

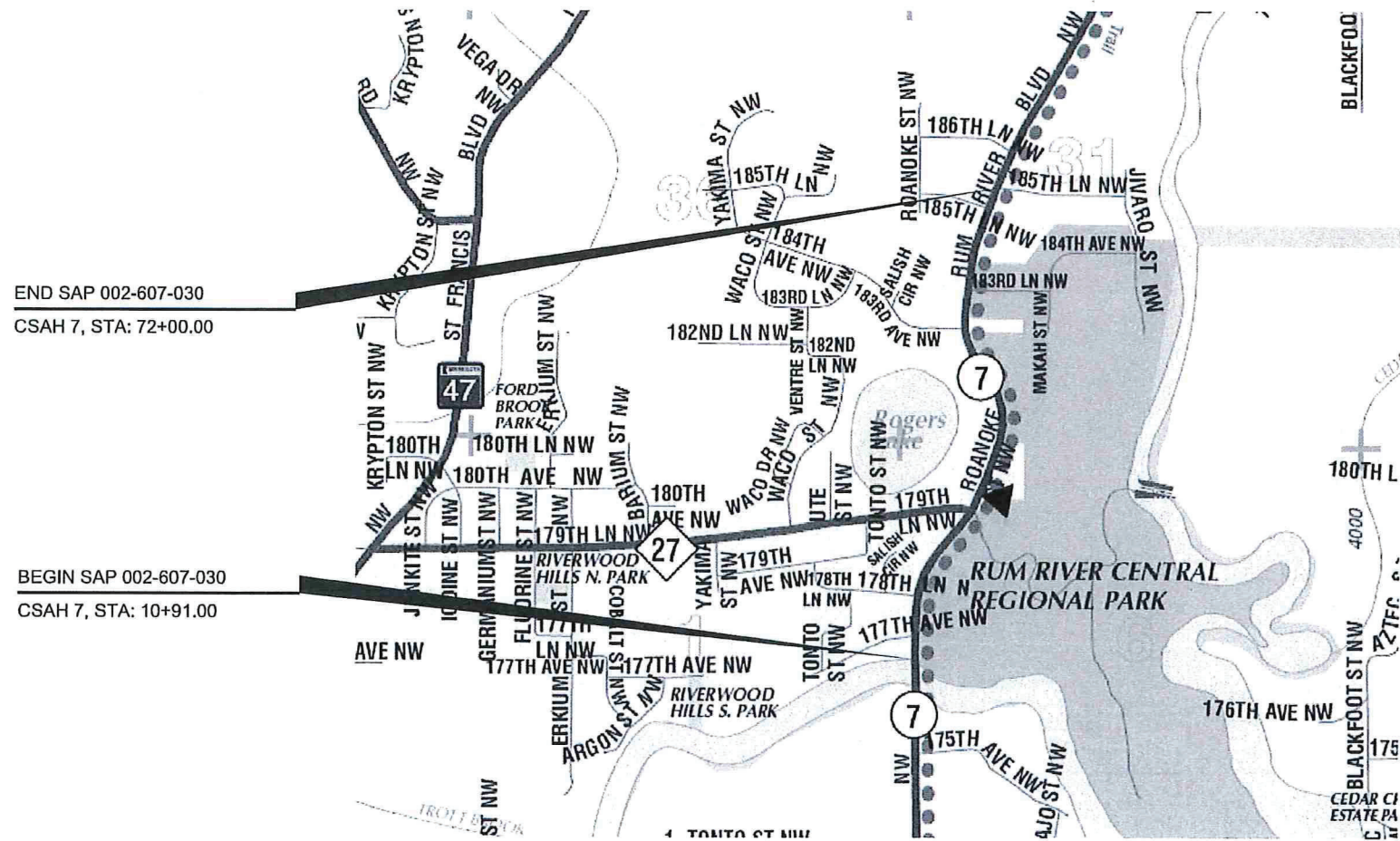
# MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR BITUMINOUS SURFACING, BITUMINOUS RECLAMATION, CURB & GUTTER

LOCATED ON CSAH 7 BETWEEN RUM RIVER BRIDGE AND 185th LANE NW

CSAH 7

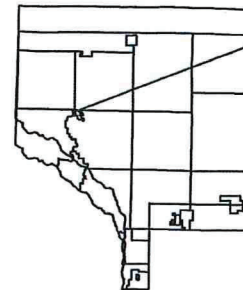
GROSS LENGTH	6105.00 FEET	1.156 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	6105.00 FEET	1.156 MILES



END SAP 002-607-030  
CSAH 7, STA: 72+00.00

BEGIN SAP 002-607-030  
CSAH 7, STA: 10+91.00

## PROJECT LOCATION



CITY OF RAMSEY & OAK GROVE  
ANOKA COUNTY  
MN/DOT TRANSPORTATION DISTRICT - METRO  
SECTION 1, 6, 31, 36  
TOWNSHIP 32, 33 NORTH  
RANGE 24 WEST

### DESIGN DESIGNATION (CSAH 7)

ESAL 20	1,042,795	FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL
R VALUE	70	NO. OF TRAFFIC LANES	2
ADT (2023)	8827	NO. OF PARKING LANES	0
PROJ. ADT (2042)	8827	DESIGN SPEED	55 MPH
PROJ. HCADT (2042)	530	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

### GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND THE "SUPPLEMENTAL SPECIFICATIONS" DATED SEPTEMBER 2022 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 17 SHEETS

### INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TABULATIONS
4 - 5	TYPICAL SECTIONS
6 - 7	DETAILS
8	SUPERELEVATION TABULATIONS
9 - 11	CONSTRUCTION PLAN
12	PERMANENT PAVEMENT MARKING PLAN NOTES & GUIDELINES
13 - 16	TEMPORARY SIGNING & PERMANENT STRIPING
17	TEMPORARY SIGNING QUANTITIES

Approved [Signature] 5-18-23, 20  
ANOKA COUNTY ENGINEER

Approved [Signature] 5/24/23, 20  
CITY OF RAMSEY ENGINEER

Approved Charles D. Schwartz, PE 5/25, 20 23  
CITY OF OAK GROVE ENGINEER

**Lucas Lortie**

Digitally signed by Lucas Lortie  
Date: 2023.05.25 14:31:41  
+05'00'

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

**Lucas Lortie**

Digitally signed by Lucas Lortie  
Date: 2023.05.25 14:32:06  
+05'00'

STATE AID ENGINEER:  
For APPROVED FOR STATE AID FUNDING

NO	DATE	BY	CKD	APPR	REVISION

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: May 10, 2023 LICENSE NO. 26511

DRAWN BY MR DATE 02/24/2023  
DESIGN BY MR DATE 02/24/2023  
CHECKED BY CO DATE 05/05/2023



**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

TITLE SHEET  
Sheet 1 of 17 Sheets

### STATEMENT OF ESTIMATED QUANTITIES

Notes	Item Number	ITEM DESCRIPTION	Unit	TOTAL PROJECT QUANTITIES ESTIMATED
	2021.501	MOBILIZATION	LUMP SUM	1
1	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	449
1	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	909
1, 2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	1098
	2105.607	COMMON EXCAVATION	CU YD	46
4a	2106.602	CONSTRUCT TURN LANES	EACH	1
3	2123.510	MOTOR GRADER	HOURL	12
	2130.523	WATER	M GALLON	210
4	2211.509	AGGREGATE BASE CLASS 5	TON	133
	2215.504	FULL DEPTH RECLAMATION	SQ YD	30016
5	2215.507	HAUL FULL DEPTH RECLAMATION (LV)	CU YD	86
6	2221.509	SHOULDER BASE AGGREGATE CLASS 5	TON	553
7	2232.504	MILL CONCRETE SURFACE (2.0")	SQ YD	23
8	2232.604	MILL BITUMINOUS PAVEMENT (SPECIAL)	SQ YD	257
	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	1548
9	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3;B)	TON	161
10	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	285
	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (4;C)	TON	7013
11	2506.502	CASTING ASSEMBLY	EACH	2
	2511.504	GEOTEXTILE FILTER TYPE 3	SQ YD	6
	2511.507	RANDOM RIPRAP CLASS II	CU YD	9
	2531.503	CONCRETE CURB AND GUTTER DESIGN B418	LIN FT	479
	2531.604	CONCRETE DRAINAGE FLUME	SQ YD	4
12	2540.602	MAIL BOX SUPPORT	EACH	19
	2563.601	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1
13, 14	2563.601	TRAFFIC CONTROL	LUMP SUM	1
15	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	20
	2574.507	COMMON TOPSOIL BORROW	CU YD	73
16	2575.508	HYDRAULIC REINFORCED FIBER MATRIX	POUND	347
17	2582.503	4" SOLID LINE MULTI-COMPONENT GROUND IN	LIN FT	14022
17	2582.503	4" BROKEN LINE MULTI-COMPONENT GROUND IN	LIN FT	180
17	2582.503	4" DOUBLE SOLID LINE MULTI-COMPONENT GROUND IN	LIN FT	4938
17	2582.503	24" SOLID LINE PREFORM THERMO GROUND IN	LIN FT	500

