

MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

CONSTRUCTION PLAN FOR BITUMINOUS SURFACING, CURB & GUTTER, BITUMINOUS RECLAMATION, AND SEWER REPAIRS

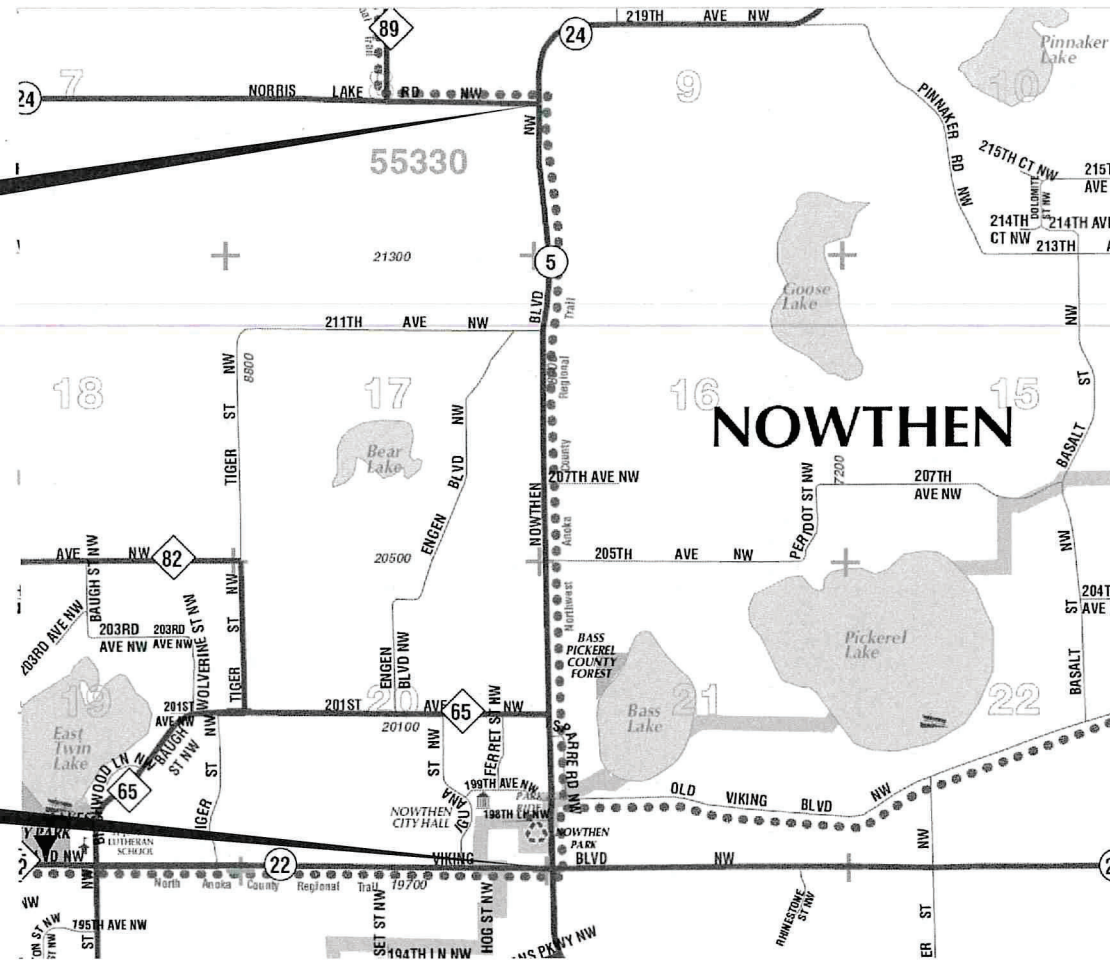
LOCATED ON CSAH 5 BETWEEN CSAH 22 (VIKING BLVD NW) AND CSAH 24 (NORRIS LAKE RD NW)

CSAH 5 (NOWTHEN BLVD NW)

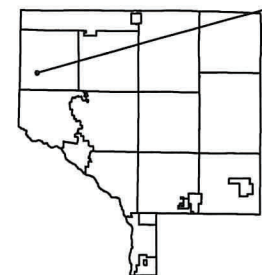
GROSS LENGTH 13211.56 FEET 2.502 MILES
 EXCEPTIONS-LENGTH 0.00 FEET 0.000 MILES
 NET LENGTH 13211.56 FEET 2.502 MILES

END SAP 002-605-020
 CSAH 5, STA: 144+04.98

BEGIN SAP 002-605-020
 CSAH 5, STA: 11+93.44



PROJECT LOCATION



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 LAYOUTS.

THIS PLAN CONTAINS 24 SHEETS

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TABULATIONS
4	SUPER ELEVATION TAB
5-7	TYPICAL SECTION
8-12	DETAILS
13-17	CONSTRUCTION PLAN
18	PERMANENT PAVEMENT MARKING NOTES AND TABULATIONS
19-23	TEMPORARY SIGNING AND PERMANENT STRIPING
24	TEMPORARY SIGNING NOTES AND TABULATIONS

Approved  12-19-23
 ANOKA COUNTY ENGINEER

Approved  1-9-24
 CITY OF NOWTHEN ENGINEER

Lucas Lortie Digitally signed by Lucas Lortie
 Date: 2024.01.11 10:27:47 -06'00'

For DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

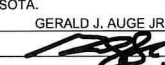
Lucas Lortie Digitally signed by Lucas Lortie
 Date: 2024.01.11 10:27:58 -06'00'

For STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

CITY OF NOWTHEN
 ANOKA COUNTY
 MN/DOT TRANSPORTATION DISTRICT - METRO
 SECTION 9,16,17,20 AND 21
 TOWNSHIP 33 NORTH
 RANGE 25 WEST

DESIGN DESIGNATION (CSAH 5)

ESAL 20	460,852	FUNCTIONAL CLASSIFICATION	OTHER ARTERIAL
R VALUE	70	NO. OF TRAFFIC LANES	2
ADT (2024)	3901	NO. OF PARKING LANES	0
PROJ. ADT (2044)	3901	DESIGN SPEED	55 MPH
PROJ. HCADT (2044)	230	STOPPING SIGHT DISTANCE BASED ON:	
SOIL FACTOR	N/A	HEIGHT OF EYE	3.5'
		HEIGHT OF OBJECT	2.0'
		DESIGN SPEED NOT ACHIEVED AT:	
		STA.	TO STA.
			MPH

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. AUJE JR.
 SIGNATURE: 
 DATE: 12-08-2023 LICENSE NO. 26511

DRAWN BY DBK DATE 12/15/2023
 DESIGN BY DBK DATE 12/15/2023
 CHECKED BY CO DATE 12/15/2023



ANOKA COUNTY
 HIGHWAY DEPT.

STATE AID PROJECT 002-605-020

TITLE SHEET
 Sheet 1 of 24 Sheets

STATEMENT OF ESTIMATED QUANTITIES

Notes	Item Number	ITEM DESCRIPTION	Unit	TOTAL PROJECT QUANTITIES ESTIMATED
	2021.501	MOBILIZATION	LUMP SUM	1
	2104.502	REMOVE BITUMINOUS FLUME	EACH	1
1	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	70
1	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	550
1	2104.503	REMOVE CURB AND GUTTER	LIN FT	63
	2104.503	REMOVE BITUMINOUS CURB	LIN FT	10
2	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	140
3	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	1245
3	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	1708
	2105.607	COMMON EXCAVATION	CU YD	36
4	2123.510	MOTOR GRADER	HOUR	18
5	2130.523	WATER	M GALLON	20
6,7	2211.509	AGGREGATE BASE CLASS 5	TON	1782
8	2215.504	FULL DEPTH RECLAMATION	SQ YD	61040
9	2215.507	HAUL FULL DEPTH RECLAMATION (LV)	CU YD	772
10	2221.509	SHOULDER BASE AGGREGATE CLASS 5	TON	990
11	2232.604	MILL BITUMINOUS PAVEMENT (SPECIAL)	SQ YD	73
	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	3084
12	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3;B)	TON	143
13	2360.509	TYPE SP 12.5 BITUMINOUS MIXTURE FOR PATCHING	TON	6
14	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	386
15	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	14185
16	2506.502	CASTING ASSEMBLY	EACH	8
18	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	2
17	2506.602	GROUT CATCH BASIN OR MANHOLE	EACH	3
	2506.602	REPAIR CATCH BASINS	EACH	4
	2531.503	CONCRETE CURB AND GUTTER DESIGN B418	LIN FT	1164
	2531.503	CONCRETE CURB AND GUTTER DESIGN S512	LIN FT	36
	2531.504	8" CONCRETE DRIVEWAY PAVEMENT	SQ YD	140
	2531.604	CONCRETE DRAINAGE FLUME	SQ YD	9
	2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	19
19	2540.602	MAIL BOX SUPPORT	EACH	30
	2563.601	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1
20,21,22	2563.601	TRAFFIC CONTROL	LUMP SUM	1
23	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	20
24	2573.502	STORM DRAIN INLET PROTECTION	EACH	13
	2574.507	COMMON TOPSOIL BORROW	CU YD	311
25	2575.508	HYDRAULIC REINFORCED FIBER MATRIX	POUND	762
26	2582.503	4" SOLID LINE PREFORM TAPE GROUND IN (WR)	LIN FT	30546
26	2582.503	4" BROKEN LINE PREFORM TAPE GROUND IN (WR)	LIN FT	1859
26	2582.503	8" DOTTED LINE PREFORM TAPE GROUND IN (WR)	LIN FT	144
26	2582.503	4" DOUBLE SOLID LINE PREFORM TAPE GROUND IN (WR)	LIN FT	3715

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

CONSTRUCTION NOTES

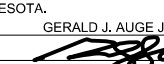
1	REFERENCE DETAILS (PAGE 13-17) FOR REMOVAL DETAILS
2	ITEM FOR CONCRETE DRIVEWAYS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
3	ITEM FOR BITUMINOUS DRIVEWAYS AND STREET APPROACHES. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE 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 SUPERELEVATION/GRADE CORRECTION AREAS.
5	WATER TO BE USE FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
6	GRAVEL BASE FOR CONCRETE AND BITUMINOUS STREET APPROACHES AND DRIVEWAYS.
7	ITEM TO BE USED AS BASE FOR NEW CONCRETE WALK AND CURB PATCHES.
8	THIS WORK INCLUDES SPREADING, WATERING, COMPACTING, SHAPING, AND MAINTAINING THE BLENDED RECLAIMED MATERIAL TO THE SPECIFIC PROFILE AND CROSS SECTION.
9	ITEM USED TO HAUL EXCESS RECLAIM FROM TIE-IN POINTS AND REUSED ON SITE. USED FOR PROFILE CORRECTION AREAS. ITEM INCLUDES PLACEMENT, SHAPING, COMPACTION, AND MAINTENANCE OF MATERIAL.
10	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
11	TO BE USED FOR MILLING STREET APPROACHES AND/OR DETAIL MILLING AREAS AS IDENTIFIED IN THE PLAN.
12	ITEM FOR BITUMINOUS DRIVEWAYS. DRIVEWAYS SHALL BE PAVED AFTER MAINLINE AND BEFORE FINAL STRIPING.
13	ITEM INCLUDES BITUMINOUS PATCHING AROUND NEW CURB, STORM STRUCTURE REPAIRS, AND ANY POTHOLES.
14	CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
15	STREET APPROACHES SHALL BE PAVED AFTER MAINLINE, AND BEFORE FINAL STRIPING
16	ITEM INCLUDES FULL REPLACEMENT OF CASTING ADJUSTMENT RINGS. SEE STORM TABULATIONS FOR RING HEIGHTS. CASTINGS IN ROADWAY SHALL BE INSTALLED BETWEEN BASE AND WEAR LIFT PAVING
17	ITEM INCLUDES GROUTING OF INVERTS, DOGHOUSES, RINGS, STRUCTURES AND CASTINGS AS DIRECTED BY PLAN AND ENGINEER. SEE DRAINAGE TAB, PAGE 3.
18	ITEM USED TO REPLACE PRECAST CONCRETE STRUCTURE HAT.
19	MAILBOXES ARE TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION OR AS DIRECTED BY THE LOCAL POSTAL AUTHORITY, CONTRACTOR IS RESPONSIBLE FOR CONTACTING. MAILBOX REMOVAL AND ALL MATERIALS ARE INCIDENTAL TO INSTALLATION.
20	CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY SIGNAGE WHENEVER EXISTING SIGNAGE IS REMOVED. TEMPORARY SIGNAGE SHALL BE INCIDENTAL TO TRAFFIC CONTROL.
21	ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO, AND BE INSTALLED IN ACCORDANCE WITH, THE MOST CURRENT REVISION OF THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". "DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE, AND STOP HERE ON RED SIGNS SHALL BE INPLACE WHENEVER PERMANENT PAVEMENT MARKINGS ARE NOT PRESENT.
22	DO NOT PASS, PASS WITH CARE AND NO CENTER STRIPE SIGNS MUST BE INPLACE DURING MILLING, RECLAIMING OR PAVING OPERATIONS.
23	2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT, SHALL BE INSTALLED 10 DAYS PRIOR TO ANY CONSTRUCTION; REFERENCE STRIPING PLAN FOR DETAILS.
24	ALL DRAINAGE STRUCTURES AFFECTED BY THIS PROJECT MUST HAVE INLET PROTECTION.
25	TYPE 3 FERTILIZER AND TYPE 25-121 SEED ARE INCIDENTAL TO THIS ITEM. SEE "BASIS OF PLANNED QUANTITIES" FOR APPLICATION RATES.
26	FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING. CANNOT BE 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
3007F	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
4002F	MANHOLE OR CATCH BASIN (MASONRY, FIELD CONSTRUCTION) - DESIGN C
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGNS G AND H
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN (FOR USE WITH OR WITHOUT TRAFFIC LOADS) (2 SHEETS)
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN - DESIGN SD
4026B	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) - CASTING NO. 715
4134A	CURB BOX CASTING FOR CATCH BASIN (FOR DESIGN B CURBS) - CASTING NO. 825
4180J	MANHOLE OR CATCH BASIN STEP
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
7102K	CONCRETE CURB AND GUTTER (DESIGN D, DESIGN S, AND DESIGN R)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)
9350C	MAILBOX SUPPORT - SWING-AWAY TYPE - SHEET 1 OF 3

NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:26 AM
NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\SEQ.dgn							

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**ANOKA COUNTY
HIGHWAY DEPT.**

