

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TIPLER - FLORENCE

STH 139 SOUTH TO FOREST RD 2154

STH 70

FLORENCE COUNTY

STATE PROJECT NUMBER
9100-05-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9100-05-71		

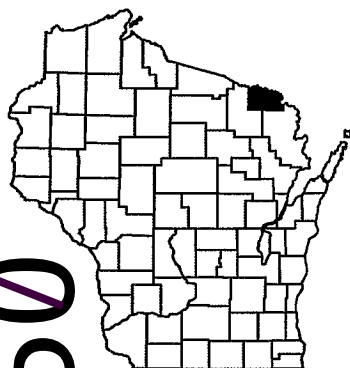
ORDER OF SHEETS

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

TOTAL SHEETS = 124

PROJECT ID: 9100-05-71

COUNTY: FLORENCE

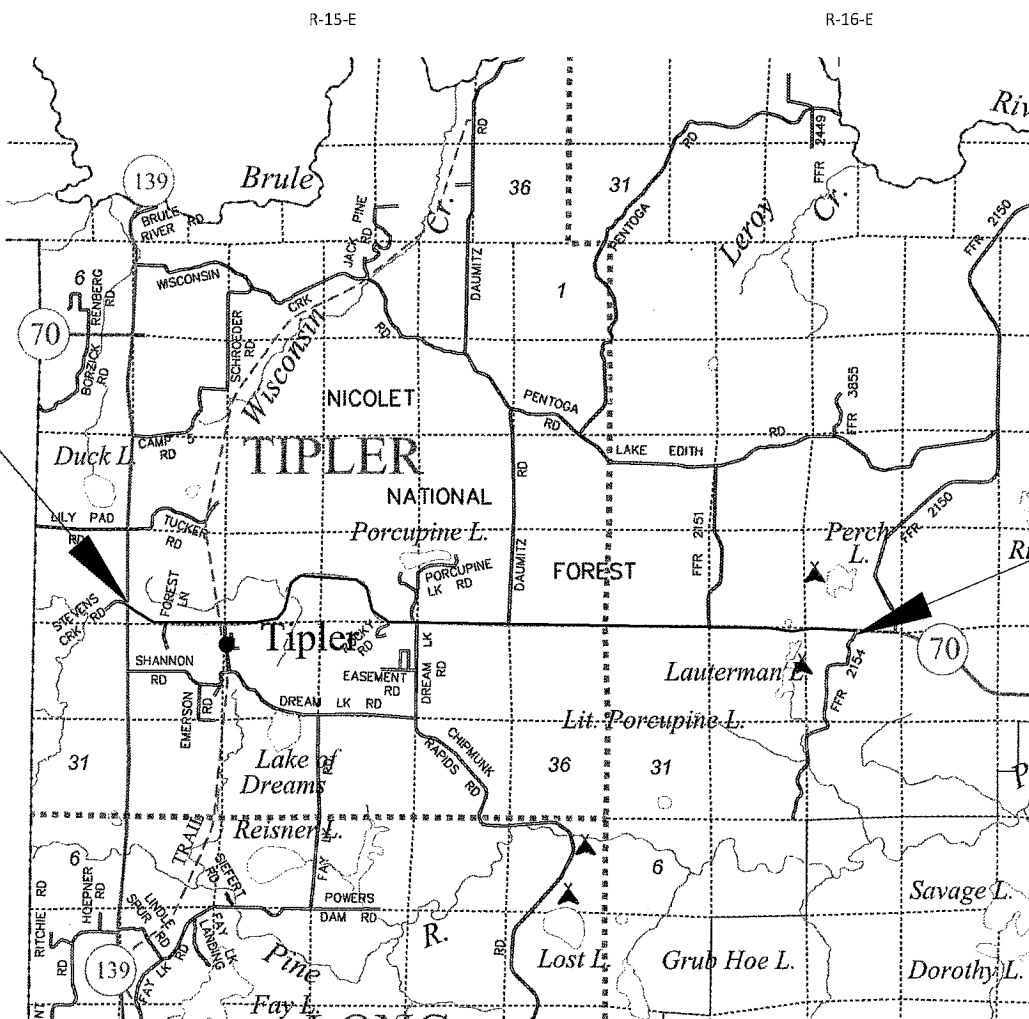


DESIGN DESIGNATION

A.A.D.T.	2027	=	730
A.A.D.T.	2047	=	730
D.H.V.		=	
D.D.		=	
T.		=	20.1%
DESIGN SPEED		=	60 MPH
ESALS		=	

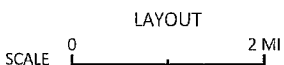
BEGIN PROJECT
 STA 11+48.00
 X = 307529.737
 Y = 178491.416

END PROJECT
 STA 445+60.00



CONVENTIONAL SYMBOLS

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



TOTAL NET LENGTH OF CENTERLINE = 8.222 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), FLORENCE 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.

ORIGINAL PLANS PREPARED BY

Alfred Benesch & Company
 1300 West Canal Street, Suite 150
 Milwaukee, Wisconsin 53233
 414-308-1310 Job No. 20295.00

WISCONSIN

HEATHER
CLEGG
E-43023-6
HORTONVILLE
WIS.

PROFESSIONAL ENGINEER

DATE: 10/21/22

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	AYRES AND ASSOCIATES
Designer	ALFRED BENESCH
Project Manager	PAUL BRAUER
Regional Examiner	
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
 DATE: 10/21/2022 (Signature)

E

GENERAL NOTES

1. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.
2. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
3. ALL ELEVATIONS AND OFFSETS SHOWN IN THE PLAN SHALL BE VERIFIED IN THE FIELD.
4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
5. THE COST OF GRADING, CONSTRUCTING, MAINTAINING, AND REMOVING TEMPORARY ACCESS IS INCIDENTAL TO THE CONTRACT.
6. HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY-IN.

EROSION CONTROL GENERAL NOTES

1. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
2. QUANTITIES FOR EROSION CONTROL ITEMS HAVE BEEN INCLUDED IN THE PROJECT, BUT MAY NOT BE REPRESENTED ON THE PLAN. THE LOCATIONS AND TYPE OF EROSION CONTROL ITEMS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE ITEMS IS NO LONGER REQUIRED.
3. DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED, TOPSOILED AND COVERED WITH EROSION MAT. SEE MISCELLANEOUS QUANTITIES FOR DETAILS.

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)			SLOPE RANCE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP TURF	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE TURF	0.25 0.34	0.27 0.36	0.25 0.32	0.30		0.27 0.34			0.28 0.36			0.30 0.38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 29.89 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.97 ACRES

OTHER AGENCIES

DNR CONTACT

DNR NC REGION
 JON SIMONSEN
 107 SUTLIFF AVE
 RHINELANDER, WI 54501
 PHONE: (715) 367-1936
 EMAIL: JONATHAN.SIMONSEN@WISCONSIN.GOV

UTILITIES

COMMUNICATIONS

CENTURYLINK - COMMUNICATION LINE
 KYLE SCHLAMPP
 20 S WILSON AVE
 RICE LAKE, WI 54868
 PHONE: (715) 475-2029
 EMAIL: KYLE.SCHLAMPP@LUMEN.COM

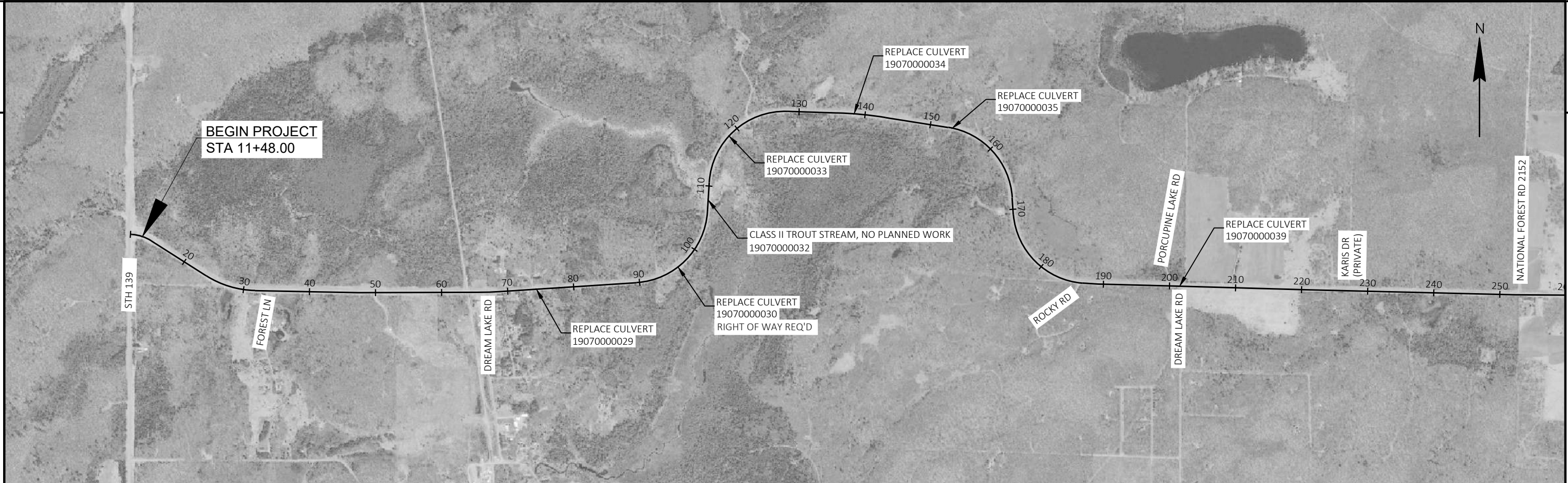
ELECTRICITY

WE ENERGIES - ELECTICITY
 UTILITY COORDINATOR
 500 S 116TH ST
 WEST ALLIS, WI 53214
 PHONE: (414) 221-2738
 EMAIL: WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

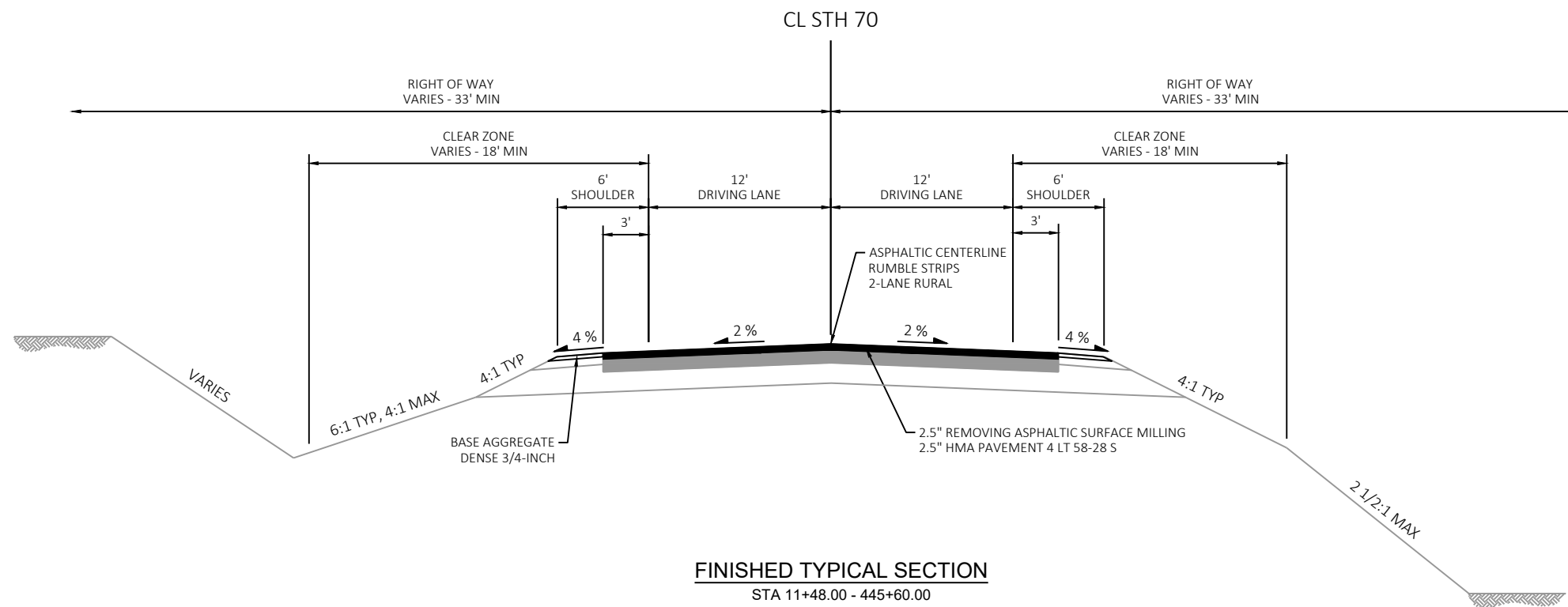
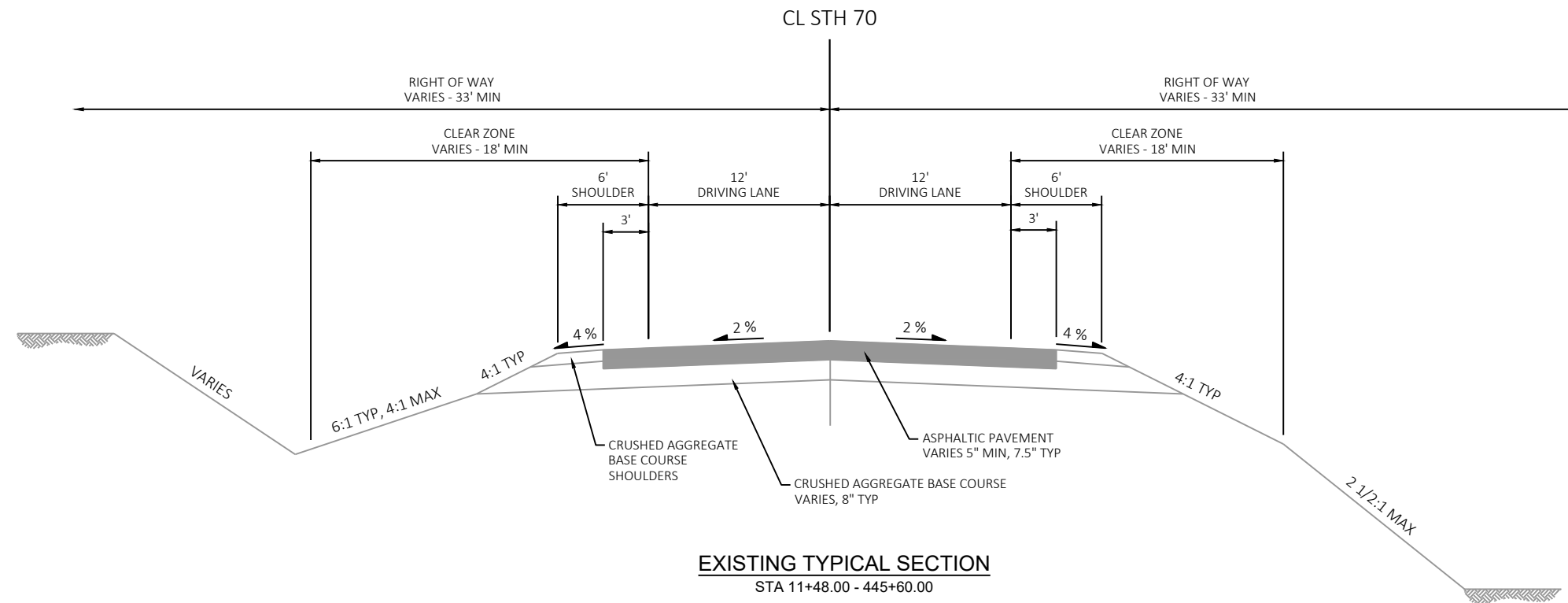


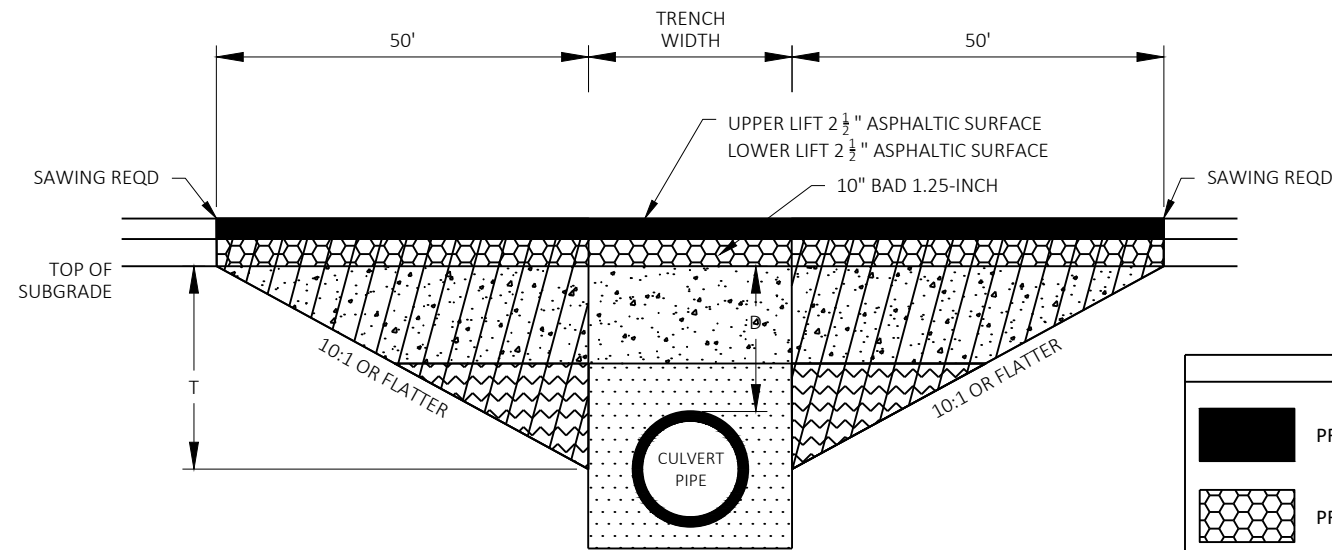
ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- CULVERT DETAIL
- ALIGNMENT DETAILS



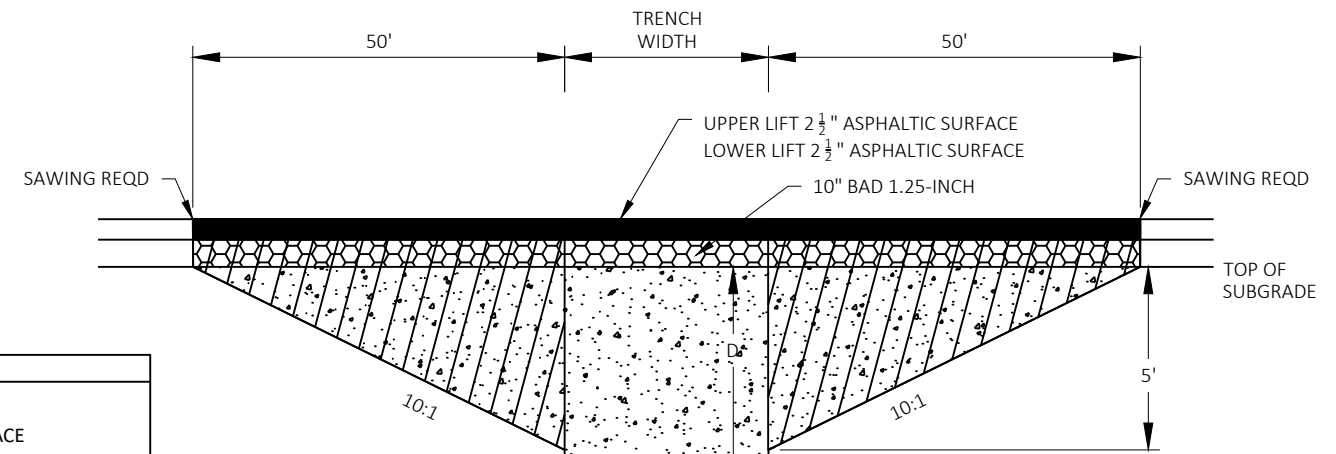
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PROJECT OVERVIEW	SHEET	E
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DEPTH D < 6 FT

TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.



DEPTH D ≥ 6 FT

KEY	
	PROPOSED SURFACE
	PROPOSED BASE
	TRENCH BACKFILL
	TRENCH OR FOUNDATION BACKFILL
	FOUNDATION BACKFILL
	TRANSITION CUT

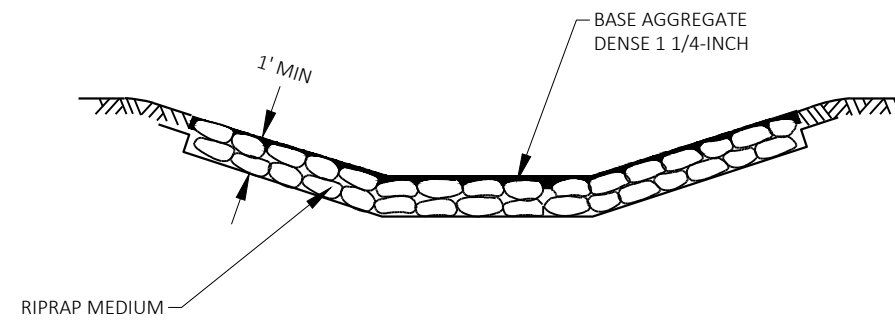
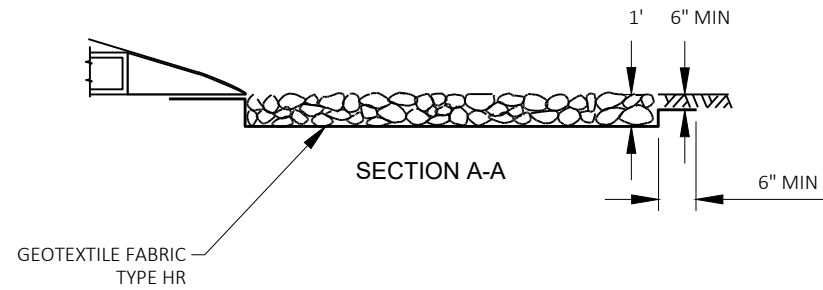
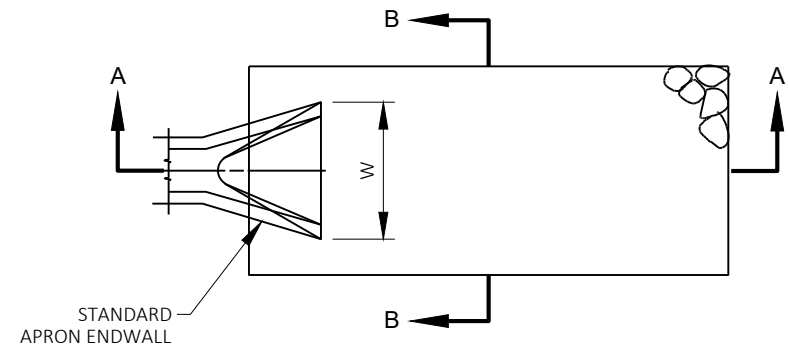
NOTES

- TRANSITION CUT IS PAID AS EXCAVATION COMMON.
- TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
- BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
- PERFORM CULVERT PIPE INSTALLATION BEFORE MILLING AND PAVING.

CULVERT PIPE TRANSITION

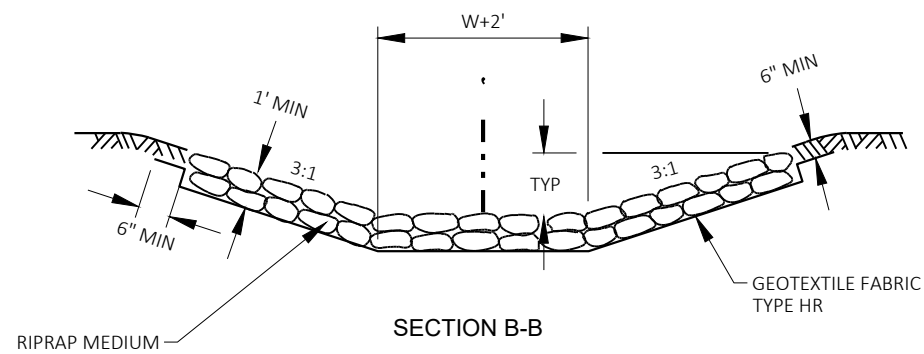
ROUTE	STA (CL)	CULVERT	DEPTH DIA (FT)	PIPE SHIFT (IN)
STH 70	74+37	19070000029	3	24
STH 70	96+34	19070000030	5.5	24
STH 70	118+34	19070000033	2	24
STH 70	138+34	19070000034	5	36
STH 70	153+33	19070000035	1	48
STH 70	201+52	19070000039	1.5	24
STH 70	260+55	19070000042	6	24
STH 70	332+91	19070000047	5.5	36
STH 70	354+91	19070000048	1.5	36
STH 70	377+63	19070000050	7.5	24
STH 70	435+09	19070000054	9	24

REVISED 01/2021



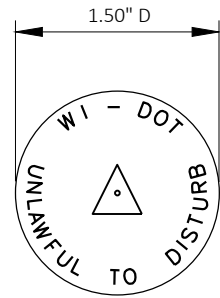
RIP RAP DETAIL CULVERT 50 & 54

GENERAL NOTES:
 FILL VOIDS IN RIPRAP MEDIUM WITH BASE AGGREGATE DENSE 1 1/4-INCH TO FULLY FILL ALL VOIDS. PROVIDE LEVEL SURFACE.

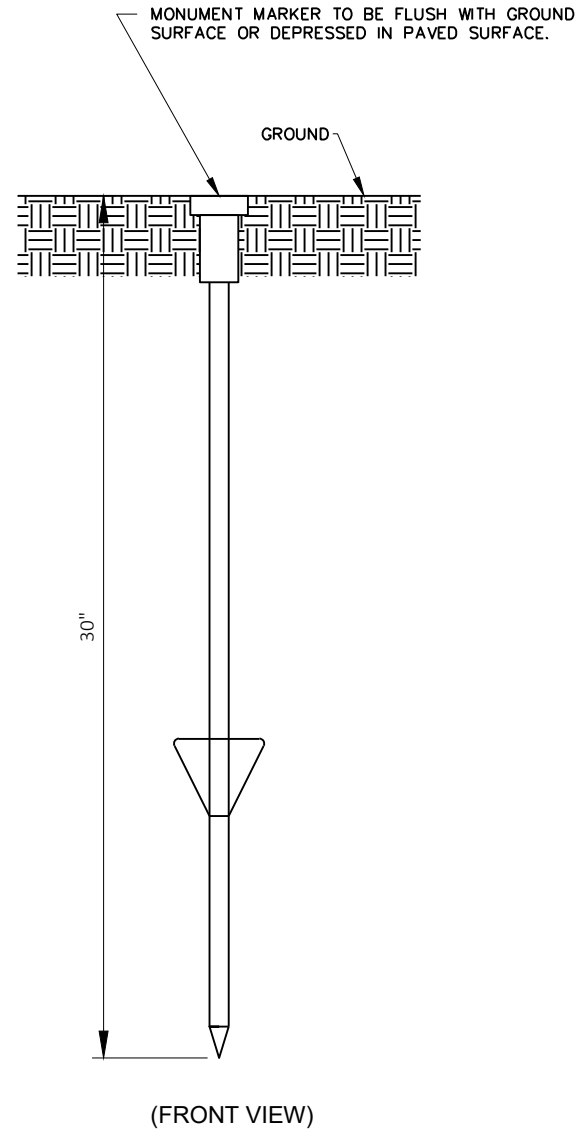


RIP RAP AND GEOTEXTILE

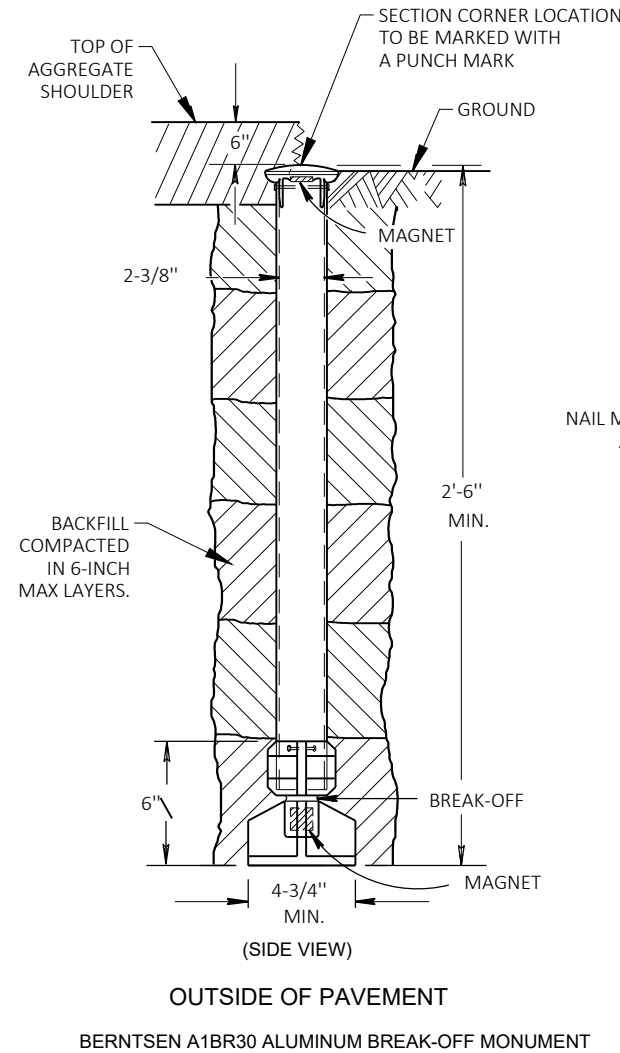
OUTLET IN-CHANNEL RIPRAP SHALL NOT BE PLACED HIGHER THAN CULVERT INVERT



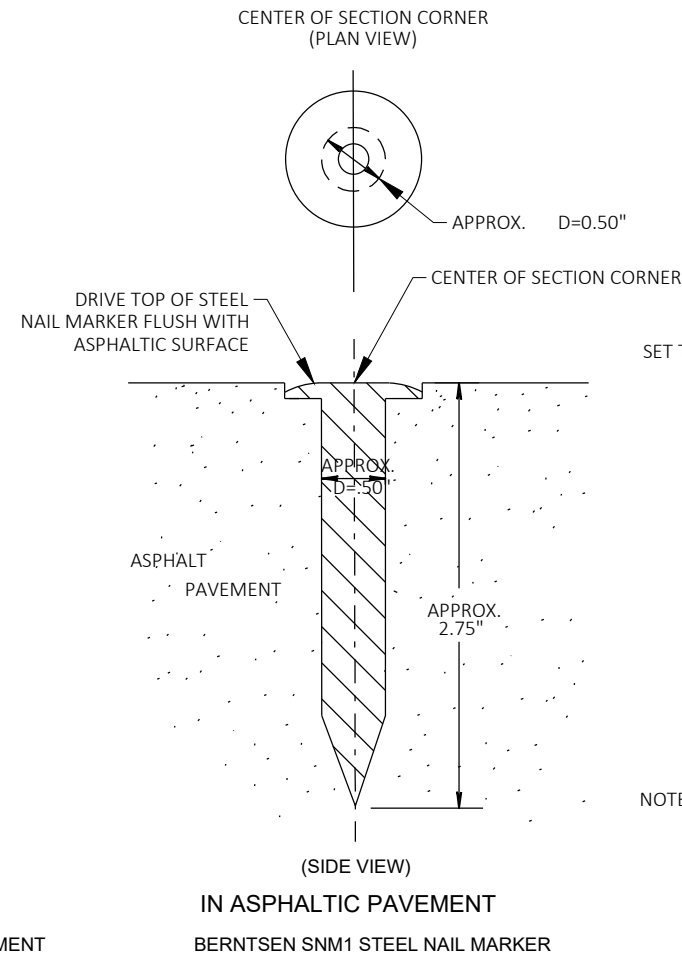
WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)
 CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING



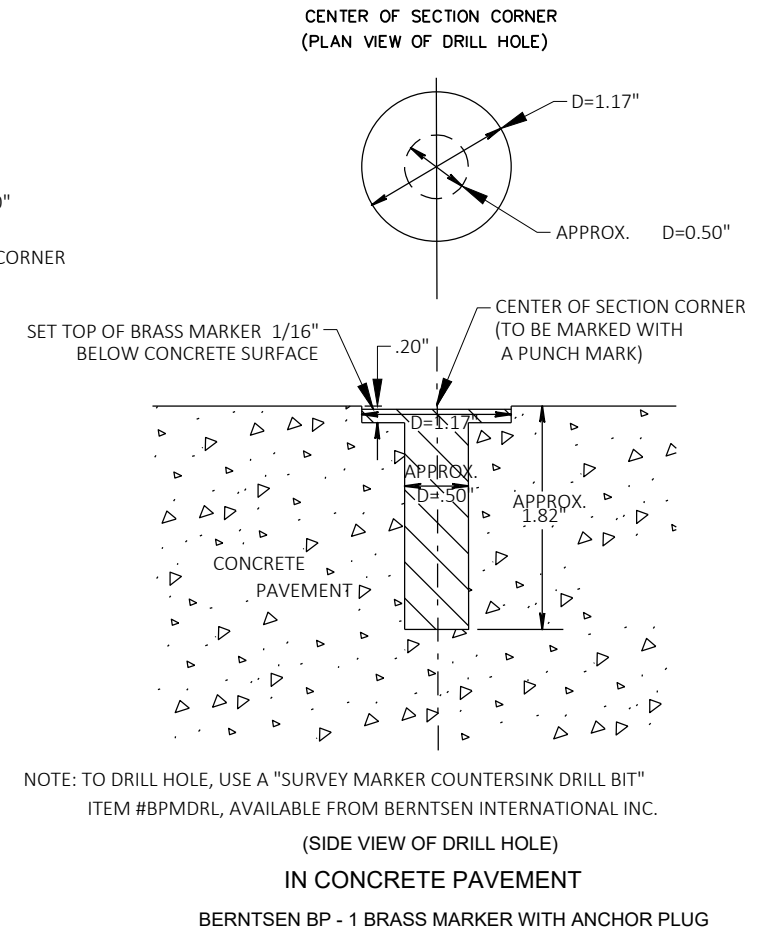
BERNSTEN DRIVABLE MONUMENT SDR130
 LANDMARK REFERENCE MONUMENT (TIES ONLY)



OUTSIDE OF PAVEMENT



IN ASPHALTIC PAVEMENT



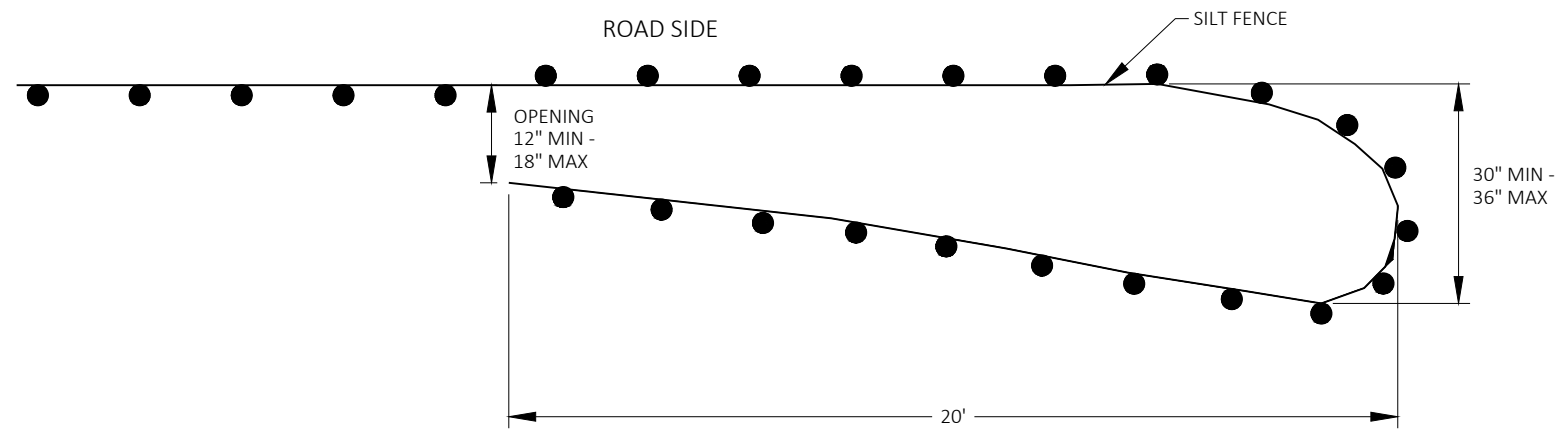
IN CONCRETE PAVEMENT

SECTION CORNER MONUMENTS

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.
- LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.
- CONTRACTOR WILL SUPPLY ALL REQUIRED SURVEY MONUMENTS.

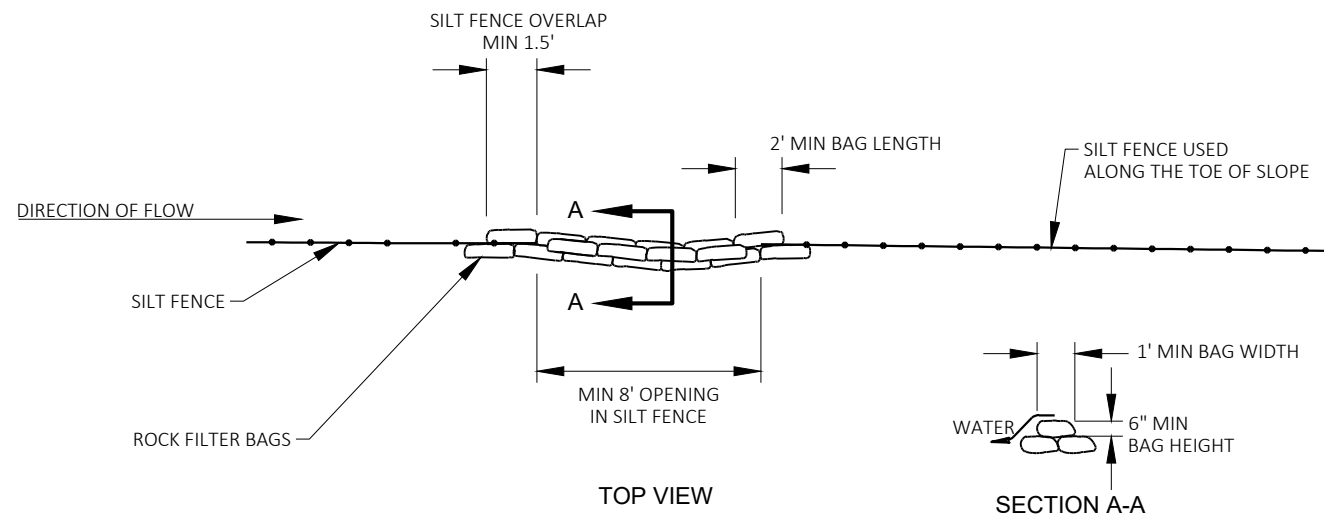
SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL



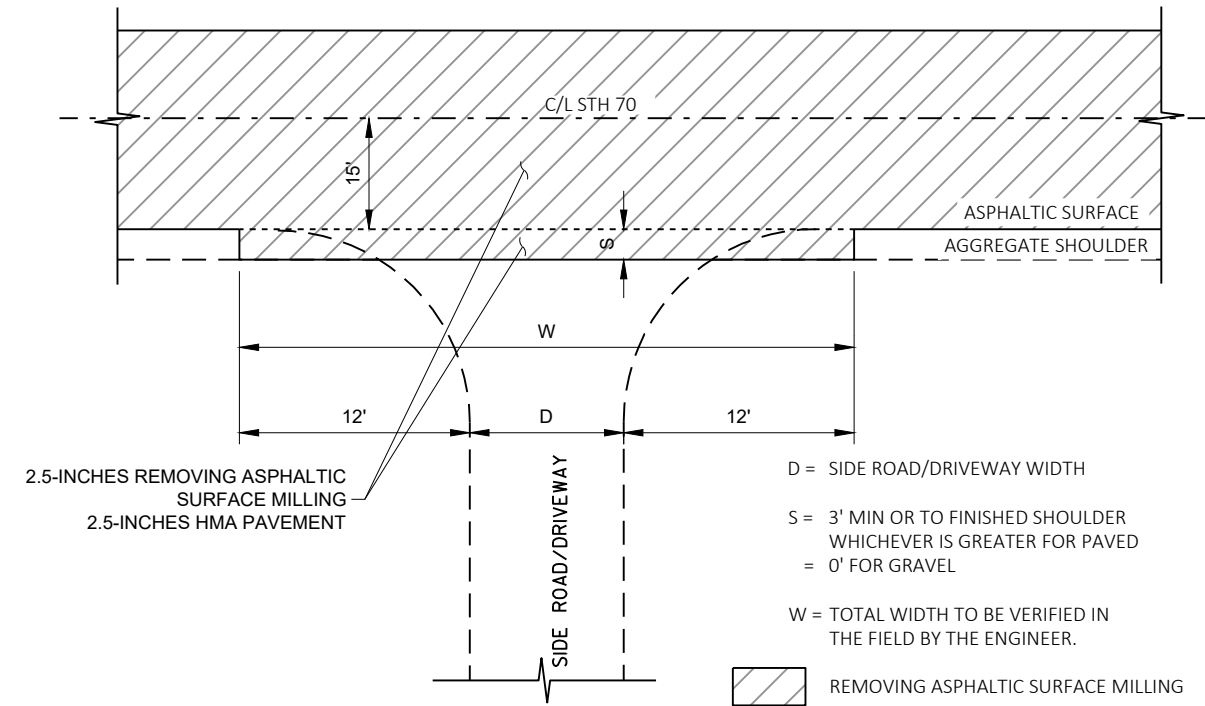
PLAN VIEW

TEMPORARY SMALL ANIMAL TURN-AROUND
CULVERTS AT STA 377+63 & STA 435+08

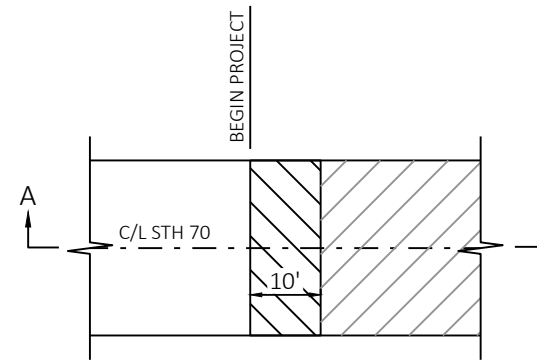
GENERAL NOTES:
 TEMPORARY SMALL ANIMAL TURN-AROUND SHALL BE PLACED ON ALL ENDS OF SILT FENCE. SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND. AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.



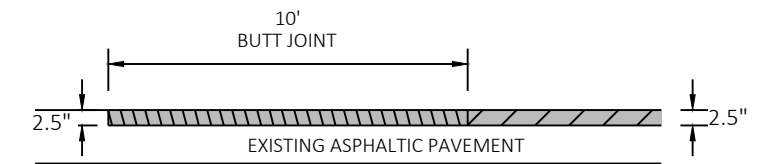
ROCK BAGS USED FOR SILT FENCE RELIEF



SIDE ROADS & DRIVEWAYS
WITHOUT CURB AND GUTTER



TYPICAL MAINLINE DETAIL

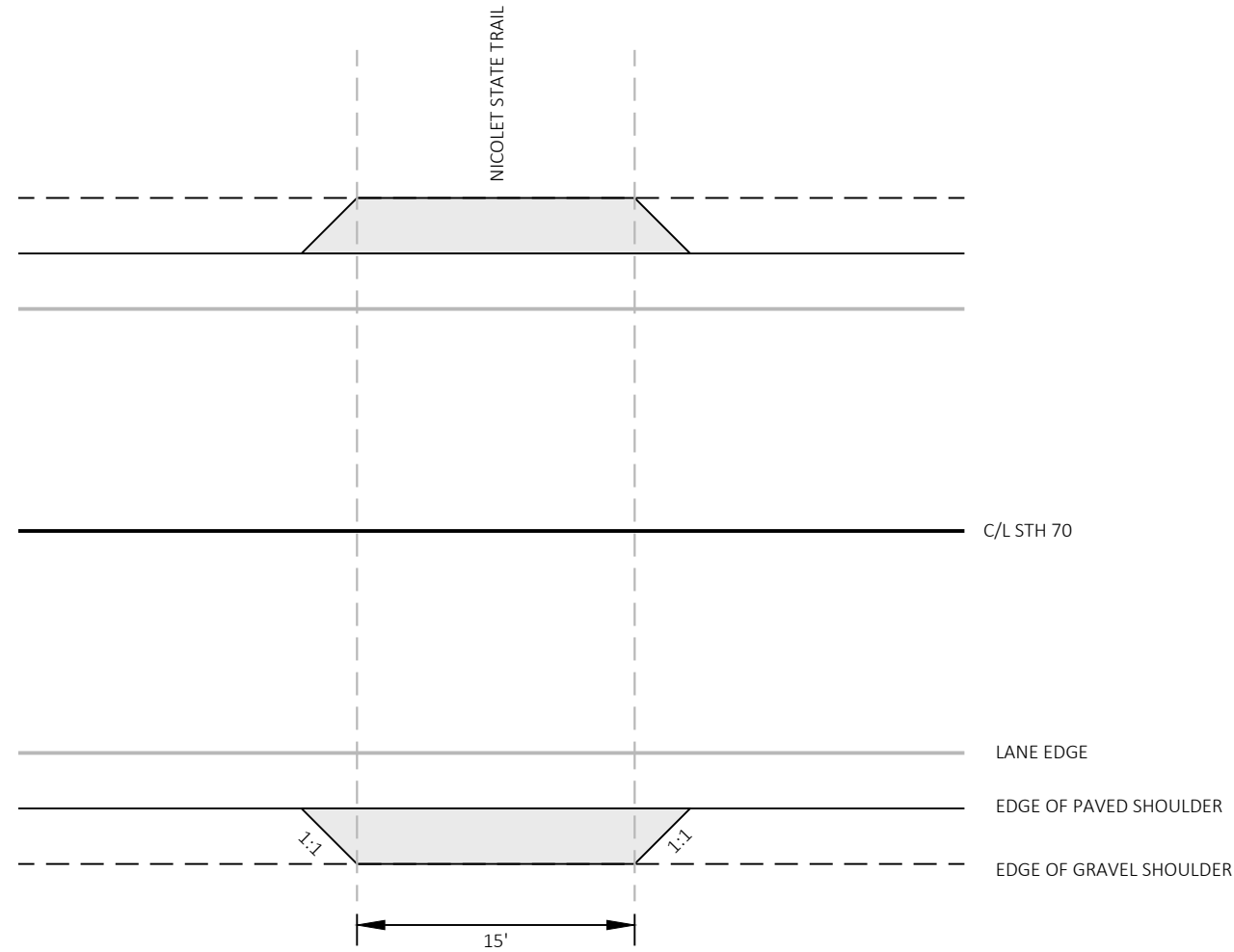


- HMA PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINTS

SECTION A-A

BUTT JOINT

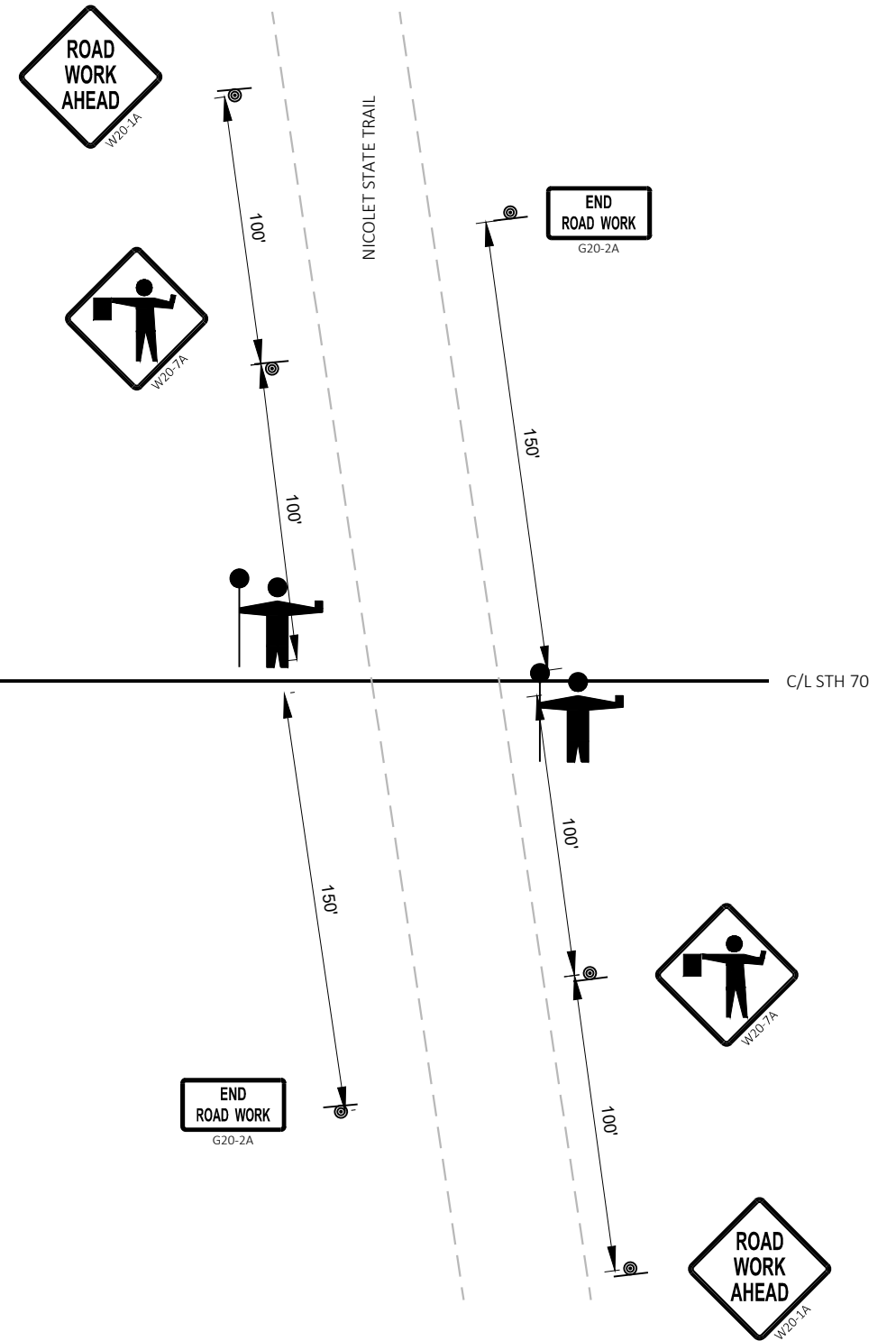
MAINLINE



NOTE: PREPARATION FOR PAVEMENT WIDENING IS INCLUDED IN PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

SNOWMOBILE TRAIL CROSSING WITH FULL WIDTH SHOULDERS


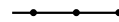
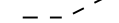



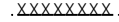


STA 64+00

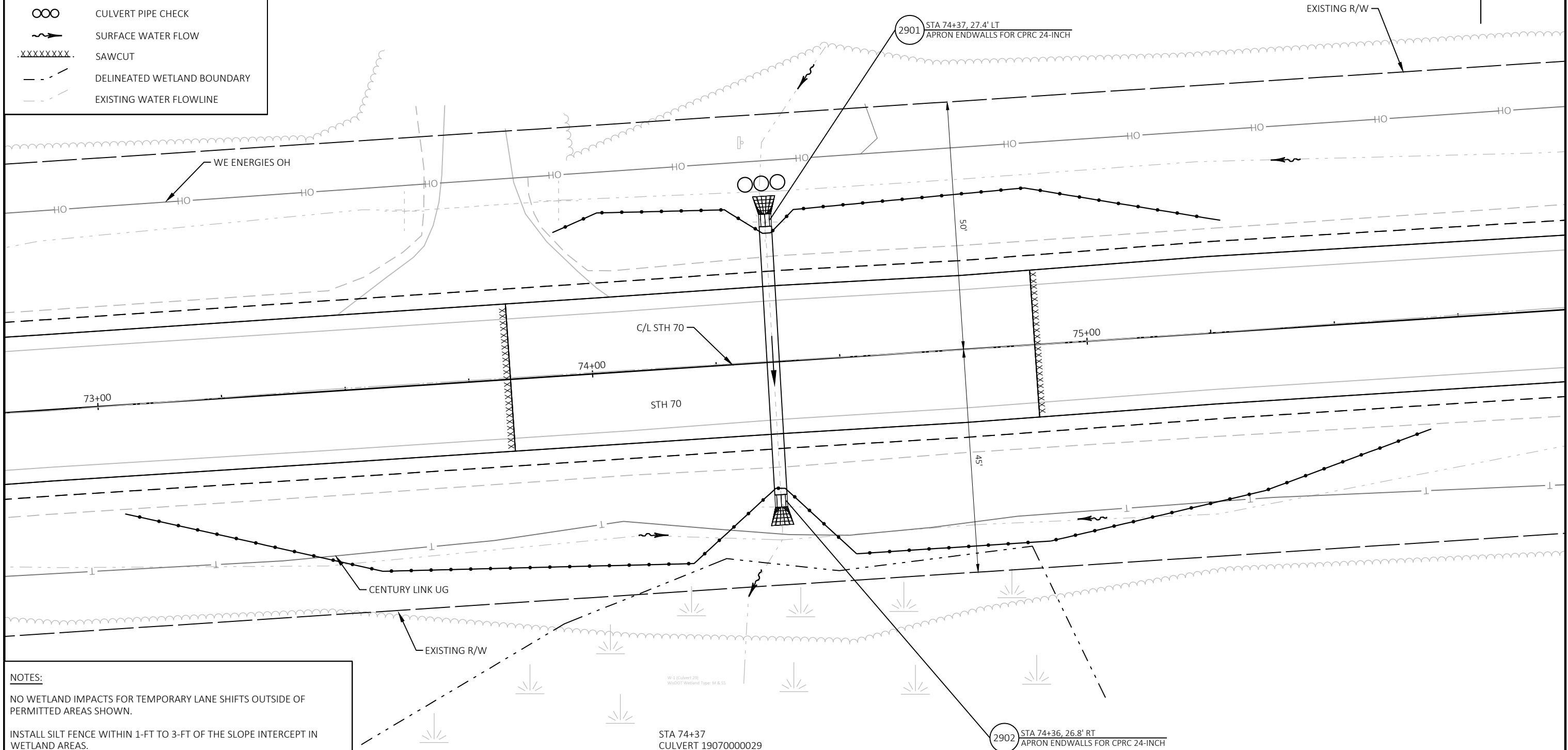


FLAGGING AT TRAIL CROSSING

STA 64+00

LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



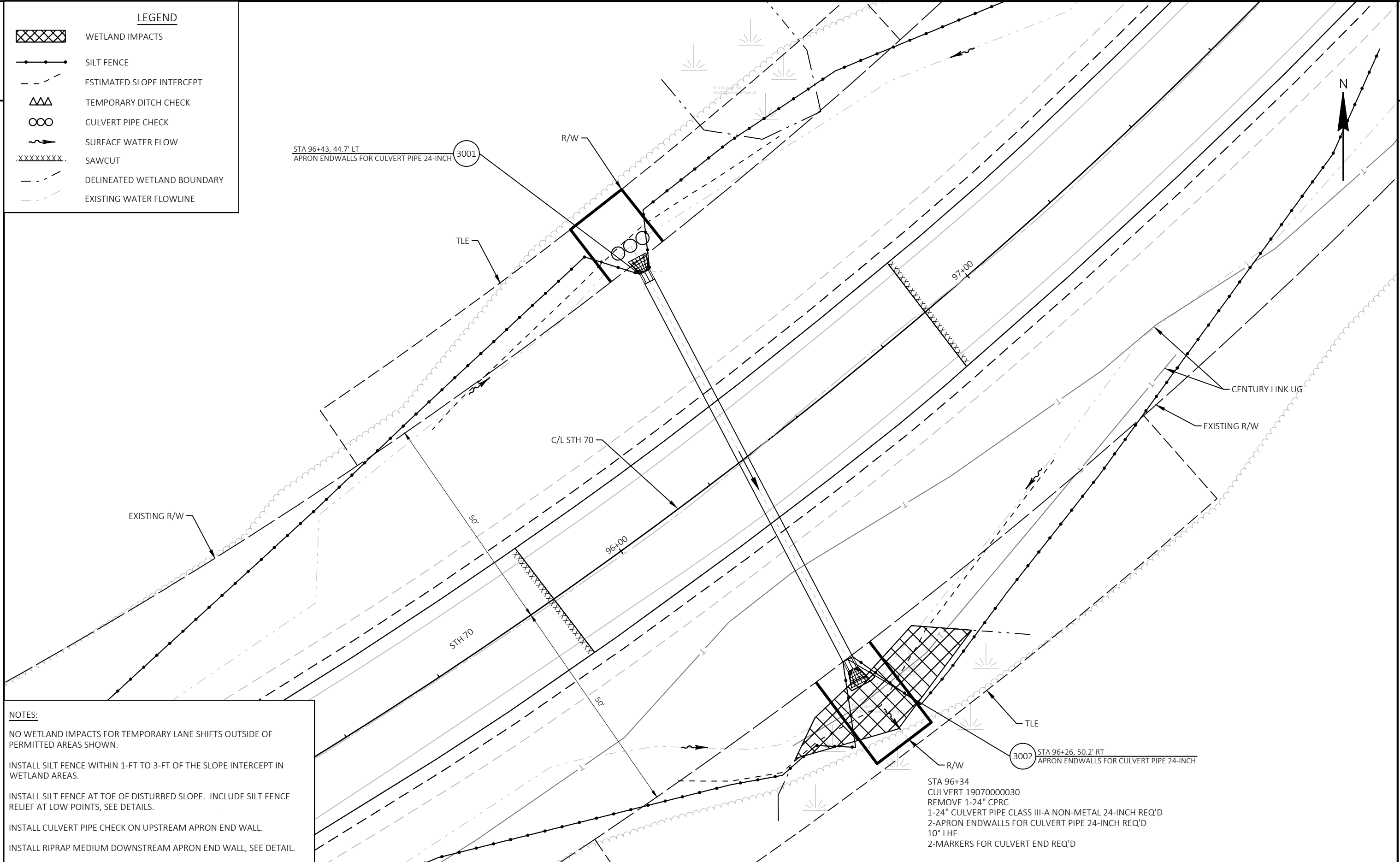
NOTES:

- NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
- INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
- INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
- INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
- INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

STA 74+37
 CULVERT 19070000029
 REMOVE 1-18" CPRC
 1-CPRC CLASS IV 24-INCH REQ'D
 2-APRON ENDWALLS FOR CPRC 24-INCH REQ'D
 0° LHF
 2-MARKERS FOR CULVERT END REQ'D

LEGEND

	WETLAND IMPACTS
	SILT FENCE
	ESTIMATED SLOPE INTERCEPT
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW
	SAWCUT
	DELINEATED WETLAND BOUNDARY
	EXISTING WATER FLOWLINE


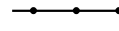
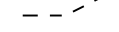


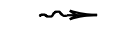
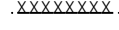
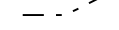



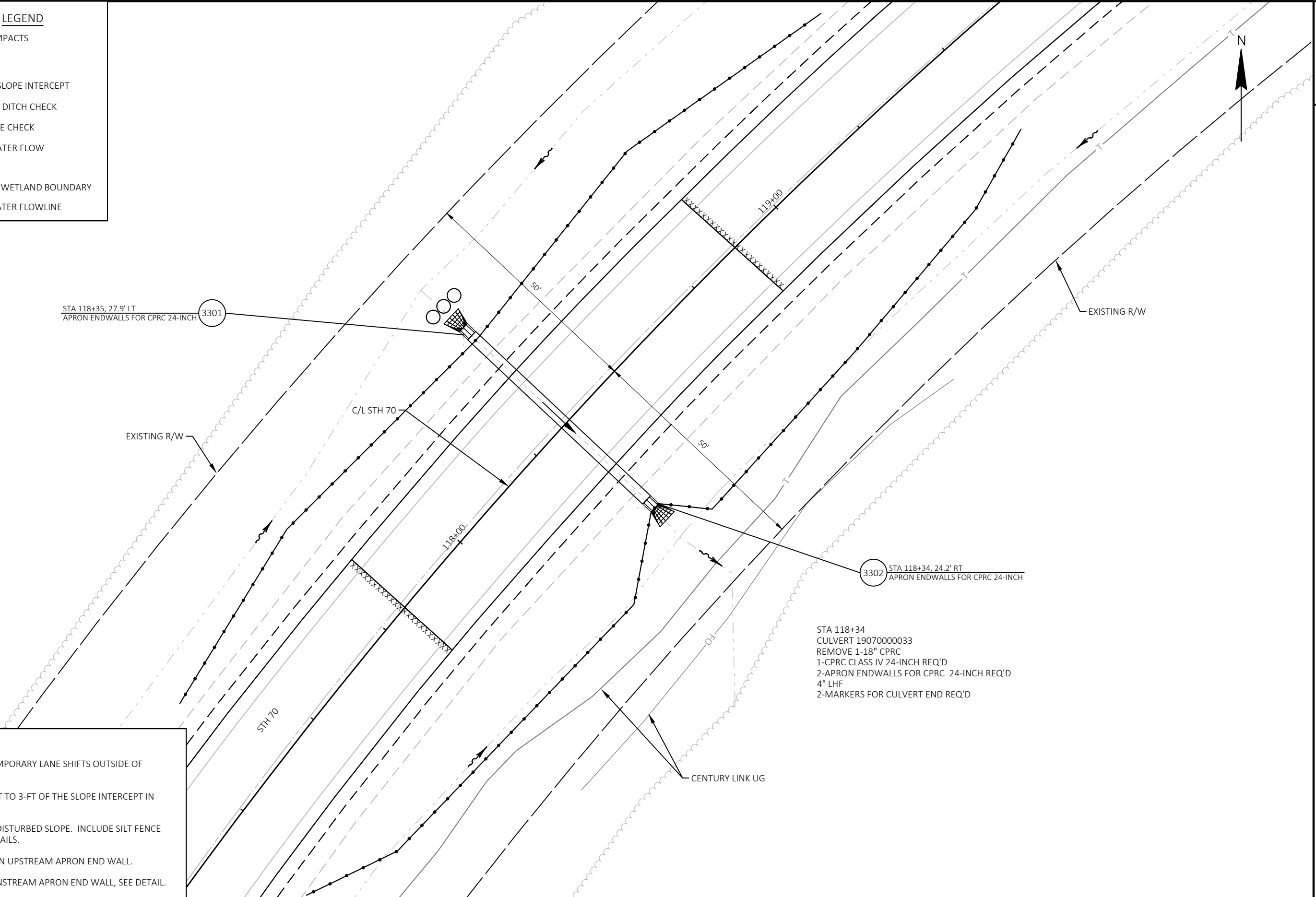
NOTES:

- NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
- INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
- INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
- INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
- INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

STA 96+34
 CULVERT 19070000030
 REMOVE 1-24" CPRC
 1-24" CULVERT PIPE CLASS III-A NON-METAL 24-INCH REQ'D
 2-APRON ENDWALLS FOR CULVERT PIPE 24-INCH REQ'D
 10° LHF
 2-MARKERS FOR CULVERT END REQ'D

LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



STA 118+35, 27.9' LT
APRON ENDWALLS FOR CPRC 24-INCH

3301

C/L STH 70

EXISTING R/W

STH 70

118+00

119+00

3302



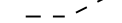


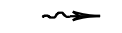
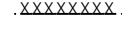
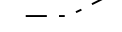

STA 118+34, 24.2' RT
APRON ENDWALLS FOR CPRC 24-INCH

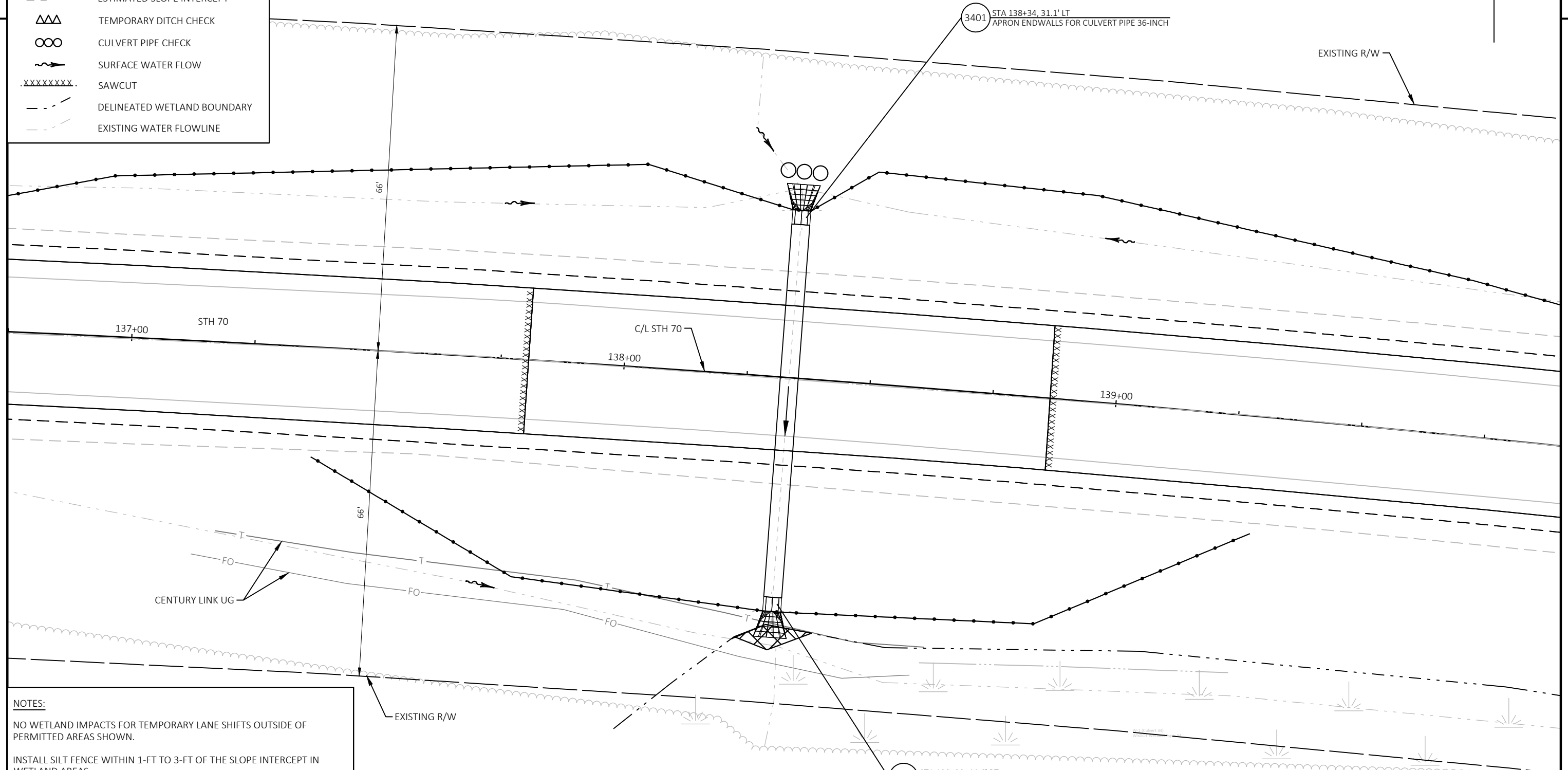
STA 118+34
CULVERT 19070000033
REMOVE 1-18" CPRC
1-CPRC CLASS IV 24-INCH REQ'D
2-APRON ENDWALLS FOR CPRC 24-INCH REQ'D
4° LHF
2-MARKERS FOR CULVERT END REQ'D

CENTURY LINK UG

NOTES:
 NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
 INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
 INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
 INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
 INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



NOTES:

NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.

INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.


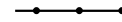
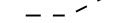



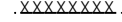


INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.