### CONSTRUCTION NOTES

1	REFERENCE DETAILS (PAGE 6-7) FOR REMOVAL DETAILS
2	ITEM FOR BITUMINOUS DRIVEWAYS AND STREET APPROACHES. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
3	ITEM USED TO MOVE EXCESS RECLAIM MATERIAL AT THE RECLAIM AREA LIMITS TO CREATE A SMOOTH TRANSITION BETWEEN THE PROPOSED AND EXISTING PAVEMENT
4	ITEM TO BE USED AS BASE FOR CURB PATCHES, BASE FOR BITUMINOUS STREET APPROACHES AND DRIVEWAYS, AND FOR SUPERELEVATION / GRADE CORRECTION.
4a	THIS ITEM INCLUDES: COMMON EXCAVATION, SELECT GRANULAR BORROW, TOPSOIL, AND AGG. BASE CL-5. SHAPING OF SUB-GRADE AND AGGREGATE BASE ARE INCIDENTAL TO CONSTRUCT TURN LANE ITEM. NO QUANTITIES HAVE BEEN CALCULATED, CONTRACTOR IS RESPONSIBLE TO DETERMINE QUANTITIES FOR TURN LANE CONSTRUCTION.
5	ITEM USED TO HAUL EXCESS RECLAIM FROM TIE-IN POINTS AND REUSED ON SITE.
6	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
8	ITEM INCLUDES 2" DEEP MILL AT BEGINNING AND END OF PROJECT, ALL PAVED ST APPROACHES, AND DRIVEWAYS; SEE DETAILS FOR DIMENSIONS. ALSO INCLUDES TAPER MILL OVER APPROACH PANEL.
9	ITEM FOR BITUMINOUS DRIVEWAYS. DRIVEWAYS SHALL BE PAVED AFTER MAINLINE AND BEFORE FINAL STRIPING. AND FOR PAVING BITUMINOUS TRAIL.
10	STREET APPROACHES SHALL BE PAVED AFTER MAINLINE, AND BEFORE FINAL STRIPING. ITEM TO ALSO BE USED FOR BITUMINOUS FLUME.
11	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
12	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.
13	CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY SIGNAGE WHENEVER EXISTING SIGNAGE IS REMOVED. TEMPORARY SIGNAGE SHALL BE INCIDENTAL TO TRAFFIC CONTROL.
14	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.
15	2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT, SHALL BE INSTALLED 10 DAYS PRIOR TO ANY CONSTRUCTION; REFERENCE STRIPING PLAN FOR DETAILS.
16	TYPE 3 FERTILIZER AND TYPE 25-121 SEED ARE INCIDENTAL TO THIS ITEM. SEE "BASIS OF PLANNED QUANTITIES" FOR APPLICATION RATES.
17	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
4026B	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4110F	COVER CASTING FOR MANHOLE (FOR USE IN ALL TRAFFIC AREAS) – CASTING NO. 715
7100H	CONCRETE CURB AND GUTTER (DESIGN B AND DESIGN V)
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)
9350B	MAILBOX SUPPORT - SWING-AWAY TYPE

### BASIS OF PLANNED QUANTITIES

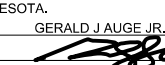
2357	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD
2211	AGGREGATE BASE CLASS 5	1.8 TONS / CU YD
2360	ALL BITUMINOUS PAVEMENT	115 LBS / SQ YD / IN THICKNESS
2581	REMOVABLE PREFORM PAVEMENT MARKING TAPE	2' AT 50' INTERVALS
2575	SEED MIXTURE 25-121	61 LBS./ ACRE
2574	FERTILIZER TYPE 3	350 LBS./ ACRE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

NO	DATE	BY	CKD	APPR	REVISION
	06/02/2023				11:41:23 AM

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\Base\Proposed\SEQ.dgn

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PRINT NAME: GERALD J AUGER JR.

SIGNATURE: 

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY: MR DATE 02/24/2023

DESIGN BY: MR DATE 02/24/2023

CHECKED BY: CO DATE 06/02/2023



**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

STATEMENT OF ESTIMATED QUANTITIES

Sheet 2 of 17 Sheets

### BITUMINOUS STREET SUMMARY

LOCATION	BITUMINOUS	NOTES
	2360 TYPE SP 12.5 WEAR (4,C)	
	TON	
177TH AVE	31	[1]
178TH LANE	66	[1]
179TH LANE	56	[1]
PARK RD	38	[1]
183RD AVE W	36	[1]
185TH LANE E	34	[1]
185TH LANE W	24	[1]
<b>PROJECT TOTAL</b>	<b>285</b>	

### STORM DRAINAGE TAB

NUMBER	TYPE	ACTION	NEW CASTING TYPE	FURNISH AND INSTALL CASTING ASSEMBLY	RING HEIGHT (INCIDENTAL)	NOTES
				EACH	LIN FT	
200	MH	RE-RING	A-7D	1	1.2	
201	MH	RE-RING	A-7D	1	1	
<b>TOTALS</b>				<b>2</b>	<b>2.2</b>	

#### BITUMINOUS SUMMARY NOTES:

[1] QUANTITY ESTIMATED FOR 2 LIFTS

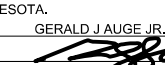
### CASTING ASSEMBLIES SUMMARY

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
ALL CASTING HEIGHTS ARE 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. ADJUSTING RINGS TO BE INSTALLED AND GLUED DURING THE PAVING OPERATION. ADJUSTING RINGS TO BE RECESSED 1/4" FROM TOP OF FINISHED MAT						

NO	DATE	BY	CKD	APPR	REVISION
	05/15/2023				

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**ANOKA COUNTY  
HIGHWAY DEPT.**

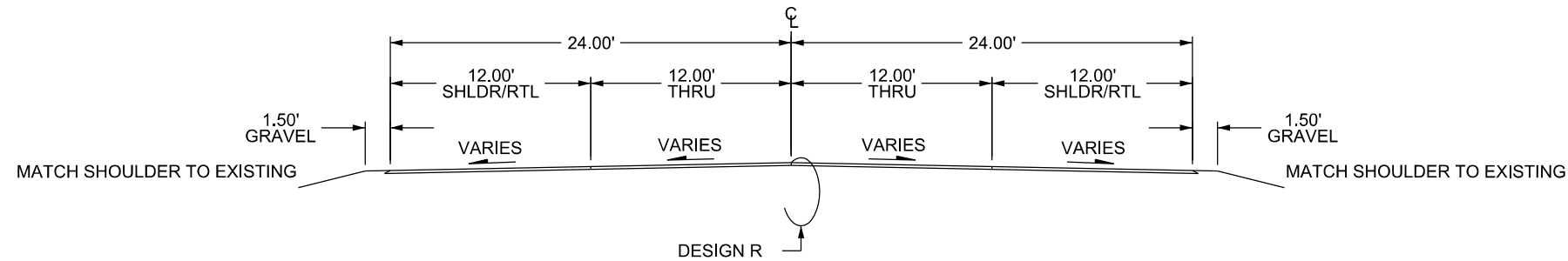
STATE AID PROJECT 002-607-030

TABULATIONS

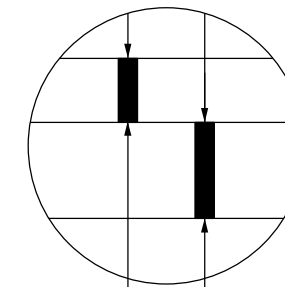
Sheet 3 of 17 Sheets

**CSAH 7 - RUM RIVER BLVD NW**  
EXISTING/PROPOSED SECTION

10+91.00 - 34+16.00



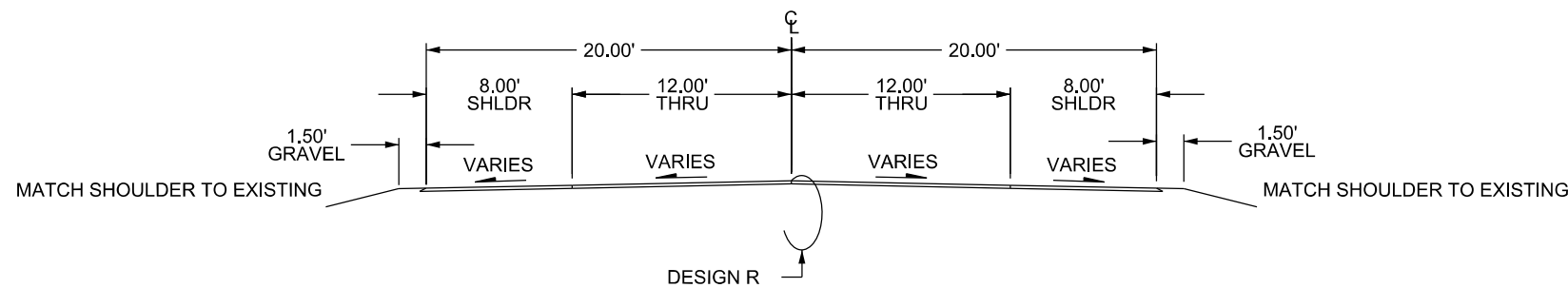
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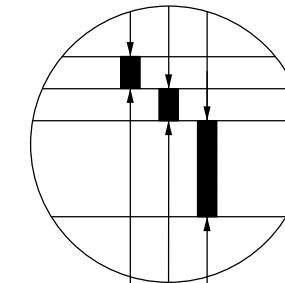
4" EXISTING BITUMINOUS  
EXISTING AGGREGATE BASE  
NOTE: FIELD VERIFY PAVEMENT DEPTH

**CSAH 7 - RUM RIVER BLVD NW**  
EXISTING/PROPOSED SECTION

34+16.00 - 38+00.00  
38+48.00 - 53+54.00  
55+31.00 - 72+00.00



**DESIGN R  
RECLAIM SECTION**

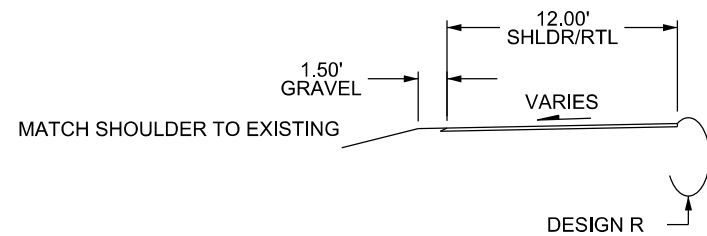


2.0" BITUMINOUS WEAR(SPWEB440C)  
2.0" BITUMINOUS WEAR(SPWEB440C)  
RECLAIMED BITUMINOUS

**LSB RIGHT TURN LANE**

EXISTING/PROPOSED SECTION

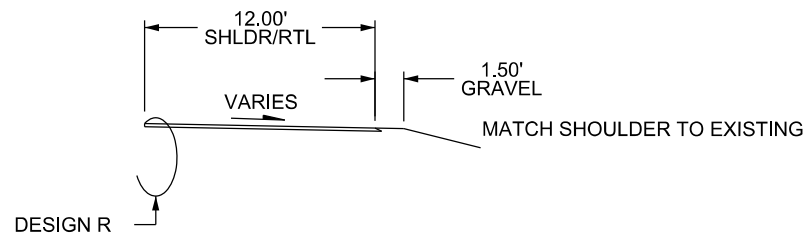
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**LNB RIGHT TURN LANE**

