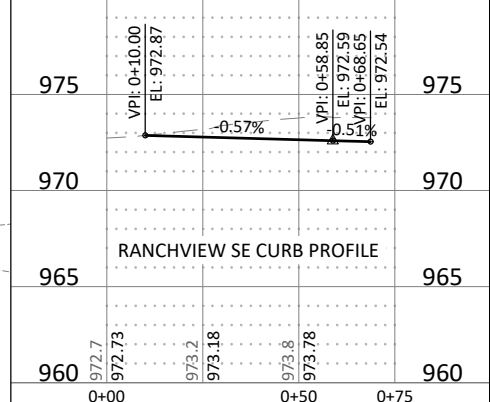
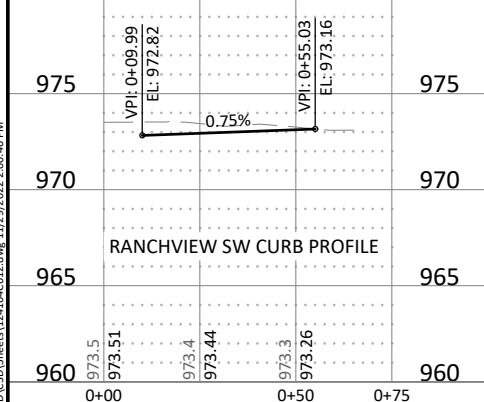
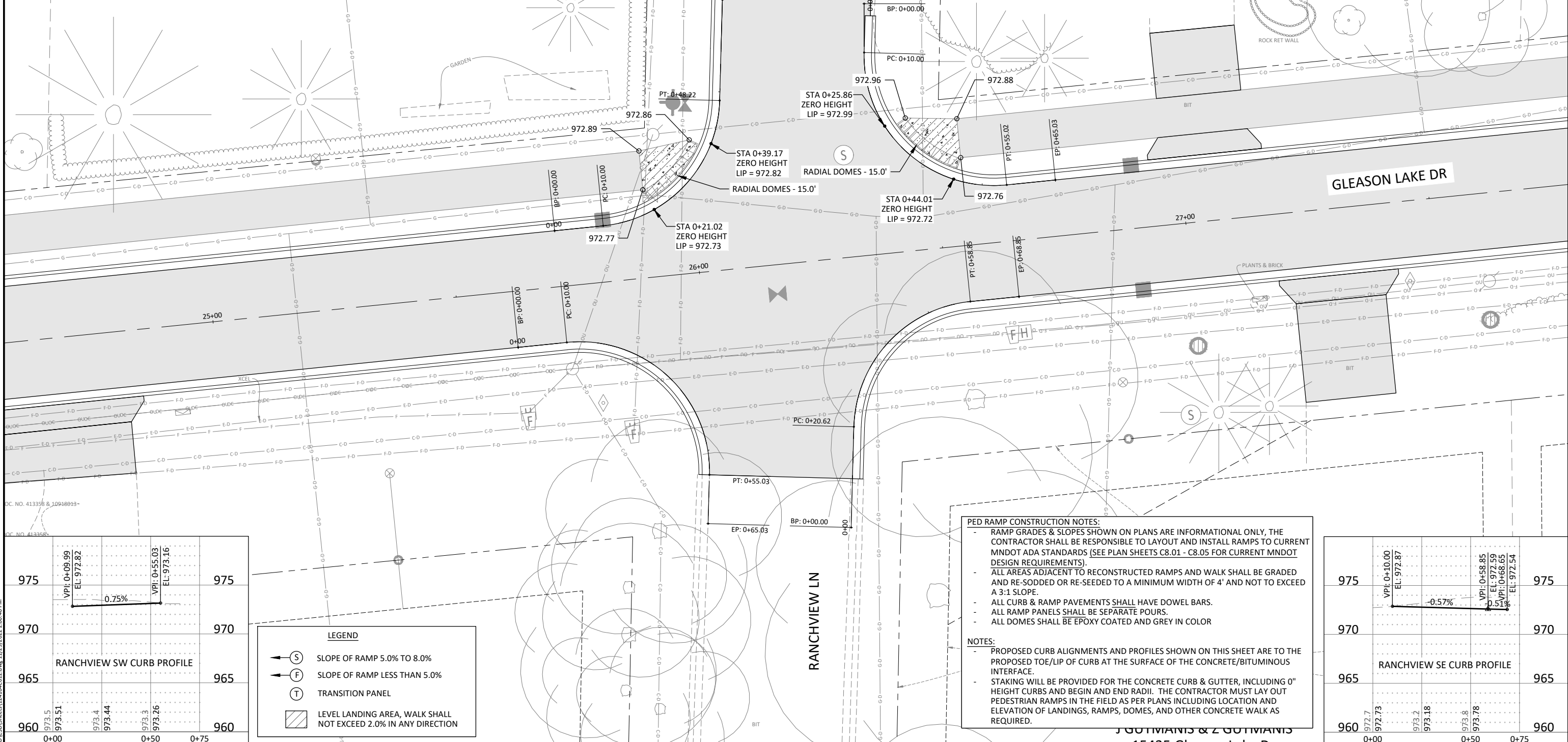
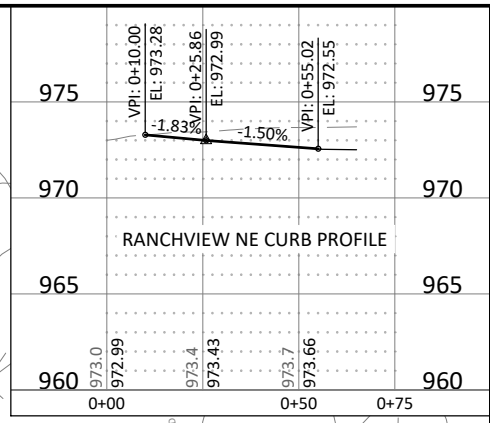


3311822330011
WALTER G RASKA ETAL
15510 Gleason Lake Dr

3311822340025
B A ERICKSON & D M ERICKSON
15430 Gleason Lake Dr



LEGEND

- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
- [Hatched Box] LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMP TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMP AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMP IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.

© Bolton & Menk, Inc. 2022. All Rights Reserved. PL:\P\112124\15430\BOLMEN\15430-0509-01.dwg, 11/29/2022 2:00:46 PM



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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
RANCHVIEW LN

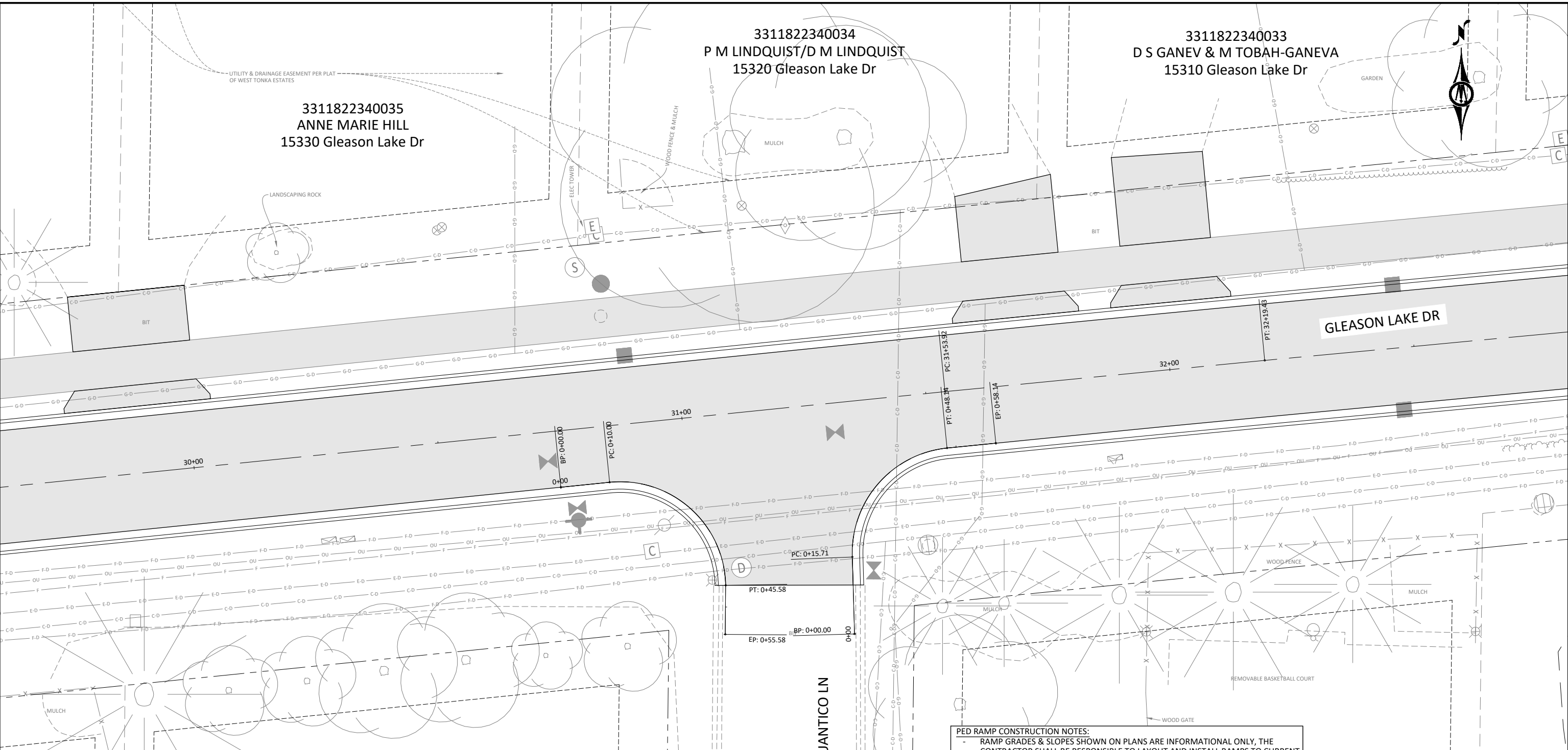
SHEET
C6.19

3311822340034
P M LINDQUIST/D M LINDQUIST
15320 Gleason Lake Dr

3311822340033
D S GANEV & M TOBAH-GANEVA
15310 Gleason Lake Dr

3311822340035
ANNE MARIE HILL
15330 Gleason Lake Dr

3311822340047
B ROBERTS & A BALEISIS
45 Quantic Ln



GLEASON LAKE DR

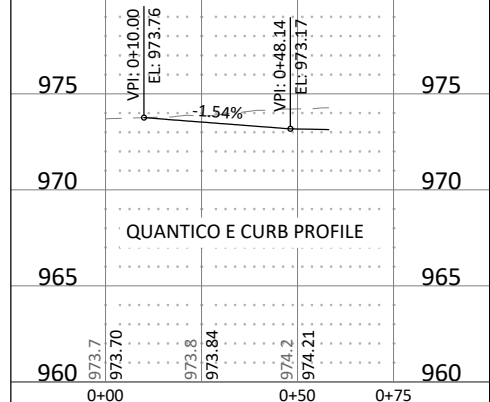
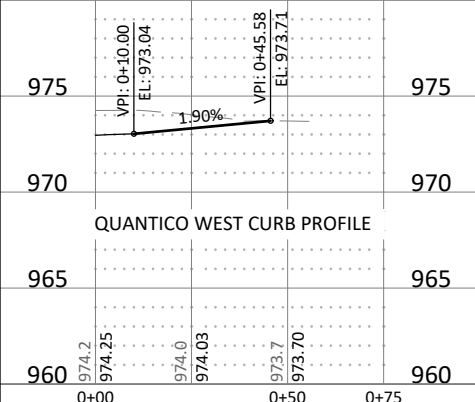
QUANTICO LN

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.



LEGEND

- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
- ▨ LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION



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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

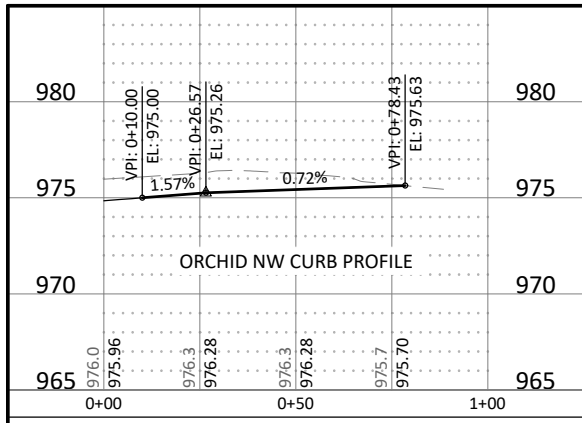


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

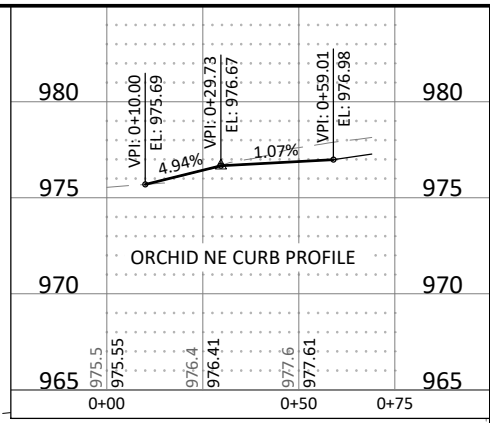
CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
QUANTICO LN

SHEET
C6.20

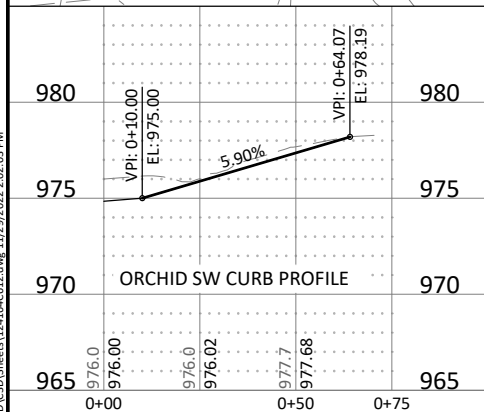
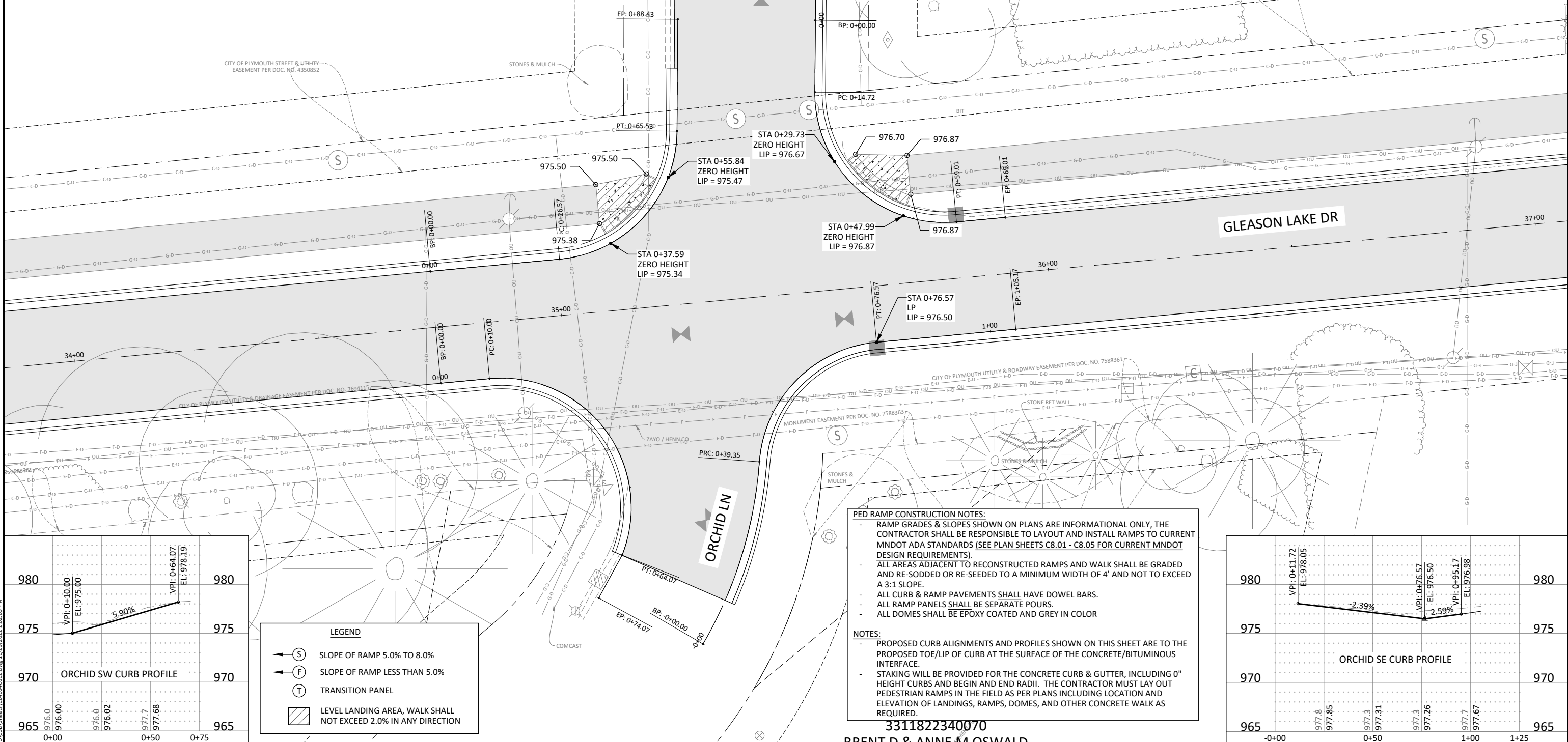
© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\124164\CAD\CADD\Business\124164\C6.20.dwg, 11/29/2022 2:01:13 PM



3311822340048
PAUL R SCHOENECKER ET AL
125 Orchid Ln N



3311822340054
K M CANNIFF & K K KEE
120 Orchid Ln N



LEGEND

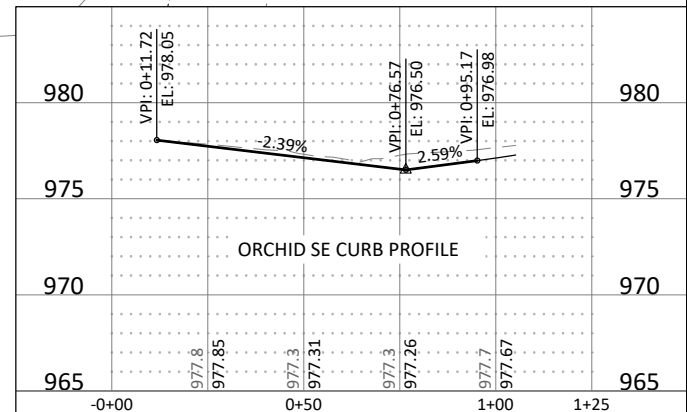
- S SLOPE OF RAMP 5.0% TO 8.0%
- F SLOPE OF RAMP LESS THAN 5.0%
- T TRANSITION PANEL
- LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\W\071124164\CAD\Civil\Business\1251822340054.dwg, 11/29/2022 2:02:03 PM

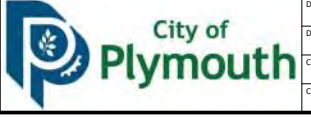


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



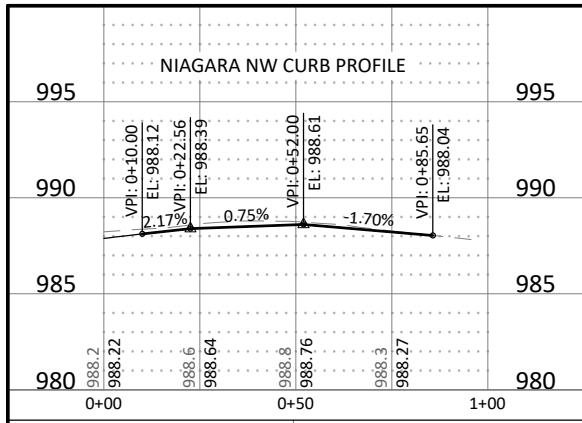
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

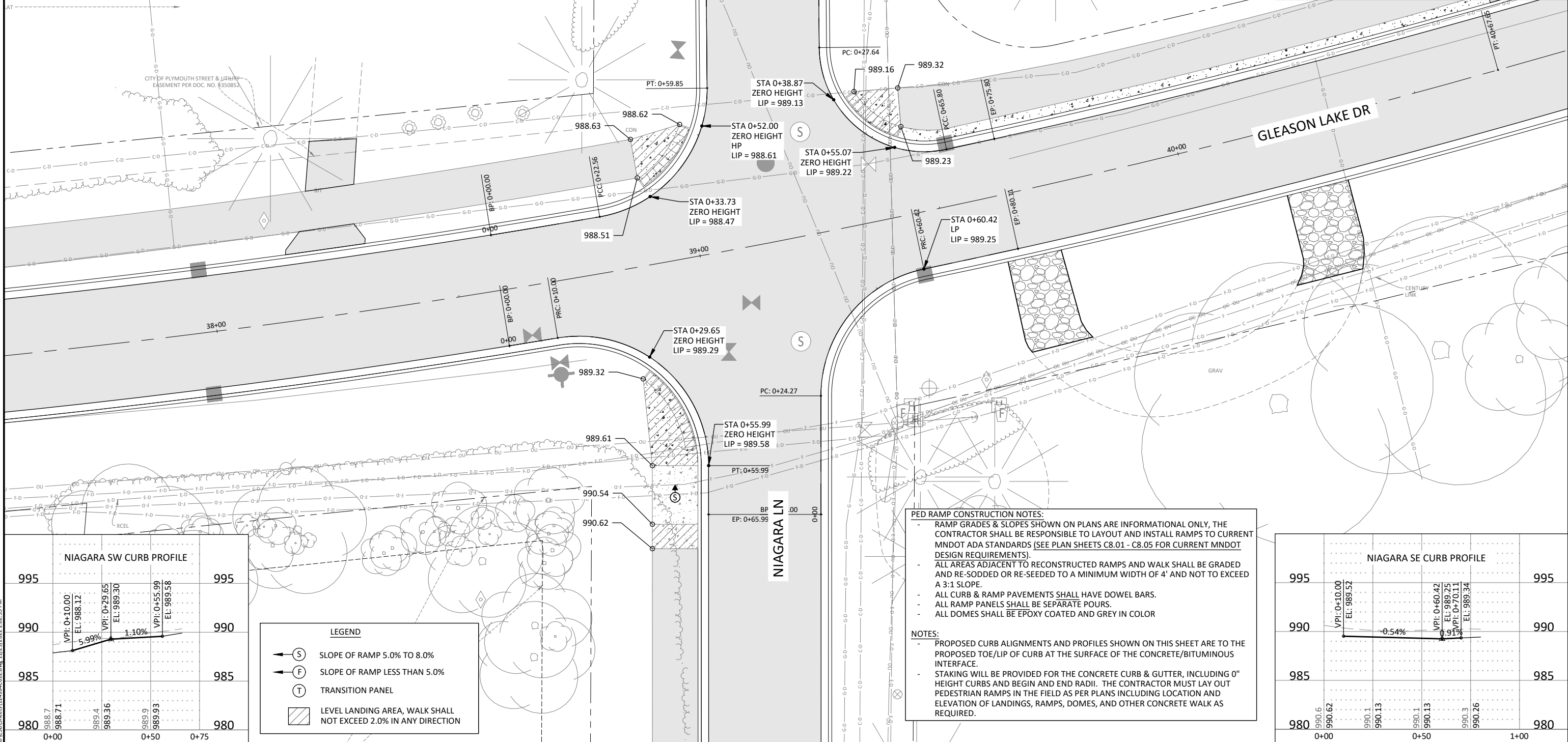
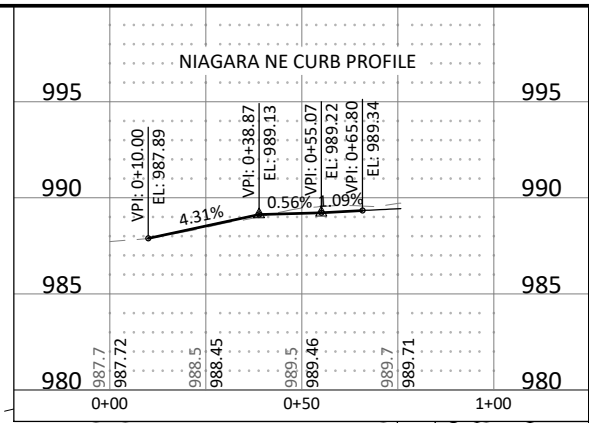
CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
ORCHID LN

SHEET
C6.21



3311822340014
 MICHAEL THOMAS MAXWELL
 15120 Gleason Lake Dr

3311822430048
 R J BAUER & C L BAUER
 15014 Gleason Lake Dr



LEGEND

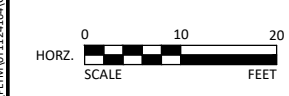
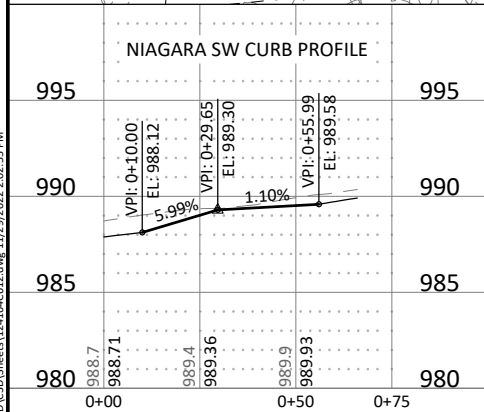
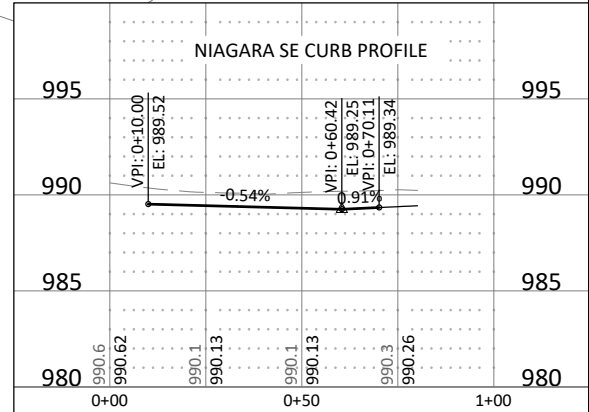
- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
- ▨ LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.



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

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com

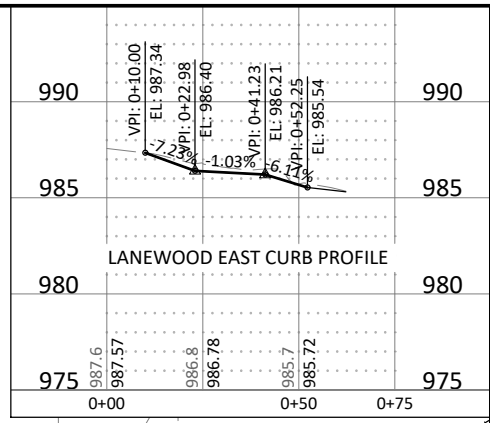
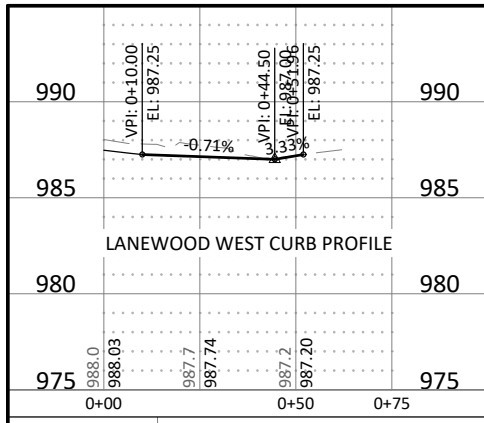


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	0T.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 INTERSECTION DETAILS
 NIAGARA LN

SHEET
 C6.22

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\124164\CAD\3D\Business\124164C6.22.dwg, 11/29/2022 2:02:55 PM



3311822430029
LEE BARRETT
14904 Gleason Lake Dr

3311822430037
PREMIUM PROPERTY GROUP INC
14810 Gleason Lake Dr

3311822430013
VICTORIA L JOHNSON
14815 Gleason Lake Dr

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.

LEGEND

- SLOPE OF RAMP 5.0% TO 8.0%
- SLOPE OF RAMP LESS THAN 5.0%
- TRANSITION PANEL
- LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION



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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	0T.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
LANEWOOD LN

SHEET
C6.23

© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\Projects\124164\CAD\CD\Business\124164C623.dwg, 11/29/2022 2:03:27 PM

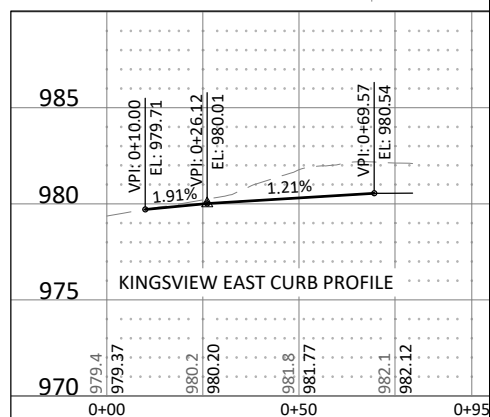
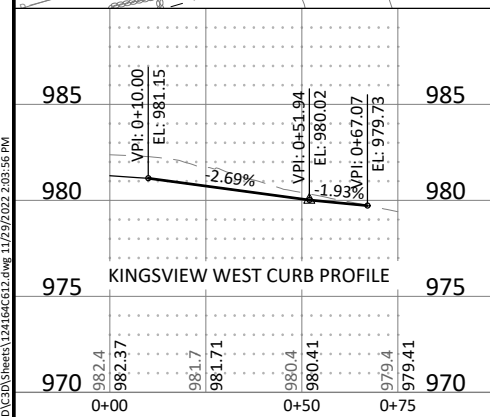
3311822430039
S M DVORSKE & J J SOMMERS
14804 Gleason Lake Dr

3311822430038
ROBERT TROEMEL ETAL
14808 Gleason Lake Dr

GLEASON LAKE DR

3311822430043
M C KOONMEN ET AL REV TRUST
14717 Gleason Lake Dr

3311822430015
T A DOEDEN & M M DOEDEN
14805 Gleason Lake Dr



LEGEND

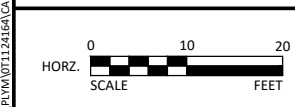
- SLOPE OF RAMP 5.0% TO 8.0%
- SLOPE OF RAMP LESS THAN 5.0%
- TRANSITION PANEL
- LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

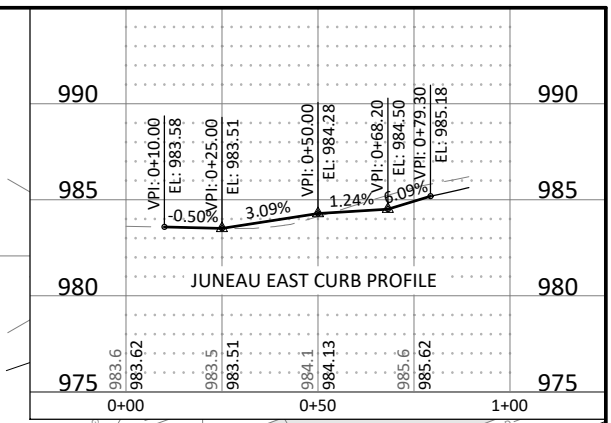
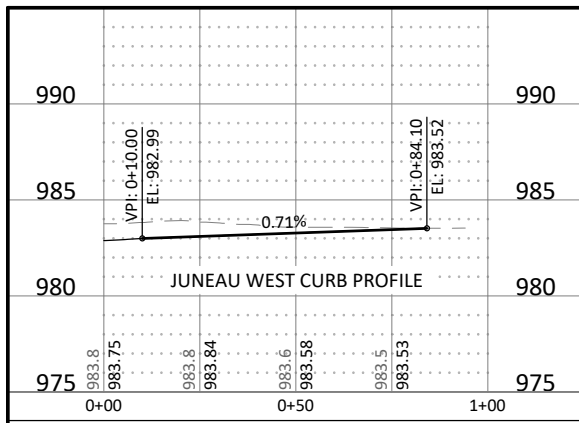


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
KINGSVIEW LN

SHEET
C6.24

© Bolton & Menk, Inc. 2022. All Rights Reserved. PL124164.dwg, C:\Users\jmenk\OneDrive\Business\124164\124164.dwg, 11/29/2022 2:03:56 PM



3311822440014
STEVEN F ROLLINS
14612 Gleason Lake Dr

3311822430042
S D SYKES & L M PETERSON
14710 Gleason Lake Dr

3311822440027
S K ANDERSON & J M ANDERSON
14619 Gleason Lake Dr

PED RAMP CONSTRUCTION NOTES:

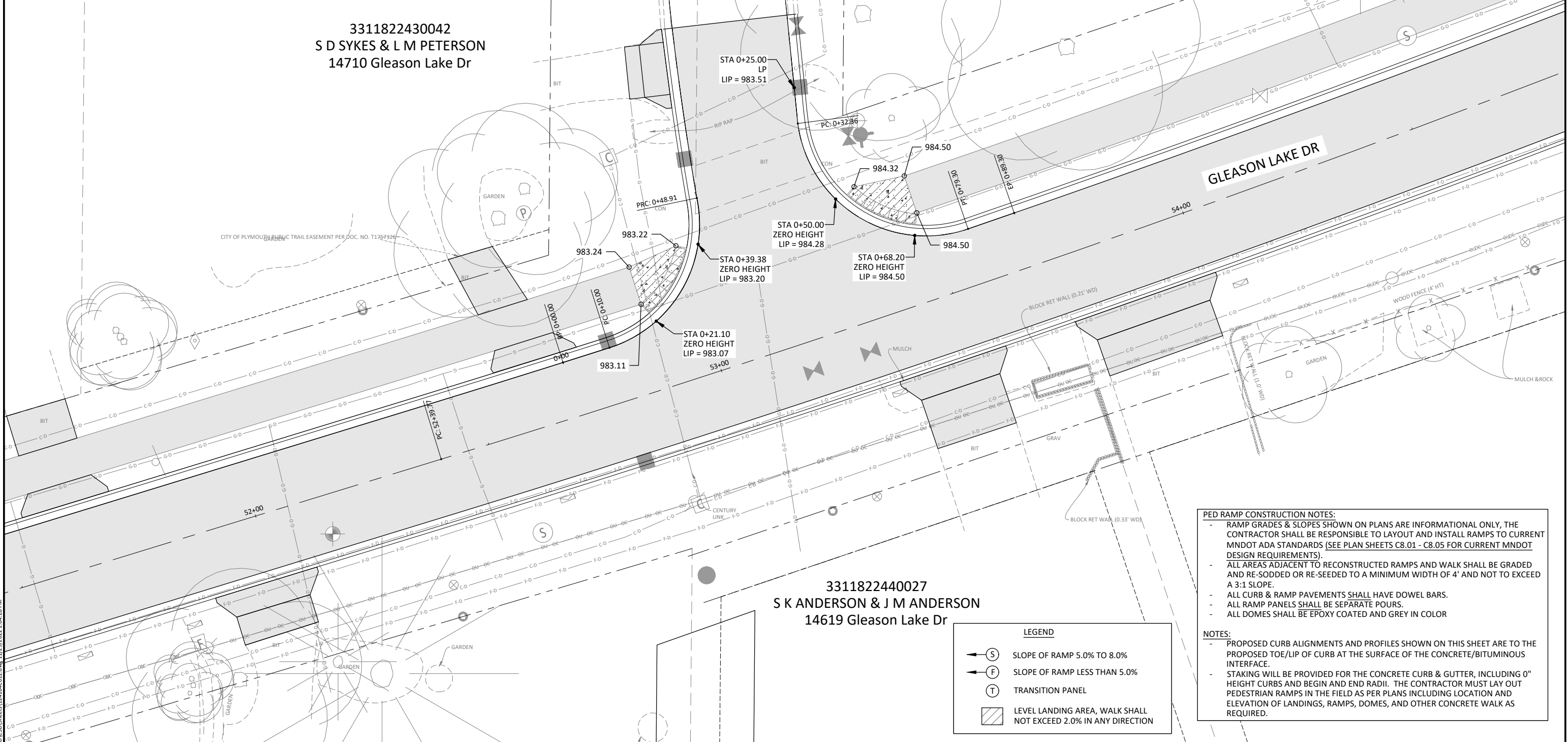
- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

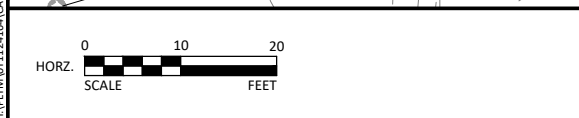
- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.

LEGEND

- (S) SLOPE OF RAMP 5.0% TO 8.0%
- (F) SLOPE OF RAMP LESS THAN 5.0%
- (T) TRANSITION PANEL
- [Hatched Box] LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\171124164\CAD\CSD\Business\12456622.dwg, 11/29/2022 2:04:28 PM



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

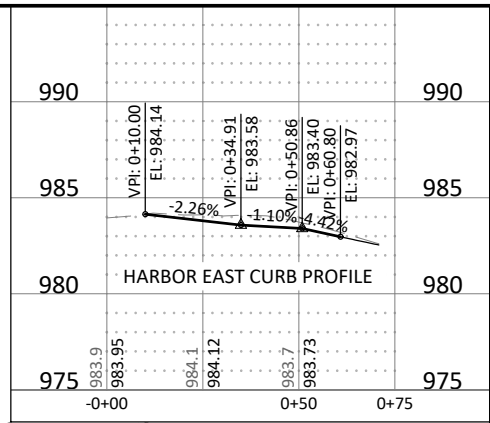
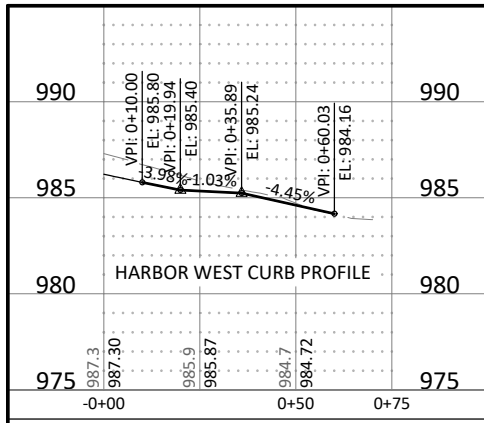
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022

BOLTON & MENK

12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

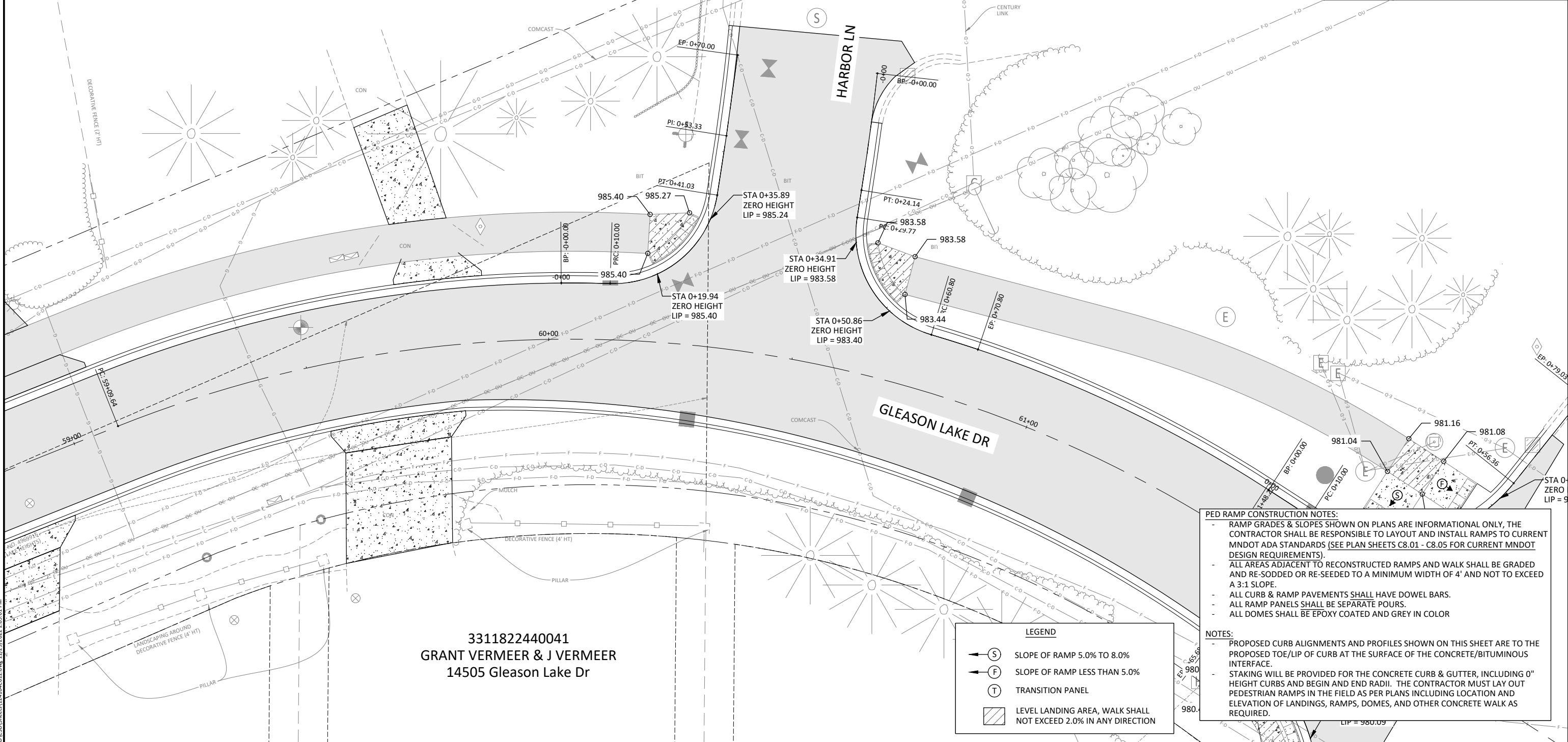
City of Plymouth

DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	01.124164		



3311822440011
TIMOTHY J A GEORGI TRUSTEE
14504 Gleason Lake Dr

3311822440041
GRANT VERMEER & J VERMEER
14505 Gleason Lake Dr



PED RAMP CONSTRUCTION NOTES:

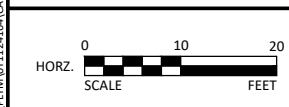
- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

LEGEND

	SLOPE OF RAMP 5.0% TO 8.0%
	SLOPE OF RAMP LESS THAN 5.0%
	TRANSITION PANEL
	LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

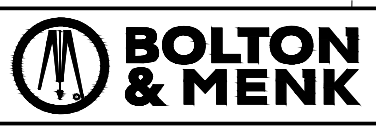
NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

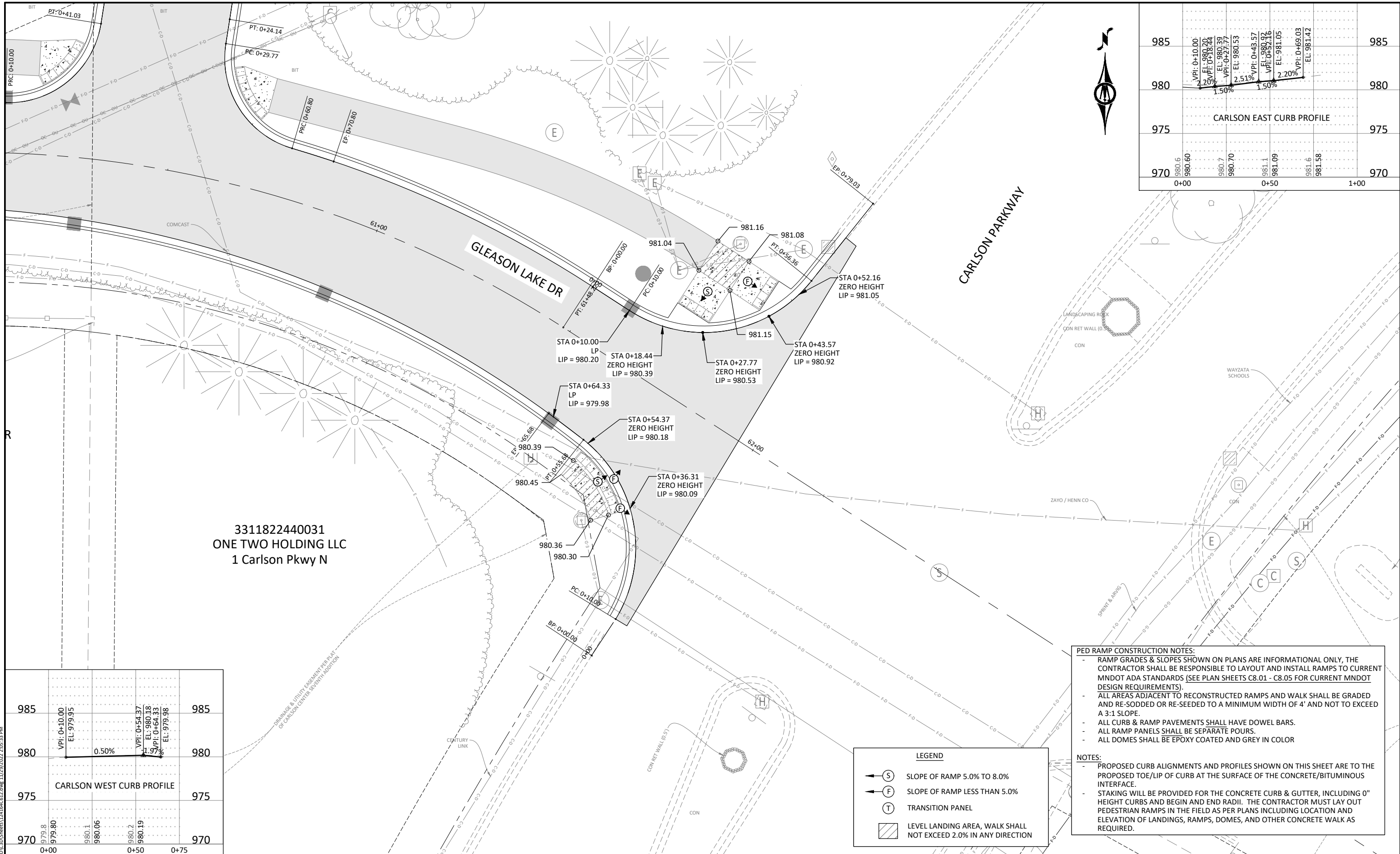


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

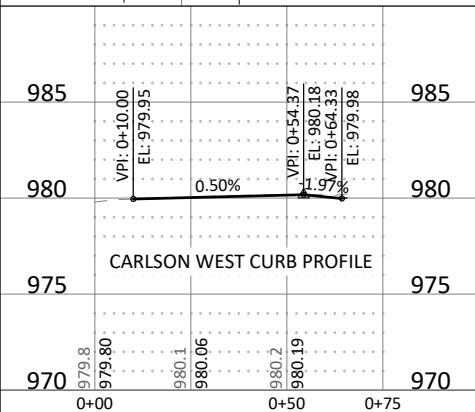
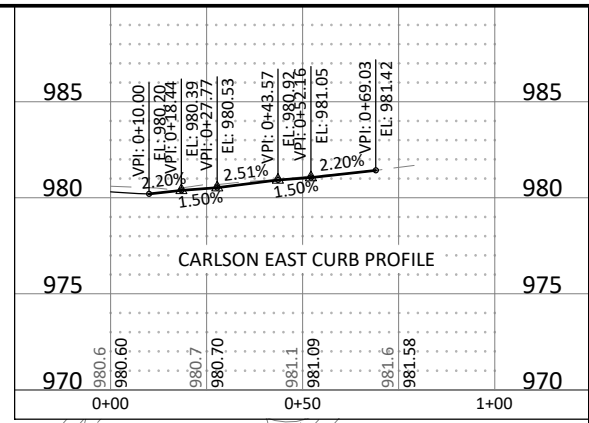
CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
HARBOR LN

SHEET
C6.26

© Bolton & Menk, Inc. 2022. All Rights Reserved. 11/29/2022 2:05:01 PM C:\Users\j1124164\OneDrive\Business\124164\Business\124164.dwg



3311822440031
 ONE TWO HOLDING LLC
 1 Carlson Pkwy N



PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.

LEGEND

- ⊙ S: SLOPE OF RAMP 5.0% TO 8.0%
- ⊙ F: SLOPE OF RAMP LESS THAN 5.0%
- ⊙ T: TRANSITION PANEL
- ▨: LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION



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

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 INTERSECTION DETAILS
 CARLSON PKWY

SHEET
 C6.27

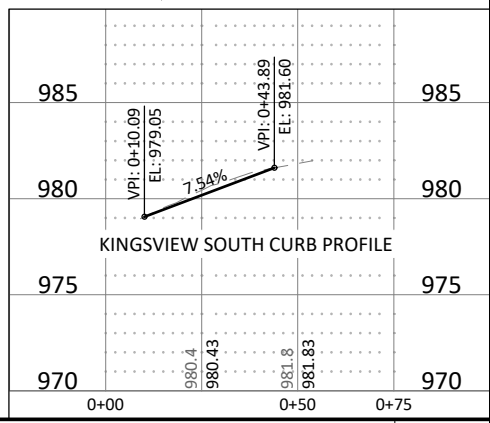
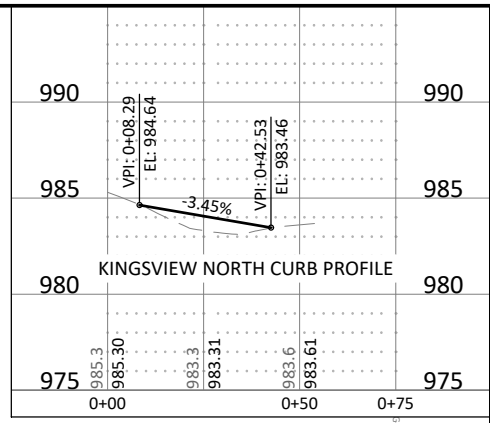
© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\124164\124164-01\CD\CD\Business\124164-01.dwg, 11/29/2022 2:05:33 PM

3311822340063
MARK OLSHANSKY ETAL
11 Niagara Ln N

0411722210261
RE CLARK LAND INVSTS LLC
15422 Leona Ln

NIAGARA LANE

KINGSVIEW LANE



LEGEND

- SLOPE OF RAMP 5.0% TO 8.0%
- SLOPE OF RAMP LESS THAN 5.0%
- TRANSITION PANEL
- LEVEL LANDING AREA, WALK SHALL NOT EXCEED 2.0% IN ANY DIRECTION

PED RAMP CONSTRUCTION NOTES:

- RAMP GRADES & SLOPES SHOWN ON PLANS ARE INFORMATIONAL ONLY, THE CONTRACTOR SHALL BE RESPONSIBLE TO LAYOUT AND INSTALL RAMPS TO CURRENT MNDOT ADA STANDARDS (SEE PLAN SHEETS C8.01 - C8.05 FOR CURRENT MNDOT DESIGN REQUIREMENTS).
- ALL AREAS ADJACENT TO RECONSTRUCTED RAMPS AND WALK SHALL BE GRADED AND RE-SODDED OR RE-SEEDDED TO A MINIMUM WIDTH OF 4' AND NOT TO EXCEED A 3:1 SLOPE.
- ALL CURB & RAMP PAVEMENTS SHALL HAVE DOWEL BARS.
- ALL RAMP PANELS SHALL BE SEPARATE POURS.
- ALL DOMES SHALL BE EPOXY COATED AND GREY IN COLOR

NOTES:

- PROPOSED CURB ALIGNMENTS AND PROFILES SHOWN ON THIS SHEET ARE TO THE PROPOSED TOE/LIP OF CURB AT THE SURFACE OF THE CONCRETE/BITUMINOUS INTERFACE.
- STAKING WILL BE PROVIDED FOR THE CONCRETE CURB & GUTTER, INCLUDING 0" HEIGHT CURBS AND BEGIN AND END RADII. THE CONTRACTOR MUST LAY OUT PEDESTRIAN RAMPS IN THE FIELD AS PER PLANS INCLUDING LOCATION AND ELEVATION OF LANDINGS, RAMPS, DOMES, AND OTHER CONCRETE WALK AS REQUIRED.

© Bolton & Menk, Inc. 2022. All Rights Reserved. PL1224164.dwg, 11/29/2022 2:06:10 PM



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



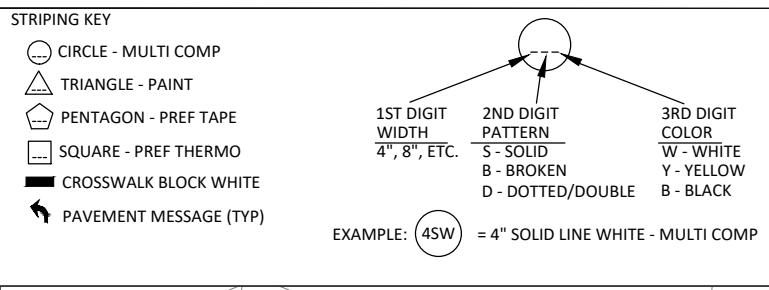
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



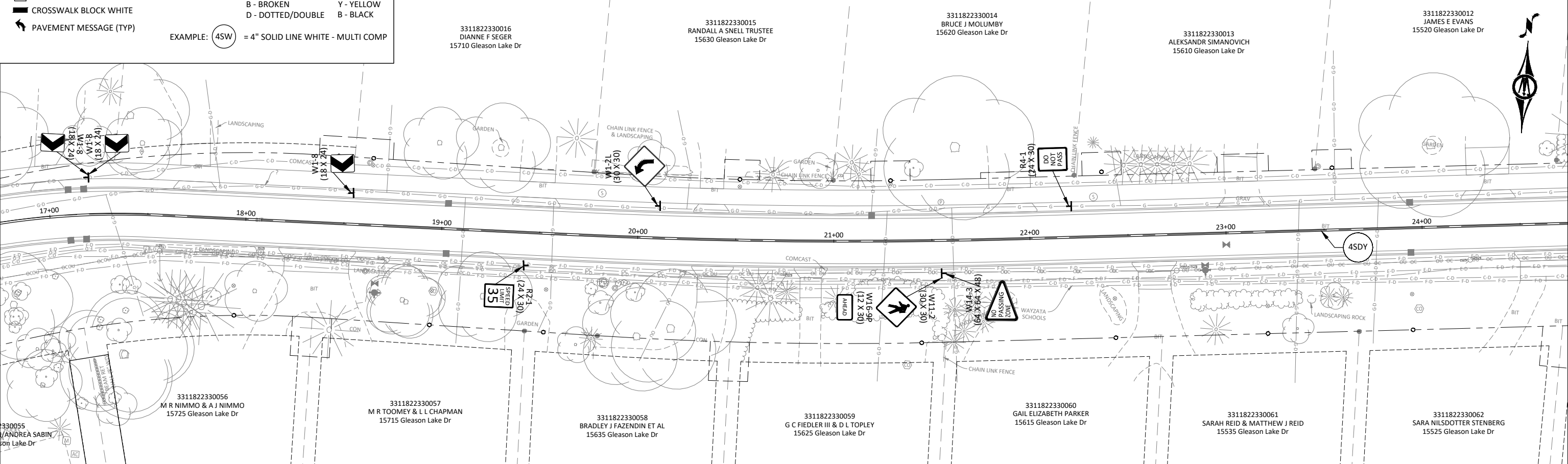
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
INTERSECTION DETAILS
NIAGARA LN & KINGSVIEW LN

SHEET
C6.28



GLEASON LAKE DRIVE



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\Projects\2022\11.29.2022\11.29.2022.07:46 PM



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



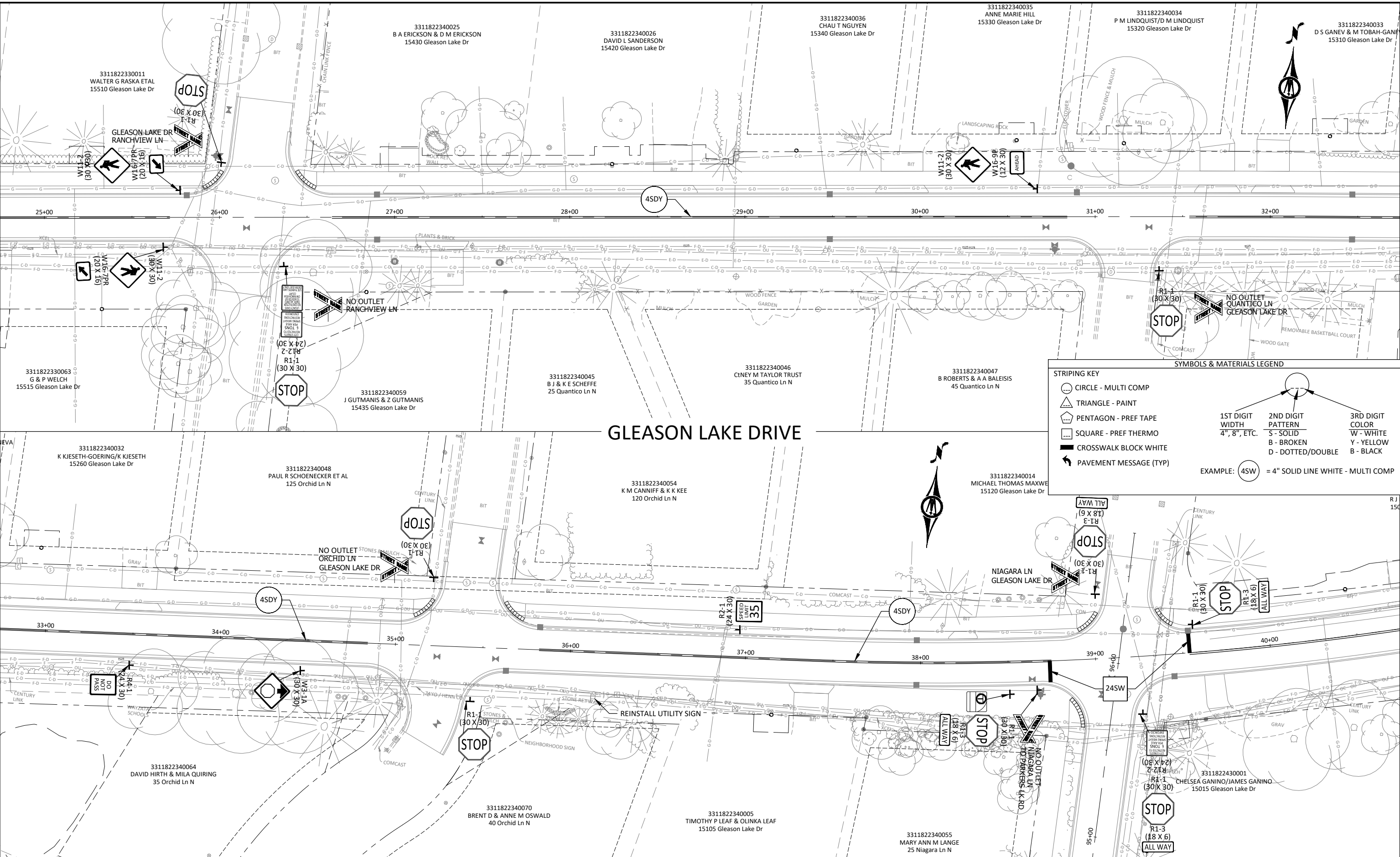
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
SIGNAGE & STRIPING PLAN
GLEASON LAKE DR

SHEET
C7.01



STRIPING KEY

- CIRCLE - MULTI COMP
- TRIANGLE - PAINT
- PENTAGON - PREF TAPE
- SQUARE - PREF THERMO
- CROSSWALK BLOCK WHITE
- PAVEMENT MESSAGE (TYP)

SYMBOLS & MATERIALS LEGEND

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: (4SW)	= 4" SOLID LINE WHITE - MULTI COMP	

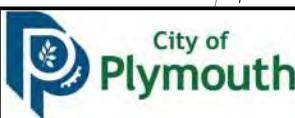


I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

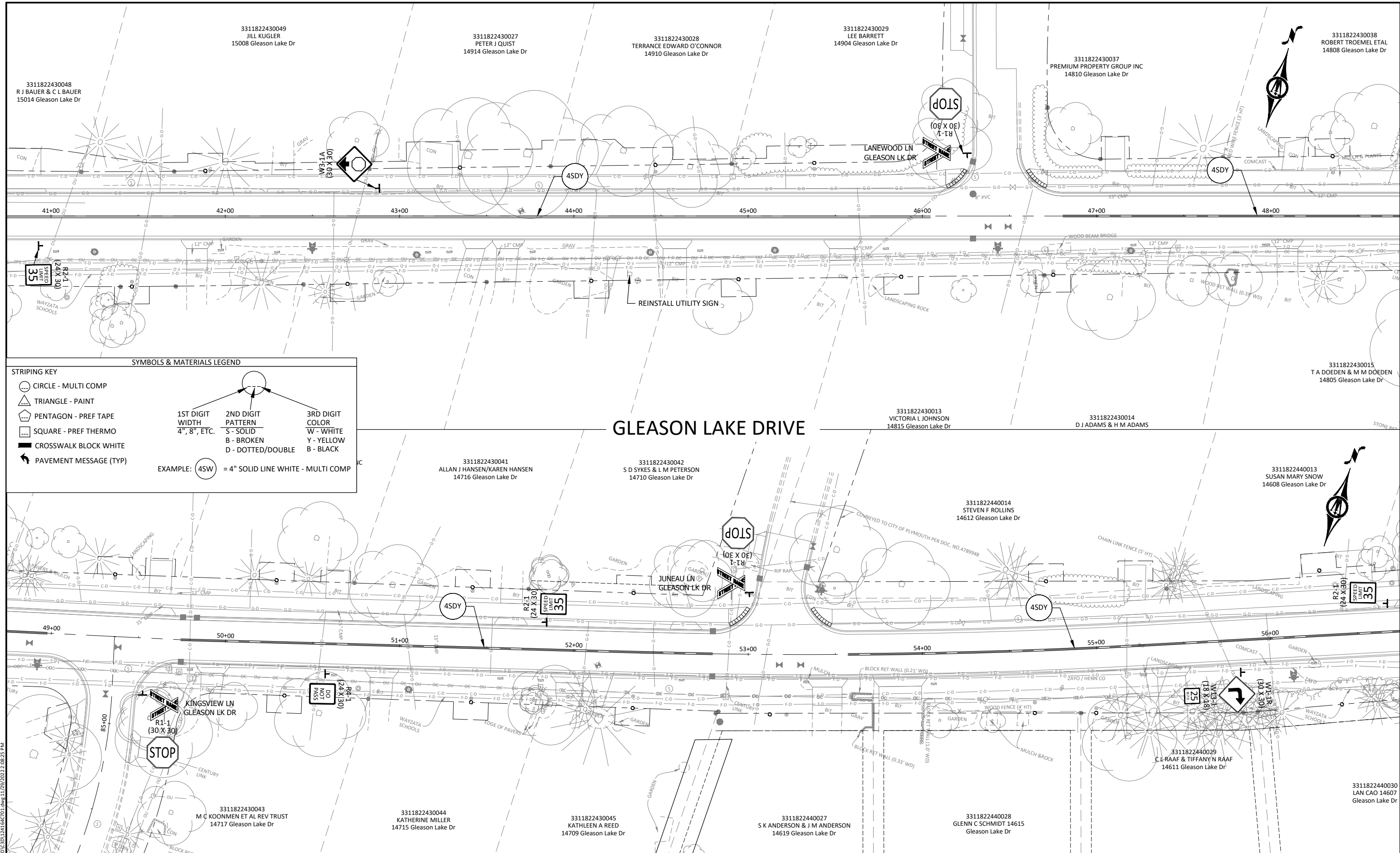


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
SIGNAGE & STRIPING PLAN
GLEASON LAKE DR