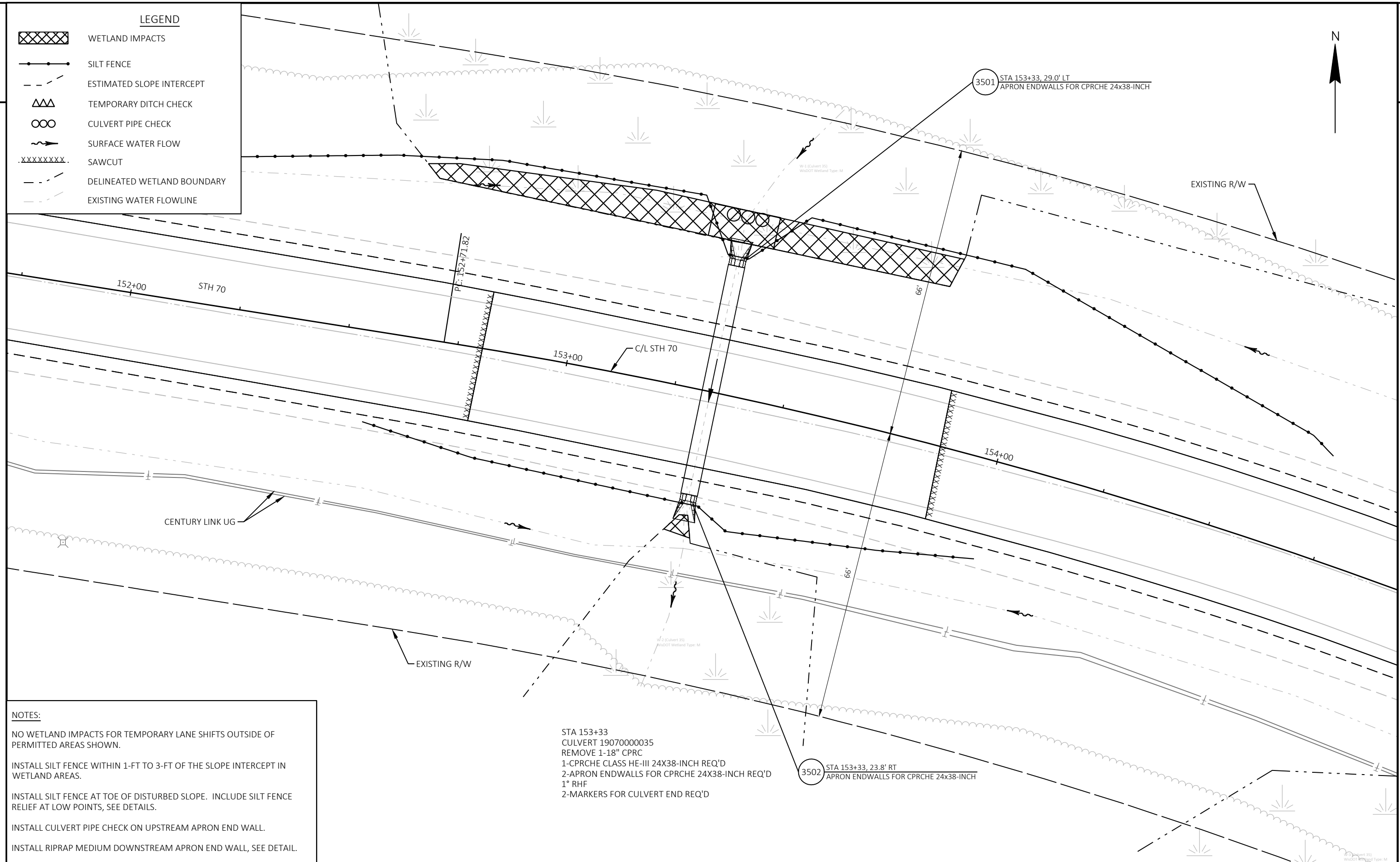
INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.

INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

STA 138+34
 CULVERT 19070000034
 REMOVE 1-18" CPRC
 1-CULVERT PIPE CLASS III-A NON-METAL 36-INCH REQ'D
 2-APRON ENDWALLS FOR CULVERT PIPE 36-INCH REQ'D
 0° SKEW
 2-MARKERS FOR CULVERT END REQ'D

LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



NOTES:

- NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
- INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
- INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
- INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
- INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

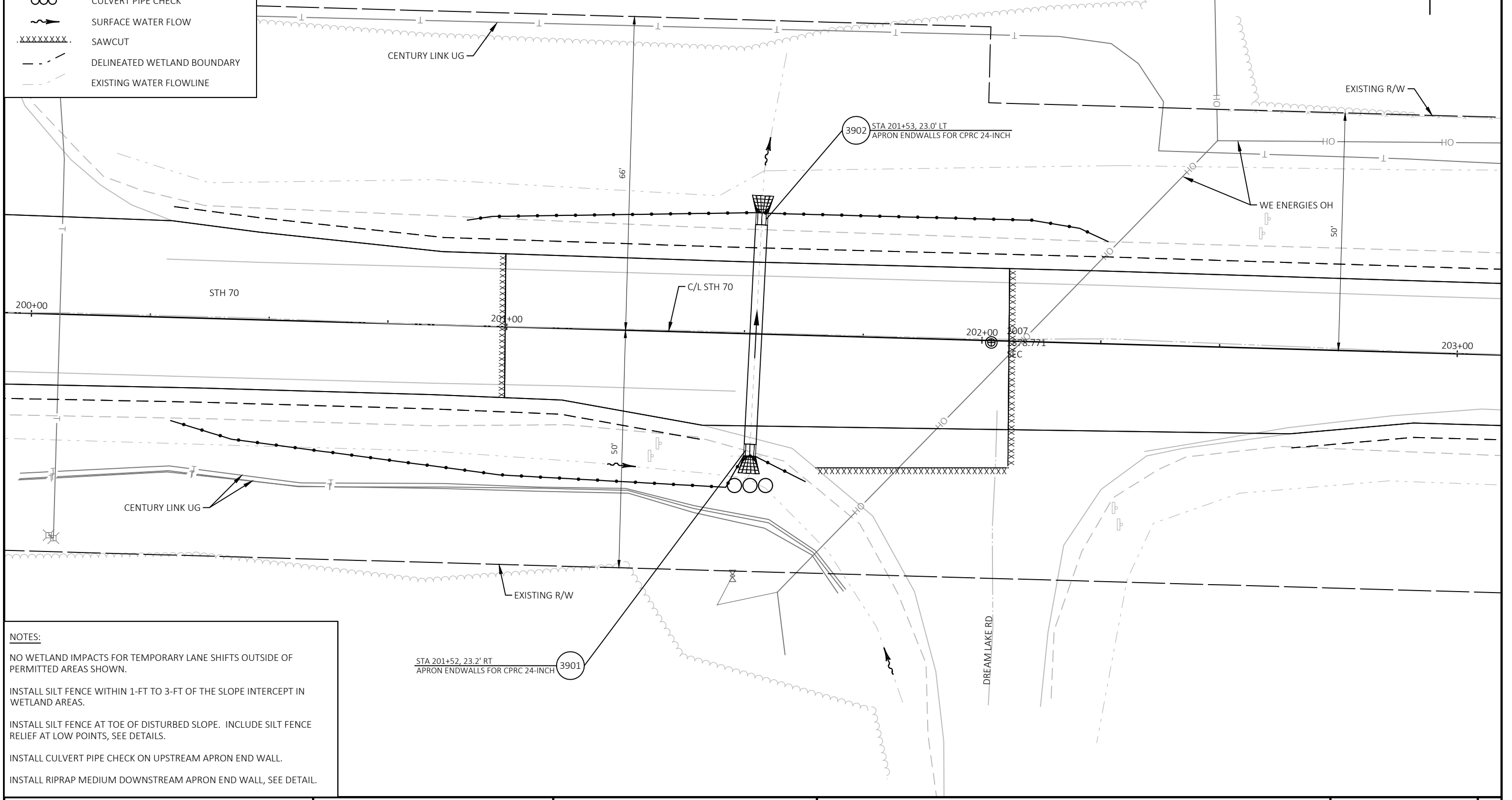
STA 153+33
 CULVERT 19070000035
 REMOVE 1-18" CIRC
 1-CPRCHE CLASS HE-III 24X38-INCH REQ'D
 2-APRON ENDWALLS FOR CPRCHE 24X38-INCH REQ'D
 1" RHF
 2-MARKERS FOR CULVERT END REQ'D

3502 STA 153+33, 23.8' RT
 APRON ENDWALLS FOR CPRCHE 24x38-INCH

LEGEND

- WETLAND IMPACTS
- SILT FENCE
- ESTIMATED SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- SAWCUT
- DELINEATED WETLAND BOUNDARY
- EXISTING WATER FLOWLINE

STA 201+52
 CULVERT 19070000039
 REMOVE 1-18" CPRC
 1-24" CPRC CLASS IV 24-INCH REQ'D
 2-APRON ENDWALLS FOR CPRC 24-INCH REQ'D
 2° LHF
 2-MARKERS FOR CULVERT END REQ'D



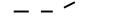








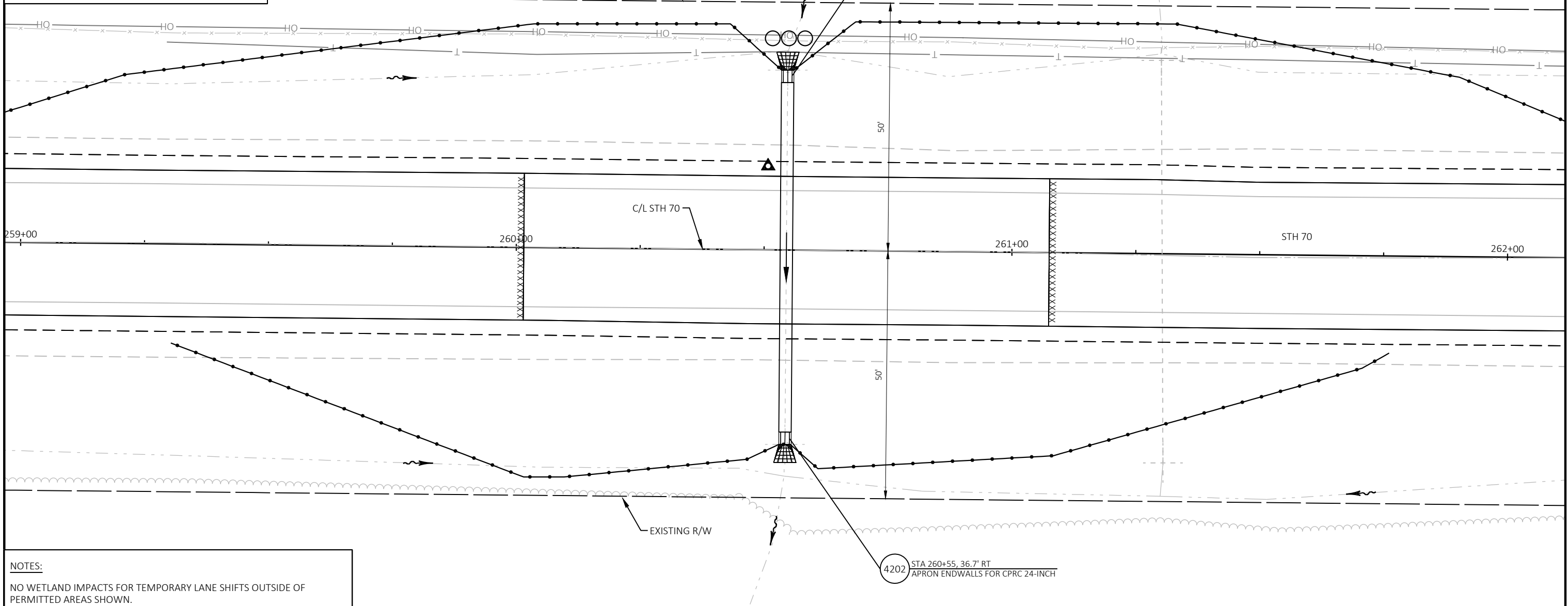
NOTES:
 NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
 INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
 INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
 INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
 INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CULVERT DETAILS	SHEET E
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LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



NOTES:

NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.

INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.


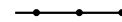
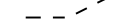



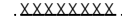


INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.

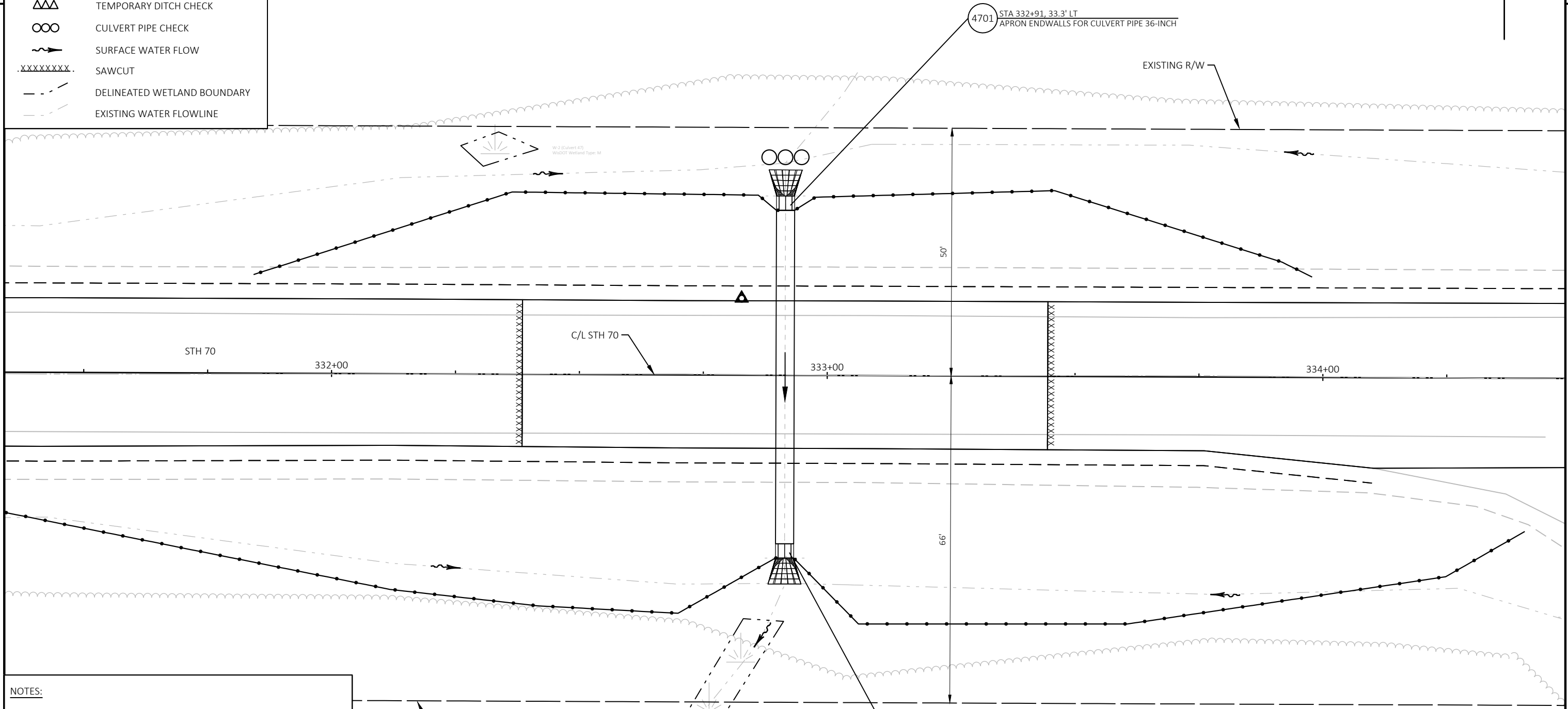
INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

STA 260+55
 CULVERT 19070000042
 REMOVE 1-18" CIRCULAR CORRUGATED POLYETHYLENE (CPRC)
 1-CIRCULAR CORRUGATED POLYETHYLENE (CPRC) CLASS IV 24-INCH REQ'D
 2-APRON END WALLS FOR CPRC 24-INCH REQ'D
 2" RIPRAP
 2-MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CULVERT DETAILS	SHEET	E
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LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



NOTES:

NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.

INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.

INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.


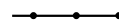
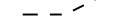






INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

STA 332+91
 CULVERT 19070000047
 REMOVE 1-18" CPRC
 1-CULVERT PIPE CLASS III-A NON-METAL 36-INCH REQ'D
 2-APRON ENDWALLS FOR CULVERT PIPE 36-INCH REQ'D
 2° RHF
 2-MARKERS FOR CULVERT END REQ'D

2

2

LEGEND

-  WETLAND IMPACTS
-  SILT FENCE
-  ESTIMATED SLOPE INTERCEPT
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SURFACE WATER FLOW
-  SAWCUT
-  DELINEATED WETLAND BOUNDARY
-  EXISTING WATER FLOWLINE



EXISTING R/W

4801 STA 354+91, 32.7' LT
APRON ENDWALLS FOR CULVERT PIPE 36-INCH

66'

STH 70

354+00

C/L STH 70

355+00

356+00

40'

EXISTING R/W

TLE

4802 STA 354+91, 31.1' RT
APRON ENDWALLS FOR CULVERT PIPE 36-INCH

STA 354+91
 CULVERT 19070000048
 REMOVE 1-18" CPRC
 1-CULVERT PIPE CLASS III-A NON-METAL 36-INCH REQ'D
 2-APRON ENDWALLS FOR CULVERT PIPE 36-INCH REQ'D
 0° SKEW
 2-MARKERS FOR CULVERT END REQ'D

NOTES:

- NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.
- INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.
- INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.
- INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.
- INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

PROJECT NO: 9100-05-71

HWY: STH 70

COUNTY: FLORENCE

CULVERT DETAILS

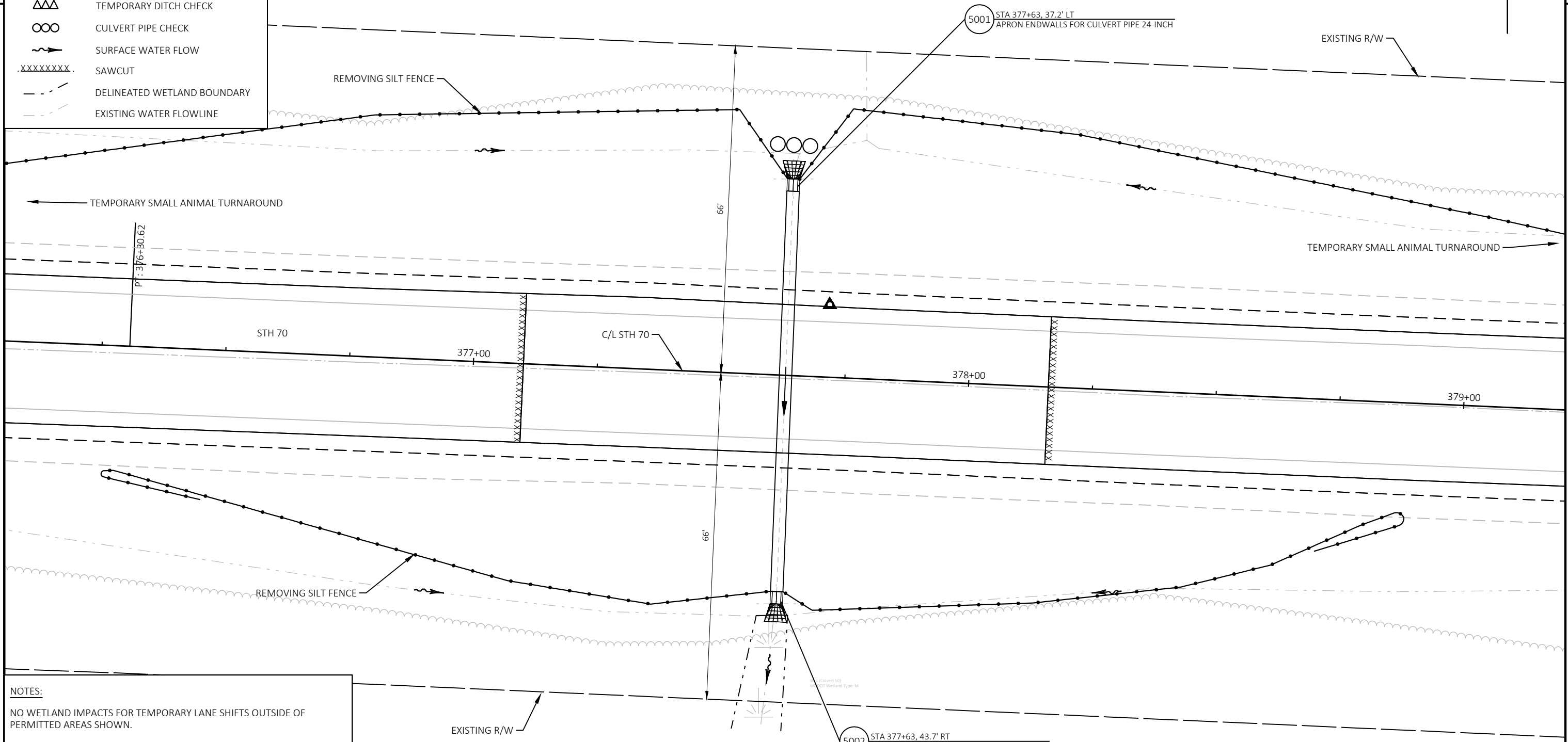
SHEET

E



LEGEND

	WETLAND IMPACTS
	SILT FENCE
	ESTIMATED SLOPE INTERCEPT
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW
	SAWCUT
	DELINEATED WETLAND BOUNDARY
	EXISTING WATER FLOWLINE



NOTES:

NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.

INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.

INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.

INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

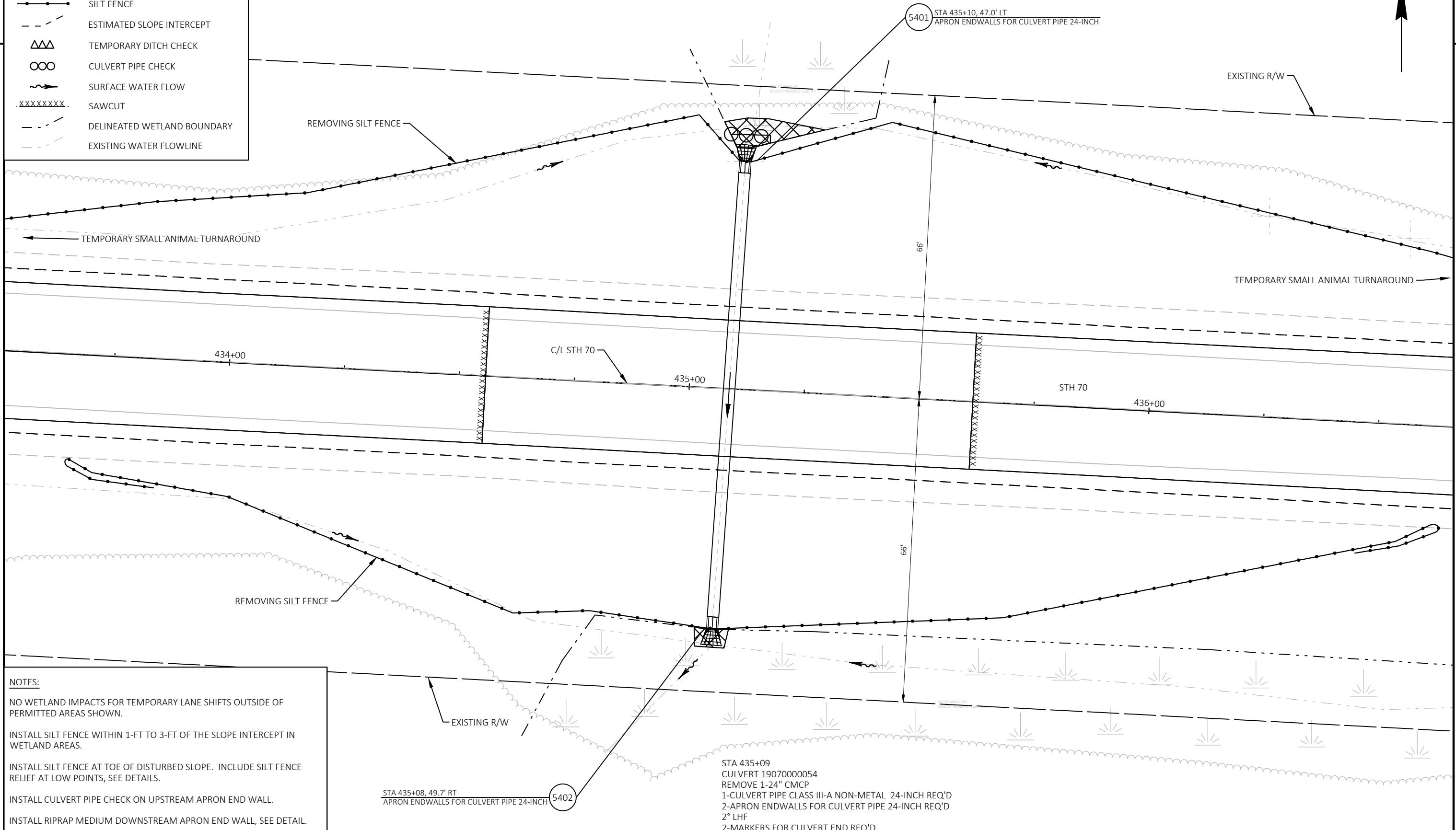
STA 377+63
 CULVERT 19070000050
 REMOVE 1-18" CPRC
 1-CULVERT PIPE CLASS III-A NON-METAL 24-INCH REQ'D
 2-APRON ENDWALLS FOR CULVERT PIPE 24-INCH REQ'D
 1" RHF
 2-MARKERS FOR CULVERT END REQ'D

PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CULVERT DETAILS	SHEET	E
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LEGEND

	WETLAND IMPACTS
	SILT FENCE
	ESTIMATED SLOPE INTERCEPT
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW
	SAWCUT
	DELINEATED WETLAND BOUNDARY
	EXISTING WATER FLOWLINE



NOTES:

NO WETLAND IMPACTS FOR TEMPORARY LANE SHIFTS OUTSIDE OF PERMITTED AREAS SHOWN.

INSTALL SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

INSTALL SILT FENCE AT TOE OF DISTURBED SLOPE. INCLUDE SILT FENCE RELIEF AT LOW POINTS, SEE DETAILS.

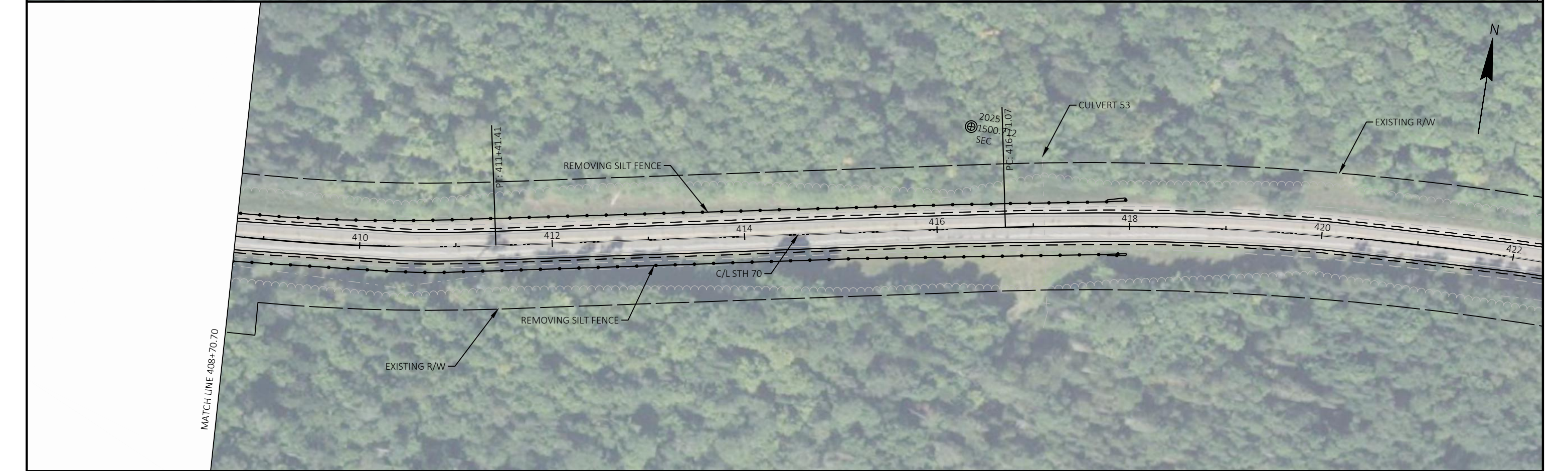
INSTALL CULVERT PIPE CHECK ON UPSTREAM APRON END WALL.

INSTALL RIPRAP MEDIUM DOWNSTREAM APRON END WALL, SEE DETAIL.

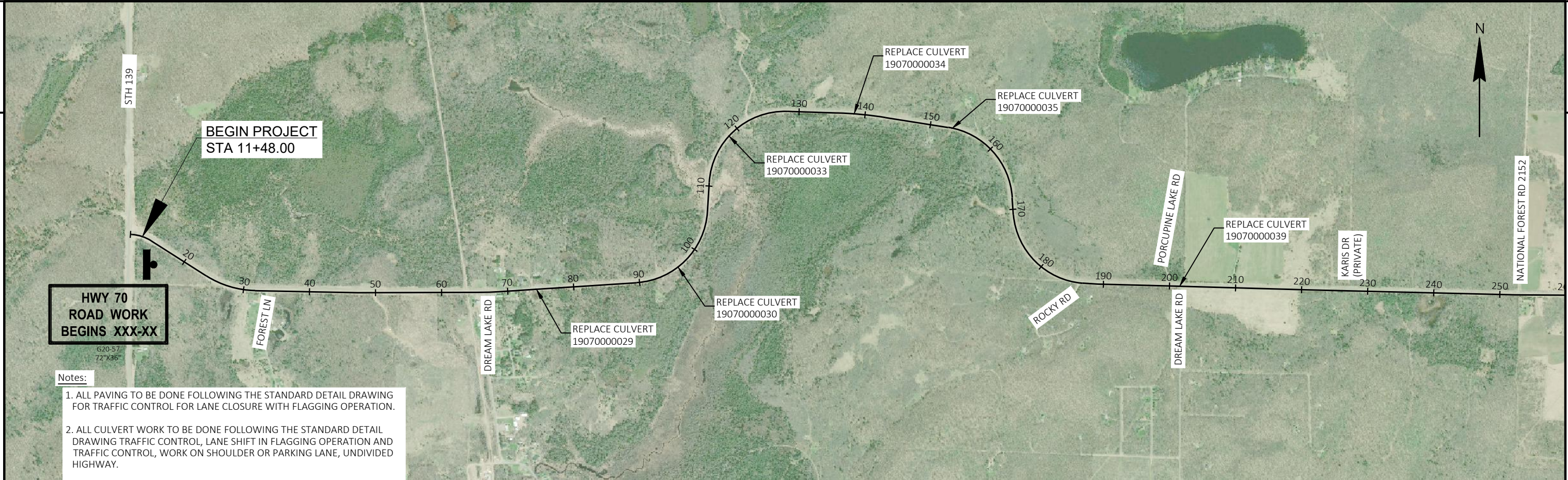
STA 435+08, 49.7' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH (5402)

STA 435+09
CULVERT 19070000054
REMOVE 1-24" CMCP
1-CULVERT PIPE CLASS III-A NON-METAL 24-INCH REQ'D
2-APRON ENDWALLS FOR CULVERT PIPE 24-INCH REQ'D
2° LHF
2-MARKERS FOR CULVERT END REQ'D

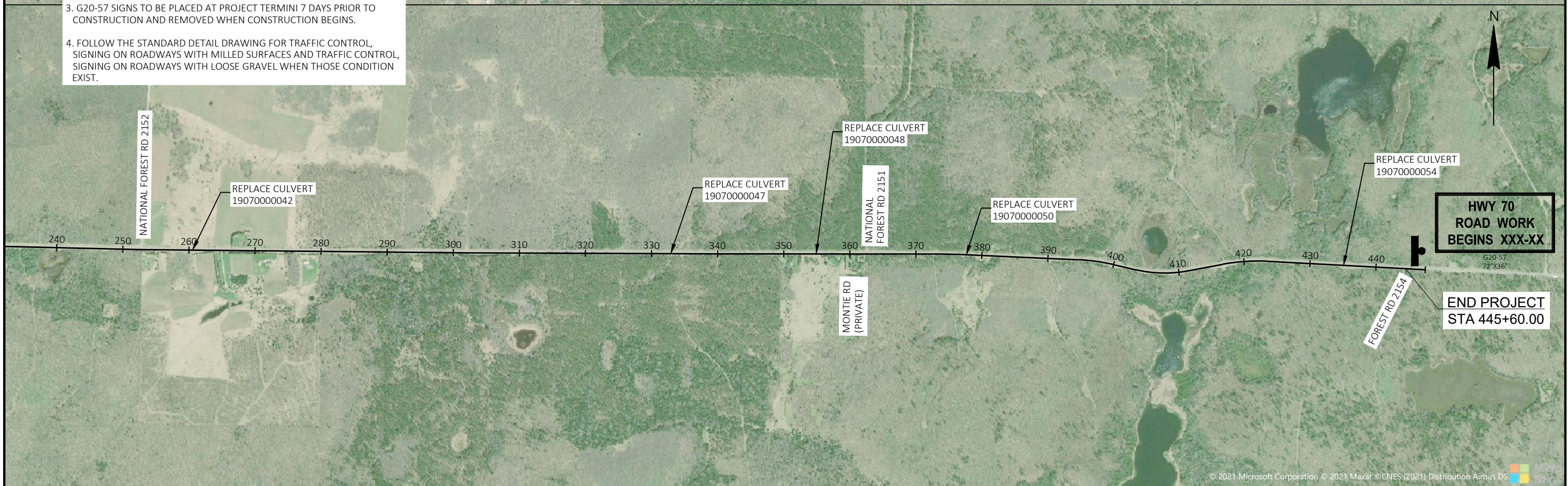
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CULVERT DETAILS	SHEET	E
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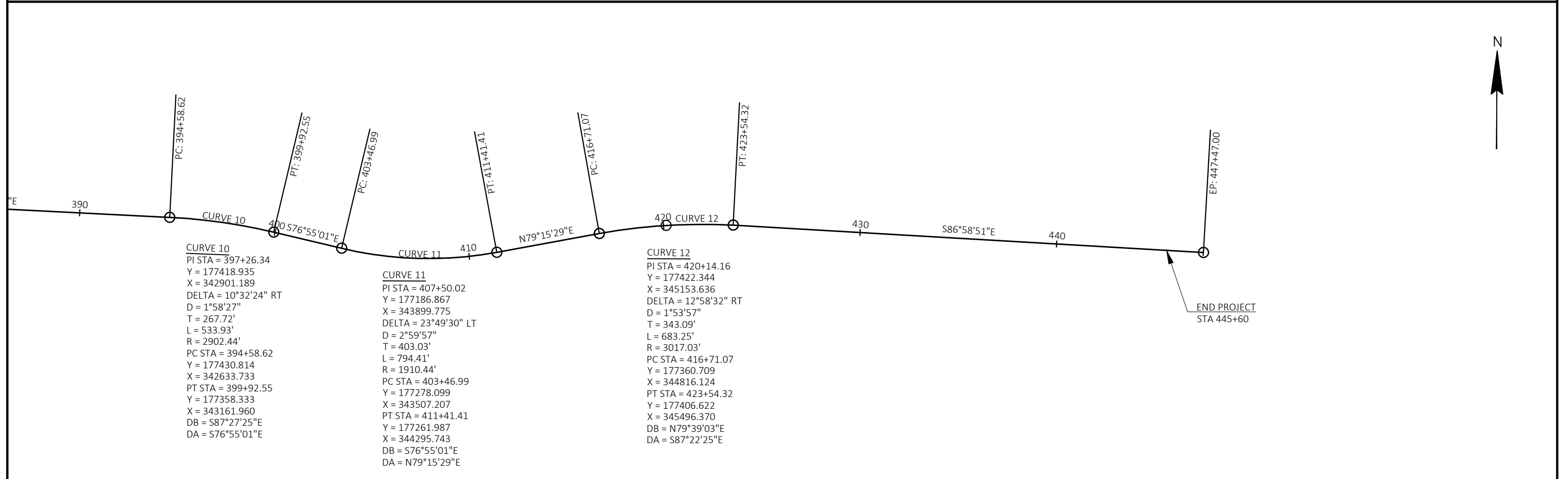
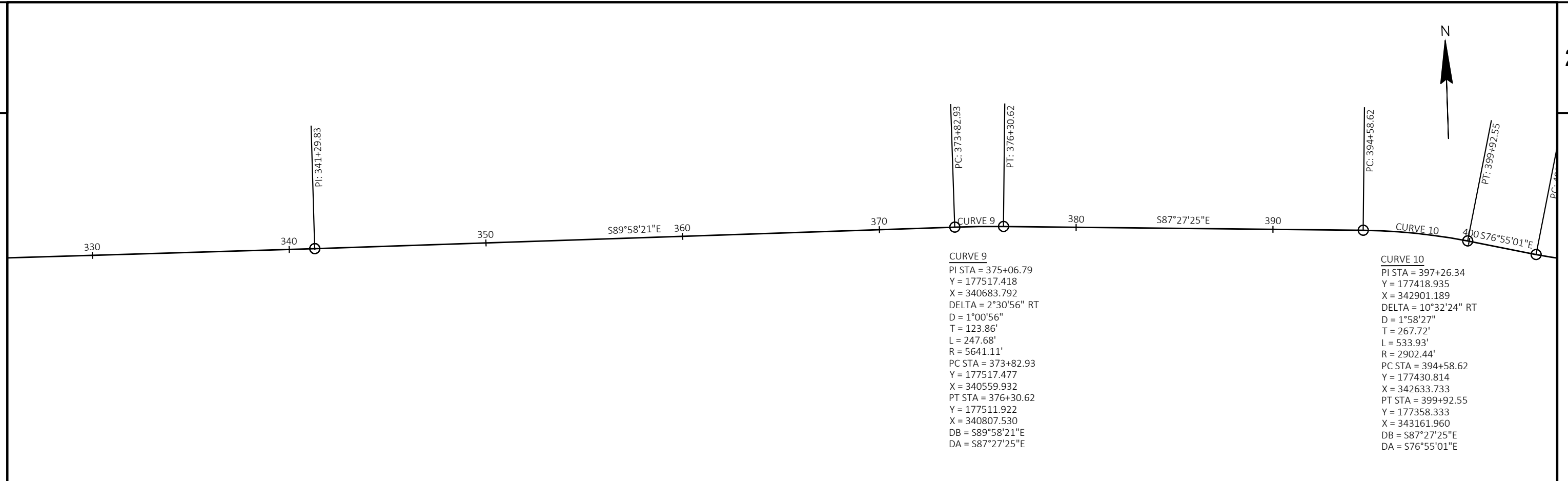
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	EROSION CONTROL	SHEET	E
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- Notes:**
1. ALL PAVING TO BE DONE FOLLOWING THE STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.
 2. ALL CULVERT WORK TO BE DONE FOLLOWING THE STANDARD DETAIL DRAWING TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION AND TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY.
 3. G20-57 SIGNS TO BE PLACED AT PROJECT TERMINI 7 DAYS PRIOR TO CONSTRUCTION AND REMOVED WHEN CONSTRUCTION BEGINS.
 4. FOLLOW THE STANDARD DETAIL DRAWING FOR TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES AND TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL WHEN THOSE CONDITION EXIST.



PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	TRAFFIC CONTROL OVERVIEW	SHEET	E
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Estimate Of Quantities

9100-05-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	230.000	230.000
0004	201.0220	Grubbing	ID	230.000	230.000
0006	203.0100	Removing Small Pipe Culverts	EACH	11.000	11.000
0008	204.0110	Removing Asphaltic Surface	SY	100.000	100.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	67.000	67.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	143,959.000	143,959.000
0014	204.9090.S	Removing (item description) 01. Silt Fence	LF	5,857.000	5,857.000
0016	205.0100	Excavation Common	CY	4,933.000	4,933.000
0018	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	22.000	22.000
0020	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 9100-05-71	EACH	1.000	1.000
0022	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	2.000	2.000
0024	213.0100	Finishing Roadway (project) 01. 9100-05-71	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,216.000	3,216.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,162.000	2,162.000
0030	450.4000	HMA Cold Weather Paving	TON	5,040.000	5,040.000
0032	455.0605	Tack Coat	GAL	7,394.000	7,394.000
0034	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0036	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0038	460.2005	Incentive Density PWL HMA Pavement	DOL	16,110.000	16,110.000
0040	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	17,365.000	17,365.000
0042	460.2010	Incentive Air Voids HMA Pavement	DOL	20,157.000	20,157.000
0044	460.5224	HMA Pavement 4 LT 58-28 S	TON	20,157.000	20,157.000
0046	465.0105	Asphaltic Surface	TON	1,096.000	1,096.000
0048	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0050	465.0450	Asphaltic Intersection Rumble Strips	SY	100.000	100.000
0052	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	43,412.000	43,412.000
0054	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	6.000	6.000
0056	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	6.000	6.000
0058	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	274.000	274.000
0060	520.3436	Culvert Pipe Class III-A Non-metal 36-Inch	LF	207.000	207.000
0062	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	223.000	223.000
0064	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	8.000	8.000
0066	522.2324	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	LF	53.000	53.000
0068	522.2624	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	EACH	2.000	2.000
0070	606.0200	Riprap Medium	CY	44.000	44.000
0072	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9100-05-71	EACH	1.000	1.000
0074	619.1000	Mobilization	EACH	1.000	1.000
0076	621.0100	Landmark Reference Monuments	EACH	40.000	40.000
0078	624.0100	Water	MGAL	109.000	109.000
0080	625.0100	Topsoil	SY	9,549.000	9,549.000
0082	628.1504	Silt Fence	LF	5,231.000	5,231.000
0084	628.1520	Silt Fence Maintenance	LF	11,088.000	11,088.000
0086	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0088	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0090	628.2008	Erosion Mat Urban Class I Type B	SY	9,549.000	9,549.000
0092	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0094	628.7555	Culvert Pipe Checks	EACH	249.000	249.000
0096	628.7570	Rock Bags	EACH	100.000	100.000
0098	629.0210	Fertilizer Type B	CWT	6.000	6.000

Estimate Of Quantities

9100-05-71

Line	Item	Item Description	Unit	Total	Qty
0100	630.0120	Seeding Mixture No. 20	LB	264.000	264.000
0102	630.0500	Seed Water	MGAL	216.000	216.000
0104	633.5200	Markers Culvert End	EACH	22.000	22.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	23,100.000	23,100.000
0110	643.0900	Traffic Control Signs	DAY	1,400.000	1,400.000
0112	643.1000	Traffic Control Signs Fixed Message	SF	25.000	25.000
0114	643.3105	Temporary Marking Line Paint 4-Inch	LF	61,161.000	61,161.000
0116	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	64,588.000	64,588.000
0118	643.5000	Traffic Control	EACH	1.000	1.000
0120	645.0120	Geotextile Type HR	SY	66.000	66.000
0122	646.1020	Marking Line Epoxy 4-Inch	LF	151,412.000	151,412.000
0124	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	37,853.000	37,853.000
0126	650.6000	Construction Staking Pipe Culverts	EACH	11.000	11.000
0128	650.8000	Construction Staking Resurfacing Reference	LF	43,412.000	43,412.000
0130	650.9911	Construction Staking Supplemental Control (project) 01. 9100-05-71	EACH	1.000	1.000
0132	650.9920	Construction Staking Slope Stakes	LF	2,200.000	2,200.000
0134	690.0150	Sawing Asphalt	LF	664.000	664.000
0136	740.0440	Incentive IRI Ride	DOL	21,706.000	21,706.000
0138	SPV.0060	Special 01. Reestablish Section Corner Monuments	EACH	10.000	10.000

REMOVALS

LOCATION	201.0120	201.0220	203.0100	203.0100	204.0110	204.0115	204.0120
	CLEARING	GRUBBING	REMOVING SMALL CULVERT PIPE 18-INCH (EA)	REMOVING SMALL CULVERT PIPE 24-INCH (EA)	REMOVING ASPHALTIC SURFACE (SY)	REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)	REMOVING ASPHALTIC SURFACE MILLING (SY)
11+48 to 445+60	-	-	-	-	-	-	143959
11+48	-	-	-	-	-	33	-
74+37	-	-	1	-	-	-	-
096+34	-	-	-	1	-	-	-
118+34	-	-	1	-	-	-	-
138+34	-	-	1	-	-	-	-
153+33	-	-	1	-	-	-	-
201+52	-	-	1	-	-	-	-
260+55	9	9	1	-	-	-	-
332+91	69	69	1	-	-	-	-
354+91	7	7	1	-	-	-	-
377+63	134	134	1	-	-	-	-
435+09	11	11	-	1	-	-	-
445+60	-	-	-	-	-	33	-
Undistributed	-	-	-	-	100	-	-
TOTALS	230	230	9	2	100	67	143959

BASE AGGREGATE DENSE

LOCATION	305.0110	305.0120	624.0100
	BASE AGGREGATE DENSE 3/4-INCH (TON)	BASE AGGREGATE DENSE 1 1/4-INCH (TON)	WATER (MGAL)
11+48 to 445+60	3216	-	64.4
74+37	-	195	3.9
096+34	-	193	3.9
118+34	-	193	3.9
138+34	-	193	3.9
153+33	-	194	3.9
201+52	-	215	4.4
260+55	-	195	3.9
332+91	-	195	3.9
354+91	-	195	4.0
377+63	-	198	4.0
435+09	-	196	4.0
TOTALS	3216	2162	109

CULVERT PIPE TRANSITION

CULVERT	LIMITS	LENTH (FT)	"D" DEPTH (FT)	PIPE DIA (IN)	DEPTH TO CENTER OF PIPE (FT)	"T" DEPTH (FT)	TRENCH WIDTH (FT)	SHOULDER POINT PERPENDICULAR (FT)	SHOULDER POINT TO SHOULDER POINT ALONG TRENCH (FT)	PAVEMENT AND BASE REMOVAL (CF)	LENGTH OF CUT (FT)	TRANSITION	205.0100
												CUT VOLUME W/O PAVEMENT (CF)	EXCAVATION COMMON (CY)
19070000029	73+85 to 74+89	104	3.0	24	4.00	4.00	4	36	36	4650	100	7200	439
19070000030	95+82 to 96+86	104	5.5	24	6.50	5.00	4	36	36	4650	100	9000	506
19070000033	117+82 to 118+86	104	2.0	24	3.00	3.00	4	36	36	4650	100	5400	373
19070000034	137+81 to 138+87	106	5.0	36	6.50	5.00	6	36	36	4650	100	9000	506
19070000035	152+79 to 153+87	108	1.0	48	3.00	3.00	8	36	36	4650	100	5400	373
19070000039	201+00 to 202+04	104	1.5	24	2.50	2.50	4	36	36	4650	100	4500	339
19070000042	260+03 to 261+07	104	6.0	24	7.00	5.00	4	36	36	4650	100	9000	506
19070000047	332+38 to 333+44	106	5.5	36	7.00	5.00	6	36	36	4650	100	9000	506
19070000048	354+38 to 352+44	106	1.5	36	3.00	3.00	6	36	36	4650	100	5400	373
19070000050	377+11 to 378+15	104	7.5	24	8.50	5.00	4	36	36	4650	100	9000	506
19070000054	434+57 to 435+61	104	9.0	24	10.00	5.00	4	36	36	4650	100	9000	506
TOTAL													4933

PROJECT NO: 9100-05-71

HWY: STH 70

COUNTY: FLORENCE

MISCELLANEOUS QUANTITIES

SHEET

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORG DATE : _____

ORIGINATOR : DIST_

PLOT SCALE : 1:1

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3

PAVEMENT

LOCATION	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING (9100-05-71) (EACH)	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (STA)	450.4000 HMA COLD WEATHER PAVING (TON)	455.0605 TACK COAT (GAL)	460.5224 HMA PAVEMENT 4 LT 58-28 S (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	465.0450 ASPHALTIC INTERSECTION RUMBLE STRIPS (SY)	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL (LF)
11+48 TO 445+60	-	-	-	7198	20155	-	-	-	43412
14+88 LT	-	-	-	-	-	-	-	33	-
17+00 LT	-	-	-	-	-	-	-	33	-
24+50 LT	-	-	-	-	-	-	-	33	-
64+00 Trail Crossing	-	2.00	-	1	2	-	-	-	-
74+37 Culvert Patch	-	-	-	18	-	99	-	-	-
096+34 Culvert Patch	-	-	-	17	-	98	-	-	-
118+34 Culvert Patch	-	-	-	18	-	98	-	-	-
138+34 Culvert Patch	-	-	-	17	-	98	-	-	-
153+33 Culvert Patch	-	-	-	18	-	98	-	-	-
201+52 Culvert Patch	-	-	-	20	-	111	-	-	-
260+55 Culvert Patch	-	-	-	18	-	99	-	-	-
332+91 Culvert Patch	-	-	-	18	-	99	-	-	-
354+91 Culvert Patch	-	-	-	18	-	99	-	-	-
377+63 Culvert Patch	-	-	-	18	-	99	-	-	-
435+09 Culvert Patch	-	-	-	18	-	98	-	-	-
Undistributed	1	-	5040	-	-	-	100	-	-
TOTALS	1	2	5040	7394	20157	1096	100	100	43412

SAWING

LOCATION	690.0150 SAWING ASPHALT (LF)
74+37 19070000029	60
096+34 19070000030	60
118+34 19070000033	60
138+34 19070000034	60
153+33 19070000035	60
201+52 19070000039	64
260+55 19070000042	60
332+91 19070000047	60
354+91 19070000048	60
377+63 19070000050	60
435+09 19070000054	60
TOTALS	664

PWL MIXTURE USE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
STH 70 LANES	11+48 to 445+60	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	16103	2.50	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
STH 70 SHOULDERS	11+48 to 445+60	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 LT 58-28 S	4052	2.50	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE

PROJECT NO: 9100-05-71

HWY: STH 70

COUNTY: FLORENCE

MISCELLANEOUS QUANTITIES

SHEET

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORG DATE : _____

ORIGINATOR : DIST _

PLOT SCALE : 1:1

CULVERT PIPE SUMMARY

STATION	LOCATION	520.1024	520.1036	520.3424	520.3436	522.0424	522.1024	522.2324	522.2624	INLET** ELEVATION	OUTLET** ELEVATION
		APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	APRON ENDWALLS FOR CULVERT PIPE 36-INCH EACH	CULVERT PIPE CLASS III-A NON-METAL 24-INCH LF	CULVERT PIPE CLASS III-A NON-METAL 36-INCH LF	CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH EACH		
74+36.53	19070000029	-	-	-	-	54	2	-	-	1539.53	1538.57
96+34.34	19070000030	2	-	96	-	-	-	-	-	1520.83	1519.90
118+34.42	19070000033	-	-	-	-	52	2	-	-	1524.44	1522.43
138+33.56	19070000034	-	2	-	76	-	-	-	-	1528.32	1520.84
153+33.18	19070000035	-	-	-	-	-	-	53	2	1519.69	1519.52
201+52.42	19070000039	-	-	-	-	46	2	-	-	1575.60	1575.19
260+54.51	19070000042	-	-	-	-	71	2	-	-	1572.92	1571.77
332+91.49	19070000047	-	2	-	67	-	-	-	-	1524.52	1523.47
354+90.67	19070000048	-	2	-	64	-	-	-	-	1525.18	1524.74
377+63.04	19070000050	2	-	81	-	-	-	-	-	1523.49	1523.02
435+08.66	19070000054	2	-	97	-	-	-	-	-	1475.48	1473.90
TOTALS		6	6	274	207	223	8	53	2		

**PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY. FIELD VERIFY

EROSION CONTROL

LOCATION	Culvert #	606.0200 RIPRAP MEDIUM (CY)	633.5200 MARKERS CULVERT ENDS (EACH)	645.0120 GEOTEXTILE FABRIC HR (SY)	208.1500.S TEMPORARY LANE SHIFT DURING CULVERT WORK (EA)
74+37	19070000029	4	2	6	2
096+34	19070000030	4	2	6	2
118+34	19070000033	4	2	6	2
138+34	19070000034	4	2	6	2
153+33	19070000035	4	2	6	2
201+52	19070000039	4	2	6	2
260+55	19070000042	4	2	6	2
332+91	19070000047	4	2	6	2
354+91	19070000048	4	2	6	2
377+63	19070000050	4	2	6	2
435+09	19070000054	4	2	6	2
		44	22	66	22

LOCATION	204.9090.S REMOVING SILT FENCE (LF)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECK (EACH)	628.7570 ROCK BAGS (EACH)
19070000029	-	420	420	-	-	-	20	-
19070000030	-	796	796	-	-	-	20	-
19070000033	-	445	445	-	-	-	20	-
19070000034	-	591	591	-	-	-	25	-
19070000035	-	477	477	-	-	-	30	-
19070000039	-	285	285	-	-	-	20	-
19070000042	-	611	611	-	-	-	20	-
19070000047	-	563	563	-	-	-	25	-
19070000048	-	543	543	-	-	-	25	-
19070000050	764	-	764	-	-	-	20	-
19070000054	808	-	808	-	-	-	20	-
397+00 to 419+00 PROJECT	4285	-	4285	-	-	-	20	-
	-	500	500	8	3	100	4	100
TOTALS	5857	5231	11088	8	3	100	249	100

PROJECT NO: 9100-05-71

HWY: STH 70

COUNTY: FLORENCE

MISCELLANEOUS QUANTITIES

SHEET

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

ORG DATE : _____

ORIGINATOR : DIST_

PLOT SCALE : 1:1

RESTORATION

LOCATION	625.0100 TOPSOIL (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0500 SEED WATER (MGAL)
19070000029	479	479	0.3	13	11
19070000030	1721	1721	1	47	39
19070000033	398	398	0.3	11	9
19070000034	894	894	0.6	25	20
19070000035	558	558	0.4	16	13
19070000039	146	146	0.1	4	3
19070000042	984	984	0.6	27	22
19070000047	932	932	0.6	26	21
19070000048	673	673	0.4	19	15
19070000050	1343	1343	0.8	37	30
19070000054	1310	1310	0.8	36	30
UNDISTRIBUTED	111	111	0.1	3	3
TOTALS	9549	9549	6.0	264	215

CONSTRUCTION STAKING

LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS (EACH)	650.6000 PIPE CULVERTS (EACH)	650.8000 RESURFACING REFERENCE (LF)	650.9920 SLOPE STAKES (LF)	SPV.0060 01. REESTABLISH SECTION CORNER MONUMENTS (EACH)
19070000029	-	1	-	200	-
19070000030	-	1	-	200	-
19070000033	-	1	-	200	-
19070000034	-	1	-	200	-
19070000035	-	1	-	200	-
19070000039	-	1	-	200	-
19070000042	-	1	-	200	-
19070000047	-	1	-	200	-
19070000048	-	1	-	200	-
19070000050	-	1	-	200	-
19070000054	-	1	-	200	-
397+00 to 419+00 PROJECT	40	-	43412	-	10
TOTALS	40	11	43412	2200	10

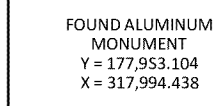
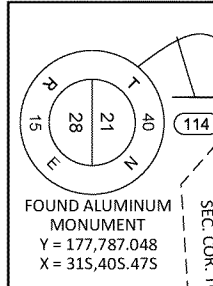
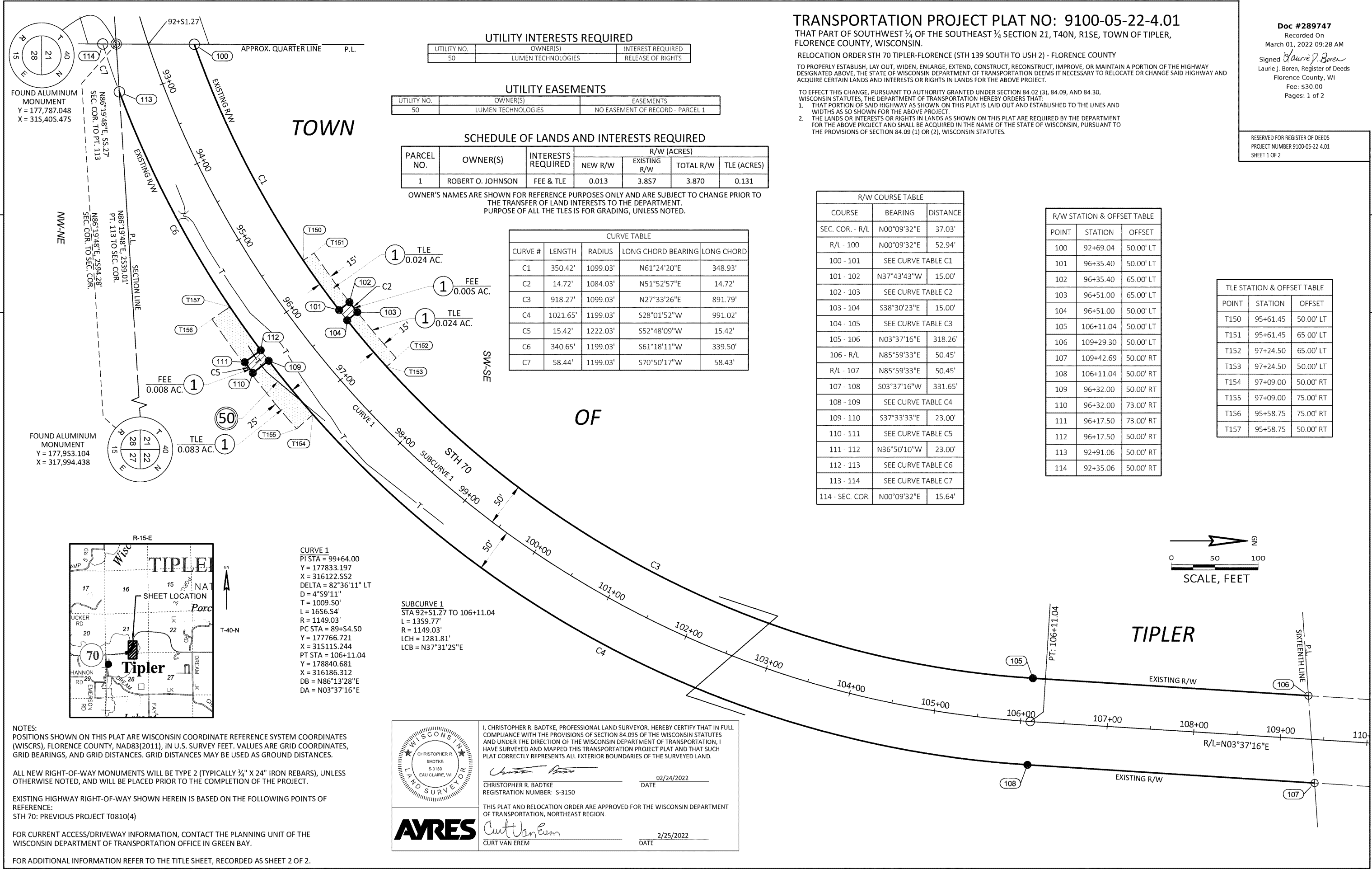
PAVEMENT MARKING

LOCATION*			646.1020	646.6464	643.3105	643.3120
			MARKING LINE EPOXY 4-INCH	COLD WEATHER MARKING EPOXY 4-INCH*	TEMPORARY MARKING LINE PAINT 4-INCH	TEMPORARY MARKING LINE EPOXY 4-INCH
			YELLOW (LF)	WHITE (LF)	(LF)	(LF)
11+48	TO 050+13	Solid-Solid	7730	7730	3865	7730
50+13	TO 061+06	Solid-Dashed	1366	2186	888	1366
61+06	TO 069+56	Dashed	213	1700	478	213
69+56	TO 081+12	Solid-Dashed	1445	2313	940	1445
81+12	TO 198+23	Solid-Solid	23422	23422	11711	23422
198+23	TO 209+27	Solid-Dashed	1379	2207	897	1379
209+27	TO 213+23	Dashed	99	792	223	99
213+23	TO 224+26	Solid-Dashed	1379	2207	897	1379
224+26	TO 225+85	Solid-Solid	317	317	158	317
225+85	TO 236+88	Solid-Dashed	1379	2207	897	1379
236+88	TO 242+11	Dashed	131	1045	294	131
242+11	TO 252+62	Solid-Dashed	1313	2101	854	1313
252+62	TO 277+64	Solid-Solid	5005	5005	2503	5005
277+64	TO 288+79	Solid-Dashed	1393	2228	905	1393
288+79	TO 293+33	Dashed	114	908	255	114
293+33	TO 305+05	Solid-Dashed	1465	2344	952	1465
305+05	TO 306+05	Solid-Solid	201	201	100	201
306+05	TO 317+03	Solid-Dashed	1373	2196	892	1373
317+03	TO 335+57	Dashed	463	3707	1042	463
335+57	TO 344+96	Solid-Dashed	1175	1880	764	1175
344+96	TO 346+55	Dashed	40	317	89	40
346+55	TO 356+48	Solid-Dashed	1241	1985	807	1241
356+48	TO 385+30	Dashed	721	5766	1622	721
385+30	TO 396+44	Solid-Dashed	1393	2228	905	1393
396+44	TO 445+60	Solid-Solid	9831	9831	4916	9831
TOTALS			151412	37853	61161	64588

* COLD WEATHER MARKING EPOXY 4-INCH QUANTITY ESTIMATED TO BE 25% OF REQUIRED PAVEMENT MARKING
IT IS ANTICIPATED THAT THE TEMPORARY PAINT WILL BE APPLIED AFTER THE MILLING OPERATION REMOVES THE EXISTING
CENTERLINE. THE TEMPORARY EPOXY WILL BE USED IMMEDIATELY FOLLOWING THE PAVING OPERATION. THE YELLOW
EPOXY WILL BE USED FOLLOWING THE MILLING OF THE CENTERLINE RUMBLE STRIPS.

TRAFFIC CONTROL

STAGE	DURATION		643.0300	643.0900	643.1000
	CALENDAR DAYS	#	TC DRUMS (DAY)	TC SIGNS (DAY)	TC SIGNS FIXED MESSAGE (SF)
Project Wide	70	330	23100	20	1400
TOTALS			23,100	1,400	25



UTILITY INTERESTS REQUIRED

UTILITY NO.	OWNER(S)	INTEREST REQUIRED
50	LUMEN TECHNOLOGIES	RELEASE OF RIGHTS

UTILITY EASEMENTS

UTILITY NO.	OWNER(S)	EASEMENTS
50	LUMEN TECHNOLOGIES	NO EASEMENT OF RECORD - PARCEL 1

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTERESTS REQUIRED	R/W (ACRES)			
			NEW R/W	EXISTING R/W	TOTAL R/W	TLE (ACRES)
1	ROBERT O. JOHNSON	FEE & TLE	0.013	3.857	3.870	0.131

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. PURPOSE OF ALL THE TLES IS FOR GRADING, UNLESS NOTED.

CURVE TABLE

CURVE #	LENGTH	RADIUS	LONG CHORD BEARING	LONG CHORD
C1	350.42'	1099.03'	N61°24'20"E	348.93'
C2	14.72'	1084.03'	N51°52'57"E	14.72'
C3	918.27'	1099.03'	N27°33'26"E	891.79'
C4	1021.65'	1199.03'	S28°01'52"W	991.02'
C5	15.42'	1222.03'	S52°48'09"W	15.42'
C6	340.65'	1199.03'	S61°18'11"W	339.50'
C7	58.44'	1199.03'	S70°50'17"W	58.43'

R/W COURSE TABLE

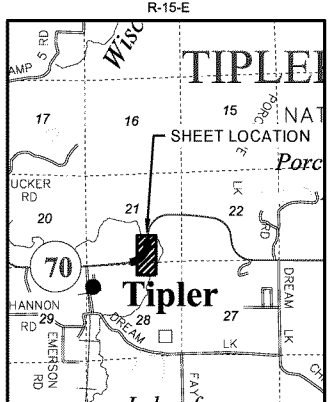
COURSE	BEARING	DISTANCE
SEC. COR. - R/L	N00°09'32"E	37.03'
R/L - 100	N00°09'32"E	52.94'
100 - 101	SEE CURVE TABLE C1	
101 - 102	N37°43'43"W	15.00'
102 - 103	SEE CURVE TABLE C2	
103 - 104	S38°30'23"E	15.00'
104 - 105	SEE CURVE TABLE C3	
105 - 106	N03°37'16"E	318.26'
R/L - 107	N85°59'33"E	50.45'
107 - 108	S03°37'16"W	331.65'
108 - 109	SEE CURVE TABLE C4	
109 - 110	S37°33'33"E	23.00'
110 - 111	SEE CURVE TABLE C5	
111 - 112	N36°50'10"W	23.00'
112 - 113	SEE CURVE TABLE C6	
113 - 114	SEE CURVE TABLE C7	
114 - SEC. COR.	N00°09'32"E	15.64'

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
100	92+69.04	50.00' LT
101	96+35.40	50.00' LT
102	96+35.40	65.00' LT
103	96+51.00	65.00' LT
104	96+51.00	50.00' LT
105	106+11.04	50.00' LT
106	109+29.30	50.00' LT
107	109+42.69	50.00' RT
108	106+11.04	50.00' RT
109	96+32.00	50.00' RT
110	96+32.00	73.00' RT
111	96+17.50	73.00' RT
112	96+17.50	50.00' RT
113	92+91.06	50.00' RT
114	92+35.06	50.00' RT

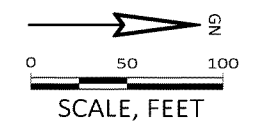
TLE STATION & OFFSET TABLE

POINT	STATION	OFFSET
T150	95+61.45	50.00' LT
T151	95+61.45	65.00' LT
T152	97+24.50	65.00' LT
T153	97+24.50	50.00' LT
T154	97+09.00	50.00' RT
T155	97+09.00	75.00' RT
T156	95+58.75	75.00' RT
T157	95+58.75	50.00' RT



CURVE 1
 PI STA = 99+64.00
 Y = 177833.197
 X = 316122.552
 DELTA = 82°36'11" LT
 D = 4°59'11"
 T = 1009.50'
 L = 1656.54'
 R = 1149.03'
 PC STA = 89+54.50
 Y = 177766.721
 X = 315115.244
 PT STA = 106+11.04
 Y = 178840.681
 X = 316186.312
 DB = N86°13'28"E
 DA = N03°37'16"E

SUBCURVE 1
 STA 92+51.27 TO 106+11.04
 L = 1359.77'
 R = 1149.03'
 LCH = 1281.81'
 LCB = N37°31'25"E



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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
 STH 70: PREVIOUS PROJECT T0810(4)

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.

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

Christopher R. Badtke
 CHRISTOPHER R. BADTKE
 REGISTRATION NUMBER: S-3150
 DATE: 02/24/2022

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.

Curt Van Erem
 CURT VAN EREM
 DATE: 2/25/2022

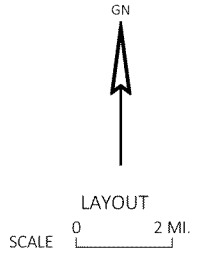
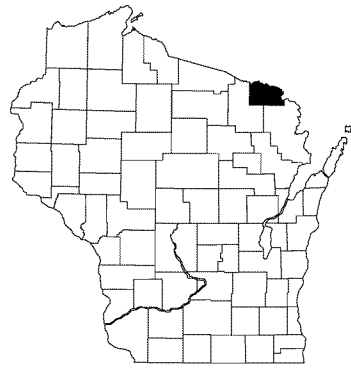
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET

9100-05-22

TIPLER - FLORENCE

STH 139 SOUTH TO USH 2

STH 70 FLORENCE COUNTY



4

4

CONVENTIONAL SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

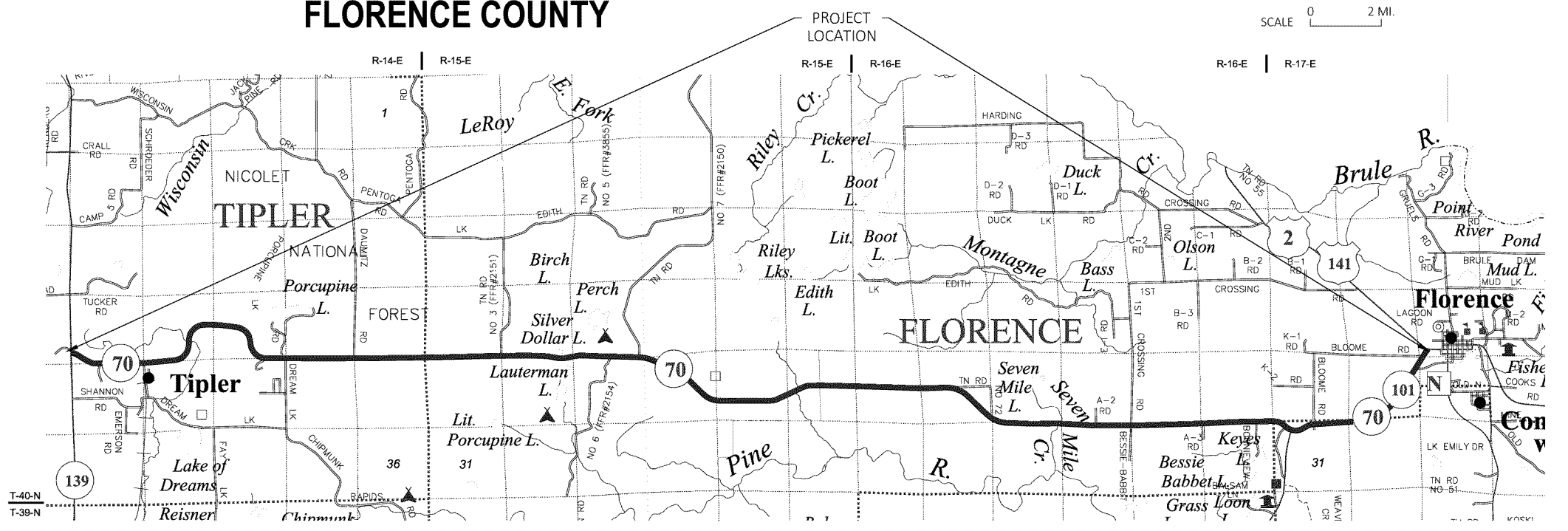
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT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

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL UTILITY SYMBOLS

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



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 9100-05-22.