EXISTING/PROPOSED SECTION

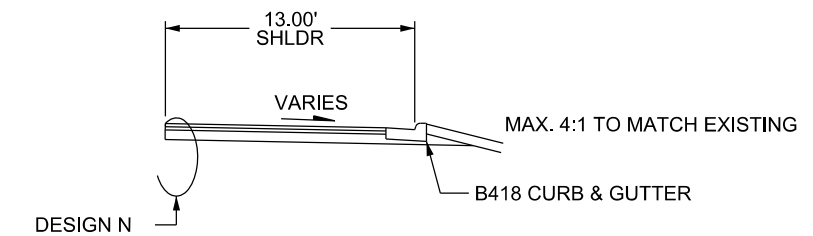
25+91.82 - 27+63.46  
66+43.00 - 72+00.00



**LNB RIGHT TURN LANE**

PROPOSED SECTION

27+63.46 - 30+71.82



NO	DATE	BY	CKD	APPR	REVISION	06/02/2023	8:40:52 AM
NAME: P:\23-01-00\CSAH_7_(BRIDGE-185TH LN)\Base\Proposed\TYPICALS.dgn							

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PRINT NAME: GERALD J. AUGER, JR.  
SIGNATURE: *[Signature]*  
DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY: MR. DATE 04/24/2023  
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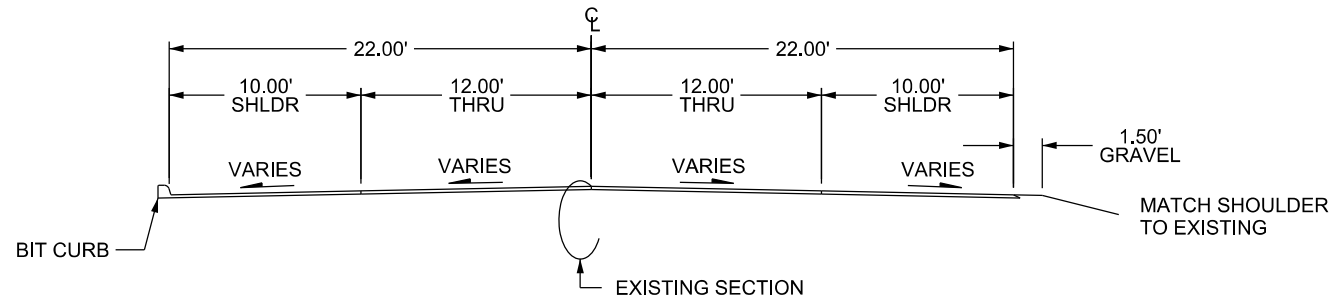
STATE AID PROJECT 002-607-030

TYPICAL SECTIONS  
Sheet 4 of 17 Sheets

**CSAH 7 - RUM RIVER BLVD NW**

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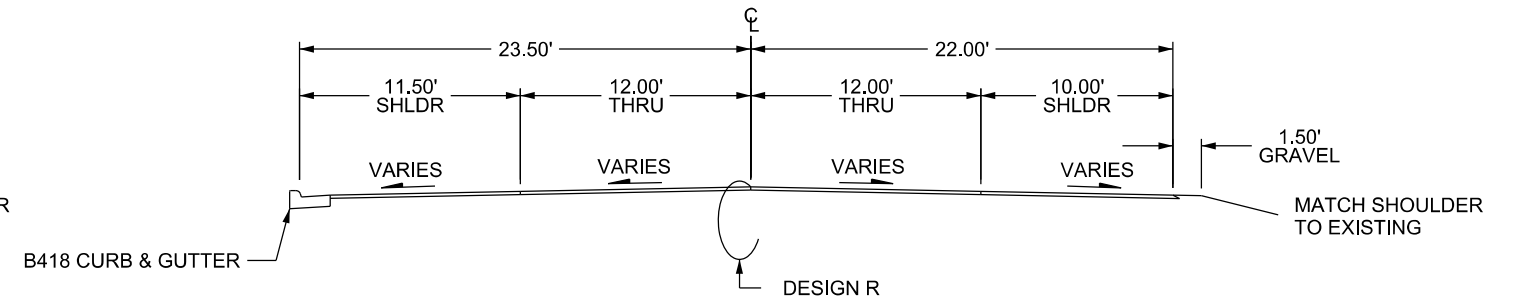
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**CSAH 7 - RUM RIVER BLVD NW**

PROPOSED SECTION

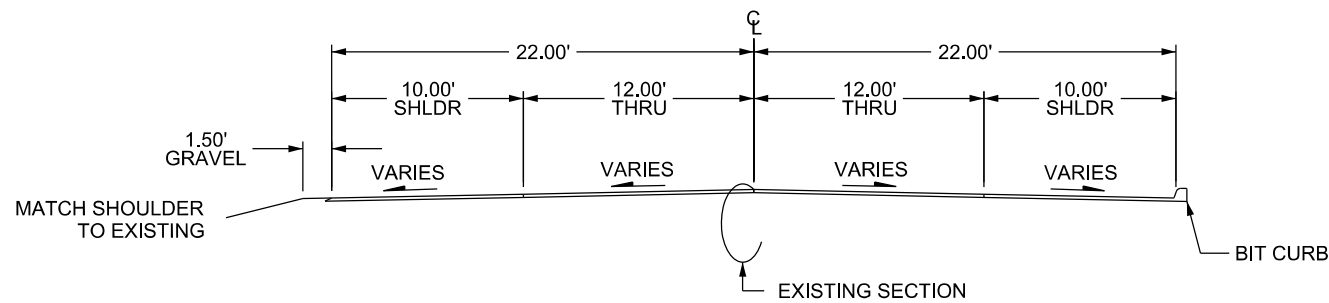
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**CSAH 7 - RUM RIVER BLVD NW**

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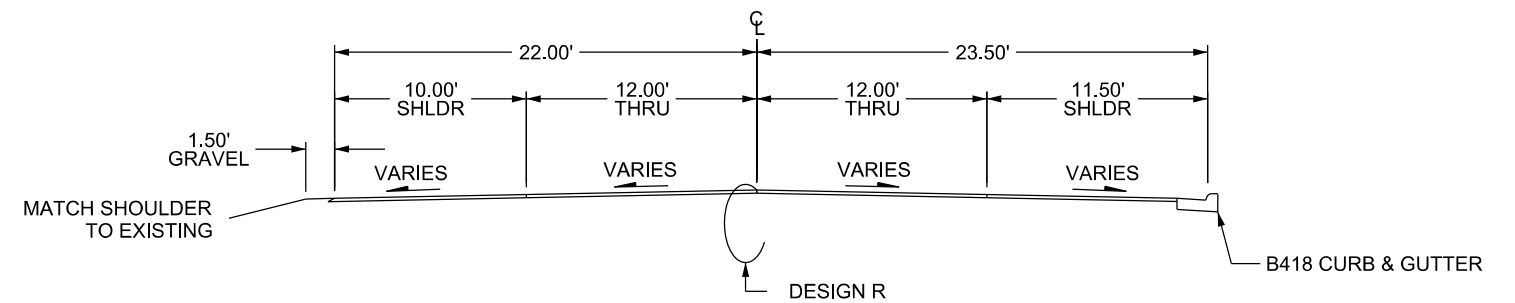
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**CSAH 7 - RUM RIVER BLVD NW**

PROPOSED SECTION

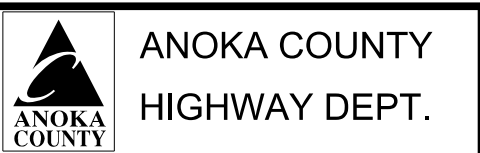
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STATE AID PROJECT 002-607-030

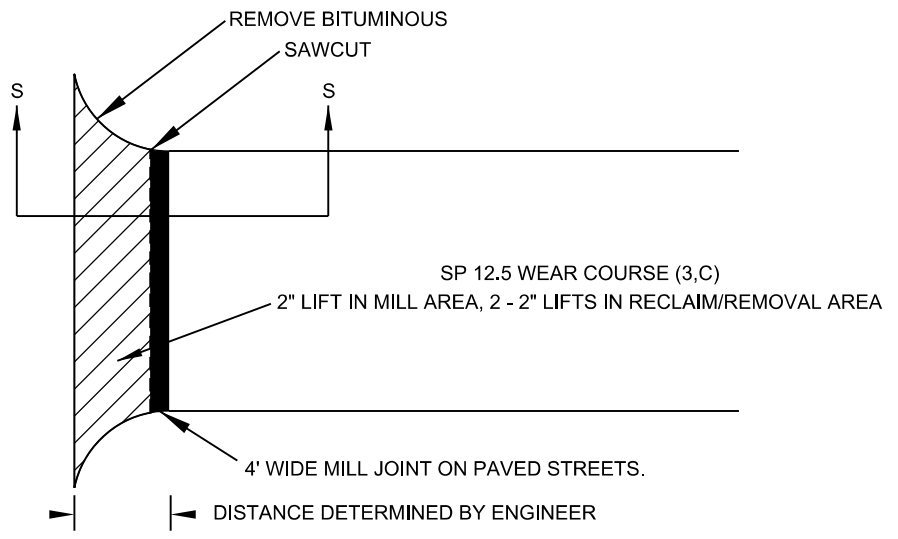
TYPICAL SECTIONS  
 Sheet 5 of 17 Sheets

SPH005

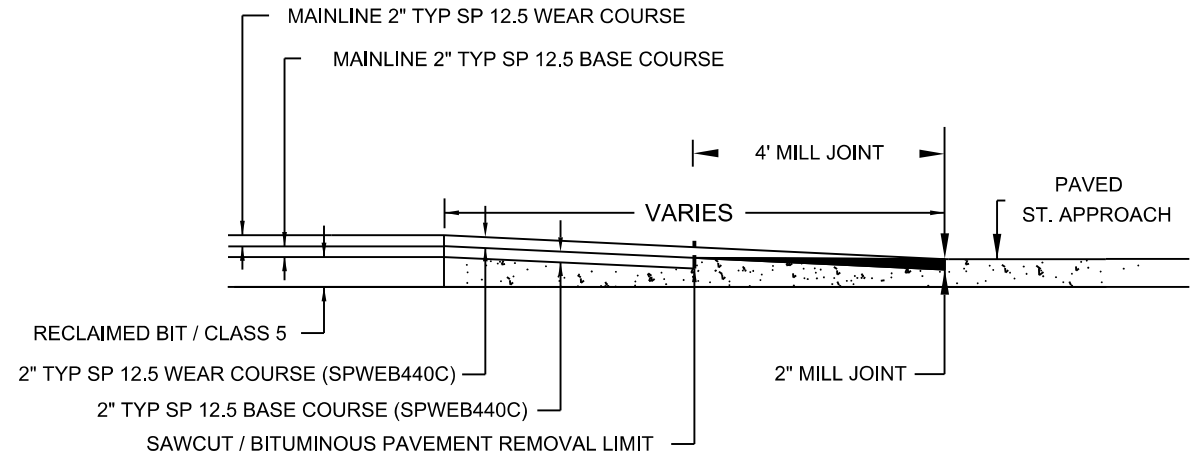
# STREET APPROACH DETAIL (RECLAIM)