STATE AID PROJECT 002-605-020

STATEMENT OF ESTIMATED QUANTITIES

Sheet 2 of 24 Sheets

STORM DRAINAGE TAB								
NUMBER	TYPE	ACTION	NEW CASTING TYPE	FURNISH AND INSTALL CASTING ASSEMBLY	RING HEIGHT (INCIDENTAL)	GROUT CATCH BASIN OR MANHOLE	REPAIR CATCH BASIN (REBUILD INVERT AND/OR DOGHOUSE)	NOTES
				EACH	LIN FT	EACH	EACH	
100	CB	RE-RING	C	1	1.4			
101	CB	RE-RING	C	1	1.0		1	Clean, repair inv
102	CB	RE-RING	C	1	0.8			
102A	CB	GROUT				1		
103	CB	GROUT				1	1	Rebuild doghouse
104	CB	RECONSTRUCT	C	1	0.6			NEW TOPHAT
105	CB	GOOD						
106	CB	RE-RING	C	1	0.0		1	New doghouse and inv
107	CB	GOOD						Beehive
108	CB	RE-RING	D	1	0.8			
200	MH	GROUT				1		Clean
201	MH	RE-RING	A-7D	1	0.4			Clean
202	MH	RECONSTRUCT	A-7D	1	0.6		1	NEW TOPHAT, rebuild doghouse
TOTALS				8	5.6	3	4	

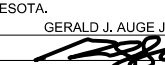
CASTING ASSEMBLIES SUMMARY						
ASSEMBLY	RING OR FRAME CASTING	COVER OR GRATE CASTING	CURB BOX	DESCRIPTION	NOTES	QUANTITY
A-7D	700-7	715		301-CP LID WITH RUBBER GASKET ON	CASTING COVER STAMPED "STORM SEWER" (NEENAH R-1733 WITH LID 301-CP)	2
C	NEENAH R-3250-DVSP	V	YES	NEENAH R-3250-DVSP		5
D	NEENAH R-3250-DVSP	V	NO	NEENAH R-3250-DVSP	CURB PLATE NEEDED	1
ALL CASTING HEIGHTS TO BE VERIFIED IN THE FIELD						
ALL MANHOLE COVERS SHOULD BE LABELED AS STORM OR SANITARY						
NEW MANHOLE CASTINGS TO BE INSTALLED FLUSH WITH THE MILLED ASPHALT SURFACE.						
ALL MANHOLES TO BE WRAPPED WITH INFI- SHIELD. THIS WORK IS INCIDENTAL TO THE CASTING ASSEMBLY.						
ADJUSTING RINGS TO BE INSTALLED AND GLUED DURING THE PAVING OPERATION.						
ADJUSTING RINGS TO BE RECESSED 1/4" FROM TOP OF FINISHED MAT						

BITUMINOUS STREET SUMMARY		
LOCATION	BITUMINOUS	
	2360 TYPE SP 12.5 WEAR (4,C)	NOTES
	TON	
NORRIS LAKE RD	76	[1]
211TH AVE	25	[1]
207TH AVE	34	[1]
205TH AVE	30	[1]
201ST AVE	56	[1]
SPARRE RD	24	[1]
199TH AVE	47	[1]
OLD VIKING (EAST)	60	[1]
PRIVATE DR	34	[1]
PROJECT TOTAL	386	

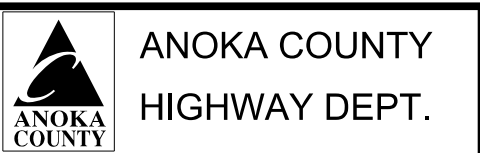
BITUMINOUS SUMMARY NOTES:
 [1] QUANTITY ESTIMATED FOR 2 LIFTS

NO	DATE	BY	CKD	APPR	REVISION	
	12/15/2023					11:45:28 AM

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\SEQ.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.
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STATE AID PROJECT 002-605-020

TABULATIONS
 Sheet 3 of 24 Sheets

SUPERELEVATION CORRECTION TAB 1					
STATION	POINT	LT SHDR/RTL	LEFT GRADE	RIGHT GRADE	RT SHDR/RTL
95+95	BEG LT TRANS	-2.0%	-2.0%	-2.0%	-2.0%
96+00		-1.9%	-1.9%	-2.0%	-2.0%
96+50		-0.8%	-0.8%	-2.0%	-2.0%
97+00		0.4%	0.4%	-2.0%	-2.0%
97+50		1.5%	1.5%	-2.0%	-2.0%
97+60	BEG RT TRANS	1.8%	1.8%	-2.0%	-2.0%
98+00		2.7%	2.7%	-2.7%	-2.7%
98+15	BEG LT/RT SUPER & PC	3.0%	3.0%	-3.0%	-3.0%
98+50		3.0%	3.0%	-3.0%	-3.0%
99+00		3.0%	3.0%	-3.0%	-3.0%
99+50		3.0%	3.0%	-3.0%	-3.0%
100+00		3.0%	3.0%	-3.0%	-3.0%
100+50		3.0%	3.0%	-3.0%	-3.0%
100+85	BEG SB RTL TRANS	3.0%	3.0%	-3.0%	-3.0%
101+00		2.7%	3.0%	-3.0%	-3.0%
101+50		1.7%	3.0%	-3.0%	-3.0%
102+00		0.7%	3.0%	-3.0%	-3.0%
102+50		-0.2%	3.0%	-3.0%	-3.0%
103+00		-1.2%	3.0%	-3.0%	-3.0%
103+40	END SB RTL TRANS	-2.0%	3.0%	-3.0%	-3.0%
103+50		-2.0%	3.0%	-3.0%	-3.0%
104+00		-2.0%	3.0%	-3.0%	-3.0%
104+25	END LT/RT SUPER & PT	-2.0%	3.0%	-3.0%	-3.0%
104+50		-2.0%	2.6%	-2.6%	-2.6%
105+00		-2.0%	1.9%	-1.9%	-1.9%
105+50		-2.0%	1.1%	-1.1%	-1.1%
105+60	BEG SB RTL TRANS	-2.0%	1.0%	-1.0%	-1.0%
106+00		-2.0%	0.4%	-0.4%	-0.4%
106+50		-1.0%	-0.3%	0.3%	0.3%
106+70	MATCH SUPER TRANS	-0.6%	-0.6%	0.6%	0.6%
107+00		-1.1%	-1.1%	1.1%	1.1%
107+50		-1.8%	-1.8%	1.8%	1.8%

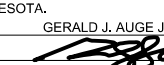
SUPERELEVATION CORRECTION TAB 2					
STATION	POINT	LT SHDR/RTL	LEFT GRADE	RIGHT GRADE	RT SHDR/RTL
108+00		-2.6%	-2.6%	2.6%	2.6%
108+30	BEG LT/RT SUPER & PC	-3.0%	-3.0%	3.0%	3.0%
108+50		-3.0%	-3.0%	3.0%	3.0%
109+00		-3.0%	-3.0%	3.0%	3.0%
109+50		-3.0%	-3.0%	3.0%	3.0%
110+00		-3.0%	-3.0%	3.0%	3.0%
110+50		-3.0%	-3.0%	3.0%	3.0%
111+00		-3.0%	-3.0%	3.0%	3.0%
111+50		-3.0%	-3.0%	3.0%	3.0%
112+00		-3.0%	-3.0%	3.0%	3.0%
112+50		-3.0%	-3.0%	3.0%	3.0%
113+00		-3.0%	-3.0%	3.0%	3.0%
113+50		-3.0%	-3.0%	3.0%	3.0%
114+00		-3.0%	-3.0%	3.0%	3.0%
114+50		-3.0%	-3.0%	3.0%	3.0%
115+00		-3.0%	-3.0%	3.0%	3.0%
115+50		-3.0%	-3.0%	3.0%	3.0%
116+00		-3.0%	-3.0%	3.0%	3.0%
116+50		-3.0%	-3.0%	3.0%	3.0%
117+00		-3.0%	-3.0%	3.0%	3.0%
117+50		-3.0%	-3.0%	3.0%	3.0%
118+00		-3.0%	-3.0%	3.0%	3.0%
118+50		-3.0%	-3.0%	3.0%	3.0%
119+00		-3.0%	-3.0%	3.0%	3.0%
119+50		-3.0%	-3.0%	3.0%	3.0%
120+00		-3.0%	-3.0%	3.0%	3.0%
120+50		-3.0%	-3.0%	3.0%	3.0%
120+85	END LT/RT SUPER & PT	-3.0%	-3.0%	3.0%	3.0%
121+00		-2.7%	-2.7%	2.7%	2.7%
121+35	END LT TRANS	-2.0%	-2.0%	2.1%	2.1%
121+50		-2.0%	-2.0%	1.8%	1.8%
122+00		-2.0%	-2.0%	0.9%	0.9%
122+50		-2.0%	-2.0%	0.0%	0.0%
123+00		-2.0%	-2.0%	-0.9%	-0.9%
123+50		-2.0%	-2.0%	-1.8%	-1.8%
123+60	END RT TRANS	-2.0%	-2.0%	-2.0%	-2.0%
124+00		-2.0%	-2.0%	-2.0%	-2.0%
124+50		-2.0%	-2.0%	-2.0%	-2.0%
125+00		-2.0%	-2.0%	-2.0%	-2.0%

SUPERELEVATION CORRECTION TAB 3					
STATION	POINT	LT SHDR/RTL	LEFT GRADE	RIGHT GRADE	RT SHDR/RTL
127+05	BEG LT TRANS	-2.0%	-2.0%	-2.0%	-2.0%
127+50		-1.1%	-1.1%	-2.0%	-2.0%
128+00		-0.1%	-0.1%	-2.0%	-2.0%
128+50		0.8%	0.8%	-2.0%	-2.0%
129+00	BEG RT TRANS	1.8%	1.8%	-2.0%	-2.0%
129+50		2.8%	2.8%	-2.8%	-2.8%
129+60	BEG LT/RT SUPER & PC	3.0%	3.0%	-3.0%	-3.0%
130+00		3.0%	3.0%	-3.0%	-3.0%
130+50		3.0%	3.0%	-3.0%	-3.0%
131+00		3.0%	3.0%	-3.0%	-3.0%
131+50		3.0%	3.0%	-3.0%	-3.0%
132+00		3.0%	3.0%	-3.0%	-3.0%
132+50		3.0%	3.0%	-3.0%	-3.0%
133+00		3.0%	3.0%	-3.0%	-3.0%
133+50		3.0%	3.0%	-3.0%	-3.0%
134+00		3.0%	3.0%	-3.0%	-3.0%
134+10	END LT/RT SUPER & PT	3.0%	3.0%	-3.0%	-3.0%
134+50		2.3%	2.3%	-2.3%	-2.3%
134+65	END RT TRANS	2.0%	2.0%	-2.0%	-2.0%
135+00		1.3%	1.3%	-2.0%	-2.0%
135+50		0.3%	0.3%	-2.0%	-2.0%
136+00		-0.6%	-0.6%	-2.0%	-2.0%
136+50		-1.7%	-1.7%	-2.0%	-2.0%
136+65	END LT TRANS	-2.0%	-2.0%	-2.0%	-2.0%
137+00		-2.0%	-2.0%	-2.0%	-2.0%

NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:29 AM
NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\1Base\Proposed\SEQ.dgn							

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PRINT NAME: GERALD J. AUGER JR.

SIGNATURE: 

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CHECKED BY CO DATE 12/15/2023



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HIGHWAY DEPT.

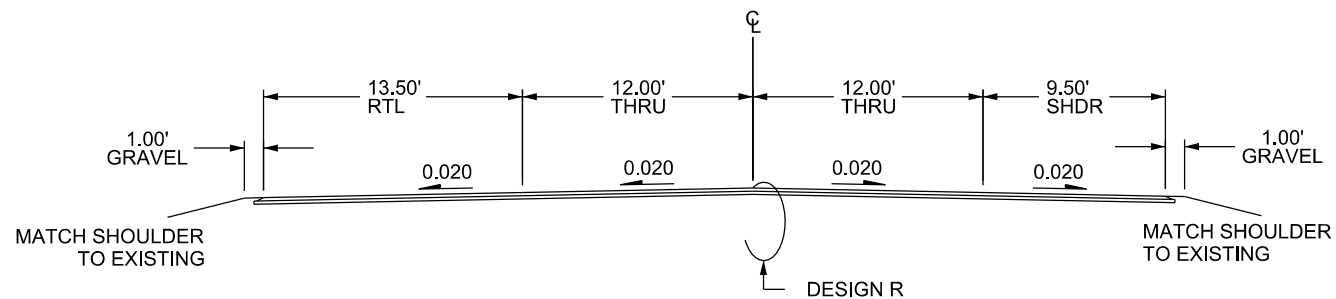
STATE AID PROJECT 002-605-020

SUPER ELEVATIONS
TAB

Sheet 4 of 24 Sheets

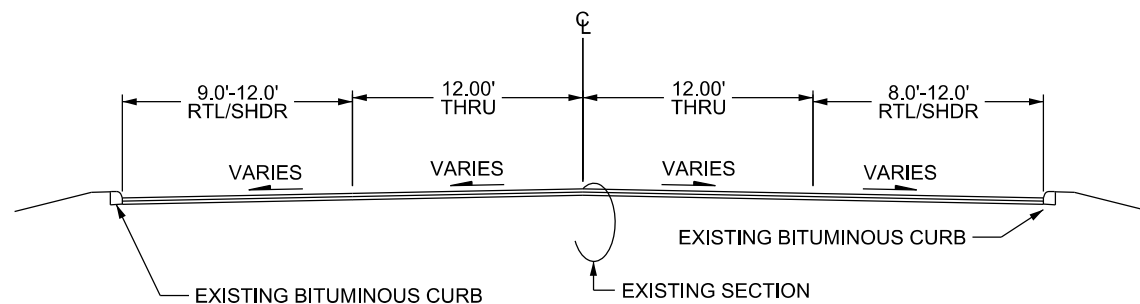
NOWTHEN BLVD NW (CSAH 5) EXISTING/PROPOSED SECTION

11+93.44 - 12+60.02

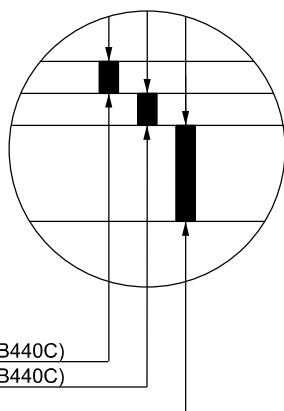


NOWTHEN BLVD NW (CSAH 5) EXISTING SECTION

12+60.02 - 20+49.77

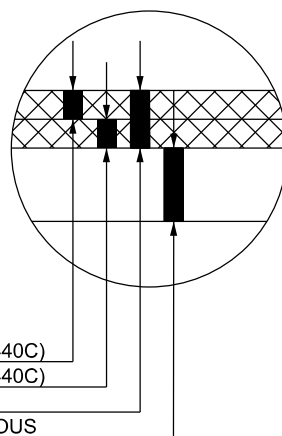


DESIGN S RECLAIM SECTION



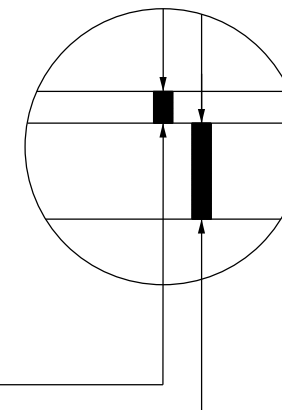
2.0" BITUMINOUS WEAR(SPWEB440C)
 2.0" BITUMINOUS WEAR(SPWEB440C)
 RECLAIMED BITUMINOUS

