
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

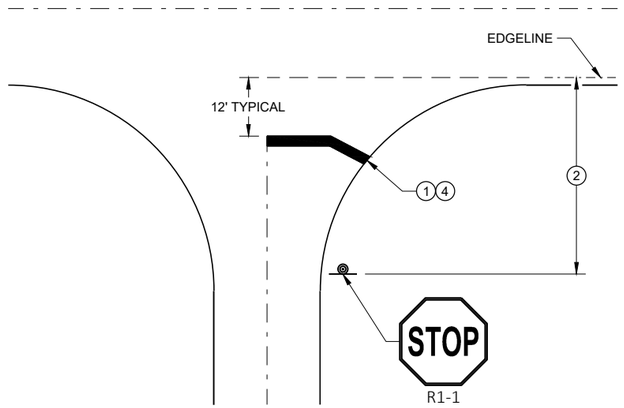


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

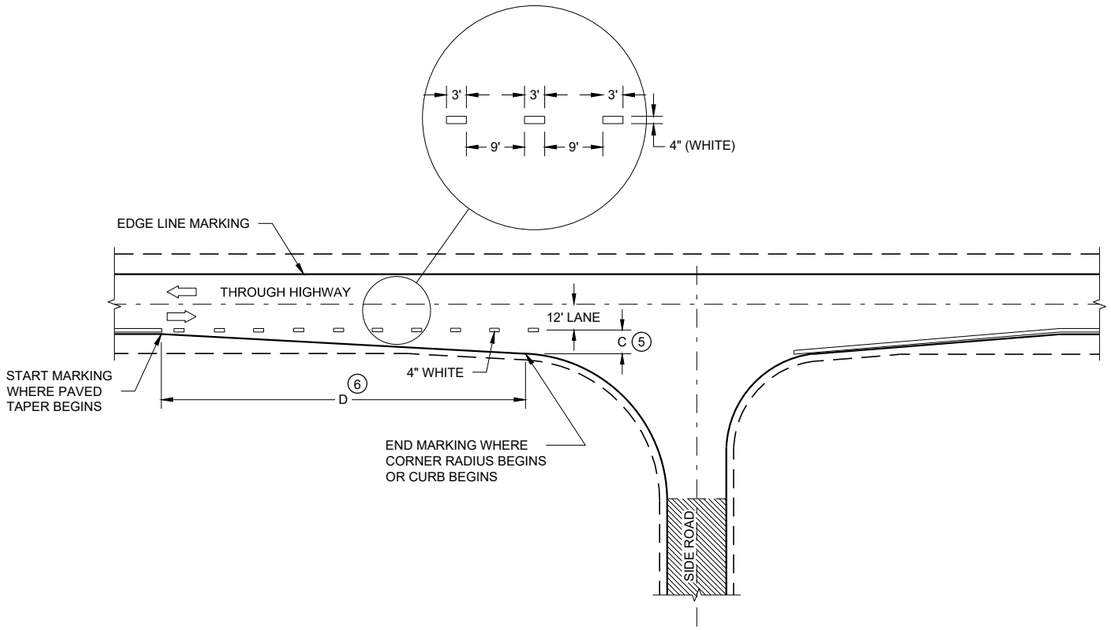
FHWA

6

SDD 15C33 - 04

6

SDD 15C33 - 04



MINOR INTERSECTION

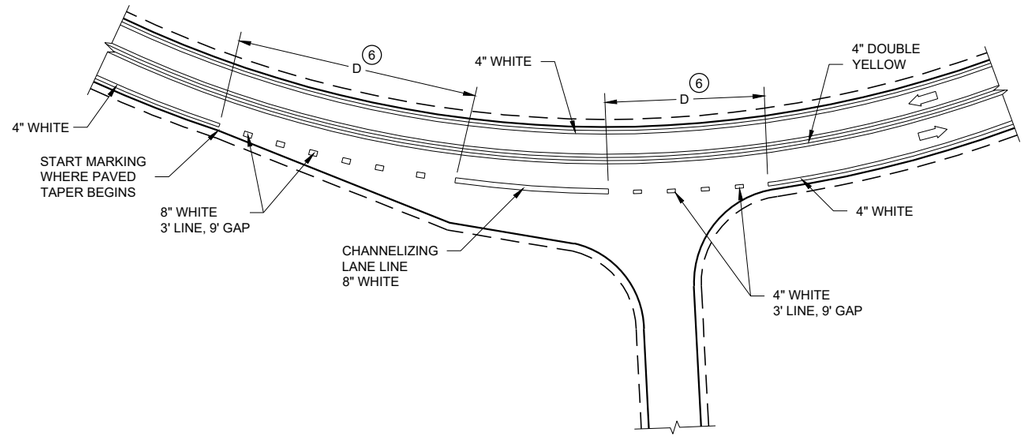
GENERAL NOTES

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

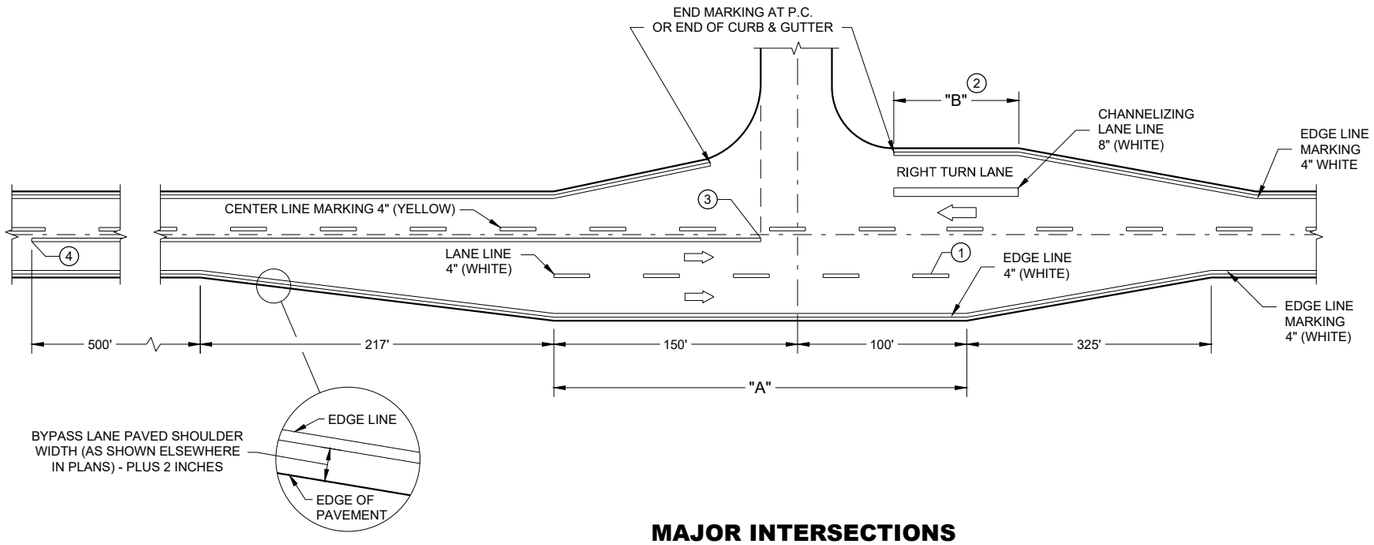
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

6

SDD 15C35 - 05a

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

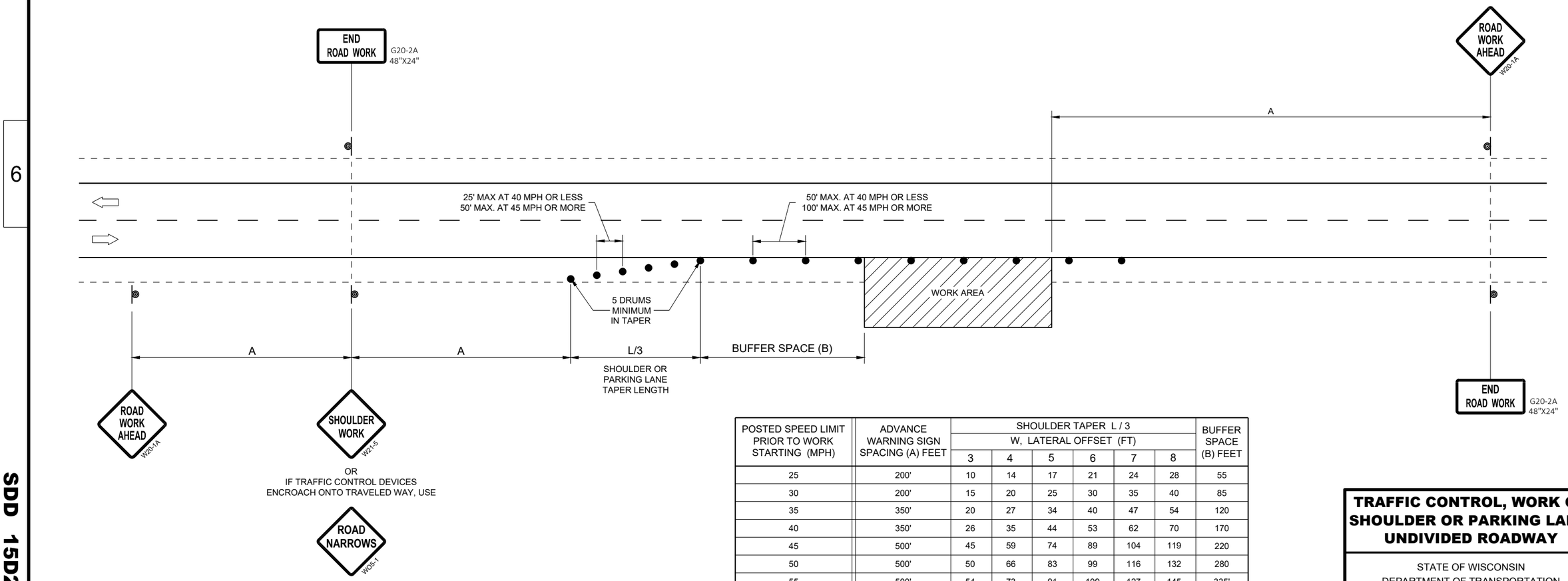
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

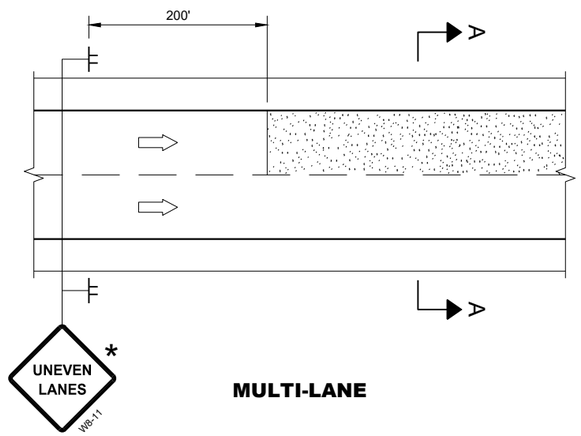
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

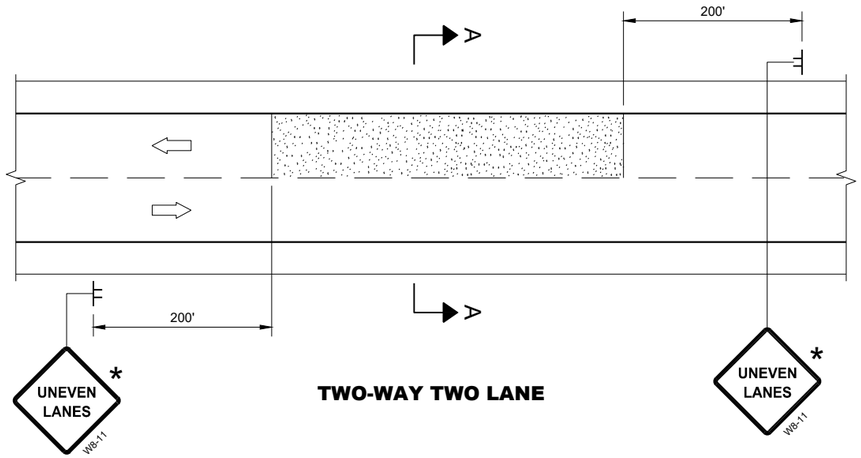
FHWA

SDD 15D28 - 04

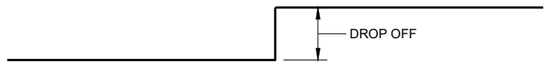
SDD 15D28 - 04



MULTI-LANE

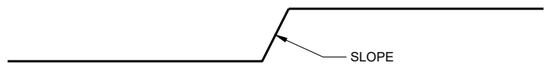


TWO-WAY TWO LANE

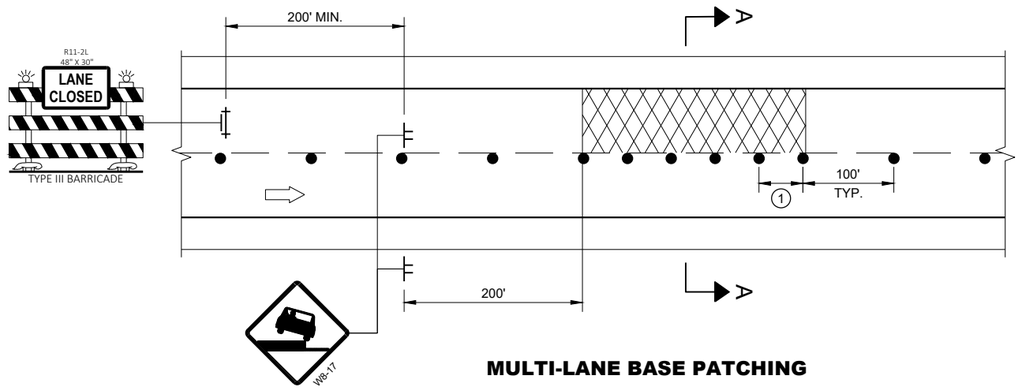


SECTION A - A

OR

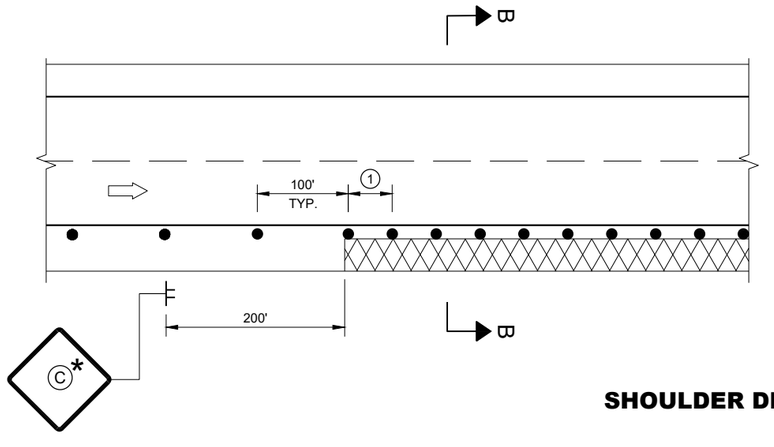


SECTION A - A

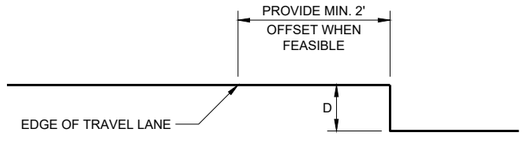


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

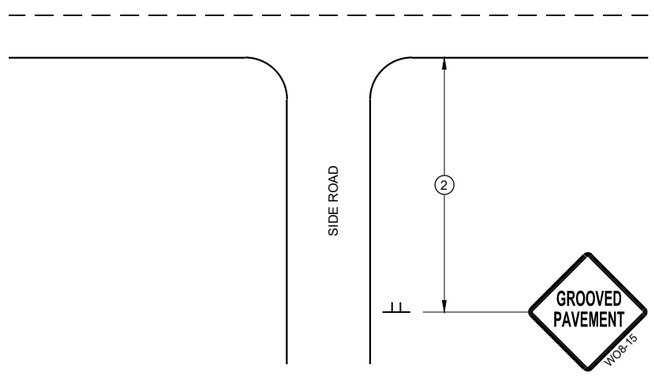
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

