

GRE JANUARY 2024
 PROJECT ID: 4516-10-71
 WITH: N/A
 COUNTY: BROWN

ORDER OF SHEETS

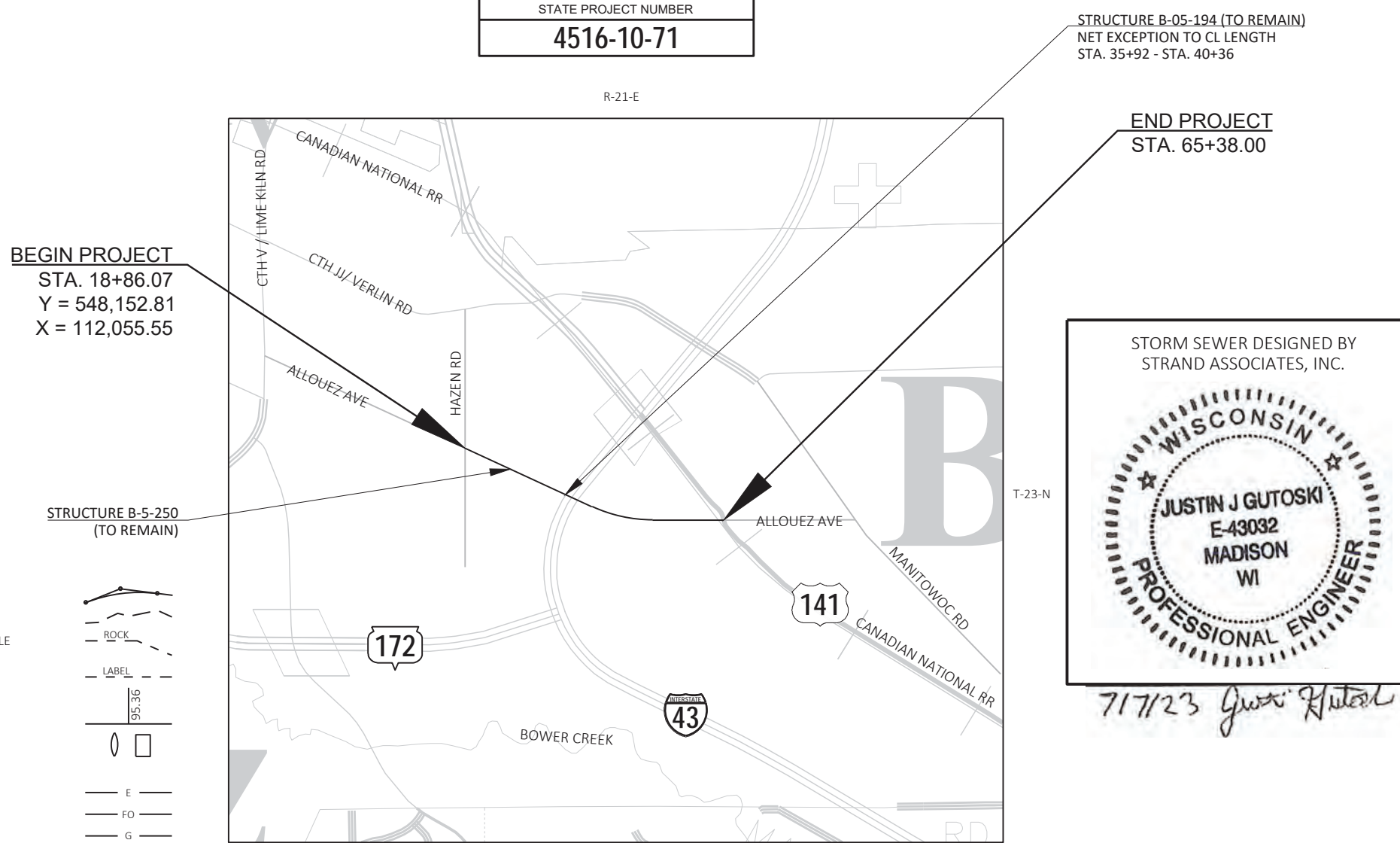
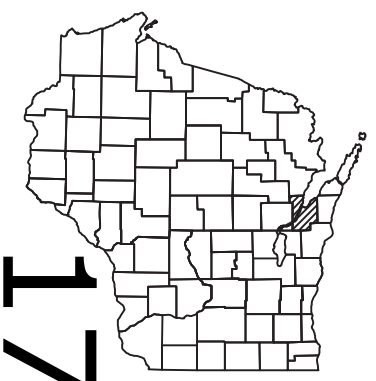
Section No.	Title
1	Title
2	Typical Sections and Details (Includes Erosion Control Sheets)
3	Estimate of Quantities
3	Miscellaneous Quantities
4	Right of Way Plat
5	Plan and Profile
6	Standard Detail Drawings
7	Sign Plates
8	Structure Plans
9	Computer Earthwork Data
9	Cross Sections

TOTAL SHEETS = 256

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PLAN OF PROPOSED IMPROVEMENT
 V BELLEVUE, ALLOUEZ AVENUE
 HAZEN ROAD TO USH 141
 LOCAL STREET
 BROWN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4516-10-71	WISC 2024123	1

STATE PROJECT NUMBER
 4516-10-71



STRUCTURE B-05-194 (TO REMAIN)
 NET EXCEPTION TO CL LENGTH
 STA. 35+92 - STA. 40+36

END PROJECT
 STA. 65+38.00

BEGIN PROJECT
 STA. 18+86.07
 Y = 548,152.81
 X = 112,055.55

STRUCTURE B-5-250
 (TO REMAIN)

STORM SEWER DESIGNED BY
 STRAND ASSOCIATES, INC.

7/7/23 Justin Gutoski

ACCEPTED FOR
 VILLAGE OF BELLEVUE
 Date: 7/10/23
 Neal Spallman
 (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

WISCONSIN
 TERA R MEYER
 E-43318
 MADISON
 WI
 PROFESSIONAL ENGINEER
 DATE: 7/7/23
 Tera R Meyer
 (Professional Engineer Signature)

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

PREPARED BY	STRAND ASSOCIATES
Surveyor	STRAND ASSOCIATES
Designer	DOUG KIRST, P.E.
Project Manager	NORTHEAST REGION
Regional Examiner	BRIAN EDWARDS, P.E.
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
 DATE: 7/18/23
 Doug Kirst
 (Signature)

DESIGN DESIGNATION

A.A.D.T. (2024)	=	6000
A.A.D.T. (2044)	=	6600
D.H.V.	=	726
D.D.	=	59/41
T.	=	5.5%
DESIGN SPEED	=	40 MPH
ESALS	=	760,000

CONVENTIONAL SYMBOLS

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

GENERAL NOTES:

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

<u>UTILITY/MUNICIPALITY</u>	<u>CONTACT/ADDRESS</u>	<u>UTILITY TYPE</u>
AT&T WISCONSIN	VICTORIA KASSAB 205 S. JEFFERSON STREET GREEN BAY, WI 54301 (920) 433-4250 VK352K@ATT.COM	COMMUNICATIONS
LUMEN	THOMAS DINEEN 1025 ELDORADO BOULEVARD BROOMFIELD, CO 80021 (920) 748-2752 (OFFICE) (920) 246-7752 (MOBILE) RELOCATIONS@LUMEN.COM	COMMUNICATIONS
SPECTRUM	VINCE ALBIN 3520 DESTINATION DRIVE APPLETON, WI 54915 (920) 831-9249 VINCE.ALBIN@CHARTER.COM	COMMUNICATIONS
VILLAGE OF BELLEVUE	MIKE MAHLOCH 2828 ALLOUEZ AVENUE BELLEVUE, WI 54311 (920) 593-5503 MMAHLOCH@VILLAGEOFBELLEVUEWI.GOV	SEWER/WATER
WISCONSIN PUBLIC SERVICE CORPORATION	WENDY CHRIST 700 N ADAMS STREET P.O. BOX 19003 GREEN BAY, WI 54307 (920) 617-5173 UTILITIESRELOCATION@WISCONSINPUBLICSERVICE.COM	GAS/ELECTRIC

DIGGERS HOTLINE

 Dial **811** or (800)242-8511
www.DiggersHotline.com
 ** NOT A MEMBER OF DIGGERS HOTLINE

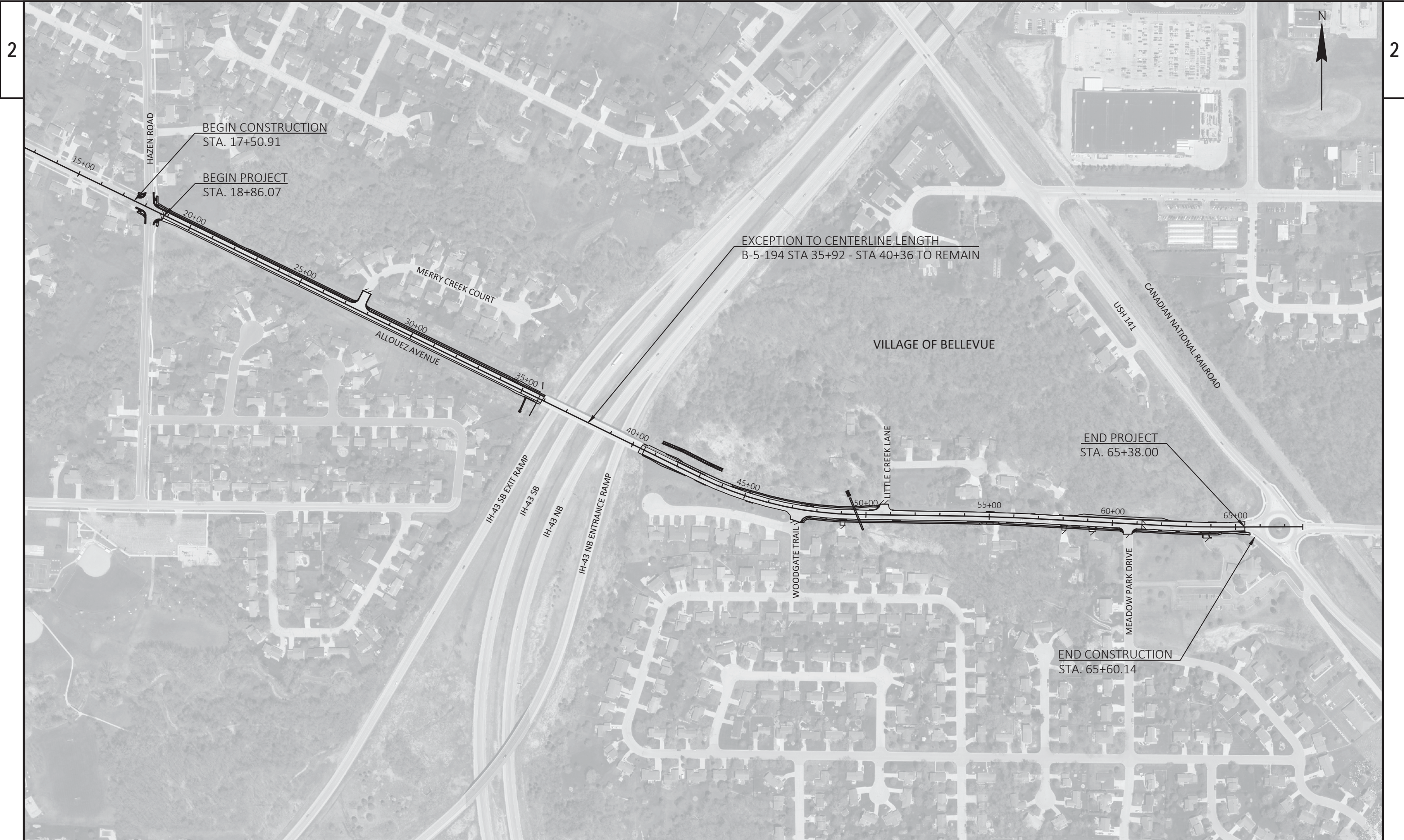
SECTION 2 ORDER OF SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- GUARDRAIL LAYOUT DETAILS
- PLAN DETAILS
- CURB RAMP DETAILS
- EROSION CONTROL
- STORM SEWER
- PAVEMENT MARKING & PERMANENT SIGNING
- DETOUR ROUTE
- PEDESTRIAN DETOUR
- ALIGNMENT DETAIL

OTHER CONTACTS

DNR LIAISON
 JAMES DOPERALSKI JR.
 CENTRAL REGION
 2984 SHAWANO AVENUE
 GREEN BAY, WI 54313
 (920) 412-0165
 JAMES.DOPERALSKI@WISCONSIN.GOV

PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	GENERAL NOTES	SHEET	E
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PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PROJECT OVERVIEW	SHEET	E
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FILE NAME : S:\MAD\5100-5199\5129\001\DRAWINGS\CAD\CIVIL 3D\SHEETS\PLAN\020201-PO.DWG
LAYOUT NAME - 020201-po

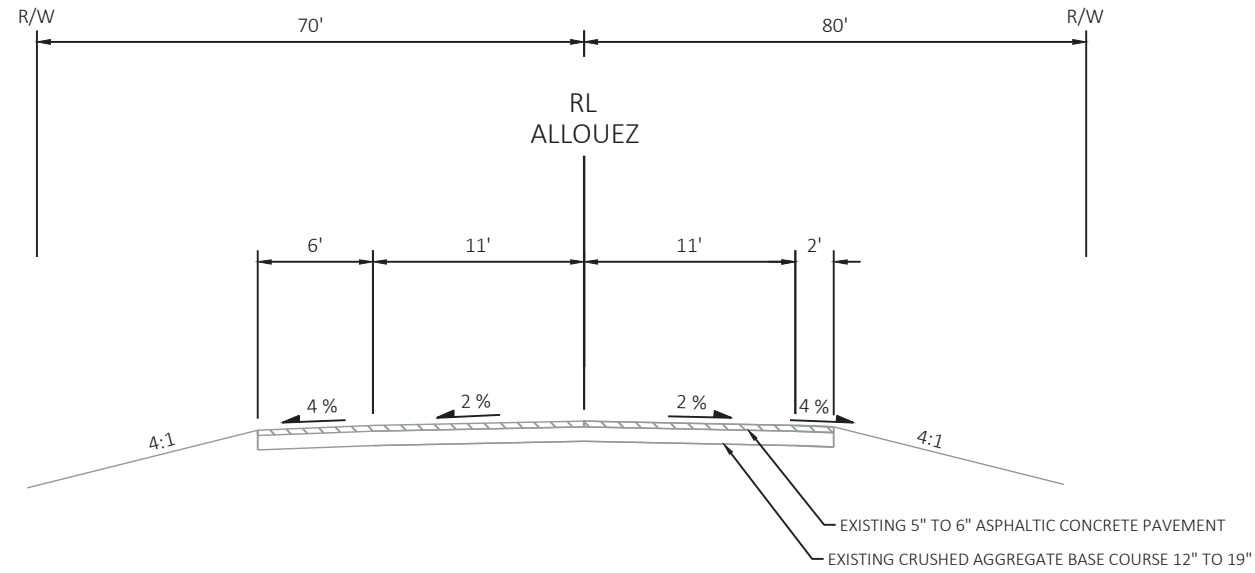
PLOT DATE : 7/14/2023 8:08 AM

PLOT BY : CARPENTER, ZACH

PLOT NAME :

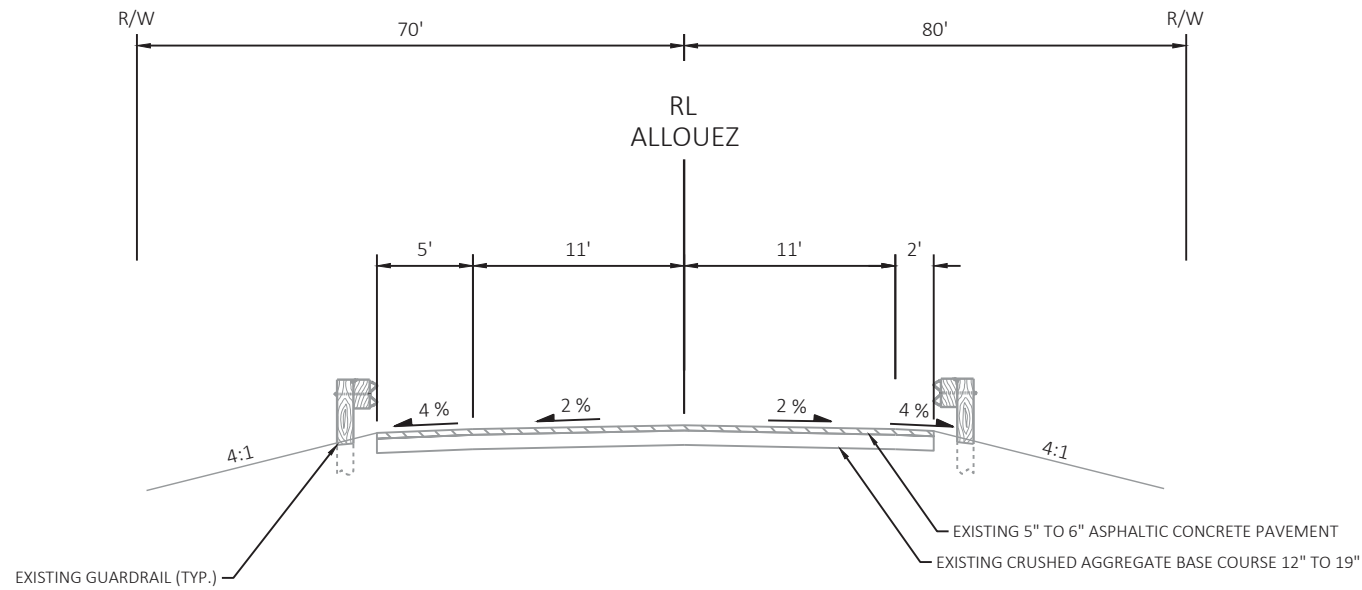
PLOT SCALE : 1 IN:350FT

WISDOT/CADDs SHEET 42



EXISTING TYPICAL SECTION

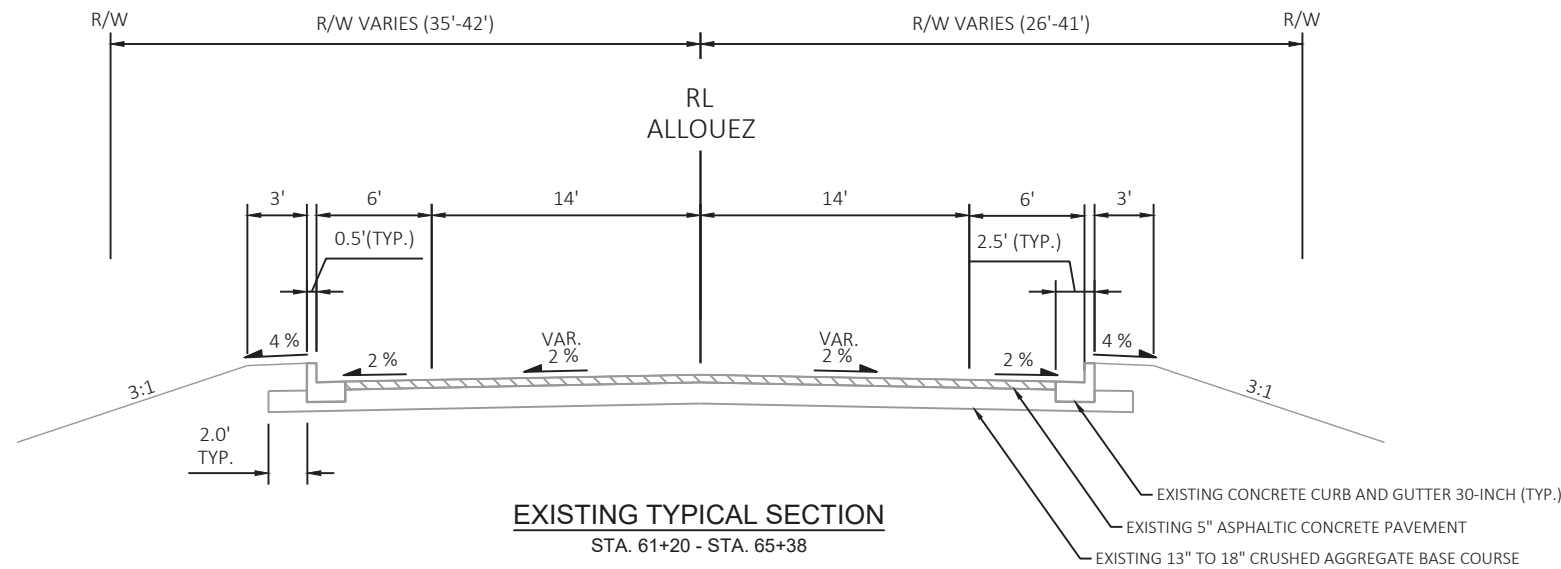
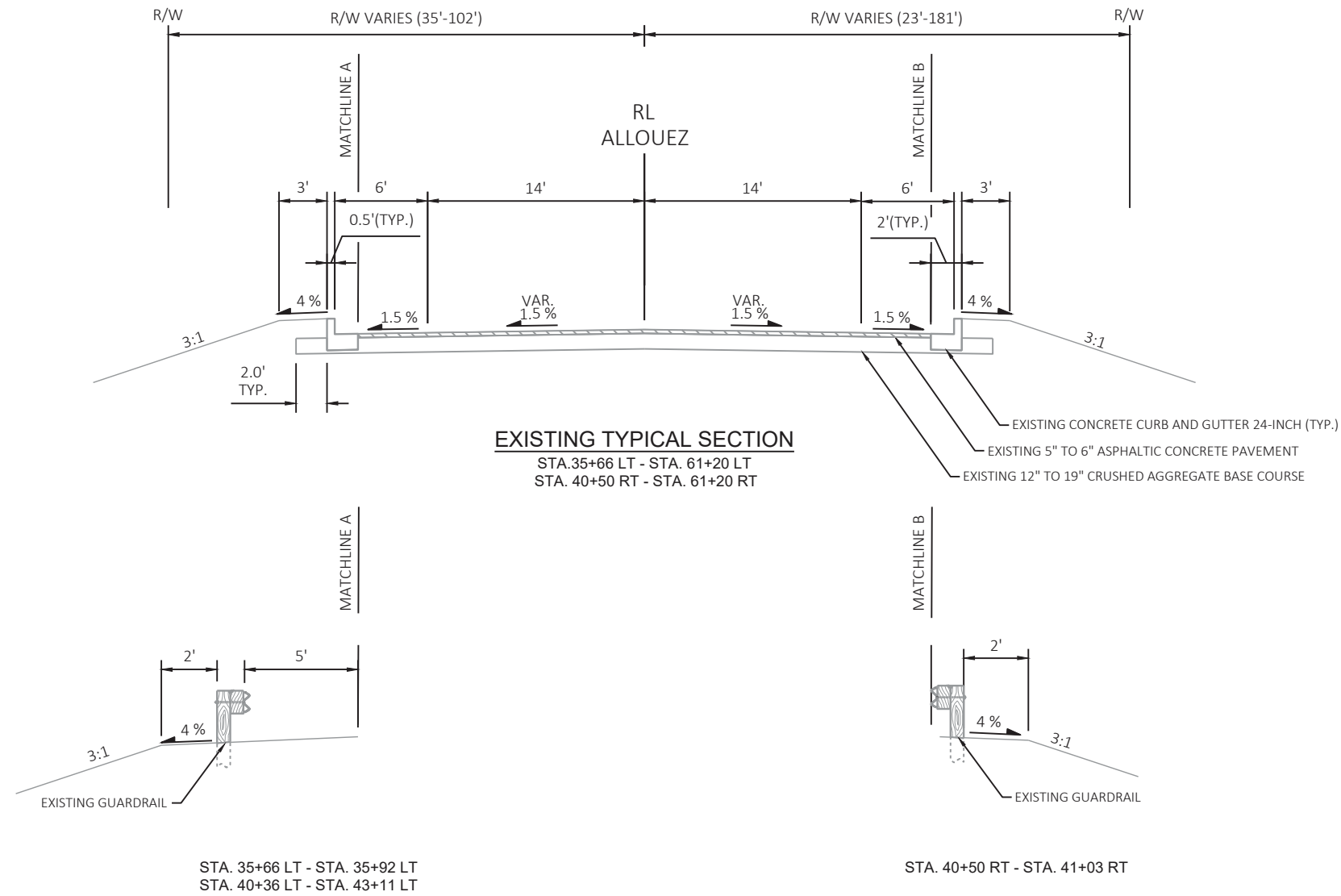
STA. 18+86 LT - STA. 21+38 LT
 STA. 18+86 RT - STA. 20+80 RT
 STA. 22+99 LT - STA. 34+49 LT
 STA. 22+38 RT - STA. 34+56 RT



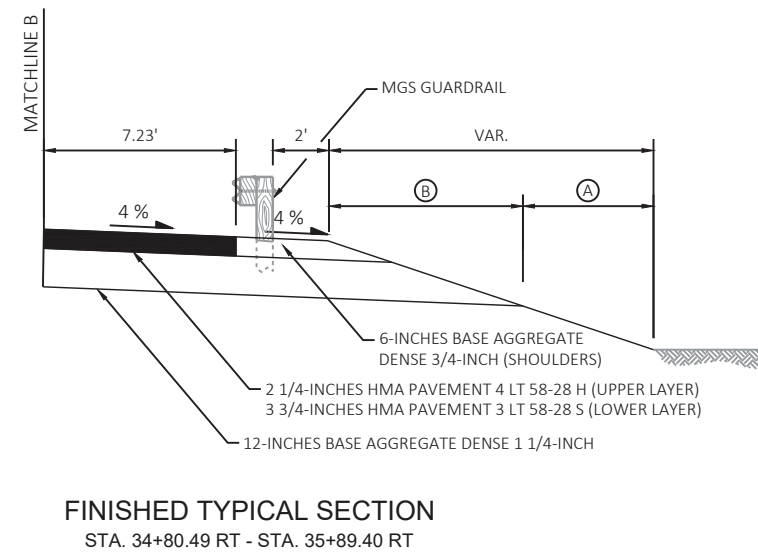
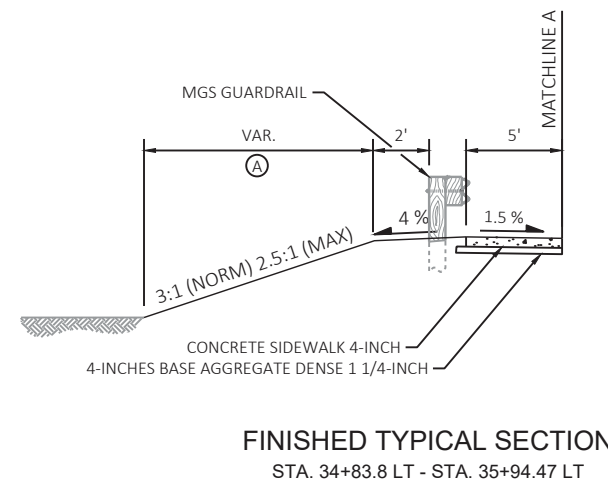
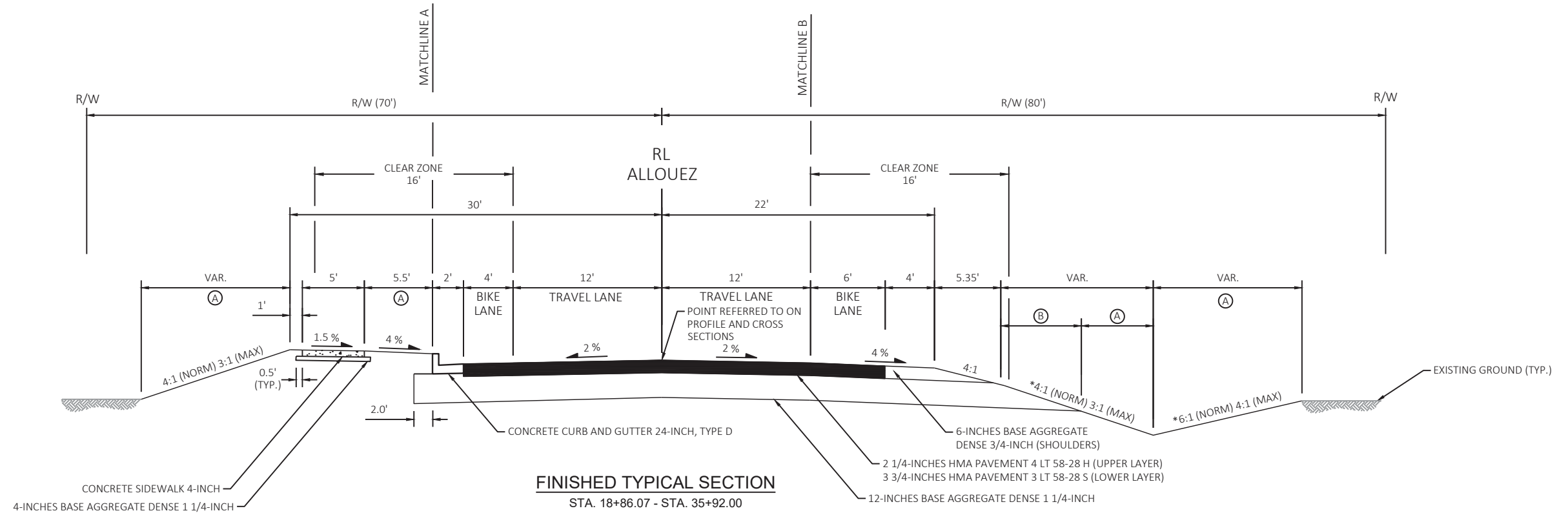
EXISTING TYPICAL SECTION

STA. 21+38 LT - STA. 22+99 LT
 STA. 20+80 RT - STA. 22+38 RT
 STA. 34+49 LT - STA. 35+66 LT
 STA. 34+56 RT - STA. 35+92 RT

NOTE: B-5-194 EXISTING BRIDGE TO REMAIN.
 STA. 35+92 - STA. 40+36



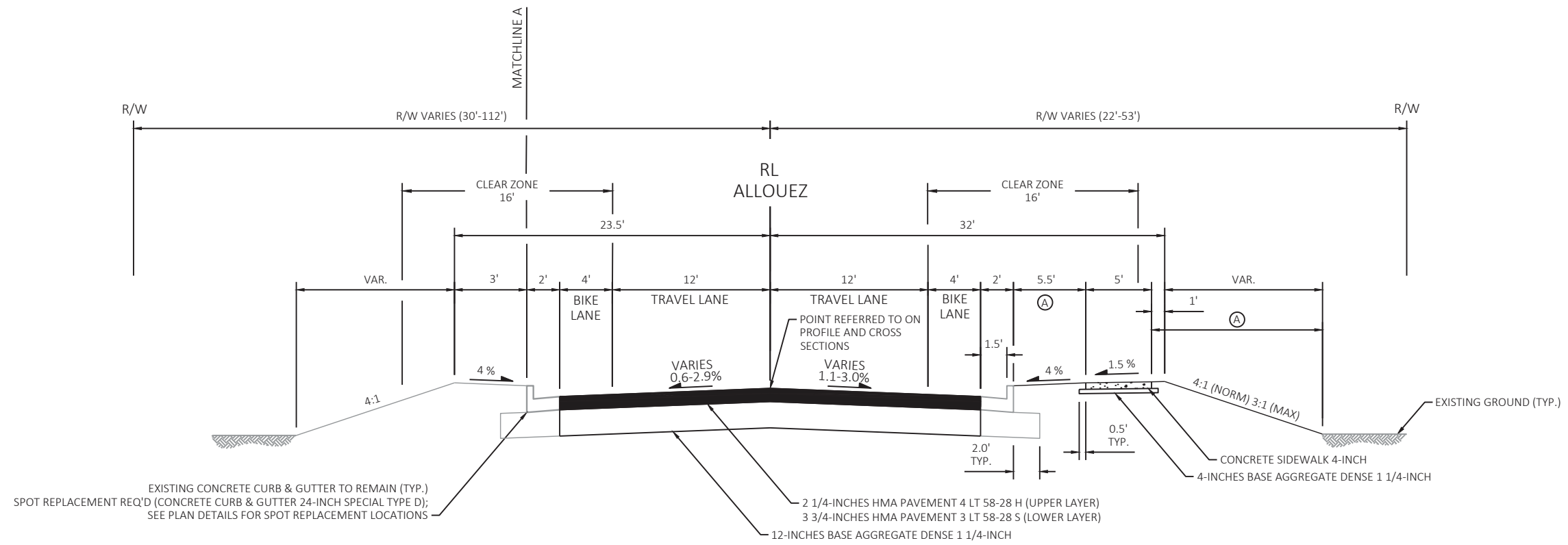
NOTE: B-5-194 EXISTING STRUCTURE TO REMAIN.
 STA. 35+92 - STA. 40+36



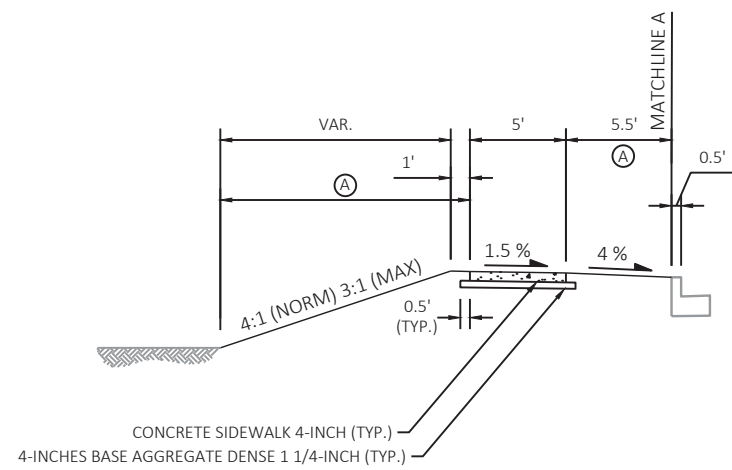
- (A) SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL
- (B) SEEDING MIXTURE NO. 30, FERTILIZER TYPE B

NOTE: B-5-194 EXISTING STRUCTURE TO REMAIN.
STA. 35+92 - STA. 40+36

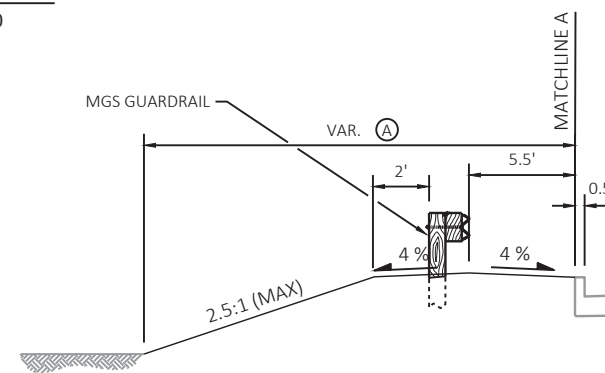
* IF 4:1 OR GREATER BACKSLOPE IS USED,
FORESLOPE IS 6:1



FINISHED TYPICAL SECTION
 STA. 47+75.00 - STA. 61+22.00

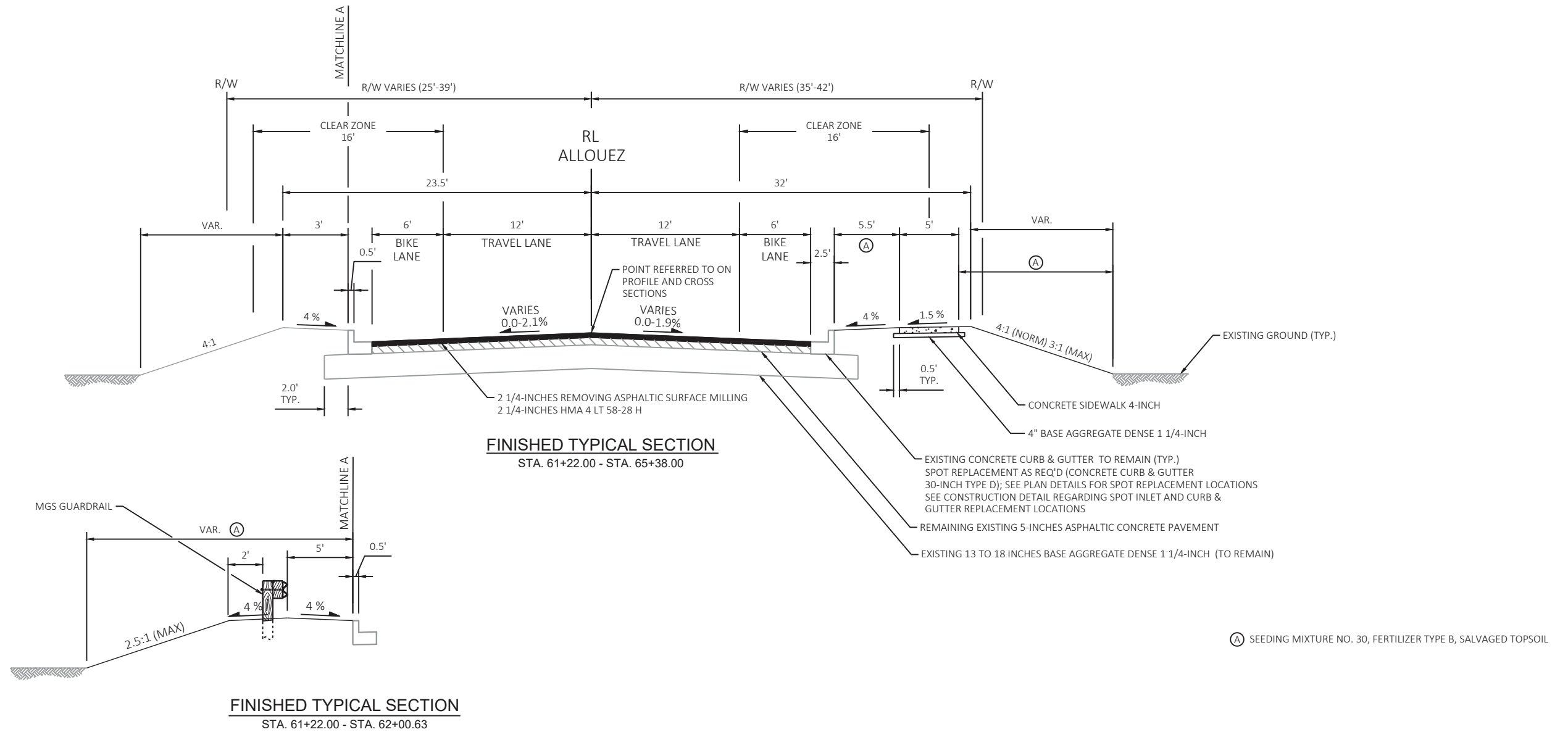


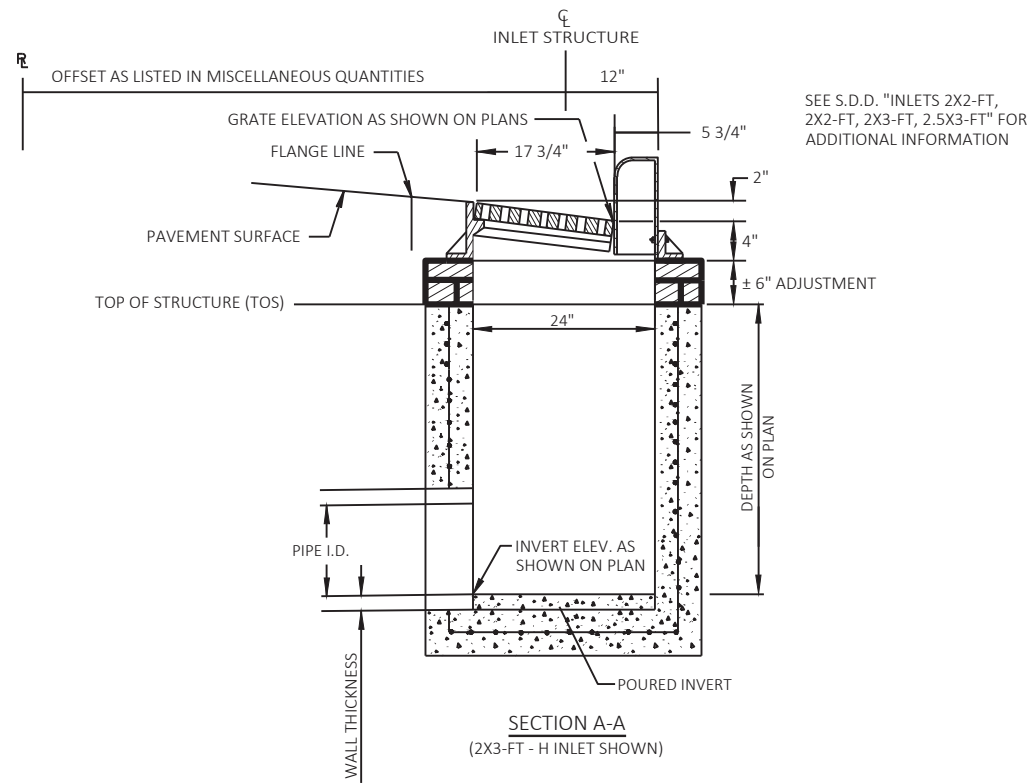
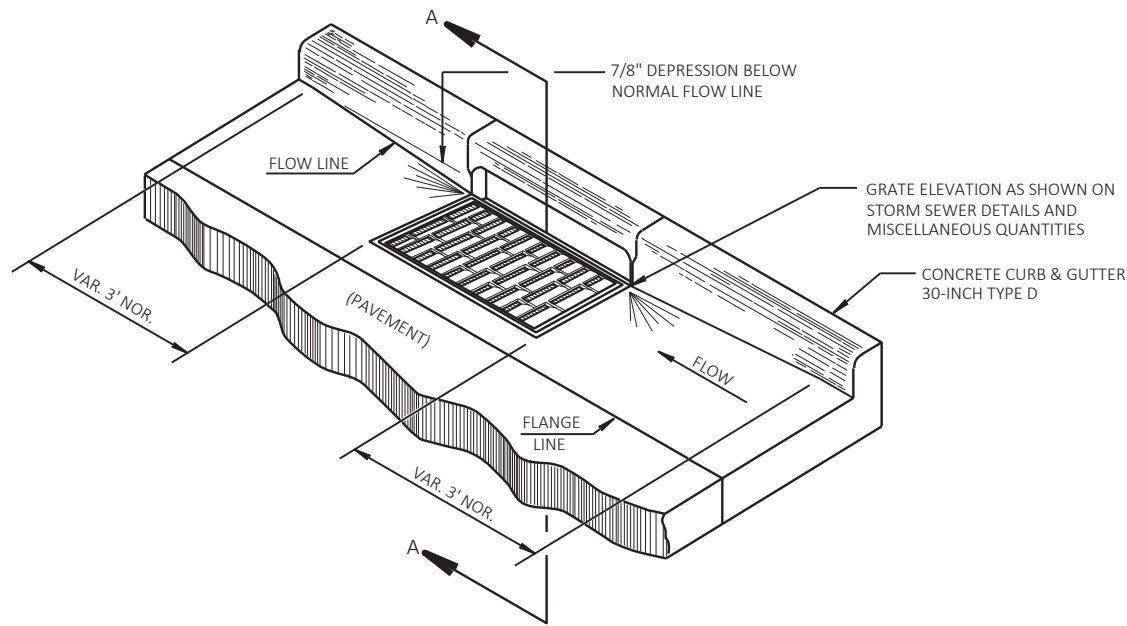
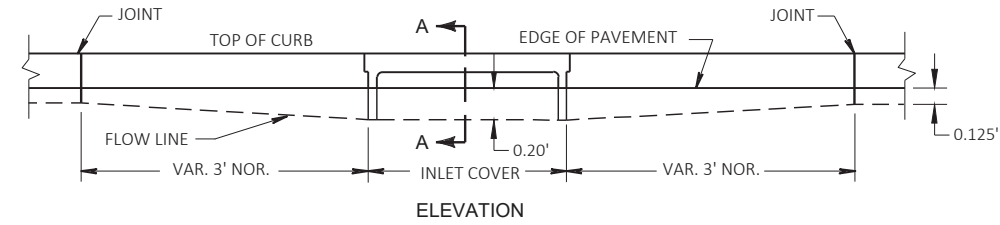
FINISHED TYPICAL SECTION
 STA. 47+75.00 - STA. 50+55.00



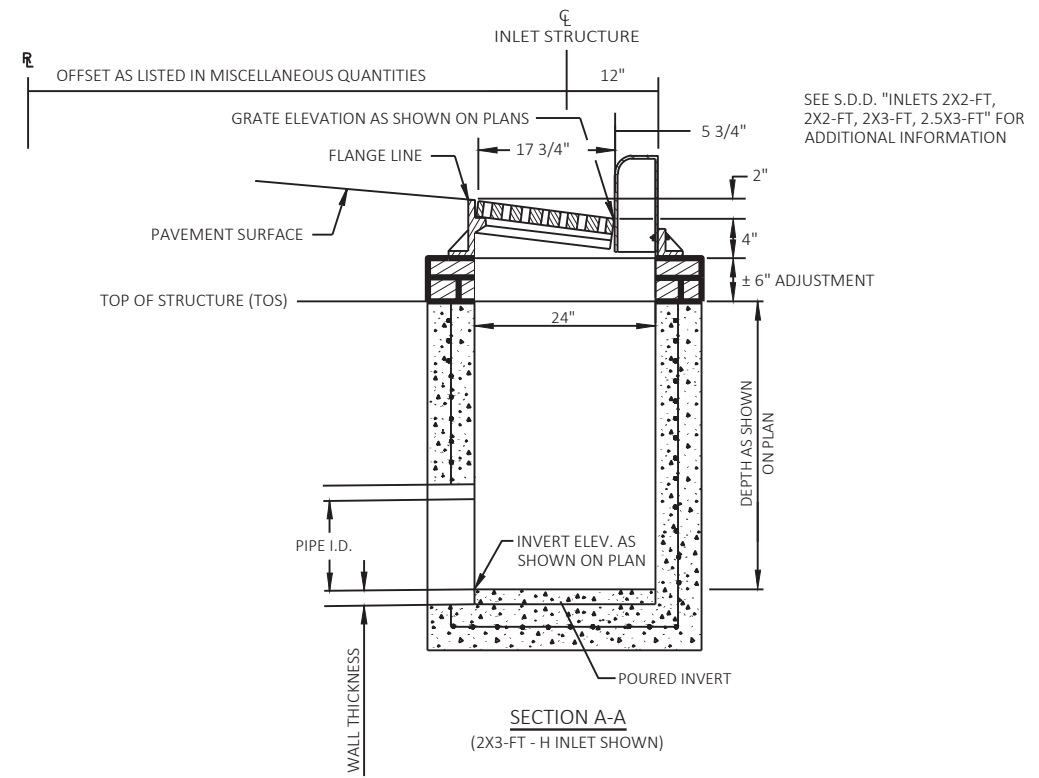
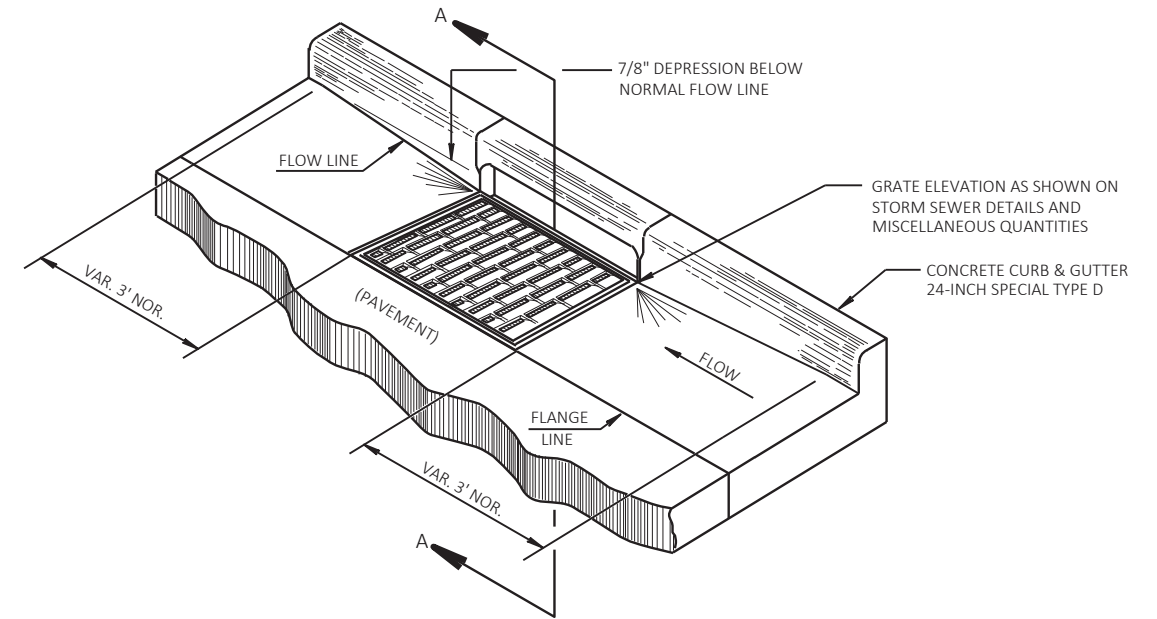
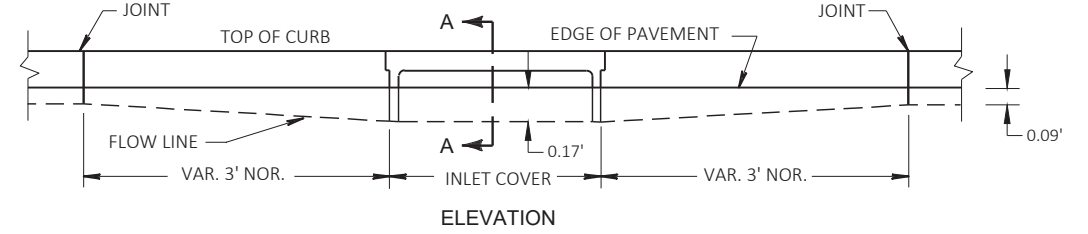
FINISHED TYPICAL SECTION
 STA. 58+81.87 - STA. 61+22.00

Ⓐ SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL





DETAIL OF CONCRETE CURB & GUTTER 30-INCH TYPE D AT INLETS



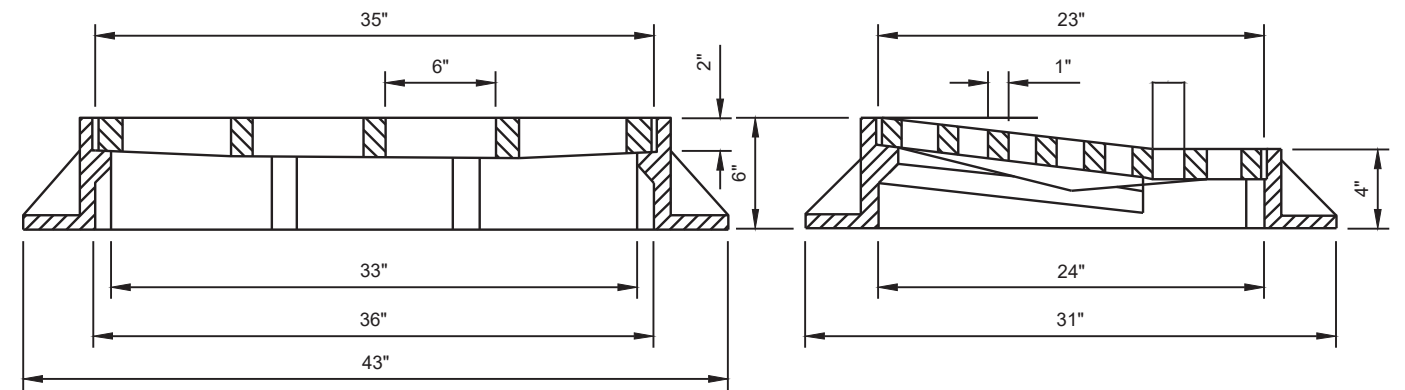
DETAIL OF CONCRETE CURB & GUTTER 24-INCH SPECIAL TYPE D AT INLETS

RUNOFF COEFFICIENT TABLE

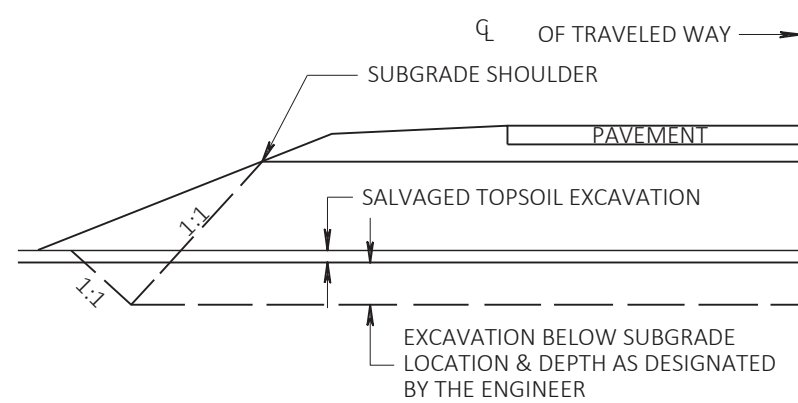
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34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

TOTAL PROJECT AREA = 15.0 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 9.6 ACRES

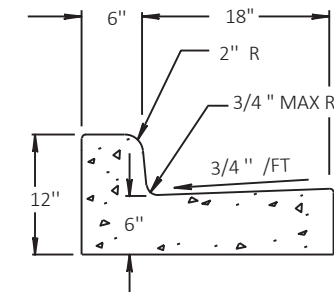
TOTAL WEIGHT APPROXIMATELY 420 POUNDS



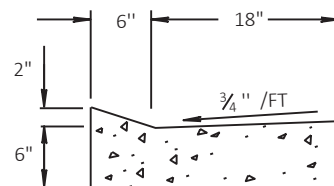
INLET COVER TYPE DW



DETAIL FOR EXCAVATION BELOW SUBGRADE

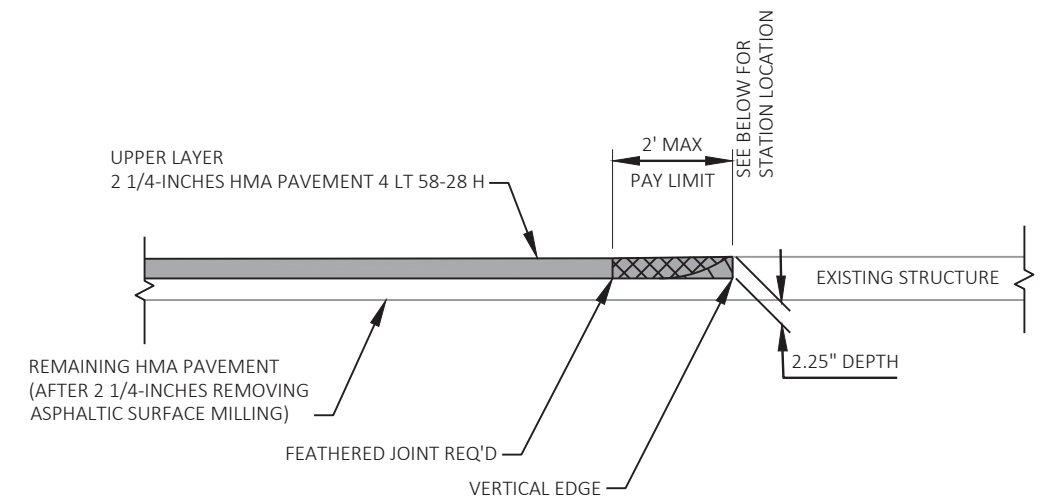


STANDARD SECTION



DRIVEWAY SECTION

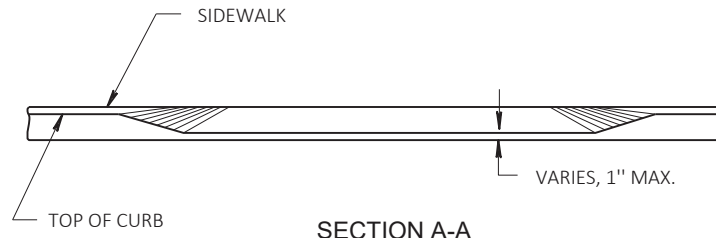
CONCRETE CURB & GUTTER 24 INCH SPECIAL TYPE D



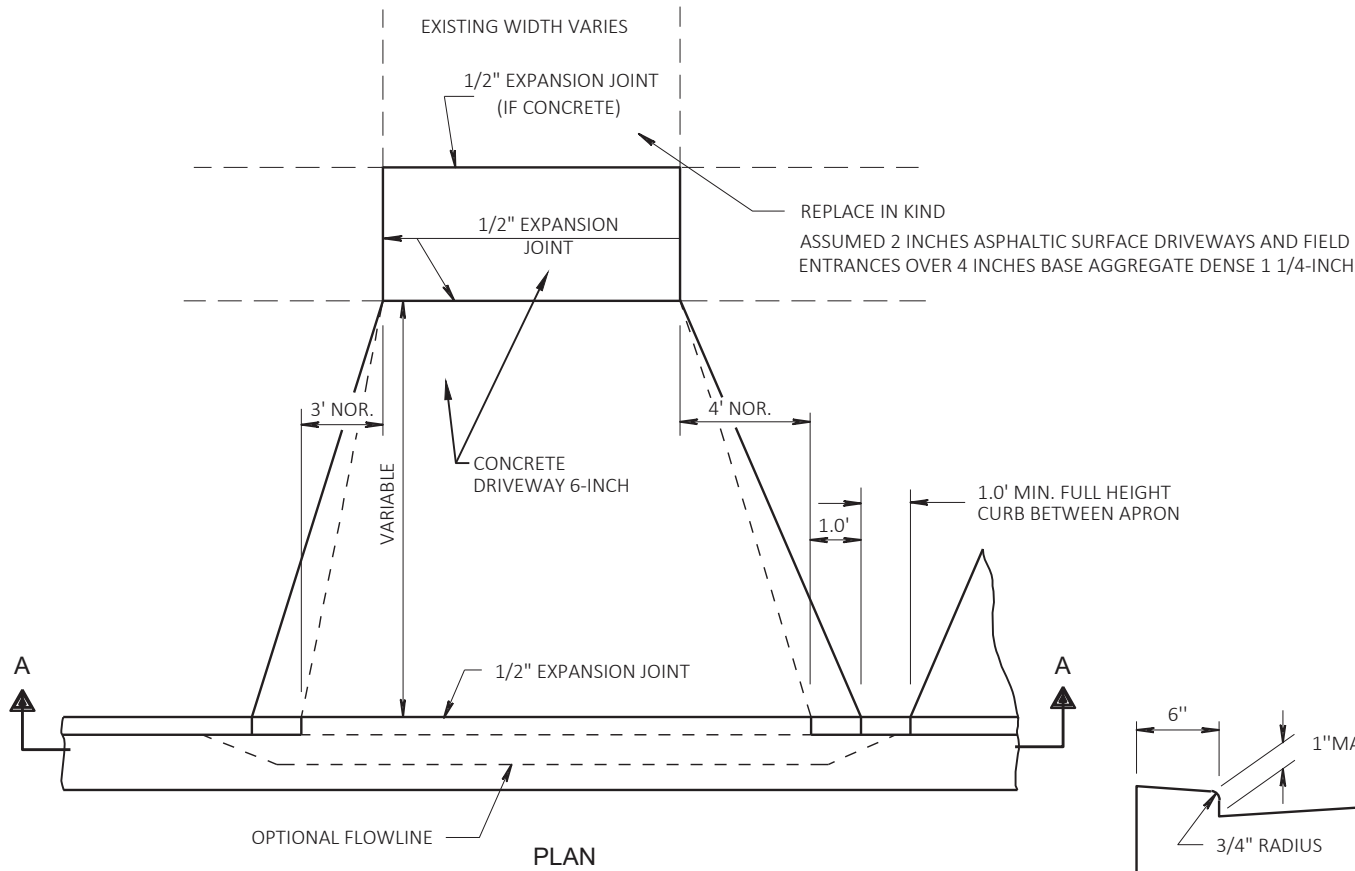
- HMA PAVEMENT
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- ASPHALTIC SURFACE WEDGE

REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

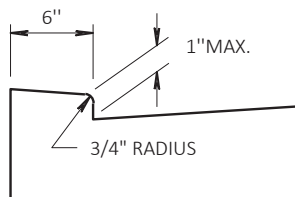
NOT TO SCALE
 STA. 65+38



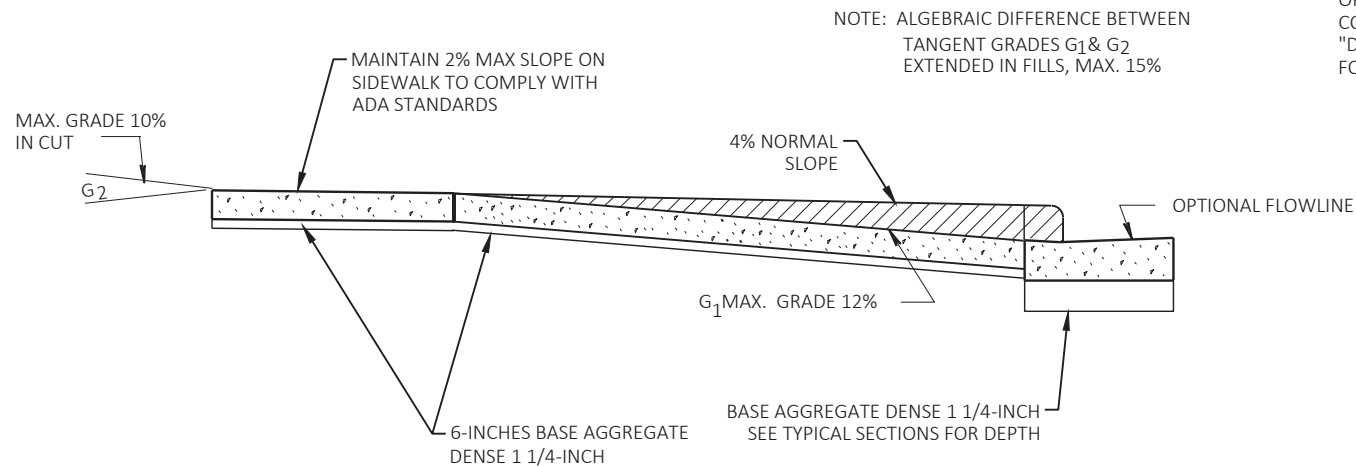
SECTION A-A



PLAN

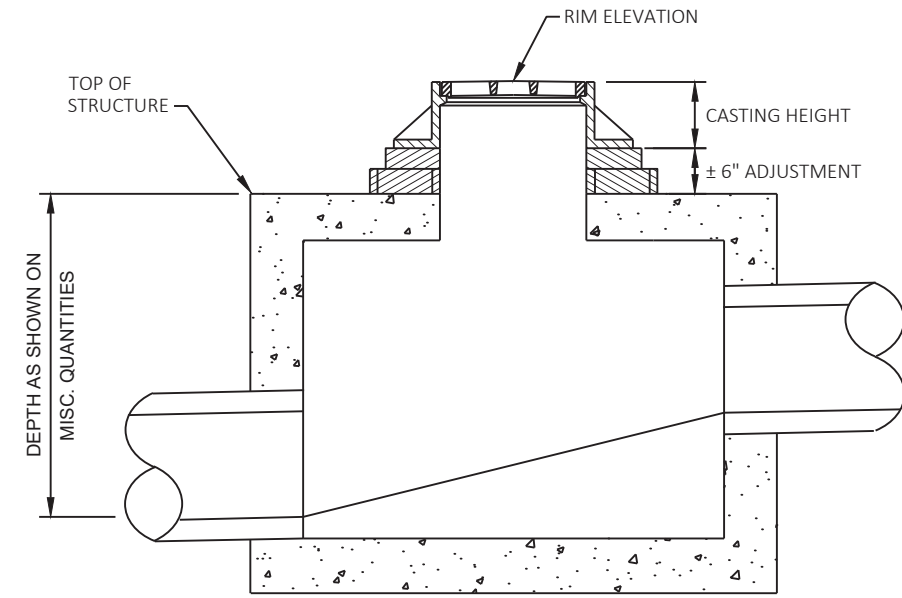


OPTIONAL METHOD FOR CONCRETE GUTTER. SEE "DRIVEWAY SECTION" DETAIL FOR PREFERRED METHOD.

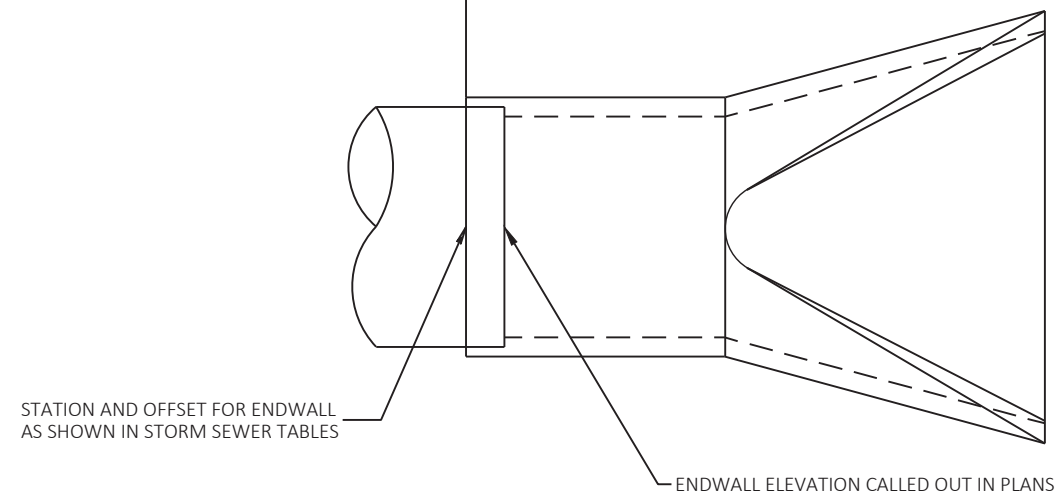
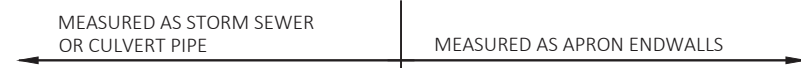


PROFILE

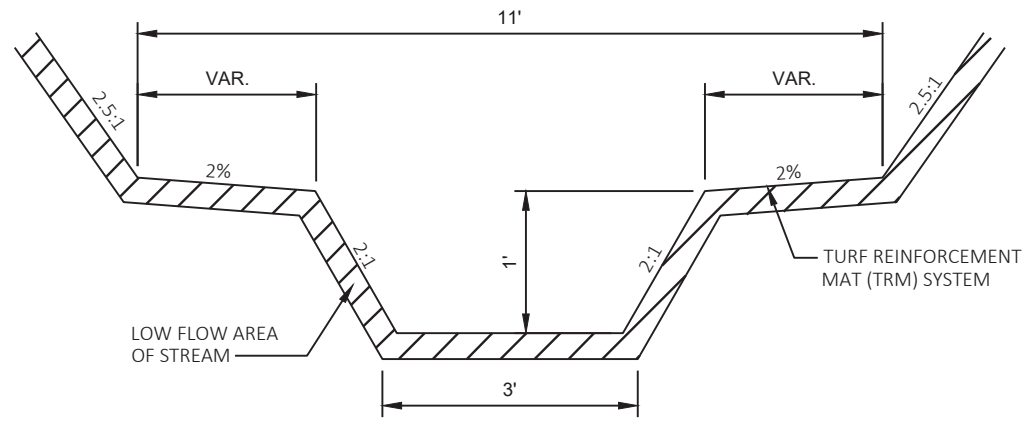
URBAN DRIVEWAY DETAIL



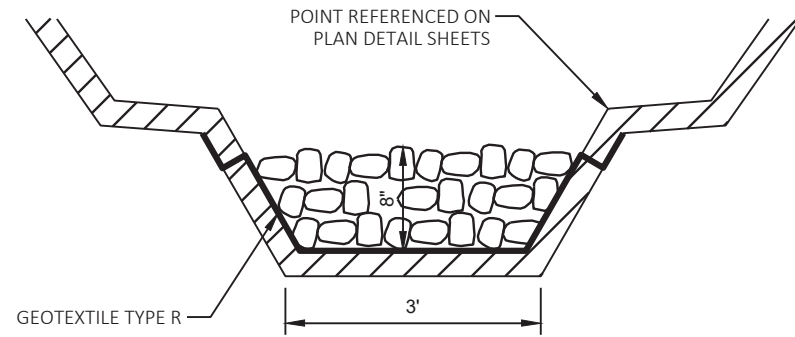
DETAIL FOR COMPUTING MANHOLE STRUCTURE ELEVATIONS



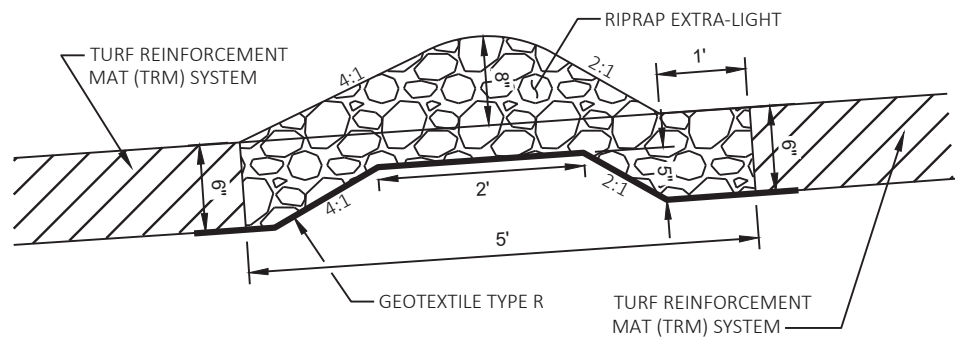
ENDWALL DETAIL



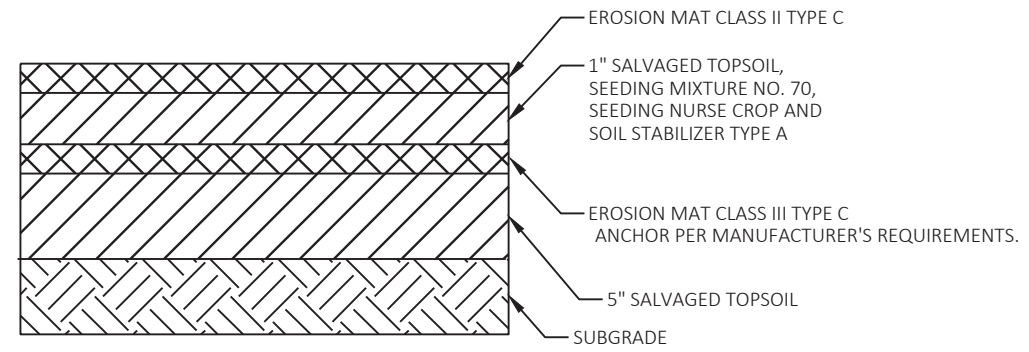
PROPOSED STREAM TYPICAL SECTION A-A
NO SCALE



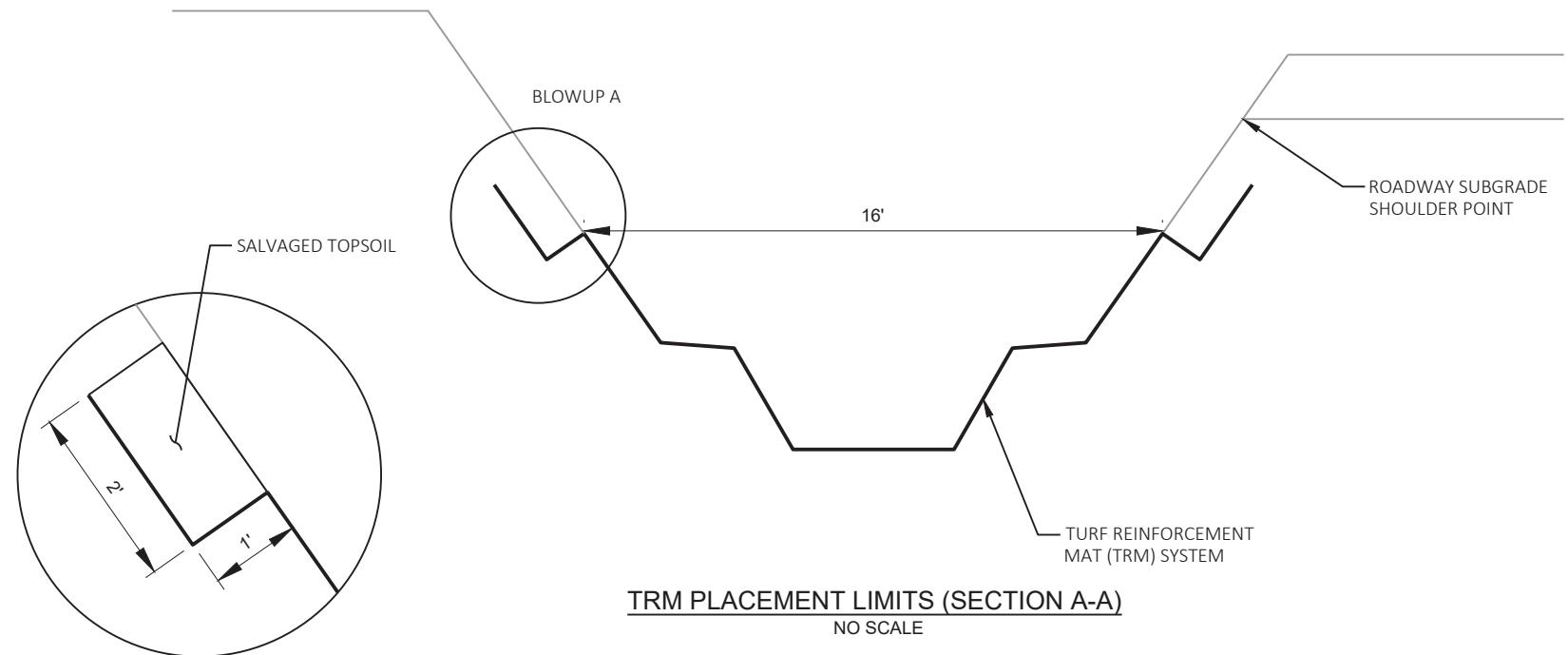
RIFFLE POOL CROSS SECTION B-B
NO SCALE



RIFFLE POOL CROSS SECTION C-C
NO SCALE

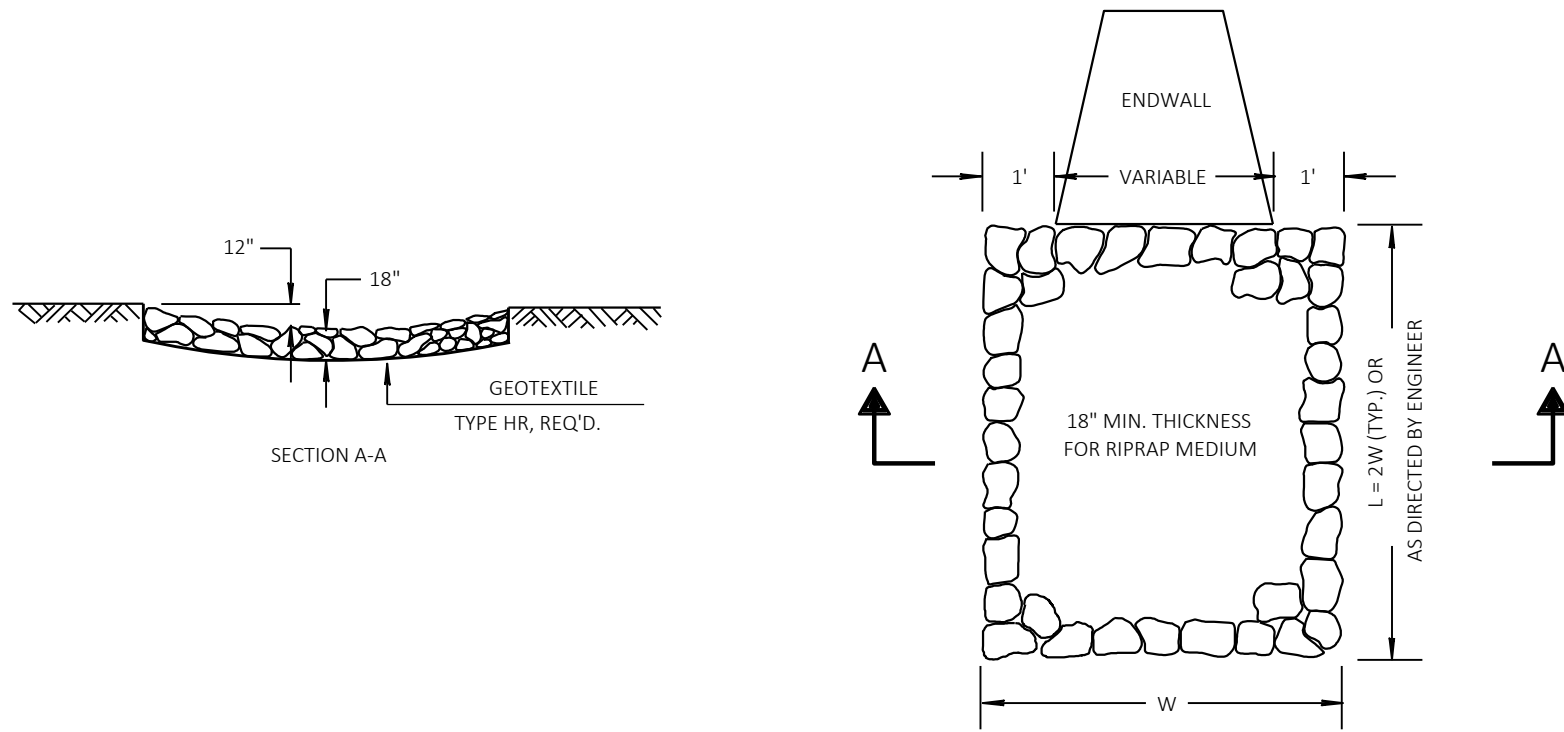


TURF REINFORCEMENT MAT (TRM) SYSTEM
CROSS SECTION VIEW

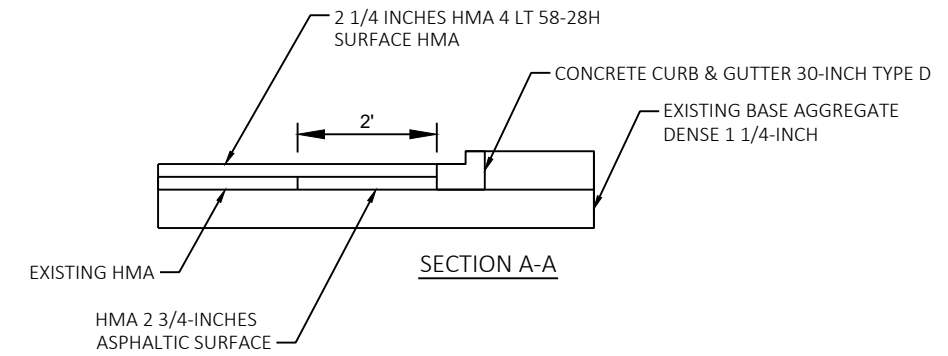
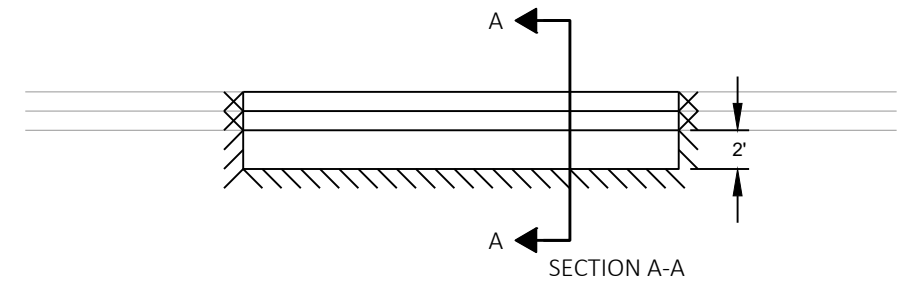


TRM PLACEMENT LIMITS (SECTION A-A)
NO SCALE

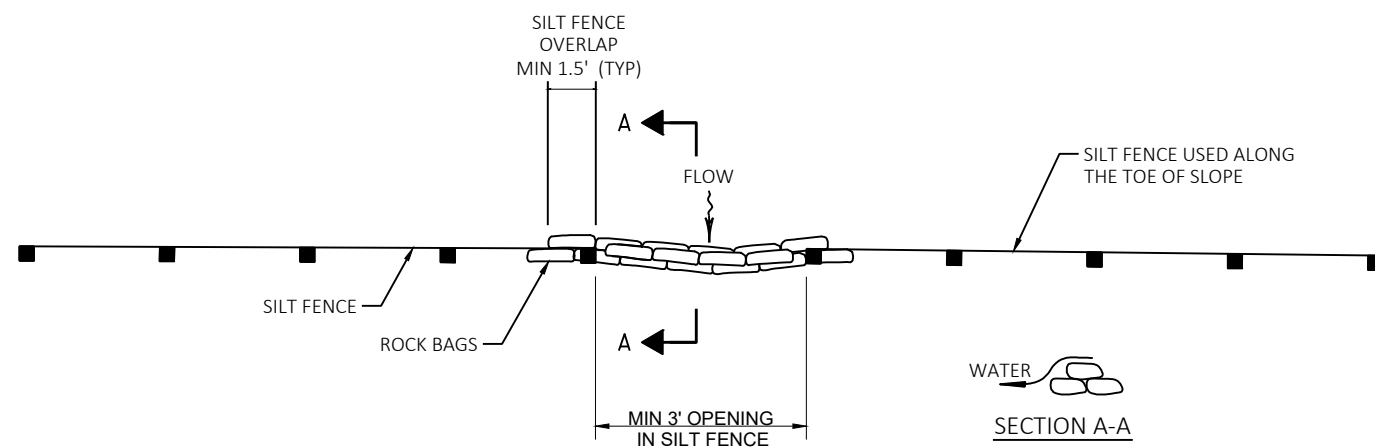
TURF REINFORCEMENT MAT (TRM) SYSTEM DETAIL
SEE EROSION CONTROL AND MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS



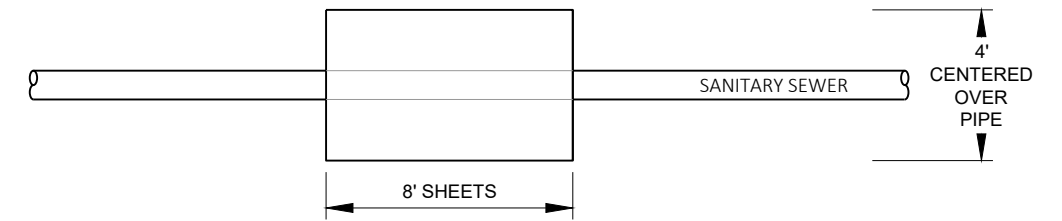
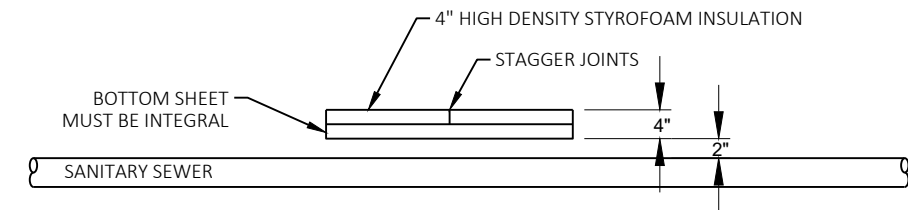
RIPRAP MEDIUM TREATMENT AT CULVERTS



CONCRETE CURB & GUTTER SPOT REPLACEMENT
(NOT TO SCALE)



TOP VIEW
SILT FENCE RELIEF DETAIL



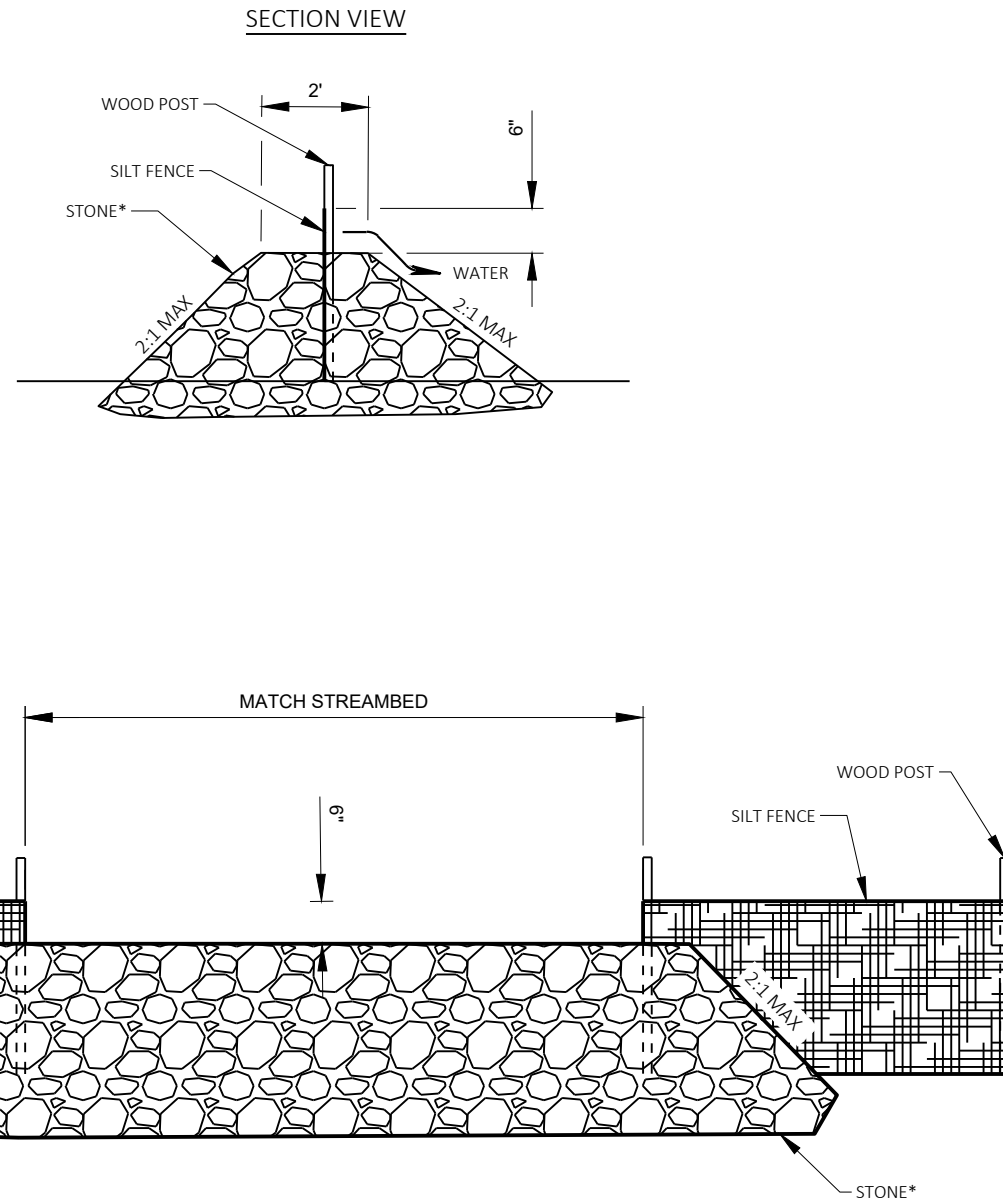
INSULATION BOARD POLYSTYRENE, 2-INCH
NO SCALE

GENERAL NOTES:

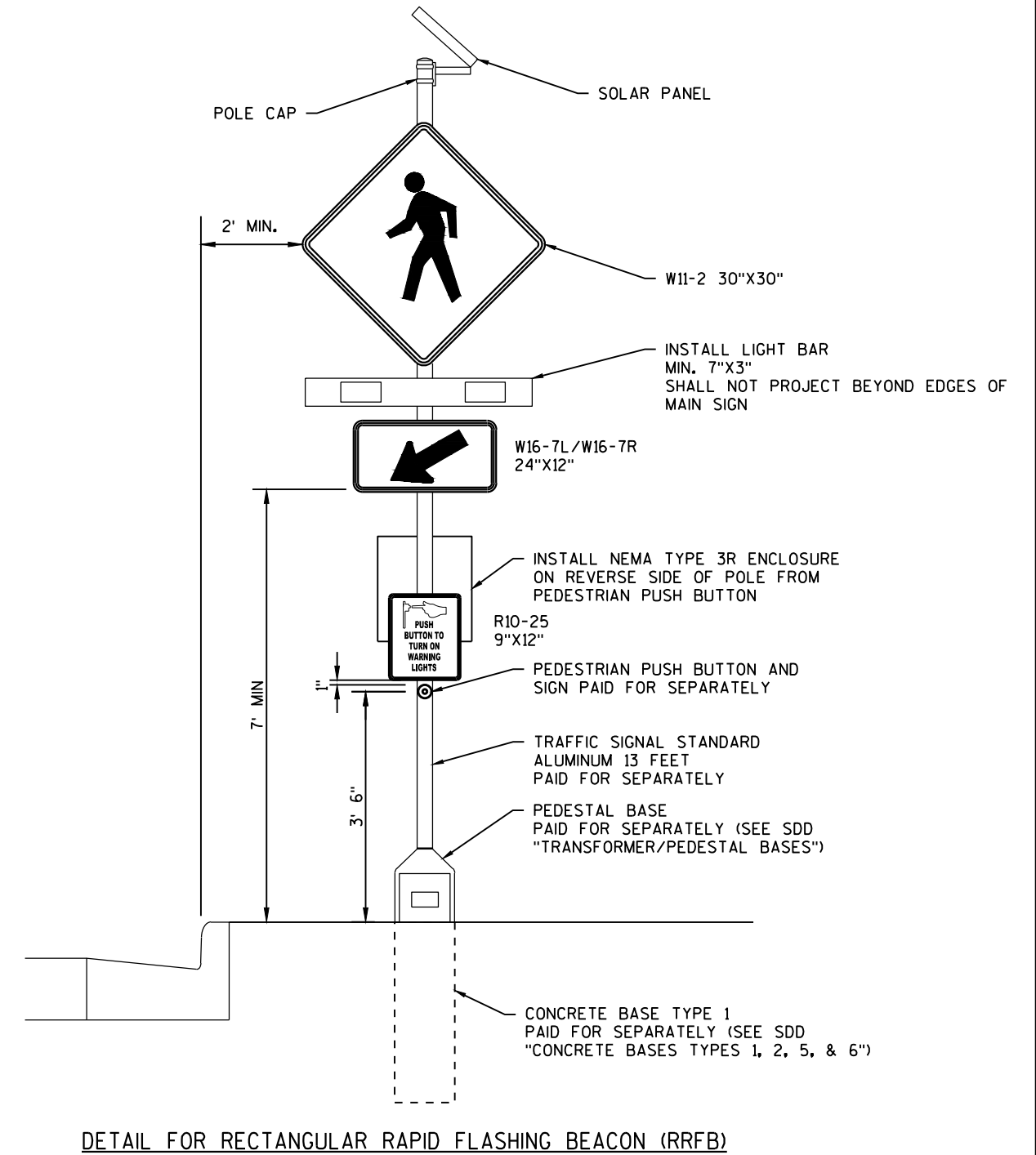
THE TEMPORARY STONE DITCH CHECK DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.

*SEE SPECIAL PROVISIONS FOR STONE MATERIAL AND GRADATION



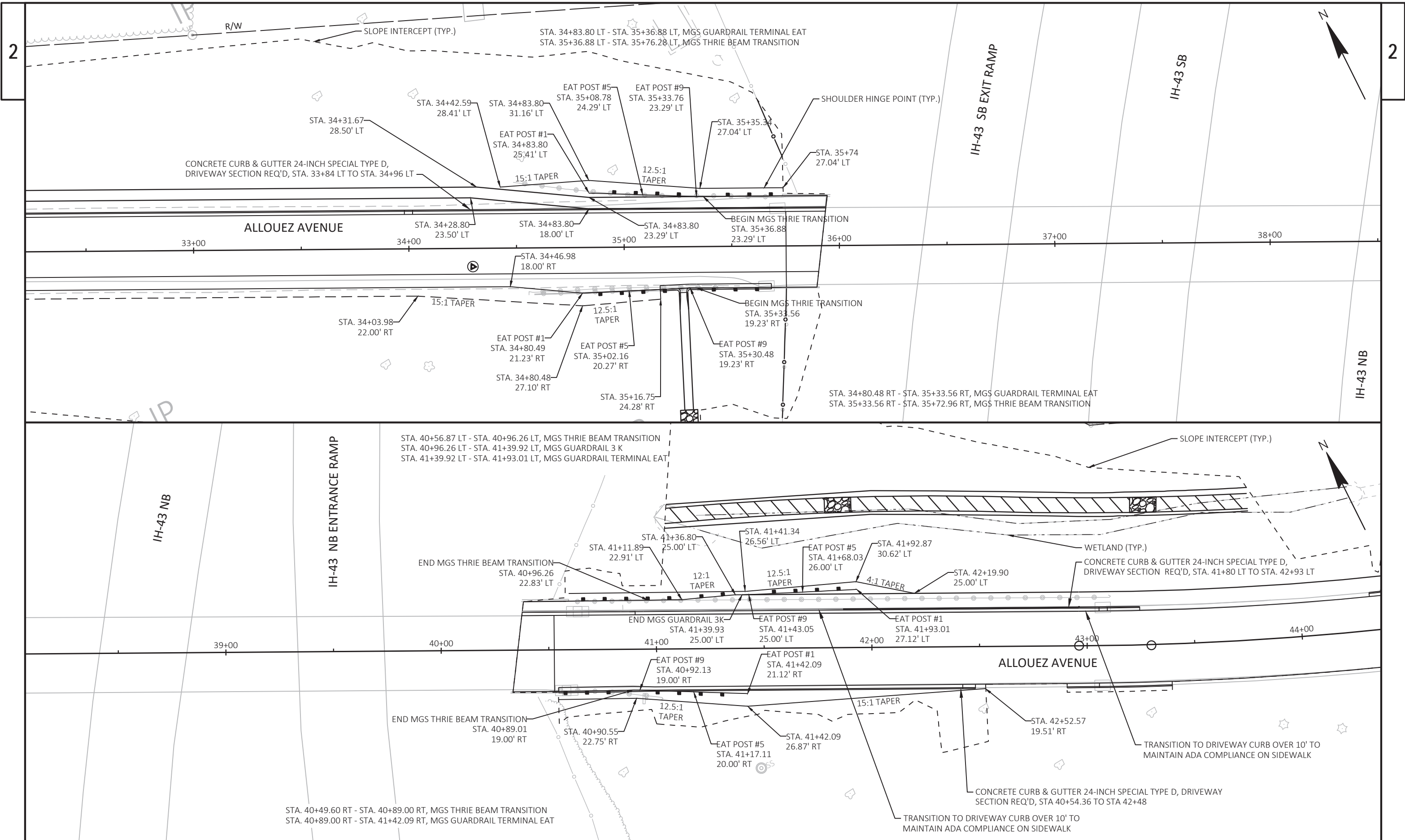
STONE DITCH CHECKS DETAIL
SEE EROSION CONTROL PLANS FOR LOCATIONS



DETAIL FOR RECTANGULAR RAPID FLASHING BEACON (RRFB)

GENERAL NOTES:

- (1) SEE PLAN DETAIL SHEETS FOR BEACON AND PUSH BUTTON LOCATIONS
- (2) EACH RRFB POLE SHALL HAVE ONE (1) W16-7L SIGN OR ONE (1) W16-7R SIGN, DEPENDING ON LOCATION. THE ARROW SHALL BE DIRECTED TOWARDS THE CROSSWALK. REFER TO SIGNING PLANS FOR LOCATIONS.
- (3) LOCATE R10-25 SIGN ABOVE PUSH BUTTON.
- (4) LIGHT BAR, CONTROLS, SOLAR PANEL, WIRELESS RADIO, HARDWARE, WIRING, AND INCIDENTALS ARE CONSIDERED PART OF THE "SYSTEM" BID ITEM. ALL OTHER ITEMS SHALL BE CONSIDERED SEPARATELY.
- (5) FIELD LOCATE ALL BASES TO PROVIDE 1.5' MAXIMUM REACH FROM ACCESSIBLE SLOPED AREA.



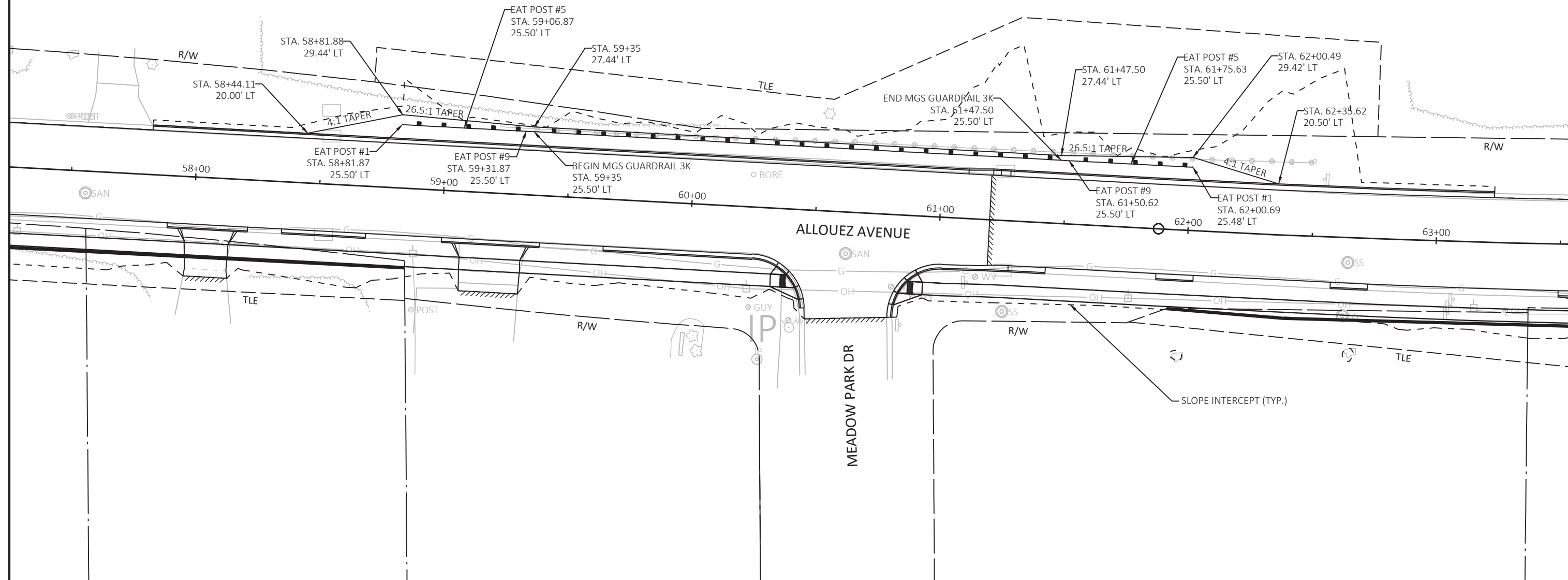
PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	GUARDRAIL LAYOUT DETAILS	SHEET	E
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WETLAND (TYP.)

STA. 58+81.87 LT - STA. 59+35.00 LT, MGS GUARDRAIL TERMINAL EAT
STA. 59+35.00 LT - STA. 61+47.50 LT, MGS GUARDRAIL 3 K
STA. 61+47.50 LT - STA. 62+00.69 LT, MGS GUARDRAIL TERMINAL EAT

*NOTE: INSTALL TOP OF W-BEAM RAIL 31 TO 32-INCHES ABOVE TOP OF CURB.

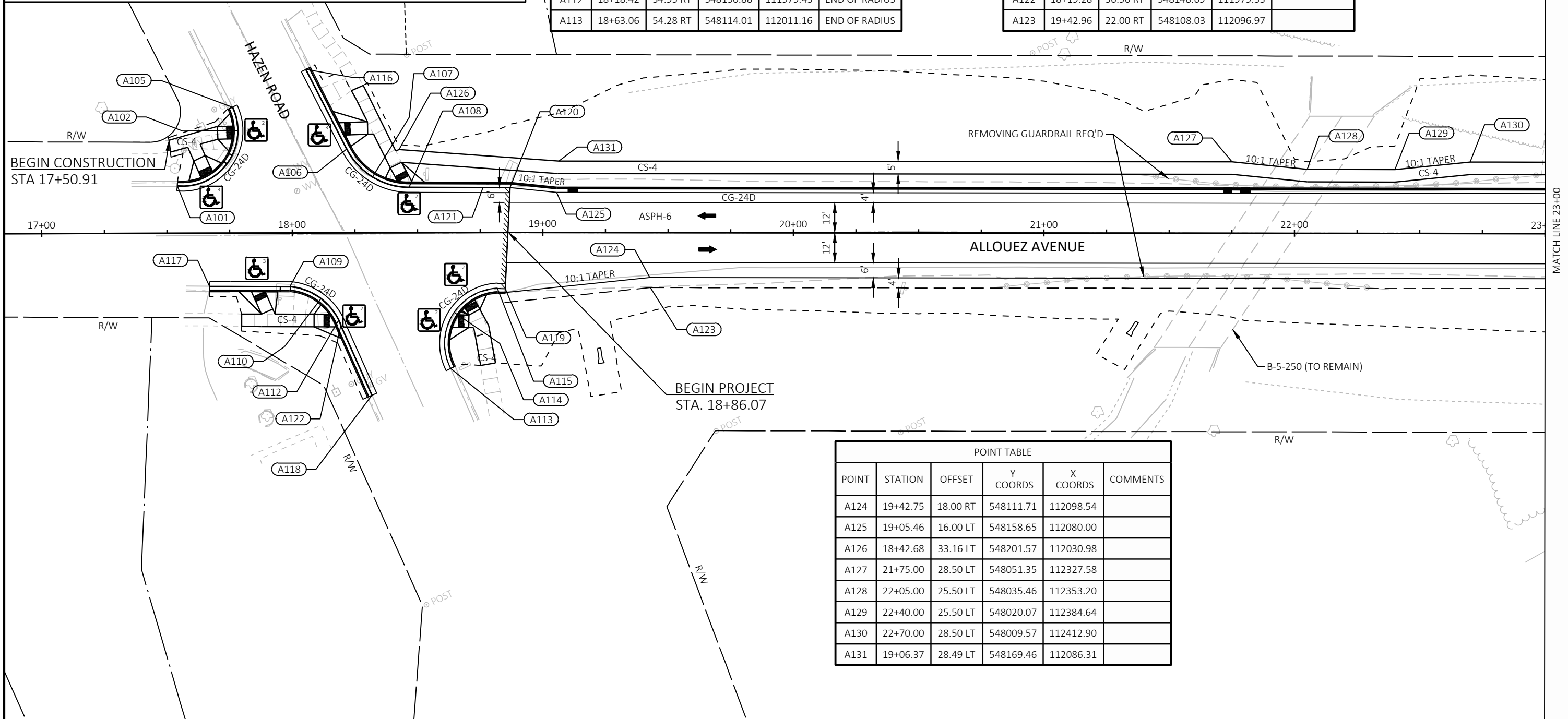
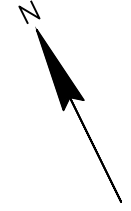


LEGEND

- ASPH-D ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CD-6 CONCRETE DRIVEWAY 6-INCH
- CS-4 CONCRETE SIDEWALK 4-INCH
- CG-24D CONCRETE CURB & GUTTER 24-INCH SPECIAL TYPE D
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- CURB RAMP, TYPE X
- TRAFFIC FLOW
- PROPOSED STORM SEWER INLET
- PROPOSED STORM SEWER MANHOLE
- SAWING CONCRETE
- SAWING ASPHALT
- SLOPE INTERCEPT
- ASPH-2 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H
- STREAM RELOCATION LOW FLOW AREA










POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
A101	17+54.18	18.92 LT	548227.38	111945.13	END OF RADIUS
A102	17+56.36	40.81 LT	548246.12	111956.65	R=22'
A105	17+76.22	50.27 LT	548245.98	111978.65	END OF RADIUS
A106	18+21.78	33.46 LT	548210.97	112012.31	END OF RADIUS
A107	18+46.81	46.02 LT	548211.34	112040.31	R=28'
A108	18+46.70	18.02 LT	548186.20	112027.99	END OF RADIUS
A109	17+98.98	21.52 RT	548171.45	111967.81	END OF RADIUS
A110	17+96.82	45.42 RT	548150.88	111955.43	R=24'
A112	18+18.42	34.95 RT	548150.88	111979.43	END OF RADIUS
A113	18+63.06	54.28 RT	548114.01	112011.16	END OF RADIUS

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
A114	18+82.69	44.37 RT	548114.36	112033.15	R=22'
A115	18+81.88	22.39 RT	548134.49	112042.01	END OF RADIUS
A116	18+05.61	65.25 LT	548246.63	112011.63	MATCH
A117	17+66.99	21.29 RT	548185.61	111939.11	MATCH
A118	18+31.70	64.87 RT	548118.16	111978.33	MATCH
A119	18+84.91	22.50 RT	548133.07	112044.69	MATCH
A120	18+86.93	17.85 LT	548168.46	112064.18	MATCH
A121	18+76.20	17.89 LT	548173.22	112054.48	
A122	18+19.28	36.96 RT	548148.69	111979.33	
A123	19+42.96	22.00 RT	548108.03	112096.97	



POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
A124	19+42.75	18.00 RT	548111.71	112098.54	
A125	19+05.46	16.00 LT	548158.65	112080.00	
A126	18+42.68	33.16 LT	548201.57	112030.98	
A127	21+75.00	28.50 LT	548051.35	112327.58	
A128	22+05.00	25.50 LT	548035.46	112353.20	
A129	22+40.00	25.50 LT	548020.07	112384.64	
A130	22+70.00	28.50 LT	548009.57	112412.90	
A131	19+06.37	28.49 LT	548169.46	112086.31	

LEGEND

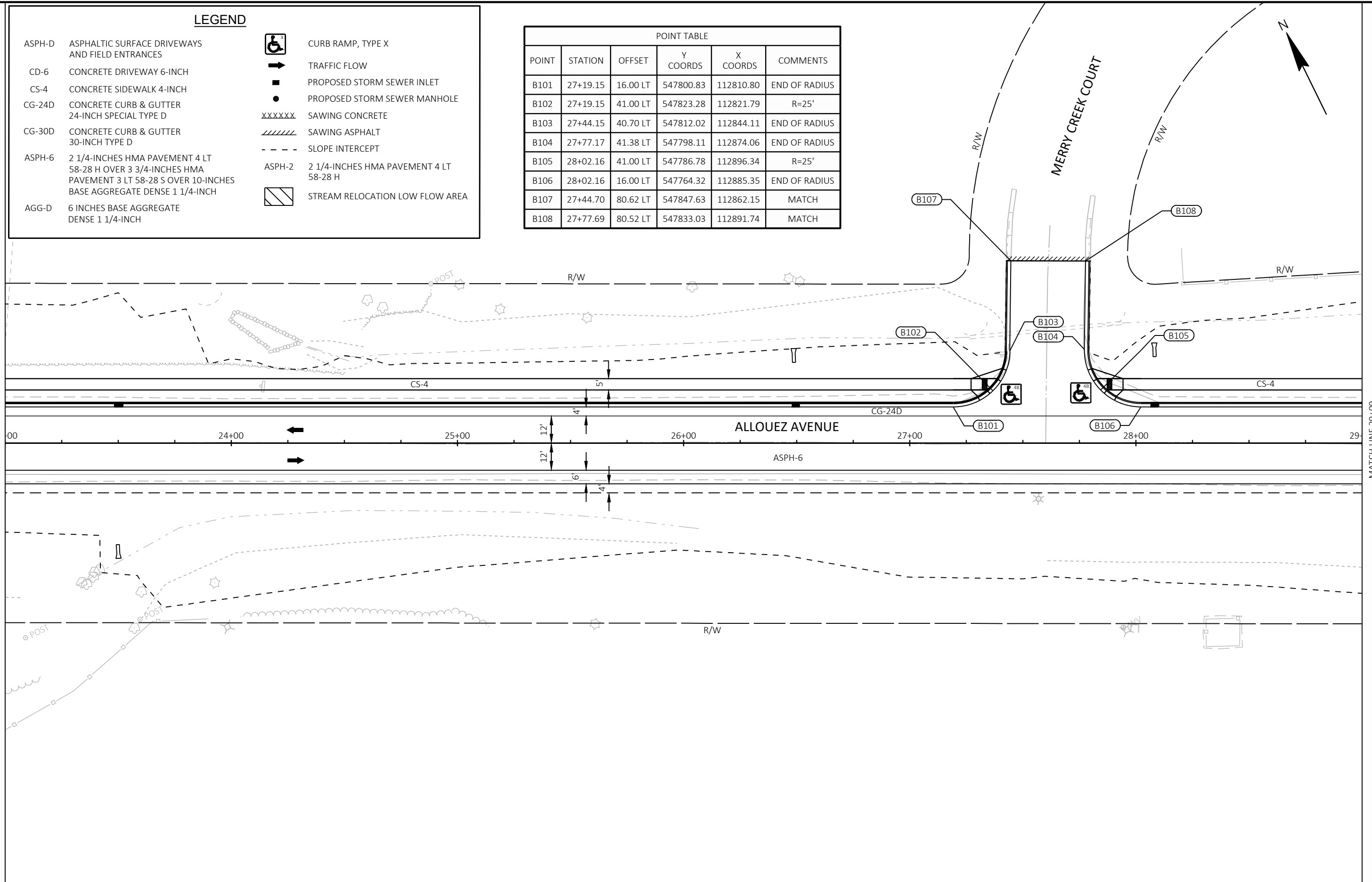
- ASPH-D ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CD-6 CONCRETE DRIVEWAY 6-INCH
- CS-4 CONCRETE SIDEWALK 4-INCH
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-  SAWING ASPHALT
-  SLOPE INTERCEPT
-  ASPH-2 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H
-  STREAM RELOCATION LOW FLOW AREA

POINT TABLE









POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
B101	27+19.15	16.00 LT	547800.83	112810.80	END OF RADIUS
B102	27+19.15	41.00 LT	547823.28	112821.79	R=25'
B103	27+44.15	40.70 LT	547812.02	112844.11	END OF RADIUS
B104	27+77.17	41.38 LT	547798.11	112874.06	END OF RADIUS
B105	28+02.16	41.00 LT	547786.78	112896.34	R=25'
B106	28+02.16	16.00 LT	547764.32	112885.35	END OF RADIUS
B107	27+44.70	80.62 LT	547847.63	112862.15	MATCH
B108	27+77.69	80.52 LT	547833.03	112891.74	MATCH

MATCH LINE 23+00

MATCH LINE 29+00

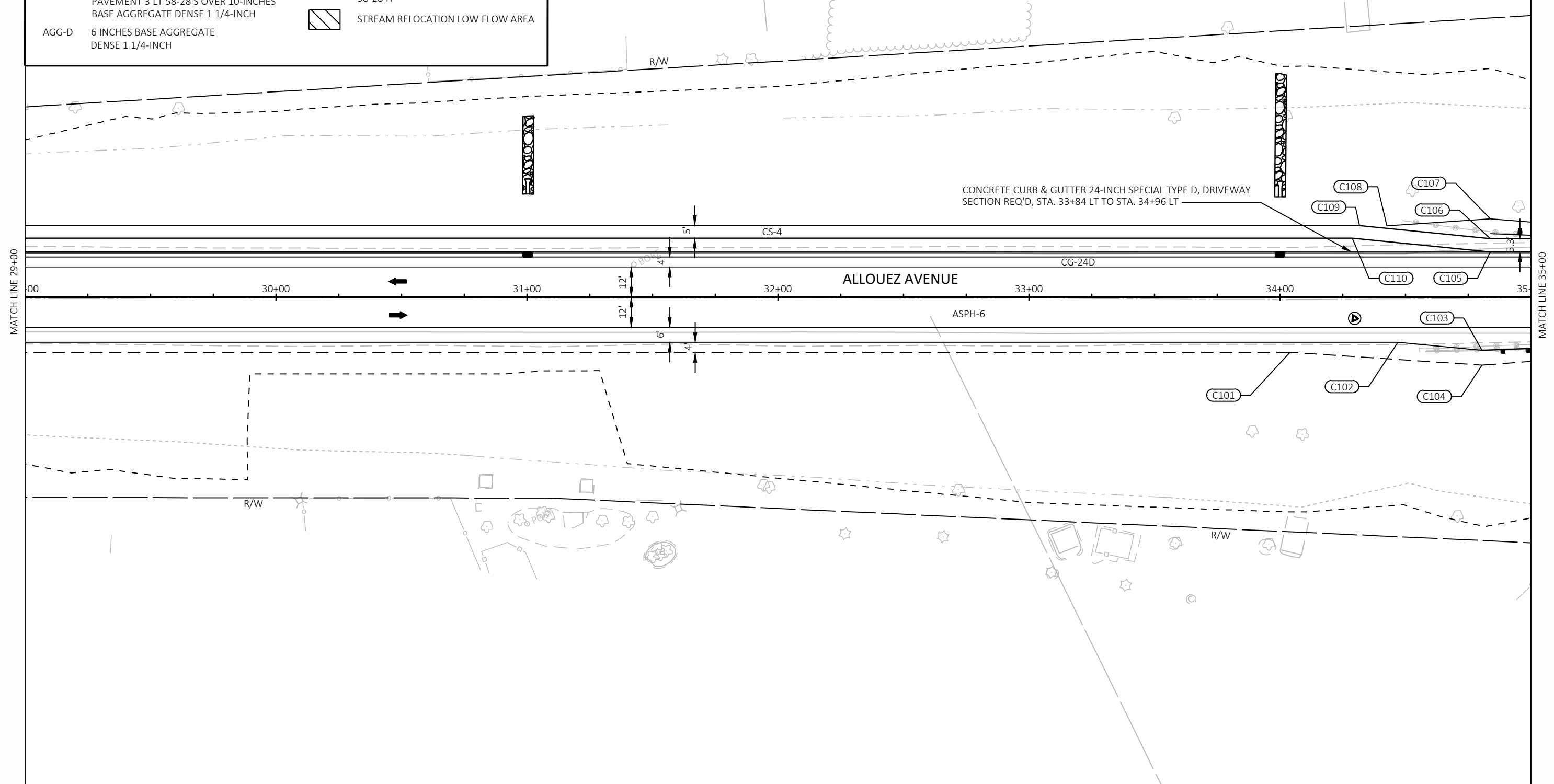
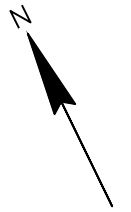


LEGEND

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-  SAWING ASPHALT
-  SLOPE INTERCEPT
- ASPH-2 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H
-  STREAM RELOCATION LOW FLOW AREA

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
C101	34+03.98	22.00 RT	547465.55	113409.14	
C102	34+46.98	18.00 RT	547450.23	113449.52	
C103	34+80.47	21.24 RT	547432.59	113478.17	
C104	34+80.48	27.10 RT	547427.32	113475.60	
C105	34+83.80	18.00 LT	547466.37	113498.42	

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
C106	34+83.80	23.29 LT	547471.12	113500.74	
C107	34+83.80	31.16 LT	547478.19	113504.20	
C108	34+42.59	28.41 LT	547493.84	113465.99	
C109	34+31.67	28.50 LT	547498.72	113456.22	
C110	34+28.80	23.50 LT	547495.50	113451.44	

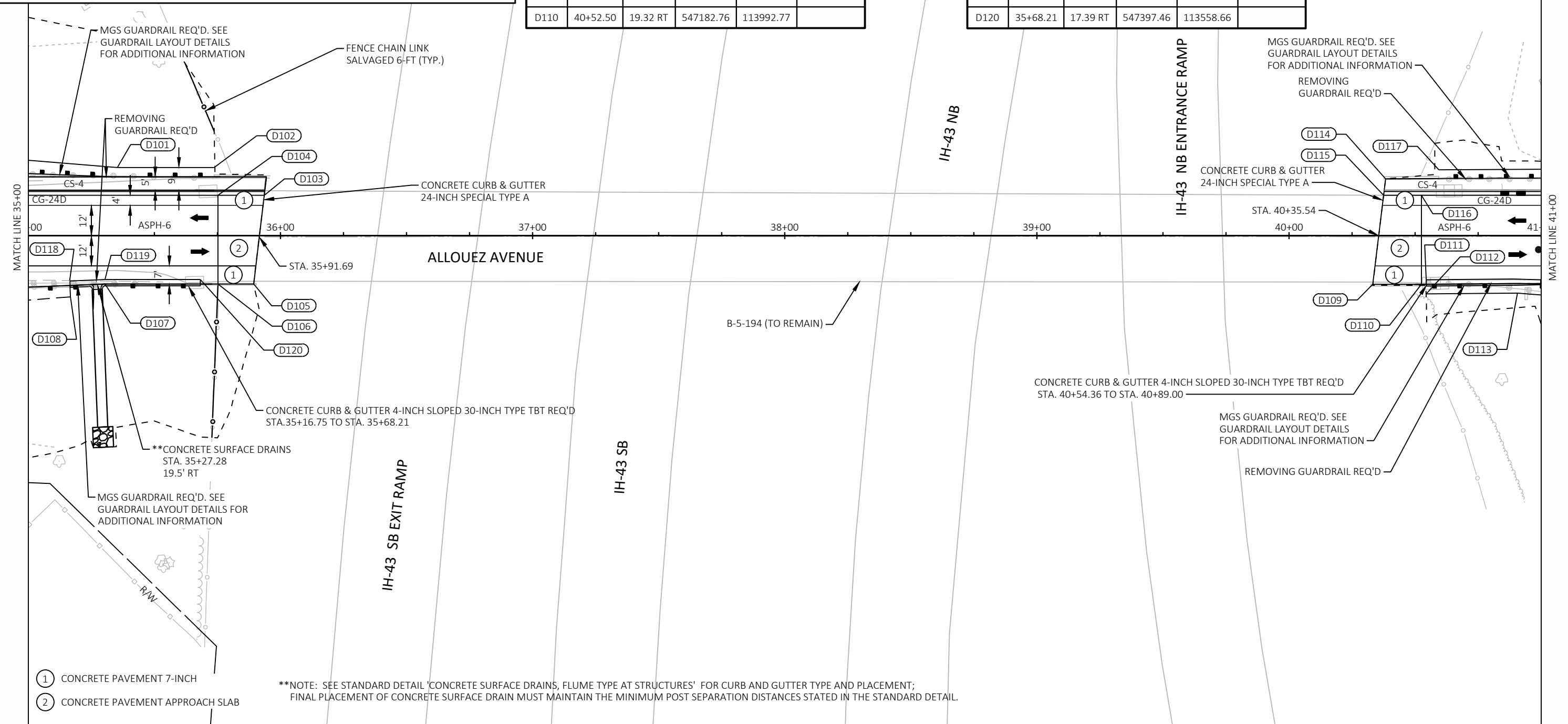
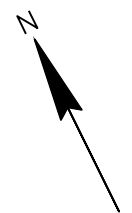


LEGEND

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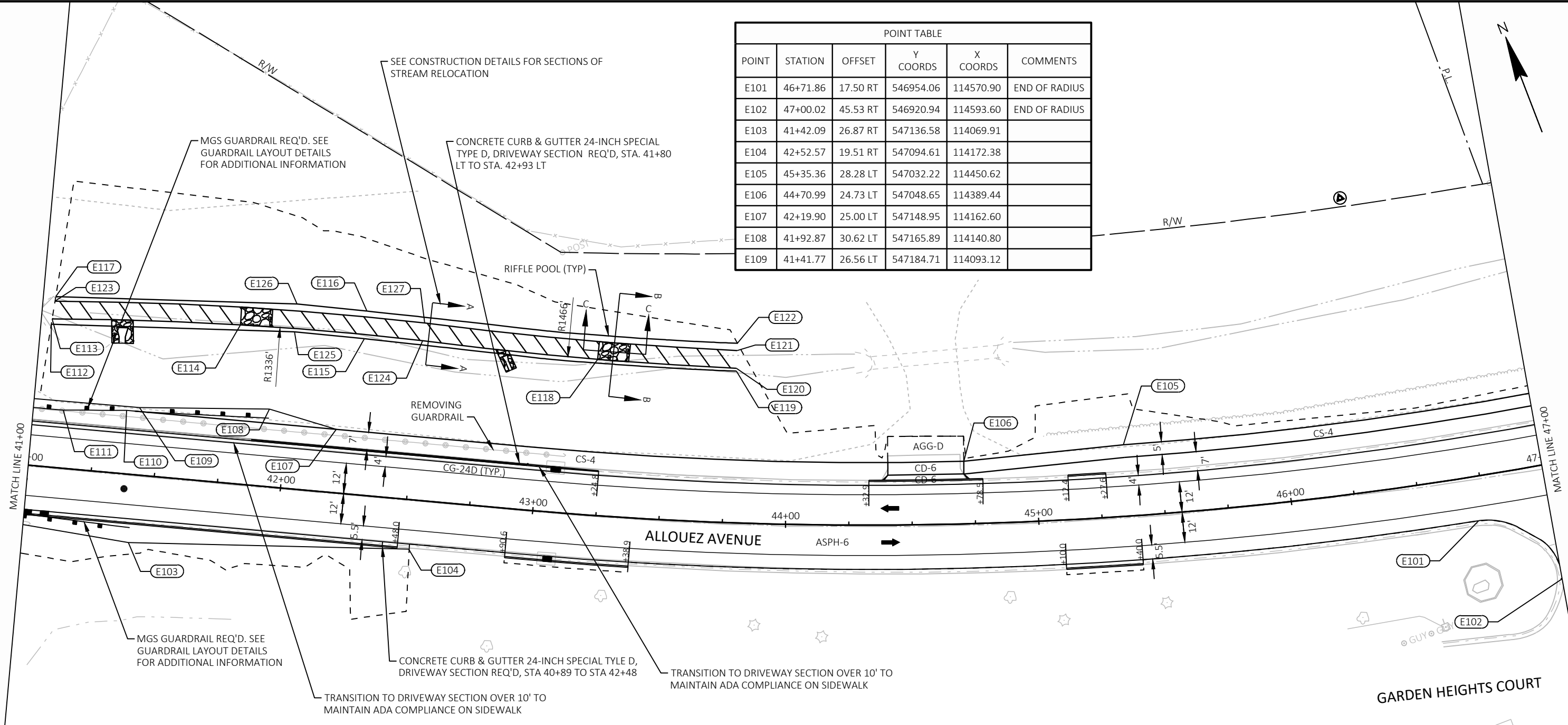
POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
D101	35+35.34	27.04 LT	547451.82	113548.68	
D102	35+73.78	27.04 LT	547434.92	113583.20	
D103	35+93.60	16.00 LT	547416.29	113596.15	
D104	35+75.21	16.00 LT	547424.37	113579.64	
D105	35+89.40	19.23 RT	547386.50	113576.89	
D106	35+75.21	19.23 RT	547392.74	113564.15	
D107	35+30.48	19.23 RT	547412.41	113523.97	
D108	35+16.75	24.28 RT	547413.90	113509.42	
D109	40+33.18	19.32 RT	547191.26	113975.41	
D110	40+52.50	19.32 RT	547182.76	113992.77	

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
D111	40+54.36	17.50 RT	547183.58	113995.24	
D112	40+54.36	23.09 RT	547178.56	113992.78	
D113	40+90.55	22.75 RT	547162.95	114025.44	
D114	40+38.30	22.53 LT	547226.59	113998.42	
D115	40+37.49	15.97 LT	547221.06	113994.81	
D116	40+52.50	15.97 LT	547214.46	114008.29	
D117	40+59.35	26.14 LT	547220.58	114018.91	
D118	35+16.49	17.82 RT	547419.82	113512.02	
D119	35+30.44	17.39 RT	547414.07	113524.74	
D120	35+68.21	17.39 RT	547397.46	113558.66	



**NOTE: SEE STANDARD DETAIL 'CONCRETE SURFACE DRAINS, FLUME TYPE AT STRUCTURES' FOR CURB AND GUTTER TYPE AND PLACEMENT; FINAL PLACEMENT OF CONCRETE SURFACE DRAIN MUST MAINTAIN THE MINIMUM POST SEPARATION DISTANCES STATED IN THE STANDARD DETAIL.

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
E101	46+71.86	17.50 RT	546954.06	114570.90	END OF RADIUS
E102	47+00.02	45.53 RT	546920.94	114593.60	END OF RADIUS
E103	41+42.09	26.87 RT	547136.58	114069.91	
E104	42+52.57	19.51 RT	547094.61	114172.38	
E105	45+35.36	28.28 LT	547032.22	114450.62	
E106	44+70.99	24.73 LT	547048.65	114389.44	
E107	42+19.90	25.00 LT	547148.95	114162.60	
E108	41+92.87	30.62 LT	547165.89	114140.80	
E109	41+41.77	26.56 LT	547184.71	114093.12	



LEGEND

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- SAWING ASPHALT
- SLOPE INTERCEPT
- ASPH-2 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H
- STREAM RELOCATION LOW FLOW AREA

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
E110	41+36.80	25.00 LT	547185.50	114087.97	
E111	41+11.89	22.91 LT	547194.57	114064.67	
E112	41+04.11	56.17 LT	547227.87	114072.32	
E113	41+04.26	58.32 LT	547229.73	114073.39	
E114	41+78.56	62.68 LT	547200.98	114142.04	
E115	42+27.75	61.60 LT	547178.38	114185.75	
E116	42+27.75	72.60 LT	547188.26	114190.59	
E117	41+04.86	67.23 LT	547237.47	114077.85	
E118	43+21.18	61.59 LT	547137.91	114268.82	

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
E119	43+78.45	59.96 LT	547114.01	114318.35	
E120	43+78.45	61.07 LT	547115.03	114318.78	
E121	43+78.45	68.07 LT	547121.48	114321.51	
E122	43+78.45	70.96 LT	547124.14	114322.64	
E123	41+04.73	65.38 LT	547235.87	114076.93	
E124	42+50.68	62.93 LT	547169.49	114206.93	
E125	42+00.00	61.87 LT	547190.82	114160.95	
E126	42+00.00	72.87 LT	547200.70	114165.78	
E127	42+50.90	69.93 LT	547175.67	114210.20	

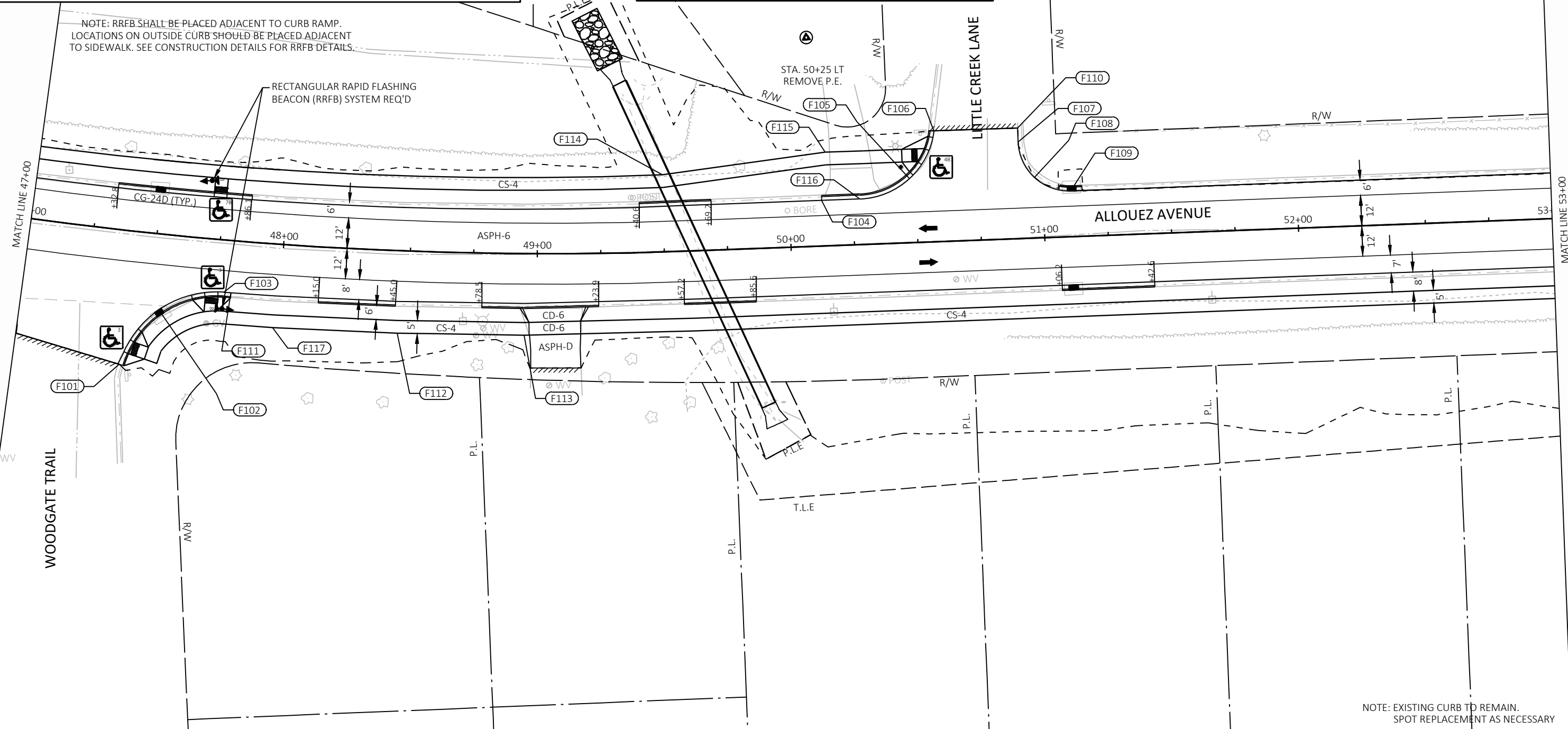
NOTE: EXISTING CURB TO REMAIN. SPOT REPLACEMENT AS NECESSARY

LEGEND










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POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
F101	47+40.73	52.68 RT	546906.61	114633.75	END OF RADIUS
F102	47+78.54	60.49 RT	546893.09	114671.40	R=40'
F103	47+78.12	20.49 RT	546932.77	114676.40	END OF RADIUS
F104	50+12.75	18.00 LT	546956.48	114913.43	END OF RADIUS
F105	50+27.75	48.50 LT	546986.76	114928.88	R=30.5'
F106	50+57.87	43.75 LT	546981.56	114958.94	END OF RADIUS
F107	50+90.91	38.11 LT	546975.42	114991.89	END OF RADIUS
F108	51+10.91	38.00 LT	546975.01	115011.88	R=20'
F109	51+10.91	18.00 LT	546955.02	115011.58	END OF RADIUS

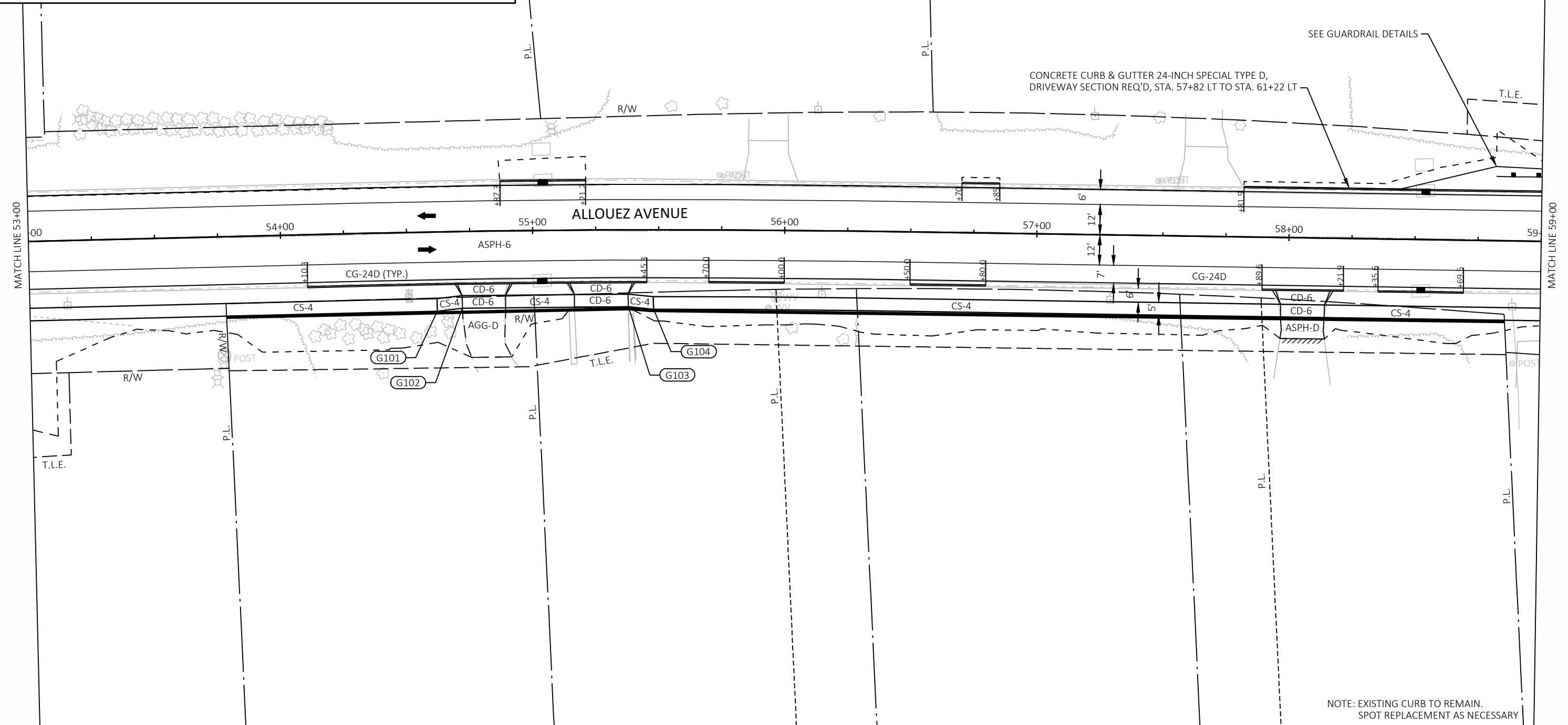
POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
F110	50+90.94	43.57 LT	546980.88	114992.00	MATCH
F111	47+80.90	20.46 RT	546932.42	114679.19	MATCH
F112	48+46.09	32.39 RT	546913.10	114743.75	
F113	48+94.99	32.08 RT	546909.67	114793.58	
F114	49+50.18	30.40 LT	546969.85	114851.28	
F115	50+14.87	36.89 LT	546975.34	114915.84	
F116	50+27.75	18.00 LT	546956.26	114928.43	END OF RADIUS
F117	47+97.93	32.90 RT	546917.86	114694.77	



LEGEND

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-  SAWING ASPHALT
-  SLOPE INTERCEPT
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-  STREAM RELOCATION LOW FLOW AREA

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
G101	54+61.64	31.50 RT	546900.19	115361.35	
G102	54+71.64	30.51 RT	546900.97	115371.31	
G103	55+37.89	30.50 RT	546899.05	115437.13	
G104	55+47.98	31.50 RT	546897.68	115447.11	

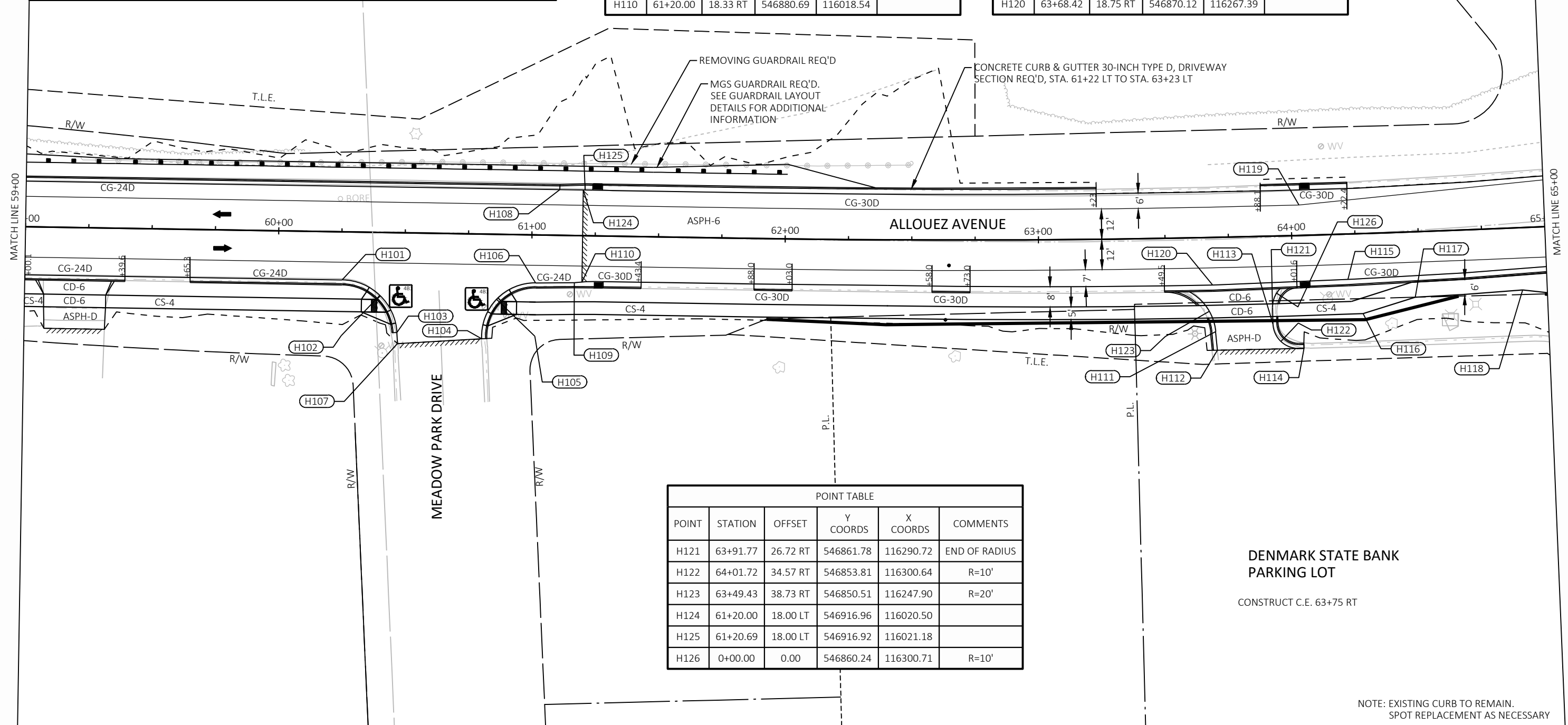


LEGEND

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POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
H101	60+25.32	19.00 RT	546885.11	115923.96	END OF RADIUS
H102	60+25.32	41.00 RT	546863.14	115922.78	R=22'
H103	60+47.26	39.38 RT	546863.58	115944.77	END OF RADIUS
H104	60+80.79	41.35 RT	546859.81	115978.15	END OF RADIUS
H105	61+01.75	40.00 RT	546860.03	115999.15	R=21'
H106	61+01.75	19.00 RT	546881.00	116000.28	END OF RADIUS
H107	60+47.59	43.80 RT	546859.15	115944.86	MATCH
H108	61+10.72	18.00 LT	546917.46	116011.23	
H109	61+17.06	18.63 RT	546880.54	116015.59	
H110	61+20.00	18.33 RT	546880.69	116018.54	

POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
H111	63+69.22	37.20 RT	546851.65	116267.87	
H112	63+69.76	44.51 RT	546844.33	116268.29	END OF RADIUS
H113	63+91.79	34.69 RT	546853.81	116290.64	
H114	64+03.71	44.58 RT	546843.78	116302.53	END OF RADIUS
H115	64+21.71	17.88 RT	546870.32	116320.88	
H116	64+27.25	31.58 RT	546856.58	116326.35	
H117	64+47.93	25.81 RT	546862.27	116347.18	
H118	64+90.26	24.62 RT	546863.52	116389.63	
H119	64+03.23	12.00 LT	546900.36	116302.66	
H120	63+68.42	18.75 RT	546870.12	116267.39	












POINT TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	COMMENTS
H121	63+91.77	26.72 RT	546861.78	116290.72	END OF RADIUS
H122	64+01.72	34.57 RT	546853.81	116300.64	R=10'
H123	63+49.43	38.73 RT	546850.51	116247.90	R=20'
H124	61+20.00	18.00 LT	546916.96	116020.50	
H125	61+20.69	18.00 LT	546916.92	116021.18	
H126	0+00.00	0.00	546860.24	116300.71	R=10'

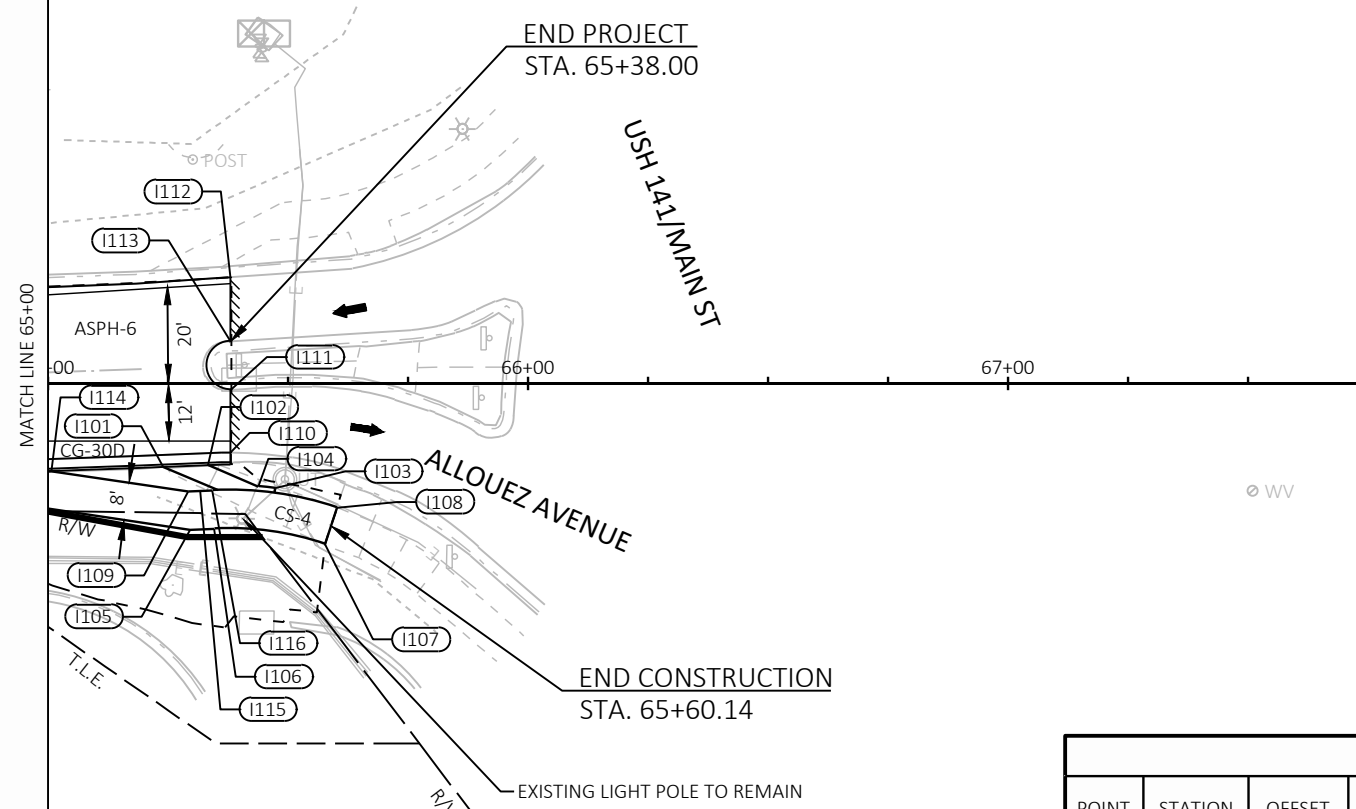
DENMARK STATE BANK PARKING LOT

CONSTRUCT C.E. 63+75 RT

NOTE: EXISTING CURB TO REMAIN. SPOT REPLACEMENT AS NECESSARY

LEGEND

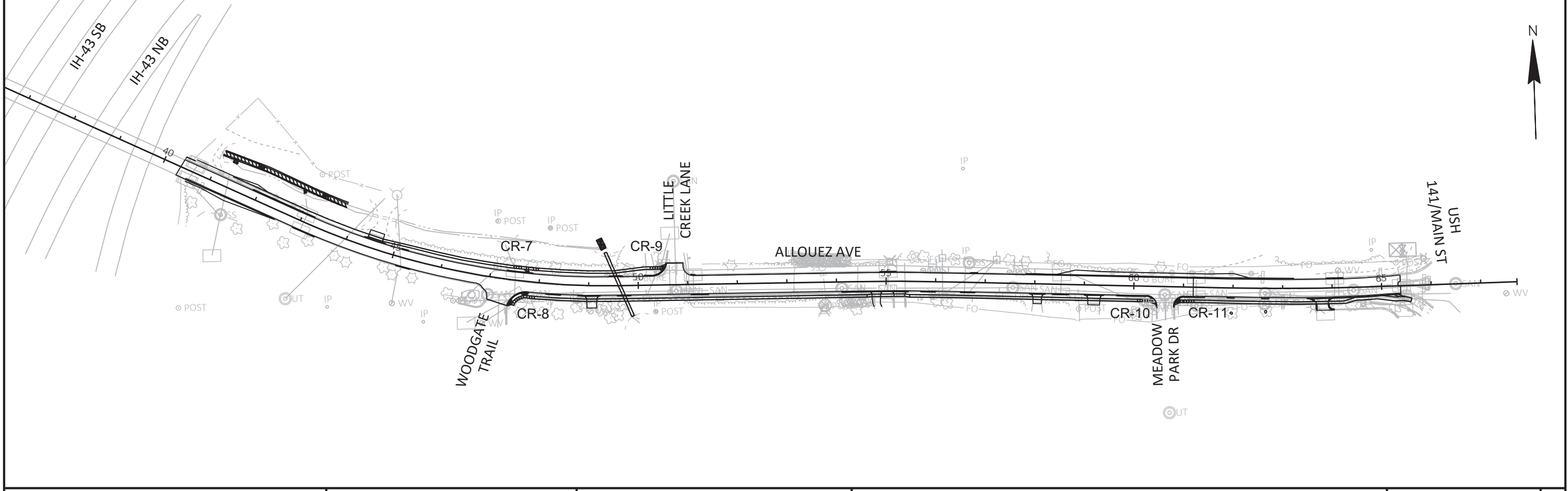
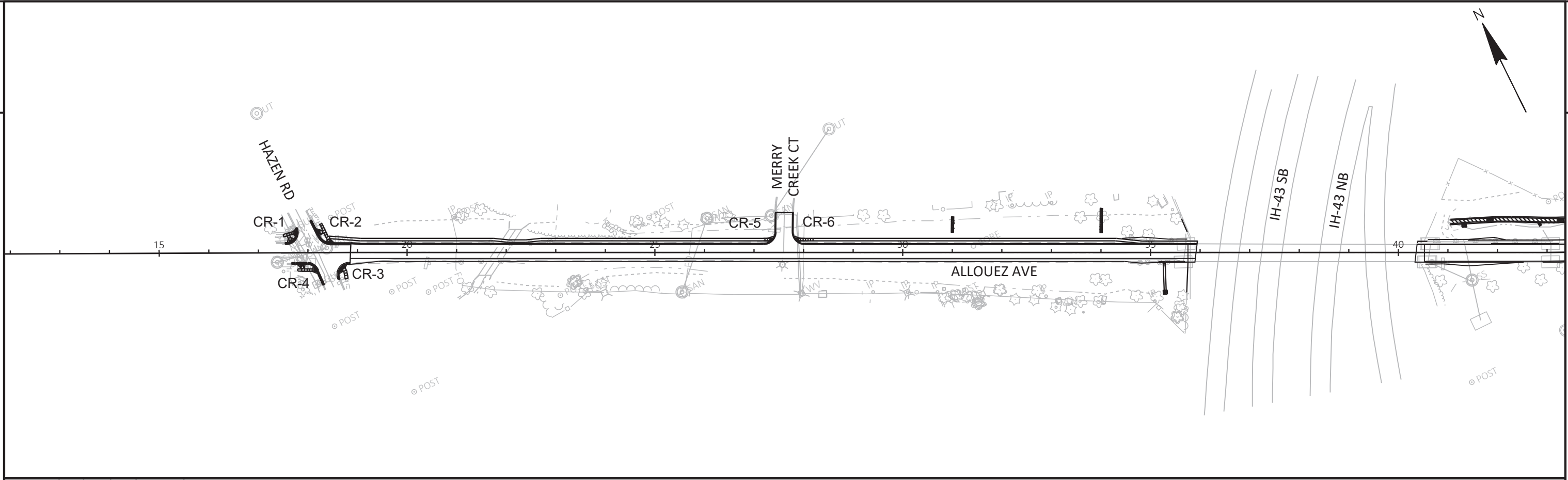
- ASPH-D ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- CD-6 CONCRETE DRIVEWAY 6-INCH
- CS-4 CONCRETE SIDEWALK 4-INCH
- CG-24D CONCRETE CURB & GUTTER 24-INCH SPECIAL TYPE D
- CG-30D CONCRETE CURB & GUTTER 30-INCH TYPE D
- ASPH-6 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H OVER 3 3/4-INCHES HMA PAVEMENT 3 LT 58-28 S OVER 10-INCHES BASE AGGREGATE DENSE 1 1/4-INCH
- AGG-D 6 INCHES BASE AGGREGATE DENSE 1 1/4-INCH
-  CURB RAMP, TYPE X
-  TRAFFIC FLOW
-  PROPOSED STORM SEWER INLET
-  PROPOSED STORM SEWER MANHOLE
-  SAWING CONCRETE
-  SAWING ASPHALT
-  SLOPE INTERCEPT
-  ASPH-2 2 1/4-INCHES HMA PAVEMENT 4 LT 58-28 H
-  STREAM RELOCATION LOW FLOW AREA



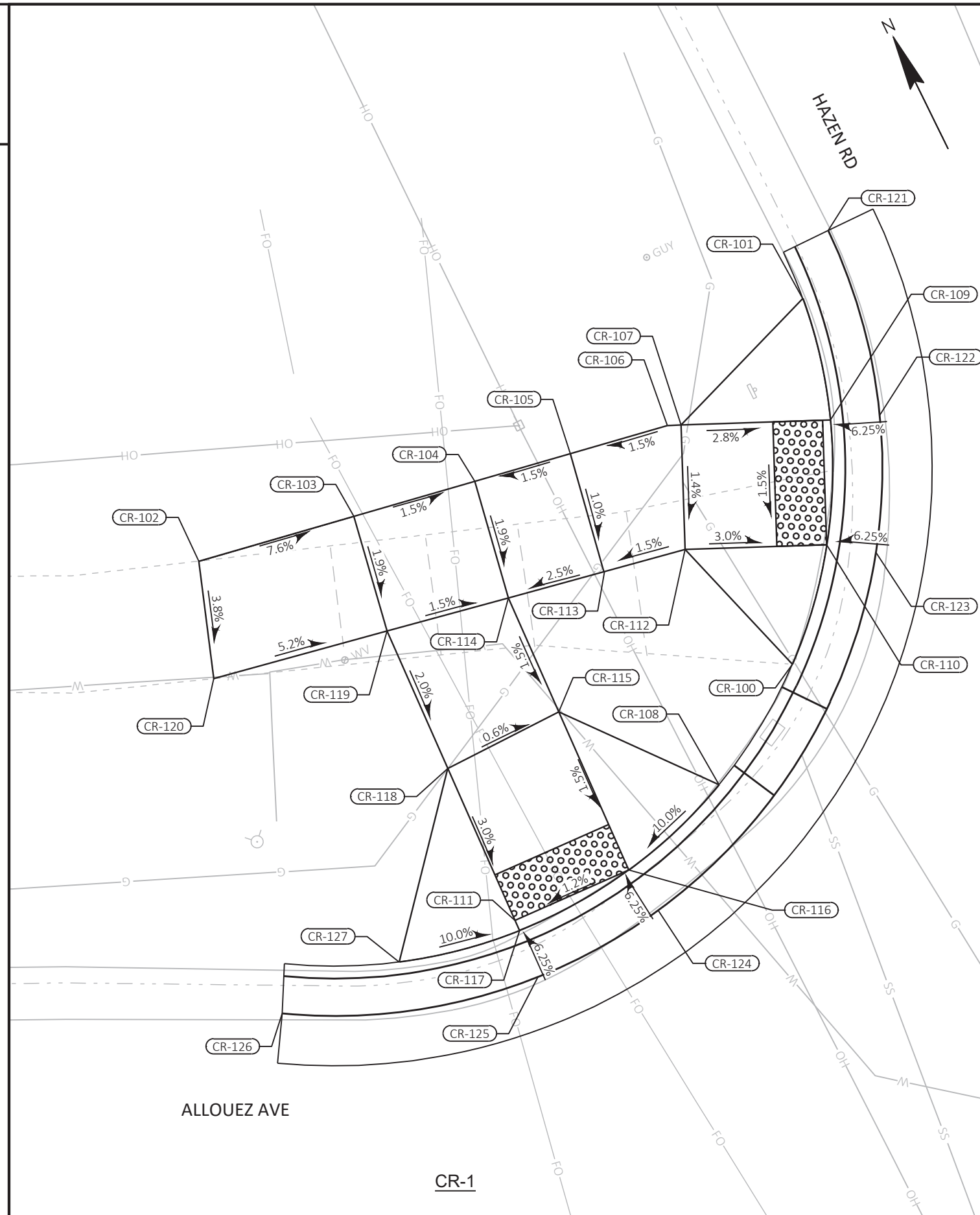
POINT TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENTS
I101	65+23.98	17.39 RT	546870.86	116423.33	691.19	
I102	65+33.32	17.07 RT	546871.20	116432.67	691.21	
I103	65+47.30	21.83 RT	546866.48	116446.66	691.84	
I104	65+43.83	21.45 RT	546866.86	116443.19	691.76	
I105	65+29.63	30.51 RT	546857.76	116429.02	691.56	END OF RADIUS
I106	65+34.62	30.26 RT	546858.02	116434.01	691.60	R=62.6'
I107	65+57.72	33.48 RT	546854.87	116457.11	692.19	END OF RADIUS
I108	65+60.14	25.85 RT	546862.50	116459.52	692.16	

POINT TABLE						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	COMMENTS
I109	65+29.23	22.52 RT	546865.75	116428.60	691.44	
I110	65+38.00	14.40 RT	546873.89	116437.34	---	MATCH
I111	65+38.00	1.35 RT	546886.94	116437.30	---	MATCH
I112	65+38.00	22.13 LT	546910.42	116437.23	---	MATCH
I113	65+38.00	8.78 LT	546897.07	116437.27	---	MATCH
I114	65+00.67	18.25 RT	546869.93	116400.02	---	
I115	65+31.73	22.39 RT	546865.88	116431.10	691.56	
I116	65+34.23	22.27 RT	546866.01	116433.59	691.58	

NOTE: EXISTING CURB TO REMAIN. SPOT REPLACEMENT AS NECESSARY

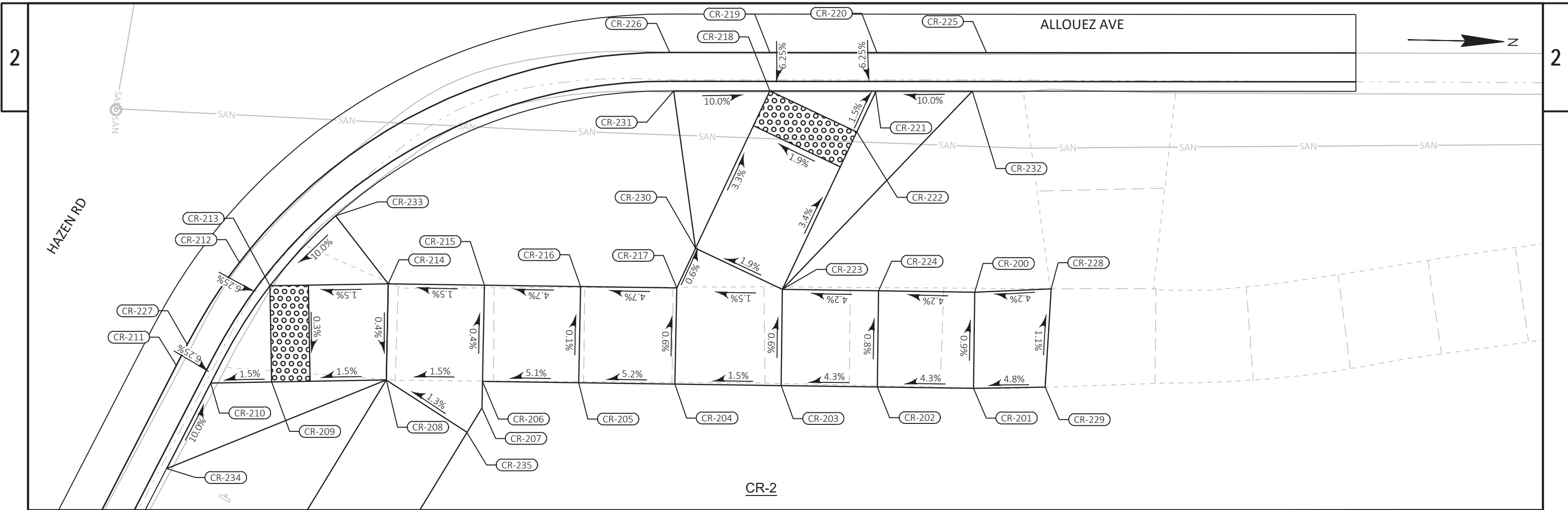


PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CURB RAMP DETAILS	SHEET	E
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STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-100	17+74.7	32.9' LT	548230.97	111969.70	630.51
CR-101	17+75.2	47.5' LT	548243.97	111976.53	630.59
CR-102	17+50.9	37.1' LT	548245.17	111950.11	630.68*
CR-103	17+57.1	38.9' LT	548244.05	111956.49	630.22
CR-104	17+62.0	40.3' LT	548243.18	111961.47	630.14
CR-105	17+65.8	41.4' LT	548242.49	111965.41	630.20
CR-106	17+69.7	42.5' LT	548241.79	111969.41	630.26
CR-107	17+70.3	42.5' LT	548241.57	111969.91	630.27
CR-108	17+71.8	28.0' LT	548227.92	111964.92	630.16
CR-109	17+76.3	42.7' LT	548239.11	111975.38	630.09
CR-110	17+76.1	37.7' LT	548234.68	111973.05	630.01
CR-111	17+63.5	22.6' LT	548226.63	111955.17	630.09
CR-112	17+70.4	37.5' LT	548237.00	111967.86	630.20
CR-113	17+67.2	36.6' LT	548237.63	111964.56	630.15
CR-114	17+63.3	35.6' LT	548238.38	111960.63	630.05
CR-115	17+65.3	31.0' LT	548233.37	111960.43	629.90
CR-116	17+68.1	24.6' LT	548226.44	111960.16	629.87
CR-117	17+63.7	22.2' LT	548226.18	111955.15	629.80
CR-118	17+60.9	28.7' LT	548233.30	111955.43	629.91
CR-119	17+58.4	34.3' LT	548239.32	111955.66	630.12
CR-120	17+51.5	32.4' LT	548240.67	111948.58	630.50*
CR-121	17+76.2	50.3' LT	548245.98	111978.65	630.24*
CR-122	17+78.3	42.9' LT	548238.41	111977.25	630.17
CR-123	17+78.1	37.3' LT	548233.53	111974.69	630.12
CR-124	17+69.3	23.0' LT	548224.47	111960.51	629.95
CR-125	17+64.4	20.3' LT	548224.19	111955.00	629.89
CR-126	17+54.2	18.9' LT	548227.38	111945.13	629.75*
CR-127	17+58.9	21.0' LT	548227.17	111950.26	630.30

NOTE: *ELEVATION IS APPROXIMATE. MATCH EXISTING.



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-200	18+25.7	53.3' LT	548227.07	112024.47	630.79
CR-201	18+30.2	55.5' LT	548227.09	112029.47	630.84
CR-202	18+32.4	51.0' LT	548222.09	112029.49	630.62
CR-203	18+34.6	46.5' LT	548217.10	112029.52	630.41
CR-204	18+37.0	41.5' LT	548211.57	112029.55	630.32
CR-205	18+39.2	37.0' LT	548206.57	112029.58	630.06
CR-206	18+41.4	32.6' LT	548201.57	112029.60	629.81
CR-207	18+42.7	33.2' LT	548201.57	112031.01	629.82
CR-208	18+43.6	28.1' LT	548196.57	112029.63	629.73
CR-209	18+46.4	22.8' LT	548190.61	112029.85	629.64
CR-210	18+47.9	20.0' LT	548187.45	112029.97	629.60
CR-211	18+47.9	18.0' LT	548185.66	112029.09	629.68
CR-212	18+41.7	18.5' LT	548188.82	112023.67	629.75
CR-213	18+42.0	20.5' LT	548190.43	112024.86	629.66
CR-214	18+39.2	25.9' LT	548196.57	112024.63	629.75

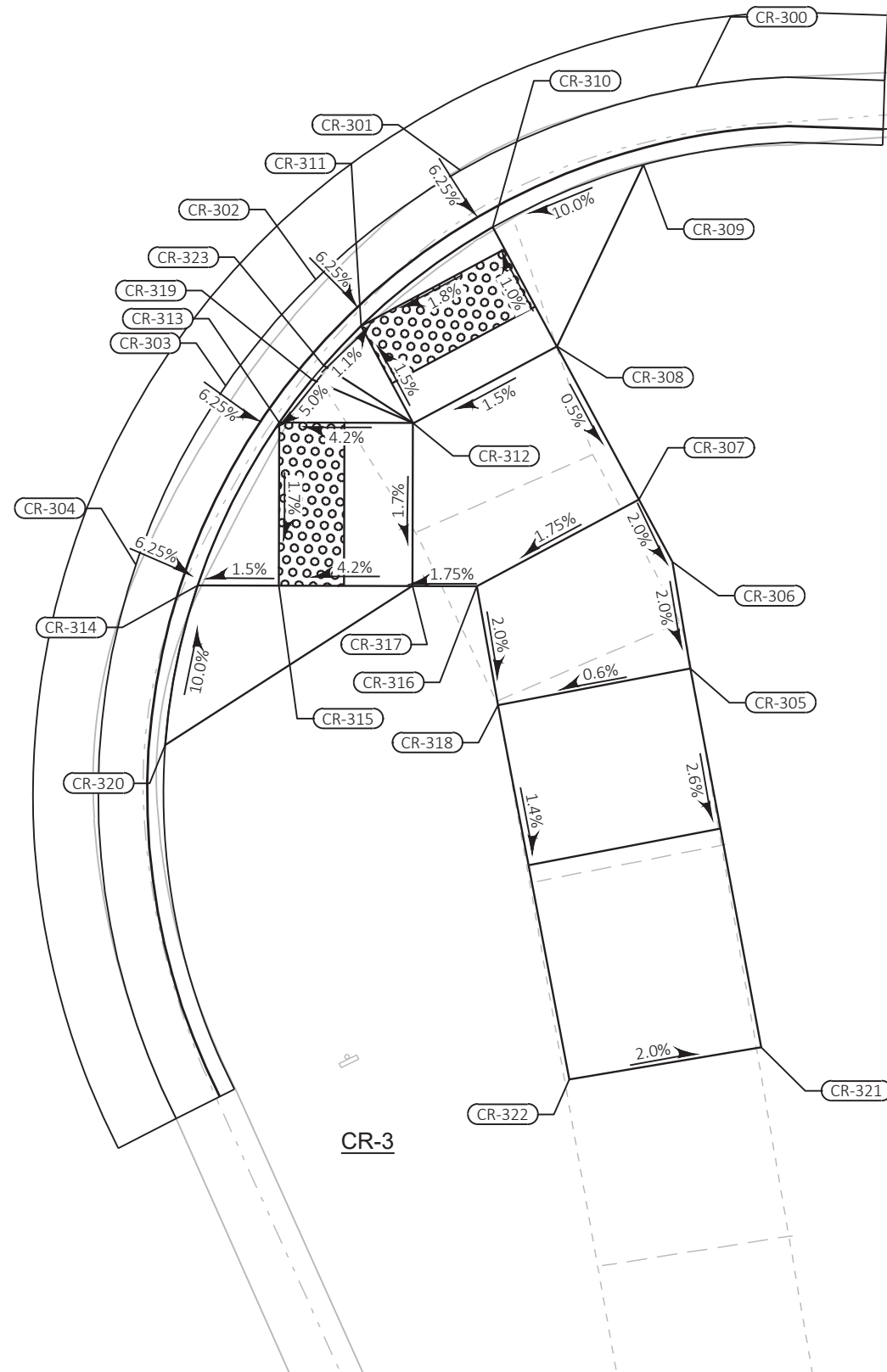
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-215	18+36.9	30.4' LT	548201.57	112024.60	629.83
CR-216	18+34.7	34.9' LT	548206.57	112024.58	630.06
CR-217	18+32.5	39.3' LT	548211.57	112024.55	630.29
CR-218	18+21.2	39.0' LT	548216.21	112014.21	629.98
CR-219	18+19.4	38.1' LT	548216.17	112012.21	630.07
CR-220	18+16.9	43.1' LT	548221.73	112012.11	630.12
CR-221	18+18.8	43.9' LT	548221.71	112014.17	630.04
CR-222	18+21.1	44.0' LT	548220.77	112016.26	630.07
CR-223	18+30.1	44.3' LT	548217.07	112024.52	630.38
CR-224	18+27.9	48.8' LT	548222.07	112024.49	630.58
CR-225	18+14.3	48.1' LT	548227.43	112012.00	630.18
CR-226	18+21.8	33.5' LT	548210.97	112012.31	630.01
CR-227	18+46.7	18.0' LT	548186.20	112027.99	629.69
CR-228	18+23.7	56.7' LT	548231.04	112024.21	630.96*
CR-229	18+28.4	58.8' LT	548230.82	112029.34	631.02*

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-230	18+30.3	39.3' LT	548212.51	112022.47	630.28
CR-231	18+23.5	34.6' LT	548211.21	112014.31	630.48
CR-232	18+16.4	48.4' LT	548226.74	112014.01	630.54
CR-233	18+37.2	21.8' LT	548193.77	112021.14	630.16
CR-234	18+52.9	20.0' LT	548185.25	112034.46	630.10
CR-235	18+44.2	33.0' LT	548200.80	112032.25	629.80

NOTE: *ELEVATION IS APPROXIMATE. MATCH EXISTING.

