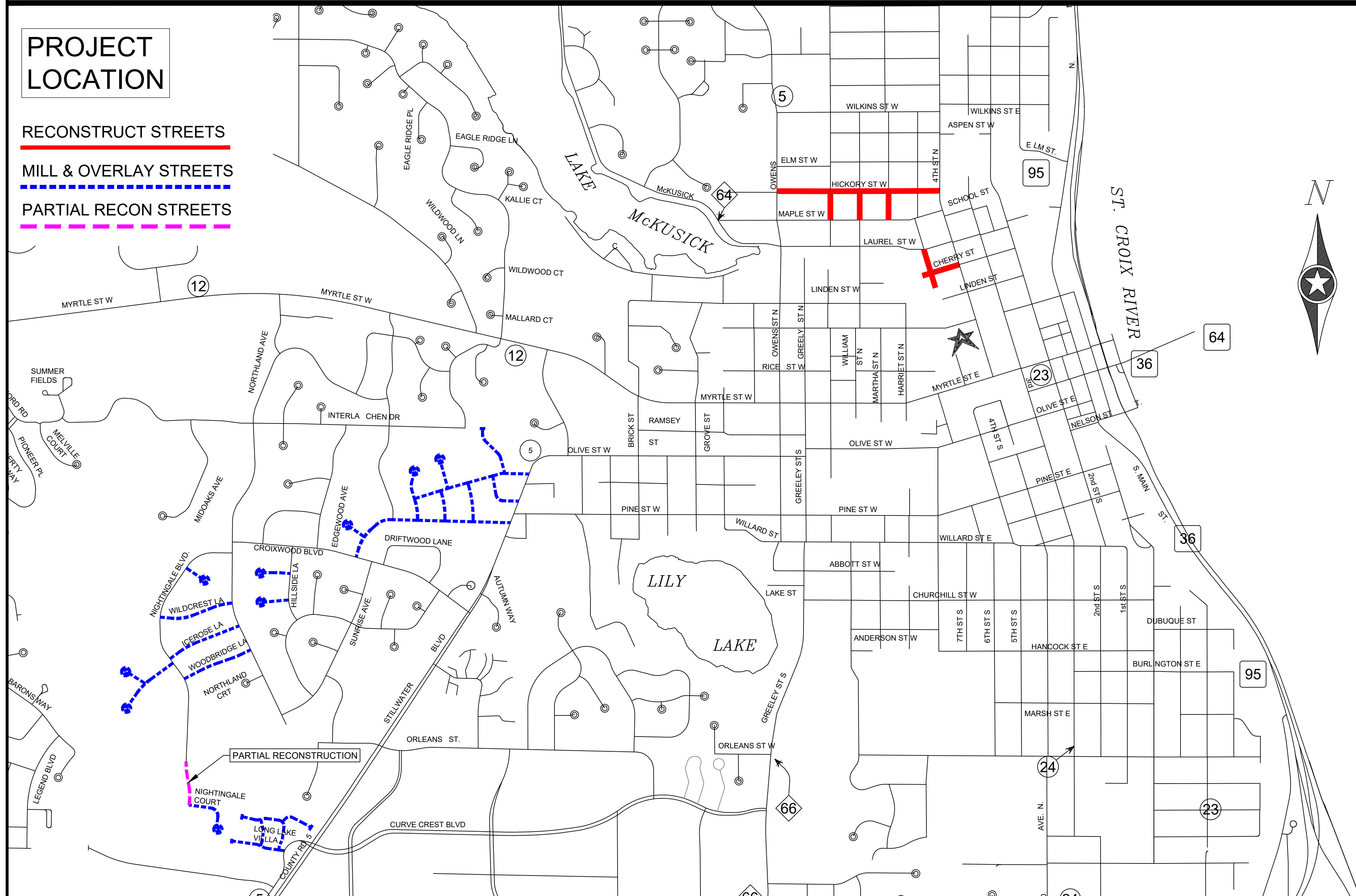


CITY OF
STILLWATER, MINNESOTA
2026 STREET IMPROVEMENT PROJECT
PROJECT # 2026-02

CONSTRUCTION PLANS FOR: RECONSTRUCTION, MILL & OVERLAY, GRADING AND BASE, BITUMINOUS SURFACING,
SANITARY SEWER, STORM SEWER, CURB AND GUTTER

PROJECT
LOCATION

- RECONSTRUCT STREETS
MILL & OVERLAY STREETS
PARTIAL RECON STREETS



SHEET # INDEX DESCRIPTION

1	TITLE SHEET
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8-9	TYPICAL ROAD SECTIONS
10-12	DETAILS
13-18	PEDESTRIAN RAMP CURB DETAILS
19-20	RECONSTRUCT - HICKORY STREET
21	RECONSTRUCT - WILLIAM STREET
22	RECONSTRUCT - EVERETT STREET
23	RECONSTRUCT - MARTHA STREET
24	RECONSTRUCT - 5TH STREET
25	RECONSTRUCT - CHERRY STREET
26	M&O - OAK RIDGE AREA
27	M&O - OAK RIDGE AREA
28	M&O - OAK RIDGE AREA
29	M&O - OAK RIDGE AREA
30	M&O - NORTHLAND AVE AREA
31	M&O - NORTHLAND AVE AREA
32	M&O - NORTHLAND AVE AREA
33	M&O - NIGHTINGALE AREA
34	M&O - LONG LAKE VILLAS AREA
35	HICKORY STORM SEWER IMPROVEMENTS
36	5TH STORM SEWER IMPROVEMENTS

THIS PLAN SET CONTAINS 36 SHEETS

GENERAL NOTES:

- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL "D". THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
- THE EXACT LOCATION OF UNDERGROUND GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV AND PIPELINES ARE UNKNOWN. THE CONTRACTORS SHALL CONTACT GOPHER STATE ONE PRIOR TO COMMENCING EXCAVATION.
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS"

GOVERNING SPECIFICATIONS

THE 2025 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

Reabar Abdullah

Date: 03/06/2026

Reg. No. 42761

TITLESHEET

2026 STREET
IMPROVEMENT

FILE NO.
2026-02

1

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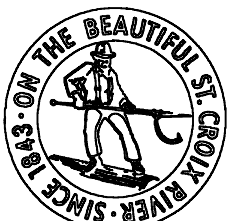
STATEMENT OF ESTIMATED QUANTITIES			
Item No.	Item	Unit	Estimated Quantity
1	Mobilization (5% max)	LS	1
2	Clearing and grubbing Tree	EA	4
3	Remove Sanitary Manhole Lid	EA	68
4	Remove Catch Basin Grate	EA	47
5	Remove Catch Basin Casting	EA	11
6	Remove Sanitary Manhole Casting & Rings	EA	1
7	Remove Storm Structure & Casting	EA	15
8	Remove and Salvage MH Casting (storm & sanitary)	EA	13
9	Remove and Salvage Catch Basin Casting	EA	1
10	Remove storm sewer pipe	LF	220
11	Remove Gate valve and box	EA	6
12	Remove Fire Hydrant	EA	2
13	Remove Existing Curb and Gutter (Various Type Include Stone base slab)	LF	10836
14	Sawing Concrete Pavement (Full Depth)	LF	2770
15	Sawing Bituminous Pavement (Full Depth)	LF	836
16	Remove Bituminous Pavement	SY	393
17	Remove Concrete Pavement	SF	14096
18	Common Excavation	CY	4678
19	Subgrade excavation	CY	2339
20	Select Granular Borrow (CV)	CY	200
21	Class 5 Aggregate Base Course	TON	5222
22	Test Rolling	RS	37
23	Subgrade Prep	RS	37
24	Common Laborer	HR	10
25	10 C.Y. Truck	HR	10
26	3 C.Y. Front End Loader	HR	10
27	1.5 C.Y. Backhoe	HR	10
28	Street Sweeper w/ Pickup Broom	HR	45
29	Water for Dust Control	MG	25
30	Full Depth Reclamation (include disposal of excess materials)	SY	16958
31	Bituminous Patching Mixture	TN	131
32	1.5-inch mill (includes disposal)	SY	49308
33	6" Concrete Pavement Design 3F52 (Ped Ramps)	SY	279
34	5" Concrete Pavement Design 3F52	SY	1120
35	5" Concrete Pavement Design 3F52 (Driveway)	SY	610
36	Bituminous Material for Tack Coat	GAL	6211
37	Wear Course Mixture SPWEA340B (Driveways) (3-inch)	SY	171
38	Wear Course Mixture SPWEA330B	TN	5457
39	Base Course Mixture SPNWEB330B	TN	2007
40	12" RC Pipe Sewer Design 3006 Cl. III(All Depths)	LF	258
41	Repair Sewer Pipe 6" PVC Sanitary Sewer (8' or less)	EA	1

STATEMENT OF ESTIMATED QUANTITIES			
Item No.	Item	Unit	Estimated Quantity
42	Adjust Gate Valve (manual or ring adjustment)	EA	14
43	Salvage, Reset, and Adjust Gate Valve Top Section	EA	16
44	F&I Hydrant (Waterous WB-67)	EA	3
45	6" DIP Gate Valve and box	EA	8
46	Remove and Replace gate valve top section and lid	EA	3
47	Sprinkler Head Repair	EA	40
48	Sprinkler Line Repair	EA	40
49	Furnish, Install and Adjust 2' X 3' Catch Basin (0-5- depth) & Neenah R-3067-L Casting with Grate (or approved E	EA	9
50	Furnish, Install and Adjust 48" Manhole (0-8 depth) & Neenah R-1733 Casting (or approved equal)	EA	4
51	1.5" Steel Manhole Adjusting Rings(Storm and Sanitary)	EA	50
52	Furnish and Install Adapter Plate 3067-27	EA	11
53	Furnish, Install and Adjust Catch Basin Casting with Grate (Neenah R-3067-L or approved equal)	EA	10
54	Furnish Manhole Casting & Lid - Storm or Sanitary(Neenah R-1733 or approved equal)	EA	1
55	Furnish and Install Neenah R-1733 Sealed Sanitary Manhole Lid	EA	70
56	Furnish Neenah R-3067-L Grate (or approved equal)	EA	40
57	Install and Adjust Salvaged Catch Basin Casting	EA	1
58	Install and Adjust Salvaged MH Casting (storm or sanitary)	EA	11
59	Connect To Existing Drainage Structure	EA	7
60	Furnish and Install Infri-Shield External Manhole Seal (sanitary only) (or approved equal)	EA	10
61	Concrete Curb and Gutter (various types) Hand Install - Mix Design 3F52	LF	4705
62	Concrete Curb and Gutter (various types) Machine Installed - Mix Design 3F32	LF	6690
63	Truncated Dome Ped Ramp Panels	SF	422
64	Traffic Control	LS	1
65	Remove, Salvage and Reinstall Signage	EA	5
66	Curb Inlet Protection	EA	82
67	Select Topsoil Borrow screened (LV)	CY	583
68	Fertilizer, Type 3 (350#/Acre)	LB	244
69	Seeding (mix 270) and hydraulic soil stabilizer Type 5 (includes watering per spec)	SY	3368
70	Remove sanitary sewer pipe	LF	202
71	4" Sch. 40 PVC Sewer Pipe (All Depths)	LF	150
72	8" PVC SDR 35 Sanitary Sewer (All Depths)	LF	500
73	8" x 4" Sch. 40 PVC Wye	EA	6
74	Install Rain Garden Basin includes class 3 riprap overflow and seeding basin w/ MnDOT seed mix 33-261	LS	1
Add Alternate			
75	1" Curb Stop and box with rod	EA	3
76	Connect to Existing Water Service	EA	3
77	1" Corp (includes tap and connect)	EA	3
78	Shut off Existing Service at Corp	EA	1
79	Remove Water Service	LF	45
80	1" Type K Copper Water Service	LF	60
81	6" DIP Watermain Cl. 52	LF	278
82	Connect to Existing Watermain	EA	2

NOTES:

ALL ADJUSTMENTS OF STRUCTURE CASTINGS INCLUDES FURNISH AND INSTALLATION OF PLASTIC OR CONCRETE ADJUSTMENT RINGS.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

Reabar Abdullah

Date: 03/06/2026

Reg. No. 42761

STATEMENT OF
ESTIMATED
QUANTITIES

2026 STREET
IMPROVEMENT

FILE NO.
2026-02

3
36

SANITARY STRUCTURE SCHEDULE

STRUCT NO.	STREET	STRUCTURE TYPE	REMARKS	REMOVE CASTING	REMOVE & SALVAGE CASTING	REMOVE SANITARY LID	FURNISH & INSTALL 48" MH	FURNISH R-1733 CASTING	INSTALL CASTING - INCLUDES ADJUST	INSTALL EXTERNAL SEAL	F&I SEALED SANITARY LID
100	Maple Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
101	Maple Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
101A	Maple Street	48" MH	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
102	Maple Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
103	Hickory Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
104	Hickory Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
104A	William Street	48" MH	FURNISH, INSTALL AND ADJUST 48" MH WITH R-17333 CASTING, RINGS, EXTERNAL SEAL AND SEALED LID				✓	✓	✓	✓	✓
104B	Maple Street	48" MH Brick	CONNECT TO EXISTING SANITARY MH, SEE PLAN FOR INVERT								
105	Hickory Street	48" MH Brick	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
105A	Everett Street	48" MH Brick	FURNISH, INSTALL AND ADJUST 48" MH WITH R-17333 CASTING, RINGS, EXTERNAL SEAL AND SEALED LID				✓	✓	✓	✓	✓
105B	Maple Street	48" MH Brick	CONNECT TO EXISTING SANITARY MH, SEE PLAN FOR INVERT								
106	Hickory Street	48" MH Brick	REMOVE & CASTING, REMOVE LID & RINGS, INSTALL & ADJUST CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID	✓		✓		✓	✓	✓	✓
106A	Martha Street	48" MH Brick	FURNISH, INSTALL AND ADJUST 48" MH WITH R-17333 CASTING, RINGS, EXTERNAL SEAL AND SEALED LID				✓	✓	✓	✓	✓
107	Hickory Street	48" MH Brick	REMOVE & CASTING, REMOVE LID & RINGS, INSTALL & ADJUST CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID	✓		✓		✓	✓	✓	✓
108	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
109	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
110	Oakridge Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
111	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
112	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
113	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
114	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
115	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
116	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
117	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
118	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
119	Oakridge Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
120	Darrell Drive	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
121	Darrell Drive	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
122	Darrell Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
123	Darrell Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
124	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
125	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
126	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
127	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
128	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
129	Fairmeadows Road	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
130	Laurie Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
131	Crestwood Terrace	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
132	Crestwood Terrace	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
133	Crestwood Terrace	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
134	Laurie Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
135	Hanson Place	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓

SANITARY STRUCTURE SCHEDULE

STRUCT NO.	STREET	STRUCTURE TYPE	REMARKS	REMOVE CASTING	REMOVE & SALVAGE CASTING	REMOVE SANITARY LID	FURNISH & INSTALL 48" MH	FURNISH R-1733 CASTING	INSTALL CASTING - INCLUDES ADJUST	INSTALL EXTERNAL SEAL	F&I SEALED SANITARY LID
136	Dundee Place	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
137	Dundee Place	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
138	Dundee Place	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
139	Wildcrest Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
140	Wildcrest Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
141	Wildcrest Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
142	Icerose Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
143	Icerose Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
144	Icerose Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
145	Woodridge Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
146	Woodridge Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
147	Croixwood Place	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
148	Marine Circle	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
149	Marine Circle	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
150	Marine Circle	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
151	Skyview Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
152	Greenmeadow Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
153	Marine Circle	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
154	Nightingale Blvd	48" MH	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
155	Nightingale Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
156	Nightingale Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
157	Nightingale Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
158	Nightingale Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
159	5th Street	48" MH	REMOVE & SALVAGE CASTING, REMOVE LID & RINGS, INSTALL & ADJUST SALVAGED CASTING, FURNISH AND INSTALL RINGS, EXTERNAL SEAL AND SEALED LID		✓	✓			✓	✓	✓
160	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
161	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
162	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
163	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
164	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
165	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
166	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
167	Brewers Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
168	Saddle Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
169	Saddle Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
170	Saddle Court	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
171	Pond View Lane	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
172	Long Lake Drive	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
173	Long Lake Drive	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓
174	Long Lake Drive	48" MH	REMOVE SANITARY LID, F&I SEALED SANITARY LID			✓					✓

STORM STRUCTURE SCHEDULE													
STRUCT NO.	STREET	STATION	OFFSET	EXIST STRUCT TYPE	NEW STRUCT TYPE	TOP CASTING ELEV	INVERT ELEV	BUILD	FLOWS TO	PIPE GRADE	REMARKS	FURNISH & INSTALL R.C. PIPE	
												12" CL. V	18" CL. V
												LIN. FT.	LIN. FT.
200	Hickory Street			2 x 3 CB							NO WORK		
201	Hickory Street	6+03	16.0 L	CURB INLET	2 X 3 CB	909.60	906.60	3.00	203A	2.15%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2'X3' CB & R-3067-L CASTING (OR APPROVED EQUAL)	20.0	
201A	William Street	0+87	16.0 R	N/A	2 X 3 CB	909.00	906.40	2.60	203A	0.43%	FURNISH, INSTALL AND ADJUST 2'X3' CB & R-3067-L CASTING (OR APPROVED EQUAL)	54.0	
202	Hickory Street	6+18	31.0 L	CURB INLET	2 X 3 CB	909.60	906.4	3.20	203A	2.56%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2'X3' CB & R-3067-L CASTING (OR APPROVED EQUAL)	9.0	
203	Hickory Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
203A	Hickory Street	6+22	22.8 L		48" MH	909.80	906.17	3.63	204	4.22%	FURNISH, INSTALL AND ADJUST 48" MH & R-1773 CASTING (OR APPROVED EQUAL).		
204	Hickory Street			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
205	Hickory Street	13+22	16.0 R	48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
206	Hickory Street	13+22	16.0 L	48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
207	Hickory Street			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
208	Hickory Street	16+97	31.0 R	CURB INLET	2 X 3 CB	857.0	853.80	3.20	209	2.27%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	22	
209	Hickory Street	16+80	16.0 R	CURB INLET	2 X 3 CB	857.3	853.30	4.00	214	2.67%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	30	
210	Hickory Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
211	Hickory Street	16+80	16.0 L	CURB INLET	2 X 3 CB	857.5	853.50	4.00	214	2.38%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	21	
212	Hickory Street	16+97	31.0 L	CURB INLET	2 X 3 CB	857	853.00	4.00	214	2.08%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	24	
213	Hickory Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
214	Hickory Street			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
215	Hickory Street	17+29	31.0 L	CURB INLET	2 X 3 CB	856.5	853.00	3.50	217	8.56%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	25	
216	Hickory Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
217	Hickory Street			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
218	Hickory Street			2 x 3 CB							NO WORK		
219	Hickory Street			2 x 3 CB							NO WORK		
220	Maple Street			CURB INLET							NO WORK		
221	Maple Street			CURB INLET							NO WORK		
222	Maple Street			CURB INLET							NO WORK		
223	Oakridge Road			48" MH							NO WORK		
224	Oakridge Road			48" MH							NO WORK		
225	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
226	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
227	Oakridge Road			48" MH							NO WORK		
228	Oakridge Road			48" MH							NO WORK		
229	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
230	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
231	Oakridge Road			48" MH							NO WORK		
232	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
233	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
234	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
235	Oakridge Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
236	Darrell Drive			48" MH							NO WORK		
237	Darrell Drive			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
238	Fairmeadows Rd			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
239	Fairmeadows Rd			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
240	Darrell Drive			48" MH							NO WORK		
241	Darrell Drive			48" MH							NO WORK		
242	Darrell Drive			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
243	Darrell Court			48" MH							NO WORK		
244	Darrell Court			48" MH							NO WORK		
245	Darrell Court			2 x 3 CB							NO WORK		
246	Laurie Court			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
247	Laurie Court			48" MH							NO WORK		
248	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
249	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
250	Fairmeadows Road			48" MH							NO WORK		

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED





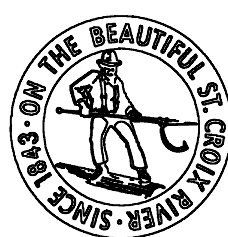
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

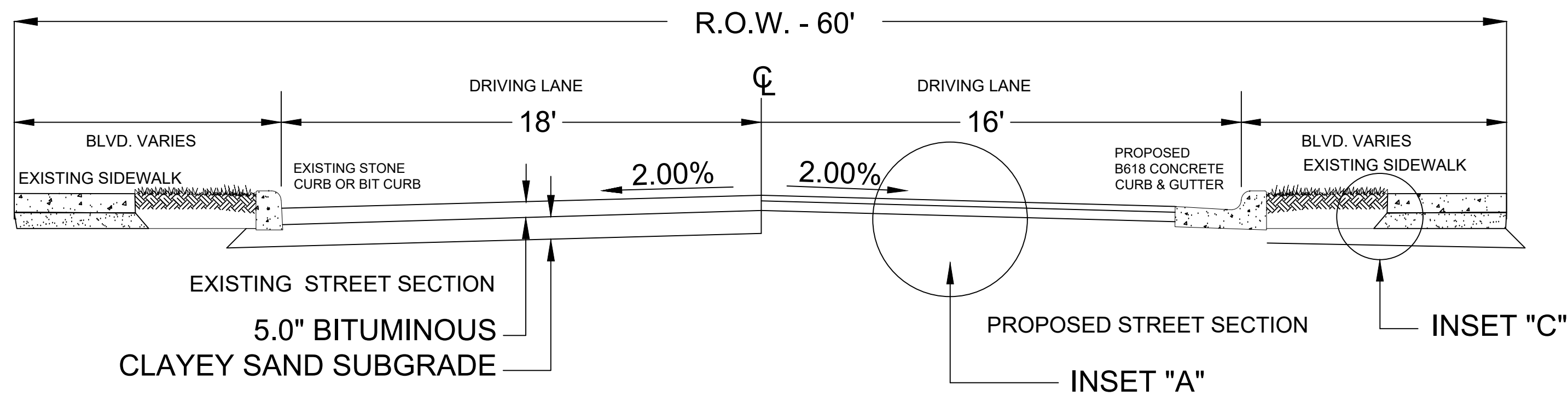
Reabar Abdullah

Date: 03/06/2026Reg. No. 42761

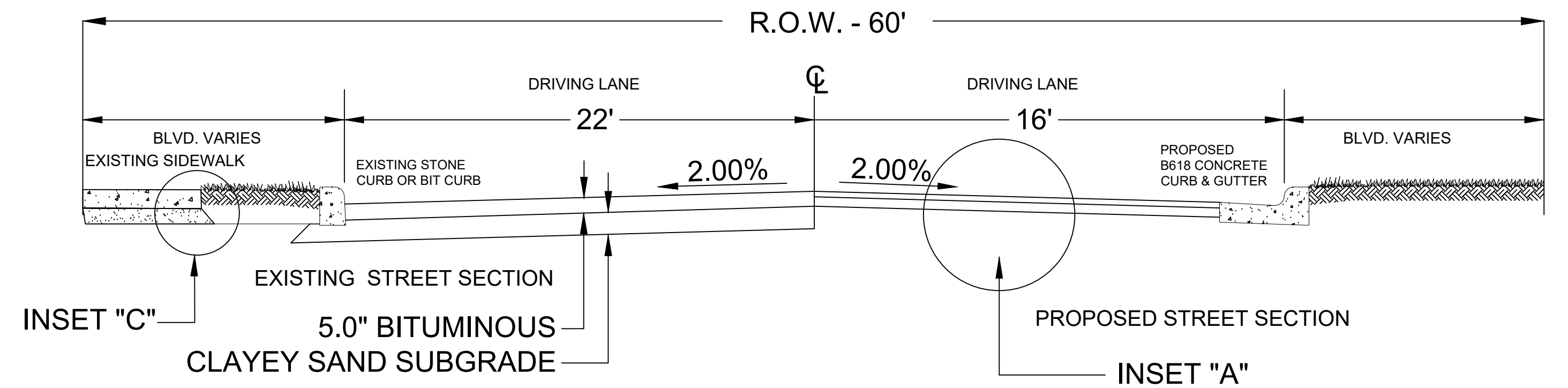
STORM STRUCTURE SCHEDULE	2026 STREET IMPROVEMENT	FILE NO. 2026-02	6 36

STORM STRUCTURE SCHEDULE													
STRUCT NO.	STREET	STATION	OFFSET	EXIST STRUCT TYPE	NEW STRUCT TYPE	TOP CASTING ELEV	INVERT ELEV	BUILD	FLOWS TO	PIPE GRADE	REMARKS	FURNISH & INSTALL R.C. PIPE	
												12" CL. V	18" CL. V
												LIN. FT.	LIN. FT.
251	Fairmeadows Road			48" MH							NO WORK		
252	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
253	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
254	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
255	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
256	Fairmeadows Road			48" MH							NO WORK		
257	Fairmeadows Road			48" MH							NO WORK		
258	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
259	Fairmeadows Road			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
260	Crestwood Terrace			2 x 3 CB							NO WORK		
261	Crestwood Terrace			2 x 3 CB							NO WORK		
262	Crestwood Terrace			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
263	Skyview Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
264	Skyview Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
265	Greenmeadow Ct			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
266	Greenmeadow Ct			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
267	Marine Court			48" MH							NO WORK		
268	Marine Court			48" MH							NO WORK		
269	Marine Court			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
270	Marine Court			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
271	Marine Court			48" MH							NO WORK		
272	Marine Court			48" MH							NO WORK		
273	Marine Circle			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
274	Marine Circle			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
275	Nightingale Blvd			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
276	Nightingale Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
277	Nightingale Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
278	Nightingale Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
279	Nightingale Court			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
280	5th Street			48" MH							NO WORK		
281	5th Street			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
282	5th Street	2+41	16.0 L	2 x 3 CB	2 X 3 CB	857.0	853.75	3.25	286	2.08%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	24	
283	5th Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
284	5th Street	2+55.4	15.2 R	CURB INLET	2 X 3 CB	857.2	853.50	3.70	286	1.39%	REMOVE EXISTING STORM STRUCTURE & CASTING. FURNISH, INSTALL AND ADJUST 2X3 CB & R-3067-L CASTING (OR APPROVED EQUAL)	18	
285	5th Street			48" MH							REMOVE EXISTING STORM STRUCTURE & CASTING		
286	5th Street			48" MH							REMOVE & SALVAGE MH CASTING, RESINTALL & ADJUST SALVAGED MH CASTING		
287	Cherry Street			48" CBMH							REMOVE CB CASTING AND GRATE. FURNISH, INSTALL & ADJUST CB R-3067-L CASTING WITH GRATE. FURNISH & INSTALL ADAPTER PLATE 3067-27		
288	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
289	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
290	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
291	Brewers Lane			48" CBMH							NO WORK		
292	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
293	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
294	Brewers Lane			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
295	Long Lake Drive			48" CBMH							NO WORK		
296	Long Lake Drive			2 x 3 CB							NO WORK		
297	Long Lake Drive			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		
298	Long Lake Drive			2 x 3 CB							REMOVE GRATE, F&I R-3067 "L" GRATE (OR APPROVED EQUAL)		

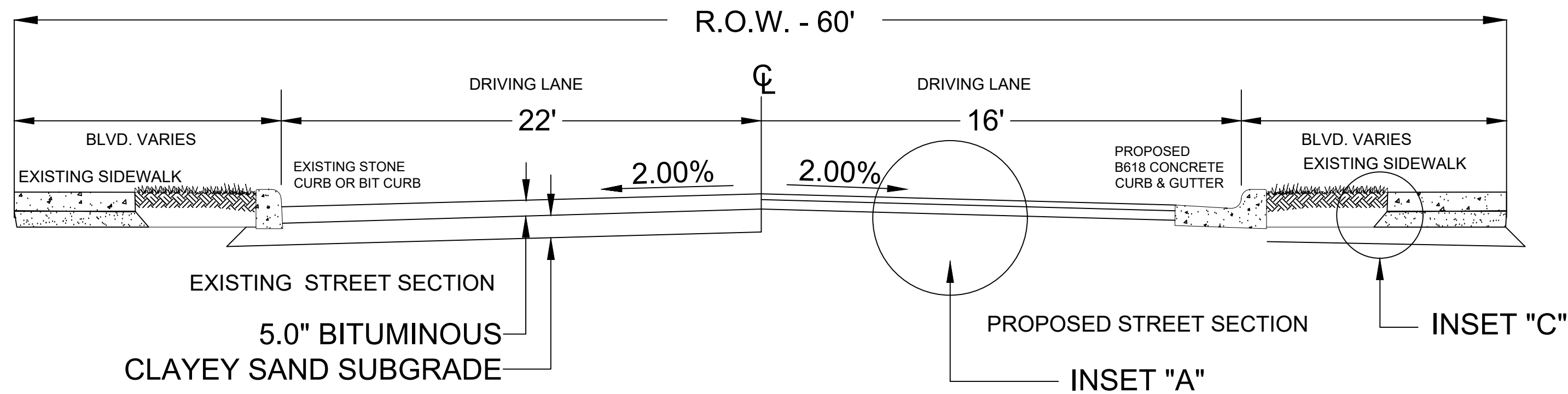
NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED			I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota. <div>Reabar Abdullah</div> <div>Date: 03/06/2026Reg. No. 42761</div>	STORM STRUCTURE SCHEDULE	2026 STREET IMPROVEMENT	FILE NO. 2026-02	7 36



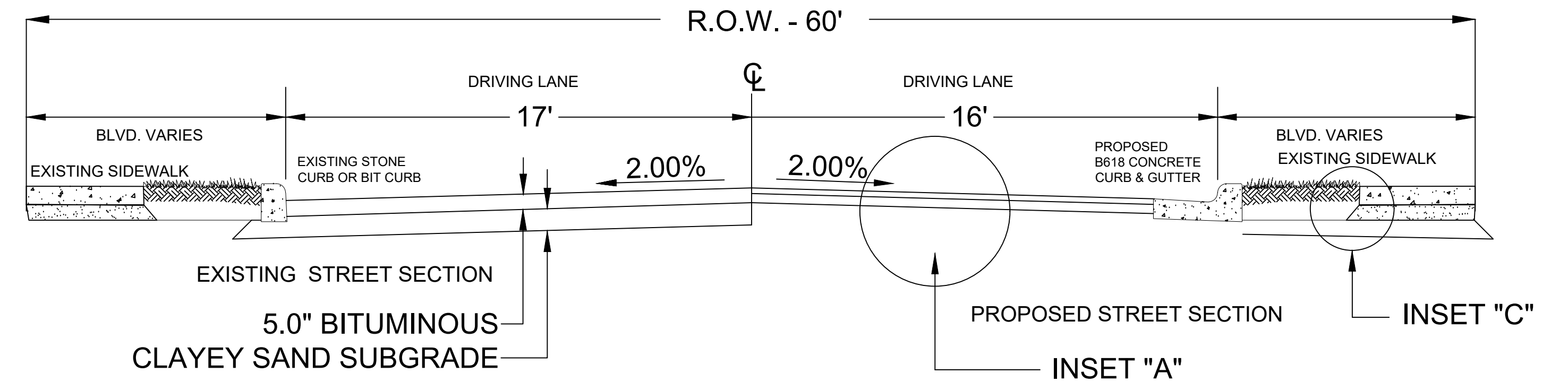
RECONSTRUCT 32'
HICKORY STREET
STA. 0+00 - STA. 19+59



RECONSTRUCTION 32'
WILLIAM STREET
STA. 0+00 - STA. 3+99



RECONSTRUCT 32'
EVERETT STREET
STA. 0+00 - STA. 4+15



RECONSTRUCTION 32'
MARTHA STREET
STA. 0+00 - STA. 3+97

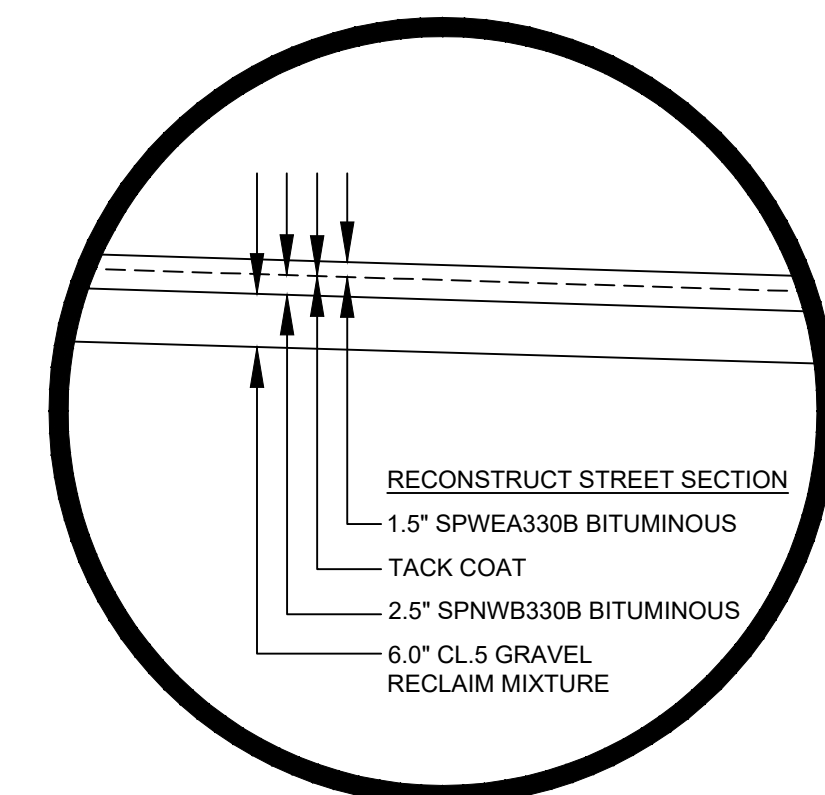
BASIS FOR ESTIMATED QUANTITIES

AGGREGATE BASE, CLASS 5
COMPACTED DRY DENSITY - 135 LBS. / CU./FT.

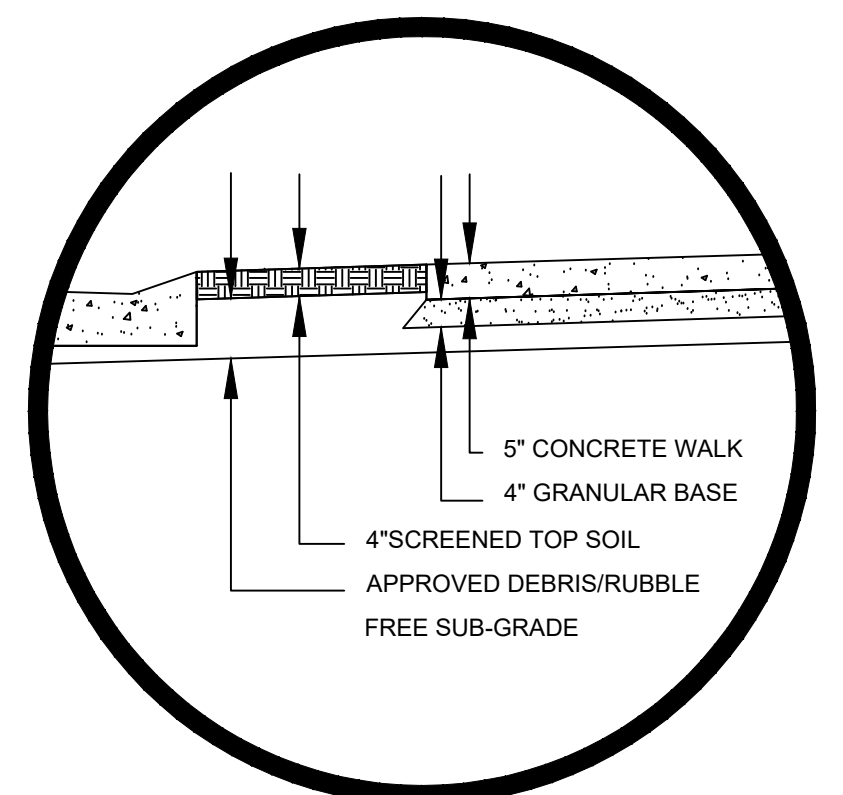
BITUMINOUS BASE COURSE SPNWB330B
BIT. MIXTURE - 115 LBS. / SQ. YD. / IN. OF DEPTH

BITUMINOUS TACK COAT
BIT. MATERIAL - 0.10 GAL. / SQ. YD.