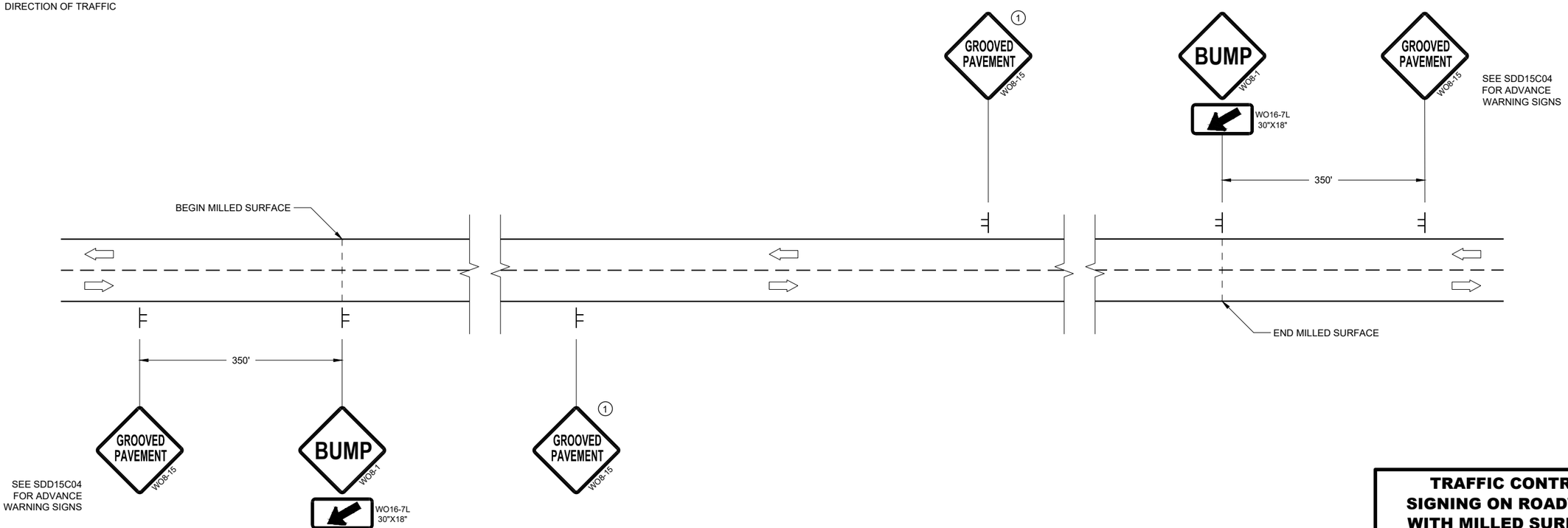
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6
SDD 15D44 - 02

GENERAL NOTES

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

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

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

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

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

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

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

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

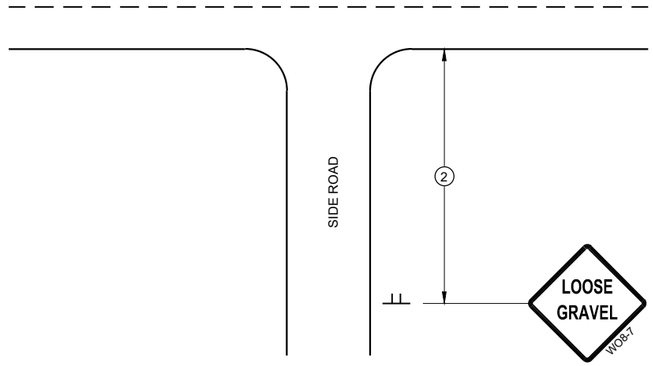
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

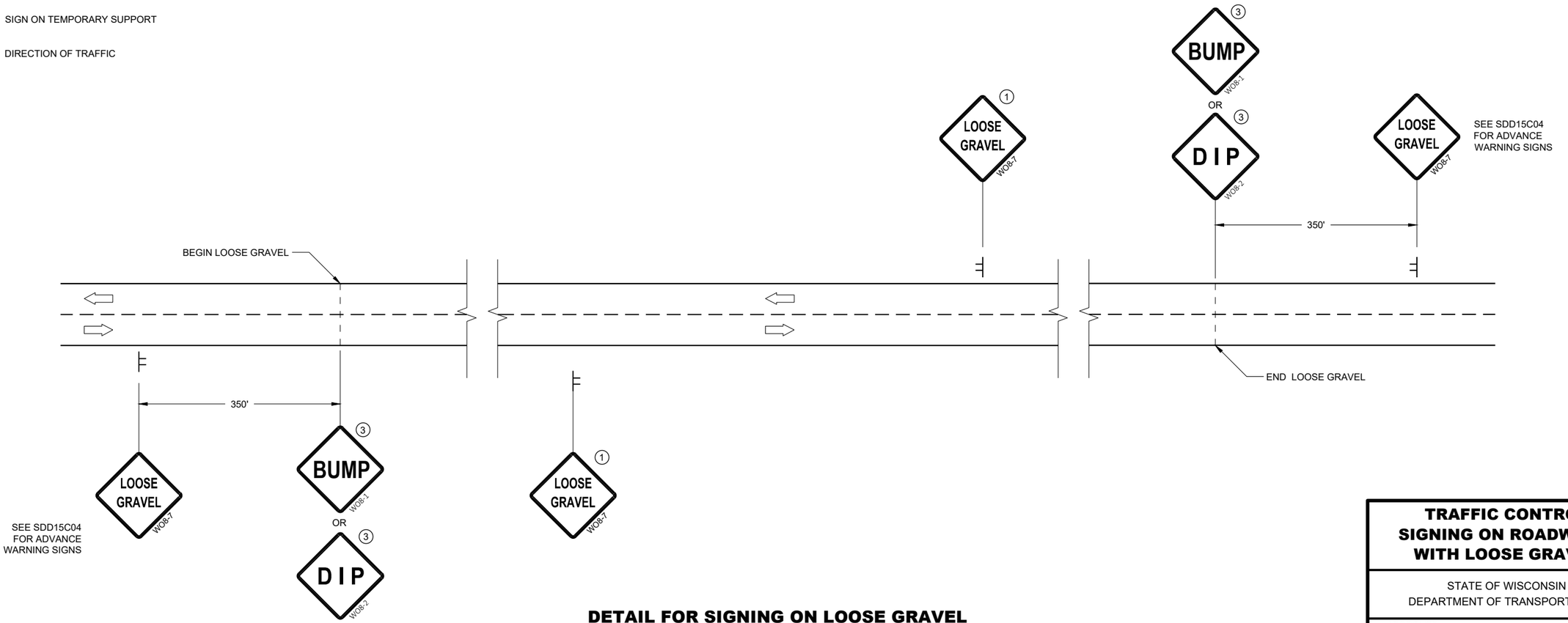
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

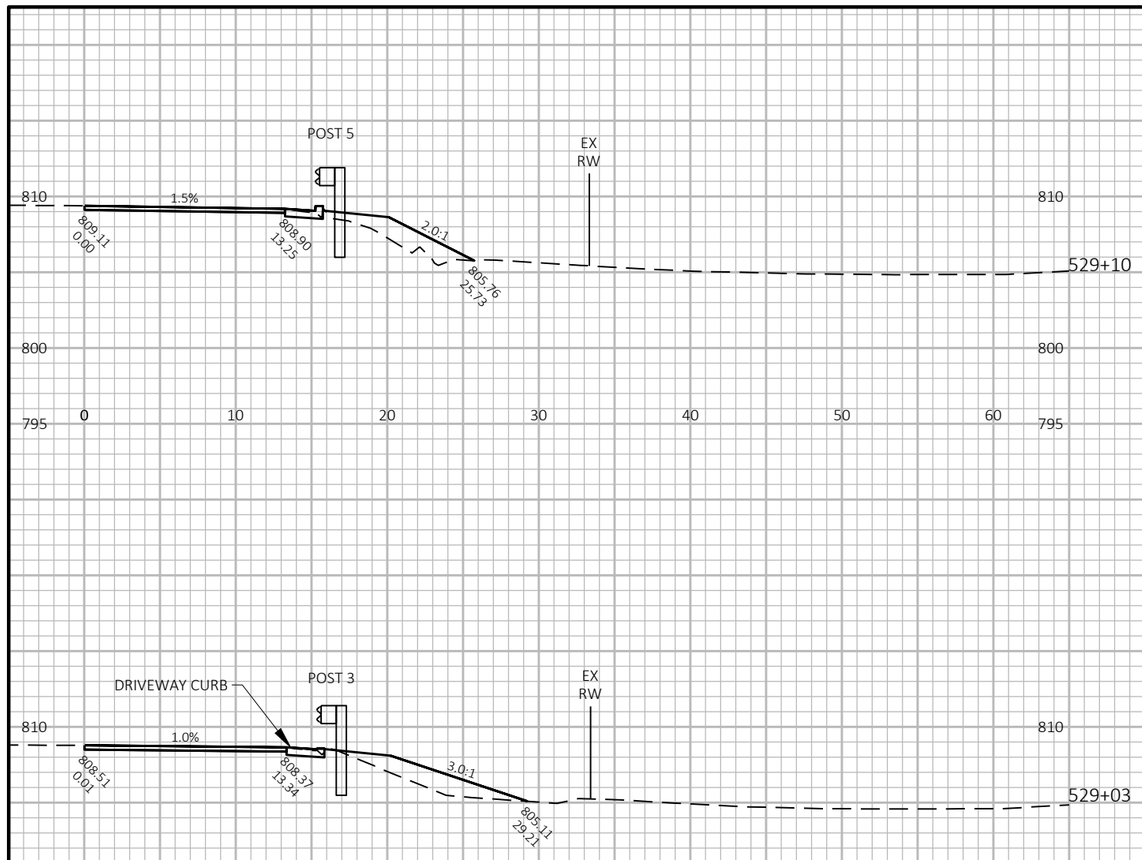
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

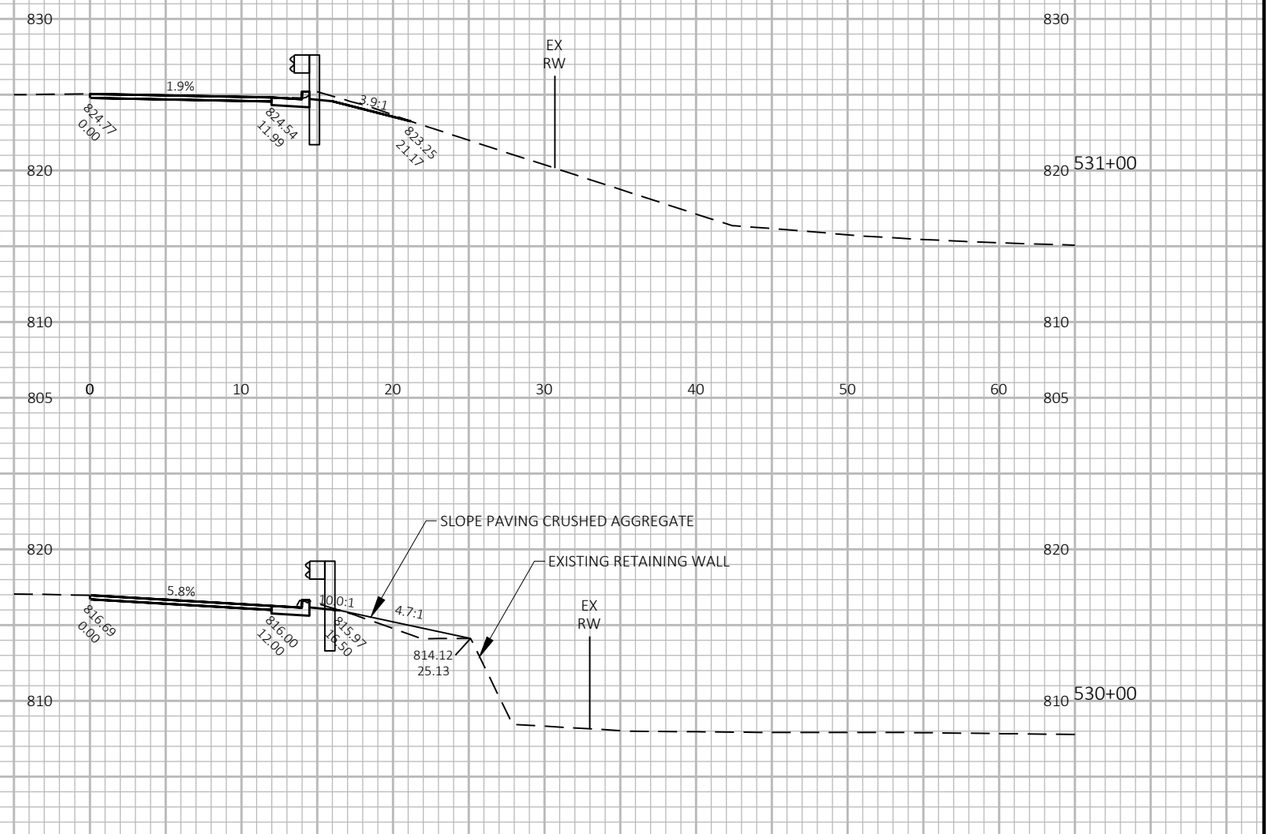
APPROVED
February 2021
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

