

CITY OF PLYMOUTH

CONSTRUCTION PLANS FOR

2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

BITUMINOUS PAVEMENT REHABILITATION, CONCRETE CURB & GUTTER,
UTILITY ADJUSTMENTS, AND SIDEWALK/TRAIL ADA IMPROVEMENTS

JANUARY, 2023

RESOURCE LIST

CITY OF PLYMOUTH

City Hall
3400 PLYMOUTH BLVD
PLYMOUTH, MN 55447

DEPUTY PUBLIC WORKS
DIRECTOR/CITY ENGINEER
CHRIS LABOUNTY, P.E.

ASSISTANT CITY ENGINEER
MIKE PAYNE, P.E.

UTILITIES

GAS

CENTERPOINT ENERGY
700 WEST LINDEN AVE
MINNEAPOLIS, MN 55403
PAUL JACKS
224-645-0474

TELEPHONE

ARVIG
CURT OLSON
612-503-2718

COMCAST

9705 DATA PARK
MINNETONKA, MN 55343
MCCLAY LYFORD
651-925-6372

LUMEN
TERRA TECHNOLOGIES, LLC
RJ ALLISION
612-388-7375

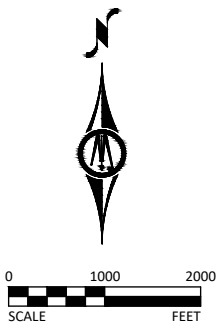
ELECTRIC
XCEL ENERGY
8701 MONTICELLO LANE
MAPLE GROVE, MN 55369
ADAM BARTHEL
612-368-6427

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL, 1-800-252-1166 OR 651-454-0002.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS UTILITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

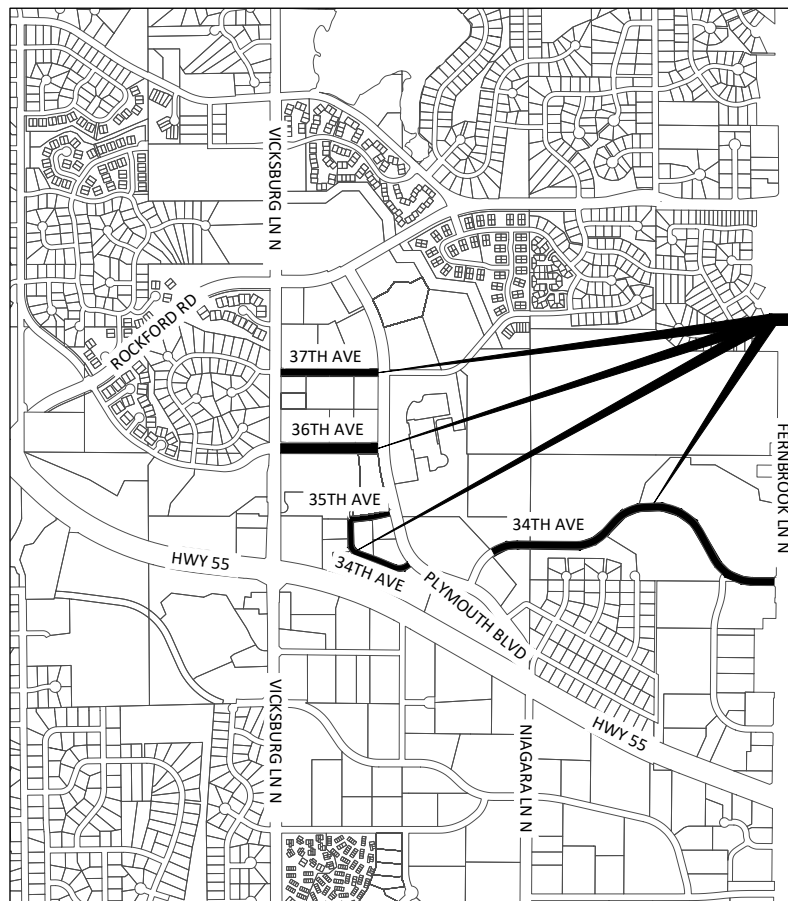
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MAP OF THE
CITY OF PLYMOUTH
HENNEPIN COUNTY, MN



MAP LEGEND

— PROJECT LIMITS



PROJECT LOCATION

SHEET NUMBER	SHEET TITLE
GENERAL	
G0.01 - G0.03	TITLE SHEET, LEGEND, GENERAL NOTES
G1.01 - G1.02	STATEMENT OF ESTIMATED QUANTITIES, PLAN SHEET INDEX
CIVIL	
C0.01 - C0.07	EXISTING CONDITIONS, REMOVALS PLAN
C1.01 - C1.13	TABLES, DETAILS, TYPICAL SECTIONS, PHASING PLAN
C2.01 - C2.10	EROSION CONTROL PLAN, SWPPP
C4.01	UTILITY IMPROVEMENTS
C5.01	STORM SEWER PLAN & PROFILE
C6.01 - C6.14	STREET PLAN & PROFILE, INTERSECTION DETAILS
C7.01 - C7.05	SIGNING & STRIPING
C9.01 - C9.02	CROSS SECTIONS
THIS PLAN SET CONTAINS <u>58</u> SHEETS.	

REVIEWED & APPROVED _____ ASSISTANT CITY ENGINEER DATE: _____

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NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/24/2023



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

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CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
TITLE

SHEET
G0.01

EXISTING TOPOGRAPHIC SYMBOLS

	ACCESS GRATE		REGULATION STATION GAS
	AIR CONDITION UNIT		SATELLITE DISH
	ANTENNA		SIGN NON TRAFFIC
	AUTO SPRINKLER CONNECTION		SIGN TRAFFIC
	BARRICADE PERMANENT		SIGNAL CONTROL CABINET
	BASKETBALL POST		SOIL BORING
	BENCH		SIREN
	BIRD FEEDER		TELEPHONE BOOTH
	BOLLARD		TILE INLET
	BUSH		TILE OUTLET
	CATCH BASIN RECTANGULAR CASTING		TILE RISER
	CATCH BASIN CIRCULAR CASTING		TRANSFORMER-ELECTRIC
	CURB STOP		TREE-CONIFEROUS
	CLEAN OUT		TREE-DEAD
	CULVERT END		TREE-DECIDUOUS
	DRINKING FOUNTAIN		TREE STUMP
	DOWN SPOUT		TRAFFIC ARM BARRIER
	FILL PIPE		TRAFFIC SIGNAL
	FIRE HYDRANT		TRASH CAN
	FLAG POLE		UTILITY MARKER
	FLARED END / APRON		VALVE
	FUEL PUMP		VALVE POST INDICATOR
	GRILL		VALVE VAULT
	GUY WIRE ANCHOR		VAULT
	HANDHOLE		VENT PIPE
	HANDICAP SPACE		WATER SPIGOT
	IRRIGATION SPRINKLER HEAD		WELL
	IRRIGATION VALVE BOX		WETLAND DELINEATED MARKER
	LIFT STATION CONTROL PANEL		WETLAND
	LIFT STATION		WET WELL
	LIGHT ON POLE		YARD HYDRANT
	LIGHT-GROUND		
	MAILBOX		

PROPOSED TOPOGRAPHIC SYMBOLS

	CLEANOUT
	MANHOLE
	LIFT STATION
	STORM SEWER CIRCULAR CASTING
	STORM SEWER RECTANGULAR CASTING
	STORM SEWER FLARED END / APRON
	STORM SEWER OUTLET STRUCTURE
	STORM SEWER OVERFLOW STRUCTURE
	CURB BOX
	FIRE HYDRANT
	WATER VALVE
	WATER REDUCER
	WATER BEND
	WATER TEE
	WATER CROSS
	WATER SLEEVE
	WATER CAP / PLUG
	RIP RAP
	DRAINAGE FLOW
	TRAFFIC SIGNS

SURVEY SYMBOLS

	BENCHMARK LOCATION		CAST IRON MONUMENT
	CONTROL POINT		STONE MONUMENT
	MONUMENT FOUND		

EXISTING TOPOGRAPHIC LINES

	RETAINING WALL
	FENCE
	FENCE-DECORATIVE
	GUARD RAIL
	TREE LINE
	BUSH LINE

SURVEY LINES

	CONTROLLED ACCESS BOUNDARY
	CENTERLINE
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING RIGHT-OF-WAY
	PROPOSED RIGHT-OF-WAY
	SETBACK LINE
	SECTION LINE
	QUARTER LINE
	SIXTEENTH LINE
	TEMPORARY EASEMENT

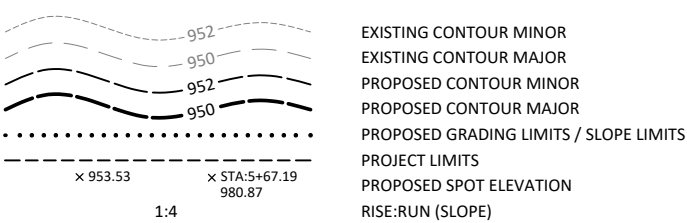
EXISTING UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE

PROPOSED UTILITY LINES

	FORCEMAIN
	SANITARY SEWER
	SANITARY SERVICE
	STORM SEWER
	STORM SEWER DRAIN TILE
	WATERMAIN
	WATER SERVICE
	PIPE CASING
	TRENCHLESS PIPE (PLAN VIEW)
	TRENCHLESS PIPE (PROFILE VIEW)

GRADING INFORMATION



HATCH PATTERNS

	BITUMINOUS		GRAVEL
	CONCRETE		

EXISTING PRIVATE UTILITY LINES

NOTE:
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	UNDERGROUND FIBER OPTIC
	UNDERGROUND ELECTRIC
	UNDERGROUND GAS
	UNDERGROUND COMMUNICATION
	OVERHEAD ELECTRIC
	OVERHEAD COMMUNICATION
	OVERHEAD UTILITY

UTILITIES IDENTIFIED WITH A QUALITY LEVEL:

LINE TYPES FOLLOW THE FORMAT: UTILITY TYPE - QUALITY LEVEL
 EXAMPLE: G-A UNDERGROUND GAS, QUALITY LEVEL A
 UTILITY QUALITY LEVEL (A,B,C,D) DEFINITIONS CAN BE FOUND IN CI/ASCE 38-02.

UTILITY QUALITY LEVELS:

QUALITY LEVEL D: PROVIDES THE MOST BASIC LEVEL OF INFORMATION. IT INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS. RECORDS MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICES MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASES, CONSTRUCTION PLANS, ETC.

QUALITY LEVEL C: INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. INCLUDES QUALITY LEVEL D ACTIVITIES.

QUALITY LEVEL B: INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND COLLECTING THE INFORMATION THROUGH A SURVEY METHOD. INCLUDES QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL A: PROVIDES THE HIGHEST LEVEL OF ACCURACY. IT INVOLVES LOCATING OR POTHOLING UTILITIES AS WELL AS ACTIVITIES IN QUALITY LEVELS B, C, AND D. THE LOCATED FACILITY INFORMATION IS SURVEYED AND MAPPED AND THE DATA PROVIDES PRECISE PLAN AND PROFILE INFORMATION.

ABBREVIATIONS

A	ALGEBRAIC DIFFERENCE	GRAV	GRAVEL	RSC	RIGID STEEL CONDUIT
ADJ	ADJUST	GU	GUTTER	RT	RIGHT
ALT	ALTERNATE	GV	GATE VALVE	SAN	SANITARY SEWER
B-B	BACK TO BACK	HDPE	HIGH DENSITY POLYETHYLENE	SCH	SCHEDULE
BIT	BITUMINOUS	HH	HANDHOLE	SERV	SERVICE
BLDG	BUILDING	HP	HIGH POINT	SHLD	SHOULDER
BMP	BEST MANAGEMENT PRACTICE	HWL	HIGH WATER LEVEL	STA	STATION
BR	BEGIN RADIUS	HYD	HYDRANT	STD	STANDARD
BV	BUTTERFLY VALVE	I	INVERT	STM	STORM SEWER
CB	CATCH BASIN	K	CURVE COEFFICIENT	TC	TOP OF CURB
C&G	CURB AND GUTTER	L	LENGTH	TE	TEMPORARY EASEMENT
CIP	CAST IRON PIPE	LO	LOWEST OPENING	TEMP	TEMPORARY
CIPP	CURED-IN-PLACE PIPE	LP	LOW POINT	TNH	TOP NUT HYDRANT
CL	CENTER LINE	LT	LEFT	TP	TOP OF PIPE
CL	CLASS	MAX	MAXIMUM	TYP	TYPICAL
CLVT	CULVERT	MH	MANHOLE	VCP	VITRIFIED CLAY PIPE
CMP	CORRUGATED METAL PIPE	MIN	MINIMUM	VERT	VERTICAL
C.O.	CHANGE ORDER	MR	MID RADIUS	VPC	VERTICAL POINT OF CURVE
COMM	COMMUNICATION	NIC	NOT IN CONTRACT	VPI	VERTICAL POINT OF INTERSECTION
CON	CONCRETE	NMC	NON-METALLIC CONDUIT	VPT	VERTICAL POINT OF TANGENT
CSP	CORRUGATED STEEL PIPE	NTS	NOT TO SCALE	WM	WATERMAIN
DIA	DIAMETER	NWL	NORMAL WATER LEVEL		
DIP	DUCTILE IRON PIPE	OHW	ORDINARY HIGH WATER LEVEL		
DWY	DRIVEWAY	PC	POINT OF CURVE	AC	ACRES
E	EXTERNAL CURVE DISTANCE	PCC	POINT OF COMPOUND CURVE	CF	CUBIC FEET
ELEC	ELECTRIC	PE	PERMANENT EASEMENT	CV	COMPACTED VOLUME
ELEV	ELEVATION	PED	PEDESTRIAN, PEDESTAL	CY	CUBIC YARD
EOF	EMERGENCY OVERFLOW	PERF	PERFORATED PIPE	EA	EACH
ER	END RADIUS	PERM	PERMANENT	EV	EXCAVATED VOLUME
ESMT	EASEMENT	PI	POINT OF INTERSECTION	LB	POUND
EX	EXISTING	PL	PROPERTY LINE	LF	LINEAR FEET
FES	FLARED END SECTION	PRC	POINT OF REVERSE CURVE	LS	LUMP SUM
F-F	FACE TO FACE	PT	POINT OF TANGENT	LV	LOOSE VOLUME
FF	FINISHED FLOOR	PVC	POLYVINYL CHLORIDE PIPE	SF	SQUARE FEET
F&I	FURNISH AND INSTALL	PVMT	PAVEMENT	SV	STOCKPILE VOLUME
FM	FORCEMAIN	R	RADIUS	SY	SQUARE YARD
FO	FIBER OPTIC	R/W	RIGHT-OF-WAY		
F.O.	FIELD ORDER	RCP	REINFORCED CONCRETE PIPE		
GRAN	GRANULAR	RET	RETAINING		

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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 LEGEND

SHEET
G0.02

GENERAL TRAFFIC CONTROL NOTES

- ACCESS TO RESIDENCES AND SIDE STREETS/ CUL-DE-SACS MUST BE MAINTAINED AT ALL TIMES THROUGHOUT CONSTRUCTION. THE CONTRACTOR MUST SUPPLY ACCESS TO AND FROM THE SITE FOR CONCURRENT CONSTRUCTION PROJECTS, PRIVATE UTILITY IMPROVEMENTS/RELOCATIONS, AND AS OTHERWISE PROVIDED FOR IN THE SPECIFICATIONS.
- THE CONTRACTOR MUST MAINTAIN GARBAGE AND RECYCLING SERVICE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ACCESS FOR GARBAGE TRUCKS. WHEN INFEASIBLE TO MAINTAIN SUCH ACCESS, THE CONTRACTOR MUST COLLECT CONTAINERS, RELOCATE THEM TO A LOCATION WHERE SUITABLE ACCESS CAN BE PROVIDED, AND RETURN CONTAINERS IN GOOD WORKING CONDITION TO THE SAME PROPERTY FROM WHICH THEY WERE TAKEN. COSTS FOR PROVIDING ACCESS OR HAULING CONTAINERS TO AN ACCESSIBLE LOCATION SHALL BE INCIDENTAL TO THE CONTRACT.
- THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES MUST CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD) AND INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. TRAFFIC CONTROL NOT IN COMPLIANCE WITH MN MUTCD WILL BE SUBJECT TO VIOLATION IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- THE ITEM "TRAFFIC CONTROL" BID AS "LUMP SUM" SHALL INCLUDE ALL COSTS FOR PROVIDING TEMPORARY CONTROLS SPECIFIED IN THE PLAN AND OTHER TRAFFIC CONTROL REQUIRED PER THE MN/MUTCD DUE TO THE CONTRACTORS OPERATIONS FOR COMPLETION OF THE PROJECT INCLUDING BUT NOT LIMITED TO, MILLING, RECLAIMING & PAVING, TEMPORARY ROAD CLOSURES IN FULL OR TO THRU TRAFFIC, TEMPORARY LANE CLOSURES, ADJUSTMENTS TO THE TRAFFIC CONTROL PLAN FOR LARGE AND SMALL SCALE STAGING OPERATIONS, AND NECESSARY DETOURS FOR MOTORISTS, BICYCLISTS, AND/OR PEDESTRIANS. THE AMOUNT BID MUST ALSO INCLUDE SUFFICIENT TRAFFIC CONTROL FOR WARNING OF POTENTIAL HAZARDS DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO FLASHING BARRICADES AROUND EQUIPMENT AND OBSTRUCTIONS.
- CONTRACTOR SHALL PREVENT TRACKING OF BITUMINOUS MATERIAL ONTO THE ADJACENT STREETS OF ALL PROJECT AREAS. IF MATERIAL IS TRACKED ONTO ADJACENT ROADWAYS, THE CONTRACTOR MUST RESTORE THE PAVEMENT TO THE SATISFACTION OF THE CITY.
- THE CONTRACTOR MUST FURNISH AND INSTALL STANDARD CITY PROJECT SIGNS AT ALL MAJOR ENTRANCES TO THE PROJECT AREA AS DESIGNED ON THE STAGING PLAN. THE SIGNS SHALL FOLLOW THE REQUIREMENTS SHOWN IN THE STANDARD CITY PLATE NO. DWG-1.

UTILITY CONSTRUCTION NOTES

- REFER TO CITY STANDARDS SPECIFICATIONS FOR STRUCTURE CASTING FRAME & COVER REQUIREMENTS. ALL FRAME & COVER DEVIATIONS SHALL BE INDICATED ON THE PLAN SHEETS.
- INTERIOR CHIMNEY SEALS ARE REQUIRED ON ALL NEW SANITARY MANHOLES CASTINGS.

REMOVAL NOTES

- PRIOR TO REMOVALS, REQUIRED EROSION CONTROL DEVICES ARE TO BE INSTALLED.
- COORDINATE WITH UTILITY OWNER TO RELOCATE POWER AND LIGHT POLES, AND OTHER PRIVATE UTILITIES AS NECESSARY.
- ALL ADJACENT BITUMINOUS AND CONCRETE SURFACES MUST BE CLEANLY SAWCUT PRIOR TO REMOVAL AND SHALL BE CONSIDERED INCIDENTAL.
- REMOVALS SHALL BE LIMITED TO AREAS WITHIN THE DEFINED PROJECT LIMITS. RESTORATION OF AREAS OUTSIDE OF PROJECT LIMITS MUST BE COMPLETED AT THE CONTRACTOR'S COST UNLESS OTHERWISE APPROVED.
- CONTRACTOR MUST FOLLOW ALL LOCAL, STATE, AND FEDERAL REGULATIONS IN DISPOSING OF MATERIALS REMOVED FROM THIS SITE.
- PAVEMENT REMOVAL LIMITS SHOWN ON THE PLAN ARE APPROXIMATE. REMOVAL LIMITS MUST BE DETERMINED IN THE FIELD BY THE ENGINEER.
- ANY TREES, SHRUBS, AND PLANTINGS TO BE REMOVED MUST BE DESIGNATED IN ADVANCE BY THE ENGINEER.
- CONTRACTOR MUST PROTECT ALL ITEMS DESIGNATED FOR SALVAGE AND PROVIDE APPROPRIATE STORAGE UNTIL RE-INSTALLATION. ANY ITEMS DESIGNATED TO BE SALVAGED WHICH ARE DAMAGED MUST BE REPLACED WITH NEW AT NO COST TO THE OWNER.
- ANY LANDSCAPING MATERIALS WITHIN R.O.W. TO BE REMOVED MUST BE DESIGNATED IN ADVANCE BY THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL.
- ALL ITEMS NOT IDENTIFIED FOR REMOVAL MUST BE PROTECTED DURING CONSTRUCTION.

CONSTRUCTION NOTES

- ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS MUST BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.
- SHAPING & COMPACTION OF THE IN PLACE AGGREGATE BASE (SALVAGED RECLAIM) UNDER BITUMINOUS STREET PAVEMENT WILL BE PAID FOR BY THE SY UNDER THE BID ITEM SUB-GRADE PREPARATION.
- CHARCOAL GRAY COATED CAST IRON TRUNCATED DOMES ARE REQUIRED FOR PEDESTRIAN RAMPS.
- PLYMOUTH'S CITY CENTER EVENTS CONCLUDE OF THE MRPA CONFERENCE FROM SEPTEMBER 26TH - 29TH AND THEY HAVE WEDDINGS MOST FRIDAYS AND SATURDAYS FROM MAY - OCTOBER.

COORDINATION WITH PRIVATE UTILITIES

- ALL PRIVATE UTILITIES MUST BE PROTECTED. UNLESS DESIGNATED FOR RELOCATION CONTRACTOR MUST COORDINATE WITH ALL PRIVATE UTILITY OWNERS. CALL 1-800-GOPHER1.

SEQ TO BE INSERTED AT FINAL PLANS

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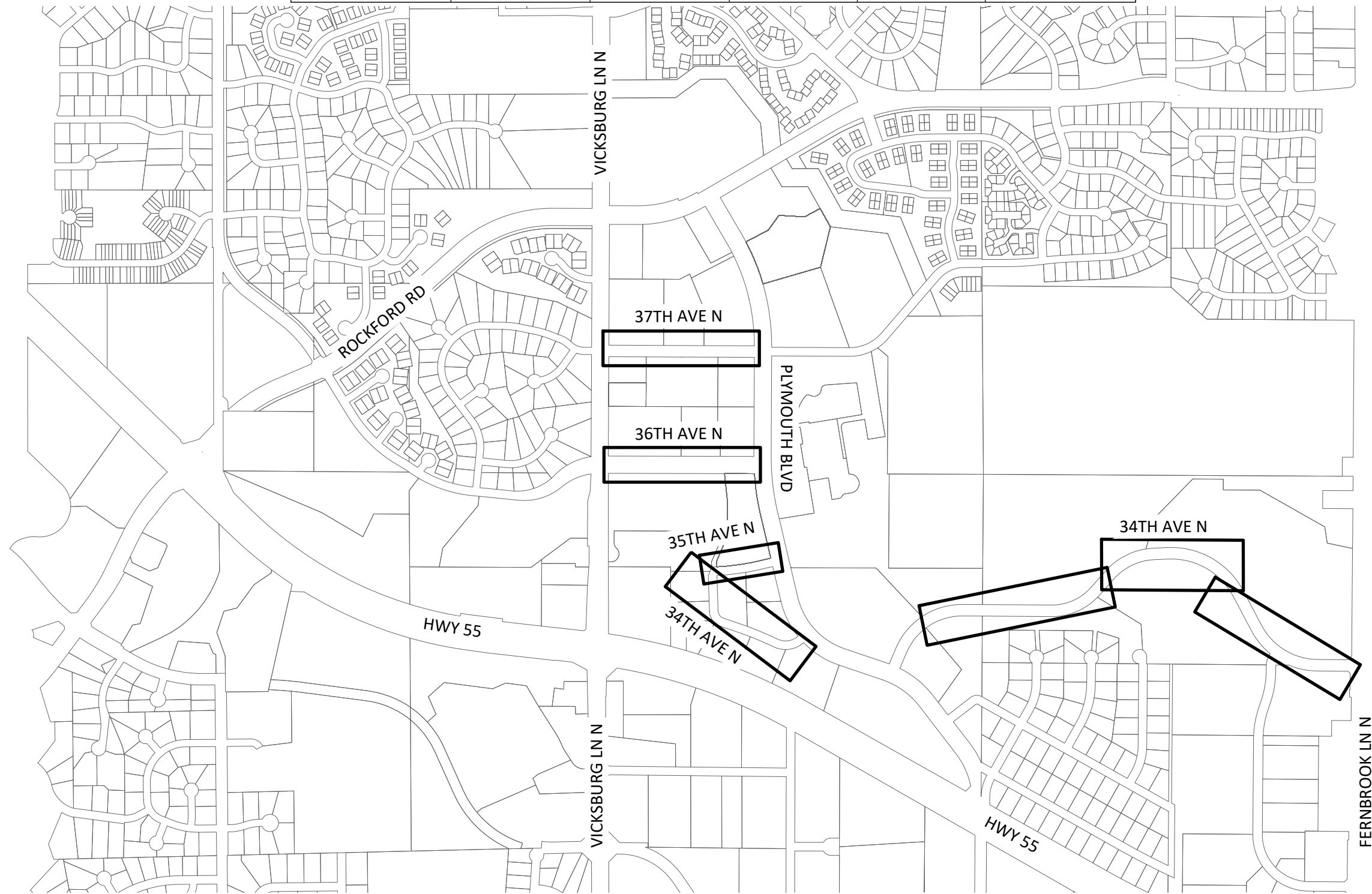
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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 STATEMENT OF ESTIMATED QUANTITIES

SHEET

G1.01

SHEET LIST					
SHEET TITLE	37TH AVE N	36TH AVE N	35TH AVE N	34TH AVE N	34TH AVE
	VICKSBURG LN - PLYMOUTH BLVD	VICKSBURG LN - PLYMOUTH BLVD	34TH AVE N - PLYMOUTH BLVD	35TH AVE N - PLYMOUTH BLVD	PLYMOUTH BLVD - FERNBROOK LN N
EXISTING CONDITIONS & REMOVALS	C0.01	C0.02	C0.03	C0.04	C0.05 - C0.07
EROSION CONTROL	C2.04	C2.05	C2.06	C2.07	C2.08 - C2.10
UTILITY IMPROVEMENTS	C4.01				
STORM SEWER PLAN & PROFILE		C5.01			
STREET PLAN & PROFILE	C6.01 - C6.02	C6.03	C6.04	C6.05	C6.06 - C6.09
INTERSECTION DETAILS	C6.10	C6.11 - C6.13		C6.14	
SIGNING & STRIPING	C7.01	C7.02			C7.03 - C7.05



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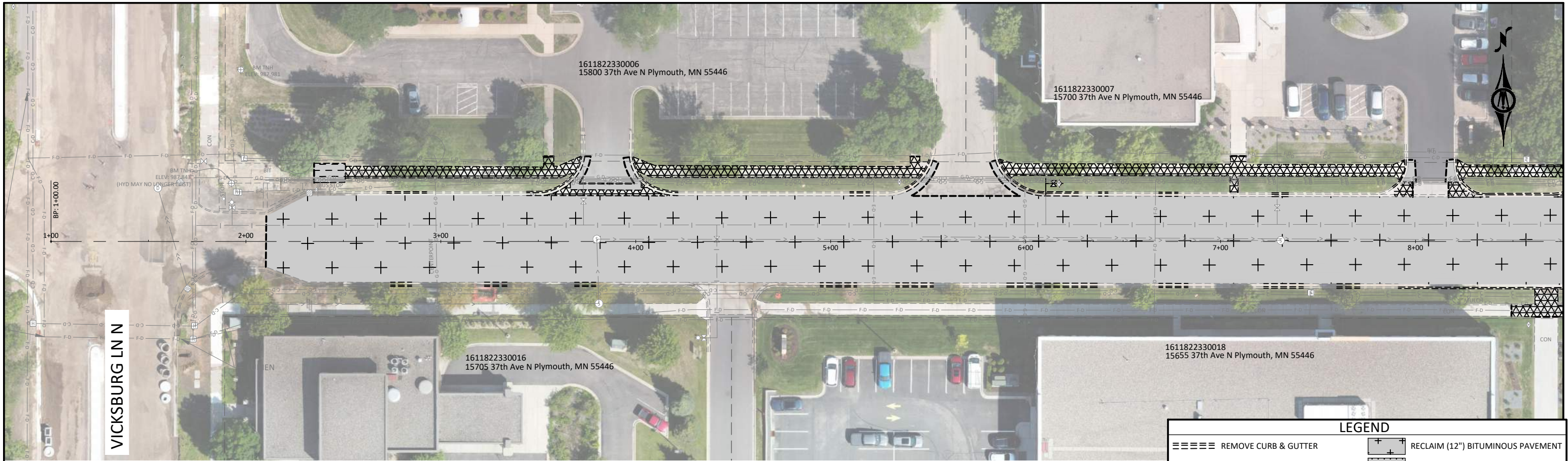


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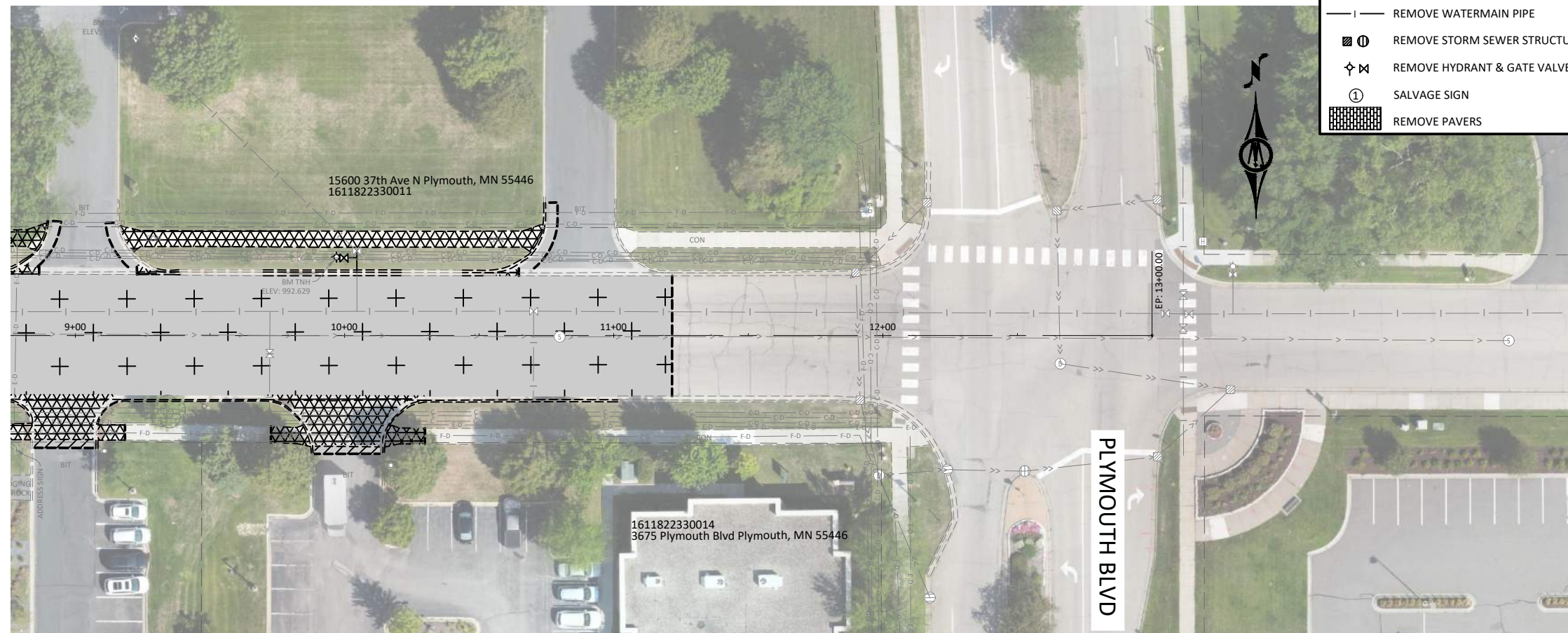
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 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 PLAN SHEET INDEX

SHEET
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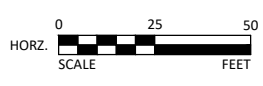


37TH AVE N

LEGEND	
	REMOVE CURB & GUTTER
	SAWCUT BIT/CONCRETE
	REMOVE STORM SEWER PIPE
	REMOVE WATERMAIN PIPE
	REMOVE STORM SEWER STRUCTURE
	REMOVE HYDRANT & GATE VALVE
	SALVAGE SIGN
	REMOVE PAVERS
	RECLAIM (12") BITUMINOUS PAVEMENT
	RECLAIM (8") BITUMINOUS PAVEMENT
	MILL (2") BITUMINOUS PAVEMENT
	REMOVE BITUMINOUS DRIVEWAY
	REMOVE BITUMINOUS TRAIL
	REMOVE CONCRETE PAVEMENT
	REMOVE BITUMINOUS PAVEMENT



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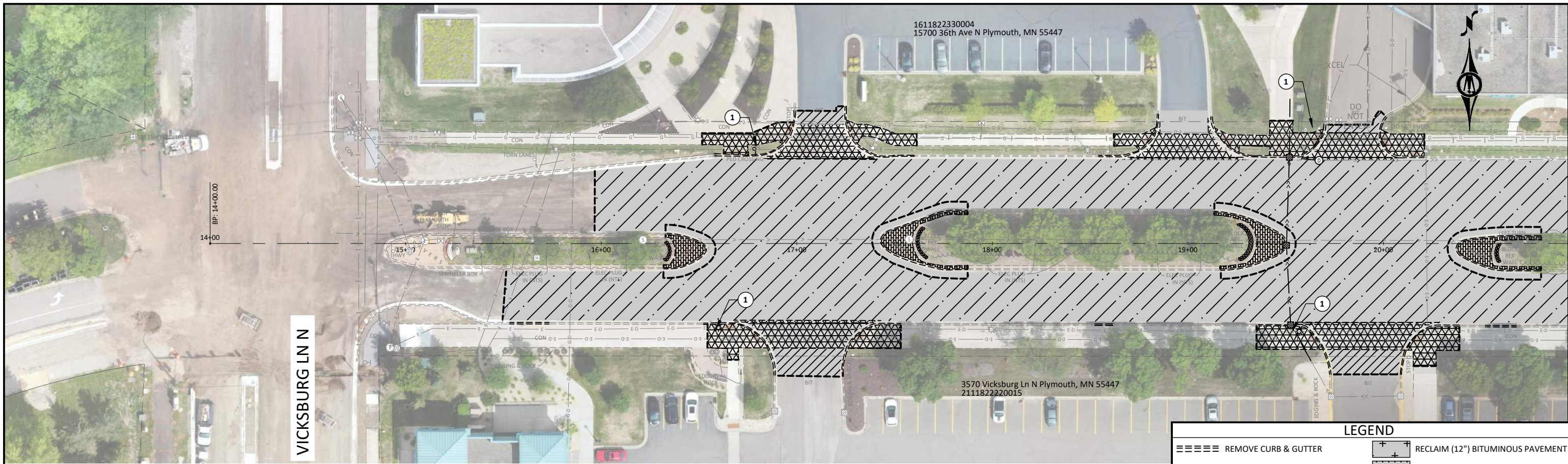


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 EXISTING CONDITIONS & REMOVALS
 37TH AVE N

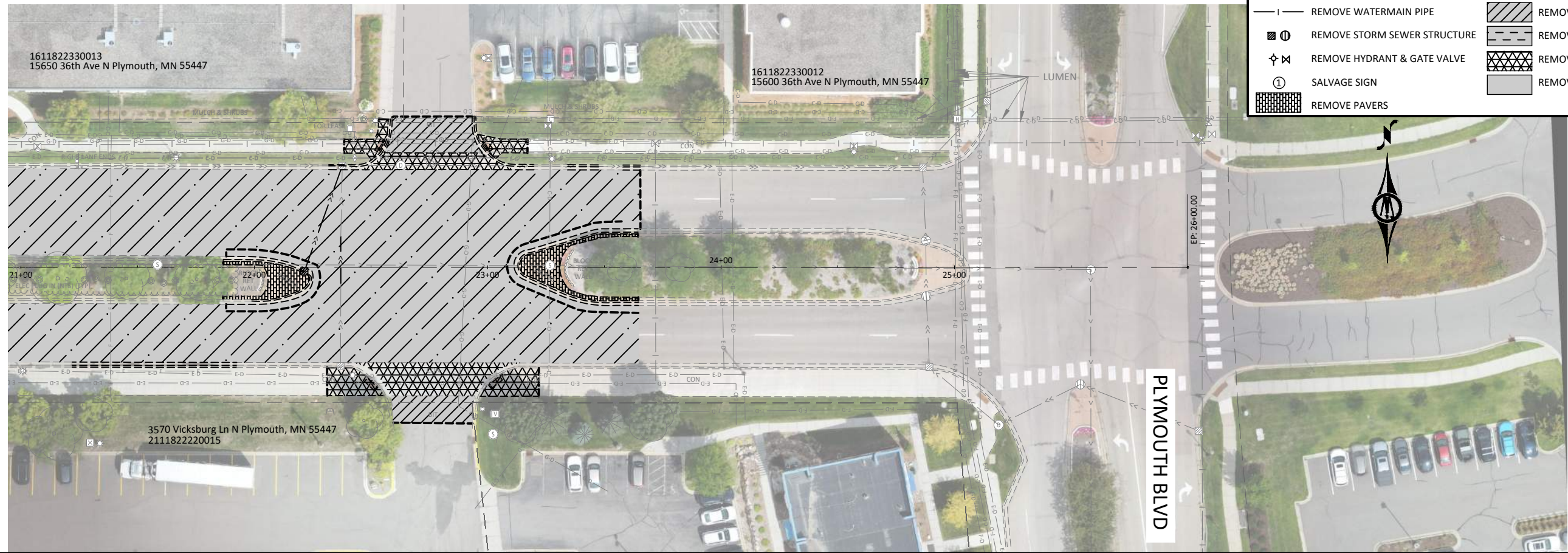
SHEET
C0.01



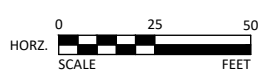
VICKSBURG LN N

36TH AVE N

LEGEND	
	REMOVE CURB & GUTTER
	SAWCUT BIT/CONCRETE
	REMOVE STORM SEWER PIPE
	REMOVE WATERMAIN PIPE
	REMOVE STORM SEWER STRUCTURE
	REMOVE HYDRANT & GATE VALVE
	SALVAGE SIGN
	REMOVE PAVERS
	RECLAIM (12") BITUMINOUS PAVEMENT
	RECLAIM (8") BITUMINOUS PAVEMENT
	MILL (2") BITUMINOUS PAVEMENT
	REMOVE BITUMINOUS DRIVEWAY
	REMOVE BITUMINOUS TRAIL
	REMOVE CONCRETE PAVEMENT
	REMOVE BITUMINOUS PAVEMENT



PLYMOUTH BLVD



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NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE 01/24/2023



12224 NICOLLET AVENUE
 BURNSVILLE, MINNESOTA 55337
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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 36TH AVE N

SHEET
 C0.02

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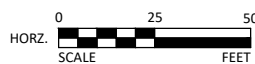


35TH AVE N

LEGEND

	REMOVE CURB & GUTTER		RECLAIM (12") BITUMINOUS PAVEMENT
	SAWCUT BIT/CONCRETE		RECLAIM (8") BITUMINOUS PAVEMENT
	REMOVE STORM SEWER PIPE		MILL (2") BITUMINOUS PAVEMENT
	REMOVE WATERMAIN PIPE		REMOVE BITUMINOUS DRIVEWAY
	REMOVE STORM SEWER STRUCTURE		REMOVE BITUMINOUS TRAIL
	REMOVE HYDRANT & GATE VALVE		REMOVE CONCRETE PAVEMENT
	SALVAGE SIGN		REMOVE BITUMINOUS PAVEMENT
	REMOVE PAVERS		

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 PL1224\1224\1224\CAD\DWG\2023\1224\001.dwg 12/29/2023 11:41:05 AM



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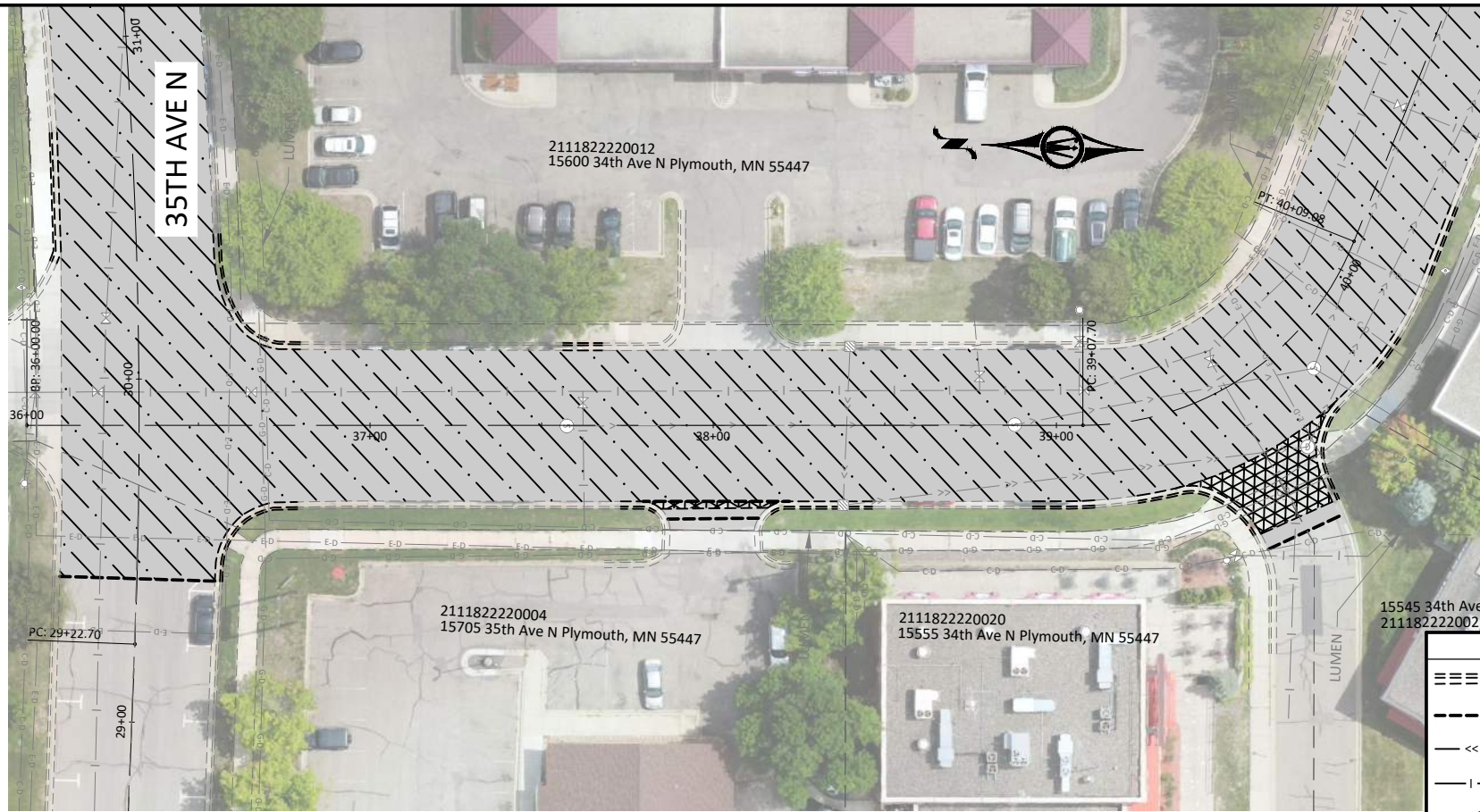


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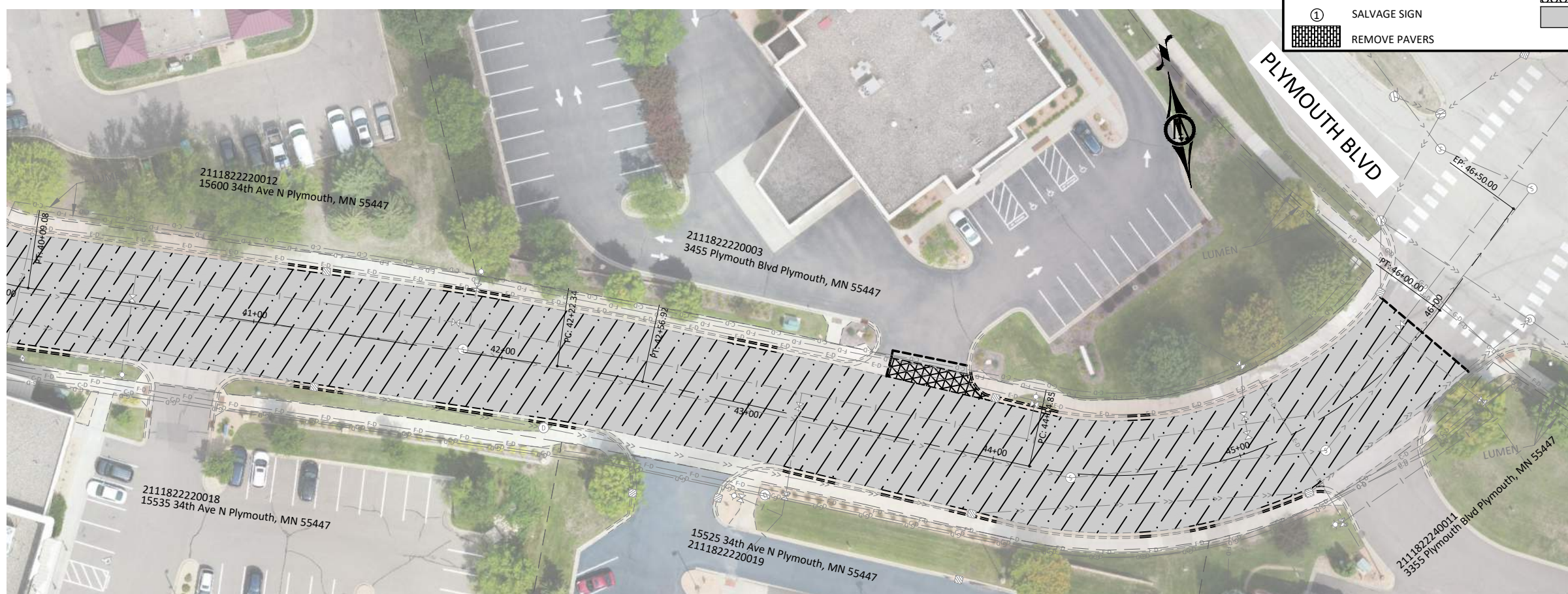
CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 35TH AVE N