HAZEN RD

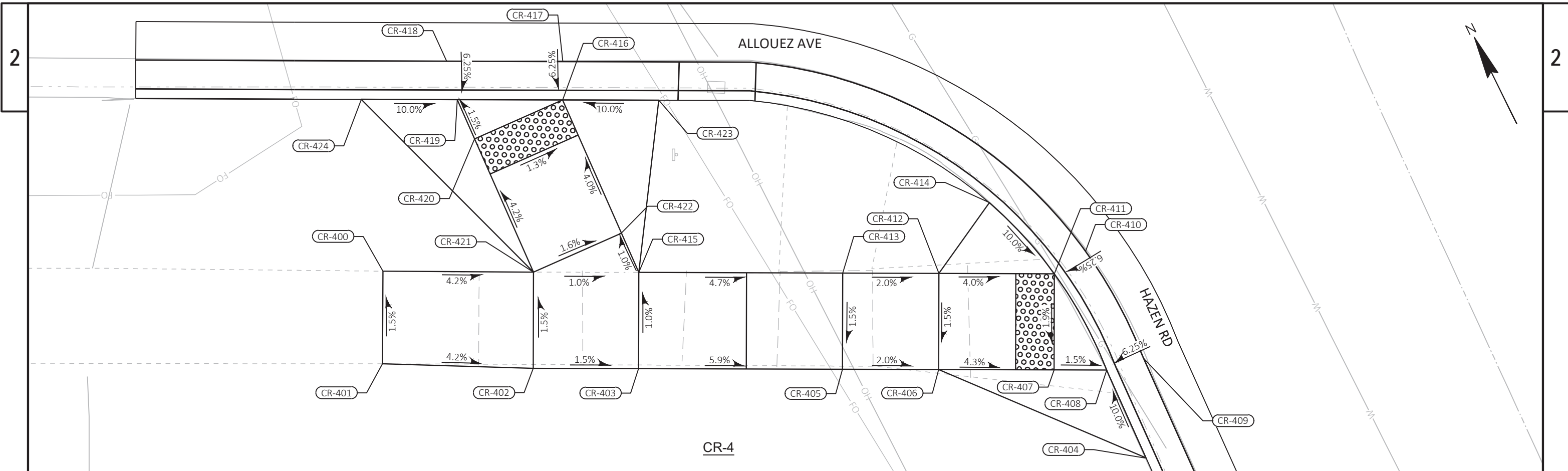
ALLOUEZ AVE



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-300	18+79.1	22.7' RT	548135.45	112039.41	629.10
CR-301	18+71.9	25.2' RT	548136.31	112031.79	628.80
CR-302	18+67.4	28.5' RT	548135.26	112026.33	628.72
CR-303	18+64.7	31.8' RT	548133.55	112022.42	628.60
CR-304	18+61.9	37.3' RT	548129.83	112017.53	628.47
CR-305	18+78.9	40.5' RT	548119.48	112031.40	628.62
CR-306	18+78.3	37.2' RT	548122.67	112032.35	628.69
CR-307	18+77.3	35.3' RT	548124.84	112032.27	628.73
CR-308	18+74.8	30.6' RT	548130.16	112032.07	628.76
CR-309	18+77.5	25.1' RT	548134.00	112036.91	629.22
CR-310	18+72.9	27.0' RT	548134.31	112031.92	628.72
CR-311	18+68.8	30.0' RT	548133.36	112026.95	628.63

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-312	18+70.4	33.0' RT	548129.99	112027.07	628.68
CR-313	18+66.3	32.9' RT	548131.80	112023.39	628.51
CR-314	18+63.8	37.9' RT	548128.42	112018.95	628.39
CR-315	18+66.3	37.9' RT	548127.32	112021.18	628.42
CR-316	18+72.4	38.0' RT	548124.63	112026.63	628.63
CR-317	18+70.4	38.0' RT	548125.51	112024.86	628.60
CR-318	18+73.0	41.6' RT	548121.07	112025.61	628.58
CR-319	18+67.3	31.6' RT	548132.56	112024.88	628.59
CR-320	18+62.8	42.8' RT	548124.46	112015.90	628.89
CR-321	18+81.0	52.1' RT	548108.09	112028.24	628.31*
CR-322	18+75.1	53.1' RT	548109.80	112022.52	628.43*
CR-323	18+67.7	31.2' RT	548132.78	112025.39	628.65

NOTE: *ELEVATION IS APPROXIMATE. MATCH EXISTING.

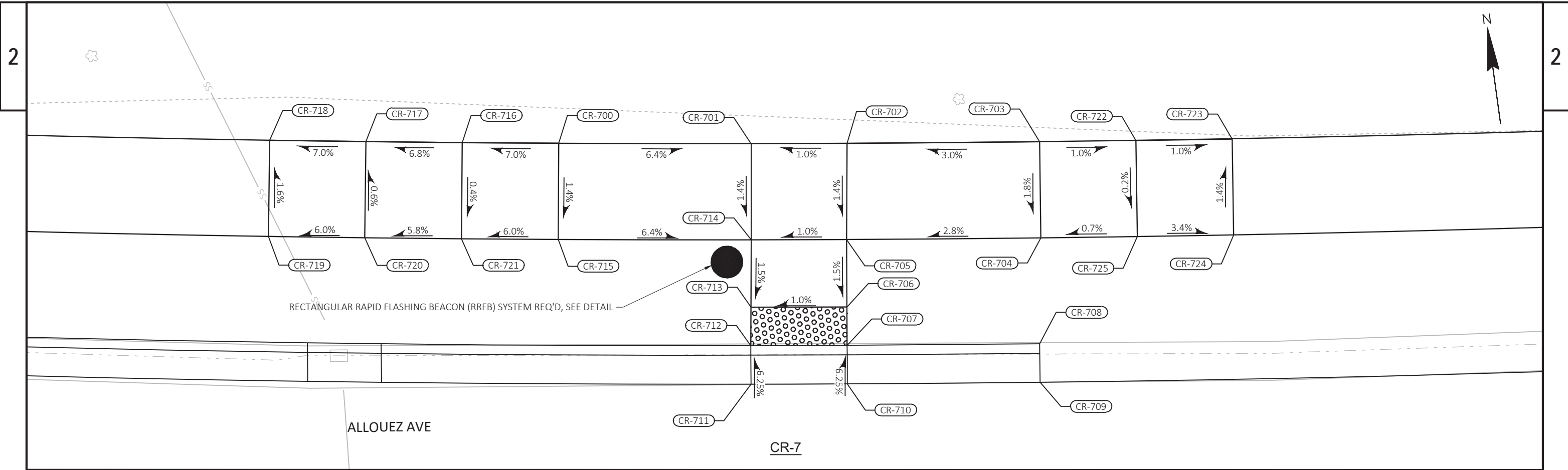


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-400	17+79.8	32.3' RT	548170.11	111945.82	630.09*
CR-401	17+79.8	37.1' RT	548165.79	111943.68	630.16*
CR-402	17+87.6	37.4' RT	548162.14	111950.62	629.83
CR-403	17+93.1	37.4' RT	548159.72	111955.53	629.75
CR-404	18+19.4	42.2' RT	548143.95	111977.14	629.20
CR-405	18+03.6	37.5' RT	548155.03	111965.03	629.12
CR-406	18+08.6	37.5' RT	548152.81	111969.51	629.02
CR-407	18+14.6	37.6' RT	548150.16	111974.89	628.76
CR-408	18+17.4	37.6' RT	548148.95	111977.35	628.72
CR-409	18+19.3	37.0' RT	548148.69	111979.33	628.81
CR-410	18+16.3	31.4' RT	548154.99	111979.08	628.94

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-411	18+14.7	32.6' RT	548154.64	111977.11	628.86
CR-412	18+08.7	32.5' RT	548157.30	111971.73	629.10
CR-413	18+03.7	32.5' RT	548159.51	111967.24	629.20
CR-414	18+11.3	28.9' RT	548159.44	111975.70	629.36
CR-415	17+93.1	32.4' RT	548164.20	111957.74	629.70
CR-416	17+89.2	23.5' RT	548173.99	111958.12	629.38
CR-417	17+89.2	21.5' RT	548175.79	111959.01	629.46
CR-418	17+83.1	21.4' RT	548178.45	111953.60	629.50
CR-419	17+83.7	23.4' RT	548176.41	111953.21	629.41
CR-420	17+84.6	25.5' RT	548174.19	111953.13	629.44
CR-421	17+87.6	32.4' RT	548166.62	111952.83	629.76

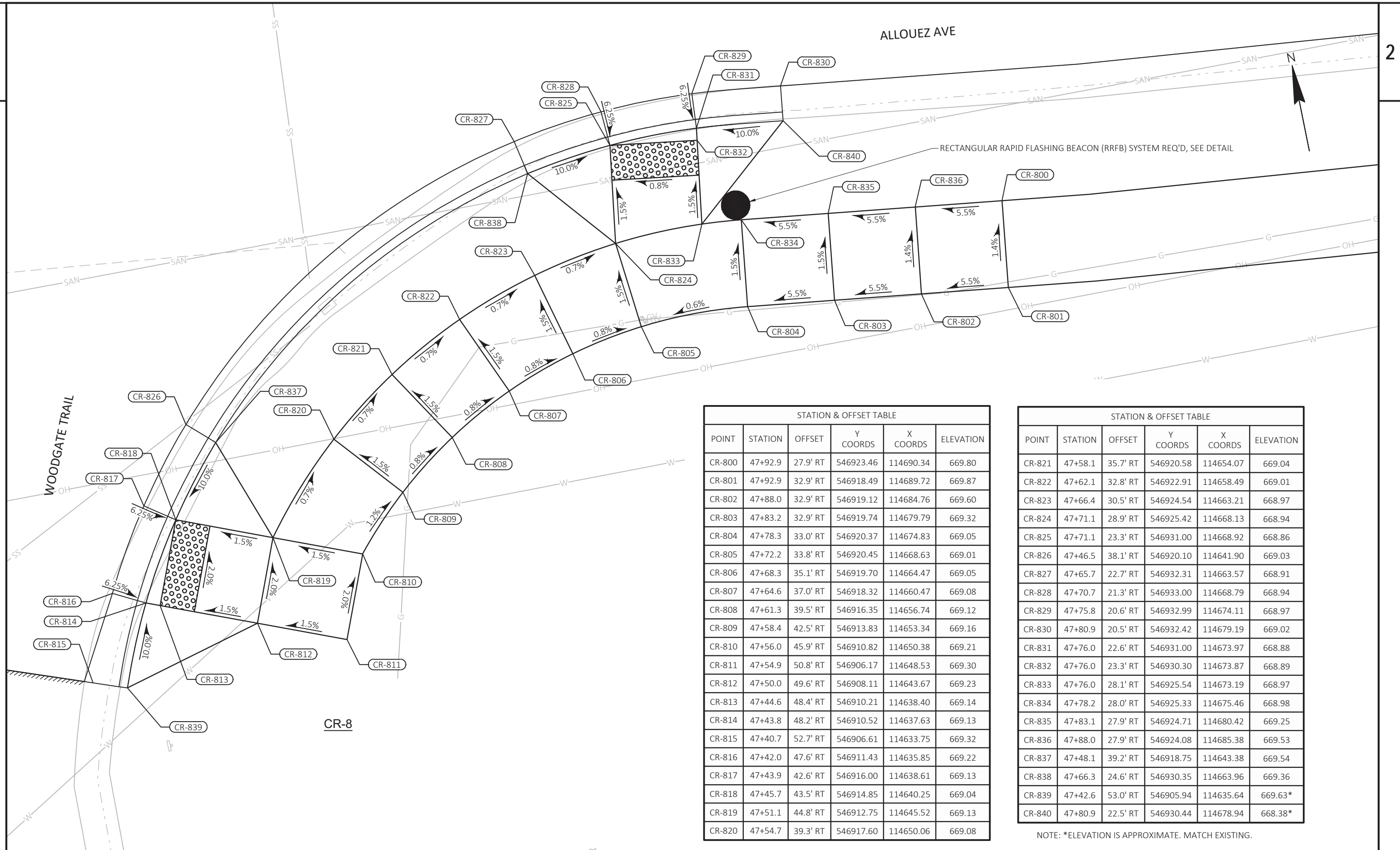
STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-422	17+92.2	30.4' RT	548166.44	111957.83	629.68
CR-423	17+94.2	23.5' RT	548171.78	111962.61	629.88
CR-424	17+78.7	23.4' RT	548178.62	111948.73	629.91

NOTE: *ELEVATION IS APPROXIMATE. MATCH EXISTING.



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-700	47+60.8	29.0' LT	546984.24	114666.35	669.46
CR-701	47+71.0	29.1' LT	546982.86	114676.24	669.06
CR-702	47+76.1	29.1' LT	546982.20	114681.19	669.11
CR-703	47+86.3	29.2' LT	546980.92	114691.11	669.41
CR-704	47+86.4	24.2' LT	546975.96	114690.48	669.32
CR-705	47+76.1	24.1' LT	546977.25	114680.48	669.03
CR-706	47+76.1	20.6' LT	546973.78	114680.02	668.98
CR-707	47+76.1	18.6' LT	546971.79	114679.76	668.95
CR-708	47+86.2	18.7' LT	546970.52	114689.67	669.19
CR-709	47+86.3	16.7' LT	546968.53	114689.43	669.14
CR-710	47+76.1	16.6' LT	546969.81	114679.50	669.04
CR-711	47+71.1	16.6' LT	546970.48	114674.53	668.99
CR-712	47+71.1	18.6' LT	546972.46	114674.80	668.90

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-713	47+71.1	20.6' LT	546974.44	114675.08	668.93
CR-714	47+71.1	24.1' LT	546977.91	114675.58	668.98
CR-715	47+60.9	24.0' LT	546979.29	114665.65	669.38
CR-716	47+55.8	29.0' LT	546984.96	114661.40	669.20
CR-717	47+50.6	29.0' LT	546985.69	114656.45	668.95
CR-718	47+45.6	29.0' LT	546986.44	114651.51	668.69
CR-719	47+45.6	24.0' LT	546981.50	114650.77	668.77
CR-720	47+50.7	24.0' LT	546980.75	114655.71	668.97
CR-721	47+55.8	24.0' LT	546980.01	114660.67	669.18
CR-722	47+91.4	29.2' LT	546980.31	114696.07	669.36
CR-723	47+96.5	29.2' LT	546979.69	114701.03	669.31
CR-724	47+96.5	24.2' LT	546974.75	114700.43	669.38
CR-725	47+91.4	24.2' LT	546975.34	114695.46	669.35



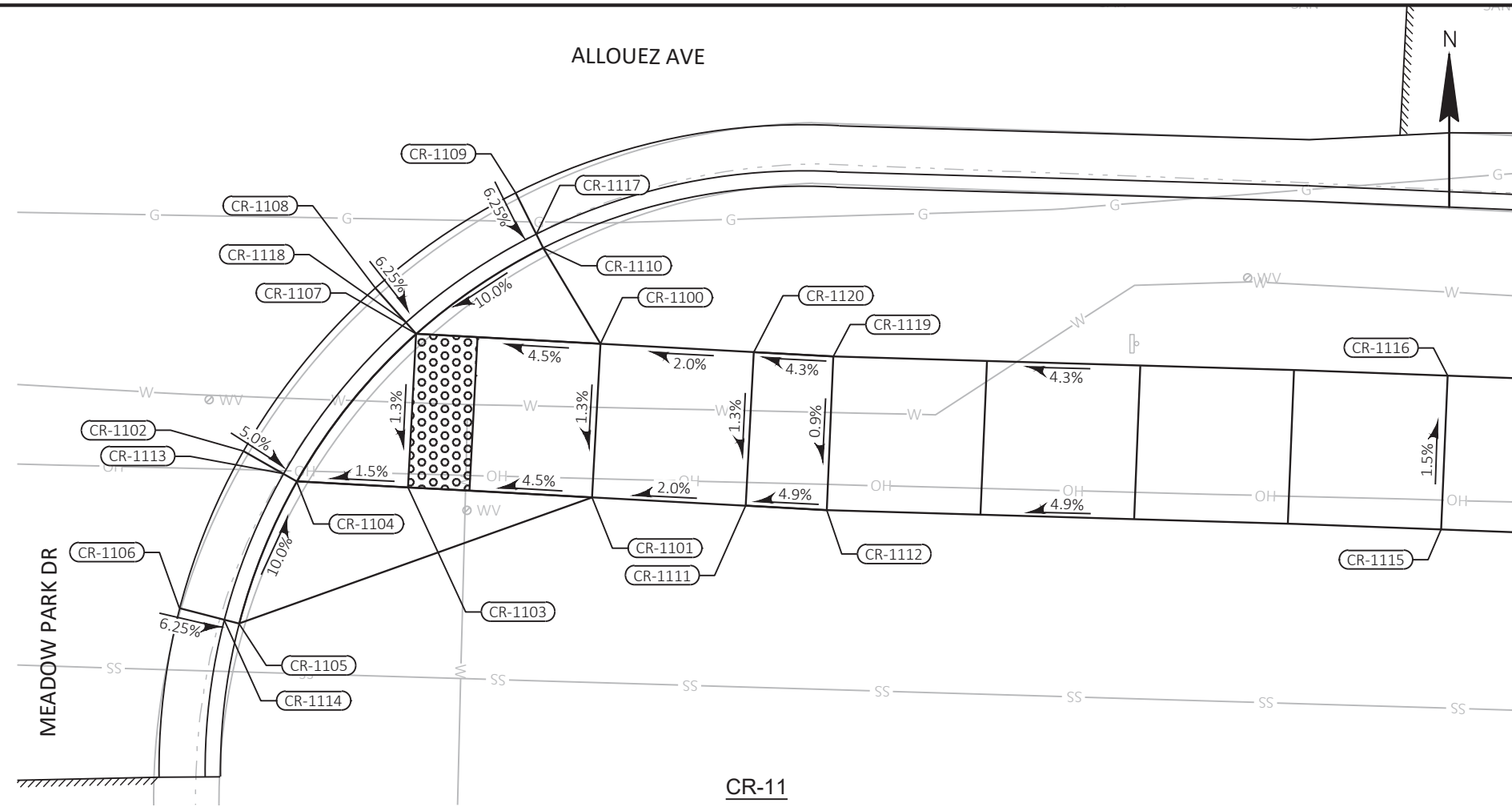
STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-800	47+92.9	27.9' RT	546923.46	114690.34	669.80
CR-801	47+92.9	32.9' RT	546918.49	114689.72	669.87
CR-802	47+88.0	32.9' RT	546919.12	114684.76	669.60
CR-803	47+83.2	32.9' RT	546919.74	114679.79	669.32
CR-804	47+78.3	33.0' RT	546920.37	114674.83	669.05
CR-805	47+72.2	33.8' RT	546920.45	114668.63	669.01
CR-806	47+68.3	35.1' RT	546919.70	114664.47	669.05
CR-807	47+64.6	37.0' RT	546918.32	114660.47	669.08
CR-808	47+61.3	39.5' RT	546916.35	114656.74	669.12
CR-809	47+58.4	42.5' RT	546913.83	114653.34	669.16
CR-810	47+56.0	45.9' RT	546910.82	114650.38	669.21
CR-811	47+54.9	50.8' RT	546906.17	114648.53	669.30
CR-812	47+50.0	49.6' RT	546908.11	114643.67	669.23
CR-813	47+44.6	48.4' RT	546910.21	114638.40	669.14
CR-814	47+43.8	48.2' RT	546910.52	114637.63	669.13
CR-815	47+40.7	52.7' RT	546906.61	114633.75	669.32
CR-816	47+42.0	47.6' RT	546911.43	114635.85	669.22
CR-817	47+43.9	42.6' RT	546916.00	114638.61	669.13
CR-818	47+45.7	43.5' RT	546914.85	114640.25	669.04
CR-819	47+51.1	44.8' RT	546912.75	114645.52	669.13
CR-820	47+54.7	39.3' RT	546917.60	114650.06	669.08

STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-821	47+58.1	35.7' RT	546920.58	114654.07	669.04
CR-822	47+62.1	32.8' RT	546922.91	114658.49	669.01
CR-823	47+66.4	30.5' RT	546924.54	114663.21	668.97
CR-824	47+71.1	28.9' RT	546925.42	114668.13	668.94
CR-825	47+71.1	23.3' RT	546931.00	114668.92	668.86
CR-826	47+46.5	38.1' RT	546920.10	114641.90	669.03
CR-827	47+65.7	22.7' RT	546932.31	114663.57	668.91
CR-828	47+70.7	21.3' RT	546933.00	114668.79	668.94
CR-829	47+75.8	20.6' RT	546932.99	114674.11	668.97
CR-830	47+80.9	20.5' RT	546932.42	114679.19	669.02
CR-831	47+76.0	22.6' RT	546931.00	114673.97	668.88
CR-832	47+76.0	23.3' RT	546930.30	114673.87	668.89
CR-833	47+76.0	28.1' RT	546925.54	114673.19	668.97
CR-834	47+78.2	28.0' RT	546925.33	114675.46	668.98
CR-835	47+83.1	27.9' RT	546924.71	114680.42	669.25
CR-836	47+88.0	27.9' RT	546924.08	114685.38	669.53
CR-837	47+48.1	39.2' RT	546918.75	114643.38	669.54
CR-838	47+66.3	24.6' RT	546930.35	114663.96	669.36
CR-839	47+42.6	53.0' RT	546905.94	114635.64	669.63*
CR-840	47+80.9	22.5' RT	546930.44	114678.94	668.38*

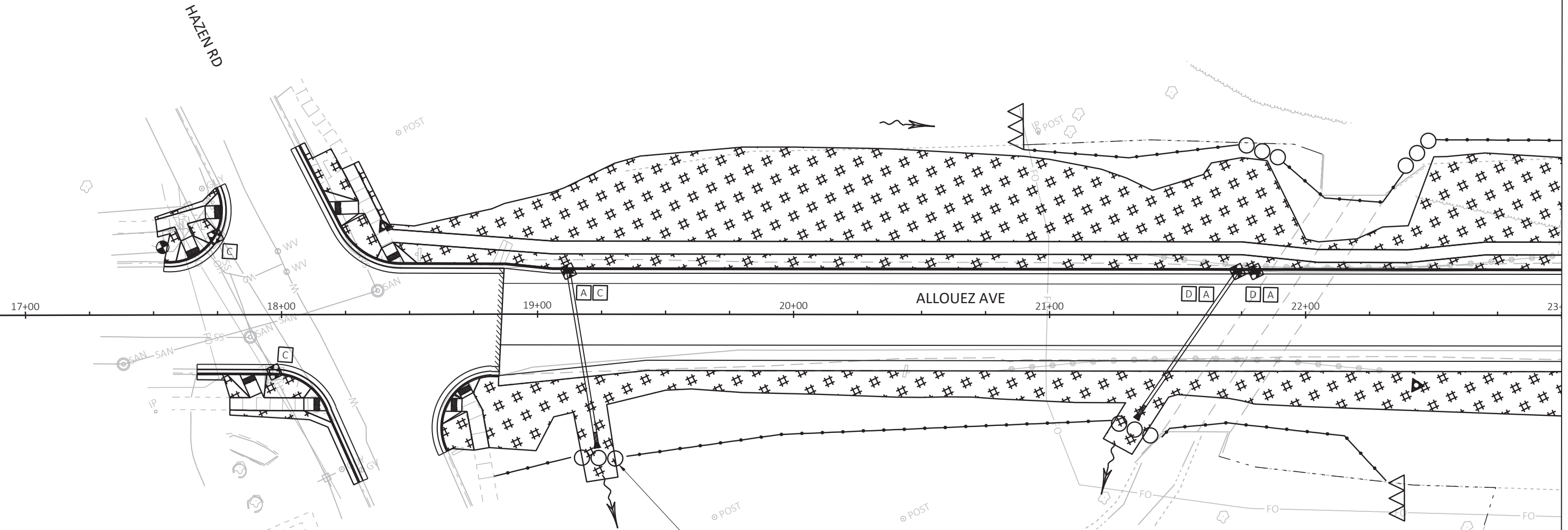
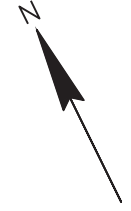
NOTE: *ELEVATION IS APPROXIMATE. MATCH EXISTING.














CR-11

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-1100	60+94.4	26.5' RT	546873.91	115992.52	680.01
CR-1101	60+94.4	31.5' RT	546868.91	115992.25	679.94
CR-1102	60+83.0	30.6' RT	546870.42	115980.90	679.69
CR-1103	60+88.4	31.5' RT	546869.24	115986.26	679.67
CR-1104	60+84.8	31.5' RT	546869.43	115982.64	679.62
CR-1105	60+83.1	36.2' RT	546864.81	115980.76	680.10
CR-1106	60+81.2	35.8' RT	546865.32	115978.83	679.52
CR-1107	60+88.4	26.5' RT	546874.23	115986.53	679.74
CR-1108	60+87.0	25.1' RT	546875.72	115985.20	679.82
CR-1109	60+91.4	21.7' RT	546878.81	115989.76	680.00
CR-1110	60+92.4	23.5' RT	546877.02	115990.66	680.24
CR-1111	60+99.4	31.5' RT	546868.64	115997.24	680.04

STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
CR-1112	61+02.0	31.5' RT	546868.50	115999.89	680.17
CR-1113	60+84.3	31.3' RT	546869.68	115982.21	679.61
CR-1114	60+82.6	36.1' RT	546864.94	115980.28	679.43
CR-1115	61+22.0	31.0' RT	546867.87	116019.88	681.16
CR-1116	61+22.0	26.0' RT	546872.87	116020.08	681.08
CR-1117	60+92.1	23.1' RT	546877.47	115990.43	679.90
CR-1118	60+88.0	26.1' RT	546874.60	115986.20	679.73
CR-1119	61+02.0	26.5' RT	546873.50	116000.09	680.22
CR-1120	60+99.4	26.5' RT	546873.64	115997.51	680.11



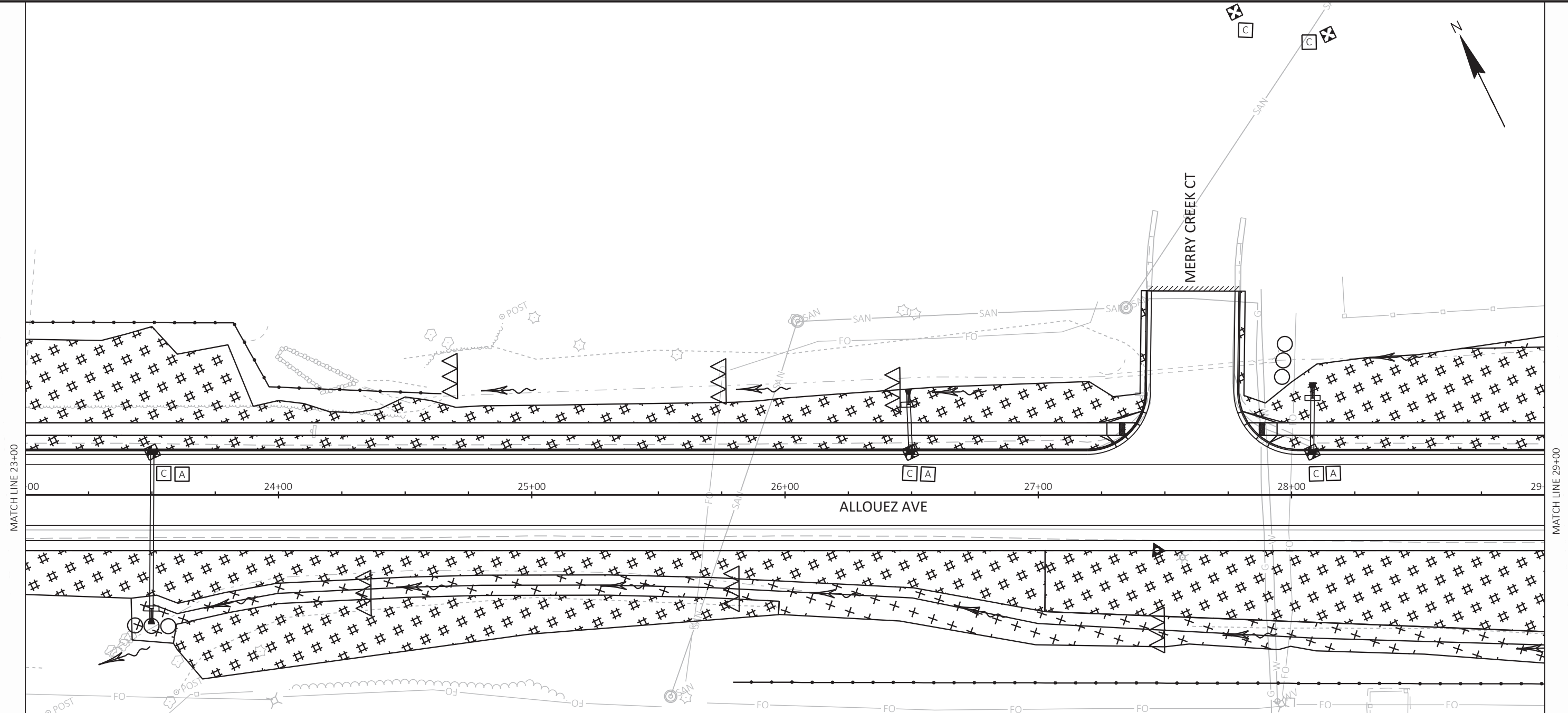
LEGEND

-  EROSION MAT URBAN CLASS I TYPE B
-  EROSION MAT CLASS II TYPE C
-  TURF REINFORCEMENT MAT (TRM) SYSTEM
-  SILT FENCE
-  EROSION BALES
-  TEMPORARY STONE DITCH CHECKS
-  RIPRAP MEDIUM
-  INLET PROTECTION AND TYPE
-  TEMPORARY DITCH CHECKS
-  ROCK BAGS
-  SURFACE WATER FLOW

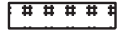










INSTALL INLET PROTECTION TYPE C AT BOTH INLETS TO THE SOUTH

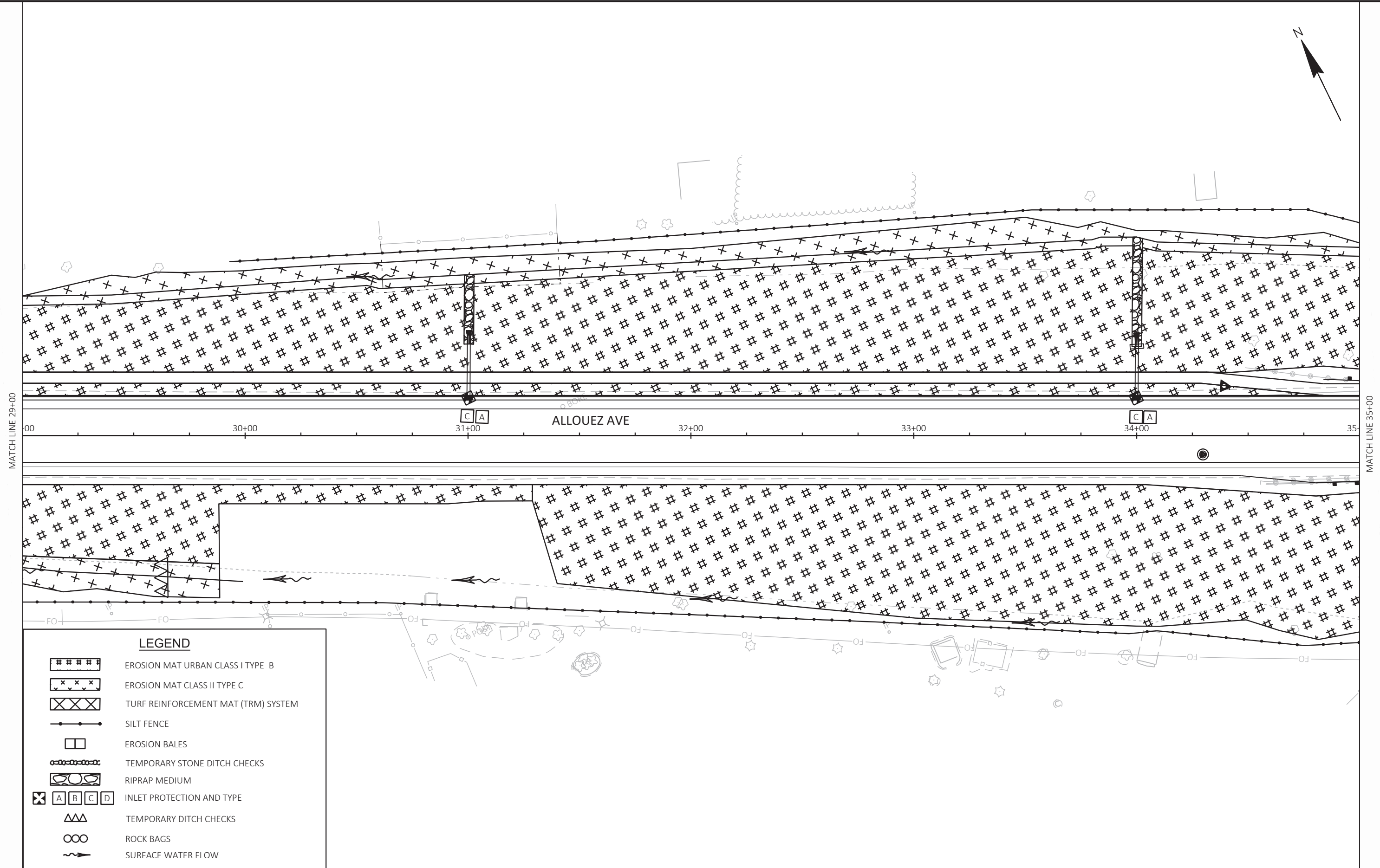
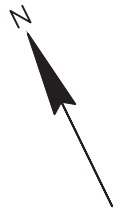
SEE SILT FENCE RELIEF DETAIL (TYP.)

MATCH LINE 23+00



LEGEND

-  EROSION MAT URBAN CLASS I TYPE B
-  EROSION MAT CLASS II TYPE C
-  TURF REINFORCEMENT MAT (TRM) SYSTEM
-  SILT FENCE
-  EROSION BALES
-  TEMPORARY STONE DITCH CHECKS
-  RIPRAP MEDIUM
-  INLET PROTECTION AND TYPE
-  TEMPORARY DITCH CHECKS
-  ROCK BAGS
-  SURFACE WATER FLOW



LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- TURF REINFORCEMENT MAT (TRM) SYSTEM
- SILT FENCE
- EROSION BALES
- TEMPORARY STONE DITCH CHECKS
- RIPRAP MEDIUM
- INLET PROTECTION AND TYPE
- TEMPORARY DITCH CHECKS
- ROCK BAGS
- SURFACE WATER FLOW



IH-43 SB EXIT RAMP

IH-43 SB

IH-43 NB

IH-43 NB ENTRANCE RAMP

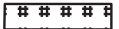
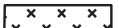









ALLOUEZ AVE

MATCH LINE 35+00

MATCH LINE 41+00

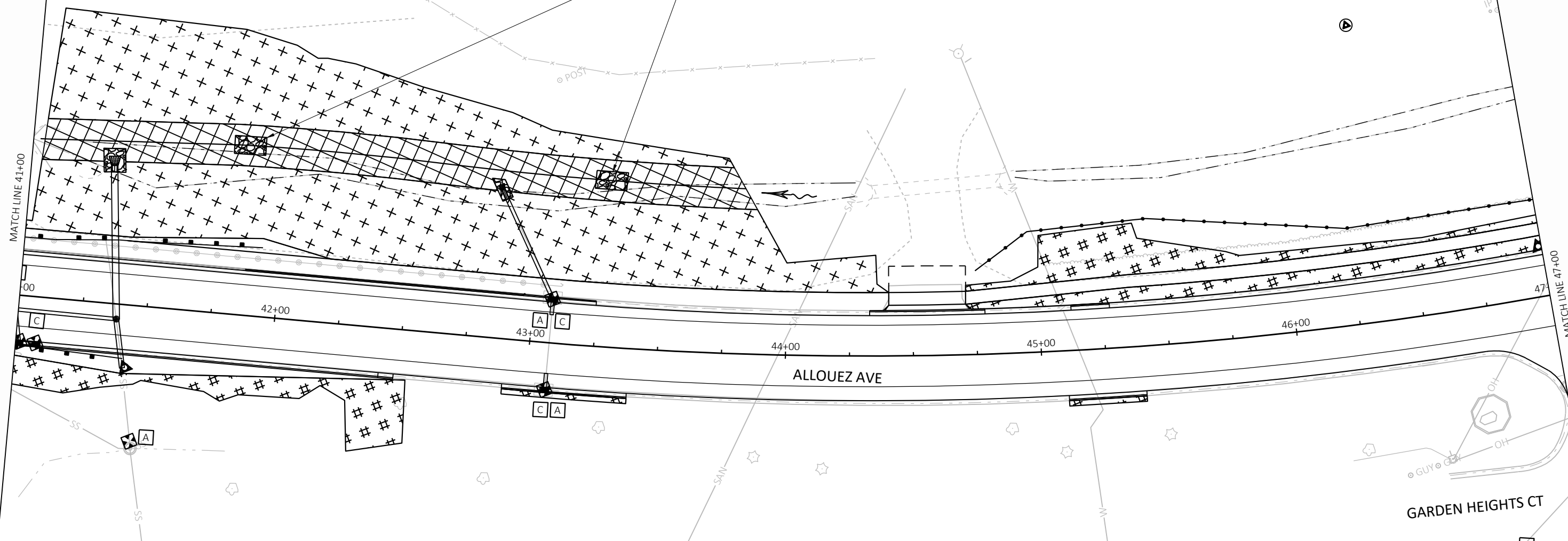
36+00 37+00 38+00 39+00 40+00

LEGEND

-  EROSION MAT URBAN CLASS I TYPE B
-  EROSION MAT CLASS II TYPE C
-  TURF REINFORCEMENT MAT (TRM) SYSTEM
-  SILT FENCE
-  EROSION BALES
-  TEMPORARY STONE DITCH CHECKS
-  RIPRAP MEDIUM
-  INLET PROTECTION AND TYPE
-  TEMPORARY DITCH CHECKS
-  ROCK BAGS
-  SURFACE WATER FLOW












NOTE: PROVIDE TEMPORARY EROSION CONTROL WITH STREAM DIVERSION.

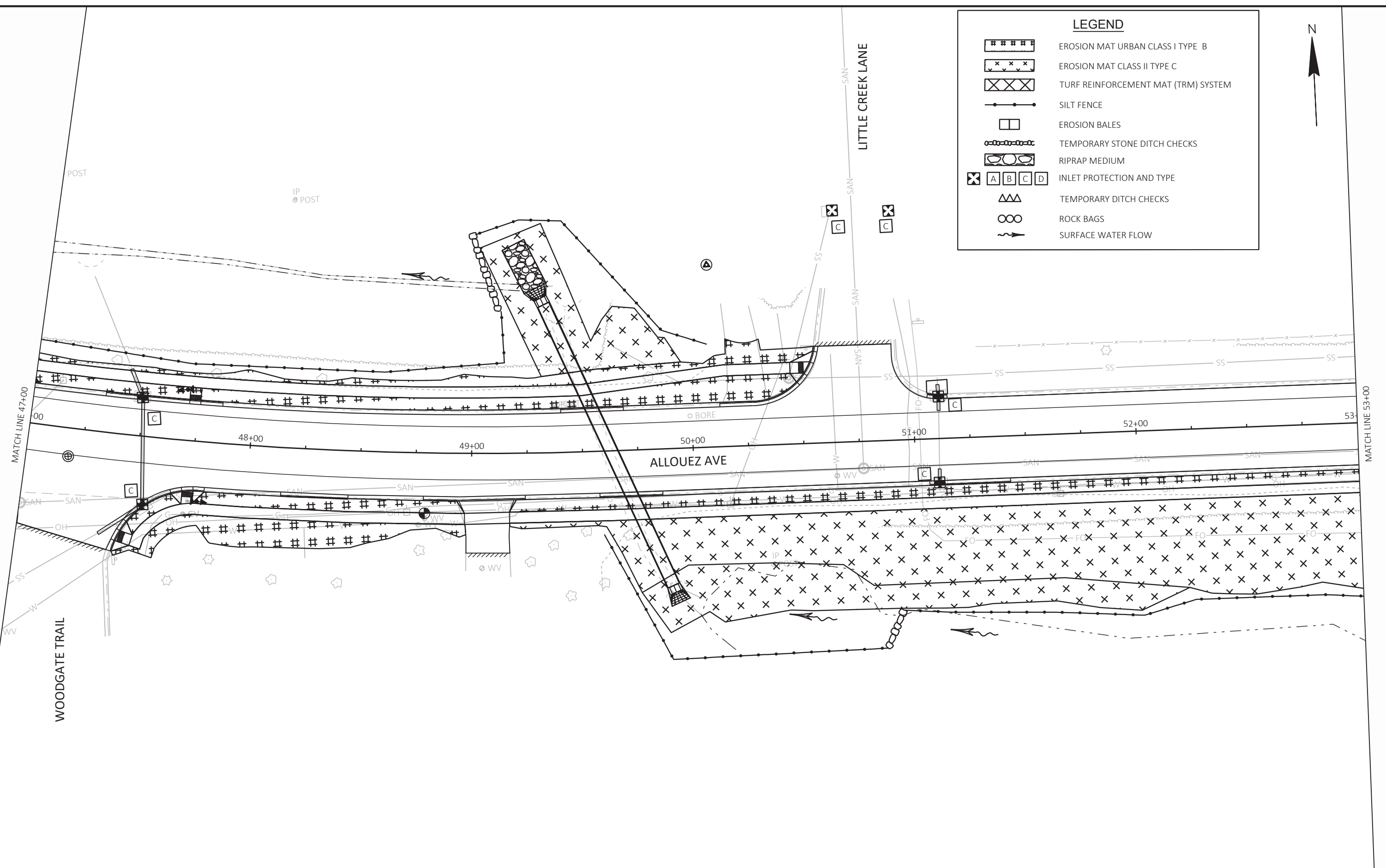
RIPRAP EXTRA-LIGHT
SEE RIFFLE POOL DETAIL



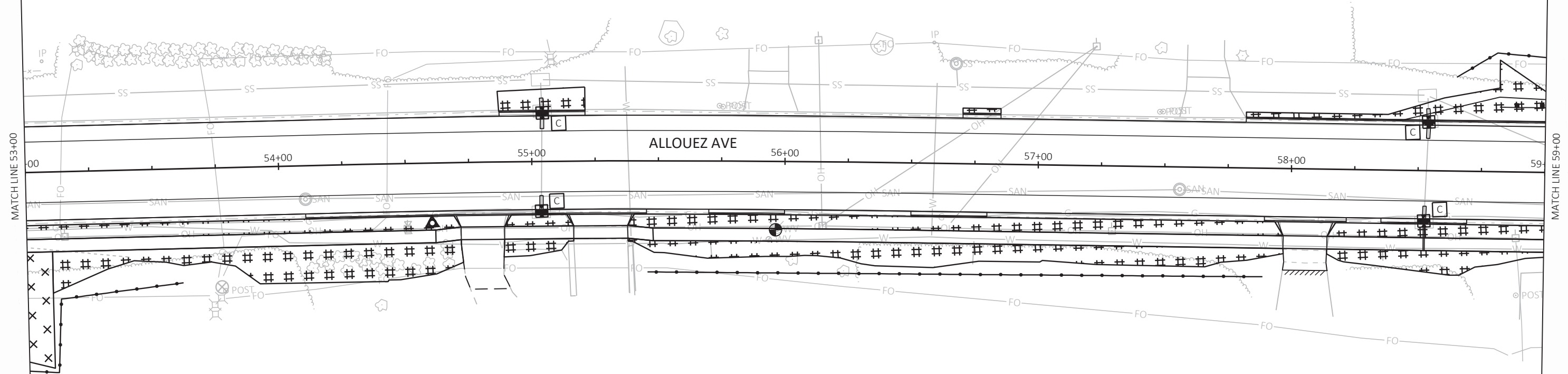
LEGEND	
	EROSION MAT URBAN CLASS I TYPE B
	EROSION MAT CLASS II TYPE C
	TURF REINFORCEMENT MAT (TRM) SYSTEM
	SILT FENCE
	EROSION BALES
	TEMPORARY STONE DITCH CHECKS
	RIPRAP MEDIUM
	INLET PROTECTION AND TYPE
	TEMPORARY DITCH CHECKS
	ROCK BAGS
	SURFACE WATER FLOW

LEGEND

-  EROSION MAT URBAN CLASS I TYPE B
-  EROSION MAT CLASS II TYPE C
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-  RIPRAP MEDIUM
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-  TEMPORARY DITCH CHECKS
-  ROCK BAGS
-  SURFACE WATER FLOW




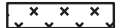









PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	EROSION CONTROL
			SHEET E

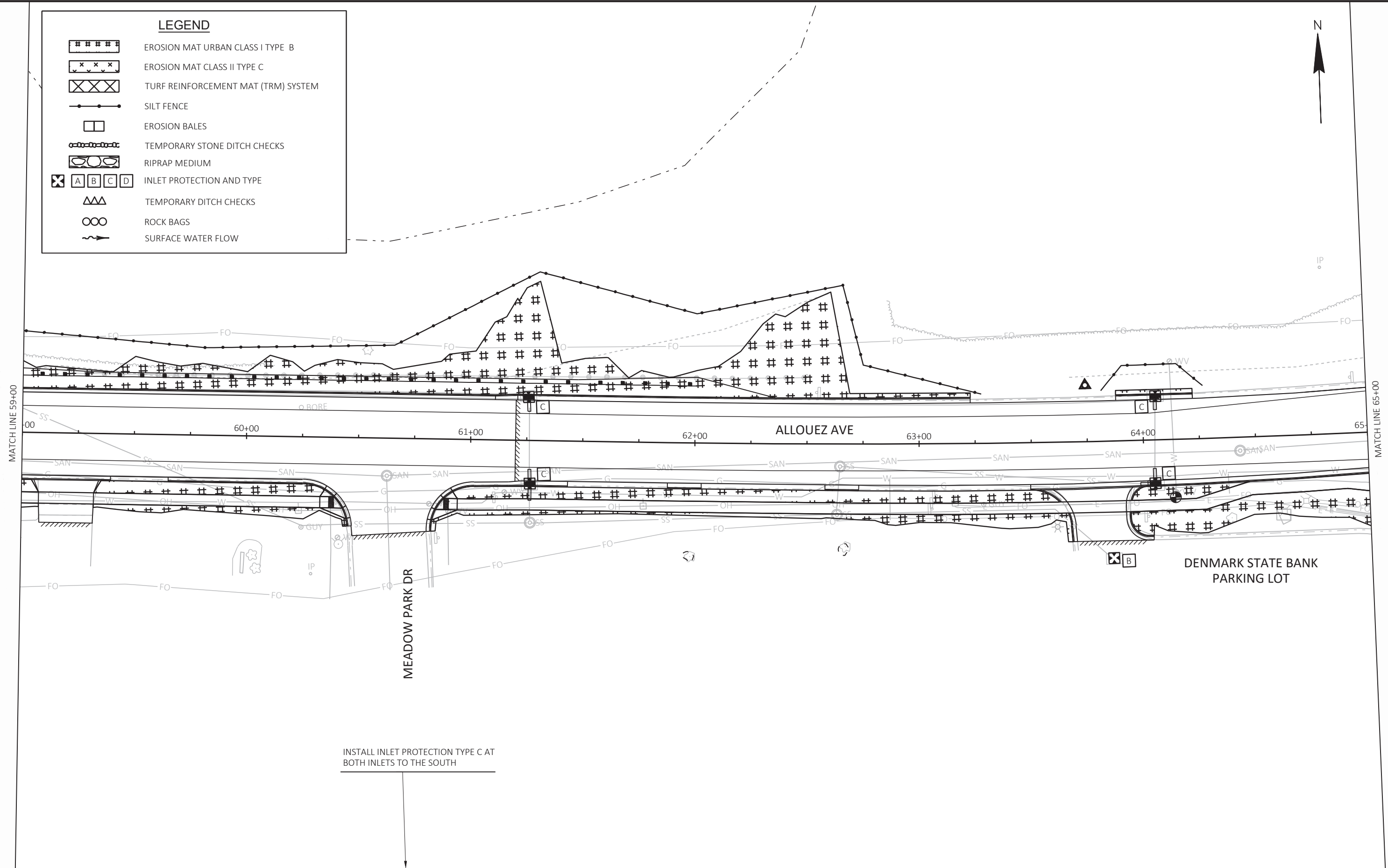


LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- TURF REINFORCEMENT MAT (TRM) SYSTEM
- SILT FENCE
- EROSION BALES
- TEMPORARY STONE DITCH CHECKS
- RIPRAP MEDIUM
- INLET PROTECTION AND TYPE
- TEMPORARY DITCH CHECKS
- ROCK BAGS
- SURFACE WATER FLOW

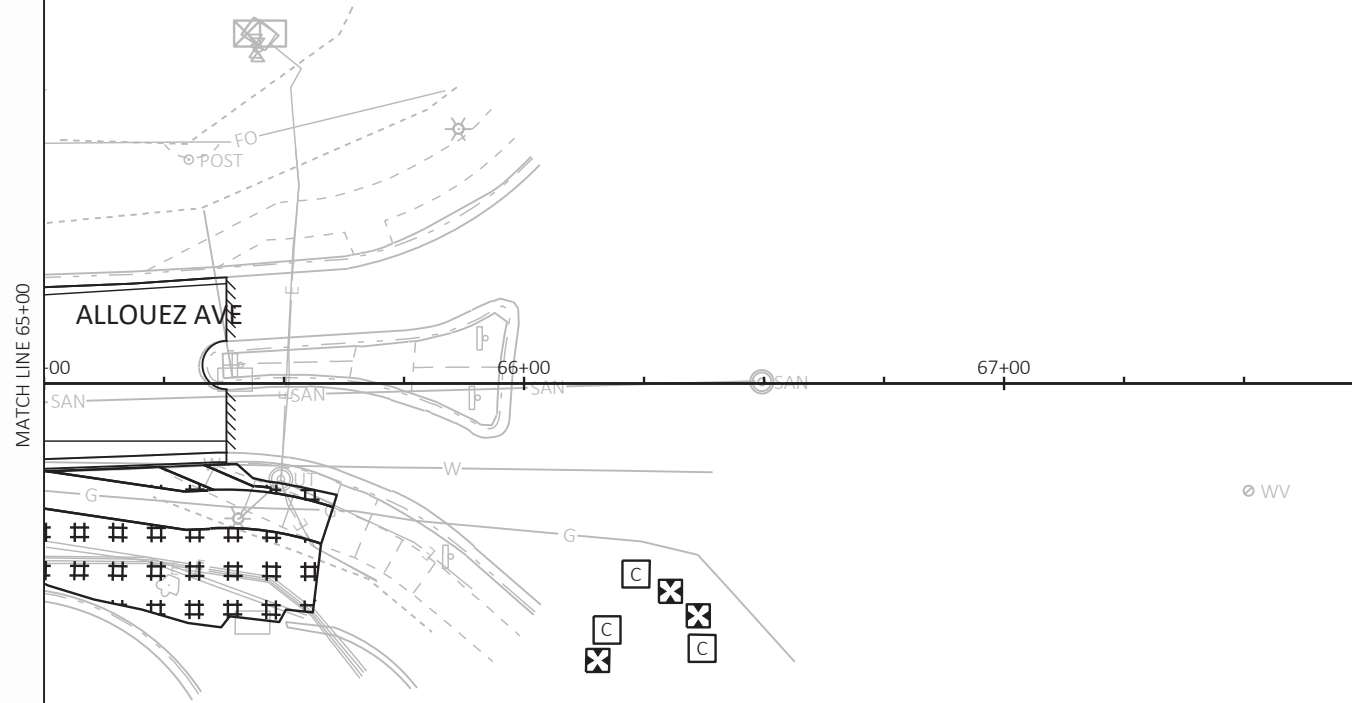
LEGEND

-  EROSION MAT URBAN CLASS I TYPE B
-  EROSION MAT CLASS II TYPE C
-  TURF REINFORCEMENT MAT (TRM) SYSTEM
-  SILT FENCE
-  EROSION BALES
-  TEMPORARY STONE DITCH CHECKS
-  RIPRAP MEDIUM
-  INLET PROTECTION AND TYPE
-  TEMPORARY DITCH CHECKS
-  ROCK BAGS
-  SURFACE WATER FLOW





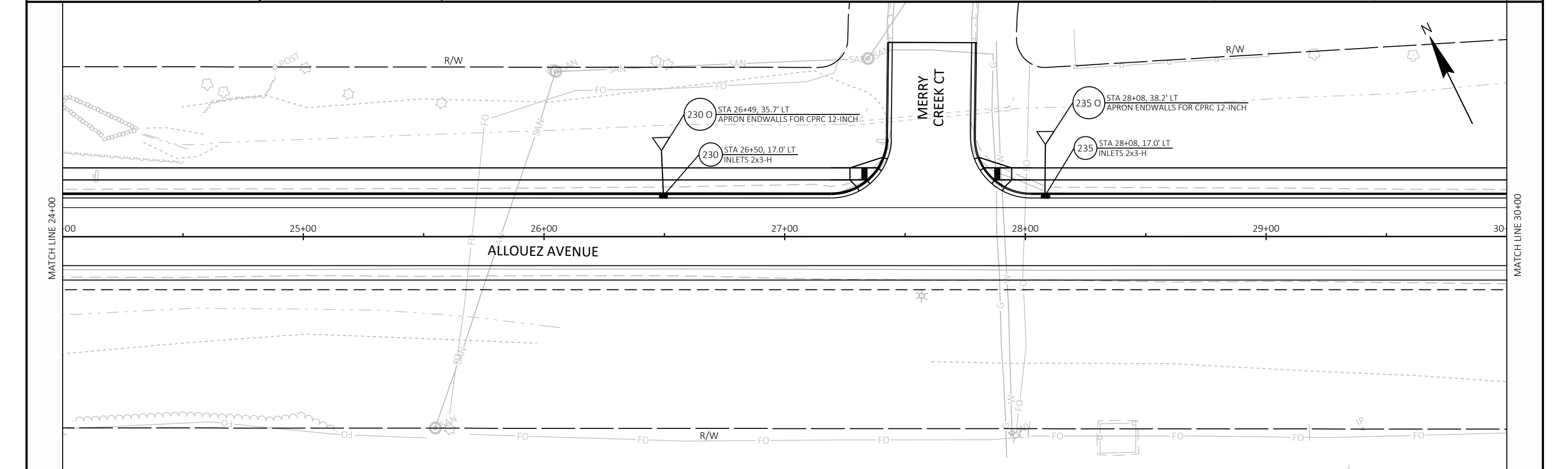
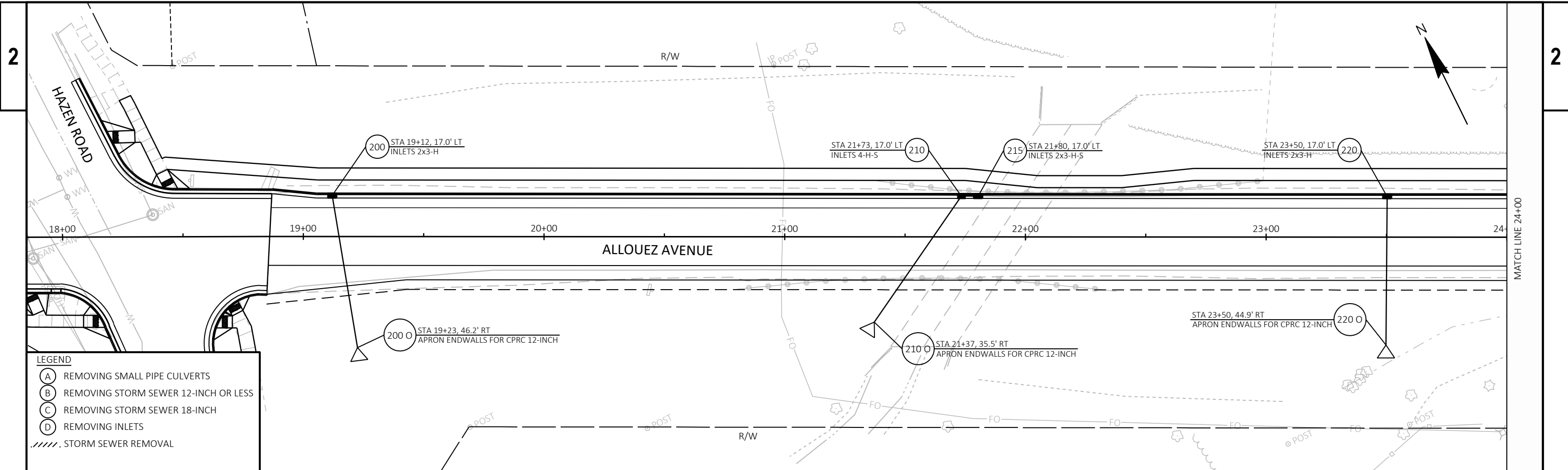
HWY 141/MAIN ST



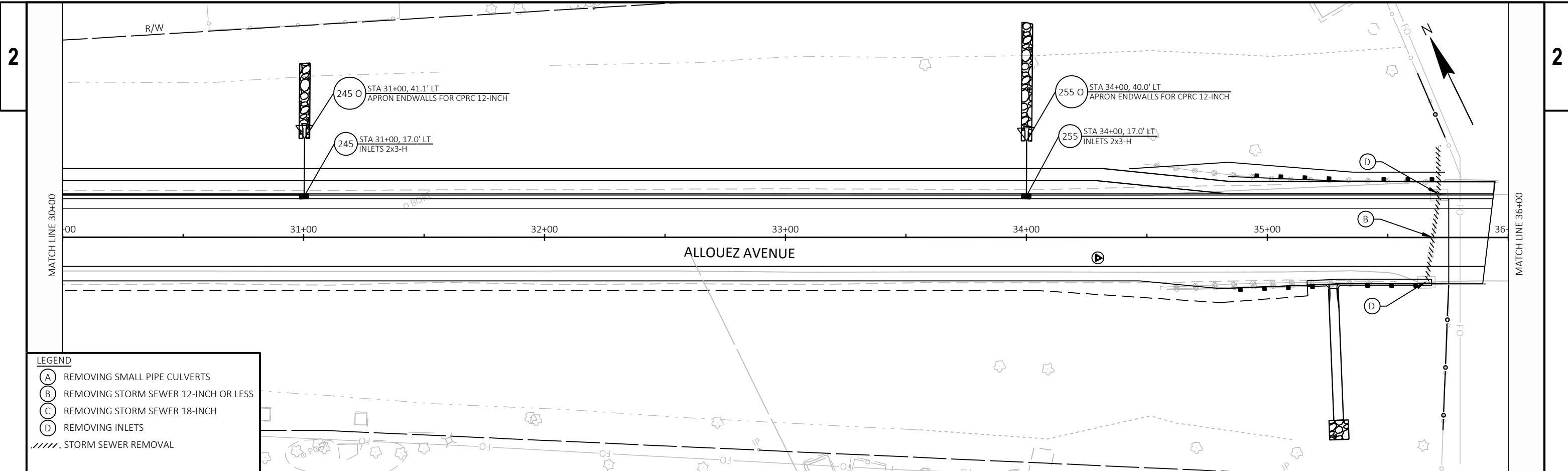
LEGEND

	EROSION MAT URBAN CLASS I TYPE B
	EROSION MAT CLASS II TYPE C
	TURF REINFORCEMENT MAT (TRM) SYSTEM
	SILT FENCE
	EROSION BALES
	TEMPORARY STONE DITCH CHECKS
	RIPRAP MEDIUM
	INLET PROTECTION AND TYPE
	TEMPORARY DITCH CHECKS
	ROCK BAGS
	SURFACE WATER FLOW

PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	EROSION CONTROL	SHEET	E
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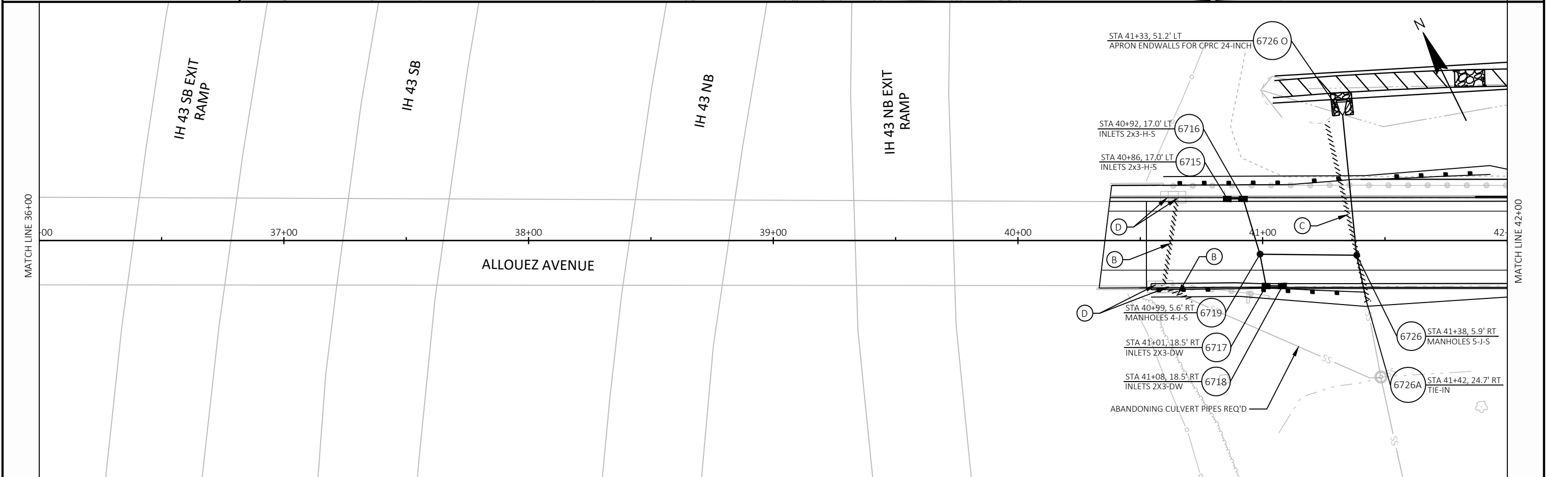


PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN STORM SEWER SHEET **E**

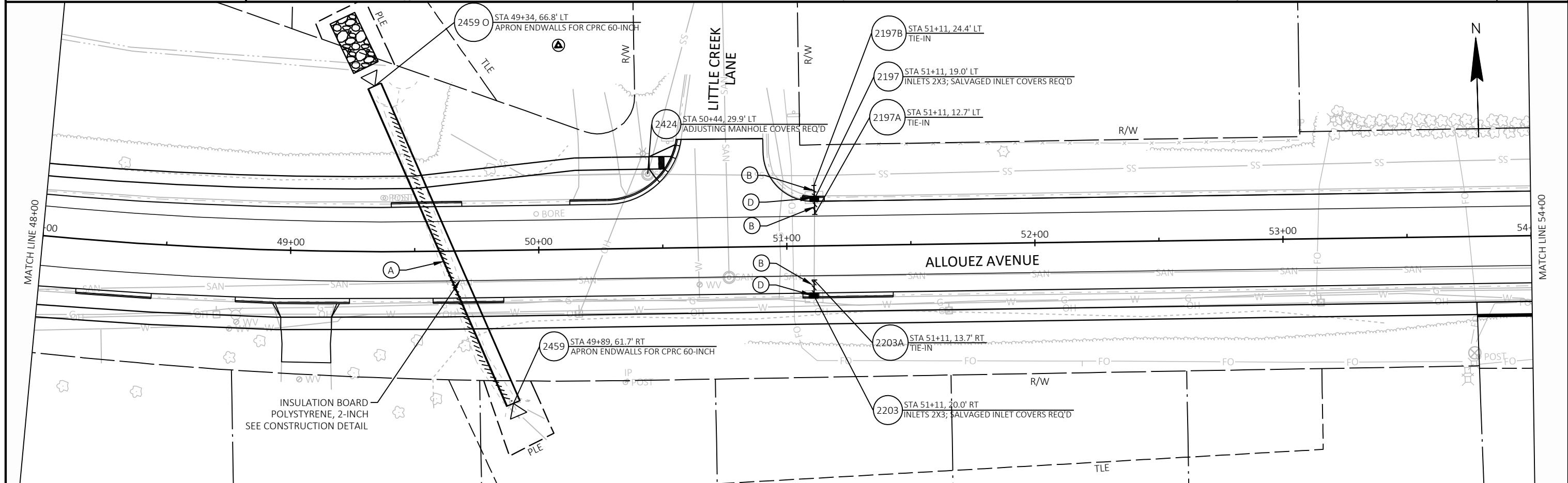
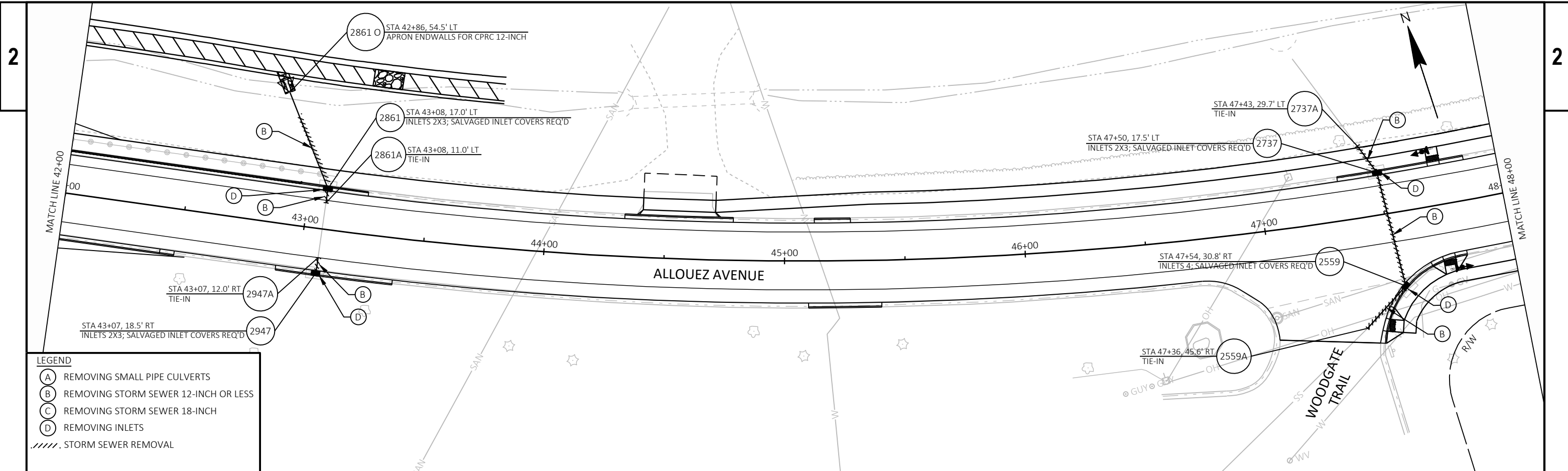


LEGEND

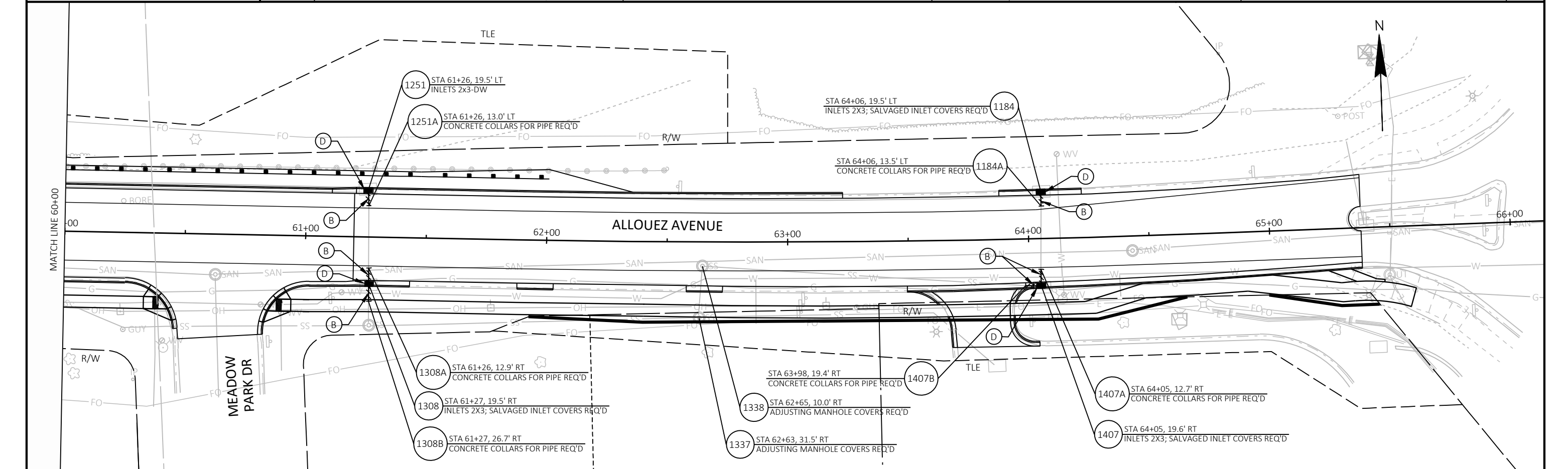
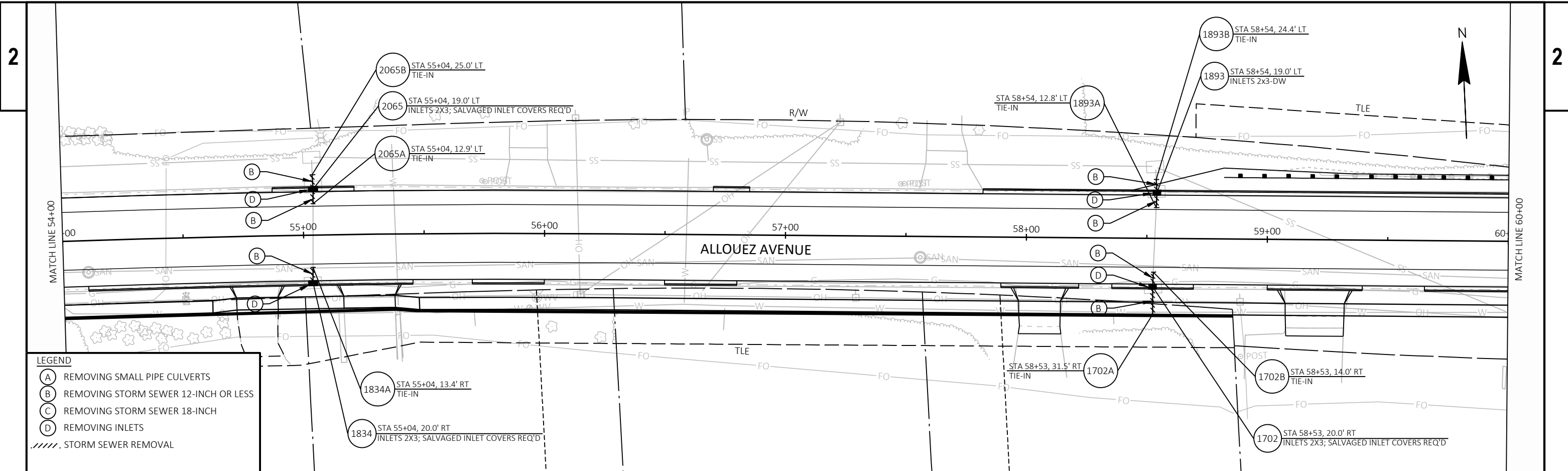
- (A) REMOVING SMALL PIPE CULVERTS
- (B) REMOVING STORM SEWER 12-INCH OR LESS
- (C) REMOVING STORM SEWER 18-INCH
- (D) REMOVING INLETS
- //// STORM SEWER REMOVAL



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	STORM SEWER
			SHEET E



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	STORM SEWER	SHEET	E
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN STORM SEWER SHEET **E**

STRUCT NO.	STATION	OFFSET	C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/GRATE ELEV.	TOP OF STRUCTURE ELEV. *	DISCHARGE PIPE					REMARKS		
											DEPTH (FT)	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)		SLOPE (%)	
200	19+12.0	17.0	'LT	64.0	200 O	2x3-FT	H	-	628.73	627.90	2.78	12	625.12	624.80	64	0.50%		
200 O	19+22.6	46.2	'RT	-	-	-	-	-	-	-	-	-	624.80	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
210	21+73.4	17.0	'LT	63.8	210 O	4-FT	H-S	-	626.12	625.29	2.38	12	622.91	622.27	64	1.00%		
210 O	21+37.2	35.5	'RT	-	-	-	-	-	-	-	-	-	622.27	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
215	21+80.3	17.0	'LT	7.0	210	2x3-FT	H-S	-	626.12	625.29	2.34	12	622.95	622.91	7	0.58%		
220	23+50.2	17.0	'LT	61.9	220 O	2x3-FT	H	-	627.60	626.77	2.24	12	624.53	624.22	62	0.50%		
220 O	23+49.8	44.9	'RT	-	-	-	-	-	-	-	-	-	624.22	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
230	26+49.6	17.0	'LT	18.7	230 O	2x3-FT	H	-	636.87	636.04	2.24	12	633.80	633.70	19	0.53%		
230 O	26+48.8	35.7	'LT	-	-	-	-	-	-	-	-	-	633.70	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
235	28+08.1	17.0	'LT	21.2	235 O	2x3-FT	H	-	643.49	642.66	3.04	12	639.62	639.50	21	0.56%		
235 O	28+08.3	38.2	'LT	-	-	-	-	-	-	-	-	-	639.50	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
245	31+00.2	17.0	'LT	24.1	245 O	2x3-FT	H	-	655.91	655.08	3.91	12	651.17	651.04	24	0.54%		
245 O	31+00.4	41.1	'LT	-	-	-	-	-	-	-	-	-	651.04	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
255	33+99.9	17.0	'LT	23.0	255 O	2x3-FT	H	-	666.34	665.51	4.06	12	661.45	661.33	23	0.52%		
255 O	34+00.1	40.0	'LT	-	-	-	-	-	-	-	-	-	661.33	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
6715	40+85.5	17.0	'LT	6.5	6716	2x3-FT	H-S	-	662.86	662.03	4.12	12	657.91	657.87	7	0.61%		
6716	40+92.1	17.0	'LT	23.6	6719	2x3-FT	H-S	-	662.87	662.04	4.17	12	657.87	657.75	24	0.51%		
6717	41+01.4	18.5	'RT	13.2	6719	2x3-FT	DW	-	662.40	661.73	4.25	12	657.48	657.41	13	0.53%		
6718	41+08.1	18.5	'RT	6.7	6717	2x3-FT	DW	-	662.38	661.71	4.20	12	657.51	657.48	7	0.45%		
6719	40+98.9	5.6	'RT	39.5	6726	-	-	4-FT	J-S	663.10	661.85	4.44	12	657.41	657.21	40	0.51%	
6726	41+38.4	5.9	'RT	57.5	6726 O	-	-	5-FT	J-S	663.18	661.93	10.24	24	651.69	650.54	57	2.00%	
6726 O	41+32.6	51.2	'LT	-	-	-	-	-	-	-	-	-	650.54	-	-	-	APRON ENDWALLS FOR CPCR 24-INCH REQ'D	
6726A	41+42.33	24.7	'RT	19.2	6726	-	-	-	-	-	-	18	652.37	651.69	19	3.55%	STORM SEWER PIPE PVC 18-INCH REQ'D; FIELD VERIFY INVERT ELEVATIONS	
2947	43+07.4	18.5	'RT	6.5	2947A	2x3-FT	-	-	663.88	663.15	2.47	12	660.68	660.45	7	3.54%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
2947A	43+07.4	12.0	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
2861	43+07.7	17.0	'LT	43.0	2861 O	2x3-FT	-	-	663.84	663.23	6.67	12	656.56	652.78	43	8.78%	SALVAGED INLET COVERS REQ'D	
2861 O	42+86.4	54.5	'LT	-	-	-	-	-	-	-	-	-	652.78	-	-	-	APRON ENDWALLS FOR CPCR 12-INCH REQ'D	
2861A	43+07.7	11.0	'LT	-	-	-	-	-	-	-	-	12	659.63	659.42	6	3.54%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; FIELD VERIFY INVERT ELEVATIONS	
2559	47+54.0	30.8	'RT	48.4	2737	4-FT	-	-	668.59	668.01	2.40	12	665.61	665.24	48	0.76%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
2559A	47+36.0	45.6	'RT	23.6	2559	-	-	-	-	-	-	12	665.86	665.69	24	0.72%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; FIELD VERIFY INVERT ELEVATIONS	
2737	47+49.7	17.5	'LT	13.8	2737A	2x3-FT	-	-	668.57	668.05	2.81	12	665.24	662.87	14	17.16%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
2737A	47+43.3	29.7	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
2459	49+88.9	61.7	'RT	139.7	2459 O	-	-	-	-	-	-	60	658.40	655.87	140	1.81	APRON ENDWALLS FOR CPCR 60-INCH REQ'D; CONTRACTOR SHALL FIELD VERIFY STREAM BED ELEVATION AND PLACE CULVERT INVERT 6-INCHES BELOW STREAM BED ELEVATION	
2459 O	49+33.6	66.8	'LT	-	-	-	-	-	-	-	-	-	655.87	-	-	-	APRON ENDWALLS FOR CPCR 60-INCH REQ'D; CONTRACTOR SHALL FIELD VERIFY STREAM BED ELEVATION AND PLACE CULVERT INVERT 6-INCHES BELOW STREAM BED ELEVATION	
2424	50+44.3	29.9	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	ADJUSTING MANHOLE COVERS REQ'D	
2203	51+10.7	20.0	'RT	6.3	2203A	2x3-FT	-	-	672.01	671.54	2.64	12	668.90	668.81	6	1.44%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
2203A	51+10.8	13.7	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
2197	51+11.5	19.0	'LT	5.4	2197B	2x3-FT	-	-	672.03	671.23	2.87	12	668.36	668.29	5	1.30%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D;	
2197A	51+11.3	12.7	'LT	6.3	2197	-	-	-	-	-	-	12	668.45	668.36	6	1.43%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; FIELD VERIFY INVERT ELEVATIONS	
2197B	51+11.2	24.4	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
1834	55+03.7	20.0	'RT	6.6	1834A	2x3-FT	-	-	677.56	677.07	2.96	12	674.11	674.06	7	0.76%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
1834A	55+03.7	13.4	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
2065	55+04.2	19.0	'LT	6.0	2065B	2x3-FT	-	-	677.68	676.90	3.09	12	673.81	673.48	6	5.52%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
2065A	55+04.1	12.9	'LT	6.1	2065	-	-	-	-	-	-	12	673.86	673.81	6	0.82%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; FIELD VERIFY INVERT ELEVATIONS	
2065B	55+04.0	25.0	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
1702	58+52.5	20.0	'RT	6.0	1702B	2x3-FT	-	-	679.28	678.83	2.93	12	675.90	675.83	6	1.17%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; SALVAGED INLET COVERS REQ'D	
1702A	58+52.6	31.5	'RT	11.5	1702	-	-	-	-	-	-	4	676.63	676.51	12	1.04%	STORM SEWER PIPE PVC 4-INCH REQ'D; FIELD VERIFY INVERT ELEVATIONS	
1702B	58+52.8	14.0	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	
1893	58+54.0	19.0	'LT	5.5	1893B	2x3-FT	DW	-	679.38	678.71	3.24	12	675.47	675.34	5	2.38%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D	
1893A	58+53.8	12.8	'LT	6.2	1893	-	-	-	-	-	-	12	675.54	675.47	6	1.12%	STORM SEWER PIPE COMPOSITE 12-INCH (PVC) REQ'D; FIELD VERIFY INVERT ELEVATIONS	
1893B	58+53.7	24.4	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	FIELD VERIFY INVERT ELEVATIONS	

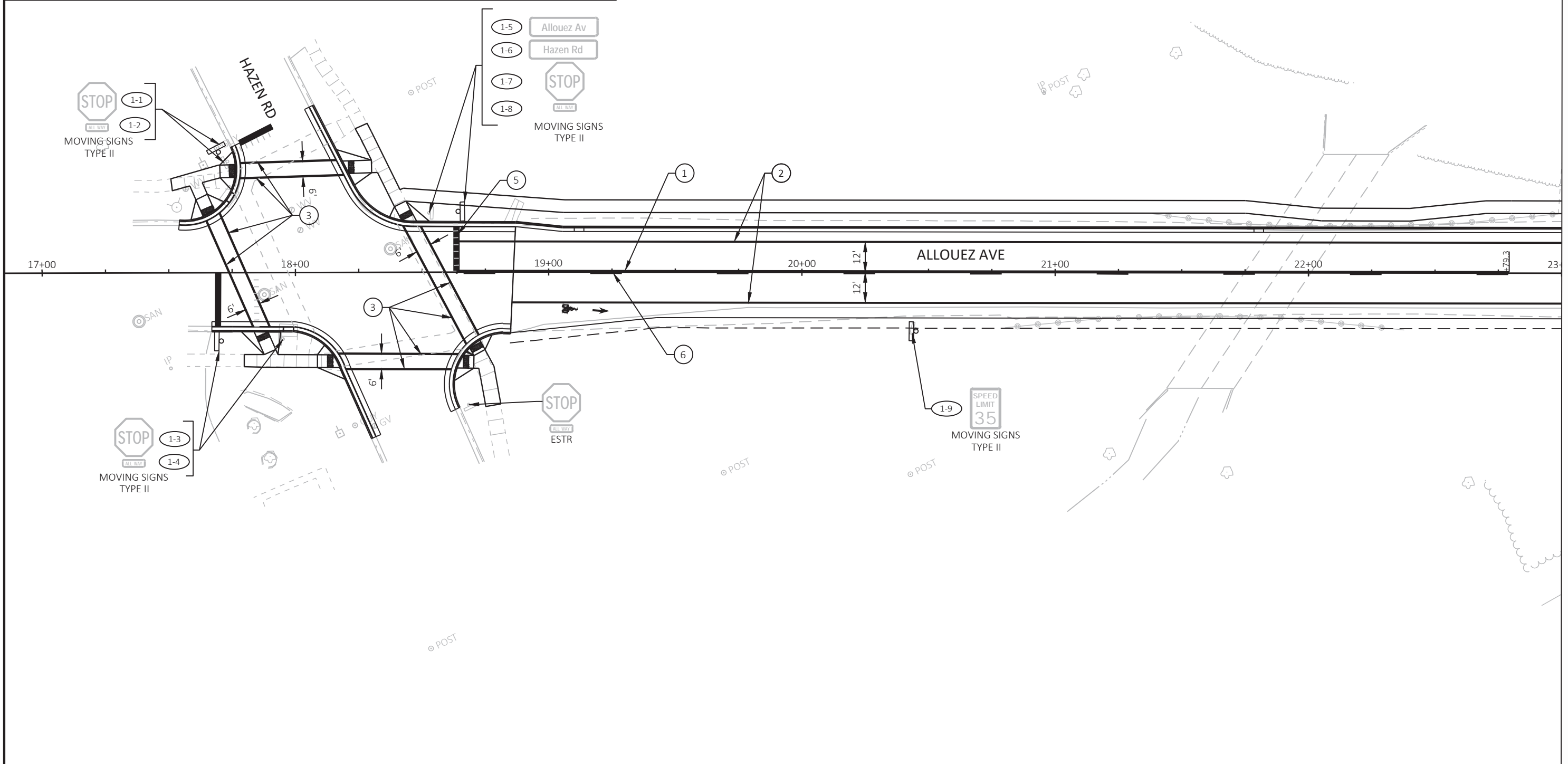
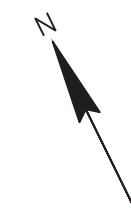
*SEE CONSTRUCTION DETAILS FOR TOP OF STRUCTURE LOCATION

STRUCT NO.	STATION	OFFSET	C-C (FT)	TO STRUCT	INLET TYPE	COVER	MH TYPE	COVER	RIM/GRATE ELEV.	TOP OF STRUCTURE ELEV. *	DISCHARGE PIPE					REMARKS		
											DEPTH (FT)	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	LENGTH (FT)		SLOPE (%)	
1308	61+26.5	19.5	'RT	7.2	1308B	2x3-FT	-	-	-	680.43	679.95	3.71	12	676.24	676.17	7	0.98%	SALVAGED INLET COVERS REQ'D
1308A	61+26.3	12.9	'RT	6.6	1308	-	-	-	-	-	-	-	12	676.37	676.24	7	1.96%	CONCRETE COLLARS FOR PIPE REQ'D
1308B	61+26.6	26.7	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONCRETE COLLARS FOR PIPE REQ'D; FIELD VERIFY INVERT ELEVATIONS
1407	64+04.8	19.6	'RT	6.5	1407B	2x3-FT	-	-	-	686.60	686.11	4.03	12	682.08	681.87	6	3.25%	SALVAGED INLET COVERS REQ'D
1407A	64+04.8	12.7	'RT	6.9	1407	-	-	-	-	-	-	-	12	682.17	682.08	7	1.31%	CONCRETE COLLARS FOR PIPE REQ'D
1407B	63+98.4	19.4	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONCRETE COLLARS FOR PIPE REQ'D; FIELD VERIFY INVERT ELEVATIONS
1337	62+63.3	31.5	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ADJUSTING MANHOLE COVERS REQ'D
1338	62+64.7	10.0	'RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ADJUSTING MANHOLE COVERS REQ'D
1251	61+25.6	19.5	'LT	6.0	1251A	2x3-FT	DW	-	-	680.54	679.87	2.86	12	677.01	676.89	6	2.00%	
1251A	61+25.9	13.0	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONCRETE COLLARS FOR PIPE REQ'D; FIELD VERIFY INVERT ELEVATIONS
1184	64+05.5	19.5	'LT	6.0	1184A	2x3-FT	-	-	-	686.64	685.84	3.26	12	682.58	682.50	6	1.34%	SALVAGED INLET COVERS REQ'D
1184A	64+05.6	13.5	'LT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONCRETE COLLARS FOR PIPE REQ'D; FIELD VERIFY INVERT ELEVATIONS

*SEE CONSTRUCTION DETAILS FOR TOP OF STRUCTURE LOCATION

LEGEND

- ① MARKING LINE EPOXY 4-INCH (YELLOW)
 - ② MARKING LINE EPOXY 4-INCH (WHITE)
 - ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
 - ④ DIAGONAL EPOXY 12-INCH (YELLOW)
 - ⑤ MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - ⑥ MARKING LINE EPOXY 4-INCH SKIPS (YELLOW) (12.5' LINE, 37.5' GAP)
 - MARKING REMOVAL LINE WATER BLASTING 4-INCH
 - ⋯ MARKING REMOVAL LINE WATER BLASTING 8-INCH
- EXISTING SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON POST(S)
 - ESTR EXISTING SIGN TO REMAIN
 - SIGN NUMBER
 - MARKING ARROW EPOXY
 - MARKING SYMBOL EPOXY (BIKE)



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PAVEMENT MARKING & PERMANENT SIGNING	SHEET
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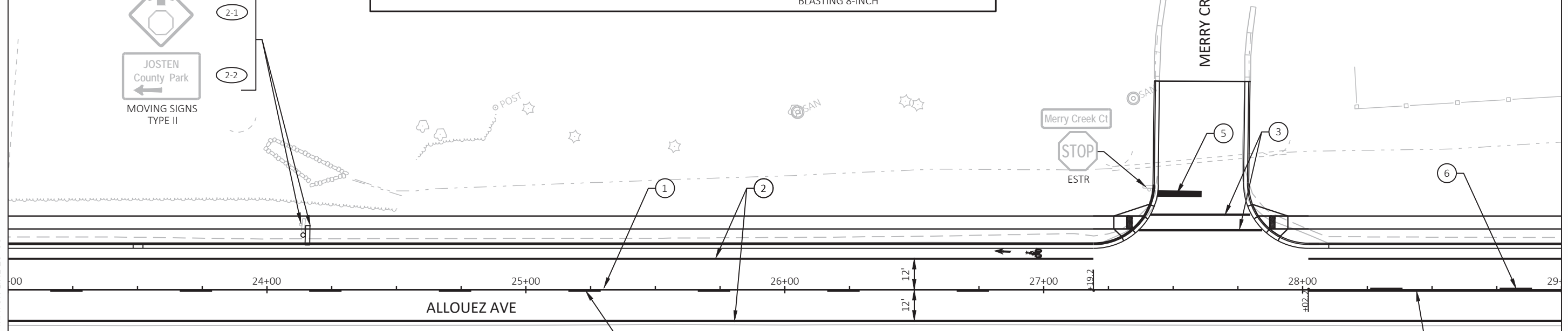
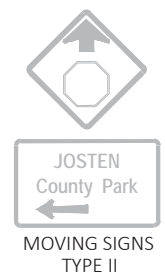
LEGEND

①	MARKING LINE EPOXY 4-INCH (YELLOW)		EXISTING SIGN MOUNTED ON POST(S)
②	MARKING LINE EPOXY 4-INCH (WHITE)		PROPOSED SIGN MOUNTED ON POST(S)
③	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING	ESTR	EXISTING SIGN TO REMAIN
④	DIAGONAL EPOXY 12-INCH (YELLOW)	(X-XX)	SIGN NUMBER
⑤	MARKING STOP LINE EPOXY 18-INCH (WHITE)		MARKING ARROW EPOXY
⑥	MARKING LINE EPOXY 4-INCH SKIPS (YELLOW) (12.5' LINE, 37.5' GAP)		MARKING SYMBOL EPOXY (BIKE)
- - -	MARKING REMOVAL LINE WATER BLASTING 4-INCH		MARKING REMOVAL LINE WATER BLASTING 8-INCH











MATCH LINE 23+00

MATCH LINE 29+00



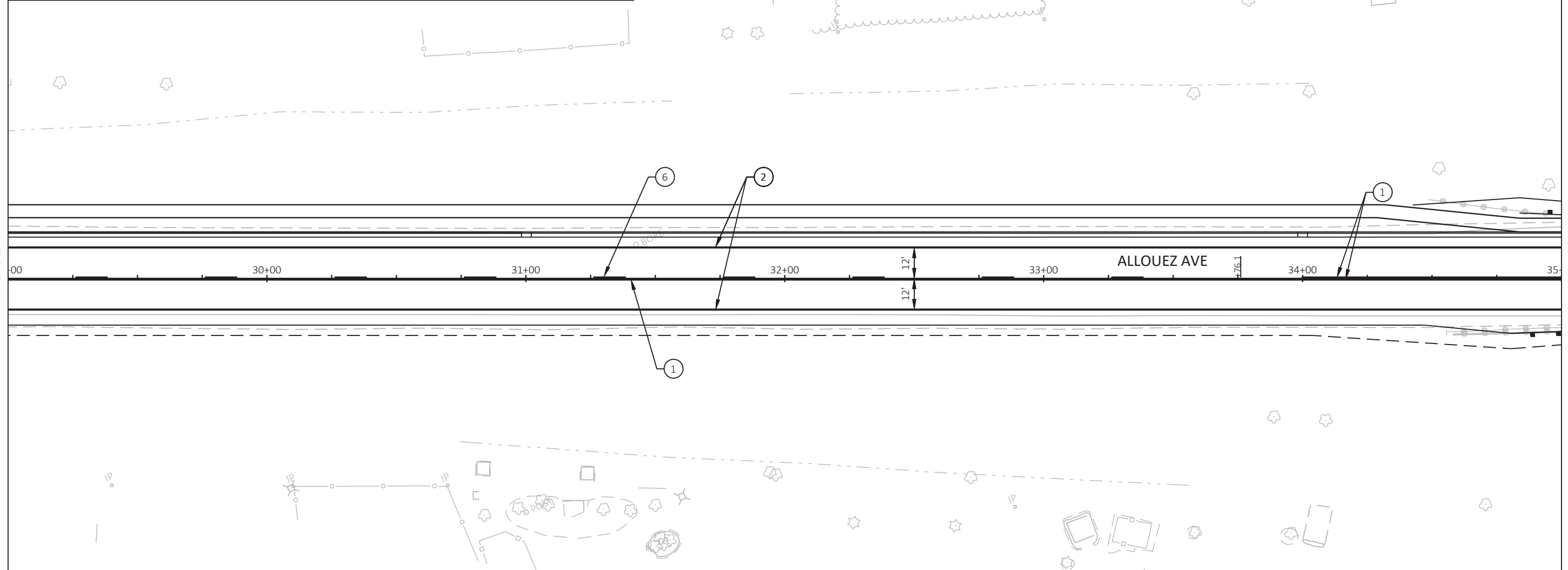
LEGEND

- ① MARKING LINE EPOXY 4-INCH (YELLOW)
 - ② MARKING LINE EPOXY 4-INCH (WHITE)
 - ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
 - ④ DIAGONAL EPOXY 12-INCH (YELLOW)
 - ⑤ MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - ⑥ MARKING LINE EPOXY 4-INCH SKIPS (YELLOW) (12.5' LINE, 37.5' GAP)
 - - - MARKING REMOVAL LINE WATER BLASTING 4-INCH
- | | | |
|---|---|--|
|  |  | EXISTING SIGN MOUNTED ON POST(S) |
|  |  | PROPOSED SIGN MOUNTED ON POST(S) |
| ESTR | | EXISTING SIGN TO REMAIN |
|  | | SIGN NUMBER |
|  | | MARKING ARROW EPOXY |
|  | | MARKING SYMBOL EPOXY (BIKE) |
|  | | MARKING REMOVAL LINE WATER BLASTING 8-INCH |









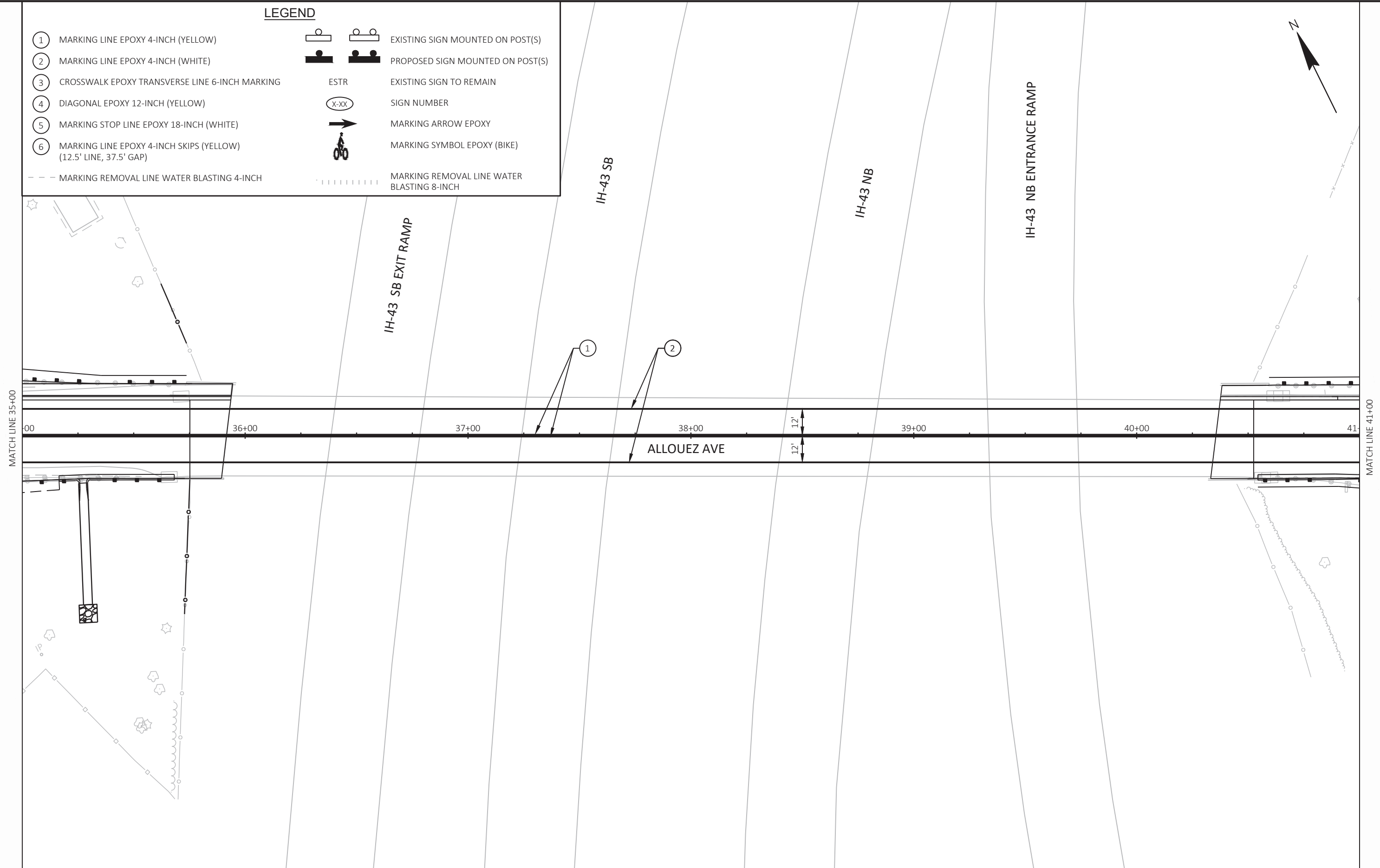
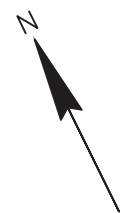
MATCH LINE 29+00

MATCH LINE 35+00



LEGEND

- ① MARKING LINE EPOXY 4-INCH (YELLOW)
 - ② MARKING LINE EPOXY 4-INCH (WHITE)
 - ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
 - ④ DIAGONAL EPOXY 12-INCH (YELLOW)
 - ⑤ MARKING STOP LINE EPOXY 18-INCH (WHITE)
 - ⑥ MARKING LINE EPOXY 4-INCH SKIPS (YELLOW) (12.5' LINE, 37.5' GAP)
 - - - MARKING REMOVAL LINE WATER BLASTING 4-INCH
- | | |
|---|--|
|  | EXISTING SIGN MOUNTED ON POST(S) |
|  | PROPOSED SIGN MOUNTED ON POST(S) |
| ESTR | EXISTING SIGN TO REMAIN |
|  | SIGN NUMBER |
|  | MARKING ARROW EPOXY |
|  | MARKING SYMBOL EPOXY (BIKE) |
|  | MARKING REMOVAL LINE WATER BLASTING 8-INCH |



PROJECT NO: 4516-10-71

HWY: ALLOUEZ AVENUE

COUNTY: BROWN

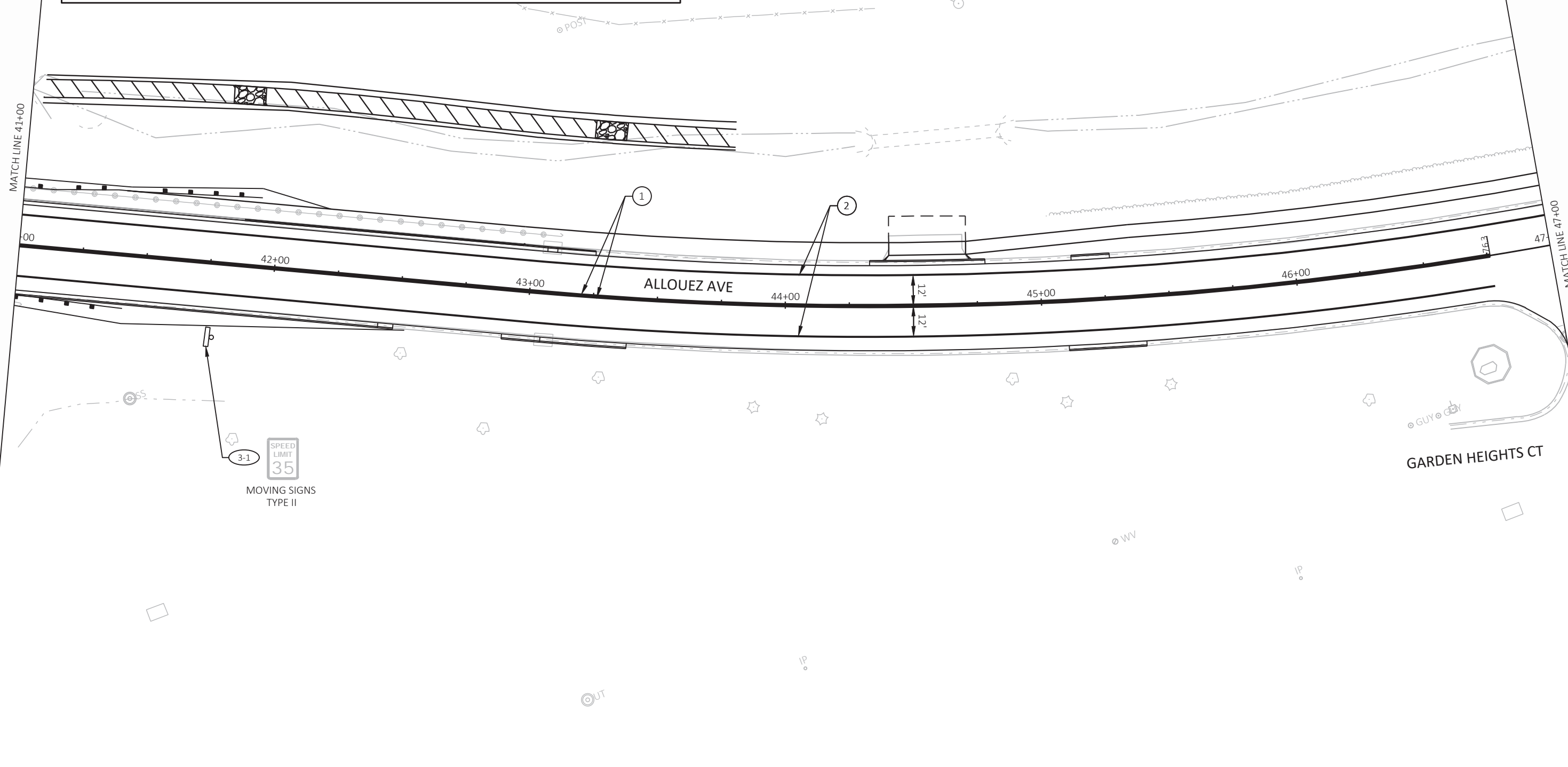
PAVEMENT MARKING & PERMANENT SIGNING

SHEET

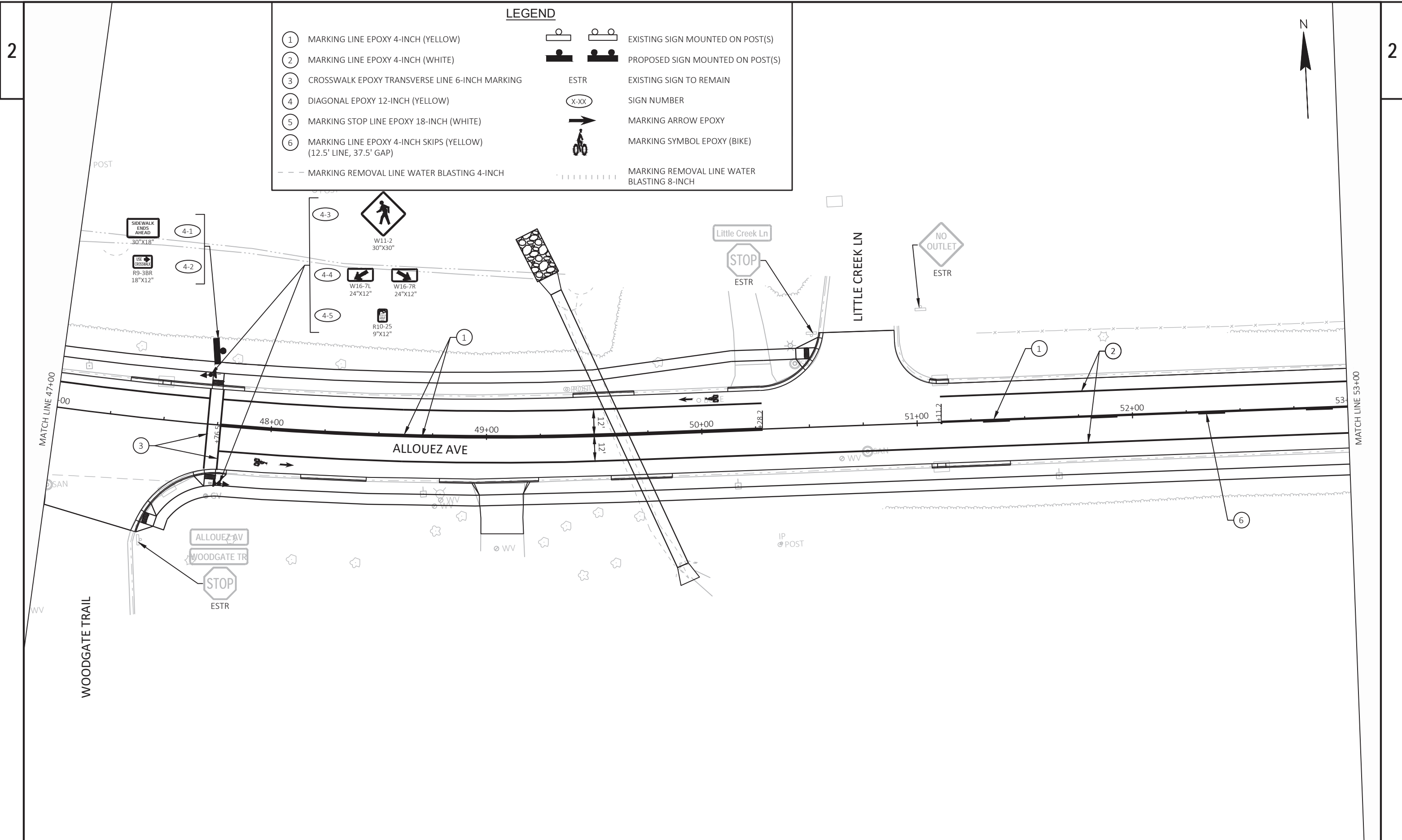
E

LEGEND

- ① MARKING LINE EPOXY 4-INCH (YELLOW)
- ② MARKING LINE EPOXY 4-INCH (WHITE)
- ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
- ④ DIAGONAL EPOXY 12-INCH (YELLOW)
- ⑤ MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑥ MARKING LINE EPOXY 4-INCH SKIPS (YELLOW)
(12.5' LINE, 37.5' GAP)
- - - MARKING REMOVAL LINE WATER BLASTING 4-INCH
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- ESTR EXISTING SIGN TO REMAIN
- (X-XX) SIGN NUMBER
- MARKING ARROW EPOXY
- MARKING SYMBOL EPOXY (BIKE)
- MARKING REMOVAL LINE WATER BLASTING 8-INCH



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PAVEMENT MARKING & PERMANENT SIGNING
SHEET			E



LEGEND

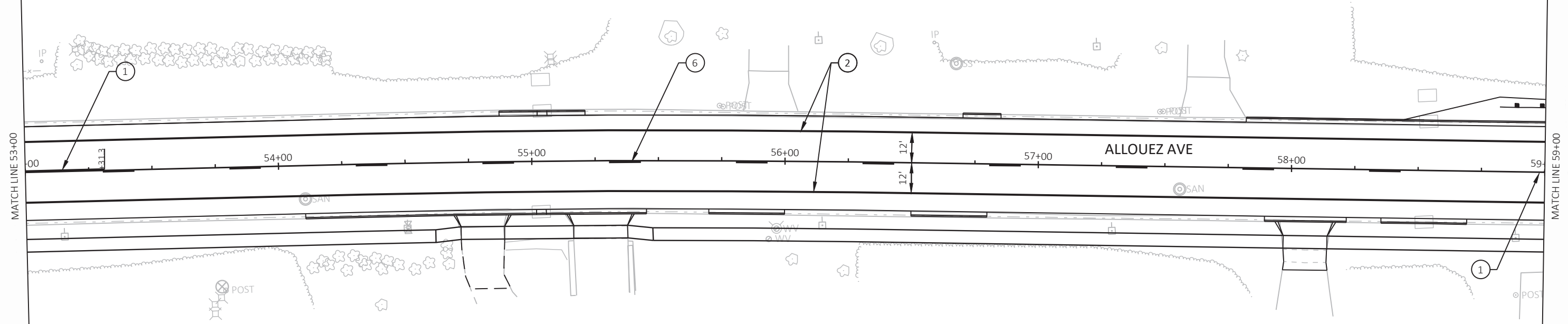
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN PAVEMENT MARKING & PERMANENT SIGNING SHEET E

FILE NAME : S:\MAD\5100-5199\5129\001\DRAWINGS\CAD\CIVIL 3D\SHEETS\PLAN\024501-PM.DWG PLOT DATE : 7/14/2023 8:09 AM PLOT BY : CARPENTER, ZACH PLOT NAME : PLOT SCALE : 1 IN:40 FT WISDOT/CADD SHEET 42

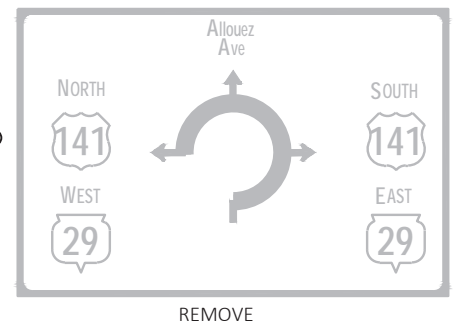
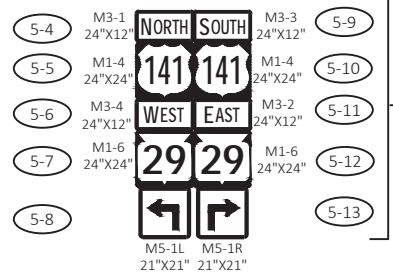
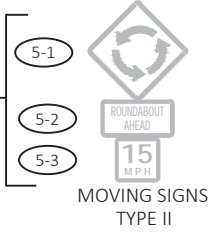
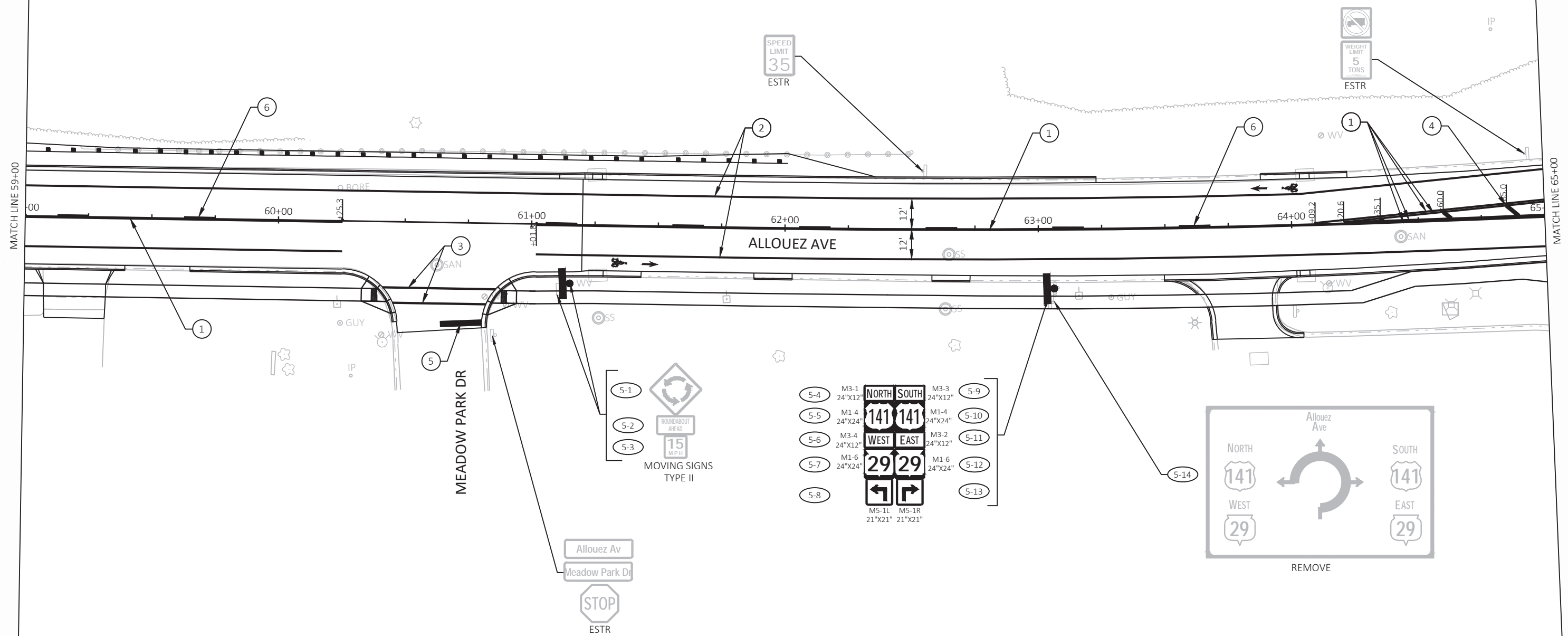
LEGEND

①	MARKING LINE EPOXY 4-INCH (YELLOW)		EXISTING SIGN MOUNTED ON POST(S)
②	MARKING LINE EPOXY 4-INCH (WHITE)		PROPOSED SIGN MOUNTED ON POST(S)
③	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING	ESTR	EXISTING SIGN TO REMAIN
④	DIAGONAL EPOXY 12-INCH (YELLOW)		SIGN NUMBER
⑤	MARKING STOP LINE EPOXY 18-INCH (WHITE)		MARKING ARROW EPOXY
⑥	MARKING LINE EPOXY 4-INCH SKIPS (YELLOW) (12.5' LINE, 37.5' GAP)		MARKING SYMBOL EPOXY (BIKE)
- - -	MARKING REMOVAL LINE WATER BLASTING 4-INCH		MARKING REMOVAL LINE WATER BLASTING 8-INCH



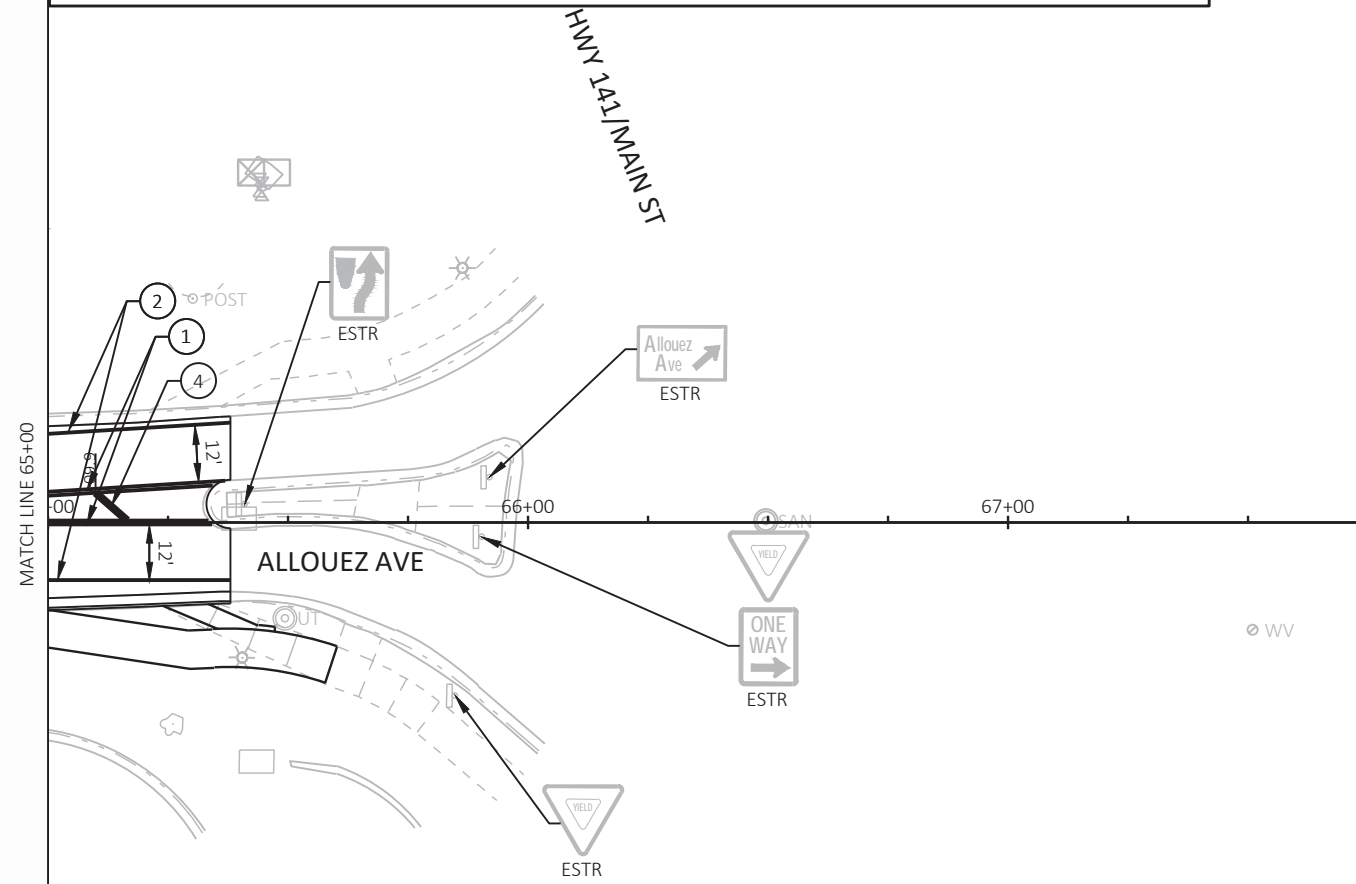
LEGEND

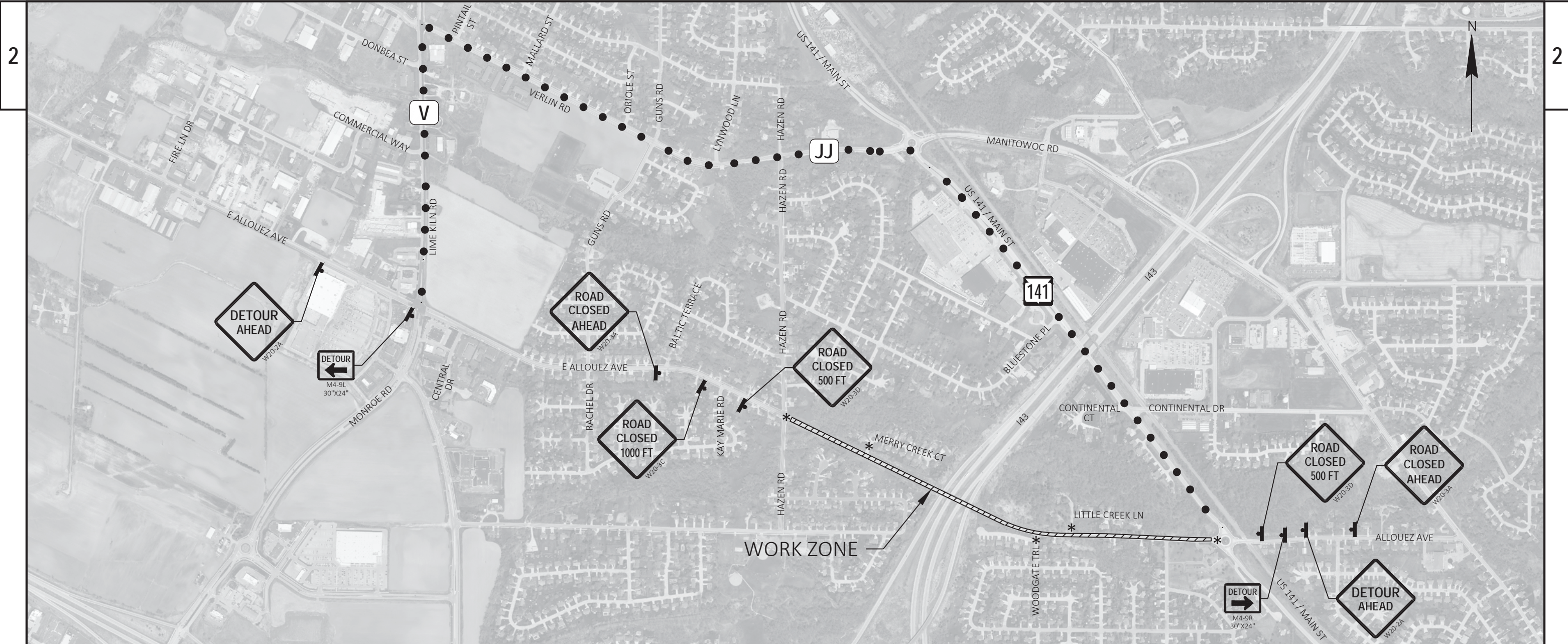
- ① MARKING LINE EPOXY 4-INCH (YELLOW)
 - ② MARKING LINE EPOXY 4-INCH (WHITE)
 - ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
 - ④ DIAGONAL EPOXY 12-INCH (YELLOW)
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 - MARKING REMOVAL LINE WATER BLASTING 8-INCH
- EXISTING SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON POST(S)
 - ESTR EXISTING SIGN TO REMAIN
 - (X-XX) SIGN NUMBER
 - MARKING ARROW EPOXY
 - MARKING SYMBOL EPOXY (BIKE)



LEGEND

- ① MARKING LINE EPOXY 4-INCH (YELLOW)
 - ② MARKING LINE EPOXY 4-INCH (WHITE)
 - ③ CROSSWALK EPOXY TRANSVERSE LINE 6-INCH MARKING
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(12.5' LINE, 37.5' GAP)
 - - - MARKING REMOVAL LINE WATER BLASTING 4-INCH
- EXISTING SIGN MOUNTED ON POST(S)
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 - ESTR EXISTING SIGN TO REMAIN
 - SIGN NUMBER
 - MARKING ARROW EPOXY
 - MARKING SYMBOL EPOXY (BIKE)
 - MARKING REMOVAL LINE WATER BLASTING 8-INCH





GENERAL NOTES

SEE DETOUR SIGNING PLAN FOR ADDITIONAL INFORMATION.

ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTORS METHODS OR SEQUENCES OF OPERATION.

ROAD MACHINERY, TRUCK ENTRANCE, FLAGMEN AHEAD, ETC., SIGNS SHALL BE USED AS NEEDED AND SHALL BE REMOVED OR COVERED WHEN THE ACTIVITY OR CONDITION DOES NOT EXIST. NO WARNING LIGHT SHALL BE USED WITH A COVERED SIGN.





"WO" SERIES SIGNS ARE "W" SERIES SIGNS EXCEPT THE BACKGROUND IS ORANGE.

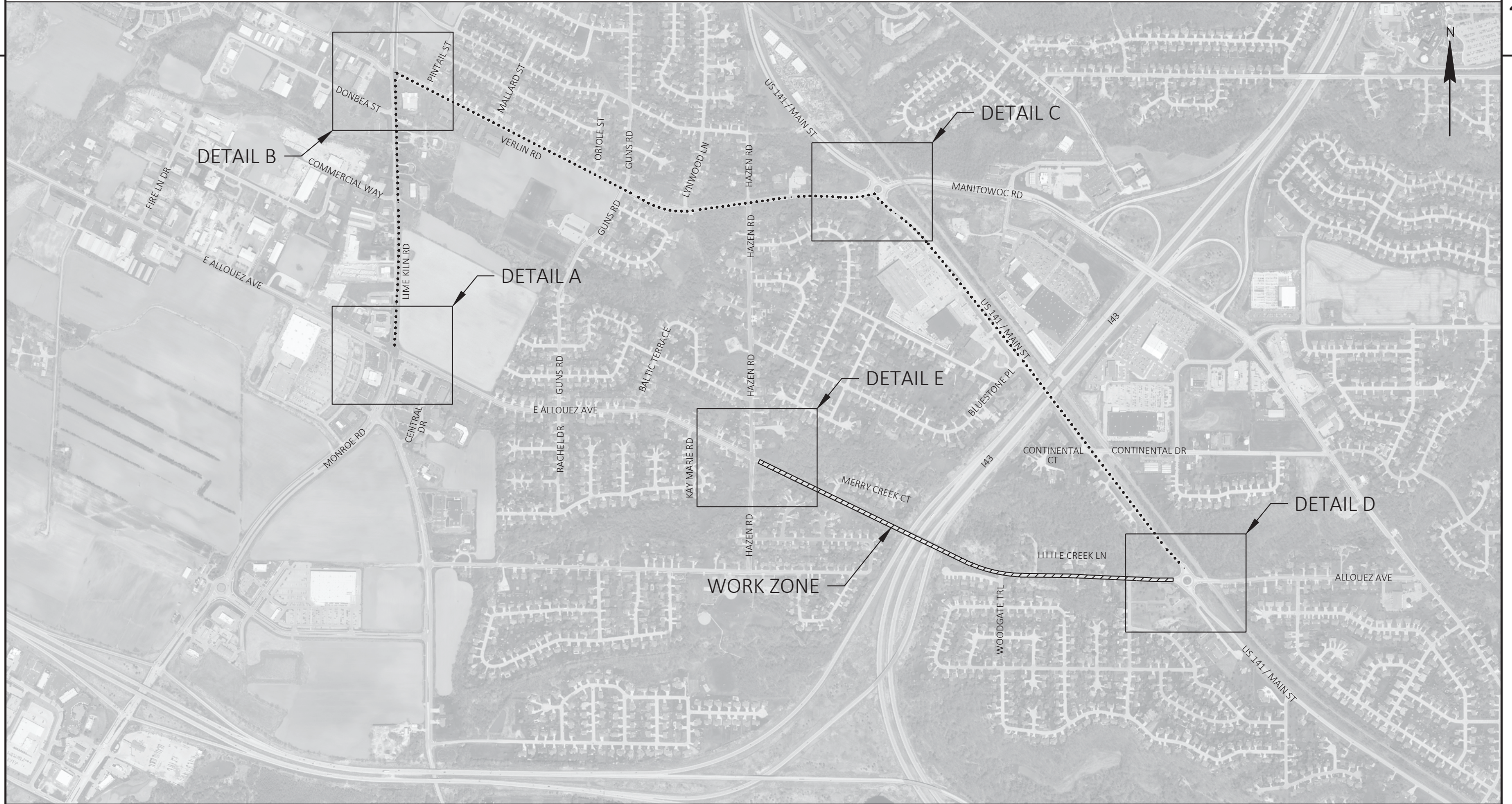
LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES.

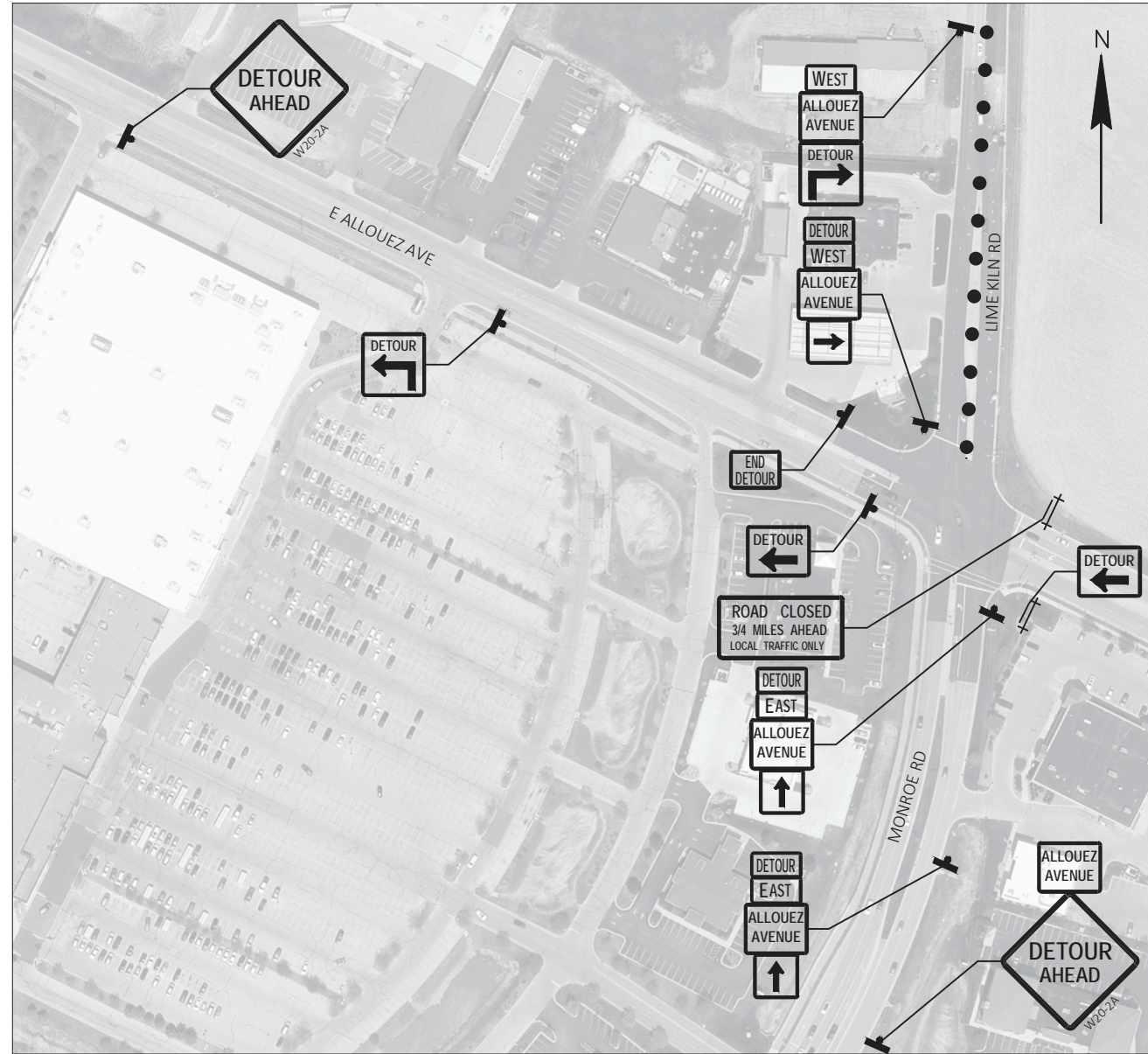
DETAILS OF TRAFFIC CONTROL NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

* FOR ADDITIONAL INFORMATION USE STANDARD DETAIL DRAWINGS: "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 4 AND "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL D

LEGEND

-  WOOD POST WITH ATTACHED SIGN
-  TYPE III BARRICADE WITHOUT SIGN WITH TWO WARNING LIGHTS (TYPE A, LOW INTENSITY FLASHING)
-  TYPE III BARRICADE WITH SIGN WITH TWO WARNING LIGHTS (TYPE A, LOW INTENSITY FLASHING)
-  DETOUR ROUTE





DETAIL A

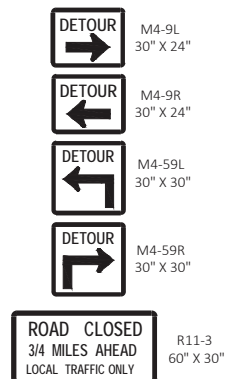
GENERAL NOTES

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

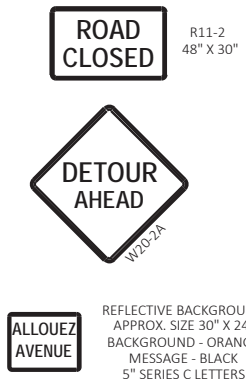
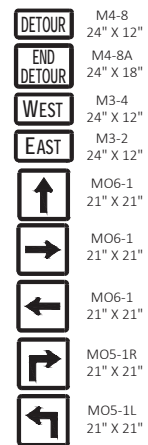
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

ALL M3 SERIES SIGNS (EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

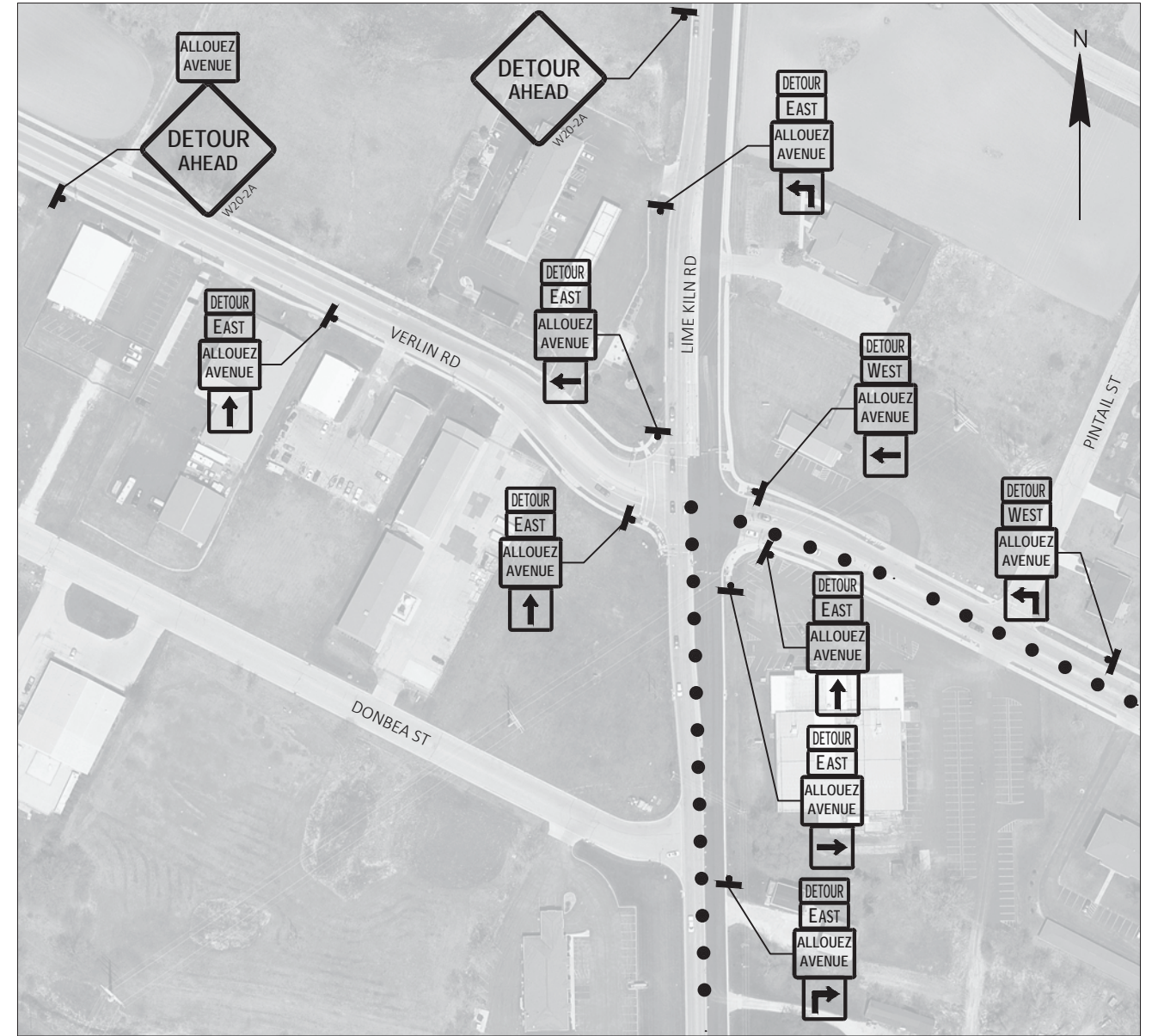
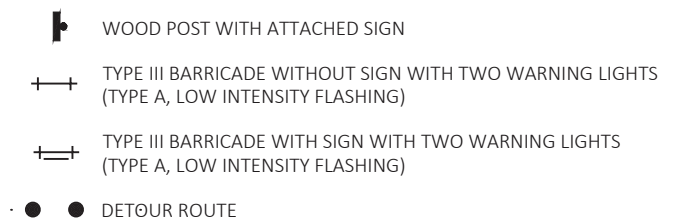


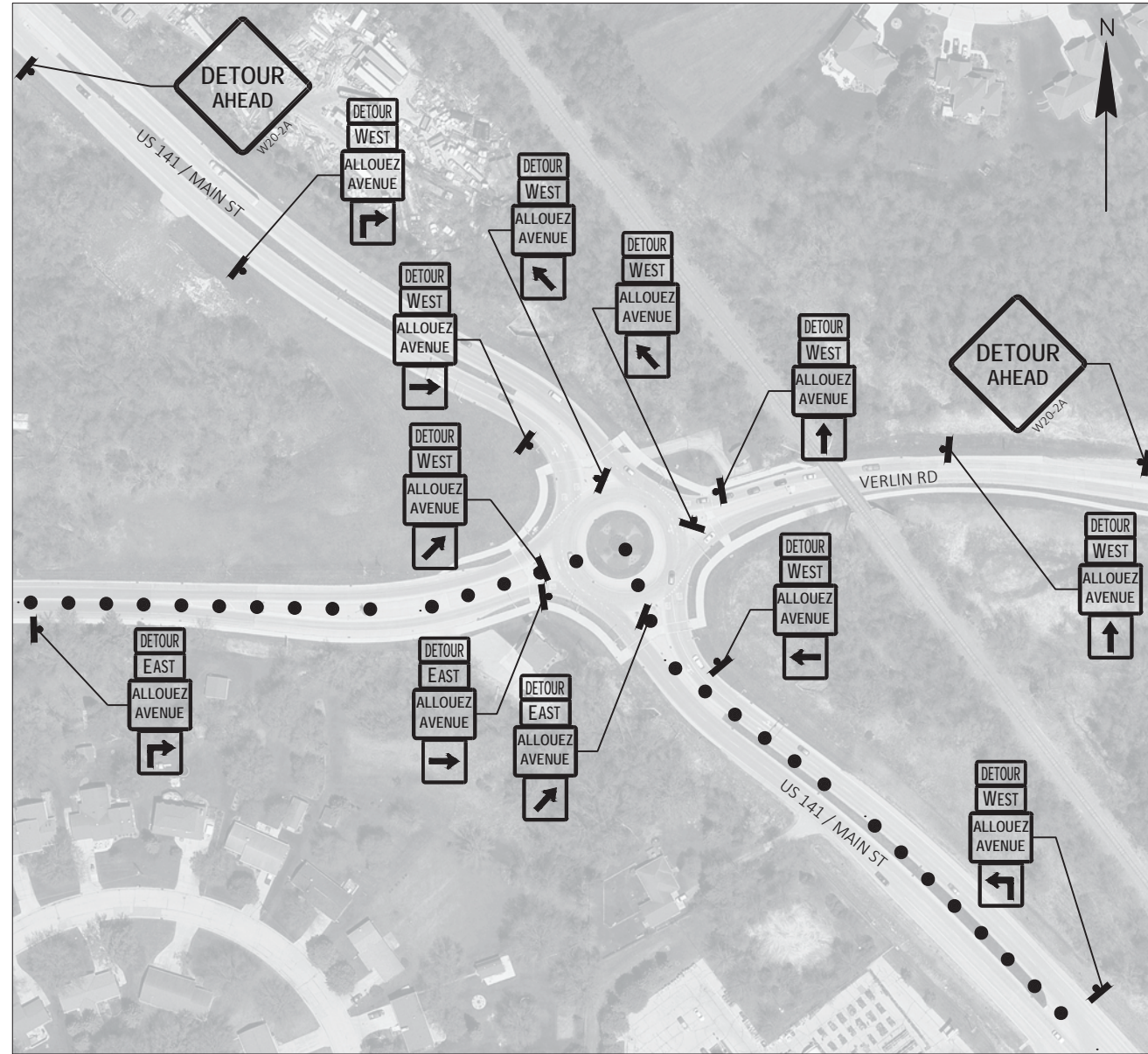
SIGN LEGEND



DETAIL B

LEGEND





DETAIL C

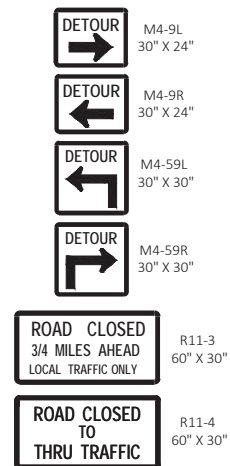
GENERAL NOTES

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

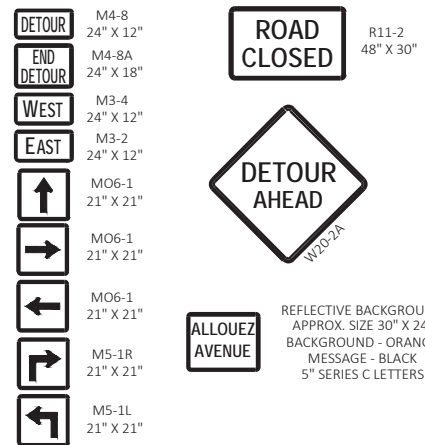
ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

ALL M3 SERIES SIGNS (EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

ALL M05 AND M06 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

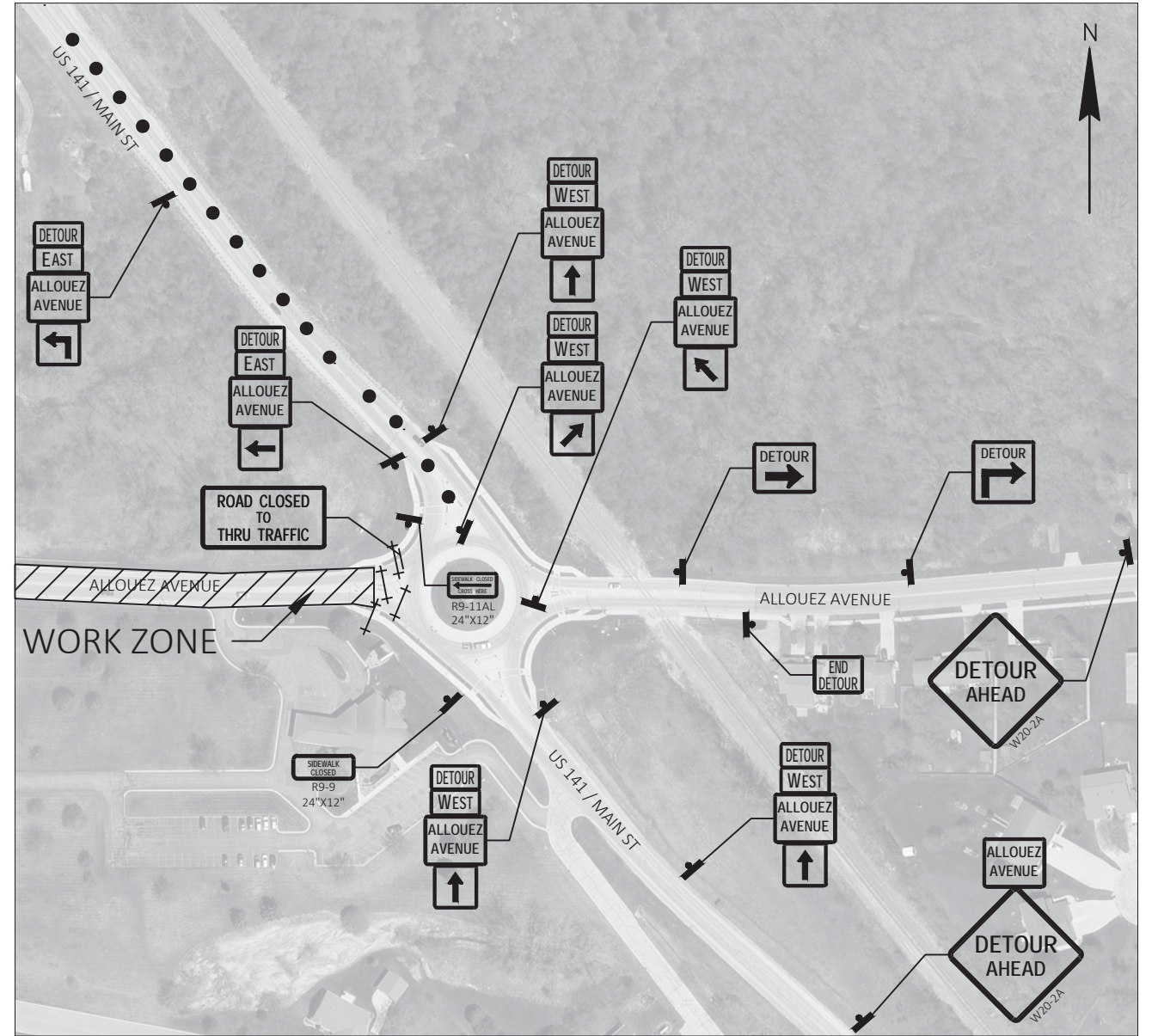
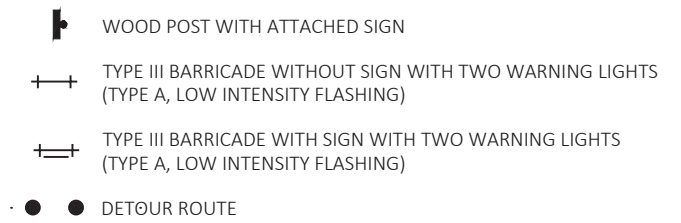


SIGN LEGEND



DETAIL D

LEGEND





DETAIL E

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

ALL M3 SERIES SIGNS (EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKER SIGNING ASSEMBLY OR ATTACHED TO ANY WARNING SIGN SHALL BE BLACK LETTERING ON A WHITE BACKGROUND.

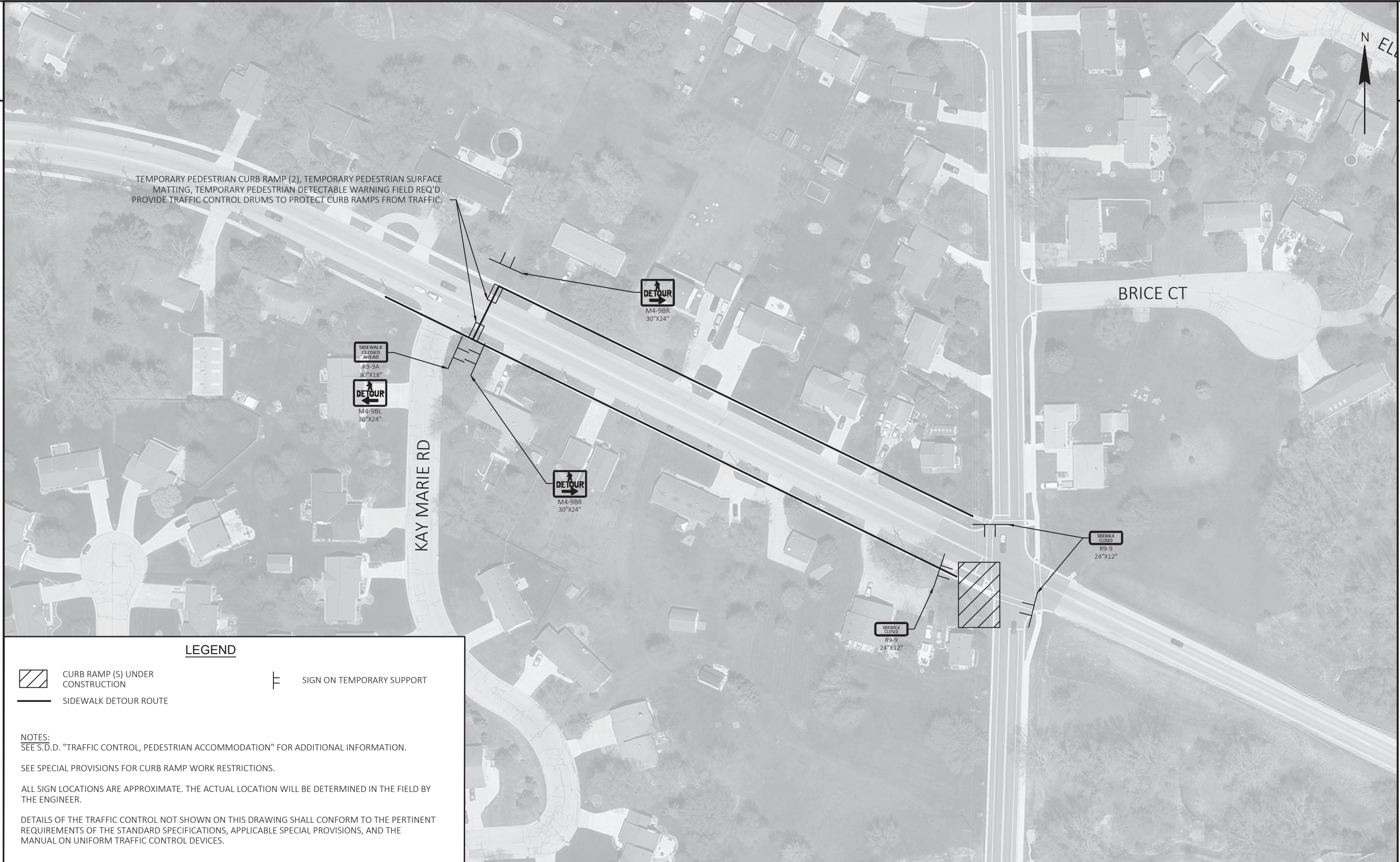
ALL MO5 AND MO6 ARROW SIGNS SHALL BE THE SAME AS "M" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

SIGN LEGEND

	M4-9L 30" X 24"		M4-9R 30" X 24"		M4-59L 30" X 30"		M4-59R 30" X 30"		R11-3 60" X 30"		R11-4 60" X 30"		M4-8 24" X 12"		M4-8A 24" X 18"		R11-2 48" X 30"		W20-2A		REFLECTIVE BACKGROUND APPROX. SIZE 30" X 24" BACKGROUND - ORANGE MESSAGE - BLACK 5" SERIES C LETTERS
	M4-9R 30" X 24"		M4-59L 30" X 30"		M4-59R 30" X 30"		R11-3 60" X 30"		R11-4 60" X 30"		M4-8 24" X 12"		M4-8A 24" X 18"		R11-2 48" X 30"		W20-2A		REFLECTIVE BACKGROUND APPROX. SIZE 30" X 24" BACKGROUND - ORANGE MESSAGE - BLACK 5" SERIES C LETTERS		
	M4-9R 30" X 24"		M4-59L 30" X 30"		M4-59R 30" X 30"		R11-3 60" X 30"		R11-4 60" X 30"		M4-8 24" X 12"		M4-8A 24" X 18"		R11-2 48" X 30"		W20-2A		REFLECTIVE BACKGROUND APPROX. SIZE 30" X 24" BACKGROUND - ORANGE MESSAGE - BLACK 5" SERIES C LETTERS		

LEGEND

- WOOD POST WITH ATTACHED SIGN
- TYPE III BARRICADE WITHOUT SIGN WITH TWO WARNING LIGHTS (TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO WARNING LIGHTS (TYPE A, LOW INTENSITY FLASHING)
- DETOUR ROUTE



TEMPORARY PEDESTRIAN CURB RAMP (2), TEMPORARY PEDESTRIAN SURFACE MATTING, TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D. PROVIDE TRAFFIC CONTROL DRUMS TO PROTECT CURB RAMP(S) FROM TRAFFIC.

SIDEWALK CLOSED AHEAD
R9-9A
30"x18"
DETOUR
M4-9BL
30"x24"

DETOUR
M4-9BR
30"x24"

DETOUR
M4-9BR
30"x24"

SIDEWALK CLOSED
R9-9
24"x12"

SIDEWALK CLOSED
R9-9
24"x12"

LEGEND



CURB RAMP (S) UNDER CONSTRUCTION



SIGN ON TEMPORARY SUPPORT



SIDEWALK DETOUR ROUTE

NOTES:

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

SEE SPECIAL PROVISIONS FOR CURB RAMP WORK RESTRICTIONS.

ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

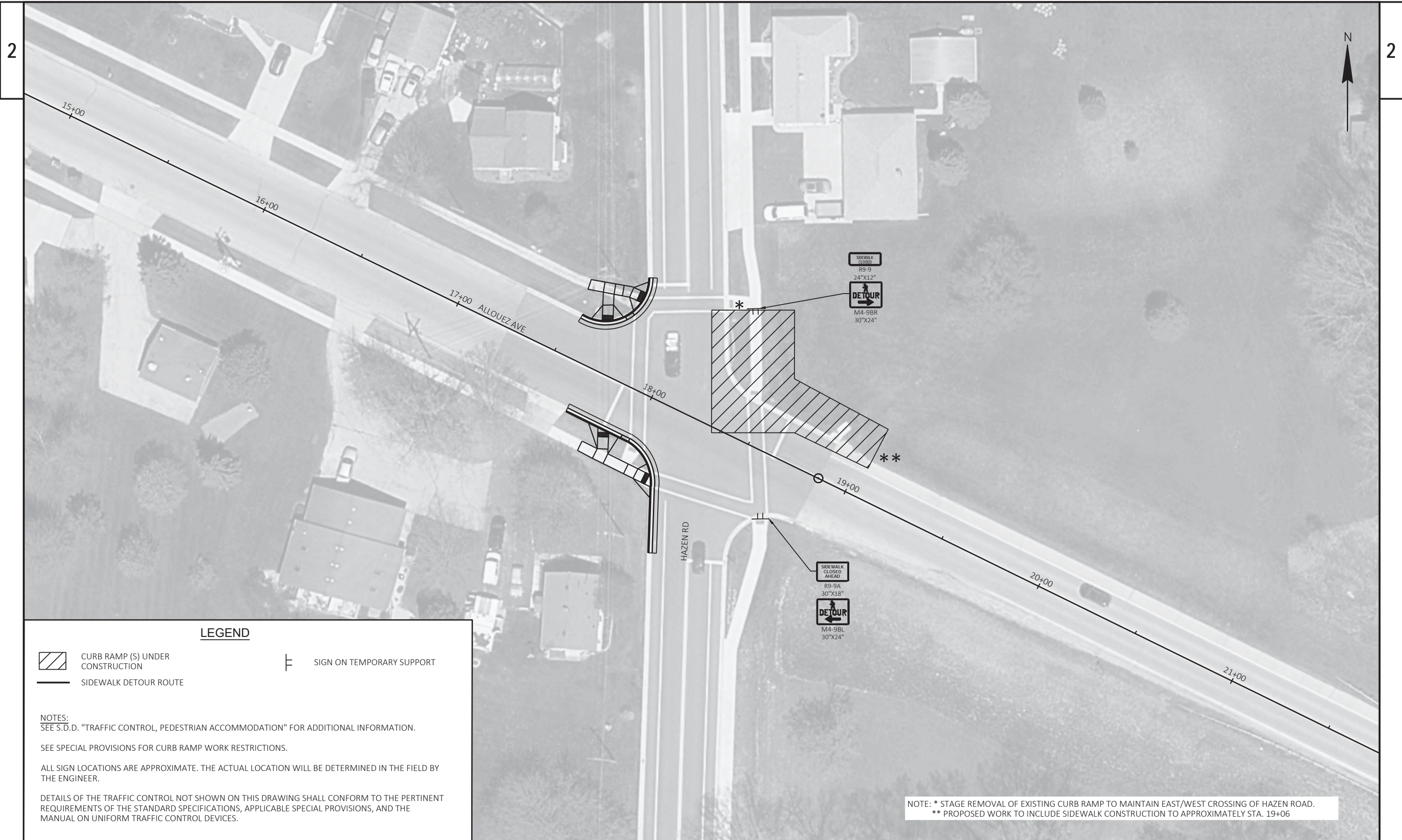


TEMPORARY PEDESTRIAN CURB RAMP (2), TEMPORARY PEDESTRIAN SURFACE MATTING, TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D. PROVIDE TRAFFIC CONTROL DRUMS TO PROTECT CURB RAMPS FROM TRAFFIC.

LEGEND

- CURB RAMP (S) UNDER CONSTRUCTION
- SIDEWALK DETOUR ROUTE
- SIGN ON TEMPORARY SUPPORT

NOTES:
 SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.
 SEE SPECIAL PROVISIONS FOR CURB RAMP WORK RESTRICTIONS.
 ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
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LEGEND

- CURB RAMP (S) UNDER CONSTRUCTION
- SIGN ON TEMPORARY SUPPORT
- SIDEWALK DETOUR ROUTE

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

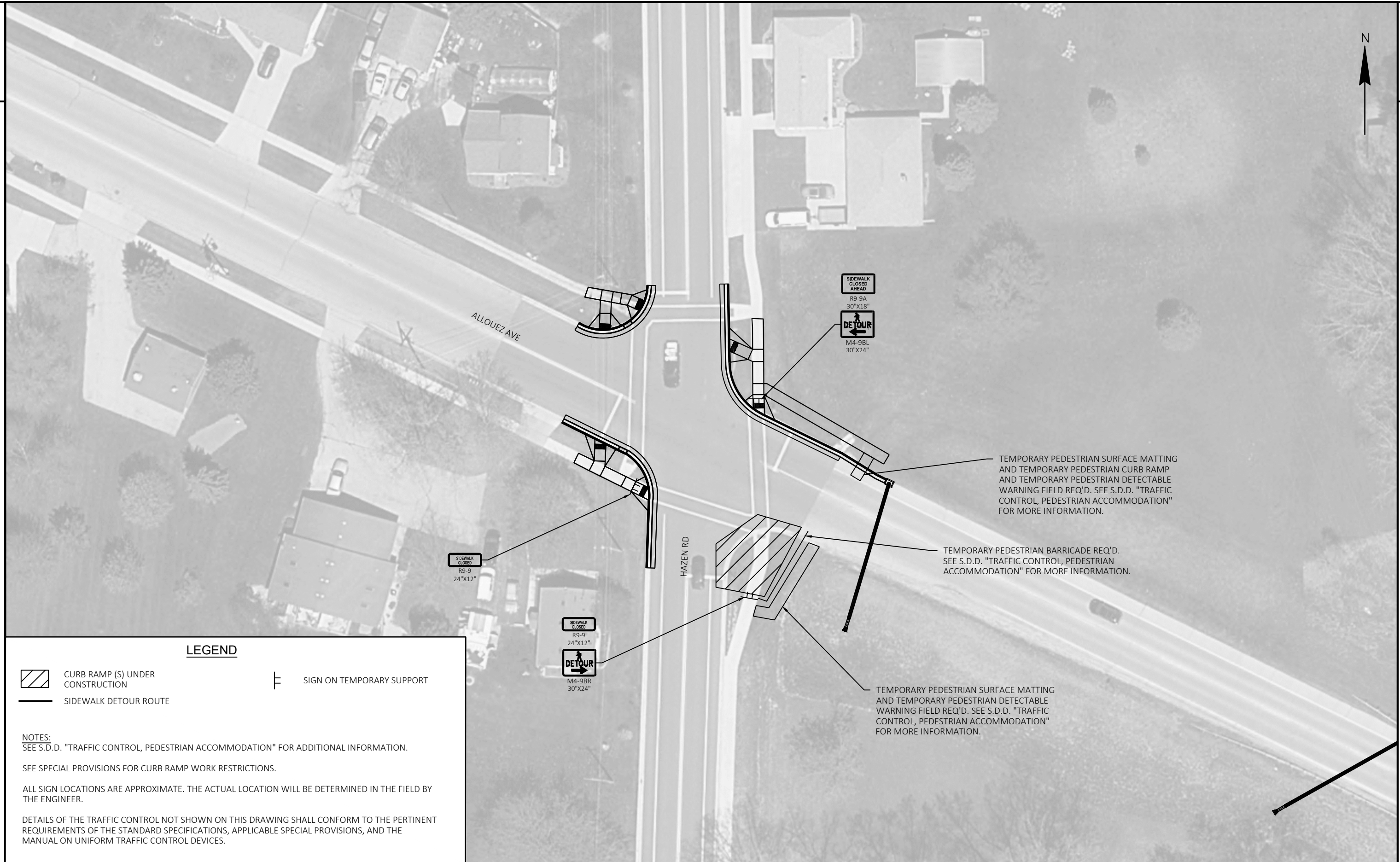
SEE SPECIAL PROVISIONS FOR CURB RAMP WORK RESTRICTIONS.

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NOTE: * STAGE REMOVAL OF EXISTING CURB RAMP TO MAINTAIN EAST/WEST CROSSING OF HAZEN ROAD.
** PROPOSED WORK TO INCLUDE SIDEWALK CONSTRUCTION TO APPROXIMATELY STA. 19+06

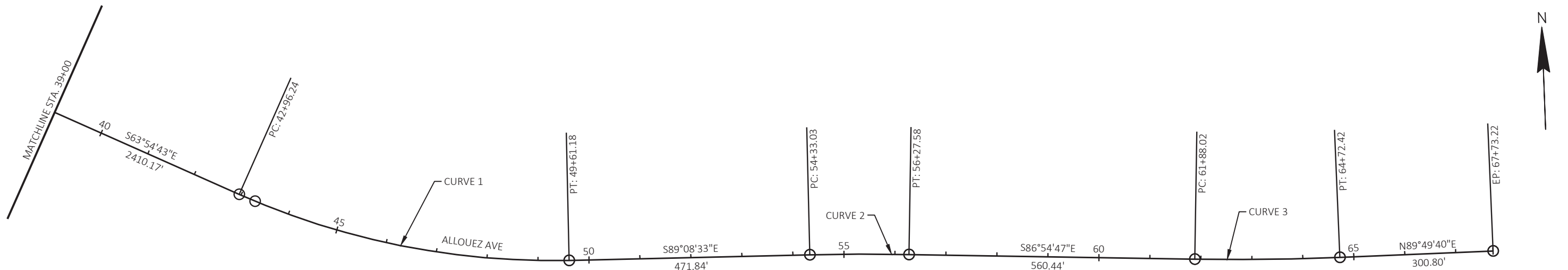
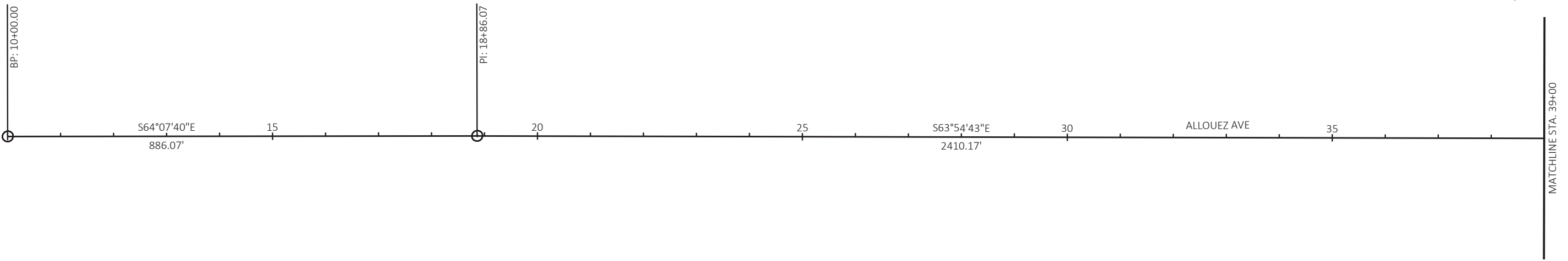
PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PEDESTRIAN DETOUR	SHEET	E
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LEGEND

-  CURB RAMP (S) UNDER CONSTRUCTION
-  SIDEWALK DETOUR ROUTE
-  SIGN ON TEMPORARY SUPPORT

NOTES:
 SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.
 SEE SPECIAL PROVISIONS FOR CURB RAMP WORK RESTRICTIONS.
 ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 DETAILS OF THE TRAFFIC CONTROL NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.