SHEET
C7.02

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\1124164\CD\124164-01.dwg 11/29/2022 2:08:06 PM

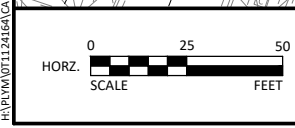


STRIPING KEY

- CIRCLE - MULTI COMP
- TRIANGLE - PAINT
- PENTAGON - PREF TAPE
- SQUARE - PREF THERMO
- CROSSWALK BLOCK WHITE
- PAVEMENT MESSAGE (TYP)

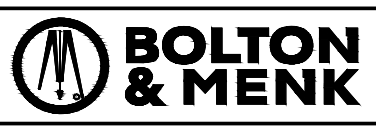
SYMBOLS & MATERIALS LEGEND

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
EXAMPLE: 4SW	= 4" SOLID LINE WHITE - MULTI COMP	



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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



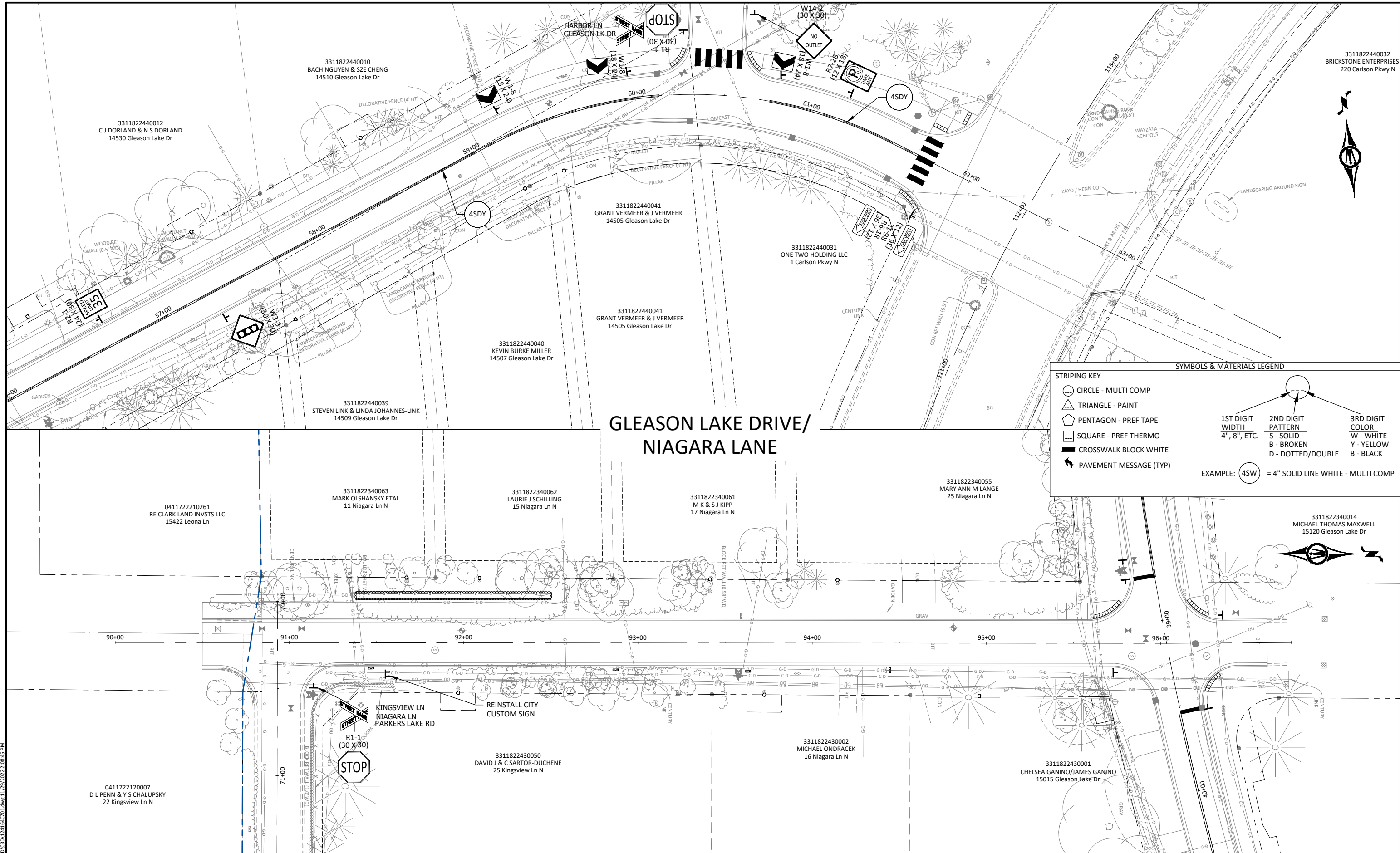
DESIGNED	XXX	NO.	ISSUED FOR	DATE
DRAWN	XXX			
CHECKED	XXX			
CLIENT PROJ. NO.	01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
SIGNAGE & STRIPING PLAN
GLEASON LAKE DR

SHEET
C7.03

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\1124164\01\CD\124164-01.dwg 11/29/2022 2:08:25 PM

3311822440032
BRICKSTONE ENTERPRISES
220 Carlson Pkwy N



GLEASON LAKE DRIVE/ NIAGARA LANE

STRIPING KEY

- CIRCLE - MULTI COMP
- TRIANGLE - PAINT
- PENTAGON - PREF TAPE
- SQUARE - PREF THERMO
- CROSSWALK BLOCK WHITE
- PAVEMENT MESSAGE (TYP)

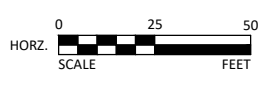
SYMBOLS & MATERIALS LEGEND

1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
4	S	W
4	S	W

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



© Bolton & Menk, Inc. 2022. All Rights Reserved.
 PLM\112124\1121241.dwg 11/29/2022 2:08:45 PM



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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



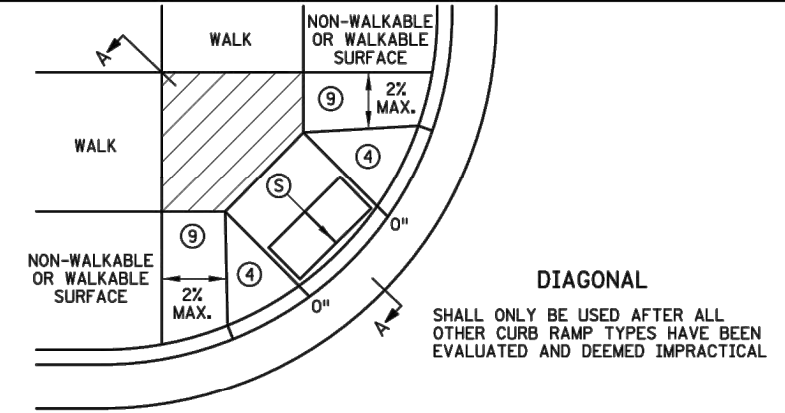
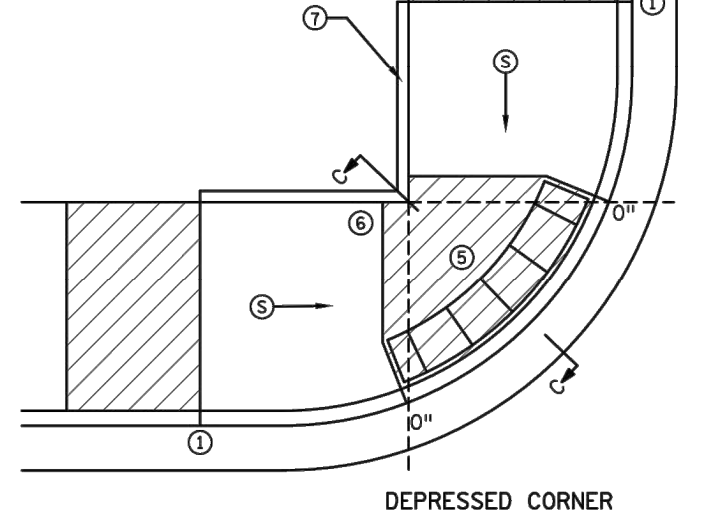
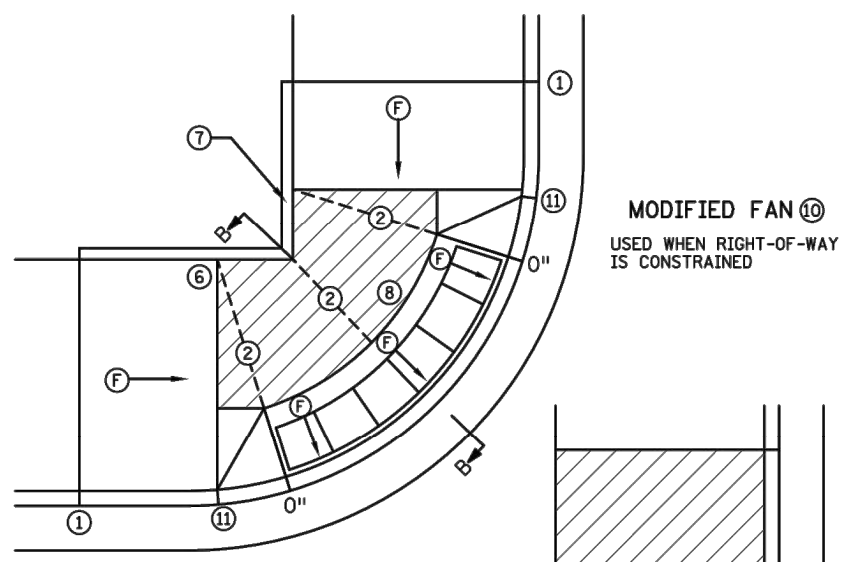
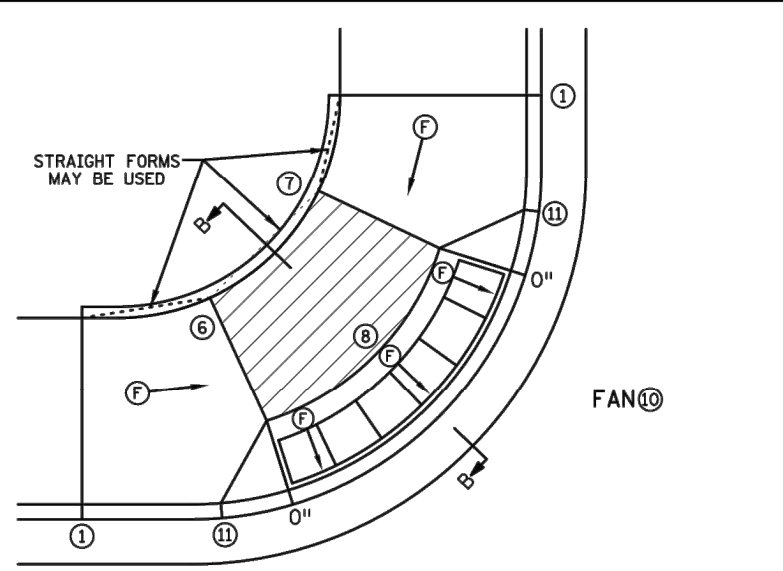
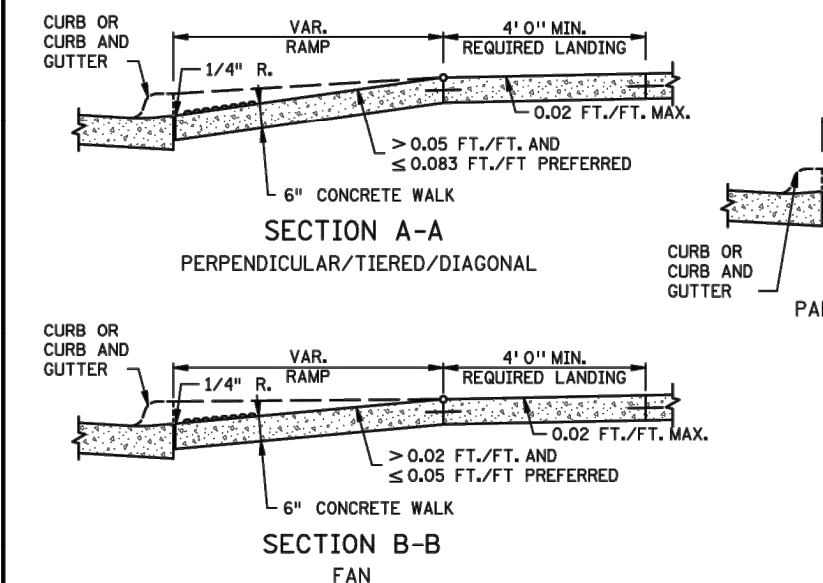
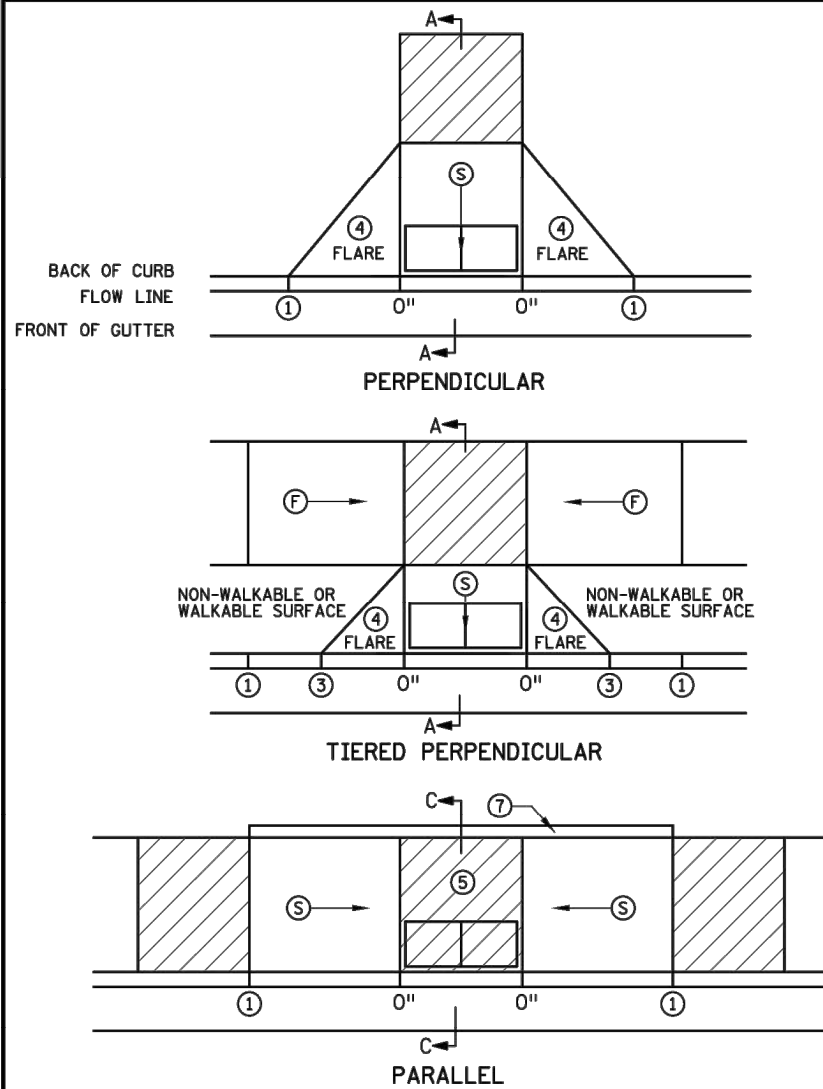
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
SIGNAGE & STRIPING PLAN
GLEASON LAKE DR & NIAGARA LANE

SHEET
C7.04



- NOTES:**
- LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.
- INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.
- SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.
- CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
- ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN 6) BELOW.
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE. MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.
- ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.
- 4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.
- WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.
- RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB, RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.
- 1 MATCH FULL HEIGHT CURB.
 - 2 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
 - 3 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
 - 4 SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
 - 5 DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
 - 6 THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
 - 7 WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
 - 8 A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
 - 9 PAVE FULL WALK WIDTH.
 - 10 "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
 - 11 INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
(Hatched Box)	LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
X"	CURB HEIGHT

REVISIONS:

APPROVED: 11-04-2021

Jeffrey Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 1 OF 6

APPROVED: 11-04-2021
REVISOR:

THOMAS STYBRICKI
STATE DESIGN ENGINEER

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

STANDARD DETAILS

SHEET C8.01

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022

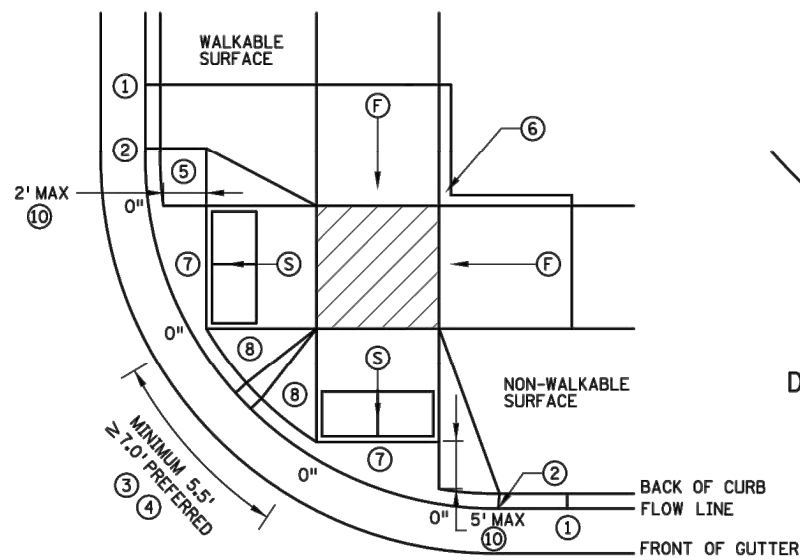


12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

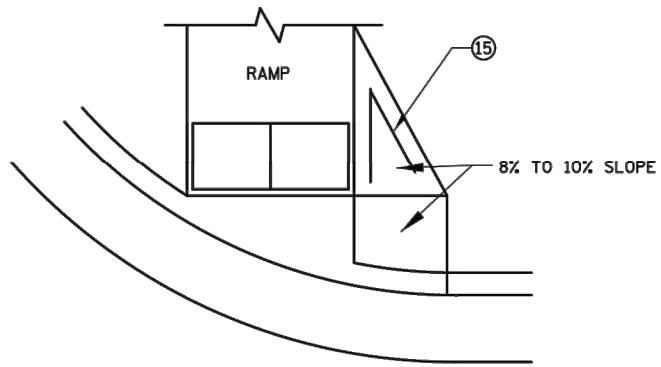


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	07.124164		

© Bolton & Menk, Inc. 2022. All Rights Reserved. PL124164-C8.01-01.dwg, 11/29/2022 2:08:56 PM

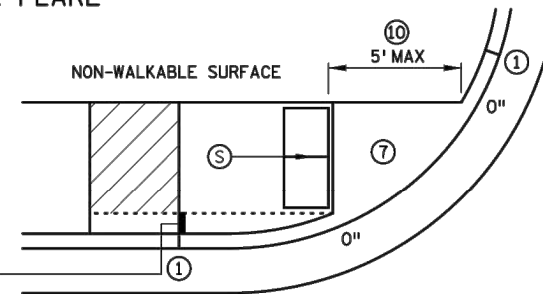


COMBINED DIRECTIONAL

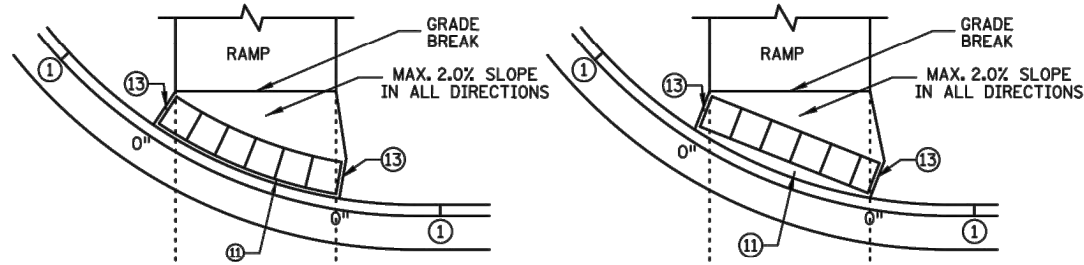


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

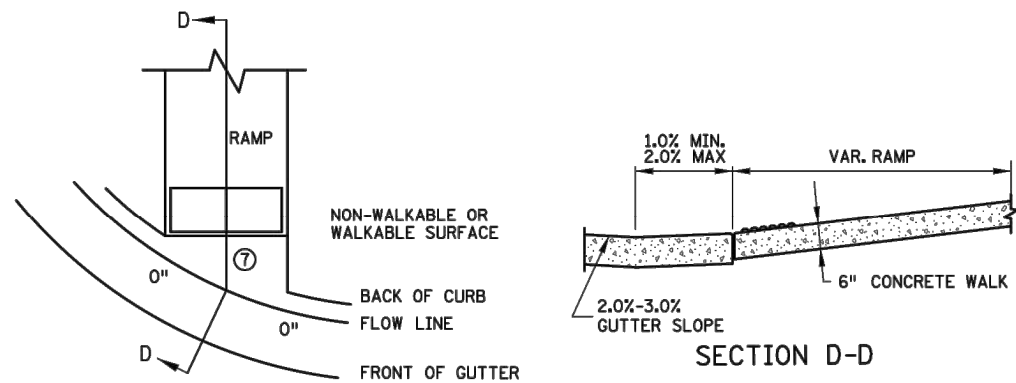


STANDARD ONE-WAY DIRECTIONAL ⑨

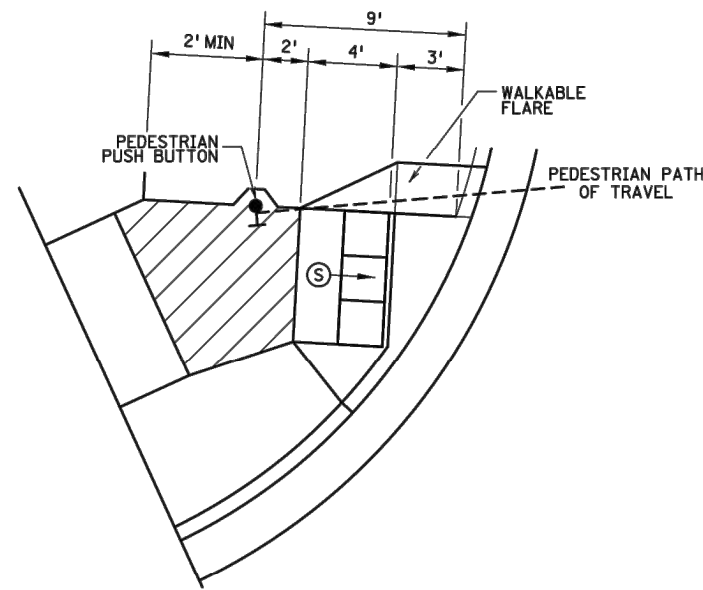


DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



CURB FOR DIRECTIONAL RAMPS ⑭



SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB
 PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30' OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY, FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO CURB. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

- ① MATCH FULL CURB HEIGHT.
- ② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.
- ③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
- ④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.
- ⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.
- ⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
- ⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.
- ⑧ 8% TO 10% WALKABLE FLARE.
- ⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
- ⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- ⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.
- ⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.
- ⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.
- ⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.	
(S)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
(F)	INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
(Hatched Box)	LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PAR.
X"	CURB HEIGHT

REVISIONS:
 APPROVED: 11-04-2021
 Jeff J. Perkins
 OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN 5-297.250 2 OF 6
 APPROVED: 11-04-2021
 THOMAS STYRBIK
 STATE DESIGN ENGINEER
 STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



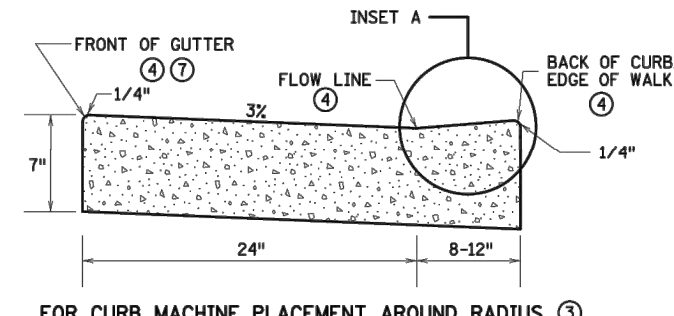
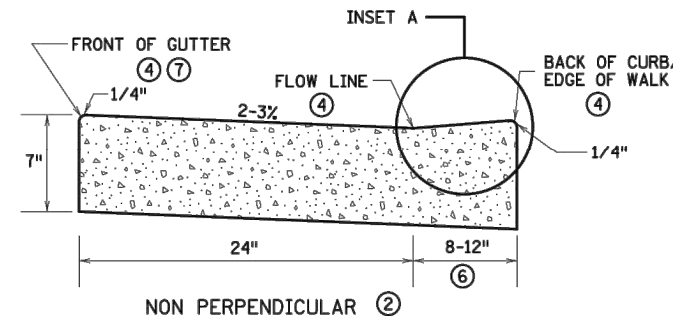
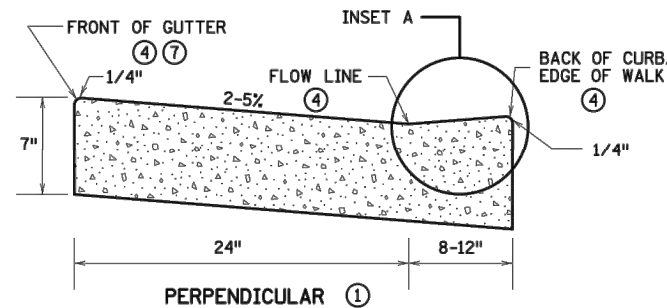
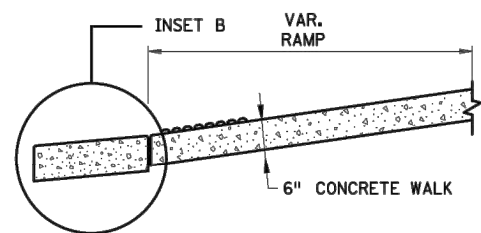
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS

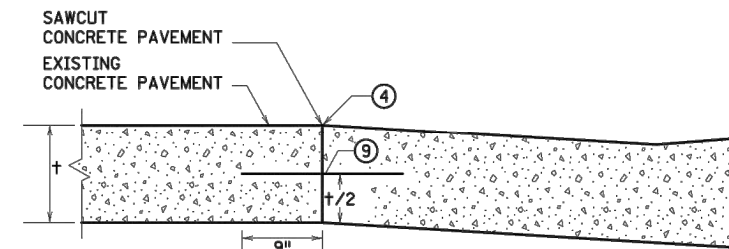
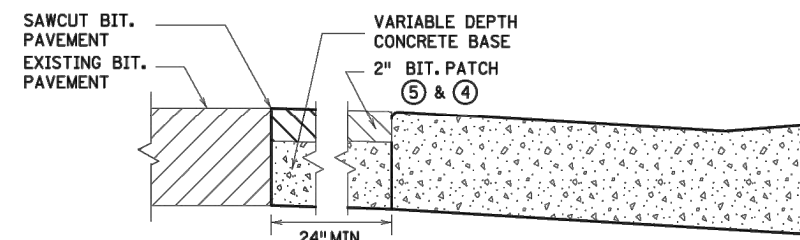
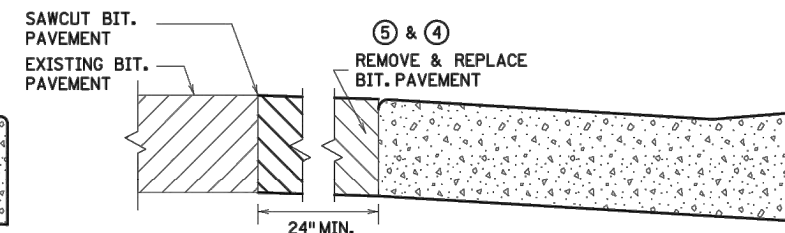
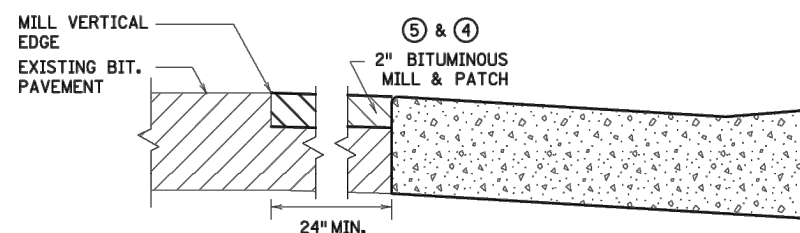
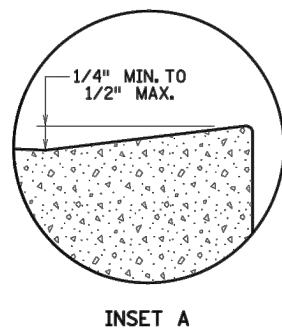
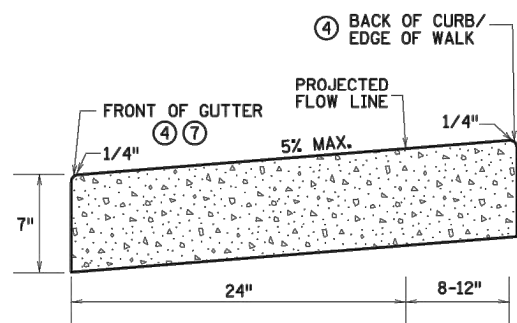
STANDARD DETAILS

SHEET

C8.02

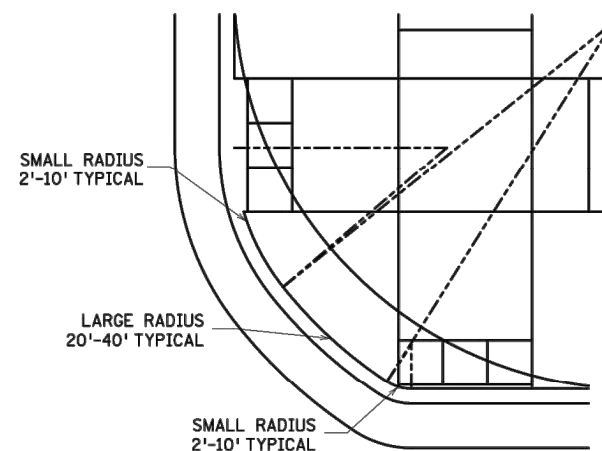
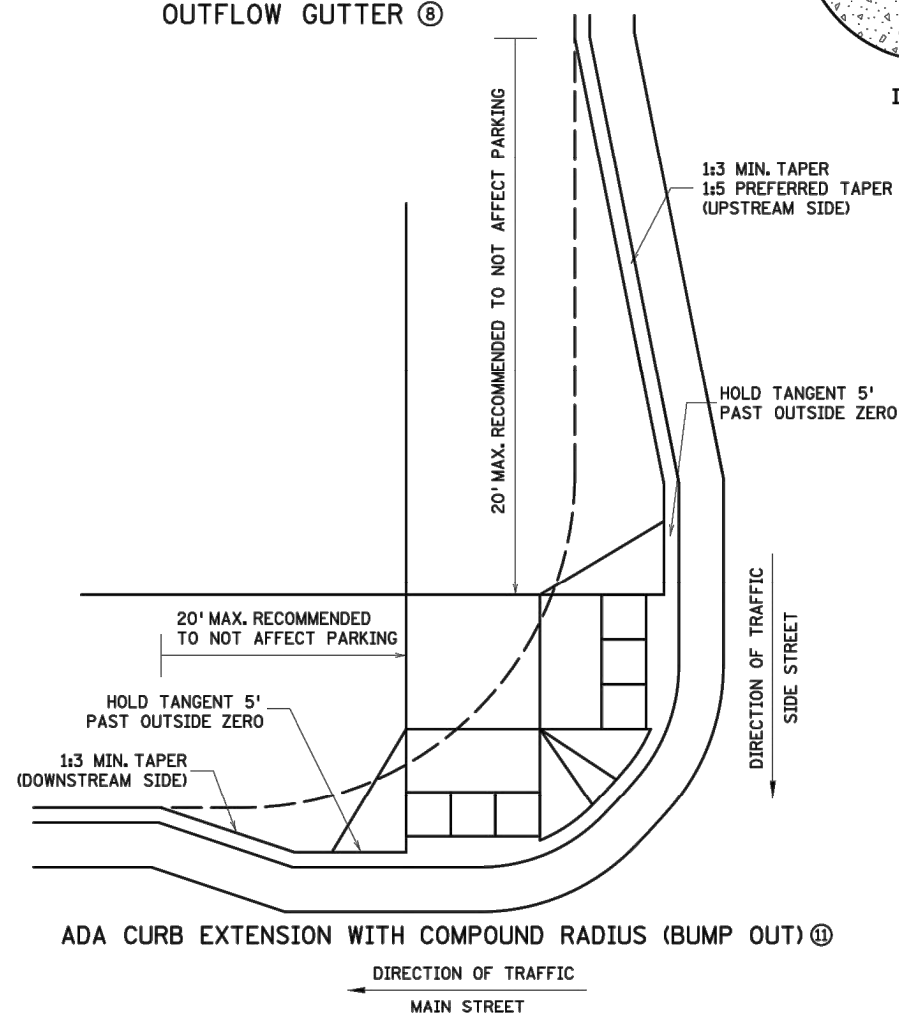


PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER FOR USE ON CURB RAMP RETROFITS



COMBINED DIRECTIONAL (COMPOUND RADIUS)

NOTES:

- POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM. NO PONDING SHALL BE PRESENT IN THE PAR.
- ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.
- ① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.
- ② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
- ③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.
- ④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
- ⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.
- ⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
- ⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.
- ⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
- ⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1" MINIMUM FROM ALL JOINTS.
- ⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
- ⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED. PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:
APPROVED: 11-04-2021
<i>Jeffrey Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION

m MINNESOTA DEPARTMENT OF TRANSPORTATION	STANDARD PLAN 5-297.250	3 OF 6
	APPROVED: 11-04-2021 REVISOR:	
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS		

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

SHEET
C8.03

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022

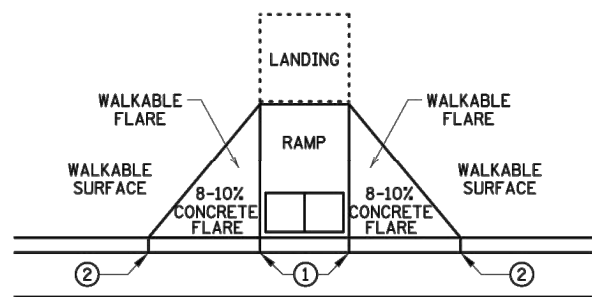


12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: BurnsVille@bolton-menk.com
www.bolton-menk.com

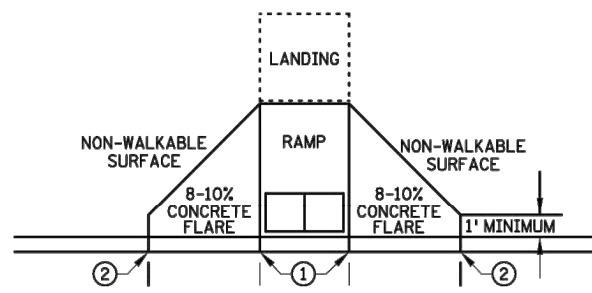


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

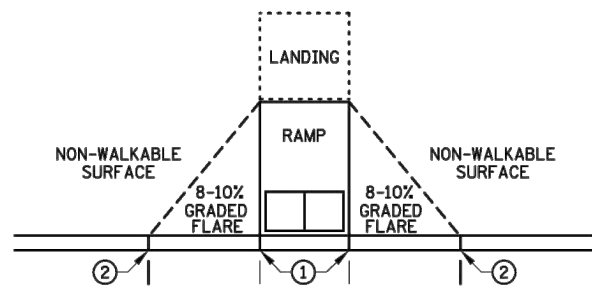
STANDARD DETAILS



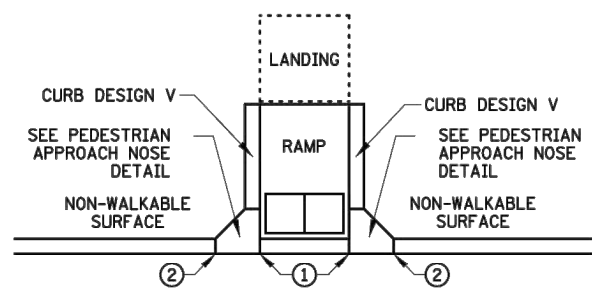
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

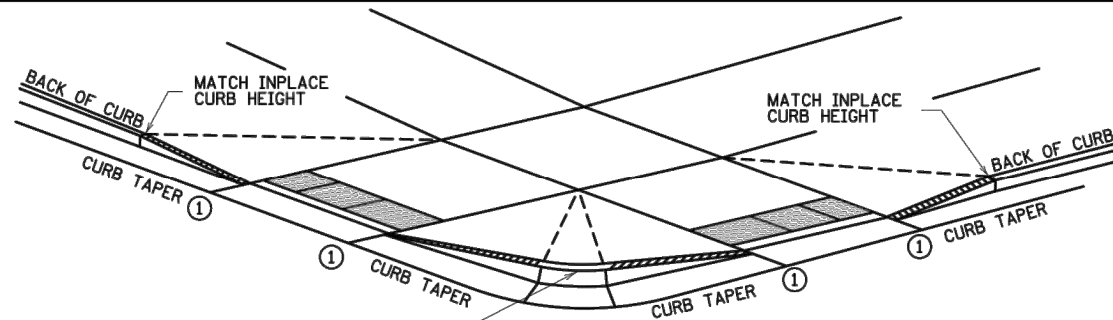


GRADED FLARES



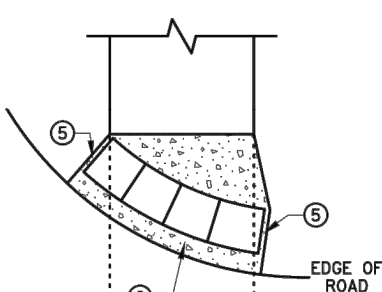
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

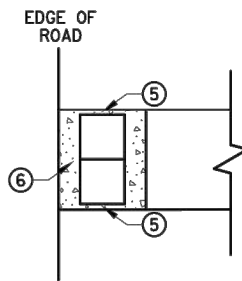


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH
CURB AND GUTTER ⑦

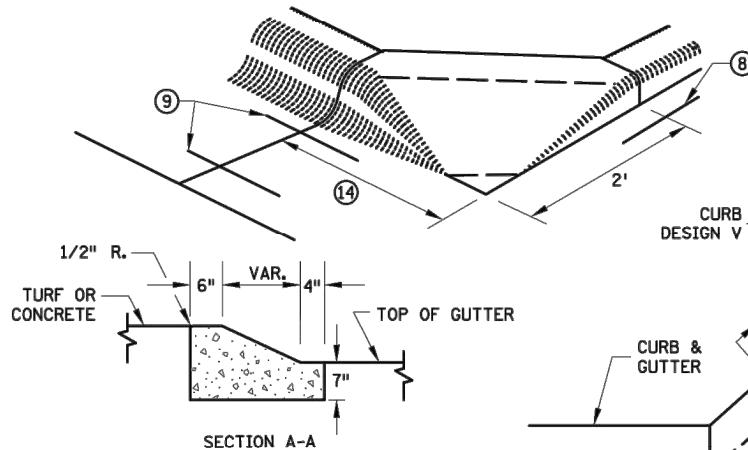


RADIAL DETECTABLE WARNING

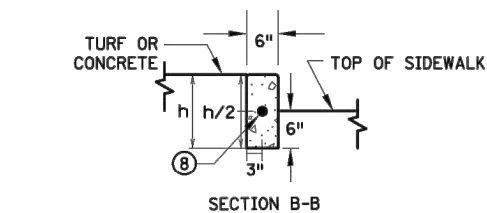


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

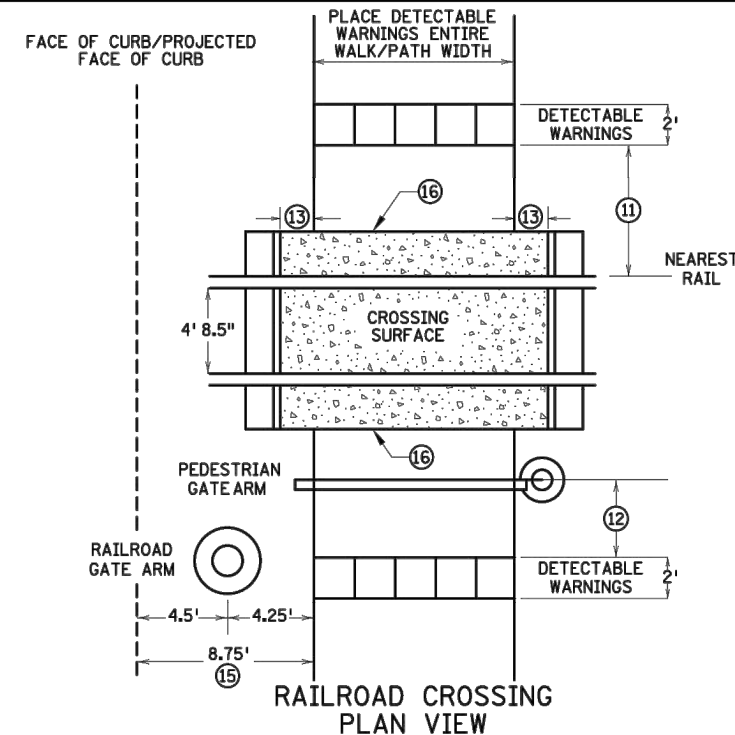


SECTION A-A



SECTION B-B

PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
- SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
- A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.
- ① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.
- ② FULL CURB HEIGHT.
- ③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.
- ④ TYPICALLY USED FOR MEDIANS AND ISLANDS.
- ⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
- ⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.
- ⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS, AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.
- ⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.
- ⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.
- ⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6" LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.
- ⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.
- ⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.
- ⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
- ⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
- ⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.
- ⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISIONS:
APPROVED: 11-04-2021
<i>Jeffrey Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION

	STANDARD PLAN 5-297.250	4 OF 6
	APPROVED: 11-04-2021 REVISOR:	
	STATE PROJ. NO.	(TH) SHEET NO. OF SHEETS
THOMAS J. FRYBICKI STATE DESIGN ENGINEER		

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

SHEET

C8.04



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

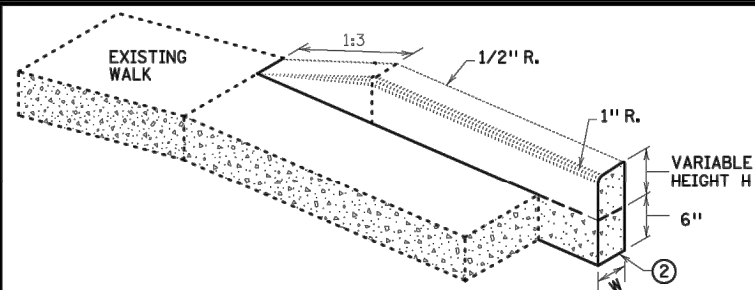


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	07.124164		

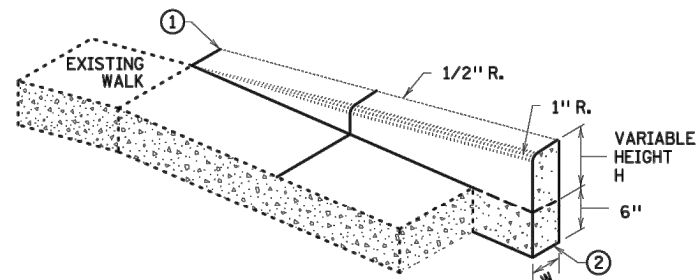
STANDARD DETAILS

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

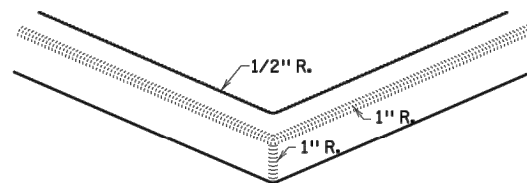
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



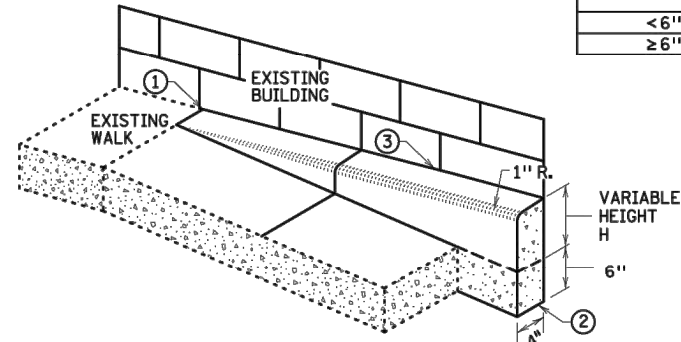
V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS



V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

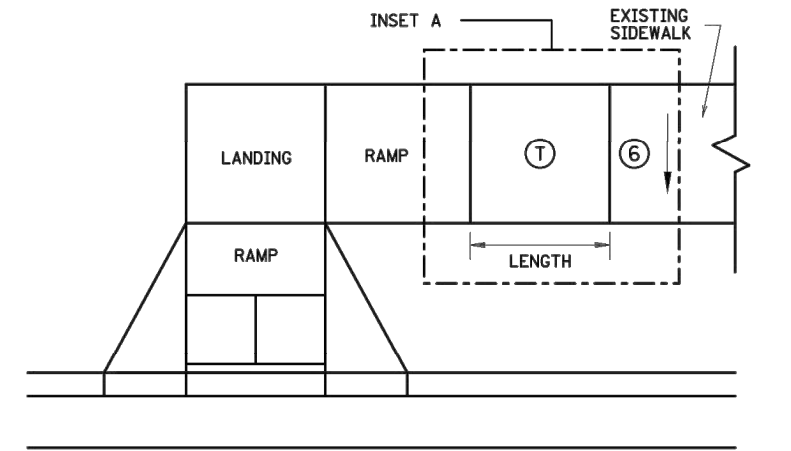


V CURB INTERSECTION

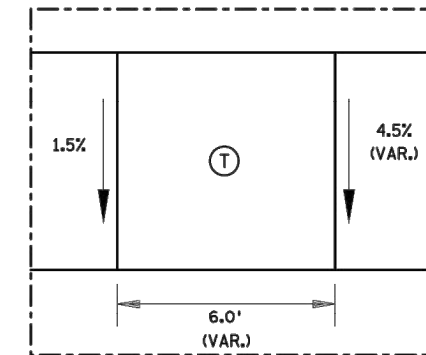


V CURB ADJACENT TO BUILDING
OR BARRIER

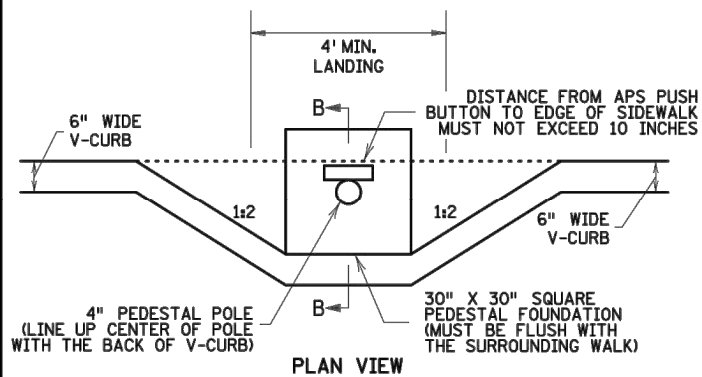
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"



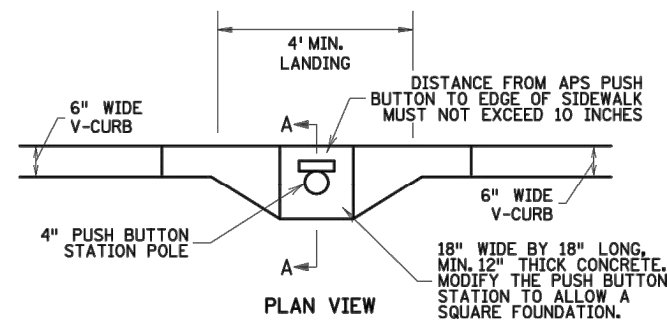
TRANSITION PANEL ④ ⑤



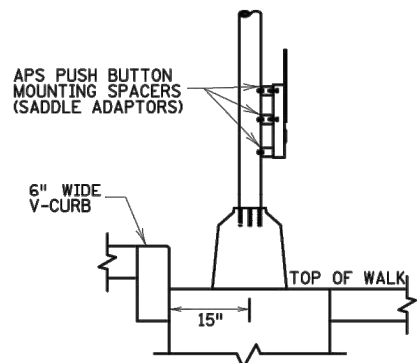
INSET A



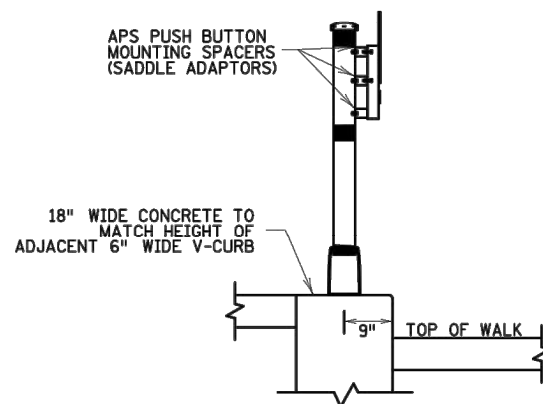
SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



PUSH BUTTON STATION (V-CURB)



SECTION B-B



SECTION A-A

NOTES:

- A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.
- ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.
- WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.
- V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.
- V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.
- ① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- ② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- ③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM 1/2" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
- ④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
- ⑤ TRANSITION PANEL(S) ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
- ⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

- THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT, IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.
- ⑤ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- ④ LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- ① TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION

	STANDARD PLAN 5-297.250	5 OF 6
	 THOMAS STYRBICKI STATE DESIGN ENGINEER	
APPROVED: 11-04-2021		STATE PROJ. NO.
REVISED:		(TH) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

SHEET

C8.05

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022

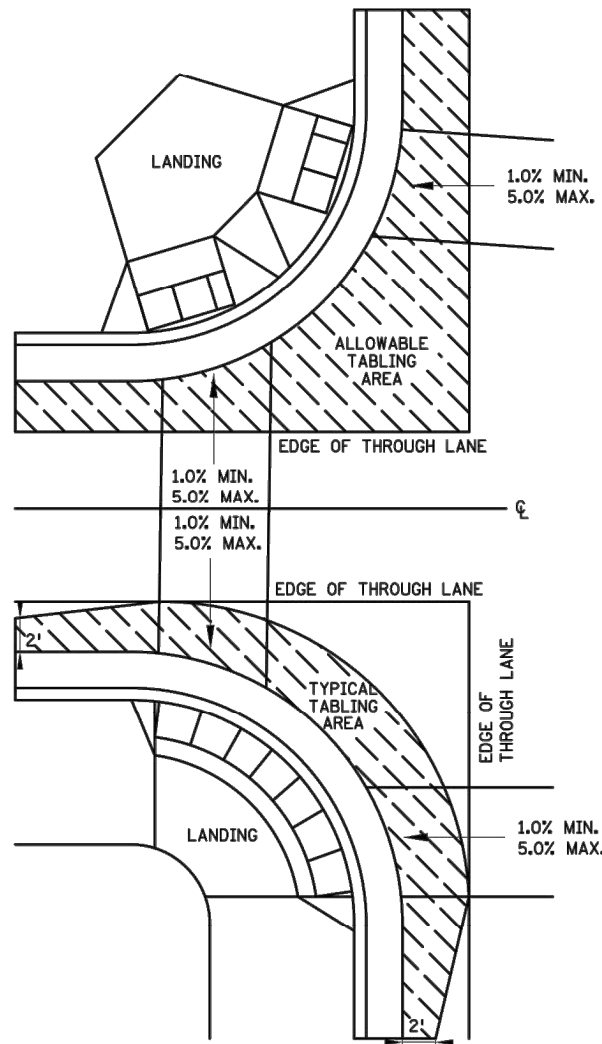


12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

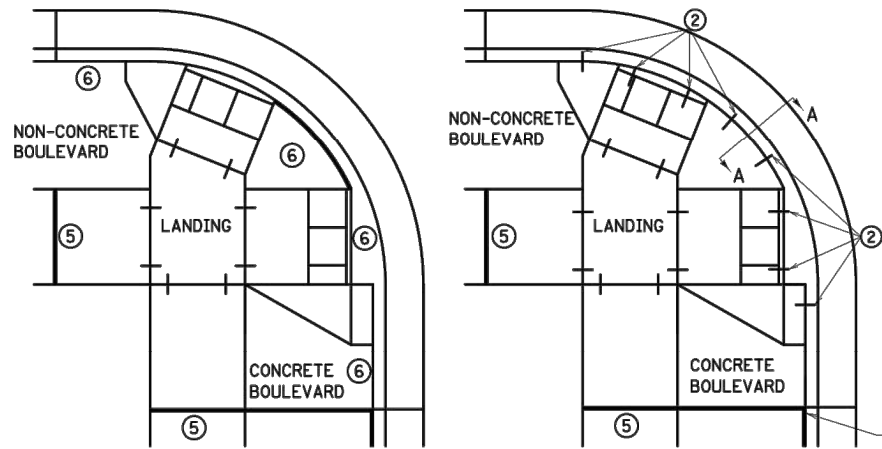


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

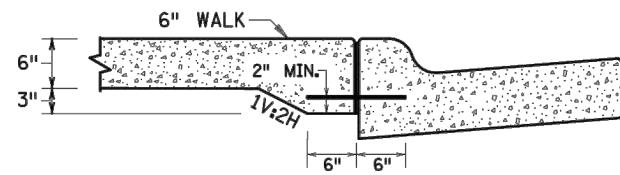
STANDARD DETAILS



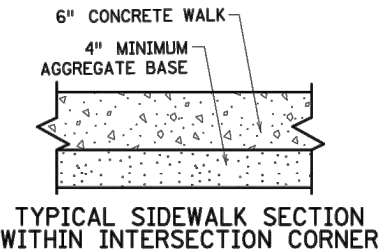
CURB LINE AND ROAD CROSSING ADJUSTMENTS



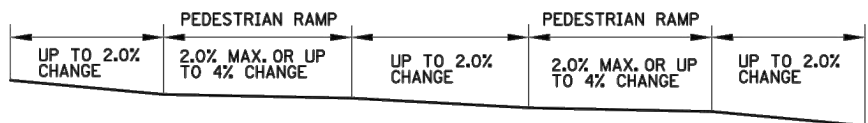
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS
CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS



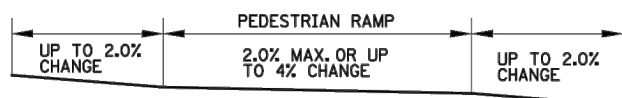
SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES



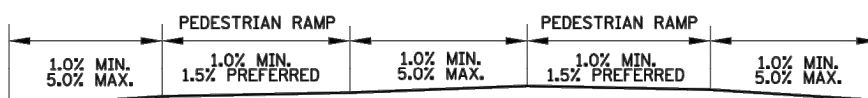
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



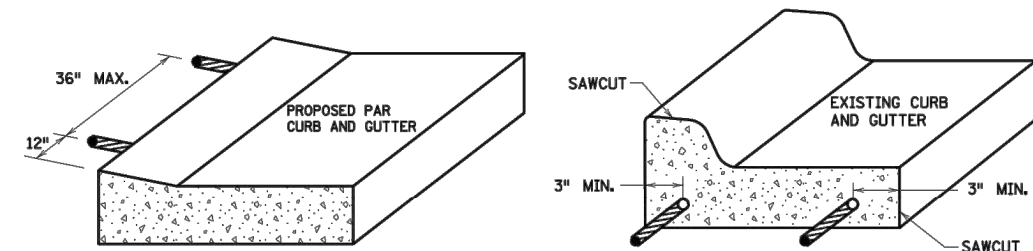
FLOW LINE PROFILE "TABLE" - FAN



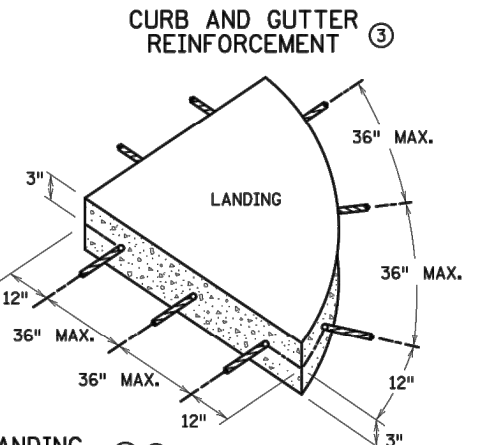
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



FLOW LINE PROFILE RAISE - FAN



CURB RAMP REINFORCEMENT DETAILS ② ④



SEPARATE LANDING POUR REINFORCEMENT ① ②

GENERAL NOTES:

- "TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.
- RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.
- MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
 - 1.0% MIN. CROSS-SLOPE OF THE ROAD
 - 5.0% MAX. CROSS-SLOPE OF THE ROAD
 - "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
 - UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP
- STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.
- RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
 - 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
 - 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
 - 5.0% RECOMMENDED MAX. FLOW LINE
 - LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

- ① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY Poured INITIAL LANDINGS.
- ② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
- ③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
- ④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
- ⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
- ⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISIONS:

APPROVED: 11-04-2021

Jeffrey Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 6 OF 6

APPROVED: 11-04-2021
REVISOR:

Tom Stricki
THOMAS STRICKI
STATE DESIGN ENGINEER

STATE PROJ. NO. () SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

SHEET
C8.06

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	07.124164		

STANDARD DETAILS

SEED RATES, TIMES AND SUGGESTIONS

- BEST TIME TO SEED OR OVERSEED LISTED IN ORDER OF HIGHEST GERMINATION RATES:
1. AUGUST 15 TO SEPTEMBER 15
 2. NOVEMBER 15 TO DECEMBER 15 (DORMANT SEEDING)
 3. APRIL 15 TO MAY 15

NEW SEEDING AND OVER SEEDING RATES: 6 LB. PER 1000 SQ. FT. (261 LBS. PER ACRE)

- 30% PARADE KENTUCKY BLUE
- 20% AQUILA KENTUCKY BLUE
- 20% PARK KENTUCKY BLUE
- 30% PERENNIAL RYE-DELRAY

DIVIDE SEED IN HALF AND SOW IN TWO DIFFERENT DIRECTIONS.

OVERSEEDING SUGGESTIONS:

1. CLIP GRASS TO 1" HEIGHT OR LESS.
2. AERATE AREA WITH DRAG MAT TO BREAK UP PLUGS.
3. REMOVE DEBRIS
4. FERTILIZE WITH PHOSPHOROUS FREE STARTER FERTILIZER AT RECOMMENDED RATE.
5. TOP DRESS AREA IF NECESSARY.
6. SEED AT SUGGESTED RATE WITH SEEDER THATCHER MACHINE PULLING DRAG MAT.
7. WATER

STANDARD DETAILS
SEEDING AND OVERSEEDING RATES
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. SPP-1
REVISED 3-11

CITY OF PLYMOUTH [6"]

(PROJECT NAME) [3"]
(PROJECT NO.) [2-1/2"]

PROCEED WITH CAUTION [6"]

FOR INFORMATION: [2-1/2"]
(PROJECT WEBPAGE)
(763) 509-5500

(CONTRACTOR'S NAME) [2-1/2"]
(ADDRESS)
(LOCAL PHONE NO.)