SHEET
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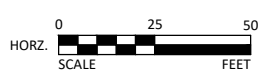


LEGEND			
	REMOVE CURB & GUTTER		RECLAIM (12") BITUMINOUS PAVEMENT
	SAWCUT BIT/CONCRETE		RECLAIM (8") BITUMINOUS PAVEMENT
	REMOVE STORM SEWER PIPE		MILL (2") BITUMINOUS PAVEMENT
	REMOVE WATERMAIN PIPE		REMOVE BITUMINOUS DRIVEWAY
	REMOVE STORM SEWER STRUCTURE		REMOVE BITUMINOUS TRAIL
	REMOVE HYDRANT & GATE VALVE		REMOVE CONCRETE PAVEMENT
	SALVAGE SIGN		REMOVE BITUMINOUS PAVEMENT
	REMOVE PAVERS		

34TH AVE N



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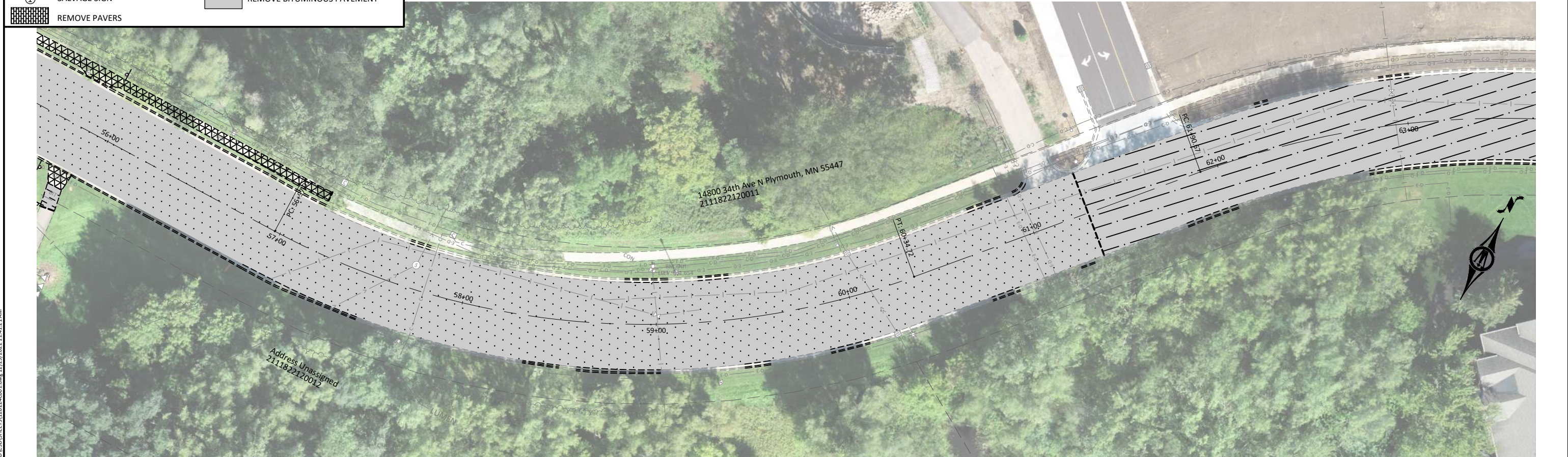
CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 34TH AVE N

SHEET
C0.04

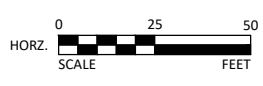


34TH AVE N

LEGEND			
	REMOVE CURB & GUTTER		RECLAIM (12") BITUMINOUS PAVEMENT
	SAWCUT BIT/CONCRETE		RECLAIM (8") BITUMINOUS PAVEMENT
	REMOVE STORM SEWER PIPE		MILL (2") BITUMINOUS PAVEMENT
	REMOVE WATERMAIN PIPE		REMOVE BITUMINOUS DRIVEWAY
	REMOVE STORM SEWER STRUCTURE		REMOVE BITUMINOUS TRAIL
	REMOVE HYDRANT & GATE VALVE		REMOVE CONCRETE PAVEMENT
	SALVAGE SIGN		REMOVE BITUMINOUS PAVEMENT
	REMOVE PAVERS		



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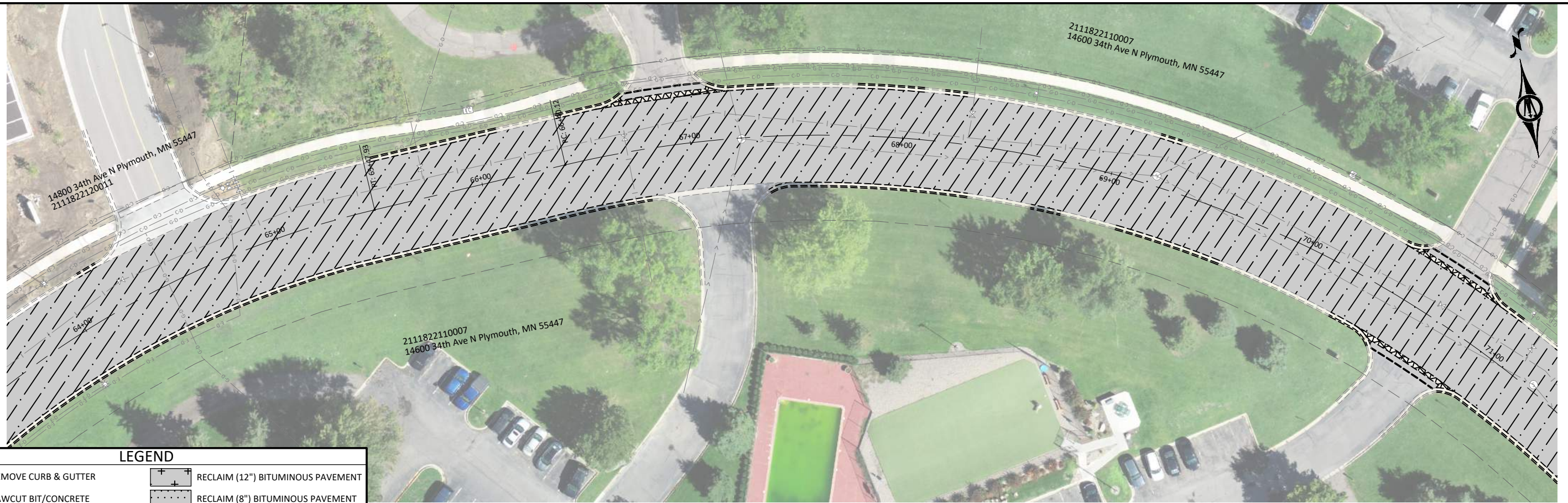


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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 34TH AVE N

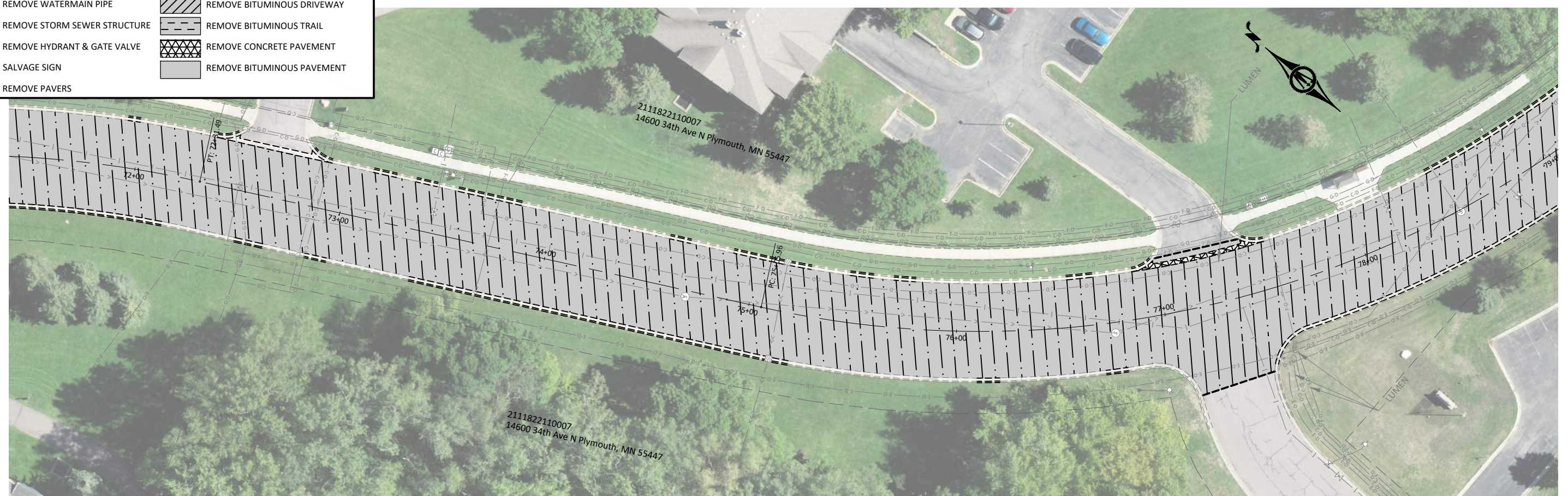
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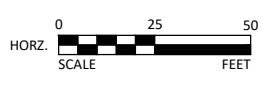
34TH AVE N

LEGEND

	REMOVE CURB & GUTTER		RECLAIM (12") BITUMINOUS PAVEMENT
	SAWCUT BIT/CONCRETE		RECLAIM (8") BITUMINOUS PAVEMENT
	REMOVE STORM SEWER PIPE		MILL (2") BITUMINOUS PAVEMENT
	REMOVE WATERMAIN PIPE		REMOVE BITUMINOUS DRIVEWAY
	REMOVE STORM SEWER STRUCTURE		REMOVE BITUMINOUS TRAIL
	REMOVE HYDRANT & GATE VALVE		REMOVE CONCRETE PAVEMENT
	SALVAGE SIGN		REMOVE BITUMINOUS PAVEMENT
	REMOVE PAVERS		



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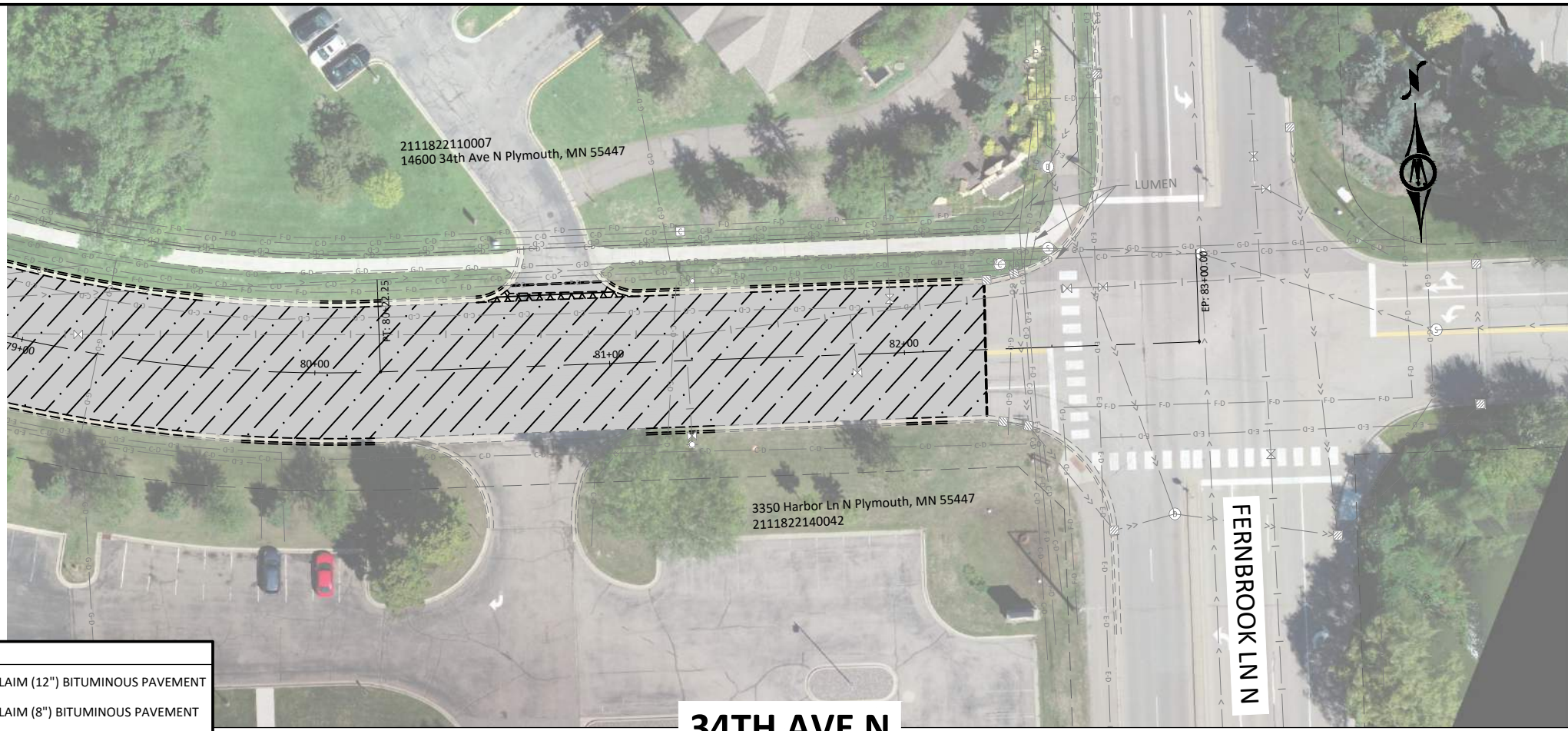


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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 34TH AVE N

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C0.06

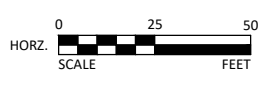


34TH AVE N

LEGEND

	REMOVE CURB & GUTTER		RECLAIM (12") BITUMINOUS PAVEMENT
	SAWCUT BIT/CONCRETE		RECLAIM (8") BITUMINOUS PAVEMENT
	REMOVE STORM SEWER PIPE		MILL (2") BITUMINOUS PAVEMENT
	REMOVE WATERMAIN PIPE		REMOVE BITUMINOUS DRIVEWAY
	REMOVE STORM SEWER STRUCTURE		REMOVE BITUMINOUS TRAIL
	REMOVE HYDRANT & GATE VALVE		REMOVE CONCRETE PAVEMENT
	SALVAGE SIGN		REMOVE BITUMINOUS PAVEMENT
	REMOVE PAVERS		

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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 EXISTING CONDITIONS & REMOVALS
 34TH AVE N

SHEET
C0.07

ROCKFORD RD

37TH AVE N

36TH AVE N

PLYMOUTH BLVD

35TH AVE N

34TH AVE N

34TH AVE N

VICKSBURG LN N

HWY 55

FERNBROOK LN N

LEGEND

- PHASE 1A
- PHASE 1B
- PHASE 2A
- PHASE 2B
- PHASE 2C



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CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 TABLE DETAILS
 PHASING PLAN

SHEET C1.01

TABLE TO BE INSERTED AT FINAL PLANS

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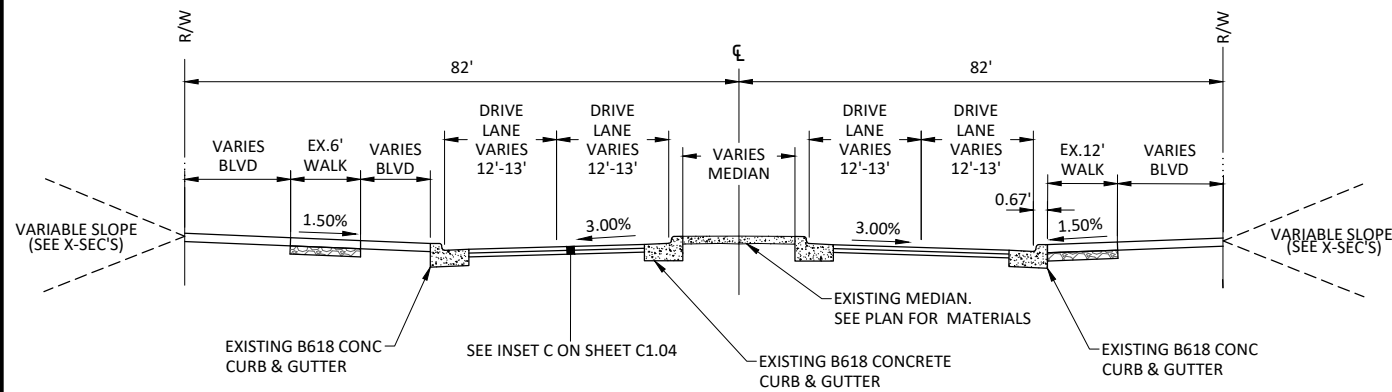
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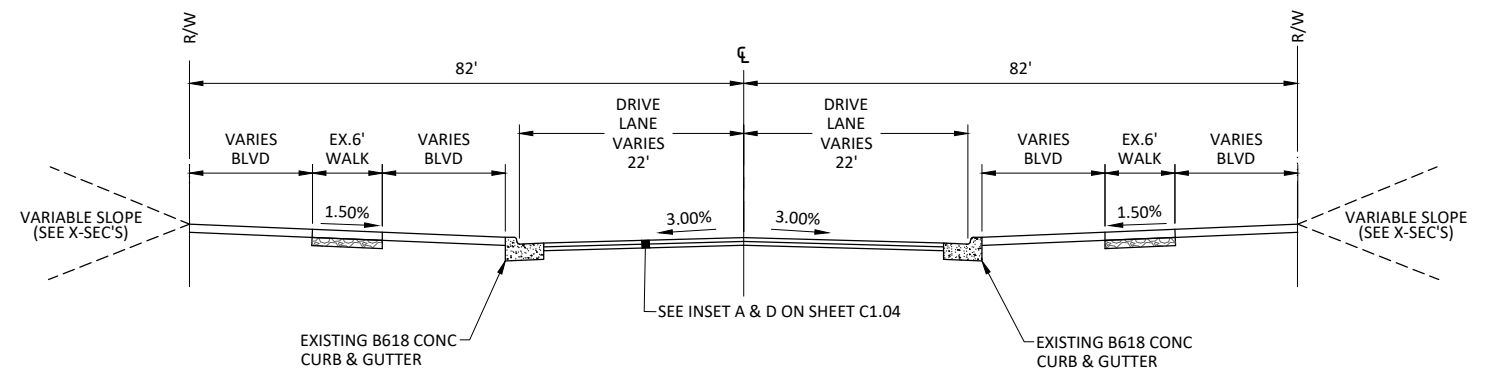
CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 TABLE DETAILS
 STORM SEWER STRUCTURE TABLE

SHEET
 C1.02

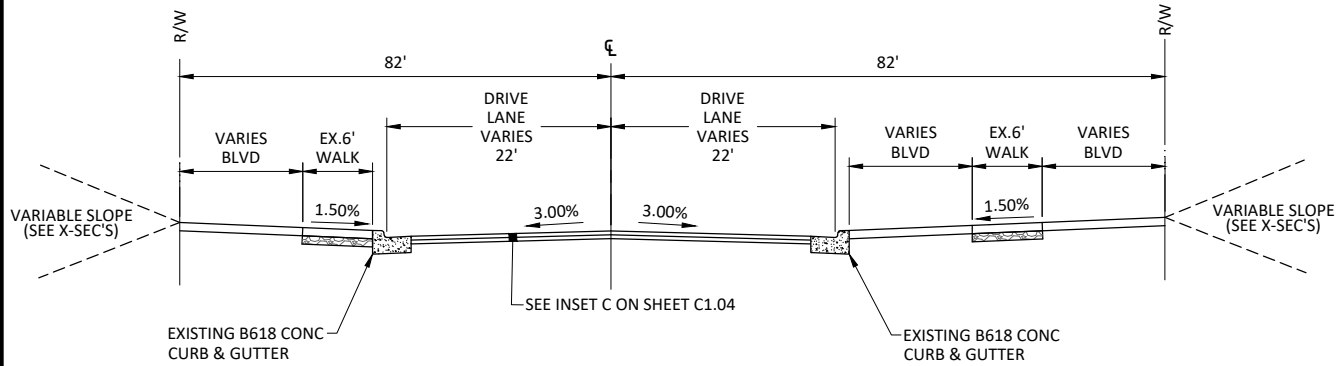
36TH AVE N
TYPICAL SECTION
VICKSBURG LN TO PLYMOUTH BLVD



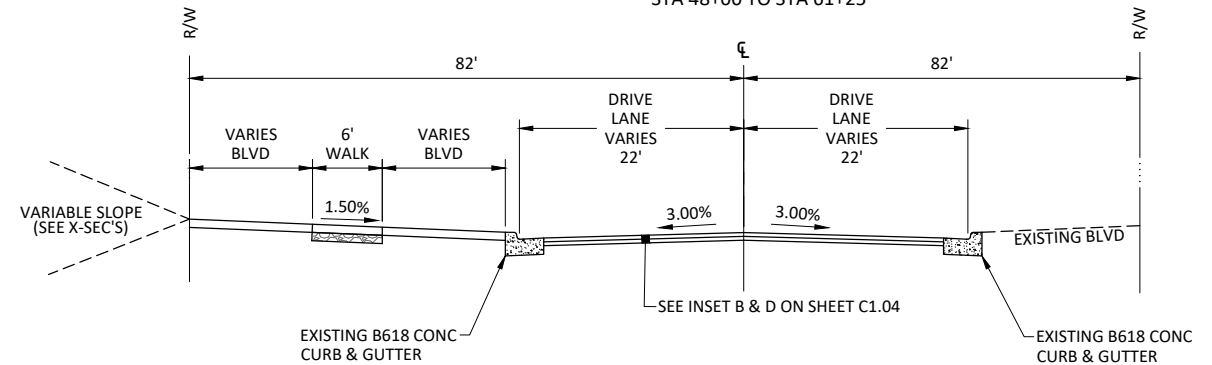
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TYPICAL SECTION
VICKSBURG LN TO PLYMOUTH BLVD



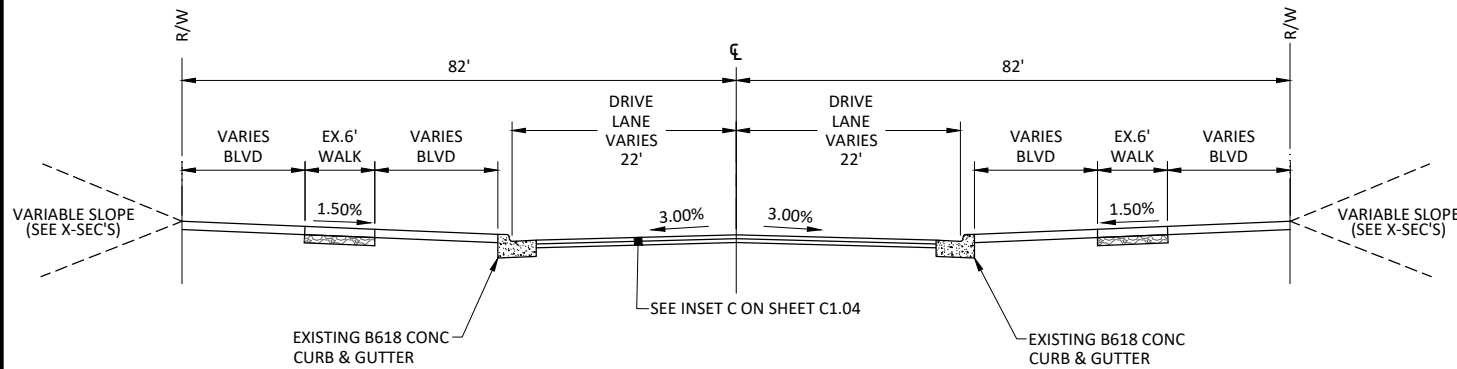
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TYPICAL SECTION
35TH AVE N TO PLYMOUTH BLVD



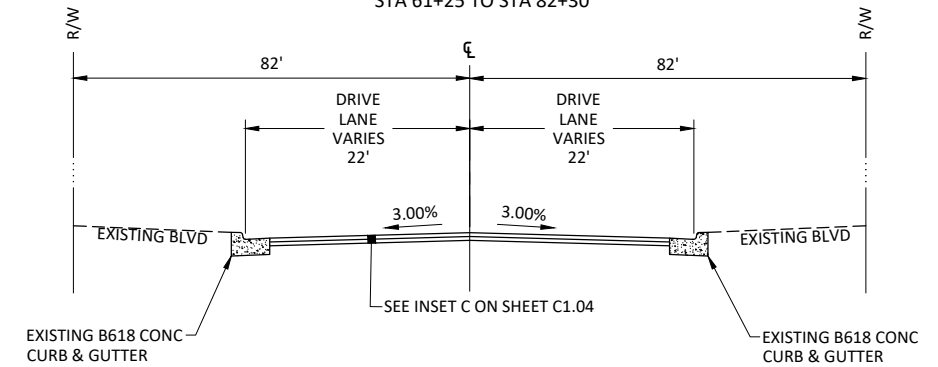
34TH AVE N
TYPICAL SECTION
STA 48+00 TO STA 61+25



35TH AVE N
TYPICAL SECTION
34TH AVE N TO PLYMOUTH BLVD



34TH AVE N
TYPICAL SECTION
STA 61+25 TO STA 82+30



TYPICAL SECTION NOTES:

1. PAVEMENT SLOPES AT INTERSECTIONS SHALL MATCH EXISTING CONDITIONS.
2. REMOVE AND REPLACE EXISTING CURB AND GUTTER AS SPECIFIED BY THE ENGINEER IN THE FIELD.
3. FULL DEPTH BITUMINOUS PAVEMENT REPLACEMENT SHALL BE IDENTIFIED BY THE ENGINEER IN THE FIELD AFTER MILLING. REMOVAL OF BITUMINOUS PAVEMENT AND SAWING BITUMINOUS PAVEMENT SHALL BE INCIDENTAL TO BITUMINOUS PAVEMENT REPLACEMENT.

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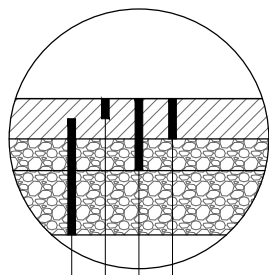


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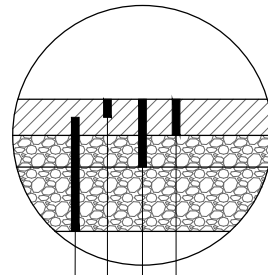
CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
TYPICAL SECTIONS

SHEET
C1.03



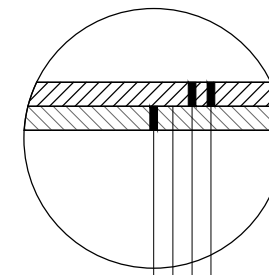
- EXISTING BITUMINOUS PAVEMENT - AVERAGE VARIES 5.5"-7.5"
- RECLAIM BITUMINOUS PAVEMENT & AGGREGATE BASE - 12"
- REMOVE AND DISPOSE OF UPPER 5" RECLAIM SECTION
- COMPACT REMAINING RECLAIM & EXISTING AGGREGATE BASE - AVERAGE 7.5"-12.5"

INSET A: EXISTING PAVEMENT SECTION - 12" RECLAMATION
NOT TO SCALE



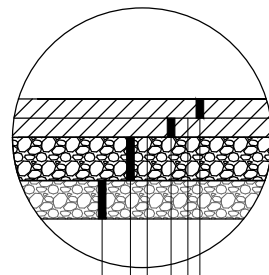
- EXISTING BITUMINOUS PAVEMENT - AVERAGE VARIES 6"-10.5"
- RECLAIM BITUMINOUS PAVEMENT & AGGREGATE BASE - 8"
- REMOVE AND DISPOSE OF UPPER 5" RECLAIM SECTION
- COMPACT REMAINING RECLAIM & EXISTING AGGREGATE BASE - AVERAGE VARIES 12.5"-16.5"

INSET B: EXISTING PAVEMENT SECTION - 8" RECLAMATION
NOT TO SCALE



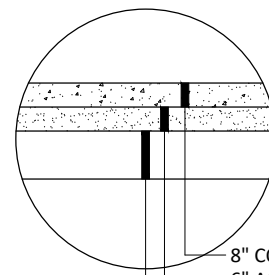
- MILL BITUMINOUS SURFACE (2" DEPTH)
- 2" TYPE SP 9.5 WEARING COURSE (SPWEA340B)(2360)
- TACK COAT (2357)
- EXISTING REMAINING BITUMINOUS PAVEMENT

INSET C: BITUMINOUS MILL & OVERLAY - 36TH, 35TH, 34TH AVE N
NOT TO SCALE



- 2" TYPE SP 12.5 WEARING COURSE(SPWEA340C)(2360)
- TACK COAT (2357)
- 3" TYPE SP 12.5 WEARING COURSE(SPWEA340C)(2360)
- SUBGRADE PREPARATION - STREET (2112)
- 3"-7" COMPACTED RECLAIMED MATERIAL (IN-PLACE) (2211)
- EXISTING AGGREGATE BASE (DEPTH VARIES)

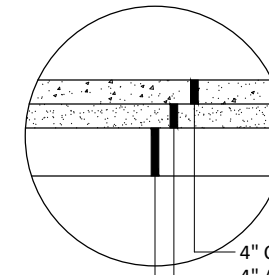
INSET D: PROPOSED PAVEMENT SECTION - 37TH, 34TH AVE N
NOT TO SCALE



- 8" CONCRETE DRIVEWAY (2521)
- 6" AGGREGATE BASE, CL 5 (2211)(INCIDENTAL)
- SUBGRADE PREPARATION (2112)(INCIDENTAL)

8" CONCRETE DRIVEWAY
NOT TO SCALE

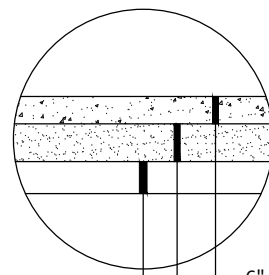
NOTE: PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL



- 4" CONCRETE WALK (2521)
- 4" AGGREGATE BASE, CL 5 (2211)(INCIDENTAL)
- SUBGRADE PREPARATION (2112)(INCIDENTAL)

4" CONCRETE WALK/WALK SPECIAL/MEDIAN
NOT TO SCALE

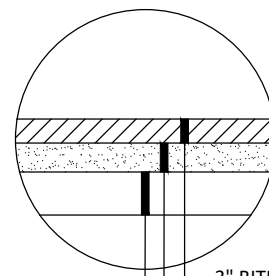
NOTE: PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL



- 6" CONCRETE WALK (2521)
- 4" AGGREGATE BASE, CL 5 (2211)(INCIDENTAL)
- SUBGRADE PREPARATION (2112) (INCIDENTAL)

6" CONCRETE WALK
NOT TO SCALE

NOTE: PROVIDE LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL



- 3" BITUMINOUS WALK/TRAIL (SPWEA240B)(2521)
- 6" AGGREGATE BASE, CL 5 (2211)(INCIDENTAL)
- SUBGRADE PREPARATION - TRAIL (2112)

3" BITUMINOUS WALK/TRAIL/DRIVEWAY
NOT TO SCALE

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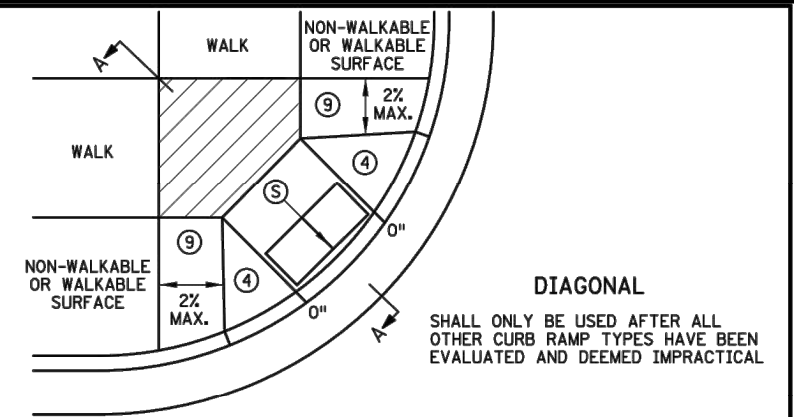
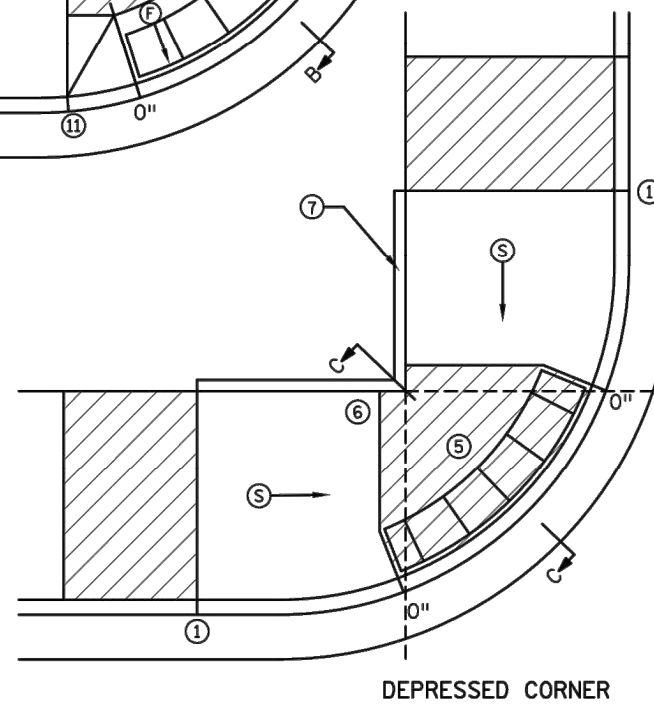
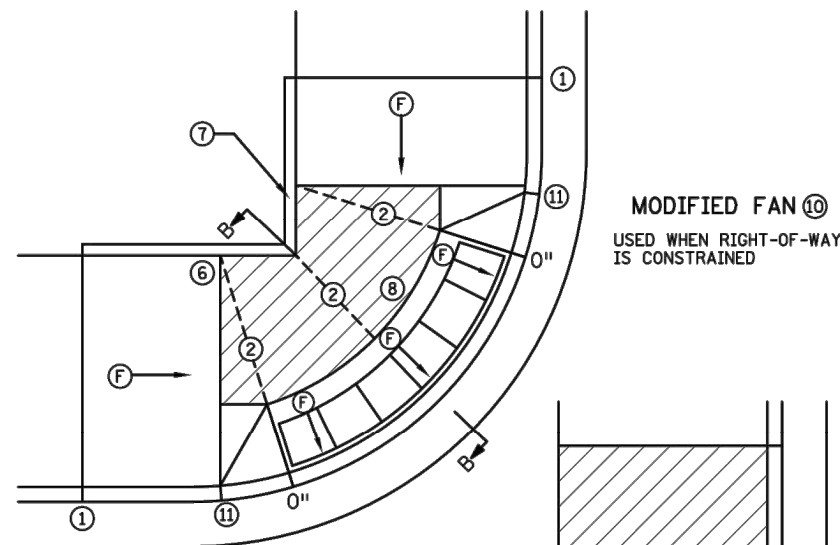
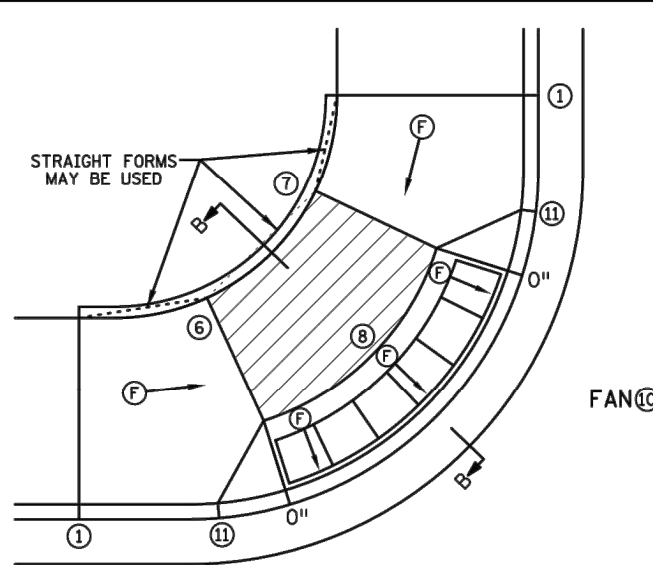
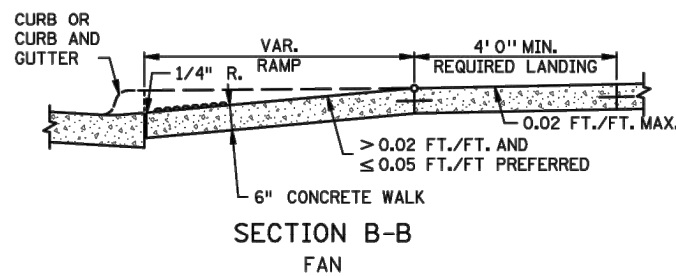
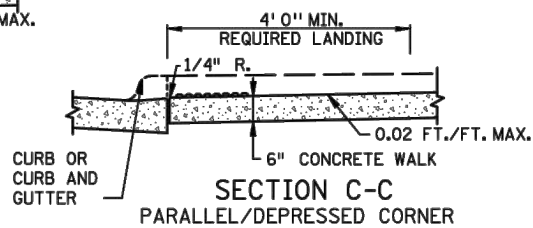
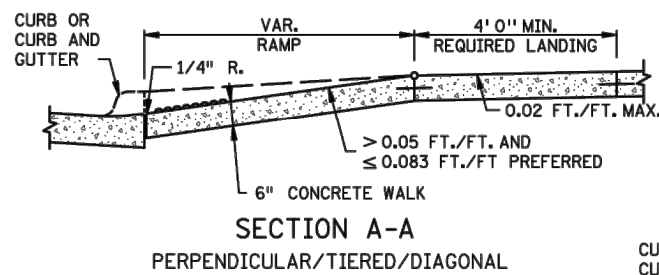
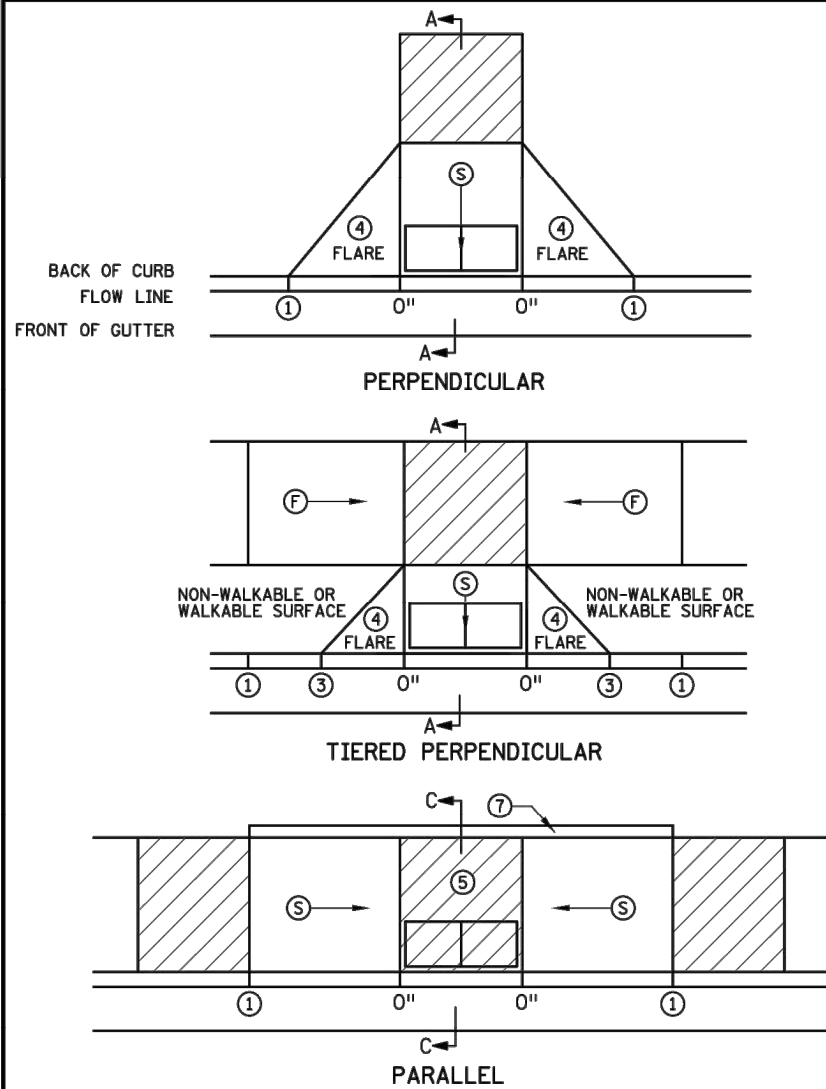
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CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

TYPICAL SECTIONS

SHEET

C1.04



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%.
(X)	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.
X"	CURB HEIGHT

REVISIONS:

APPROVED: 11-04-2021

Jeffrey Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m MINNESOTA
DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 1 OF 6

APPROVED: 11-04-2021
REVISOR:

Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

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

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

STANDARD DETAILS

SHEET

C1.05

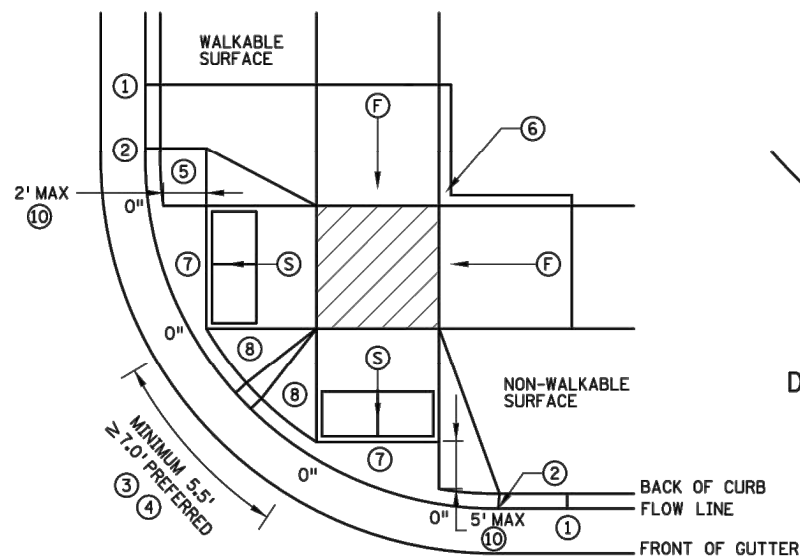


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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

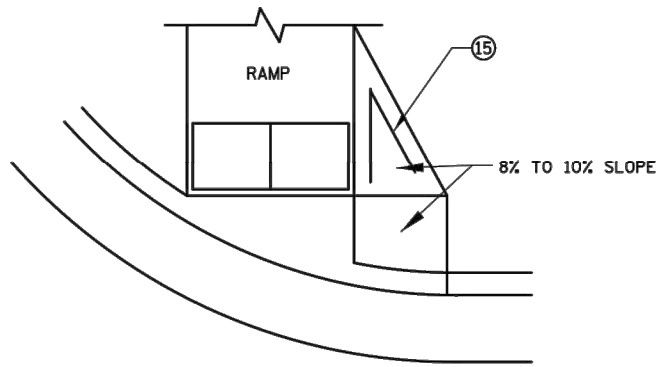
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NICHOLAS J. AMATUCCIO
LIC. NO. 53639 DATE 01/24/2023

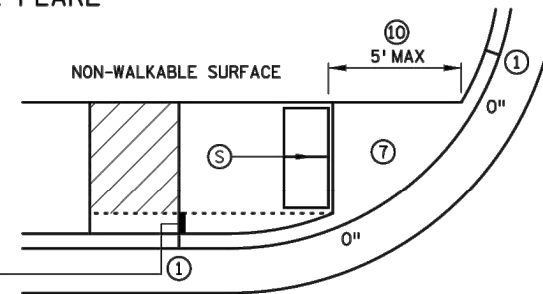


COMBINED DIRECTIONAL

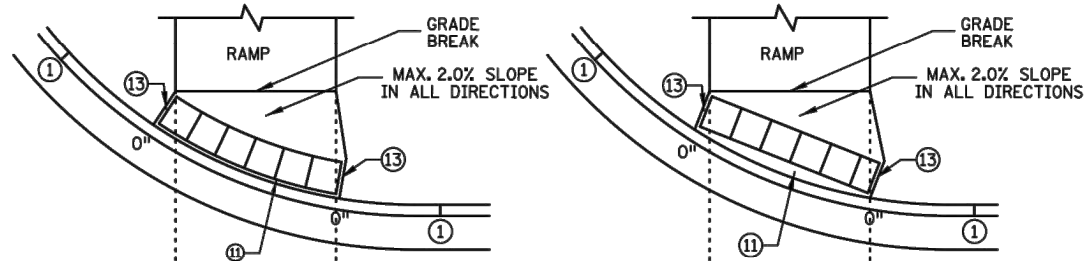


DIRECTIONAL RAMP WALKABLE FLARE

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.