CURVE 1
 PI STA = 46+34.19
 Y = 546944.315
 X = 114523.694
 DELTA = 25°13'50" LT
 D = 3°47'40"
 T = 337.95'
 L = 664.94'
 R = 1510.00'
 PC STA = 42+96.24
 Y = 547092.929
 X = 114220.176
 PT STA = 49+61.18
 Y = 546939.258
 X = 114861.605
 DB = S63°54'43"E
 DA = S89°08'33"E

CURVE 2
 PI STA = 55+30.31
 Y = 546930.741
 X = 115430.672
 DELTA = 2°13'46" RT
 D = 1°08'45"
 T = 97.29'
 L = 194.55'
 R = 5000.00'
 PC STA = 54+33.03
 Y = 546932.197
 X = 115333.394
 PT STA = 56+27.58
 Y = 546925.502
 X = 115527.820
 DB = S89°08'33"E
 DA = S86°54'47"E

CURVE 3
 PI STA = 63+30.26
 Y = 546887.663
 X = 116229.479
 DELTA = 3°15'32" LT
 D = 1°08'45"
 T = 142.24'
 L = 284.40'
 R = 5000.00'
 PC STA = 61+88.02
 Y = 546895.323
 X = 116087.448
 PT STA = 64+72.42
 Y = 546888.091
 X = 116371.715
 DB = S86°54'47"E
 DA = N89°49'40"E

Estimate Of Quantities

4516-10-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	183.000	183.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	1,679.000	1,679.000
0008	204.0150	Removing Curb & Gutter	LF	2,637.000	2,637.000
0010	204.0155	Removing Concrete Sidewalk	SY	160.000	160.000
0012	204.0165	Removing Guardrail	LF	866.000	866.000
0014	204.0220	Removing Inlets	EACH	20.000	20.000
0016	204.0245	Removing Storm Sewer (size) 01. 12-Inch or Less	LF	331.000	331.000
0018	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	75.000	75.000
0020	204.0270	Abandoning Culvert Pipes	EACH	1.000	1.000
0022	205.0100	Excavation Common	CY	15,488.000	15,488.000
0024	213.0100	Finishing Roadway (project) 01. 4516-10-71	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	455.000	455.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	13,740.000	13,740.000
0030	311.0110	Breaker Run	TON	1,200.000	1,200.000
0032	415.0070	Concrete Pavement 7-Inch	SY	40.000	40.000
0034	415.0410	Concrete Pavement Approach Slab	SY	90.000	90.000
0036	415.4100	Concrete Pavement Joint Filling	SY	40.000	40.000
0038	455.0605	Tack Coat	GAL	1,615.000	1,615.000
0040	460.2000	Incentive Density HMA Pavement	DOL	3,600.000	3,600.000
0042	460.5223	HMA Pavement 3 LT 58-28 S	TON	3,380.000	3,380.000
0044	460.5424	HMA Pavement 4 LT 58-28 H	TON	2,250.000	2,250.000
0046	465.0105	Asphaltic Surface	TON	17.000	17.000
0048	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	14.000	14.000
0050	520.8000	Concrete Collars for Pipe	EACH	6.000	6.000
0052	522.0160	Culvert Pipe Reinforced Concrete Class III 60-Inch	LF	140.000	140.000
0054	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	8.000	8.000
0056	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0058	522.1060	Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	EACH	2.000	2.000
0060	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	530.000	530.000
0062	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	150.000	150.000
0064	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	98.000	98.000
0066	602.0405	Concrete Sidewalk 4-Inch	SF	24,150.000	24,150.000
0068	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	160.000	160.000
0070	602.0810	Concrete Driveway 6-Inch	SY	215.000	215.000
0072	602.3010	Concrete Surface Drains	CY	3.000	3.000
0074	606.0050	Riprap Extra-Light	CY	2.000	2.000
0076	606.0200	Riprap Medium	CY	37.000	37.000
0078	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	457.000	457.000
0080	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	57.000	57.000
0082	608.6012	Storm Sewer Pipe Composite 12-Inch	LF	152.000	152.000
0084	611.0535	Manhole Covers Type J-Special	EACH	2.000	2.000
0086	611.0624	Inlet Covers Type H	EACH	6.000	6.000
0088	611.0639	Inlet Covers Type H-S	EACH	4.000	4.000
0090	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0092	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0094	611.3004	Inlets 4-FT Diameter	EACH	2.000	2.000
0096	611.3230	Inlets 2x3-FT	EACH	24.000	24.000
0098	611.8110	Adjusting Manhole Covers	EACH	9.000	9.000
0100	611.9710	Salvaged Inlet Covers	EACH	12.000	12.000

Estimate Of Quantities

4516-10-71

Line	Item	Item Description	Unit	Total	Qty
0102	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	8.000	8.000
0104	614.2330	MGS Guardrail 3 K	LF	257.000	257.000
0106	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0108	614.2610	MGS Guardrail Terminal EAT	EACH	6.000	6.000
0110	616.0406	Fence Chain Link Salvaged 6-FT	LF	90.000	90.000
0112	618.0100	Maintenance and Repair of Haul Roads (project) 01. 4516-10-71	EACH	1.000	1.000
0114	619.1000	Mobilization	EACH	1.000	1.000
0116	623.0200	Dust Control Surface Treatment	SY	18,187.000	18,187.000
0118	624.0100	Water	MGAL	213.000	213.000
0120	625.0100	Topsoil	SY	2,599.000	2,599.000
0122	625.0500	Salvaged Topsoil	SY	24,825.000	24,825.000
0124	628.1104	Erosion Bales	EACH	74.000	74.000
0126	628.1504	Silt Fence	LF	4,575.000	4,575.000
0128	628.1520	Silt Fence Maintenance	LF	9,150.000	9,150.000
0130	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0132	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0134	628.2008	Erosion Mat Urban Class I Type B	SY	15,210.000	15,210.000
0136	628.2027	Erosion Mat Class II Type C	SY	5,997.000	5,997.000
0138	628.2037	Erosion Mat Class III Type C	SY	697.000	697.000
0140	628.6505	Soil Stabilizer Type A	ACRE	0.200	0.200
0142	628.7005	Inlet Protection Type A	EACH	14.000	14.000
0144	628.7010	Inlet Protection Type B	EACH	1.000	1.000
0146	628.7015	Inlet Protection Type C	EACH	43.000	43.000
0148	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0150	628.7504	Temporary Ditch Checks	LF	220.000	220.000
0152	628.7515.S	Stone Ditch Checks	CY	147.000	147.000
0154	628.7560	Tracking Pads	EACH	2.000	2.000
0156	628.7570	Rock Bags	EACH	1,722.000	1,722.000
0158	629.0210	Fertilizer Type B	CWT	18.000	18.000
0160	630.0130	Seeding Mixture No. 30	LB	32.000	32.000
0162	630.0140	Seeding Mixture No. 40	LB	367.000	367.000
0164	630.0170	Seeding Mixture No. 70	LB	2.000	2.000
0166	630.0400	Seeding Nurse Crop	LB	2.000	2.000
0168	630.0500	Seed Water	MGAL	62.000	62.000
0170	633.5200	Markers Culvert End	EACH	11.000	11.000
0172	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	6.000	6.000
0174	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0176	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	1.000	1.000
0178	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	2.000	2.000
0180	637.2210	Signs Type II Reflective H	SF	36.700	36.700
0182	637.2230	Signs Type II Reflective F	SF	33.200	33.200
0184	638.2102	Moving Signs Type II	EACH	15.000	15.000
0186	638.2602	Removing Signs Type II	EACH	1.000	1.000
0188	638.3000	Removing Small Sign Supports	EACH	7.000	7.000
0190	642.5401	Field Office Type D	EACH	1.000	1.000
0192	643.0300	Traffic Control Drums	DAY	140.000	140.000
0194	643.0420	Traffic Control Barricades Type III	DAY	4,712.000	4,712.000
0196	643.0705	Traffic Control Warning Lights Type A	DAY	9,424.000	9,424.000
0198	643.0900	Traffic Control Signs	DAY	21,104.000	21,104.000
0200	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000

Estimate Of Quantities

4516-10-71

Line	Item	Item Description	Unit	Total	Qty
0202	643.5000	Traffic Control	EACH	1.000	1.000
0204	644.1440	Temporary Pedestrian Surface Matting	SF	345.000	345.000
0206	644.1601	Temporary Pedestrian Curb Ramp	DAY	70.000	70.000
0208	644.1605	Temporary Pedestrian Detectable Warning Field	SF	40.000	40.000
0210	644.1810	Temporary Pedestrian Barricade	LF	100.000	100.000
0212	645.0120	Geotextile Type HR	SY	74.000	74.000
0214	645.0130	Geotextile Type R	SY	84.000	84.000
0216	646.1020	Marking Line Epoxy 4-Inch	LF	15,277.000	15,277.000
0218	646.5020	Marking Arrow Epoxy	EACH	6.000	6.000
0220	646.5220	Marking Symbol Epoxy	EACH	6.000	6.000
0222	646.6120	Marking Stop Line Epoxy 18-Inch	LF	87.000	87.000
0224	646.7120	Marking Diagonal Epoxy 12-Inch	LF	21.000	21.000
0226	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	605.000	605.000
0228	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	385.000	385.000
0230	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	58.000	58.000
0232	648.0100	Locating No-Passing Zones	MI	0.350	0.350
0234	650.4000	Construction Staking Storm Sewer	EACH	39.000	39.000
0236	650.4500	Construction Staking Subgrade	LF	3,756.000	3,756.000
0238	650.5000	Construction Staking Base	LF	3,756.000	3,756.000
0240	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	4,398.000	4,398.000
0242	650.7000	Construction Staking Concrete Pavement	LF	33.000	33.000
0244	650.9000	Construction Staking Curb Ramps	EACH	17.000	17.000
0246	650.9500	Construction Staking Sidewalk (project) 01. 4516-10-71	EACH	1.000	1.000
0248	650.9911	Construction Staking Supplemental Control (project) 01. 4516-10-71	EACH	1.000	1.000
0250	650.9920	Construction Staking Slope Stakes	LF	4,387.000	4,387.000
0252	654.0101	Concrete Bases Type 1	EACH	2.000	2.000
0254	657.0100	Pedestal Bases	EACH	2.000	2.000
0256	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	2.000	2.000
0258	658.0500	Pedestrian Push Buttons	EACH	2.000	2.000
0260	690.0150	Sawing Asphalt	LF	2,935.000	2,935.000
0262	690.0250	Sawing Concrete	LF	172.000	172.000
0264	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0266	740.0440	Incentive IRI Ride	DOL	6,374.000	6,374.000
0268	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0270	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,200.000	1,200.000
0272	SPV.0060	Special 01. Inlet Covers Type DW	EACH	4.000	4.000
0274	SPV.0060	Special 02. Rectangular Rapid Flashing Beacon (RRFB) System - Station 47+75 LT/RT	EACH	1.000	1.000
0276	SPV.0060	Special 03. Temporary Water Diversion Station 41+00 to 44+00	EACH	1.000	1.000
0278	SPV.0060	Special 04. Temporary Water Diversion Station 49+00	EACH	1.000	1.000
0280	SPV.0060	Special 05. Locate and Reference Property Corner	EACH	5.000	5.000
0282	SPV.0060	Special 06. Reset Property Corner	EACH	5.000	5.000
0284	SPV.0090	Special 01. Storm Sewer Pipe PVC 4-Inch	LF	12.000	12.000
0286	SPV.0090	Special 02. Storm Sewer Pipe PVC 18-Inch	LF	19.000	19.000
0288	SPV.0090	Special 03. Concrete Curb & Gutter 24-Inch Special Type D	LF	3,620.000	3,620.000
0290	SPV.0090	Special 04. Concrete Curb & Gutter 24-Inch Special Type A	LF	34.000	34.000

3

REMOVING SMALL PIPE CULVERTS

		203.0100			
CATEGORY	STATION - STATION	LOCATION	EACH	SIZE	
0010	49+40 - 49+89	LT/RT	1	54" x 128' CMCP	

REMOVING STORM SEWER

		204.0245			
		.01		.02	
		12-INCH OR LESS		18-INCH	
CATEGORY	STATION - STATION	LOCATION	LF	LF	
0010	35+66 - 35+71	LT/RT	35	---	
	35+71 - 35+71	LT	20	---	
	40+60 - 40+65	LT/RT	35	---	
	40+60 - 40+72	RT	15	---	
	41+25 - 41+42	LT/RT	---	75	
	43+07 - 43+07	RT	7	---	
	43+08 - 43+08	LT	5	---	
	41+92 - 43+08	LT	30	---	
	47+36 - 47+55	LT	20	---	
	47+50 - 47+55	LT/RT	45	---	
	47+43 - 47+50	LT	15	---	
	51+11 - 51+11	RT	7	---	
	51+11 - 51+11	LT	6	---	
	51+11 - 51+11	LT	5	---	
	55+04 - 55+04	LT	6	---	
	55+04 - 55+04	RT	6	---	
	55+04 - 55+04	RT	6	---	
	58+53 - 58+53	RT	10	---	
	58+53 - 58+53	RT	6	---	
	58+54 - 58+54	LT	6	---	
	58+54 - 58+54	LT	6	---	
	61+27 - 61+27	RT	7	---	
	61+27 - 61+27	RT	7	---	
	61+26 - 61+26	LT	6	---	
	63+98 - 64+05	RT	7	---	
	64+05 - 64+05	RT	7	---	
	64+06 - 64+06	LT	6	---	
TOTALS			331	75	

ABANDONING CULVERT PIPES

		204.0270			
CATEGORY	STATION - STATION	LOCATION	EACH	SIZE	
0010	40+72 - 41+48	RT	1	12" x 81' CMCP	

REMOVING INLETS

		204.0220			
CATEGORY	STATION	OFFSET	EACH		
0010	35+66	18.6 'RT	1		
	35+71	17.6 'LT	1		
	40+62	17.8 'RT	1		
	40+65	17.7 'LT	1		
	40+56	18.9 'RT	1		
	40+60	18.8 'RT	1		
	43+07	18.4 'RT	1		
	43+08	17.7 'LT	1		
	47+55	31.6 'RT	1		
	47+49	17.8 'LT	1		
	51+11	20.5 'RT	1		
	51+11	19.6 'LT	1		
	55+04	19.9 'RT	1		
	55+04	19.9 'LT	1		
	58+53	20.4 'RT	1		
	58+54	19.4 'LT	1		
	61+26	19.9 'RT	1		
	61+25	19.9 'LT	1		
	64+05	20.3 'RT	1		
	64+06	19.6 'LT	1		
TOTALS			20		

REMOVING CURB & GUTTER

		204.0150			
CATEGORY	STATION - STATION	LOCATION	LF		
0010	BOP - 40+53	LT/RT	323		
	40+53 - 61+20	LT/RT	1,773		
	61+20 - EOP	LT/RT	541		
TOTAL			2,637		

REMOVING CONCRETE SIDEWALK

		204.0155			
CATEGORY	STATION - STATION	LOCATION	SY		
0010	BOP - 40+53	LT/RT	99		
	40+53 - 61+20	LT	16		
	61+20 - EOP	RT	45		
TOTAL			160		

REMOVING PAVEMENT

		204.0100		204.0120			
		REMOVING ASPHALTIC CONCRETE SURFACE PAVEMENT		REMOVING CONCRETE SURFACE MILLING		REMARKS	
CATEGORY	STATION - STATION	LOCATION	SY	SY			
0010	40+53 - 61+20	LT/RT	183	--			CONCRETE DRIVEWAYS
	61+20 - EOP	LT/RT	--	1,679			
TOTALS			183	1,679			

3

EARTHWORK

CATEGORY	LOCATION	STATION - STATION	205.0100		UNUSABLE PAVEMENT MATERIAL (7)	AVAILABLE MATERIAL (3)	UNEXPANDED FILL	EXPANDED FILL (4)	MASS ORDINATE +/- (5)	311.0110
			EXCAVATION COMMON (1)							BREAKER RUN (6)
			CUT	EBS EXCAVATION (2)						
			5% OF CUT				FACTOR 1.18		TON	
			CY	CY	CY	CY	CY	CY		
0010	ALLOUEZ AVE	18+50.00 - 35+50.00	7,714	386	---	7,714	5,280	6,231	1,483	670
		40+92.09 - 61+20.74	5,452	273	---	5,452	1,932	2,279	3,173	480
		61+22.00 - 67+00.00	215	11	---	215	84	99	116	20
		SIDE ROADS	369	18	---	369	---	---	369	30
		STONE DITCH CHECKS REMOVAL	1,050	---	---	---	---	---	---	---
		SUBTOTALS	14,800	688	---	13,750	7,295	8,609	5,142	1,200
		TOTALS		15,488						1,200

NOTES:

- 1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100.
- 2) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN> ASSUMED CONVERSION OF 1.9 TON/CY.
- 3) AVAILABLE MATERIAL = CUT
- 4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.18.
- 5) MASS ORDINATE = CUT - (FILL * FILL FACTOR)
PLUS MASS ORDINATE QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS MASS ORDINATE QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
- 6) USED FOR BACKFILL OF EBS
- 7) EXISTING ASPHALT PAVEMENT MAY BE USED IN EMBANKMENT IN ACCORDANCE WITH STANDATD SPECIFICATION 207.2(2).
- 8) STRUCTURE B-05-194 TO REMAIN, LOCATION STA. 35+92 TO STA. 40+36.

APRON ENDWALLS AND RIPRAP SUMMARY

CATEGORY	STRUCT. NO.	STATION	OFFSET	APRON ENDWALLS FOR CULVERT PIPE			RIPRAP MEDIUM CY	MARKERS CULVERT END EACH	GEOTEXTILE TYPE HR SY	CONSTRUCTION STAKING STORM SEWER EACH
				12-INCH EACH	24-INCH EACH	60-INCH EACH				
				522.1012	522.1024	522.1060				
0010	200 O	19+22.6	46.2 'RT	1	---	---	---	1	---	1
	210 O	21+37.2	35.5 'RT	1	---	---	---	1	---	1
	220 O	23+49.8	44.9 'RT	1	---	---	---	1	---	1
	230 O	26+48.8	35.7 'RT	1	---	---	---	1	---	1
	235 O	28+08.3	38.2 'LT	1	---	---	---	1	---	1
	245 O	31+00.4	41.1 'LT	1	---	---	7	1	14	1
	255 O	34+00.1	40.0 'LT	1	---	---	11	1	23	1
	---	35+30	75.9 'LT	---	---	---	4	---	7	---
	6726 O	41+32.6	51.2 'LT	---	1	---	3	1	7	1
	2861 O	42+86.4	54.5 'LT	1	---	---	2	1	3	1
	2459	49+88.9	61.7 'RT	---	---	1	---	1	---	1
	2459 O	49+33.6	66.8 'LT	---	---	1	10	1	20	1
TOTALS				8	1	2	37	11	74	11

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

MANHOLES AND INLETS SUMMARY

STRUCTURE CATEGORY	NUMBER	STATION	OFFSET	MANHOLES		INLETS		MANHOLE COVERS	INLET COVERS			CONSTRUCTION STAKING STORM SEWER EACH
				4-FT DIAMETER EACH	5-FT DIAMETER EACH	2X3-FT EACH	4-FT DIAMETER EACH	J-SPECIAL EACH	TYPE H EACH	TYPE H-S EACH	TYPE DW EACH	
				611.2004	611.2005	611.3230	611.3004	611.0535	611.0624	611.0639	SPV.0060.01	
0010	200	19+12.0	17.0 'LT	---	---	1	---	---	1	---	---	1
	210	21+73.4	17.0 'LT	---	---	---	1	---	---	1	---	1
	215	21+80.3	17.0 'LT	---	---	1	---	---	---	1	---	1
	220	23+50.2	17.0 'LT	---	---	1	---	---	1	---	---	1
	230	26+49.6	17.0 'LT	---	---	1	---	---	1	---	---	1
	235	28+08.1	17.0 'LT	---	---	1	---	---	1	---	---	1
	245	31+00.2	17.0 'LT	---	---	1	---	---	1	---	---	1
	255	33+99.9	17.0 'LT	---	---	1	---	---	1	---	---	1
	6715	40+85.5	17.0 'LT	---	---	1	---	---	1	---	---	1
	6716	40+92.1	17.0 'LT	---	---	1	---	---	1	---	---	1
	6717	41+01.4	18.5 'RT	---	---	1	---	---	---	1	---	1
	6718	41+08.1	18.5 'RT	---	---	1	---	---	---	1	---	1
	6719	40+98.9	5.6 'RT	1	---	---	---	1	---	---	---	1
	6726	41+38.4	5.9 'RT	---	1	---	---	1	---	---	---	1
	2947	43+07.4	18.5 'RT	---	---	1	---	---	---	---	---	1
	2861	43+07.7	17.0 'LT	---	---	1	---	---	---	---	---	1
	2737	47+49.7	17.5 'LT	---	---	1	---	---	---	---	---	1
	2559	47+54.0	30.8 'RT	---	---	---	1	---	---	---	---	1
	2203	51+10.7	20.0 'RT	---	---	1	---	---	---	---	---	1
	2197	51+11.5	19.0 'LT	---	---	1	---	---	---	---	---	1
	2065	55+04.2	19.0 'LT	---	---	1	---	---	---	---	---	1
	1834	55+03.7	20.0 'RT	---	---	1	---	---	---	---	---	1
	1893	58+54.0	19.0 'LT	---	---	1	---	---	---	1	---	1
	1702	58+52.5	20.0 'RT	---	---	1	---	---	---	---	---	1
	1308	61+26.5	19.5 'RT	---	---	1	---	---	---	---	---	1
	1251	61+25.6	19.5 'LT	---	---	1	---	---	---	1	---	1
	1407	64+04.8	19.6 'RT	---	---	1	---	---	---	---	---	1
	1184	64+05.5	19.5 'LT	---	---	1	---	---	---	---	---	1
TOTALS				1	1	24	2	2	6	4	4	28

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER ITEMS

CATEGORY	STRUCT. NO.	STATION	OFFSET	* 611.8110 520.8000 611.9710 ADJUSTING CONCRETE SALVAGED MANHOLE COLLARS INLET COVERS FOR PIPE INLET COVERS EACH EACH EACH		
				EACH	EACH	EACH
0010	2947	43+07.4	18.5 'RT	---	---	1
	2861	43+07.7	17.0 'LT	---	---	1
	2559	47+54.0	30.8 'RT	---	---	1
	2737	47+49.7	17.4 'LT	---	---	1
	2424	50+44.3	29.9 'LT	1	---	---
	2203	51+10.7	20.0 'RT	---	---	1
	2197	51+11.5	19.0 'LT	---	---	1
	1834	55+03.7	20.0 'RT	---	---	1
	2065	55+04.2	19.0 'LT	---	---	1
	1702	58+52.5	20.0 'RT	---	---	1
	1308	61+26.5	19.5 'RT	---	---	1
	1308A	61+26.3	12.9 'RT	---	1	---
	1308B	61+26.6	26.7 'RT	---	1	---
	1407	64+04.8	19.6 'RT	---	---	1
	1407A	64+04.8	12.7 'RT	---	1	---
	1407B	63+98.4	19.4 'RT	---	1	---
	1337	62+63.3	31.5 'RT	1	---	---
	1338	62+64.7	10.0 'RT	1	---	---
	1251A	61+25.9	13.0 'LT	---	1	---
	1184	64+05.5	19.5 'LT	---	---	1
	1184A	64+05.6	13.5 'LT	---	1	---
TOTALS				3	6	12

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER PIPE REINFORCED CONCRETE

CATEGORY	FROM STRUCTURE	TO	608.0412 608.0424 CLASS IV	
			12-INCH LF	24-INCH LF
0010	200	200 0	64	---
	210	210 0	64	---
	215	210	7	---
	220	220 0	62	---
	230	230 0	19	---
	235	235 0	21	---
	245	245 0	24	---
	255	255 0	23	---
	6715	6716	7	---
	6716	6719	24	---
	6717	6719	13	---
	6718	6717	7	---
	6719	6726	40	---
	6726	6726 0	---	57
	2861	2861 0	43	---
	1308A	1308	7	---
	1308	1308B	7	---
	1251	1251A	6	---
	1407A	1407	7	---
	1407	1407B	6	---
	1184	1184A	6	---
TOTALS			457	57

ADJUSTING MANHOLE COVERS

CATEGORY	STATION	LOCATION	* 611.8110
			EACH
0010	47+00	36.3' RT	1
	50+76	12.1' RT	1
	54+10	13+1' RT	1
	57+56	8.7' RT	1
	60+63	16.7' RT	1
	64+43	6.0' RT	1
TOTAL			6

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

INSULATION BOARD POLYSTYRENE, 2-INCH

CATEGORY	STATION	LOCATION	612.0902.S
			SY
0020	49+60	12.6' RT	8
TOTAL			8

CULVERT PIPE REINFORCED CONCRETE STORM SEWER PIPE COMPOSITE STORM SEWER PIPE PVC

CATEGORY	FROM STRUCTURE	TO STRUCTURE	522.0160	608.6012	SPV.0090.01	SPV.0090.02	REMARKS
			CLASS III 60-INCH LF	12-INCH LF	4-INCH LF	18-INCH LF	
0010	6726A	6726	---	---	---	19	---
	2947	2947A	---	7	---	---	PVC
	2861A	2861	---	6	---	---	PVC
	2559A	2559	---	24	---	---	PVC
	2559	2737	---	48	---	---	PVC
	2737	2737A	---	14	---	---	PVC
	2459	2459 0	140	---	---	---	---
	2203	2203A	---	6	---	---	PVC
	2197A	2197	---	6	---	---	PVC
	2197	2197B	---	5	---	---	PVC
	2065A	2065	---	6	---	---	PVC
	2065	2065B	---	6	---	---	PVC
	1834	1834A	---	7	---	---	PVC
	1893A	1893	---	6	---	---	PVC
	1893	1893B	---	5	---	---	PVC
	1702A	1702	---	---	12	---	---
	1702	1702B	---	6	---	---	PVC
TOTALS			140	152	12	19	

3

3

CONCRETE DRIVEWAY 6-INCH			
CATEGORY	STATION	LOCATION	602.0810 SY
0010	40+53 - 61+20	LT/RT	180
	61+20 - EOP	RT	35
TOTAL			215

FINISHING ROADWAY		
CATEGORY	PROJECT	213.0100.01 EACH
0010	4516-10-71	1

CONCRETE PAVEMENT ITEMS						
CATEGORY	STATION - STATION	LOCATION	415.0070	415.0410	602.3010	415.4100
			CONCRETE PAVEMENT	CONCRETE PAVEMENT	CONCRETE	CONCRETE PAVEMENT
			7-INCH	APPROACH SLAB	SURFACE DRAINS	JOINT FILLING
			SY	SY	CY	SY
0010	BOP - 40+53	LT/RT	40	90	3	40
TOTALS			40	90	3	40

BASE AGGREGATE DENSE					
CATEGORY	STATION - STATION	LOCATION	305.0110	305.0120	624.0100
			BASE	BASE	WATER
			AGGREGATE DENSE	AGGREGATE DENSE	(FOR
			3/4-INCH	1 1/4-INCH	COMPACTION)
			TON	TON	MGAL
0010	BOP - 40+53	LT/RT	431	6,500	100
	40+53 - 61+20	LT/RT	---	7,050	110
	61+20 - EOP	LT/RT	---	190	3
	DRIVEWAYS	LT/RT	24	---	---
TOTALS			455	13,740	213

ASPHALTIC ITEMS								
CATEGORY	STATION - STATION	LOCATION	450.4000	455.0605	460.5223	460.5424	465.0105	465.0120
			HMA	HMA	HMA	HMA	ASPHALTIC	
			COLD	COLD	PAVEMENT	PAVEMENT	DRIVEWAYS AND	
			WEATHER	TACK	COAT	3 LT	4 LT	ASPHALTIC
			PAVING	GAL	58-28 S	58-28 H	SURFACE	FIELD ENTRANCES
			TON		TON	TON	TON	(DRIVEWAYS)
								TON
0010	BOP - 40+53	LT/RT	590	670	1,480	885	---	---
	40+53 - 61+20	LT/RT	760	860	1,900	1,140	---	9
	61+20 - EOP	LT/RT	0	85	---	225	17	5
TOTALS			1,350	1,615	3,380	2,250	17	14

NOTE: A CONVERSION FACTOR OF 112 LBS/SY/IN WAS USED TO ESTIMATE QUANTITIES FOR HMA PAVEMENT.

CURB & GUTTER ITEMS							
CATEGORY	STATION - STATION	LOCATION	SPV.0090.03	SPV.0090.04	601.0411	601.0553	601.0584
			CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE
			CURB & GUTTER	CURB & GUTTER	CURB & GUTTER	CURB & GUTTER	CURB & GUTTER
			24-INCH SPECIAL	24-INCH SPECIAL	30-INCH	4-INCH SLOPED	4-INCH SLOPED
			TYPE D	TYPE A	TYPE D	TYPE D	TYPE TBT
			LF	LF	LF	LF	LF
0010	BOP - 38+00	LT/RT	2,040	19	---	---	52
	38+00 - 61+20	LT/RT	1,580	15	---	---	46
	61+20 - EOP	LT/RT	---	---	530	150	---
TOTALS			3,620	34	530	150	98

CONCRETE SIDEWALK ITEMS			
CATEGORY	STATION - STATION	LOCATION	602.0405
			CONCRETE SIDEWALK 4-INCH SF
0010	BOP - 40+53	LT/RT	9,850
	40+53 - 61+20	LT/RT	11,700
	61+20 - EOP	LT/RT	2,600
TOTAL			24,150

3

CURB RAMP DETECTABLE WARNING FIELD

602.0515			
NATURAL PATINA			
CATEGORY	STATION - STATION	LOCATION	SF
0010	BOP - 40+53	LT/RT	100
	40+53 - 61+20	LT/RT	60
TOTAL			160

FENCING SUMMARY

616.0406			
FENCE CHAIN LINK SALVAGED 6-FT			
CATEGORY	STATION - STATION	LOCATION	LF
0010	35+62 - 35+74	LT	30
	35+73 - 35+75	RT	60
TOTAL			90

GUARDRAIL ITEMS

204.0165 614.2330 614.2500 614.2610						
MGS						
CATEGORY	STATION	LOCATION	REMOVING GUARDRAIL LF	GUARDRAIL 3 K LF	MGS THRIE BEAM TRANSITION LF	MGS GUARDRAIL TERMINAL EAT EACH
0010	34+49 - 35+75	LT	127	---	---	---
	34+57 - 35+68	RT	111	---	---	---
	34+80 - 35+34	RT	---	---	---	1
	34+84 - 35+37	LT	---	---	---	1
	35+34 - 35+73	RT	---	---	39	---
	35+37 - 35+76	LT	---	---	39	---
	40+50 - 40+89	RT	---	---	39	---
	40+51 - 41+05	RT	51	---	---	---
	40+57 - 40+96	LT	---	---	39	---
	40+59 - 43+11	LT	251	---	---	---
	40+89 - 41+42	RT	---	---	---	1
	40+96 - 41+40	LT	---	44	---	---
	41+40 - 41+93	LT	---	---	---	1
	58+82 - 59+35	LT	---	---	---	---
	59+23 - 62+49	LT	326	---	---	---
	59+35 - 61+47	LT	---	213	---	1
	61+47 - 62+01	LT	---	---	---	1
TOTALS			866	257	156	6

MAINTENANCE AND REPAIR OF HAUL ROADS

618.0100		
CATEGORY	PROJECT	EACH
0020	4516-10-71	1

MOBILIZATION

619.1000		
CATEGORY	PROJECT	EACH
0010	4516-10-71	1

TURF REINFORCEMENT MAT (TRM) SYSTEM SUMMARY

* * *										
CATEGORY	STATION - STATION	LOCATION	606.0050 RIPRAP EXTRA-LIGHT CY	625.0105 TOPSOIL CY	628.2027 EROSION MAT CLASS II TYPE C SY	628.2037 EROSION MAT CLASS III TYPE C SY	628.6505 SOIL STABILIZER TYPE A ACRE	630.0170 SEEDING MIXTURE NO. 70 LB	630.0400 SEEDING NURSE CROP LB	645.0130 GEOTEXTILE TYPE R SY
0010	41+04 - 43+87	LT	2	116	697	697	0.2	2	2	84

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

DUST CONTROL SURFACE TREATMENT

623.0200			
CATEGORY	STATION - STATION	LOCATION	SY
0010	BOP - 40+53	LT/RT	8,740
	40+53 - 61+20	LT/RT	9,446
TOTAL			18,187

MOBILIZATIONS EROSION CONTROL

* * *				
CATEGORY	PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	
0010	6999-11-78	6	4	

EROSION MAT SUMMARY

* * *				
CATEGORY	STATION - STATION	LOCATION	628.2008 URBAN CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY
0010	BOP - 40+53	LT/RT	11,800	1,550
	40+53 - 61+20	LT/RT	2,550	3,750
	61+20 - EOP	LT/RT	860	---
TOTALS			15,210	5,300

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

MISC. EROSION CONTROL ITEMS

CATEGORY	STATION	LOCATION	628.1104	628.7504	628.7570	628.7515.S	628.7560
			EROSION BALES EACH	TEMPORARY DITCH CHECKS LF	ROCK BAGS EACH	STONE DITCH CHECKS CY	TRACKING PADS EACH
0010	BOP - 40+53	LT/RT	---	180	1,148	---	---
	40+53 - EOP	LT/RT	---	---	---	105	---
UNDISTRIBUTED			74	40	574	42	2
TOTALS			74	220	1,722	147	2

NOTE: STONE DITCH CHECKS ARE TEMPORARY

SILT FENCE SUMMARY

CATEGORY	STATION - STATION	LOCATION	628.1504	628.1520
			SILT FENCE LF	SILT FENCE MAINTENANCE LF
0010	BOP - 40+53	LT/RT	2,311	4,622
	40+53 - 61+20	LT/RT	1,794	3,588
	61+20 - EOP	LT/RT	54	108
UNDISTRIBUTED			416	832
TOTALS			4,575	9,150

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	* 625.0100 625.0500 629.0210 630.0130 630.0140 630.0500 TOPSOIL SALVAGED FERTILIZER SEEDING SEEDING SEED WATER SY SY CWT LB LB MGAL					
			TOPSOIL SY	TOPSOIL SY	TYPE B CWT	MIXTURE NO. 30 LB	MIXTURE NO. 40 LB	SEED WATER MGAL
0010	BOP - 40+53	LT/RT	---	12,000	8.0	25.0	199.0	29
	40+53 - 61+20	LT/RT	---	7,000	5.0	---	78.0	18
	61+20 - EOP	LT/RT	---	860	1.0	---	16.0	2
UNDISTRIBUTED		LT/RT	2,483	4,965	4	7	74	13
TOTALS			2,483	24,825	18.0	32.0	367.0	62

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

INLET PROTECTION SUMMARY

CATEGORY	STATION - STATION	LOCATION	628.7005	628.7010	628.7015	628.7020
			INLET PROTECTION TYPE A EACH	INLET PROTECTION TYPE B EACH	INLET PROTECTION TYPE C EACH	INLET PROTECTION TYPE D EACH
0010	BOP - 40+53	LT/RT	10	---	12	2
	40+53 - 61+20	LT/RT	3	---	20	1
	61+20 - EOP	LT/RT	---	1	7	---
UNDISTRIBUTED			1	---	4	---
TOTALS			14	1	43	3

TEMPORARY WATER DIVERSION

CATEGORY	PROJECT	SPV.0060.03 SPV.0060.04 TEMPORARY WATER TEMPORARY WATER DIVERSION STATION DIVERSION STATION 41+00 TO 44+00 49+00	
		EACH	EACH
0010	4516-10-71	1	1

FIELD OFFICE TYPE D

CATEGORY	PROJECT	642.5401
		EACH
0010	4516-10-71	1

3

3

PERMANENT SIGNING SUMMARY (RAPID RECTNGULAR FLASHING BEACON SIGNAGE)

CATEGORY	STATION	LOCATION	SIGN CODE	SIGN MESSAGE	*		
					SIGN SIZE (W X H) IN	SIGNS TYPE II REFLECTIVE SF	SIGNS TYPE II REFELCTIVE F SF
					637.2210	637.2230	
0010	47+69.79	22.91' LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30 X 30	---	6.3
	47+69.79	22.91' LT	W11-2	PEDESTRIAN CROSSING SYMBOL	30 X 30	---	6.3
	47+69.79	22.91' LT	W16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 X 12	---	2.0
	47+69.79	22.91' LT	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 X 12	---	2.0
	47+69.79	22.91' LT	R10-25	PUSH BUTTON TO TURN ON WARNING LIGHTS	9 X 12	0.8	---
	47+77.94	21.17' RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30 X 30	---	6.3
	47+77.94	21.17' RT	W11-2	PEDESTRIAN CROSSING SYMBOL	30 X 30	---	6.3
	47+77.94	21.17' RT	W16-7R	RIGHT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 X 12	---	2.0
	47+77.94	21.17' RT	W16-7L	LEFT DIAGONAL DOWNWARD POINTING ARROW (YELLOW)	24 X 12	---	2.0
	47+77.94	21.17' RT	R10-25	PUSH BUTTON TO TURN ON WARNING LIGHTS	9 X 12	0.8	---
					TOTALS	1.6	33.2

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PERMANENT SIGNING SUMMARY

CATEGORY	SIGN APPROX. NO.	STA.	LOC.	SIGN MESSAGE	SIGN SIZE (W X H) IN	SIGN TYPE II REFLECTIVE SF	* POSTS WOOD 4x6-INCH				638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
							637.2210 SIGNS	634.0614	634.0616	634.0618				
0010	1-1	17+73	LT	STOP	- x -	---	1	---	---	---	1	---	1	
	1-2	17+73	LT	ALL WAY	- x -	---	---	---	---	1	---	---	---	
	1-3	17+95	RT	STOP	- x -	---	1	---	---	1	---	---	1	
	1-4	17+95	RT	ALL WAY	- x -	---	---	---	---	1	---	---	---	
	1-5	18+53	LT	ALLOUEZ AVE	- x -	---	---	---	---	1	---	---	---	
	1-6	18+53	RT	HAZEN RD	- x -	---	---	---	---	1	---	---	---	
	1-7	18+53	RT	STOP	- x -	---	1	---	---	1	---	---	1	
	1-8	18+53	RT	ALL WAY	- x -	---	---	---	---	1	---	---	---	
	1-9	20+45	RT	SPEED LIMIT_ MPH	- x -	---	1	---	---	1	---	---	1	35 MPH
	2-1	24+13	LT	STOP AHEAD	- x -	---	---	1	---	1	---	---	1	
	2-2	24+13	LT	JOSTEN COUNTY PARK	- x -	---	---	---	---	1	---	---	---	
	3-1	41+78	RT	SPEED LIMIT_ MPH	- x -	---	1	---	---	1	---	---	1	35 MPH
	4-1	47+73	LT	SIDEWALK CLOSED AHEAD	24 x 12	2.0	1	---	---	---	---	---	---	
	4-2	47+73	LT	USE OTHER SIDE	18 x 24	3.0	---	---	---	---	---	---	---	
	5-1	61+12	RT	ROUNDAABOUT SYMBOL	- x -	---	---	---	1	---	---	---	1	
	5-2	61+12	RT	ROUNDAABOUT AHEAD	- x -	---	---	---	---	1	---	---	---	
	5-3	61+12	RT	15 MPH	- x -	---	---	---	---	1	---	---	---	
	5-4	63+05	RT	NORTH CARDINAL ROUTE MARKER	24 x 12	2.0	---	---	---	2	---	---	---	
	5-5	63+05	RT	US ROUTE MARKER	24 x 24	4.0	---	---	---	---	---	---	---	US ROUTE 141
	5-6	63+05	RT	WEST CARDINAL ROUTE MARKER	18 x 24	3.0	---	---	---	---	---	---	---	
	5-7	63+05	RT	STATE ROUTE MARKER	24 x 24	4.0	---	---	---	---	---	---	---	STATE ROUTE 29
	5-8	63+05	RT	ADVANCE ARROW LEFT TURN	21 x 21	3.1	---	---	---	---	---	---	---	
	5-9	63+05	RT	SOUTH CARDINAL ROUTE MARKER	24 x 12	2.0	---	---	---	---	---	---	---	
	5-10	63+05	RT	US ROUTE MARKER	24 x 24	4.0	---	---	---	---	---	---	---	US ROUTE 141
	5-11	63+05	RT	EAST CARDINAL ROUTE MARKER	24 x 12	2.0	---	---	---	---	---	---	---	
	5-12	63+05	RT	STATE ROUTE MARKER	18 x 24	3.0	---	---	---	---	---	---	---	STATE ROUTE 29
	5-13	63+05	RT	ADVANCE ARROW RIGHT TURN	21 x 21	3.1	---	---	---	---	---	---	---	
	5-14	63+05	RT	ROUNDAABOUT	- x -	---	---	---	---	---	1	---	---	
TOTALS						35.1	6	1	1	2	15	1	7	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PROJECT NO: 4516-10-71

HWY: ALLOUEZ AVENUE

COUNTY: BROWN

MISCELLANEOUS QUANTITIES

SHEET:

E

FILE NAME: _____

PLOT DATE: _____

PLOT BY: _____

PLOT NAME: _____

PLOT SCALE: 1" = 1'

WISDOT/CADS SHEET 42

3

RECTANGULAR RAPID FLASHING BEACON

SPV.0060.02 RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM		
CATEGORY	STATION	EACH
0010	47+75	1

TRAFFIC CONTROL

643.5000		
CATEGORY	PROJECT	EACH
0010	4516-10-71	1

RECTANGULAR RAPID FLASHING BEACON EQUIPMENT SUMMARY

CATEGORY	STATION	LOCATION	654.0101	657.0100	657.0420	658.0500
			CONCRETE BASES TYPE 1 EACH	PEDESTAL BASES EACH	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT STANDARDS EACH	PEDESTRIAN PUSH BUTTONS EACH
0010	47+69.79 47+77.94	22.91' LT	1	1	1	1
		21.17' RT	1	1	1	1
TOTALS			2	2	2	2

TRAFFIC CONTROL SUMMARY

CATEGORY	LOCATION	DURATION (DAYS)	643.0300		643.0420		643.0705		643.0900		643.1050	
			TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS PCMS	
			EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY
0010	PREWARN	7	10	70	---	---	---	---	---	---	2	14
	MAINLINE	124	---	---	36	4,464	72	8,928	18	2,232	---	---
	DETOUR	124	---	---	2	248	4	496	147	18,228	---	---
	PED DETOUR	28	10	70	---	---	---	---	23	644	---	---
TOTALS			140	140	4,712	4,712	9,424	9,424	21,104	21,104	14	14

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	STATION - STATION	LOCATION	644.1440	644.1601	644.1605	644.1810
			TEMPORARY PEDESTRIAN SURFACE MATTING SF	TEMPORARY PEDESTRIAN CURB RAMP DAYS	TEMPORARY PEDESTRIAN DETECTABLE FIELD WARNING SF	TEMPORARY PEDESTRIAN BARRICADE LF
0010	11+60	LT/RT	95	56	20	---
	18+83 - 18+96	RT	223	---	10	90
	18+94 - 18+01	LT	27	14	10	10
TOTALS			345	70	40	100

LOCATING NO-PASSING ZONES

648.0100 LOCATING NO-PASSING ZONES			
CATEGORY	STATION - STATION	LOCATION	MI
0010	34+00 TO 50+30	RT	0.35
TOTALS			0.35

CONSTRUCTION STAKING SUMMARY

CATEGORY	650.4500	650.5000	650.5500	650.7000	650.9000	650.9500	650.9911	650.9920
	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING CONCRETE PAVEMENT LF	CONSTRUCTION STAKING CURB RAMPS EACH	CONSTRUCTION STAKING SIDEWALK (4516-10-71) EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (4516-10-71) EACH	CONSTRUCTION STAKING SLOPE STAKES LF
0010	3,756	3,756	4,398	33	17	1	1	4,387

PAVEMENT MARKING SUMMARY

CATEGORY	STATION - STATION	LOCATION	646.1020				646.5020	646.5220	646.6120	646.7120	646.7420	646.9010	646.9110
			MARKING LINE EPOXY 4-INCH				MARKING ARROW EACH	MARKING SYMBOL EPOXY EACH	MARKING STOP LINE EPOXY 18-INCH LF	MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	MARKING REMOVAL LINE WATER BLASTING 8-INCH LF
			(WHITE) LF	(YELLOW) LF	(12.5' SEG., 37.5' GAP) (YELLOW) LF	(DOUBLE YELLOW) LF							
0010	BOP - 40+53	LT/RT	4,270	1,450	365	1,310	2	2	70	---	450	385	58
	40+53 - 61+20	LT/RT	3,870	365	235	1,740	2	2	17	---	155	---	---
	61+20 - EOP	LT/RT	835	525	72	240	2	2	---	21	---	---	---
TOTALS			8,975	2,340	672	3,290	6	6	87	21	605	385	58
ITEM TOTALS			15,277				6	6	87	21	605	385	58

SAWING ASPHALT

CATEGORY	STATION - STATION	LOCATION	690.0150	
			LF	
0010	BOP - 40+53	LT/RT	385	
	40+53 - 61+20	LT/RT	1,590	
	61+20 - EOP	LT/RT	570	
	UNDISTRIBUTED		390	
TOTAL			2,935	

SAWING CONCRETE

CATEGORY	STATION - STATION	LOCATION	690.0250	
			LF	
0010	BOP - 40+53	LT/RT	17	
	40+53 - 61+20	LT/RT	96	
	61+20 - EOP	LT/RT	29	
	UNDISTRIBUTED		30	
TOTAL			172	

PROPERTY CORNERS

CATEGORY	STATION - STATION	LOCATION	SPV.0060.05 LOCATE AND REFERENCE PROPERTY CORNER EACH		SPV.0060.06 RESET PROPERTY CORNER EACH	
0010	49+25 - 53+25	RT	4		4	
	60+00 - 61+00	LT	1		1	
TOTALS			5		5	

VILLAGE OF BELLEVUE

TRANSPORTATION PROJECT PLAT TITLE SHEET

4516-10-00

V BELLEVUE, ALLOUEZ AVENUE

HAZEN ROAD TO USH 141

LOCAL STREET

BROWN COUNTY



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			
EXISTING R/W OR HE LINE	---				
PROPERTY LINE	---				
LOT, TIE & OTHER MINOR LINES	---				
SLOPE INTERCEPT	---				
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING TO BE REMOVED	---				
BRIDGE	---				
CULVERT	---				
		PARCEL NUMBER		UTILITY NUMBER	
		PARALLEL OFFSETS			

CONVENTIONAL ABBREVIATIONS

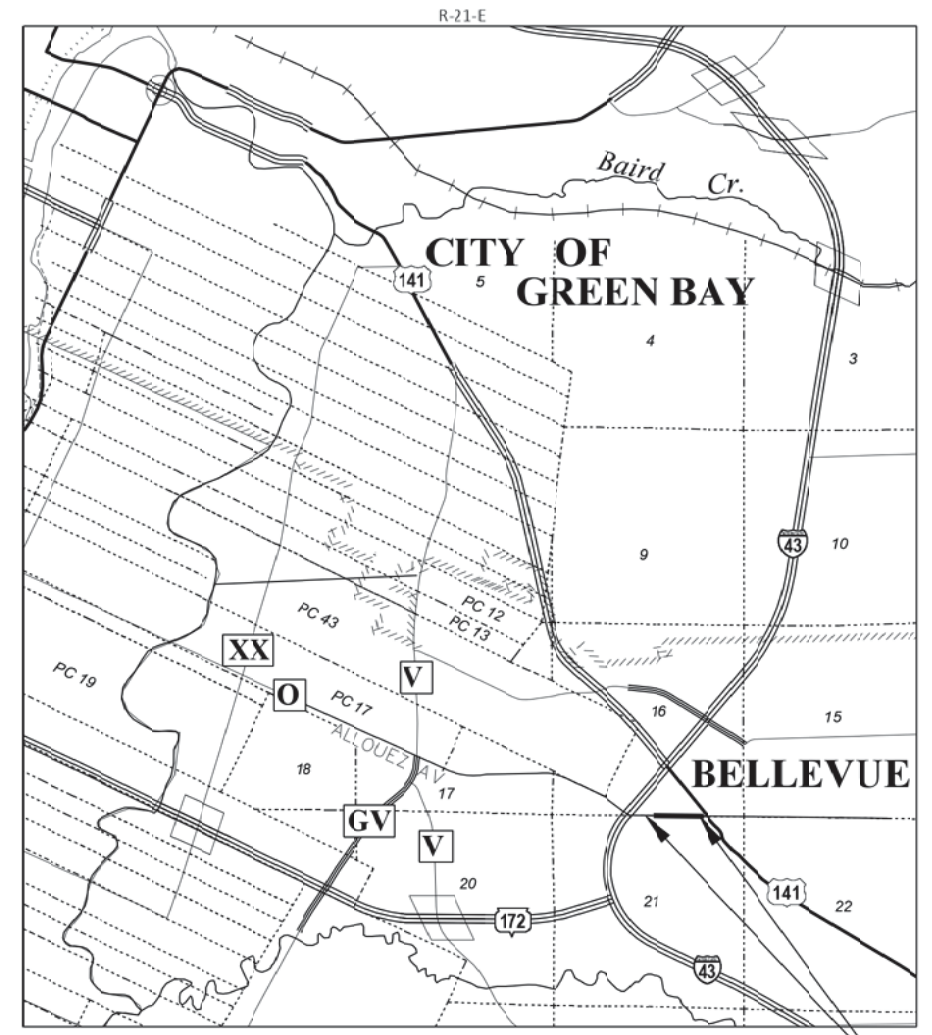
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL/IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	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 NUMBER	NGS		
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 4516-10-00.

NOTES:

- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WCSRS), BROWN 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 REBAFS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL RIGHT-OF-WAY LINES (DEPICTED) IN THE NON-ACQUISITION AREAS ARE INTENDED TO ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.
- RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
- A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLE)S ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
- A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.
- PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
- FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY OR THE VILLAGE OF BELLEVUE.
- PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 4516-10-00 - 4.01
 SHEET 2 OF 2
 AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 4516-10-00 - 4.01

THAT PART OF LOT 1 OF CSM 6769 AS RECORDED IN VOLUME 45, PAGE 214 AS DOCUMENT 1990726 AND PART OF LOT 3 OF CSM 8590 AS RECORDED IN VOLUME 60, PAGES 356-360 AS DOCUMENT 2719020 LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 6 AND PART OF LOTS 1-4 OF CSM 2349 AS RECORDED IN VOLUME 11, PAGES 17-20 AS DOCUMENT NO 971740 AND PART OF LOTS 81-87 OF RUSTIC SUBDIVISION AS RECORDED IN VOLUME 17, PAGES 223-224 LOCATED IN THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 21, T 23 N, R 21 E, VILLAGE OF BELLEVUE, BROWN COUNTY, WISCONSIN.
RELOCATION ORDER V BELLEVUE, ALLOUEZ AVENUE - (HAZEN ROAD-TO USH 141) BROWN COUNTY

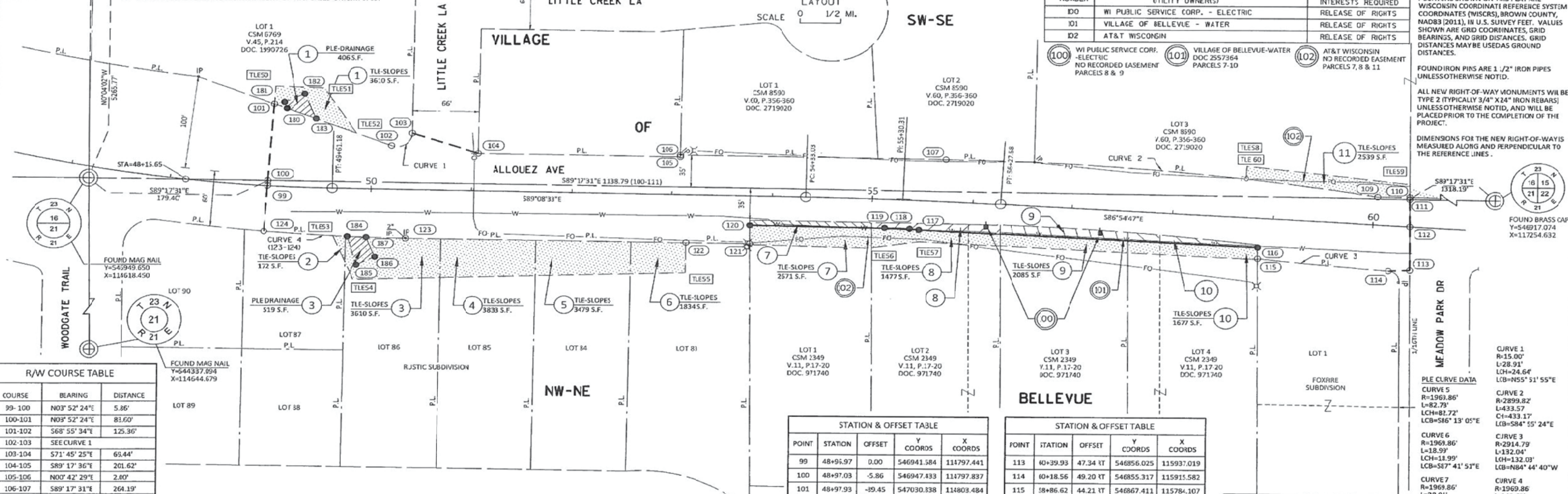
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 61.34(3), (3)m, AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF BELLEVUE HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF BELLEVUE, PURSUANT TO THE PROVISIONS OF SECTION 61.34 (3) (3)m, AND 61.36(4), (4) (a) (2), WISCONSIN STATUTES.

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

- ALLOUEZ AVE EXISTING HIGHWAY RIGHT-OF-WAY BASED ON: PREVIOUS PROJECT 1210-5-26, FOXFIRE SUBDIVISION, RUSTIC SUBDIVISION, CSM 6769, CSM 8590, CSM 2349.
- WOODGATE TRAIL EXISTING HIGHWAY RIGHT-OF-WAY BASED ON: RUSTIC SUBDIVISION.
- LITTLE CREEK LA EXISTING HIGHWAY RIGHT-OF-WAY BASED ON: CSM 6769.

FOUND MAG NAIL
Y=552215.414
X=114612.276



COURSE	BEARING	DISTANCE
99-100	N03° 52' 24"E	5.86'
100-101	N09° 52' 24"E	83.60'
101-102	S68° 55' 34"E	125.36'
102-103	SEE CURVE 1	
103-104	S71° 45' 25"E	69.44'
104-105	S89° 17' 36"E	201.62'
105-106	N00° 42' 29"E	2.80'
106-107	S89° 17' 31"E	264.19'
107-109	SEE CURVE 2	
109-110	S89° 17' 31"E	32.46'
110-111	S00° 14' 52"E	2.00'
111-112	S00° 21' 14"E	299.1'
112-113	S00° 21' 14"E	47.43'
113-114	S88° 06' 31"W	21.45'
114-115	SEE CURVE 3	
115-116	N00° 25' 26"W	12.23'
116-117	N87° 01' 21"W	338.36'
117-118	N83° 05' 37"W	8.57'
118-119	N88° 04' 58"W	24.84'
119-120	N89° 11' 29"W	134.57'
120-121	S00° 26' 03"E	20.20'
121-122	N89° 18' 46"W	63.48'
122-123	N89° 19' 04"W	280.01'
123-124	SEE CURVE 4	
124-99	N03° 52' 24"E	49.56'

COURSE	BEARING	DISTANCE
101-180	S68° 55' 34"E	12.55'
180-181	N20° 28' 12"W	7.14'
181-182	N65° 30' 24"E	22.05'
182-183	S22° 51' 49"E	29.29'
183-102	S68° 55' 34"E	81.39'
183-180	N68° 55' 34"W	31.02'
124-184	SEE CURVE 5	
184-185	S17° 12' 47"E	32.24'
185-186	N64° 17' 33"E	20.12'
186-187	N22° 12' 48"W	23.01'
187-184	SEE CURVE 6	
187-123	SEE CURVE 7	

POINT	STATION	OFFSET
TLE50	48+98.00	-109.00
TLE51	49+49.93	-109.02
TLE52	49+83.94	-60.41
TLE53	49+63.00	51.88
TLE54	49+84.00	99.00
TLE55	53+15.00	85.00
TLE56	54+98.00	54.00
TLE57	55+48.00	45.00
TLE58	58+70.00	-56.00
TLE59	60+34.33	-46.23
TLE60	58+70.00	42.00

ALIGNMENT INFORMATION
 PI STA = 54+30.31
 Y = 546930.741
 X = 115430.672
 DELTA = 2°13'46" RT
 D = 1°08'45"
 T = 97.29'
 L = 194.55'
 R = 5000.00'
 PC STA = 54+33.03
 Y = 546932.197
 X = 115335.394
 PT STA = 56+27.58
 Y = 546925.502
 X = 115527.820

ALIGNMENT SUB-CURVE INFORMATION
 48+96.97 (100) TO PT
 R = 1510.00'
 L = 61.32'
 LCH = 31.31'
 LCB = 585° 09' 48"E

48+96.97 (100) TO PT
 R = 1510.00'
 L = 64.21'
 LCH = 587° 55' 28"E



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W NEW	S.F. EXISTING	S.F. REQUIRED TOTAL	PLE S.F.	TLE S.F.
1	KIM M. LINSMEIER	PLE/TLE	---	---	---	406	1564
2	JULIA A. ANDEPSON	TLE	---	---	---	---	172
3	TIMOTHY M. & DEBRA L. ASHWANN	PLE/TLE	---	---	---	519	3610
4	KRYSTAL K. RENTMEESTER	TLE	---	---	---	---	3833
5	BOBBY R. & TENA T. CRUISE	TLE	---	---	---	---	3479
6	WILLIAM J. CODR	TLE	---	---	---	---	1834
7	SHIRLEY NITKA	FEE/TLE	681	---	681	---	2671
8	THOMAS J. & JOANN M. NITKA	FEE/TLE	987	---	987	---	1477
9	DANIEL J. NITKA	FEE/TLE	1862	---	1862	---	2085
10	RONALD G. & JULIE A. KOHLBAUER	FEE/TLE	555	---	555	---	1677
11	JACOB J. & REBECCA A.E. HASSLER	TLE	---	---	---	---	2539

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

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
100	WI PUBLIC SERVICE CORP. - ELECTRIC	RELEASE OF RIGHTS
101	VILLAGE OF BELLEVUE - WATER	RELEASE OF RIGHTS
102	AT&T WISCONSIN	RELEASE OF RIGHTS
100	WI PUBLIC SERVICE CORP. - ELECTRIC NO RECORDED EASEMENT PARCELS 8 & 9	
101	VILLAGE OF BELLEVUE-WATER DOC 2557364 PARCELS 7-10	
102	AT&T WISCONSIN NO RECORDED EASEMENT PARCELS 7, 8 & 11	

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), BROWN COUNTY, MAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID DISTANCES, GRID BEARINGS, AND GRID COORDINATES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
 FOUND IRON PINS ARE 1/2" IRON PIPES UNLESS OTHERWISE NOTED.
 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.
 DIMENSIONS FOR THE NEW RIGHT-OF-WAYS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINES.

POINT	STATION	OFFSET	Y COORDS	X COORDS
99	48+96.97	0.00	546941.584	114797.441
100	48+97.03	-5.86	546947.433	114797.837
101	48+97.93	-89.45	547030.338	114803.484
102	50+19.34	-47.38	546985.762	114920.461
103	50+35.52	-61.51	546995.587	114940.854
104	51+05.79	-40.76	546977.348	115006.804
105	53+07.41	-41.29	546975.362	115208.413
106	53+07.41	-43.29	546977.362	115208.438
107	55+70.35	-45.88	546974.098	115472.607
109	60+02.74	-30.51	546935.768	115904.079
110	60+35.17	-31.86	546935.366	115936.532
111	60+35.28	-29.86	546933.362	115936.541
112	60+37.08	0.00	546903.451	115936.726

POINT	STATION	OFFSET	Y COORDS	X COORDS
113	60+39.93	47.34 RT	546856.025	115937.019
114	60+18.56	49.20 RT	546855.317	115915.582
115	58+86.62	44.21 RT	546867.411	115784.107
116	58+85.87	32.00 RT	546879.640	115784.017
117	55+47.00	32.00 RT	546897.216	115446.118
118	55+38.00	31.25 RT	546898.295	115437.209
119	55+13.00	31.25 RT	546899.126	115412.379
120	53+77.93	32.00 RT	546901.025	115277.823
121	53+78.38	52.20 RT	546880.825	115277.976
122	53+14.90	52.38 RT	546881.587	115214.498
123	50+34.89	53.24 RT	546884.921	114934.509
124	48+96.49	49.56 RT	546892.132	114794.093

STRAND ASSOCIATES, INC.
 910 WEST WINGRA DRIVE, MADISON, WI 53715
 (608) 251-8443

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

SIGNATURE: *Eric E. Lindaas* DATE: 9/19/22
 PRINT NAME: ERIC E. LINDAAS
 REGISTRATION NUMBER: S-2919

SIGNATURE: *Ken M. Simons* DATE: 9/27/22
 PRINT NAME: KAREN M. SIMONS

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF BELLEVUE.

3018372

CHERYL BERKEN
 BROWN COUNTY
 REGISTER OF DEEDS
 GREEN BAY, WI
 RECORDED ON
 09/27/2022 02:41 PM
 REC FEE: 25.00
 PAGES: 2

RESERVED FOR REGISTER OF DEEDS
 PROJECT NUMBER 4516-10-00 - 4.01
 SHEET 1 OF 1

TRANSPORTATION PROJECT PLAT NO: 4516-10-00 - 4.02

THAT PART OF LOT 3 OF CSM 8590 AS RECORDED IN VOLUME 60, PAGES 356-360 AS DOCUMENT NUMBER 2719020 LOCATED IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 16 AND PART OF LOT 1 CSM 3040 AS RECORDED IN VOLUME 15, PAGES 403-406 AS DOCUMENT NUMBER 1072818 AND PART OF NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 21, ALL IN T 23 N, R 21 E, VILLAGE OF BELLEVUE, BROWN COUNTY, WISCONSIN.

RELOCATION ORDER V BELLEVUE, ALLOUEZ AVENUE (HAZEN ROAD) TO USH 141 BROWN COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 61.34(3), (3m), AND 61.36, WISCONSIN STATUTES, THE VILLAGE OF BELLEVUE HEREBY ORDERS THAT:
 1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
 2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF BELLEVUE, PURSUANT TO THE PROVISIONS OF SECTION 61.34 (3) (3m), AND 61.36(18)-(19) (D) OF (2), WISCONSIN STATUTES.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN GREEN BAY AND THE BROWN COUNTY HIGHWAY DEPARTMENT.

- ALLOUEZ AVE EXISTING HIGHWAY RIGHT-OF-WAY BASED ON: CSM 8590, CSM 3040.
- MEADOW PARK DR RIGHT-OF-WAY BASED ON: FOXFIRE SUBDIVISION.
- USH 141 (MAIN ST) RIGHT-OF-WAY BASED ON: PREVIOUS PROJECT 1450-05-21 & CSM 8590.

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W	S.F. REQUIRED	R/L	T/L
			NEW	EXISTING	TOTAL	S.F.
11	JACOB J. & REBECCA A.E. HASSELER	T/E	---	---	---	8540
15	DENMARK STATE BANK	FEE/T/E	503	---	503	1521
16	DENMARK STATE BANK	FEE/T/E	998	---	998	5309

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
100	WI PUBLIC SERVICE CORP. - ELECTRIC	RELEASE OF RIGHTS
101	VILLAGE OF BELLEVUE - WATER	RELEASE OF RIGHTS
102	AT&T WISCONSIN	RELEASE OF RIGHTS

- 100 WI PUBLIC SERVICE CORP. ELECTRIC NO RECORDED EASEMENT PARCEL 16
- 100 WI PUBLIC SERVICE CORP. ELECTRIC DOC 1072868 PARCEL 15, 16
- 102 AT&T WISCONSIN DOC 2311448 PARCEL 16
- 102 AT&T WISCONSIN DOC 1072868 PARCEL 15
- 102 AT&T WISCONSIN DOC 2713020 PARCEL 11

3019571

CHERYL BRUKEN
BROWN COUNTY
REGISTER OF DEEDS
GREEN BAY, WI
RECORDED ON
10/12/2022 09:57 AM
REC FEE: 25.00
PAGE: 1

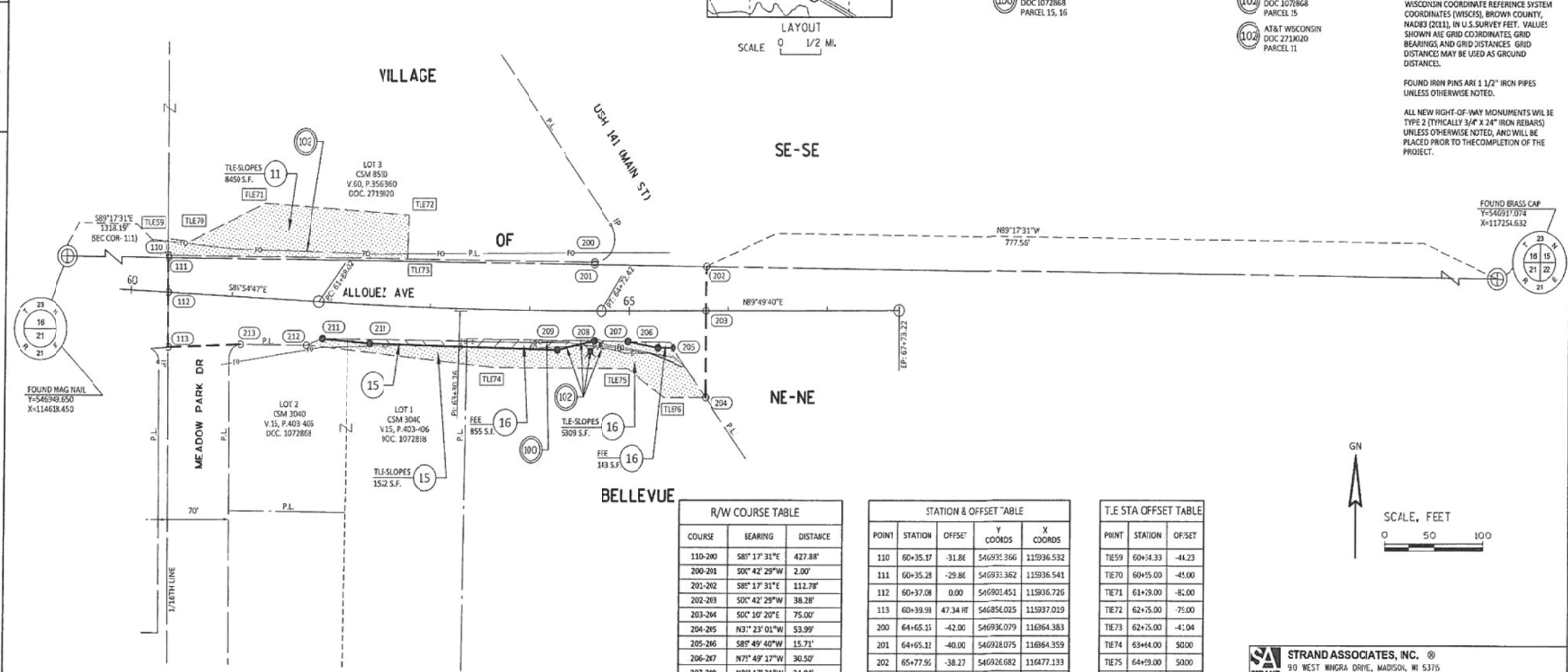
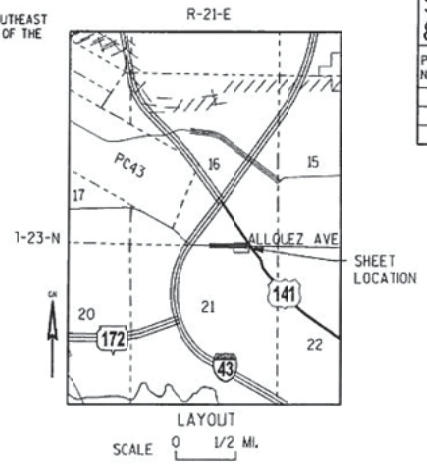
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4516-10-00

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN DANE COUNTY AS SHEET 2 OF 2 OF DOCUMENT 3018372.

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

FOUND IRON PINS ARE 1 1/2" IRON PIPES UNLESS OTHERWISE NOTED.

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.



R/W COURSE TABLE

COURSE	BEARING	DISTANCE
110-200	S88° 17' 31" E	427.88'
200-201	S00° 42' 29" W	2.00'
201-202	S88° 17' 31" E	112.78'
202-203	S00° 42' 29" W	38.28'
203-204	S00° 10' 20" E	75.00'
204-205	N63° 23' 01" W	53.99'
205-206	S88° 49' 40" W	15.71'
206-207	N75° 49' 17" W	30.50'
207-208	N88° 17' 31" W	34.04'
208-209	S77° 59' 50" W	38.07'
209-210	N88° 26' 05" W	189.26'
210-211	N84° 57' 15" W	46.84'
211-212	S70° 42' 29" W	17.73'
212-213	N88° 17' 31" W	65.63'
213-113	S88° 06' 31" W	71.51'
113-112	N00° 21' 14" W	47.43'
112-111	N00° 21' 14" W	29.91'
111-110	N00° 14' 52" W	2.00'

STATION & OFFSET TABLE

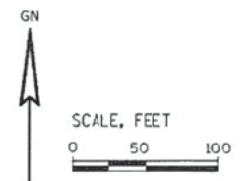
POINT	STATION	OFFSET	Y COORDS	X COORDS
110	60+35.17	-31.86	546931.366	115936.532
111	60+35.28	-29.86	546931.362	115936.541
112	60+37.08	0.00	546901.451	115936.726
113	60+39.99	47.34 FT	546856.025	115937.019
200	64+65.15	-42.00	546936.079	116264.383
201	64+65.12	-40.00	546928.075	116264.359
202	65+77.95	-38.27	546926.682	116477.133
203	65+77.36	0.00	546884.406	116476.660
204	65+77.36	75.00	546813.406	116476.685
205	65+44.71	32.00	546856.308	116444.104
206	65+29.00	32.00	546856.261	116428.399
207	64+99.00	26.52	546861.650	116198.377
208	64+65.00	26.00	546862.071	116164.337
209	64+28.00	34.00	546854.155	116127.098
210	62+40.00	33.50	546859.325	116137.910
211	61+93.50	31.63	546863.445	116091.248
212	61+77.14	38.38	546857.587	116074.514
213	61+11.57	41.10	546858.398	116008.891

T/E STA OFFSET TABLE

POINT	STATION	OFFSET
T/E59	60+34.33	-44.23
T/E70	60+55.00	-45.00
T/E71	61+29.00	-81.00
T/E72	62+25.00	-75.00
T/E73	62+25.00	-41.04
T/E74	63+64.00	50.00
T/E75	64+59.00	50.00
T/E76	65+25.00	75.00

ALIGNMENT INFORMATION

R STA = 63+10.26
 Y = 546887.463
 X = 116229.479
 DELTA = 31° 53' 32" LT
 D = 1° 05' 45"
 T = 142.24'
 L = 284.40'
 R = 5000.00'
 PC STA = 61+88.02
 Y = 546895.323
 X = 116087.448
 PT STA = 64+72.42
 Y = 546888.091
 X = 116371.715



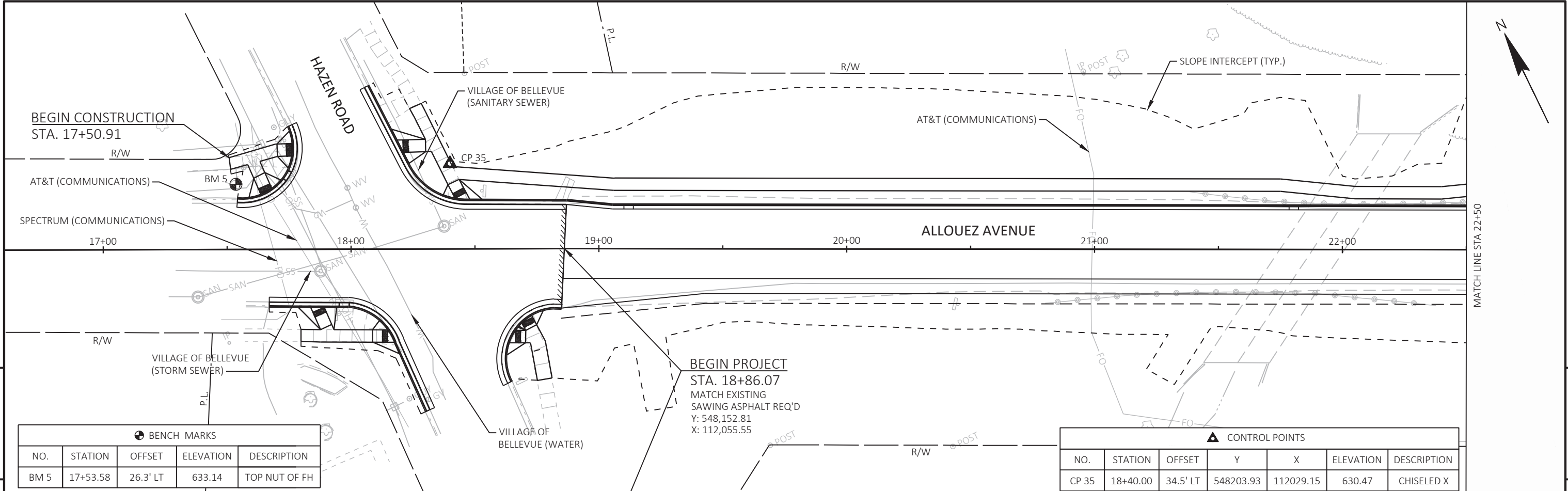
STRAND ASSOCIATES, INC.
 90 WEST WINGRA DRIVE, MADISON, WI 53715
 (608) 251-4643

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

SIGNATURE: *Eric E. Lindaas* DATE: 09/27/22
 PRINT NAME: ERIC E. LINDAAS
 REGISTRATION NUMBER: S-2911

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR FOR THE VILLAGE OF BELLEVUE

SIGNATURE: *Karen M. Simons* DATE: 10/13/22
 PRINT NAME: Karen M. Simons
 Village of Bellevue Clerk/Treasurer

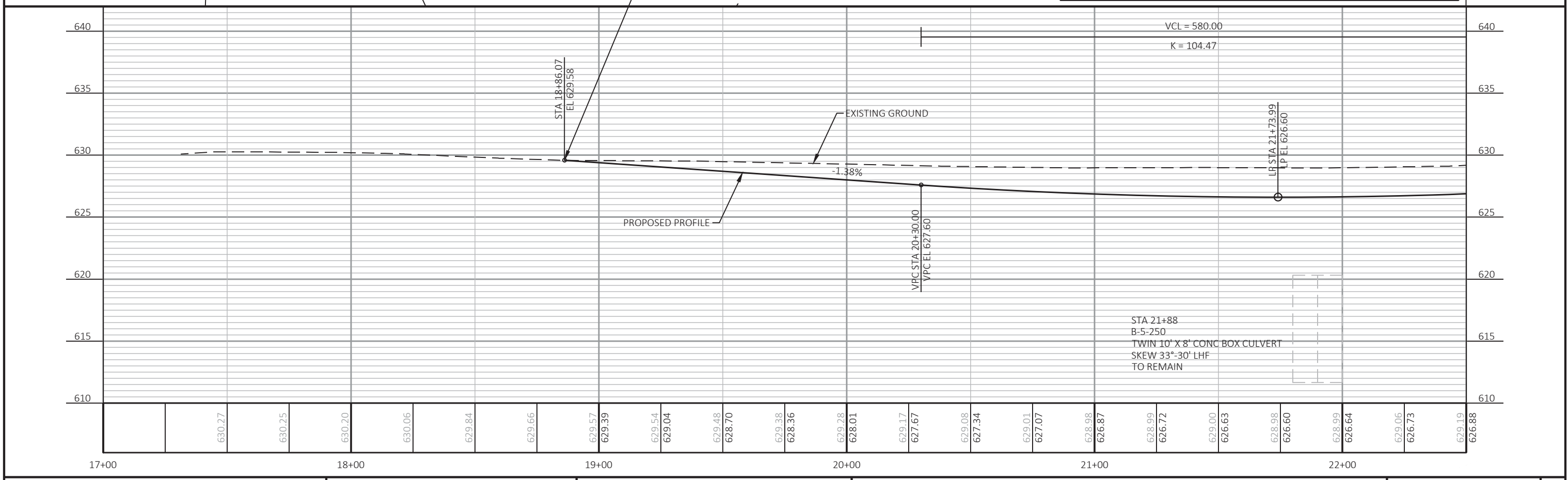


⊕ BENCH MARKS

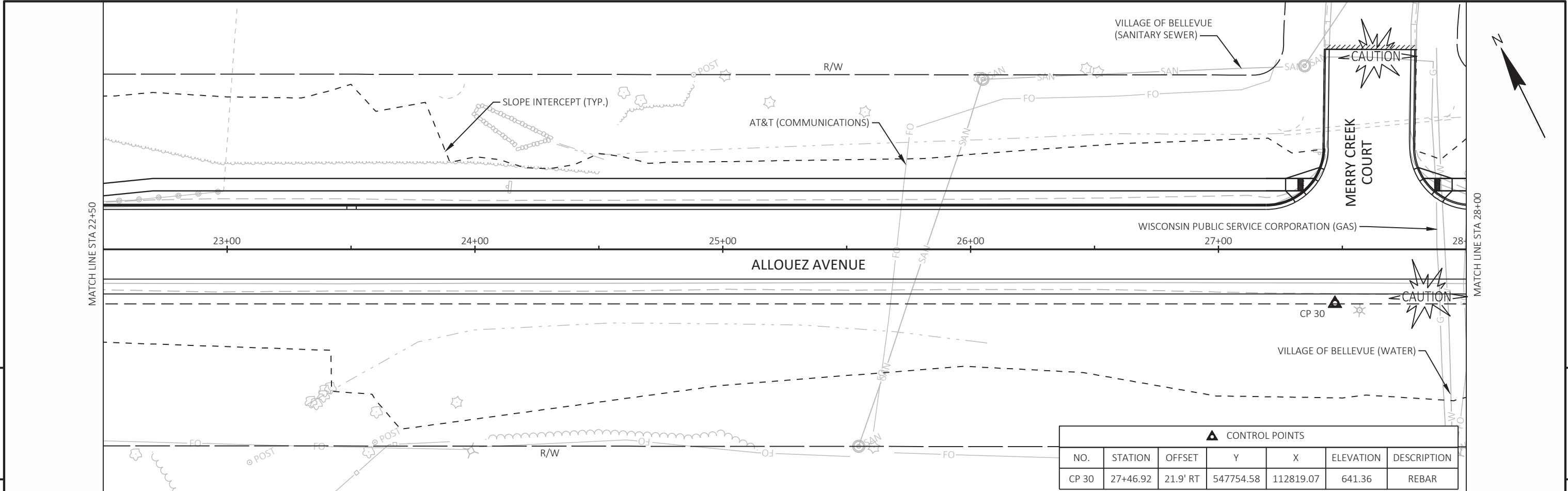
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
BM 5	17+53.58	26.3' LT	633.14	TOP NUT OF FH

▲ CONTROL POINTS

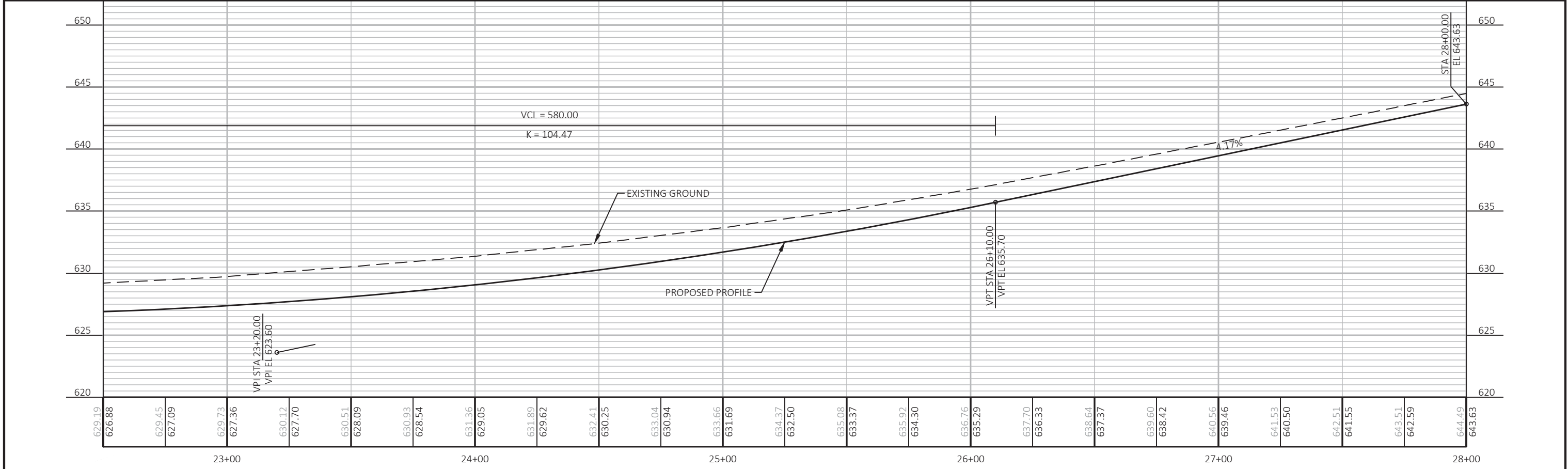
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 35	18+40.00	34.5' LT	548203.93	112029.15	630.47	CHISELED X



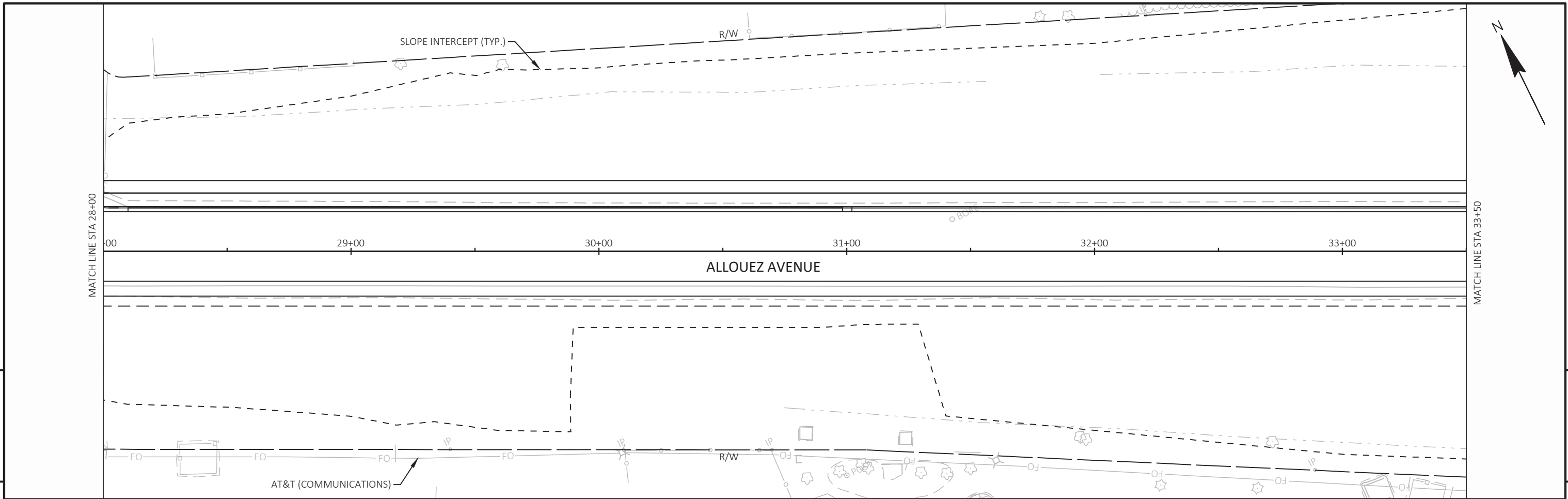
PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET	E
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▲ CONTROL POINTS						
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 30	27+46.92	21.9' RT	547754.58	112819.07	641.36	REBAR

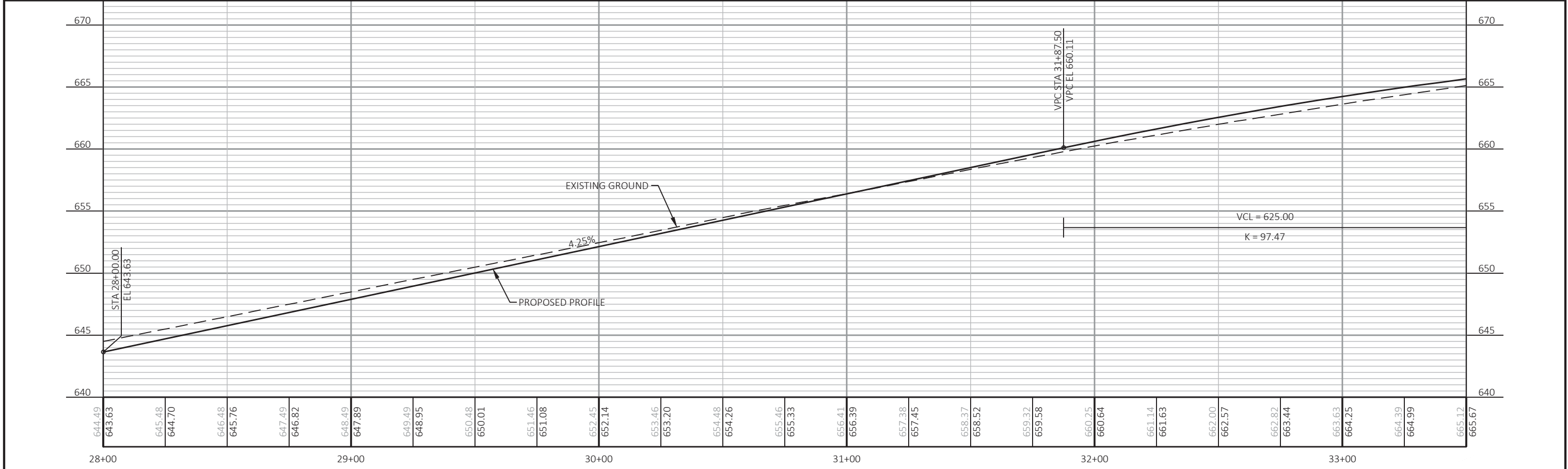


PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET	E
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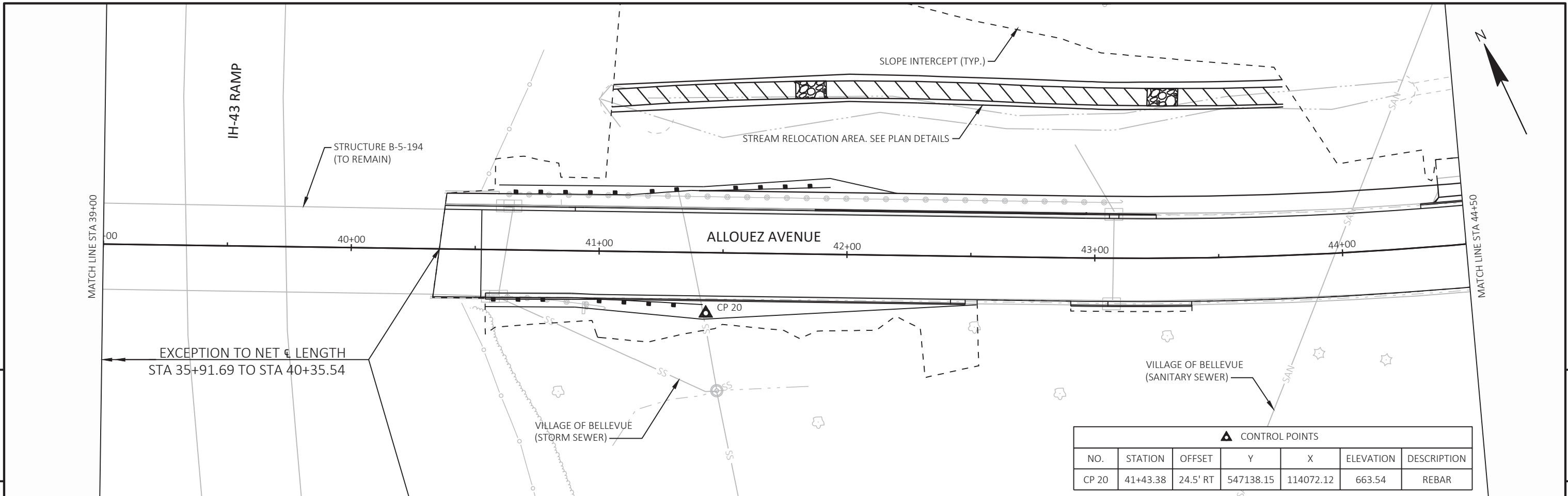


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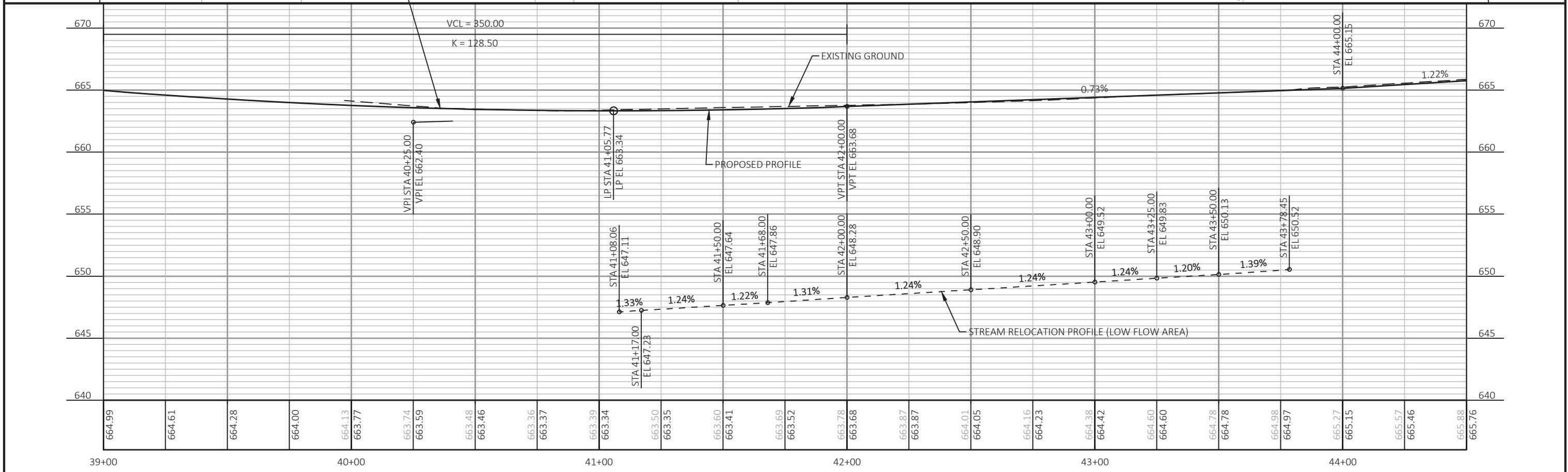
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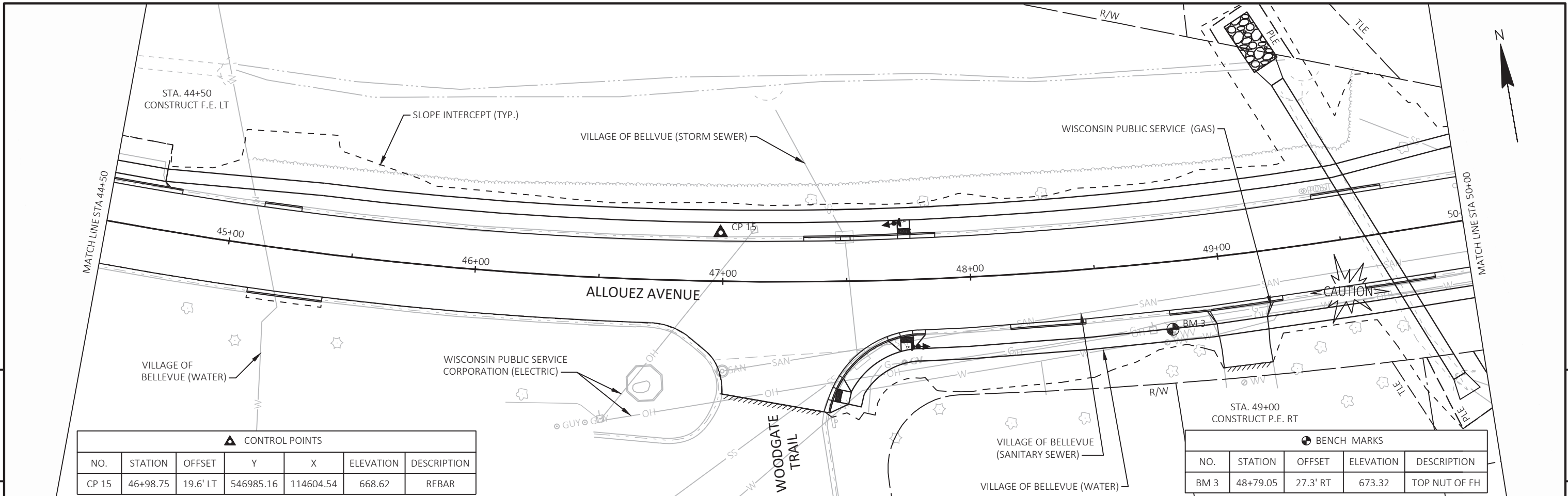
PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET	E
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▲ CONTROL POINTS						
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 20	41+43.38	24.5' RT	547138.15	114072.12	663.54	REBAR

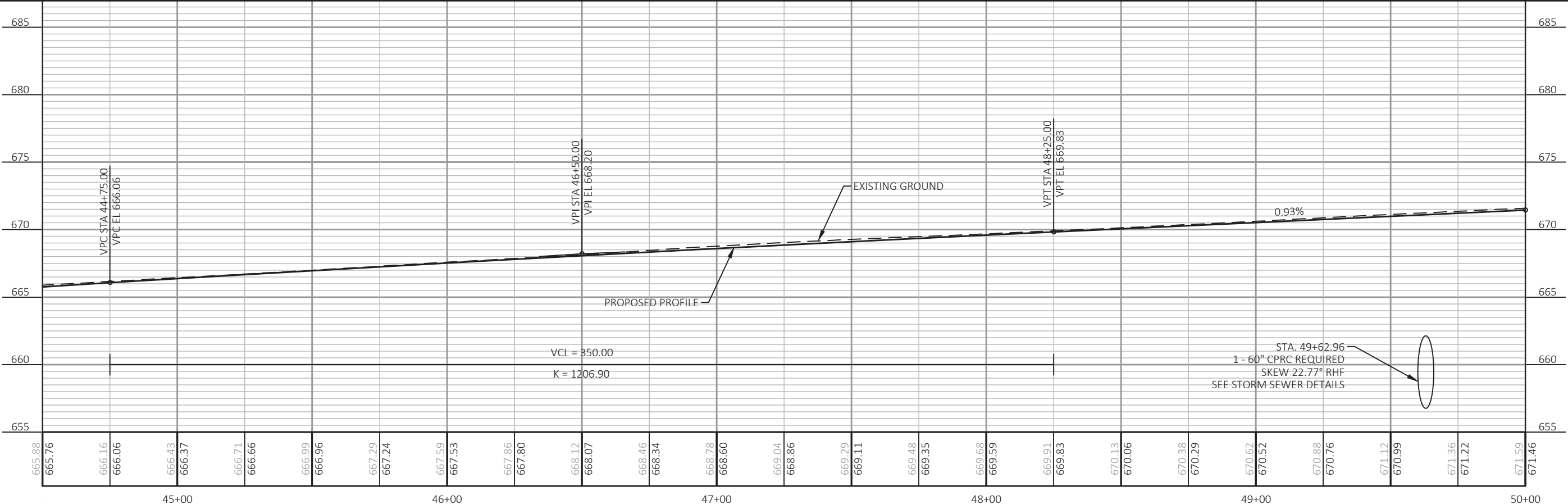


PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET	E
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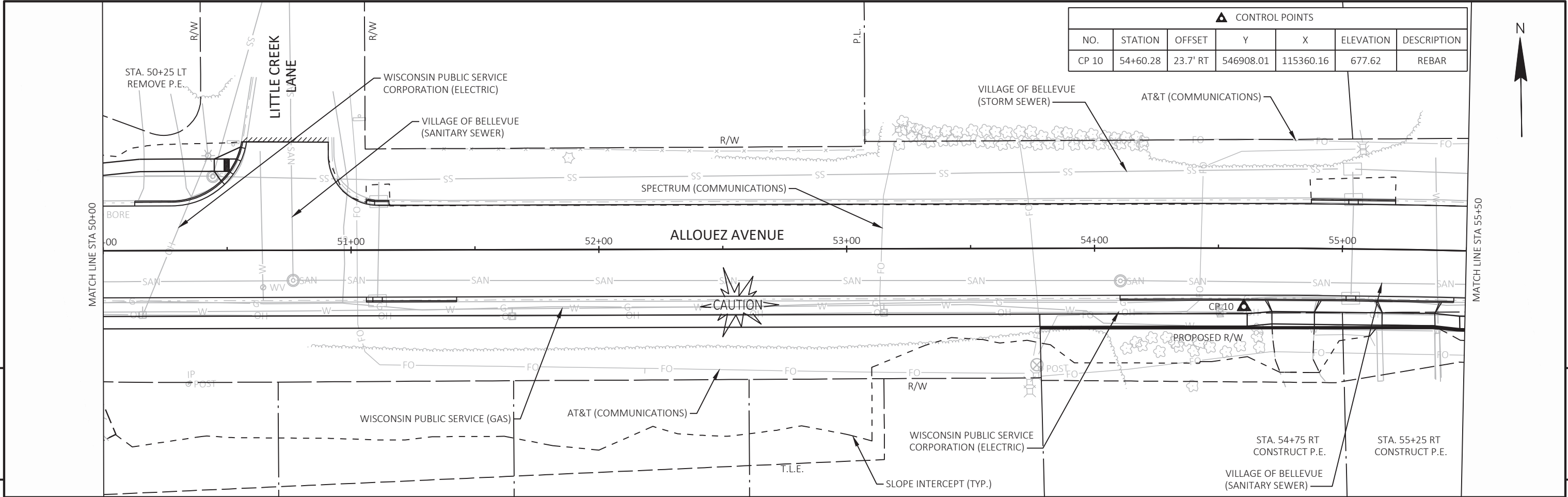


▲ CONTROL POINTS						
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 15	46+98.75	19.6' LT	546985.16	114604.54	668.62	REBAR

● BENCH MARKS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
BM 3	48+79.05	27.3' RT	673.32	TOP NUT OF FH



PROJECT NO: 4516-10-71 | HWY: ALLOUEZ AVENUE | COUNTY: BROWN | PLAN AND PROFILE: ALLOUEZ AVENUE | SHEET: 5

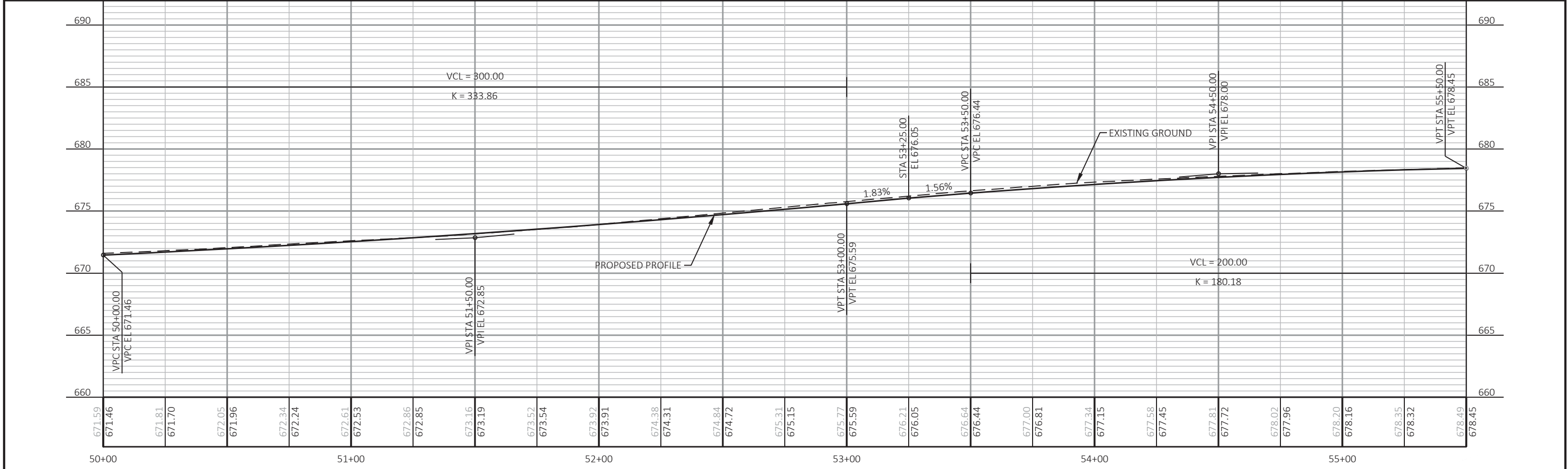


▲ CONTROL POINTS						
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 10	54+60.28	23.7' RT	546908.01	115360.16	677.62	REBAR

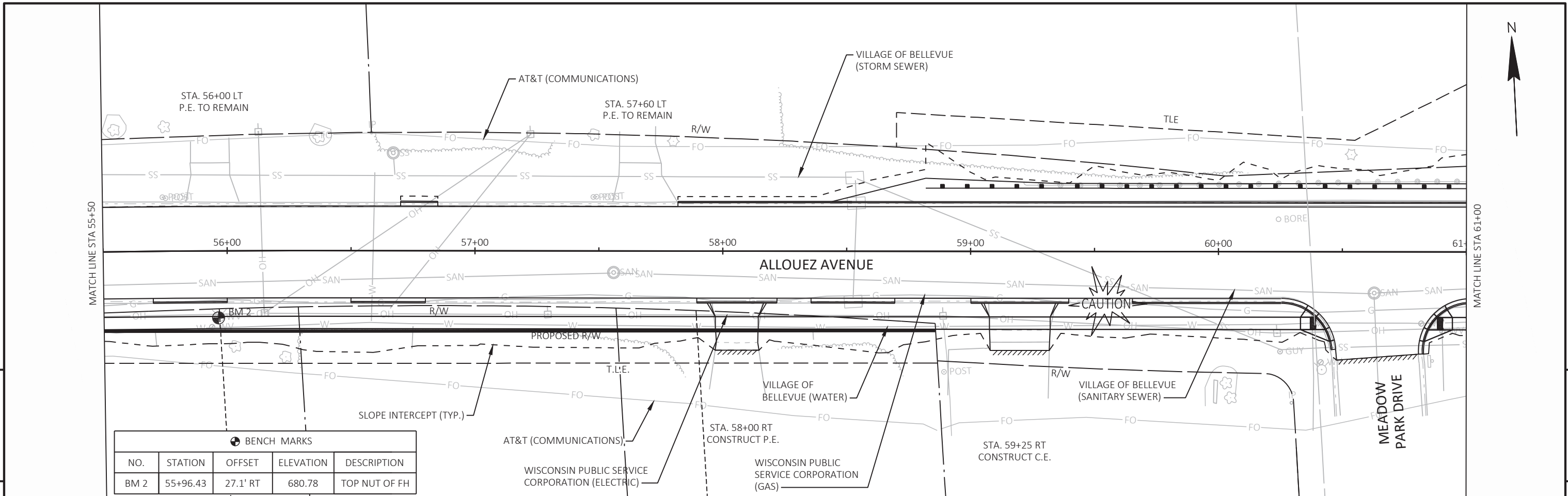


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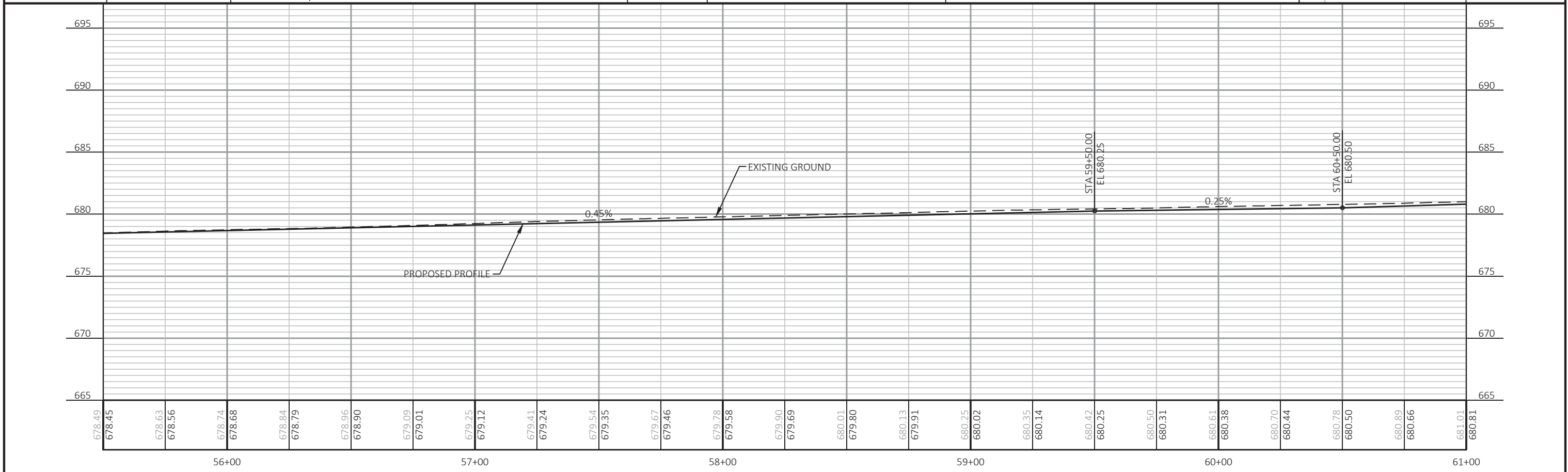
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PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET	E
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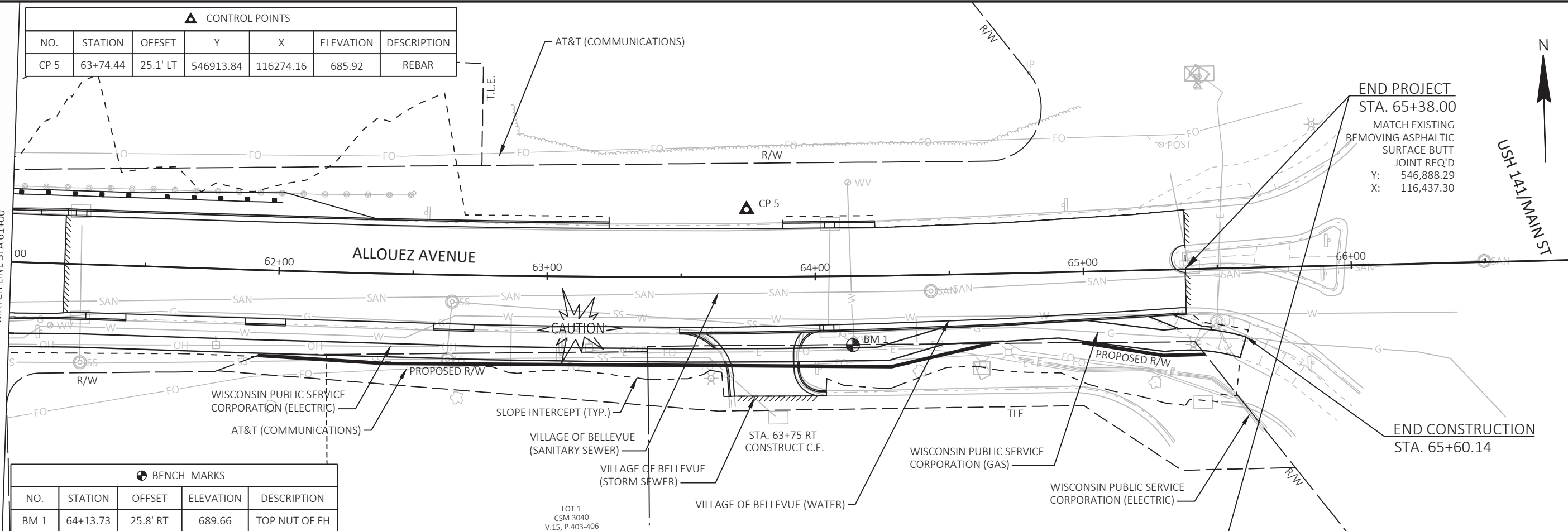


BENCH MARKS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
BM 2	55+96.43	27.1' RT	680.78	TOP NUT OF FH



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	PLAN AND PROFILE: ALLOUEZ AVENUE	SHEET E
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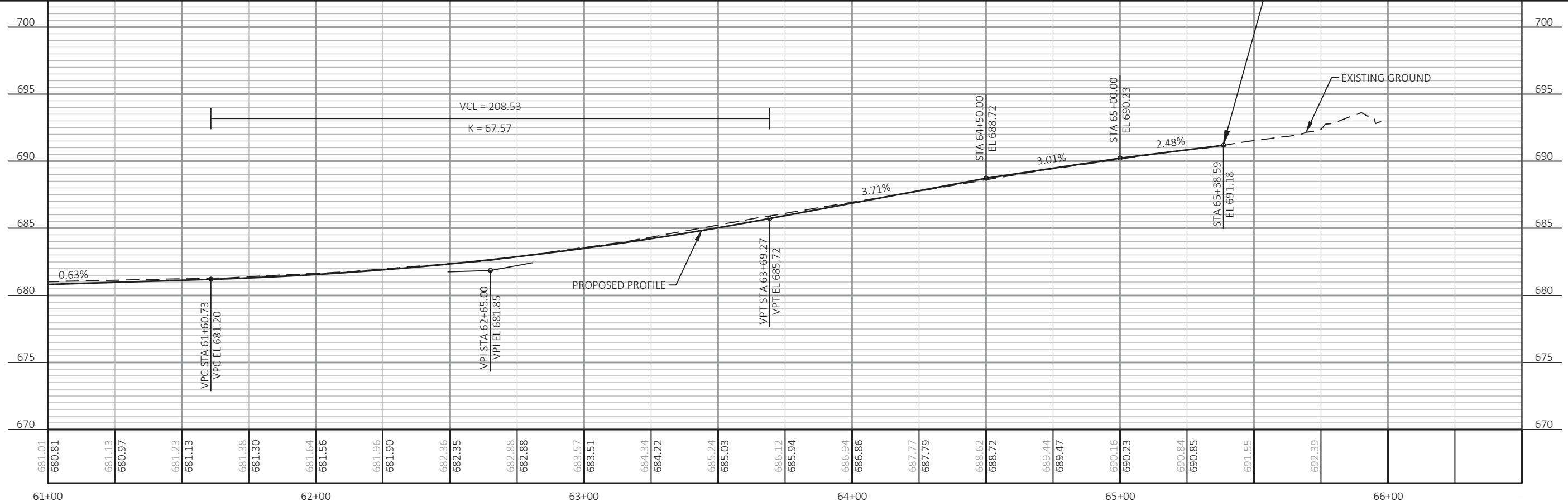
▲ CONTROL POINTS						
NO.	STATION	OFFSET	Y	X	ELEVATION	DESCRIPTION
CP 5	63+74.44	25.1' LT	546913.84	116274.16	685.92	REBAR



● BENCH MARKS				
NO.	STATION	OFFSET	ELEVATION	DESCRIPTION
BM 1	64+13.73	25.8' RT	689.66	TOP NUT OF FH

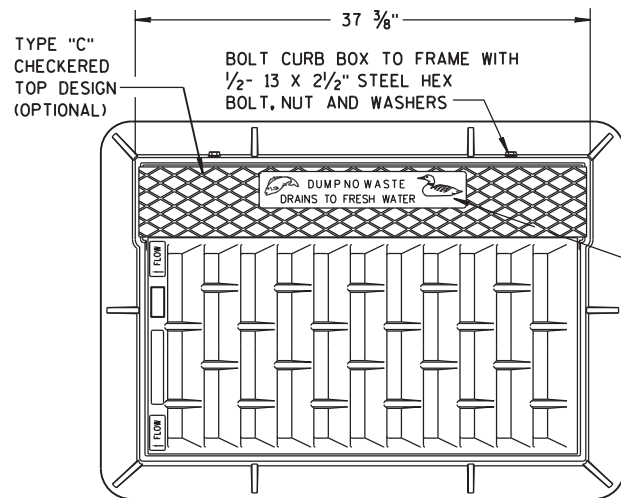
END PROJECT
 STA. 65+38.00
 MATCH EXISTING
 REMOVING ASPHALTIC
 SURFACE BUTT
 JOINT REQ'D
 Y: 546,888.29
 X: 116,437.30

END CONSTRUCTION
 STA. 65+60.14

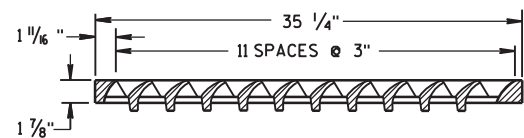
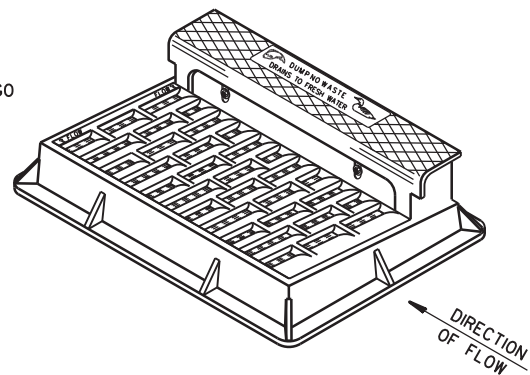


Standard Detail Drawing List

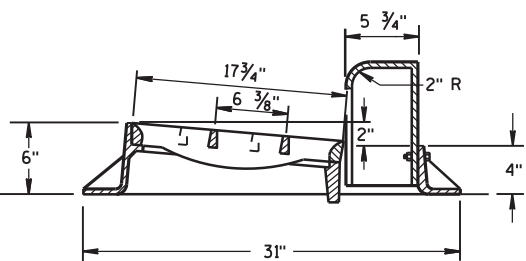
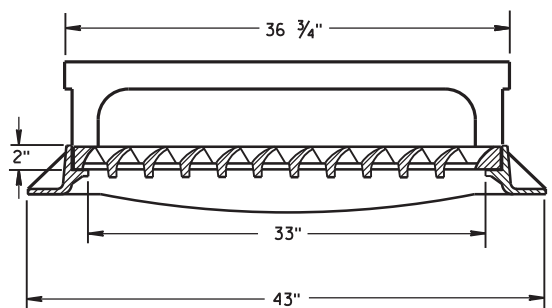
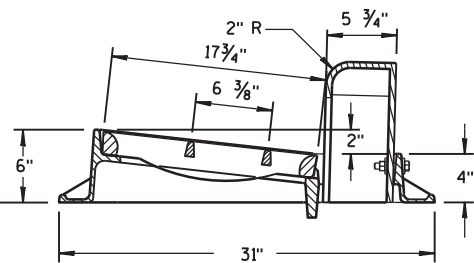
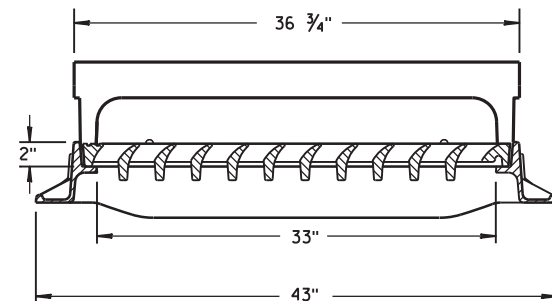
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-03	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C19-03	HMA LONGITUDINAL JOINTS
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C29-08A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



**NOTE:
GRATE IS REVERSIBLE.**

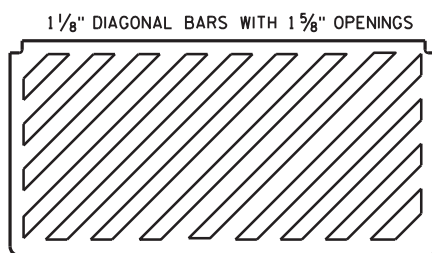


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

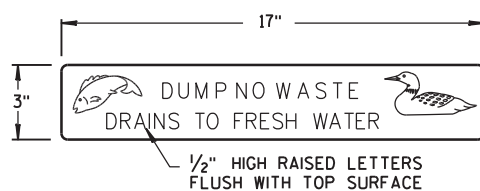


TYPE "H"

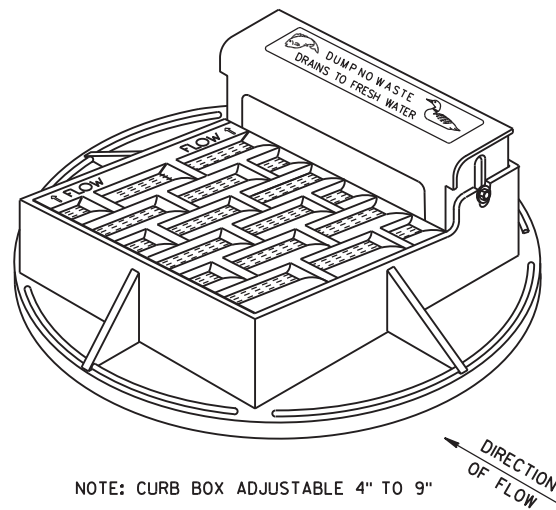
NOTE: EITHER CASTING IS ACCEPTABLE



**SPECIAL GRATE FOR
TYPE "H" COVER**
(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

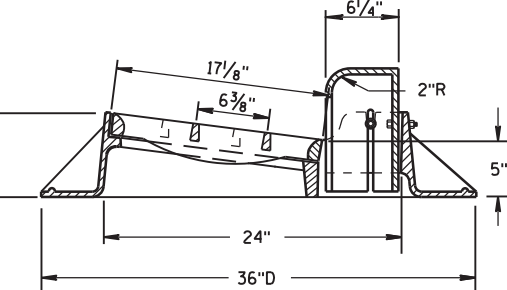
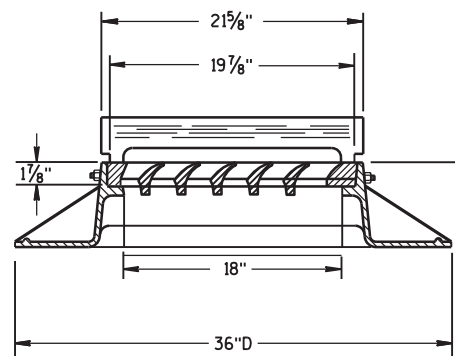
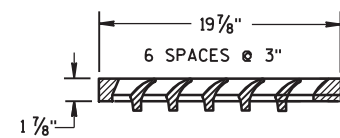
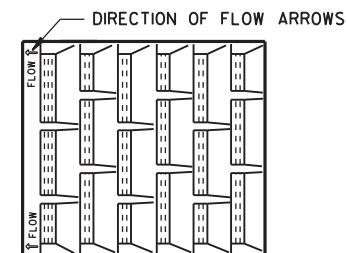


LOGO DETAIL

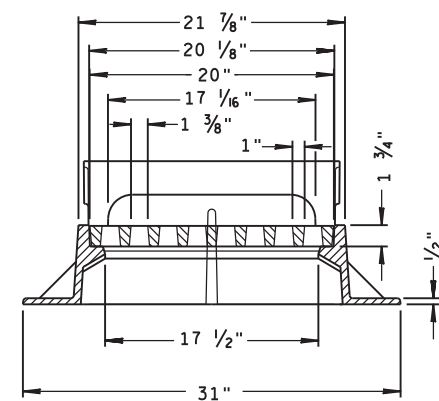
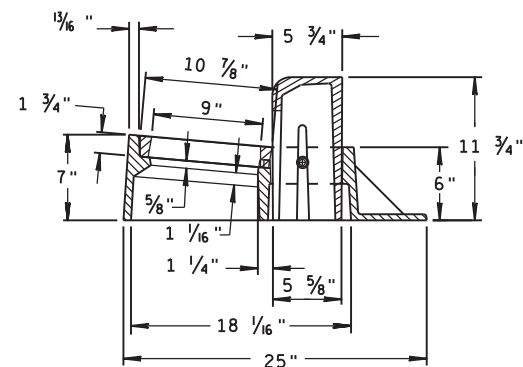


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

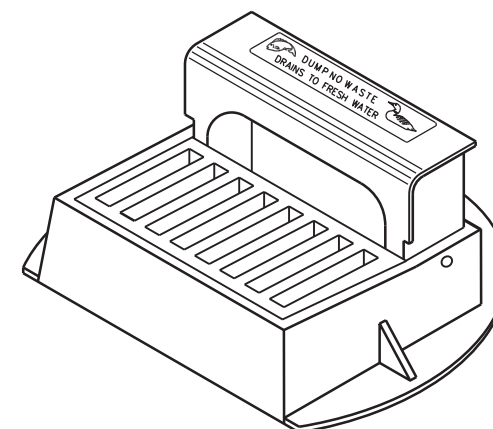
**NOTE:
GRATE IS REVERSIBLE.**



TYPE "A"



TYPE "Z"



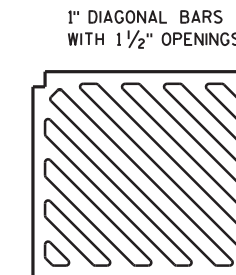
GENERAL NOTES

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

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

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

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



6

6

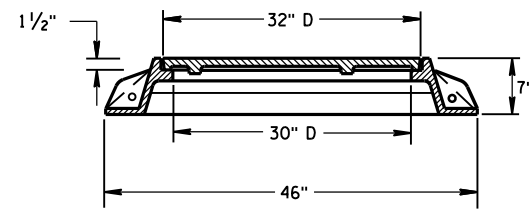
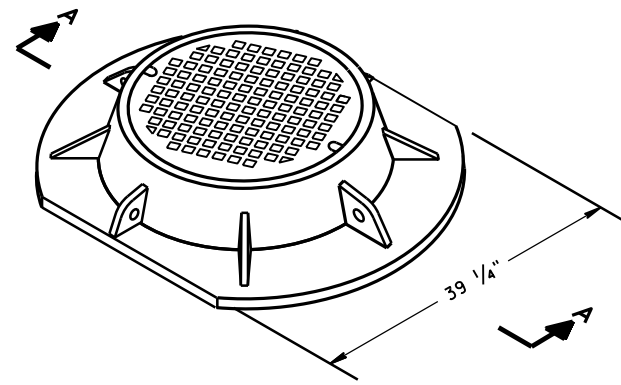
S.D.D. 8 A 5-19a

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

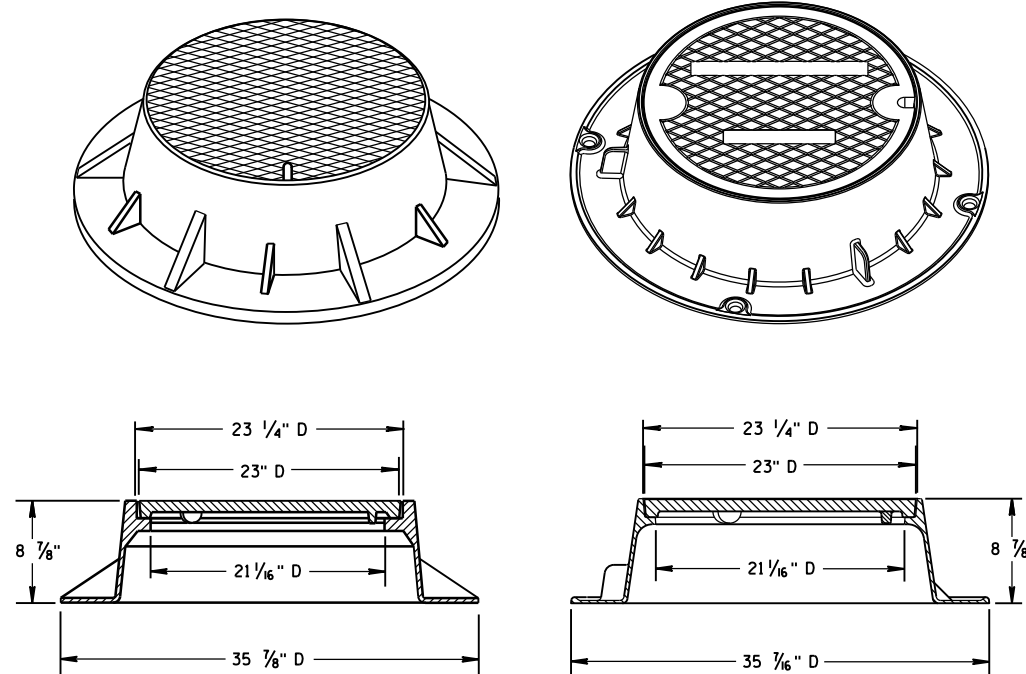
**INLET COVERS
TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

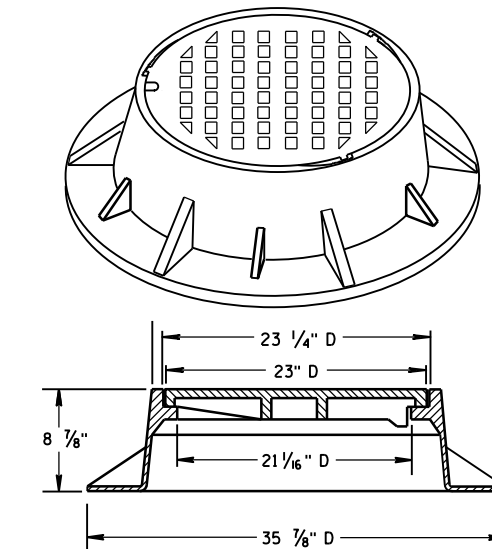
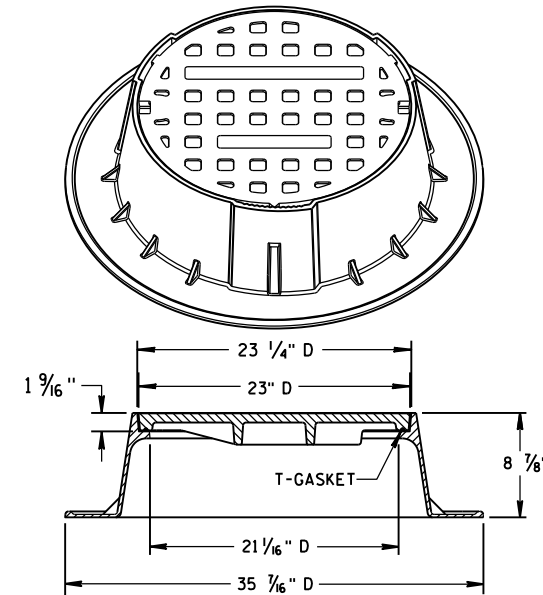


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE



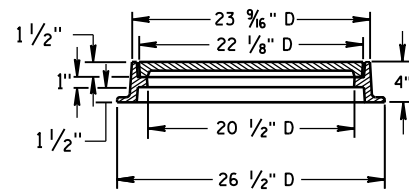
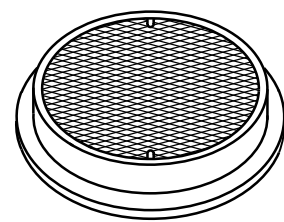
TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

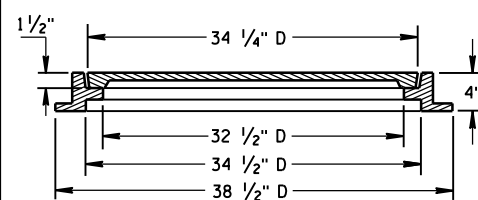
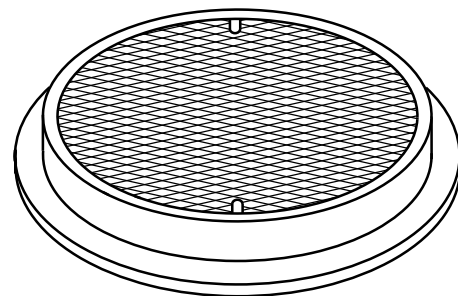
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

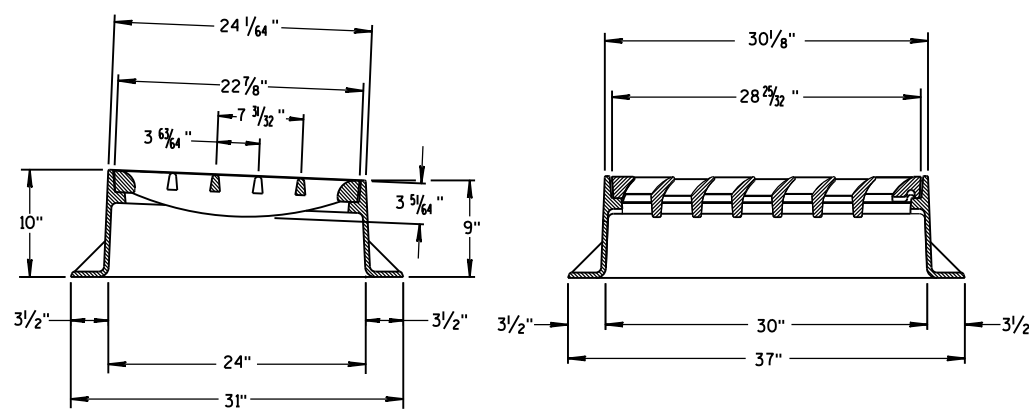
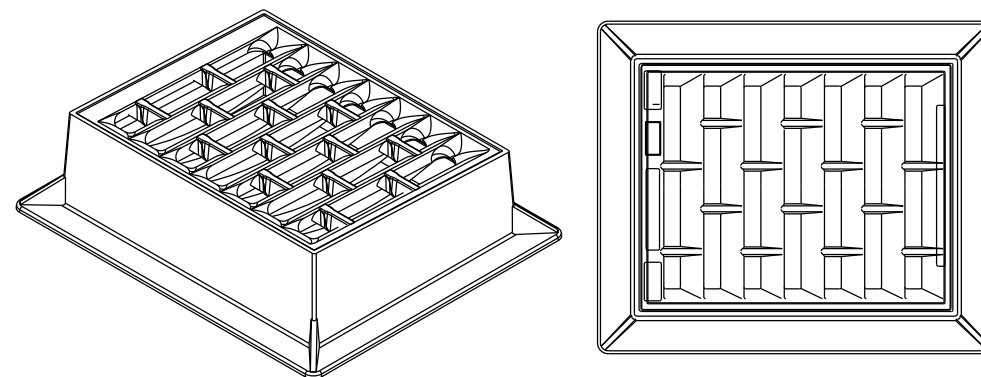
6



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

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

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

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

6

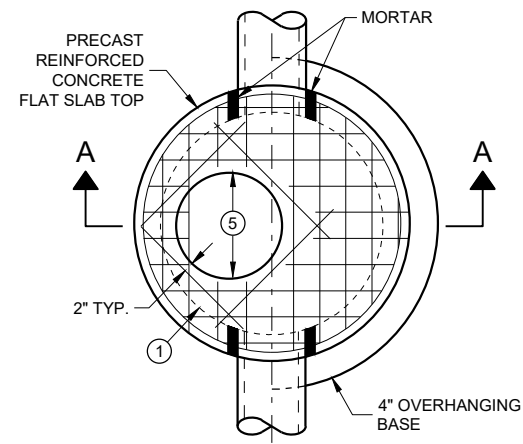
S.D.D. 8 A 5-19d

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

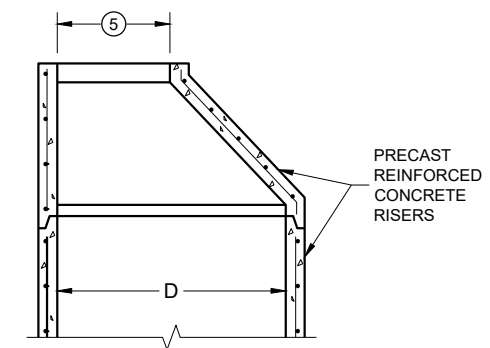
**INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

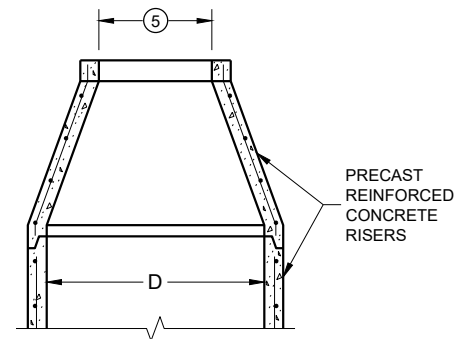
APPROVED
11/27/2013 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

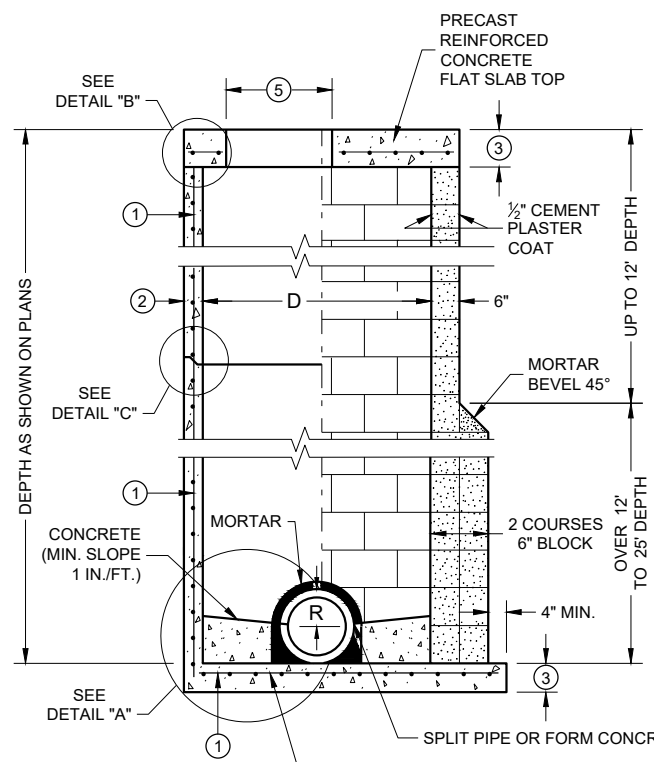
MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE \ OPENING SIZE (FT.)	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

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

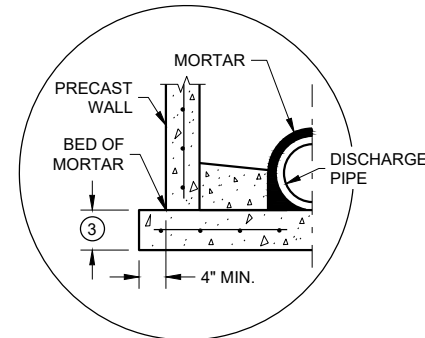
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



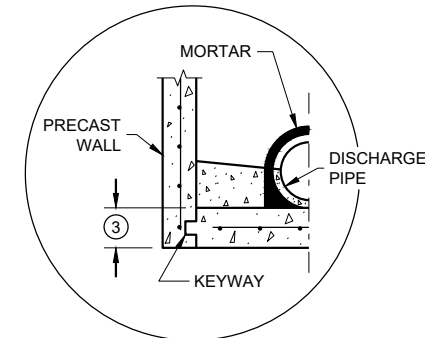
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

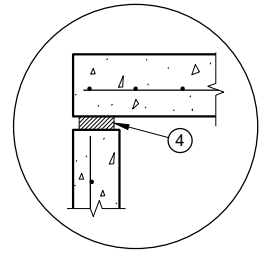


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

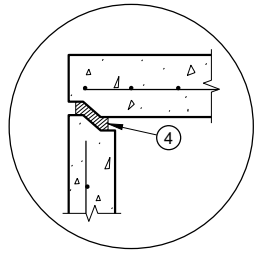


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

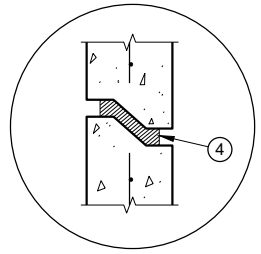
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

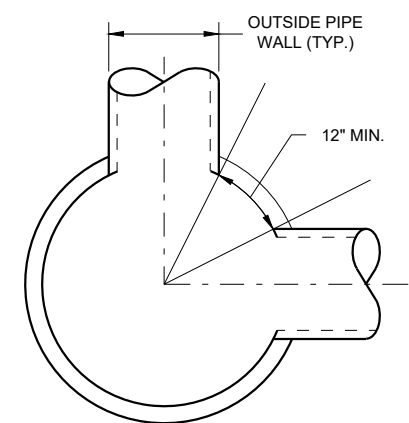
PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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

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

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

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



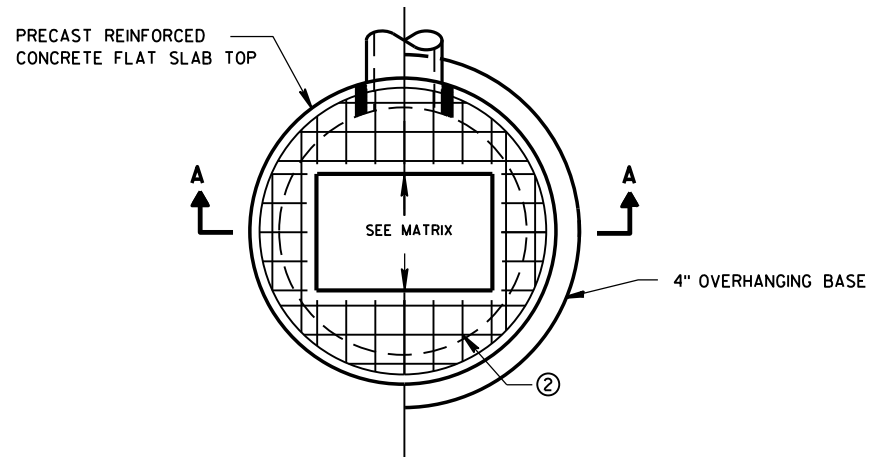
MINIMUM HORIZONTAL PIPE SEPARATION

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

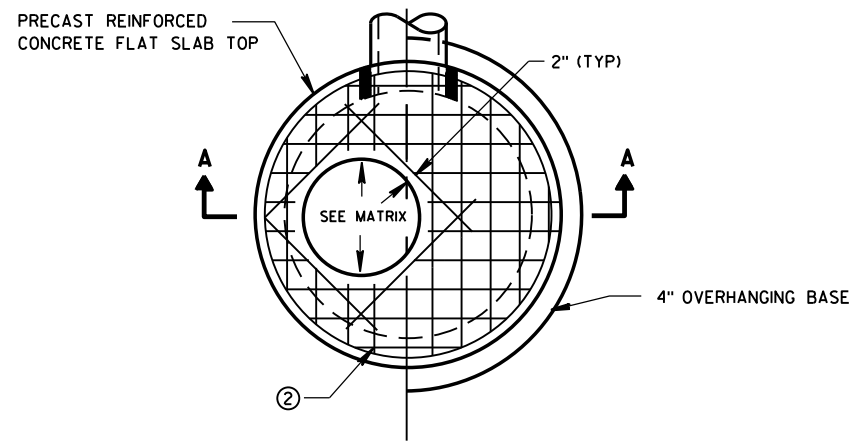
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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

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



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

GENERAL NOTES

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

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

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

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

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

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

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

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

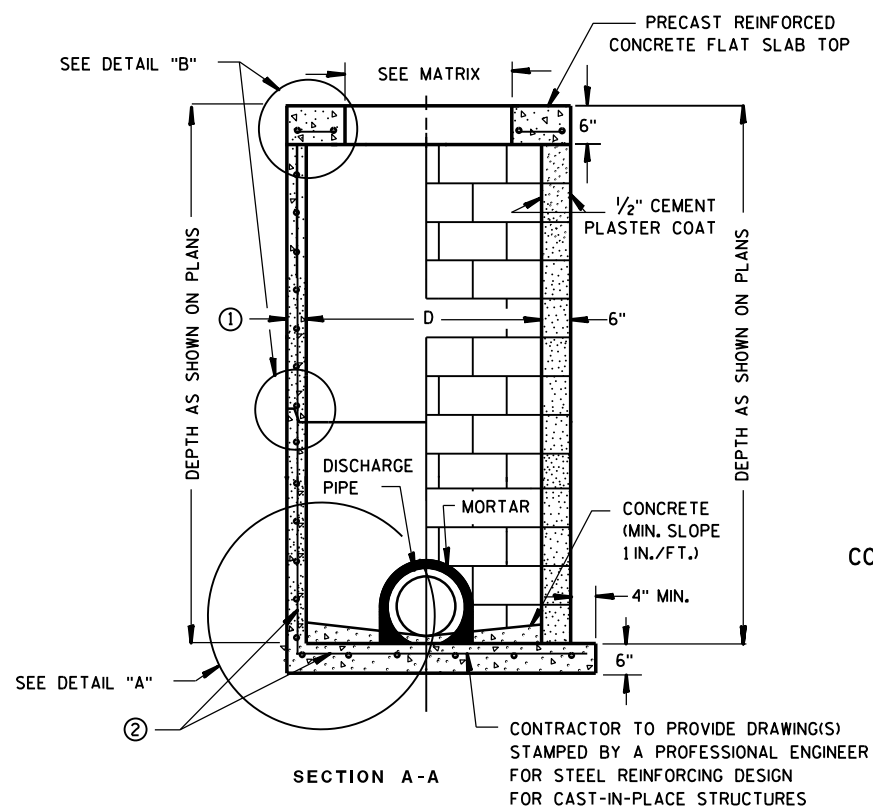
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X	X	
	2X2.5			X								
	2X3						X					
	2.5X3					X						

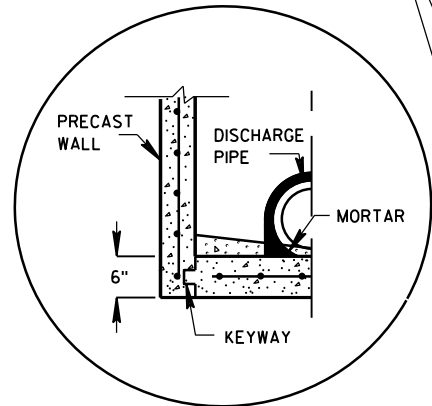


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE **CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②**

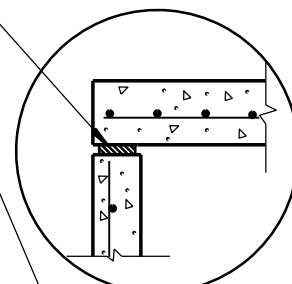
CIRCULAR INLETS W/ FLAT TOP

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

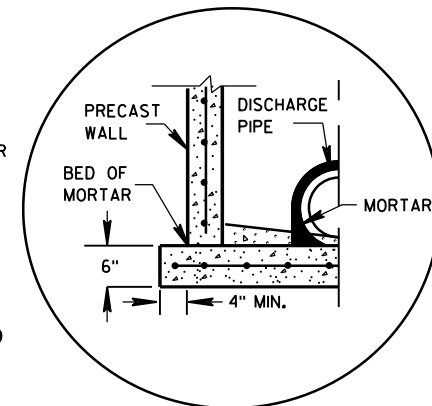
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)



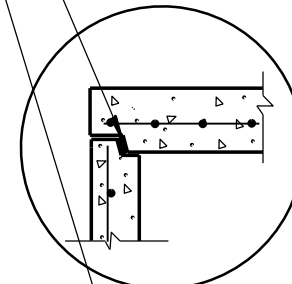
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



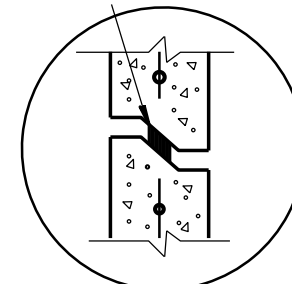
TOP WITH TONGUE AND GROOVE JOINT



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



TOP WITH TONGUE AND GROOVE JOINT

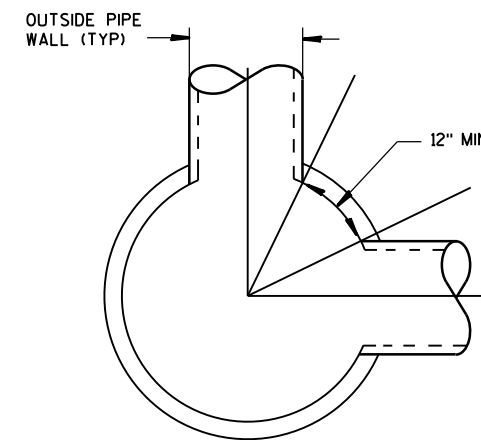


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER



DETAIL "C"

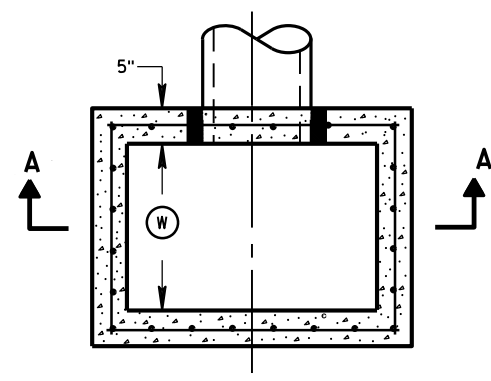
PIPE MATRIX

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

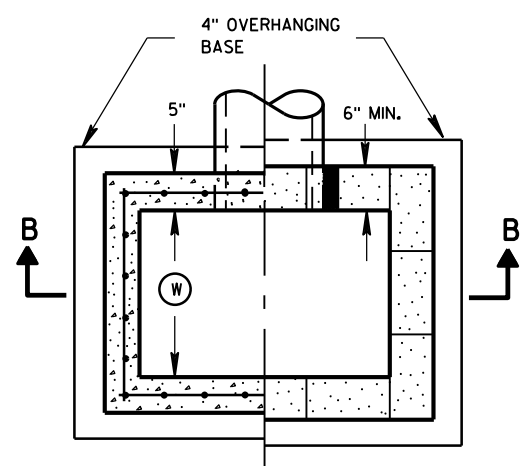
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

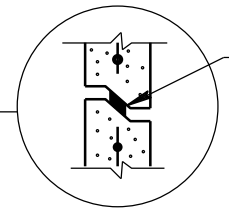
APPROVED
 Sept., 2016 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
 FHWA



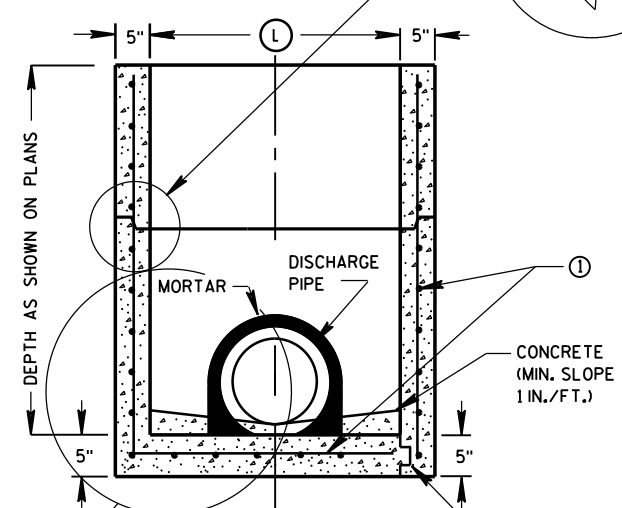
PLAN VIEW



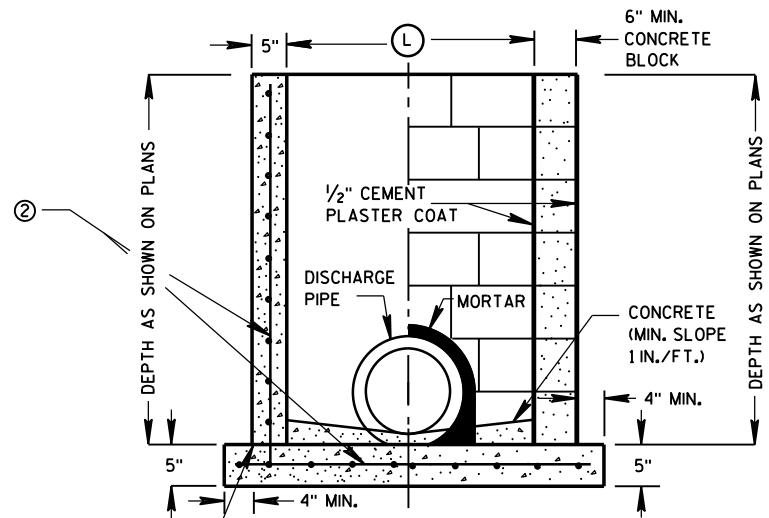
PLAN VIEW



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



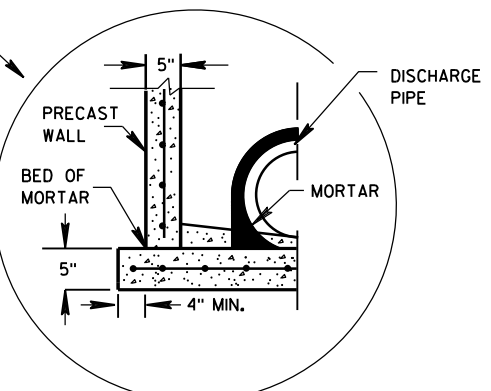
SECTION A-A



SECTION B-B

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE
 PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE
 KEYWAY

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



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

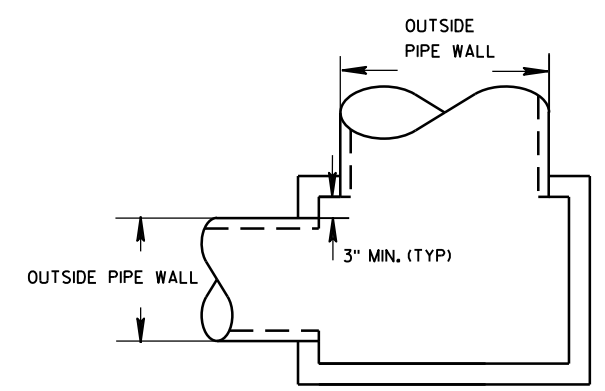
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	INLET COVER TYPE		ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH ① (FT)	LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



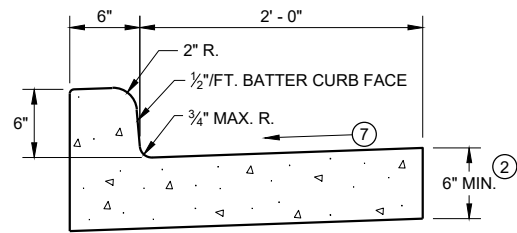
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

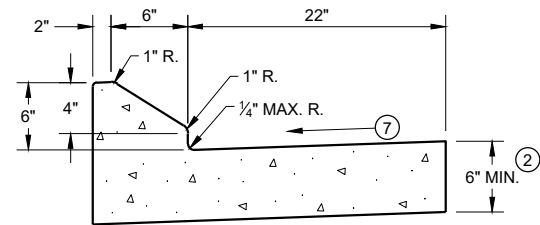
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

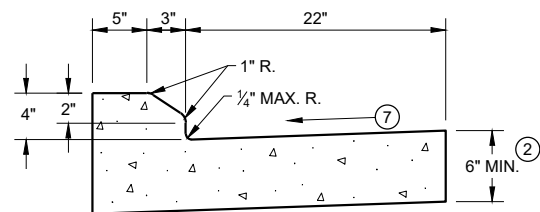
APPROVED
 Sept., 2016 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT
 FHWA UNIT SUPERVISOR



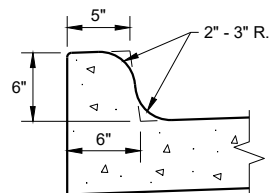
TYPES A¹ & D



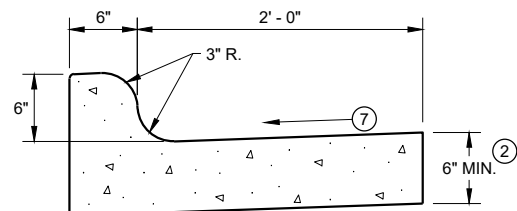
6" SLOPED CURB TYPES G¹ & J



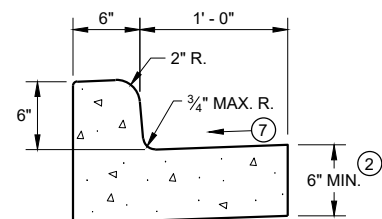
4" SLOPED CURB TYPES G¹ & J



TYPES K¹ & L
(OPTIONAL CURB SHAPE)

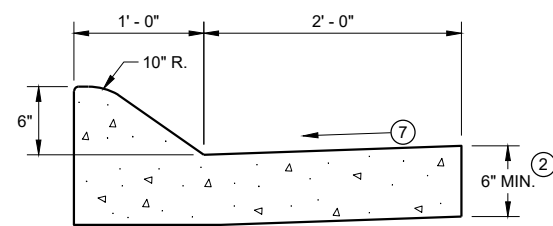


TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"

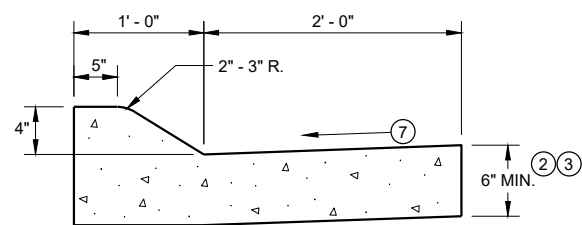


TYPES A¹ & D

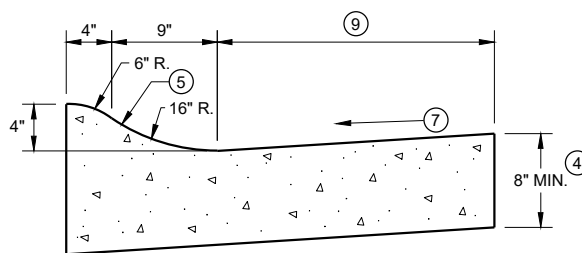
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

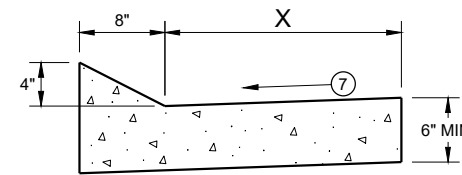


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

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

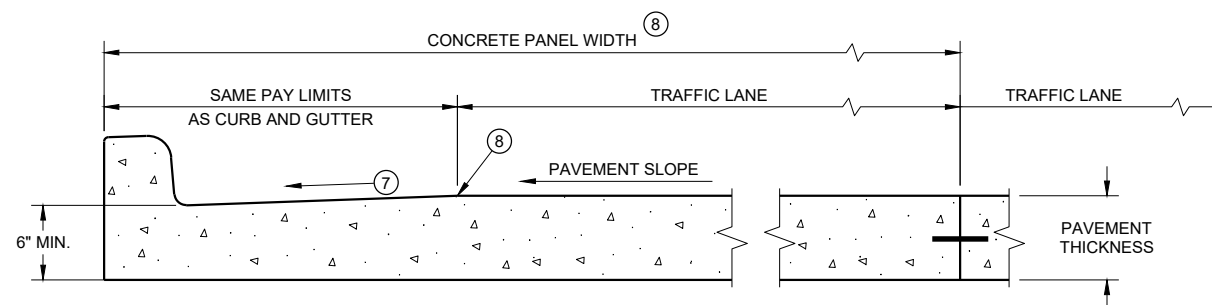


TYPES TBT & TBTT¹

CONCRETE CURB AND GUTTER

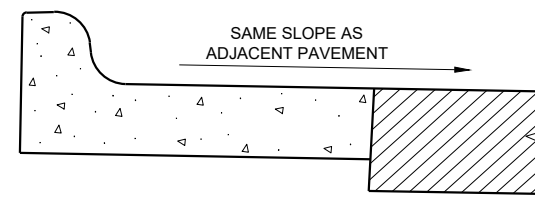
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT* WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

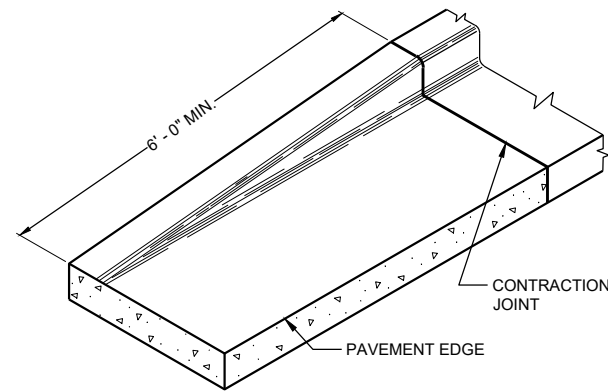
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

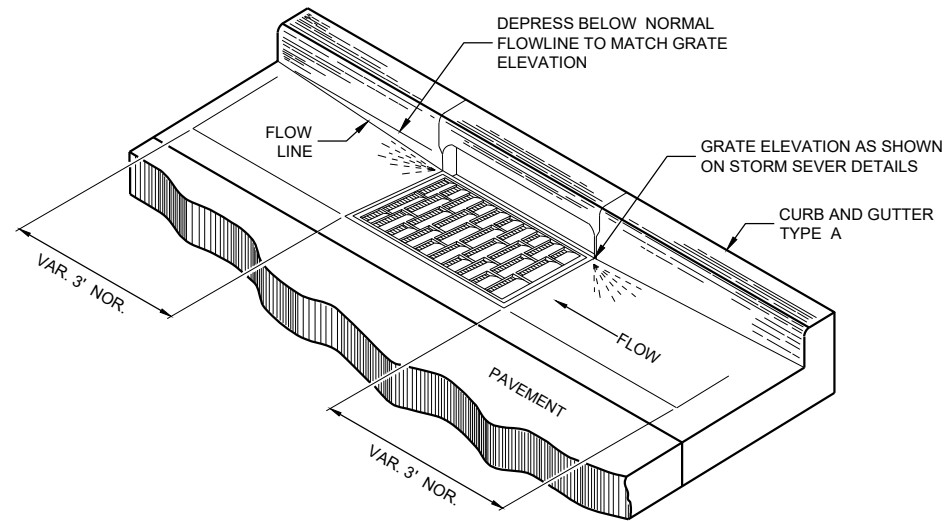
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

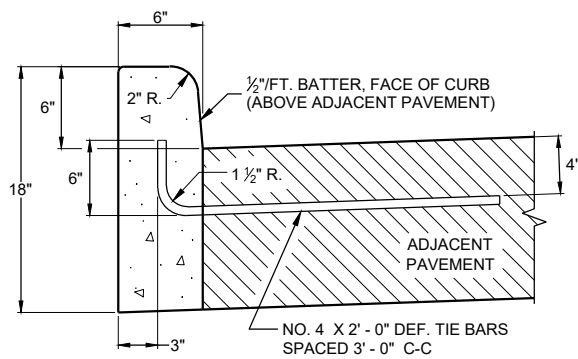
GENERAL NOTES

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

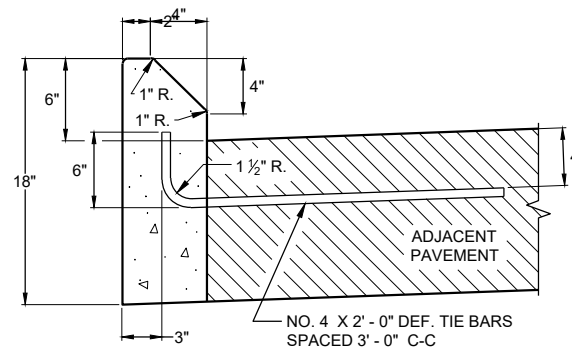
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

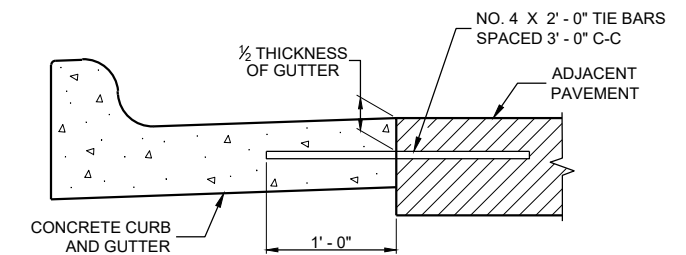
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL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



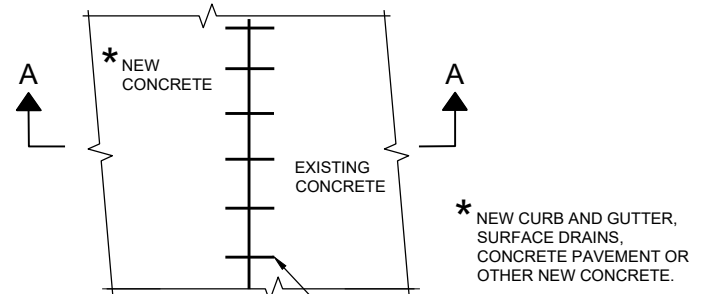
TYPES A^① & D



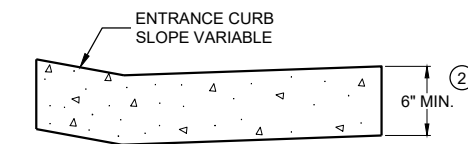
**TYPES G^① & J
CONCRETE CURB**



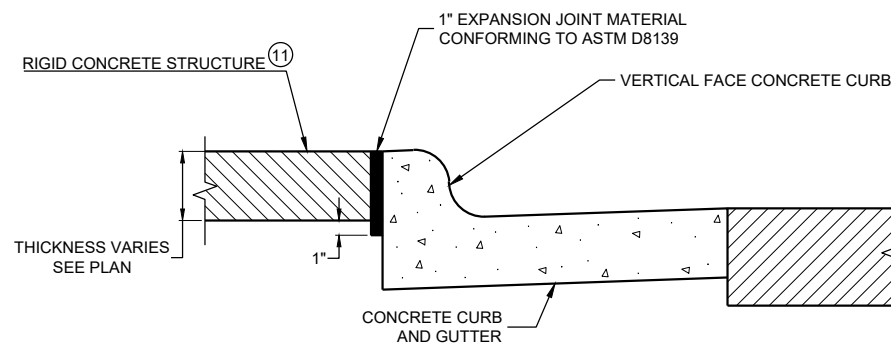
TYPICAL TIE BAR LOCATION^①



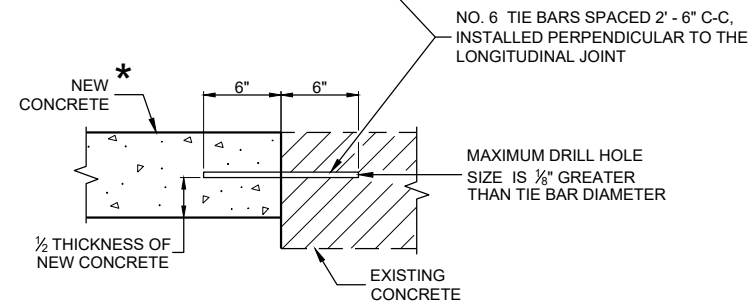
PLAN VIEW



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



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



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

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

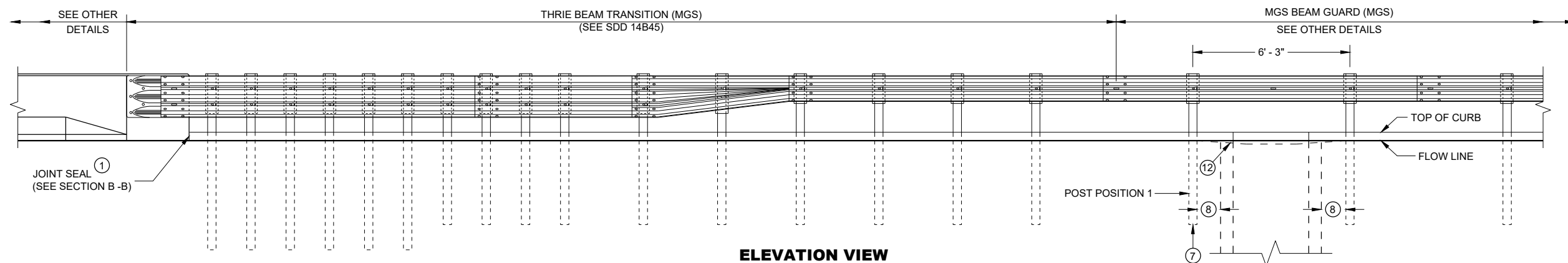
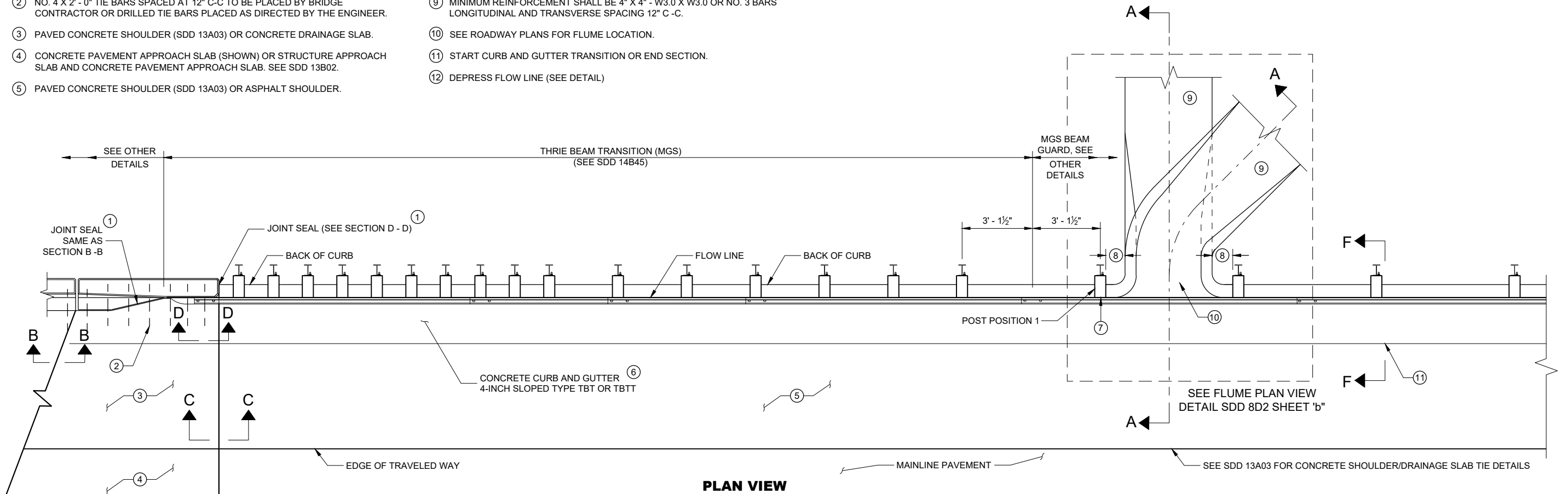
GENERAL NOTES

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.

