MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

BITUMINOUS RECLAMATION, AND BITUMINOUS SURFACING

CONSTRUCTION PLAN FOR ___

THIS PLAN CONTAINS 20 SHEETS AND ___ CR 77 (RYAN LAKE DR. NE) CR 75 BETWEEN CSAH 22 (VIKING BLVD.) LOCATED ON____ INDEX DESCRIPTION SHEET NO. GROSS LENGTH EXCEPTIONS-LENGTH TITLE SHEET STATEMENT OF ESTIMATED QUANTITIES END CP 24-19-75 CR 75, STA: 165+05.00 TYPICAL SECTIONS 4-5 DETAILS 6-7 SUPERELEVATION TABULATIONS CONSTRUCTION PLAN 8-13 PERMANENT PAVEMENT MARKING GUIDELINES AND TABS 14 PERMANENT STRIPING LINWOOD BEGIN CP 24-19-75 **PROJECT LOCATION** CR 75, STA: 10+50.00 TOWNSHIP OF LINWOOD DESIGN DESIGNATION (CR 75) ANOKA COUNTY ESAL 20 FUNCTIONAL CLASSIFICATION _ 70 MN/DOT TRANSPORTATION DISTRICT - METRO R VALUE NO. OF TRAFFIC LANES 2 NO. OF PARKING LANES 0 772 DESIGN SPEED 50 MPH ADT (2022) SECTIONS 35, 36, 2, 10, 11 772 STOPPING SIGHT DISTANCE BASED ON: PROJ. ADT (2024) TOWNSHIPS 34, 33 NORTH PROJ. HCADT (2024) 46 HEIGHT OF EYE 3.5' HEIGHT OF OBJECT 2.0' Approved RANGE 22 WEST SOIL FACTOR DESIGN SPEED NOT ACHIEVED AT: TON DESIGN I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF **ANOKA COUNTY** TITLE SHEET THE STATE OF MINNESOTA. HIGHWAY DEPT. SIGNATURE: NO DATE BY CKD APPR REVISION 04/23/2024 2:12:44 PM HECKED BY _____CSO___DATE_03/05/202 24-19-75 Sheet 1 of 20 Sheets COUNTY PROJECT 04-01-2024 NAME: P125-01-00\CR 75 (CSAH 22-CR 77\\Rese\Pn

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE

			STATEMENT OF ESTIMATED QUANT	ΓΙΤΙΕS	
Notes	Item Number	Code	ITEM DESCRIPTION	Unit	TOTAL PROJECT QUANTITIES
notes	item Number	Code	TIEM DESCRIPTION	Onit	ESTIMATED
	2021.501	00010	MOBILIZATION	LUMP SUM	1
1	2104.503	00195	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	30
1	2104.503	00205	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	294
2	2104.504	08000	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	103
3	2104.504	00110	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	482
1	2104.504	00120	REMOVE BITUMINOUS PAVEMENT	SQ YD	495
4	2123.510	00020	MOTOR GRADER	HOUR	24
5	2130.523	00010	WATER	M GALLON	20
6	2211.509	00070	AGGREGATE BASE CLASS 5	TON	847
7	2215.504	00010	FULL DEPTH RECLAMATION	SQ YD	49177
8	2215.507	00010	HAUL FULL DEPTH RECLAMATION (LV)	CU YD	74
9	2221.509	00080	SHOULDER BASE AGGREGATE CLASS 5	TON	2473
10	2232.604	00470	MILL BITUMINOUS PAVEMENT (SPECIAL)	SQ YD	285
	2357.506	00010	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	2512
11,12	2360.509	13200	TYPE SP 9.5 WEARING COURSE MIXTURE (3;B)	TON	59
12	2360.509	24300	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	226
13	2360.509	24300	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	11553
	2531.504	00060	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	103
14	2540.602	00150	MAIL BOX SUPPORT	EACH	40
	2563.601	00001	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1
15,16	2563.601	00010	TRAFFIC CONTROL	LUMP SUM	1
17	2563.613	01100	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	20
	2573.501	00030	EROSION CONTROL SUPERVISOR	LUMP SUM	1
	2574.507	00100	COMMON TOPSOIL BORROW	CU YD	2405
18	2575.508	40003	HYDRAULIC REINFORCED FIBER MATRIX	POUND	546
19	2581.503	00010	REMOVABLE PREFORMED PAVEMENT MARKING TAPE	LIN FT	618
20	2582.503	30104	4" SOLID LINE MULTI-COMPONENT	LIN FT	33740
20	2582.503	30204	4" BROKEN LINE MULTI-COMPONENT	LIN FT	1120
20	2582.503	30404	4" DOUBLE SOLID LINE MULTI-COMPONENT	LIN FT	9717

	CONSTRUCTION NOTES
1	REFERENCE DETAILS (PAGE 4-5) FOR REMOVAL DETAILS
2	ITEM FOR CONCRETE DRIVEWAYS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE
2	STARTING OPERATION.
3	ITEM FOR BITUMINOUS DRIVEWAYS AND STREET APPROACHES. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY
3	OWNER 48 HOURS BEFORE STARTING OPERATION.
4	ITEM USED TO MOVE EXCESS RECLAIM MATERIAL AT THE RECLAIM AREA LIMITS TO CREATE A SMOOTH TRANSITION BETWEEN
	THE PROPOSED AND EXISTING PAVEMENT AND FOR SUPER ELEVATION/GRADE CORRECTION AREAS.
5	WATER TO BE USE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
6	ITEM FOR SUPERELEVATION / GRADE CORRECTION.
7	THIS WORK INCLUDES SPREADING, WATERING, COMPACTING, SHAPING, AND MAINTAINING THE BLENDED RECLAIMED
·	MATERIAL TO THE SPECIFIC PROFILE AND CROSS SECTION.
8	ITEM USED TO HAUL EXCESS RECLAIM FROM TIE-IN POINTS AND REUSED ON SITE.
9	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
10	TO BE USED FOR MILLING STREET APPROACHES AND/OR DETAIL MILLING AREAS AS IDENTIFIED IN THE PLAN.
11	ITEM FOR BITUMINOUS DRIVEWAYS. DRIVEWAYS SHALL BE PAVED AFTER MAINLINE AND BEFORE FINAL STRIPING.
12	CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
13	STREET APPROACHES SHALL BE PAVED AFTER MAINLINE, AND BEFORE FINAL STRIPING
14	MAILBOXES ARE TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION OR AS DIRECTED BY THE LOCAL POSTAL AUTHORITY,
14	CONTRACTOR IS RESPONSIBLE FOR CONTACTING. MAILBOX REMOVAL AND ALL MATERIALS ARE INCIDENTAL TO INSTALLATION.
15	CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY SIGNAGE WHENEVER EXISTING SIGNAGE IS REMOVED.
	TEMPORARY SIGNAGE SHALL BE INCIDENTAL TO TRAFFIC CONTROL.
	ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO, AND BE INSTALLED IN ACCORDANCE WITH, THE MOST CURRENT
16	REVISION OF THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". "DO NOT PASS, PASS WITH CARE, NO
10	CENTER STRIPE, AND STOP HERE ON RED SIGNS SHALL BE INPLACE WHENEVER PERMANENT PAVEMENT MARKINGS ARE NOT
	PRESENT.
17	2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT, SHALL BE INSTALLED 10 DAYS PRIOR TO ANY CONSTRUCTION;
.,	REFERENCE STRIPING PLAN FOR DETAILS.
18	TYPE 3 FERTILIZER AND TYPE 25-121 SEED ARE INCIDENTAL TO THIS ITEM. SEE "BASIS OF PLANNED QUANTITIES" FOR
10	APPLICATION RATES.
	CENTERLINE AND LANE DESIGNATION SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON MILLED SURFACE AND EACH NEW LIFT
19	OF PAVEMENT; SKIPS MUST BE IN PLACE BEFORE THE CONTRACTOR LEAVES FOR THE DAY. CONTRACTOR IS TO REMOVE
	PRIOR TO FINAL STRIPING.
20	FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING. CANNOT BE
20	INSTALLED SOONER THAN 48 HOURS.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT							
	MNDOT STANDARD PLATES						
PLATE NO.	DESCRIPTION						
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)						
9350B	MAILBOX SUPPORT - SWING-AWAY TYPE						

	BASIS OF PLANNED QUANTITIES						
2357	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD					
2211	AGGREGATE BASE CLASS 5	1.8 TONS / CU YD					
2360	ALL BITUMINOUS PAVEMENT	115 LBS / SQ YD / IN THICKNESS					
2581	REMOVABLE PREFORM PAVEMENT MARKING TAPE	2' AT 50' INTERVALS					
2575	SEED MIXTURE 25-121	61 LBS./ ACRE					
2574	FERTILIZER TYPE 3	350 LBS./ ACRE					
2575	HYDRAULIC REINFORCED FIBER MATRIX	3900 LBS./ ACRE					

BITUMINOUS STREET SUMMARY						
	BITUMINOUS					
LOCATION	2360 TYPE SP 12.5 WEAR (4,C)	NOTES				
	TON					
HEIDELBERG ST	42	[1]				
217TH AVE	66	[1]				
PROJECT TOTAL	216					

BITUMINOUS SUMMARY NOTES:	
[1] QUANTITY ESTIMATED FOR 2 LIFTS	

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.
PRINT NAME:
GERALD J. AUGE JR.
SIGNATURE:

04-01-2024
26511

DRAWN BY ____DLD___ DATE _02/06/2024

CHECKED BY <u>CSO</u> DATE <u>03/05/2024</u>

ANOKA COUNTY HIGHWAY DEPT. STATEMENT OF ESTIMATED QUANTITIES

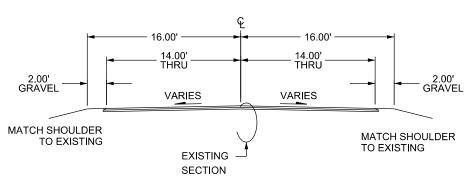
24-19-75 COUNTY PROJECT _

Sheet 2 of 20 Sheets

CR 75 - 217TH AVE. / SUNRISE RD.