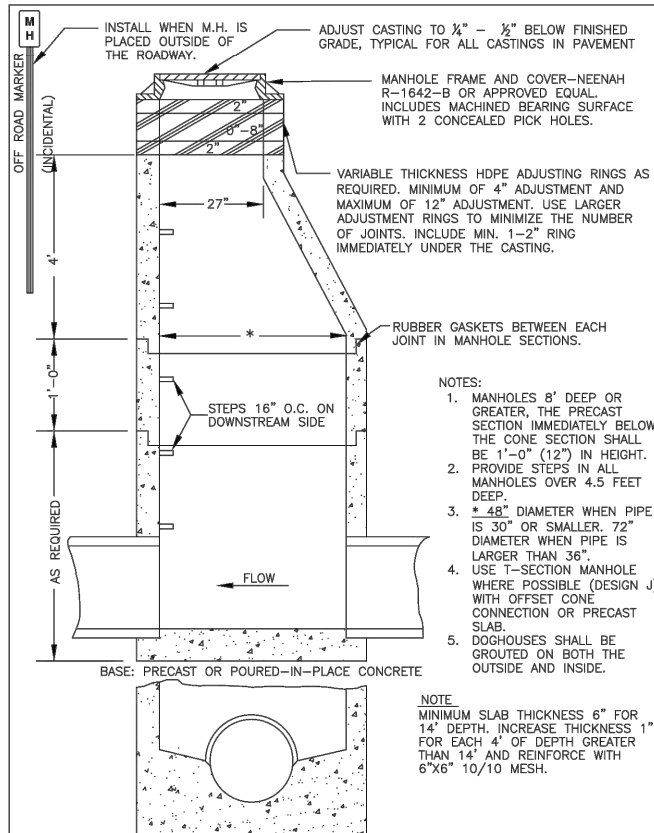
SCHEDULED COMPLETION DATE: [2-1/2"]
(DATE)

NOTE:
Sign shall be 4' x 6' with a white background with black letters, (no hand lettering) and of proper height to be readily visible from an automobile, and located as directed by engineer. Sign shall be mounted on 4"x 4" posts

() Project Specific Information

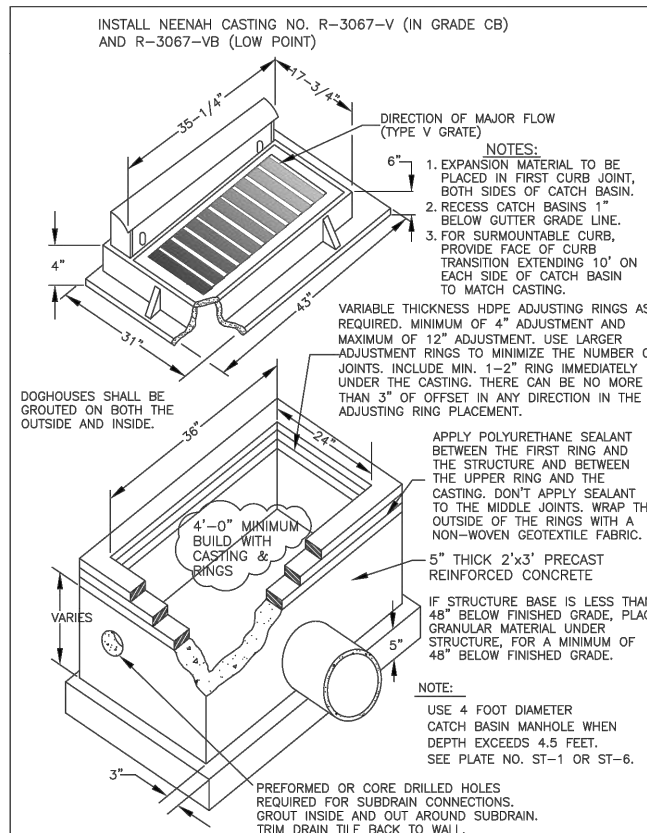
STANDARD DETAILS
STANDARD CITY PROJECT SIGN
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. DWG-1
REVISED 1-22



STANDARD DETAILS
STORM SEWER MANHOLE WITH CONE SECTION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-1
REVISED 1-17

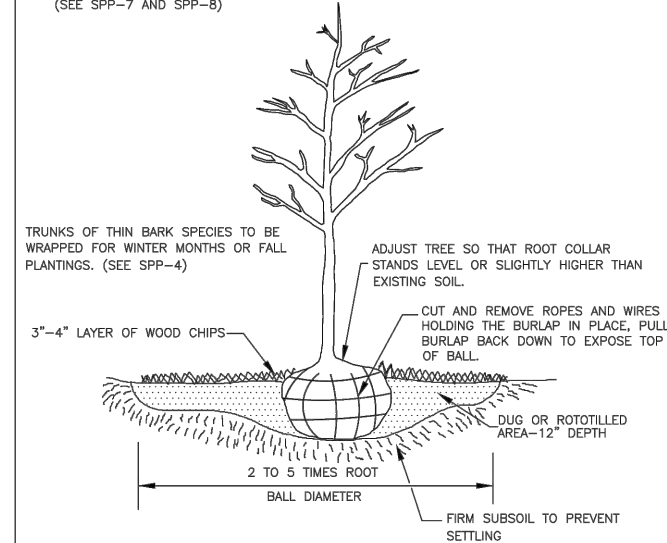


STANDARD DETAILS
CATCH BASIN (MAX. DEPTH 4.5')
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-2
REVISED 1-21

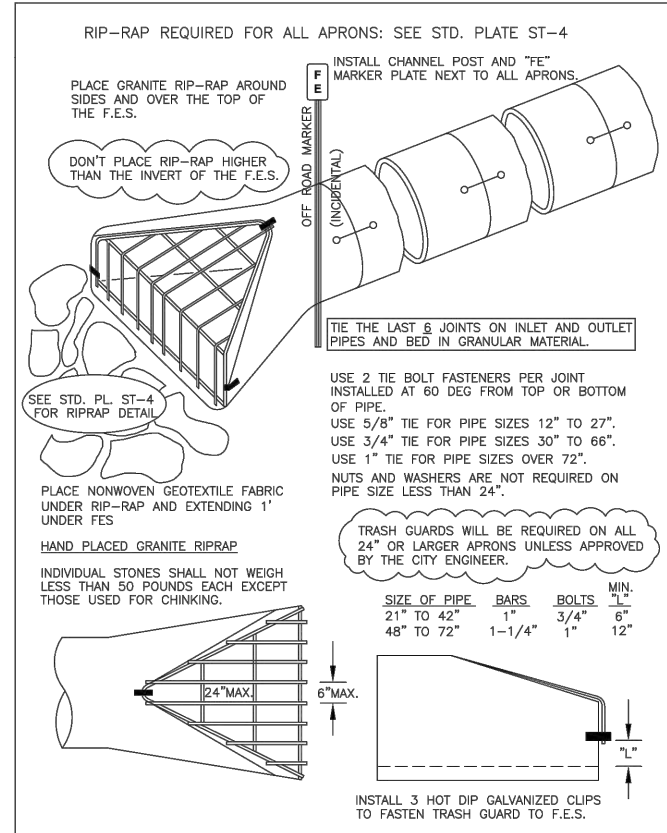
STAKES NOT RECOMMENDED UNLESS THE TRUNK EASILY WAIVERS 3"-5". IF STAKES ARE NEEDED SEE SPP-4

PRUNING SHOULD BE LIMITED TO ONLY BROKEN, DEAD, OR DAMAGED LIMBS AND SHOULD NOT CHANGE THE APPEARANCE OF THE TREE. (SEE SPP-7 AND SPP-8)



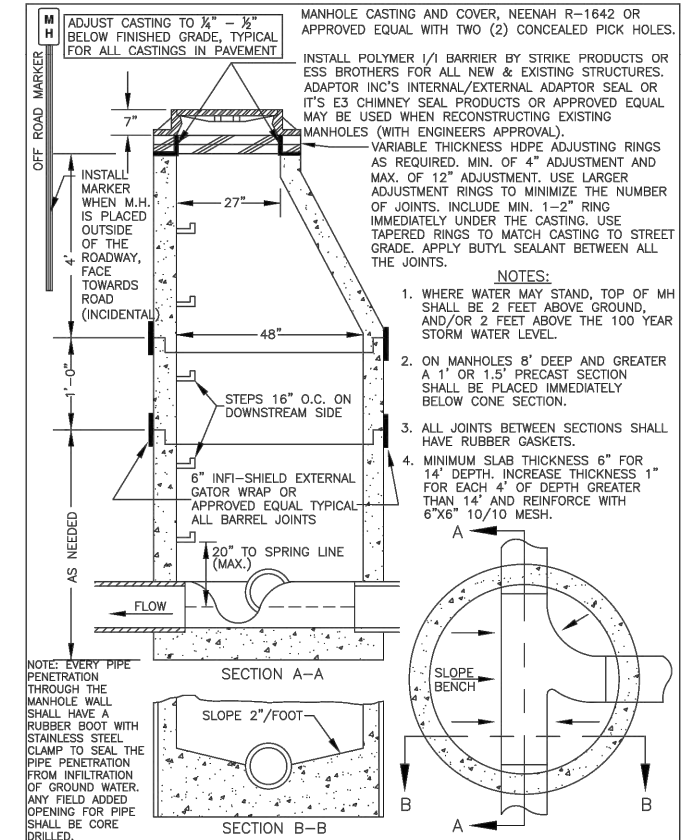
STANDARD DETAILS
TREE PLANTING-BALLED AND BURLAPED
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. SPP-2
REVISED 3-11



STANDARD DETAILS
INLET & OUTLET F.E.S. WITH TRASH GUARD
CITY OF PLYMOUTH

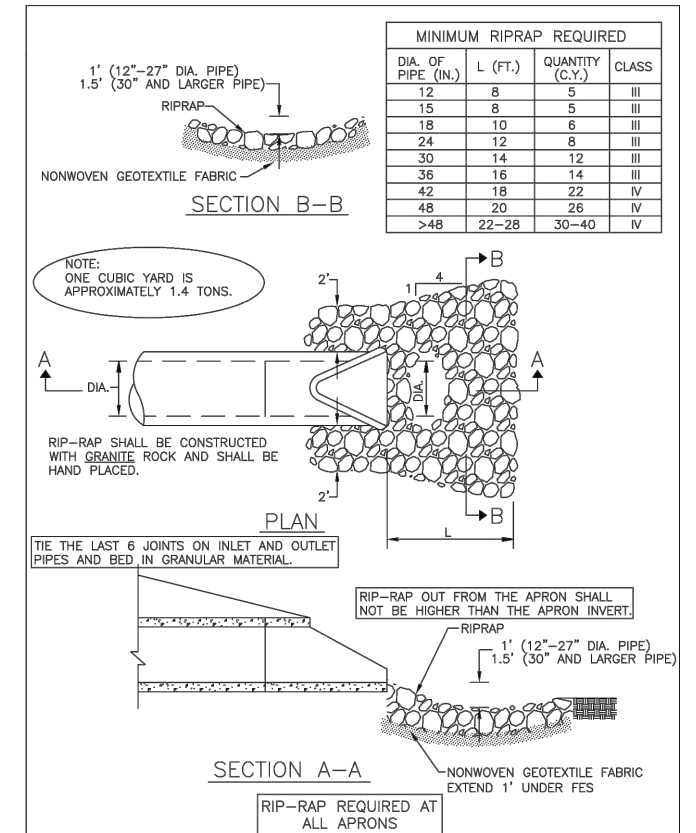
PUBLISHED 1-22
CITY PL. NO. ST-3
REVISED 1-17



STANDARD DETAILS
STANDARD SANITARY SEWER MANHOLE
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. SS-3
REVISED 1-22

NOTE: EVERY PIPE PENETRATION THROUGH THE MANHOLE WALL SHALL HAVE A RUBBER BOOT WITH STAINLESS STEEL CLAMP TO SEAL THE PIPE PENETRATION FROM INFILTRATION OF GROUND WATER. ANY FIELD ADDED OPENING FOR PIPE SHALL BE CORE DRILLED.



STANDARD DETAILS
RIP-RAP DETAIL FOR FLARED END SECTIONS
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-4
REVISED 1-17

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: burnsville@bolton-menk.com
www.bolton-menk.com



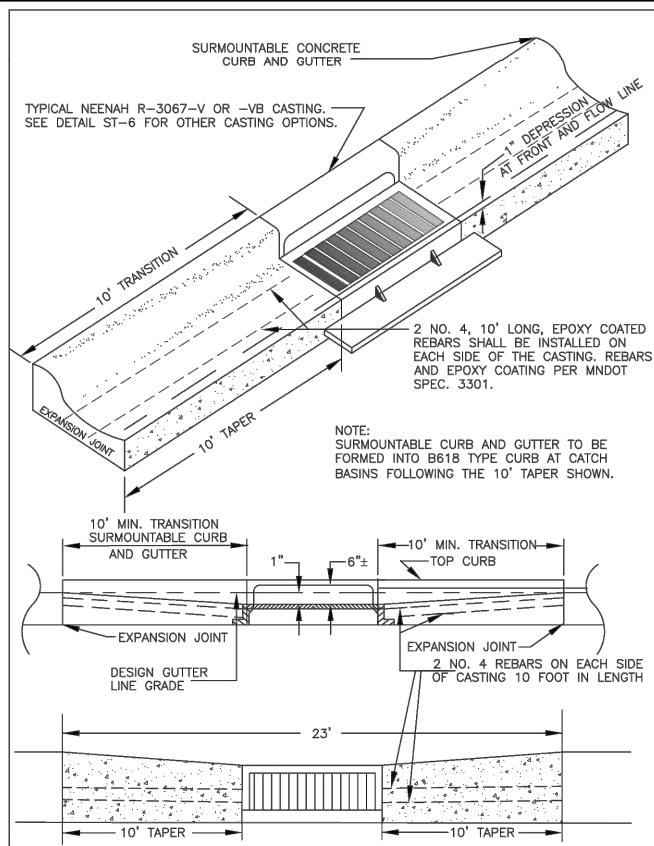
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS

STANDARD DETAILS

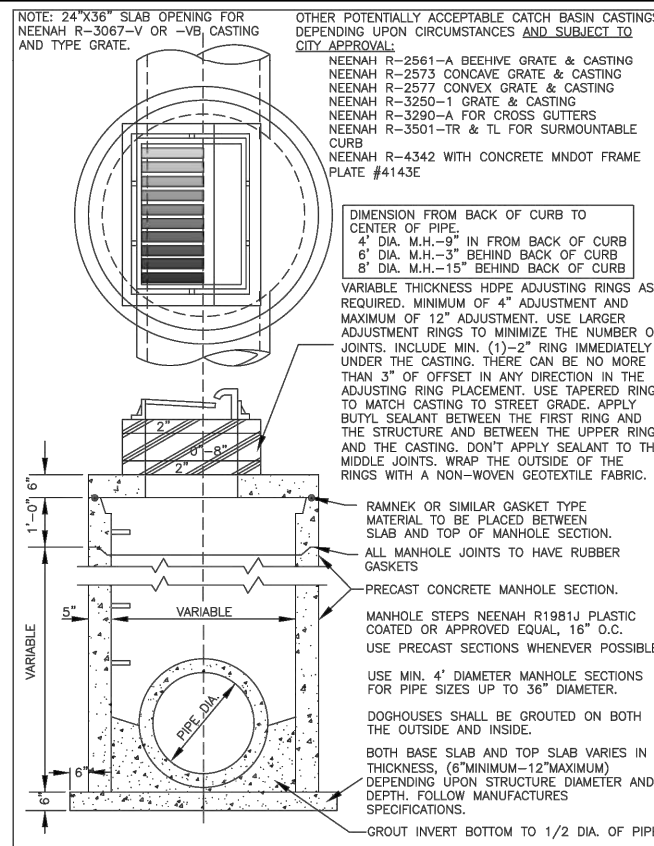
SHEET

C8.07



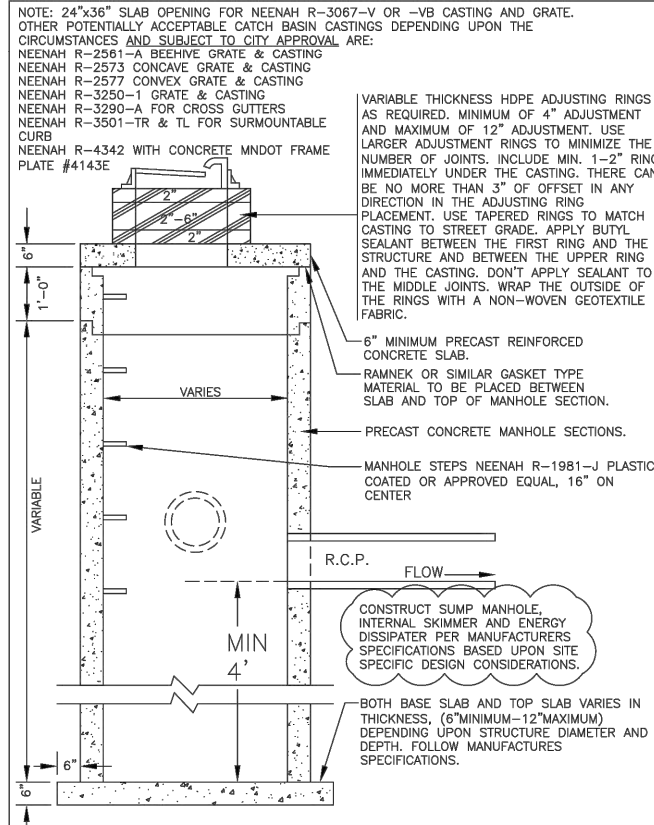
STANDARD DETAILS
CATCH BASIN CASTING INSTALLATION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-5
REVISED 1-21



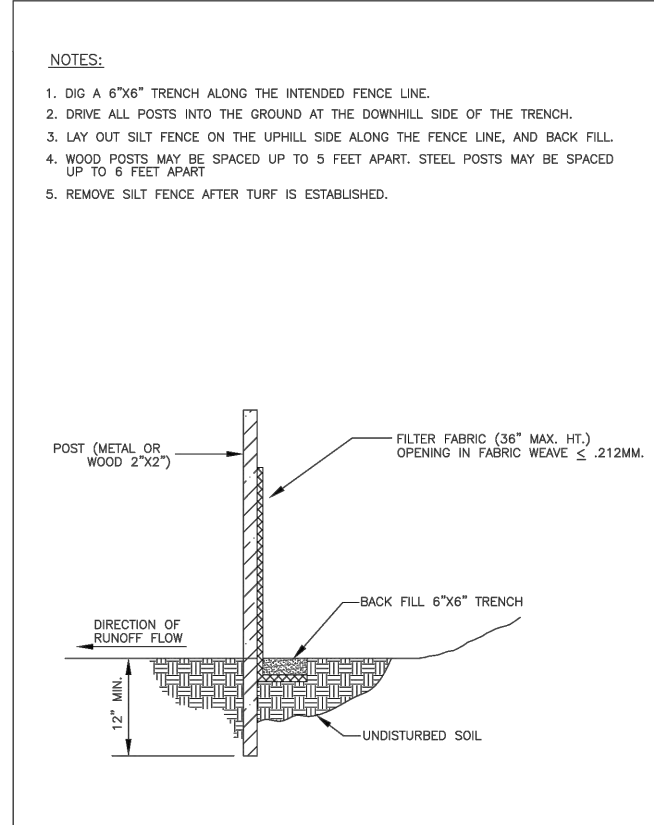
STANDARD DETAILS
PRECAST STORM SEWER CATCH BASIN MANHOLE WITH REINFORCED CONCRETE TOP SLAB
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-6
REVISED 1-21



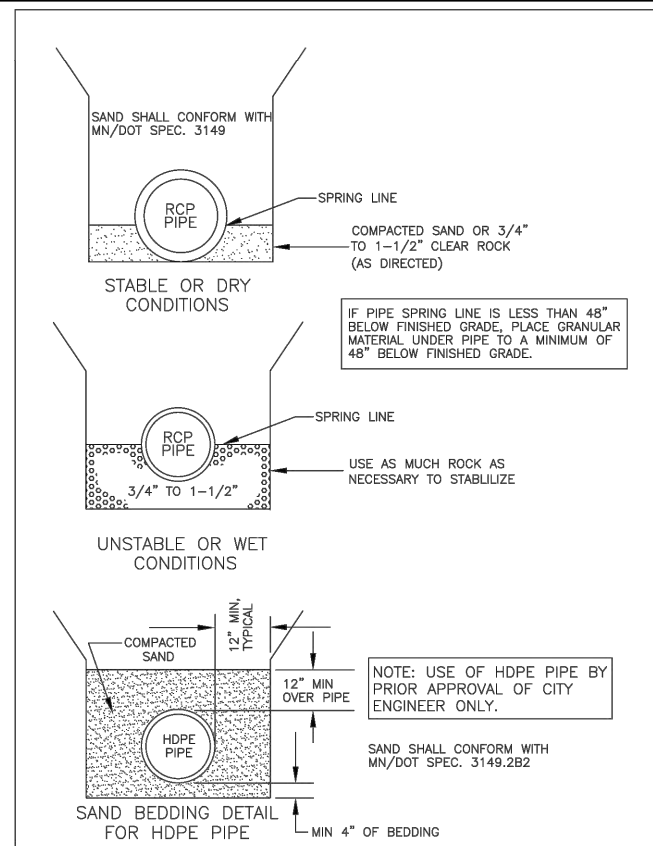
STANDARD DETAILS
SUMP CATCH BASIN MANHOLE
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-11
REVISED 1-21



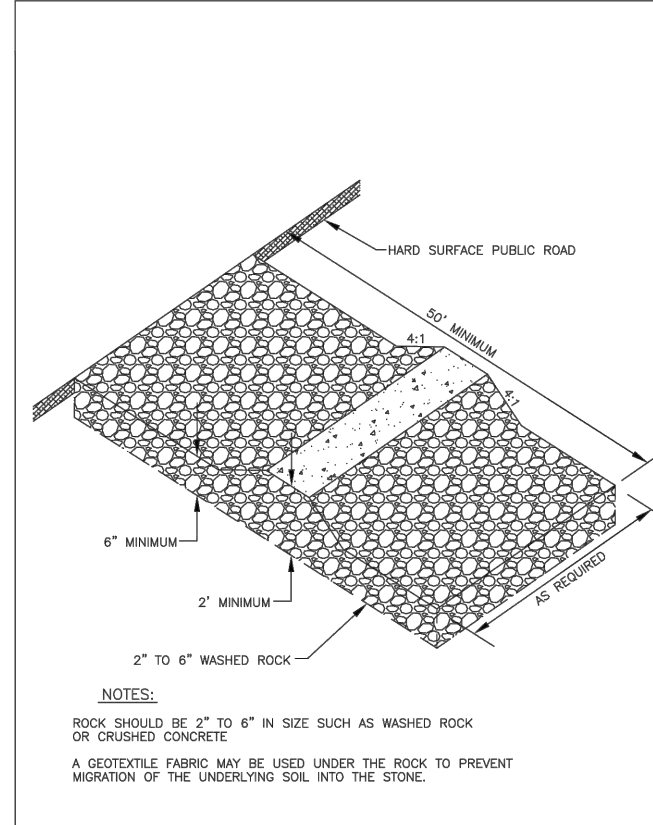
STANDARD DETAILS
SILT FENCE DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-18
REVISED 1-20



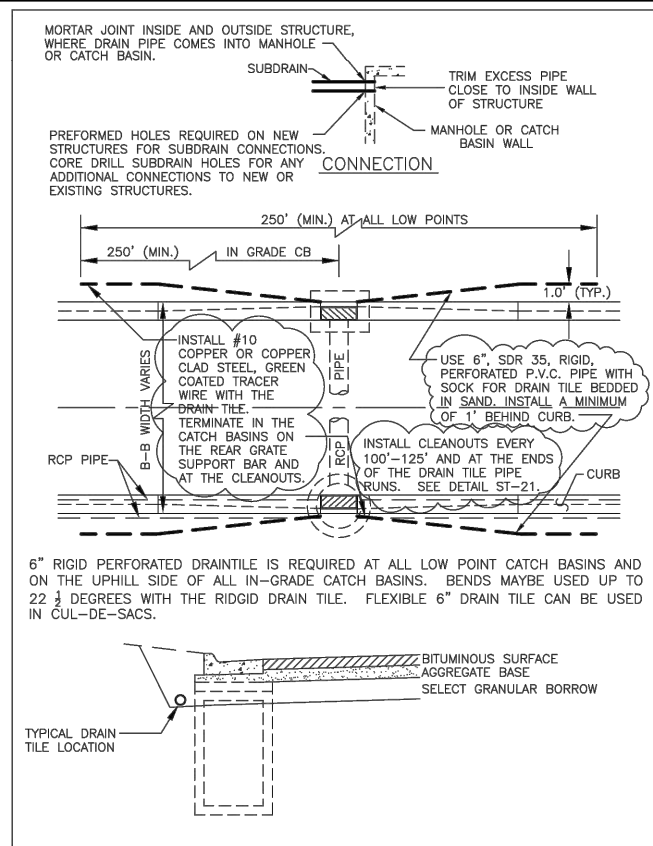
STANDARD DETAILS
STORM SEWER BEDDING
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-8
REVISED 3-12



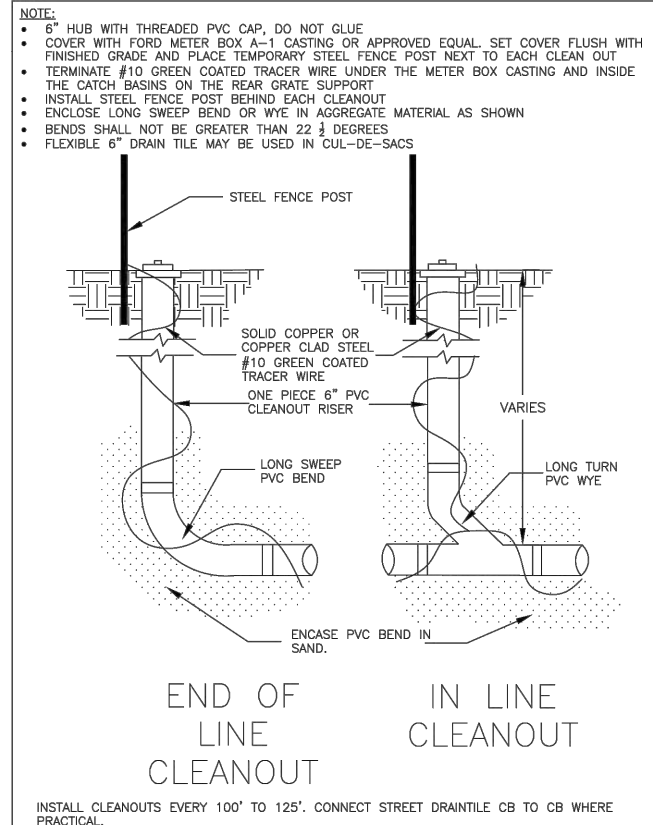
STANDARD DETAILS
ROCK EXIT TO CONSTRUCTION SITE
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-19
REVISED 1-20



STANDARD DETAILS
SUBDRAIN DETAILS
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-9
REVISED 1-22



STANDARD DETAILS
PVC STREET DRAIN TILE CLEANOUTS
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. ST-21
REVISED 1-22

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\DWG\11124164\CAD\CD\BOLMEN\12152452.dwg, 11/29/2022 2:09:20 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

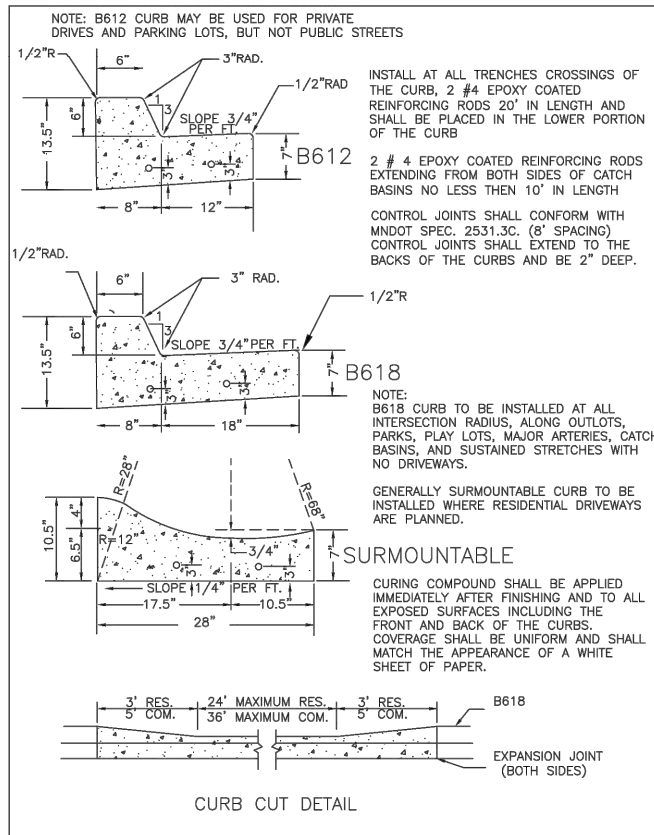
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



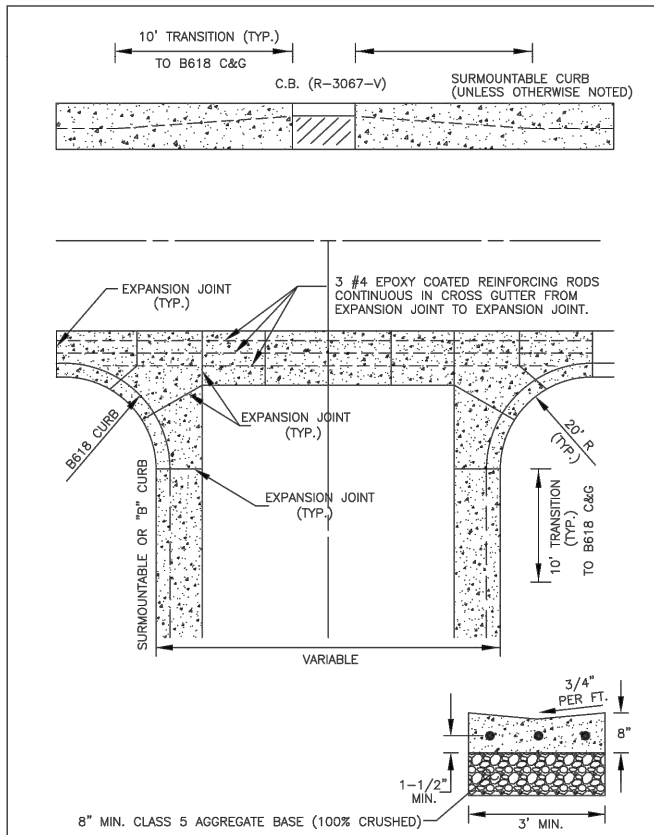
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



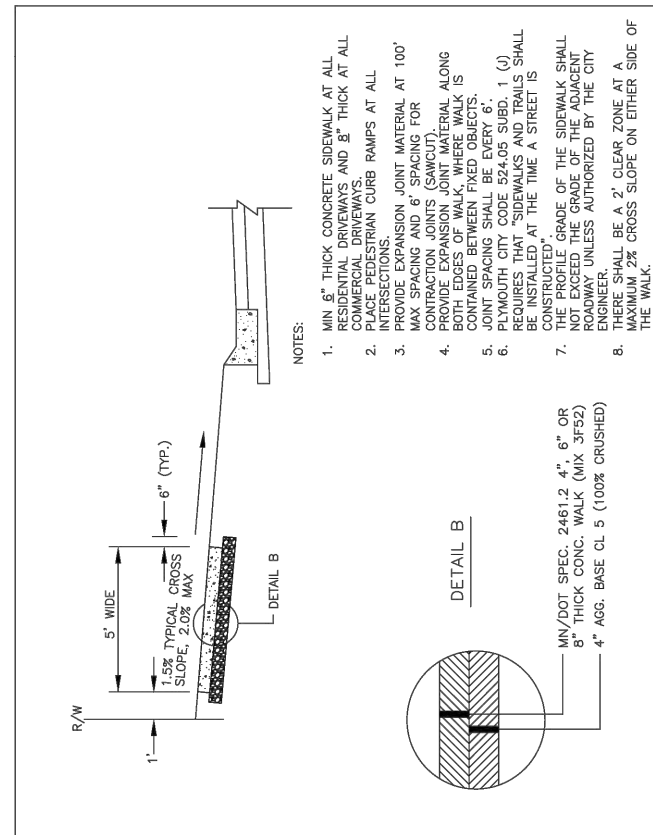
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
07.124164			



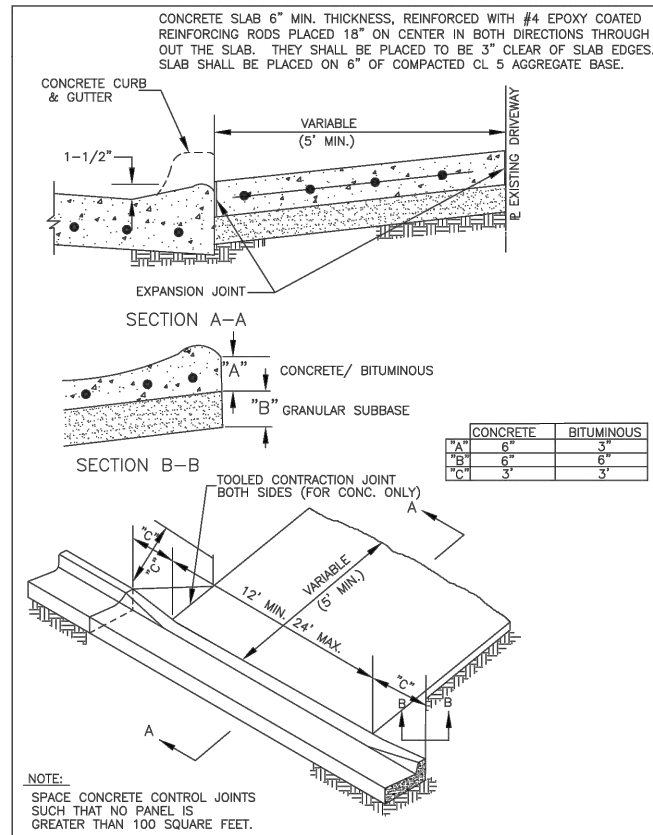
STANDARD DETAILS
STANDARD CURB DETAILS
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-1
REVISED 1-22



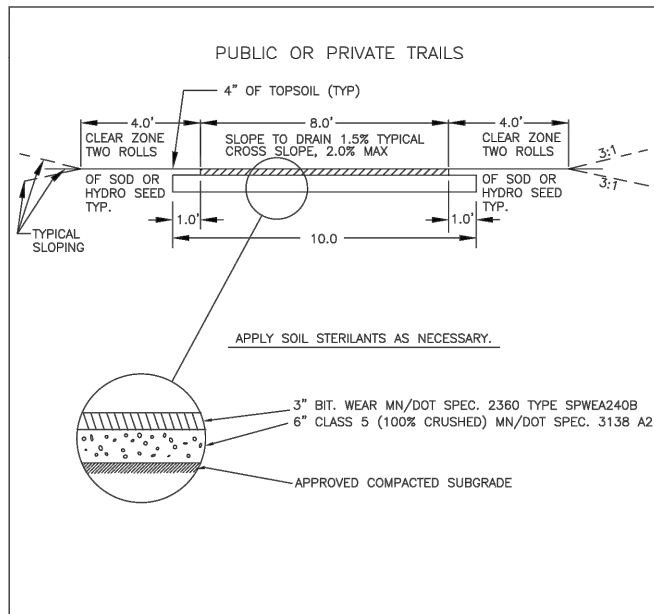
STANDARD DETAILS
CONCRETE CROSS GUTTER
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-2
REVISED 1-22



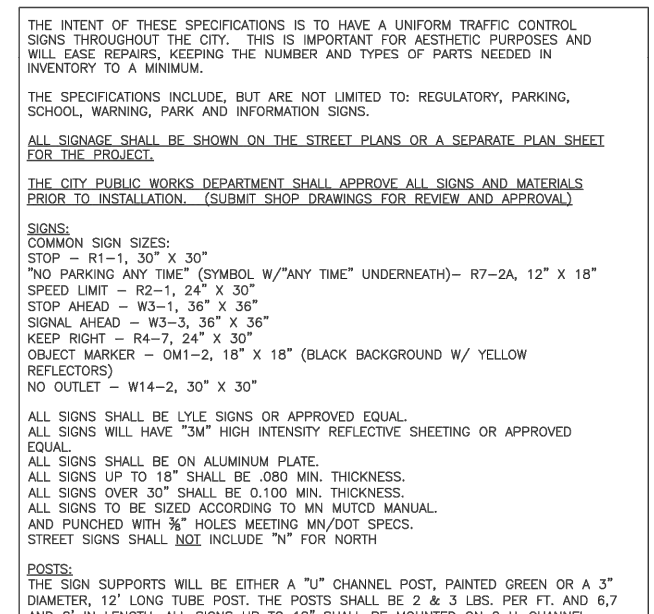
STANDARD DETAILS
CONCRETE WALK SECTION
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-10
REVISED 1-21



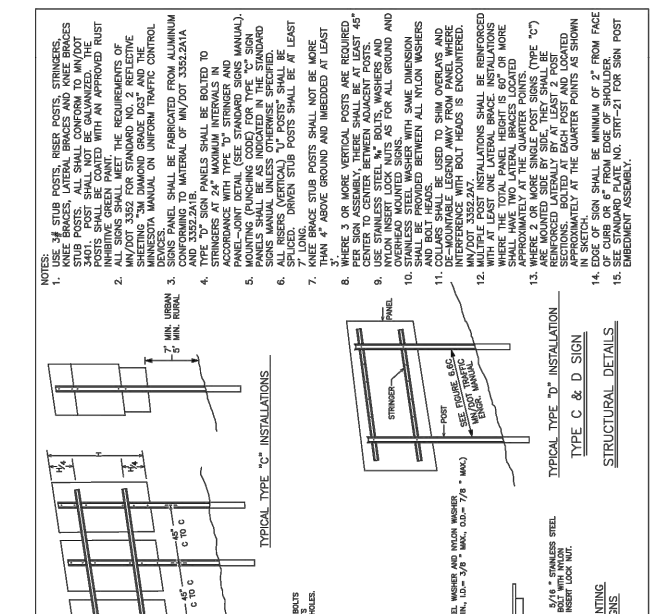
STANDARD DETAILS
RESIDENTIAL DRIVEWAY DETAIL
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-13
REVISED 1-20



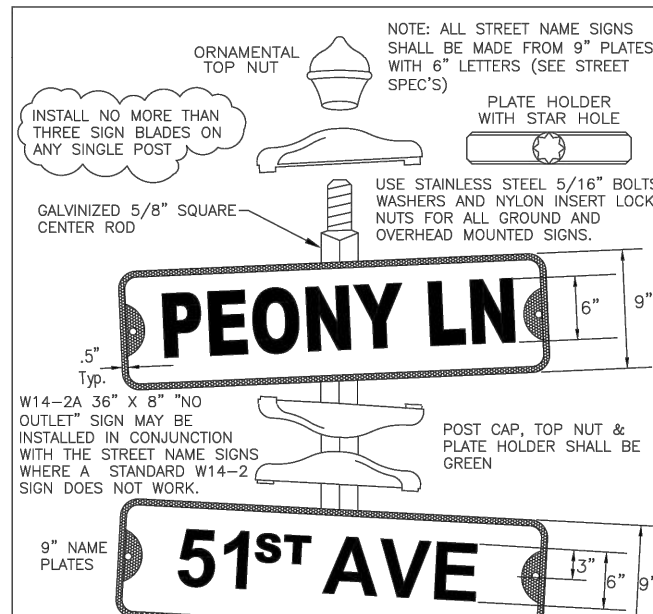
STANDARD DETAILS
TYPICAL TRAIL CROSS SECTION
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-15
REVISED 1-17



STANDARD DETAILS
TRAFFIC SIGN SPECIFICATIONS
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-21
REVISED 1-20



STANDARD DETAILS
TRAFFIC SIGNS
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-22
REVISED 3-11



STANDARD DETAILS
STREET NAME MARKER
CITY OF PLYMOUTH
PUBLISHED 1-22
CITY PL. NO. STRT-24
REVISED 3-16

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM1124141 CAD/CS/DESIGN/12/22/2022 2:09:25 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

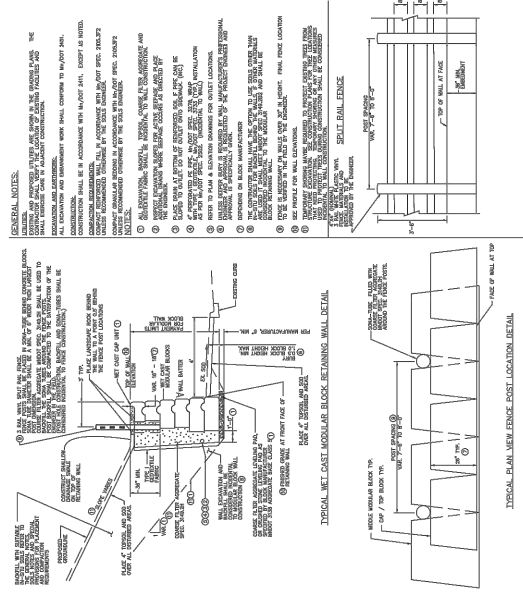
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

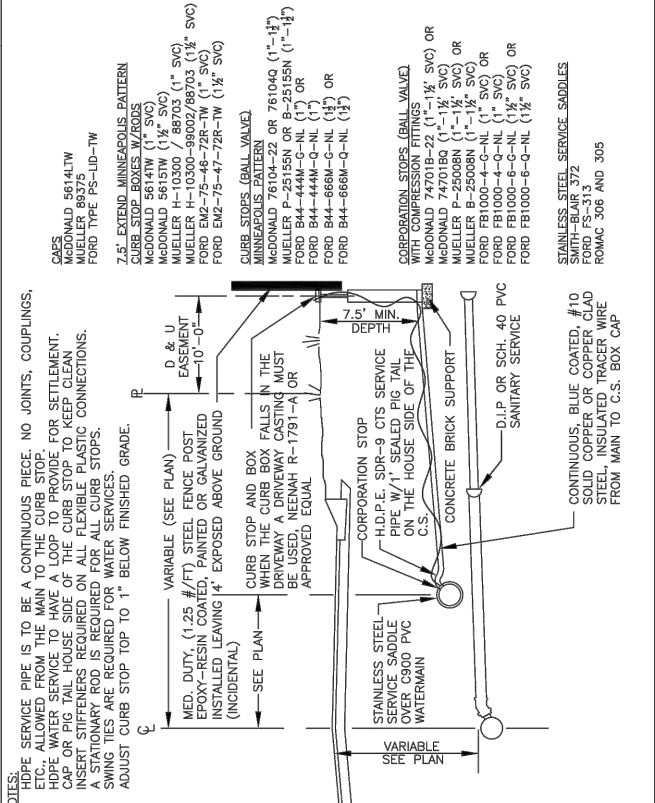


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	0T.124164		



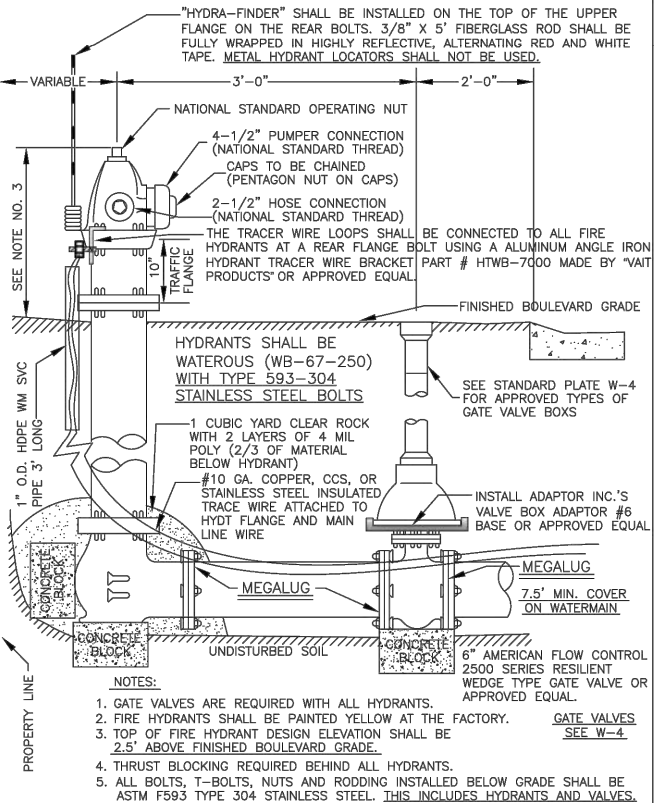
STANDARD DETAILS
TYPICAL RETAINING WALL DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STR-26
REVISED 1-21



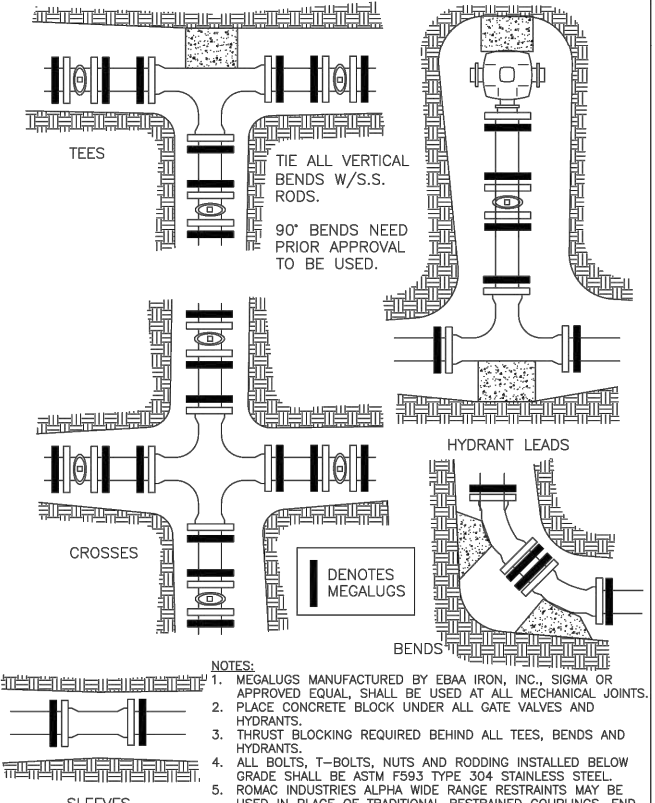
STANDARD DETAILS
SEWER AND WATER SERVICE CONNECTION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-1
REVISED 1-22



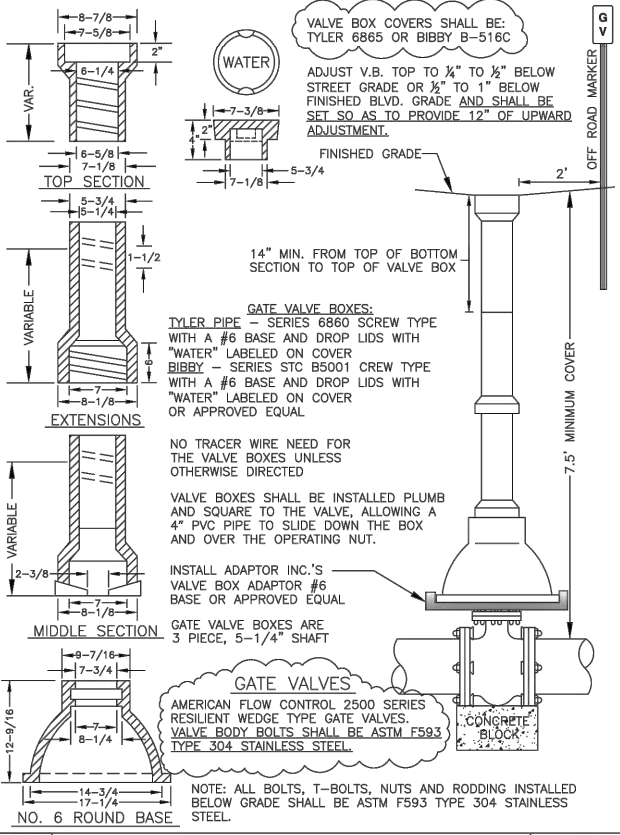
STANDARD DETAILS
HYDRANT AND GATE VALVE INSTALLATION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-2
REVISED 1-22



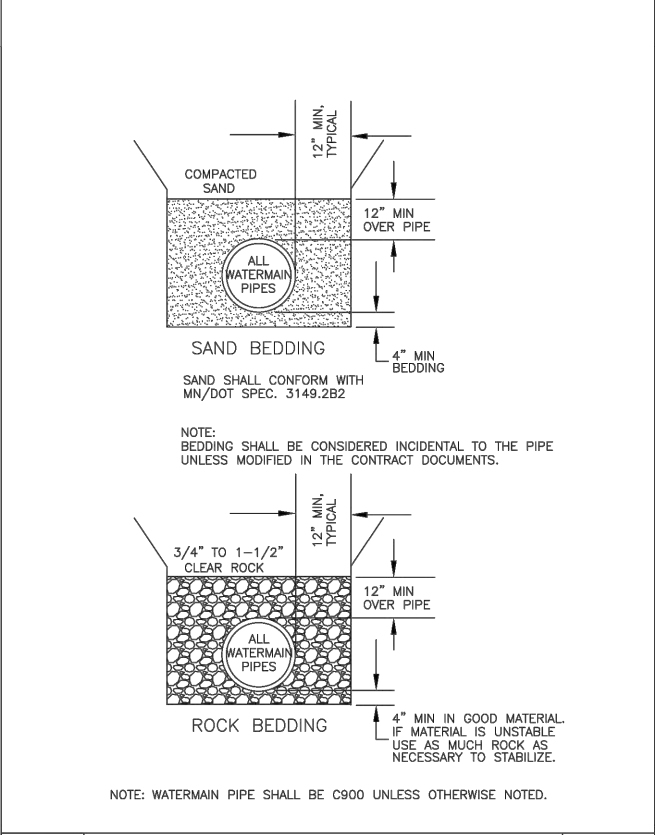
STANDARD DETAILS
TYPICAL MEGALUG LOCATION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-3
REVISED 1-17



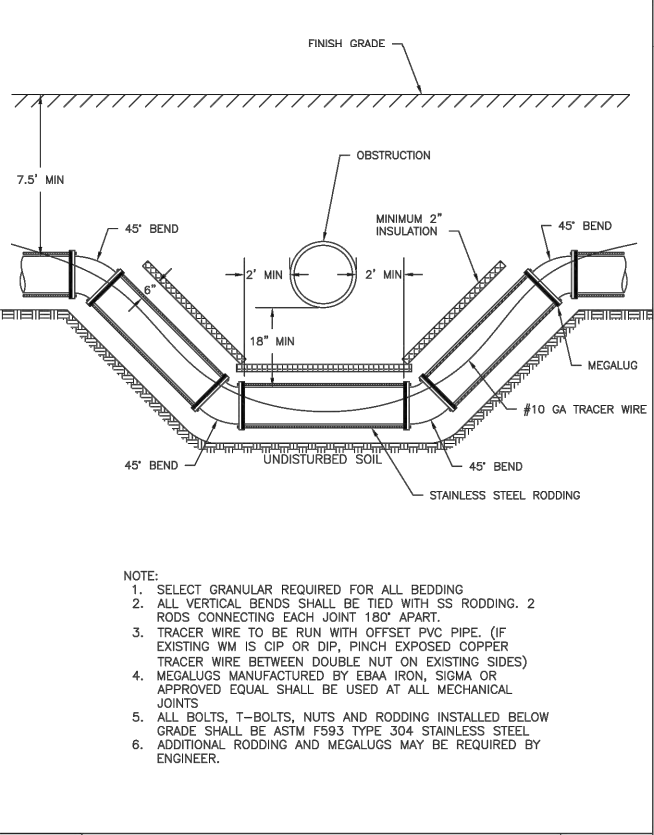
STANDARD DETAILS
GATE VALVE AND BOX INSTALLATION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-4
REVISED 1-22



STANDARD DETAILS
WATERMAIN BEDDING
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-6
REVISED 1-21



STANDARD DETAILS
VERTICAL OFFSET DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. W-8
REVISED 1-21

© Bolton & Menk, Inc. 2022. All Rights Reserved. 11/29/2022 2:09:26 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



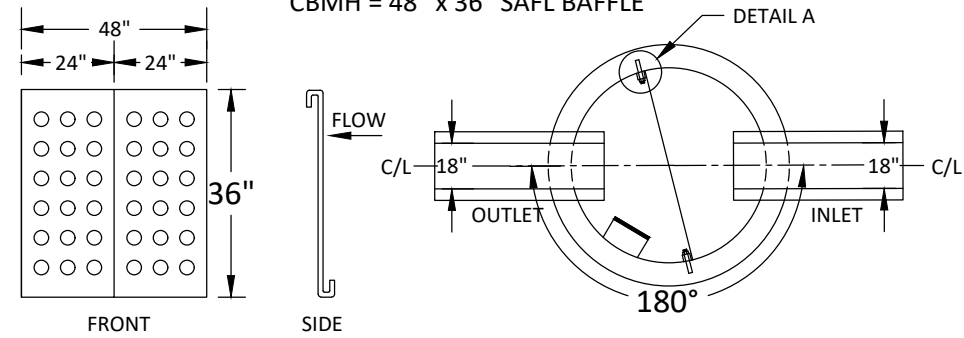
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	0T.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
STANDARD DETAILS

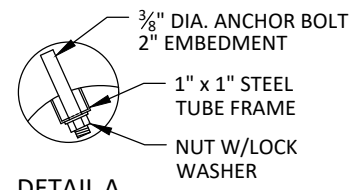
SHEET
C8.10

DRAINAGE STRUCTURE DESIGN SPECIAL 1

CBMH = 48" x 36" SAFL BAFFLE



SAFL BAFFLE PANEL
USE 3 - 24" X 36" PANELS

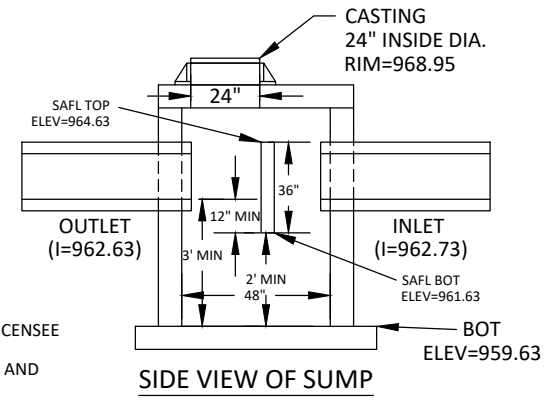


DETAIL A

NOTES:

- * UPSTREAM TECHNOLOGIES INC. IS THE EXCLUSIVE LICENSEE OF THE SAFL BAFFLE.
- * CONTRACTOR MUST VERIFY LOCATION OF CASTING AND STEPS PRIOR TO INSTALLATION OF STRUCTURE.

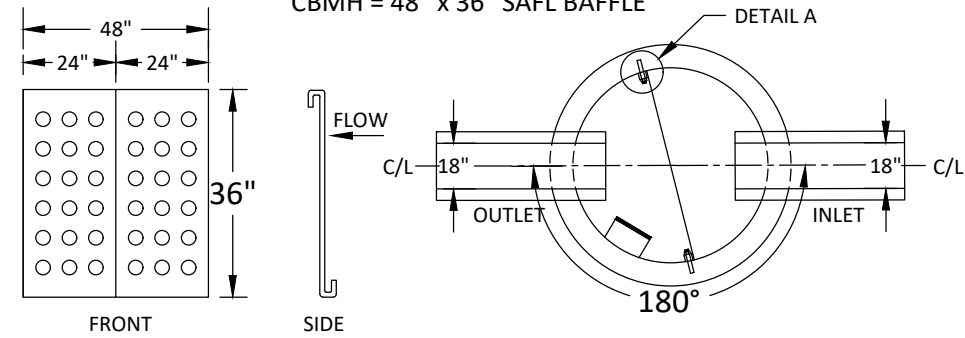
TOP VIEW OF SUMP



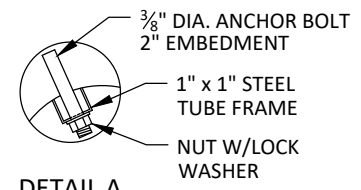
SIDE VIEW OF SUMP

DRAINAGE STRUCTURE DESIGN SPECIAL 2

CBMH = 48" x 36" SAFL BAFFLE



SAFL BAFFLE PANEL
USE 3 - 24" X 36" PANELS

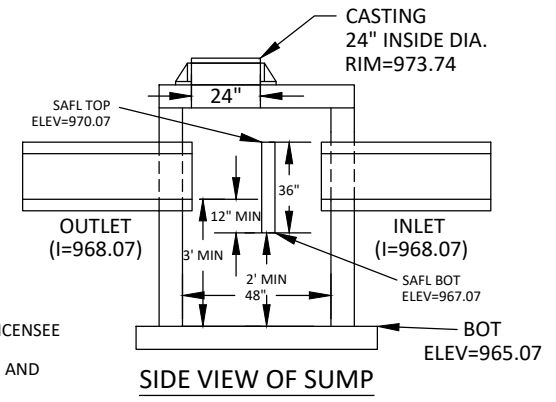


DETAIL A

NOTES:

- * UPSTREAM TECHNOLOGIES INC. IS THE EXCLUSIVE LICENSEE OF THE SAFL BAFFLE.
- * CONTRACTOR MUST VERIFY LOCATION OF CASTING AND STEPS PRIOR TO INSTALLATION OF STRUCTURE.

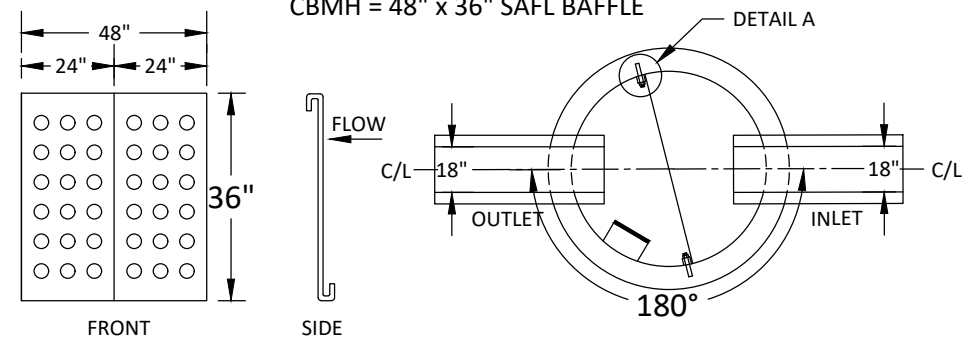
TOP VIEW OF SUMP



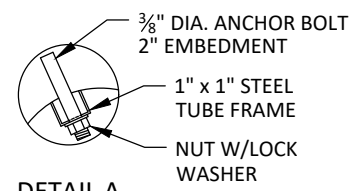
SIDE VIEW OF SUMP

DRAINAGE STRUCTURE DESIGN SPECIAL 3

CBMH = 48" x 36" SAFL BAFFLE



SAFL BAFFLE PANEL
USE 3 - 24" X 36" PANELS

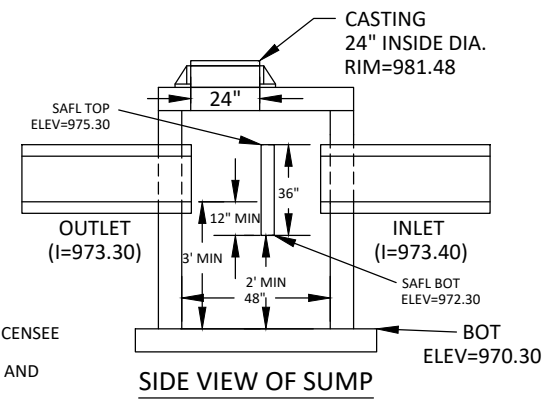


DETAIL A

NOTES:

- * UPSTREAM TECHNOLOGIES INC. IS THE EXCLUSIVE LICENSEE OF THE SAFL BAFFLE.
- * CONTRACTOR MUST VERIFY LOCATION OF CASTING AND STEPS PRIOR TO INSTALLATION OF STRUCTURE.