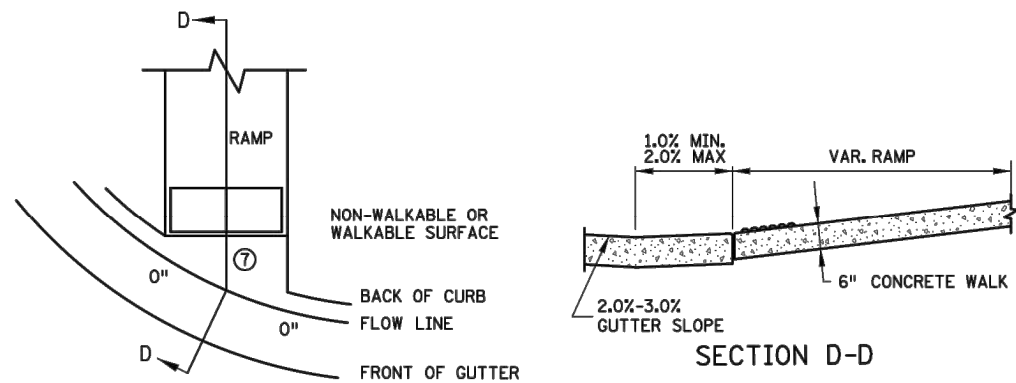


STANDARD ONE-WAY DIRECTIONAL ⑨

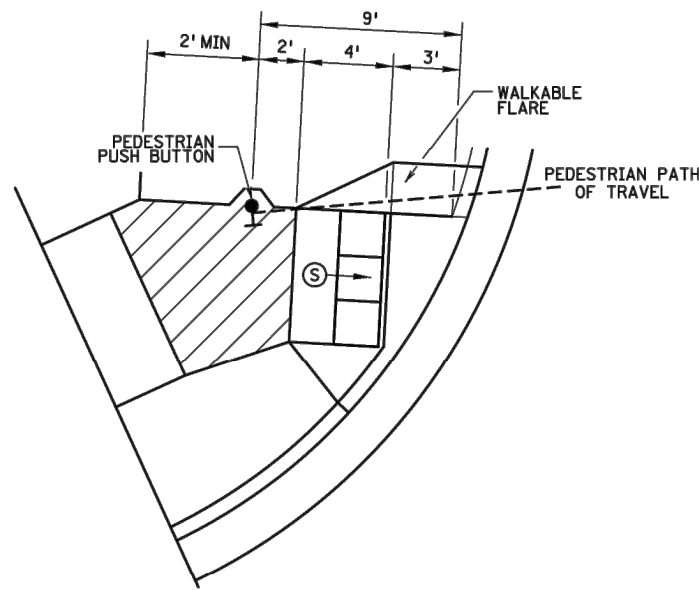


DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

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.

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%.

⑥ 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%.

▨ 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
<i>Jeffrey Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION

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

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

SHEET

C1.06

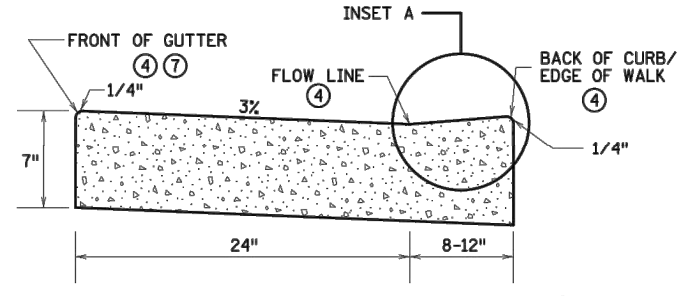
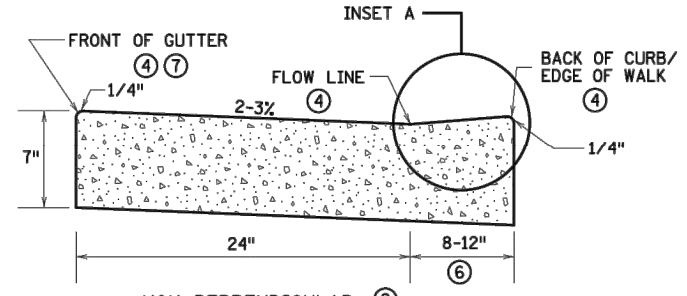
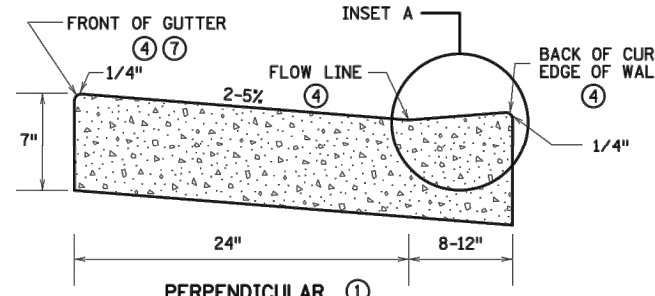
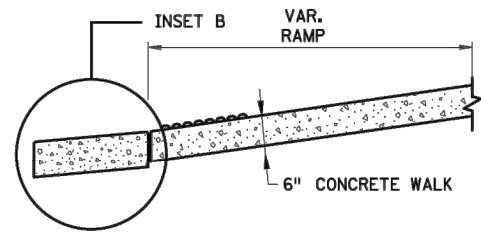


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 BURNSVILLE, MINNESOTA 55337
 Phone: (952) 890-0509
 Email: Burnsville@bolton-menk.com
 www.bolton-menk.com

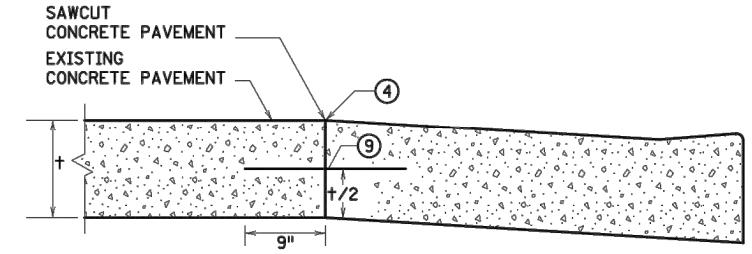
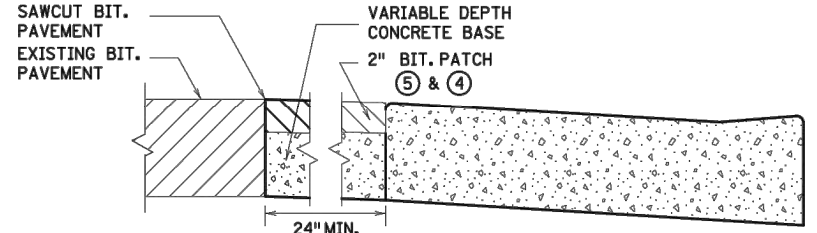
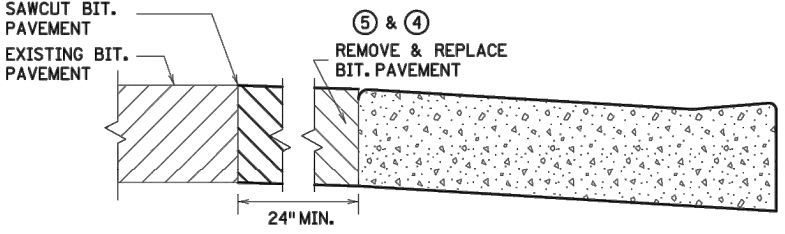
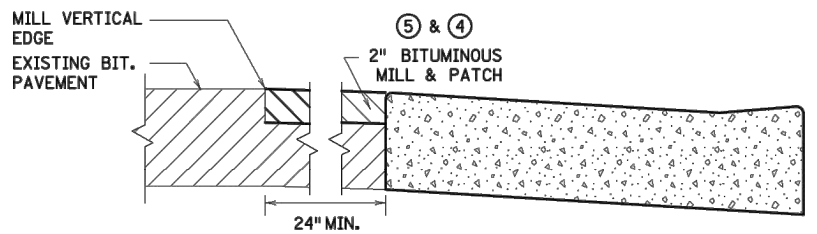
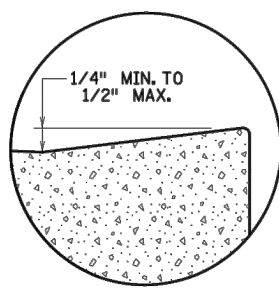
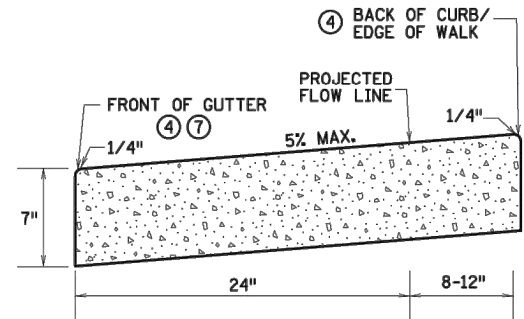
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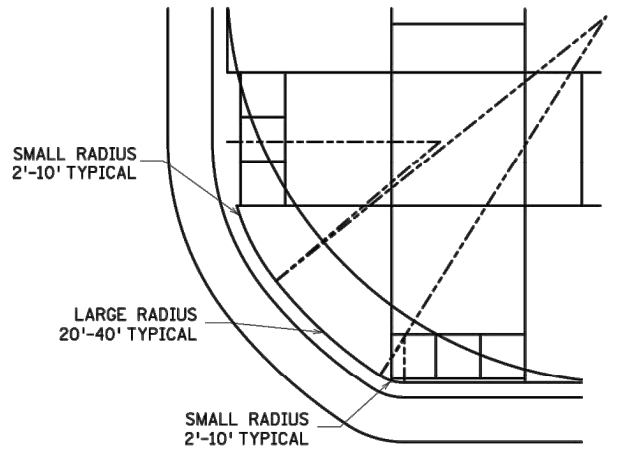
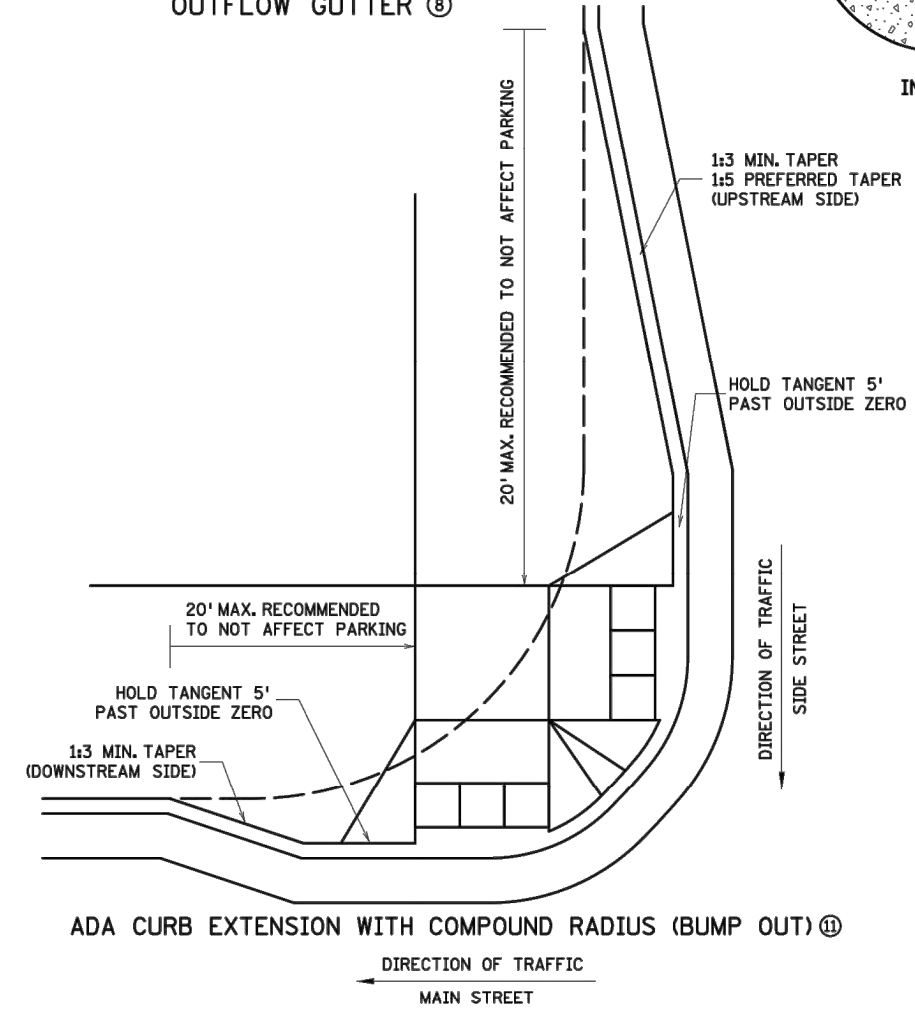
NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE 01/24/2023



PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



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



- 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.

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

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
 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 STANDARD DETAILS

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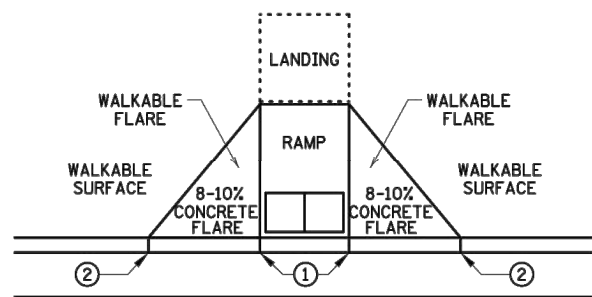
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 NICHOLAS J. AMATUCCIO
 LIC. NO. 53639 DATE 01/24/2023



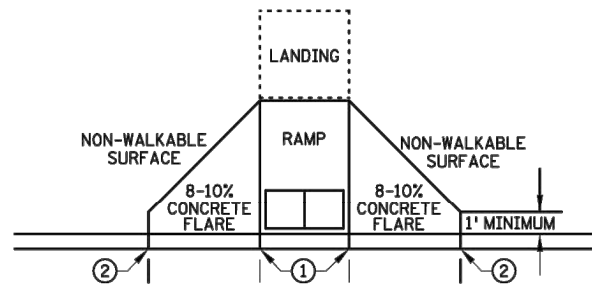
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 BURNSVILLE, MINNESOTA 55337
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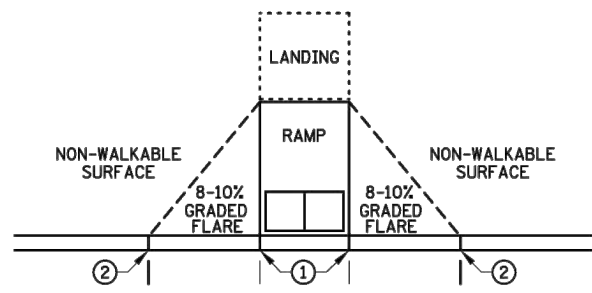
SHEET
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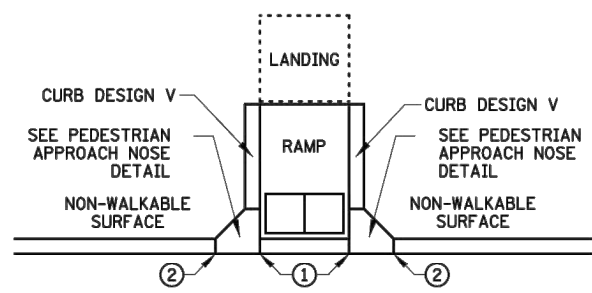
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

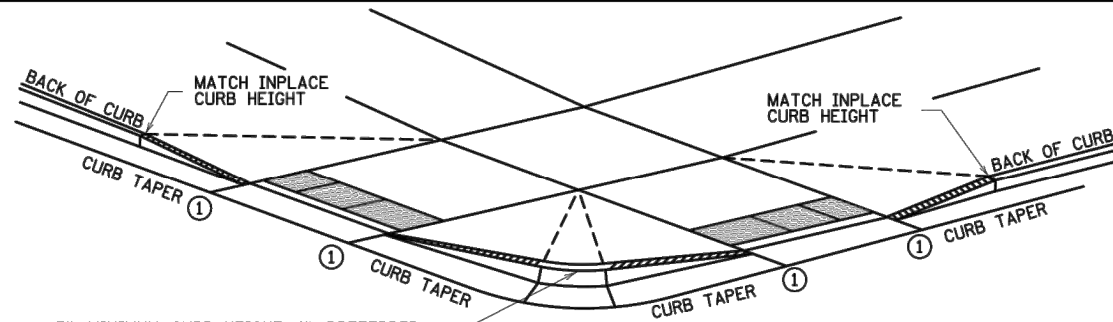


GRADED FLARES



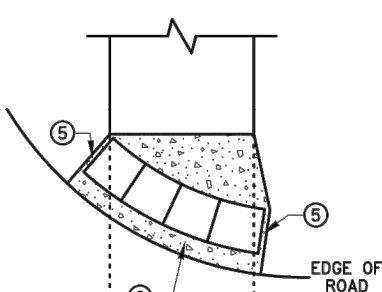
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

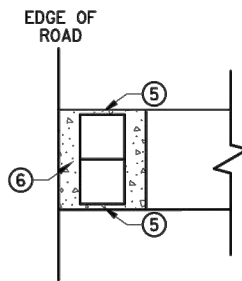


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH
CURB AND GUTTER ⑦

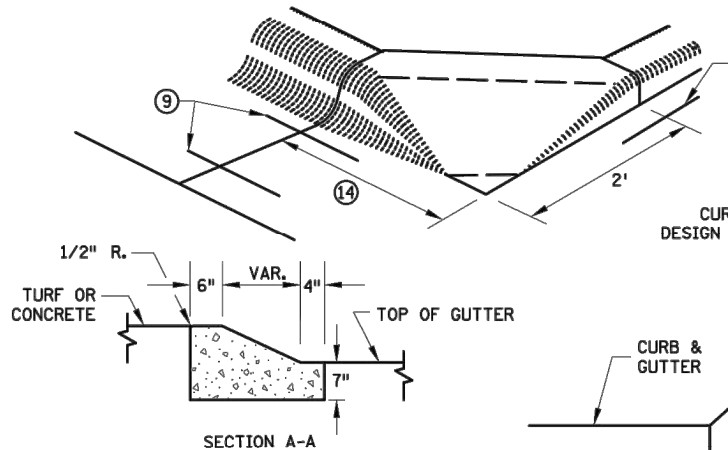


RADIAL DETECTABLE WARNING

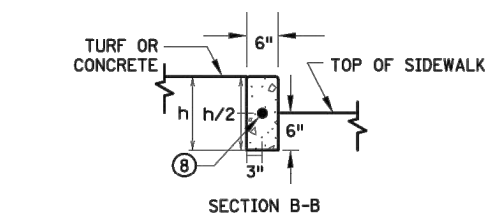


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

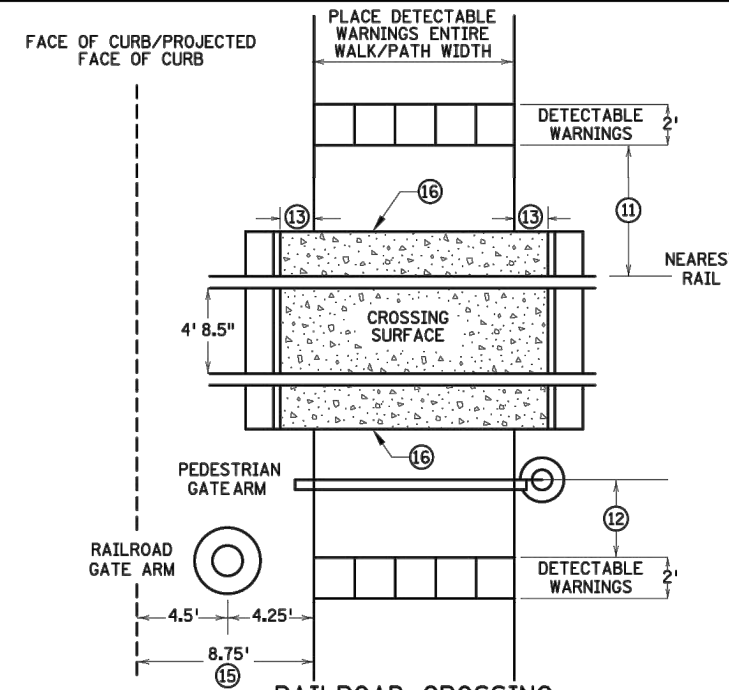


SECTION A-A



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 RAMP 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:	
THOMAS STYRBICKI STATE DESIGN ENGINEER	STATE PROJ. NO.	(TH) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

SHEET

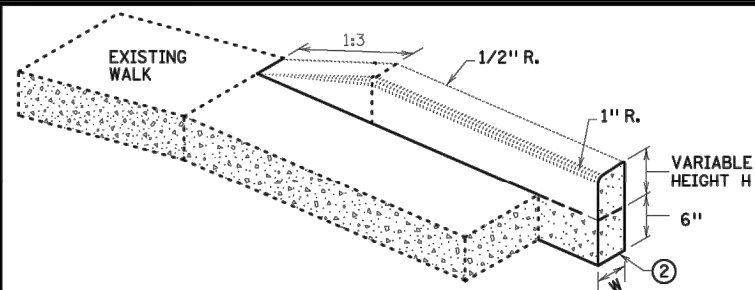
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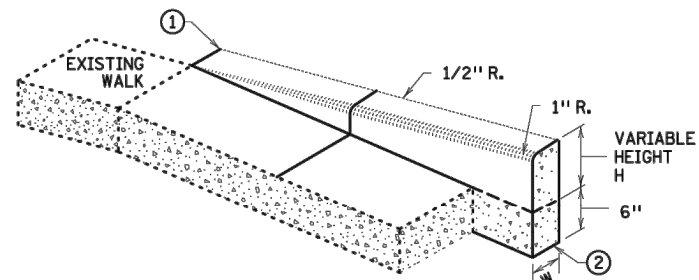
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Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
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CLIENT PROJ. NO.	0T1.128224			

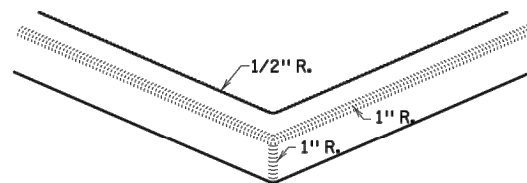
STANDARD DETAILS



V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

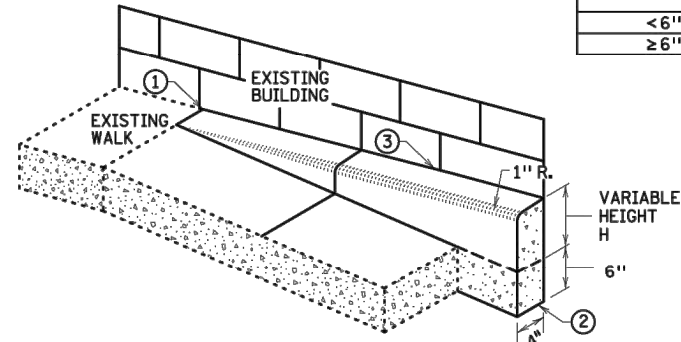


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

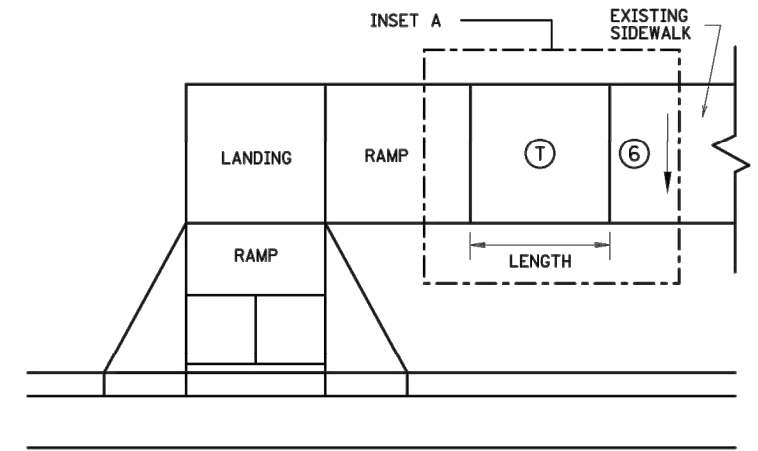


V CURB INTERSECTION

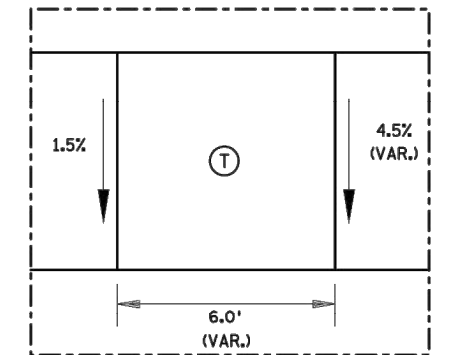
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"



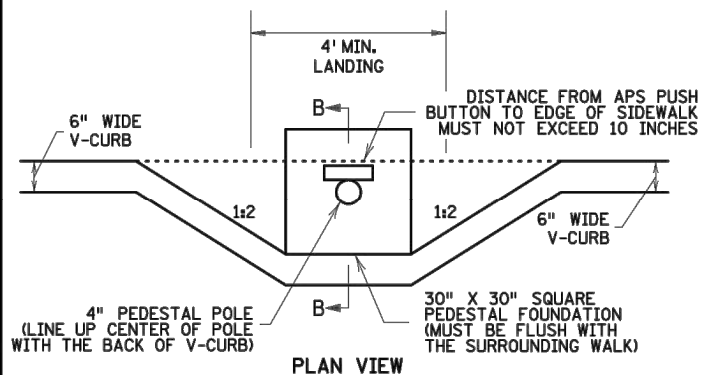
V CURB ADJACENT TO BUILDING
OR BARRIER



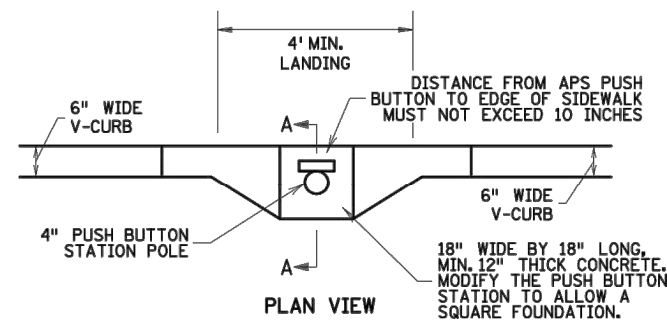
TRANSITION PANEL ④ ⑤



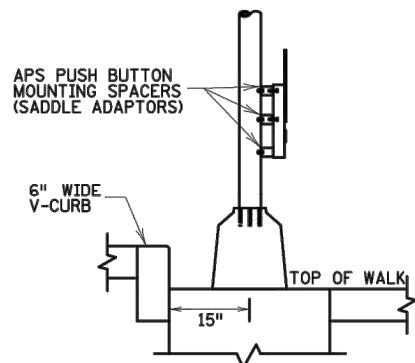
INSET A



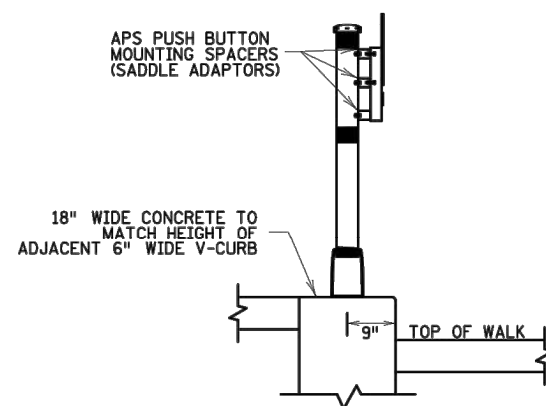
PLAN VIEW



PLAN VIEW



SECTION B-B
SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A
PUSH BUTTON STATION (V-CURB)

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
	APPROVED: 11-04-2021 REVISOR:	
THOMAS STYRBIK STATE DESIGN ENGINEER		STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

(TH) SHEET NO. OF SHEETS

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

STANDARD DETAILS

SHEET

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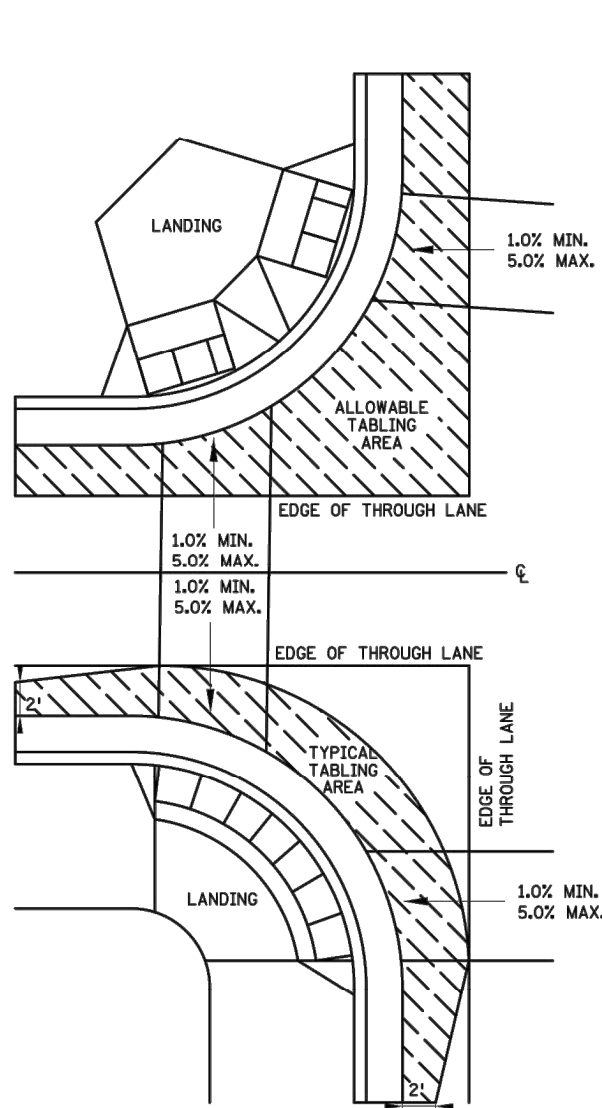


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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
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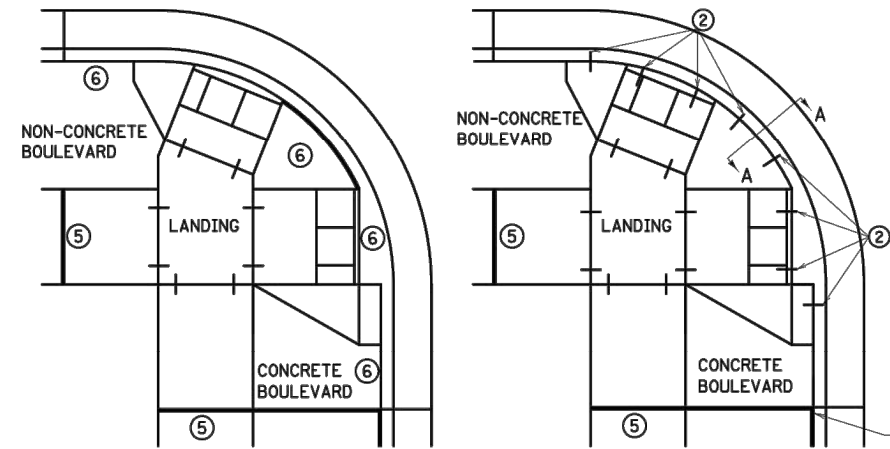
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CLIENT PROJ. NO.	0T1.128224		

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 01/24/2023

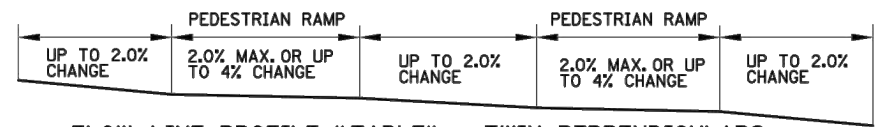


CURB LINE AND ROAD CROSSING ADJUSTMENTS

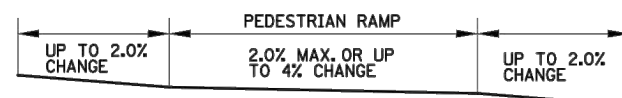


EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS

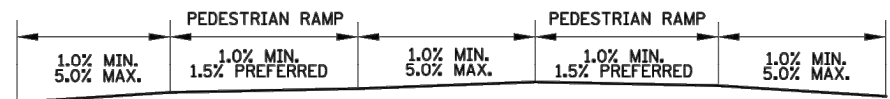
CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



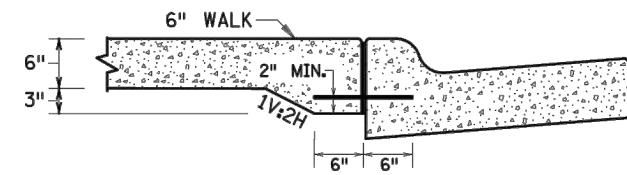
FLOW LINE PROFILE "TABLE" - FAN



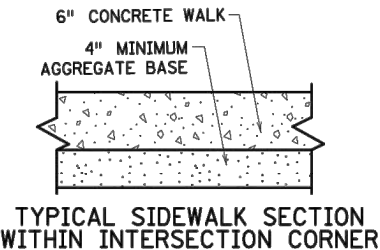
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



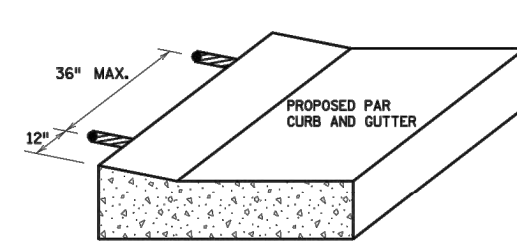
FLOW LINE PROFILE RAISE - FAN



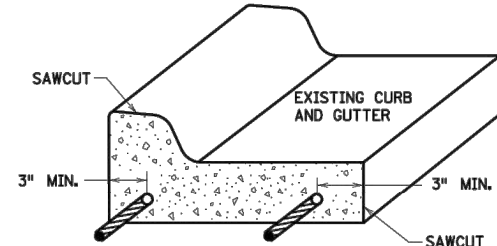
SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES



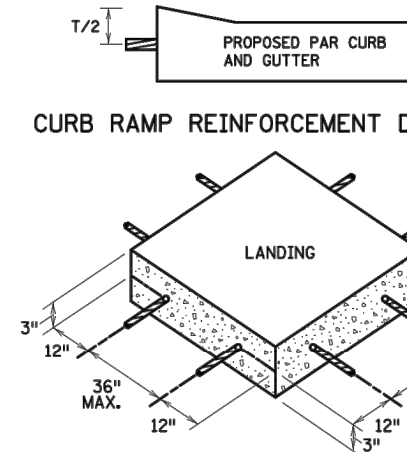
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



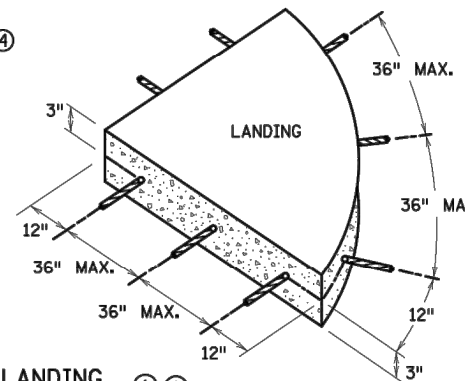
CURB RAMP REINFORCEMENT DETAILS ② ④



CURB AND GUTTER REINFORCEMENT ③



SEPARATE LANDING 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) 1.0% MIN. CROSS-SLOPE OF THE ROAD
- 2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
- 3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
- 4) 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) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
- 2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
- 3) 5.0% RECOMMENDED MAX. FLOW LINE
- 4) 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.

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

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

PEDESTRIAN CURB RAMP DETAILS

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS

STANDARD DETAILS

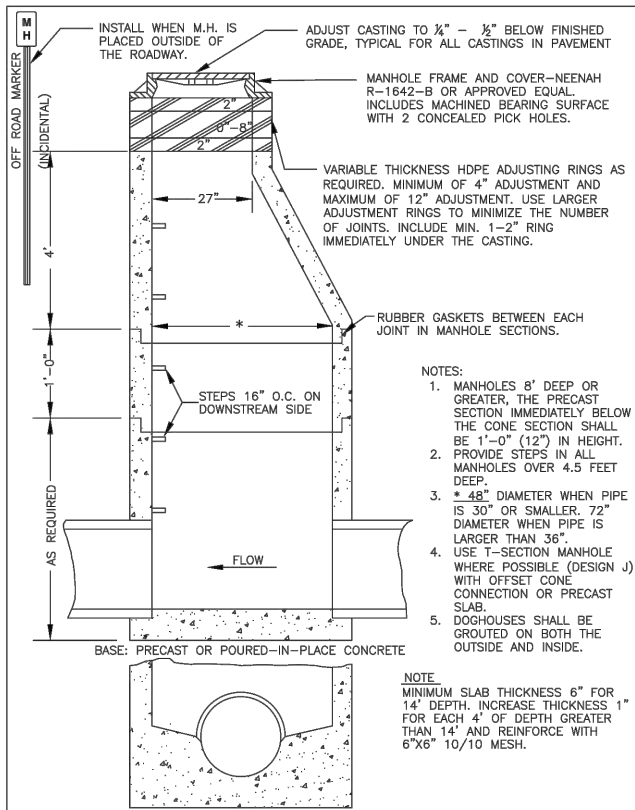
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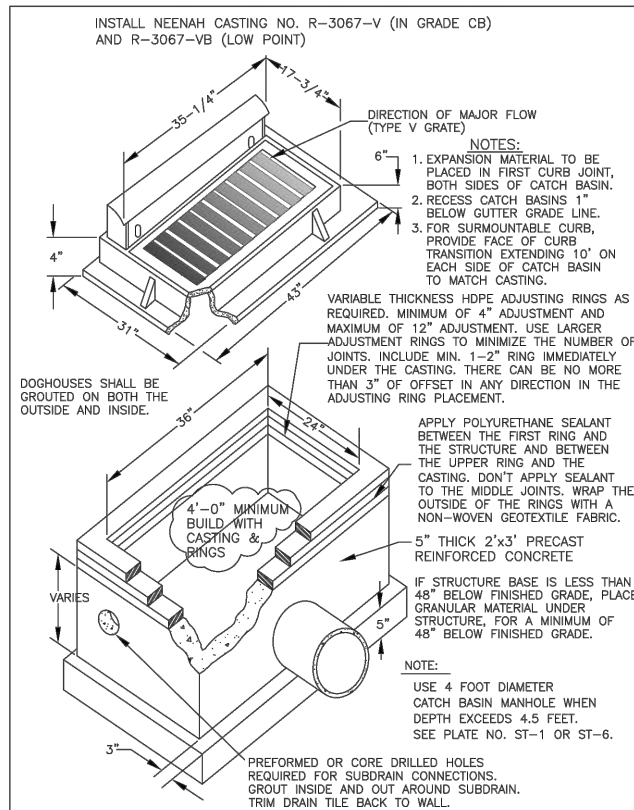
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BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
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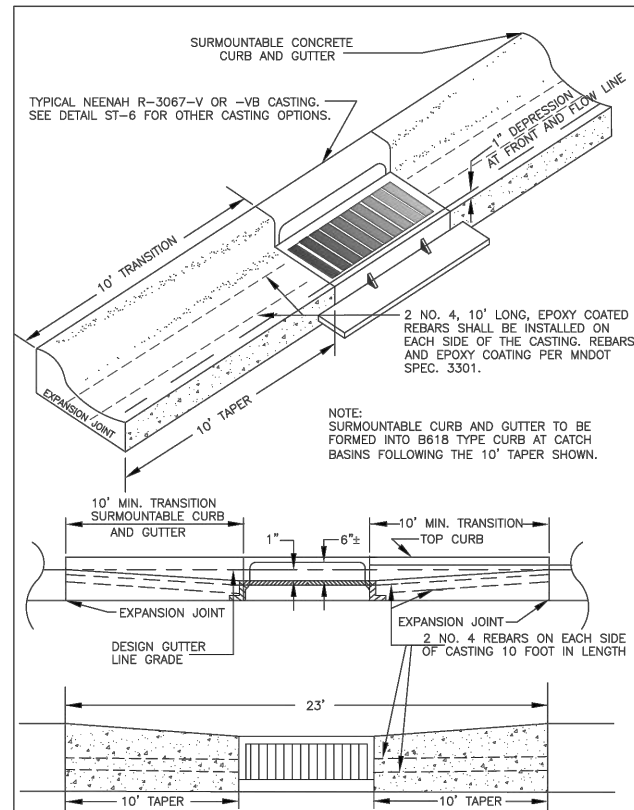
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STORM SEWER MANHOLE WITH CONE SECTION
CITY OF PLYMOUTH

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



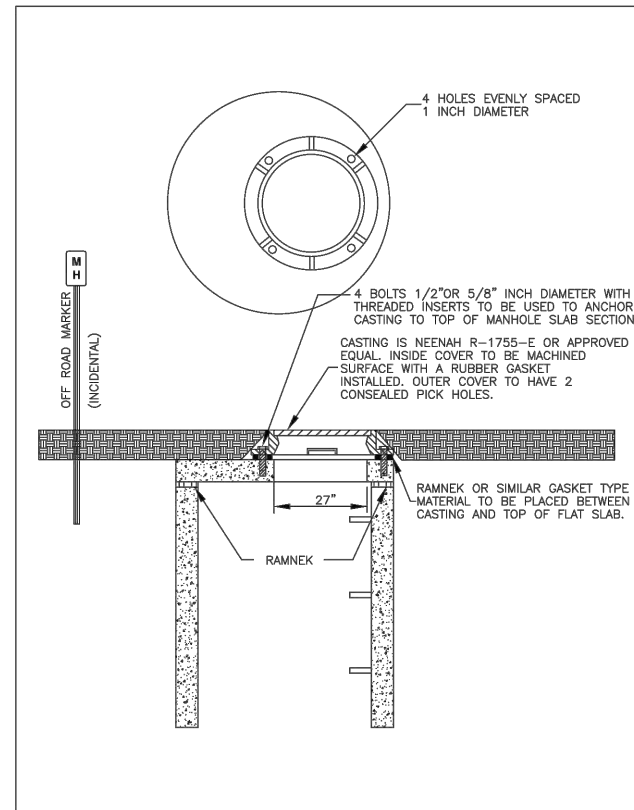
STANDARD DETAILS
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CITY OF PLYMOUTH

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



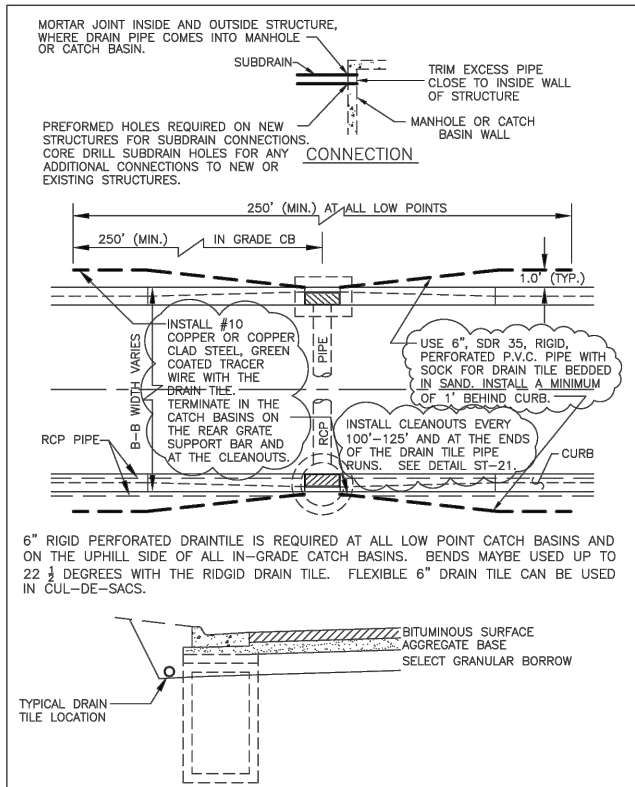
STANDARD DETAILS
CATCH BASIN CASTING INSTALLATION DETAIL
CITY OF PLYMOUTH

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



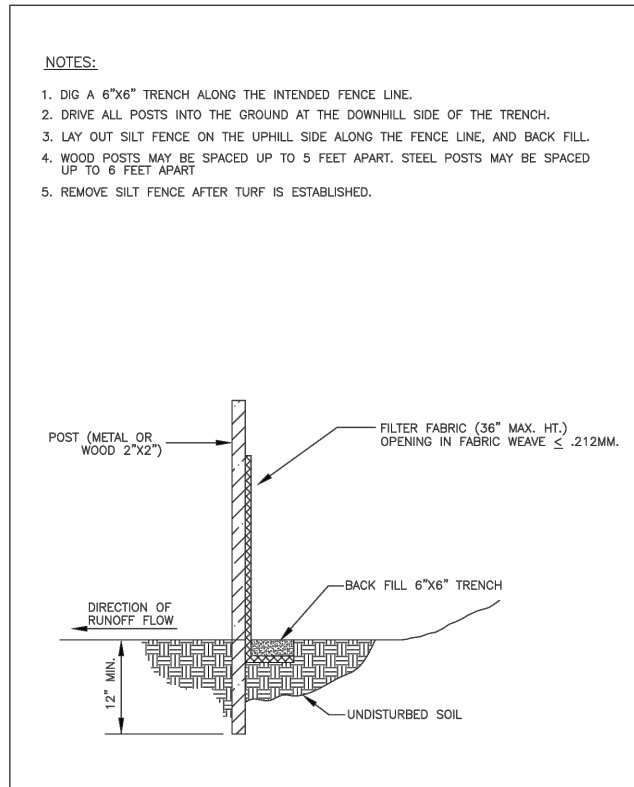
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CITY OF PLYMOUTH