## BITUMINOUS STREET

PLAN VIEW

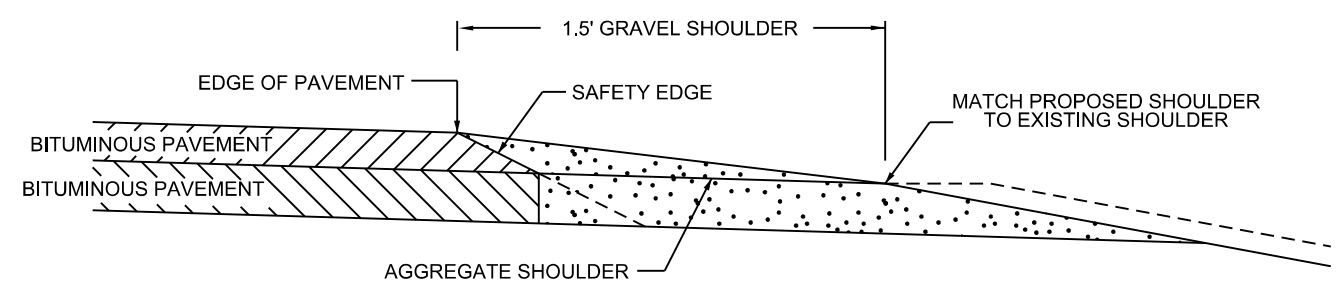


SECTION S - S



# 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.

NO	DATE	BY	CKD	APPR	REVISION	05/15/2023	8:48:02 AM
NAME: P:\23-01-00\CSAH_7_(BRIDGE-185TH LN)\Base\Proposed\DETAILS.dgn							

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SIGNATURE: *[Signature]*

DATE: 05-10-2023 LICENSE NO. 26511

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CHECKED BY CO DATE 05/15/2023



ANOKA COUNTY  
HIGHWAY DEPT.

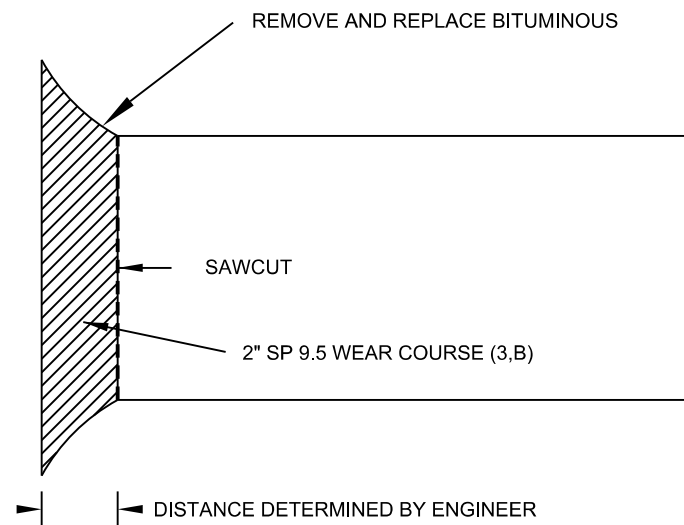
STATE AID PROJECT 002-607-030

DETAILS

Sheet 6 of 17 Sheets

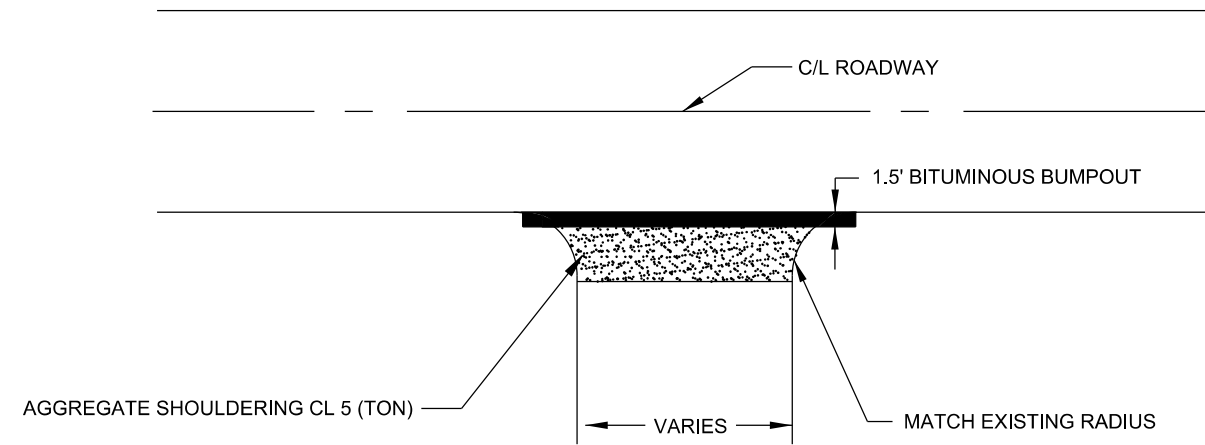
### RECLAIM AREA - DRIVEWAY DETAIL

BITUMINOUS



### DRIVEWAY DETAIL

GRAVEL / FIELD ENTRANCE



NO	DATE	BY	CKD	APPR	REVISION	05/15/2023	8:48:02 AM
NAME: P:\23-01-00\CSAH_7_(BRIDGE-185TH LN)\Base\Proposed\DETAILS.dgn							

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ANOKA COUNTY  
HIGHWAY DEPT.

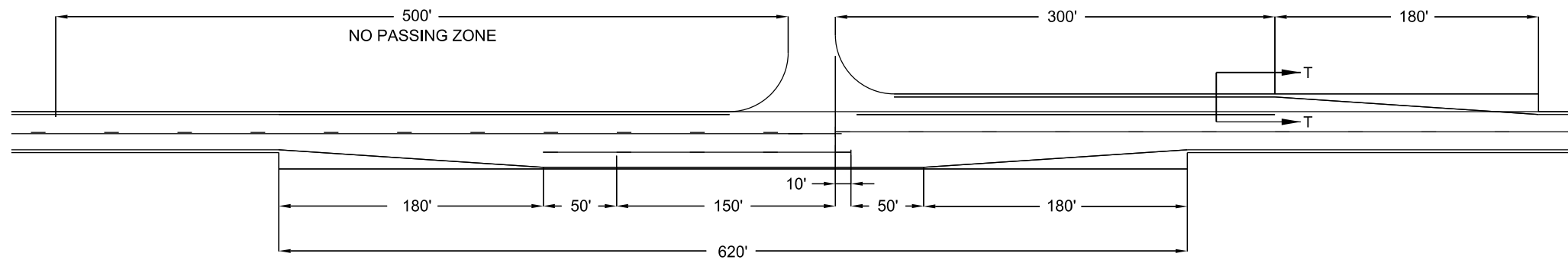
STATE AID PROJECT 002-607-030

DETAILS

Sheet 7 of 17 Sheets

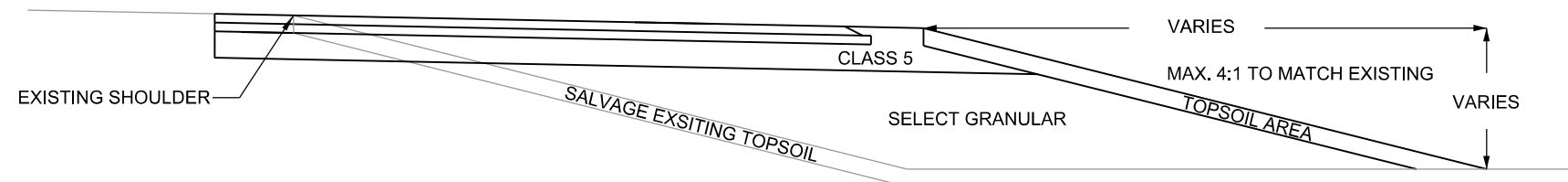
### RIGHT TURN AND BYPASS LANE

#### GENERAL LAYOUT PLAN VIEW

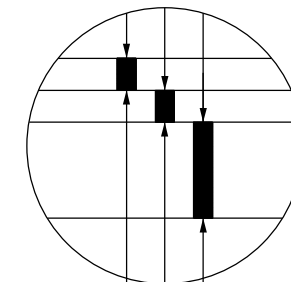


### RIGHT TURN AND BYPASS LANE

#### SECTION T - T



### DESIGN N RIGHT TURN & BYPASS LANE



2.0" BITUMINOUS WEAR(SPWEB440E)  
 2.0" BITUMINOUS WEAR(SPWEB440E)  
 6" AGGREGATE BASE, CLASS 5

NO	DATE	BY	CKD	APPR	REVISION	06/01/2023	12:33:36 PM
NAME: P:\23-01-00\CSAH_7_(BRIDGE-185TH LN)\Base\Proposed\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. AUGER, JR.