(EXISTING SECTION)

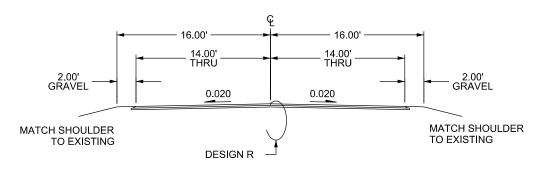
10+50.00 - 165+05.00



CR 75 - 217TH AVE. / SUNRISE RD.

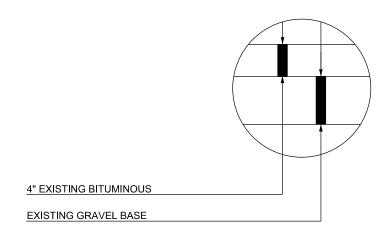
(PROPOSED) SECTION

10+50.00 - 165+05.00

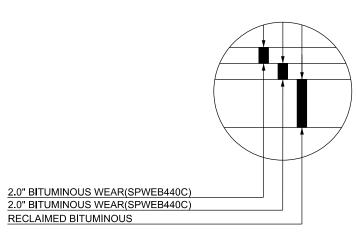


* BUMP OUT 1.0' ON LOW SIDE OF ALL SUPERS *

EXISTING SECTION



DESIGN R RECLAIM SECTION



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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: GERALD J. AUGE JR.

DRAWN BY _____DLD____DATE _02/06/2022

DESIGN BY _____DLD____DATE _02/06/2022

CHECKED BY _____CSO____DATE _03/05/2022



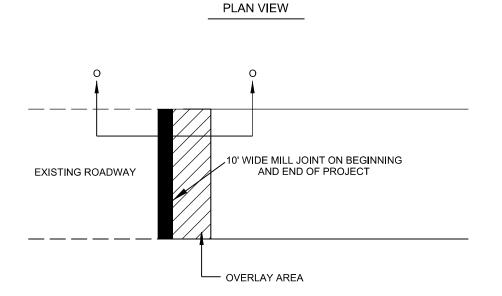
ANOKA COUNTY HIGHWAY DEPT.

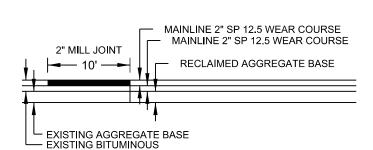
TYPICAL SECTIONS

COUNTY PROJECT _____24-19-75

Sheet 3 of 20 Sheets

MAINLINE JOINT DETAIL (RECLAIM)



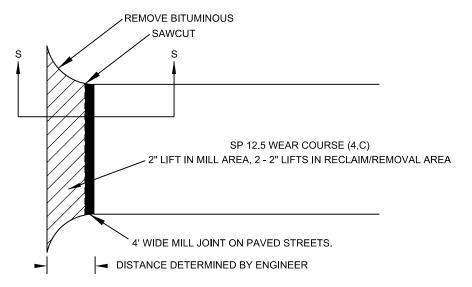


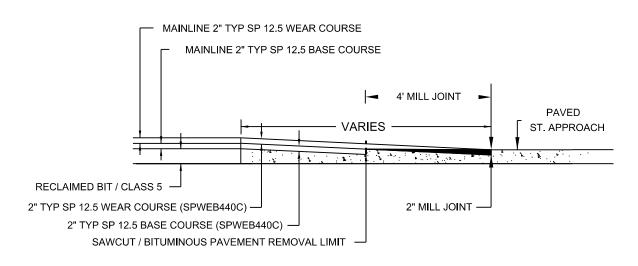
SECTION O - O

STREET APPROACH DETAIL (RECLAIM)

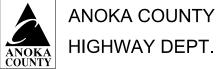
BITUMINOUS STREET







F								LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF	DRAWN BYDLD DATE02/06/2024		ANOKA
								/3204	DESIGN BYDLD DATE _02/06/2024		HIGHW
E	NO NAME: F	DATE P:\25-01-00\CR_	BY 75_(CSAH :	CKD 22-CR 77)\I	 REVISION psed\CR_75_DETAIL	04/23/2024 S.dgn	2:12:51 PM	SIGNATURE:	CHECKED BY <u>CSO</u> DATE <u>03/05/2024</u>	ANOKA COUNTY	THGITVV

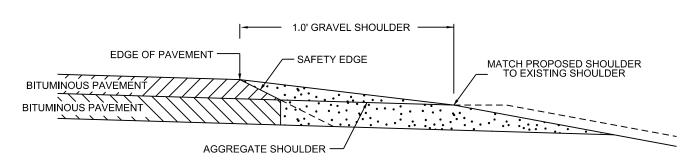


24-19-75 COUNTY PROJECT

DETAILS Sheet 4 of 20 Sheets

SHOULDER DETAIL

BITUMINOUS SAFETY EDGE **GRAVEL SHOULDER**

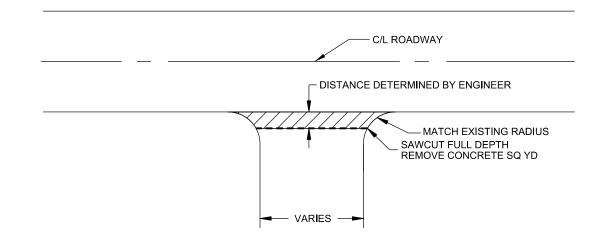


SAFETY EDGE TO BE USED IN ALL NON-CURB AREAS ON SHOULDER.

OPTIONAL DESIGN EXTENDS SAFETY EDGE DEEPER THAN 6" AND WIDER THAN 10.5". SEE SPECIAL PROVISIONS .

DRIVEWAY DETAIL

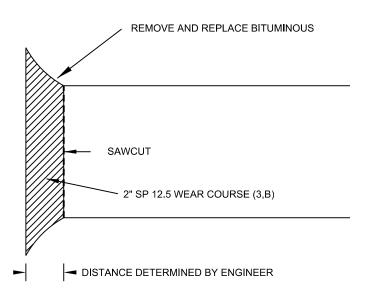
CONCRETE DRIVEWAY



RECLAIM AREA - DRIVEWAY DETAIL

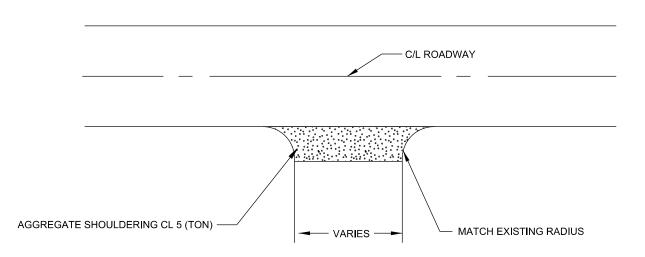
BITUMINOUS

PLAN VIEW



DRIVEWAY DETAIL

GRAVEL / FIELD ENTRANCE



COUNTY PROJECT

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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. GERALD J. AUGE JR

26511

04-01-2024

RAWN BY ____DLD__ DATE _02/06/2024 CHECKED BY __CSO__ DATE _03/05/202

ANOKA COUNTY HIGHWAY DEPT.

24-19-75

DETAILS

Sheet <u>5</u> of <u>20</u> Sheets

	SUPERELEVATION CORRECTION 1	TAB FOR CURV	E 1	
39+50	BEG TRANS RT	-2.0%	-2.0%	
40+00		-2.0%	-1.0%	
40+50		-2.0%	0.0%	1
41+00		-2.0%	1.0%	1
41+50	BEG TRANS LT	-2.0%	2.0%	1
42+00		-3.0%	3.0%	1
42+50		-4.0%	4.0%	
43+00		-5.0%	5.0%	1
43+55	PC / BEG FULL SUPER	-6.0%	6.0%	1
44+00		-6.0%	6.0%	1
44+50		-6.0%	6.0%	
45+00		-6.0%	6.0%	
45+50		-6.0%	6.0%	
45+95	PCC	-6.0%	6.0%	
46+50		-6.0%	6.0%	
47+00		-6.0%	6.0%	1
47+66	PCC	-6.0%	6.0%	-
48+00		-6.0%	6.0%	
48+50		-6.0%	6.0%	CURVE
49+00		-6.0%	6.0%	ਹ
49+50		-6.0%	6.0%	
50+00		-6.0%	6.0%	
50+50		-6.0%	6.0%	
51+00		-6.0%	6.0%	
51+50		-6.0%	6.0%	
52+00		-6.0%	6.0%	
52+39	PT / END FULL SUPER	-6.0%	6.0%	1
53+00		-5.0%	5.0%	1
53+50		-4.0%	4.0%	
54+00		-3.0%	3.0%	
54+50	END TRANS LT	-2.0%	2.0%	
55+00		-2.0%	1.0%	
55+50		-2.0%	0.0%	
56+00		-2.0%	-1.0%	
56+50	END TRANS RT	-2.0%	-2.0%	
57+00		-2.0%	-2.0%	

	SUPERELEVATION CORRECTION	N TAB CURVE 2		
STATION	POINT	LEFT GRADE	RIGHT GRADE	
58+00		-2.0%	-2.0%	
58+50	BEG TRANS LT	-2.0%	-2.0%	
59+00		-1.0%	-2.0%	
59+50		0.0%	-2.0%	
60+00		1.0%	-2.0%	
60+50	BEG TRANS RT	2.0%	-2.0%	
61+00		3.0%	-3.0%	
61+50		4.0%	-4.0%	
61+82	PC / BEG FULL SUPER	5.0%	-5.0%	2
62+50		5.0%	-5.0%	
63+00		5.0%	-5.0%	≥
63+50		5.0%	-5.0%	CURVE
64+00		5.0%	-5.0%	
64+50		5.0%	-5.0%	
65+00		5.0%	-5.0%	
65+50		5.0%	-5.0%	
66+00		5.0%	-5.0%	
66+50		5.0%	-5.0%	
67+00		5.0%	-5.0%	
67+50		5.0%	-5.0%	
68+10	PT	5.0%	-5.0%	
68+50		5.0%	-5.0%	