NOTES:

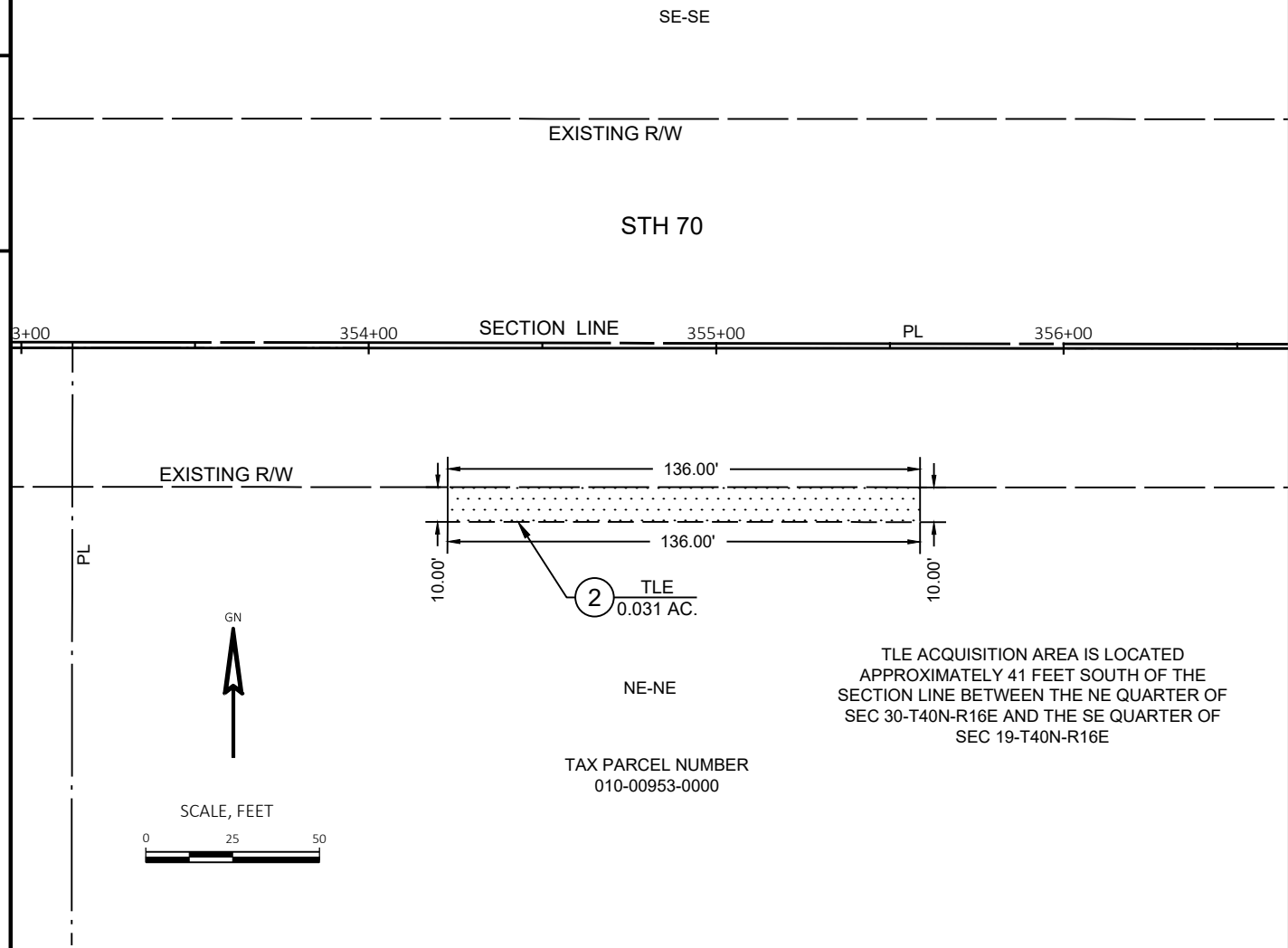
- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), FLORENCE COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
- PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
- ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY.
- ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.
- PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.
- RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
- A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLE)S ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

PROJECT NUMBER 9100-05-22-4.01
SHEET 2 OF 2

R/W PROJECT NUMBER: 9100-05-22 EXHIBIT NUMBER: 1
 TLE ACQUISITION EXHIBIT
 RELOCATION ORDER STH 70 TIPLER-FLORENCE (STH139 SOUTH TO USH 2)
 STH 70 FLORENCE COUNTY
 PART OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 30, T40N, R16E, TOWN
 OF FLORENCE, FLORENCE COUNTY, WISCONSIN

NOTES:
 THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
 REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.
 THIS TLE IS FOR THE RIGHT TO CONSTRUCT, CUT, AND/OR FILL SLOPES, INCLUDING FOR
 SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND
 THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE,
 INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY
 VEGETATION THAT THE HIGHWAY AUTHORITIES DEEM NECESSARY OR DESIRABLE.

4



SCHEDULE OF LANDS & INTERESTS REQUIRED

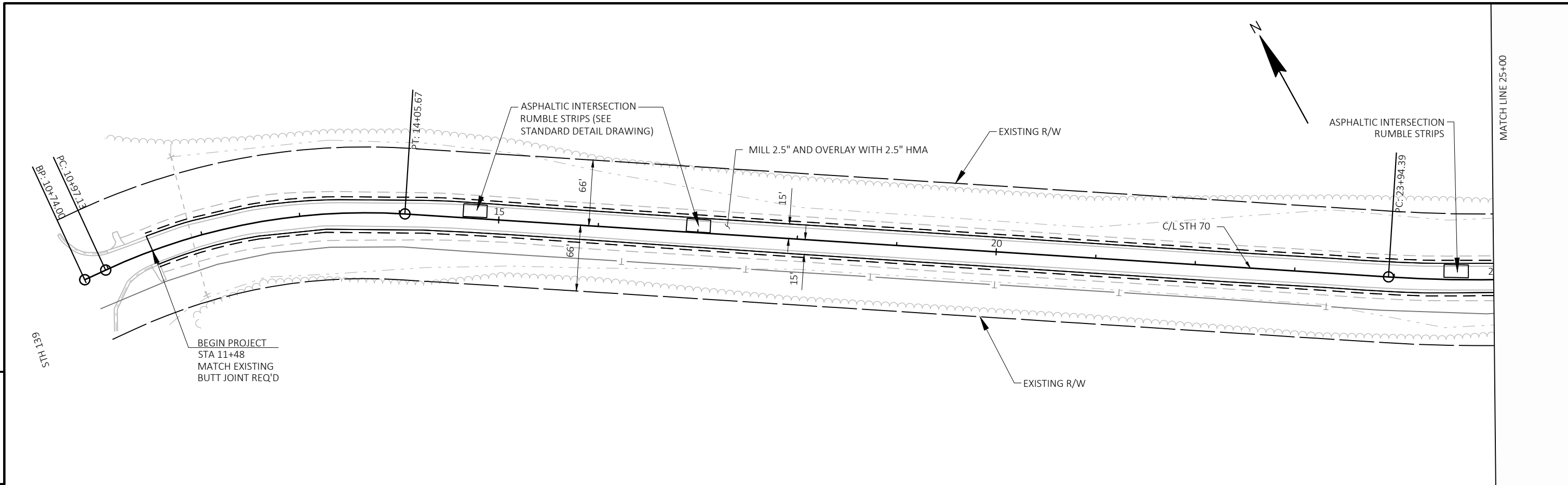
OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE ACRES
2	THE WEITERMANN FARM REAL ESTATE TRUST	TLE	0.031

UTILITY INTERESTS REQUIRED

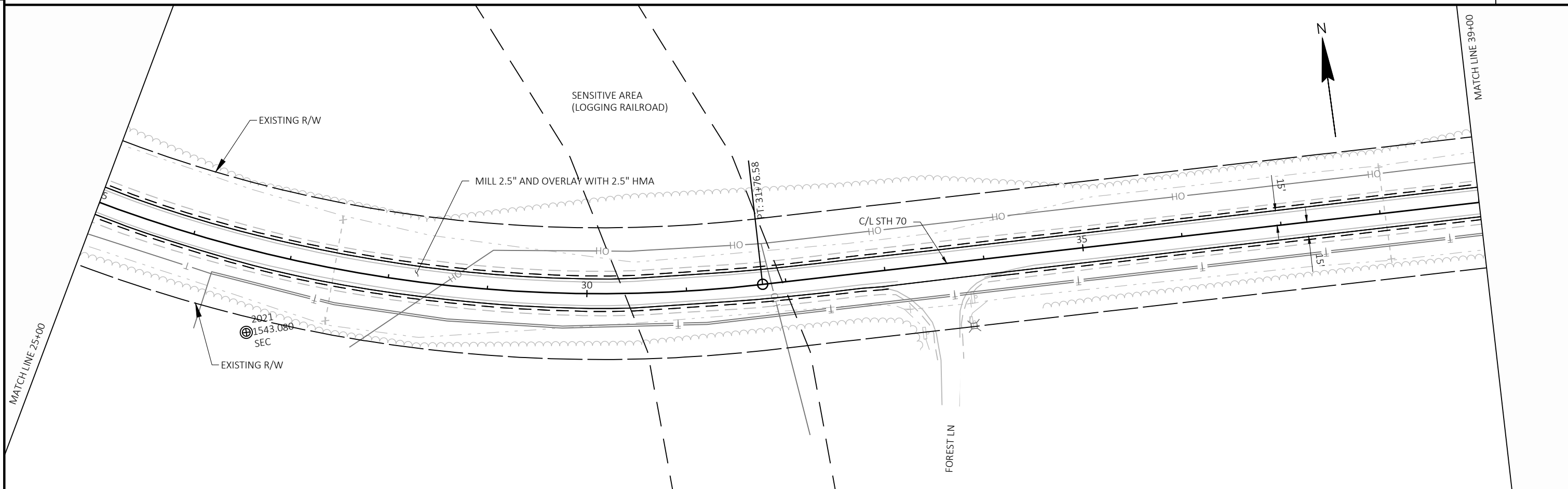
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
N/A	N/A	N/A

THIS MAP IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NORTHEAST REGION.
 SIGNATURE: Curt Van Erem DATE: 2/24/2022
 PRINT NAME: CURT VAN EREM

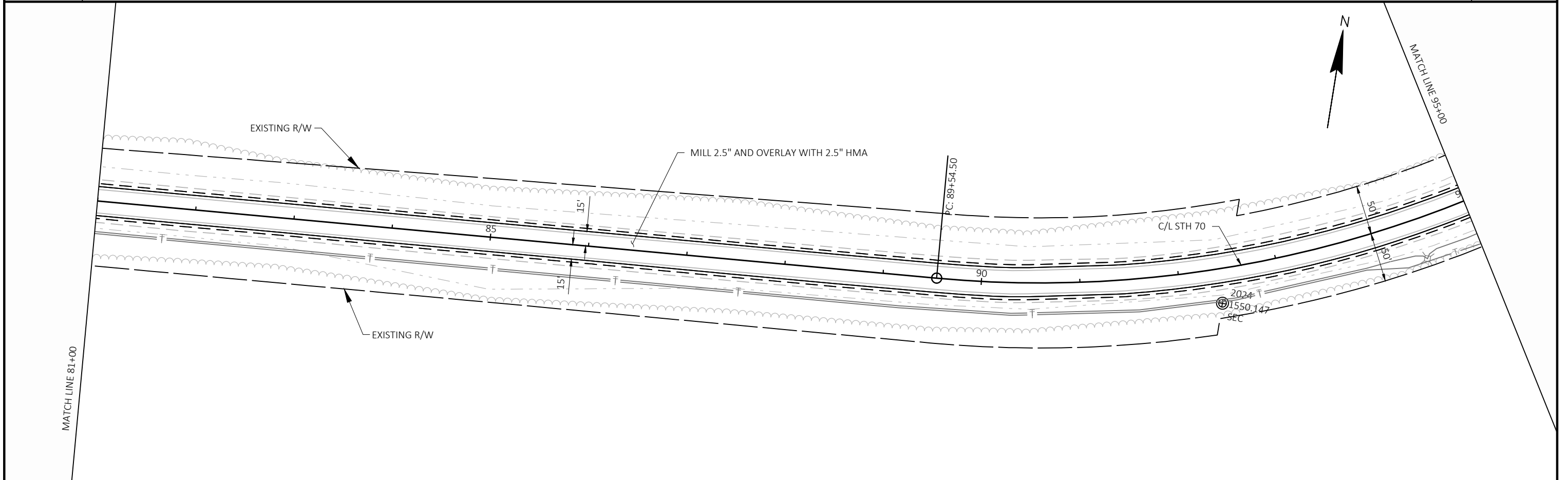
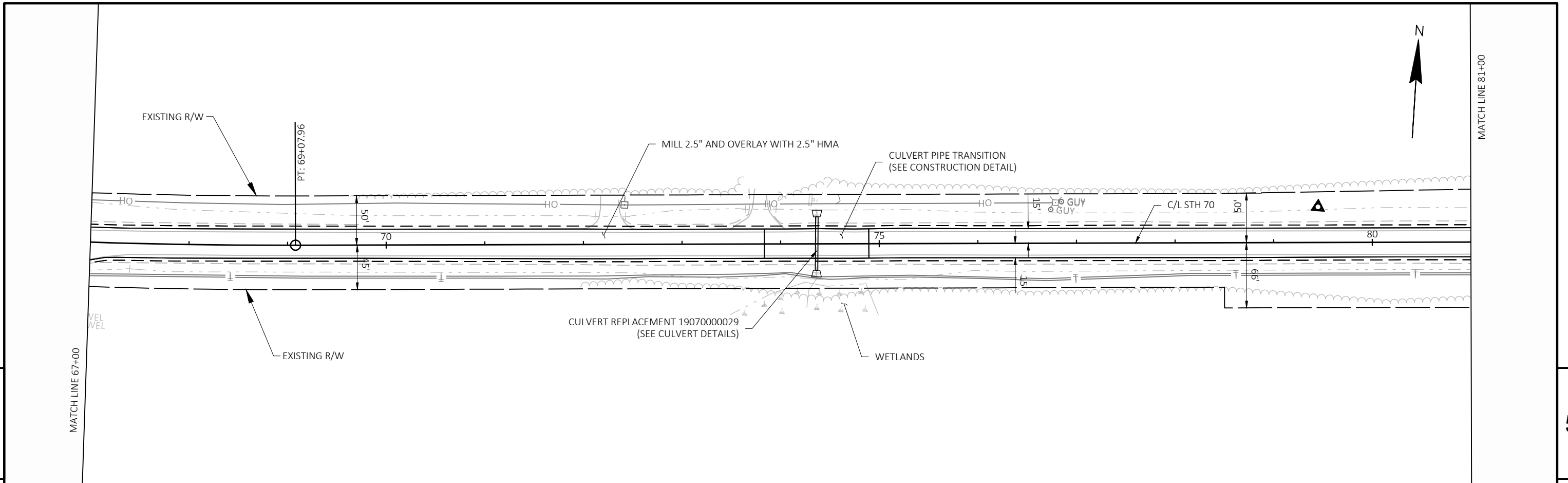


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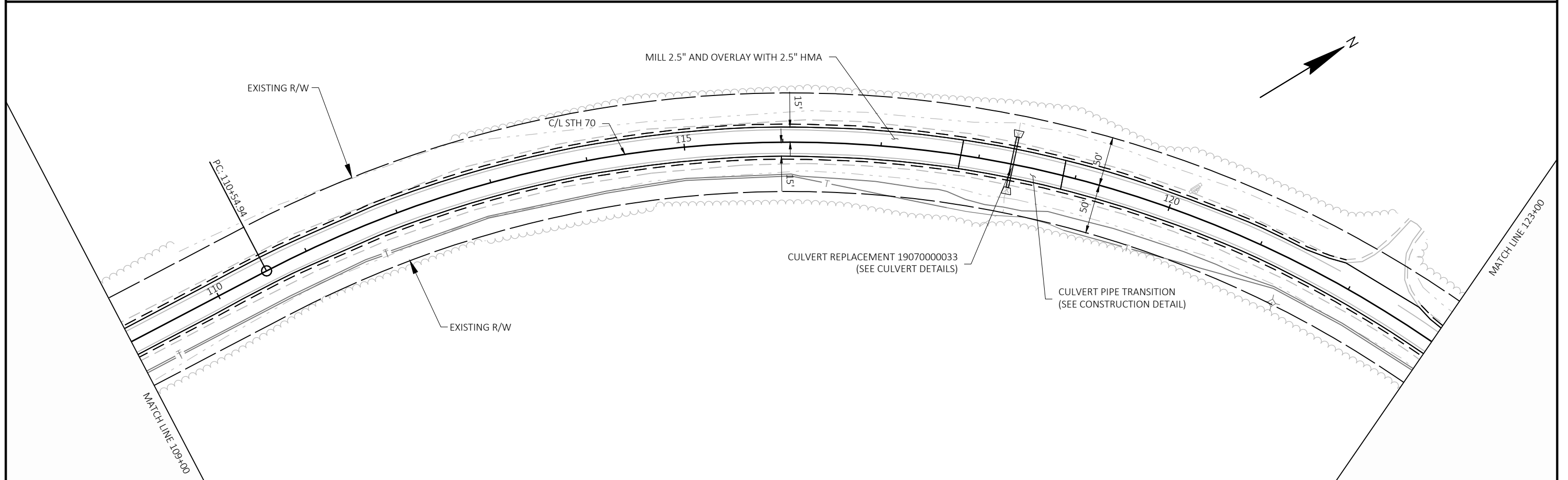
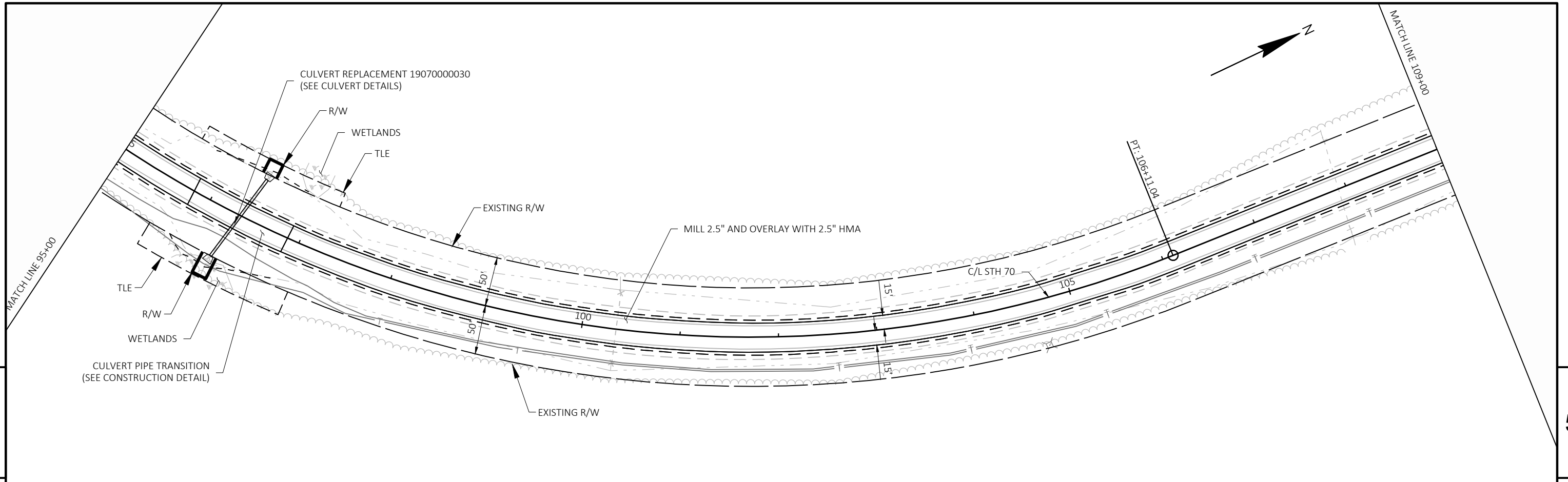
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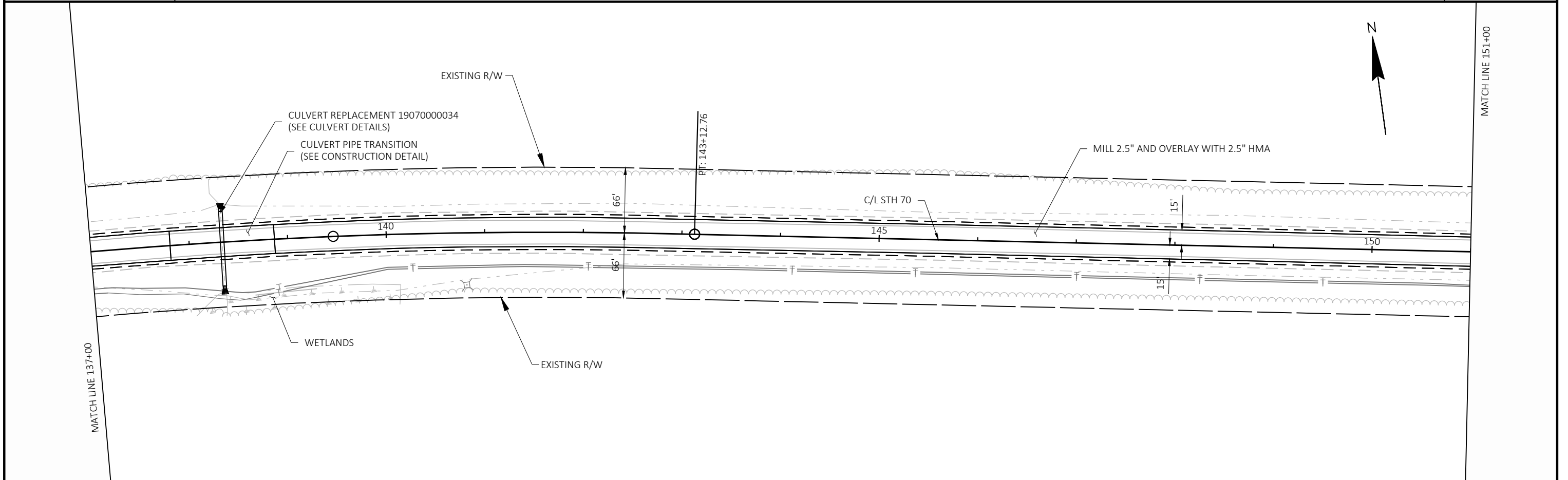
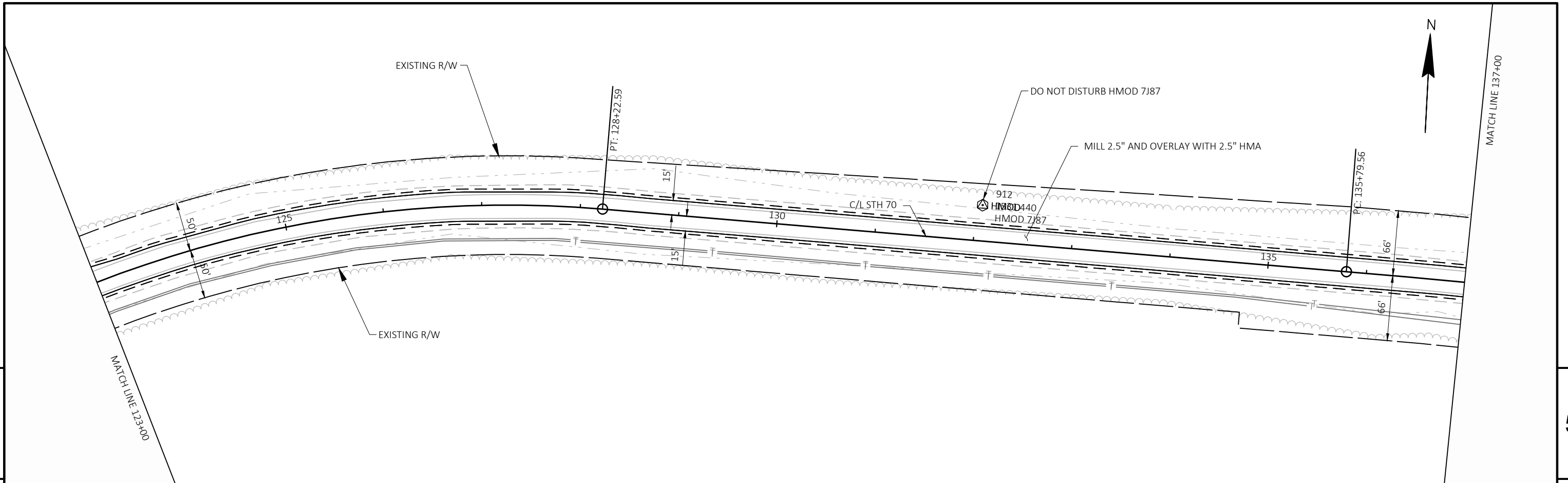
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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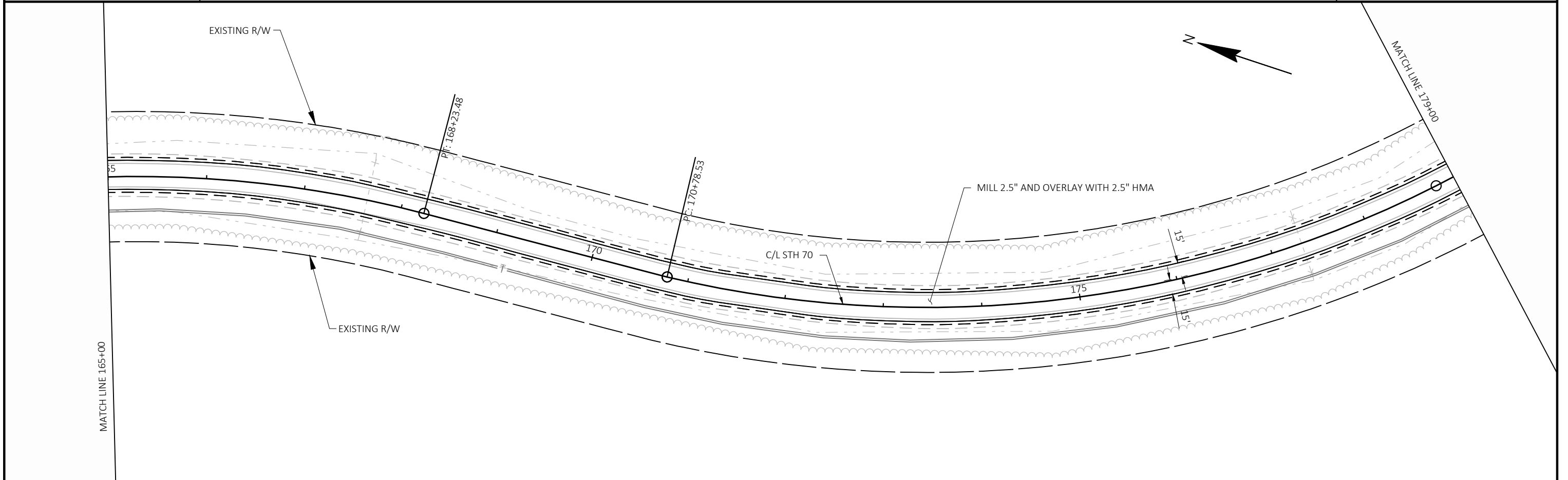
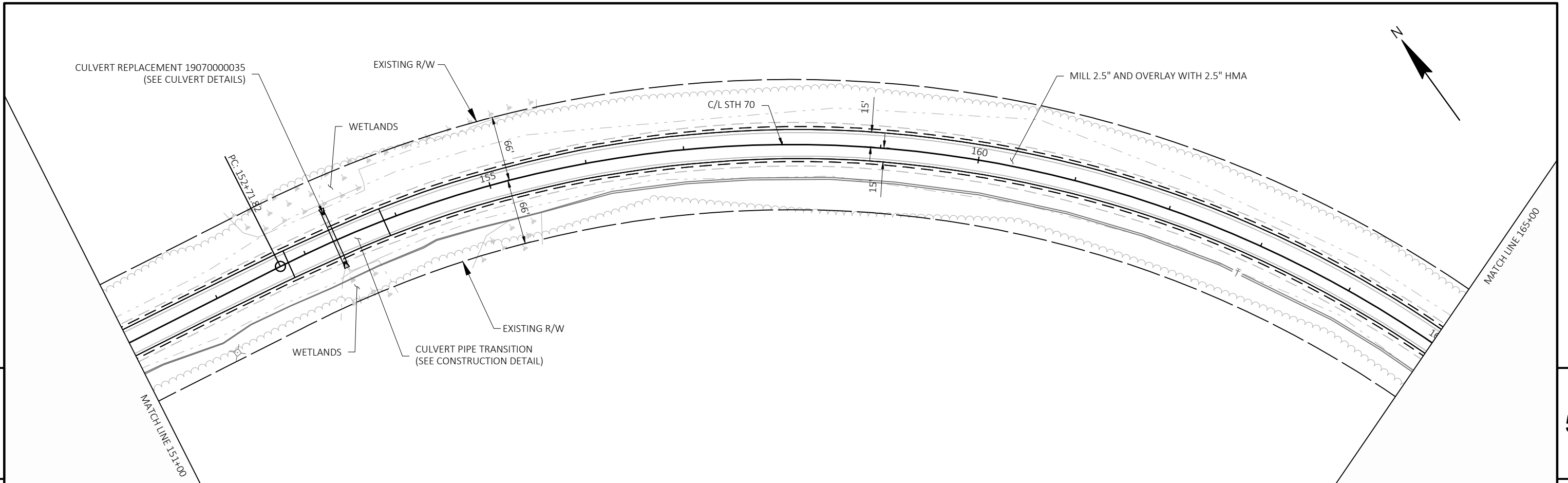
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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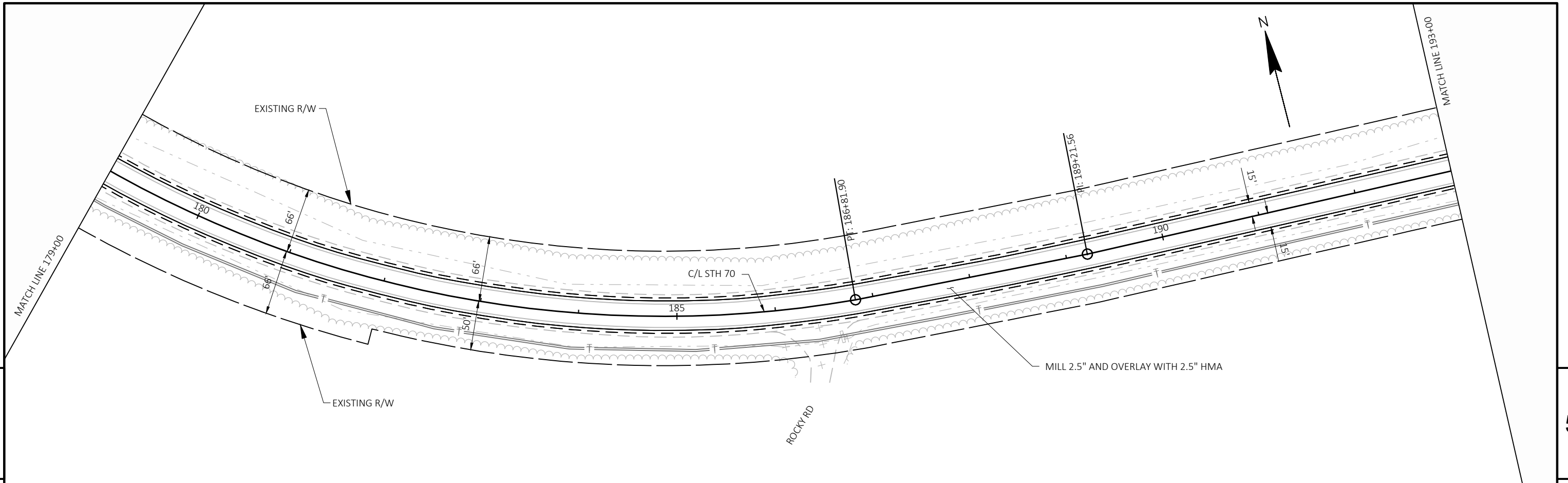
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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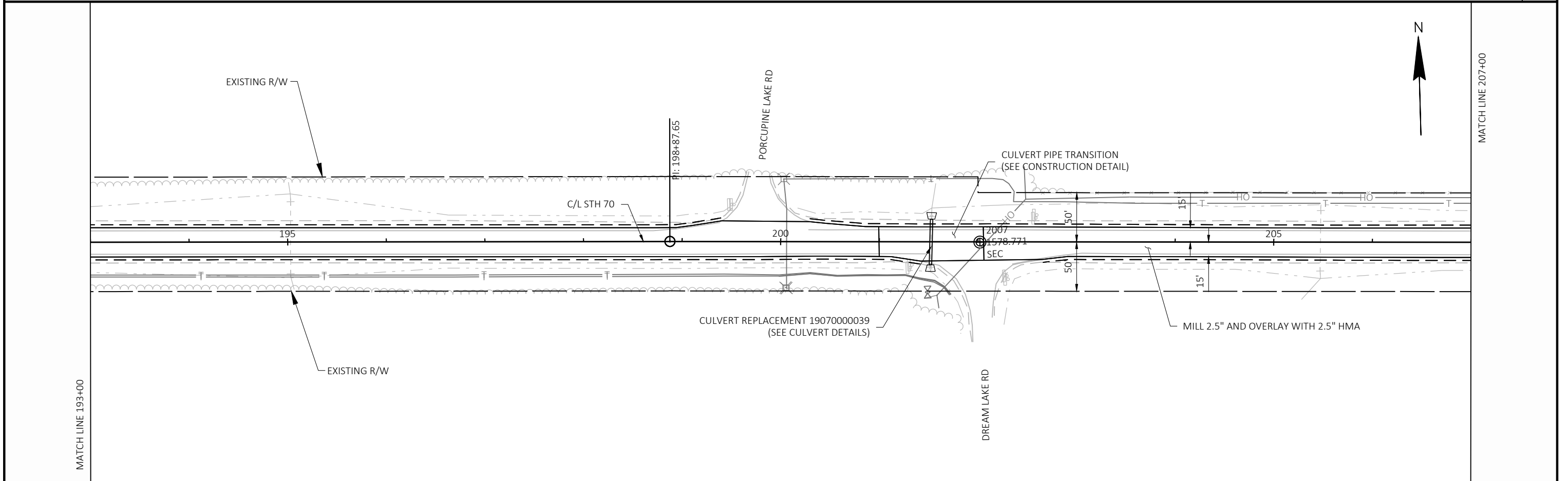


PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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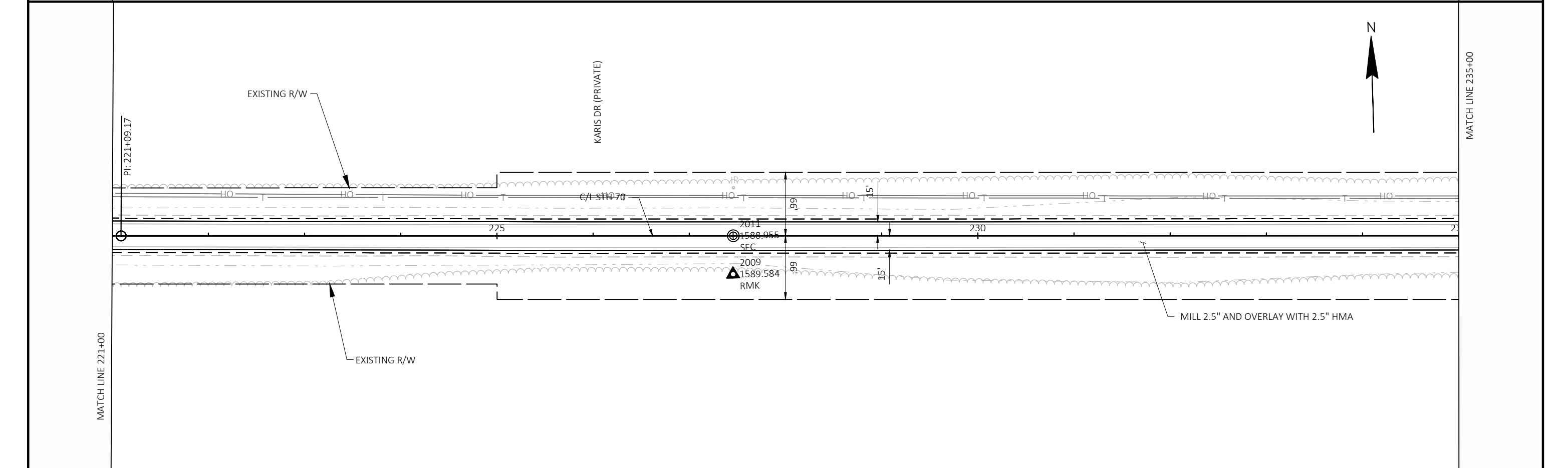
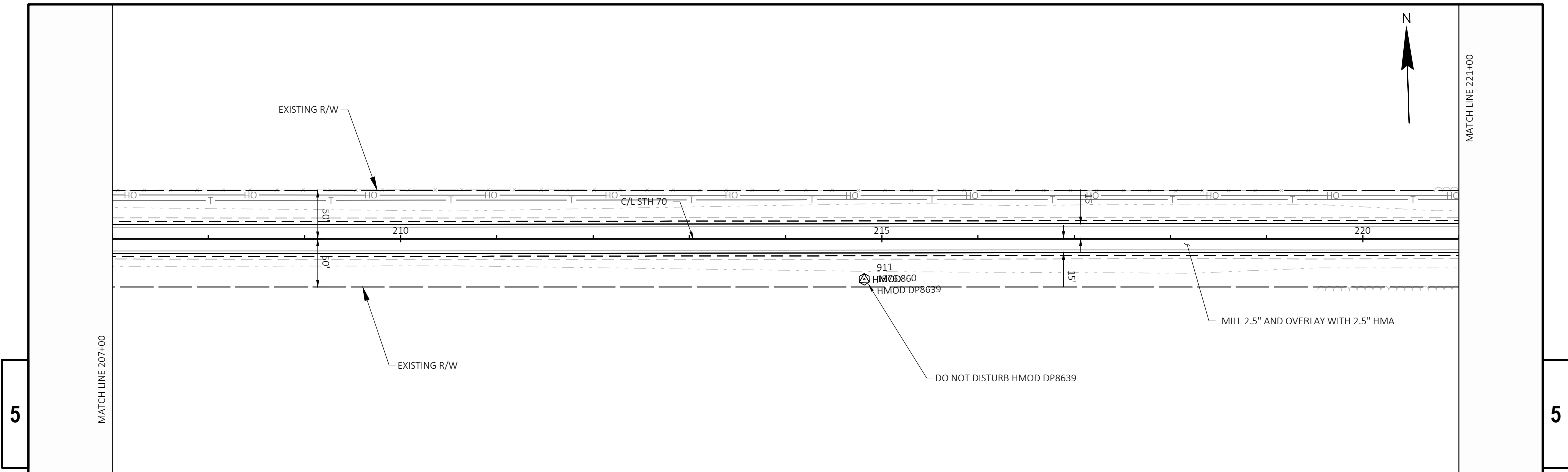
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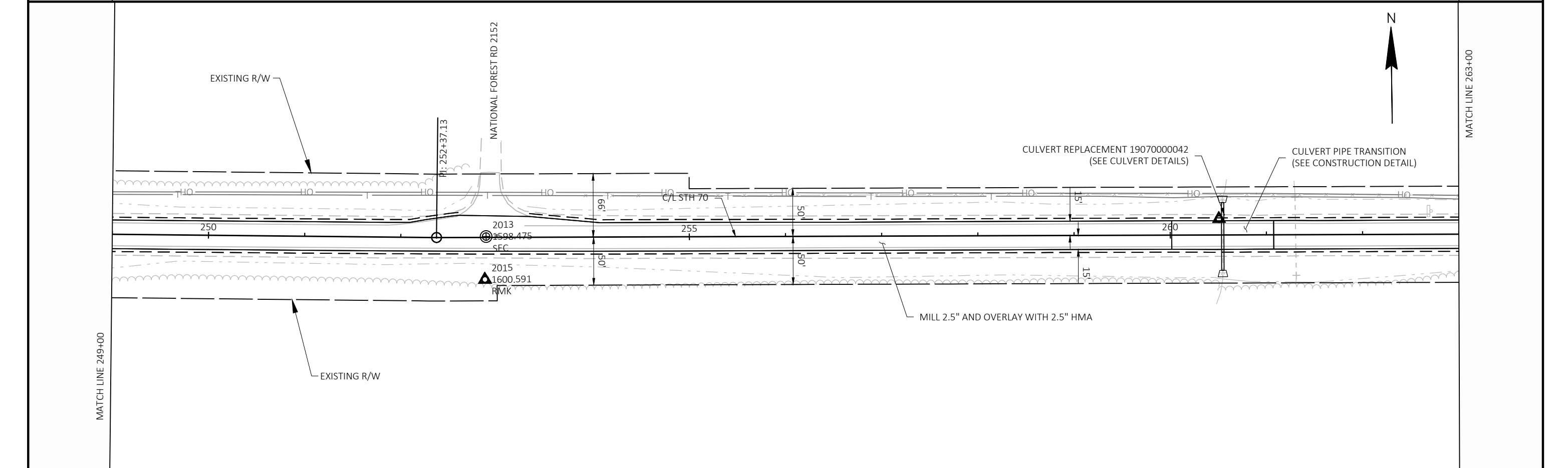
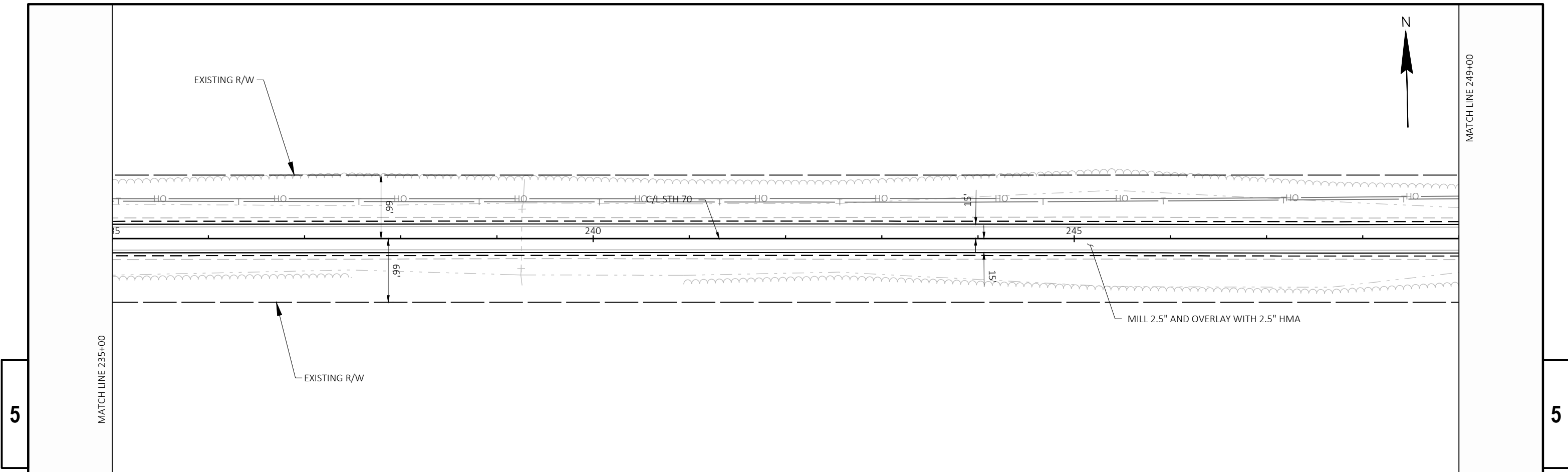
MATCH LINE 193+00

MATCH LINE 207+00

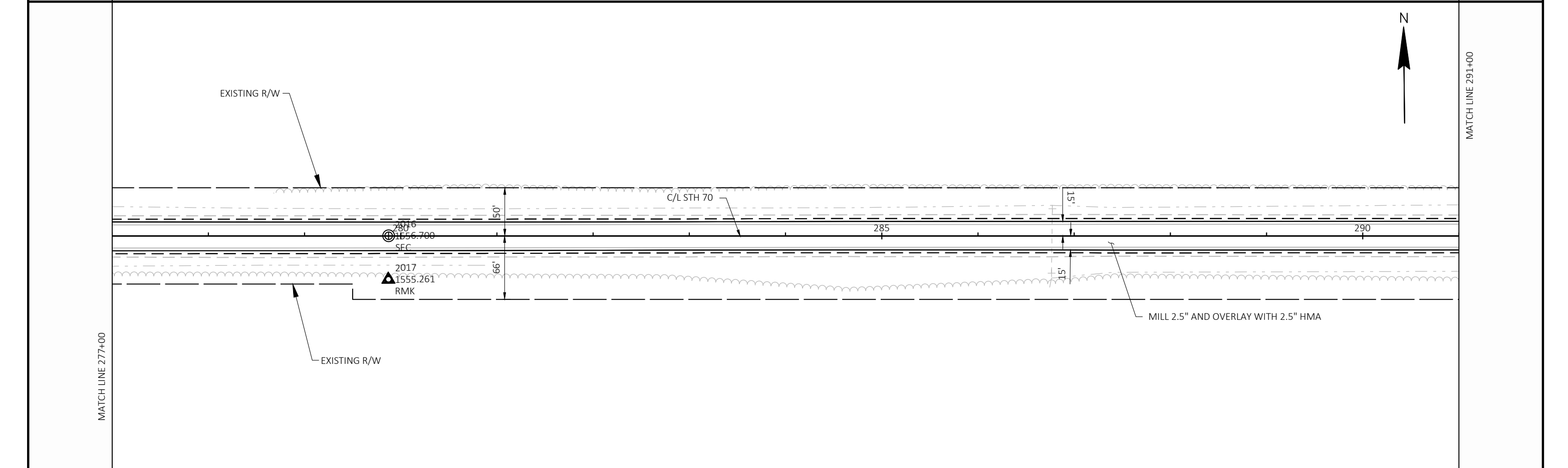
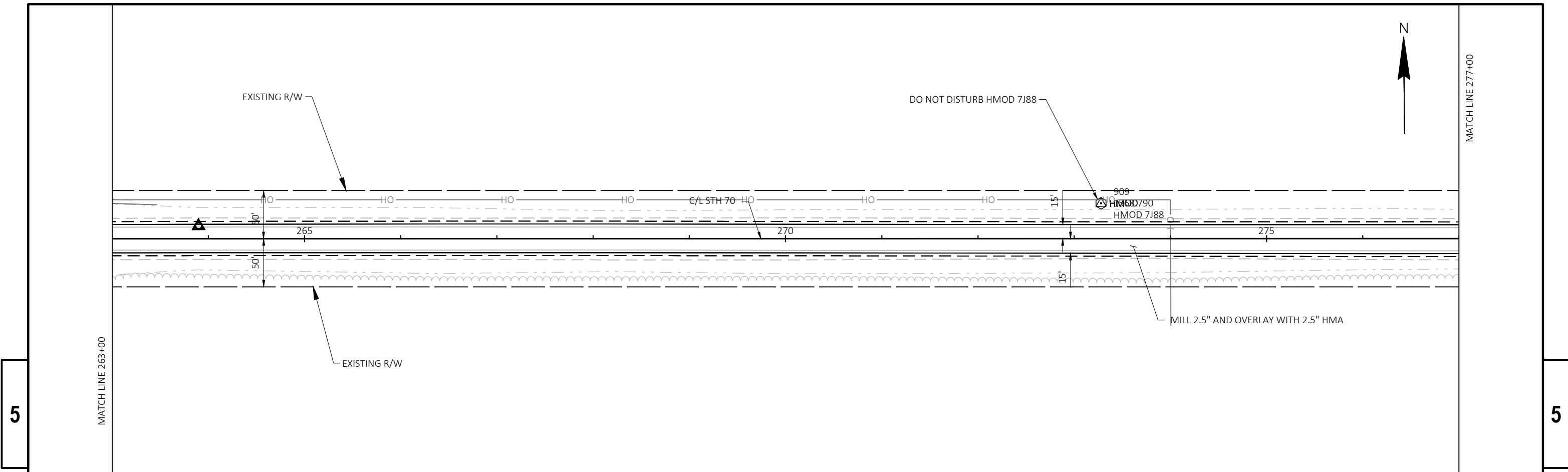
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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PROJECT NO: 9100-05-71 HWY: STH 70 COUNTY: FLORENCE PLAN SHEET E



PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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PROJECT NO: 9100-05-71

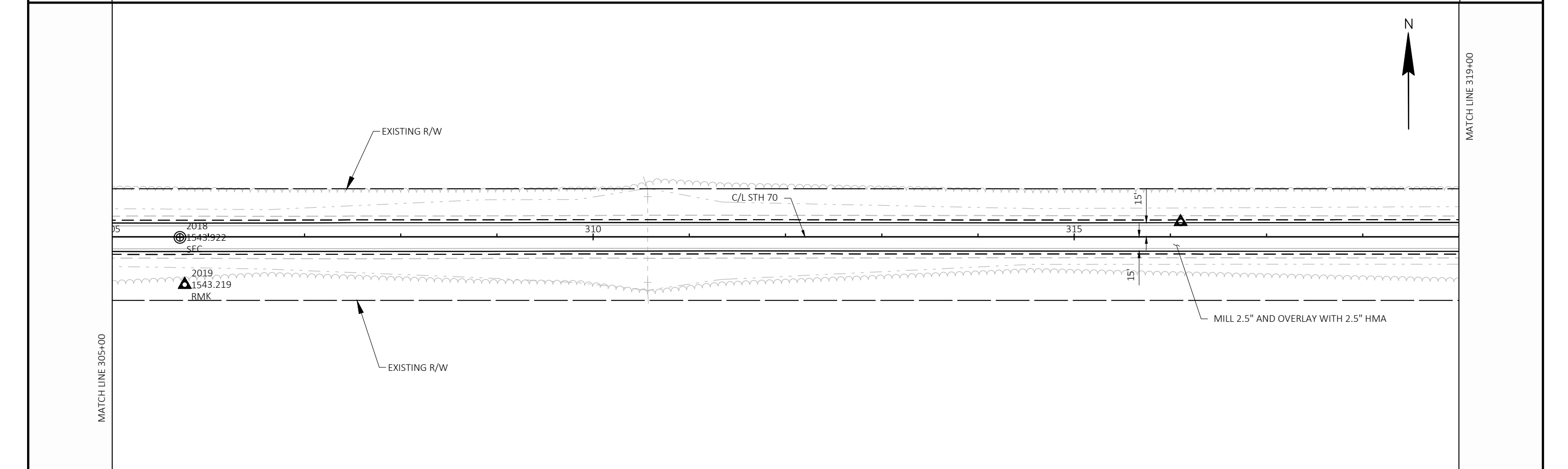
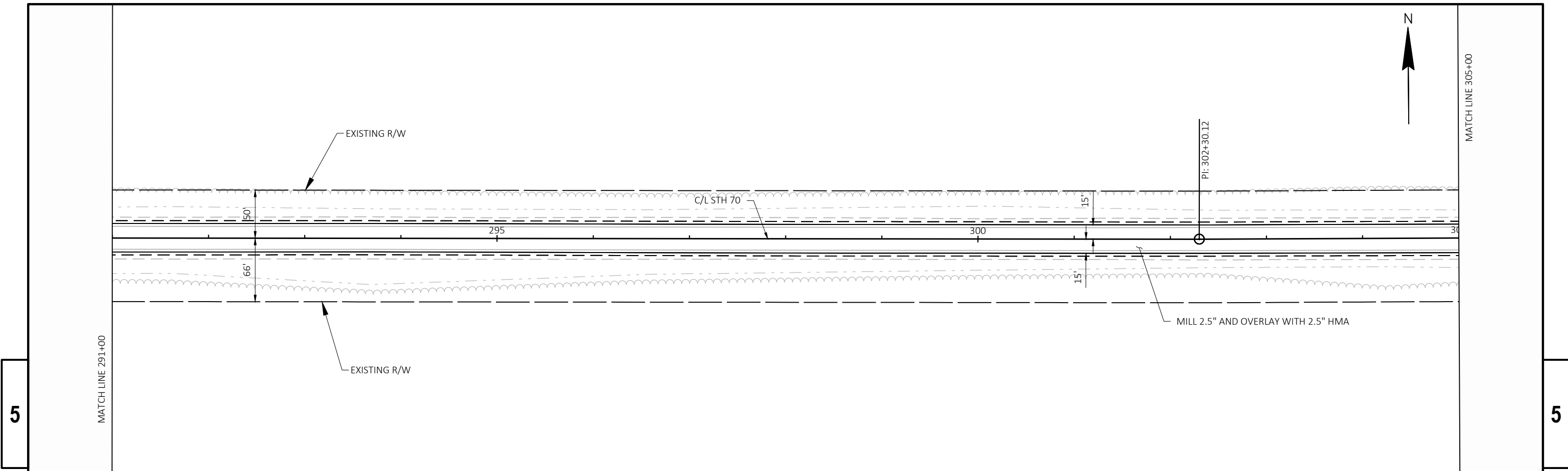
HWY: STH 70

COUNTY: FLORENCE

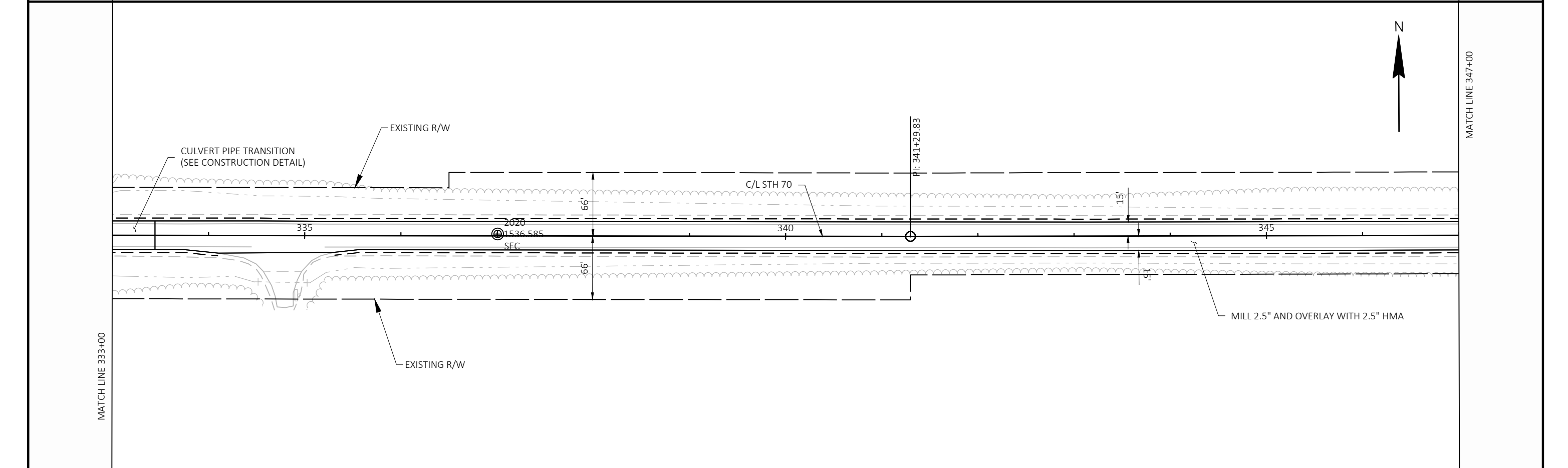
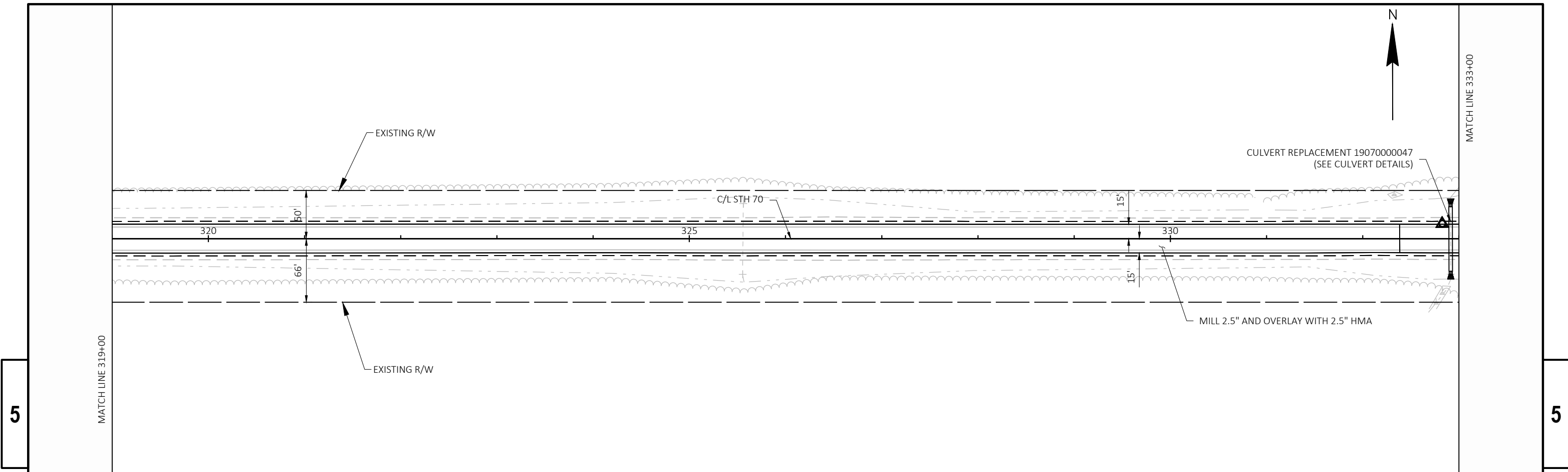
PLAN

SHEET

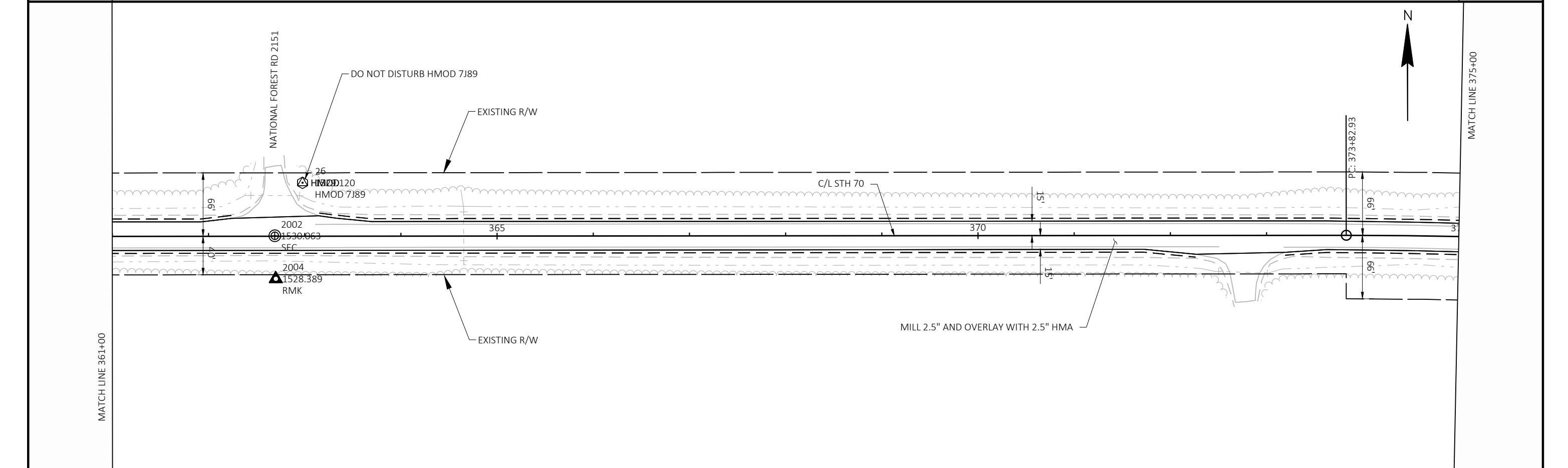
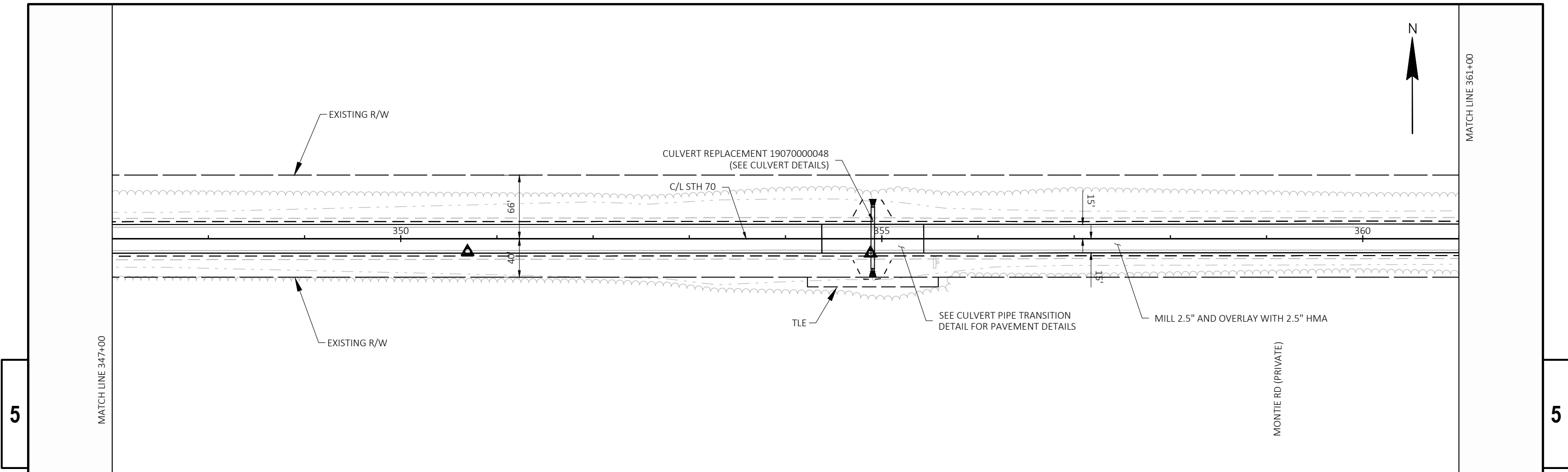
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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PROJECT NO: 9100-05-71

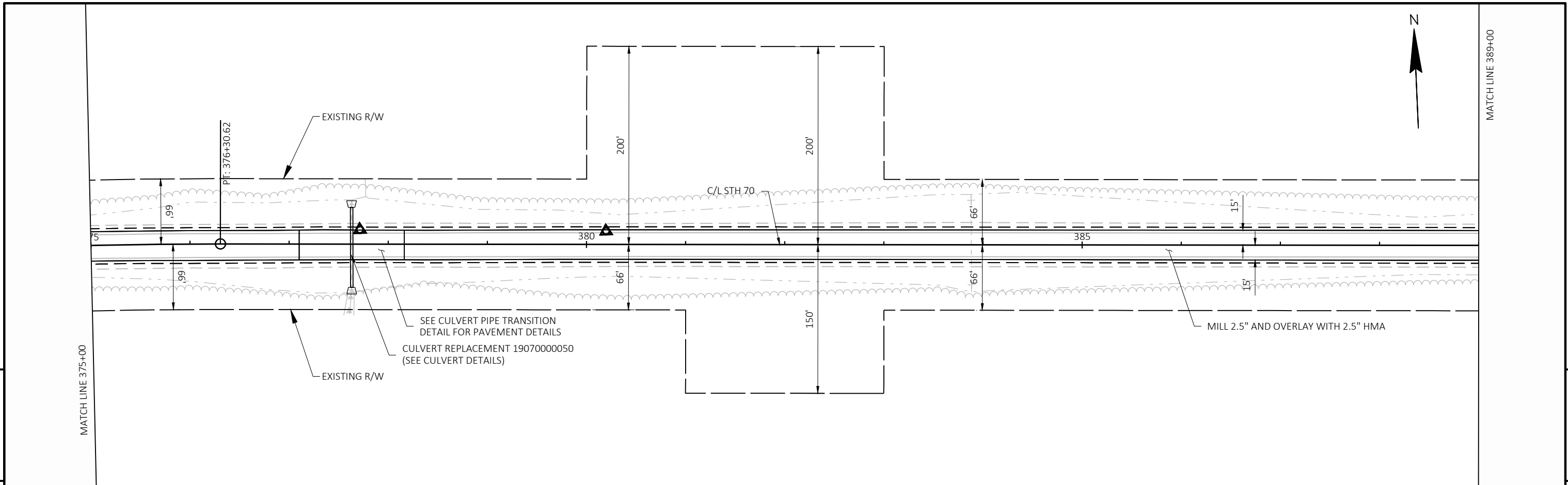
HWY: STH 70

COUNTY: FLORENCE

PLAN

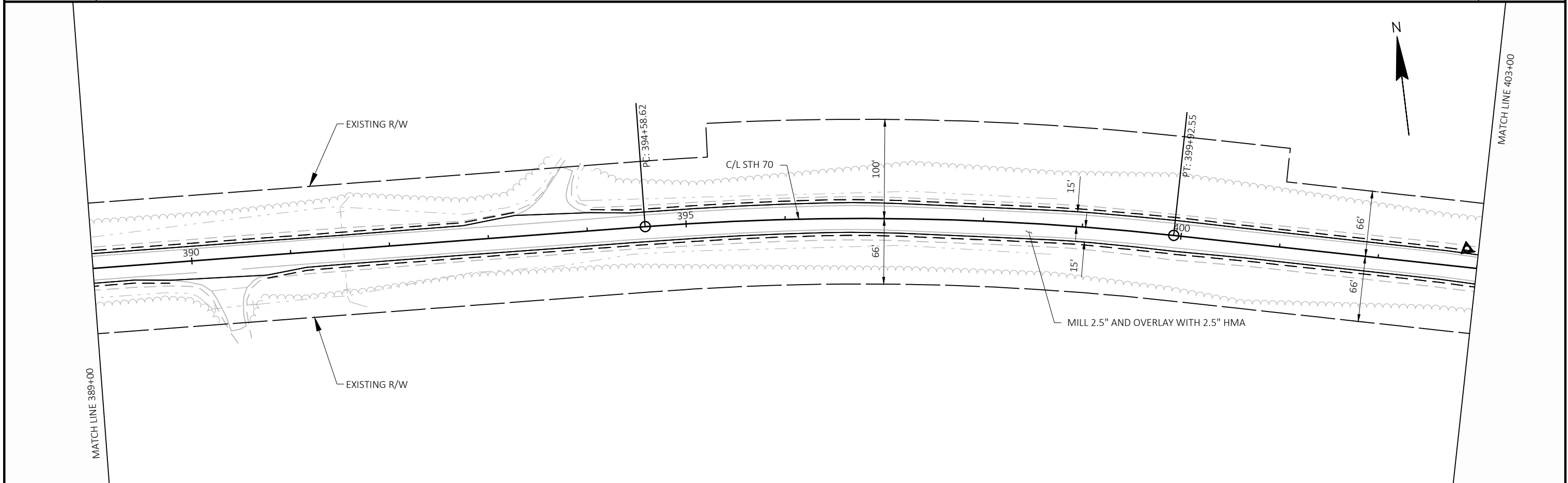
SHEET

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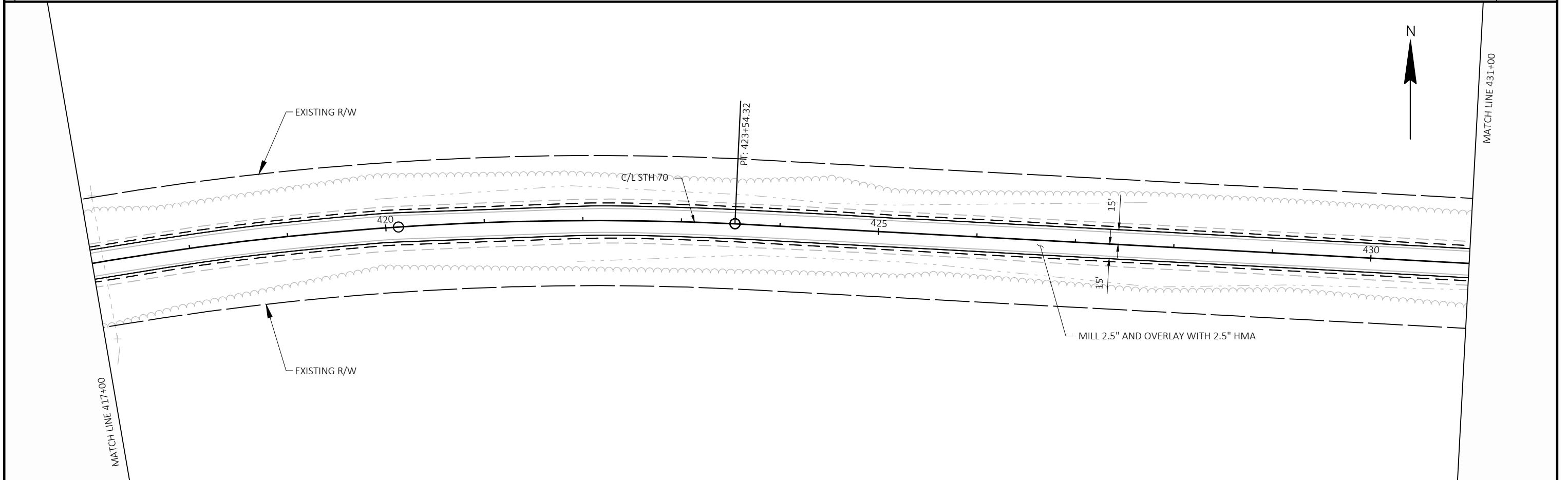
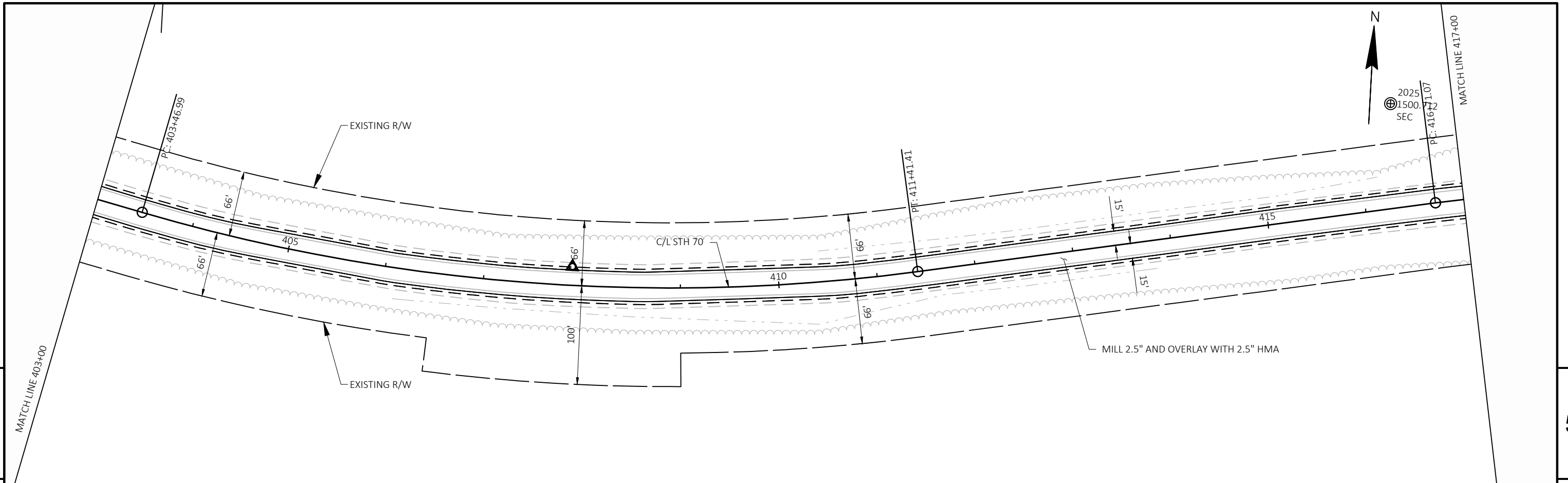