PUBLISHED 1-22
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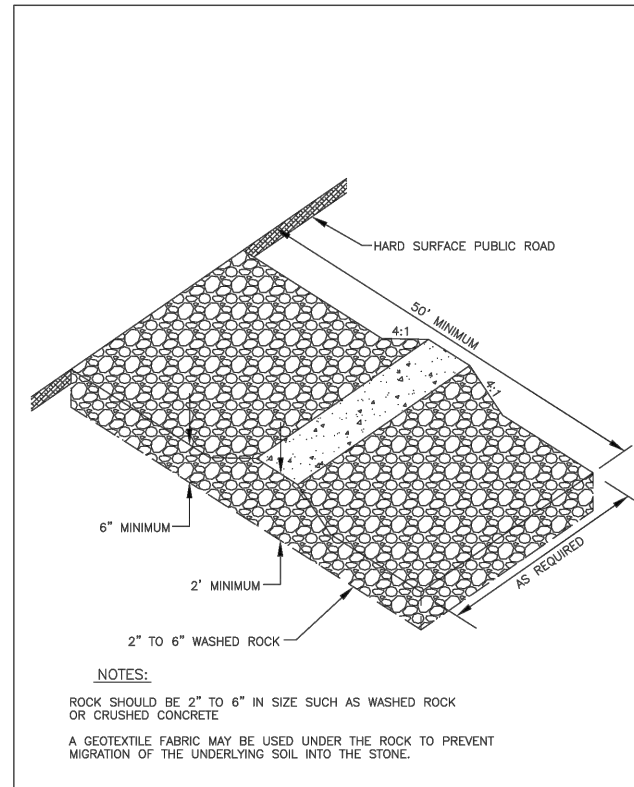
STANDARD DETAILS
SUBDRAIN DETAILS
CITY OF PLYMOUTH

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



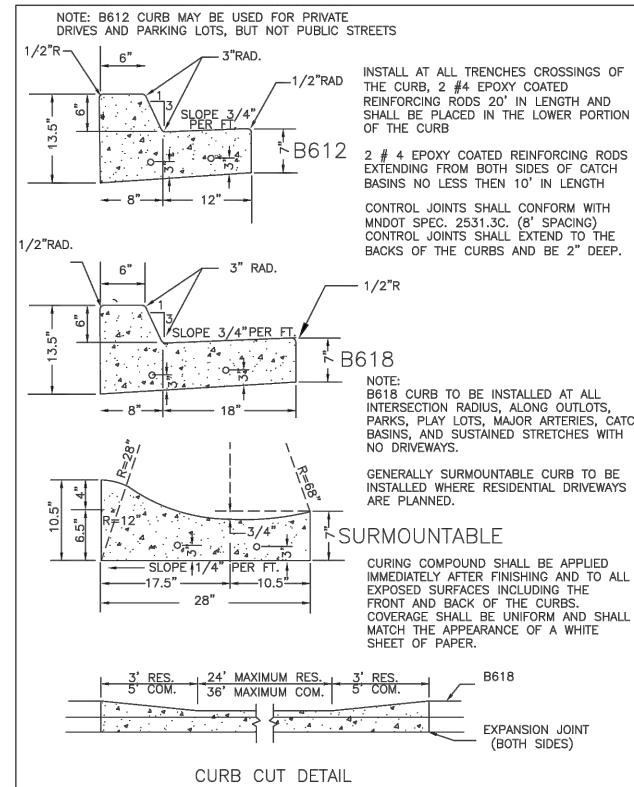
STANDARD DETAILS
SILT FENCE DETAIL
CITY OF PLYMOUTH

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



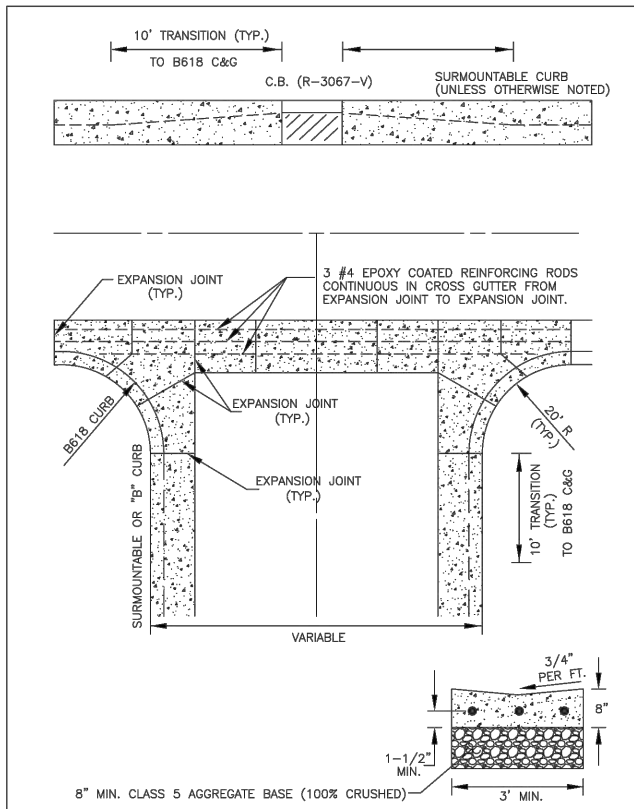
STANDARD DETAILS
ROCK EXIT TO CONSTRUCTION SITE
CITY OF PLYMOUTH

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



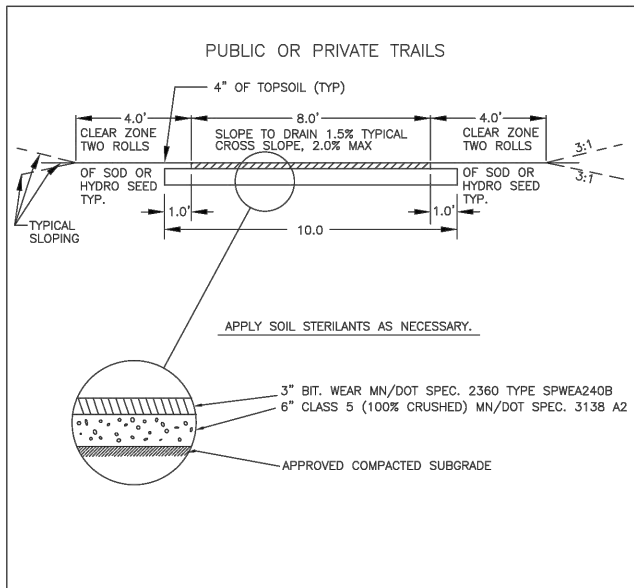
STANDARD DETAILS
STANDARD CURB DETAILS
CITY OF PLYMOUTH

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



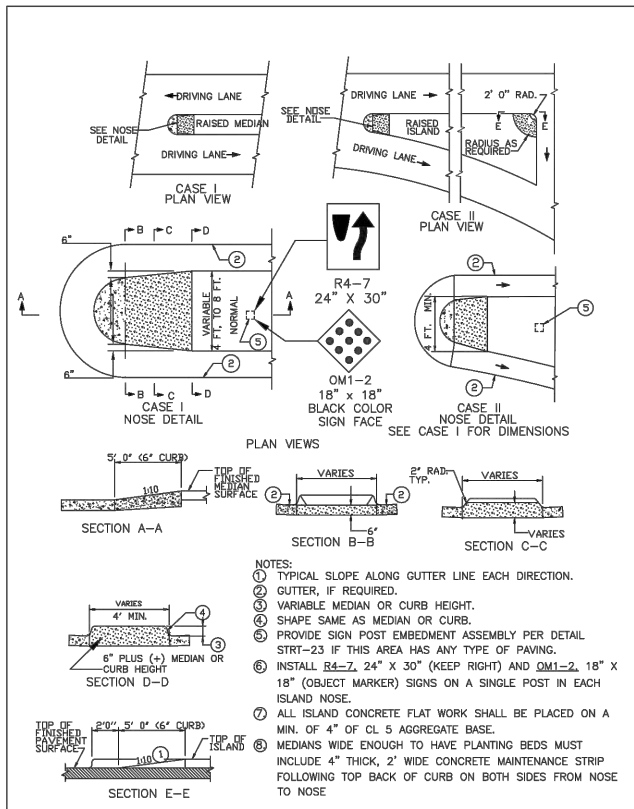
STANDARD DETAILS
CONCRETE CROSS GUTTER
CITY OF PLYMOUTH

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



STANDARD DETAILS
TYPICAL TRAIL CROSS SECTION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-15
REVISED 1-17



STANDARD DETAILS
CONCRETE ISLAND APPROACH NOSE DETAIL
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-9
REVISED 1-20

THE INTENT OF THESE SPECIFICATIONS IS TO HAVE A UNIFORM TRAFFIC CONTROL SIGNS THROUGHOUT THE CITY. THIS IS IMPORTANT FOR AESTHETIC PURPOSES AND WILL EASE REPAIRS, KEEPING THE NUMBER AND TYPES OF PARTS NEEDED IN INVENTORY TO A MINIMUM.

THE SPECIFICATIONS INCLUDE, BUT ARE NOT LIMITED TO: REGULATORY, PARKING, SCHOOL, WARNING, PARK AND INFORMATION SIGNS.

ALL SIGNAGE SHALL BE SHOWN ON THE STREET PLANS OR A SEPARATE PLAN SHEET FOR THE PROJECT.

THE CITY PUBLIC WORKS DEPARTMENT SHALL APPROVE ALL SIGNS AND MATERIALS PRIOR TO INSTALLATION. (SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL)

SIGNS:
COMMON SIGN SIZES:
STOP - R1-1, 30" X 30"
"NO PARKING ANY TIME" (SYMBOL W/"ANY TIME" UNDERNEATH)- R7-2A, 12" X 18"
SPEED LIMIT - R2-1, 24" X 30"
STOP AHEAD - W3-1, 36" X 36"
SIGNAL AHEAD - W3-3, 36" X 36"
KEEP RIGHT - R4-7, 24" X 30"
OBJECT MARKER - OM1-2, 18" X 18" (BLACK BACKGROUND W/ YELLOW REFLECTORS)
NO OUTLET - W14-2, 30" X 30"

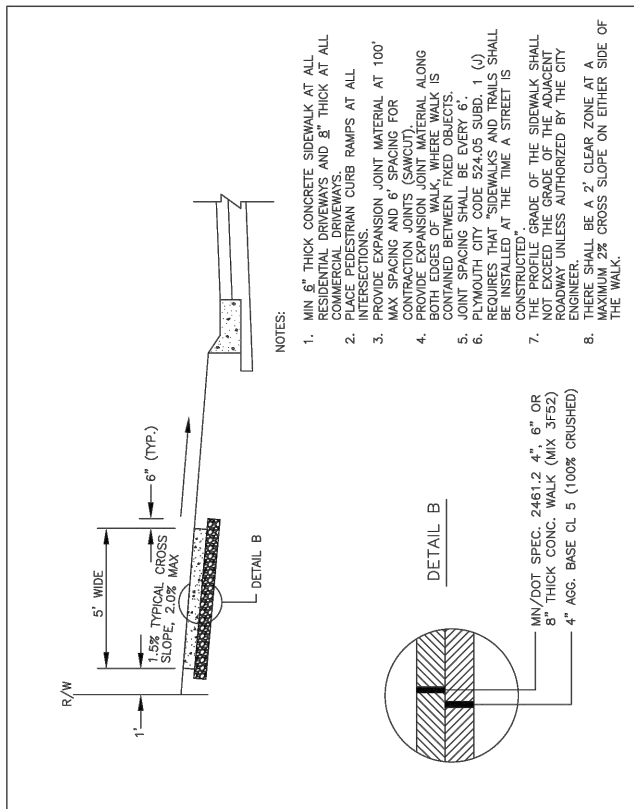
ALL SIGNS SHALL BE LYLE SIGNS OR APPROVED EQUAL.
ALL SIGNS WILL HAVE "3M" HIGH INTENSITY REFLECTIVE SHEETING OR APPROVED EQUAL.
ALL SIGNS SHALL BE ON ALUMINUM PLATE.
ALL SIGNS UP TO 18" SHALL BE .080 MIN. THICKNESS.
ALL SIGNS OVER 30" SHALL BE 0.100 MIN. THICKNESS.
ALL SIGNS TO BE SIZED ACCORDING TO MN MUTCD MANUAL.
AND PUNCHED WITH 3/8" HOLES MEETING MN/DOT SPECS.
STREET SIGNS SHALL NOT INCLUDE "N" FOR NORTH

POSTS:
THE SIGN SUPPORTS WILL BE EITHER A "U" CHANNEL POST, PAINTED GREEN OR A 3" DIAMETER, 12' LONG TUBE POST. THE POSTS SHALL BE 2 & 3 LBS. PER FT. AND 6,7 AND 8' IN LENGTH. ALL SIGNS UP TO 18" SHALL BE MOUNTED ON 2 U-CHANNEL POSTS, EACH 2 LBS., ONE 7' LONG AND ONE 6' LONG. THE LONGER POST TO BE DRIVEN IN THE GROUND FIRST.
ALL SIGNS 18" TO 30" SHALL USE A 8' - 3 LB. POST AND A 7' - 2 LB. POST, WITH THE 3LB. POST DRIVEN INTO THE GROUND FIRST.
ALL SIGNS OVER 30" SHALL USE 2 SETS OF POSTS. (THE HEAVIER POST PLACED IN THE GROUND FIRST)
ALL U-CHANNEL POSTS WILL BE POUNDED 3' INTO THE GROUND.

PLACEMENT AND MOUNTING HEIGHTS:
SEE PLATES STRT-21 THROUGH STRT-25
ALL TUBE POST SHALL BE PLACED IN A 10" DIAMETER BY 3' DEEP CONCRETE FOOTING FLARED AT THE BOTTOM.
IT WILL BE THE RESPONSIBILITY OF THE INSTALLER TO HAVE ALL UNDERGROUND UTILITIES LOCATED.

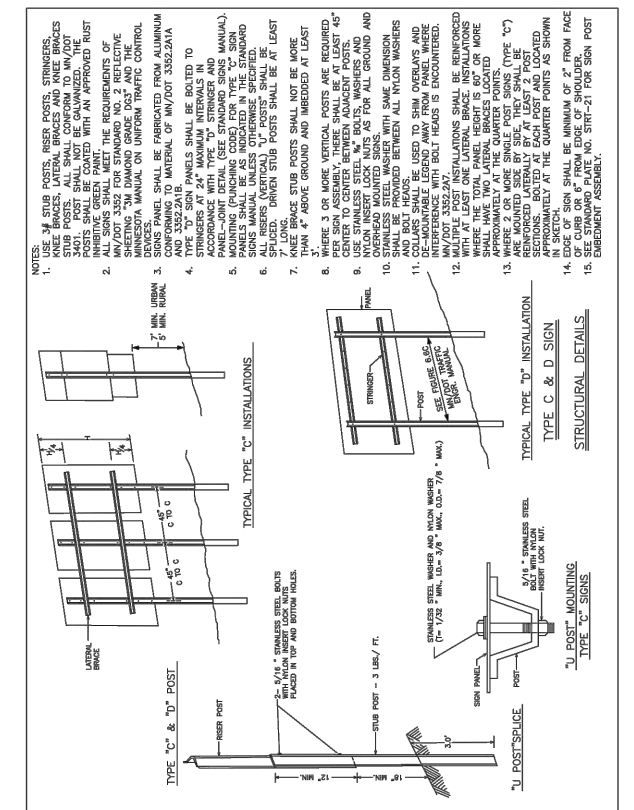
STANDARD DETAILS
TRAFFIC SIGN SPECIFICATIONS
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-21
REVISED 1-20



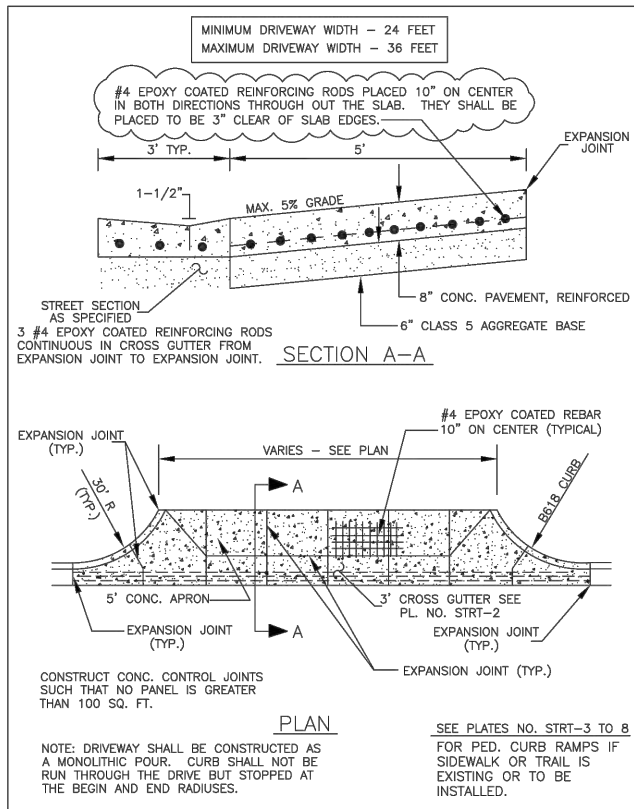
STANDARD DETAILS
CONCRETE WALK SECTION
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-10
REVISED 1-21



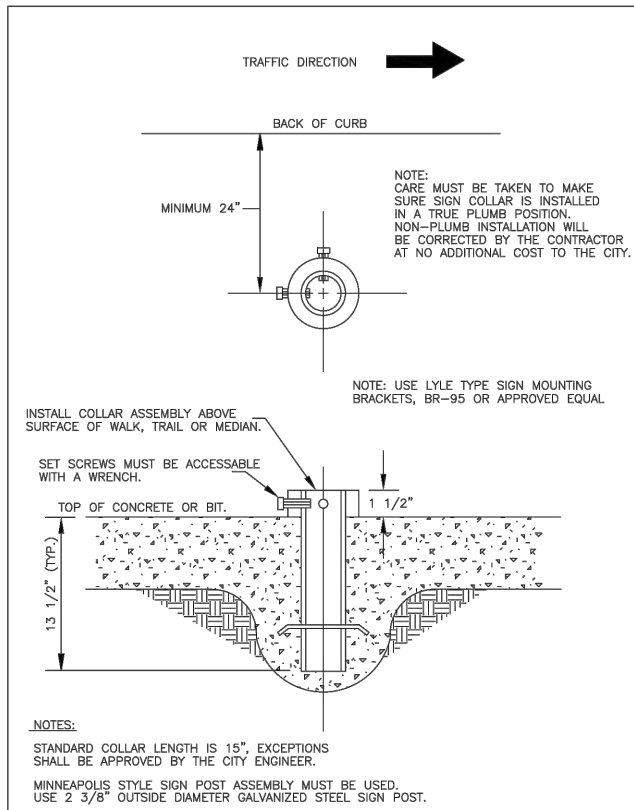
STANDARD DETAILS
TRAFFIC SIGNS
CITY OF PLYMOUTH

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



STANDARD DETAILS
INDUSTRIAL / COMMERCIAL DRIVEWAY
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-12
REVISED 3-13



STANDARD DETAILS
SIGN POST EMBEDMENT ASSEMBLY
CITY OF PLYMOUTH

PUBLISHED 1-22
CITY PL. NO. STRT-23
REVISED 3-11

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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 01/24/2023

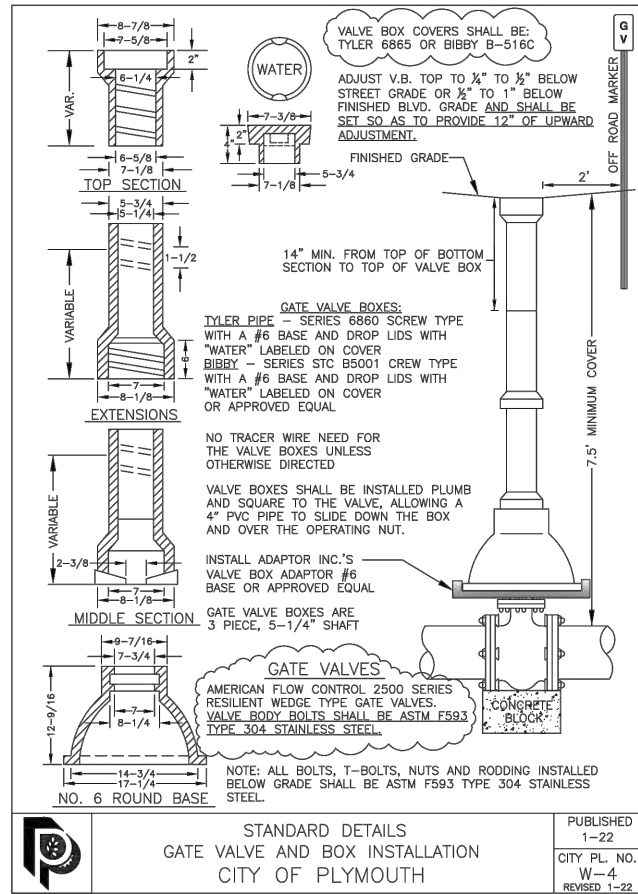
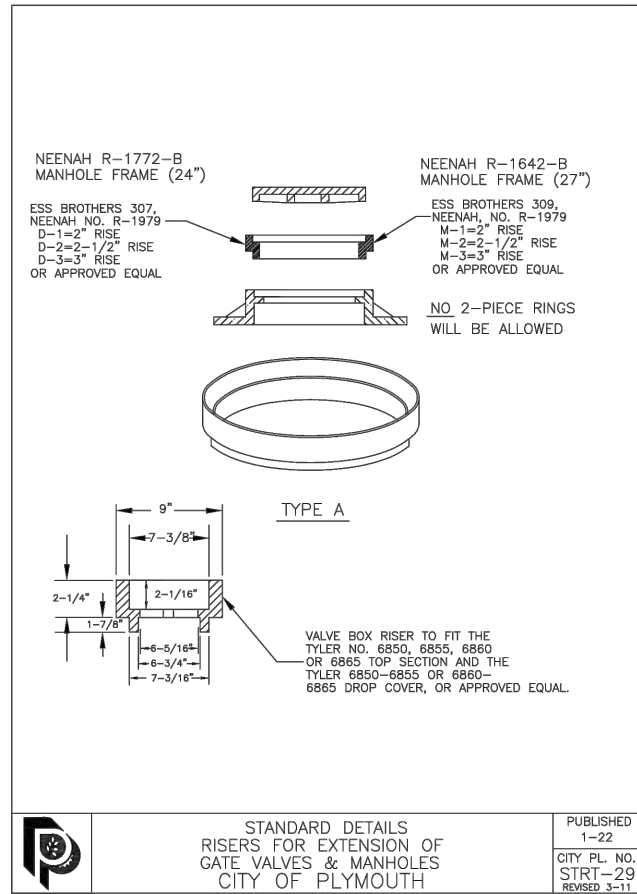
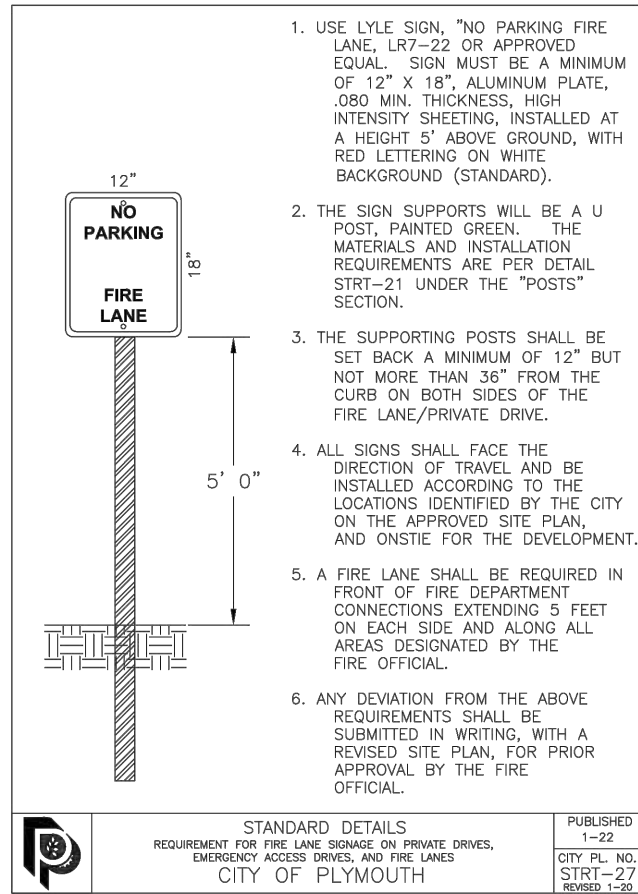
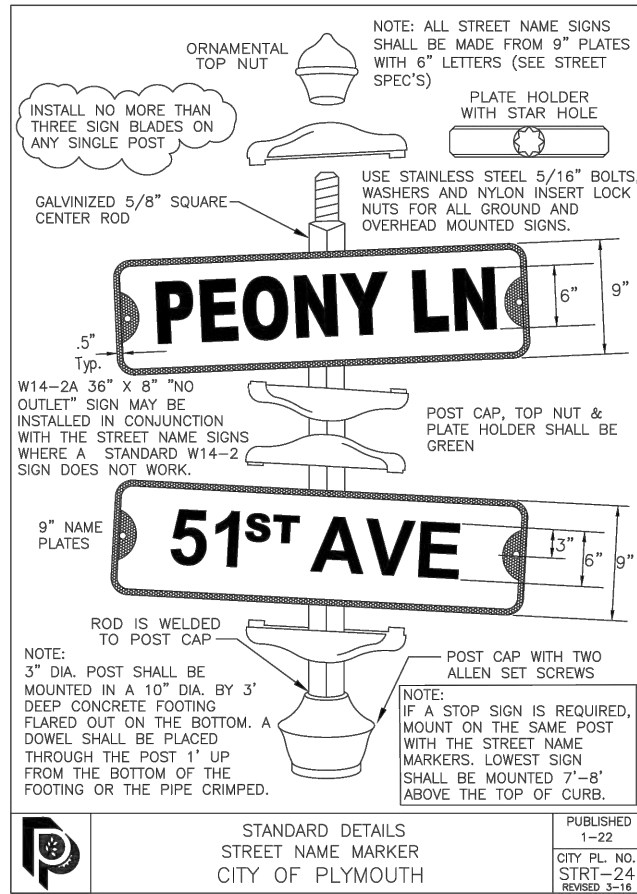


12224 NICOLLET AVENUE
BURNSVILLE, MINNESOTA 55337
Phone: (952) 890-0509
Email: Burnsville@bolton-menk.com
www.bolton-menk.com

DESIGNED	NO.	ISSUED FOR	DATE
AC			
AC			
NJA/MJW			
CLIENT PROJ. NO.	01.128224		

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
DETAILS

SHEET
C1.12



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

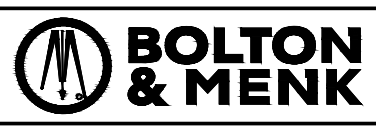
() Project Specific Information

STANDARD DETAILS
STANDARD CITY PROJECT SIGN
CITY OF PLYMOUTH

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

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 01/24/2023



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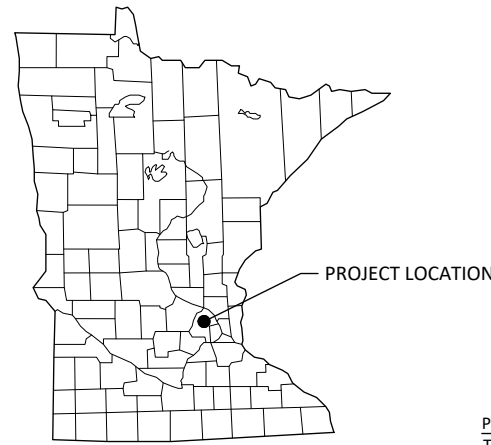
DESIGNED	NO.	ISSUED FOR	DATE
AC			
DRAWN	AC		
CHECKED	NJA/MJW		
CLIENT PROJ. NO.	0T1.128224		

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
DETAILS

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STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

CITY CENTER PAVEMENT REHAB IMPROVEMENTS - 2023
CITY OF PLYMOUTH
HENNEPIN COUNTY, MINNESOTA



LEGEND	
	1-MILE BOUNDARY
	PROJECT BOUNDARY
OR	IMPAIRED, SPECIAL OR PROTECTED WATERS
	NATIONAL WETLANDS INVENTORY
	CALCAREOUS FEN
	RECEIVING WATERS

PROJECT AREAS:

Total Project Size (disturbed area) =	3.53	ACRES
Existing area of impervious surface =	7.9	ACRES
Post construction area of impervious surface =	7.8	ACRES
Total new impervious surface area created =	-0.1	ACRES

Planned Construction Start Date:	4/15/2023
Estimated Construction Completion Date:	11/15/2023

PERMANENT STORMWATER MANAGEMENT SYSTEM:
Type of storm water management used if more than 1 acre of new impervious surface is created:

<input type="checkbox"/>	Wet Sedimentation Basin
<input type="checkbox"/>	Infiltration/Filtration
<input type="checkbox"/>	Regional Pond
<input checked="" type="checkbox"/>	Permanent Stormwater Management Not Required

PROJECT LOCATION:

COUNTY	TOWNSHIP	RANGE	SECTION	LATITUDE	LONGITUDE
XXXXX	TXXXN	RXXW	XX,XX	XX.XXXX°	-XX.XXXX°

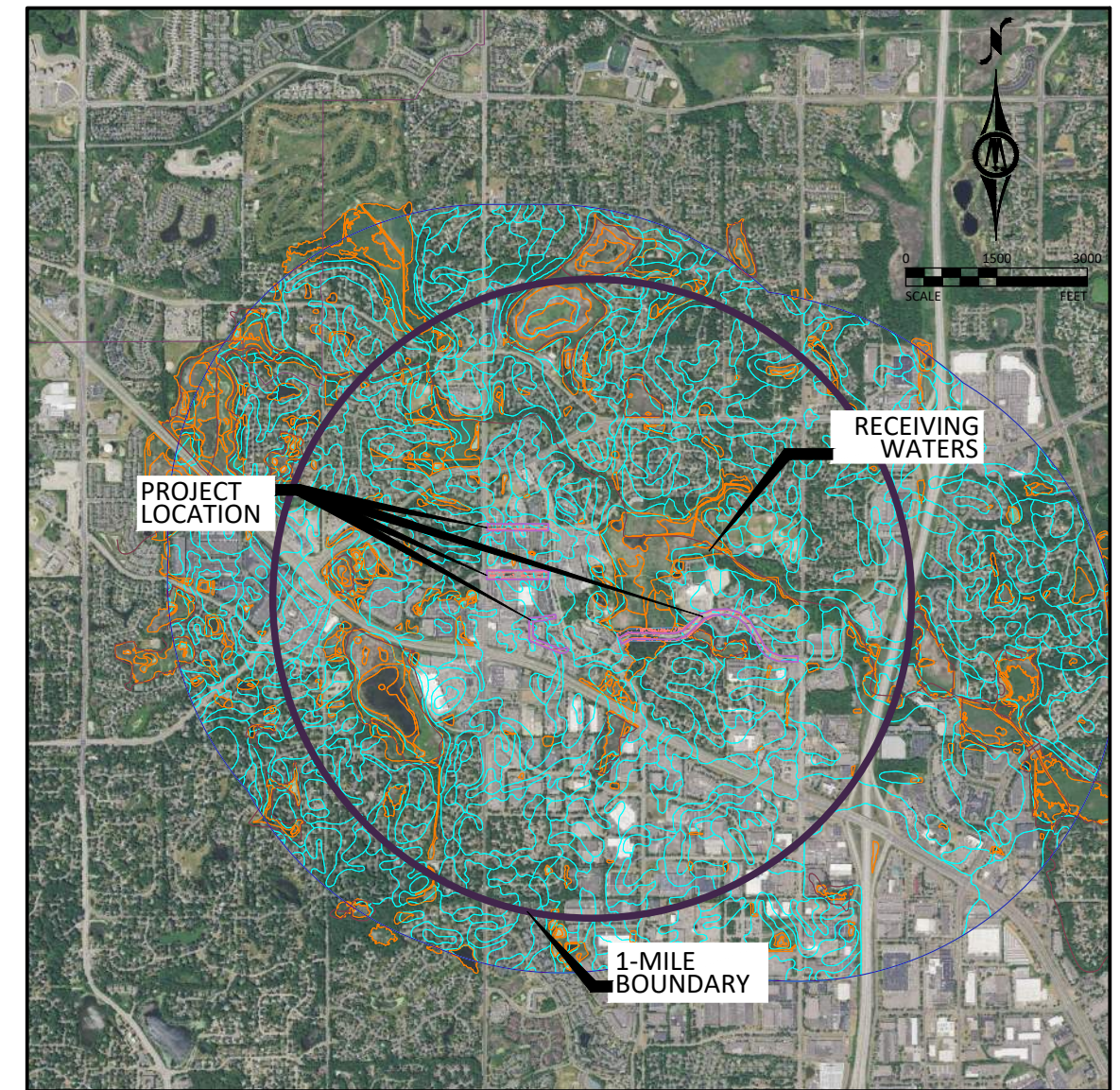
BMP SUMMARY	QUANTITY	UNIT
Inlet Protection	54	EACH

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:
Construction activities include: Site grading, sanitary sewer and water main extensions, temporary erosion and sediment control, and permanent stabilization.

Stormwater currently ...

After construction is complete stormwater will ...

This project includes the following stormwater management BMPs ...



RECEIVING WATERS:
Receiving waters, including surface water, wetlands, Public Waters, and stormwater ponds, within 1-mile of the project boundary are identified on the USGS 7.5 min quad map above. Receiving waters that are impaired, the impairment, and WLA are listed as follows. All specific BMPs relative to construction activities listed in the permit for special, prohibited, restricted, or impaired have been incorporated into this plan. All specific BMPs listed in approved TMDLs and those BMPs listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (ditch, pond, wetland, lake, etc.)	Special, Prohibited, Restricted Water ¹	Flows to Impaired Water Within 1-Mile ²	USEPA Approved Construction Related TMDL ³

¹ Special, prohibited, and restricted waters are listed in Section 23 of the MN Construction Stormwater General Permit (MNR100001).
² Identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.
³ Construction Related TMDLs include those related to: phosphorus, turbidity, TSS, dissolved oxygen, and/or aquatic biota.

IMPLEMENTATION SCHEDULE AND PHASING: The Contractor is required to provide an updated schedule and site management plan meeting the minimum requirements of Section 1717 of the Minnesota Standard Specifications for Construction.

- 1) Submit SWPPP Updates to Engineer. Submittal shall include any requested changes to the SWPPP, including but not limited to: Trained Personnel, Locations for Stockpiles, Concrete Washout, Sanitation Facilities, Types and Locations of Erosion & Sediment Control. Failure to submit updates shall be considered acceptance of the SWPPP as designed with no changes.
- 2) Install perimeter sediment control, inlet protection, and construction exit.
- 3)
- 4)
- 5)
- 6)
- 7)
- 8) Add additional temporary BMPs as necessary during construction based on inspection reports.
- 9) Ensure final stabilization measures are complete.
- 10) Provide digital copy of all Field SWPPP Documentation including Inspection Reports and SWPPP Revisions to the Owner.
- 11) Submit Notice of Termination (NOT) to MPCA. NOTE: The NOT must be submitted to MPCA before Final Stabilization is considered complete.

RESPONSIBLE PARTIES:

The Contractor and Owner will be joint applicants under the MPCA's General Stormwater Permit for Construction Activity as required by the National Pollutant Discharge Elimination System (NPDES) Phase II program.

The Contractor shall provide one or more trained Construction SWPPP Manager(s) knowledgeable and experienced in the application of erosion prevention and sediment control BMPs that will oversee the implementation of the SWPPP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs.

A Construction SWPPP Manager must be available for an on-site inspection within 72 hours upon request by the MPCA.

	COMPANY	CONTACT PERSON	PHONE
OWNER:	CITY OF PLYMOUTH	XXXXX	XXX-XXX-XXXX
SWPPP DESIGNER:	Bolton & Menk, Inc.	XXXXX	XXX-XXX-XXXX
CONTRACTOR:	TBD	TBD	TBD
CONSTRUCTION SWPPP MANAGER:	TBD	TBD	TBD
PARTY RESPONSIBLE FOR LONG TERM O&M:	CITY OF PLYMOUTH	XXXXX	XXX-XXX-XXXX

The SWPPP Designer, Construction SWPPP Manager, and BMP Installer must have appropriate training. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Training documentation for the SWPPP Designer is included on the Narrative sheet. The Contractor shall attach training documentation to this SWPPP for the Construction SWPPP Manager and BMP Installer prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

ADDITIONAL COMPENSATION

Payment for all work associated with Erosion and Sediment Control shall be as described in the Project Manual. Unless otherwise authorized by the Owner no additional payment shall be made for any work required to administer and maintain the site erosion and sediment control in compliance with the Minnesota Pollution Control Agency (MPCA) - General Stormwater Permit for Construction Activity (MN R100001) including but not limited to inspection, maintenance, and removal of BMPs or addition of BMPs to accommodate Contractor phasing.

DOCUMENT RETENTION

Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT.

GENERAL STORMWATER DISCHARGE REQUIREMENTS

All requirements listed in Section 5.1 of the Permit for the design of the permanent stormwater management system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

1. The expected amount, frequency, intensity, and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

Permanent stormwater treatment systems for this project have been designed in accordance with the guidance in the MN Stormwater Manual in place at the time of bidding. Copies of the design information and calculations are part of this SWPPP and will be provided in digital format upon written request to the Engineer.

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 01/24/2023



12224 NICOLLET AVENUE
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NIA/MJW			
CLIENT PROJ. NO.	0T1.128224		

CITY OF PLYMOUTH, MINNESOTA
2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
STORMWATER POLLUTION PREVENTION PLAN
SWPPP PLAN

Information contained in this SWPPP narrative sheet summarizes requirements of the GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM PROGRAM - Permit No: MN R100001 (Permit) as they apply to this project. All provisions of the Permit including those not specifically cited herein shall apply to this project. The Contractor is responsible to be familiar with and comply with all conditions of the permit. The full text of the Permit is available at: <https://www.pca.state.mn.us/sites/default/files/wq-strm2-80a.pdf>

SWPPP AMENDMENTS AND SUBMITTALS

Contractor must prepare and submit to the Engineer a SWPPP amendment as necessary to include additional Best Management Practices (BMPs) to correct problems identified or address the following situations.

1. Contact information and training documentation for Construction SWPPP Manager and BMP Installer,
2. There is a change in construction method of phasing, operation, maintenance, weather or seasonal conditions not anticipated during the design of the SWPPP including but not limited to:
 - a. Types and/or Locations of BMPs
 - b. Material Storage and Spill Response
 - c. Fueling Plans
 - d. Locations for Stockpiles, Concrete Washout, and Sanitation Facilities and
 - e. Project Phasing
3. It is determined that the SWPPP is not achieving objectives of minimizing pollutants in stormwater discharges associated with construction activity, or
4. The SWPPP is not consistent with the terms and conditions of the permit.

The Contractor may implement SWPPP amendments immediately and is not required to wait for Engineer review of the submittal. The responsibility for completeness of SWPPP amendments and compliance with the Permit lies with the Contractor. Review, comment, or lack of comment by the Engineer on a SWPPP amendment shall not absolve the responsibilities of the Contractor in any way.

If a change order is issued for a design change the SWPPP amendment will be prepared by the Engineer and included in the change order.

In addition to SWPPP amendments, the Contractor shall submit to the Engineer Weekly Erosion and Sediment Control Schedule meeting the requirements of MnDOT 1717.

The Contractor shall keep copies of all SWPPP amendments, Weekly Erosion and Sediment Control Schedules, inspection logs, and maintenance logs with the field copy of the SWPPP. A PDF copy of these documents will be provided along with a copy of the final Field Copy of the SWPPP to the Engineer along with the signed Notice of Termination when final stabilization is complete.

EROSION PREVENTION PRACTICES

Stormwater conveyance channels shall be routed around unstabilized areas. Erosion controls and velocity dissipation devices shall be used at outlets within and along the length of any constructed conveyance channel.

The normal wetted perimeter of all ditches or swales, including storm water management pond slopes, that drain waters from the site must be stabilized within 200' of any property edge or discharge point, including storm sewer inlets, within 24 hours of connection.

Temporary or permanent ditches or swales used as sediment containment during construction do not need to be stabilized during temporary period of use and shall be stabilized within 24 hours after no longer used as sediment containment.

Mulch, hydromulch, tackifier, or similar practice shall not be used in any portion of the wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent.

Energy dissipation shall be installed at all temporary or permanent pipe outlets within 24 hours of connection to a surface water or permanent stormwater treatment system.

The Contractor shall phase construction and use construction methods to the extent practical to minimize exposed soils. The project phasing shall be documented in the Weekly Erosion and Sediment Control Schedule.

SEDIMENT CONTROL PRACTICES

Down gradient BMPs including perimeter BMPs must be in place before up gradient land- disturbing activities begin and shall remain in place until final stabilization.

All BMPs that have been adjusted or removed to accommodate short-term activities shall be re-installed or replaced the earlier of the end of the work day or before the next precipitation event even if the activity is not complete.

Inlet BMPs may be removed for specific safety concerns. The BMPs shall be replaced as soon as the safety concern is resolved. The removal shall be documented in the SWPPP as a SWPPP amendment.

Temporary stockpiles must have sediment control BMPs. The Contractor shall prepare and submit to the Engineer a SWPPP amendment showing the location of temporary stockpiles and the BMPs for each stockpile. The SWPPP amendment must meet the minimum requirements of Section 9 of the Permit.

Soil compaction shall be minimized and topsoil shall be preserved, unless infeasible or if construction activities dictate soil compaction or topsoil stripping.

The use of polymers, flocculants, or other sedimentation treatment chemicals are not proposed as part of this SWPPP as designed by the Engineer. If methods or phasing of construction require the use of any of these chemicals, the Contractor shall prepare and submit to the Engineer a SWPPP amendment that meets the minimum requirements of Section 9 of the Permit.

TEMPORARY SEDIMENTATION BASINS

A temporary sedimentation basin has not been included in this SWPPP as designed by the Engineer. If a basin is later determined to be desirable or necessary the Contractor shall prepare and submit to the Engineer a SWPPP amendment. Temporary sedimentation basins shall meet or exceed the minimum requirements of Section 14 of the Permit and shall include a basin draining plan meeting or exceeding the minimum requirements of Section 10 of the Permit. Where the site discharges to Special and/or Impaired Waters the SWPPP amendment shall also meet or exceed the minimum requirements of Section 23 of the permit.

DEWATERING

A dewatering plan has not been included in this SWPPP as designed by the Engineer. If dewatering is required for this project, the Contractor shall prepare and submit to the Engineer a SWPPP amendment. All dewatering shall meet or exceed the minimum requirements of Section 10 of the Permit.

POLLUTION PREVENTION

Products and materials that have the potential to leach pollutants that are stored on the site must be stored in a manner designed to minimize contact with stormwater. Materials that are not a source of potential contamination to stormwater or that are designed for exposure to stormwater are not required to be covered.

Hazardous materials including but not limited to pesticides, fertilizer, petroleum products, curing compounds and toxic waste must be properly stored and protected from stormwater exposure as recommended by the manufacturer in an access restricted area.

Solid waste must be stored, collected and disposed of in compliance with Minnesota Administrative Rules Chapter 7035.

Portable toilets must be positioned so that they are secure and will not be tipped or knocked over. Sanitary waste must be disposed of properly in accordance with Minn. R. CH 7041.

Exterior vehicle or equipment washing on the project site shall be limited to a defined area of the site. No engine degreasing is allowed on site. A sign must be installed adjacent to each washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

The Contractor shall prepare and submit a SWPPP amendment detailing the location and BMPs proposed for storage of materials, solid waste, portable toilets, and exterior vehicle or equipment washing on the site. The SWPPP amendment shall include a spill prevention and response plan that is appropriate for the materials proposed to be on the site. The SWPPP amendment shall meet or exceed the minimum requirements of Section 12 of the Permit.

INSPECTION & MAINTENANCE

A trained person shall routinely inspect the entire construction site at the time interval indicated on this sheet of the SWPPP during active construction and within 24-hours after a rainfall event greater than 0.5 inches in 24 hours. Following an inspection that occurs within 24-hours after a rainfall event, the next inspection must be conducted at the time interval indicated in the Receiving Waters Table found on the SITE PLAN AND INFORMATION SHEET of the SWPPP.

All inspections and maintenance conducted during construction must be recorded on the day it is completed and must be retained with the SWPPP. Inspection report forms are available in the Project Specifications. Inspection report forms other than those provided shall be approved by the engineer.

The Contractor may request a change in inspection schedule for the following conditions:

- a. Inspections of areas with permanent cover to be reduced to once per month,
- b. Inspections of areas that have permanent cover and have had no construction activity for 12 months to be suspended until construction resumes,
- c. Inspections of areas where construction is suspended due to frozen ground conditions, inspections to be suspended until the earlier of within 24 hours of runoff occurring, or upon resuming construction.

No change in inspection schedule shall occur until authorized by the Engineer.

Inspections must include:

1. All erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness.
2. Surface waters, including drainage ditches and conveyance systems for evidence of erosion and sediment deposition.
3. Construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles.
4. Infiltration areas to ensure that no sediment from ongoing construction activity is reaching the infiltration area and that equipment is not being driven across the infiltration area.

All non-functioning BMPs and those BMPs where sediment reaches one-half (1/2) of the depth of the BMP, or in the case of sediment basins one-half (1/2) of the storage volume, must be repaired, replaced, or supplemented by the end of the next business day after discovery, or as soon as field conditions allow.

Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery, or as soon as field conditions allow.

Any sediment that escapes the site must be removed and the area stabilized within 7 calendar days of discovery unless precluded by legal, regulatory, or physical access in which case the work shall be completed within 7 calendar days of authorization. Paved surfaces such as streets shall have any escaped or tracked sediment removed by the end of the day that it is discovered. Sediment release, other than paved surfaces that can be cleaned up with street sweeping shall be reported immediately upon discovery to the Engineer.

PUBLIC WATER RESTRICTIONS:

For public waters that have been promulgated "work in water restrictions" during fish spawning time frames, all exposed soil areas that are within 200 feet of the water's edge, and drain to these waters must complete stabilization within 24-hours during the time period. MN DNR permits are not valid for work in waters that are designated as infested waters unless accompanied by an Infested Waters Permit or written notification has been obtained from MN DNR stating that such permit is not required. There is no exception for pre-existing permits. If a MN DNR Permit has been issued for the project and the water is later designated as infested, the Contractor shall halt all work covered by the MN DNR Permit until an Infested Waters Permit is obtained or that written notification is obtained stating that such permit is not required.

FINAL STABILIZATION

Final Stabilization is not complete until all the following requirements have been met:

1. Substantial Completion has been reached and no ground disturbing activities are anticipated.
2. Permanent cover has been installed with an established minimum uniform perennial vegetation density of 70 percent of its expected final growth. Vegetation is not required in areas where no vegetation is proposed by this project such as impervious surfaces or the base of a sand filter.

3. Accumulated sediment has been removed from all permanent stormwater treatment systems as necessary to ensure the system is operating as designed.
4. All sediment has been removed from conveyance systems
5. All temporary synthetic erosion prevention and sediment control BMPs have been removed. BMPs designated on the SWPPP to remain to decompose on-site may remain.
6. For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner.
7. For agricultural land only (e.g., pipelines across cropland), the disturbed land must be returned to its preconstruction agricultural use prior to submitting the NOT.

SITE STABILIZATION COMPLETION:

Stabilization of exposed soils shall begin immediately and shall be completed after the construction activity has temporarily or permanently ceased no later than:	14 calendar days
--	------------------

SITE INSPECTION INTERVAL:

A trained person shall routinely inspect the entire construction site during active construction at an interval of no more than:	7 calendar days
--	-----------------

SPECIAL ENVIRONMENTAL CONSIDERATIONS AND PERMITS:

1)	Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
2)	Does any portion of the site have the potential to affect threatened or endangered species or their critical habitat?	NO
3)	Does any portion of this site discharge to a Calcareous fen.	NO
4)	Will any portion of the site potentially affect properties listed on the National Register of Historic Places or a known or discovered archeological site?	NO
5)	Have any Karst features have been identified in the project vicinity?	NO
6)	Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO
7)	Has the MN DNR promulgated "work in water restrictions" for any Public Water this site discharges to during fish spawning?	NO

TYPE OF PERMIT	PERMITTING AGENCY	PERMIT STATUS AND CONDITIONS
Construction Stormwater NPDES	MPCA	

SWPPP DESIGNER TRAINING DOCUMENTATION:

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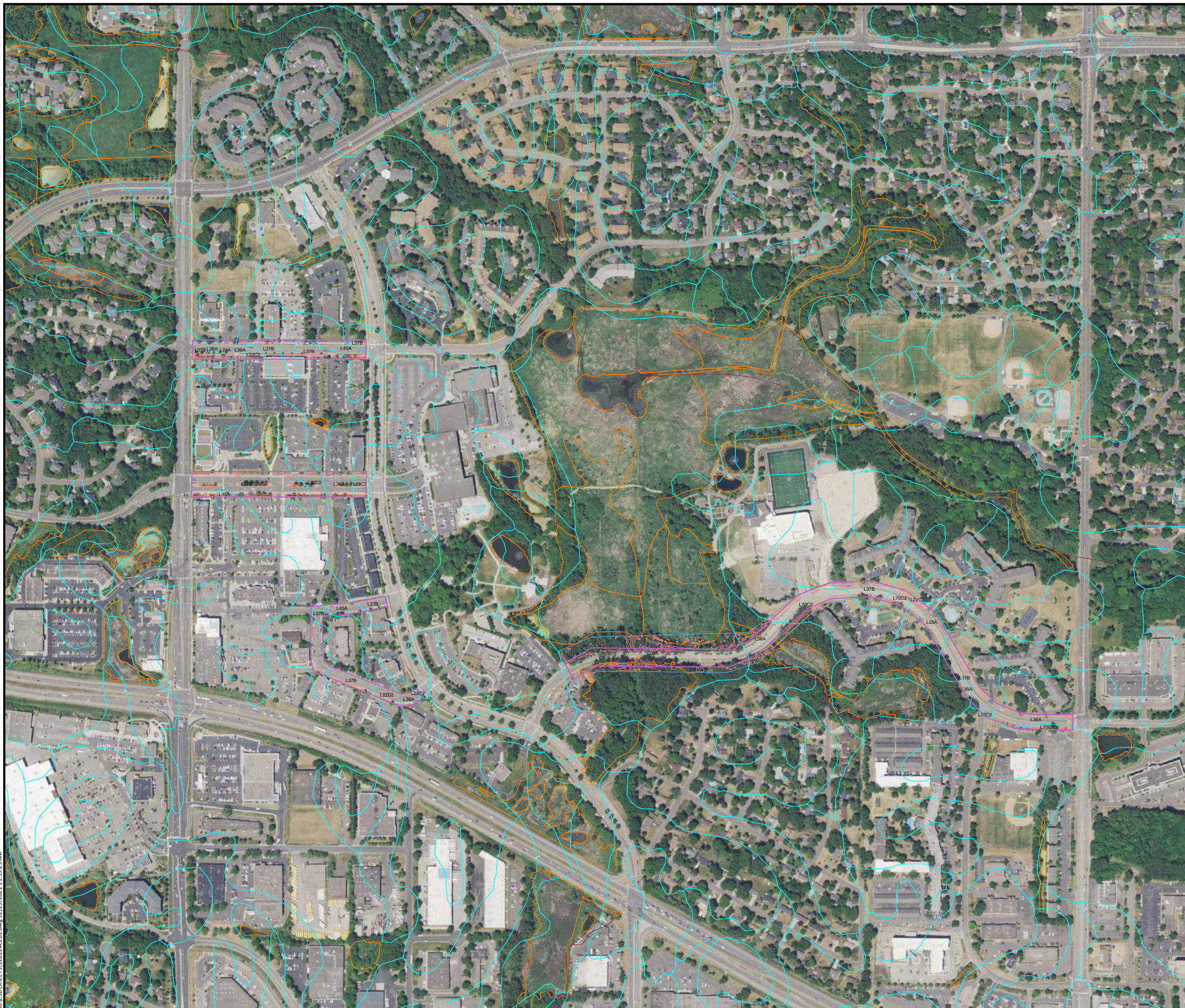
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2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
STORMWATER POLLUTION PREVENTION PLAN
SWPPP NARRATIVE

SHEET

C2.02



LEGEND

- PROJECT BOUNDARY
- SOIL TYPE
- IMPAIRED, SPECIAL OR PROTECTED WATERS
- NATIONAL WETLANDS INVENTORY
- DWSMA, LOW VULNERABILITY
- STEEP SLOPES (>33.3%)
- RECEIVING WATERS



SOIL TYPE SUMMARY

Map Unit Symbol	Soil Name	Hyd. Soil Group	Erodibility
MUSYM	MUNAME	HYDGRP	MUHELCL

NHEL - Not Highly Erodible Land
 PHEL - Potentially Highly Erodible Land
 HEL - Highly Erodible Land

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN

DESCRIPTION	SHEET NO.
SITE MAP	C2.01
DIRECTION OF FLOW	C2.04 - C2.10
FINAL STABILIZATION	C2.04 - C2.10
SOILS	C2.03
DRAINAGE STRUCTURES	C1.02
DRAINAGE TABULATION	C1.02
STORM SEWER PLAN & PROFILE SHEETS	C5.01
EROSION & SEDIMENT CONTROL DETAILS	C2.04
EROSION CONTROL TABULATION	
TURF ESTABLISHMENT TABULATION	
NARRATIVE & NOTES	C2.01 - C2.02

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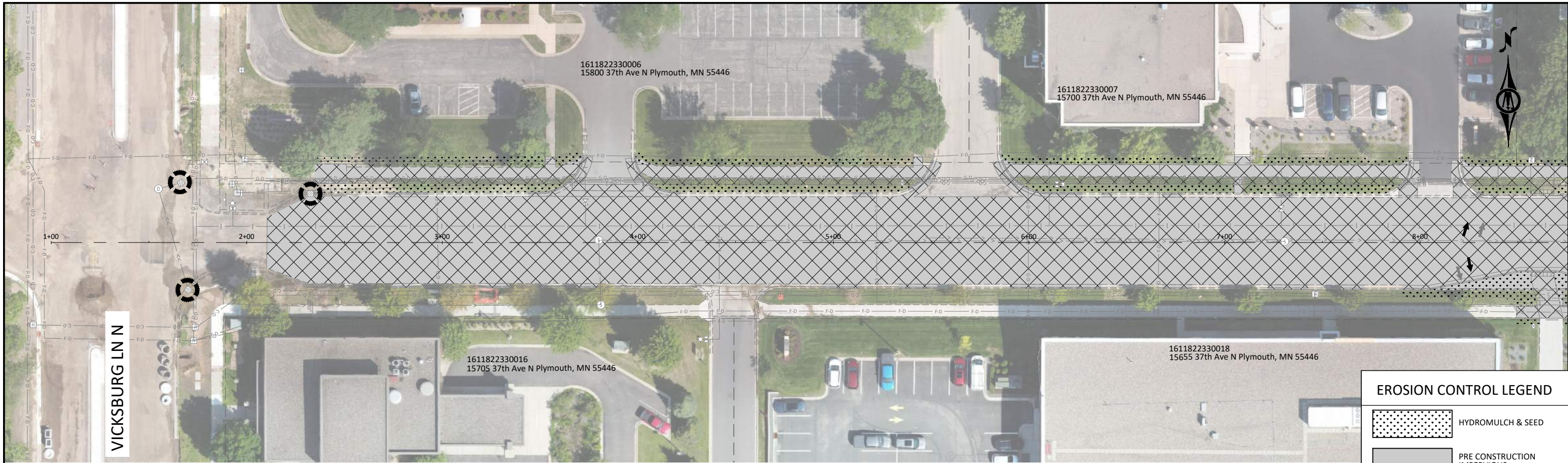


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 STORMWATER POLLUTION PREVENTION PLAN
 SWPPP SOILS

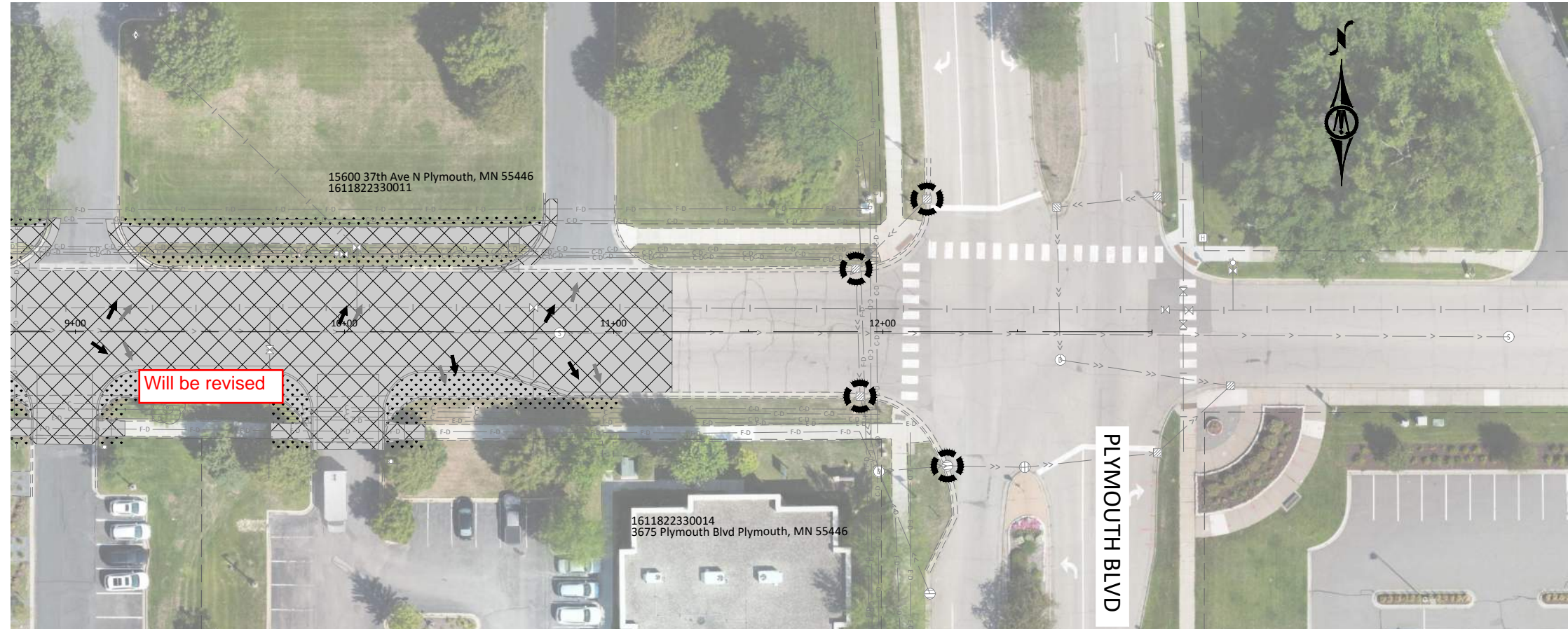
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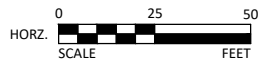
37TH AVE N

EROSION CONTROL LEGEND

-  HYDROMULCH & SEED
-  POST CONSTRUCTION IMPERVIOUS
-  INLET PROTECTION
-  EXISTING/PROPOSED DRAINAGE FLOW
-  SILT FENCE



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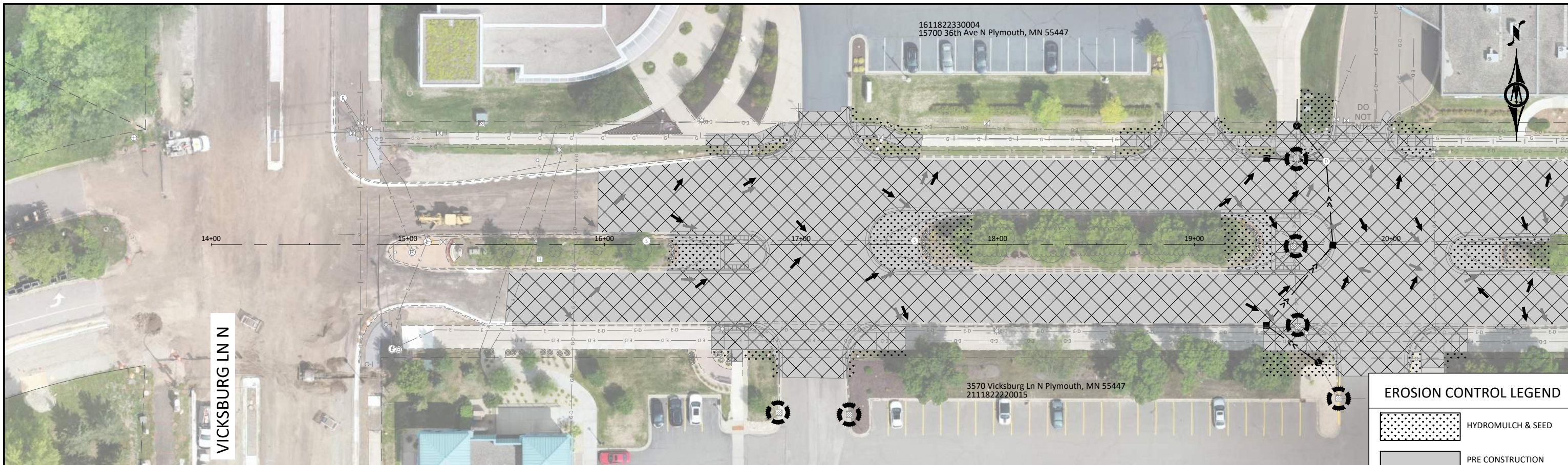


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 STORMWATER POLLUTION PREVENTION PLAN
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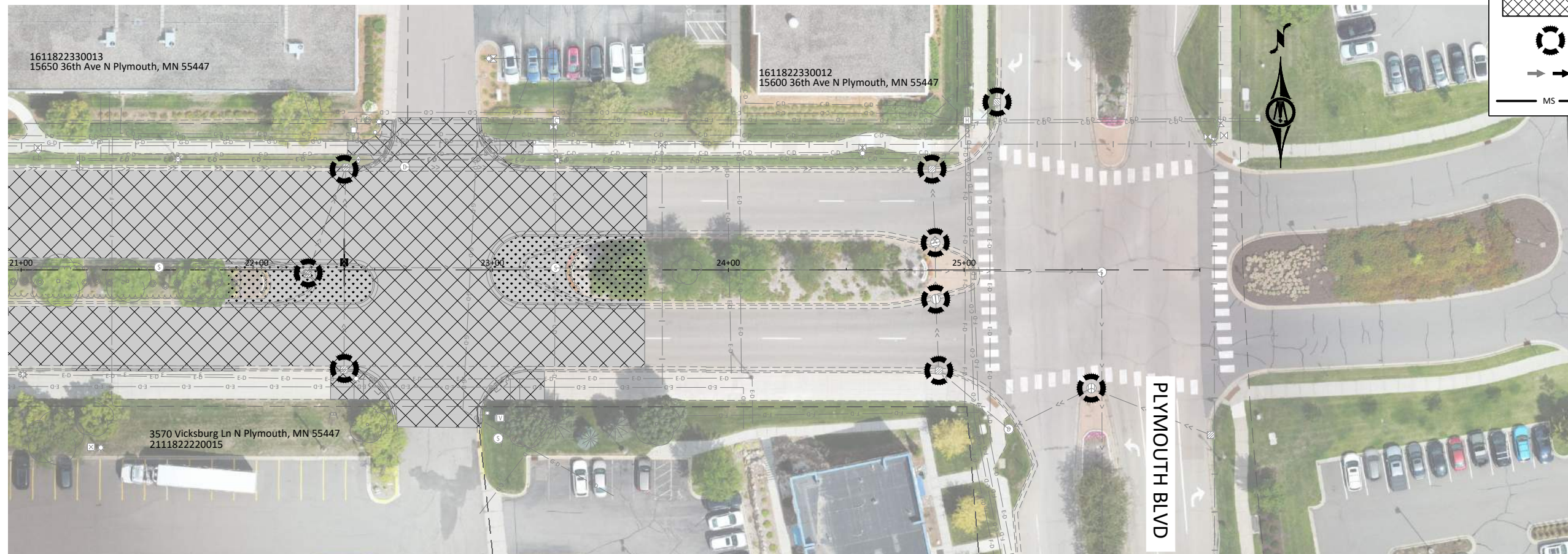
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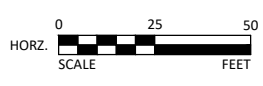
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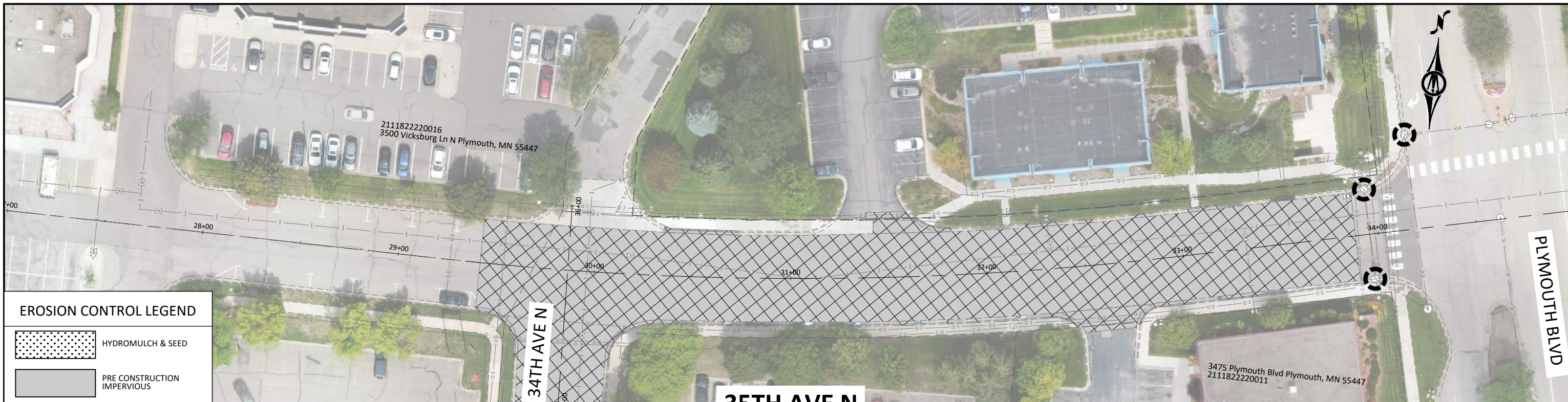


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C2.05



EROSION CONTROL LEGEND

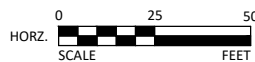
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35TH AVE N

34TH AVEN

PLYMOUTH BLVD

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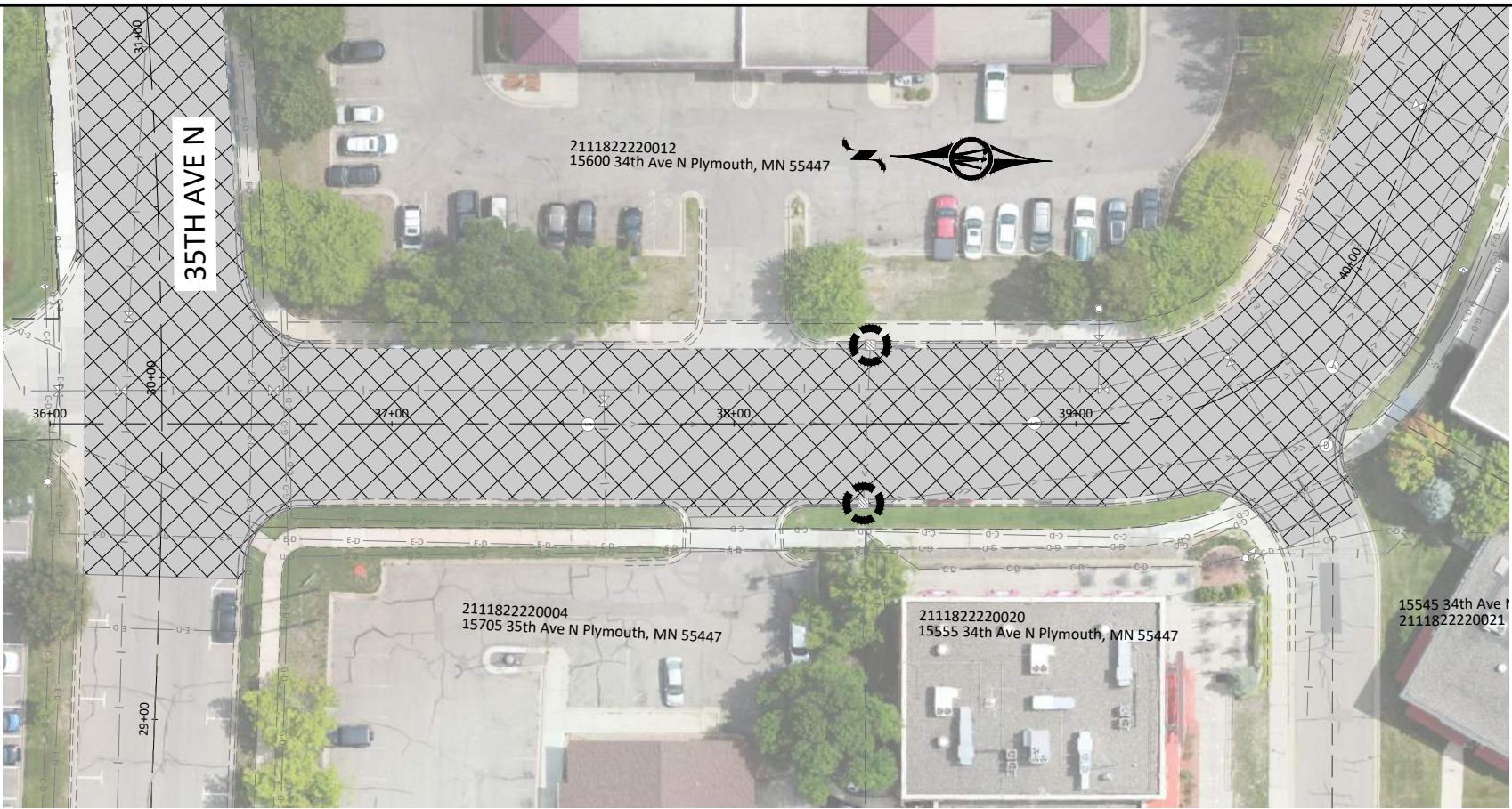


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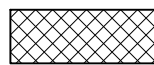



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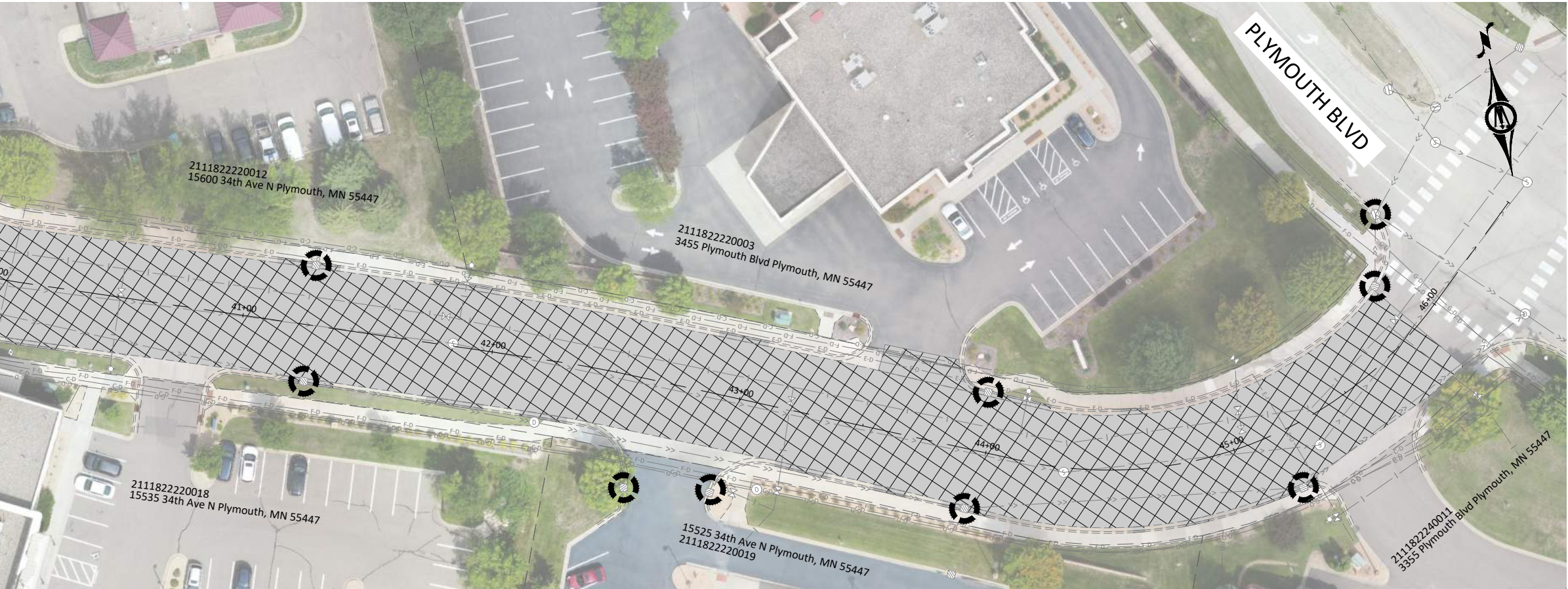
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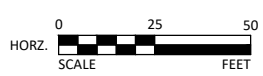
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 STORMWATER POLLUTION PREVENTION PLAN
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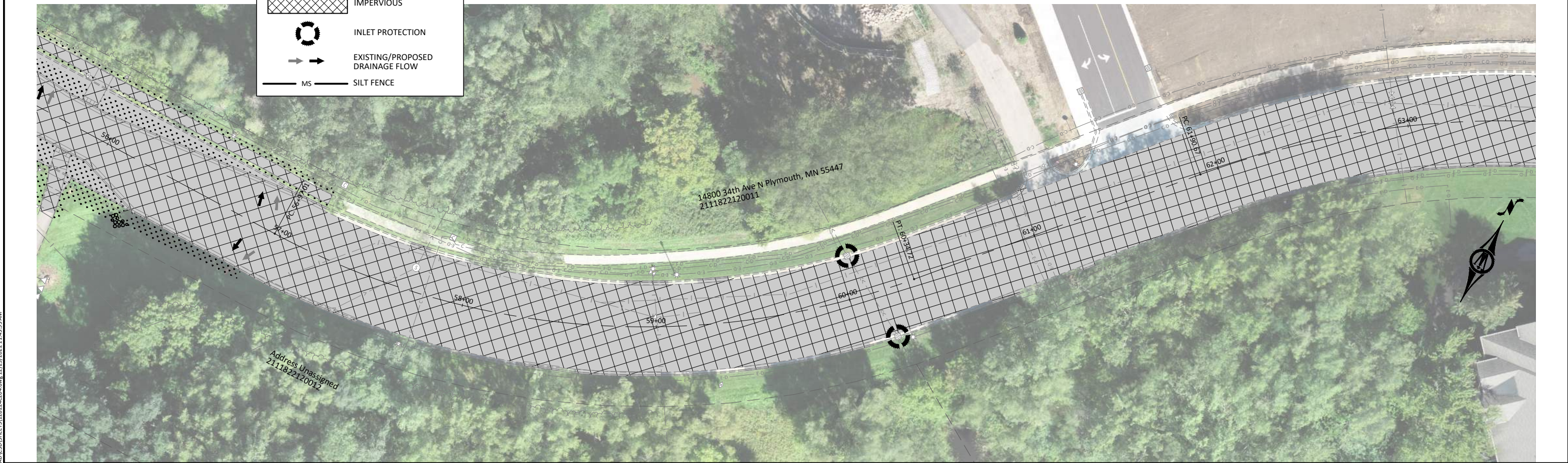
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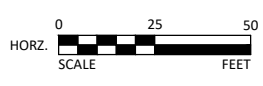
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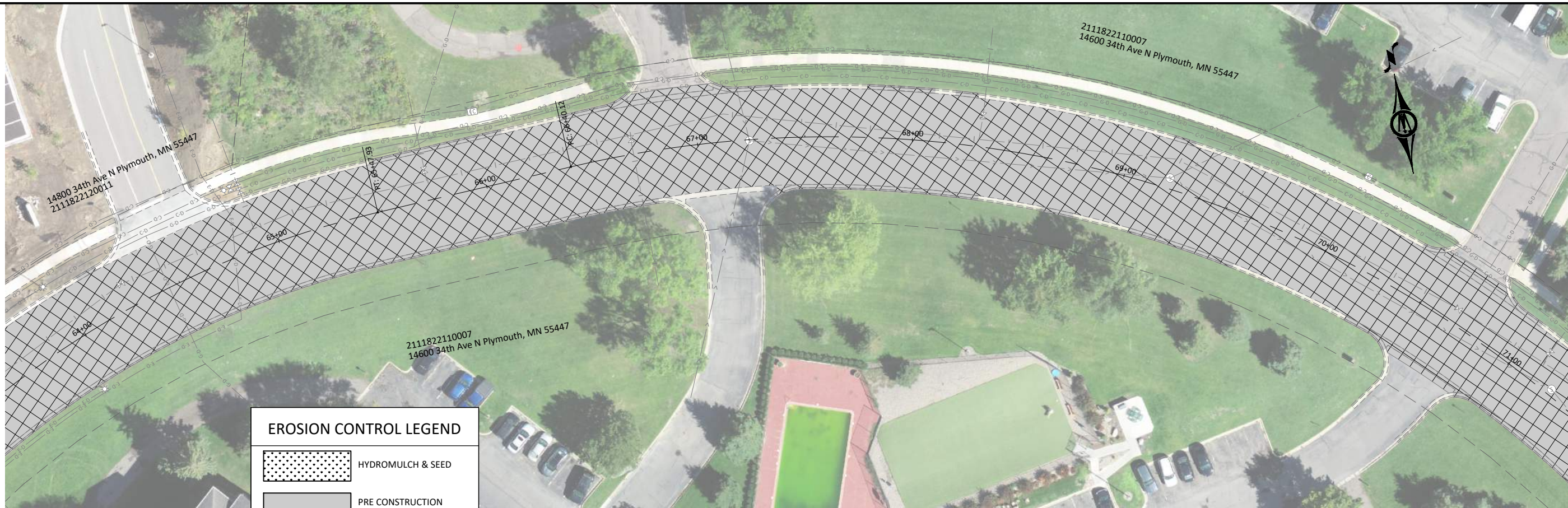


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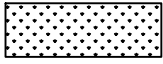





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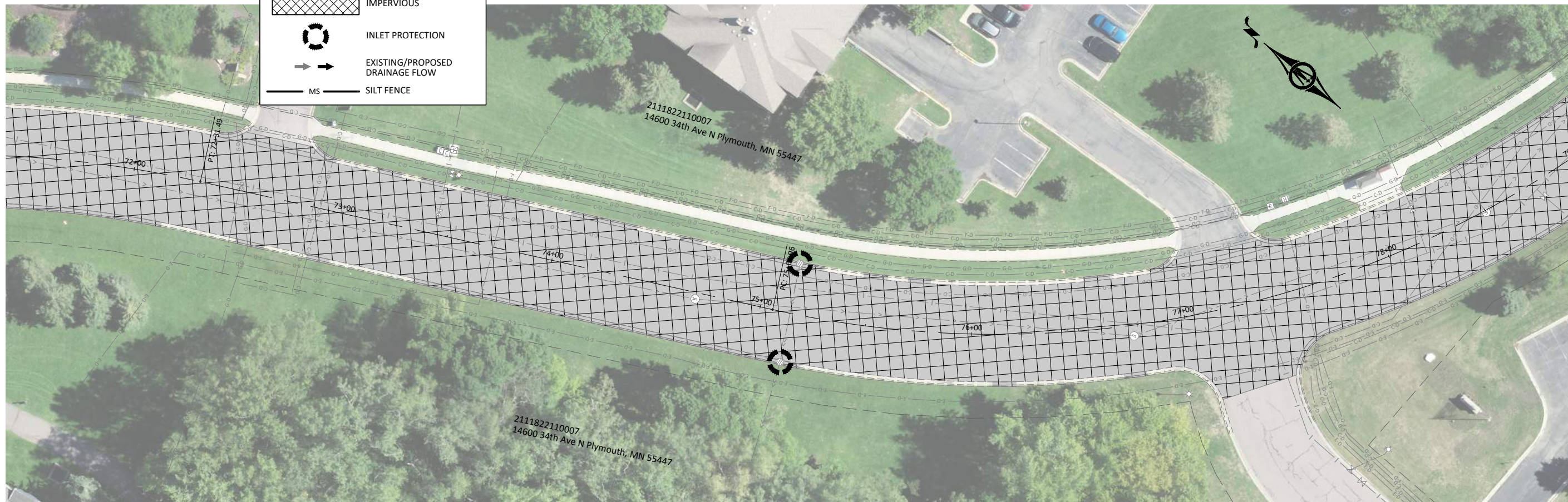
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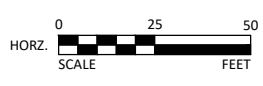
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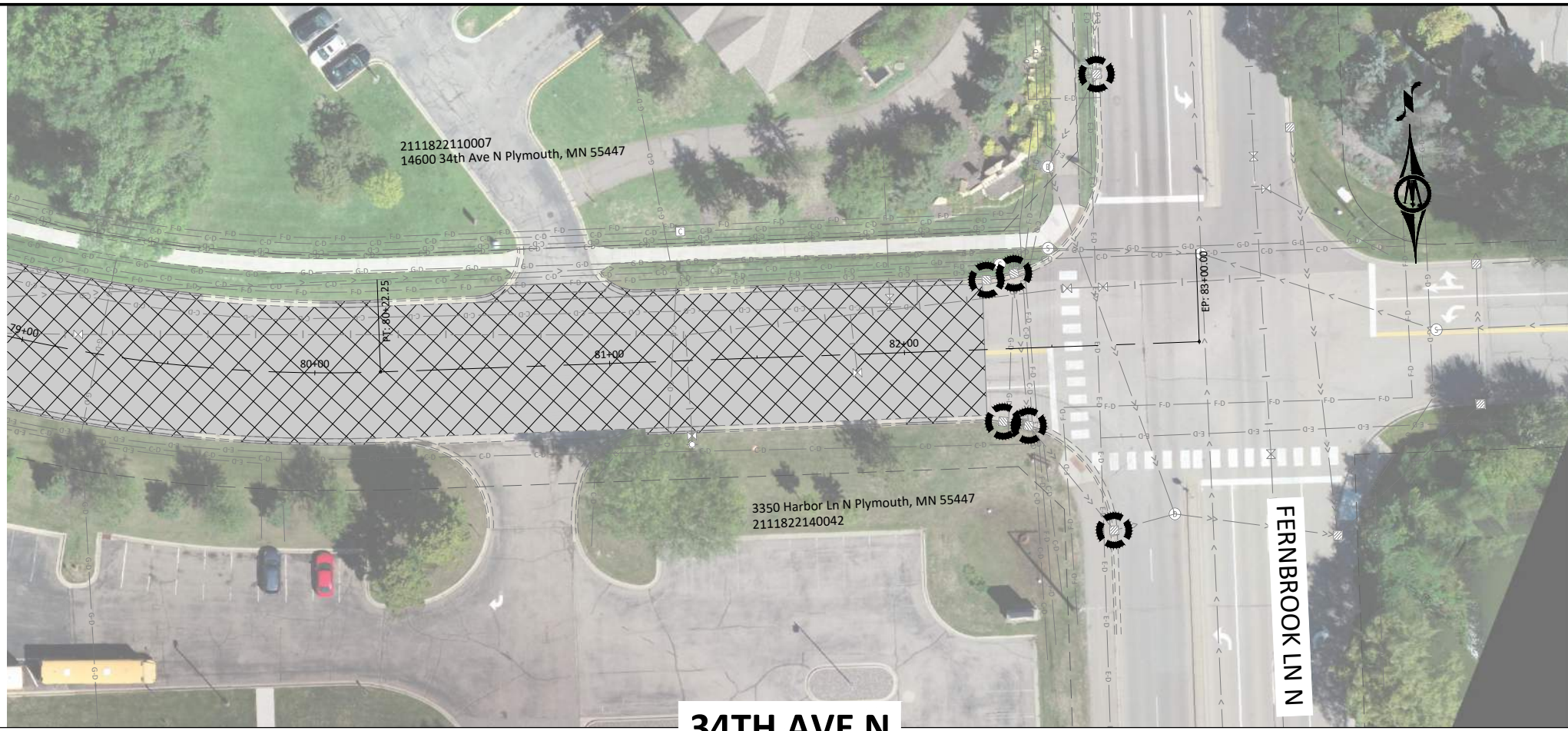


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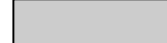




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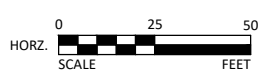
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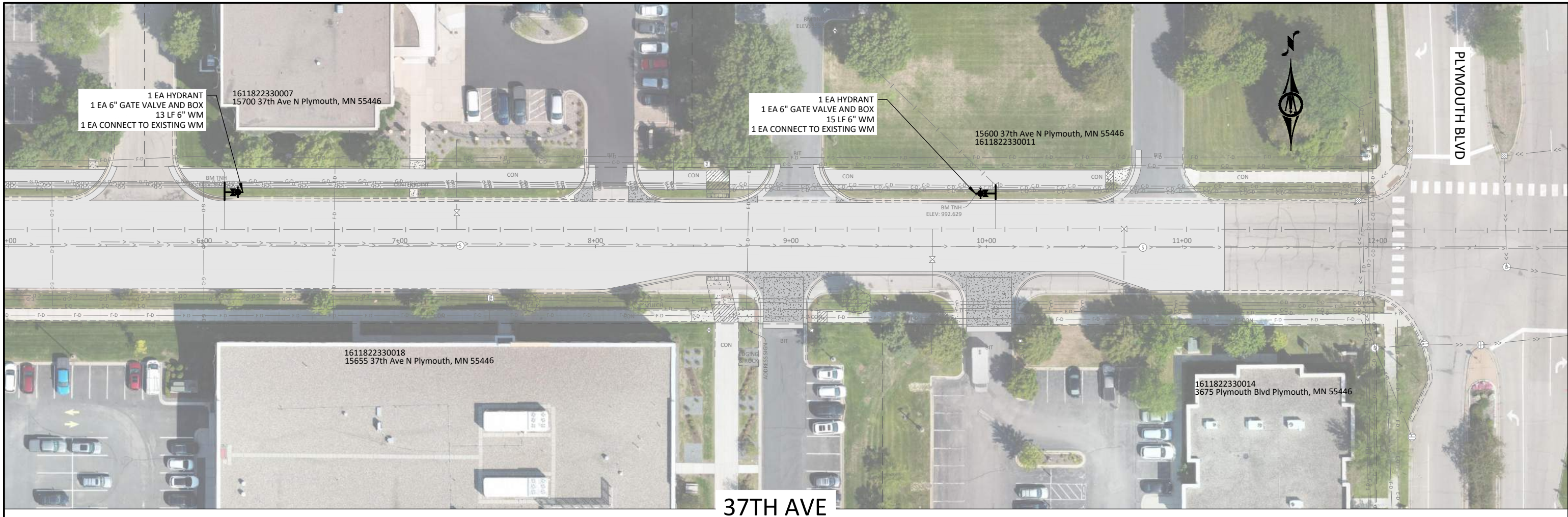


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 STORMWATER POLLUTION PREVENTION PLAN
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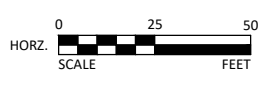