	SUPERELEVATION CORRECTION I	AD COKVE 3 AN	10 4	
69+00		5.0%	-5.0%	
69+50		5.0%	-5.0%	7
70+04	PC	5.0%	-5.0%	7
70+50		5.0%	-5.0%	7
71+00		5.0%	-5.0%	1
71+41	PCC	5.0%	-5.0%	1
72+00		5.0%	-5.0%	1
72+50		5.0%	-5.0%	1
73+00		5.0%	-5.0%	ლ
73+63	PCC/ END FULL / BEG TRANS	5.0%	-5.0%	CURVE
74+00		4.3%	-4.3%	75
74+50		3.3%	-3.3%	7 ~
75+00		2.4%	-2.4%	1
75+50		1.4%	-1.4%	1
76+00		0.4%	-0.4%	1
76+22		0.0%	0.0%	┪
76+50		-0.6%	0.6%	┨
76+65	PT	-1.0%	1.0%	1
77+00		-1.8%	1.8%	1
77+55	PC	-3.1%	3.1%	+
78+00	10	-4.1%	4.1%	+
78+50		-5.3%	5.3%	-
78+81	PCC / BEG FULL / END TRANS	-6.0%	6.0%	+
79+50	FCC / BEG FULL / END TRANS	-6.0%	6.0%	+
80+00		-6.0%	6.0%	+
80+50		-6.0%	6.0%	-
81+00		-6.0%	6.0%	-
81+50		-6.0%	6.0%	-
82+00		-6.0%	6.0%	-
82+50		-6.0%	6.0%	-
83+00		-6.0%	6.0%	4
				4
83+50	POO.	-6.0%	6.0%	4
84+00	PCC	-6.0%	6.0%	4
84+50		-6.0%	6.0%	CURVE
85+00		-6.0%	6.0%	∮ €
85+50	DT / END EUL GUDED	-6.0%	6.0%	⊒ Շ
85+92	PT / END FULL SUPER	-6.0%	6.0%	4
86+50		-5.0%	5.0%	4
87+00		-4.0%	4.0%	4
87+50		-3.0%	3.0%	4
88+00	END TRANS LT	-2.0%	2.0%	4
88+50		-2.0%	1.0%	4
89+00		-2.0%	0.0%	4
89+50		-2.0%	-1.0%	4
90+00	END TRANS RT	-2.0%	-2.0%	4
90+50		-2.0%	-2.0%	4
91+00		-2.0%	-2.0%	4
91+50		-2.0%	-2.0%	4
92+00		-2.0%	-2.0%	4
92+50		-2.0%	-2.0%	

SUPERELEVATION CORRECTION TAB CURVE 3 AND 4

	SUPERELEVATION CORRECTION TAB CURVE 5 AND 6						
STATION	POINT	LEFT GRADE	RIGHT GRADE				
97+00		-2.0%	-2.0%				
97+50		-2.0%	-2.0%				
98+00	BEG TRANS LT	-2.0%	-2.0%				
98+50		-1.0%	-2.0%				
99+00		0.0%	-2.0%				
99+50		1.0%	-2.0%				
100+00	BEG TRANS RT	2.0%	-2.0%				
100+50		3.0%	-3.0%				
101+00		4.0%	-4.0%				
101+33	PC / BEG FULL SUPER	5.0%	-5.0%				
102+00		5.0%	-5.0%				
102+69	PCC	5.0%	-5.0%	1			
103+00		5.0%	-5.0%	E 5			
103+50		5.0%	-5.0%	₹			
104+00		5.0%	-5.0%	CURVE			
104+50		5.0%	-5.0%				
105+00		5.0%	-5.0%				
105+63	PCC/ TRANS TO	5.0%	-5.0%				
106+00		5.0%	-5.0%	•			
106+50		5.0%	-5.0%				
106+94	PT / END FULL SUPER	5.0%	-5.0%				
107+50		4.0%	-4.0%				
108+00		3.0%	-3.0%				
108+50	END TRANS RT	2.0%	-2.0%	•			
109+00		1.0%	-2.0%	-			
109+50		0.0%	-2.0%	-			
110+00		-1.0%	-2.0%				
110+50	END TRANS LT	-2.0%	-2.0%				
111+00	BEG TRANS RT	-2.0%	-2.0%				
111+50		-2.0%	-1.0%				
112+00		-2.0%	0.0%				
112+50		-2.0%	1.0%	-			
113+00	BEG TRANS LT	-2.0%	2.0%				
113+50		-3.0%	3.0%				
114+22	PC	-4.0%	4.0%				
114+50		-5.0%	5.0%	-			
115+18	PCC / BEG FULL SUPER	-6.0%	6.0%				
115+50		-6.0%	6.0%				
116+00		-6.0%	6.0%	-			
116+50		-6.0%	6.0%	9 :			
117+00		-6.0%	6.0%	URVE			
117+50		-6.0%	6.0%	Ä			
118+00		-6.0%	6.0%				
118+43	PCC	-6.0%	6.0%	1			
119+00		-6.0%	6.0%	1			
119+50		-6.0%	6.0%	1			
120+00		-6.0%	6.0%	1			
120+50		-6.0%	6.0%	1			
121+00		-6.0%	6.0%	1			
121+33	PT	-6.0%	6.0%	1			
122+00		-3.8%	3.8%	1			
122+50		-2.1%	2.1%	1			
123+00		-0.5%	0.5%	1			

NO	DATE	BY	CKD	APPR	REVISION	04/23/2024	2:12:52 PM
NAME:	NAME: P:\25-01-00\CR_75_(CSAH 22-CR 77)\Base\Proposed\CR_75_DETAILS.dgn						

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME:

GERALD J. AUGE JR.

SIGNATURE:

04-01-2024
26511

04-01-2024

26511

DRAWN BY ____DLD___ DATE _02/06/2024 DESIGN BY ____DLD___ DATE _02/06/2024

CHECKED BY <u>CSO</u> DATE <u>03/05/2024</u>



ANOKA COUNTY HIGHWAY DEPT.

SUPERELEVATION TABULATIONS

24-19-75 COUNTY PROJECT _

Sheet 6 of 20 Sheets

Т	ND 9	B CURVE 7. 8 A	SUPERELEVATION CORRECTION TA	
+	0.0%	0.0%		123+15
	-1.0%	1.0%		123+50
	-2.3%	2.3%		124+00
	-3.7%	3.7%		124+50
	-5.0%	5.0%	PC	124+96
	-6.0%	6.0%	BEG FULL SUPER	125+50
٦,	-6.0%	6.0%		126+00
CURVE	-6.0%	6.0%		126+50
∣ ଝୁ	-6.0%	6.0%		127+00
⊣ ರ	-6.0%	6.0%	PCC	127+69
	-5.5%	5.5%		128+00
_	-5.0%	5.0%		128+50
	-4.5%	4.5%		129+00
	-4.0%	4.0%		129+50
\dashv	-4.0%	4.0%		130+00
_	-4.0%	4.0%		130+50
+	-4.0%	4.0%		131+00
	-4.0%	4.0%		131+50
_	-4.5%	4.5%	PCC	132+15
_	-5.0%	5.0%	PCC BEG FULL SUPER	132+78
	-5.0%	5.0%		133+00
_	-5.0%	5.0%		133+50
-	-5.0%	5.0%		134+00
⊢ ‰	-5.0%	5.0%		134+50
≓≒	-5.0%	5.0%		135+00
CURVE	-5.0%	5.0%		135+50
٦°	-5.0%	5.0%	PCC / TRANS TO 5%	135+63
	-5.0%	5.0%		136+00
	-5.0%	5.0%		136+50
	-5.0%	5.0%		137+00
	-5.0%	5.0%	PT	137+33
	-5.0%	5.0%		138+00
	-5.0%	5.0%		138+50
	-5.0%	5.0%		139+00
	-5.0%	5.0%		139+50
	-5.0%	5.0%	PC	140+06
	-5.0%	5.0%		140+50
	-5.0%	5.0%		141+00
	-5.0%	5.0%		141+50
	-5.0%	5.0%		142+00
∣ ଚ	-5.0%	5.0%		142+50
- RVE	-5.0%	5.0%		143+00
∣ ଝୁ	-5.0%	5.0%		143+50
⊣ ვ	-5.0%	5.0%	PT END FULL SUPER	143+75
	-4.0%	4.0%		144+50
	-3.0%	3.0%		145+00
	-2.0%	2.0%	END TRANS RT	145+50
	-2.0%	1.0%		146+00
	-2.0%	0.0%		146+50
	-2.0%	-1.0%		147+00
	-2.0%	-2.0%	END TRANS LT	147+50

SU	SUPERELEVATION CORRECTION TAB CURVE 10 AND 11					
STATION	POINT	LEFT GRADE	RIGHT GRADE			
149+50		-2.0%	-2.0%	\vdash		
150+00		-2.0%	-1.0%	1		
150+50		-2.0%	0.0%	ł		
151+00		-2.0%	1.0%	1		
151+50		-2.0%	2.0%	1		
152+00		-3.0%	3.0%	1		
152+50		-4.0%	4.0%	١.		
153+00		-5.0%	5.0%	1		
153+50	PC / BEG FULL SUPER	-5.0%	5.0%	ָ ֡ ֡ ֡		
154+00		-5.0%	5.0%	9		
154+50		-5.0%	5.0%	۱ ۹		
155+00		-5.0%	5.0%	1		
155+50		-5.0%	5.0%	1		
156+00		-5.0%	5.0%	1		
156+50		-5.0%	5.0%	1		
157+00		-5.0%	5.0%	1		
157+67	PT/ TRANS	-5.0%	5.0%	1		
158+30	PC	-5.0%	5.0%	H		
159+00		-5.0%	5.0%	1		
159+50		-5.0%	5.0%	1		
160+16	PCC / END TRANS	-5.0%	5.0%	1		
160+50		-5.0%	5.0%	1		
161+00		-5.0%	5.0%	1		
161+50		-5.0%	5.0%	١.		
162+00		-5.0%	5.0%	13		
162+50		-4.0%	4.0%	וֹן		
162+76	PT	-3.0%	3.0%	1		
163+00		-2.0%	2.0%	۱'		
163+69	PC	-2.0%	1.0%	1		
164+00		-2.0%	0.0%	1		
164+41	PT	-2.0%	-1.0%	1		
164+50		-2.0%	-2.0%	1		
165+00		-2.0%	-2.0%	1		
165+50		-2.0%	-2.0%	1		