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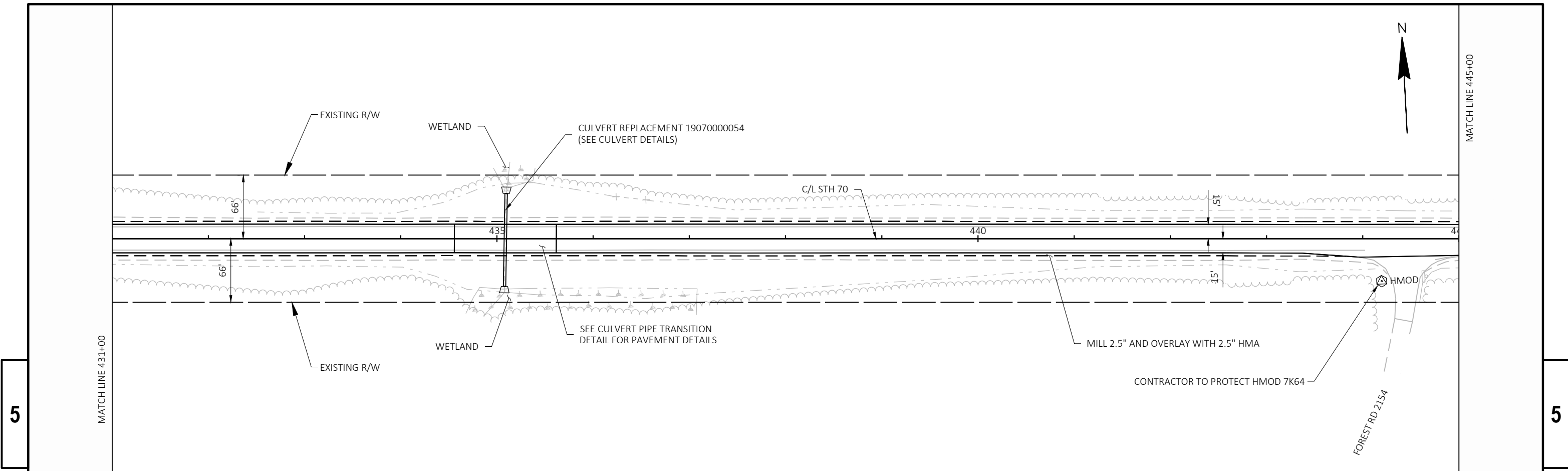
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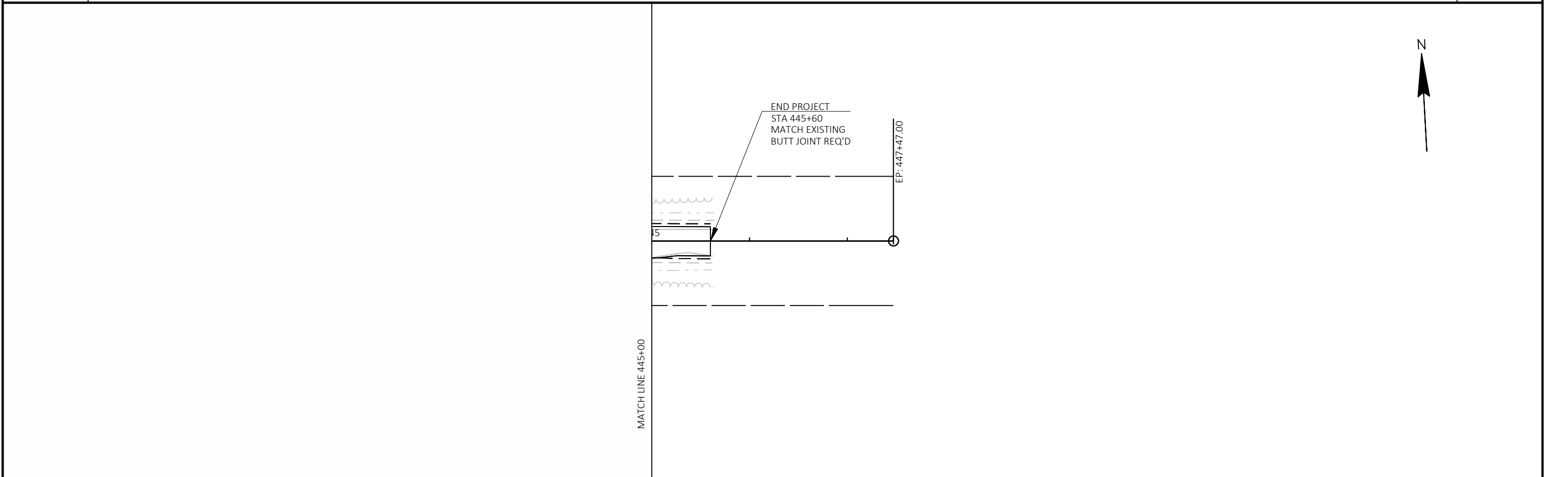


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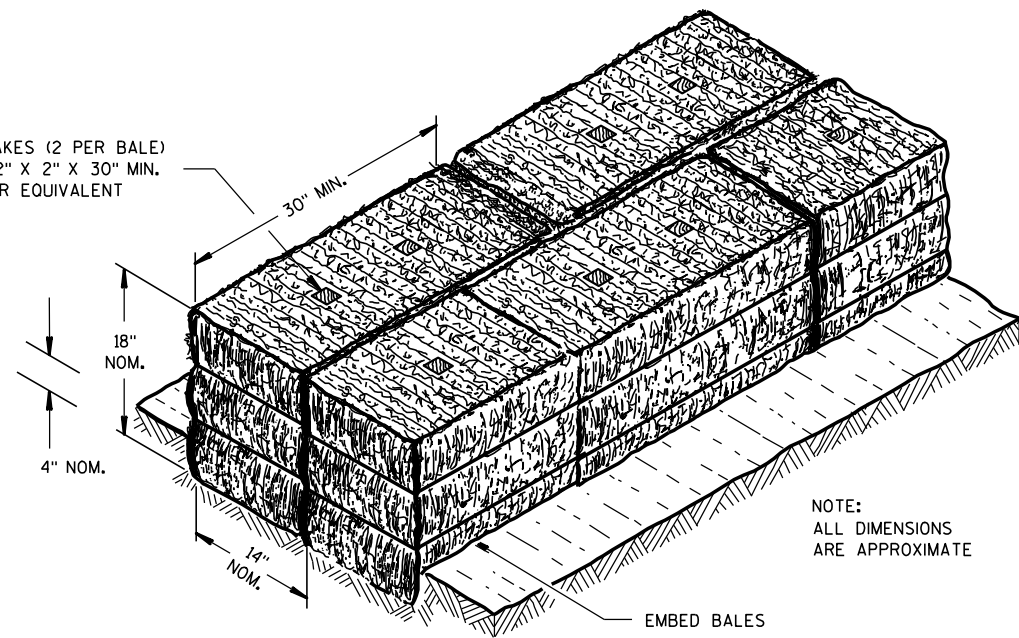


PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	PLAN	SHEET	E
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Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
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
14B29-01	SAFETY EDGE
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
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-07A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

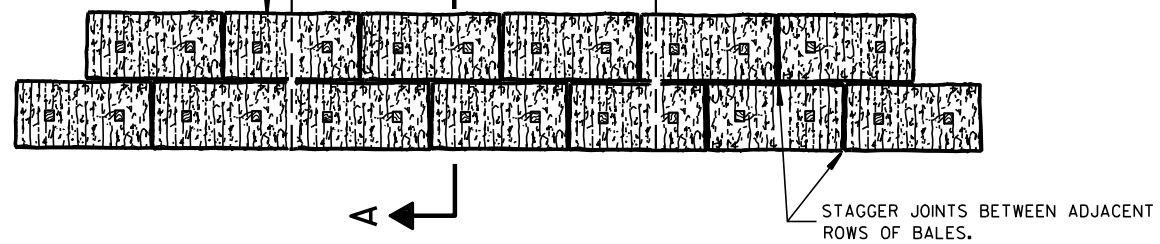
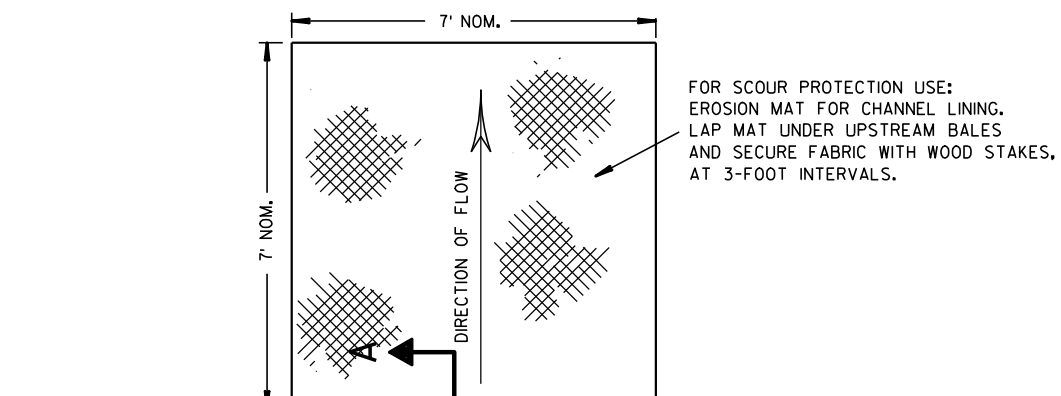
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

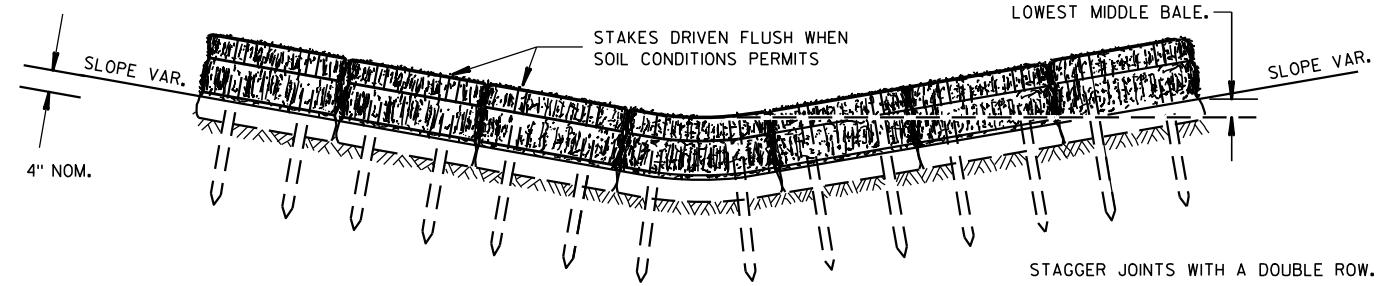
EMBED BALES

SECTION A-A



PLAN VIEW

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



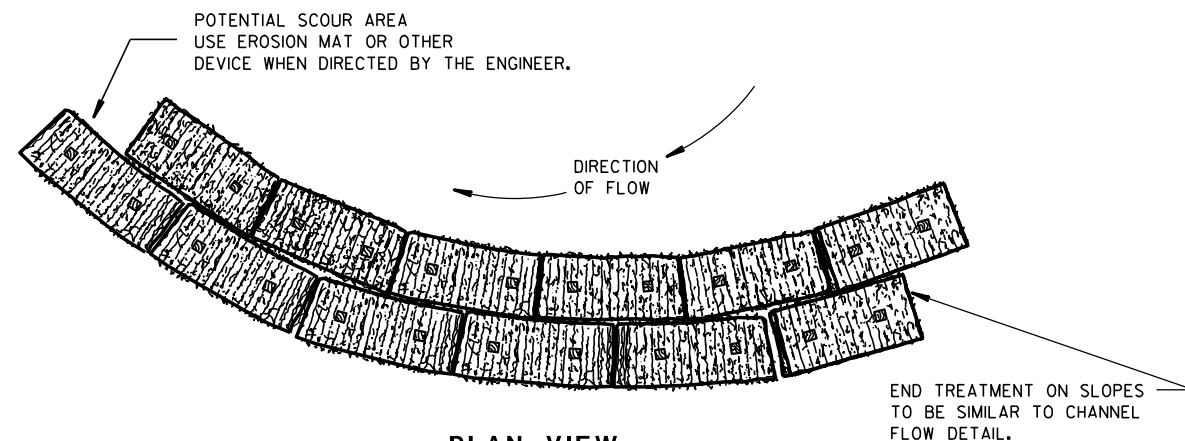
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

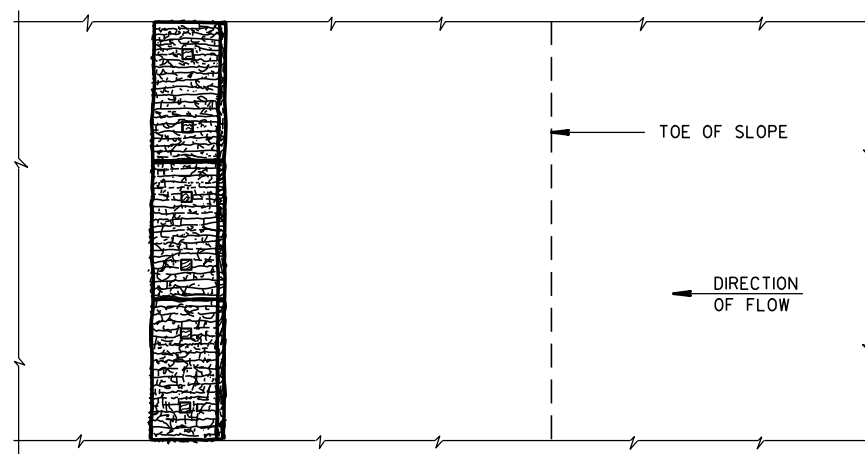
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

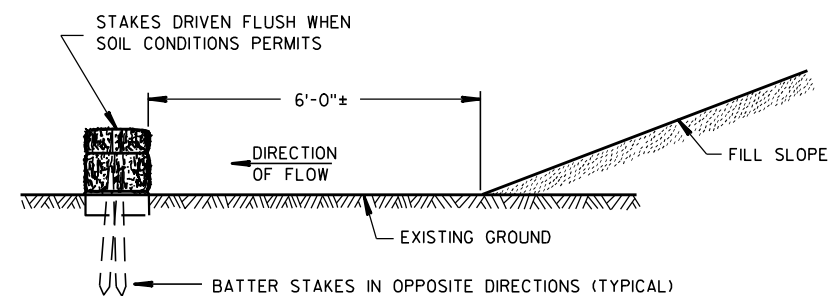


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

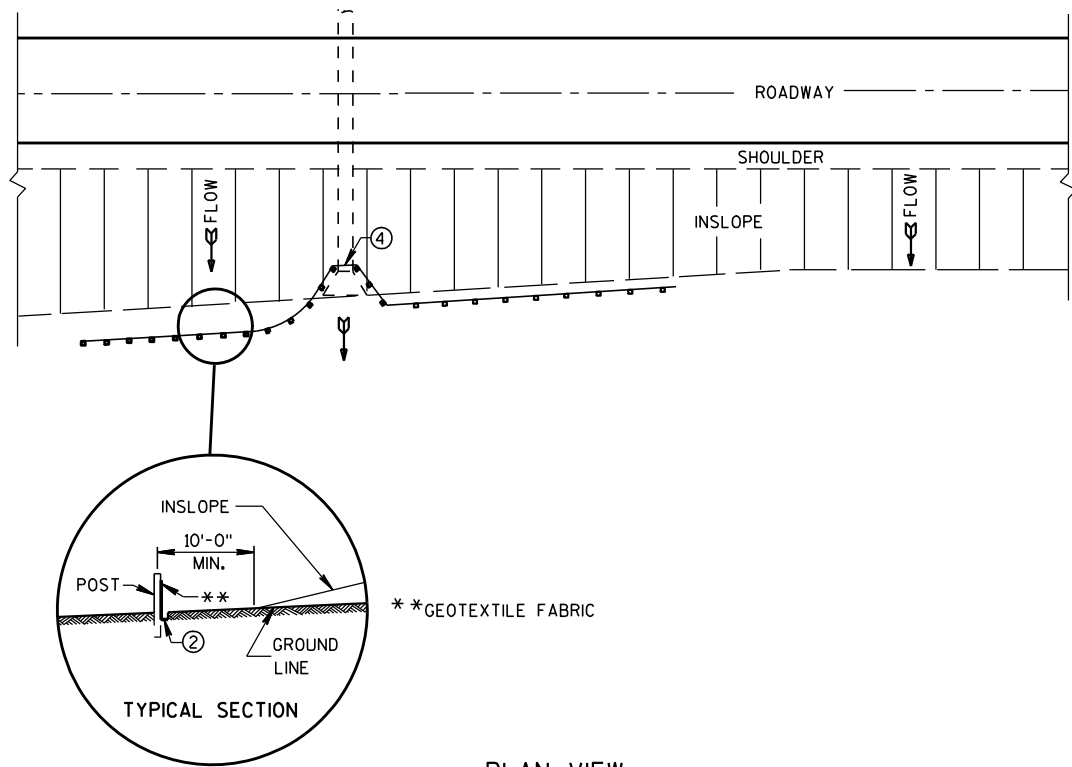
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

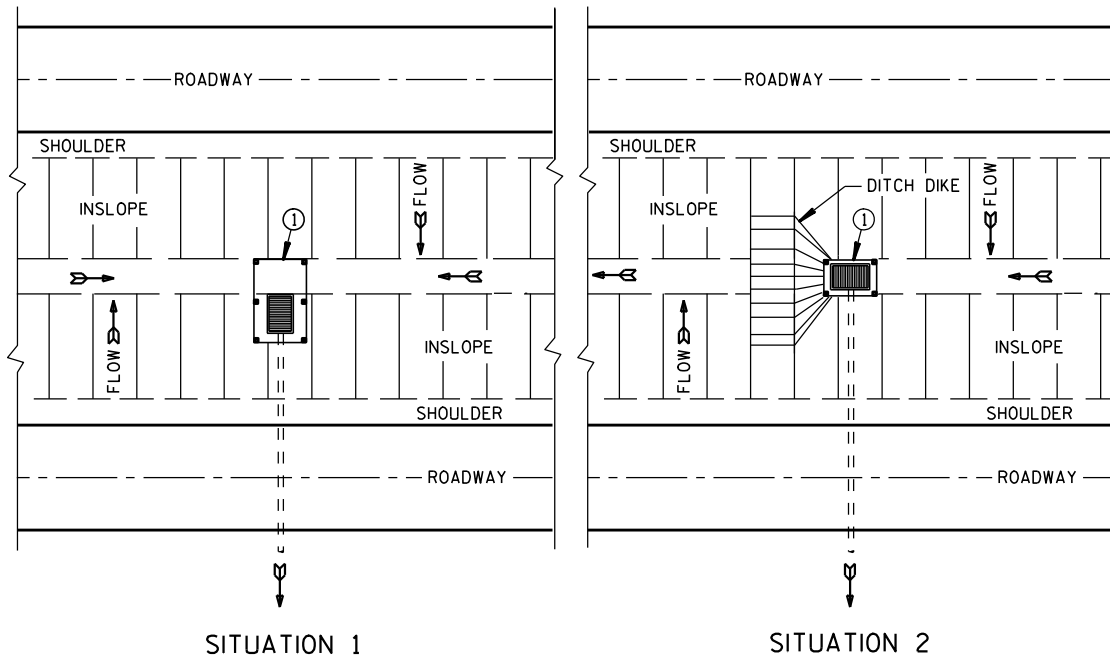
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

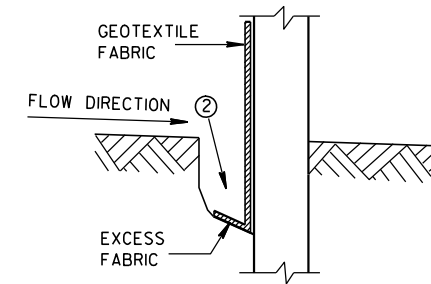


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

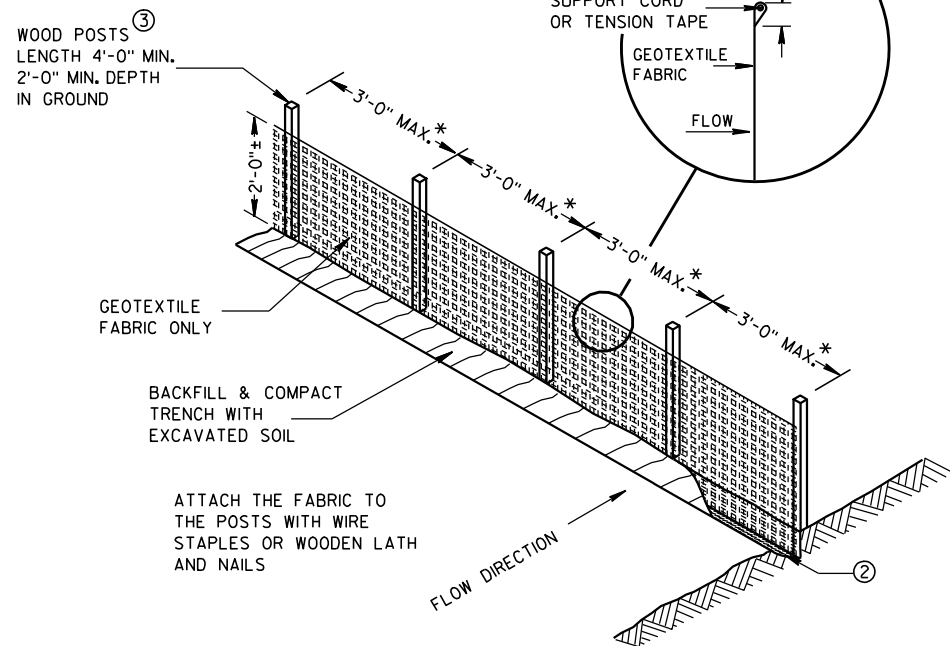
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

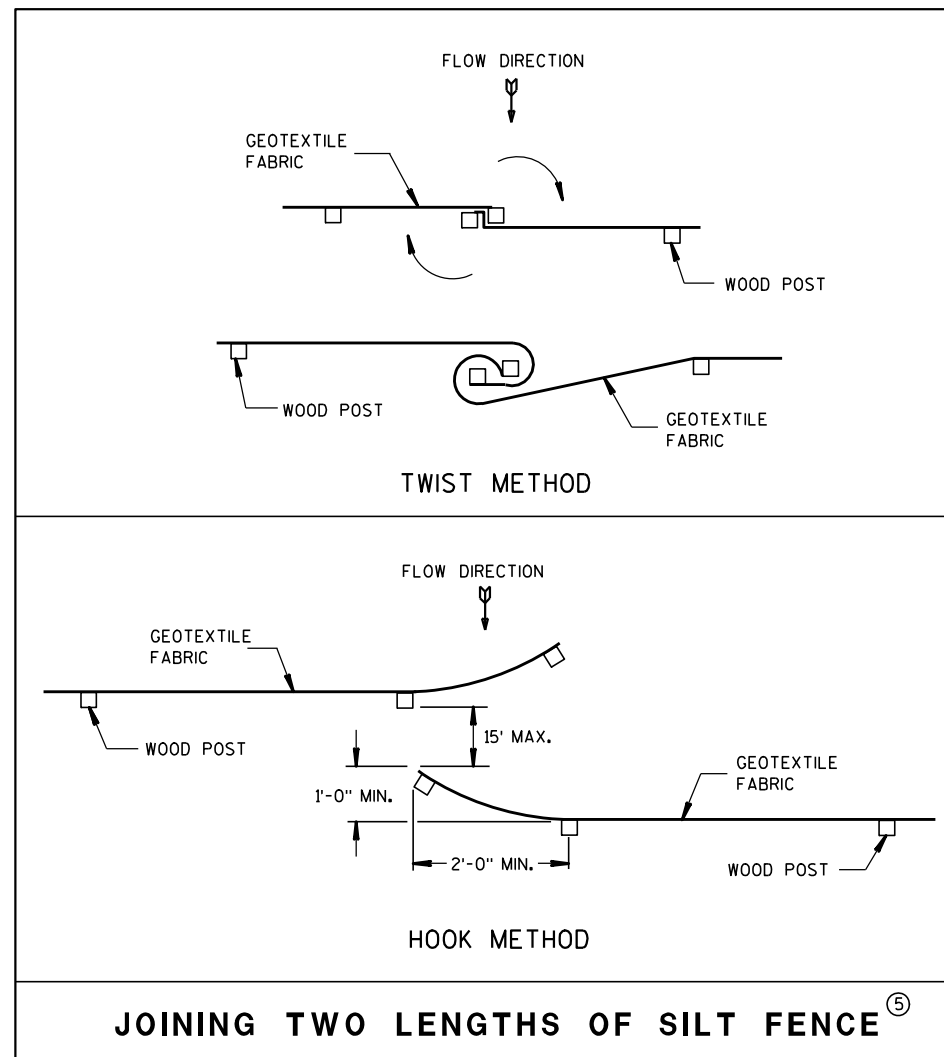


TRENCH DETAIL

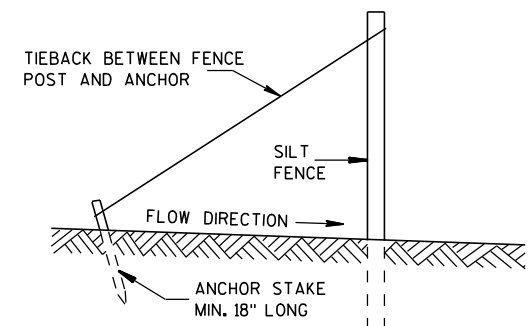
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

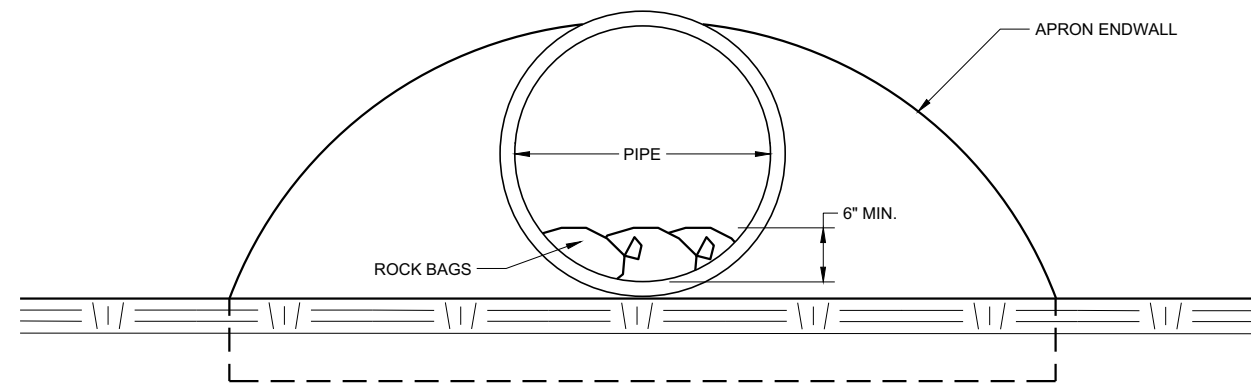


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

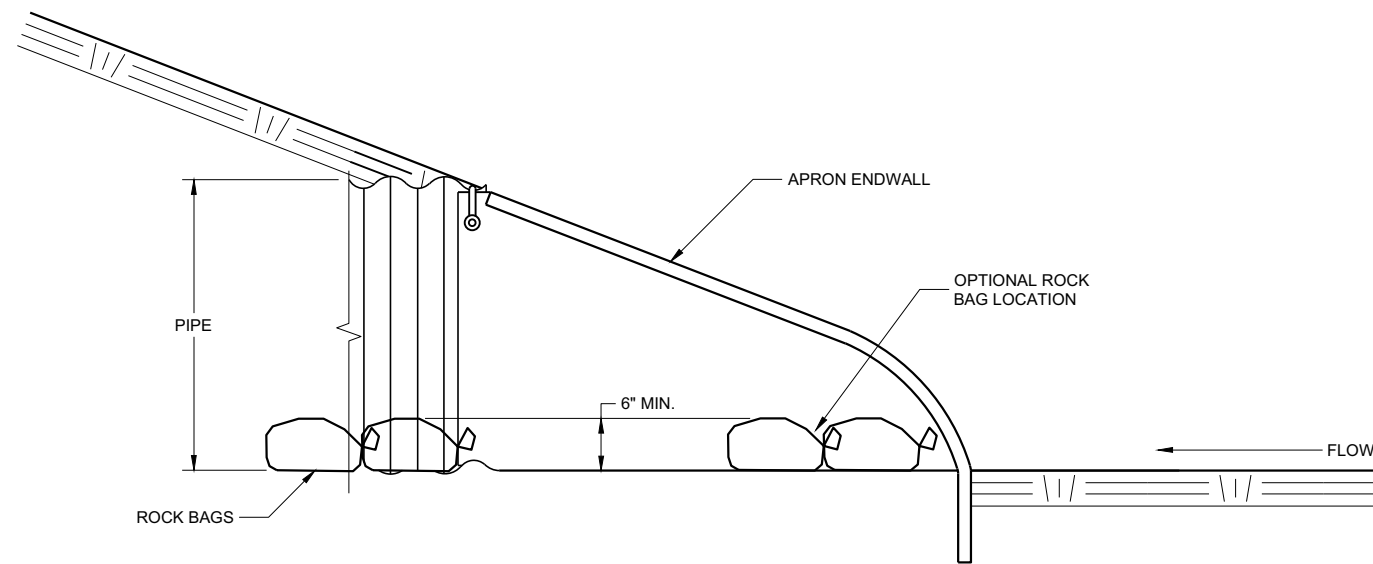
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

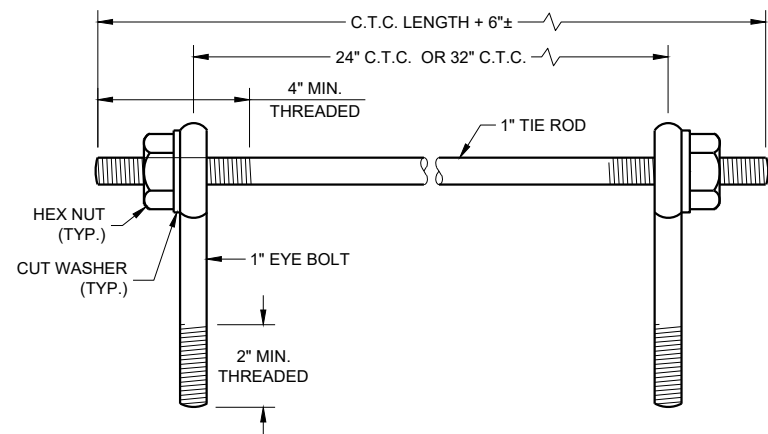
CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

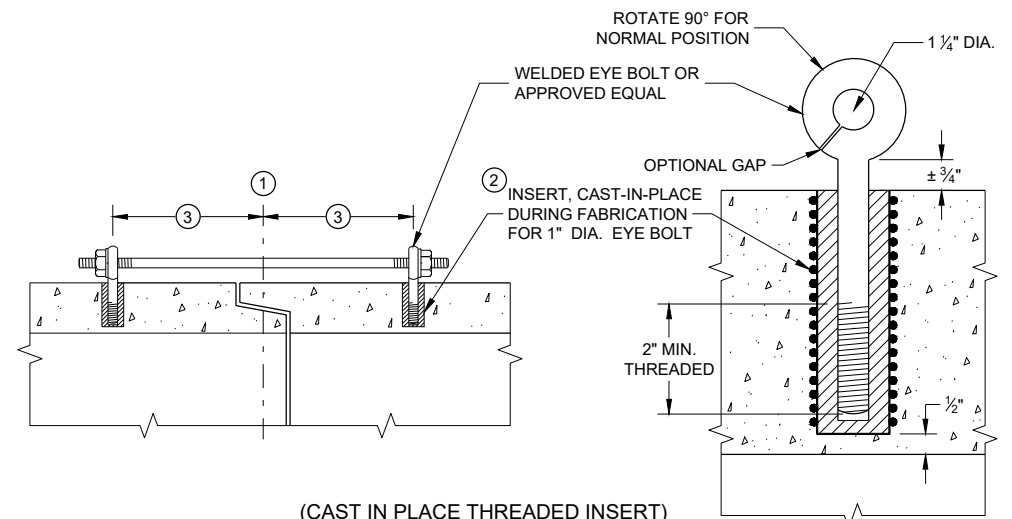
APPROVED
May 2019 /S/ Daniel Schave
DATE EROSION CONTROL ENGINEER

FHWA



EYE BOLTS AND TIE ROD

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



LONGITUDINAL SECTIONS

GENERAL NOTES

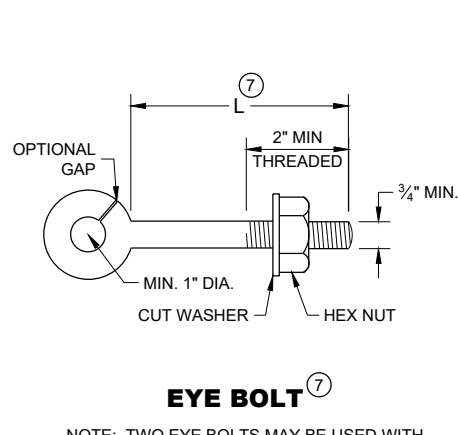
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

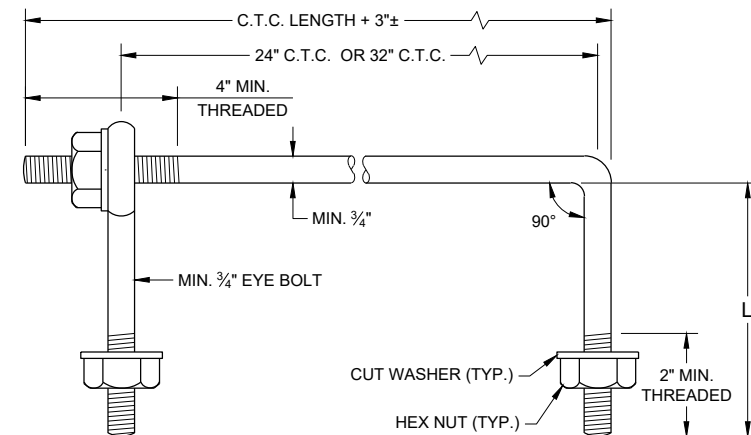
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

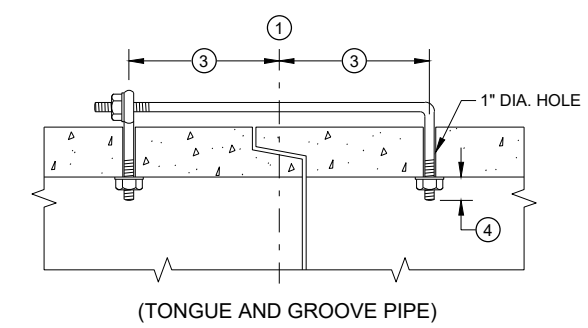


EYE BOLT ⑦

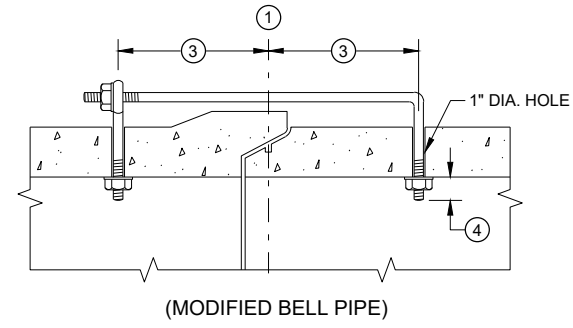
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

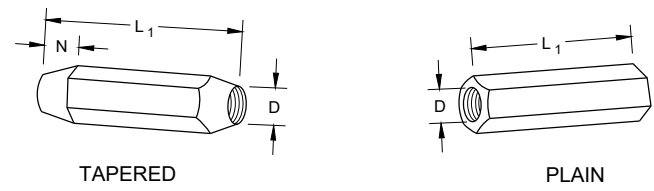
LONGITUDINAL SECTION
(JOINT TIES FOR 18\"/>

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

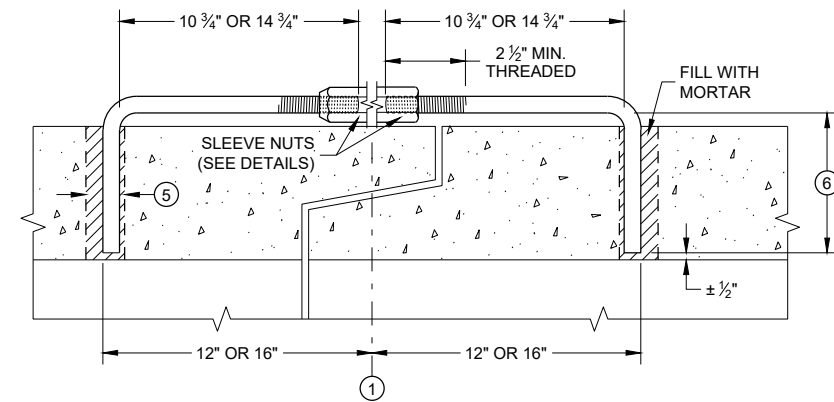
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

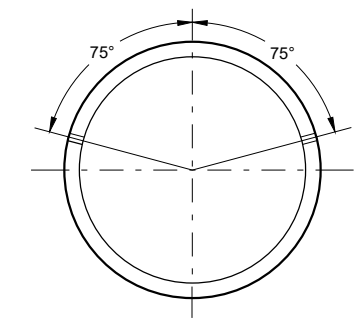


RIGHT AND LEFT THREADS SLEEVE NUTS



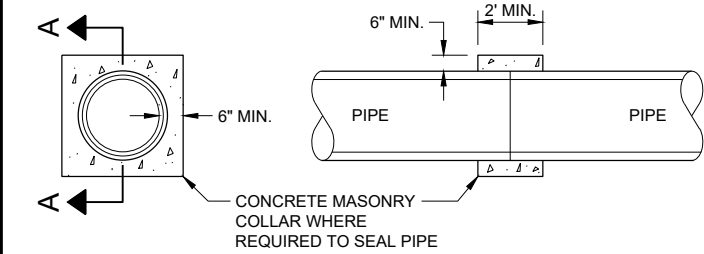
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

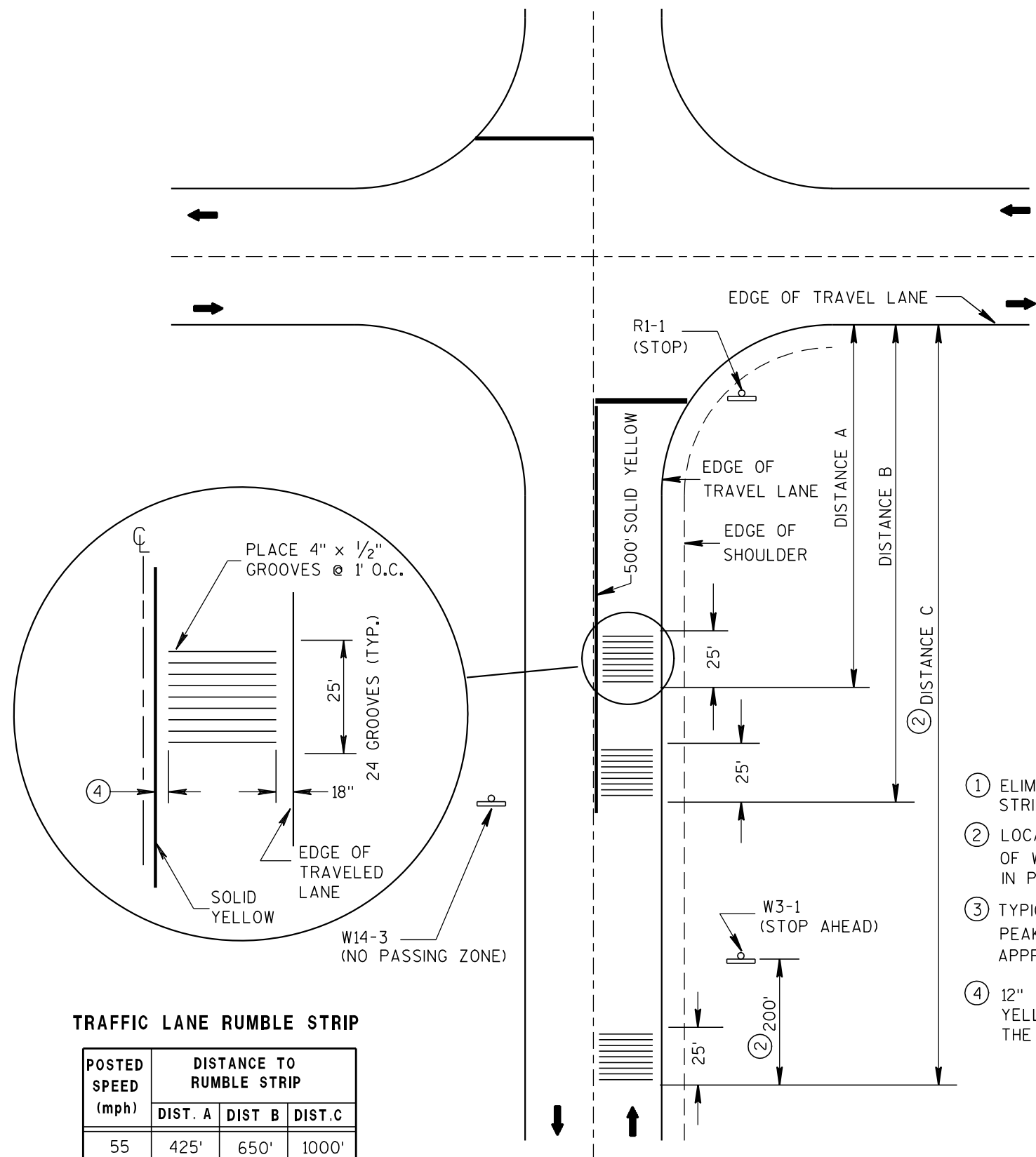
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 08F04 - 08

SDD 08F04 - 08



TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST. B	DIST. C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	①	550'
35	175'	①	475'
≤ 30	125'	①	425'

ARROW SYMBOL (➔) SHOWS DIRECTION OF TRAVEL

**PLAN VIEW
RUMBLE STRIP LOCATION**

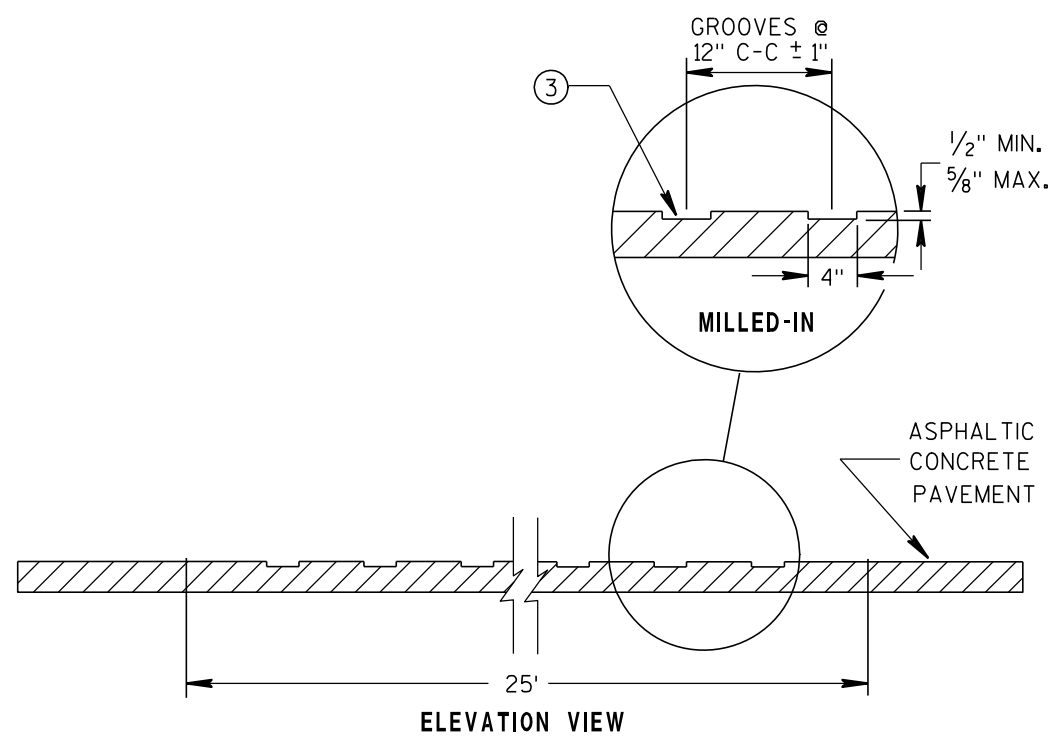
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY 1/16"
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

GENERAL NOTES

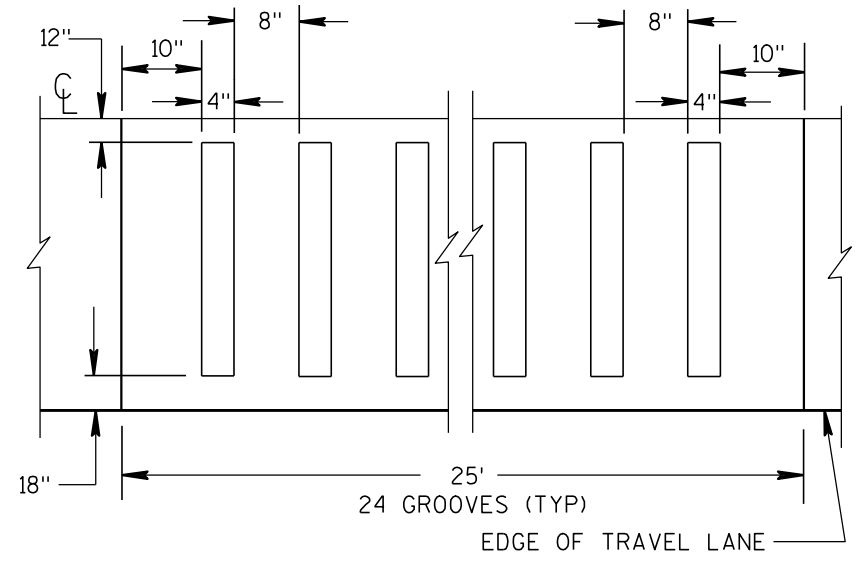
CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.



ELEVATION VIEW



**PLAN VIEW
ASPHALTIC PAVEMENT
MILLED-IN**

ASPHALTIC RUMBLE STRIPS AT INTERSECTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/17/2011 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

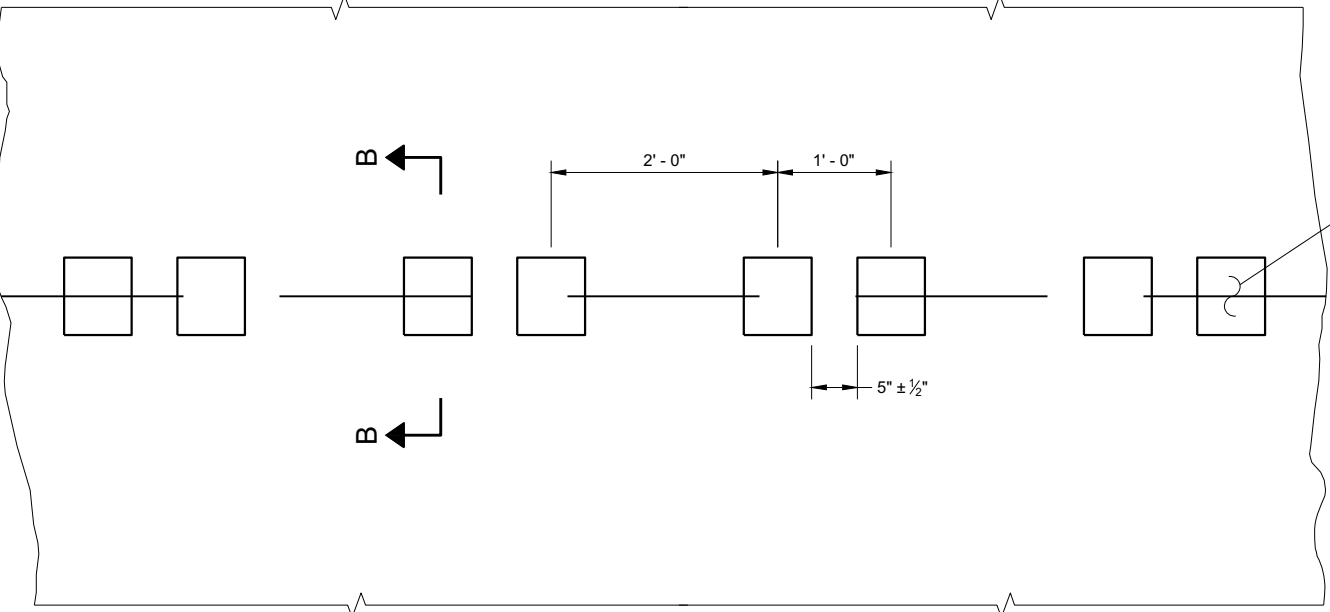
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

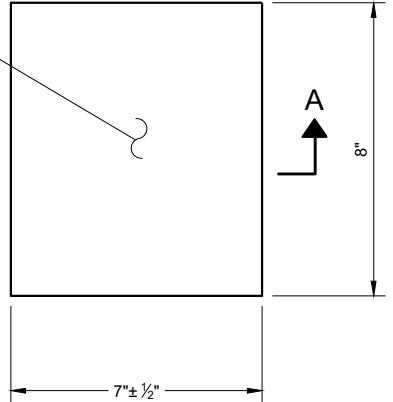
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

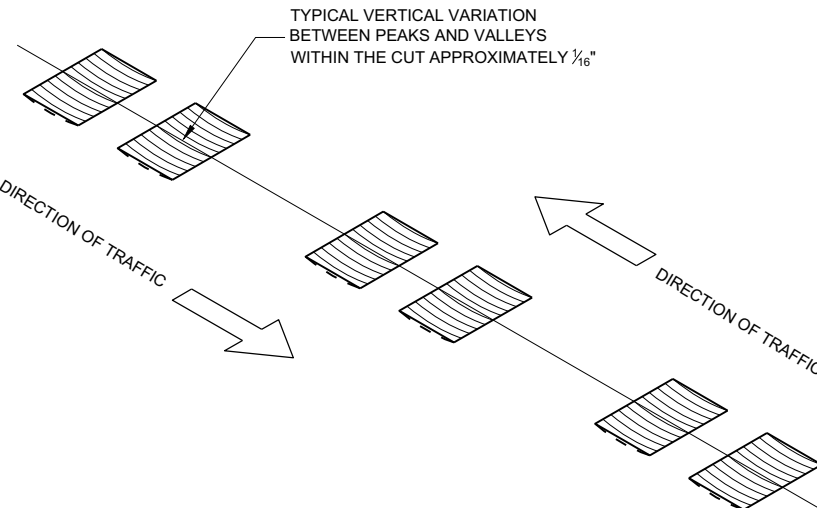
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

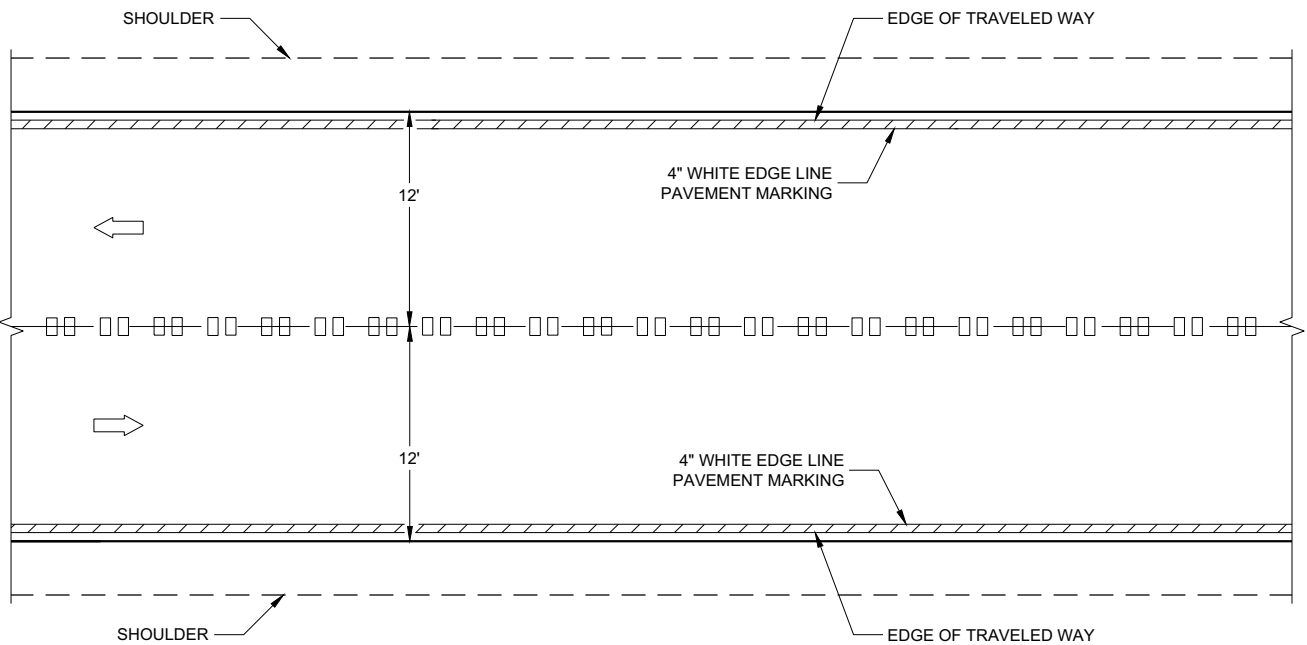


**PLAN VIEW
(SINGLE GROOVE)**

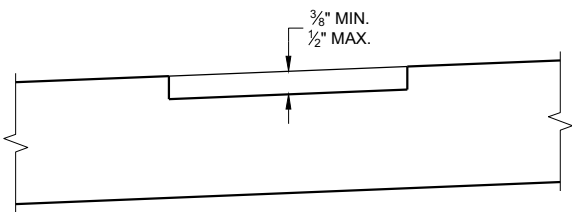


ISOMETRIC

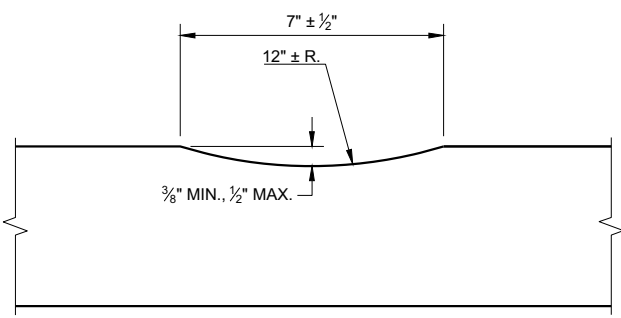
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



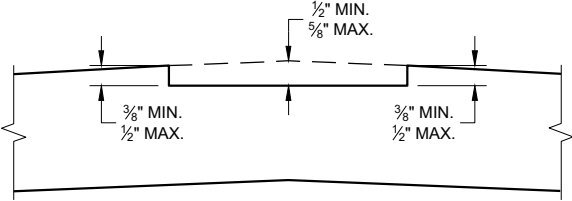
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



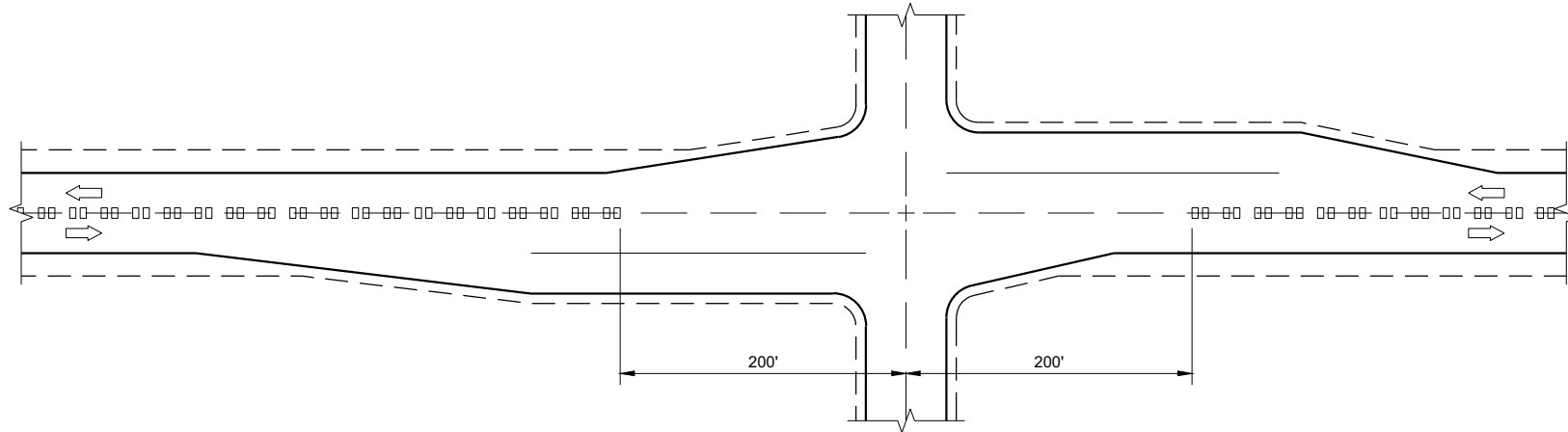
SECTION A - A



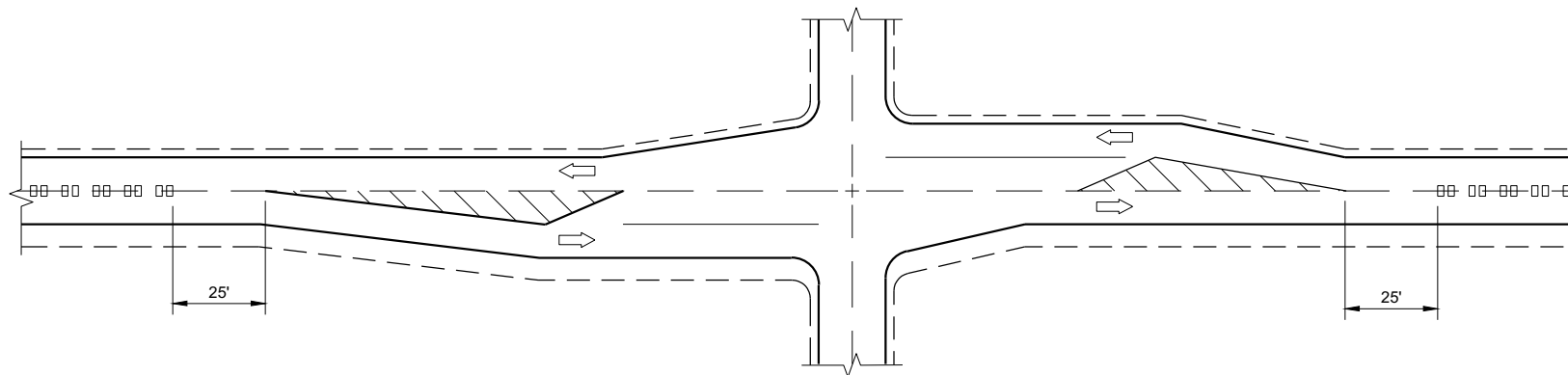
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

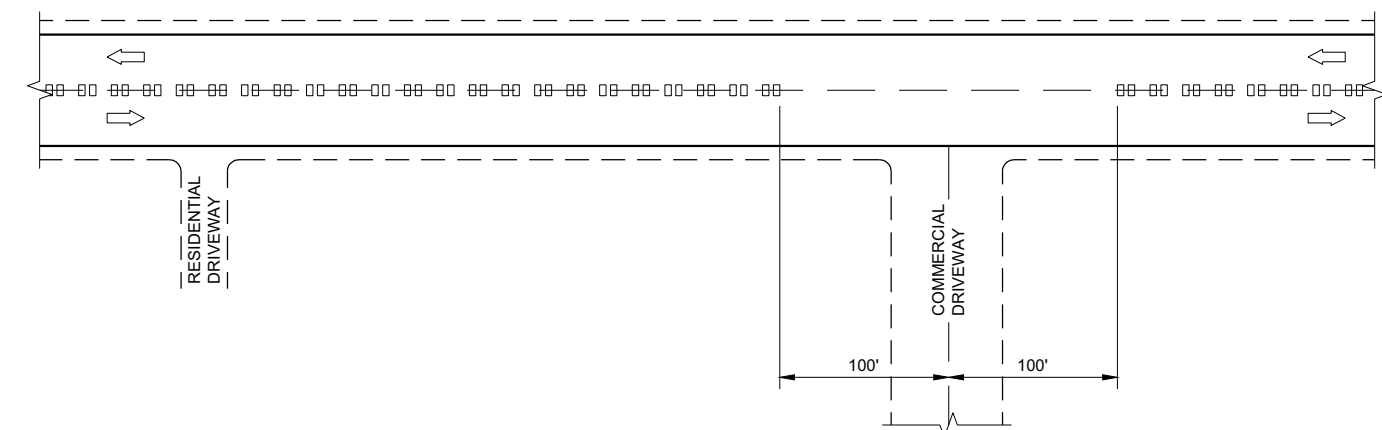
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



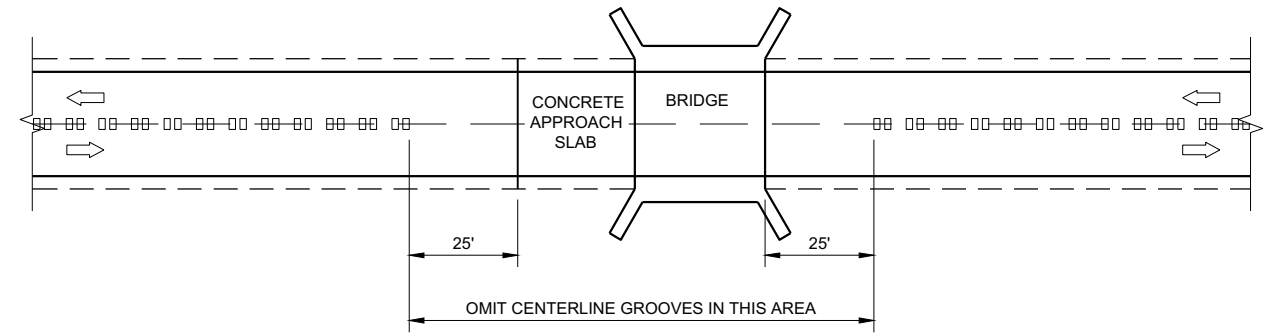
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