BITUMINOUS WEAR COURSE SPWB330B
BIT. MIXTURE - 115 LBS. / SQ. YD. / IN. OF DEPTH



INSET "A"



INSET "C"

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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Reabar Abdullah
Date: 03/06/2026 Reg. No. 42761

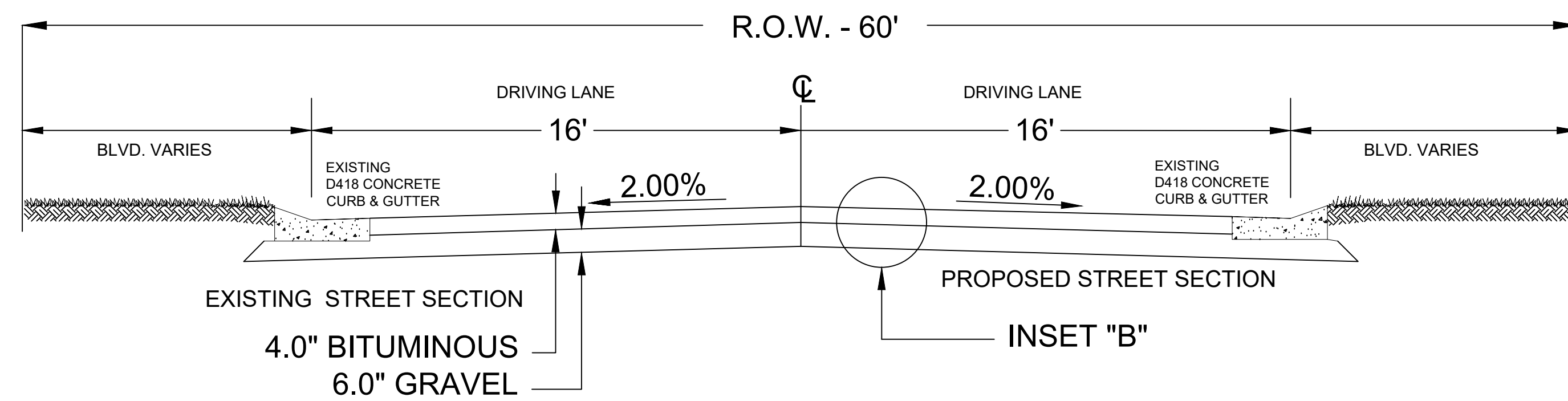
TYPICAL STREET
SECTIONS
RECONSTRUCT

2026 STREET
IMPROVEMENT

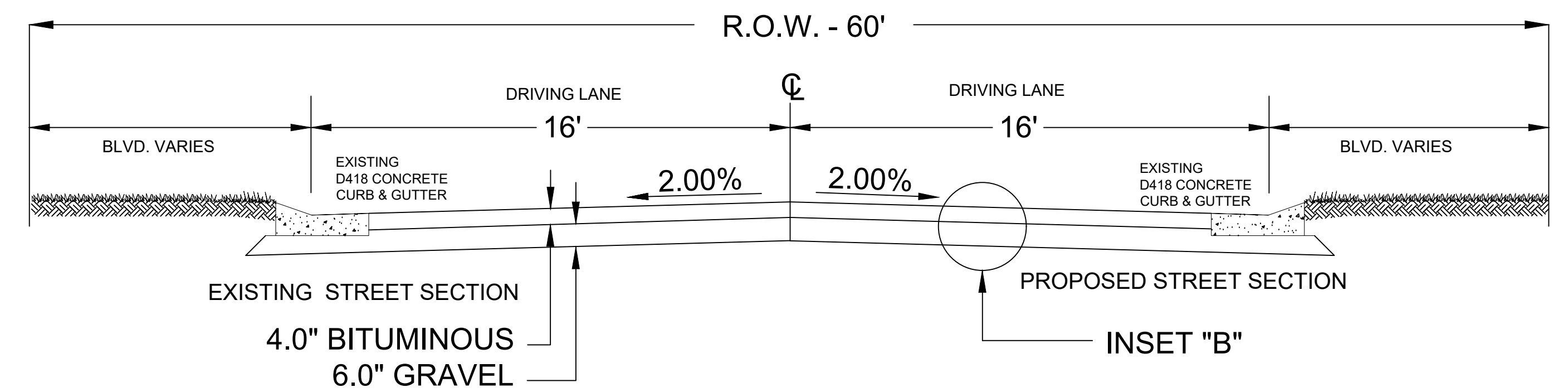
FILE NO.
2026-02

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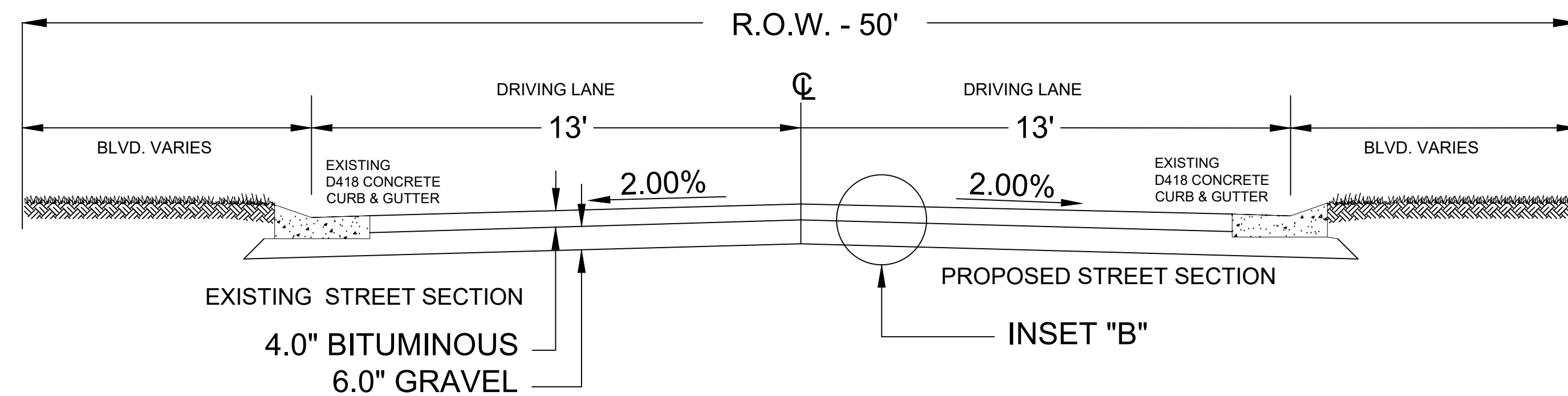
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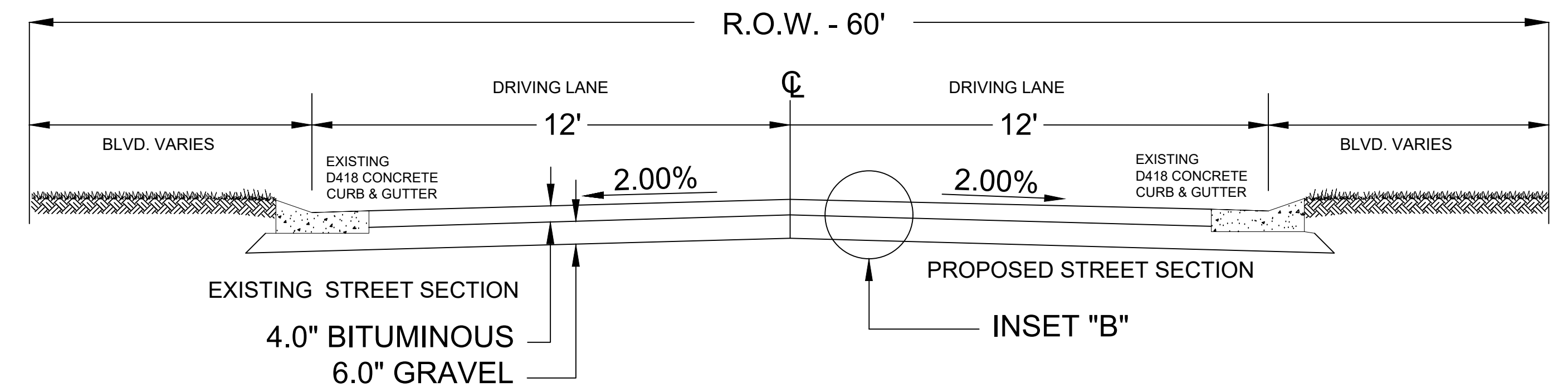
MILL & OVERLAY - OAKRIDGE
28' RESIDENTIAL STREET



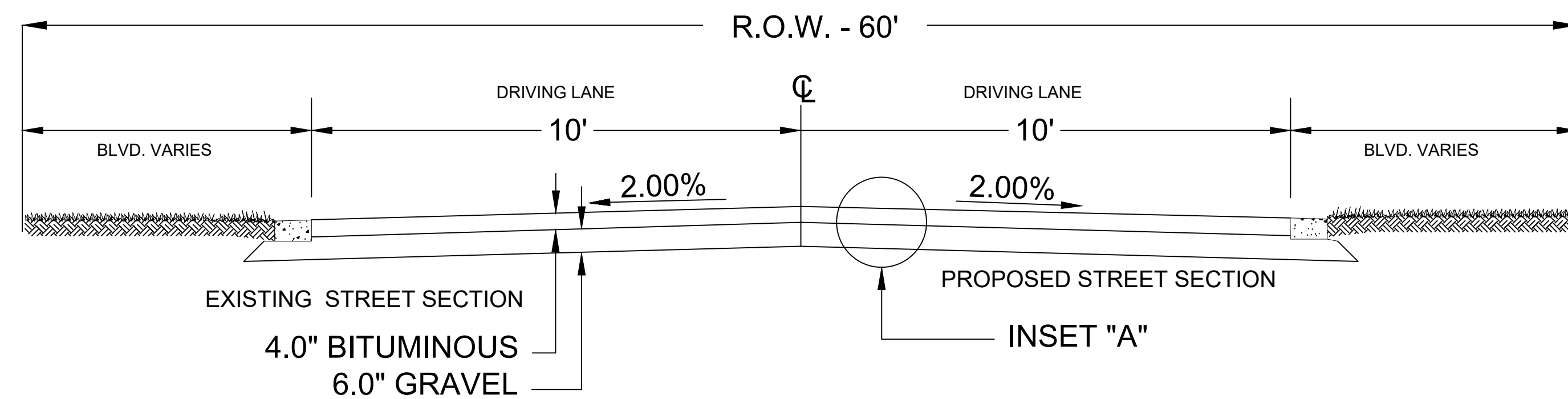
MILL & OVERLAY - NORTHLAND
24' RESIDENTIAL STREET



MILL & OVERLAY - LONG LAKE
VILLAS 26' RESIDENTIAL STREET



MILL & OVERLAY - NIGHTINGALE
COURT 24' RESIDENTIAL STREET



PARTRIAL RECONSTRUCT -
NIGHTINGALE BLVD 20'
RESIDENTIAL STREET

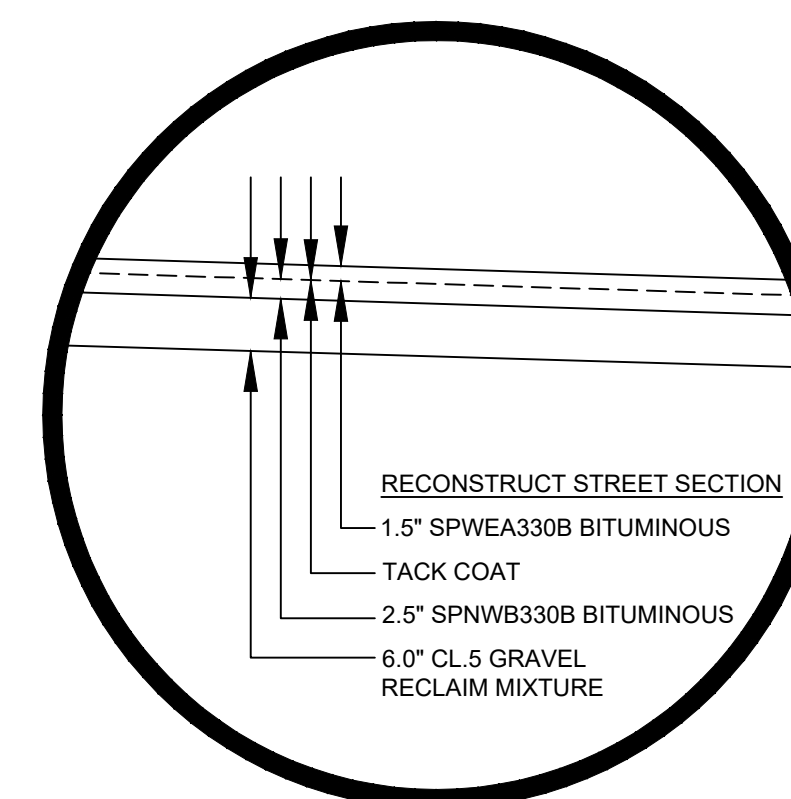
BASIS FOR ESTIMATED QUANTITIES

AGGREGATE BASE, CLASS 5
COMPACTED DRY DENSITY - 135 LBS. / CU./FT.

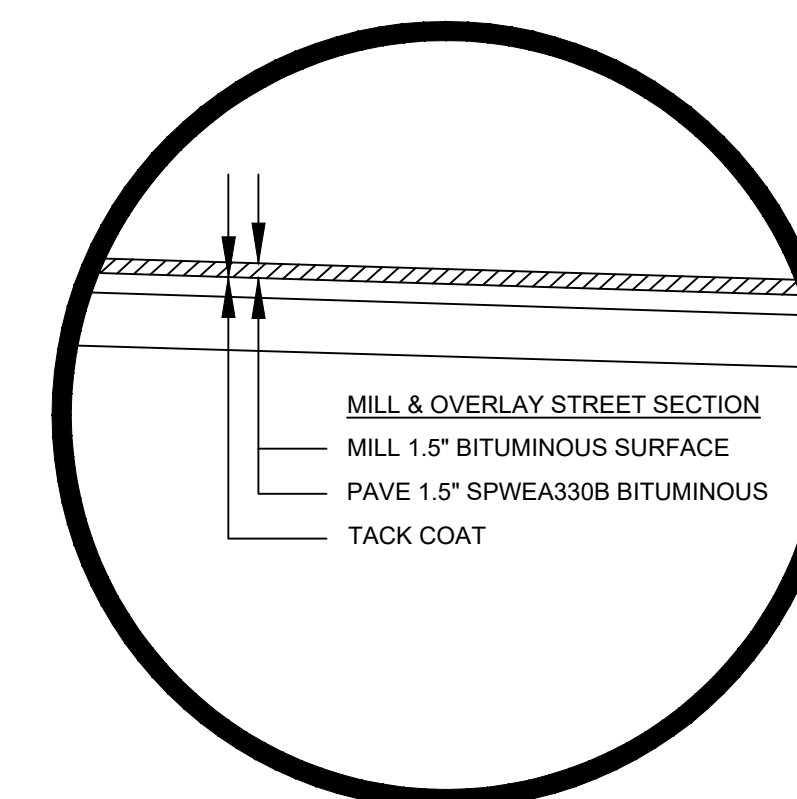
BITUMINOUS TACK COAT
BIT. MATERIAL - 0.10 GAL. / SQ. YD.

BITUMINOUS BASE COURSE SPNWB330B
BIT. MIXTURE - 115 LBS. / SQ. YD. / IN. OF DEPTH

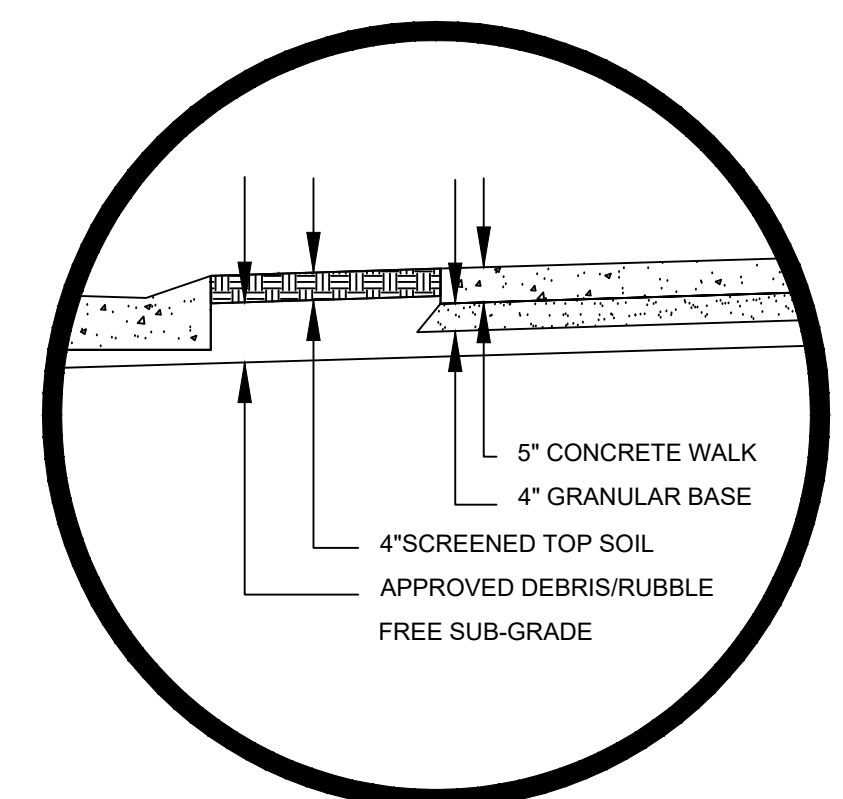
BITUMINOUS WEAR COURSE SPWB330B
BIT. MIXTURE - 115 LBS. / SQ. YD. / IN. OF DEPTH



INSET "A"



INSET "B"



INSET "C"

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Reabar Abdullah
Date: 03/06/2026 Reg. No. 42761

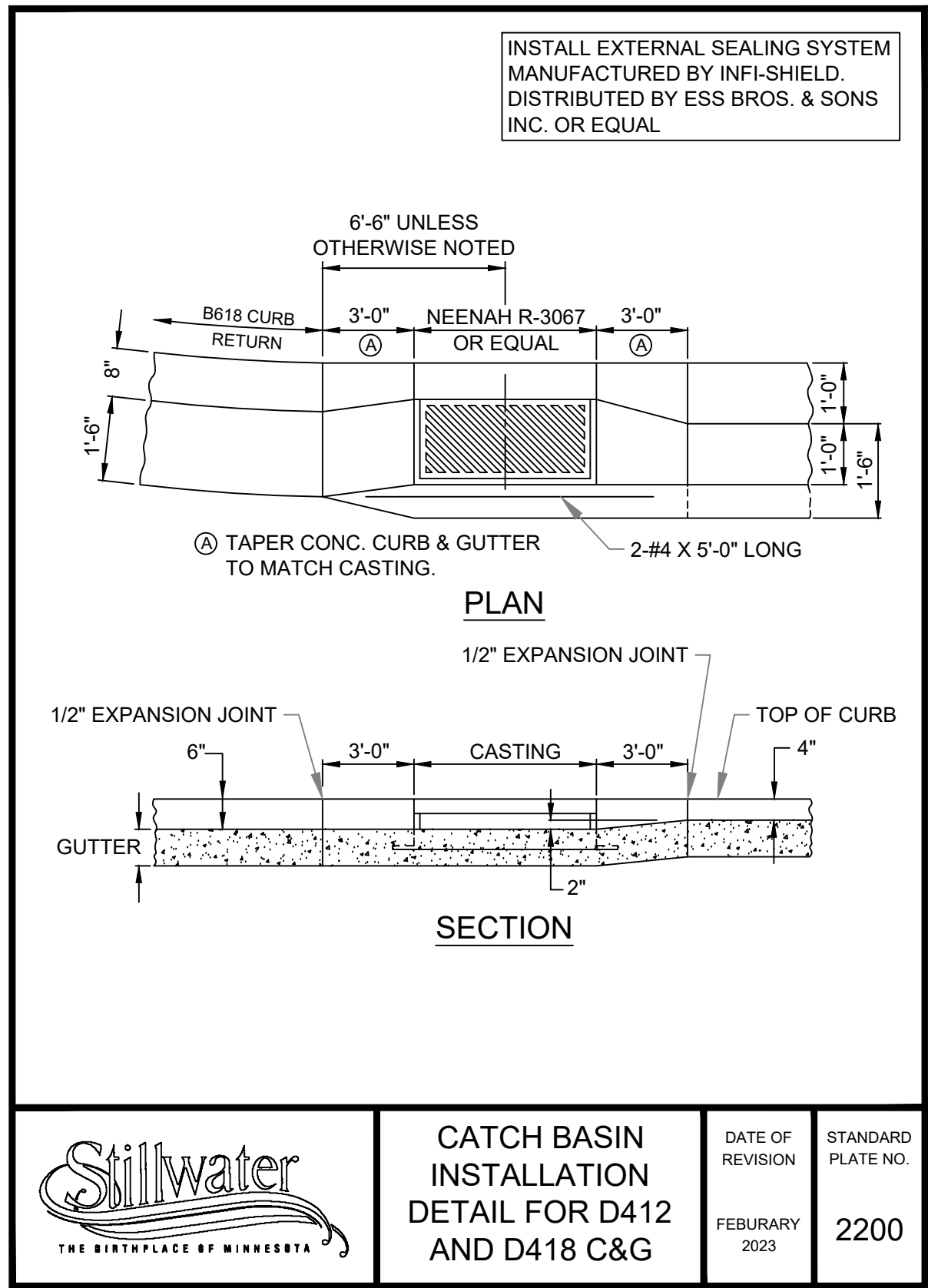
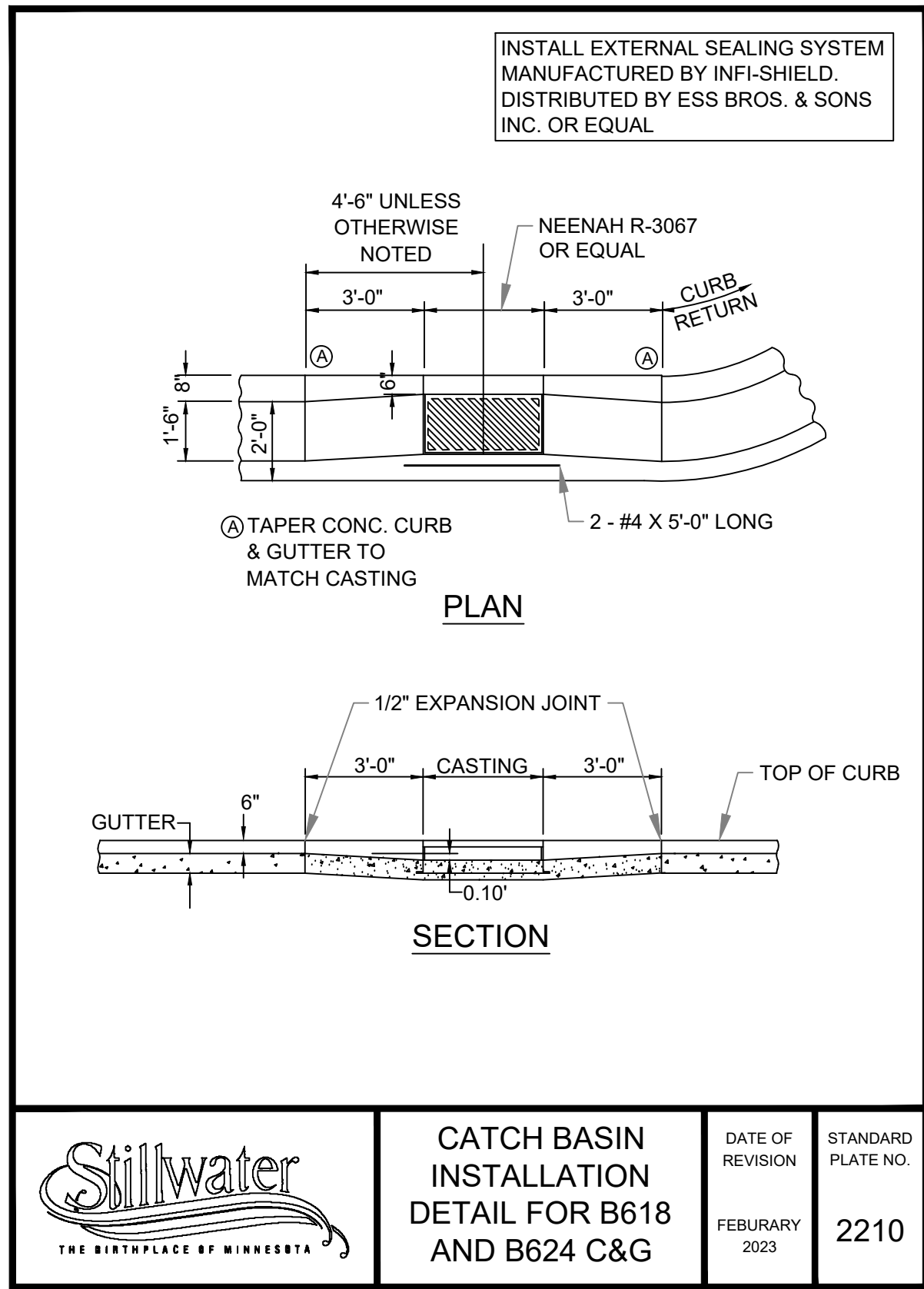
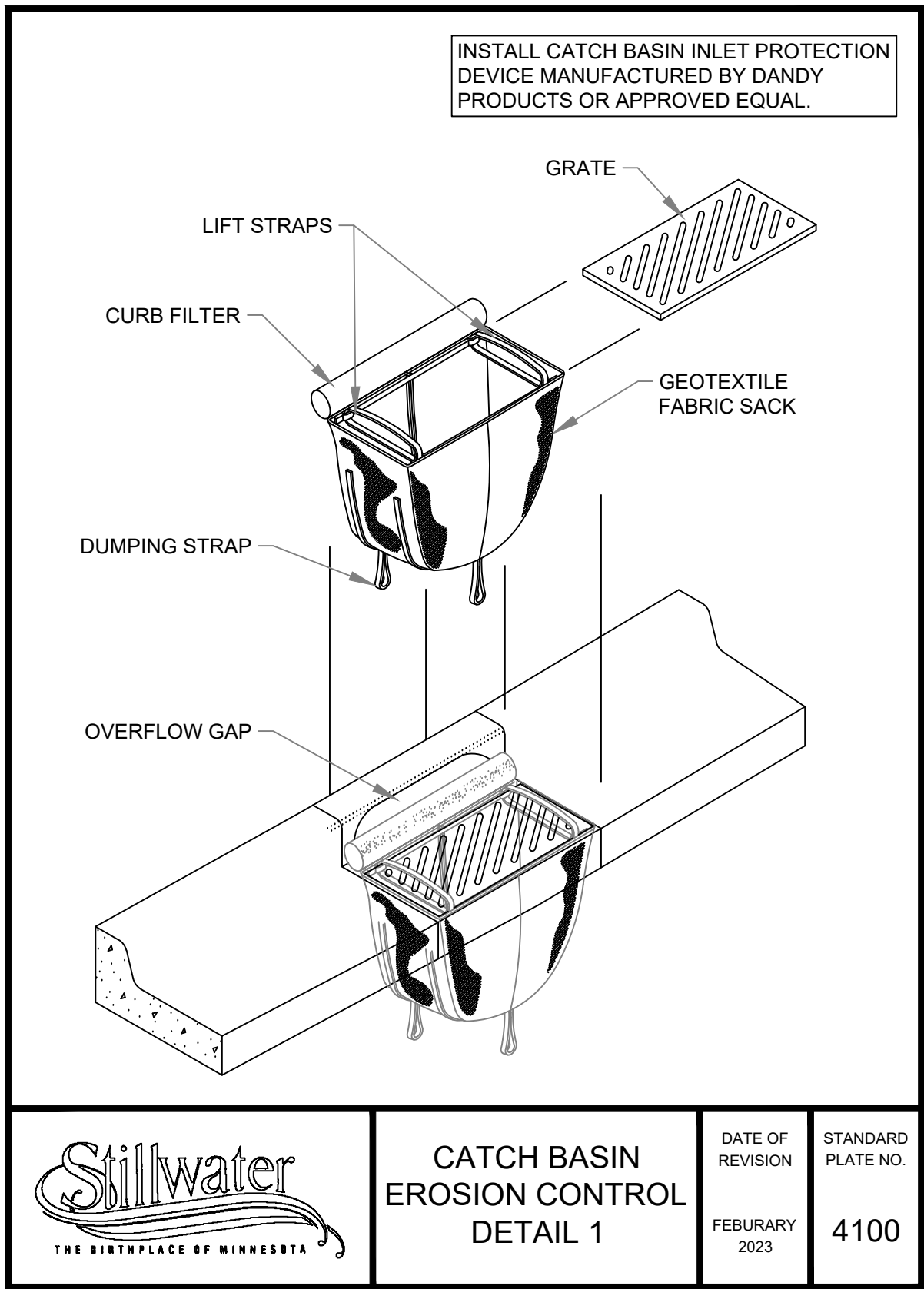
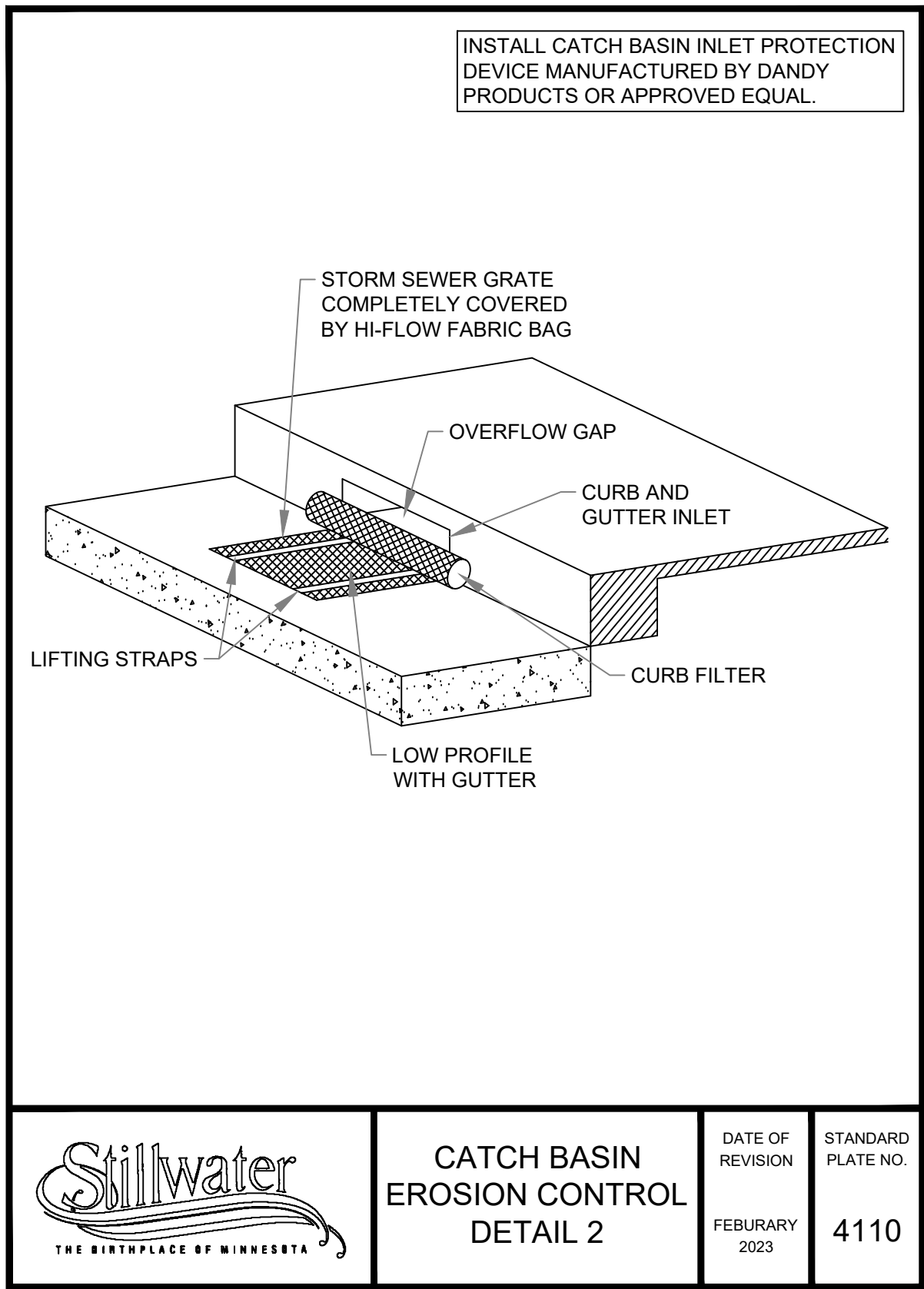
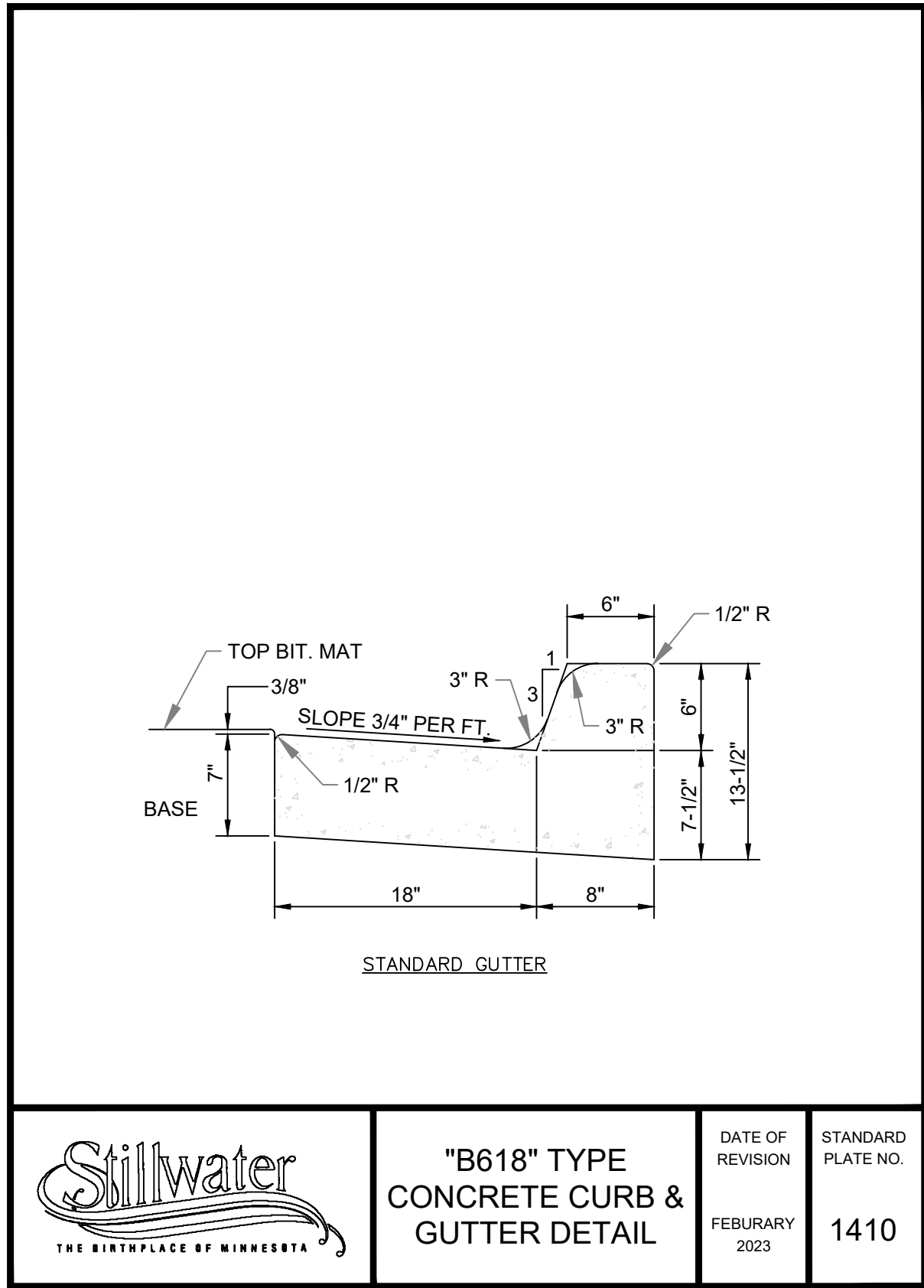
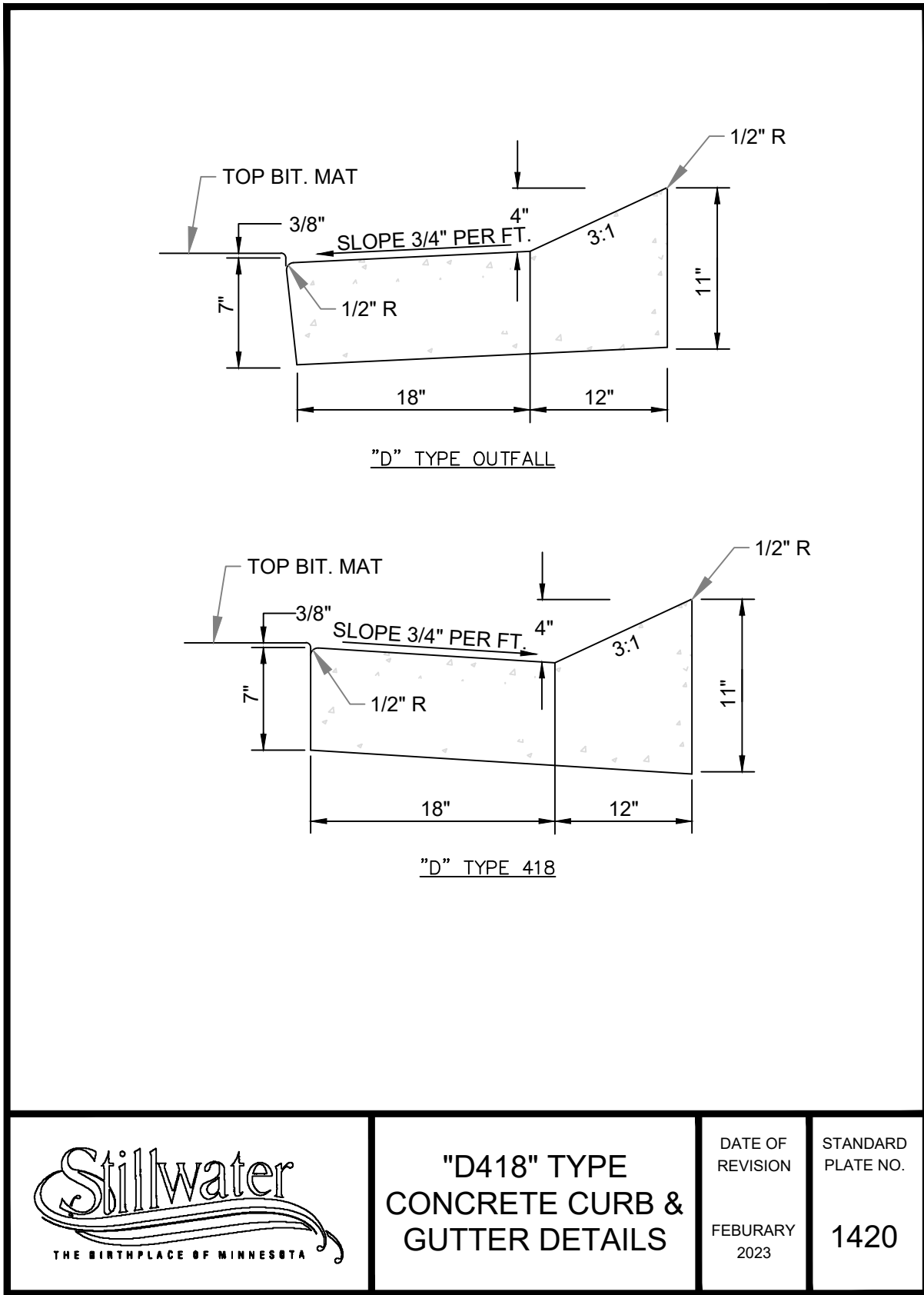
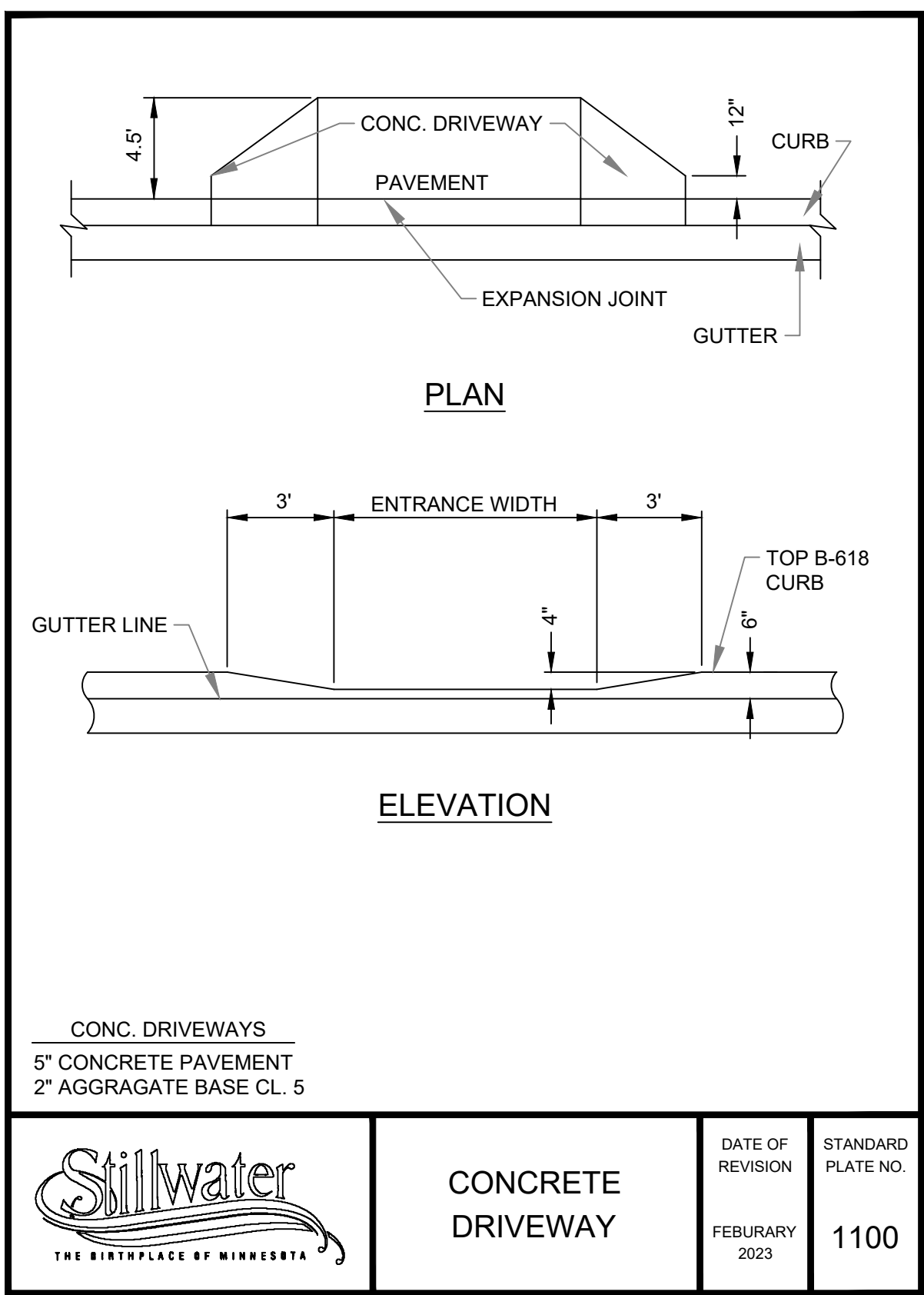
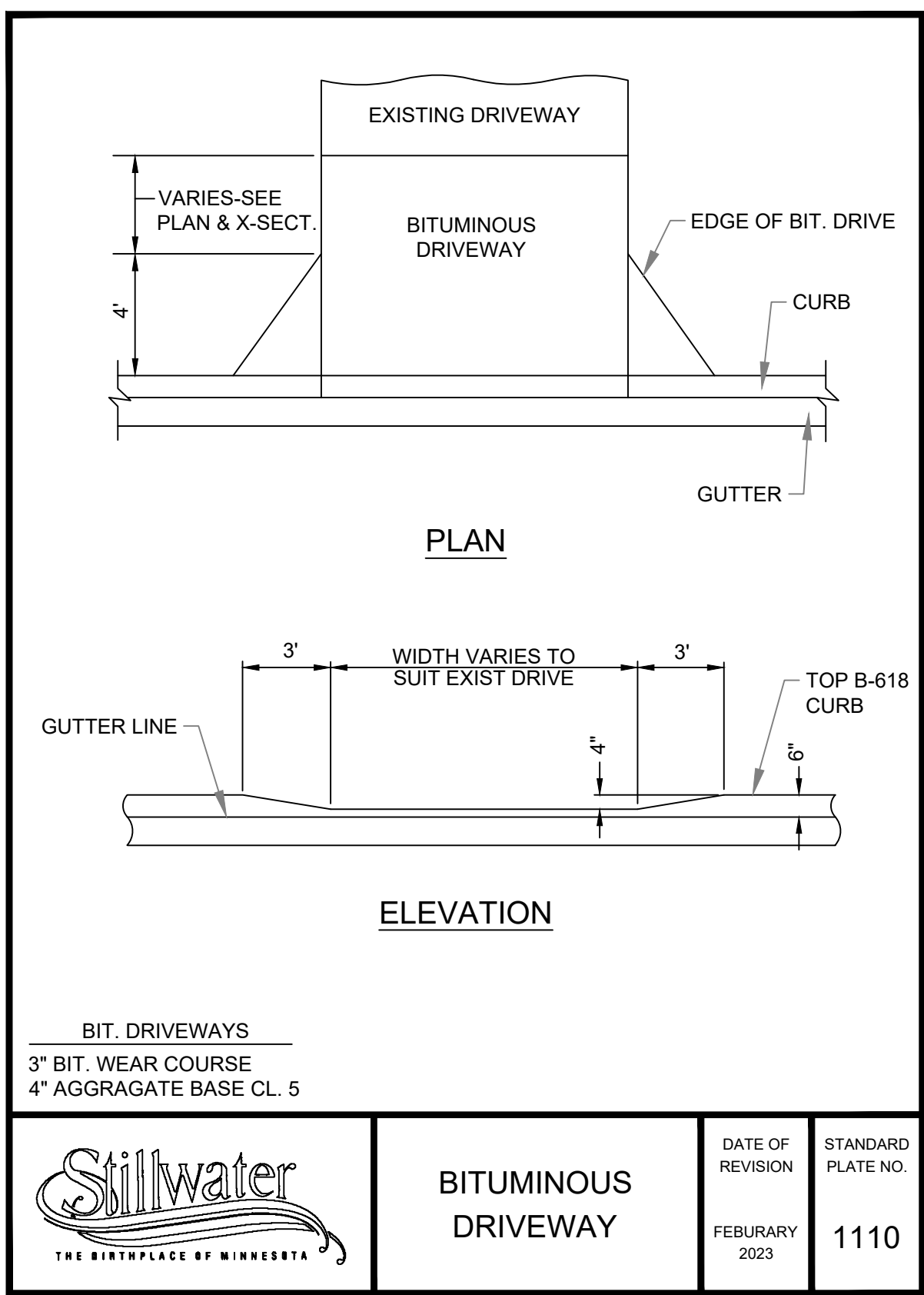
TYPICAL STREET
SECTIONS
RECONSTRUCT

