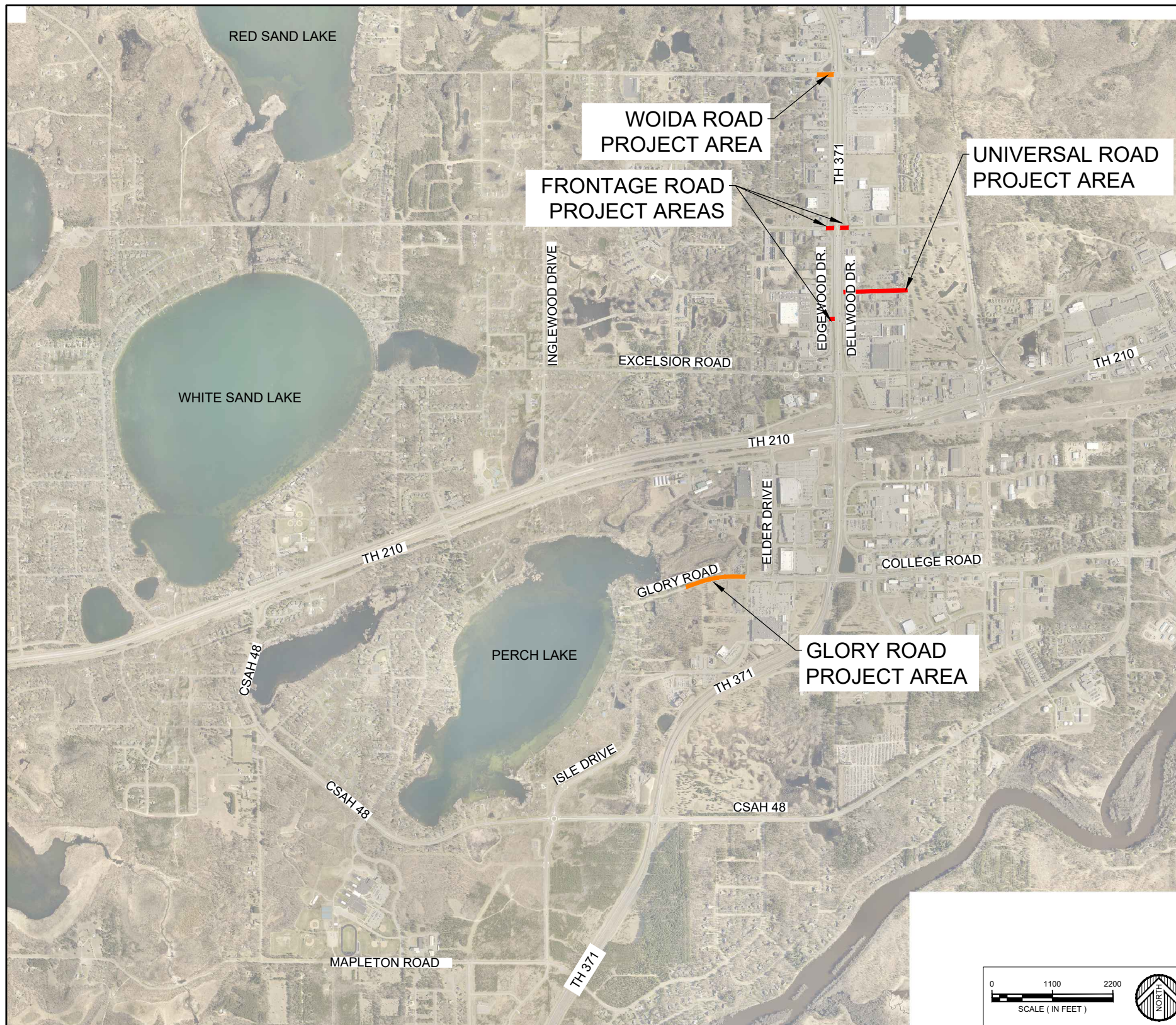
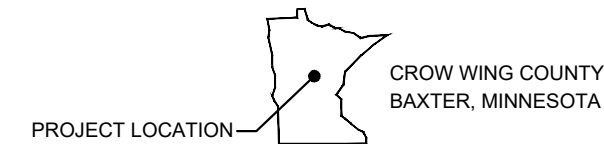


2022 FULL DEPTH RECLAMATION AND RECONSTRUCTION IMPROVEMENTS PROJECT

BAXTER, MINNESOTA
MUNICIPAL PROJECT NO. 4422



GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

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CITY OFFICIALS

MAYOR: DARREL OLSON

CITY COUNCIL: MARK CROSS
CONNIE LYSCIO
ZACH TABATT
JOHN WARD

UTILITIES COMMISSION: ROCK YLINIEMI - CHAIR
JACK CHRISTOFFERSON
DOUGLAS STENBERG
JOHN BRENNY

CITY ADMINISTRATOR: BRADLEY CHAPULIS

PUBLIC WORKS DIRECTOR / CITY ENGINEER: TREVOR WALTER

APPROVALS

RECOMMENDED FOR APPROVAL _____ CITY CONSULTING ENGINEER _____ DATE _____

RECOMMENDED FOR APPROVAL _____ PUBLIC WORKS DIRECTOR / CITY ENGINEER _____ DATE _____

SURVEY MONUMENTS

- BENCH MARK
- FOUND CIM
- FOUND CPNT.
- FOUND JLM
- FOUND LATH
- FOUND PIPE
- FOUND READING
- STAKED CIM
- STAKED CPNT.
- STAKED JLM
- STAKED PIPE

EXISTING TOPO SYMBOLS

- AC UNIT
- FENCE POST
- FLAG POLE
- GUARD POST
- GUY ANCHOR
- GUY POLE
- HANDICAP SYMBOL
- MAILBOX
- SHRUB
- SIGN DOUBLE POST
- SIGN SINGLE POST
- TREE CONIFER
- TREE DECIDUOUS
- TREE STUMP
- TV DISH
- WETLAND SYMBOL
- YARD LIGHT

EXISTING UTILITY MUNICIPAL SYMBOLS

- APRON
- LIFT STATION
- SANITARY CLEANOUT
- SANITARY MANHOLE
- STORM CATCH BASIN
- STORM INLET

EXISTING UTILITY MUNICIPAL SYMBOLS (cont.)

- STORM MANHOLE
- WATER CURB STOP
- WATER HANDHOLE
- WATER HYDRANT
- WATER MANHOLE
- WATER METER
- WATER VALVE
- WATER WELL
- UTILITY** UTILITY SIZE & TYPE

EXISTING UTILITY PRIVATE SYMBOLS

- ELEC GROUND LIGHT
- ELEC HANDHOLE
- ELEC LIGHT POLE
- ELEC MANHOLE
- ELEC METER
- ELEC PEDESTAL
- ELEC POLE
- ELEC SIGNAL
- ELEC TRANSFORMER BOX
- GAS METER
- GAS VALVE
- LP TANK
- TELE HANDHOLE
- TELE MANHOLE
- TELE PEDESTAL
- TELE POLE
- TV HANDHOLE
- TV PEDESTAL

SOIL BORING SYMBOLS

- LASER-INDUCED FLUORESCENCE BORING
- LYSIMETER
- MONITOR WELL
- PERC TEST
- PIEZOMETER
- RECOVERY WELL
- SOIL BORING
- SOIL VAPOR POINT
- VAPOR SURVEY POINT

PROPOSED UTILITY MUNICIPAL SYMBOLS

- APRON PROPOSED
- SANITARY CLEANOUT PROPOSED
- SANITARY LIFT STATION PROPOSED
- SANITARY LIFT STATION VALVE MANHOLE PROPOSED
- SANITARY MANHOLE PROPOSED
- SANITARY PLUG PROPOSED
- STORM CATCH BASIN PROPOSED
- STORM MANHOLE PROPOSED
- WATER 11 1/4° BEND PROPOSED
- WATER 22 1/2° BEND PROPOSED
- WATER 45° BEND PROPOSED
- WATER 90° BEND PROPOSED
- WATER CAP PROPOSED
- WATER CROSS PROPOSED
- WATER CURB STOP PROPOSED
- WATER HYDRANT PROPOSED
- WATER REDUCER PROPOSED
- WATER SLEEVE PROPOSED
- WATER TEE PROPOSED
- WATER VALVE PROPOSED

PROPOSED UTILITY PRIVATE SYMBOLS

- ELEC LIGHT POLE PROPOSED

EROSION CONTROL SYMBOLS

- SURFACE DRAINAGE ARROW
- STORM DRAIN INLET PROTECTION

TRAFFIC CONTROL DEVICES & SYMBOLS

- TRAFFIC CONTROL SIGN (1 POST)
- TRAFFIC CONTROL SIGN (2 POST)
- TYPE III BARRICADE
- DRUM CHANNELIZER
- FLASHING ARROW OR MESSAGE BOARD

EXISTING TOPOGRAPHIC LINES

- CENTER LINE
- EDGE OF WOODS
- FENCE BARB WIRE
- FENCE CHAIN LINK
- FENCE WOOD
- FORCEMAIN
- OVERHEAD CABLE TV
- OVERHEAD ELECTRIC
- OVERHEAD TELE
- RAILROAD
- RETAINING WALL
- SANITARY SEWER
- SANITARY SEWER SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- UNDERGROUND CABLE TV
- UNDERGROUND ELECTRIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND GAS
- UNDERGROUND TELE
- WATERMAIN
- WATERMAIN SERVICE
- WETLAND EDGE

R/W, LOT & EASEMENTS LINES

- BUILDING SETBACK LINE
- LOT LINE PROPOSED
- EASEMENT LINE
- EASEMENT LINE PROPOSED
- LOT LINE
- MNDOT CONTROLLED ACCESS LINE
- RIGHT OF WAY EXISTING
- RIGHT OF WAY PROPOSED

PROPOSED CONSTRUCTION LINES

- FENCE CHAIN LINK PROPOSED
- FENCE WOOD PROPOSED
- FENCE BARB WIRE PROPOSED
- FORCEMAIN PROPOSED
- SANITARY SEWER PROPOSED
- SANITARY SERVICE PROPOSED
- STORM SEWER PROPOSED
- STORM SEWER DRAIN TILE PROPOSED
- WATERMAIN PROPOSED
- WATERMAIN SERVICE PROPOSED

EROSION CONTROL LINES

- BALE CHECK
- BIO ROLL
- SILT FENCE
- SILT FENCE TYPE HEAVY DUTY
- SILT FENCE TYPE MACHINE SLICED
- SILT FENCE TYPE PREASSEMBLED
- FLOTATION SILT CURTAIN

HATCH PATTERN AND SHADING LEGEND

- RANDOM RIPRAP
- SOD
- SEED
- HYDRAULIC STABILIZER
- EROSION CONTROL BLANKET
- TEMP. ROCK CONSTRUCTION ENTRANCE
- BUILDING WALL HATCH
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- EASEMENT PATTERN

DOCUMENTATION SYMBOLS

- SECTION ARROW - SECTION NUMBER TOP; PAGE OF SECTION BOTTOM

MEMBER COMPANY THAT THIS IS AN SURVEYOR'S WORK REPORT THAT 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.
Arlic L. Welch
ARLIC L. WELCH DATE: 01/23/2022 LIC. NO. 41883

REVISIONS DESCRIPTION	DATE	REV#

DATE: NOV. 2021	AS SHOWN	NOV. 2021
SCALE: ADB	ADB	2021-11648
DRAWN BY: ALW	ALW	
CHECKED BY: ALW		
JOB NUMBER: 2021-11648		

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PLAN LEGEND

THIS REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Arac L. Welch
ARAC L. WELCH DATE: 01/31/2022 LIC. NO. 41883

STATEMENT OF ESTIMATED QUANTITIES											
ITEM NO.	NOTES	SPEC. NO.	ITEM DESCRIPTION	UNIT	GLORY ROAD		UNIVERSAL ROAD		WOIDA ROAD	TH 371 INTERSECTIONS	PROJECT TOTAL
					ROADWAY	TRAIL	ROADWAY	STORM SEWER	ROADWAY	ROADWAY	
1		2021.501	MOBILIZATION	LUMP SUM	0.32	0.05	0.3	0.05	0.1	0.18	1
2	1	2104.502	REMOVE CASTING (SANITARY)	EACH	3		2		1	1	7
3	2	2104.502	REMOVE CATCH BASIN GRATE CASTING	EACH	4			9	3	5	21
4		2104.502	REMOVE PIPE APRON	EACH	2						2
5		2104.502	ABANDON PIPE SEWER (SANITARY)	LUMP SUM	1						1
6		2104.502	REMOVE SIGN TYPE C	EACH	3	2			7		14
7		2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	10		43		21	22	96
8		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	130		340		283	675	1428
9		2104.503	REMOVE SEWER PIPE (STORM) (HDPE)	LIN FT	67						67
10	3	2104.503	REMOVE CURB AND GUTTER	LIN FT	2070		240		40	40	2390
11	3	2104.504	REMOVE CONCRETE PAVEMENT	SQ YD	30	26			100		156
12		2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	138		693				831
13	3	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD		795	3307			2800	6902
14	4	2104.602	SALVAGE SIGN SPECIAL (911)	EACH	2		2				4
15	5	2104.602	RELOCATE SPRINKLER SYSTEM	EACH	3						3
16	6	2105.607	EXCAVATION SPECIAL	CU YD	960		1100		390	615	3065
17		2211.507	AGGREGATE BASE (CV) CLASS 5 (P)	CU YD			845			458	1303
18		2112.619	RECLAIMED AGGREGATE BASE PREPARATION	ROAD STA	12				2.8		14.8
19		2123.51	COMMON LABORERS	HOUR	7		5		5	10	27
20		2123.61	SKID LOADER	HOUR	7		5		5	10	27
21	7	2123.61	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	6		6		5	10	27
22		2215.504	FULL DEPTH RECLAMATION	SQ YD	5225				2340		7565
23	8	2302.604	BITUMINOUS DRIVEWAY REPLACEMENT	SQ YD	315		350				665
24		2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	1185		965		545	635	3330
25		2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,B)	TON	595		485		275	320	1675
26		2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V	LIN FT				64			64
27		2503.602	CONNECT TO EXISTING STORM SEWER	EACH				3			3
28	9, 10	2504.602	ADJUST VALVE BOX	EACH	4	1	3		4	6	18
29		2506.502	CASTING ASSEMBLY (700-7)	EACH	3		2		1	3	9
30		2506.602	CASTING ASSEMBLY (NEENAH R-3250-DVSP)	EACH	3			7	2	5	17
31		2506.602	CASTING ASSEMBLY (NEENAH R-3250-EVSP)	EACH	1			4	1		6
32		2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	LIN FT				30.98			30.98
33		2506.502	CONSTRUCT CONTROL STRUCTURE	EACH				1			1
34	11	2506.602	RECONSTRUCT DRAINAGE STRUCTURE	EACH	4			9	3	5	21
35	9	2506.602	ADJUST FRAME AND RING CASTING (SANITARY)	EACH	3		2		1	3	9
36	12	2521.518	4" CONCRETE WALK	SQ FT		65					65
37	12	2521.518	6" CONCRETE WALK	SQ FT		1505					1505
38	13	2521.518	3" BITUMINOUS WALK (RECONSTRUCTION)	SQ FT		6110					6110
39	13	2521.518	3" BITUMINOUS WALK (NEW CONSTRUCTION)	SQ FT		2070					2070
40	14	2531.501	CONCRETE CURB AND GUTTER DESIGN B612	LIN FT			492				492
41	14	2531.501	CONCRETE CURB AND GUTTER DESIGN B624	LIN FT	2885		1787		80	80	4832
42		2531.604	8" CONCRETE VALLEY GUTTER	SQ YD	155		305		12		472
43		2531.618	TRUNCATED DOMES	SQ FT		104					104
44		2563.601	TRAFFIC CONTROL	LUMP SUM	0.32	0.05	0.3	0.05	0.1	0.18	1
45		2564.518	SIGN PANELS TYPE C	SQ FT	43.5	18	18		50	50	179.5
46		2564.602	INSTALL SIGN TYPE SPECIAL (911)	EACH	2		2				4
47		2565.602	RIGID LOOP DETECTOR 6"x6"	EACH					8		8
48		2573.502	STORM DRAIN INLET PROTECTION	EACH	4		19		7	5	35
49		2573.503	SEDIMENT CONTROL LOG	LIN FT	1584		2132				3716
50	15	2574.507	SCREENED TOPSOIL BORROW	CU YD	145	70	199		5	16	436
51		2574.508	FERTILIZER TYPE 3	POUND	81	39	111		3	9	243
52		2575.505	SEEDING	ACRE	0.27	0.13	0.37		0.01	0.03	0.81
53		2575.508	SEED MIXTURE 25-151	POUND	108	52	148		4	12	324
54		2575.508	HYDRAULIC REINFORCED FIBER MATRIX	POUND	1053	507	1443		39	117	3159
55		2582.503	4" SOLID LINE PAINT	LIN FT	361				525	450	1336
56		2582.503	8" SOLID LINE PAINT	LIN FT		218				156	374
57		2582.503	12" SOLID LINE PAINT	LIN FT	455						455
58		2582.503	24" SOLID LINE PAINT	LIN FT			32				32
59		2582.503	4" BROKEN LINE PAINT	LIN FT	310		90				400
60		2582.503	4" DOUBLE SOLID LINE PAINT	LIN FT	1812		750			16	2578
61		2582.518	PAVEMENT MESSAGE PAINT	SQ FT	102				80		182

- NOTES**
- THIS ITEM IS FOR CRACKED OR DAMAGED SANITARY SEWER CASTINGS THAT WILL NOT BE RE-USED.
 - INCLUDES REMOVAL OF ALL CONCRETE RINGS.
 - SAW CUT (FULL DEPTH) PRIOR TO REMOVAL.
 - TEMPORARILY RE-INSTRALL OUTSIDE OF CONSTRUCTION LIMITS AND PROTECT FROM DAMAGE.
 - QUANTITY IS PER HEAD AND INCLUDES SUPPLY PIPING.
 - ITEM INCLUDES REMOVAL OF EXCESS RECLAMATION MATERIAL (SEE TYPICAL SECTIONS) AND MISC. EXCAVATIONS FOR DRIVEWAYS AND TRAILS.
 - THIS ITEM IS INTENDED FOR EROSION CONTROL ACTIVITIES AND DOES NOT INCLUDE REQUIRED SWEEPING FOR FDR OR MILLING OPERATIONS.
 - ITEM INCLUDES EXCAVATION OF AGGREGATE BASE AND SUBGRADE, SHAPING AND COMPACTION OF SUBGRADE, AGGREGATE BASE AND BITUMINOUS COURSES IN ACCORDANCE WITH THE APPLICABLE TYPICAL SECTION.
 - ADJUST TO WITHIN 3/4" TO 1/2" OF FINISHED GRADE.
 - INCLUDES REMOVAL AND REPLACEMENT OF THE UPPER SECTION.
 - INCLUDES ALL ITEMS NECESSARY TO COMPLETE WORK AS SHOWN IN THE DETAILS INCLUDING CASTING, RINGS, BUTYL WRAP, BACKFILL, ETC (SEE PLAN DETAILS).
 - ITEM INCLUDES EXCAVATION OF AGGREGATE BASE AND SUBGRADE, SHAPING AND COMPACTION OF SUBGRADE, AGGREGATE BASE AND CONCRETE IN ACCORDANCE WITH THE APPLICABLE TYPICAL SECTION.
 - ITEM INCLUDES SHAPING AND COMPACTION OF EXISTING AGGREGATE BASE, PLACING AND COMPACTION OF SUPPLEMENTAL AGGREGATE BASE AND BITUMINOUS COURSES IN ACCORDANCE WITH THE APPLICABLE TYPICAL SECTION.
 - INSTALL 2 - #5 X 12" REINFORCEMENT DOWELS AT EACH CONNECTION TO EXISTING CURB. DRILL/CORE AND EPOXY DOWELS 6" (MIN.) INTO EXISTING CURB. (SEE DETAIL ON SHEET 8)
 - TOPSOIL BORROW WILL BE MEASURED BY INPLACE VOLUME ASSUMING A 4" AVERAGE DEPTH.

DATE:	NOV. 2021	NO.:	AS SHOWN
SCALE:		DRAWN BY:	ADB
DATE:	04/09/2021	CHECKED BY:	ALW
DATE:	04/12/2021	JOB NUMBER:	2021-11648
REVISIONS:	DESCRIPTION	BY:	
ADDENDUM 1		A.L.W.	
ADDENDUM 2		A.L.W.	

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
STATEMENT OF ESTIMATED QUANTITIES

WHERE CERTAIN 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.
Alex L. Welch
ALEX L. WELCH DATE: 02-14-2022 LIC. NO. 41883

STORM SEWER STRUCTURE SCHEDULE												
DS. NO	LOCATION		PROPOSED TOP OF CASTING	OUTLET	CASTING ASSEMBLY			STORM SEWER PIPE RCP	DRAINS TO			
	STATION	OFFSET			SD-48	4020-48	4020-60		12"	NO.	% GRADE	ELEV.
UNIVERSAL ROAD												
DS 13 (OCS)	8+24	38' LT	1192.00	1189.85	2.04			PS48-58SWH	30	EX DS	0.01	1189.56
DS 14	5+56.82	17' RT	1194.11	1188.56			5.44	R-3250-DVSP				
DS 15	4+10	17' LT	1195.04	1191.00		3.93		R-3250-DVSP	34	DS 16	0.01	1190.66
DS 16	4+10	17' RT	1195.04	1189.50			5.43	R-3250-DVSP				
DS 17	2+55.57	17' RT	1195.80	1189.83			5.86	R-3250-DVSP				
DS 18	1+32.47	17' RT	1195.80	1190.11			5.58	R-3250-DVSP				
DS 19	0+43.84	17' RT	1195.18	1190.33			4.74	R-3250-DVSP				
SUBTOTAL					2.04	3.93			64			
PROJECT TOTAL					2.04	3.93			64			

- NOTES:
1. OFFSETS ARE TO CENTER OF GRATE
 2. PAY HEIGHTS ARE FROM BOTTOM OF CASTING TO INVERT PLUS 0.7'
 3. LENGTH OF PIPE ARE TO CENTER OF STRUCTURE
 4. ALL CONCRETE PIPE IS DESIGN 3008 GASKET JOINT

DATE	REVISION DESCRIPTION	BY
07/14/2022	ADDENDUM #1	ADB
03-14-2022	REVISION CHANGE ORDER #1	ADB

DATE	NOV. 2021	AS SHOWN	NOV. 2021
SCALE:		ADB	
DRAWN BY:		ADB	
CHECKED BY:	ALW		
JOB NUMBER:	2021-11648		

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
TABULATED QUANTITIES

UTILITY OWNERS:

BRAINERD PUBLIC UTILITIES	218-829-2193
CITY OF BAXTER	218-454-5116
MNDOT	651-366-5750
ELECTRICAL -	
CROW WING COOP	218-821-7672
COMMUNICATIONS	
CHARTER COMMUNICATIONS	833-493-4939
CONSOLIDATED COMMUNICATIONS	888-608-7822
CONSOLIDATED TELEPHONE	218-454-1504
CENTURY LINK	800-778-9140
SAVAGE COMMUNICATIONS	320-384-7442
TDS TELECOM	218-821-7672
NATURAL GAS -	
XCEL ENERGY	888-968-9235
CENTER POINT ENERGY	612-321-5200

UTILITY QUALITY LEVEL DEFINITIONS:

Utility quality level A: Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy as defined or expected by the project engineer.

Utility quality level B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Utility quality level C: Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to quality level D information.

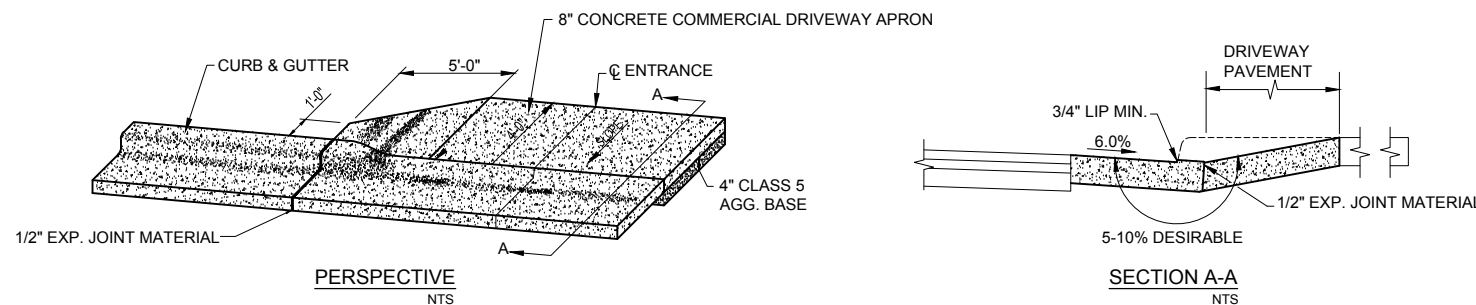
Utility quality level D: Information derived from existing records or oral recollections.

MnDOT STANDARD PLATES	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.	
PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007E	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145G	CONCRETE PIPE TIES
4010H	CONCRETE SHORT CONE AND ADJUSTING RING
4020J	MANHOLE OR CATCH BASIN FOR USE WITH OR WITHOUT TRAFFIC LOADS
4108F	ADJUSTING RINGS FOR MANHOLES
4129G	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 802A
4154B	CATCH BASIN GRATE CASTING - CASTING NO. 816
4160D	CURB BOX CASTING FOR CATCH BASIN - CASTING NO.823A
4180J	MANHOLE OR CATCH BASIN STEP
7100H	CONCRETE CURB & GUTTER
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB & GUTTER)
8000J	CHANNELIZERS (3 SHEETS)
9350A	MAILBOX SUPPORT (SWING-AWAY TYPE)

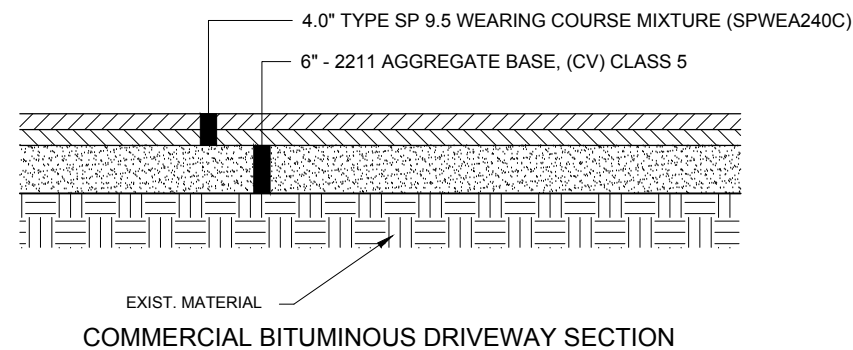
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-.2, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

GENERAL UTILITY NOTES:

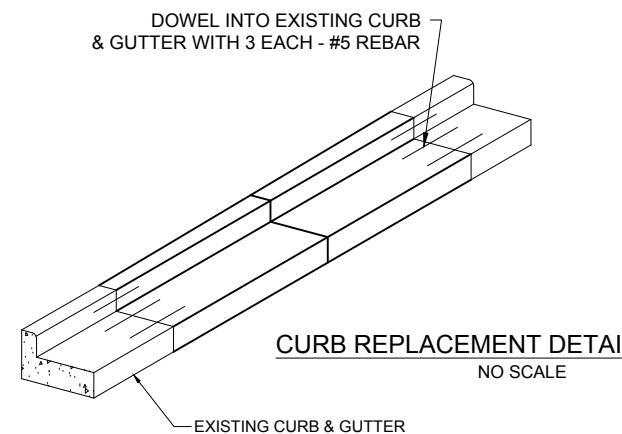
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES WITH THE PLAN.
- THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.
- THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE38-02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA.
- ALL CATCH BASINS, MANHOLES AND GATE VALVES ARE TO BE ADJUSTED PRIOR TO BEGINNING PAVING OPERATIONS.
- THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND REINSTALLATION OF ALL MISCELLANEOUS STRUCTURES WITHIN THE PROJECT LIMITS, SUCH AS PRIVATE SIGNS, GARBAGE PICKUPS, MAIL BOXES, ETC...THIS WORK SHALL BE INCIDENTAL.
- ALL SAWCUT EDGES IN CONCRETE PAVEMENT AND BITUMINOUS PAVEMENT SHALL BE PROTECTED AFTER REMOVALS THROUGH THE DURATION OF THE PROJECT. PAYMENT FOR SAWCUTTING WILL BE MADE ONLY ONCE. ADDITIONAL SAWCUTTING TO MAINTAIN A CLEAN SAWCUT EDGE WILL BE AT THE EXPENSE OF THE CONTRACTOR.
- PLACEMENT OF TACK COAT SHALL BE ACCORDANCE WITH SPECIFICATION 2357. ALL COSTS OF FURNISHING AND APPLYING BITUMINOUS TACK COAT MATERIAL WILL BE INCIDENTAL WITH NO DIRECT COMPENSATION BEING MADE THEREFORE.