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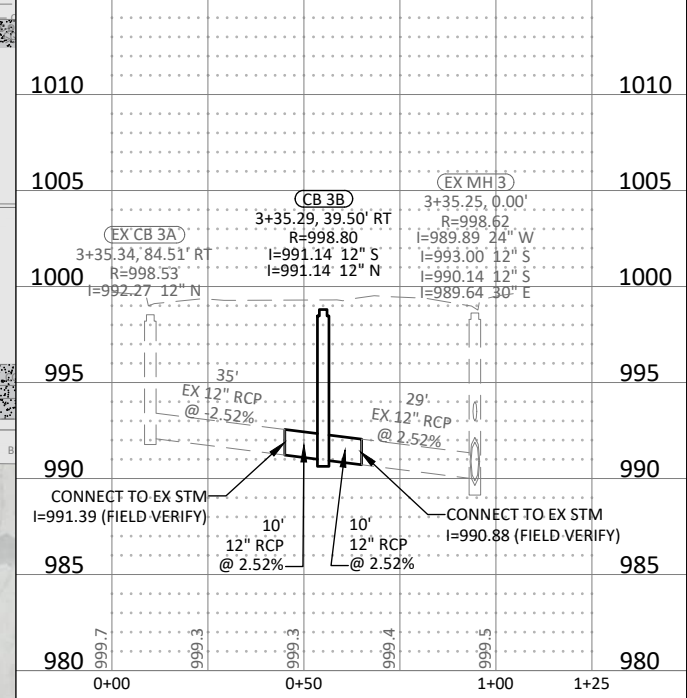
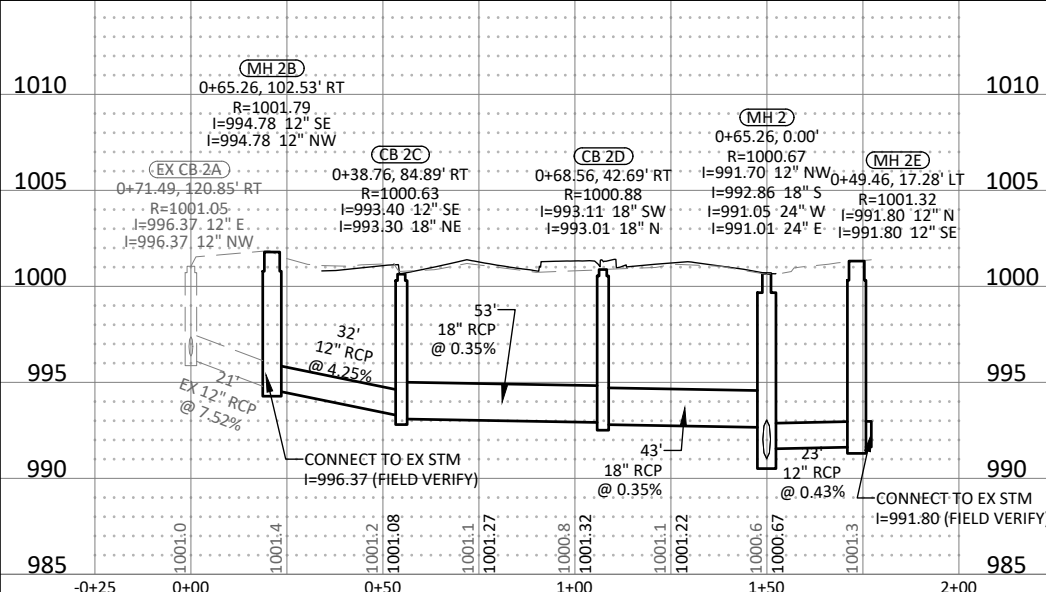
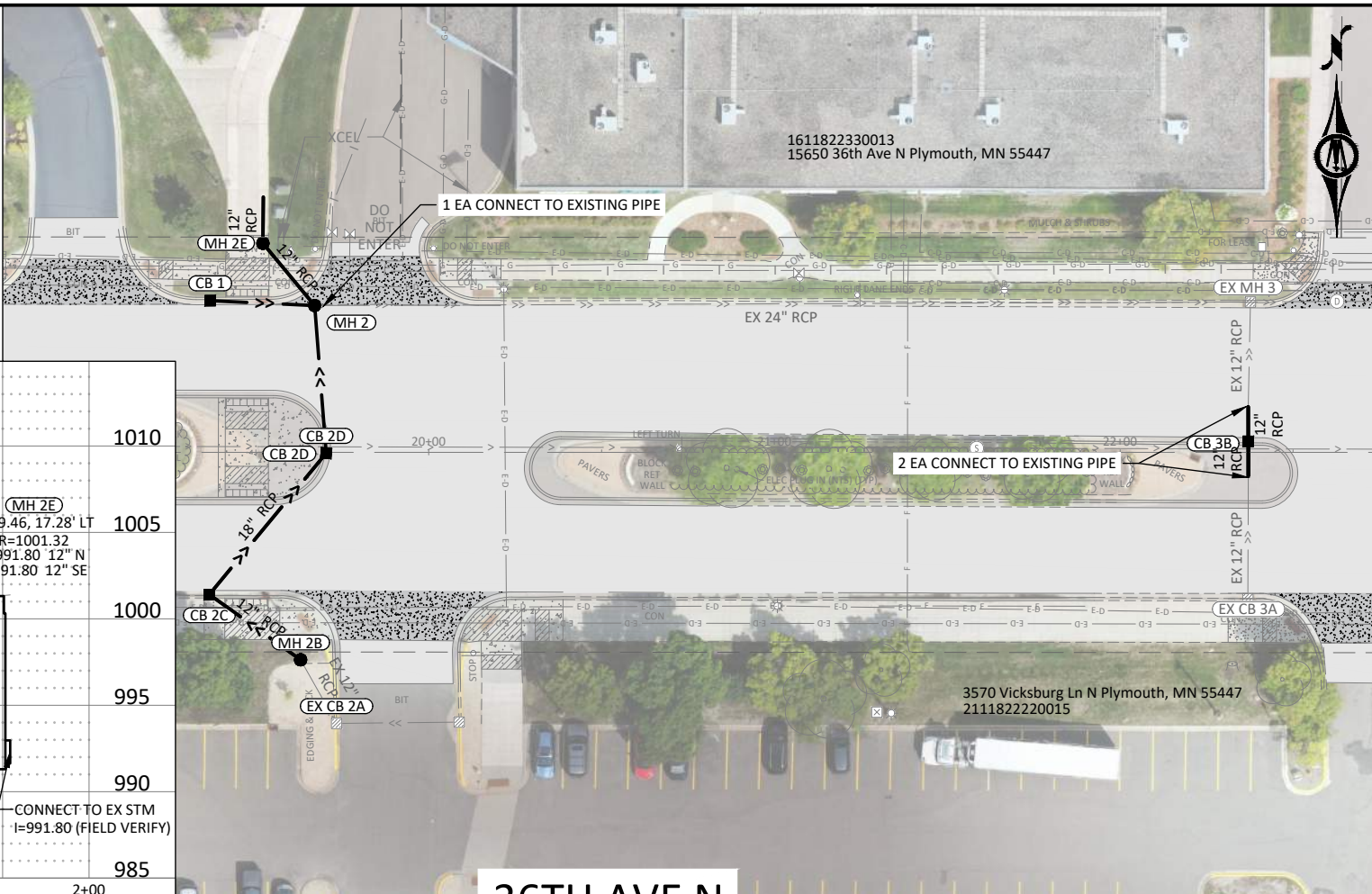


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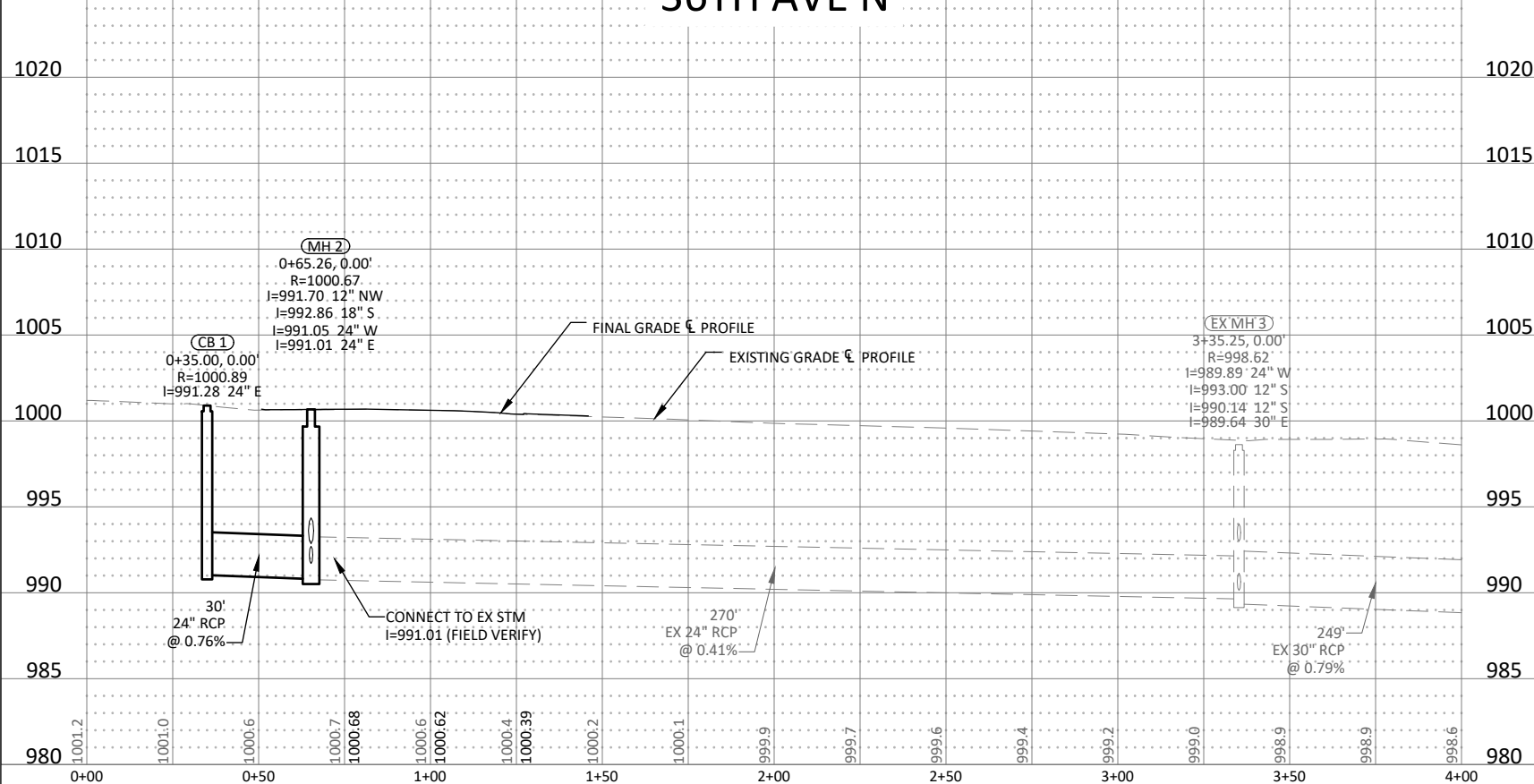
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 UTILITY IMPROVEMENTS
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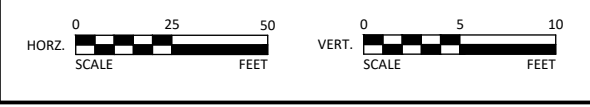
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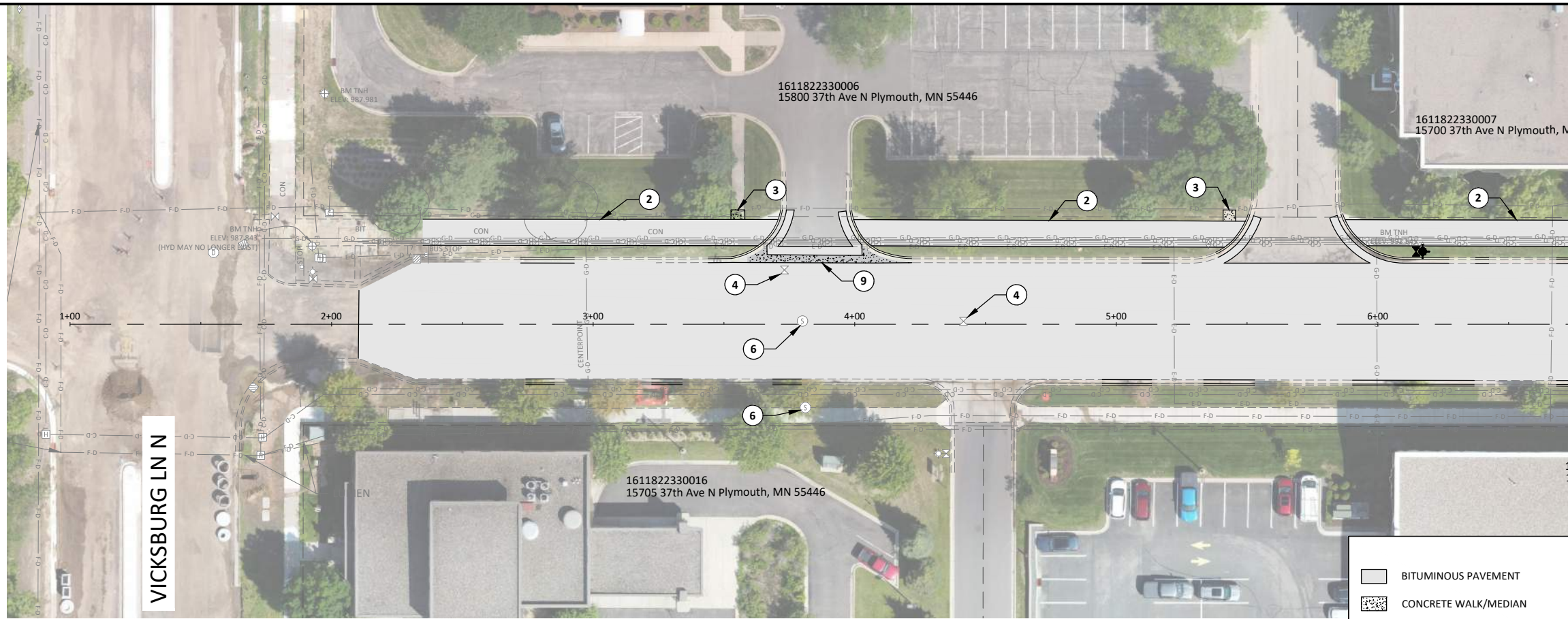


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 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 STORM SEWER PLAN & PROFILE
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SHEET
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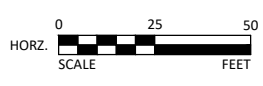


37TH AVE N

VICKSBURG LN N

LEGEND	
	BITUMINOUS PAVEMENT
	CONCRETE WALK/MEDIAN
	CONCRETE DRIVEWAY
	CONCRETE CURB & GUTTER
	PEDESTRIAN RAMP LANDING
①	INSTALL 6" CONCRETE PEDESTRIAN RAMP
②	INSTALL BITUMINOUS TRAIL PAVEMENT
③	INSTALL 4" CONCRETE WALK/MEDIAN
④	ADJUST VALVE BOX
⑤	ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
⑥	ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
⑦	DRAINAGE STRUCTURE REPAIR
⑧	INSTALL 8" CONCRETE DRIVEWAY
⑨	INSTALL 8" VALLEY GUTTER
⑩	REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT

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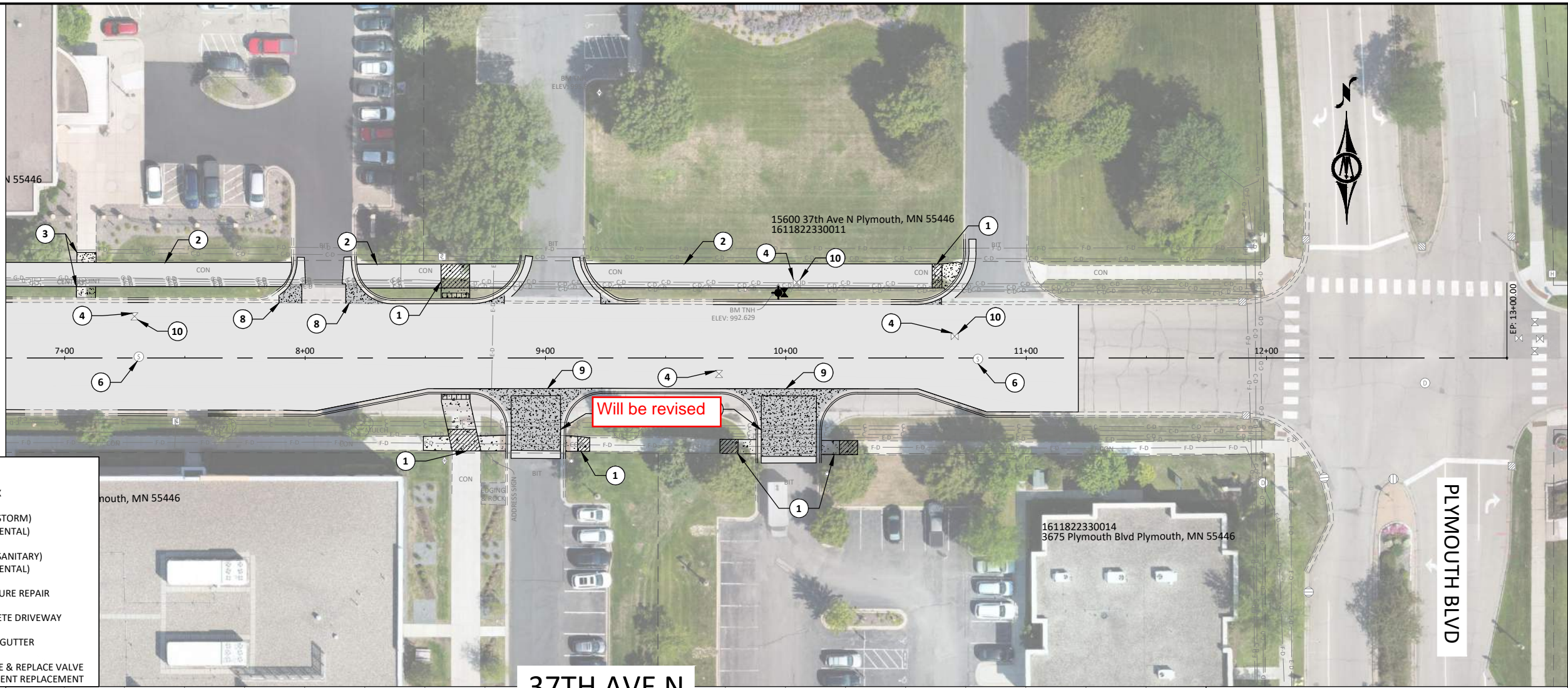


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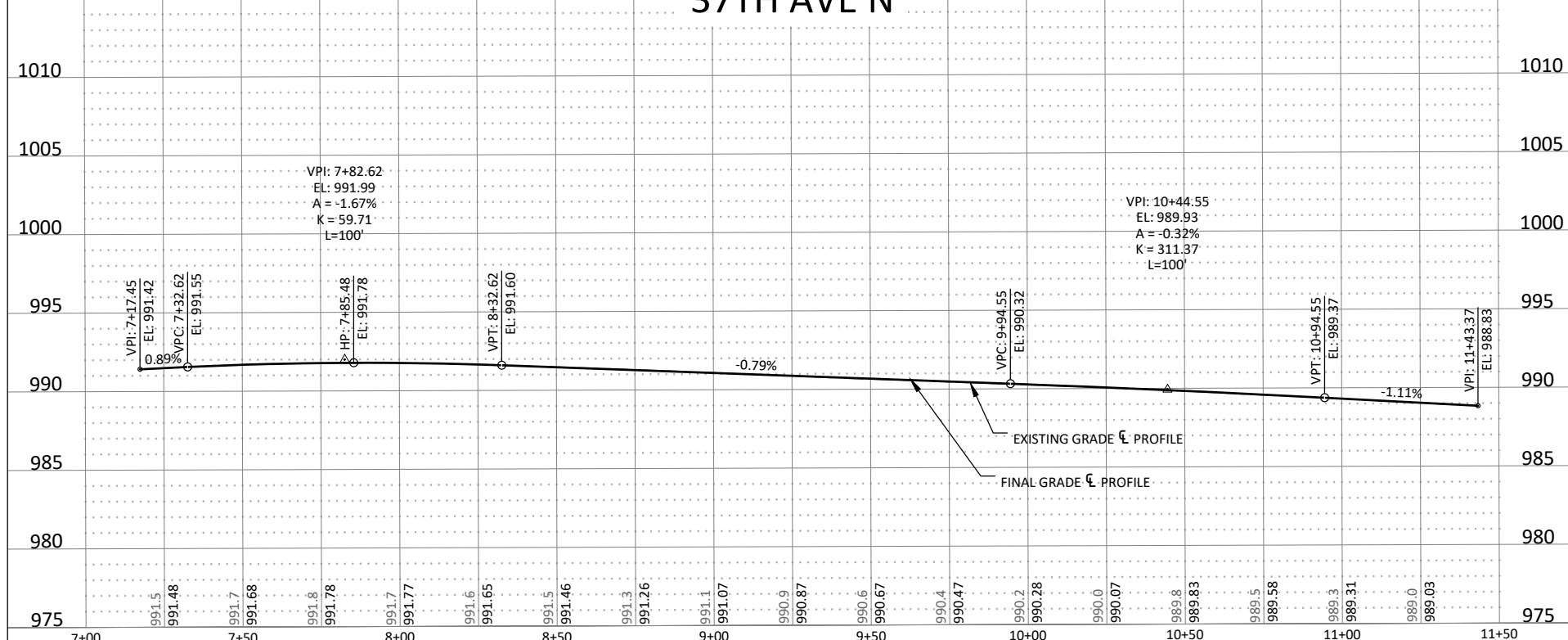
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 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 STREET PLAN & PROFILE
 37TH AVE N

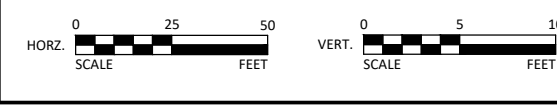
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- LEGEND**
- BITUMINOUS PAVEMENT
 - CONCRETE WALK/MEDIAN
 - CONCRETE DRIVEWAY
 - CONCRETE CURB & GUTTER
 - PEDESTRIAN RAMP LANDING
 - INSTALL 6" CONCRETE PEDESTRIAN RAMP
 - INSTALL BITUMINOUS TRAIL PAVEMENT
 - INSTALL 4" CONCRETE WALK/MEDIAN
 - ADJUST VALVE BOX
 - ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
 - ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
 - DRAINAGE STRUCTURE REPAIR
 - INSTALL 8" CONCRETE DRIVEWAY
 - INSTALL 8" VALLEY GUTTER
 - REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT



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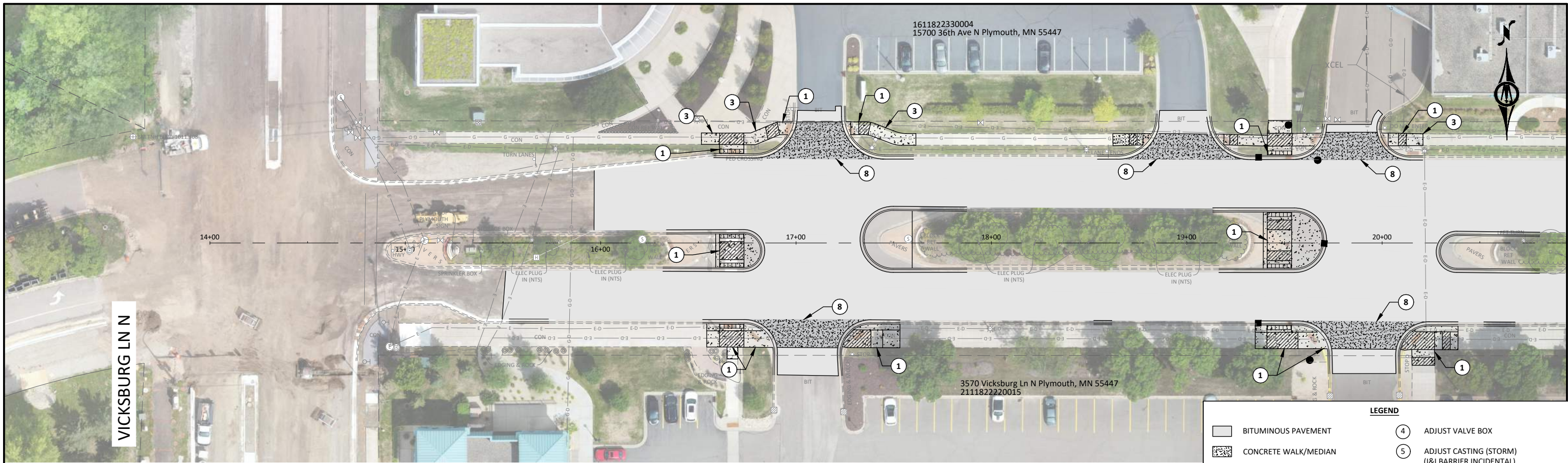


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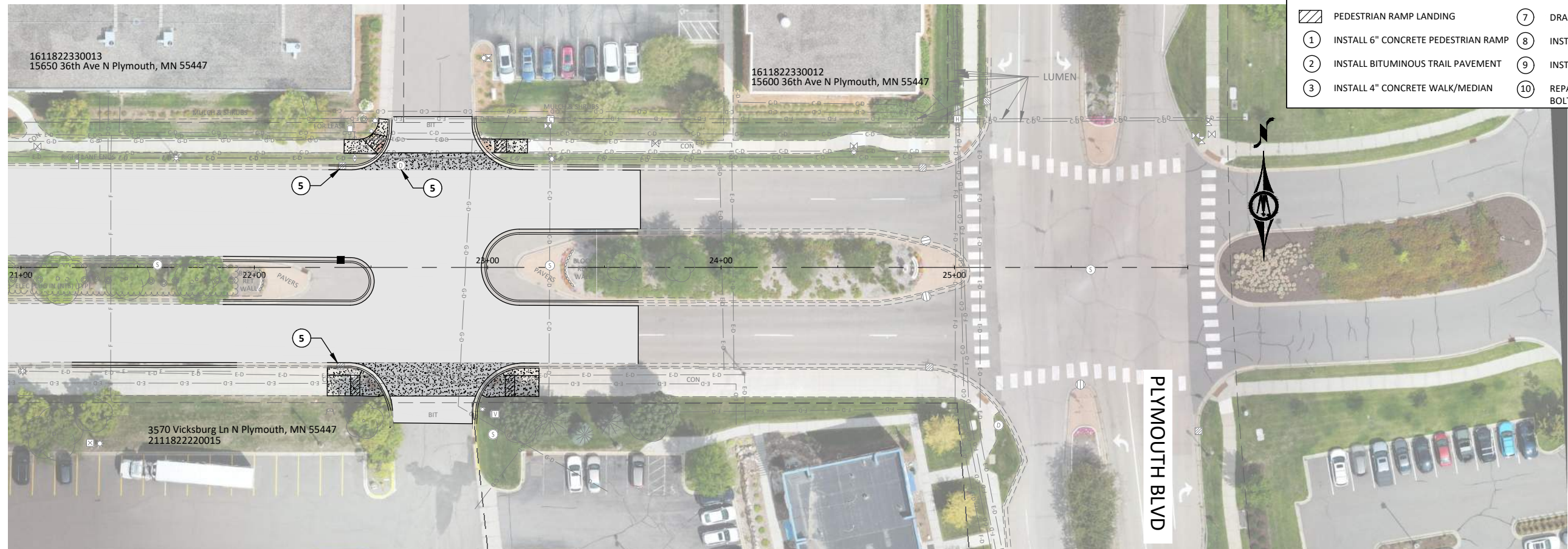
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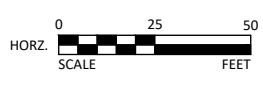
36TH AVE N



LEGEND

[Symbol]	BITUMINOUS PAVEMENT	[Symbol]	ADJUST VALVE BOX
[Symbol]	CONCRETE WALK/MEDIAN	[Symbol]	ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
[Symbol]	CONCRETE DRIVEWAY	[Symbol]	ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
[Symbol]	CONCRETE CURB & GUTTER	[Symbol]	DRAINAGE STRUCTURE REPAIR
[Symbol]	PEDESTRIAN RAMP LANDING	[Symbol]	INSTALL 8" CONCRETE DRIVEWAY
[Symbol]	INSTALL 6" CONCRETE PEDESTRIAN RAMP	[Symbol]	INSTALL 8" VALLEY GUTTER
[Symbol]	INSTALL BITUMINOUS TRAIL PAVEMENT	[Symbol]	REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT
[Symbol]	INSTALL 4" CONCRETE WALK/MEDIAN		

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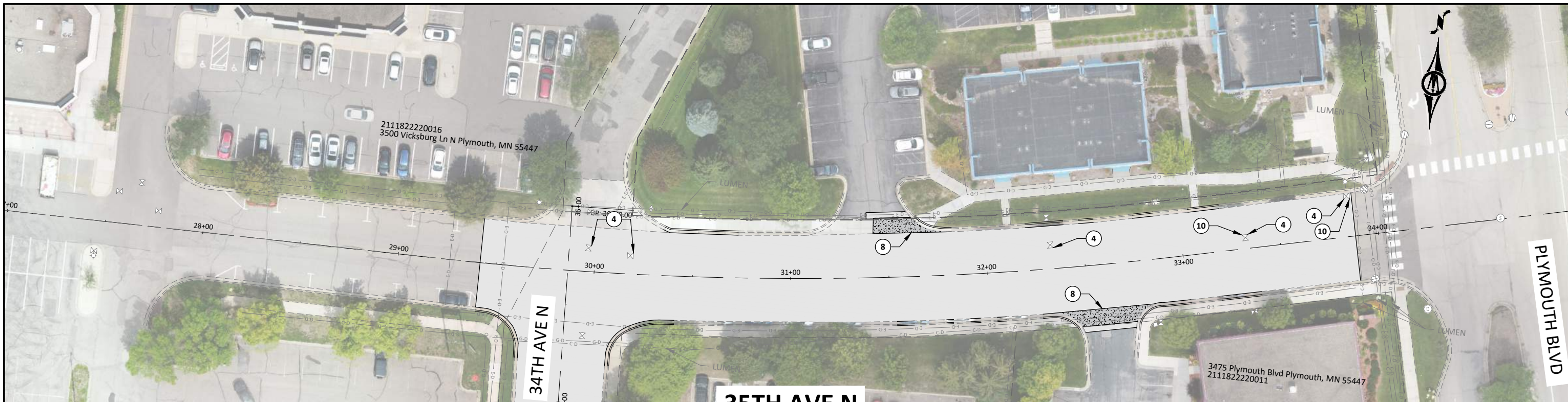


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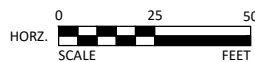


35TH AVE N

LEGEND

- | | | | |
|---|-------------------------------------|---|--|
| | BITUMINOUS PAVEMENT | ④ | ADJUST VALVE BOX |
| | CONCRETE WALK/MEDIAN | ⑤ | ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL) |
| | CONCRETE DRIVEWAY | ⑥ | ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL) |
| | CONCRETE CURB & GUTTER | ⑦ | DRAINAGE STRUCTURE REPAIR |
| | PEDESTRIAN RAMP LANDING | ⑧ | INSTALL 8" CONCRETE DRIVEWAY |
| ① | INSTALL 6" CONCRETE PEDESTRIAN RAMP | ⑨ | INSTALL 8" VALLEY GUTTER |
| ② | INSTALL BITUMINOUS TRAIL PAVEMENT | ⑩ | REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT |
| ③ | INSTALL 4" CONCRETE WALK/MEDIAN | | |

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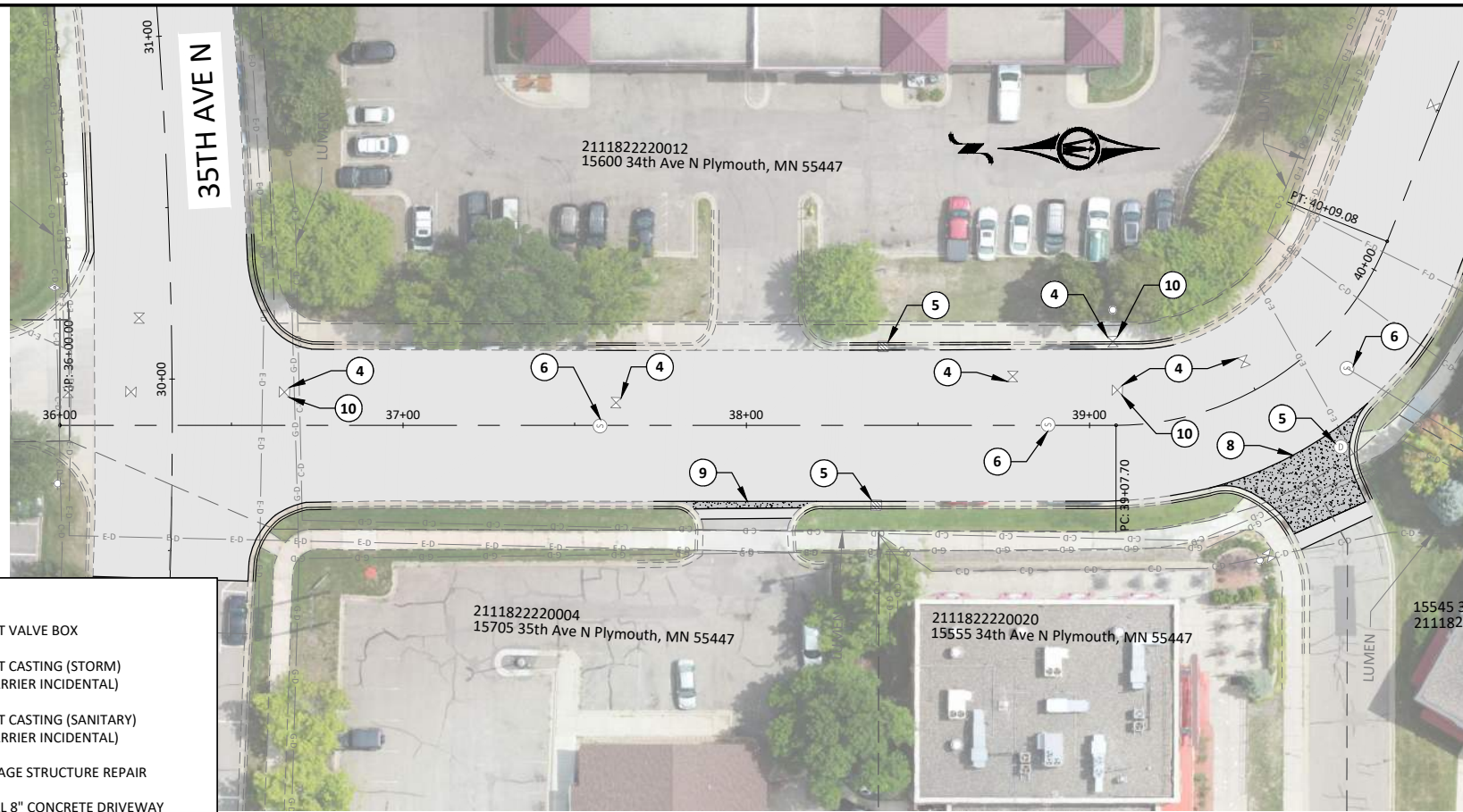


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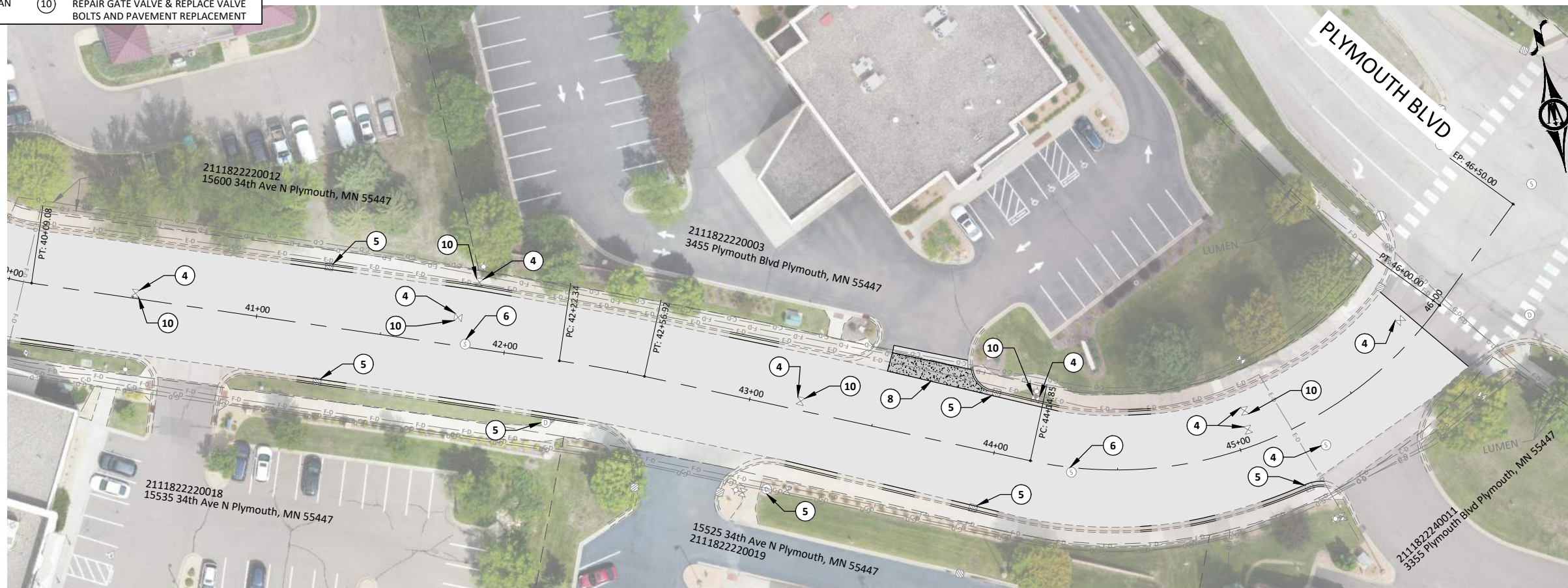
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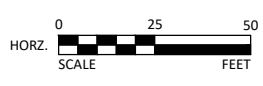


LEGEND	
	BITUMINOUS PAVEMENT
	CONCRETE WALK/MEDIAN
	CONCRETE DRIVEWAY
	CONCRETE CURB & GUTTER
	PEDESTRIAN RAMP LANDING
	INSTALL 6" CONCRETE PEDESTRIAN RAMP
	INSTALL BITUMINOUS TRAIL PAVEMENT
	INSTALL 4" CONCRETE WALK/MEDIAN
	ADJUST VALVE BOX
	ADJUST CASTING (STORM) (&I BARRIER INCIDENTAL)
	ADJUST CASTING (SANITARY) (&I BARRIER INCIDENTAL)
	DRAINAGE STRUCTURE REPAIR
	INSTALL 8" CONCRETE DRIVEWAY
	INSTALL 8" VALLEY GUTTER
	REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT

34TH AVE N



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










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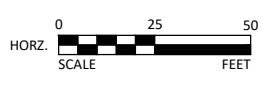


34TH AVE N

LEGEND

- | | | | |
|---|---------------------------------------|---|--|
|  | BITUMINOUS PAVEMENT |  | 4 ADJUST VALVE BOX |
|  | CONCRETE WALK/MEDIAN |  | 5 ADJUST CASTING (STORM)
(I&I BARRIER INCIDENTAL) |
|  | CONCRETE DRIVEWAY |  | 6 ADJUST CASTING (SANITARY)
(I&I BARRIER INCIDENTAL) |
|  | CONCRETE CURB & GUTTER |  | 7 DRAINAGE STRUCTURE REPAIR |
|  | PEDESTRIAN RAMP LANDING |  | 8 INSTALL 8" CONCRETE DRIVEWAY |
|  | 1 INSTALL 6" CONCRETE PEDESTRIAN RAMP |  | 9 INSTALL 8" VALLEY GUTTER |
|  | 2 INSTALL BITUMINOUS TRAIL PAVEMENT |  | 10 REPAIR GATE VALVE & REPLACE VALVE
BOLTS AND PAVEMENT REPLACEMENT |
|  | 3 INSTALL 4" CONCRETE WALK/MEDIAN | | |

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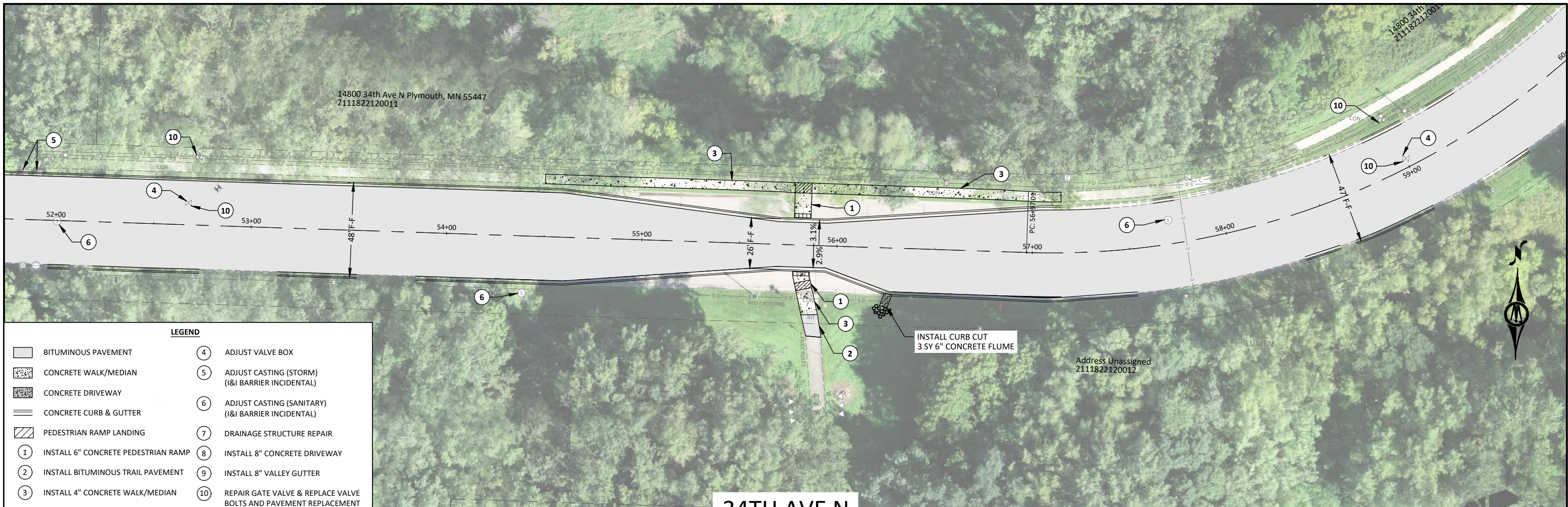


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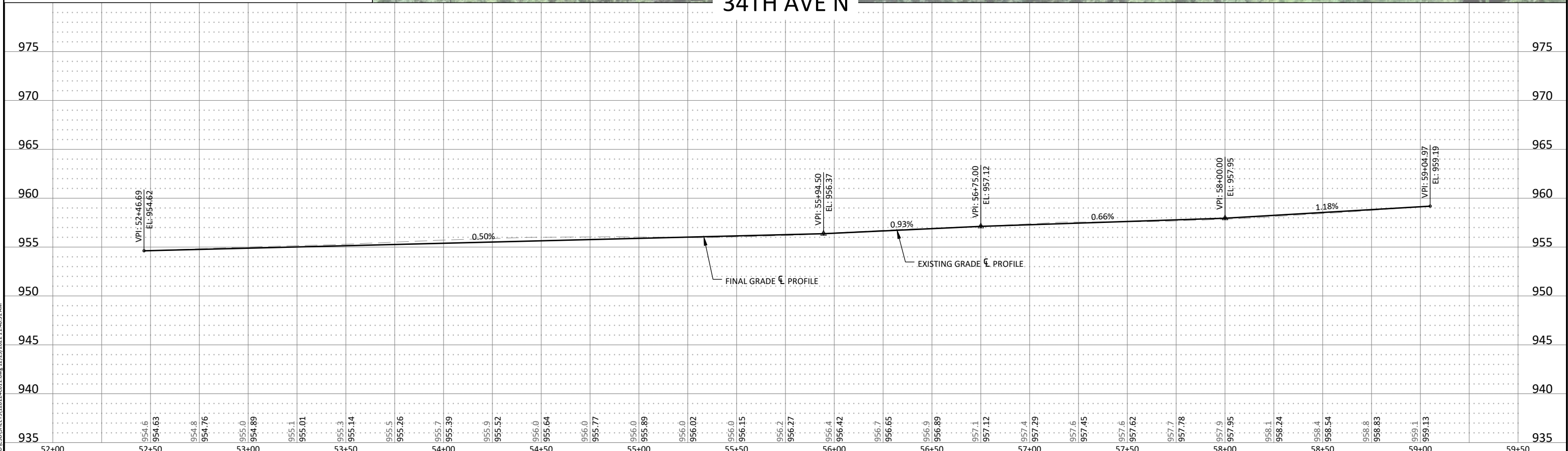
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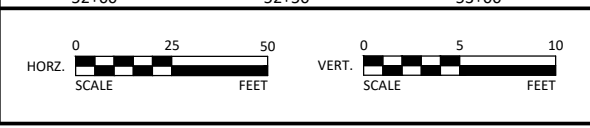
LEGEND

	BITUMINOUS PAVEMENT		ADJUST VALVE BOX
	CONCRETE WALK/MEDIAN		ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
	CONCRETE DRIVEWAY		ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
	CONCRETE CURB & GUTTER		DRAINAGE STRUCTURE REPAIR
	PEDESTRIAN RAMP LANDING		
	INSTALL BITUMINOUS TRAIL PAVEMENT		
	REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT		

34TH AVE N



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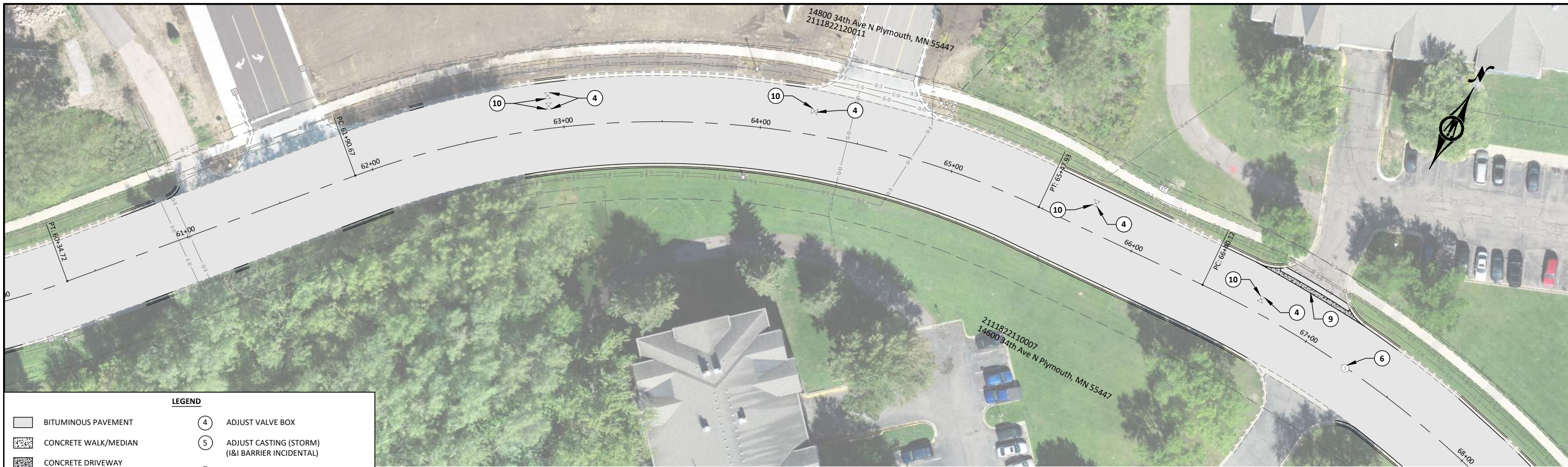