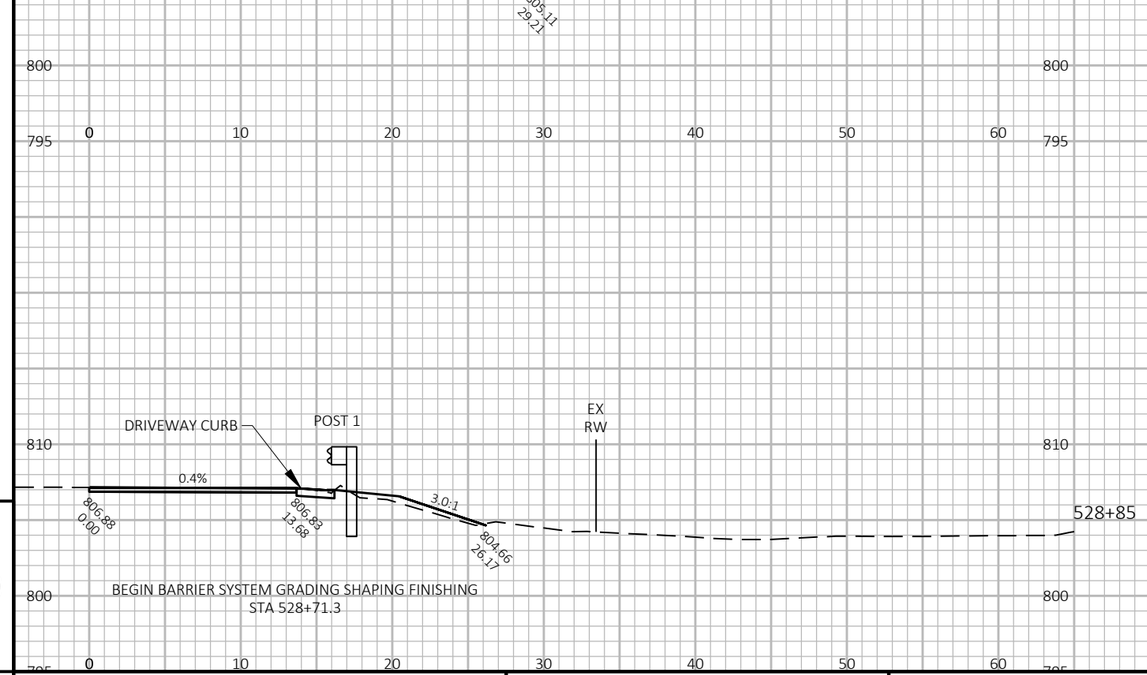
FHWA

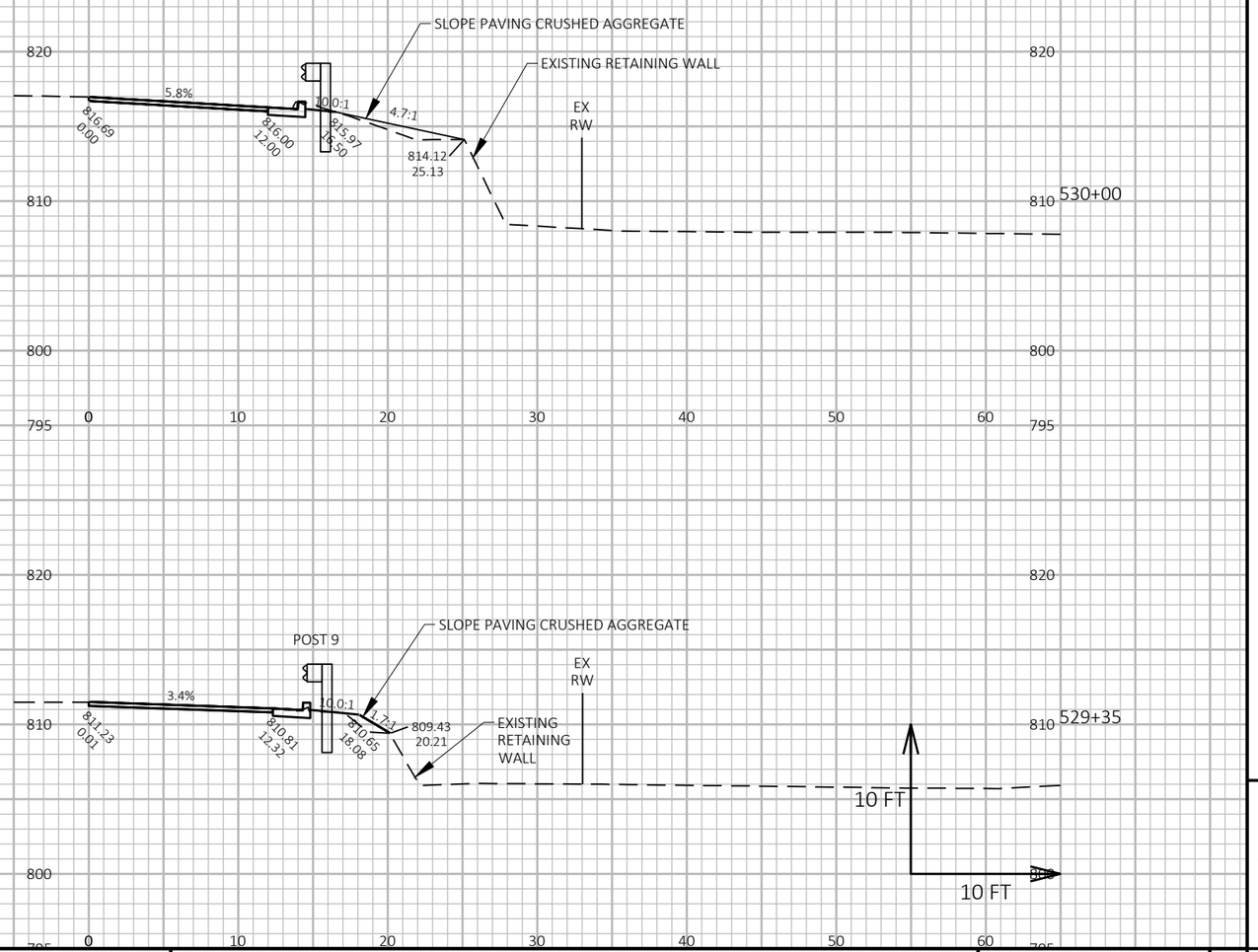
6

SDD 15D45 - 03









9

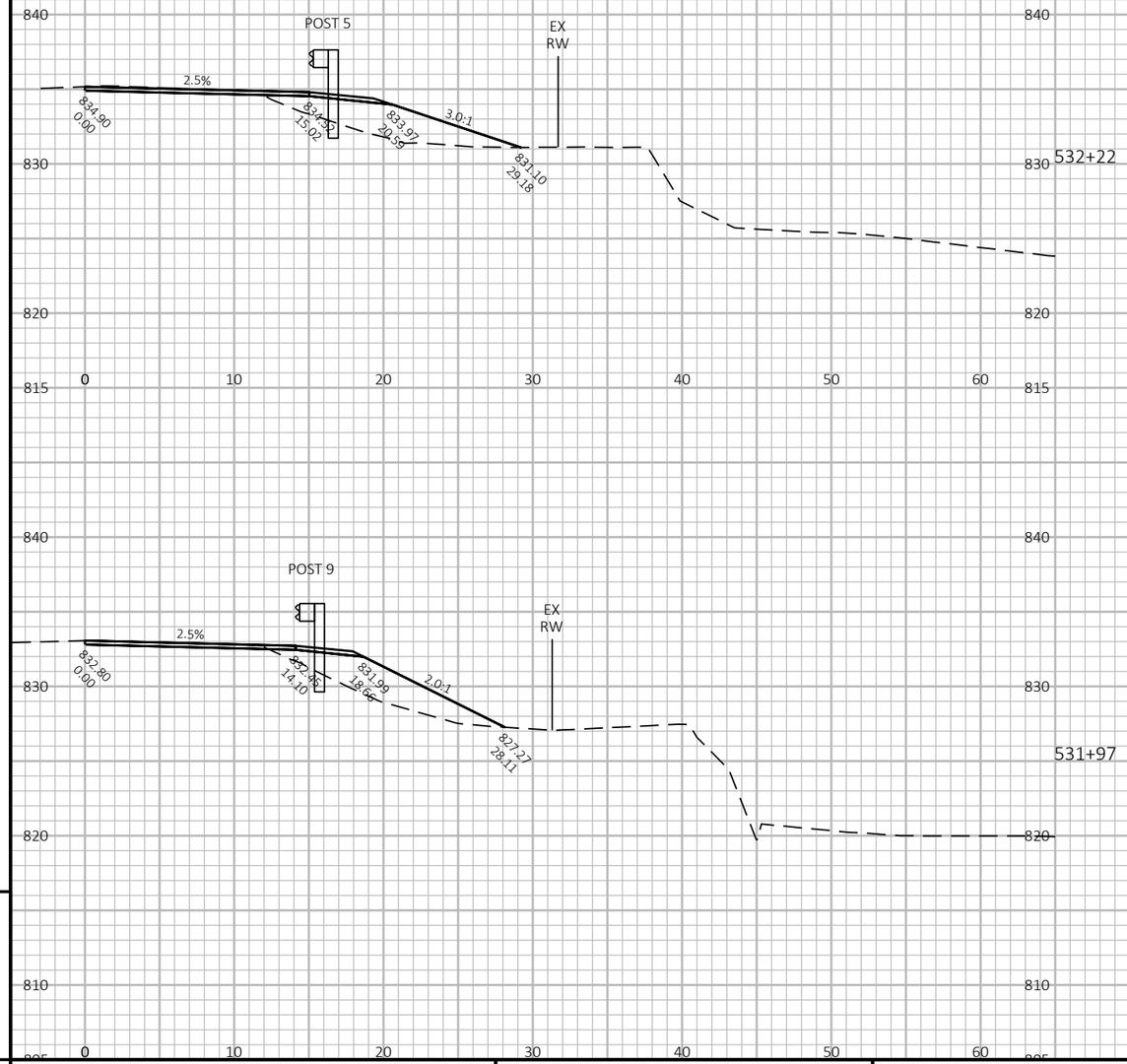
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 92	E

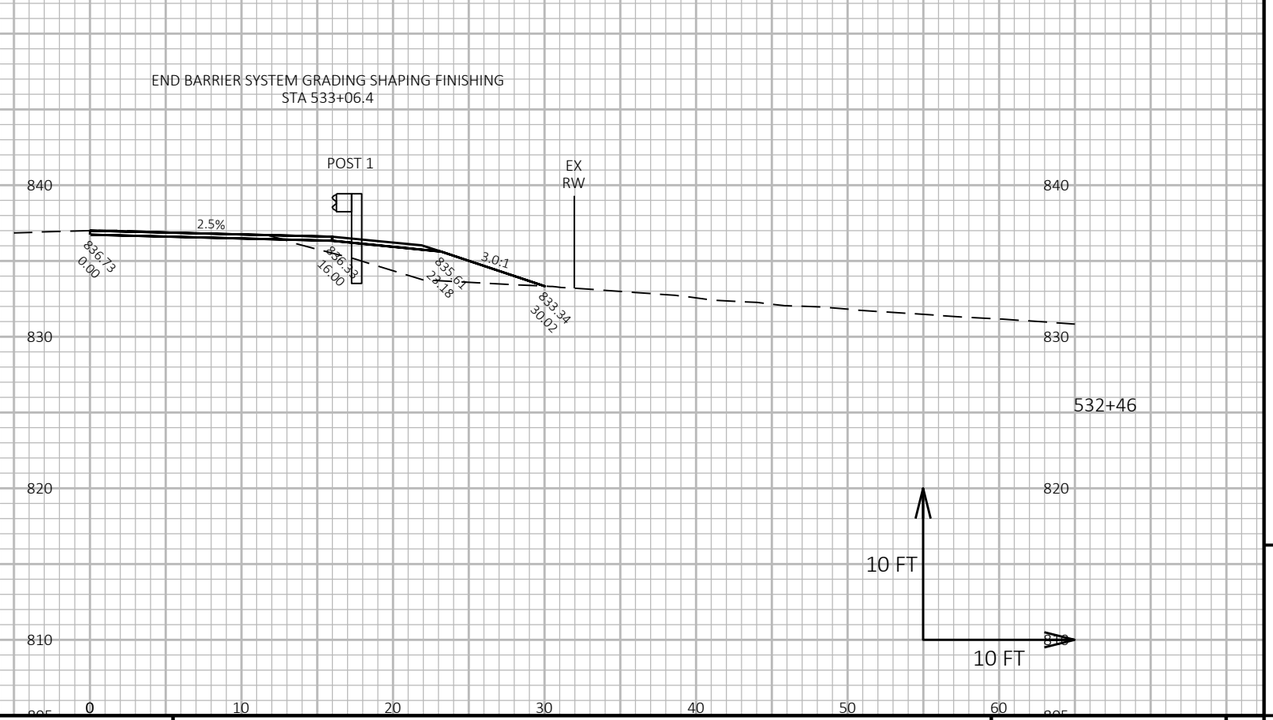
FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 1

PLOT DATE : 7/25/2022 3:12 PM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



END BARRIER SYSTEM GRADING SHAPING FINISHING
STA 533+06.4

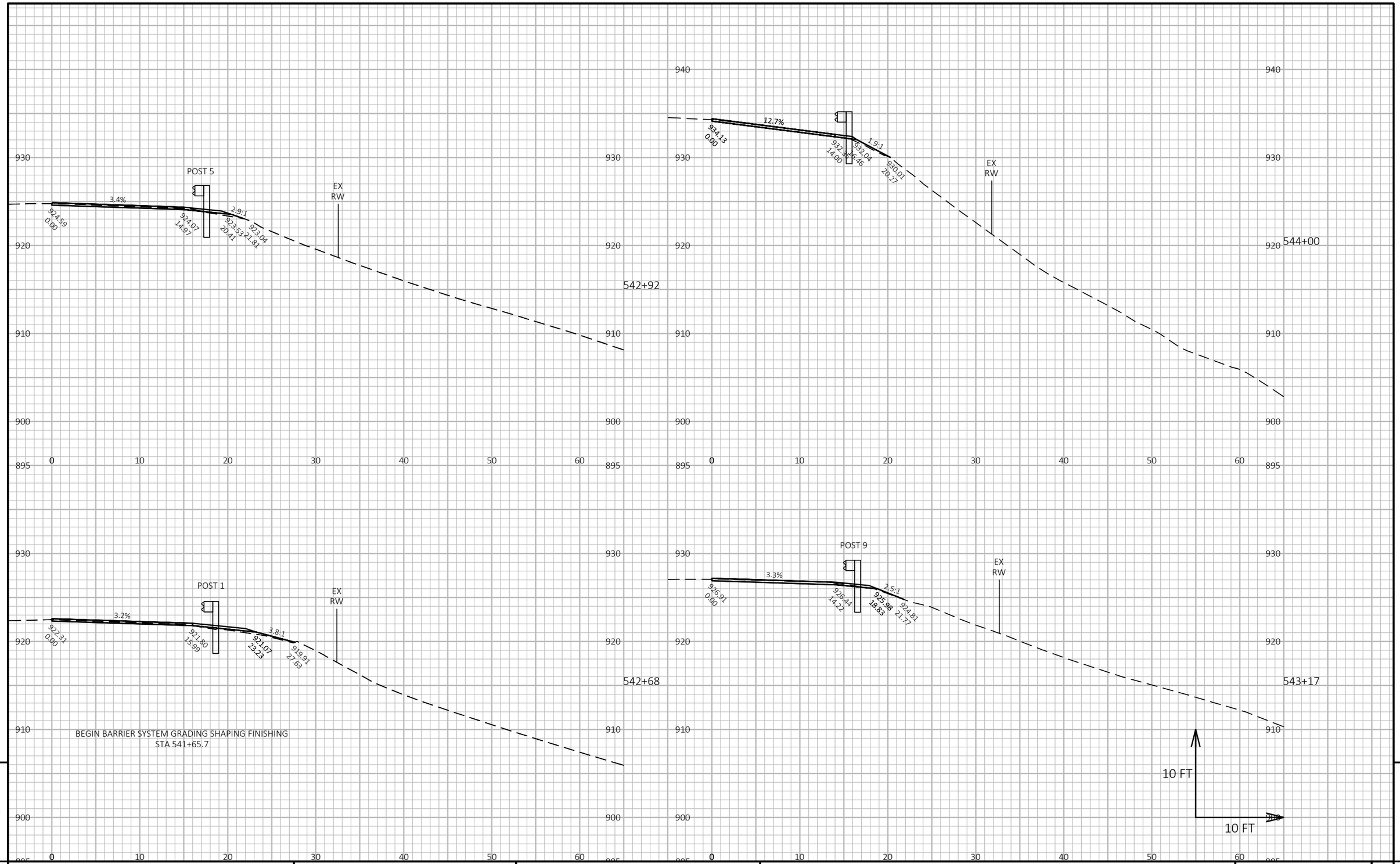


PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 93	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 2

PLOT DATE : 7/25/2022 11:28 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