CONCRETE DRIVEWAY APRON DETAIL



COMMERCIAL BITUMINOUS DRIVEWAY SECTION

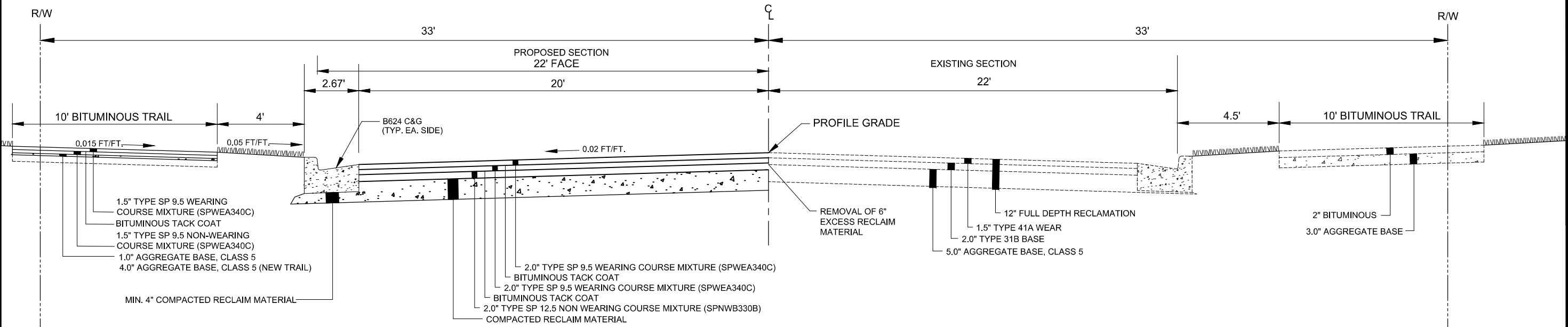


CURB REPLACEMENT DETAIL
NO SCALE

BASIS FOR ESTIMATED QUANTITIES	
BITUMINOUS WEARING COURSE	
BITUMINOUS MIXTURE	115 LBS./SQ.YD./INCH THICKNESS
AGGREGATE	
AGGREGATE BASE - CLASS 5	110 LBS./SQ.YD./INCH THICKNESS
TURF ESTABLISHMENT	
SEED - 22-111	100 LBS/ACRE
SEED - 25-151	400 LBS/ACRE
MULCH, TYPE 3	2 TONS/ACRE
HYDRAULIC REINFORCED FIBER MATRIX	3900 LBS/ACRE
FERTILIZER TYPE 3 (10-10-20)	300 LBS/ACRE

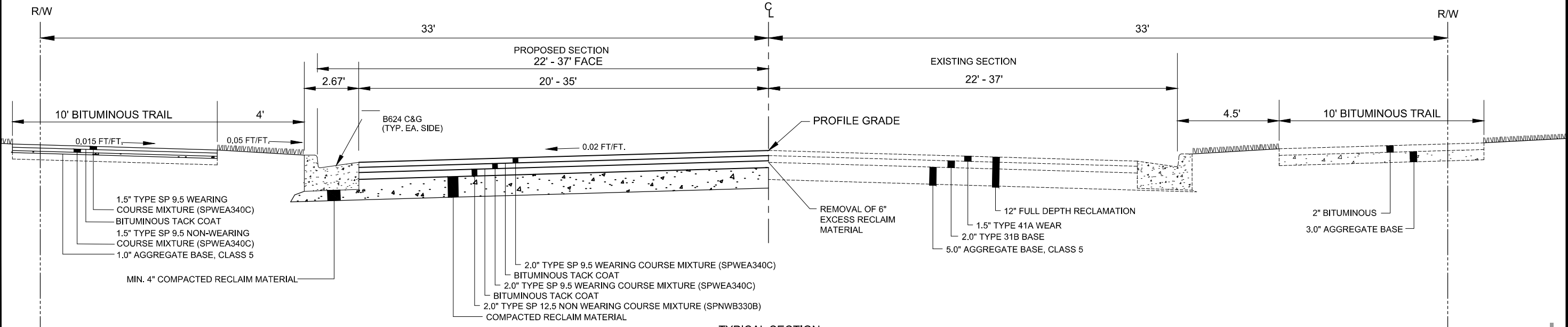
DATE	REVISIONS DESCRIPTION	BY
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DATE:	NOV. 2021
SCALE:	AS SHOWN
DRAWN BY:	AD3
CHECKED BY:	ALW
JOB NUMBER:	2021-11648

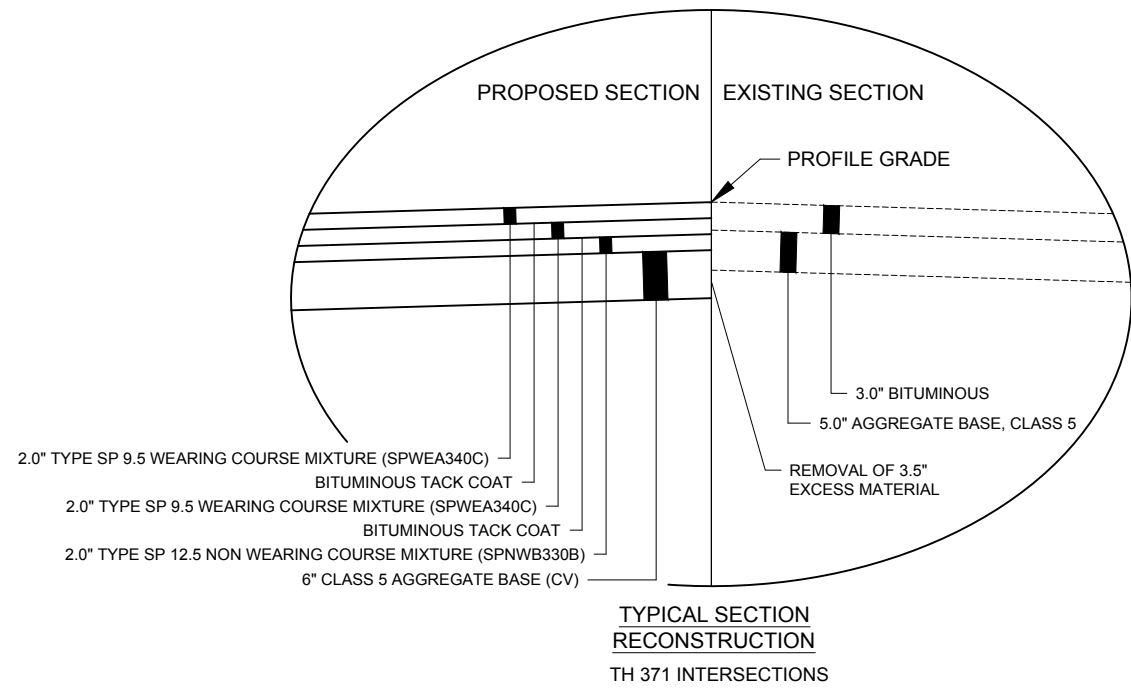


TYPICAL SECTION
FULL DEPTH RECLAMATION (FDR)
GLORY ROAD - STA. 5+85 TO 13+99

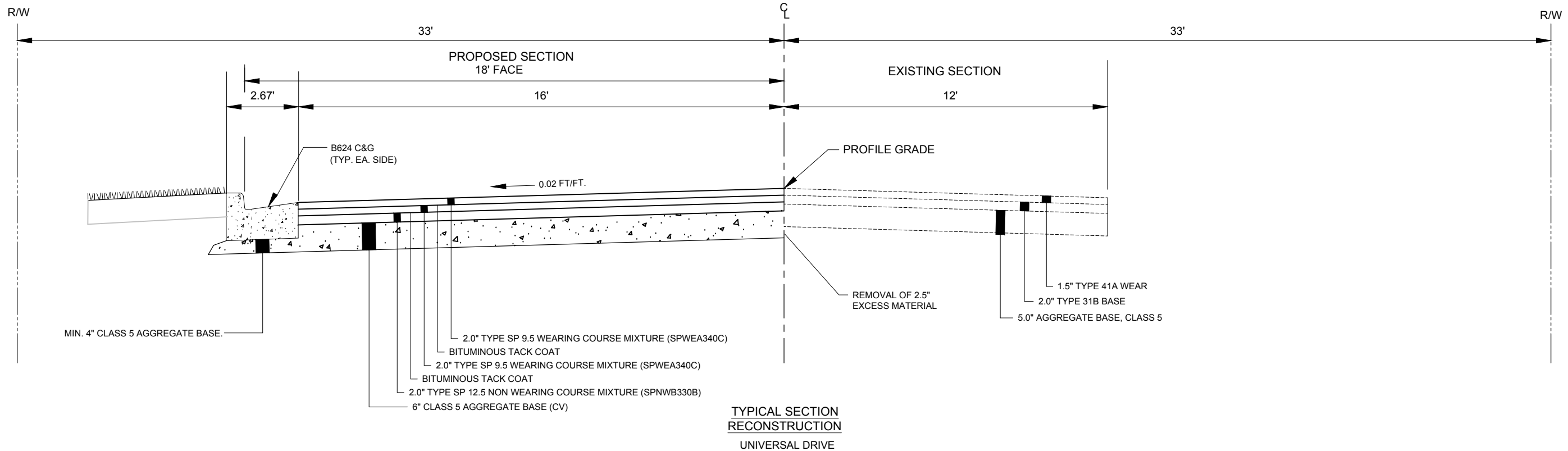
- NOTES:**
- CONTACT THE ENGINEER PRIOR TO CONDUCTING ANY OPERATIONS BEYOND THE CONSTRUCTION LIMITS IDENTIFIED ON THE PLANS.
 - BLADE TOPSOIL AND VEGETATION BACK FROM EXISTING PAVEMENT EDGE (2'-4') AS NEEDED TO COMPLETE RECLAIMING OPERATIONS AND TO AVOID MIXING OF ORGANICS INTO THE WIDENED BASE. TOPSOIL SHALL BE PLACED AS AN EROSION CONTROL BERM DURING CONSTRUCTION. SALVAGED TOPSOIL MAY BE RE-USED.
 - A STANDARD 2% CROWN IS PROPOSED IN ALL AREAS NOT OTHERWISE IDENTIFIED BY THE ENGINEER. IN CERTAIN AREAS, THE CROSS-SLOPE MAY BE MODIFIED BY THE ENGINEER TO ACCOMMODATE LOCAL DRAINAGE AND/OR EXISTING DRIVEWAY ENTRANCES.
 - DEPTH OF UNDERGROUND UTILITIES MARKED WITHIN THE PROPOSED RECLAIM AREA, OR OTHER EXCAVATION AREAS, MUST BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE LOWERING OR RELOCATION OF UNDERGROUND UTILITIES, IF NECESSARY, IN ADVANCE OF RECLAIMING OR EXCAVATION OPERATIONS. ANY COSTS ASSOCIATED WITH DELAYS OR DAMAGES TO UTILITIES ARE THE CONTRACTOR'S RESPONSIBILITY.
 - PRIVATE LAWN IRRIGATION SYSTEMS LOCATED IN THE CONSTRUCTION AREA SHALL BE TEMPORARILY RELOCATED BY THE CONTRACTOR AND PROTECTED FROM DAMAGE DUE TO RECLAIMING OR OTHER OPERATIONS PERFORMED BY THE CONTRACTOR, AND RE-INSTALLED DURING FINAL TURF RESTORATION BY THE CONTRACTOR.
 - AGGREGATE BASE COMPACTED THICKNESS IS BASED ON 3", BUT MAY VARY IN AREAS REQUIRING A MODIFIED SECTION TO MATCH EXISTING CONCRETE DRIVEWAYS OR TO FACILITATE DRAINAGE. REVIEW SUBGRADE PREP WITH THE ENGINEER.



TYPICAL SECTION
FULL DEPTH RECLAMATION (FDR)
GLORY ROAD - STA. 13+99 TO 16+16



- NOTES:
- 1 CONTACT THE ENGINEER PRIOR TO CONDUCTING ANY OPERATIONS BEYOND THE CONSTRUCTION LIMITS IDENTIFIED ON THE PLANS.
 - 2 BLADE TOPSOIL AND VEGETATION BACK FROM EXISTING PAVEMENT EDGE (2'-4') AS NEEDED TO COMPLETE RECLAIMING OPERATIONS AND TO AVOID MIXING OF ORGANICS INTO THE WIDENED BASE. TOPSOIL SHALL BE PLACED AS AN EROSION CONTROL BERM DURING CONSTRUCTION. SALVAGED TOPSOIL MAY BE RE-USED.
 - 3 A STANDARD 2% CROWN IS PROPOSED IN ALL AREAS NOT OTHERWISE IDENTIFIED BY THE ENGINEER. IN CERTAIN AREAS, THE CROSS-SLOPE MAY BE MODIFIED BY THE ENGINEER TO ACCOMMODATE LOCAL DRAINAGE AND/OR EXISTING DRIVEWAY ENTRANCES.
 - 4 DEPTH OF UNDERGROUND UTILITIES MARKED WITHIN THE PROPOSED RECLAIM AREA, OR OTHER EXCAVATION AREAS, MUST BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE LOWERING OR RELOCATION OF UNDERGROUND UTILITIES, IF NECESSARY, IN ADVANCE OF RECLAIMING OR EXCAVATION OPERATIONS. ANY COSTS ASSOCIATED WITH DELAYS OR DAMAGES TO UTILITIES ARE THE CONTRACTOR'S RESPONSIBILITY.
 - 5 PRIVATE LAWN IRRIGATION SYSTEMS LOCATED IN THE CONSTRUCTION AREA SHALL BE TEMPORARILY RELOCATED BY THE CONTRACTOR AND PROTECTED FROM DAMAGE DUE TO RECLAIMING OR OTHER OPERATIONS PERFORMED BY THE CONTRACTOR, AND RE-INSTALLED DURING FINAL TURF RESTORATION BY THE CONTRACTOR.
 - 6 AGGREGATE BASE COMPACTED THICKNESS IS BASED ON 3", BUT MAY VARY IN AREAS REQUIRING A MODIFIED SECTION TO MATCH EXISTING CONCRETE DRIVEWAYS OR TO FACILITATE DRAINAGE. REVIEW SUBGRADE PREP WITH THE ENGINEER.



WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

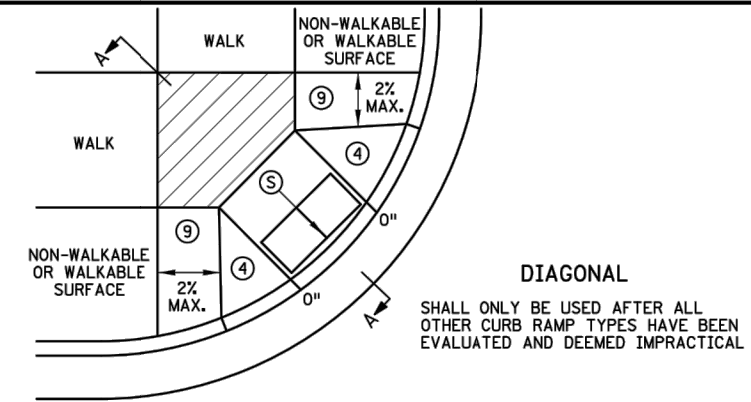
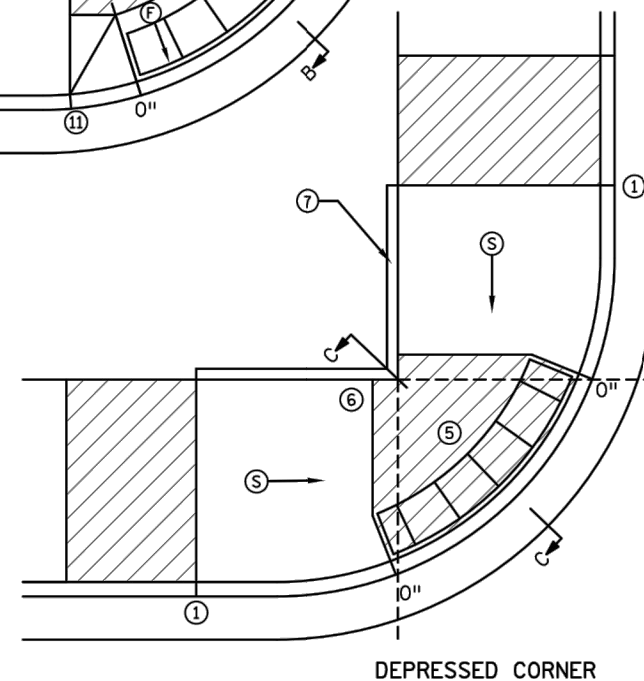
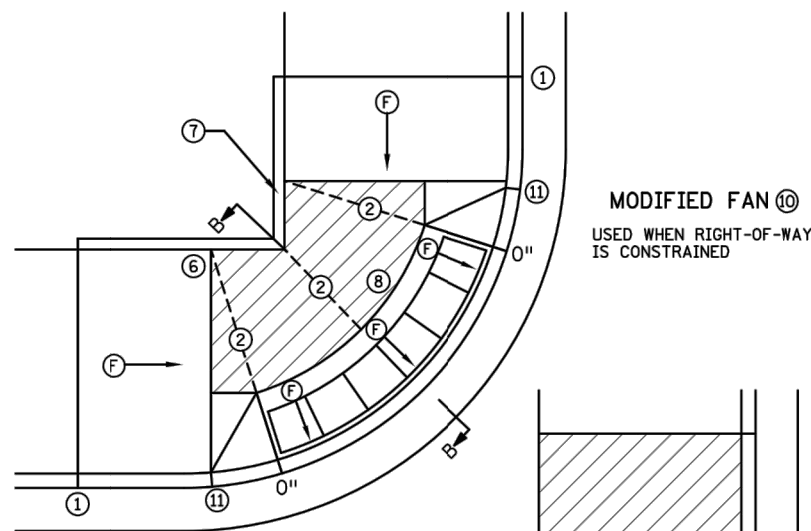
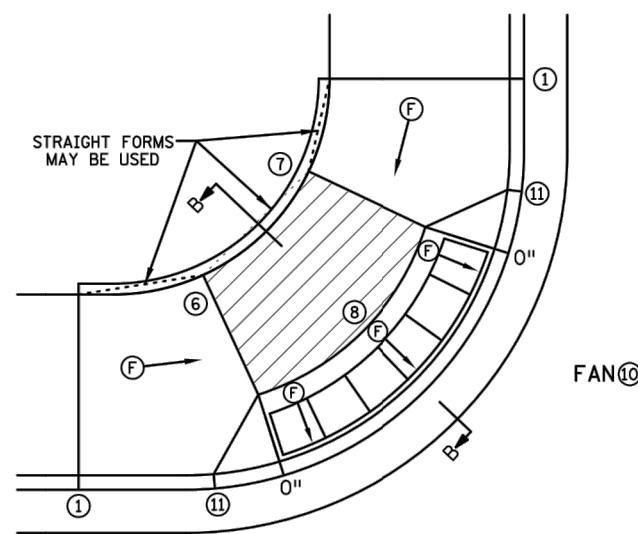
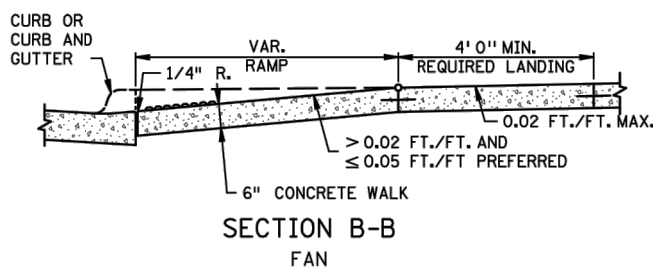
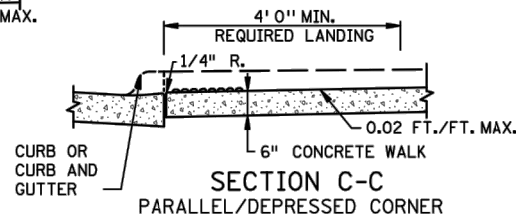
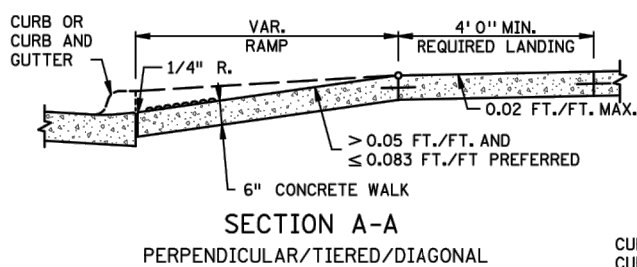
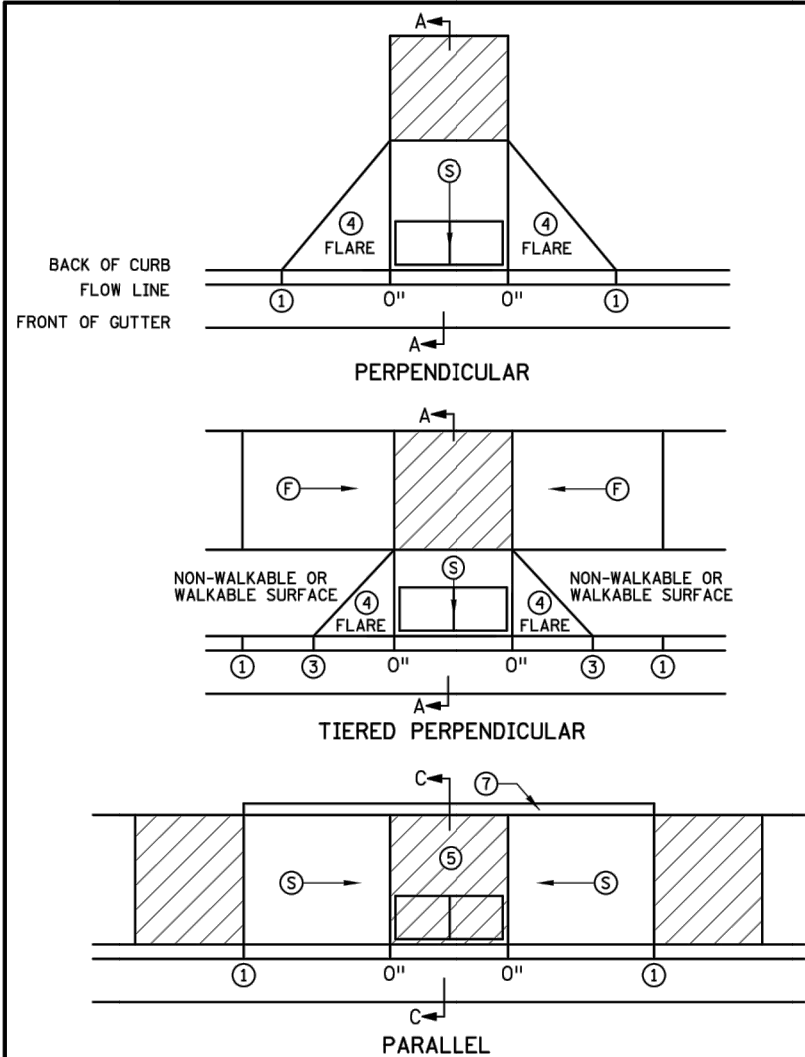
MEMBER, COUNTY THAT THIS IS AN UNEXPIRED NON-CORRECTIVE REPORT THAT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Arac L. Welch
ARAC L. WELCH DATE: 01/23/2022 LIC. NO. 41883

REV#	DATE	DESCRIPTION

DATE: NOV. 2021
SCALE: AS SHOWN
DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
ROADWAY SECTIONS

SHEET NO.
7



NOTES:

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

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

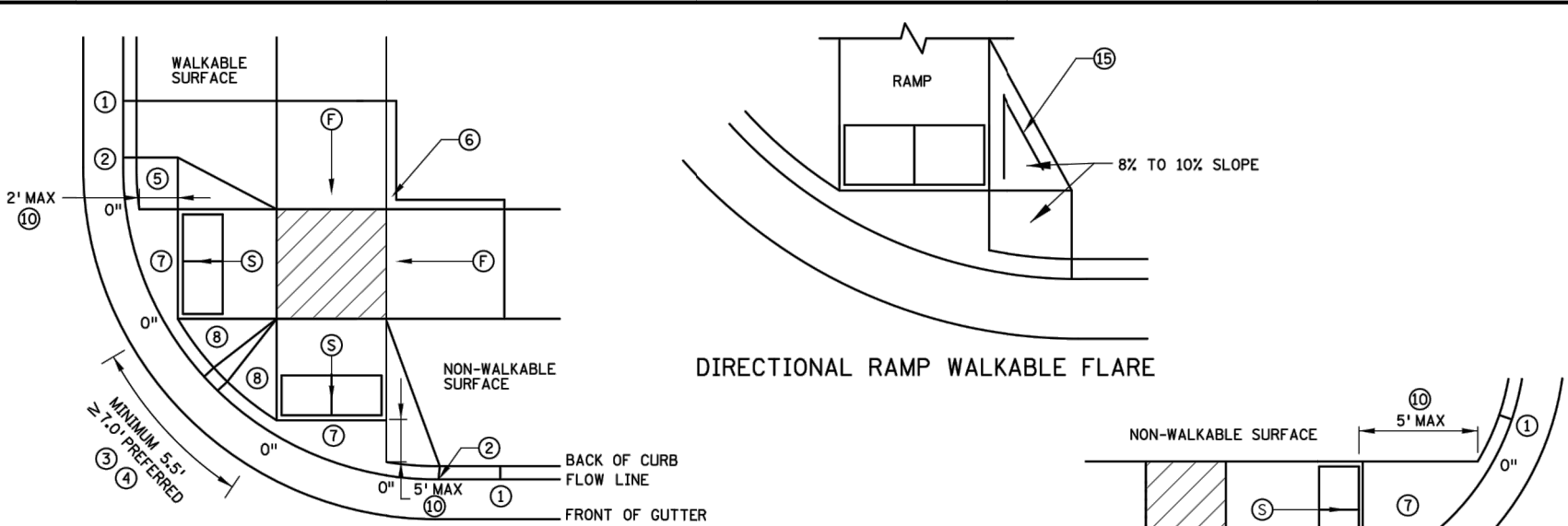
REVISION:
 APPROVED: 11-04-2021
Jeffrey J. Perkins
 OPERATIONS DIVISION

m MINNESOTA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN 5-297.250 1 OF 6
 APPROVED: 11-04-2021
 REVISION:
Tom Styrbicki
 THOMAS STYRBICKI
 STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS
 STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