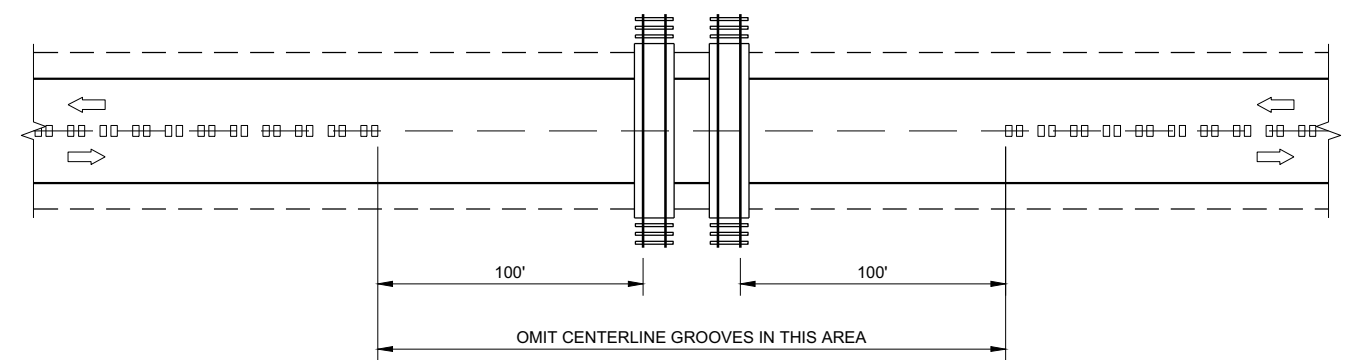
CENTERLINE GROOVES AT DRIVEWAYS^①

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

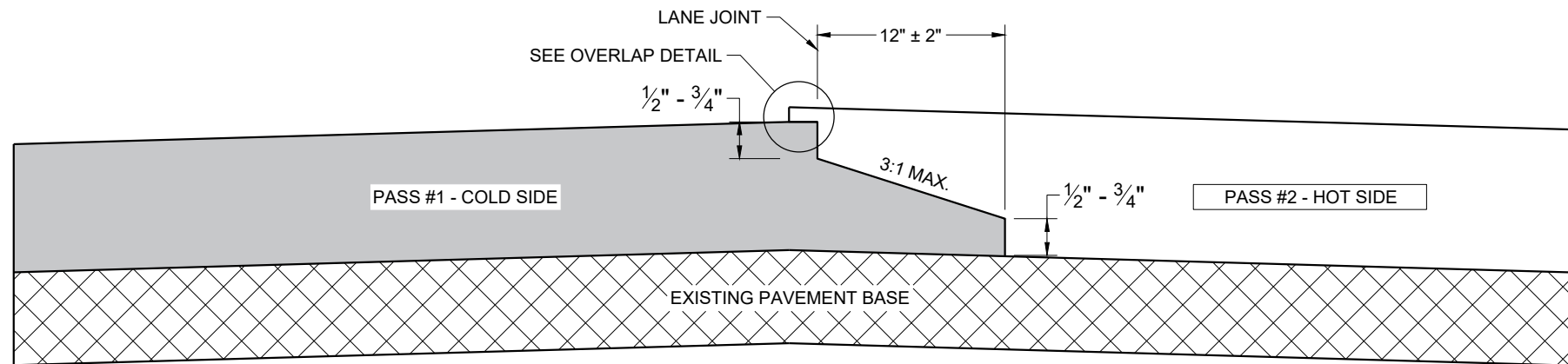
6

6

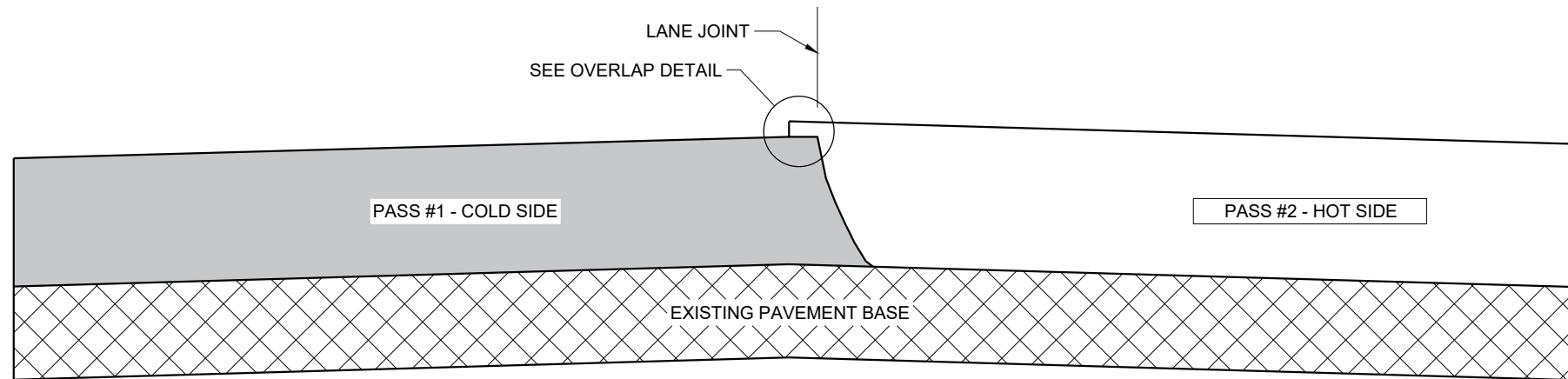
SDD 13A11 - 03b

SDD 13A11 - 03b

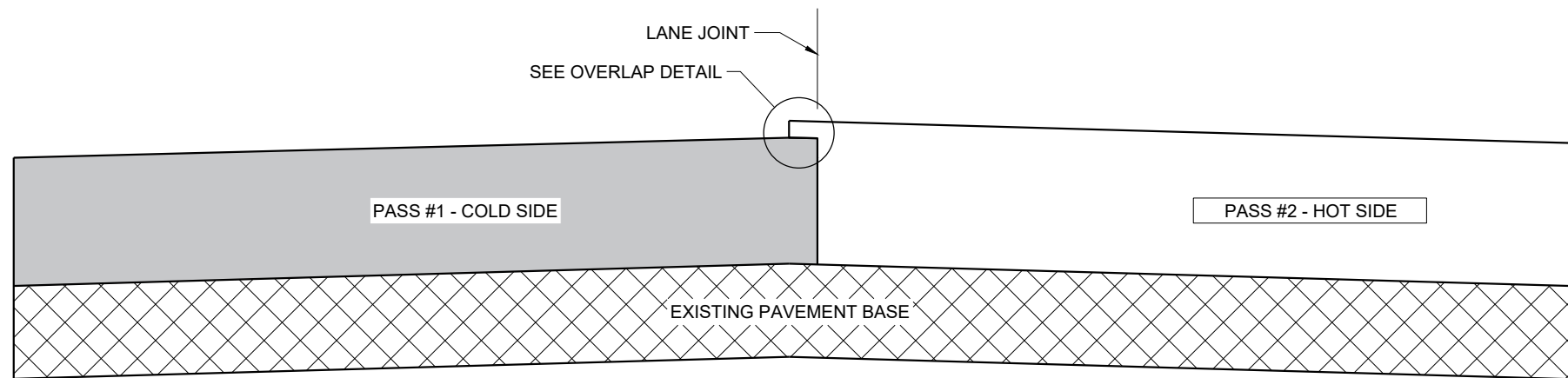
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 7/2018	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

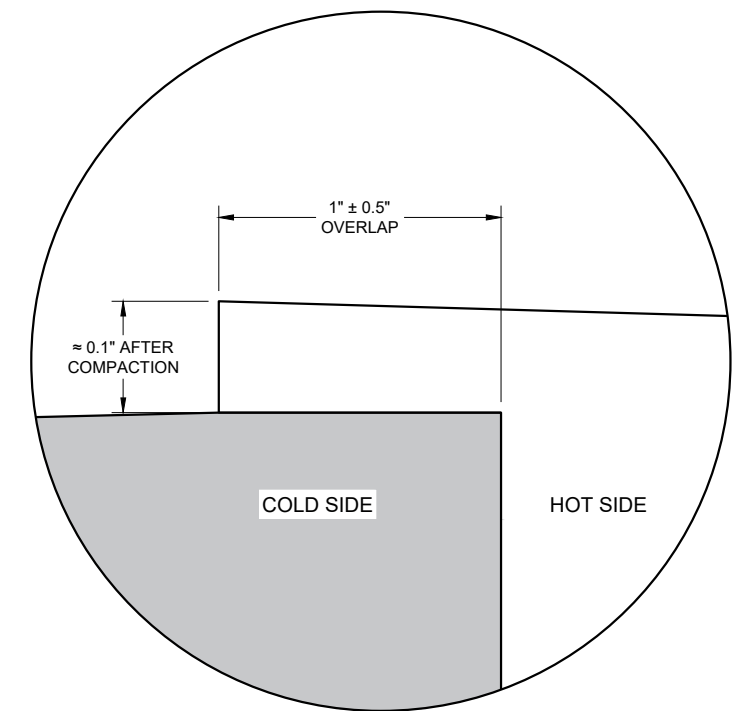
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

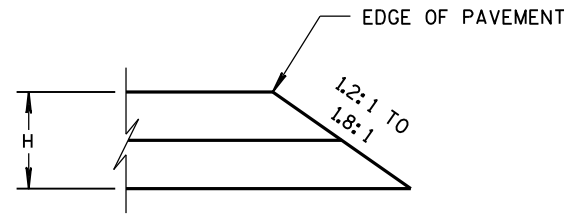
6

6

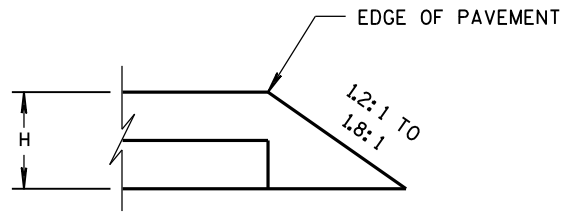
SDD 13C19 - 03

SDD 13C19 - 03

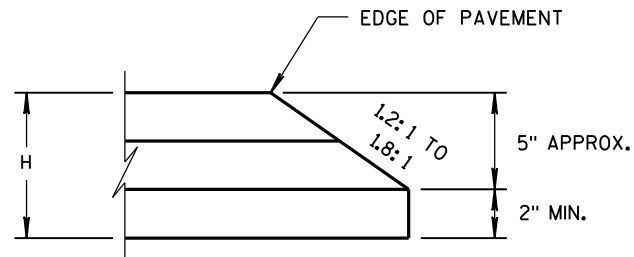
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



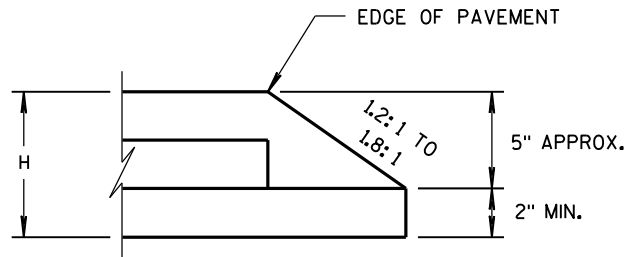
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

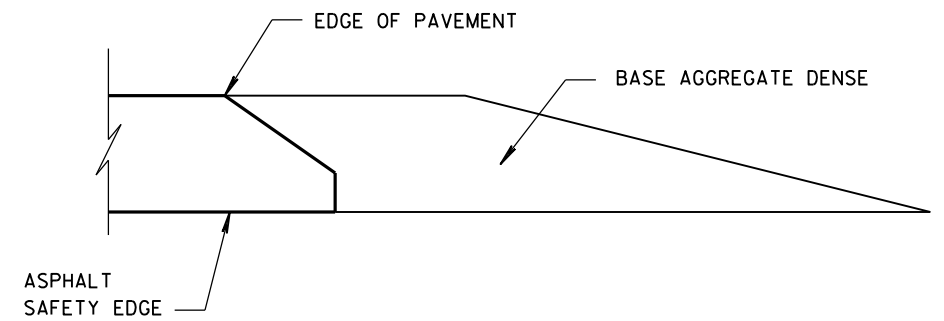


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

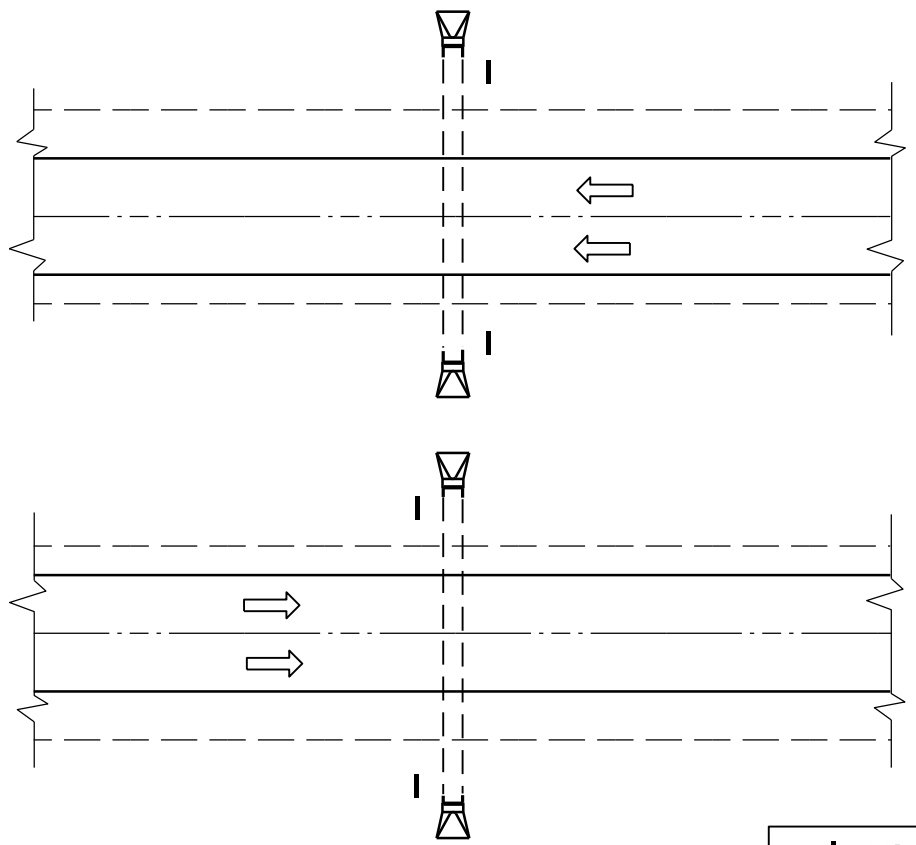
6

6

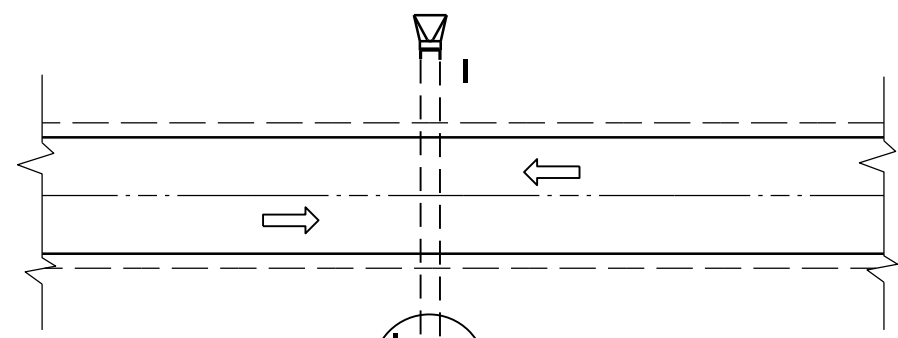
S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

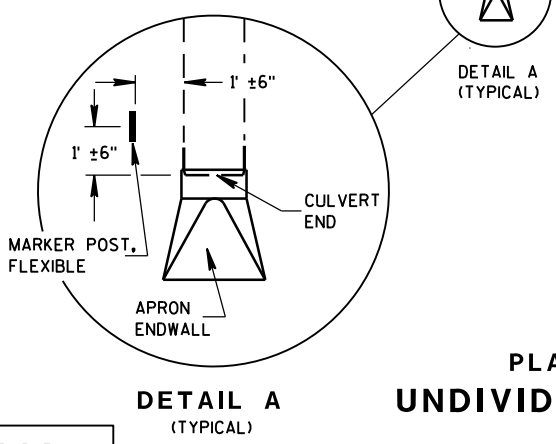
SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



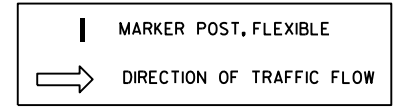
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY



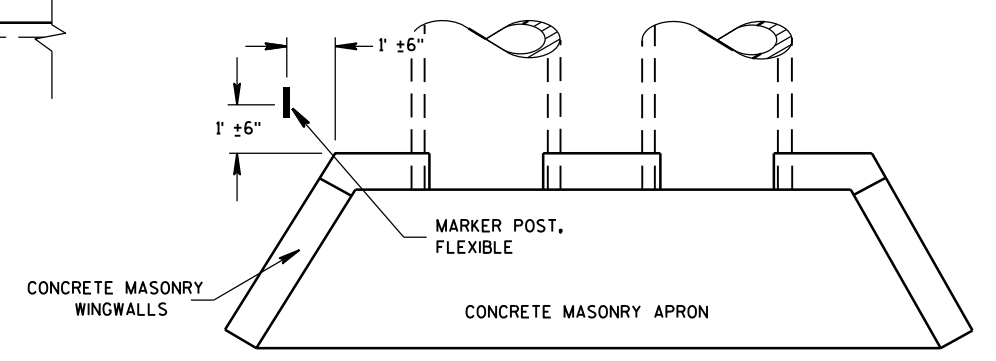
DETAIL A
(TYPICAL)



FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

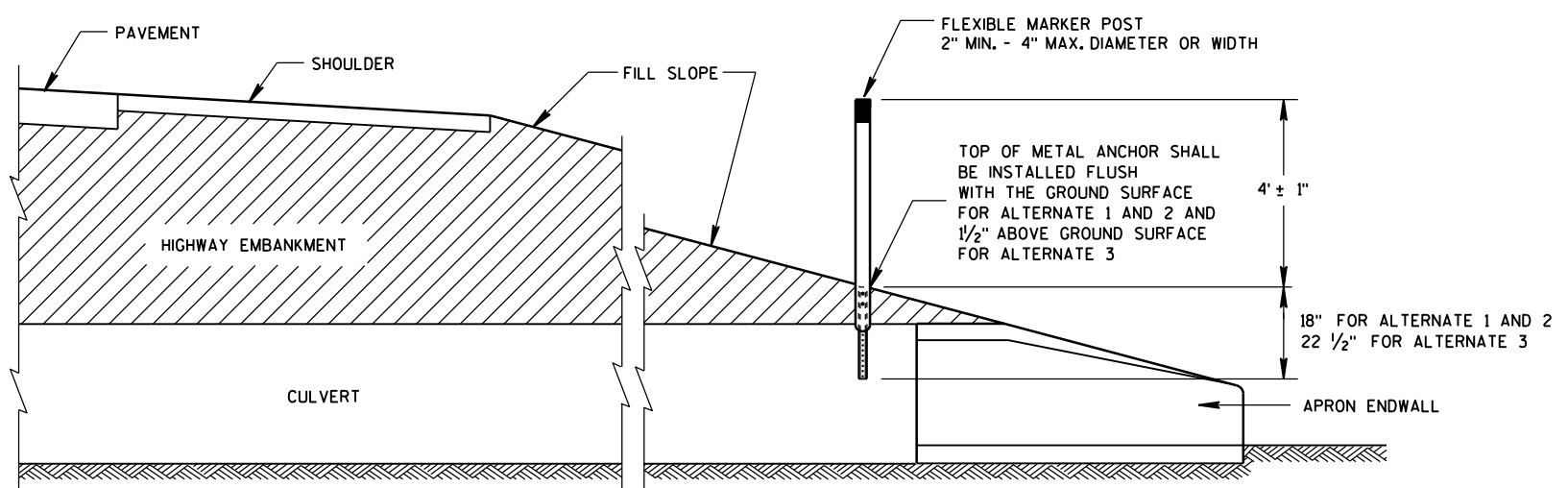
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

6

6



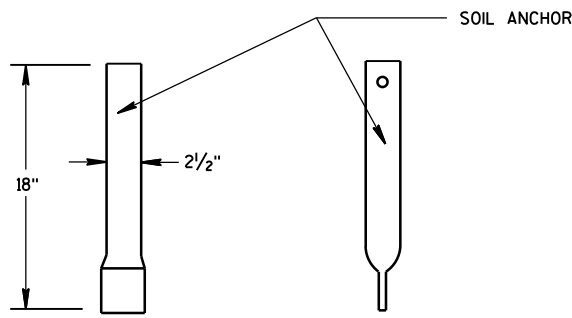
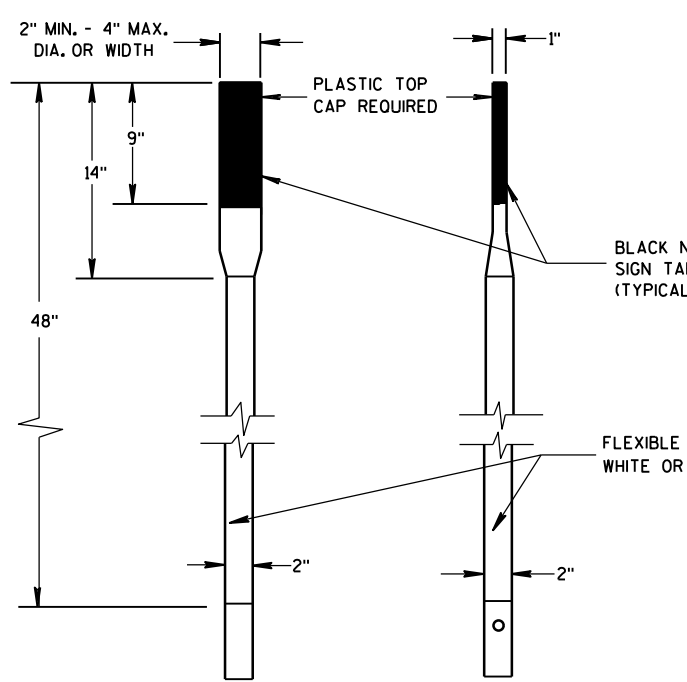
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

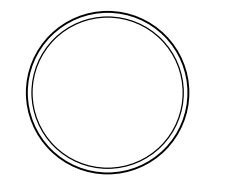
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

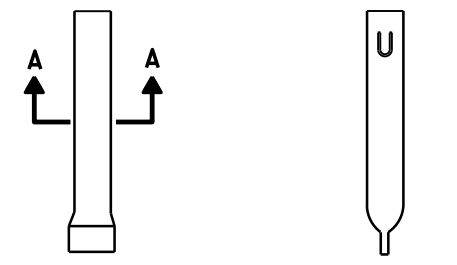
S.D.D. 15 A 3-2a



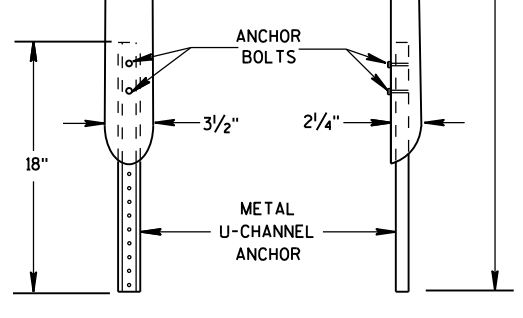
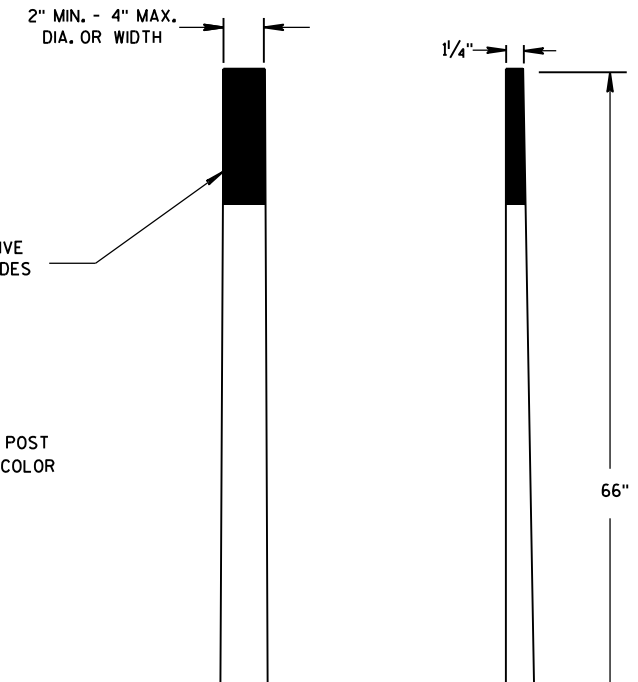
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

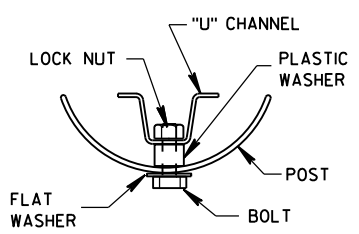


FRONT VIEW SIDE VIEW
ALTERNATE 1

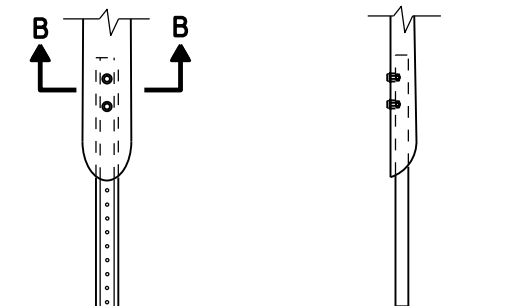


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

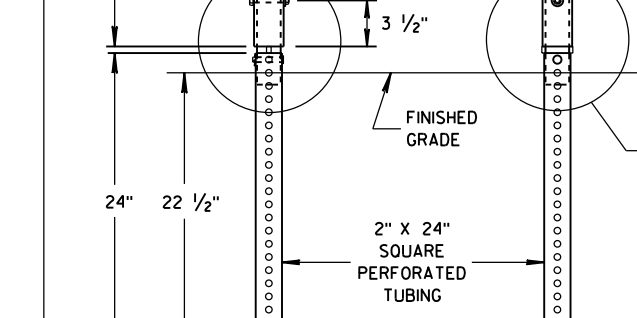
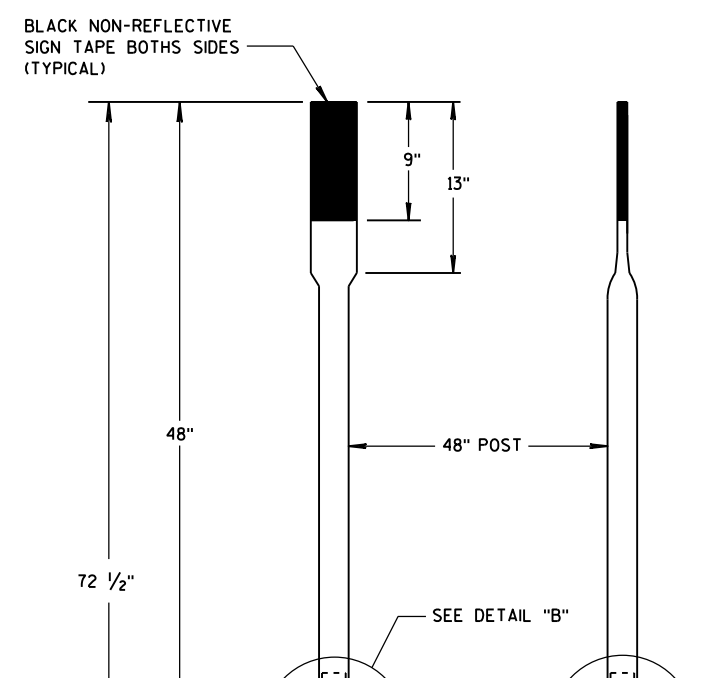


SECTION B-B

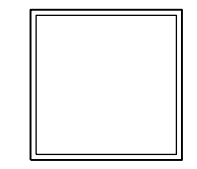


FRONT VIEW SIDE VIEW
ALTERNATE 2

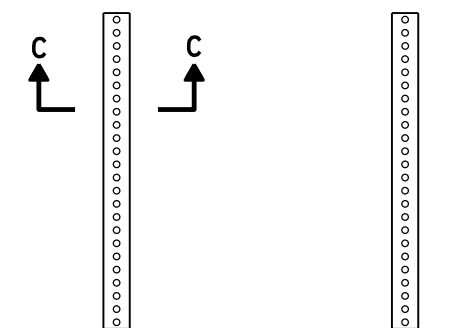
FLEXIBLE MARKER POST ANCHORS



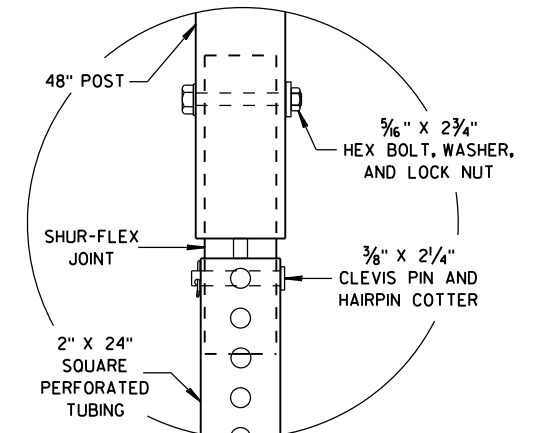
FRONT VIEW SIDE VIEW
ALTERNATE 3



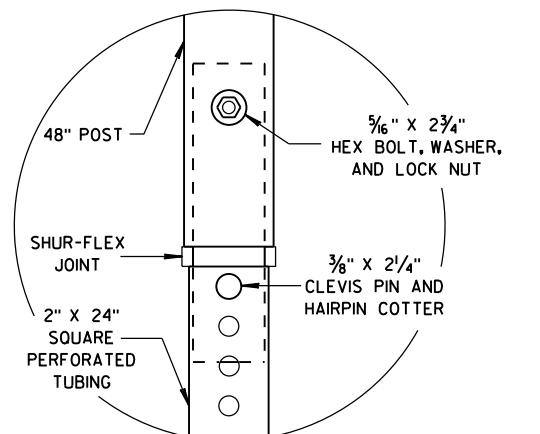
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



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 OF DESIGN
FHWA

GENERAL NOTES

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

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




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

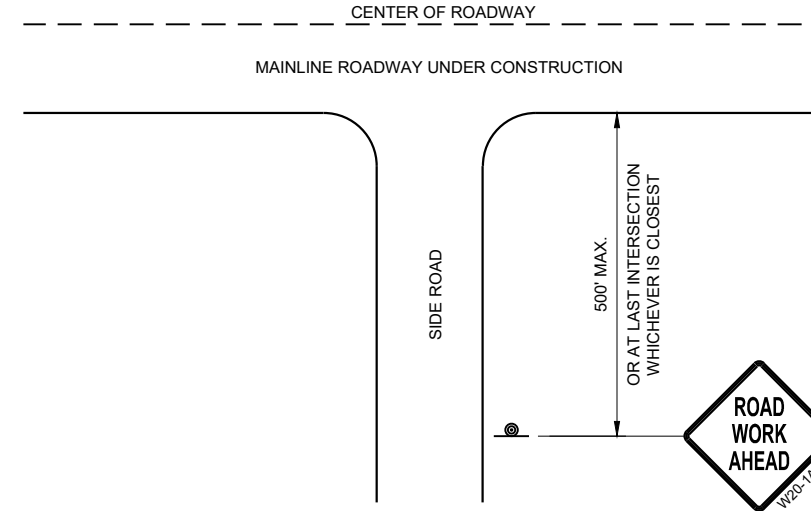
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

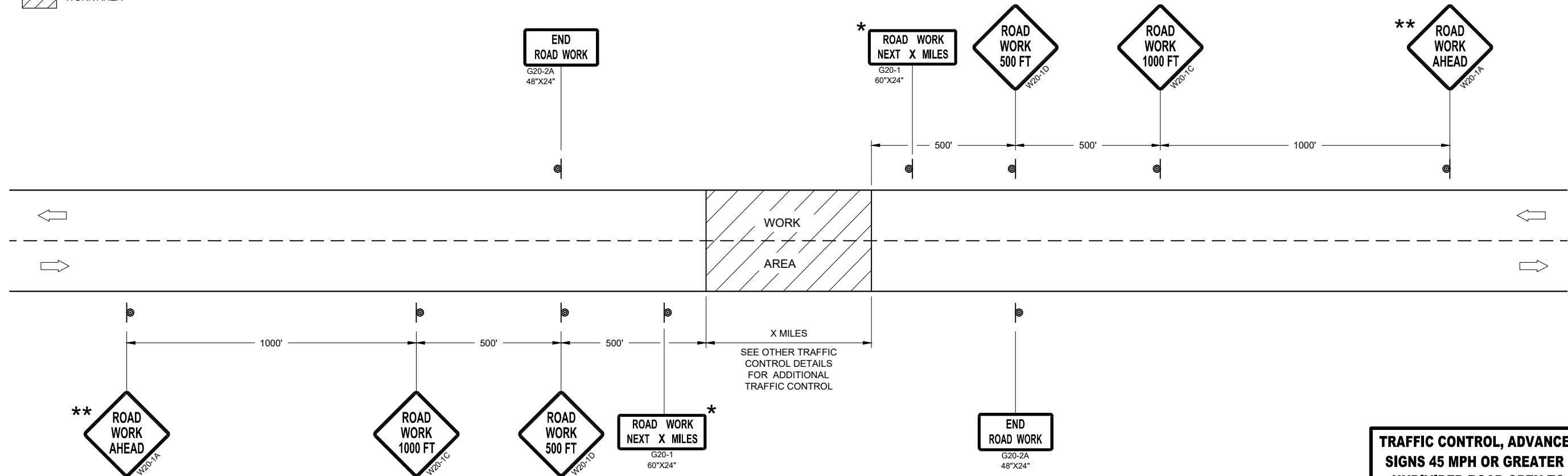
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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




FHWA

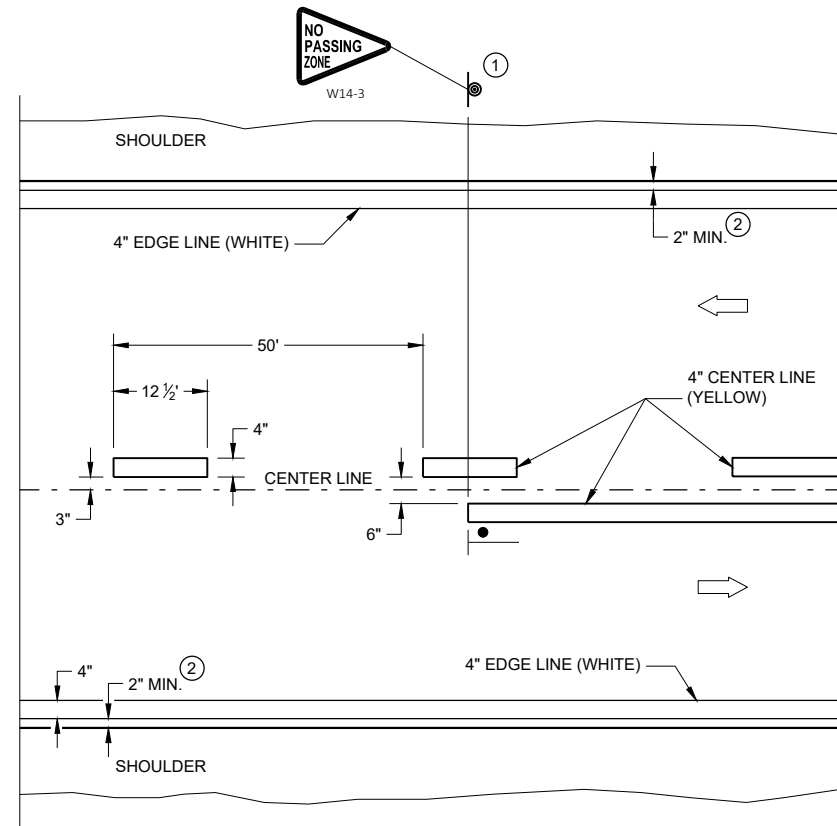
GENERAL NOTES

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

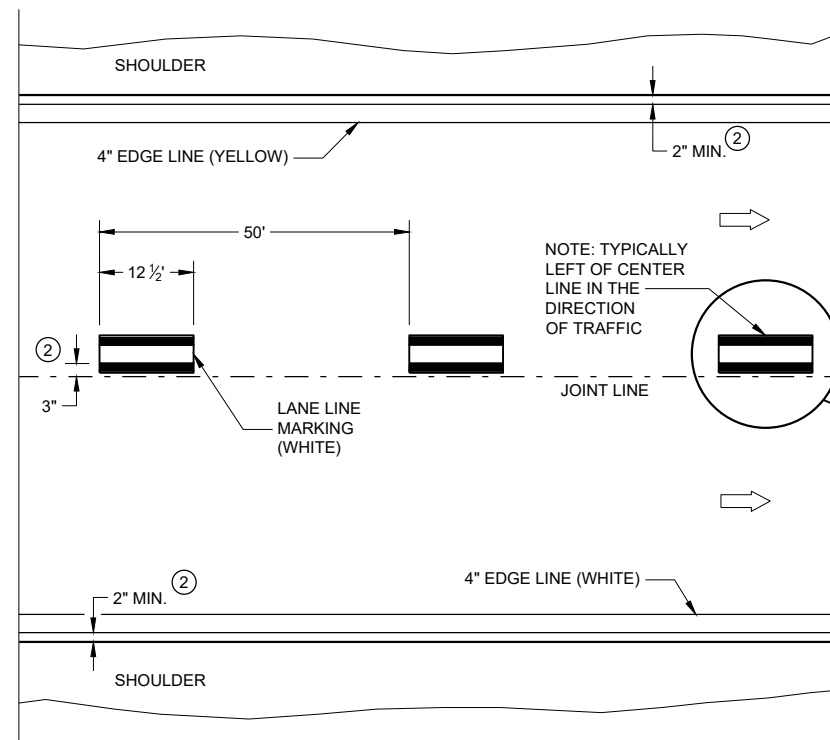
- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

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

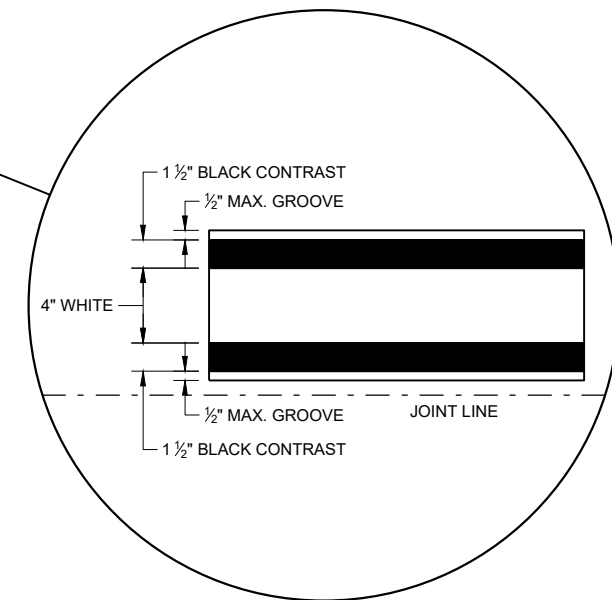


TWO WAY TRAFFIC



ONE WAY TRAFFIC

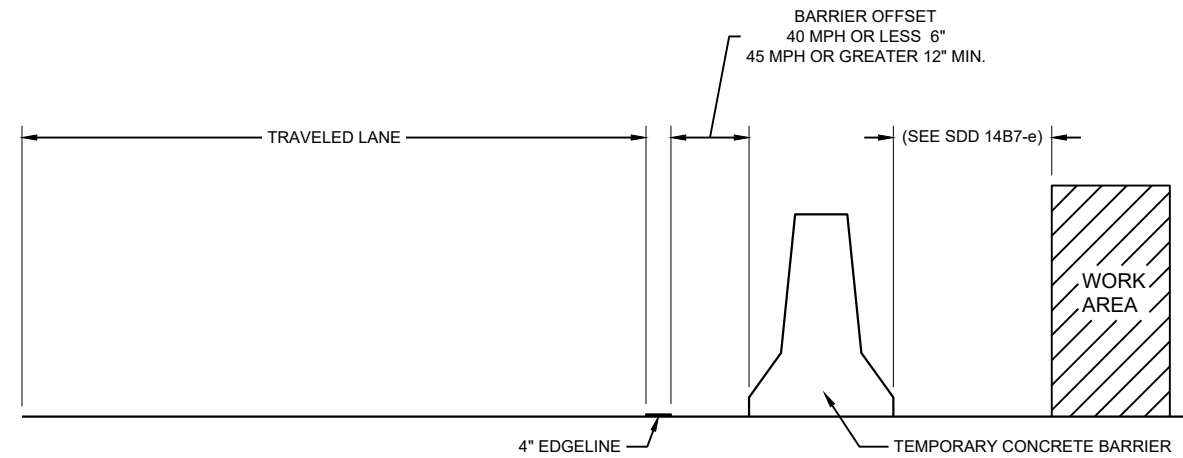
PERMANENT PAVEMENT MARKING



PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Jeannie Silver
STATEWIDE SIGNING AND MARKING ENGINEER



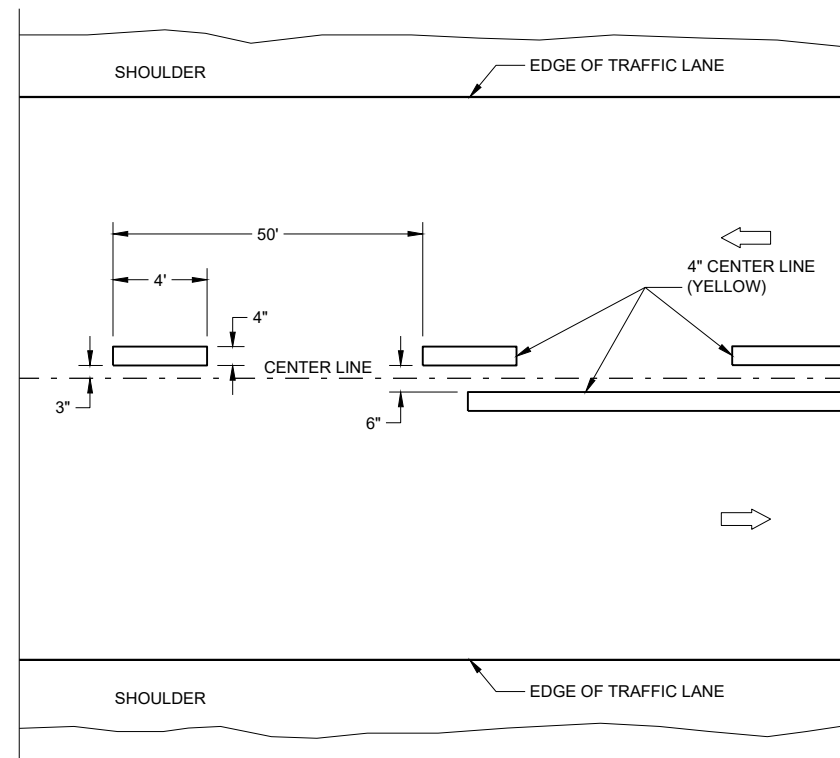
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

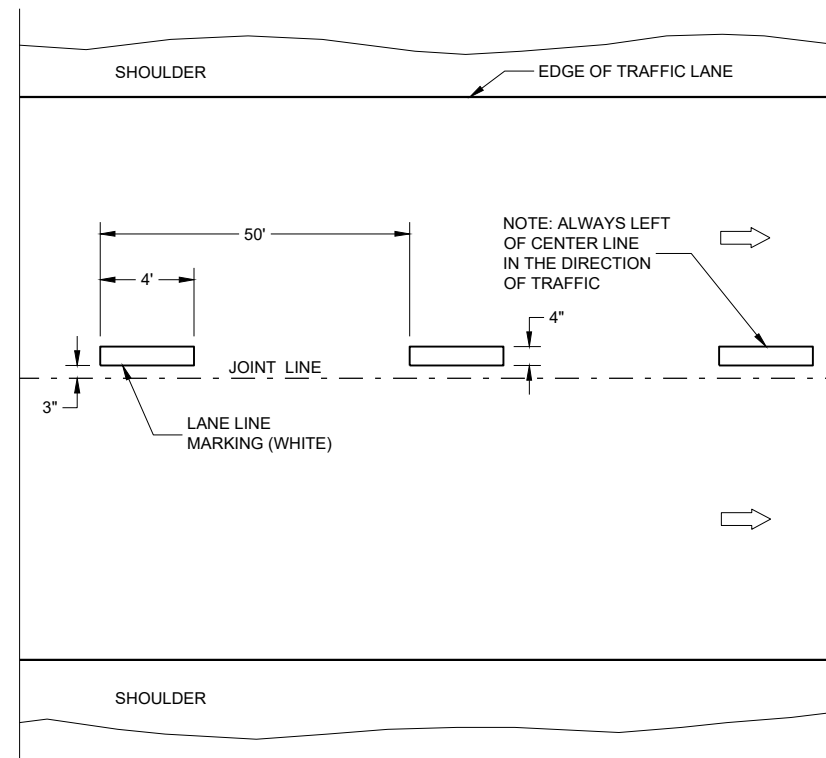
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

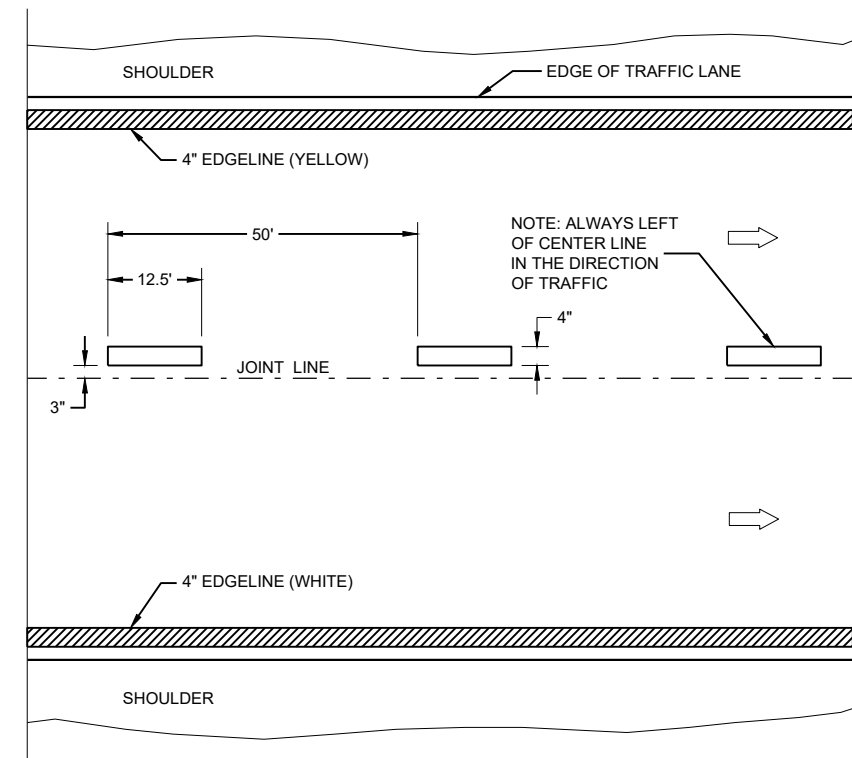
➔ DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

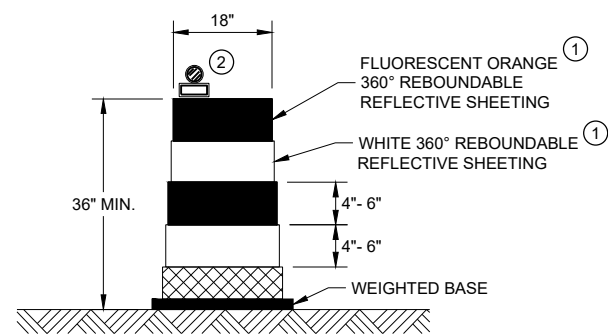
TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

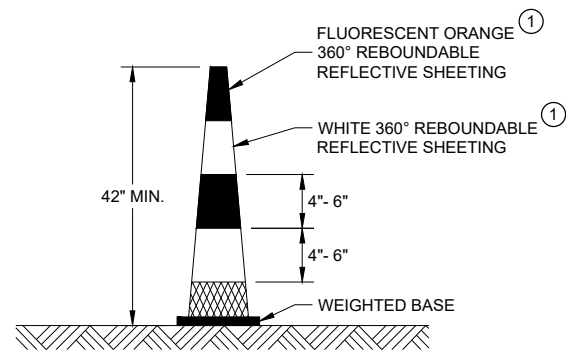
APPROVED
May 2022 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA



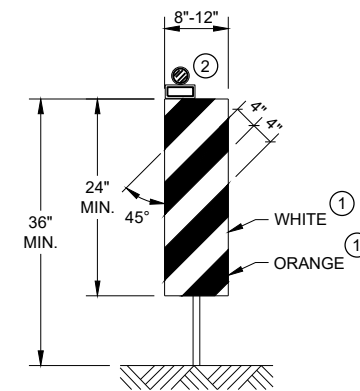
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

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

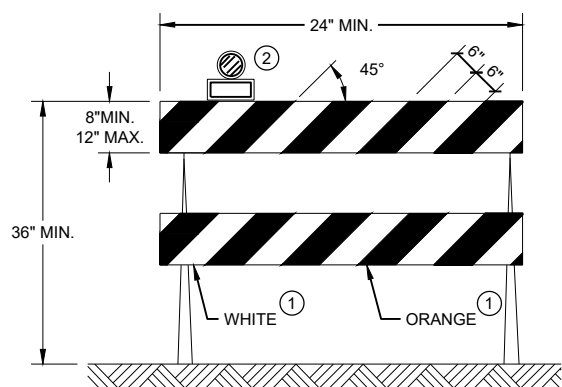


VERTICAL PANEL

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

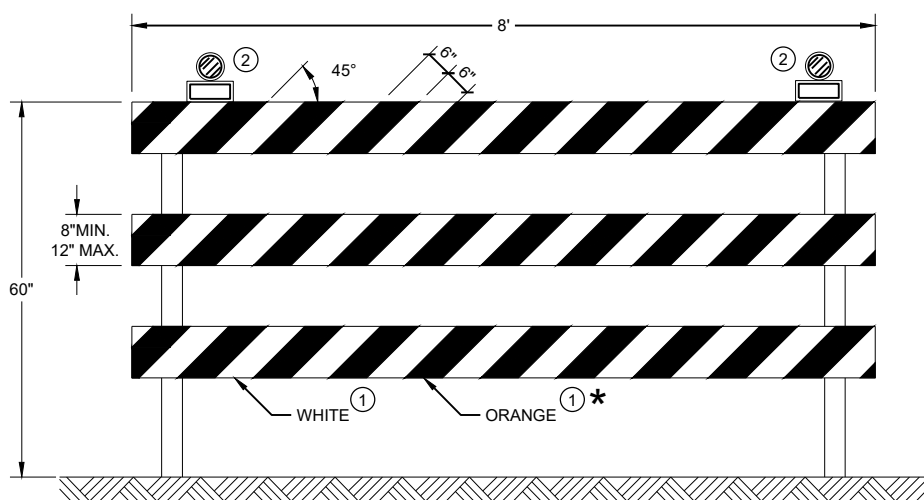
GENERAL NOTES

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



TYPE II BARRICADE

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








TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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

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.

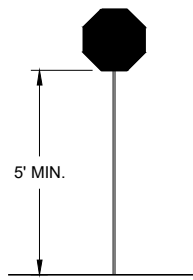
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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.



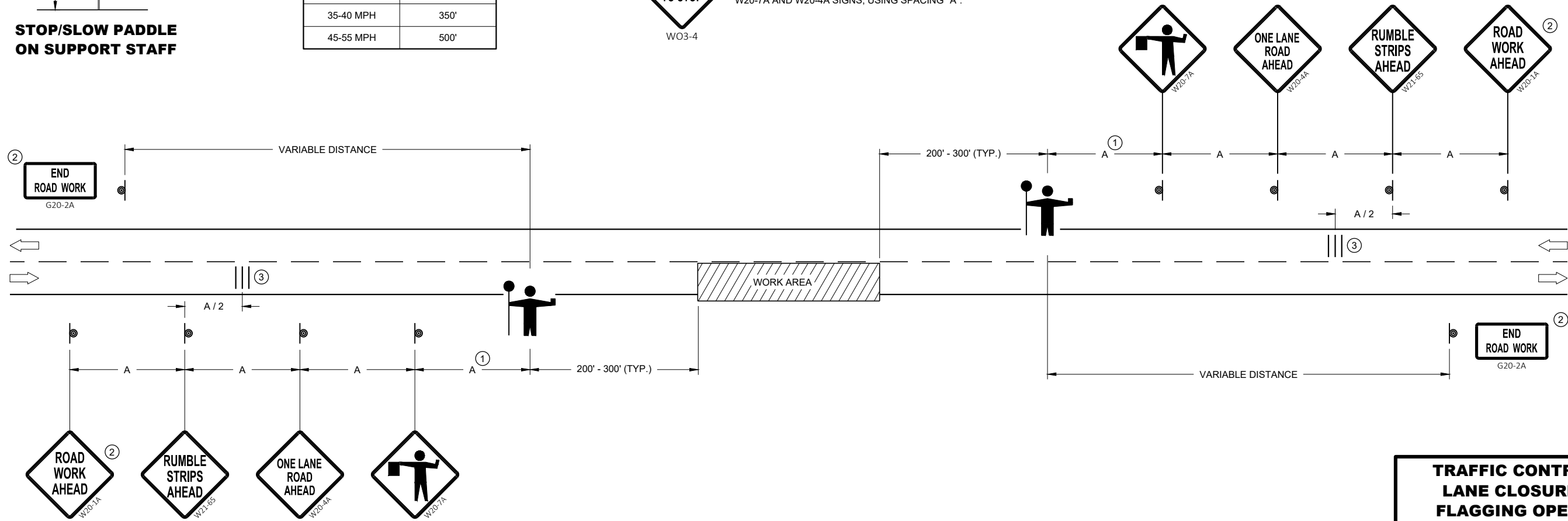
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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

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

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

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

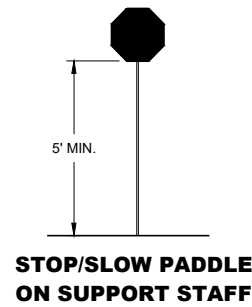
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

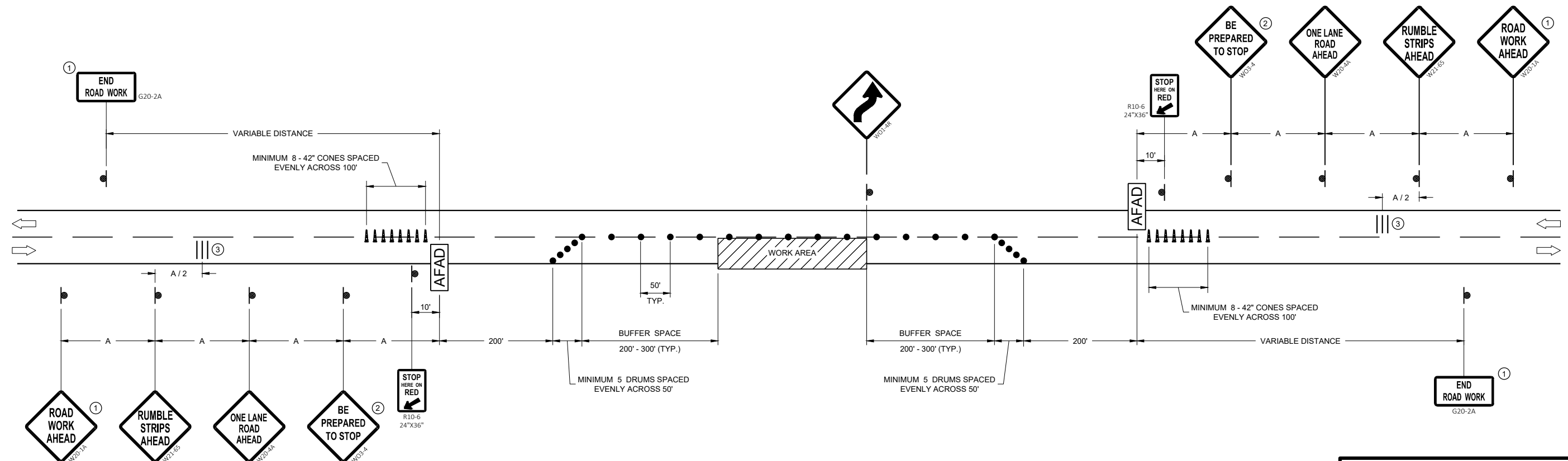
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA





6

6

SDD 15C12 - 09b

SDD 15C12 - 09b

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.

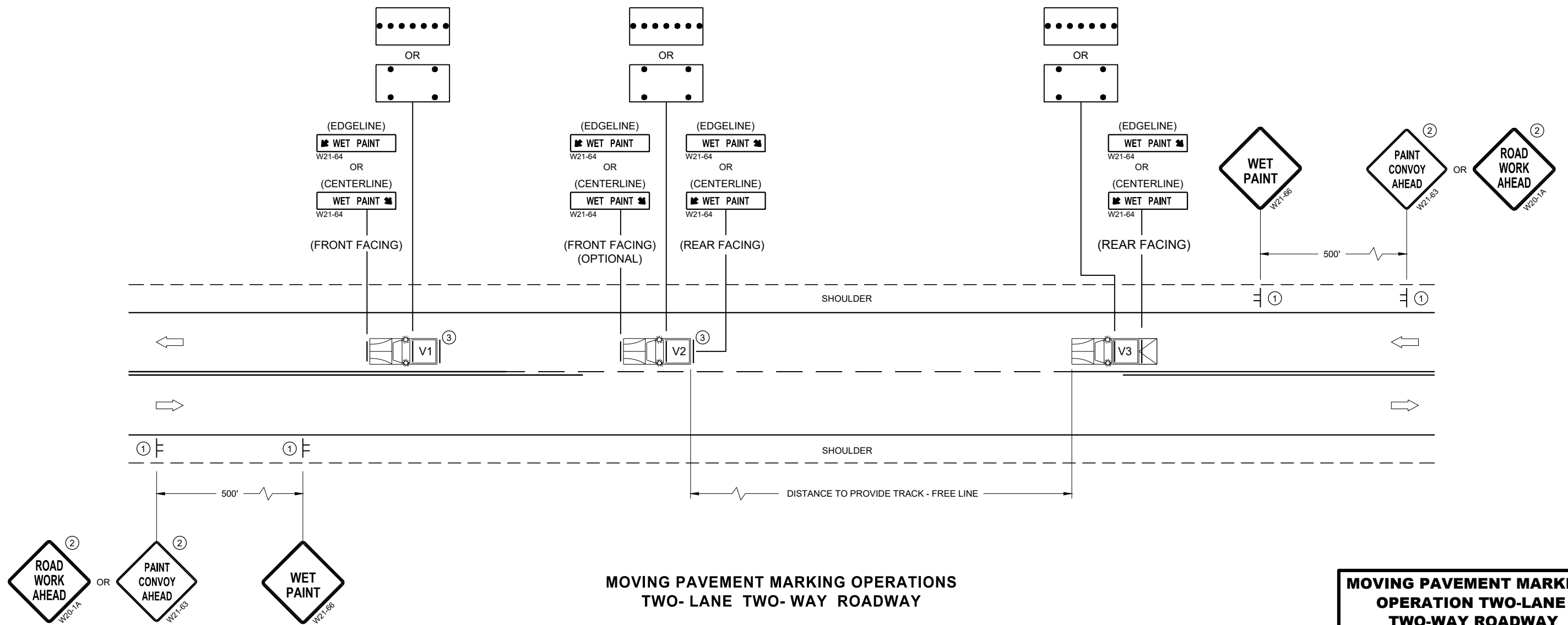
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

6

6



**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
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C19 - 07a

SDD 15C19 - 07a

LEGEND

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

GENERAL NOTES

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

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

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

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

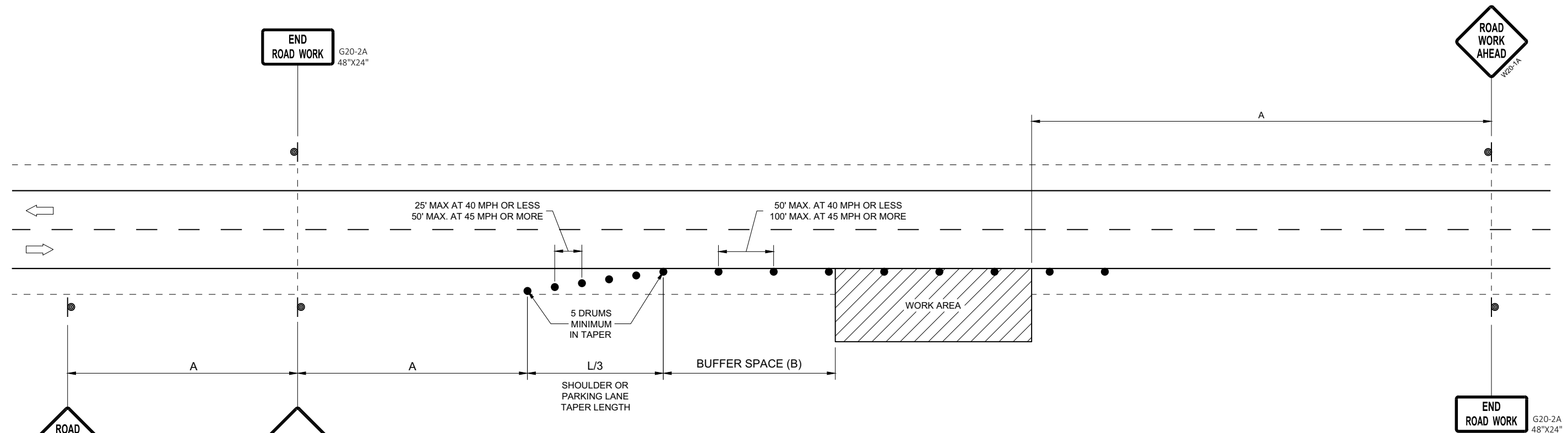
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

6

6



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

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 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

GENERAL NOTES

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

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

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

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



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

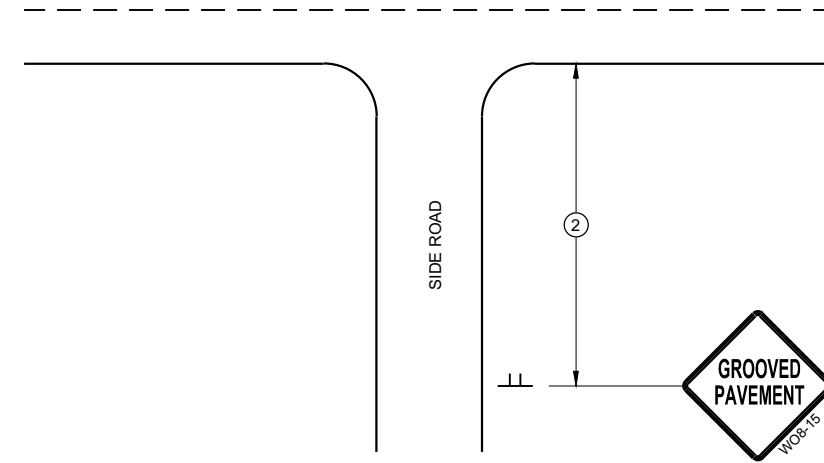
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

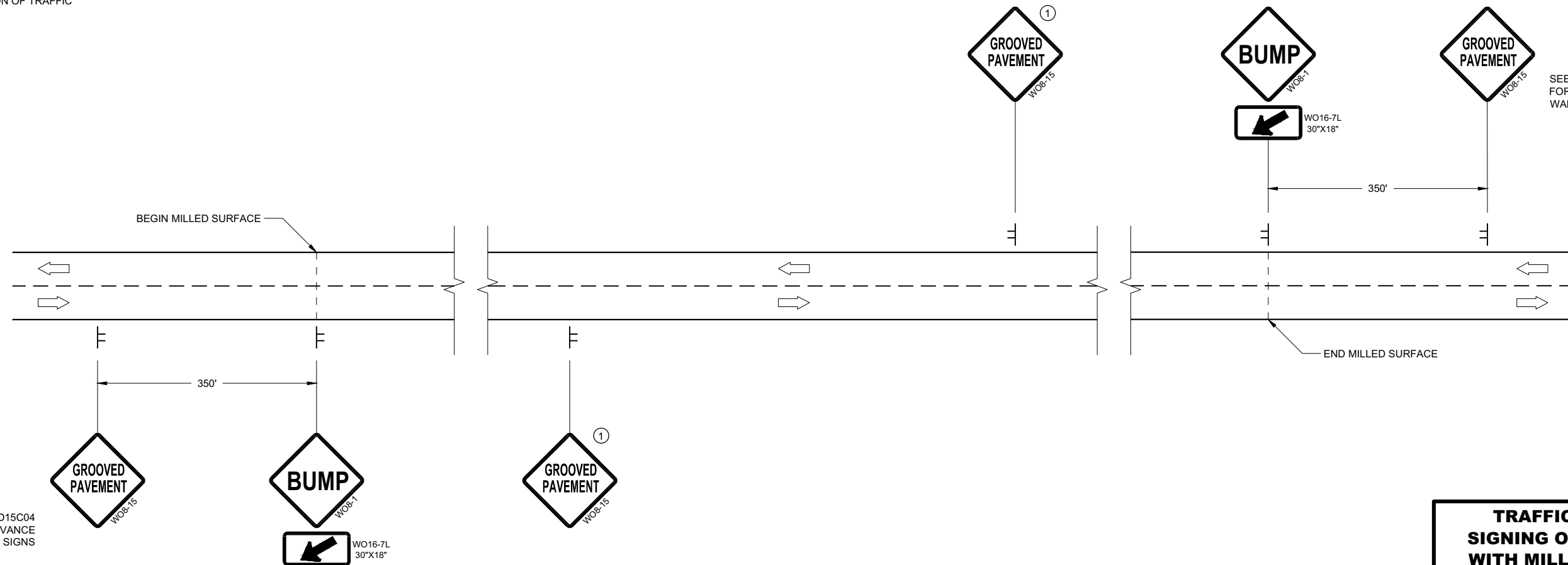
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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



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

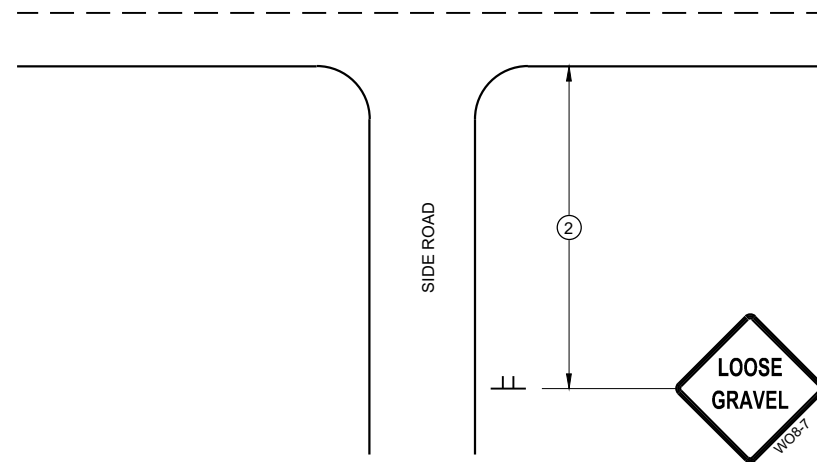
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

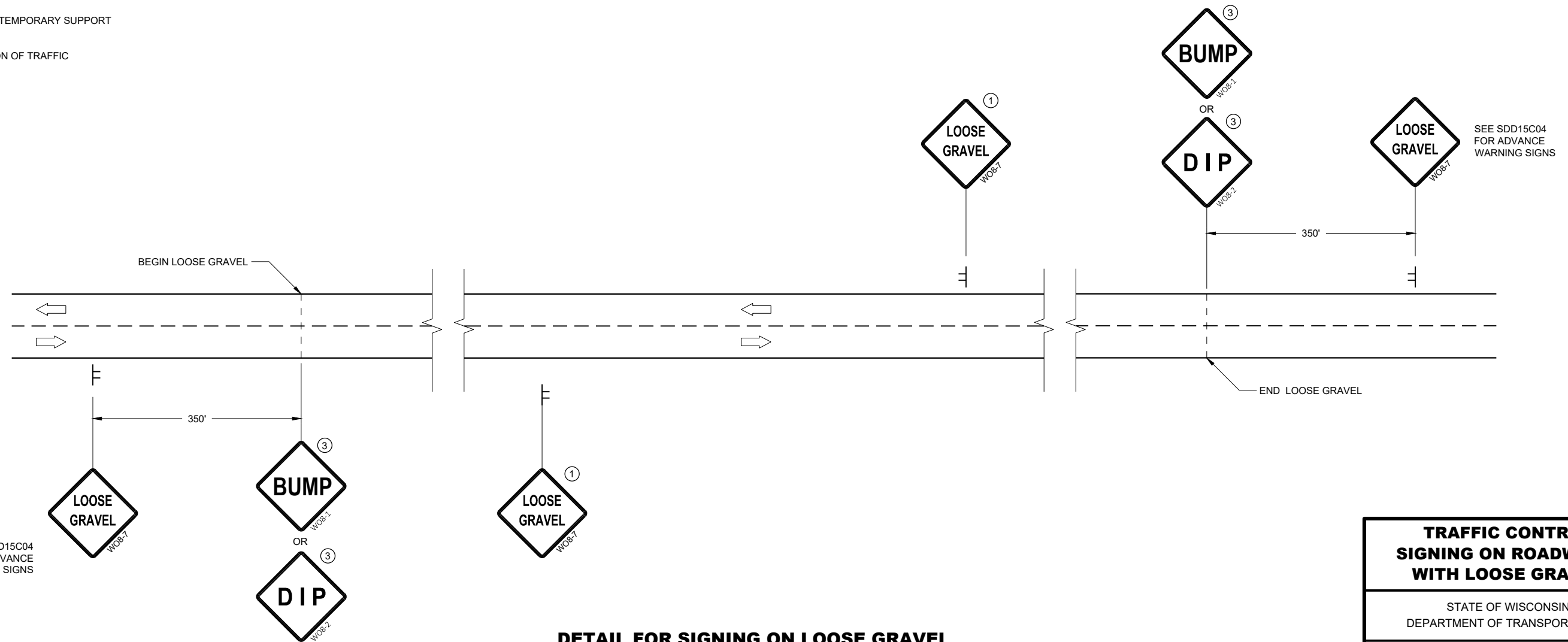
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