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NO	DATE	BY	CKD	APPR	REVISION	04/23/2024	2:12:57 PM	,
NAME:	P:\25-01-00\CR	75 (CSAH:	22-CR 77)\I	Base\Propo	sed\CR 75 DETAILS.c	dgn		

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OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
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THE STATE OF MINNESOTA.
PRINT NAME:
GERALD J. AUGE JR.
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04-01-2024
26511

04-01-2024

DRAWN BY ____DLD___ DATE _02/06/2024 DESIGN BY ____DLD__ DATE _02/06/2024

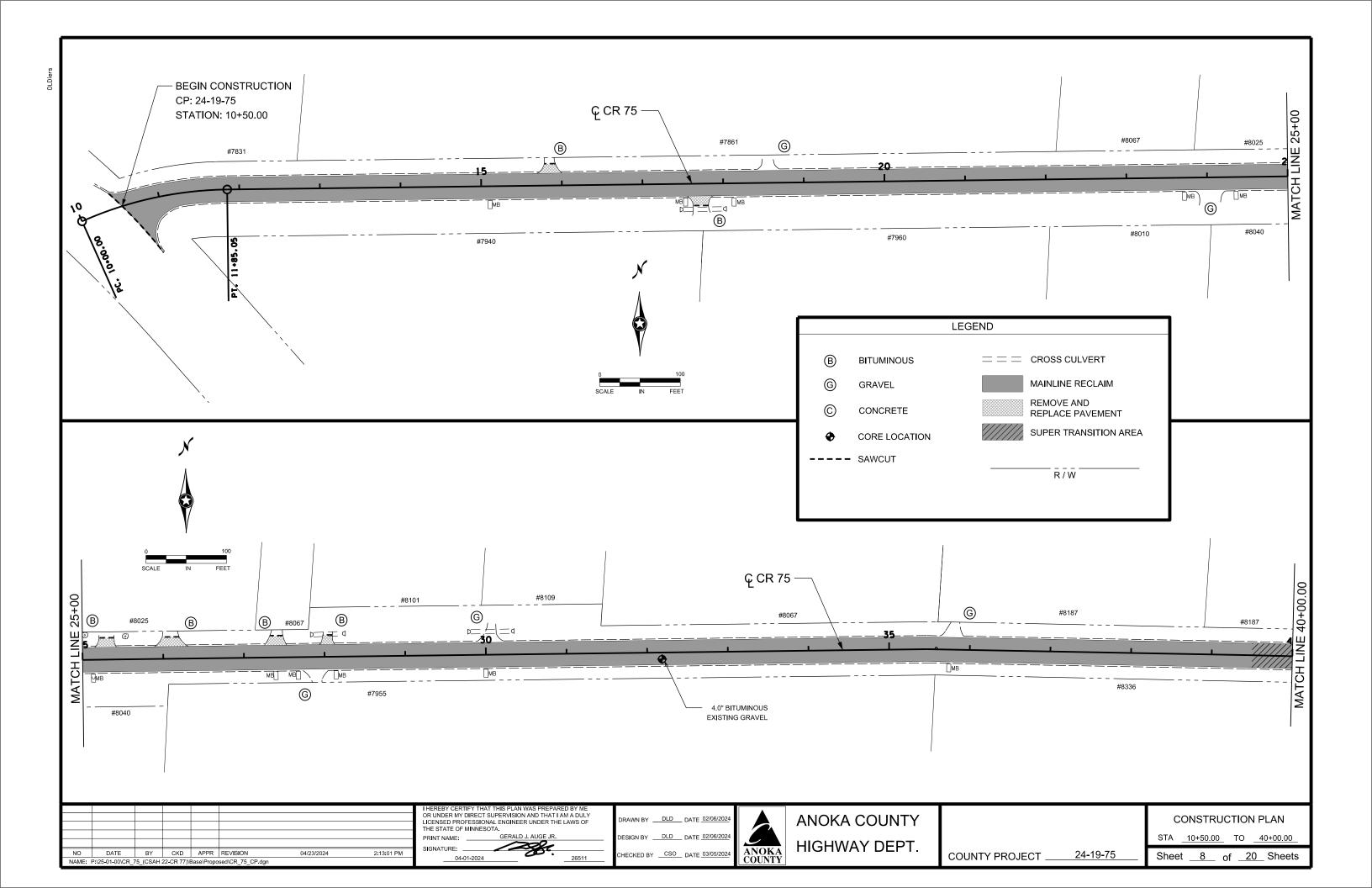
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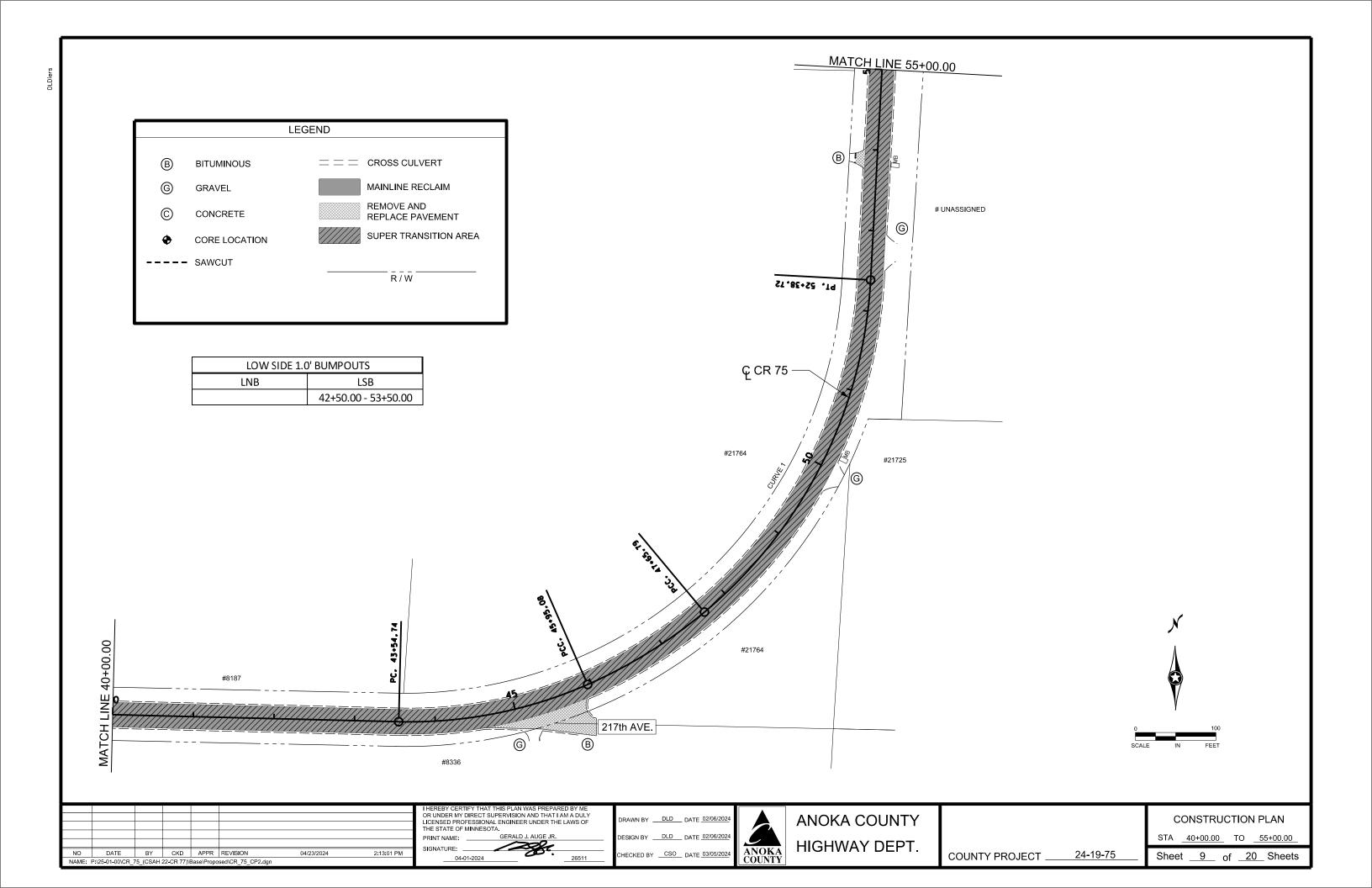
ANOKA COUNTY HIGHWAY DEPT.