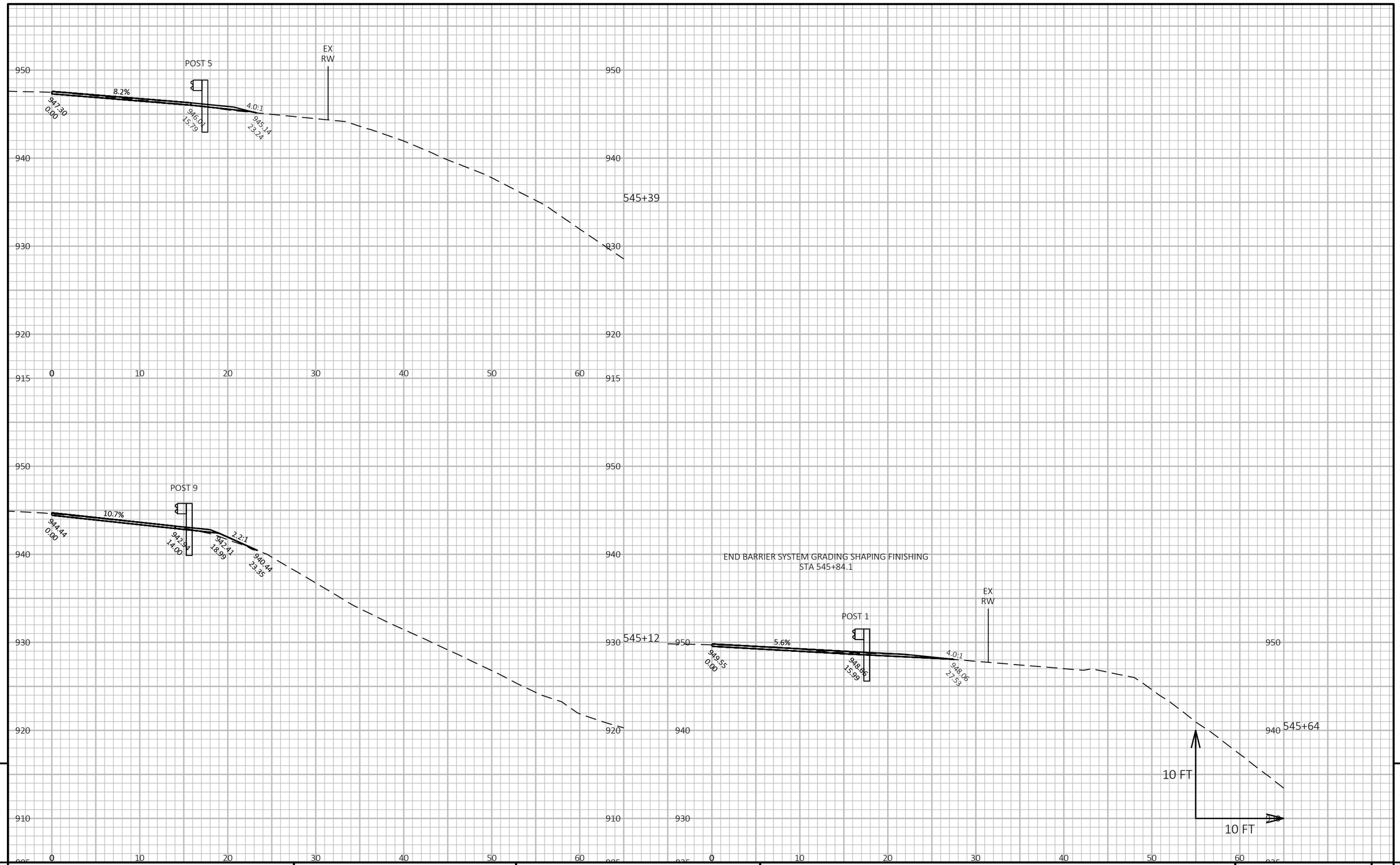
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 94	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/25/2022 11:43 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

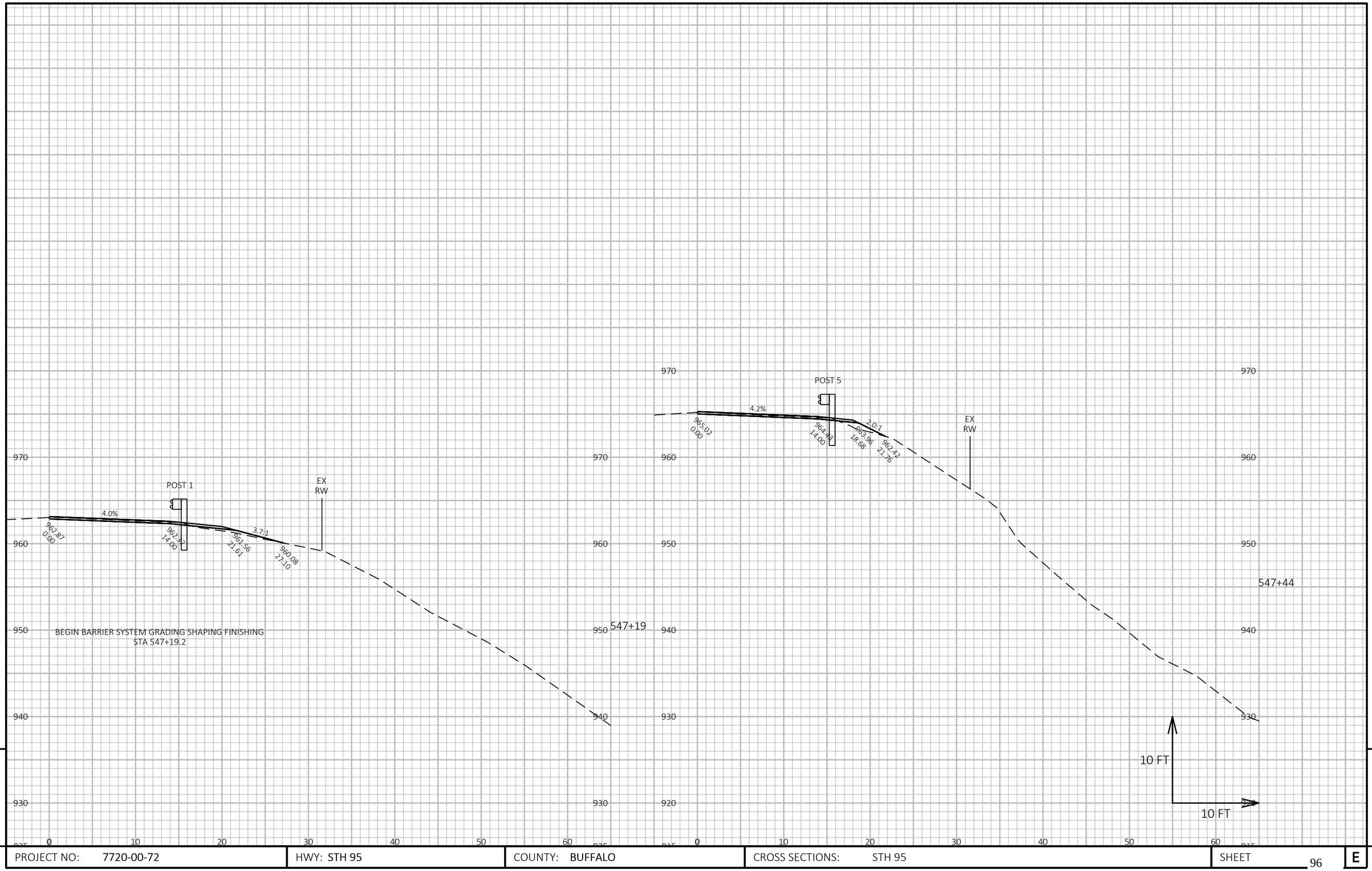
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 95	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 11:29 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 96	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/25/2022 11:29 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

980

980

POST 9

970

960

950

940

930

925

0 10 20 30 40 50 60

4.6%

967.18
0.00

966.94
14.00

966.09
18.48

964.31
21.13

1.5:1

EX
RW

547+69

970

960

950

940

930

925

0 10 20 30 40 50 60

3.0%

969.89
0.00

969.47
14.00

969.21
16.67

2.0:1

966.55
21.99

EX
RW

548+00

10 FT

10 FT

9

9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 97	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