SIGNATURE: *[Signature]*

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY MR DATE 02/24/2023

DESIGN BY MR DATE 02/24/2023

CHECKED BY CO DATE 06/01/2023



**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

DETAILS

Sheet 7A of 17 Sheets



SUPERELEVATION CORRECTION TAB			
STATION	POINT	LEFT GRADE	RIGHT GRADE
11+00		-2.00	-2.00
11+50		-2.00	-2.00
12+00		-2.00	-2.00
12+50		-2.00	-2.00
13+00		-2.00	-2.00
13+50		-2.00	-2.00
14+00	BEGIN SUPER LT	-2.00	-2.00
14+50		-1.00	-2.00
15+00		0.00	-2.00
15+50		1.00	-2.00
16+00	BEGIN SUPER RT	2.00	-2.00
16+50		3.00	-3.00
17+00		4.00	-4.00
17+50		5.00	-5.00
18+00	BEGIN FULL SUPER	6.00	-6.00
18+50		6.00	-6.00
19+00		6.00	-6.00
19+50		6.00	-6.00
20+00		6.00	-6.00
20+50		6.00	-6.00
21+00		6.00	-6.00
21+50		6.00	-6.00
22+00		6.00	-6.00
22+50		6.00	-6.00
23+00		6.00	-6.00
23+50		6.00	-6.00
24+00	END FULL SUPER	6.00	-6.00
24+50		5.00	-5.00
25+00		4.00	-4.00
25+50		3.00	-3.00
26+00		2.00	-2.00
26+50		1.00	-1.00
27+00		0.00	0.00
27+50		-1.00	1.00
28+00		-2.00	2.00
28+50	BEGIN SUPER RT	-2.00	3.00
29+00		-2.00	3.00
29+50		-2.00	3.00

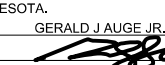
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STATION	POINT	LEFT GRADE	RIGHT GRADE
30+00		-2.00	3.00
30+50		-2.00	3.00
31+00		-2.00	3.00
31+50		-2.00	3.00
32+00	END FULL SUPER RT	-2.00	3.00
32+50		-2.00	2.00
33+00		-2.00	1.00
33+50		-2.00	0.00
34+00		-2.00	-1.00
34+50	END SUPER	-2.00	-2.00
35+00		-2.00	-2.00
35+50	BEGIN SUPER RT	-2.00	-2.00
36+00		-2.00	-1.00
36+50		-2.00	0.00
37+00		-2.00	1.00
37+50		-2.00	2.00
38+00	BEGIN SUPER LT	-2.00	3.00
38+50		-3.00	4.00
39+00		-4.00	5.00
39+50	BEGIN FULL SUPER RT	-5.00	6.00
41+00		-5.00	6.00
41+50	BEGIN FULL SUPER LT	-6.00	6.00
42+00		-6.00	6.00
42+50		-6.00	6.00
43+00		-6.00	6.00
43+50		-6.00	6.00
44+00	END FULL SUPER RT	-6.00	6.00
44+50		-6.00	5.00
45+00	END FULL SUPER LT	-6.00	4.00
45+50		-5.00	3.00
46+00		-4.00	2.00
46+50		-3.00	1.00
47+00	END SUPER LT	-2.00	0.00
47+50		-2.00	-1.00
48+00		-2.00	-1.50

SUPERELEVATION CORRECTION TAB			
STATION	POINT	LEFT GRADE	RIGHT GRADE
48+50	END SUPER RT/BEG SUPER RT	-2.00	-2.00
49+00		-1.50	-2.00
49+50		-1.00	-2.00
50+00		0.00	-2.00
50+50		1.00	-2.00
51+00	BEGIN SUPER RT	2.00	-2.00
51+50		3.00	-3.00
52+00		4.00	-4.00
52+50		5.00	-5.00
53+00	BEGIN FULL SUPER	6.00	-6.00
53+50		6.00	-6.00
54+00		6.00	-6.00
54+50	END FULL SUPER	6.00	-6.00
55+00		5.00	-5.00
55+50		4.00	-4.00
56+00		3.00	-3.00
56+50	END SUPER RT	2.00	-2.00
57+00		1.00	-2.00
57+50		0.00	-2.00
58+00		-1.00	-2.00
58+50		-1.50	-2.00
59+00	END SUPER LT	-2.00	-2.00
59+50		-2.00	-2.00
60+00	BEGIN SUPER LT	-2.00	-2.00
60+50		-1.00	-2.00
61+00		0.00	-2.00
61+50	BEGIN SUPER RT	1.00	-2.00
62+00		2.00	-2.50
62+50	BEGIN FULL SUPER	3.00	-3.00
63+00		3.00	-3.00
63+50		3.00	-3.00
64+00	END FULL SUPER	3.00	-3.00
64+50	END SUPER RT	2.00	-2.00
65+00		1.00	-2.00
65+50		0.00	-2.00
66+00		-1.00	-2.00
66+50	END SUPER LT	-2.00	-2.00

NO	DATE	BY	CKD	APPR	REVISION	05/15/2023	8:48:03 AM
NAME: P:\23-01-00\CSAH_7_(BRIDGE-185TH LN)\Base\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.

PRINT NAME: GERALD J AUGER JR.

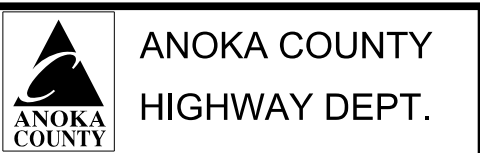
SIGNATURE: 

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY MR DATE 02/24/2023

DESIGN BY MR DATE 02/24/2023

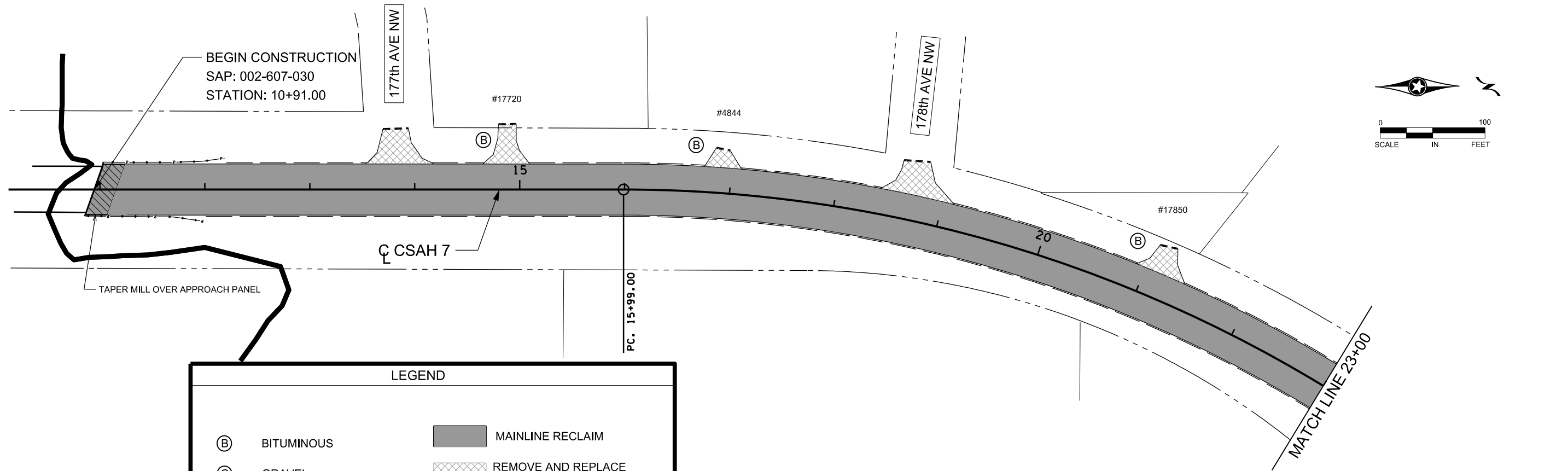
CHECKED BY CO DATE 05/15/2023



STATE AID PROJECT 002-607-030

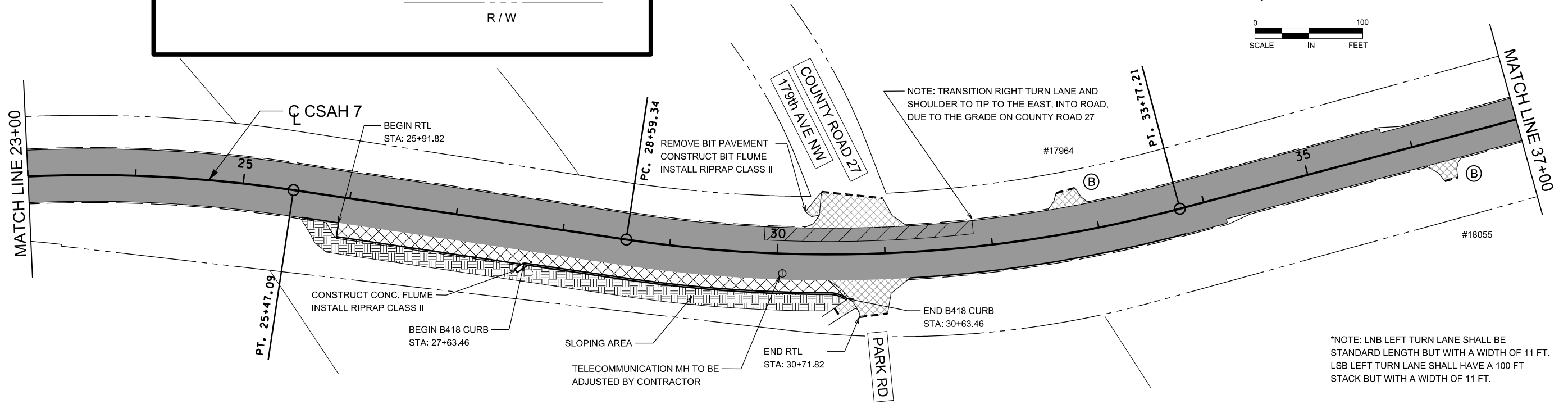
SUPERELEVATION TABULATIONS

Sheet 8 of 17 Sheets



**LEGEND**

(B) BITUMINOUS		MAINLINE RECLAIM
(G) GRAVEL		REMOVE AND REPLACE PAVEMENT
(F) REMOVE AND CONSTRUCT BITUMINOUS FLUME		TAPER MILL OVER APPROACH PANEL
		SAWCUT
		R / W



NO	DATE	BY	CKD	APPR	REVISION		
	06/02/2023					9:23:51 AM	

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\Base\Proposed\CP1.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:

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY: MR. DATE 04/24/2024

DESIGN BY: MR. DATE 04/24/2024

CHECKED BY: CO. DATE 06/02/2023

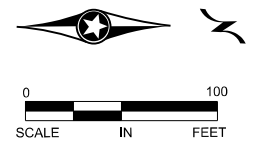
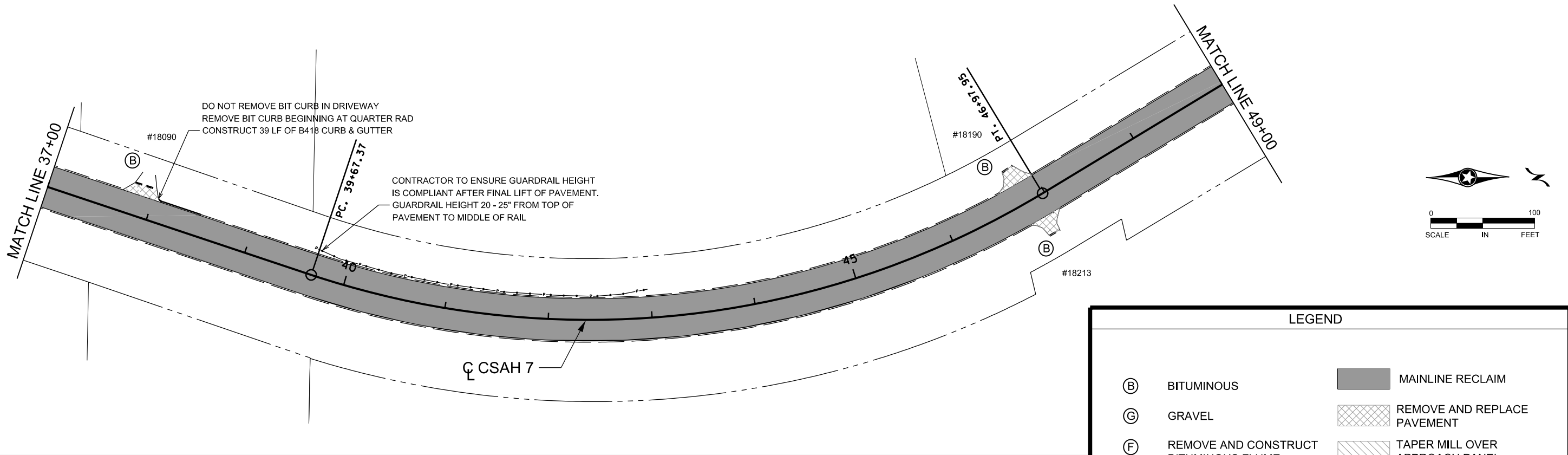
**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

**CONSTRUCTION PLAN**

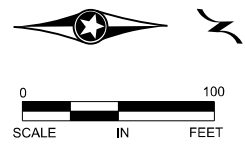
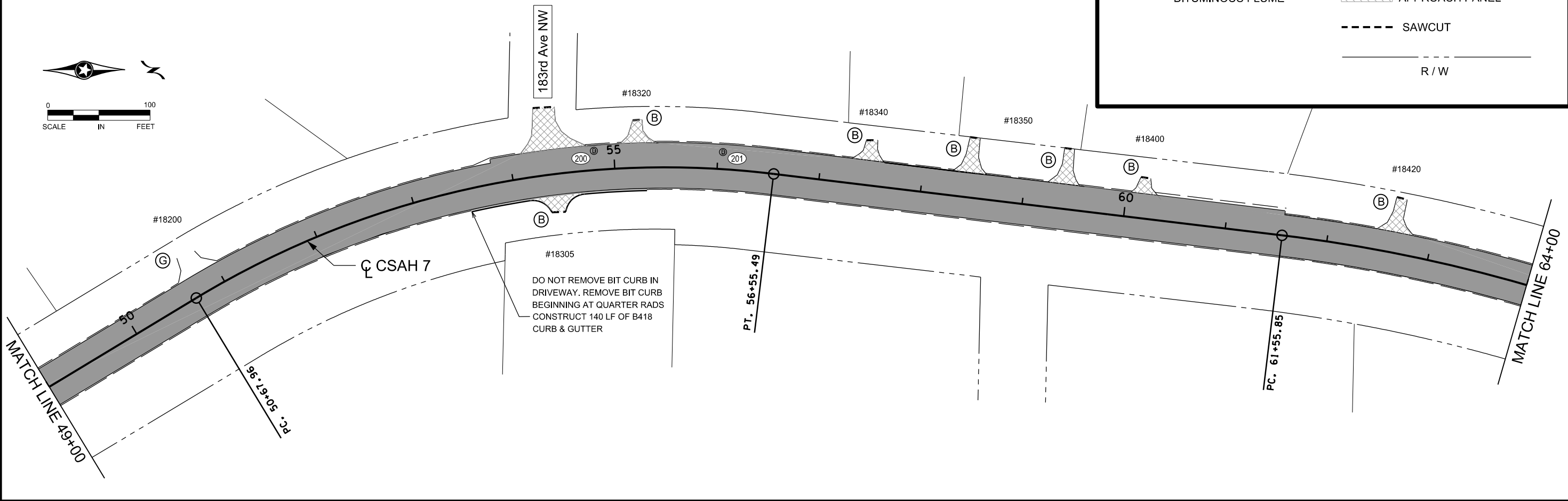
STA 10+91.00 TO 37+00

Sheet 9 of 17 Sheets



**LEGEND**

(B)	BITUMINOUS		MAINLINE RECLAIM
(G)	GRAVEL		REMOVE AND REPLACE PAVEMENT
(F)	REMOVE AND CONSTRUCT BITUMINOUS FLUME		TAPER MILL OVER APPROACH PANEL
			SAWCUT
			R / W



NO	DATE	BY	CKD	APPR	REVISION		
	05/15/2023					8:48:10 AM	

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\Base\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:

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY: MR. DATE 04/24/2023

DESIGN BY: MR. DATE 04/24/2023

CHECKED BY: CO. DATE 05/15/2023

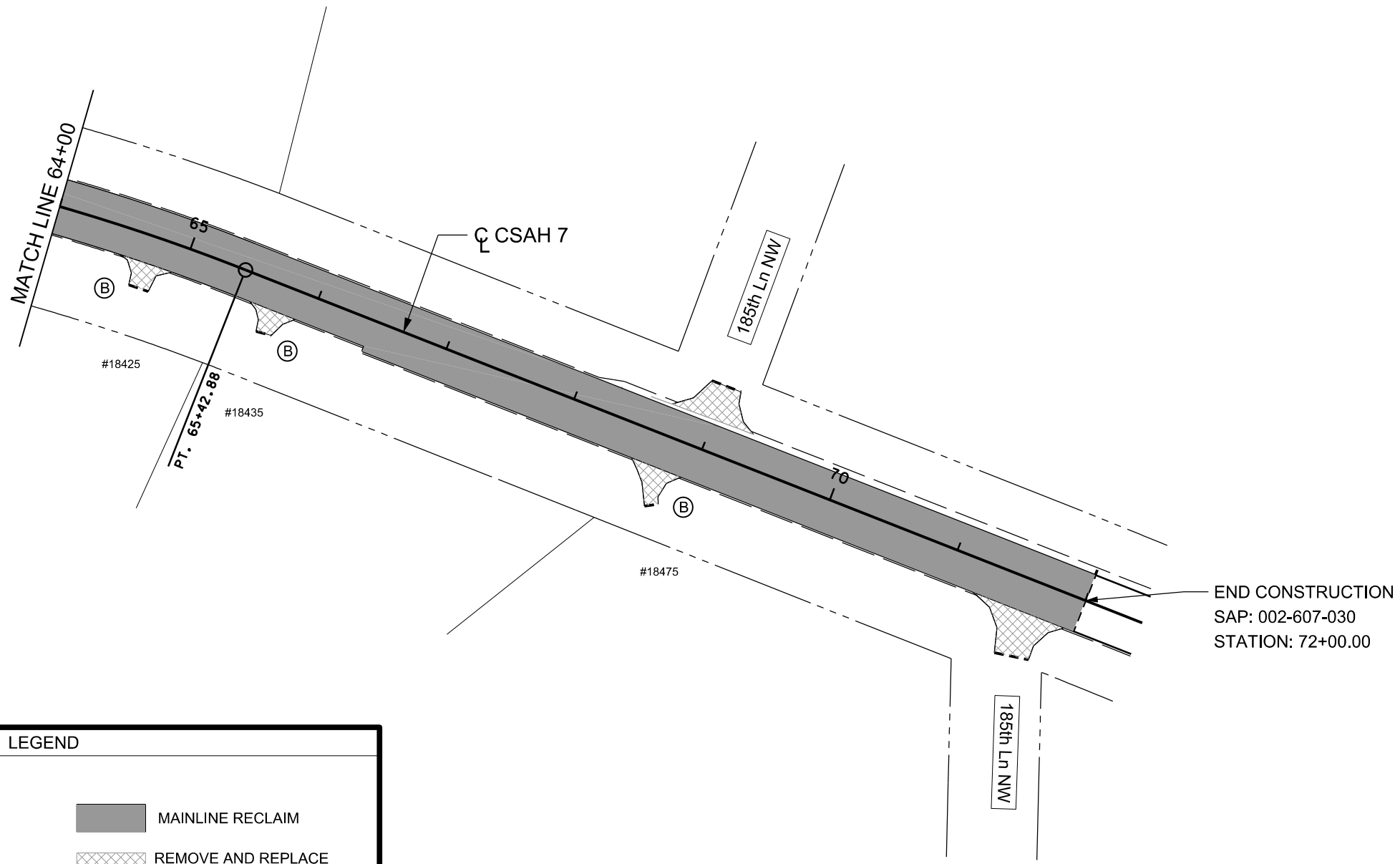
**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

**CONSTRUCTION PLAN**

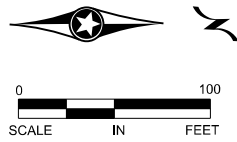
STA 37+00 TO 64+00

Sheet 10 of 17 Sheets



END CONSTRUCTION  
SAP: 002-607-030  
STATION: 72+00.00

LEGEND			
(B)	BITUMINOUS		MAINLINE RECLAIM
(C)	GRAVEL		REMOVE AND REPLACE PAVEMENT
(F)	REMOVE AND CONSTRUCT BITUMINOUS FLUME		TAPER MILL OVER APPROACH PANEL
			SAWCUT
			R / W



NO	DATE	BY	CKD	APPR	REVISION	
	05/15/2023					8:48:11 AM

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\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:

DATE: 05-10-2023 LICENSE NO. 26511

DRAWN BY MR DATE 04/24/2023

DESIGN BY MR DATE 04/24/2023

CHECKED BY CO DATE 05/15/2023

**ANOKA COUNTY  
HIGHWAY DEPT.**

STATE AID PROJECT 002-607-030

CONSTRUCTION PLAN  
STA 64+00 TO 72+00.00  
Sheet 11 of 17 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.