NO.	DATE	REVISION DESCRIPTION

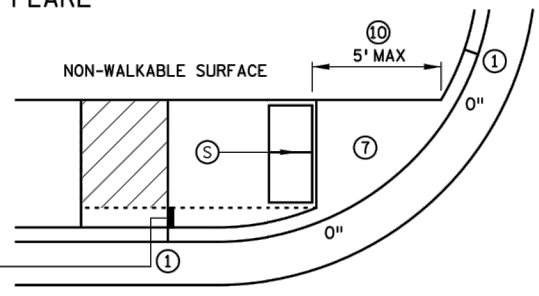
DATE:	NOV. 2021	SCALE:	AS SHOWN
DRAWN BY:	ADB	CHECKED BY:	ALW
JOB NUMBER:	2021-11648		



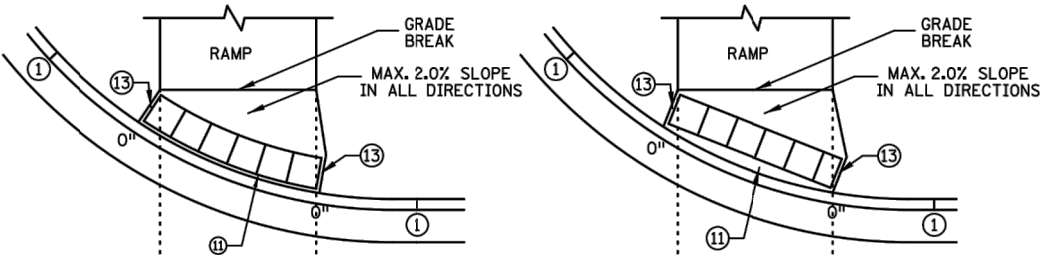
COMBINED DIRECTIONAL

DIRECTIONAL RAMP WALKABLE FLARE

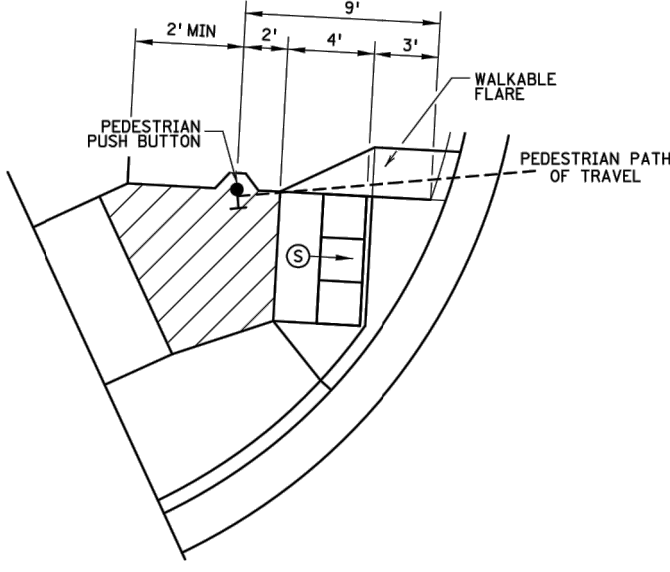
IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.



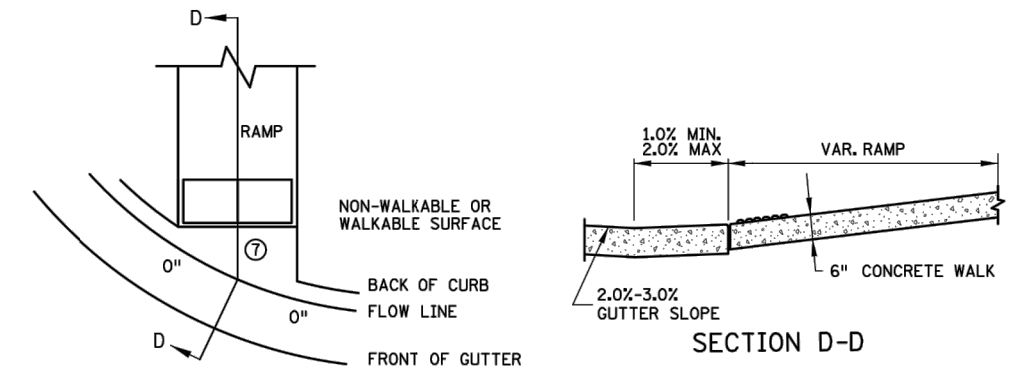
STANDARD ONE-WAY DIRECTIONAL



ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB



SEMI-DIRECTIONAL RAMP
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)



CURB FOR DIRECTIONAL RAMPS

- 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.
- MATCH FULL CURB HEIGHT.
 - 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.
 - 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).
 - 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.
 - 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.
 - 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.
 - 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% TO 10% WALKABLE FLARE.
 - PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.
 - 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.
 - 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.
 - 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.
 - THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.
 - TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.
 - PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

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

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (Hatched Area) 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 J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m MINNESOTA
DEPARTMENT OF TRANSPORTATION
APPROVED: 11-04-2021
REVISED:
Tom Styrbrick
THOMAS STYRBICKI
STATE DESIGN ENGINEER

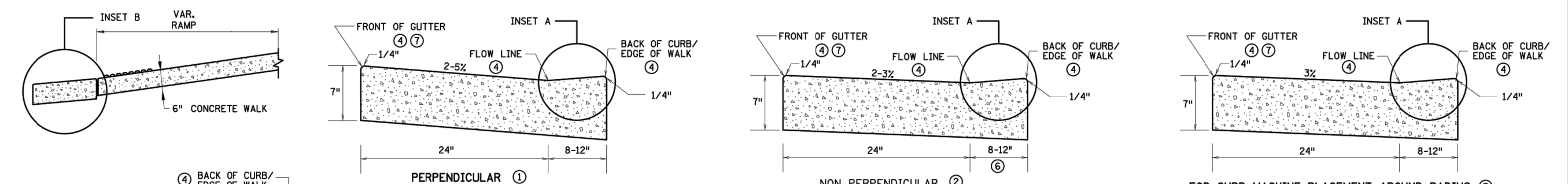
PEDESTRIAN CURB RAMP DETAILS

STANDARD PLAN 5-297.250 2 OF 6
STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

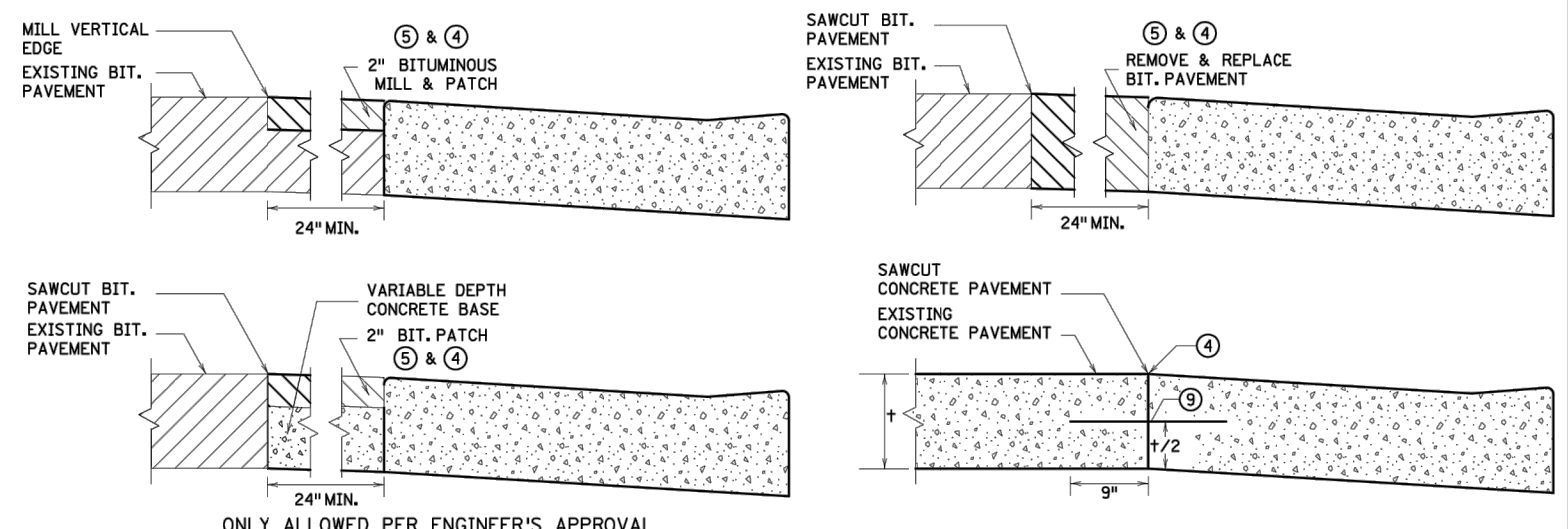
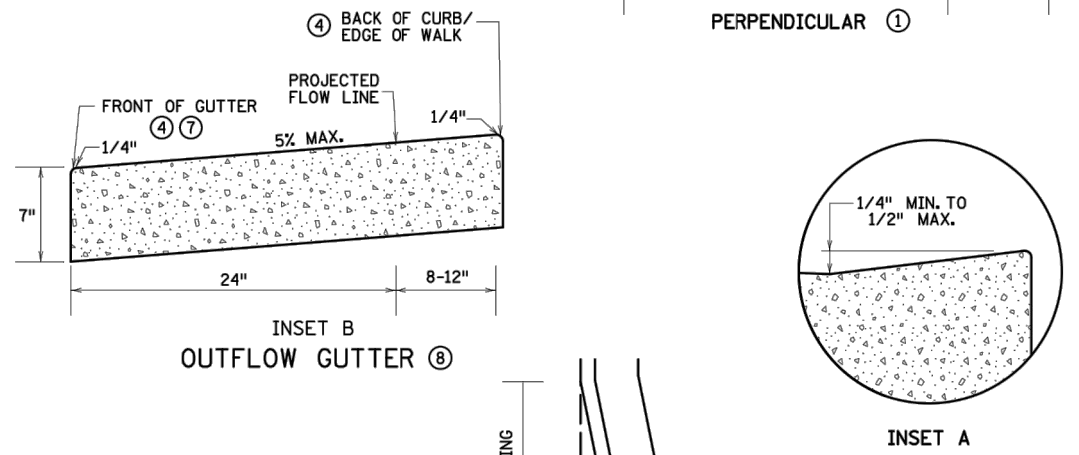
REVISION DESCRIPTION	DATE	BY

DATE: NOV. 2021	NOV. 2021	AS SHOWN
SCALE: DRAWN BY: ADB	SCALE: ADB	SCALE: ADB
CHECKED BY: ALW	CHECKED BY: ALW	CHECKED BY: ALW
JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648

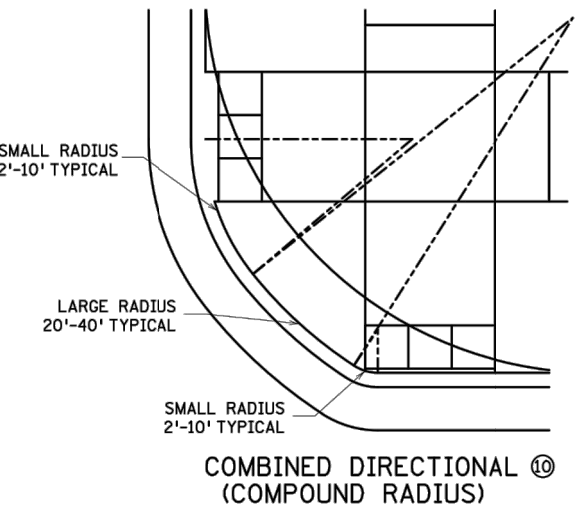
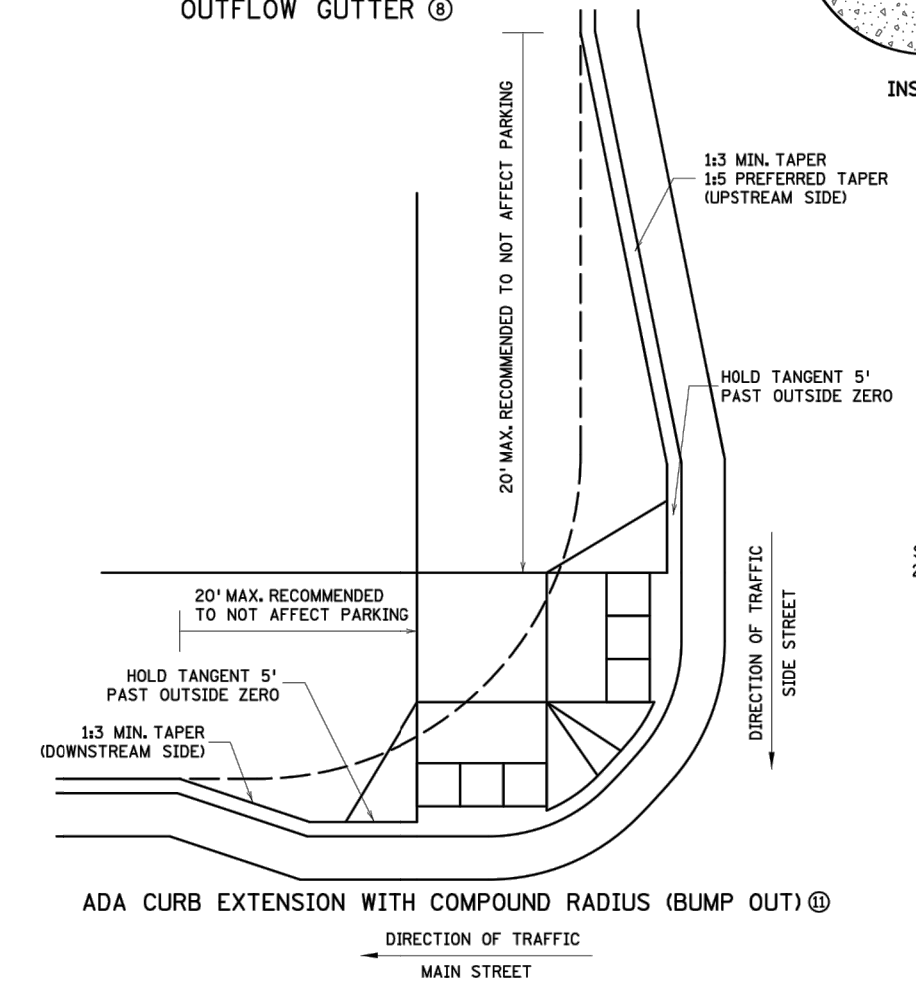
2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PEDESTRIAN RAMP DETAILS



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.
- 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 RAMP.
 - FOR USE AT CURB RAMP WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.
 - BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMP.
 - THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".
 - 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.
 - VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.
 - 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.
 - SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.
 - 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.
 - HELPS PROVIDE TWO SEPARATE RAMP, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.
 - 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.

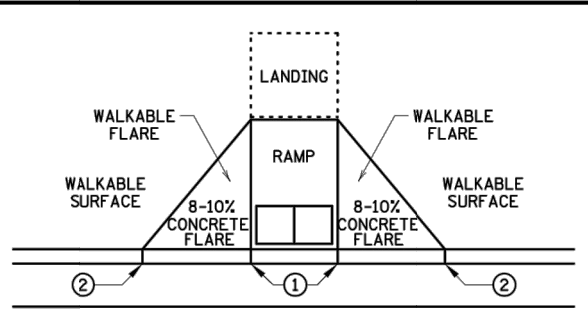
REVISIONS:
APPROVED: 11-04-2021
Jeffery J. Perkins
JEFFERY J. PERKINS
OPERATIONS DIVISION

m MINNESOTA
DEPARTMENT OF TRANSPORTATION
STANDARD PLAN 5-297.250 3 OF 6
APPROVED: 11-04-2021
REVISOR:
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

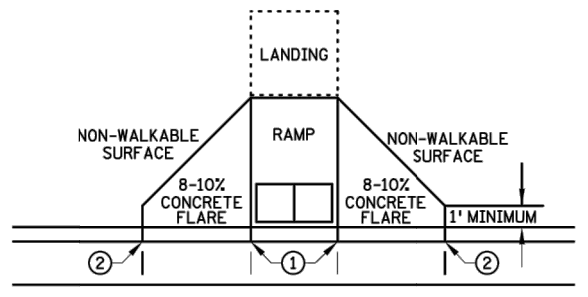
PEDESTRIAN CURB RAMP DETAILS
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

NO.	DATE	REVISION DESCRIPTION

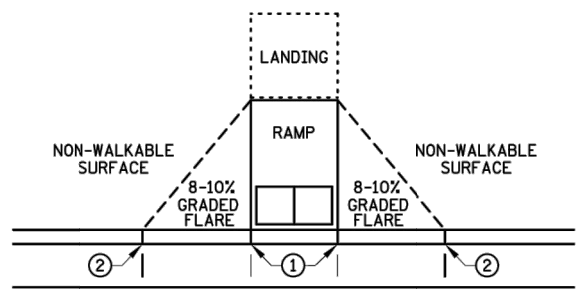
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CHECKED BY: AWW	AWW
JOB NUMBER: 2021-11648	2021-11648



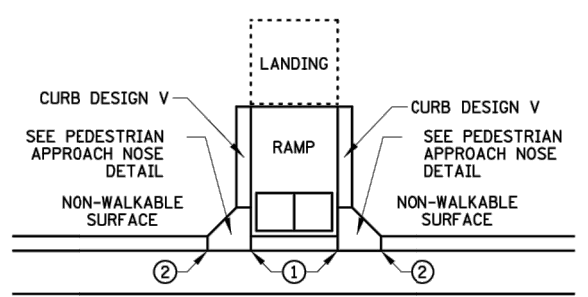
PAVED FLARES ADJACENT TO WALKABLE SURFACE



PAVED FLARES ADJACENT TO NON-WALKABLE SURFACE

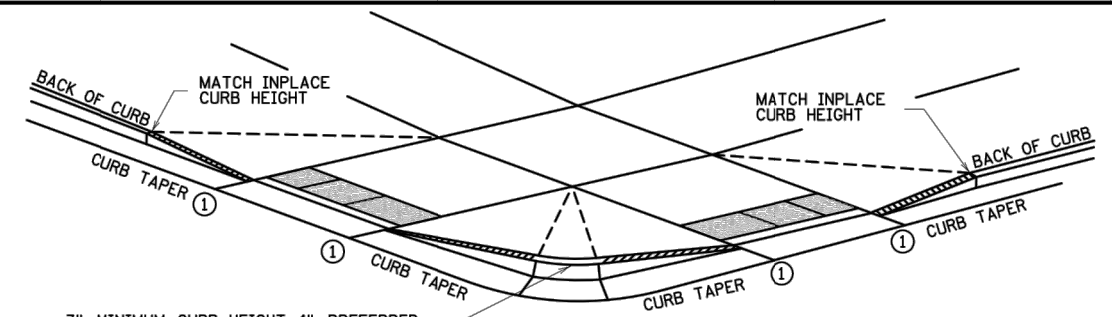


GRADED FLARES



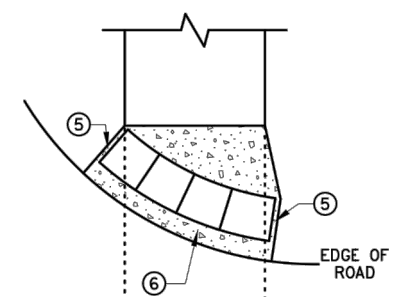
RETURNED CURB

TYPICAL SIDE TREATMENT OPTIONS

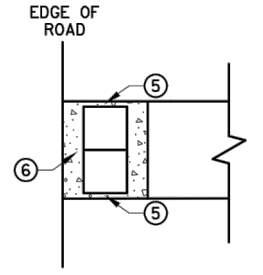


3" MINIMUM CURB HEIGHT, 4" PREFERRED (MEASURED AT FRONT FACE OF CURB)
FOR A MIN. 6" LENGTH (MEASURED ALONG FLOW LINE)

DETECTABLE EDGE WITH CURB AND GUTTER

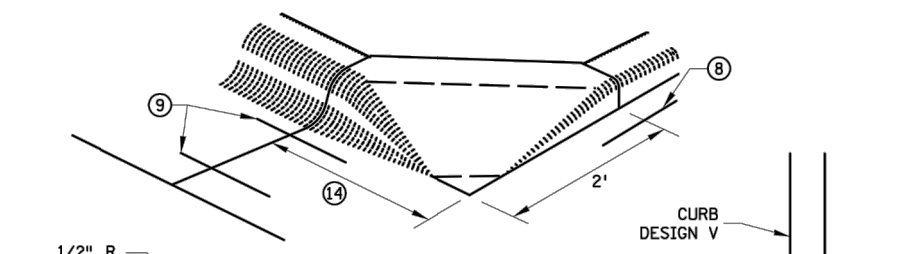


RADIAL DETECTABLE WARNING

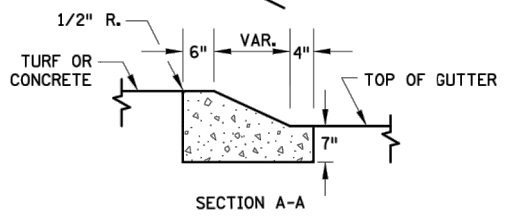


RECTANGULAR DETECTABLE WARNING

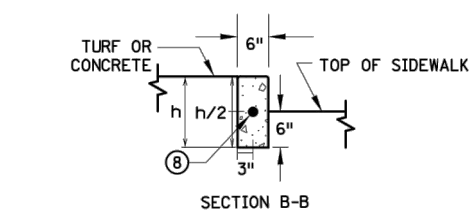
DETECTABLE EDGE WITHOUT CURB AND GUTTER



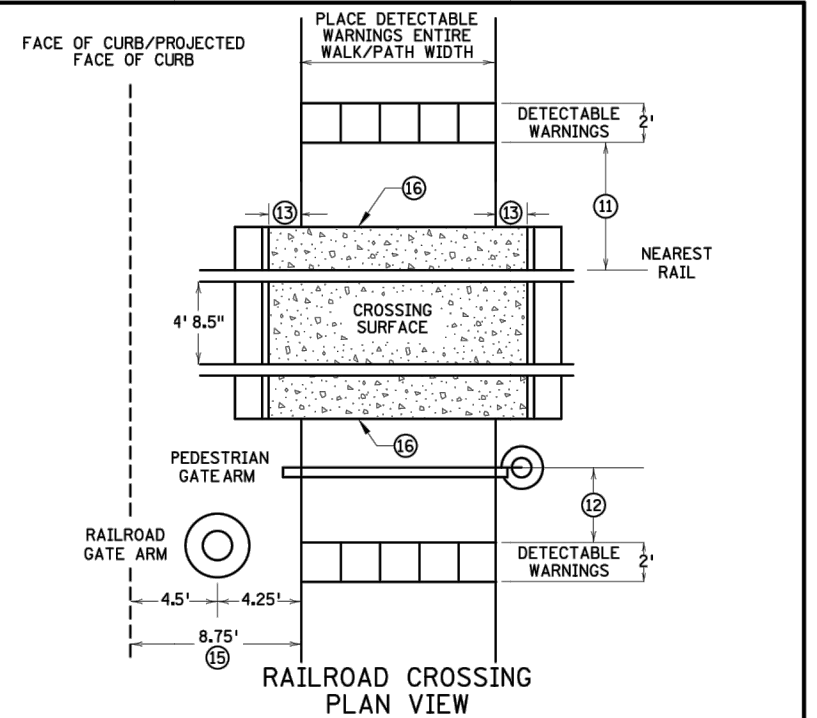
PEDESTRIAN APPROACH NOSE DETAIL (FOR RETURNED CURB SIDE TREATMENT)



SECTION A-A



SECTION B-B



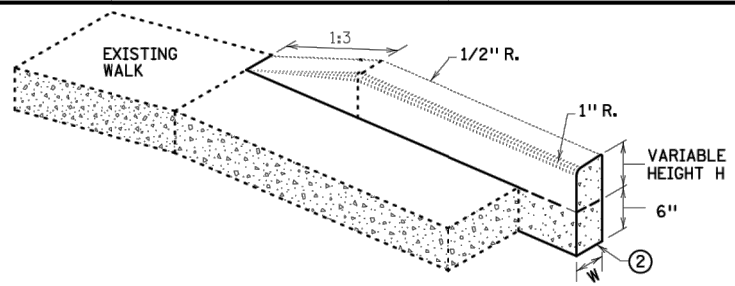
RAILROAD CROSSING PLAN VIEW

- NOTES:**
- INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT, INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.
 - SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.
 - A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
 - CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.
 - 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.
 - FULL CURB HEIGHT.
 - 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.
 - TYPICALLY USED FOR MEDIANS AND ISLANDS.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.
 - 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.
 - 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.
 - CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

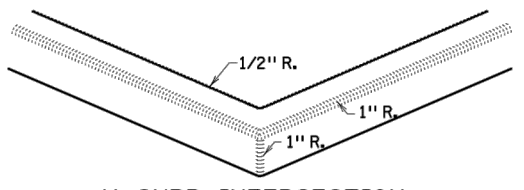
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PEDESTRIAN CURB RAMP DETAILS
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