DESIGN R RECLAIM SECTION IN CURB



2.0" BITUMINOUS WEAR(SPWEB440C)
 2.0" BITUMINOUS WEAR(SPWEB440C)
 RECLAIM 4" BITUMINOUS
 EXISTING AGGREGATE/BITUMINOUS

EXISTING SECTION



4.5" EXISTING BITUMINOUS
 EXISTING AGGREGATE BASE

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NAME: P:\24-01-00\CSAH_05_(Viking Blvd-CSAH 24)\Base\Proposed\TYPICALS.dgn							

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STATE AID PROJECT 002-605-020

TYPICAL SECTIONS
 Sheet 5 of 24 Sheets

DBKost

NOWTHEN BLVD NW (CSAH 5)

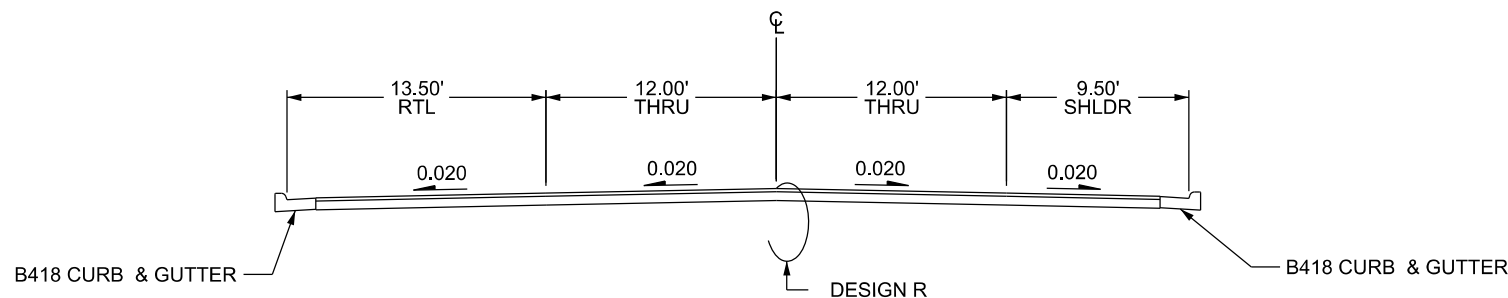
PROPOSED SECTION

LSB RIGHT TURN LANE W CURB

12+60.02 - 17+82.77

LNB SHOULDER W CURB

12+60.02 - 19+06.52



NOWTHEN BLVD NW (CSAH 5)

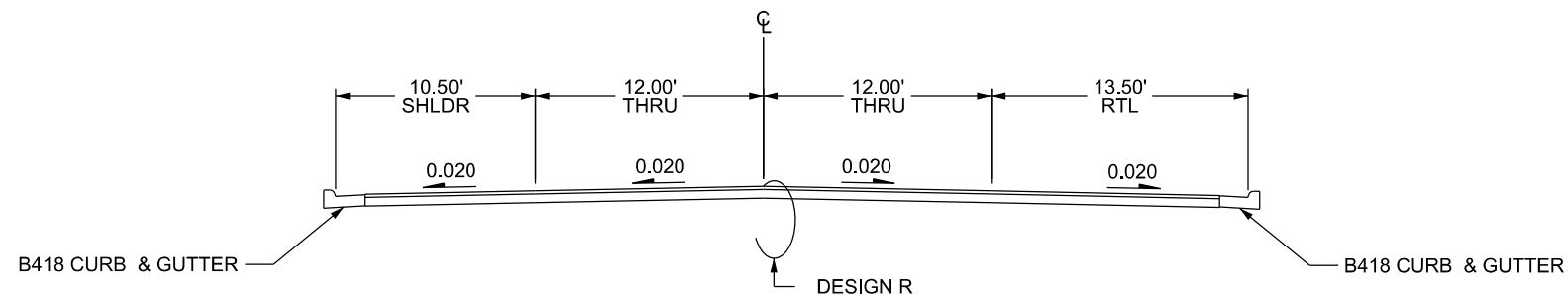
PROPOSED SECTION

LSB SHOULDER W CURB

17+82.77 - 19+91.24

LNB RIGHT TURN LANE W CURB

19+06.52 - 20+49.77



NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:31 AM

NAME: P:\24-01-00\CSAH_05_(Viking Blvd-CSAH 24)\Base\Proposed\TYPICALS.dgn

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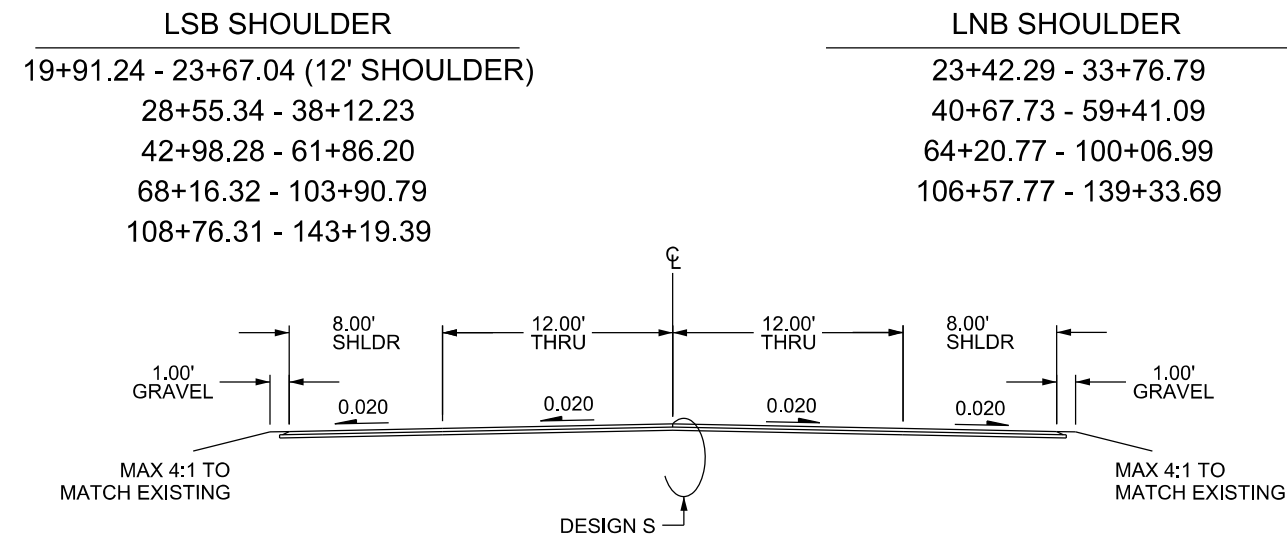
STATE AID PROJECT 002-605-020

TYPICAL SECTIONS

Sheet 6 of 24 Sheets

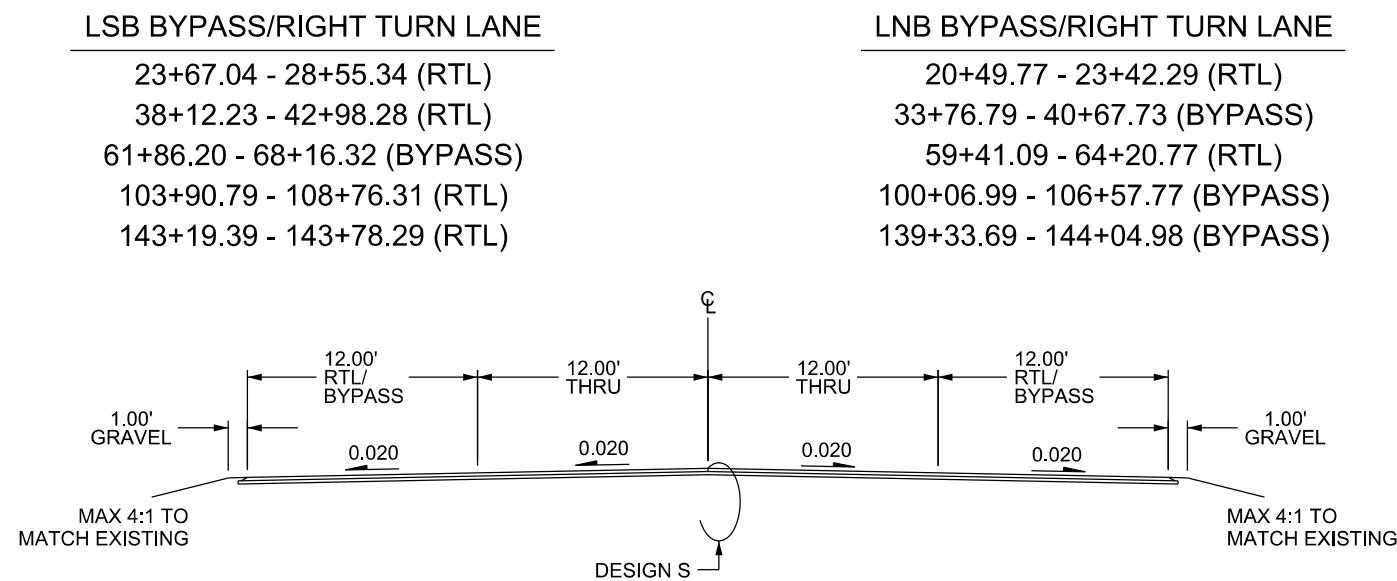
NOWTHEN BLVD NW (CSAH 5)

EXISTING/PROPOSED SECTION



NOWTHEN BLVD NW (CSAH 5)

EXISTING/PROPOSED SECTION



NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:31 AM
NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\TYPICALS.dgn							

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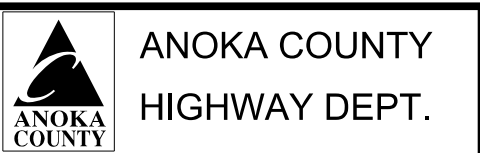
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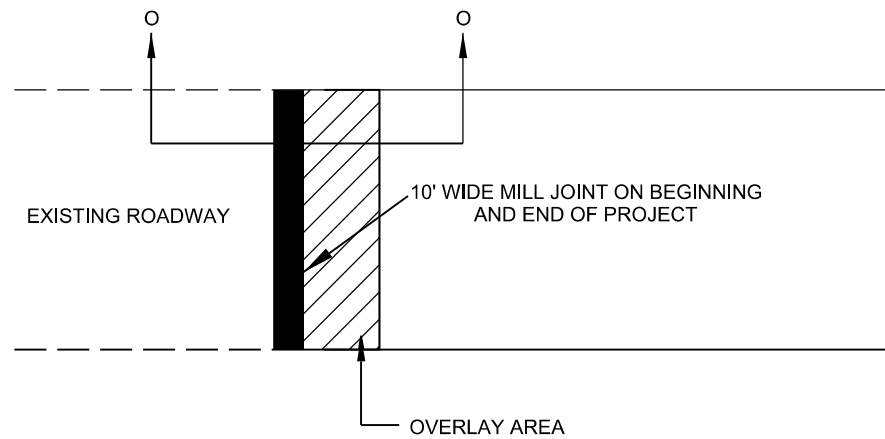
STATE AID PROJECT 002-605-020

TYPICAL SECTIONS

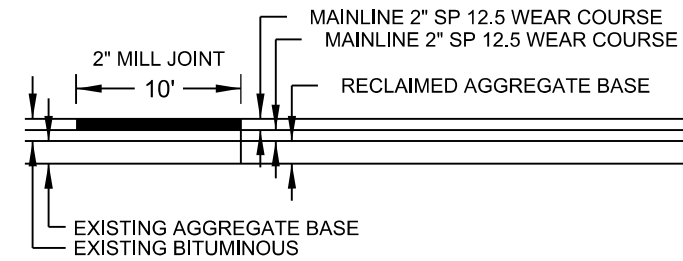
Sheet 7 of 24 Sheets

MAINLINE JOINT DETAIL (RECLAIM)

PLAN VIEW



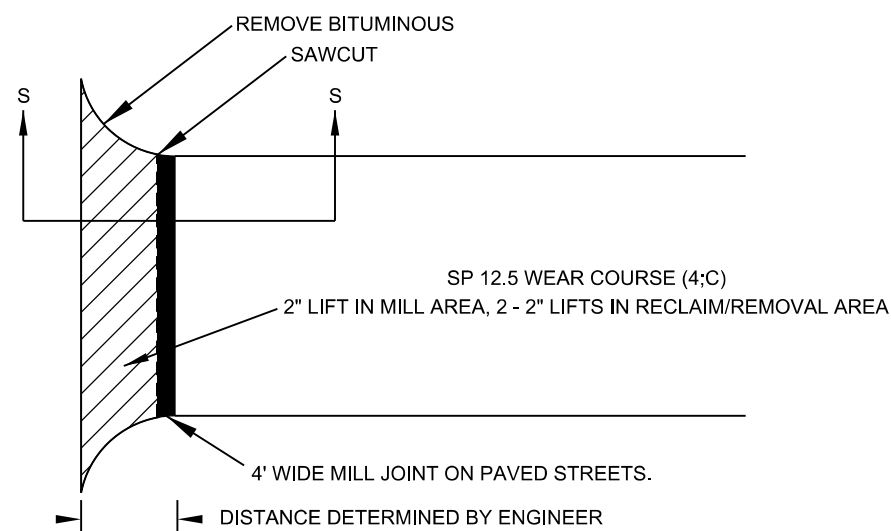
SECTION O - O



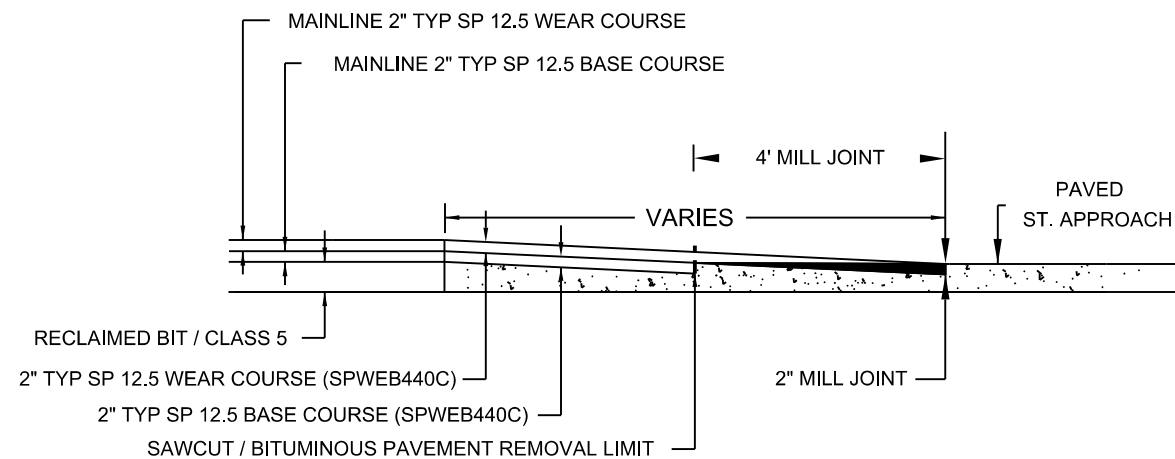
STREET APPROACH DETAIL (RECLAIM)