2026 STREET
IMPROVEMENT

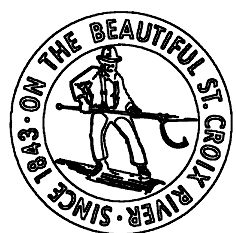
FILE NO.
2026-02

9

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NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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Reabar Abdullah

Date: 03/06/2026 Reg. No. 42761

DETAILS 2

2026 STREET IMPROVEMENT

FILE NO. 2026-02

11
36

* SUBGRADE MUST BE WITHIN + OR - 0.10' AND BE APPROVED BY ENGINEER.

BITUMINOUS PAVEMENT DETAIL

BITUMINOUS ROAD PAVEMENT DETAIL

DATE OF REVISION
FEBURARY 2023

STANDARD PLATE NO.
1240

* SUBGRADE MUST BE WITHIN + OR - 0.10' AND BE APPROVED BY ENGINEER.

BITUMINOUS DRIVEWAY PAVEMENT DETAIL

BITUMINOUS DRIVEWAY PAVEMENT DETAIL

DATE OF REVISION
FEBURARY 2023

STANDARD PLATE NO.
1250

* SUBGRADE MUST BE WITHIN + OR - 0.10' AND BE APPROVED BY ENGINEER.

CONCRETE DRIVEWAY PAVEMENT DETAIL

CONCRETE DRIVEWAY PAVEMENT DETAIL

DATE OF REVISION
FEBURARY 2023

STANDARD PLATE NO.
1260

* SUBGRADE MUST BE WITHIN + OR - 0.10' AND BE APPROVED BY ENGINEER.

CONCRETE SIDEWALK PAVEMENT DETAIL

CONCRETE SIDEWALK PAVEMENT DETAIL

DATE OF REVISION
FEBURARY 2023

STANDARD PLATE NO.
1300

* SUBGRADE MUST BE WITHIN + OR - 0.10' AND BE APPROVED BY ENGINEER.

BITUMINOUS PAVEMENT DETAIL

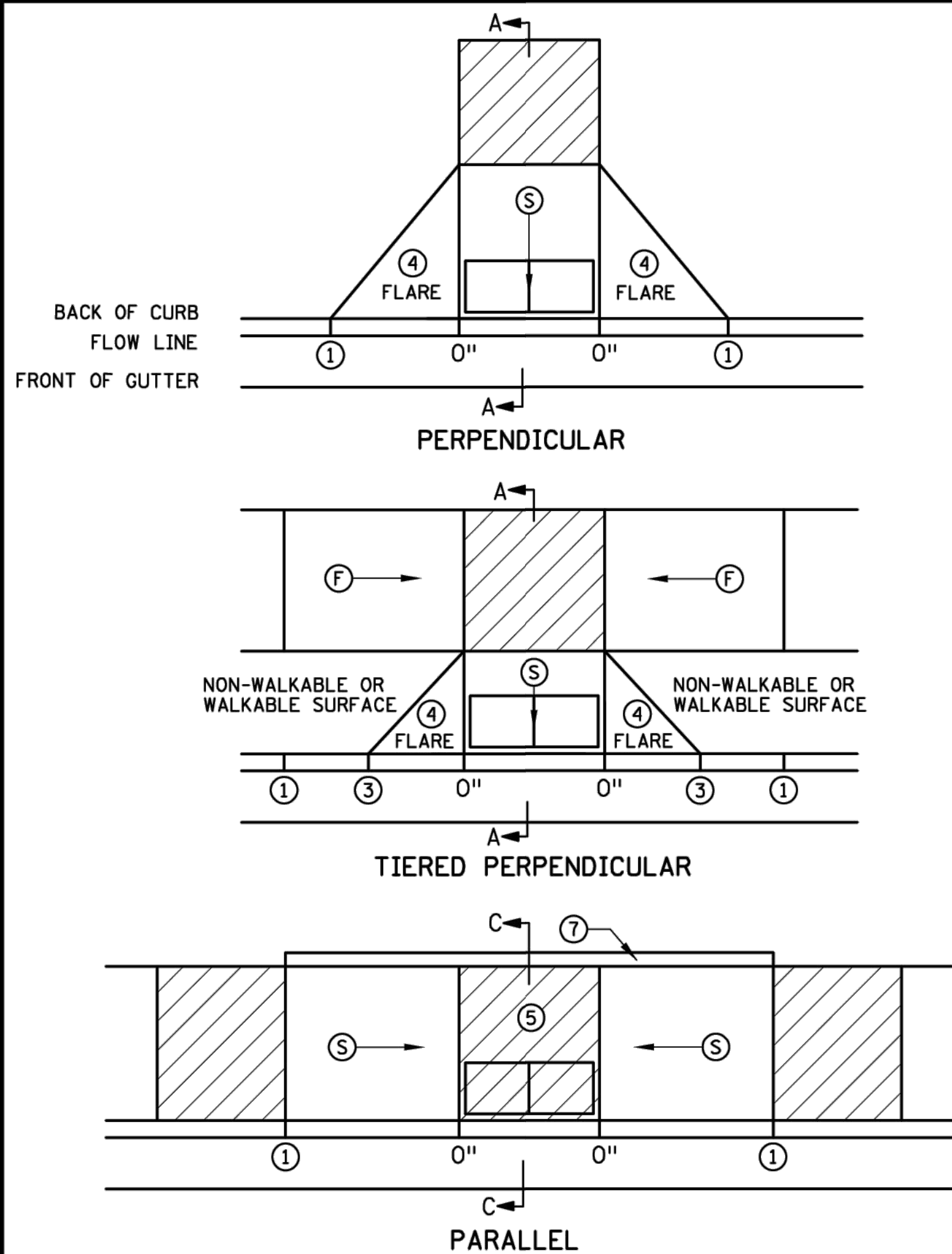
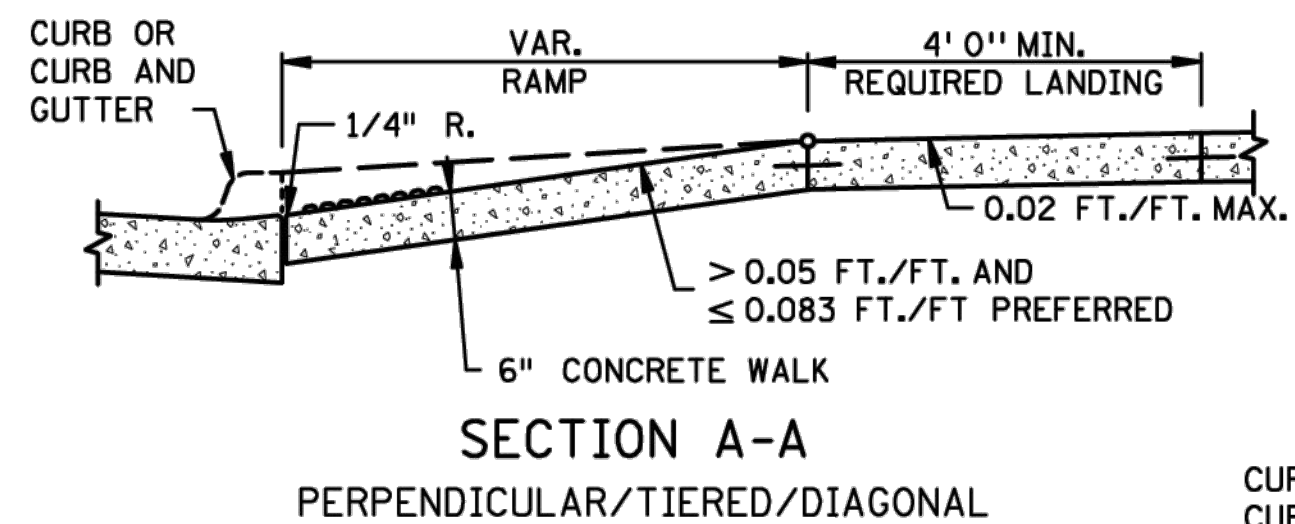
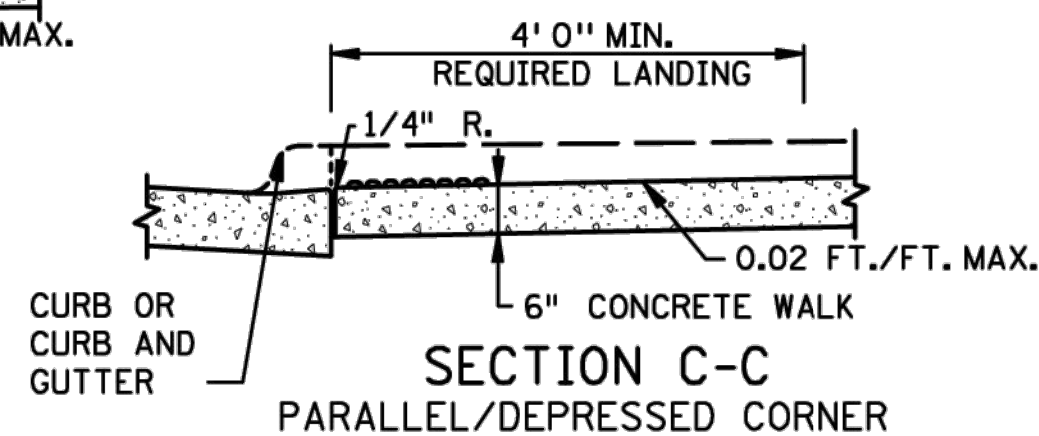
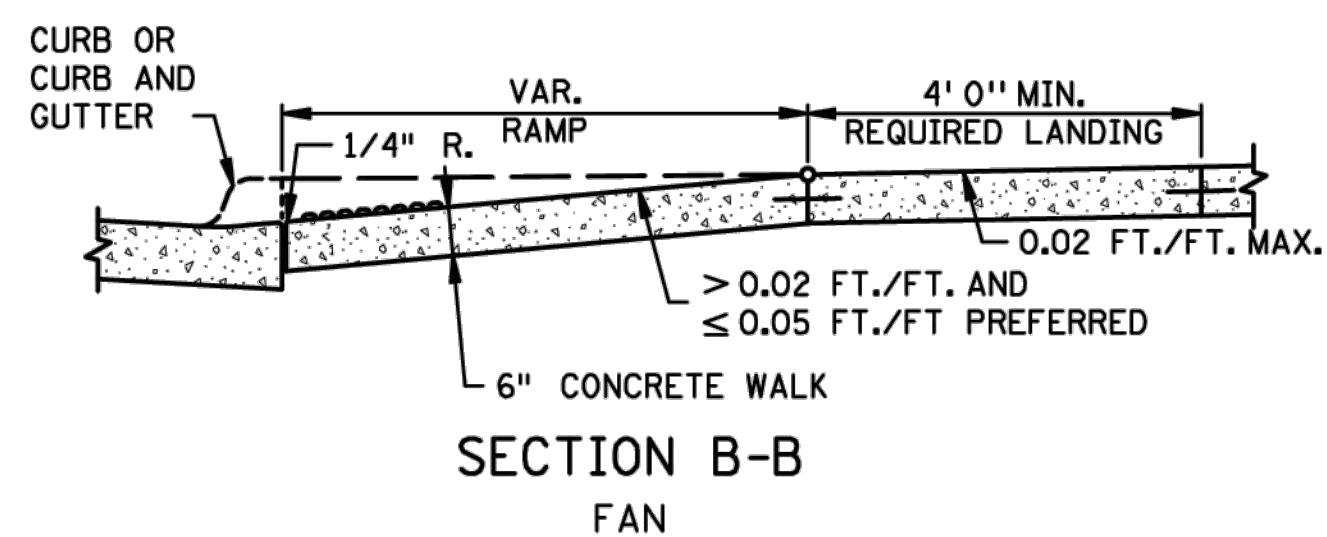
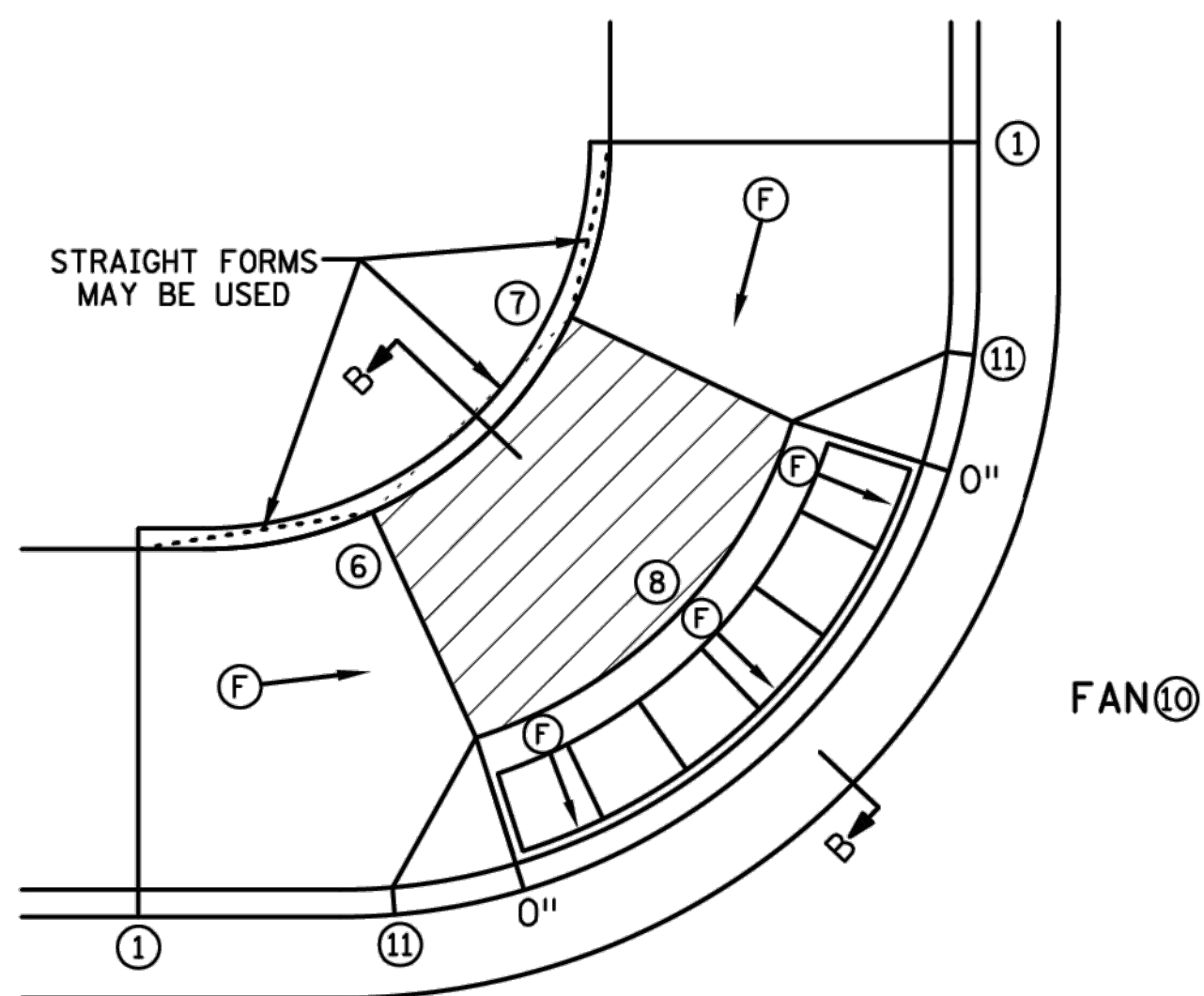
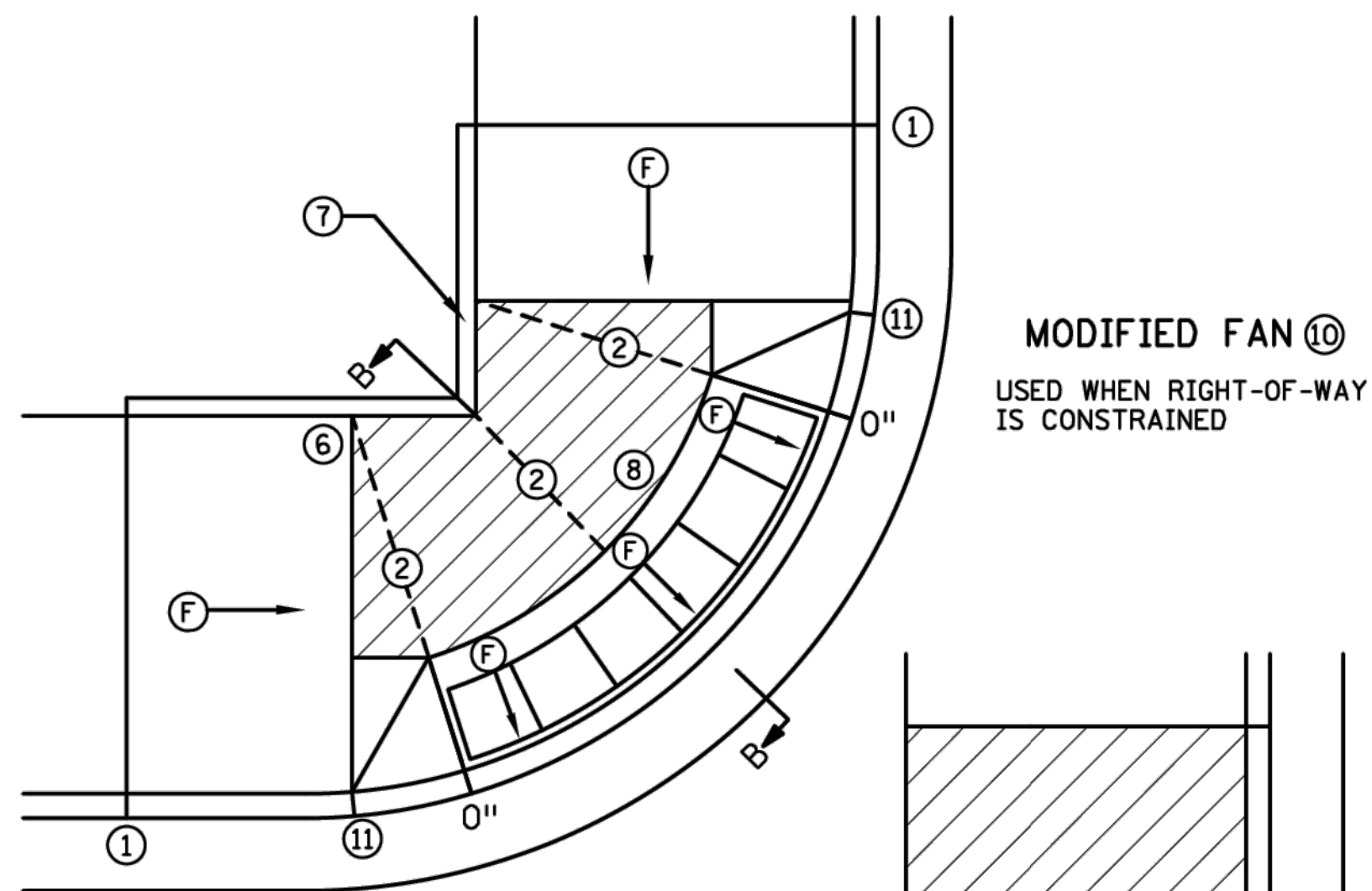
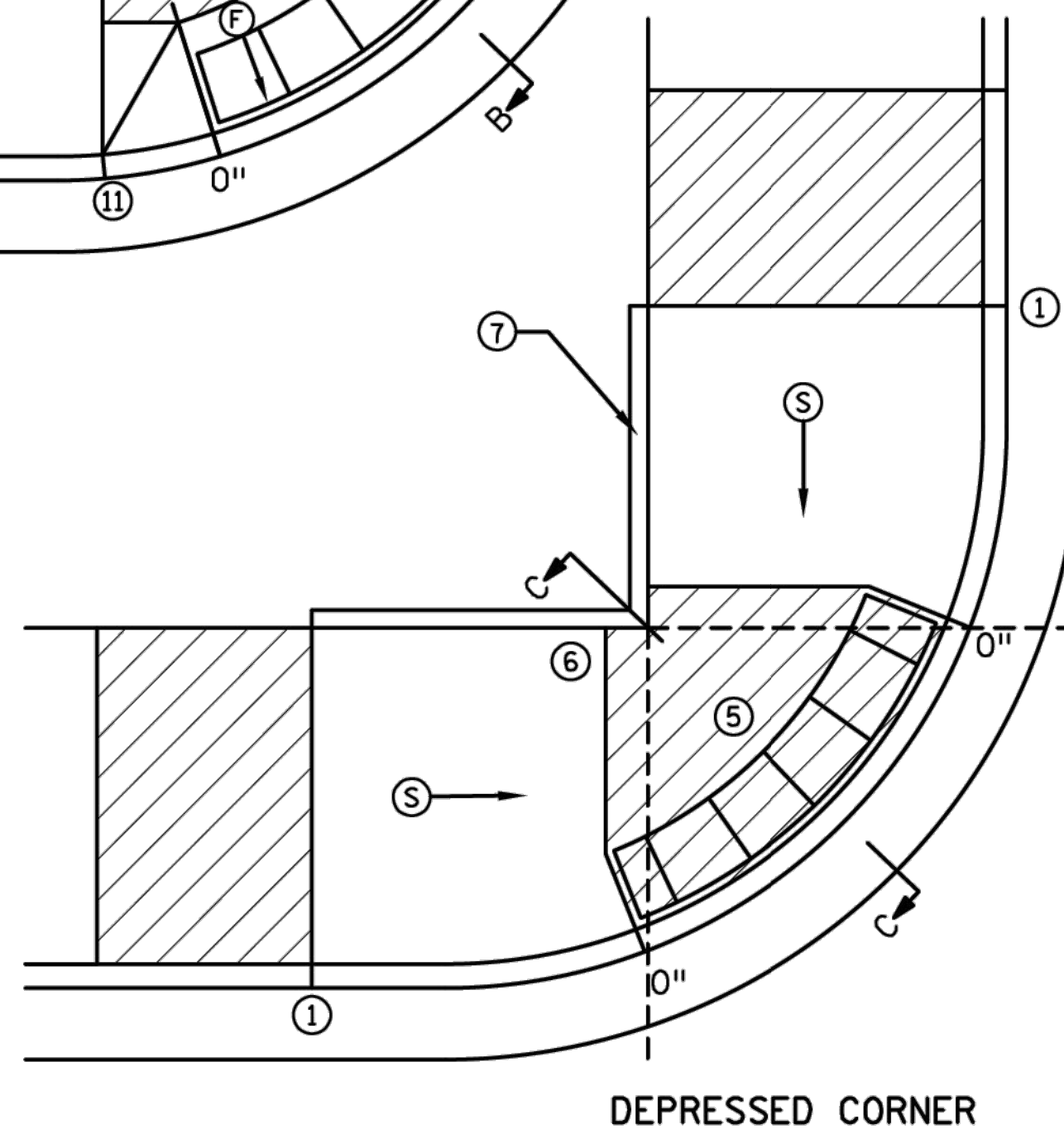
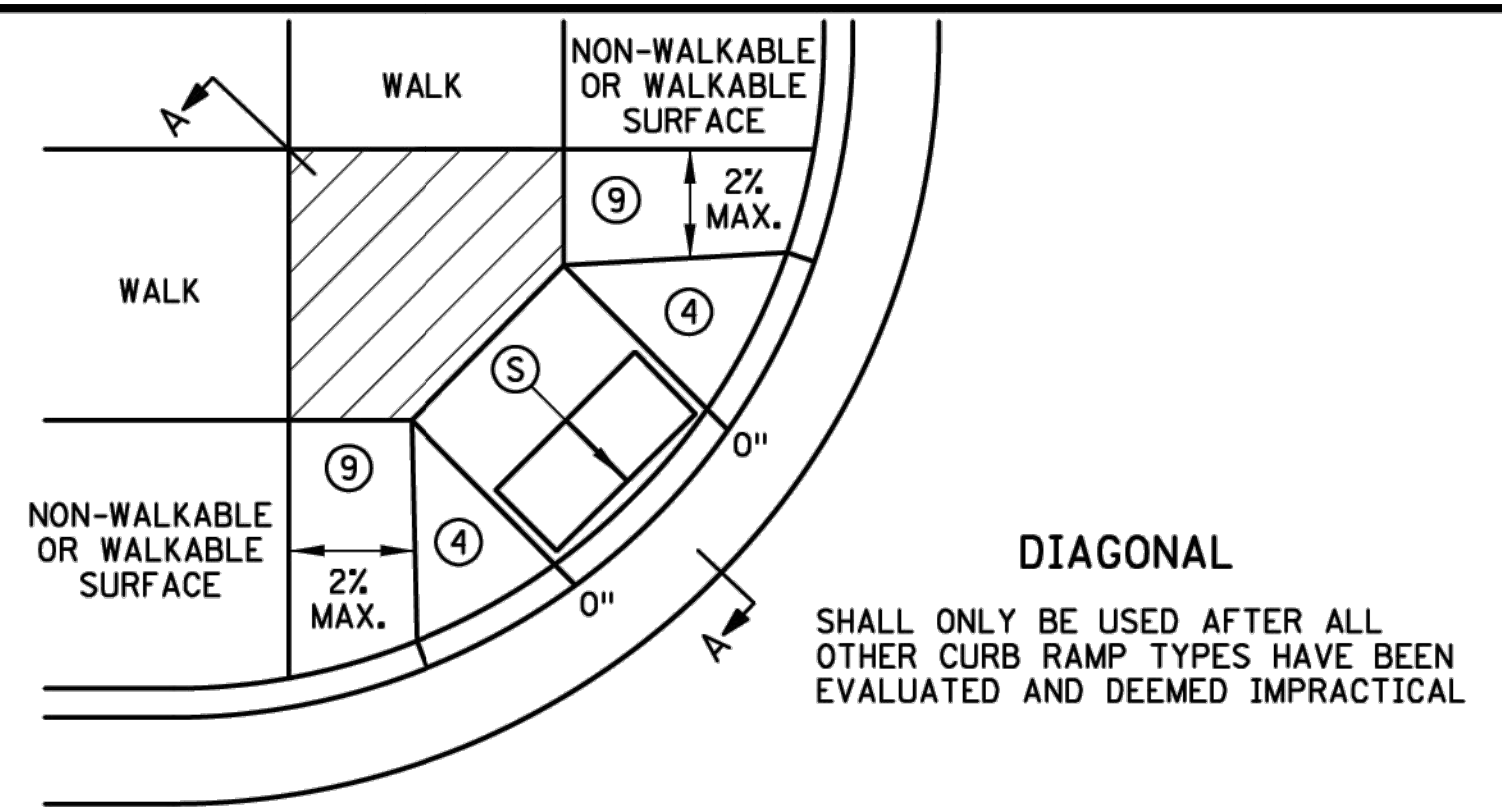
GREELEY STREET BITUMINOUS ROAD PAVEMENT DETAIL

DATE OF REVISION
FEBURARY 2023

STANDARD PLATE NO.
1240

RAIN GARDEN BASIN CROSS-SECTION
NOT TO SCALE

RAIN GARDEN BASIN DETAIL



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.