TOP VIEW OF SUMP



SIDE VIEW OF SUMP

© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\W\071124164\CAD\CD\Business\124164.dwg, 11/29/2022 2:09:28 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



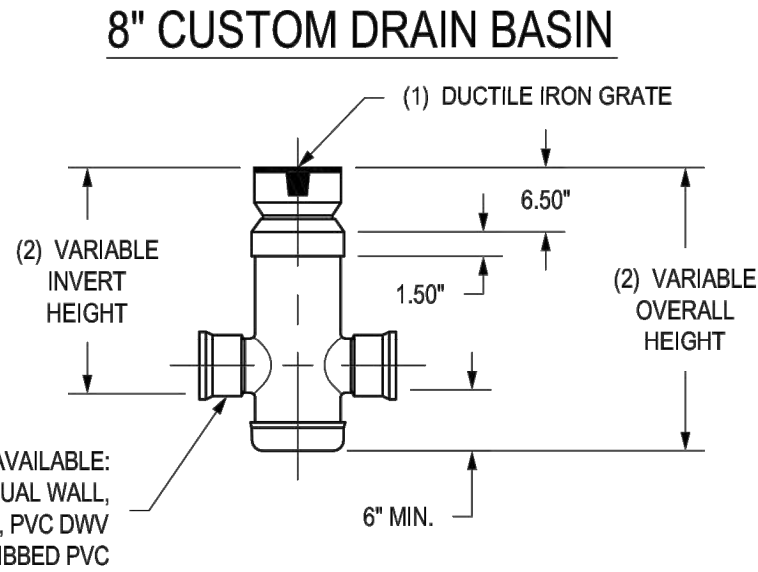
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
STANDARD DETAILS

SHEET
C8.11

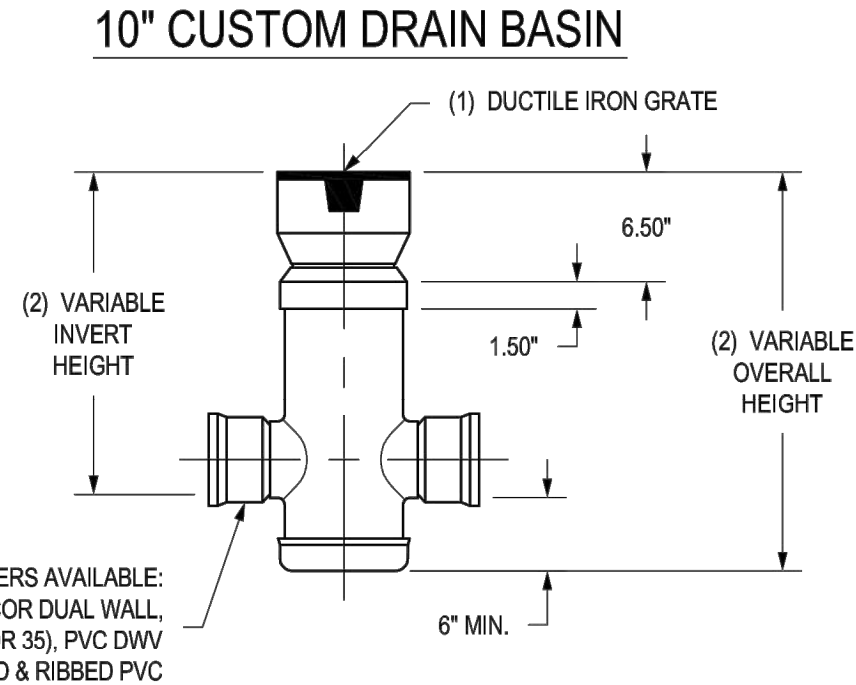
2808AG__X

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	0899CGS	7001-110-194
SOLID COVER	LIGHT DUTY	0899CGC	7001-110-195
BRONZE	N/A	0899CGB	7001-110-196
DOME	N/A	0899CGD	7001-110-197
DROP IN GRATE	LIGHT DUTY	0801DI	7001-110-019



2810AG__X

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
STANDARD	LIGHT DUTY	1099CGS	7001-110-198
SOLID COVER	LIGHT DUTY	1099CGC	7001-110-199
BRONZE	N/A	1099CGB	7001-110-200
DOME	N/A	1099CGD	7001-110-201
DROP IN GRATE	LIGHT DUTY	1001DI	7001-110-020



- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
- 2 - CUSTOM DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
- 3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
- 4 - STANDARD DRAIN BASIN HAS FIXED ADAPTER LOCATIONS OF 0° & 180°. CUSTOM DRAIN BASIN ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
- 5 - DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

©2010 NYLOPLAST

DRAWN BY	AWA	MATERIAL	
DATE	8-11-00		
REVISED BY	EBC	PROJECT NO./NAME	
DATE	3-18-10		
DWG SIZE	A	SCALE	NTS
		SHEET	1 OF 1

3130 VERONA AVE
 BUFORD, GA 30518
 PHN (770) 932-2443
 FAX (770) 932-2490
 www.nyloplast-us.com

TITLE
 8 IN & 10 IN DRAIN BASIN DESIGN DETAILS

DWG NO. 7001-110-045 **REV** G

© Bolton & Menk, Inc. 2022. All Rights Reserved. A:\P\1101124164\CAD\CAD\Business\124164\2808.dwg, 11/29/2022 2:09:30 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com

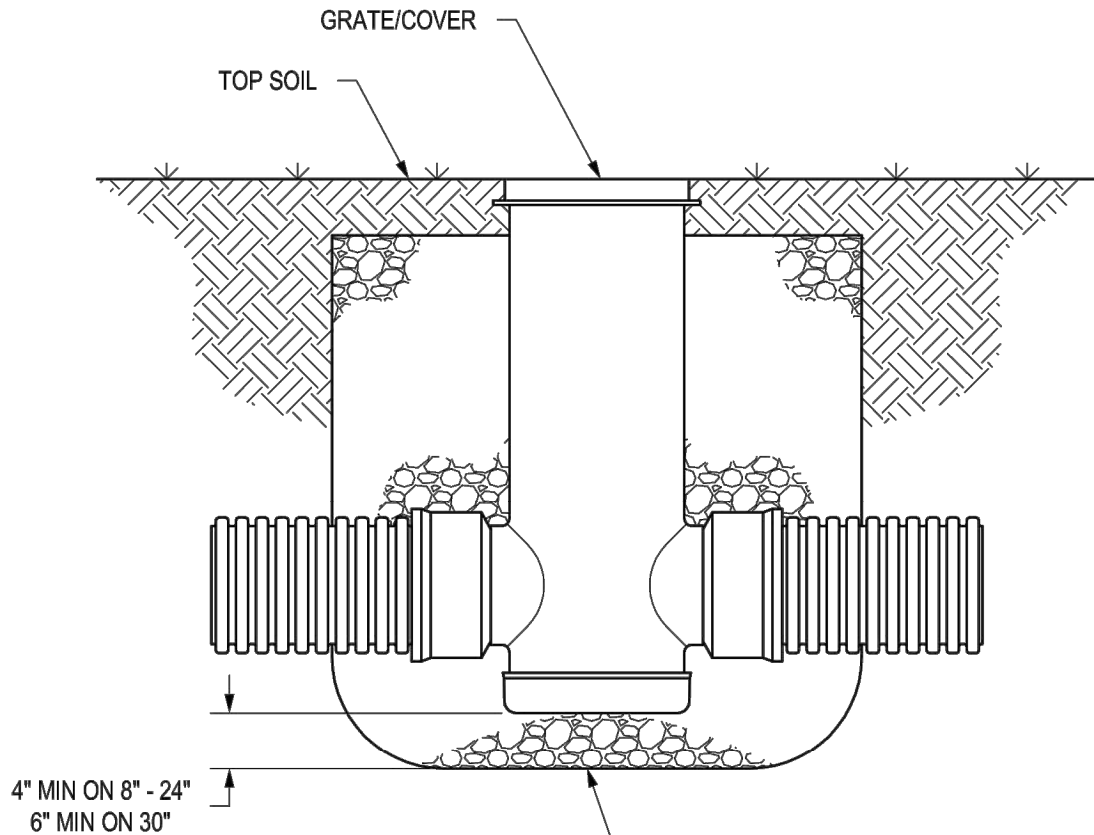


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 STANDARD DETAIL

NON TRAFFIC INSTALLATION

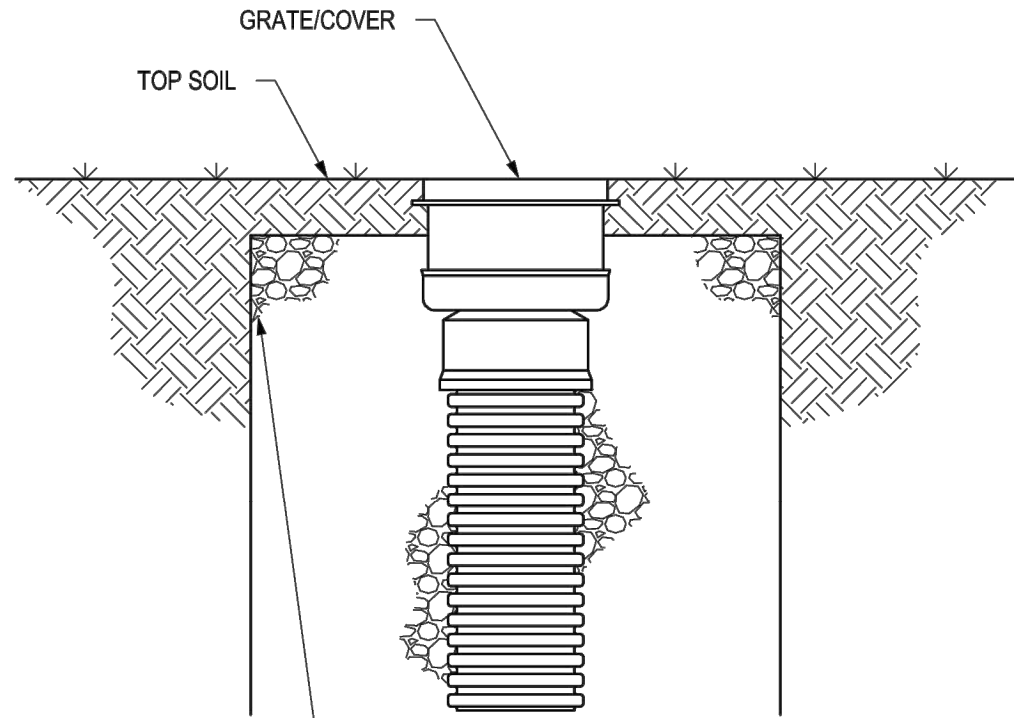
DRAIN BASIN



4" MIN ON 8" - 24"
6" MIN ON 30"

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

INLINE DRAIN



THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ©2011 NYLOPLAST

DRAWN BY	C.JA	MATERIAL	
DATE	9-30-99	PROJECT NO./NAME	
REVISED BY	NMH	DATE	03-11-16
DWG SIZE	A	SCALE	1:25
		SHEET	1 OF 1

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
DRAIN BASIN & INLINE DRAIN
NON TRAFFIC INSTALLATION

DWG NO. 7001-110-111 **REV** E

© Bolton & Menk, Inc. 2022. All Rights Reserved. 11/29/2022 2:09:31 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.
NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



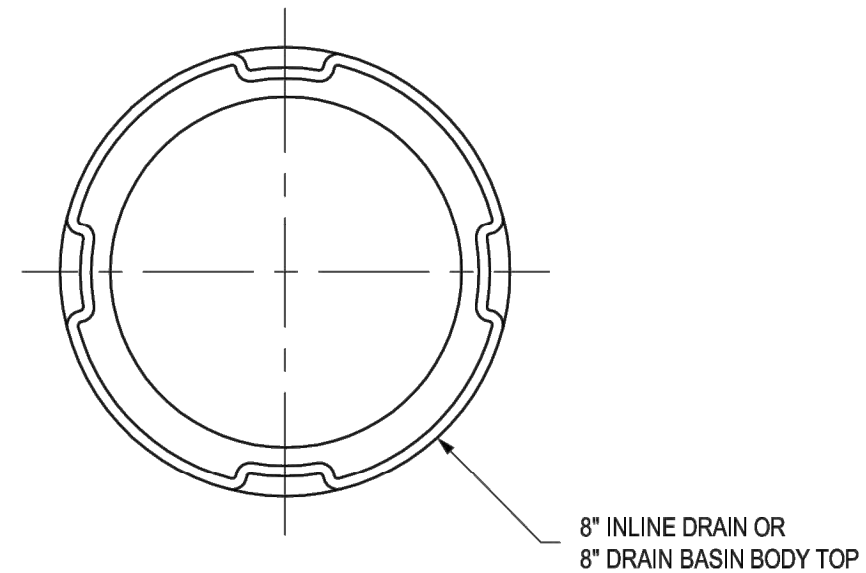
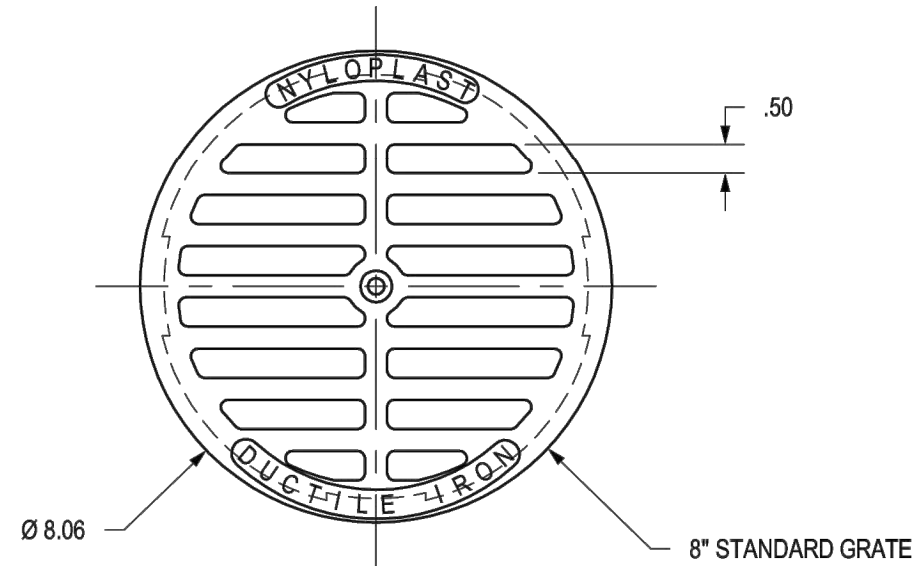
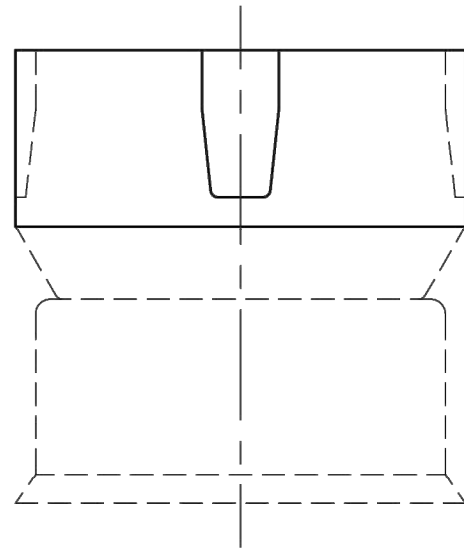
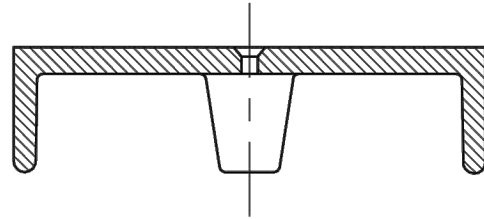
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
STANDARD DETAIL

SHEET
C8.13

0899CGS

APPROX. DRAIN AREA = 18.77 SQ IN
 APPROX. WEIGHT = 3.06 LBS




DIMENSIONS ARE FOR REFERENCE ONLY
 ACTUAL DIMENSIONS MAY VARY
 DIMENSIONS ARE IN INCHES

GRATE HAS LIGHT DUTY RATING
 QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
 PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
 SIZE OF OPENING MEETS REQUIREMENTS OF AMERICAN DISABILITY
 ACT AS STATED IN FEDERAL REGISTER PART III, DEPARTMENT OF
 JUSTICE, 28 CFR PART 36.
 LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO.
 7001-110-038

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ©2013 NYLOPLAST

DRAWN BY	EBC	MATERIAL	DUCTILE IRON
DATE	03-03-06	PROJECT NO./NAME	
REVISED BY	CCA	DATE	08-27-13
DWG SIZE	A	SCALE	1:4
		SHEET	1 OF 1

 Nyloplast 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com	TITLE	8 IN STANDARD GRATE ASSEMBLY
	DWG NO.	7001-110-194
	REV	C

© Bolton & Menk, Inc. 2022. All Rights Reserved. C:\Users\j1124164\OneDrive\Business\124164CGS.dwg, 11/29/2022 2:09:35 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.
 NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	XXX	NO.	ISSUED FOR	DATE
DRAWN	XXX			
CHECKED	XXX			
CLIENT PROJ. NO.	0T.124164			

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 STANDARD DETAILS

SHEET

C8.14

Section 2721

Engineered Surface Drainage Products

GENERAL

PVC surface drainage inlets shall include the drain basin type as indicated on the contract drawing and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer. The surface drainage inlets shall be as manufactured by Nyloplast a division of Advanced Drainage Systems, Inc., or prior approved equal.

MATERIALS

The drain basins required for this contract shall be manufactured from PVC pipe stock, utilizing a thermoforming process to reform the pipe stock to the specified configuration. The drainage pipe connection stubs shall be manufactured from PVC pipe stock and formed to provide a watertight connection with the specified pipe system. This joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals shall conform to ASTM F477. The pipe bell spigot shall be joined to the main body of the drain basin or catch basin. The raw material used to manufacture the pipe stock that is used to manufacture the main body and pipe stubs of the surface drainage inlets shall conform to ASTM D1784 cell class 12454.

The grates and frames furnished for all surface drainage inlets shall be ductile iron for sizes 8", 10", 12", 15", 18", 24" and 30" and shall be made specifically for each basin so as to provide a round bottom flange that closely matches the diameter of the surface drainage inlet. Grates for drain basins shall be capable of supporting various wheel loads as specified by Nyloplast. 12" and 15" square grates will be hinged to the frame using pins. Ductile iron used in the manufacture of the castings shall conform to ASTM A536 grade 70-50-05. Grates and covers shall be provided painted black.

INSTALLATION

The specified PVC surface drainage inlet shall be installed using conventional flexible pipe backfill materials and procedures. The backfill material shall be crushed stone or other granular material meeting the requirements of class 1, class 2, or class 3 material as defined in ASTM D2321. Bedding and backfill for surface drainage inlets shall be well placed and compacted uniformly in accordance with ASTM D2321. The drain basin body will be cut at the time of the final grade. No brick, stone or concrete block will be required to set the grate to the final grade height. For load rated installations, a concrete slab shall be poured under and around the grate and frame. The concrete slab must be designed taking into consideration local soil conditions, traffic loading, and other applicable design factors. For other installation considerations such as migration of fines, ground water, and soft foundations refer to ASTM D2321 guidelines.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST. ©2013 NYLOPLAST	DRAWN BY	CJA	MATERIAL	 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com	
	DATE	3-10-00	PROJECT NO./NAME		TITLE
	REVISED BY	NMH			8 IN - 30 IN DRAIN BASIN SPECIFICATIONS
	DATE	03-11-16			DWG NO. 7001-110-011 REV H
DWG SIZE	A	SCALE	1:1 SHEET 1 OF 1		

© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\124164\CAD\CAD\Business\124164.dwg, 11/29/2022, 2:09:35 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022

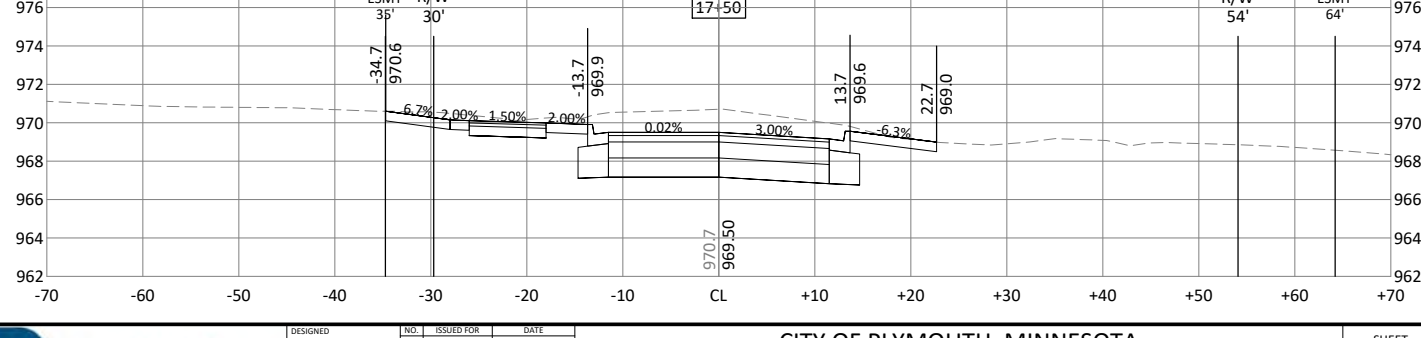
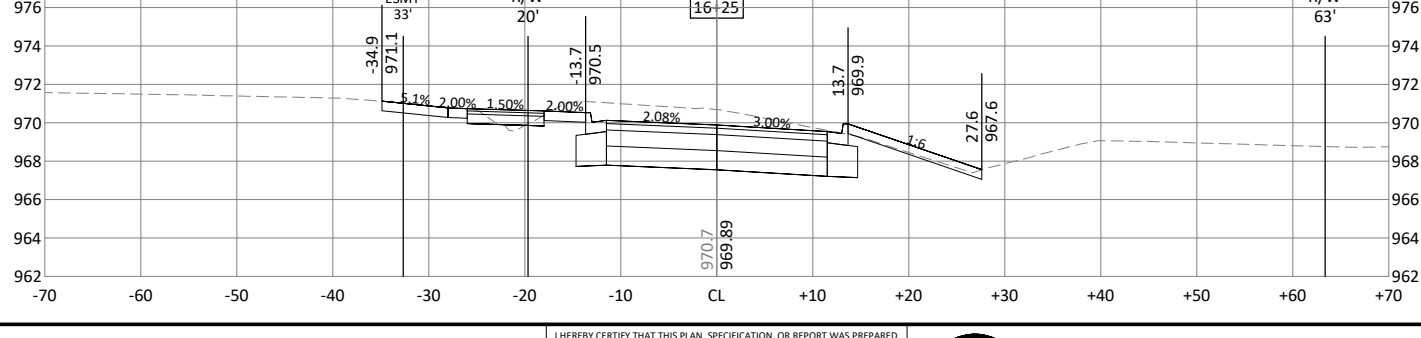
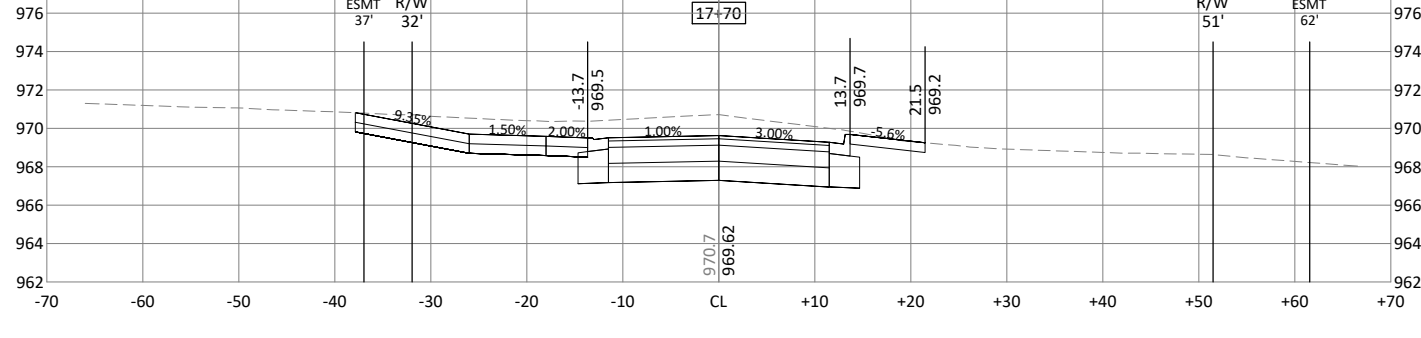
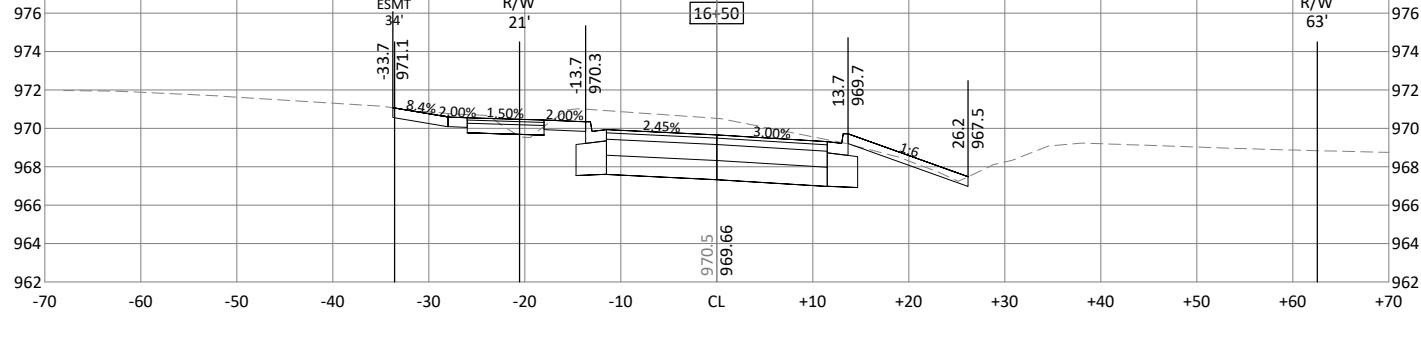
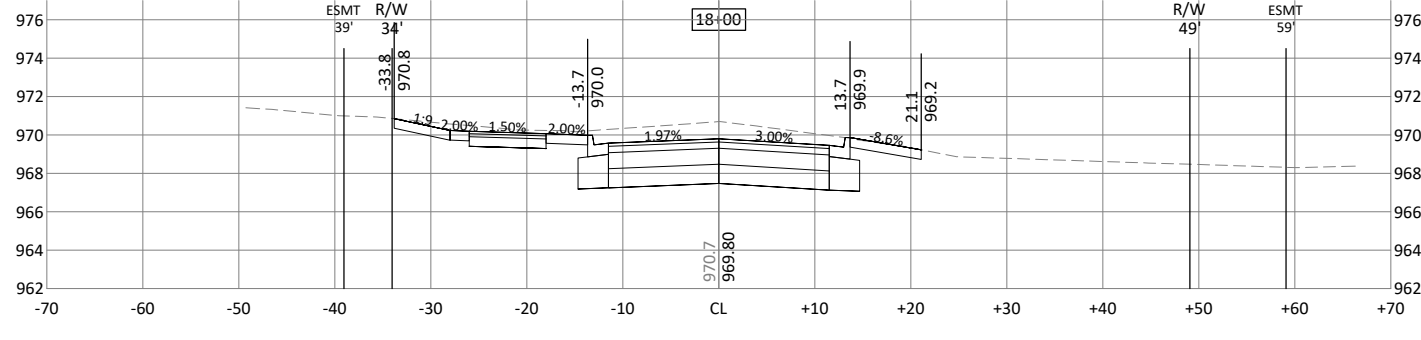
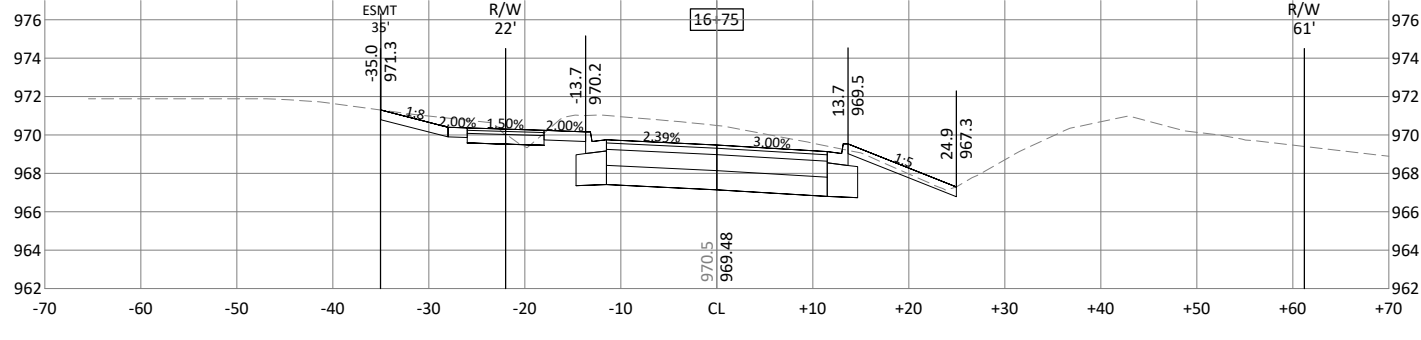
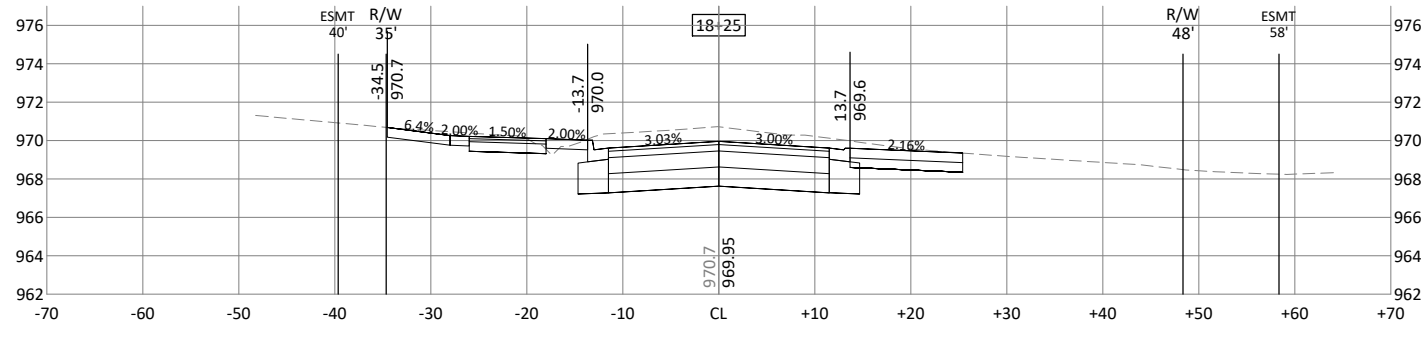
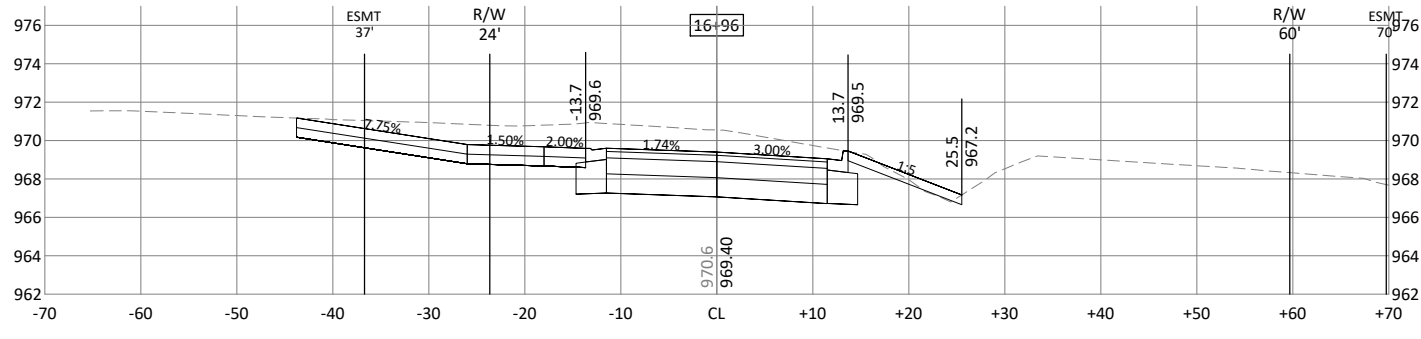
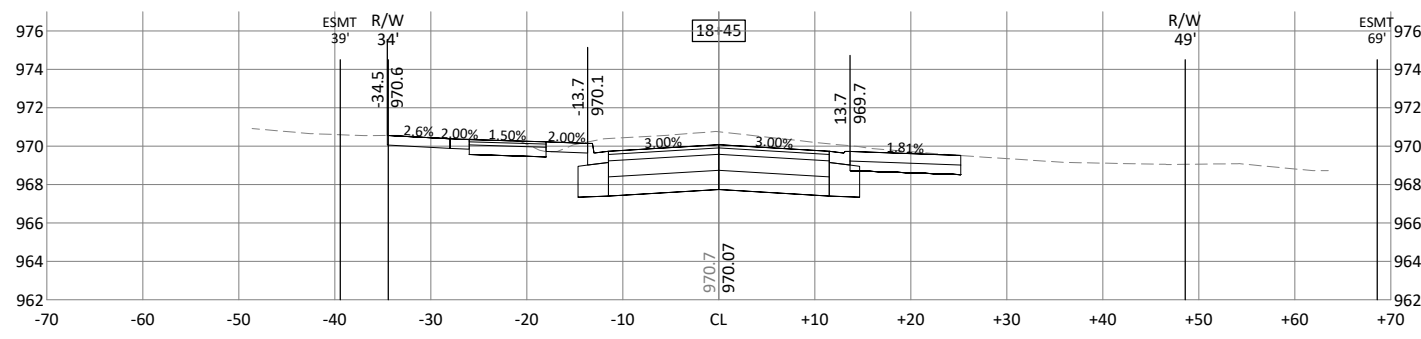
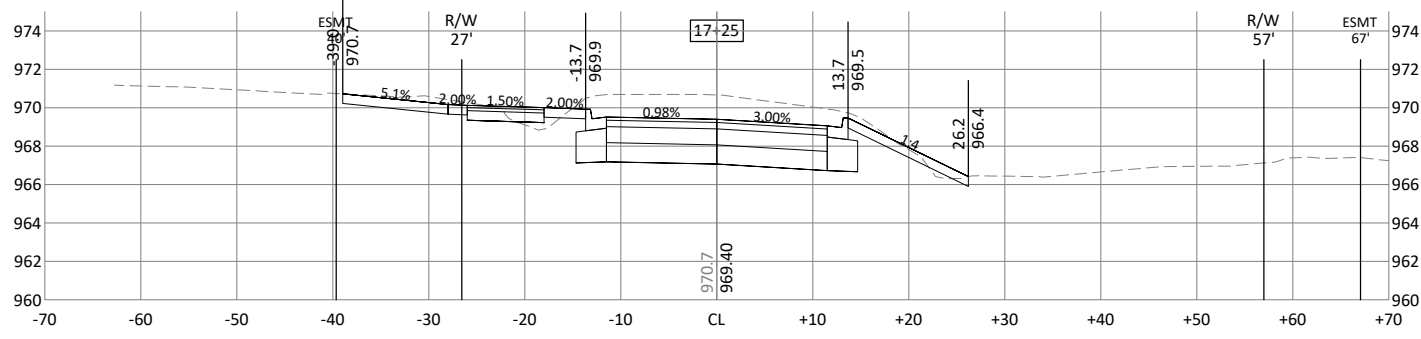


12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 STANDARD DETAIL



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\17\124164\CAD\Business\1724164\CS01.dwg, 11/29/2022 2:12:42 PM

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

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



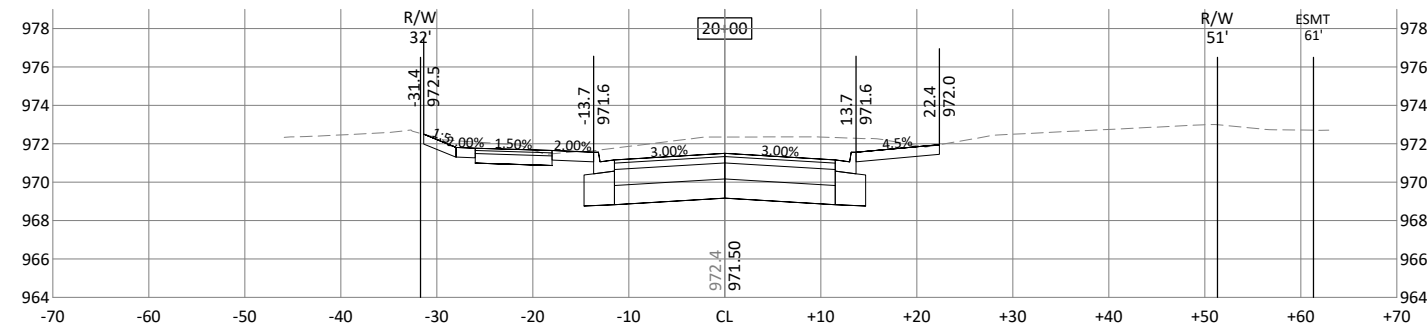
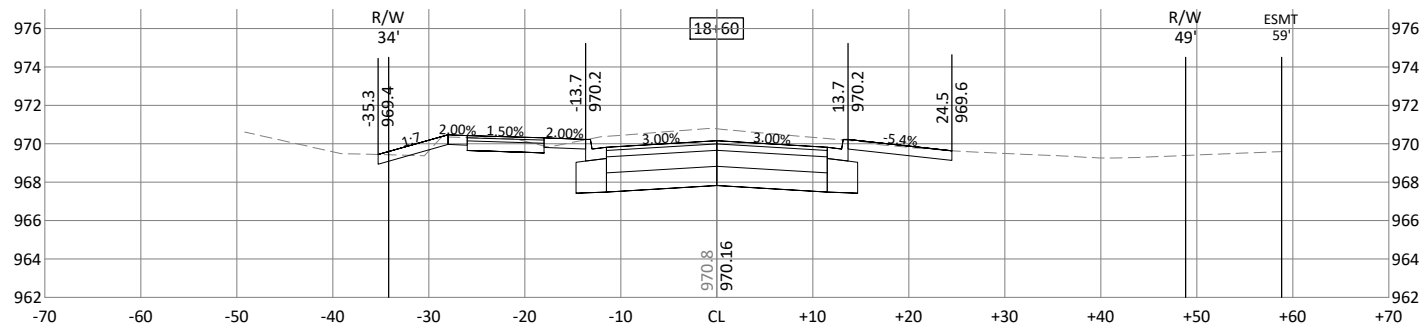
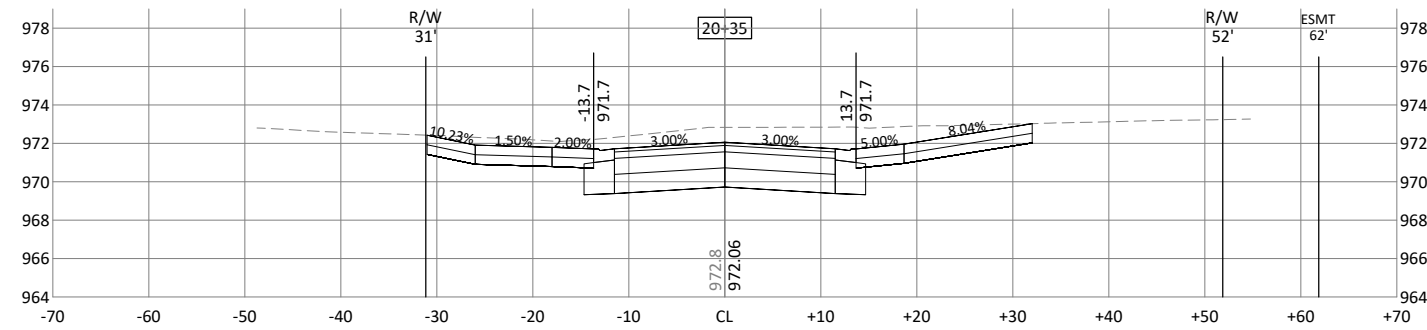
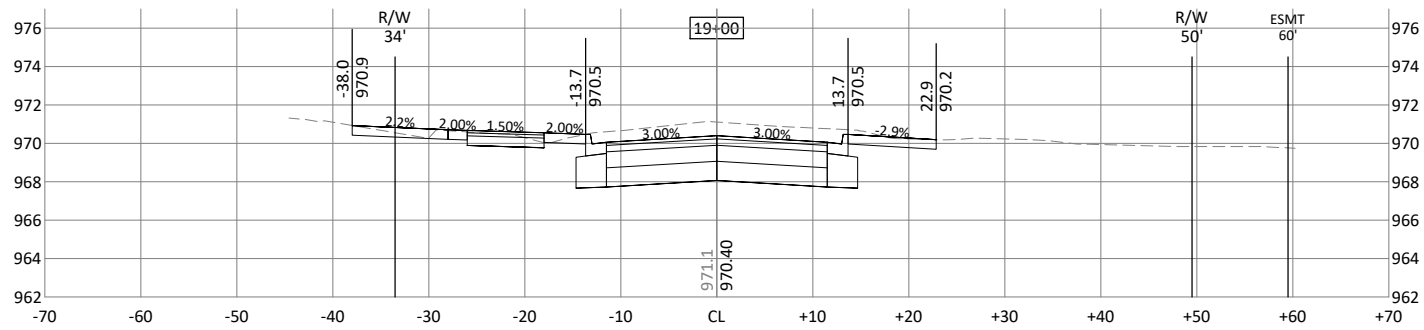
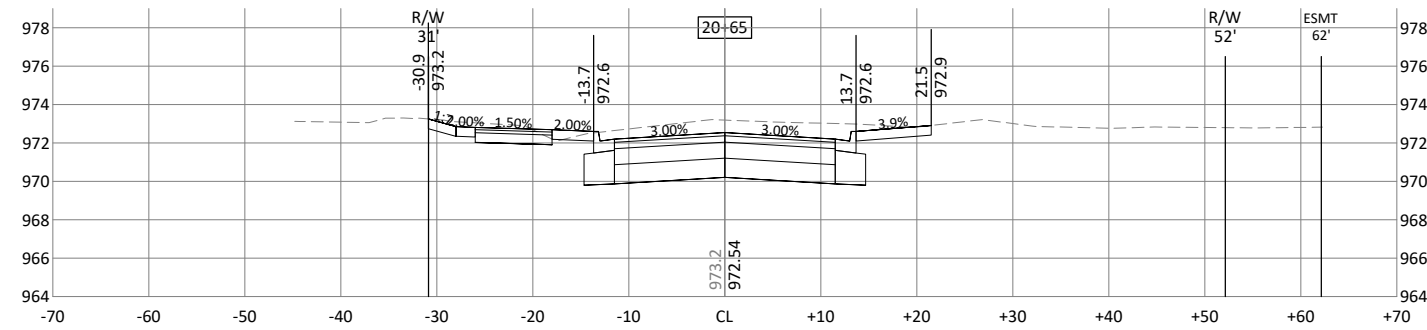
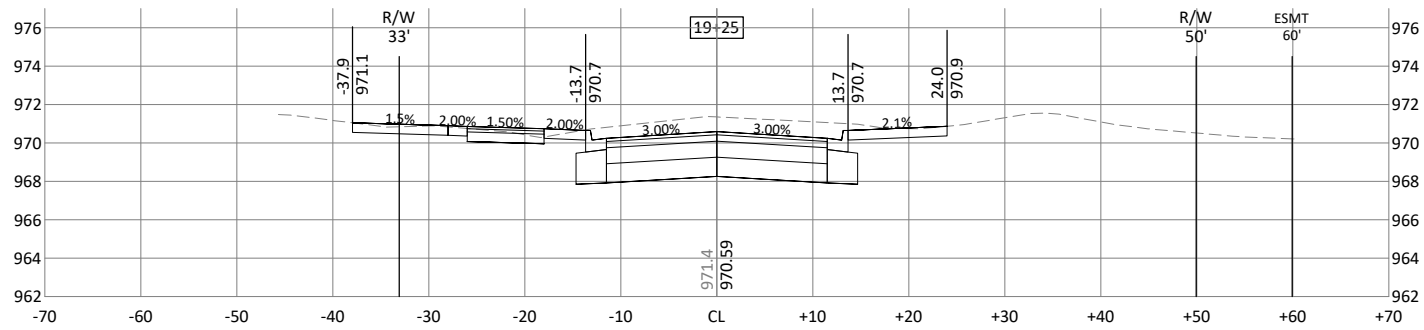
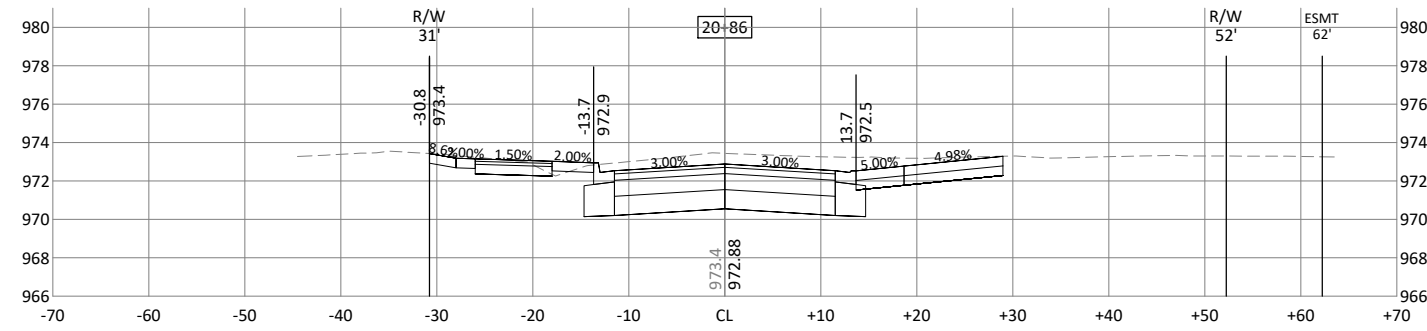
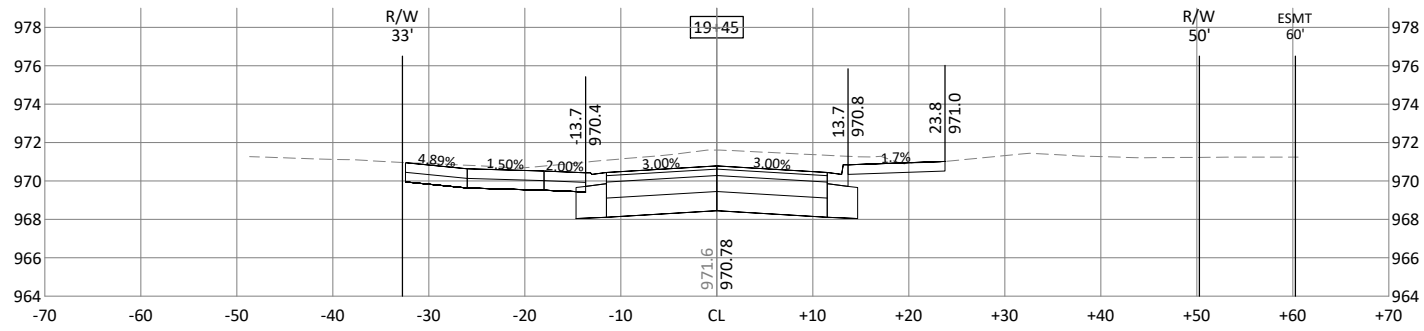
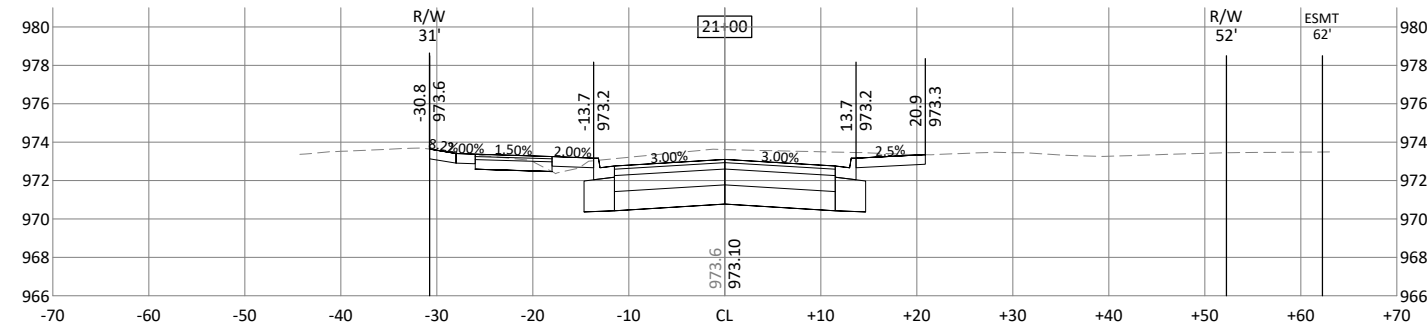
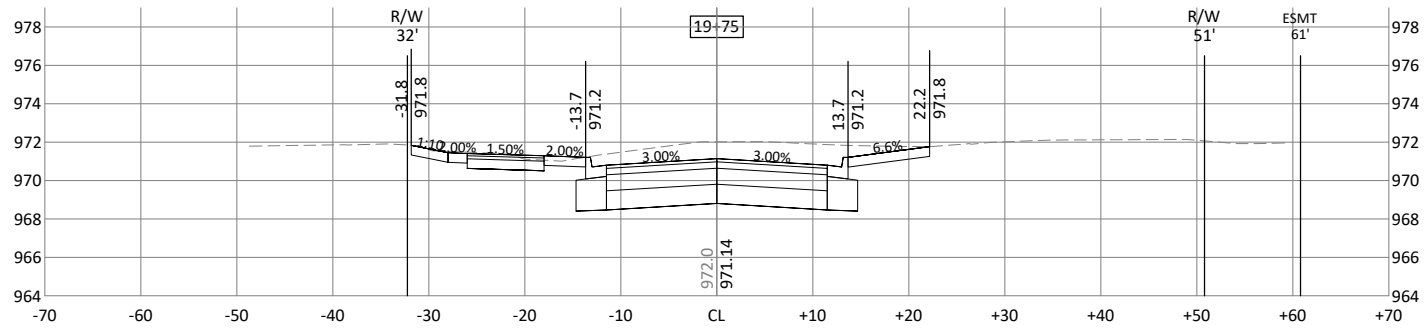
12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
C9.04



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\1224164\CAD\BOLMEN\1224164.dwg, 11/29/2022 2:13:07 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



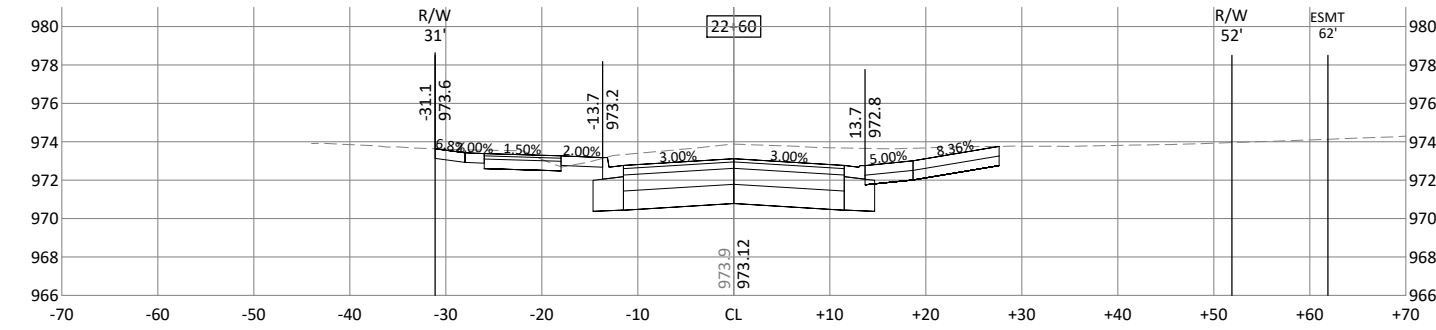
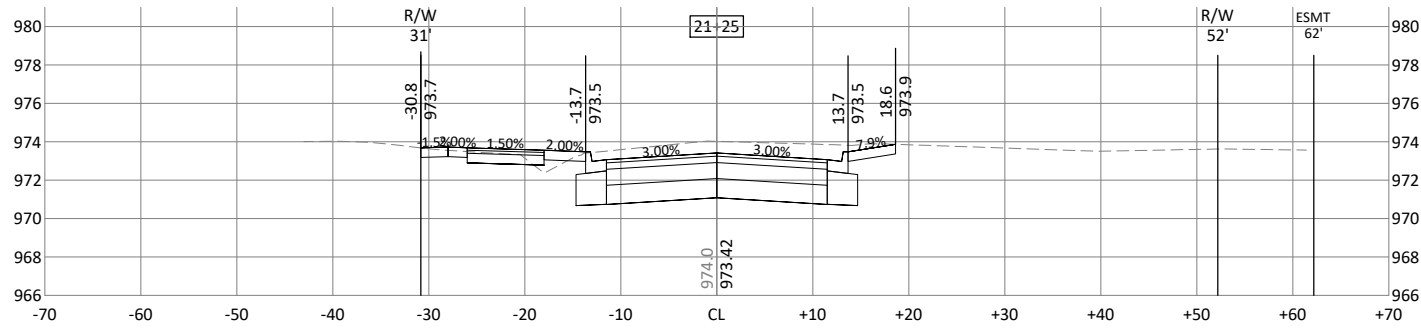
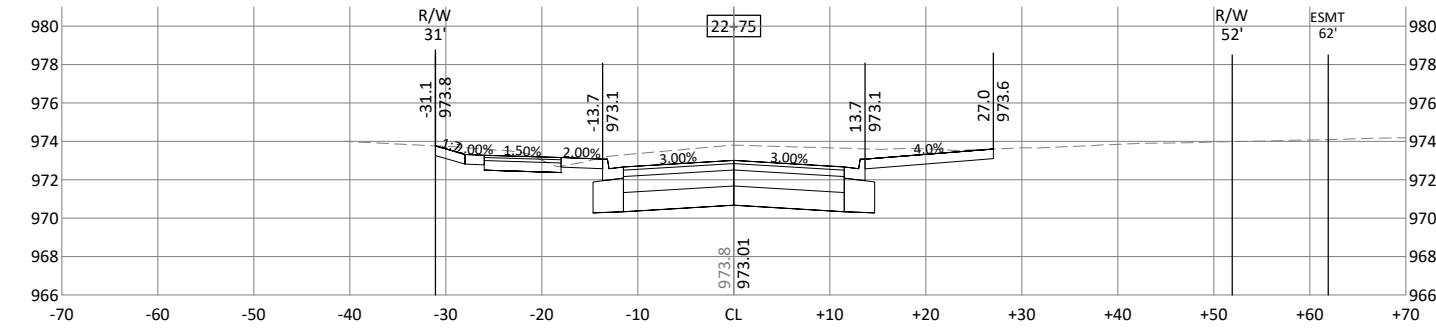
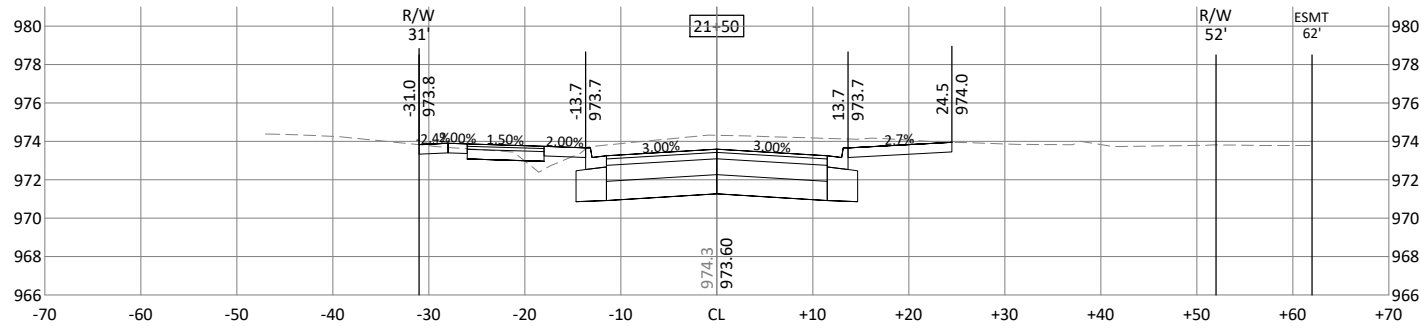
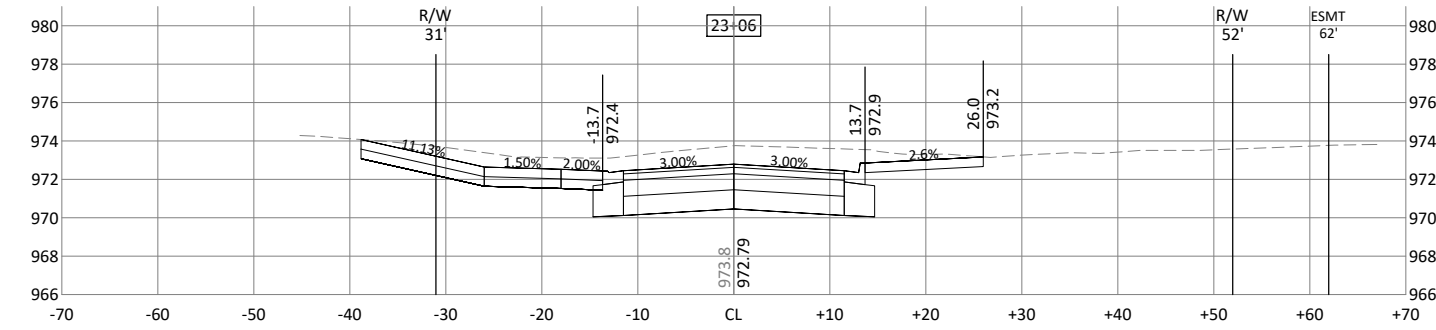
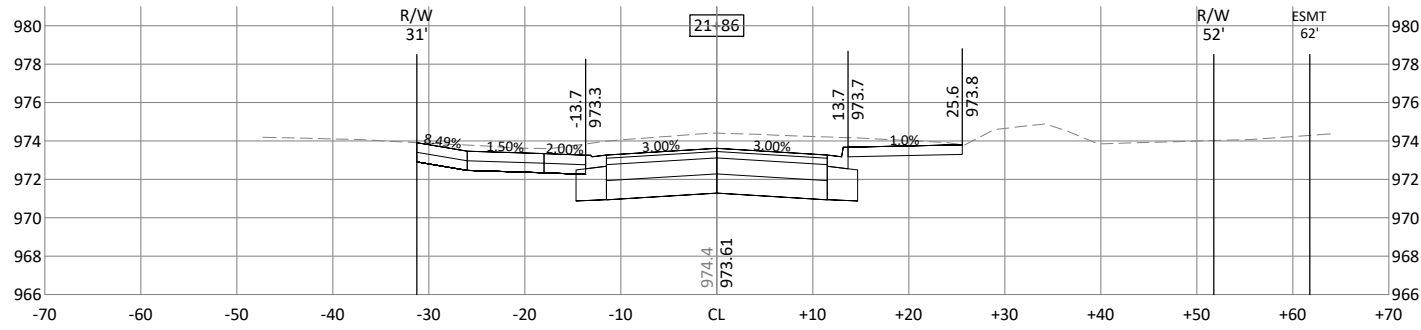
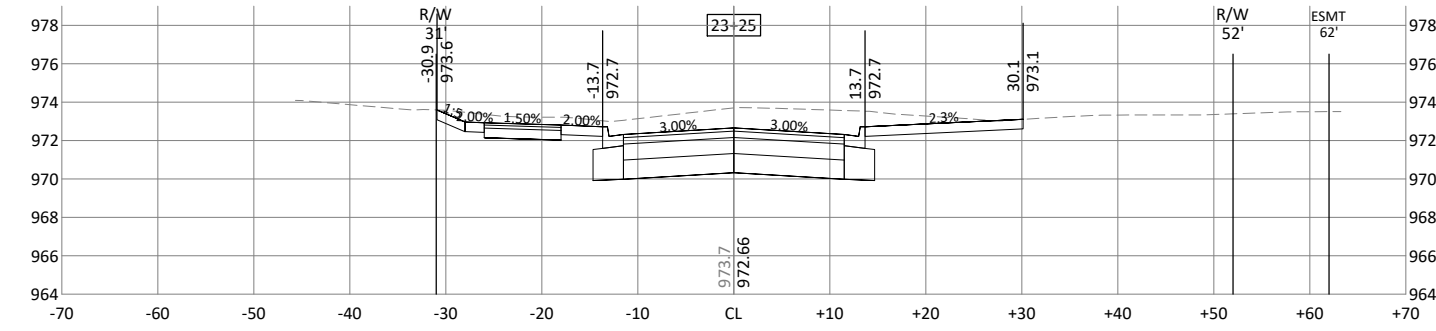
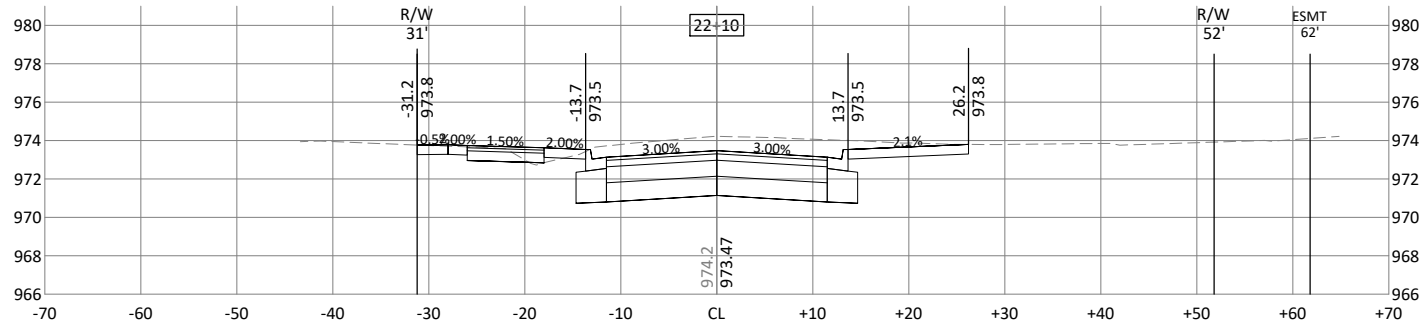
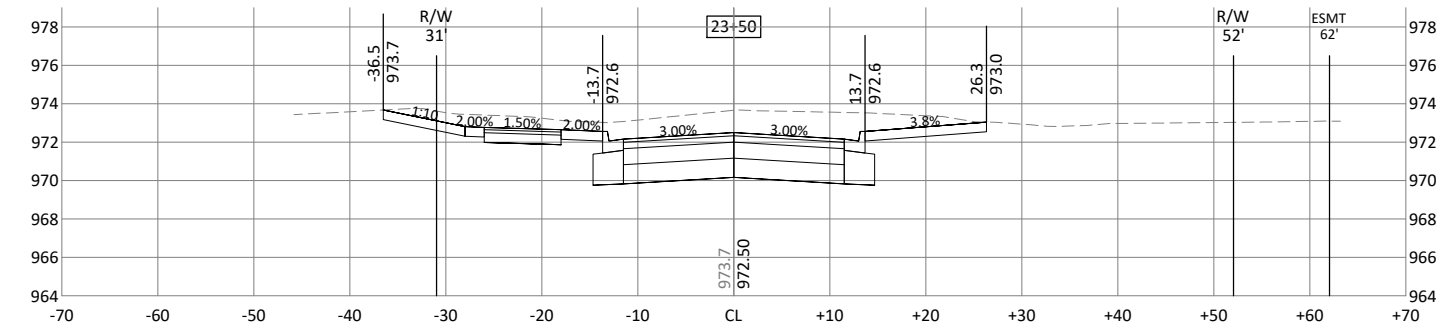
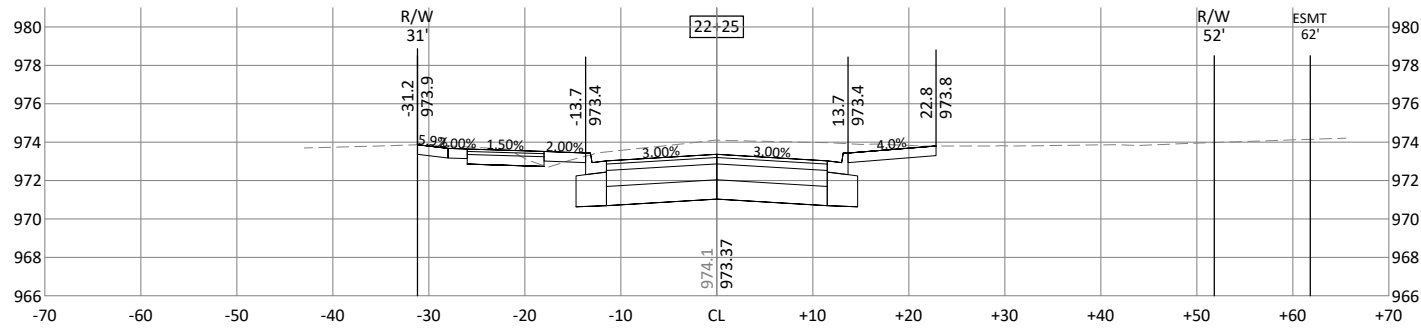
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.05