BITUMINOUS STREET

PLAN VIEW



SECTION S - S

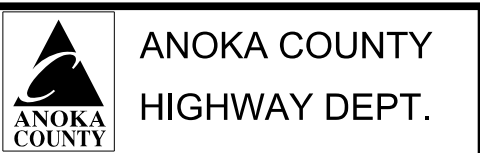


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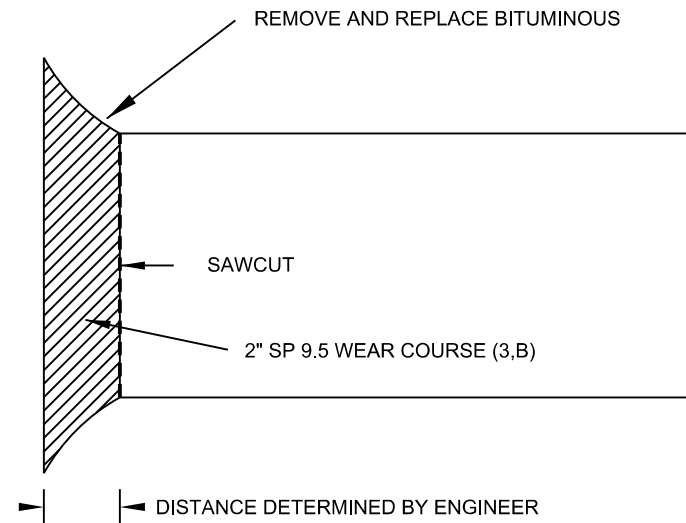
STATE AID PROJECT 002-605-020

DETAILS
 Sheet 8 of 24 Sheets

RECLAIM AREA - DRIVEWAY DETAIL

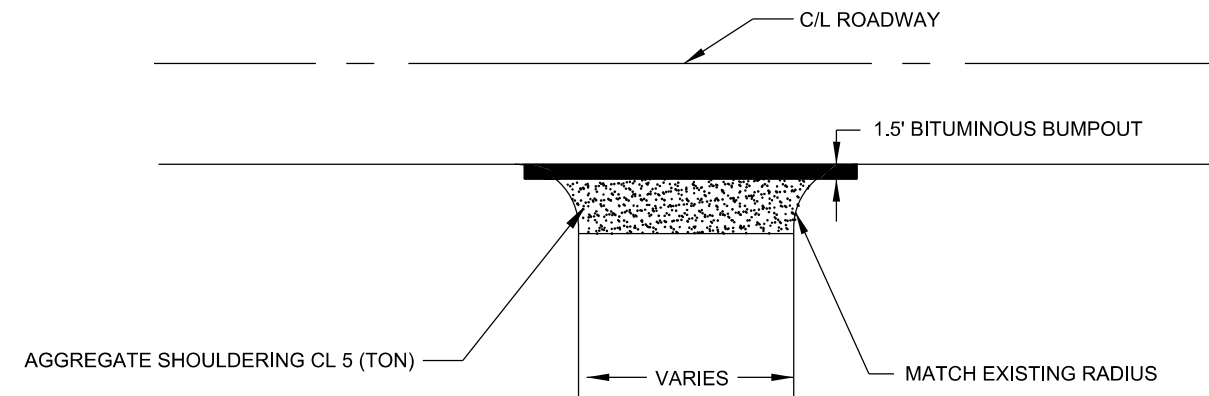
BITUMINOUS

PLAN VIEW



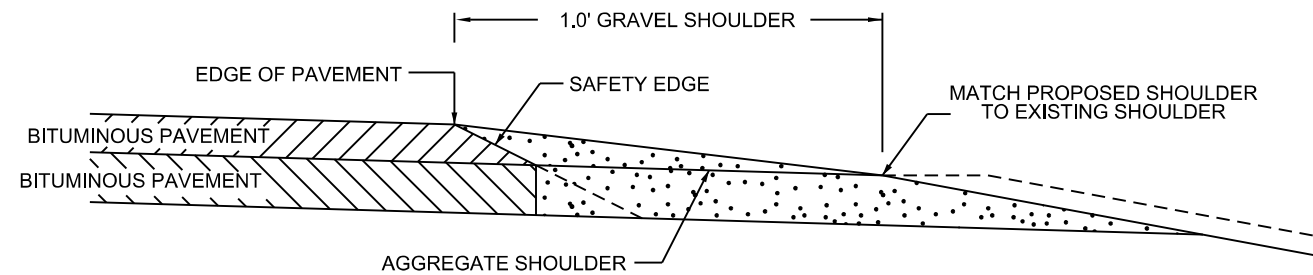
DRIVEWAY DETAIL

GRAVEL / FIELD ENTRANCE



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 .

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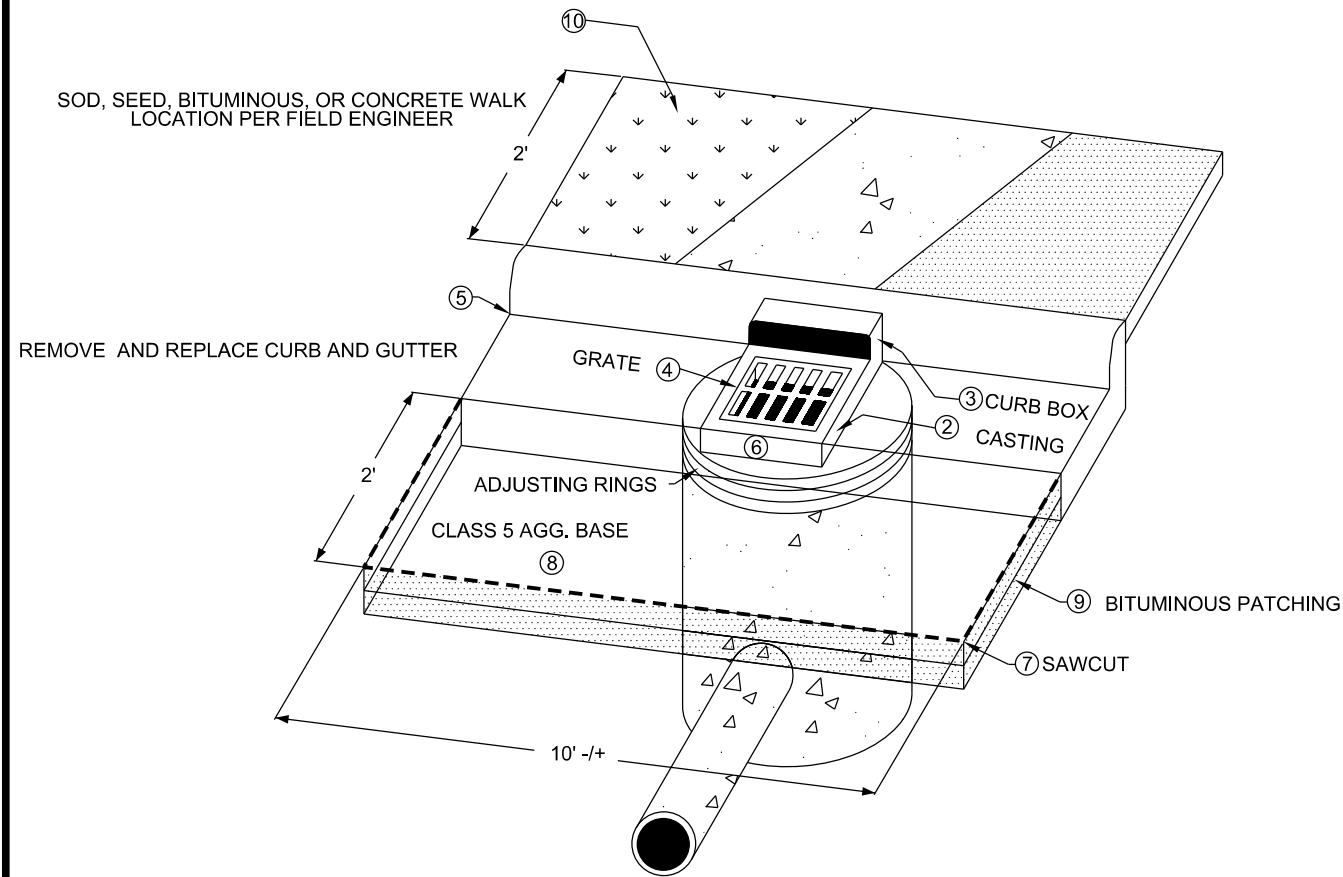
**ANOKA COUNTY
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STATE AID PROJECT 002-605-020

CATCH BASIN DETAIL

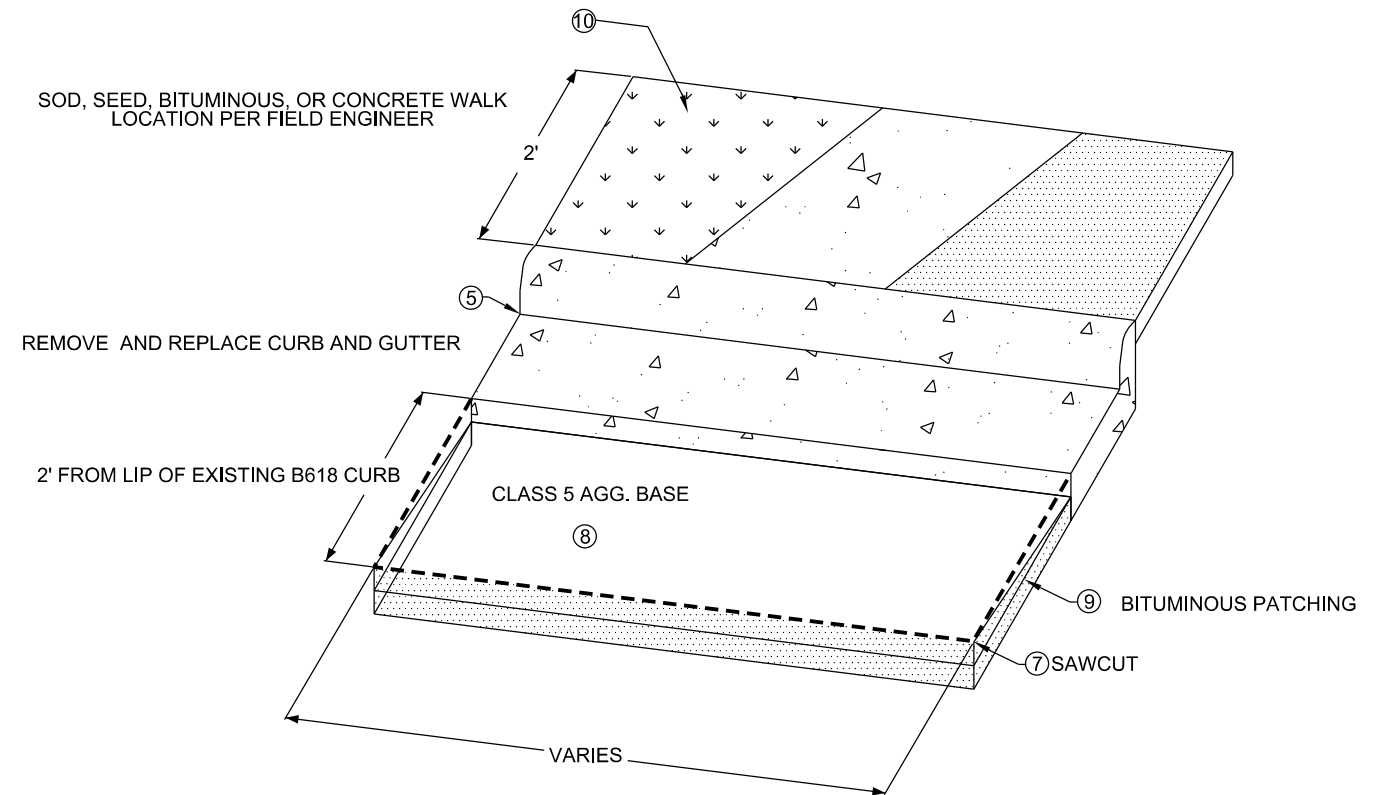
SEE STRUCTURE TAB FOR LOCATION

(PAGE 3)



NEW CURB DETAIL

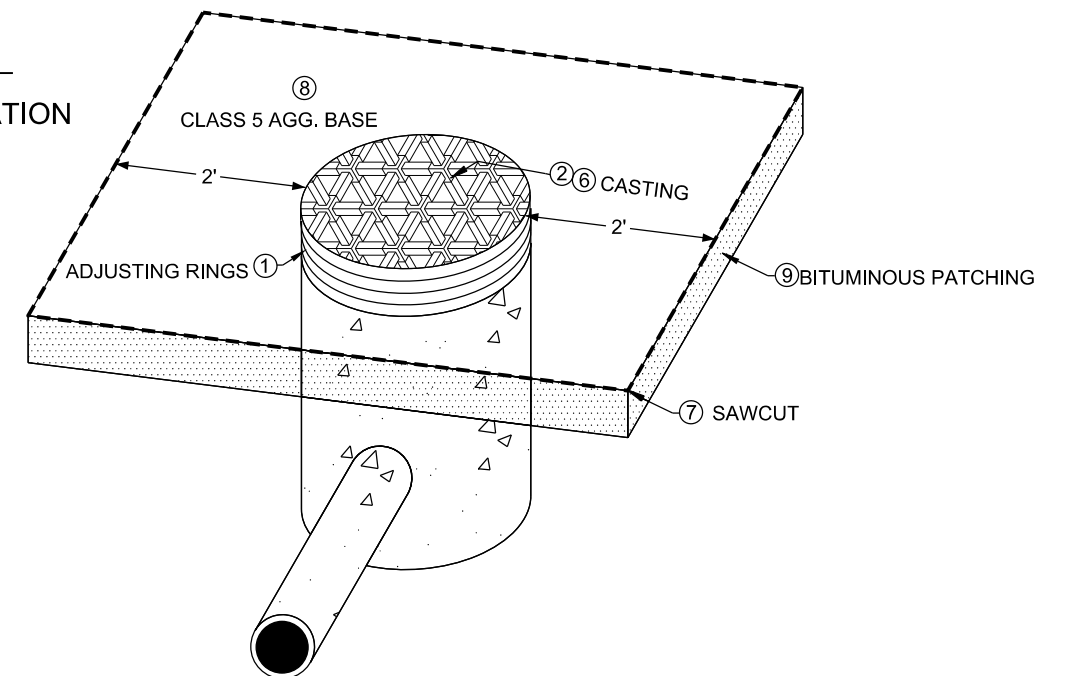
SEE PLAN FOR LOCATION



MANHOLE DETAIL

SEE STRUCTURE TAB FOR LOCATION

(PAGE 3)



NOTES

FOR TRAFFIC CONTROL AT CATCH BASIN AND MANHOLE REPAIRS REFER TO THE MINNESOTA MANUAL ON TEMPORARY TRAFFIC CONTROL LAYOUTS FIELD MANUAL.