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

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)



**CONCRETE SURFACE
DRAINS FLUME TYPE
AT STRUCTURES**

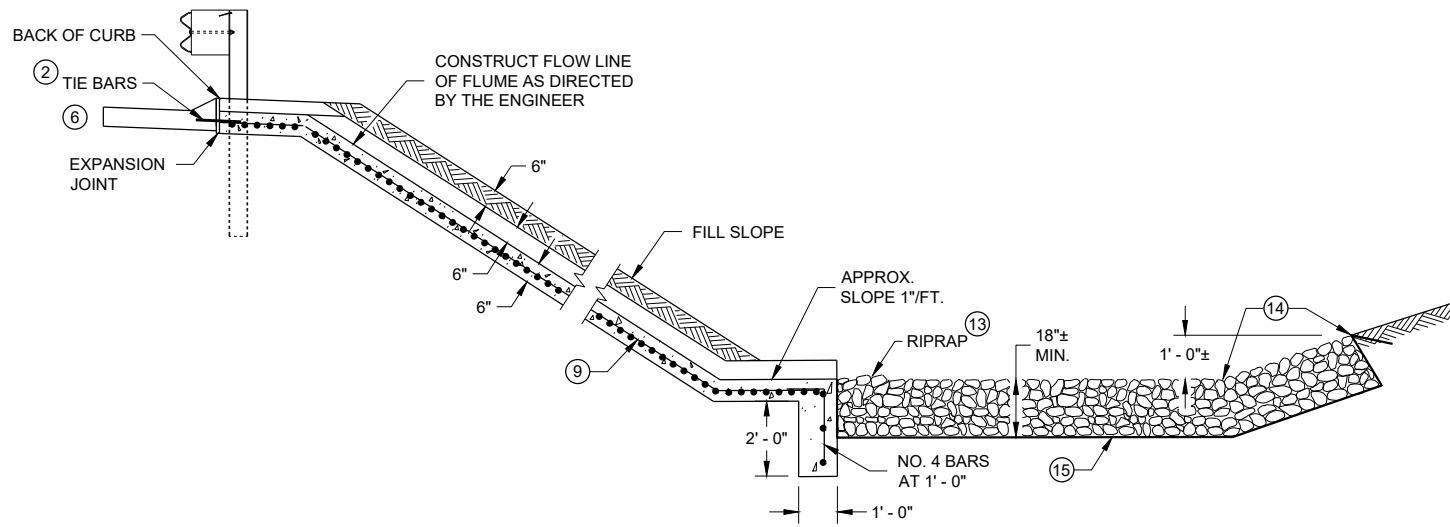
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

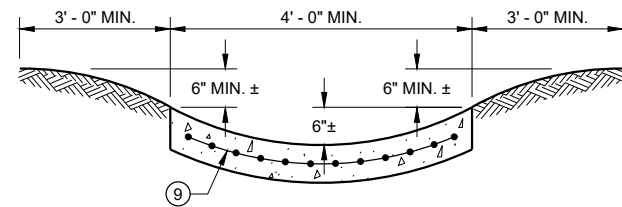
6

SDD 08D02 - 08a

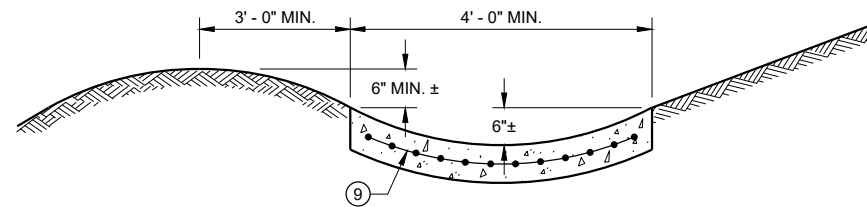
SDD 08D02 - 08a



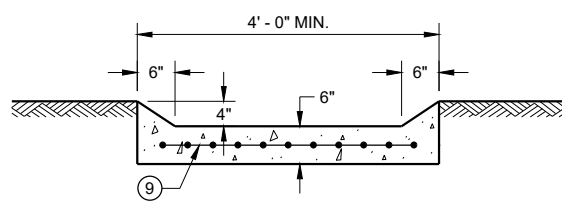
SECTION A - A



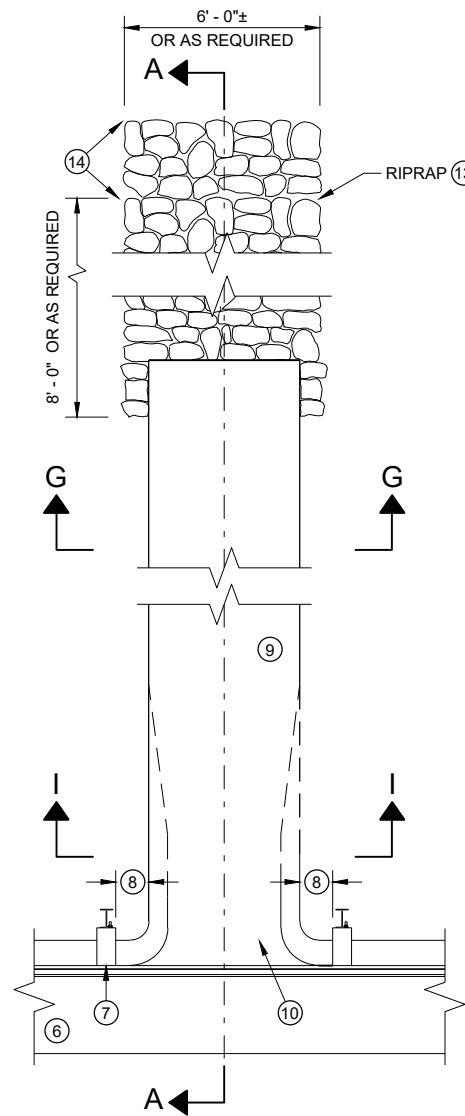
SECTION G - G



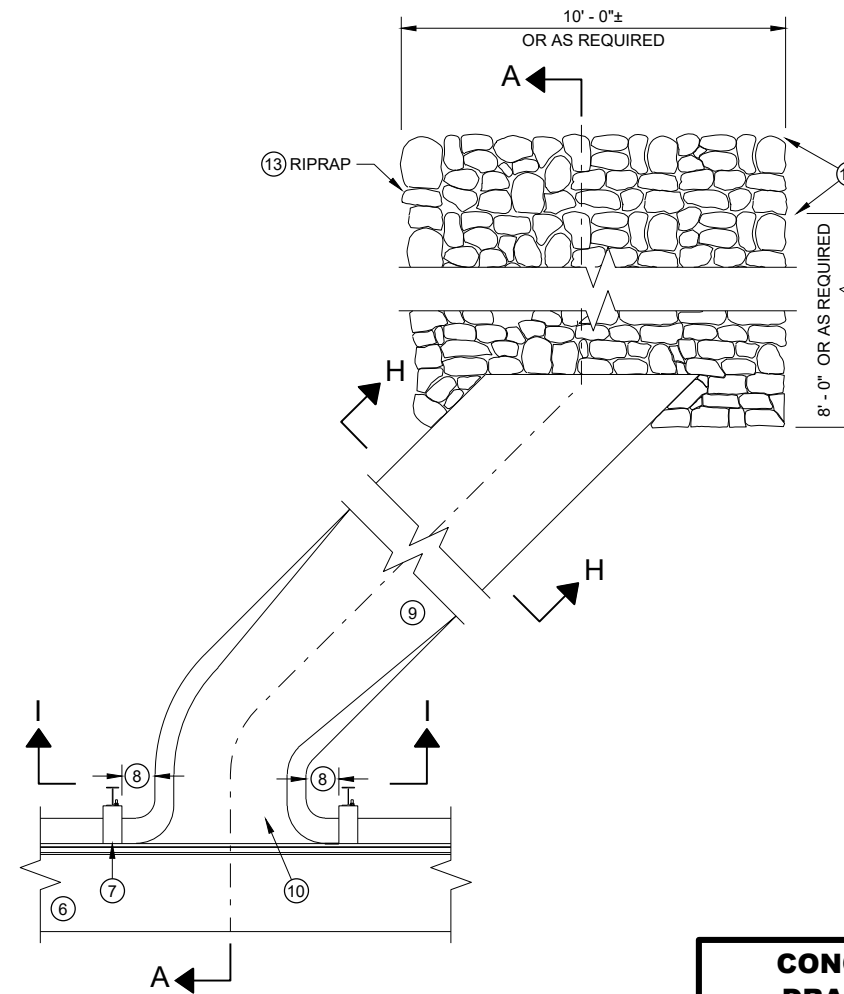
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

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.

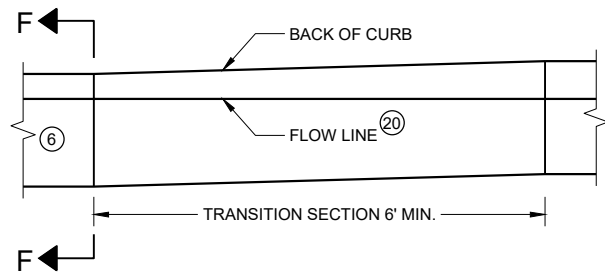
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2'-0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

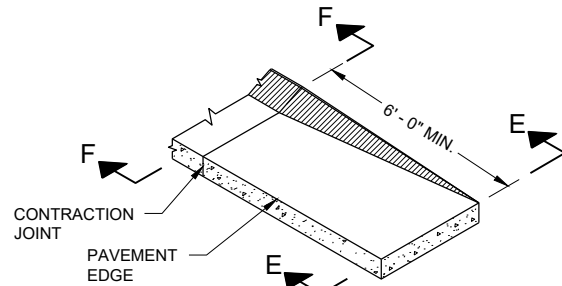
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
- ⑮ GEOTEXTILE TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

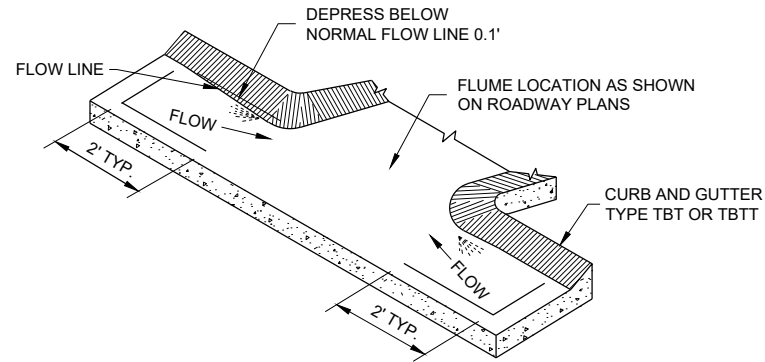
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



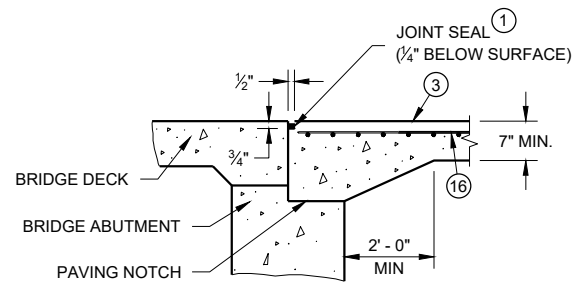
**CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**

GENERAL NOTES

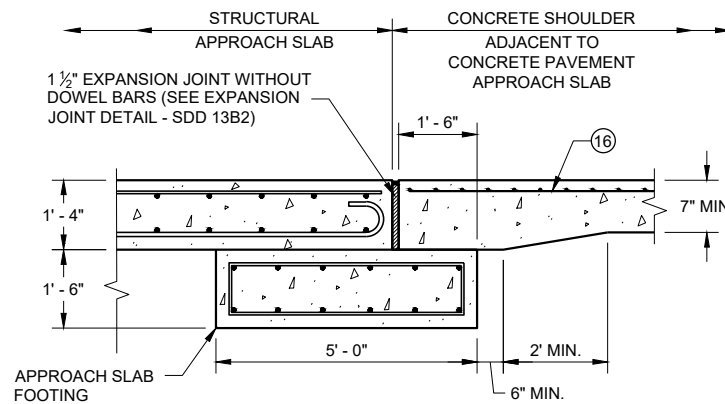
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

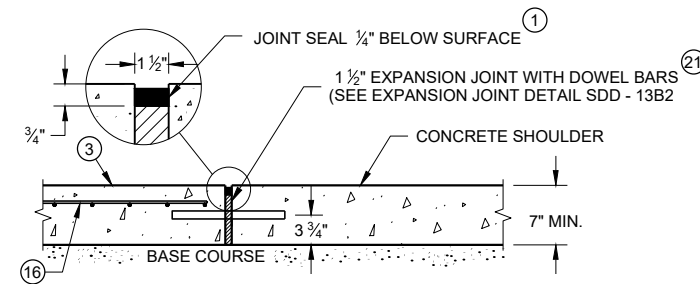
- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑮ GEOTEXTILE TYPE HR.
- ⑯ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑰ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑱ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑲ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑳ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ㉑ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



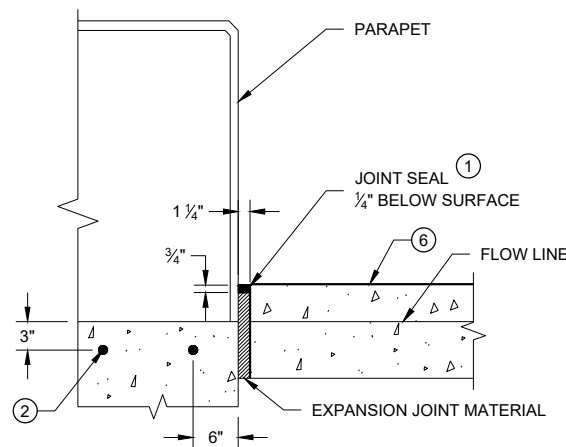
SECTION B-B



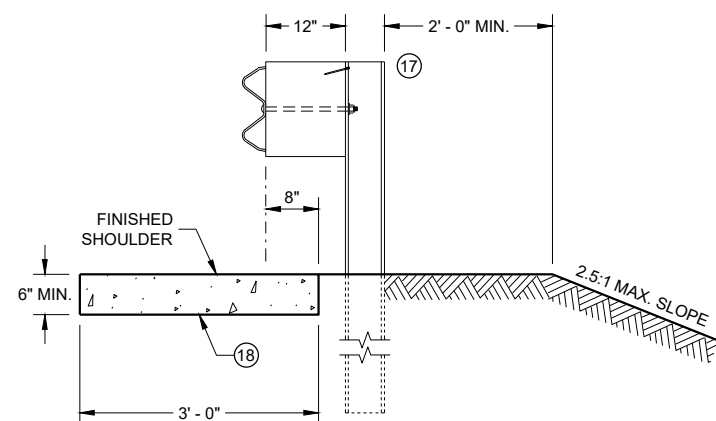
**SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL
APPROACH SLAB AND CONCRETE APPROACH SLAB**



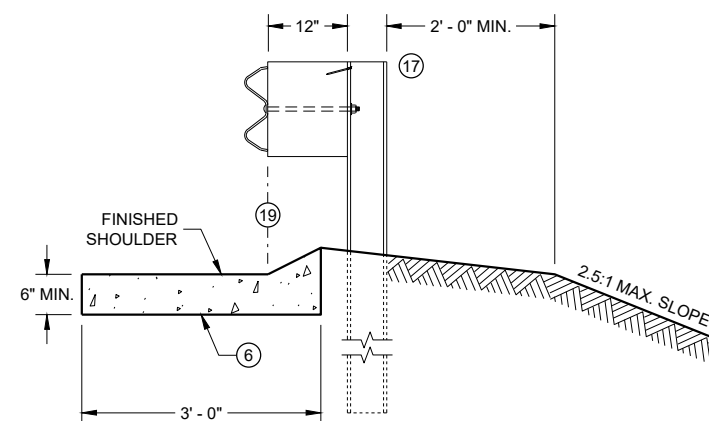
**SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH
WITH CONCRETE SHOULDERS**



SECTION D - D



SECTION E - E



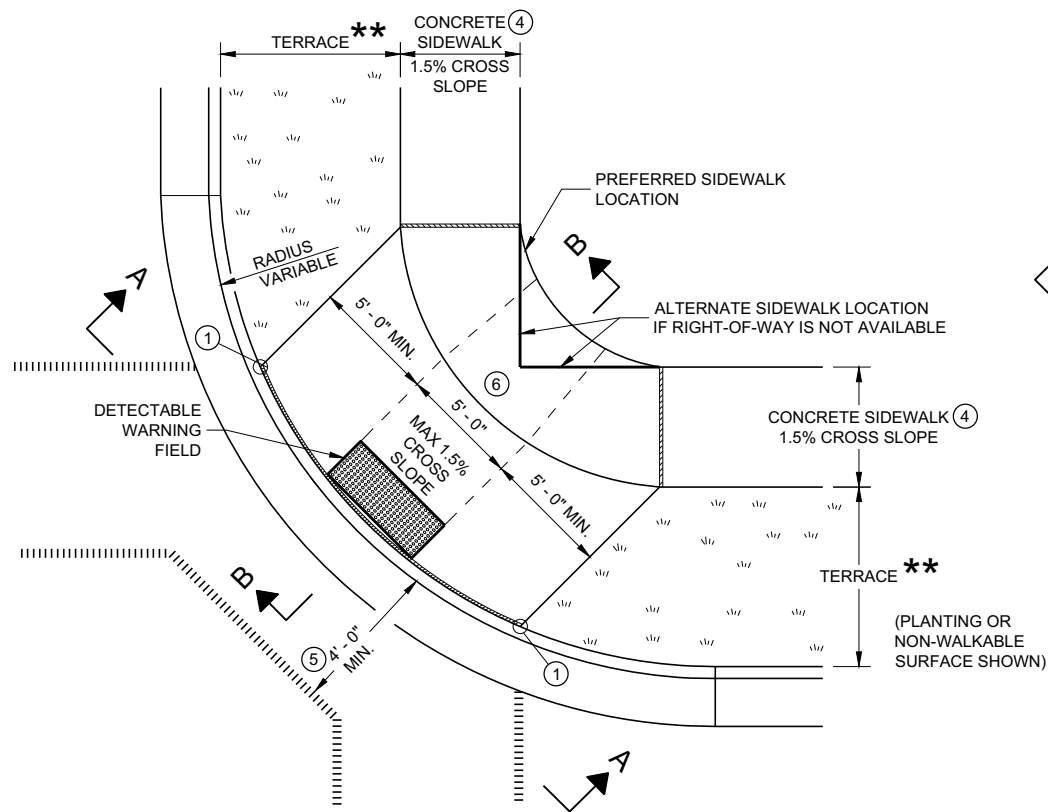
SECTION F - F

**CONCRETE SURFACE
DRAINS FLUME TYPE
AT STRUCTURES**

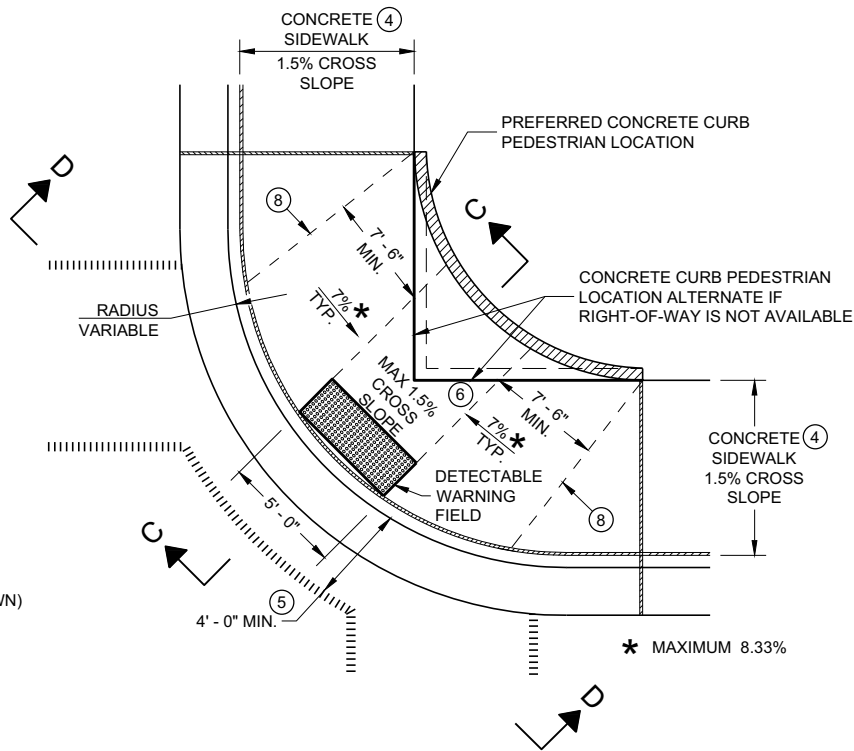
STATE OF WISCONSIN
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APPROVED
May 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

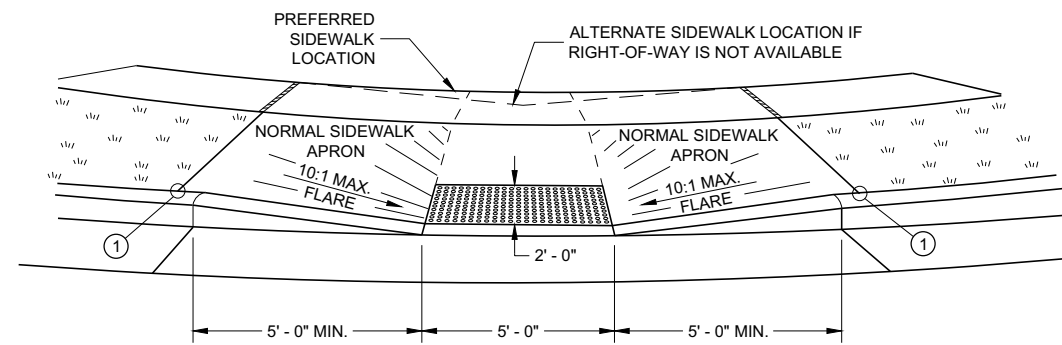
FHWA



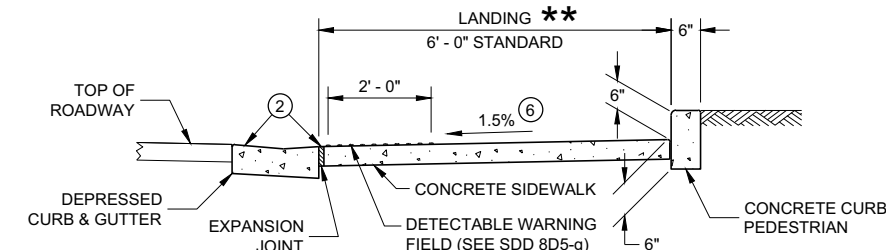
PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)



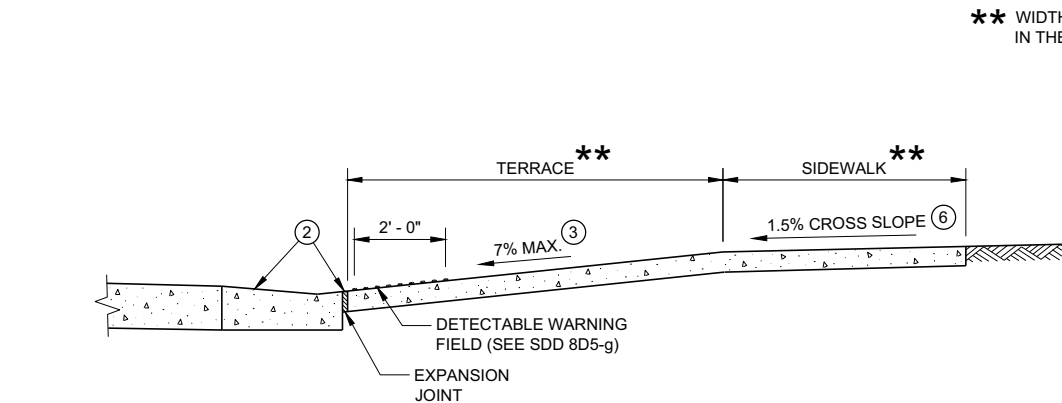
PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)



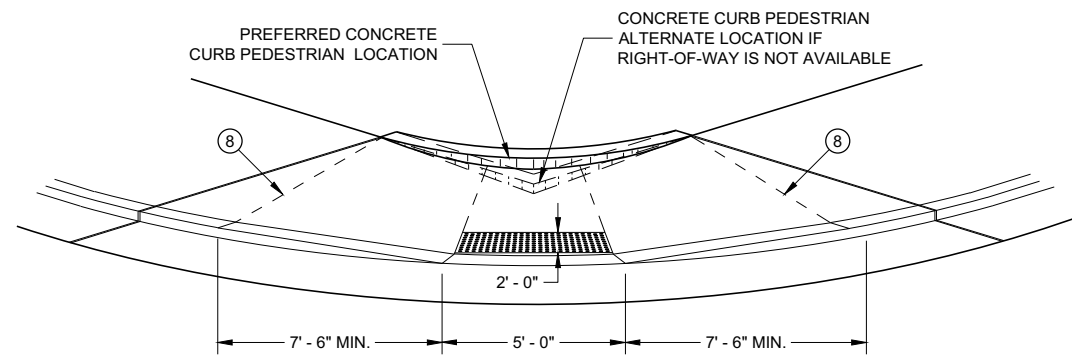
VIEW A - A FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

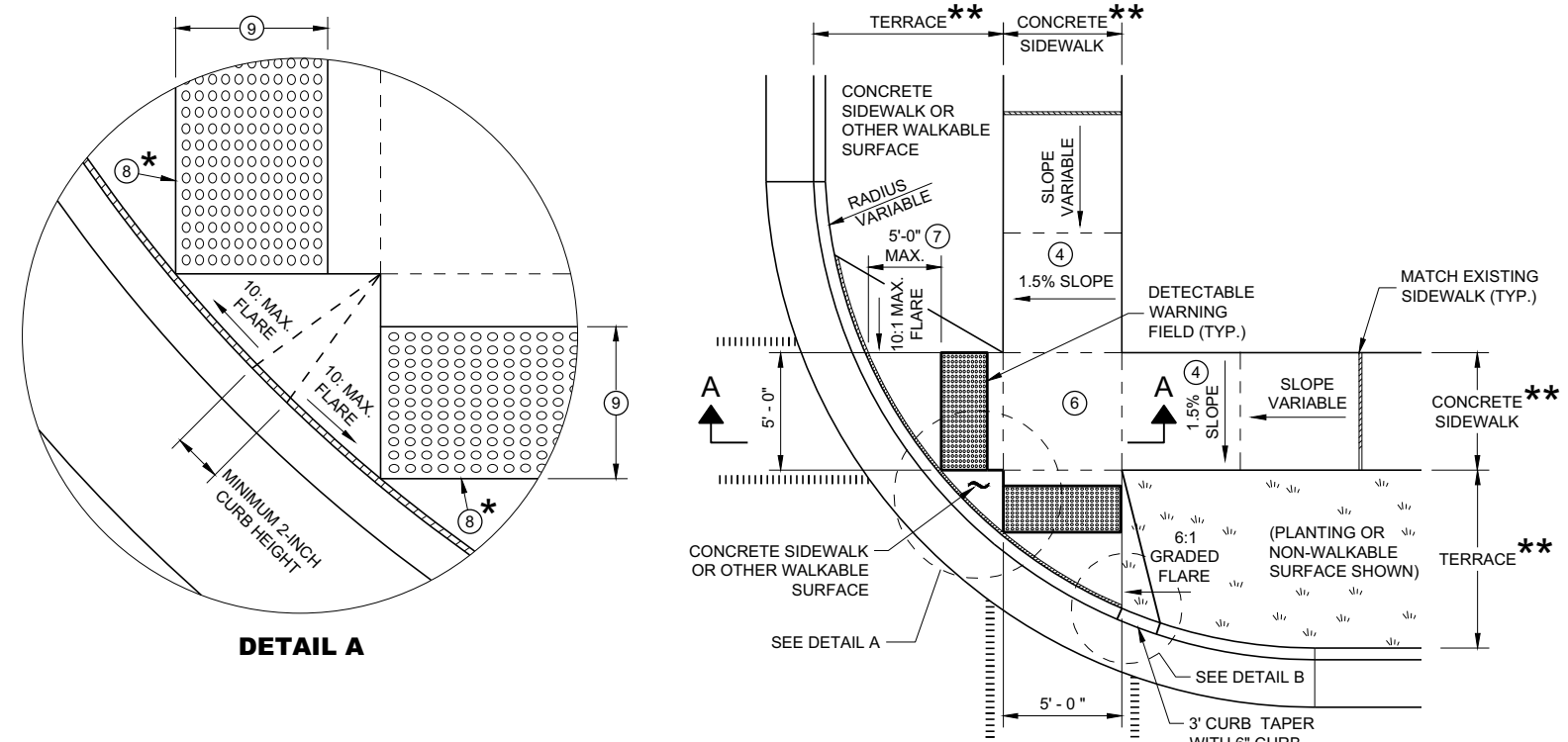
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
 - ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
 - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
 - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

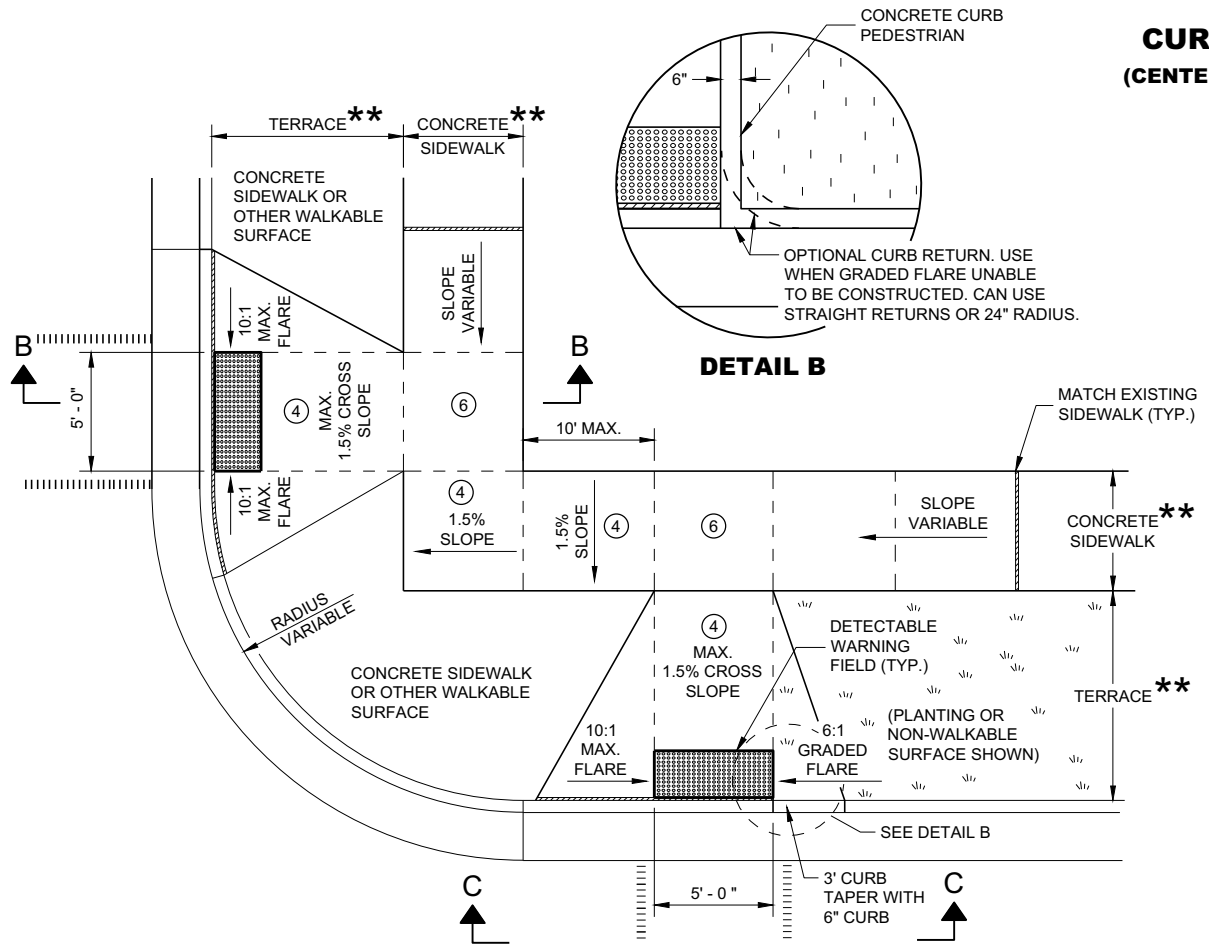
- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

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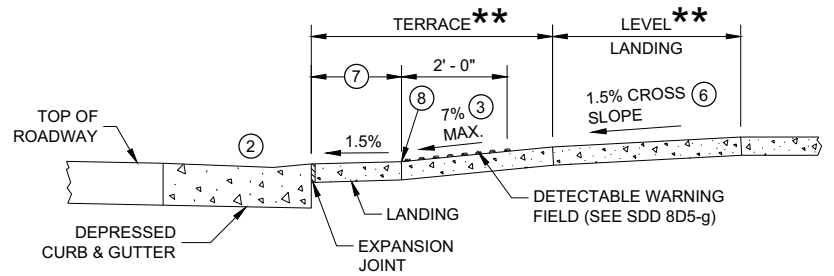
PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)



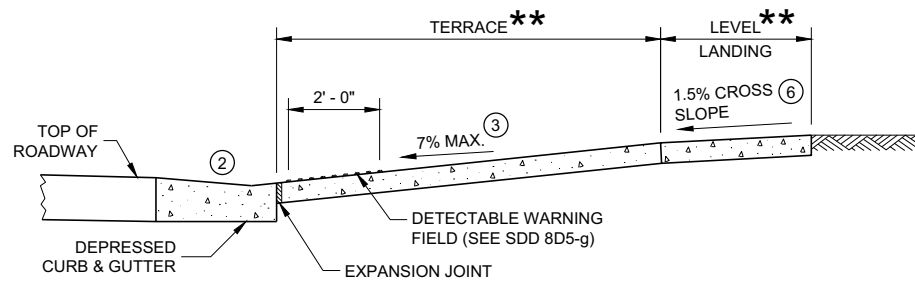
PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

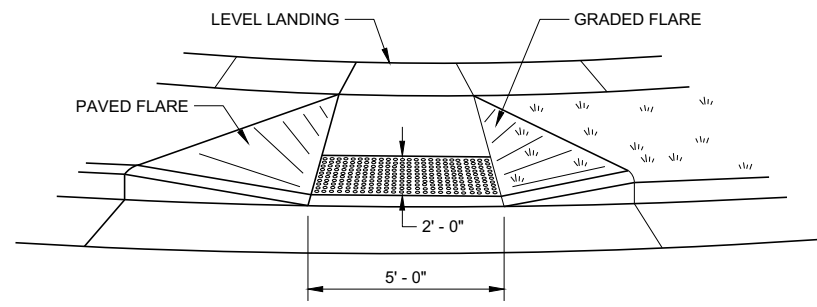
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

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

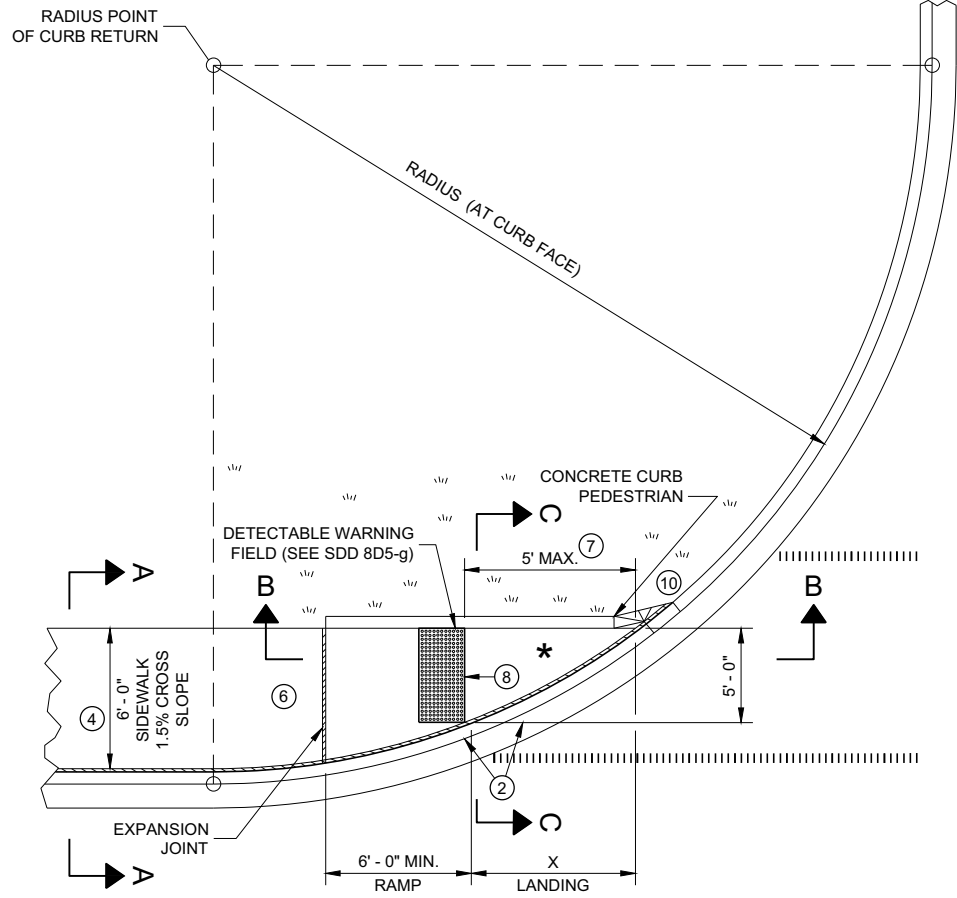
** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

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

**CURB RAMPS
TYPE 2 AND 3**

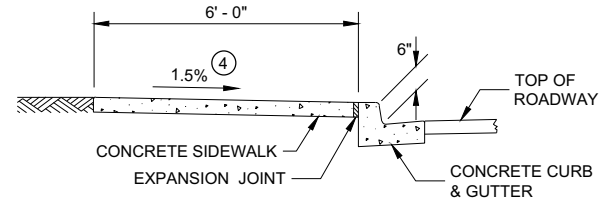
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**PLAN VIEW
CURB RAMP TYPE 4A**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



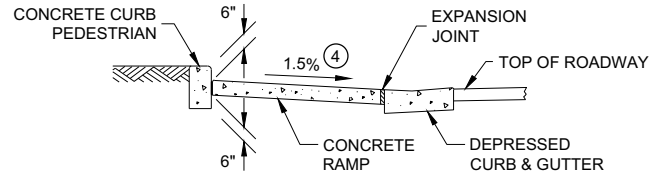
SECTION A - A FOR TYPE 4A

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

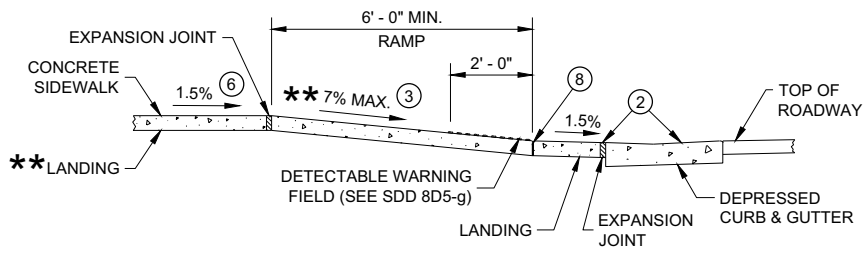
LEGEND

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



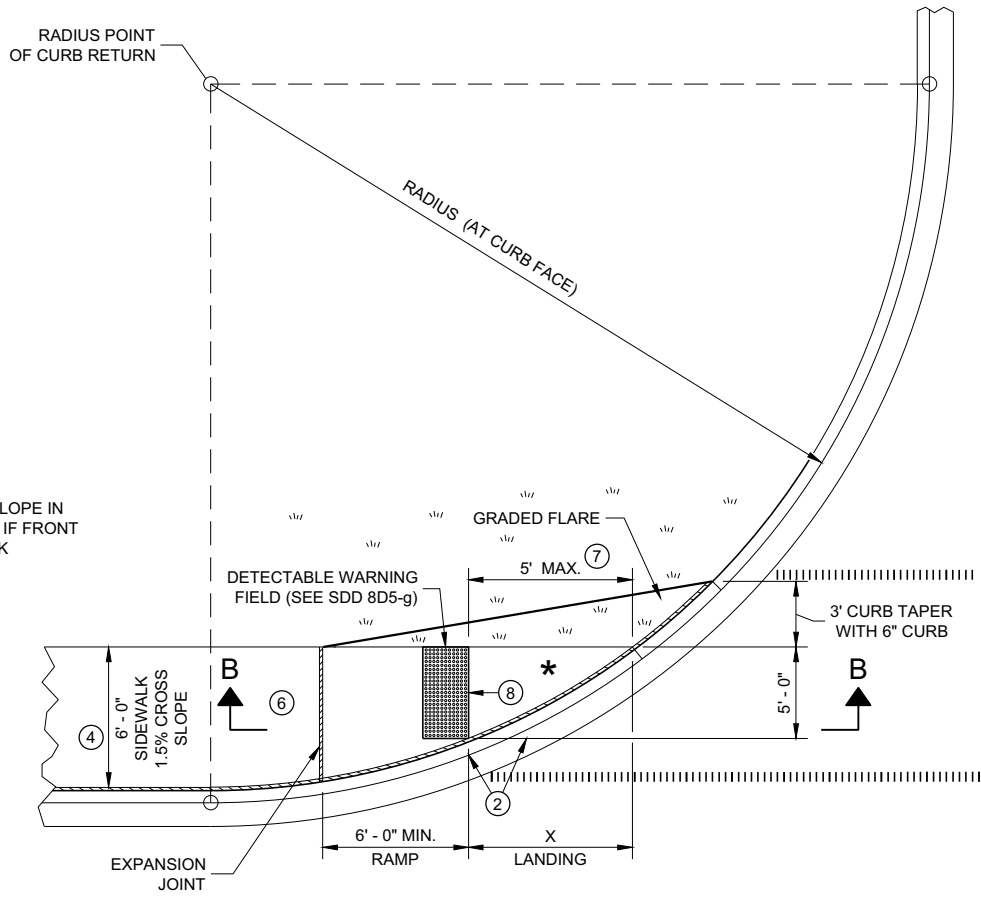
SECTION C - C FOR TYPE 4A

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

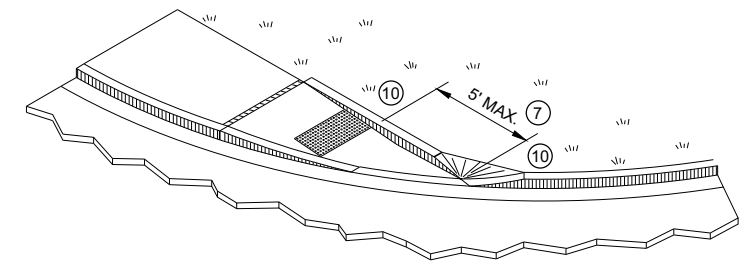


**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

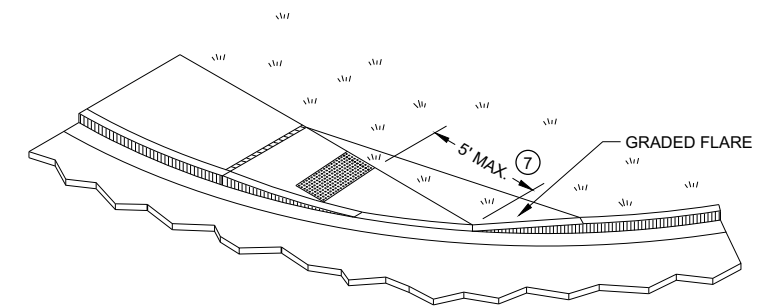
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW
CURB RAMP TYPE 4A1**



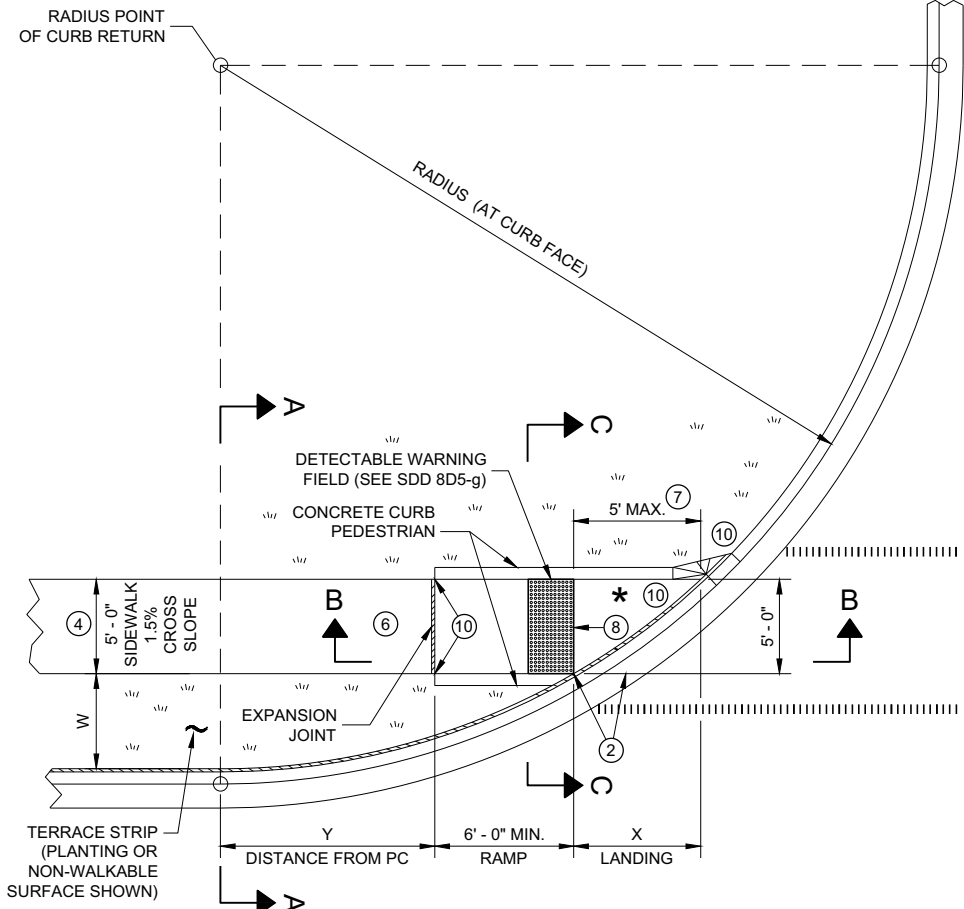
ISOMETRIC VIEW FOR TYPE 4A



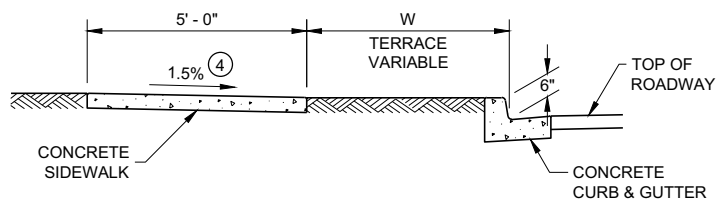
ISOMETRIC VIEW FOR TYPE 4A1

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

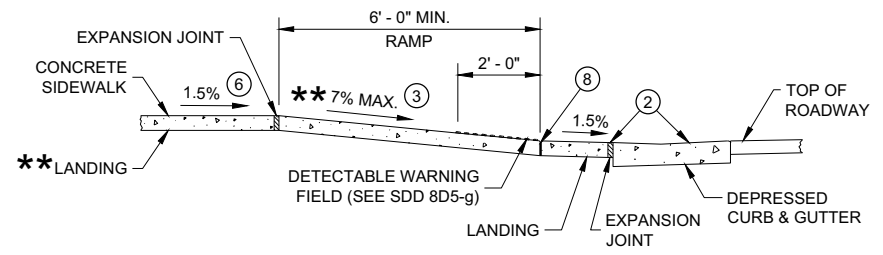
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PLAN VIEW CURB RAMP TYPE 4B



SECTION A - A FOR TYPE 4B



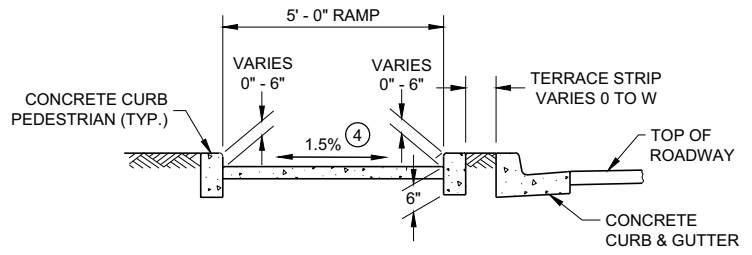
SECTION B - B FOR TYPE 4B AND TYPE 4B1

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

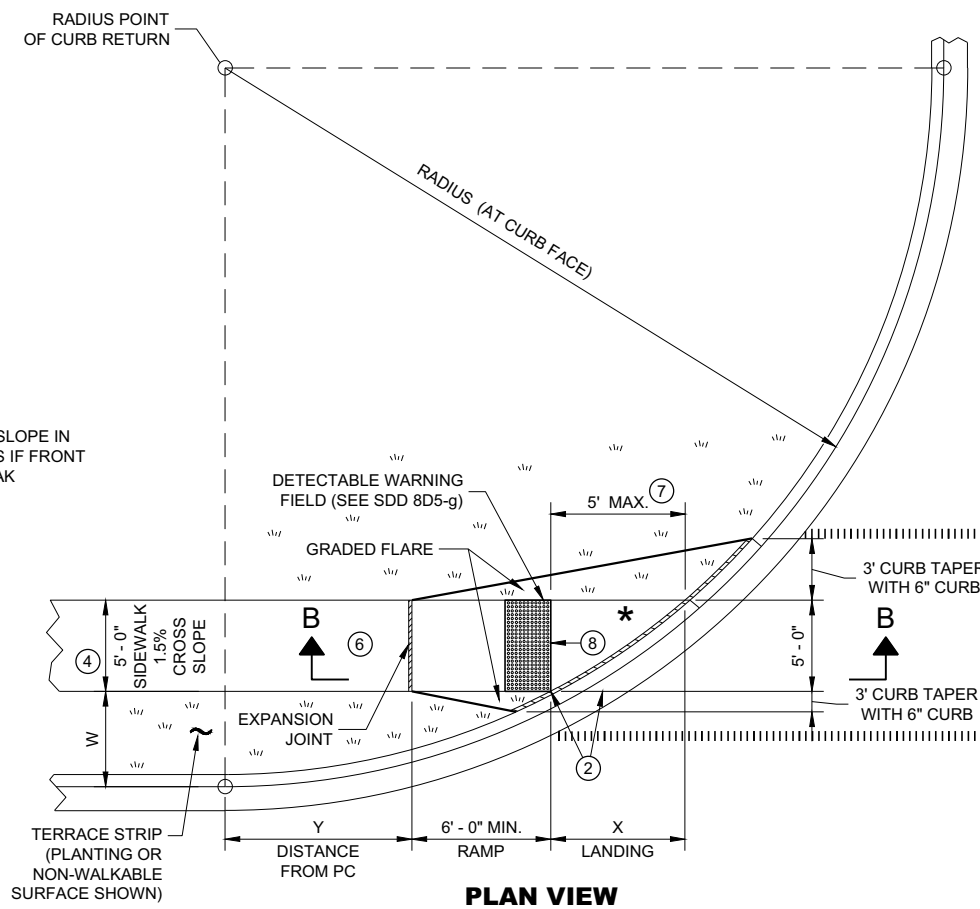
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

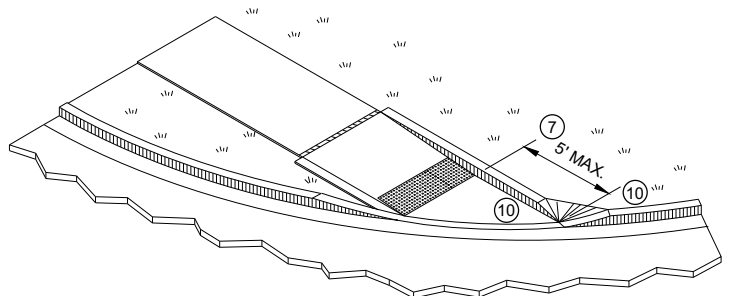
INTERMEDIATE RADII CAN BE INTERPOLATED
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



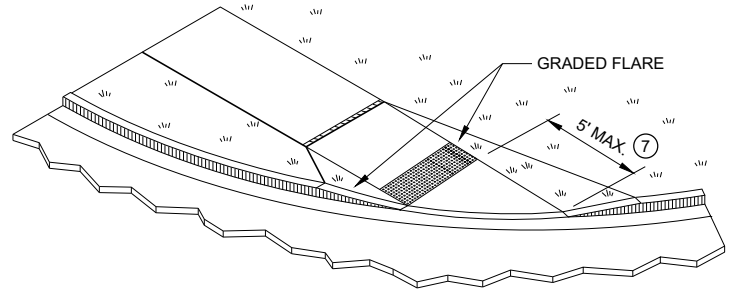
SECTION C - C FOR TYPE 4B



PLAN VIEW CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

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

GENERAL NOTES

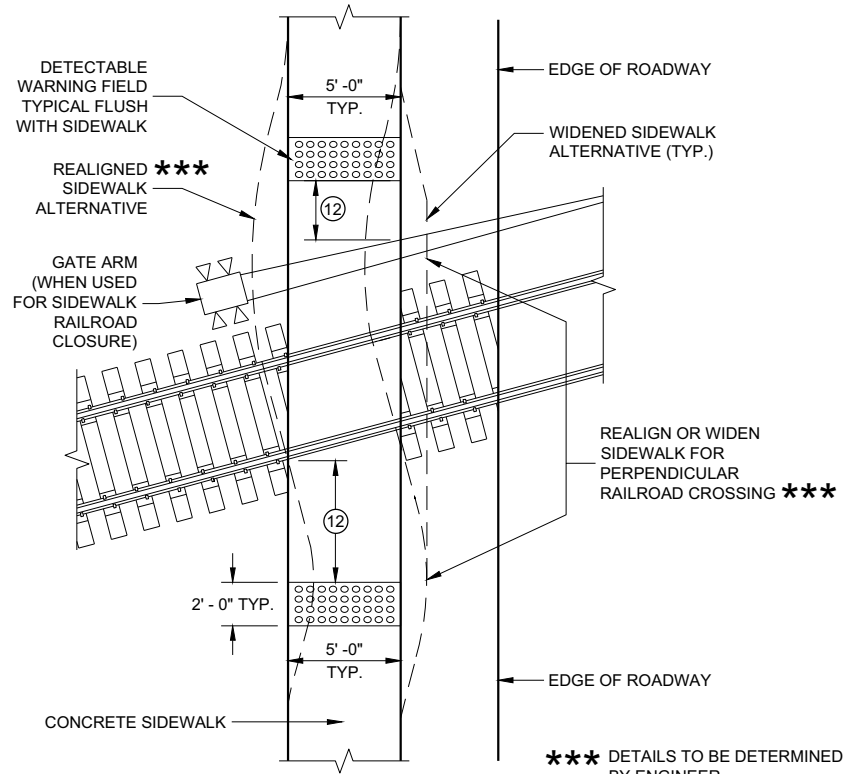
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 7 WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 10 INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

SDD08D05 - 20d

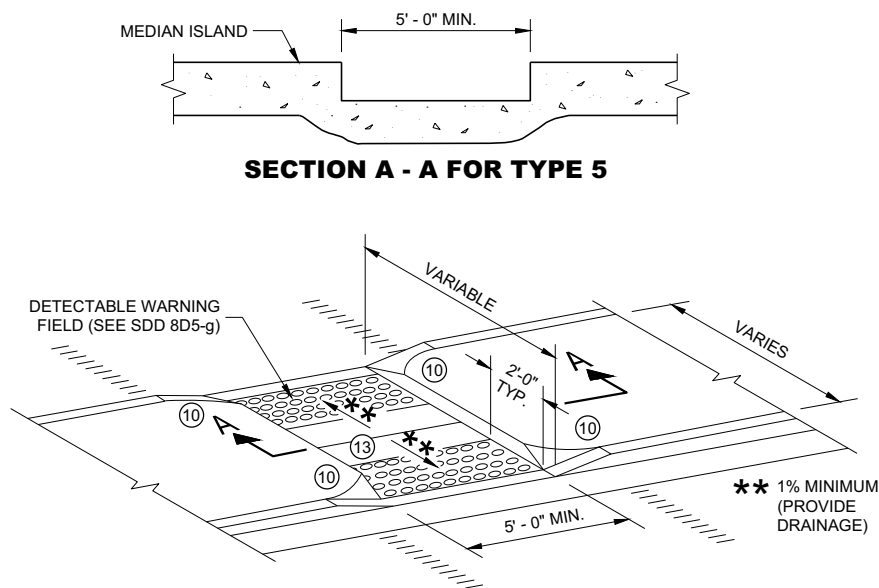
SDD08D05 - 20d



CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY ENGINEER



CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

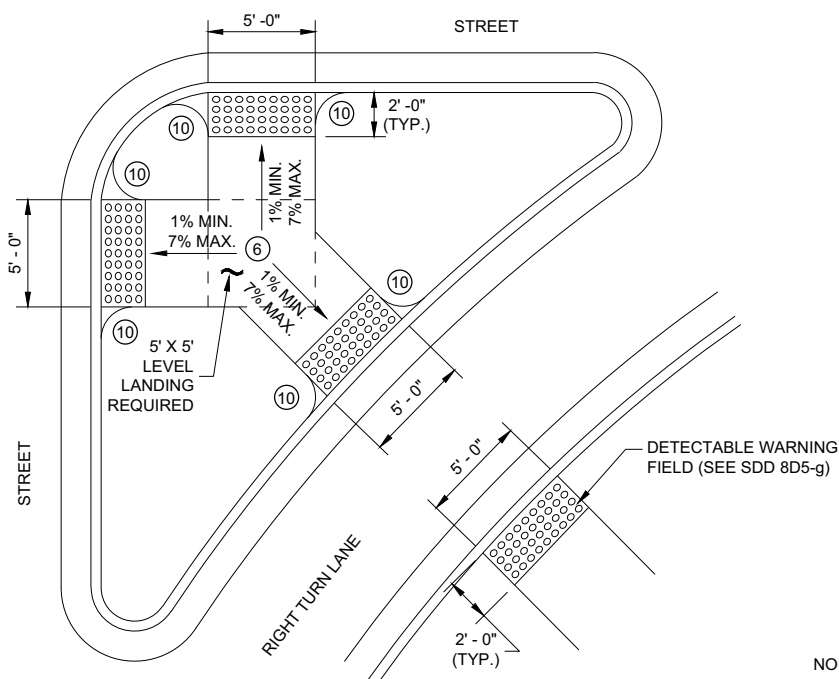
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

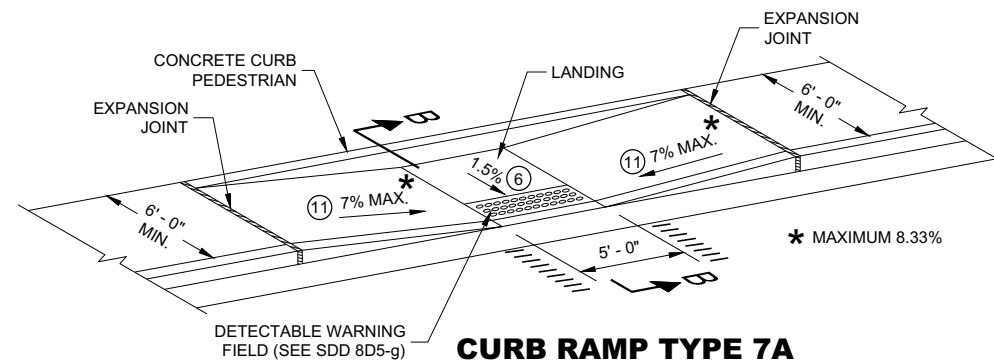
LEGEND

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

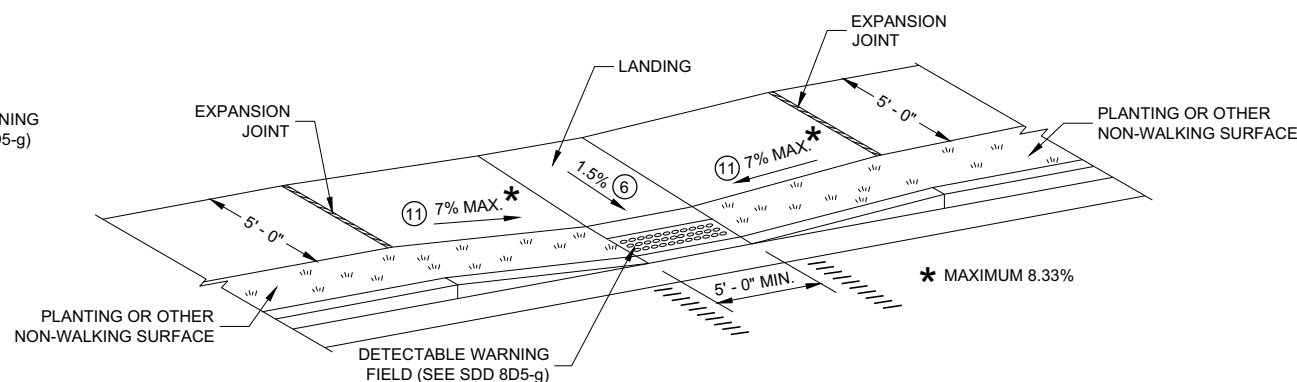


CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

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

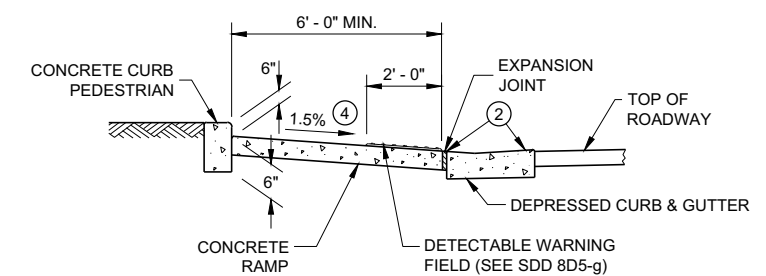


CURB RAMP TYPE 7A
MID BLOCK CROSSING



CURB RAMP TYPE 7B
MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

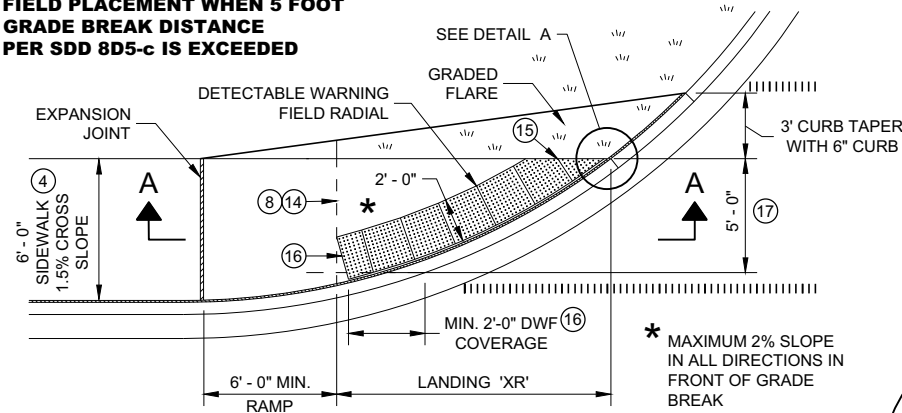


SECTION B - B FOR TYPE 7A

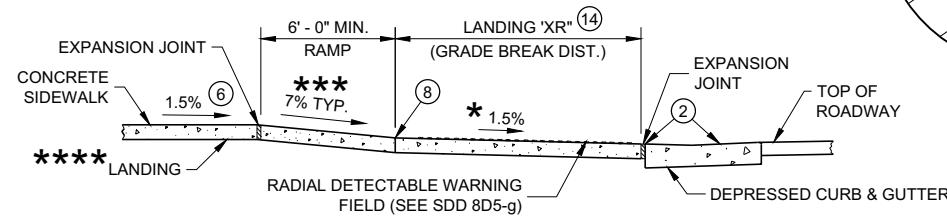
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

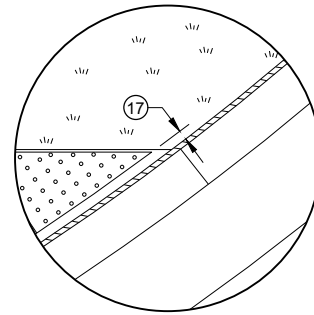


SECTION A - A FOR TYPE 4A1

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

*** MAXIMUM 8.33%

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

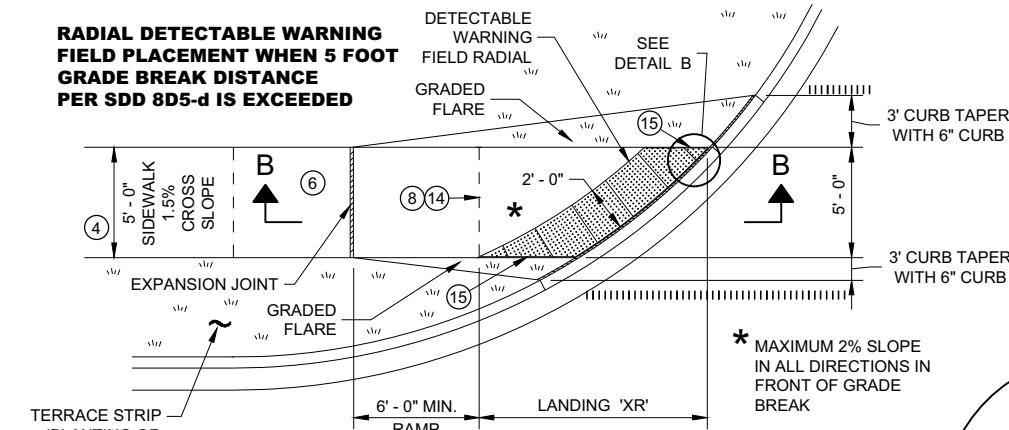


DETAIL A

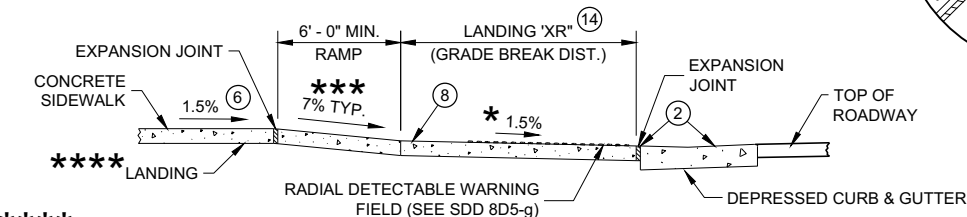
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
 - 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
 - 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
 - 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
 - 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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



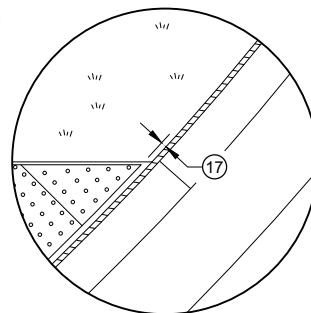
PLAN VIEW CURB RAMP TYPE 4B1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B - B FOR TYPE 4B1

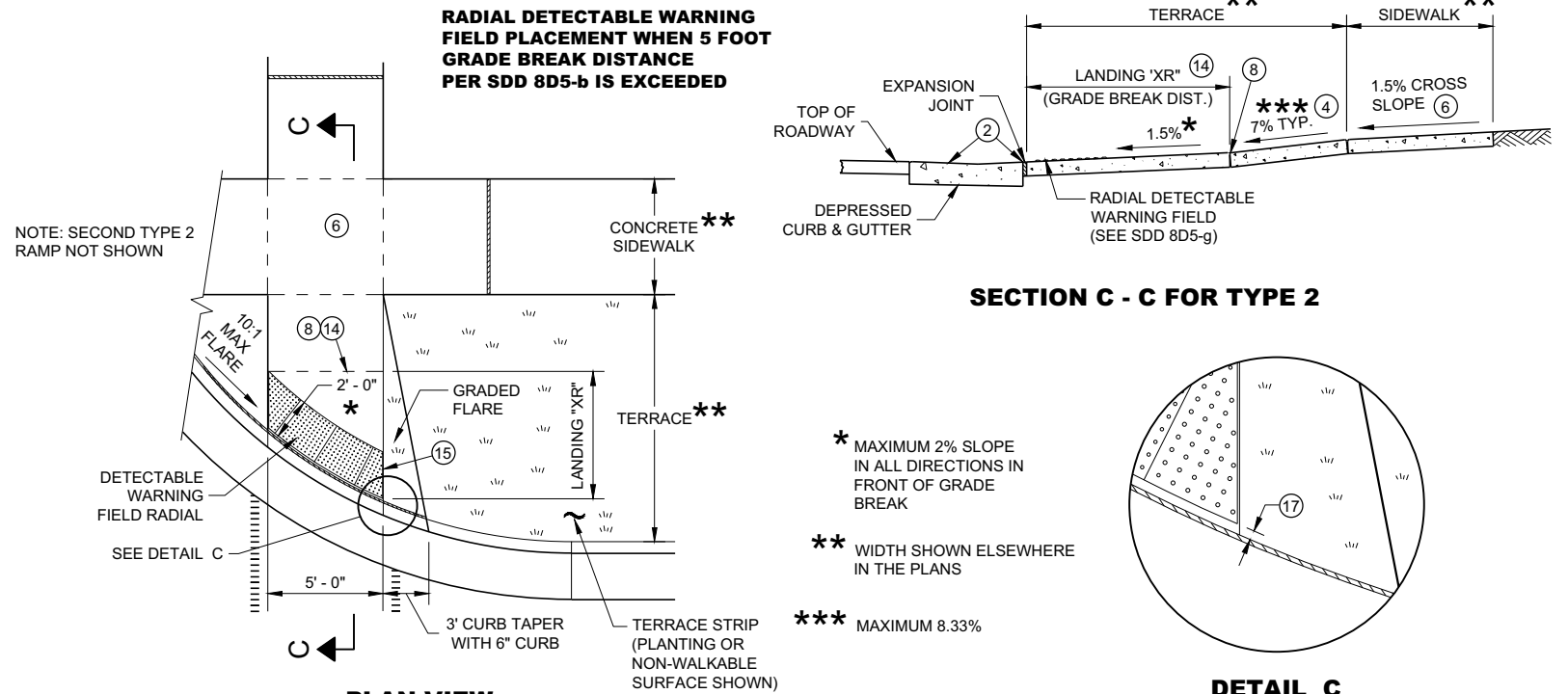
**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%



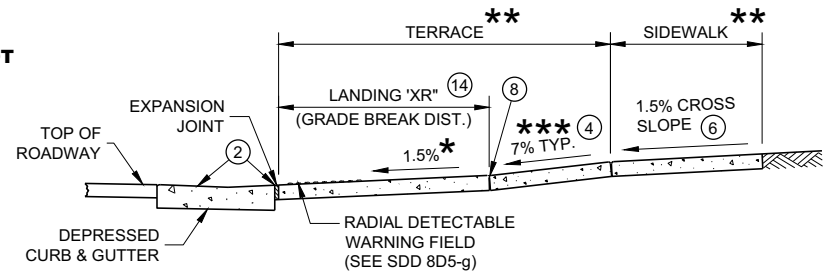
DETAIL B

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



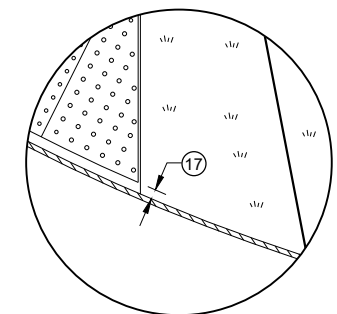
PLAN VIEW CURB RAMP TYPE 2 (GRADE BREAK DISTANCE GREATER THAN 5 FEET) (ON LINE WITH SIDEWALK)

NOTE: SECOND TYPE 2 RAMP NOT SHOWN



SECTION C - C FOR TYPE 2

- * MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- *** MAXIMUM 8.33%



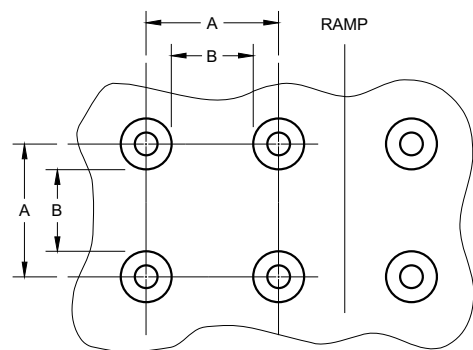
DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

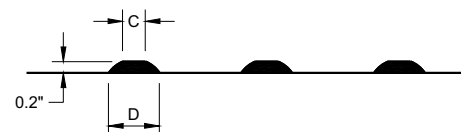
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

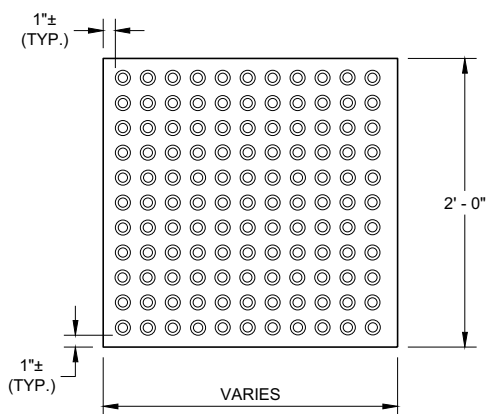


PLAN VIEW

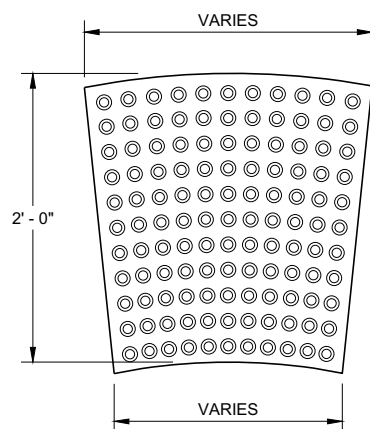


ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**

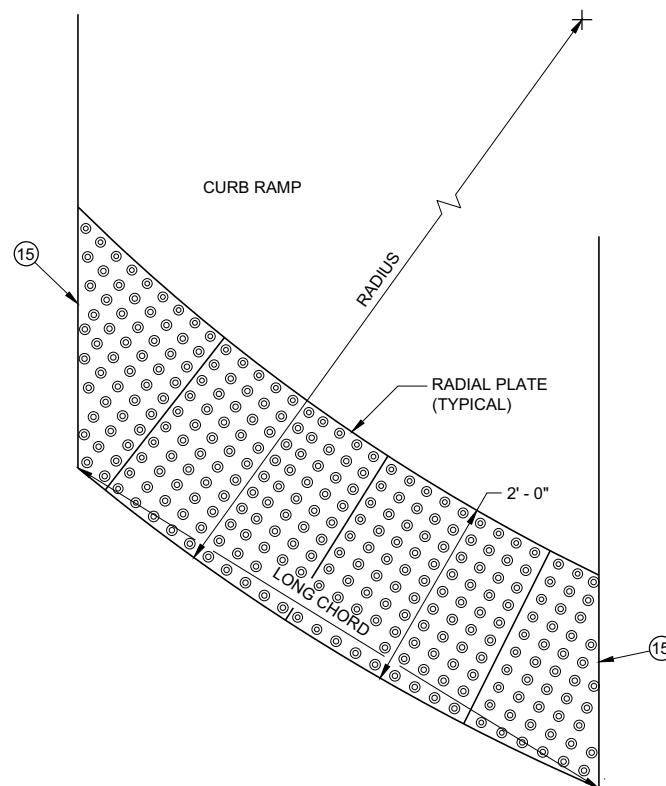


**RECTANGULAR
PLATES**

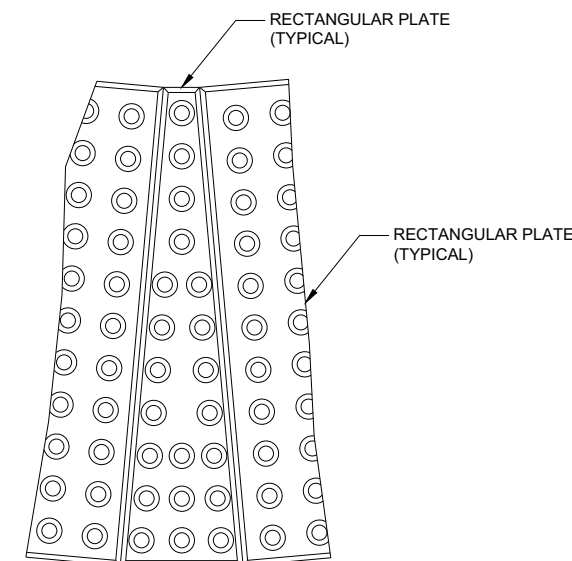


**RADIAL
PLATES**

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



**PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES**



**PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL**

GENERAL NOTES

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

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

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

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

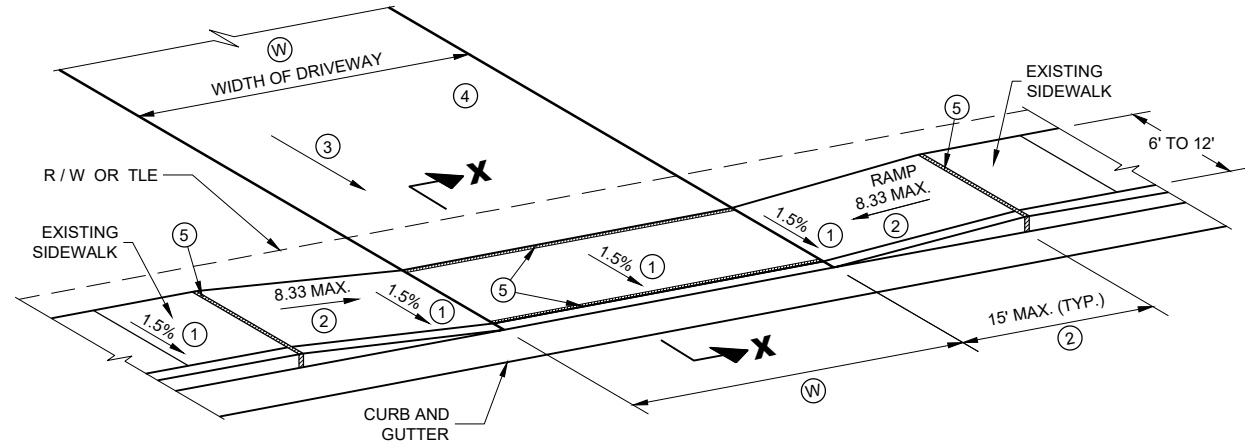
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE.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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

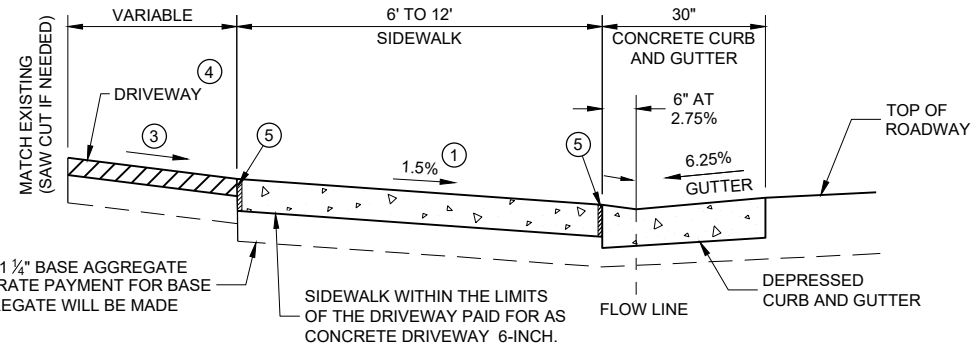
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

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

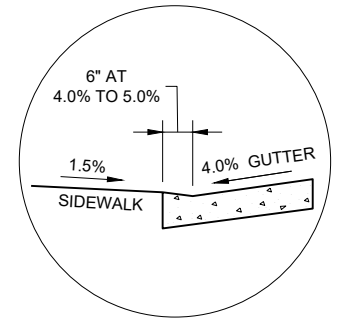
CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	



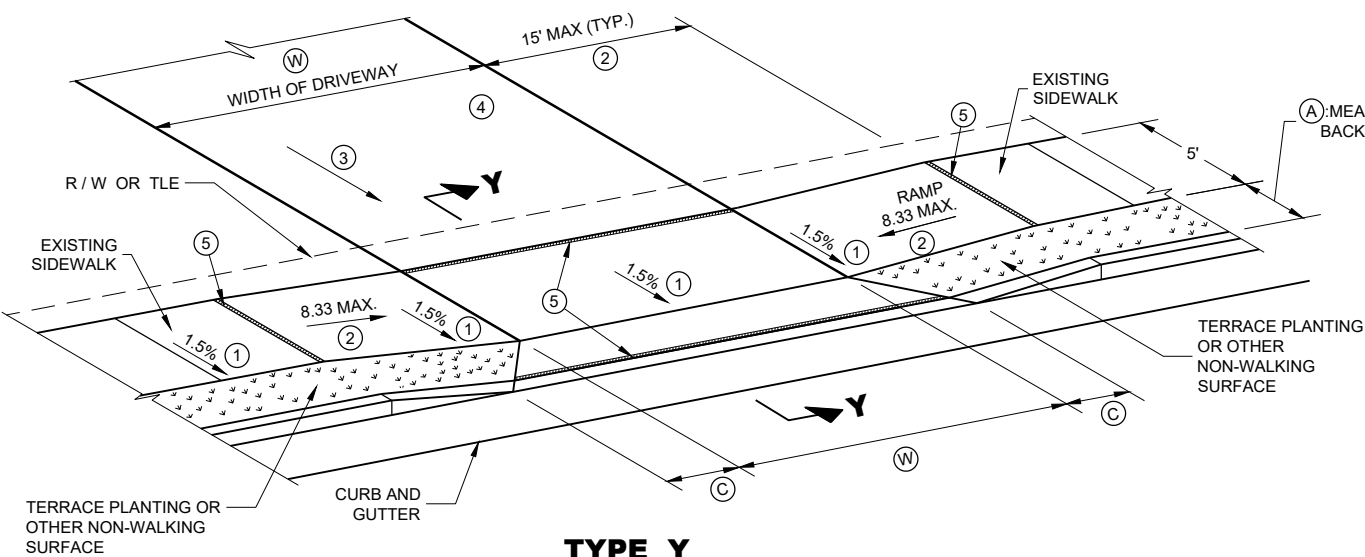
TYPE X
SIDWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



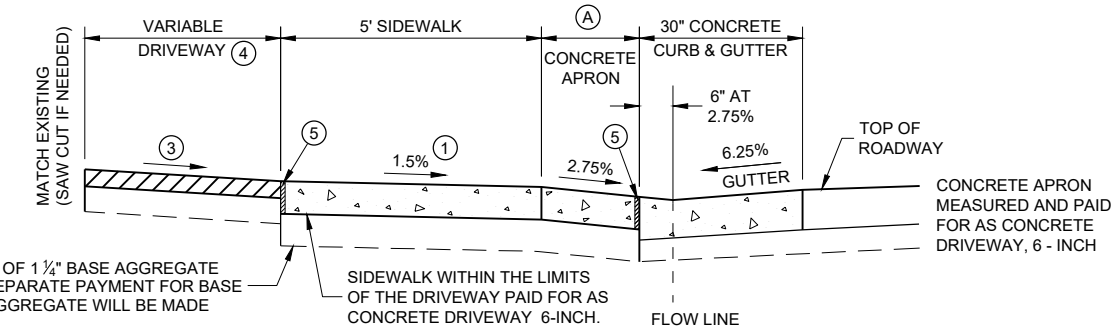
SECTION X - X



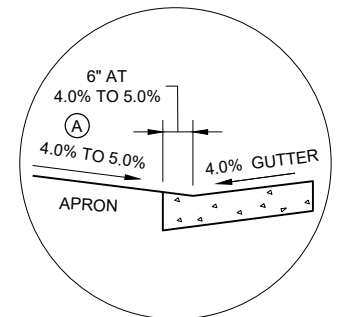
SECTION X - X
4% GUTTER SLOPE



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



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



SECTION Y - Y
4% GUTTER SLOPE

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

TABLE Y

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

(A): MEASURE FROM BACK OF CURB

6" OF 1 1/4" BASE AGGREGATE SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

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

- ① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- ② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

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

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

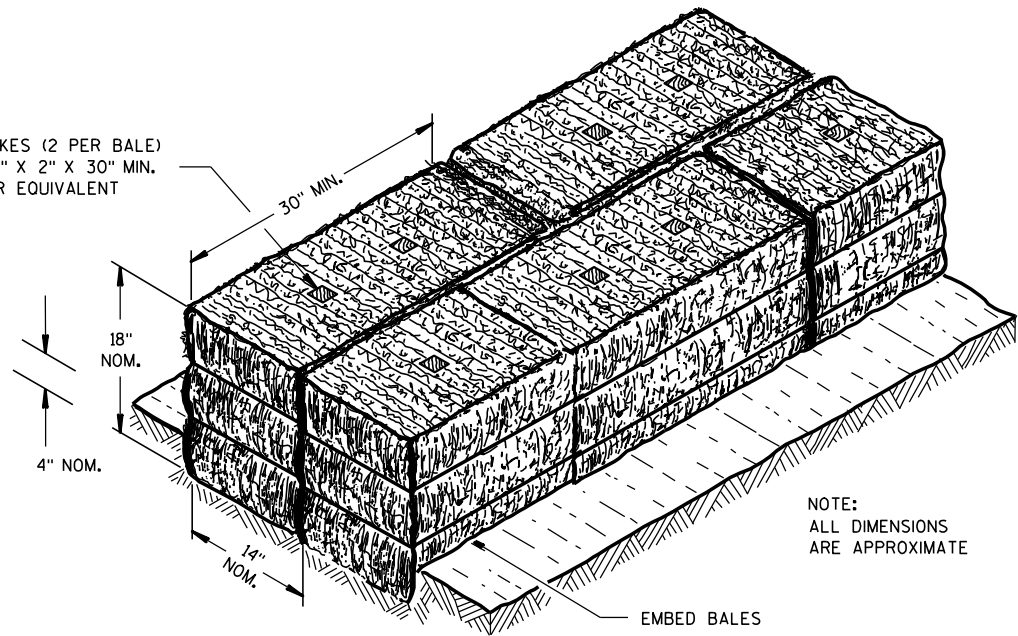
- ⑤ 1/2" EXPANSION JOINT FILLER

DRIVEWAY AND
SIDWALK RAMPS
TYPES X AND Y

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 February 2022 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT
 ENGINEER

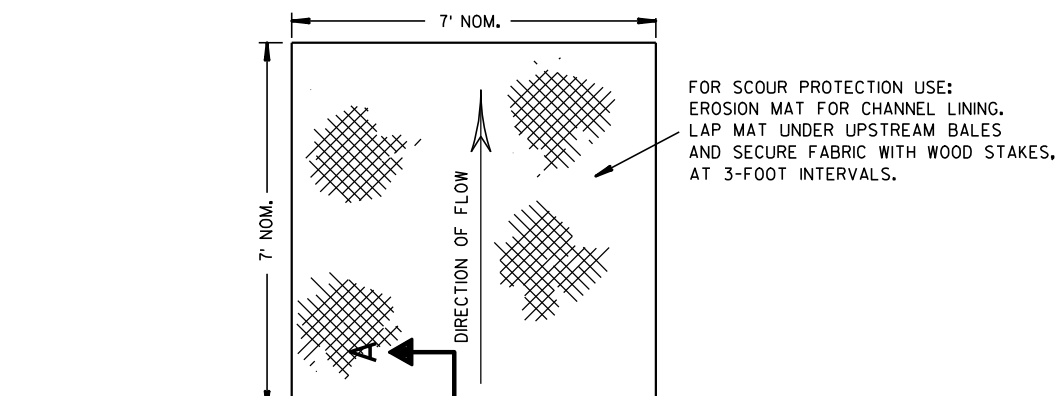
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



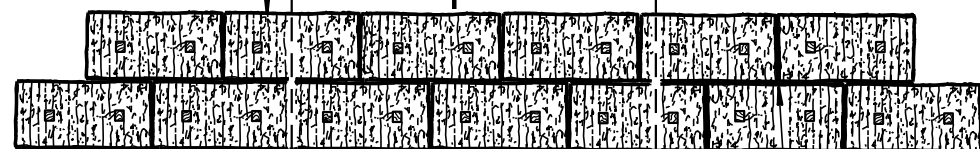
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



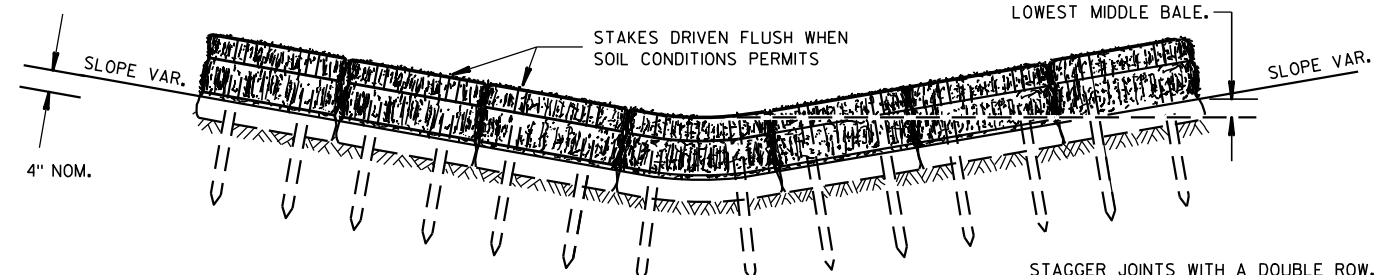
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

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



FRONT ELEVATION

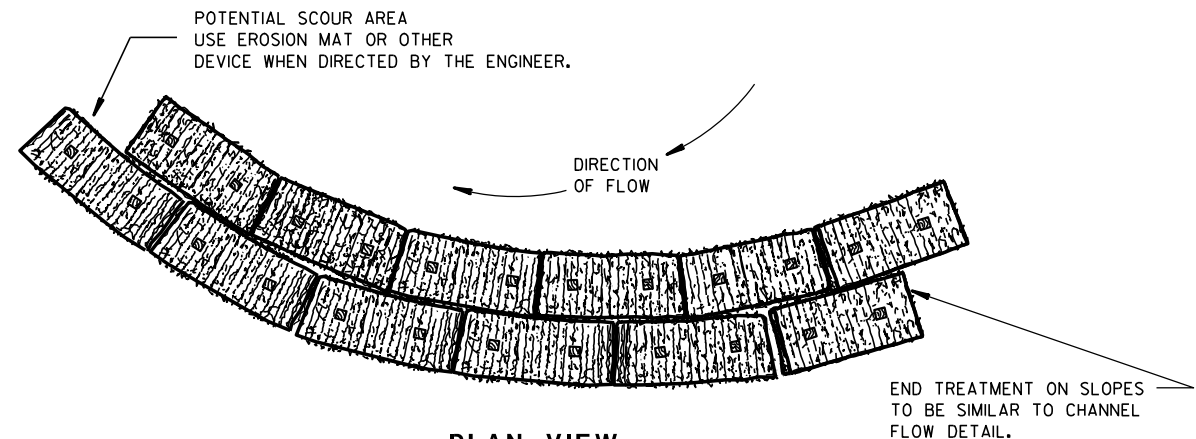
STAGGER JOINTS WITH A DOUBLE ROW.

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

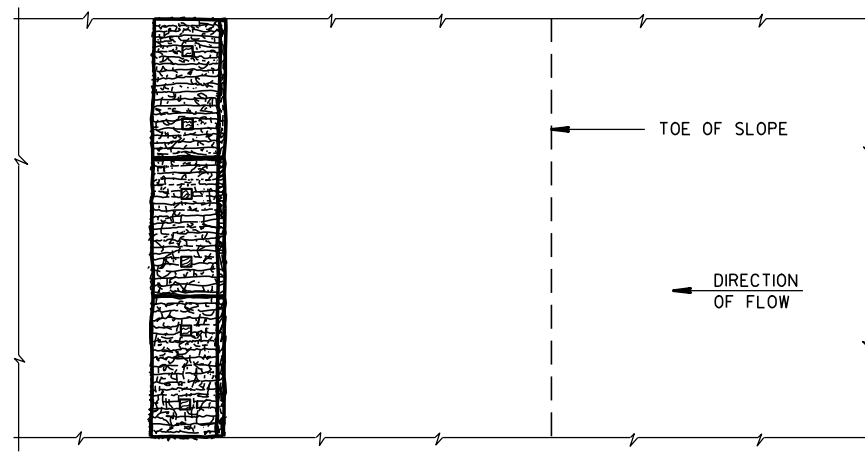
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

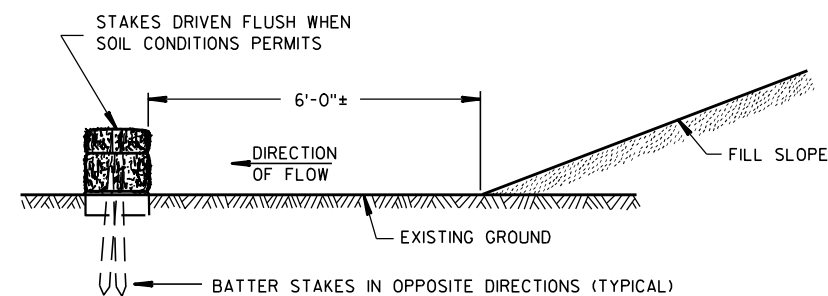


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

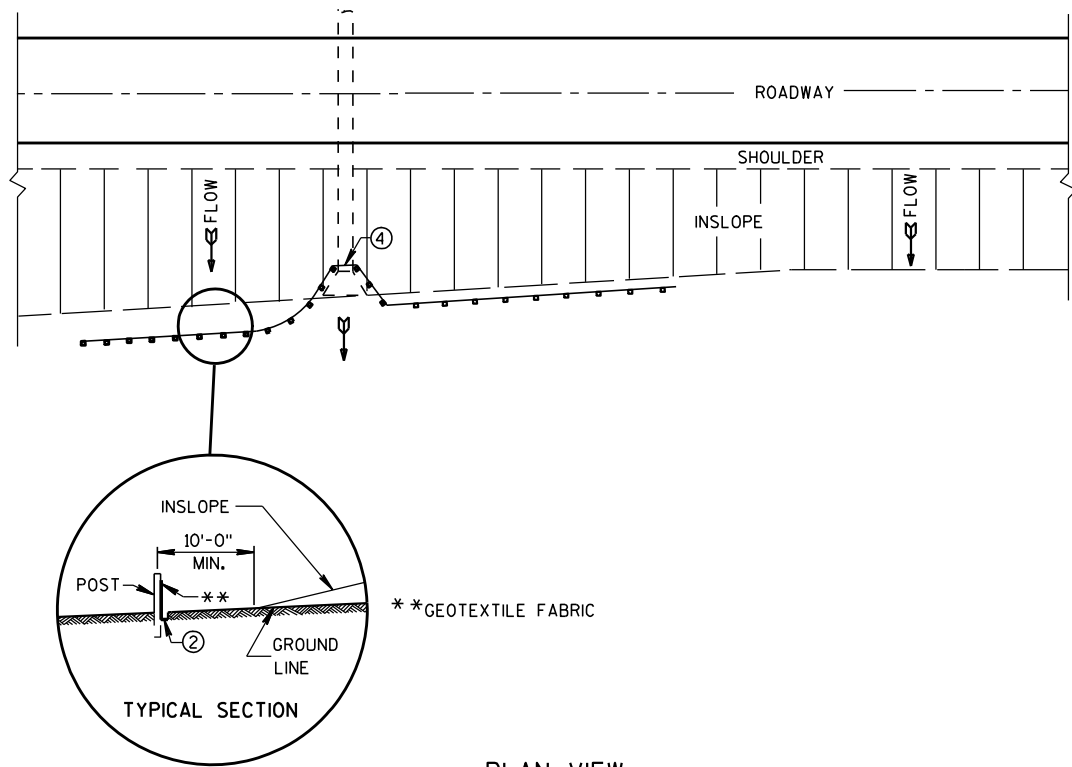
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

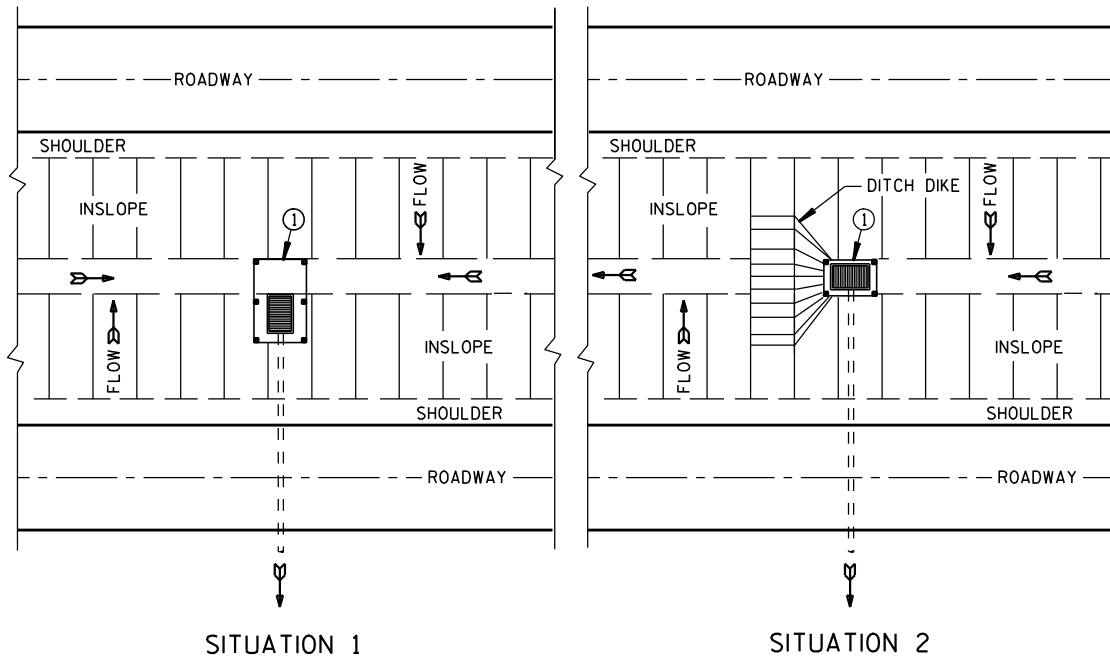
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

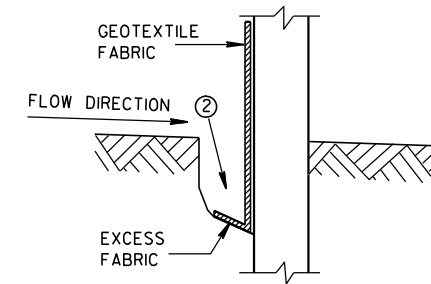


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

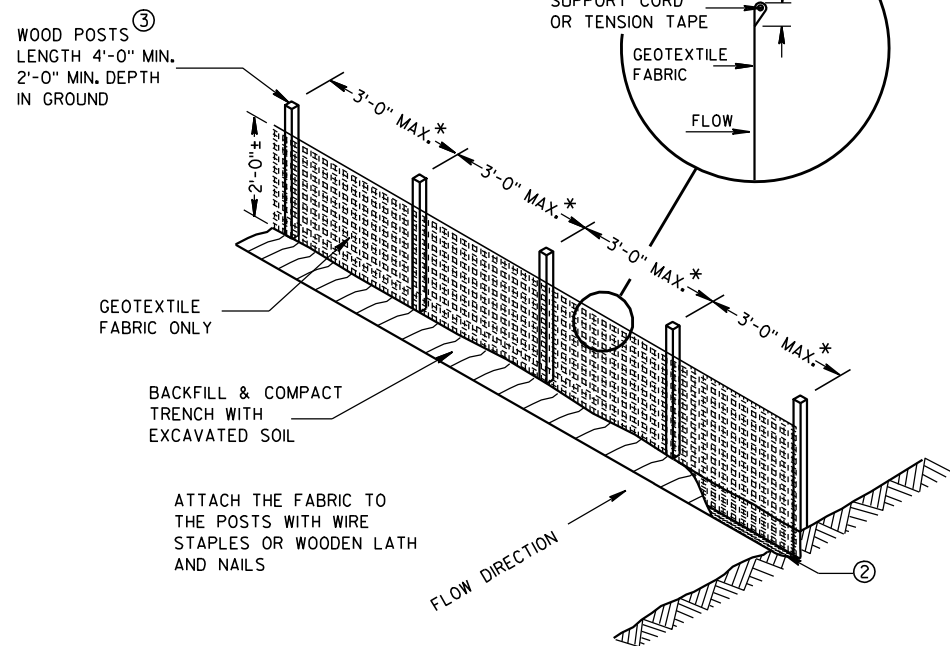
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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



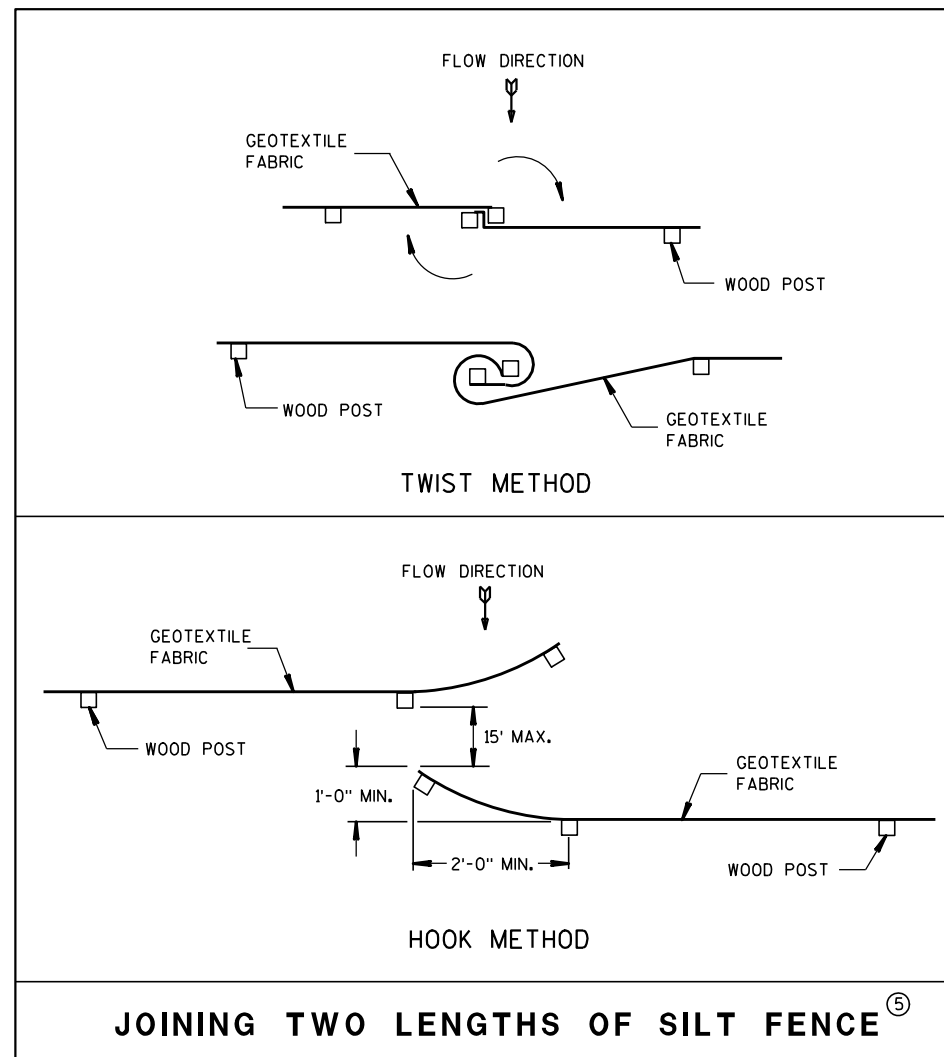
TRENCH DETAIL

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

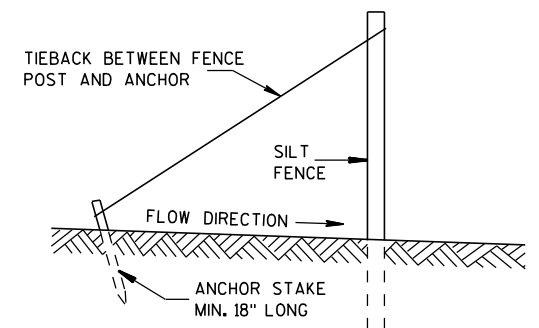


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

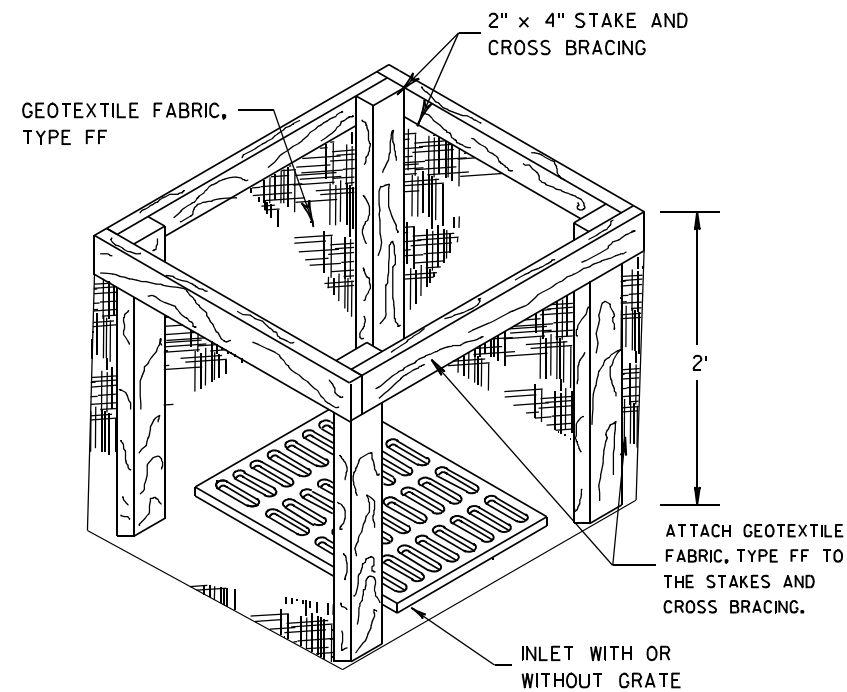
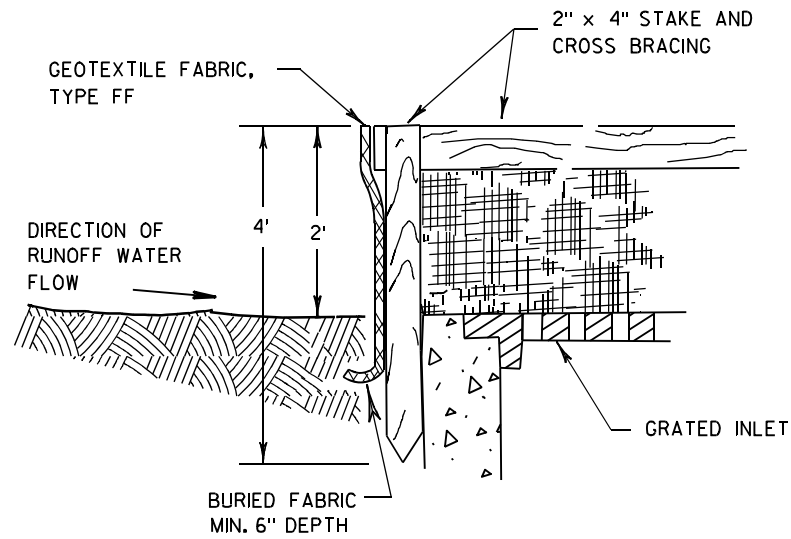
APPROVED

4-29-05

DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

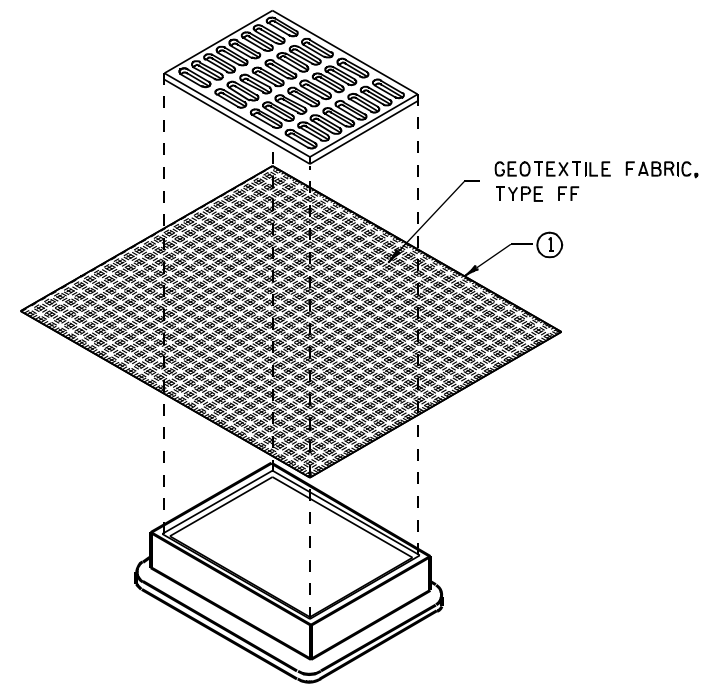
GENERAL NOTES

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

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

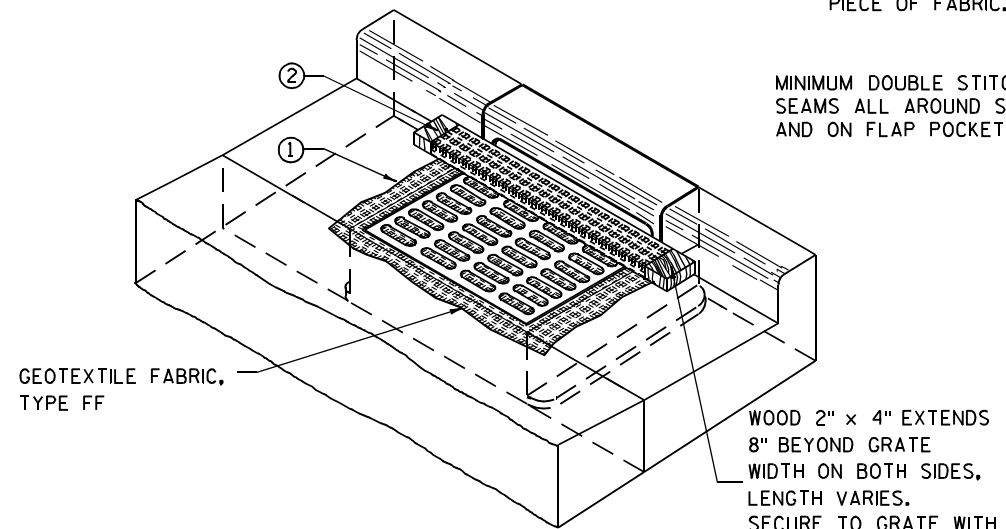
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

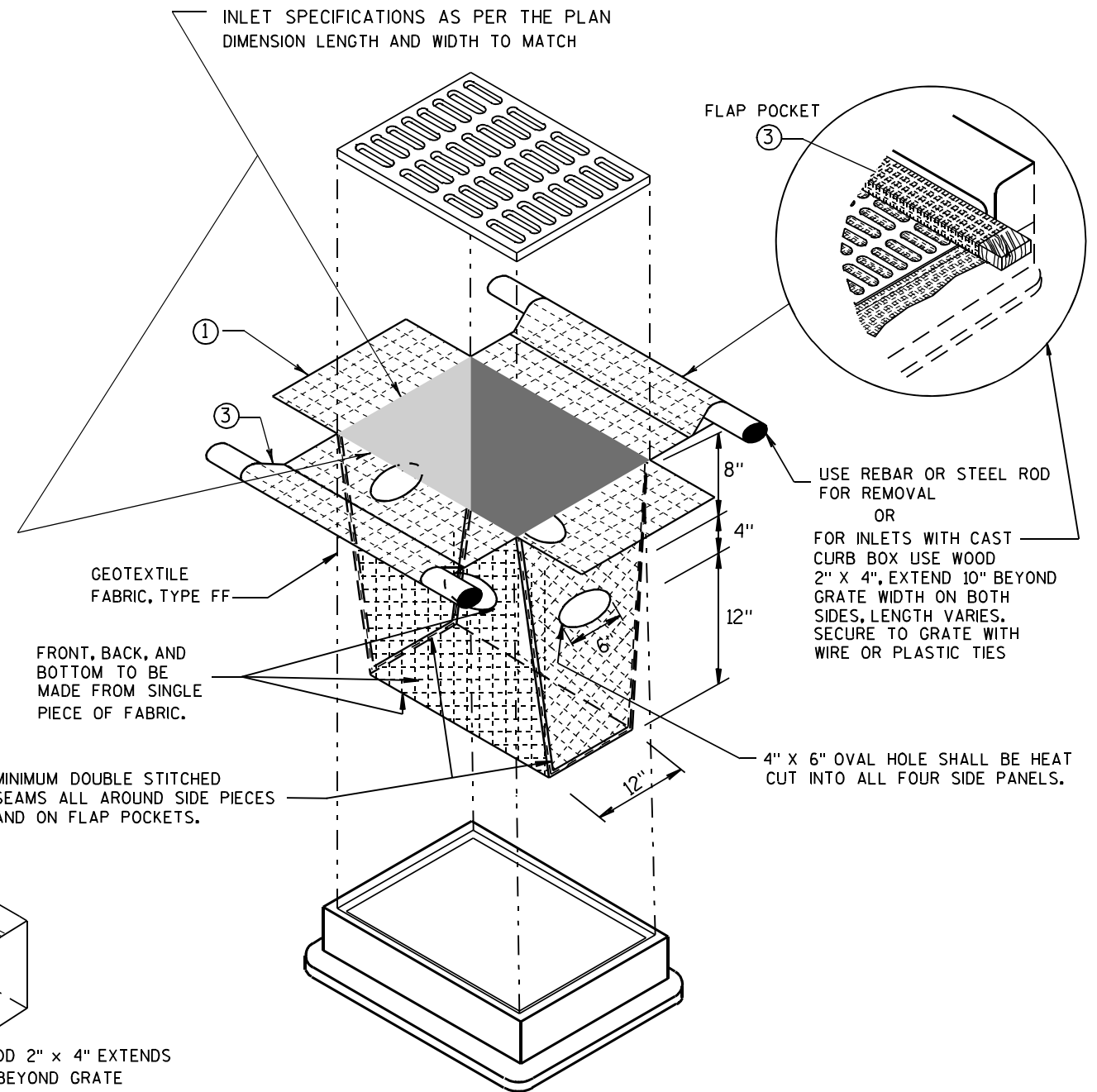
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

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

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

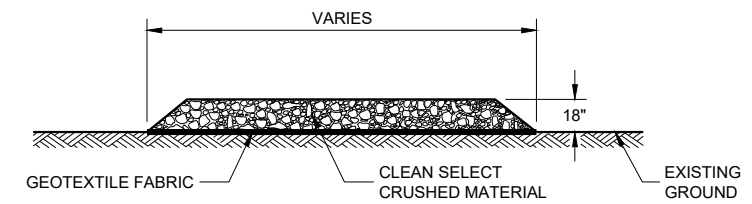
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

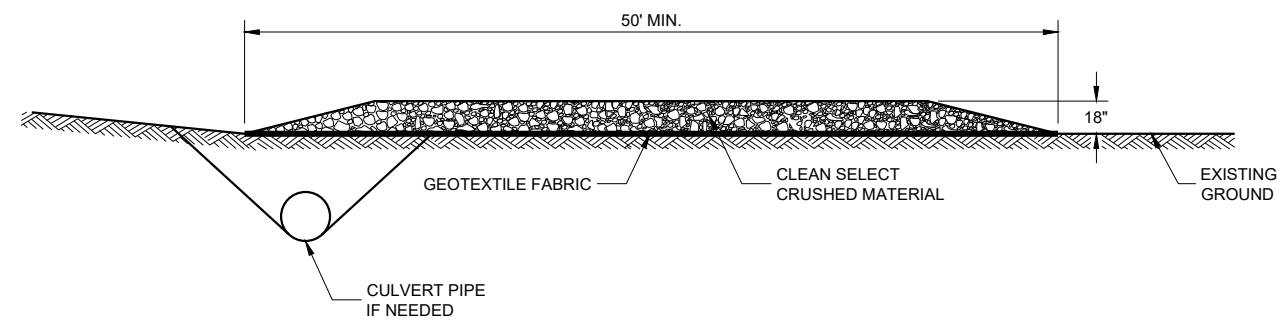
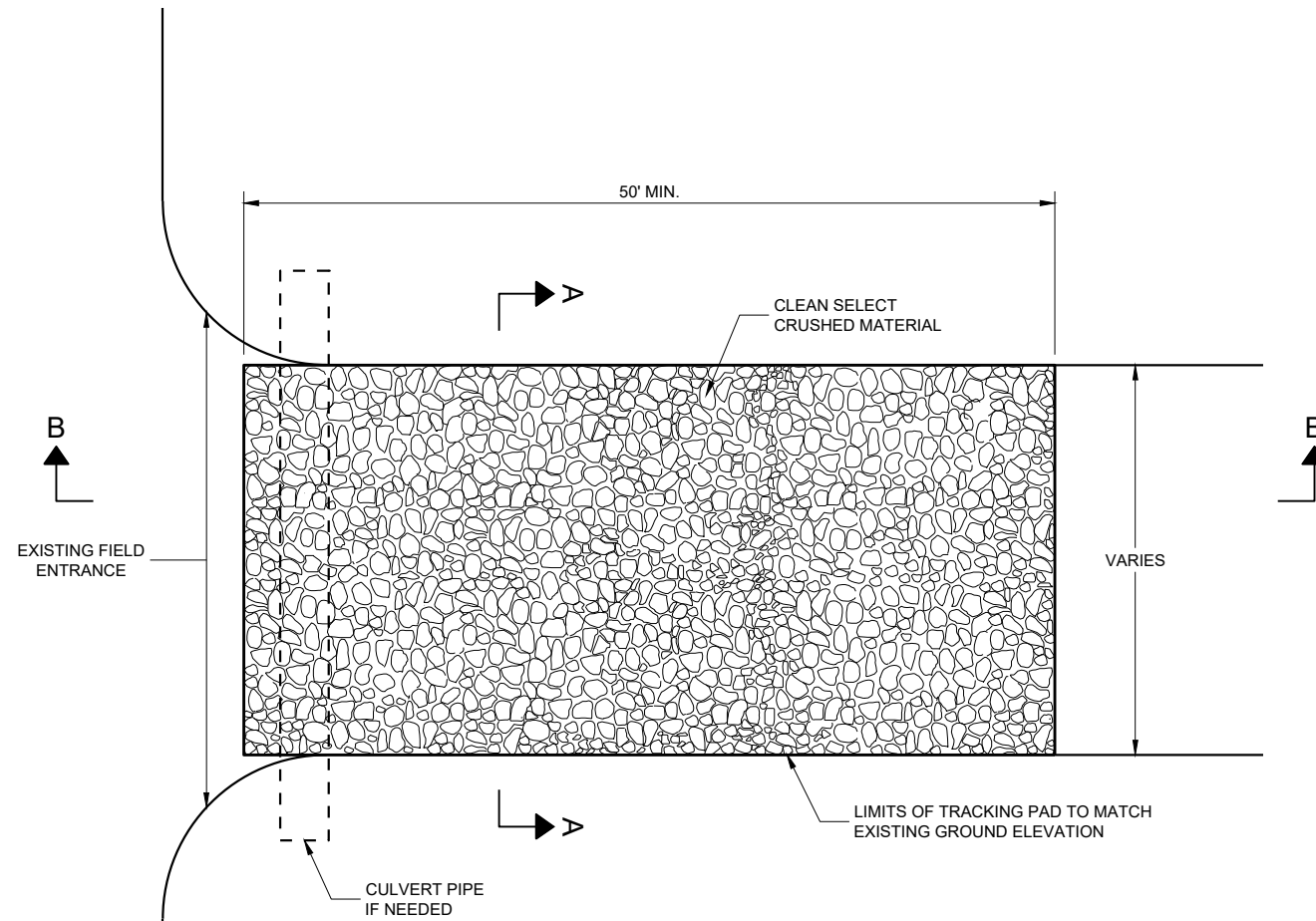
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

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

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



SECTION A - A



SECTION B - B

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

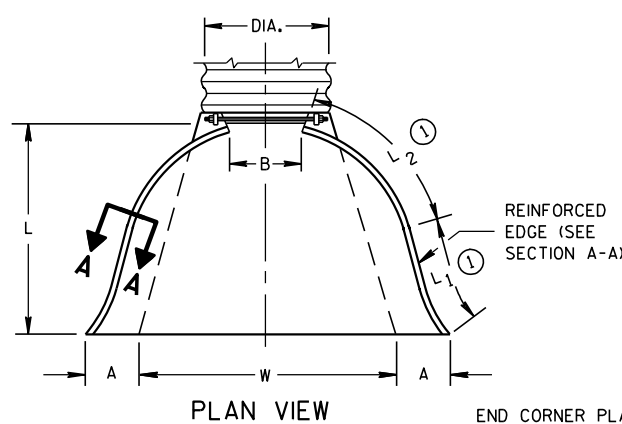
FHWA

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

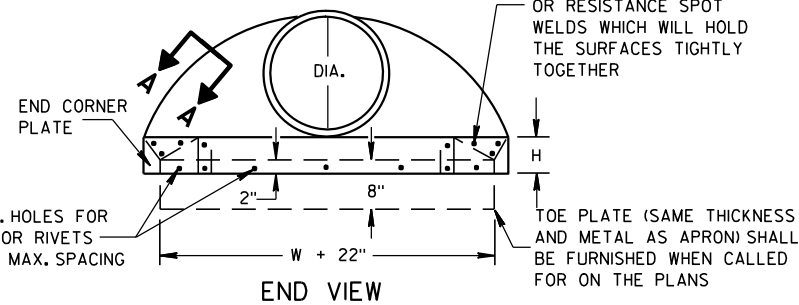
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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

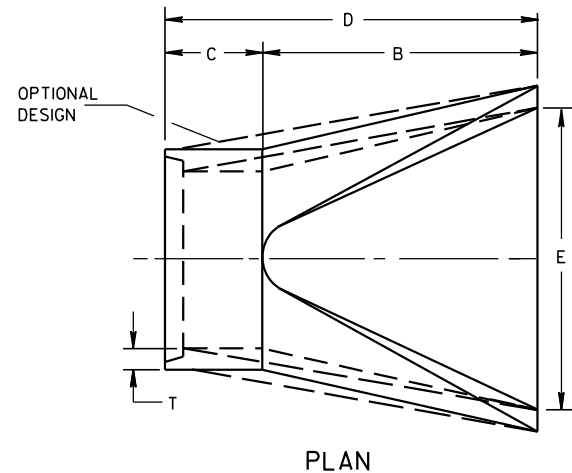
* MINIMUM
** MAXIMUM



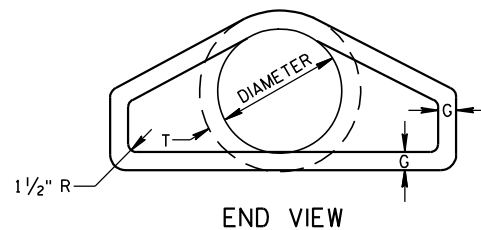
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



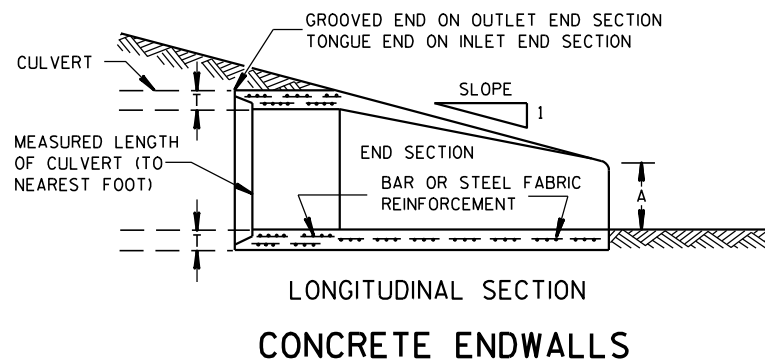
SIDE ELEVATION
METAL ENDWALLS



PLAN

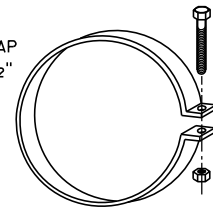


END VIEW

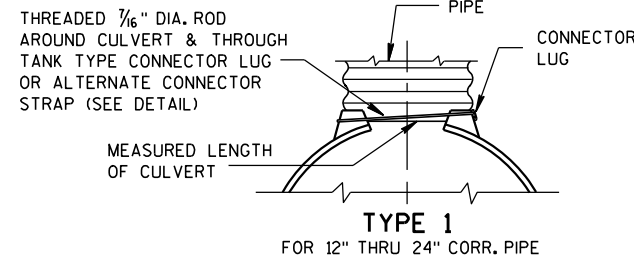


LONGITUDINAL SECTION
CONCRETE ENDWALLS

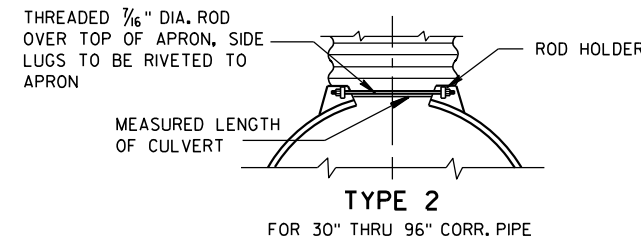
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



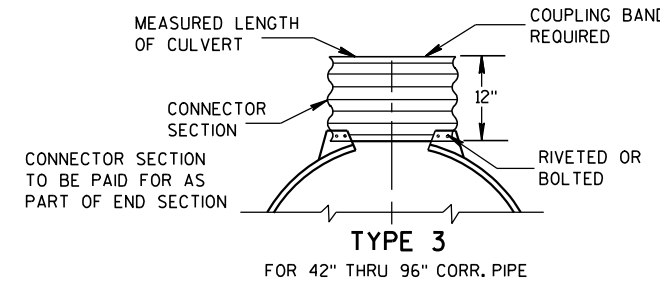
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



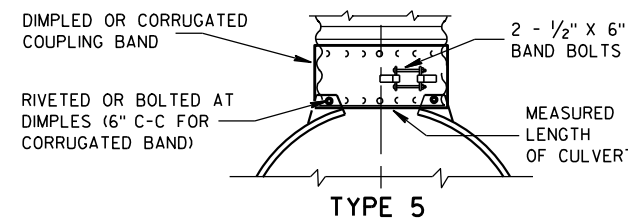
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

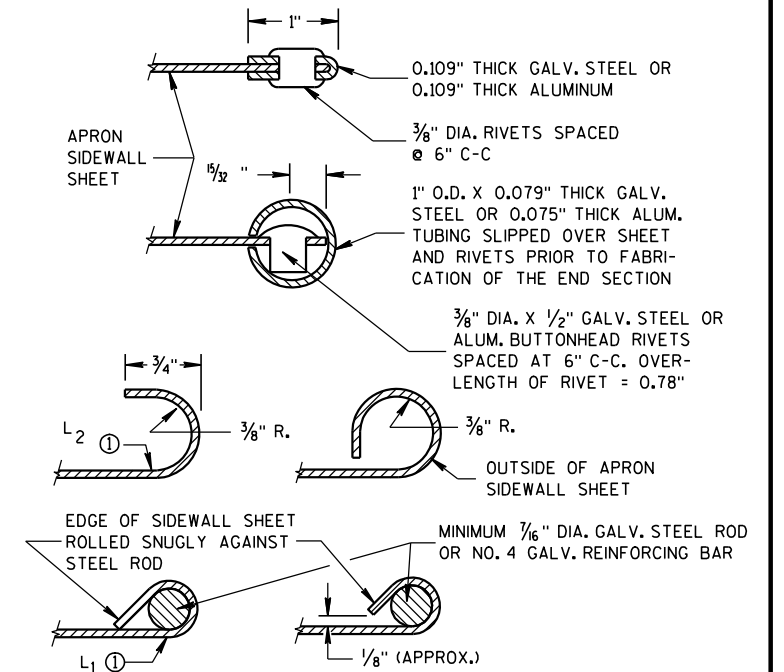
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

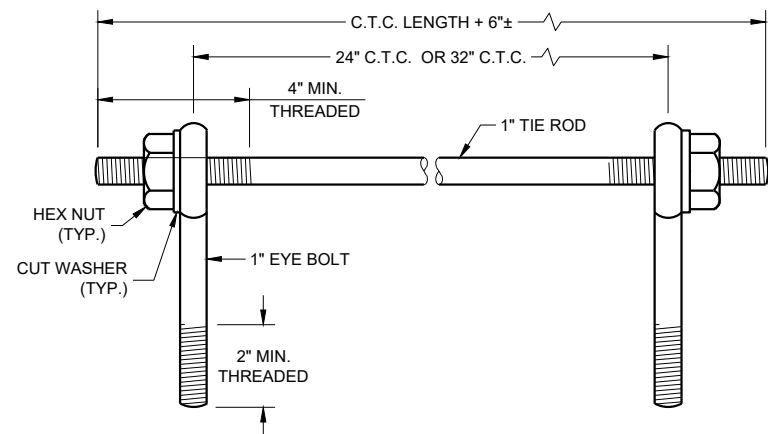
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

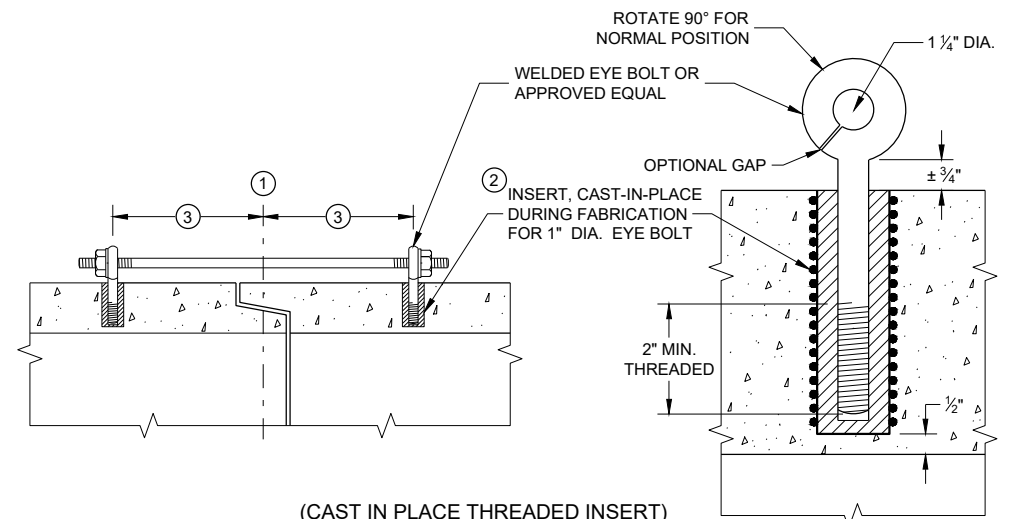
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

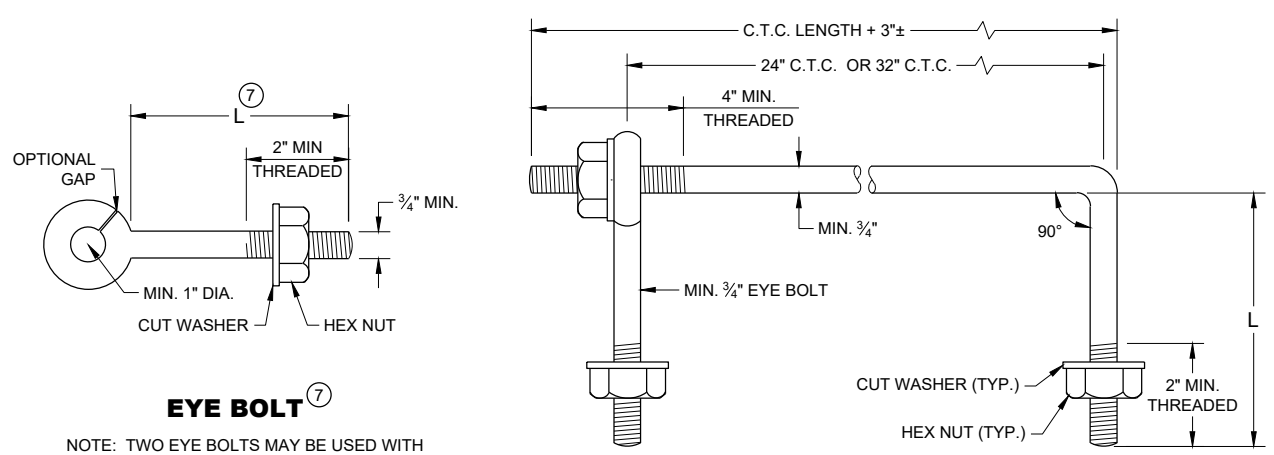
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

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

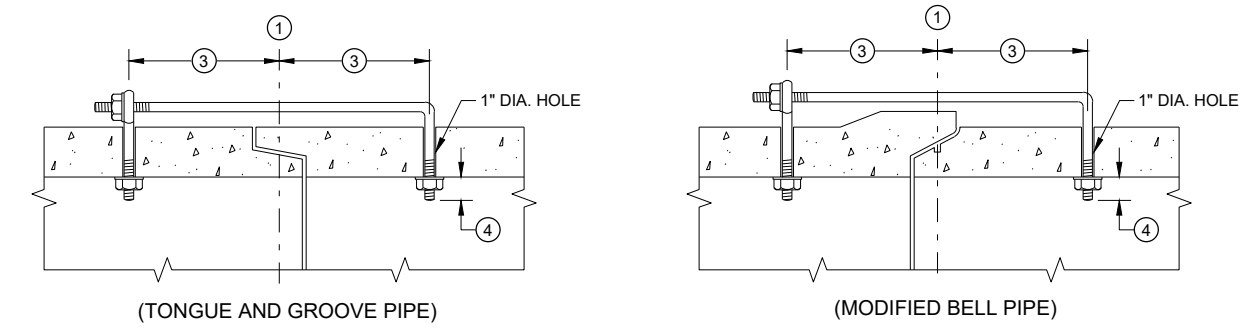
- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION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



EYE BOLT

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

EYE BOLT AND TIE ROD



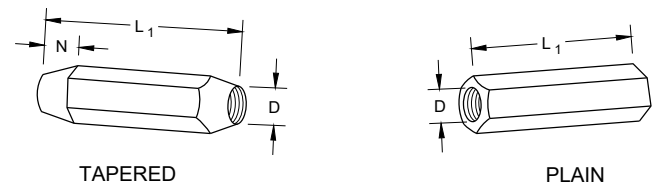
LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

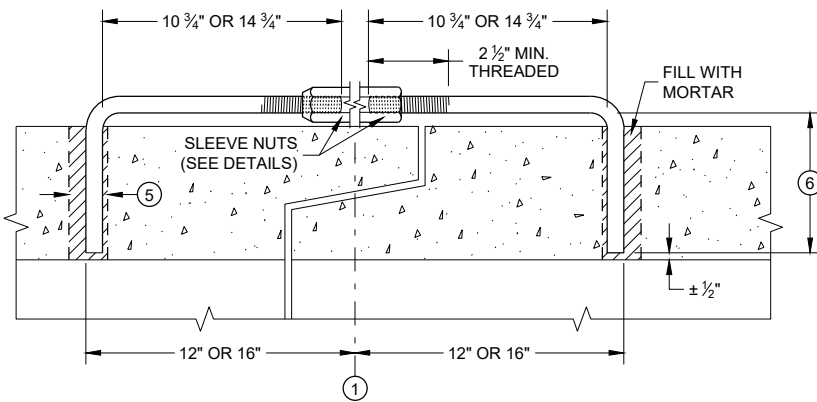
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

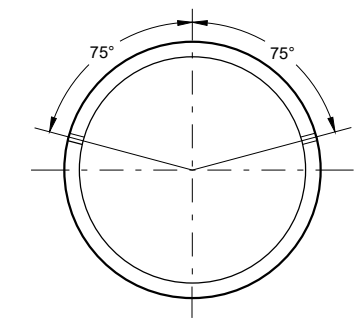


RIGHT AND LEFT THREADS SLEEVE NUTS



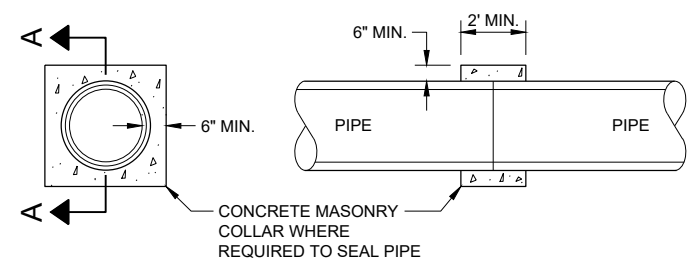
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



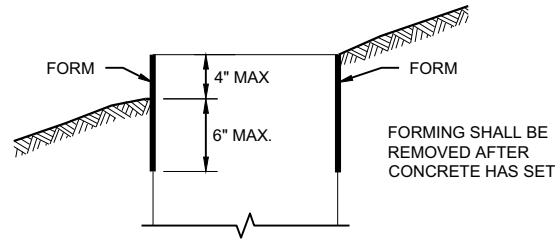
SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

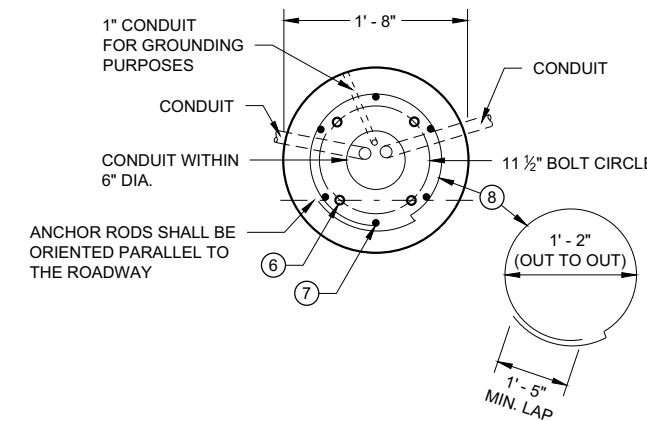
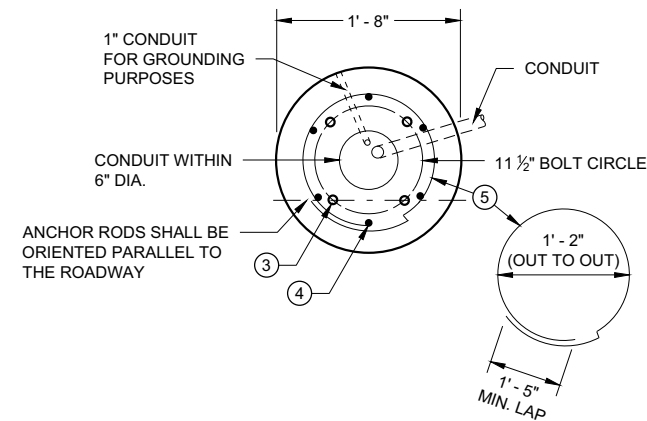
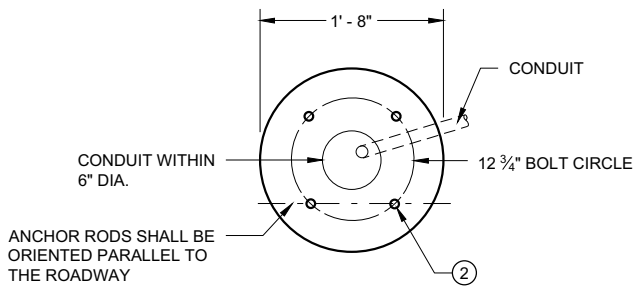
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

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

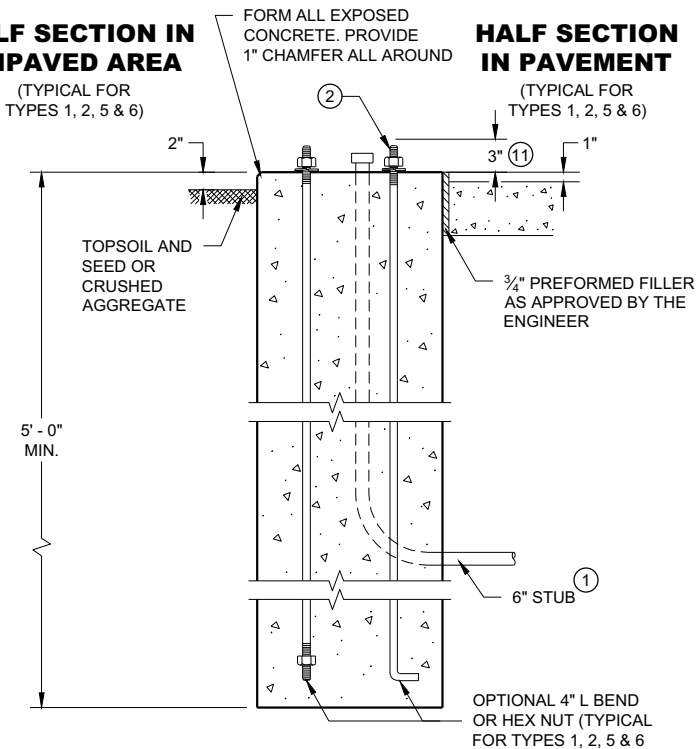
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

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

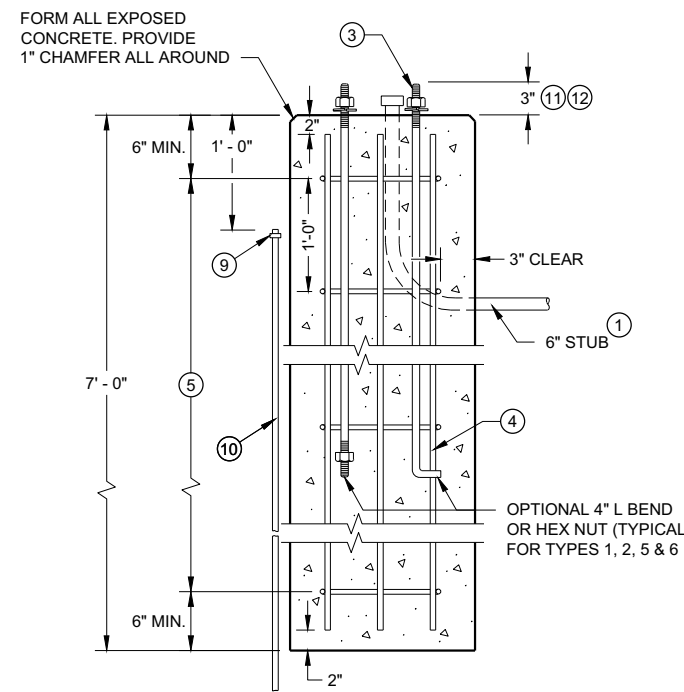


HALF SECTION IN UNPAVED AREA

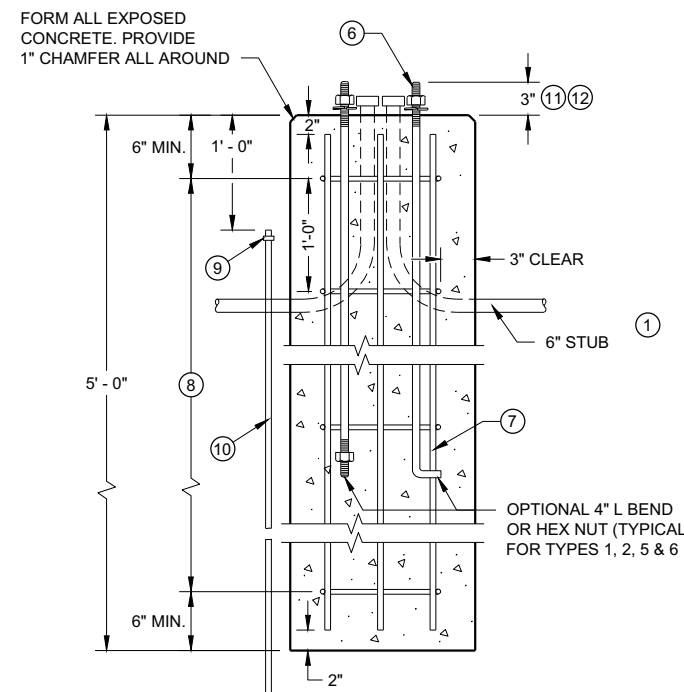


TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2



TYPE 5 & 6

CONCRETE BASES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

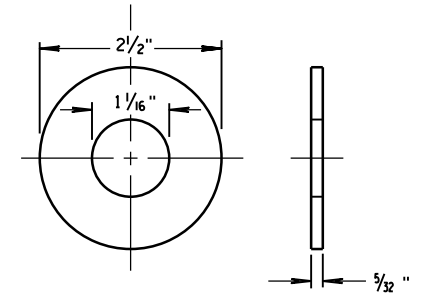
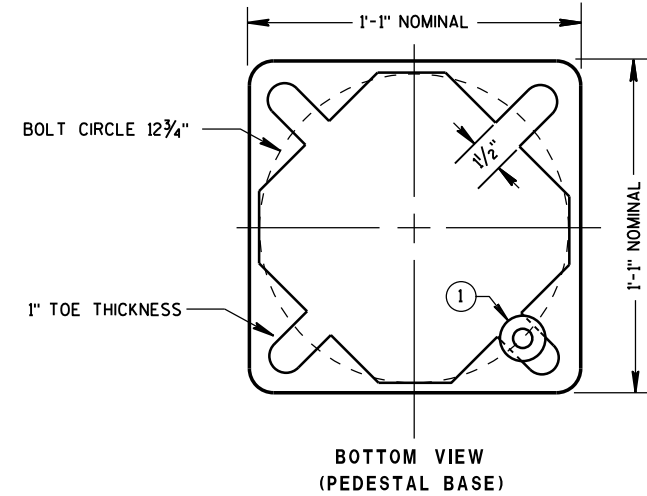
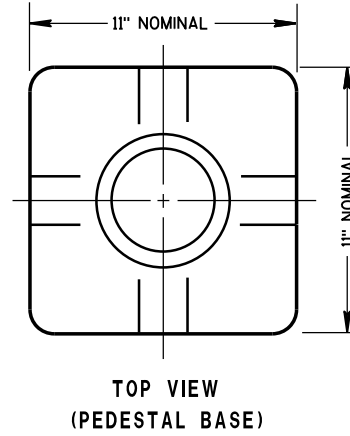
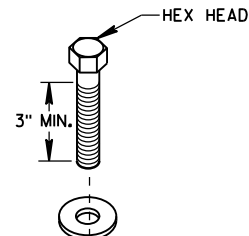
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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

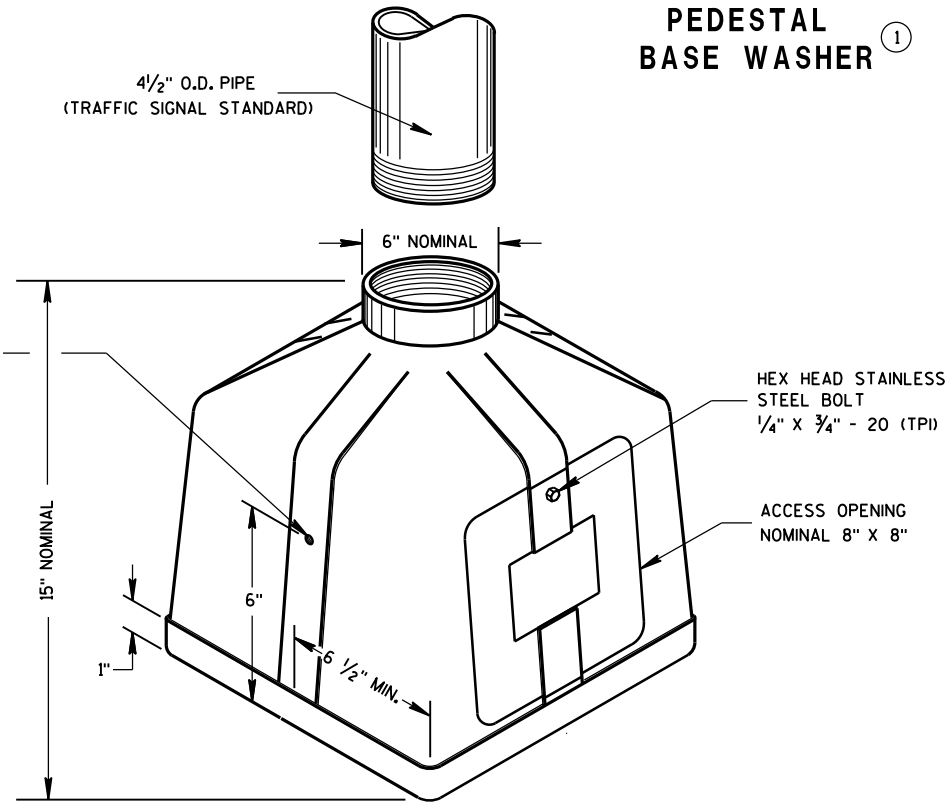
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

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

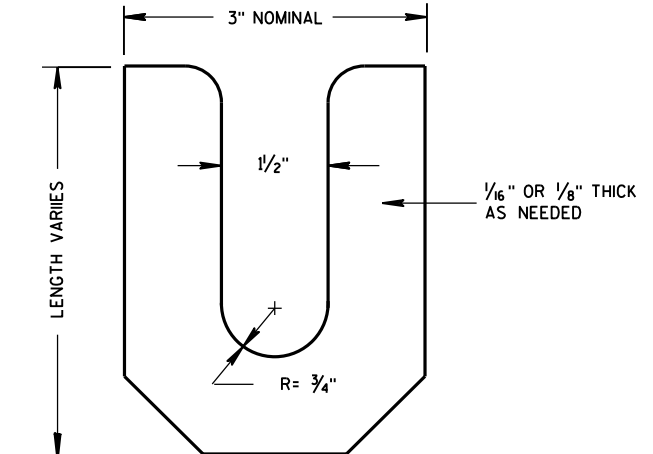
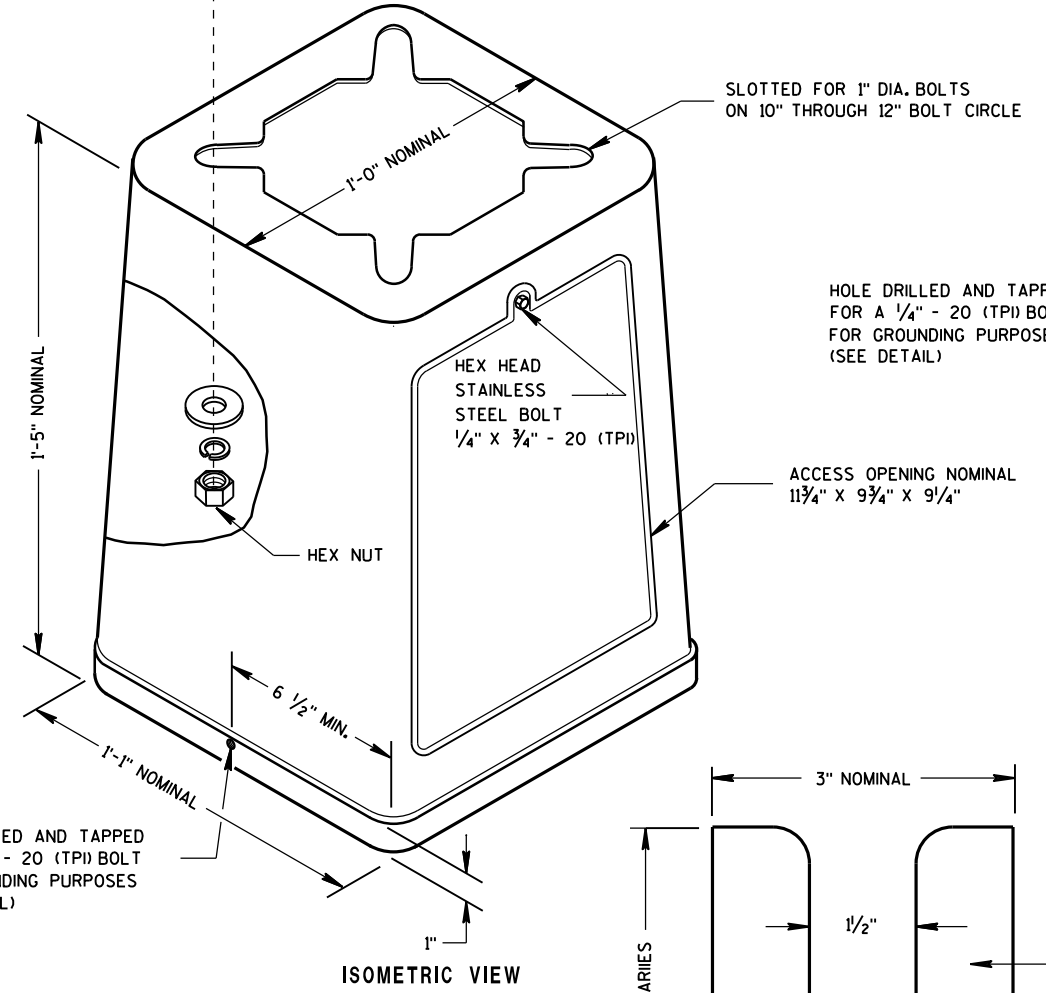
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



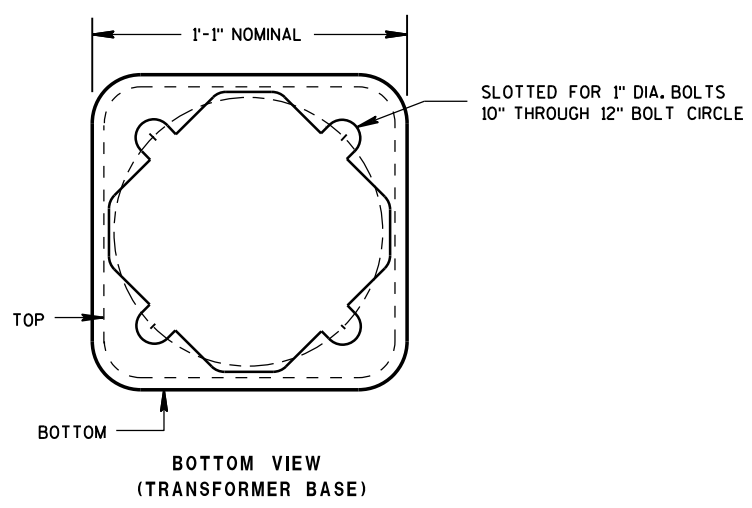
ZINC COATED STEEL WASHER TO BE PROVIDED BY THE CONTRACTOR
PEDESTAL BASE WASHER ①



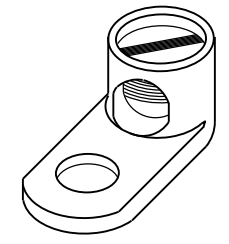
ISOMETRIC VIEW PEDESTAL BASE



LEVELING SHIM



BOTTOM VIEW (TRANSFORMER BASE)



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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

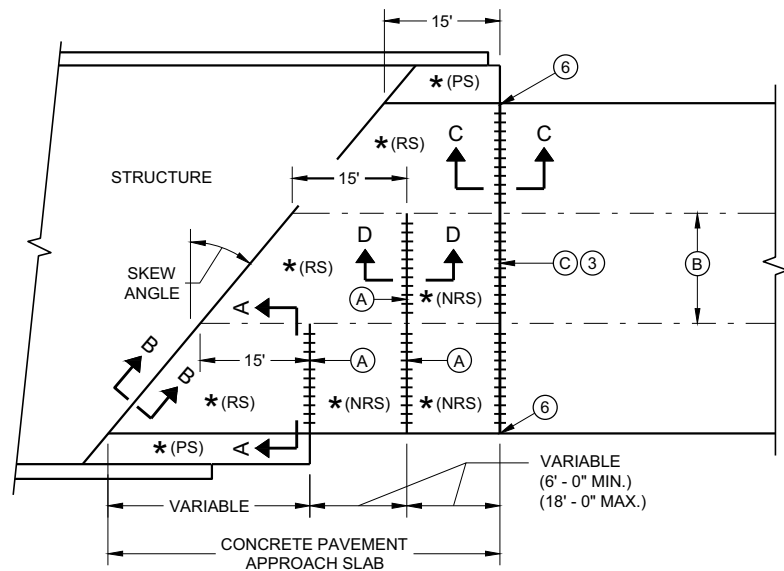
TRANSFORMER/PEDESTAL BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

6

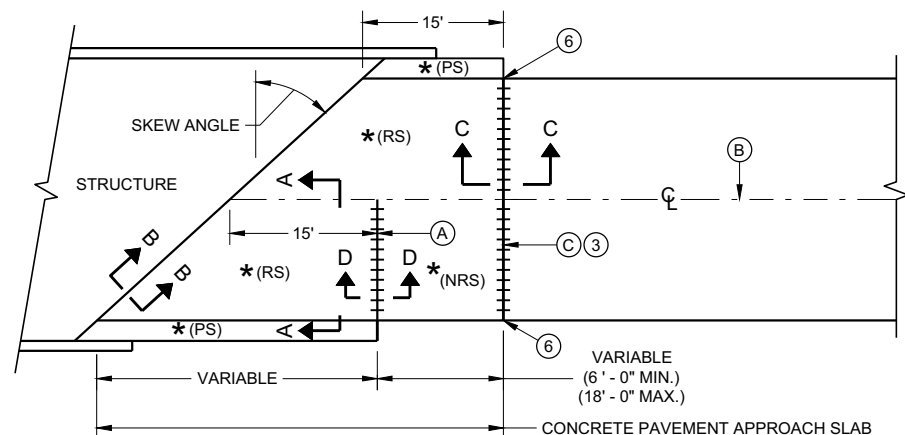
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S.D.D. 9 C 3-4

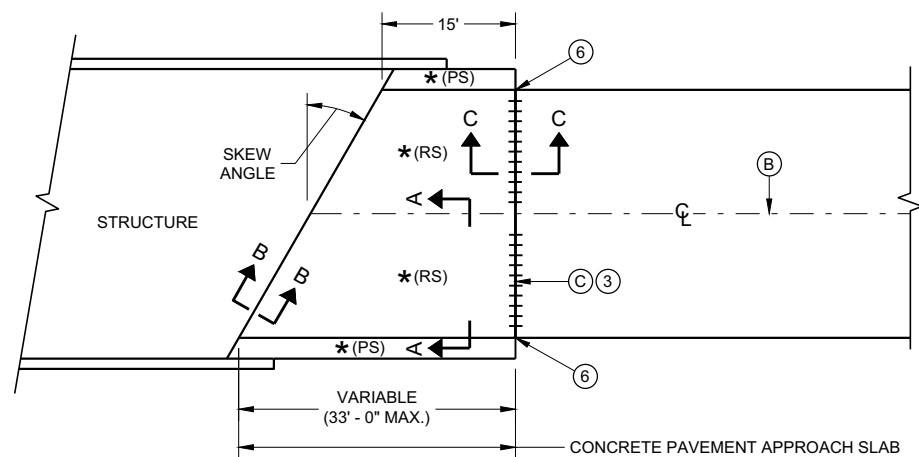
S.D.D. 9 C 3-4



**SKewed Approach
(Pavement more than two lanes)**

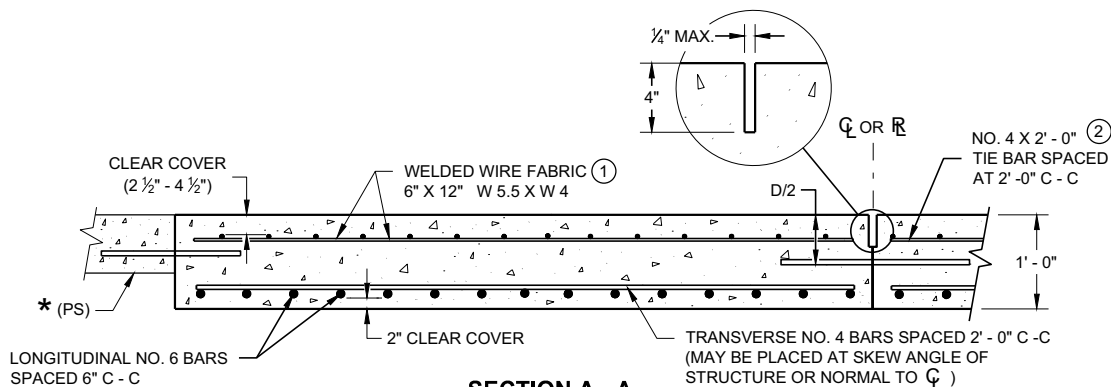


**Skews > 20°
(Pavement width ≤ 30')**

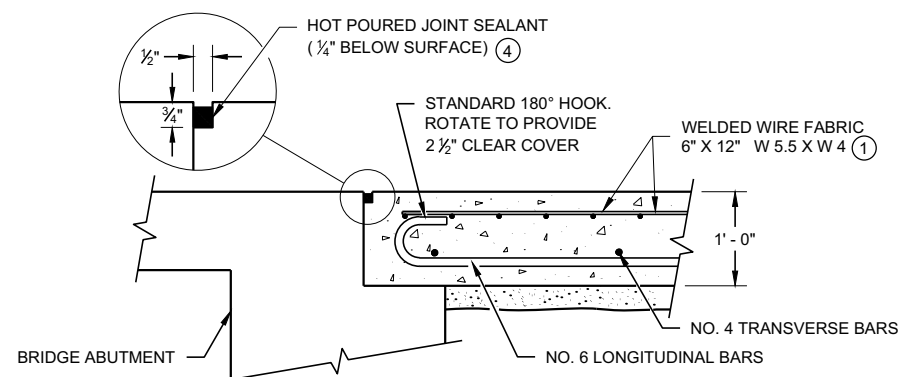


**Skews ≤ 20°
(Pavement width ≤ 30')**
Approach Slab and Adjacent Pavement

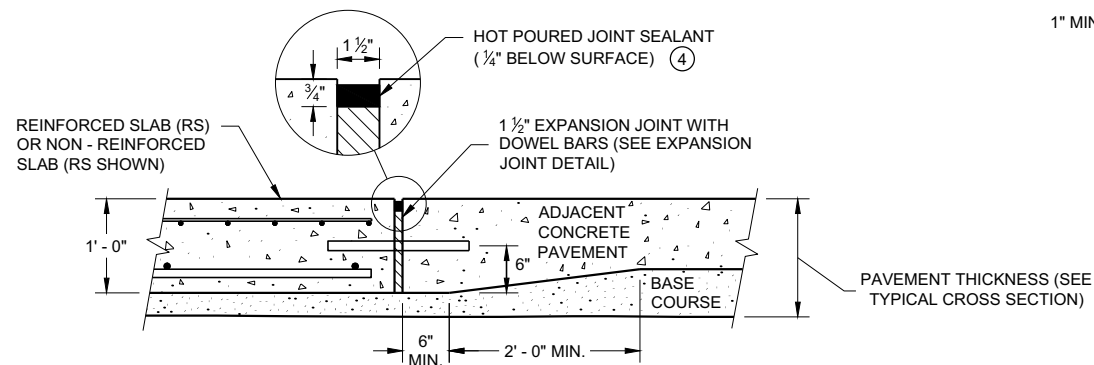
- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) = NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



**SECTION A - A
REINFORCEMENT POSITIONING DETAIL**



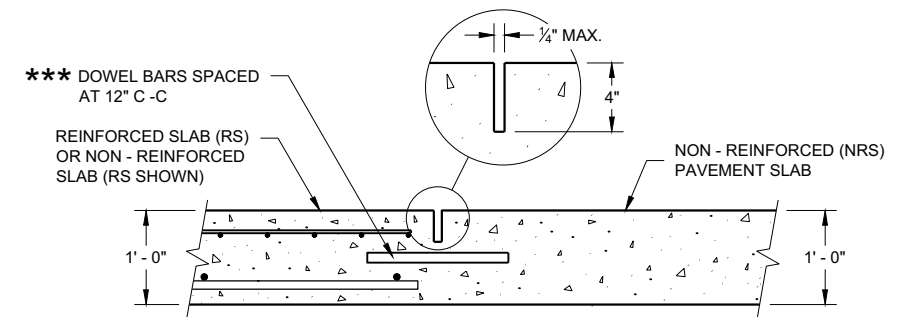
**SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT**



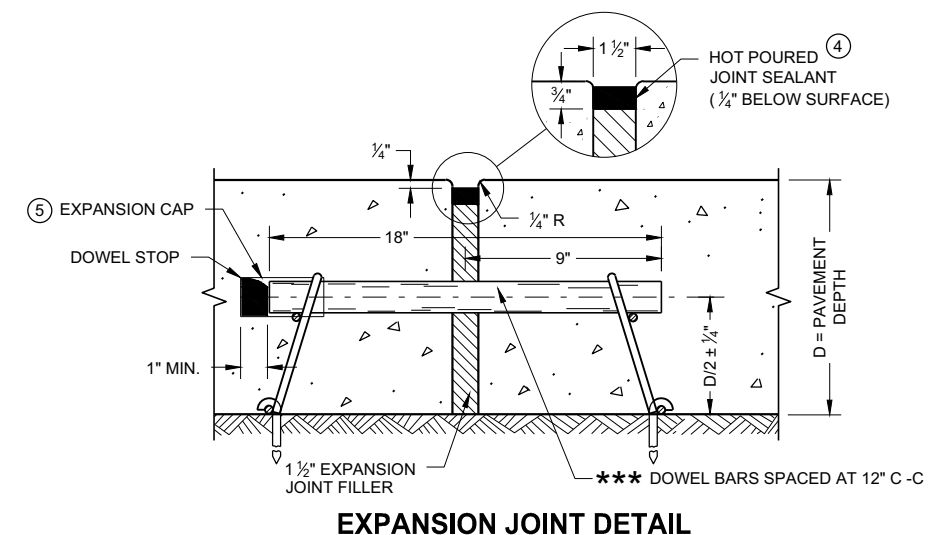
**SECTION C - C
TRANSITION DETAIL
Approach Slab to Adjacent Pavement**

GENERAL NOTES

- THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.
- TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.
- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
 - ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
 - ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
 - ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
 - ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
 - ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
 - (A) STANDARD CONTRACTION JOINT NORMAL TO \bar{C} OR \bar{R} .
 - (B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
 - (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO \bar{C} OR \bar{R} .