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\Projects\1224164\CAD\CrossSections\22-25.dwg, 11/29/2022 2:13:33 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



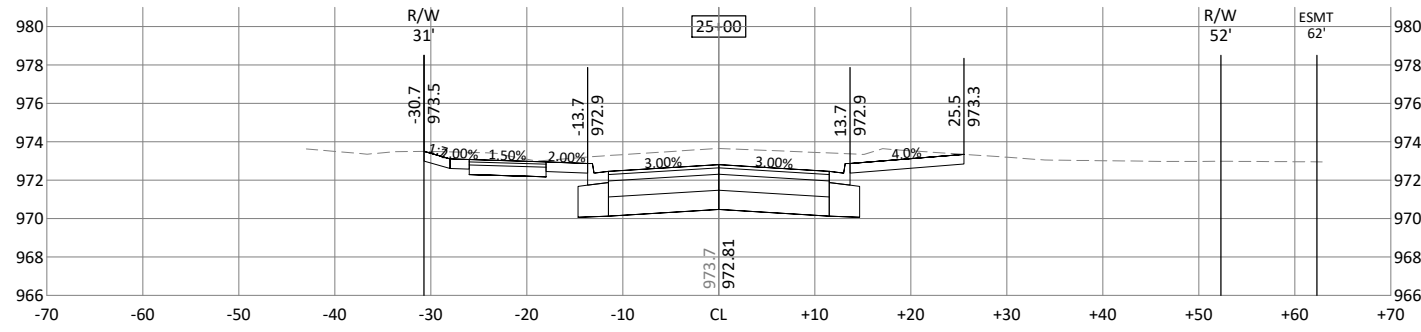
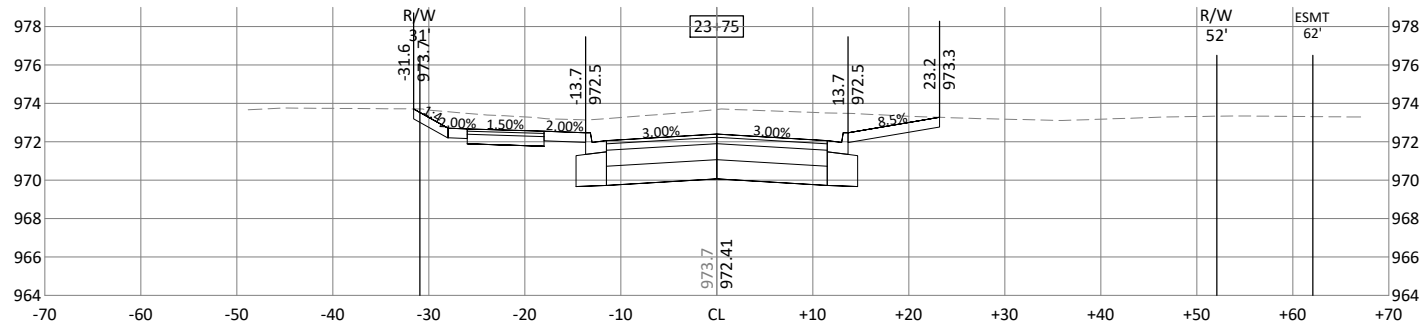
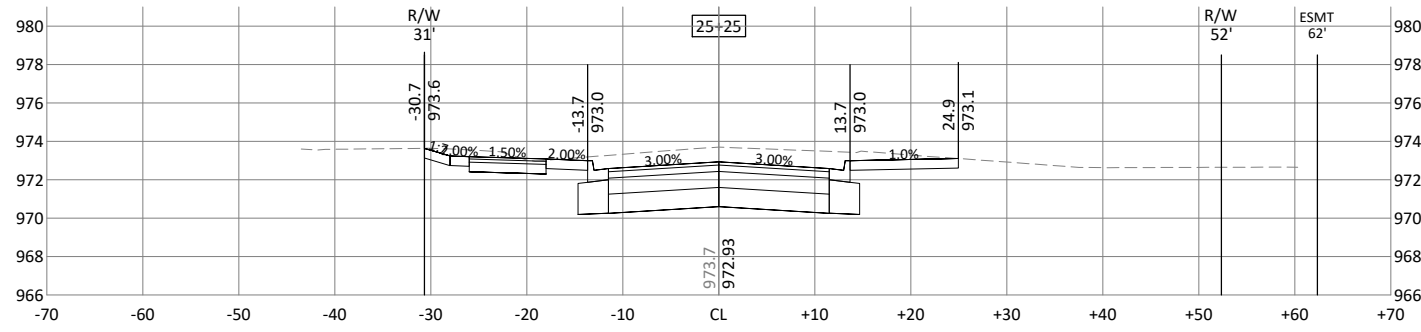
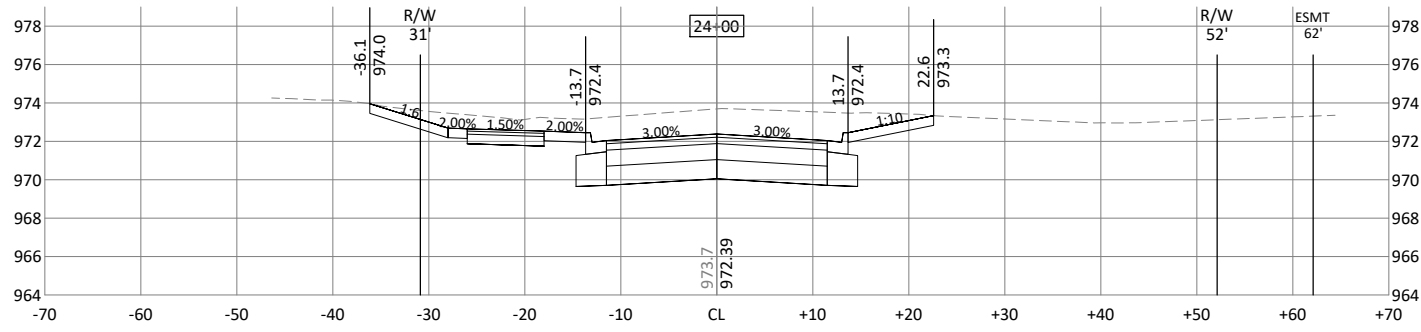
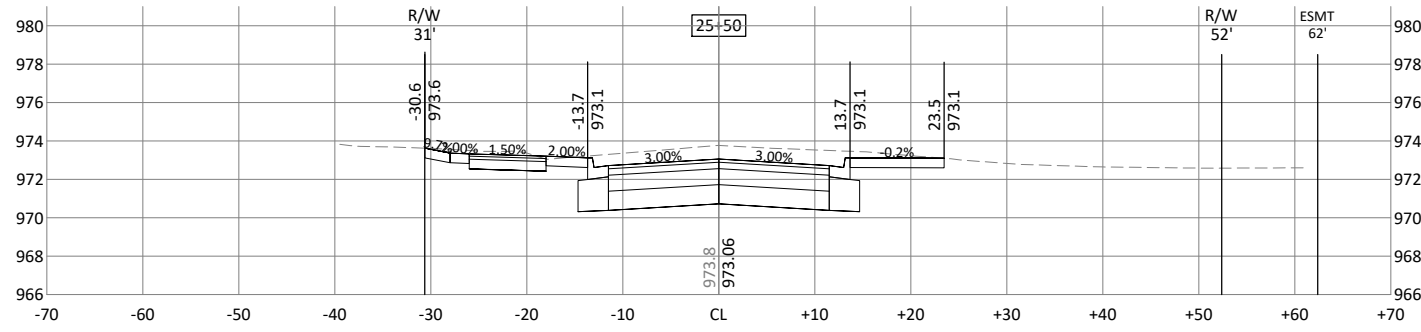
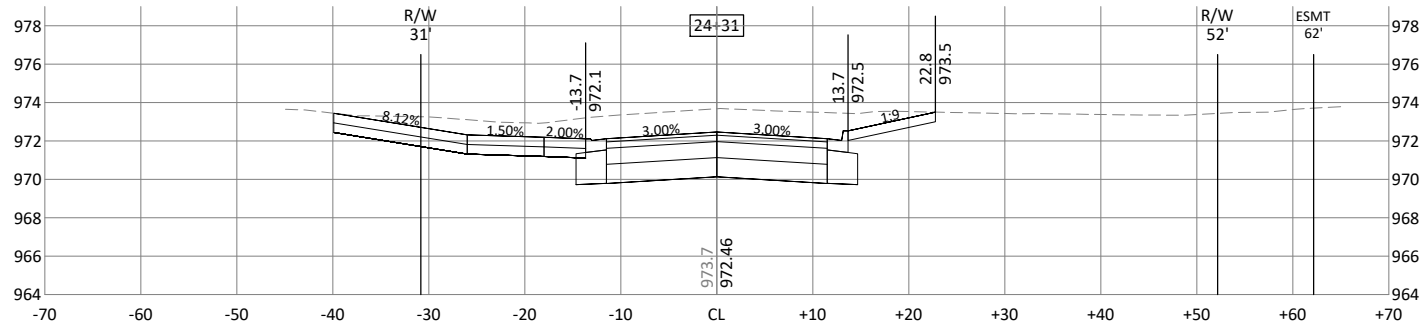
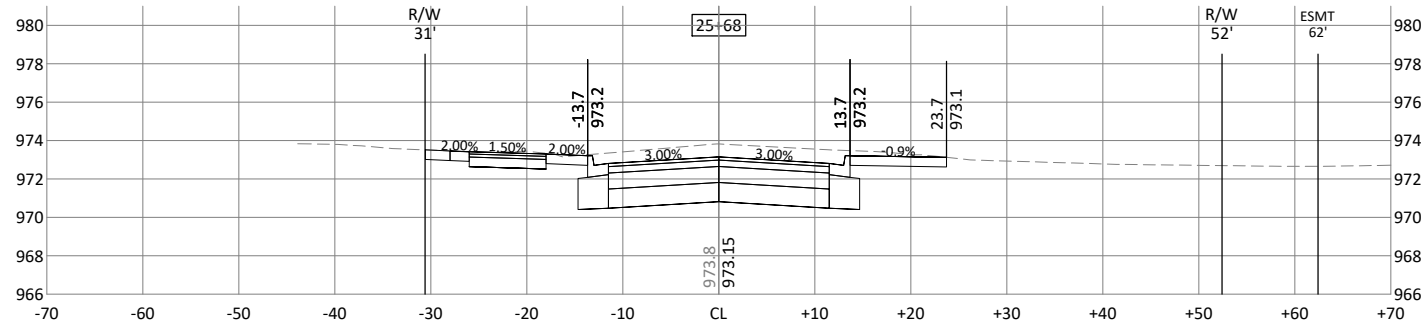
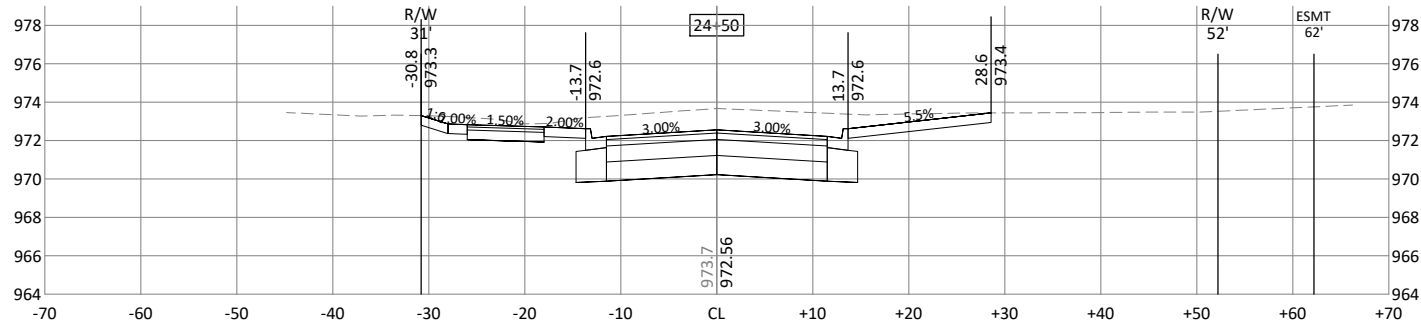
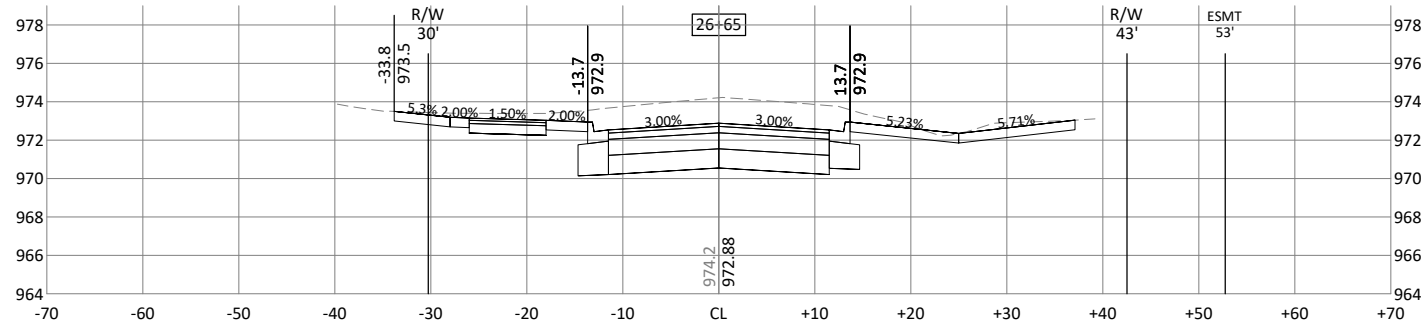
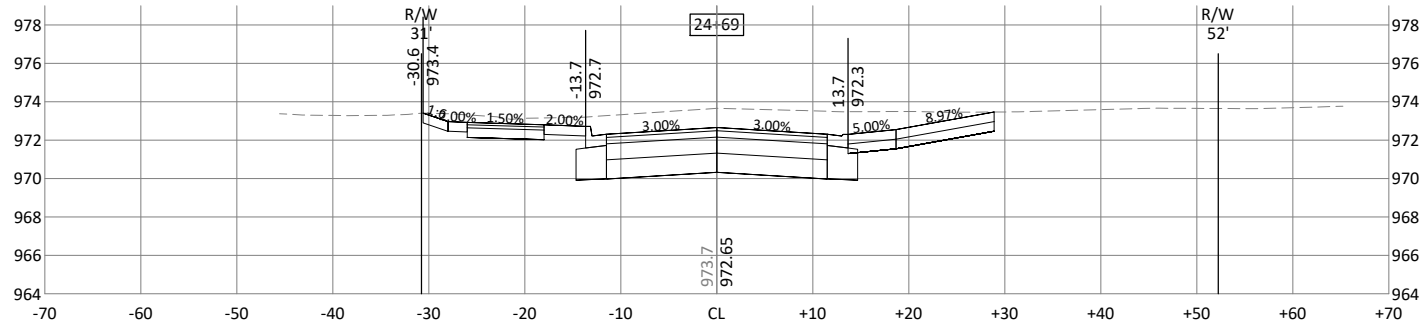
12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
C9.06



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\1224164\CAD\BOLMEN\1224164.dwg, 11/29/2022 2:13:58 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



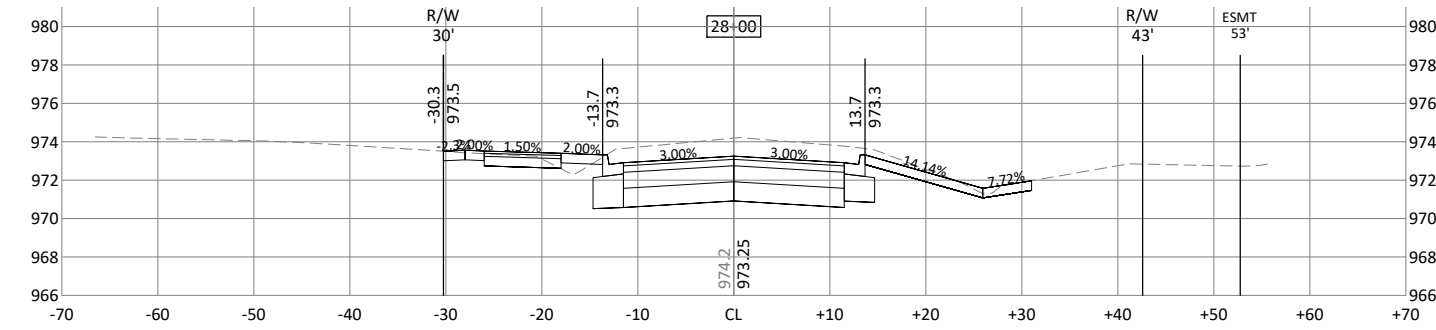
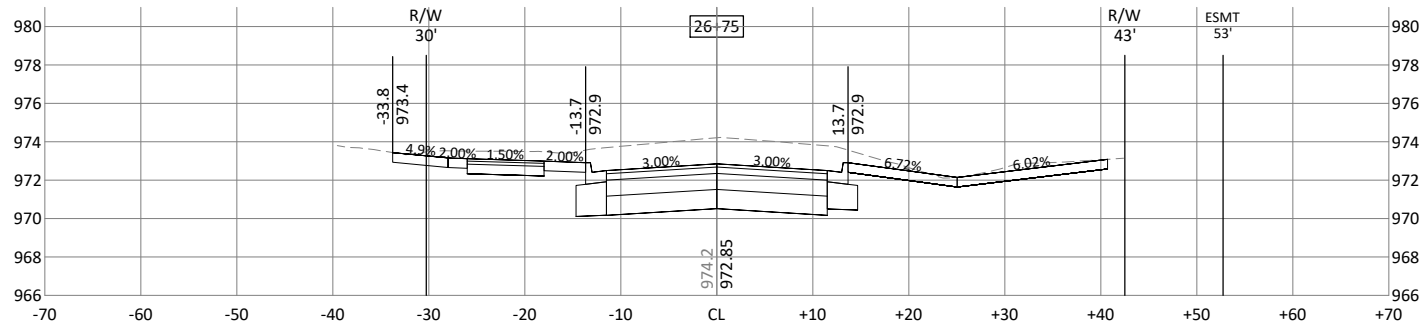
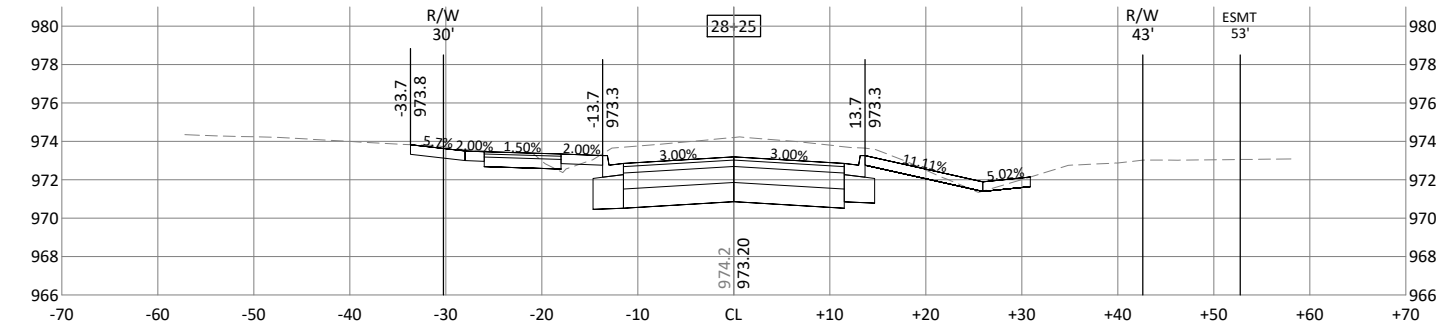
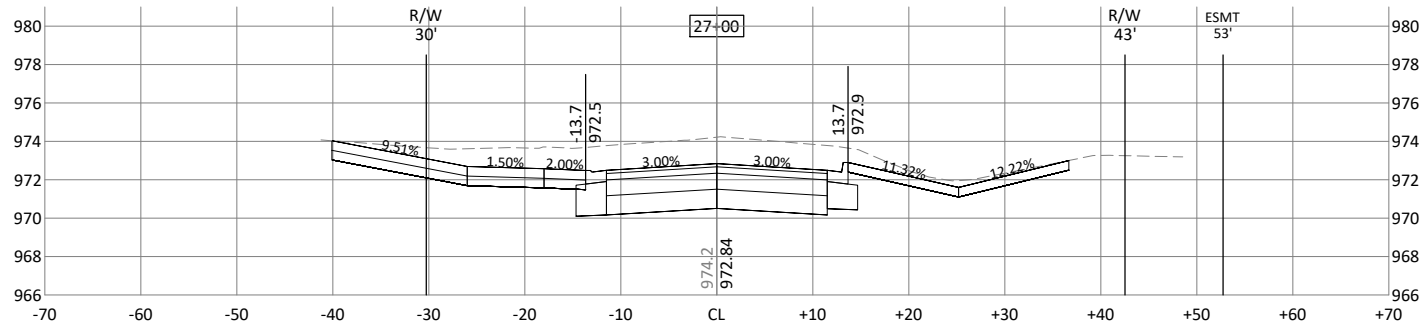
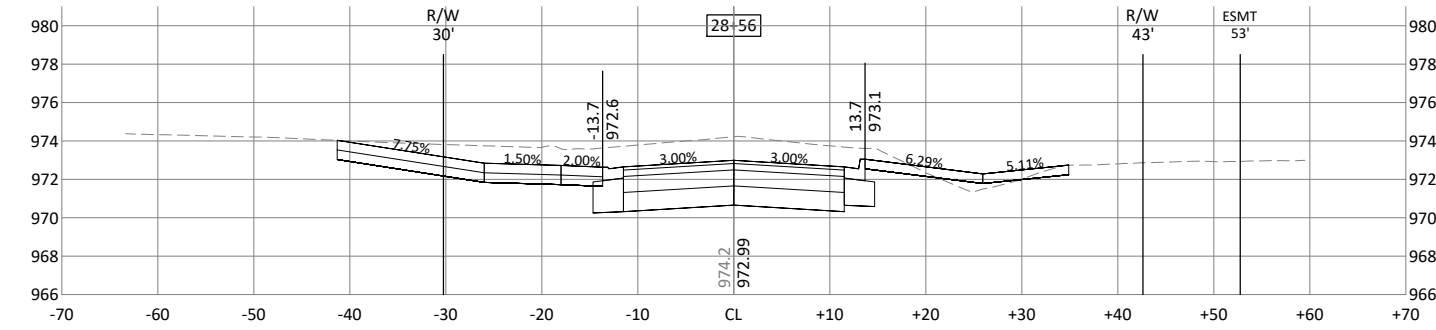
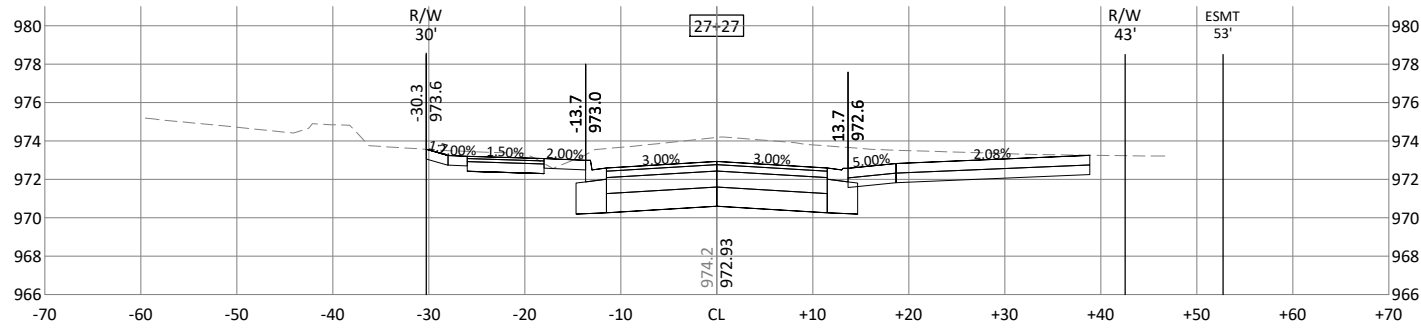
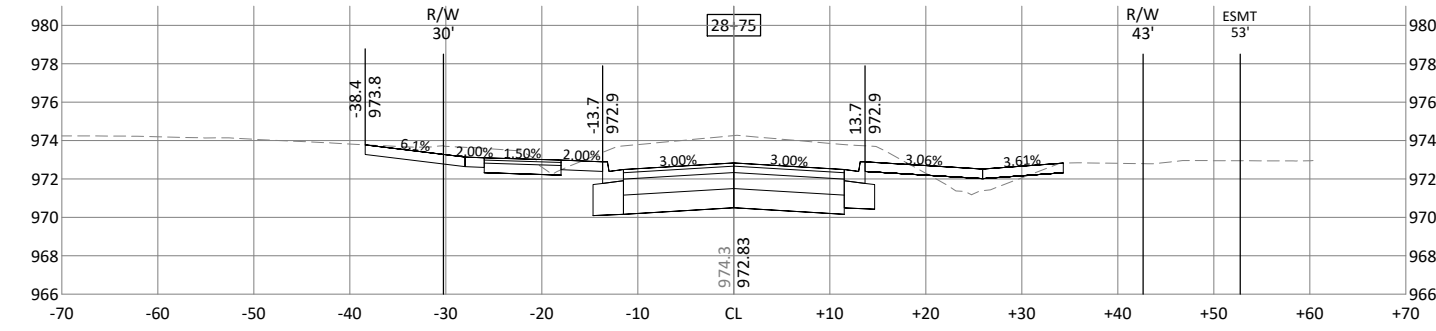
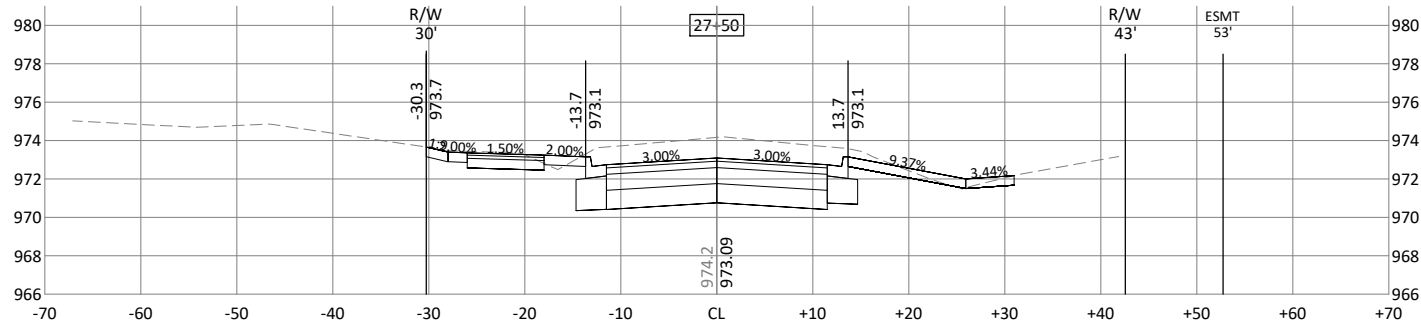
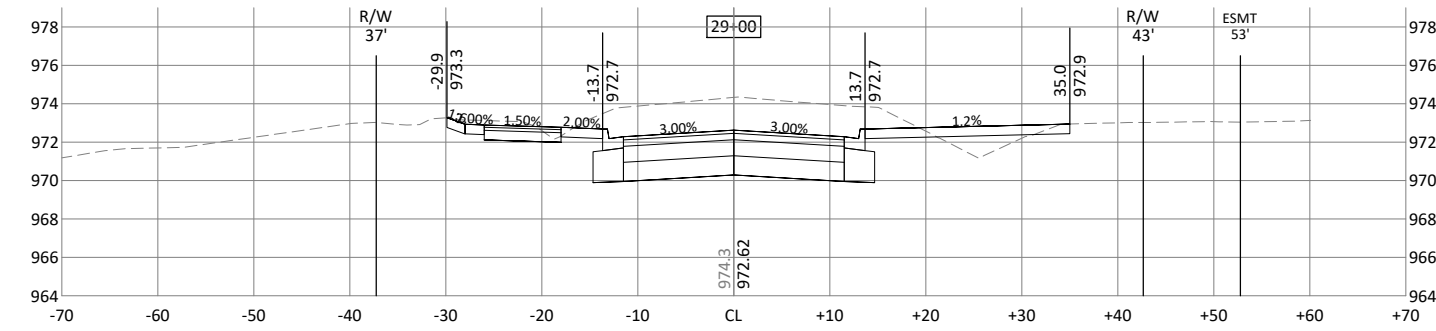
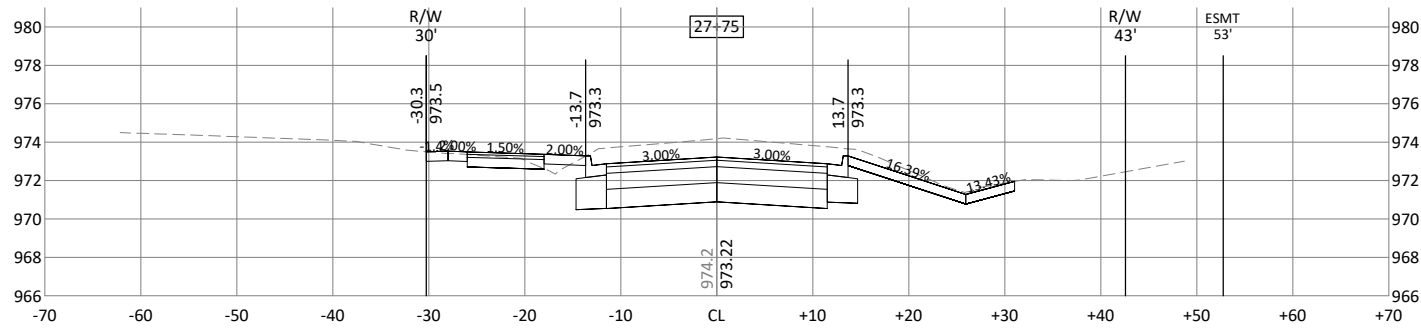
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.07



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\P\124164\CAD\Business\124164C9.08.dwg, 11/29/2022 2:14:24 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



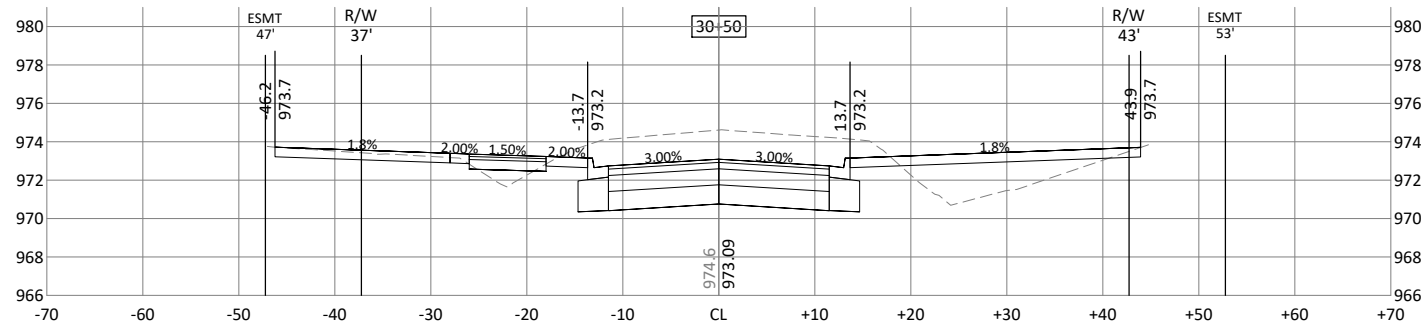
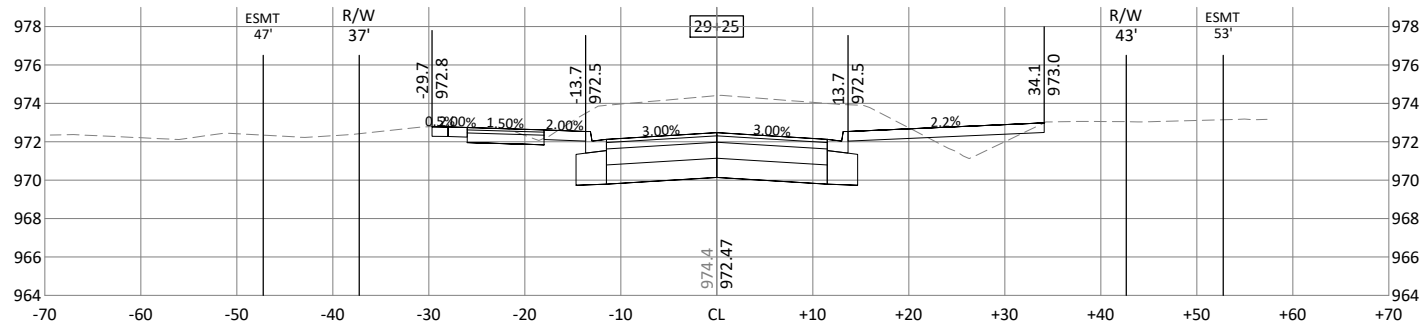
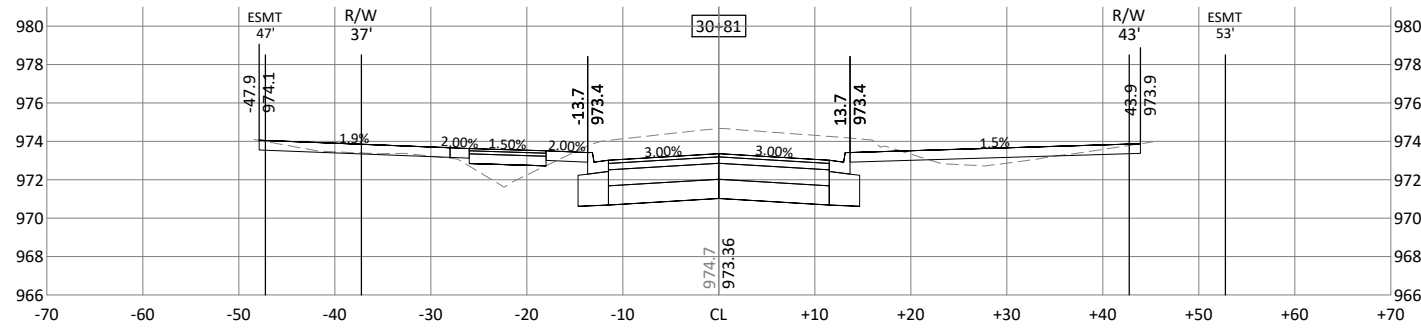
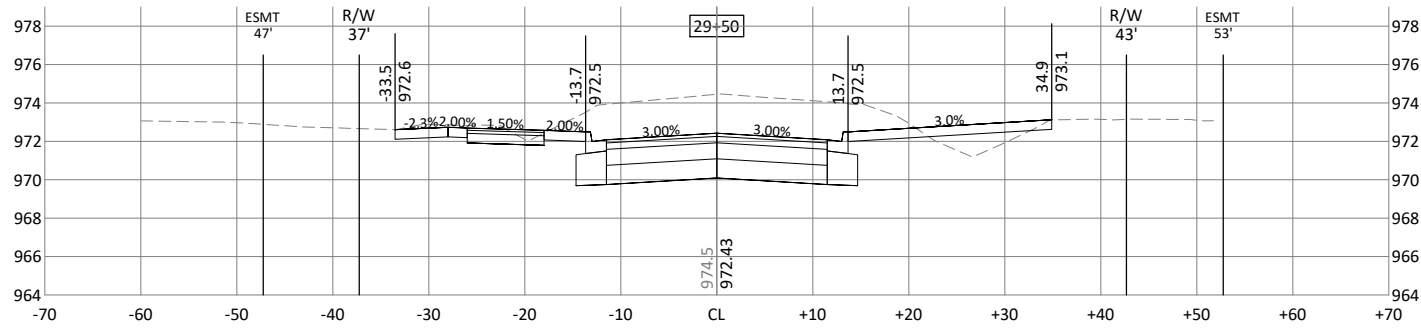
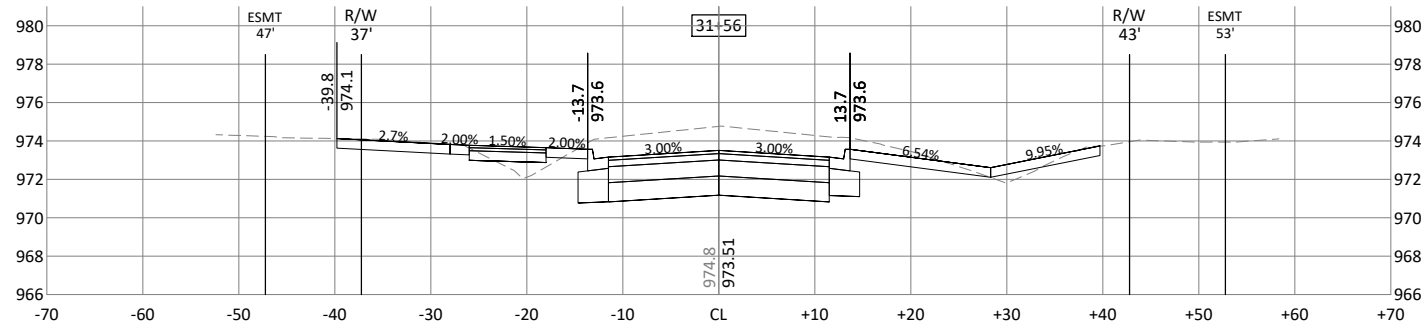
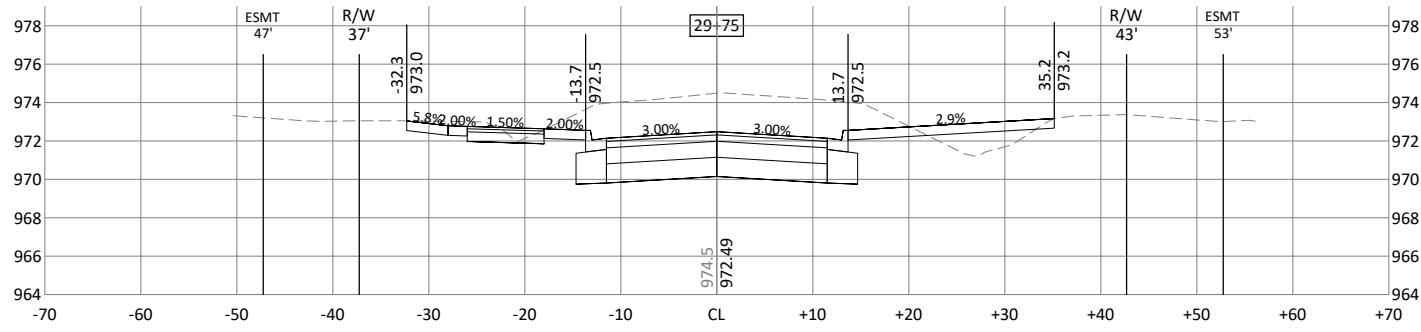
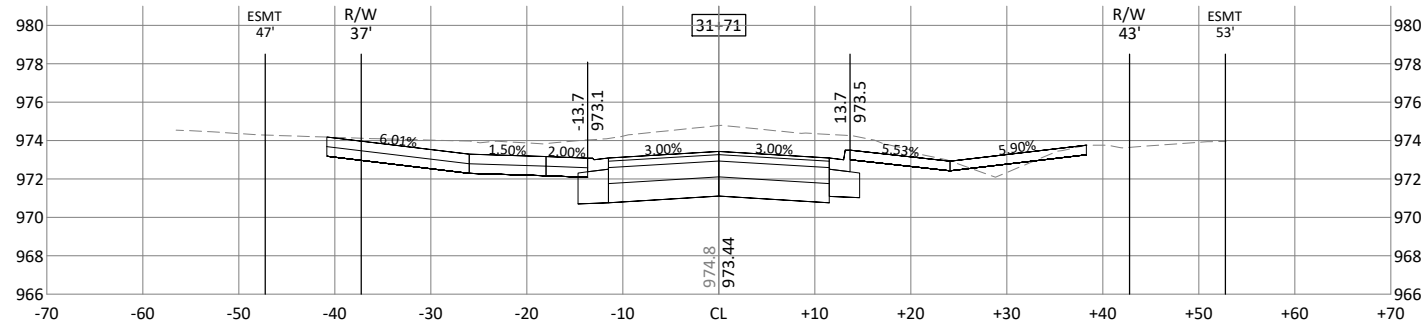
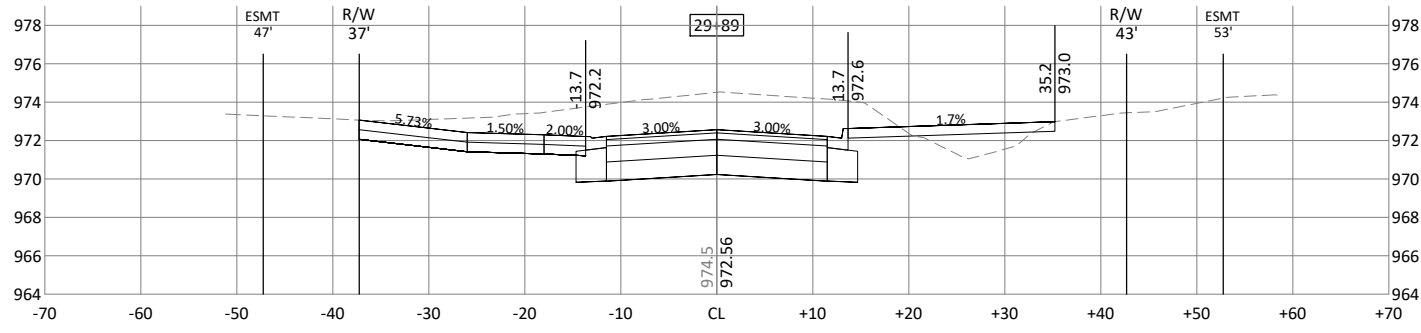
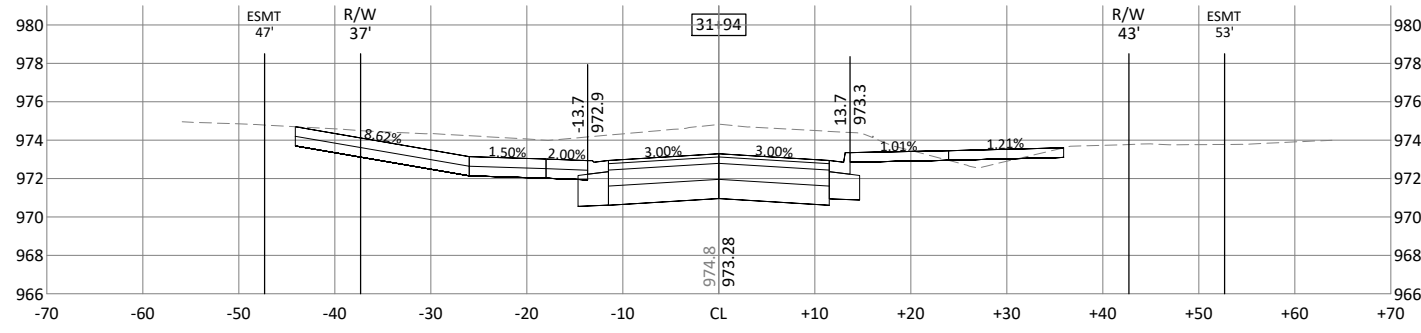
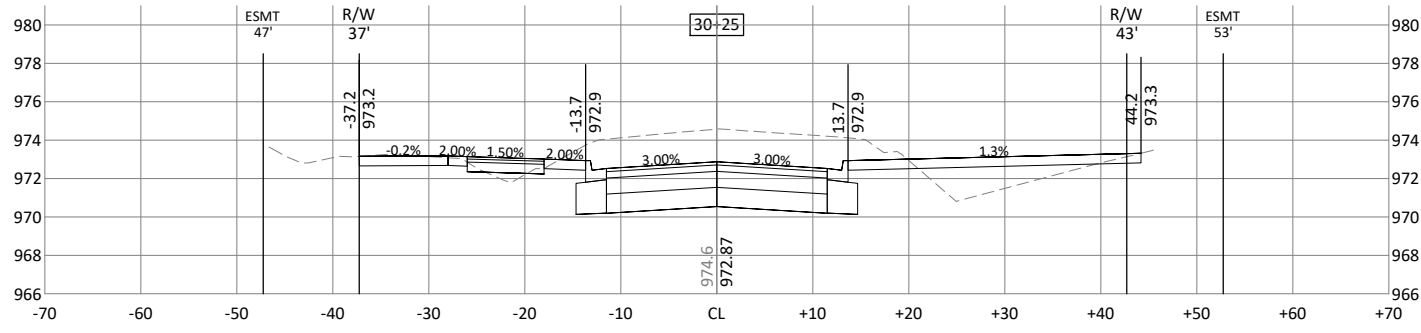
12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
C9.08



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\Projects\2022\112124\112124.dwg, 11/29/2022 2:14:48 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



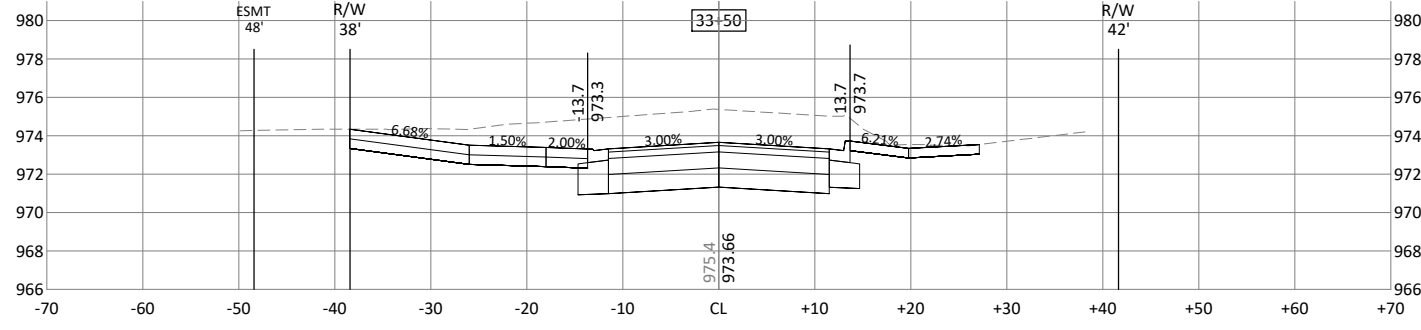
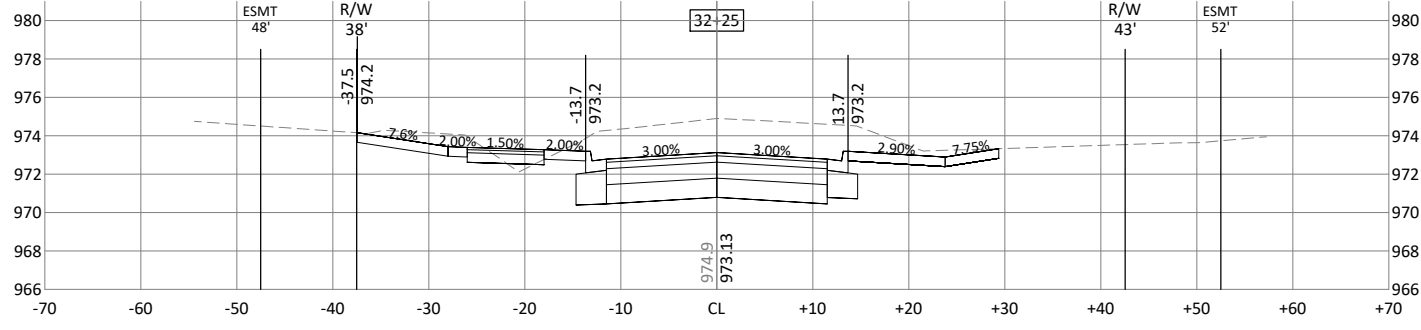
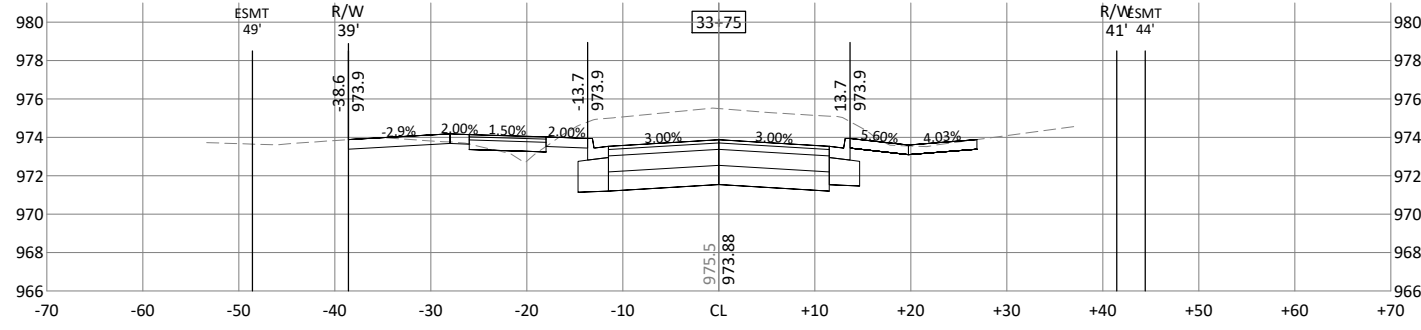
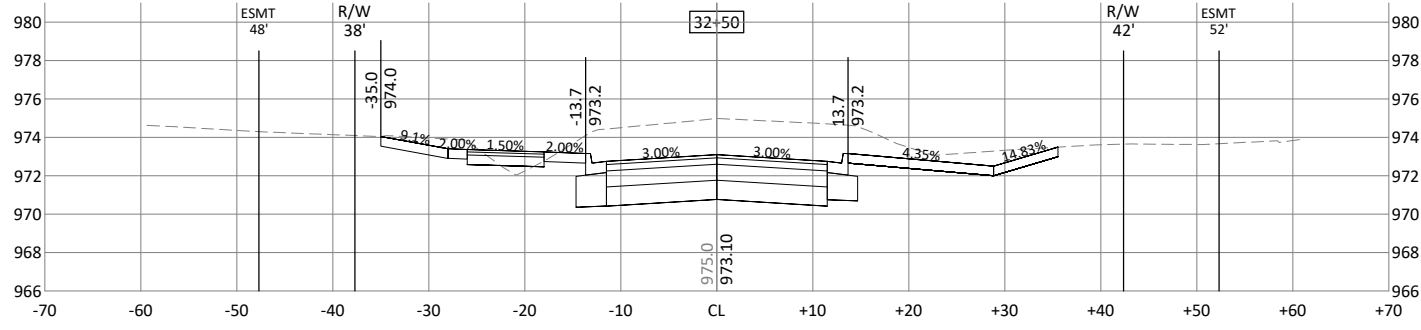
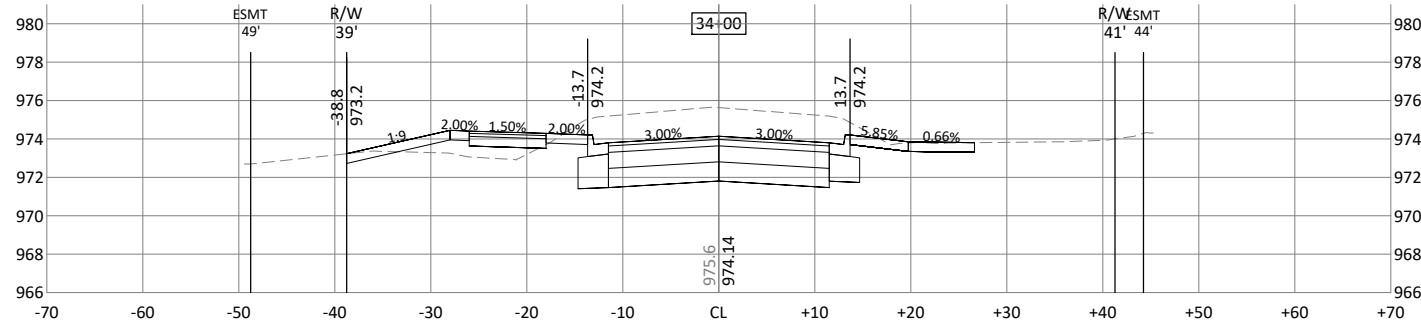
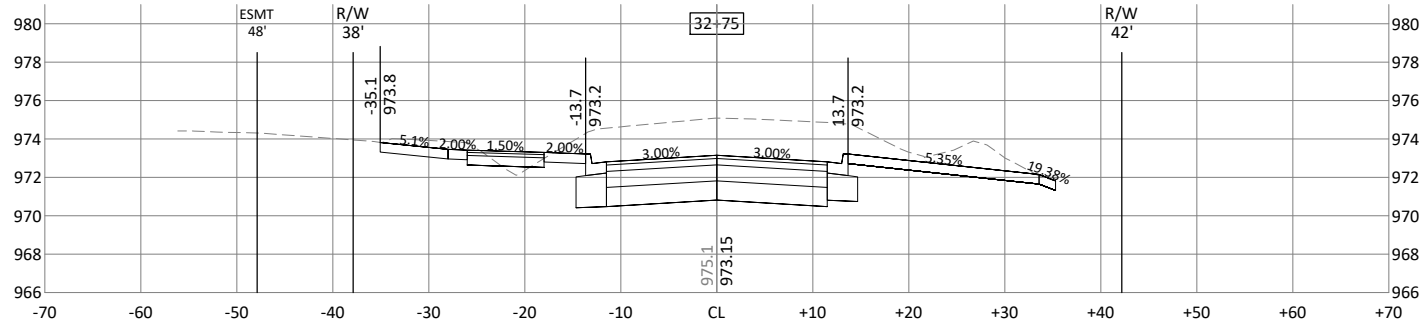
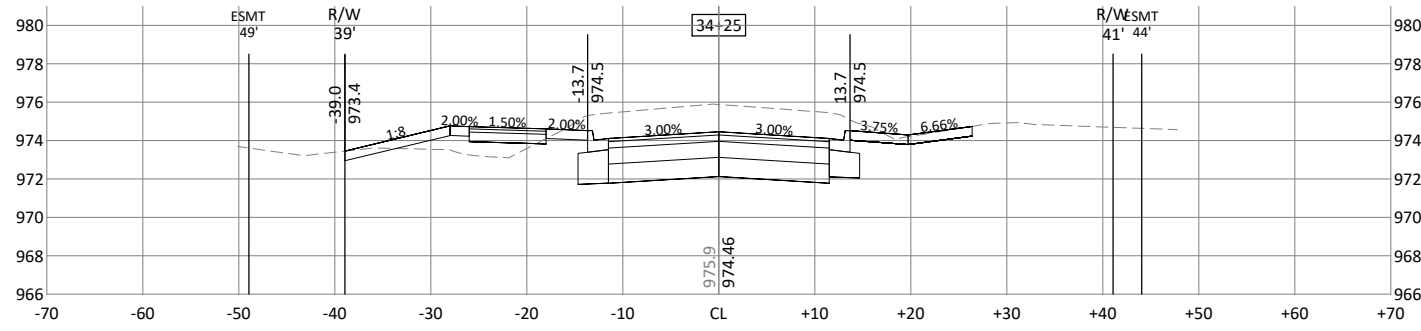
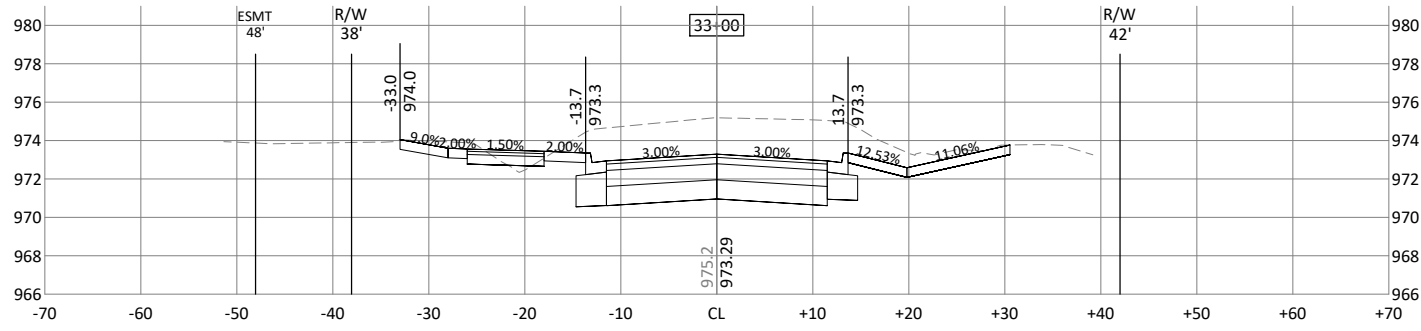
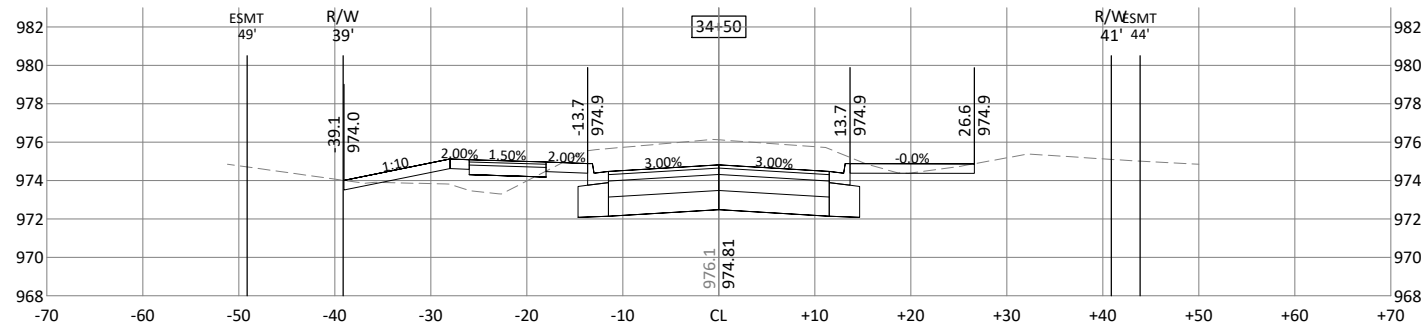
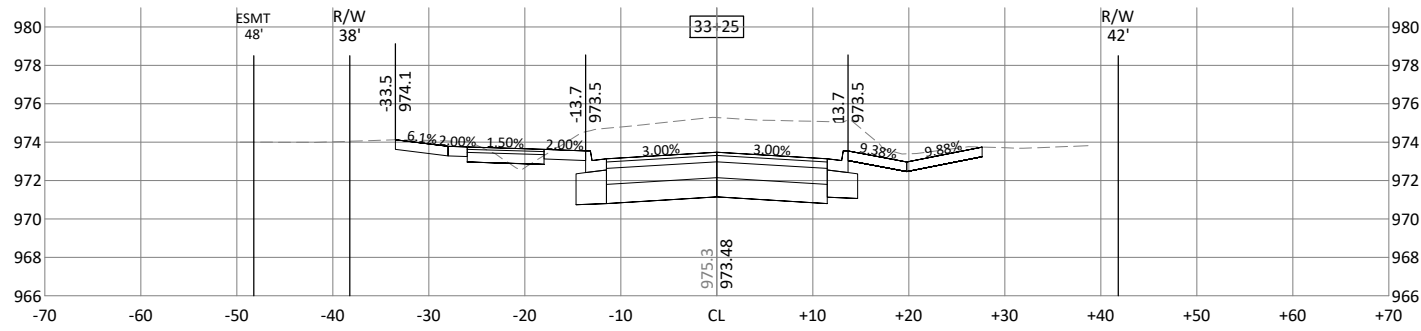
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.09



© Bolton & Menk, Inc. 2022. All Rights Reserved. 11/29/2022 2:15:14 PM

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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