- ① CONCRETE ENCASED CONCRETE ADJUSTING RINGS STANDARD PLATE 4026A
- ② RING AND FRAME CASTING; REFERENCE CASTING ASSEMBLIES SUMMARY CHART FOR CASTING TYPE
- ③ CURB BOX MATCHES CASTING REFERENCE CHART FOR CASTING TYPE
- ④ GRATE CASTING; REFERENCE CASTING ASSEMBLIES SUMMARY CHART FOR CASTING TYPE
- ⑤ CONCRETE CURB AND GUTTER DESIGN B STANDARD PLATE 7100H, FORM CURB TO FIT CASTING
- ⑥ INSTALLATION OF CATCH BASIN OR MANHOLE CASTINGS; REFERENCE STANDARD PLATE PER TYPE OF CASTING
- ⑦ SAWCUT BITUMINOUS PAVEMENT / CONCRETE CURB FULL DEPTH.
- ⑧ ADD AND COMPACT AGGREGATE BASE CLASS 5 AROUND REPAIRED STRUCTURE. ITEM INCIDENTAL TO ENTIRE STRUCTURE REPAIR
- ⑨ REMOVE VARIABLE DEPTH BITUMINOUS, PATCH WITH 2, 3" LIFTS OF BITUMINOUS, TOP LIFT SHOULD TAPER TO BOTTOM LIFT AT CURB.
- ⑩ REPLACE DISTURBED AREA BEHIND CATCH BASIN WITH EITHER SOD (RESIDENTIAL AREAS), EROSION CONTROL BLANKET, BITUMINOUS OR CONCRETE

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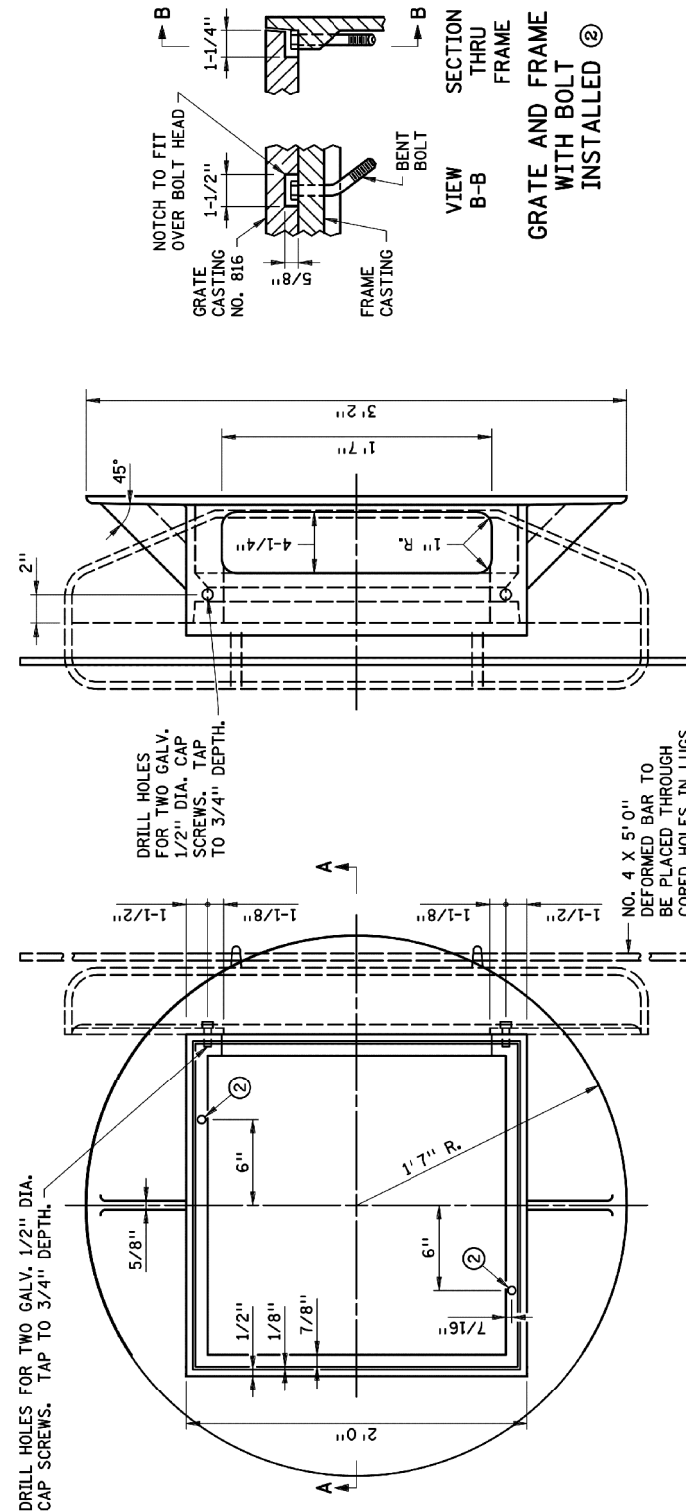


ANOKA COUNTY
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STATE AID PROJECT 002-605-020

DETAILS

Sheet 10 of 24 Sheets

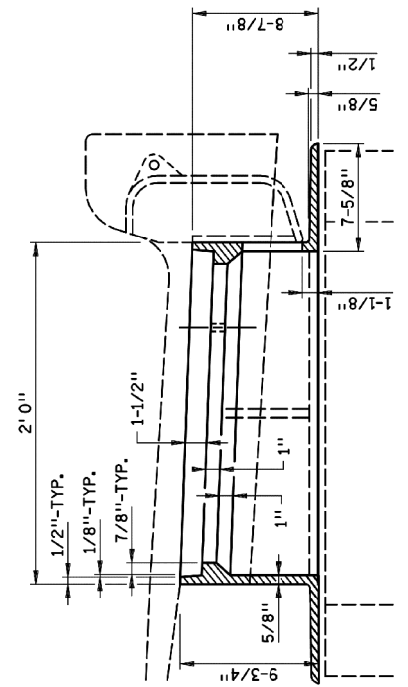


END VIEW

TOP VIEW

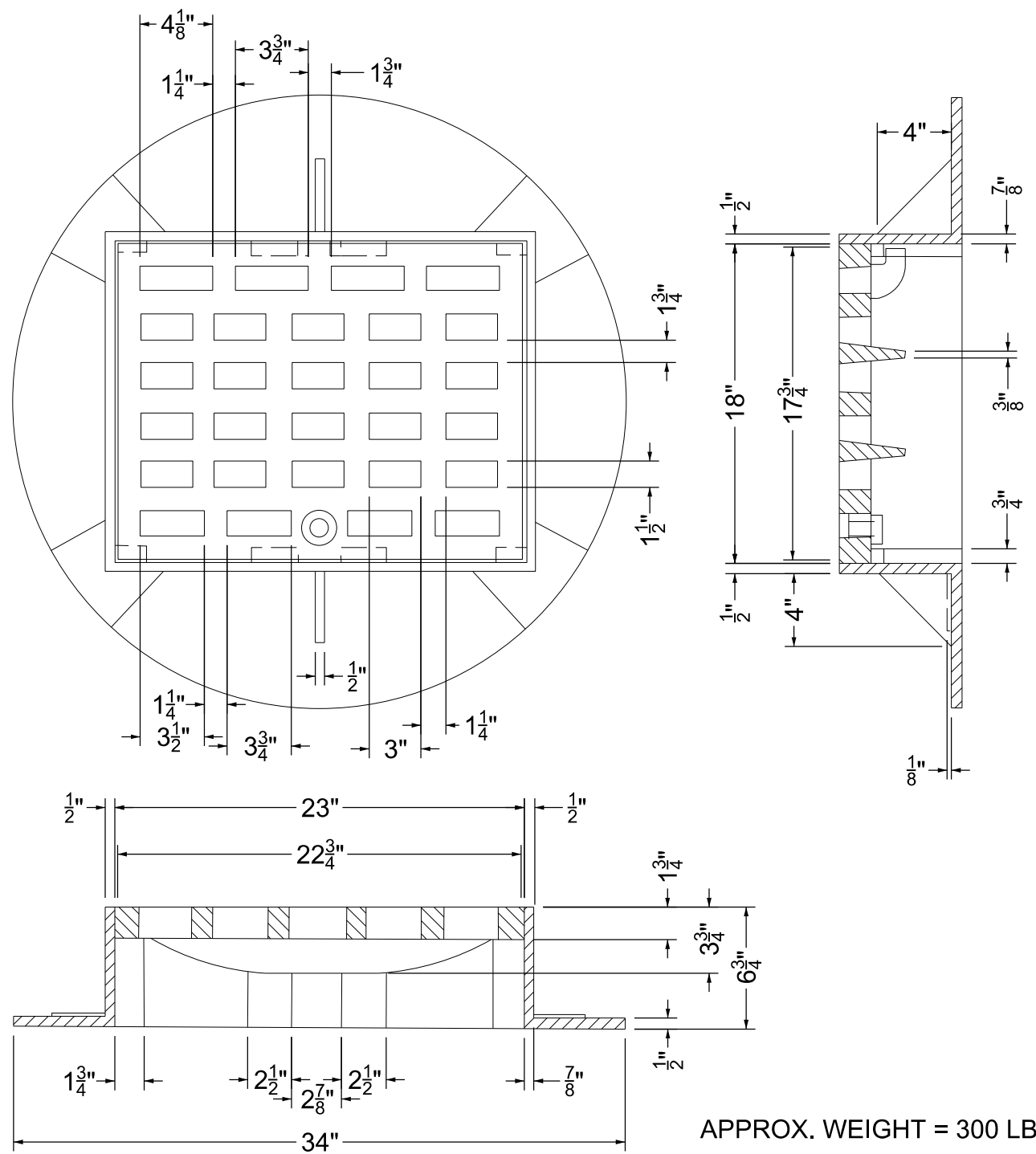
CASTINGS USED FOR ASSEMBLY
 GRATE NO. 816 (MNDOT STD PLATE 4154B)
 CURB BOX ① NO. 823A (MNDOT STD PLATE 4160) OR

NOTES:
 USE 1/4" FILLETS IN ALL CORNERS. SEE MNDOT STANDARD PLATE 7111 FOR INSTALLATION REQUIREMENTS. APPLIES TO DESIGN B OR V CURB AND GUTTER.
 ① AT LOCATIONS INDICATED IN TOP VIEW, PROVIDE 9/16" DIA. HOLES WHEN GRATE NO. 816 (MNDOT STD PLATE 4154) IS USED WITH THIS FRAME. FIELD PLACE 1/2" DIA X 4" LONG GALV BOLT IN UP STREAM SIDE AND BENT UNDERSIDE TO PREVENT REMOVAL. THIS WILL PREVENT GRATE NO. 816 (MNDOT STD PLATE 4154) FROM BEING PLACED IN WRONG AND NOT BEING BICYCLE SAFE



GRATE FRAME CASTING TYPE C & D

FRAME RING AND CASTING TYPE A



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NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24)\Base\Proposed\DETAIL.dgn							

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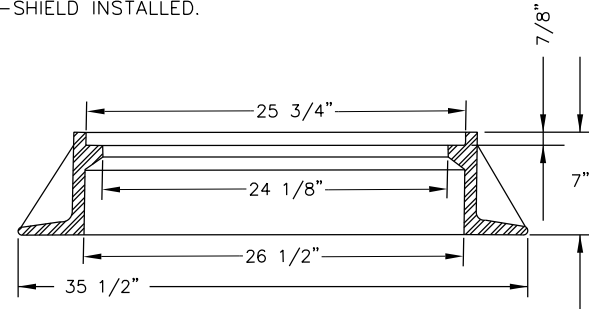
ANOKA COUNTY
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DETAILS
 Sheet 11 of 24 Sheets

STANDARD MANHOLE CASTING

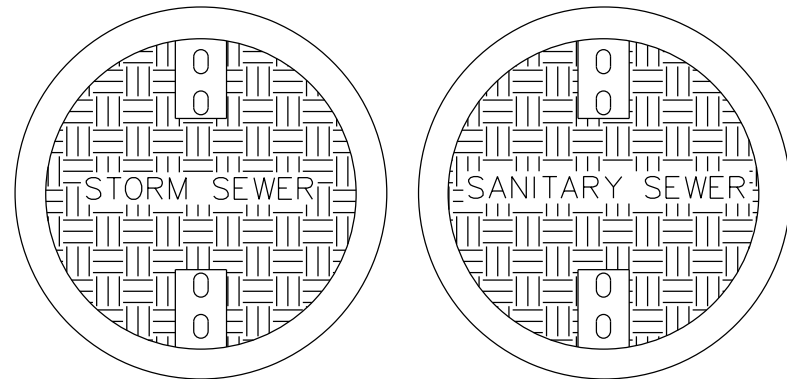
CASTING - NEENAH FOUNDRY NO. R-1733 SERIES MANHOLE FRAME OR APPROVED EQUAL. CASTING & RINGS TO HAVE INFI-SHIELD INSTALLED.



COVER-ESS BROTHER 301-CP LID. OR EQUAL WITH RUBBER GASKET ON THE BOTTOM OF THE LID.

NEENAH R1733-5044

NEENAH R1733-5044



NOTE: ALL LIDS MUST HAVE RUBBER GASKET ON THE BOTTOM OF THE LID.