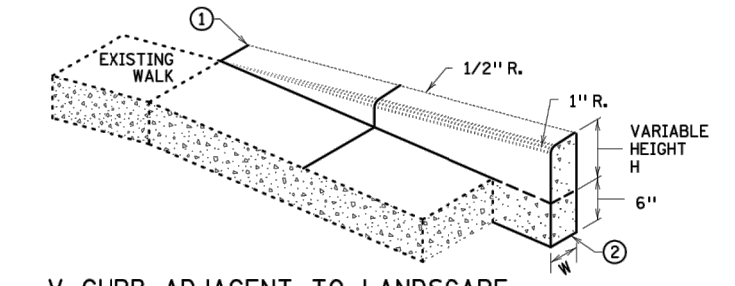


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

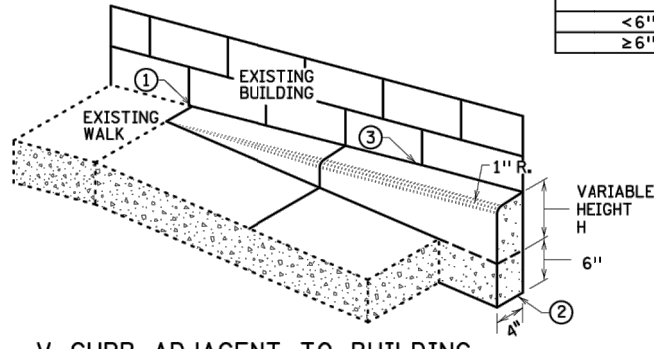


V CURB INTERSECTION

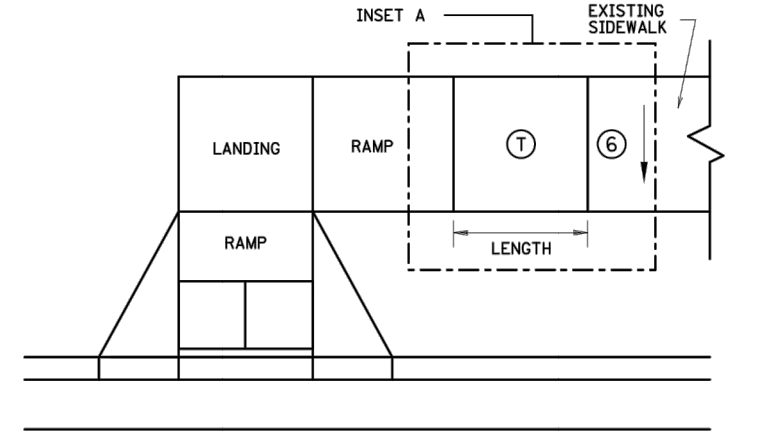
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



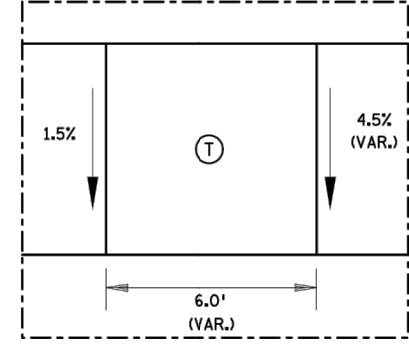
V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS



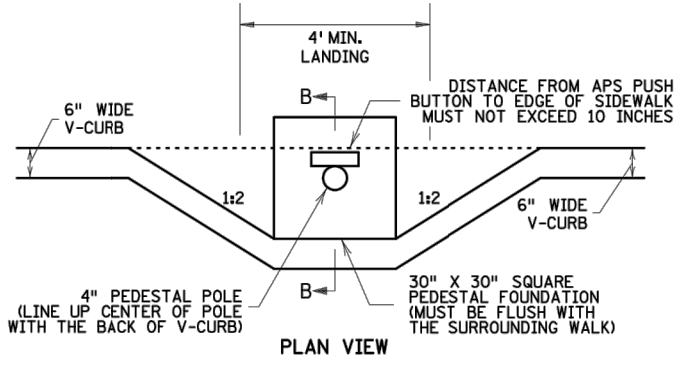
V CURB ADJACENT TO BUILDING
OR BARRIER



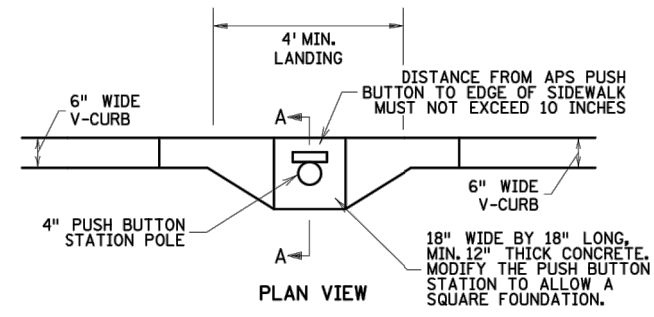
TRANSITION PANEL ④ ⑤



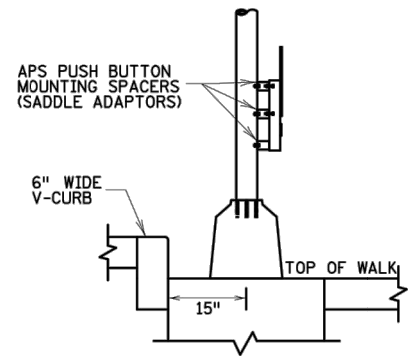
INSET A



PLAN VIEW

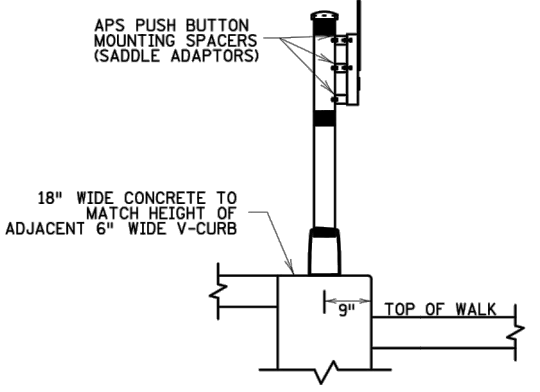


PLAN VIEW



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.

Ⓢ 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%.

▨ 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.

Ⓣ 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
Jeffrey J. Perkins
JEFFREY J. PERKINS
OPERATIONS DIVISION

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STANDARD PLAN 5-297.250 5 OF 6
APPROVED: 11-04-2021
REVISOR:
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

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

MEMBER COUNTY PLAN THIS PLAN, SUPERVISION, OR REPORT THAT 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.
Aric L. Welch
ARIC L. WELCH
DATE: 01/23/2022 LIC. NO. 41883

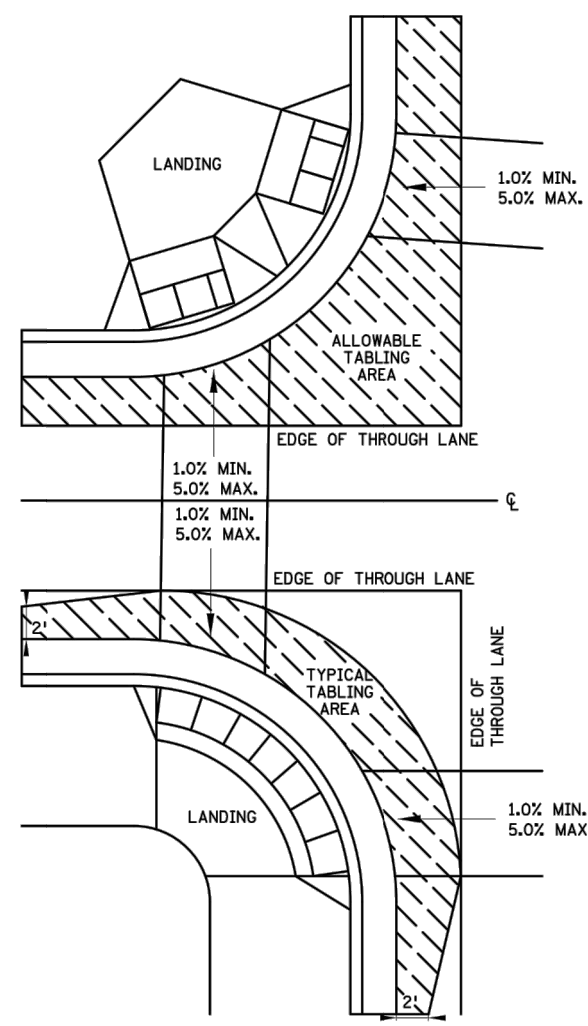
NO.	DATE	REVISION DESCRIPTION

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PEDESTRIAN RAMP DETAILS

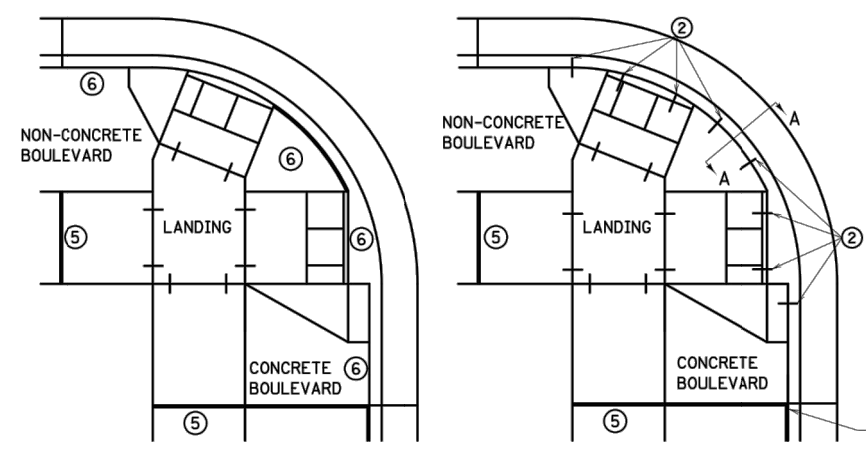
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DATE: NOV. 2021	SCALE: AS SHOWN
DRAWN BY: ADB	CHECKED BY: ALW
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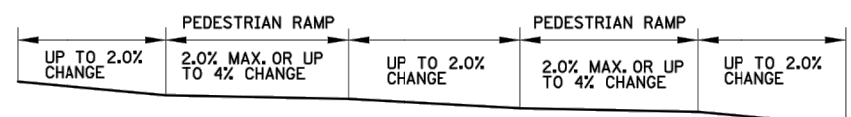
2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PEDESTRIAN RAMP DETAILS



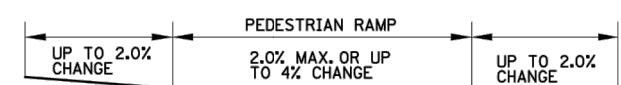
CURB LINE AND ROAD CROSSING ADJUSTMENTS



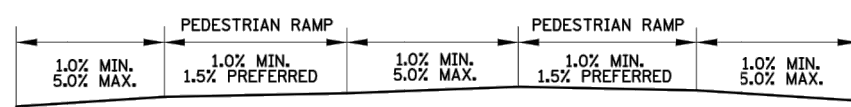
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS
CURB LINE REINFORCEMENT PLACEMENT ON BITUMINOUS ROADWAYS



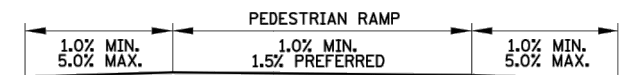
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



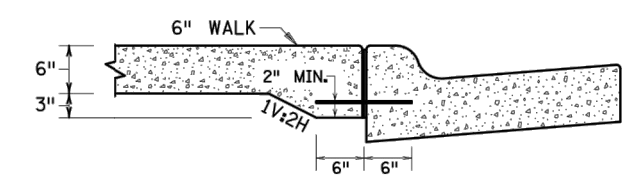
FLOW LINE PROFILE "TABLE" - FAN



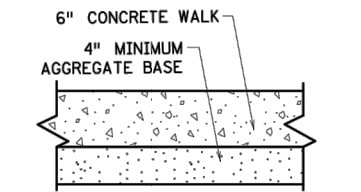
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



FLOW LINE PROFILE RAISE - FAN

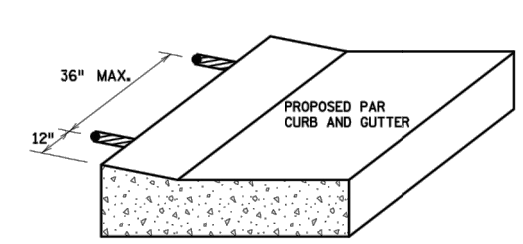


SECTION VIEW A-A THICKENED SECTION THROUGH CURB RAMP FLARES

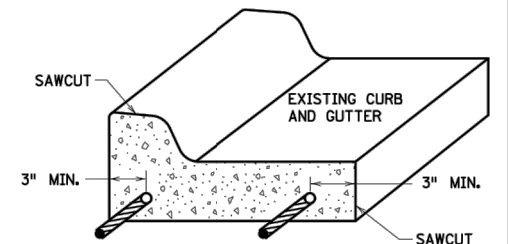


TYPICAL SIDEWALK SECTION WITHIN INTERSECTION CORNER

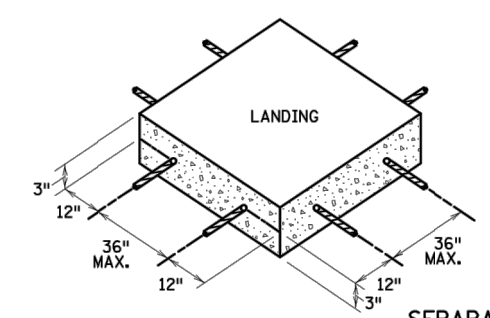
END SILL CURB AT TOP OF CURB RAMP AND DRIVEWAY FLARES.



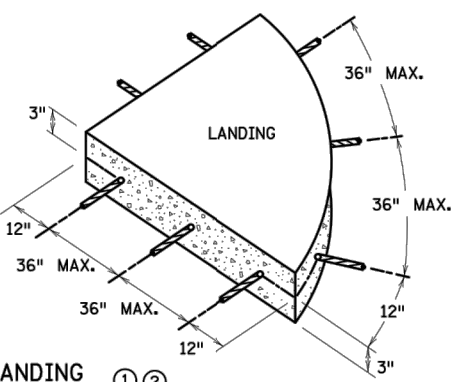
CURB RAMP REINFORCEMENT DETAILS



CURB AND GUTTER REINFORCEMENT



SEPARATE LANDING POUR REINFORCEMENT



GENERAL NOTES:

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

NOTES:

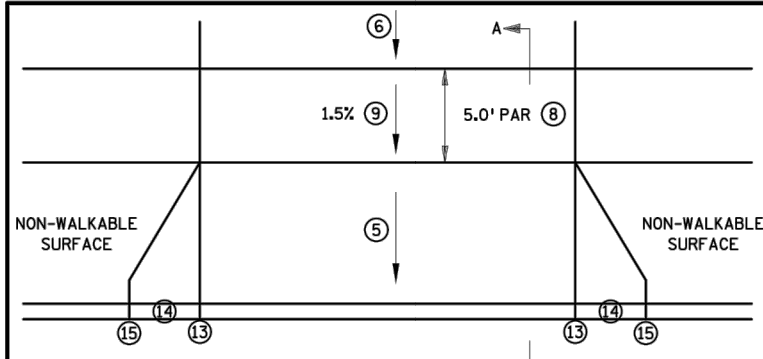
- TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
- 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.
- 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.
- THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
- CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
- USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:
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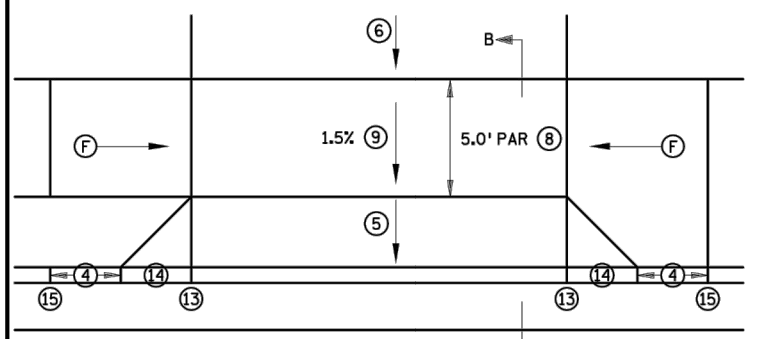
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TRANSPORTATION

STANDARD PLAN 5-297.250 6 OF 6
APPROVED: 11-04-2021
REVISED:
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

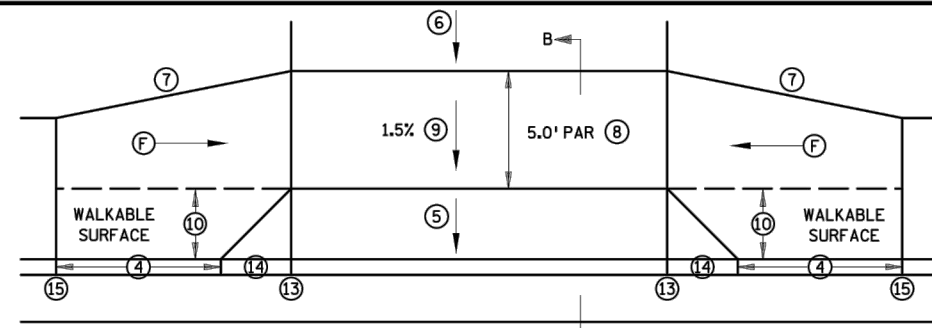
PEDESTRIAN CURB RAMP DETAILS
(TH) SHEET NO. OF SHEETS



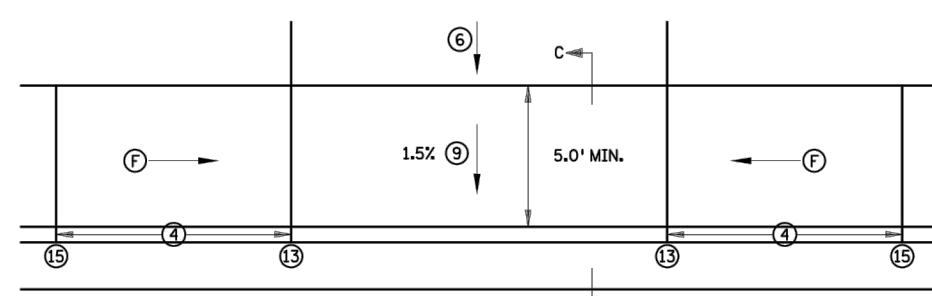
PERPENDICULAR DRIVEWAY ①



TIERED PERPENDICULAR DRIVEWAY ②



TIERED PERPENDICULAR OFFSET DRIVEWAY ②

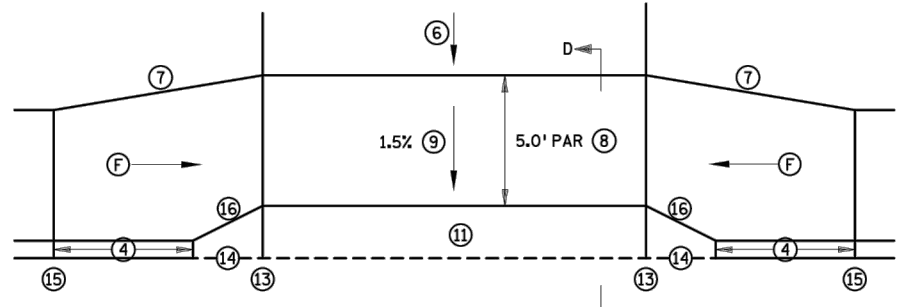
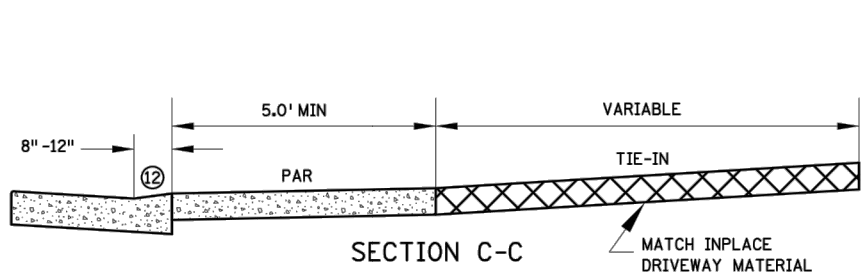
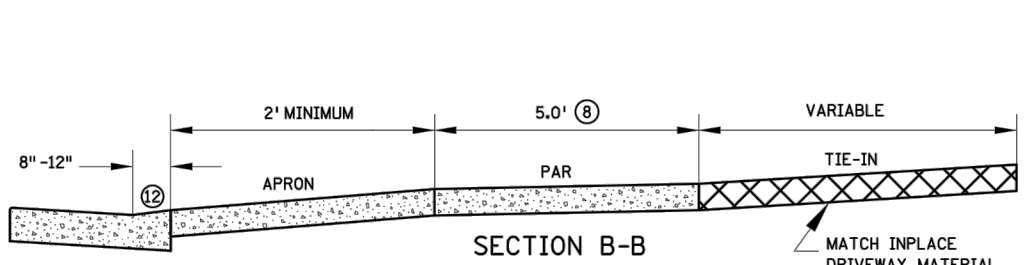
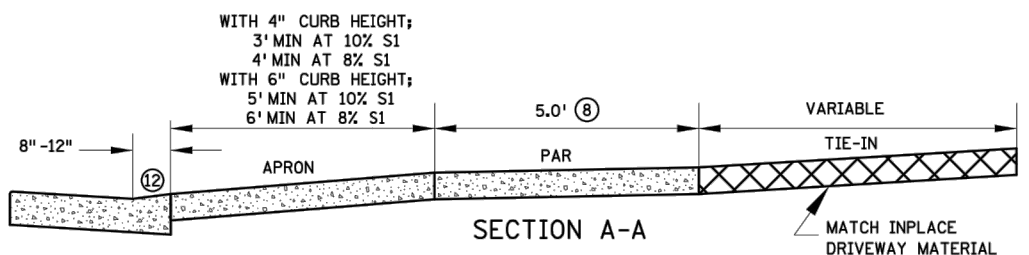


PARALLEL DRIVEWAY ③

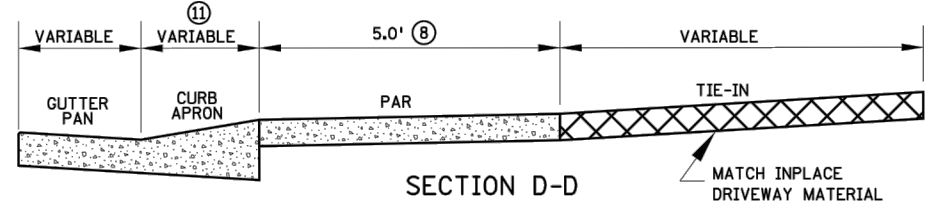
- NOTES:**
 ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.
 IN URBAN ROADWAY SECTIONS, 6" CURB HEIGHT SHOULD BE USED WHEN 6' OR GREATER BOULEVARD WIDTH IS PROPOSED. WHEN BOULEVARD IS LESS THAN 6' WIDE, 4" CURB HEIGHT SHOULD BE USED.
 MAINTAIN EXISTING DRAINAGE PATTERNS FLOWING TO PUBLIC RIGHT OF WAY.
 ACQUIRE ADEQUATE L3 TO ALLOW FOR A CONTINUOUS PAR PROFILE (UNIFORM TYPICAL SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.
 IN NO CASE SHALL SIDEWALK PROFILES EXCEED 5.0%, EXCEPT SIDEWALK PROFILES CAN MATCH ROADWAY GRADE IF ROADWAY GRADE IS GREATER THAN 5.0%. RAMP FOR DRIVEWAYS ARE REQUIRED TO FOLLOW THE ABOVE SIDEWALK CRITERIA.
 CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PEDESTRIAN ACCESS ROUTE (PAR). 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.
 DRIVEWAY TYPES FROM MOST PREFERRED TO LEAST PREFERRED ARE AS FOLLOWS: PERPENDICULAR, TIERED PERPENDICULAR, TIERED PERPENDICULAR OFFSET & PARALLEL.
- PERPENDICULAR DRIVEWAYS ARE THE STANDARD AND STARTING POINT FOR ALL DRIVEWAY DESIGN AND CONSTRUCTION. SHOULD BE USED TO ACHIEVE CONTINUOUS PAR PROFILE THROUGH THE DRIVEWAY. OBTAINING A PERPENDICULAR DRIVEWAY DESIGN BECOMES MORE CRITICAL WITH STEEP ROADWAY PROFILES.
 - TO BE USED WHEN PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED, THE DRIVEWAY PAR IS BELOW ROADWAY CURB HEIGHT. THIS DRIVEWAY TYPE CAN BE USED FOR BOTH PAVED (AS SHOWN) AND GRASS BOULEVARDS.
 - TO BE USED WHEN PERPENDICULAR AND TIERED PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED. CAN BE USED FOR STEEP NEGATIVE SLOPED DRIVEWAYS. DW CURB TYPE 2 SHOULD BE USED TO RAISE PAR ABOVE GUTTER AND REDUCE "ROLLER COASTER" EFFECT. 4" HIGH ROADWAY CURB SHOULD BE USED TO REDUCE "ROLLER COASTER" EFFECT ESPECIALLY WHEN MULTIPLE DRIVEWAYS ARE PRESENT.
 - TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.
 - 8% STANDARD, 10% MAX. FOR COMMERCIAL AND 12% MAX. FOR RESIDENTIAL. SEE GENERAL NOTES ON SHEET 2 FOR MORE INFORMATION.
 - S3 8% MAXIMUM, IF THE SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. IF EXISTING DRIVEWAY IS NEGATIVELY DRAINING, S3 CAN BECOME SLIGHTLY MORE NEGATIVE TO ACHIEVE PERPENDICULAR DRIVEWAY DESIGN IF THE VERTICAL CLEARANCE IS ACHIEVED IN VEHICLE TEMPLATES.
 - 1:3 MIN. 1:5 PREFERRED FOR DRIVEWAY RETROFIT PROJECTS. 1:10 PREFERRED FOR SIDEWALK REPLACEMENT PROJECTS.
 - 5.0' MIN. PAR WIDTH IS THE STANDARD THROUGH DRIVEWAYS. IF FEASIBLE WIDEN DRIVEWAY PAR WIDTH TO MATCH APPROACHING SIDEWALK PAR WIDTHS. IN VERTICALLY CONSTRAINED AREAS PAR WIDTHS CAN INCREMENTALLY BE REDUCED TO 4.5' OR 4' MIN AFTER ALL OTHER OPTIONS HAVE BEEN APPLIED.
 - THE PEDESTRIAN ACCESS ROUTE, MAY NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.
 - SIDEWALK OFFSET TO BE LESS THAN OR EQUAL TO HALF THE APPROACHING SIDEWALK WIDTH.
 - INTEGRAL DRIVEWAY APRON TO BE POURED MONOLITHICALLY/INTEGRAL WITH THE CURB AND GUTTER. SEE SHEET 2 FOR MORE INFORMATION.
 - SEE SHEET 2 FOR CURB TYPE INFORMATION.
 - 0" CURB IS AT FLOW LINE. SEE DRIVEWAY TABLE FOR BACK OF CURB HEIGHTS.
 - 3' LONG AT 8-10% PREFERRED FOR INITIAL CURB TAPER. REDUCE CURB TAPER SLOPE IF NECESSARY TO MATCH ADJACENT SIDEWALK GRADES.
 - MATCH FULL CURB HEIGHT.
 - 1:2 TAPER RATE ON INTEGRAL DRIVEWAY APRONS.
 - SEE SHEET 4 FOR WHEN 6" WALK IS REQUIRED.