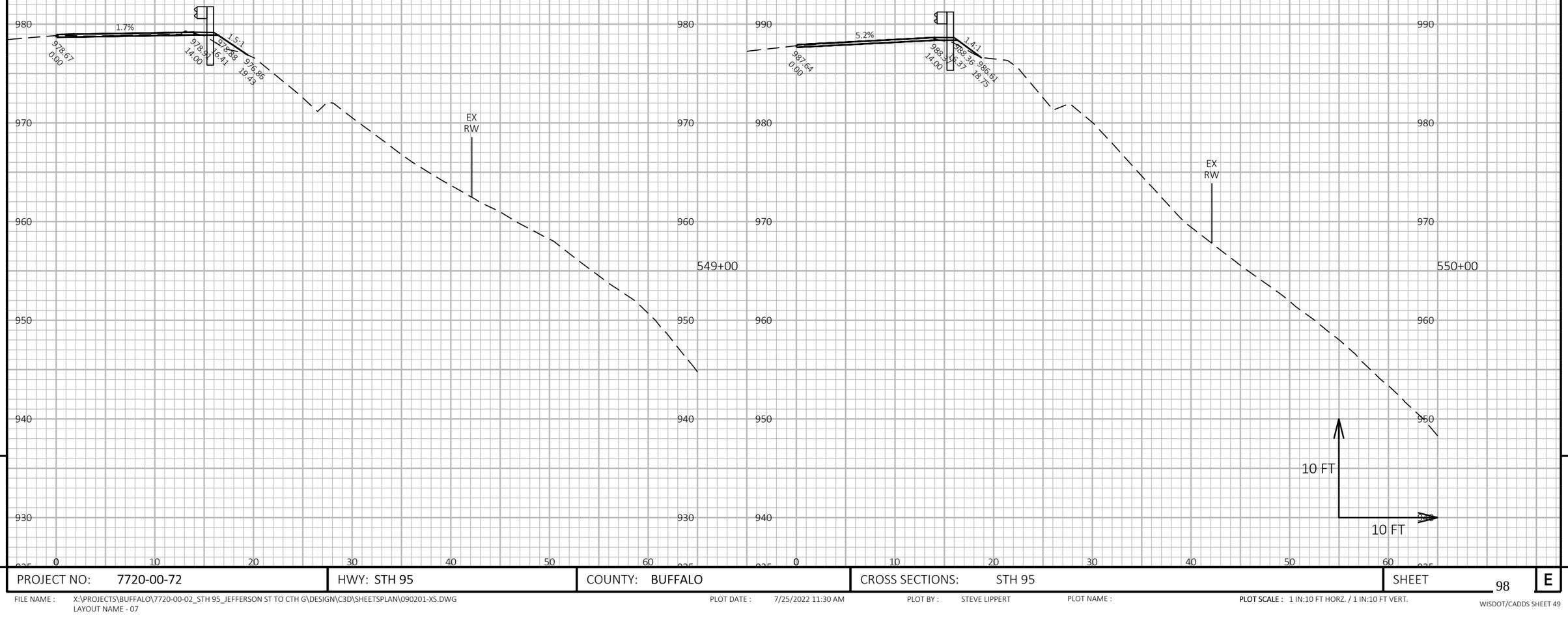
PLOT DATE : 7/25/2022 11:29 AM

PLOT BY : STEVE LIPPERT

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

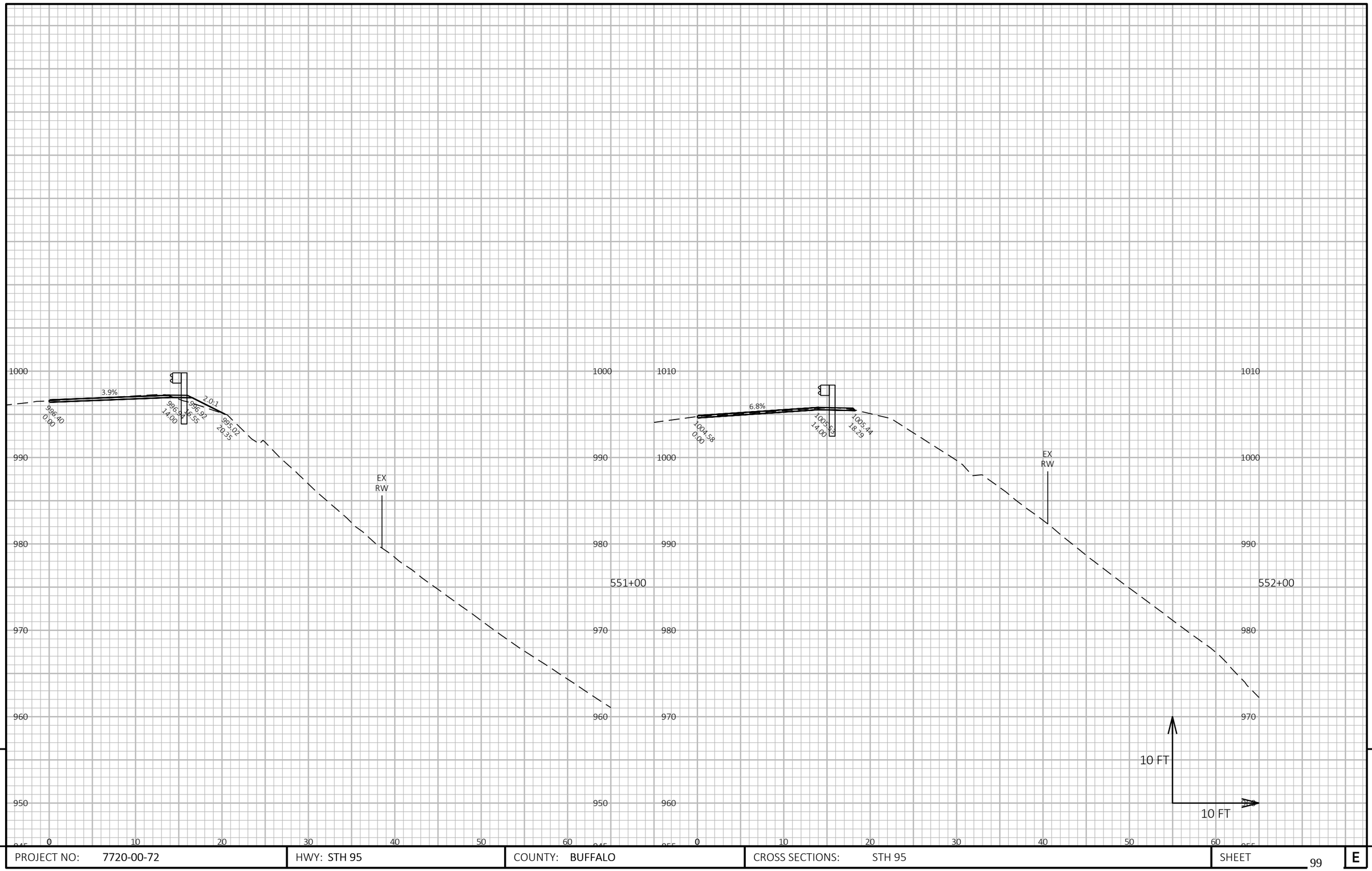


PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 98	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 11:30 AM PLOT BY : STEVE LIPPERT PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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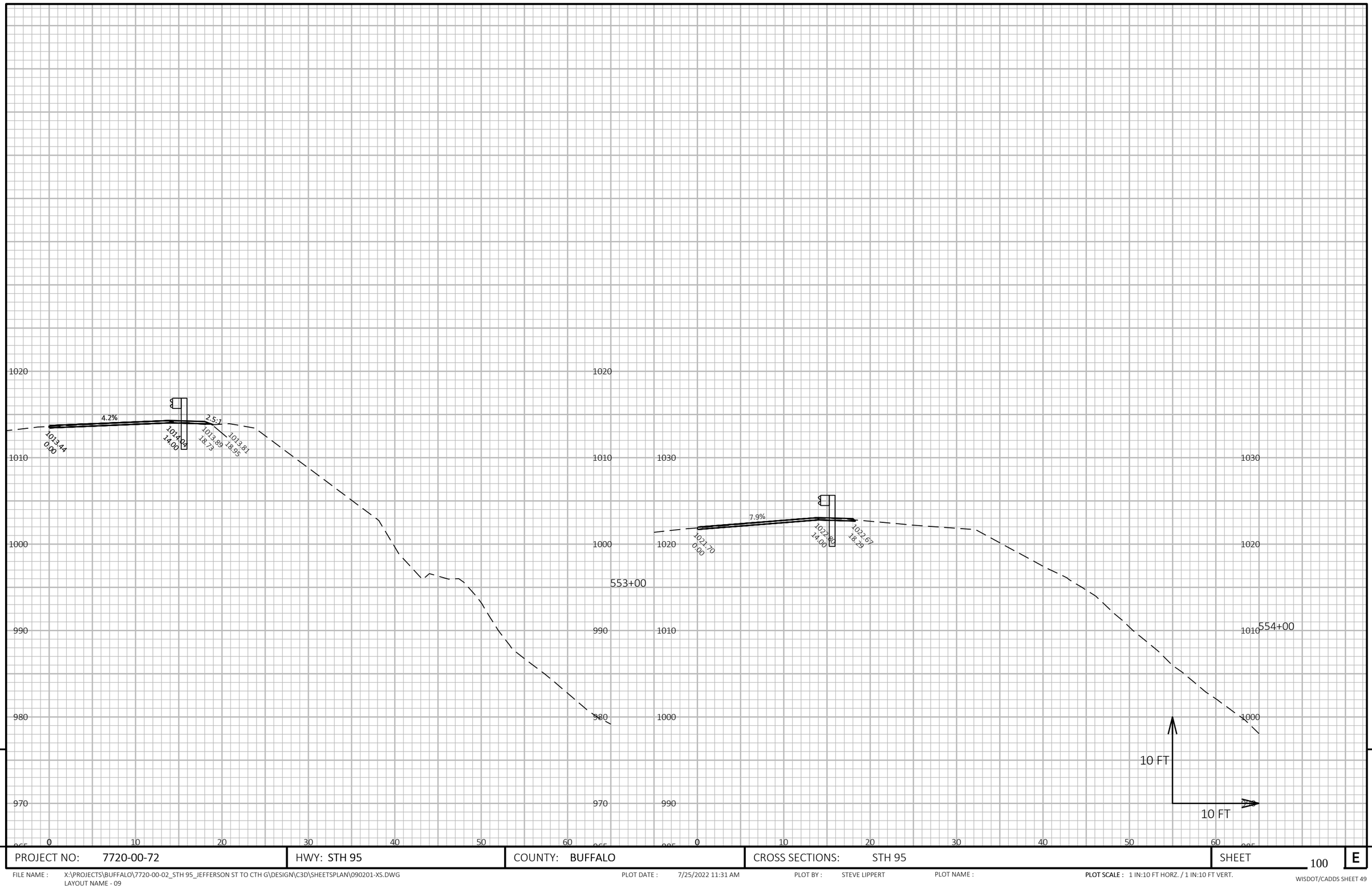
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 99	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 7/25/2022 11:30 AM PLOT BY : STEVE LIPPERT PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

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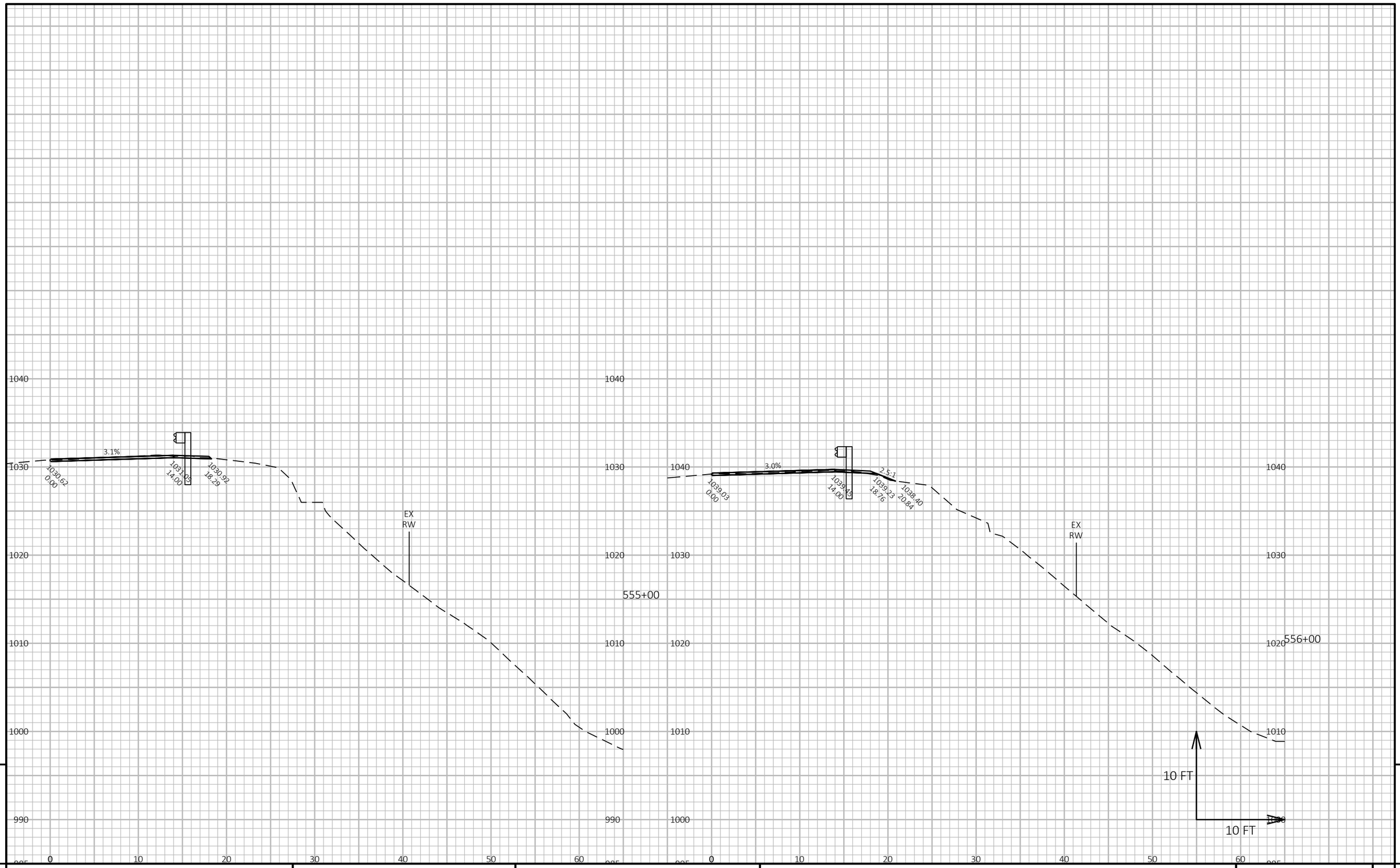
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 100	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 7/25/2022 11:31 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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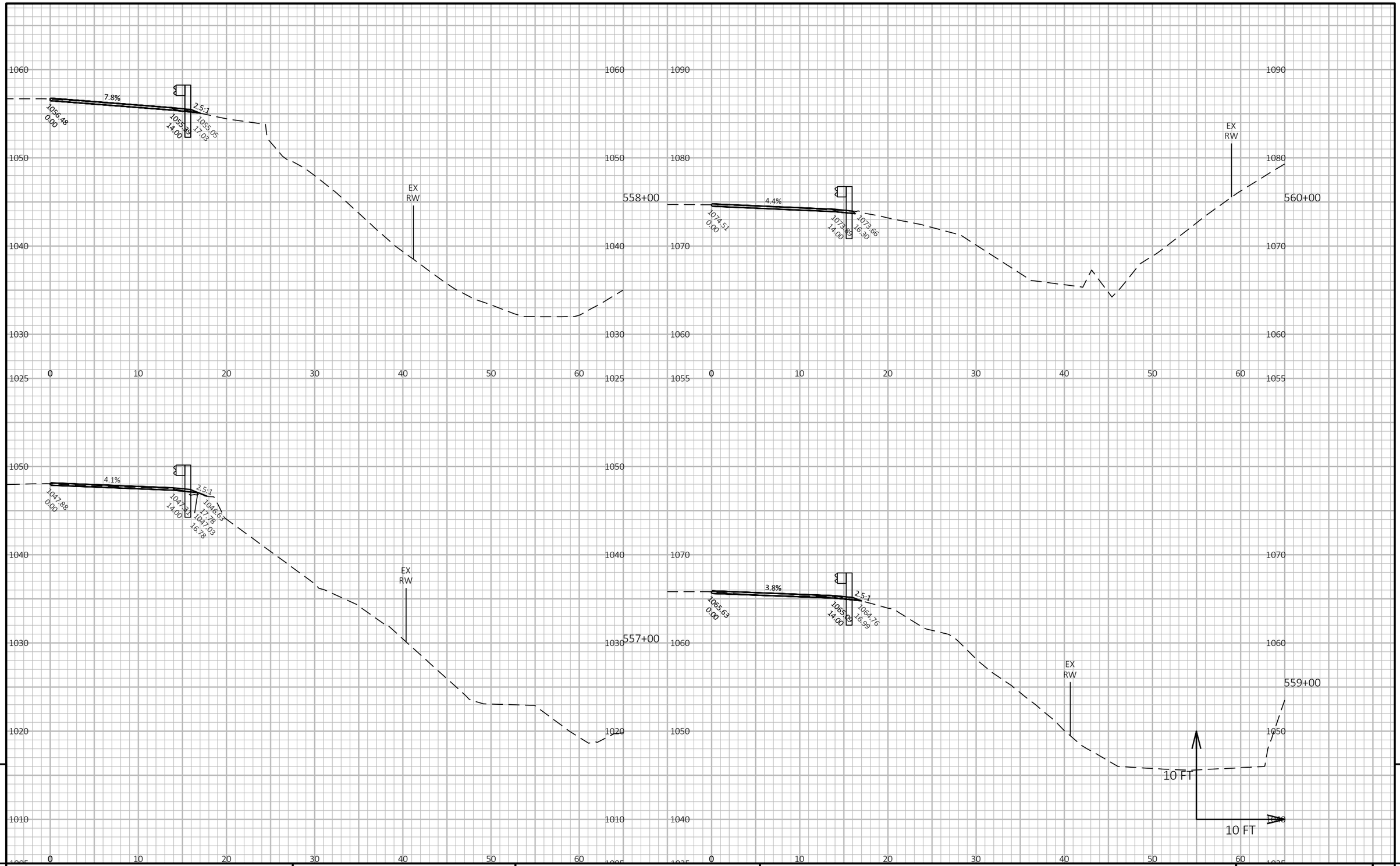
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 101	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 7/25/2022 11:31 AM PLOT BY : STEVE LIPPERT PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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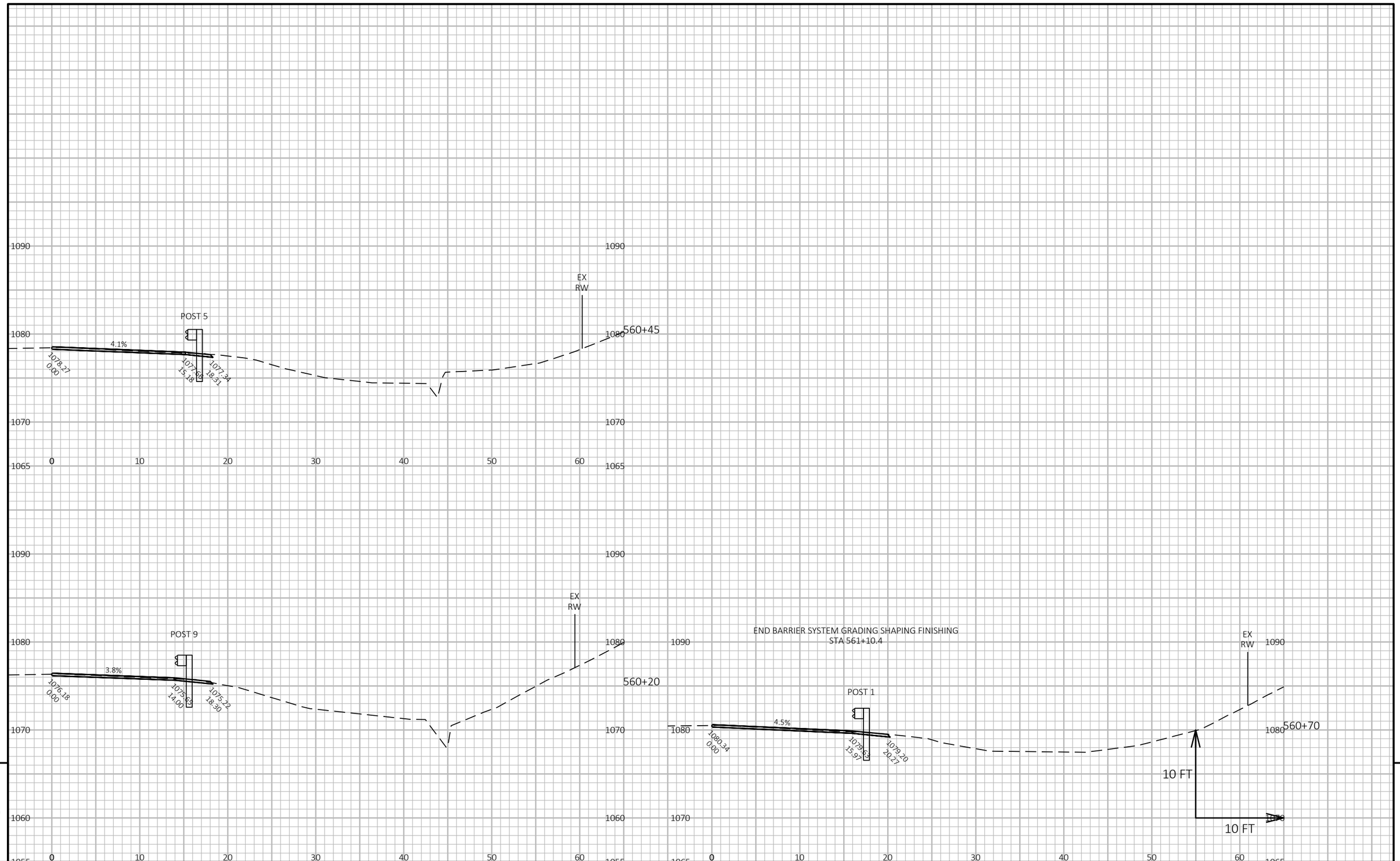
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 102	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 7/25/2022 11:31 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