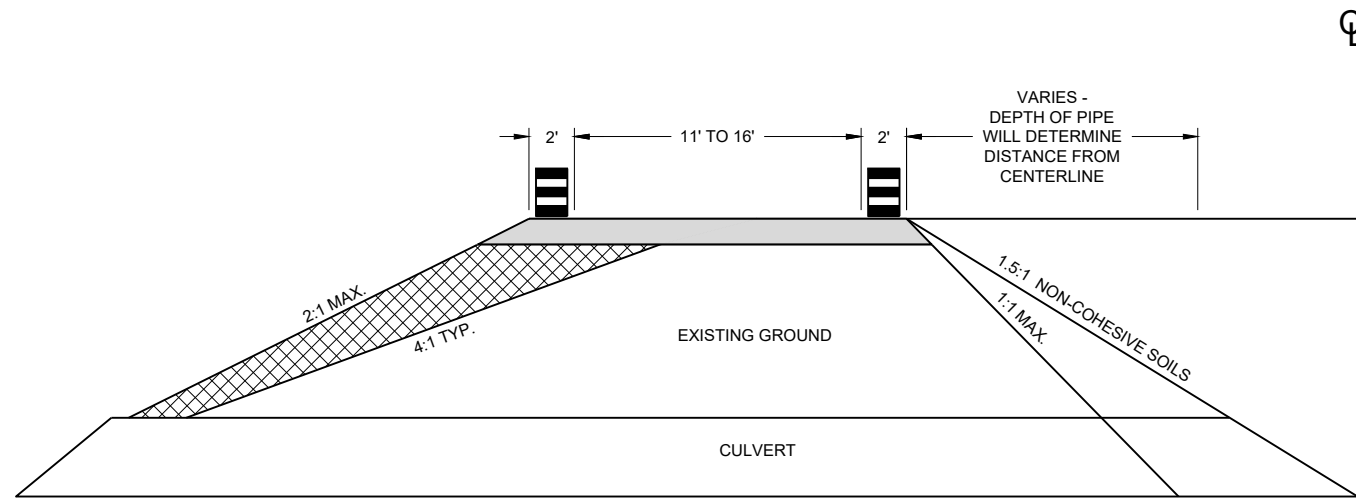
SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



CROSS SECTION

GENERAL NOTES

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

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






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

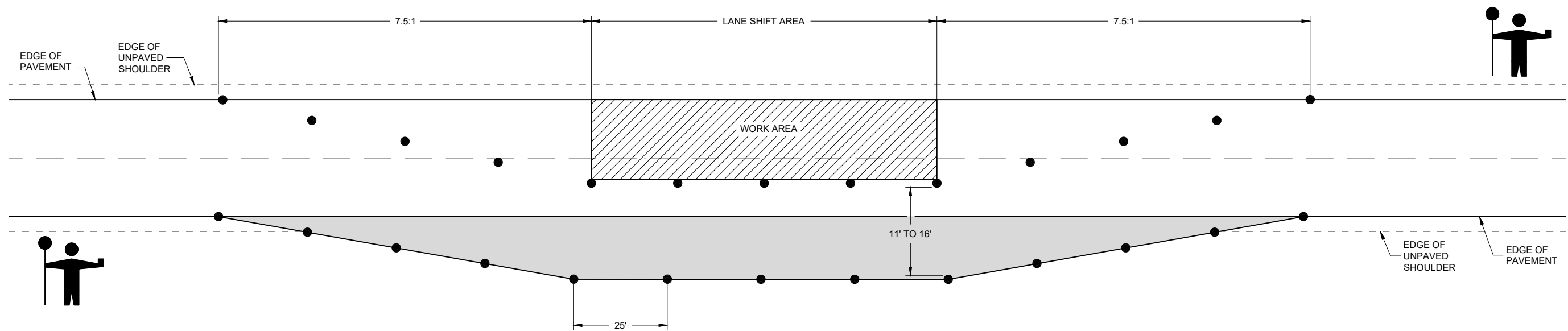
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

LEGEND

-  DRUM WITHOUT WARNING LIGHT
-  6" BASE AGGREGATE DENSE 1 1/2" - INCIDENTAL TO LANE SHIFT ITEM
-  FILL - INCIDENTAL TO LANE SHIFT ITEM
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION





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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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

FHWA

LEGEND

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

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

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

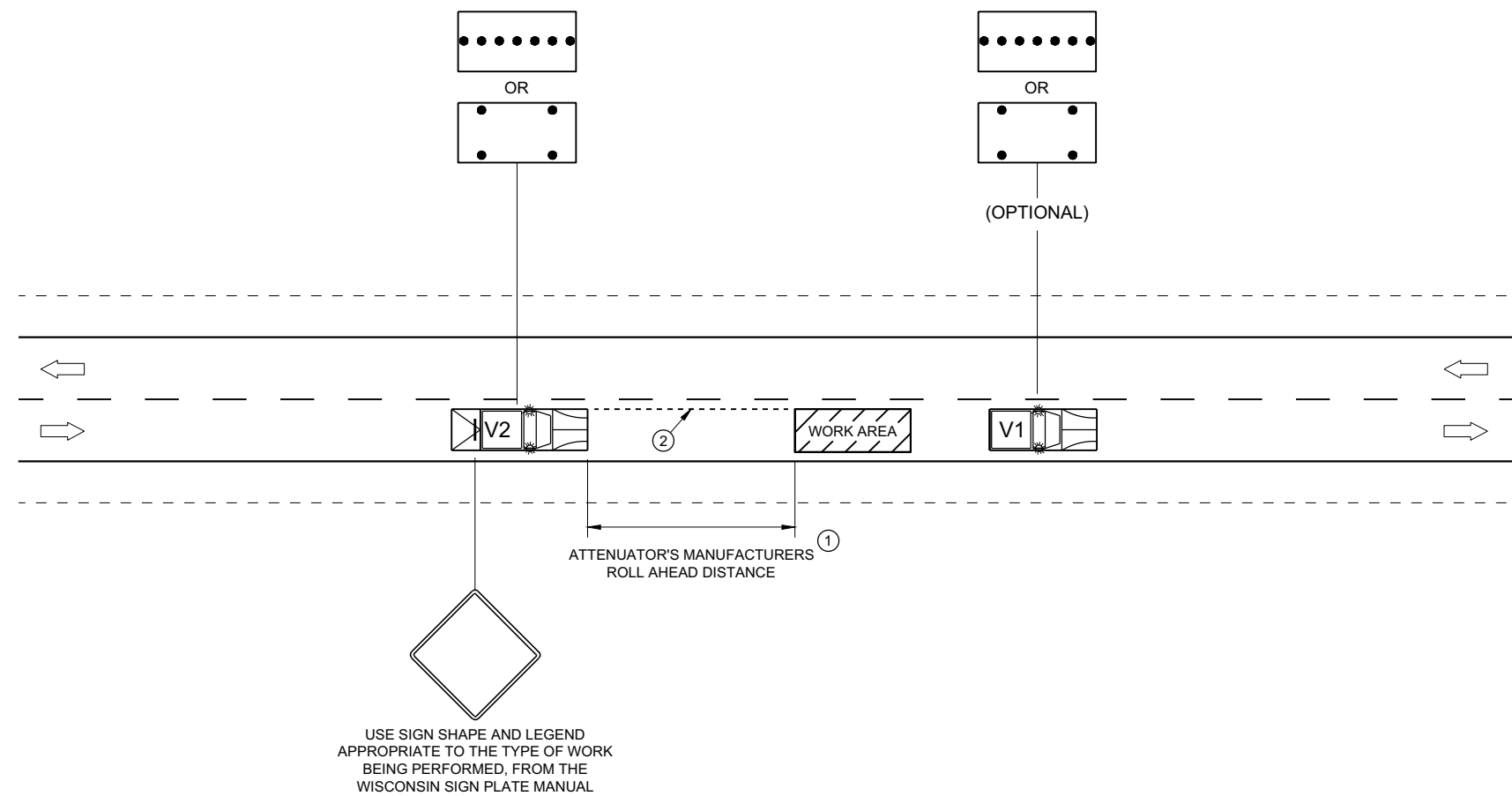
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



USE SIGN SHAPE AND LEGEND APPROPRIATE TO THE TYPE OF WORK BEING PERFORMED, FROM THE WISCONSIN SIGN PLATE MANUAL

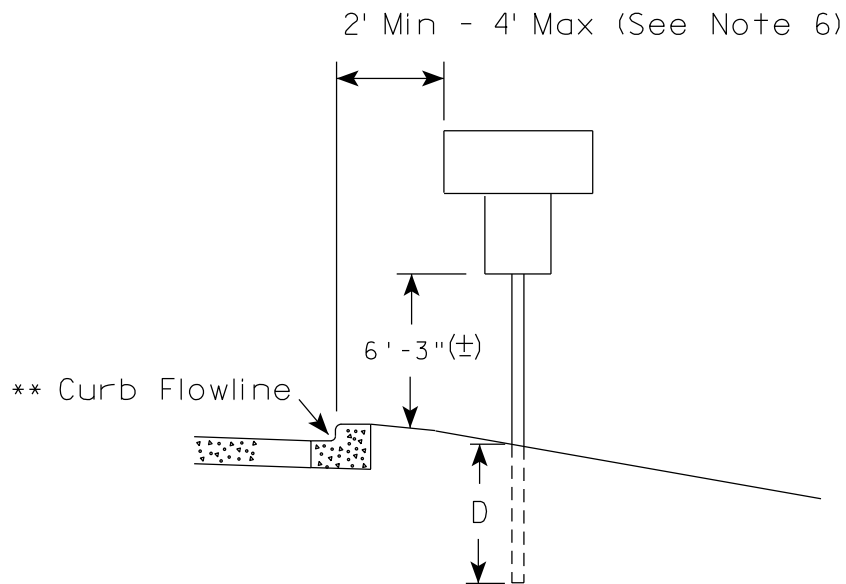
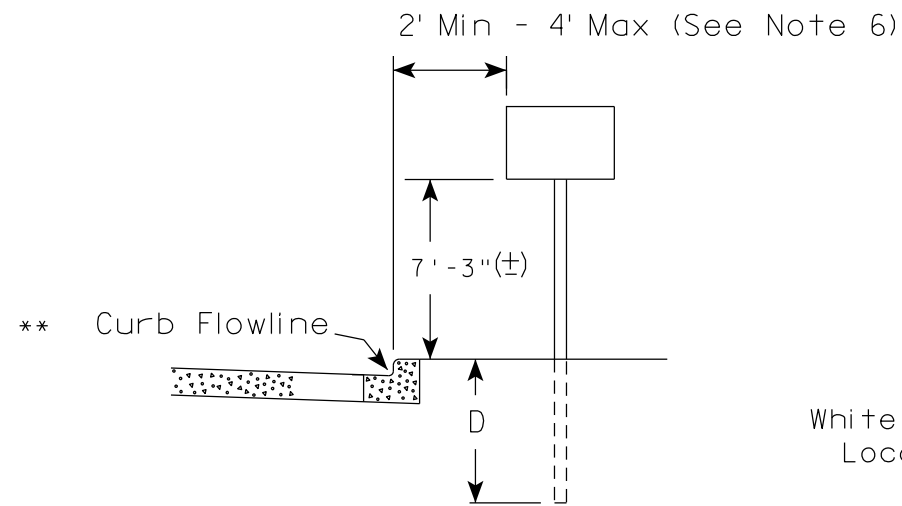
**TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

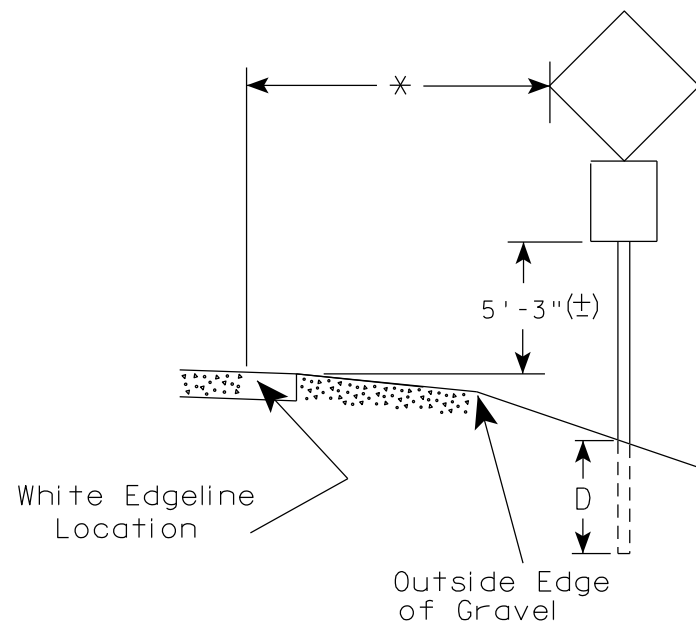
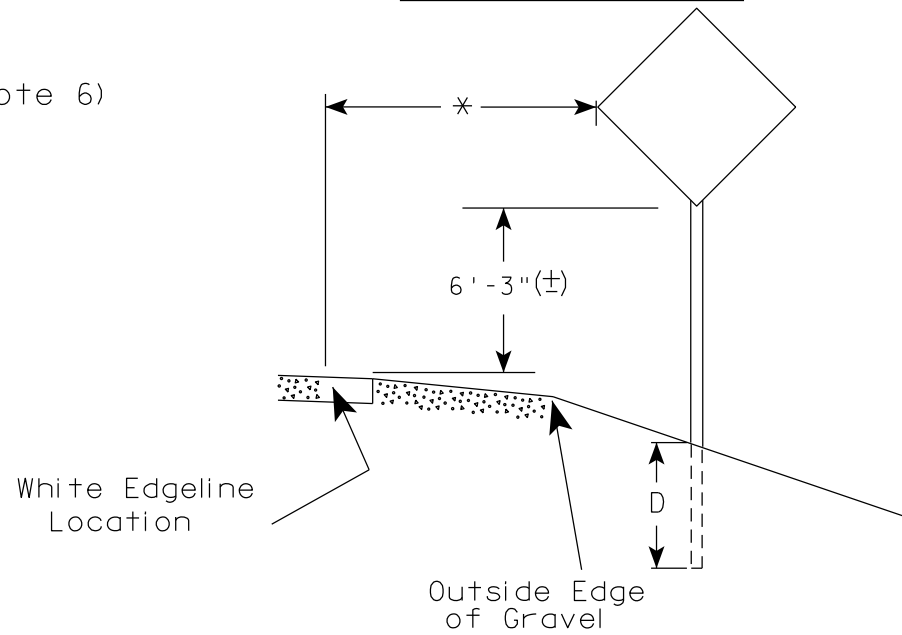
APPROVED
February 2021 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

POST EMBEDMENT DEPTH

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

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

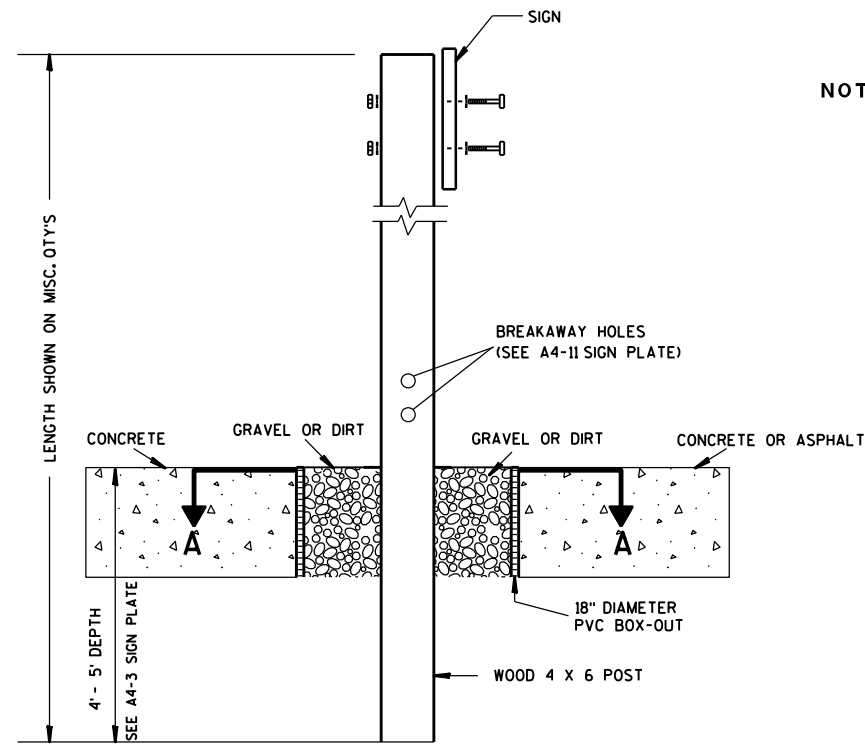
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

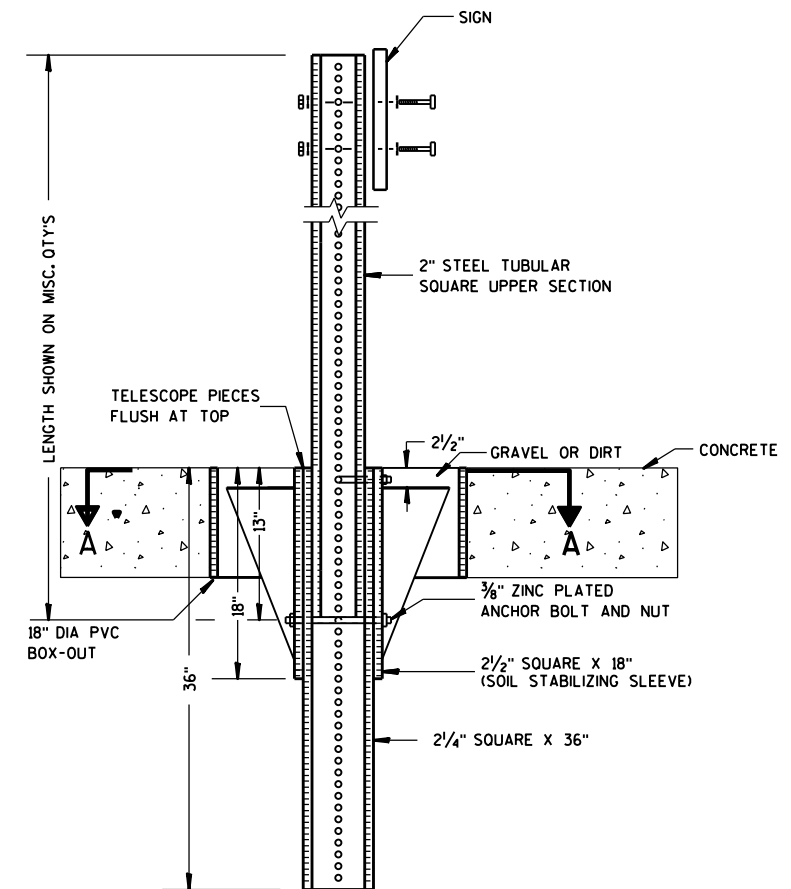
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

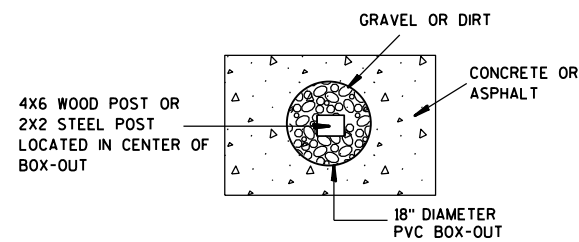
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

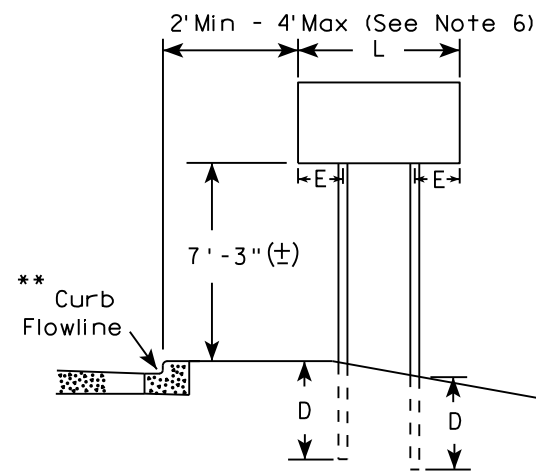
7

7

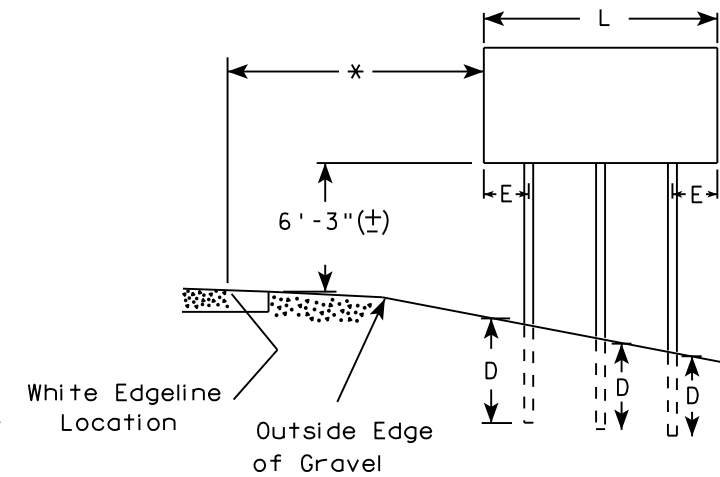
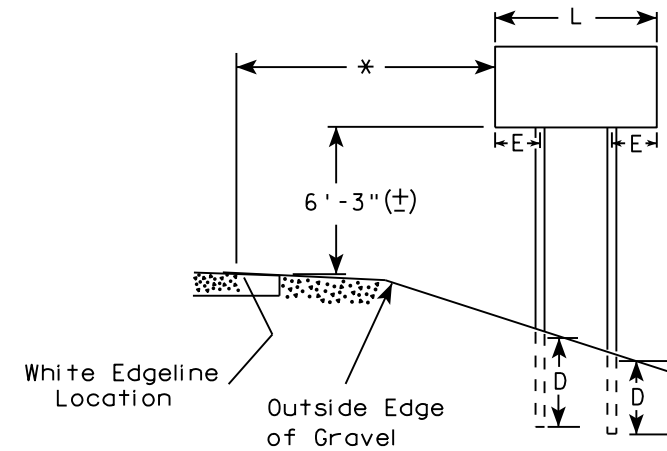
GENERAL NOTES

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

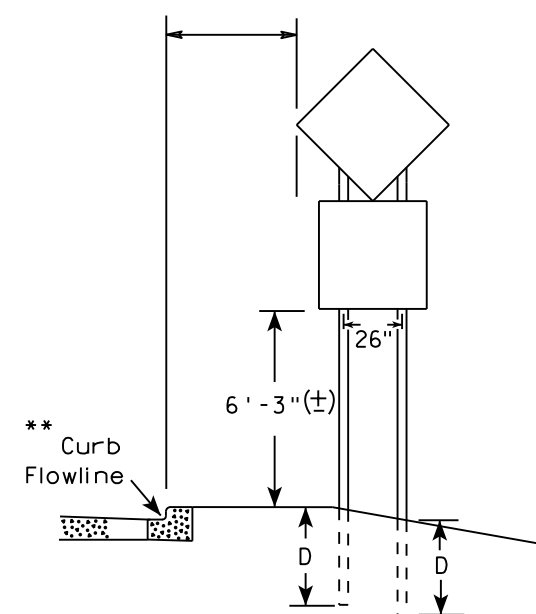
URBAN AREA



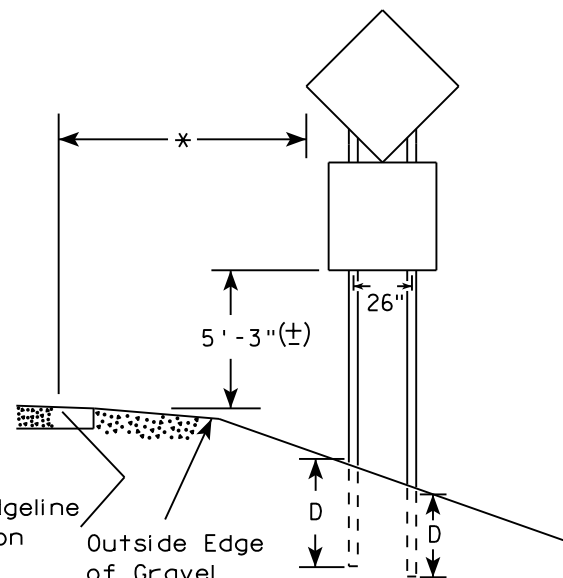
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

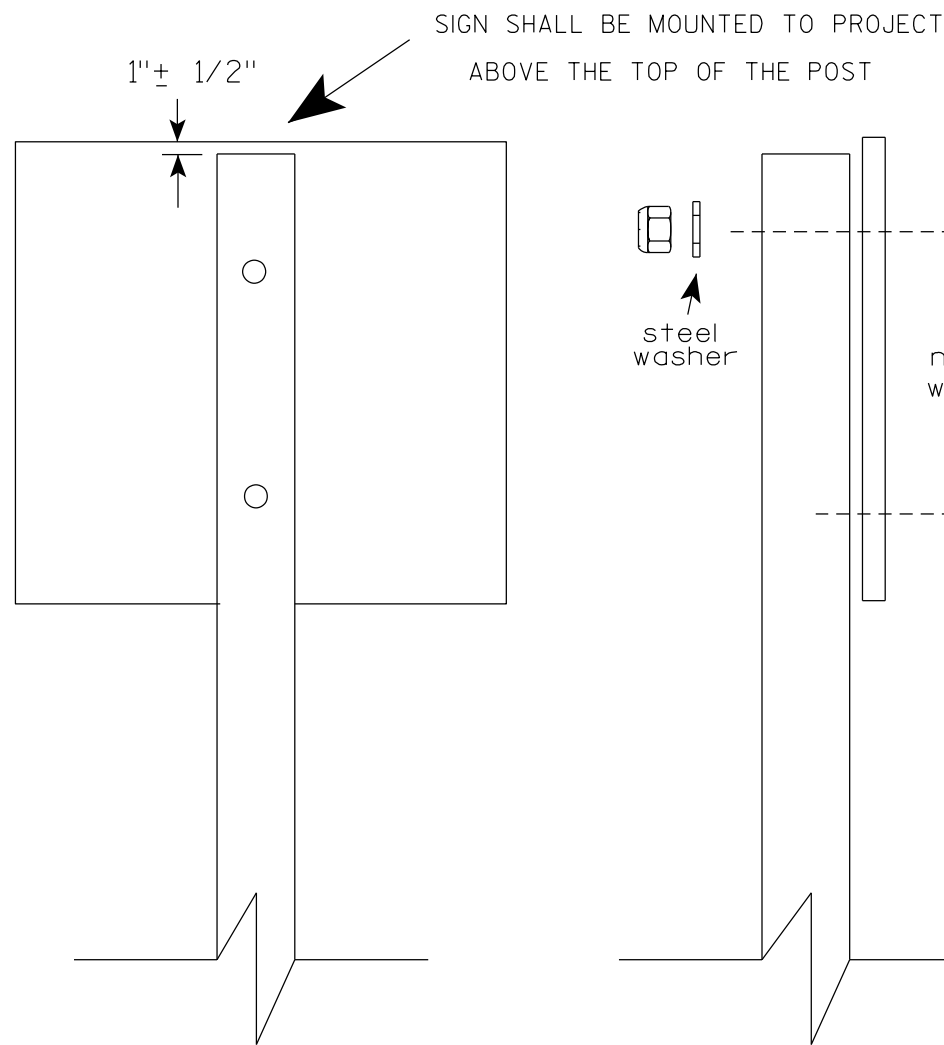
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

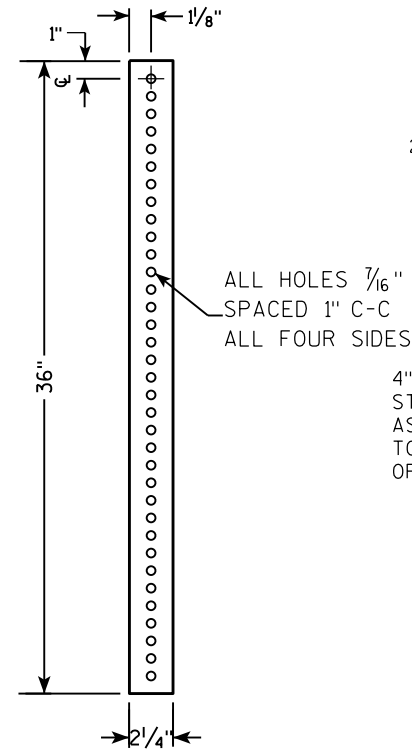
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
- 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

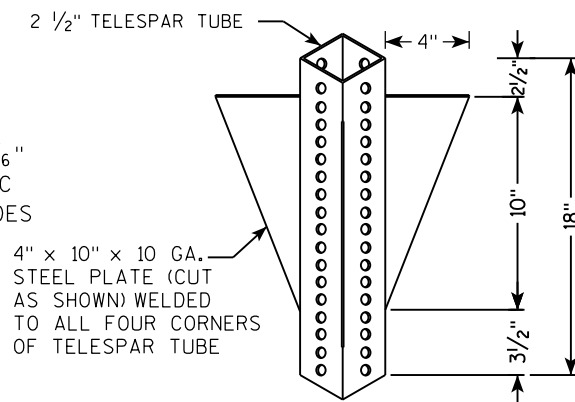
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

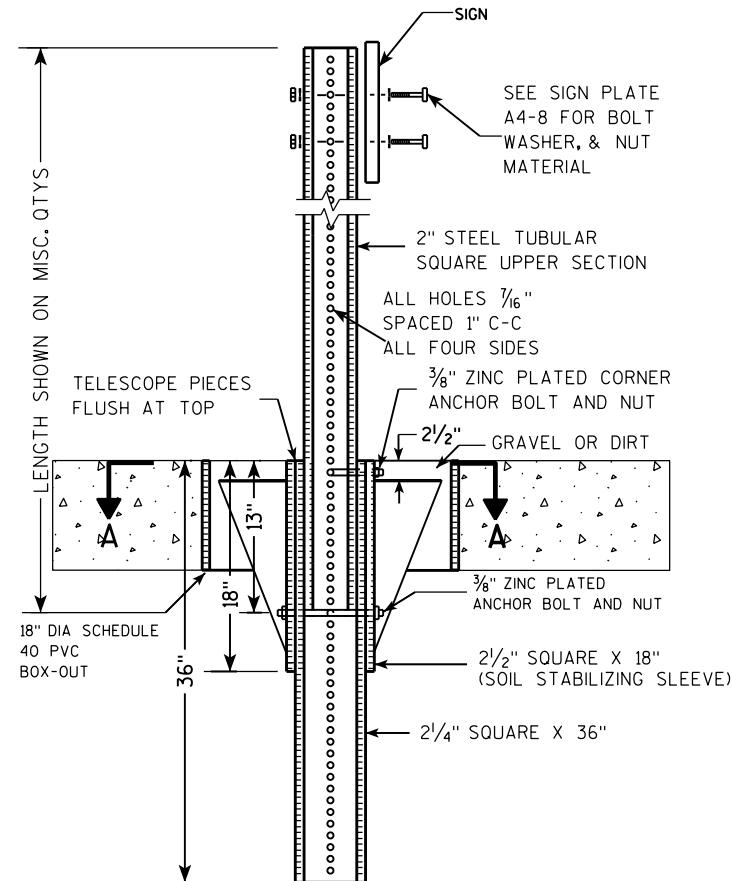
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



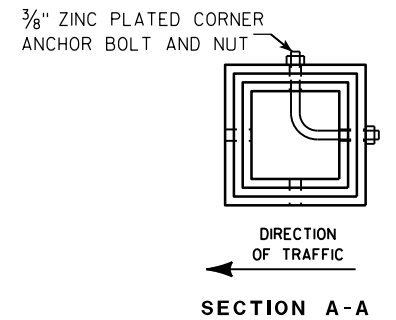
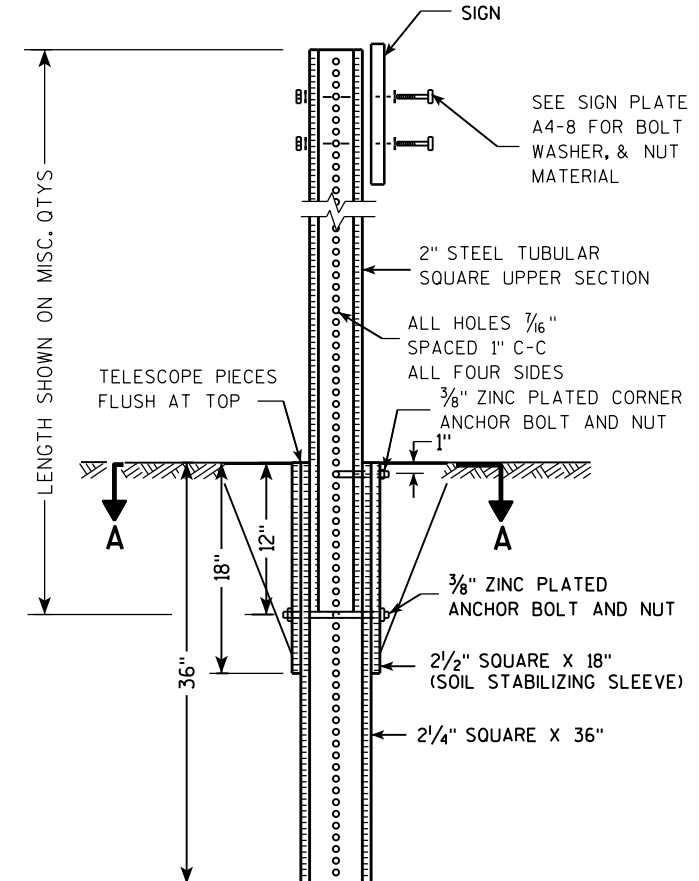
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

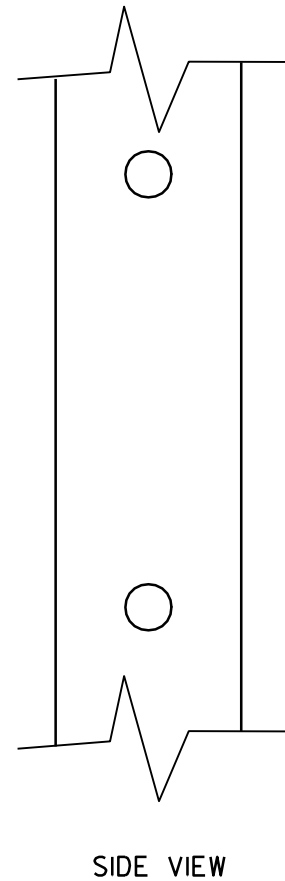
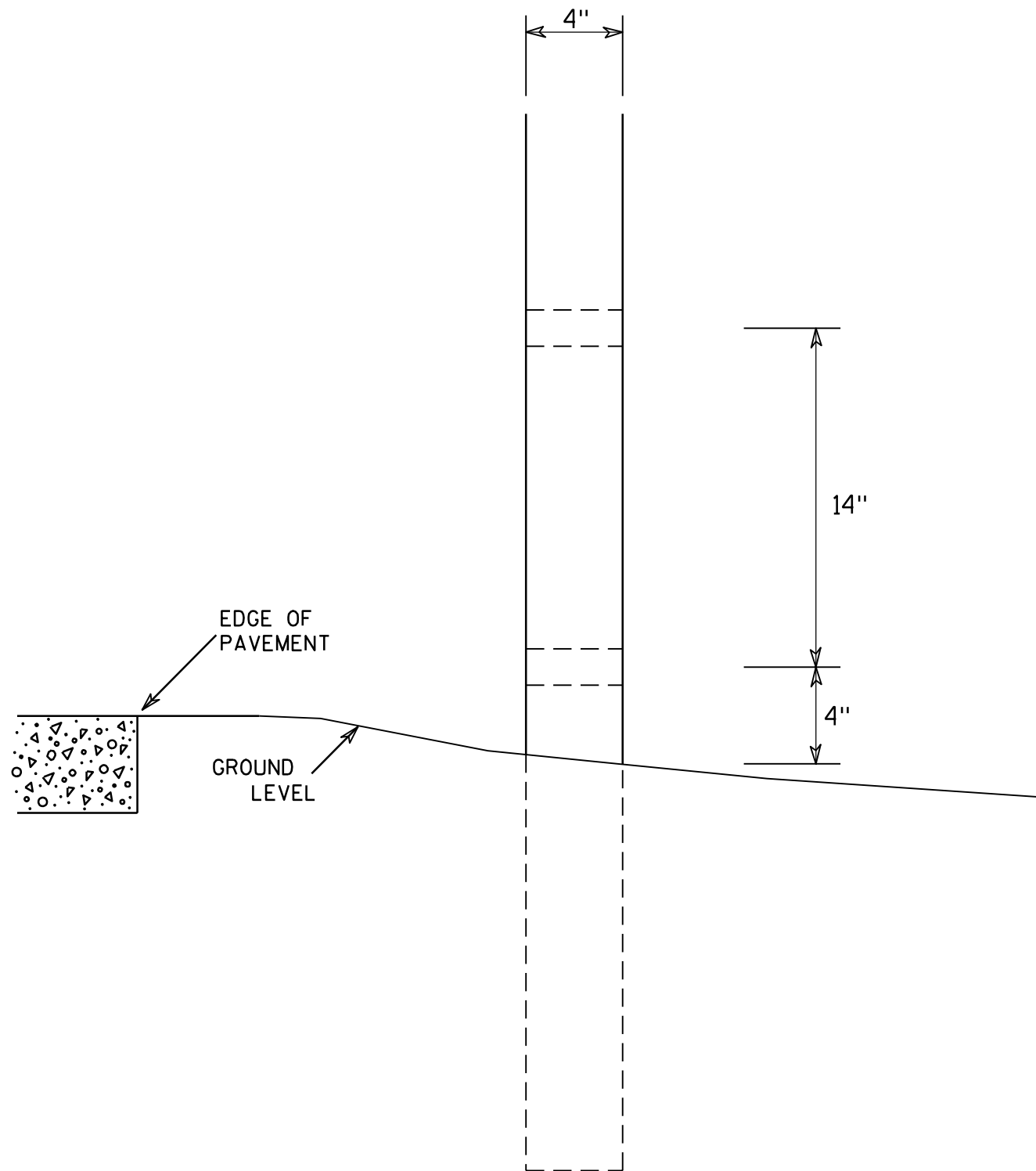
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E




GENERAL NOTES

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

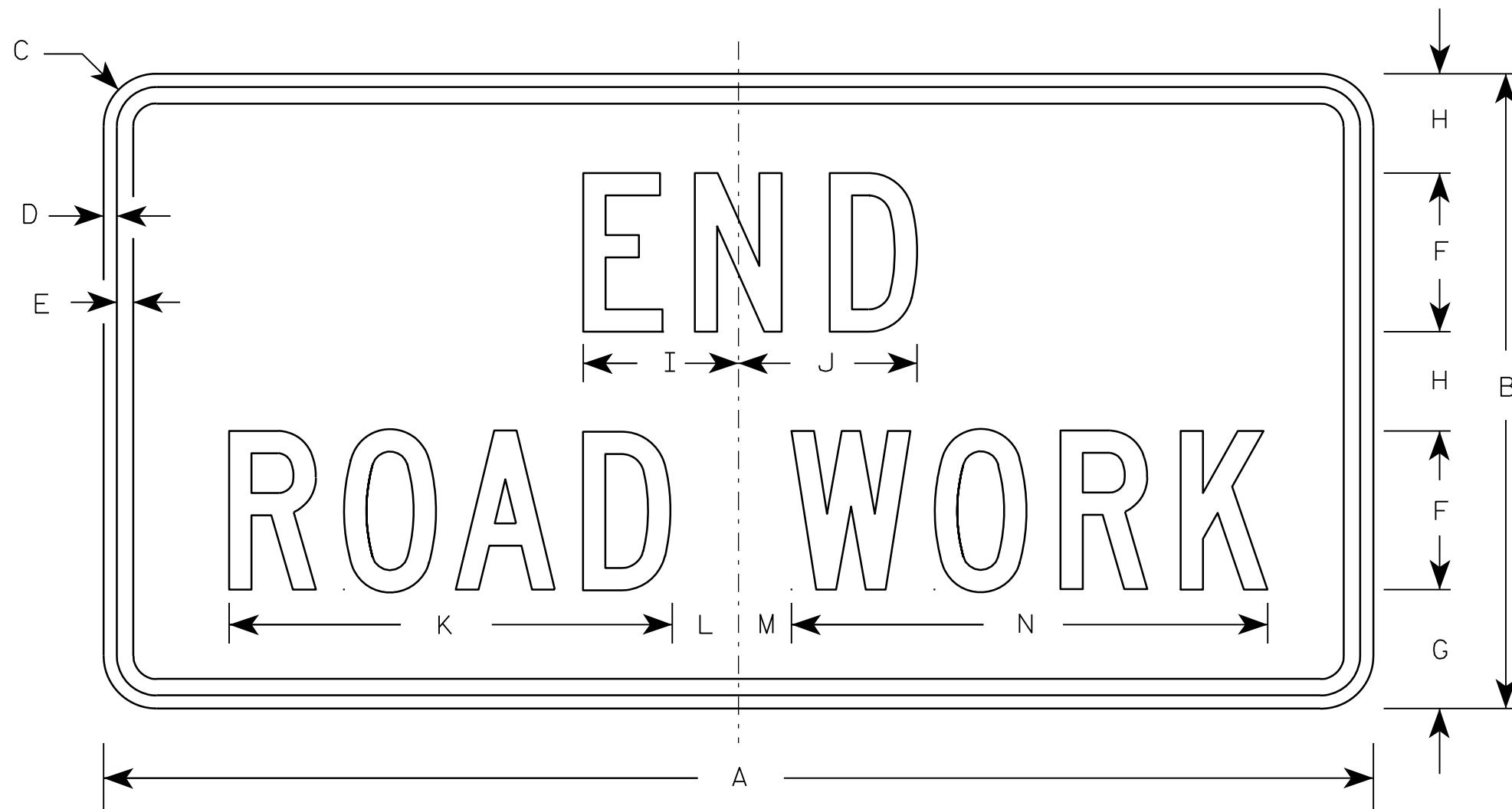
7

7

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

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

7

7

Metric equivalent for this sign is:

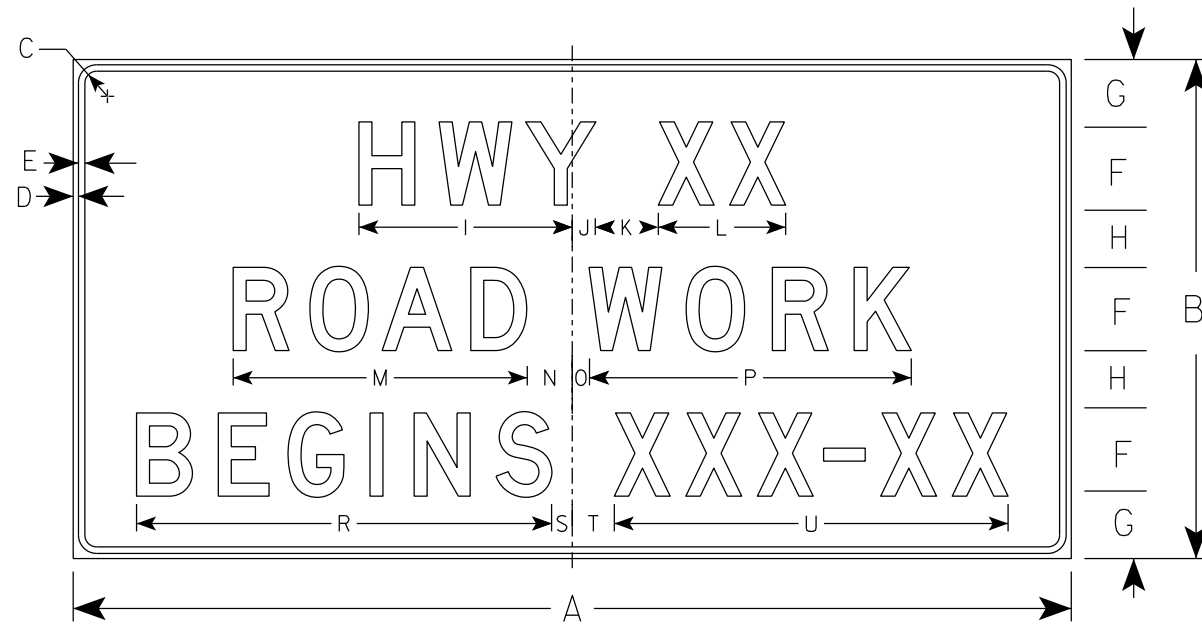
SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

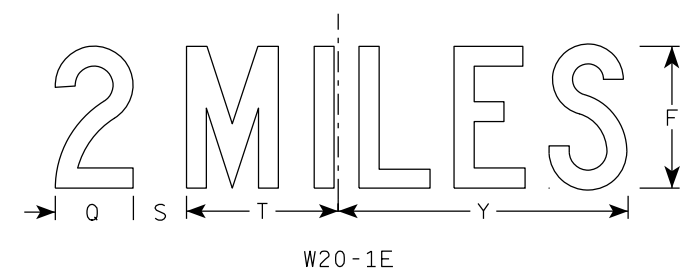
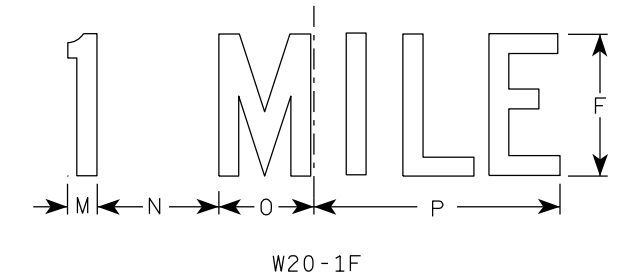
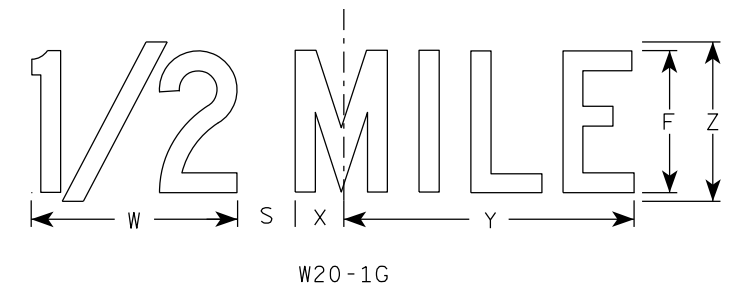
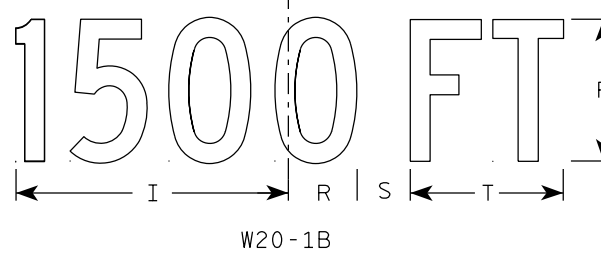
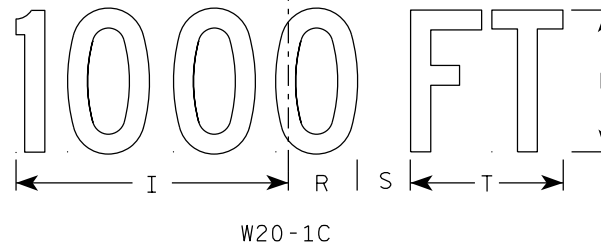
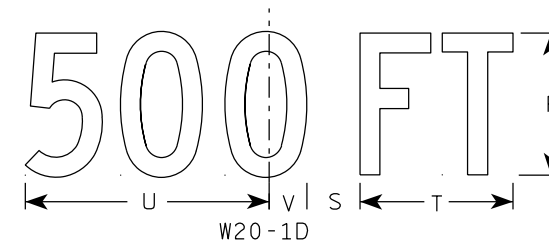
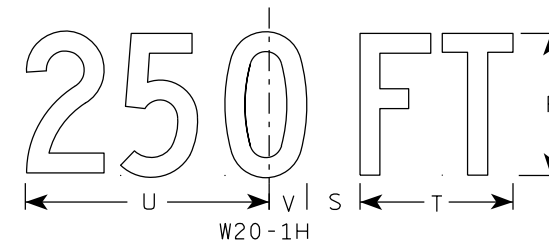
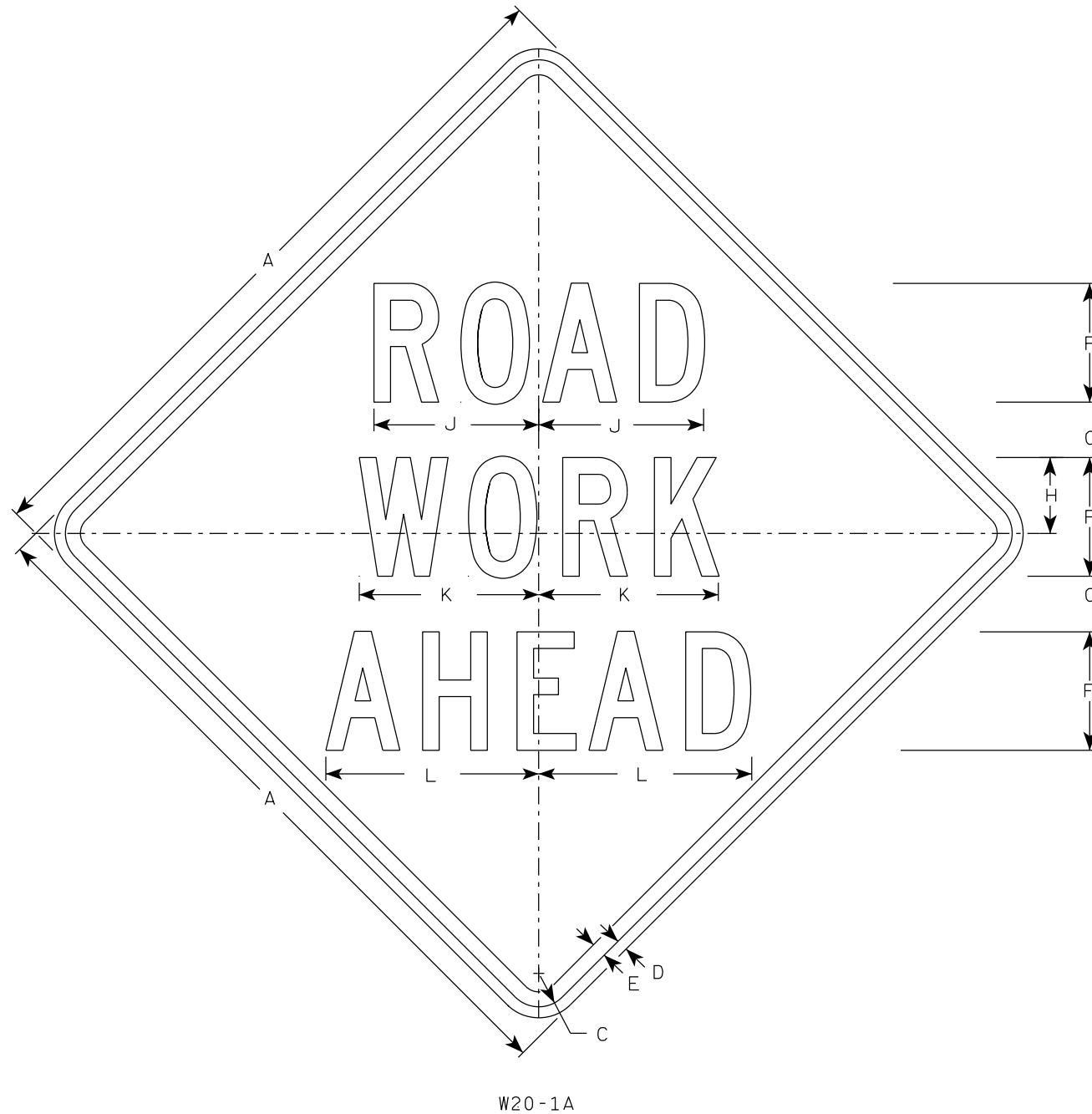
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



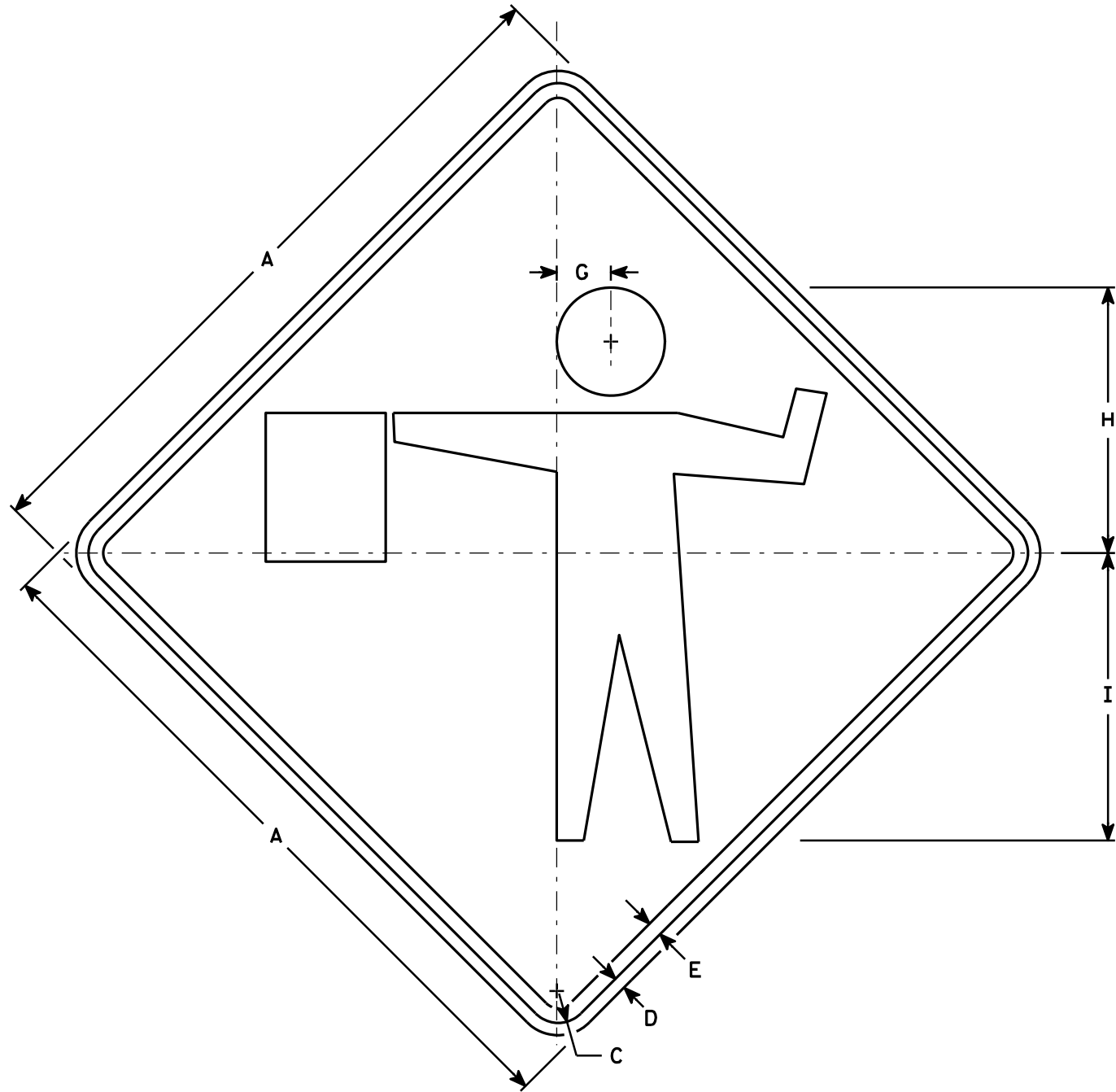
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



W20-7A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - Orange
 Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

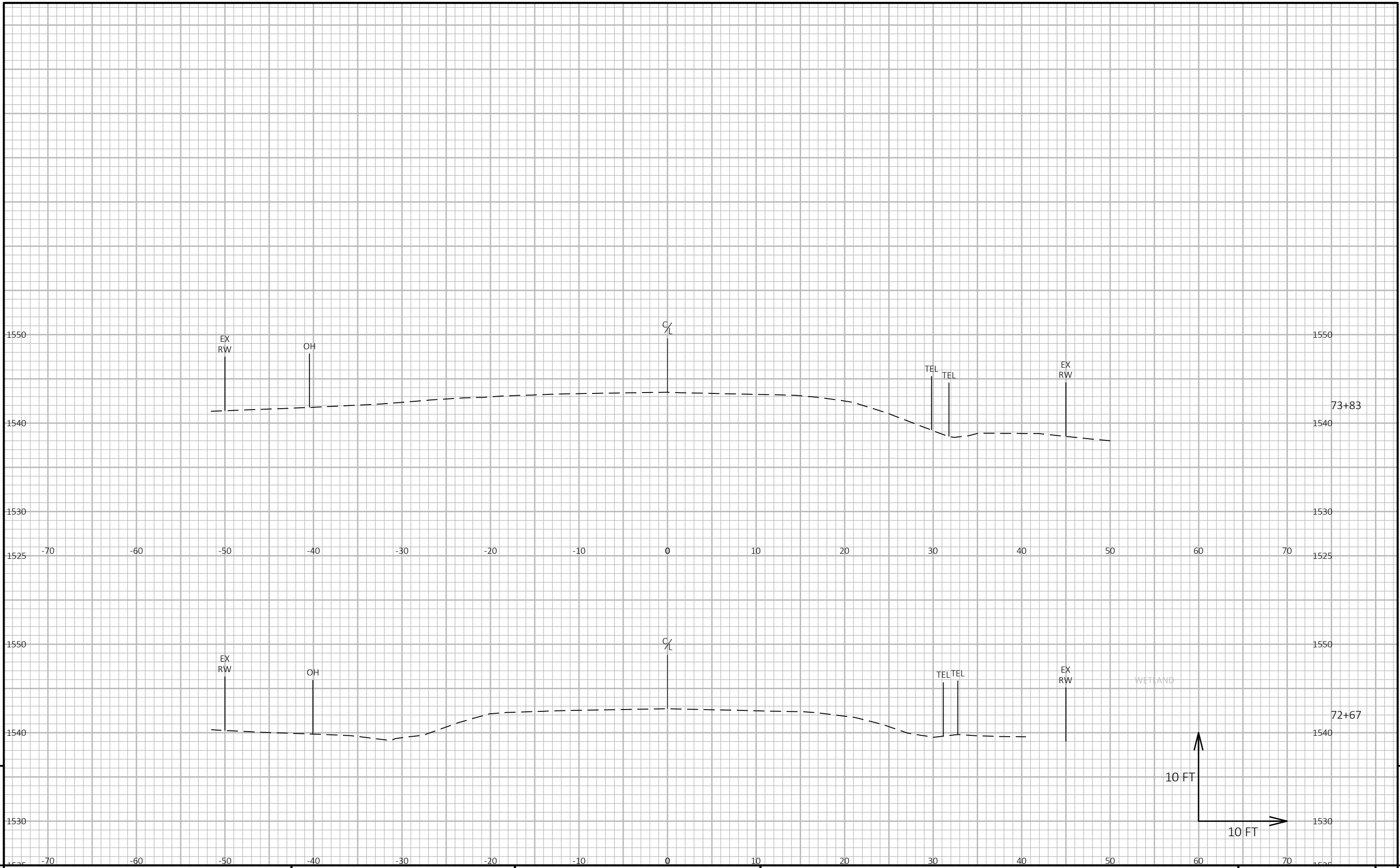
STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

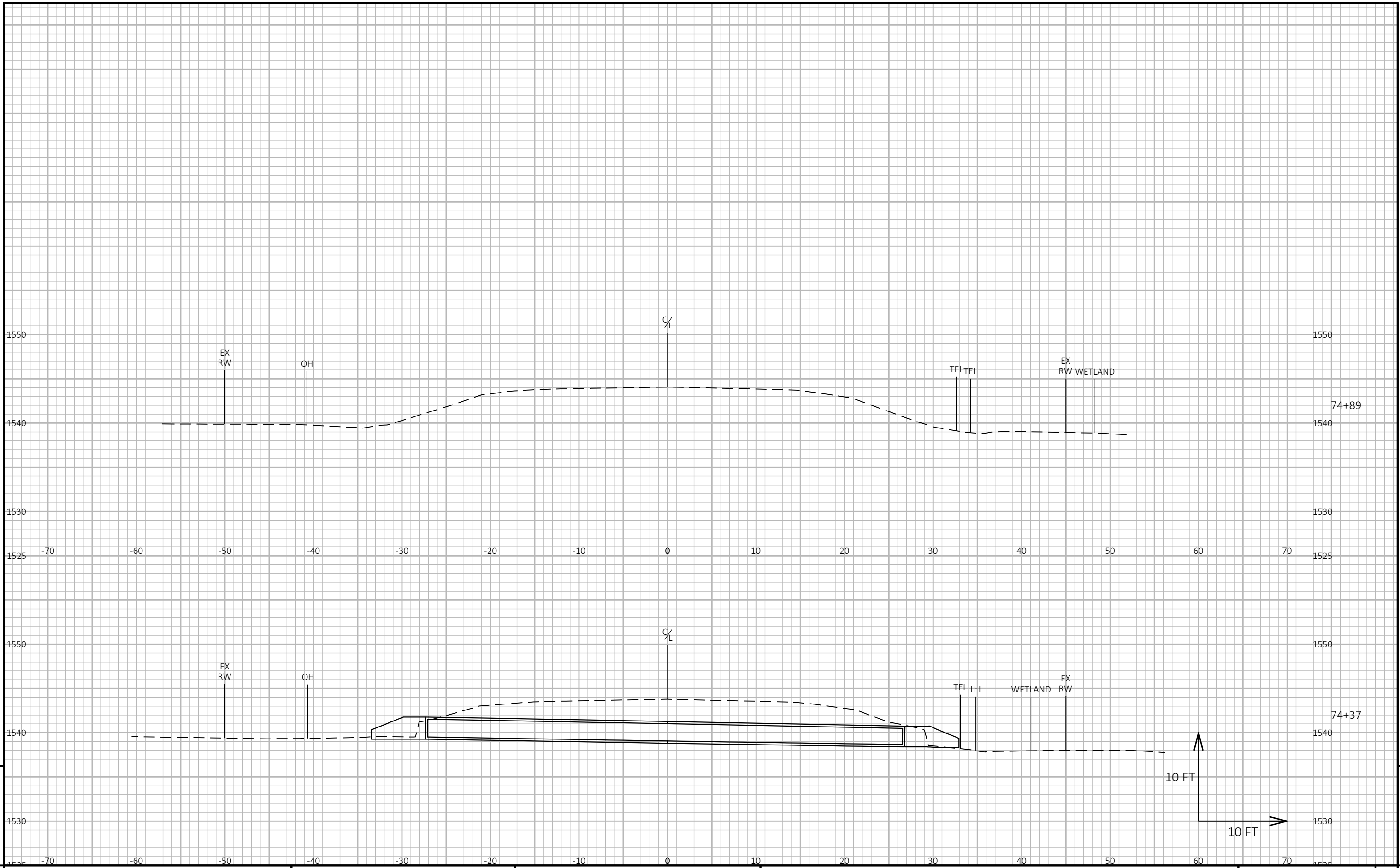


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 29	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090201-XS.DWG
 PLOT DATE : 8/24/2022 8:40 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

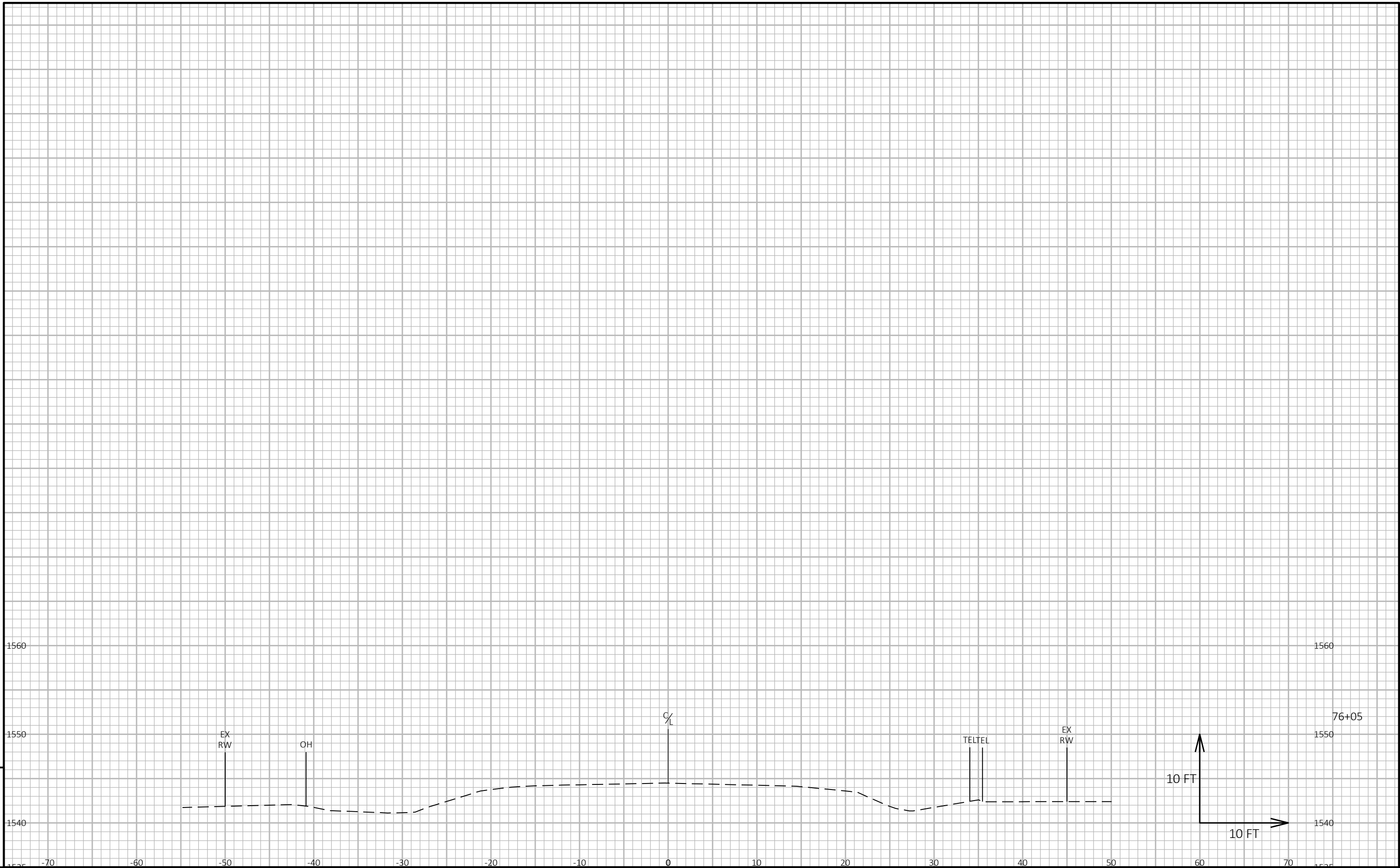


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 29	SHEET	E
------------------------	-------------	------------------	----------------------------	-------	---

FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETS\PLAN\090201-XS.DWG
 PLOT DATE : 8/24/2022 8:40 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