**SECTION D - D
CONTRACTION JOINT**



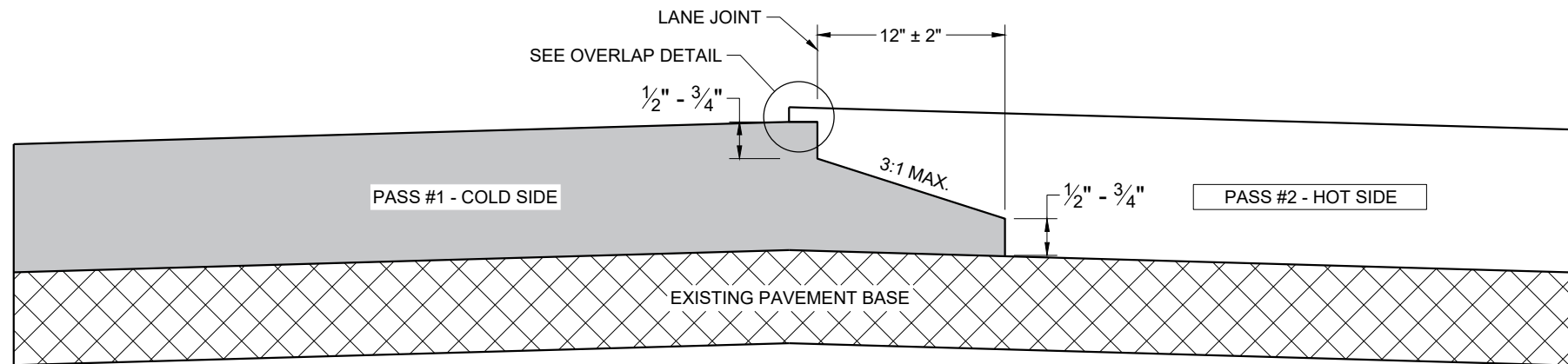
EXPANSION JOINT DETAIL

**CONCRETE PAVEMENT
APPROACH SLAB**

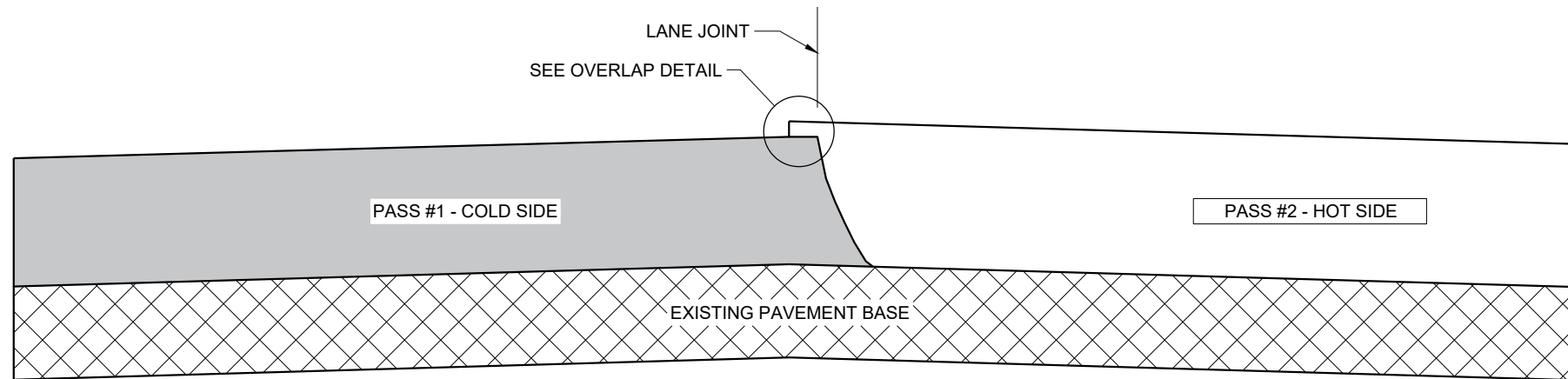
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp, P.E.
DATE DATE PAVEMENT SUPERVISOR

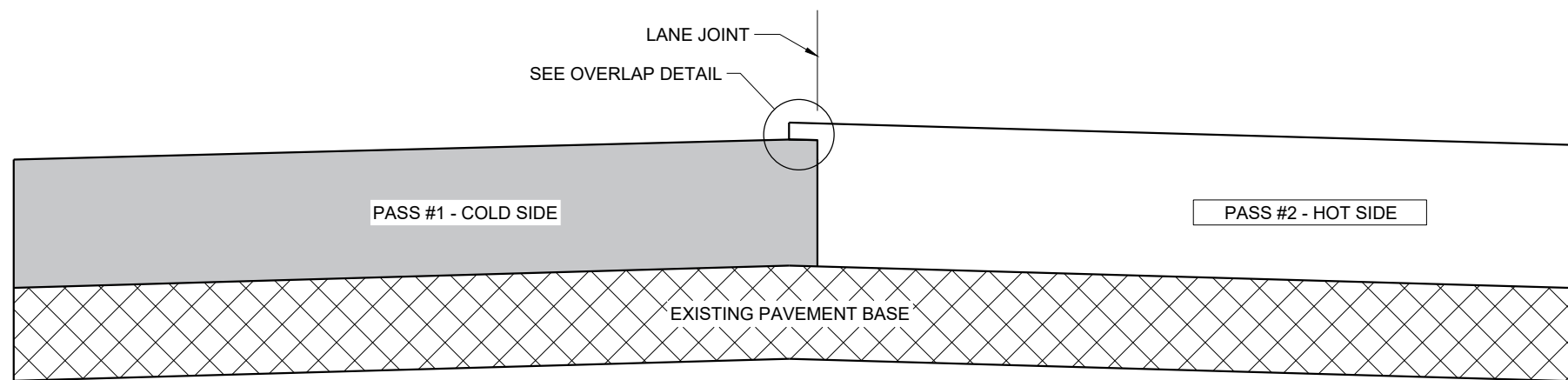
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

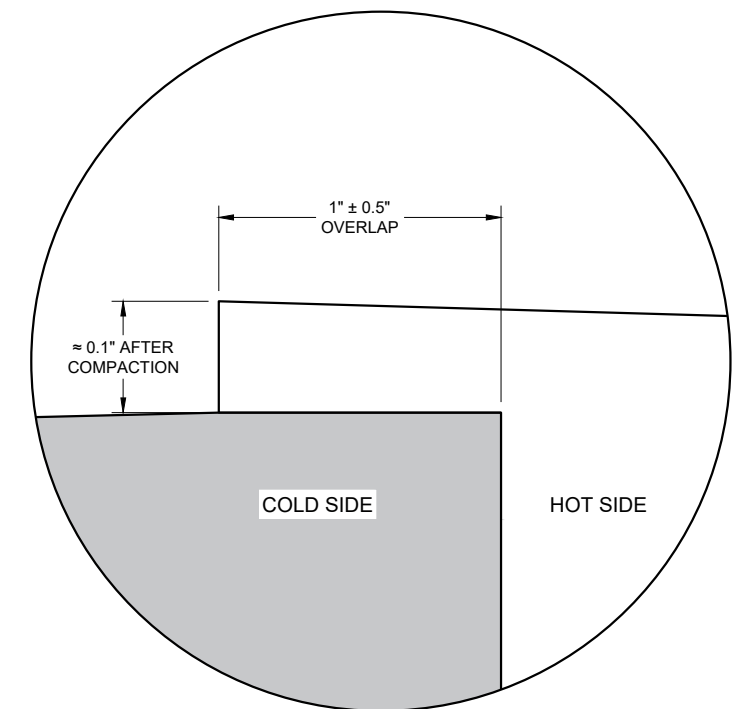
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

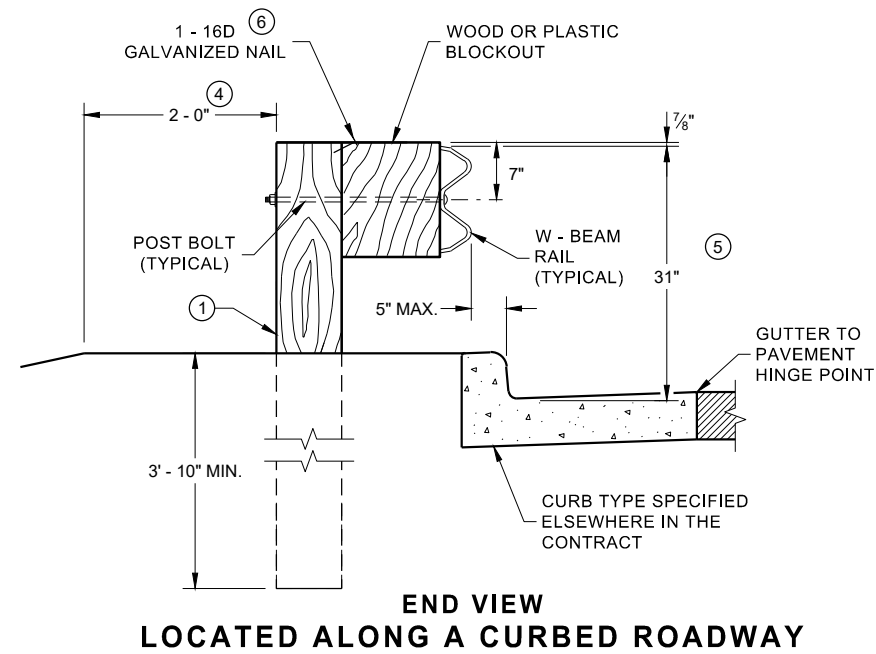
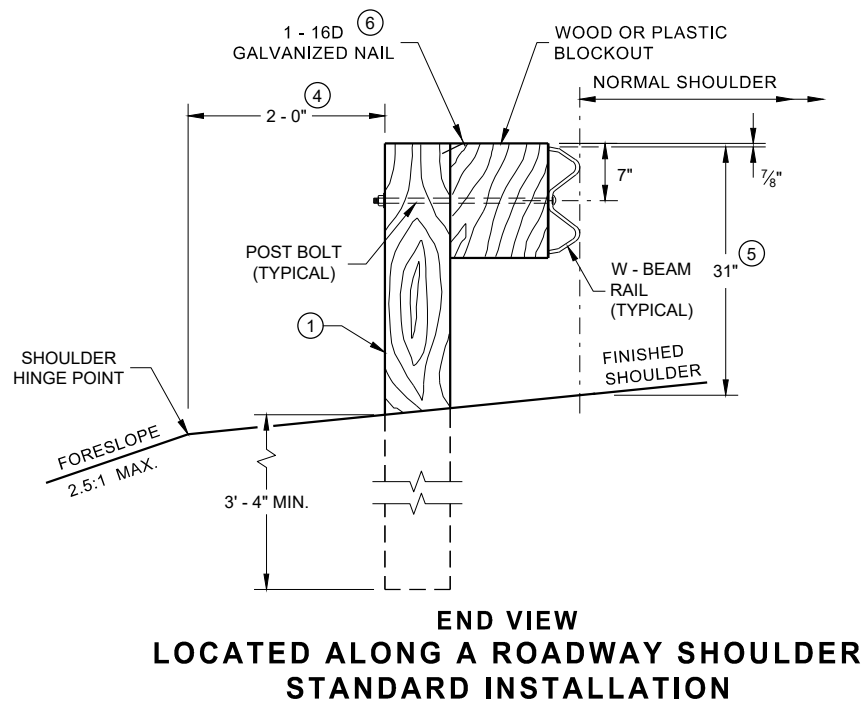
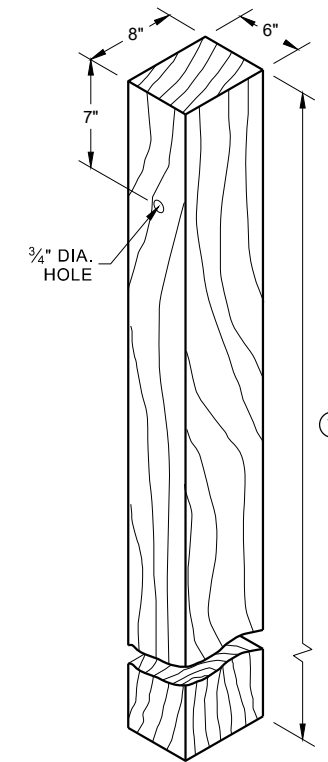
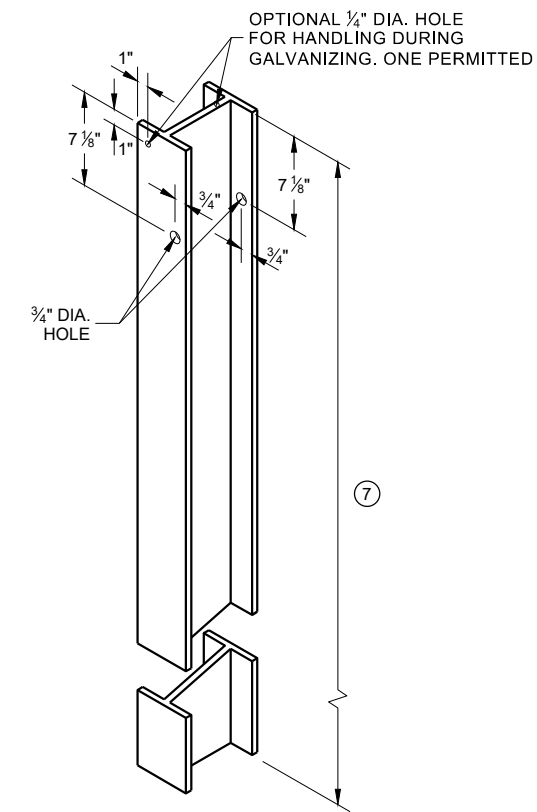
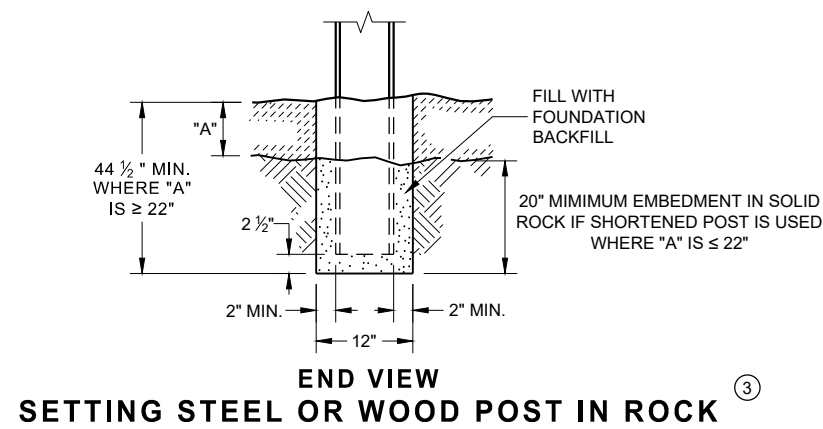
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SDD 13C19 - 03

SDD 13C19 - 03

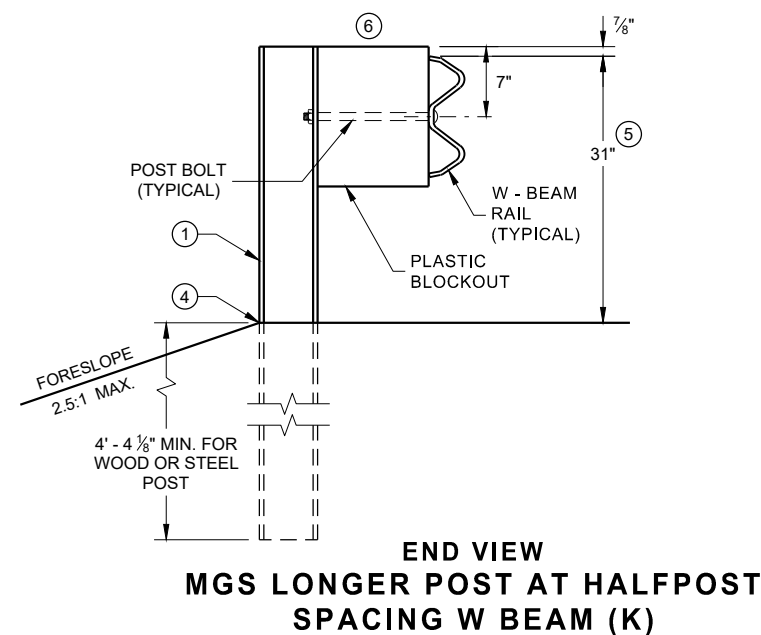
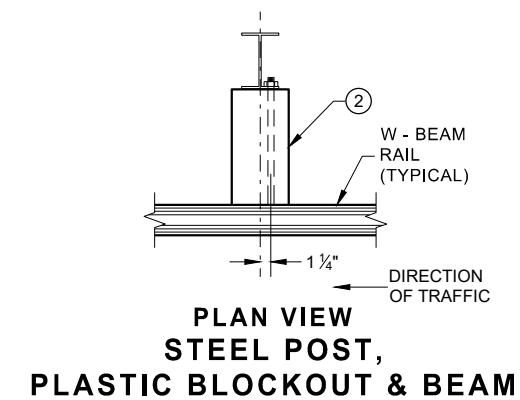
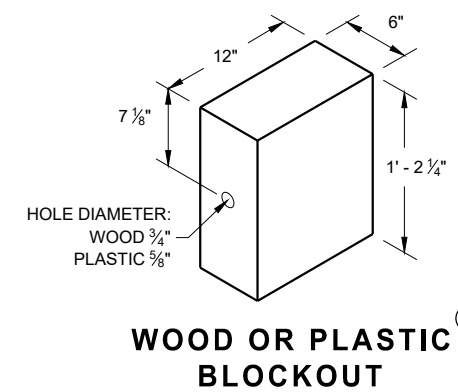
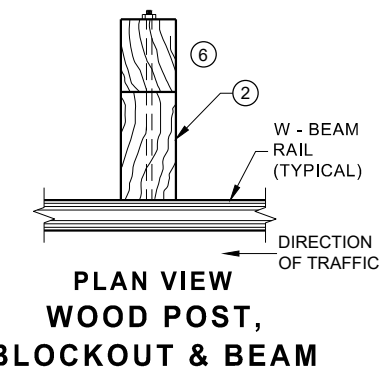
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	

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



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

WOOD POST (6" X 8") NOMINAL

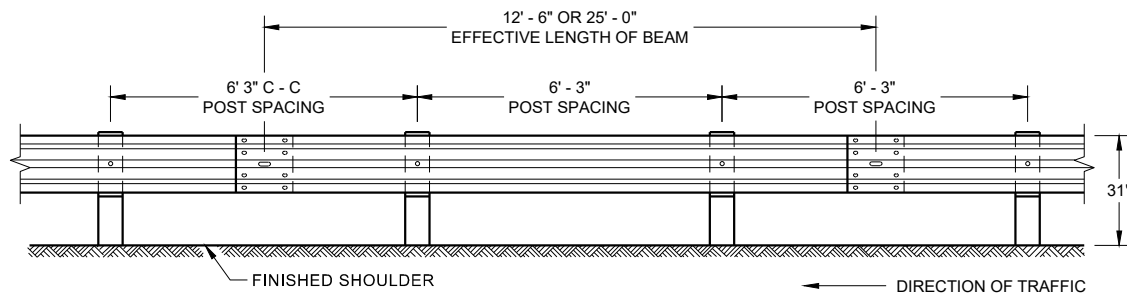


PLAN VIEW STEEL POST, PLASTIC BLOCKOUT & BEAM

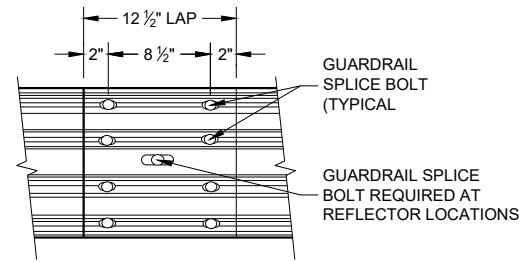
END VIEW MGS LONGER POST AT HALFPST SPACING W BEAM (K)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



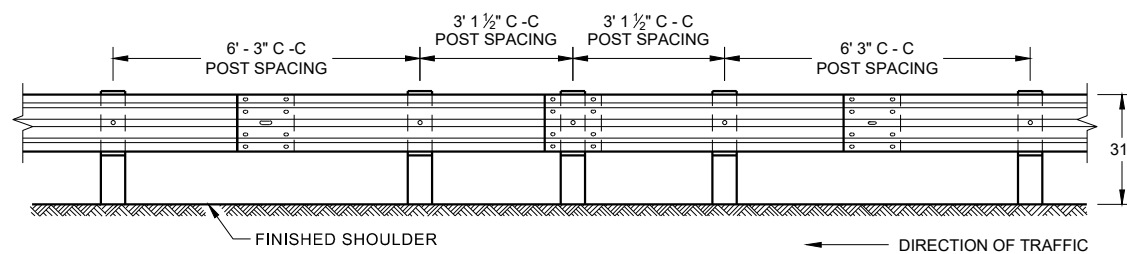
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



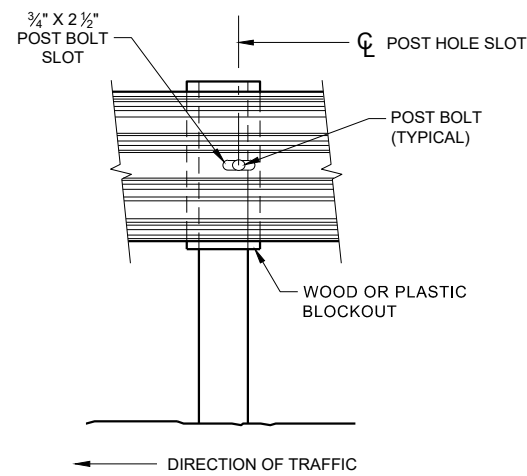
**FRONT VIEW
MID-SPAN BEAM SPLICE**

GENERAL NOTES

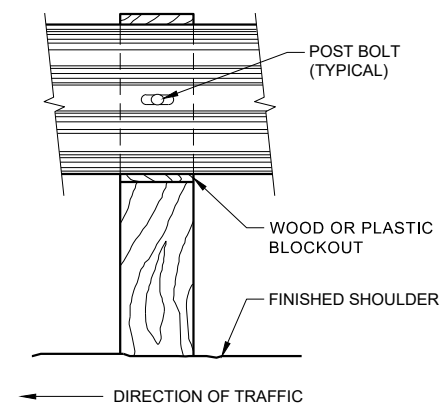
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
 - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



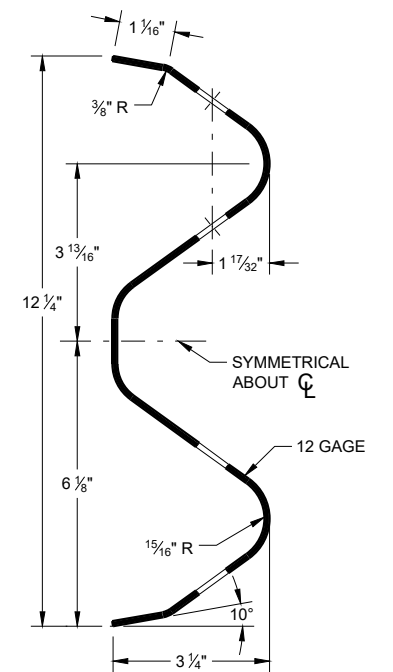
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



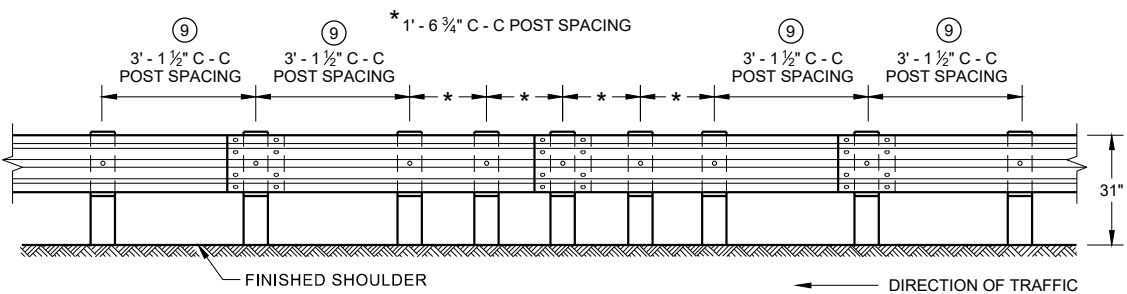
FRONT VIEW AT STEEL POST



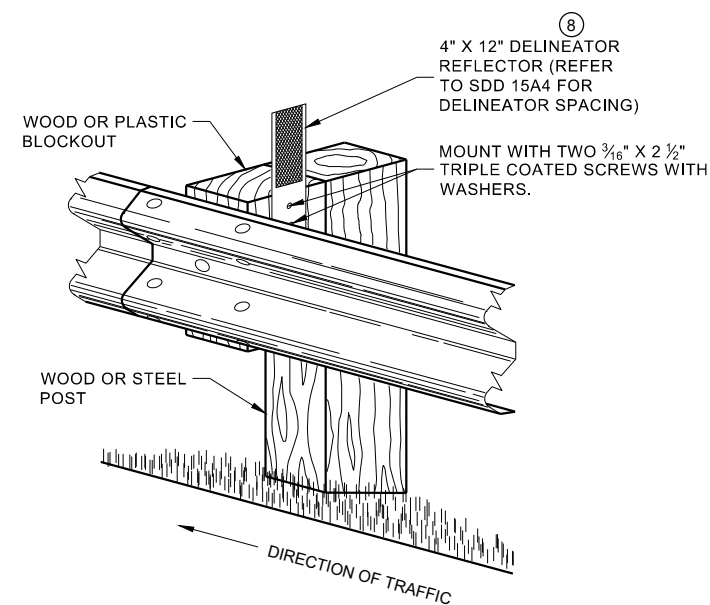
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



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



**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

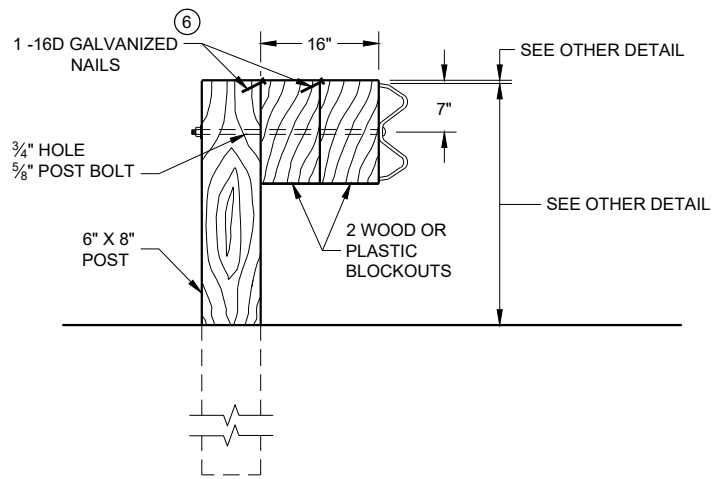
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 14B42 - 07b

SDD 14B42 - 07b

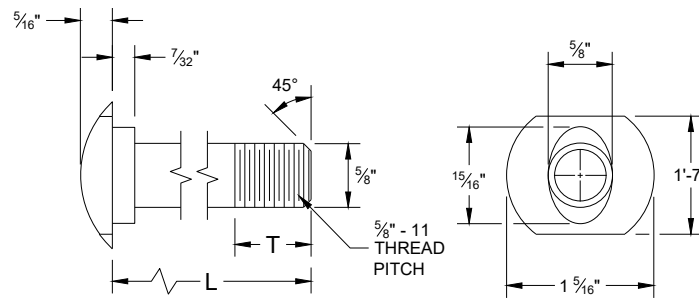


DETAIL FOR 16" BLOCKOUT DEPTH

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

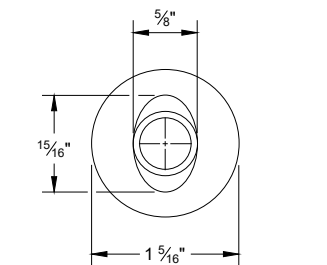
NOTE:

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

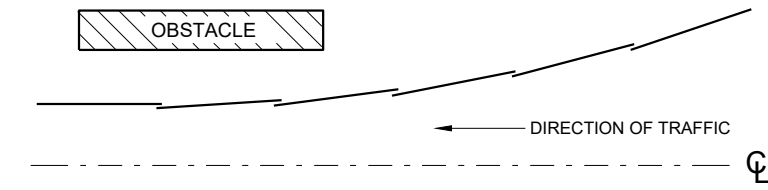


POST BOLT TABLE

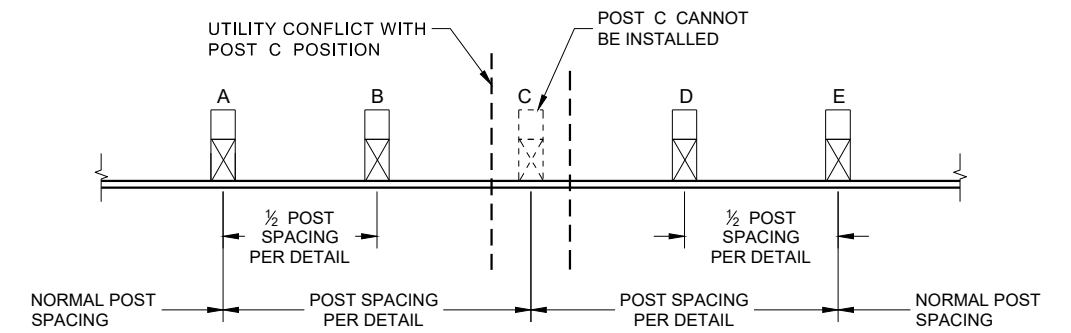
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



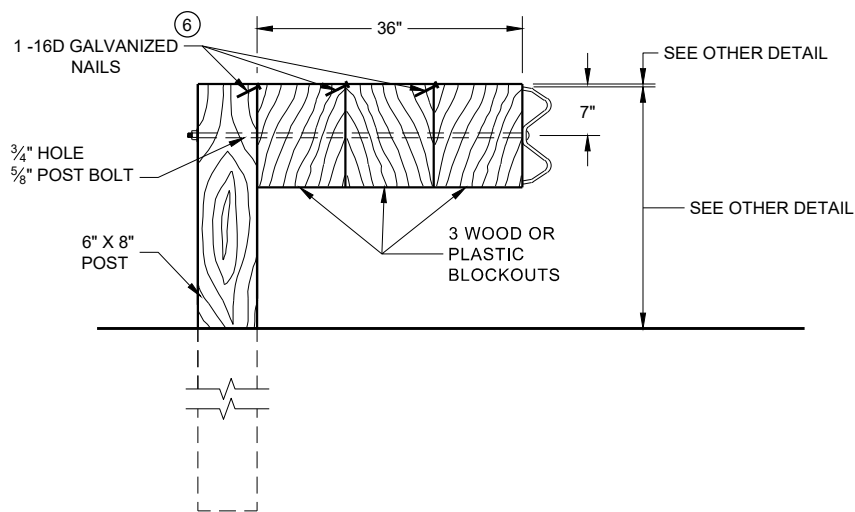
ALTERNATE BOLT HEAD



**PLAN VIEW
BEAM LAPPING DETAIL**

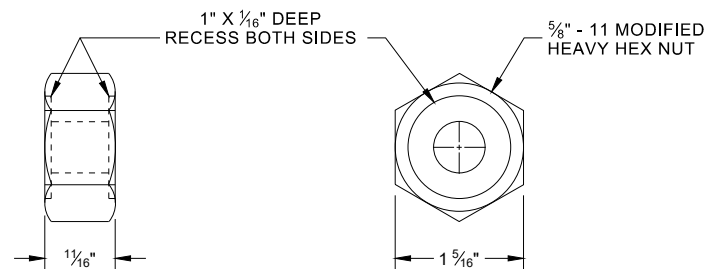


**POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION**

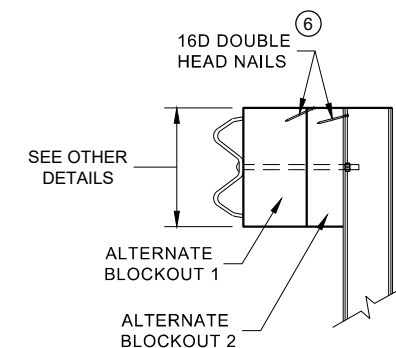


DETAIL FOR 36" BLOCKOUT DEPTH

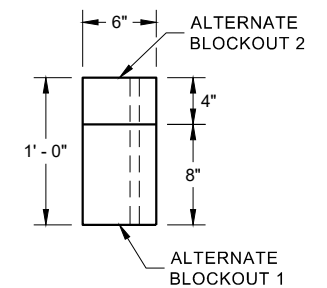
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT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



**POST BOLT, SPLICE BOLT
AND RECESS NUT**



SIDE VIEW



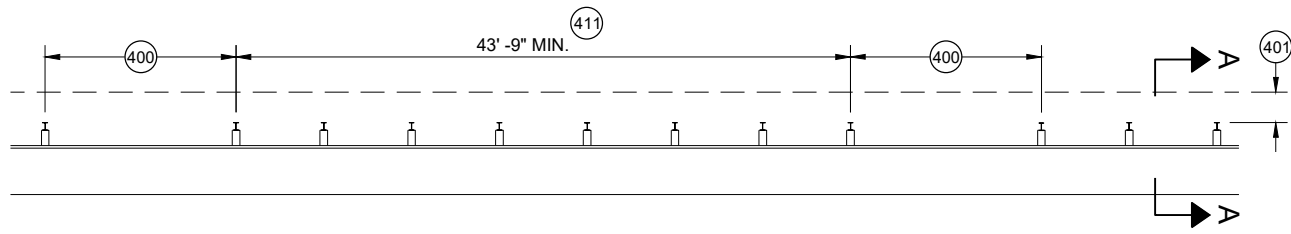
PLAN VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**

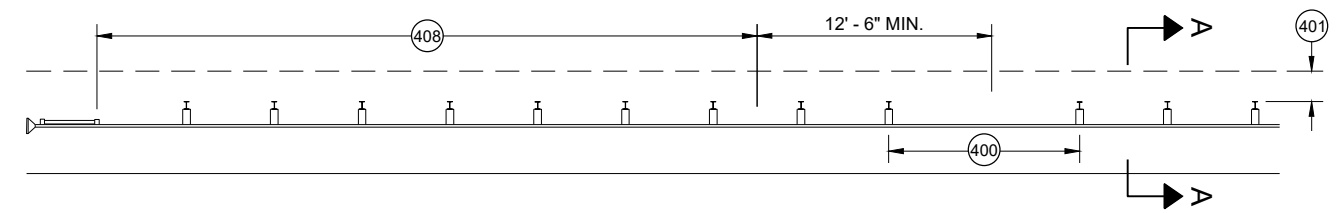
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

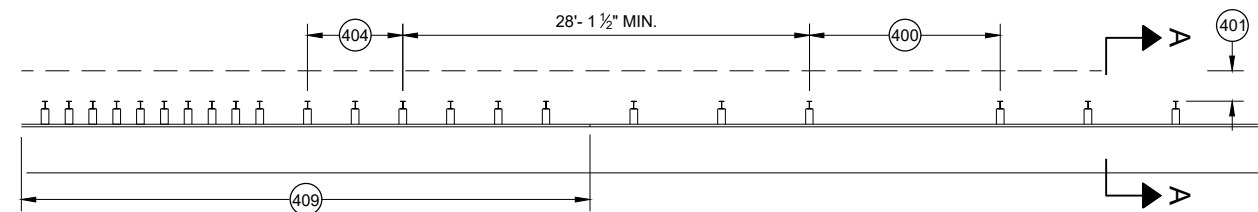
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



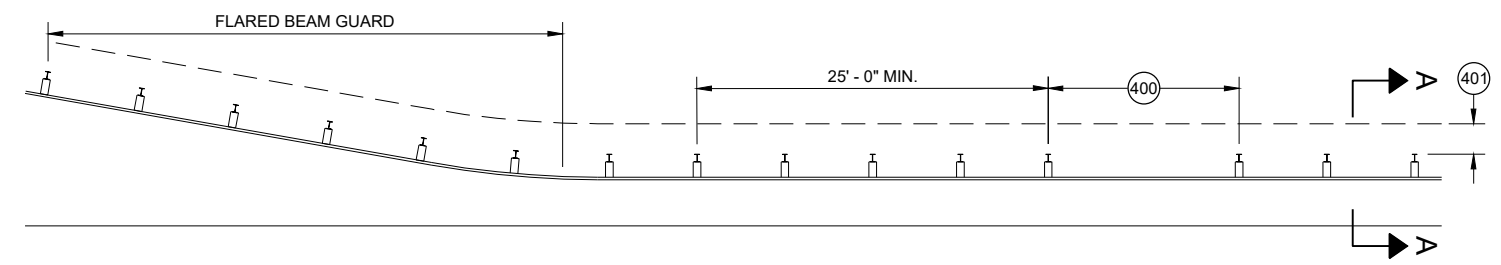
MISSING POST IN MGS GUARDRAIL



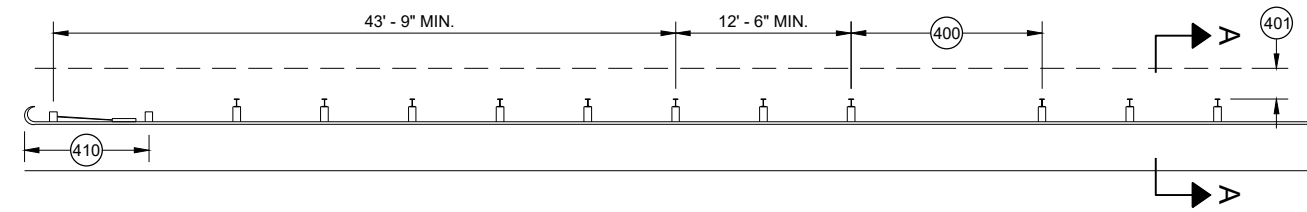
MISSING POST IN MGS GUARDRAIL NEAR EAT



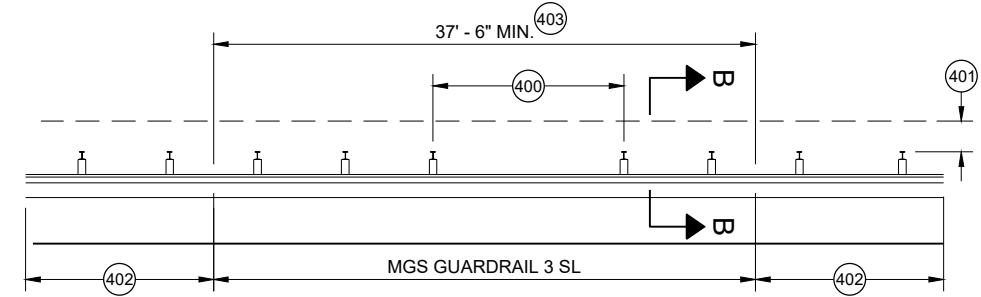
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

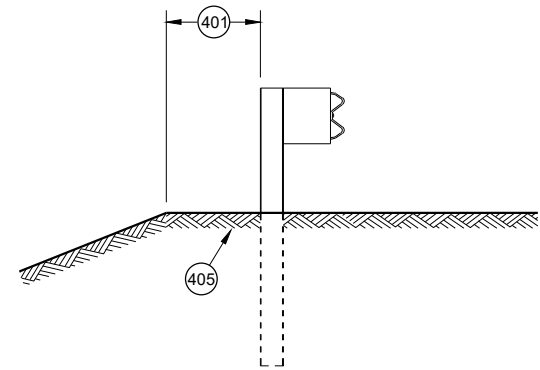


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

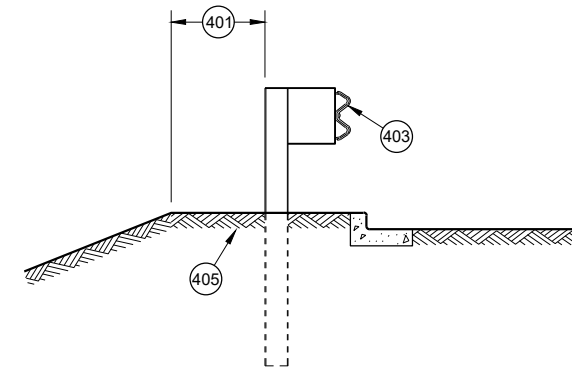


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

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



SECTION A - A



SECTION B - B

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

GENERAL NOTES

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

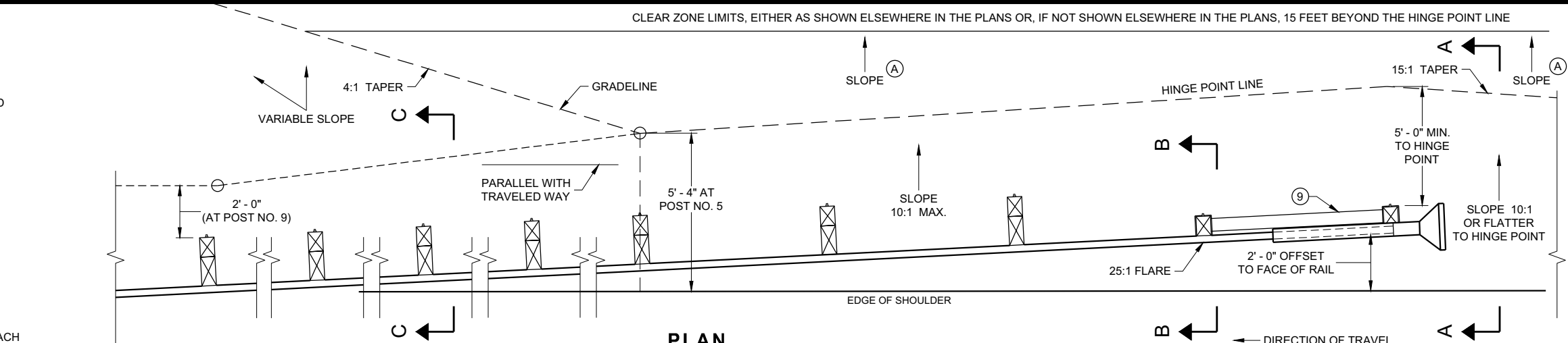
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

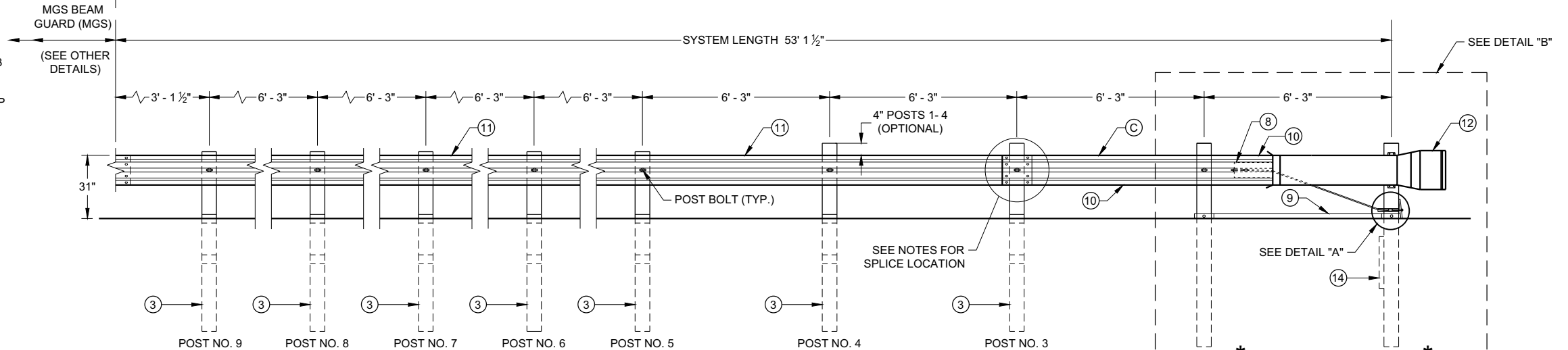
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

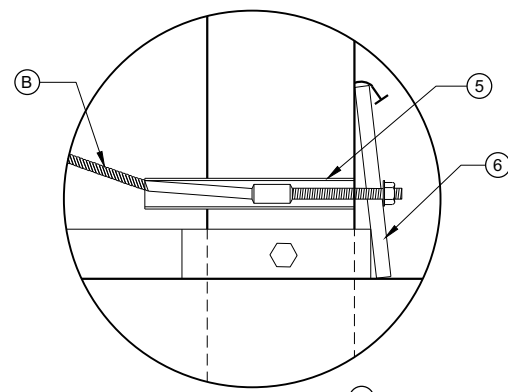
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



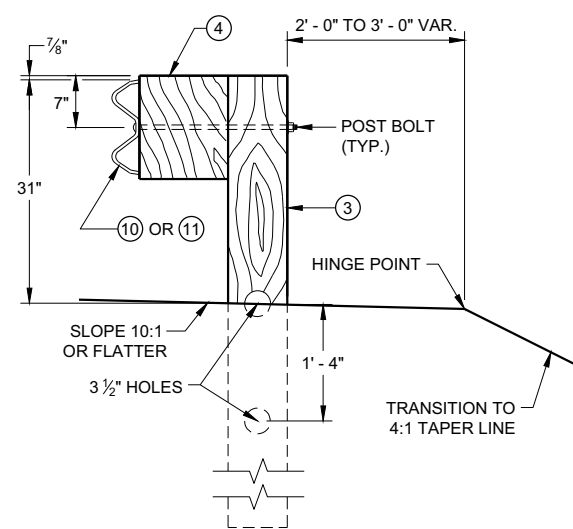
PLAN



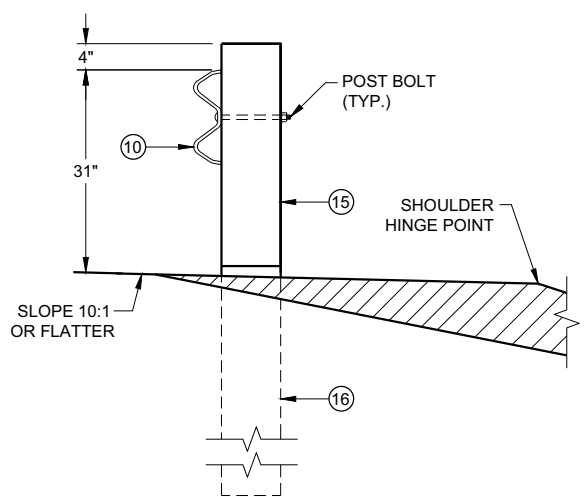
ELEVATION



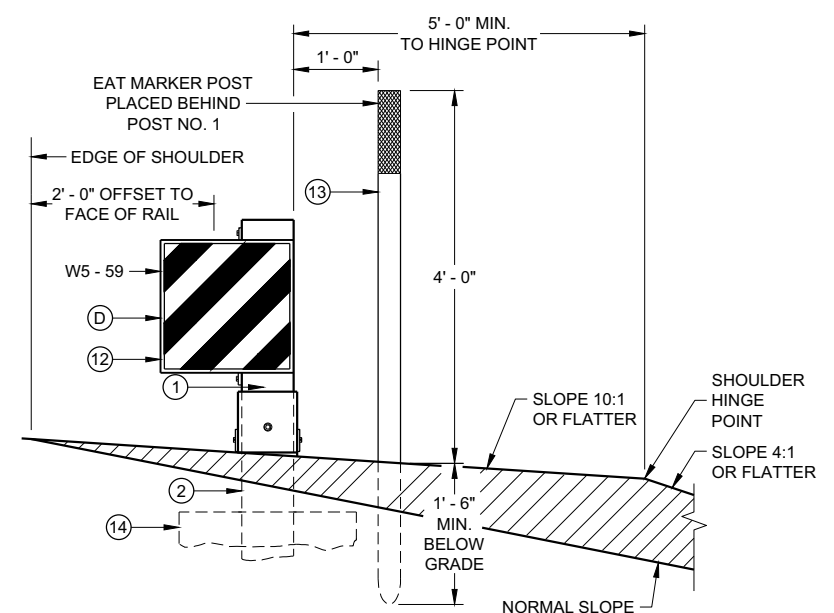
DETAIL "A"



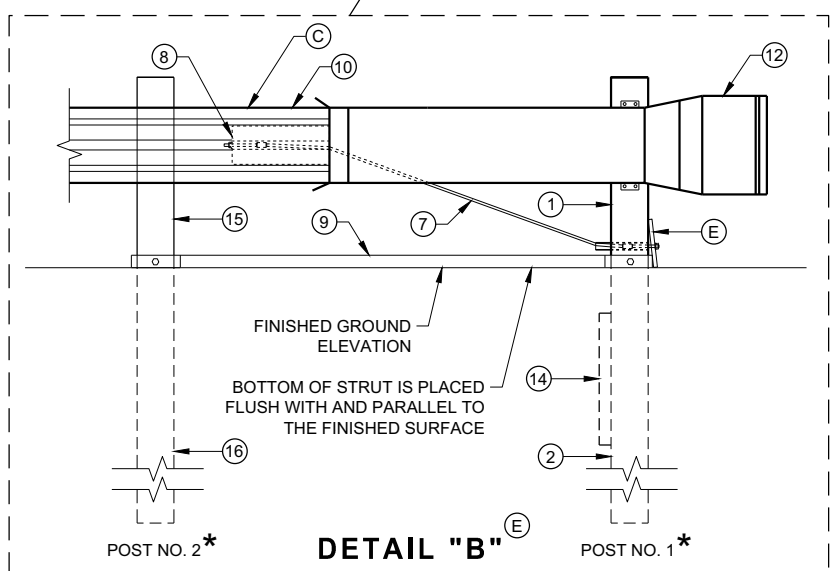
**SECTION C - C
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B
TYPICAL AT POST NO. 2***



**SECTION A - A
TYPICAL AT POST NO. 1***



DETAIL "B"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

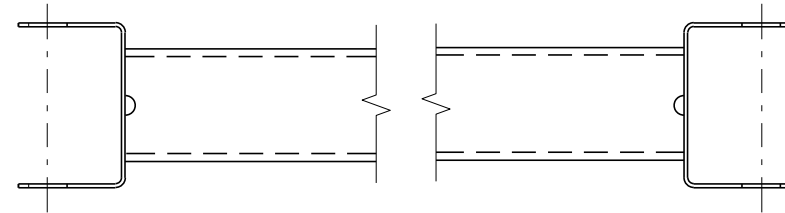
6

SDD 14B44 - 04a

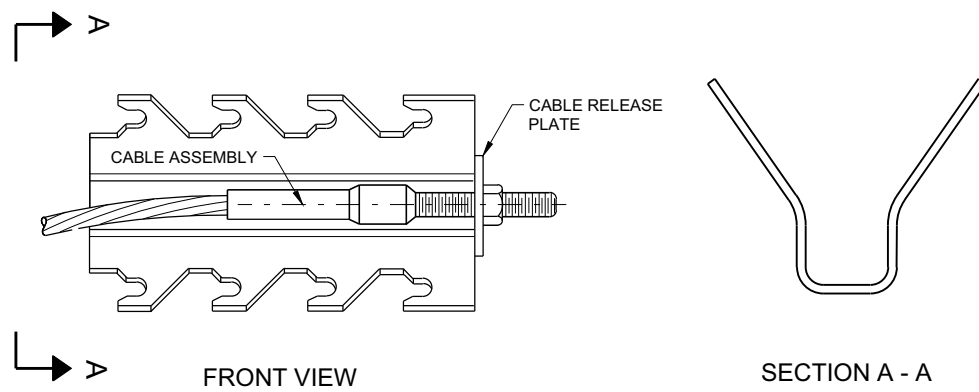
SDD 14B44 - 04a

BILL OF MATERIALS

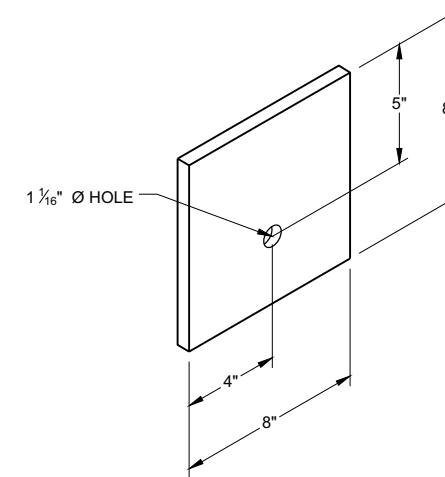
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



GENERIC GROUND STRUT ⑨ ⑤



GENERIC ANCHOR CABLE BOX ⑨ ⑤



BEARING PLATE ⑥ ⑤

6

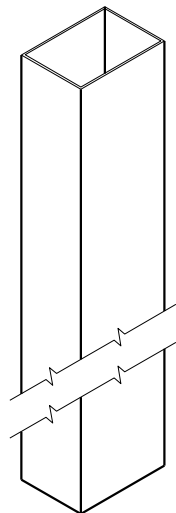
6

SDD 14B44 - 04b

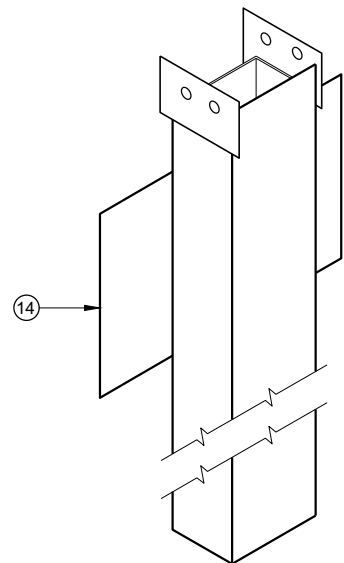
SDD 14B44 - 04b

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

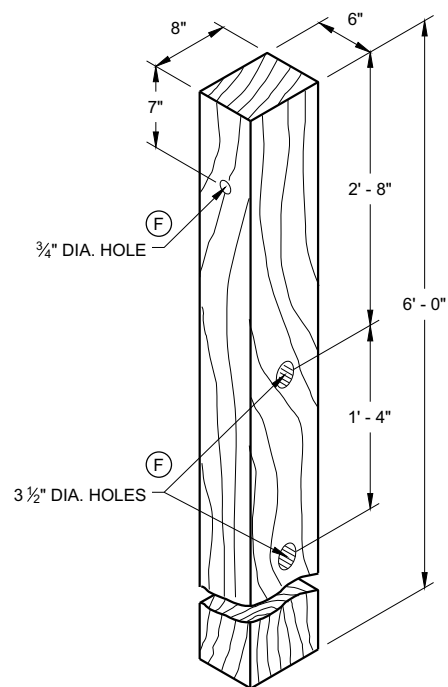
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



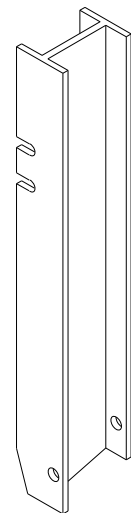
UPPER POST NO. 1 ⁽¹⁾ (E)



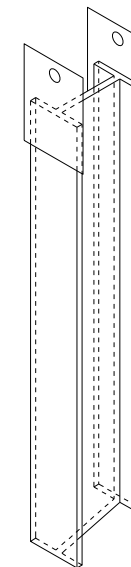
LOWER POST NO. 1 ⁽²⁾ (E)



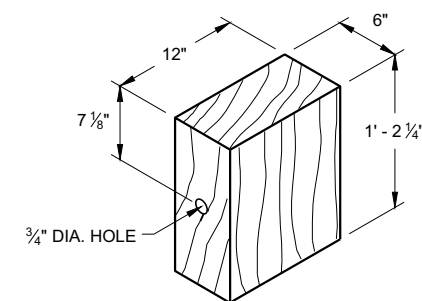
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 ⁽¹⁵⁾ (E)

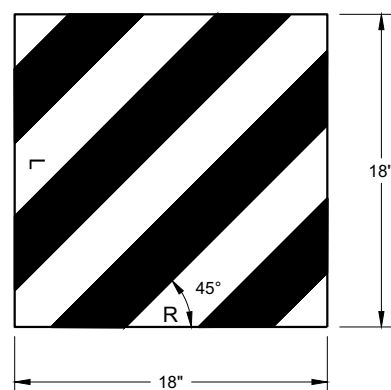


LOWER POST NO. 2 ⁽¹⁶⁾ (E)



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

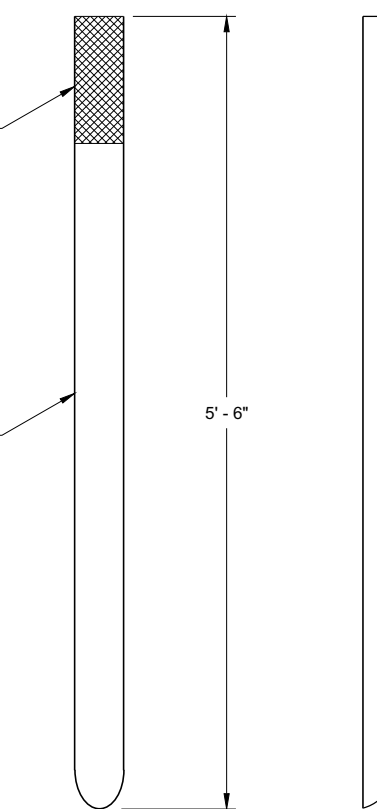
6



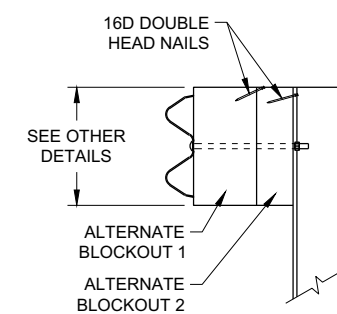
REFLECTIVE SHEETING DETAIL ^(E)

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

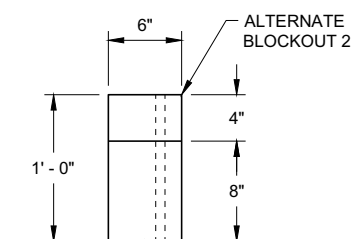
E.A.T. MARKER
POST (YELLOW)



FRONT VIEW SIDE VIEW
E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

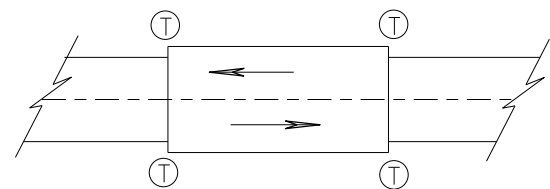
SDD 14B44 - 04c

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

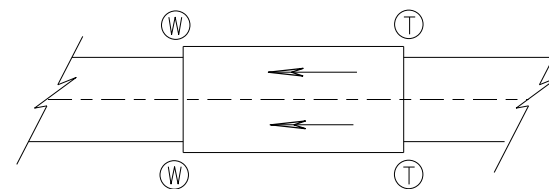
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

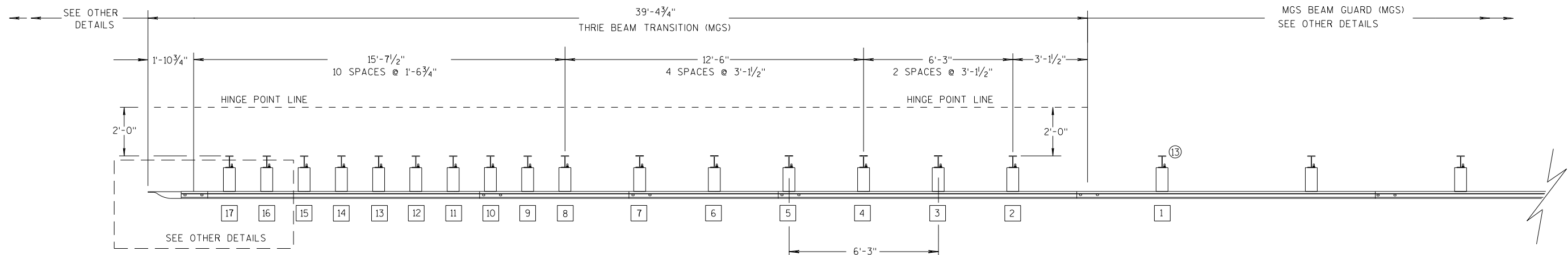
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

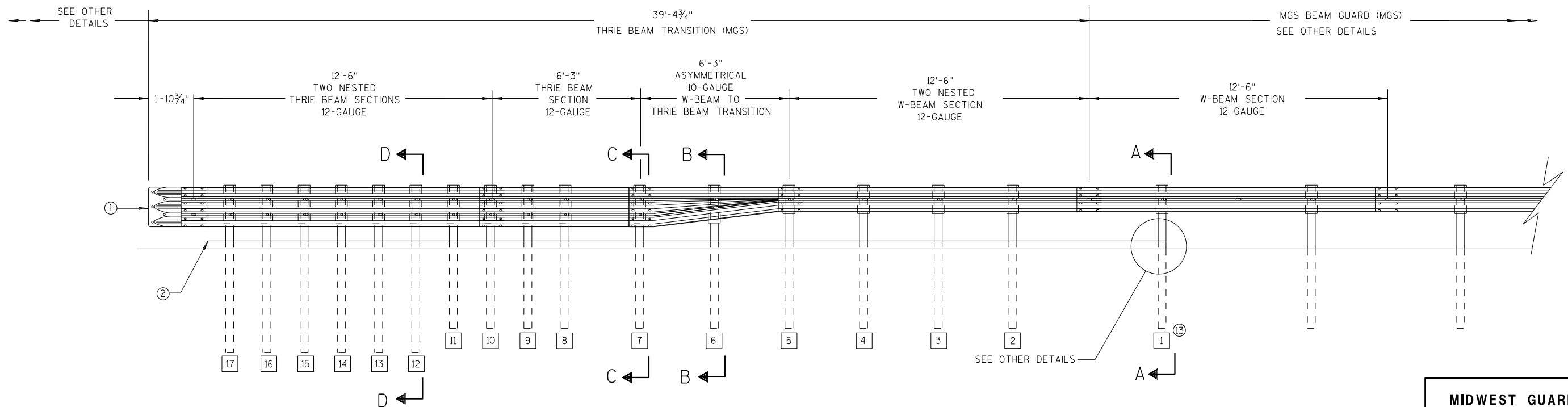
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

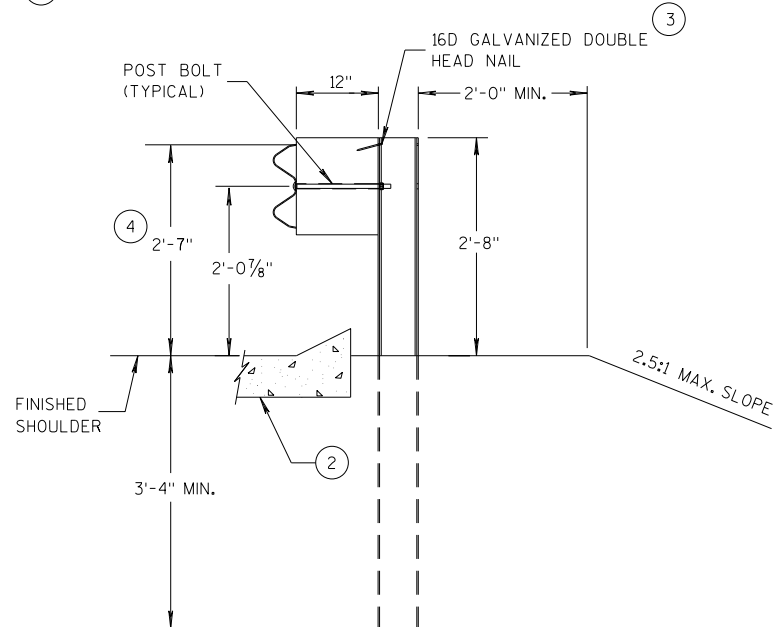
6

S.D.D. 14 B 45-5a

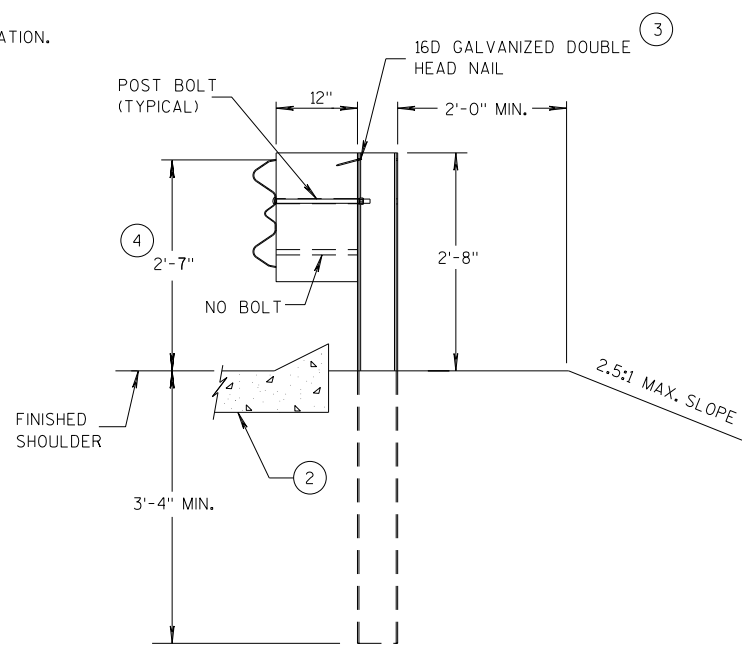
S.D.D. 14 B 45-5a

GENERAL NOTES

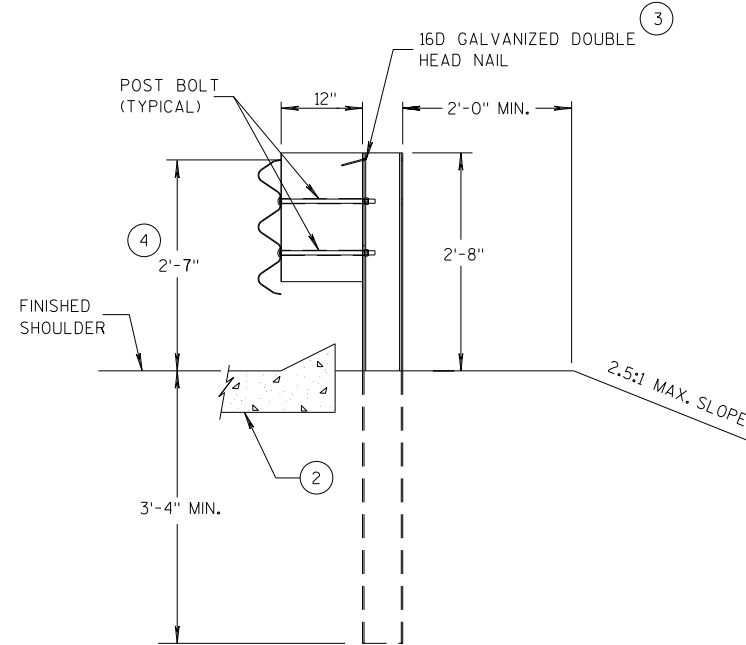
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ④ TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



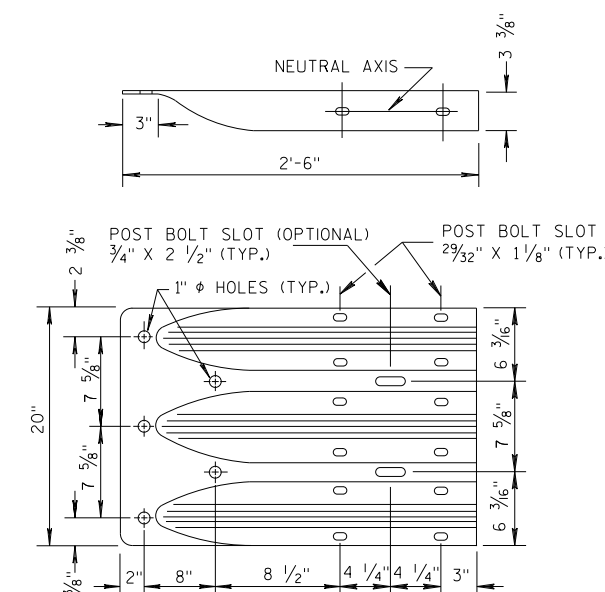
**SECTION A-A
POSTS 1-5**



**SECTION B-B
POST 6**



**SECTION C-C
POSTS 7-11**



**THRIE BEAM
TERMINAL CONNECTOR**

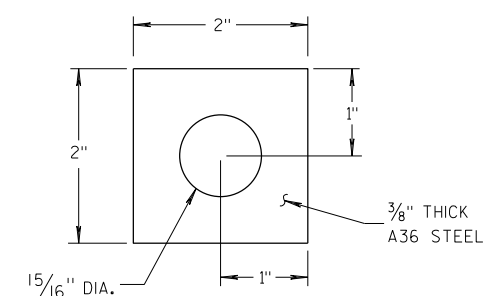
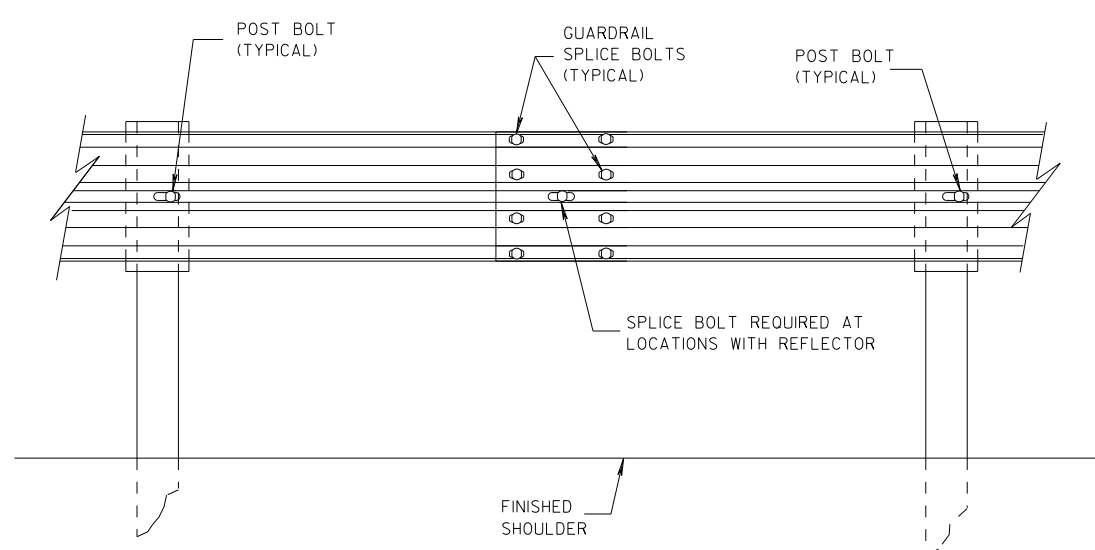
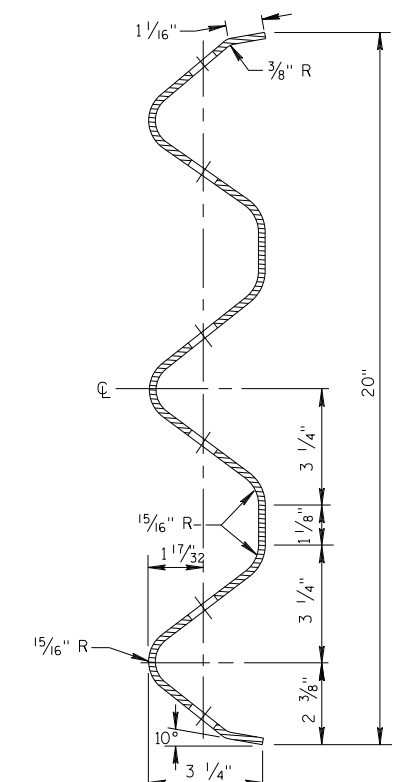


PLATE WASHER DETAIL



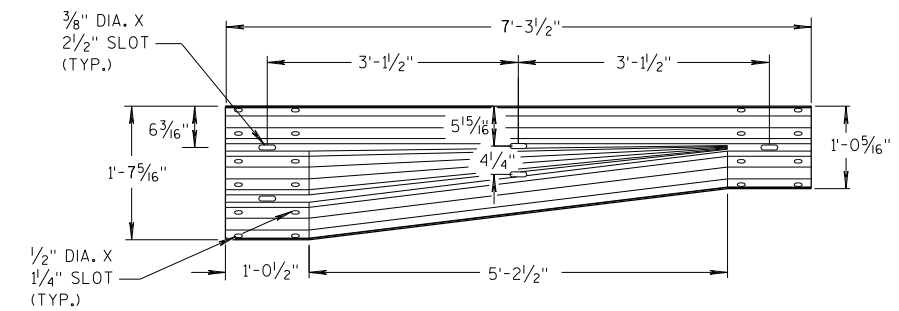
SPLICE DETAIL



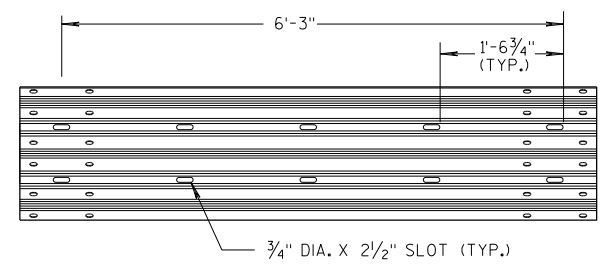
**SECTION THRU THRIE
BEAM RAIL ELEMENT**

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

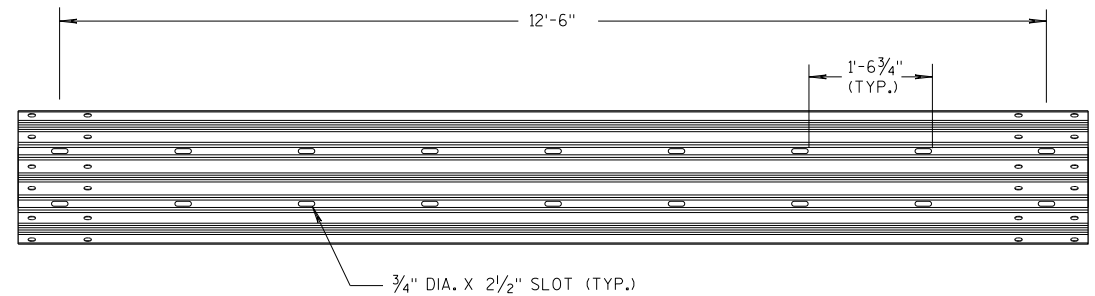
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



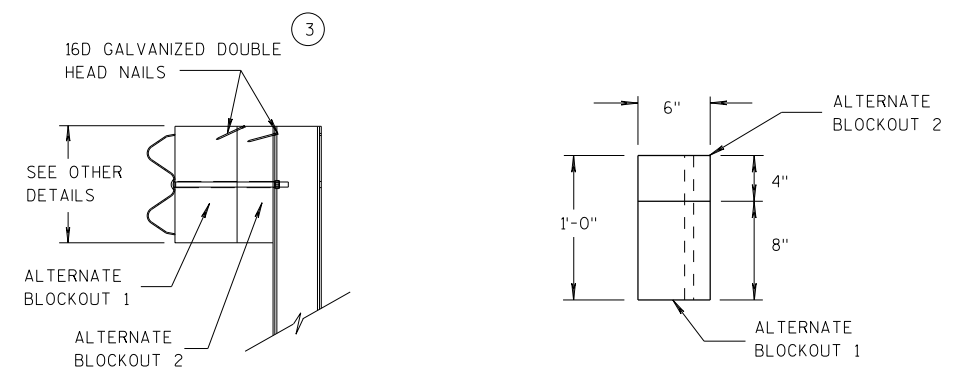
W-BEAM TO THRIE BEAM TRANSITION SECTION



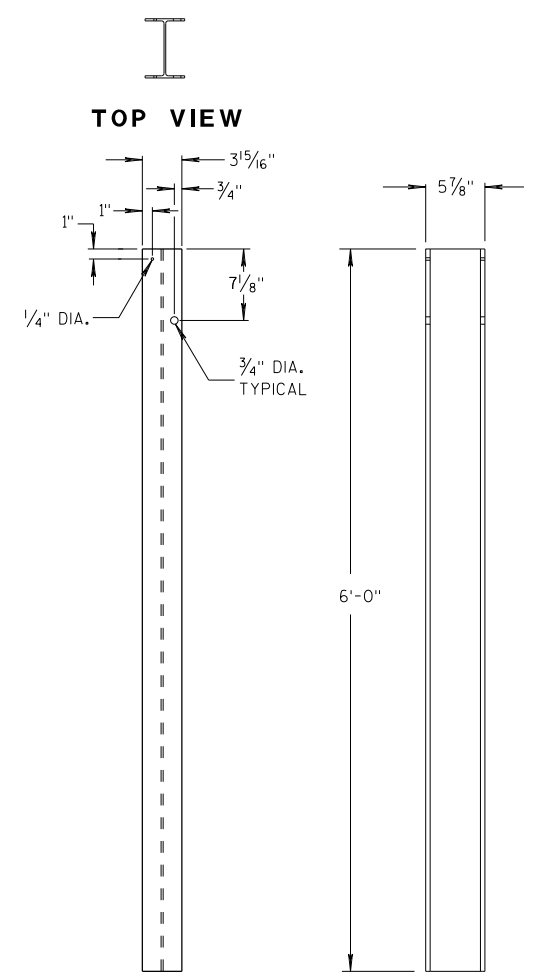
6'-3\"/>



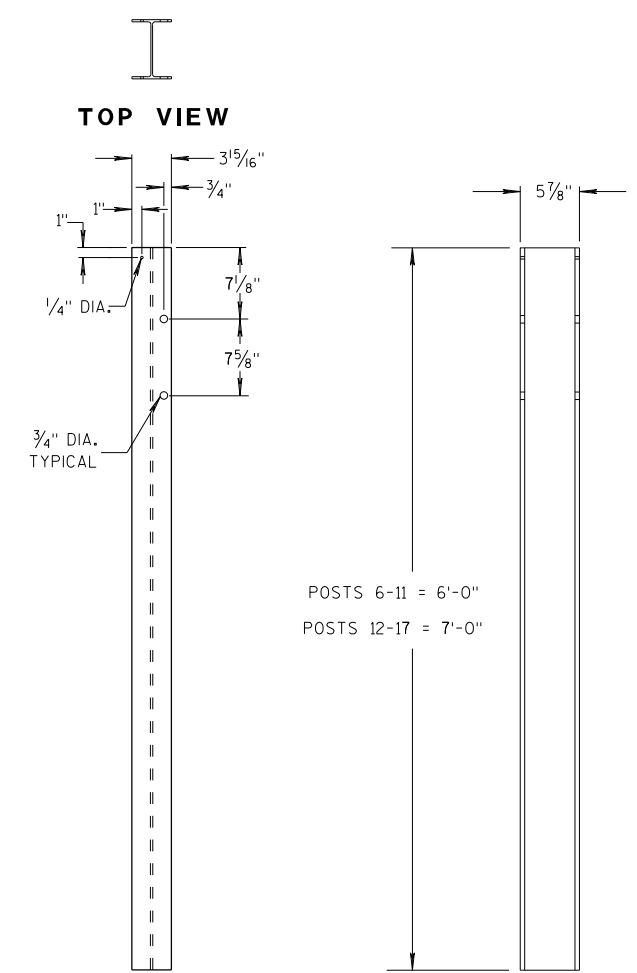
12'-6\"/>



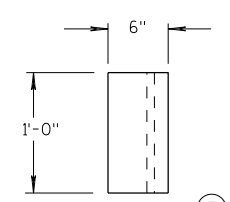
ALTERNATE WOOD BLOCKOUT DETAIL



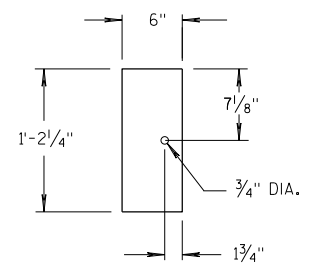
STEEL POSTS 1-5



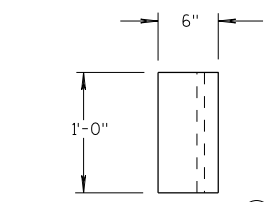
STEEL POSTS 6-17



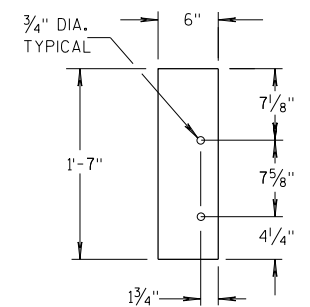
TOP VIEW



**FRONT VIEW
BLOCKOUT
POSTS 1-5**



TOP VIEW



**FRONT VIEW
BLOCKOUT
POSTS 6-17**

GENERAL NOTES

- STEEL POSTS ARE W6X9 OR W6X8.5.
- BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.
- (3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- (5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.
- (13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

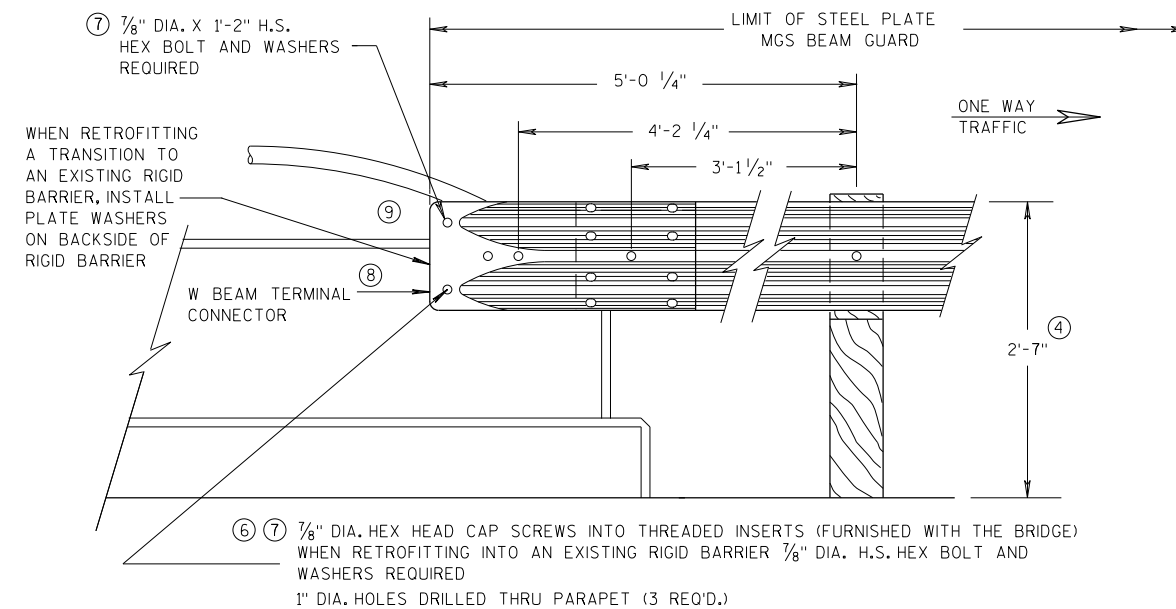
S.D.D. 14 B 45-5c

S.D.D. 14 B 45-5c

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

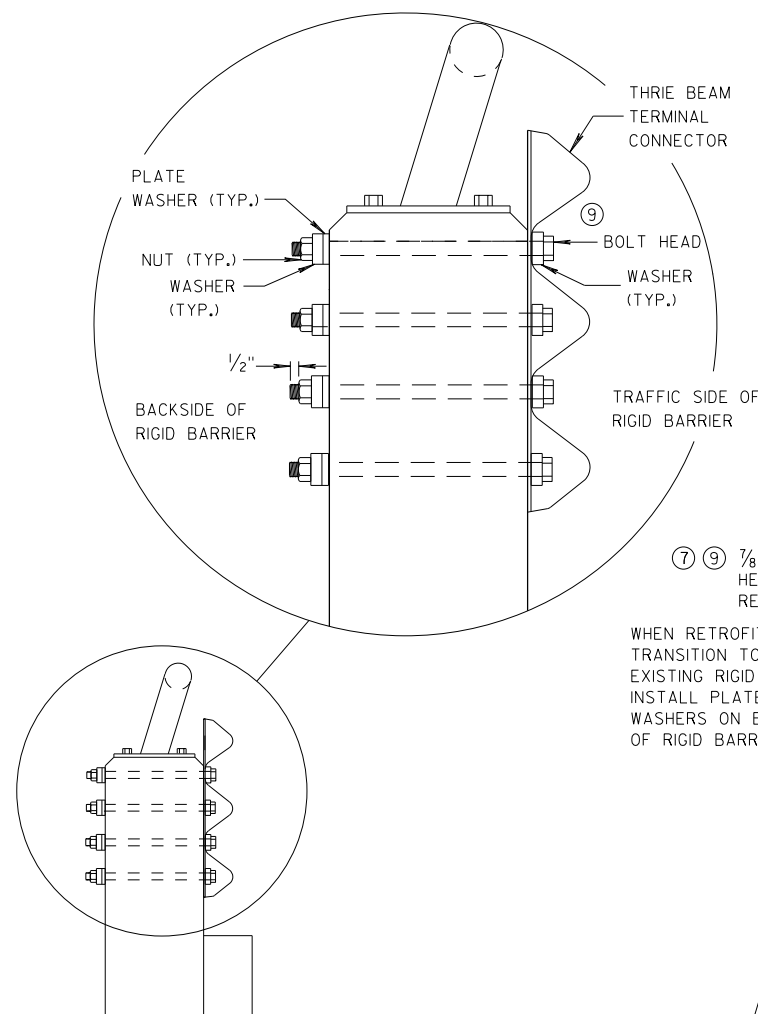
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ⑨ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.



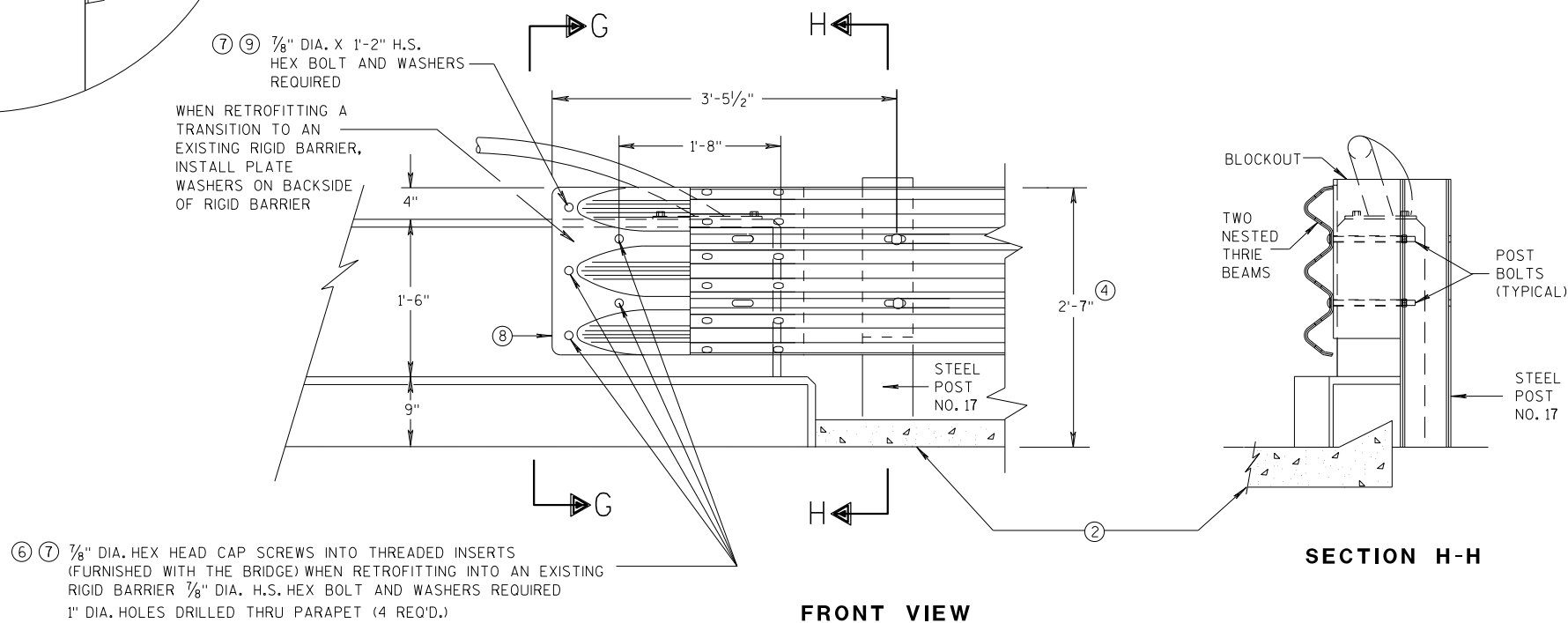
FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

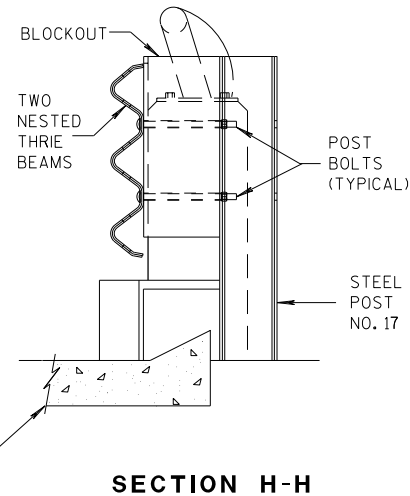


SECTION G-G



FRONT VIEW

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



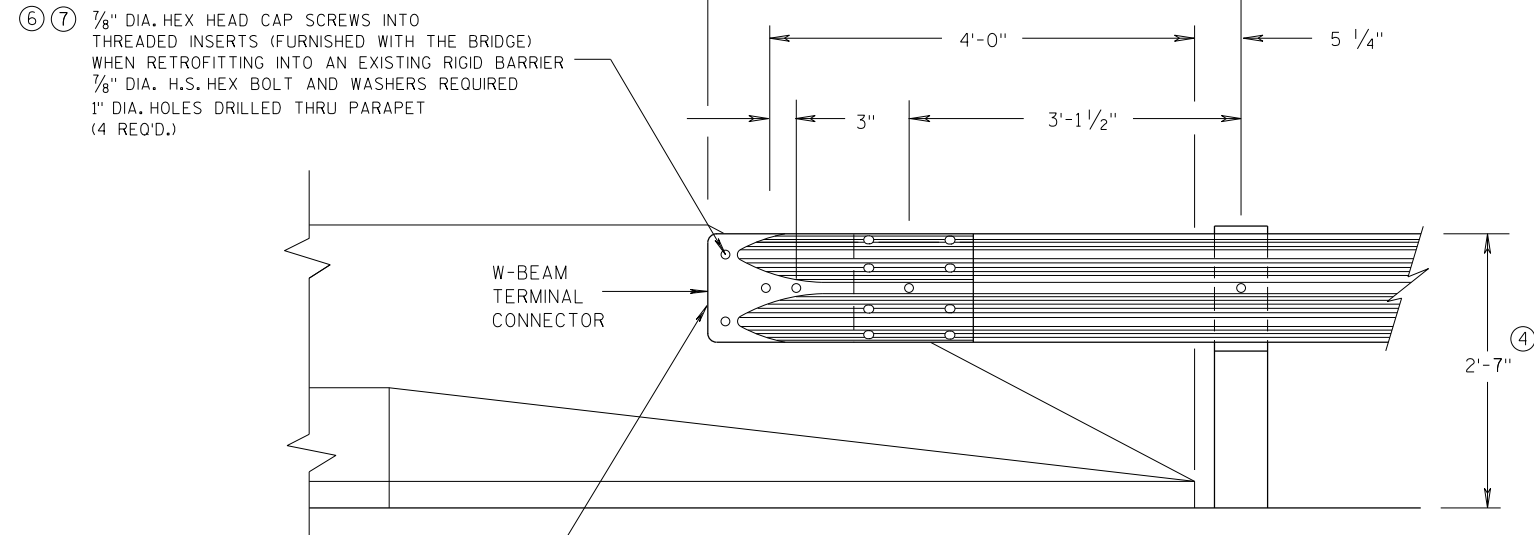
SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

ONE WAY
TRAFFIC



W-BEAM
TERMINAL
CONNECTOR

WHEN RETROFITTING A TRANSITION
TO AN EXISTING RIGID BARRIER,
INSTALL PLATE WASHERS ON
BACKSIDE OF RIGID BARRIER.

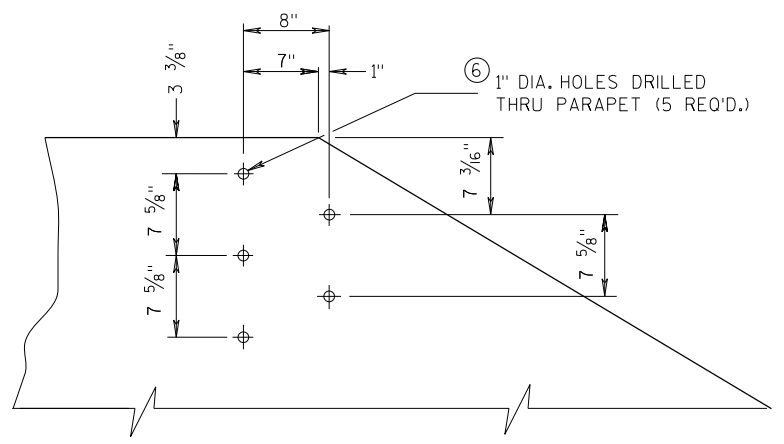
FRONT VIEW

**W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS**

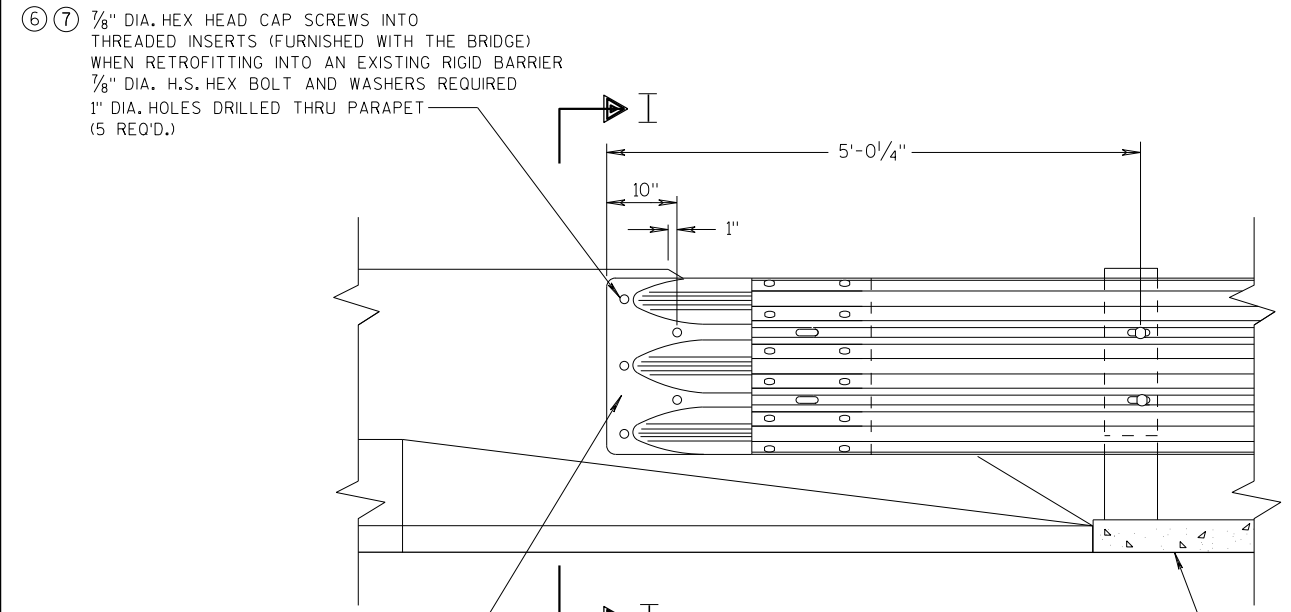
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



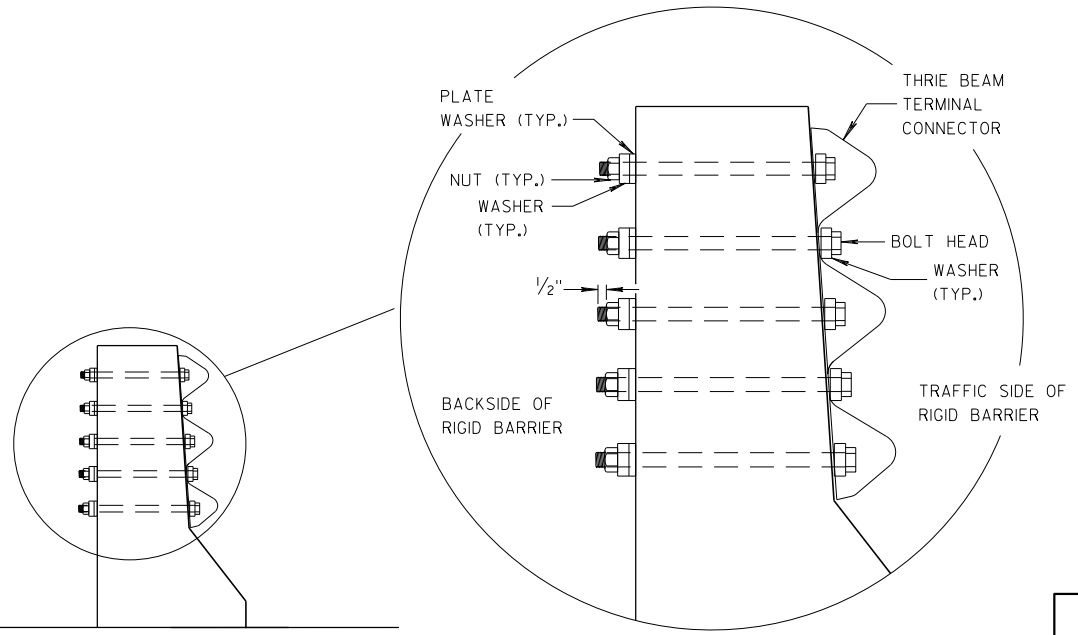
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



WHEN RETROFITTING A TRANSITION
TO AN EXISTING RIGID BARRIER,
INSTALL PLATE WASHERS ON
BACKSIDE OF RIGID BARRIER.

FRONT VIEW

**THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS**

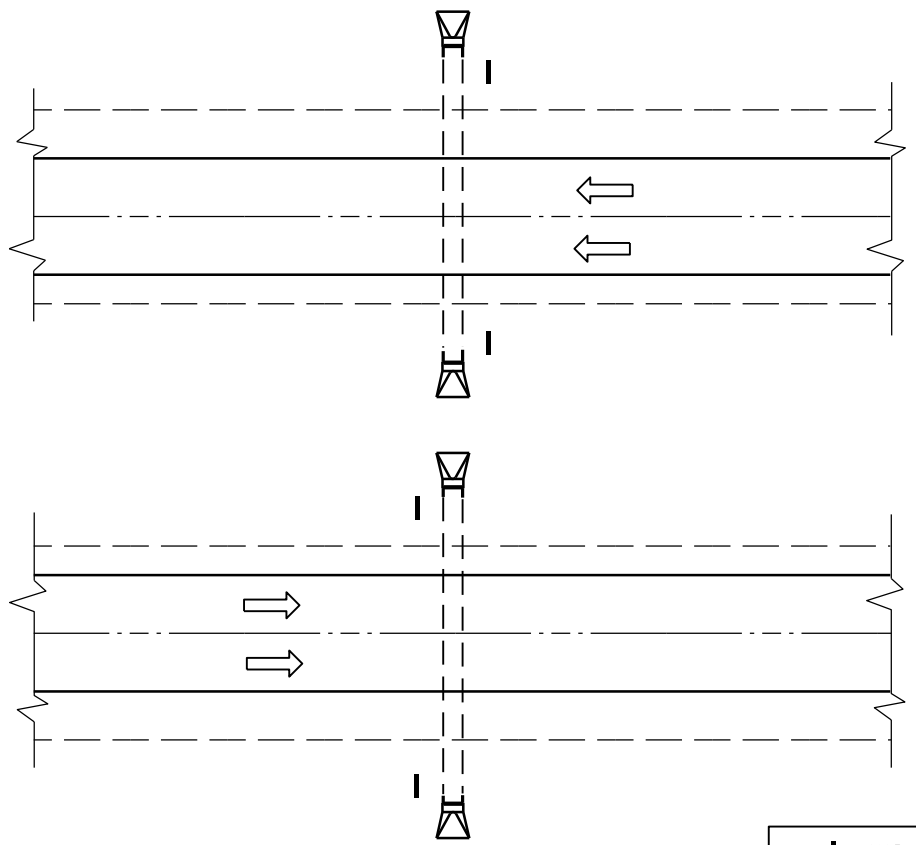


SECTION I-I

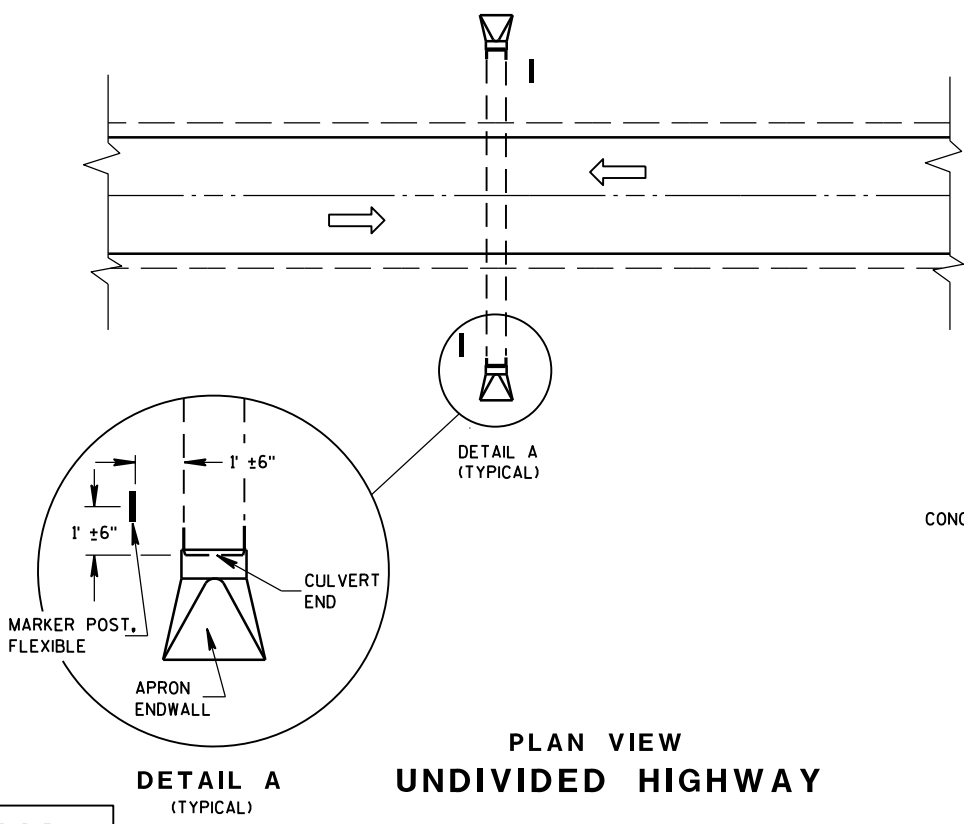
**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



APPROVED
DATE 07/2018 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



PLAN VIEW
DIVIDED HIGHWAY



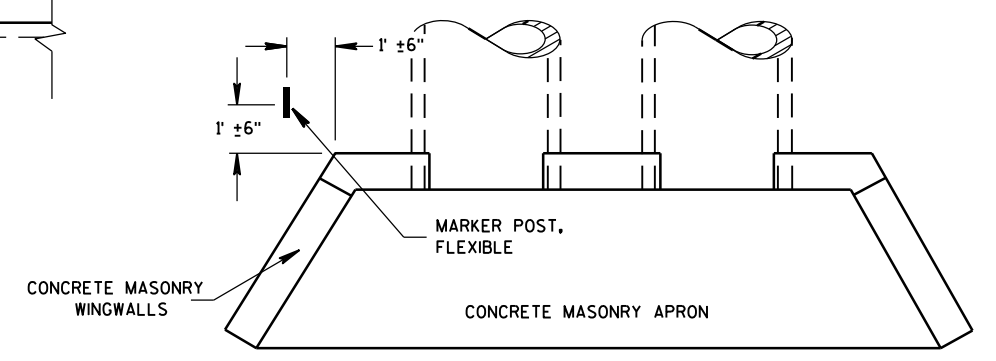
PLAN VIEW
UNDIVIDED HIGHWAY

 MARKER POST, FLEXIBLE
 DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

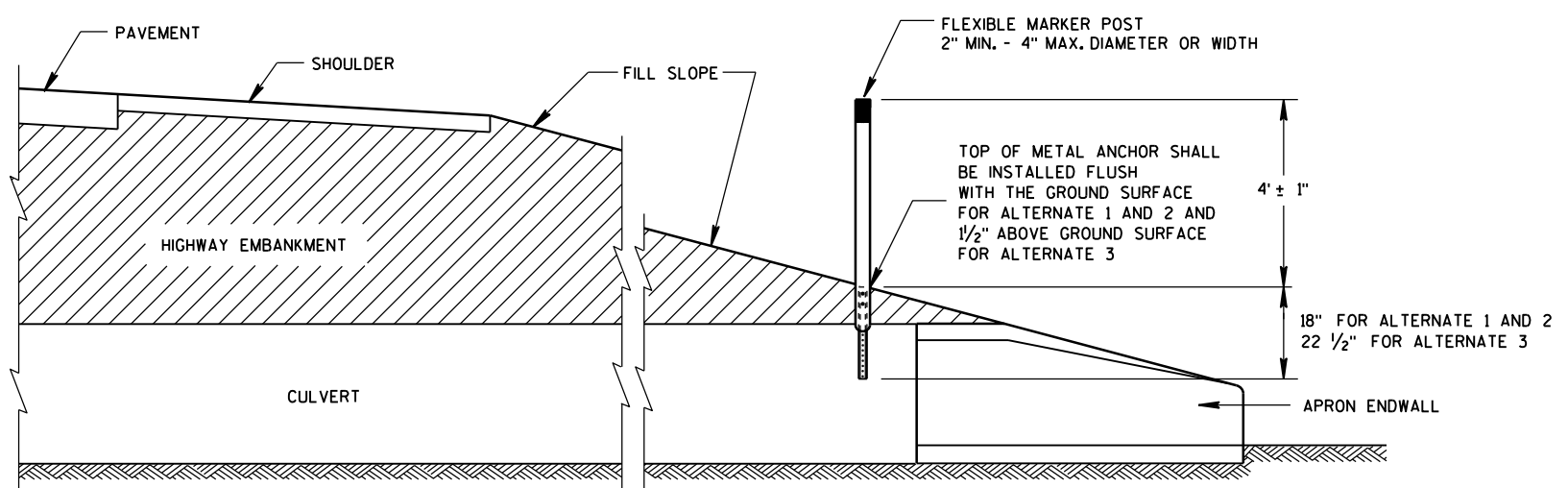
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

6

6



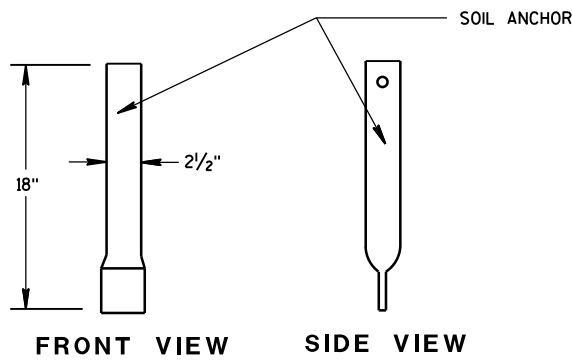
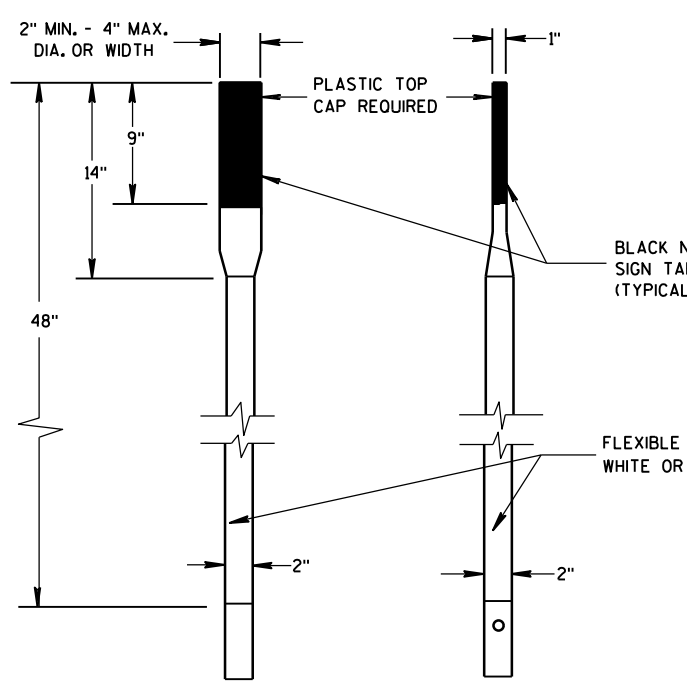
CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

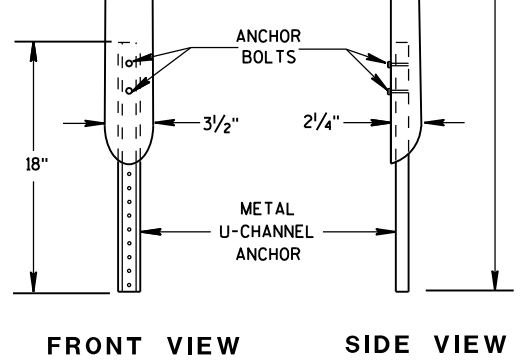
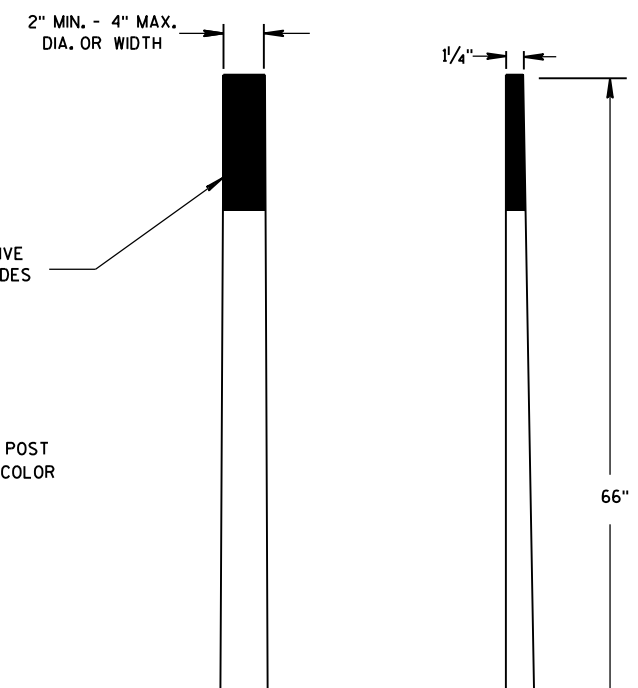
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

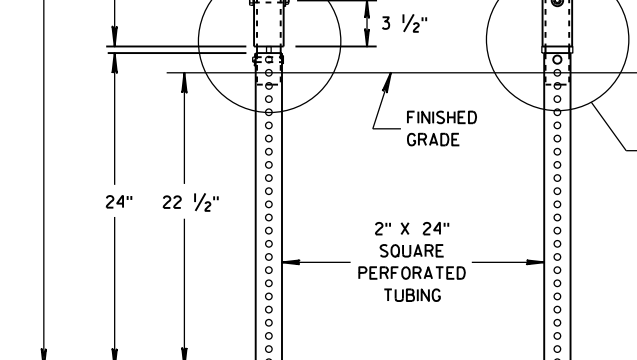
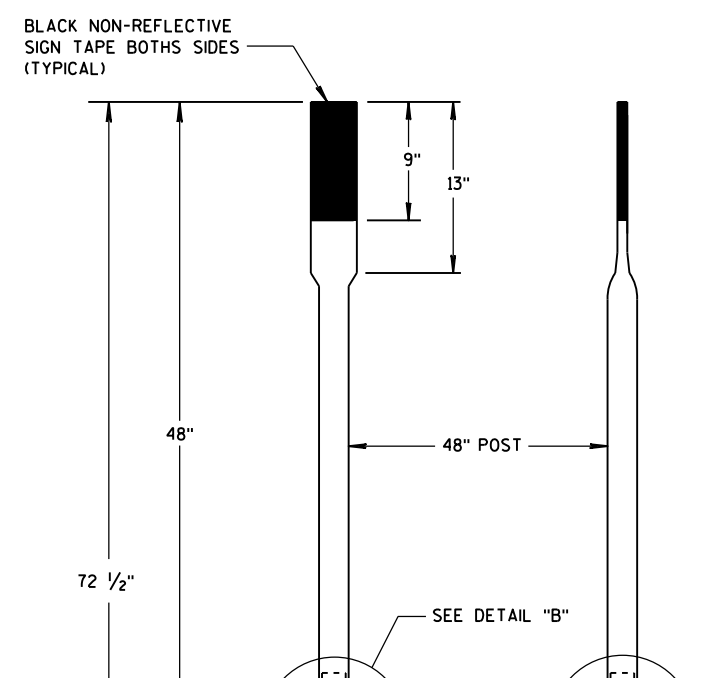
S.D.D. 15 A 3-2a



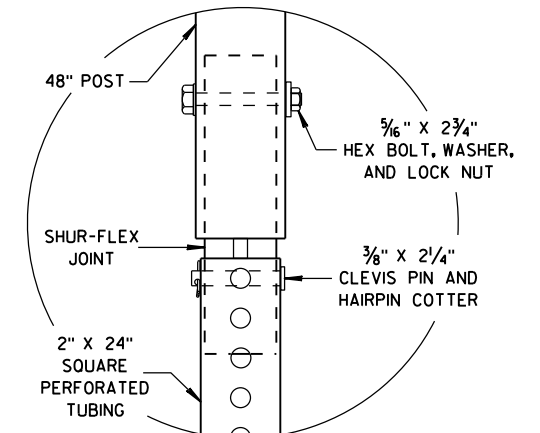
FRONT VIEW SIDE VIEW
ALTERNATE 1



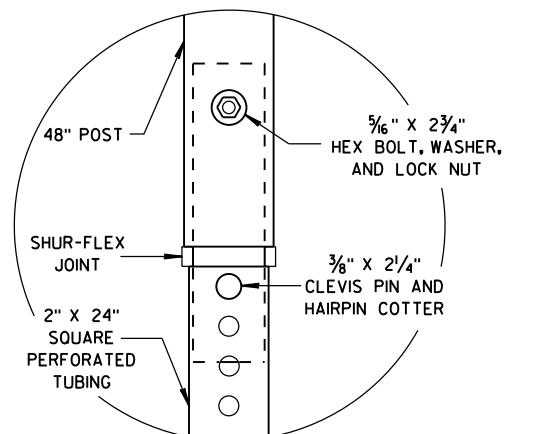
FRONT VIEW SIDE VIEW
ALTERNATE 2



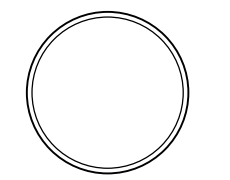
FRONT VIEW SIDE VIEW
ALTERNATE 3



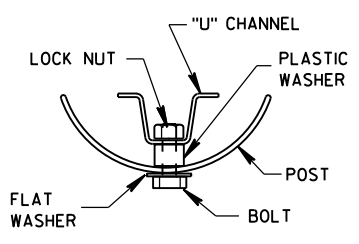
DETAIL B



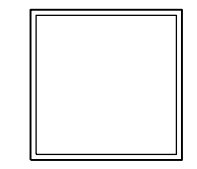
DETAIL C



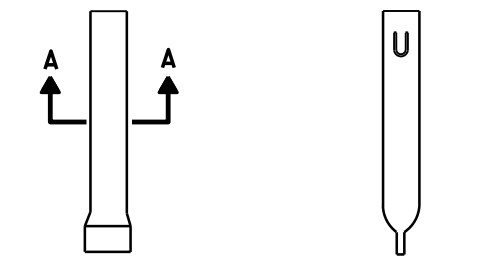
SECTION A-A



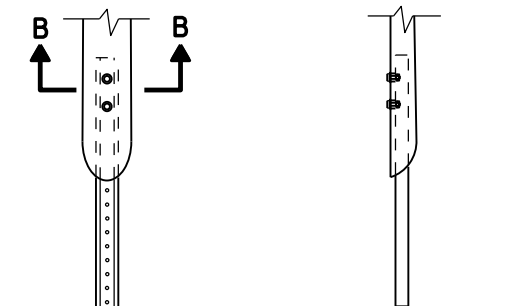
SECTION B-B



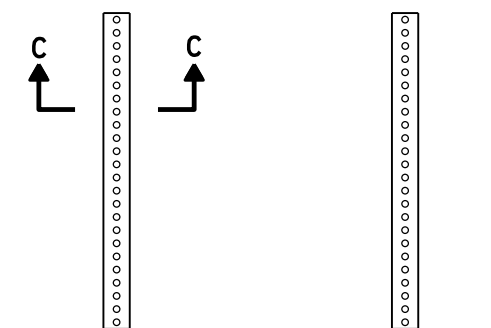
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



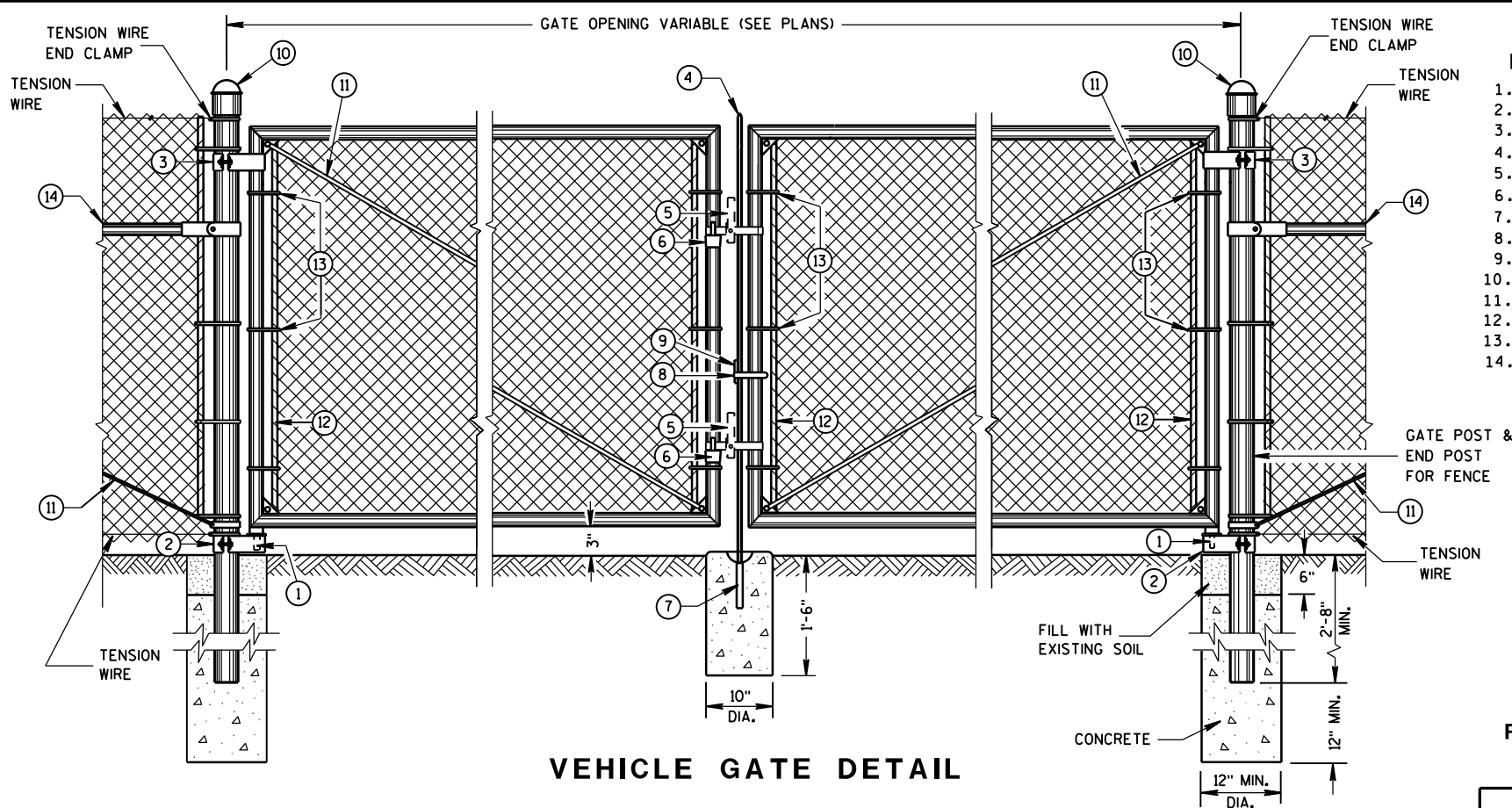
FRONT VIEW SIDE VIEW
ALTERNATE 2



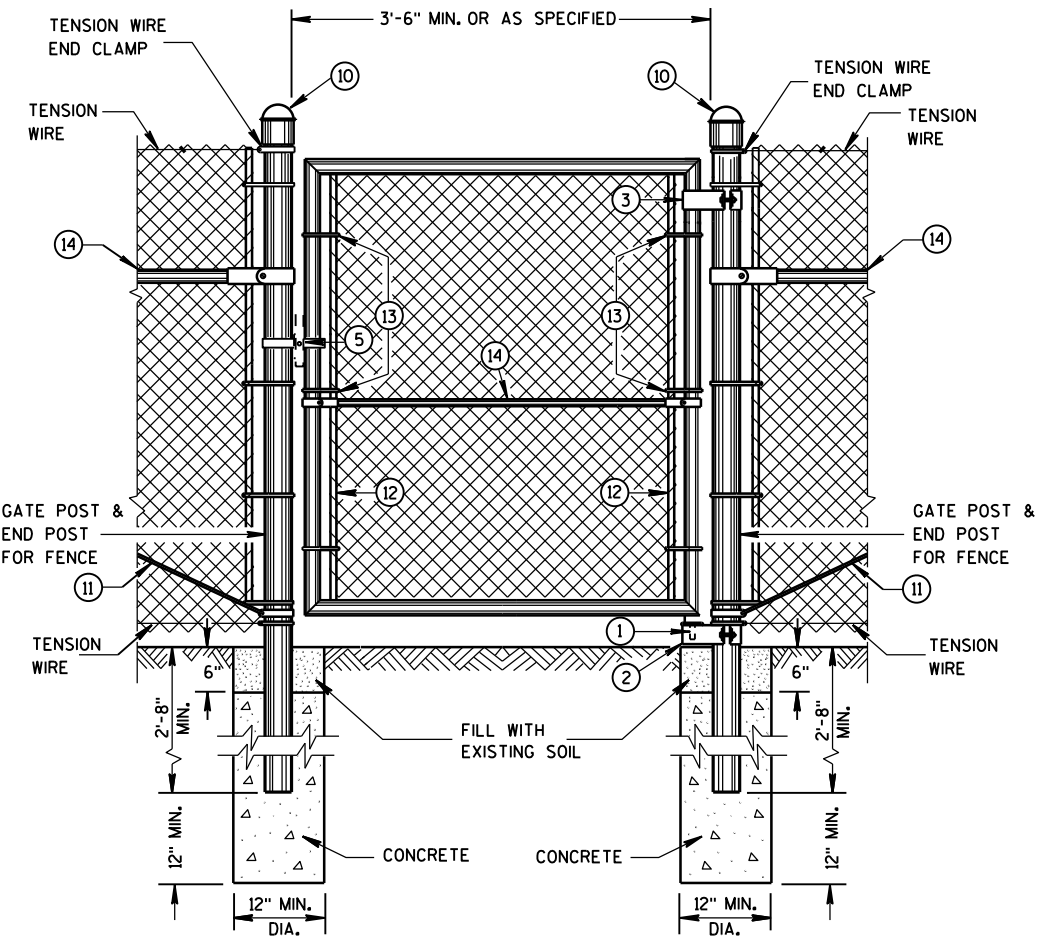
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

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	



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

- LEGEND**
1. STRAIGHT PLUG
 2. BOTTOM HINGE
 3. TOP HINGE
 4. PLUNGER ROD
 5. FULCRUM LATCH
 6. FORK CATCH *
 7. PLUNGER ROD CATCH
 8. LOCK KEEPER GUIDE
 9. LOCK KEEPER
 10. DOME TOPS
 11. TRUSS RODS
 12. TENSION BAR
 13. TENSION BANDS
 14. BRACE RAIL
- *NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

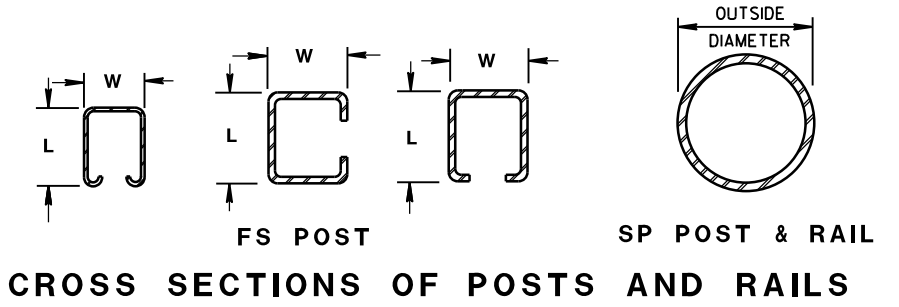
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

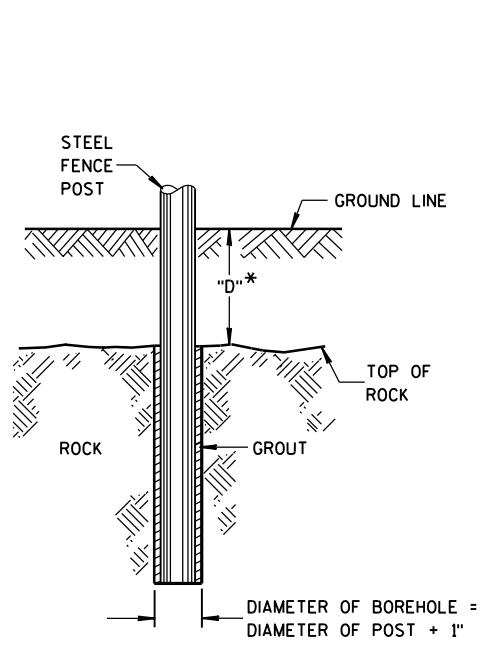
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

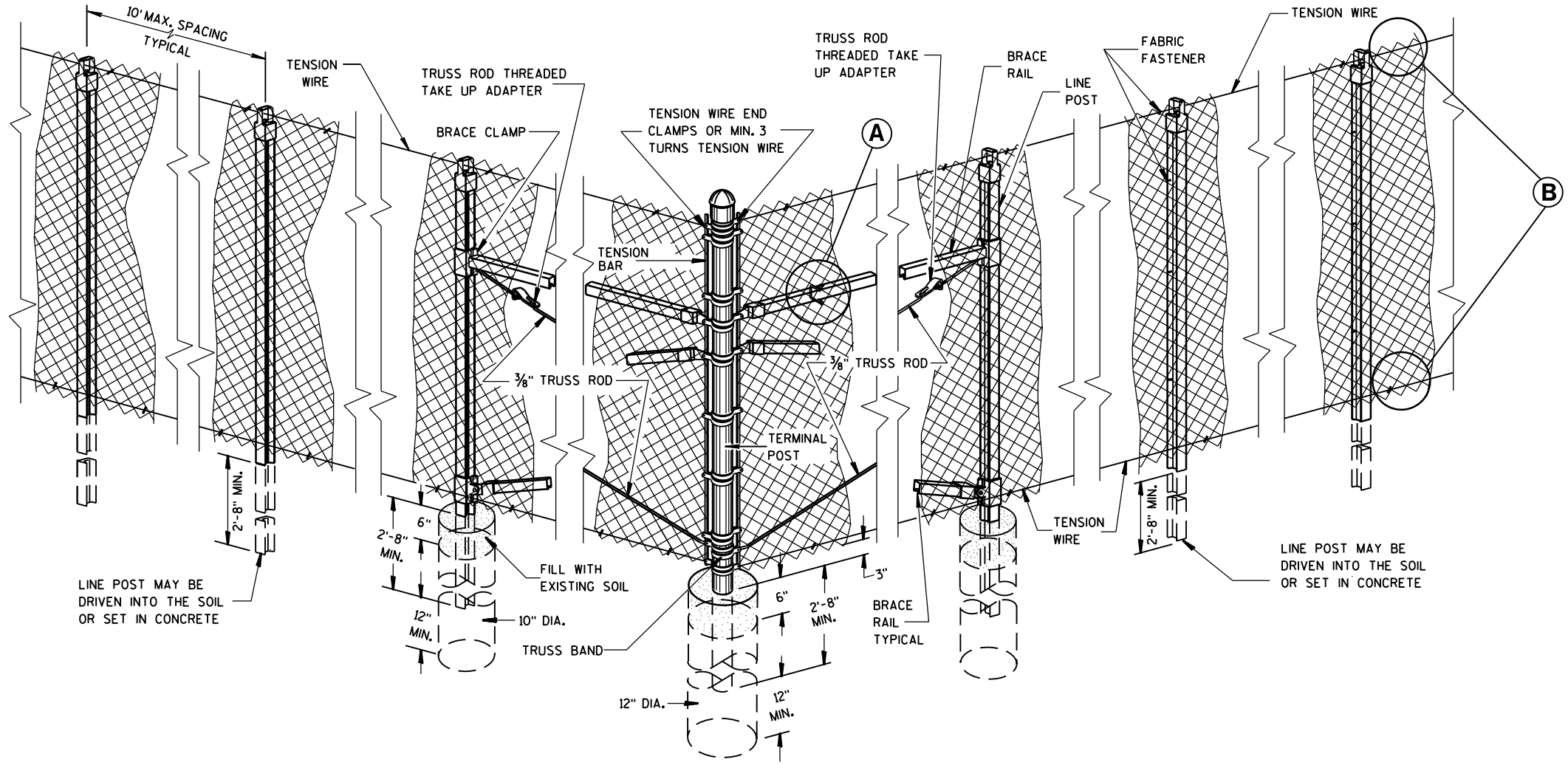
S.D.D. 15 B 3-15a

S.D.D. 15 B 3-15a

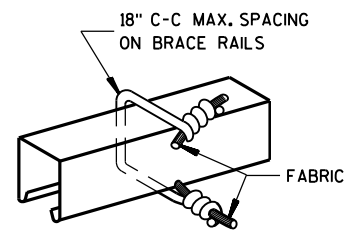


* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

**ROCK INSTALLATION
OF LINE POST**

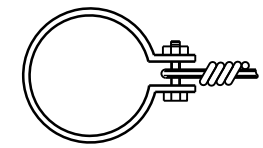


**END, CORNER, ANGLE
INTERSECTION & INTERMEDIATE
BRACED POSTS**

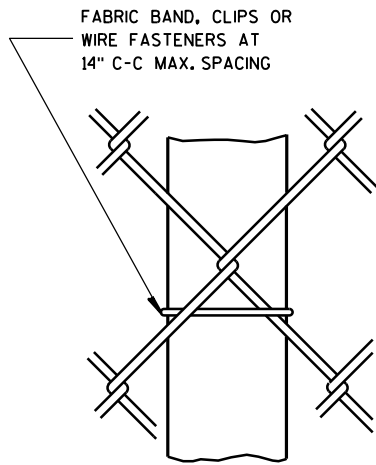


**BRACE RAIL
FABRIC FASTENER**

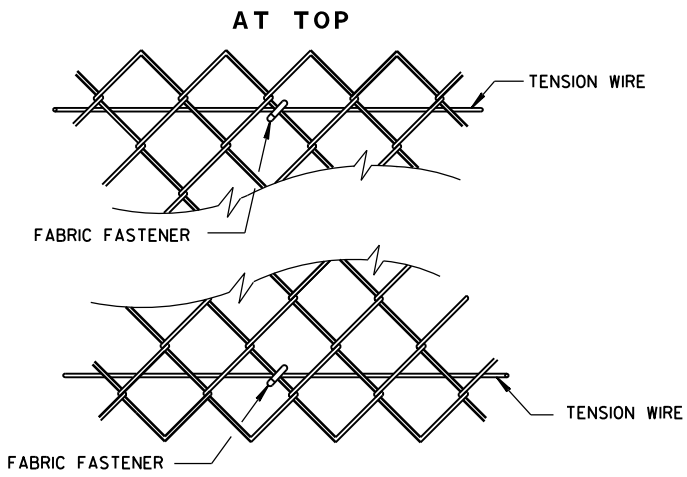
(A)



TENSION WIRE END CLAMP

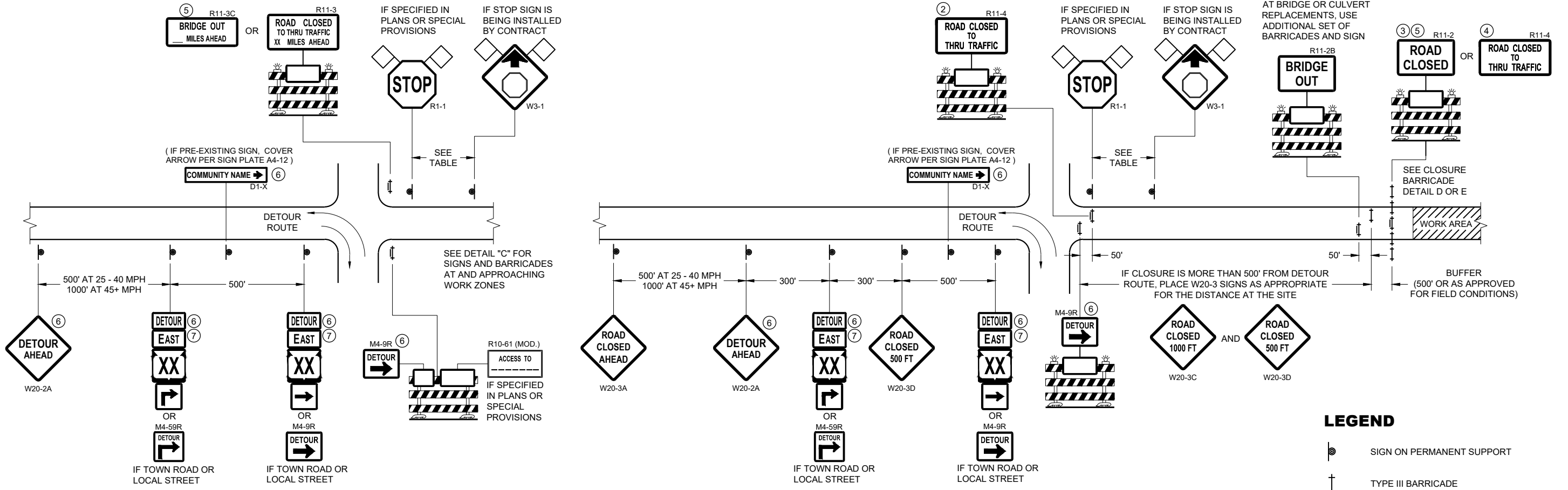


**LINE POST
FABRIC FASTENER**



(B)

FENCE CHAIN LINK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED FEB. 2015 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

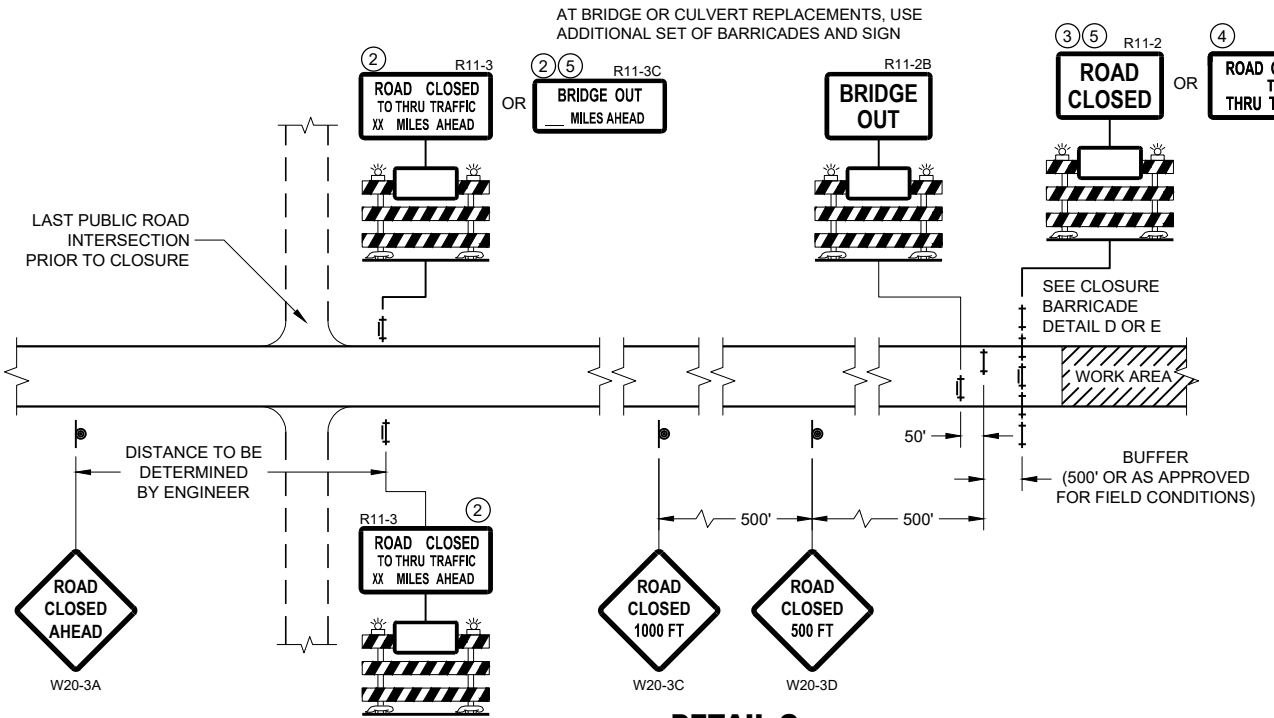
**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- LEGEND**
- SIGN ON PERMANENT SUPPORT
 - TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TYPE "A" WARNING LIGHT (FLASHING)
 - WORK AREA
 - FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



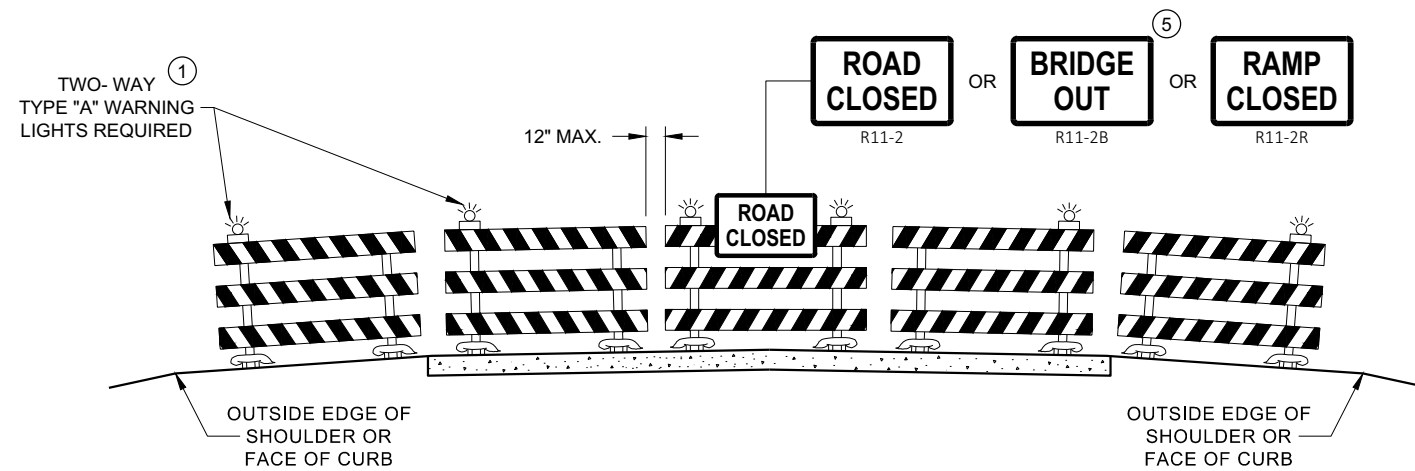
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

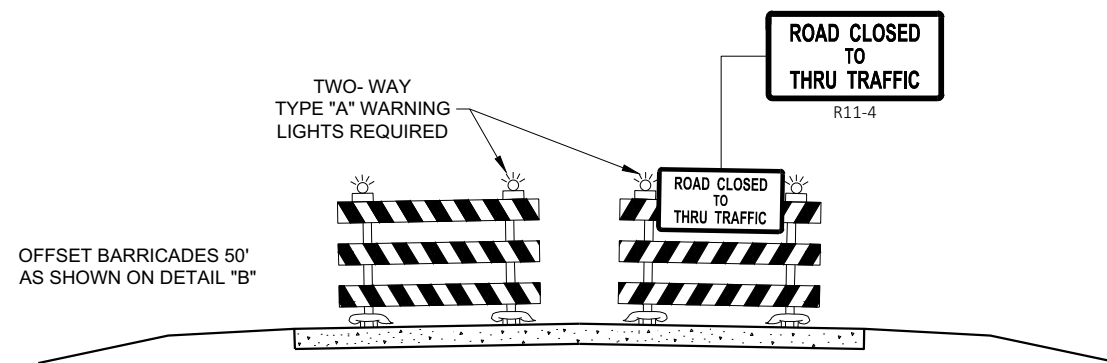
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

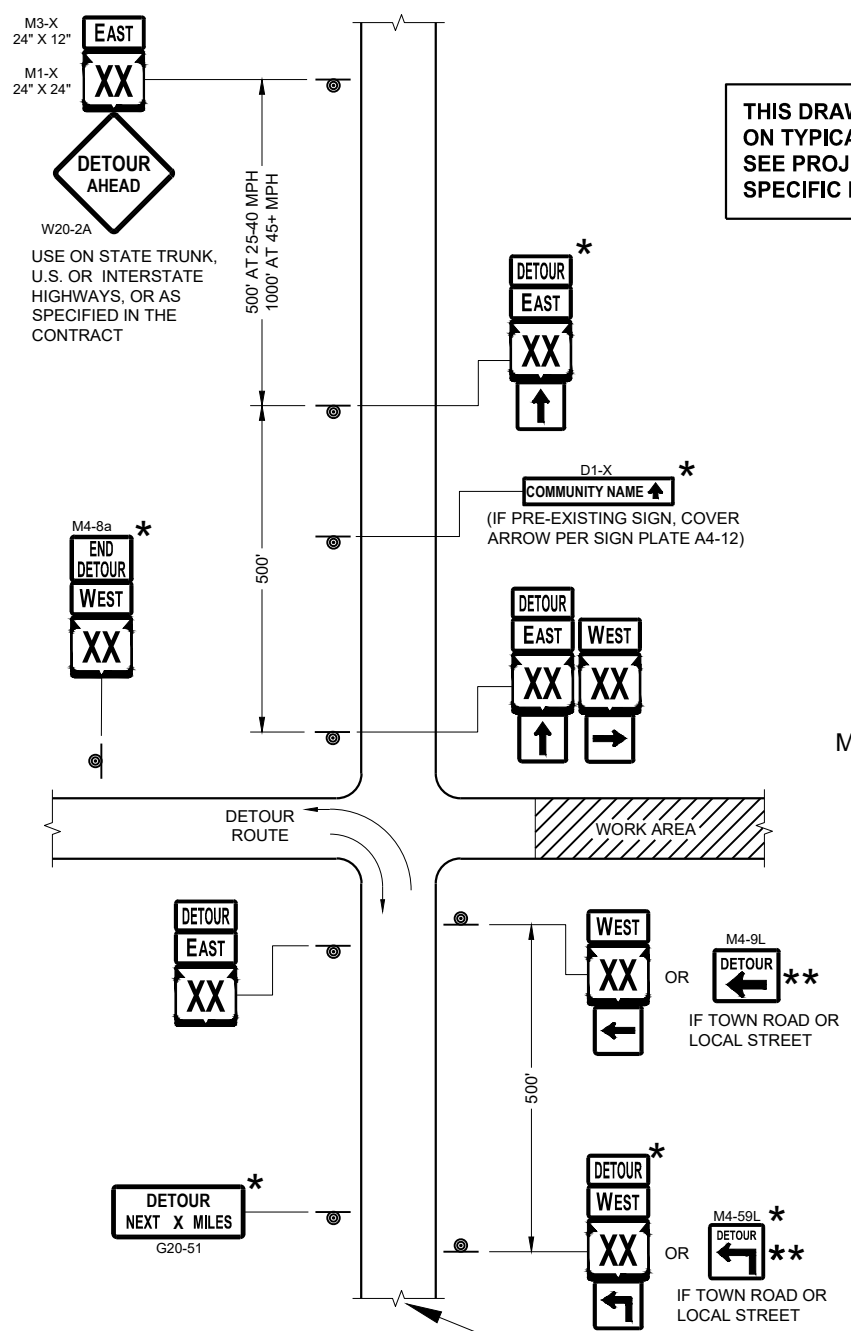
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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

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

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

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

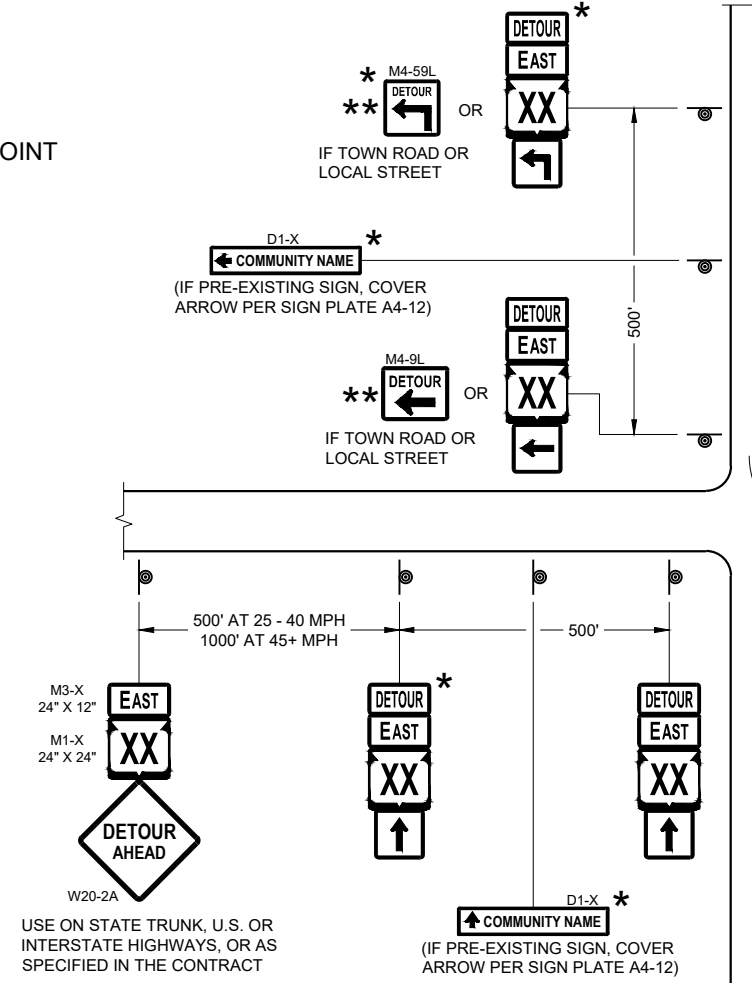
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

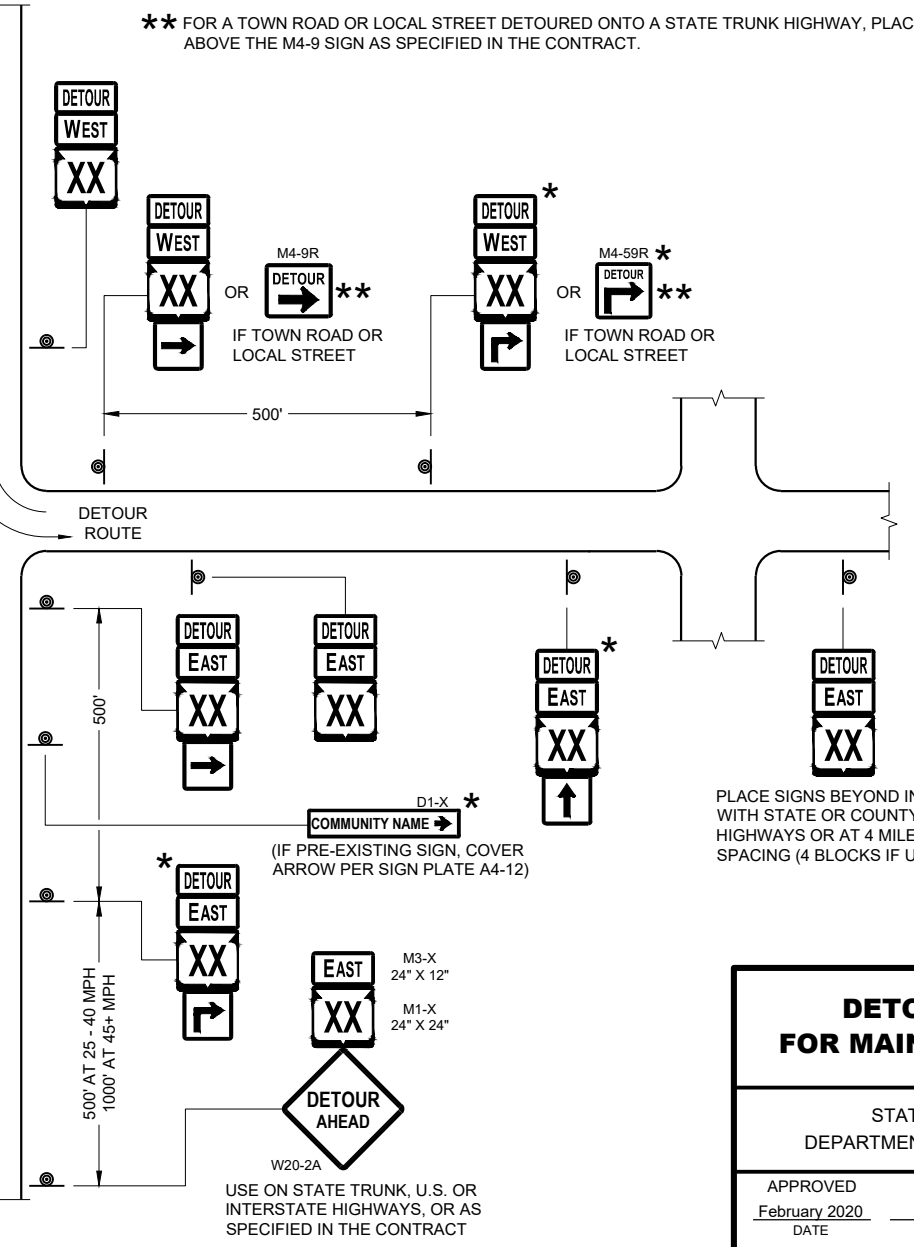
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



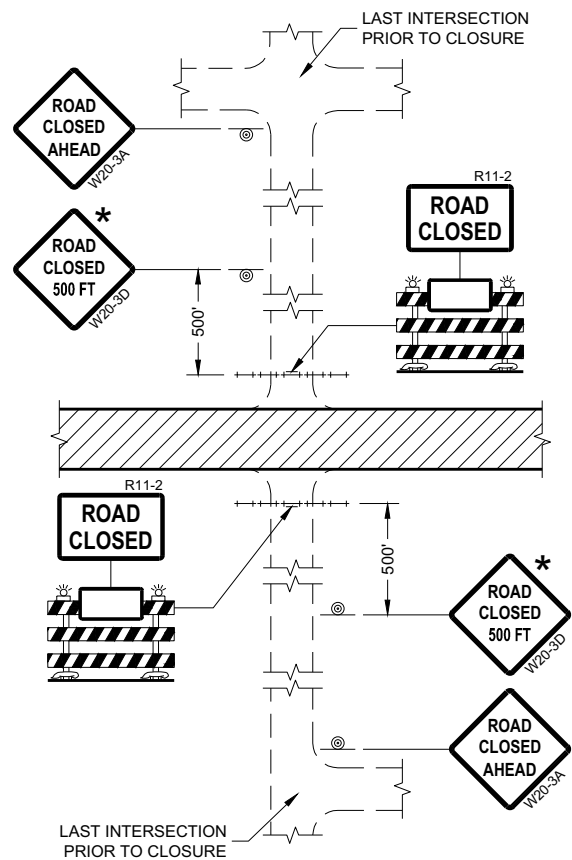
**DETAIL F
DETOUR SIGNING**



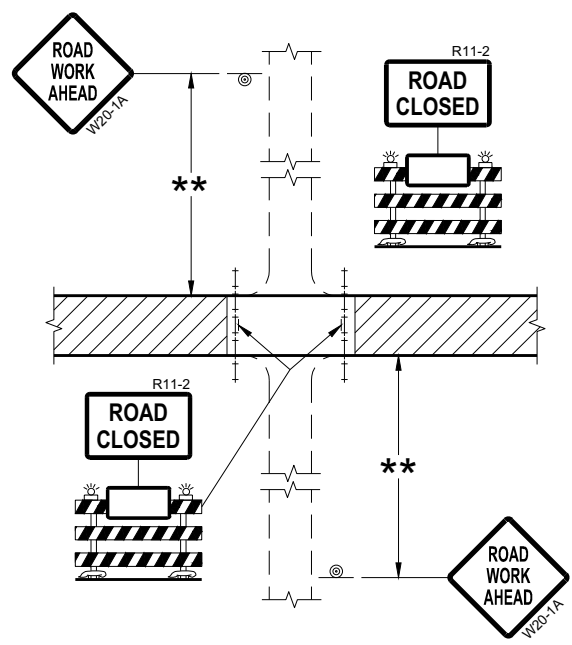
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

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

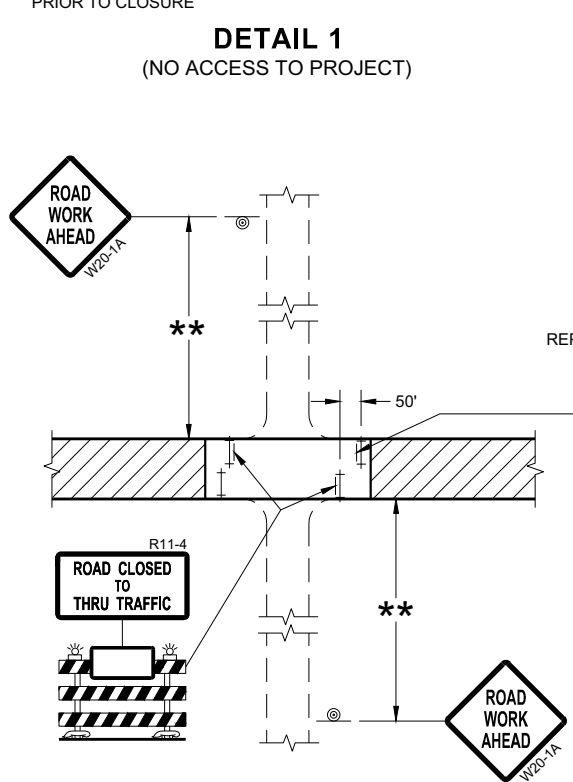
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



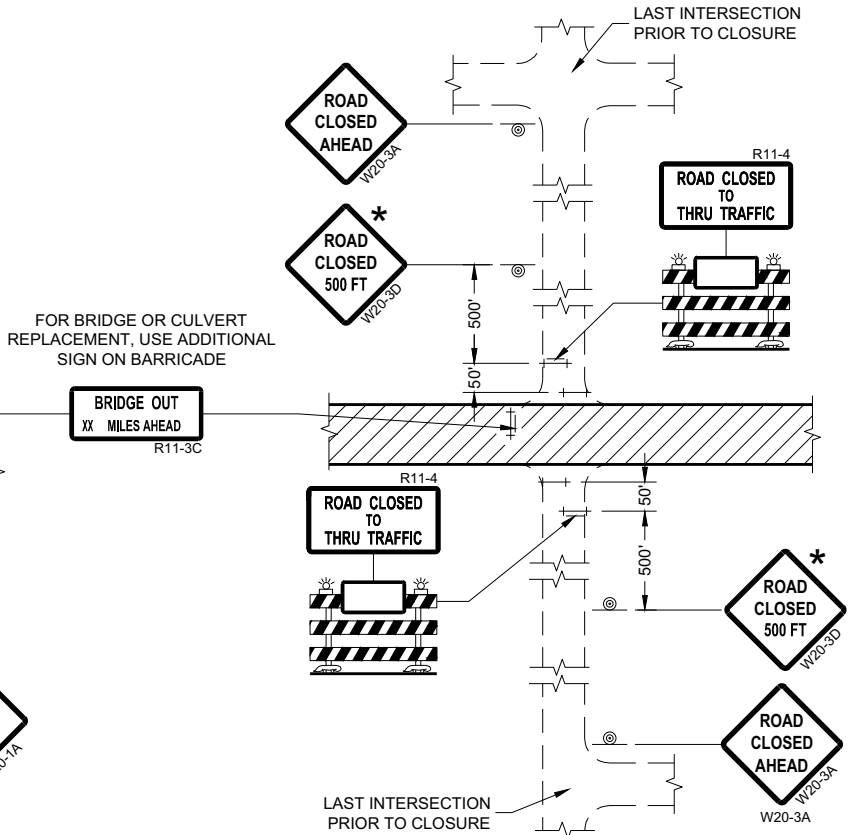
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- ⚡ TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

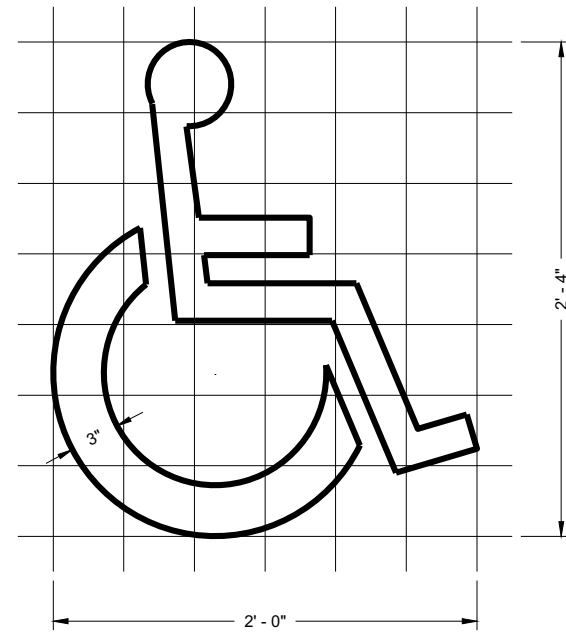
**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

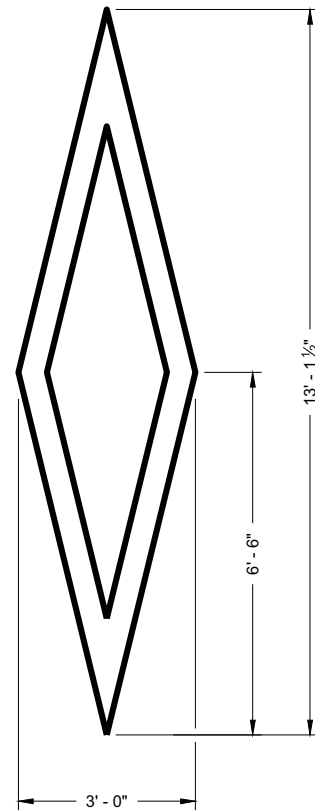
APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

GENERAL NOTES

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



HANDICAP SYMBOL



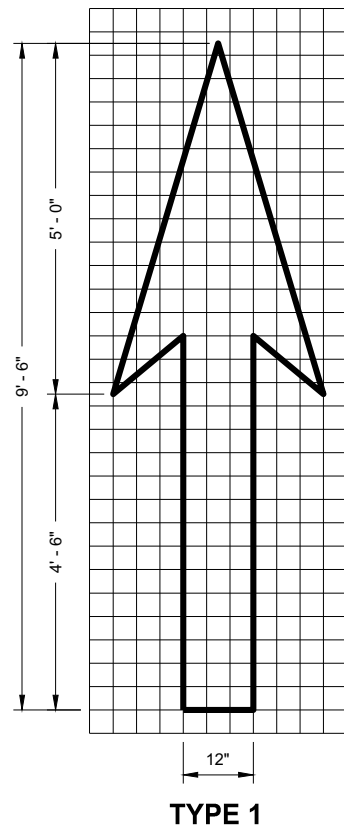
PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