- MATCH FULL HEIGHT CURB.
- 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
- 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
- SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
- 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.
- 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)
- 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.
- A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
- PAVE FULL WALK WIDTH.
- "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

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

REVISION:

APPROVED: 11-04-2021

Jeff J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m
MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.250 1 OF 6

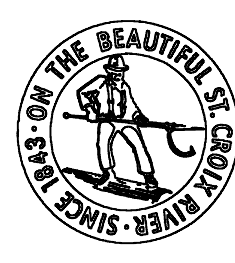
APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

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

PEDESTRIAN CURB RAMP DETAILS

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

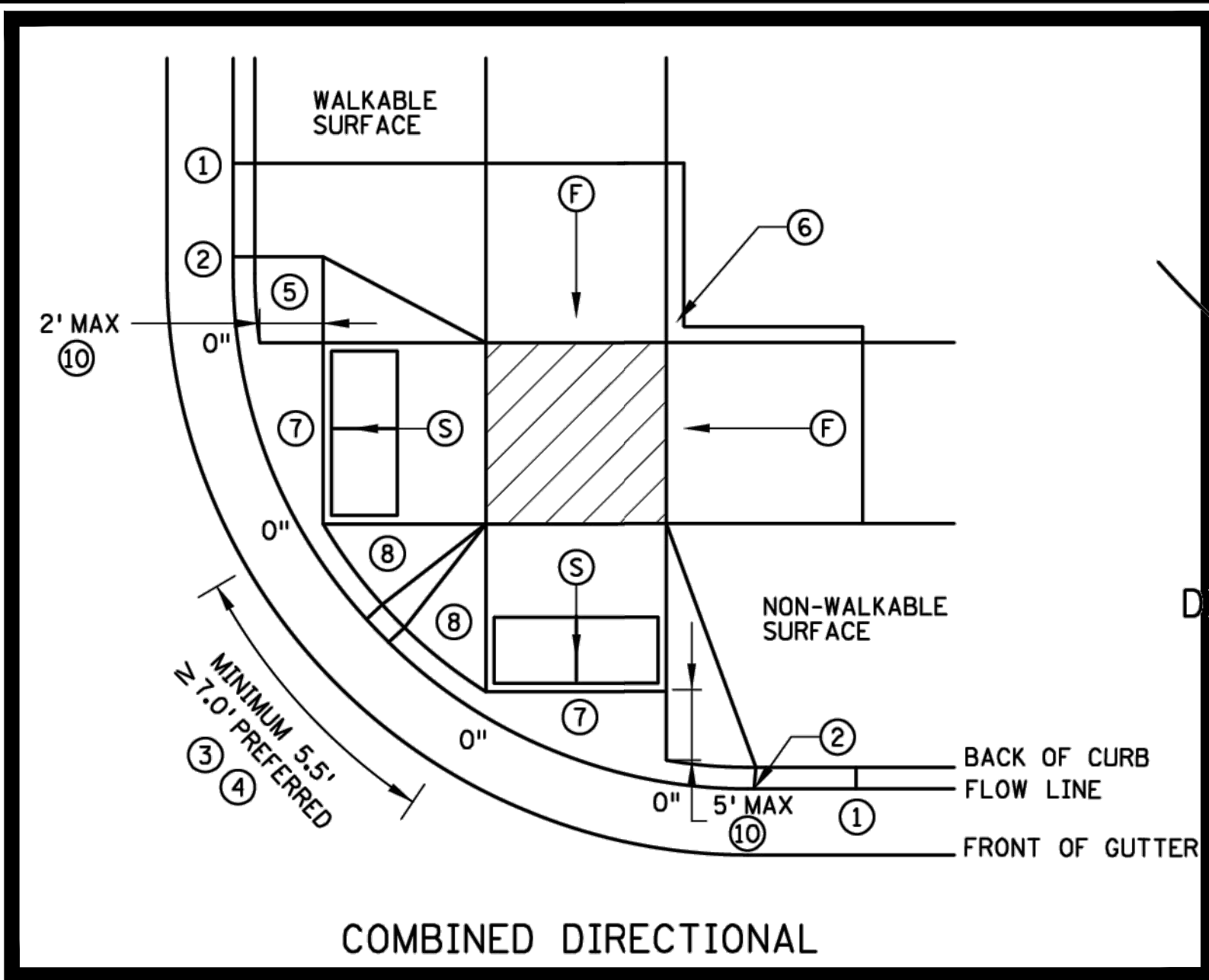
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MNDOT
DETAILS 1

2026 STREET
IMPROVEMENT

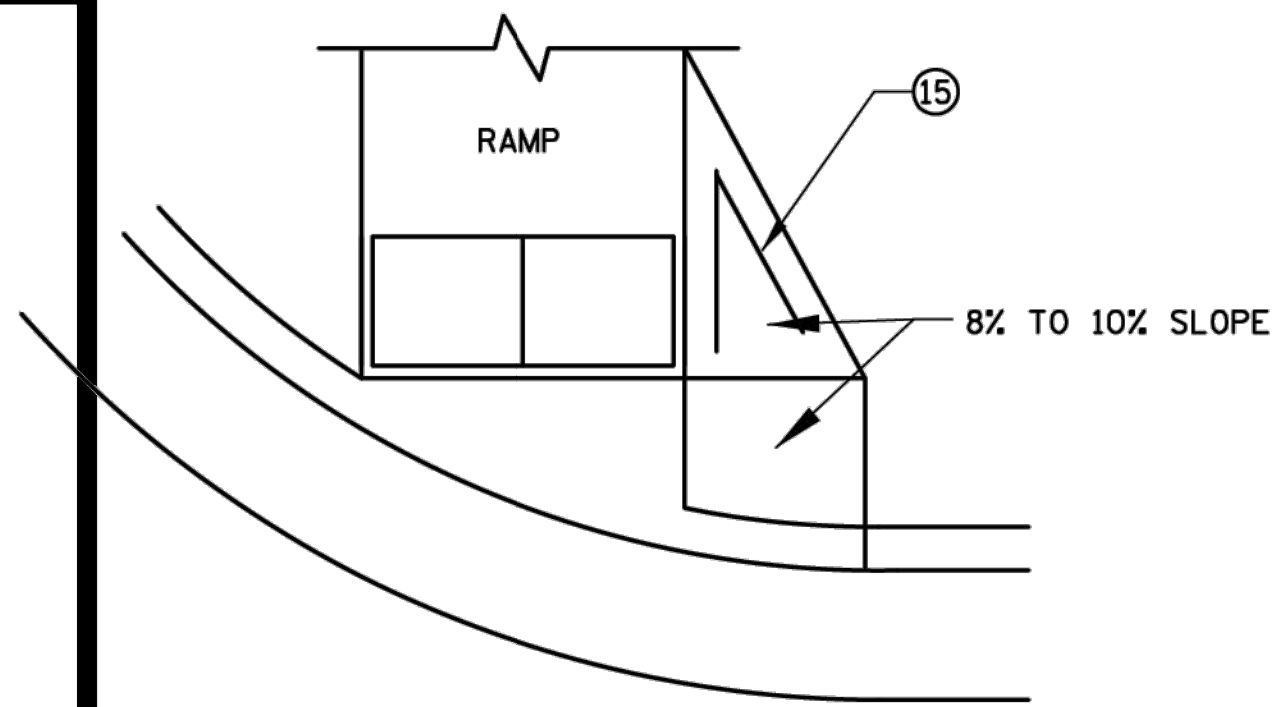
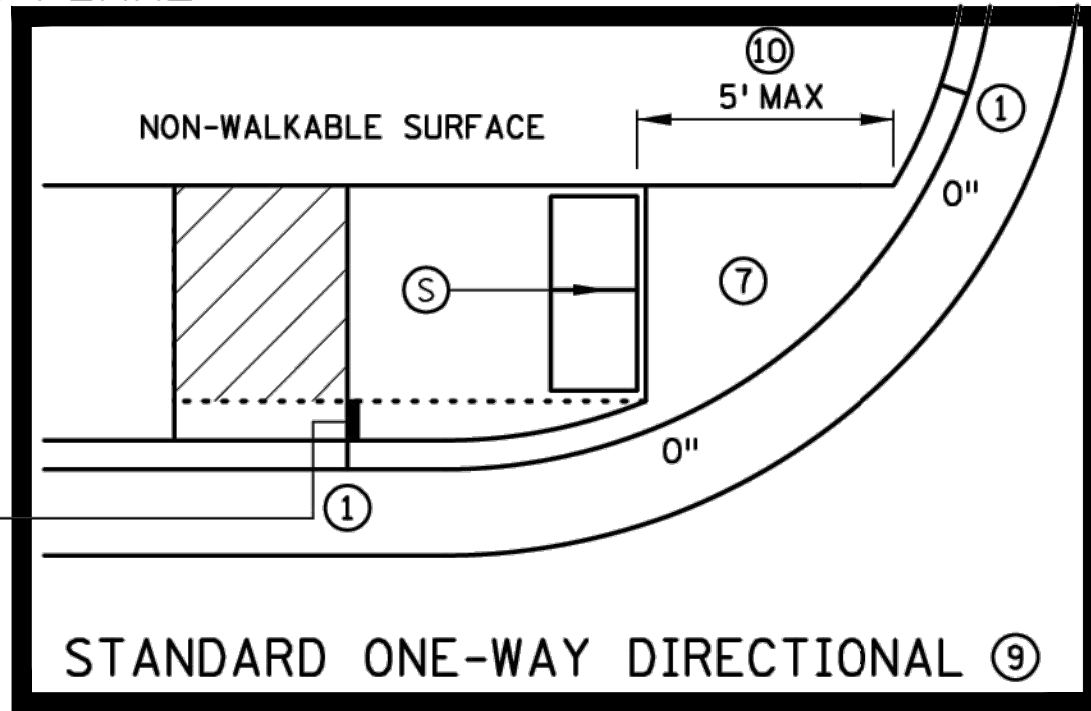
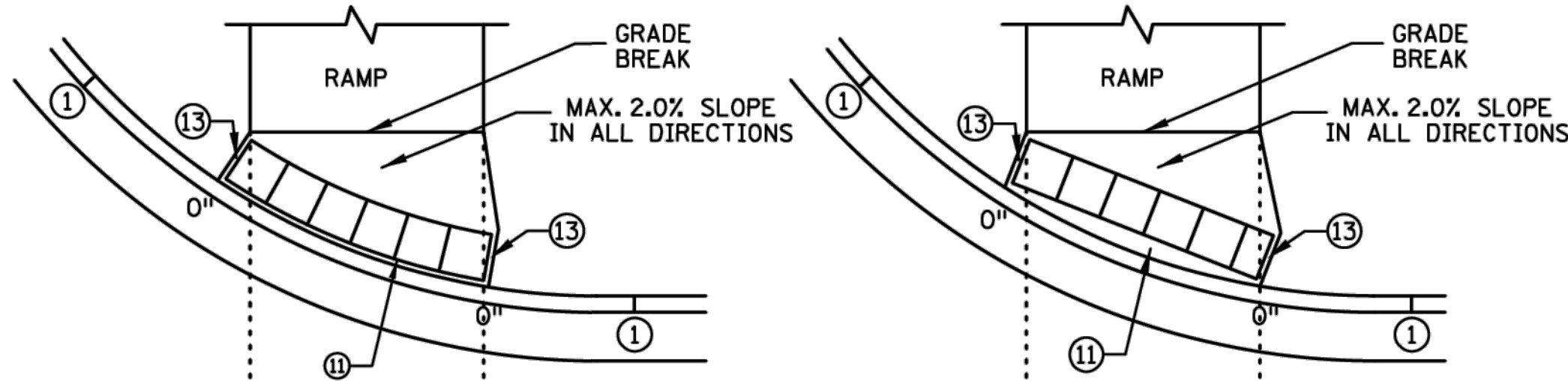
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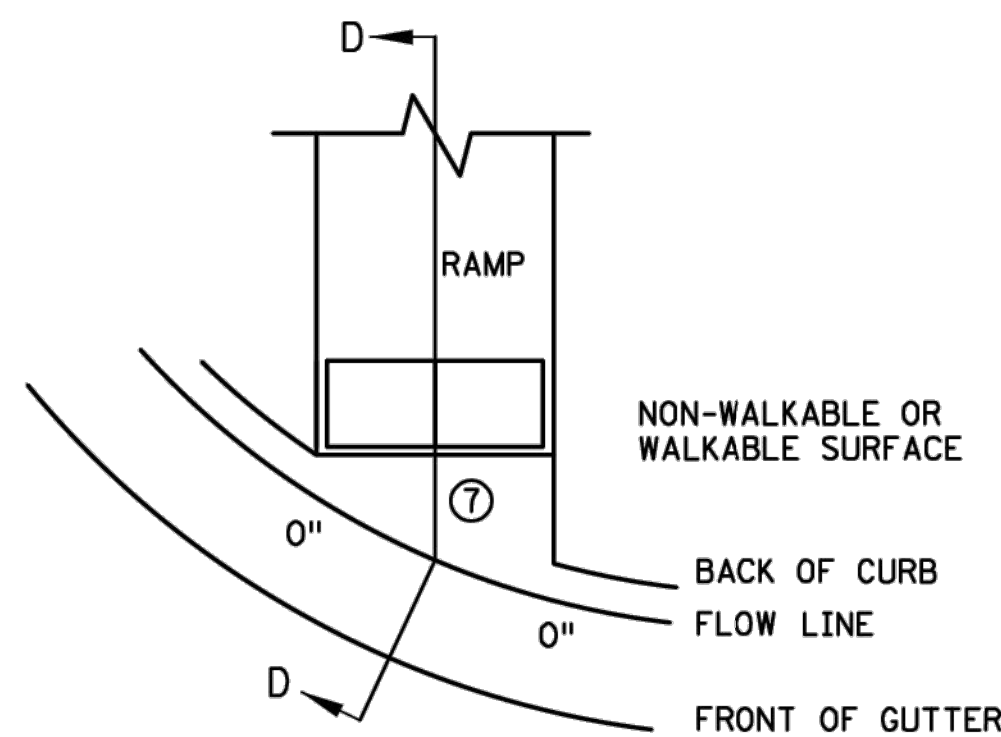


DIRECTIONAL RAMP WALKABLE FLARE

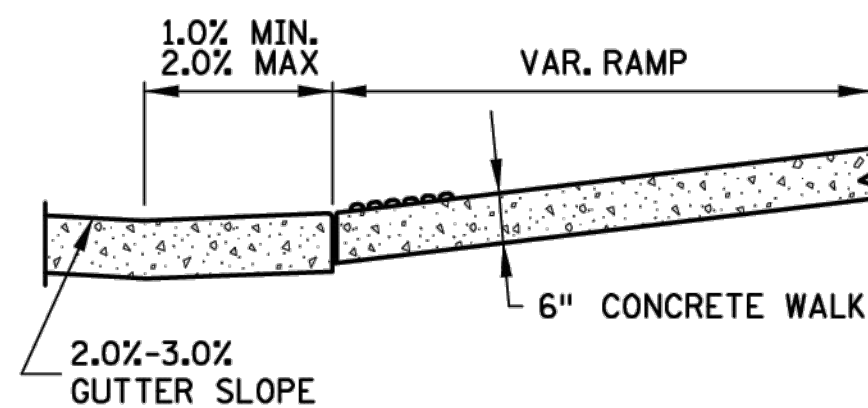
IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.



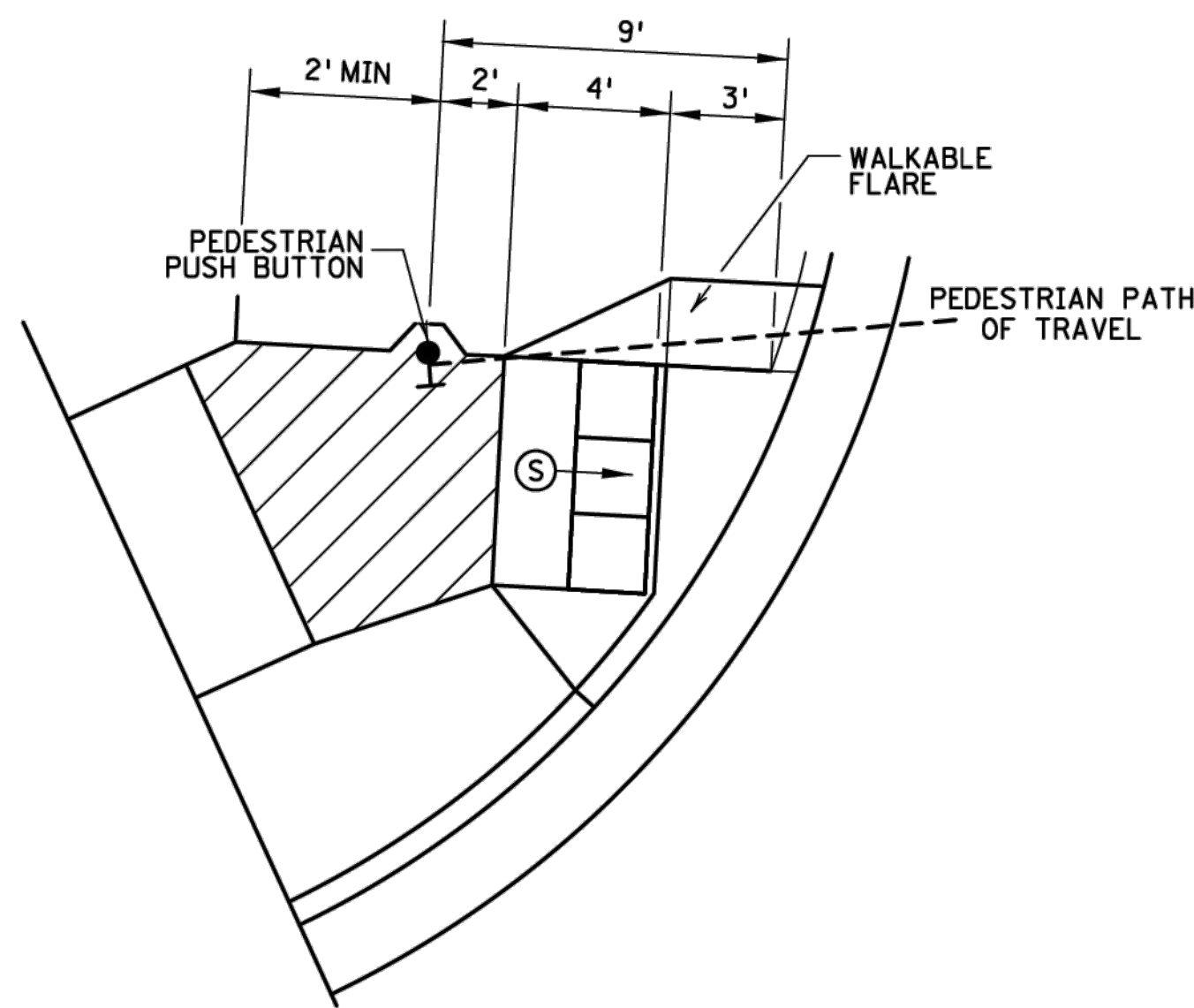
DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED 12
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



CURB FOR DIRECTIONAL RAMPS 14



SECTION D-D



SEMI-DIRECTIONAL RAMP 3 4 9

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB
PRIMARYLY 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 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.

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.

Ⓢ 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%.

Ⓡ 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

REVISION:

APPROVED: 11-04-2021

Jeffrey Perkins
JEFFREY PERKINS
OPERATIONS DIVISION



STANDARD PLAN 5-297.250

2 OF 6

APPROVED: 11-04-2021
REVISED:

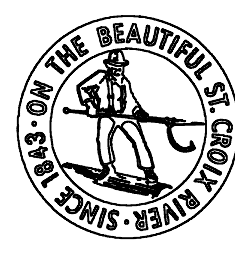
Tom Styrback
THOMAS STYRBICKI
STATE DESIGN ENGINEER

STATE PROJ. NO.

PEDESTRIAN CURB RAMP DETAILS

(T.H.) SHEET NO. OF SHEETS

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

Date: _____ Reg. No. _____

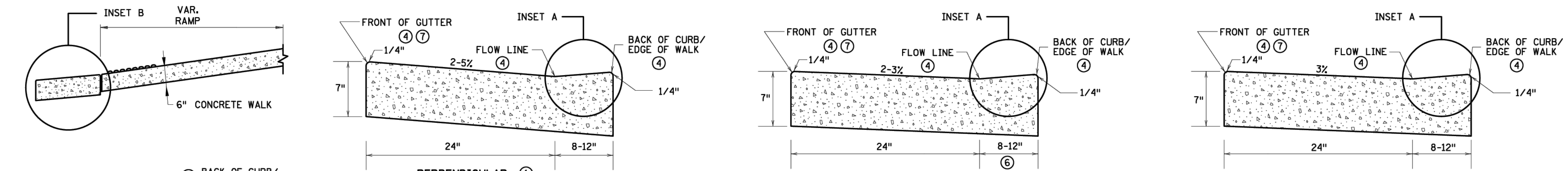
MNDOT
DETAILS 2

2026 STREET
IMPROVEMENT

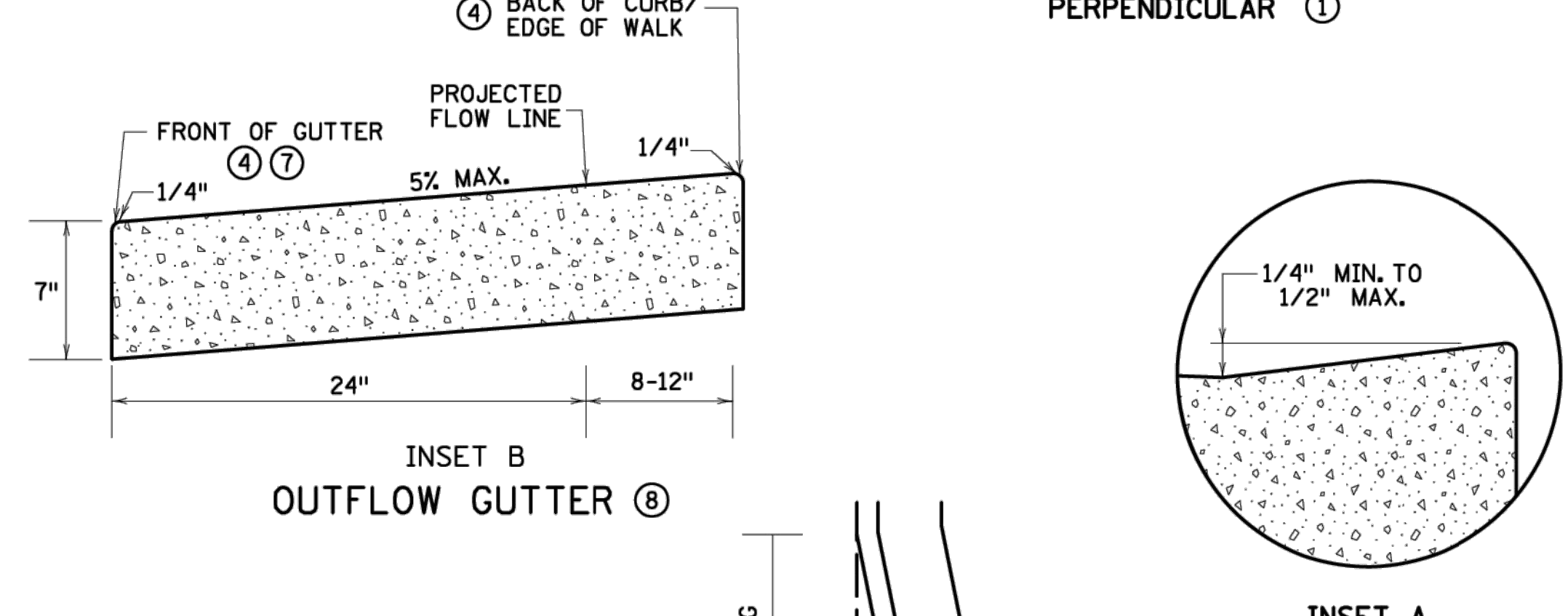
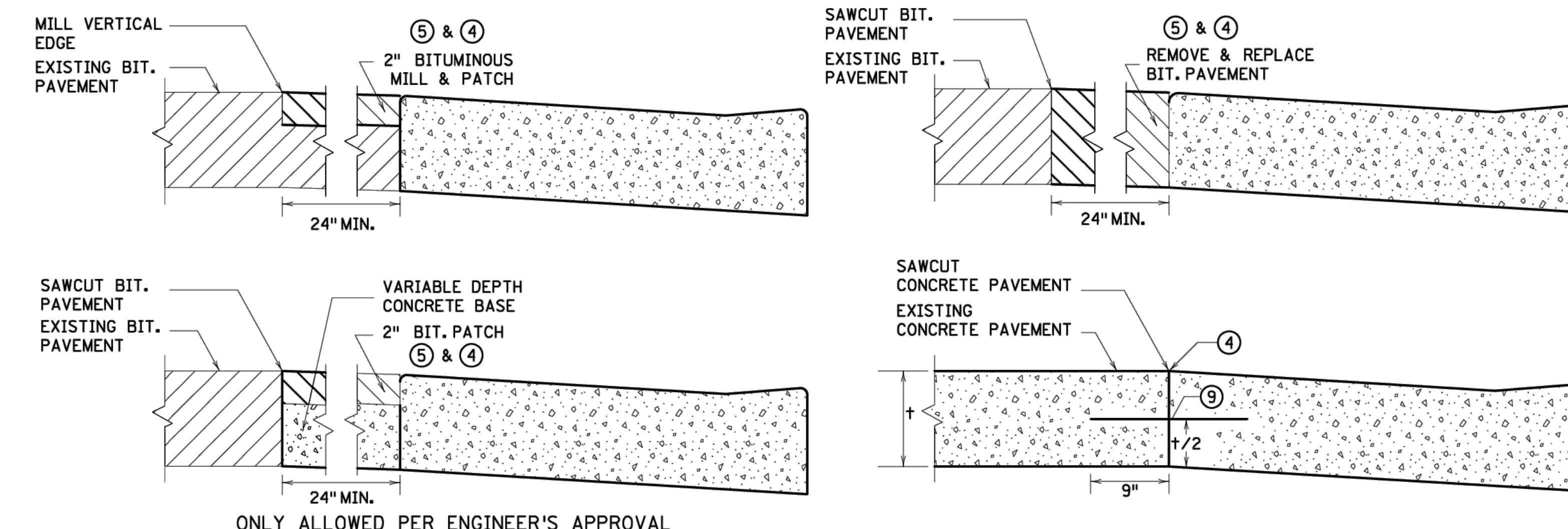
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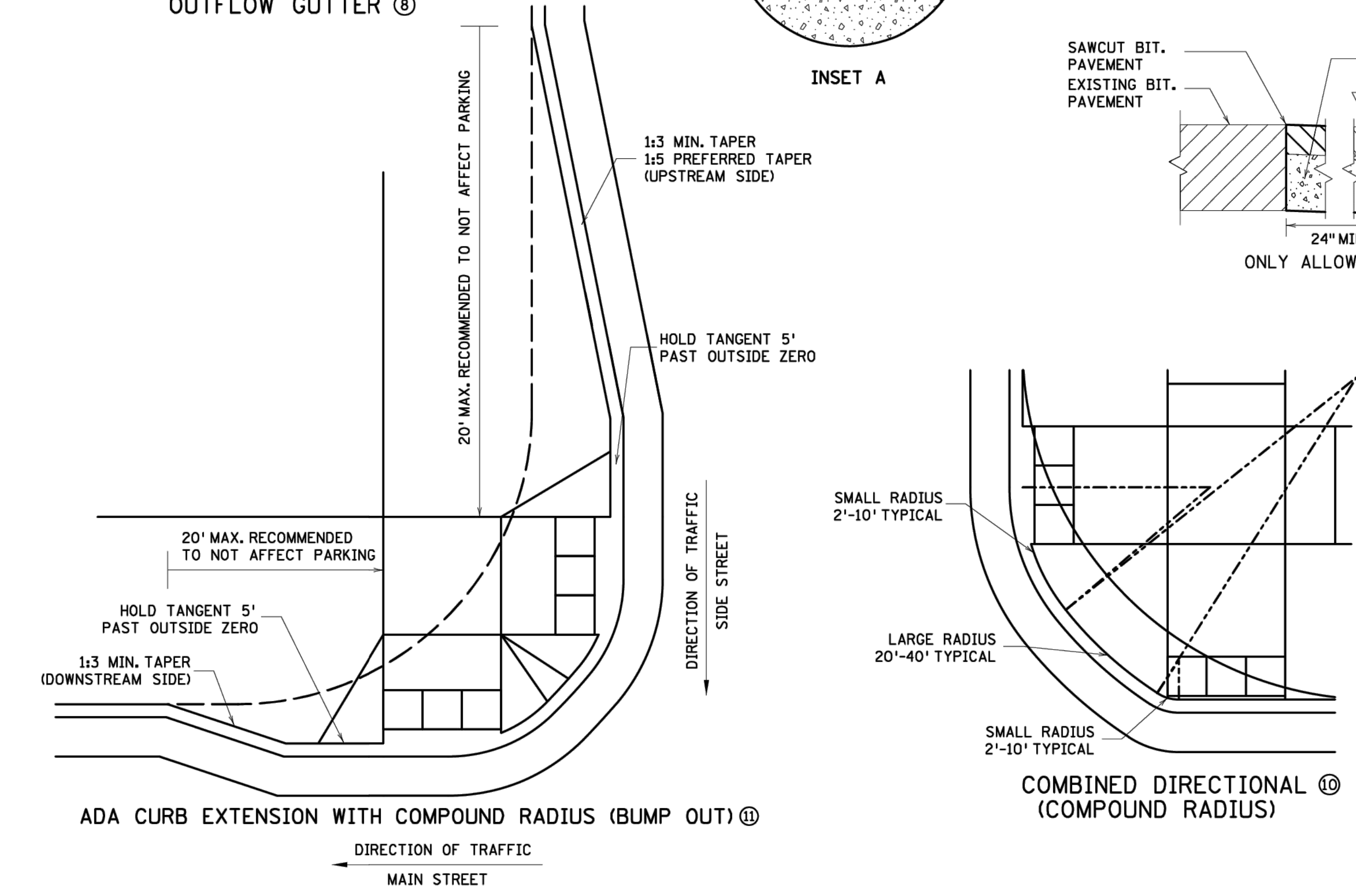
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PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



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
JEFFREY PERKINS
OPERATIONS DIVISION

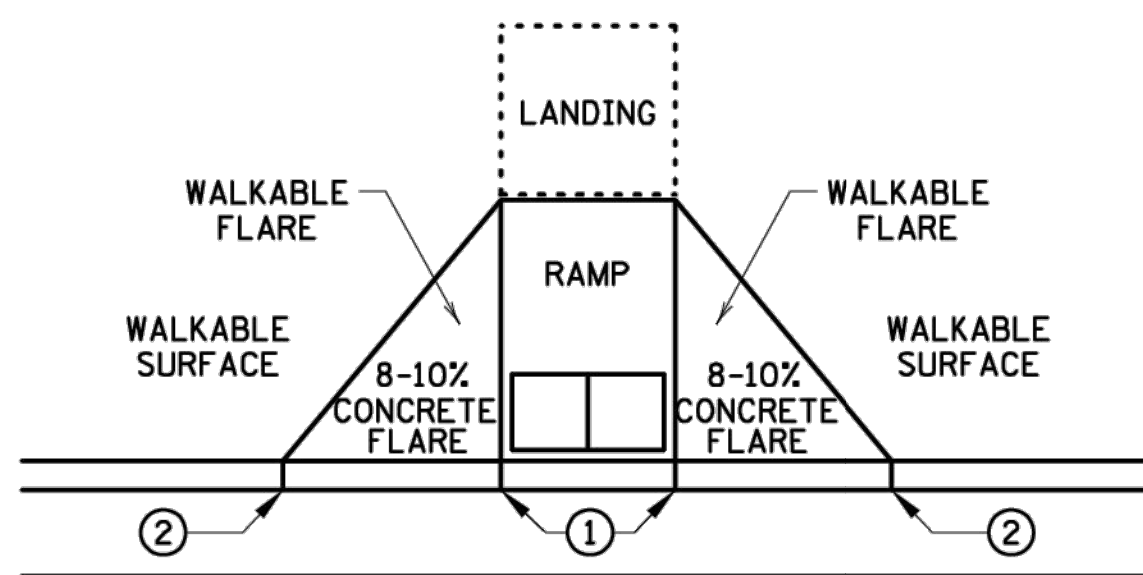
MINNESOTA
DEPARTMENT OF TRANSPORTATION
STANDARD PLAN 5-297.250 3 OF 6
APPROVED: 11-04-2021
REVISOR:
THOMAS STYRBICKI
STATE DESIGN ENGINEER
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS
PEDESTRIAN CURB RAMP DETAILS

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

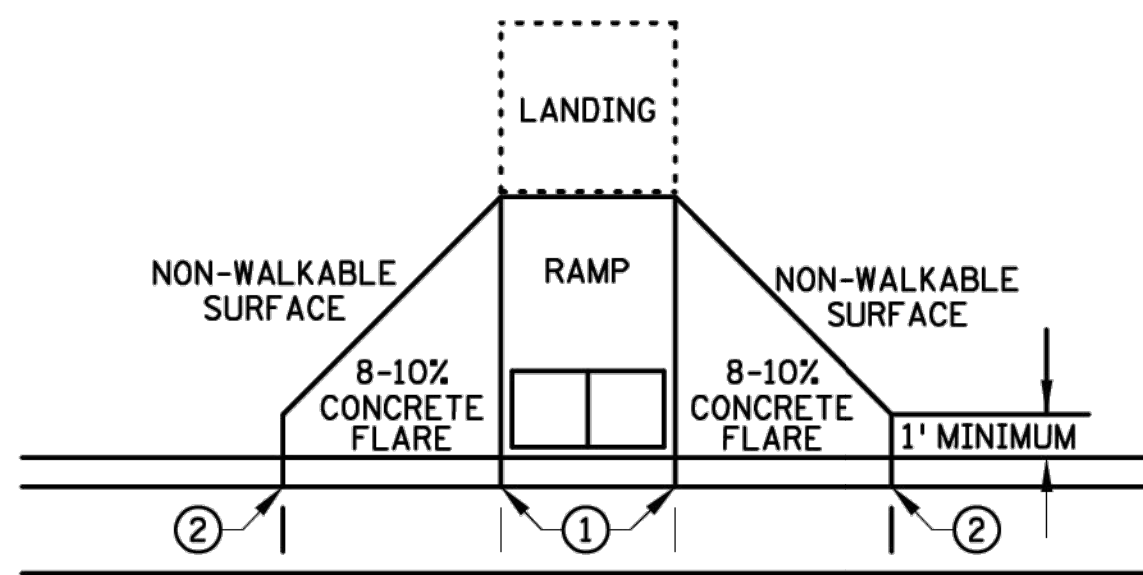


I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.
Date: _____ Reg. No. _____