LEGEND

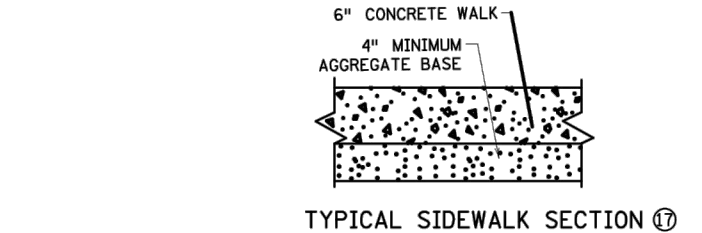
(F) INDICATES DRIVEWAY RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%



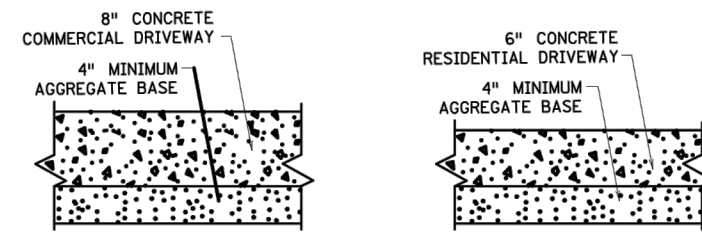
INTEGRAL DRIVEWAY APRON



SECTION D-D



TYPICAL SIDEWALK SECTION ⑰



TYPICAL DRIVEWAY SECTIONS

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

m MINNESOTA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN 5-297.254 1 OF 4
 APPROVED: 11-04-2021
 REVISIONS:
 STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DRIVEWAY AND SIDEWALK DETAILS

WIDSETH ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 DRIVEWAY DETAILS

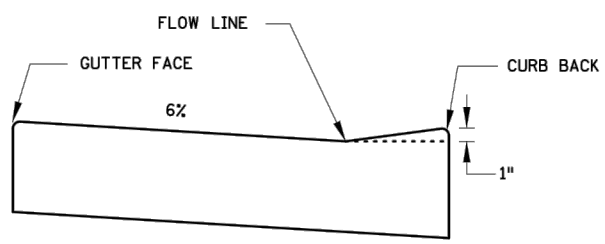
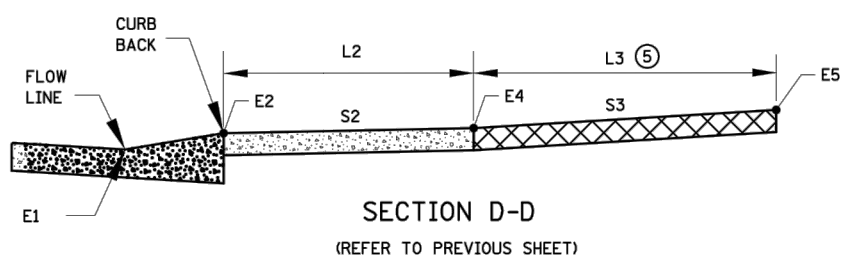
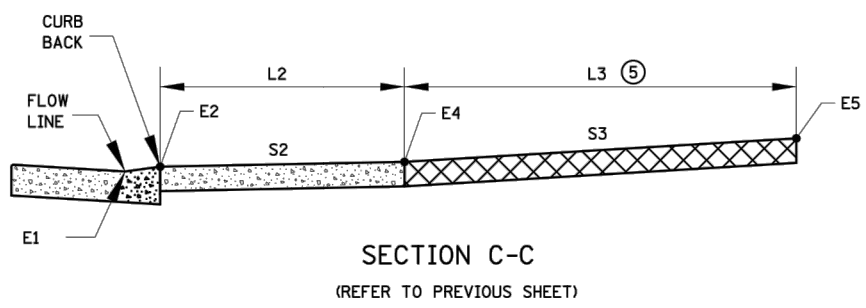
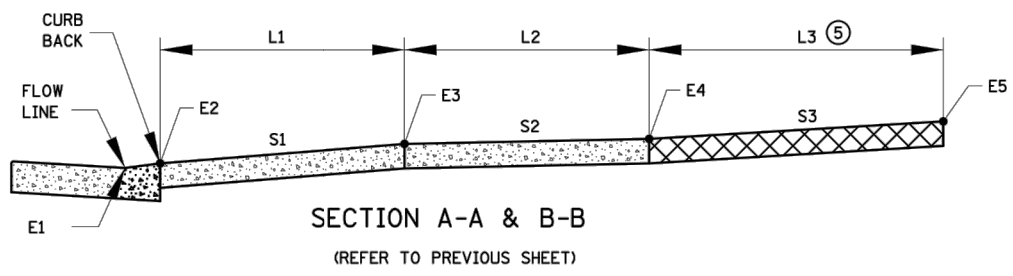
DATE: NOV. 2021
 SCALE: AS SHOWN
 DRAWN BY: ADB
 CHECKED BY: ALW
 JOB NUMBER: 2021-11648

DATE: 02-14-2022 LIC. NO. 41883
 ARIC L. WELCH

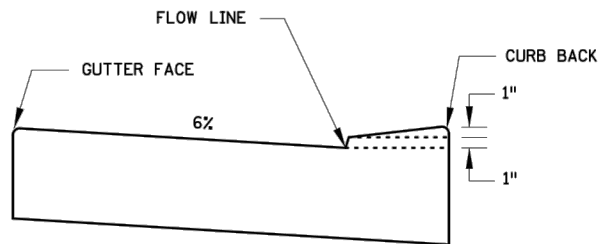
SHEET NO. 14

DRIVEWAY TABLE ①

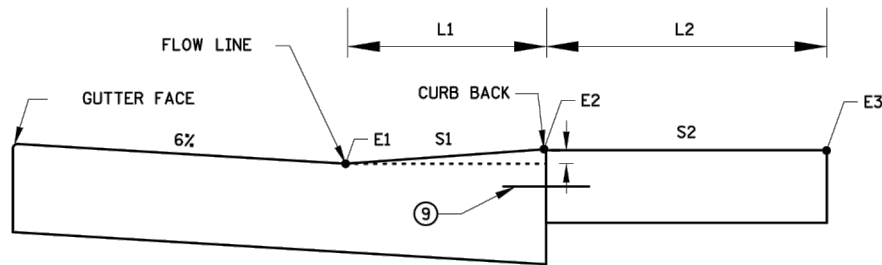
STATION	SIDE	DRIVEWAY TYPE ②	CURB TYPE ③	E1	E2	L1	S1	E3	L2	S2 ④	E4	L3 ⑤	S3	EXISTING ⑥	E5	COMMENTS
						FT	%		FT	%		FT	%			



DW CURB TYPE 1
STANDARD CURB AT DRIVEWAY



DW CURB TYPE 2
VERTICALLY CONSTRAINED



INTEGRAL DRIVEWAY APRON (IDA)

NOTES:

- ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.
- DW CURB TYPE 1 SHALL BE USED WHEN THE DRIVEWAY ACTS AS A PEDESTRIAN RAMP. THE MAX. APRON SLOPE MUST ADHERE TO ADA CRITERIA AS WELL. DW CURB TYPE 1 SHOULD BE USED IF THERE IS ON STREET PARKING.
- WHERE ROADWAY DRAINAGE IS A CONCERN (NEGATIVE SLOPED APRON) DW CURB TYPE 2 CAN BE USED TO HELP KEEP THE WATER ON PUBLIC RIGHT OF WAY.
- S1 8% STANDARD, 10% MAX. COMMERCIAL AND 12% MAX. RESIDENTIAL. IF EXISTING GRADES ARE STEEPER DO NOT MAKE GRADES APPRECIABLY WORSE BY USING BEST PRACTICES SUCH AS DRIVEWAY CURB HEIGHTS, EXTENDING L3 AND/OR STEEPEN S3.
- S3 8% MAXIMUM, IF THIS SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGNS OF DRIVEWAYS.
- ① EXAMPLE SHOWN TO BE INCLUDED IN PLAN FOR EACH DRIVEWAY THAT HAS PAR THROUGH IT.
- ② REFERS TO THE FOLLOWING TYPES; PERPENDICULAR DRIVEWAY, TIERED PERPENDICULAR OFFSET DRIVEWAY, TIERED PERPENDICULAR DRIVEWAY, PARALLEL DRIVEWAY, AND INTEGRAL DRIVEWAY APRON.
- ③ DW CURB TYPE 1 IS THE STANDARD AND SHALL BE THE STARTING POINT FOR ALL PERPENDICULAR AND TIERED DRIVEWAYS. DW CURB TYPE 2 SHALL ONLY BE USED AFTER UTILIZING BEST PRACTICES SUCH AS MAXIMIZING S1, S3, AND L3.
- ④ SHOULD BE DESIGNED AT 1.5%.
- ⑤ ACQUIRE ADEQUATE L3 TO ALLOW FOR CONTINUOUS PAR PROFILE (UNIFORM SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.
- ⑥ PROVIDE INPLACE TIE-IN SLOPE INFORMATION AT BACK OF PROPOSED WALK (S3 AREA).
- ⑦ INFORMATION TO BE INCORPORATED INTO DRIVEWAY TABLE WHEN INTEGRAL DRIVEWAY APRON IS USED. OTHER CURB HEIGHTS & CURB APRON LENGTHS CAN BE USED.
- ⑧ L1 & S1 FOR INTEGRAL DRIVEWAY APRON IS TO FLOWLINE. 12.5% IS MAXIMUM PREFERRED SLOPE.
- ⑨ TIE ADJACENT SECTIONS. CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINT.

TYPICAL INTEGRAL DRIVEWAY APRON ⑦

CURB TYPE	L1	E2	S1 ⑧
	FT		%
IDA 216	1.33	+0.16	12.5
IDA 220	1.67	+0.16	10
IDA 324	2	+0.24	12.5
IDA 432	2.67	+0.33	12.5

REVISIONS:
APPROVED: 11-04-2021
Jeffrey J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

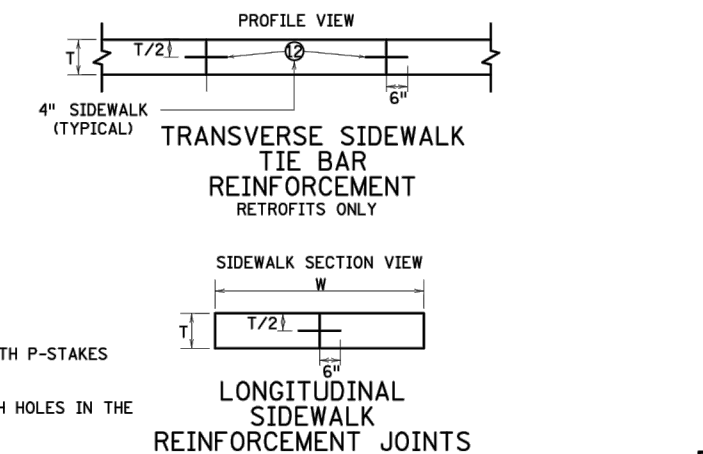
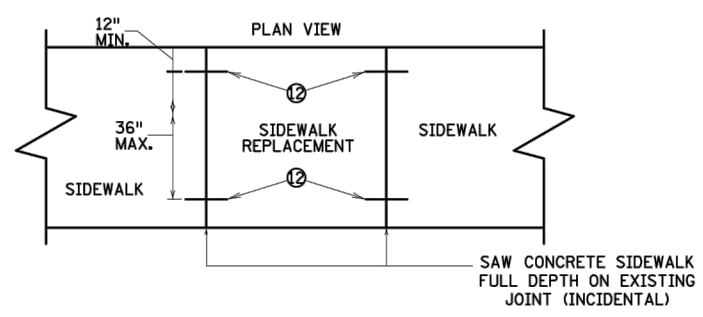
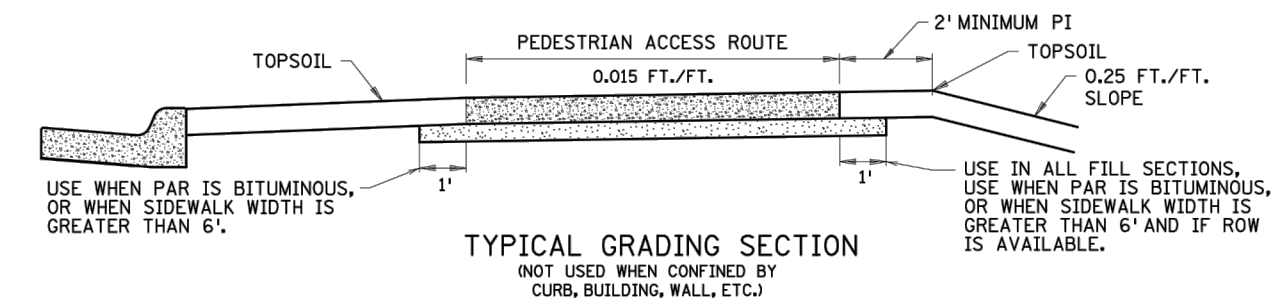
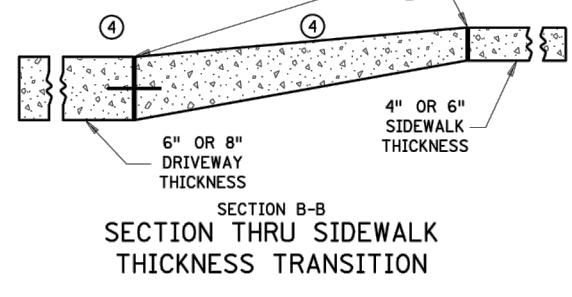
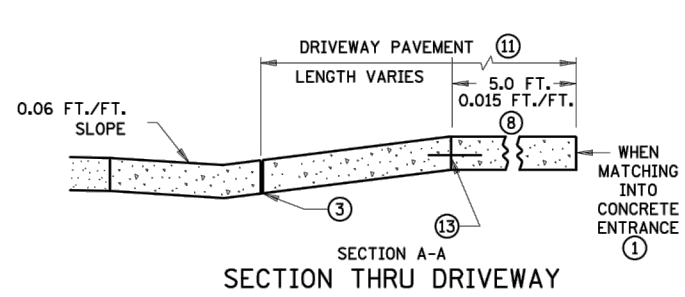
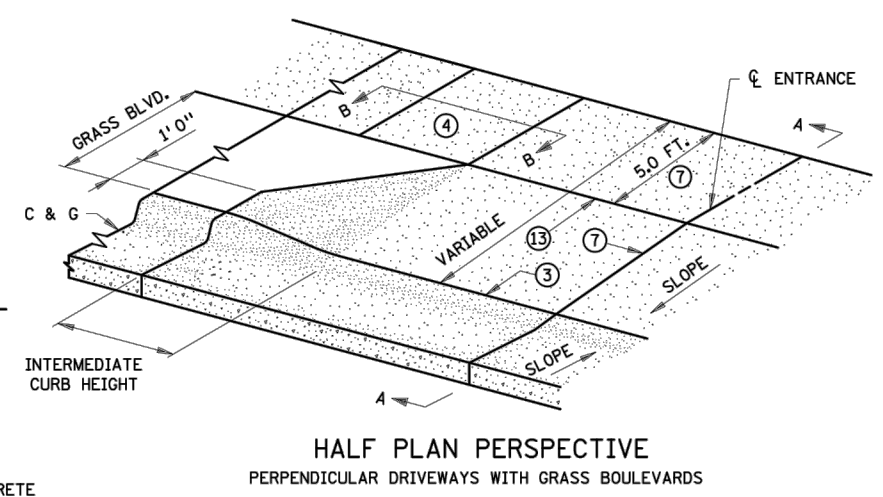
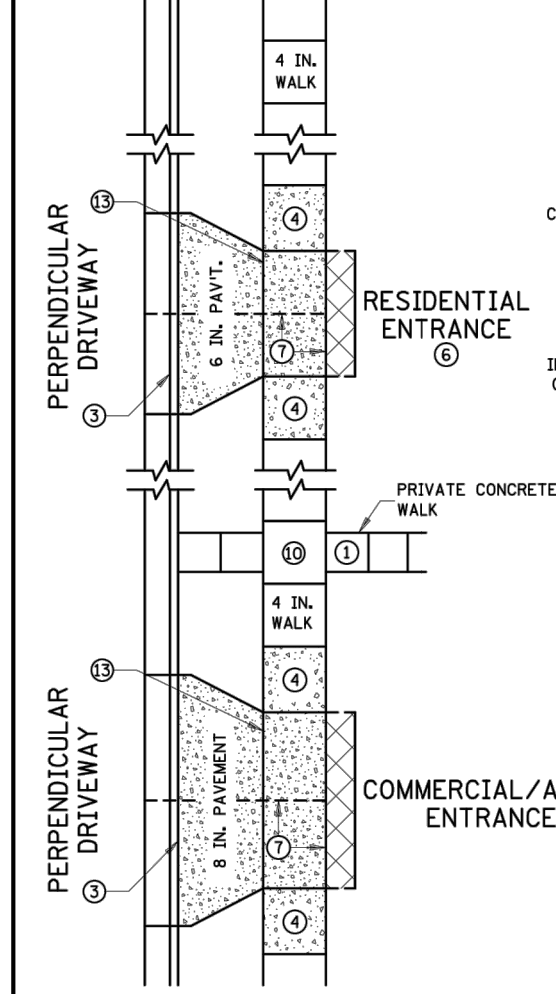
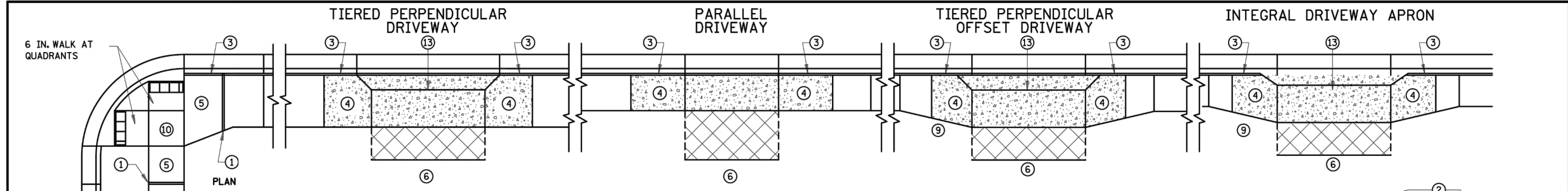
m MINNESOTA DEPARTMENT OF TRANSPORTATION
STANDARD PLAN 5-297.254 2 OF 4
APPROVED: 11-04-2021
REVISOR:
Tom Styrbicki
THOMAS STYRBICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

BY	REVISION DESCRIPTION
ADB	
DATE	REVISION #
NOV-2021	AS SHOWN
06-XX-2022	ADB
SCALE	DRAWN BY
	ALW
CHECKED BY	JOB NUMBER
	2021-11648

DATE	NOV. 2021
SCALE	AS SHOWN
DRAWN BY	ADB
CHECKED BY	ALW
JOB NUMBER	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
DRIVEWAY DETAILS



SIDEWALK LONGITUDINAL JOINT TIE BAR TABLE

SIDEWALK WIDTH, W	SIDEWALK THICKNESS, T	TIE BAR SIZE	LENGTH	SPACING
> 7'	4"	No. 4	12"	24"
>10'	6"	No. 4	12"	36"

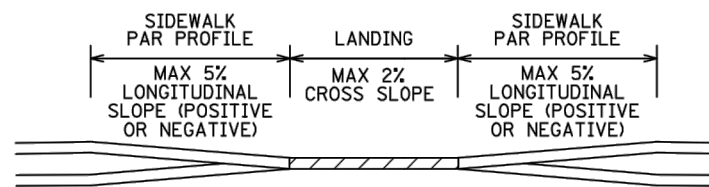
FOR 4" CONCRETE ONLY: CAST IN PLACE BARS MUST BE SUPPORTED WITH P-STAKES OR REINFORCEMENT BASKETS FOR FULL WIDTH CONCRETE PLACEMENTS.
FOR 6" CONCRETE ONLY: DRILL AND GROUT OR CAST IN PLACE THROUGH HOLES IN THE FORMS REQUIRED FOR STAGED ADJACENT CONCRETE PLACEMENTS.

- NOTES:**
- ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.
 - TO MINIMIZE SIDEWALK "ROLLER COASTER" EFFECT IT IS DESIRABLE TO KEEP THE PAR ELEVATION CONTINUOUS OR AT LEAST IN THE UPPER HALF OF CURB HEIGHT. 4" HIGH CURB SHOULD BE USED INSTEAD OF 6" HIGH CURB TO HELP THIS PROBLEM WHEN APPLICABLE.
 - 4" HIGH ADJACENT CURB IS PREFERRED WHEN BOULEVARDS 4' OR LESS ARE PRESENT MEASURED FROM THE BACK OF CURB. WHEN THE DRIVEWAY IS SLOPING DOWN FROM THE ROADWAY (NEGATIVE) 4" HIGH ADJACENT CURB SHOULD ALSO BE USED.
 - SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGN OF DRIVEWAYS.
 - CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. DRIVEWAY EXPANSION SHALL BE PLACED AT TOP OR BOTTOM OF TRANSITION PANEL.
 - CONSTRUCT WITH EXPANSION MATERIAL MNDOT PER SPEC. 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. MAXIMUM ONE EXPANSION PER DRIVEWAY PLACED AT EITHER TOP OR BOTTOM OF CONCRETE THICKNESS TRANSITION. IF MULTIPLE DRIVEWAYS EXIST PLACE ONE EXPANSION BETWEEN EACH DRIVEWAY. IF NO DRIVEWAY EXIST PLACE A MAXIMUM OF ONE EXPANSION PER 150' OF SIDEWALK RUN.
 - USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.
 - TRANSITION DRIVEWAY THICKNESS TO WALK THICKNESS. IF THERE IS A CONSTRUCTION JOINT AND NO EXPANSION IS USED, INSTALL TIE BARS.
 - TRANSITION CURB RAMP THICKNESS TO WALK THICKNESS.
 - MATCH INPLACE DRIVEWAY WIDTH, MATERIAL TYPE AND THICKNESS.
 - FORM CONTRACTION JOINT AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANELS. CONCRETE PANEL SIZE SHOULD NOT EXCEED 1 1/2 : 1 LENGTH X WIDTH. 81 SF FOR 6" CONCRETE DRIVEWAY WITH 9'X9' MAXIMUM PANEL SIZE. 144 SF FOR 8" CONCRETE DRIVEWAY WITH 12'X12' MAXIMUM PANEL SIZE. MATCH DRIVEWAY APRON AND SIDEWALK JOINTS.
 - THE PEDESTRIAN ACCESS ROUTE CROSS-SLOPE, SHALL NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.
 - 1:10 MIN. SIDEWALK OFFSET TAPER REQUIRED FOR SIDEWALK REPLACEMENT PROJECTS. 1:3 MIN. AND 1:5 MIN. PREFERRED SIDEWALK OFFSET TAPER FOR DRIVEWAY REPLACEMENT.
 - LANDING REQUIRED, SEE NEXT SHEET FOR MORE INFORMATION.
 - CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SECTIONS SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. ENGINEER'S APPROVAL REQUIRED FOR MONOLITHIC PLACEMENTS.
 - DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED), 36" MAXIMUM SPACING BETWEEN BARS COVER PLACED 1" MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1" MINIMUM FROM ADJACENT CONCRETE JOINTS. BARS TO BE ADJUSTED TO MATCH SIDEWALK GRADES. TO BE PAID BY EACH.
 - DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED), 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1" MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1" MINIMUM FROM ADJACENT CONCRETE JOINTS.

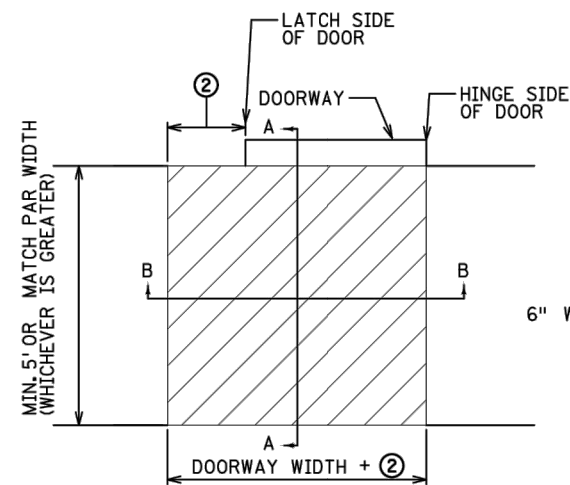
REVISION: 12-23-2021
APPROVED: 11-04-2021
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JEFFREY J. PERKINS
OPERATIONS DIVISION

m MINNESOTA DEPARTMENT OF TRANSPORTATION
STANDARD PLAN 5-297.254 3 OF 4
APPROVED: 11-04-2021
REVISED: 12-23-2021
Rom Sika
THOMAS STYBRICKI
STATE DESIGN ENGINEER

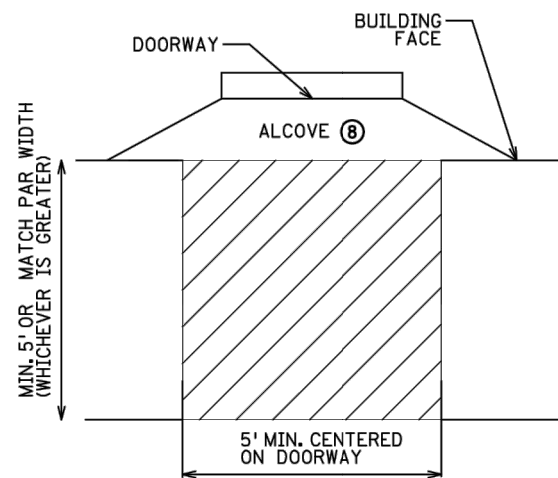
DRIVEWAY AND SIDEWALK DETAILS
STATE PROJ. NO. (TH) SHEET NO. OF SHEETS



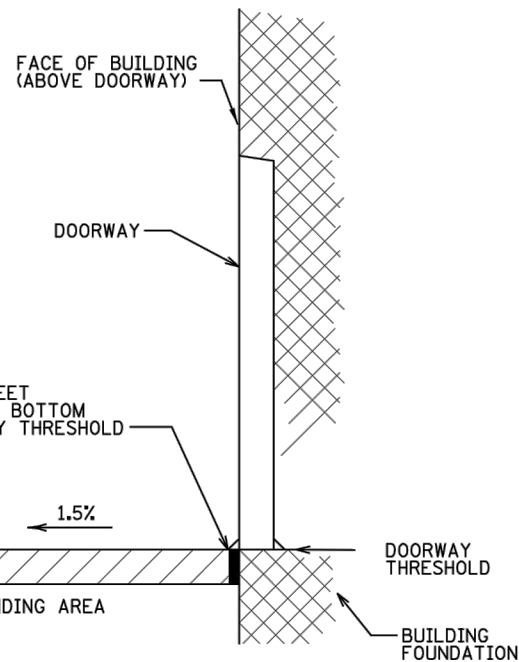
SECTION VIEW B-B



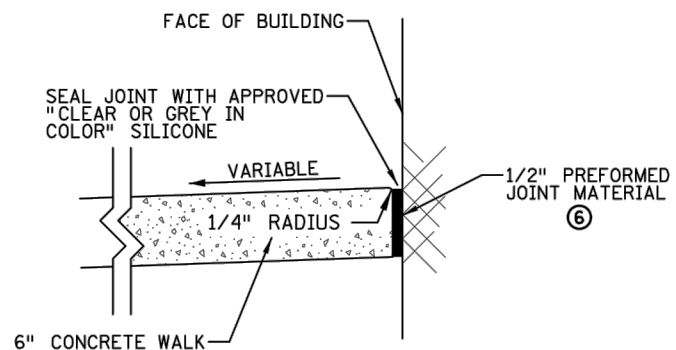
PLAN VIEW DOORWAY



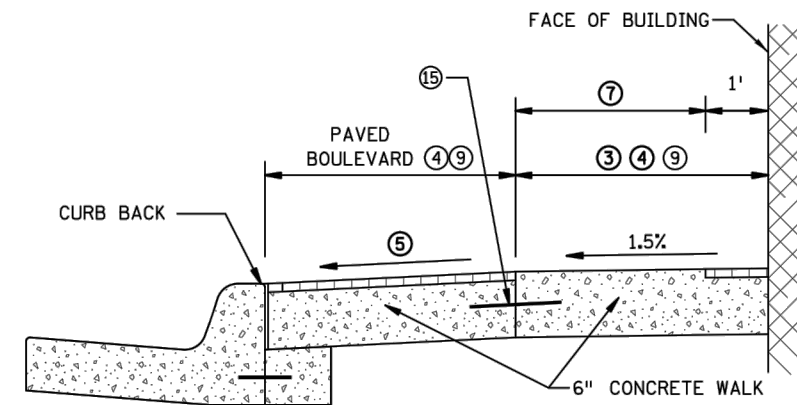
PLAN VIEW DOORWAY WITH ALCOVE
SIDEWALK LANDING REQUIREMENTS ①



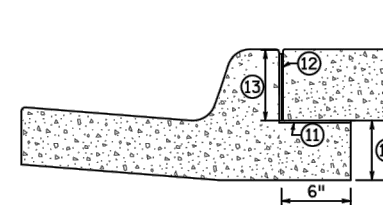
SECTION VIEW A-A



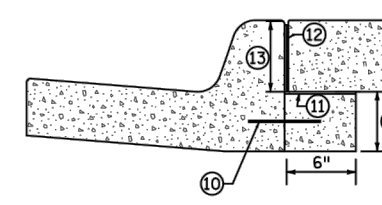
BUILDING JOINT SEAL (INCIDENTAL)



DOWNTOWN SIDEWALK TYPICAL SECTION



SLIP FORM SILL



FIXED FORM SILL

SILL CURB SHOULD BE USED AT ALL LOCATIONS WHEN CONCRETE WALK IS AT BACK OF CURB, INCLUDING PAVED BOULEVARD.
SILL CURB SHALL NOT BE USED IN CURB RAMP AND DRIVEWAY AREAS, INCLUDING CONCRETE FLARES.
SILL CURB WITH 4" WALK CAN USE FIXED OR SLIP FORM OPTIONS.