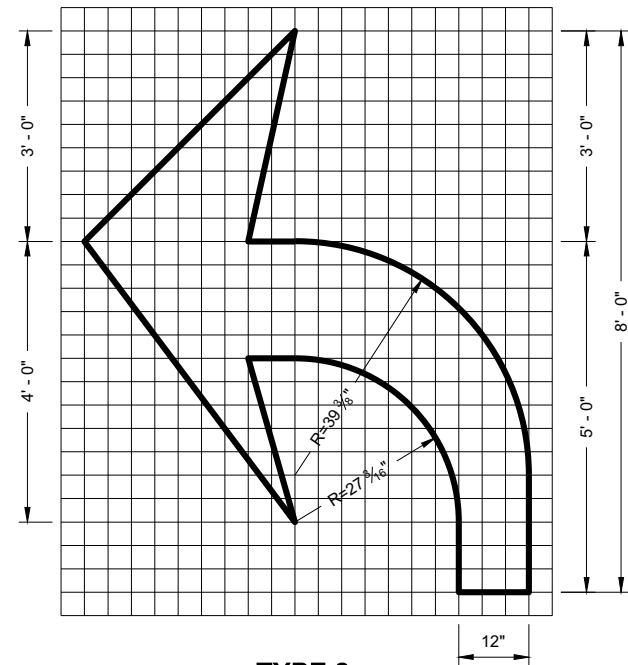
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

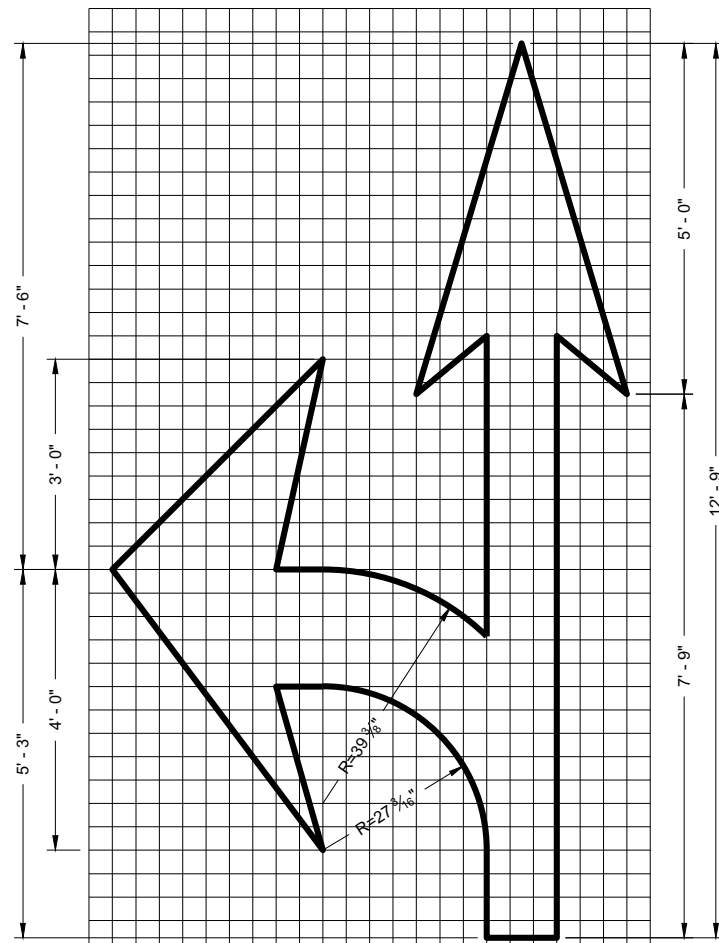
FHWA



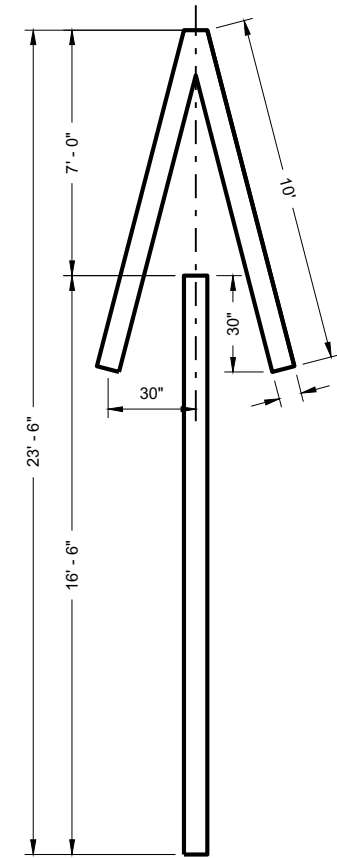
TYPE 1



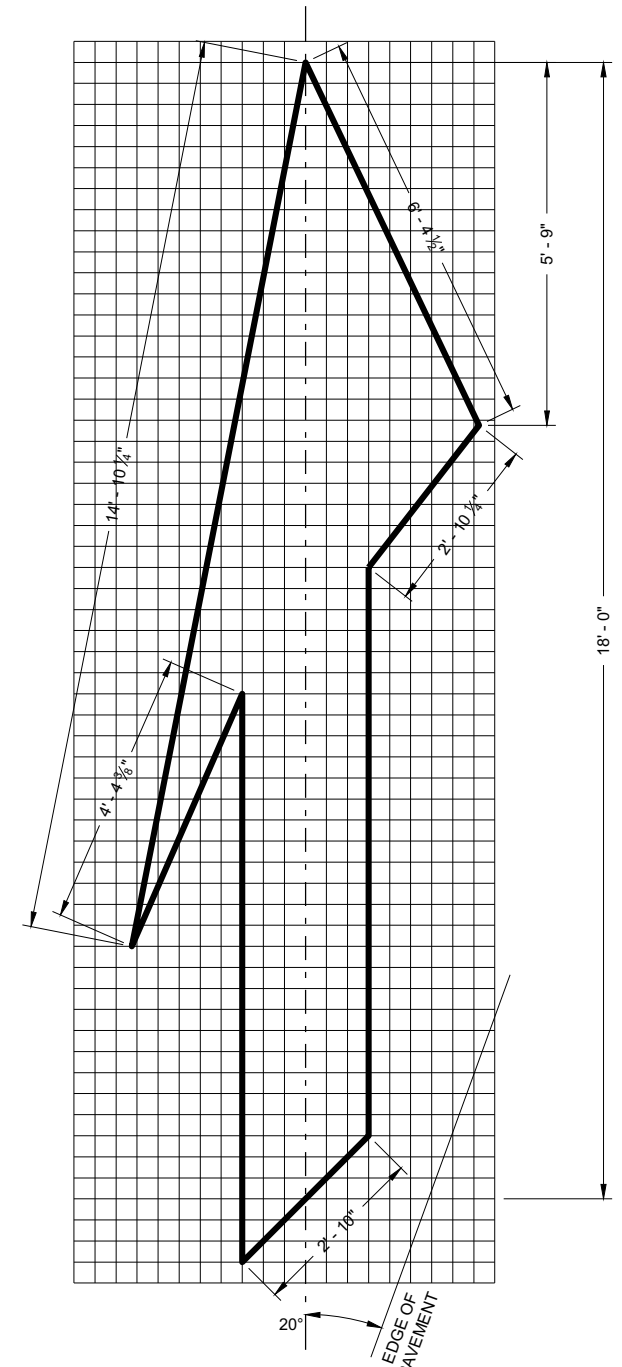
TYPE 2



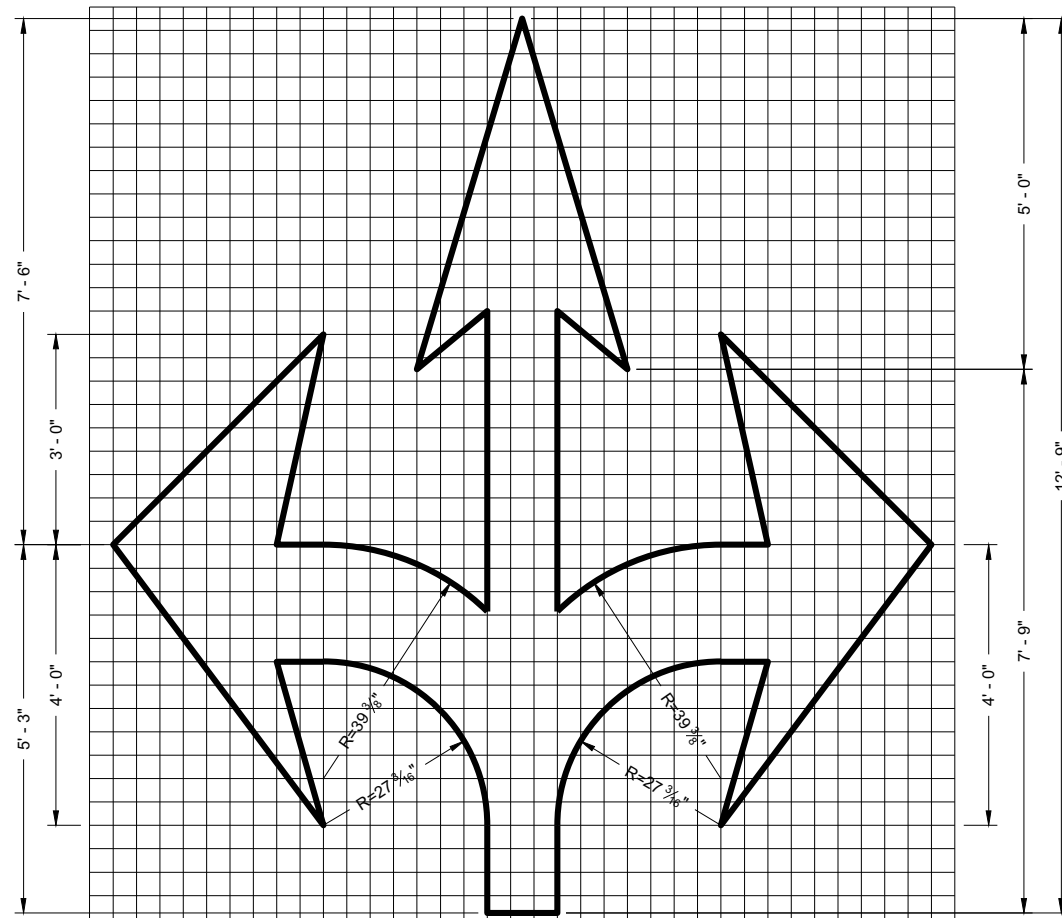
TYPE 3



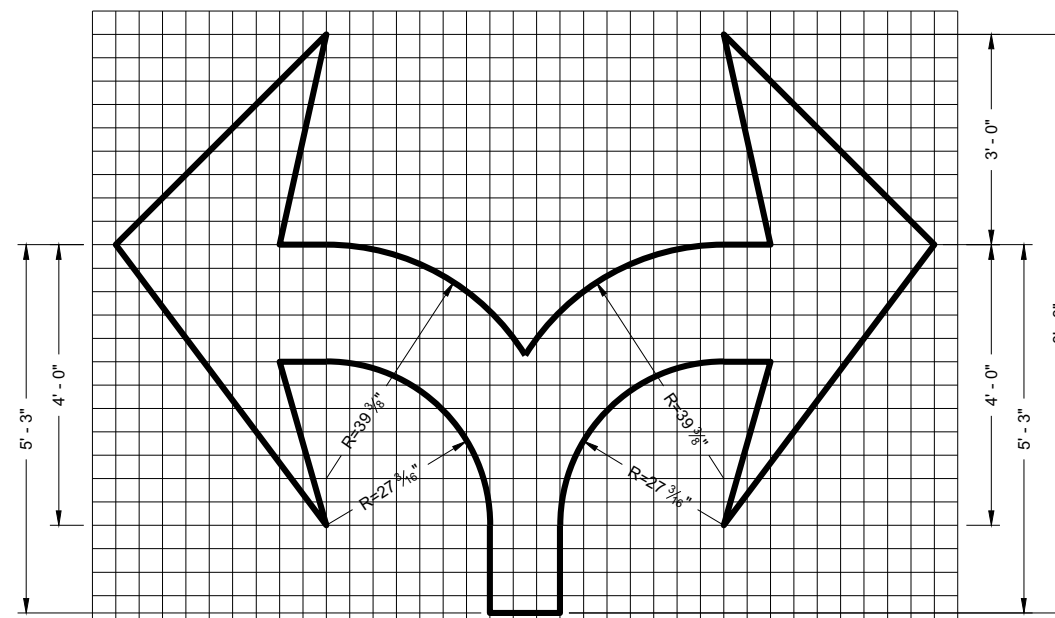
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

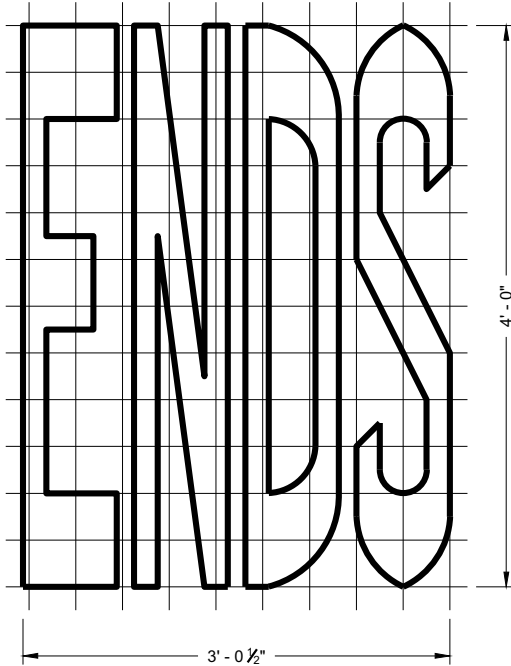
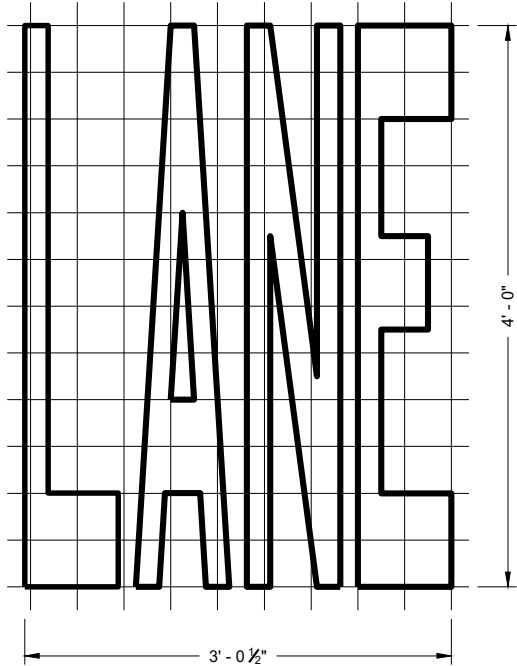
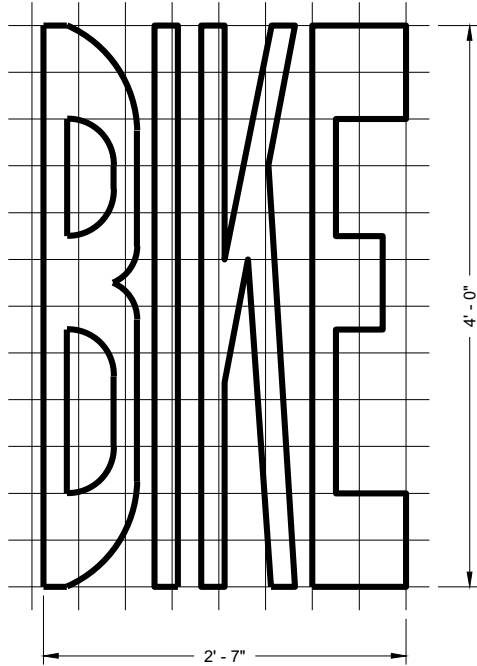
APPROVED

November 2019

DATE

FHWA

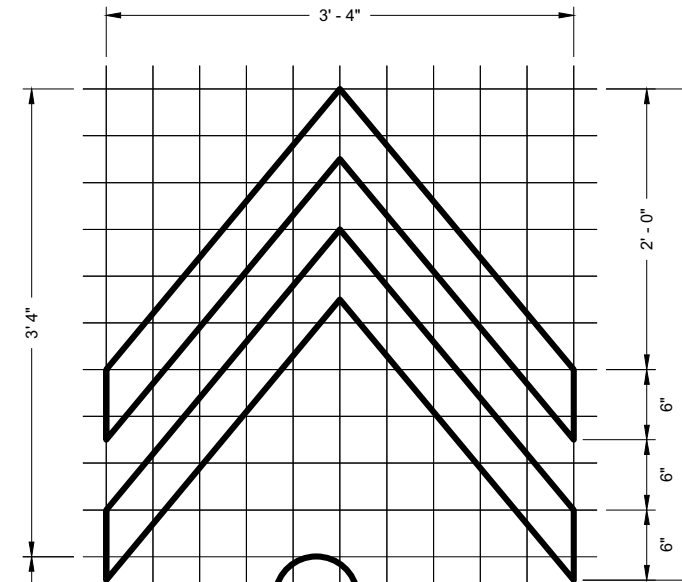
/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER



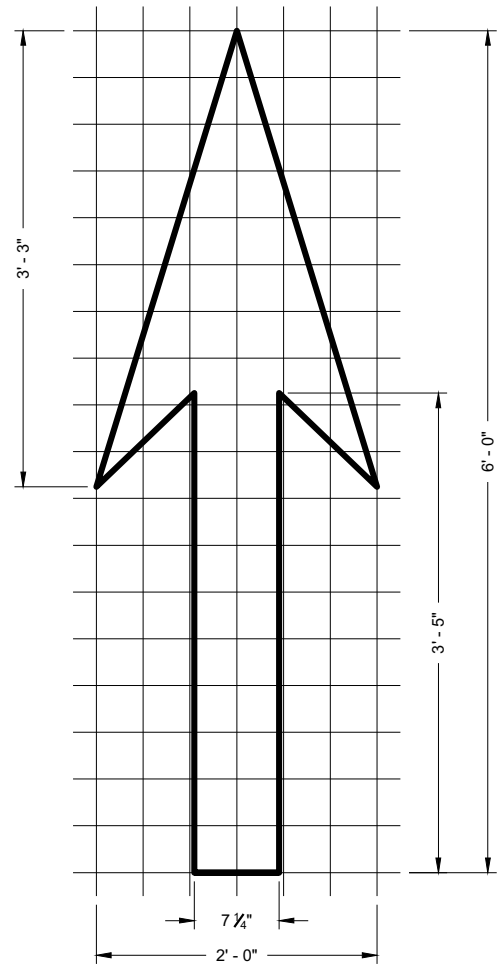
BIKE LANE WORDS

GENERAL NOTES

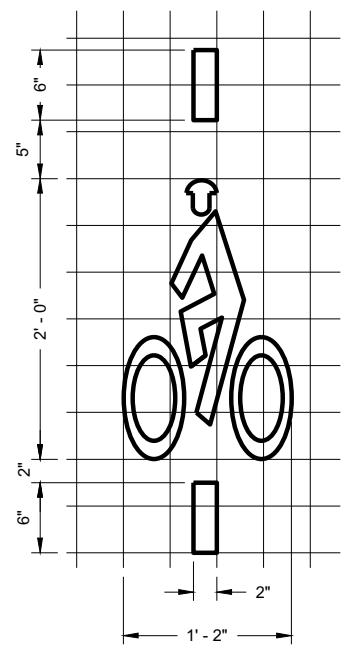
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



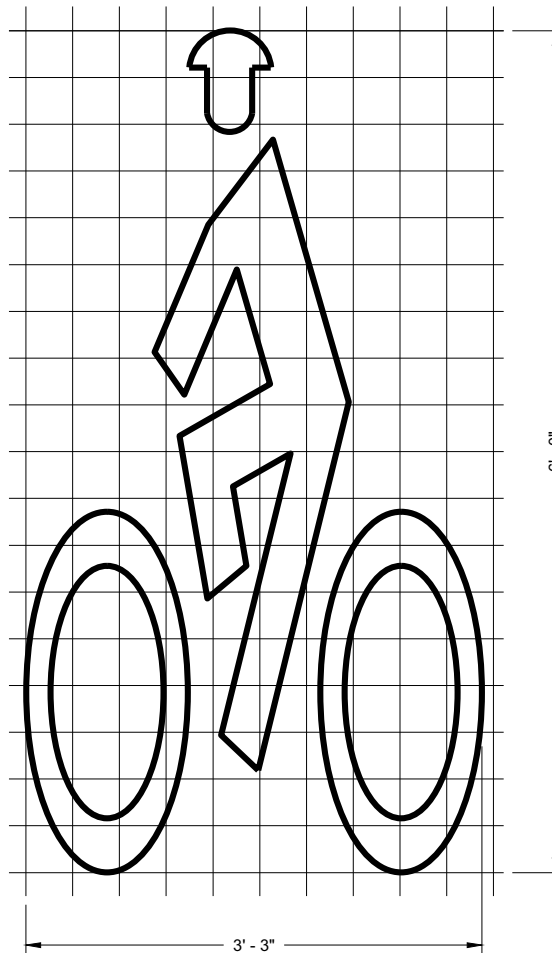
BIKE LANE SYMBOL FOR SHARED LANE



BIKE LANE ARROW



BIKE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

6

6

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER




FHWA

GENERAL NOTES

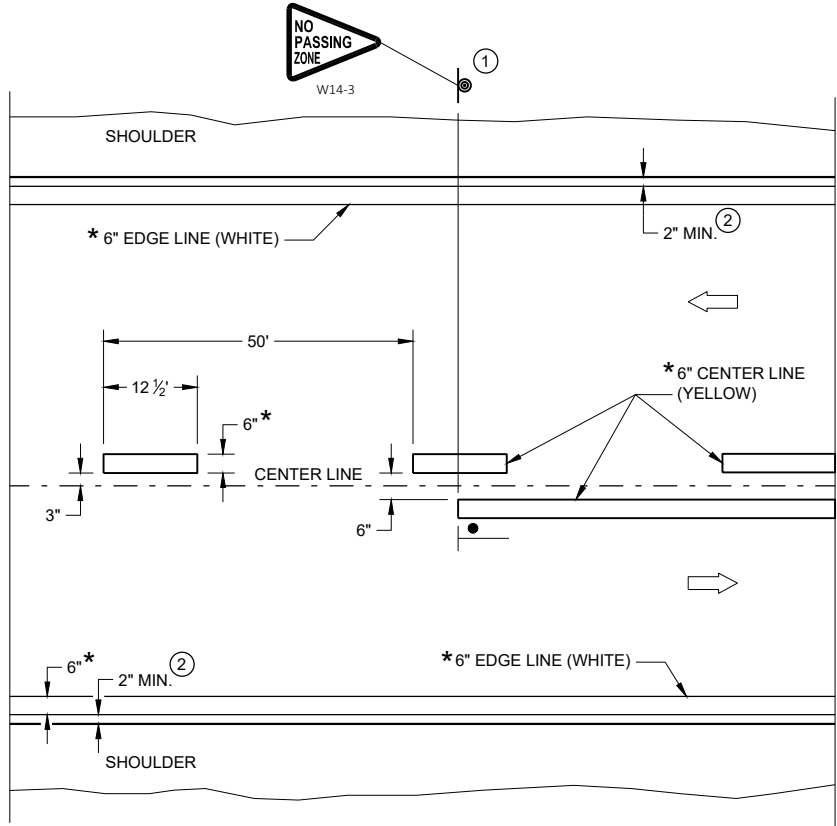
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

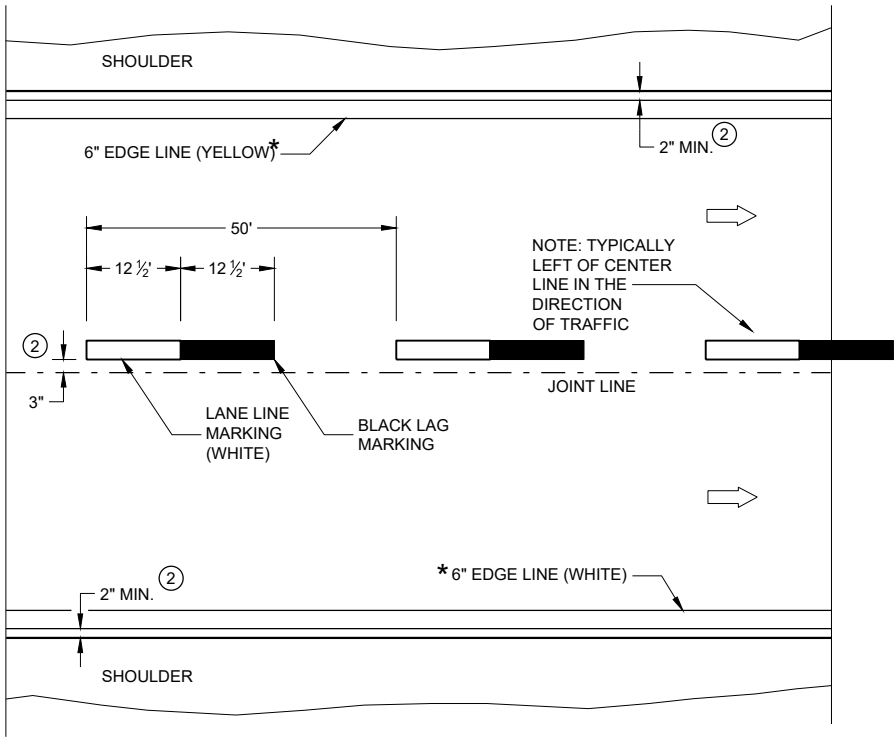
LEGEND

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

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



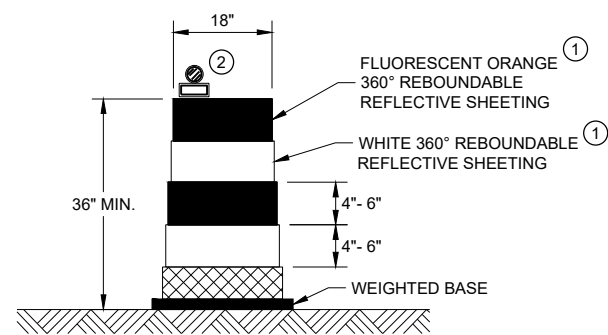
ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

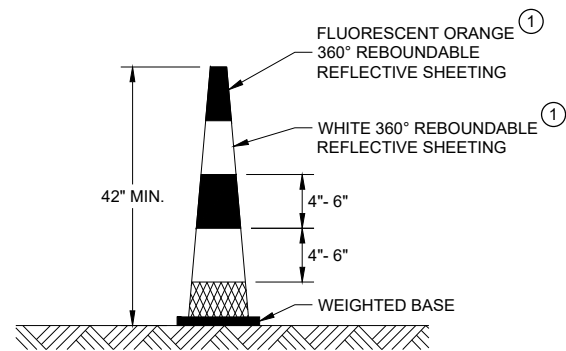
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



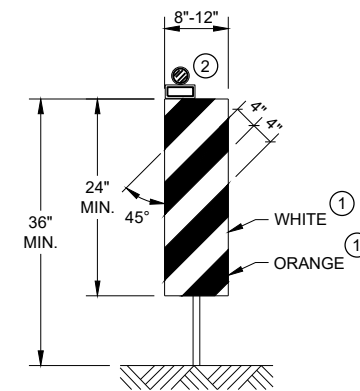
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

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

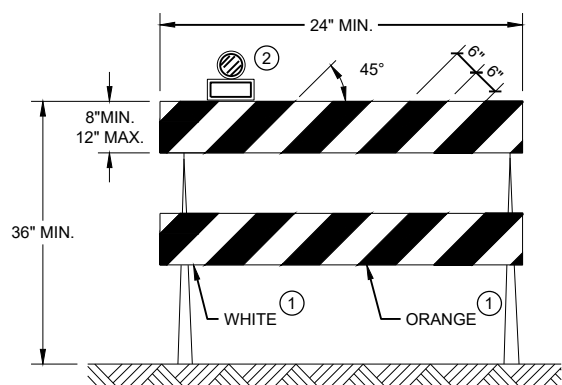


VERTICAL PANEL

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

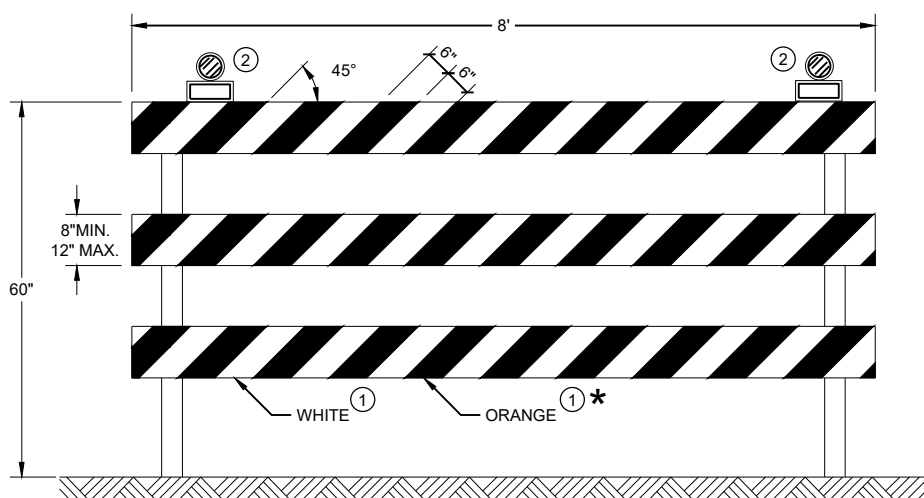
GENERAL NOTES

- 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
FHWA	

GENERAL NOTES

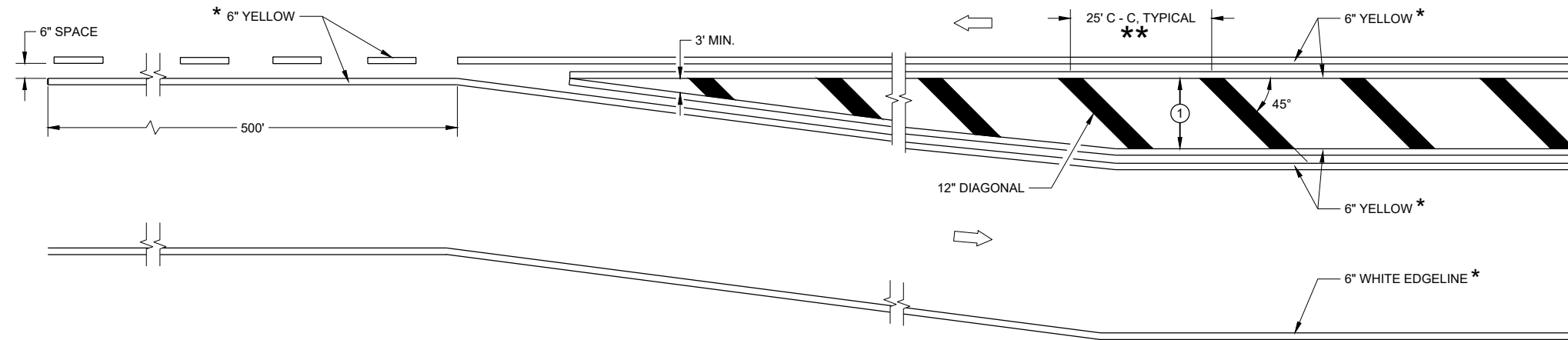
- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

➔ DIRECTION OF TRAVEL

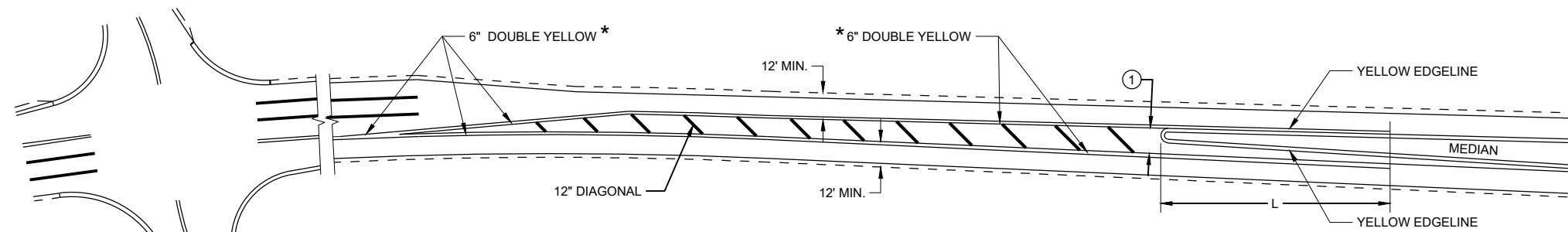
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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

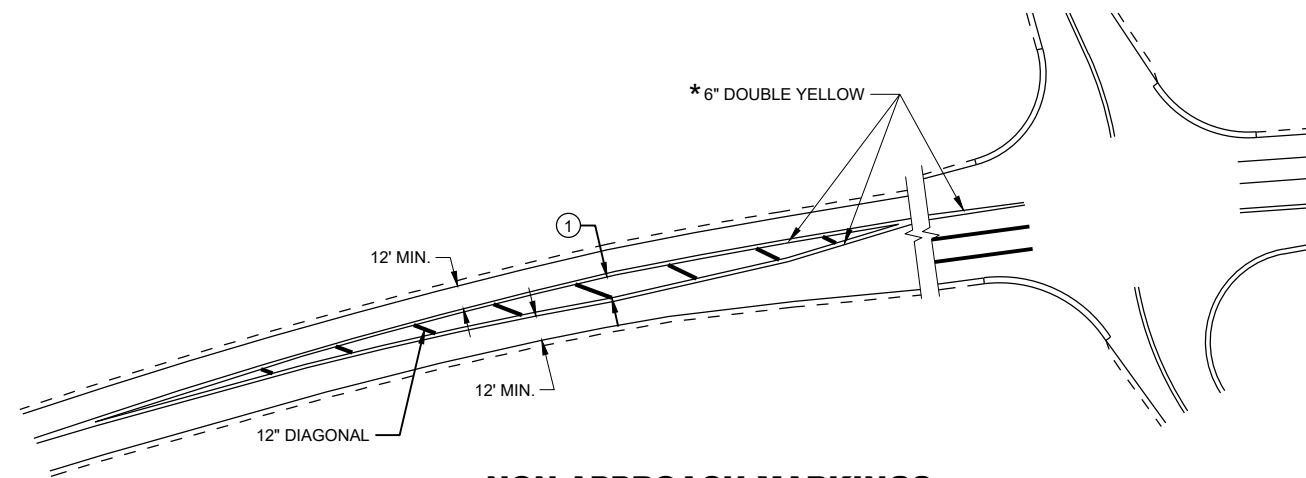
** WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



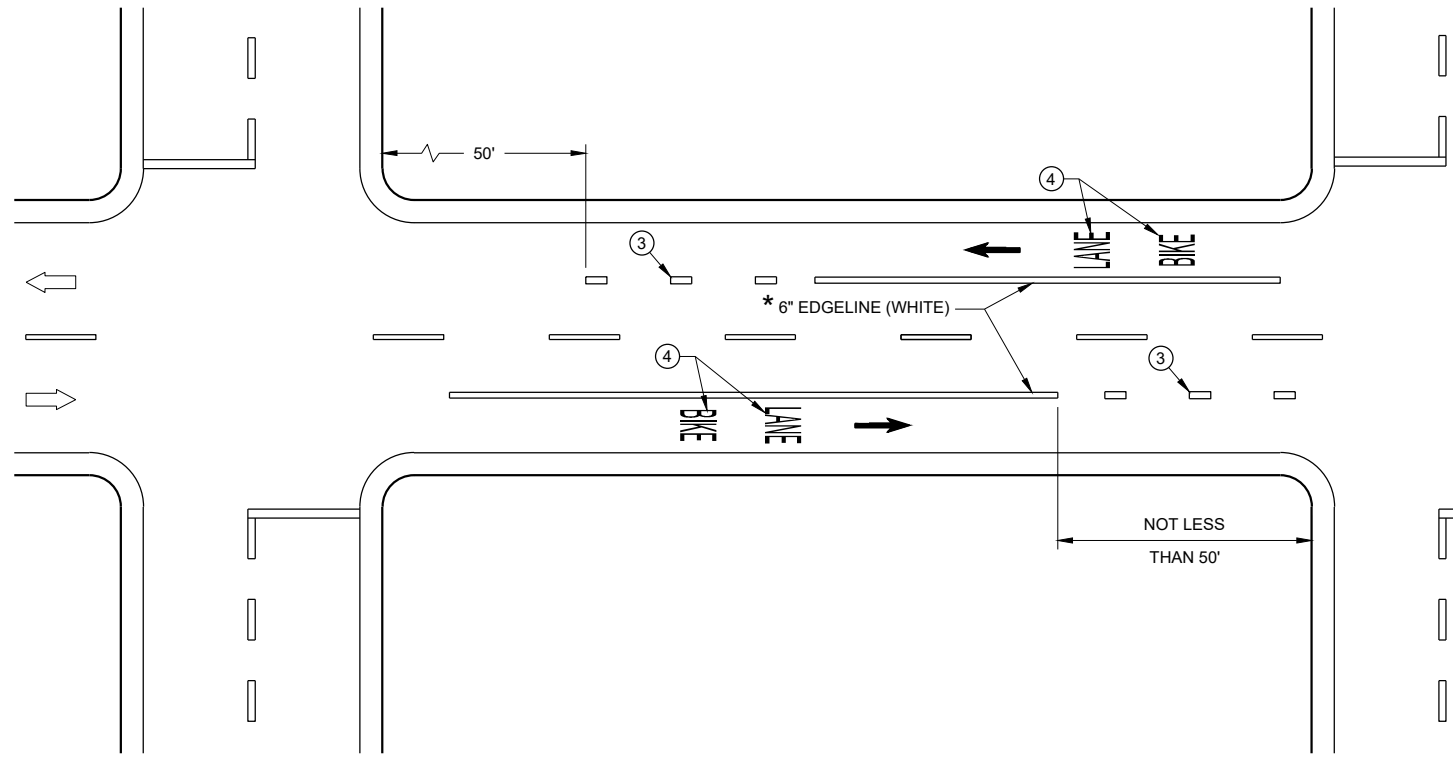
NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

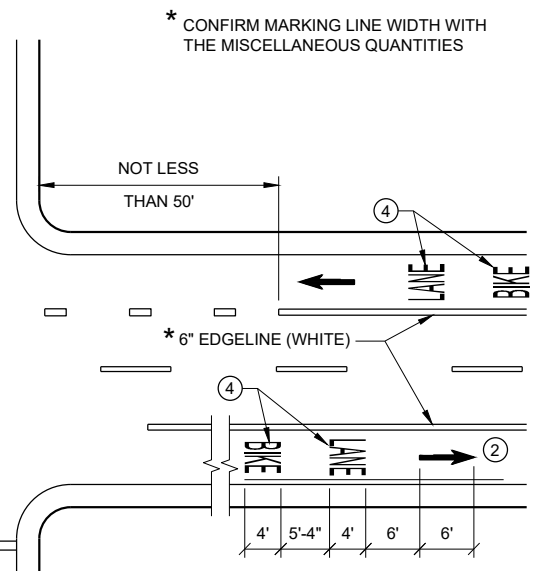
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA



DESIGNATED BIKE LANE - NO PARKING



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

NOT LESS THAN 50'

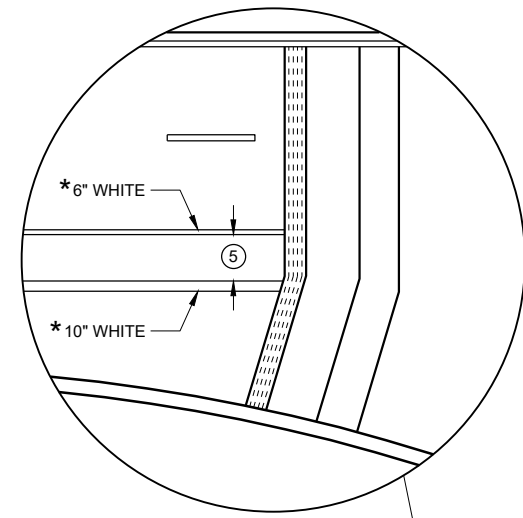
* 6" EDGELINE (WHITE)

4' 5'-4" 4' 6' 6'

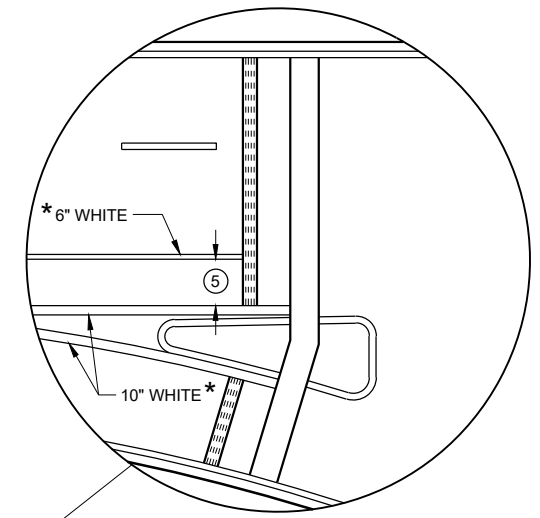
GENERAL NOTES

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

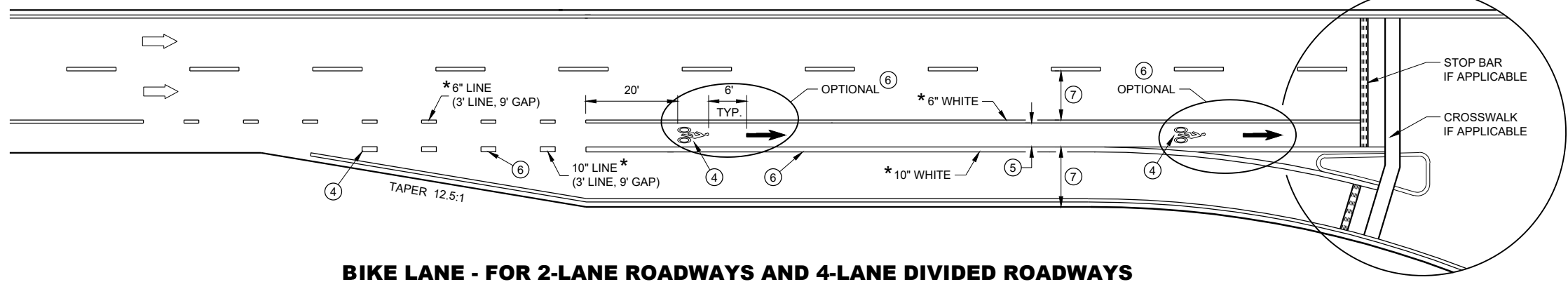
DIRECTION OF TRAVEL



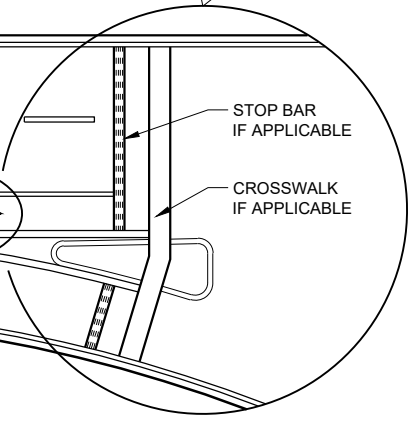
4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



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



BIKE LANE MARKING

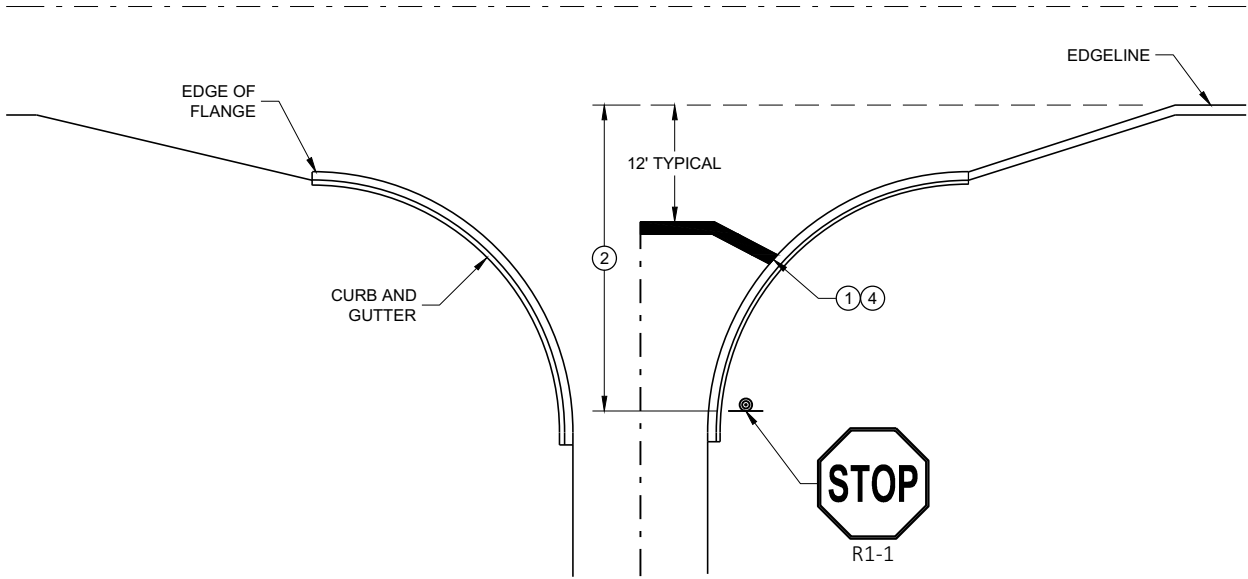
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2023 /S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

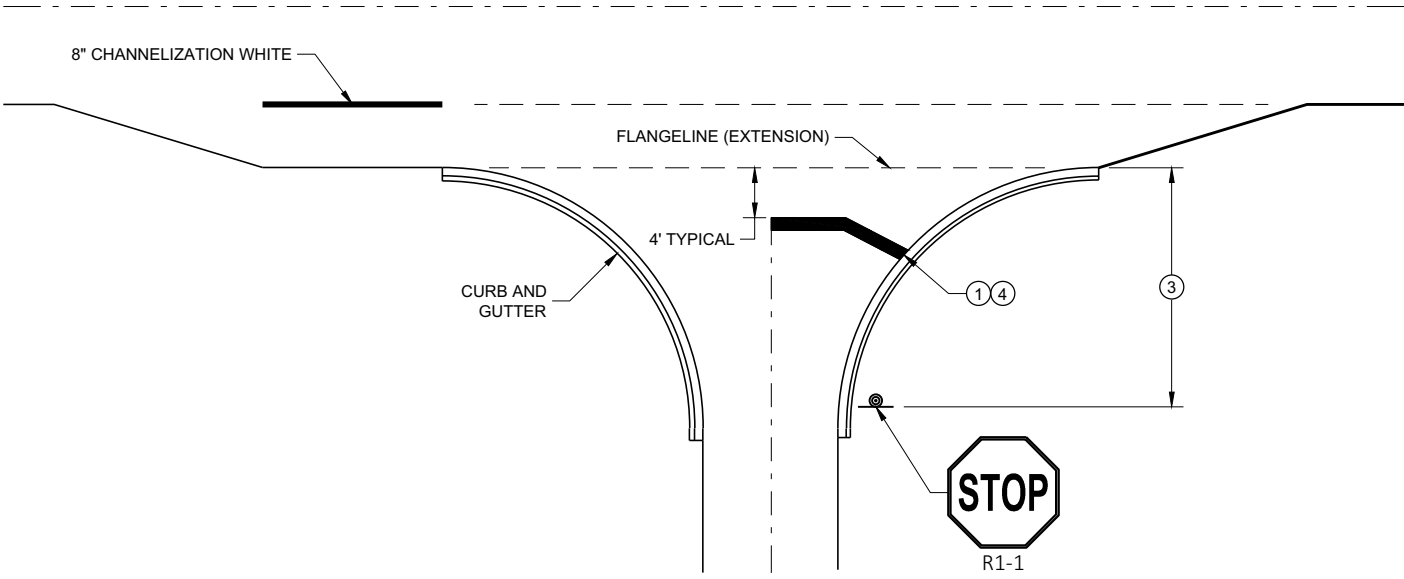
GENERAL NOTES

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

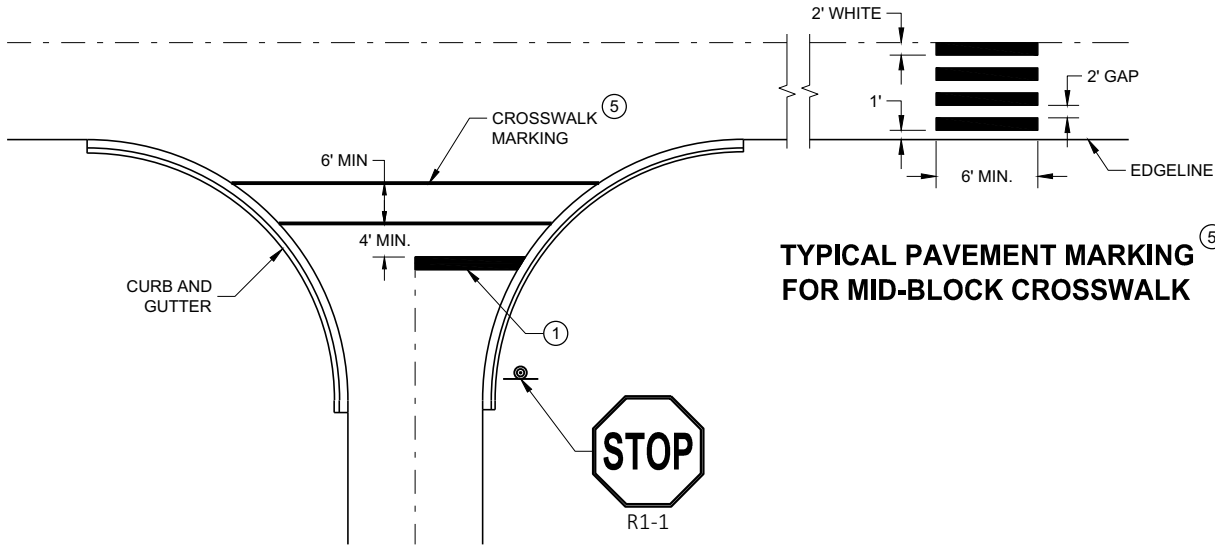
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE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



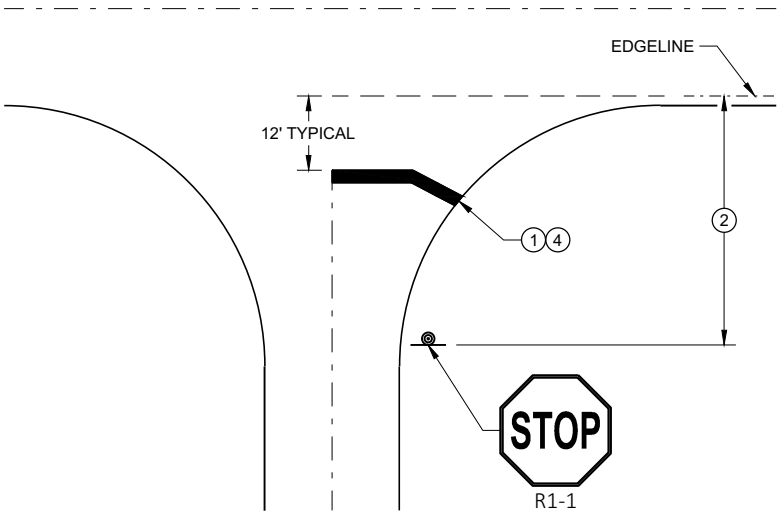
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



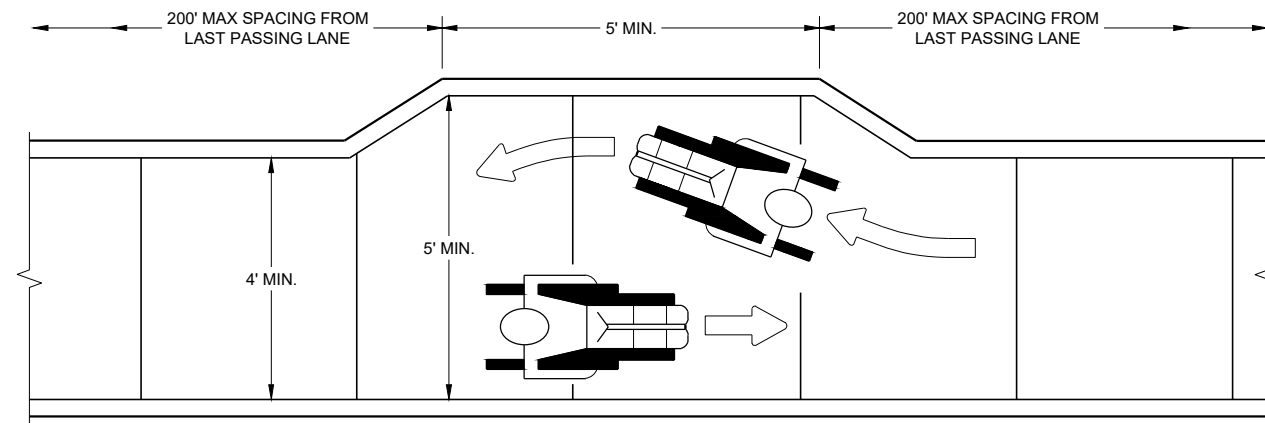
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

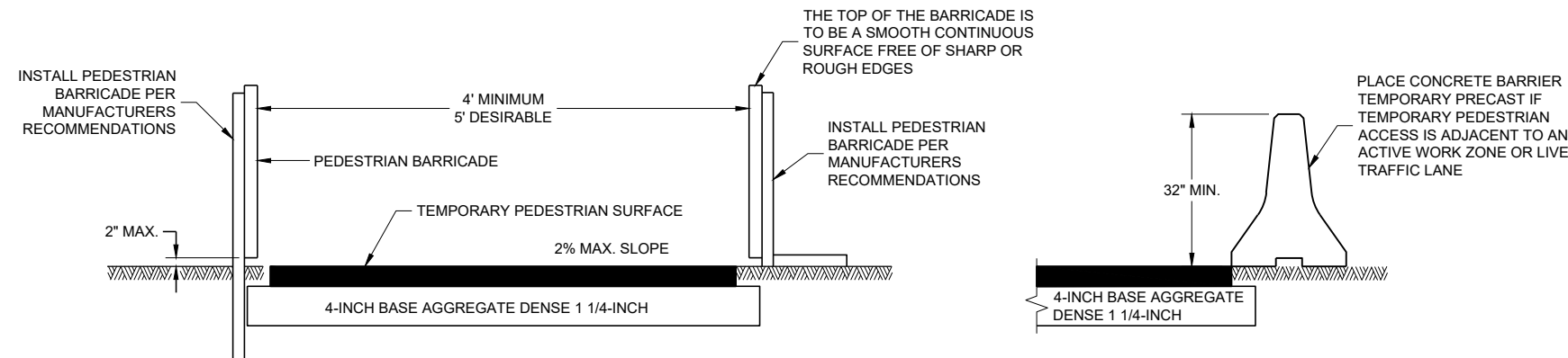
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



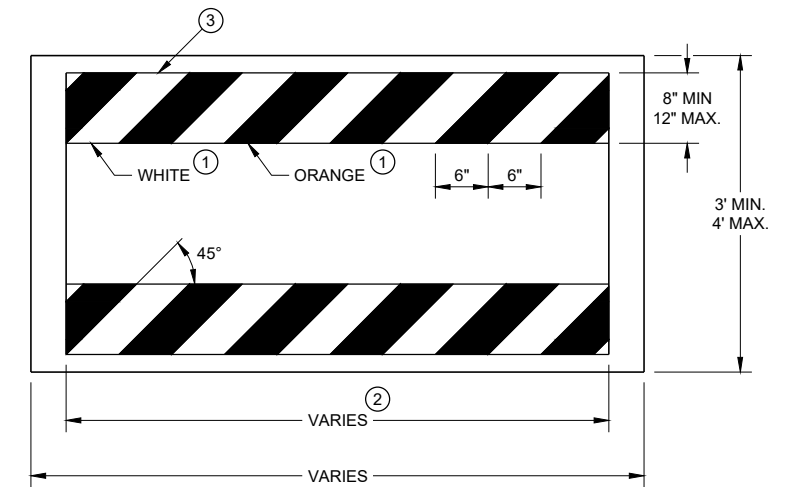
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

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

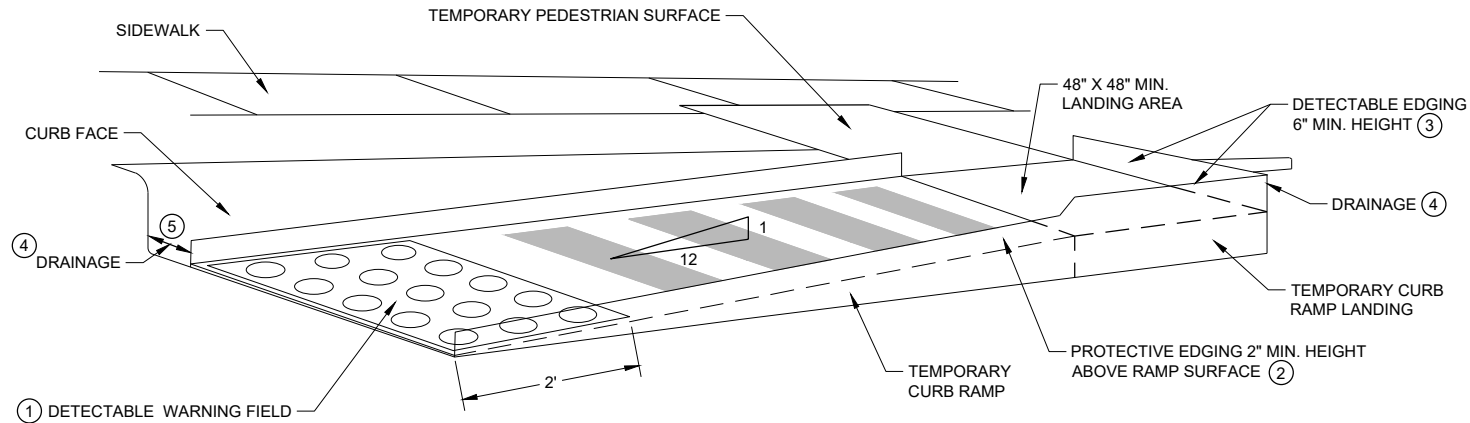


TEMPORARY PEDESTRIAN BARRICADE*

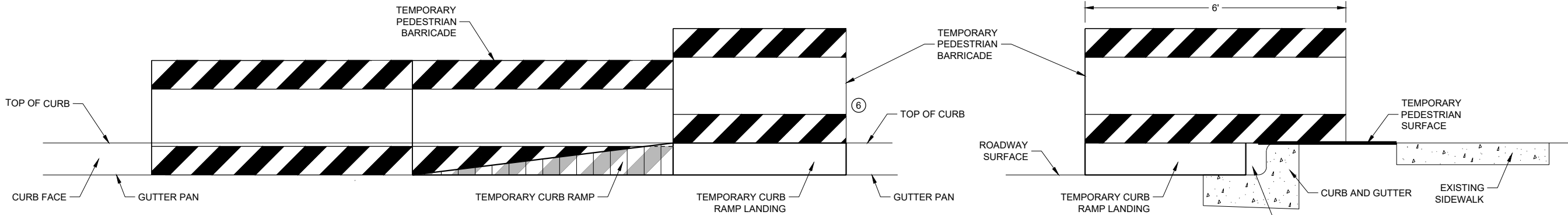
GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

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



PERSPECTIVE VIEW

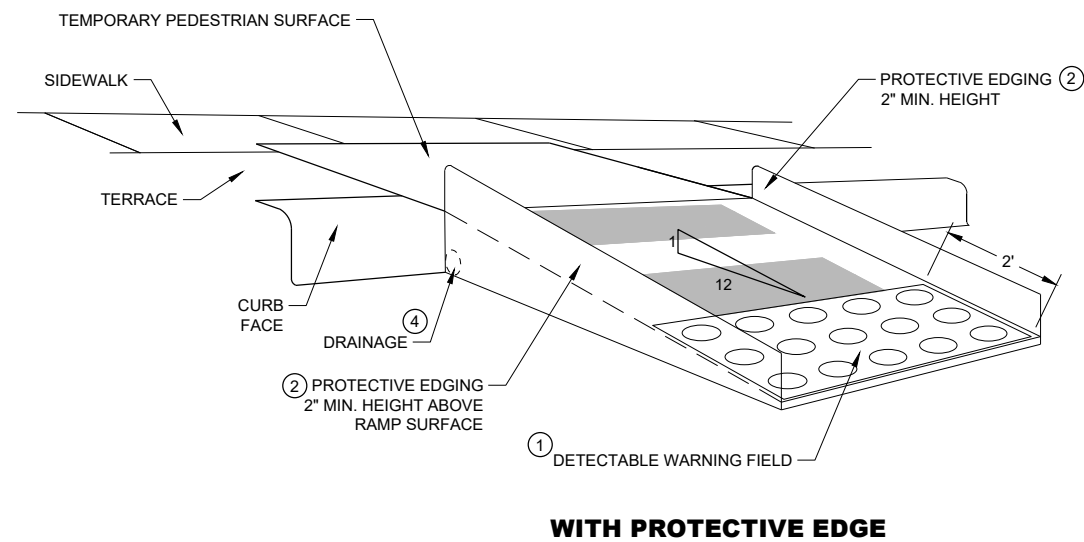
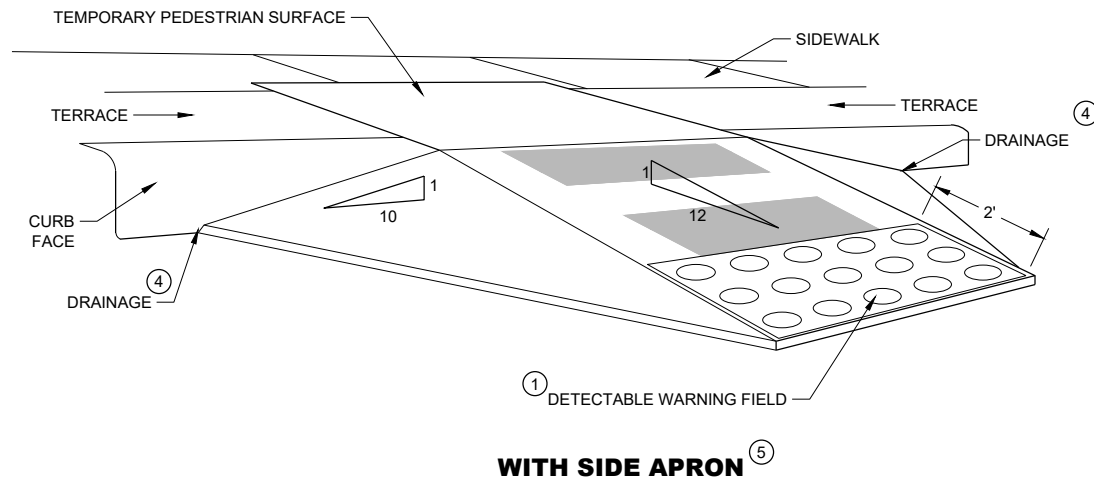


FRONT VIEW

SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

<p>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

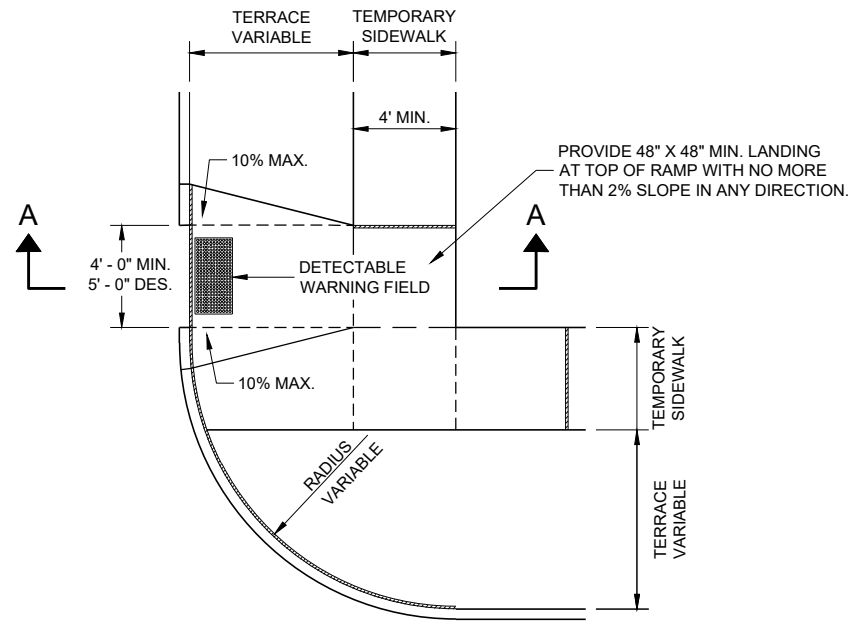
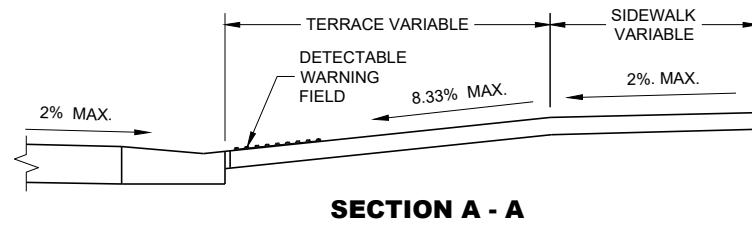
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

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

GENERAL NOTES

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



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

6







6

SDD 15D30-09d

SDD 15D30-09d

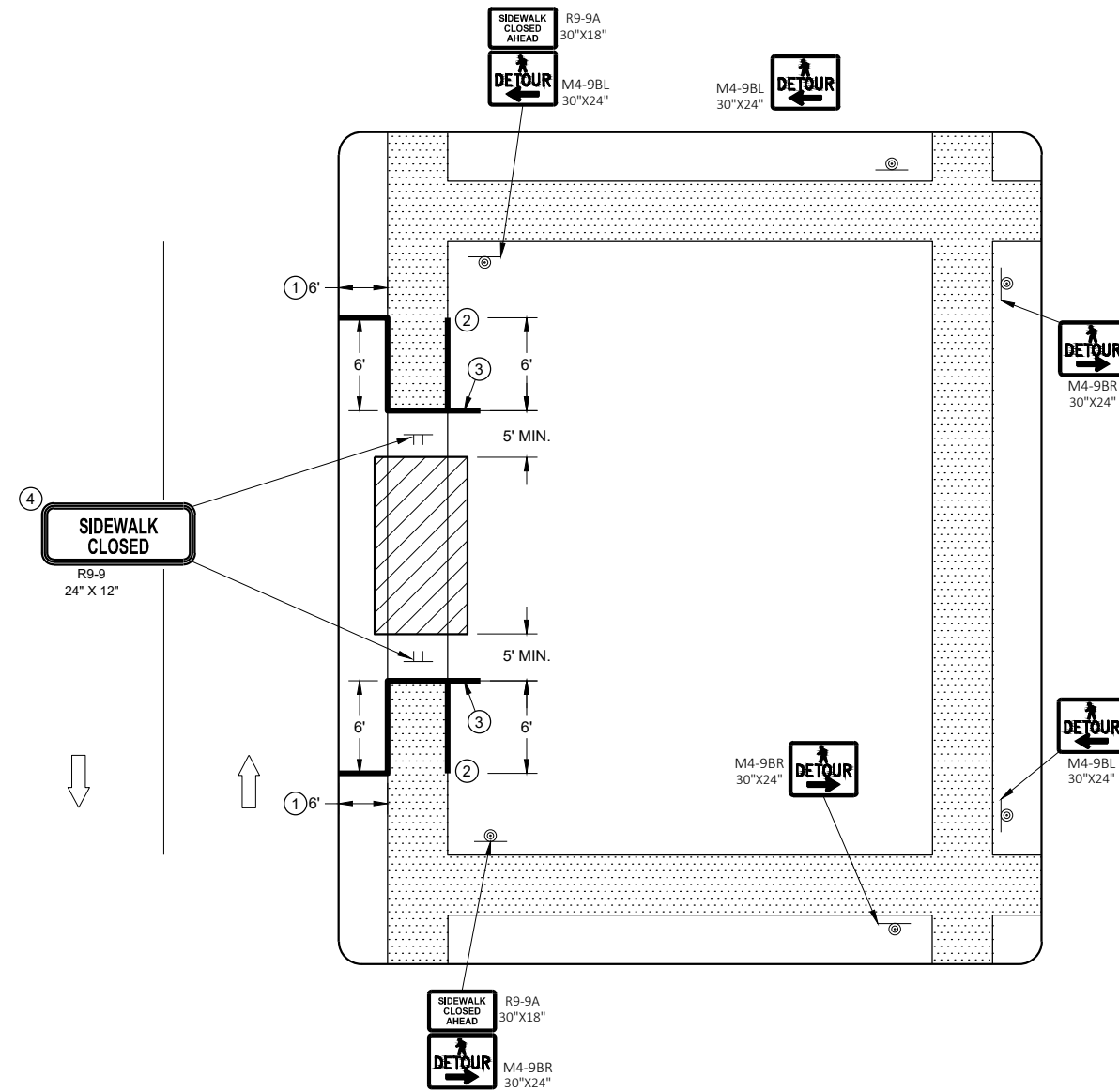
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

LEGEND

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

GENERAL NOTES

- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
 - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
 - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
 - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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











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

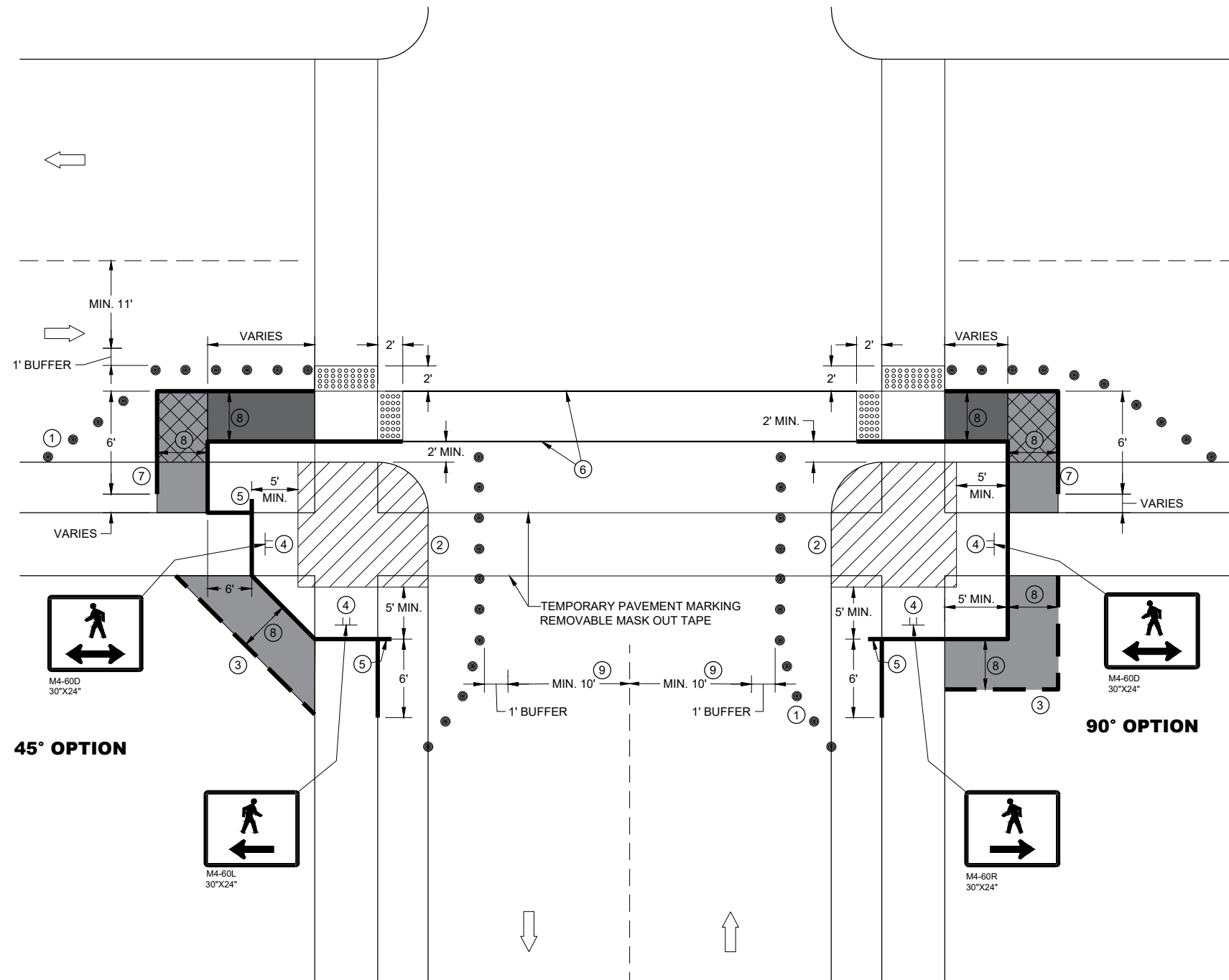
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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

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

LEGEND

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

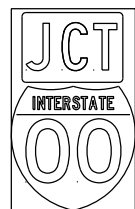


CURB RAMP PEDESTRIAN TRAFFIC CONTROL

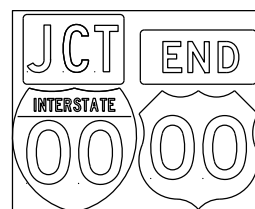
**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

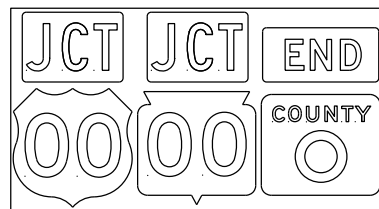
TYPICAL ASSEMBLIES



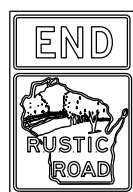
J1-1



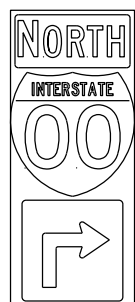
J1-2



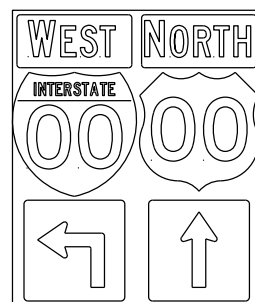
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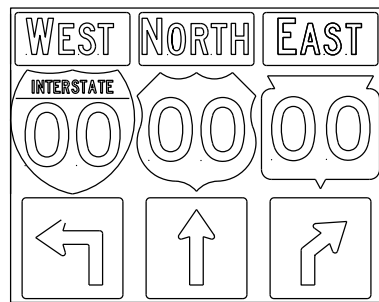
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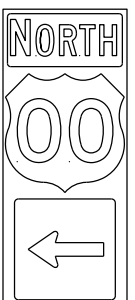
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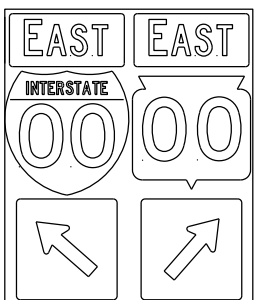
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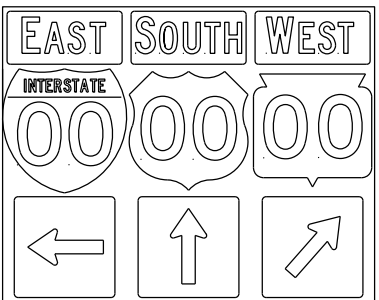
J2-3



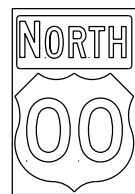
J3-1



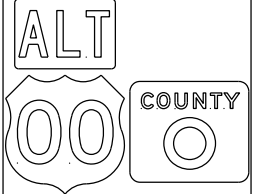
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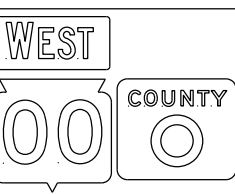
J3-3



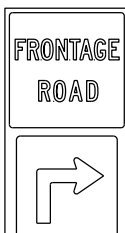
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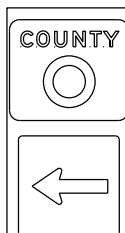
J4-2



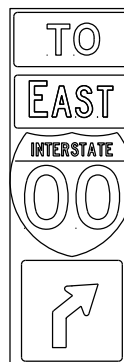
J4-2



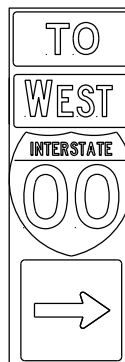
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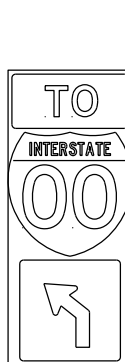
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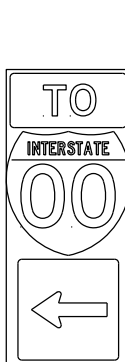
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J33-1



J22-1



J23-1



JR13-1



JR23-1

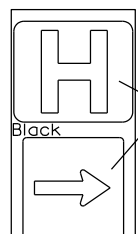


JR99-1



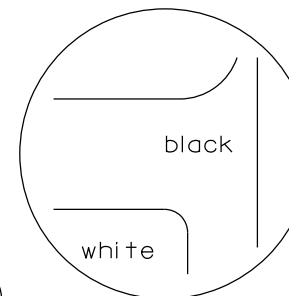
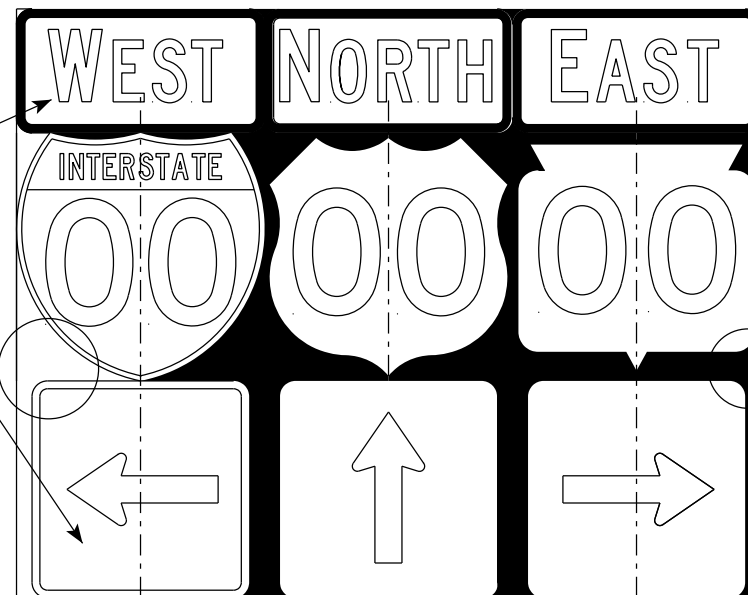
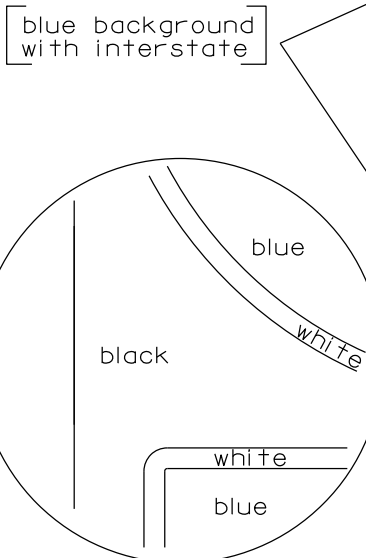
JV

(Typical Vertical J-Assembly See Note 10 and 11)



JH-1

Blue Background



black background

NOTES

- Signs are Type II - Type H Reflective
- Color:
 - Background - Black Non-reflective
 - Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/18/21

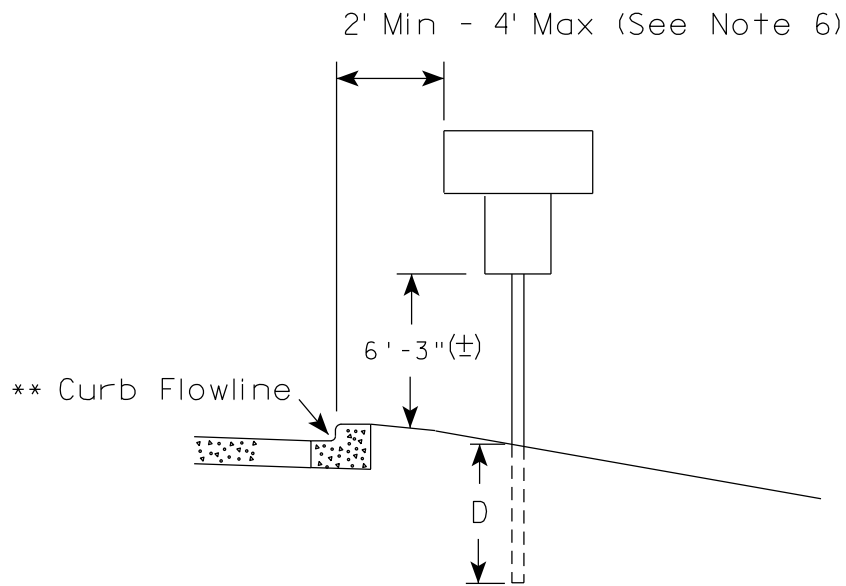
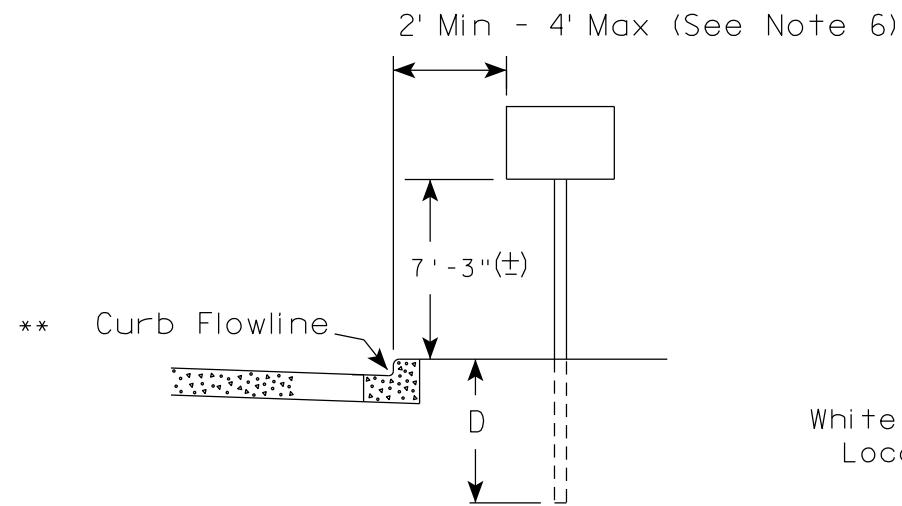
PLATE NO. A2-1S.9

PROJECT NO:

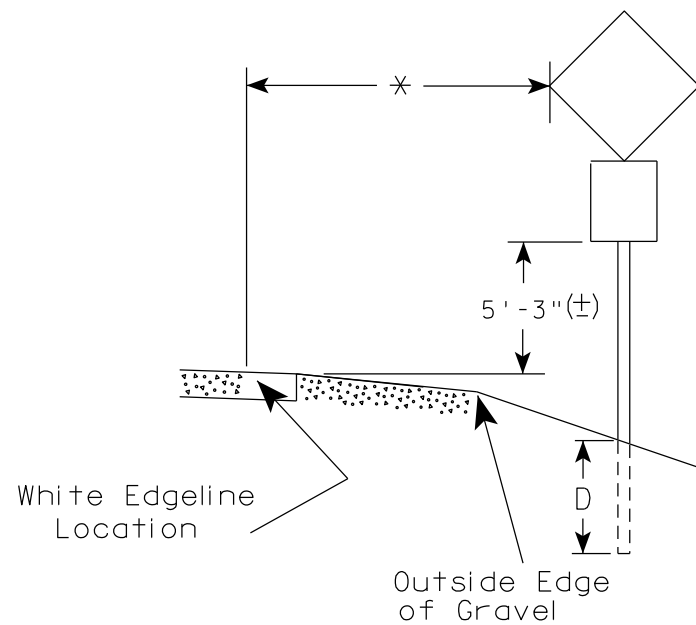
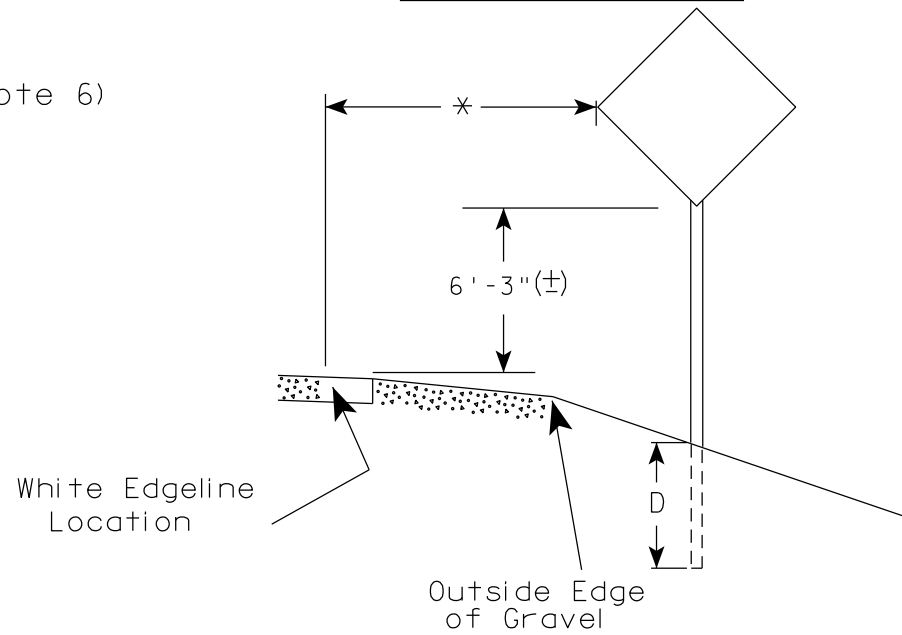
SHEET NO:

E

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.

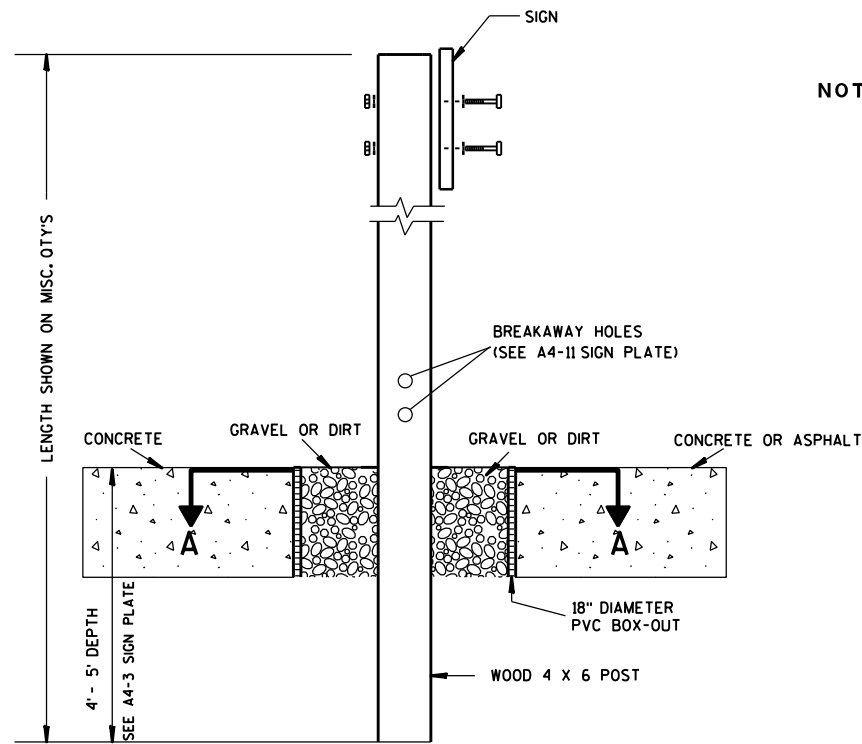
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

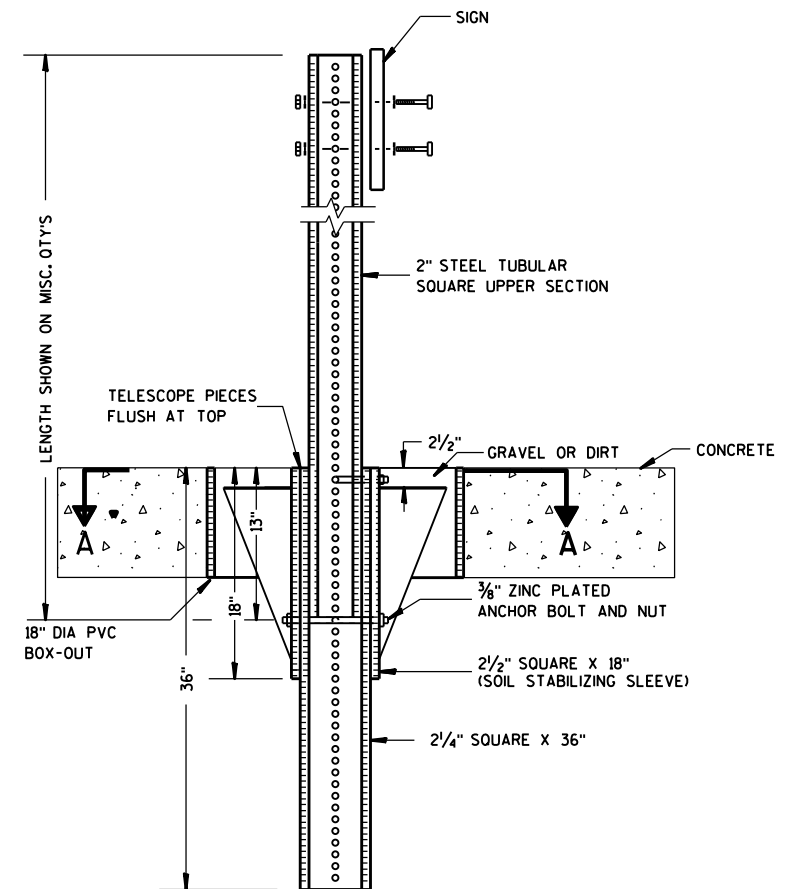
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

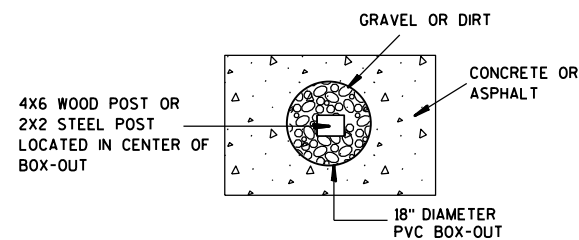
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

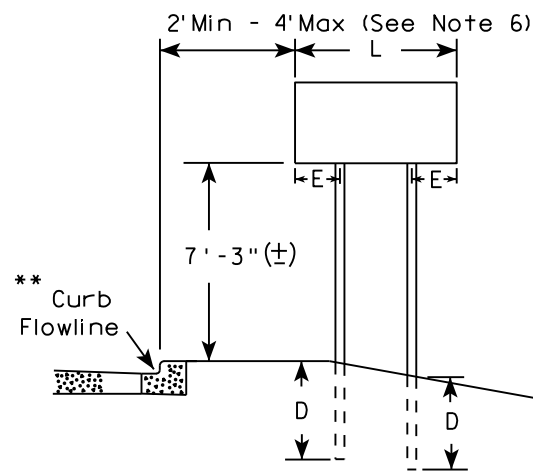
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
DATE <u>1/27/14</u>	PLATE NO. <u>A4-3B.1</u>

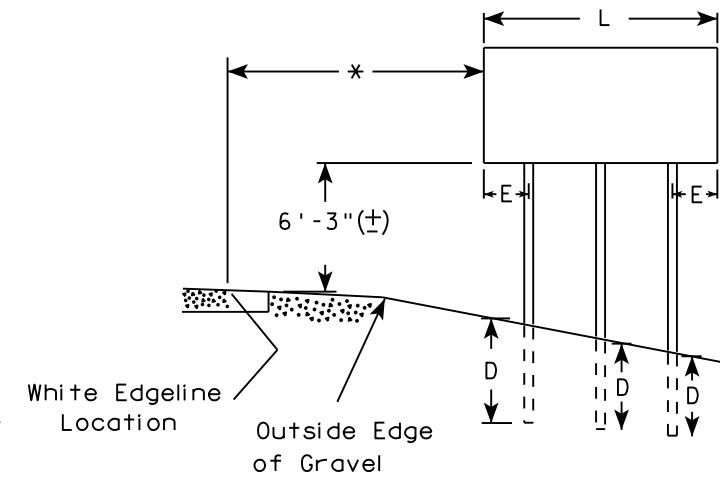
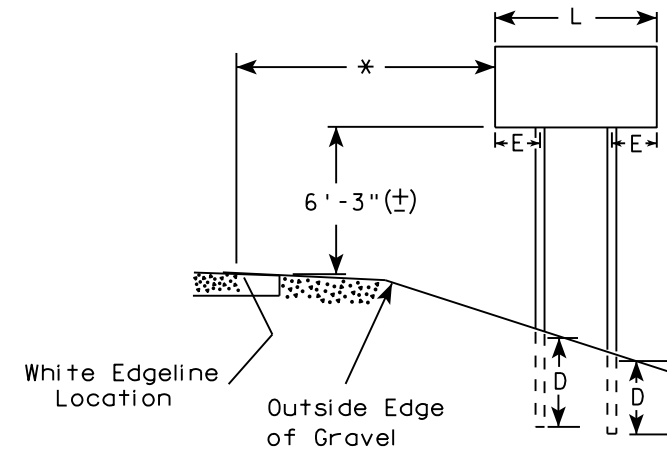
GENERAL NOTES

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" (±).

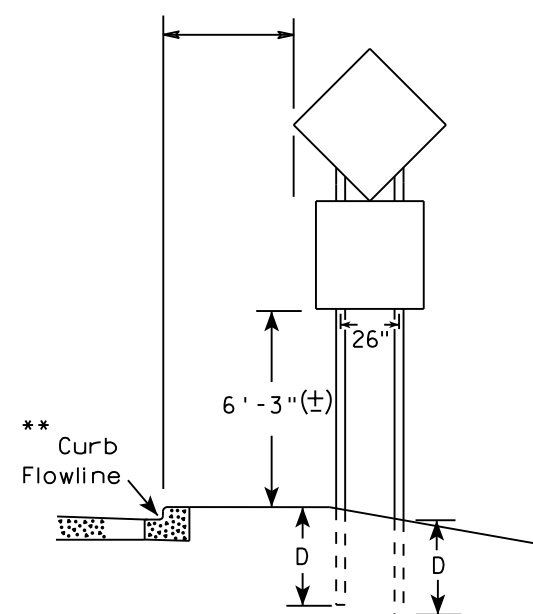
URBAN AREA



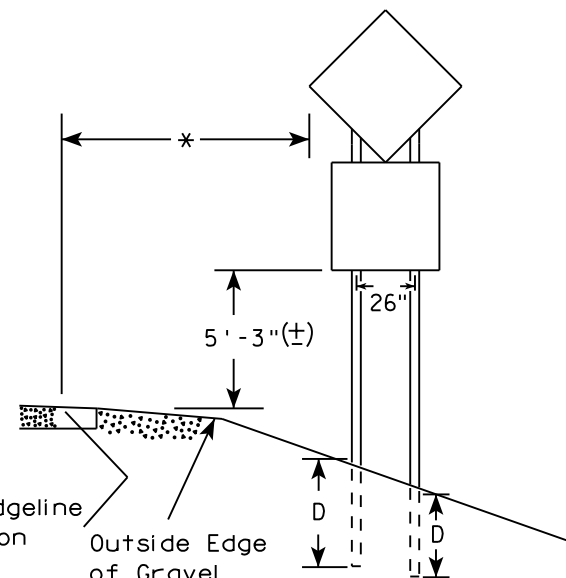
RURAL AREA (See Note 3)



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

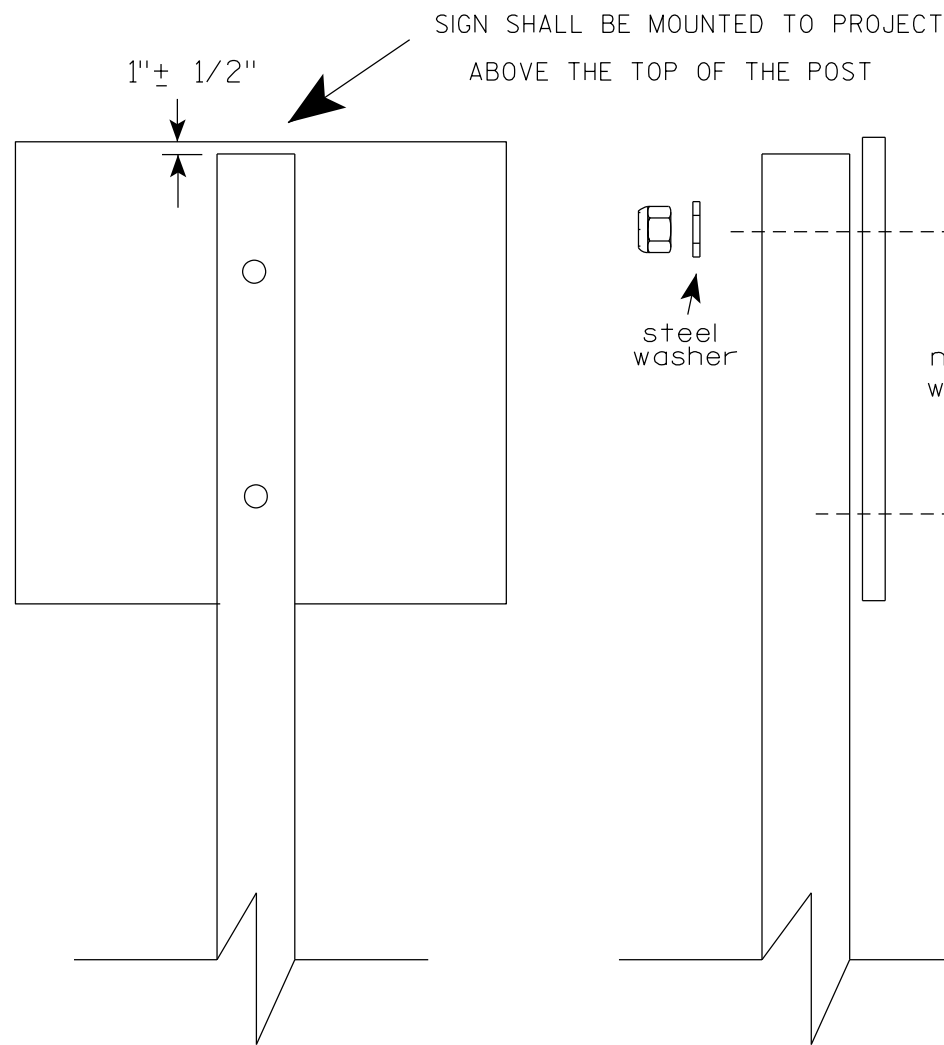
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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.

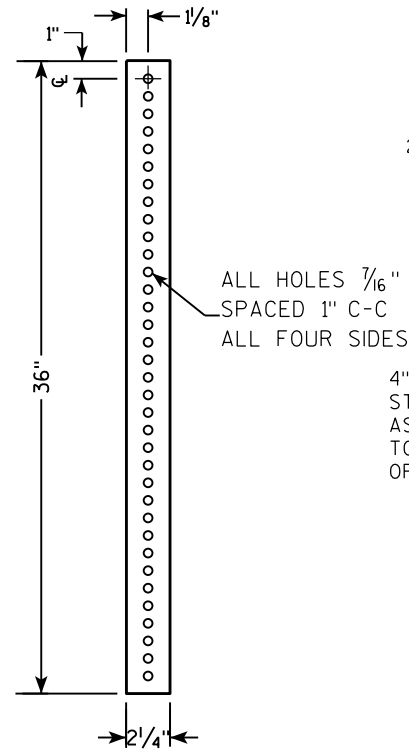
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE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

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

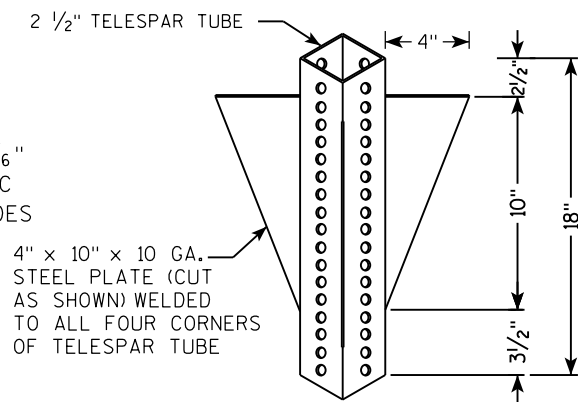
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

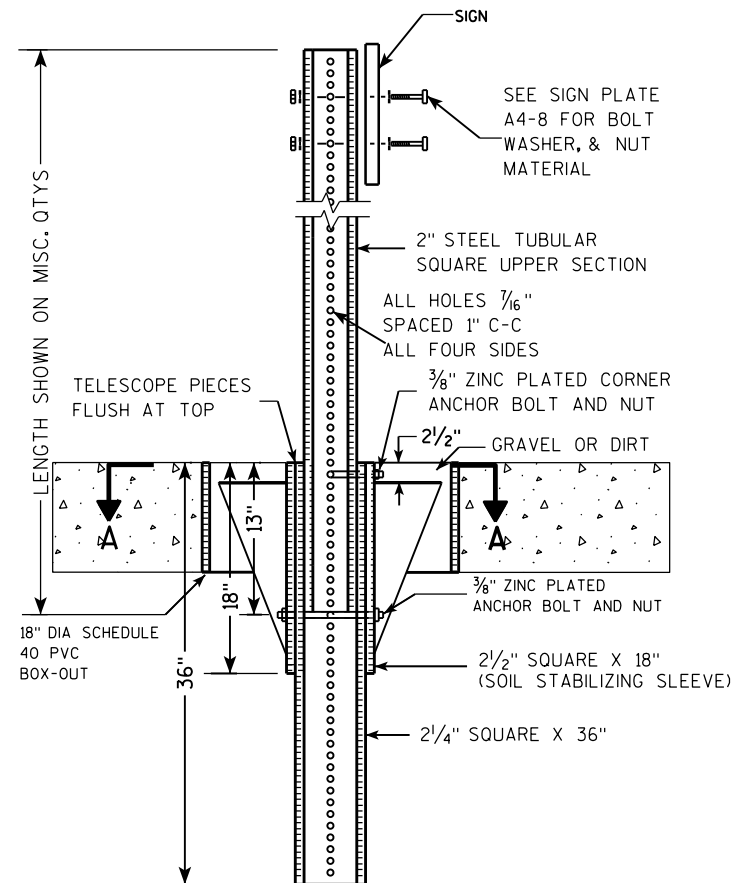
**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



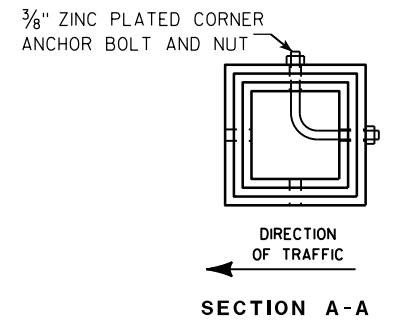
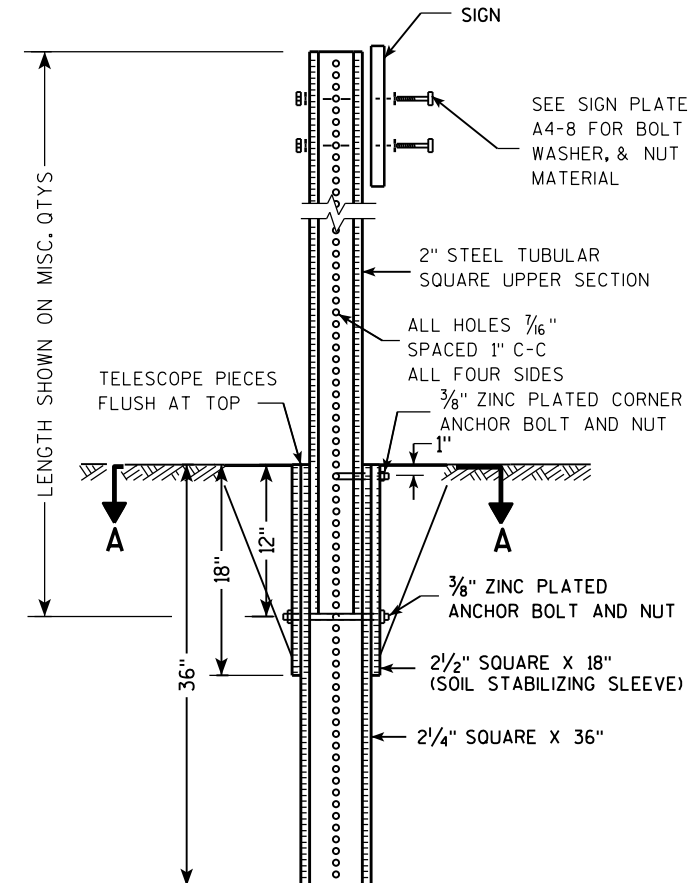
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

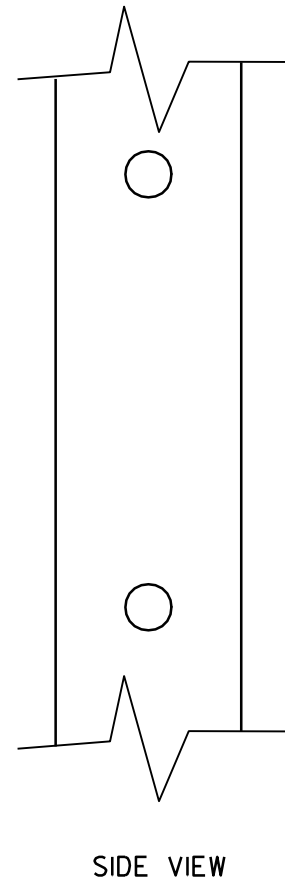
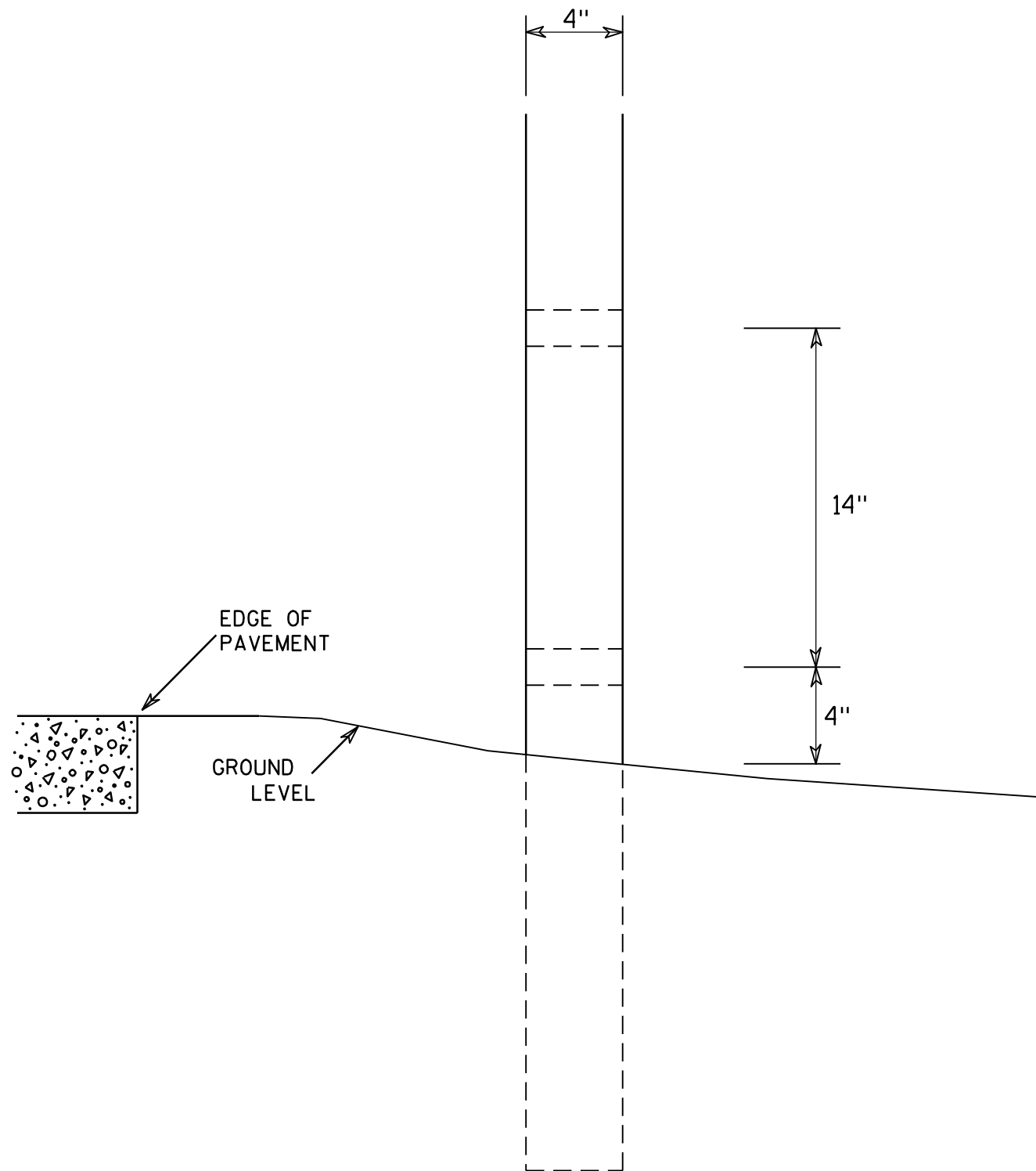
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

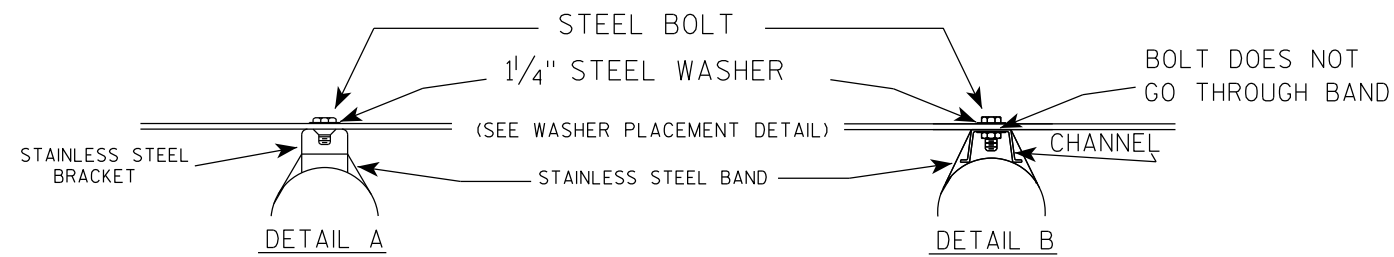
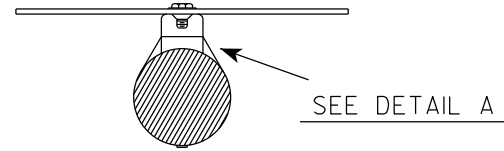
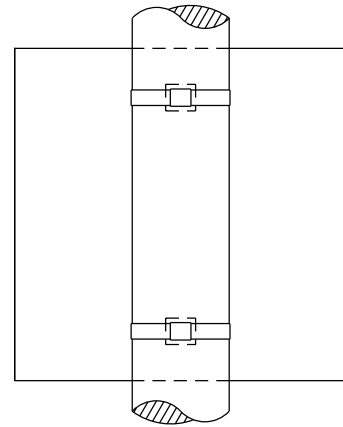
7

7

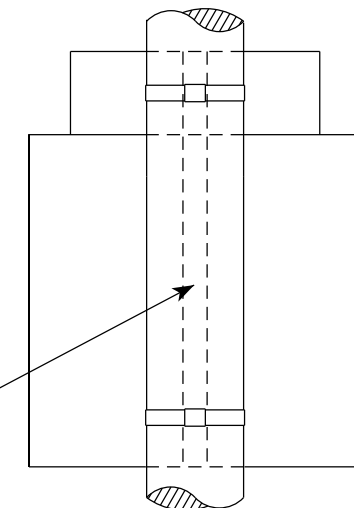
4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

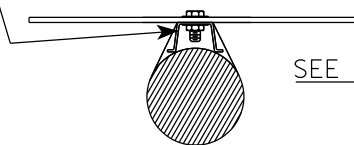
SINGLE SIGN



"J" ASSEMBLY

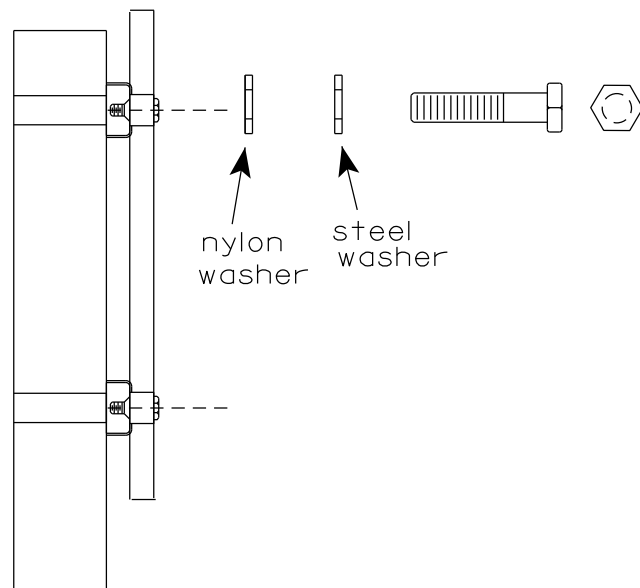


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



- GENERAL NOTES**
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
 2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
 3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.
 4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

WASHER PLACEMENT



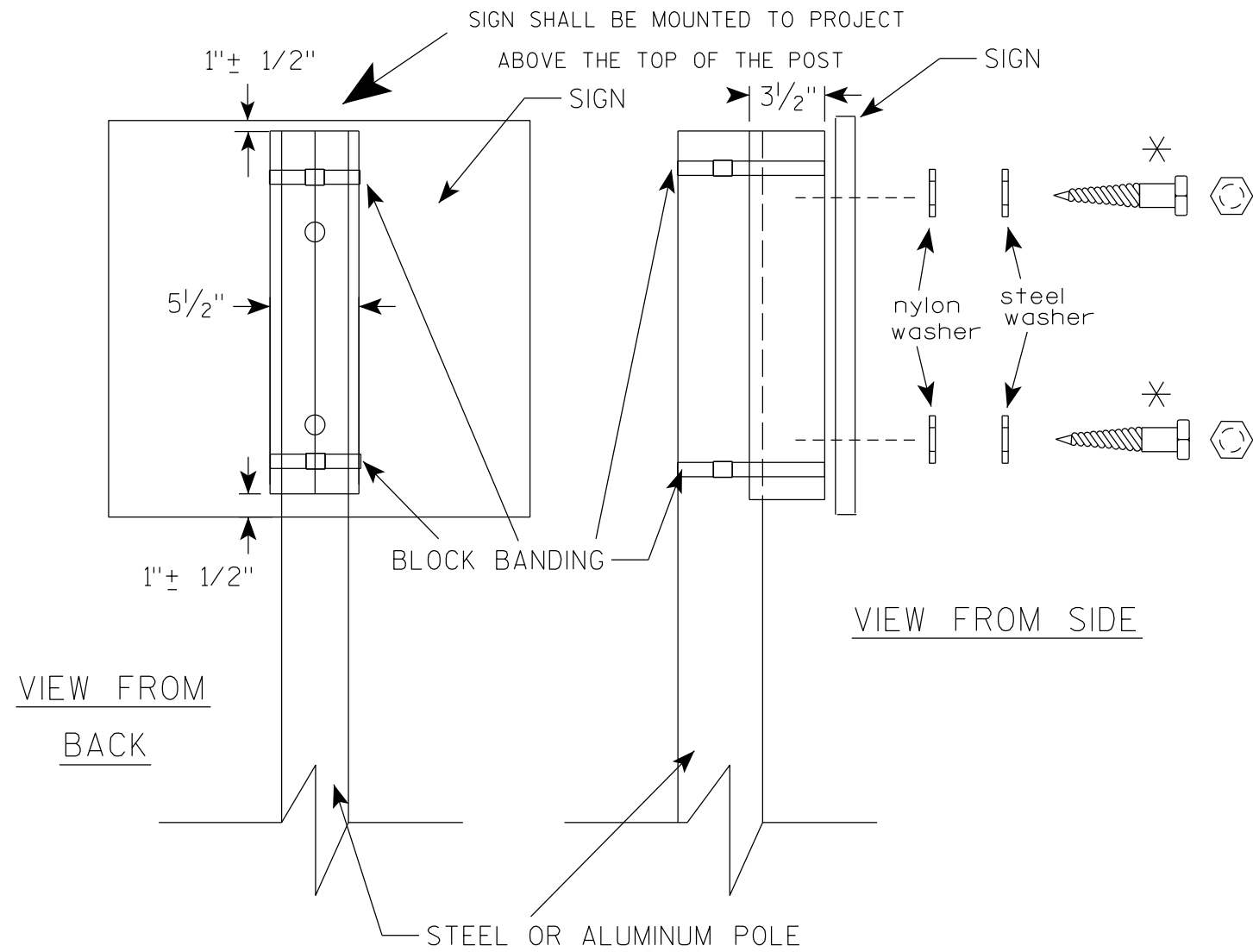
WASHERS (ALL POSTS) -
 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON
 FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

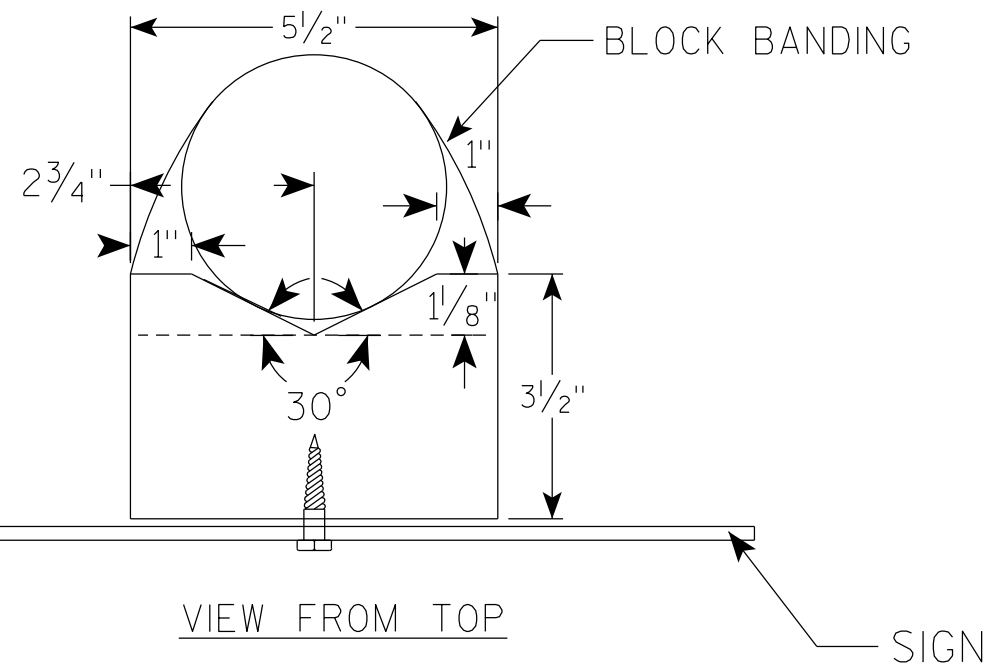
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE

STEEL OR ALUMINUM POLE



VIEW FROM TOP

SIGN

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

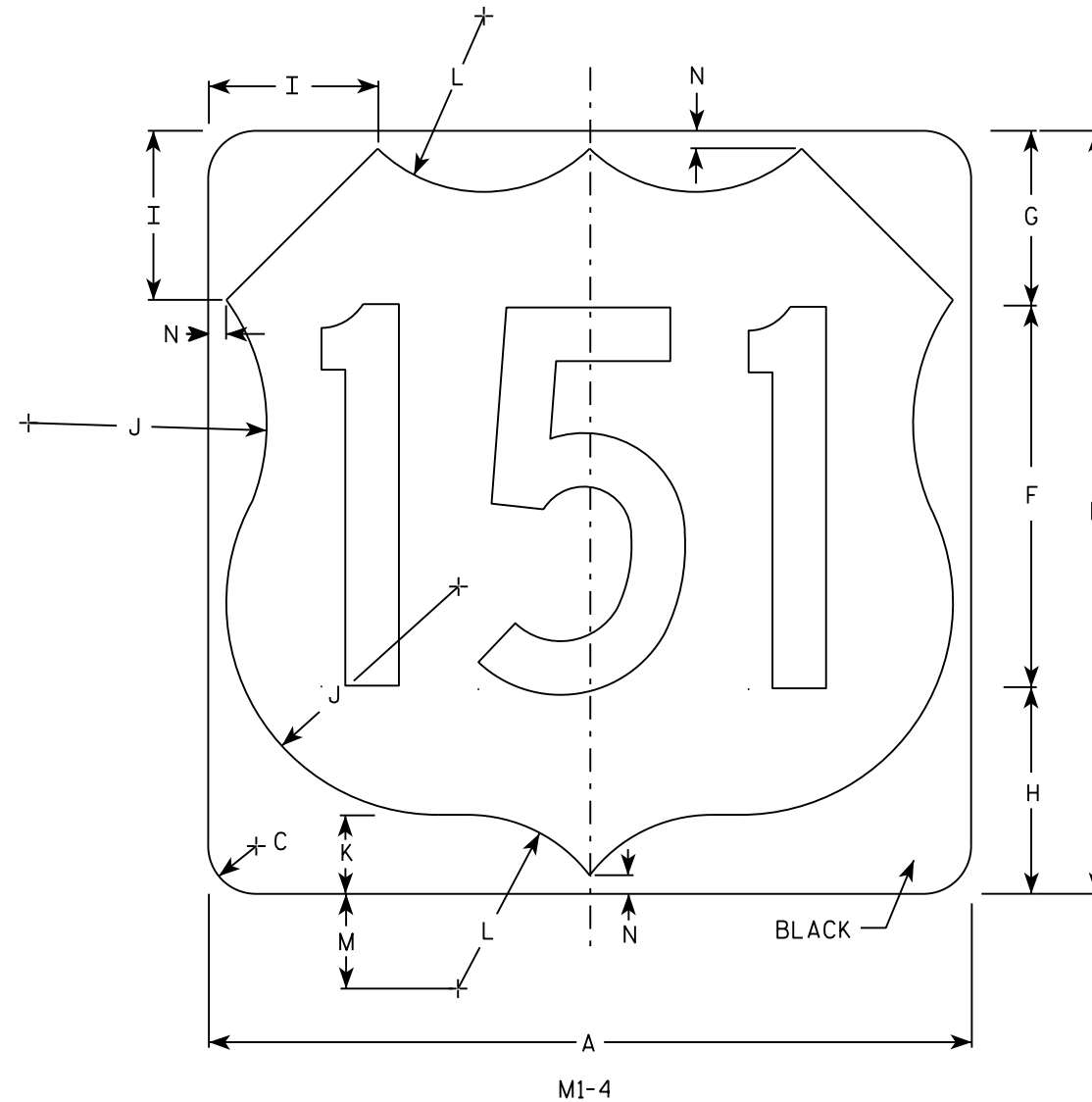
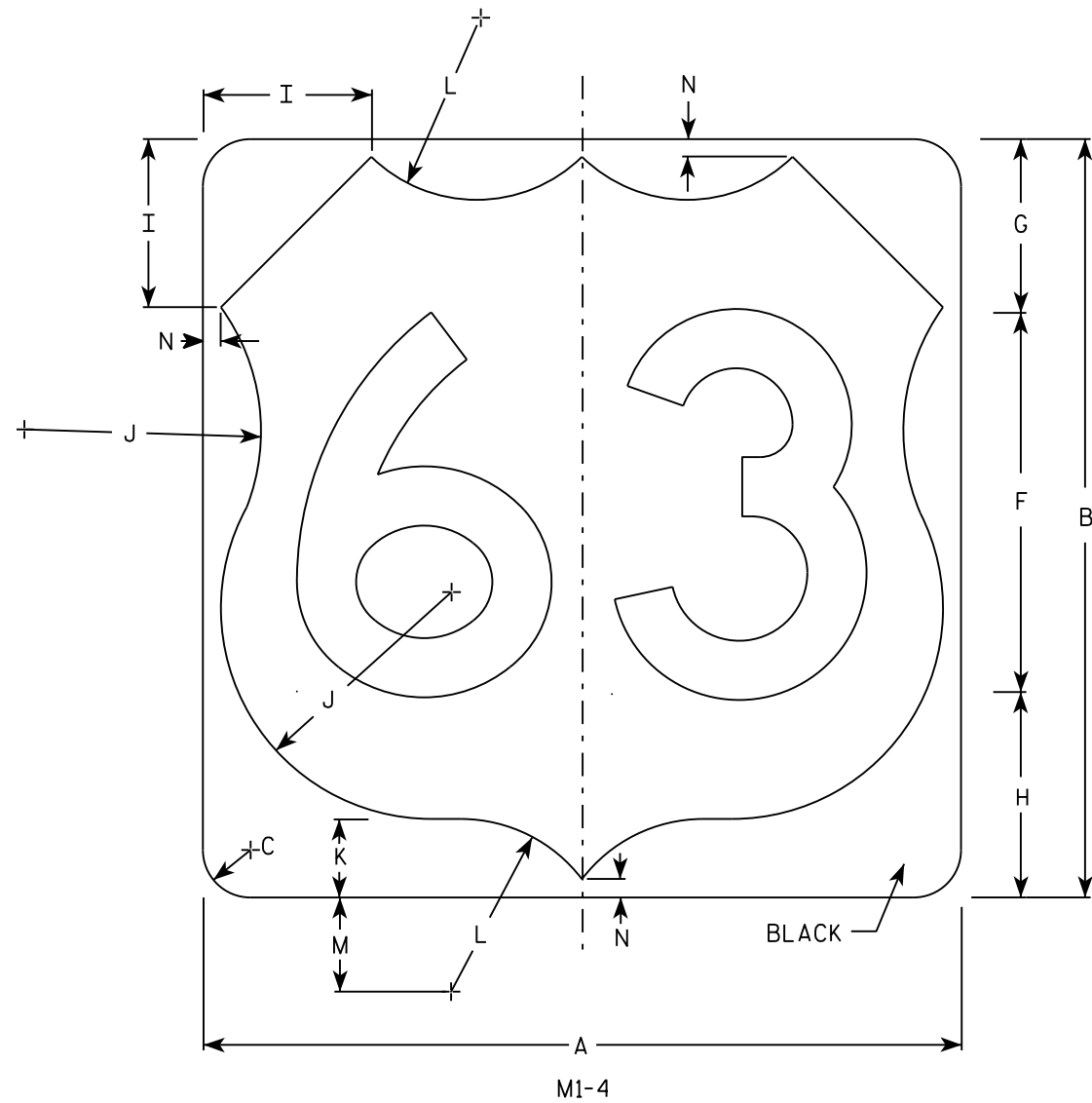
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

NOTES

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



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

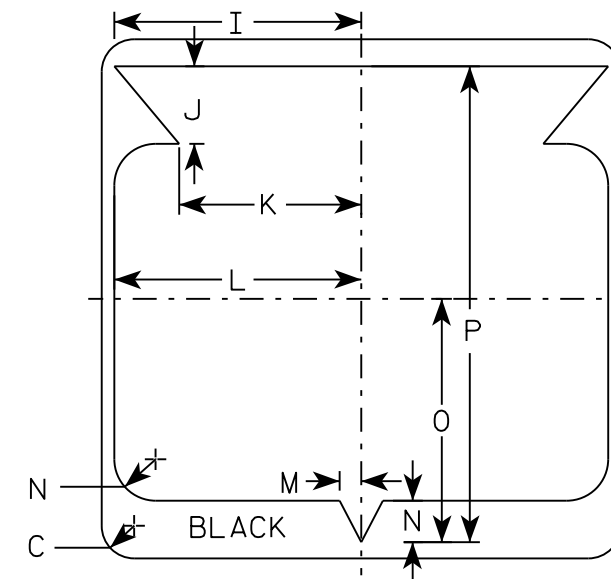
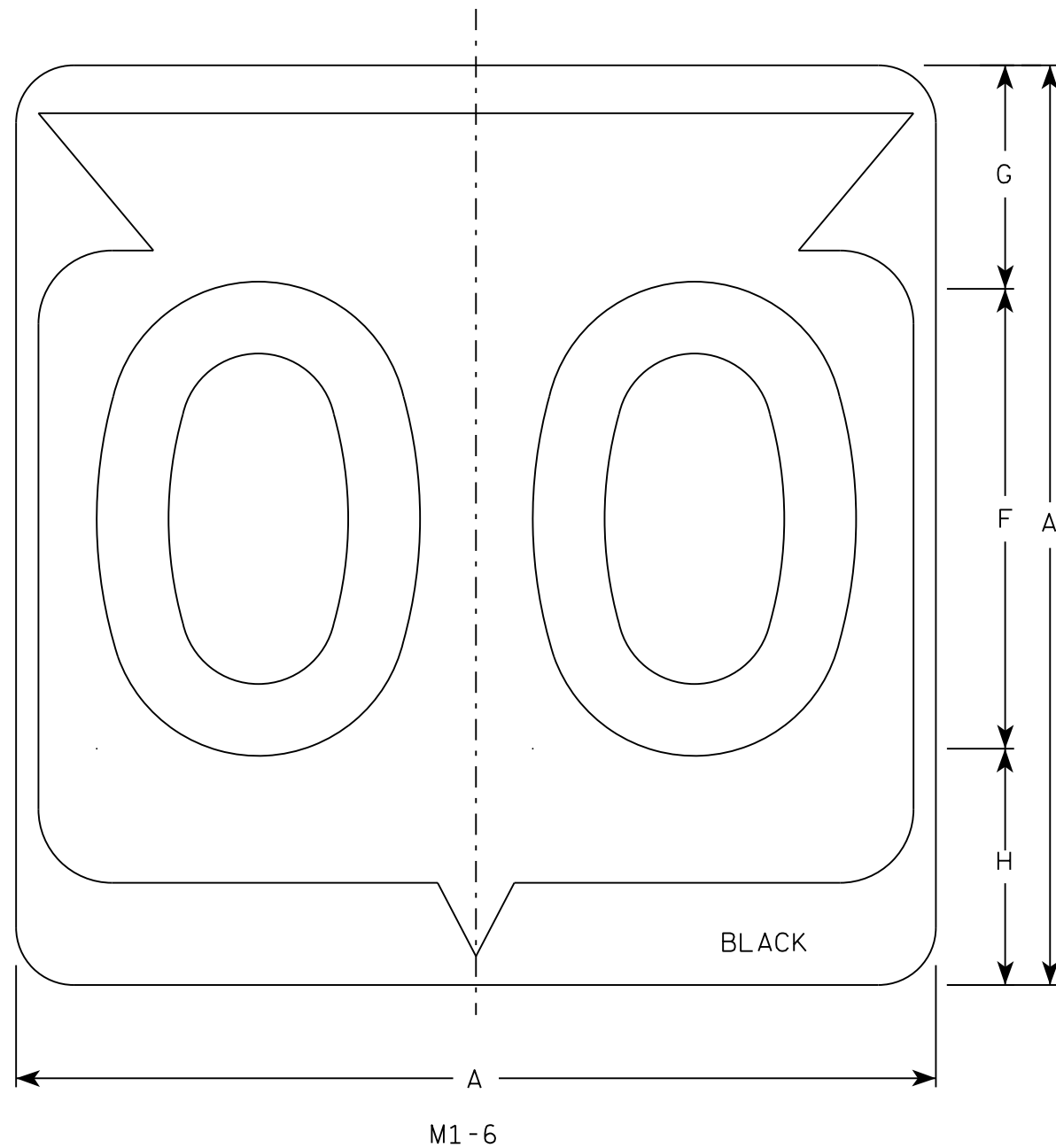
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

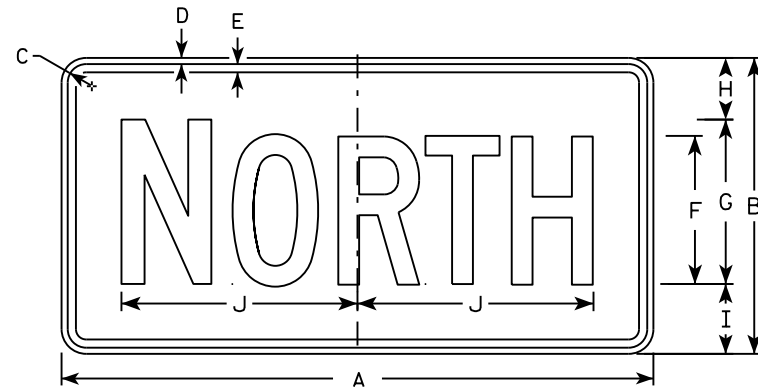
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

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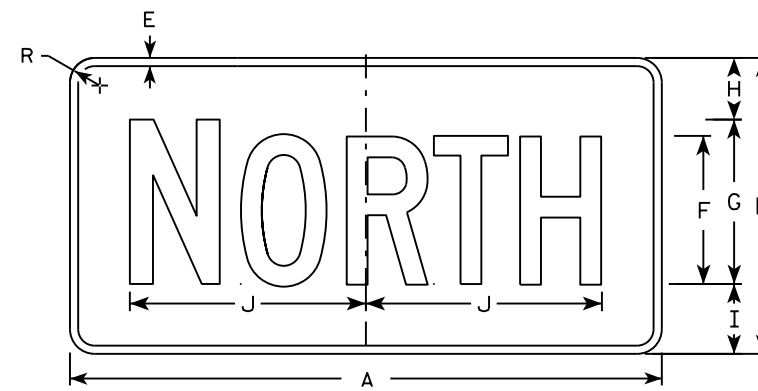
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NOTES

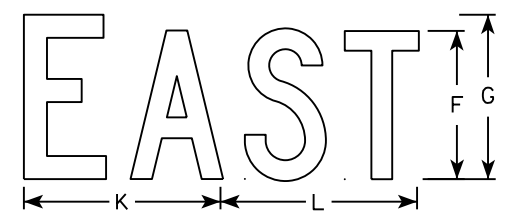
- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4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



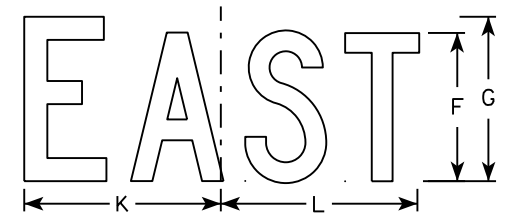
M3-1
MM3-1
MP3-1



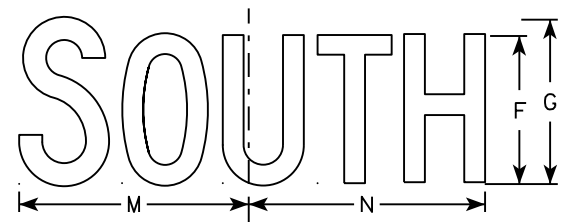
MB3-1
MK3-1
MN3-1



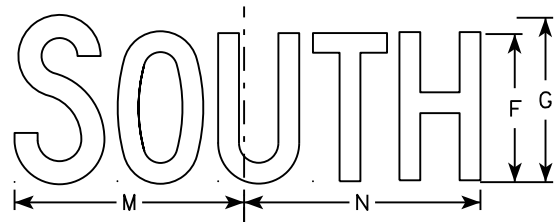
M3-2
MM3-2
MP3-2



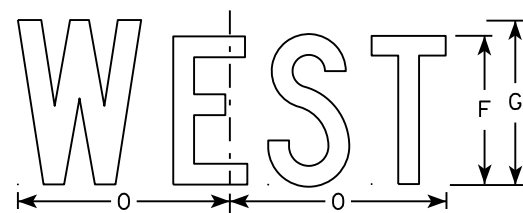
MB3-2
MK3-2
MN3-2



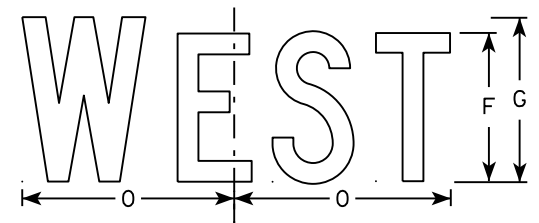
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

7

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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

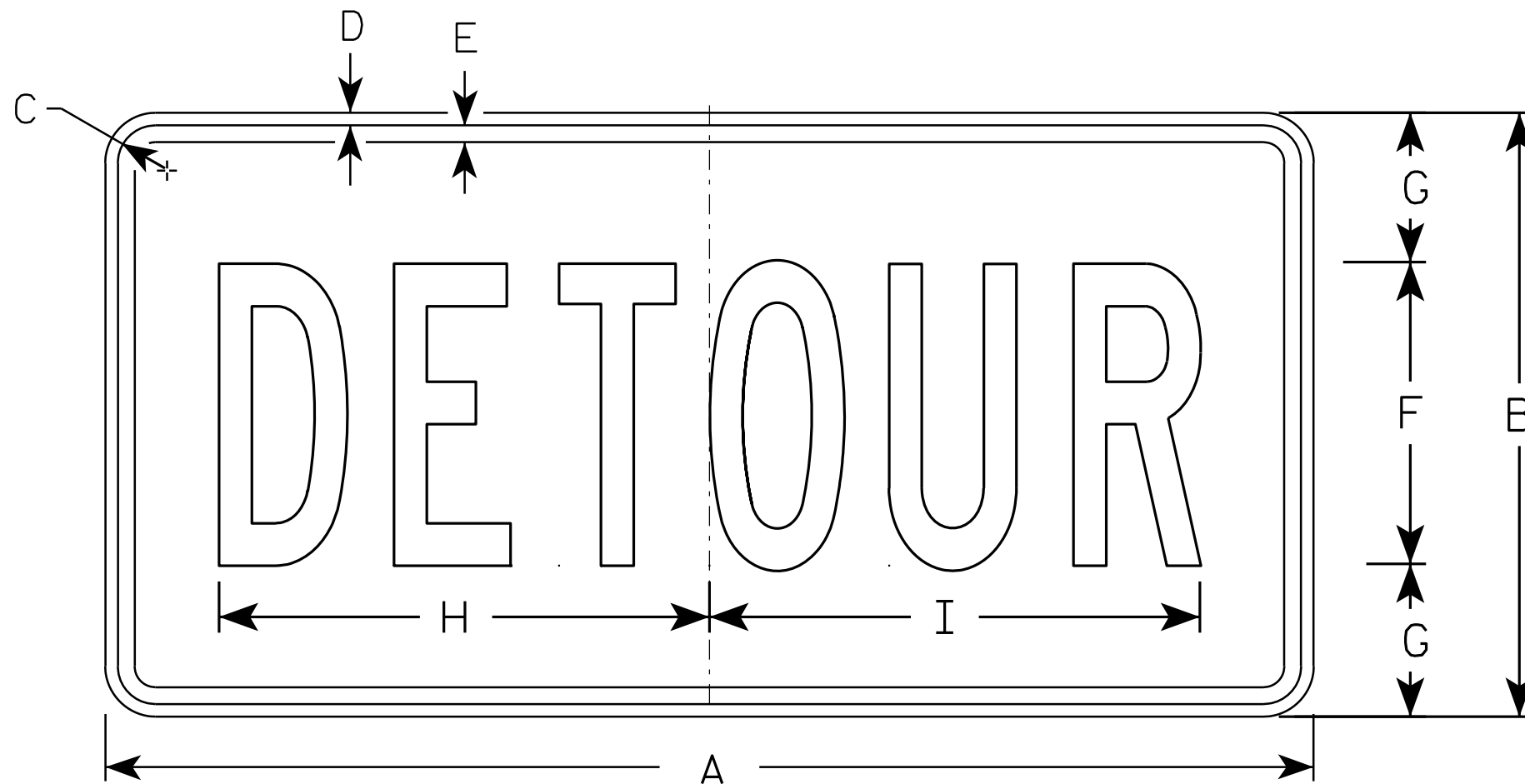
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

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



M4-8

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

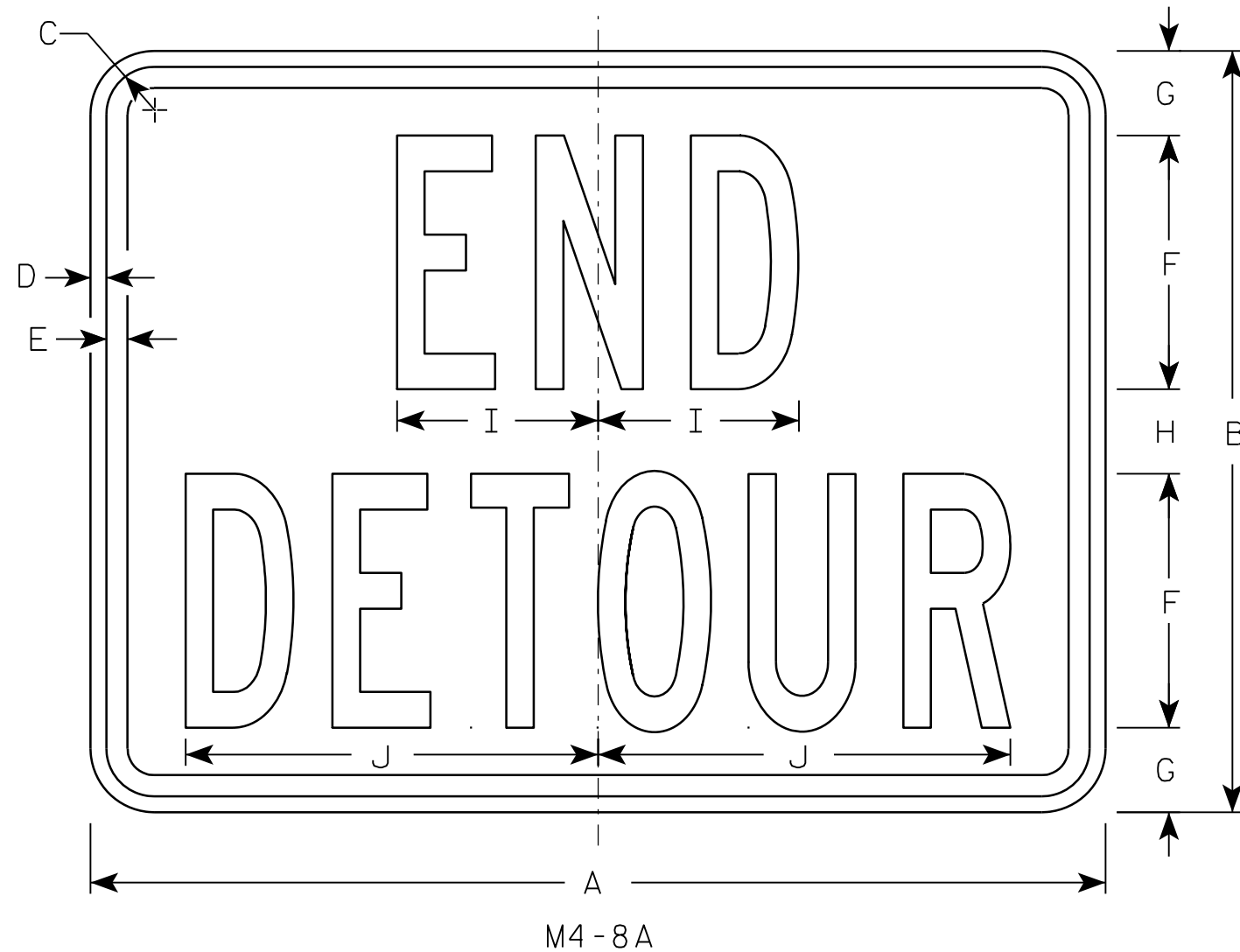
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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

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



7

7

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

STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

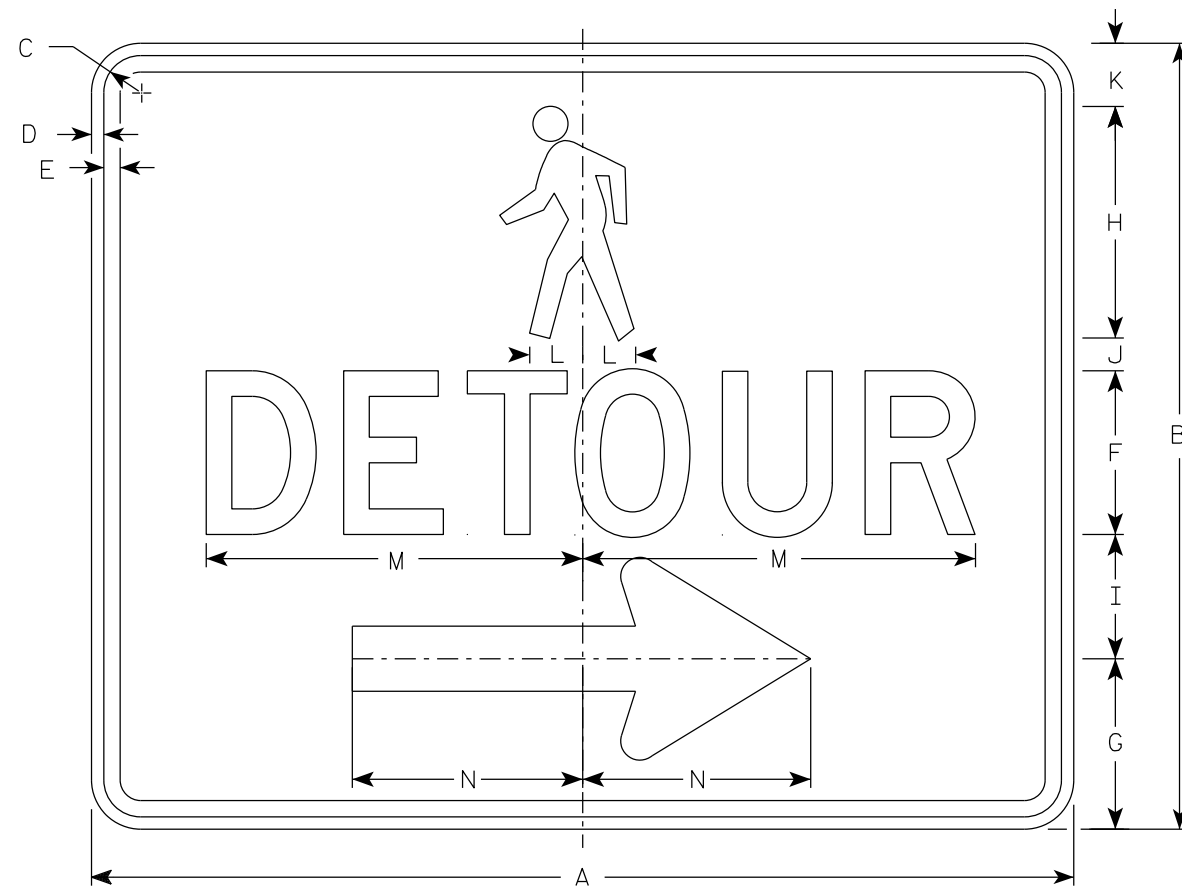
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

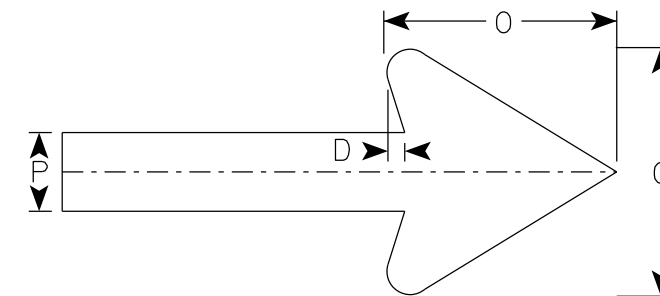
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



M4 - 9BR



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

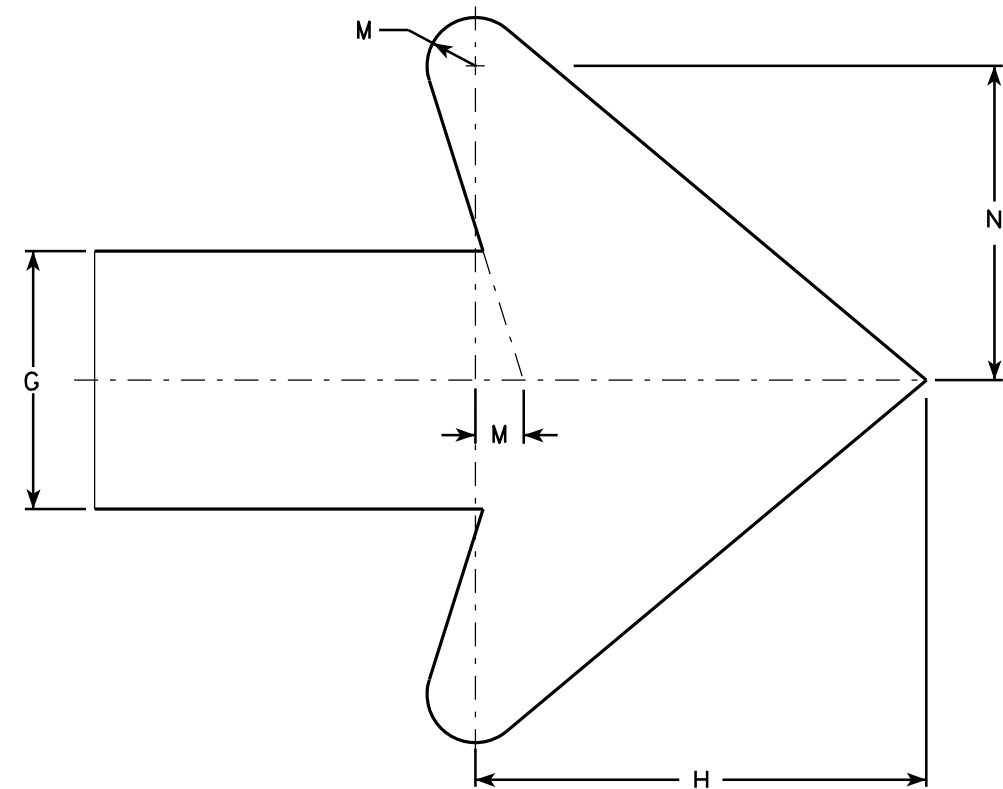
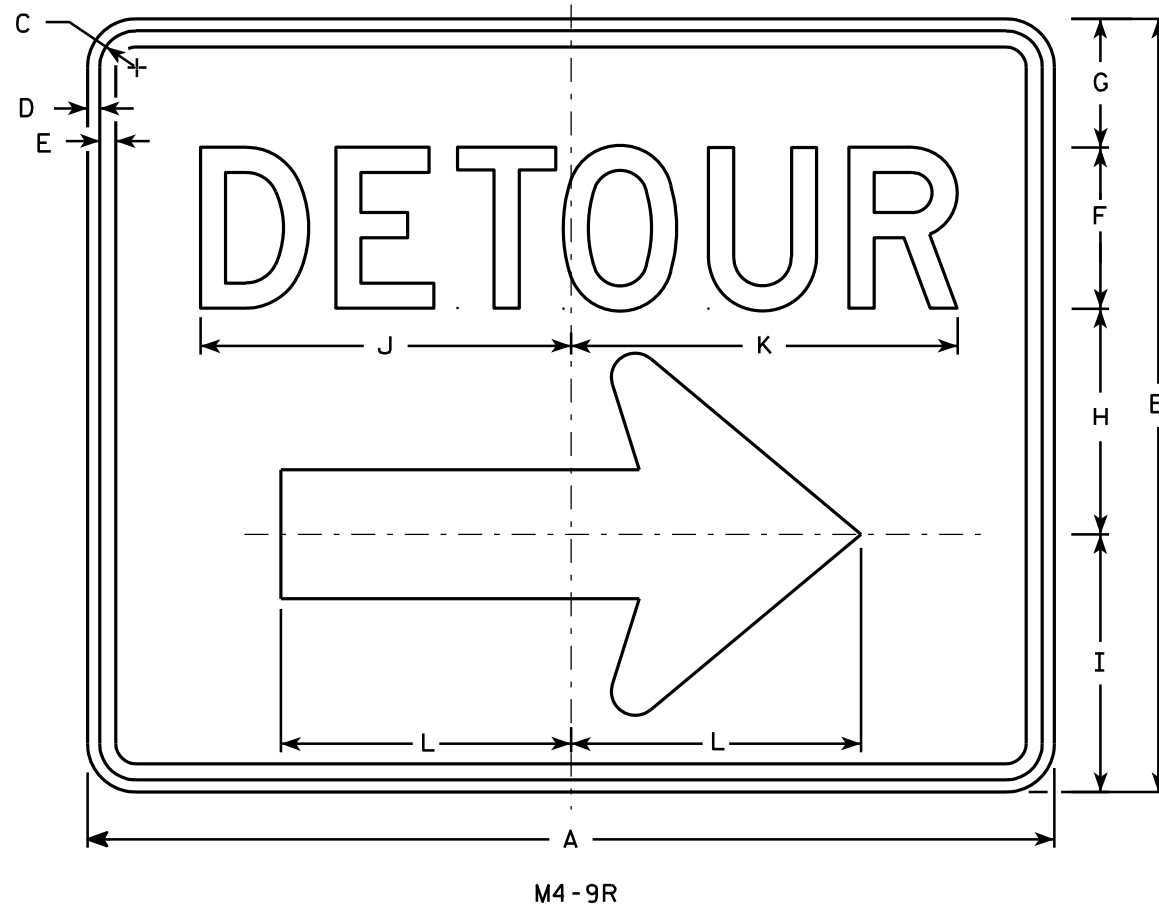
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

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

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

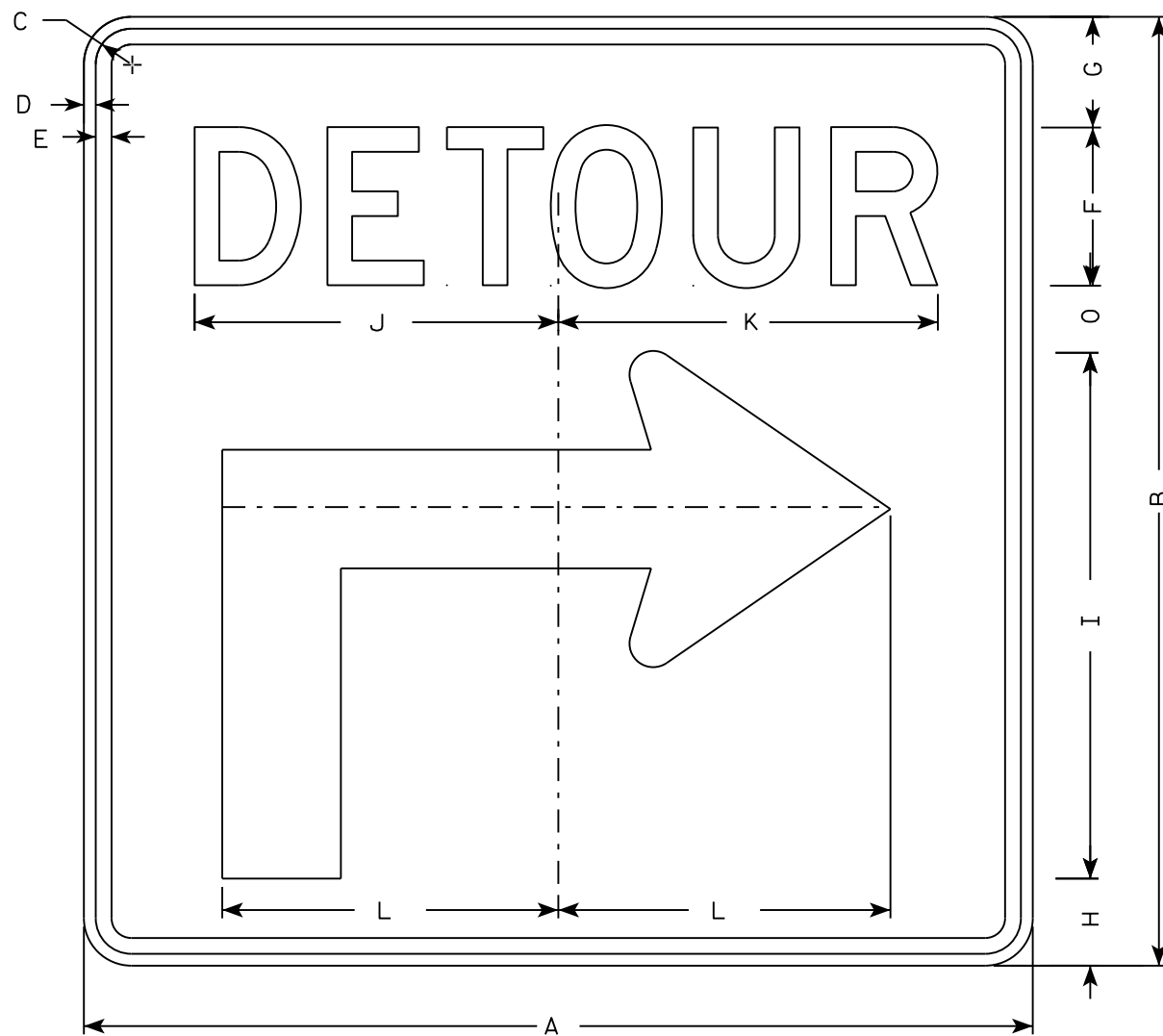
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

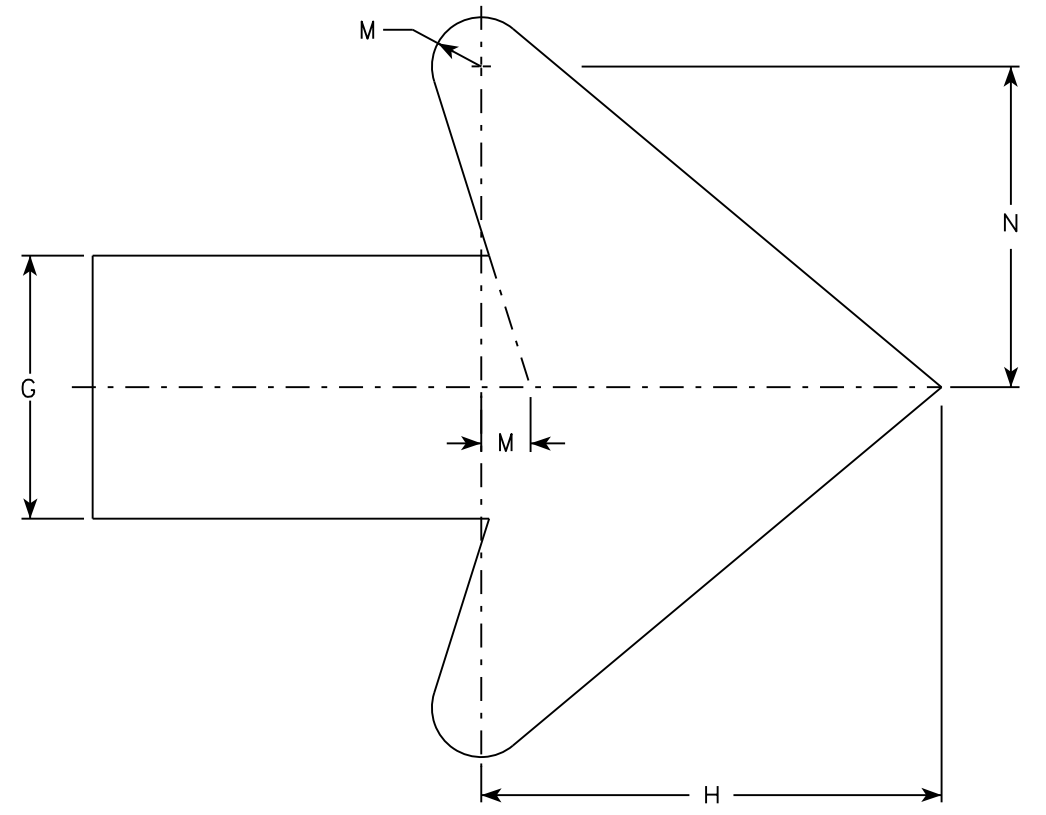
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



M4-59R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

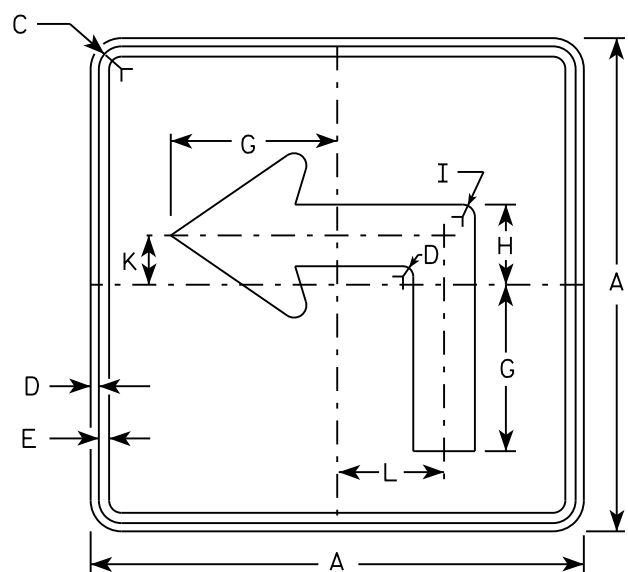
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2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

STANDARD SIGN
M4-59 L&R

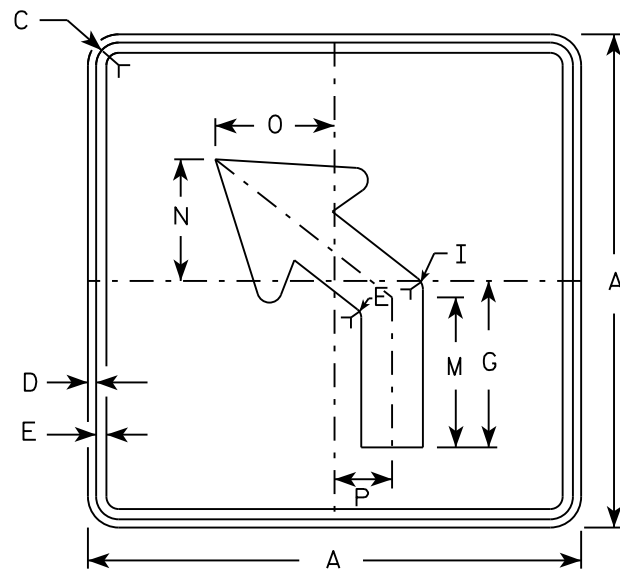
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

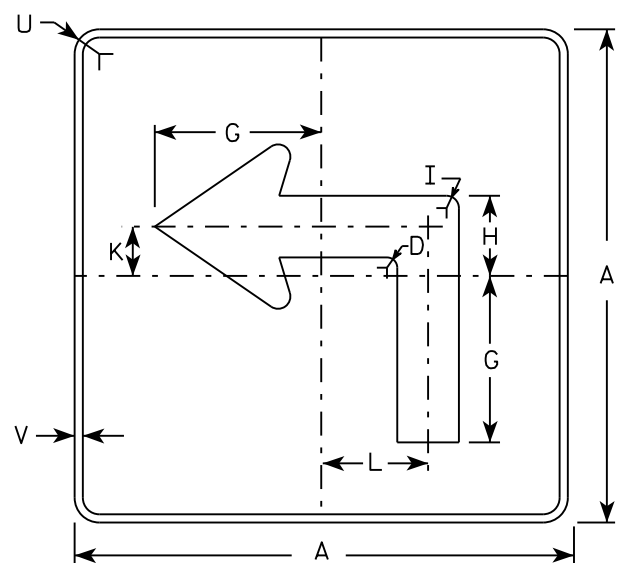
DATE 11/10/15 PLATE NO. M4-59.1



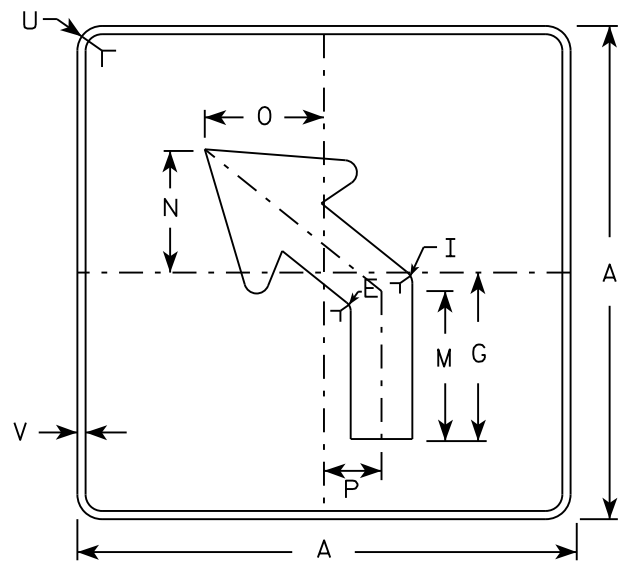
M5-1L
MM5-1L
M05-1L
MP5-1L



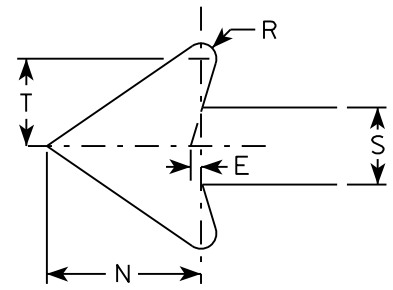
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