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NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\DETAIL.dgn							

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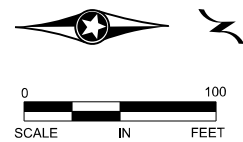
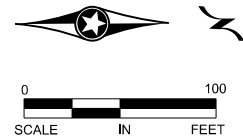
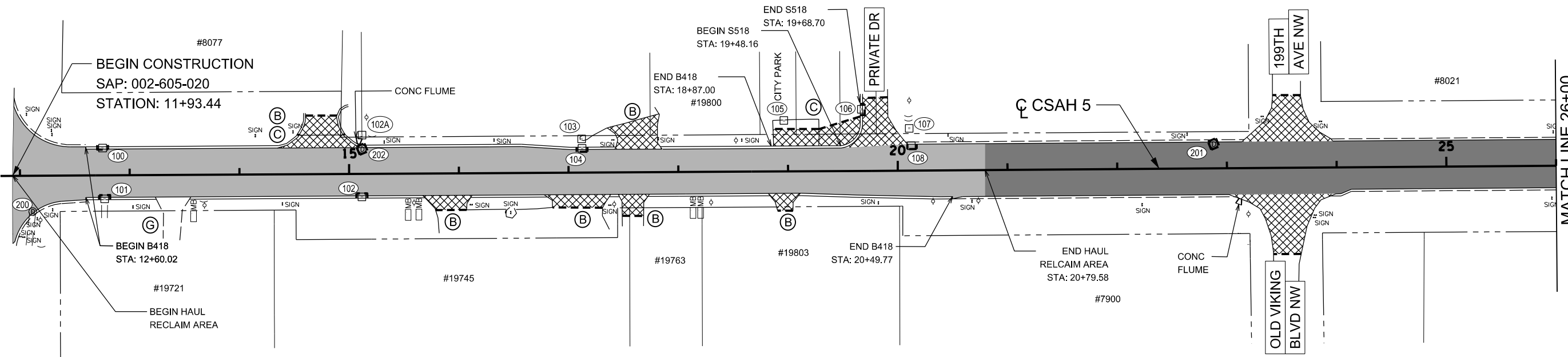
ANOKA COUNTY
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STATE AID PROJECT 002-605-020

DETAILS

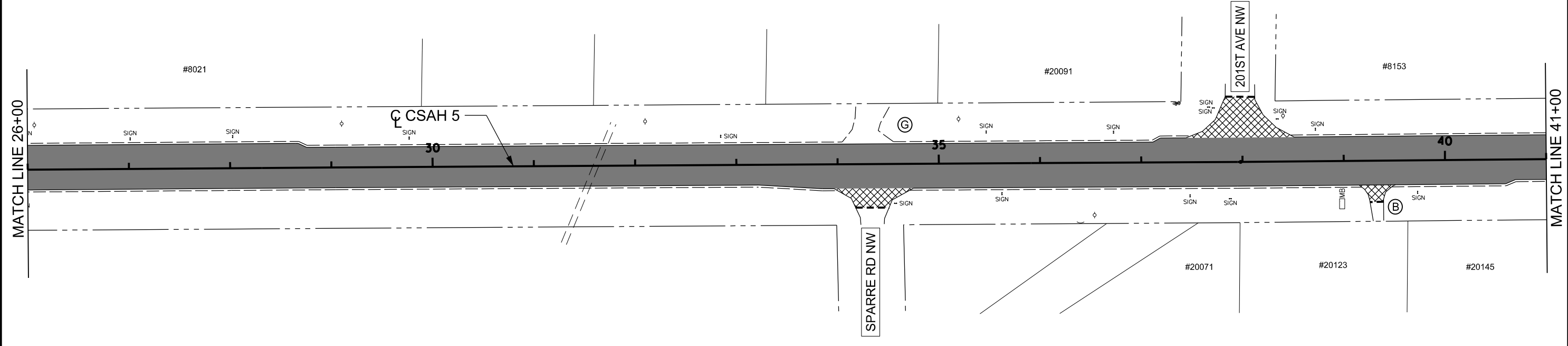
Sheet 12 of 24 Sheets

DBKost



LEGEND

(B)	BITUMINOUS	---	CULVERT
(G)	GRAVEL	[Solid Grey]	MAINLINE RECLAIM & PAVE AREA
(C)	CONCRETE	[Light Grey]	MAINLINE RECLAIM HAUL & PAVE AREA
+	CORE LOCATION	[Cross-hatch]	REMOVE AND REPLACE PAVEMENT
---	SAWCUT	[Diagonal Hatch]	SUPER TRANSITION AREA
----- R / W -----			



NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:37 AM

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\1Base\Proposed\CP1.dgn

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ANOKA COUNTY
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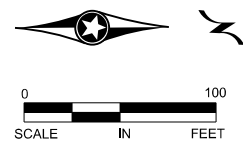
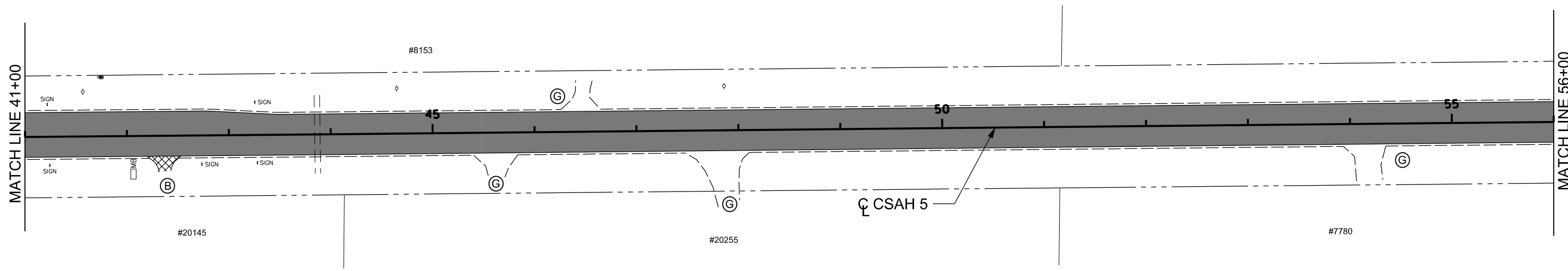
STATE AID PROJECT 002-605-020

CONSTRUCTION PLAN
STA 11+93.44 TO 41+00.00
Sheet 13 of 24 Sheets

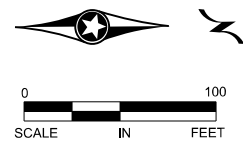
DBKost

MATCH LINE 41+00

MATCH LINE 56+00

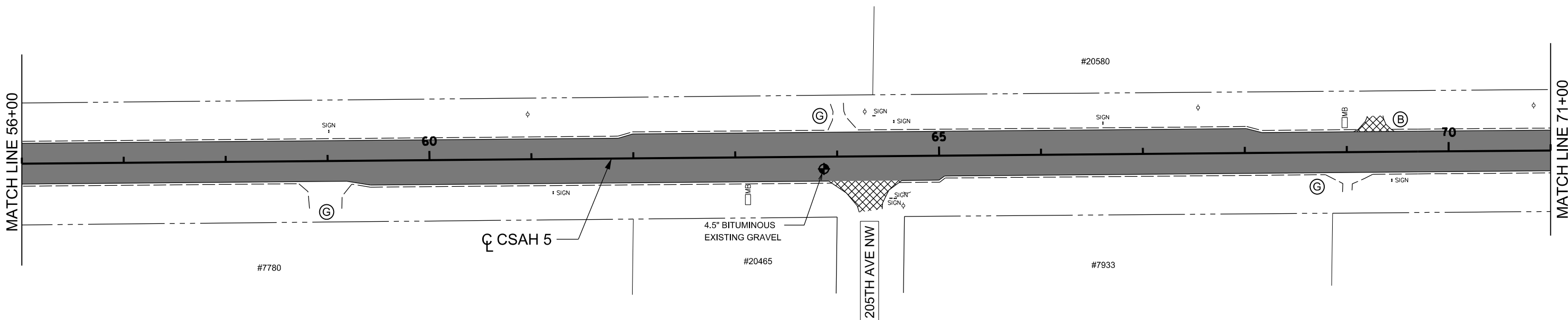


LEGEND			
(B)	BITUMINOUS	---	CULVERT
(G)	GRAVEL	[Dark Grey Box]	MAINLINE RECLAIM & PAVE AREA
(C)	CONCRETE	[Light Grey Box]	MAINLINE RECLAIM HAUL & PAVE AREA
+	CORE LOCATION	[Cross-hatch Box]	REMOVE AND REPLACE PAVEMENT
---	SAWCUT	[Diagonal Hatch Box]	SUPER TRANSITION AREA
		R / W	



MATCH LINE 56+00

MATCH LINE 71+00



NO	DATE	BY	CKD	APPR	REVISION	
	12/15/2023					11:45:38 AM

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\1Base\Proposed\CP2.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. AUGER JR.

SIGNATURE: *[Signature]*

DATE: 12-08-2023 LICENSE NO. 26511

DRAWN BY DBK DATE 12/15/2023

DESIGN BY DBK DATE 12/15/2023

CHECKED BY CO DATE 12/15/2023

**ANOKA COUNTY
HIGHWAY DEPT.**

STATE AID PROJECT 002-605-020

CONSTRUCTION PLAN
STA 41+00.00 TO 71+00.00
Sheet 14 of 24 Sheets

DBKost

MATCH LINE 71+00

MATCH LINE 86+00

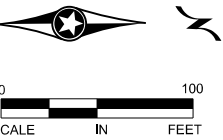
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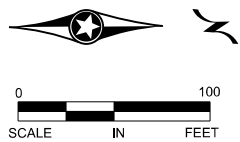
CSAH 5

#20843



LEGEND

(B)	BITUMINOUS	---	CULVERT
(G)	GRAVEL	[Dark Grey Box]	MAINLINE RECLAIM & PAVE AREA
(C)	CONCRETE	[Light Grey Box]	MAINLINE RECLAIM HAUL & PAVE AREA
+	CORE LOCATION	[Cross-hatch Box]	REMOVE AND REPLACE PAVEMENT
---	SAWCUT	[Diagonal-hatch Box]	SUPER TRANSITION AREA
		---	R / W



MATCH LINE 86+00

MATCH LINE 101+00

#20880

CSAH 5

#21010

#21070

#20843

PC. 98+20.68

NO	DATE	BY	CKD	APPR	REVISION	TIME
	12/15/2023					11:45:39 AM

NAME: P:\24-01-00\CSAH_05_(Viking Blvd-CSAH 24)\Base\Proposed\CP3.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. AUGER JR.

SIGNATURE: *[Signature]*

DATE: 12-08-2023 LICENSE NO. 26511

DRAWN BY DBK DATE 12/15/2023

DESIGN BY DBK DATE 12/15/2023

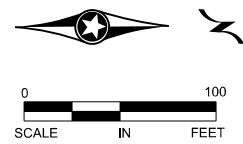
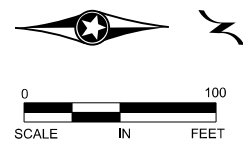
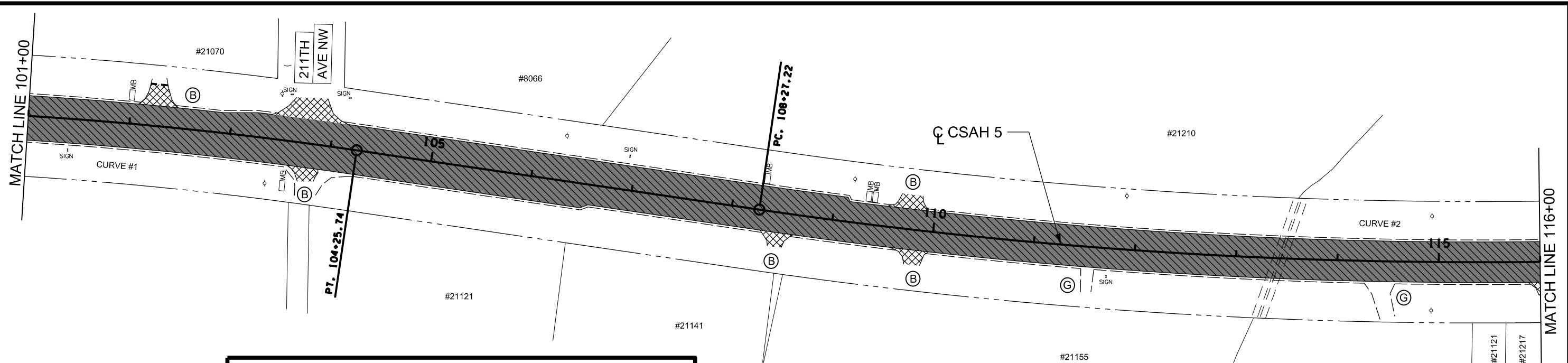
CHECKED BY CO DATE 12/15/2023

ANOKA COUNTY
HIGHWAY DEPT.

STATE AID PROJECT 002-605-020

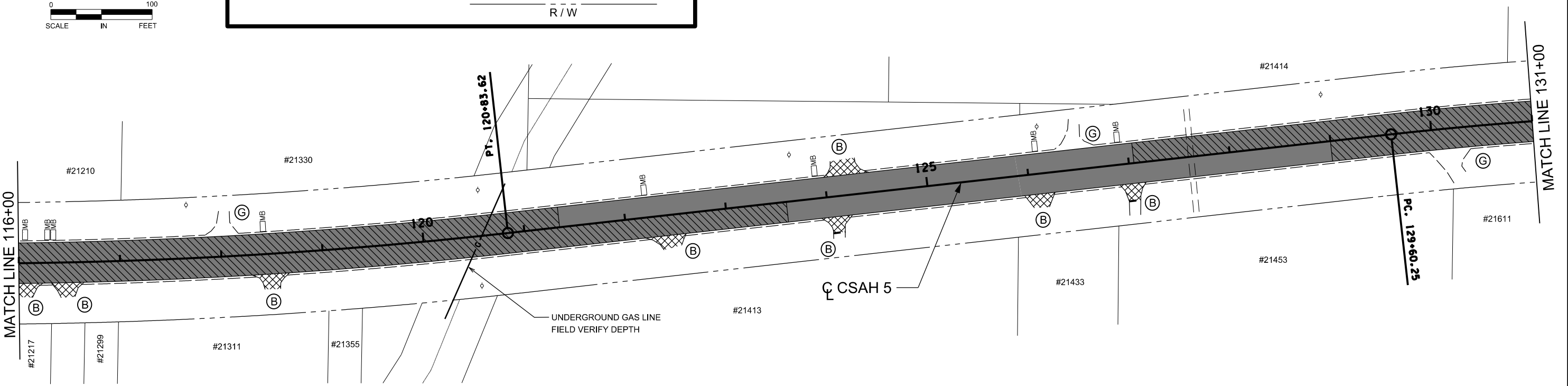
CONSTRUCTION PLAN
STA 71+00.00 TO 101+00.00
Sheet 15 of 24 Sheets

DBKost



LEGEND

(B) BITUMINOUS	--- CULVERT
(G) GRAVEL	█ MAINLINE RECLAIM & PAVE AREA
(C) CONCRETE	█ MAINLINE RECLAIM HAUL & PAVE AREA
⊕ CORE LOCATION	▨ REMOVE AND REPLACE PAVEMENT
--- SAWCUT	▩ SUPER TRANSITION AREA
	--- R / W



NO	DATE	BY	CKD	APPR	REVISION	TIME
	12/15/2023					11:45:40 AM

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\CP4.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. AUGER JR.