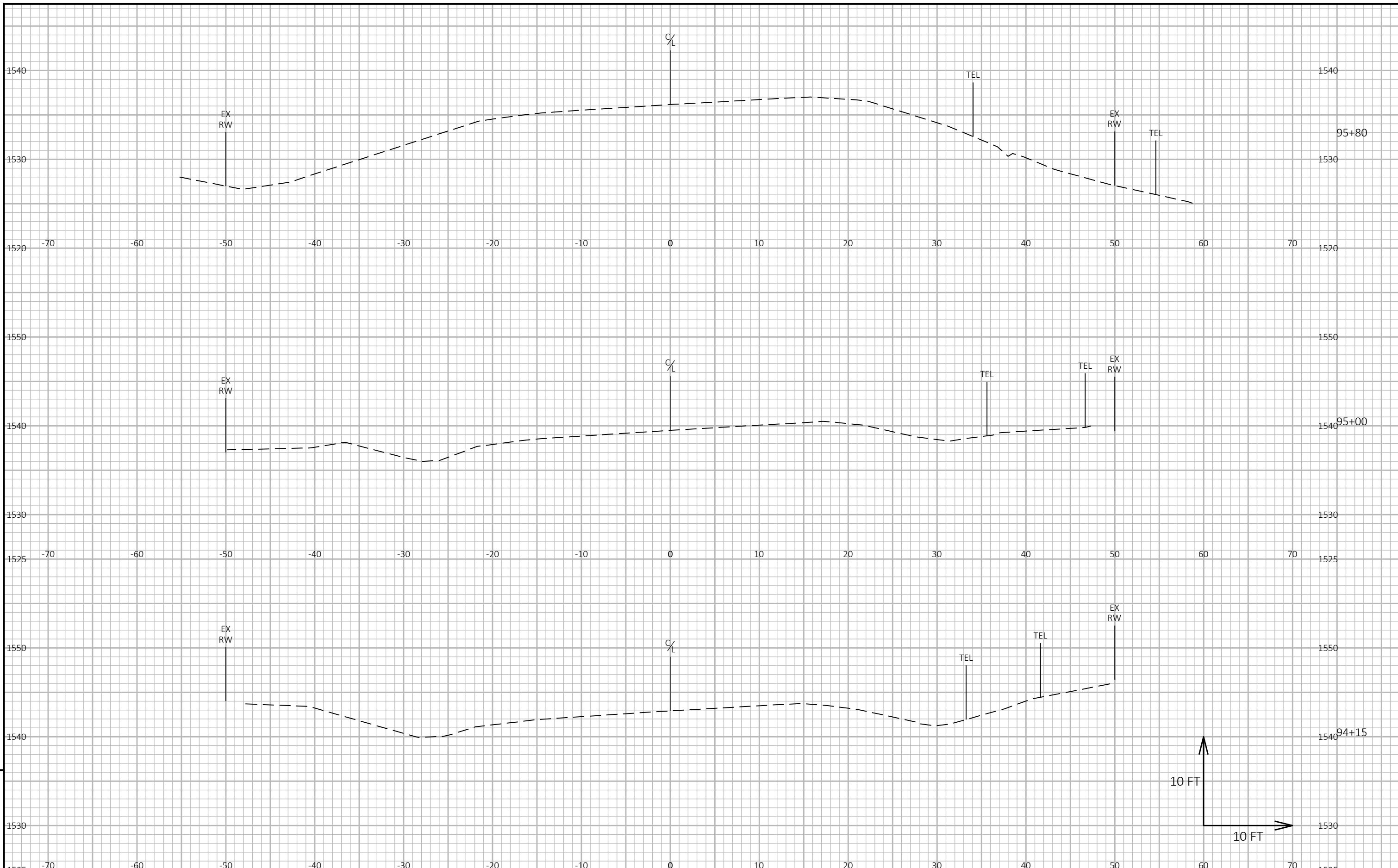


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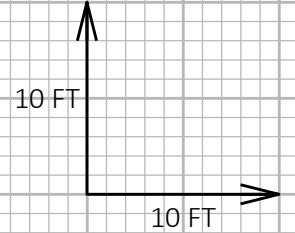
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 29	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090201-XS.DWG
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 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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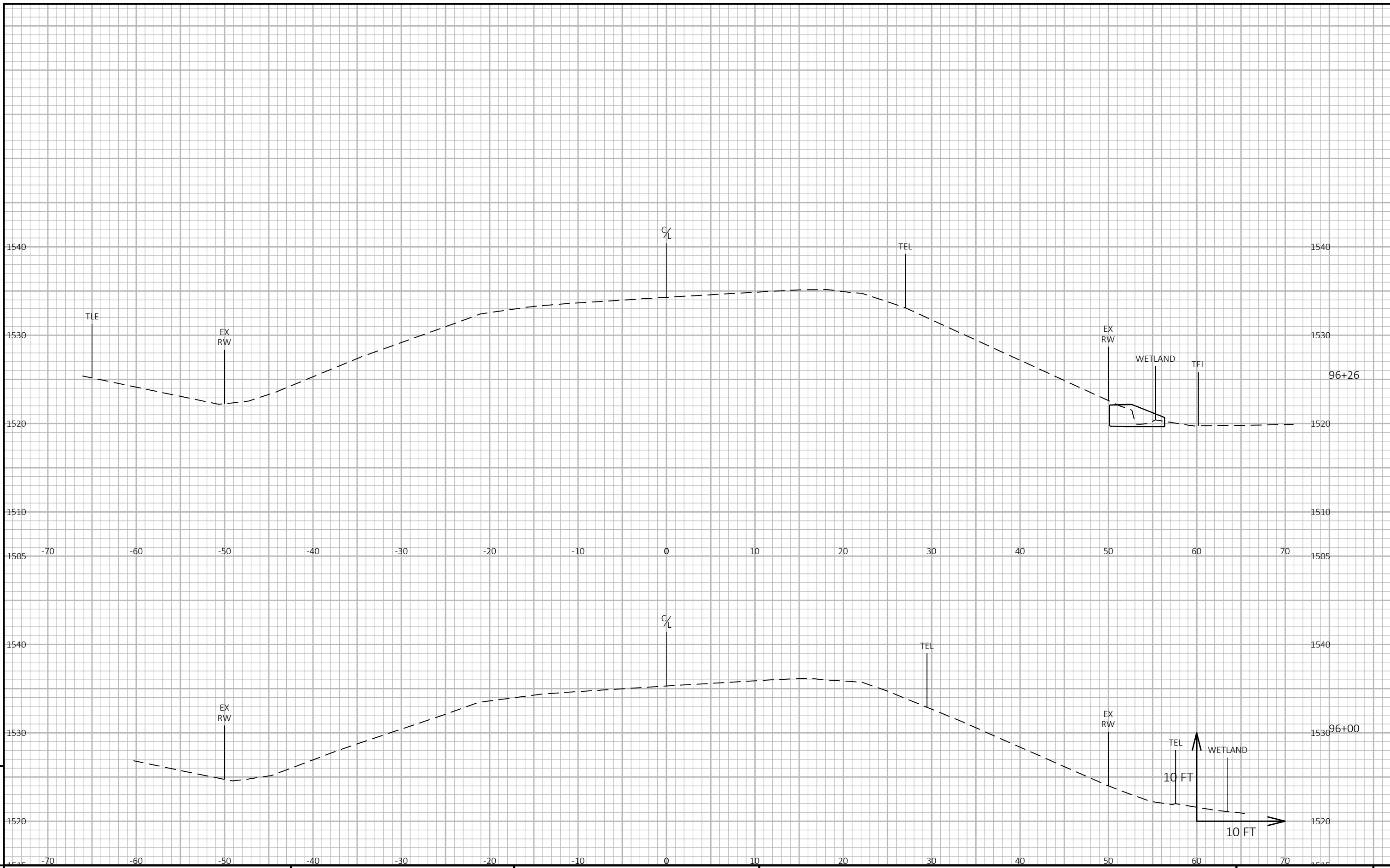
9



PROJECT NO: 9100-05-71 HWY: STH 70 COUNTY: FLORENCE CROSS SECTIONS: CULVERT 30 SHEET E

FILE NAME: Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090202-XS.DWG PLOT DATE: 8/25/2022 2:13 PM PLOT BY: CLEGG, HEATHER PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 01

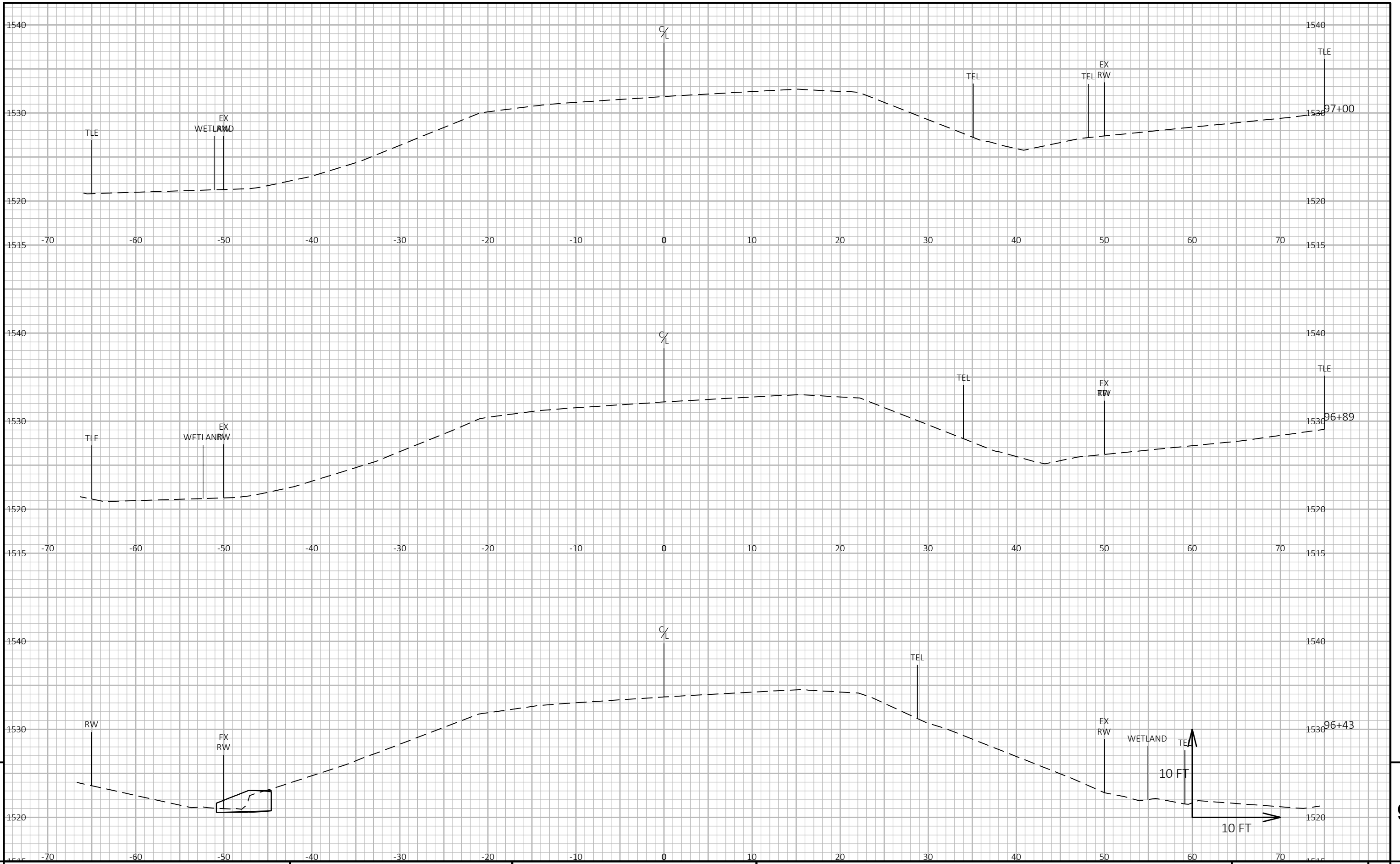


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 30	SHEET E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090202-XS.DWG
 PLOT DATE : 8/25/2022 2:13 PM
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 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

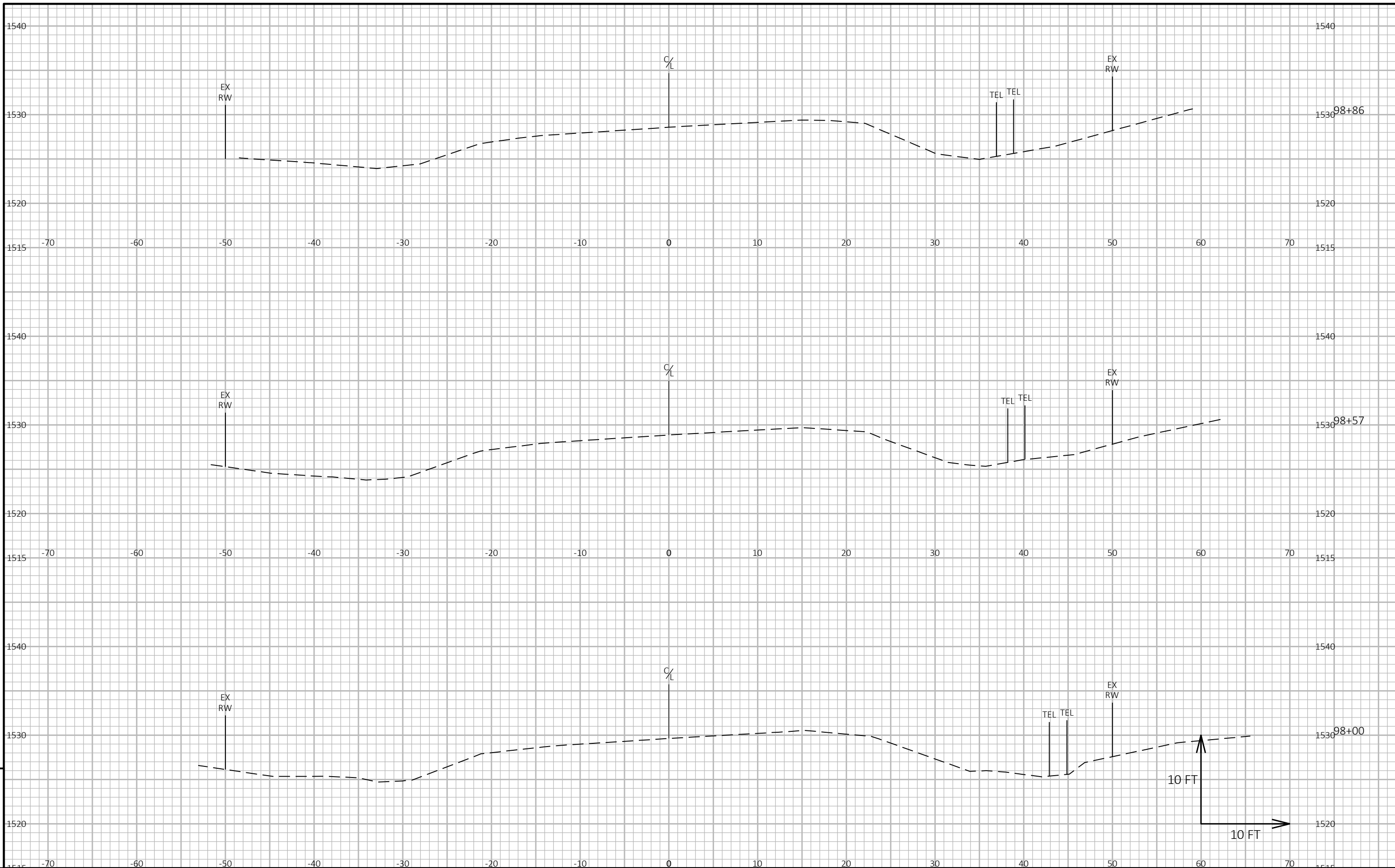


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 30	SHEET	E
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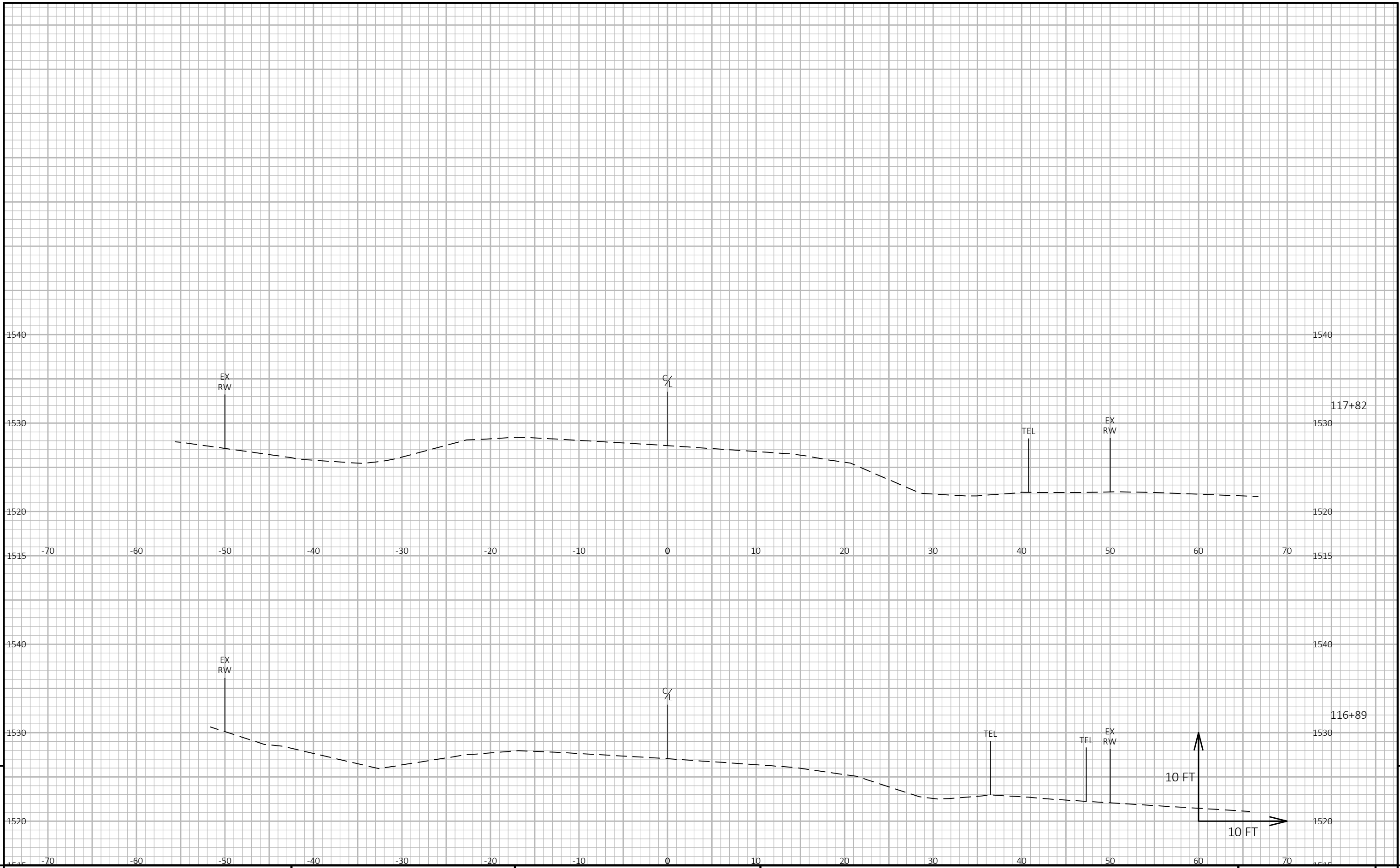
FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETS\PLAN\090202-XS.DWG
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 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 30	SHEET	E
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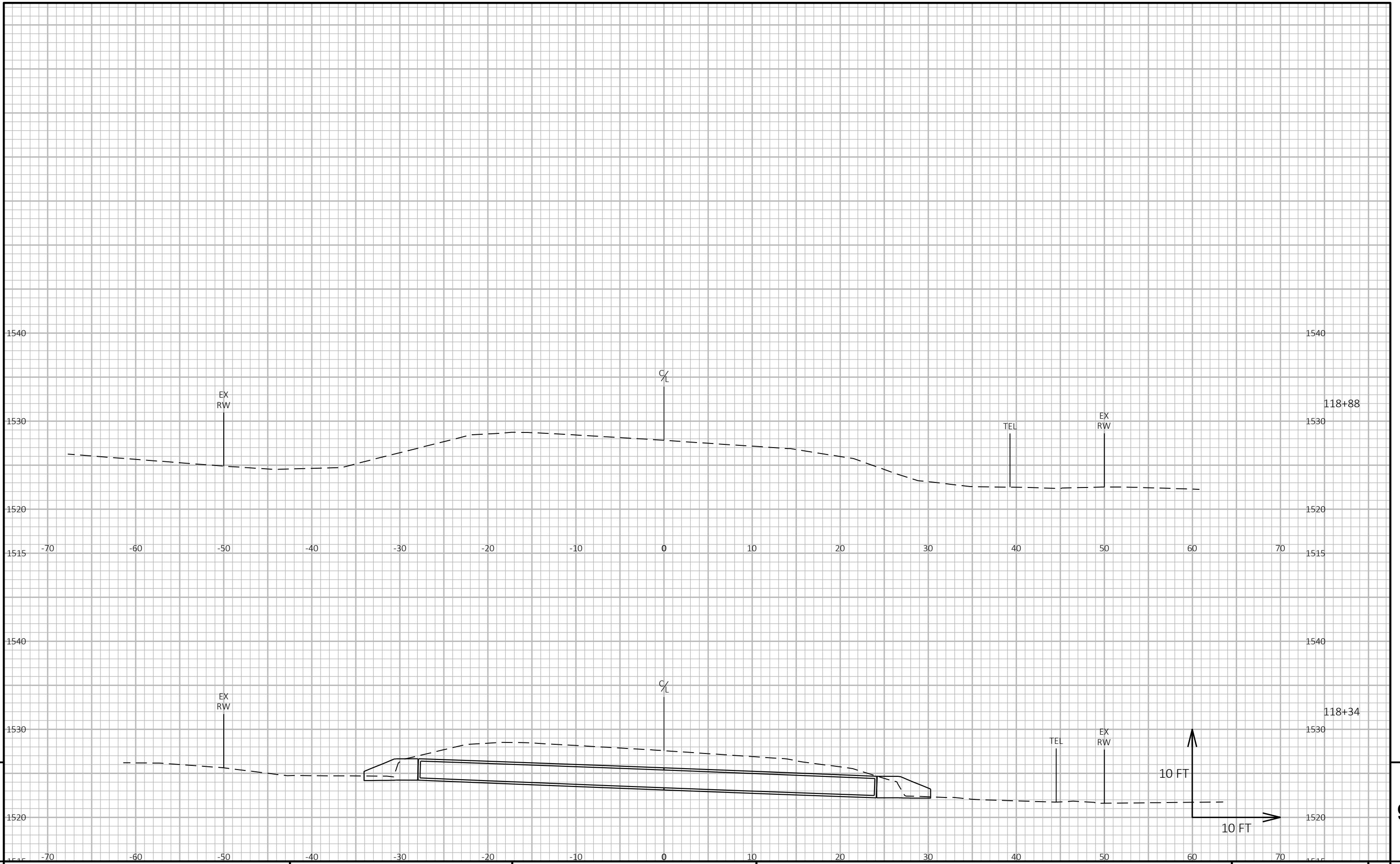


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9

PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 33	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090203-XS.DWG
 PLOT DATE : 8/24/2022 8:49 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

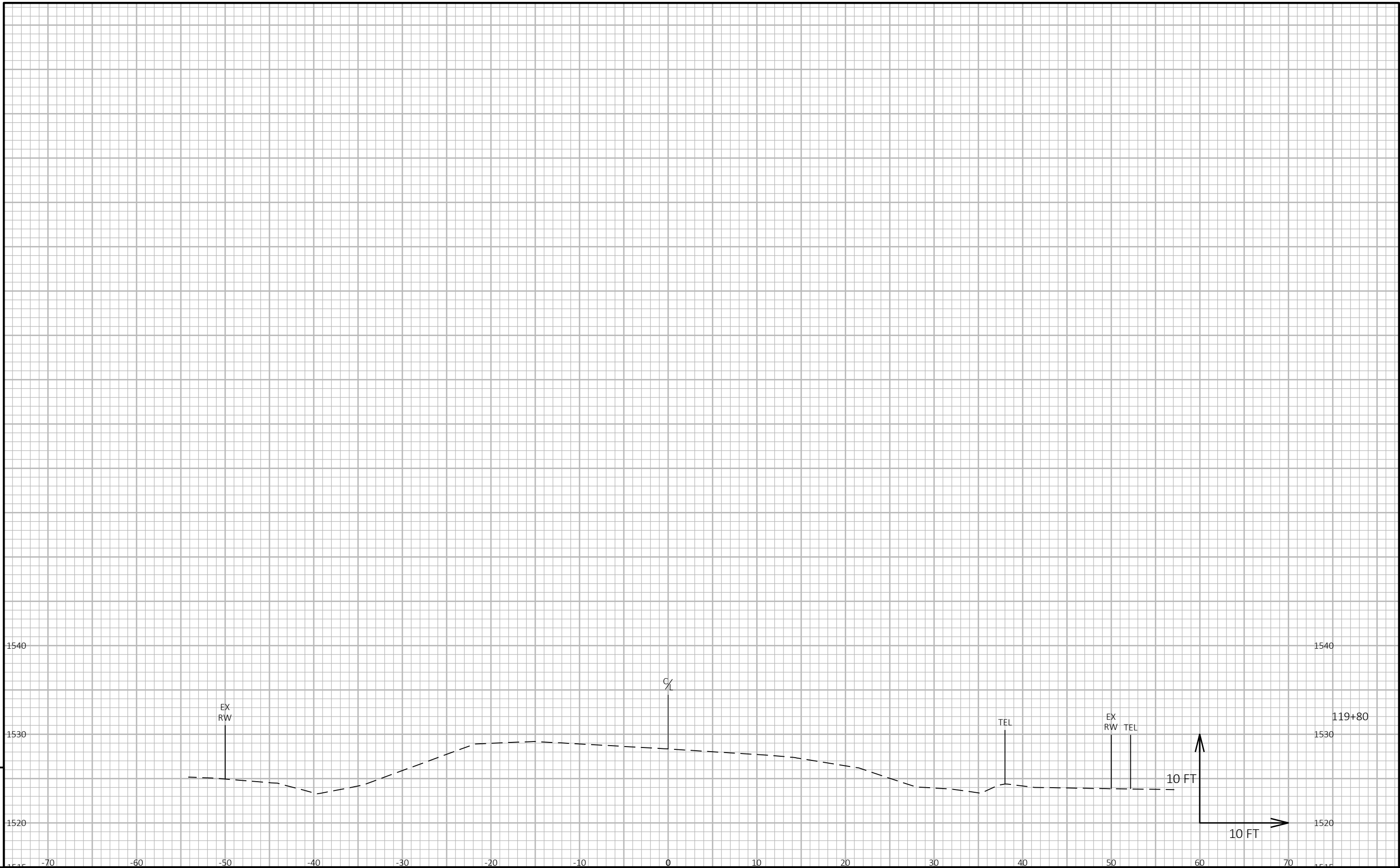


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 33	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETS\PLAN\090203-XS.DWG
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 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

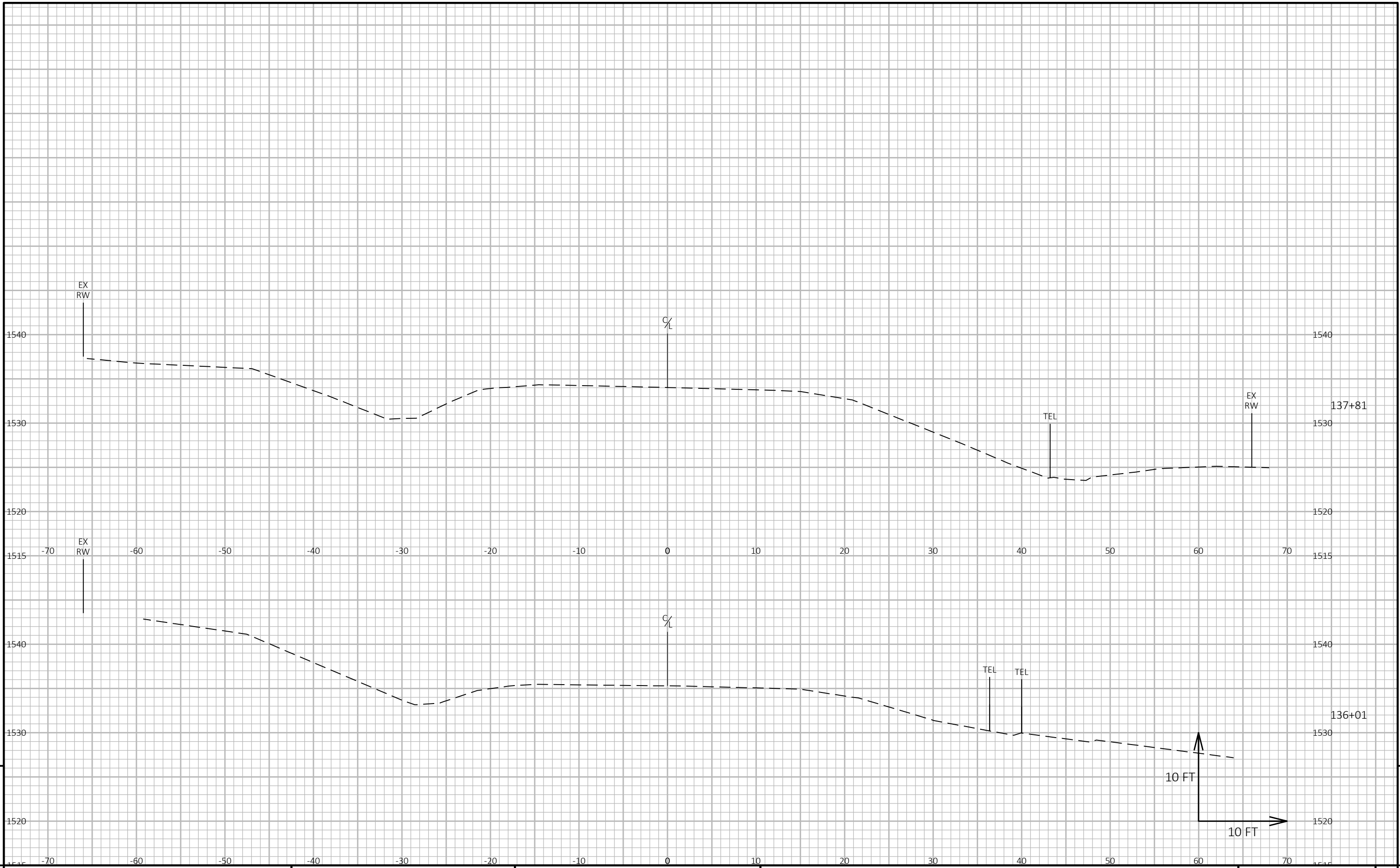


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 33	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090203-XS.DWG
 PLOT DATE : 8/24/2022 8:49 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

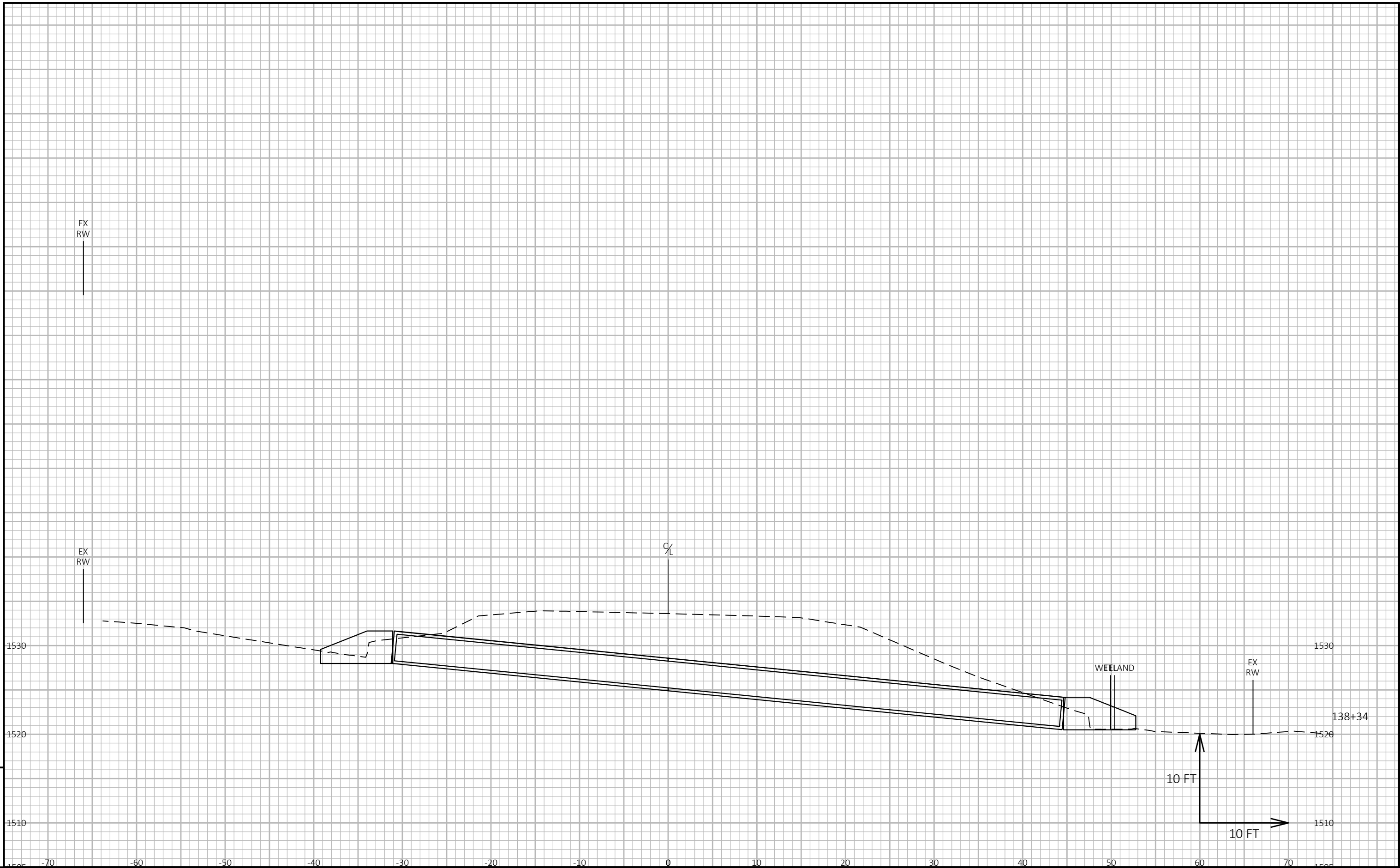


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 34	SHEET E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090204-XS.DWG
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 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

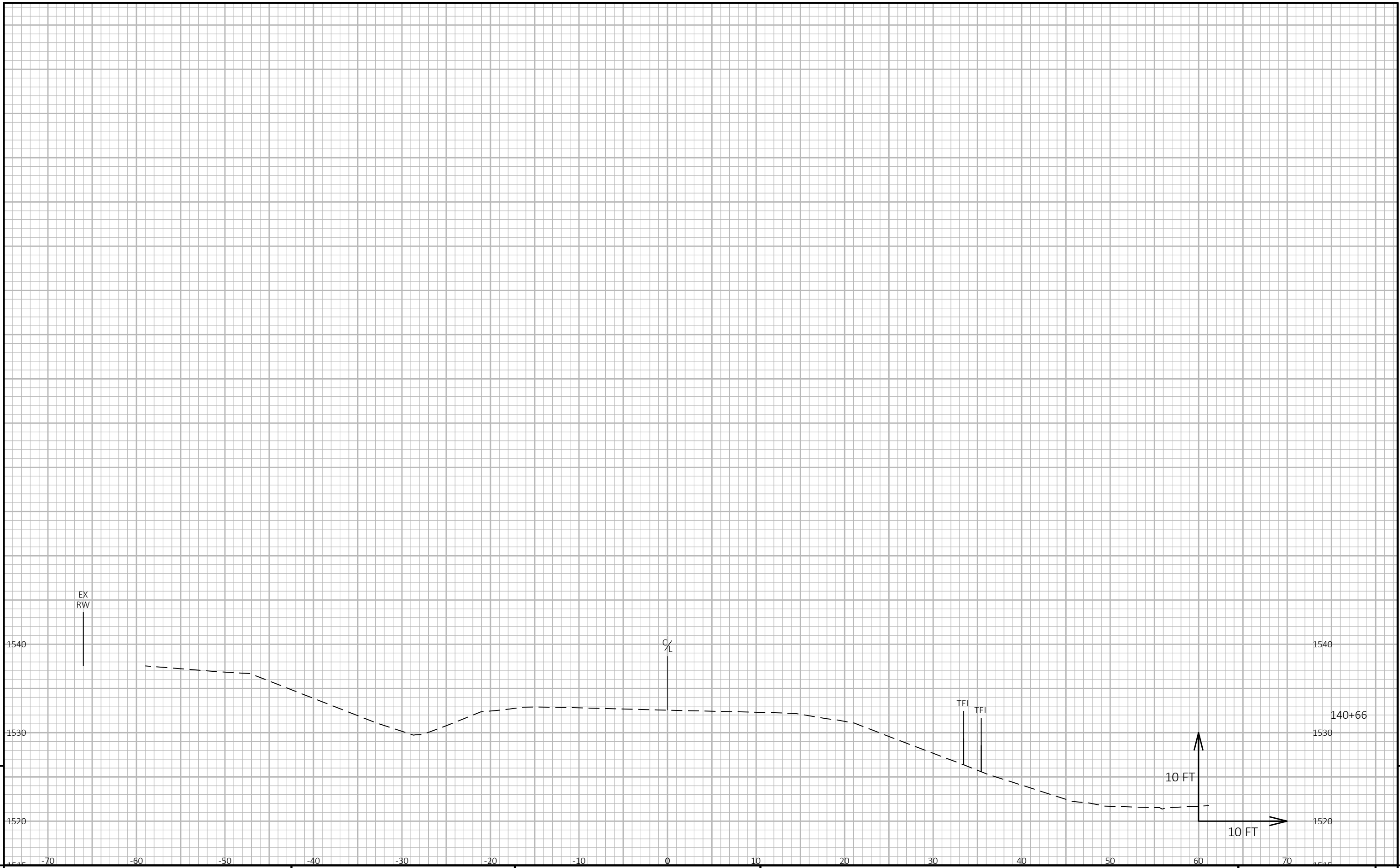


PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 34	SHEET
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090204-XS.DWG
 PLOT DATE : 8/25/2022 2:44 PM
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 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

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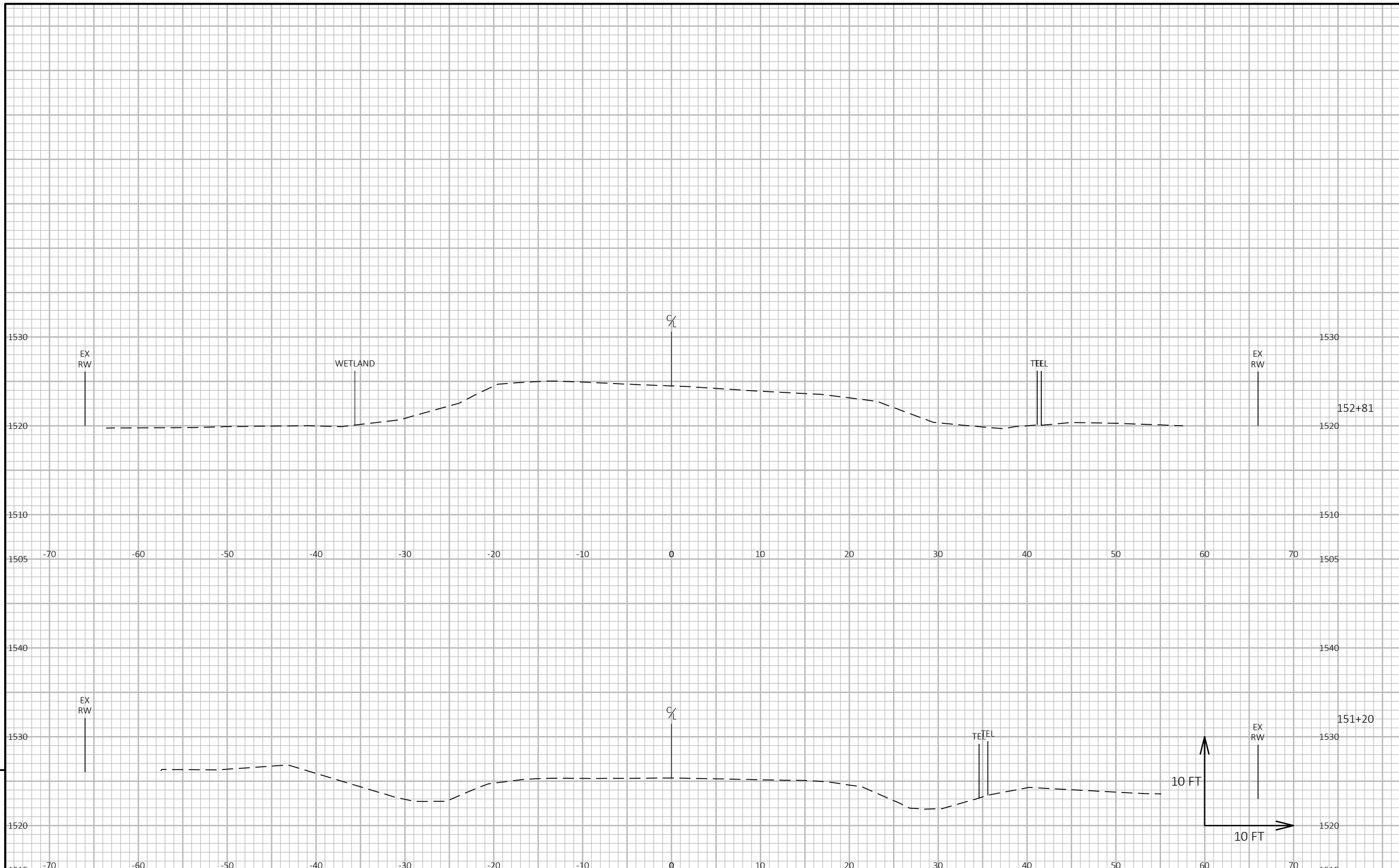


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 34	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090204-XS.DWG
 PLOT DATE : 8/25/2022 2:44 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



PROJECT NO: 9100-05-71

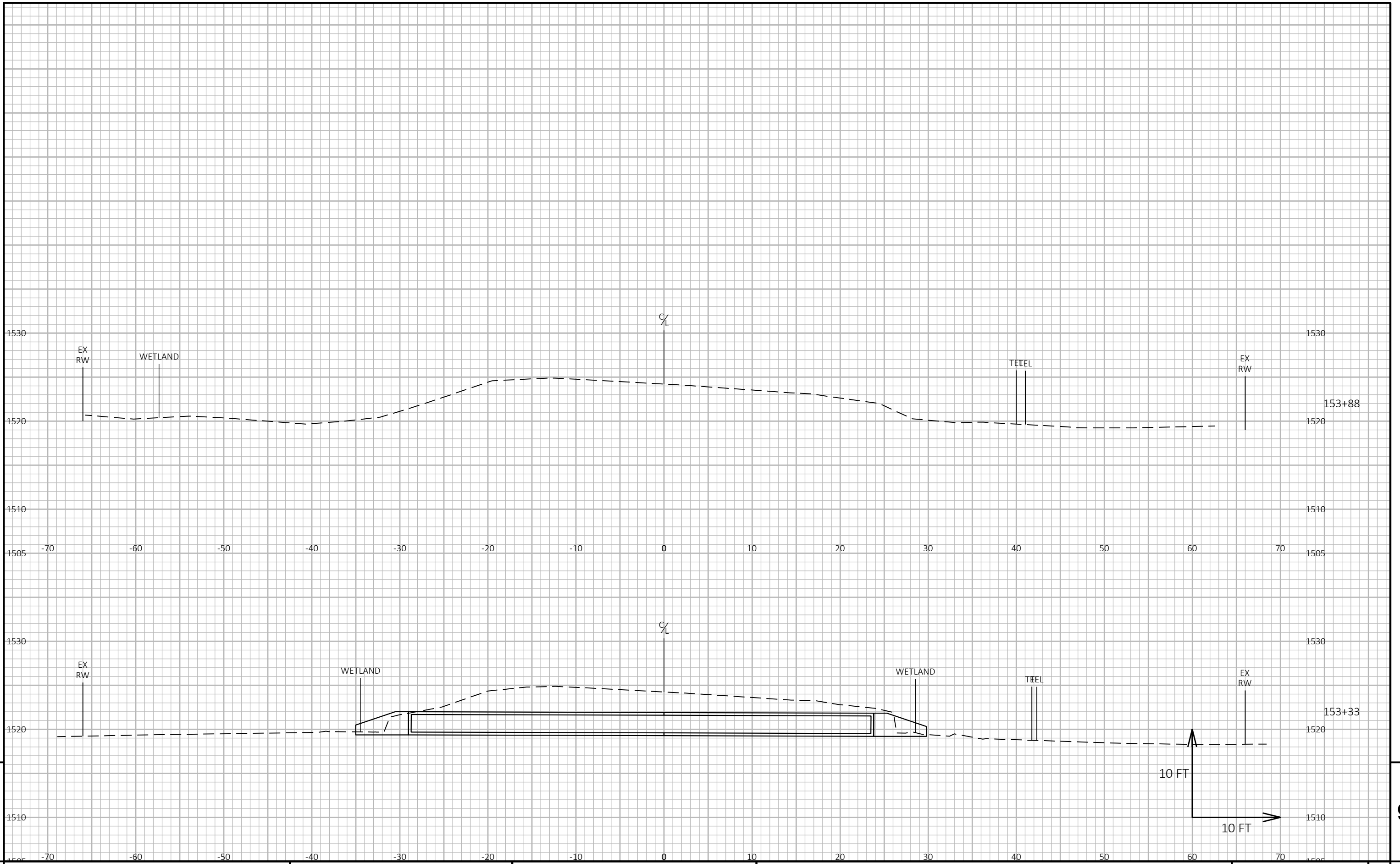
HWY: STH 70

COUNTY: FLORENCE

CROSS SECTIONS: CULVERT 35

SHEET

E

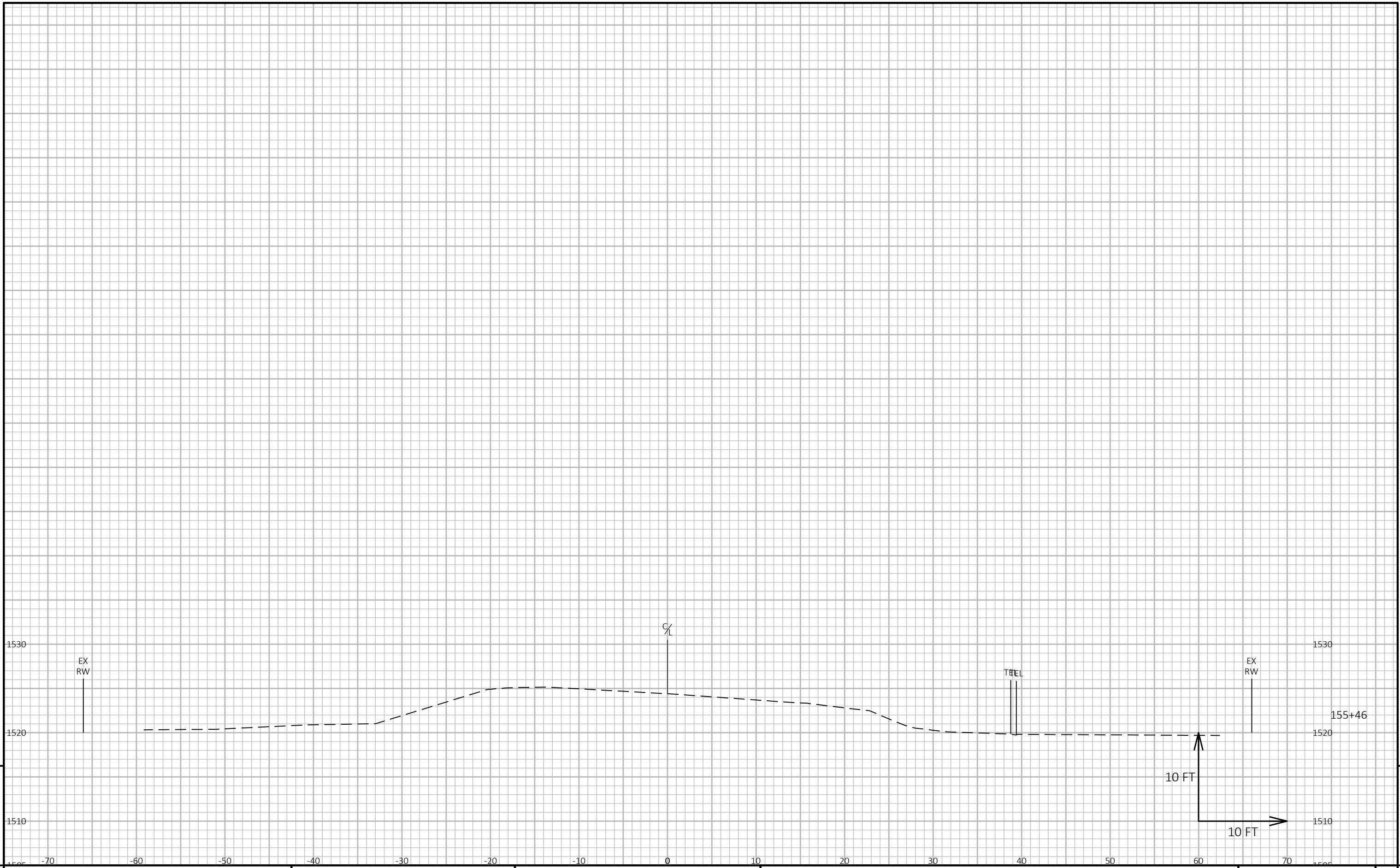


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 35	SHEET E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETS\PLAN\090205-XS.DWG
 PLOT DATE : 8/25/2022 3:22 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



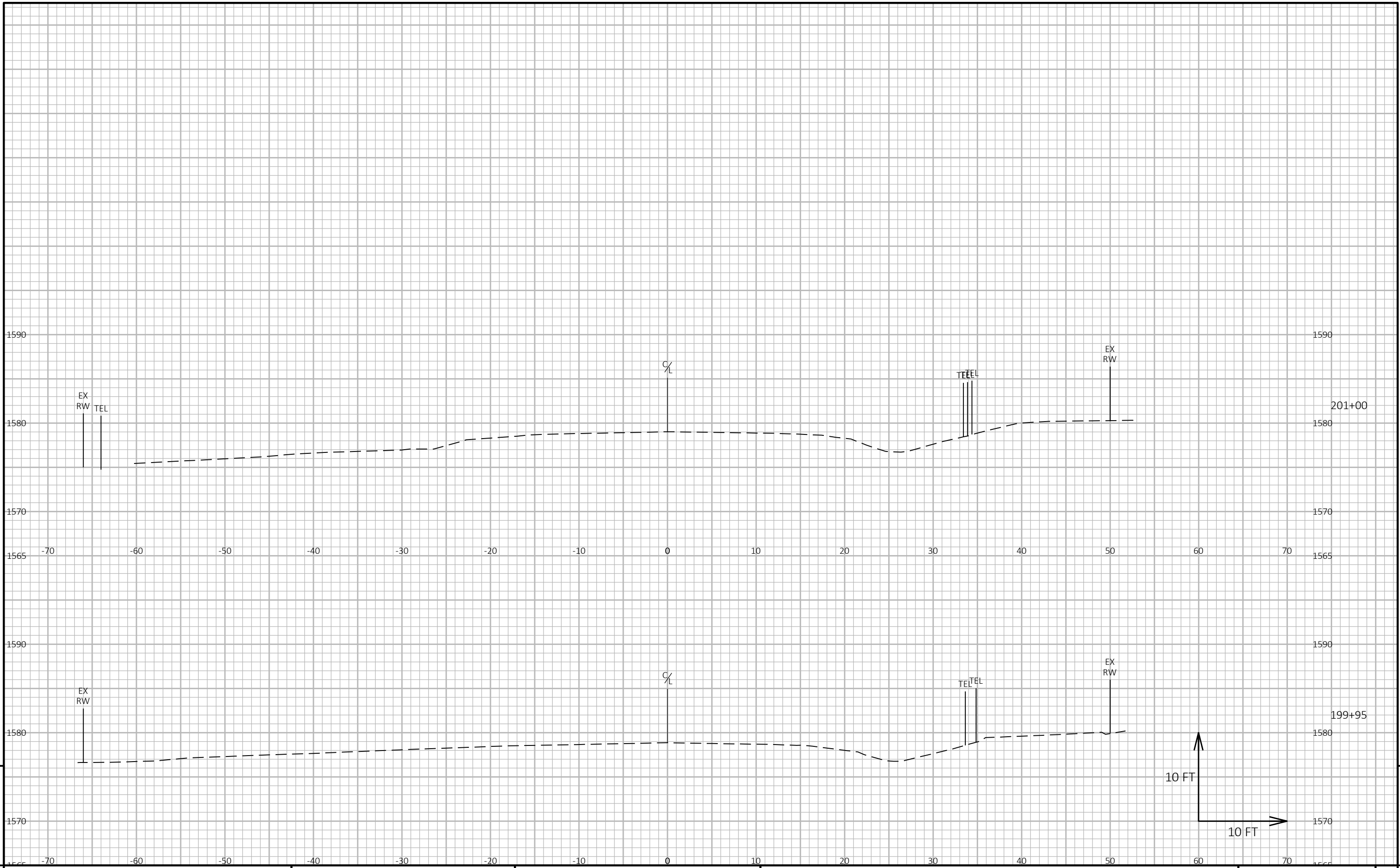
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 35	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090205-XS.DWG
 PLOT DATE : 8/25/2022 3:22 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

LAYOUT NAME - 03



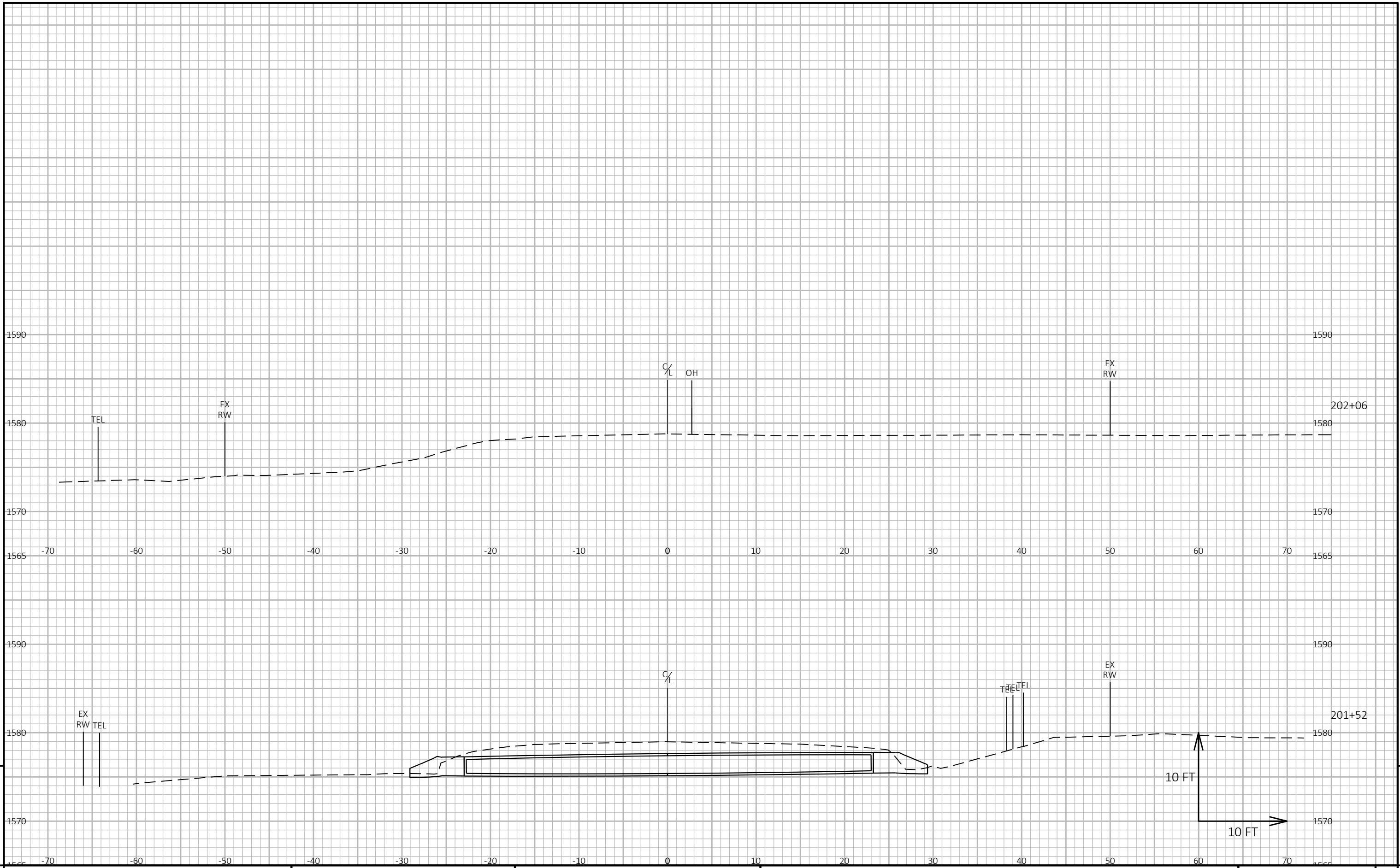
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 39	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETS\PLAN\090206-XS.DWG PLOT DATE : 8/25/2022 3:26 PM PLOT BY : CLEGG, HEATHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 01



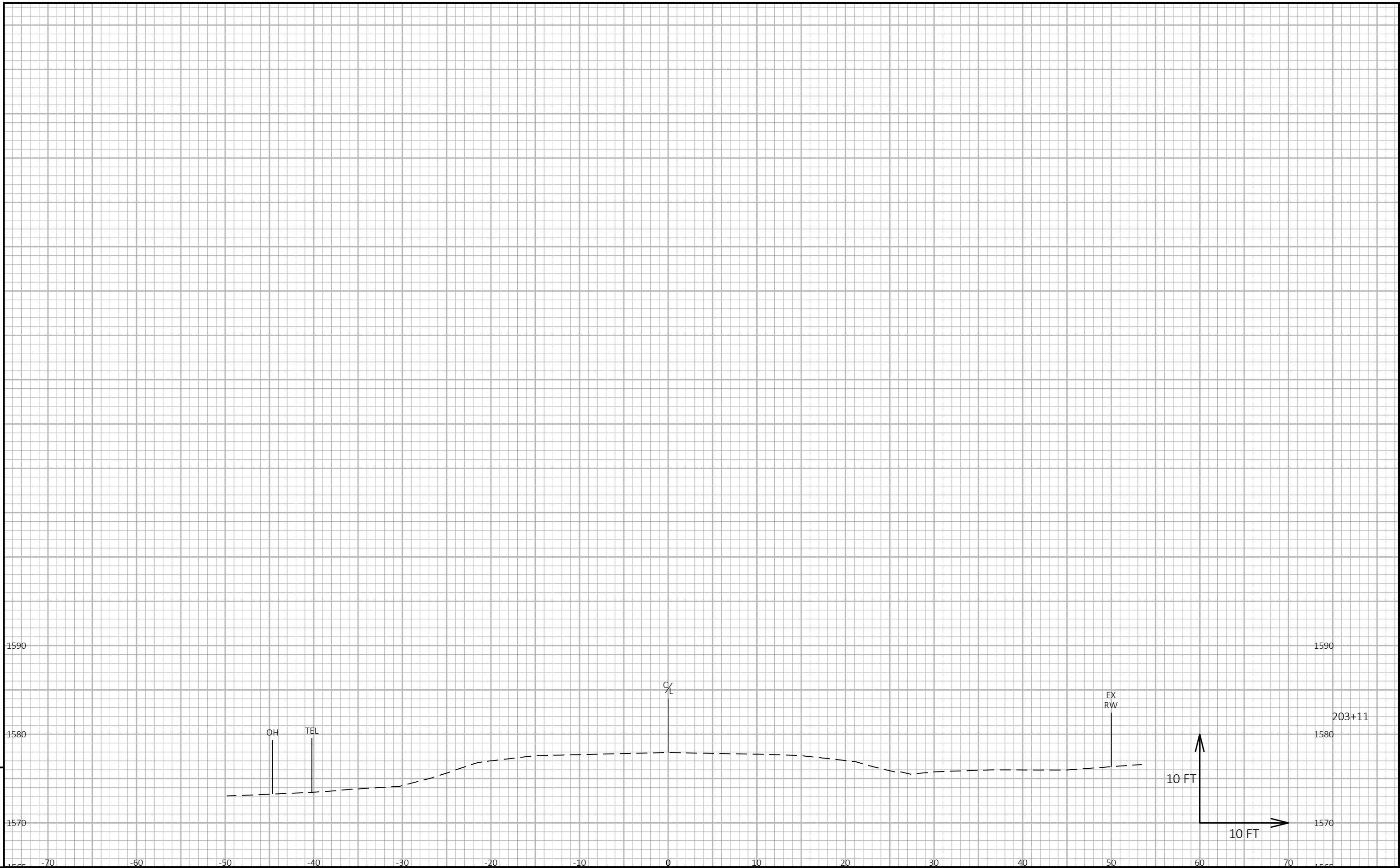
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 39	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090206-XS.DWG PLOT DATE : 8/25/2022 3:26 PM PLOT BY : CLEGG, HEATHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02

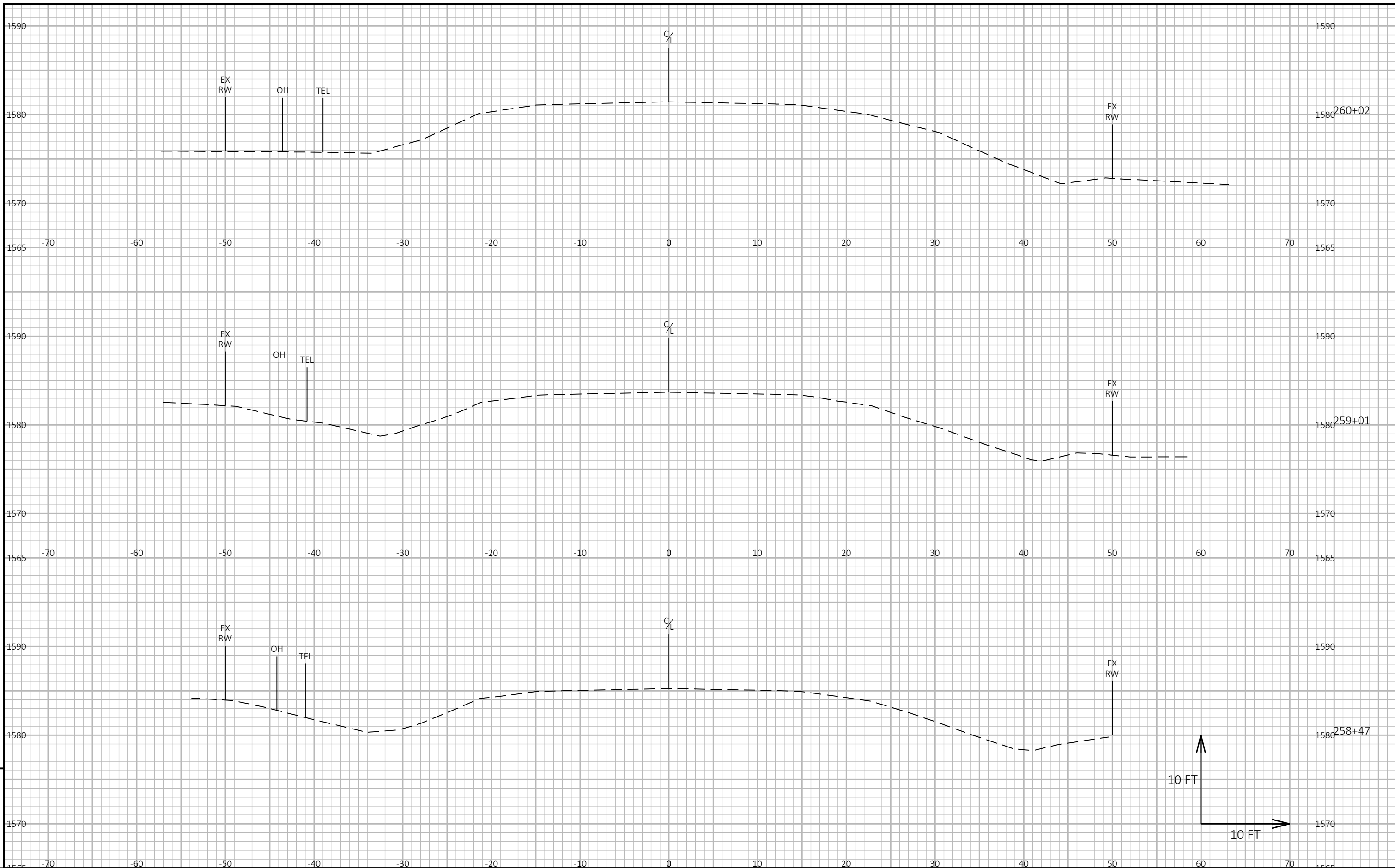


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 39	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090206-XS.DWG
 LAYOUT NAME - 03
 PLOT DATE : 8/25/2022 3:26 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

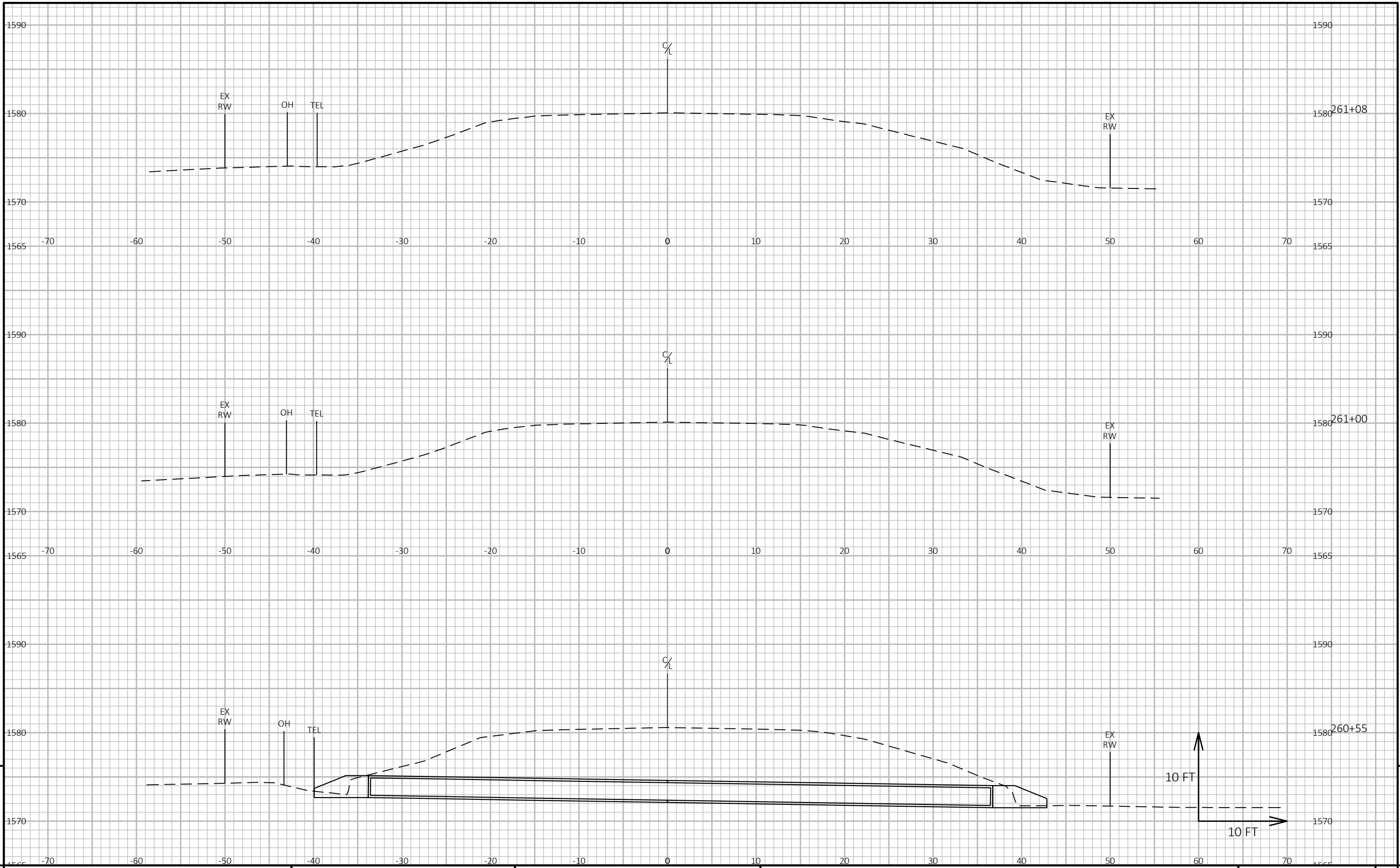


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 42	SHEET E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090207-XS.DWG
 PLOT DATE : 8/25/2022 3:30 PM
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 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