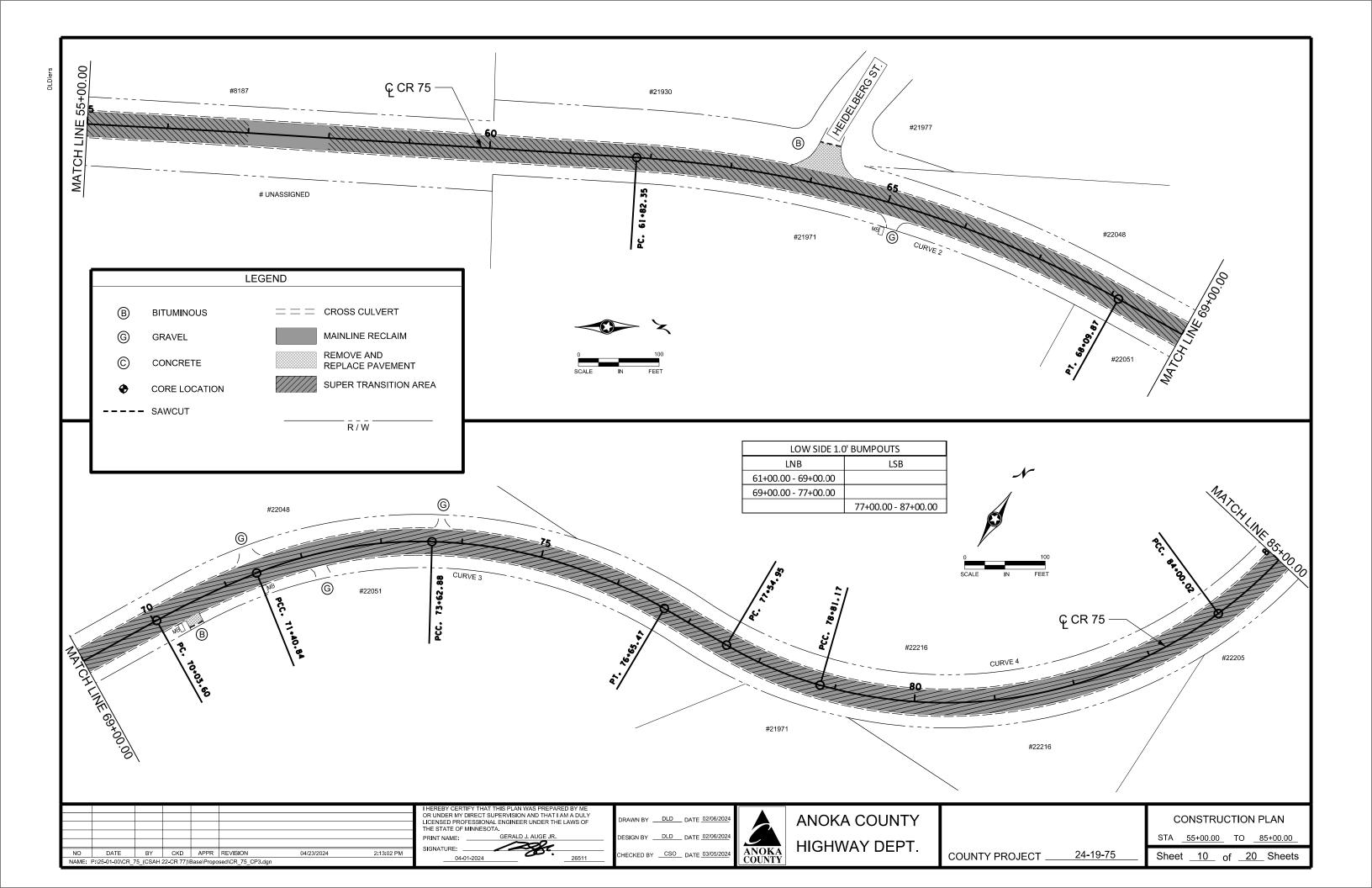
SUPERELEVATION TABULATIONS

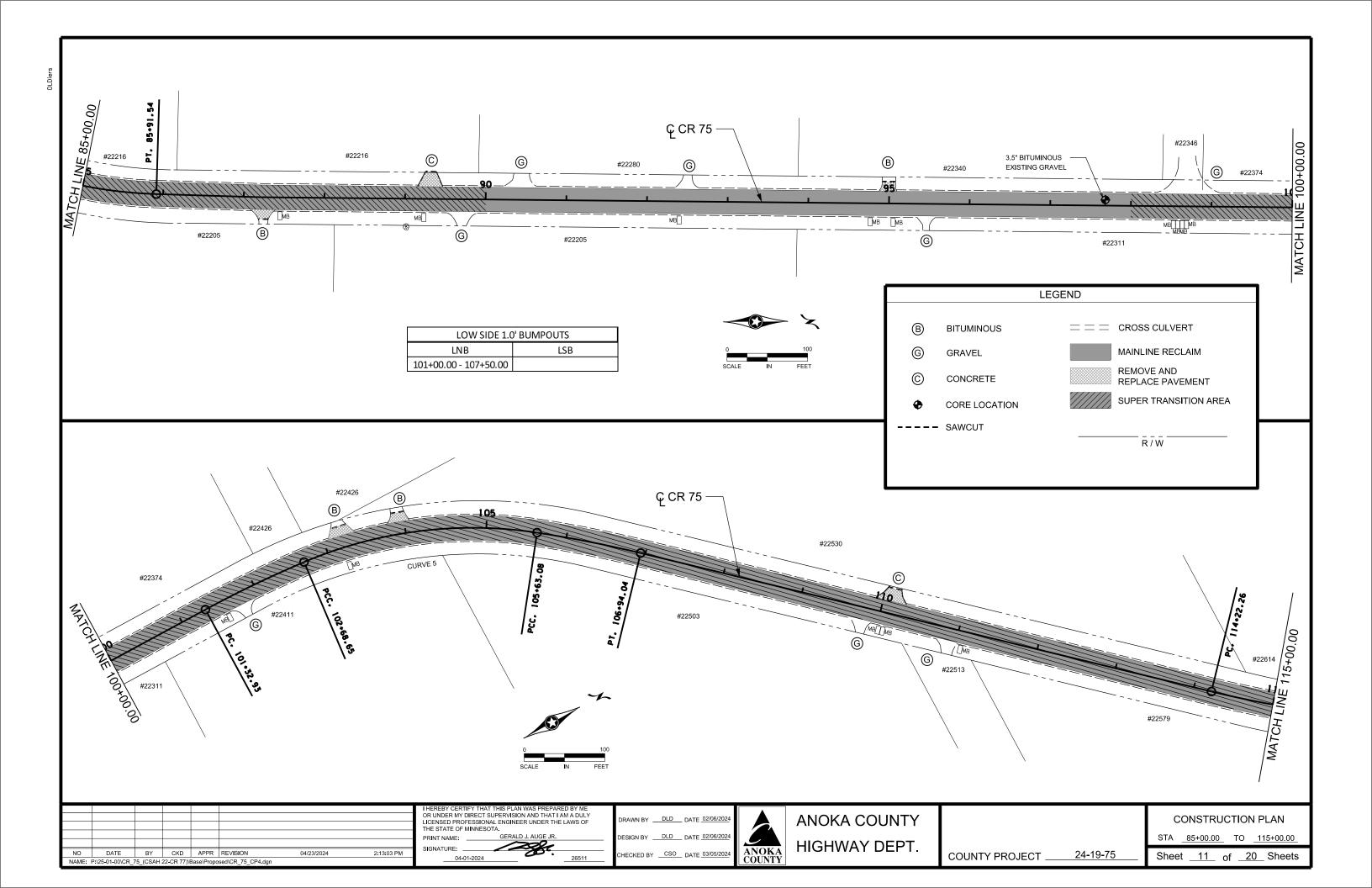
24-19-75 COUNTY PROJECT _

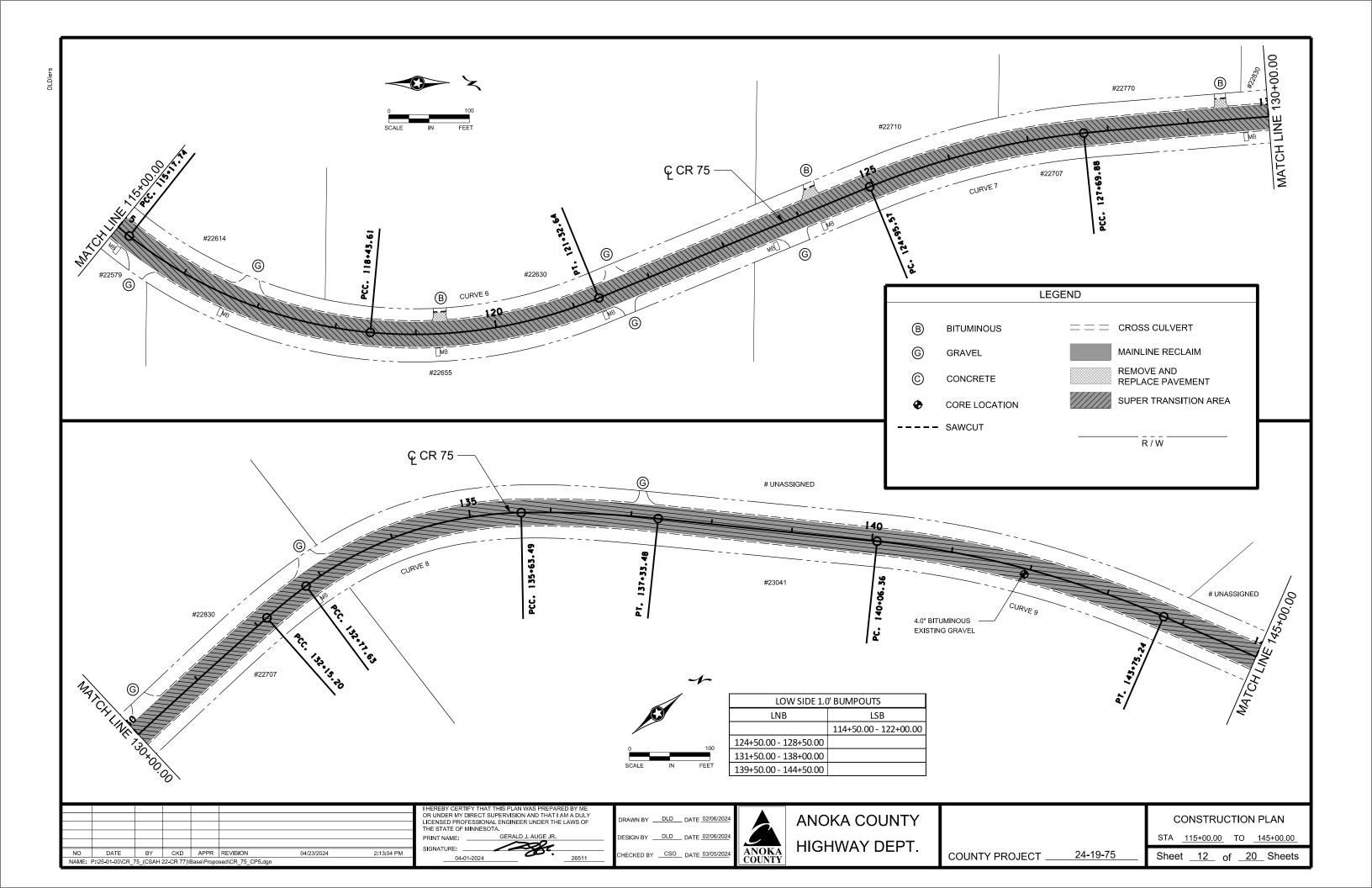
Sheet 7 of 20 Sheets

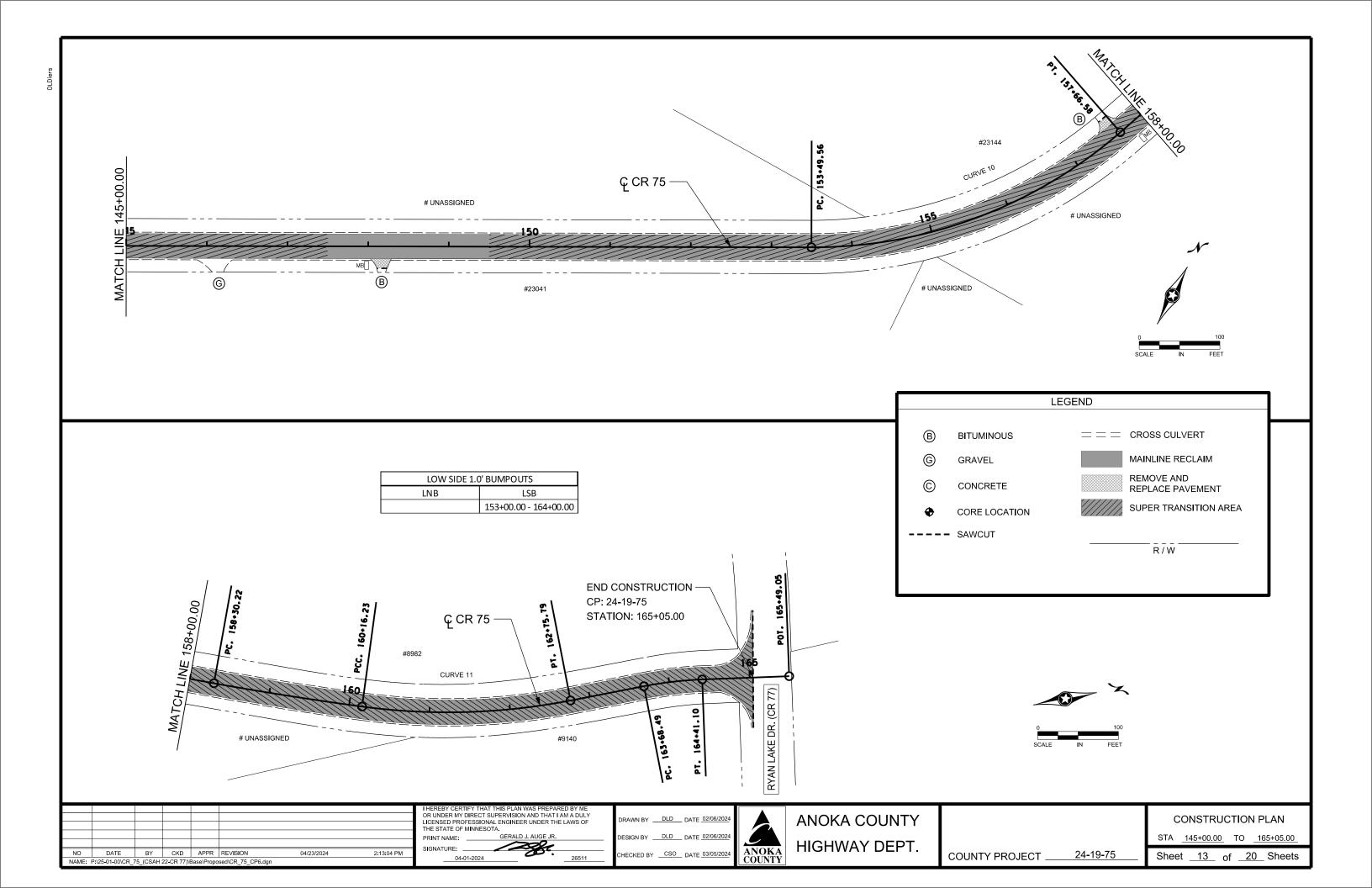












PERMANENT PAVEMENT MARKING PLAN NOTES & GUIDELINES

GENERAL INFORMATION:

- 1. THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. ANOKA COUNTY HIGHWAY DEPARTMENT WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.
- 2. EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.
- 3. A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS. ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.
- 4. PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.
- 5. THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

MULTI-COMPONENT (MULTI-COMP):

- 1. THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENT AND/OR LAITANCE ON LOW SPEED (SPEED LIMIT 35 MPH OR LESS) URBAN PORTLAND CEMENT CONCRETE ROADWAYS. SANDBLAST CLEANING SHALL BE USED FOR ALL MULTI-COMP PAVEMENT MARKINGS.