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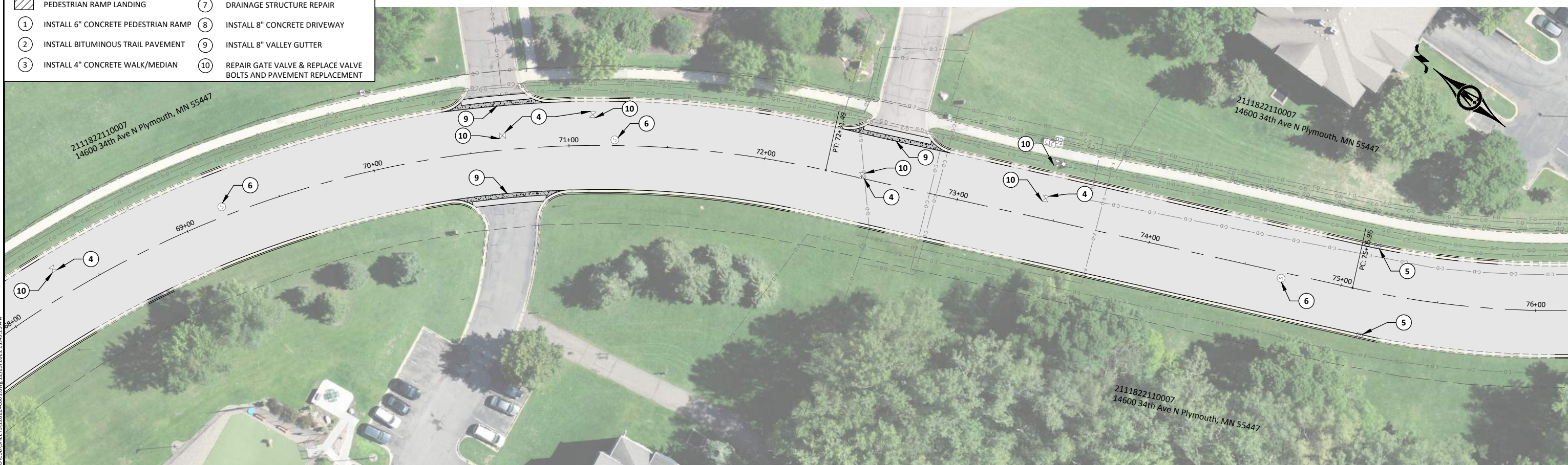
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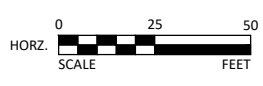


34TH AVE N

LEGEND	
	BITUMINOUS PAVEMENT
	CONCRETE WALK/MEDIAN
	CONCRETE DRIVEWAY
	CONCRETE CURB & GUTTER
	PEDESTRIAN RAMP LANDING
	1 INSTALL 6" CONCRETE PEDESTRIAN RAMP
	2 INSTALL BITUMINOUS TRAIL PAVEMENT
	3 INSTALL 4" CONCRETE WALK/MEDIAN
	4 ADJUST VALVE BOX
	5 ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
	6 ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
	7 DRAINAGE STRUCTURE REPAIR
	8 INSTALL 8" CONCRETE DRIVEWAY
	9 INSTALL 8" VALLEY GUTTER
	10 REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT



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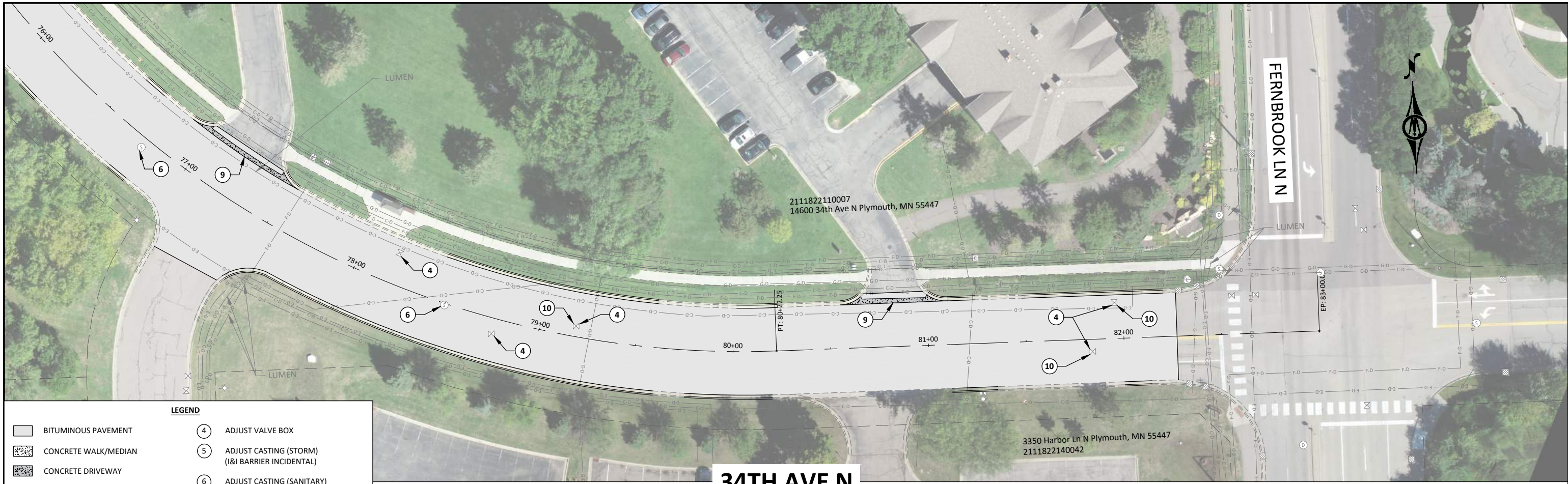


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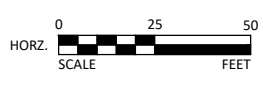
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34TH AVE N

LEGEND	
	BITUMINOUS PAVEMENT
	CONCRETE WALK/MEDIAN
	CONCRETE DRIVEWAY
	CONCRETE CURB & GUTTER
	PEDESTRIAN RAMP LANDING
	INSTALL 6" CONCRETE PEDESTRIAN RAMP
	INSTALL BITUMINOUS TRAIL PAVEMENT
	INSTALL 4" CONCRETE WALK/MEDIAN
	ADJUST VALVE BOX
	ADJUST CASTING (STORM) (I&I BARRIER INCIDENTAL)
	ADJUST CASTING (SANITARY) (I&I BARRIER INCIDENTAL)
	DRAINAGE STRUCTURE REPAIR
	INSTALL 8" CONCRETE DRIVEWAY
	INSTALL 8" VALLEY GUTTER
	REPAIR GATE VALVE & REPLACE VALVE BOLTS AND PAVEMENT REPLACEMENT

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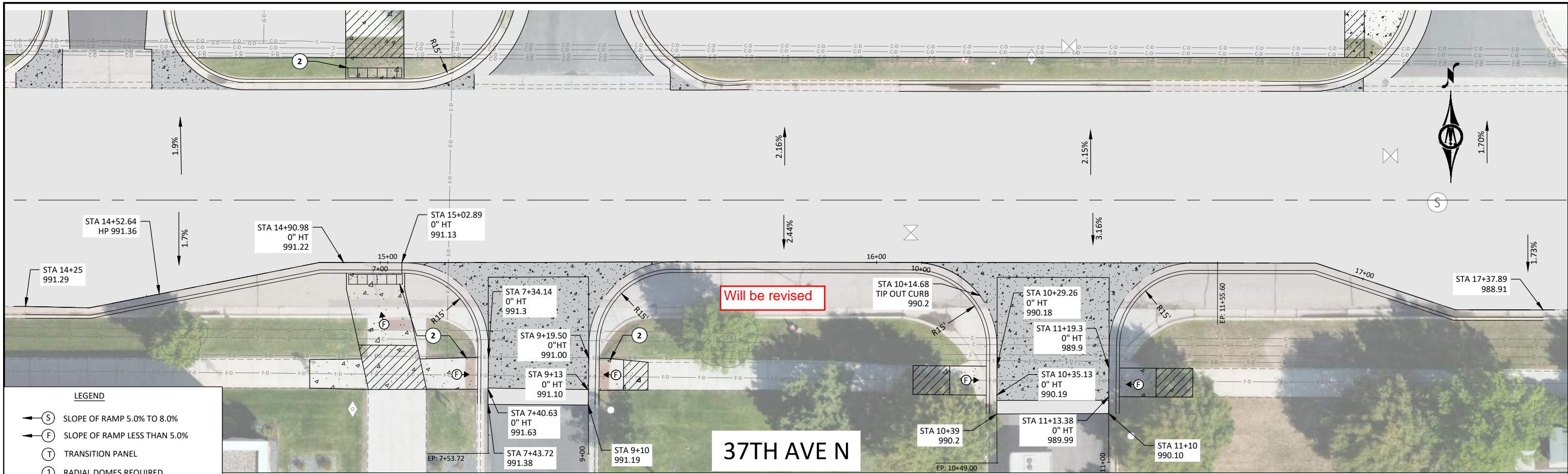


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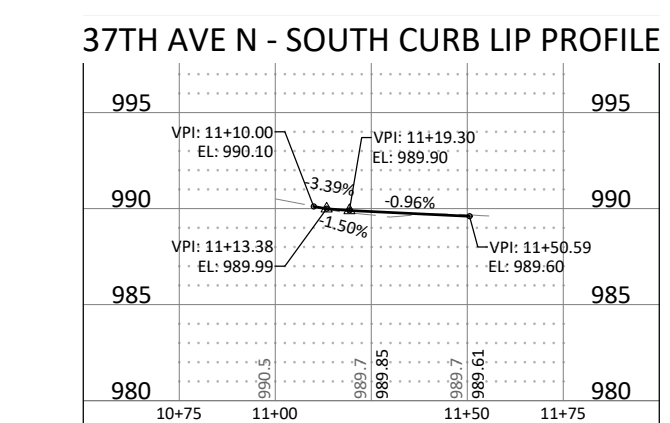
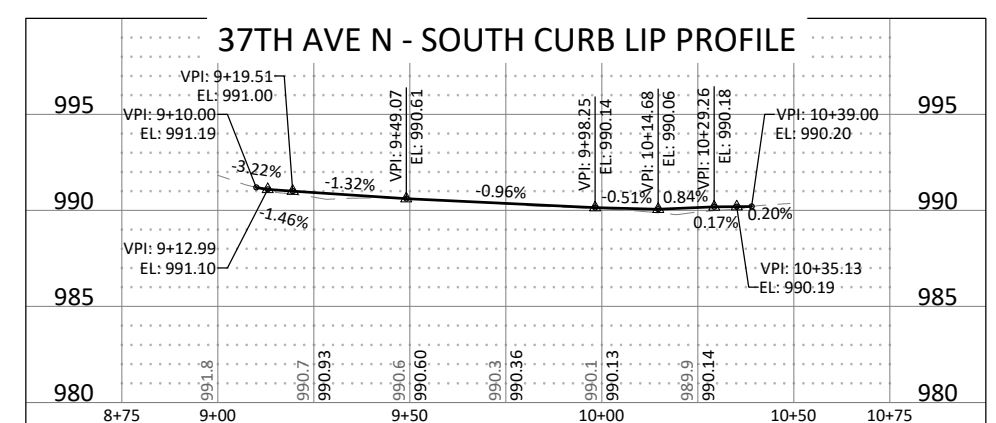
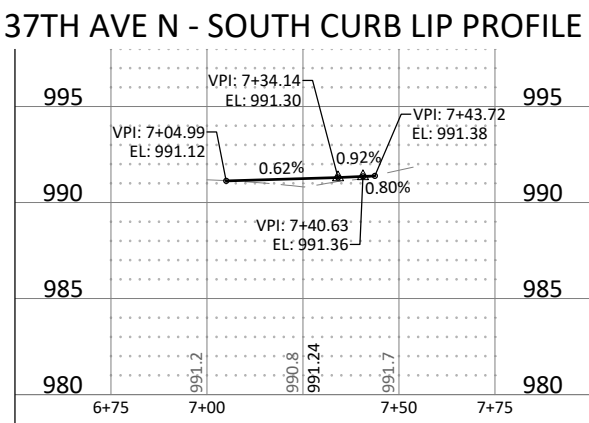
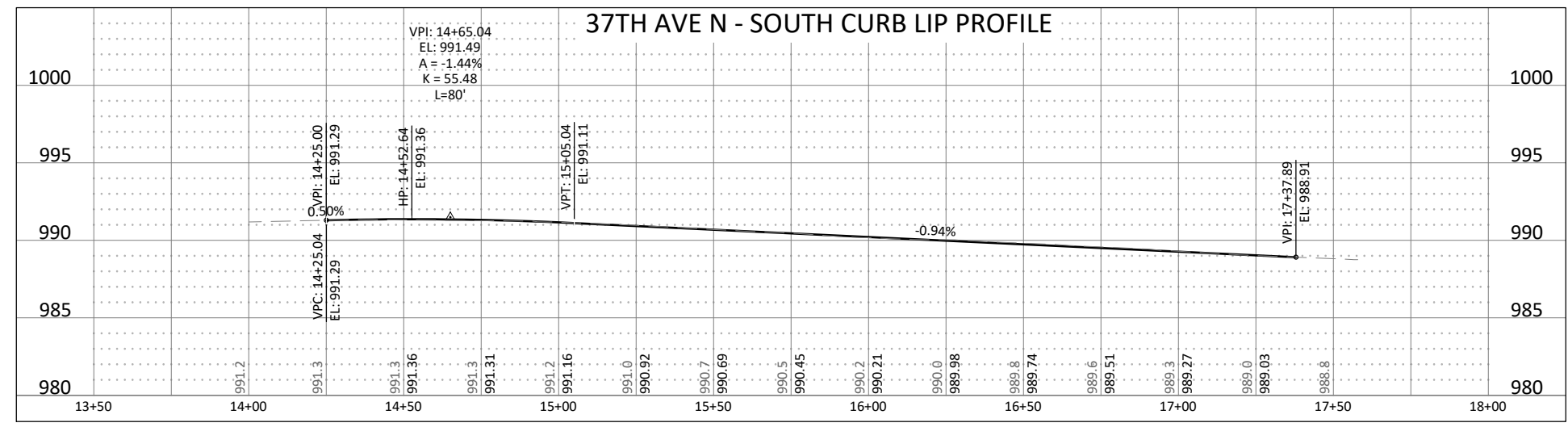
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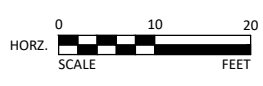


LEGEND

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



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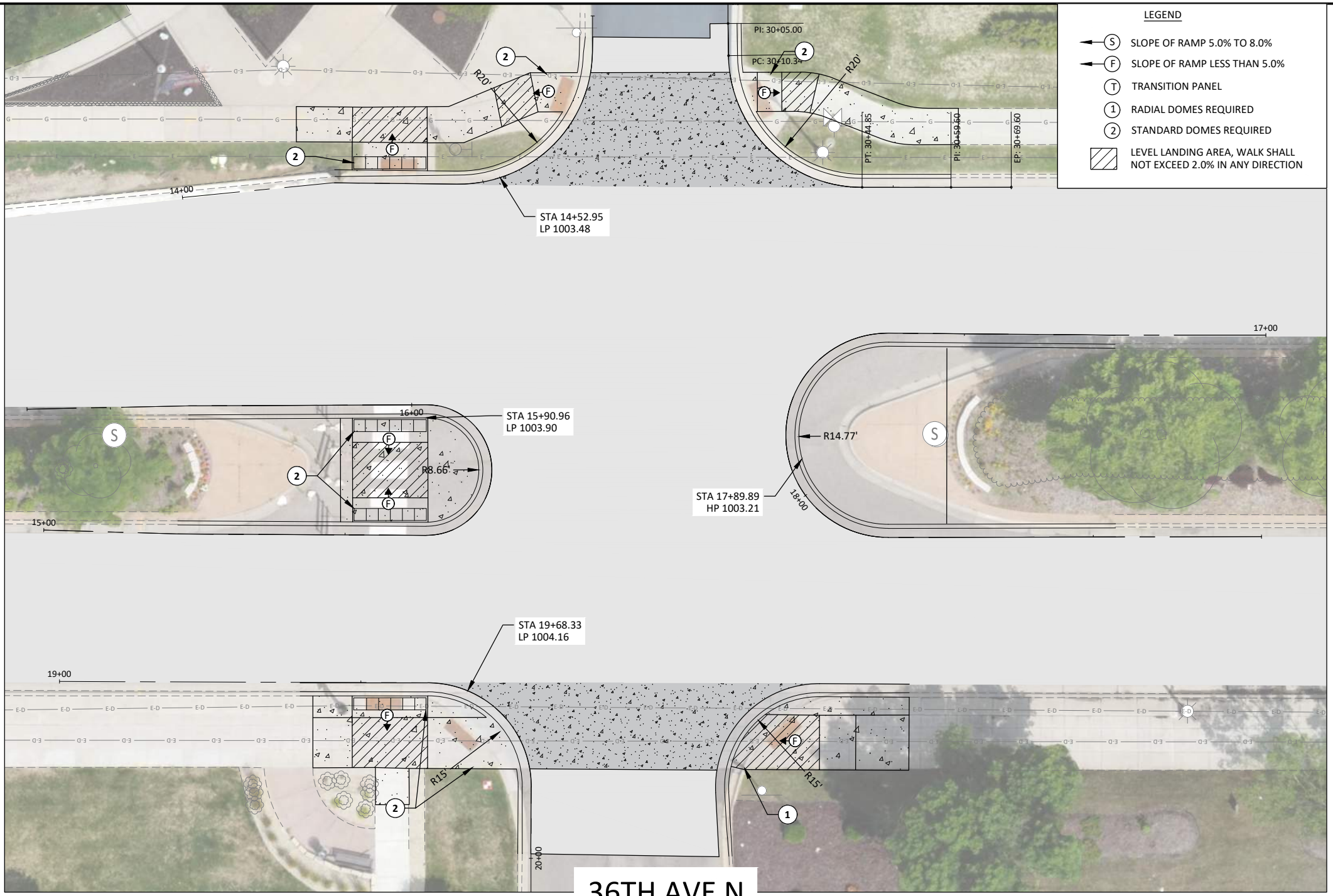
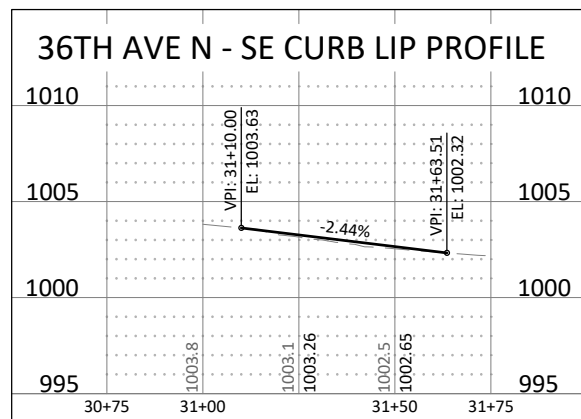
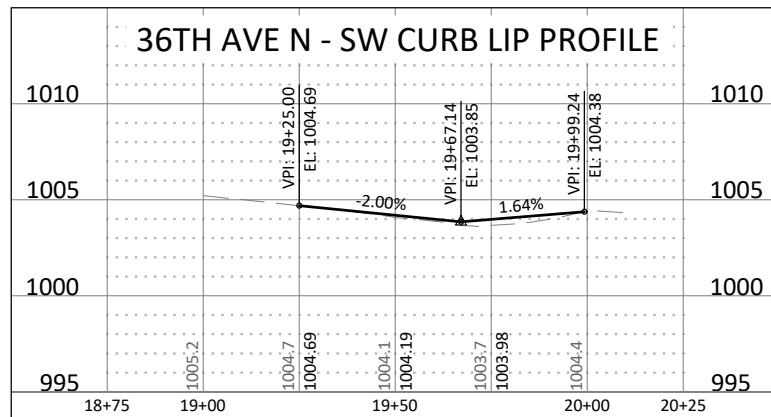
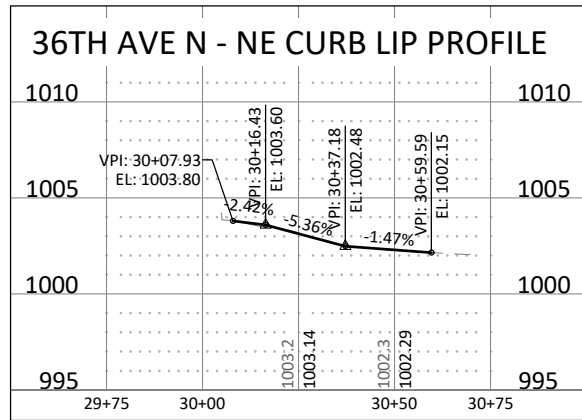
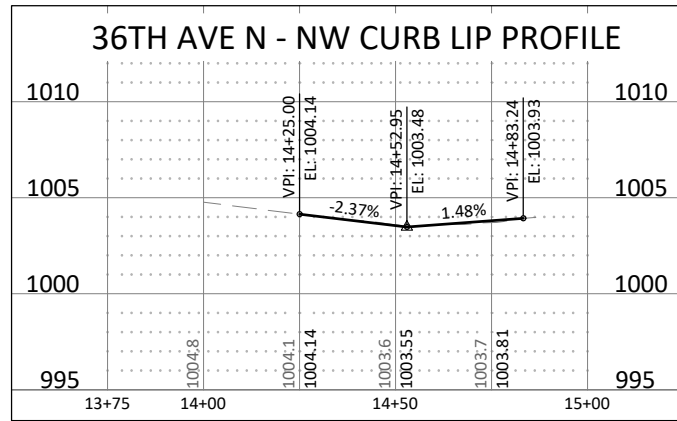


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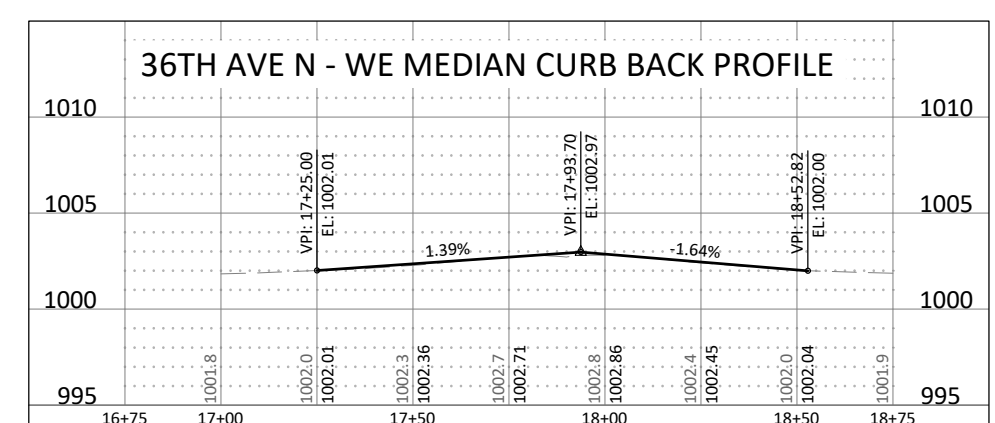
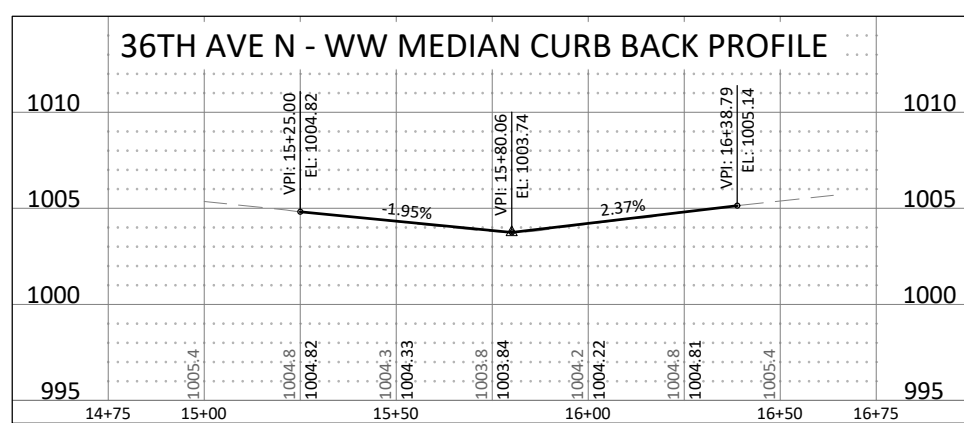
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 INTERSECTION DETAILS
 37TH AVE N

SHEET
C6.10

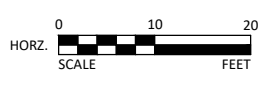


LEGEND

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



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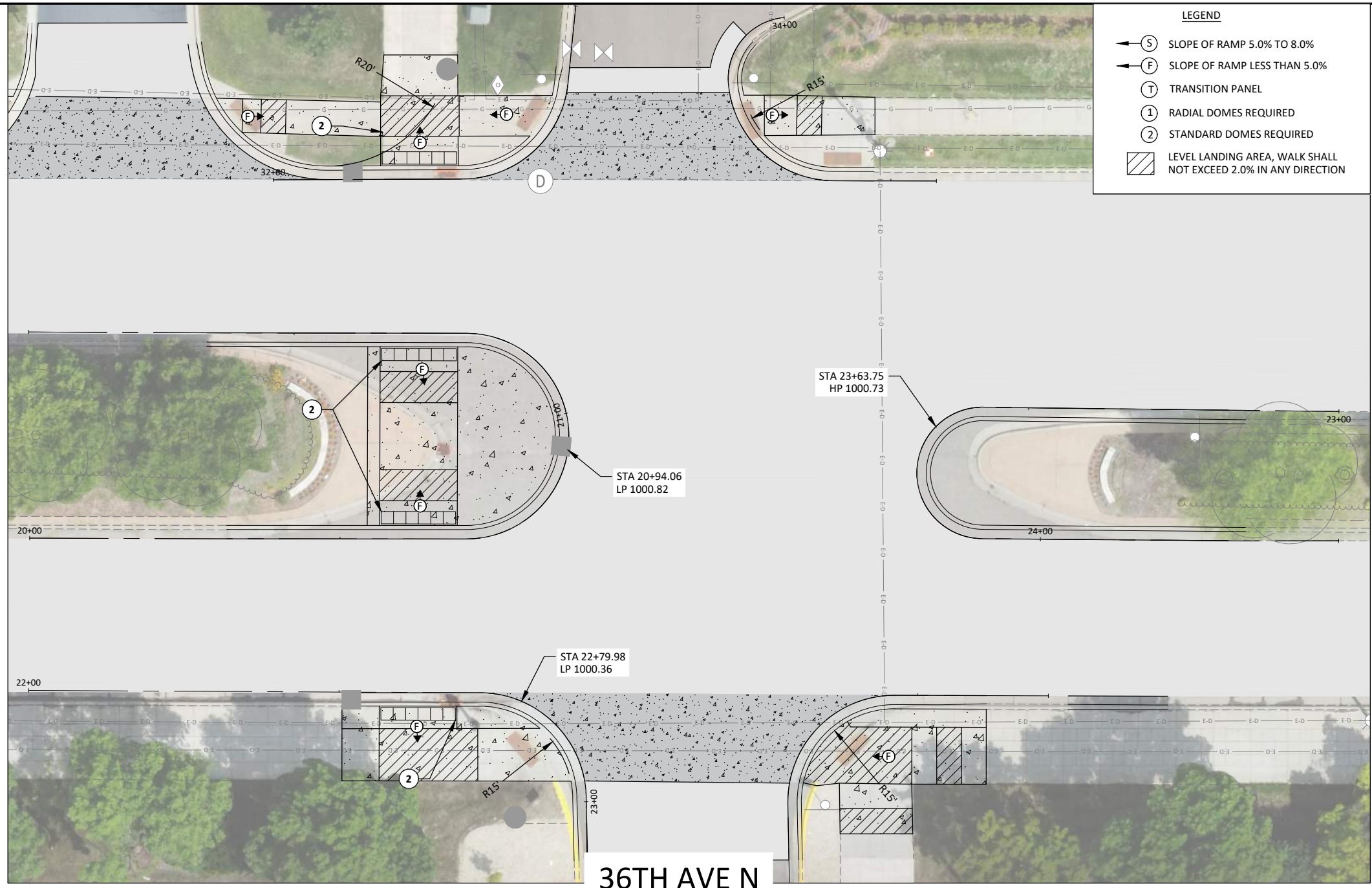
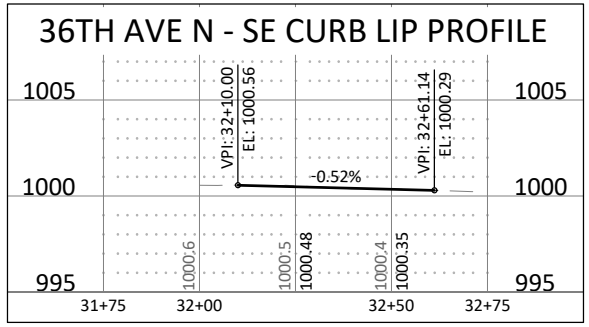
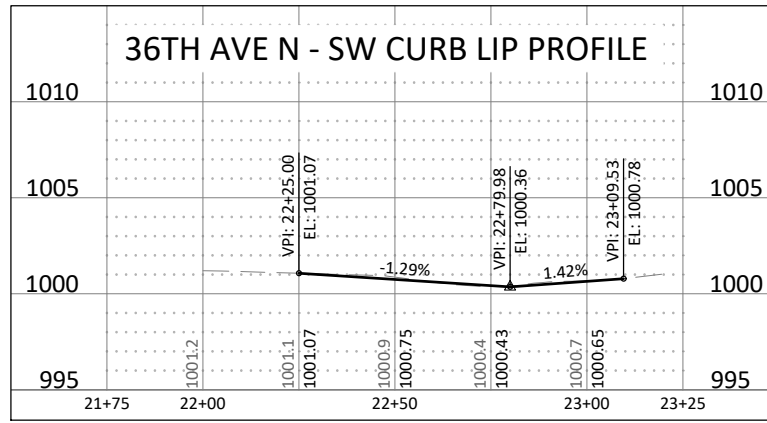
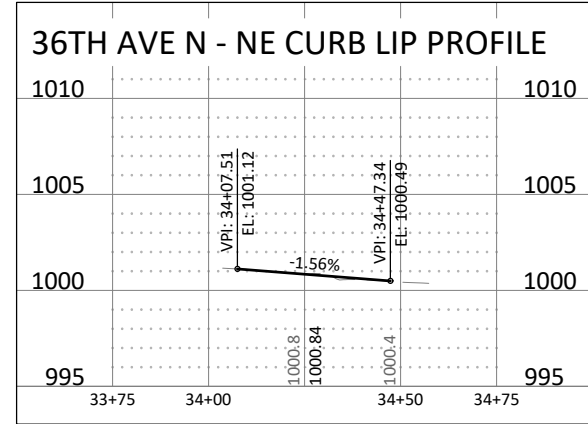
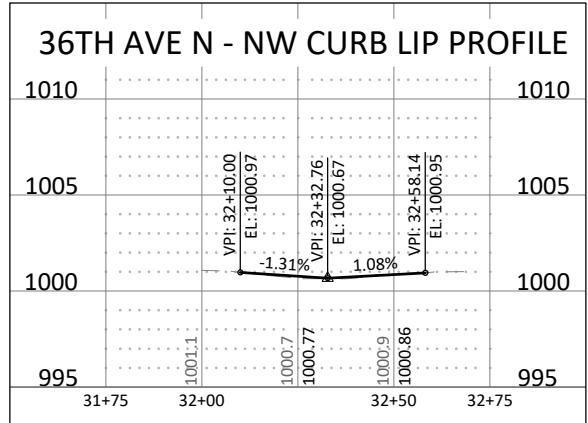


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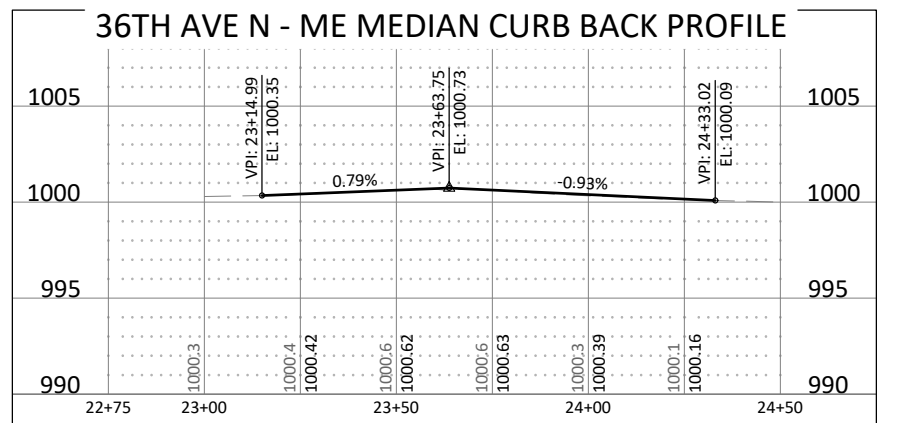
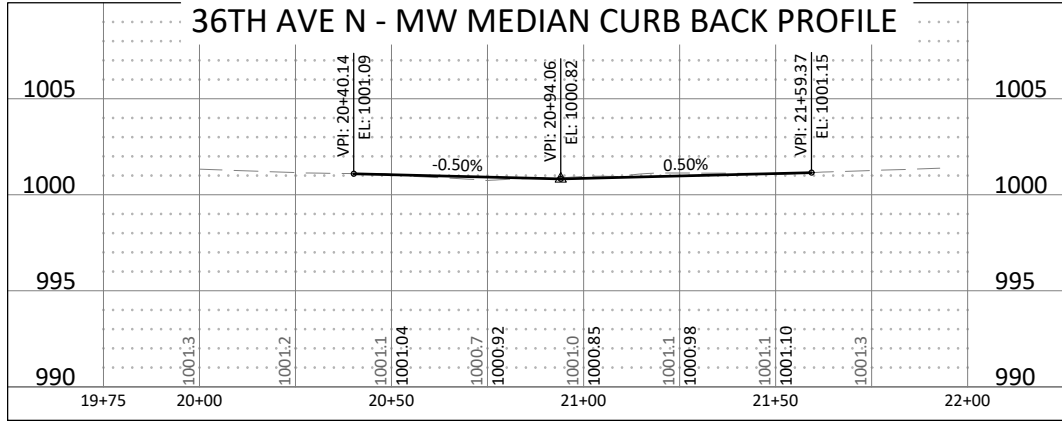
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 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
 INTERSECTION DETAILS
 36TH AVE N

SHEET
C6.11

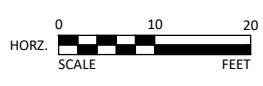


LEGEND

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



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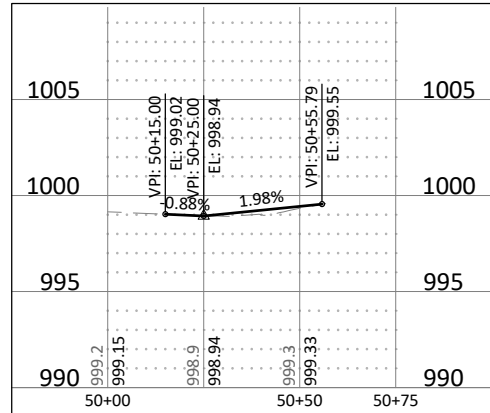
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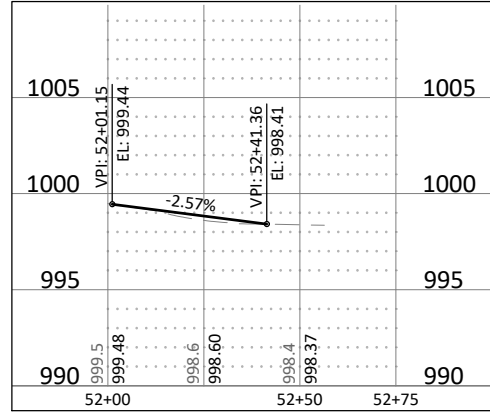
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 INTERSECTION DETAILS
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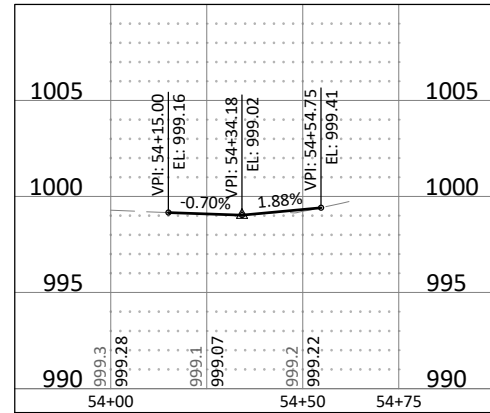
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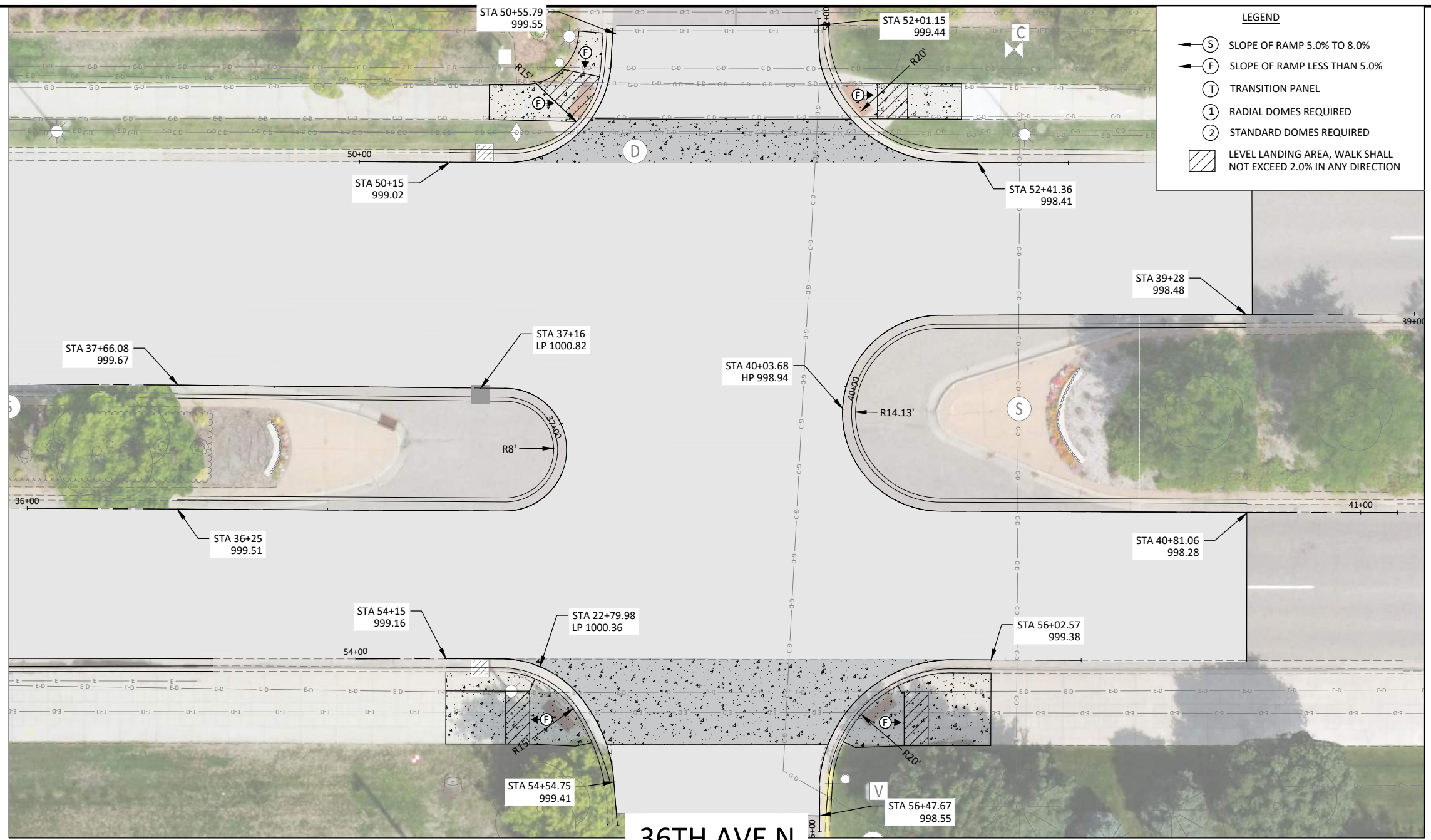
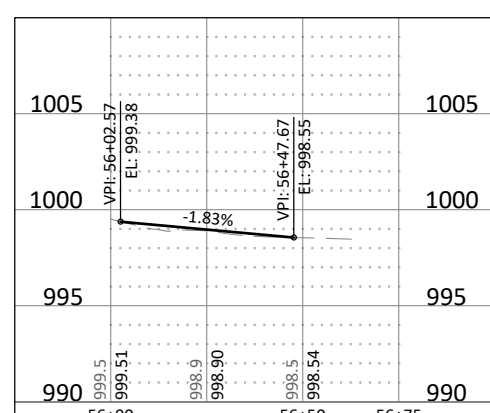
36TH AVE N - NE CURB LIP PROFILE



36TH AVE N - SW CURB LIP PROFILE

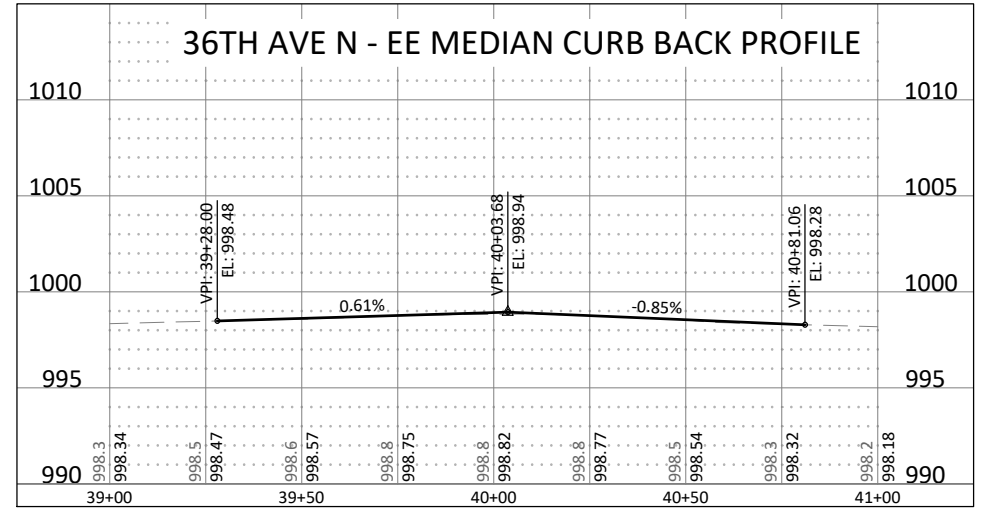
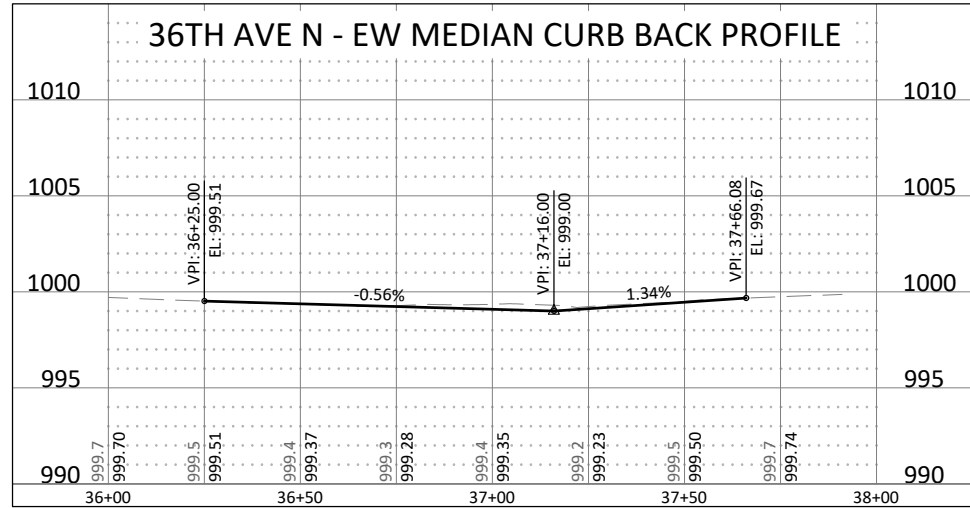


36TH AVE N - SE CURB LIP PROFILE

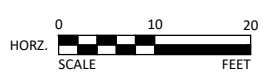


LEGEND

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



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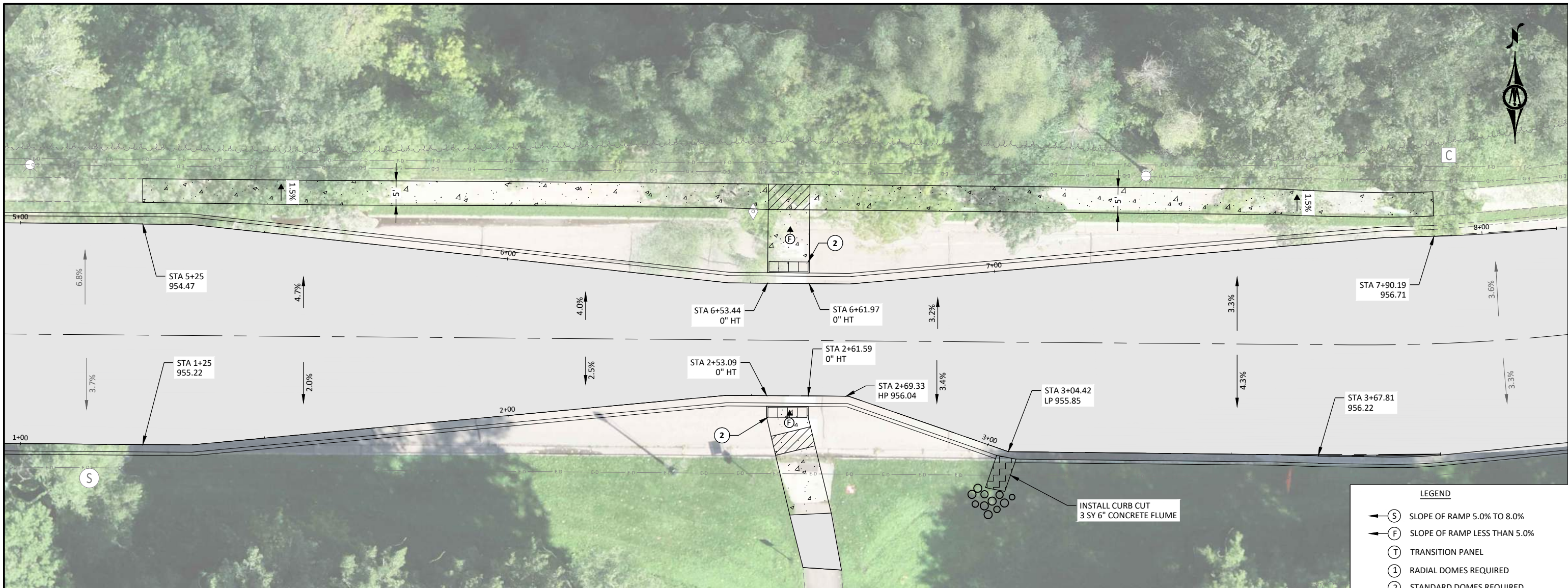