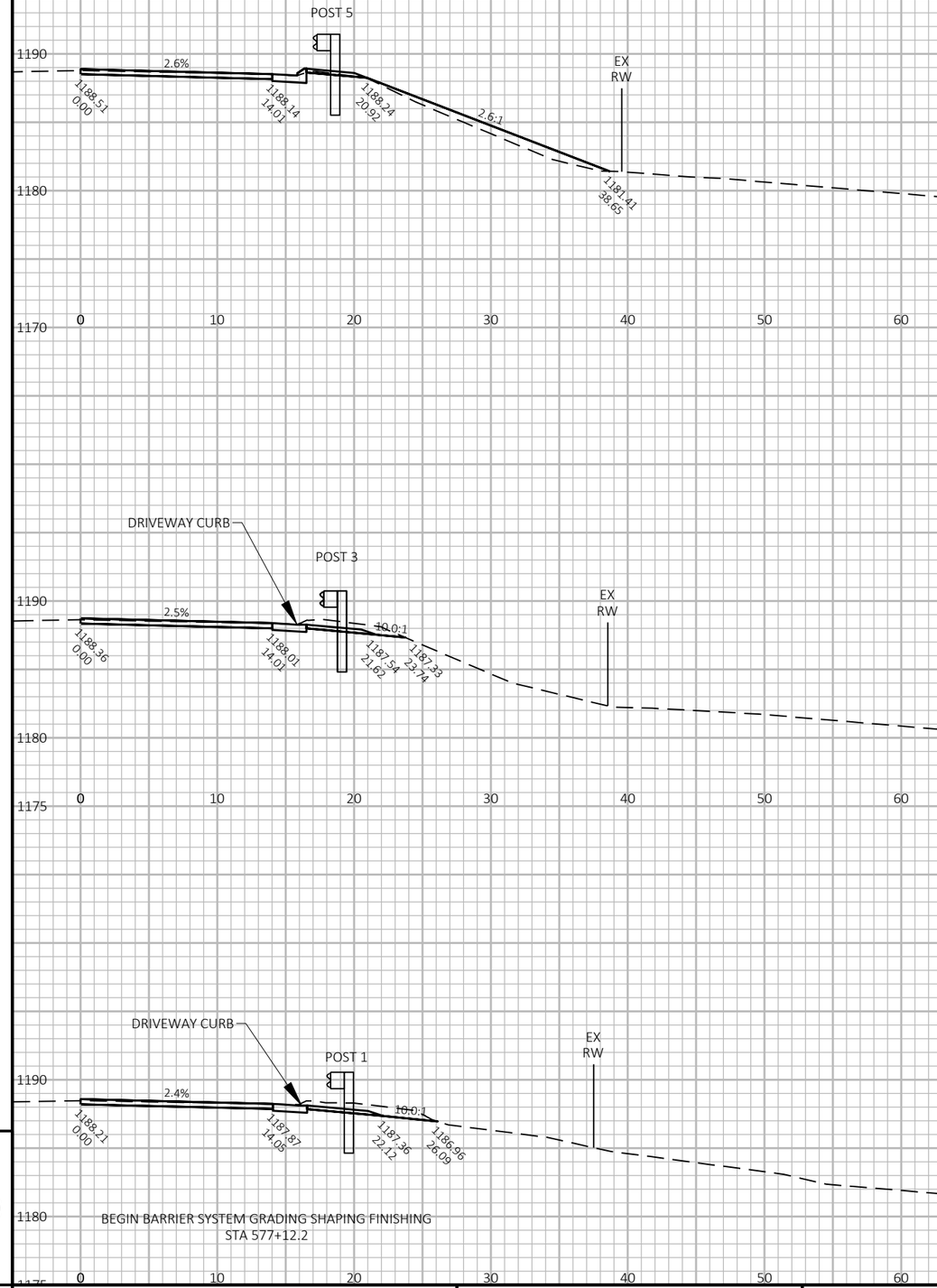
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 103	E

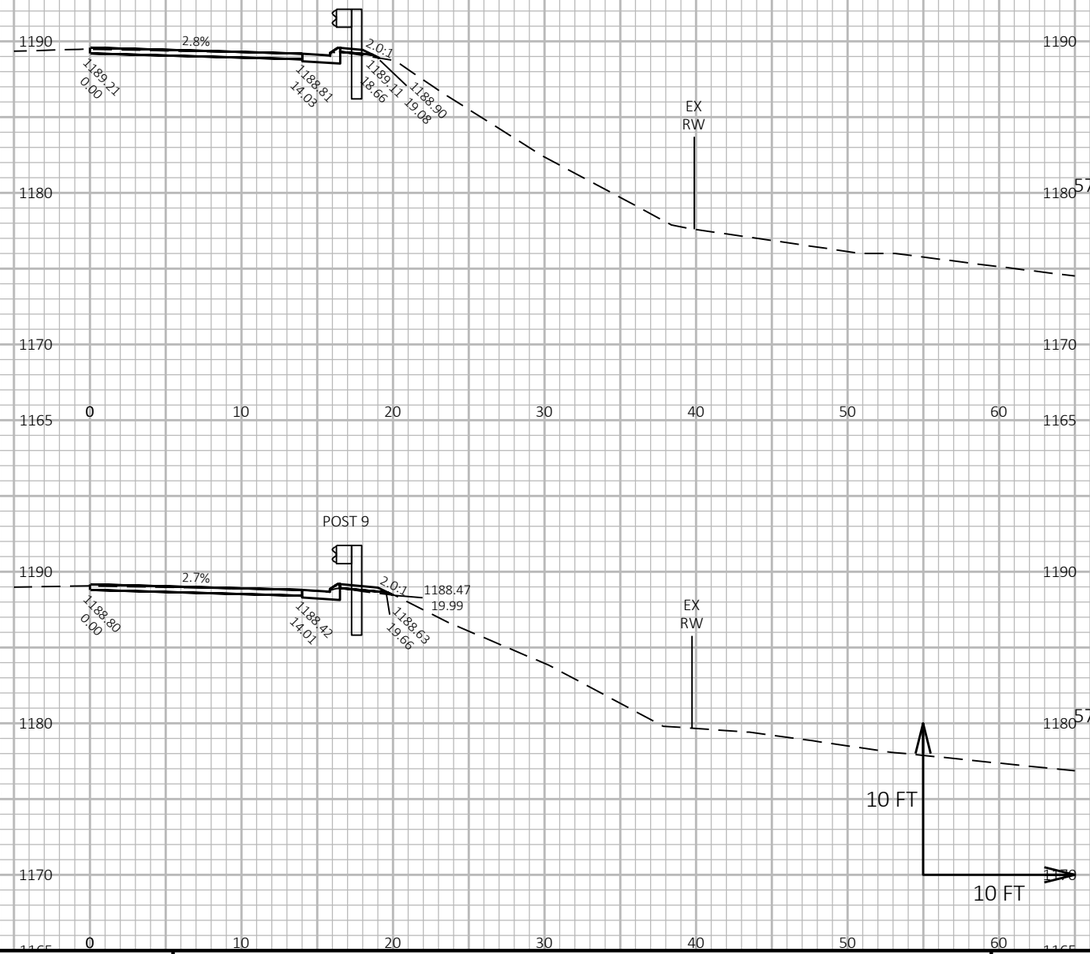
FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 7/25/2022 11:32 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



BEGIN BARRIER SYSTEM GRADING SHAPING FINISHING
STA 577+12.2



9

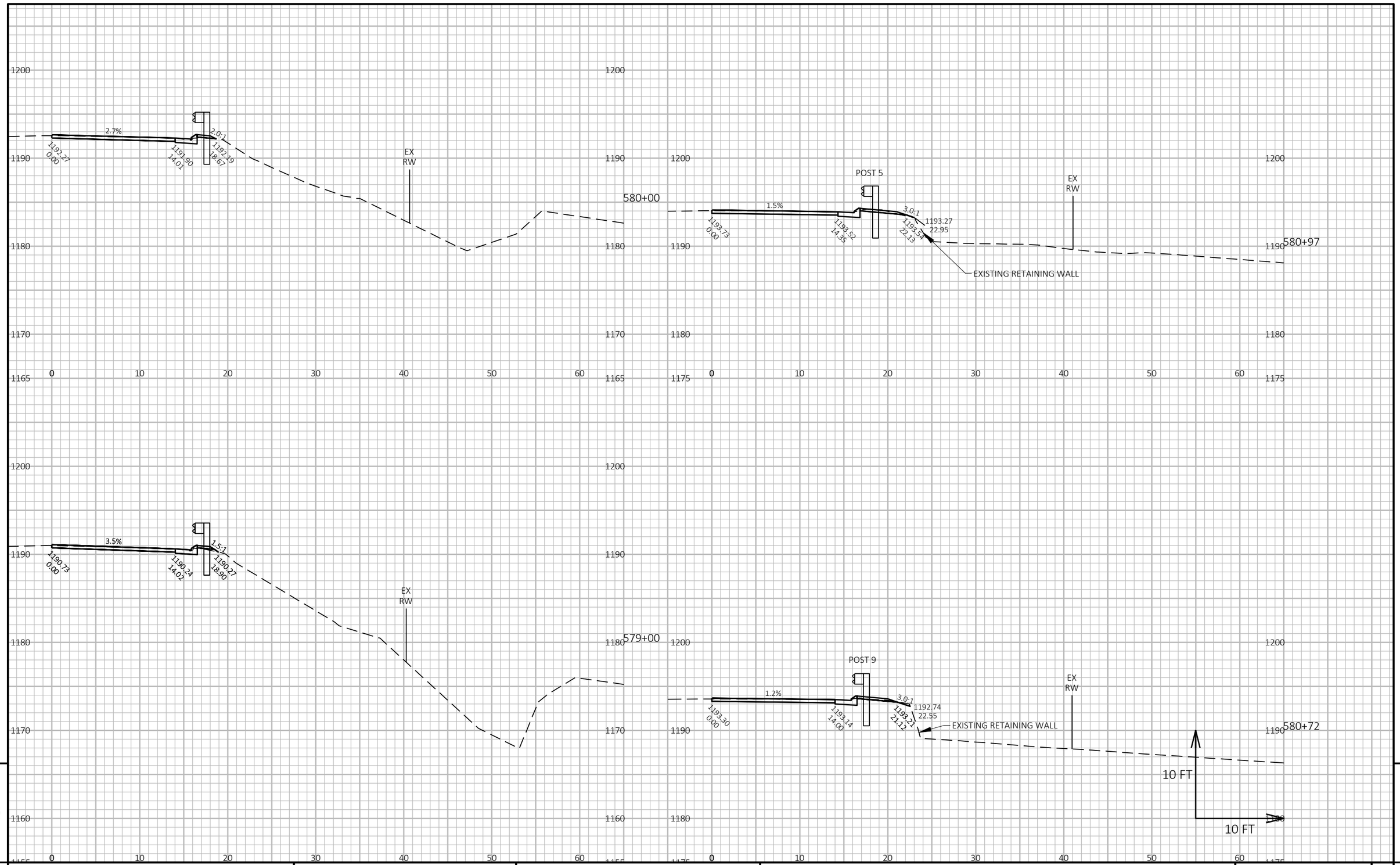
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 104	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 7/25/2022 11:32 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

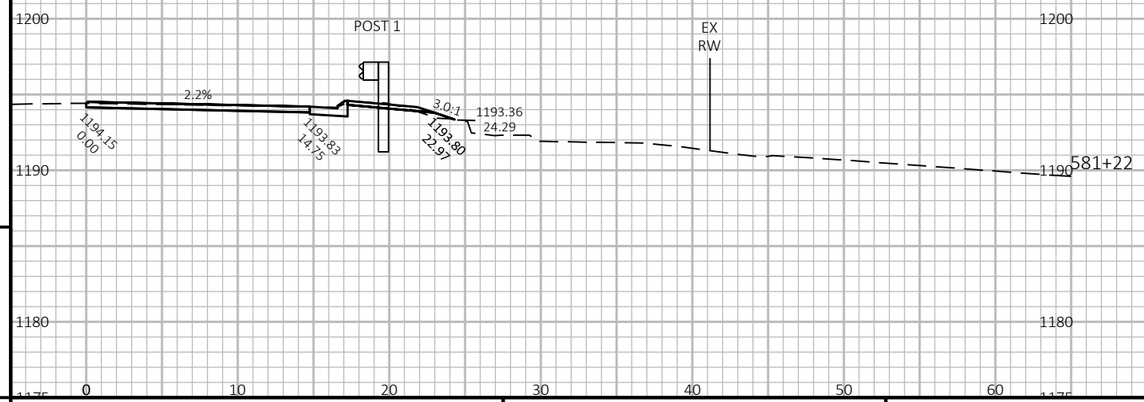
9

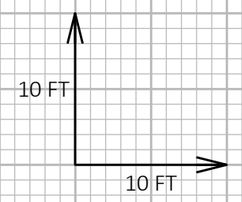
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 105	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 7/25/2022 1:15 PM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

END BARRIER SYSTEM GRADING SHAPING FINISHING
STA 581+21.8





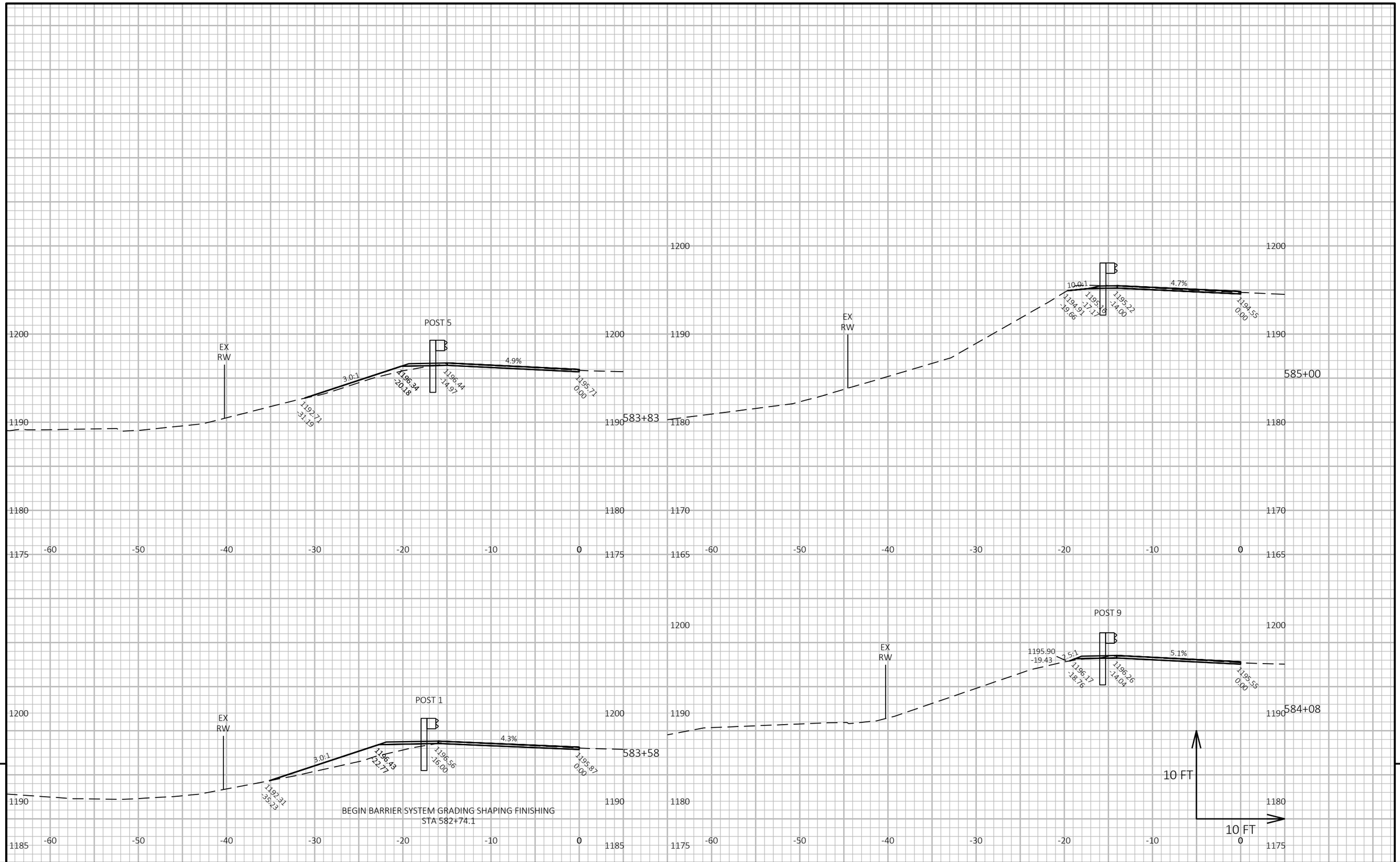
9

9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 106	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 15