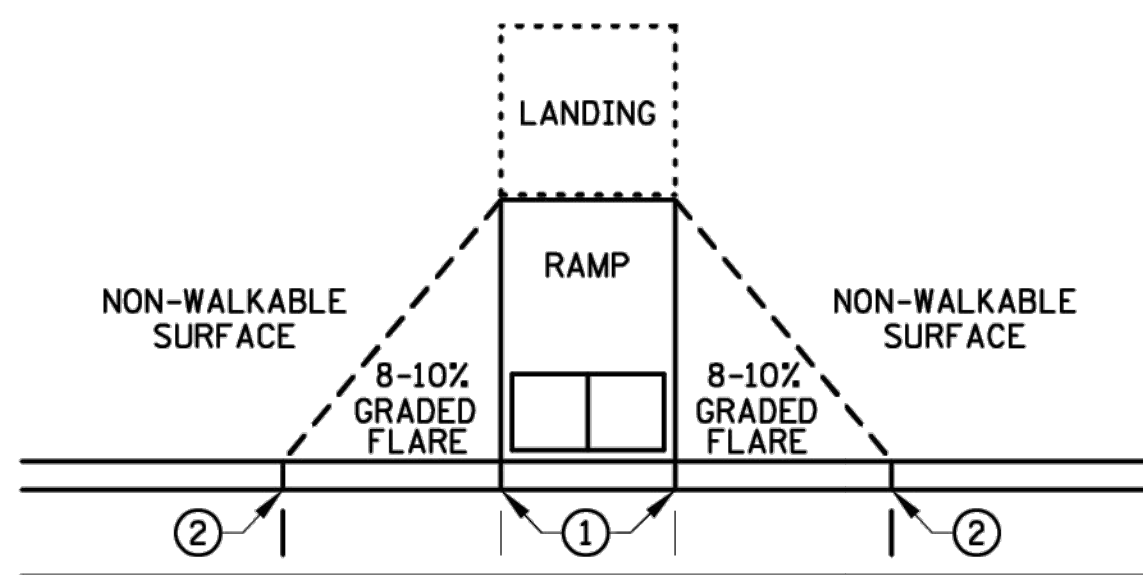
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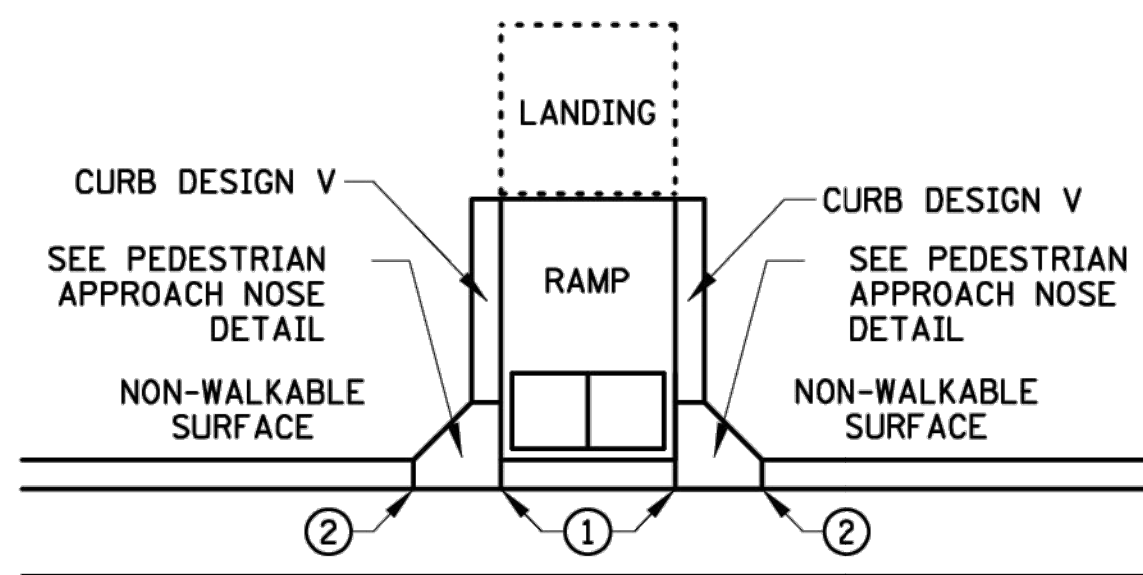
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

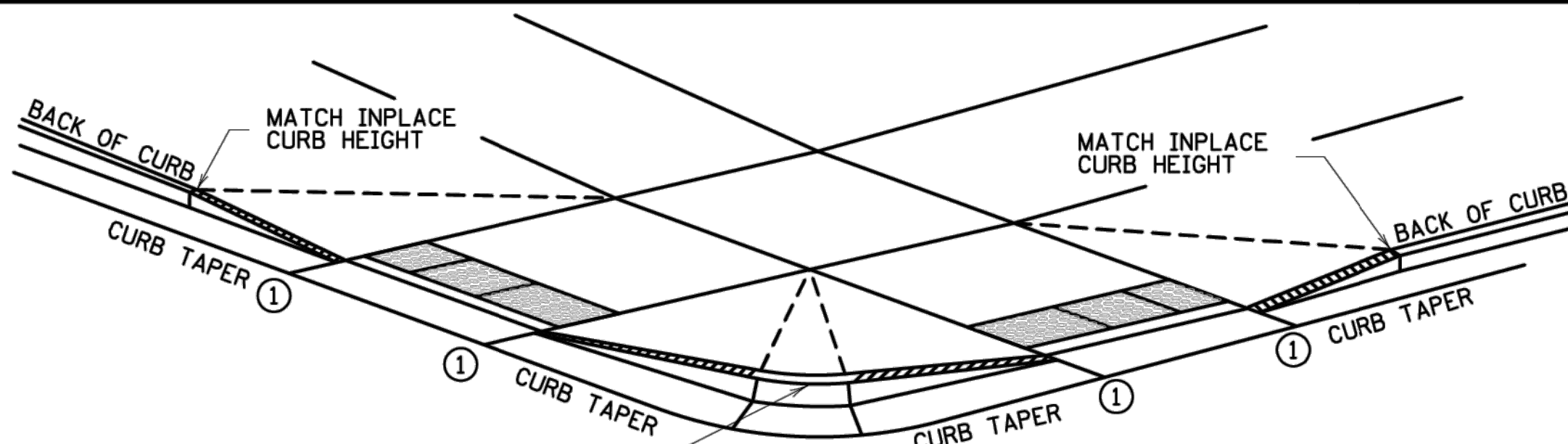


GRADED FLARES



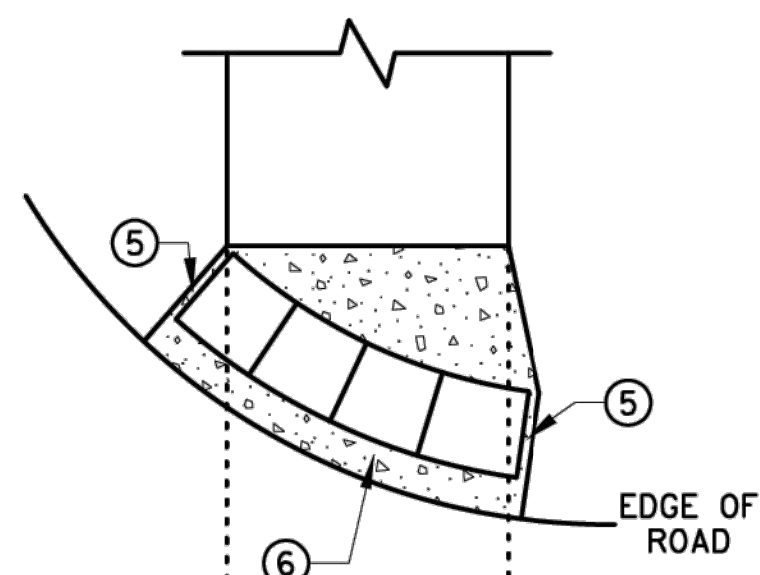
RETURNED CURB ④

TYPICAL SIDE TREATMENT OPTIONS ③ ⑩

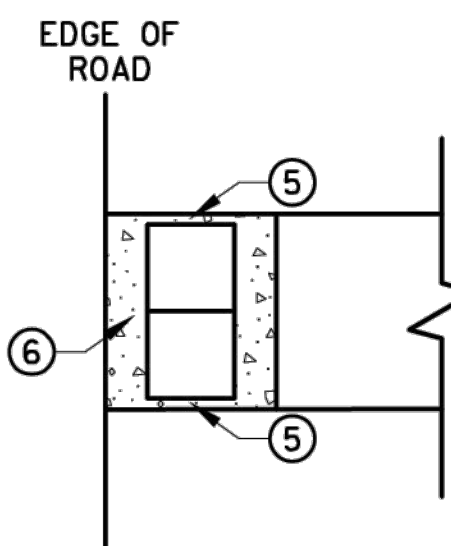


3" MINIMUM CURB HEIGHT, 4" PREFERRED
(MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH
CURB AND GUTTER ⑦

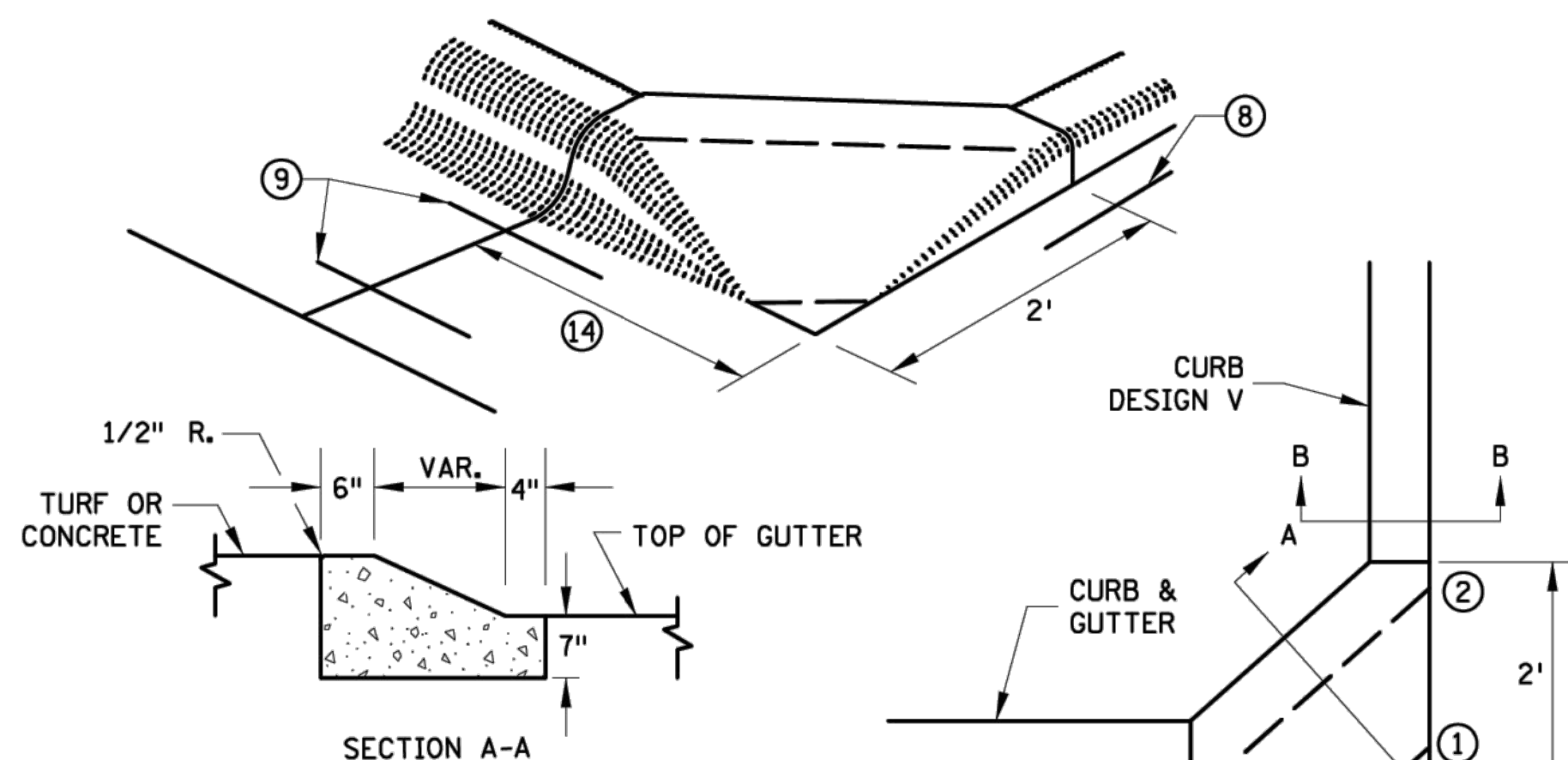


RADIAL DETECTABLE WARNING

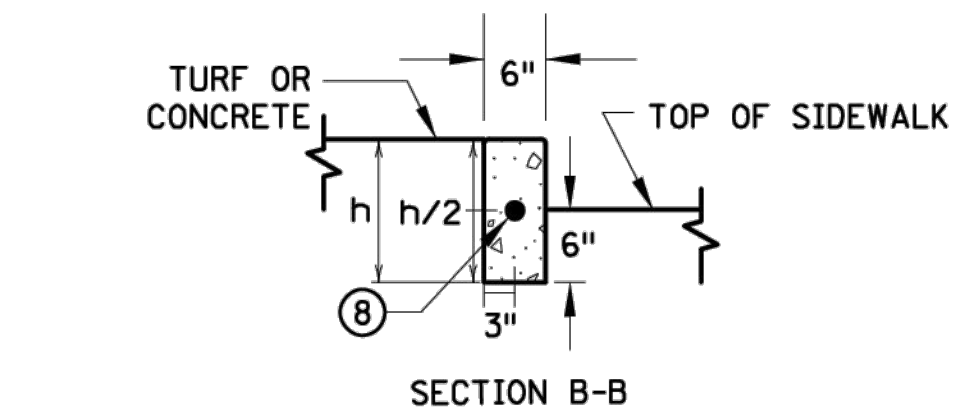


RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

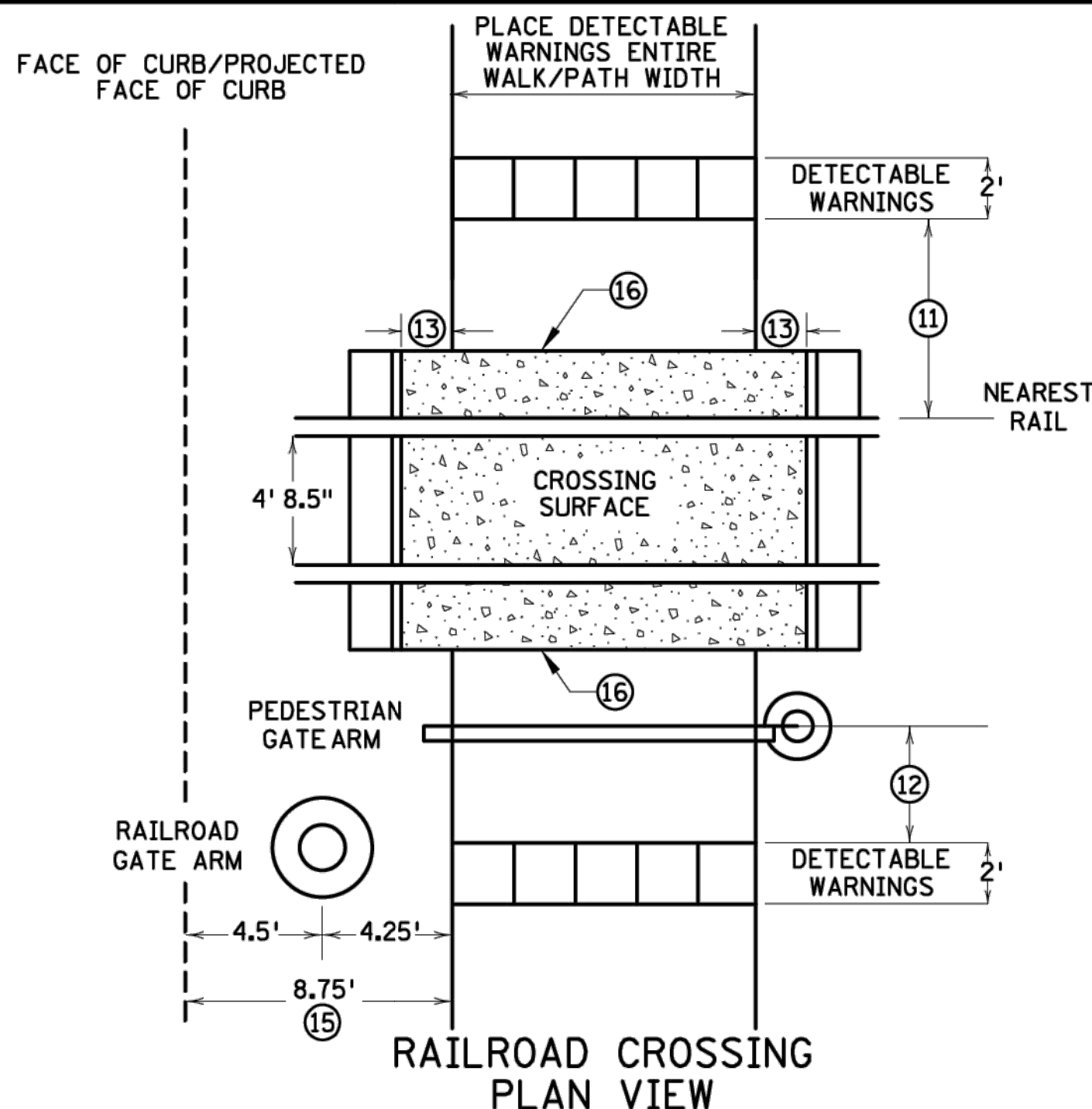


SECTION A-A



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.

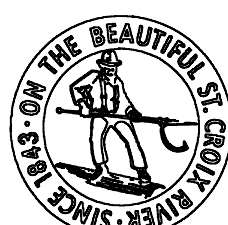
REVISION:
APPROVED: 11-04-2021
<i>Jeff J. Perkins</i>
JEFFREY PERKINS OPERATIONS DIVISION

m MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250	4 OF 6
<i>Tom Styrbicki</i>	APPROVED: 11-04-2021 REVISED:
STATE PROJ. NO.	(TH) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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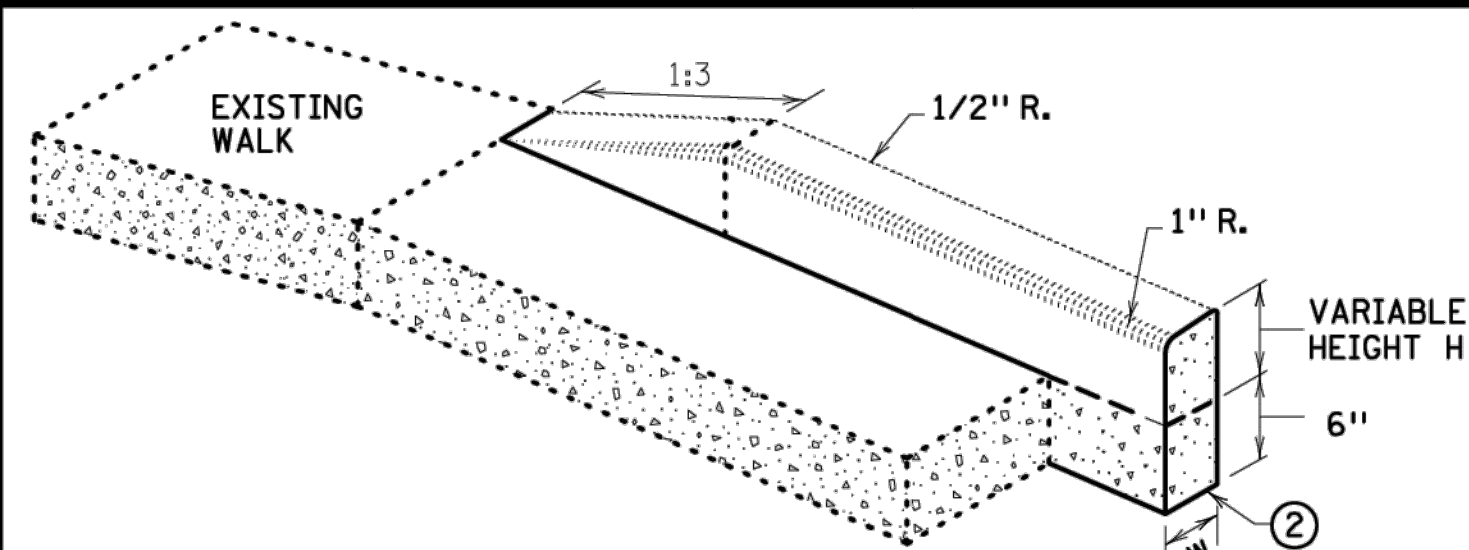
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MNDOT
DETAILS 4

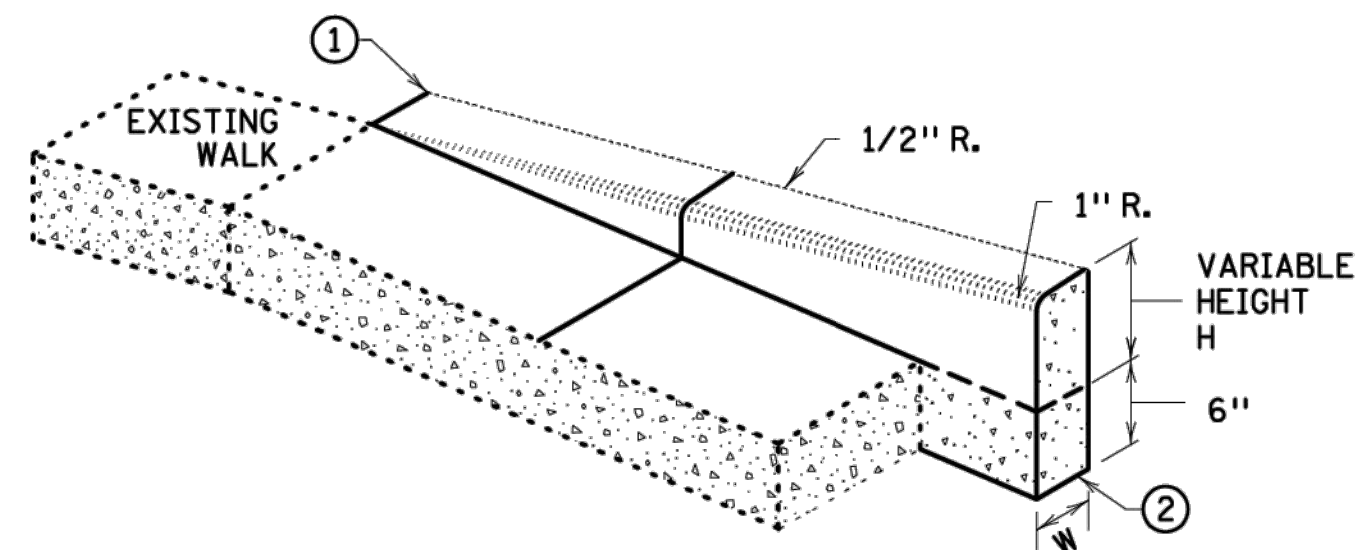
2026 STREET
IMPROVEMENT

FILE NO.
2026-02

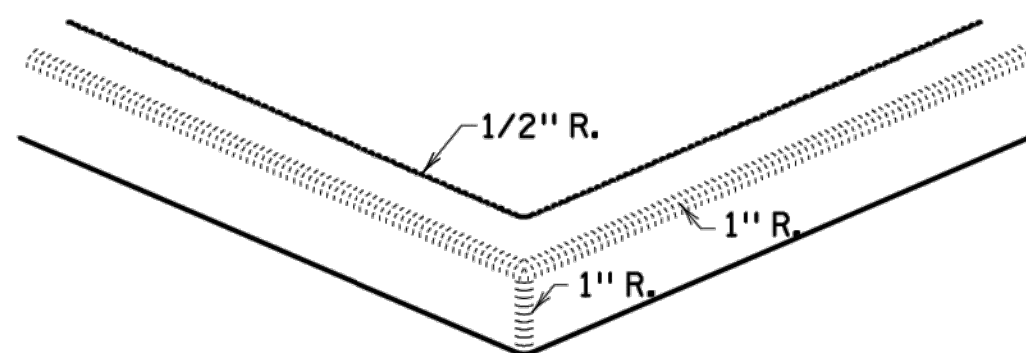
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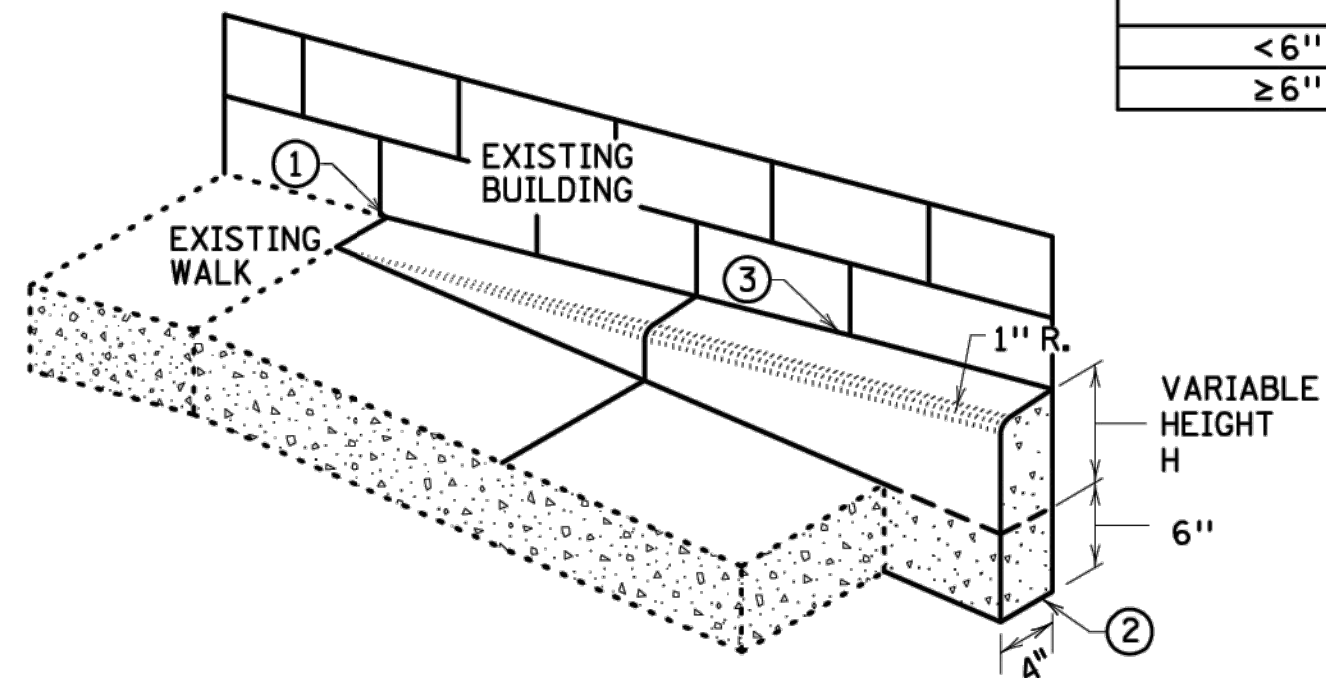
V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS



V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

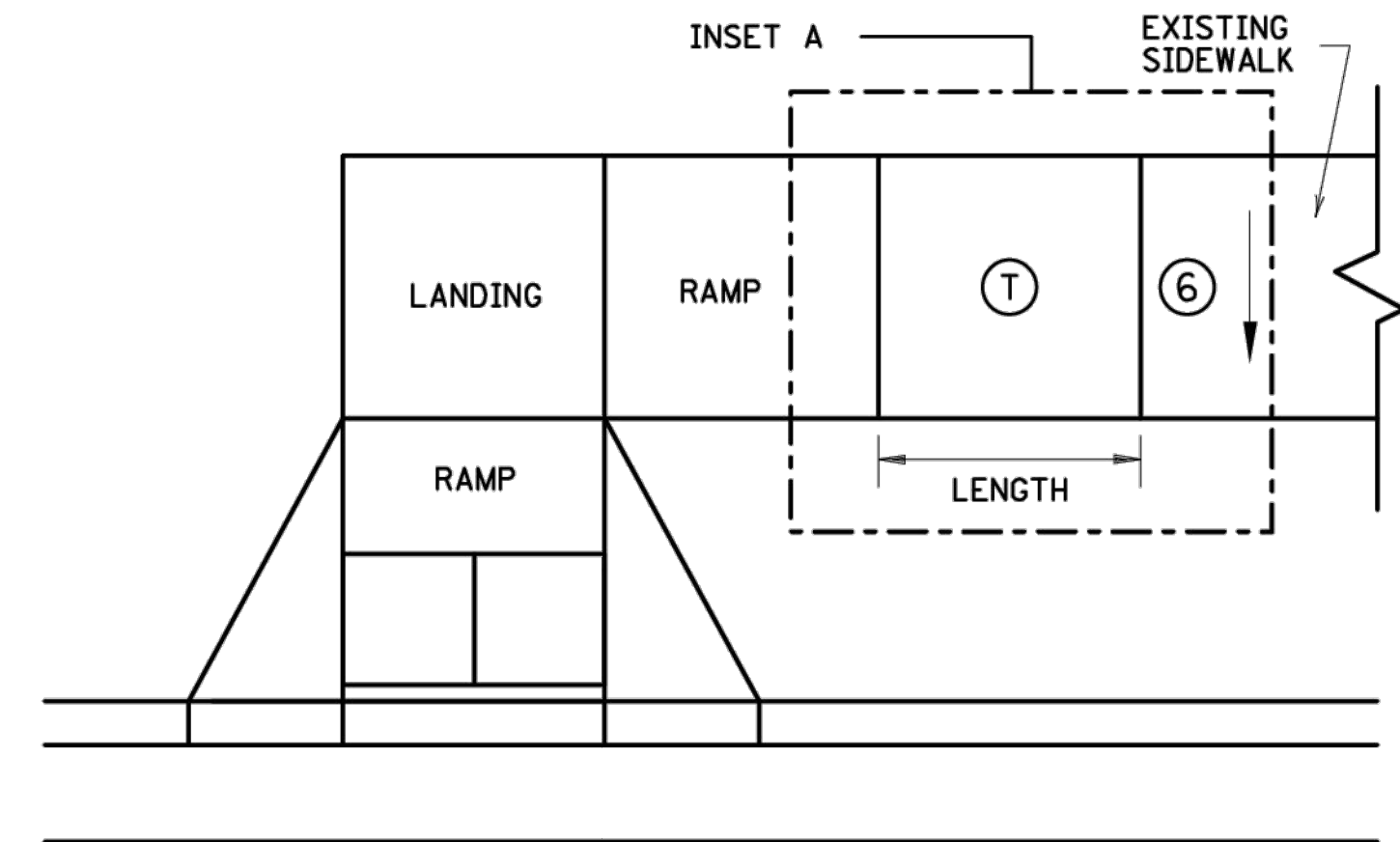


V CURB INTERSECTION

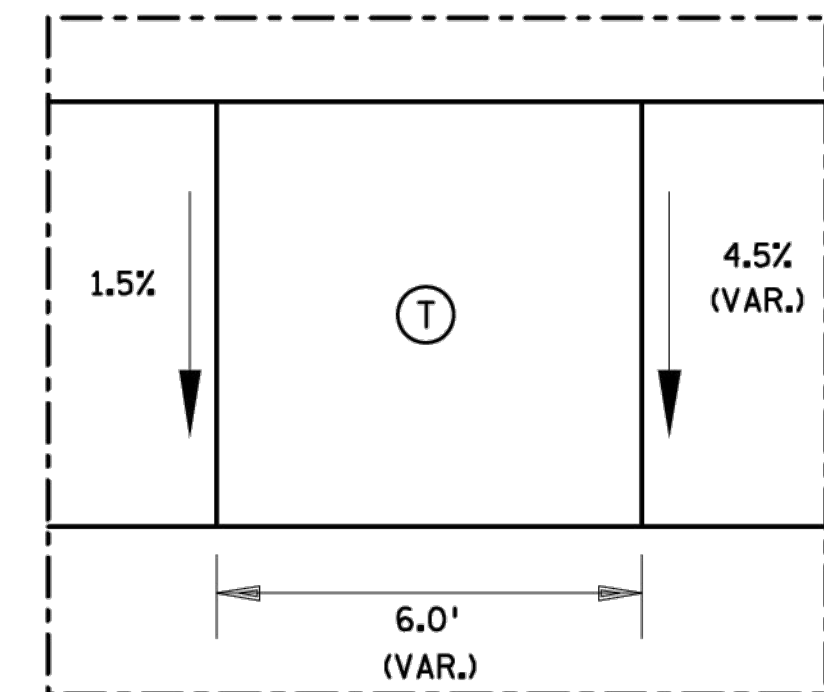


V CURB ADJACENT TO BUILDING
OR BARRIER

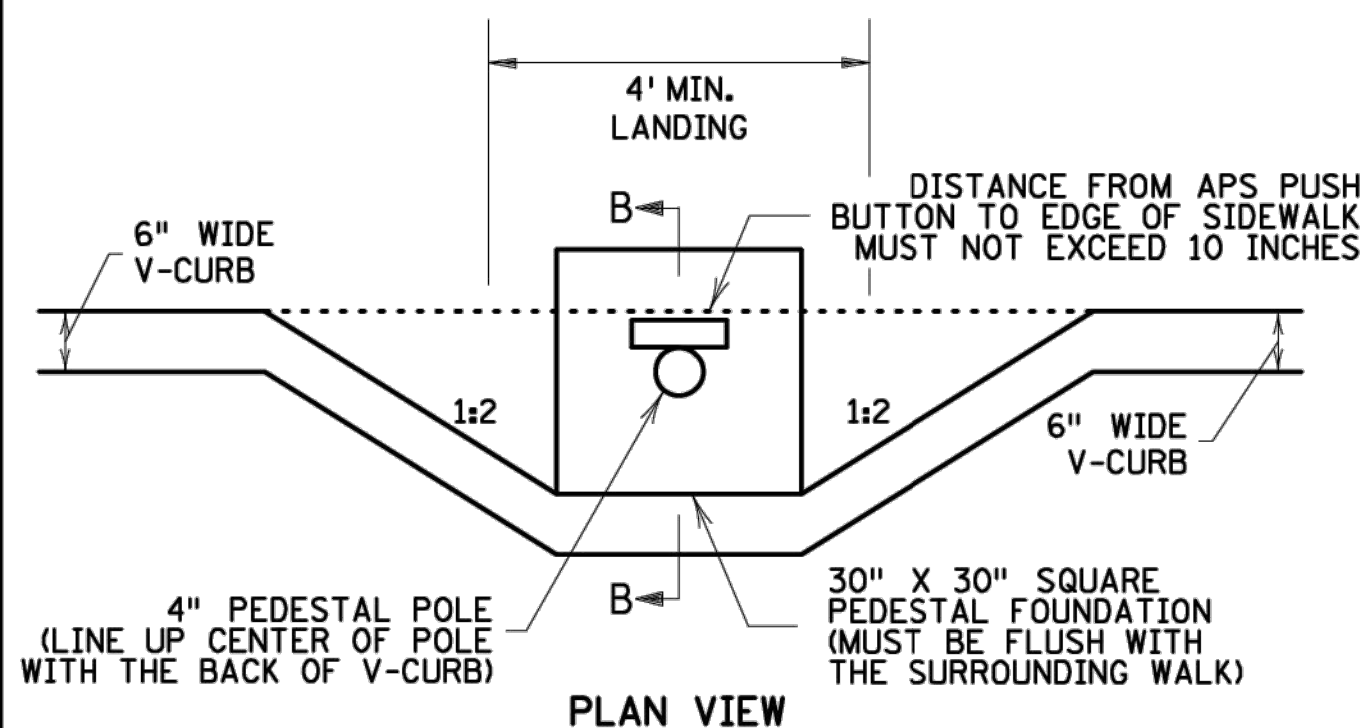
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



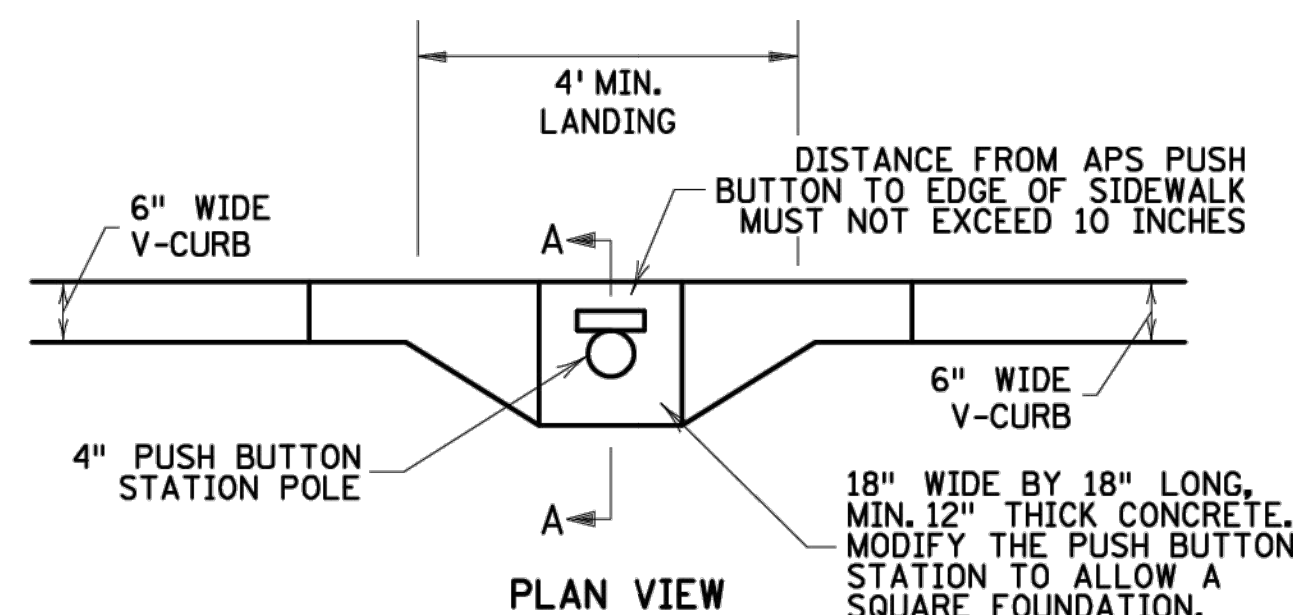
TRANSITION PANEL ④ ⑤



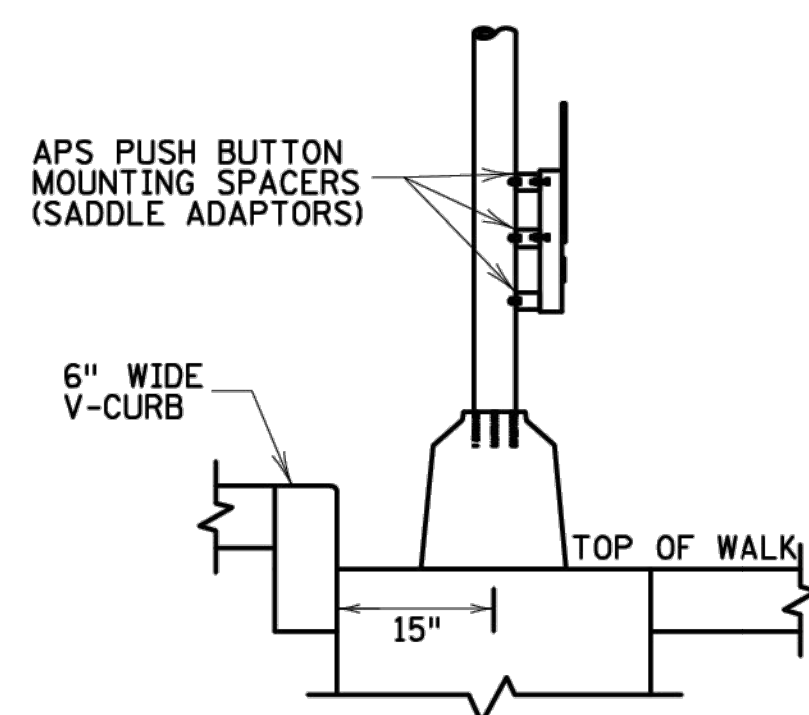
INSET A



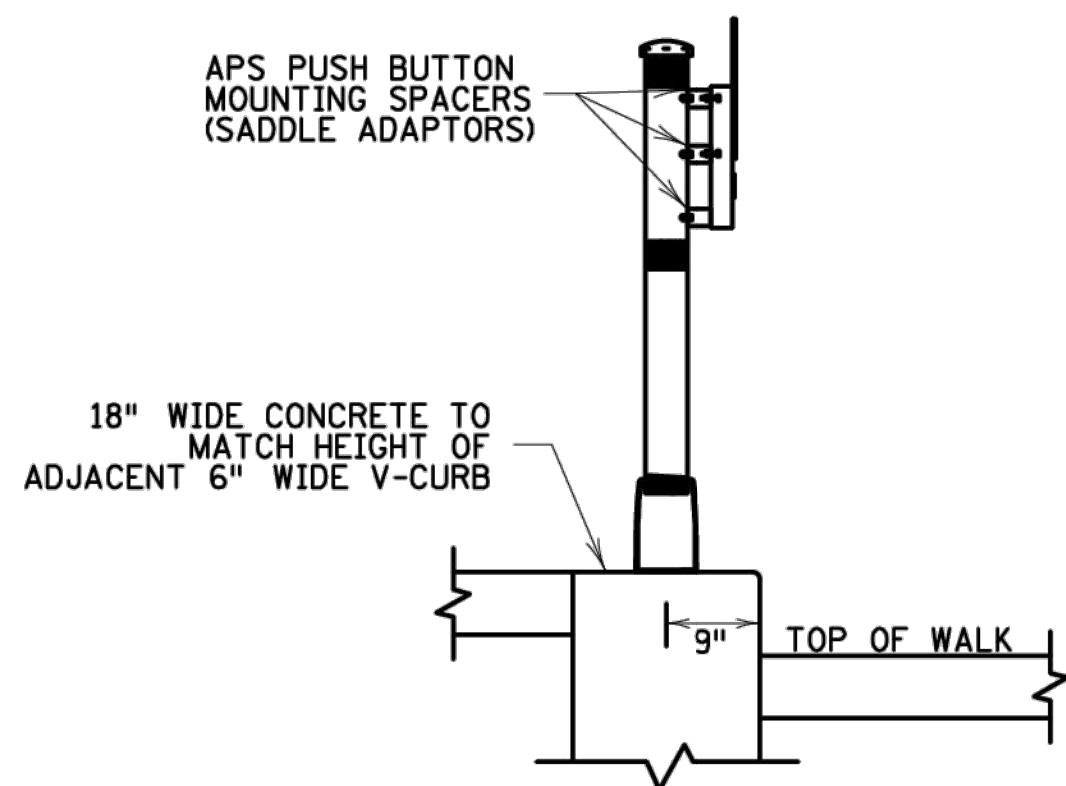
PLAN VIEW



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.