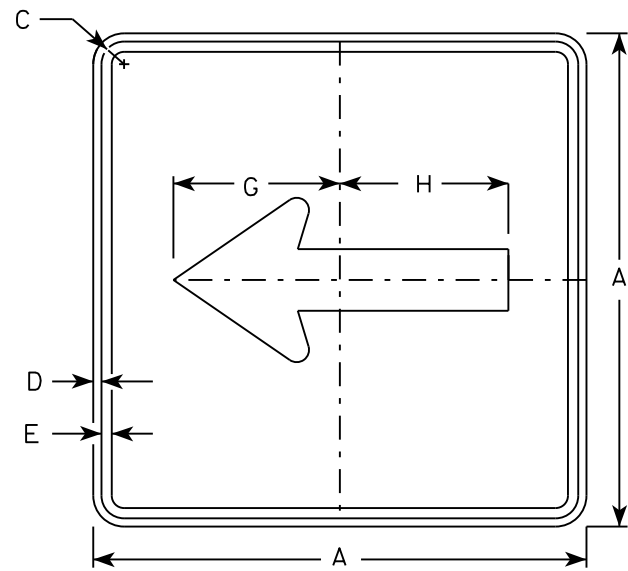
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

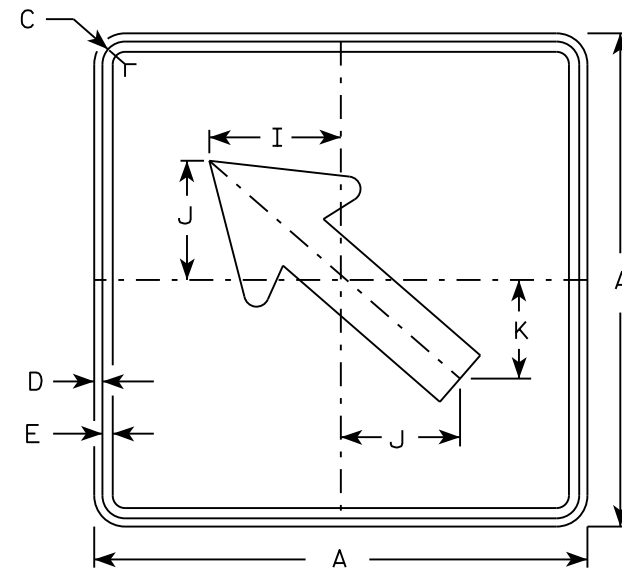
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

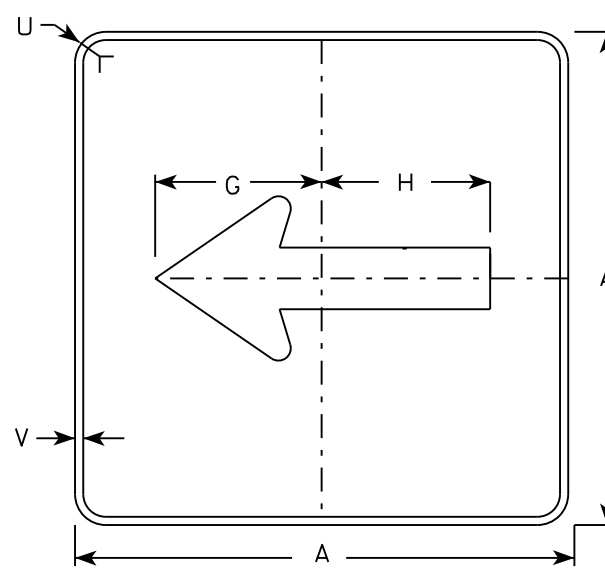
DATE 10/15/15 PLATE NO. M5-1.13



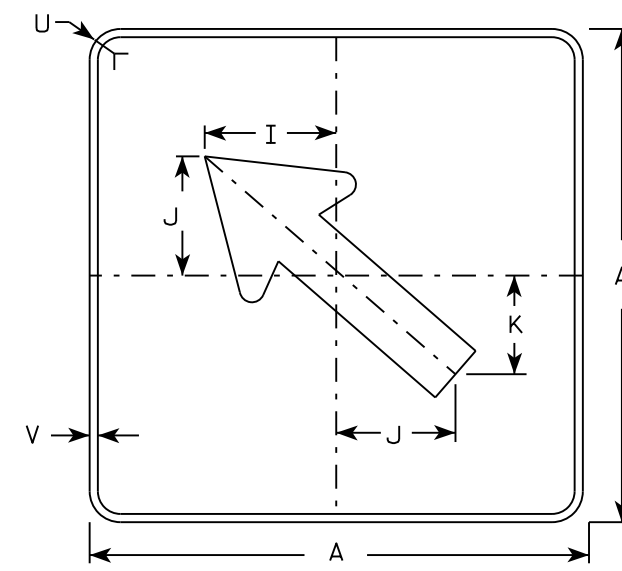
M6-1
MM6-1
M06-1
MP6-1



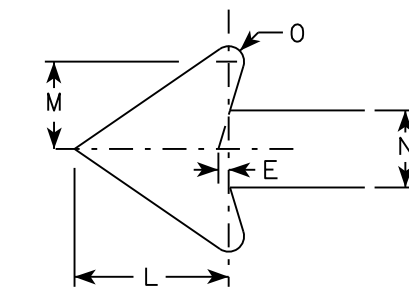
M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

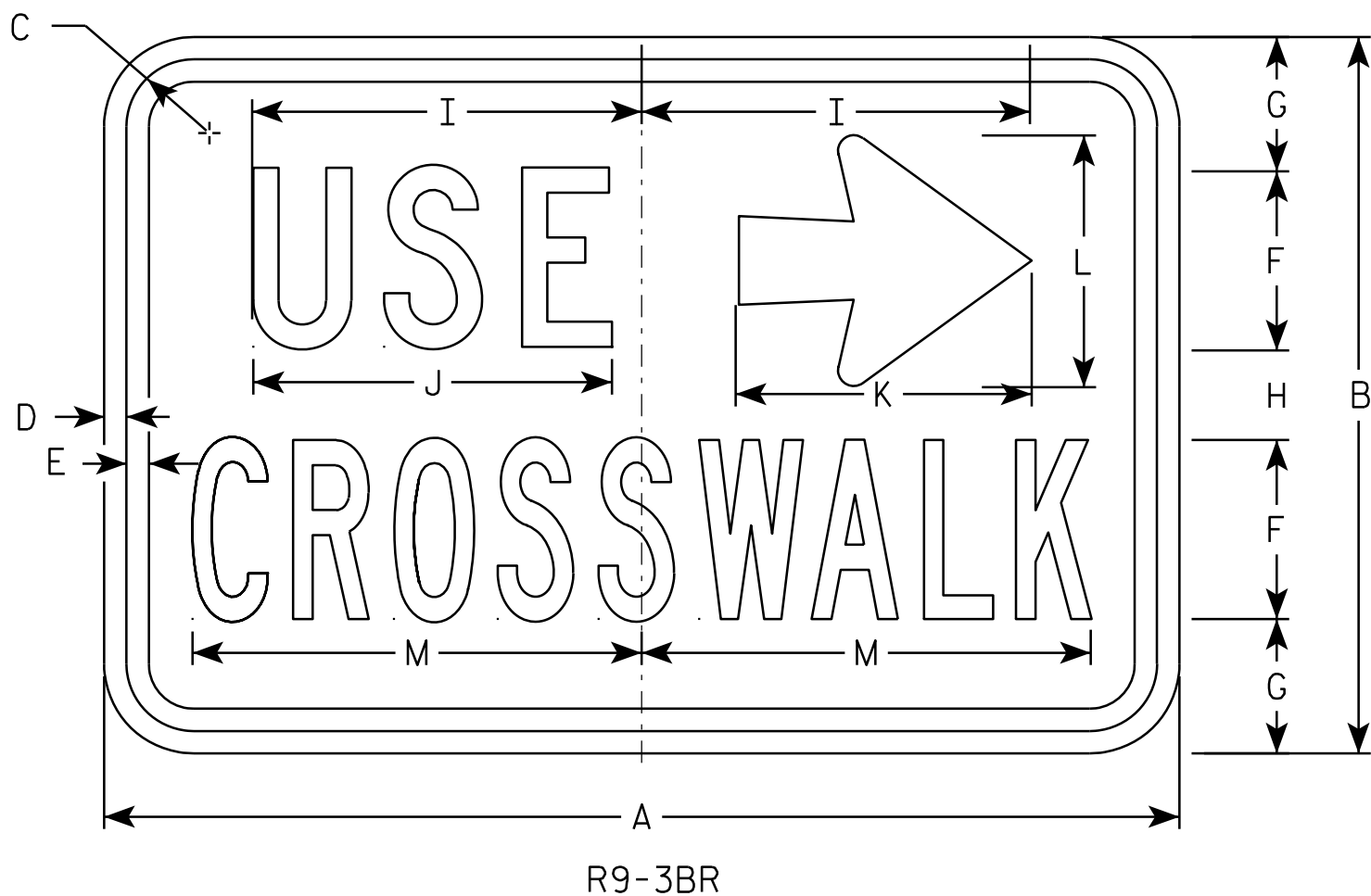
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C Line 1, Series B Line 2
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R9-3BL is the same as R9-3BR except USE and the arrow are switched.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	12	1/8	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
2M	18	12	1/8	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
3																											
4																											
5																											

STANDARD SIGN
R9-3BR&L

WISCONSIN DEPT OF TRANSPORTATION

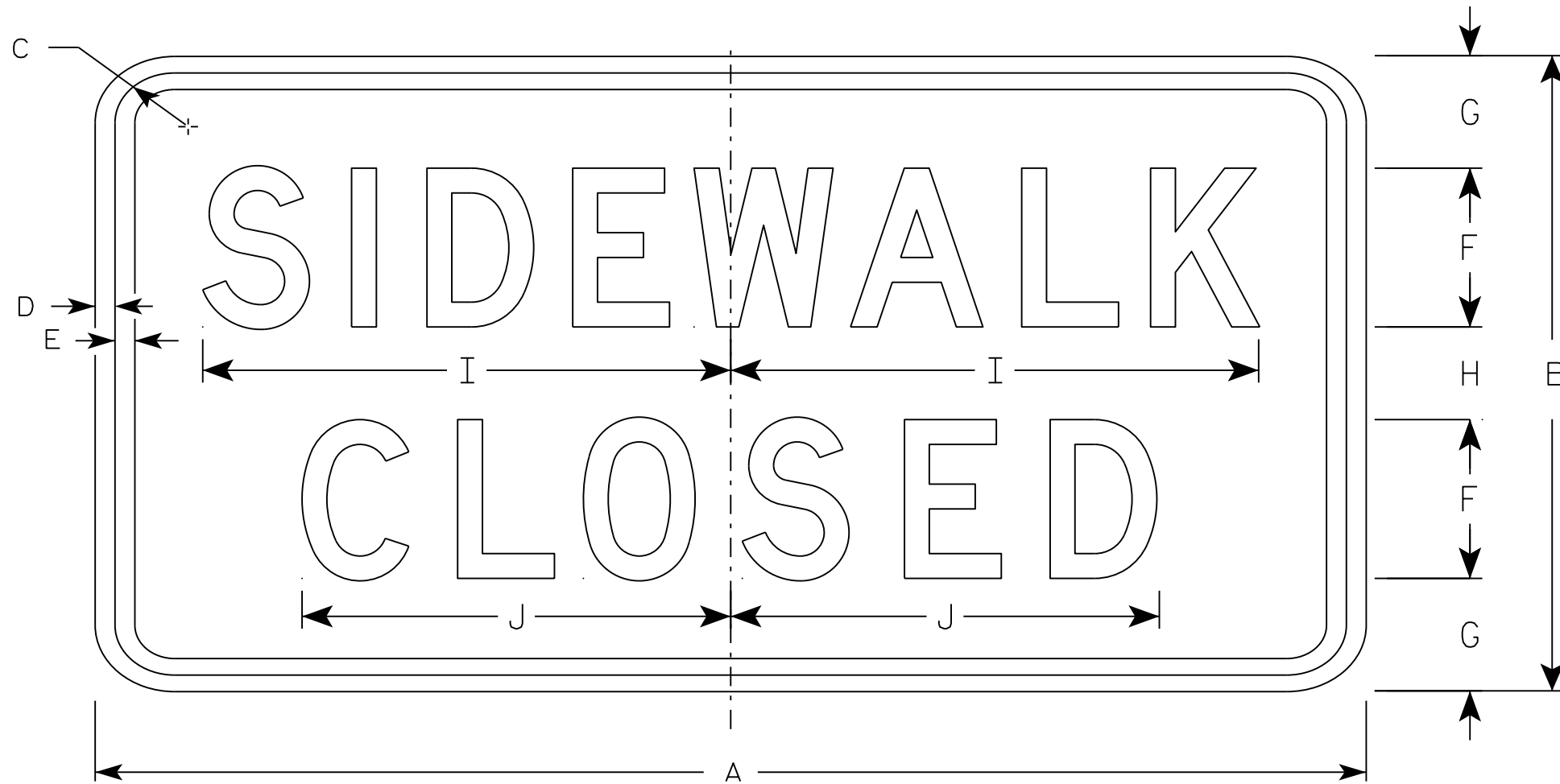
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/4/10 PLATE NO. R9-3B.2

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

NOTES

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



R9-9

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

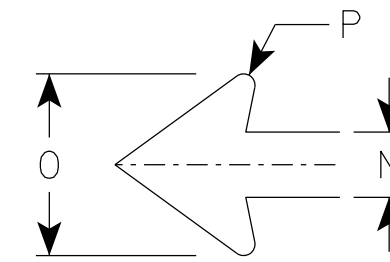
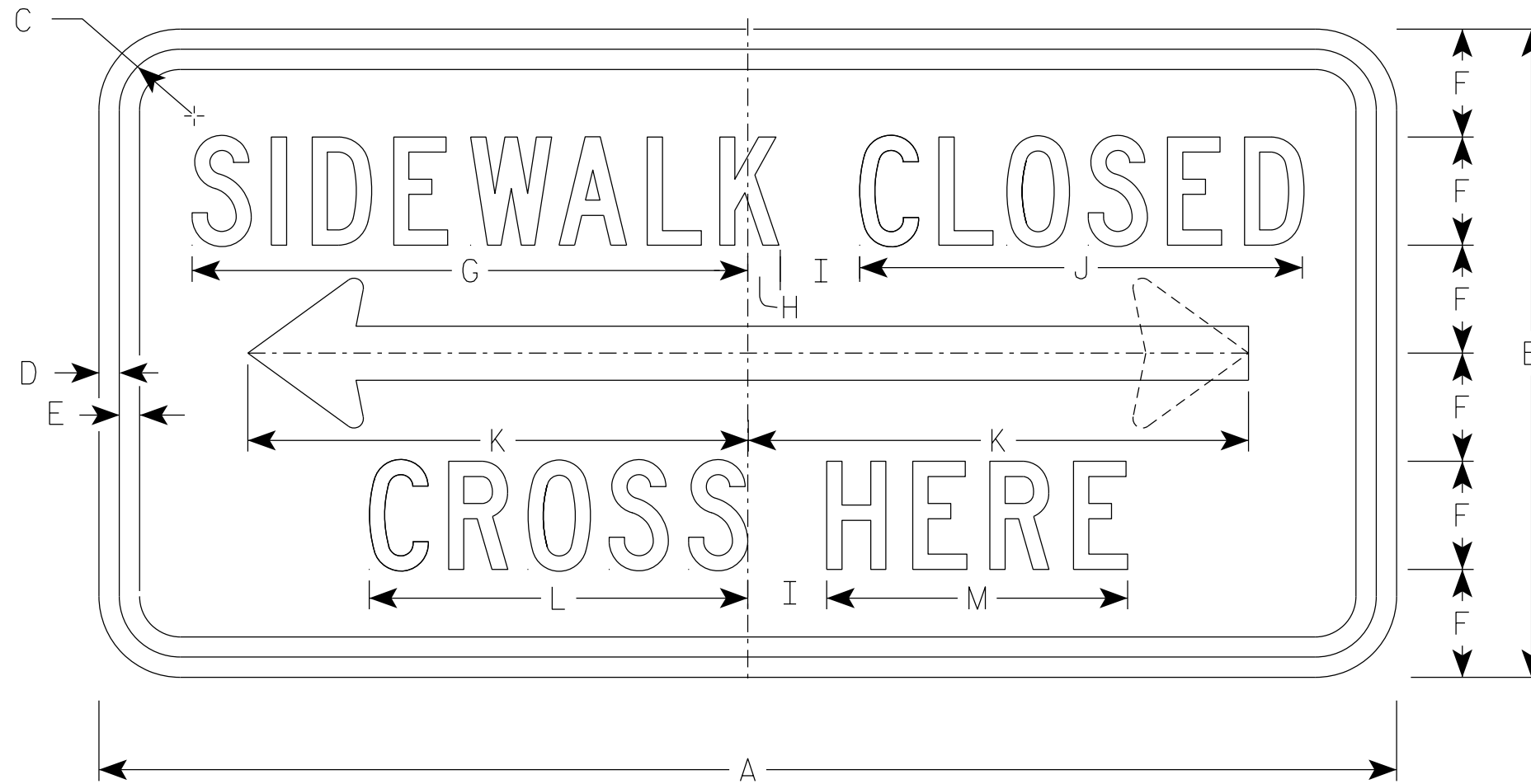
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
6. R9-11AD (double arrow)
R9-11AL (left arrow)
R9-11AR (right arrow)



ARROW DETAIL

R9-11A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

STANDARD SIGN
R9-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R9-11A.5

PROJECT NO:

HWY:

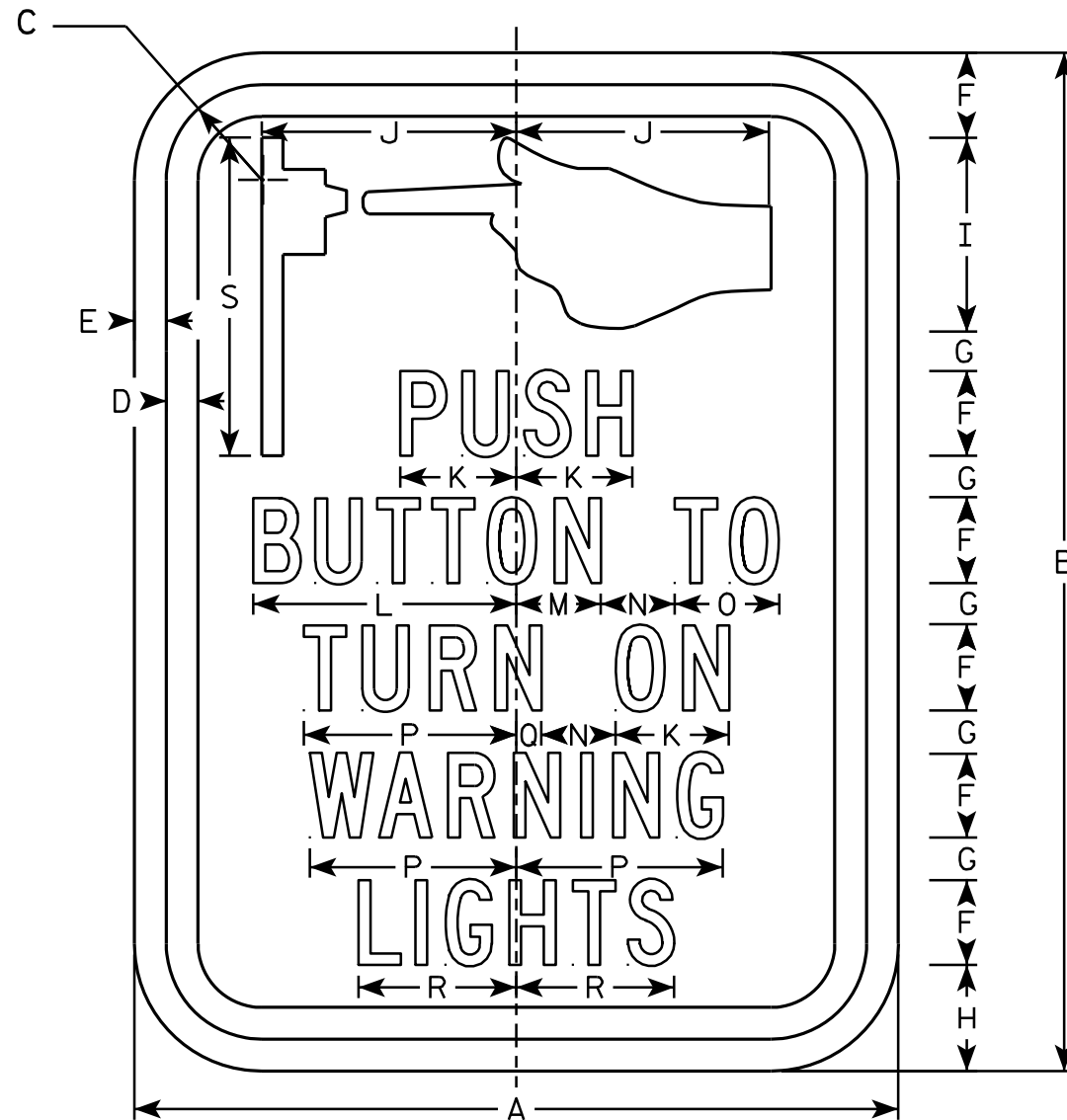
COUNTY:

SHEET NO:

E

NOTES

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



R10-25

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	6	9	1 1/8	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

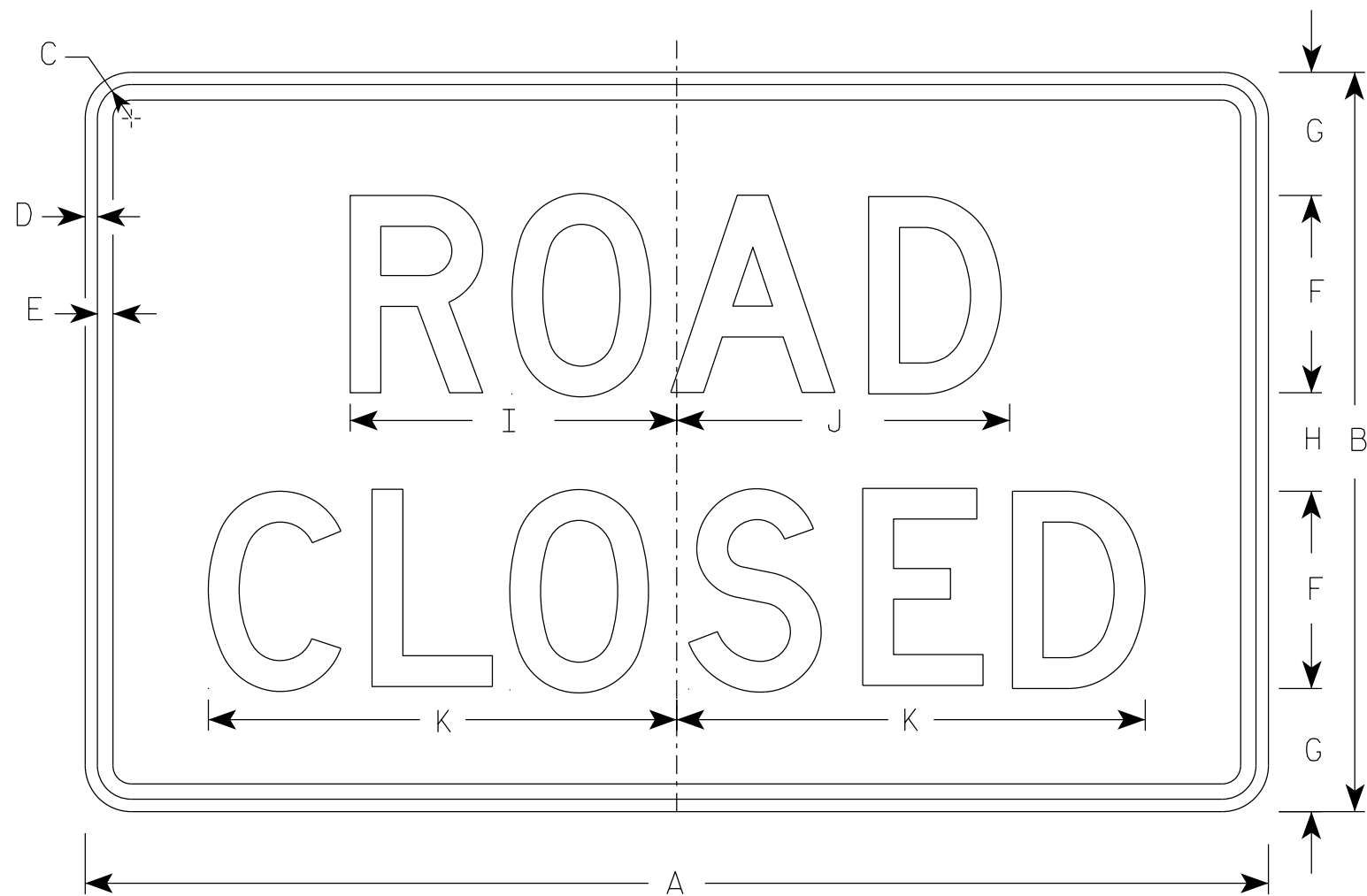
STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/8/10 PLATE NO. R10-25.1

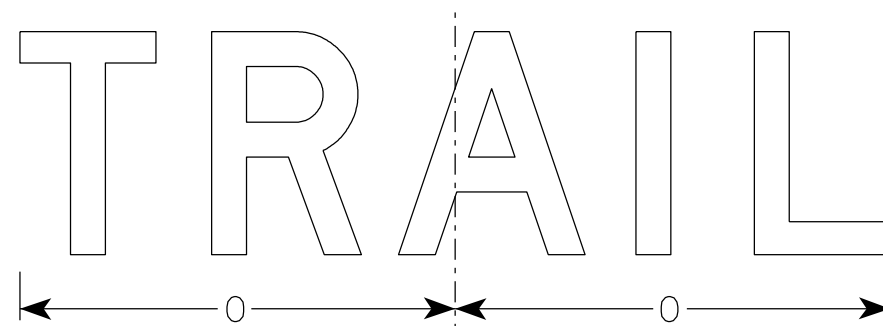
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



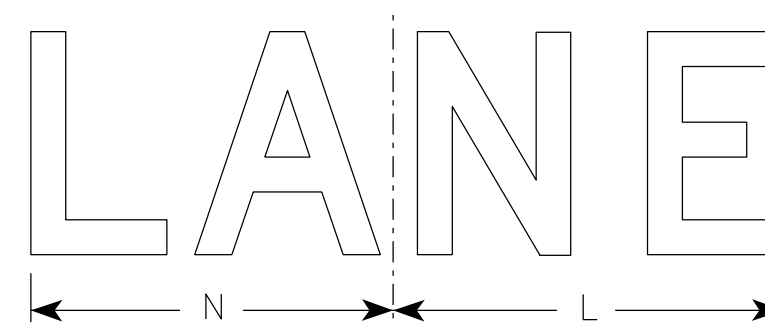
R11-2



R11-2R



R11-2T



R11-2L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

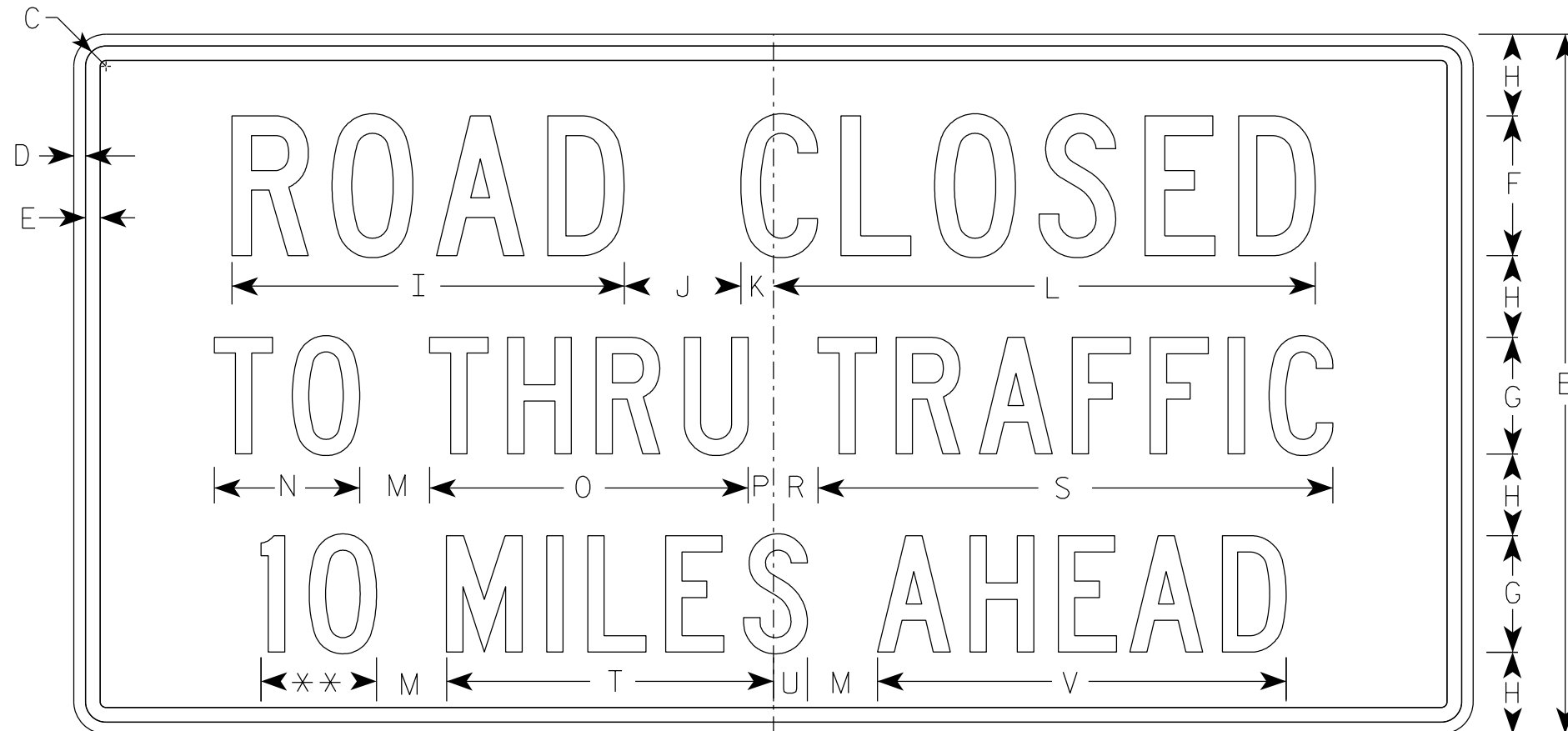
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

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

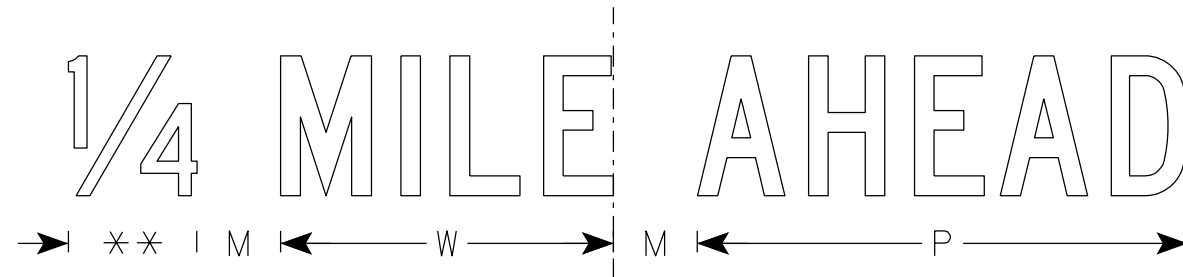
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

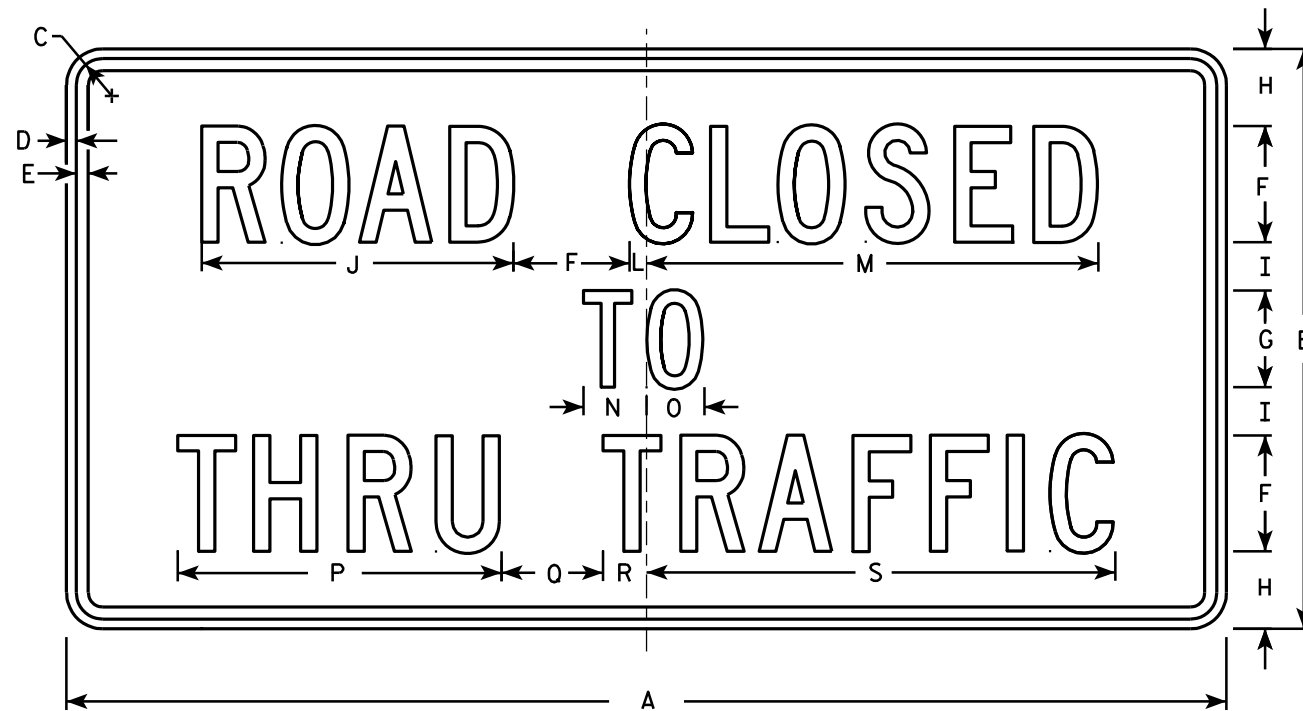
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/14/2021 PLATE NO. R11-3.9

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

NOTES

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



R11-4

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

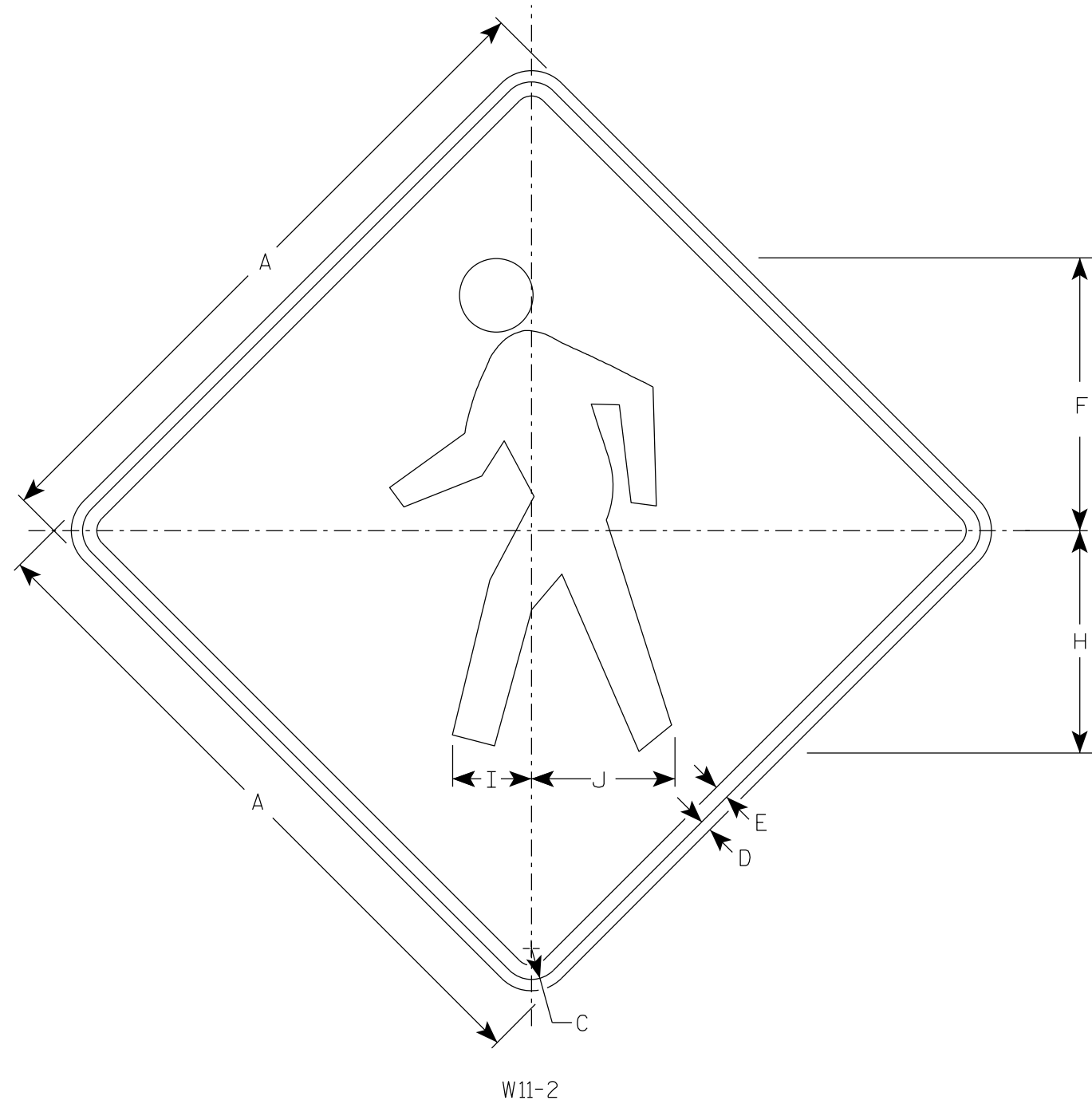
APPROVED *Matthew R. Raush*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

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

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
 Background - Yellow
 Message - Black



W11-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

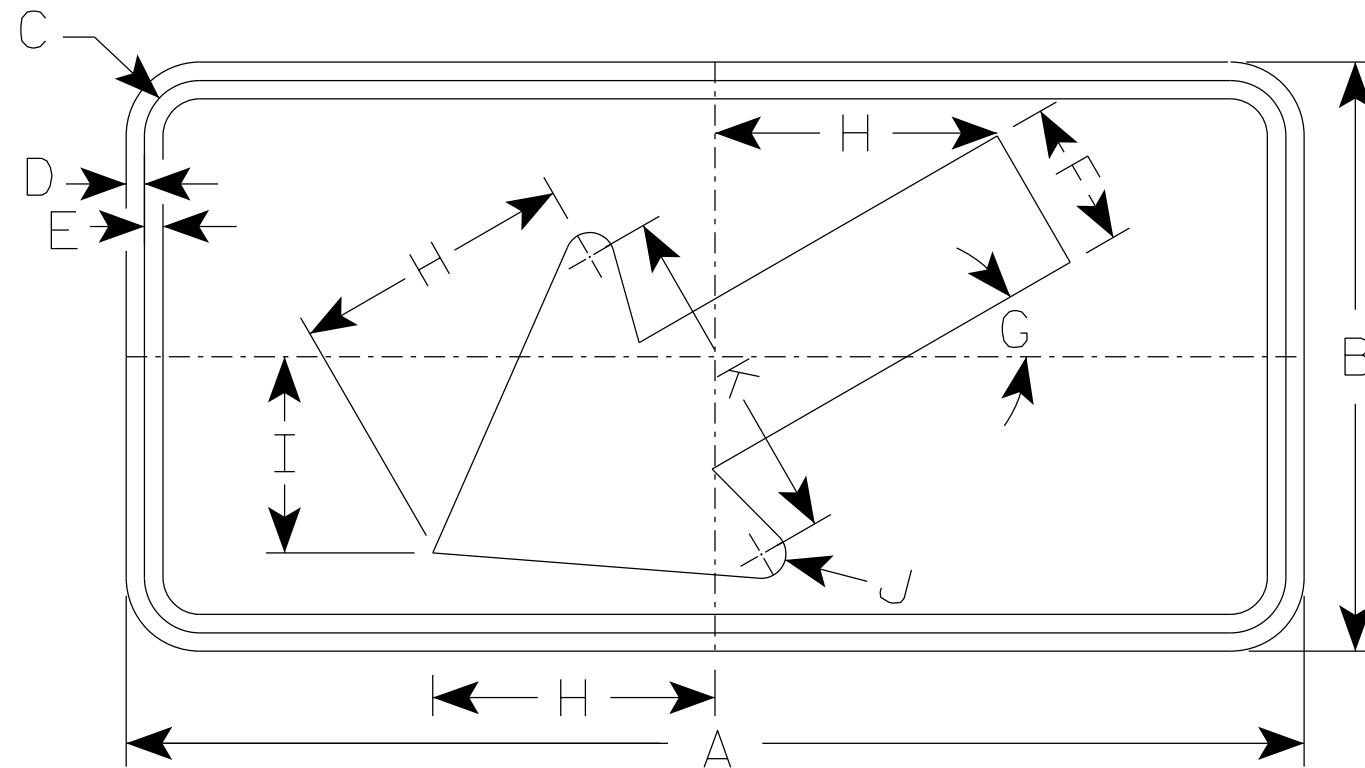
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 4/8/2020 PLATE NO. W11-2.8

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W16-7R is the same as W16-7L except the arrow is reversed along the vertical centerline.



W16-7L

- * For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

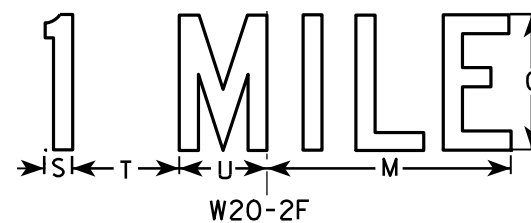
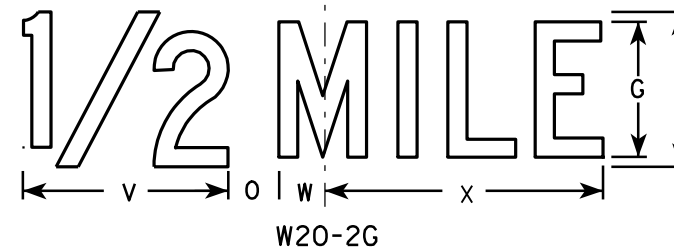
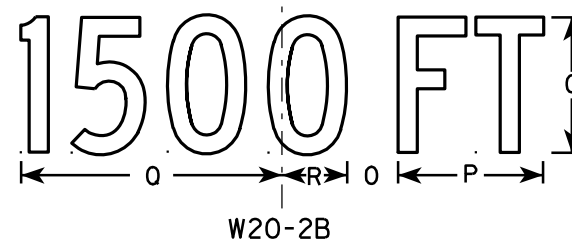
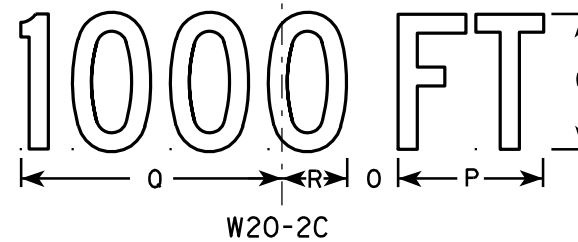
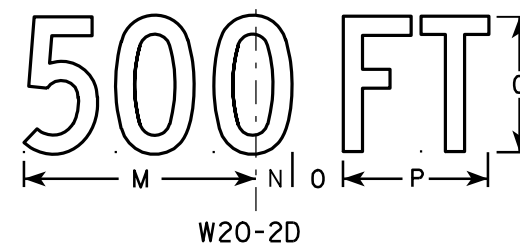
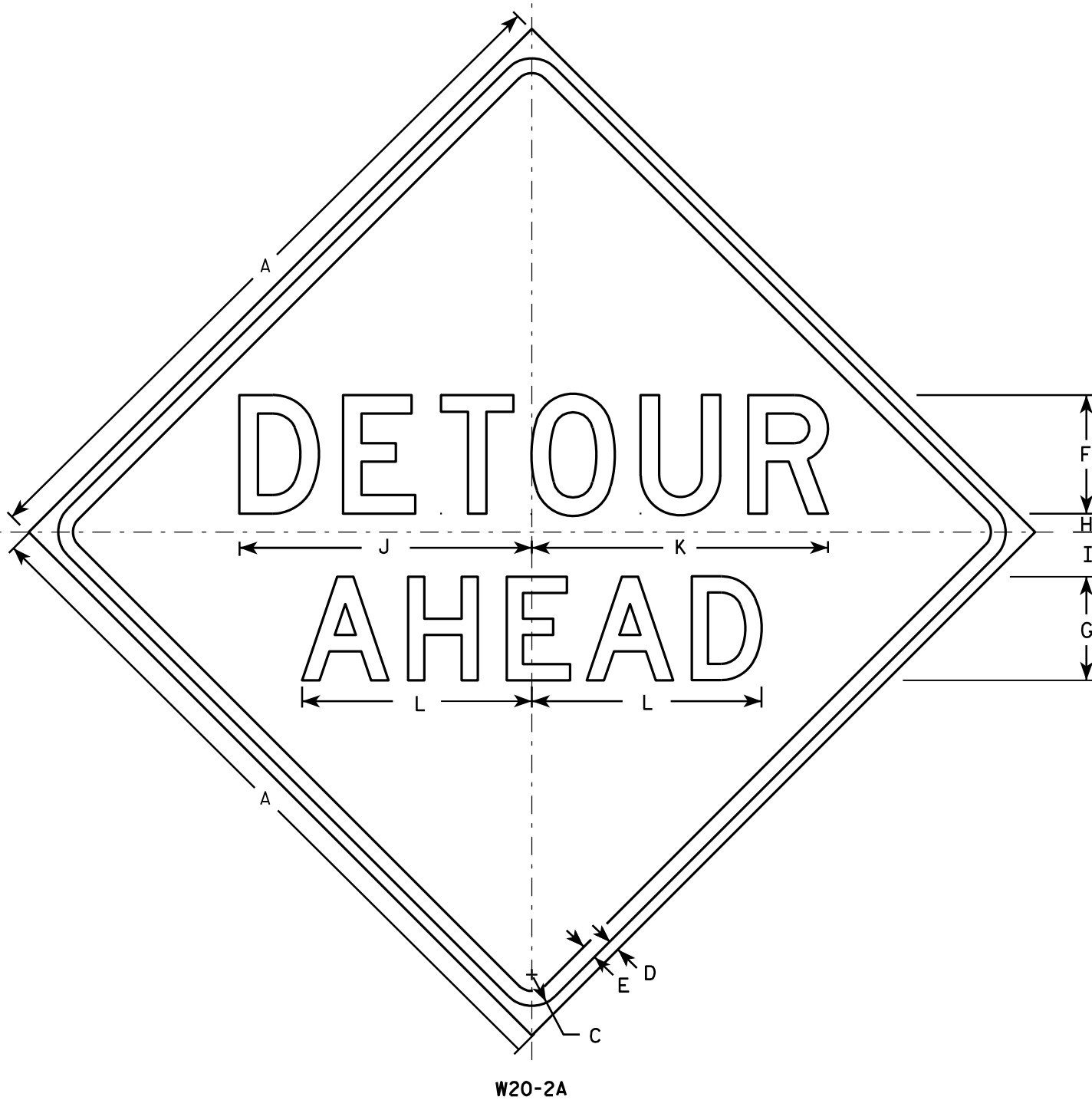
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
* 2M	30	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 3	30	18	1 1/8	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
* 4	48	24	1 3/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/2021 PLATE NO. W16-7.8



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 - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

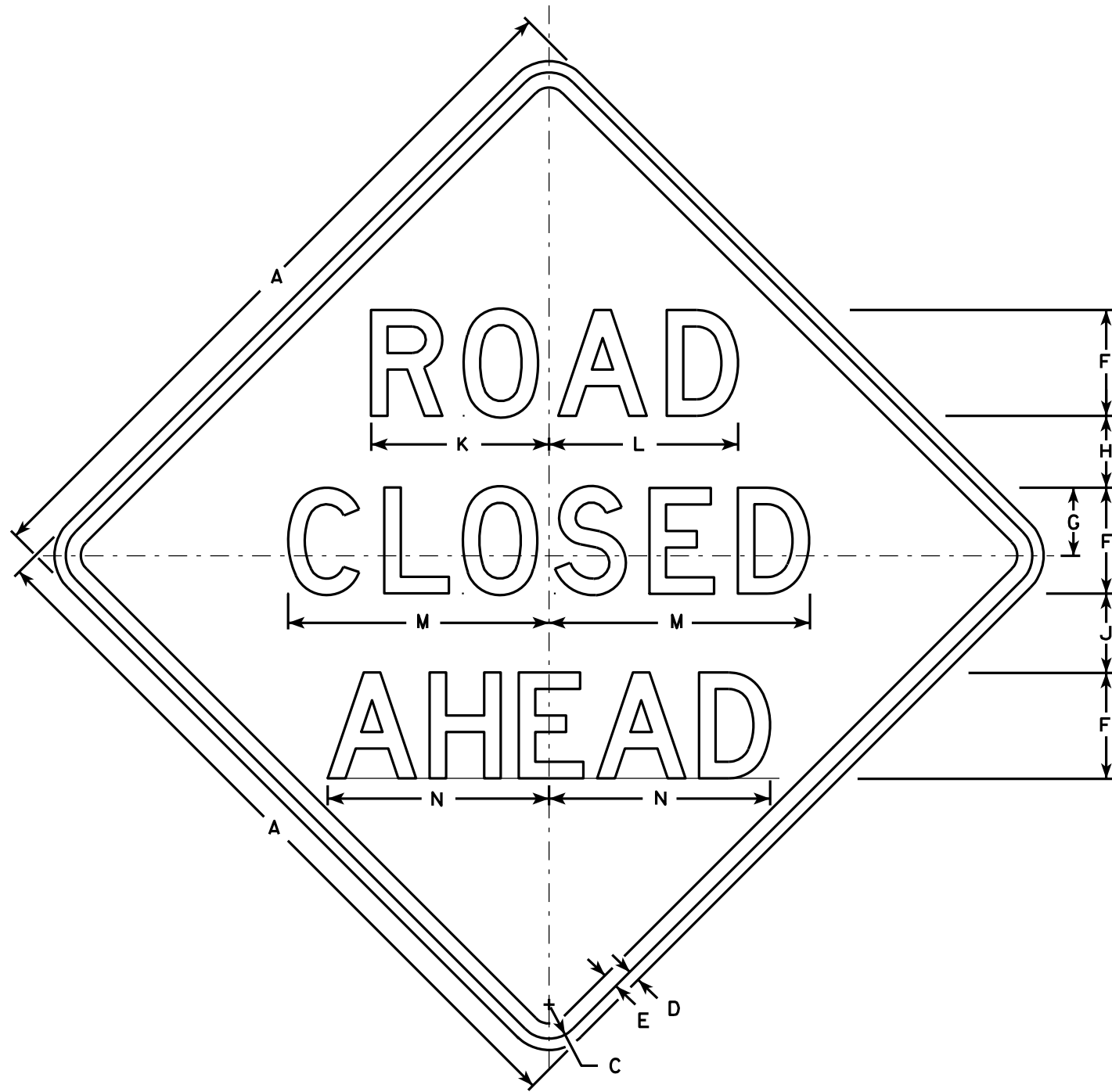
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

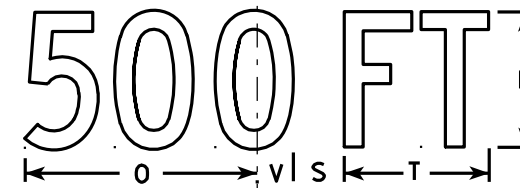
APPROVED *Matthew R. Raub*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

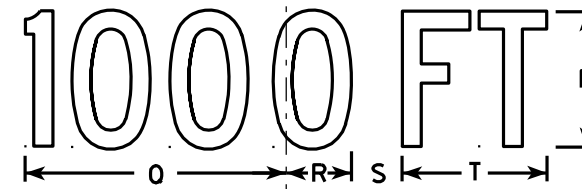
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



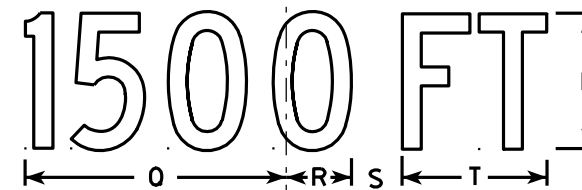
W20-3A



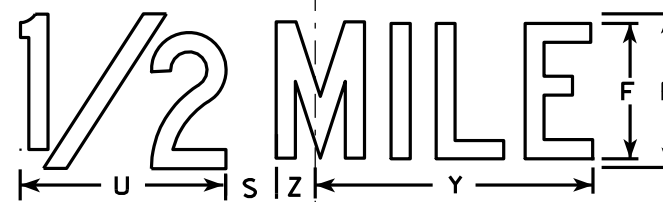
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

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 - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

ALLOUEZ AVENUE		AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 3
STATION	DISTANCE	CUT	FILL	EBS	CUT NOTE 1	FILL NOTE 2	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.18	
18+50	0	2.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0
18+75	25	0.0	9.2	0.0	1.3	4.4	0.1	1.3	5.1	-4
19+00	25	94.8	30.7	4.7	43.9	18.5	2.2	45.2	27.0	18
19+50	50	101.1	66.9	5.1	181.3	90.4	9.1	226.6	133.6	93
20+00	50	125.9	55.0	6.3	210.2	112.9	10.5	436.7	266.8	170
20+50	50	152.2	30.2	7.6	257.5	78.9	12.9	694.2	359.9	334
21+00	50	169.6	19.5	8.5	298.0	46.0	14.9	992.2	414.2	578
21+50	50	176.2	9.9	8.8	320.2	27.3	16.0	1,312.5	446.4	866
22+00	50	185.2	0.5	9.3	334.6	9.7	16.7	1,647.1	457.8	1,189
22+15	15	185.9	0.6	9.3	103.1	0.3	5.2	1,750.2	458.2	1,292
22+50	35	190.3	23.8	9.5	243.8	15.8	12.2	1,994.0	476.8	1,517
23+00	50	192.6	34.4	9.6	354.5	53.9	17.7	2,348.5	540.4	1,808
23+50	50	198.3	17.5	9.9	361.9	48.0	18.1	2,710.4	597.1	2,113
24+00	50	295.8	3.1	14.8	457.4	19.0	22.9	3,167.9	619.5	2,548
24+50	50	275.3	5.2	13.8	528.8	7.6	26.4	3,696.6	628.5	3,068
25+00	50	233.0	3.3	11.6	470.6	7.9	23.5	4,167.2	637.8	3,529
25+50	50	197.6	4.0	9.9	398.6	6.8	19.9	4,565.9	645.8	3,920
26+00	50	162.2	8.3	8.1	333.1	11.4	16.7	4,898.9	659.3	4,240
26+50	50	145.1	13.2	7.3	284.5	19.9	14.2	5,183.5	682.8	4,501
27+00	50	128.1	17.6	6.4	252.9	28.5	12.6	5,436.4	716.4	4,720
27+19	19	124.4	18.3	6.2	88.8	12.6	4.4	5,525.2	731.3	4,794
27+39	20	110.6	0.0	5.5	87.0	6.8	4.4	5,612.2	739.3	4,873
27+82	43	102.3	0.0	5.1	169.5	0.0	8.5	5,781.8	739.3	5,043
28+02	20	111.0	17.7	5.6	79.0	6.5	4.0	5,860.8	747.0	5,114
28+50	48	105.4	35.9	5.3	192.4	47.6	9.6	6,053.2	803.2	5,250
29+00	50	100.1	49.6	5.0	190.3	79.2	9.5	6,243.4	896.6	5,347
29+50	50	102.1	67.5	5.1	187.2	108.4	9.4	6,430.7	1,024.5	5,406
30+00	50	82.4	96.3	4.1	170.8	151.6	8.5	6,601.4	1,203.4	5,398
30+50	50	76.9	122.9	3.8	147.5	202.9	7.4	6,748.9	1,442.9	5,306
31+00	50	64.9	145.3	3.2	131.3	248.3	6.6	6,880.1	1,735.8	5,144
31+50	50	56.2	182.9	2.8	112.1	303.8	5.6	6,992.3	2,094.3	4,898
32+00	50	47.7	220.0	2.4	96.2	373.0	4.8	7,088.4	2,534.5	4,554
32+50	50	40.9	248.4	2.0	82.0	433.7	4.1	7,170.4	3,046.3	4,124
33+00	50	39.7	284.7	2.0	74.6	493.7	3.7	7,245.0	3,628.8	3,616
33+50	50	40.1	318.3	2.0	133.8	276.1	6.7	5,994.6	1,072.8	4,922
34+00	50	44.2	266.6	2.2	78.1	541.6	3.9	6,072.8	1,711.9	4,361
34+50	50	47.6	222.0	2.4	85.1	452.4	4.3	6,157.9	2,245.7	3,912
34+80	30	45.9	299.8	2.3	52.0	289.9	2.6	6,209.8	2,587.7	3,622
34+84	4	45.9	295.5	2.3	6.8	44.1	0.3	6,216.6	2,639.8	3,577
35+00	16	46.9	273.2	2.3	27.5	168.5	1.4	6,244.1	2,838.6	3,405
35+05	5	47.6	268.2	2.4	8.7	50.1	0.4	6,252.9	2,897.8	3,355
35+09	4	47.2	257.4	2.4	7.0	38.9	0.4	6,259.9	2,943.7	3,315
35+30	21	45.6	180.6	2.3	36.1	170.3	1.8	6,296.0	3,144.7	3,148
35+34	4	45.5	169.2	2.3	6.7	25.9	0.3	6,302.7	3,175.2	3,123
35+50	16	46.4	142.8	2.3	26.8	147.1	1.3	7,271.8	3,802.4	3,469
COLUMN TOTALS					7,713.7	5,280.2	385.7			

- NOTES:
1) CUT: CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) FILL: FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL
3) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

ALLOUEZ AVENUE		AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 4
STATION	DISTANCE	CUT	FILL	EBS	CUT NOTE 1	FILL NOTE 3	EBS	CUT NOTE 1	EXPANDED FILL 1.18	
40+92	0	61.5	0.5	3.1	0.0	0.0	0.0	0.0	0.0	0
41+00	8	65.2	0.5	3.3	18.8	0.2	0.9	18.8	0.2	19
41+17	17	207.4	17.8	10.4	85.8	5.8	4.3	104.6	7.0	98
41+42	25	191.1	60.9	9.6	184.5	36.4	9.2	289.1	50.0	239
41+43	1	191.7	62.2	9.6	7.1	2.3	0.4	296.2	52.7	244
41+50	7	194.5	69.5	9.7	50.1	17.1	2.5	346.2	72.8	273
41+68	18	185.5	73.5	9.3	126.6	47.7	6.3	472.9	129.1	344
41+93	25	163.0	87.1	8.2	161.3	74.4	8.1	634.2	216.8	417
42+00	7	157.2	100.0	7.9	41.5	24.2	2.1	675.7	245.4	430
42+28	28	144.6	53.2	7.2	156.5	79.4	7.8	832.2	339.2	493
42+50	22	132.3	56.0	6.6	112.8	44.5	5.6	945.0	391.6	553
43+00	50	97.2	41.7	4.9	212.5	90.4	10.6	1,157.5	498.3	659
43+25	25	69.0	30.0	3.5	77.0	33.2	3.8	1,234.5	537.4	697
43+50	25	69.0	20.0	3.4	63.9	23.1	3.2	1,298.4	564.8	734
43+75	25	65.3	16.8	3.3	62.2	17.0	3.1	1,360.5	584.8	776
44+00	25	66.6	17.4	3.3	61.1	15.8	3.1	1,421.6	603.5	818
44+25	25	91.5	0.3	4.6	73.2	8.2	3.7	1,494.8	613.2	882
44+50	25	61.3	0.0	3.1	70.7	0.1	3.5	1,565.5	613.3	952
44+75	25	57.3	0.0	2.9	54.9	0.0	2.7	1,620.4	613.4	1,007
45+00	25	56.3	0.9	2.8	52.6	0.4	2.6	1,673.0	613.8	1,059
45+25	25	54.9	22.4	2.7	51.5	10.8	2.6	1,724.4	626.6	1,098
45+50	25	54.4	2.1	2.7	50.6	11.4	2.5	1,775.0	640.0	1,135
45+75	25	54.3	1.0	2.7	50.3	1.4	2.5	1,825.4	641.7	1,184
46+00	25	54.5	0.6	2.7	50.4	0.7	2.5	1,875.8	642.5	1,233
46+25	25	54.9	0.2	2.7	50.7	0.4	2.5	1,926.4	642.9	1,283
46+50	25	56.4	0.1	2.8	51.5	0.1	2.6	1,977.9	643.1	1,335
46+75	25	57.1	0.3	2.9	52.5	0.2	2.6	2,030.5	643.3	1,387
47+78	103	62.3	0.1	3.1	227.8	0.7	11.4	2,258.3	644.1	1,614
48+00	22	74.9	0.8	3.7	55.9	0.3	2.8	2,314.1	644.5	1,670
48+25	25	74.2	0.1	3.7	69.0	0.4	3.5	2,383.2	645.0	1,738
48+50	25	74.0	0.6	3.7	68.6	0.3	3.4	2,451.8	645.3	1,806
48+75	25	65.2	0.5	3.3	64.4	0.5	3.2	2,516.2	645.9	1,870
49+00	25	75.5	1.3	3.8	65.1	0.8	3.3	2,581.3	646.8	1,934
49+25	25	67.6	0.6	3.4	66.2	0.9	3.3	2,647.6	647.9	2,000
49+30	5	66.8	0.7	3.3	12.1	0.1	0.6	1,887.9	642.6	1,245
49+50	20	66.4	2.8	3.3	49.3	1.3	2.5	1,937.2	644.1	1,293
49+90	40	62.3	65.1	3.1	95.3	50.3	4.8	2,032.5	703.4	1,329
50+00	10	63.7	153.7	3.2	23.3	40.5	1.2	2,055.9	751.2	1,305
50+28	28	59.8	172.0	3.0	64.0	168.9	3.2	2,119.9	950.5	1,169

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ALLOUEZ AVENUE		AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 4
STATION	DISTANCE	CUT	FILL	EBS	CUT NOTE 1	FILL NOTE 3	EBS	CUT NOTE 1	EXPANDED FILL 1.18	
51+11	83	60.4	94.9	3.0	185.4	411.5	9.3	2,304.3	1,434.4	868
51+50	39	65.8	72.7	3.3	91.1	121.0	4.6	2,395.4	1,577.3	814
52+00	50	66.0	70.6	3.3	122.0	132.6	6.1	2,517.4	1,733.8	775
52+50	50	59.2	104.4	3.0	115.9	162.0	5.8	2,633.3	1,924.9	694
53+00	50	70.3	42.4	3.5	119.9	135.9	6.0	2,753.2	2,085.3	645
53+50	50	63.1	1.6	3.2	123.5	40.7	6.2	2,876.8	2,133.3	710
54+00	50	60.4	12.5	3.0	114.4	13.0	5.7	2,991.2	2,148.6	797
54+50	50	58.5	12.4	2.9	110.1	23.1	5.5	3,101.3	2,175.8	866
54+75	25	67.4	20.4	3.4	58.3	15.2	2.9	3,159.6	2,193.8	899
54+85	10	68.2	20.2	3.4	25.1	7.5	1.3	3,184.7	2,202.7	911
55+00	15	58.6	3.9	2.9	35.2	6.7	1.8	3,219.9	2,210.5	933
55+25	25	67.6	1.0	3.4	58.4	2.2	2.9	3,278.3	2,213.2	978
55+50	25	59.0	2.2	3.0	58.6	1.5	2.9	3,336.9	2,214.9	1,023
55+75	25	58.7	3.7	2.9	54.5	2.7	2.7	3,391.4	2,218.1	1,062
56+00	25	58.5	4.0	2.9	54.3	3.6	2.7	3,445.7	2,222.3	1,099
56+25	25	58.3	4.1	2.9	54.1	3.7	2.7	3,499.8	2,226.7	1,134
56+50	25	57.6	8.9	2.9	53.7	6.0	2.7	3,553.5	2,233.8	1,165
57+00	50	61.1	2.2	3.1	109.9	10.3	5.5	3,663.4	2,246.0	1,231
57+50	50	61.4	3.0	3.1	113.4	4.9	5.7	3,776.8	2,251.8	1,304
57+75	25	62.2	2.0	3.1	57.2	2.4	2.9	3,834.0	2,254.5	1,341
58+00	25	72.4	0.0	3.6	62.3	0.9	3.1	3,896.3	2,255.6	1,383
58+50	50	64.0	5.0	3.2	126.3	4.6	6.3	4,022.6	2,261.1	1,464
58+82	32	70.8	2.2	3.5	79.9	4.3	4.0	4,102.5	2,266.1	1,512
59+00	18	68.7	0.5	3.4	46.5	0.9	2.3	4,149.0	2,267.2	1,542
59+07	7	70.4	0.3	3.5	18.0	0.1	0.9	4,167.0	2,267.3	1,553
59+20	13	79.4	0.3	4.0	36.1	0.1	1.8	4,203.1	2,267.5	1,577
59+32	12	70.4	0.2	3.5	33.3	0.1	1.7	4,236.4	2,267.6	1,598
59+50	18	64.3	2.2	3.2	44.9	0.8	2.2	4,281.3	2,268.5	1,624
60+00	50	64.9	1.3	3.2	119.6	3.3	6.0	4,400.9	2,272.4	1,687
60+25	25	64.1	0.0	3.2	59.7	0.6	3.0	4,460.6	2,273.1	1,719
61+02	77	65.4	0.0	3.3	184.7	0.1	9.2	4,645.3	2,273.2	1,816
61+21	19	33.3	0.9	1.7	34.7	0.3	1.7	4,680.0	2,273.6	1,828
COLUMN TOTALS					5,451.8	1,931.3	272.6			

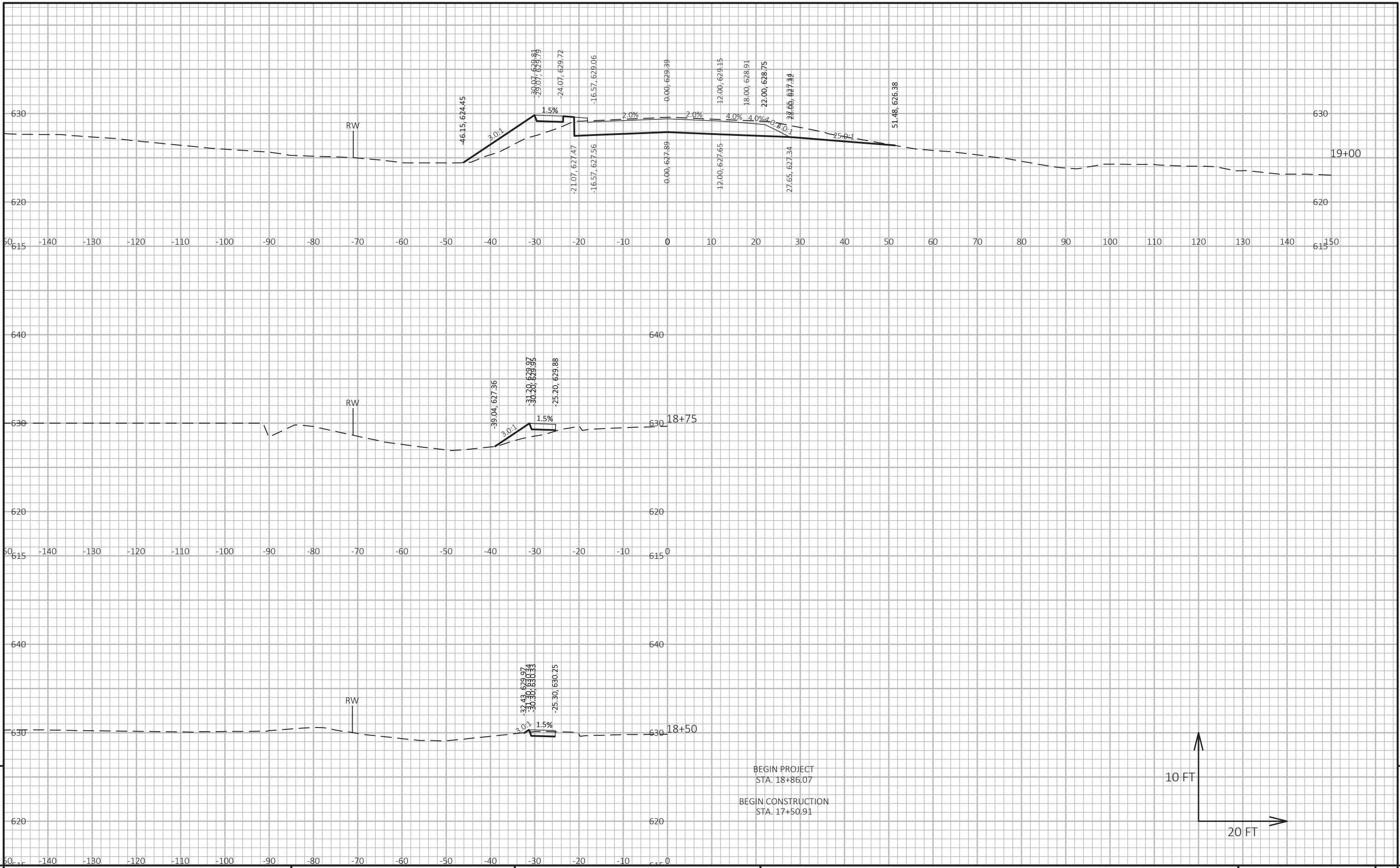
NOTES:

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- 3) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

ALLOUEZ AVENUE		AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		MASS ORDINATE NOTE 4
STATION	DISTANCE	CUT	FILL	EBS	CUT NOTE 1	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.18	
61+22	0	36.1	0.7	1.8	0.0	0.0	0.0	0.0	0.0	0
61+50	28	20.2	0.1	1.0	29.2	0.4	1.5	29.2	0.5	29
61+51	1	20.2	0.1	1.0	0.7	0.0	0.0	30.0	0.5	29
61+76	25	15.7	0.7	0.8	16.6	0.4	0.8	46.6	0.9	46
62+00	24	15.6	0.2	0.8	13.9	0.4	0.7	60.5	1.4	59
62+00	0	15.6	0.2	0.8	0.0	0.0	0.0	60.5	1.4	59
62+25	25	24.5	0.5	1.2	18.6	0.3	0.9	79.0	1.8	77
62+50	25	37.6	0.8	1.9	28.7	0.6	1.4	107.8	2.4	105
62+75	25	8.6	0.7	0.4	21.4	0.7	1.1	129.1	3.3	126
63+00	25	9.3	0.7	0.5	8.3	0.6	0.4	137.4	4.0	133
63+25	25	10.0	2.4	0.5	8.9	1.4	0.4	146.3	5.7	141
63+50	25	11.5	0.0	0.6	9.9	1.1	0.5	156.2	7.0	149
64+02	52	7.7	0.0	0.4	18.5	0.0	0.9	174.7	7.0	168
64+25	23	6.4	14.6	0.3	6.0	6.2	0.3	180.7	14.4	166
64+50	25	6.9	6.5	0.3	6.1	9.8	0.3	186.8	26.0	161
64+90	40	8.6	10.8	0.4	11.5	12.8	0.6	198.3	41.1	157
65+00	10	8.7	17.5	0.4	3.2	5.2	0.2	201.5	47.3	154
65+20	20	7.9	38.3	0.4	6.1	20.6	0.3	207.7	71.6	136
65+35	15	9.3	22.4	0.5	4.8	16.8	0.2	212.5	91.5	121
65+50	15	0.0	0.0	0.0	2.6	6.2	0.1	215.0	98.8	116
65+70	20	0.0	0.0	0.0	0.0	0.0	0.0	215.0	98.8	116
66+00	30	0.0	0.0	0.0	0.0	0.0	0.0	215.0	98.8	116
66+50	50	0.0	0.0	0.0	0.0	0.0	0.0	215.0	98.8	116
67+00	50	0.0	0.0	0.0	0.0	0.0	0.0	215.0	98.8	116
COLUMN TOTALS					215.0	83.8	10.8			

NOTES:

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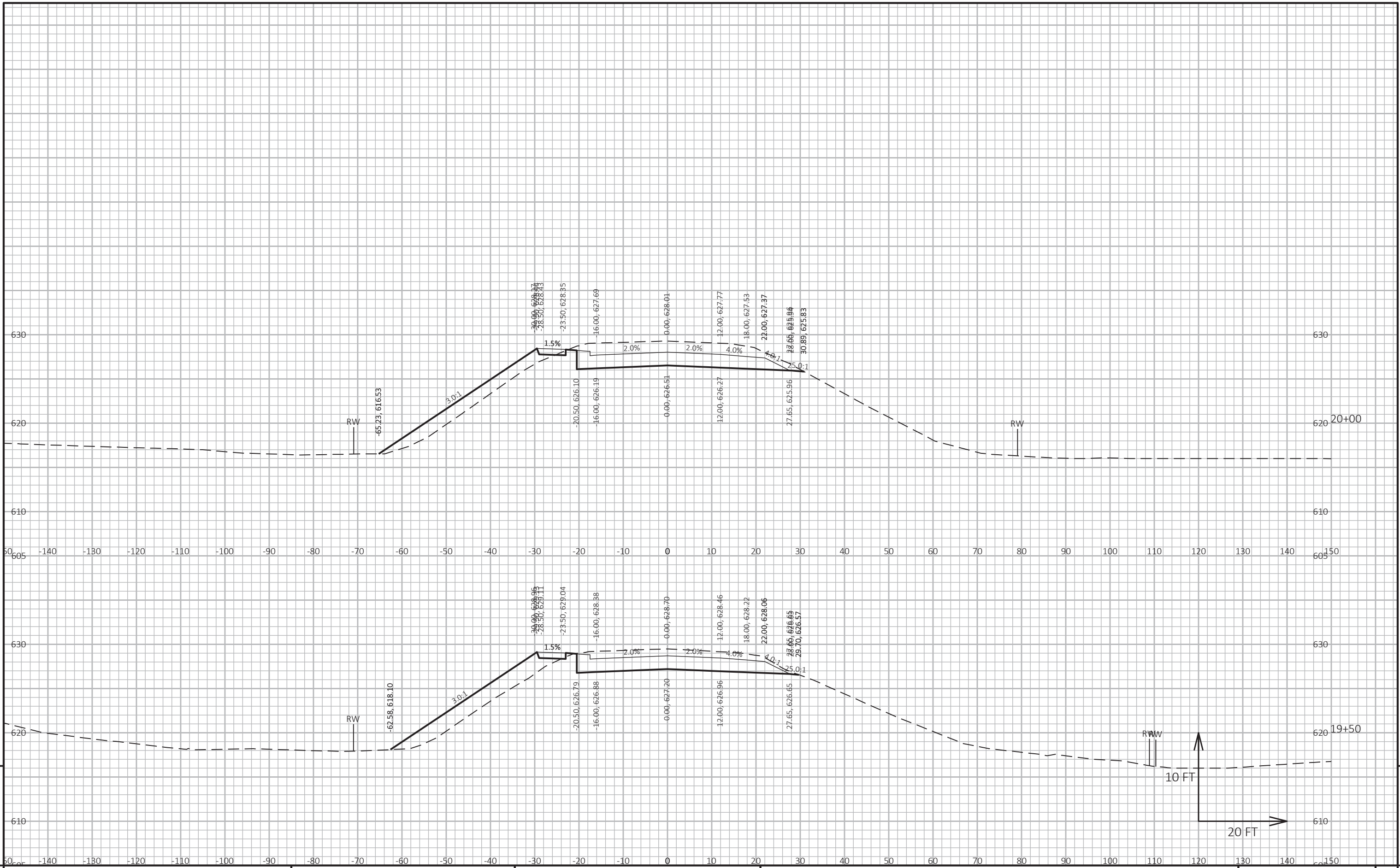
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090201_XS



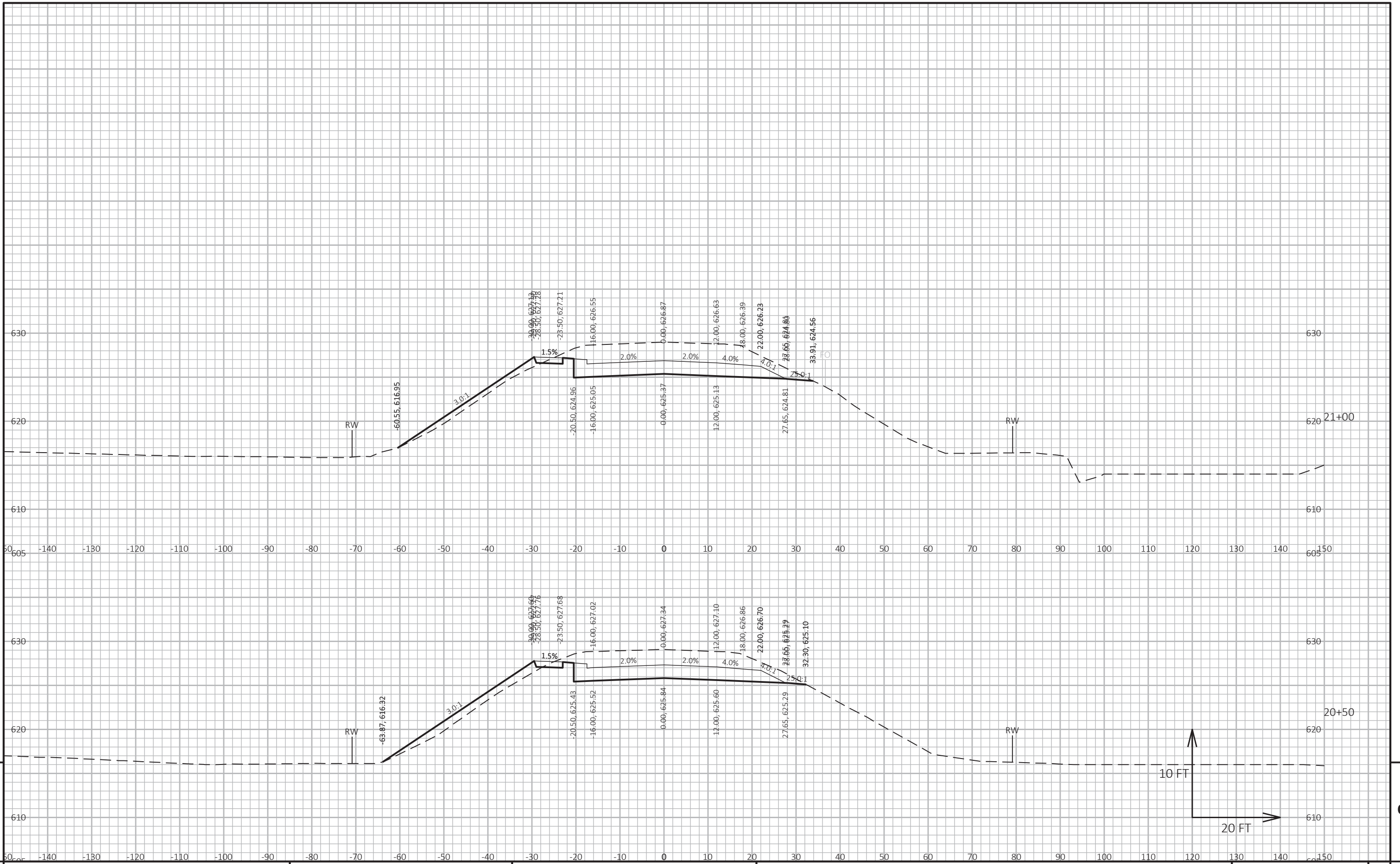
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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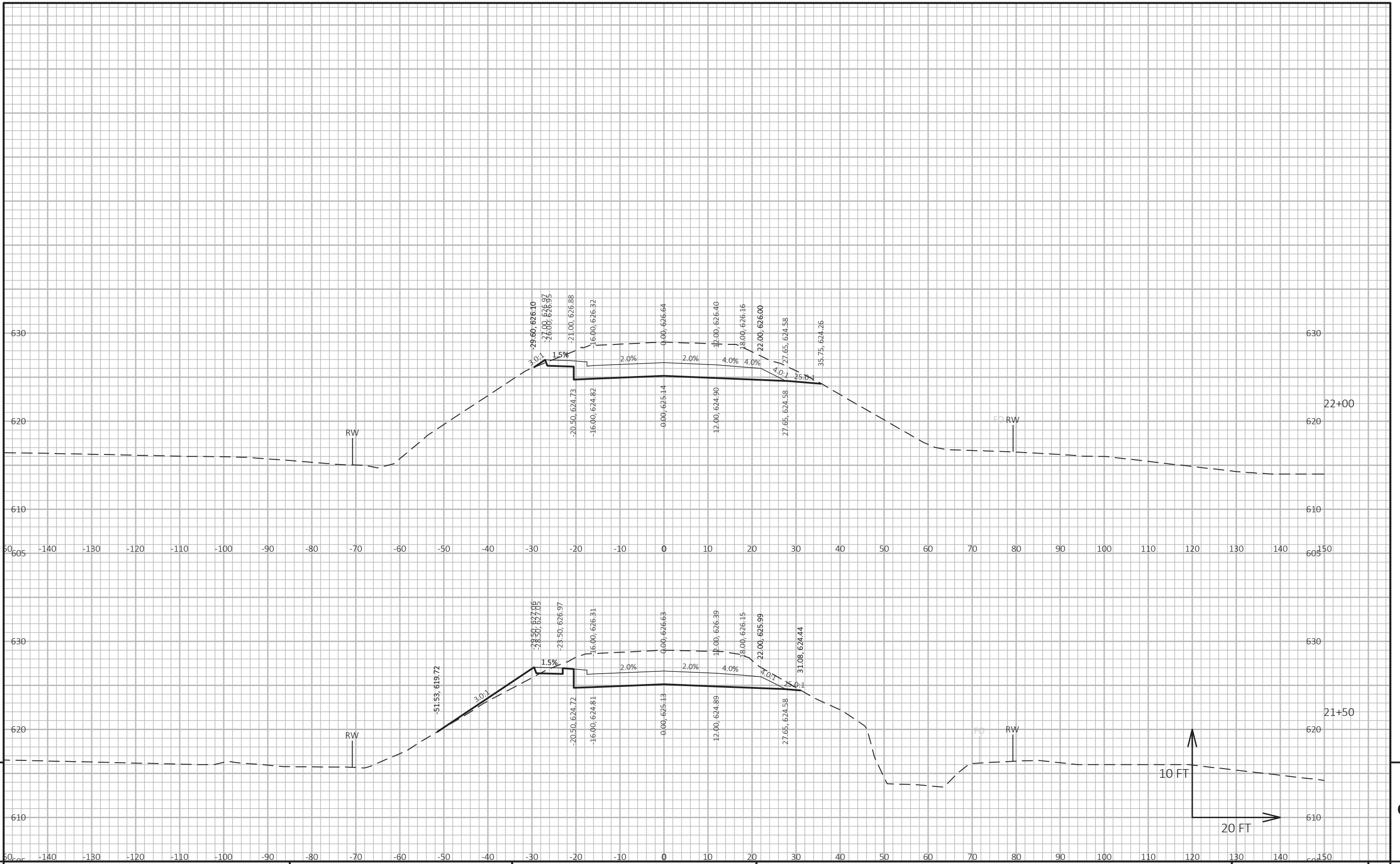
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090203_XS



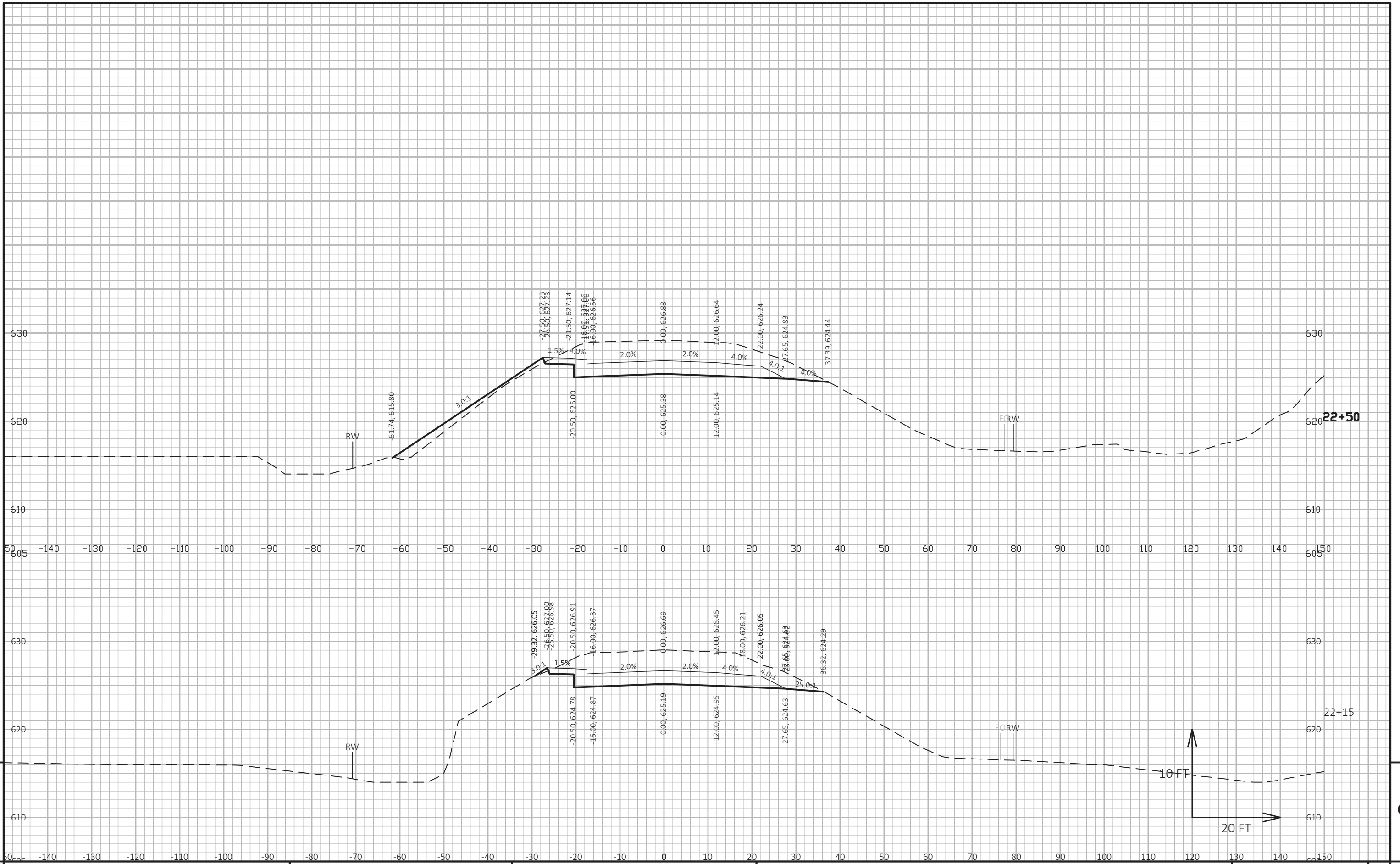
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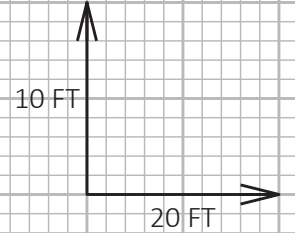
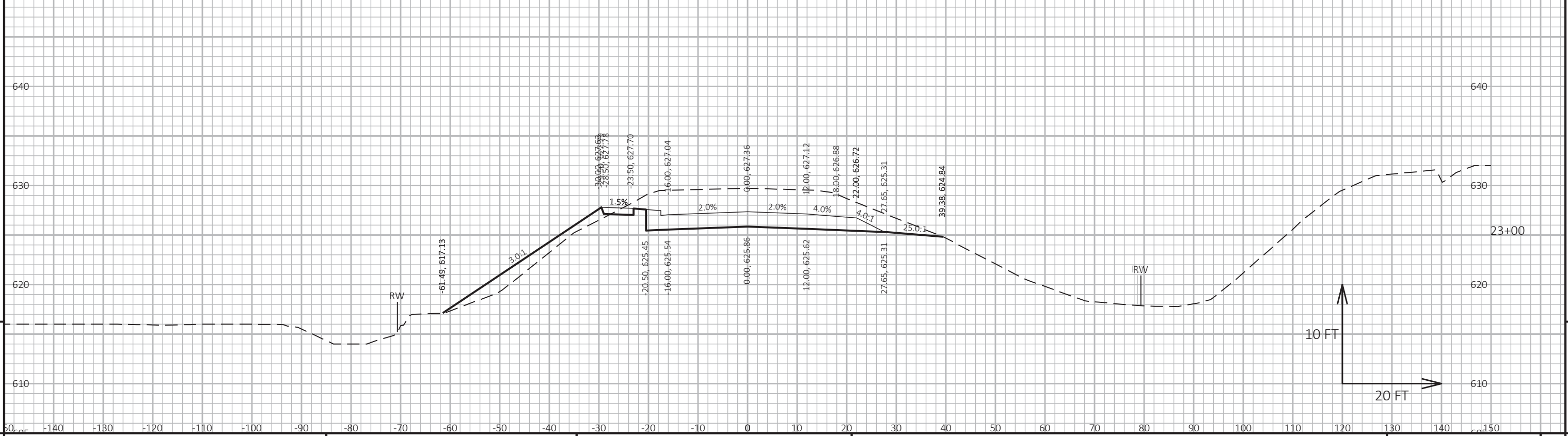
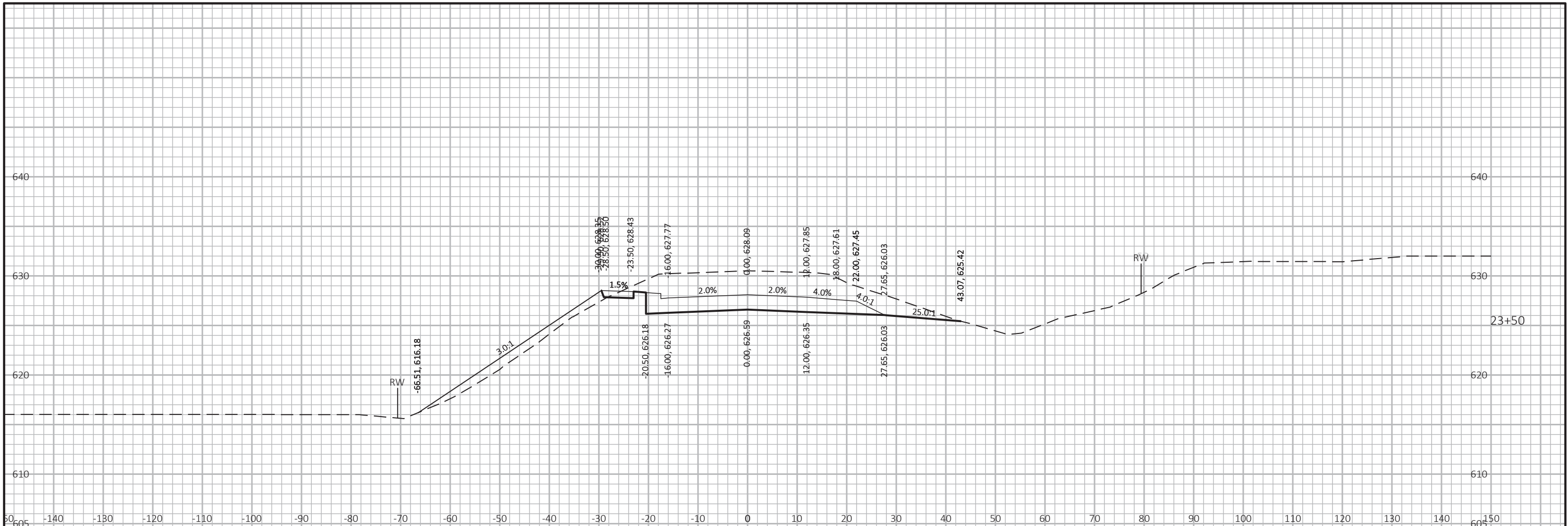
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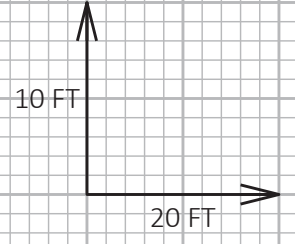
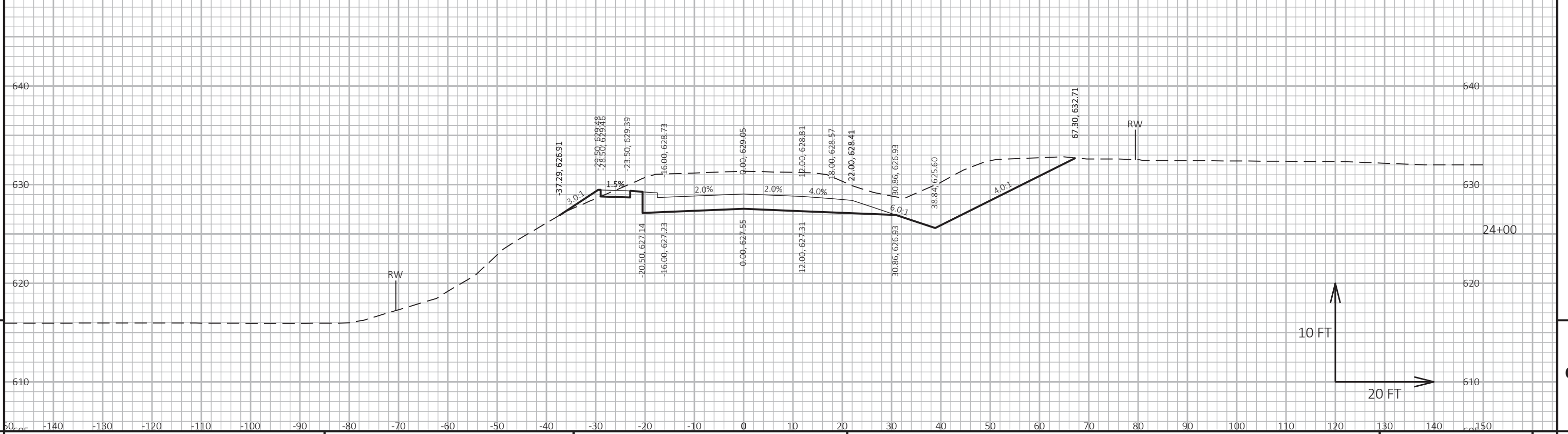
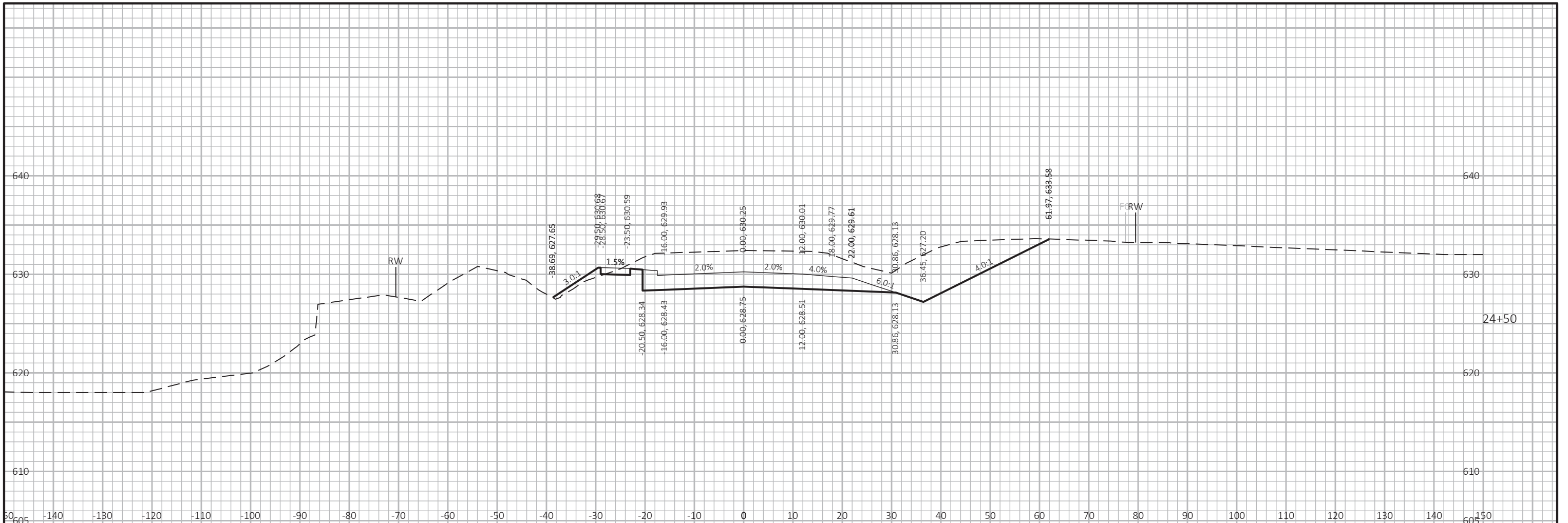
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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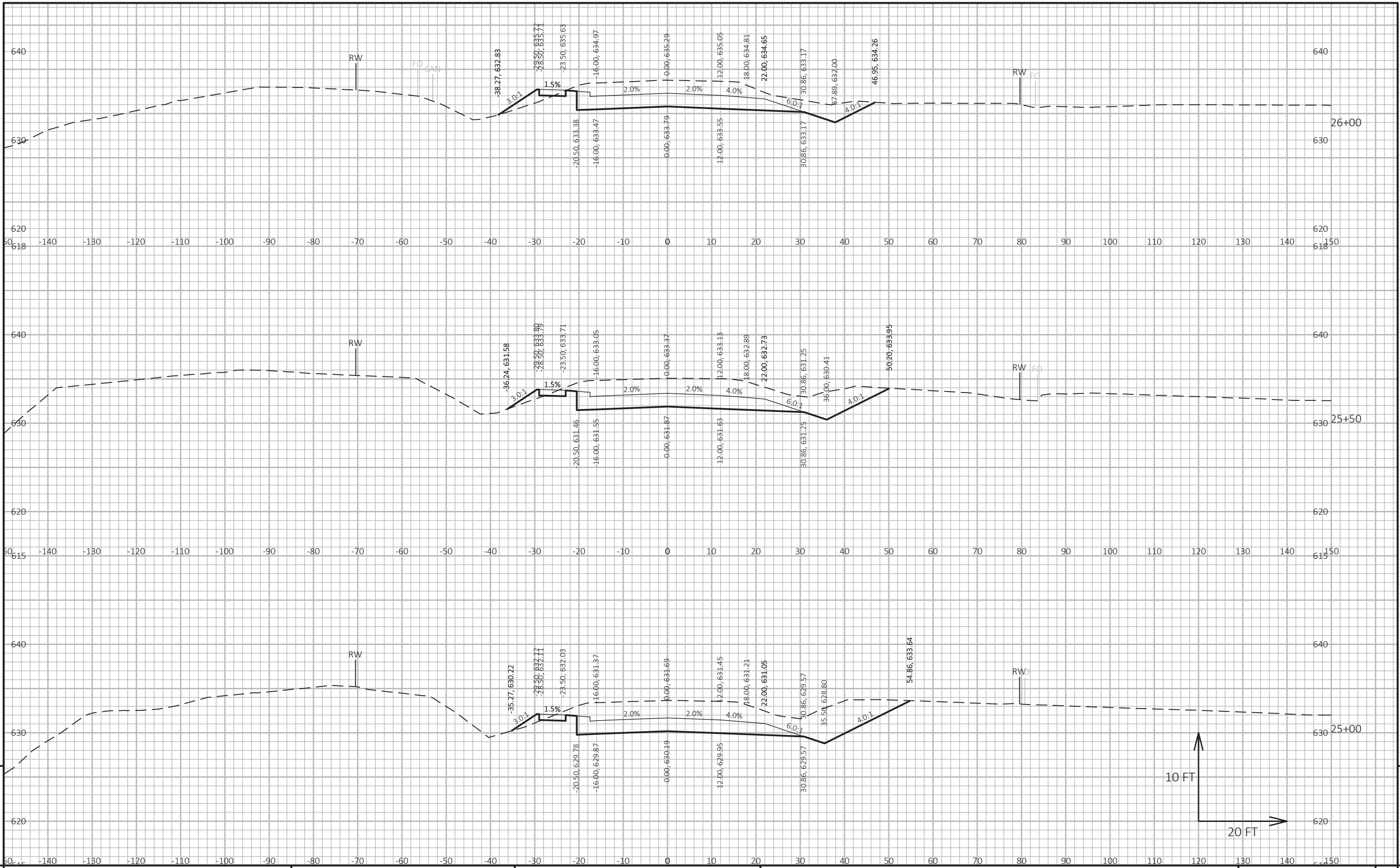
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090207_XS



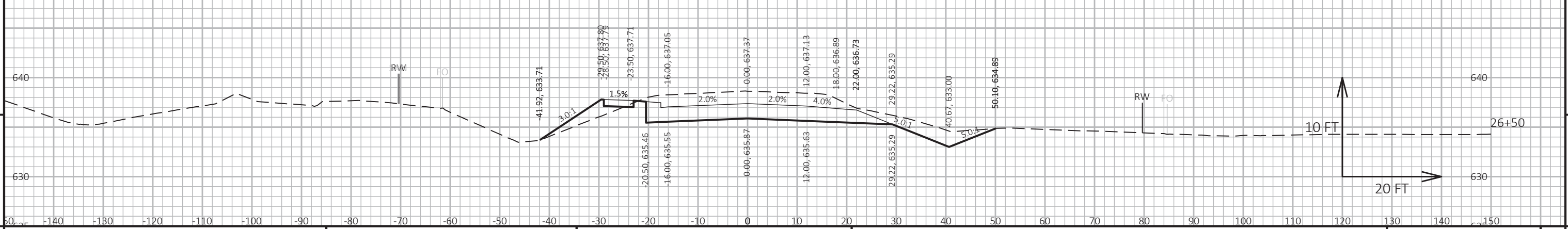
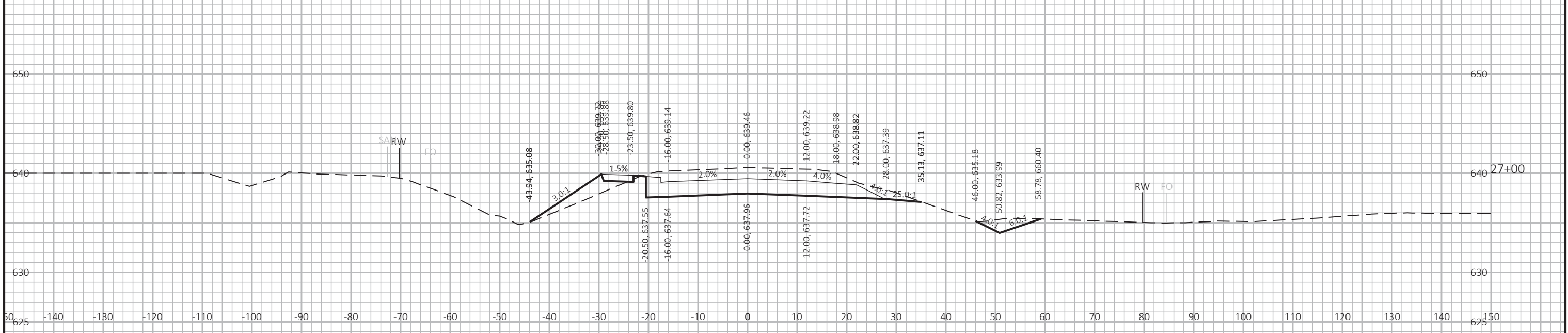
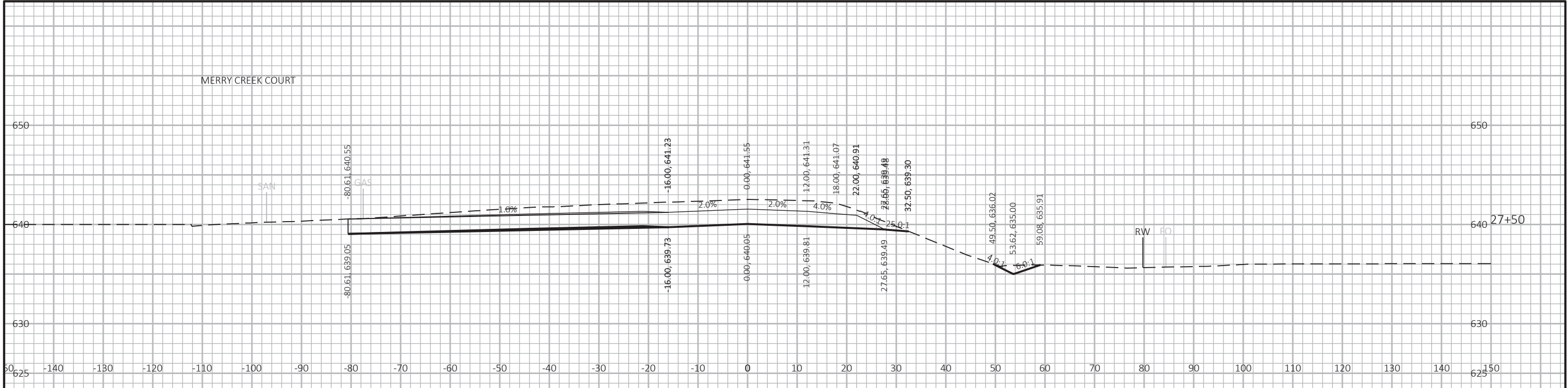
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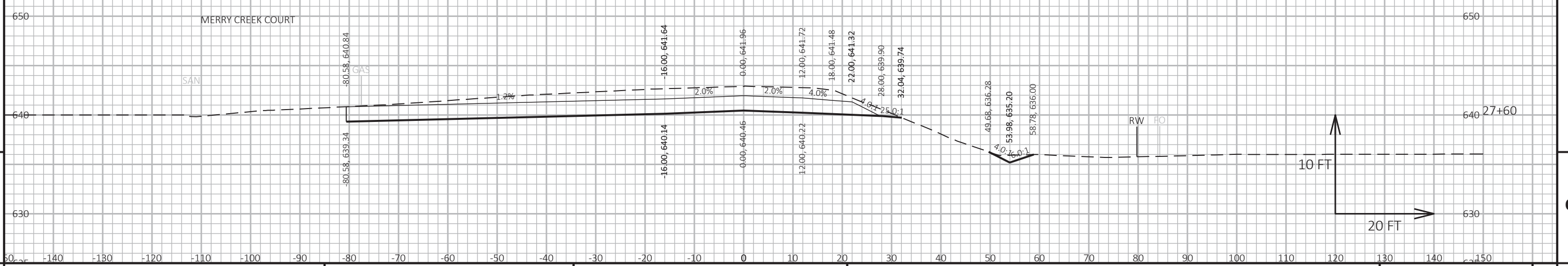
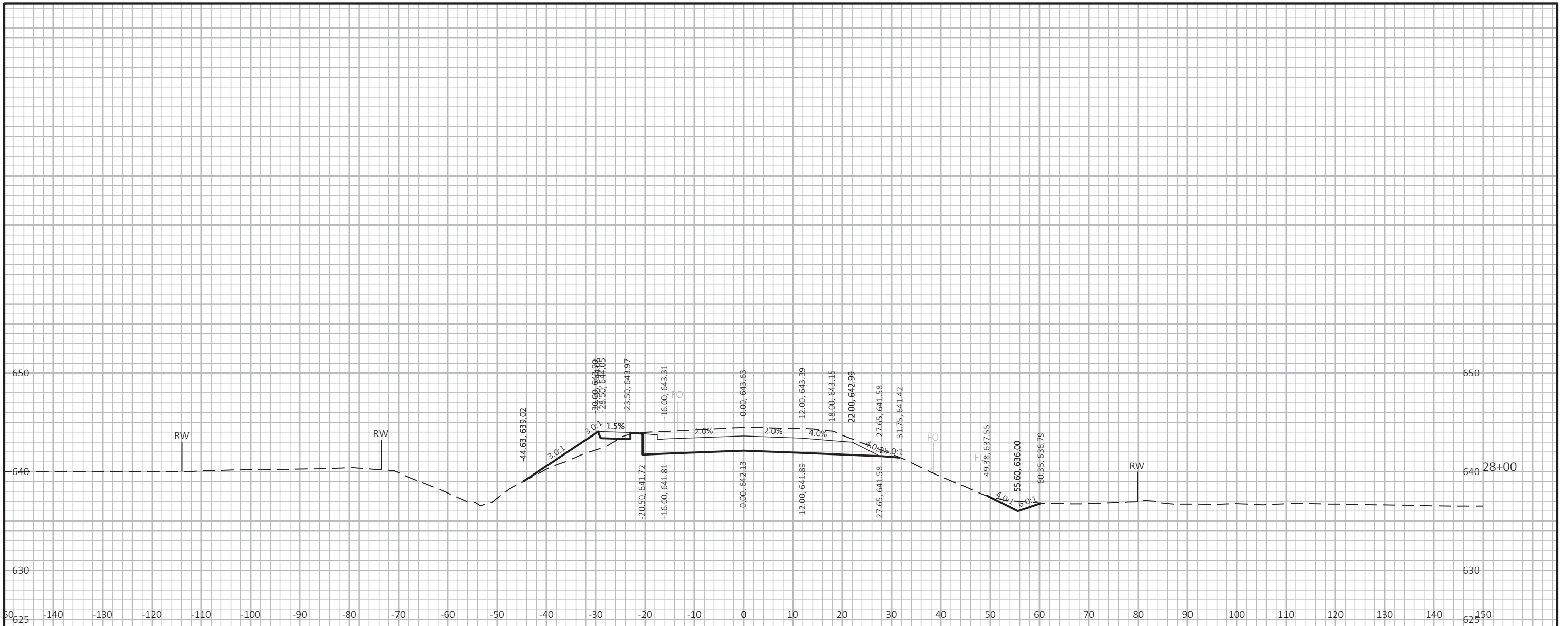
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MERRY CREEK COURT



PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

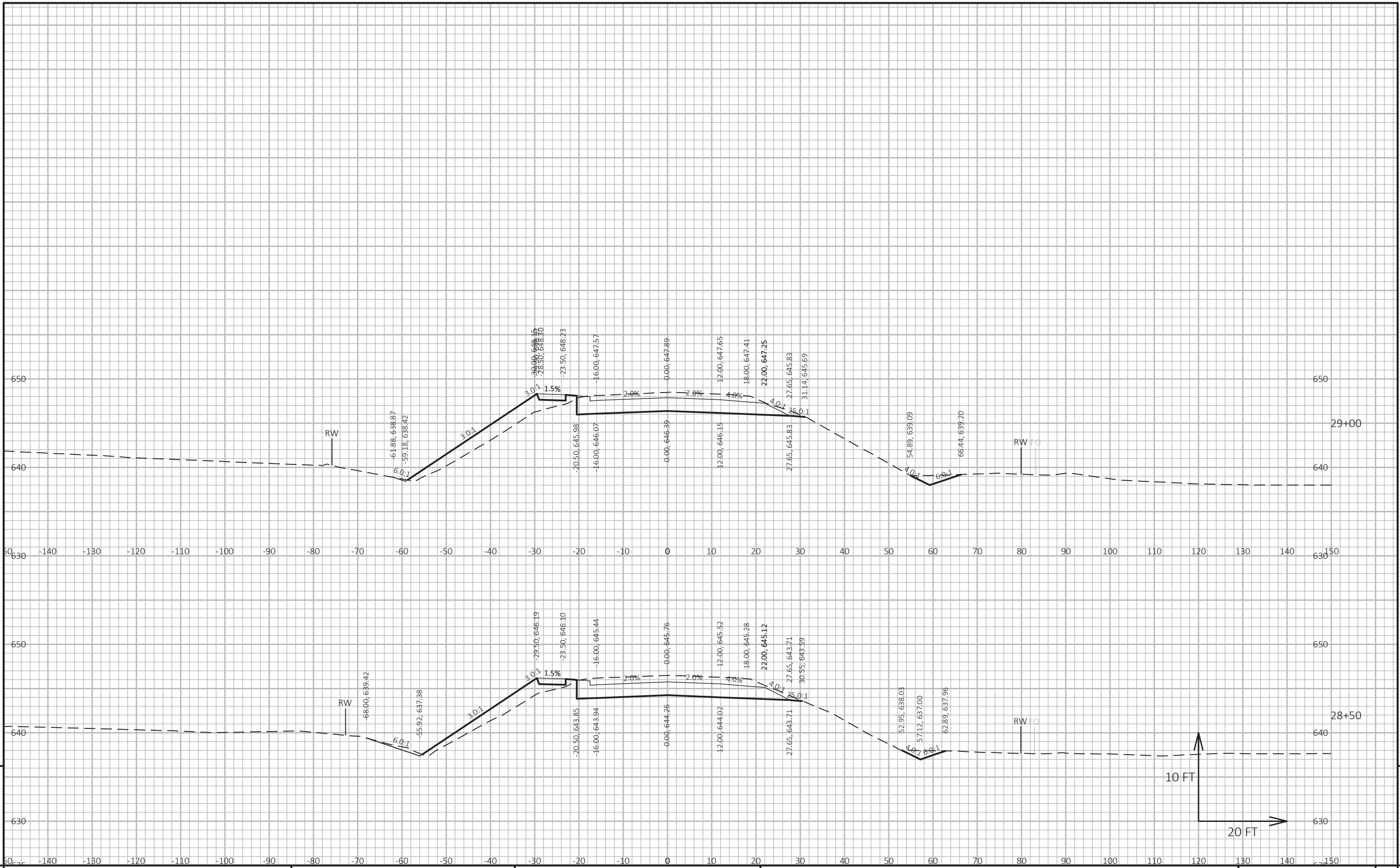


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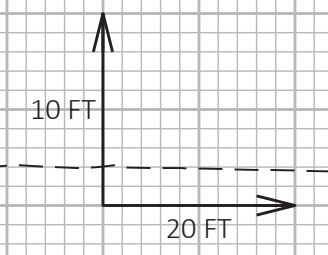
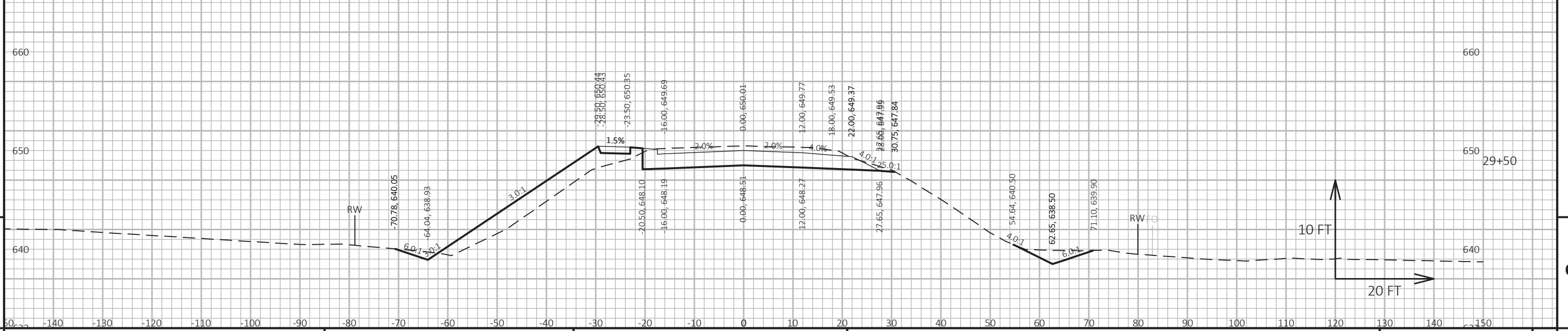
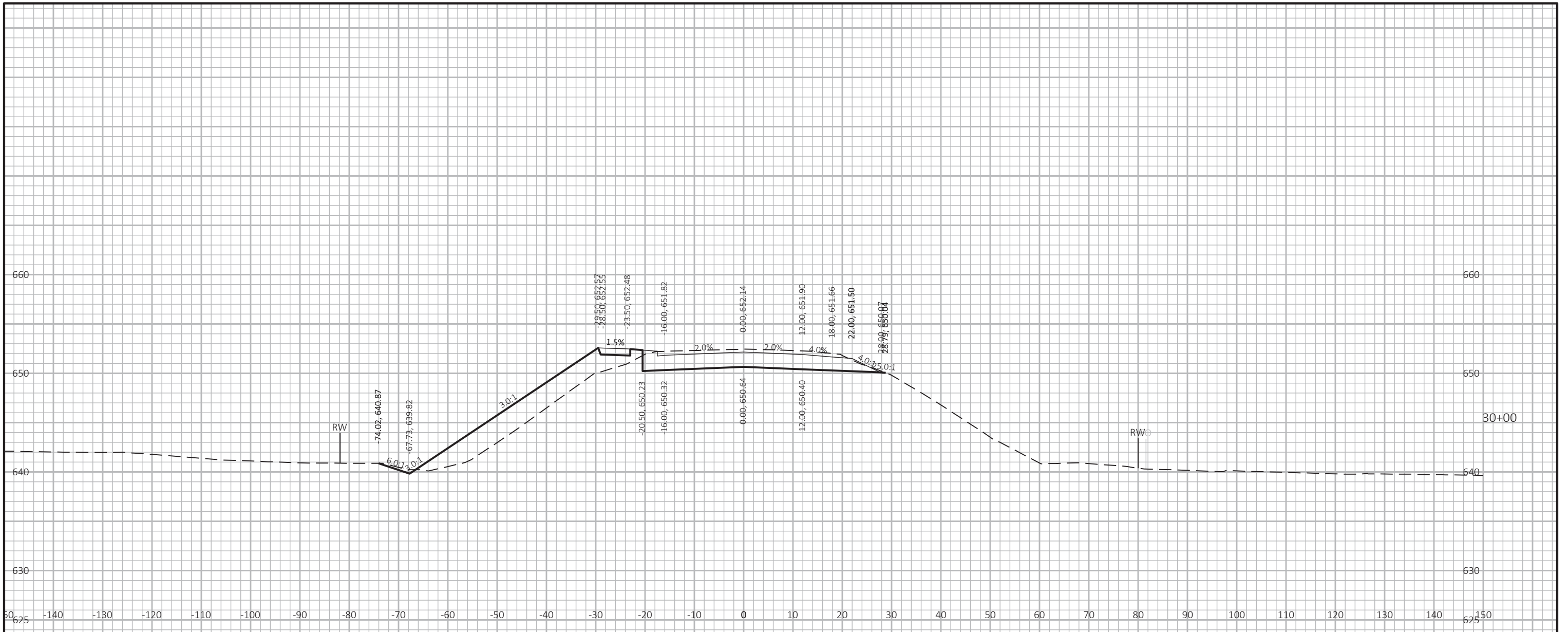
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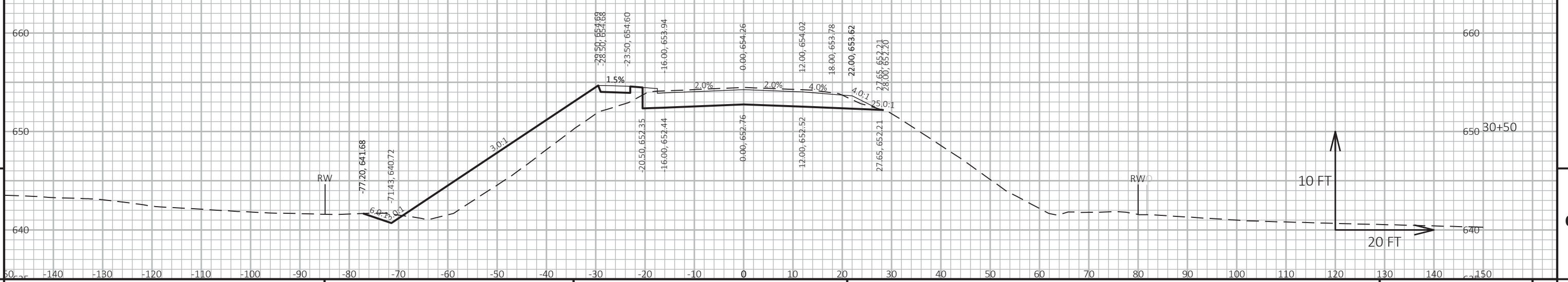
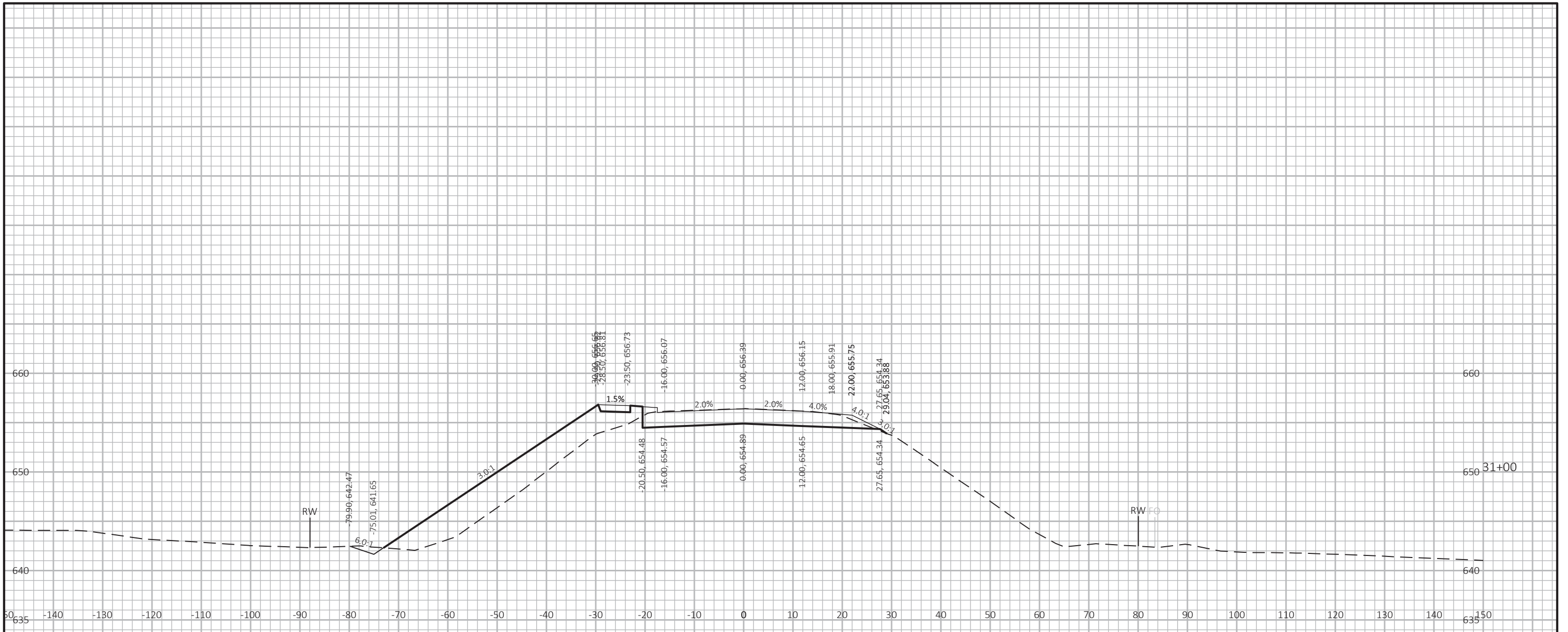
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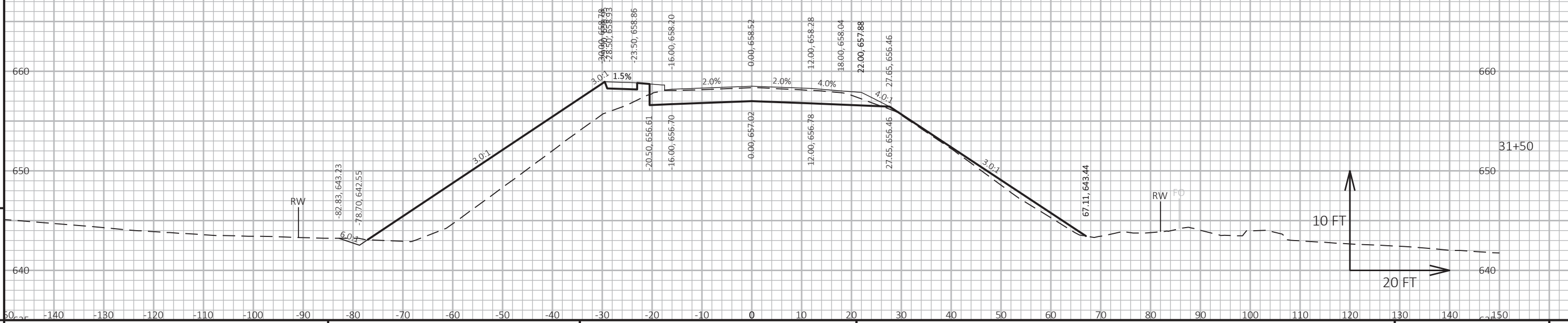
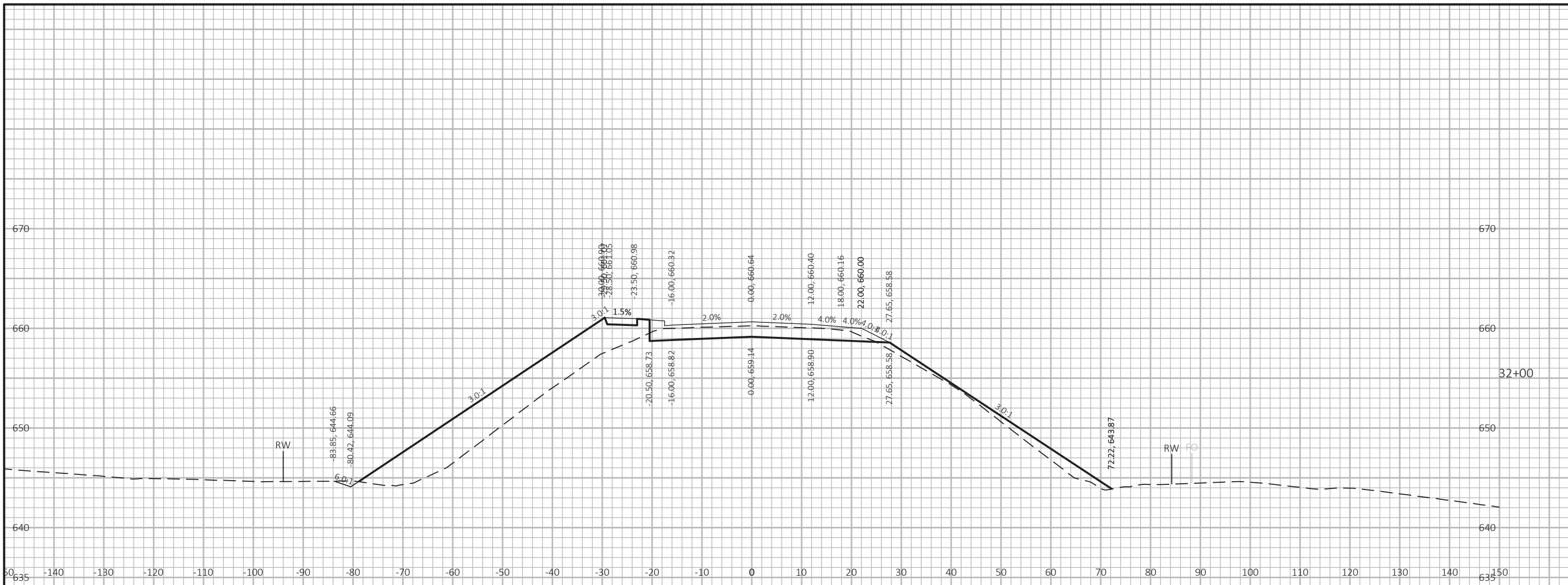
PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE	SHEET	E
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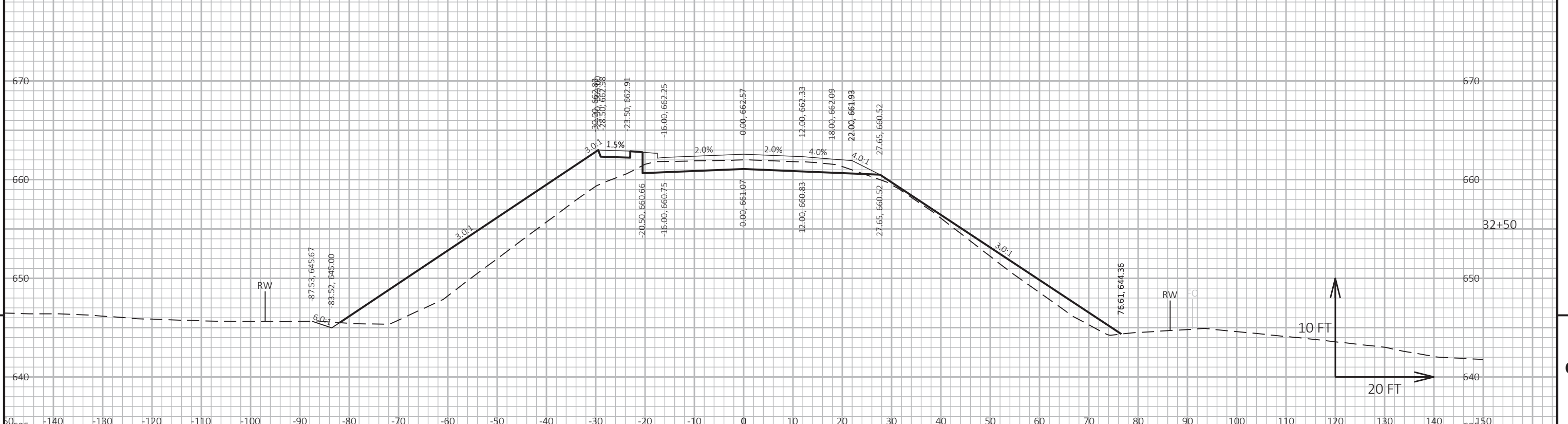
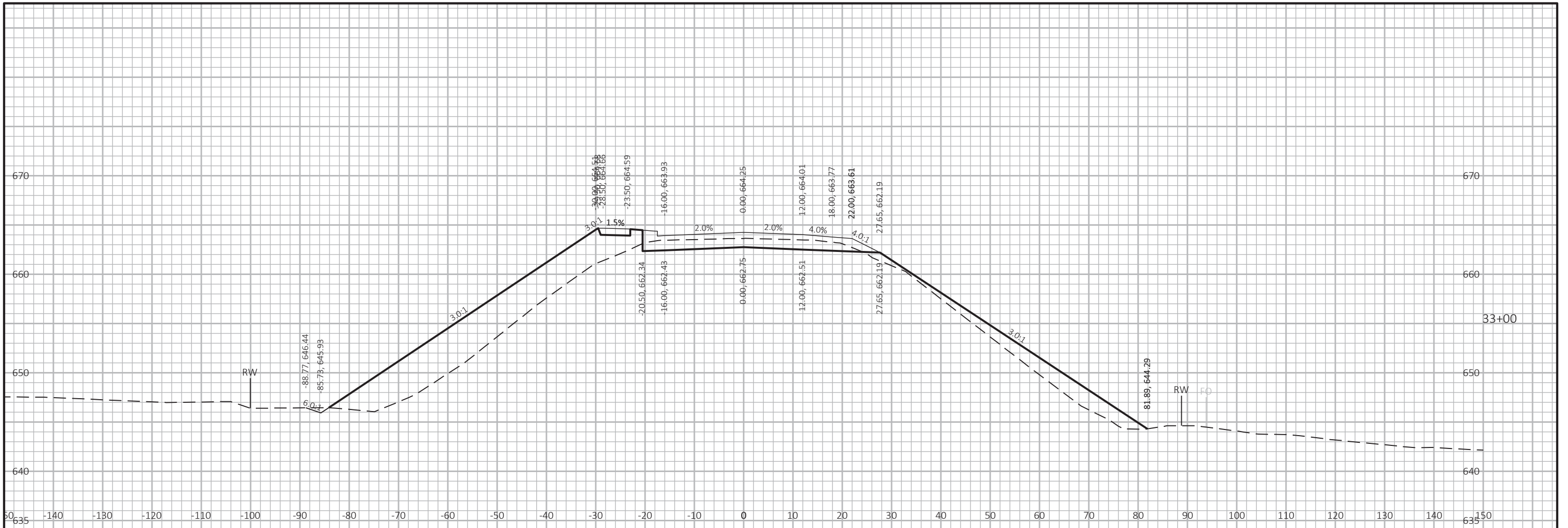
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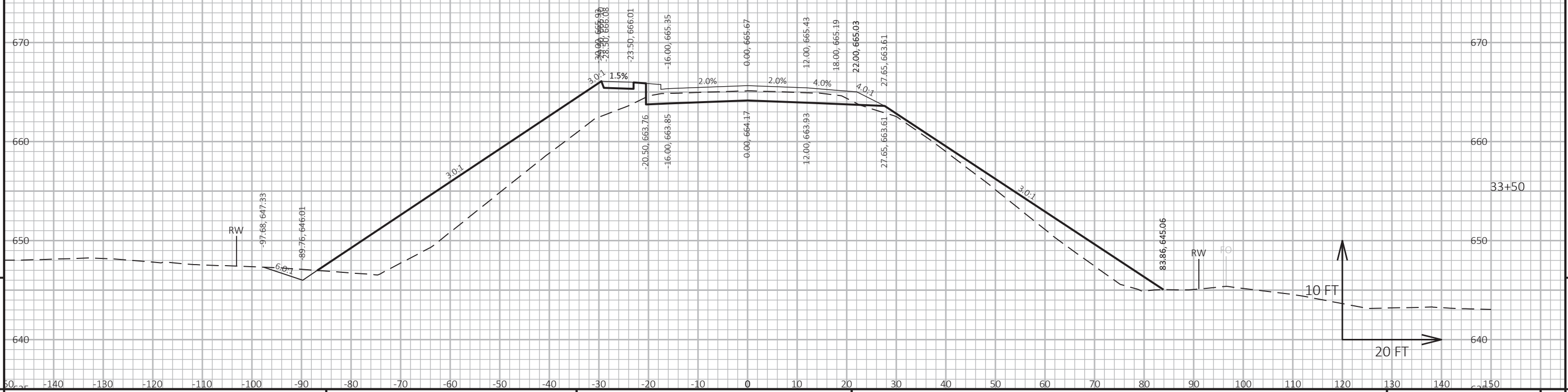
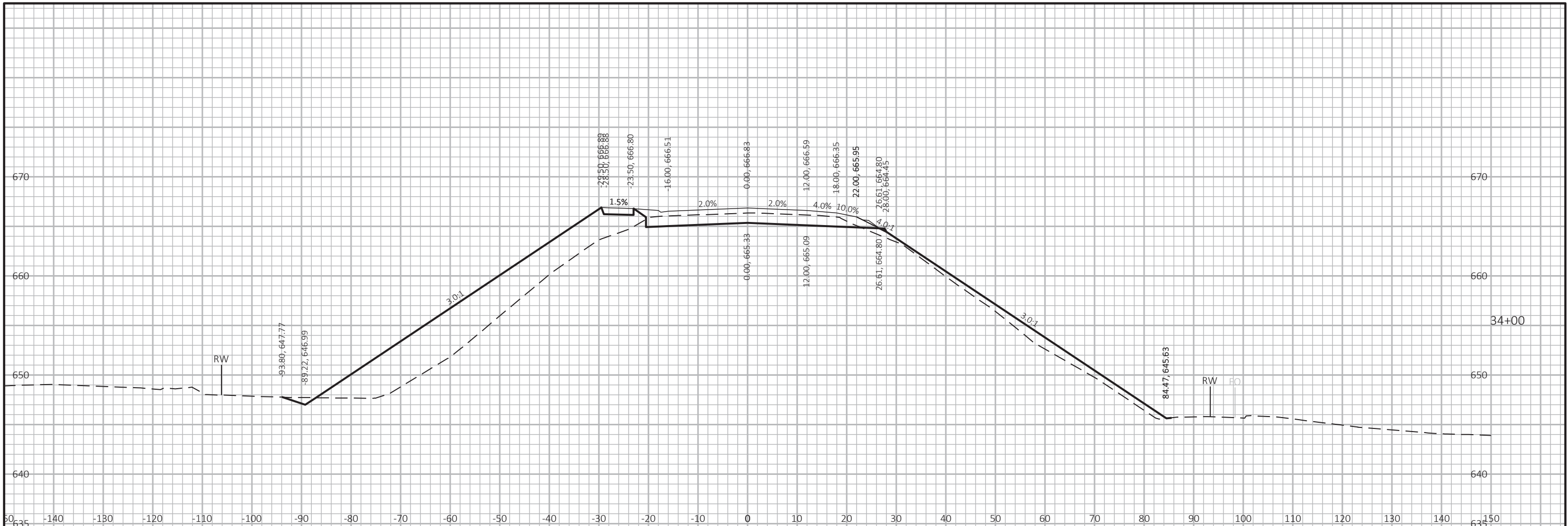
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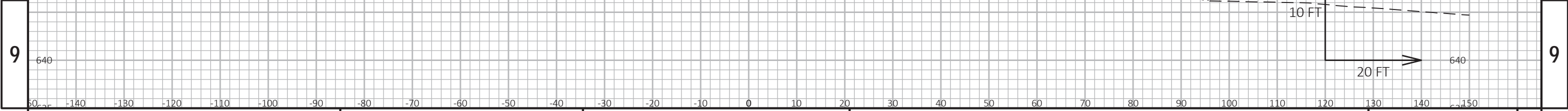
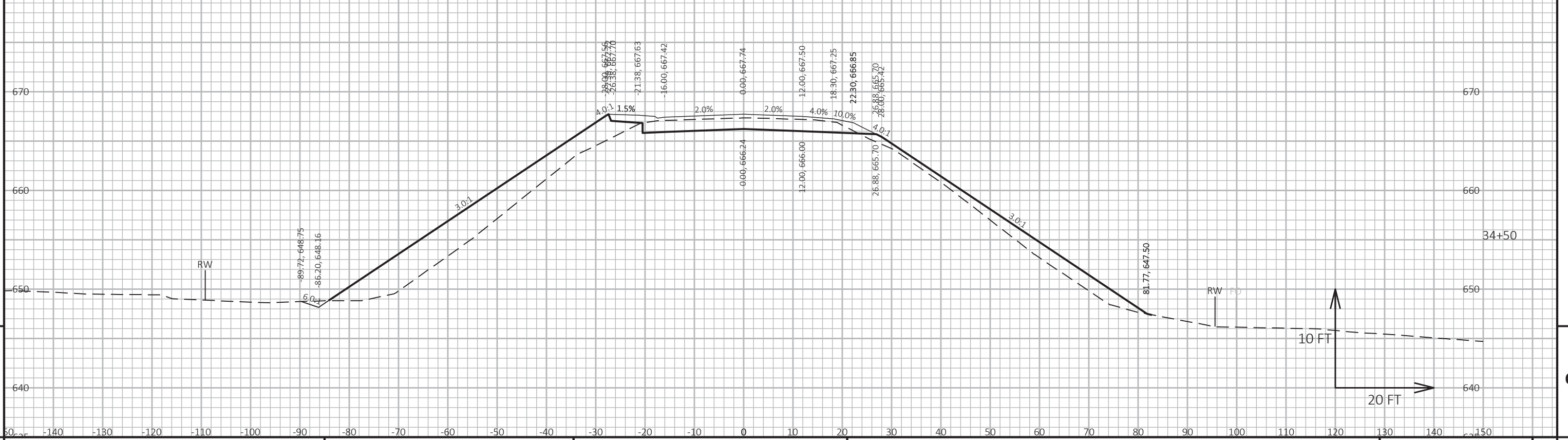
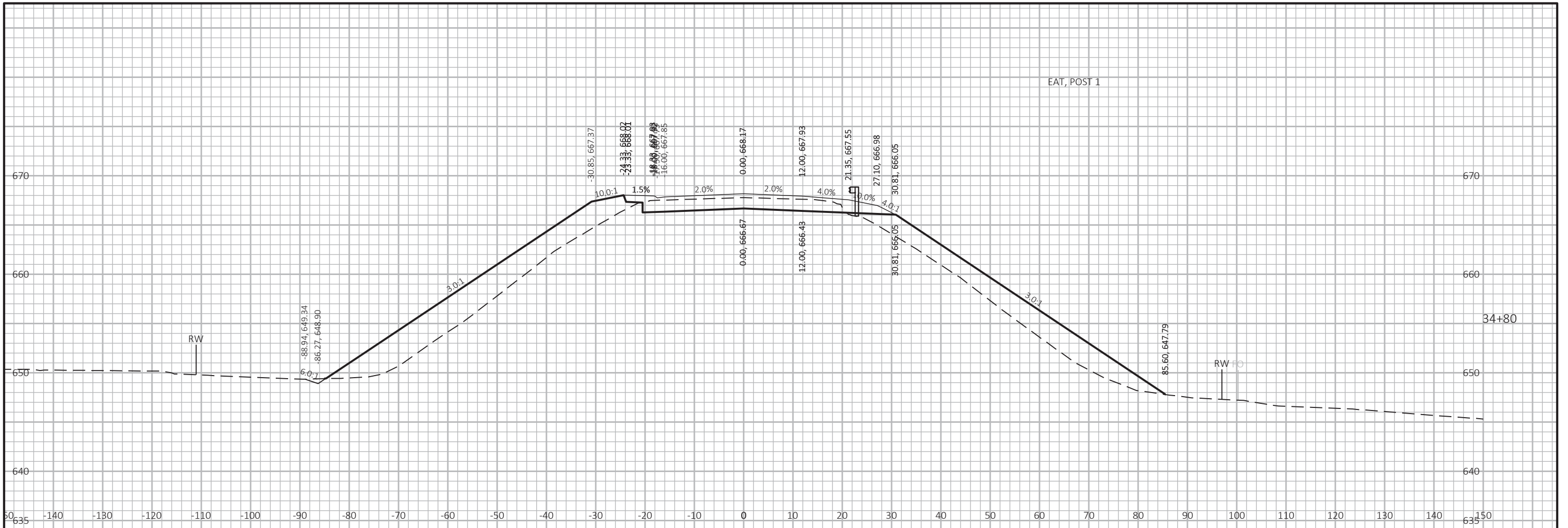
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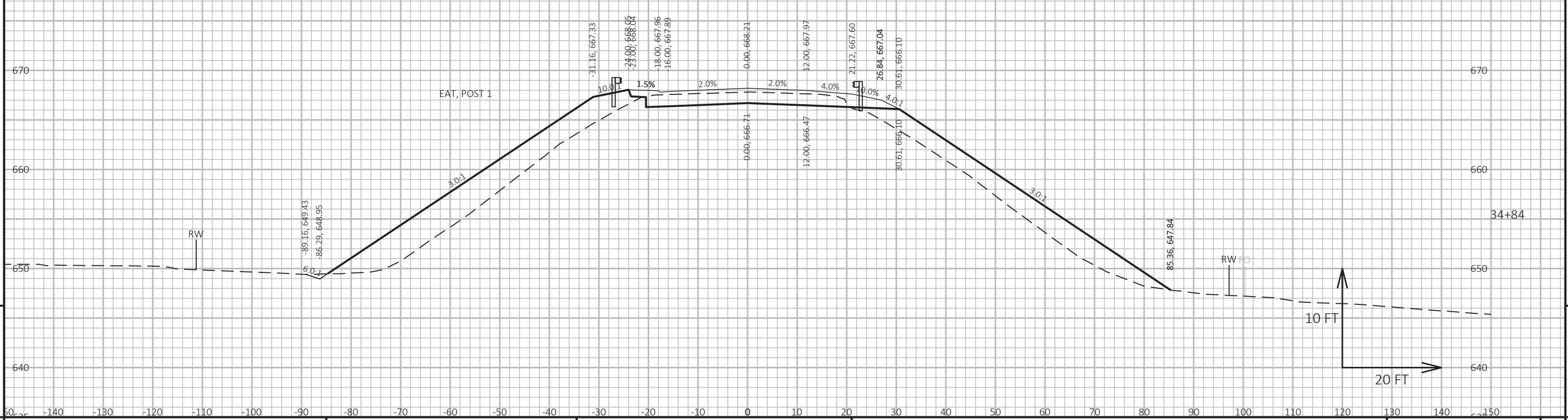
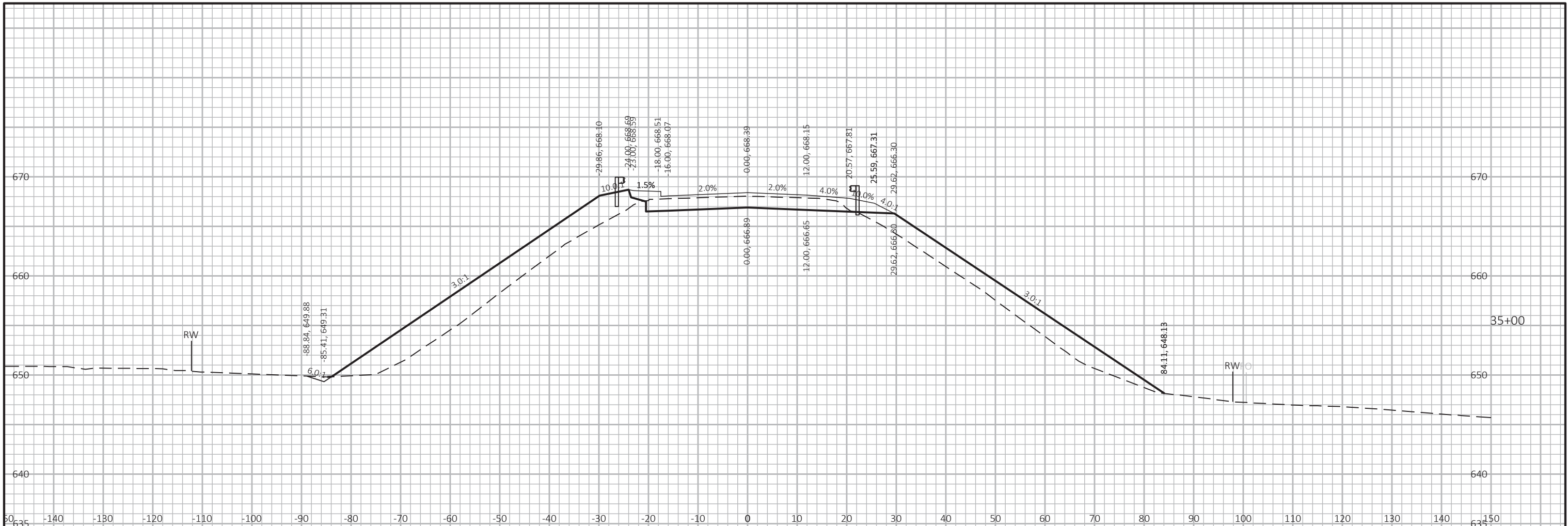
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

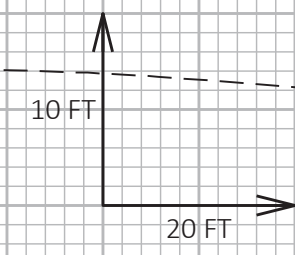
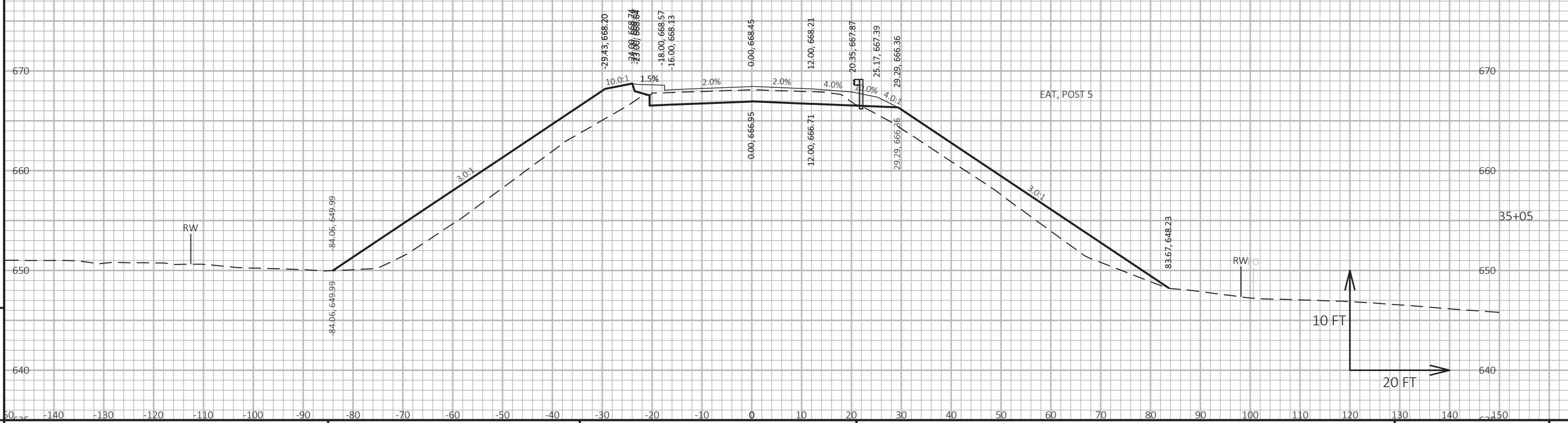
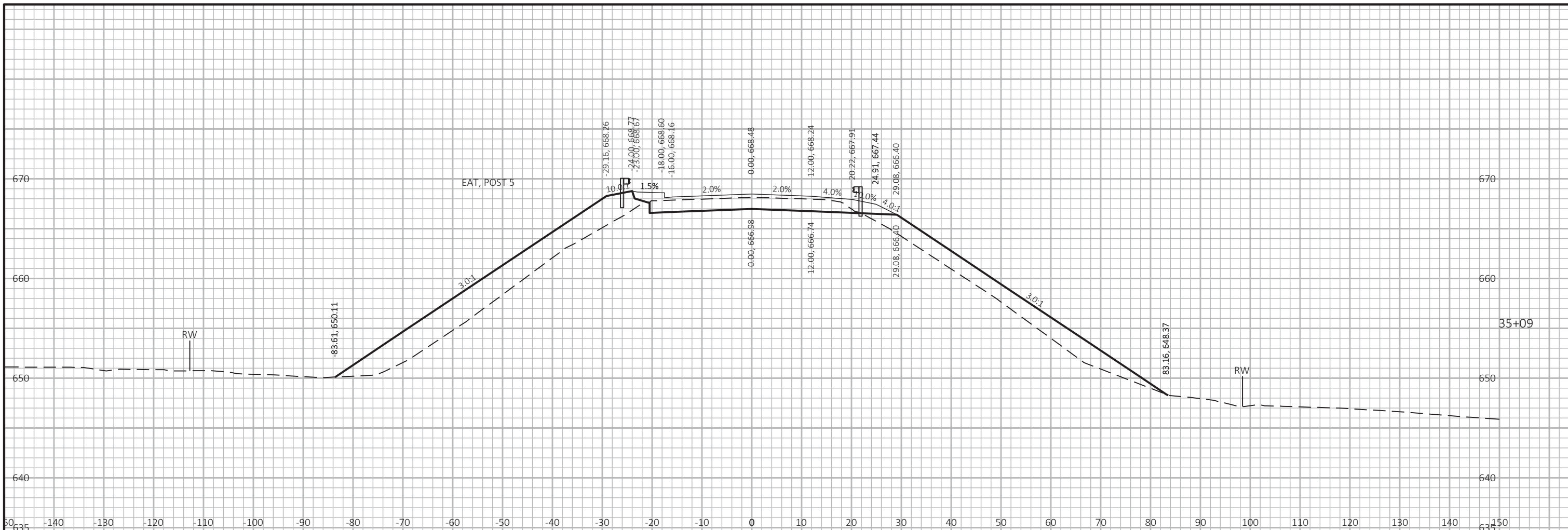


PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE	SHEET	E
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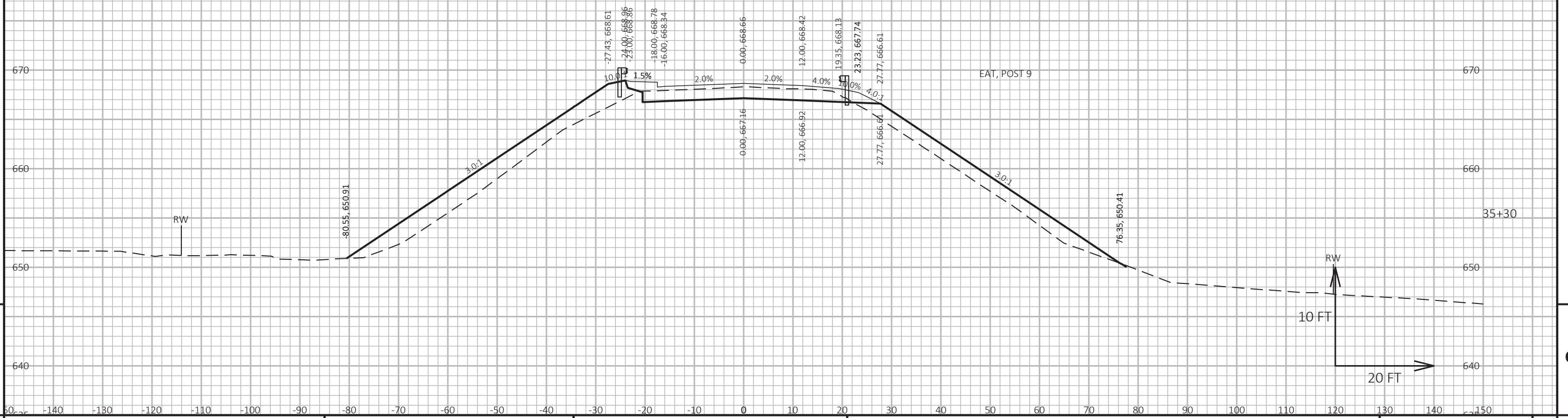
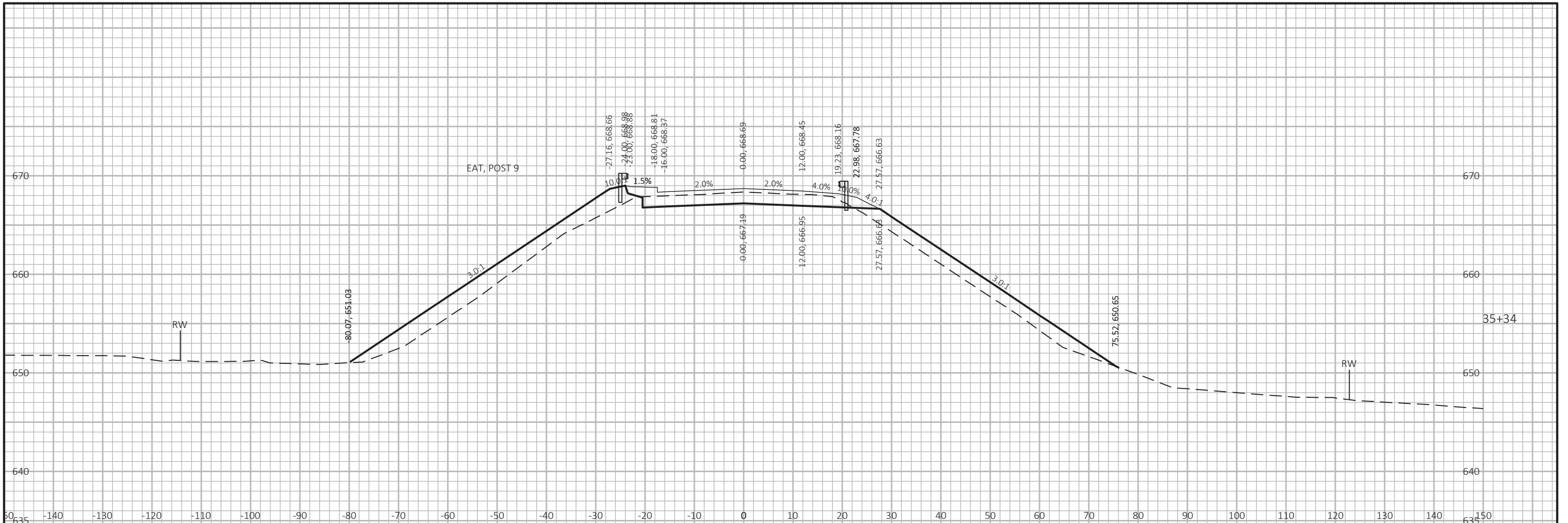
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 PLOT NAME :
 PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



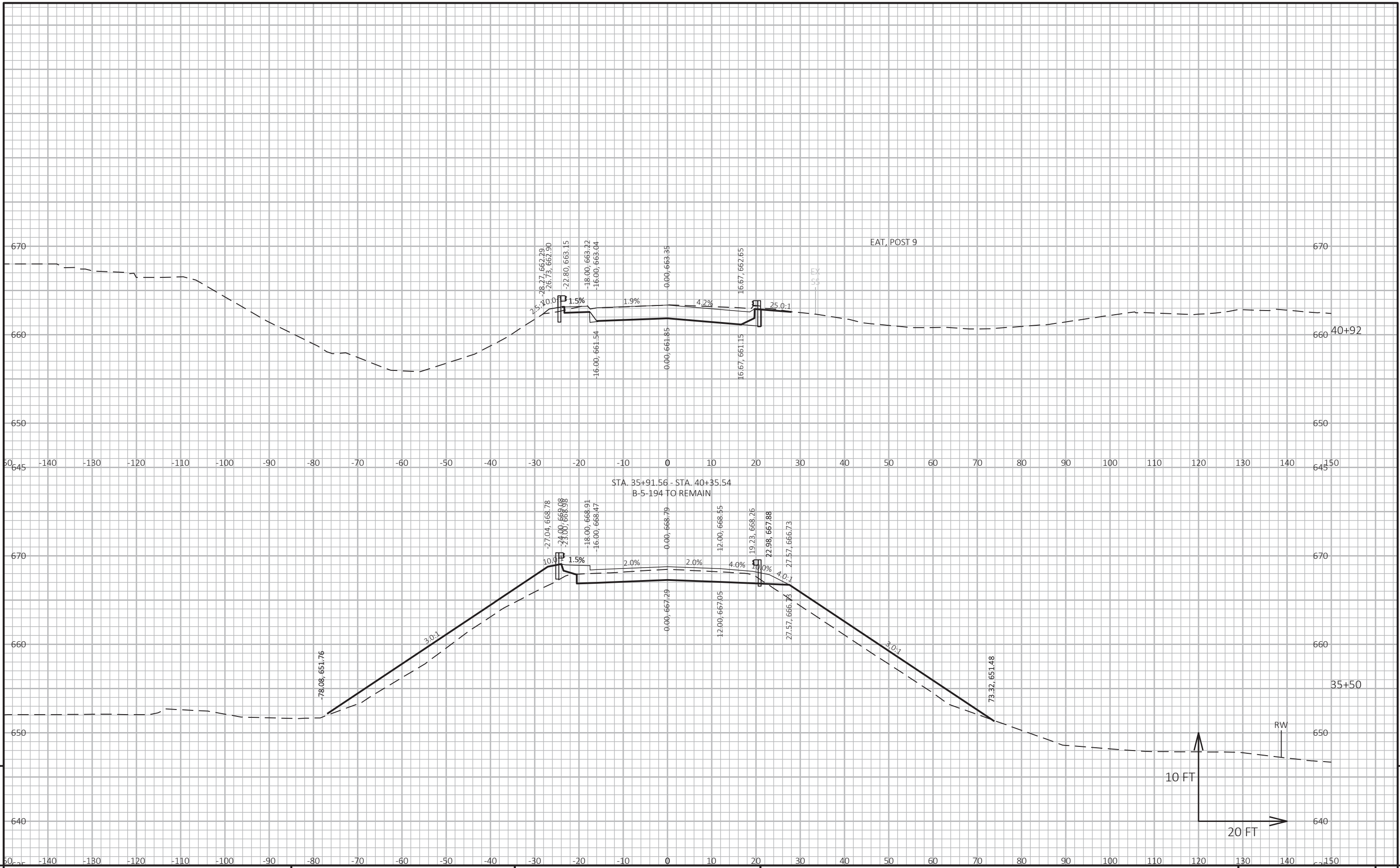
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PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE	SHEET	E
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



PROJECT NO: 4516-10-71

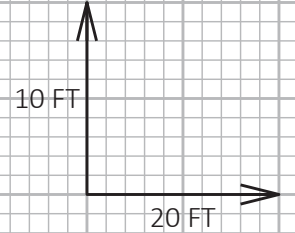
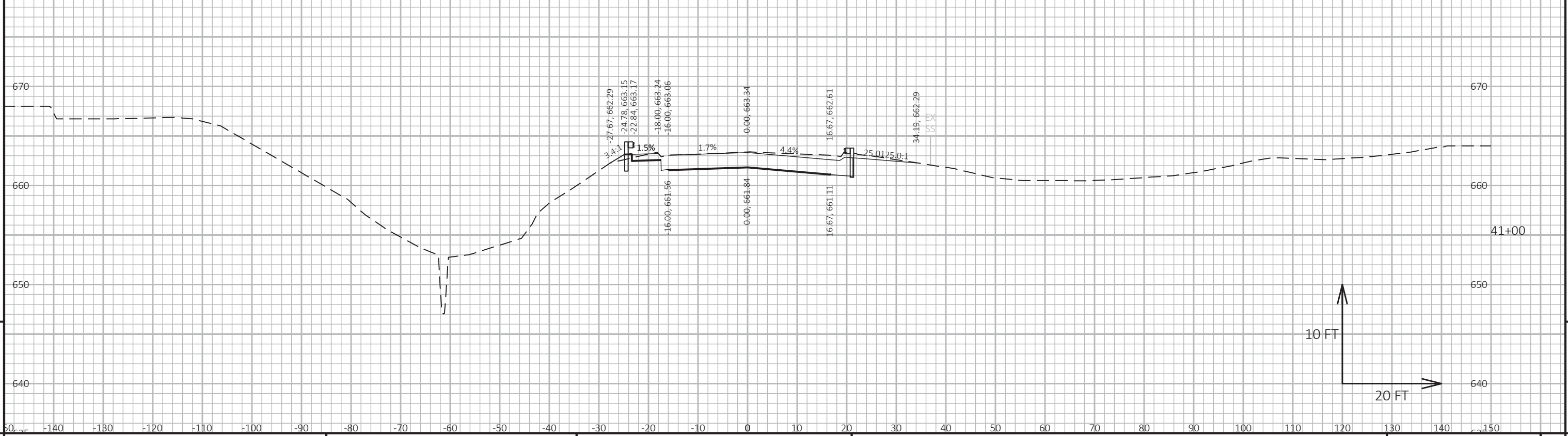
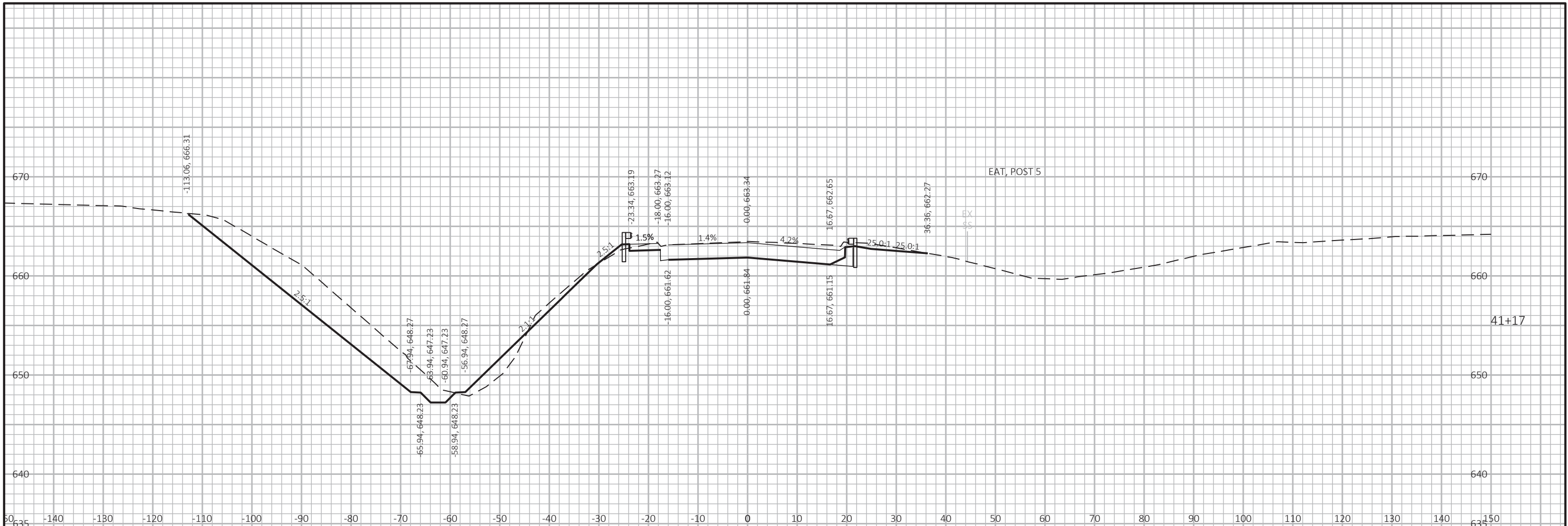
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COUNTY: BROWN