NOTES:

- ⑥" WALK IS REQUIRED:
 - 1) IN ALL SIDEWALK LOCATIONS WHERE VARIABLE SLOPED CONCRETE BOULEVARDS ARE PAVED, SUCH AS COMMERCIAL (STORE FRONT, DOWNTOWN) AREAS.
 - 2) ANYTIME DRILL AND REINFORCEMENT IS USED TO TIE LONGITUDINAL JOINTS TOGETHER.
 - 3) TO ELIMINATE LONGITUDINAL JOINT WHEN INCREASING PANEL SIZE OVER 36SF.
 - 4) AT LOCATIONS WHERE MAINTENANCE EQUIPMENT WILL SUBJECT CONCRETE TO HEAVY LOADS.
- ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.
FIELD ADJUST SIDEWALK PROFILES TO MEET ALL DOORWAY THRESHOLDS.
SIDEWALK MUST MAINTAIN POSITIVE DRAINAGE AWAY FROM THE BUILDING TO THE ROADWAY.
- SEE SPECIAL PROVISIONS FOR SILICONE SPECIFICATIONS.
- ① LANDING CRITERIA IS REQUIRED FOR ALL DOORS, STEPS, AND PRIVATE WALKS. FEASIBILITY DECREASES WITH NARROWER BOULEVARDS AND STEEPER SIDEWALK PROFILES.
 - ② 18" MIN. WHEN DOOR SWINGS OUTWARD FROM BUILDING. 12" MIN WHEN DOOR SWINGS INWARD FROM BUILDING.
 - ③ 6' MIN. PAR REQUIRED WHEN ADJACENT TO BUILDINGS.
 - ④ 2/3 PAR TO 1/3 BOULEVARD SHOULD BE USED WHEN FEASIBLE. HOLD UNIFORM BOULEVARD WIDTH. 4' PREFERRED MINIMUM BOULEVARD.
 - ⑤ 1%-5% FOR THE MAJORITY OF THE BLOCK, WITH EXCEPTIONS UP TO 8% IN CONSTRAINED AREAS.
 - ⑥ 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.
 - ⑦ TO MINIMIZE VIBRATION AND ROLLING RESISTANCE, AREA SHALL BE FREE OF PAVERS, STAMPED CONCRETE, AND/OR EXCESSIVE JOINTING.
 - ⑧ 2% MAX. PER BUILDING CODE. IF GREATER THAN 2%, FLATTEN AS FEASIBLE.
 - ⑨ FORM CONTRACTION JOINTS AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANEL SIZE. CONCRETE PANEL SIZE SHOULD NOT EXCEED 1/2 : 1 LENGTH X WIDTH.
 - ⑩ DRILL AND GROUT NO. 4 X 8" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS. TIE BARS SHALL BE EMBEDDED 4" WITH 2" MINIMUM CONCRETE COVER AND ARE INCIDENTAL TO SILL PLACEMENT.
 - ⑪ FURNISH AND INSTALL THE FULL WIDTH OF THE TOP OF SILL A MINIMUM 2ML THICK POLYTHENE SHEETING.
 - ⑫ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.
 - ⑬ DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.
 - ⑭ 6" WALK: 5" MIN. FOR B424; 7" MIN. FOR B624
4" WALK: 7" MIN. FOR B424; 9" MIN. FOR B624
 - ⑮ DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONCRETE JOINTS.

REVISION:
APPROVED: 11-04-2021
Jeffrey J. Perkins
JEFFREY PERKINS
OPERATIONS DIVISION

m
MINNESOTA
DEPARTMENT
OF
TRANSPORTATION

STANDARD PLAN 5-297.254 4 OF 4

APPROVED: 11-04-2021
REVISOR:
Tom Sika
THOMAS TYRBECKI
STATE DESIGN ENGINEER

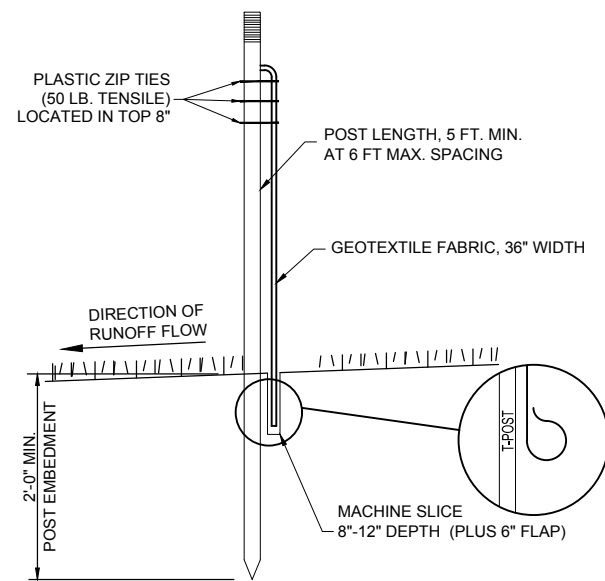
DRIVEWAY AND SIDEWALK DETAILS

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

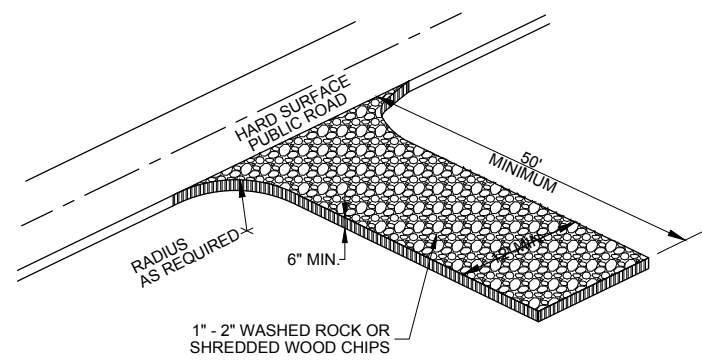
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DATE: NOV. 2021	SCALE: AS SHOWN	DRAWN BY: ADB	CHECKED BY: ALW	JOB NUMBER: 2021-11648
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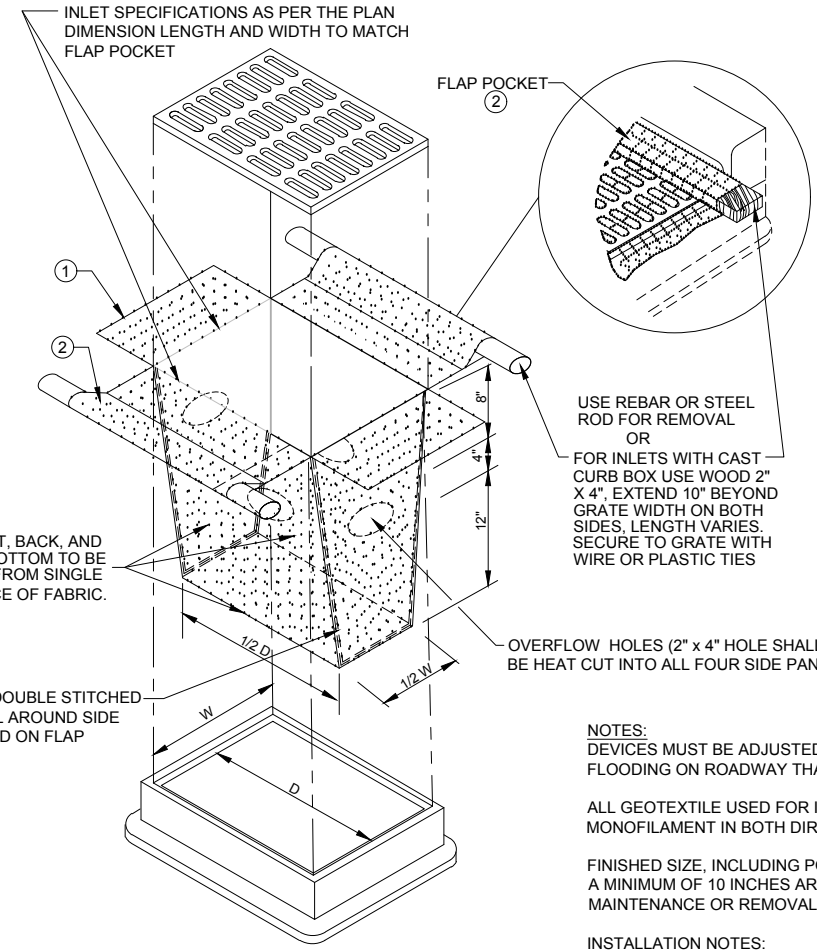
2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
DRIVEWAY DETAILS



SILT FENCE DETAIL
STANDARD MACHINE SLICED



CONSTRUCTION EXIT



INLET PROTECTION ③
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

NOTES:
DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEDE TRAFFIC FLOW

ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.

FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

INSTALLATION NOTES:
DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAT 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.

FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.

NOTE:
IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ALL EXISTING TREES AND SHRUBS ADJACENT TO ROADWAY. THIS INCLUDES ROOT, TRUNK, AND BRANCH DAMAGE. TREES AND SHRUBS SPECIFICALLY TO BE REMOVED WILL BE INDICATED.

- GENERAL EROSION CONTROL NOTES:**
- ALL SILT FENCE SHALL BE IN-PLACE PRIOR TO ANY EXCAVATION/CONSTRUCTION AND SHALL BE MAINTAINED UNTIL VIABLE TURF OR GROUND COVER IS ESTABLISHED.
 - TEMPORARY SEEDING, MULCHING, TEMPORARY EROSION AND SEDIMENT CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH THE ABOVE TABLE.
 - ALL EXPOSED SOILS MUST BE STABILIZED, ACCORDING TO THE TABLE ABOVE, AFTER ROUGH GRADING OPERATIONS ARE COMPLETE. ALL STOCKPILES MUST HAVE ADEQUATE SEDIMENT TRAPPING SYSTEMS FUNCTIONING AROUND THERE PERIMETER.
 - FINAL SOIL STABILIZATION SHALL CONSIST OF 10-10-20 TYPE 3 FERTILIZER AT 300 LBS/ACRE.

WIDSETH
ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

MEMBER COUNTY THAT THIS PLAN, SPECIFICATIONS, 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.
Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41983

NO.	DATE	REVISION DESCRIPTION

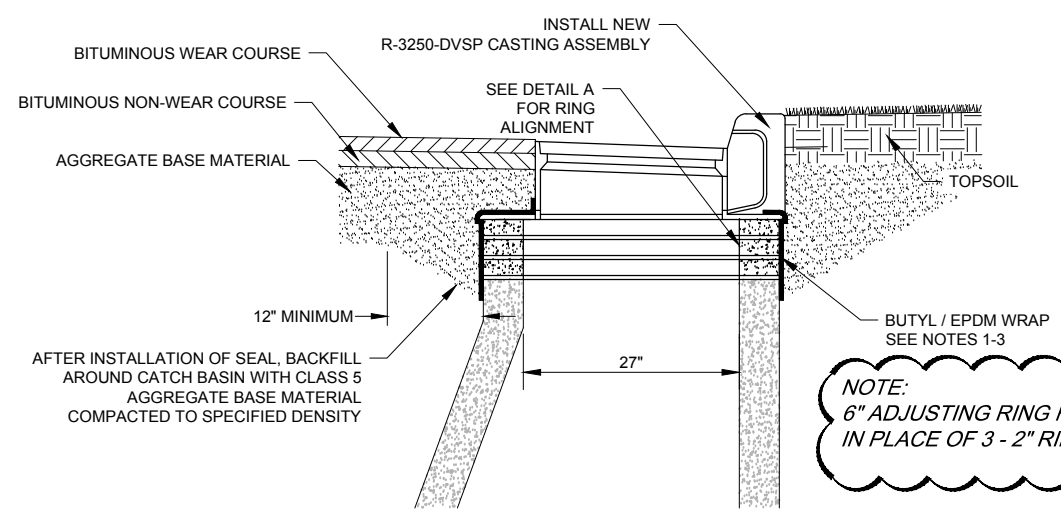
DATE: NOV. 2021 AS SHOWN
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DRAWN BY: ALW
CHECKED BY: ALW
JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
DETAILS

SHEET NO. **18**

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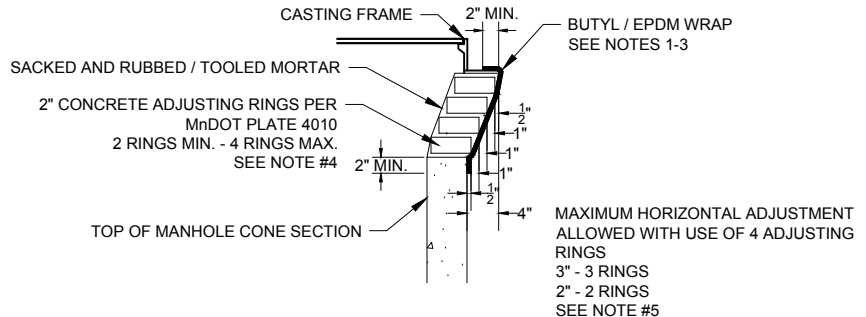
NOV. 2021	NOV. 2021	NOV. 2021	NOV. 2021
AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
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CHECKED BY: ALW	CHECKED BY: ALW	CHECKED BY: ALW	CHECKED BY: ALW
JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648



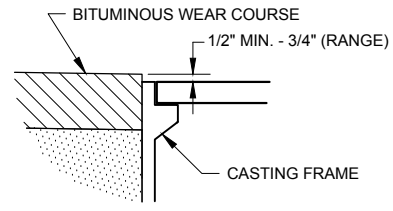
RECONSTRUCT DRAINAGE STRUCTURE
STORM SEWER CATCH BASIN AT CURB

- NOTES:**
- SANITARY MANHOLES AS NOTED IN THE PLANS ARE TO HAVE THE CONCRETE ADJUSTING RINGS REMOVED TO THE TOP OF THE CONE. THE EXISTING CONCRETE ADJUSTING RINGS ARE TO BE REPLACED WITH NEW CONCRETE RINGS. THE CASTING IS TO BE SALVAGED (SANITARY) AND RE-INSTALLED ALONG WITH AN INFI-SHIELD EXTERNAL SEAL (WITH INSPECTION TAB) PRIOR TO BACKFILLING AROUND THE RINGS AND CASTING. BACKFILLING TO BE DONE IN 6" LIFTS AND COMPACTED WITH AN UPRIGHT RAMMER.
 - BUTYL (.030") / EPDM (.045") WRAP PLACED AROUND CONCRETE RINGS. LAP HORIZONTAL JOINTS 1 1/2" MIN. AND FOLD OVER ONTO CASTING FRAME 2" MIN.
 - ON FLAT COVER STRUCTURES, MATERIAL SHALL ALSO BE EXTENDED ONTO PRECAST TOP 2" MIN.
 - BUTYL / EPDM WRAP IS INCIDENTAL TO STRUCTURE CONSTRUCTION.

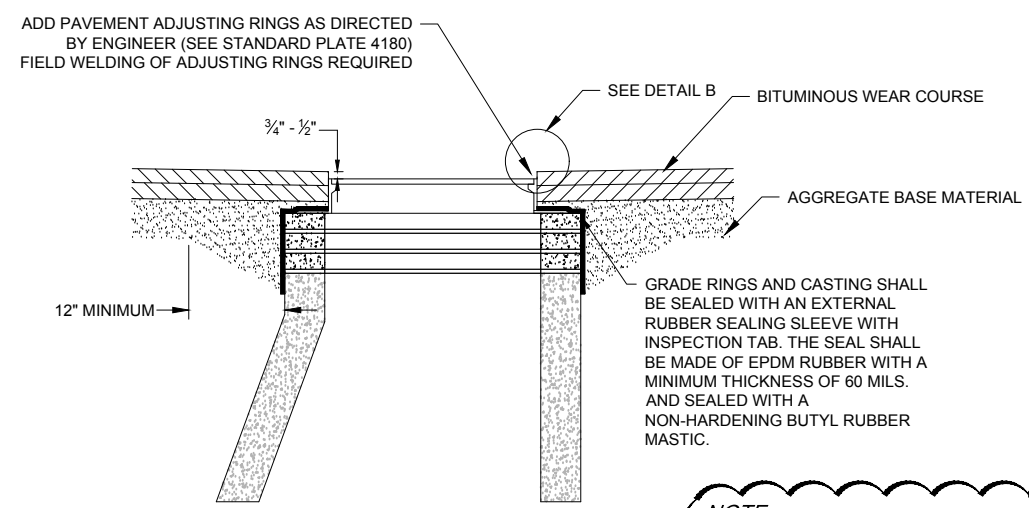
NOTE:
6" ADJUSTING RING REQUIRED IN PLACE OF 3 - 2" RINGS



DETAIL A
ADJUSTING RING OFFSET



DETAIL B
CASTING / COVER RECESS



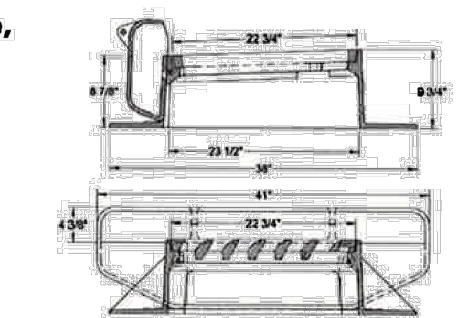
ADJUST FRAME AND RING CASTING
SANITARY MANHOLES IN ROADWAYS

NOTE:
6" ADJUSTING RING REQUIRED IN PLACE OF 3 - 2" RINGS

R-3250-DVSP
Combination Inlet Frame, Grate, Curb Box

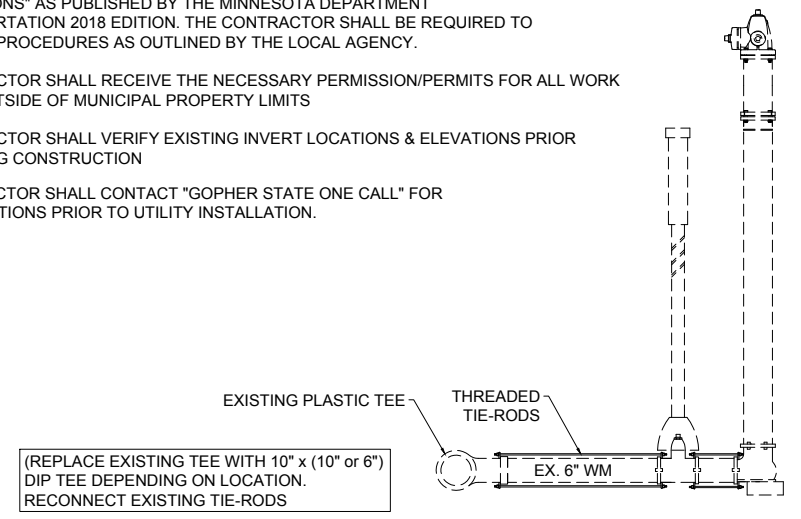
Heavy Duty

CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-3250-DVSP	V	1.3	5.8

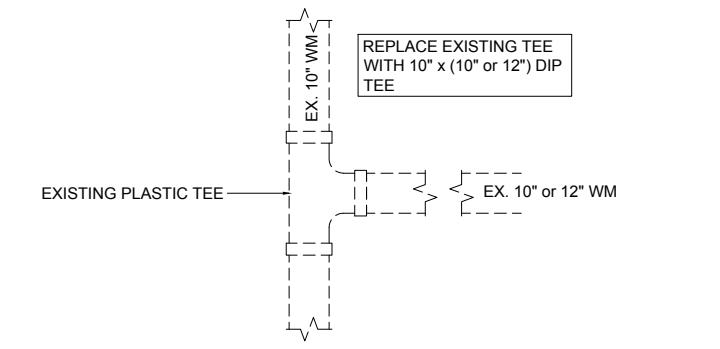


REPLACE EXISTING PLASTIC WATERMAIN TEE NOTES:

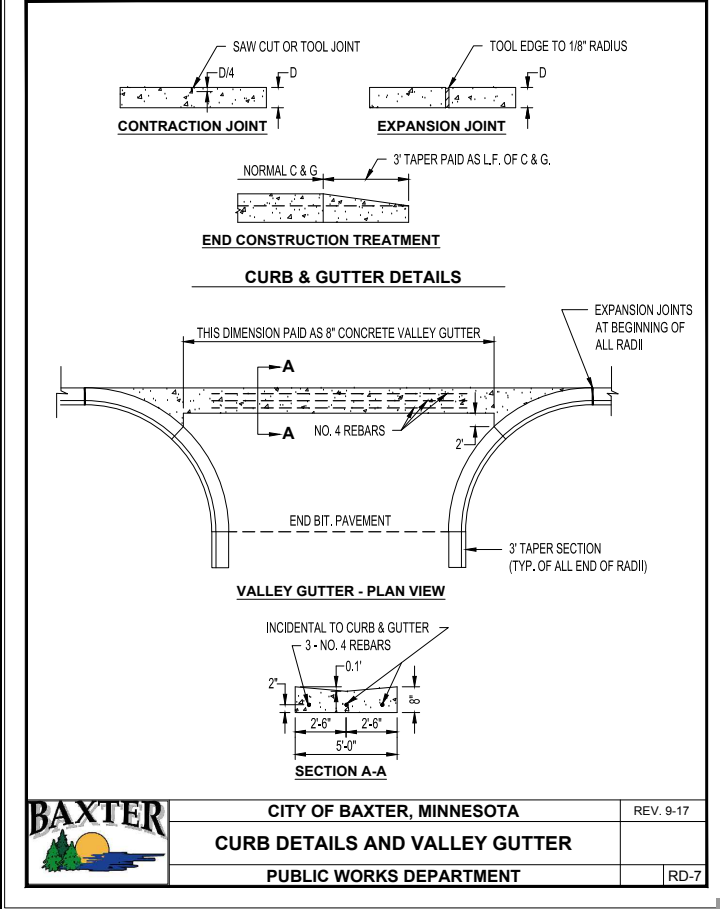
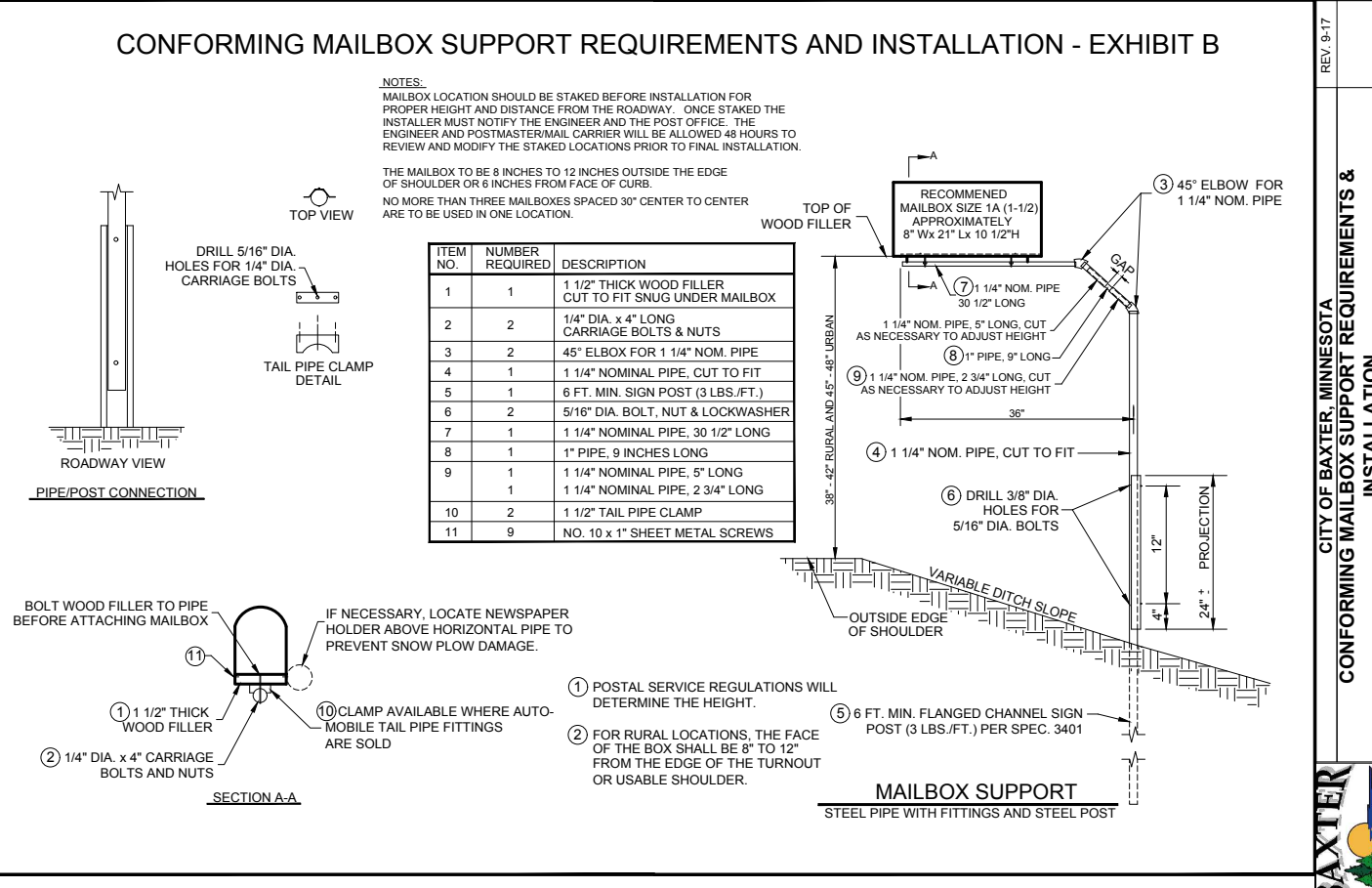
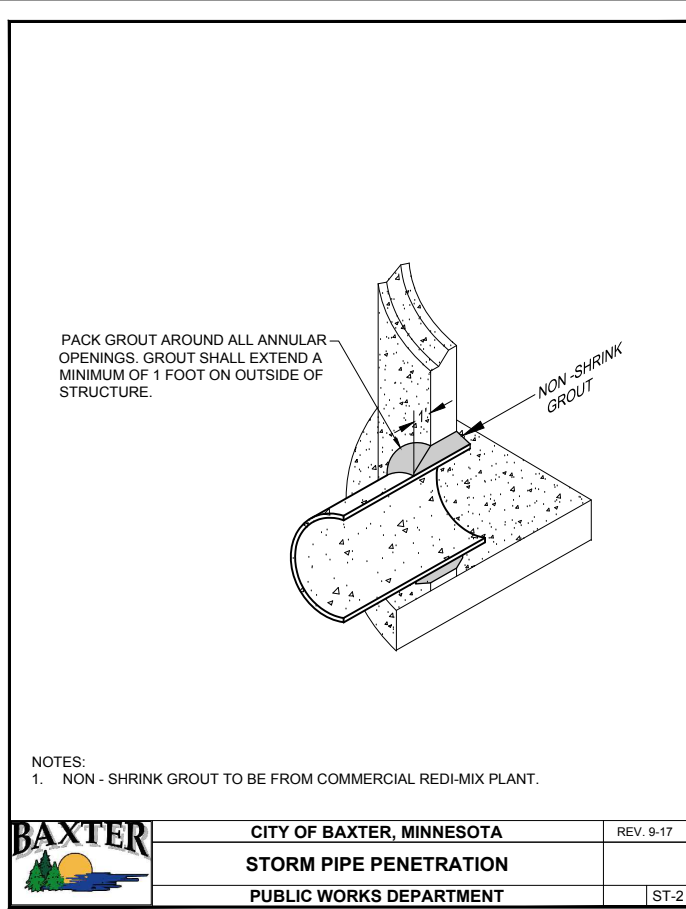
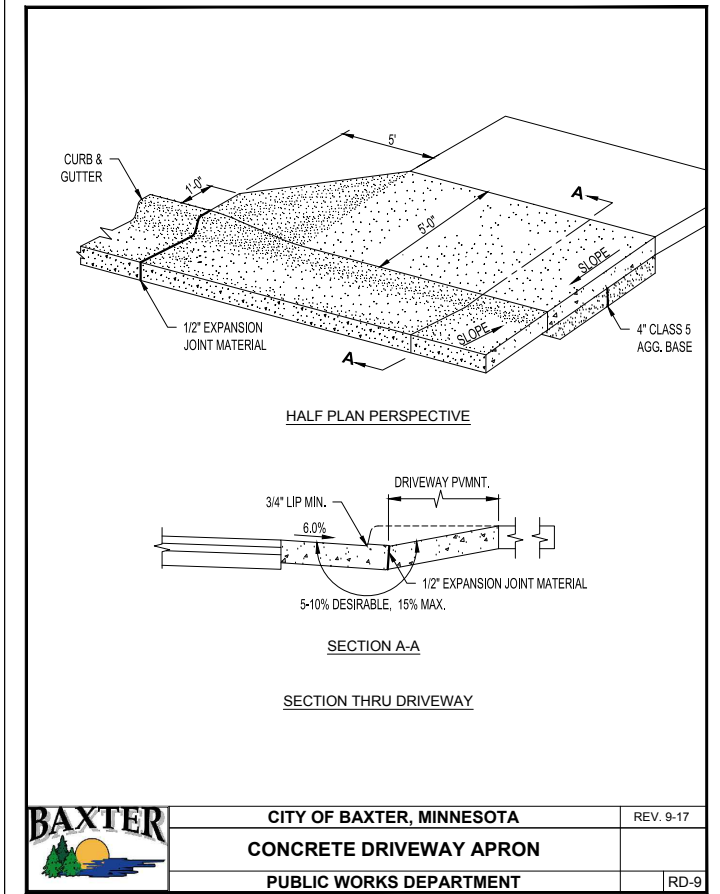
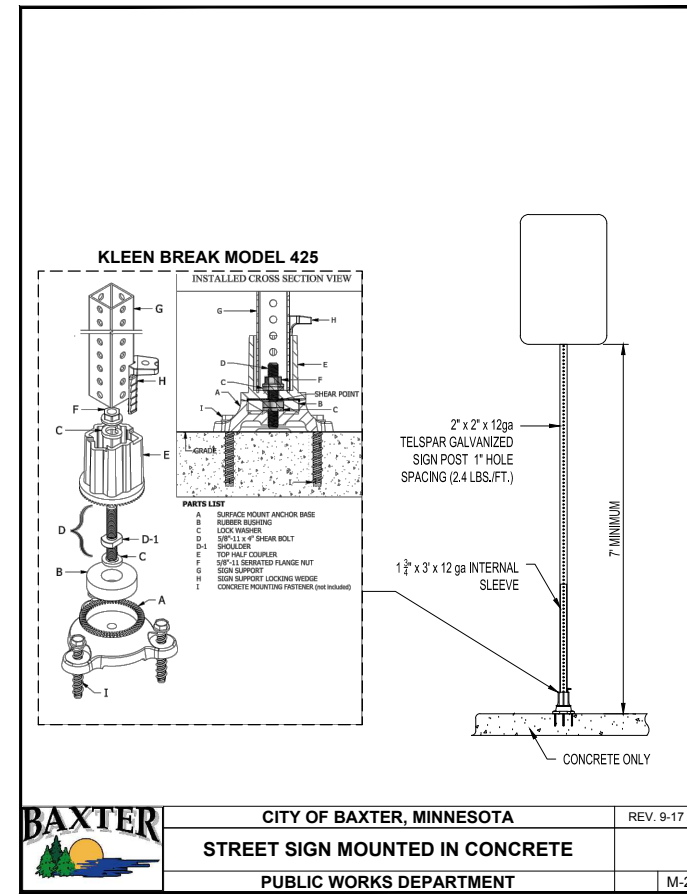
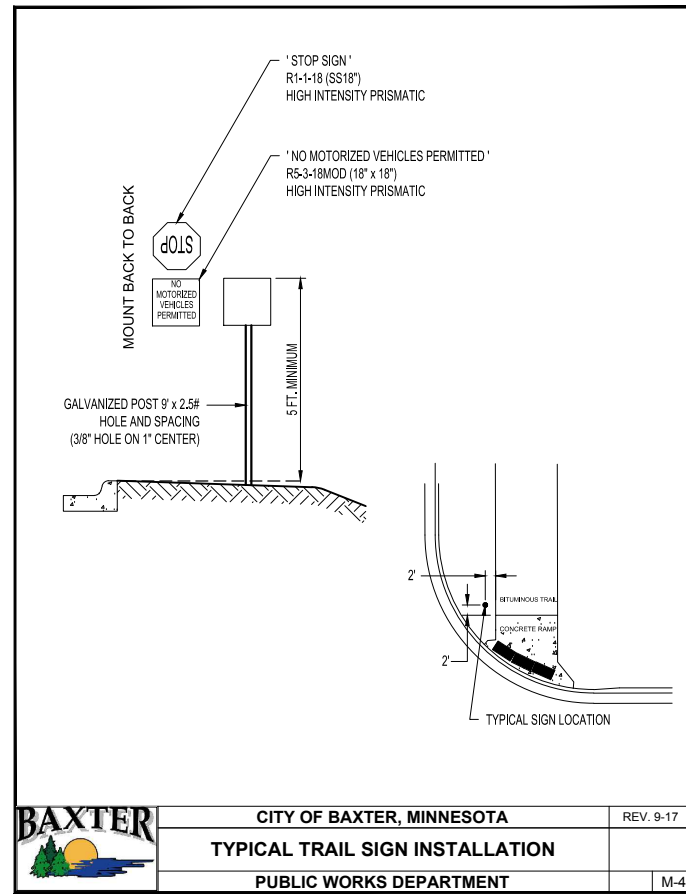
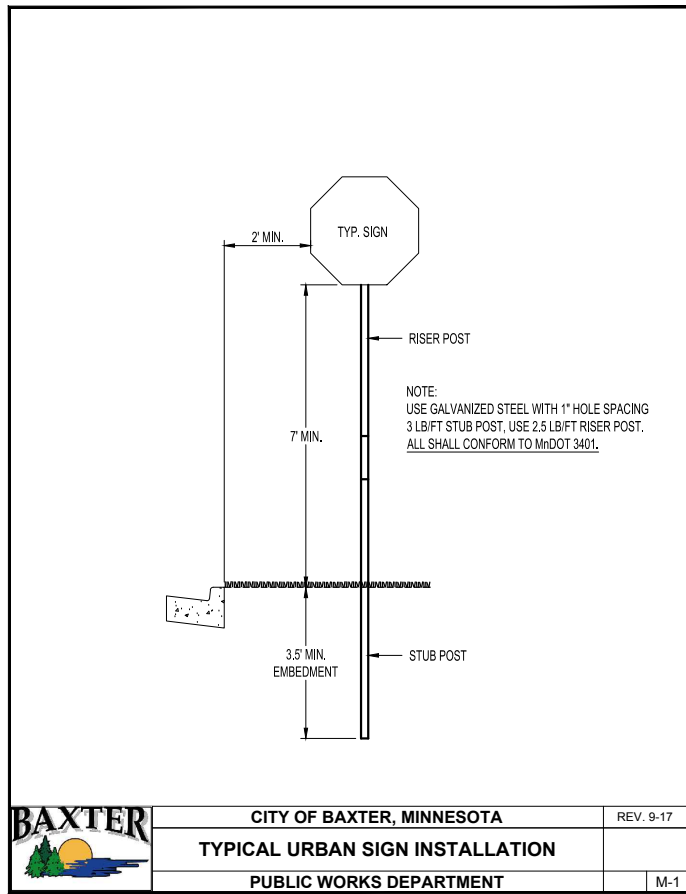
- THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES WITH THE PLAN.
- UNLESS OTHERWISE NOTED, ALL MATERIALS, CONSTRUCTION TECHNIQUES AND TESTING SHALL CONFORM TO THE 2018 ED. OF THE "STANDARD SPECIFICATIONS FOR TRENCH EXCAVATION AND BACKFILL / SURFACE RESTORATION, WATERMAIN AND SERVICE LINE INSTALLATION AND SANITARY SEWER AND STORM SEWER INSTALLATION" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA AND TO THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "MATERIALS LAB SUPPLEMENTAL SPECIFICATIONS" AS PUBLISHED BY THE MINNESOTA DEPARTMENT OF TRANSPORTATION 2018 EDITION. THE CONTRACTOR SHALL BE REQUIRED TO FOLLOW ALL PROCEDURES AS OUTLINED BY THE LOCAL AGENCY.
- THE CONTRACTOR SHALL RECEIVE THE NECESSARY PERMISSION/PERMITS FOR ALL WORK LOCATED OUTSIDE OF MUNICIPAL PROPERTY LIMITS
- THE CONTRACTOR SHALL VERIFY EXISTING INVERT LOCATIONS & ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION
- THE CONTRACTOR SHALL CONTACT "GOPHER STATE ONE CALL" FOR UTILITY LOCATIONS PRIOR TO UTILITY INSTALLATION.



EXISTING 8" x 6" PLASTIC TEE HYDRANT CONNECTION DETAIL
NO SCALE



EXISTING 10" x 10" PLASTIC TEE MAINLINE CONNECTION DETAIL
NO SCALE



NOTES & GUIDELINES

GENERAL INFORMATION:

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN THE DEVICES IN THIS TRAFFIC CONTROL PLAN UNLESS OTHERWISE NOTED.
2. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER. ALL DISTANCES ARE APPROXIMATE.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH MN MUTCD.
4. SIGN PLACEMENTS SHALL NOT OBSTRUCT EXISTING SIGNS.
5. THE ITEM "TRAFFIC CONTROL" COVERS ALL DEVICES SHOWN ON THE PLAN SHEETS AND OTHER SETUPS REQUIRED BY THE CONTRACTOR'S OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR GETTING ACTUAL QUANTITIES NEEDED FOR THE PROJECT.
6. ALL DIAMOND SIGNS ARE 48" x 48".
7. IF THE CONTRACTOR DECIDES TO PERFORM THE CONSTRUCTION WORK IN A SEQUENCE OTHER THAN SHOWN IN THIS TRAFFIC CONTROL PLAN THE CONTRACTOR SHALL PROVIDE COMPLETE REVISED TRAFFIC CONTROL PLANS TO BE APPROVED THE THE ENGINEER.

SIGNING:















1. ALL TRAFFIC CONTROL DEVICES, INCLUDING INCLUDING OVERHEAD SIGNS ON ROADS OPEN TO TRAFFIC THAT ARE NOT CONSISTENT WITH TRAFFIC OPERATION SHALL BE COVERED, REMOVED OR REVISED AS DIRECTED BY THE ENGINEER.
2. WHEN SIGNS ARE PLACED, THEY SHALL BE MOUNTED ON POSTS DRIVEN INTO THE GROUND AT THE PROPER HEIGHT AND LATERAL OFFSET AS SHOWN IN THE TYPICAL TEMP SIGN FRAMING & INSTALLATION DETAILS IN THE PLAN. IF THIS IS NOT POSSIBLE THEY WILL BE MOUNTED ON PORTABLE SUPPORTS AS APPROVED BY THE ENGINEER. WHEN SIGNS ARE REMOVED THE SIGN POSTS SHALL ALSO BE REMOVED AS SOON AS POSSIBLE.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING NEEDED TO FACILITATE TRAFFIC SWITCHES OR FOR TRANSITIONING TRAFFIC FROM ONE STAGE TO ANOTHER.
4. ALL ORANGE WARNING AND ORANGE GUIDE SIGNS SHALL BE FABRICATED WITH SIGN SHEETING MATERIAL AS LISTED ON THE MnDOT APPROVED PRODUCT LIST FOR "SHEETING FOR RIGID TEMPORARY WORK ZONE SIGNS".
5. BARRICADES SHALL BE FABRICATED WITH SIGN SHEETING MATERIAL AS LISTED ON THE MnDOT APPROVED PRODUCT LIST FOR BARRICADE SHEETING. NOTE THAT ASTM TYPE VII SHEETING IS NOT ALLOWED ON BARRICADES AFTER JANUARY 1, 2010.
6. LONGITUDINAL DROPOFFS SHALL BE SIGNED AS SHOWN IN THE "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" FIELD MANUAL UNLESS OTHERWISE SPECIFIED IN THESE PLANS.
7. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE FINAL SIGNS TO ASSURE THAT THE FINAL SIGNS ARE PLACED AS NEEDED, OR PROVIDE TEMPORARY SIGNING AT THEIR EXPENSE UNTIL THE FINAL SIGNING IS PLACED.

PAVEMENT MARKINGS:

1. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS AS DIRECTED BY THE ENGINEER.
2. PAINT, POLYMER LANE TAPE AND/OR TRPM'S ARE ACCEPTABLE TEMPORARY STRIPING ALTERNATIVES ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER. GENERALLY, ONLY PAINT WILL BE USED BEFORE MAY 1ST OR WHEN THE OTHER MANUFACTURERS' SPECIFICATIONS CAN NOT BE MET.
3. TRPM'S (TEMPORARY RAISED PAVEMENT MARKERS) SHOULD BE USED TO SUPPLEMENT THE LONG TERM (MORE THAN 3 DAYS) EDGELINES ON ALL TRANSITION AREAS WHEN THE CONDITIONS ARE WITHIN THE MANUFACTURERS' SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND INSTALLATION OF TEMPORARY AND FINAL STRIPING. MnDOT TRAFFIC PERSONNEL WILL ASSIST IN THE SPOTTING OF TRANSITION AREAS, GORES AND TAPERS.

TRAFFIC CONTROL TITLE SHEET

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	AREA CLOSED TO TRAFFIC / WORK AREA
	FLASHING ARROW BOARD TYPE C = (4' X 8' UNLESS OTHERWISE NOTED).
	ARROWBOARD SUPPORT OR TRAILER
	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	PCMS TRAILER
	TYPE A FLASHING WARNING LIGHTS
	DRUM-LIKE CHANNELIZER (TYPE B) = 
	CONE-LIKE CHANNELIZER (TYPE A) = 
	TRAFFIC CONTROL SIGN
	TYPE III BARRICADE = 
	SOLID LINE PAVEMENT MARKING WITH TEMP. RAISED PAVEMENT MARKERS AT 10' SPACES

IN ADDITION TO THE LAYOUTS SHOWN, THE FOLLOWING LAYOUTS MAY BE REQUIRED BASED ON CONTRACTORS WORK OPERATIONS.

LAYOUT 2 SHOULDER CLOSURE
LAYOUT 27 TURN LANE CLOSURES
LAYOUT 67 STRIPING OPERATIONS

TWO PORTABLE CHANGEABLE MESSAGE BOARDS WITH REMOTE COMMUNICATION WILL BE REQUIRED FOR THIS JOB. THE SIGNS SHALL BE LOCATED BY THE PROJECT ENGINEER AND MAY BE RELOCATED AS NEEDED.

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.
Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41983

REVISION DESCRIPTION	DATE	BY

DATE: NOV. 2021	SCALE: AS SHOWN	DRAWN BY: ADB	CHECKED BY: ALW	JOB NUMBER: 2021-11648
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2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
TRAFFIC CONTROL PLAN TITLE SHEET

"M" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	M4-8A	BLACK ON ORANGE	24" x 18"
	M4-9MATL	BLACK ON ORANGE	30" x 24"
	M4-9MATR	BLACK ON ORANGE	30" x 24"
	M4-9ML	BLACK ON ORANGE	30" x 24"
	M4-9MR	BLACK ON ORANGE	30" x 24"
	M4-9T	BLACK ON ORANGE	30" x 24"
	M4-10 (R/L) RIGHT SHOWN	BLACK ON ORANGE	48" x 18"

"R" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	R9-9A	BLACK ON WHITE	24" x 18"
	R11-2	BLACK ON WHITE	48" x 30"
	R11-4	BLACK ON WHITE	60" x 30"
	R11-4	BLACK ON WHITE	60" x 30"

MISCELLANEOUS			
SIGN	SIGN NO.	COLOR	SIZE
	WZ-1	BLACK ON ORANGE	60" x 12"
	WZ-2	BLACK ON ORANGE	60" x 12"

"W" SERIES			
SIGN	SIGN NO.	COLOR	SIZE
	W20-1	BLACK ON ORANGE	48" x 48"
	W20-2	BLACK ON ORANGE	48" x 48"
	W20-3	BLACK ON ORANGE	48" x 48"

DEVICES			
ITEM	SIGN NO.	COLOR	SIZE
	TYPE A		
	DLC		
	TYPE III		4' x 8'

MEMBER CERTIFY THAT THIS IS AN ACCURATE AND CORRECT REPORT THAT 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.
Aric L. Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41983

DATE	REVISIONS DESCRIPTION	BY
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2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
TRAFFIC CONTROL TABULATION



HOMESTEAD DRIVE

FALCON DRIVE

ISLE DRIVE

ISLE DRIVE

ELDER DRIVE

GLORY ROAD

ROAD WORK AHEAD

TYPE III BARRICADES WITH FLASHERS
R11-2 (48" x 30")

ROAD WORK AHEAD
TRAFFIC ONLY


TYPE III BARRICADES WITH FLASHERS
R9-9A (24" x 18")

ROAD CLOSED

LEGEND


-  CONSTRUCTION ZONE
-  TYPE III BARRICADE


- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
- PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.

<p>2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT</p> <p>CITY OF BAXTER</p> <p>BAXTER, MINNESOTA</p> <p>TRAFFIC CONTROL PLAN - GLORY ROAD</p>		<p>SHEET NO.</p> <p>23</p>
DATE:	NOV. 2021	 <p>ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS</p>
SCALE:	AS SHOWN	
DRAWN BY:	ADB	
CHECKED BY:	ALW	
DATE:		<p>DATE: 02-14-2022 LIC. NO. 41883</p> <p>ARIC L. WELCH</p>
REVISIONS DESCRIPTION:		
DATE:		
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DATE:		
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LEGEND

 CONSTRUCTION ZONE

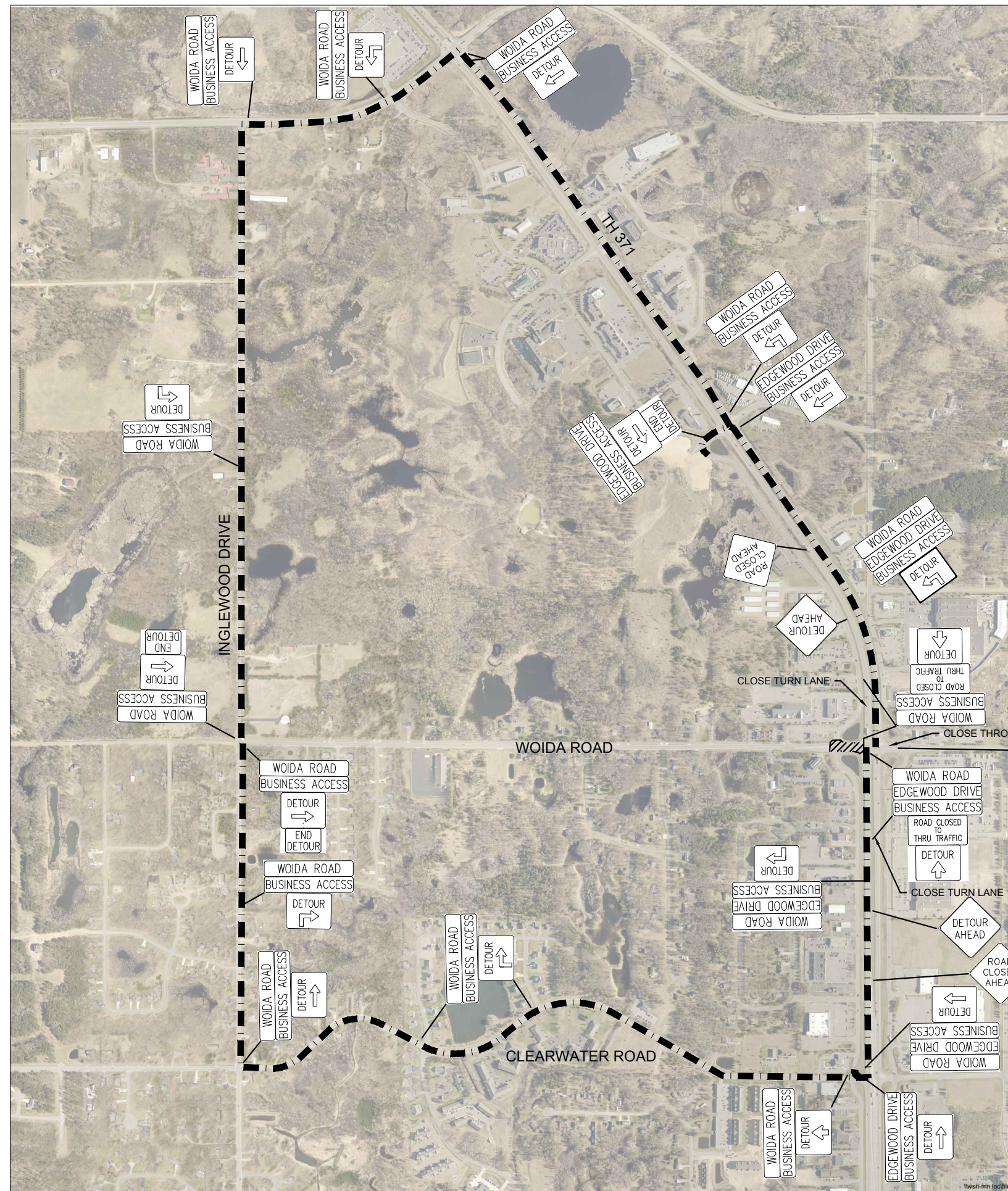
 TYPE III BARRICADE

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
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- PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT		DATE: NOV. 2021	BY: _____
CITY OF BAXTER		SCALE: AS SHOWN	REVISIONS: DESCRIPTION
BAXTER, MINNESOTA		DRAWN BY: ADB	DATE: _____
TRAFFIC CONTROL PLAN - UNIVERSAL ROAD		CHECKED BY: ALW	DATE: _____
SHEET NO. 24		JOB NUMBER: 2021-11648	DATE: 02-14-2022 LIC. NO. 47883

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.

Aric Welch
ARIC L. WELCH



- NOTES:**
1. ALL DETOUR SIGNING SHALL BE DONE BY THE CONTRACTOR.
 2. THE LOCATION OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE.
 3. INPLACE SIGNS WHICH CONFLICT WITH THIS PLAN SHALL BE SALVAGED OR COVERED.
 4. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
 5. SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
 6. PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.
 7. COORDINATE TURN LANE CLOSURES AND TEMPORARY SIGNAL MODIFICATIONS WITH MnDOT.

LEGEND

CONSTRUCTION ZONE

DETOUR ROUTE

TRAIL DETOUR ROUTE

SCALE (IN FEET)

MEMBER 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.