- END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
- ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
- 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.
- 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.
- TRANSITION PANEL(S) ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
- 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

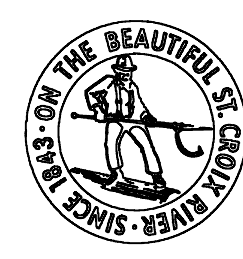
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

APPROVED: 11-04-2021
REVISED:

PEDESTRIAN CURB RAMP DETAILS

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

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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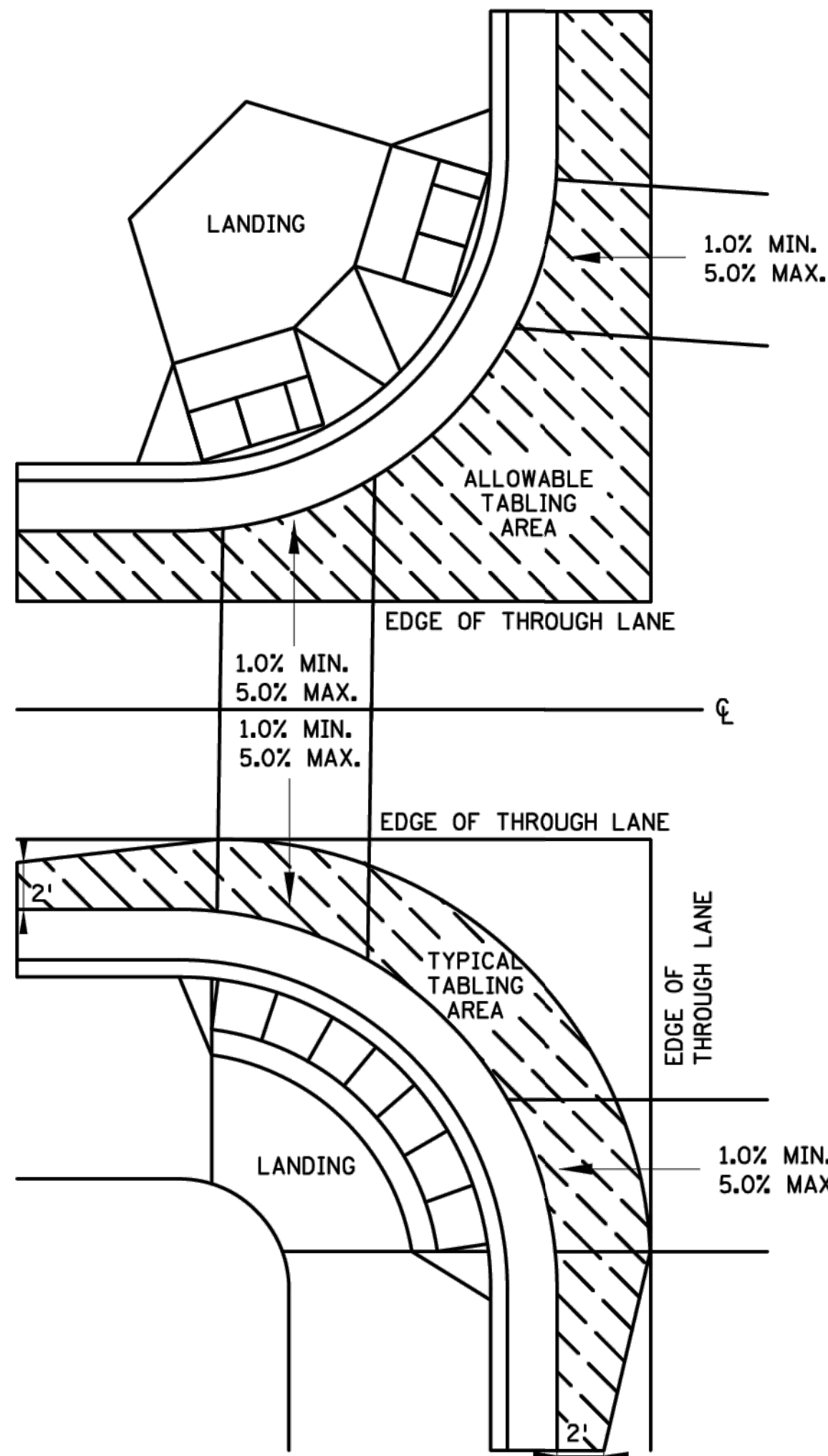
MNDOT
DETAILS 5

2026 STREET
IMPROVEMENT

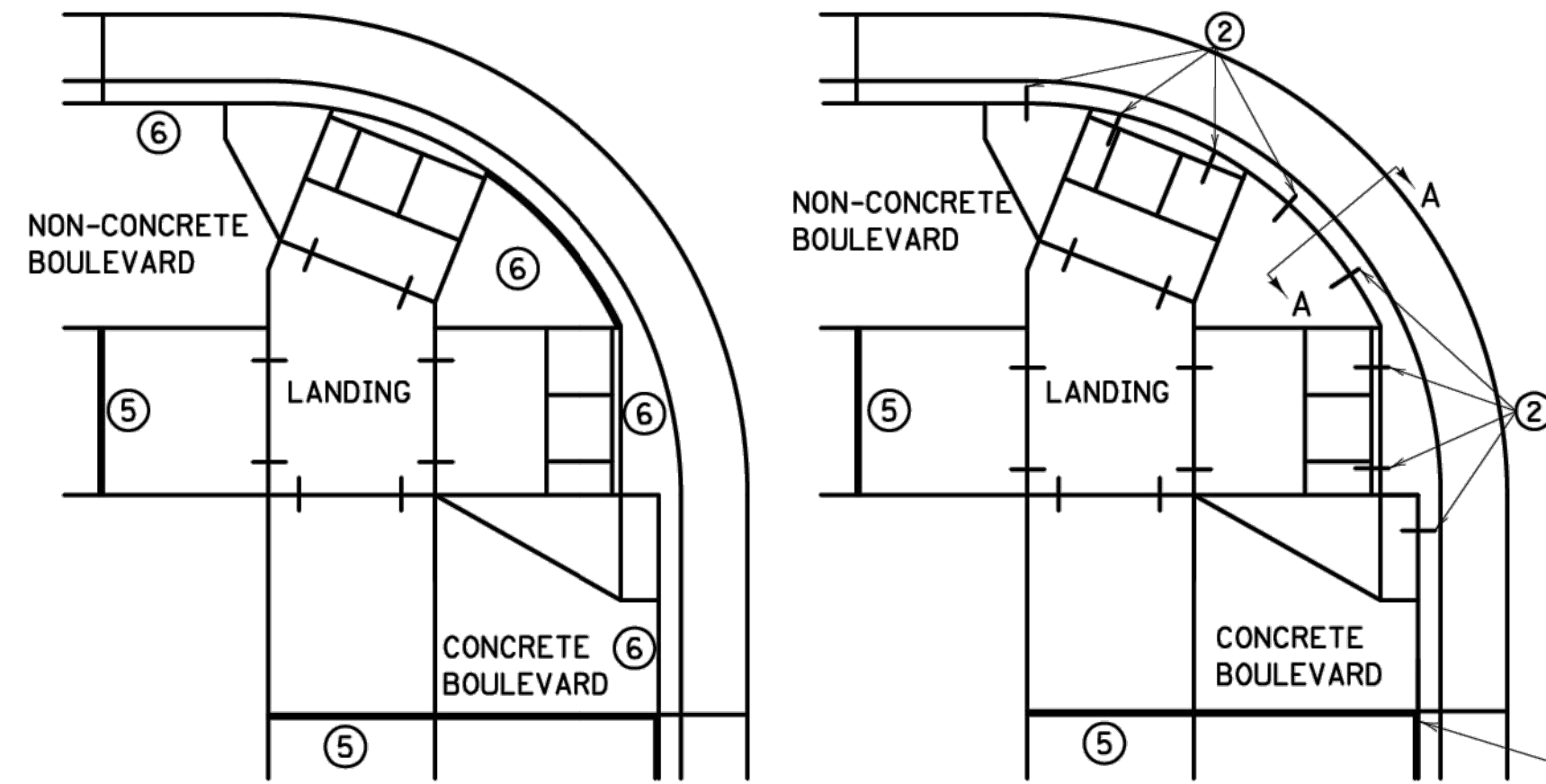
FILE NO.
2026-02

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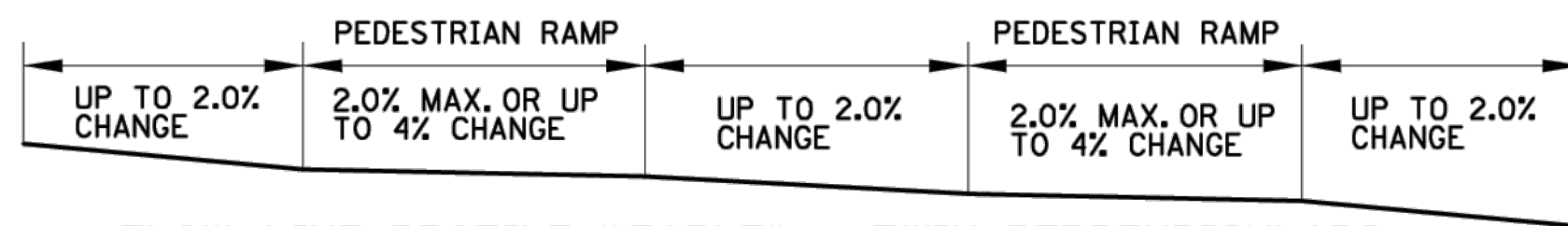


CURB LINE AND ROAD CROSSING ADJUSTMENTS

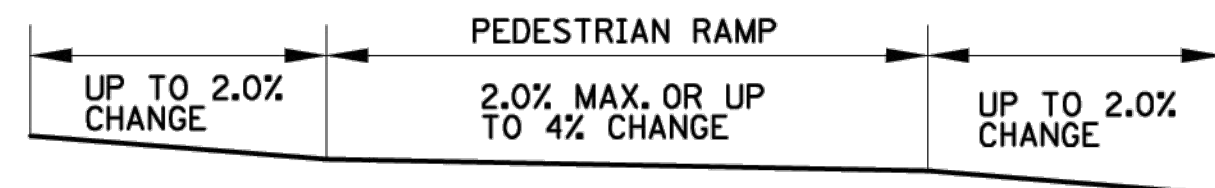


EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS

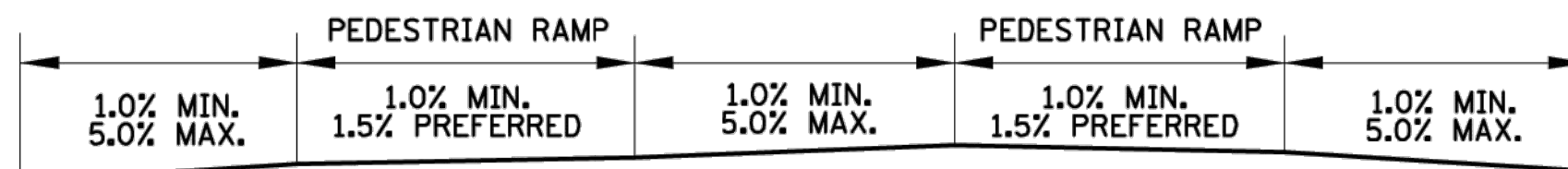
CURB LINE REINFORCEMENT ④ PLACEMENT ON BITUMINOUS ROADWAYS



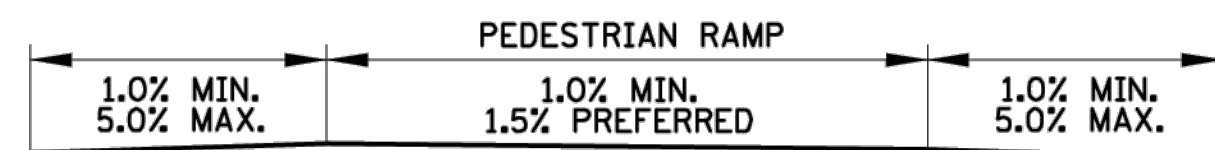
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



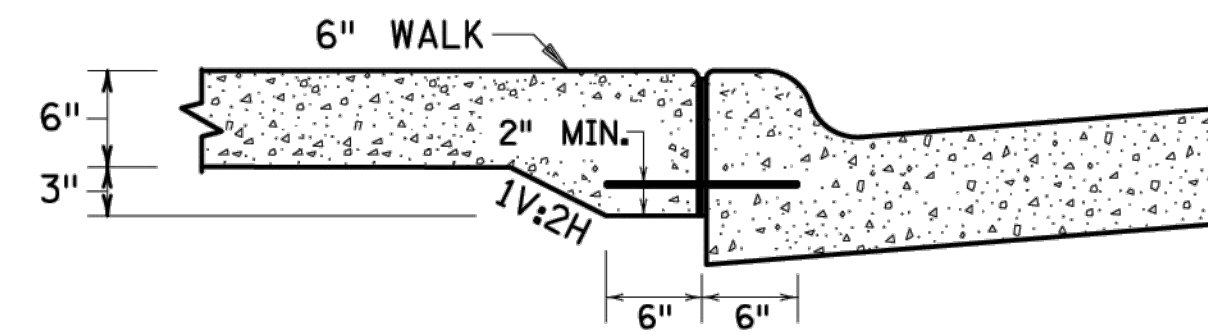
FLOW LINE PROFILE "TABLE" - FAN



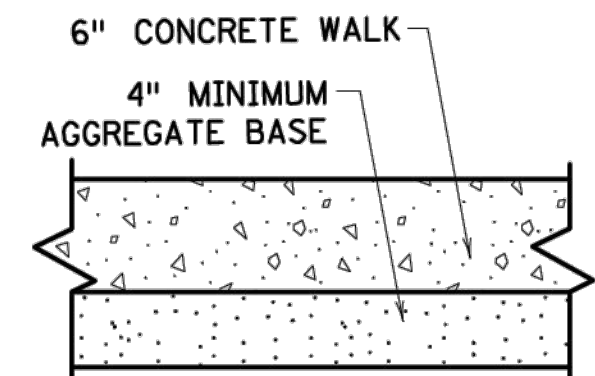
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



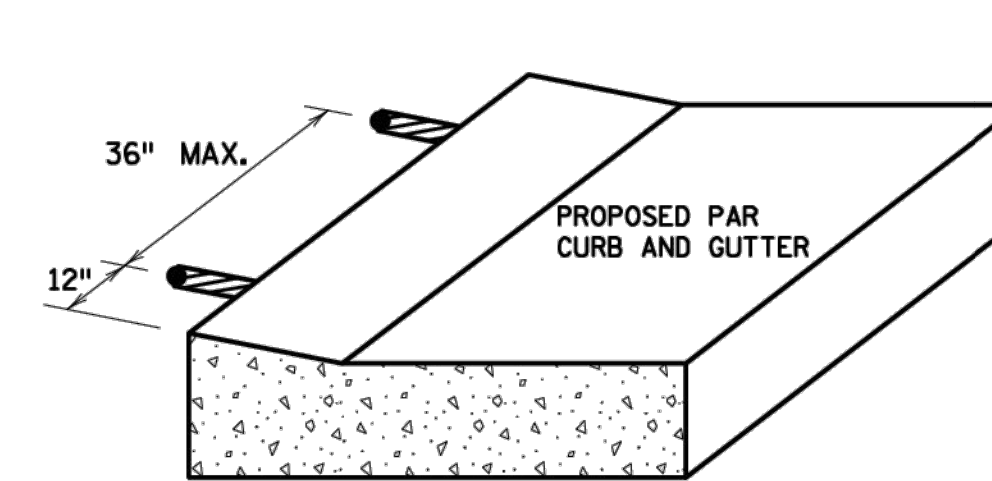
FLOW LINE PROFILE RAISE - FAN



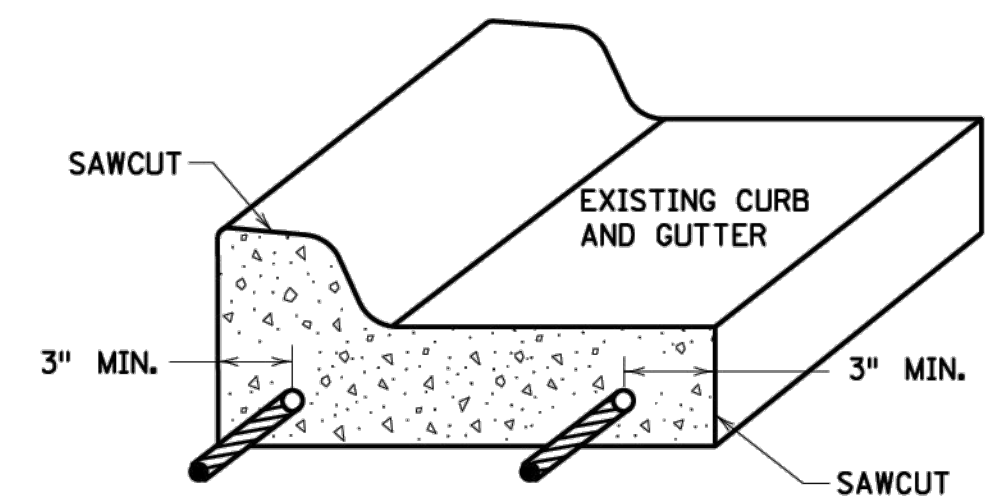
SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES



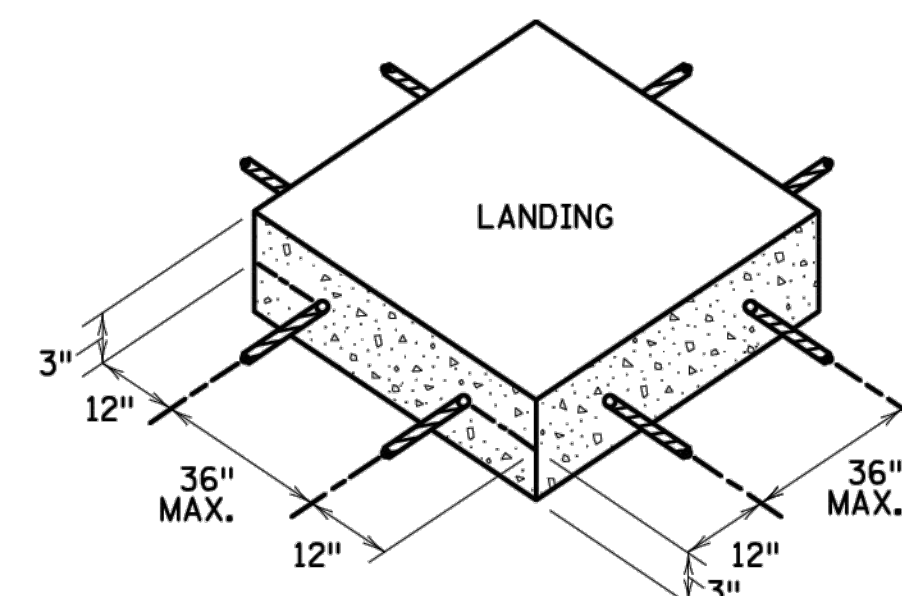
TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER



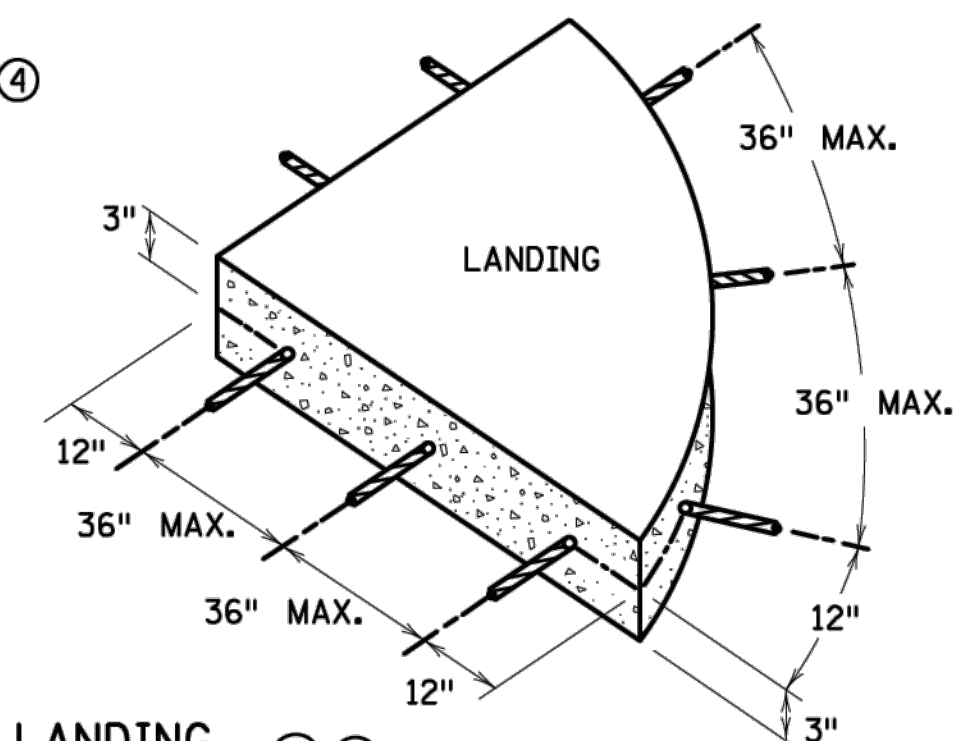
CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER REINFORCEMENT ③



SEPARATE LANDING POUR REINFORCEMENT ①②



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
THOMAS STYBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO.

(TH)

SHEET NO. OF

SHEETS



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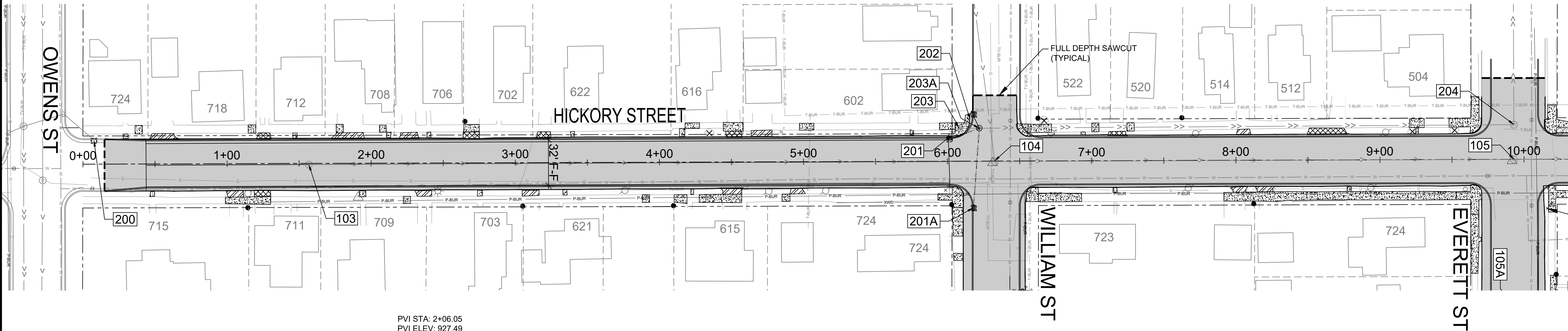
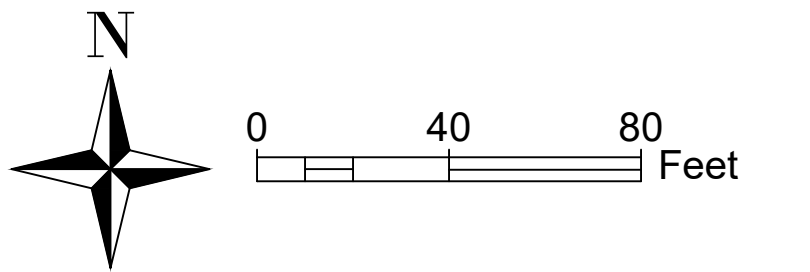
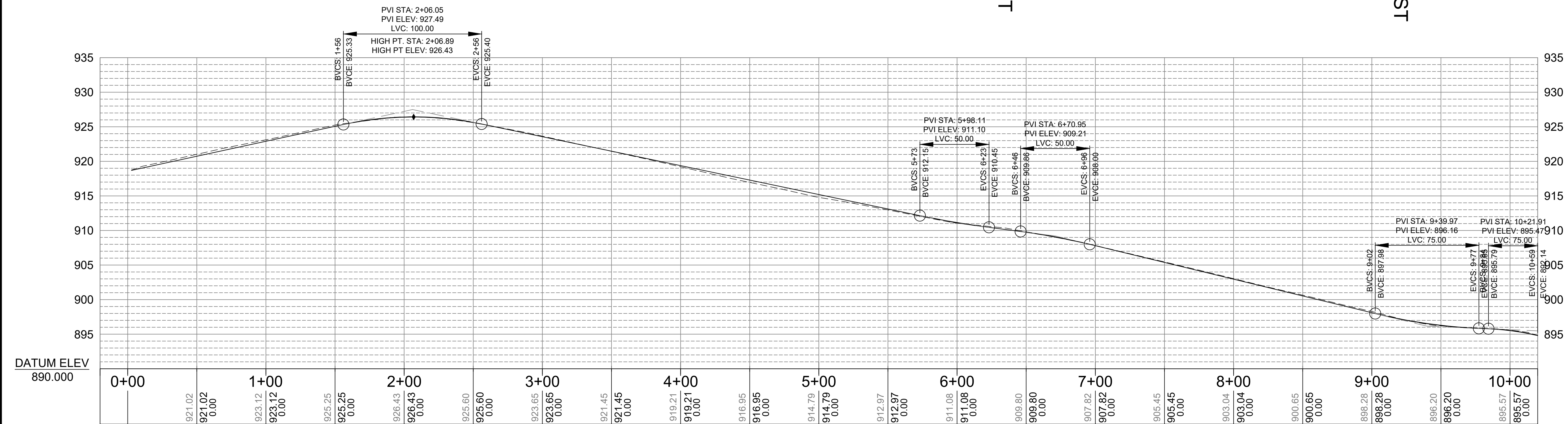
MNDOT
DETAILS 6

2026 STREET
IMPROVEMENT

FILE NO.
2026-02

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HICKORY STREET



GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.

LEGEND

	RECLAIM BITUMINOUS AND RECONSTRUCT STREET		CB INLET PROTECTION
	MILL AND OVERLAY BITUMINOUS STREET		REMOVE BITUMINOUS DRIVEWAY & REPLACE W/ CONCRETE PAVEMENT
	GRADE AND INSTALL NEW CONCRETE SIDEWALK		REMOVE EXISTING CURB & REPLACE WITH CONCRETE CURB AND GUTTER
	REMOVE & REPLACE CONCRETE PAVEMENT		UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)

EXISTING	PROPOSED	EXISTING	PROPOSED
SANITARY MANHOLE	SANITARY MANHOLE	HYDRANT	HYDRANT
STORM MANHOLE	STORM MANHOLE	CURB STOP	CURB STOP
CATCH BASIN	CATCH BASIN	SIGN & POST	SIGN & POST
SANITARY SEWER	SANITARY SEWER	POWER POLE	POWER POLE
STORM SEWER	STORM SEWER	DRIVEWAY EDGE	DRIVEWAY EDGE
WATERMAIN	WATERMAIN	RIGHT-OF-WAY	RIGHT-OF-WAY
CURB & GUTTER	CURB & GUTTER	PARCEL LINE	PARCEL LINE
GATE VALVE	GATE VALVE		

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

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Reabar Abdullah

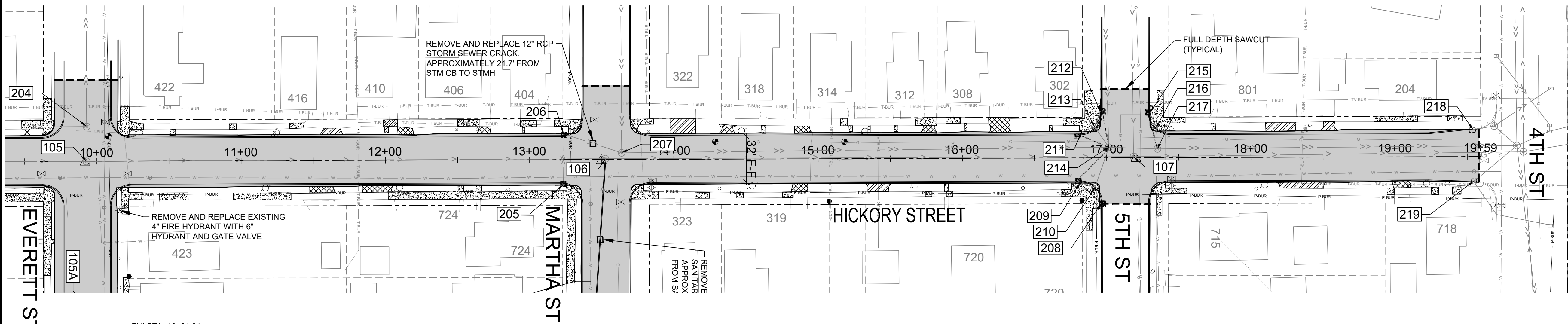
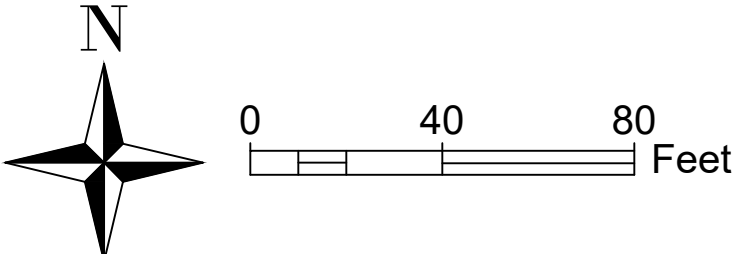
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HICKORY
STA. 0+00 - 10+00

2026 STREET IMPROVEMENT	FILE NO. 2026-02
RECONSTRUCT	

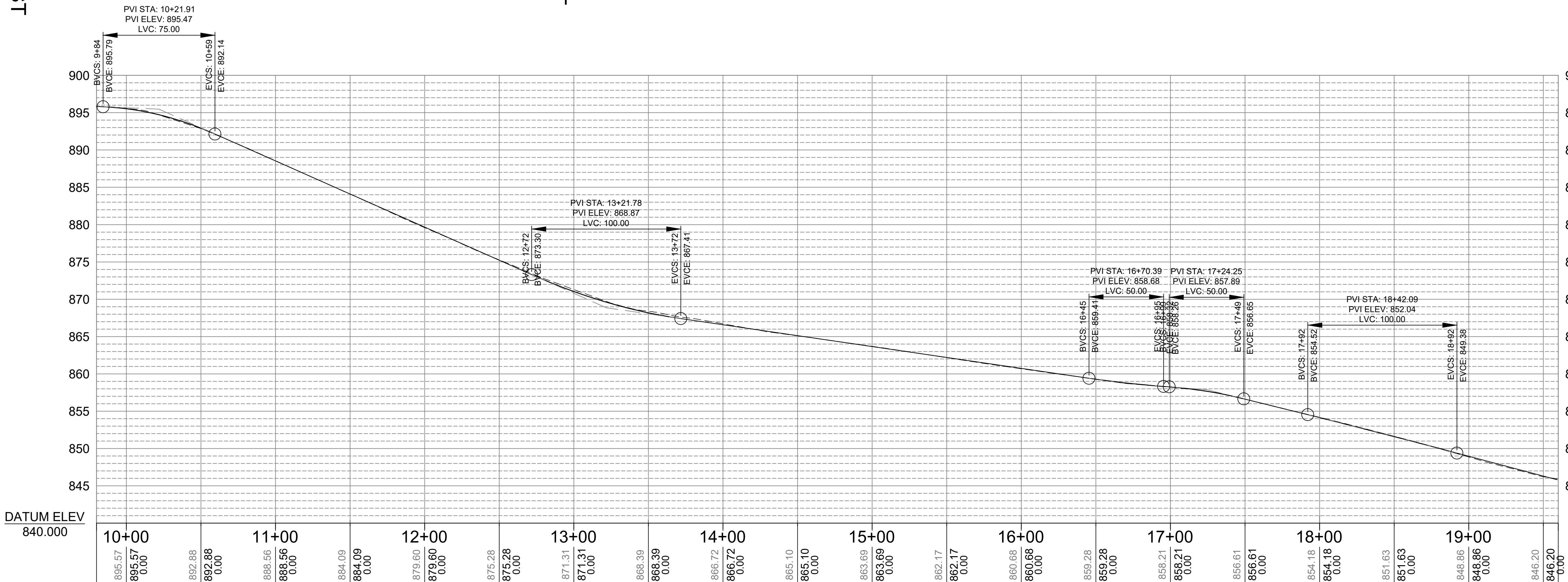
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HICKORY STREET



LEGEND

- RECLAIM BITUMINOUS AND RECONSTRUCT STREET
- MILL AND OVERLAY BITUMINOUS STREET
- GRADE AND INSTALL NEW CONCRETE SIDEWALK
- REMOVE & REPLACE CONCRETE PAVEMENT
- REMOVE BITUMINOUS DRIVEWAY & REPLACE W/ CONCRETE PAVEMENT
- CB INLET PROTECTION
- REMOVE EXISTING CURB & REPLACE WITH CONCRETE CURB AND GUTTER
- UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)



GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.