### PAINT:

1. AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.
2. GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE PAINT LINE.
3. EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR AND PAVEMENT SURFACE TEMPERATURES ARE 50°F 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.

### 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.





### PREFORMED THERMOPLASTIC:

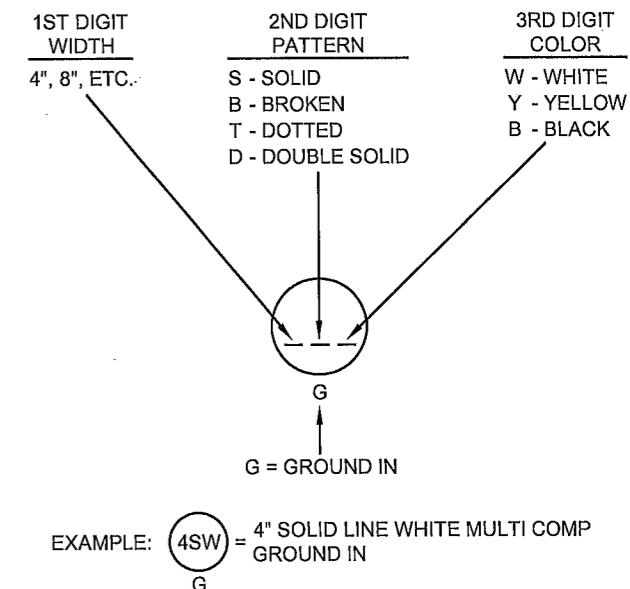
1. THE PREFORMED THERMOPLASTIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ON CLEAN AND DRY SURFACES. SEE SPECIAL PROVISIONS FOR PREFORMED THERMOPLASTIC MARKING SPECIFICATIONS.

### PAVEMENT MARKING SYMBOLS & MATERIALS LEGEND

- — — — — BROKEN LINE - 50' CYCLE (10' LINE, 40' GAP)
- - - - - DOTTED LINE - 15' CYCLE (3' LINE, 12' GAP)  
UNLESS SHOWN OTHERWISE IN THE PLAN
- █ CROSSWALK BLOCK
- ↩ PAVEMENT MESSAGE (LEFT ARROW)

### STRIPING KEY

-  CIRCLE - MULTI COMP
-  TRIANGLE - PAINT
-  SQUARE - REMOVABLE PREF TAPE
-  OCTAGON - PREF THERMO

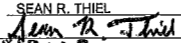


PAVEMENT MARKING TABULATION			
ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	
		WHITE	YELLOW
4" SOLID LINE MULTI COMP (G)	LIN FT	13210	812
4" SOLID DOUBLE LINE MULTI COMP (G)	LIN FT		4938
4" BROKEN LINE MULTI COMP (G)	LIN FT		180

NO	DATE	BY	CKD	APPR	REVISION

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: 

DATE: 4/28/2023 LICENSE NO. 45129

DRAWN BY: FL DATE: 04/26/2023

DESIGN BY: FL DATE: 04/26/2023

CHECKED BY: SRT DATE: 04/27/2023



**ANOKA COUNTY  
HIGHWAY DEPT.**

SAP 002-607-030



PERMANENT PAVEMENT  
MARKING PLAN  
NOTES & GUIDELINES

Sheet 12 of 17 Sheets

**NOTES (TYP)**

- 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".
- DAYTIME LANE CLOSURES FOR CONSTRUCTION DURING THIS STAGE 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".
- CONTRACTOR SHALL COMPLY WITH THE LONGITUDINAL DROP-OFF GUIDELINES AS PER THE FIELD MANUAL.
- 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.


**TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND**

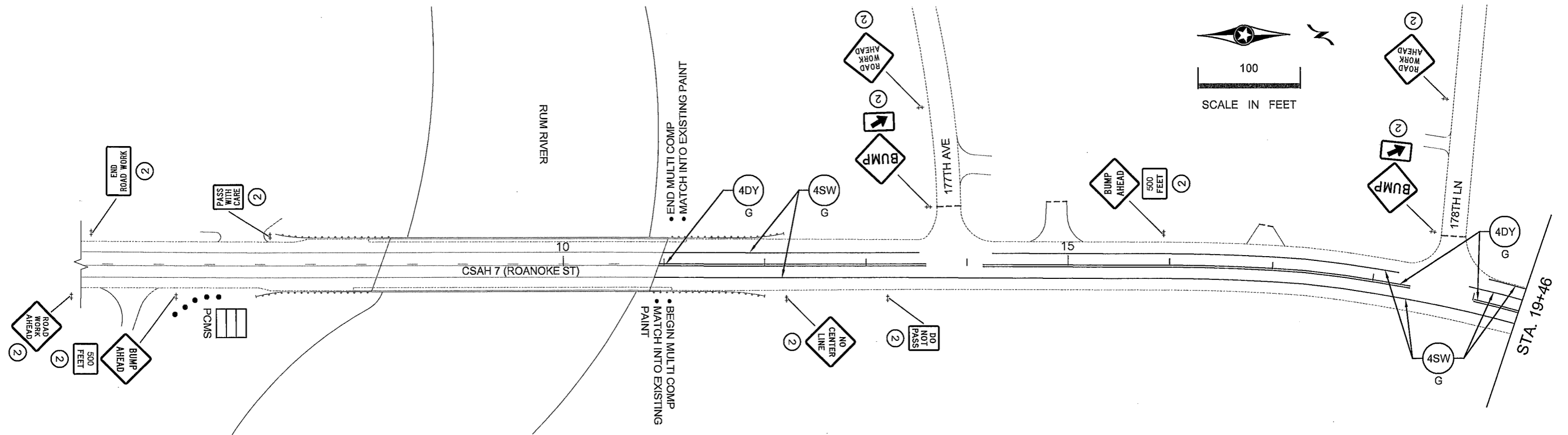
SYMBOL	DESCRIPTION
+	TRAFFIC CONTROL SIGN (TEMPORARY)
●	DRUM-LIKE CHANNELIZER TYPE B = 
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

**SIGNING NOTES**

② TEMPORARY TRAFFIC CONTROL SIGN

**STRIPING KEY**

 CIRCLE - MULTI COMP



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-186TH LN)\Base\Traffic\Temporary Signing & Permanent Striping.dwg

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: 4/28/2023 LICENSE NO. 45129

DRAWN BY: FL DATE: 04/28/2023  
 DESIGN BY: FL DATE: 04/28/2023  
 CHECKED BY: SRT DATE: 04/27/2023



**ANOKA COUNTY  
 HIGHWAY DEPT.**

SAP 002-607-030

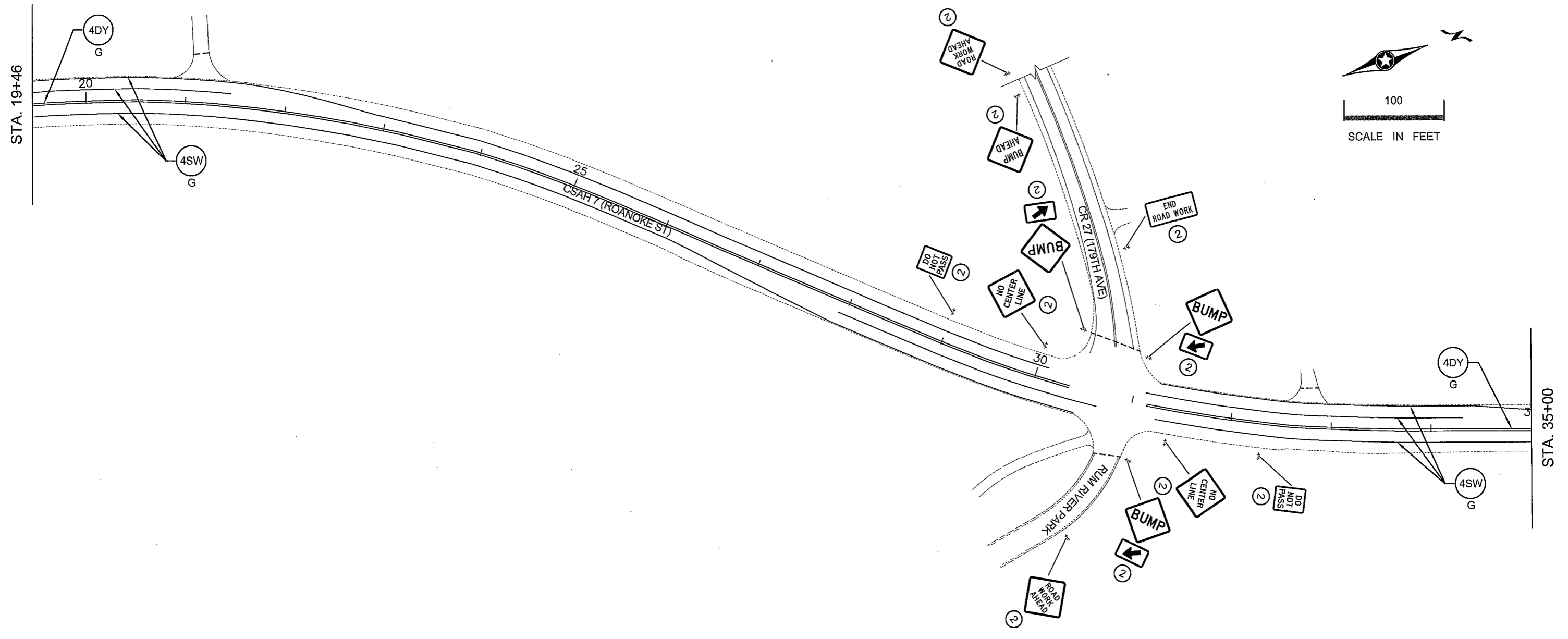
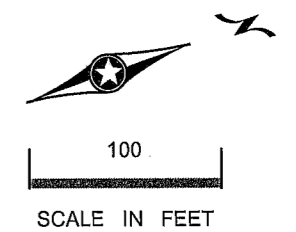
TEMPORARY SIGNING  
 PERMANENT STRIPING  
 Sheet 13 of 17 Sheets