CROSS SECTIONS: ALLOUEZ AVENUE

SHEET

E



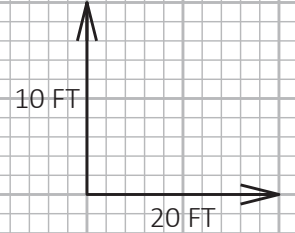
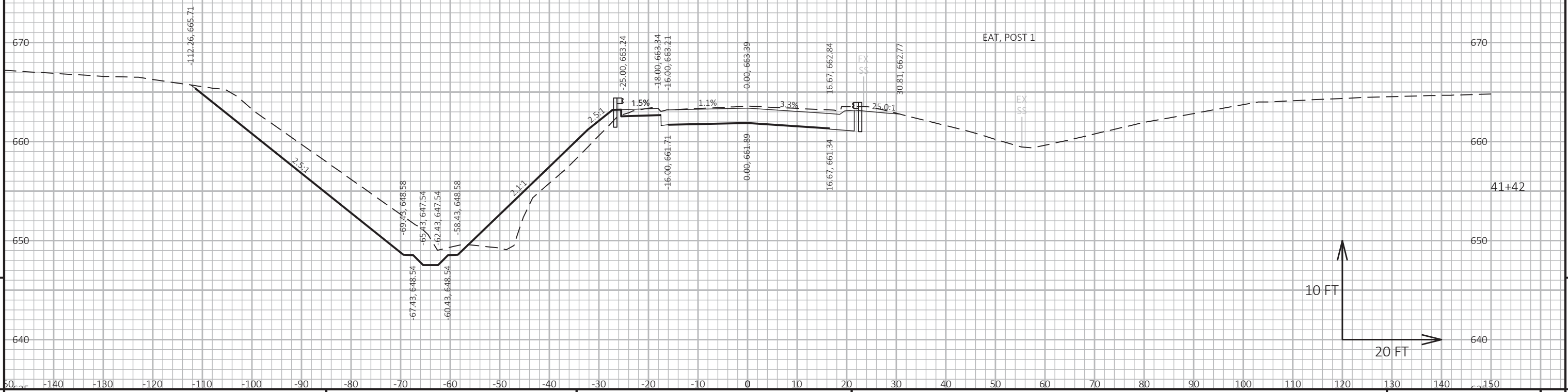
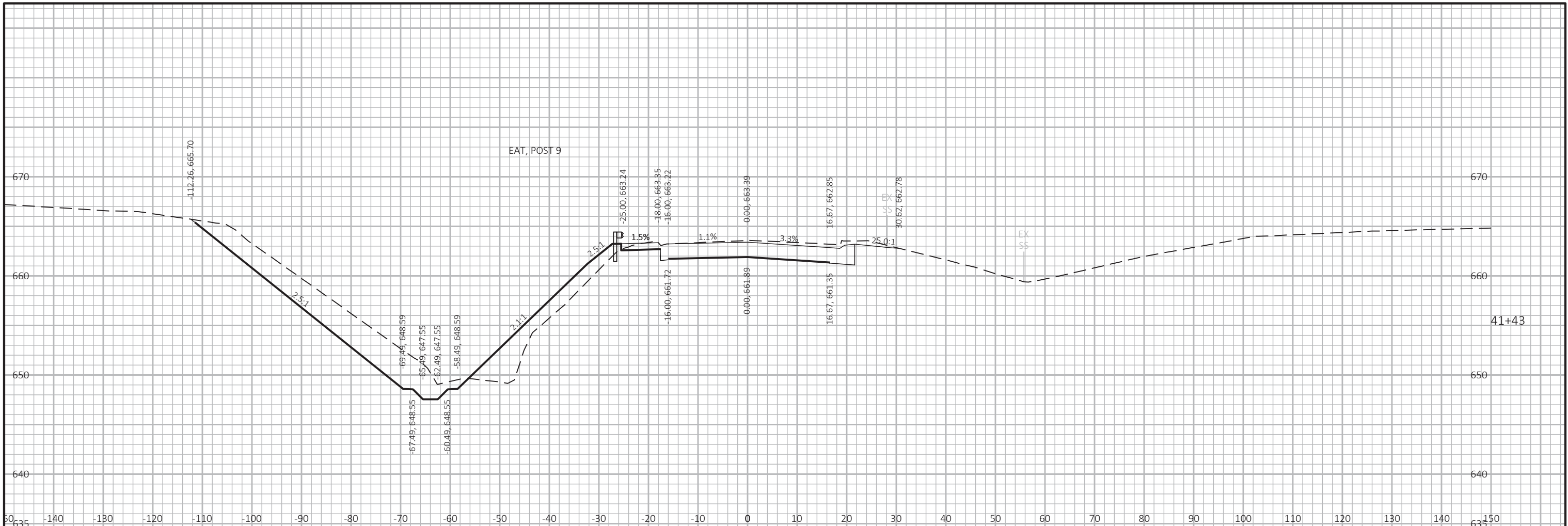
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LAYOUT NAME - 090222_XS



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PROJECT NO: 4516-10-71

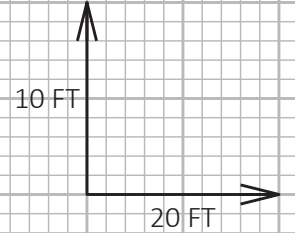
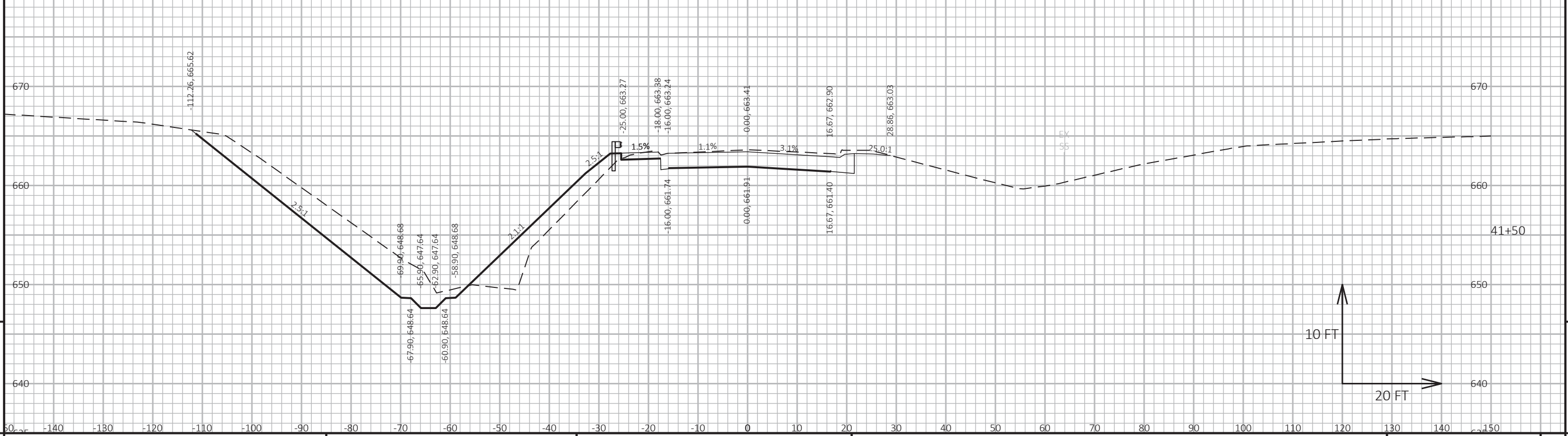
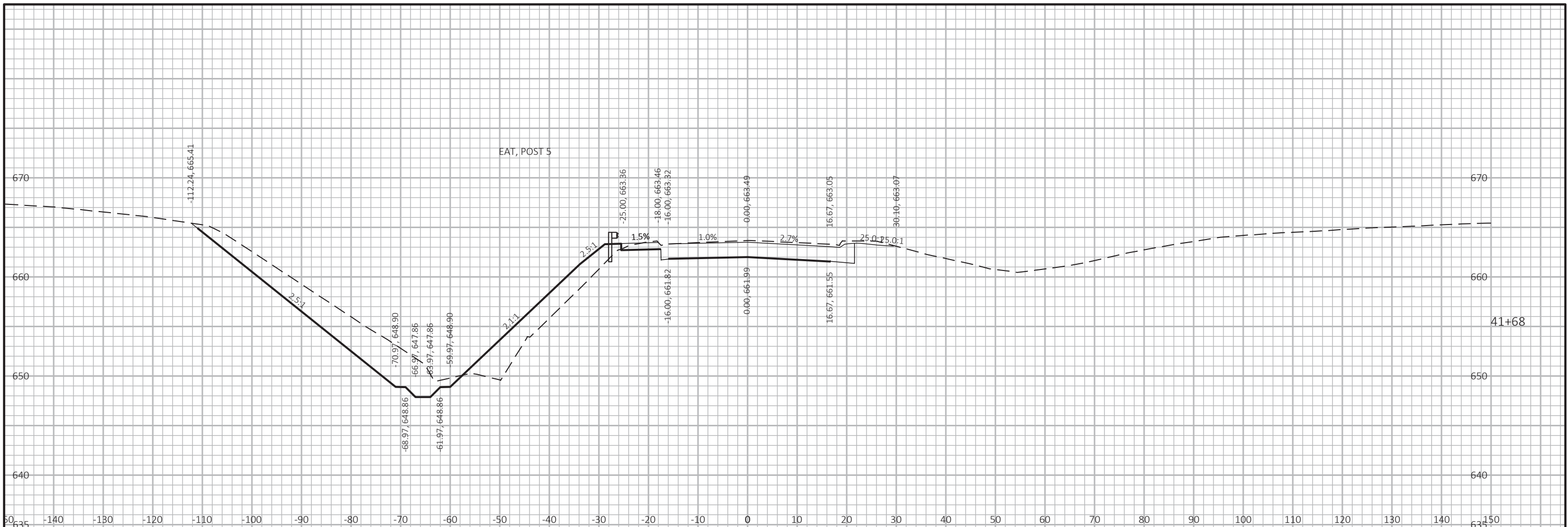
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CROSS SECTIONS: ALLOUEZ AVENUE

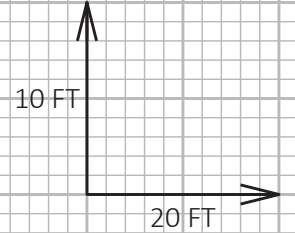
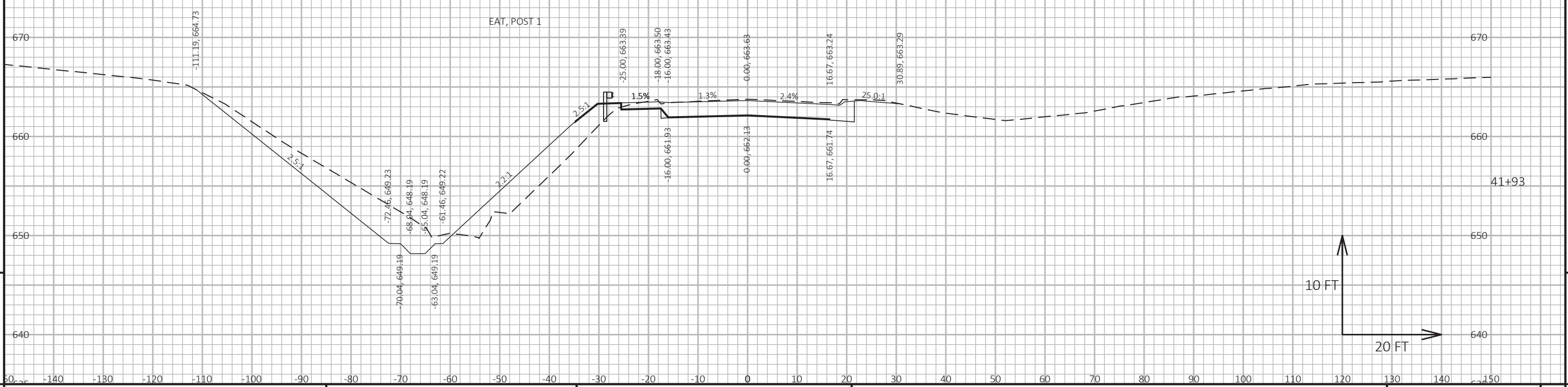
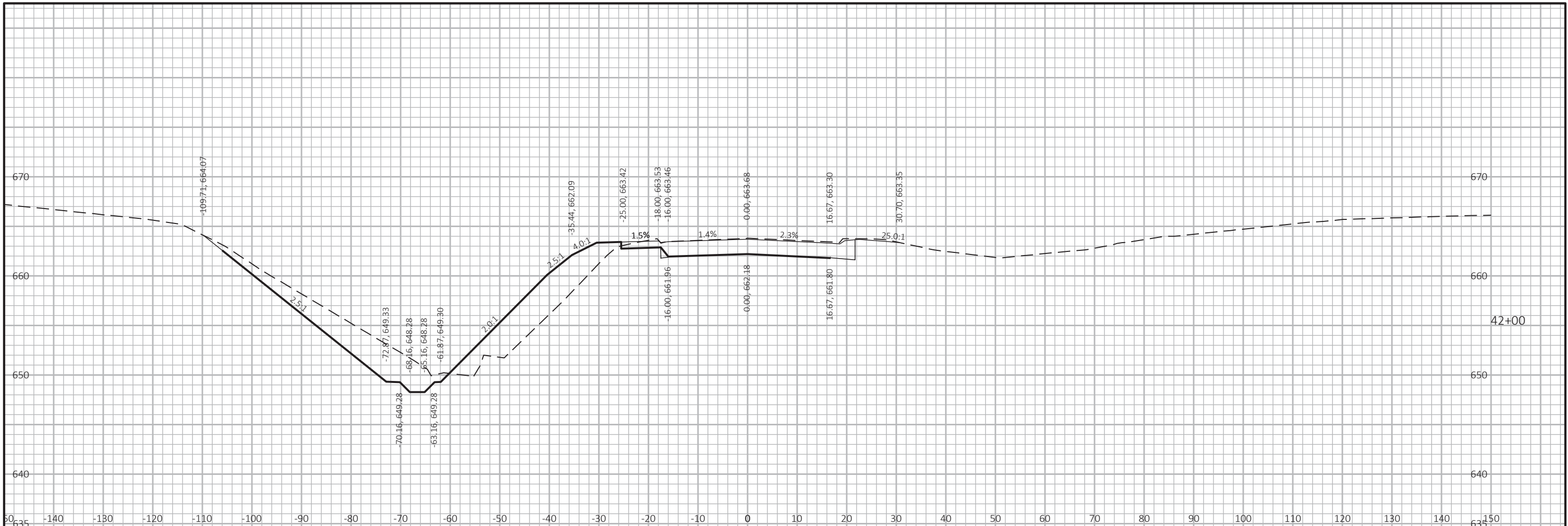
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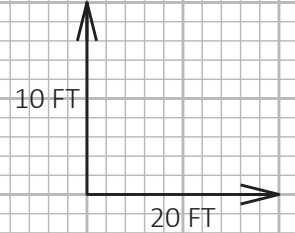
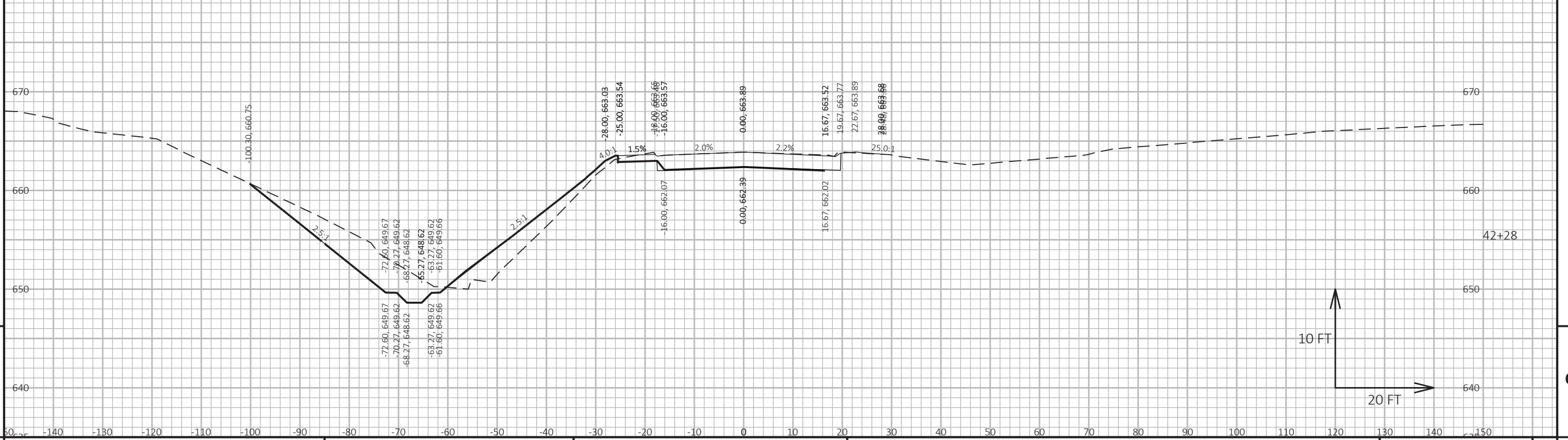
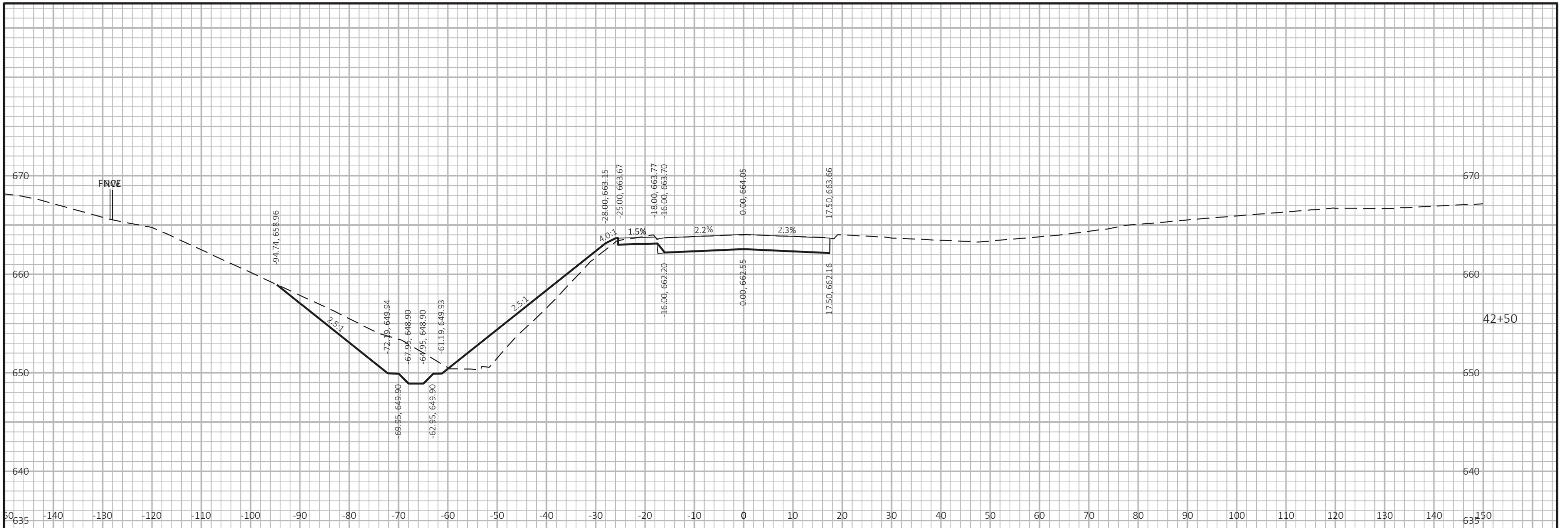


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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



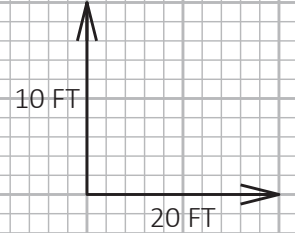
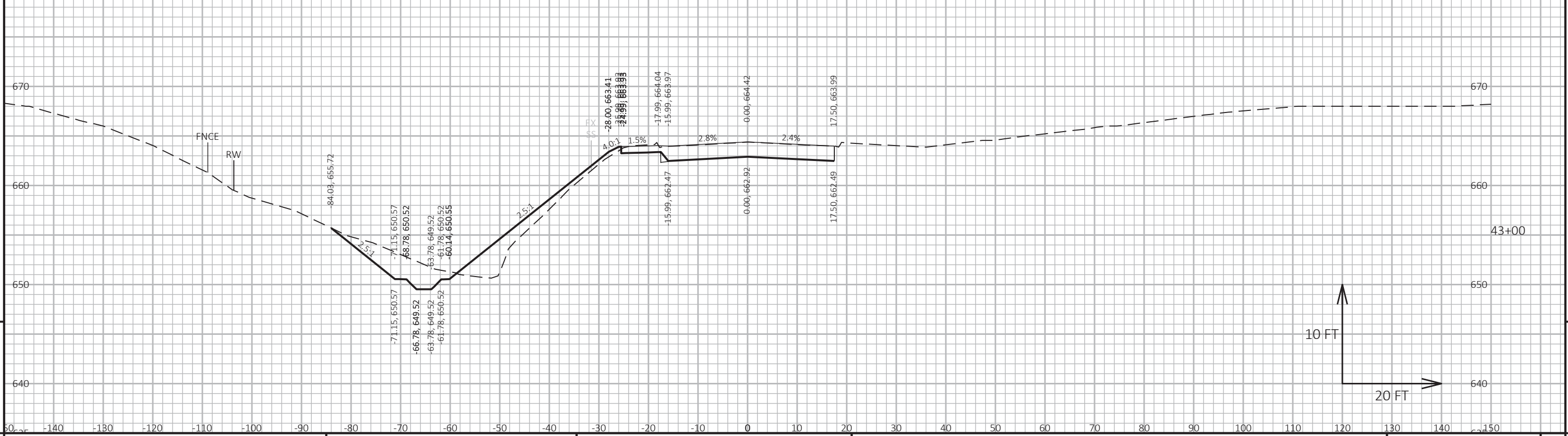
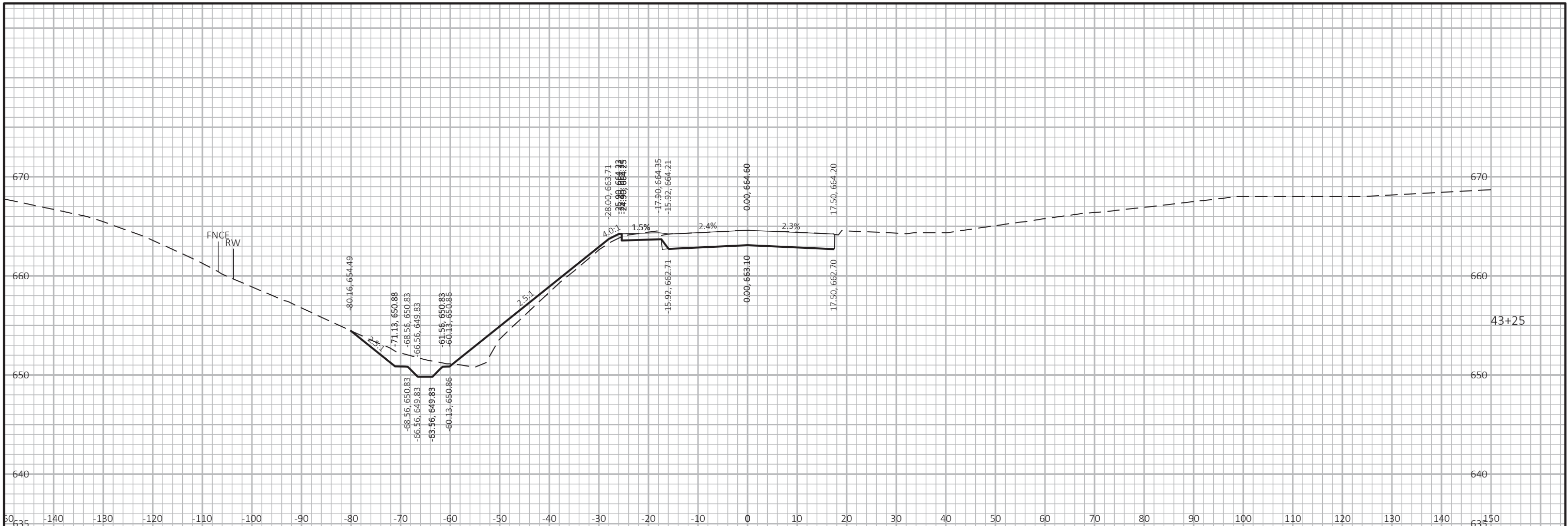
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PROJECT NO: 4516-10-71
HWY: ALLOUEZ AVENUE
COUNTY: BROWN
CROSS SECTIONS: ALLOUEZ AVENUE
SHEET
E



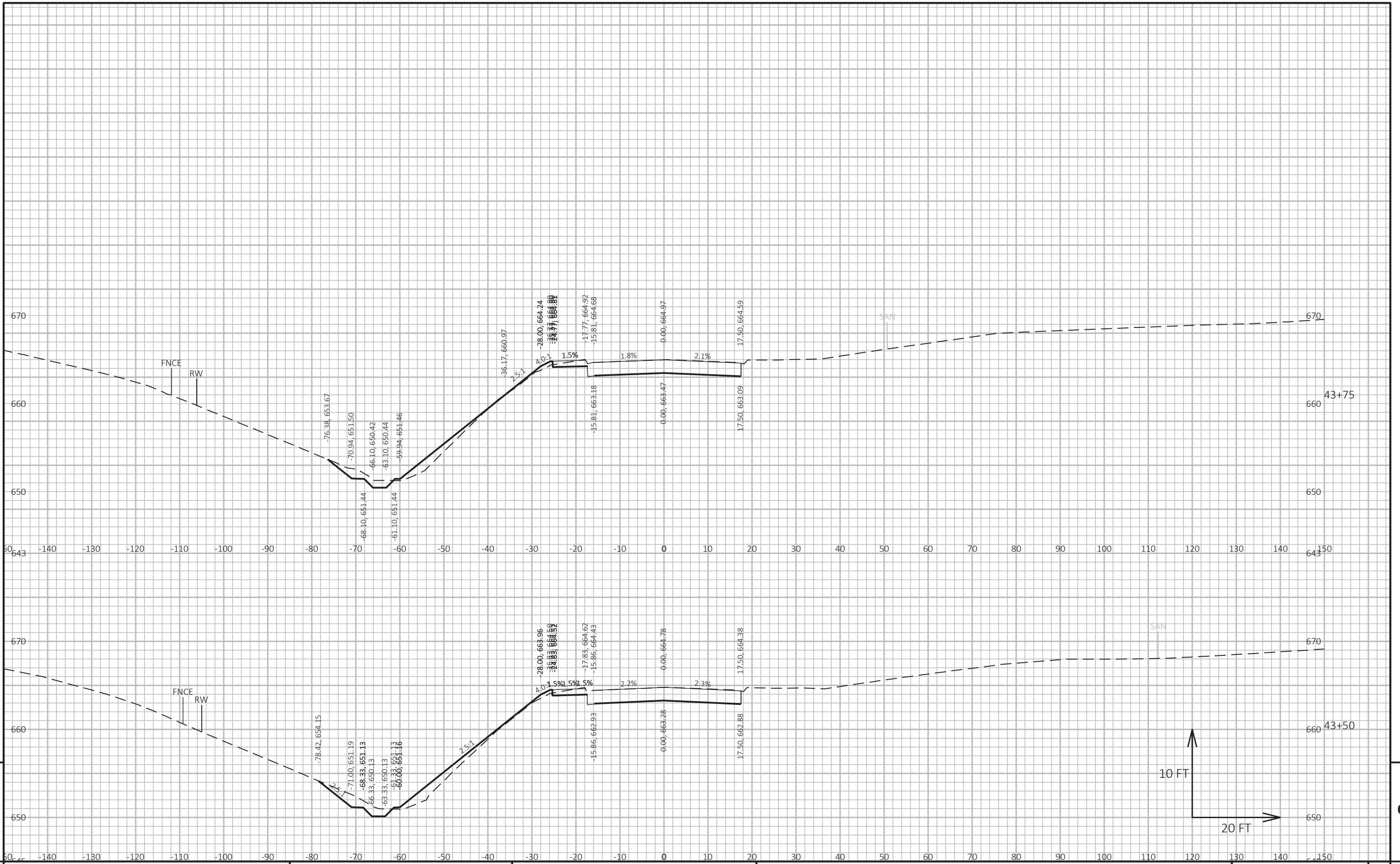
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



PROJECT NO: 4516-10-71

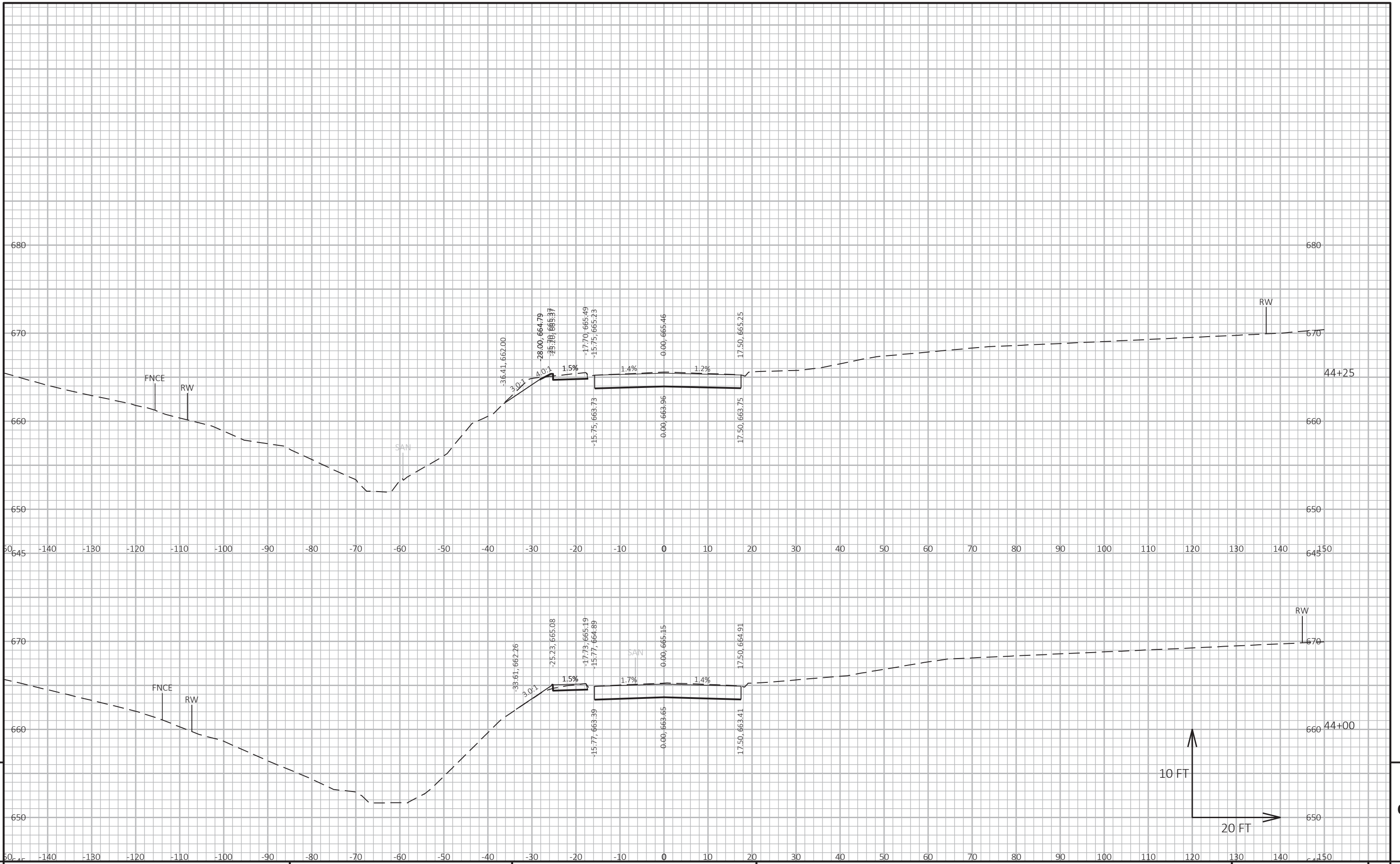
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COUNTY: BROWN

CROSS SECTIONS: ALLOUEZ AVENUE

SHEET

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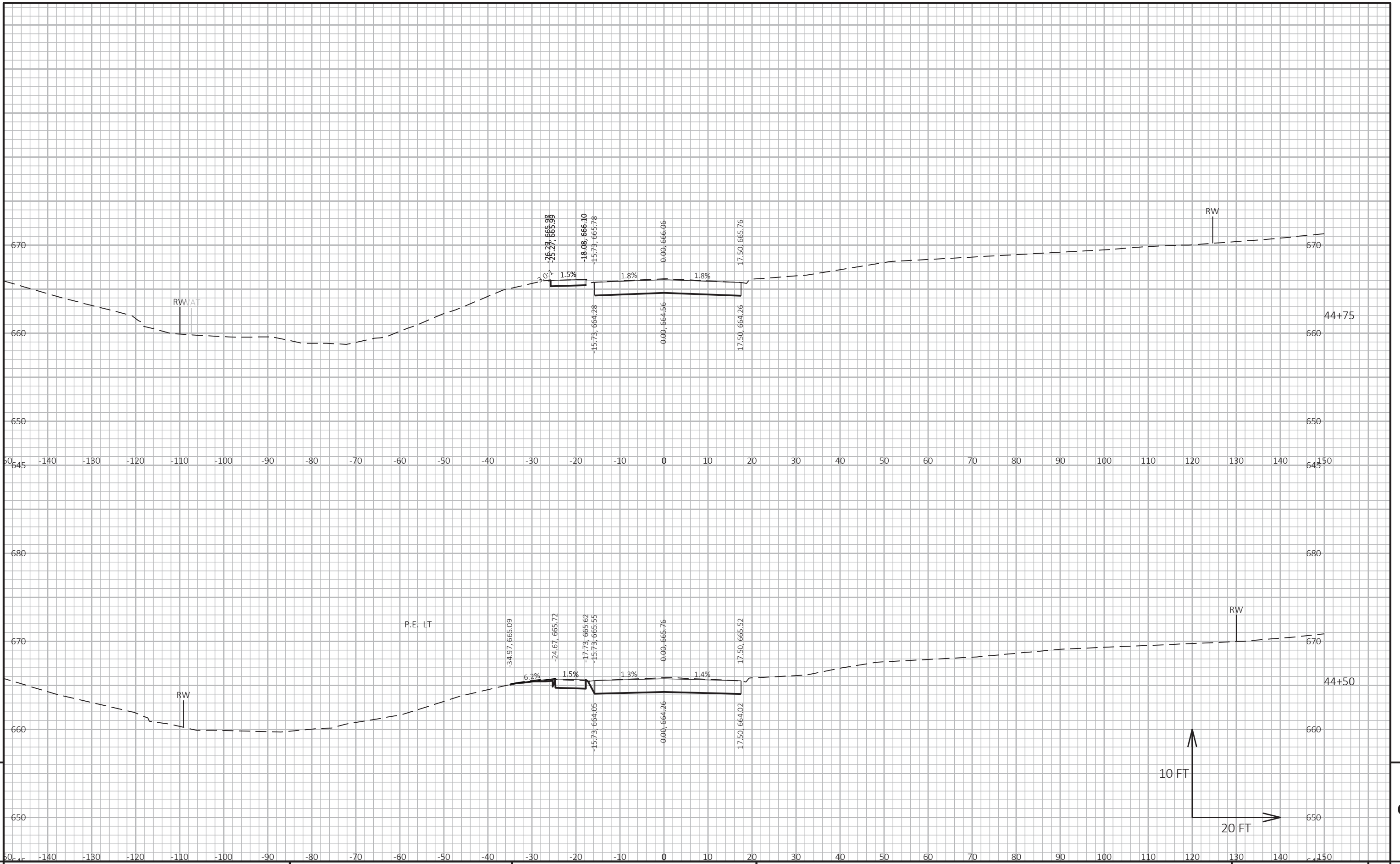


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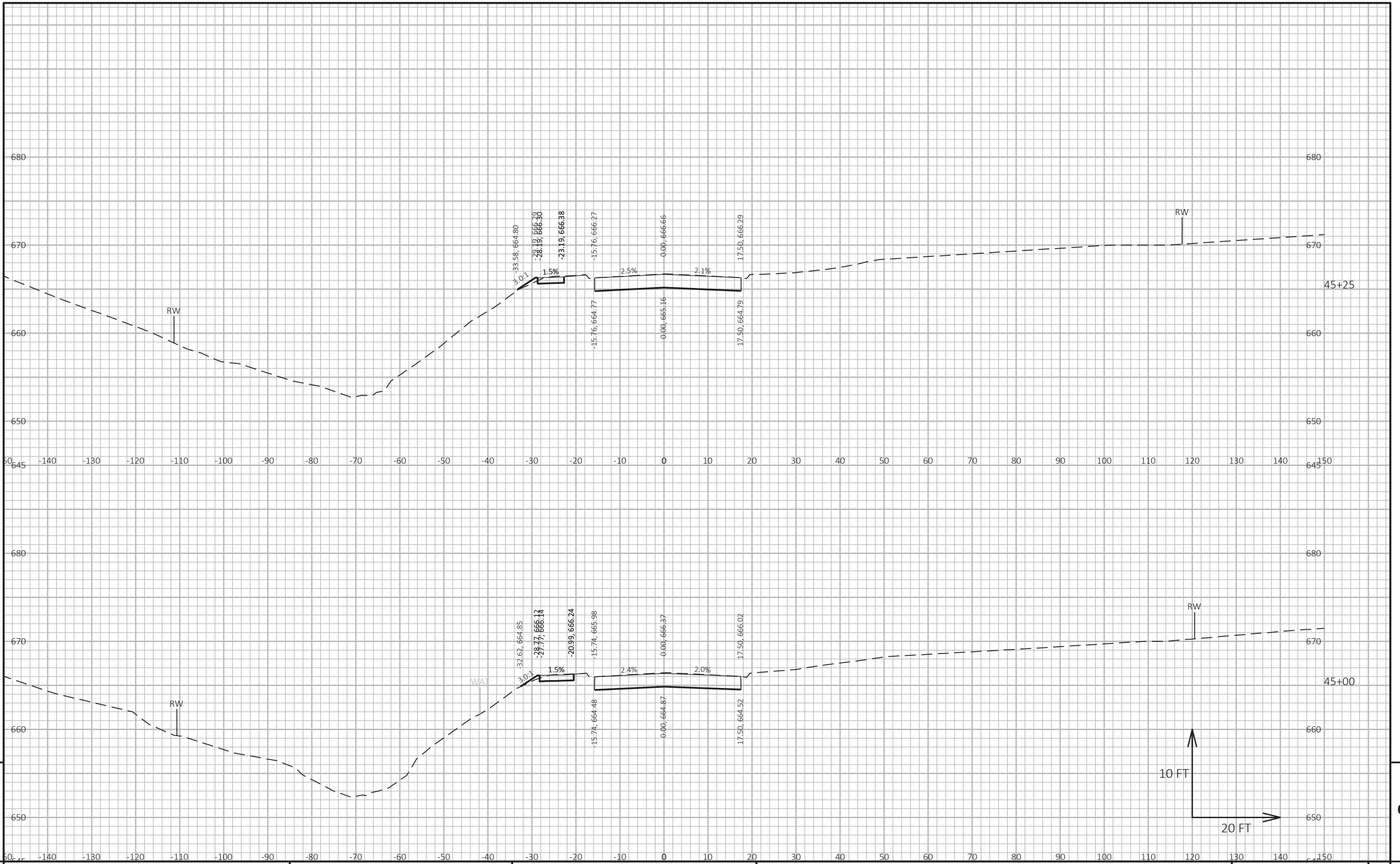


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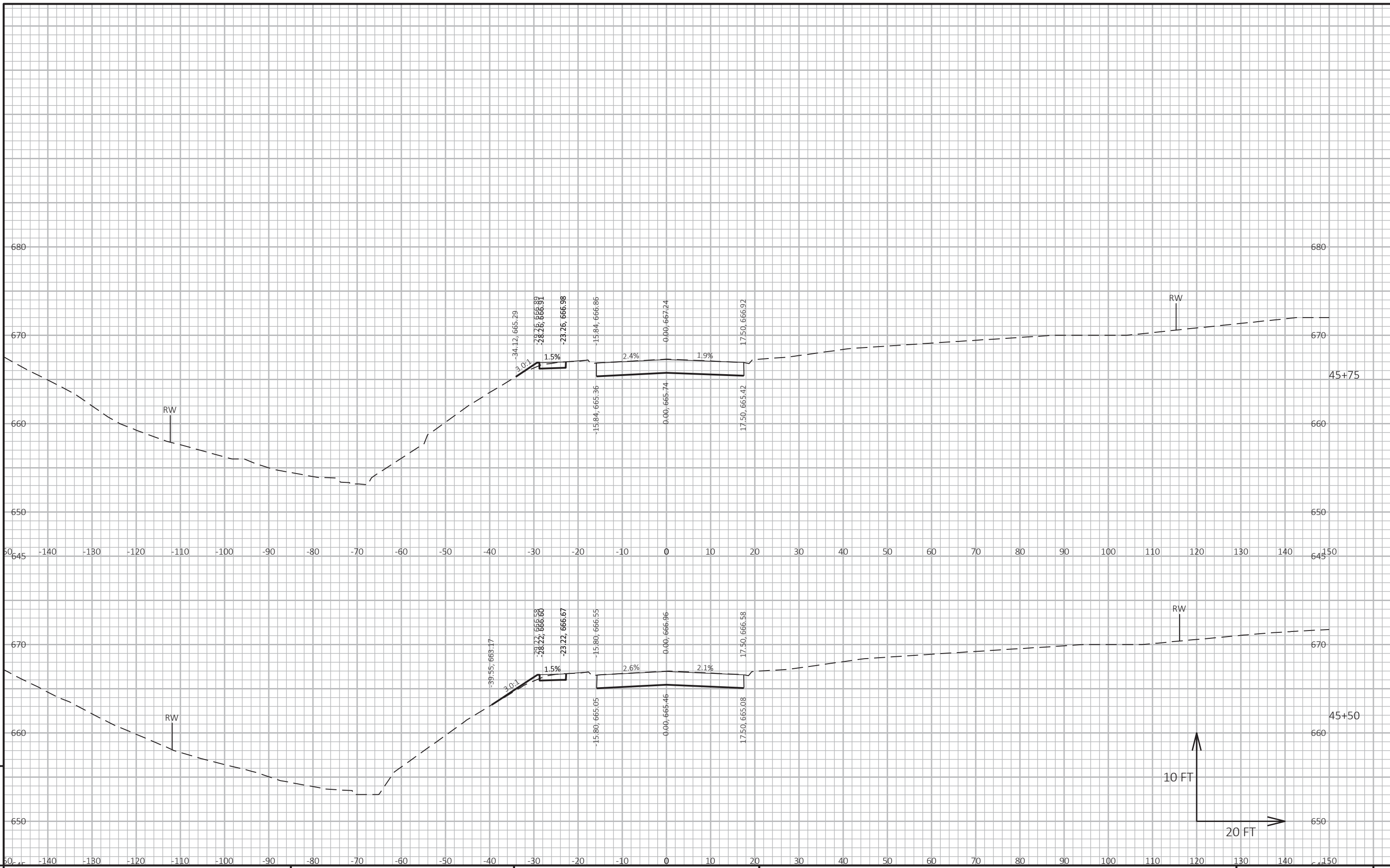


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PROJECT NO: 4516-10-71

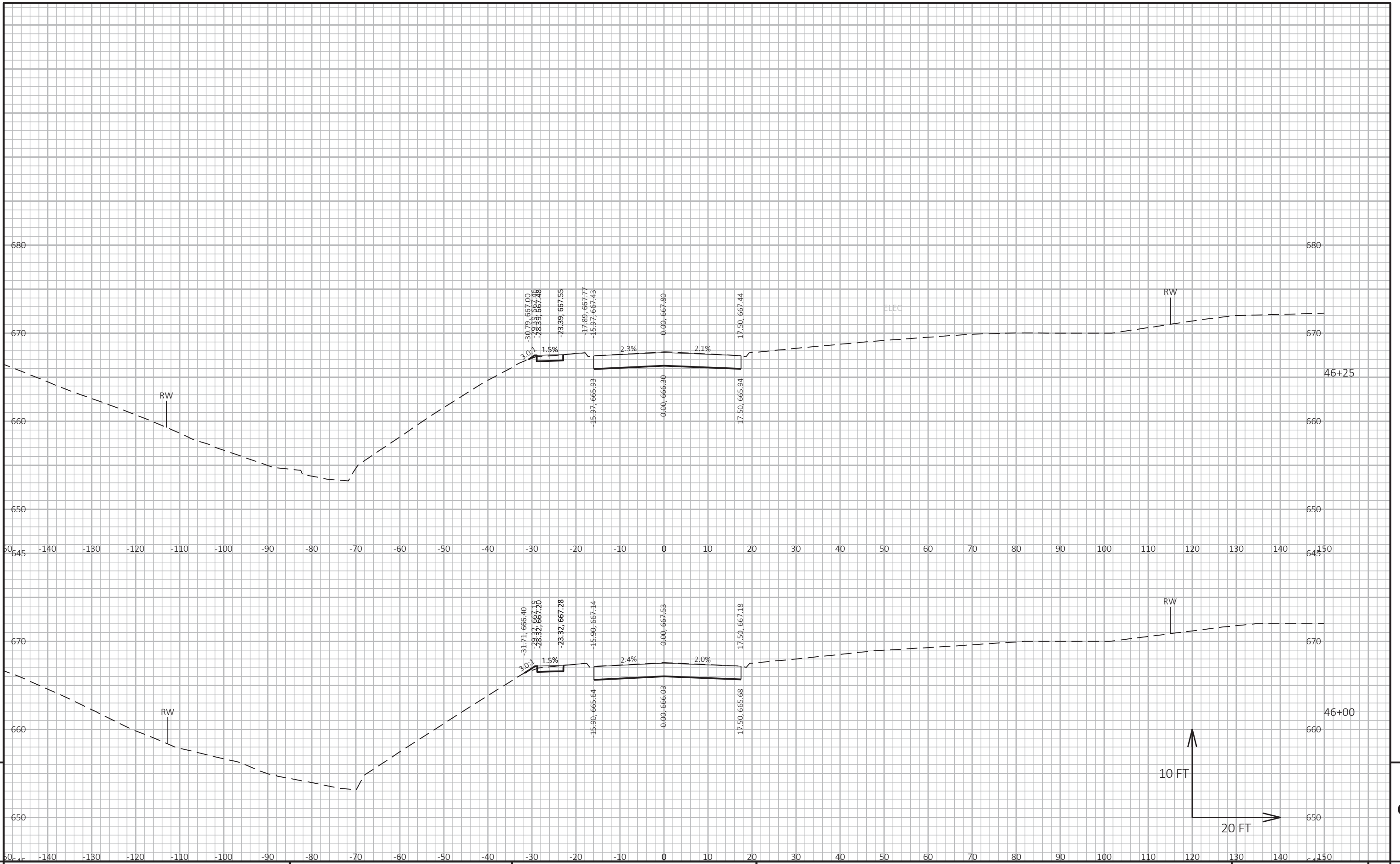
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COUNTY: BROWN

CROSS SECTIONS: ALLOUEZ AVENUE

SHEET

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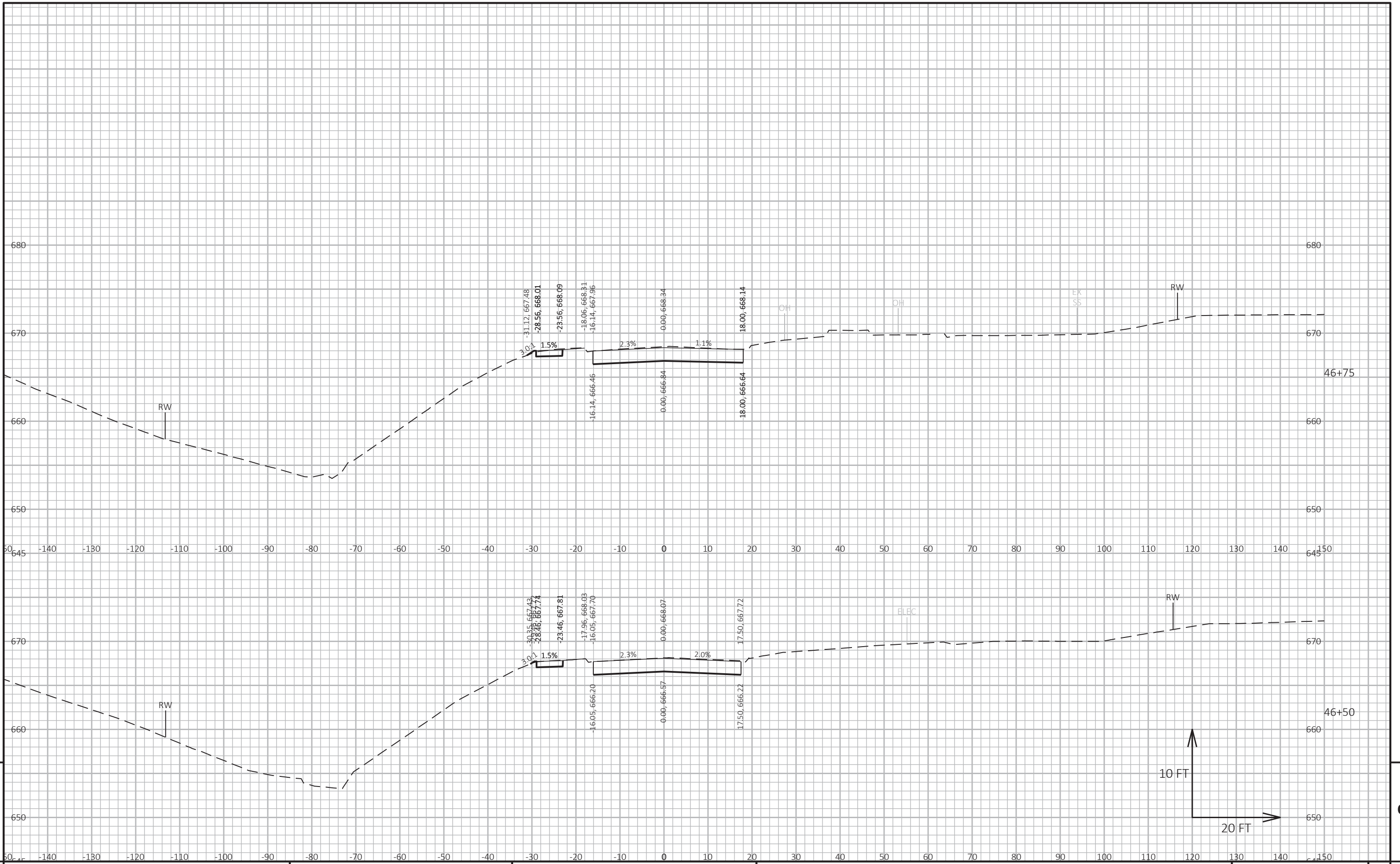


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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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PROJECT NO: 4516-10-71

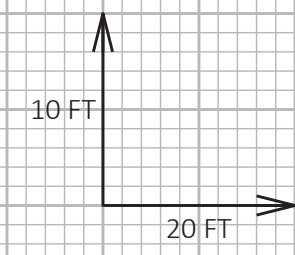
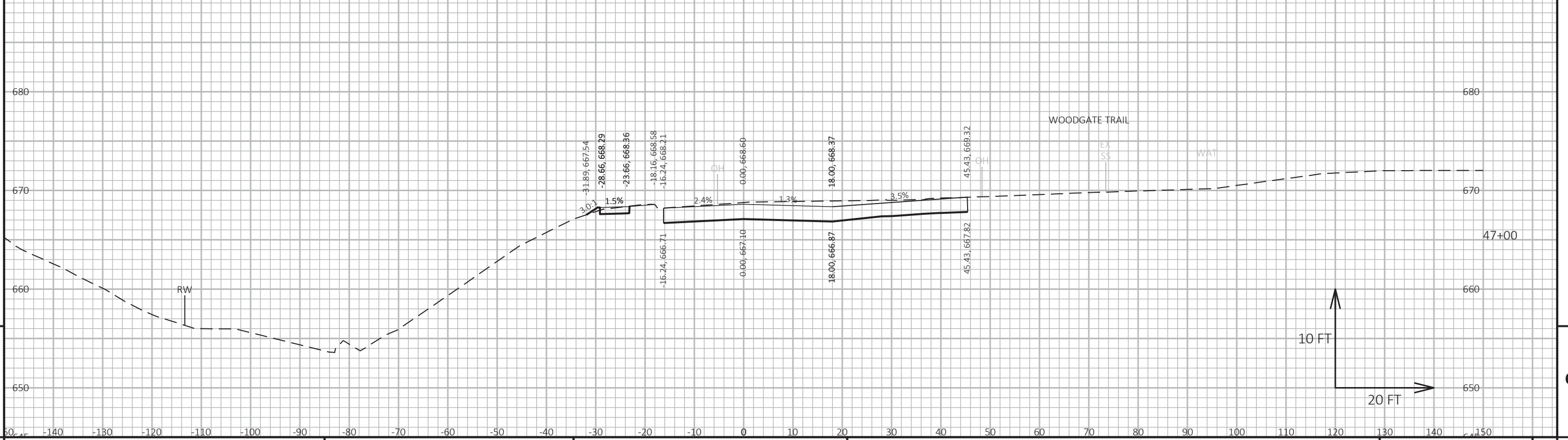
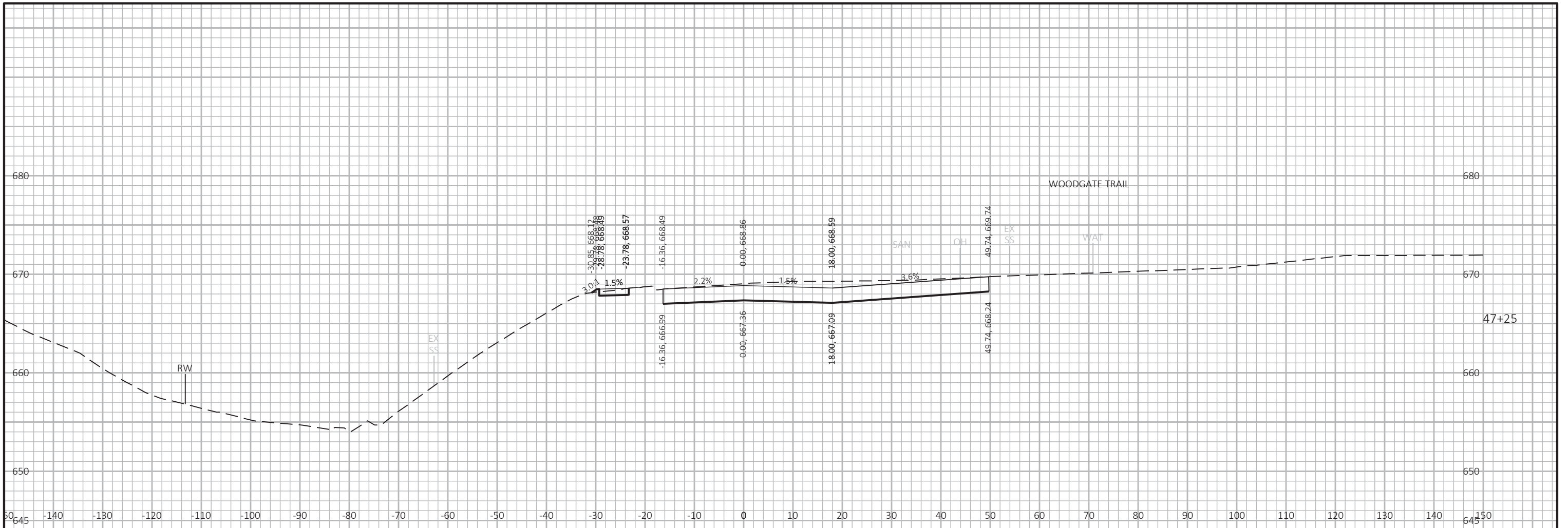
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CROSS SECTIONS: ALLOUEZ AVENUE

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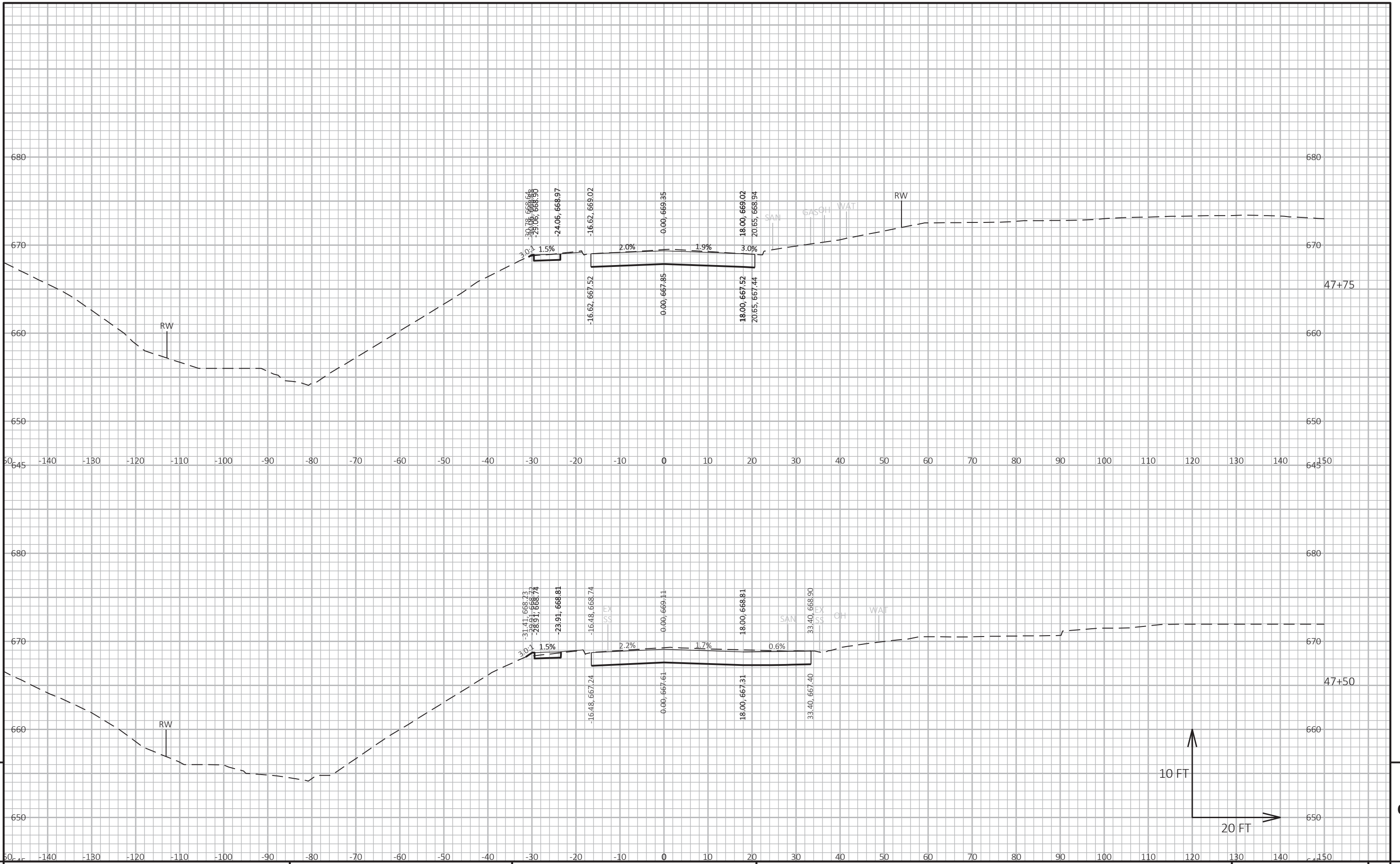
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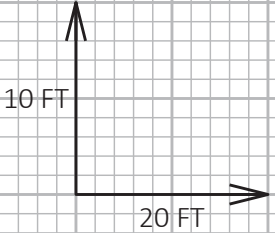
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



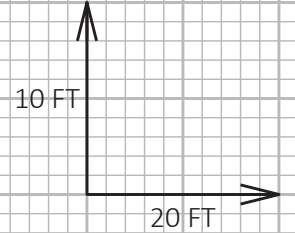
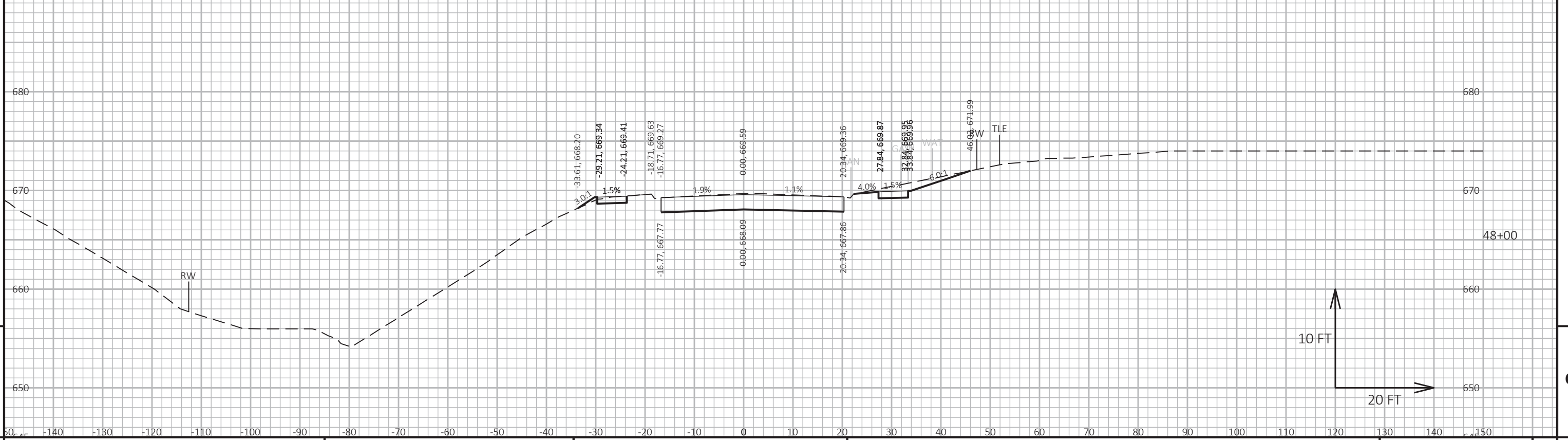
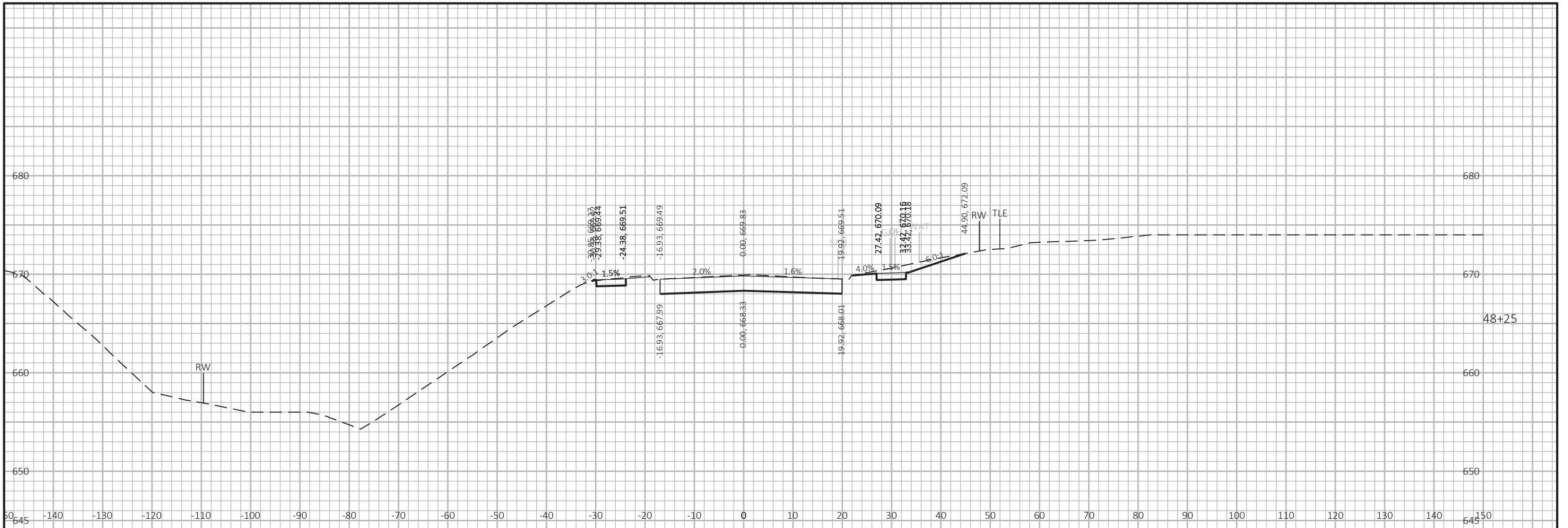
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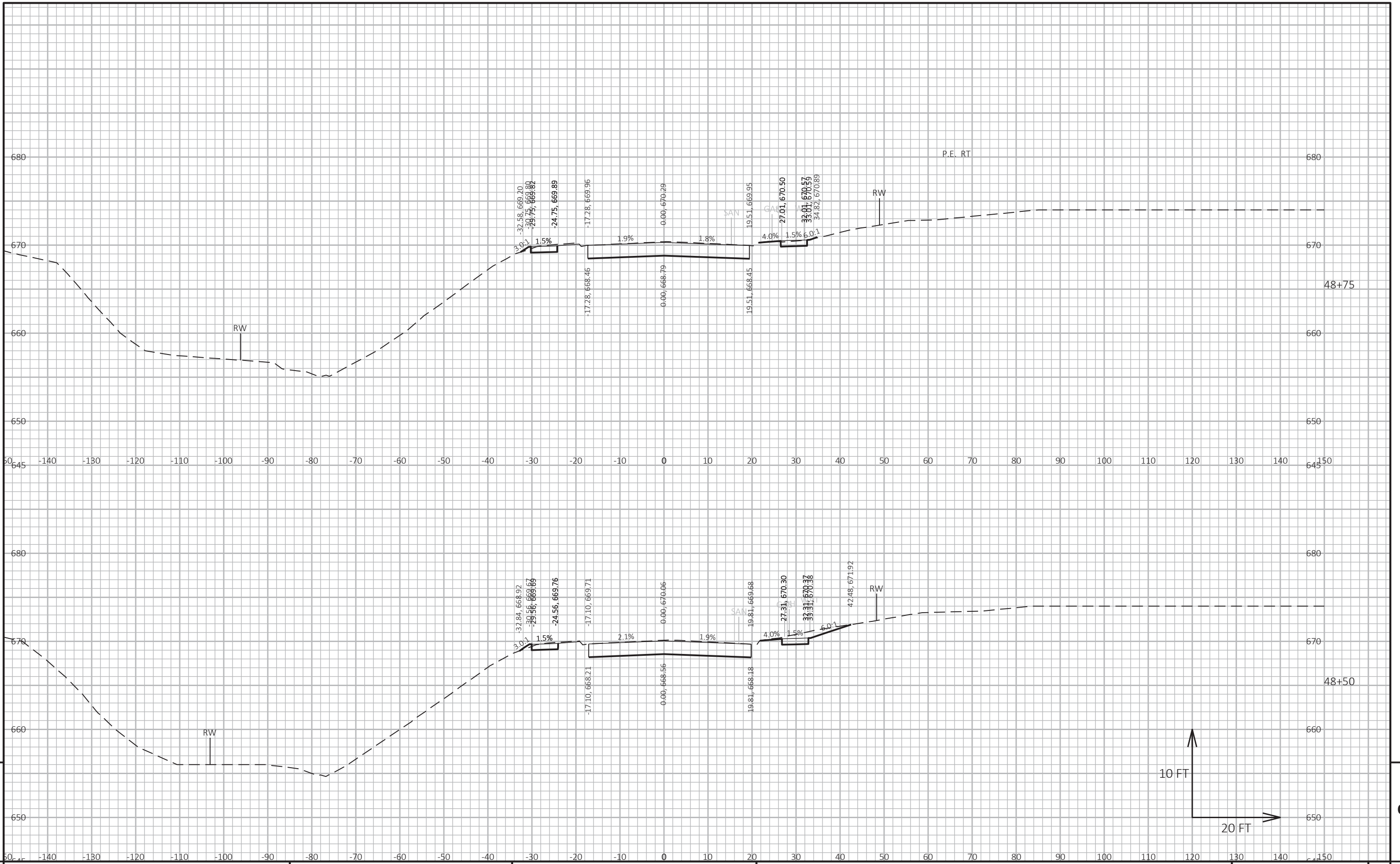
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



PROJECT NO: 4516-10-71

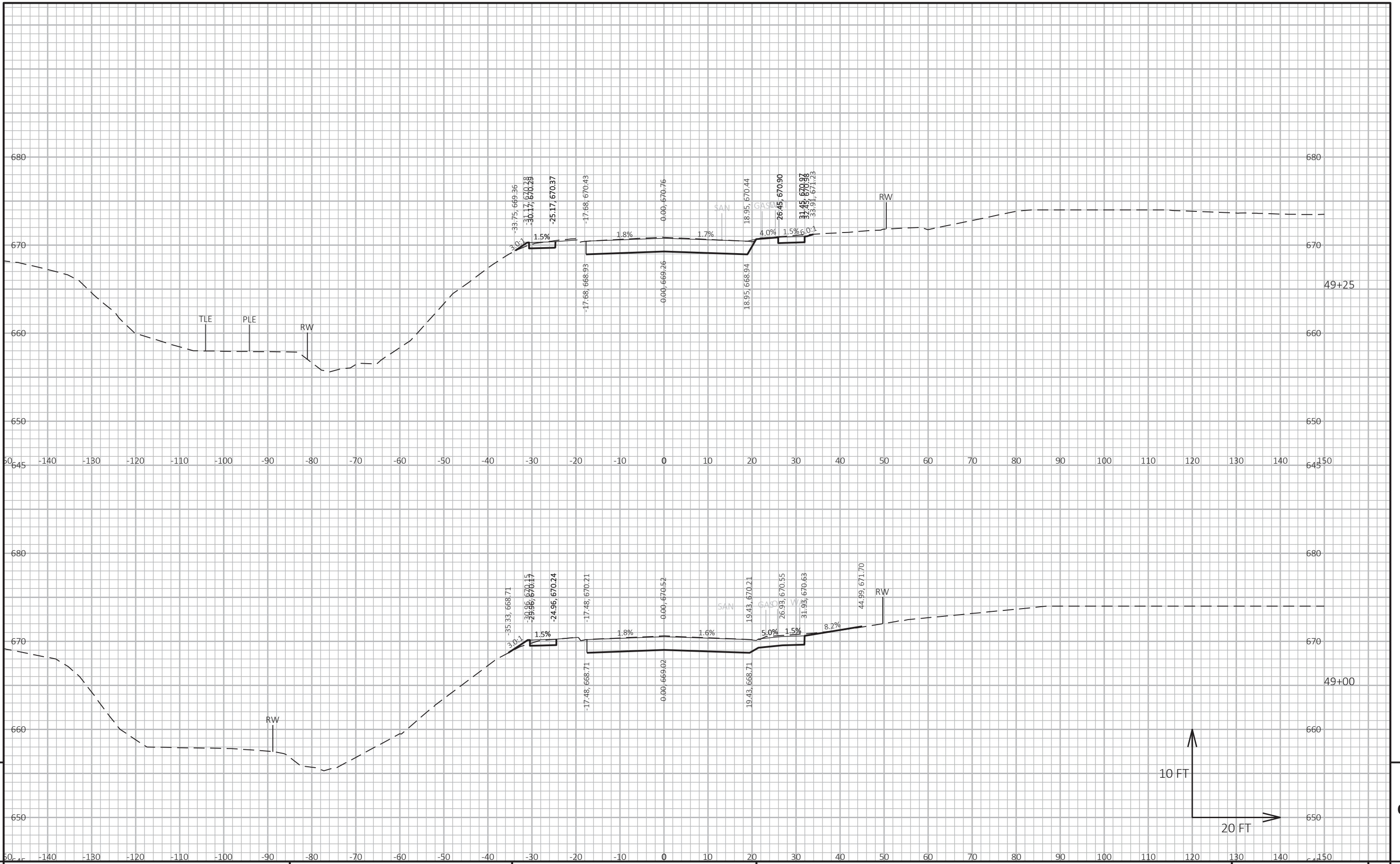
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CROSS SECTIONS: ALLOUEZ AVENUE

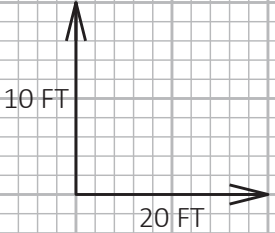
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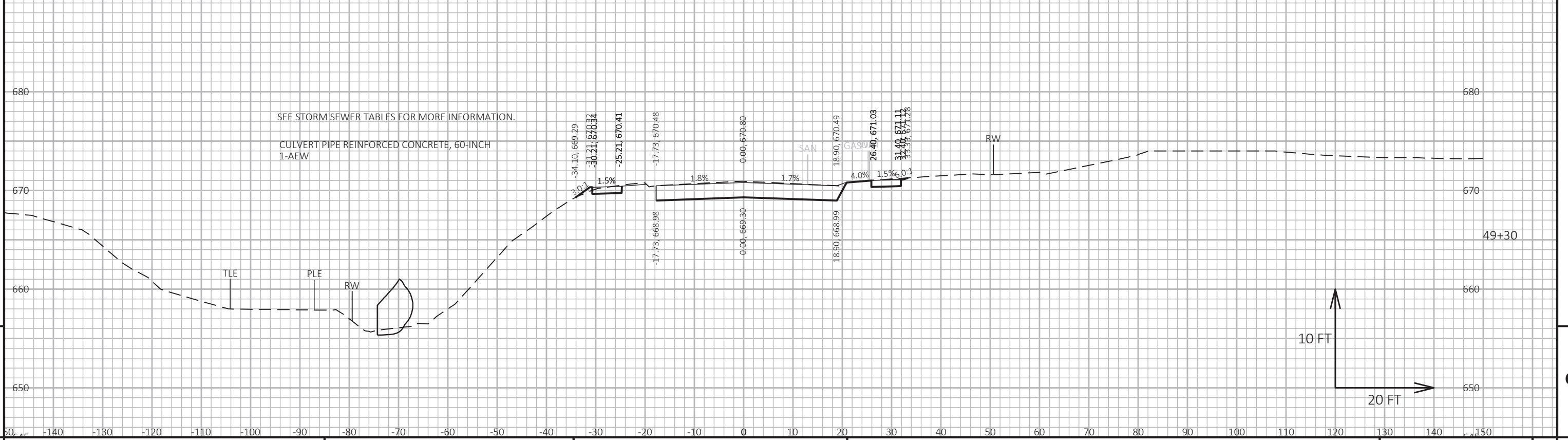
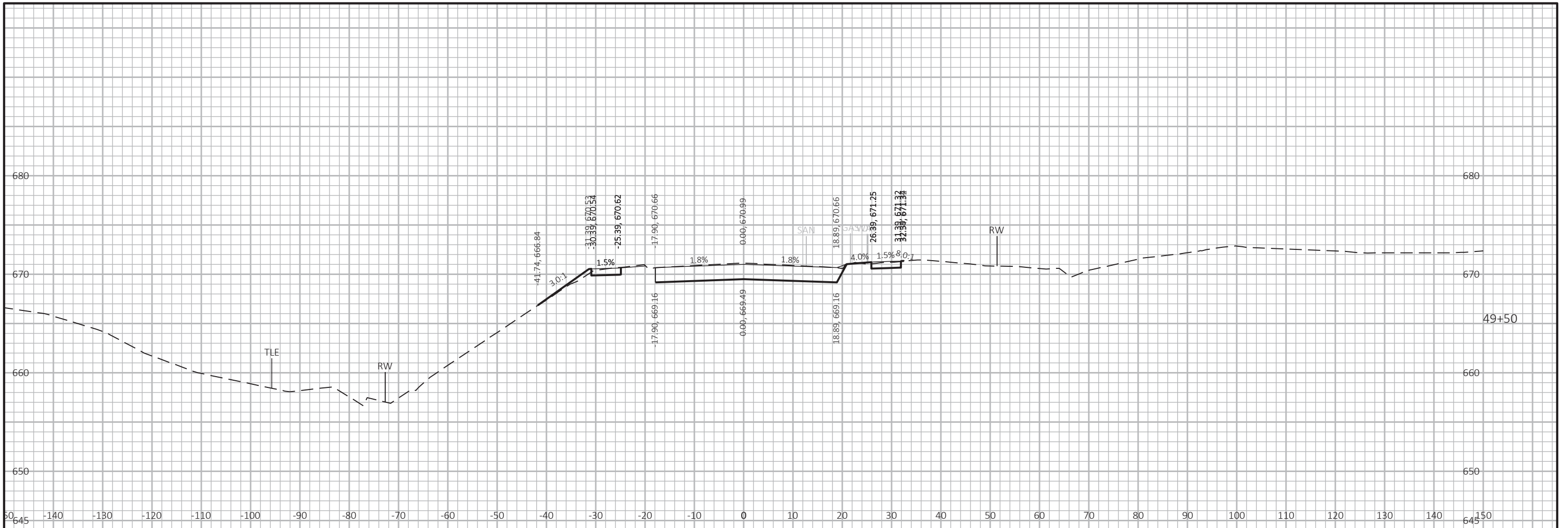
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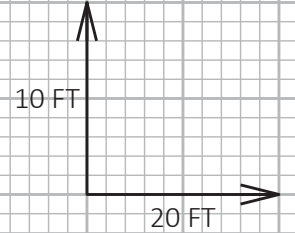
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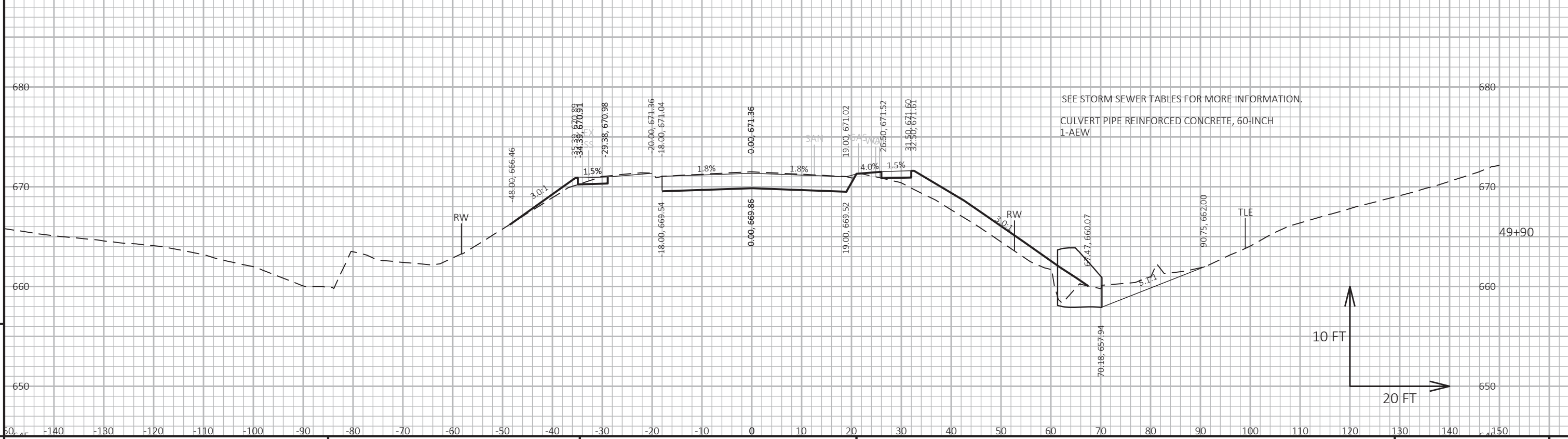
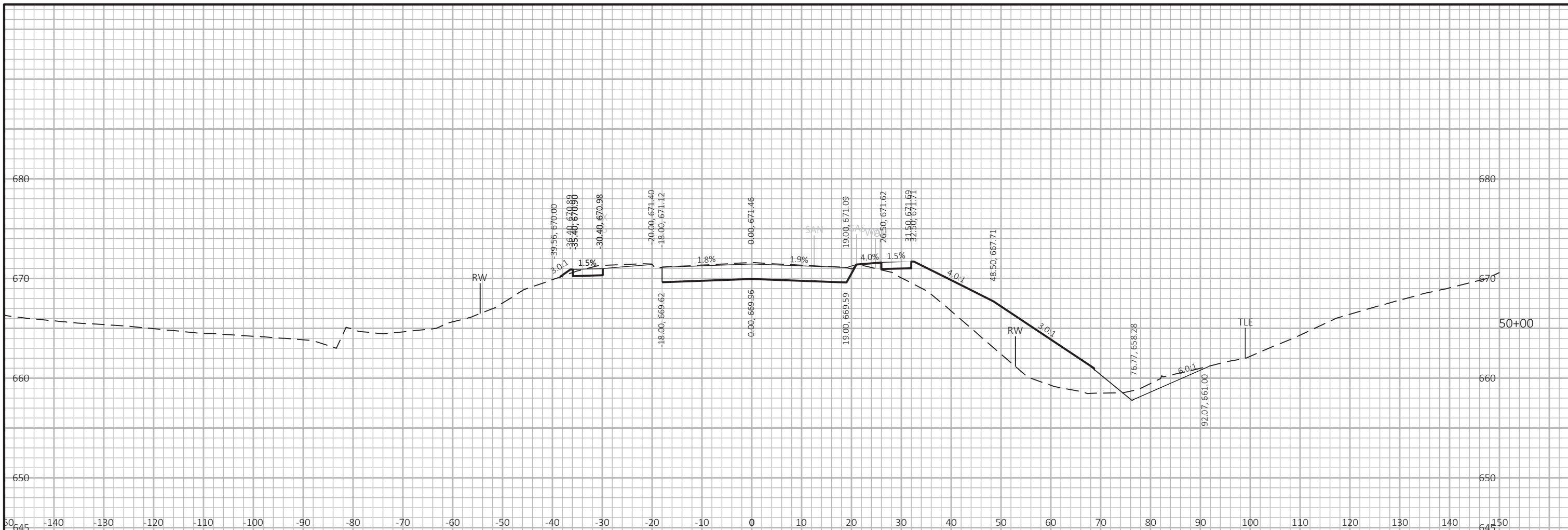
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LAYOUT NAME - 090239_XS

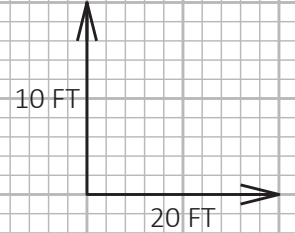


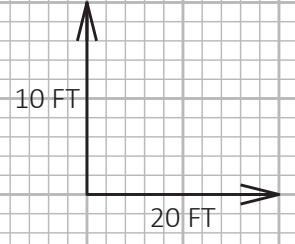
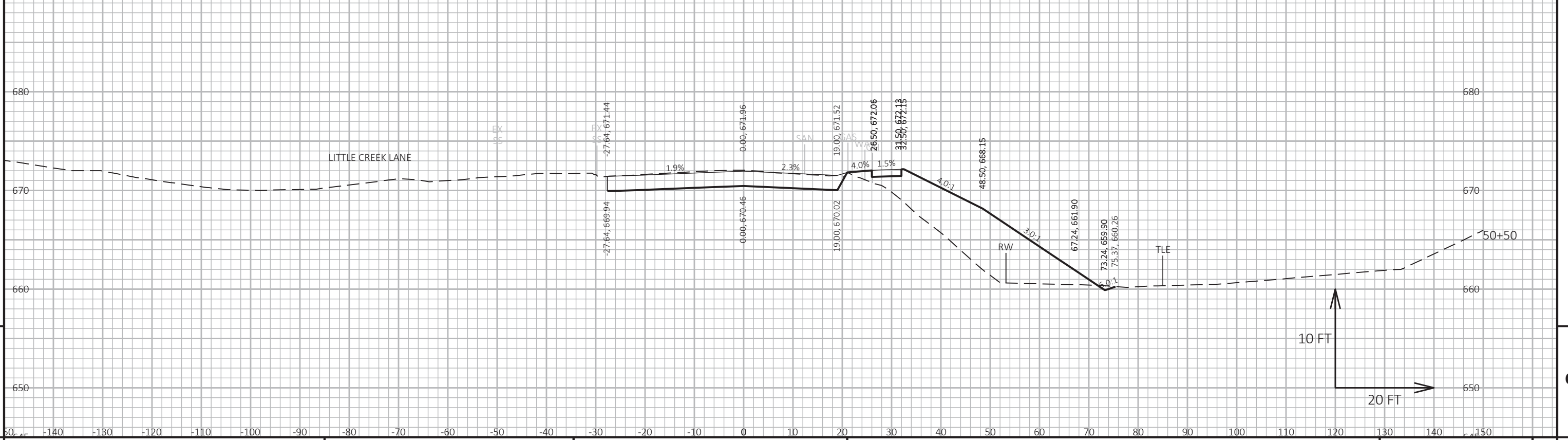
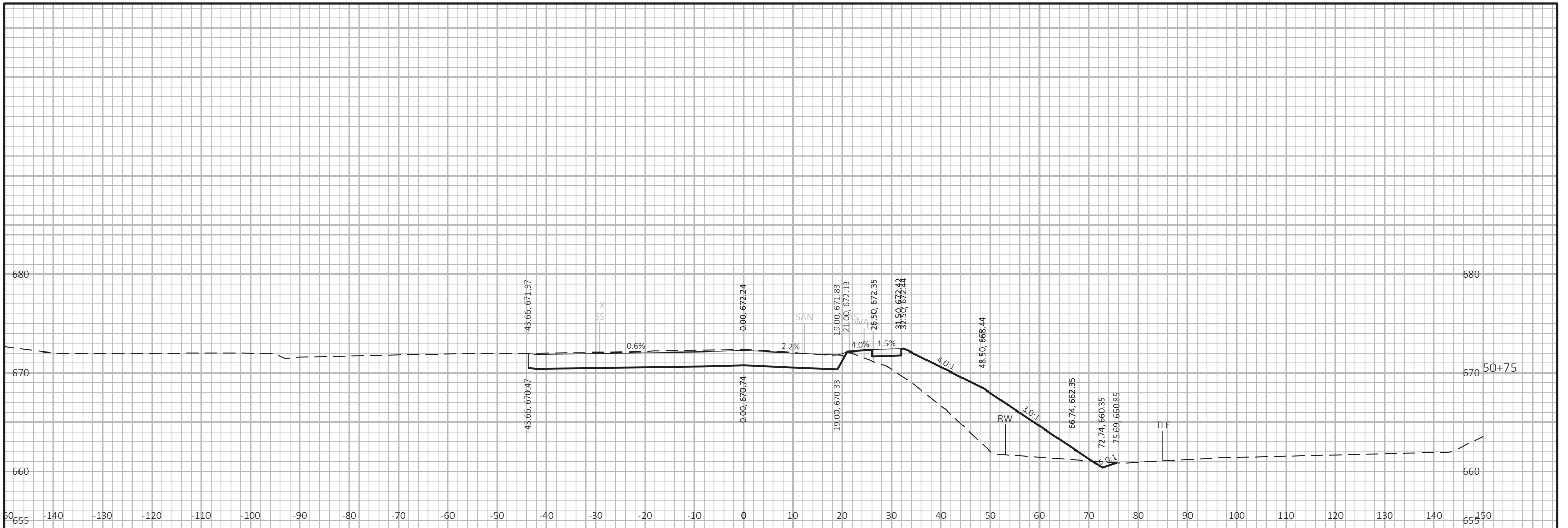
SEE STORM SEWER TABLES FOR MORE INFORMATION.
 CULVERT PIPE REINFORCED CONCRETE, 60-INCH
 1-AEW





SEE STORM SEWER TABLES FOR MORE INFORMATION.
 CULVERT PIPE REINFORCED CONCRETE, 60-INCH
 1-AEW

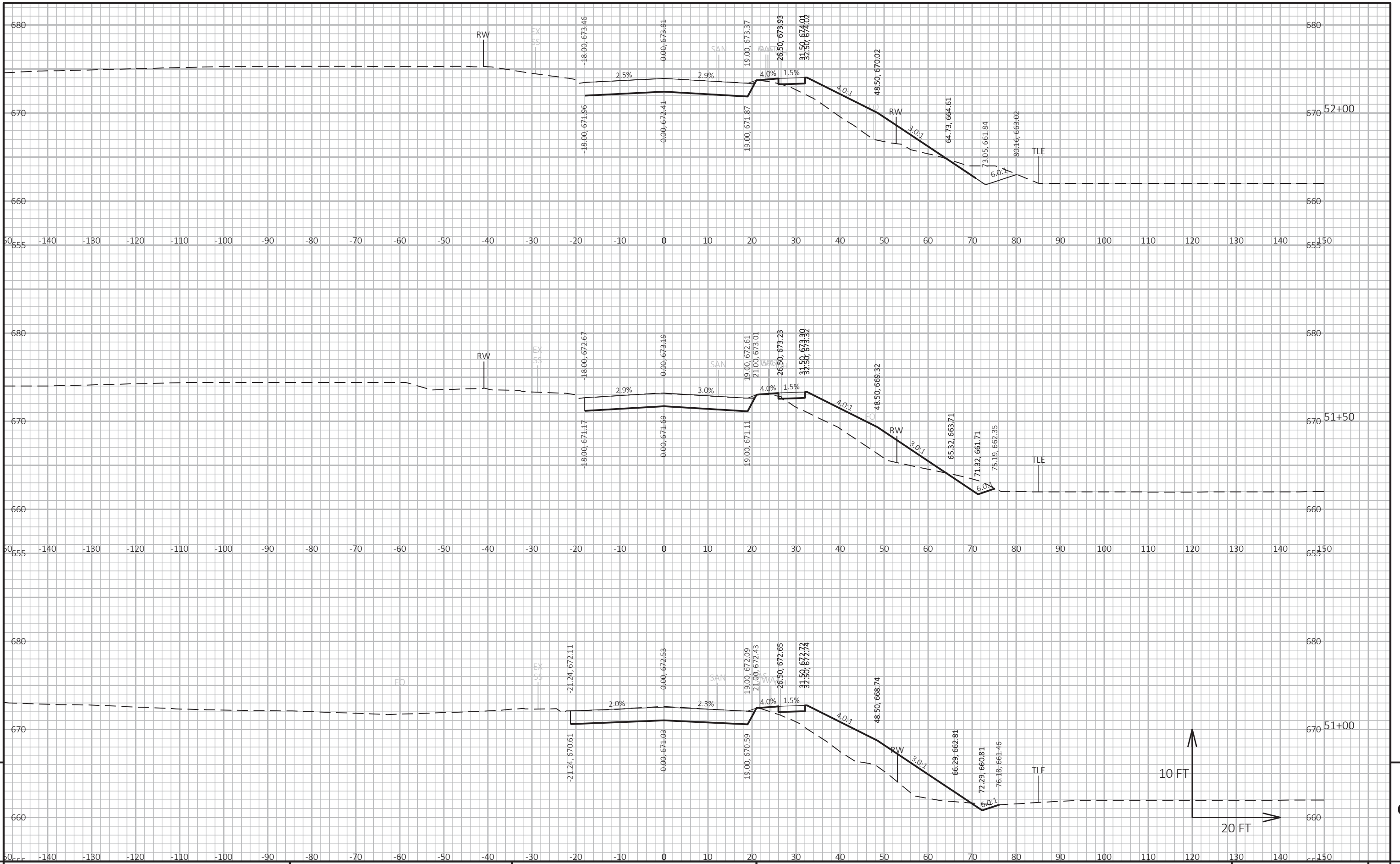




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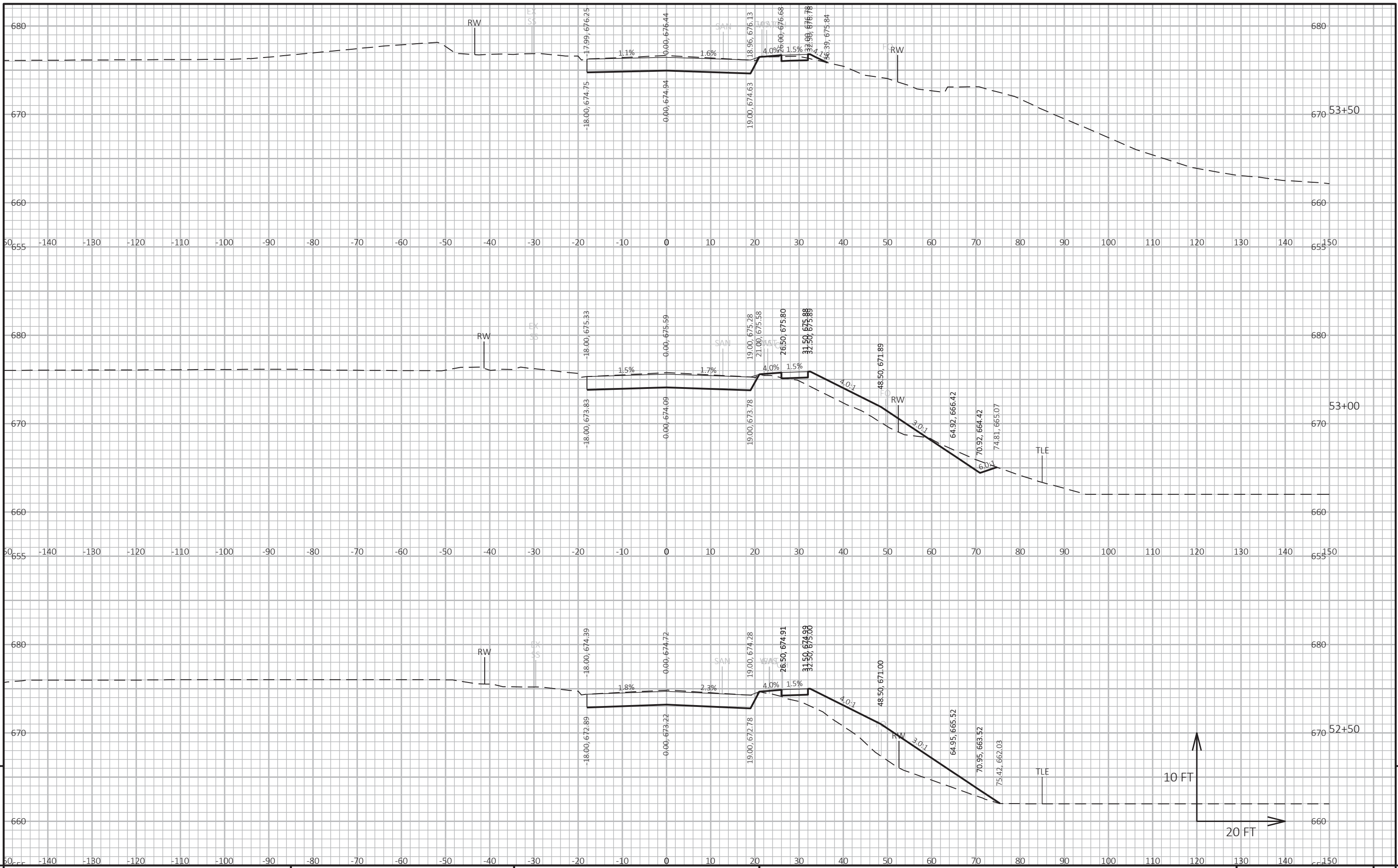
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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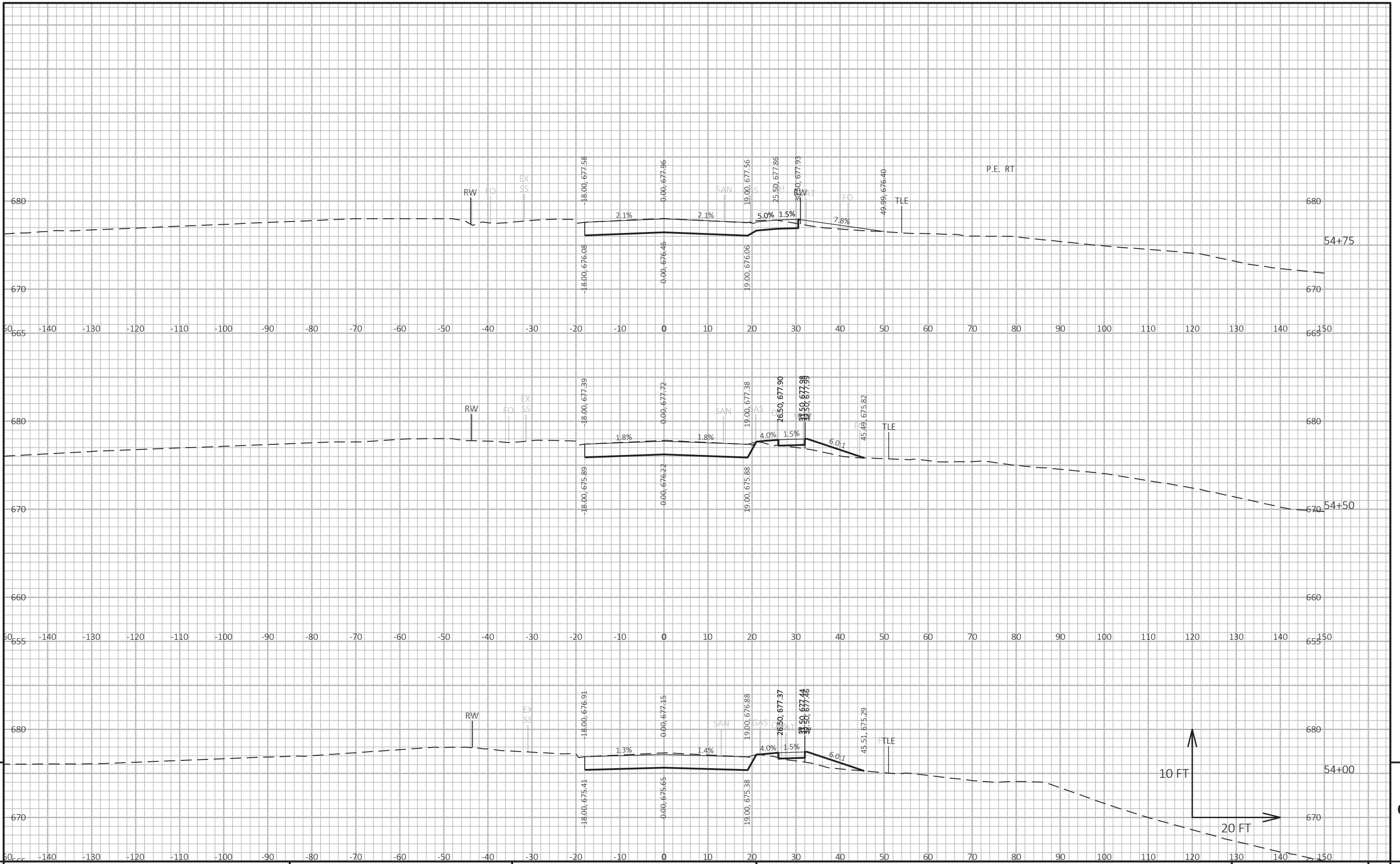


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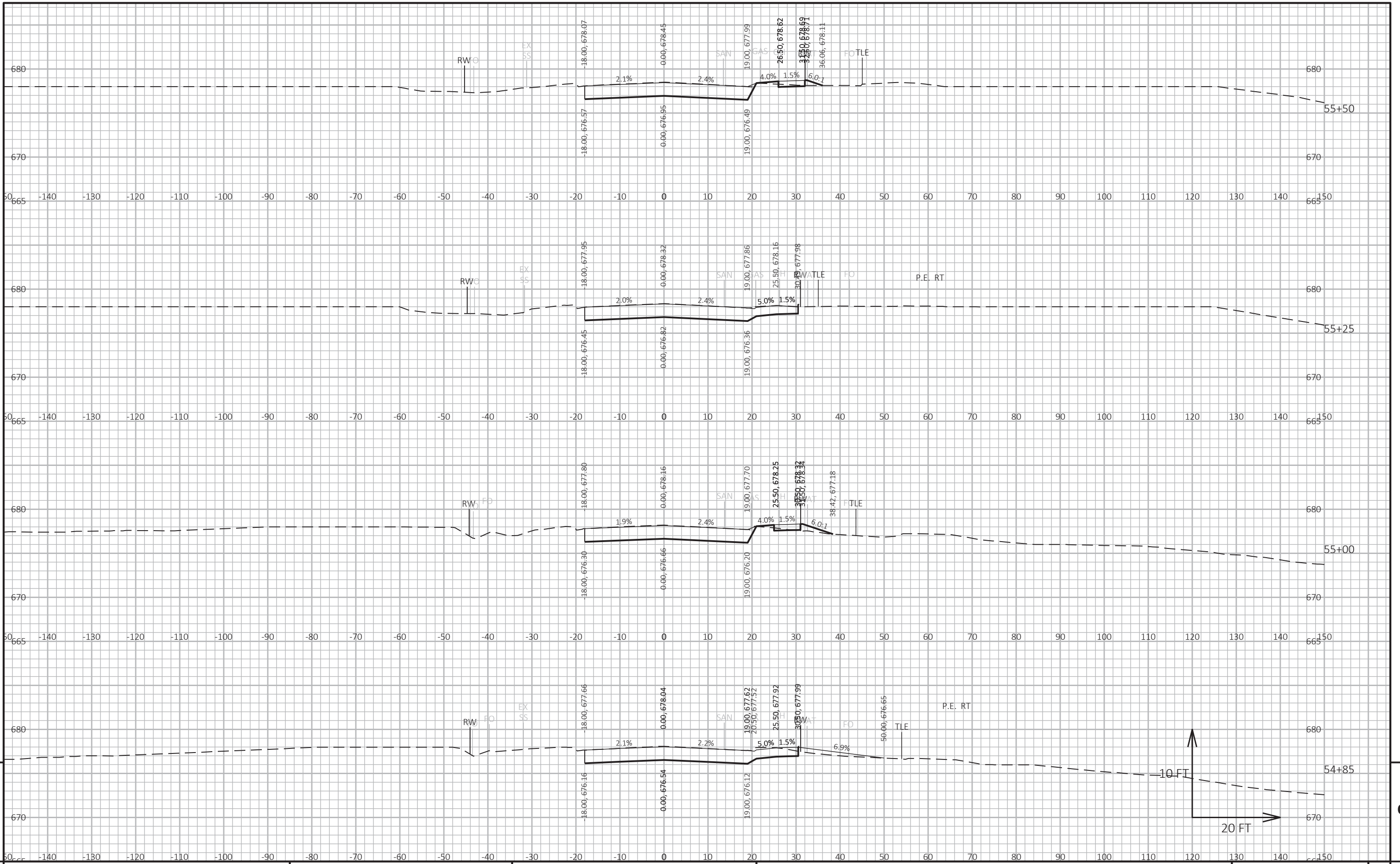
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

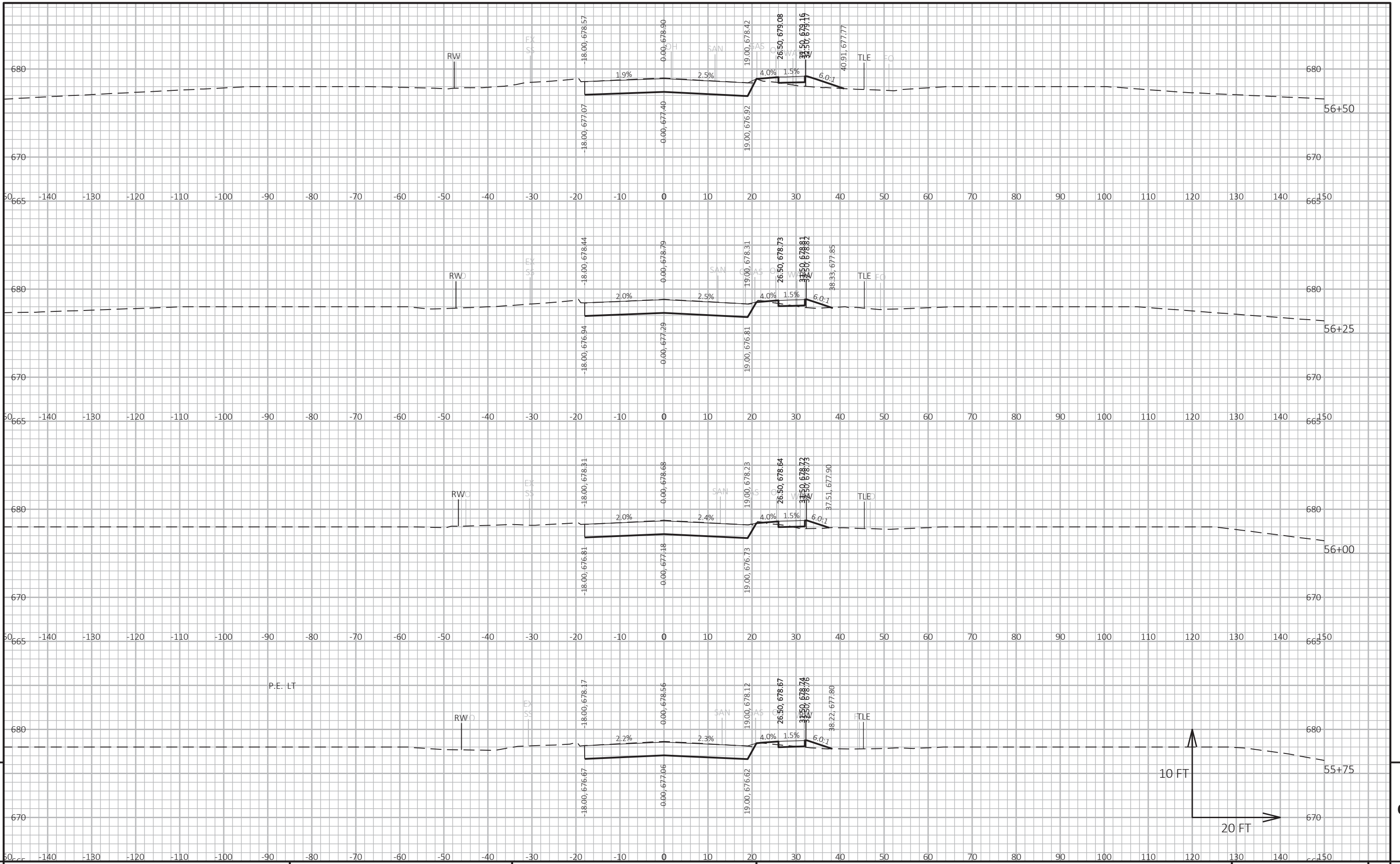
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE
SHEET			E



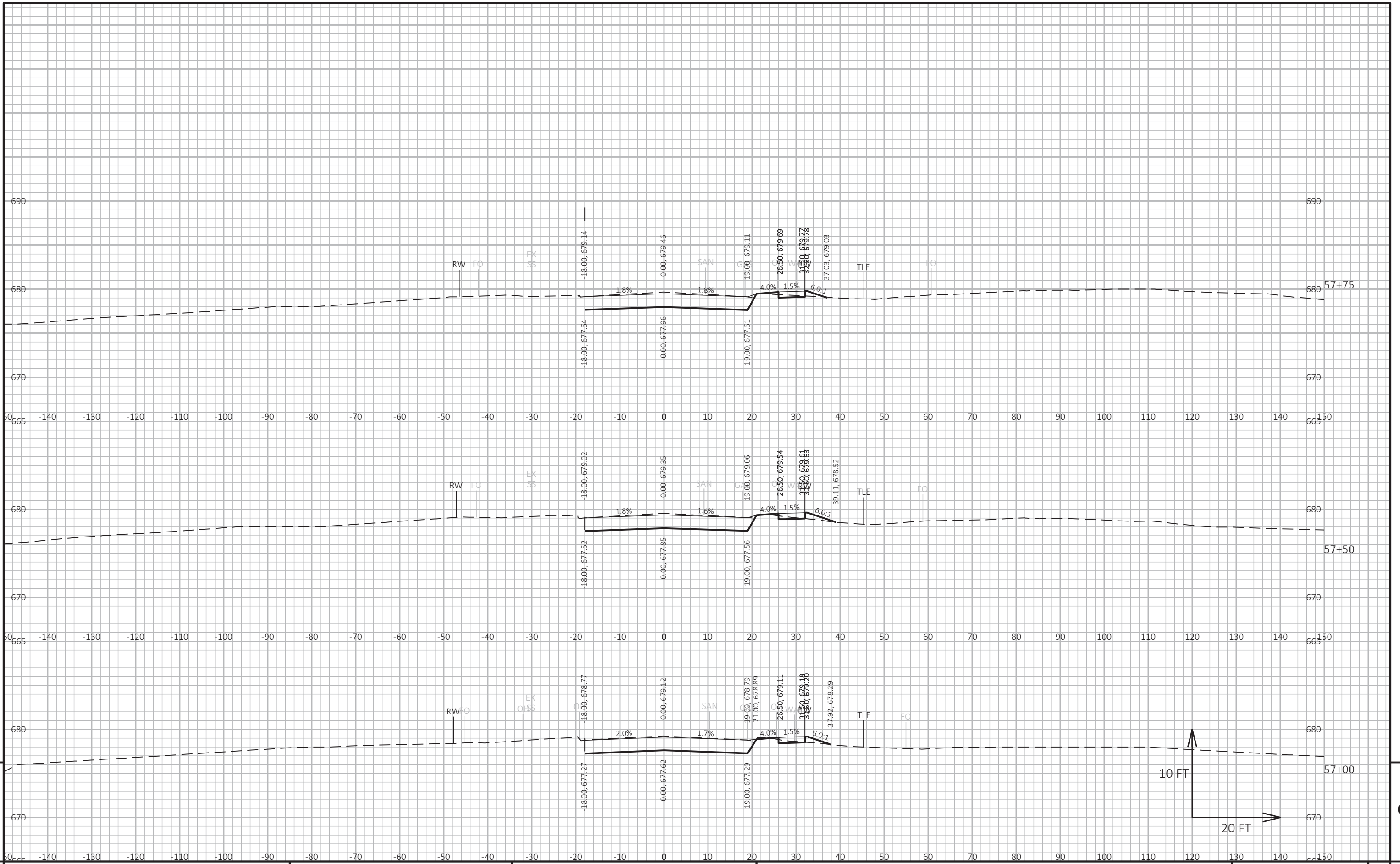
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090247_XS



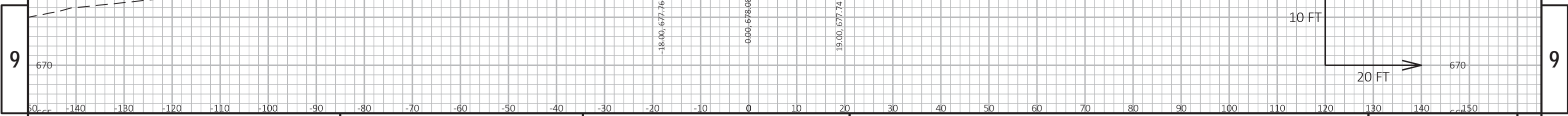
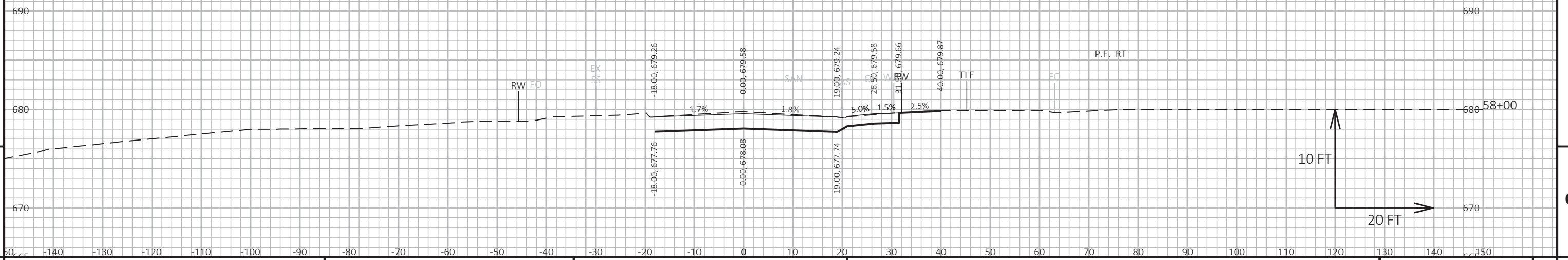
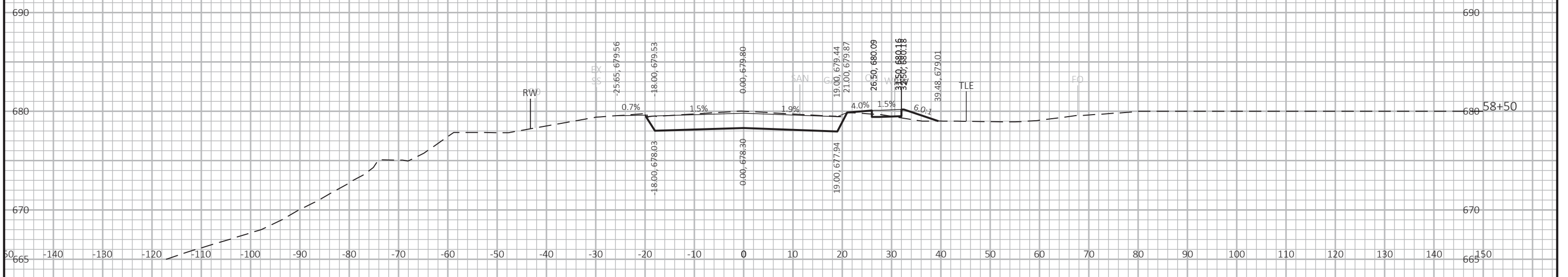
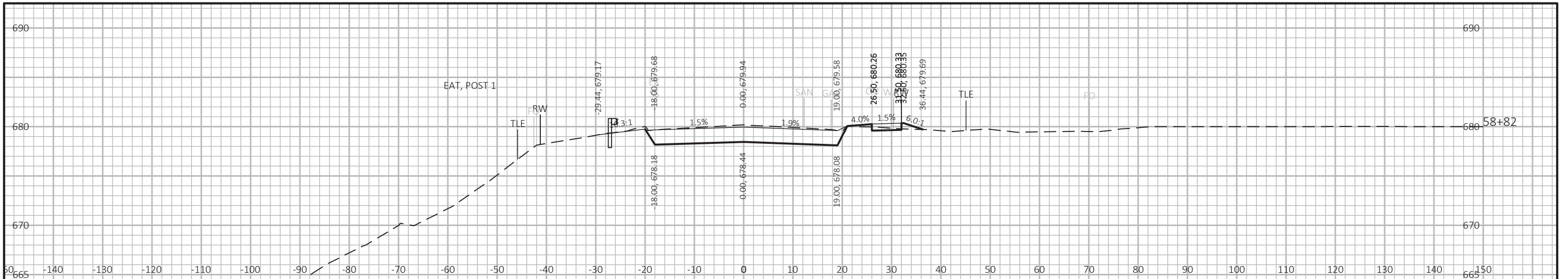
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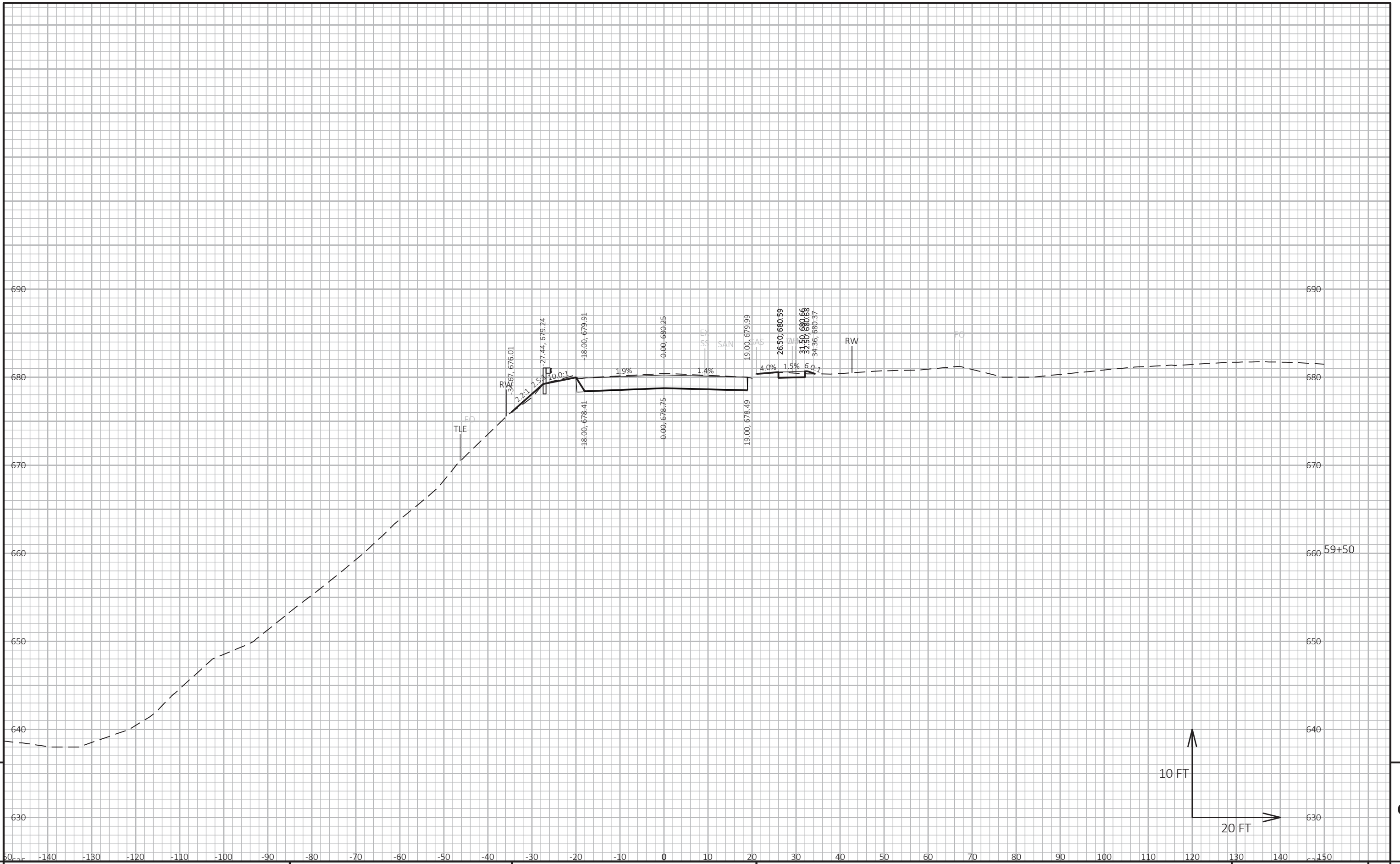
PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090248_XS



PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E



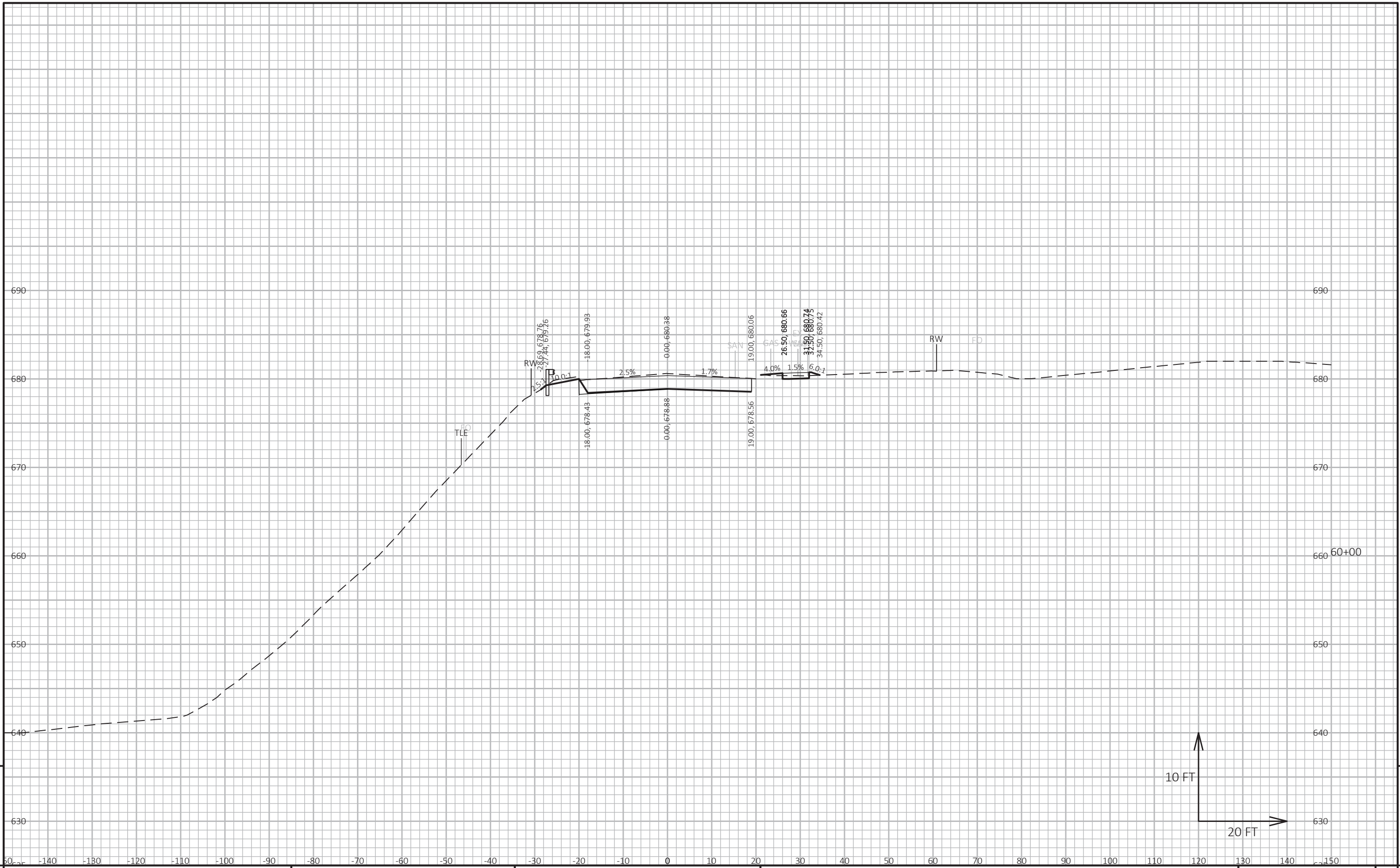
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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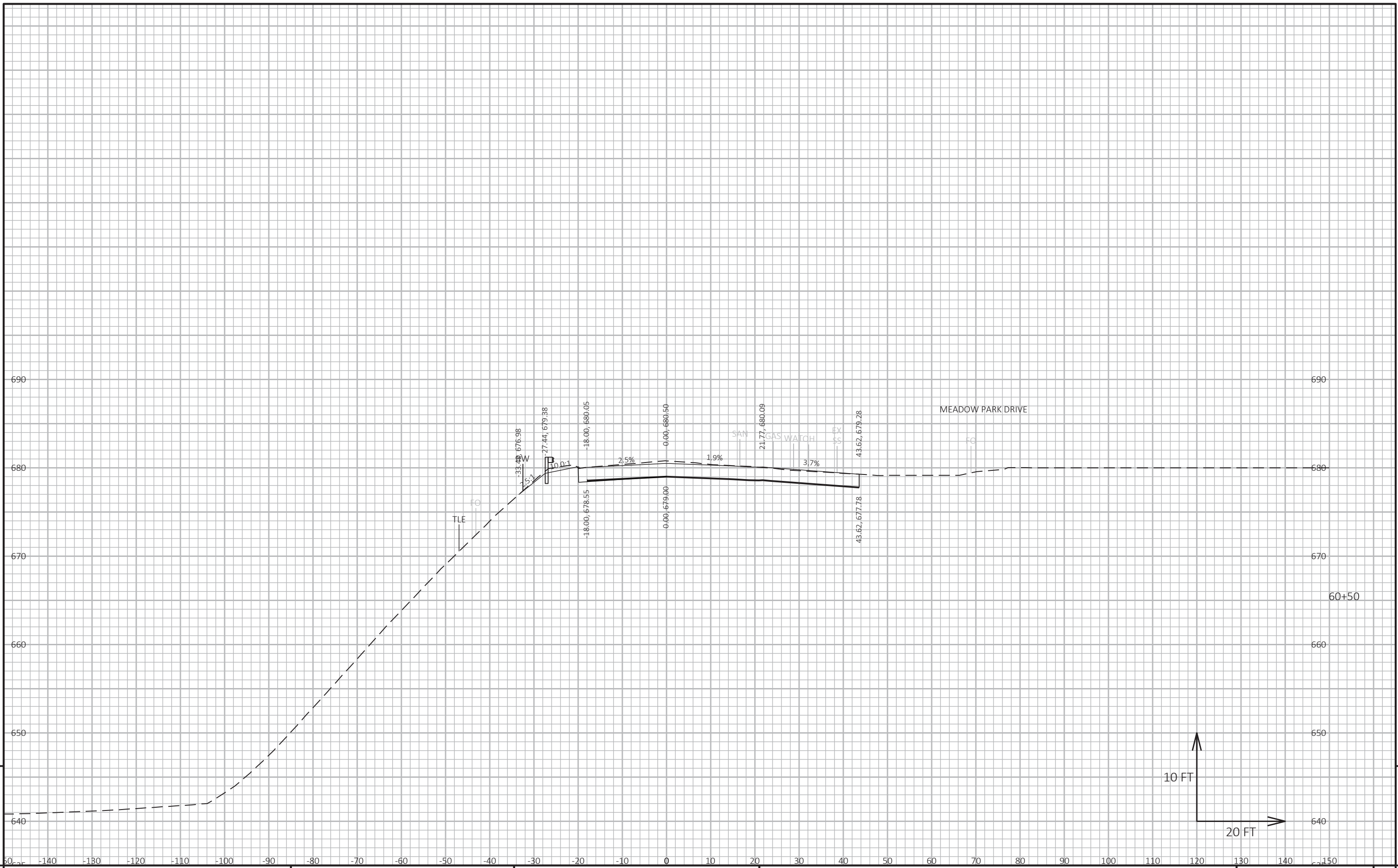
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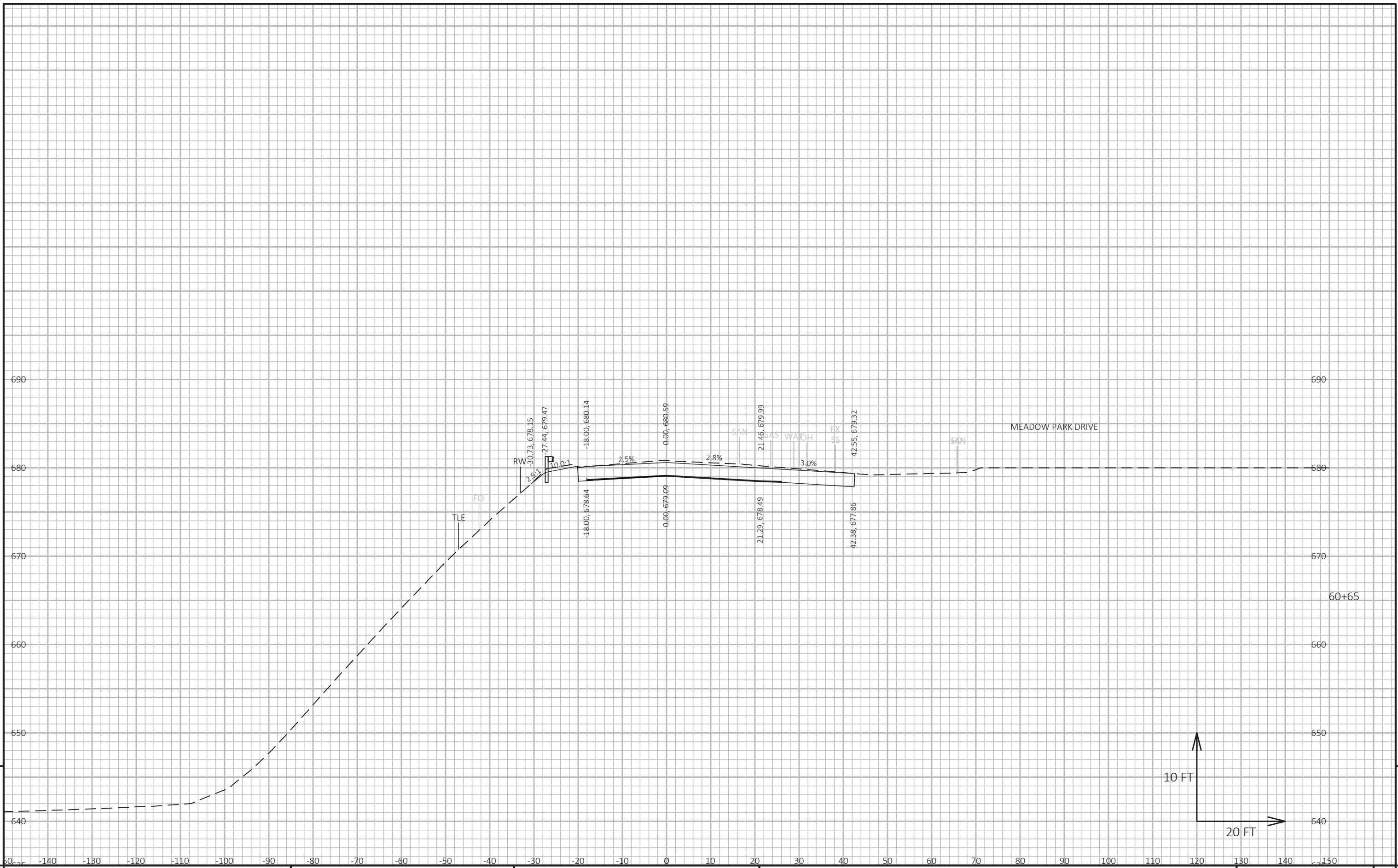
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LAYOUT NAME - 090253_XS



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE	SHEET E
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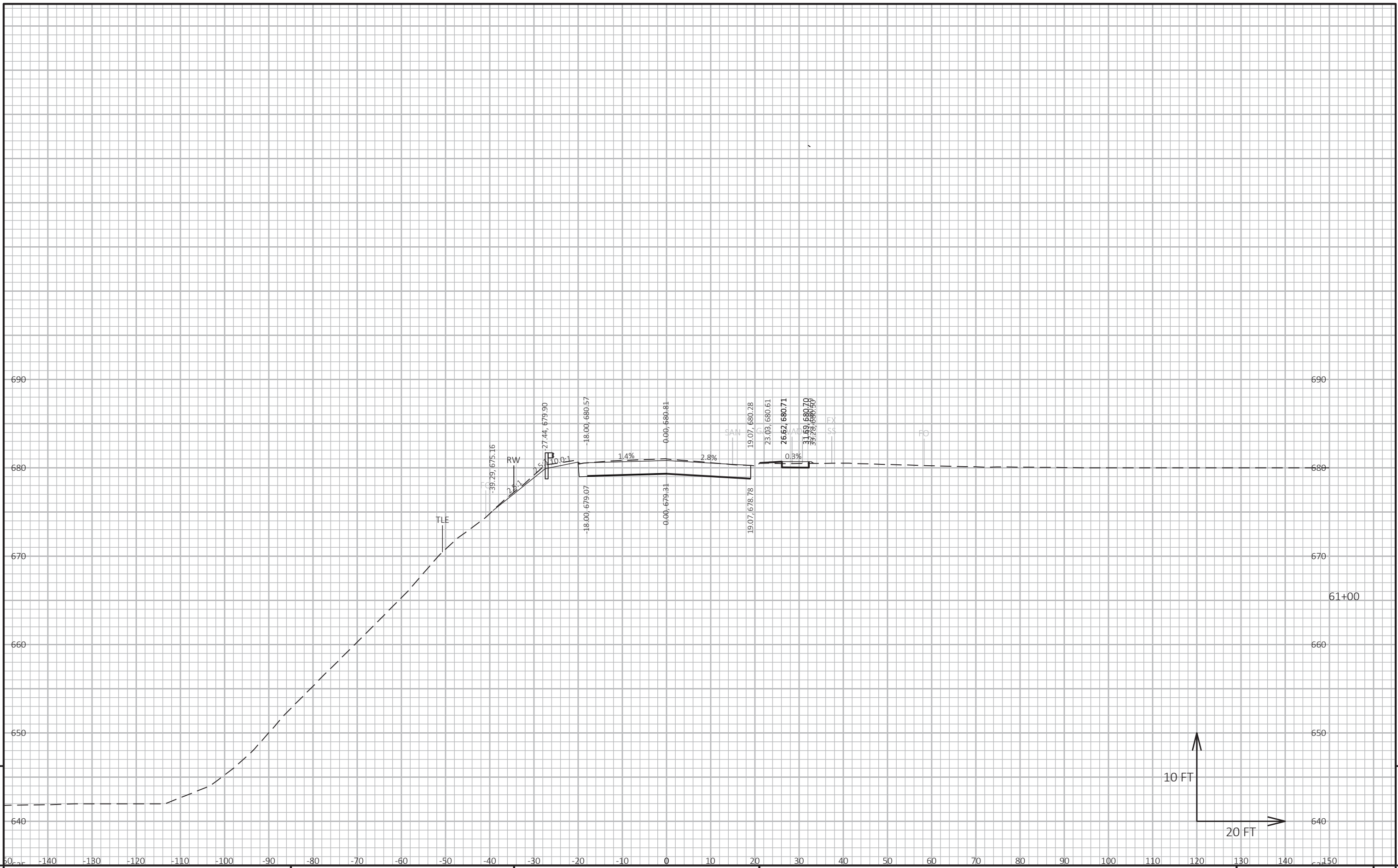
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 WISDOT/CADD SHEET 49



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE
SHEET			E

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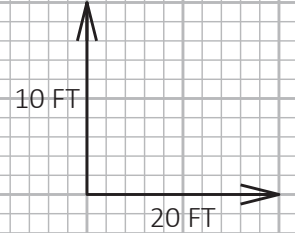
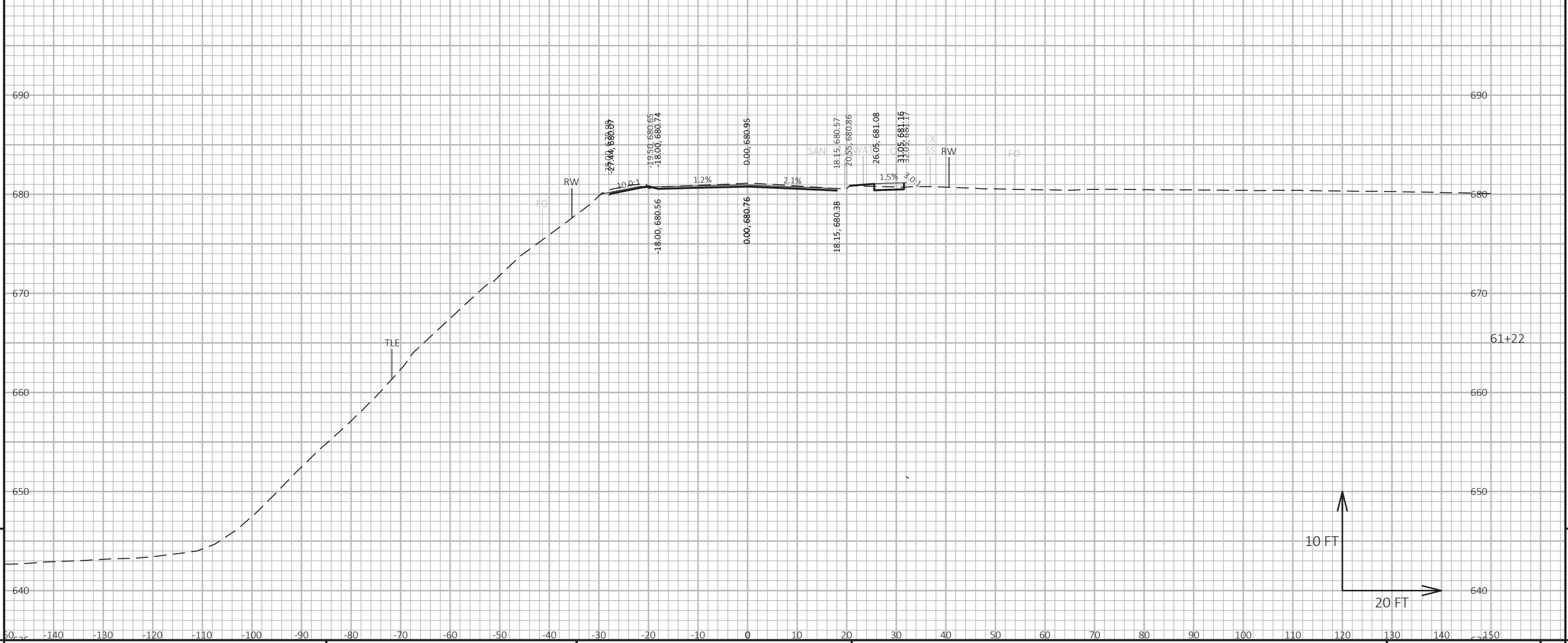
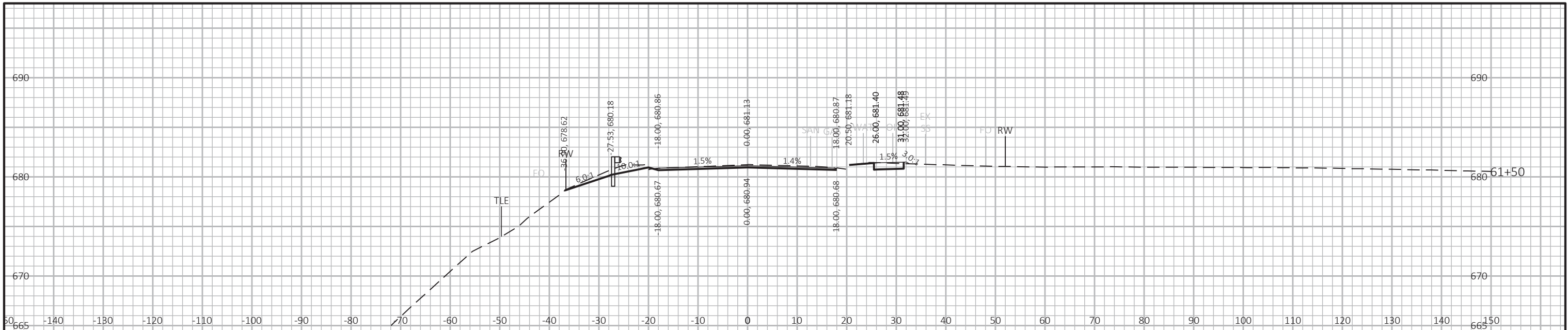
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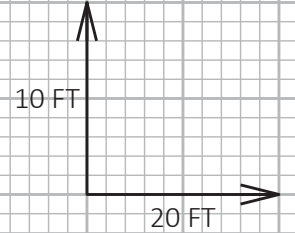
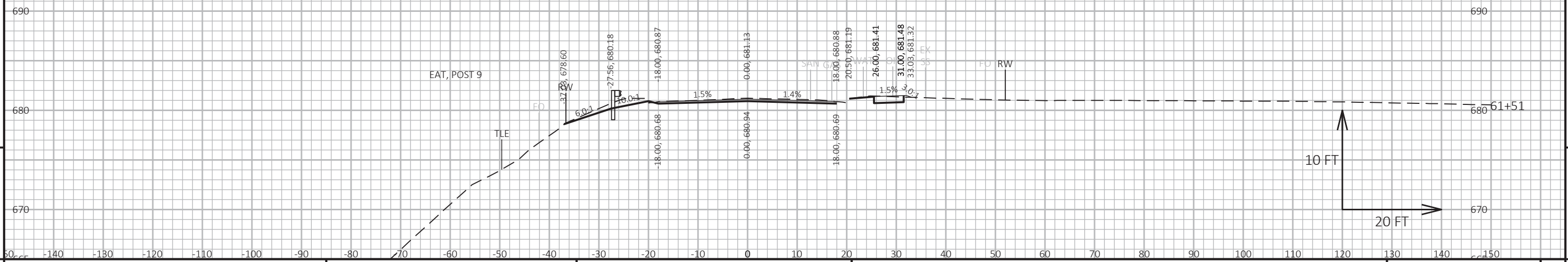
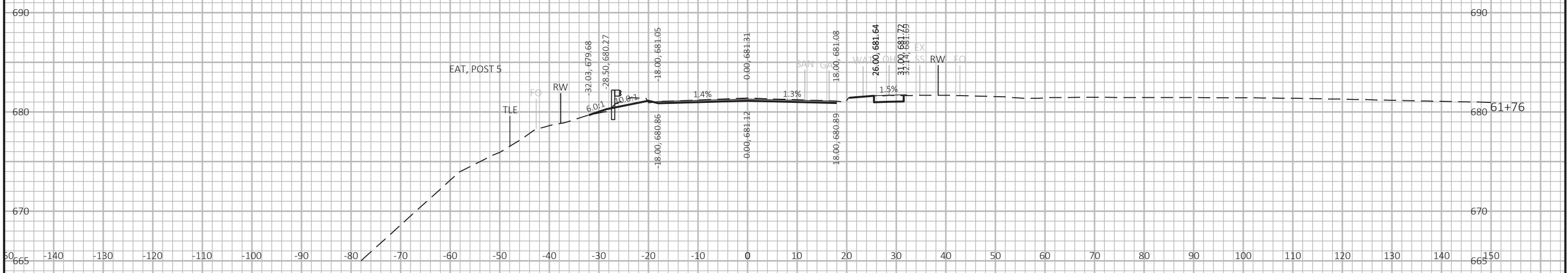
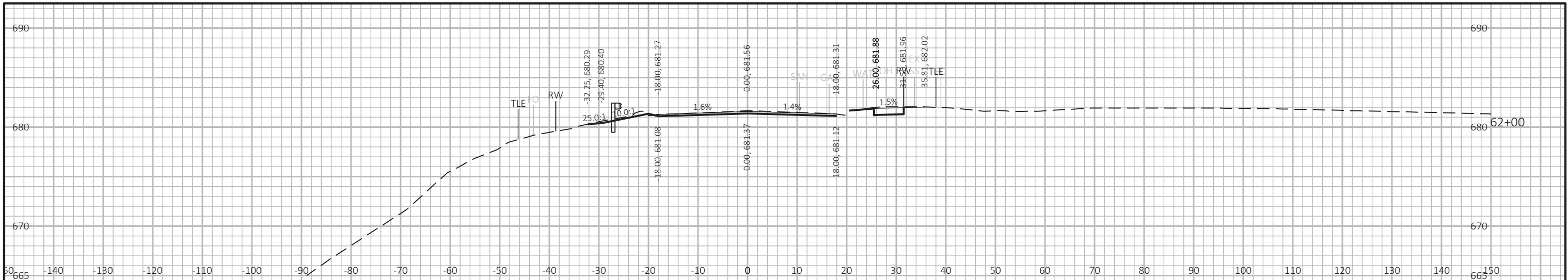
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090256_XS





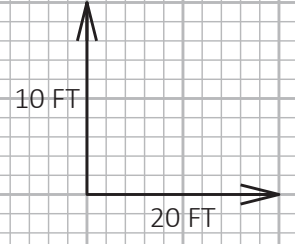
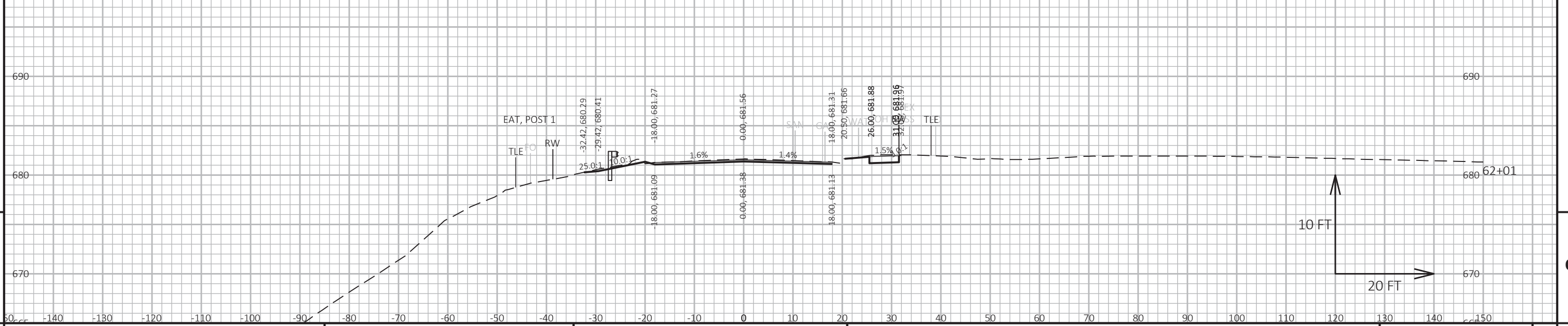
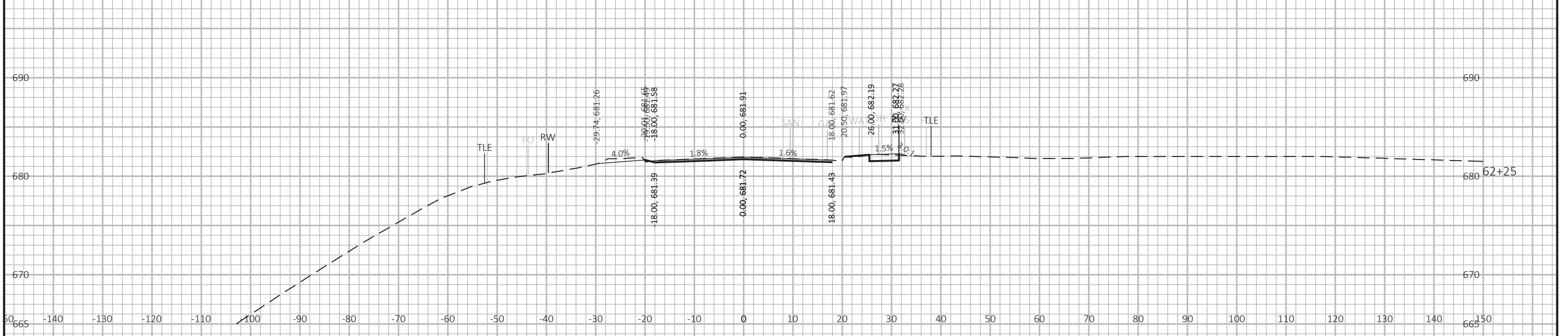
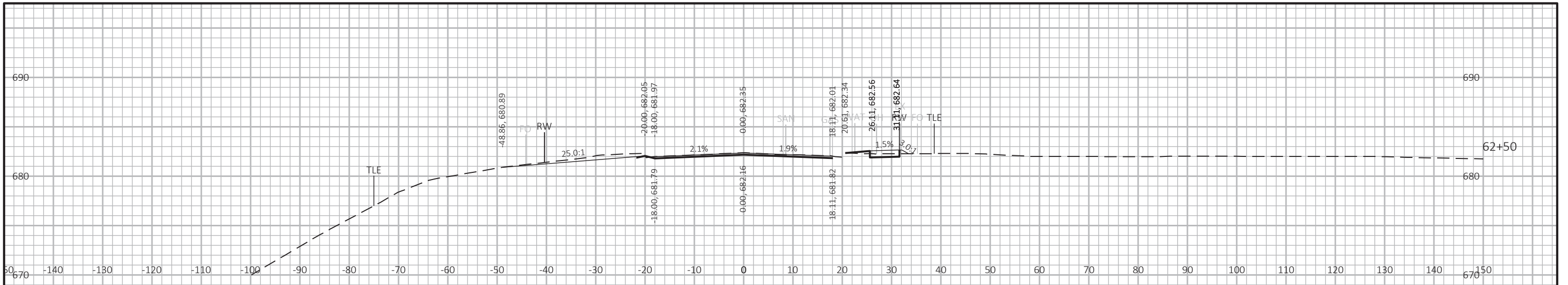
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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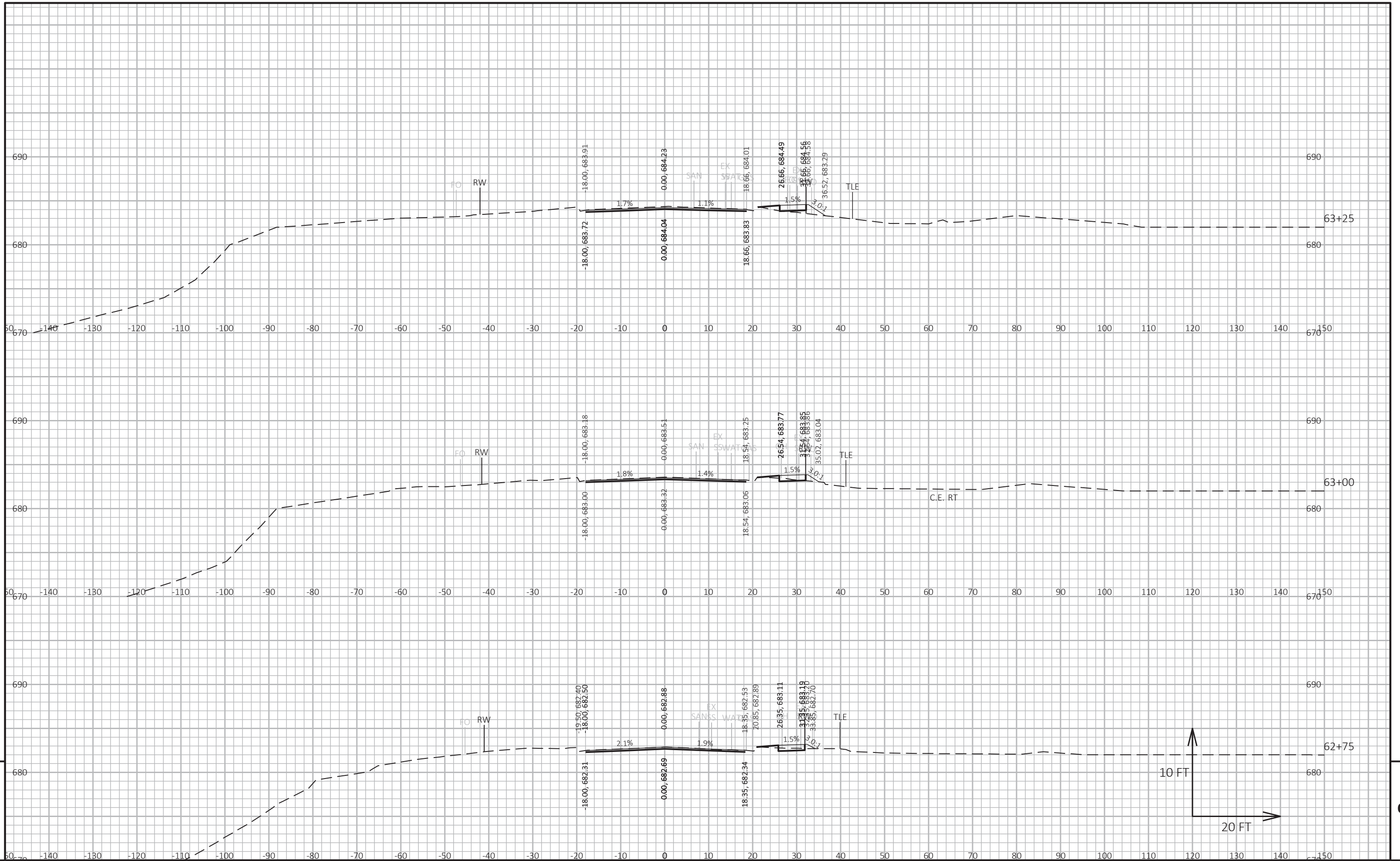


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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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PROJECT NO: 4516-10-71

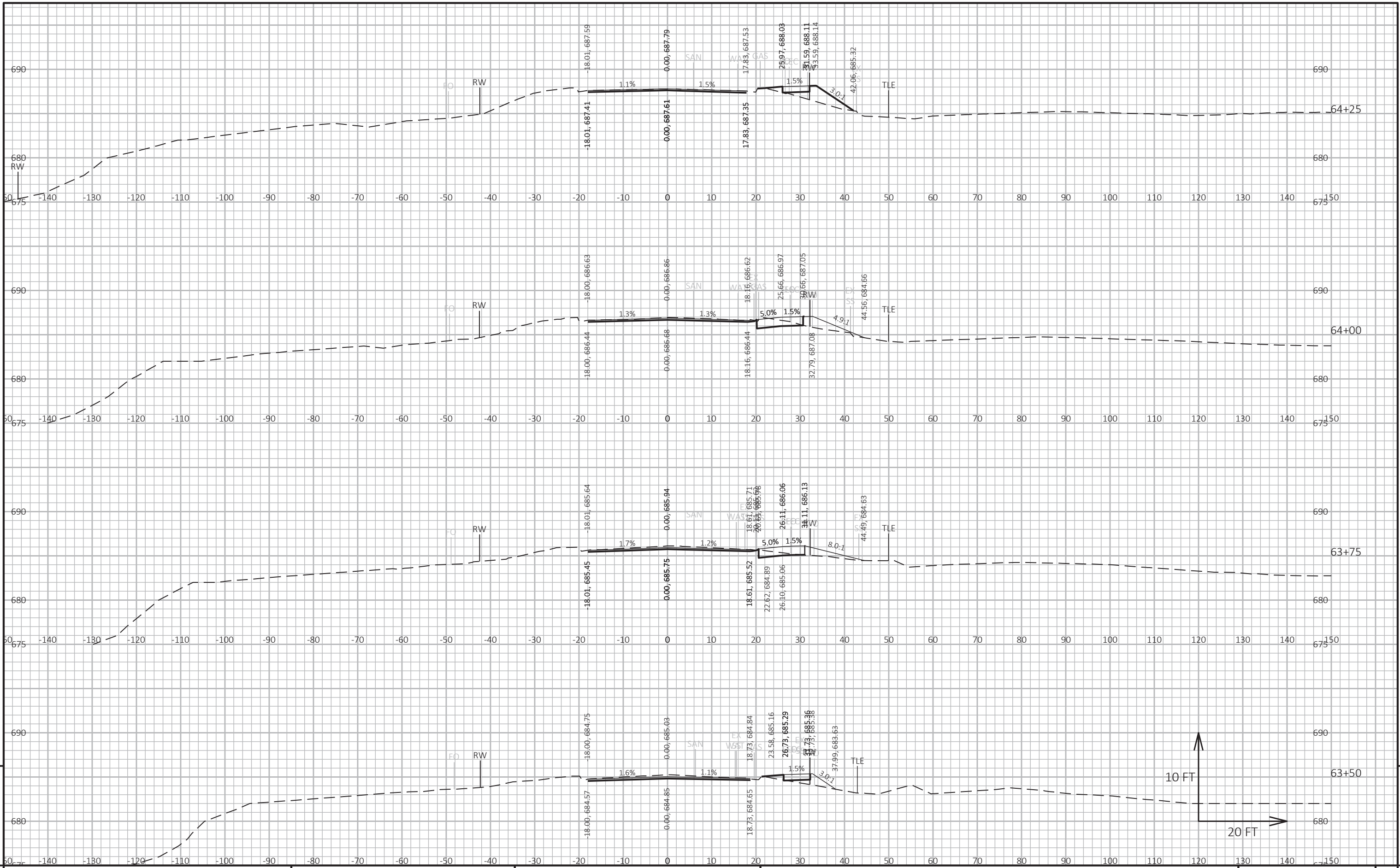
HWY: ALLOUEZ AVENUE

COUNTY: BROWN

CROSS SECTIONS: ALLOUEZ AVENUE

SHEET

E



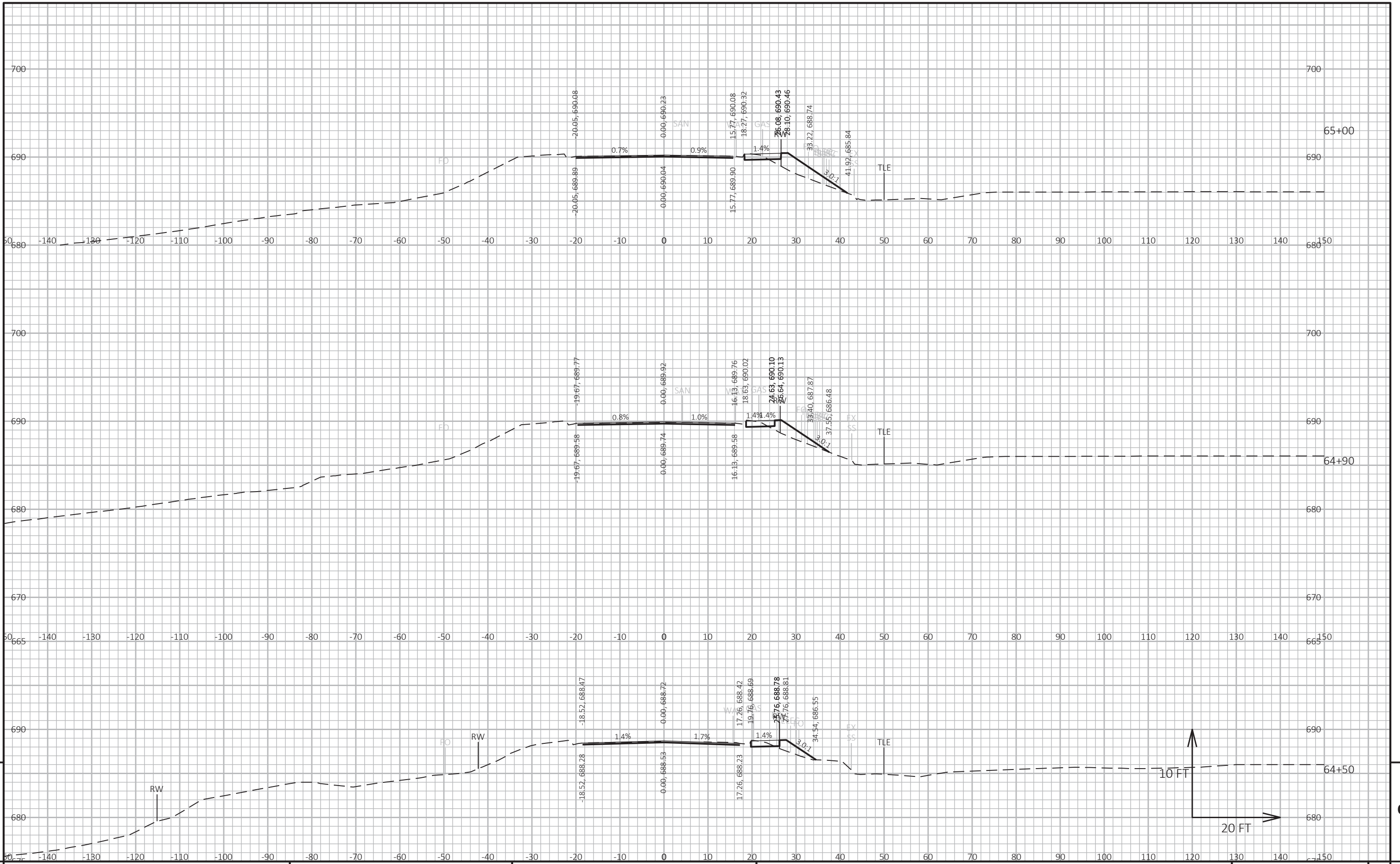
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090261_XS



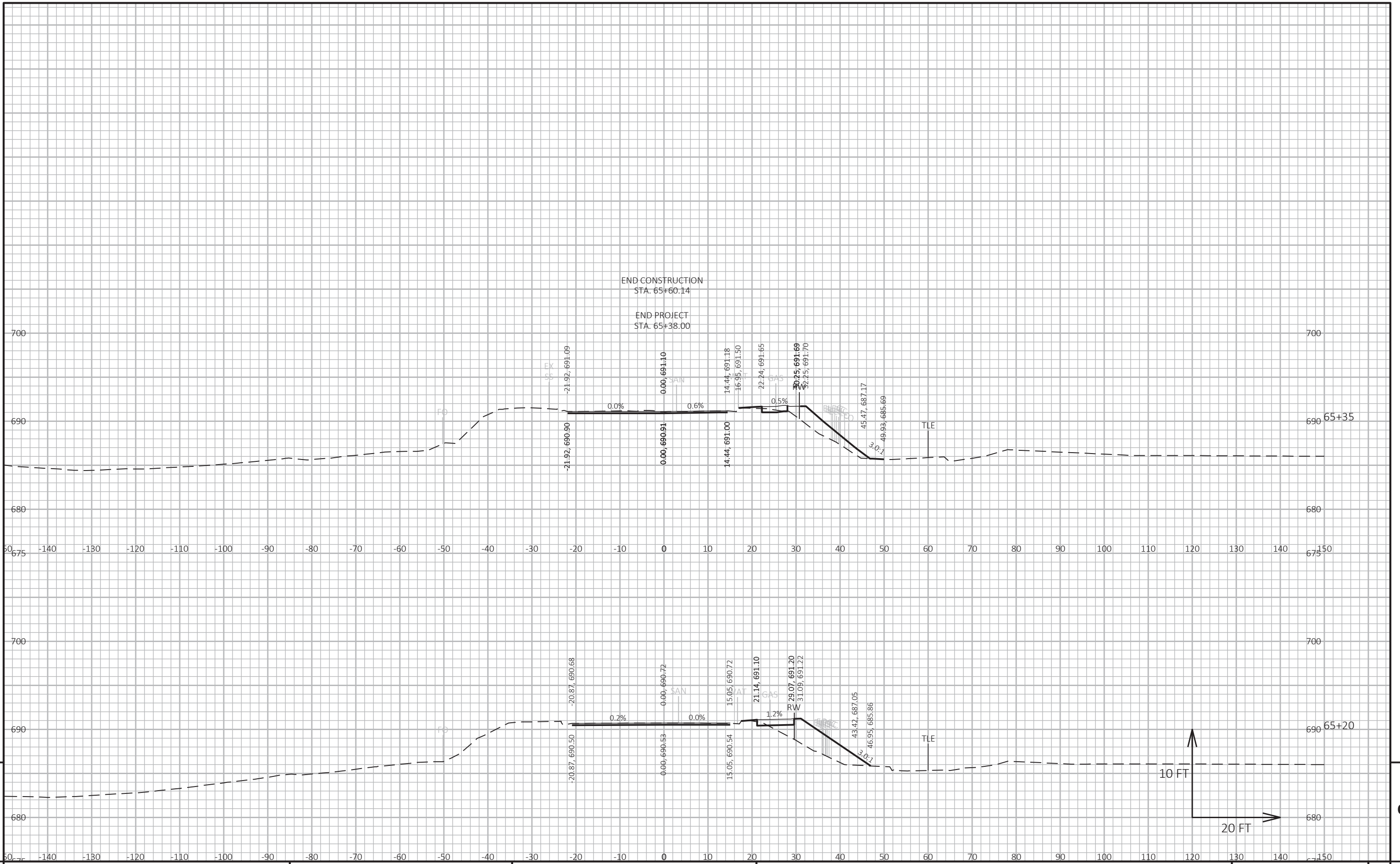
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PROJECT NO: 4516-10-71 HWY: ALLOUEZ AVENUE COUNTY: BROWN CROSS SECTIONS: ALLOUEZ AVENUE SHEET E

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LAYOUT NAME - 090262_XS



PROJECT NO: 4516-10-71	HWY: ALLOUEZ AVENUE	COUNTY: BROWN	CROSS SECTIONS: ALLOUEZ AVENUE
SHEET			E

Notes



Wisconsin Department of Transportation

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