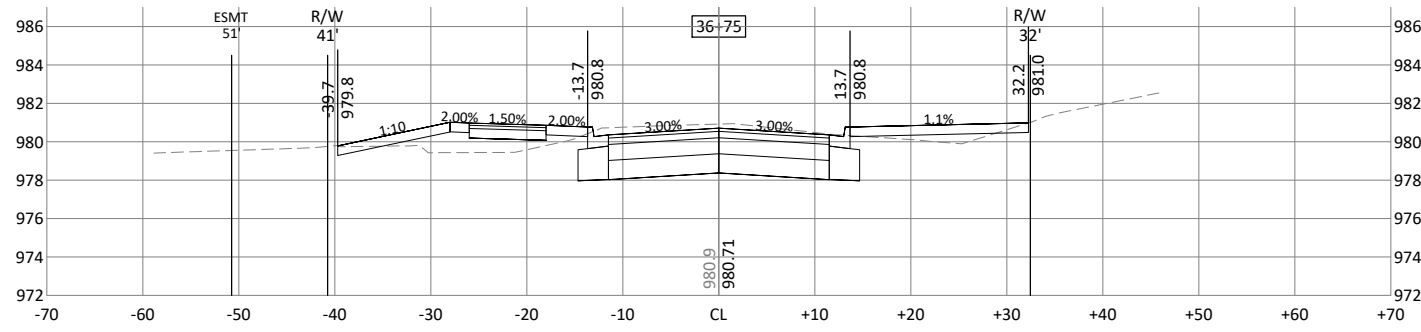
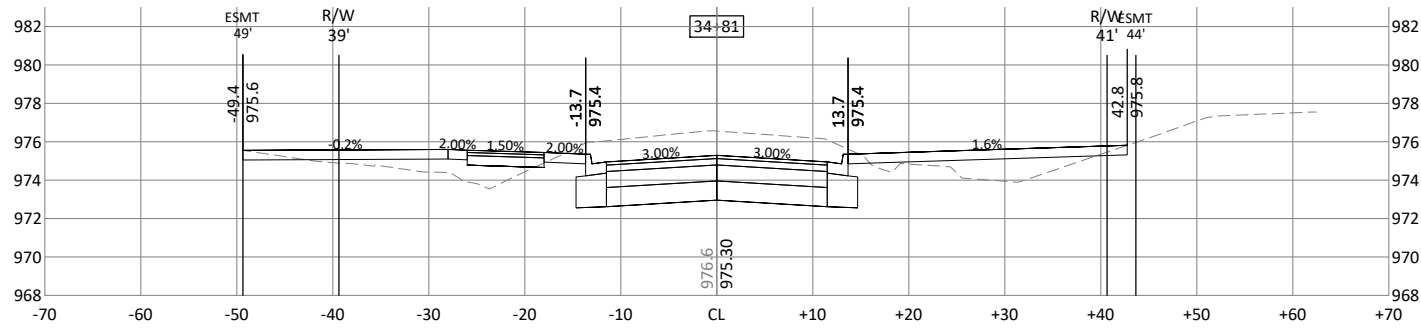
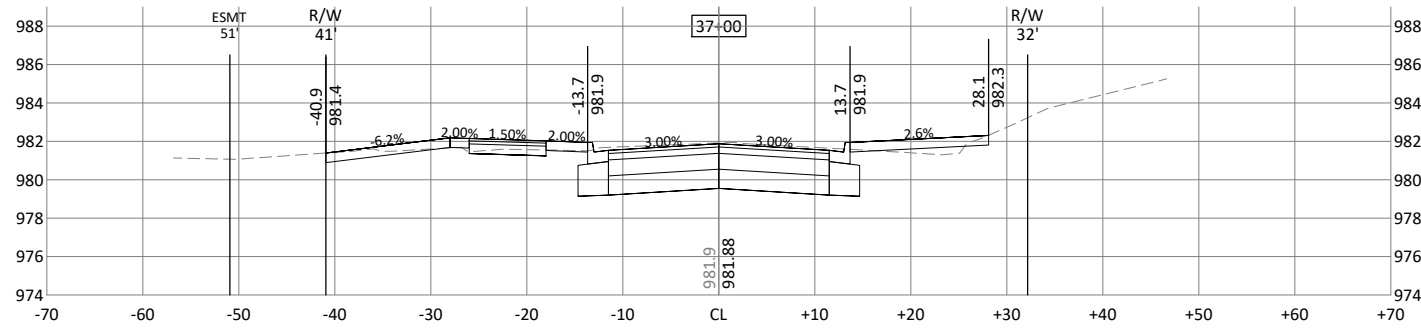
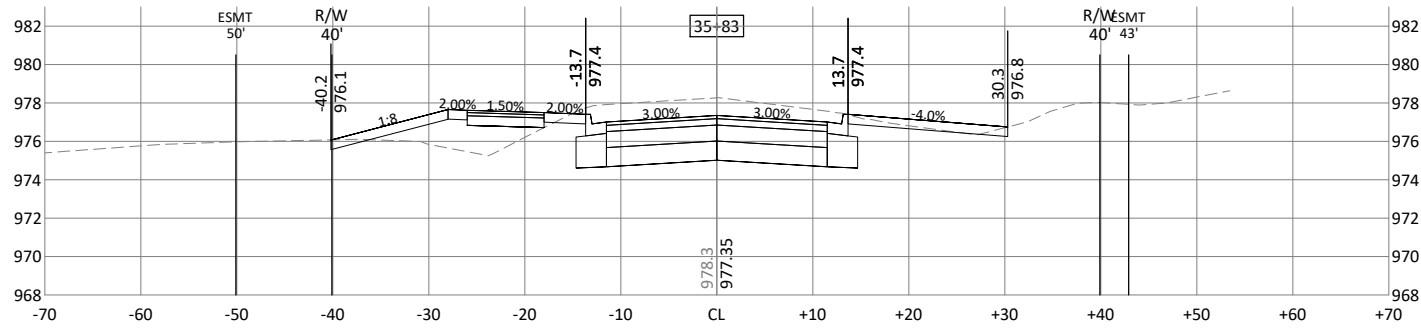
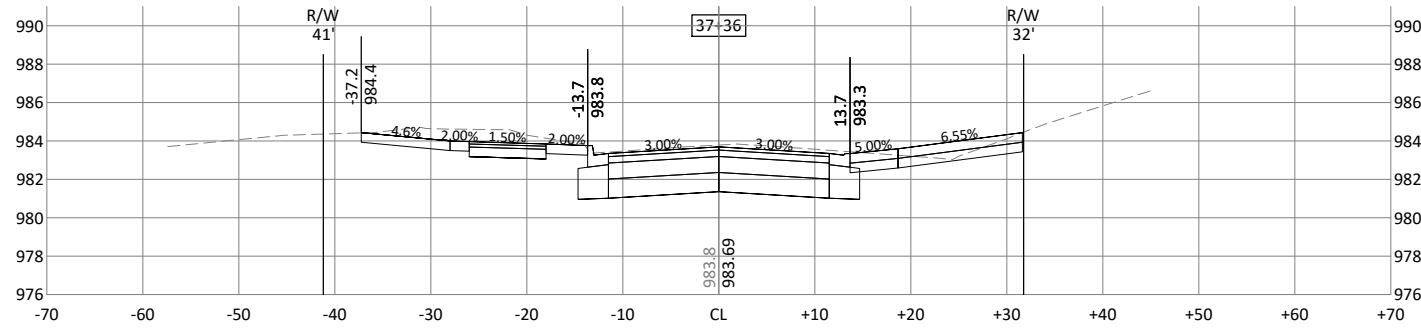
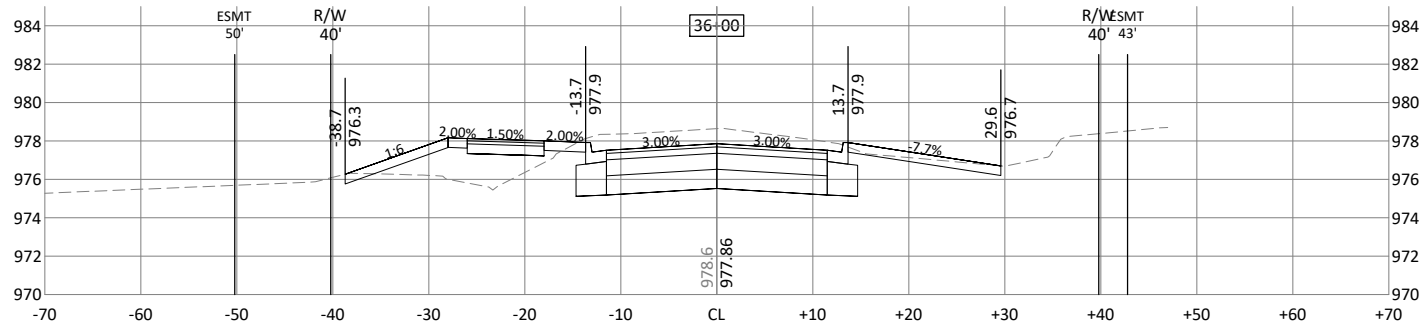
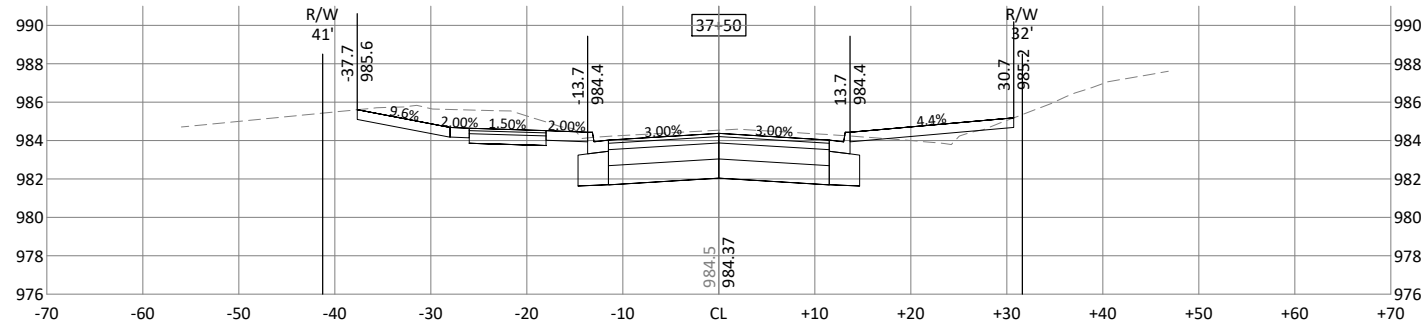
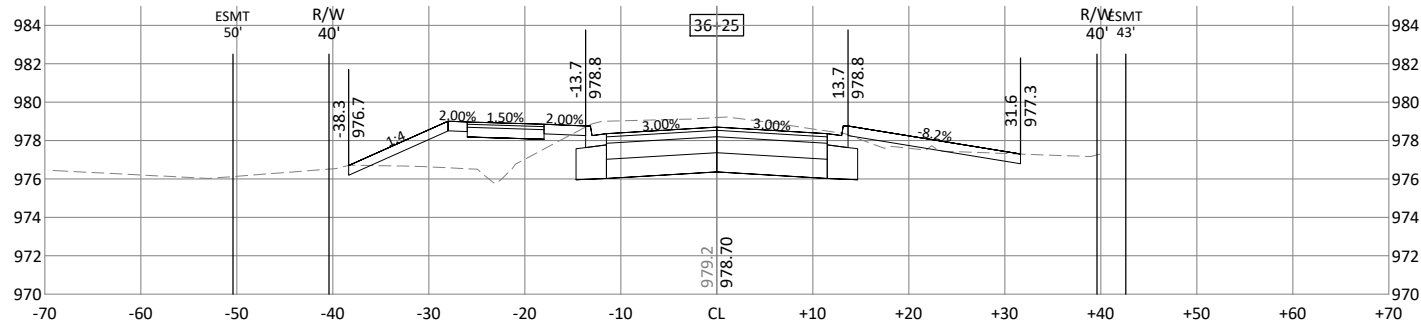
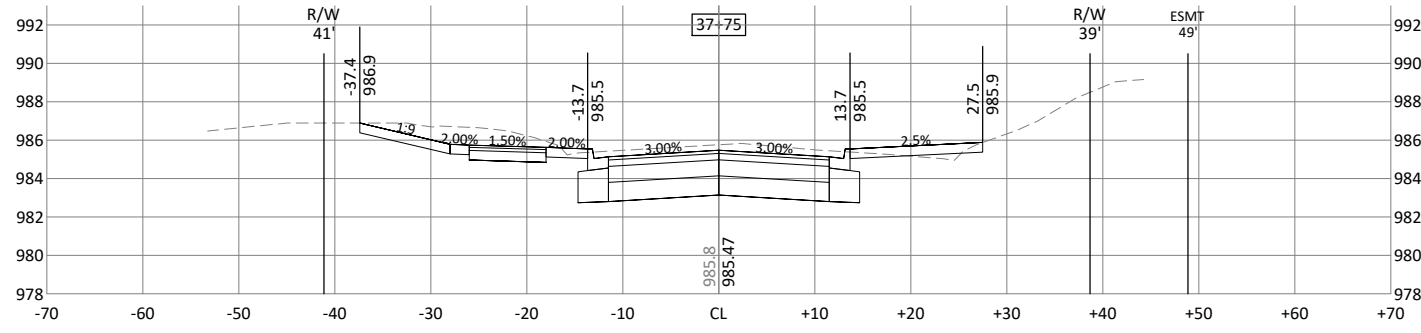
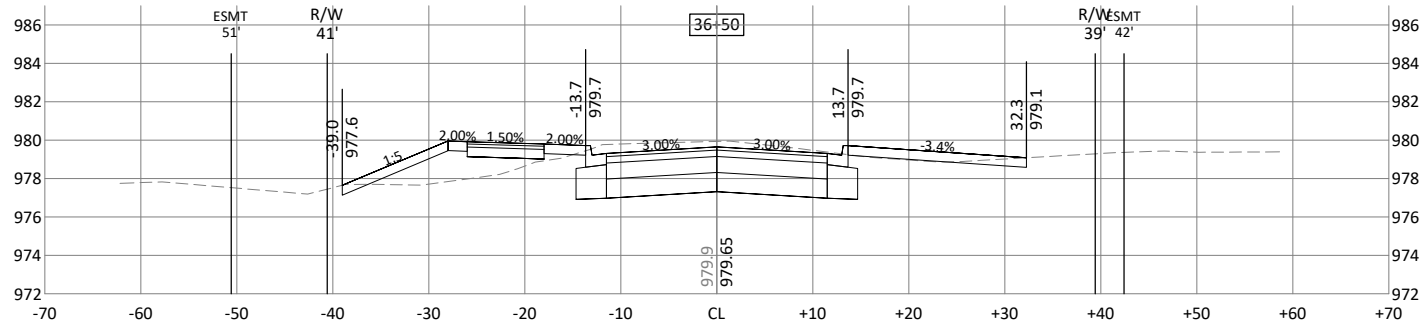
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.10



© Bolton & Menk, Inc. 2022. All Rights Reserved. PL\PL\124164\CAD\BUSINESS\124164C911.dwg, 11/29/2022 2:15:41 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



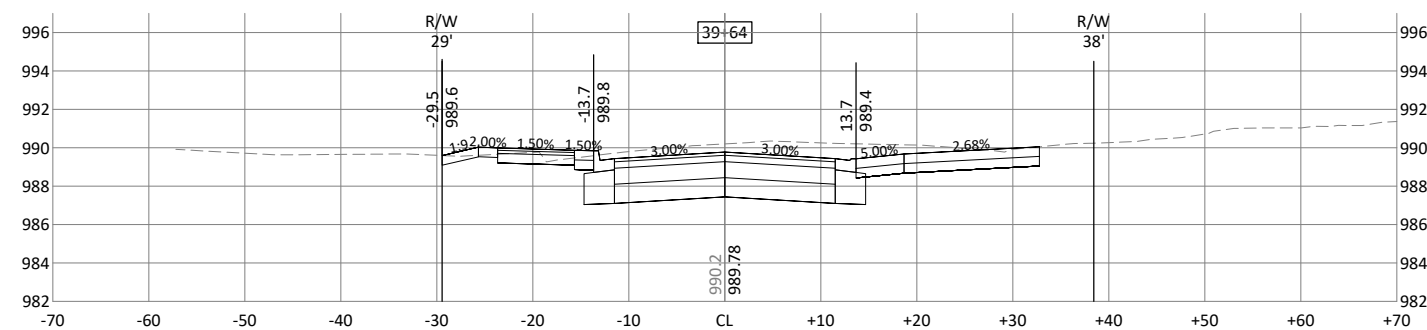
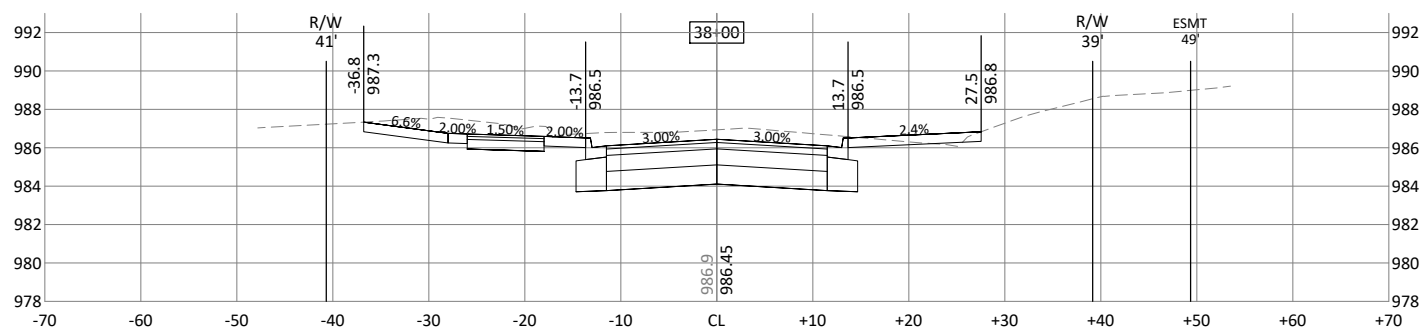
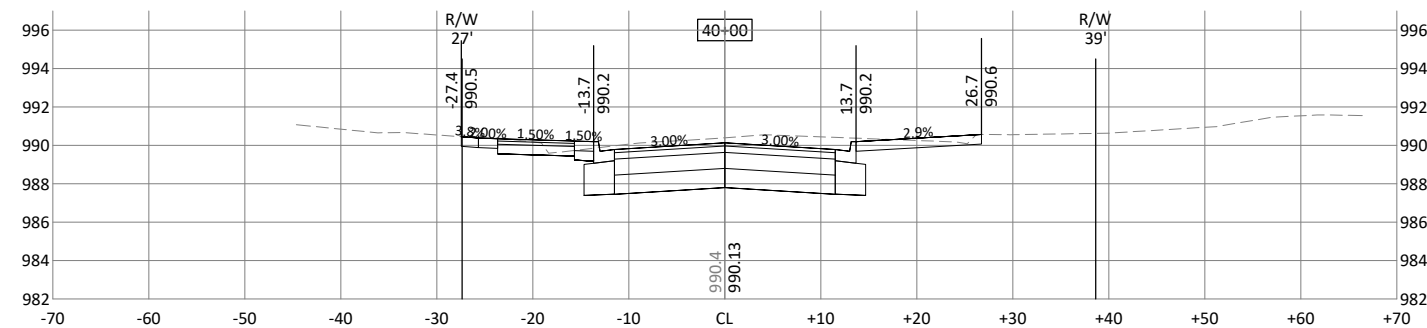
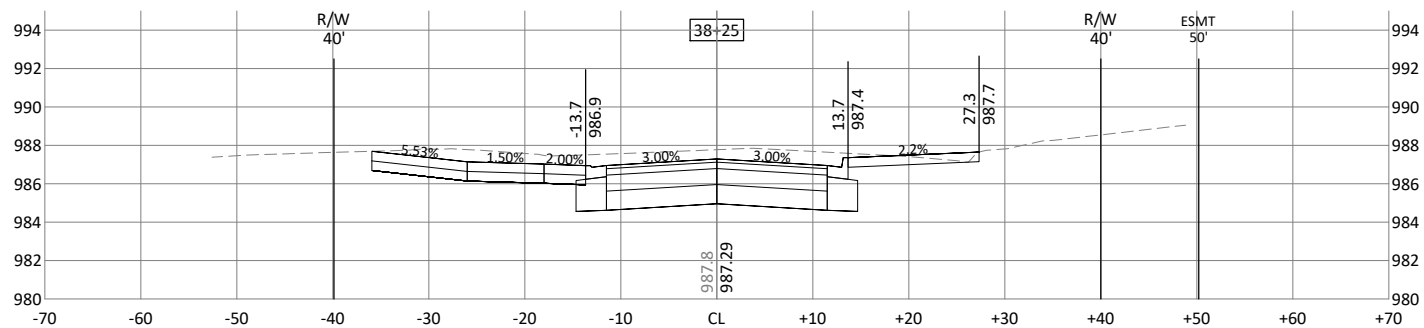
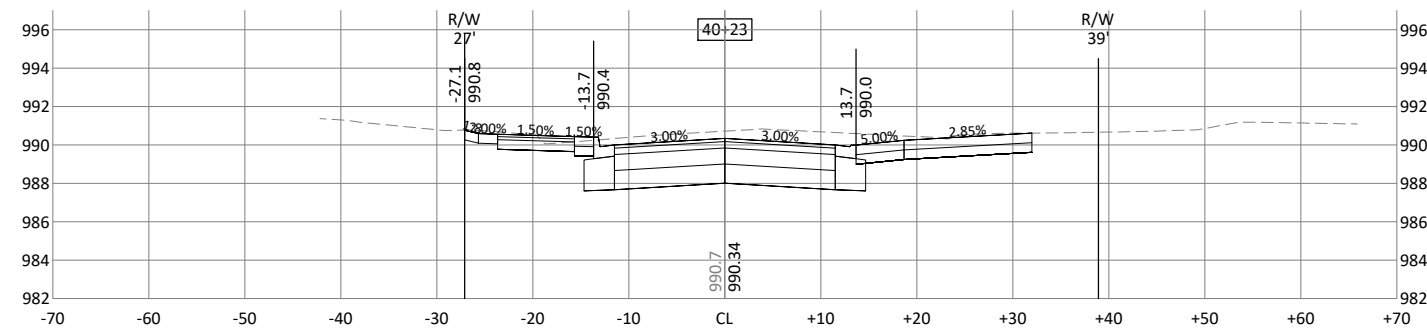
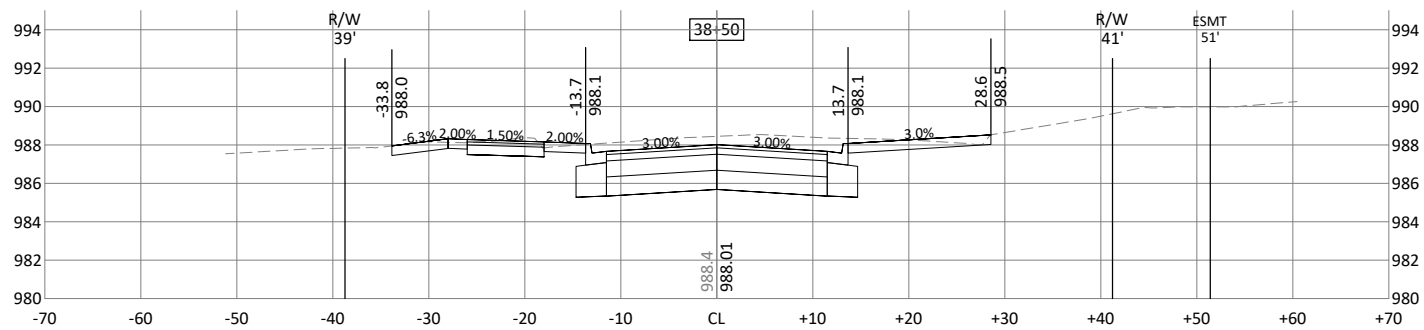
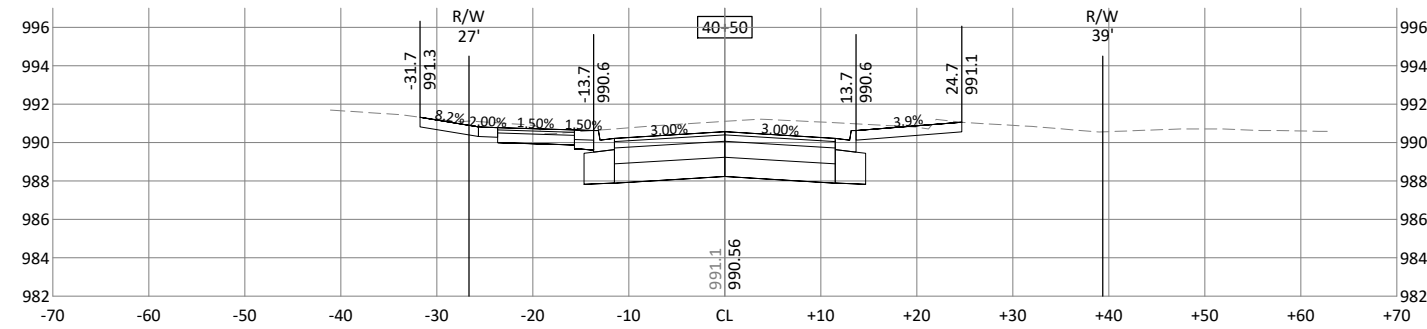
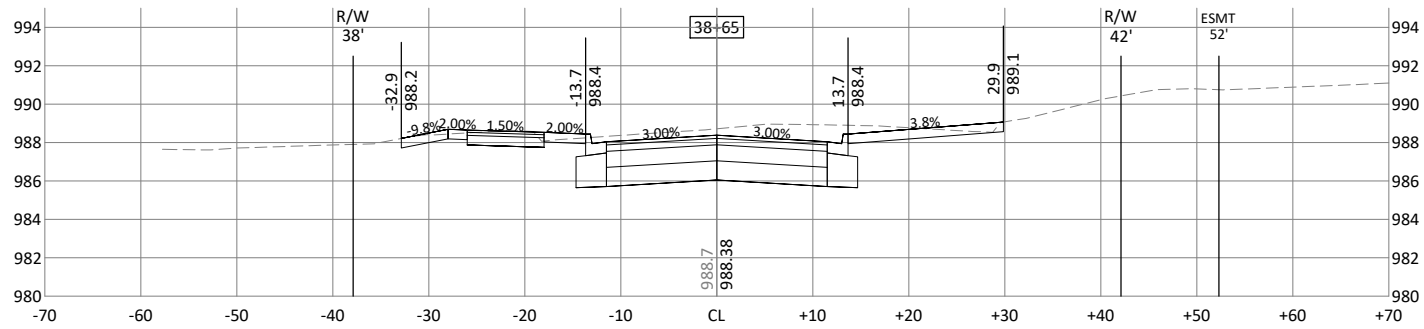
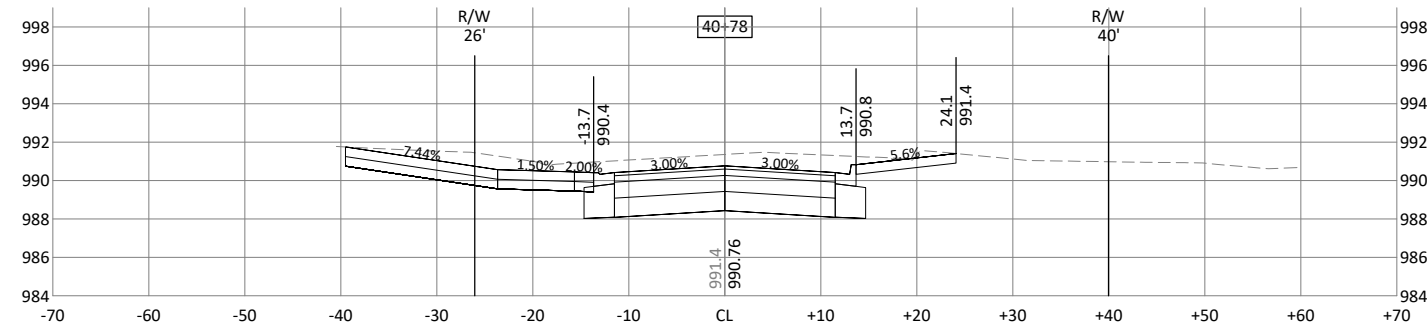
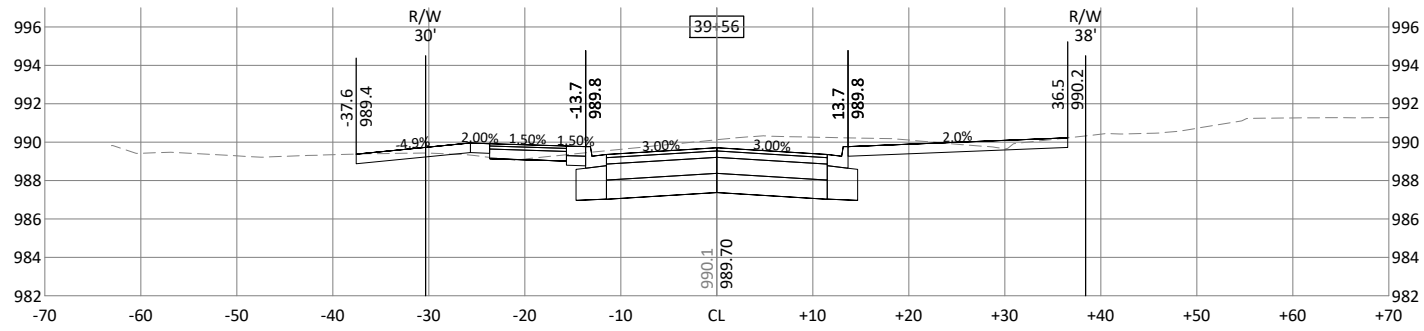
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.11



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\Projects\2022\1224164\CAD\Business\1224164_C9.12.dwg, 12/29/2022 2:16:07 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



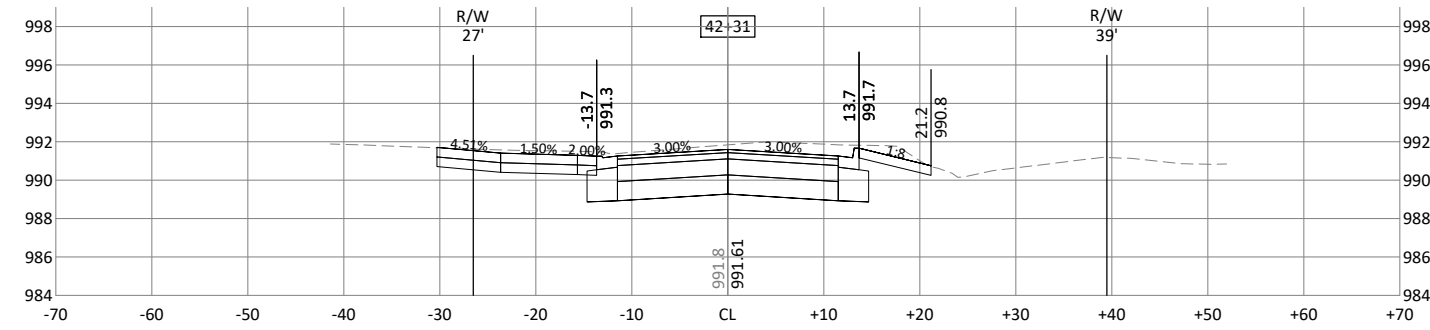
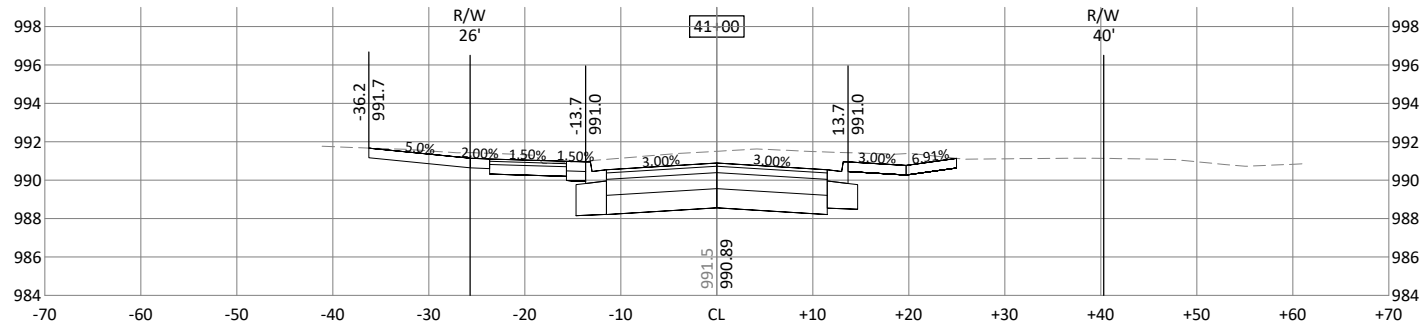
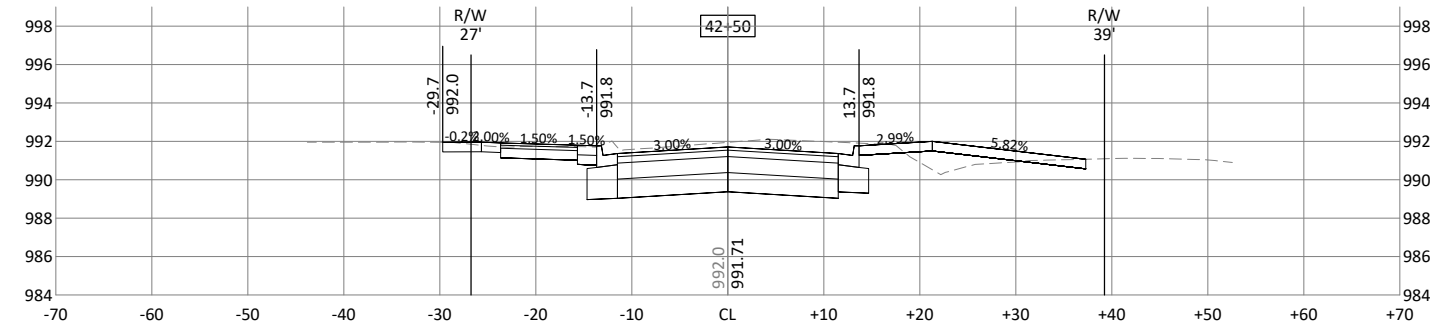
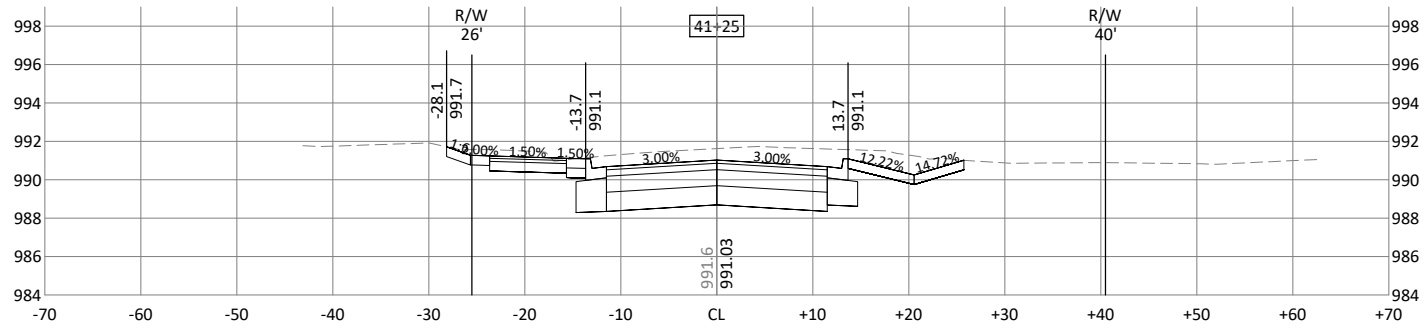
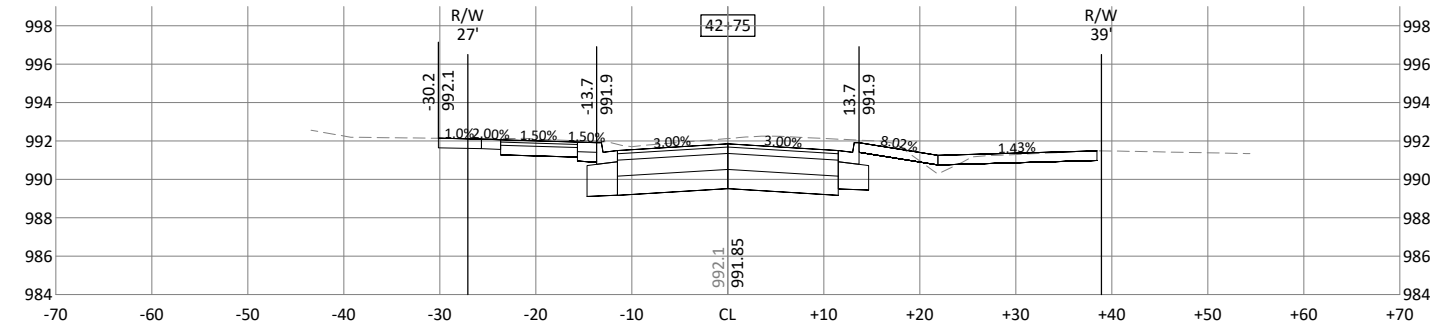
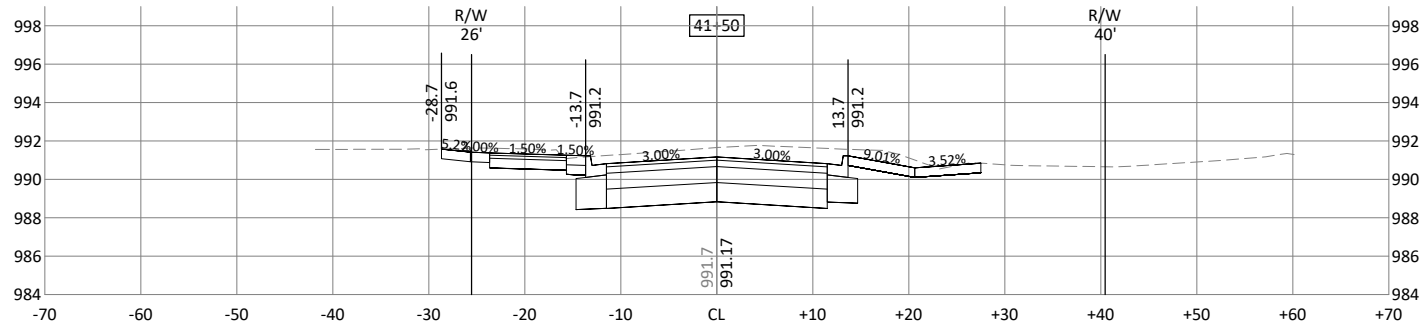
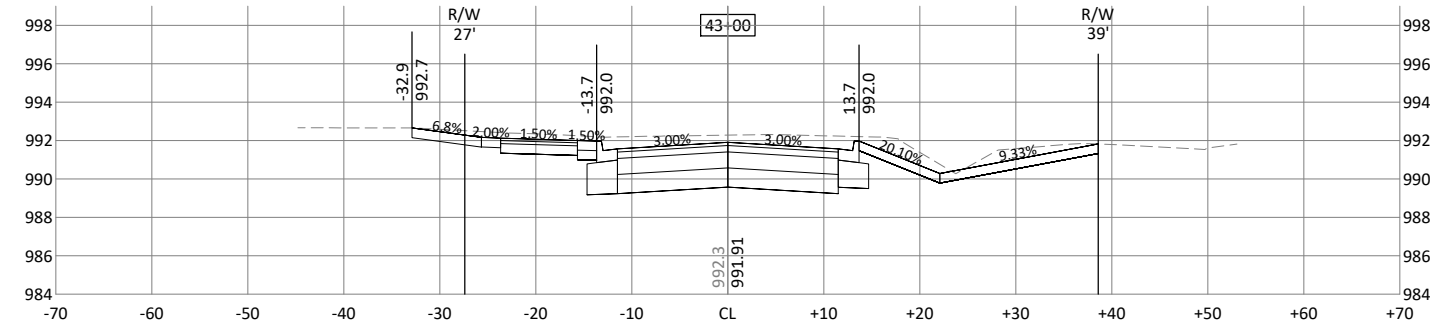
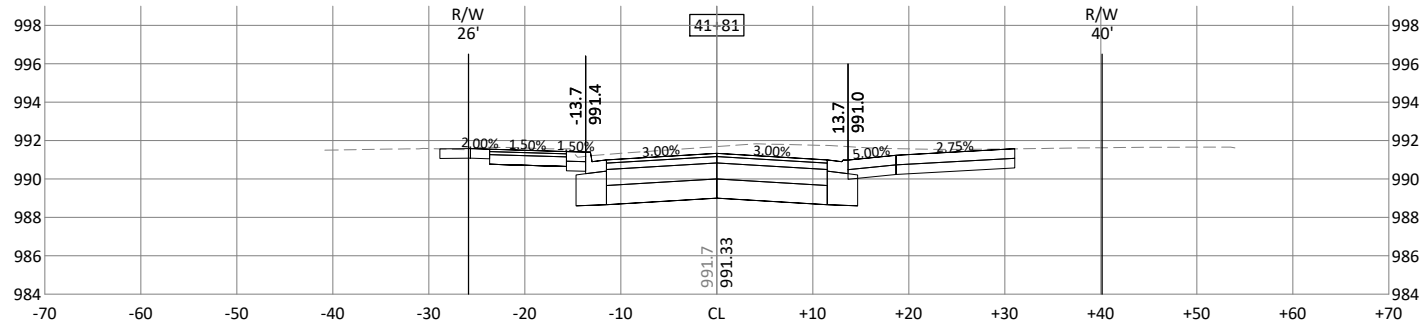
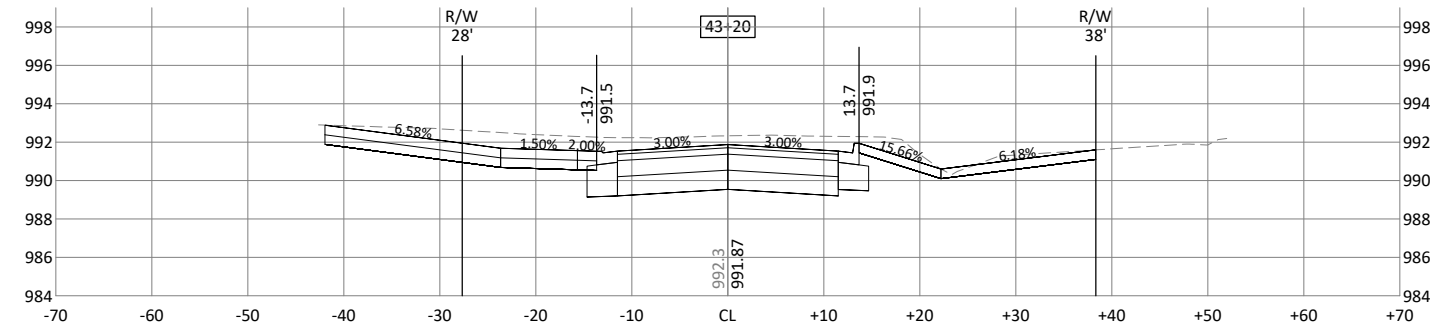
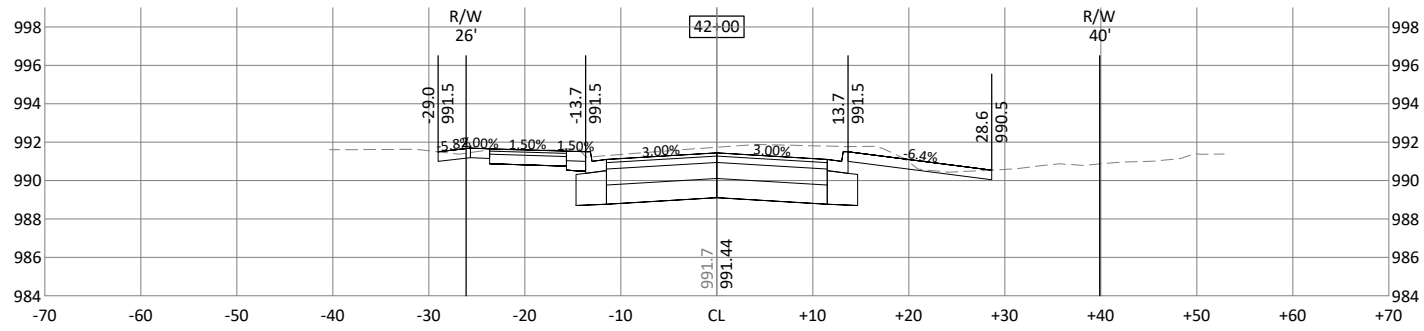
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.12



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\Projects\1124164\CAD\Business\124164C901.dwg, 11/29/2022 2:16:33 PM

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

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



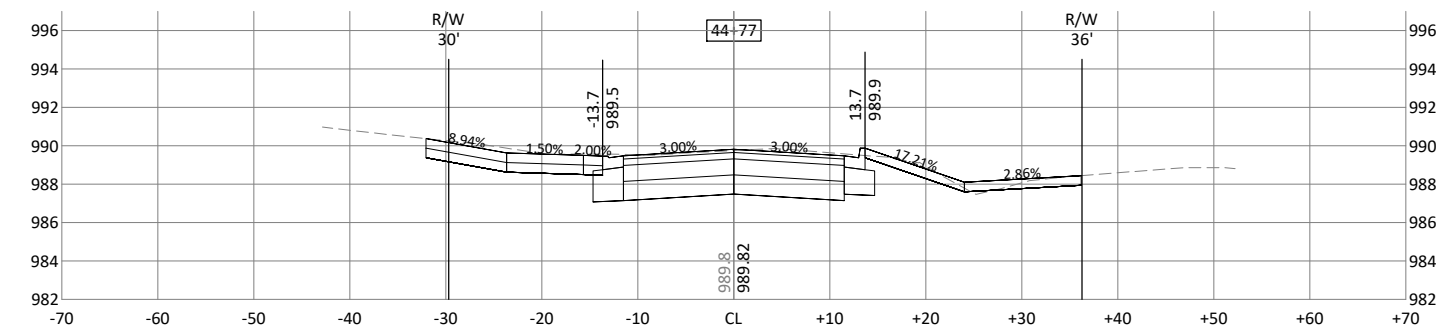
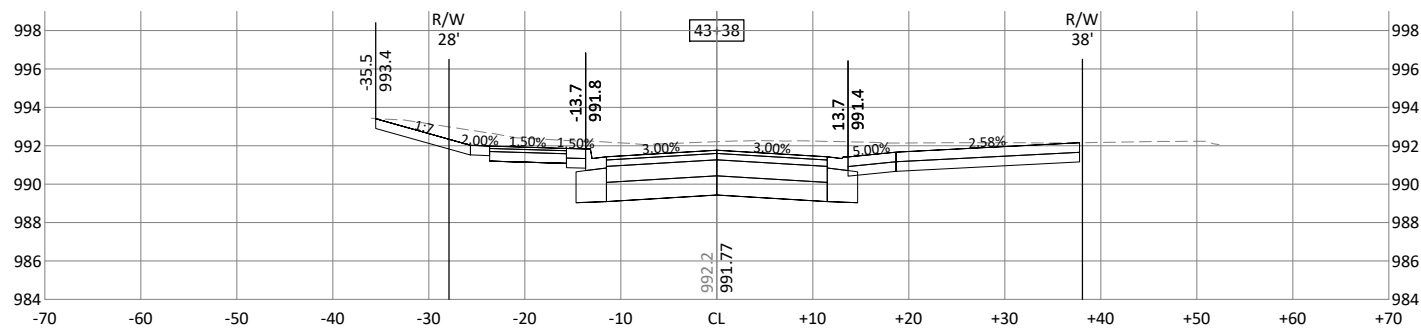
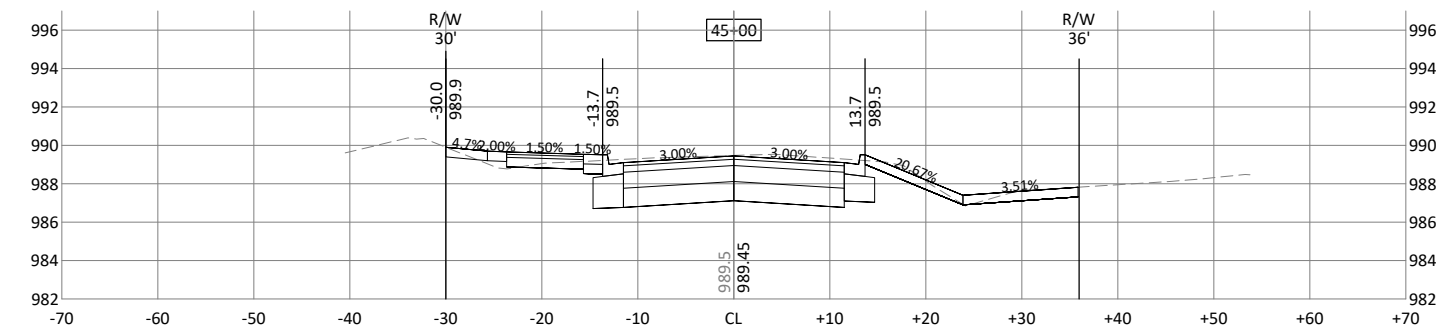
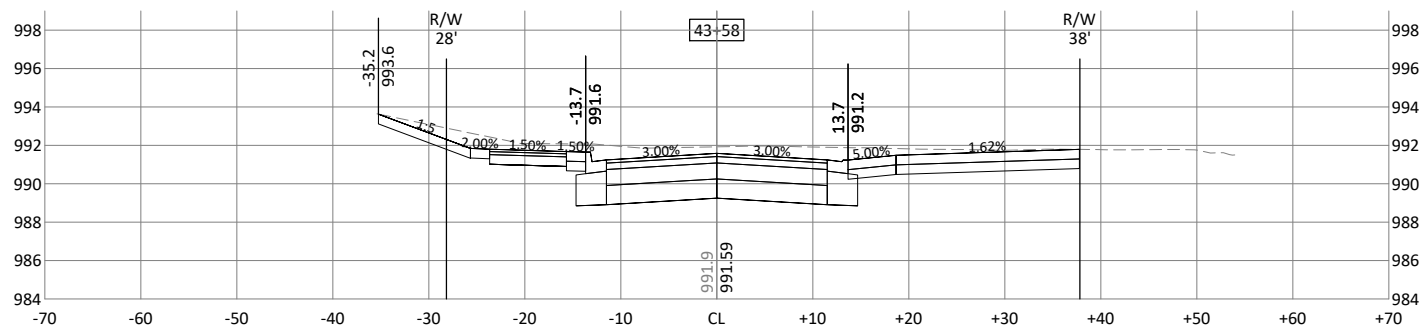
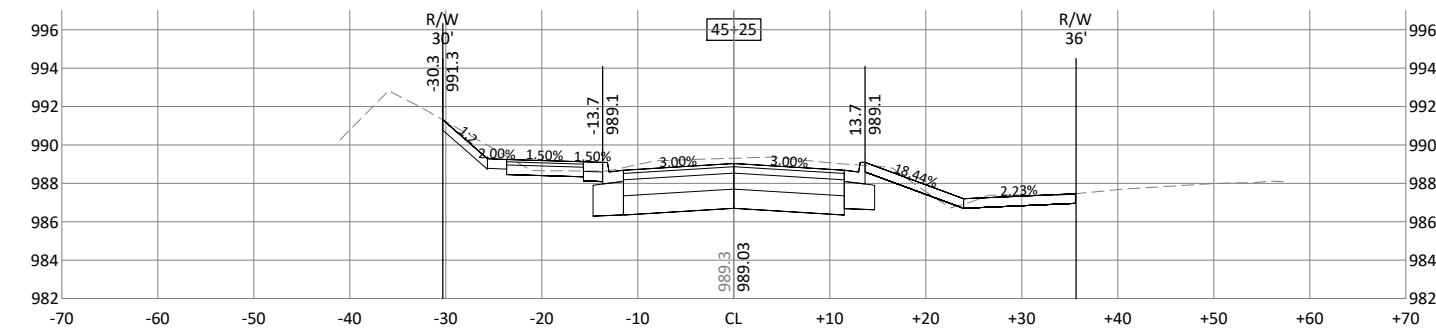
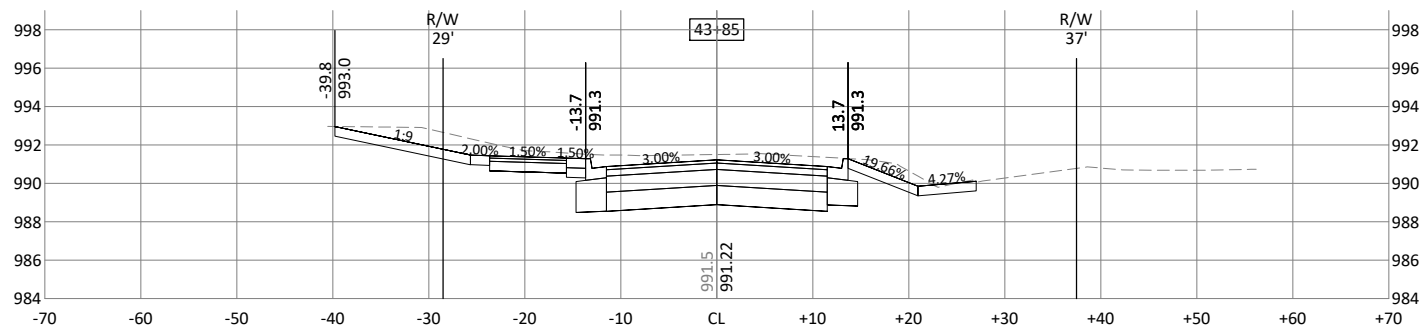
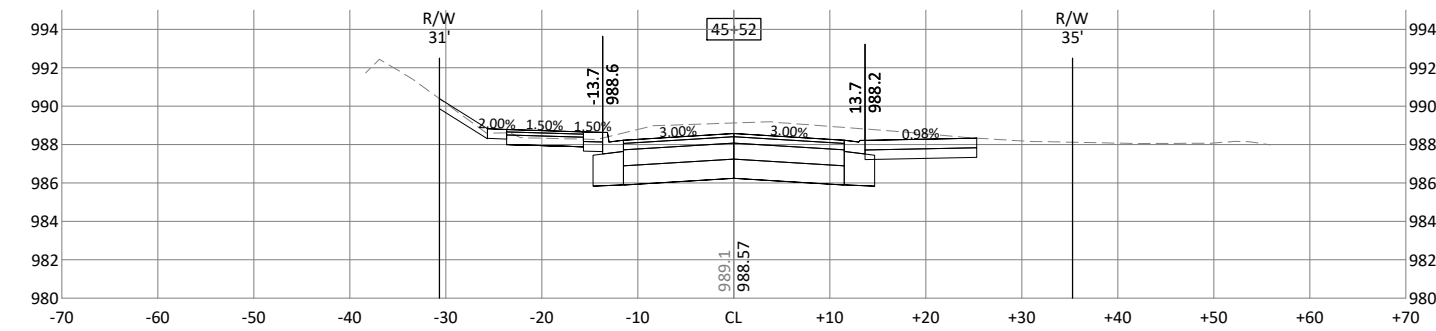
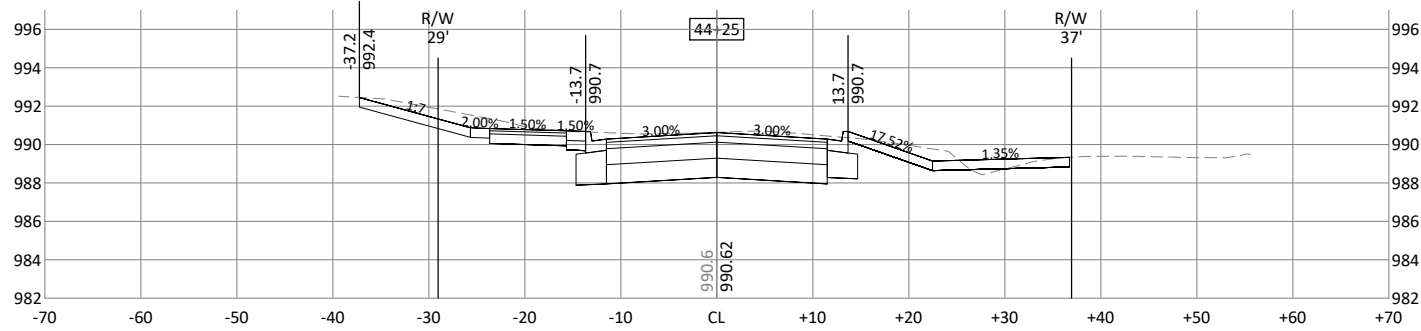
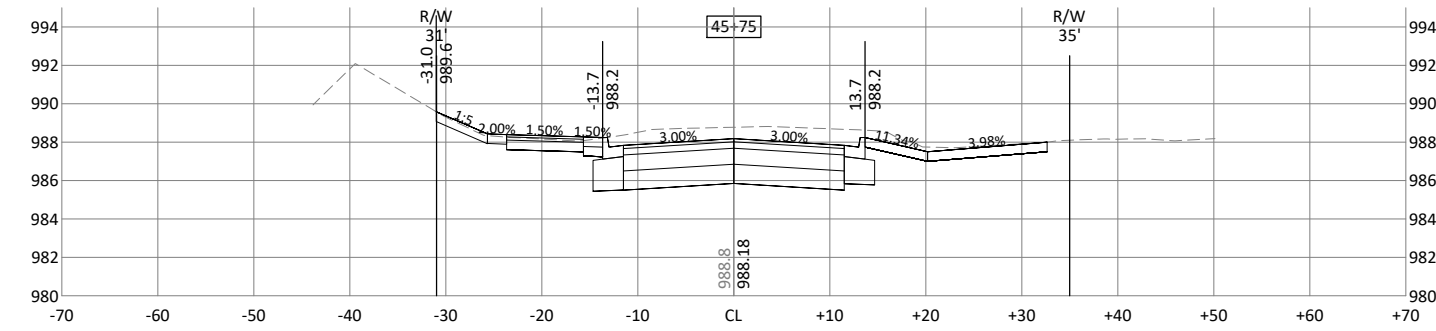
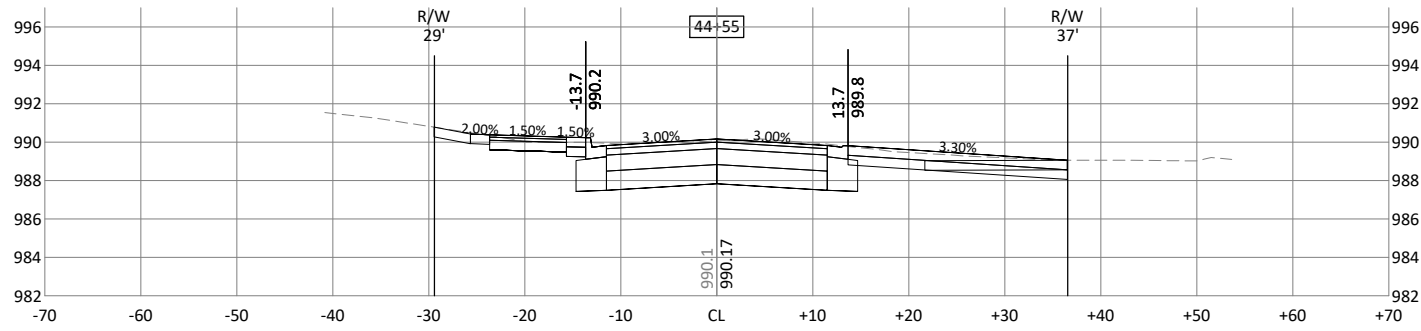
12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.			