**SIGNING NOTES**

② TEMPORARY TRAFFIC CONTROL SIGN

**STRIPING KEY**

○ CIRCLE - MULTI COMP



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\23-01-00\CSAH\_7 (BRIDGE-185TH LN)\Base\Traffic\Temporary Signing & Permanent Striping.dwg

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PRINT NAME: SEAN R. THIEL  
 SIGNATURE: *Sean R. Thiel*  
 DATE: 4/27/2023 LICENSE NO. 45129

DRAWN BY FL DATE 04/28/2023  
 DESIGN BY FL DATE 04/28/2023  
 CHECKED BY SRT DATE 04/27/2023



**ANOKA COUNTY**  
**HIGHWAY DEPT.**

SAP 002-607-030

TEMPORARY SIGNING  
 PERMANENT STRIPING

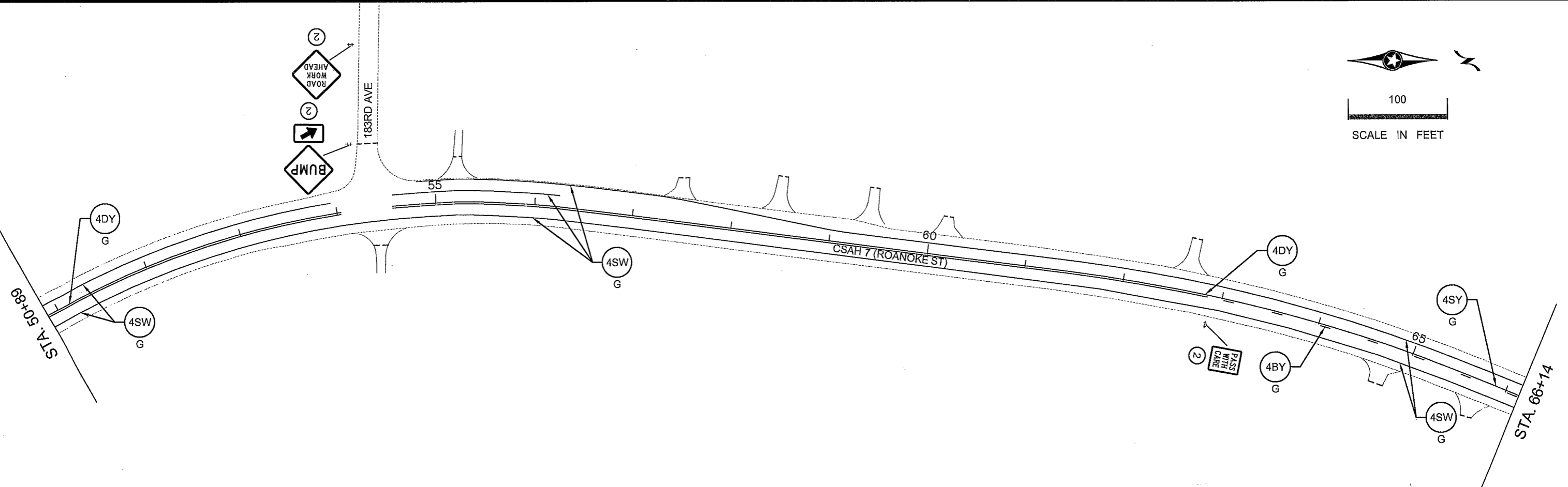
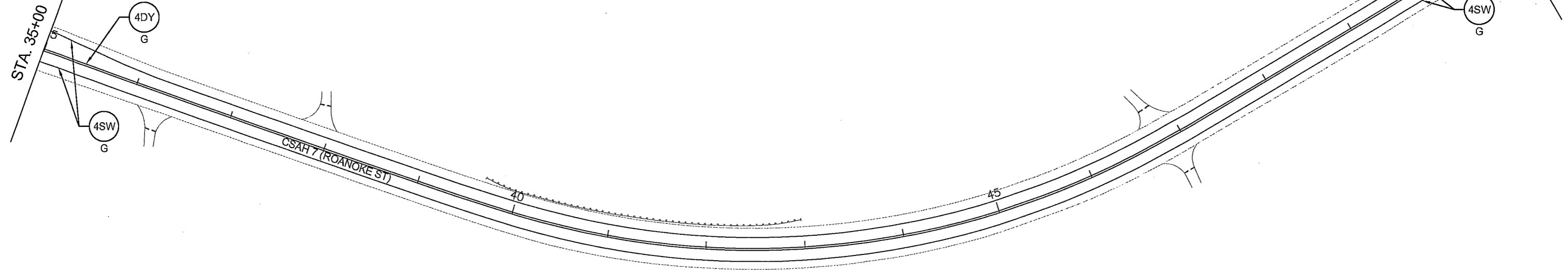
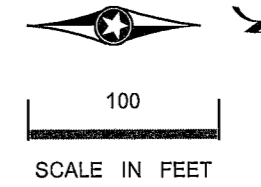
Sheet 14 of 17 Sheets

**SIGNING NOTES**

② TEMPORARY TRAFFIC CONTROL SIGN

**STRIPING KEY**

○ CIRCLE - MULTI COMP

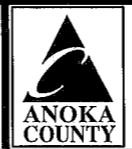


NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\23-01-00\CSAH\_7 (BRIDGE-185TH LN)\Base\Traffic\Temporary Signing & Permanent Striping.dwg

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: 4/28/2023 LICENSE NO. 45129

DRAWN BY: FL DATE: 04/26/2023  
 DESIGN BY: FL DATE: 04/28/2023  
 CHECKED BY: SRT DATE: 04/27/2023



**ANOKA COUNTY  
HIGHWAY DEPT.**

SAP 002-607-030

TEMPORARY SIGNING  
PERMANENT STRIPING  
Sheet 15 of 17 Sheets



**SIGNING NOTES**

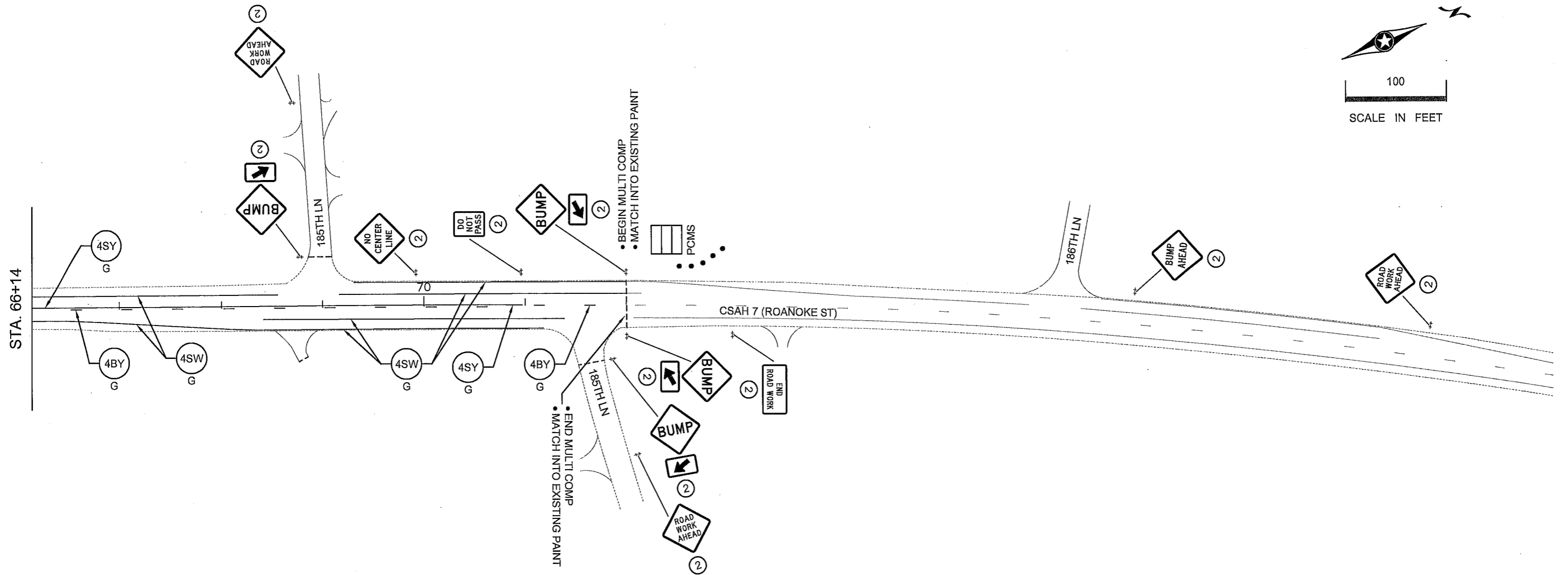
② TEMPORARY TRAFFIC CONTROL SIGN

**STRIPING KEY**

○ CIRCLE - MULTI COMP



100  
SCALE IN FEET



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\Base\Traffic\Temporary Signing & Permanent Striping.dwg

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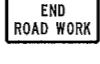
TEMPORARY SIGNING  
PERMANENT STRIPING  
Sheet 16 of 17 Sheets



### 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"	10
	W16-7PL	BLACK ON ORANGE	24" X 12"	10
	W8-1M	BLACK ON ORANGE	48" X 48"	4
	W16-2P	BLACK ON ORANGE	24" X 18"	2
	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"	4
	W8-23	BLACK ON ORANGE	48" X 48"	AS NEEDED
	W20-1	BLACK ON ORANGE	48" X 48"	AS NEEDED (ESTIMATED 9)

"W" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	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"	4
	R4-2	BLACK ON WHITE	24" X 30"	2

"G" SERIES				
SIGN	MUTCD CODE	COLOR	SIZE	QUANTITY
	G20-2	BLACK ON ORANGE	48" X 24"	3

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

**NOTES (TYP)**

- 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.
- ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MUTCD.
- PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) TO BE INSTALLED A MINIMUM OF 10 DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS.

**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	T
D	E	L	A	Y	S


NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\23-01-00\CSAH\_7\_(BRIDGE-185TH LN)\Base\Traffic\Temporary Signing Quantities.dwg

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