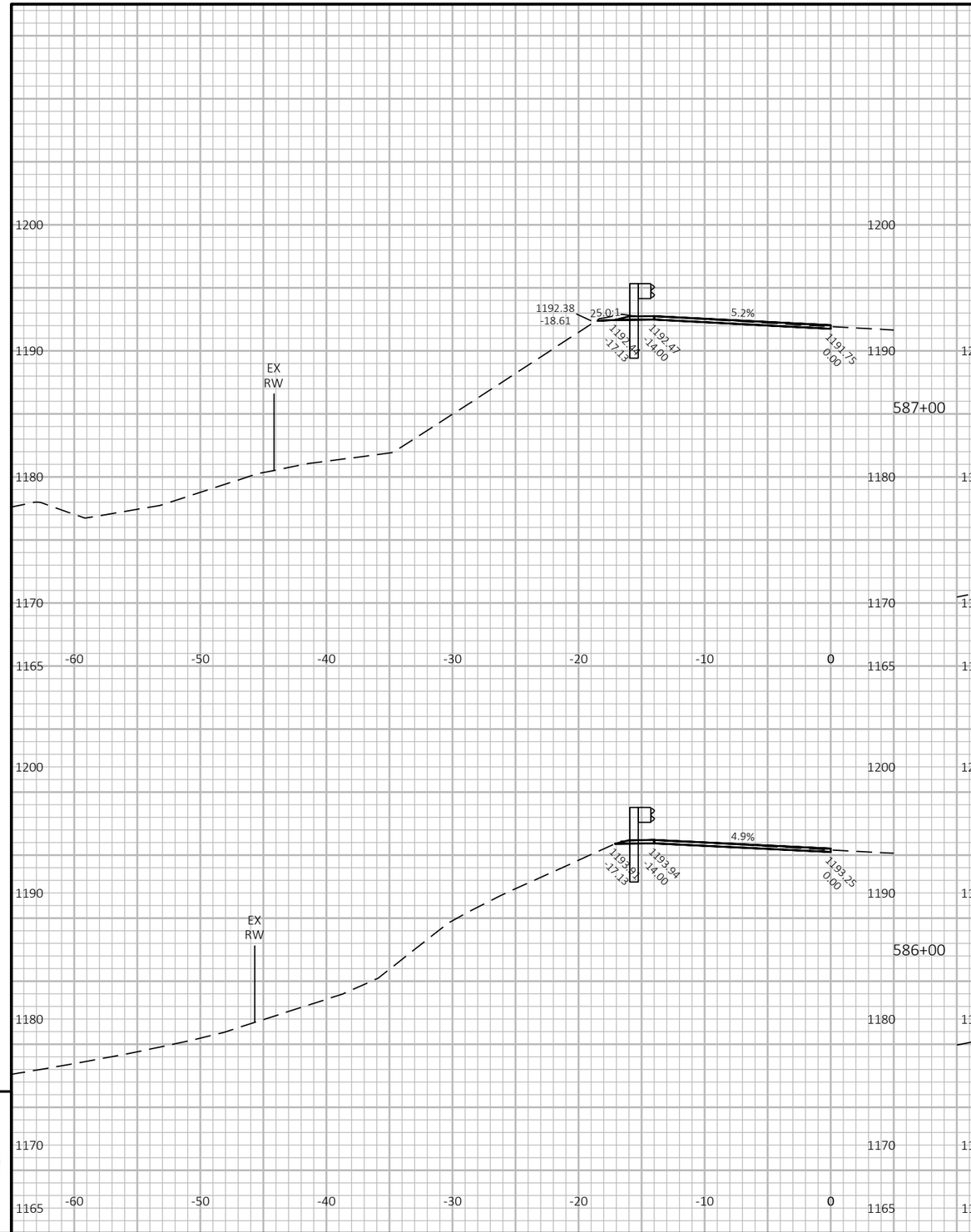
PLOT DATE : 7/25/2022 11:33 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

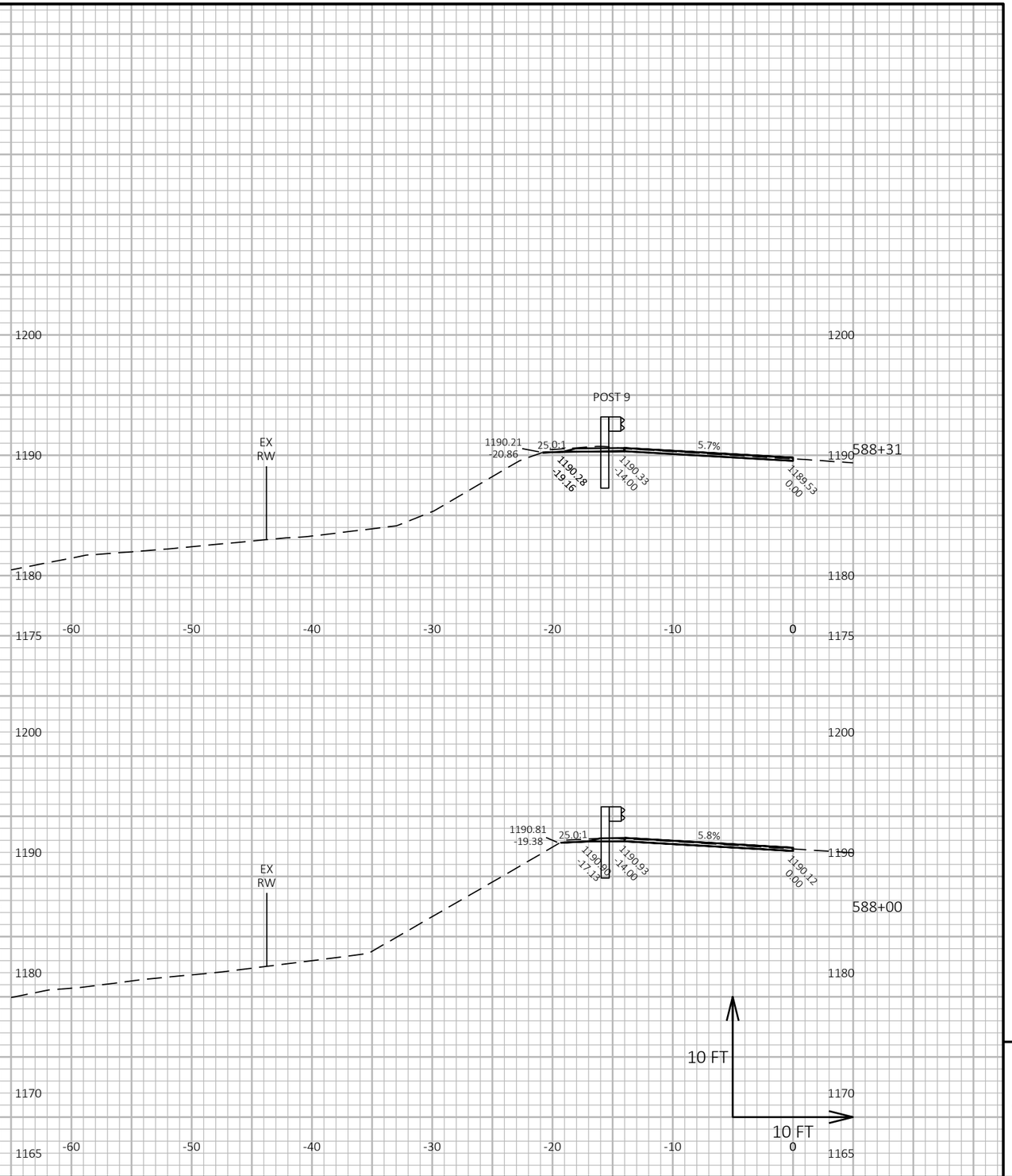


9

9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 107	E





9

9

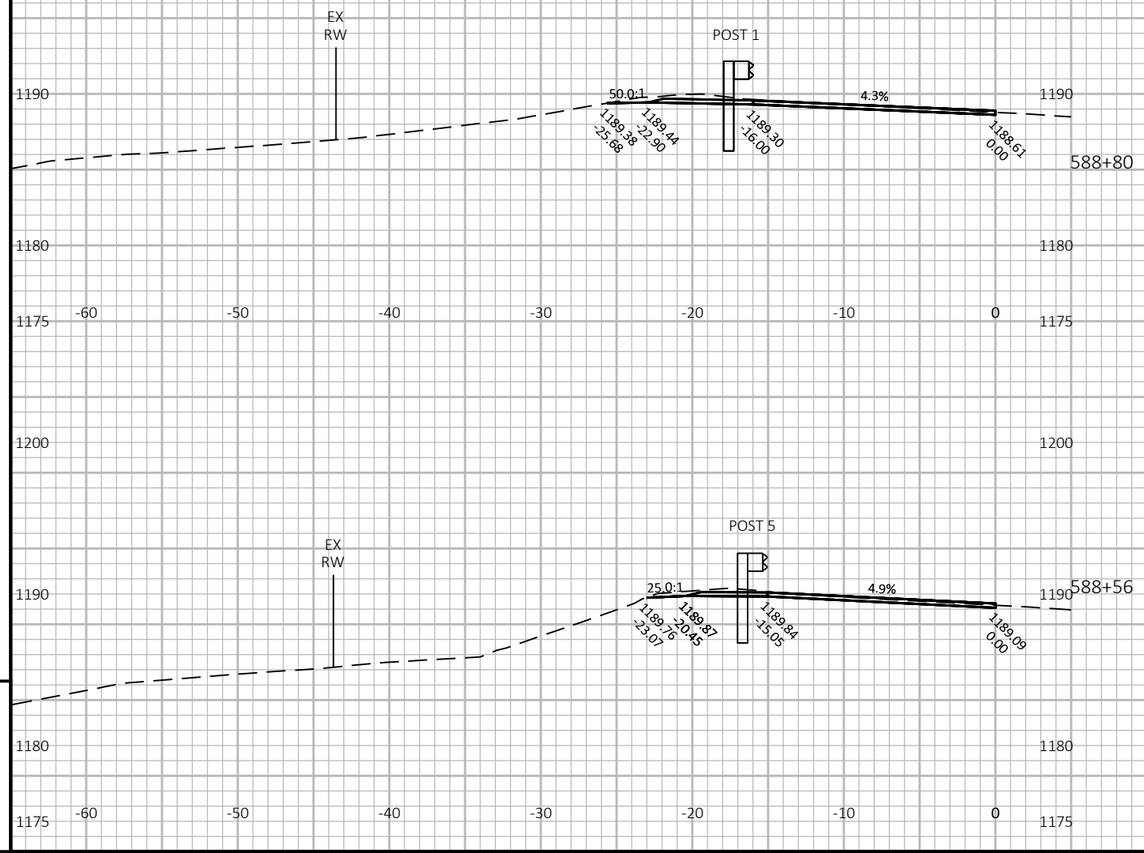
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 108	E

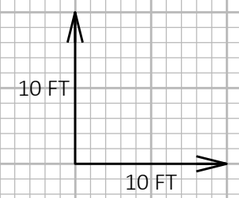
FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 7/25/2022 11:34 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END BARRIER SYSTEM GRADING SHAPING FINISHING
STA 589+04.9





9

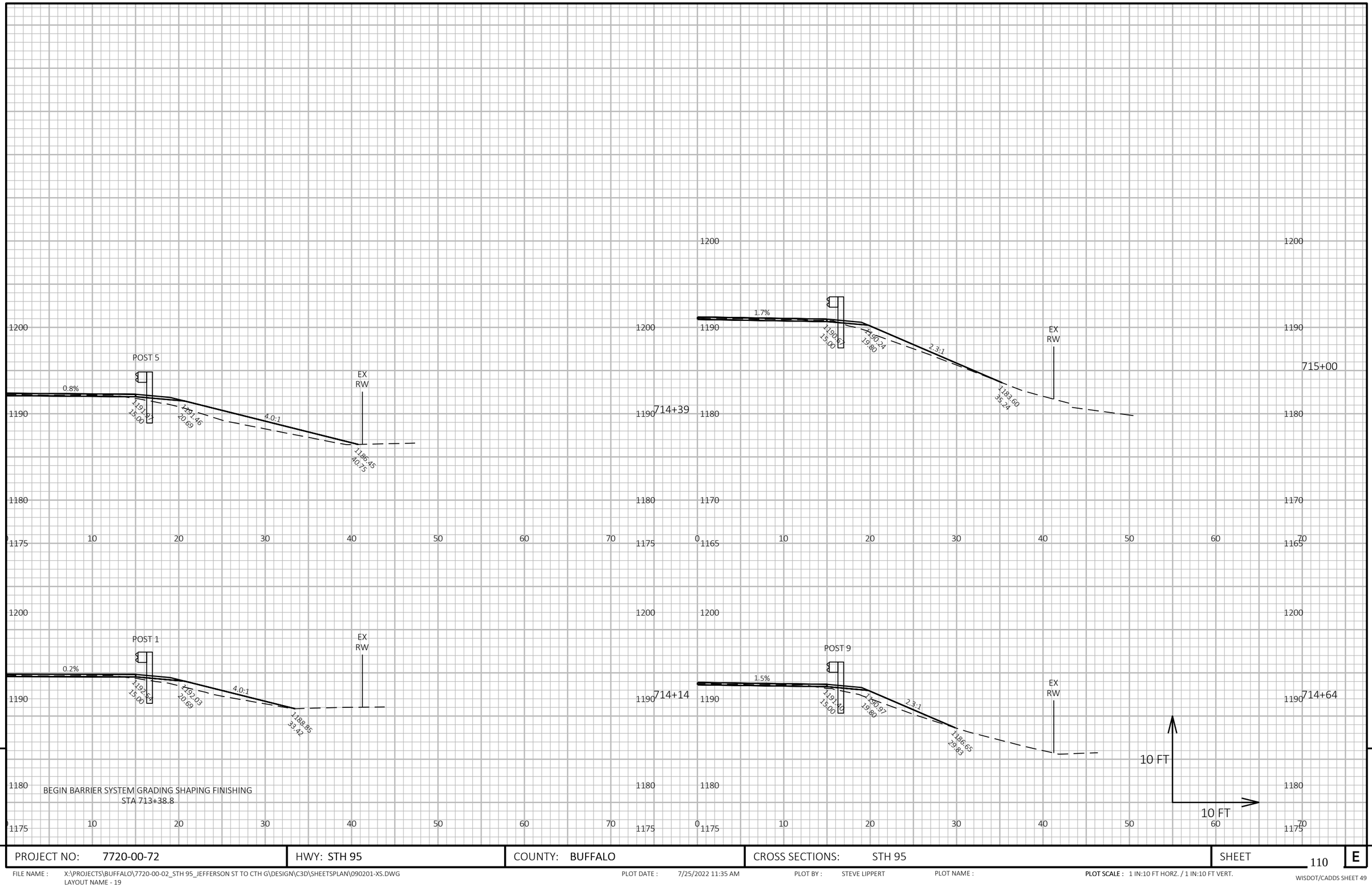
9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 109	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 7/25/2022 11:34 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