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
C9.13



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\P\171124164\CAD\Business\171124164.dwg, 11/29/2022 2:16:59 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



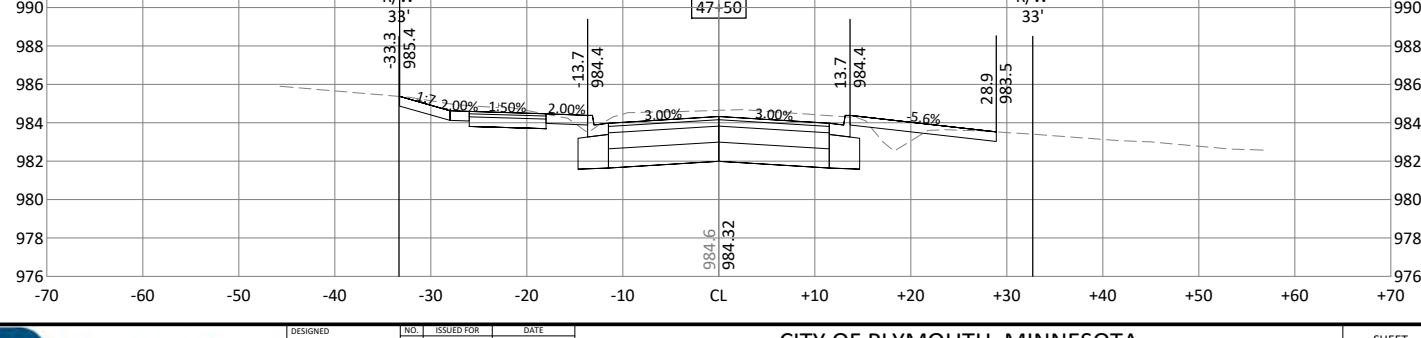
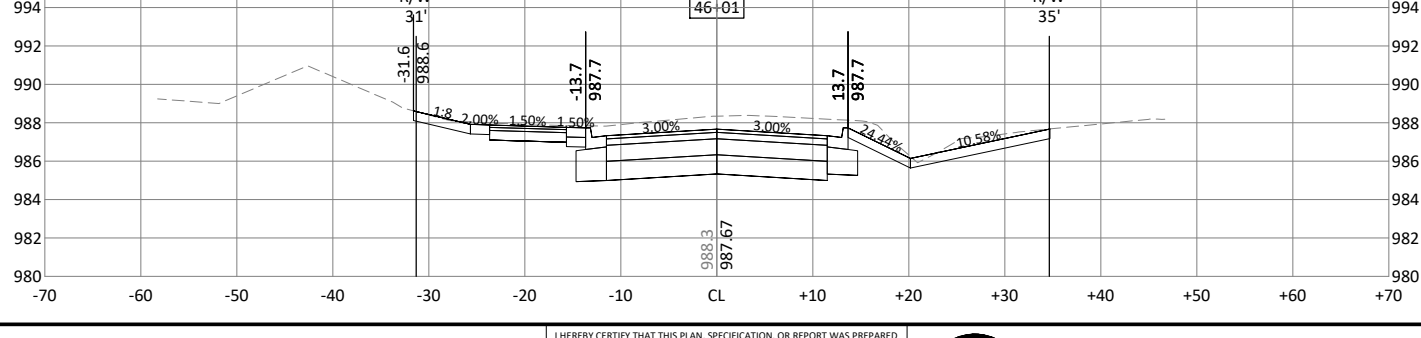
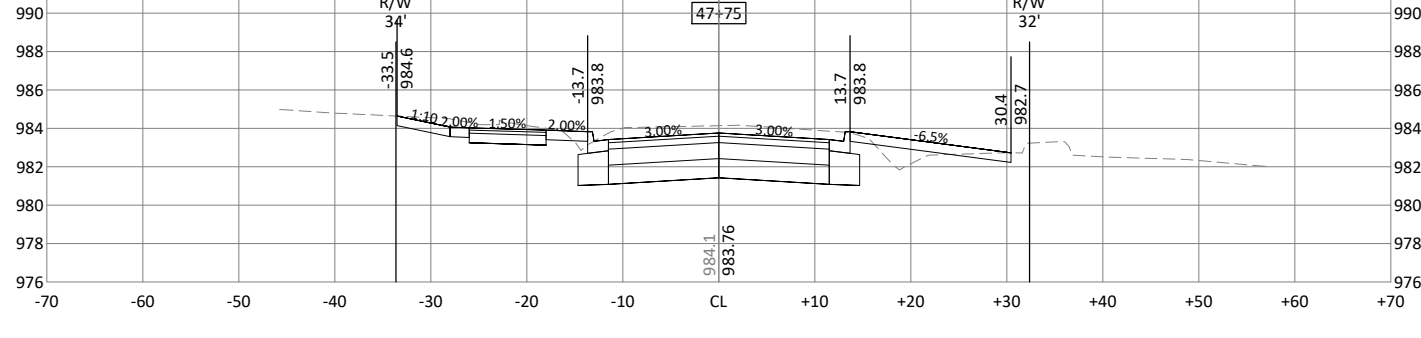
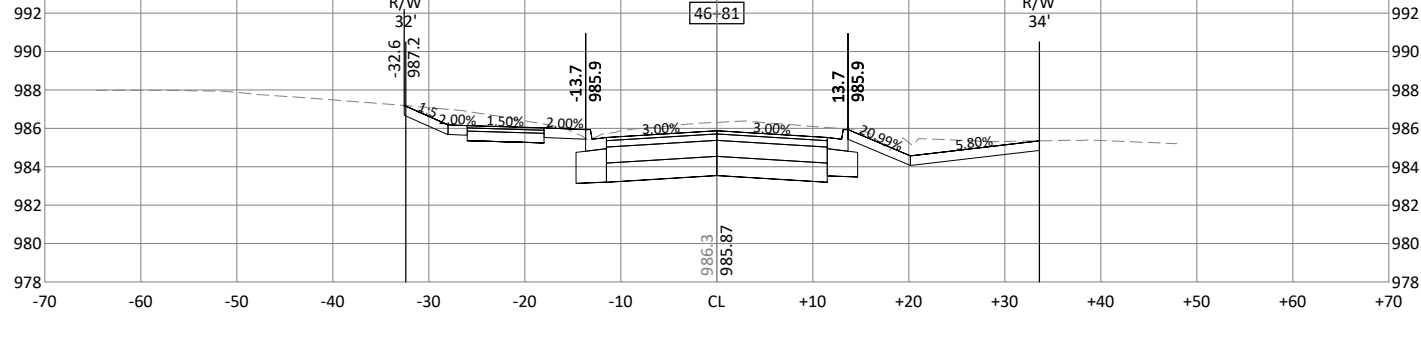
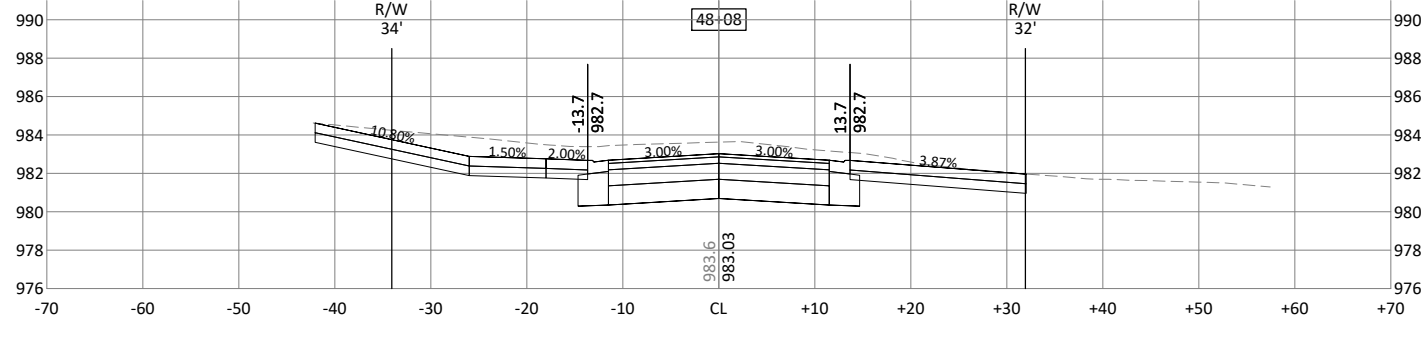
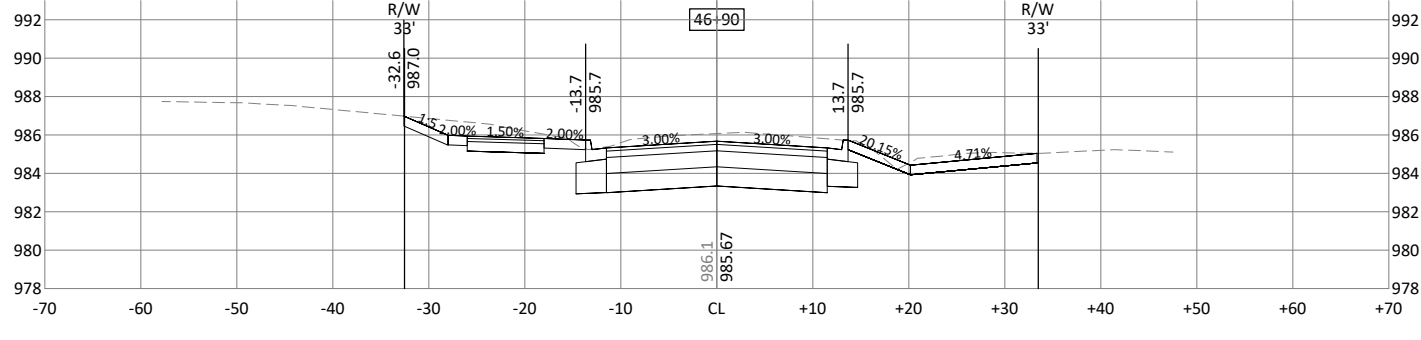
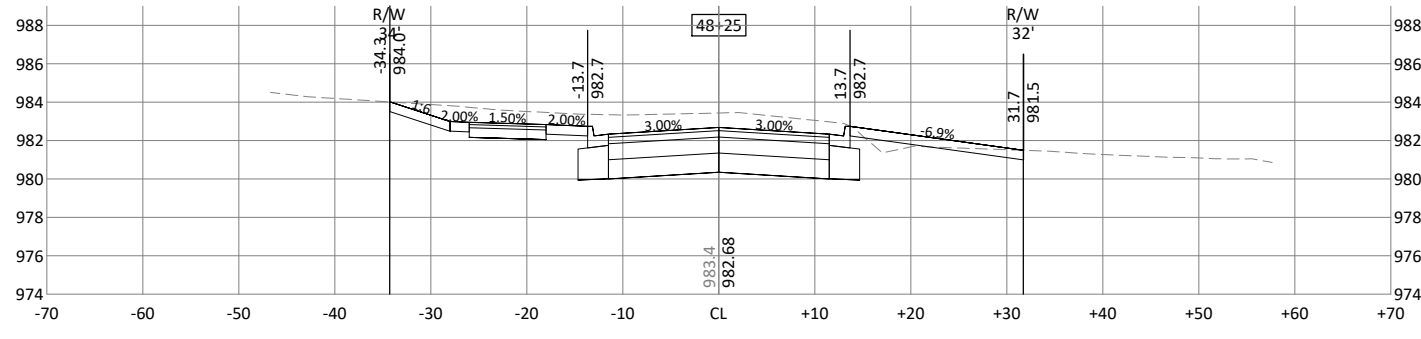
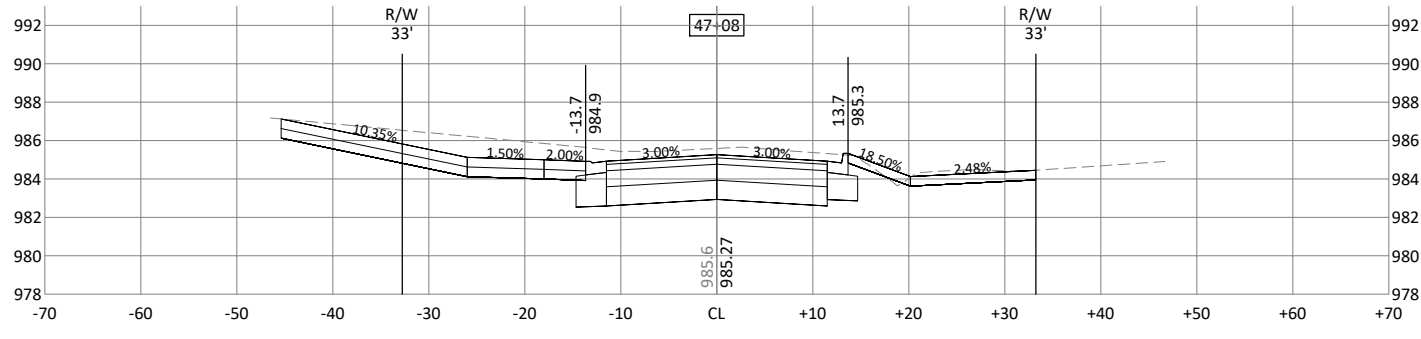
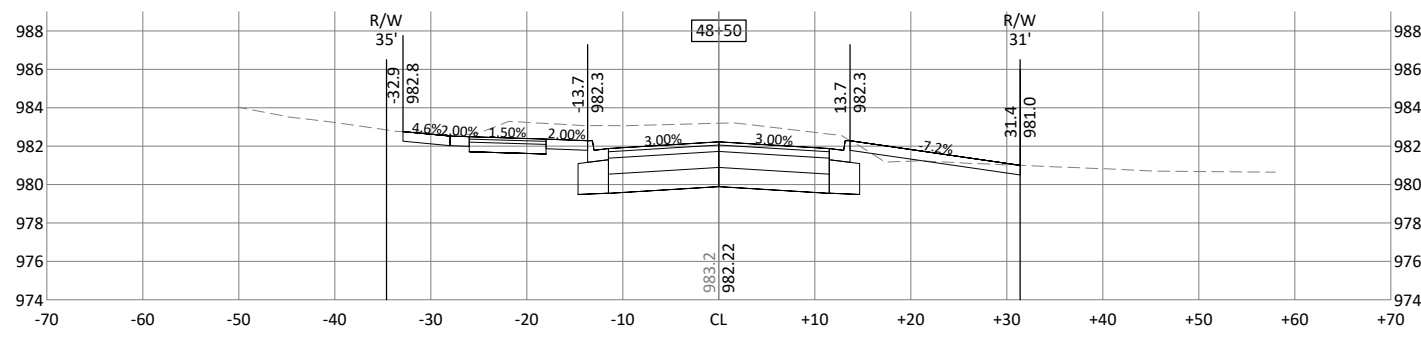
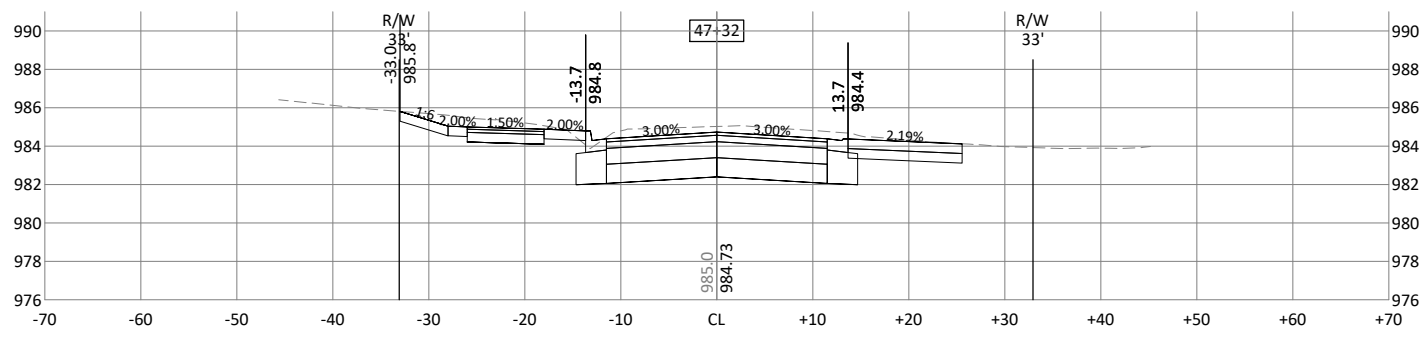
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.14



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\Projects\1224164\CAD\Business\1224164_C9.15.dwg, 11/29/2022 2:17:24 PM

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

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



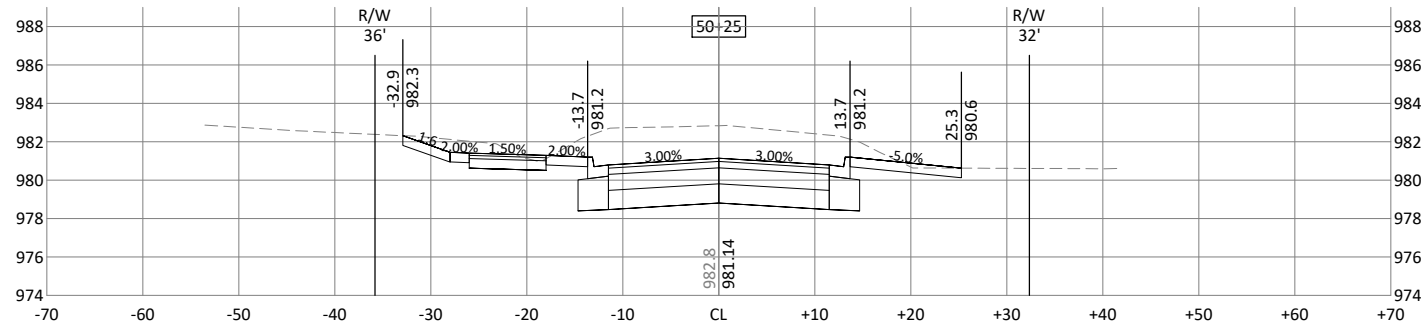
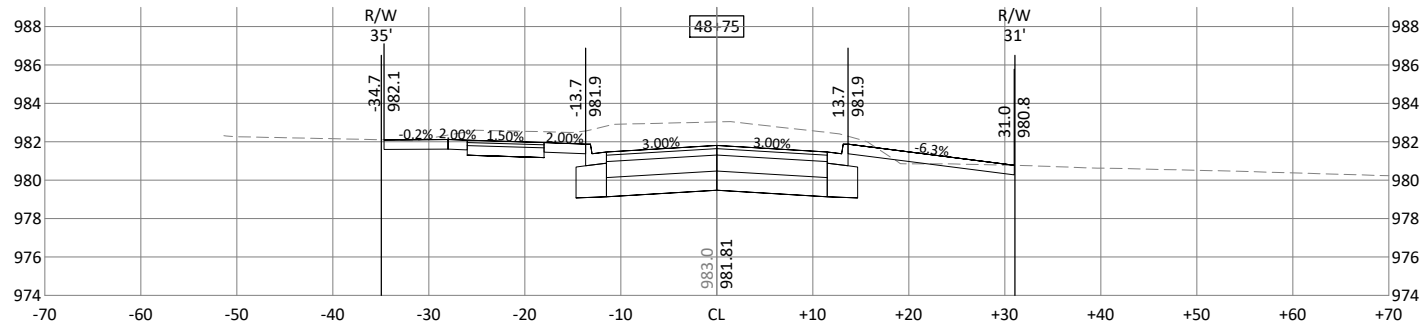
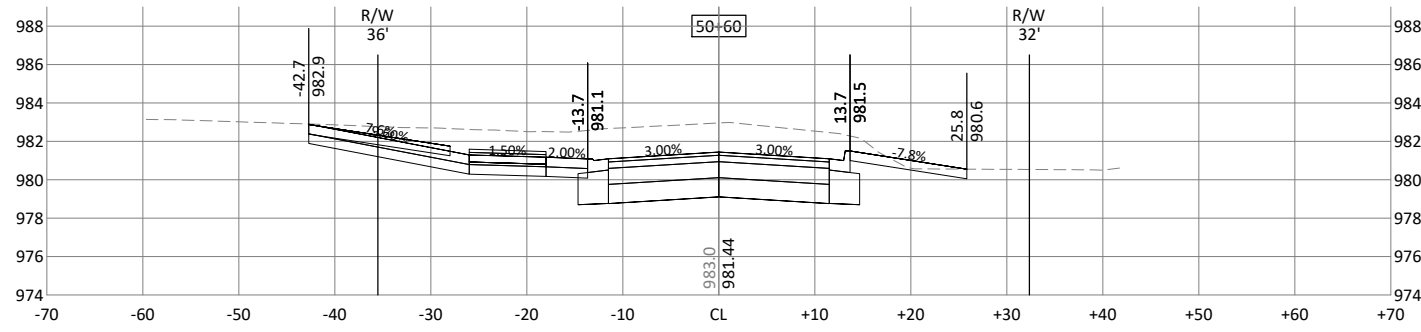
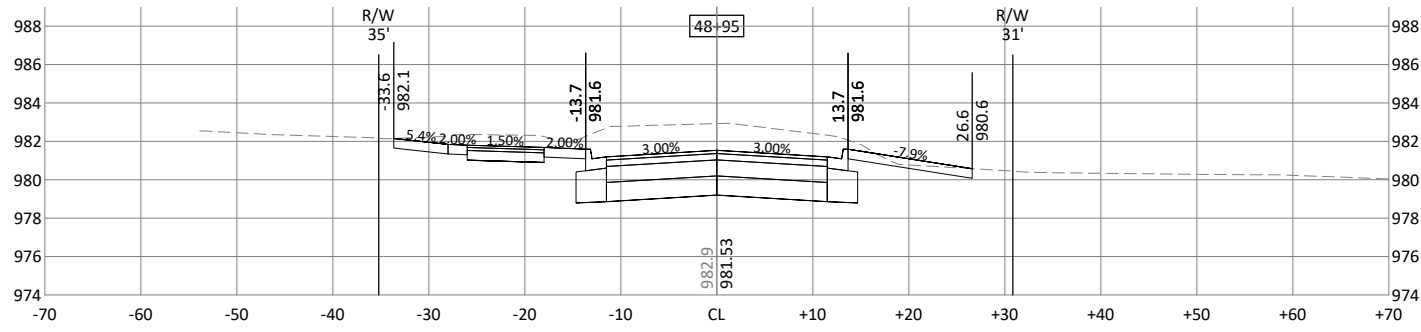
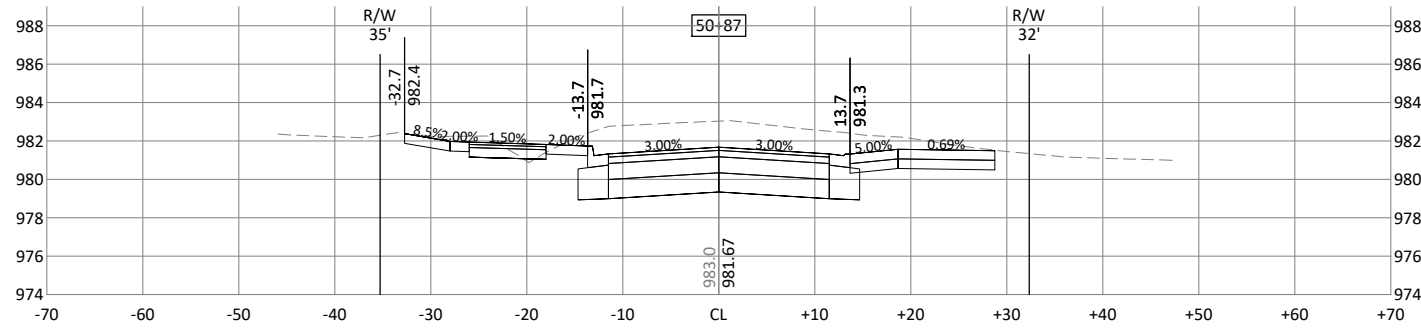
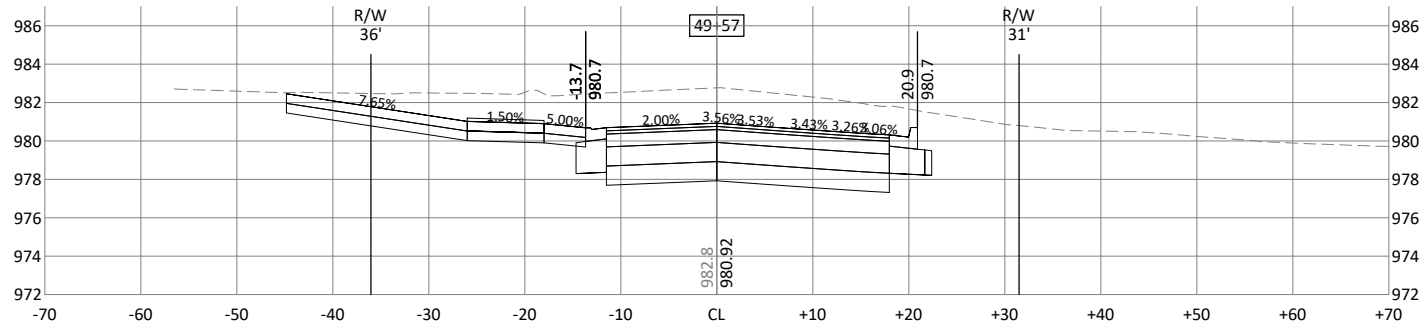
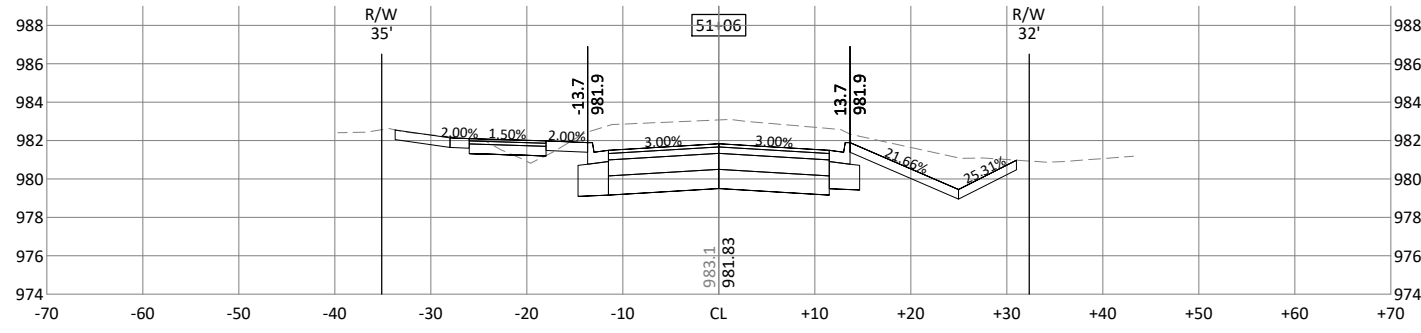
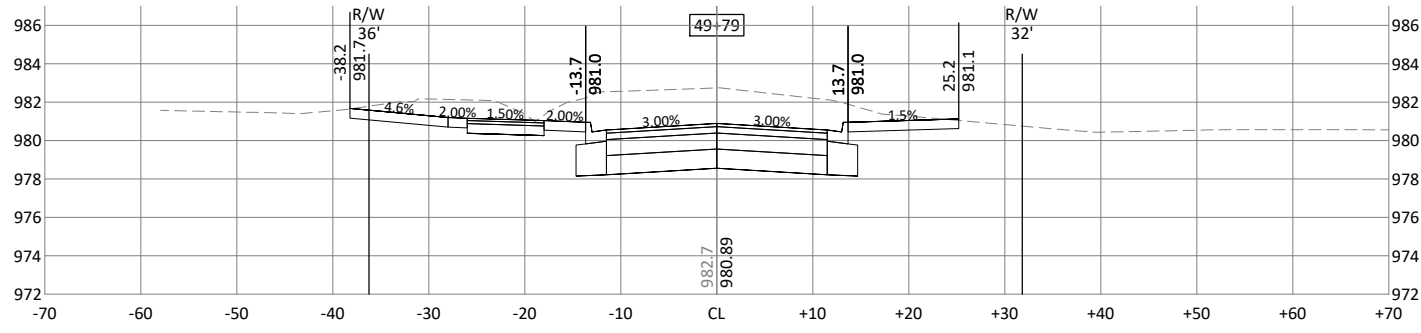
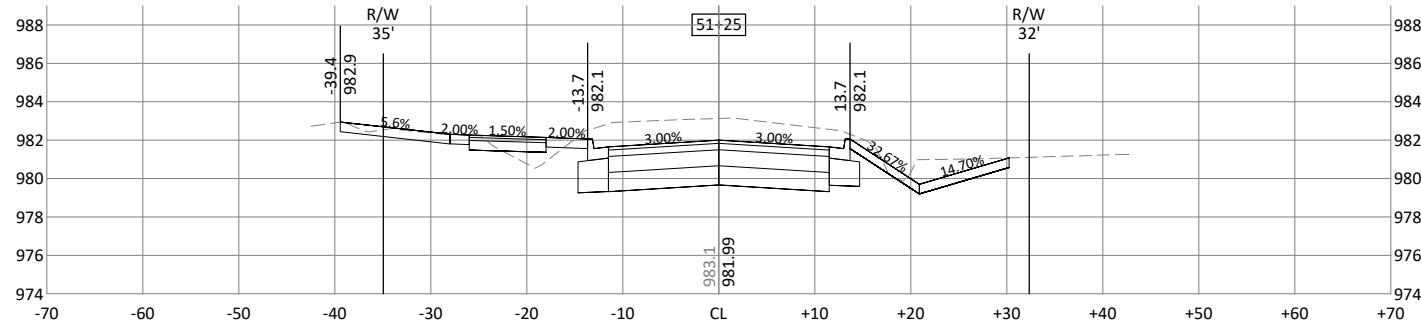
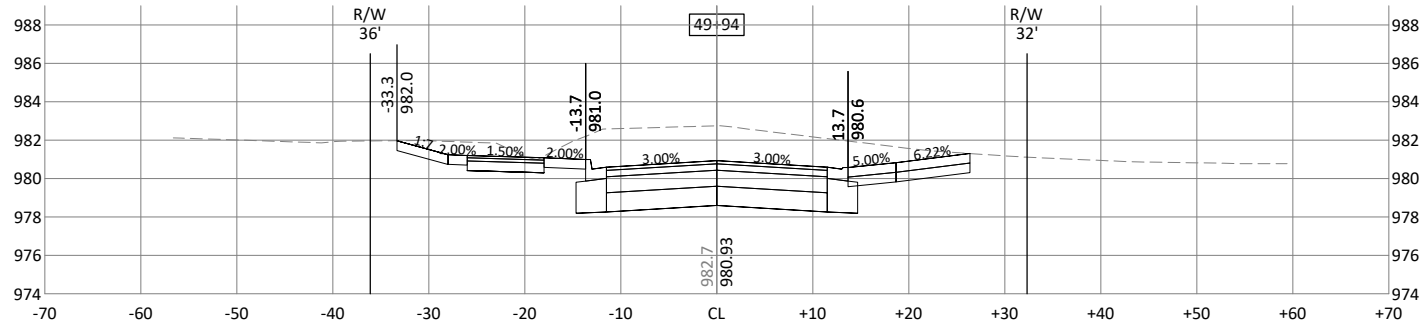
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.15



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\P\124164\CAD\Business\124164C801.dwg, 11/29/2022 2:17:50 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



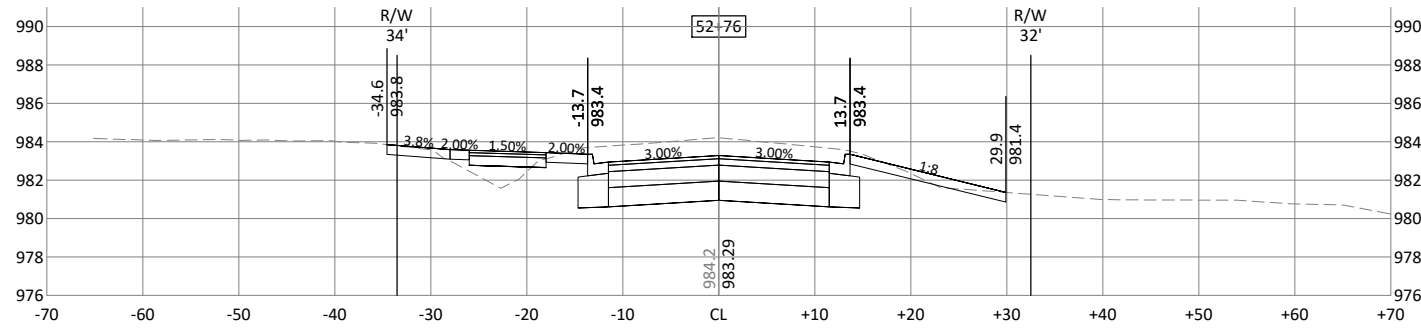
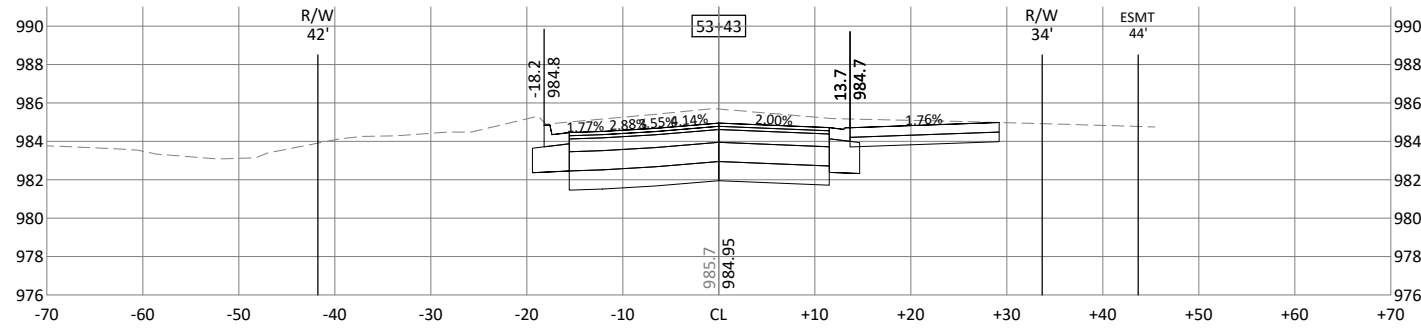
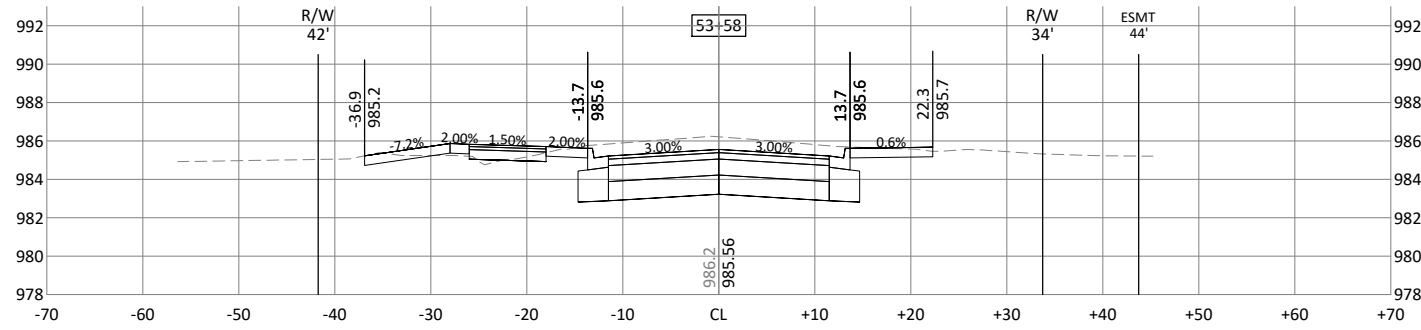
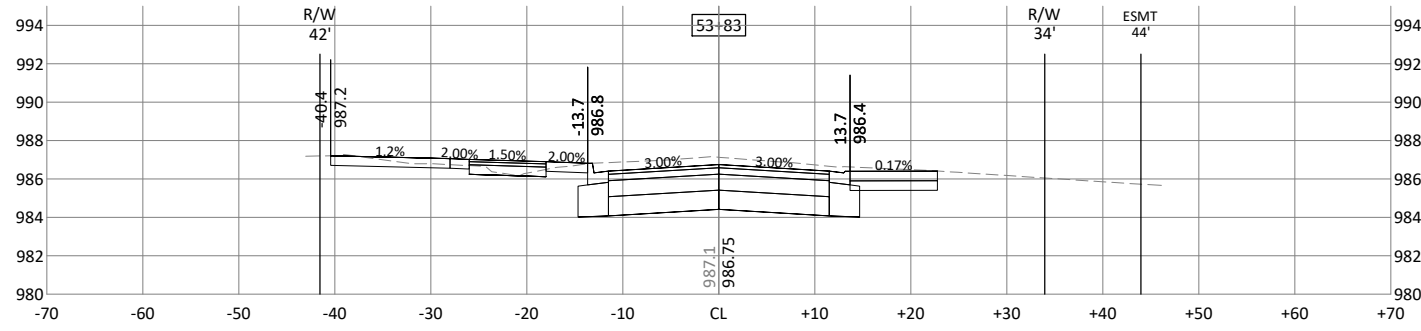
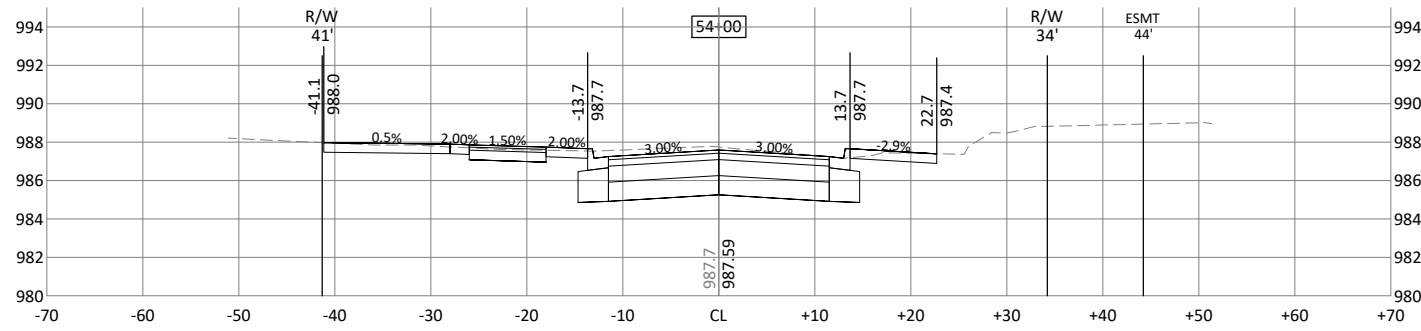
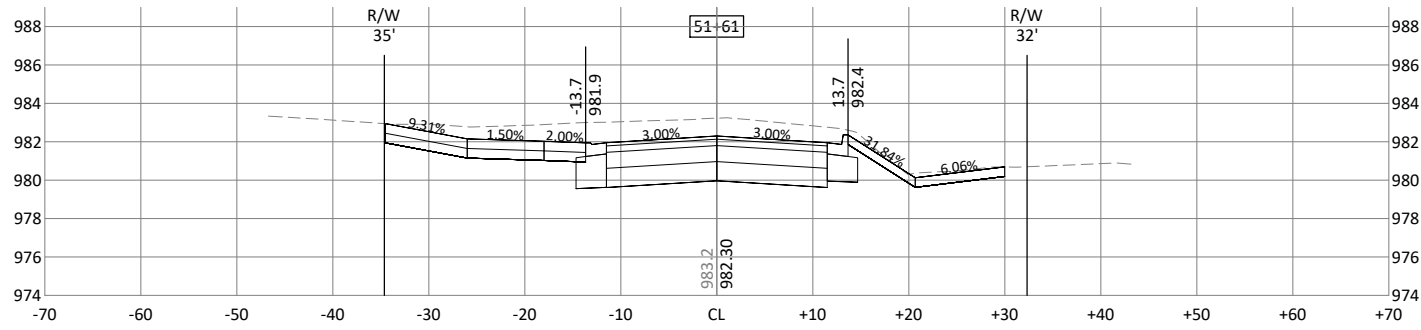
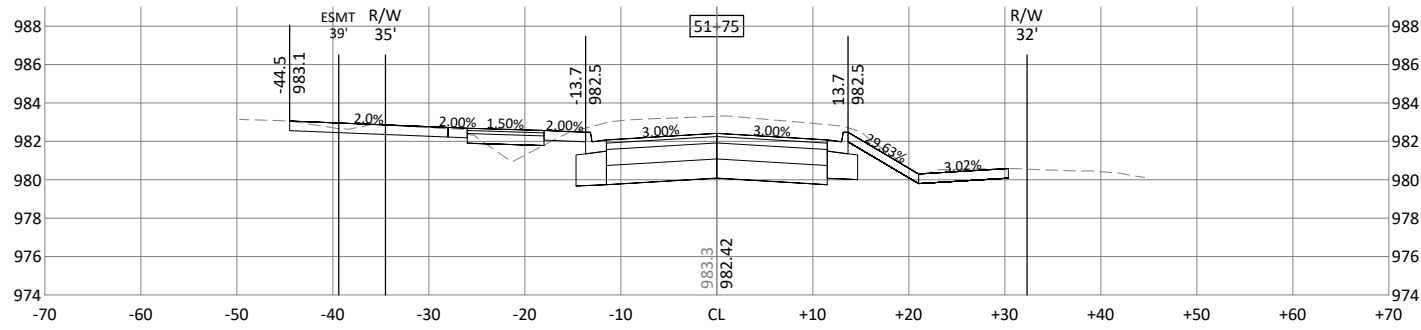
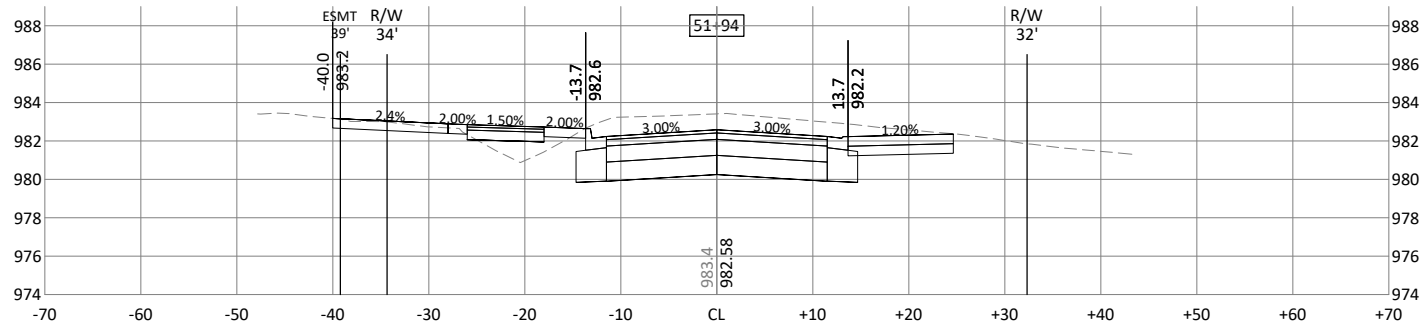
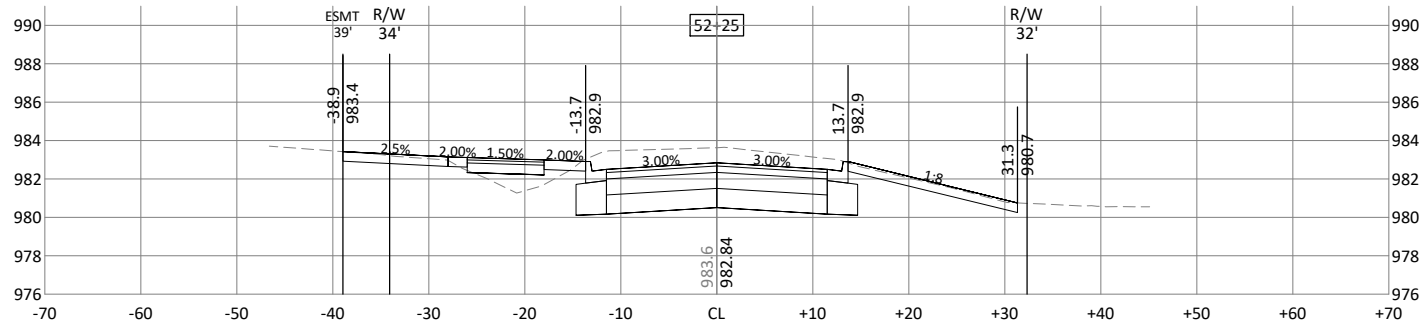
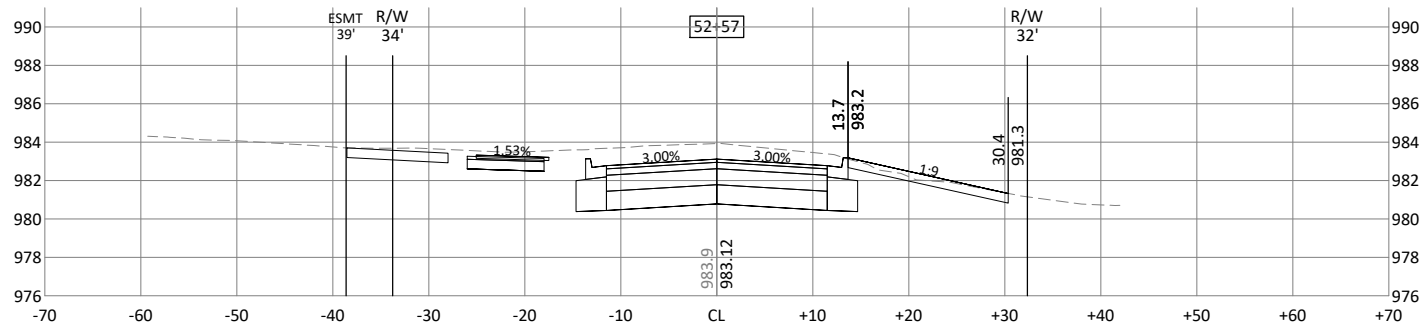
12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
 C9.16



© Bolton & Menk, Inc. 2022. All Rights Reserved. PLM\1124164\CAD\Business\124164C901.dwg, 11/29/2022 2:18:16 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



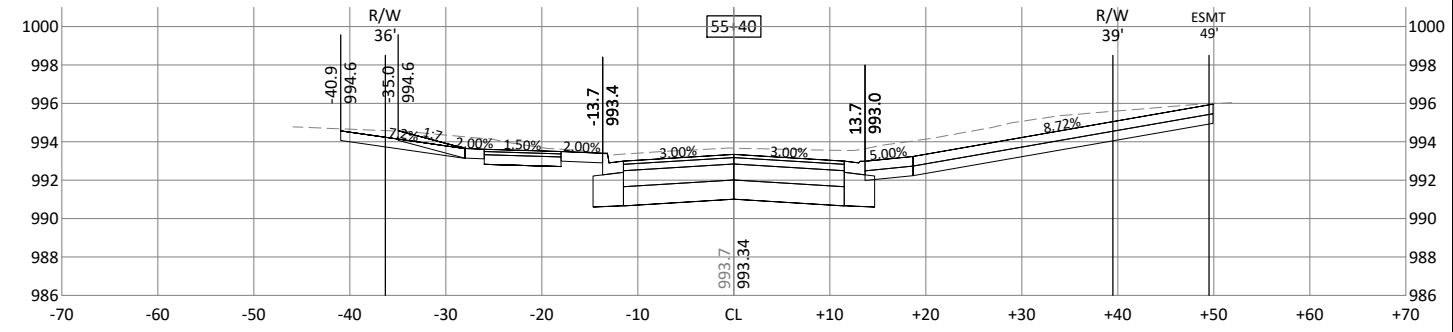
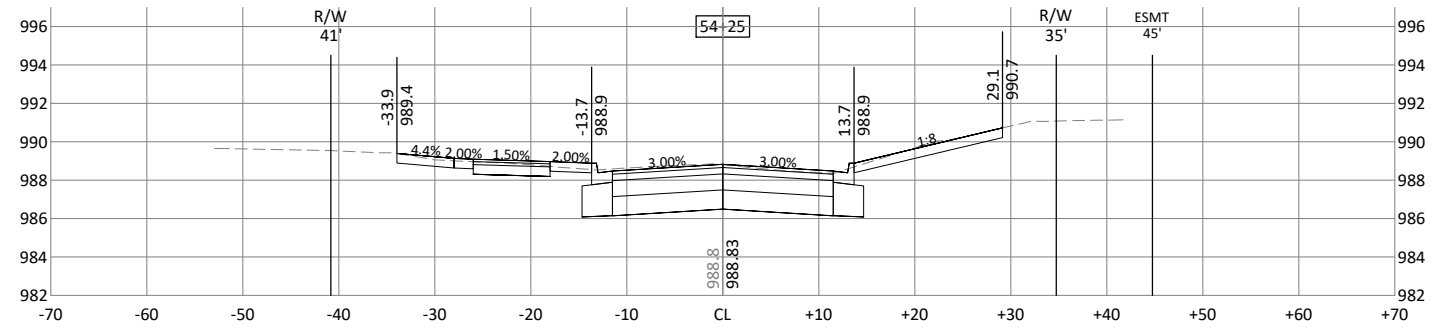
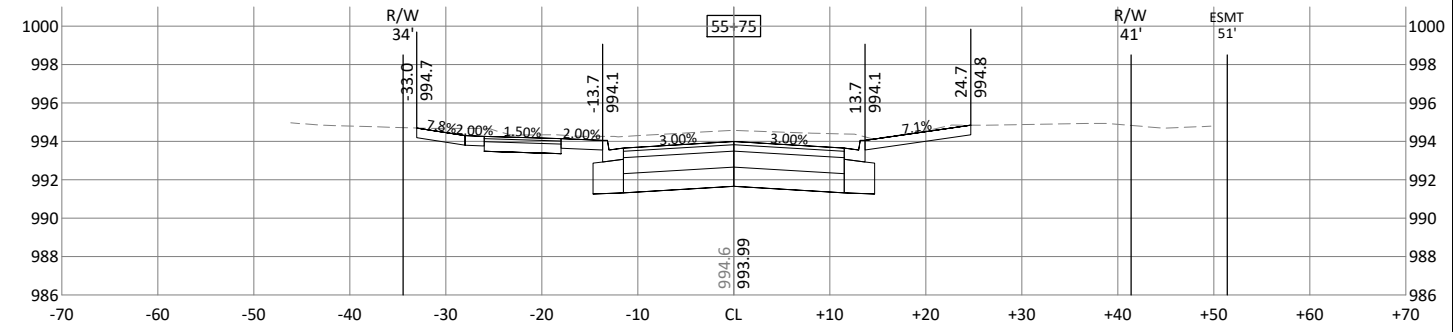
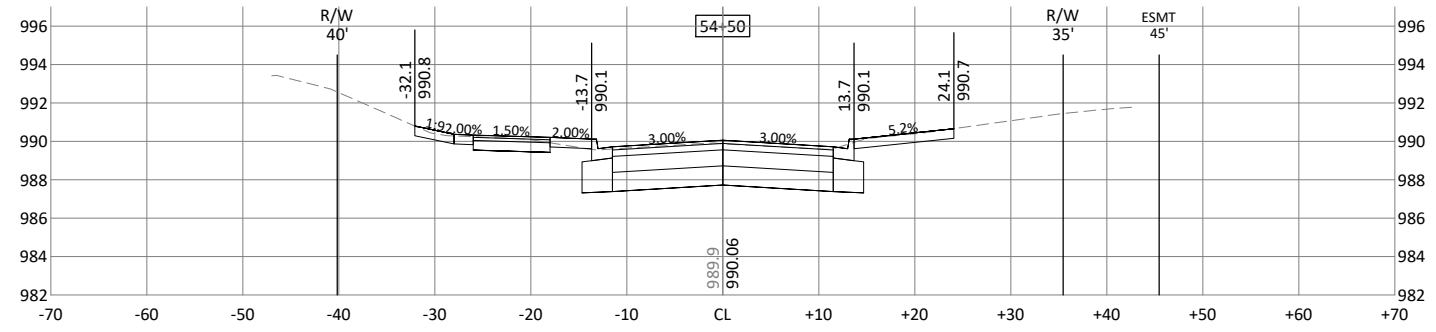
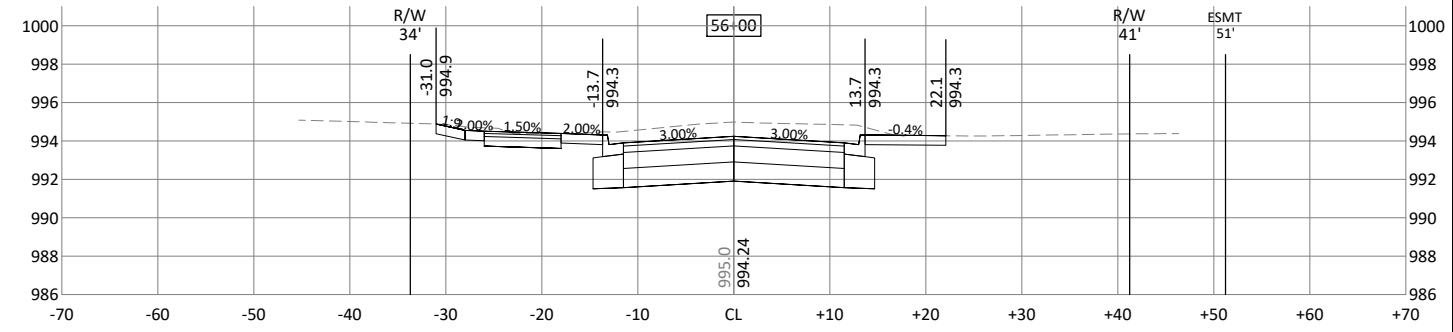
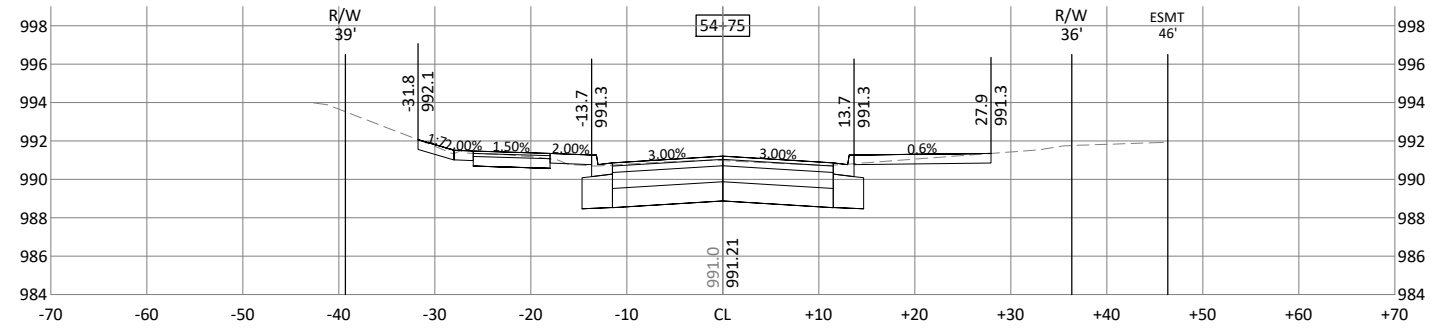
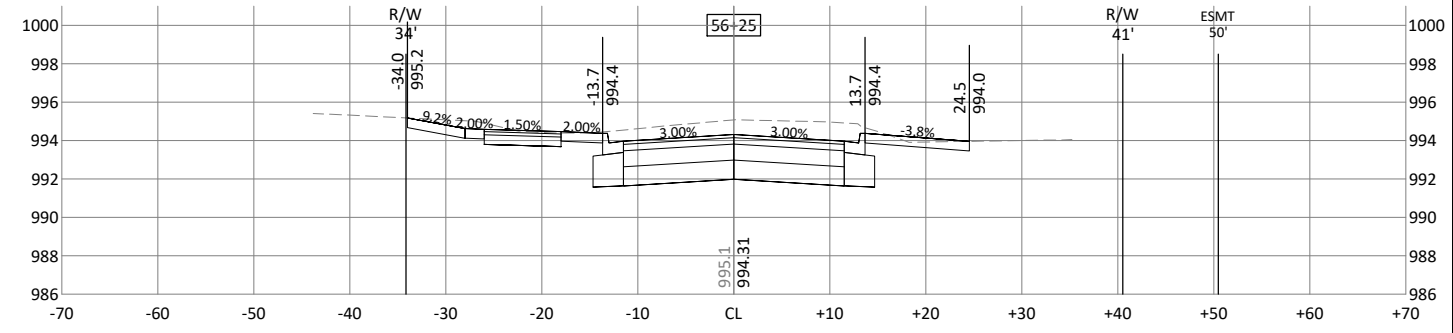
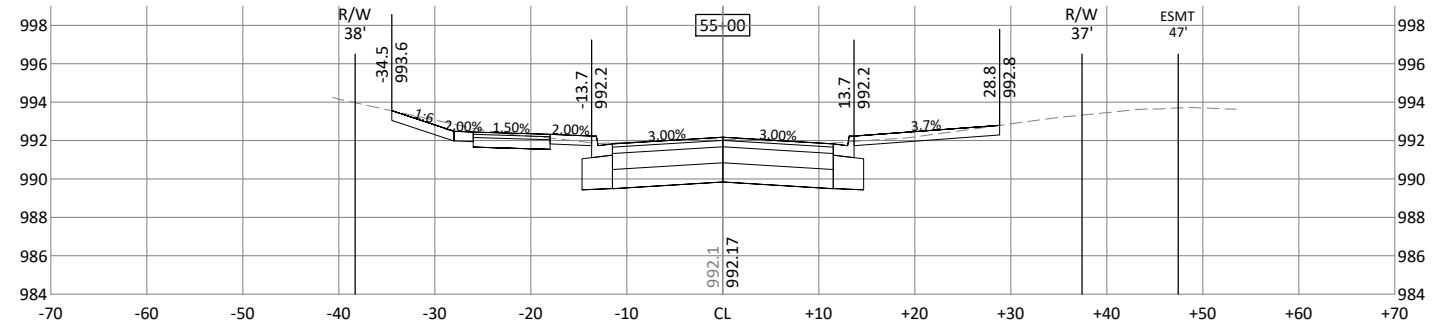
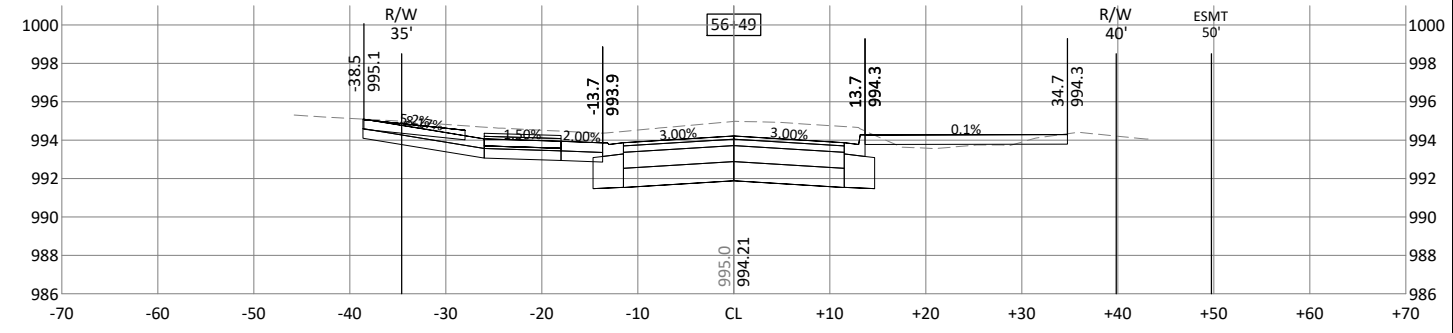
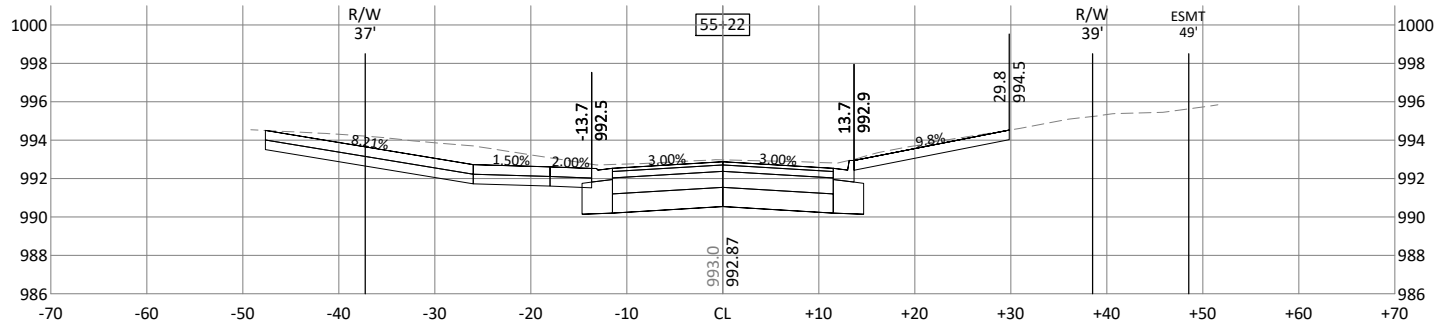
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	01.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.17



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\Projects\2022\112124\112124.dwg, 11/29/2022 2:18:41 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