- | EXISTING | PROPOSED |
|------------------|------------------|
| SANITARY MANHOLE | SANITARY MANHOLE |
| STORM MANHOLE | STORM MANHOLE |
| CATCH BASIN | CATCH BASIN |
| SANITARY SEWER | SANITARY SEWER |
| STORM SEWER | STORM SEWER |
| WATERMAIN | WATERMAIN |
| CURB & GUTTER | CURB & GUTTER |
| GATE VALVE | GATE VALVE |
| HYDRANT | HYDRANT |
| CURB STOP | CURB STOP |
| SIGN & POST | SIGN & POST |
| POWER POLE | POWER POLE |
| DRIVEWAY EDGE | DRIVEWAY EDGE |
| RIGHT-OF-WAY | RIGHT-OF-WAY |
| PARCEL LINE | PARCEL LINE |

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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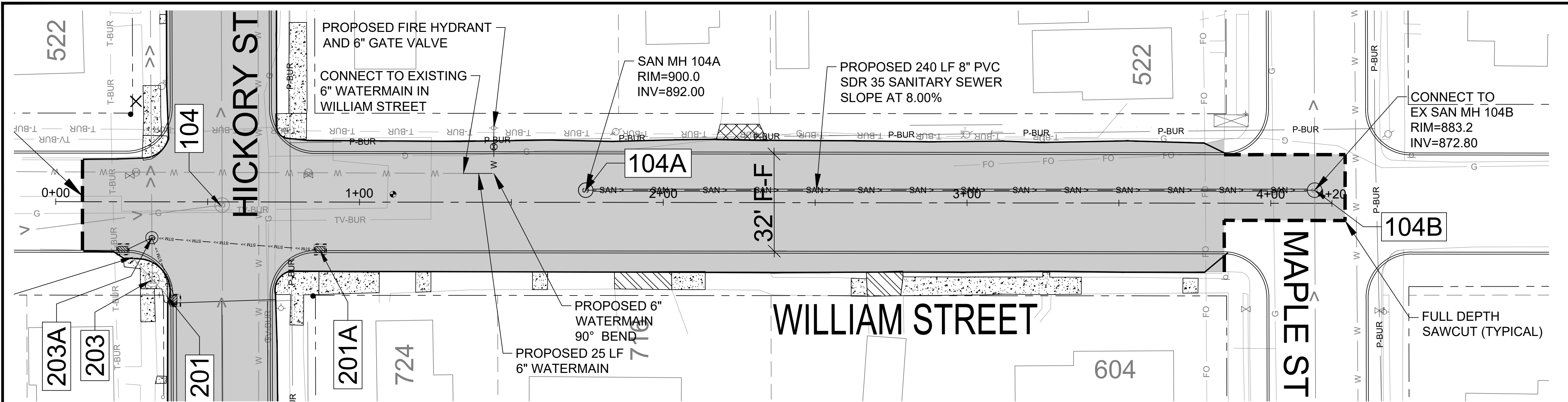
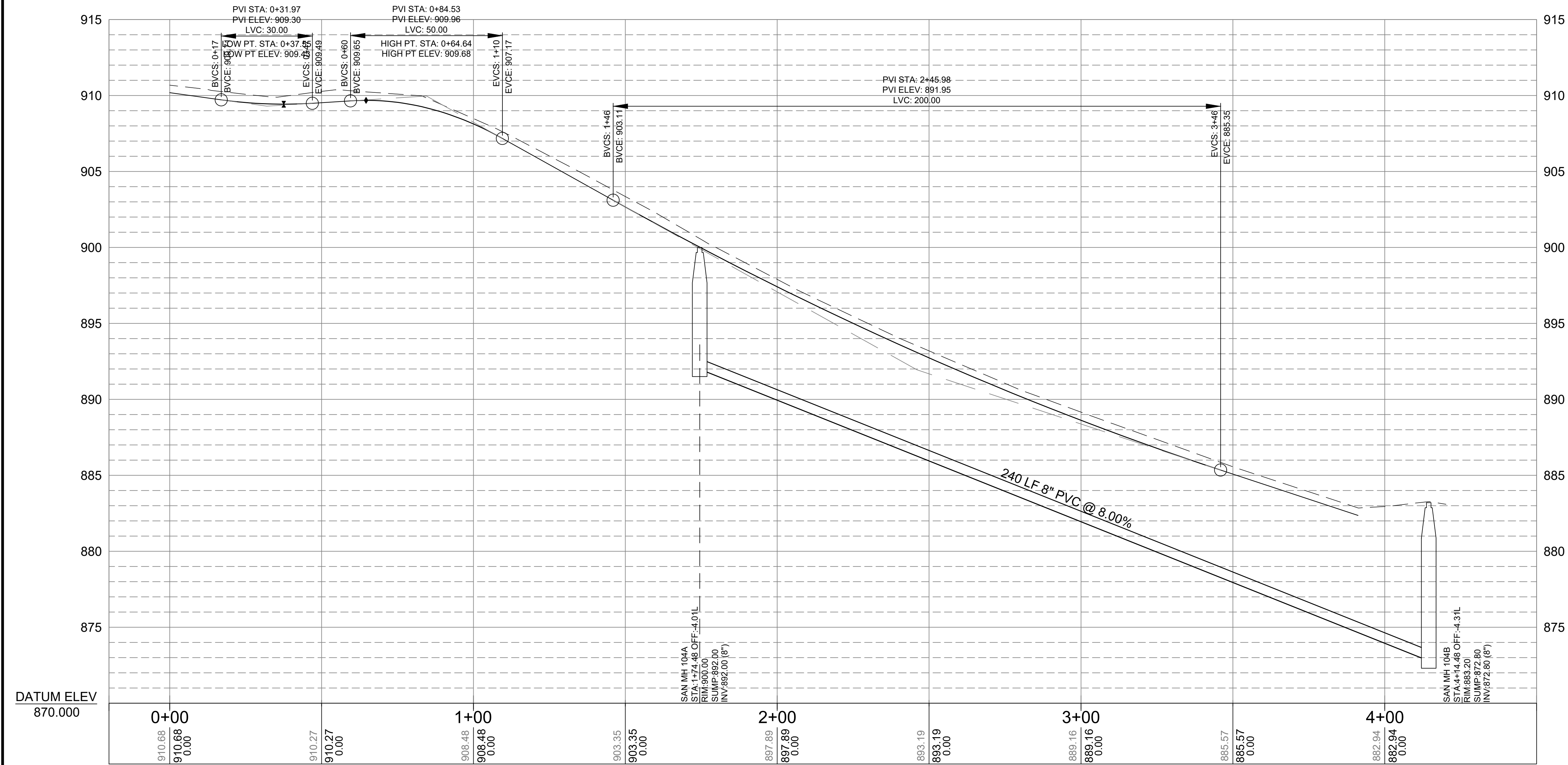
Date: 03/06/2026 Reg. No. 42761

HICKORY
STA. 10+00 - 19+59

2026 STREET
IMPROVEMENT
RECONSTRUCT

FILE NO.
2026-02

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- LEGEND**
- RECLAIM BITUMINOUS AND RECONSTRUCT STREET
 - MILL AND OVERLAY BITUMINOUS STREET
 - GRADE AND INSTALL NEW CONCRETE SIDEWALK
 - REMOVE & REPLACE CONCRETE PAVEMENT
 - REMOVE BITUMINOUS DRIVEWAY & REPLACE W/ CONCRETE PAVEMENT
 - CB INLET PROTECTION
 - REMOVE EXISTING CURB & REPLACE WITH CONCRETE CURB AND GUTTER
 - UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)

- EXISTING** **PROPOSED**
- SANITARY MANHOLE
 - STORM MANHOLE
 - CATCH BASIN
 - SANITARY SEWER
 - STORM SEWER
 - WATERMAIN
 - CURB & GUTTER
 - GATE VALVE
 - HYDRANT
 - CURB STOP
 - SIGN & POST
 - POWER POLE
 - DRIVEWAY EDGE
 - RIGHT-OF-WAY
 - PARCEL LINE

- GENERAL NOTES**
- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
 - ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
 - CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.

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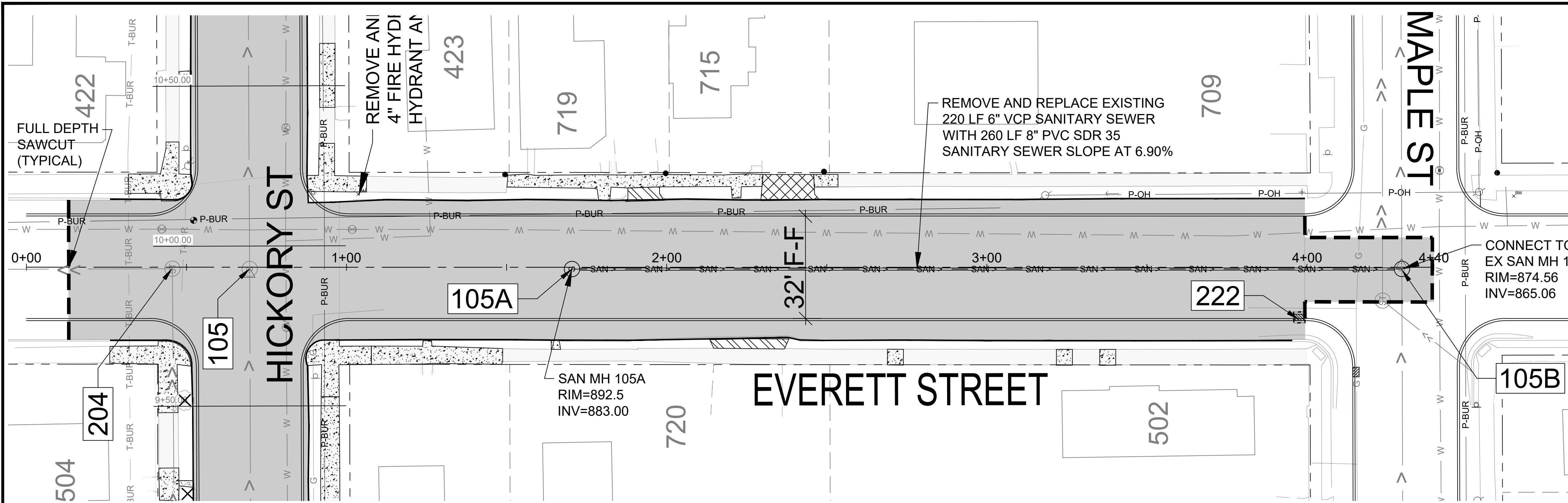
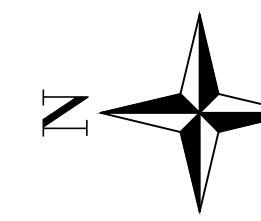
Date: 03/06/2026 Reg. No. 42761

WILLIAM STREET

2026 STREET IMPROVEMENT
RECONSTRUCT

FILE NO.
2026-02

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36



LEGEND

- RECLAIM BITUMINOUS AND RECONSTRUCT STREET
- MILL AND OVERLAY BITUMINOUS STREET
- GRADE AND INSTALL NEW CONCRETE SIDEWALK
- REMOVE & REPLACE CONCRETE PAVEMENT
- REMOVE BITUMINOUS DRIVEWAY & REPLACE W/ CONCRETE PAVEMENT
- CB INLET PROTECTION
- REMOVE EXISTING CURB & REPLACE WITH CONCRETE CURB AND GUTTER
- UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)

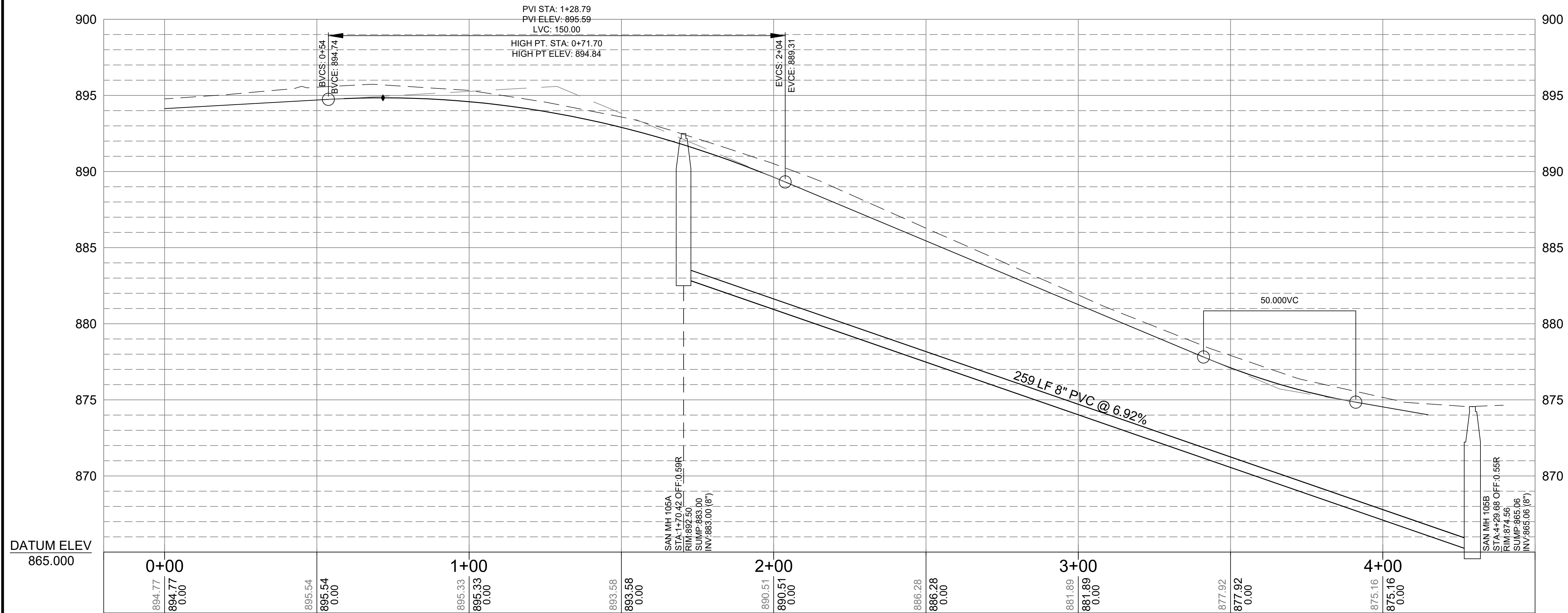
EXISTING

PROPOSED

- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- CURB & GUTTER
- GATE VALVE
- HYDRANT
- CURB STOP
- SIGN & POST
- POWER POLE
- DRIVEWAY EDGE
- RIGHT-OF-WAY
- PARCEL LINE

GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4\"/>



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Reabar Abdullah

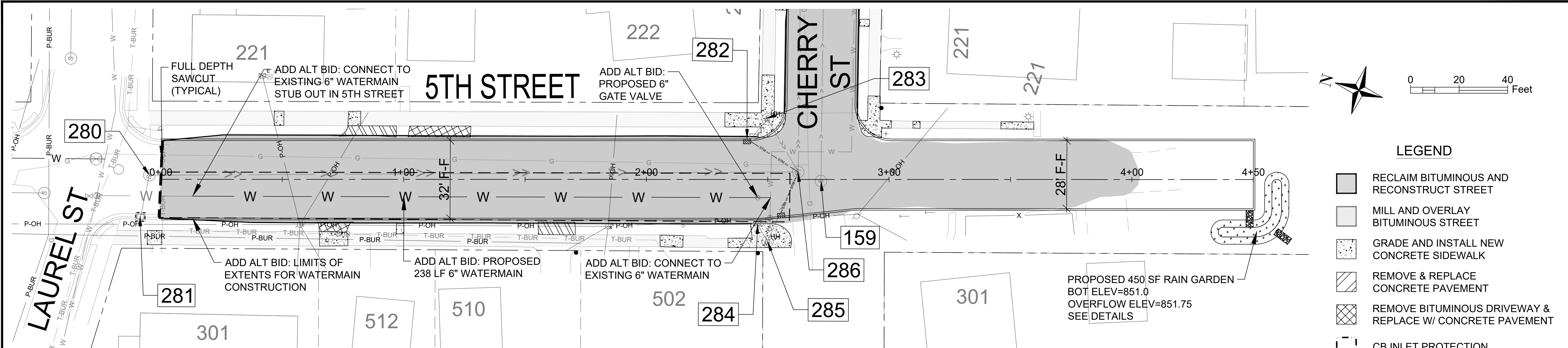
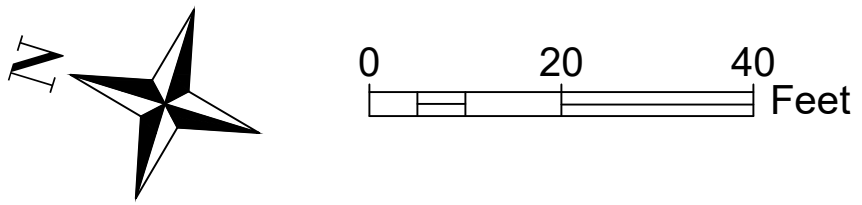
Date: 03/06/2026 Reg. No. 42761

EVERETT
STREET

2026 STREET
IMPROVEMENT
RECONSTRUCT

FILE NO.
2026-02

22
36



LEGEND

- RECLAIM BITUMINOUS AND RECONSTRUCT STREET
- MILL AND OVERLAY BITUMINOUS STREET
- GRADE AND INSTALL NEW CONCRETE SIDEWALK
- REMOVE & REPLACE CONCRETE PAVEMENT
- REMOVE BITUMINOUS DRIVEWAY & REPLACE W/ CONCRETE PAVEMENT
- CB INLET PROTECTION
- REMOVE EXISTING CURB & REPLACE WITH CONCRETE CURB AND GUTTER
- UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)

EXISTING PROPOSED

- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- CURB & GUTTER
- GATE VALVE
- HYDRANT
- CURB STOP
- SIGN & POST
- POWER POLE
- DRIVEWAY EDGE
- RIGHT-OF-WAY
- PARCEL LINE

GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.
- EXISTING PAVEMENT TO BE RECLAIMED AND USED FOR BASE MATERIAL.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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Reabar Abdullah

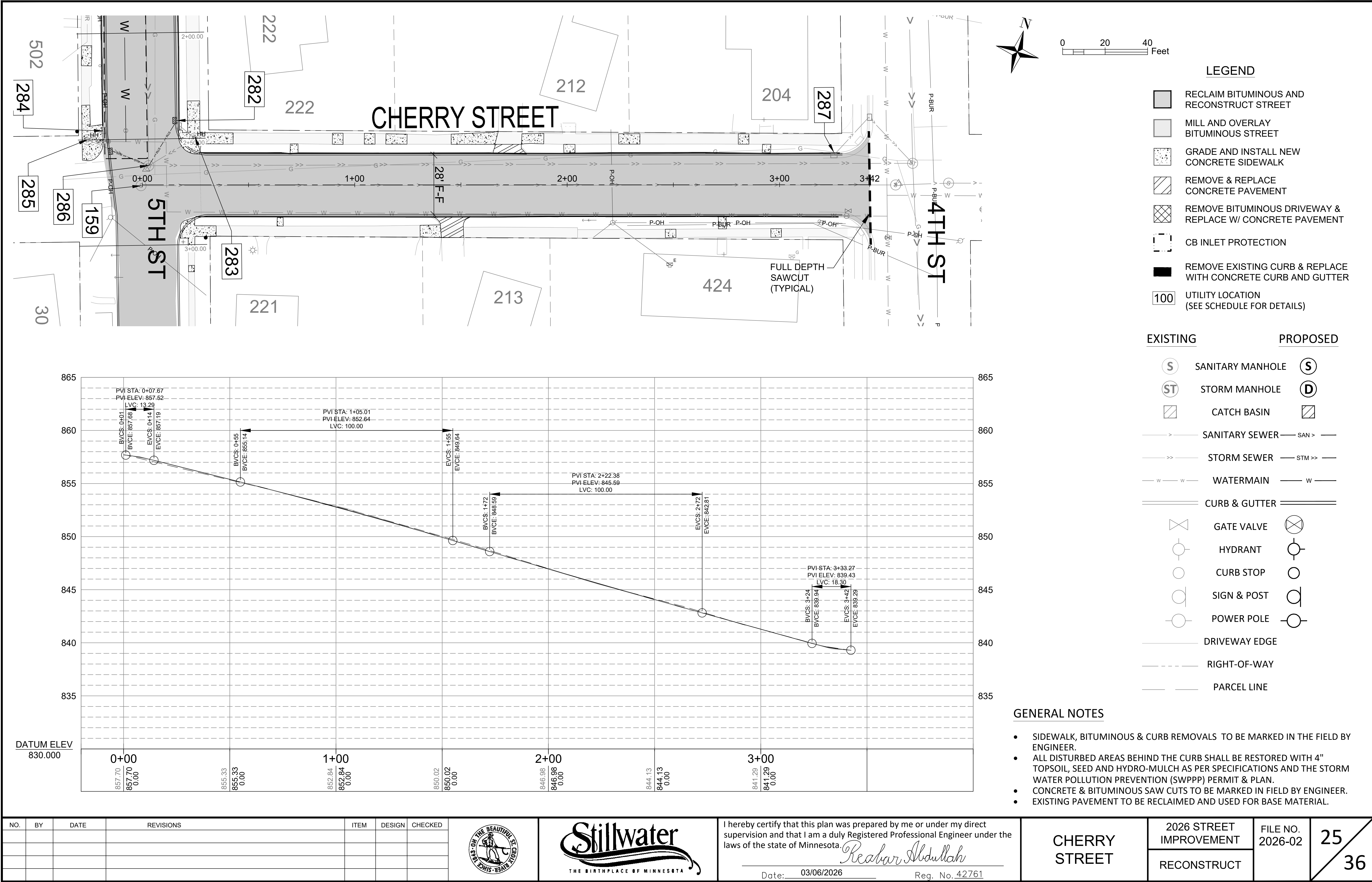
Date: 03/06/2026 Reg. No. 42761

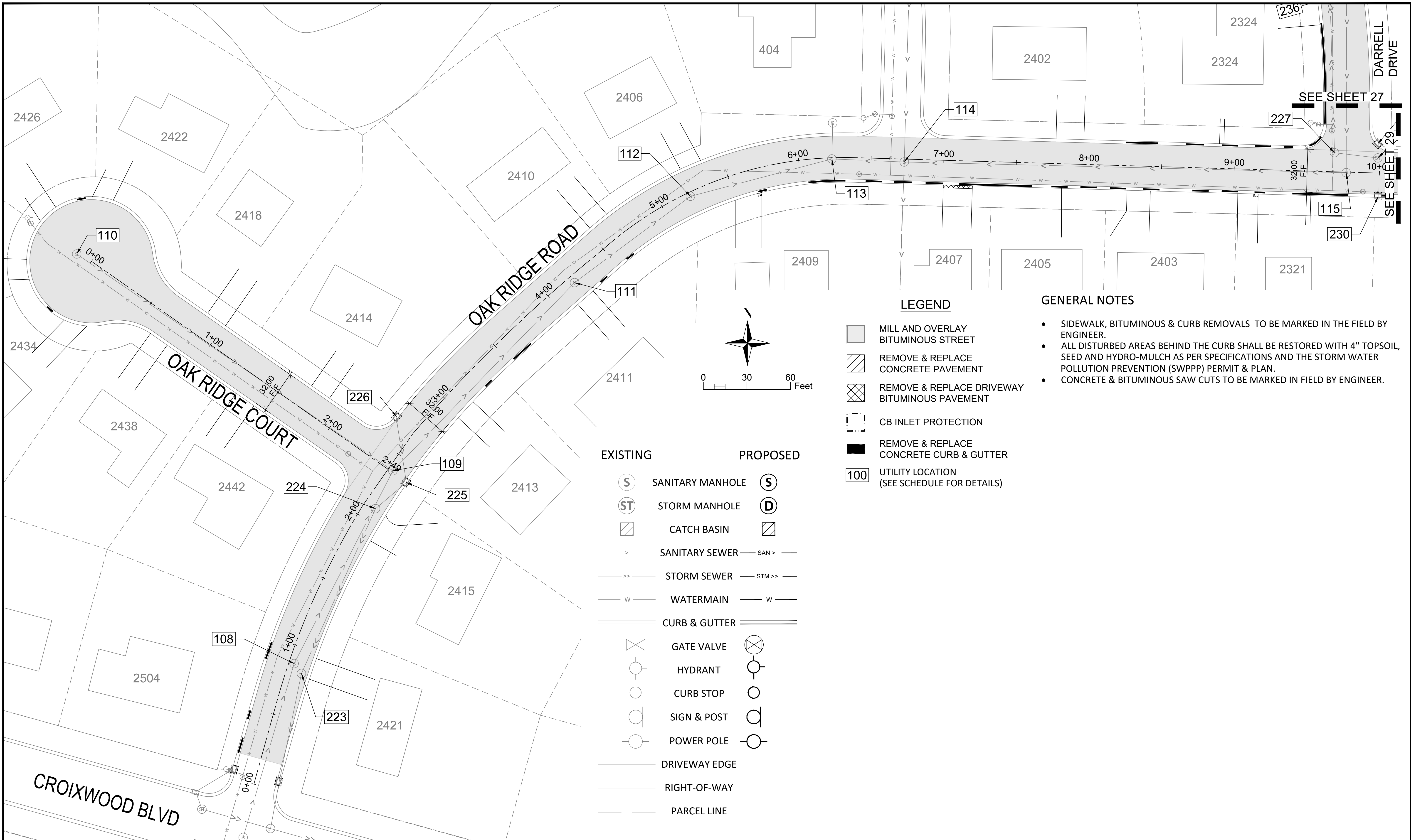
5TH STREET

2026 STREET
IMPROVEMENT
RECONSTRUCT

FILE NO.
2026-02

24
36





EXISTING PROPOSED

- | | | | |
|--|------------------|--|------------------|
| | SANITARY MANHOLE | | SANITARY MANHOLE |
| | STORM MANHOLE | | STORM MANHOLE |
| | CATCH BASIN | | CATCH BASIN |
| | SANITARY SEWER | | SANITARY SEWER |
| | STORM SEWER | | STORM SEWER |
| | WATERMAIN | | WATERMAIN |
| | CURB & GUTTER | | CURB & GUTTER |
| | GATE VALVE | | GATE VALVE |
| | HYDRANT | | HYDRANT |
| | CURB STOP | | CURB STOP |
| | SIGN & POST | | SIGN & POST |
| | POWER POLE | | POWER POLE |
| | DRIVEWAY EDGE | | |
| | RIGHT-OF-WAY | | |
| | PARCEL LINE | | |

LEGEND

- | | |
|--|---|
| | MILL AND OVERLAY BITUMINOUS STREET |
| | REMOVE & REPLACE CONCRETE PAVEMENT |
| | REMOVE & REPLACE DRIVEWAY BITUMINOUS PAVEMENT |
| | CB INLET PROTECTION |
| | REMOVE & REPLACE CONCRETE CURB & GUTTER |
| | UTILITY LOCATION (SEE SCHEDULE FOR DETAILS) |

GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.

NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

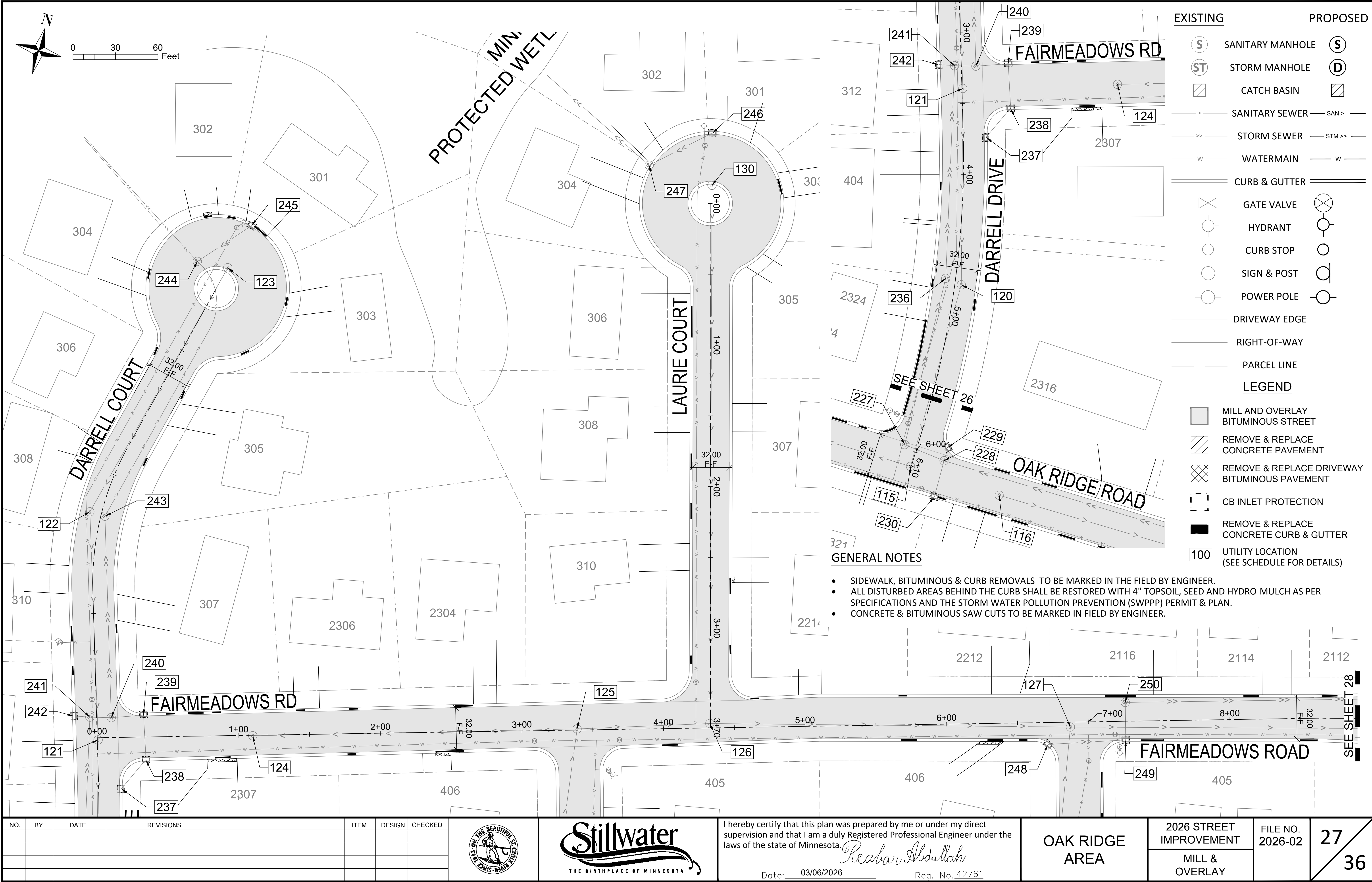


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Reabar Abdullah

Date: 03/06/2026 Reg. No. 42761

OAK RIDGE AREA	2026 STREET IMPROVEMENT	FILE NO. 2026-02	26 36
	MILL & OVERLAY		



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

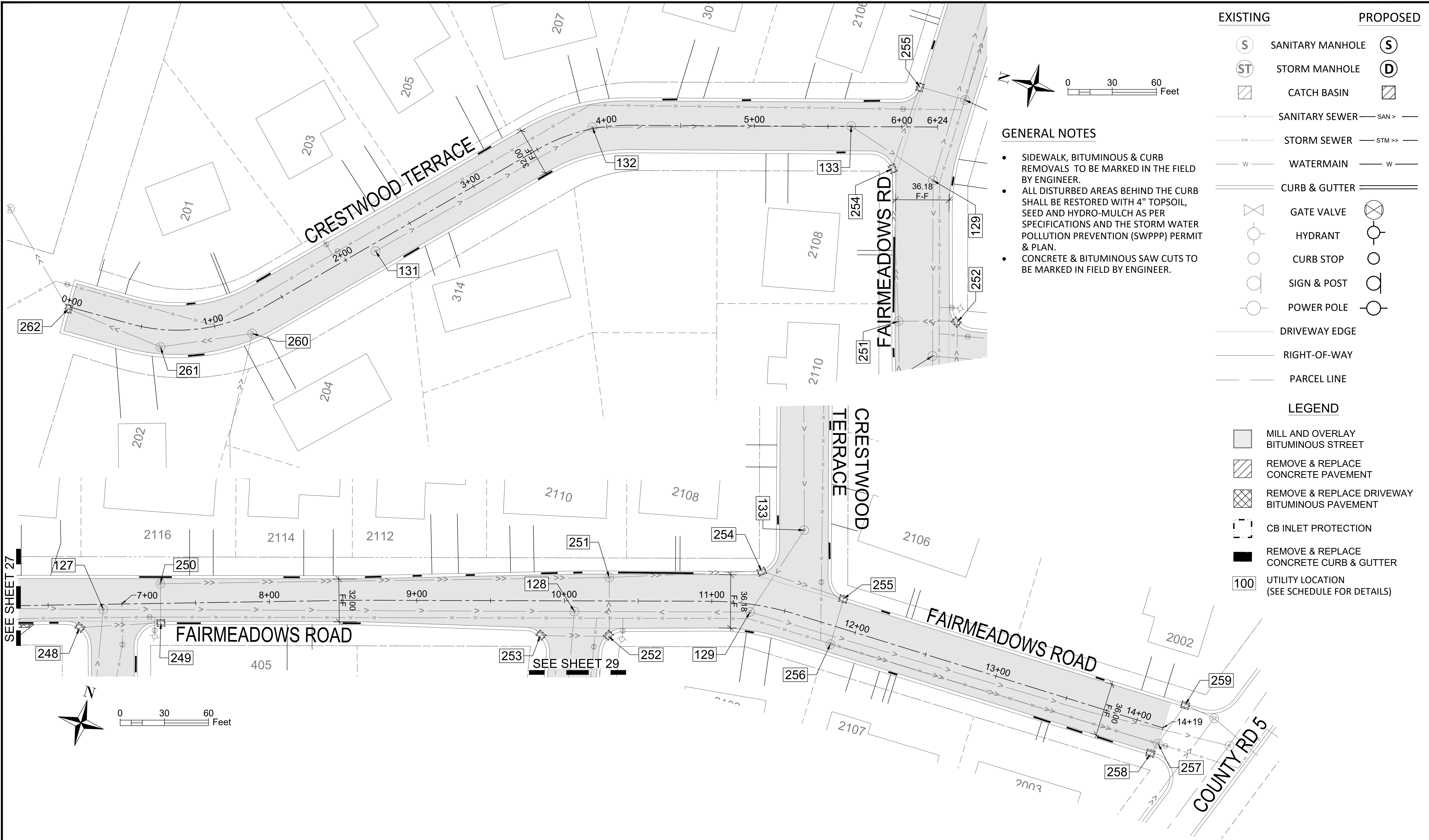


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Reabar Abdullah

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OAK RIDGE AREA	2026 STREET IMPROVEMENT	FILE NO. 2026-02	27 36
	MILL & OVERLAY		