- 2. THE MULTI-COMP MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE MULTI-COMP LINE TO PROVIDE AN IMMEDIATE NO-TRACK SYSTEM.
- 3. A MULTI-COMP LINE SHALL BE APPLIED WITH A MINIMUM THICKNESS OF 20 MILS (WET) AND 4" WIDE . GLASS BEADS SHALL BE APPLIED AT A MINIMUM RATE OF 25 LBS POUNDS PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.
- 4. PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR AND PAVEMENT SURFACE TEMPERATURES ARE 40° OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILM OR DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

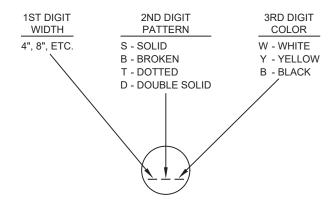
PAVEMENT MARKING TABULATION						
ITEM DESCRIPITION	LINUT	TOTAL QUANTITY				
TI EW DESCRIPTION	UNIT	WHITE	YELLOW			
4" SOLID LINE MULTI-COMP	LIN FT	30,517	3,223			
4" SOLID DOUBLE LINE MULTI-COMP	LIN FT		9,717			
4" BROKEN LINE MULTI-COMP	LIN FT		1,120			

PAVEMENT MARKING SYMBOLS & MATERIALS LEGEND

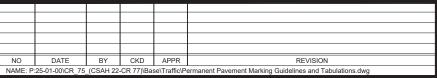
BROKEN LINE - 50' CYCLE (10' LINE, 40' GAP)