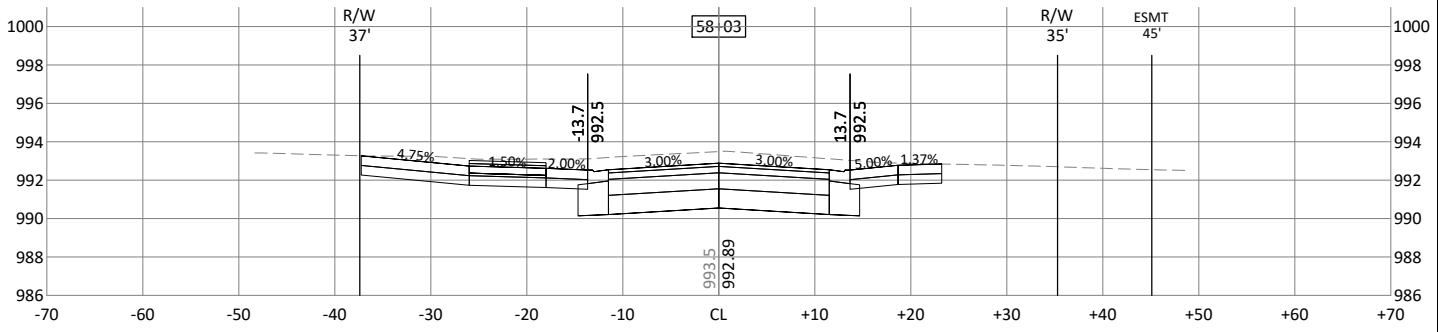
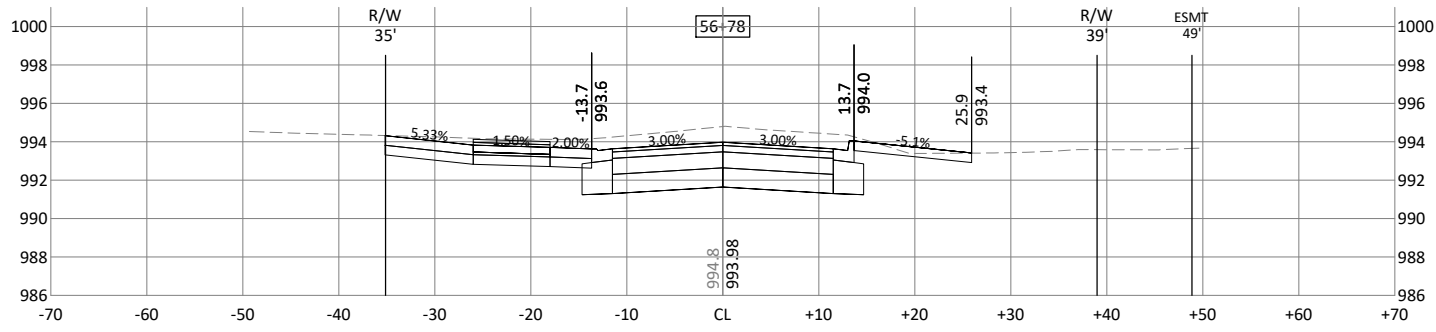
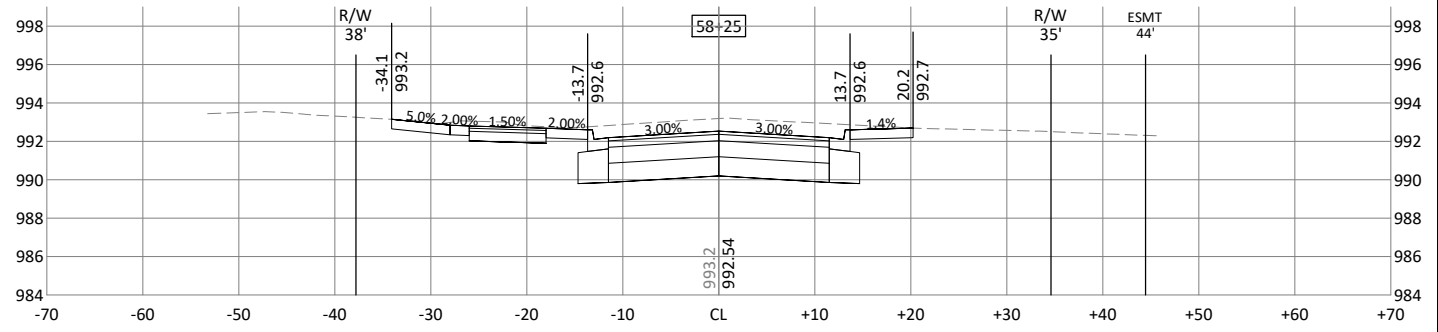
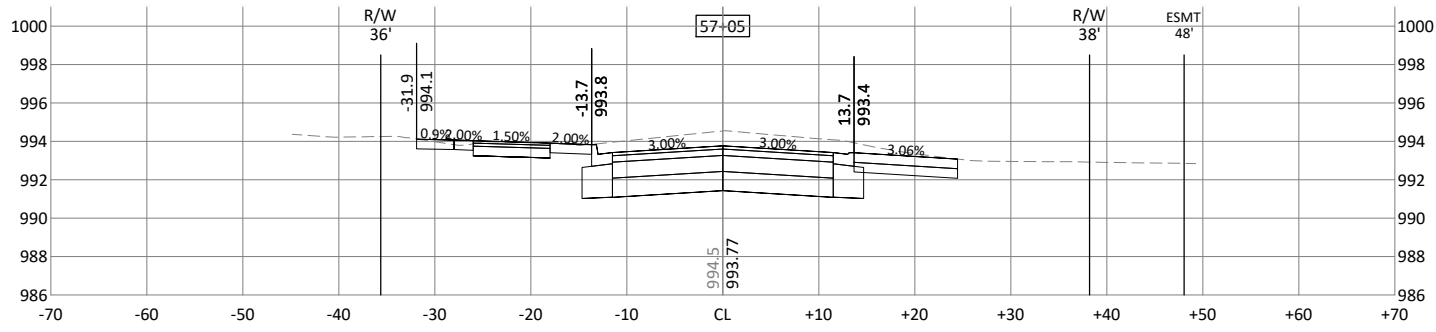
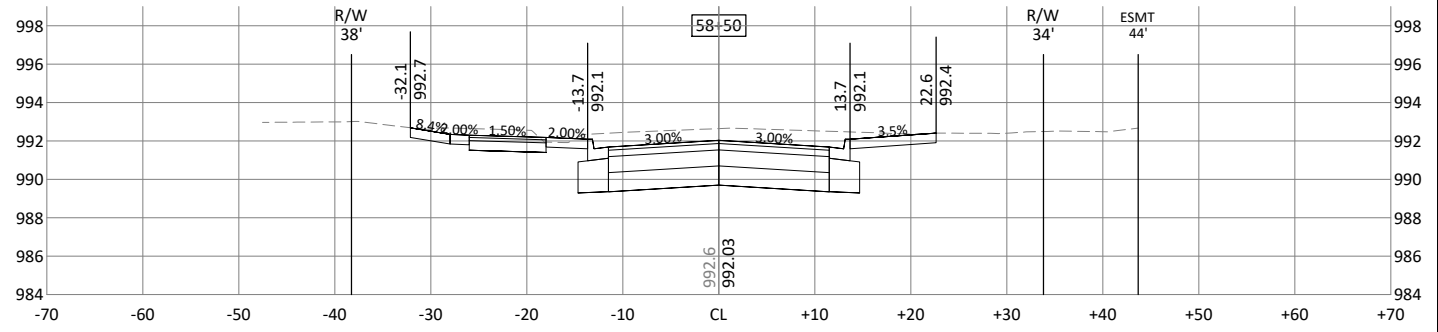
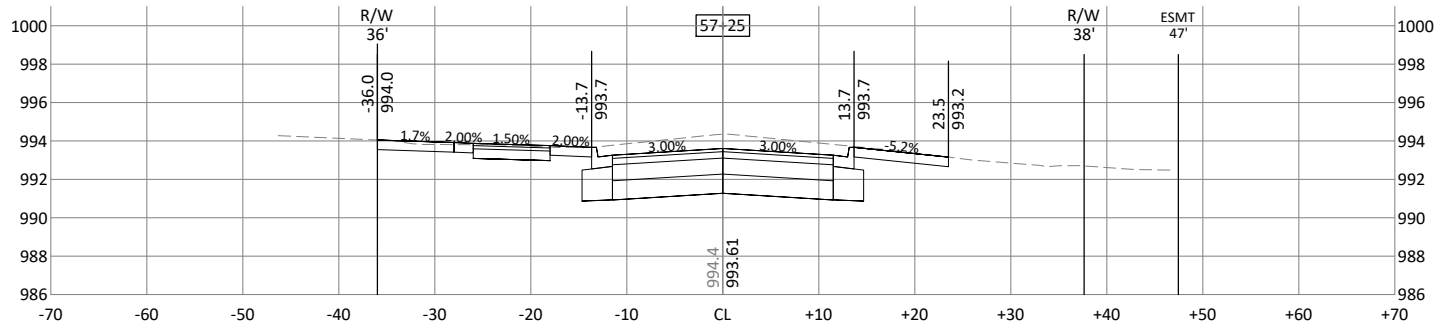
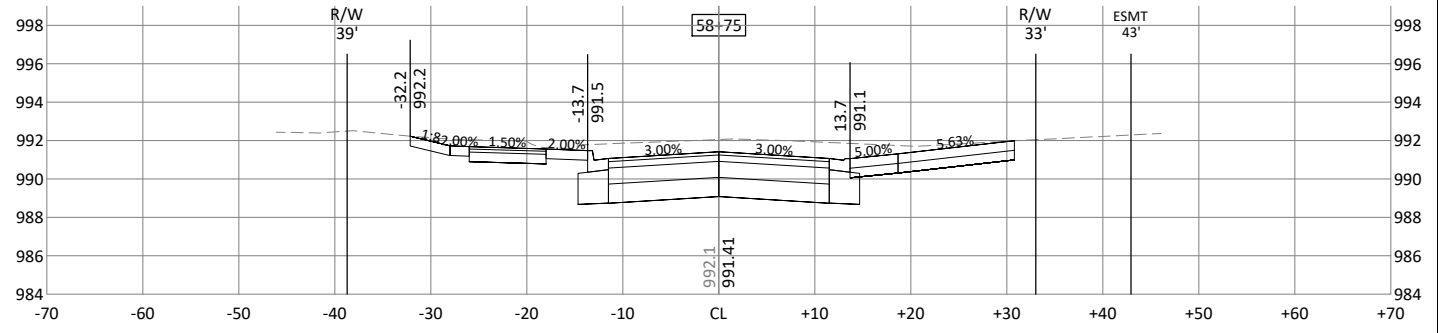
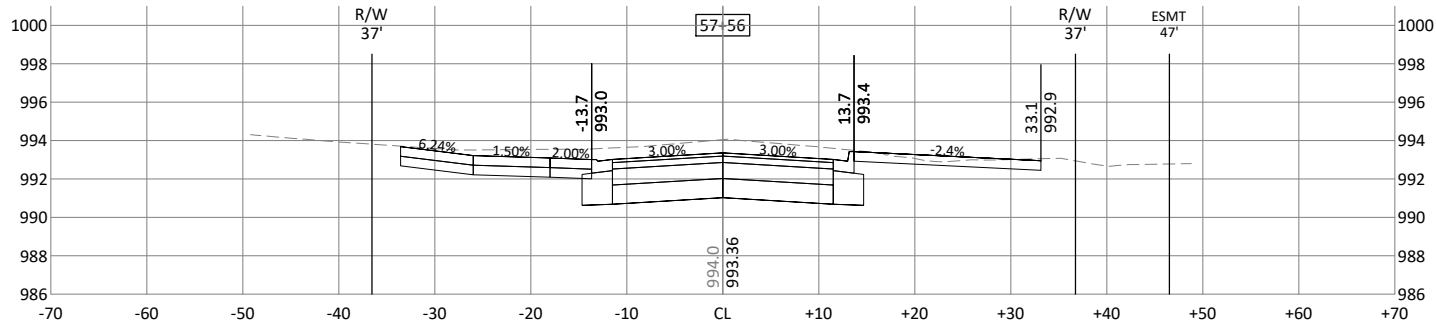
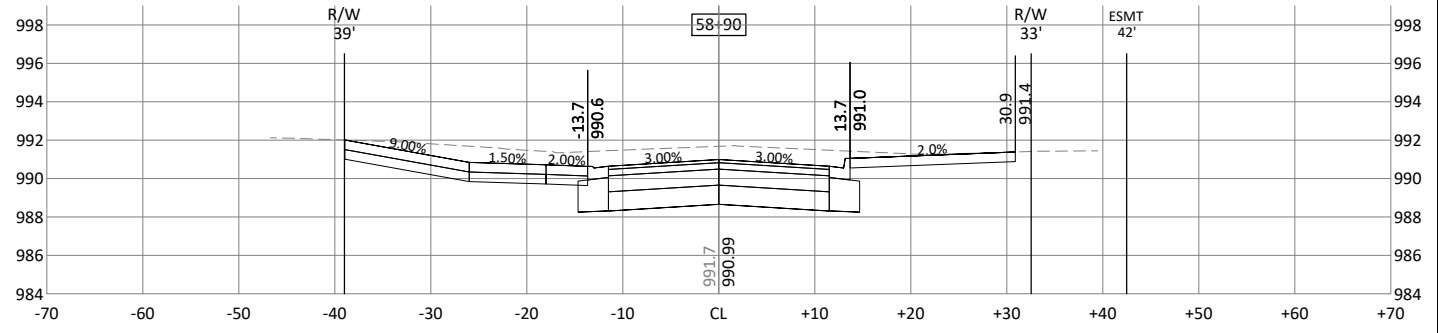
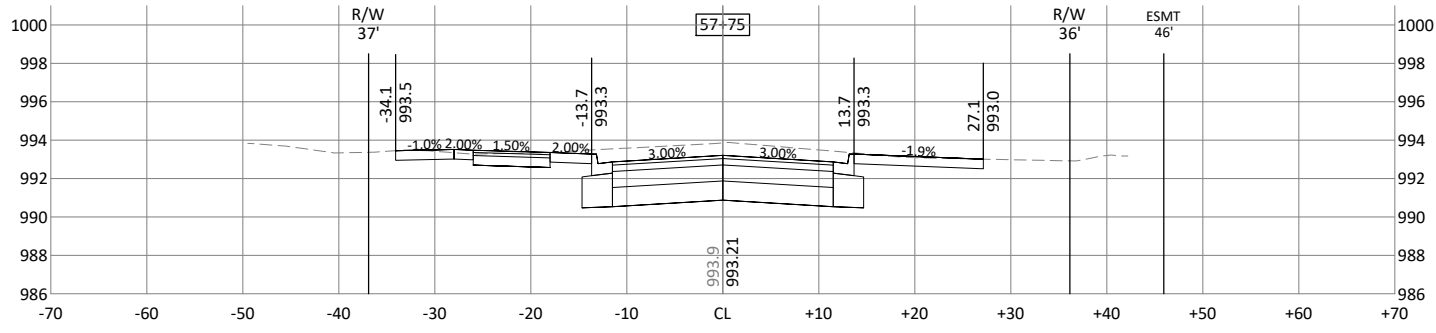
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

SHEET
C9.18



© Bolton & Menk, Inc. 2022. All Rights Reserved. P:\P\11214164\CAD\BOLMEN\1214164-01.dwg, 11/29/2022 2:19:06 PM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



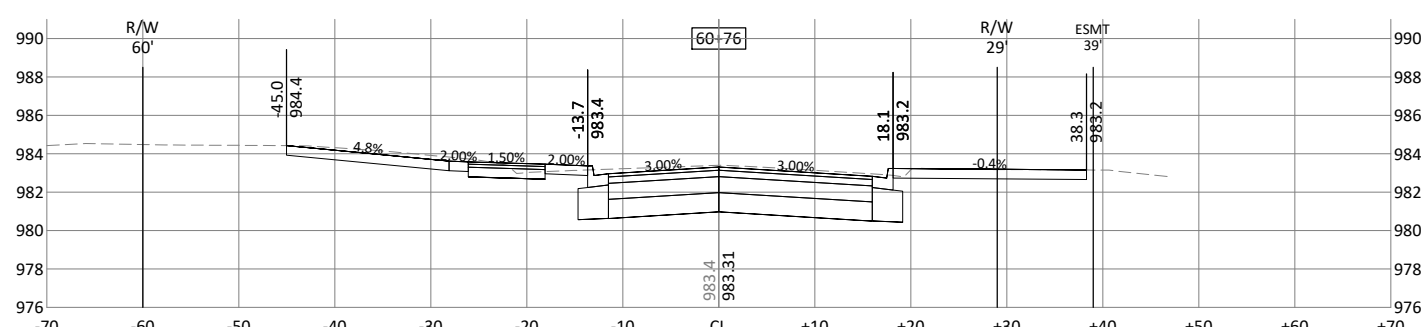
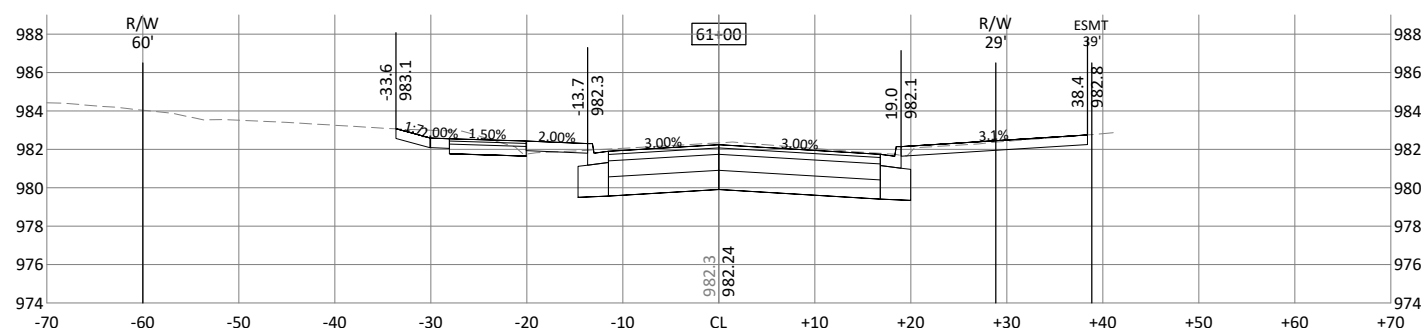
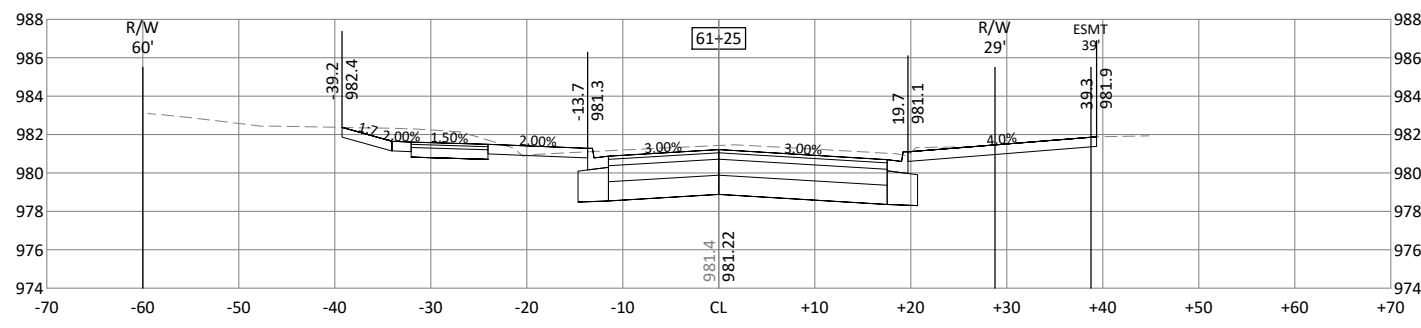
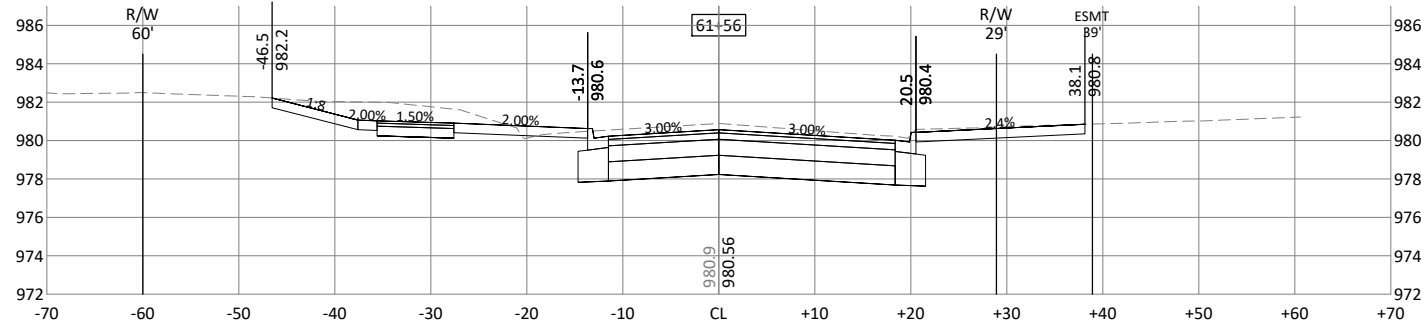
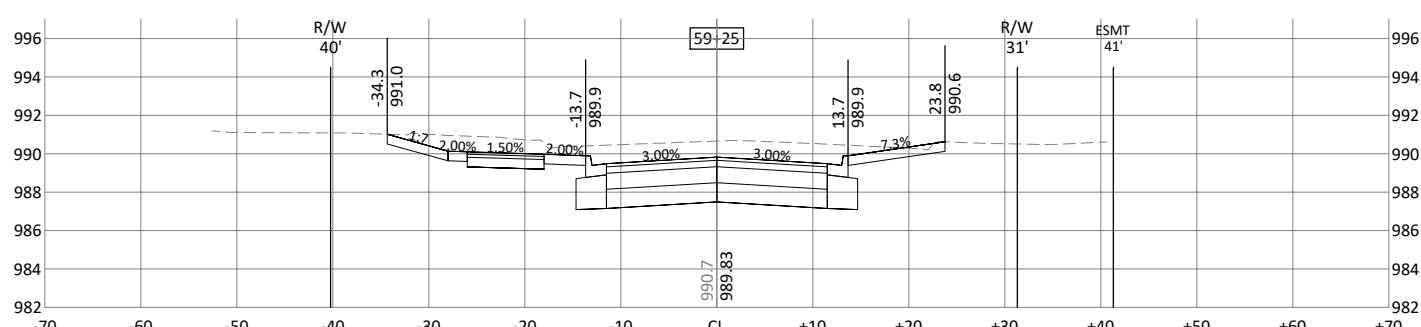
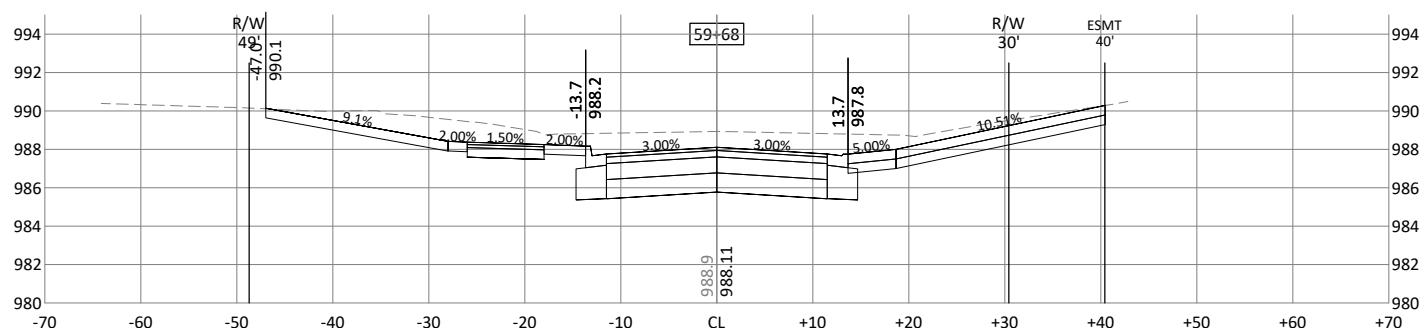
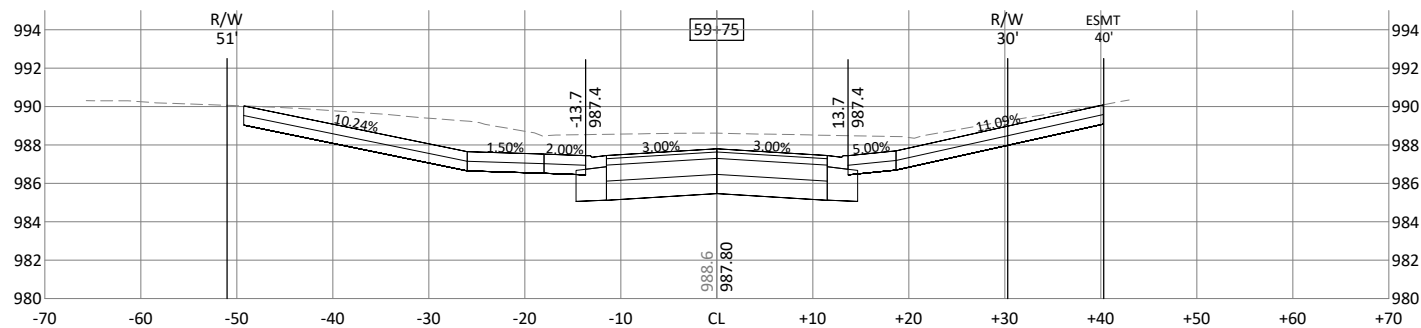
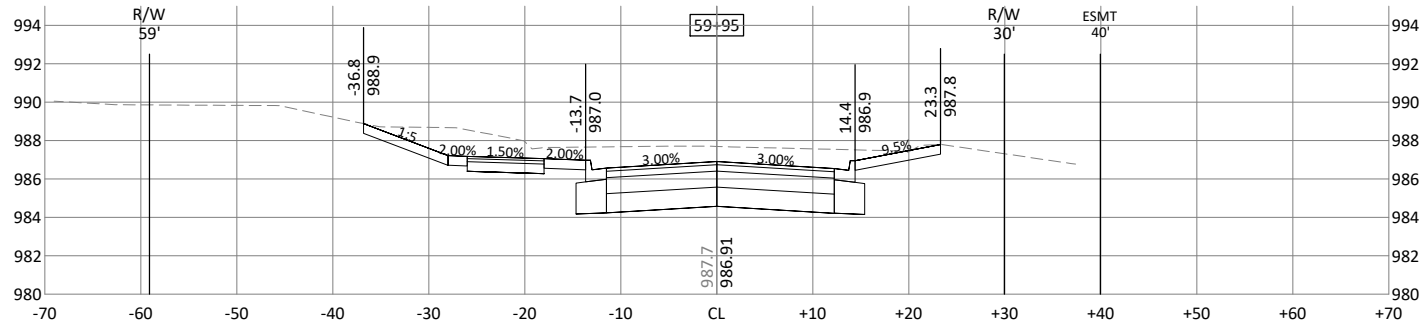
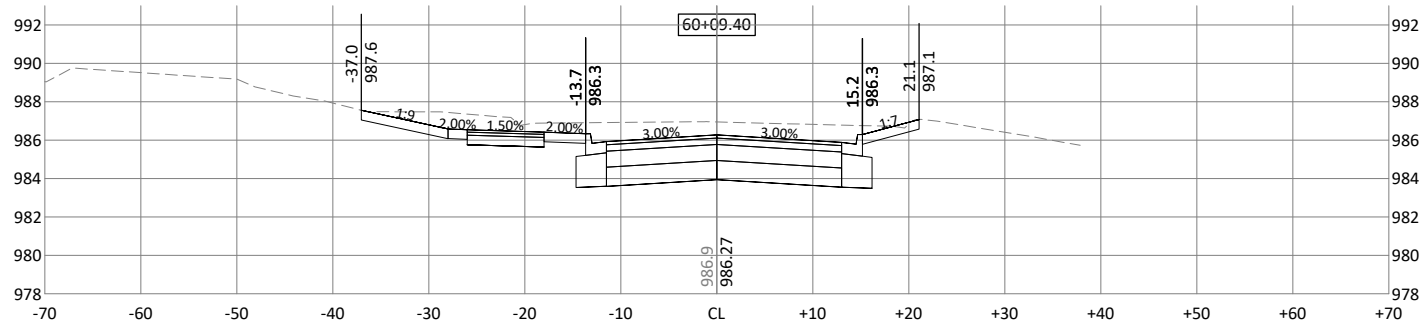
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
01.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
GLEASON LAKE DRIVE

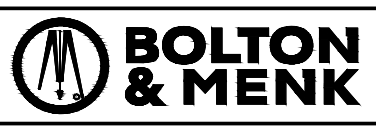
SHEET
C9.19



© Bolton & Menk, Inc. 2022. All Rights Reserved. 11/29/2022 2:19:31 PM

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

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com

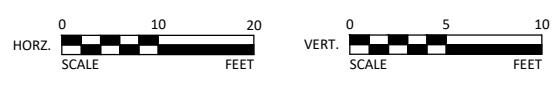
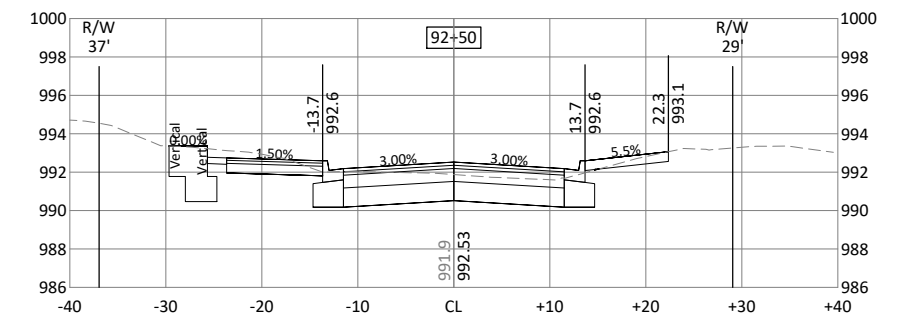
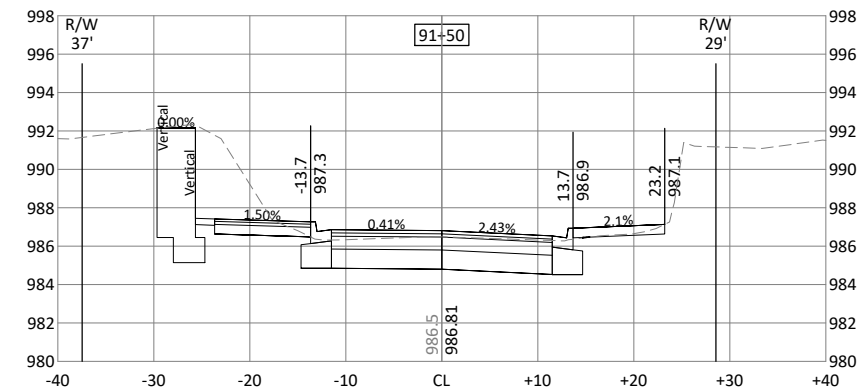
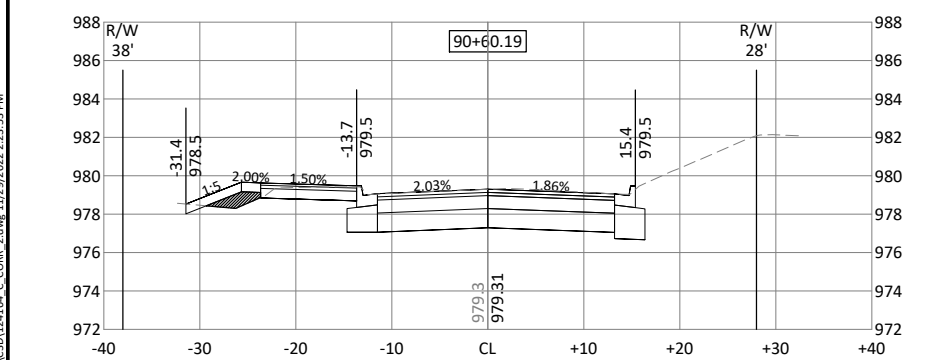
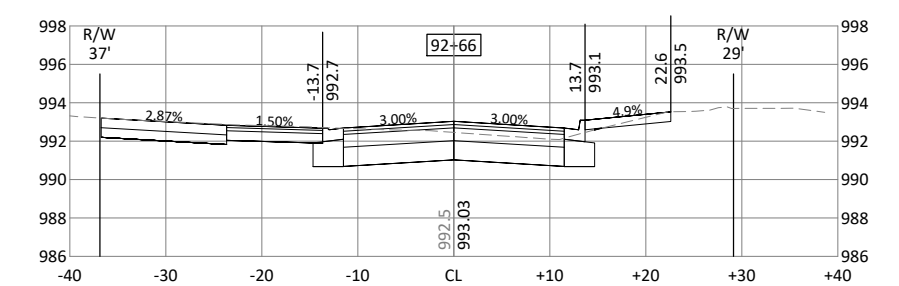
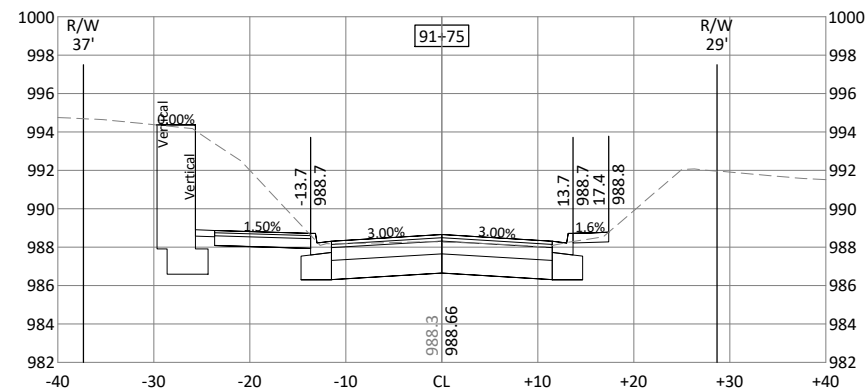
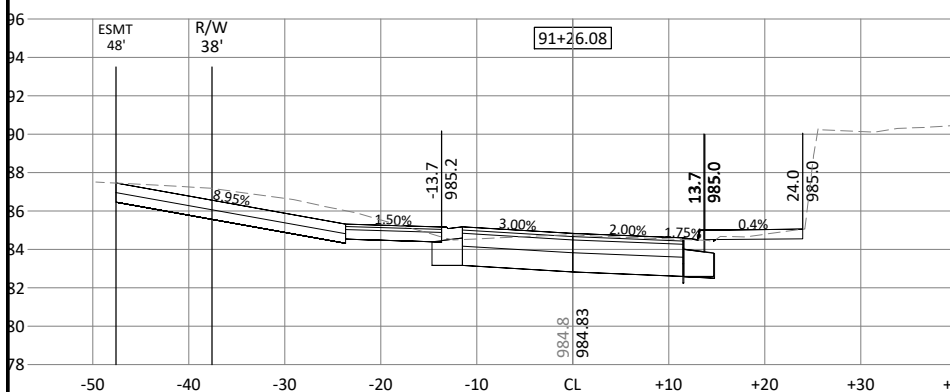
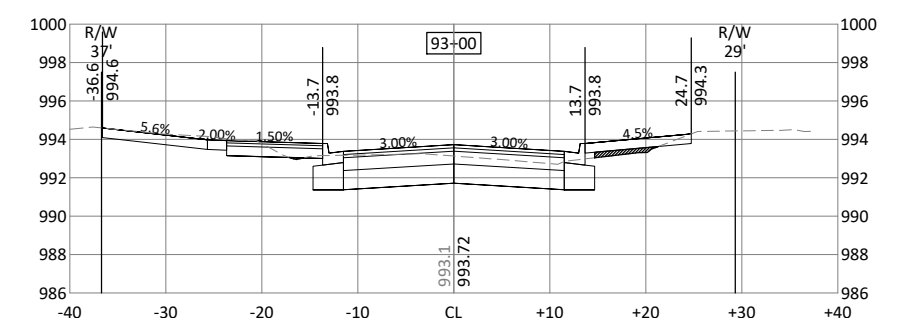
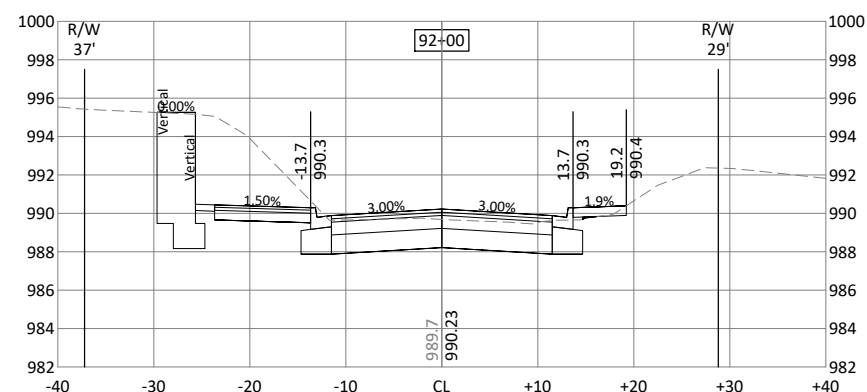
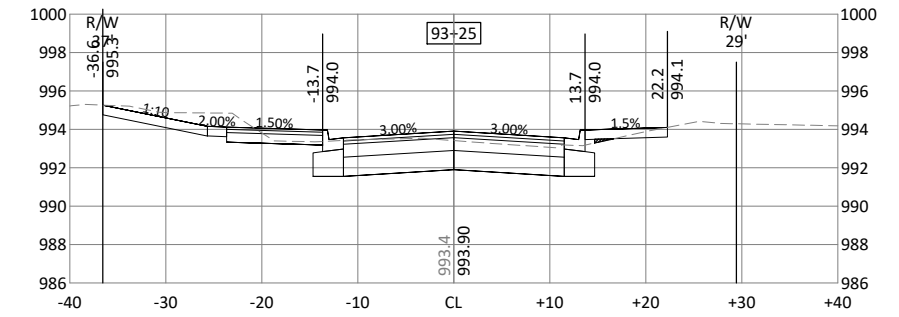
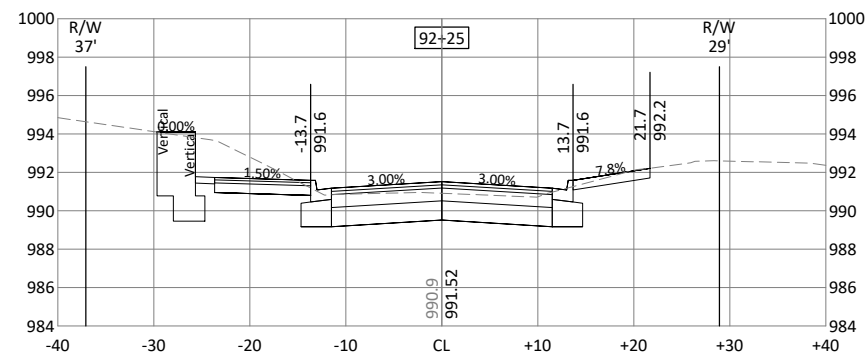
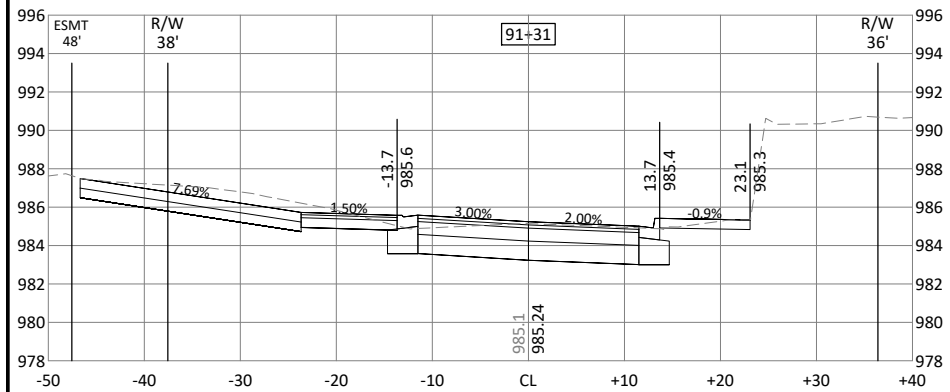


DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
CHECKED			
CLIENT PROJ. NO.			

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 CROSS SECTIONS
 GLEASON LAKE DRIVE

SHEET
C9.20

© Bolton & Menk, Inc. 2022. All Rights Reserved. PL:\P\1124164\CAD\CROSS\124164_C_CROSS_2.dwg 11/29/2022 2:23:53 PM



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE XX/XX/2022



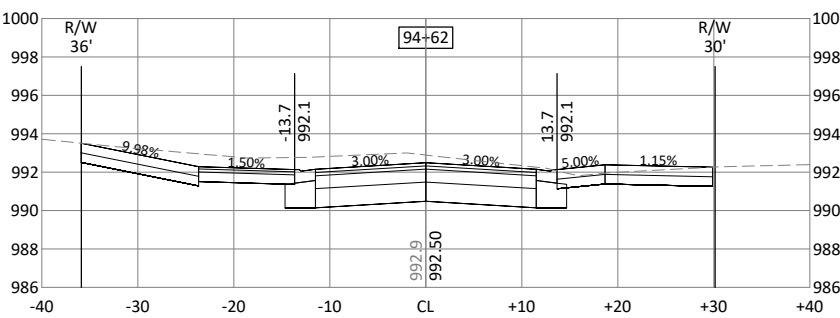
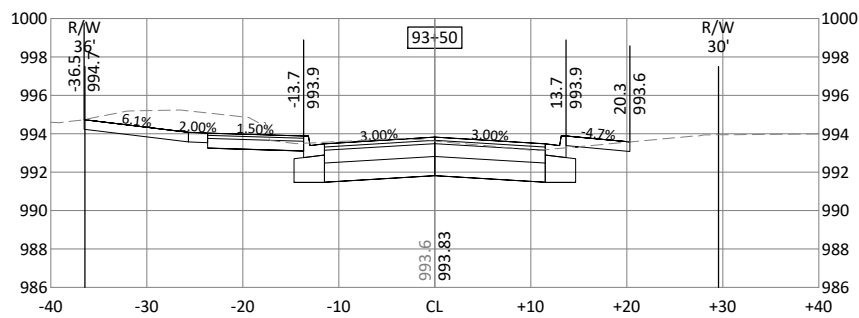
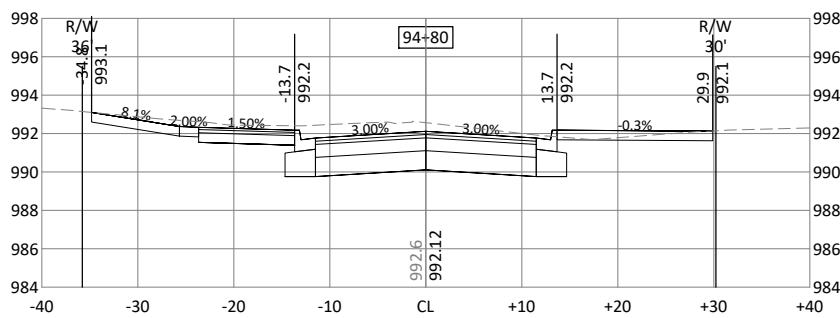
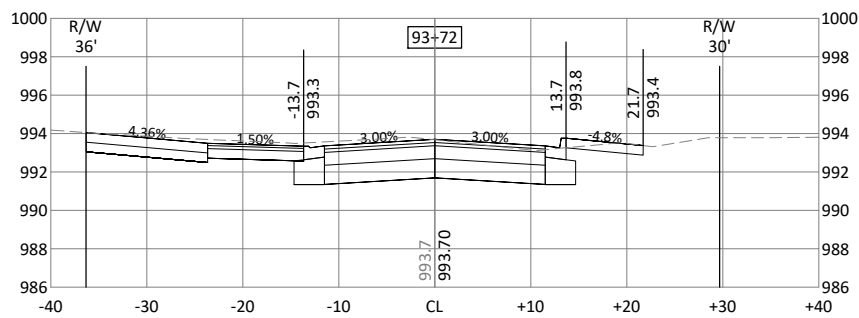
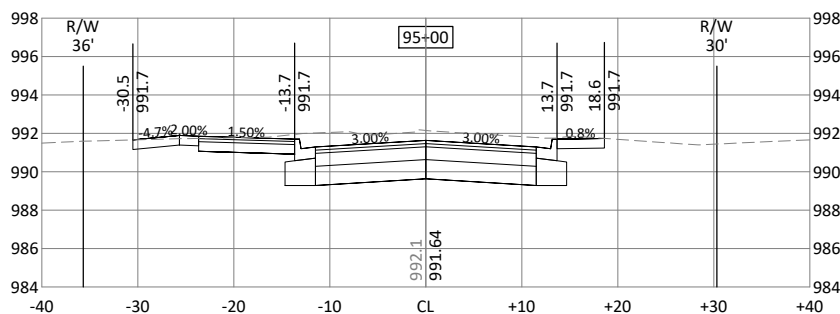
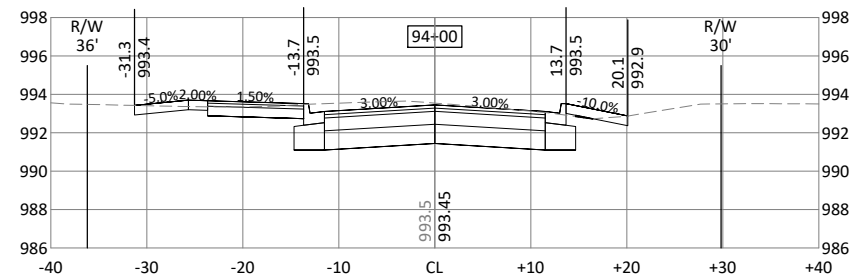
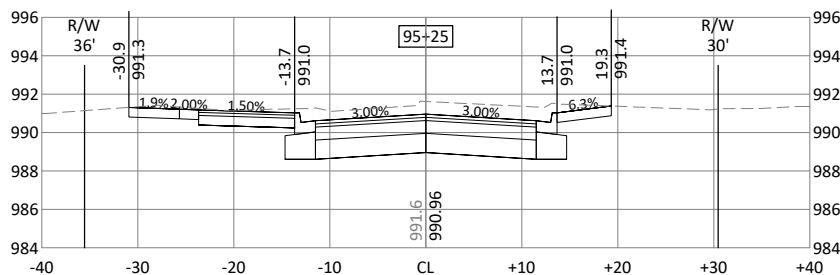
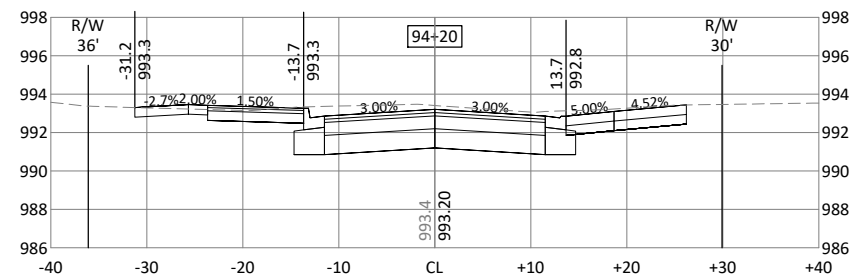
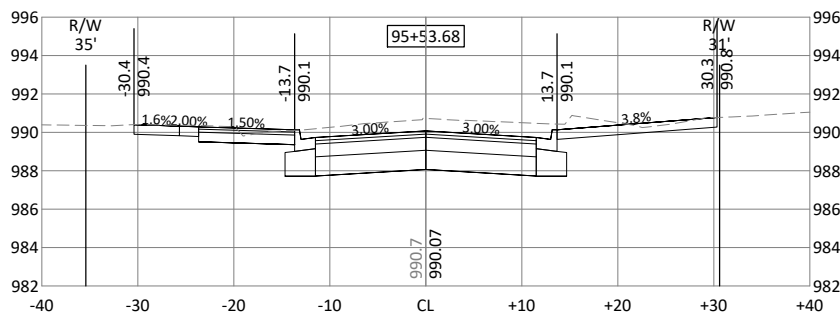
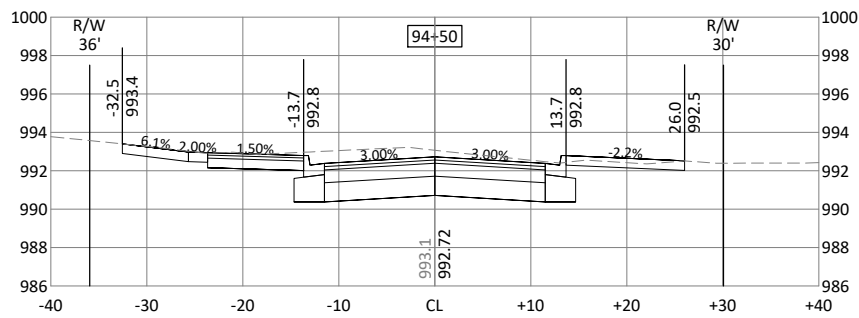
12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com



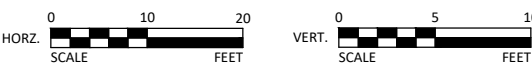
DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.			
0T.124164			

CITY OF PLYMOUTH, MINNESOTA
GLEASON LAKE DRIVE IMPROVEMENTS
CROSS SECTIONS
NIAGARA LANE

SHEET
C9.29



© Bolton & Menk, Inc. 2022. All Rights Reserved. PL:\P\112124164\CAD\124164_C CORR_2.dwg 11/29/2022 2:24:03 PM



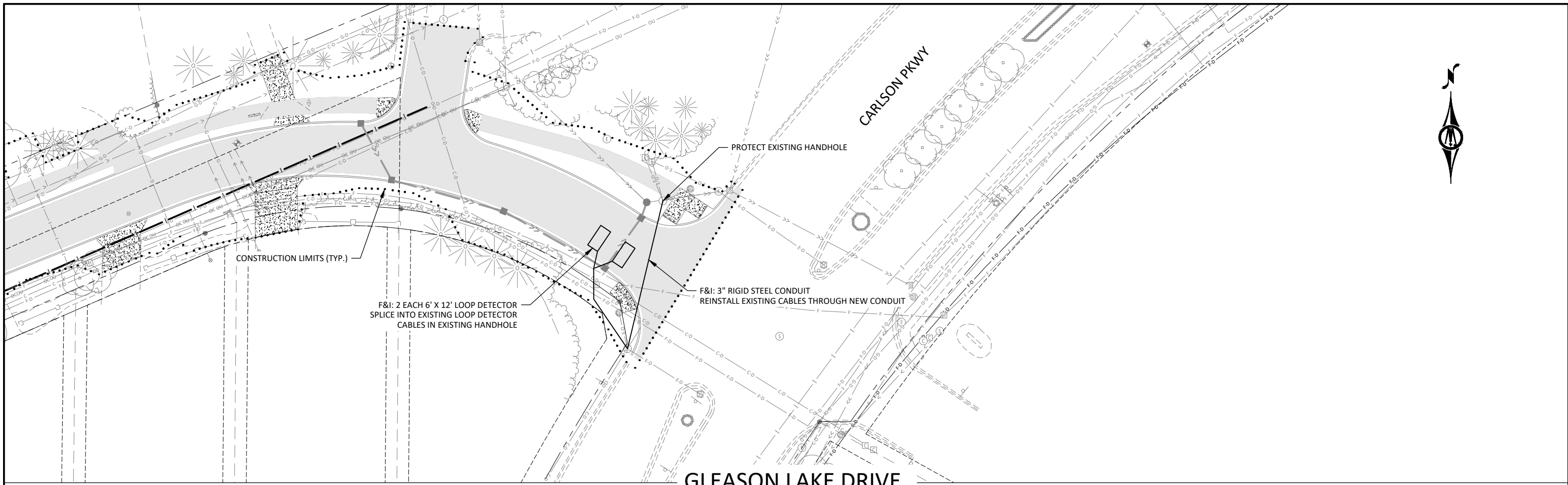
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN			
XXX			
CHECKED			
XXX			
CLIENT PROJ. NO.	01.124164		



GLEASON LAKE DRIVE

© Bolton & Menk, Inc. 2022. All Rights Reserved.
 A:\Projects\071124164\CAD\CD\Business\124164E101.dwg, 11/29/2022 2:24:51 PM



I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.

NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com



DESIGNED	NO.	ISSUED FOR	DATE
XXX			
DRAWN	XXX		
CHECKED	XXX		
CLIENT PROJ. NO.	07.124164		

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 ELECTRICAL
 SIGNAL LOOP REPLACEMENTS

SHEET
 E1.01

SIGNAL INDICATION CHART						
ALL SIGNAL INDICATIONS SHALL BE 12" L.E.D.						
SIGNAL FACE	R	Y	G	RLTA	YLTA	GLTA
1-1,1-2				←	←	←
2-1,2-2,2-3	●	●	●			
4-1,4-2,4-3	●	●	●			
5-1,5-2				←	←	←
6-1,6-2,6-3	●	●	●			
8-1,8-2,8-3	●	●	●			

(A) CONTROLLER CABINET FOUNDATION
 CONTROLLER AND CABINET
 EXTEND 4" NMC INTO HH-1 WITH:
 4-12/C #12, 5-3/C #12
 3-3/C #20, 4-2/C #14 AND 1-1/C #6 INS. GR.
 EXTEND 4" NMC INTO HH-2 WITH:
 4-12/C #12, 5-3/C #12, 1-3/C #20,
 8-2/C #14 AND 1-1/C #6 INS. GR.
 1-3" NMC STUB OUT OF CABINET
 (THREAD AND CAP BOTH ENDS)

(B) SOURCE OF POWER
 INPLACE NSP WOOD POLE
 (TO BE FIELD VERIFIED BY POWER CO.)
 EXTEND 2" NMC INTO HH-10 WITH:
 3-1/C #2, 1-1/C #6 INS. GR.

(C) SIGNAL SERVICE CABINET
 EXTEND 2" NMC INTO CONTROLLER CABINET WITH:
 2-1/C #2, 1-1/C #6 INS. GR.
 EXTEND 2" NMC INTO HH-10 WITH:
 3-1/C #2, 1-1/C #6 INS. GR.
 EXTEND 2" NMC INTO HH-1 WITH:
 2-3/C #12 (LUM.), 1-1/C #6 INS. GR.

(4) PA100 POLE FOUNDATION
 TYPE PA100-MOD-A-55-X40-9 (LUM. ARM AT 350°)
 3-ONE WAY SIGNALS OVERHEAD
 (0', 16' AND 28' FROM END OF MAST ARM)
 1-TYPE 10B POLE MOUNTED AT 0°
 1-TYPE 10B POLE MOUNTED AT 270°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 (PHASE 1+6) MOUNTED 6' FROM END OF MAST ARM
 1-200 WATT LUMINAIRE AT 350° (H.P.S.)
 2-PEDESTRIAN PUSHBUTTONS AND SIGNS (R10-4b)
 1-TYPE D SIGN PANEL-SEE SIGNING SHEET
 EXTEND 3" NMC INTO HH-9 WITH:
 2-12/C #12, 3-3/C #12, 1-3/C #12(LUM.),
 1-3/C #20 AND 1-1/C #6 INS. GR.

F & I - 1 - ONE WAY SIGNAL OVERHEAD AT 0'
 F & I - 1 - R10-X12 SIGN ADJACENT TO HEAD 1-1

SIGNAL INDICATION CHART				
FACE NO.	12" LED INDICATIONS			
	RED	YEL	FYA	GRN
1-1,1-2	<	<	<	<

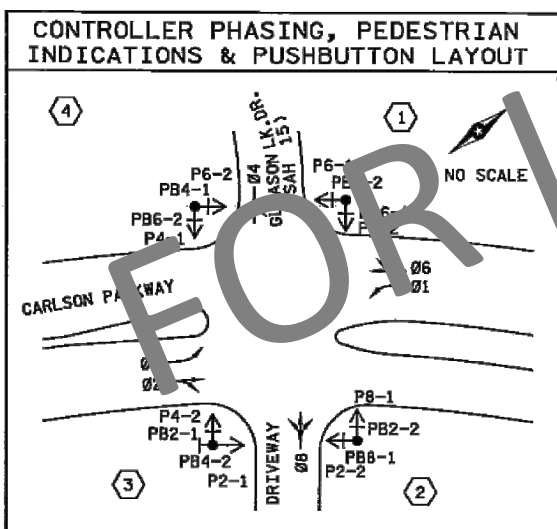
(1) PA85 POLE FOUNDATION
 TYPE PA85-MOD-A-25
 1-ONE WAY SIGNAL OVERHEAD
 (0' FROM END OF MAST ARM)
 1-TYPE 10B POLE MOUNTED AT 0°
 1-TYPE 10B POLE MOUNTED AT 270°
 1-ONE WAY EVP DETECTOR AND CONFIRMATORY LIGHT
 (PHASE 8) MOUNTED 6' FROM END OF MAST ARM
 1-ONE WAY EVP DETECTOR (PHASE 4)
 MOUNTED 16' FROM END OF MAST ARM
 2-PEDESTRIAN PUSHBUTTONS AND SIGNS (R10-4b)
 1-TYPE D SIGN PANEL-SEE SIGNING SHEET
 EXTEND 3" NMC INTO HH-1 WITH:
 2-12/C #12, 2-3/C #12, 2-3/C #20
 AND 1-1/C #6 INS. GR.

Ø4 EVP DETECTOR
 2" NMC
 1-3/C #12 (LUM.)
 1-1/C #6 INS. GR.
 3" RSC
 2-12/C #12
 3-3/C #12
 4-2/C #14
 1-3/C #20
 1-3/C #12 (LUM.)
 1-1/C #6 INS. GR.

LOOP DETECTOR CHART				DISTANCE TO CROSSWALK
DESIGNATION	SIZE/FT.	FUNCTION		
D1-1	1-6'X6'	(1)		10'
D1-2	1-6'X6'	(1)		40'
D2-1, D2-2	1-6'X6'	(1)		300'
D4-1	1-6'X12'	(7)		-3'
D4-2	1-6'X12'	(7)		12'
D5-1	1-6'X6'	(1)		10'
D5-2	1-6'X6'	(1)		40'
D6-1, D6-2	1-6'X6'	(1)		300'
D8-1	1-6'X12'	(7)		-3'
D8-2	1-6'X12'	(7)		12'

FUNCTION NOTES:
 (1) CALL AND EXTEND
 (7) DELAYED CALL-IMMEDIATE EXTEND

LOOP DETECTOR CHART				DISTANCE TO CROSSWALK
DESIGNATION	SIZE/FT.	FUNCTION		
D1-1	2-6'X6'	(1)		0',25'



SIGNAL OPERATION NOTES

- NORMAL OPERATION IS 5 PHASE, WITH Ø4 AND Ø5 BEING PROTECTED
- LEFT TURN PHASES (AND PHASE 1 BEING FLASHING YELLOW ARROW LEFT TURN BY TIME OF DAY)
- FLASH MODE SHALL BE ALL RED
- Ø2 AND Ø6 SHALL BE ON VEHICLE RECALL

- NOTES:**
- 1.) ALL ITEMS SHOWN ARE INPLACE AND SHALL REMAIN INPLACE UNLESS NOTED OTHERWISE.
 - 2.) THE CONTRACTOR SHALL PROTECT AND MAINTAIN INPLACE ITEMS. SEE SPECIAL PROVISIONS.
 - 3.) THE CONTRACTOR SHALL ADJUST EXISTING BRACKETING OR FURNISH AND INSTALL NEW BRACKETING.
 - 4.) PEDESTRIAN INDICATIONS SHALL REMAIN INPLACE OR SHALL BE SALVAGED AND INSTALLED BY THE CONTRACTOR.
 - 5.) THE CONTRACTOR MODIFY THE SIGNAL CABINET AS DESCRIBED IN THE SPECIAL PROVISIONS.
 - 6.) THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW SIGNAL CONTROLLER. SEE SPECIAL PROVISIONS.
 - 7.) THE CONTRACTOR SHALL FURNISH AND INSTALL A NEW MALFUNCTION MANAGEMENT UNIT (MMU). SEE SPECIAL PROVISIONS.
 - 8.) THE EXACT LOCATION OF LOOP DETECTORS SHALL BE DETERMINED IN THE FIELD BY THE FIELD ENGINEER.
 - 9.) THE CONTRACTOR SHALL LOCATE AND VERIFY ALL INPLACE UTILITIES AND INPLACE SIGNAL EQUIPMENT LOCATIONS PRIOR TO COMMENCING
 - 10.) THE CONTRACTOR SHALL FURNISH AND INSTALL A "LEFT ARROW" PAVEMENT MARKING MESSAGE AFTER LOOP DETECTORS HAVE BEEN INSTALLED. THE ARROW SHALL BE PAINT. THIS IS INCIDENTAL TO THE REVISE SIGNAL SYSTEM PAY ITEM.

TONY MOJING | 2/19/2018 2:41:58 PM
 2015 (LUM TECH) | C:\Users\lmoj\OneDrive\Documents\Projects\2010-2019\15008 FLASHING YELLOW ARROWS\DESIGN-2016 PHASE\8801_R01.dwg SYSTEM B
 \\terra\pw\PROJECTS\CURRENT PROJECTS\2010-2019\15008 FLASHING YELLOW ARROWS\DESIGN-2016 PHASE\8801_R01.DWG: SYSTEM B

NO	DATE	BY	CHKD	APPR	RECORD DRAWING
1	9-07-16	DR	SCP	SCP	RECORD DRAWING

I hereby certify that this plan, specification, or report 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: SCOTT C. POSKA
 License # 47068

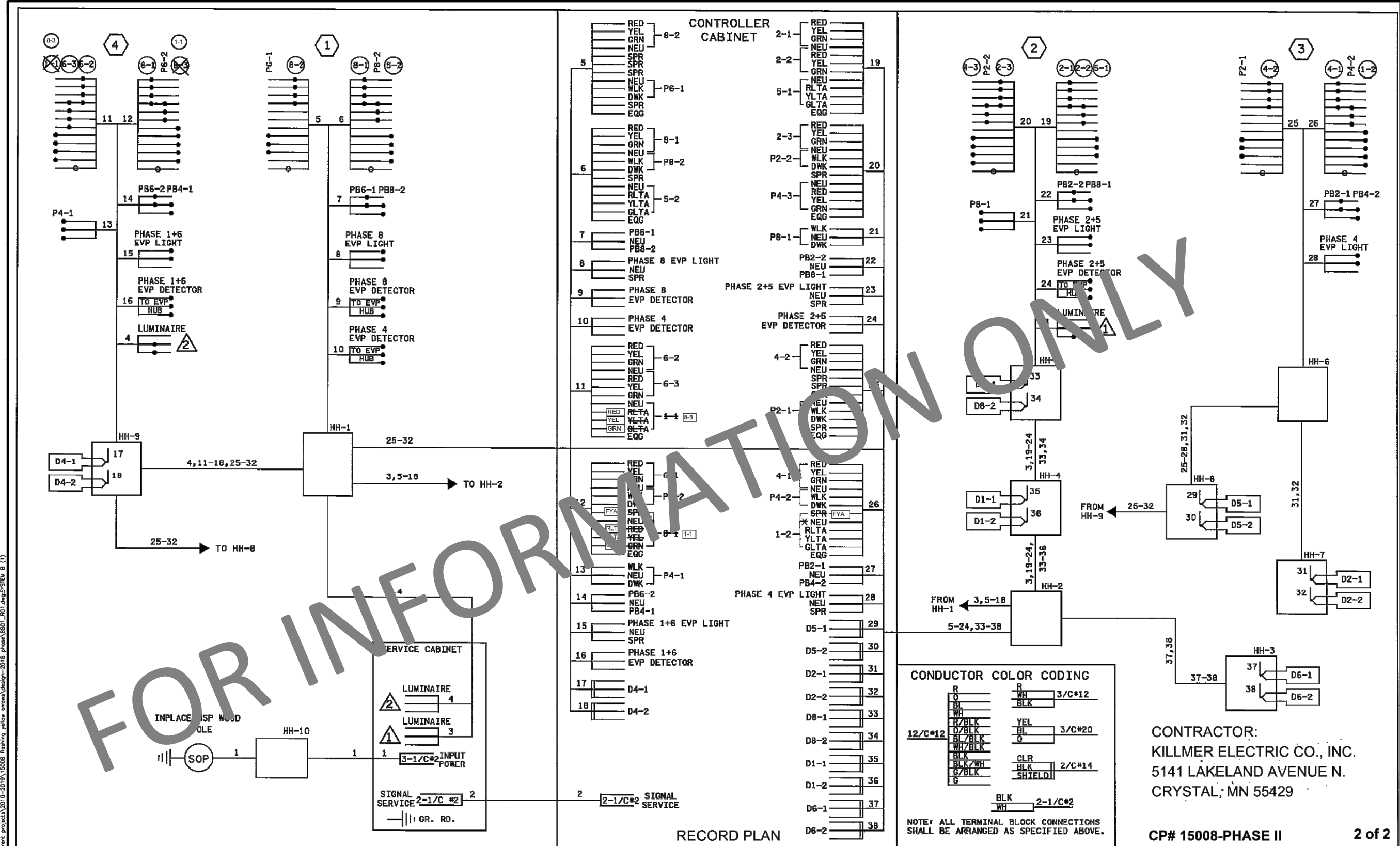
CP# 15008-PHASE II

DRAWN BY: [Signature]
 DESIGNED BY: [Signature]
 CHECKED BY: SCP
 COMM. NO. 8801

SRE ENGINEERS PLANNERS DESIGNERS
 Consulting Group, Inc.

CITY OF PLYMOUTH
 SIGNAL REVISION PLANS
 2016 PLYMOUTH FYA SIGNAL REVISIONS
 REVISED SIGNAL SYSTEM "B"
 CARLSON PARKWAY AT GLEASON LAKE DRIVE

SHEET 7 OF 36



FOR INFORMATION ONLY

TONY WISNING | 9/18/2016 9:41:58 PM
 2015 (MKS TECH) | C:\Users\tonyw\OneDrive\Documents\Projects\2010-2019\15008 Flashing Yellow Arrows\Design-2016 Phase 8801_R01.dwg: SYSTEM B (1)
 \\TERRA\PW\PROJECTS\CURRENT PROJECTS\2010-2019\15008 FLASHING YELLOW ARROWS\DESIGN-2016 PHASE\8801_R01.DWG: SYSTEM B (1)

NO	DATE	BY	CHKD	APPR	DESCRIPTION
1	9-07-16	DR	SCP	SCP	RECORD DRAWING

I hereby certify that this plan, specification, or report 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: SCOTT C. POSKA
 Date: _____ License #: 47068

DRAWN BY: _____
 DESIGNED BY: _____
 CHECKED BY: SCP
 COMM. NO. 8801

SRF ENGINEERS PLANNERS DESIGNERS
 Consulting Group, Inc.

CITY OF PLYMOUTH
 SIGNAL REVISION PLANS
 2016 PLYMOUTH FYA SIGNAL REVISIONS
 REVISED SIGNAL SYSTEM "B"
 CARLSON PARKWAY AT GLEASON LAKE DRIVE

CP# 15008-PHASE II **2 of 2**

SHEET 8 OF 36

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT 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.
 NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE XX/XX/2022

BOLTON & MENK
 12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com

City of Plymouth

DESIGNED	NO.	ISSUED FOR	DATE
XXX			
XXX			
XXX			

CITY OF PLYMOUTH, MINNESOTA
 GLEASON LAKE DRIVE IMPROVEMENTS
 ELECTRICAL
 SIGNAL LOOP REPLACEMENTS

SHEET E1.03