SIGNATURE: *[Signature]*

DATE: 12-08-2023 LICENSE NO. 26511

DRAWN BY DBK DATE 12/15/2023

DESIGN BY DBK DATE 12/15/2023

CHECKED BY CO DATE 12/15/2023

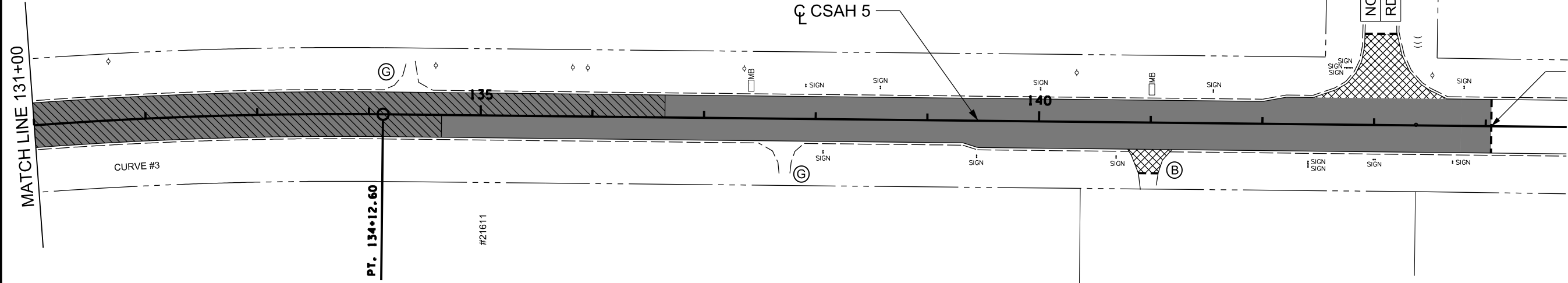
**ANOKA COUNTY
HIGHWAY DEPT.**

STATE AID PROJECT 002-605-020

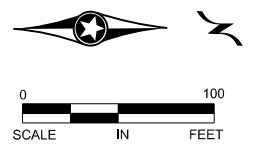
CONSTRUCTION PLAN

STA 101+00.00 TO 131+00.00

Sheet 16 of 24 Sheets



END CONSTRUCTION
 SAP: 002-605-020
 STATION: 144+04.98



LEGEND

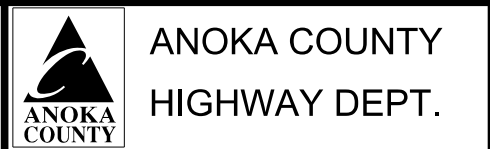
(B) BITUMINOUS	--- CULVERT
(G) GRAVEL	■ MAINLINE RECLAIM & PAVE AREA
(C) CONCRETE	■ MAINLINE RECLAIM HAUL & PAVE AREA
⊕ CORE LOCATION	▨ REMOVE AND REPLACE PAVEMENT
--- SAWCUT	▩ SUPER TRANSITION AREA

————— R / W

NO	DATE	BY	CKD	APPR	REVISION	12/15/2023	11:45:42 AM
NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Bases\Proposed\CP5.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. AUGER JR.
 SIGNATURE: *[Signature]*
 DATE: 12-08-2023 LICENSE NO. 26511

DRAWN BY DBK DATE 12/15/2023
 DESIGN BY DBK DATE 12/15/2023
 CHECKED BY CO DATE 12/15/2023



STATE AID PROJECT 002-605-020

CONSTRUCTION PLAN
 STA 131+00.00 TO 144+04.98
 Sheet 17 of 24 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.

PREFORMED PAVEMENT MARKING TAPE

1. CONTRACTOR SHALL USE PRODUCTS LISTED ON MNDOT'S APPROVED PRODUCTS LIST.
2. INSTALLATION SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS.

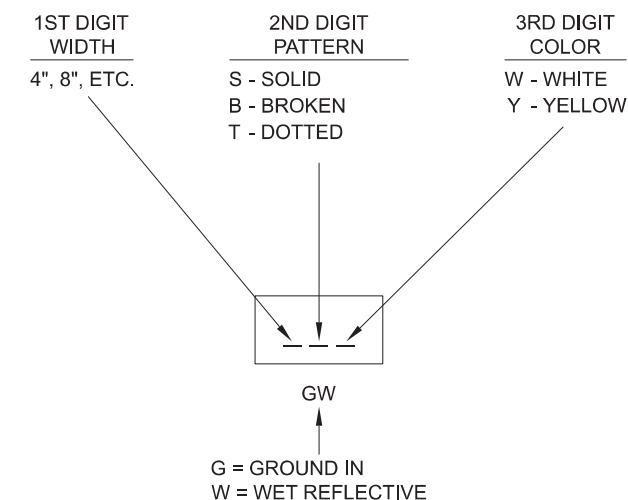
PERMANENT STRIPING

PERMANENT PAVEMENT MARKING TABULATION			
ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
		WHITE	YELLOW
4" SOLID LINE PREFORM TAPE, GROUND IN, WET REFLECTIVE	LIN FT	28167	2379
4" SOLID DOUBLE LINE PREFORM TAPE, GROUND IN, WET REFLECTIVE	LIN FT		3715
4" BROKEN LINE PREFORM TAPE, GROUND IN, WET REFLECTIVE	LIN FT		1859
8" DOTTED LINE PREFORM TAPE, GROUND IN, WET REFLECTIVE	LIN FT	144	

PAVEMENT MARKING SYMBOLS & MATERIALS LEGEND

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

- - - - - DOTTED LINE - 168' CYCLE (3' LINE, 12' GAP)



EXAMPLE: 4SW = 4" SOLID LINE WHITE PREFORM TAPE GROUND IN, WET REFLECTIVE

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_83_(173RD AVE-CR 64)\Base\Traffic\CSAH 83 - Signing & Striping

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: *Sean R. Thiel*
 DATE: 11/17/2023 LICENSE NO. 45129

DRAWN BY: ALS DATE: 11/13/23
 DESIGN BY: ALS DATE: 11/13/23
 CHECKED BY: _____ DATE: _____



SAP 002-605-020

PERMANENT PAVEMENT
MARKING NOTES AND
TABULATIONS

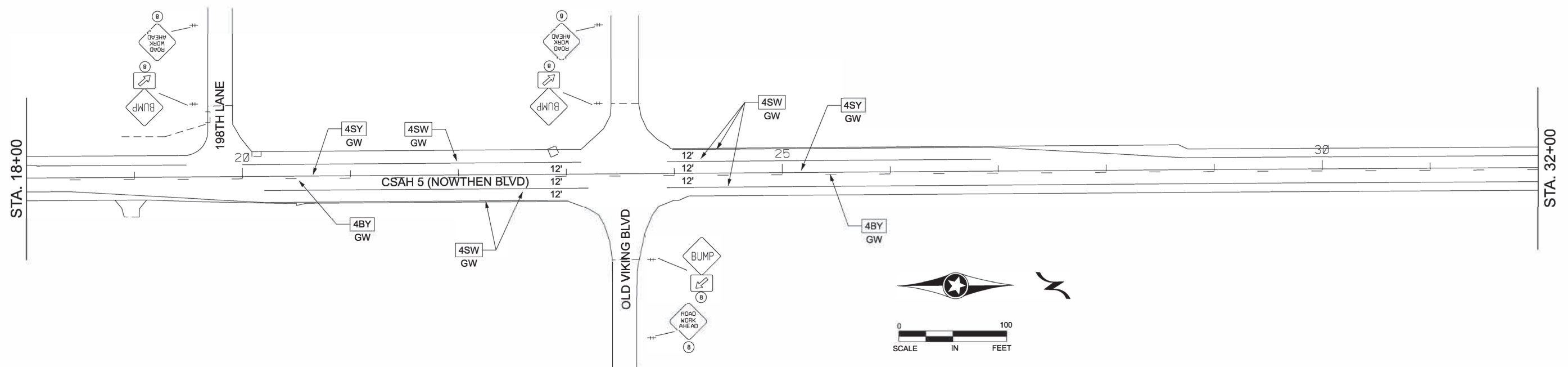
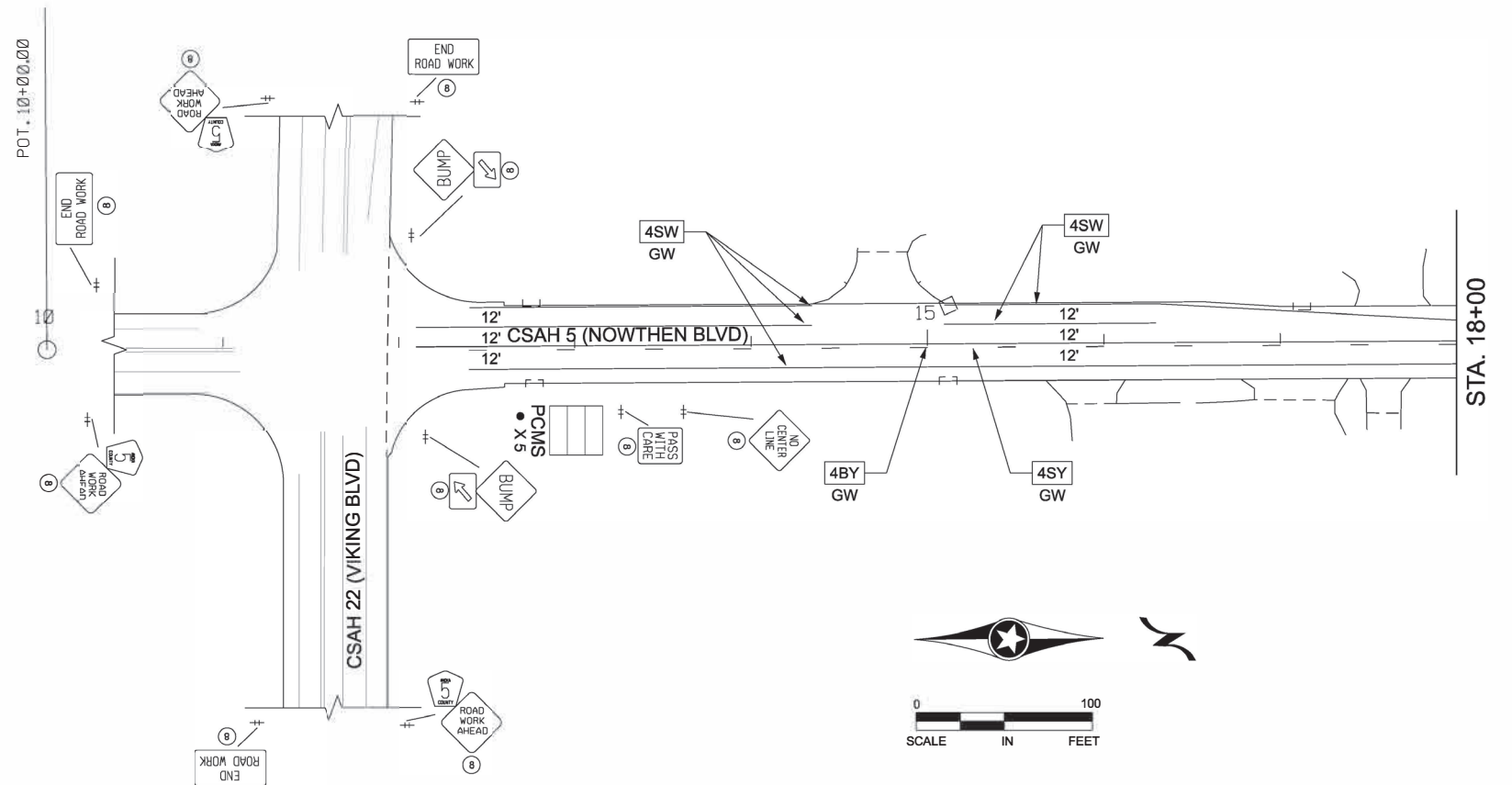
Sheet 18 of 24 Sheets

SIGNING NOTES

- ① F&I
- ⑧ TEMPORARY TRAFFIC CONTROL SIGN

STRIPING KEY

X-X-X → BOX - PREF-TAPE
 GW → GROUND IN, WET REFLECTIVE



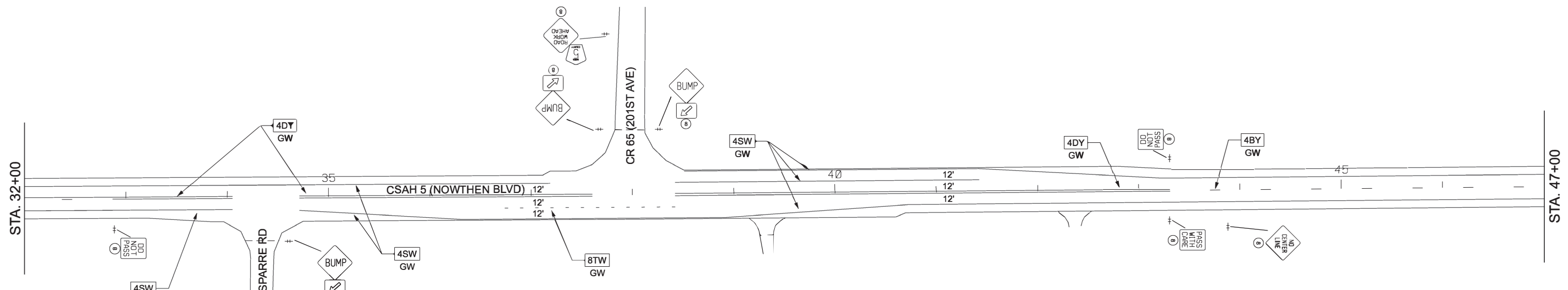
NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\24-01-00\CSAH_05_(VIKING BLVD-CSAH 24)\Base\Traffic\CSAH 5 - Signing and Striping					

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.
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ANOKA COUNTY
HIGHWAY DEPT.

SAP 002-605-020

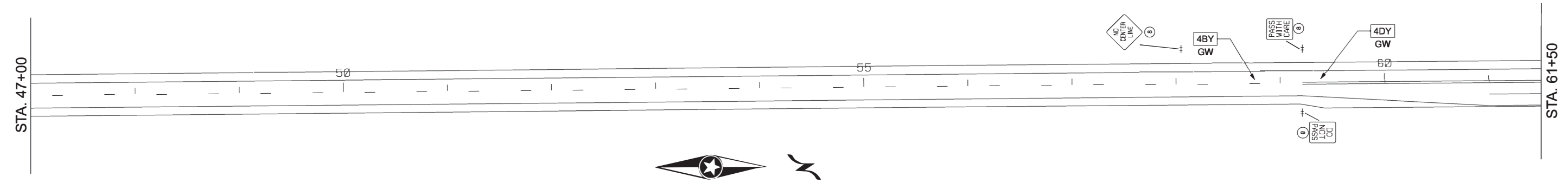


SIGNING NOTES

- ① F&I
- ⑧ TEMPORARY TRAFFIC CONTROL SIGN

STRIPING KEY

- X-X-X → BOX - PREF-TAPE
- GW → GROUND IN, WET REFLECTIVE



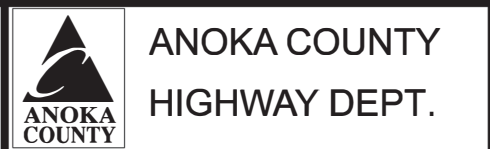
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Base\Traffic\CSAH 5 - Signing and Striping

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 DATE: 11/17/2023 LICENSE NO. 45129