STRIPING KEY

CIRCLE - MULTI-COMP



EXAMPLE: (4SW) = 4" SOLID LINE WHITE MULTI-COMP



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: SEAN R. THIEL

SIGNATURE: 4444 45 744

DATE: 03/08/2024 LICENSE NO. 45129

DRAWN BY __FL __ DATE __03/05/24 __

DESIGN BY __FL __ DATE __03/05/24 __

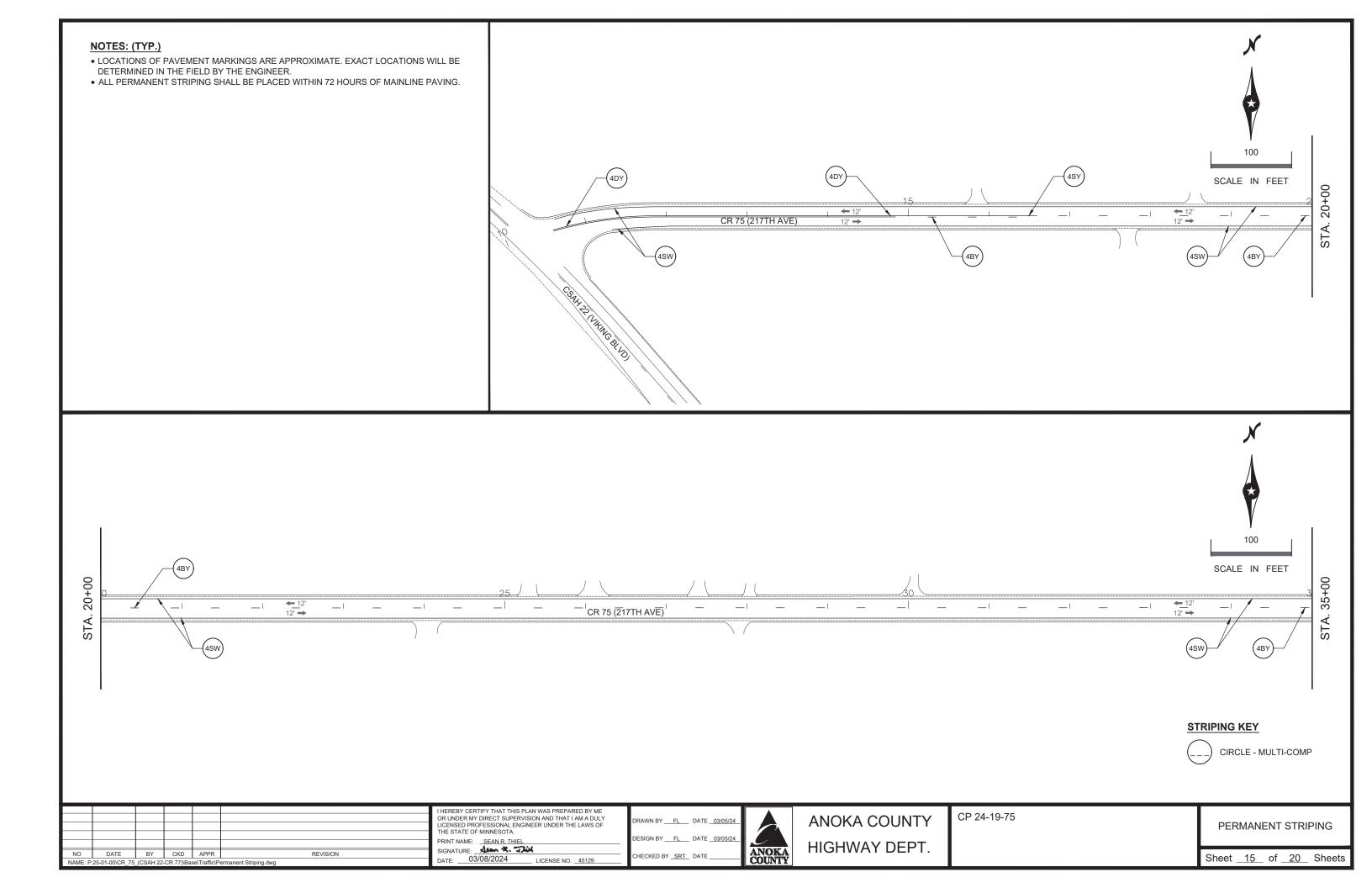
CHECKED BY __SRT __ DATE __

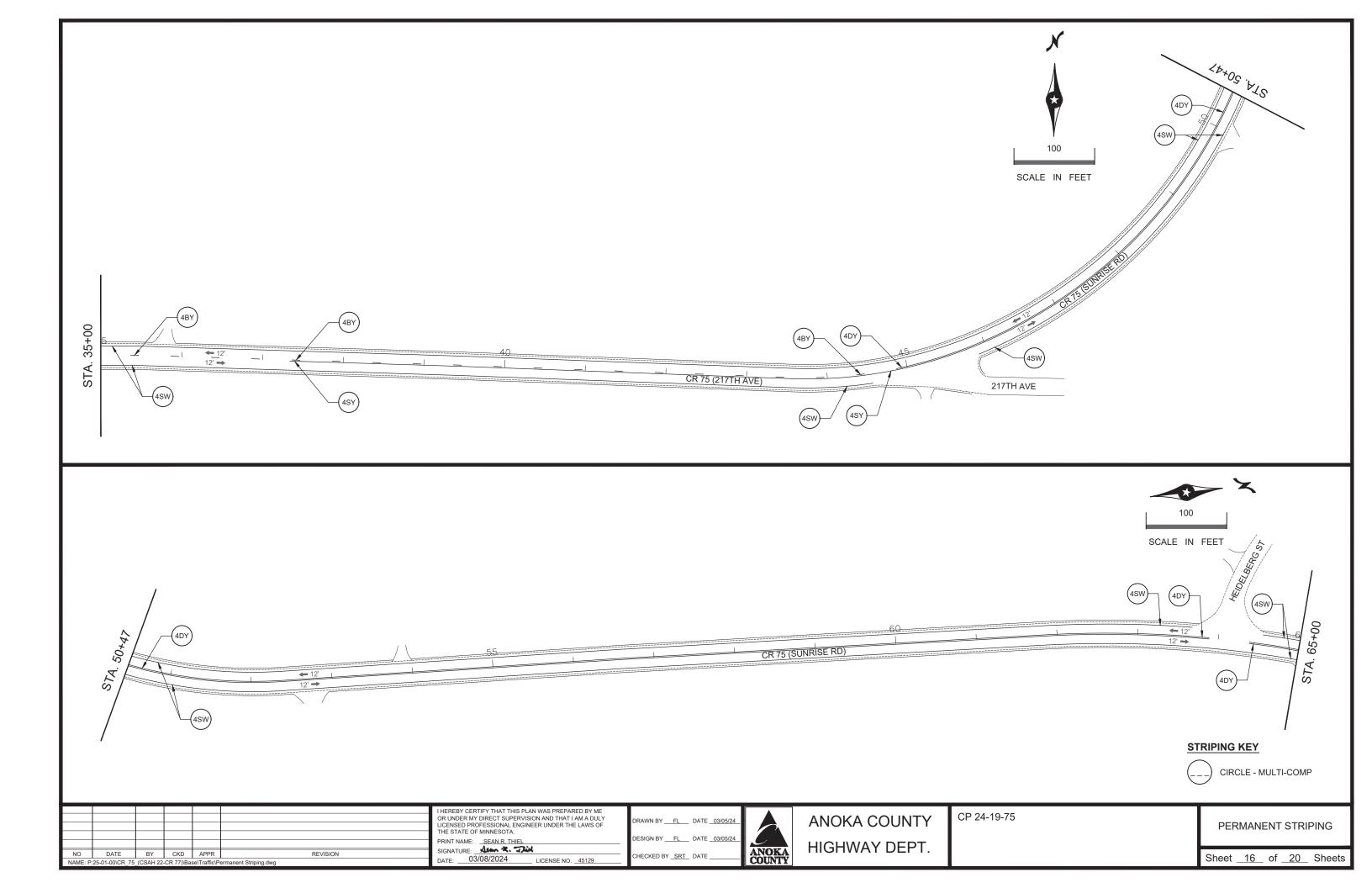


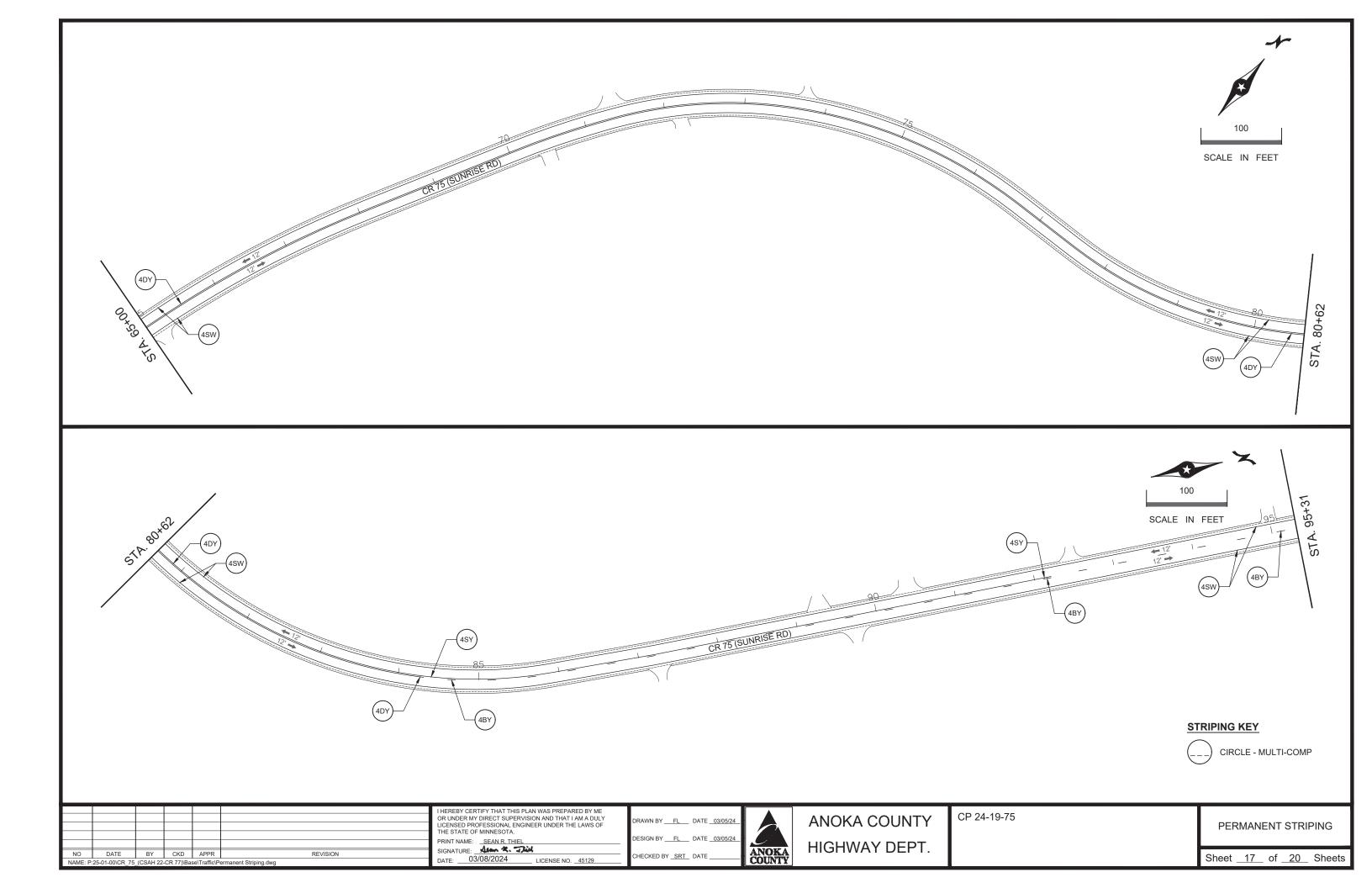
ANOKA COUNTY HIGHWAY DEPT. CP 24-19-75

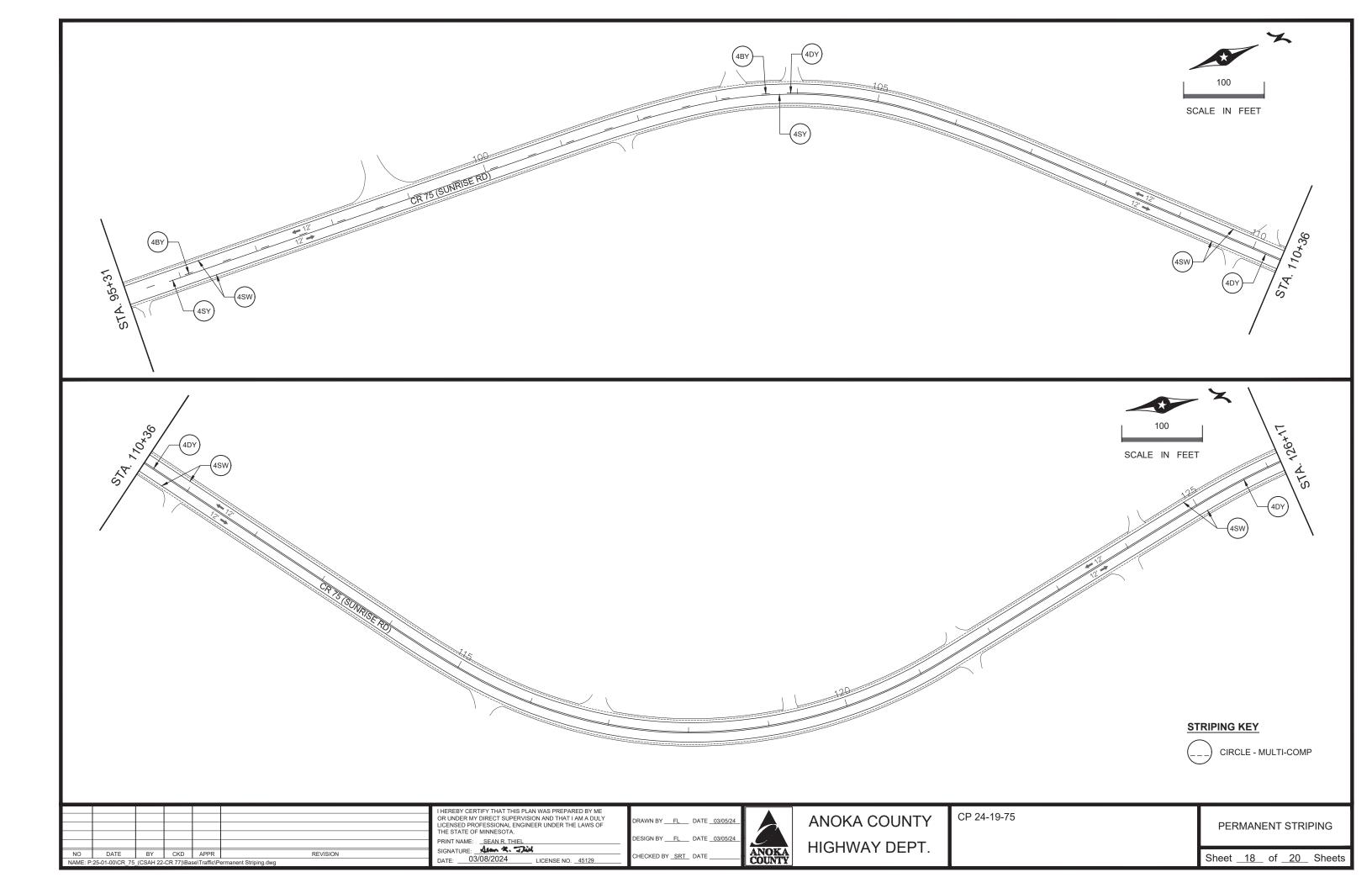
PERMANENT PAVEMENT MARKING GUIDELINES AND TABULATIONS