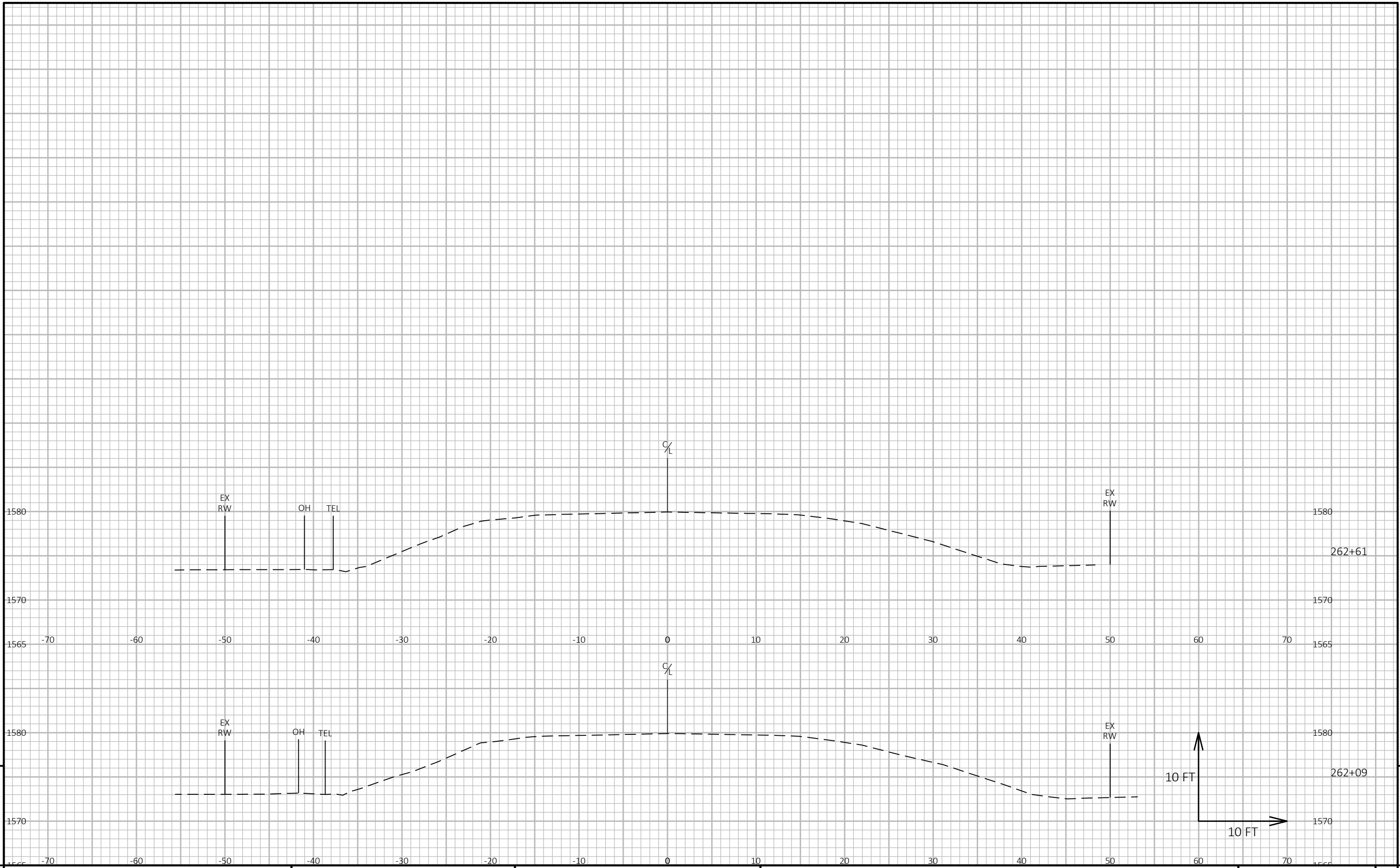
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 42	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090207-XS.DWG PLOT DATE : 8/25/2022 3:30 PM PLOT BY : CLEGG, HEATHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02

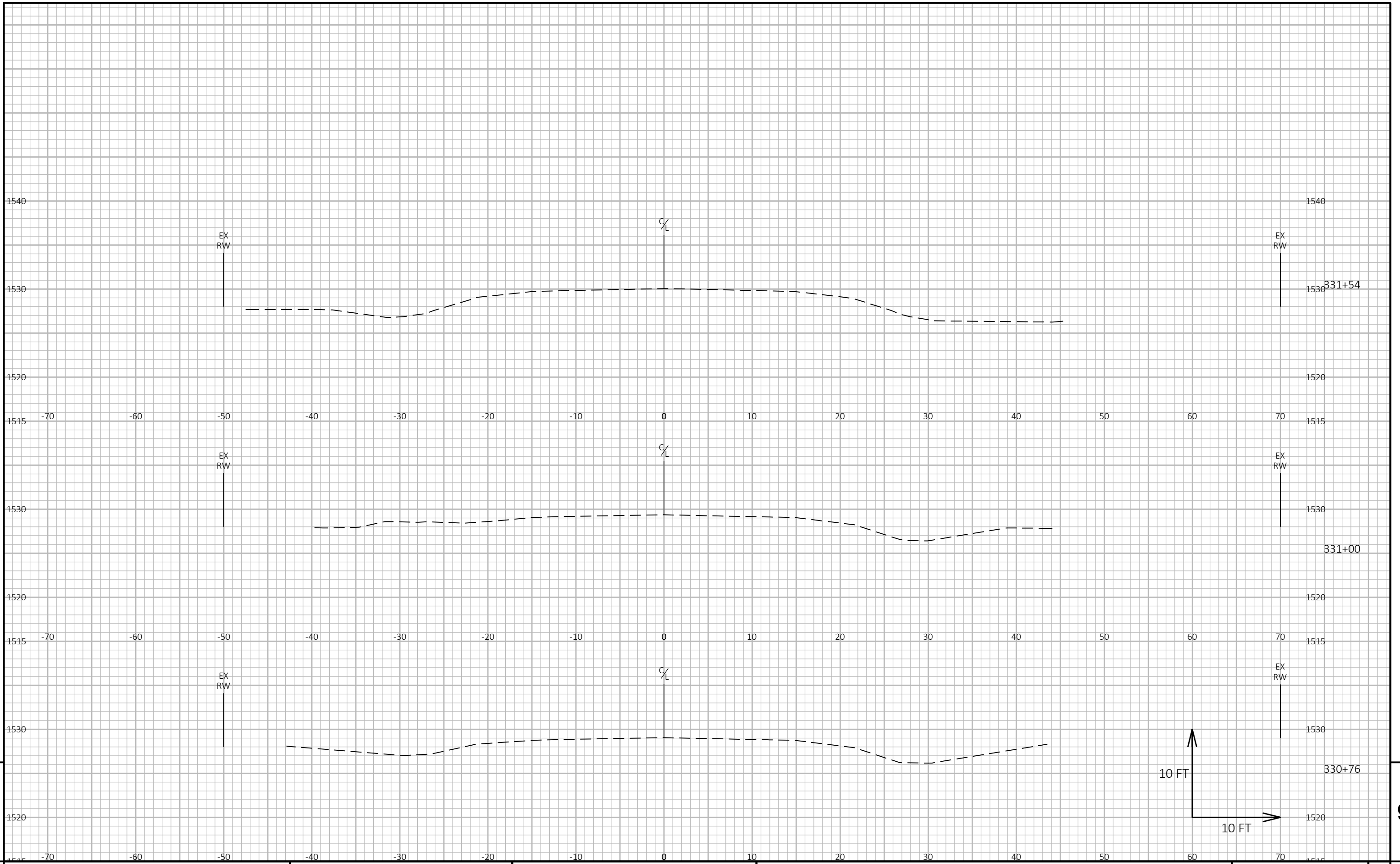


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 42	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090207-XS.DWG
 PLOT DATE : 8/25/2022 3:31 PM
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 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



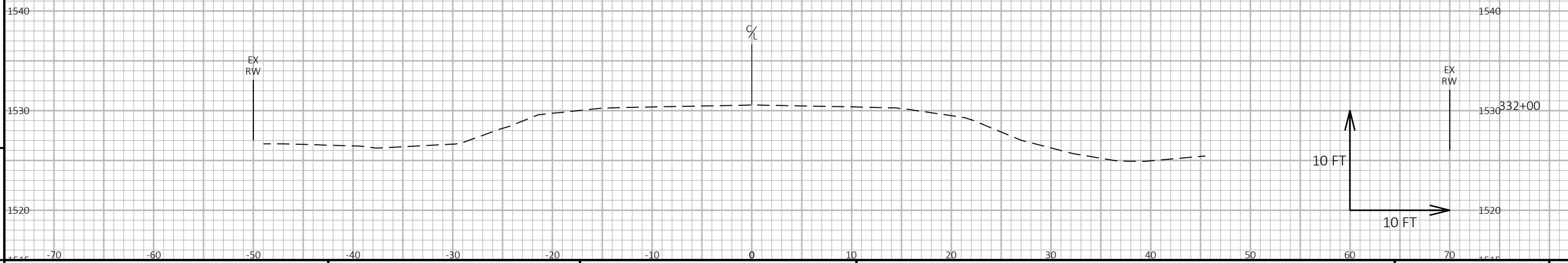
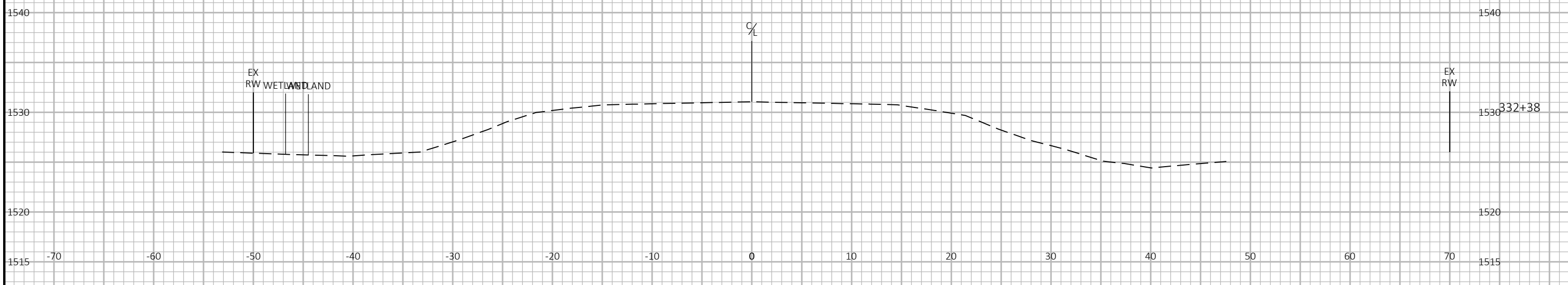
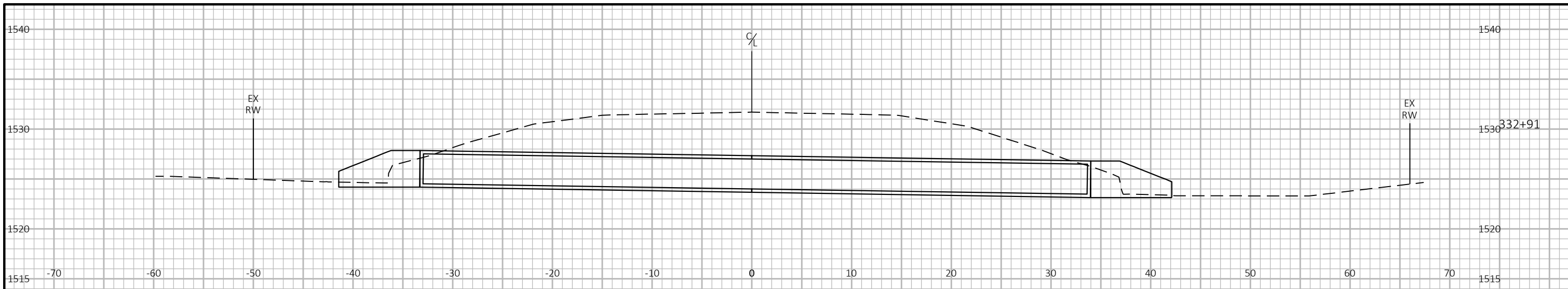
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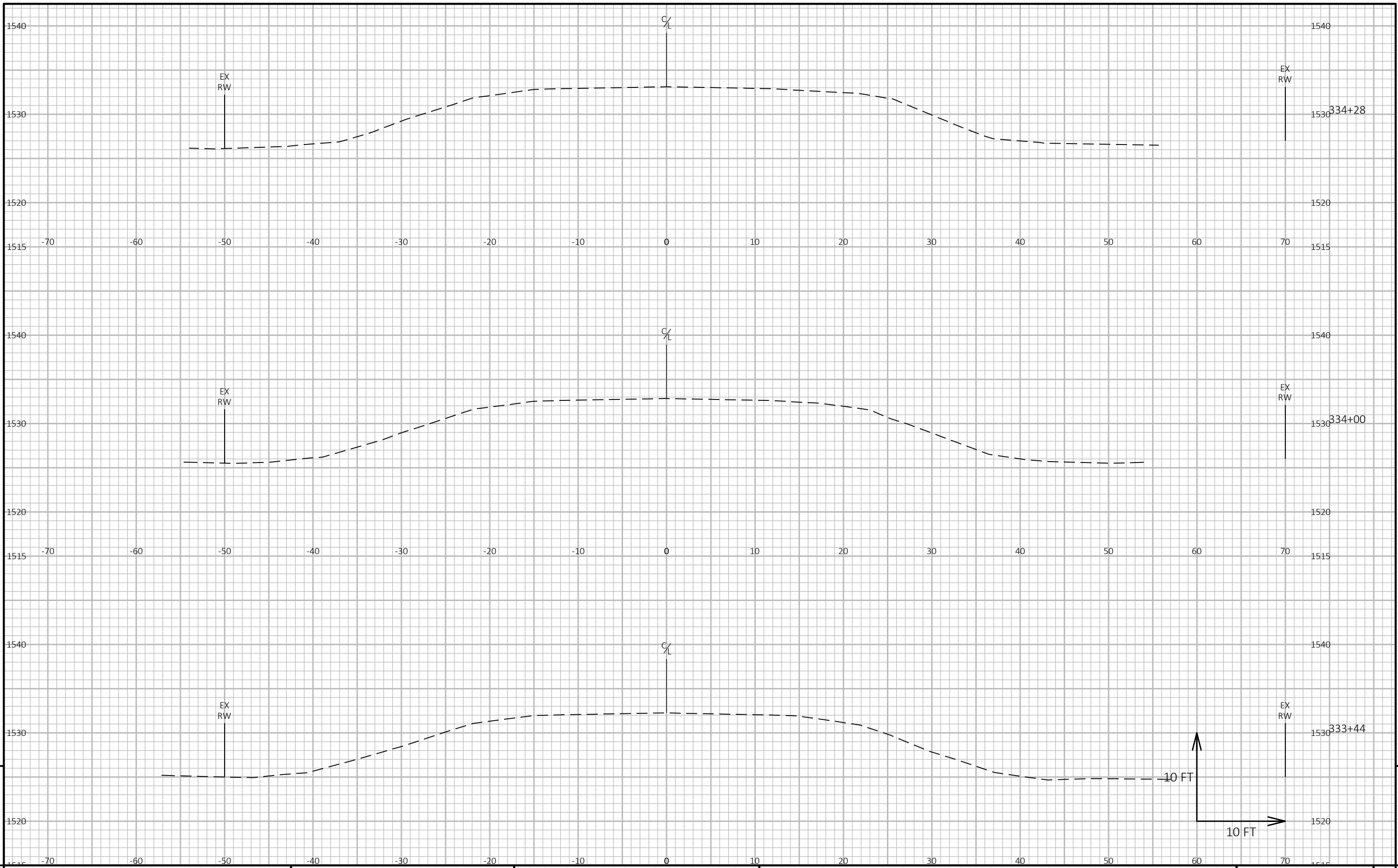
PROJECT NO: 9100-05-71 HWY: STH 70 COUNTY: FLORENCE CROSS SECTIONS: CULVERT 47 SHEET E

FILE NAME: Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090208-XS.DWG PLOT DATE: 8/25/2022 3:35 PM PLOT BY: CLEGG, HEATHER PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 01



PROJECT NO: 9100-05-71 HWY: STH 70 COUNTY: FLORENCE CROSS SECTIONS: CULVERT 47 SHEET 9

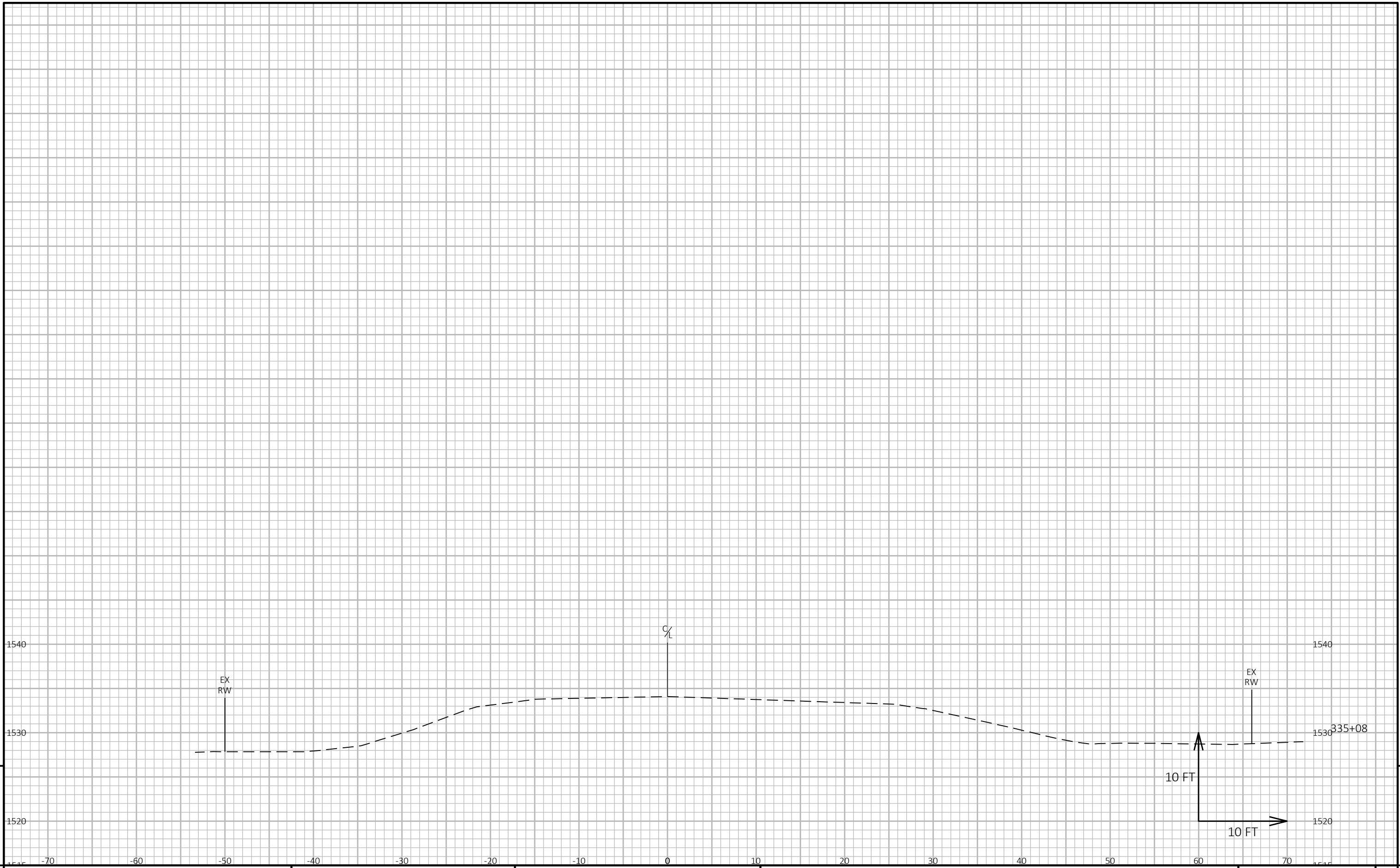


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 47	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090208-XS.DWG
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 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

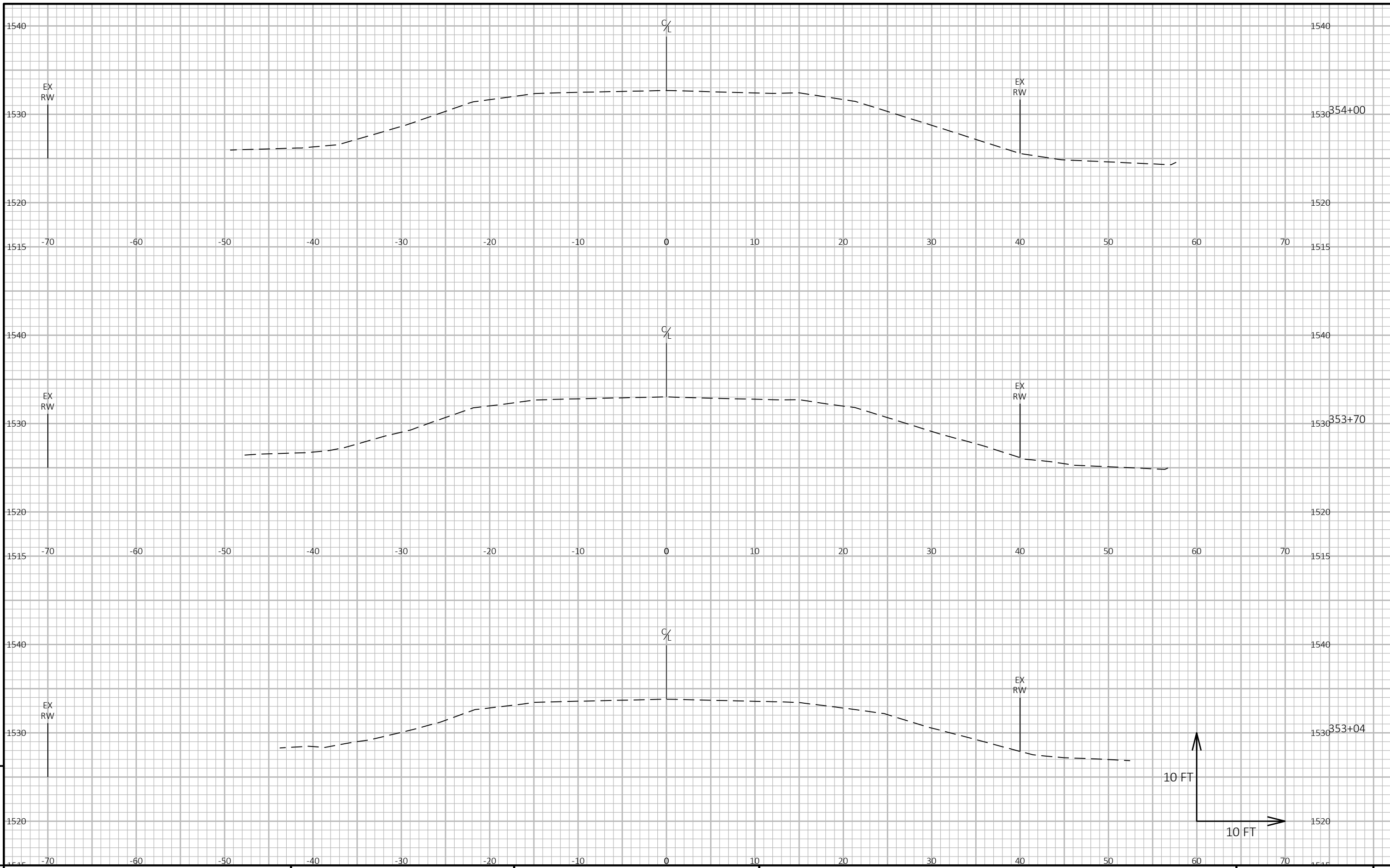


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 47	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090208-XS.DWG
 PLOT DATE : 8/25/2022 3:36 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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PROJECT NO: 9100-05-71

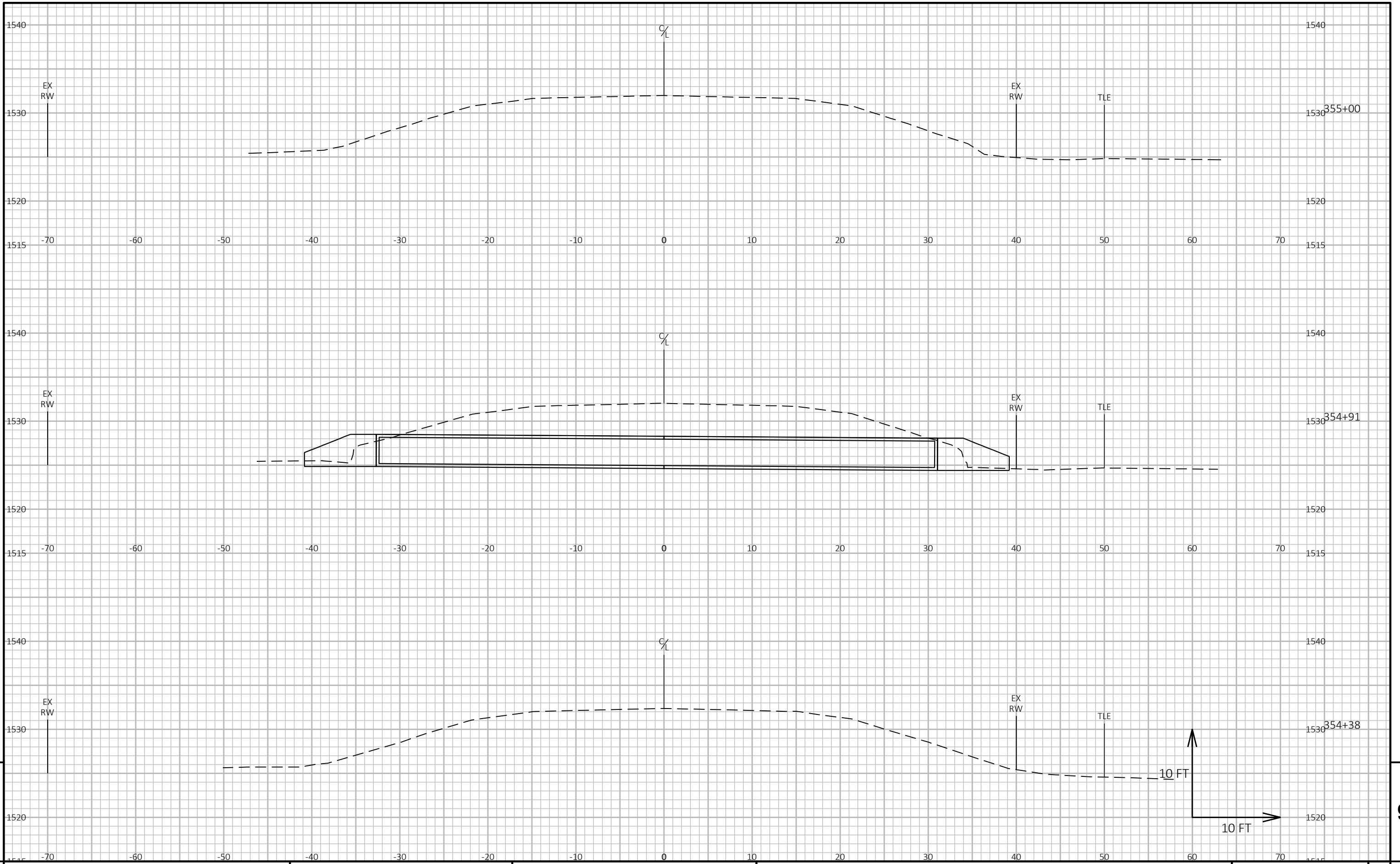
HWY: STH 70

COUNTY: FLORENCE

CROSS SECTIONS: CULVERT 48

SHEET

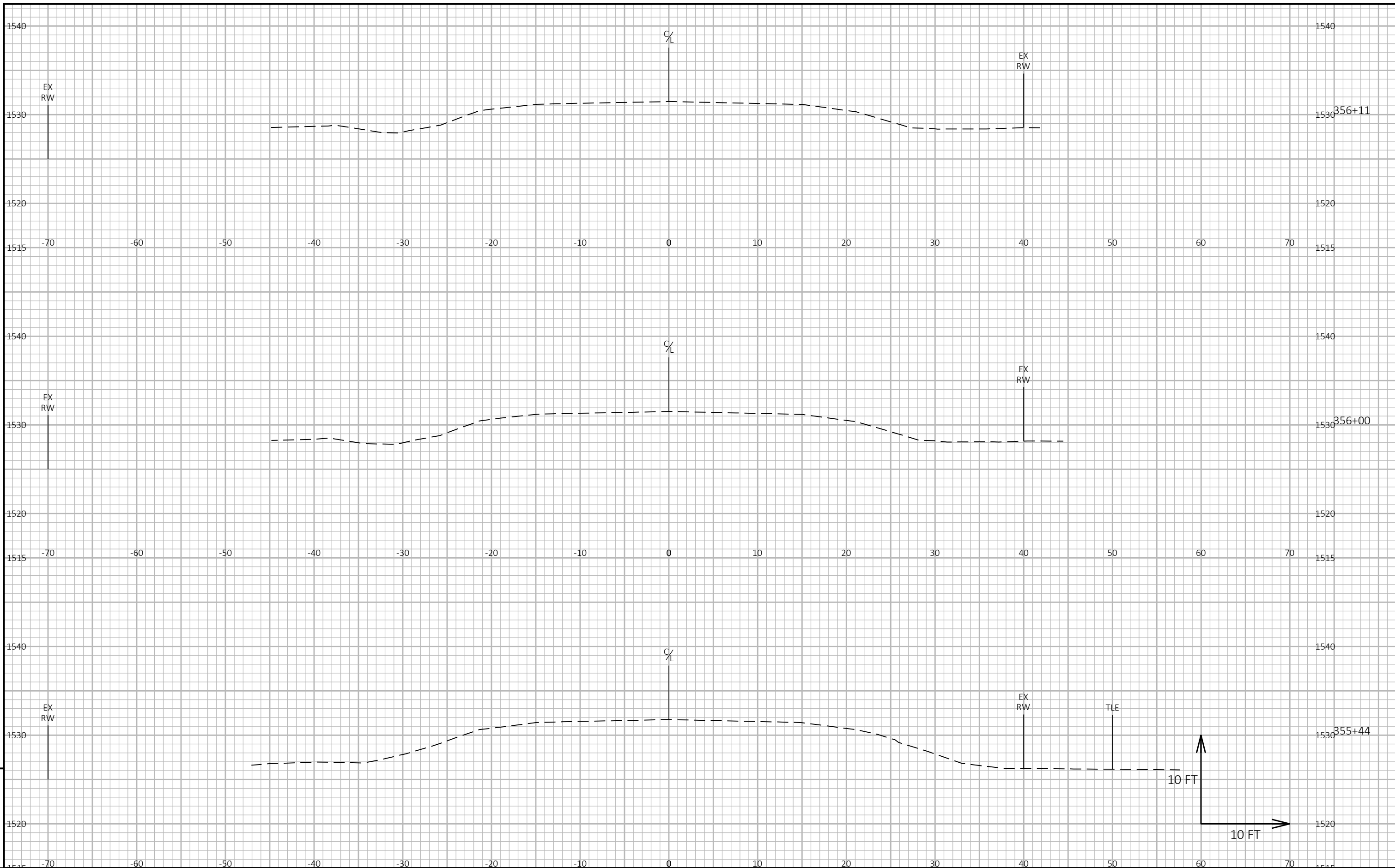
E



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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 48	SHEET E
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PROJECT NO: 9100-05-71

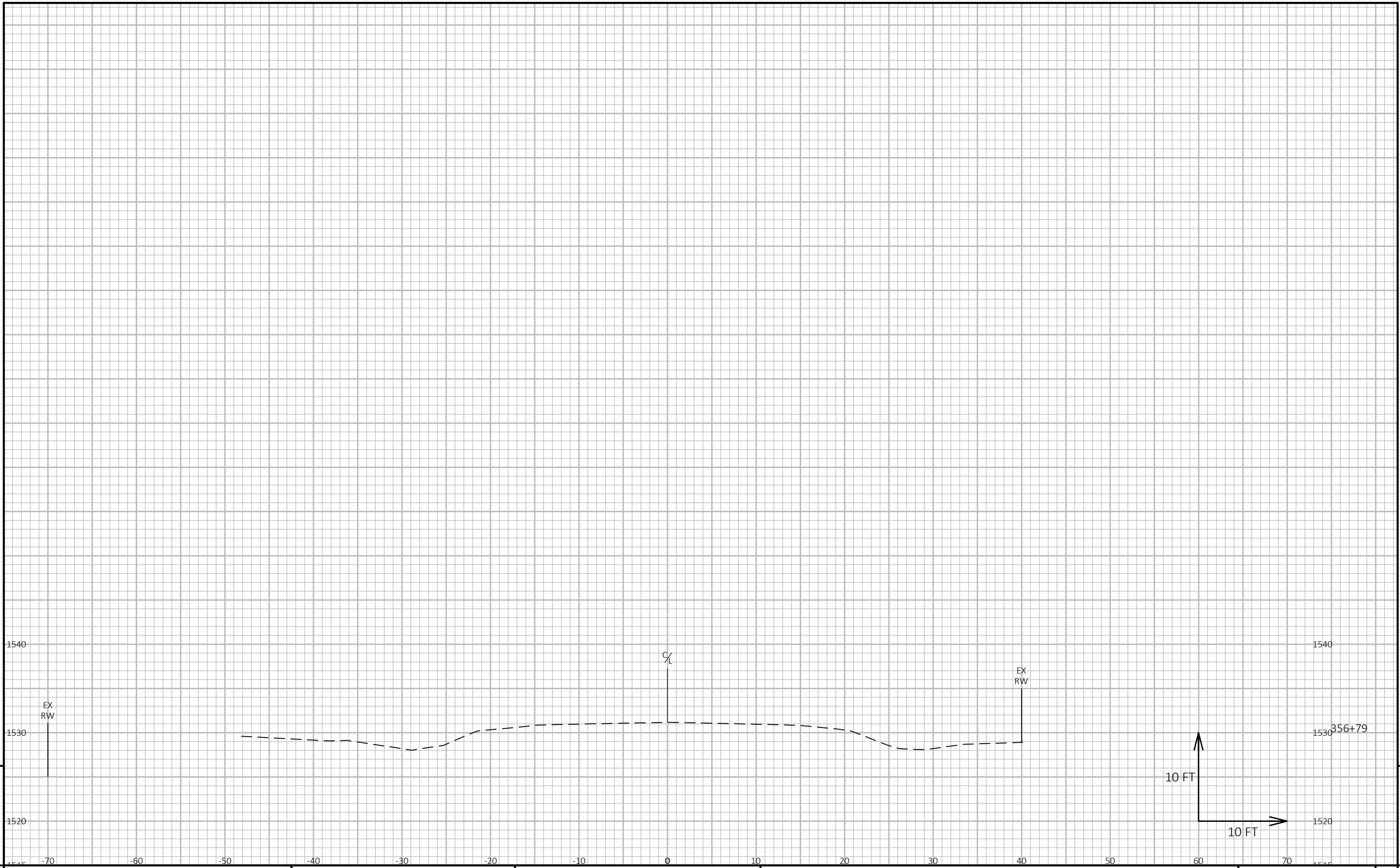
HWY: STH 70

COUNTY: FLORENCE

CROSS SECTIONS: CULVERT 48

SHEET

E



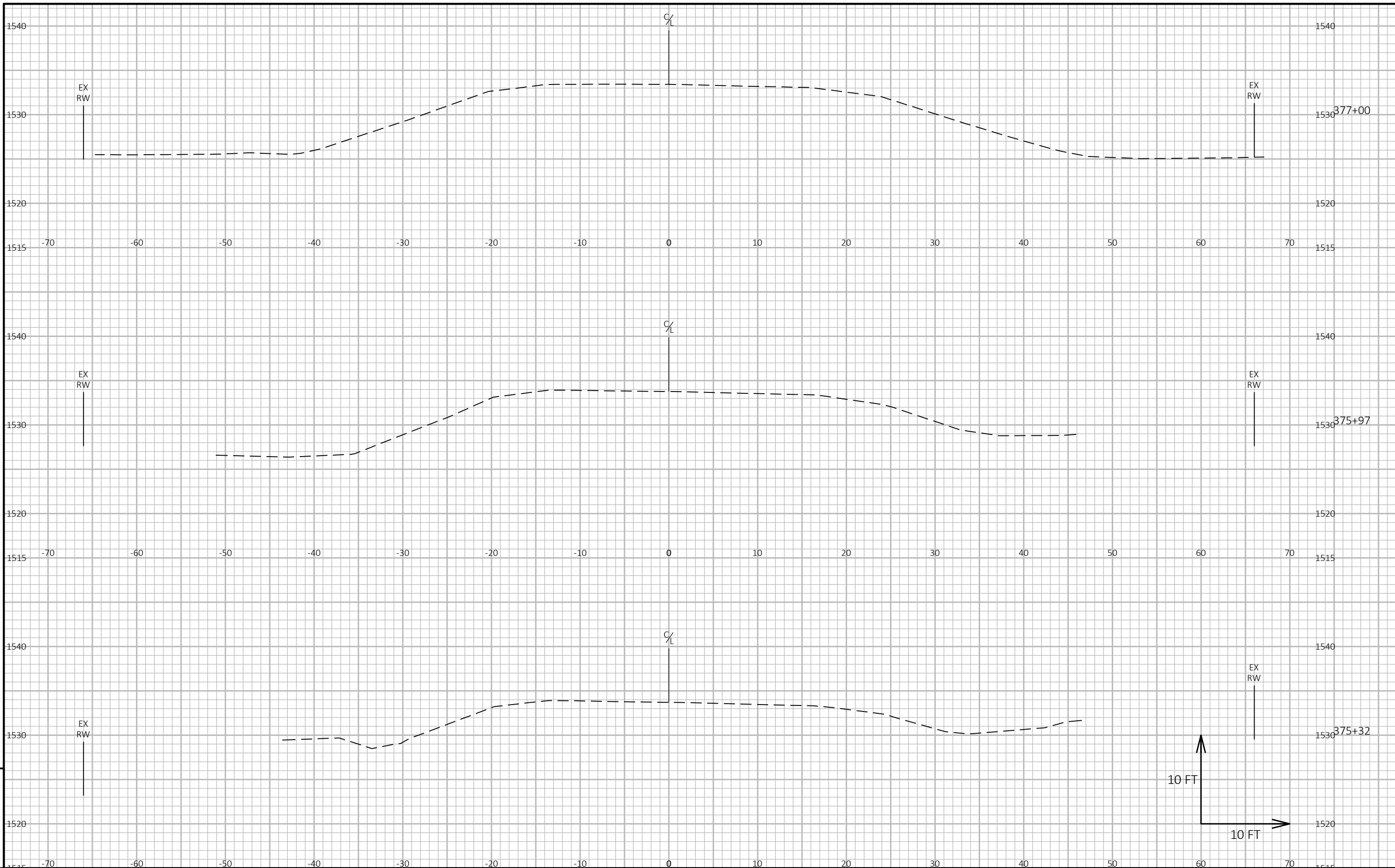
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 48	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090209-XS.DWG PLOT DATE : 8/25/2022 3:41 PM PLOT BY : CLEGG, HEATHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 04



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PROJECT NO: 9100-05-71

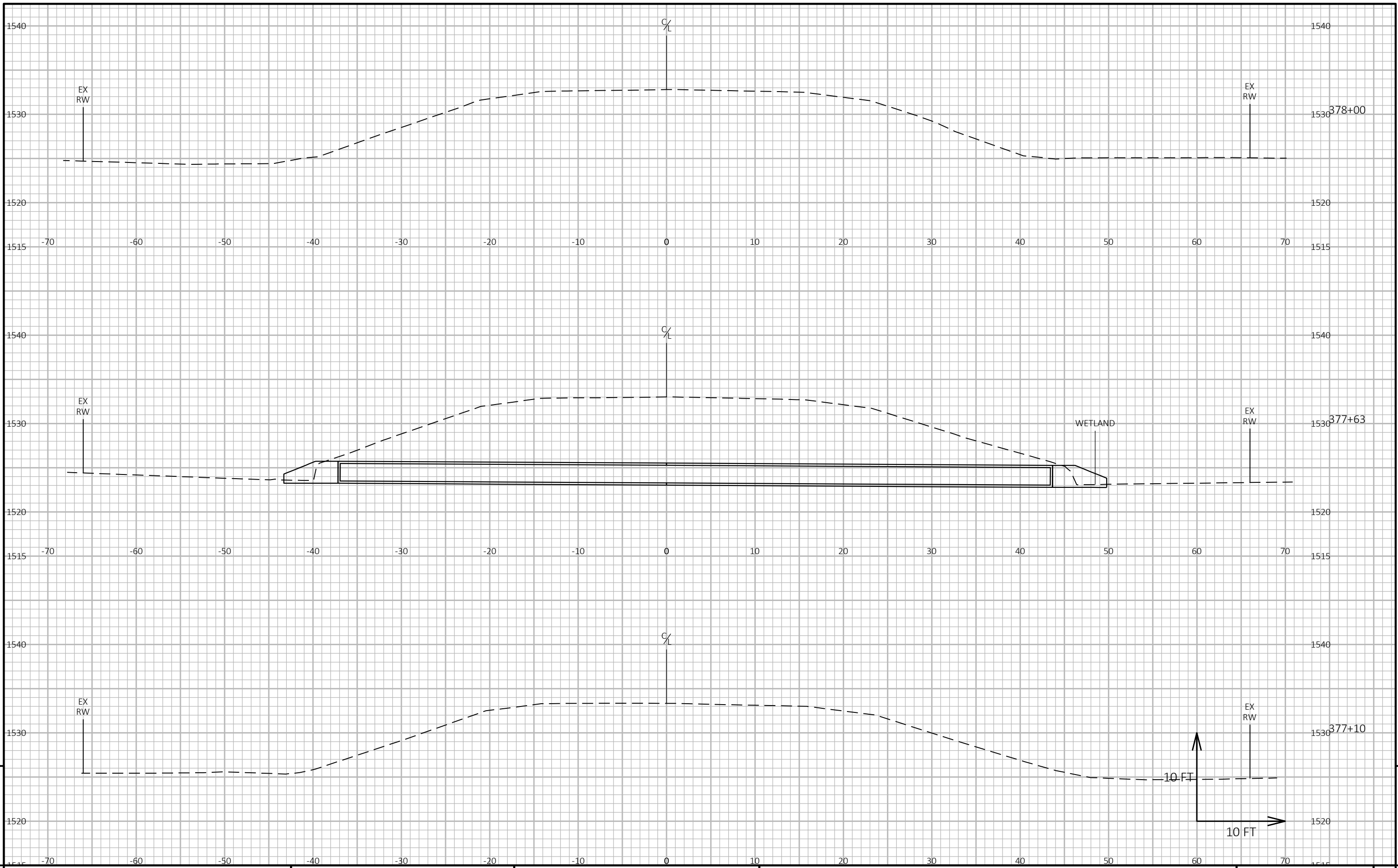
HWY: STH 70

COUNTY: FLORENCE

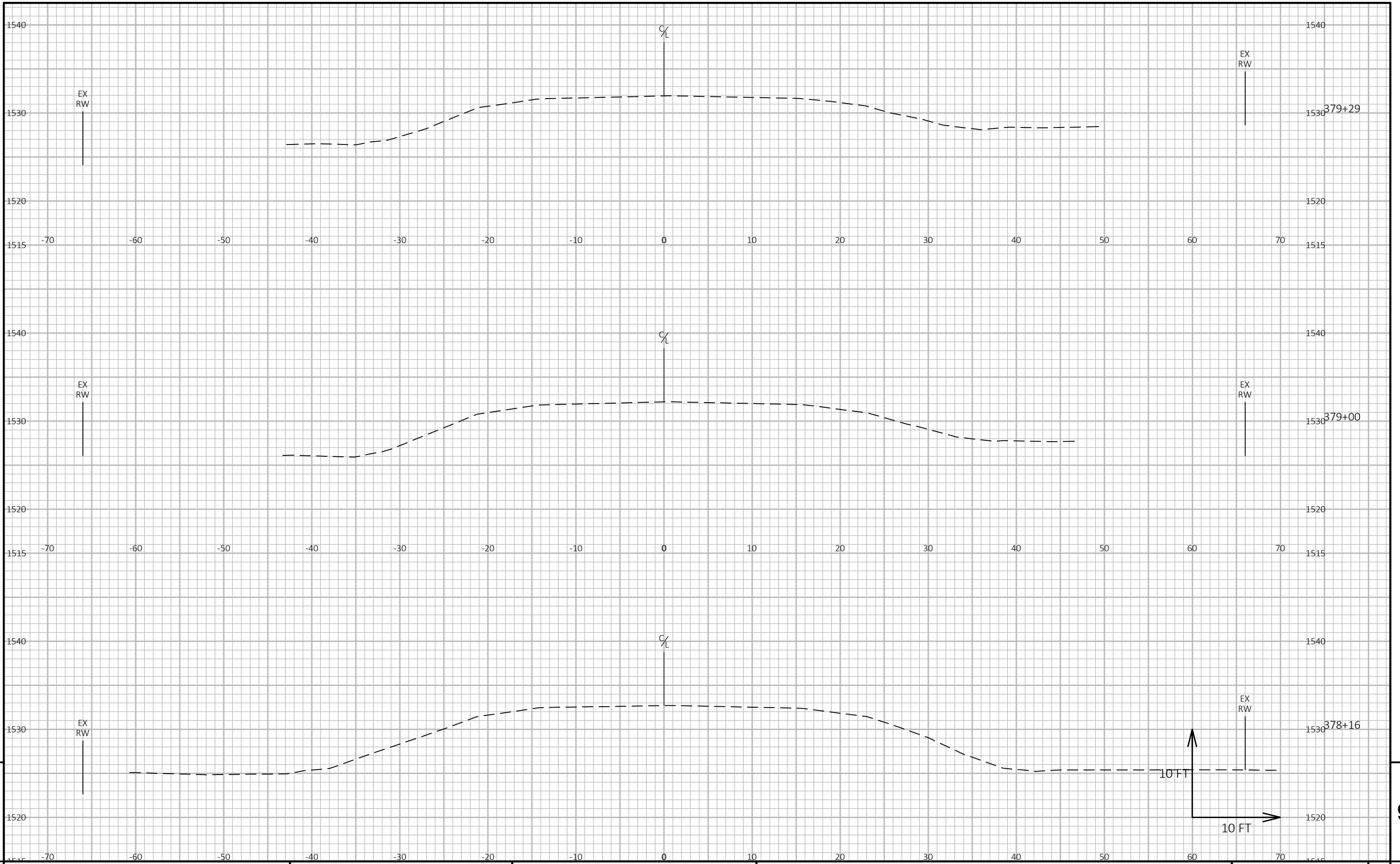
CROSS SECTIONS: CULVERT 50

SHEET

E



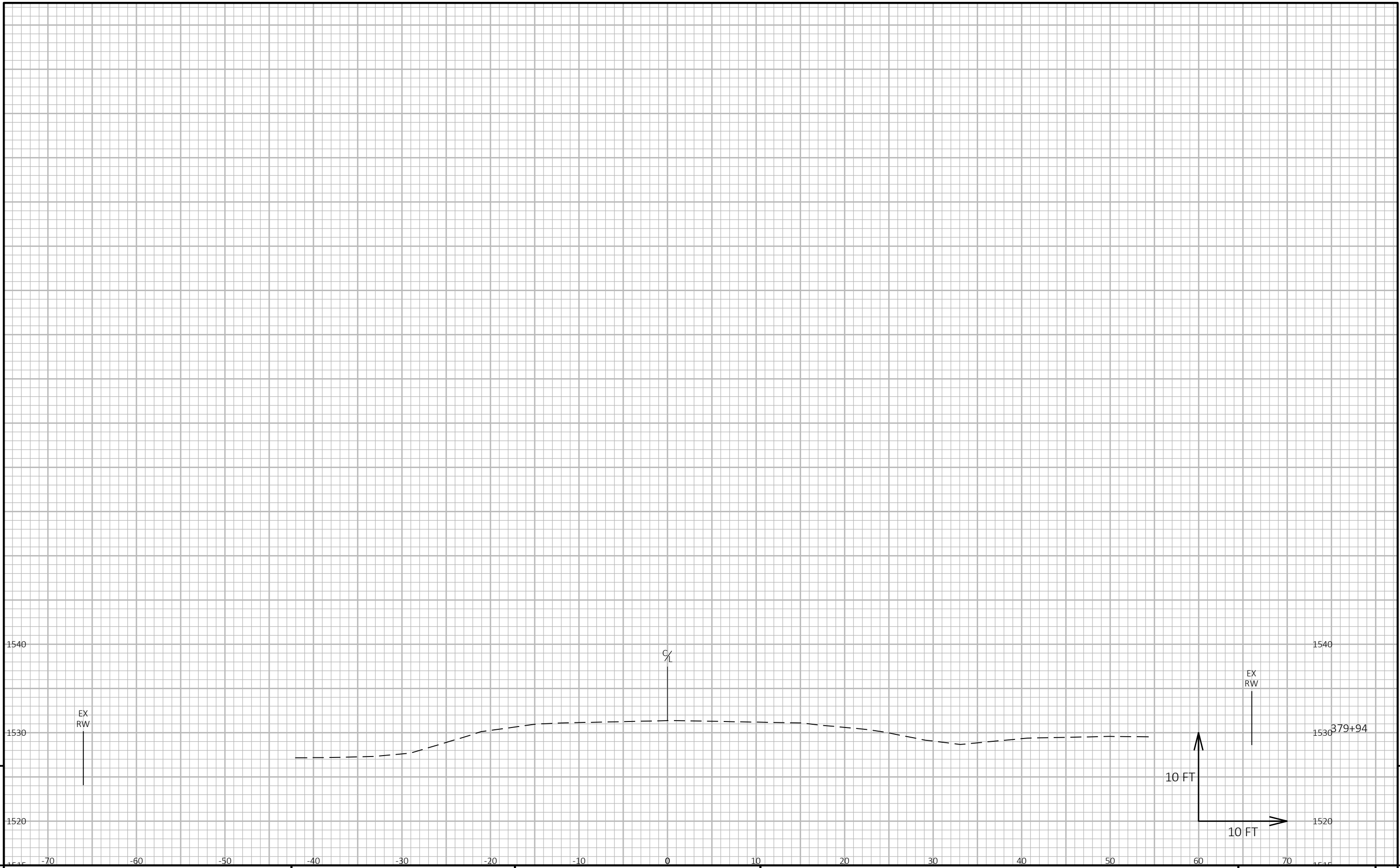
PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 50	SHEET	E
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 50	SHEET	E
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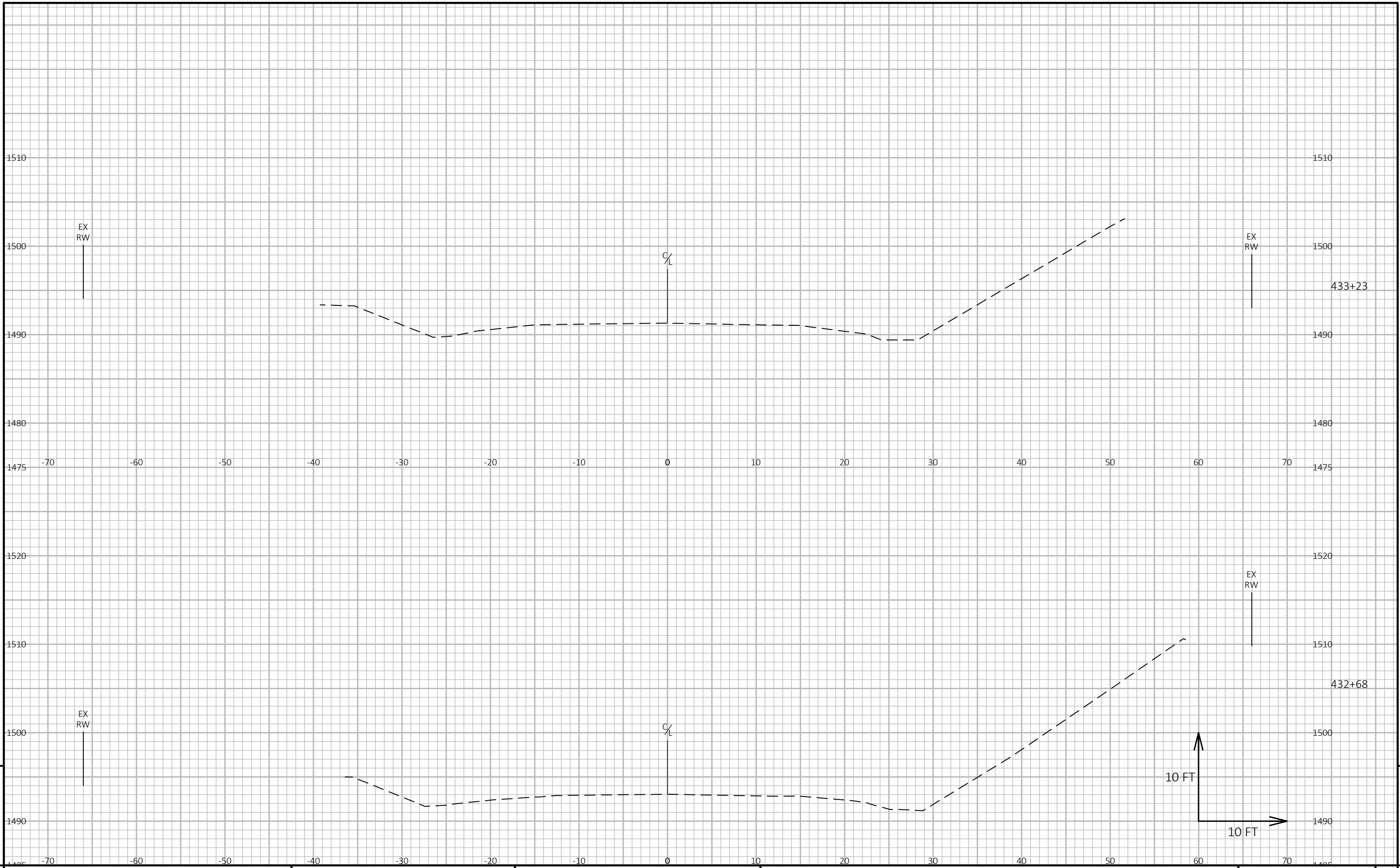
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 50	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090210-XS.DWG
 PLOT DATE : 8/25/2022 3:49 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

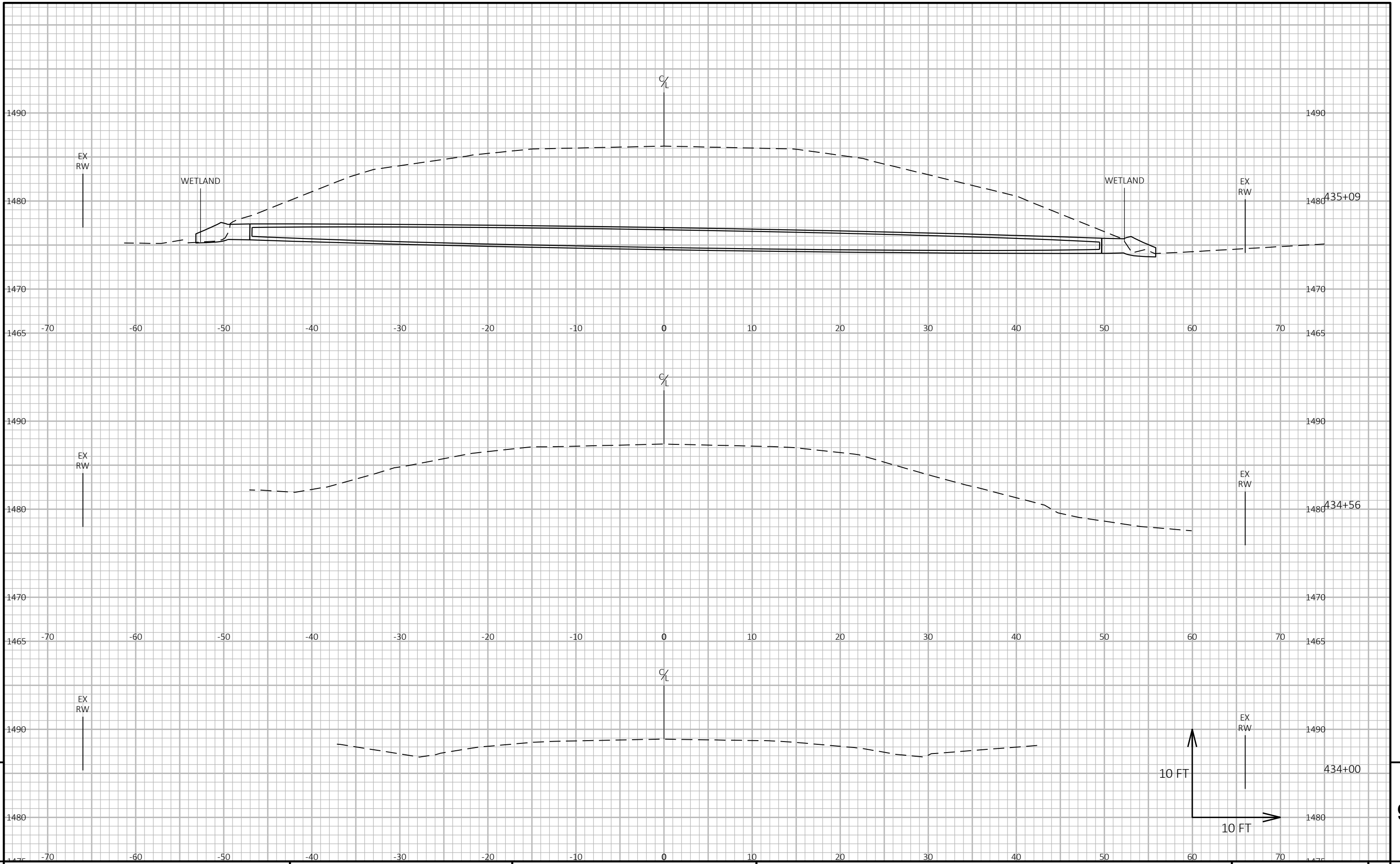
LAYOUT NAME - 04



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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 54	SHEET E
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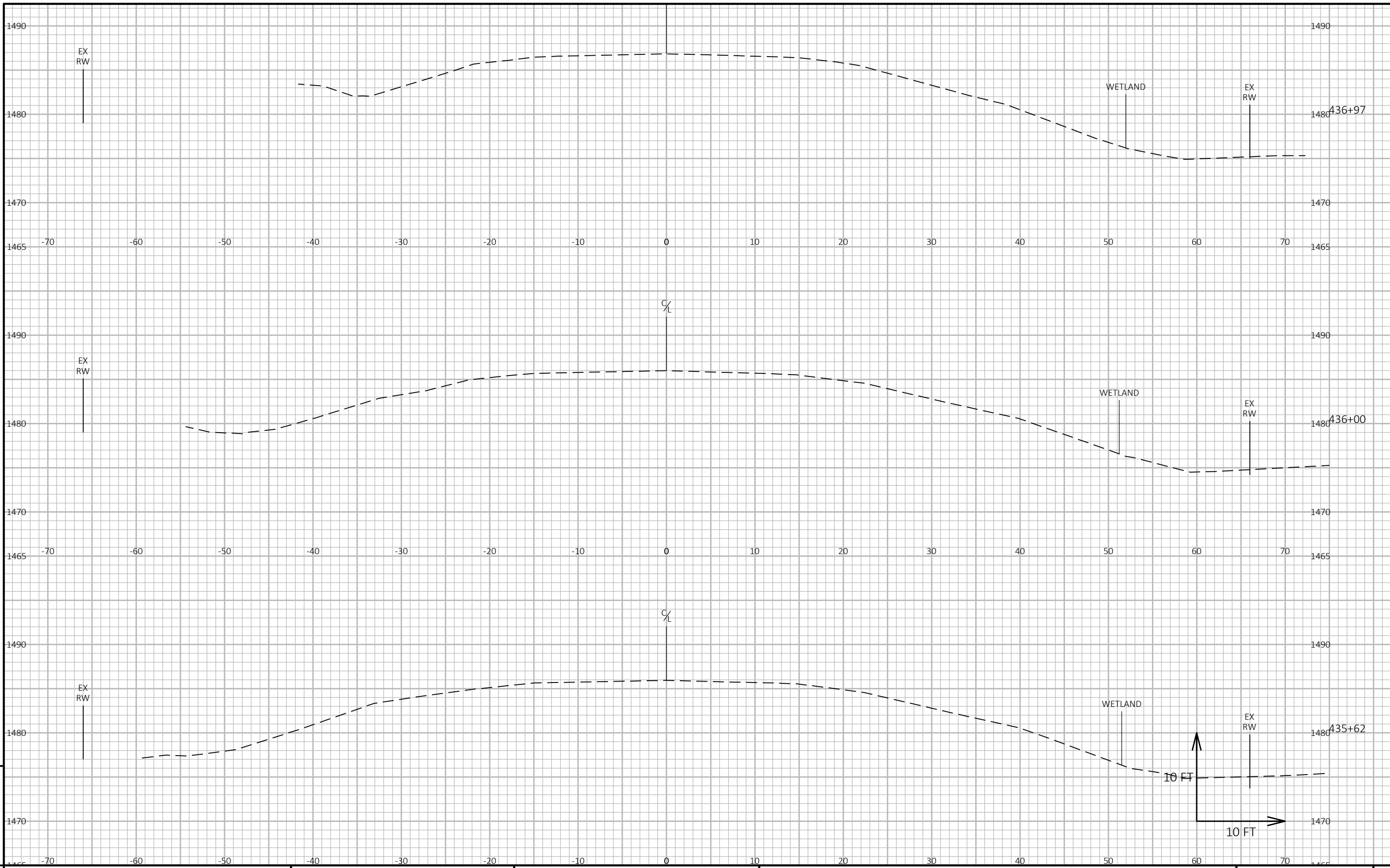
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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 54	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090211-XS.DWG PLOT DATE : 8/25/2022 3:58 PM PLOT BY : CLEGG, HEATHER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 02

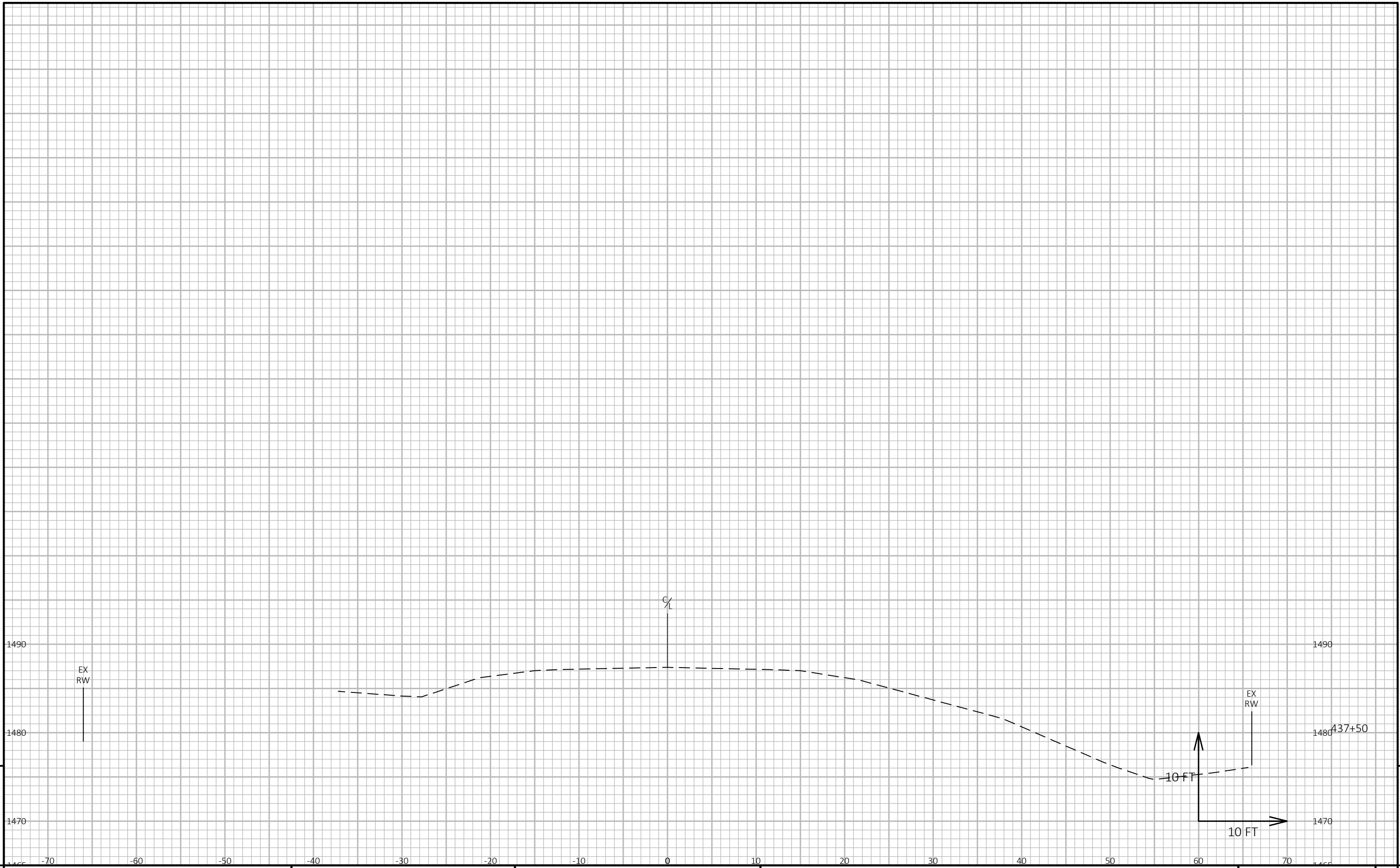


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 54	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090211-XS.DWG
 PLOT DATE : 8/25/2022 3:58 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49

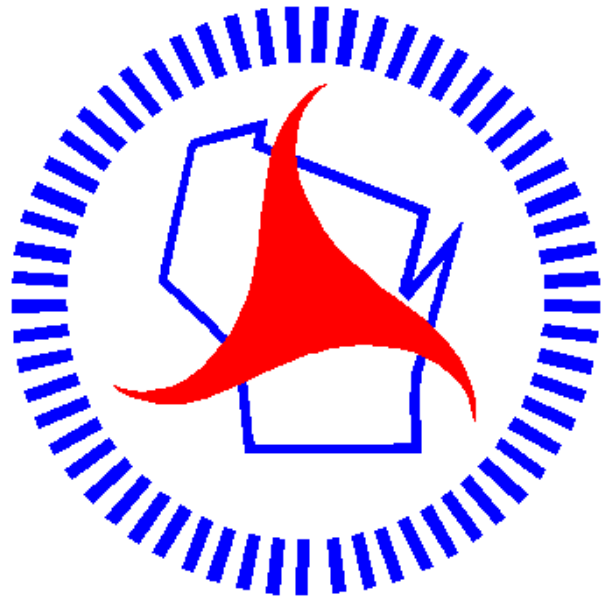


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PROJECT NO: 9100-05-71	HWY: STH 70	COUNTY: FLORENCE	CROSS SECTIONS: CULVERT 54	SHEET	E
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FILE NAME : Y:\MILWAUKEE\202005\20295.00\ENG_DOCS\9100-05-01-71\9100050171\SHEETSPLAN\090211-XS.DWG
 PLOT DATE : 8/25/2022 3:59 PM
 PLOT BY : CLEGG, HEATHER
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



Wisconsin Department of Transportation

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<http://www.dot.wisconsin.gov>