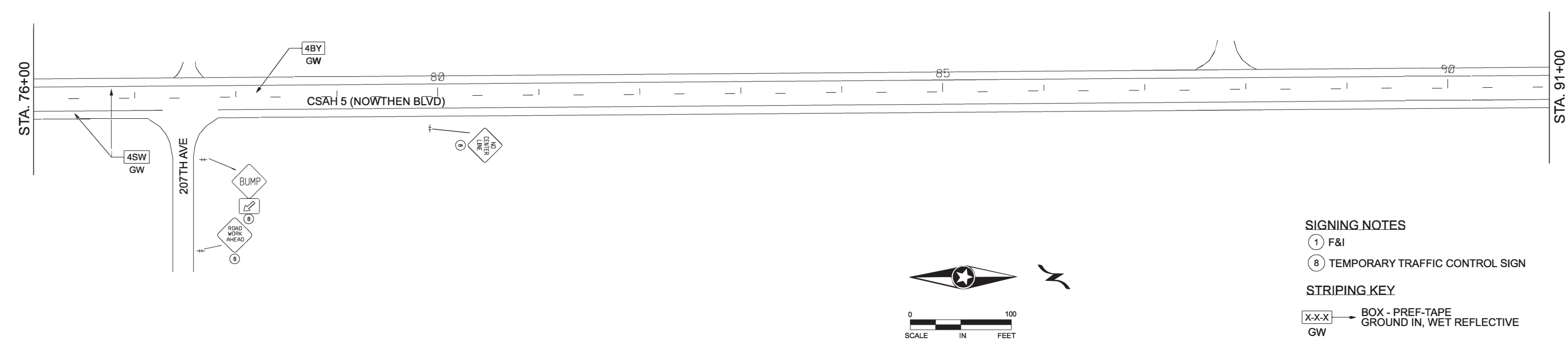
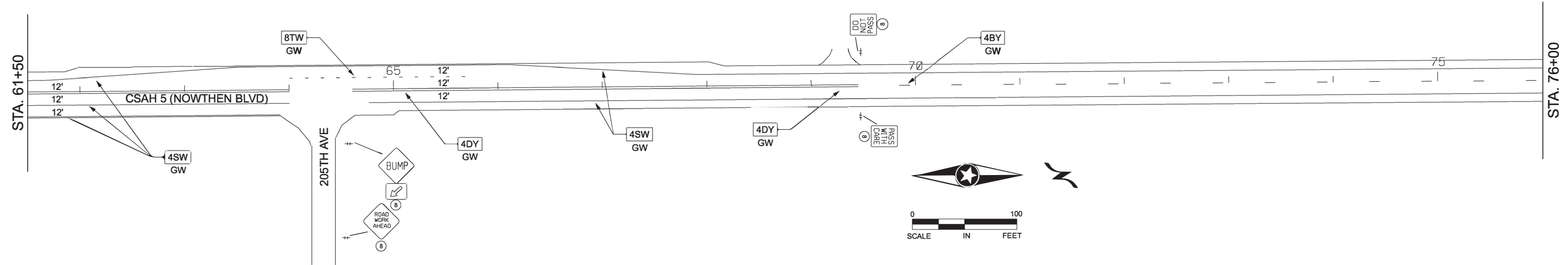
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 DESIGN BY: ALS DATE: 11/13/23
 CHECKED BY: _____ DATE: _____



SAP 002-605-020

TEMPORARY SIGNING AND PERMANENT STRIPING

Sheet 20 of 24 Sheets



- SIGNING NOTES**
- ① F&I
 - ⑧ TEMPORARY TRAFFIC CONTROL SIGN
- STRIPING KEY**
- X-X-X → BOX - PREF-TAPE
 - GW → GROUND IN, WET REFLECTIVE

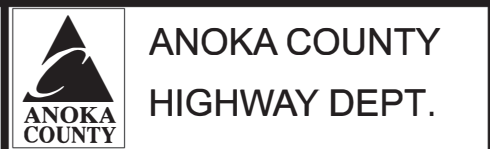
NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_05_(Viking Blvd-CSAH 24)\Base\Traffic\CSAH 5 - Signing and Striping

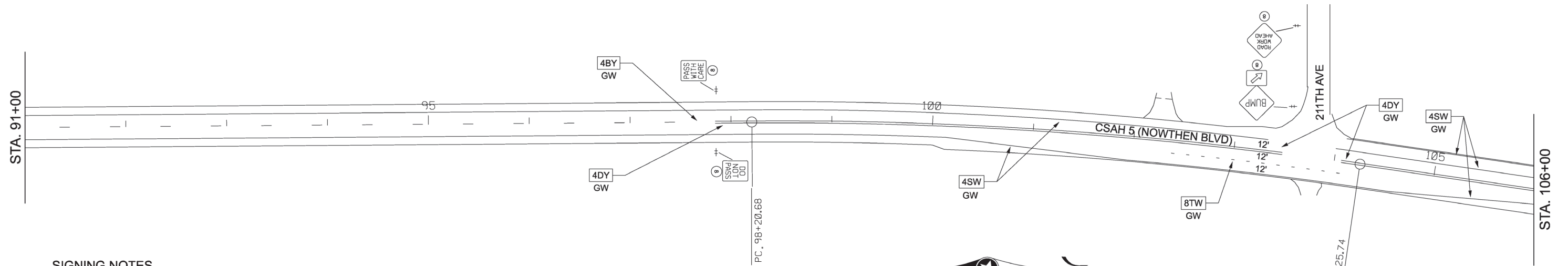
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 SIGNATURE: *Sean R. Thiel*
 DATE: 11/17/2023 LICENSE NO. 45129

DRAWN BY: ALS DATE: 11/13/23
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 CHECKED BY: _____ DATE: _____



SAP 002-605-020

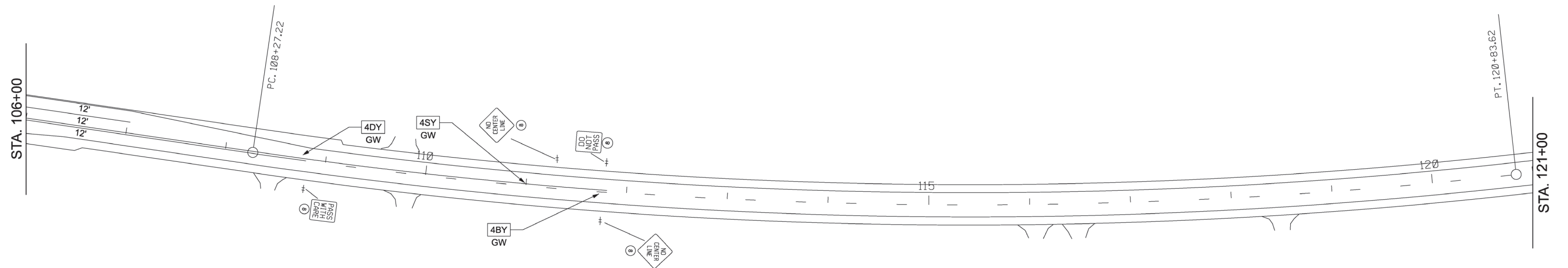
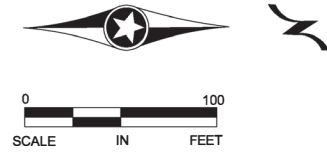


SIGNING NOTES

- ① F&I
- ⑧ TEMPORARY TRAFFIC CONTROL SIGN

STRIPING KEY

X-X-X → BOX - PREF-TAPE
 GW → GROUND IN, WET REFLECTIVE



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_05_VIKING BLVD-CSAH 24\Base\Traffic\CSAH 5 - Signing and Striping

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 DATE: 11/17/2023 LICENSE NO. 45129

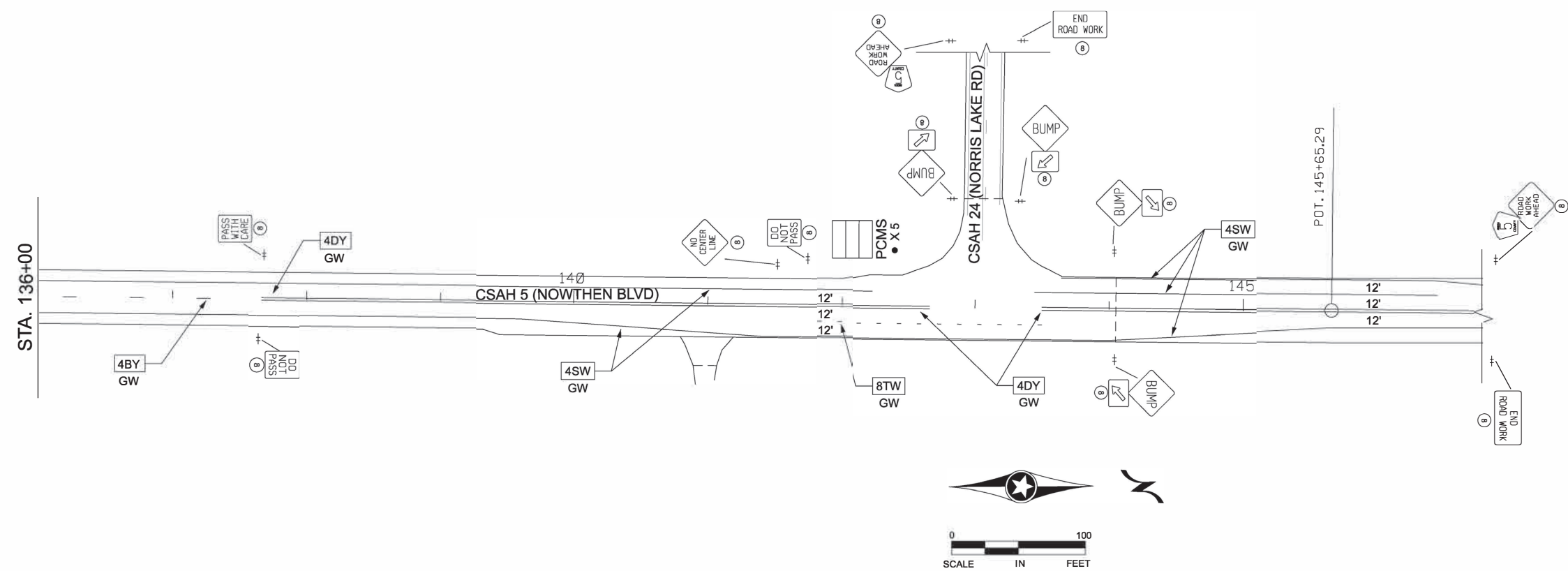
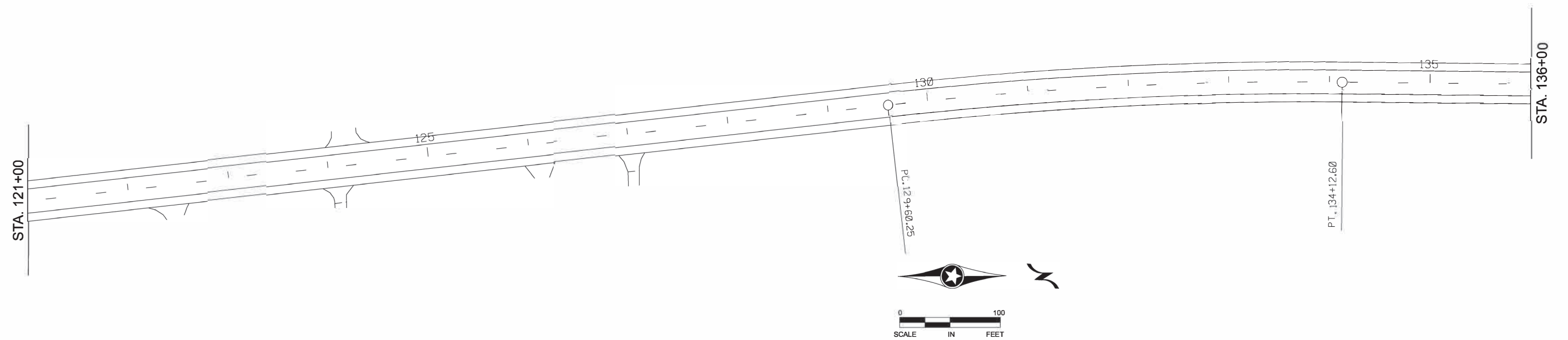
DRAWN BY: ALS DATE: 11/13/23
 DESIGN BY: ALS DATE: 11/13/23
 CHECKED BY: _____ DATE: _____



SAP 002-605-020

TEMPORARY SIGNING AND PERMANENT STRIPING

Sheet 22 of 24 Sheets



- SIGNING NOTES**
- ① F&I
 - ⑧ TEMPORARY TRAFFIC CONTROL SIGN
- STRIPING KEY**
- X-X-X → BOX - PREF-TAPE GROUND IN, WET REFLECTIVE GW

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_05 (VIKING BLVD-CSAH 24)\BaseTraffic\CSAH 5 - Signing and Striping

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DRAWN BY: ALS DATE: 11/13/23
 DESIGN BY: ALS DATE: 11/13/23
 CHECKED BY: _____ DATE: _____

ANOKA COUNTY HIGHWAY DEPT.

SAP 002-605-020

TEMPORARY TRAFFIC CONTROL SIGNS AND DEVICES

"W" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	W3-4	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W8-1	BLACK ON ORANGE	48" X 48"	15
	W16-7PL	BLACK ON ORANGE	30" X 18"	15
	W8-8	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W8-9	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W8-11	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W8-12	BLACK ON ORANGE	48" X 48"	7
	W8-23	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W20-1	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W20-4	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W20-7	BLACK ON ORANGE	48" X 48"	AS NEEDED

"R" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	R4-1	BLACK ON WHITE	24" X 30"	8
	R4-2	BLACK ON WHITE	24" X 30"	7

"M" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	M1-6M	WHITE AND YELLOW ON BLUE	24 X 24	6

"G" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	G20-2	BLACK ON ORANGE	48" X 24"	5

DEVICES		
ITEM	MUTCD CODE	QUANTITY
	DRUM	AS NEEDED (ESTIMATED 10)
	TYPE C	2 (10 DAYS EACH)

PCMS - MESSAGE SEQUENCE LAYOUT

	R	O	A	D	
	W	O	R	K	
	B	E	G	I	N
	S				

<	D	A	T	E	>
	E	X	P	E	C
	D	E	L	A	Y
	S				

NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."
- ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MN MUTCD.
- CONTRACTOR SHALL COMPLY WITH THE LONGITUDINAL DROP-OFF GUIDELINES AS PER THE FIELD MANUAL.
- LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- CONTRACTOR SHALL SUPPLY AND PLACE THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) A MINIMUM TEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK, TO A LOCATION AS SPECIFIED BY THE ENGINEER. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS. PAYMENT SHALL BE MADE AS PER ITEM 2563.613 PORTABLE CHANGEABLE MESSAGE SIGN BY THE UNIT/DAY.
- CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING AND DETAILED IN THE SPECIAL PROVISIONS FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
- ACCESS SHALL BE MAINTAINED TO ALL STREETS AND DRIVEWAYS IN CONSTRUCTION AREA.
- ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
- ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING.
- ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. ANY SALVAGED AND REINSTALLED SIGNS SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE. THIS WILL BE CONSIDERED AS INCIDENTAL TO INSTALL SIGN TYPE C.

SIGNING NOTES

- ① F. & I.
- ⑧ TEMPORARY TRAFFIC CONTROL SIGN

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION
±	TRAFFIC CONTROL SIGN (SINGLE POST)
++	TRAFFIC CONTROL SIGN (TEMPORARY)
●	DRUM-LIKE CHANNELIZER TYPE B =
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\24-01-00\CSAH_05_(Viking Blvd-CSAH 24)\Base\Traffic\CSAH 5 - Signing and Striping

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DRAWN BY: ALS DATE: 11/13/23
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SAP 002-605-020