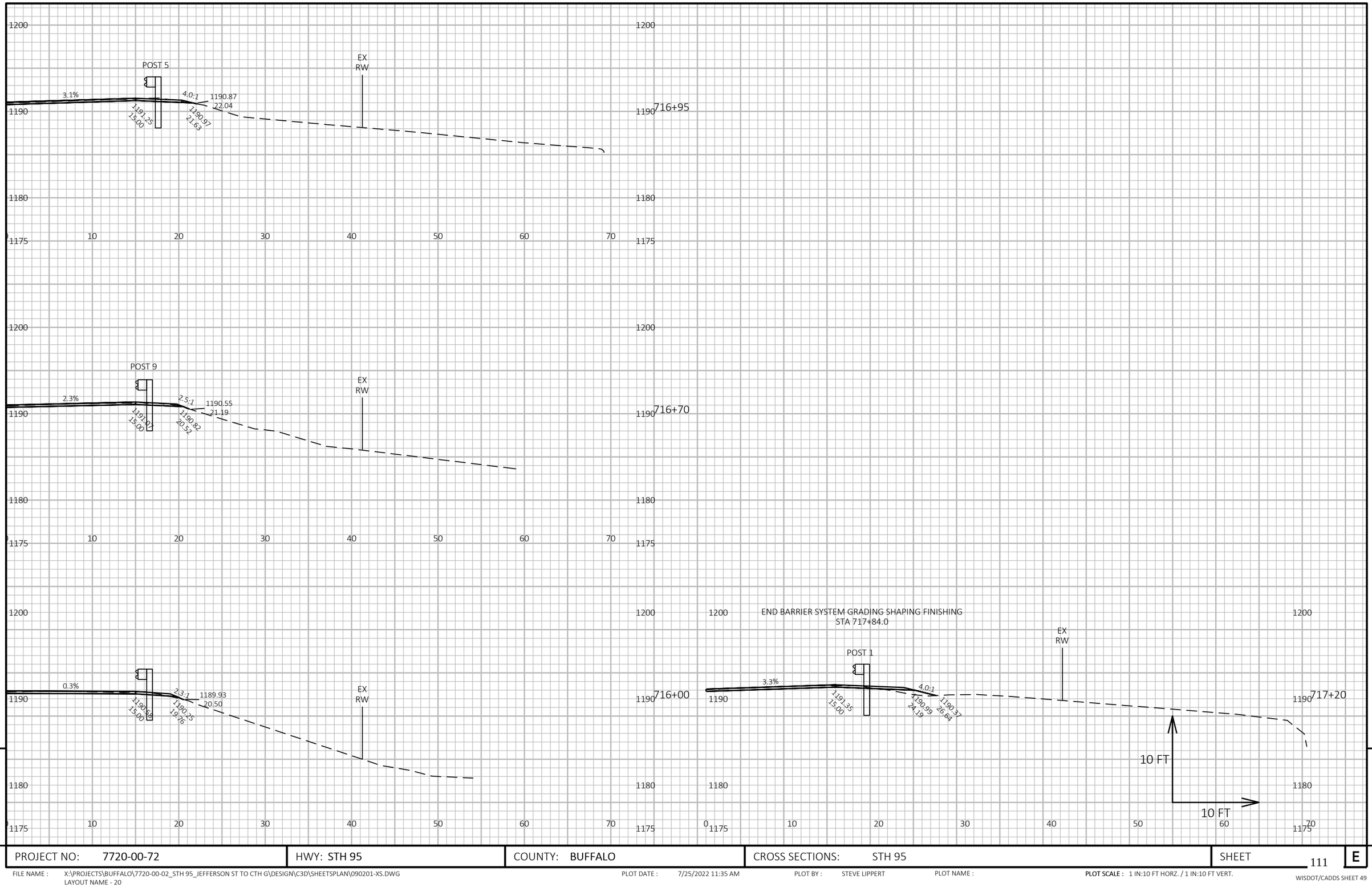


PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 110 E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 7/25/2022 11:35 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

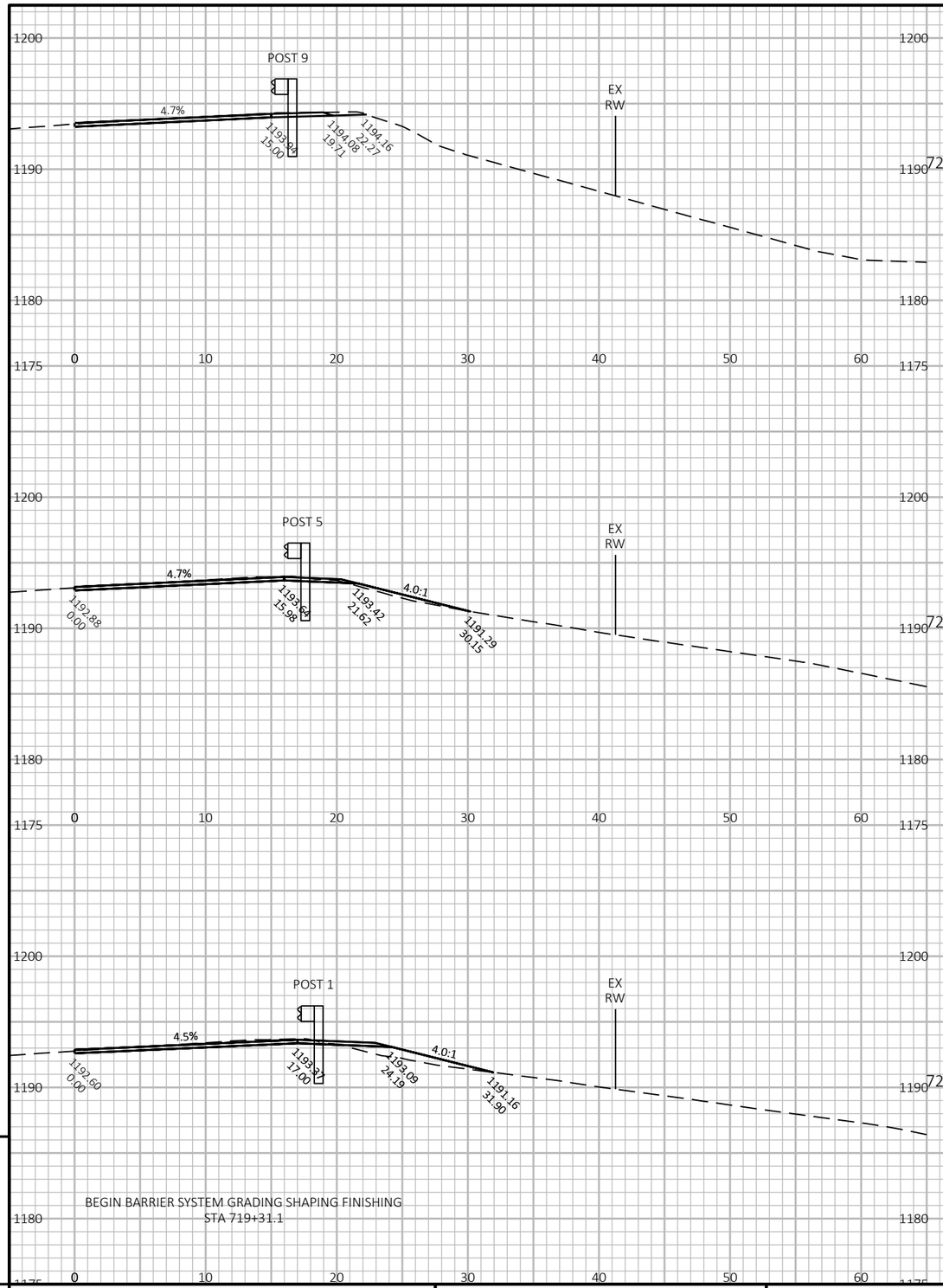
9

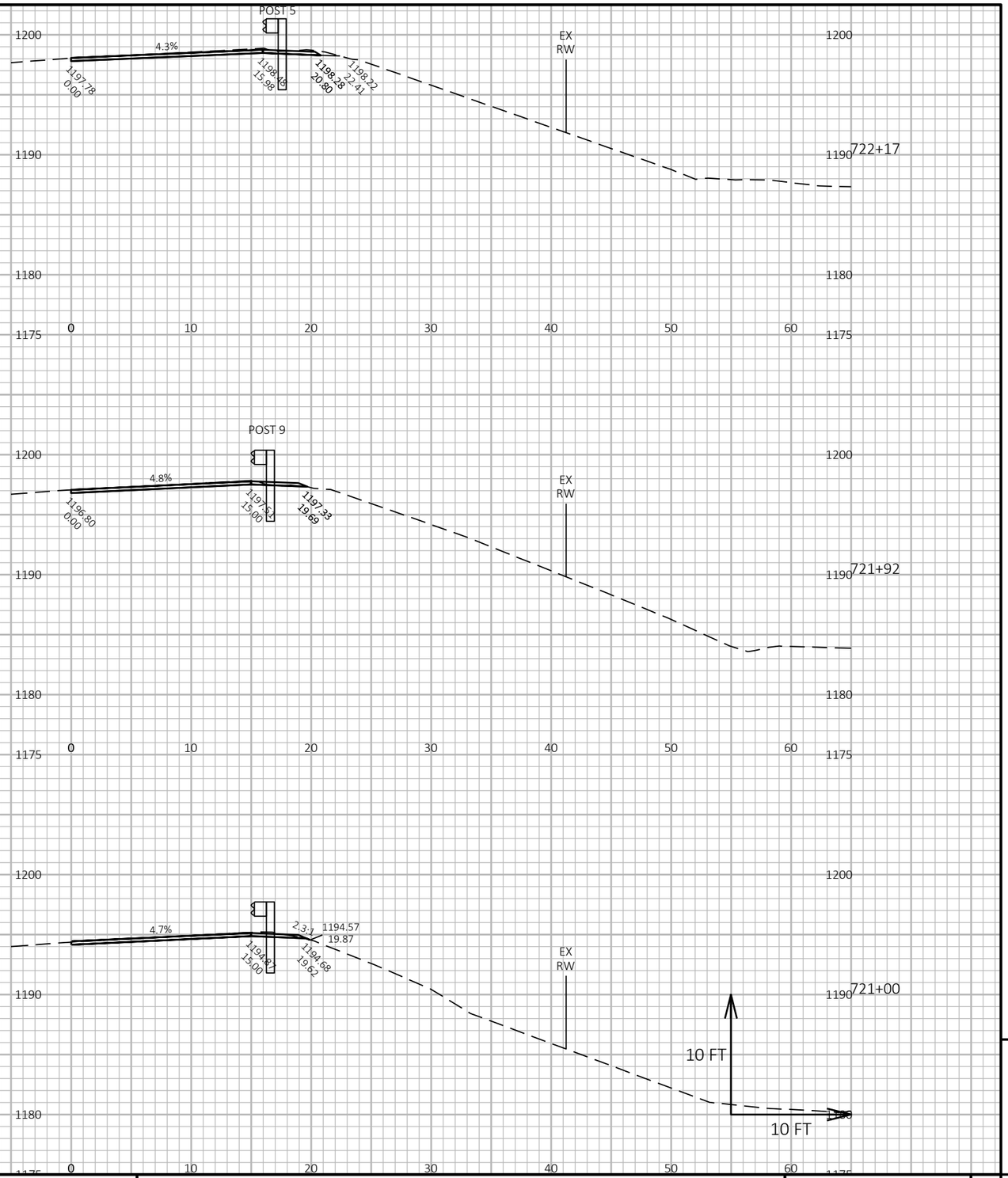
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 111	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 20

PLOT DATE : 7/25/2022 11:35 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





BEGIN BARRIER SYSTEM GRADING SHAPING FINISHING
STA 719+31.1

9

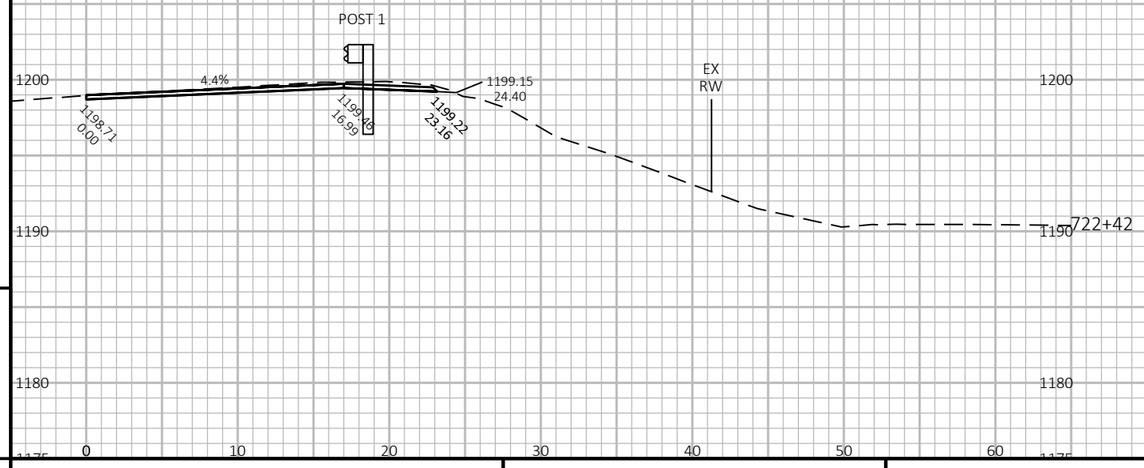
9

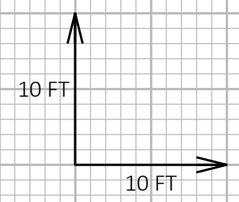
PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 112	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 7/25/2022 11:36 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

END BARRIER SYSTEM GRADING SHAPING FINISHING
STA 723+46.4





9

9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 113	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 22

PLOT DATE : 7/25/2022 11:36 AM PLOT BY : STEVE LIPPERT PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

STA 845+48.5
56 LF CPRC CLASS IV 24-INCH
1 - AEW FOR CPRC 24-INCH
1 - INLETS MEDIAN 2 GRATE
1 - INLET COVERS TYPE MS

EX RW

2.0%

4.0:1

1220.85
22.54

1220.83
12.00

1221.07
0.00

1220.83
12.00

1220.94
24.76

1220.93
28.76

RIM = 1220.30
1220.27
31.02

INV = 1217.52

1217.44
36.17

INV = 1217.80

EX RW

845+48

10 FT

10 FT

1230
1220
1210
1205

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

9

PROJECT NO: 7720-00-72	HWY: STH 95	COUNTY: BUFFALO	CROSS SECTIONS: STH 95	SHEET 114	E

FILE NAME : X:\PROJECTS\BUFFALO\7720-00-02_STH 95_JEFFERSON ST TO CTH G\DESIGN\C3D\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 23

PLOT DATE : 7/25/2022 11:37 AM PLOT BY : STEVE LIPPERT PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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