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED

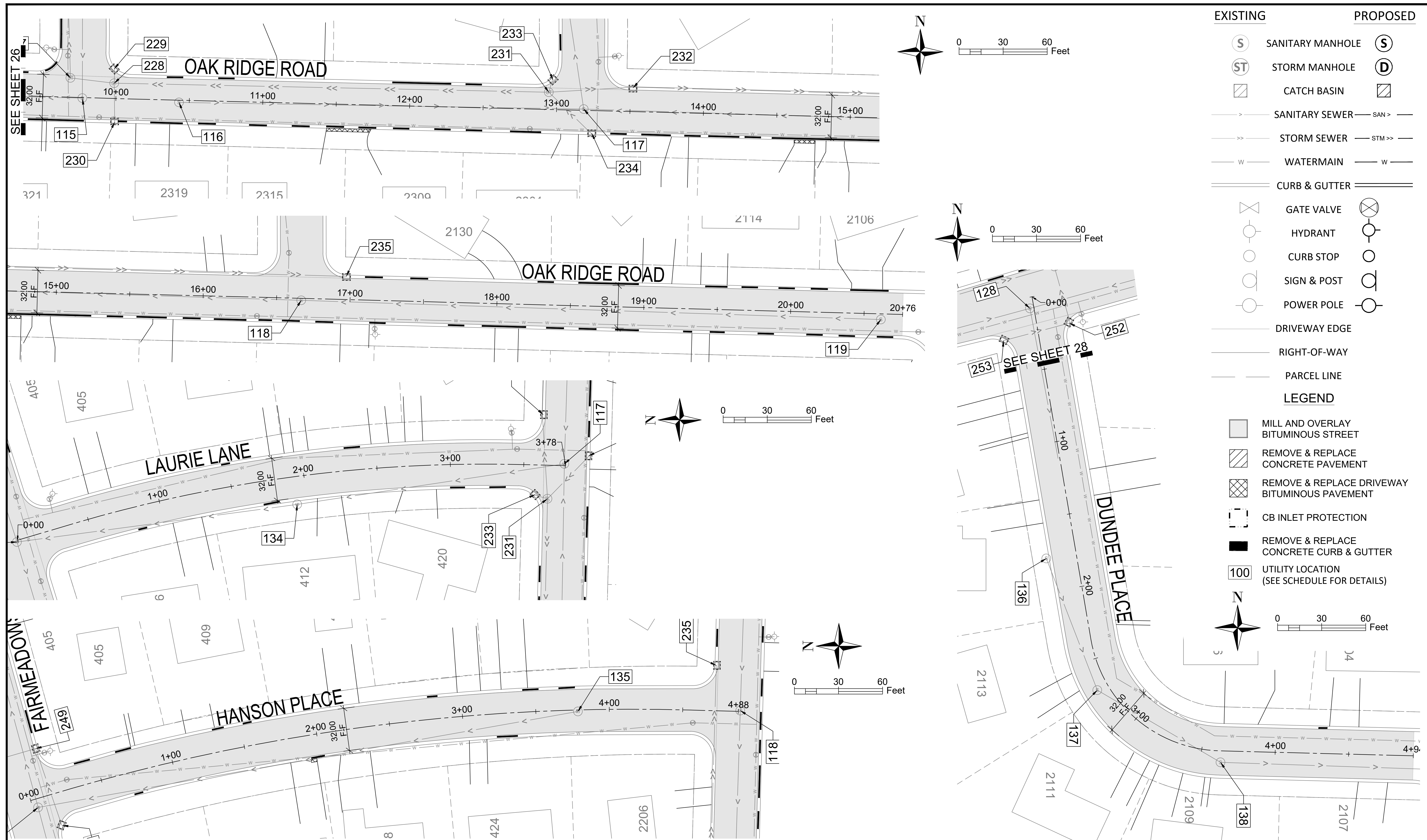


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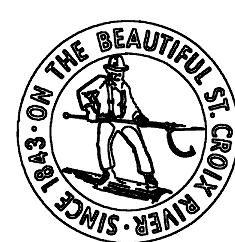
Reabar Abdullah

Date: 03/06/2026 Reg. No. 42761

OAK RIDGE AREA	2026 STREET IMPROVEMENT	FILE NO. 2026-02	28 36
	MILL & OVERLAY		



NO.	BY	DATE	REVISIONS	ITEM	DESIGN	CHECKED



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Date: 03/06/2026 Reg. No. 42761

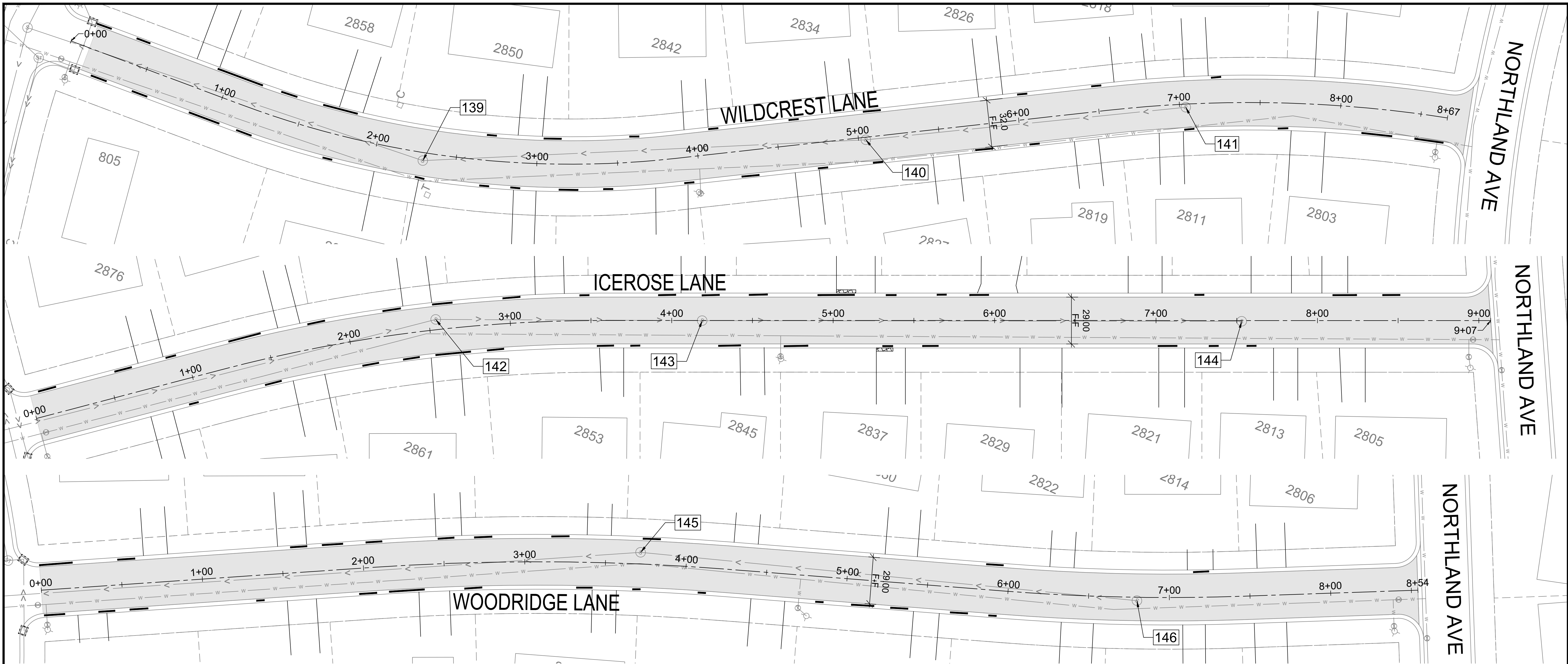
OAK RIDGE
AREA

2026 STREET
IMPROVEMENT

MILL &
OVERLAY

FILE NO.
2026-02

$$\frac{29}{36}$$



LEGEND

- MILL AND OVERLAY BITUMINOUS STREET
- REMOVE & REPLACE CONCRETE PAVEMENT
- REMOVE & REPLACE DRIVEWAY BITUMINOUS PAVEMENT
- CB INLET PROTECTION
- REMOVE & REPLACE CONCRETE CURB & GUTTER
- UTILITY LOCATION (SEE SCHEDULE FOR DETAILS)

EXISTING

- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- CURB & GUTTER

PROPOSED

- SANITARY MANHOLE
- STORM MANHOLE
- CATCH BASIN

EXISTING

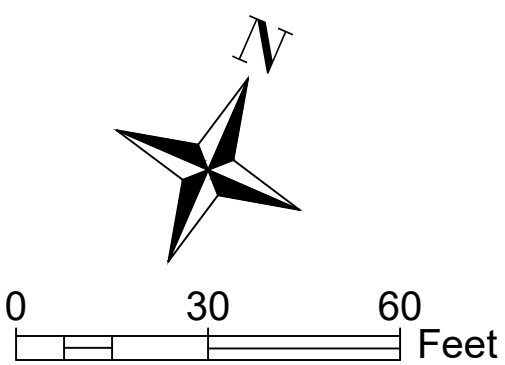
- GATE VALVE
- HYDRANT
- CURB STOP
- SIGN & POST
- POWER POLE
- DRIVEWAY EDGE
- RIGHT-OF-WAY
- PARCEL LINE

PROPOSED

- GATE VALVE
- HYDRANT
- CURB STOP
- SIGN & POST
- POWER POLE

GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
- ALL DISTURBED AREAS BEHIND THE CURB SHALL BE RESTORED WITH 4" TOPSOIL, SEED AND HYDRO-MULCH AS PER SPECIFICATIONS AND THE STORM WATER POLLUTION PREVENTION (SWPPP) PERMIT & PLAN.
- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.



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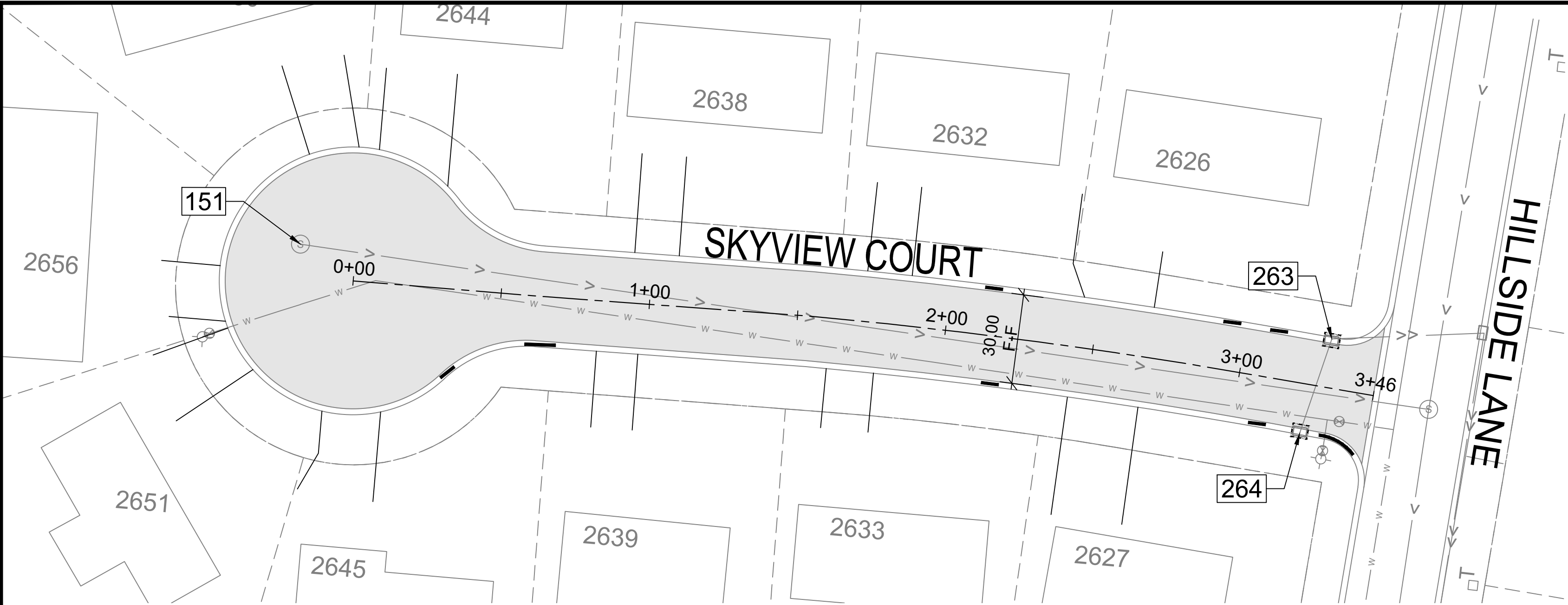
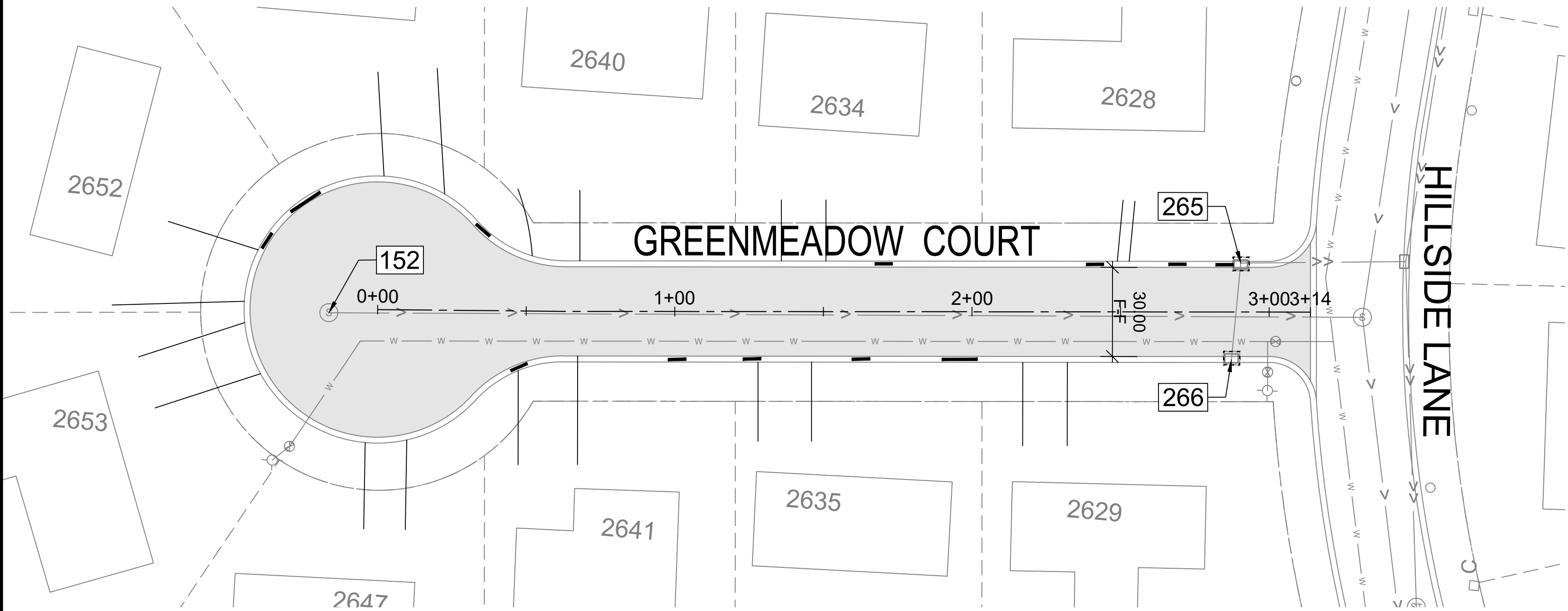
NORTHLAND
AREA

2026 STREET
IMPROVEMENT

MILL &
OVERLAY

FILE NO.
2026-02

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36



GENERAL NOTES

- SIDEWALK, BITUMINOUS & CURB REMOVALS TO BE MARKED IN THE FIELD BY ENGINEER.
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- CONCRETE & BITUMINOUS SAW CUTS TO BE MARKED IN FIELD BY ENGINEER.

LEGEND

MILL AND OVERLAY
BITUMINOUS STREET

REMOVE & REPLACE
CONCRETE PAVEMENT

REMOVE & REPLACE DRIVEWAY
BITUMINOUS PAVEMENT

CB INLET PROTECTION

REMOVE & REPLACE
CONCRETE CURB & GUTTER

100
UTILITY LOCATION
(SEE SCHEDULE FOR DETAILS)

EXISTING

S
SANITARY MANHOLE

ST
STORM MANHOLE

CATCH BASIN

SANITARY SEWER
SAN >

STORM SEWER
STM >>

W
WATERMAIN

W
CURB & GUTTER

GATE VALVE

HYDRANT

CURB STOP

SIGN & POST

POWER POLE

DRIVEWAY EDGE

RIGHT-OF-WAY

PARCEL LINE

PROPOSED

S
SANITARY MANHOLE

D
STORM MANHOLE

CATCH BASIN

SAN >

STM >>

W

W

GATE VALVE

HYDRANT

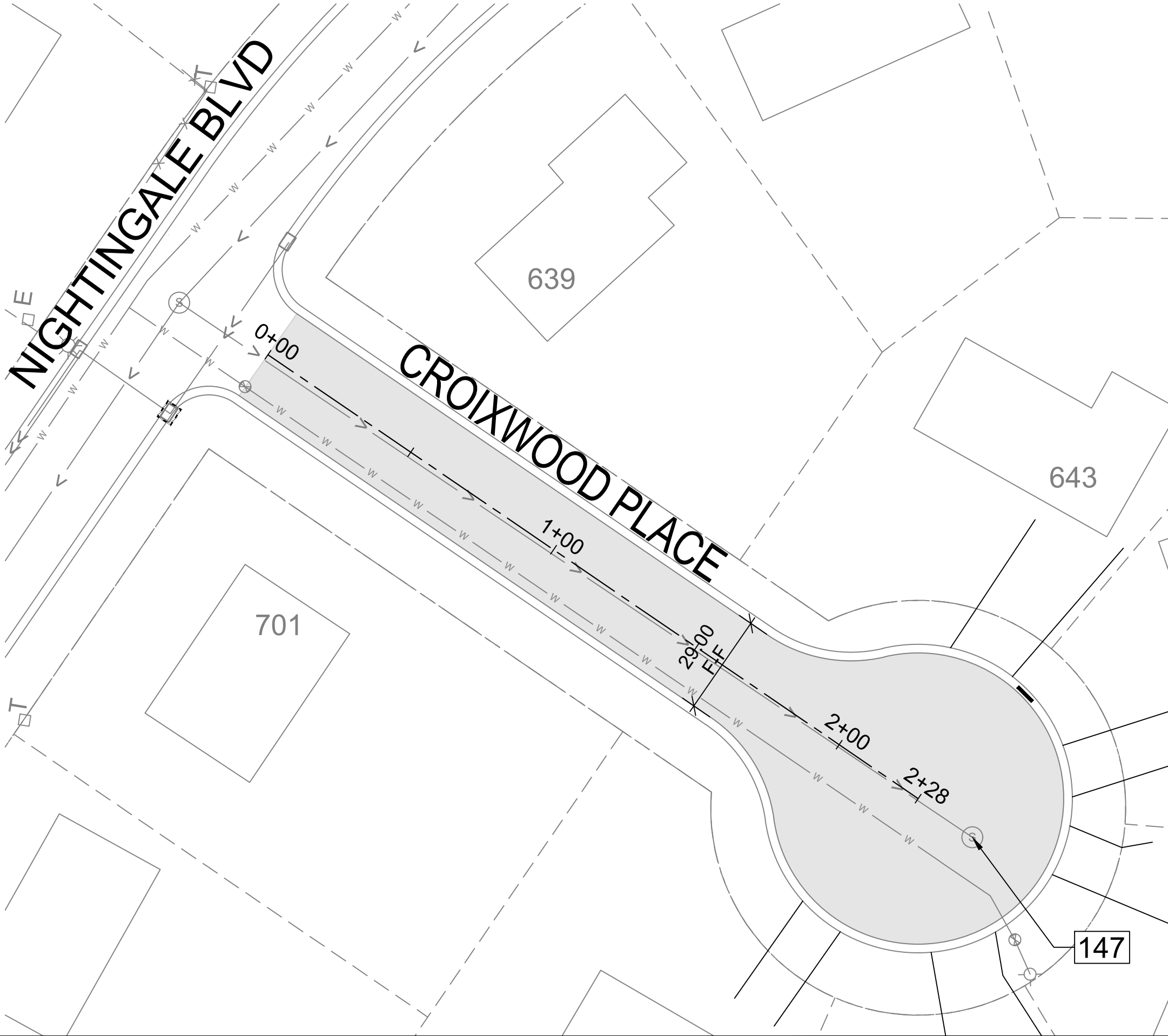
CURB STOP

SIGN & POST

POWER POLE

W

W



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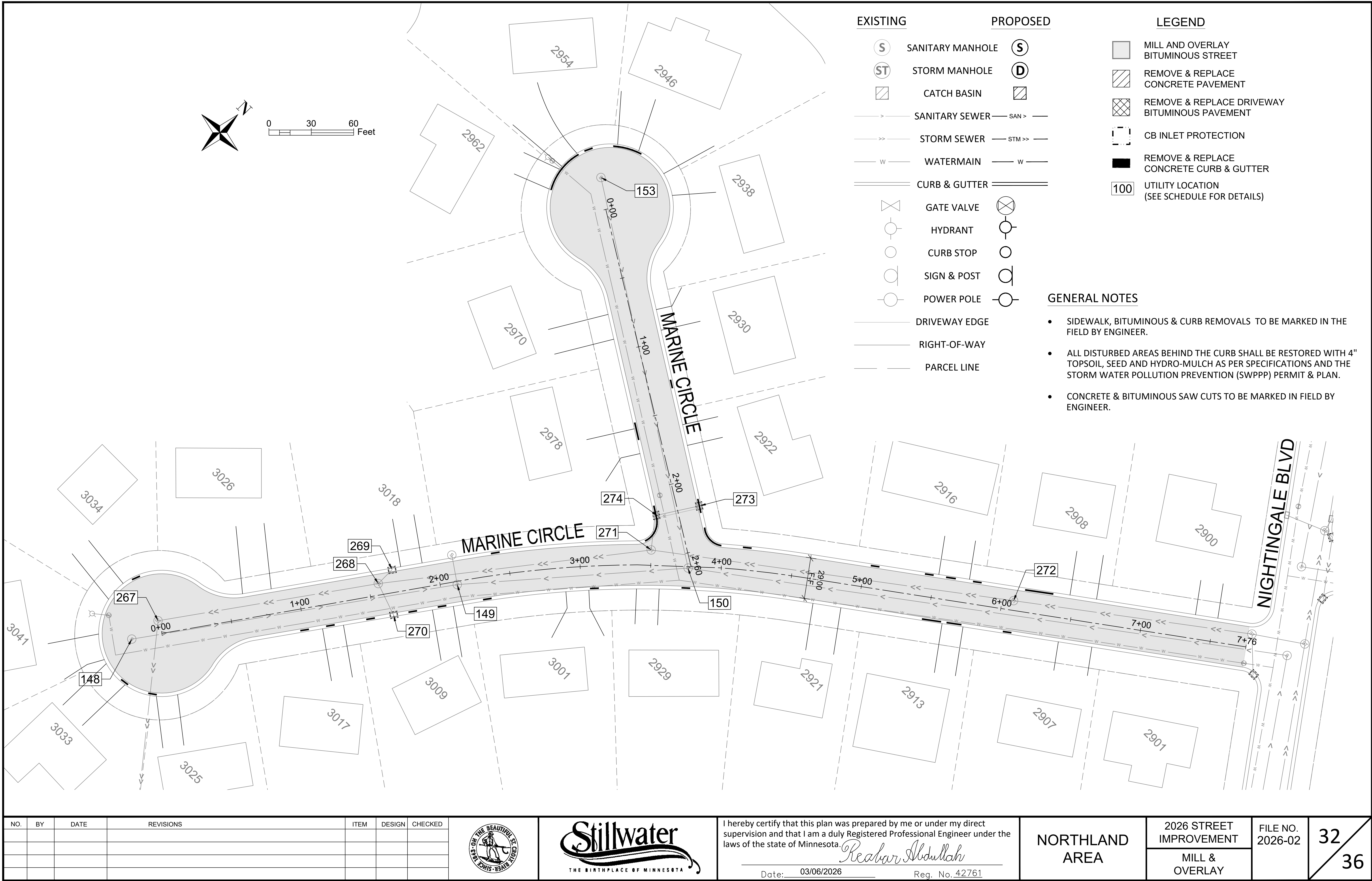
NORTHLAND
AREA

2026 STREET
IMPROVEMENT

MILL &
OVERLAY

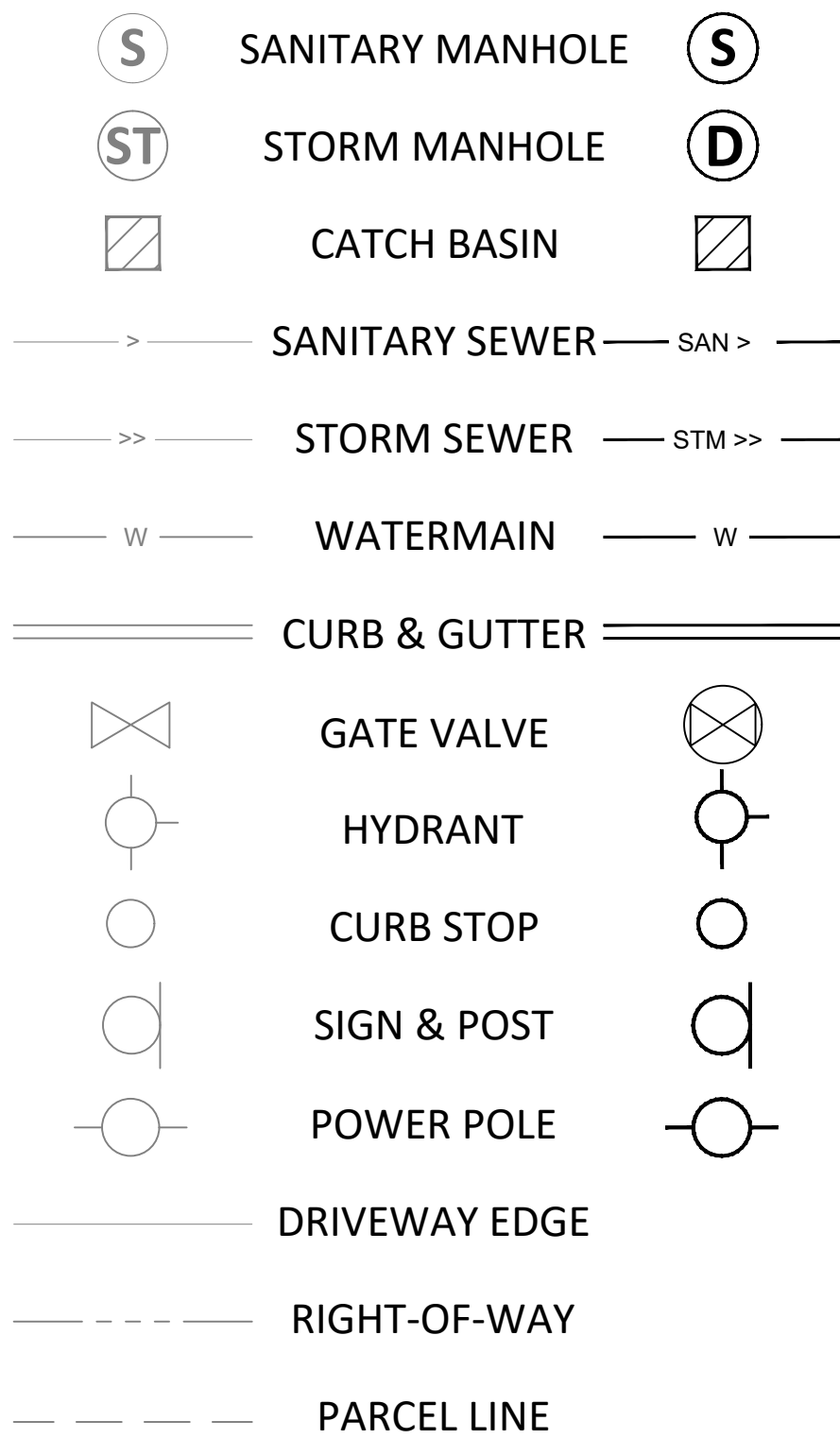
FILE NO.
2026-02

31
36

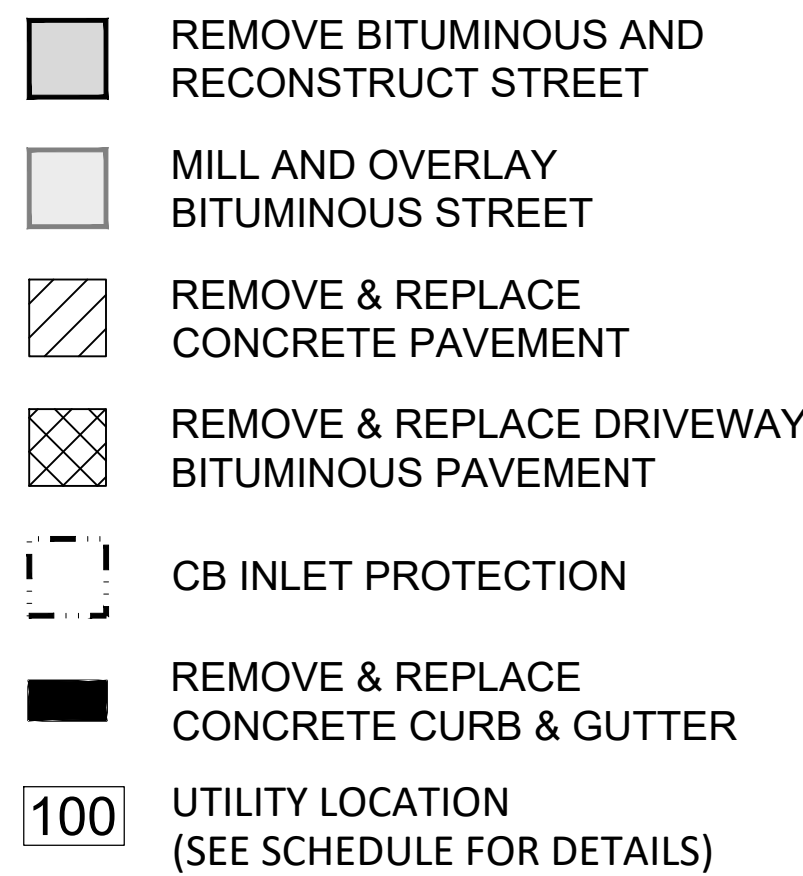


EXISTING

PROPOSED

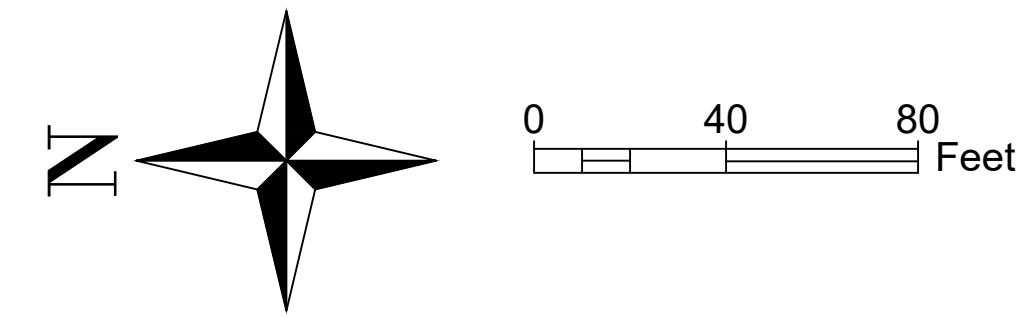
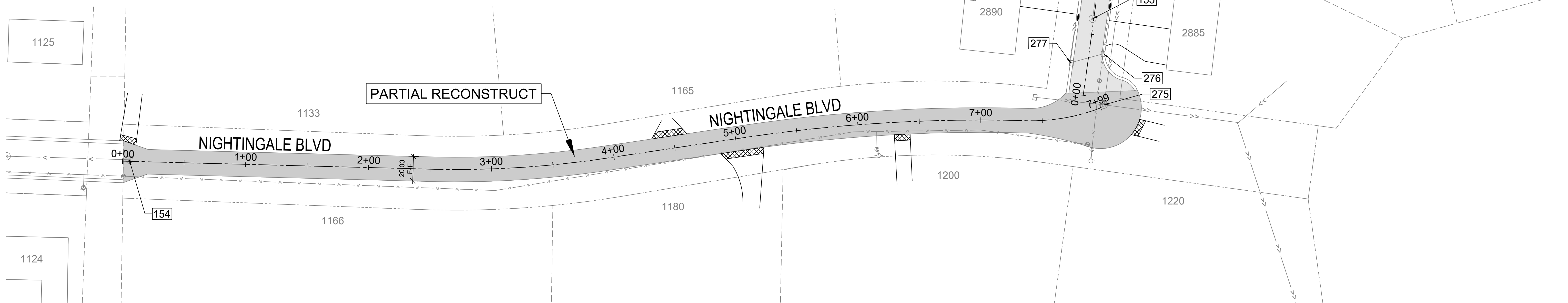


LEGEND

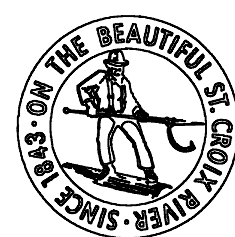


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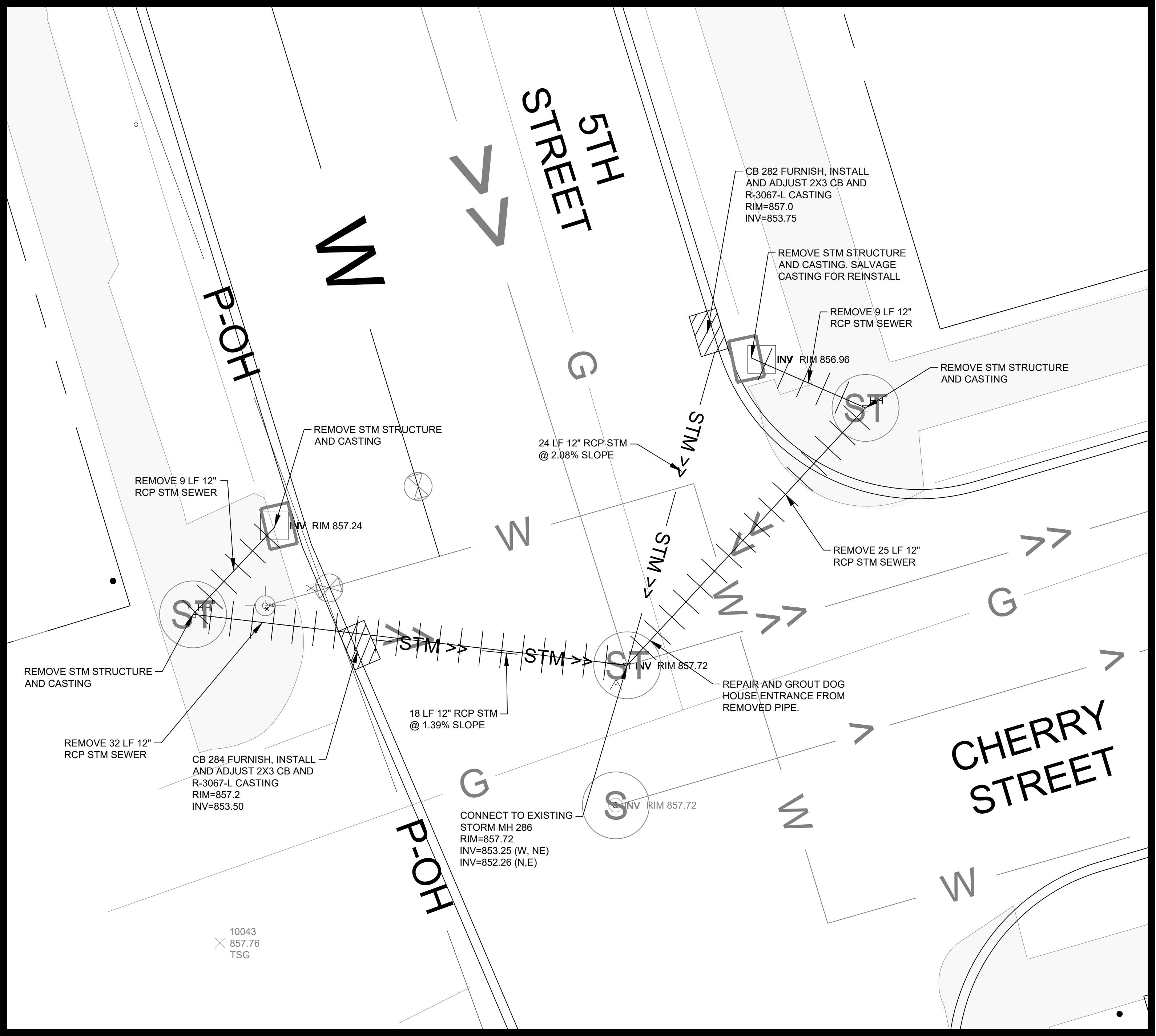
NIGHTINGALE
AREA

2026 STREET
IMPROVEMENT

MILL &
OVERLAY

FILE NO.
2026-02

33
36



5TH & CHERRY
STREET INTERSECTION

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5TH STREET
STORM SEWER
IMPROVEMENTS

2026 STREET
IMPROVEMENT

FILE NO.
2026-02

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36