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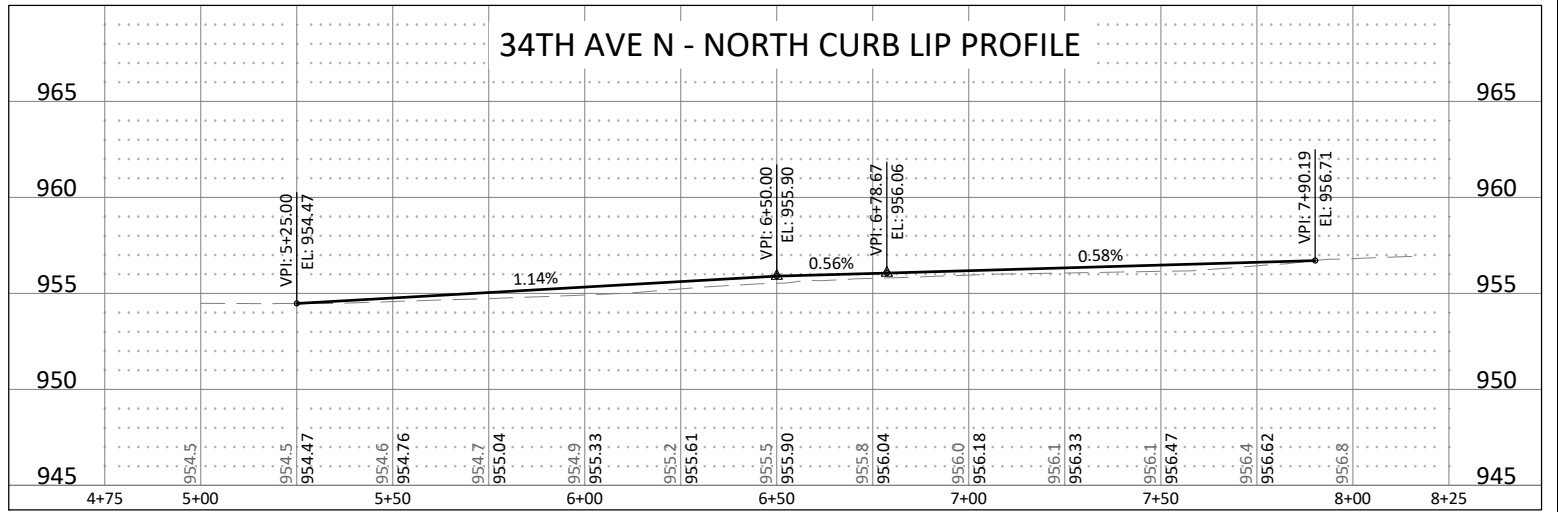
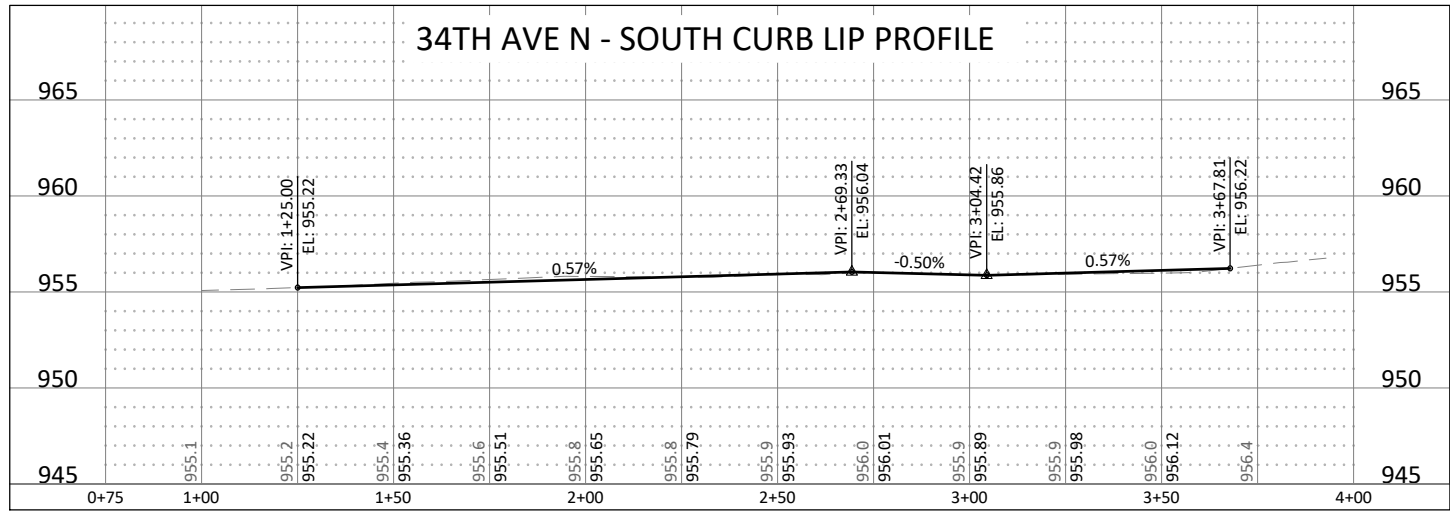
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C6.13



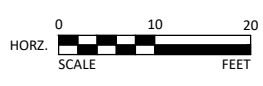
34TH AVE N

LEGEND

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



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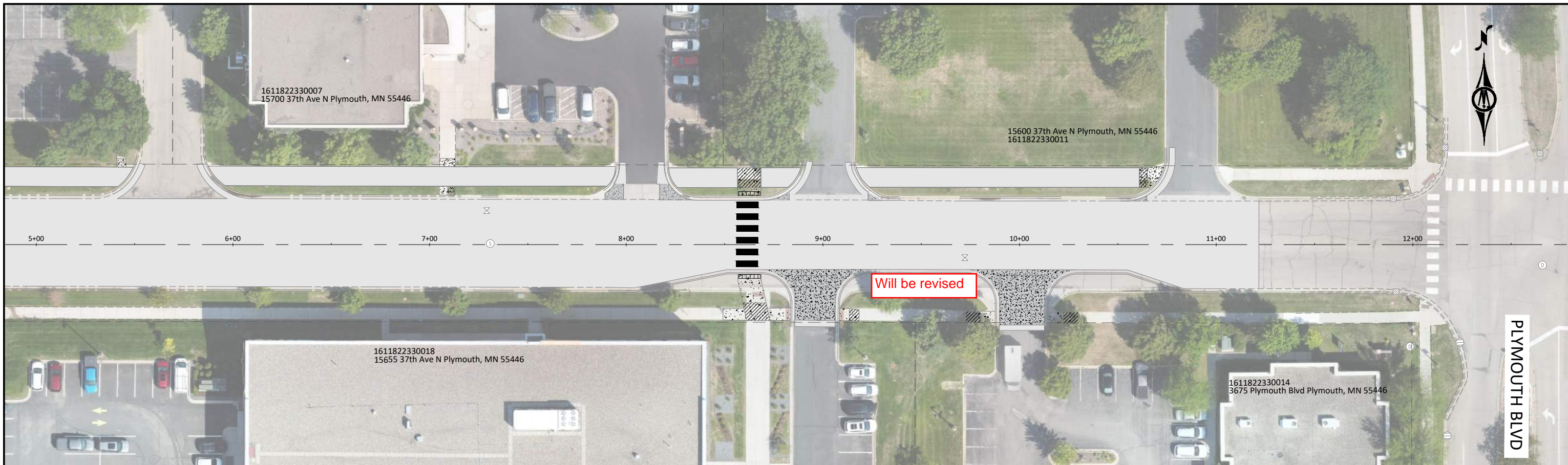


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 INTERSECTION DETAILS
 34TH AVE N

SHEET
C6.14



37TH AVE N

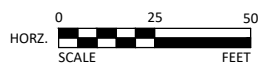
STRIPING KEY

- 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

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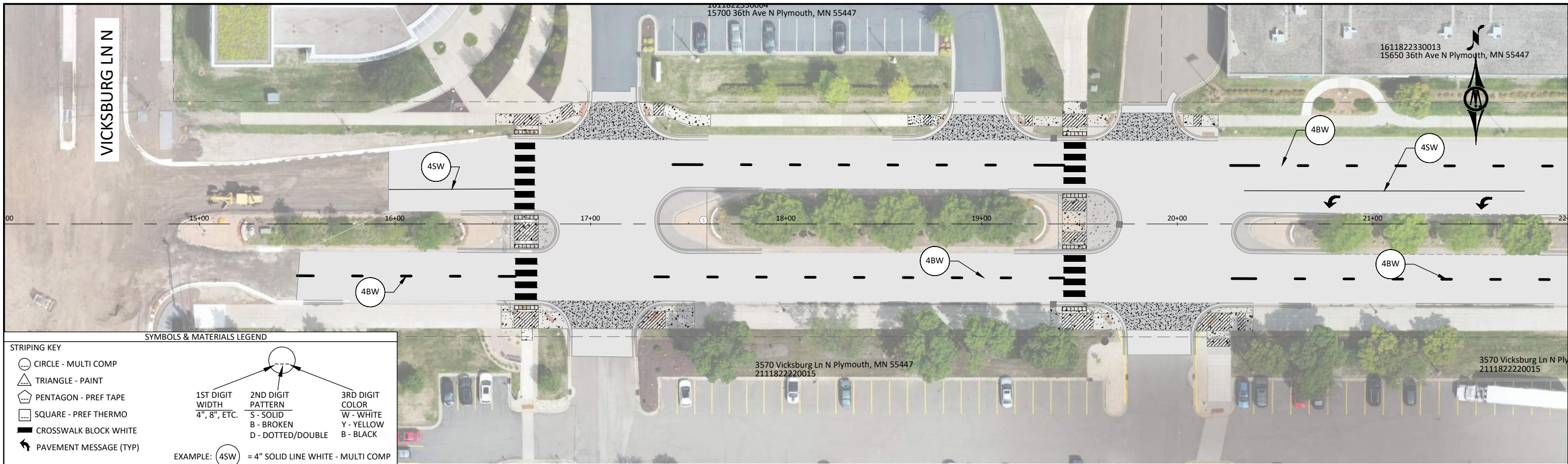


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 2023 CITY CENTER PAVEMENT REHAB IMPROVEMENTS
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SHEET
 C7.01



STRIPING KEY

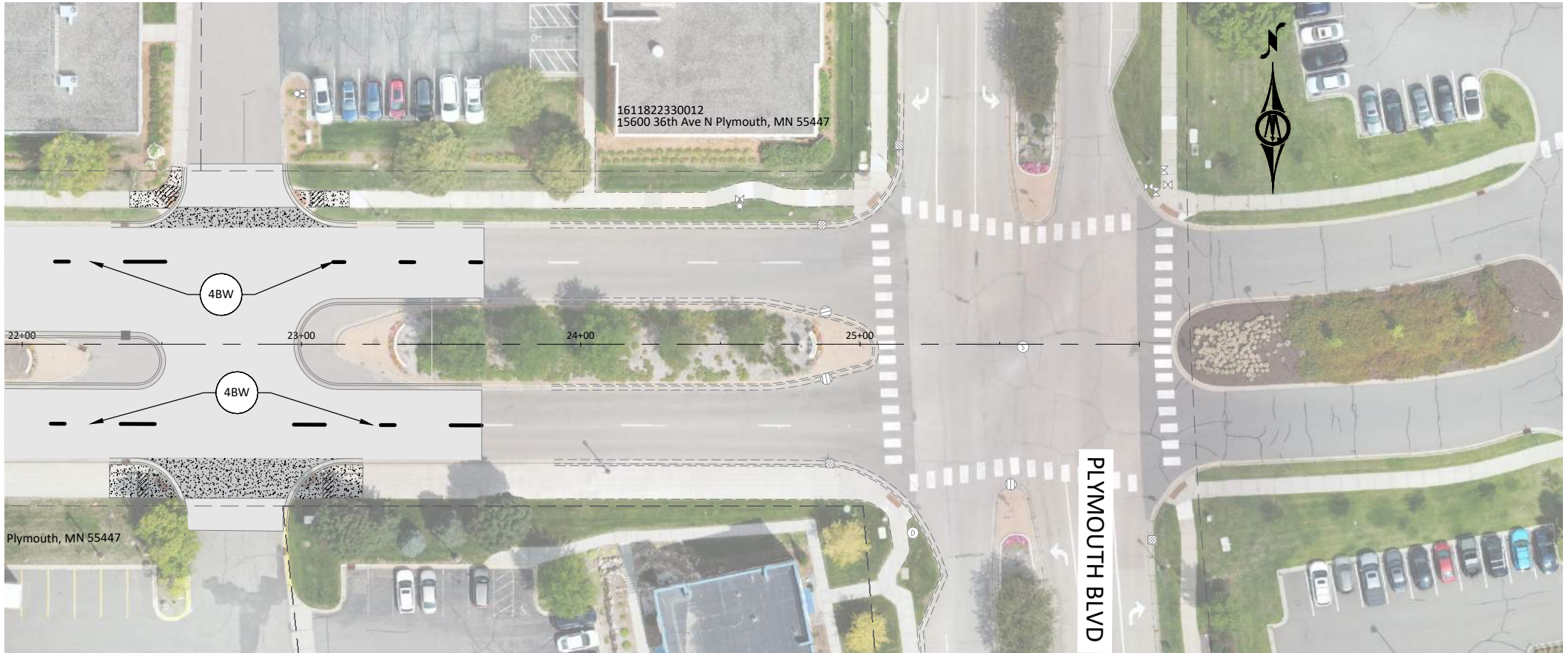
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- TRIANGLE - PAINT
- PENTAGON - PREF TAPE
- SQUARE - PREF THERMO
- CROSSWALK BLOCK WHITE
- PAVEMENT MESSAGE (TYP)

SYMBOLS & MATERIALS LEGEND

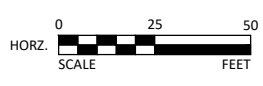
1ST DIGIT WIDTH 4", 8", ETC.	2ND DIGIT PATTERN S - SOLID B - BROKEN D - DOTTED/DOUBLE	3RD DIGIT COLOR W - WHITE Y - YELLOW B - BLACK
4	S	W

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

36TH AVE N



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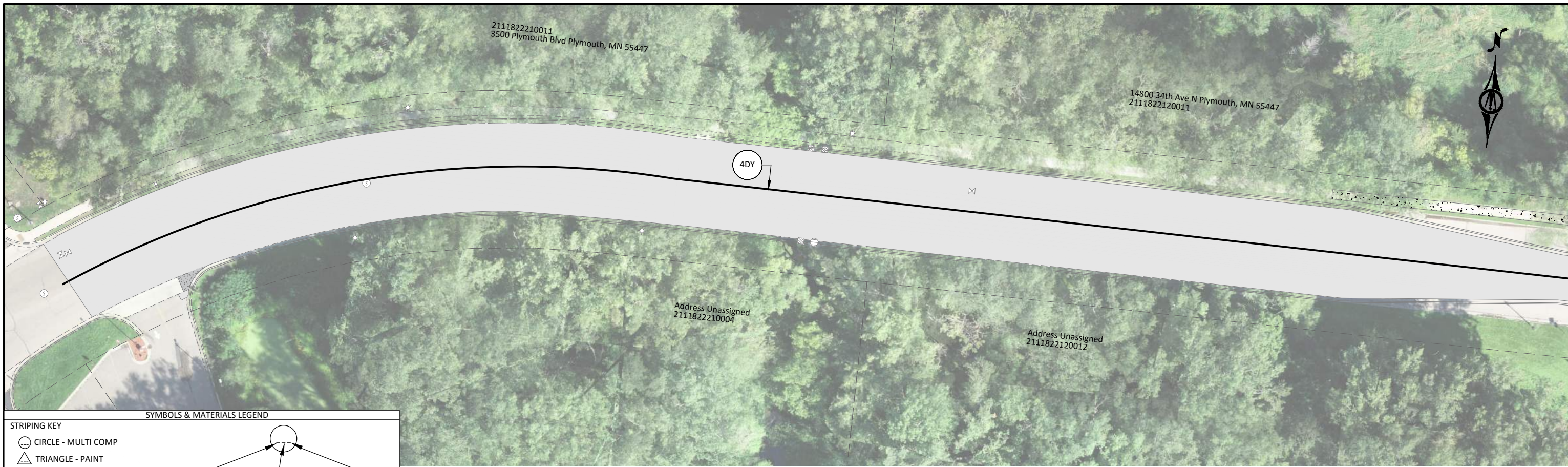


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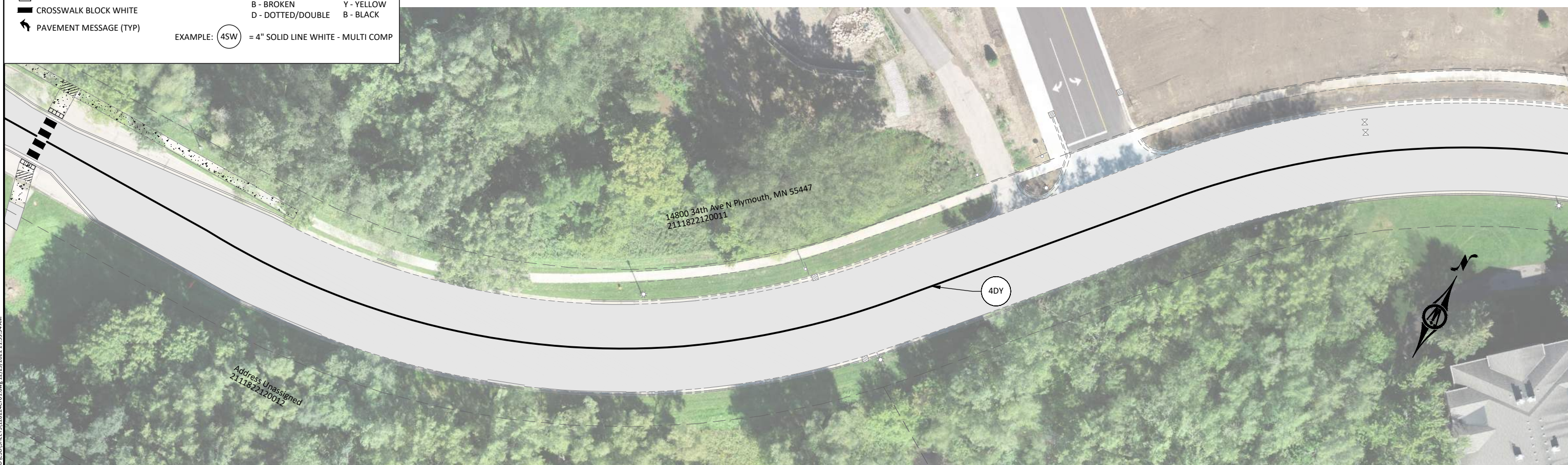
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C7.02



34TH AVE N



SYMBOLS & MATERIALS LEGEND

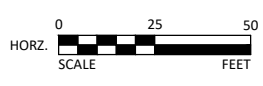
STRIPING KEY

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

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
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EXAMPLE: = 4" SOLID LINE WHITE - MULTI COMP

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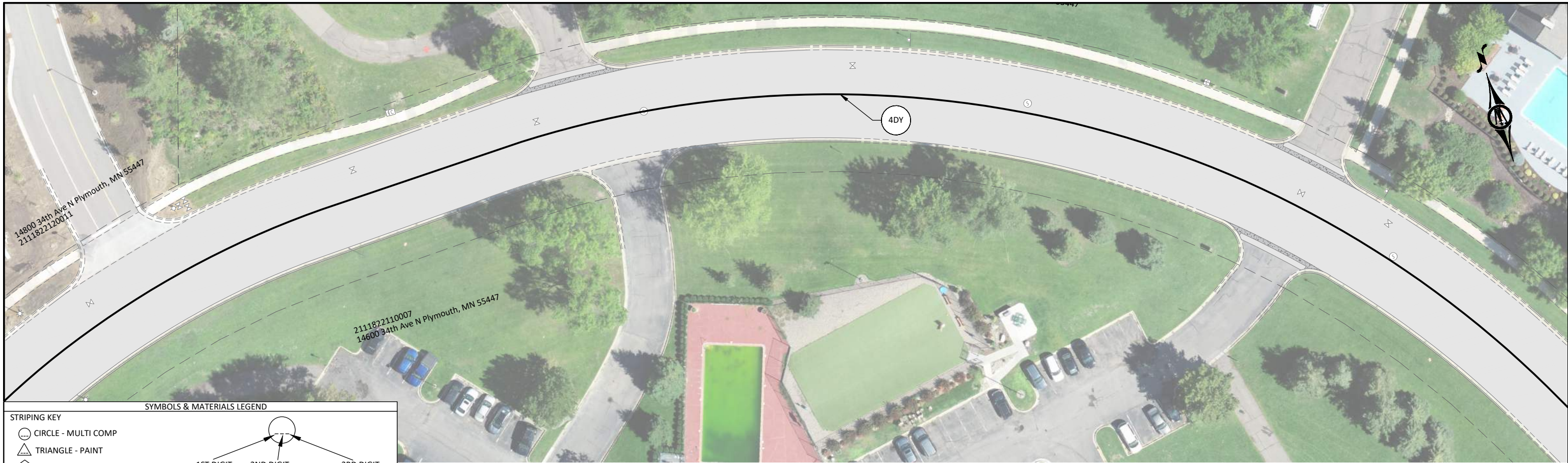


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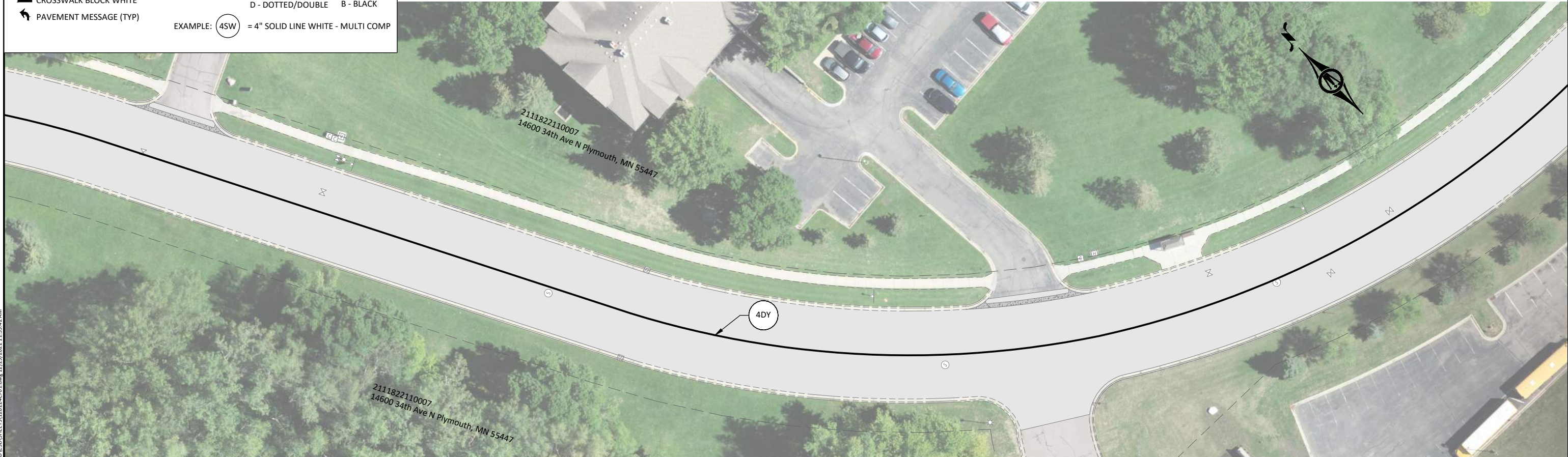
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34TH AVE N



STRIPING KEY

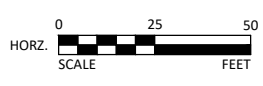
- CIRCLE - MULTI COMP
- TRIANGLE - PAINT
- PENTAGON - PREF TAPE
- SQUARE - PREF THERMO
- CROSSWALK BLOCK WHITE
- PAVEMENT MESSAGE (TYP)

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

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

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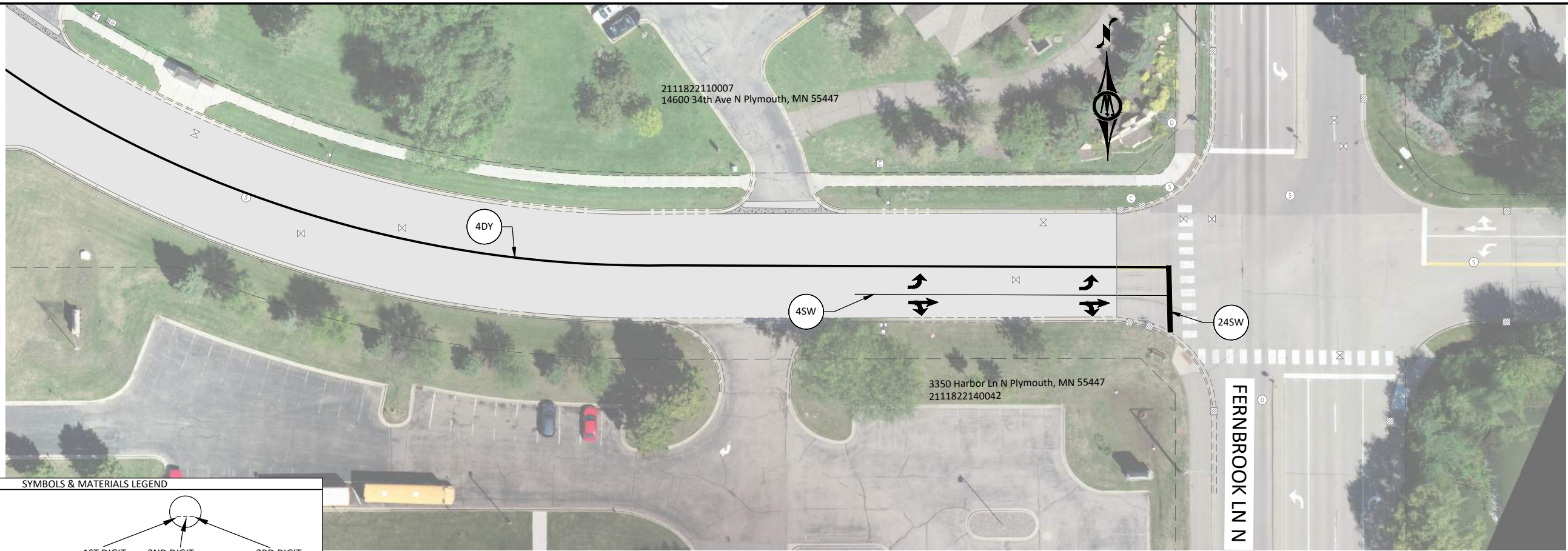


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SHEET
C7.04



STRIPING KEY

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

SYMBOLS & MATERIALS LEGEND

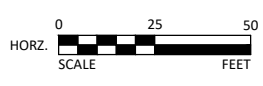
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4	S	W

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

34TH AVE N

FERNBROOK LN N

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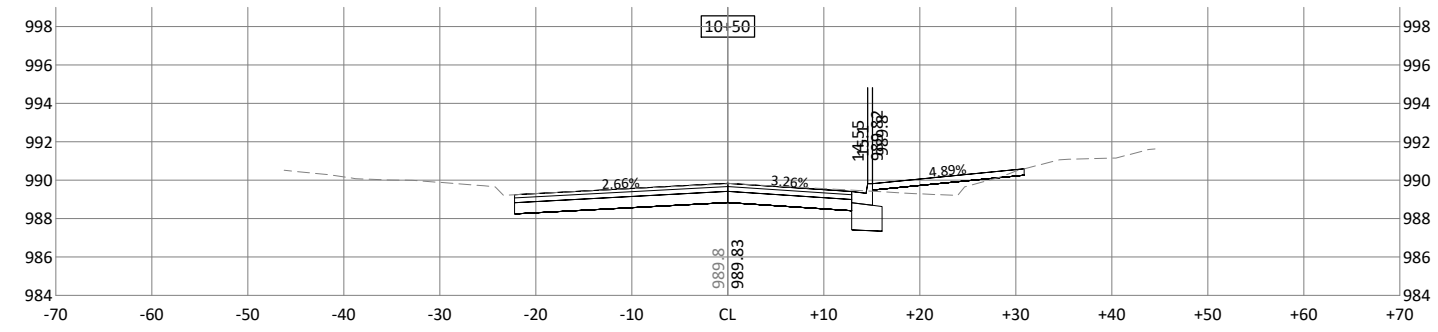
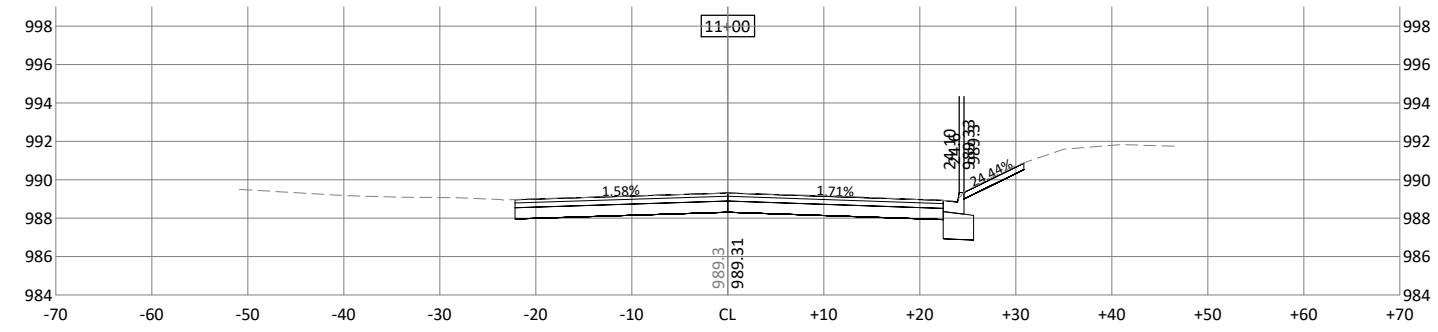
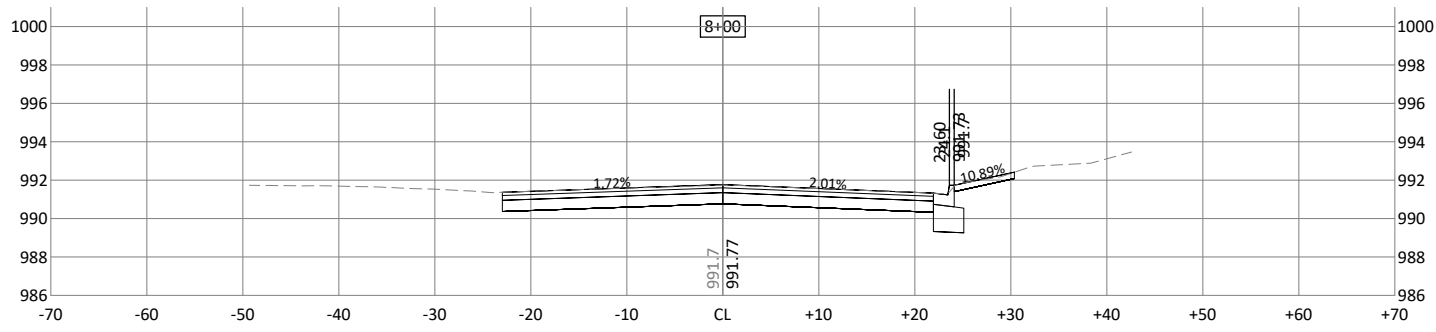
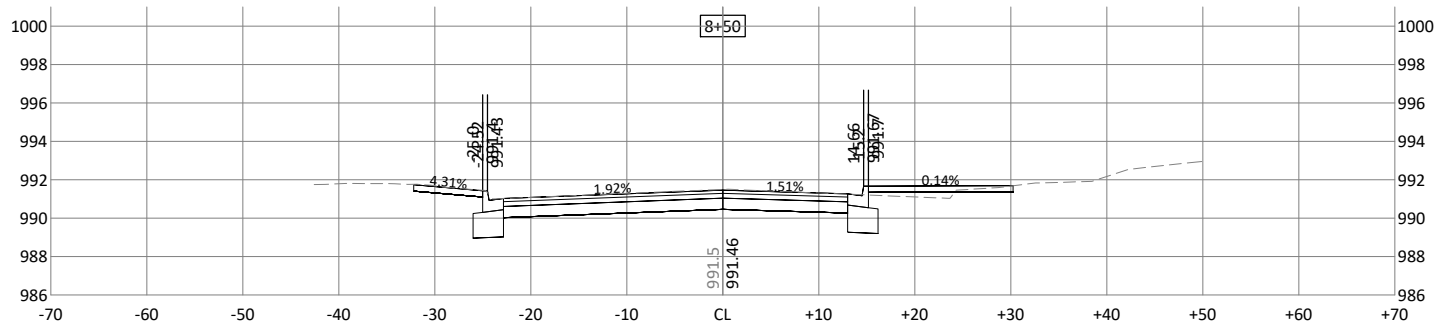
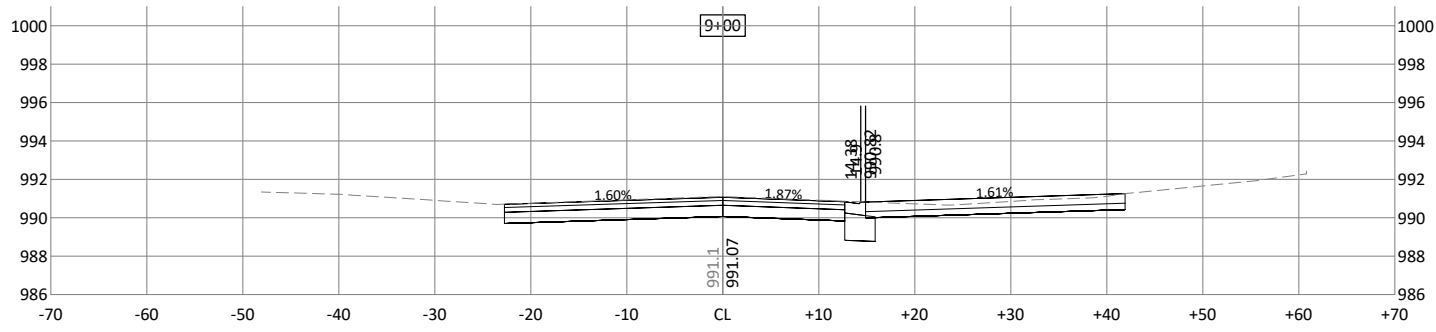
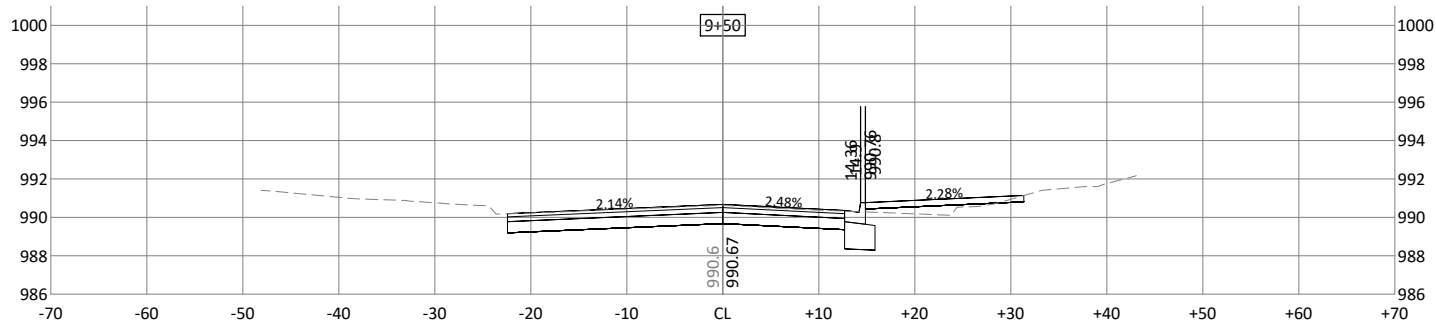
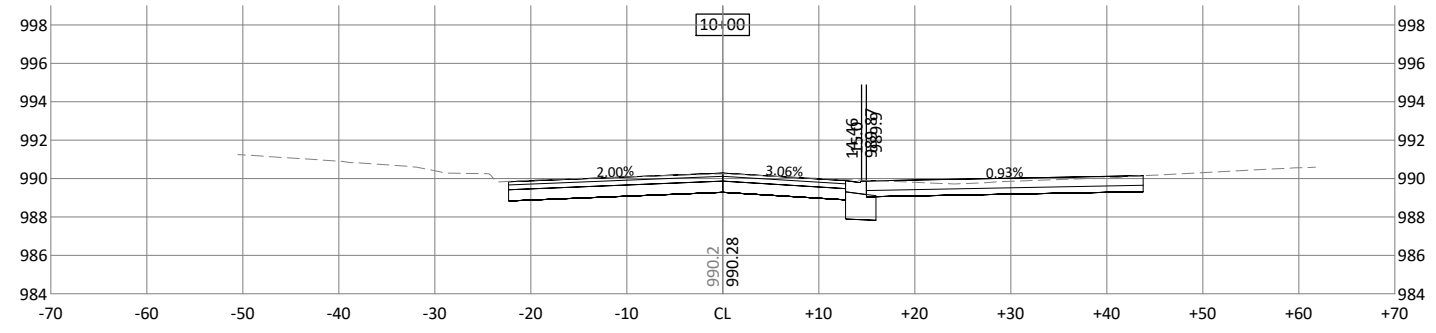


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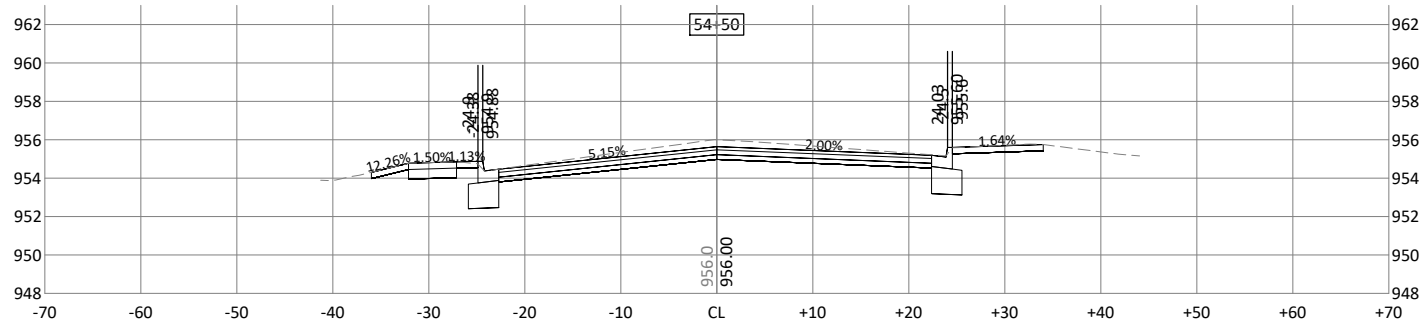
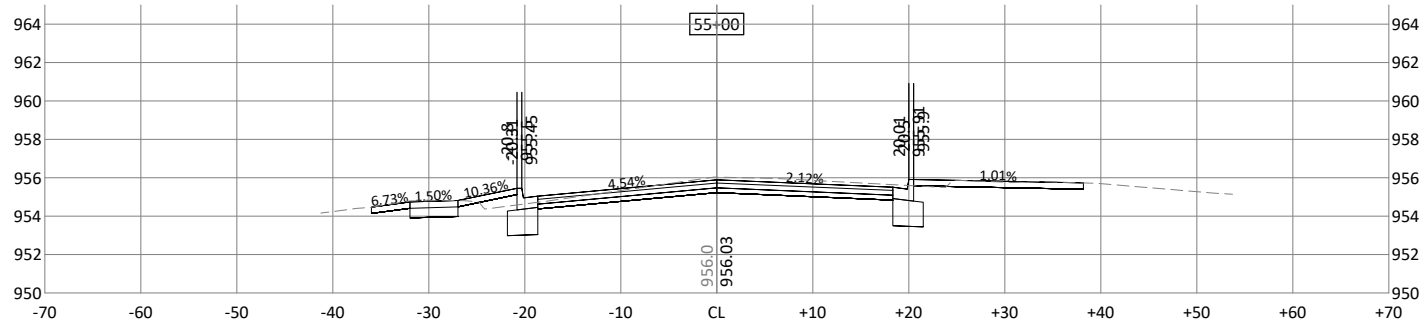
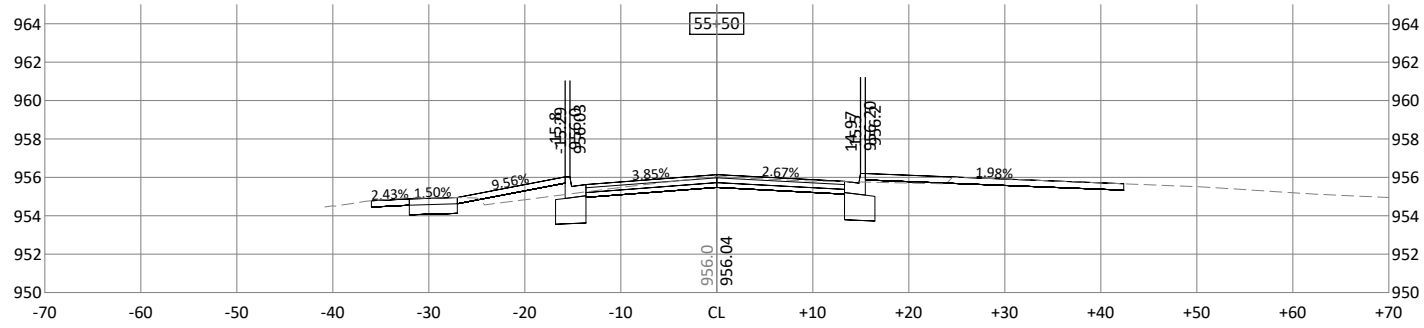
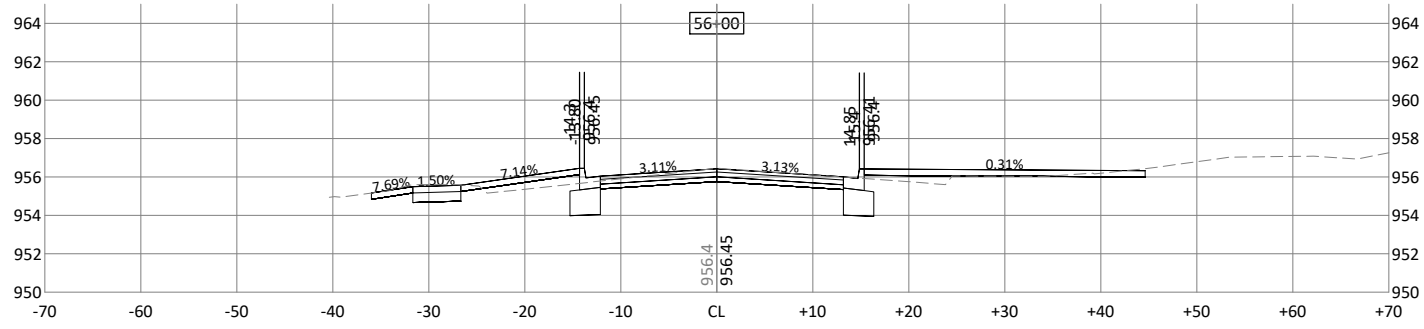
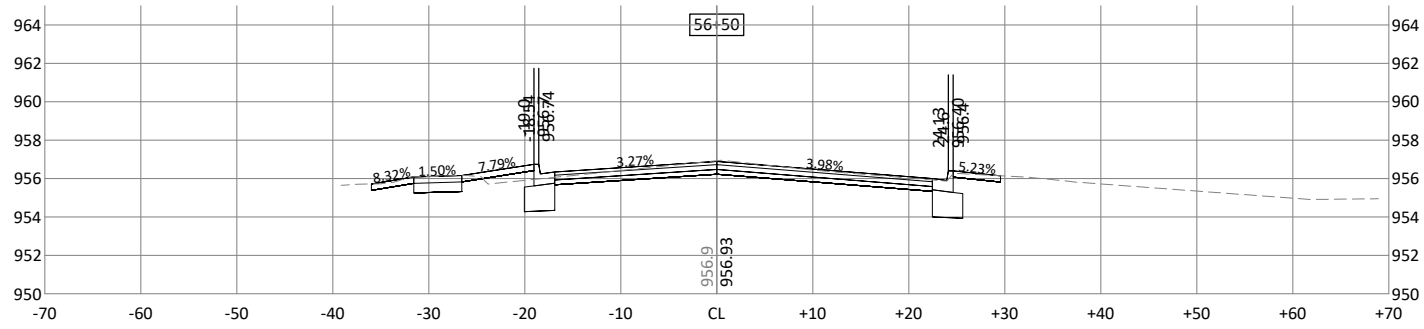


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