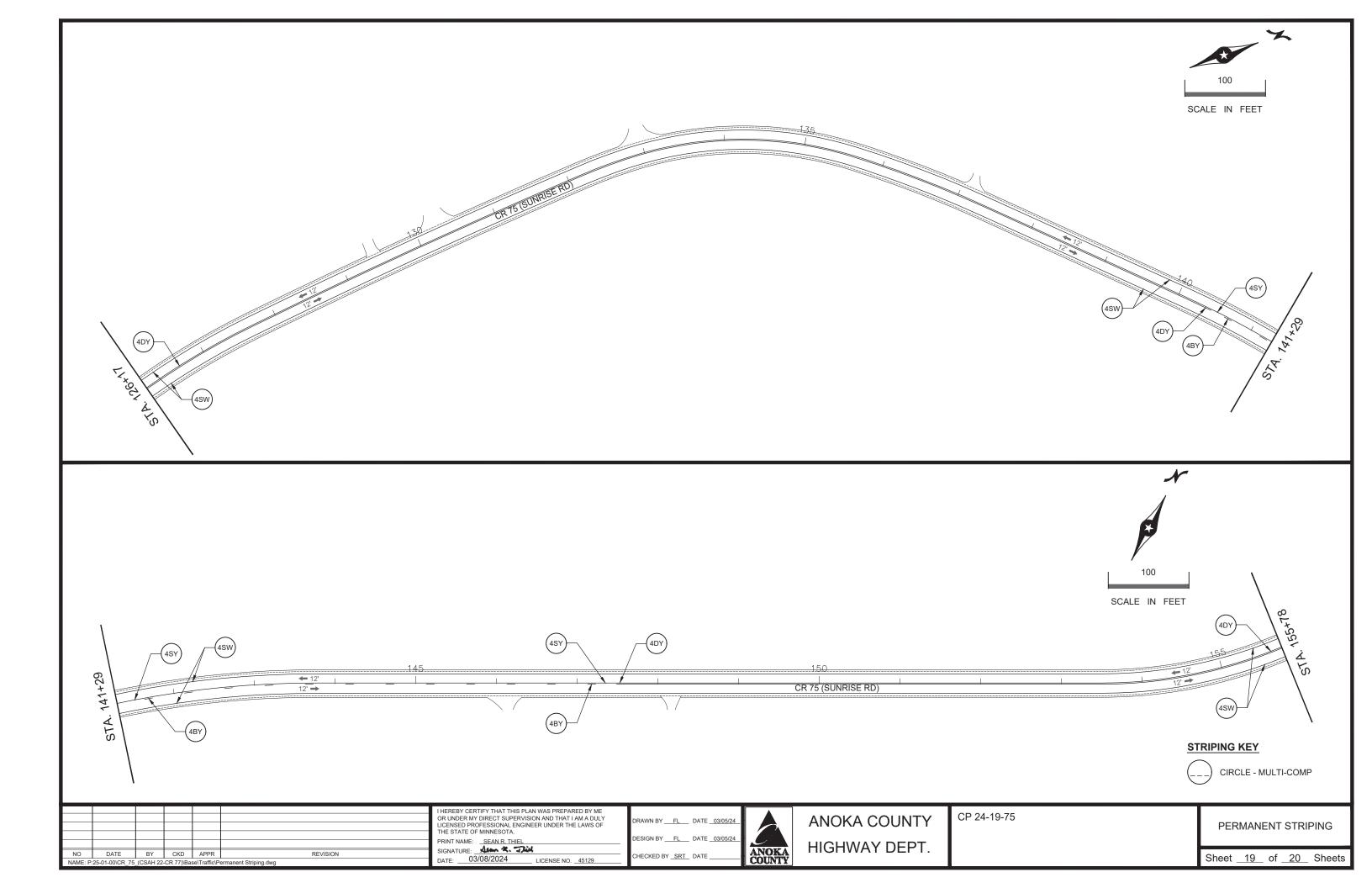
Sheet $\underline{14}$ of $\underline{20}$ Sheets

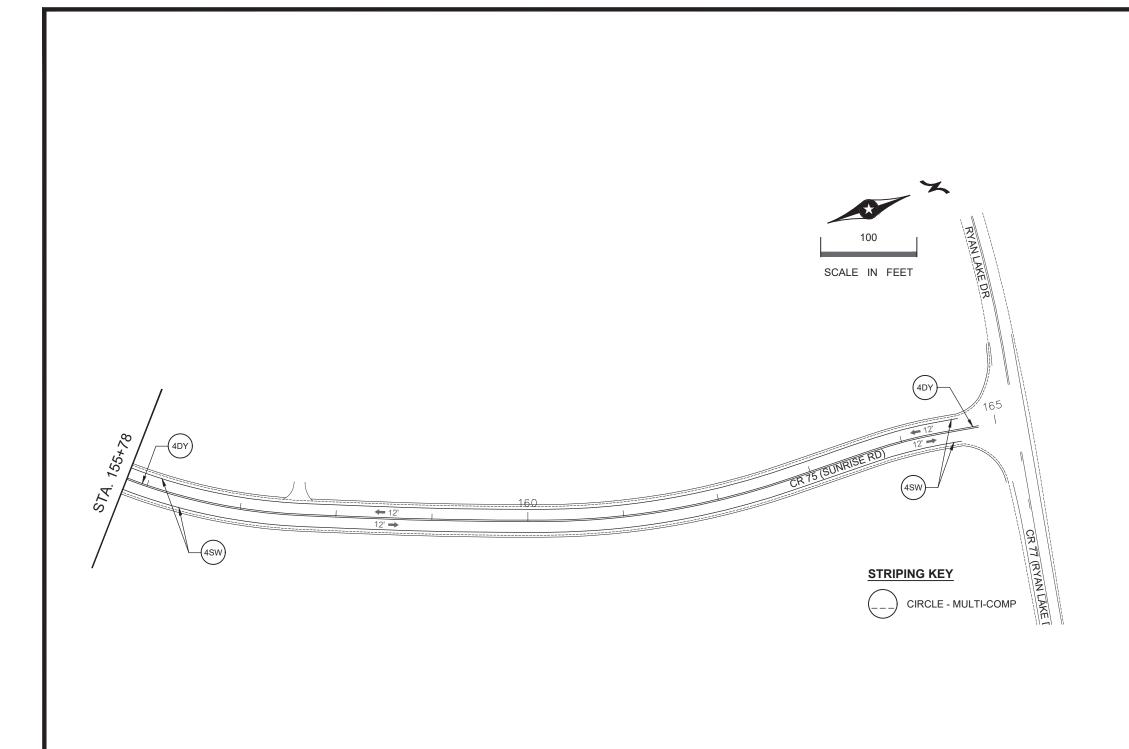












NO DATE BY CKD APPR REVISION

NAME: P:25-01-00/CR_75_(CSAH 22-CR 77)|Base\Traffic\Permanent Striping.dwg

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THE STATE OF MINNESOTA.

PRINT NAME: SEAN R. THIEL

SIGNATURE: Allow & Tak

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DESIGN BY __FL __ DATE __03/05/24 __

CHECKED BY __SRT __ DATE __



ANOKA COUNTY HIGHWAY DEPT. CP 24-19-75

PERMANENT STRIPING

Sheet 20 of 20 Sheets