Aric Welch

ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

NOV. 2021	NOV. 2021	NOV. 2021	NOV. 2021
DATE	REV#	REVISIONS DESCRIPTION	BY

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA

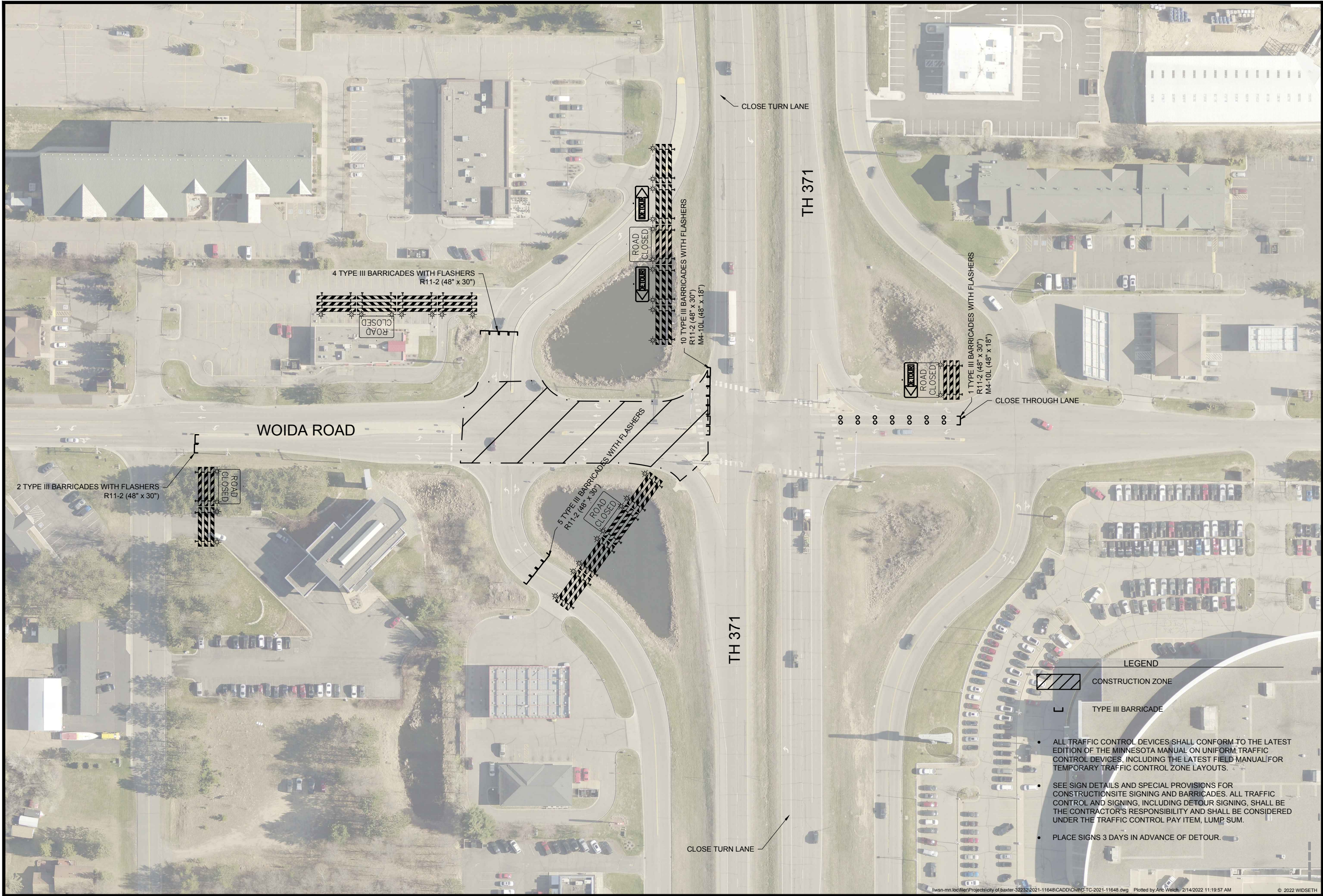
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JOB NUMBER: 2021-11648

TRAFFIC CONTROL PLAN - WOIDA ROAD - DETOUR

SHEET NO. **25**

W:\sh-mn\cadd\Projects\City of Baxter\32232\2021-11648\CADD\Civil\TC-2021-11648.dwg Plotted by: Aric Welch 2/14/2022 11:18:30 AM © 2022 WIDSETH



LEGEND

CONSTRUCTION ZONE

TYPE III BARRICADE

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
- PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.

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ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

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Aric L. Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 47883

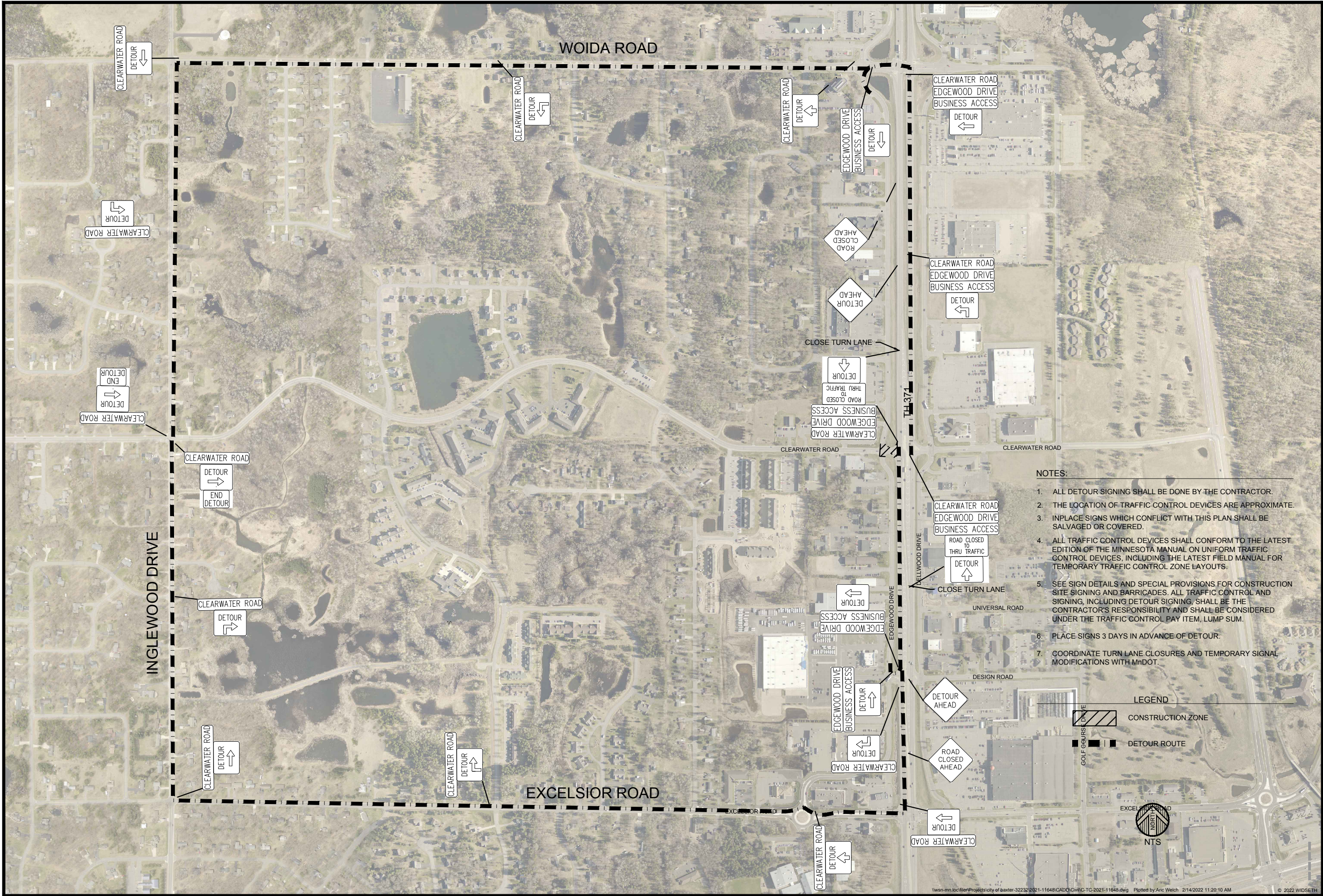
NO.	DATE	REVISIONS DESCRIPTION

DATE: NOV. 2021
SCALE: AS SHOWN
DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
TRAFFIC CONTROL PLAN - WOIDA ROAD

SHEET NO.
26

twsn-mn.tcd\files\Projects\city of baxter-32232\2021-11648\CADD\Civil\TC-2021-11648.dwg Plotted by: Aric Welch 2/14/2022 11:19:57 AM © 2022 WIDSETH



- NOTES:**
1. ALL DETOUR SIGNING SHALL BE DONE BY THE CONTRACTOR.
 2. THE LOCATION OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE.
 3. INPLACE SIGNS WHICH CONFLICT WITH THIS PLAN SHALL BE SALVAGED OR COVERED.
 4. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
 5. SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
 6. PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.
 7. COORDINATE TURN LANE CLOSURES AND TEMPORARY SIGNAL MODIFICATIONS WITH MnDOT.

LEGEND

CONSTRUCTION ZONE
 DETOUR ROUTE

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Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

REVISIONS DESCRIPTION	DATE	REV#

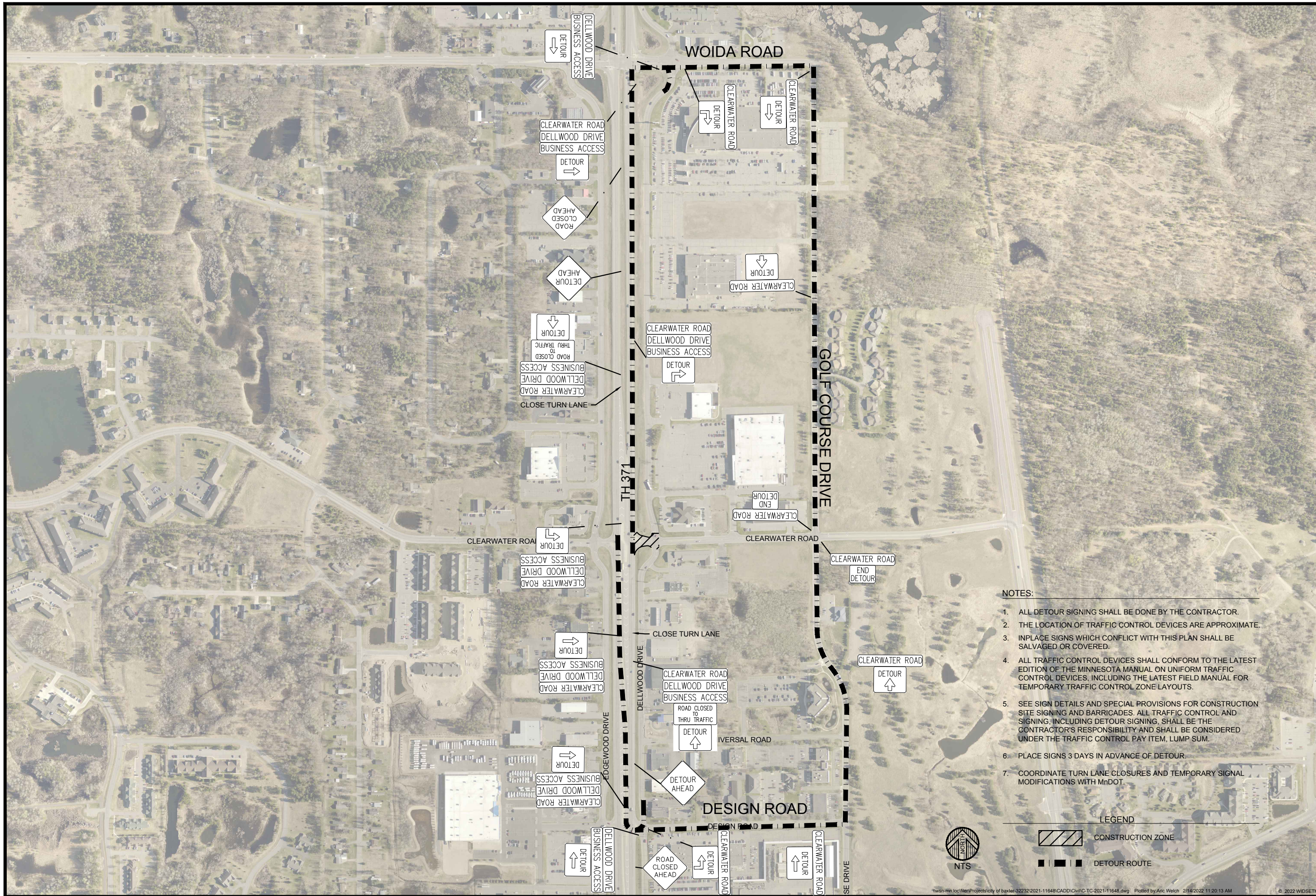
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SCALE: AS SHOWN	AS SHOWN	AS SHOWN
DRAWN BY: ADB	DRAWN BY: ADB	DRAWN BY: ADB
CHECKED BY: ALW	CHECKED BY: ALW	CHECKED BY: ALW
JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648	JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA

TRAFFIC CONTROL PLAN - CLEARWATER RD WEST - DETOUR

SHEET NO. 27

T:\sw-mn-loc\files\Projects\city of baxter-32232\021-11648\CADD\Civil-TC-2021-11648.dwg Plotted by: Aric Welch 2/14/2022 11:20:10 AM © 2022 WIDSETH



- NOTES:**
1. ALL DETOUR SIGNING SHALL BE DONE BY THE CONTRACTOR.
 2. THE LOCATION OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE.
 3. INPLACE SIGNS WHICH CONFLICT WITH THIS PLAN SHALL BE SALVAGED OR COVERED.
 4. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
 5. SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
 6. PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.
 7. COORDINATE TURN LANE CLOSURES AND TEMPORARY SIGNAL MODIFICATIONS WITH MnDOT.



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MEMBER 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.

Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 47883

DATE	NOV. 2021
SCALE	AS SHOWN
DRAWN BY	ADB
CHECKED BY	ALW
JOB NUMBER	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA

TRAFFIC CONTROL PLAN - CLEARWATER RD EAST - DETOUR

SHEET NO.
28



NOTES:

1. ALL DETOUR SIGNING SHALL BE DONE BY THE CONTRACTOR.
2. THE LOCATION OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE.
3. INPLACE SIGNS WHICH CONFLICT WITH THIS PLAN SHALL BE SALVAGED OR COVERED.
4. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
5. SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
6. PLACE SIGNS 500 FT IN ADVANCE OF DETOUR.
7. COORDINATE TURN LANE CLOSURES AND TEMPORARY SIGNAL MODIFICATIONS WITH MnDOT.

LEGEND

-  CONSTRUCTION ZONE
-  DETOUR ROUTE

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Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 47883

DATE	NOV. 2021	AS SHOWN	DRAWN BY:	AUB	CHECKED BY:	ALW
REVISIONS DESCRIPTION						
DATE						
REV#						
JOB NUMBER	2021-11648					

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA

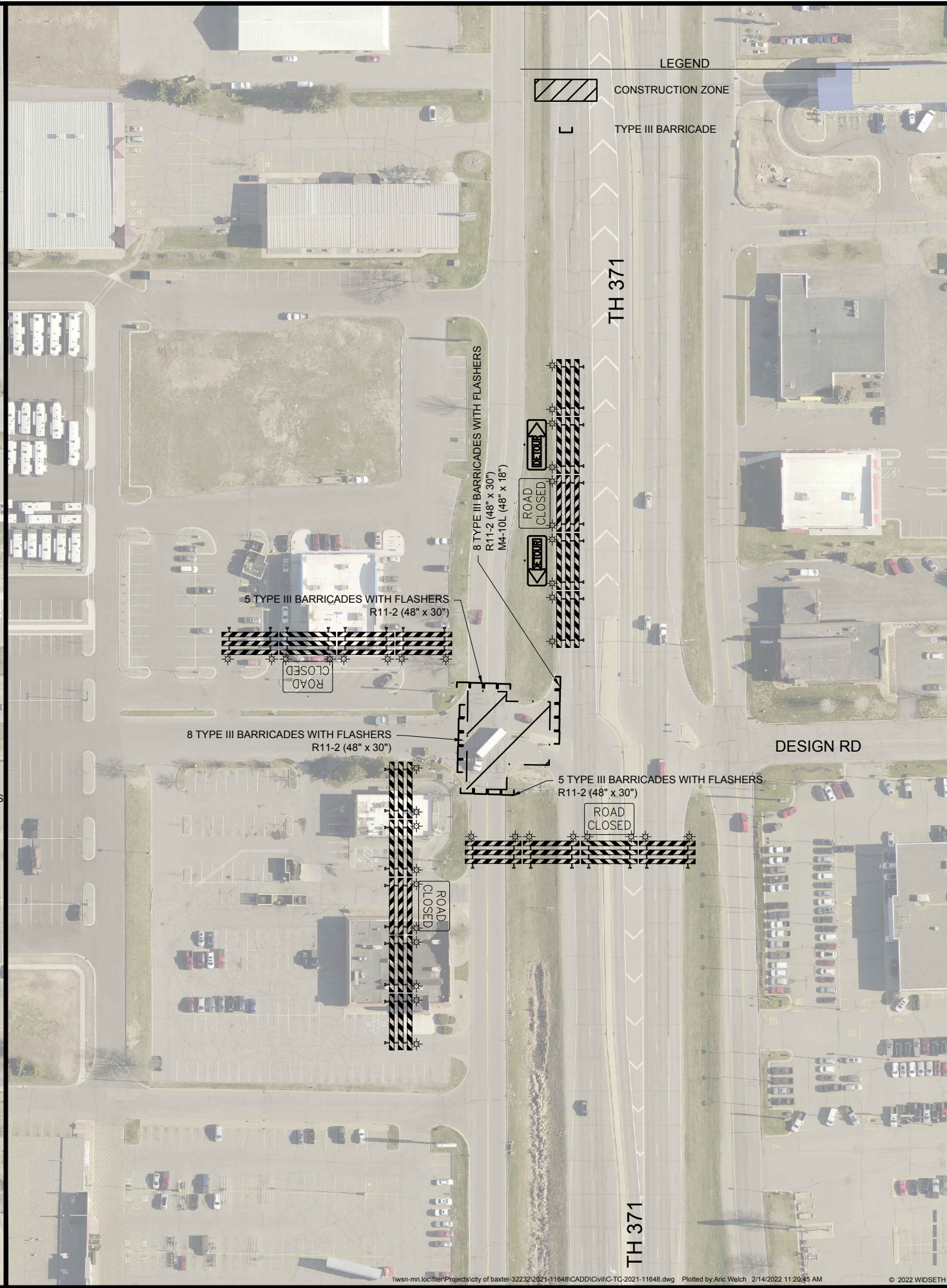
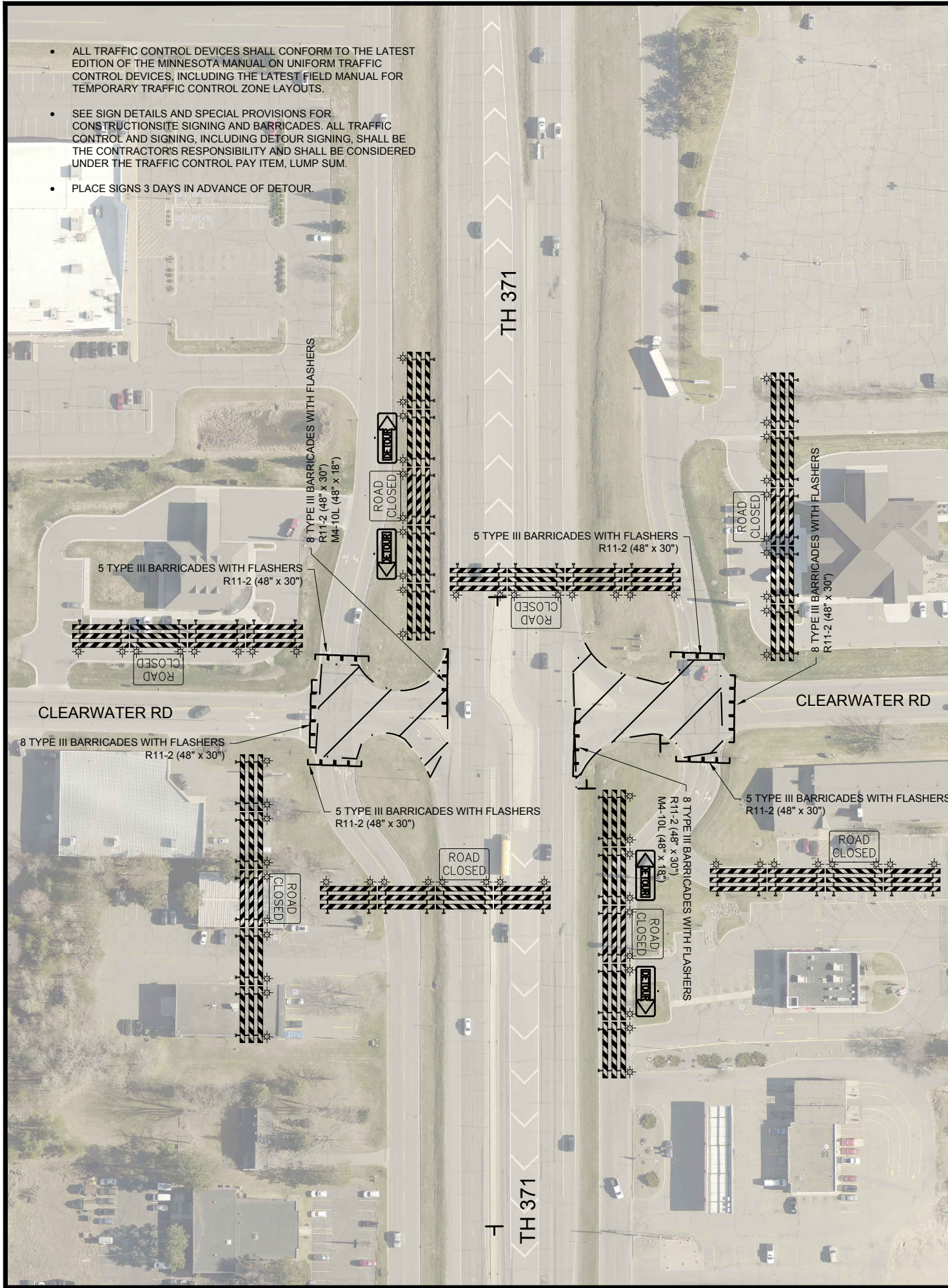
TRAFFIC CONTROL PLAN - BUSINESS ENT. WEST - DETOUR

SHEET NO.
29

NTS

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- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- SEE SIGN DETAILS AND SPECIAL PROVISIONS FOR CONSTRUCTION SITE SIGNING AND BARRICADES. ALL TRAFFIC CONTROL AND SIGNING, INCLUDING DETOUR SIGNING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE CONSIDERED UNDER THE TRAFFIC CONTROL PAY ITEM, LUMP SUM.
- PLACE SIGNS 3 DAYS IN ADVANCE OF DETOUR.



2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 TRAFFIC CONTROL PLAN - TH 371 FRONTAGE RD INTS.

DATE: NOV. 2021
 SCALE: AS SHOWN
 DRAWN BY: ADB
 CHECKED BY: ALW
 JOB NUMBER: 2021-11648

DATE	REV	DESCRIPTION

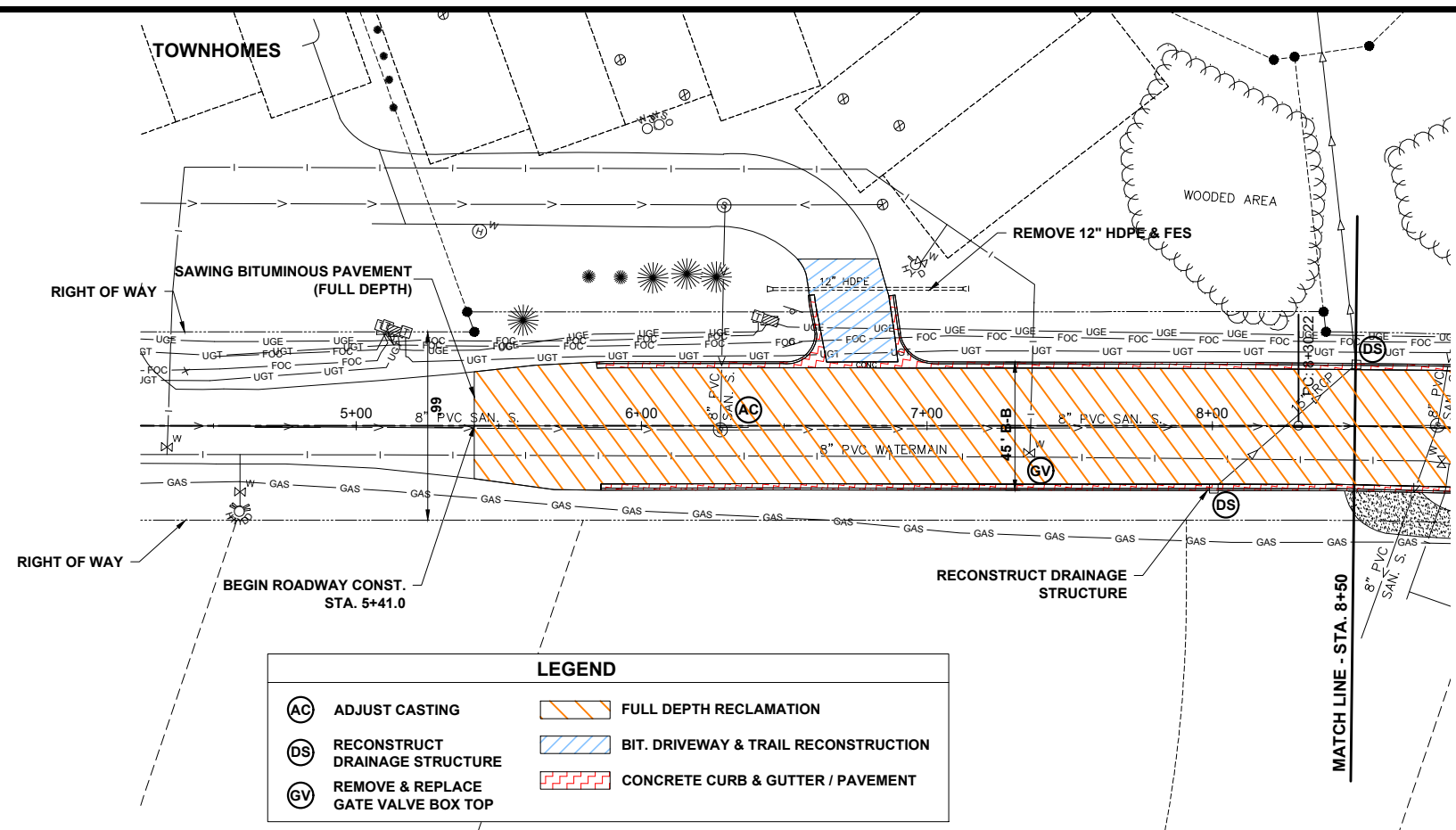
MEMBER CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Aric Welch
 ARIC L. WELCH
 DATE: 02-14-2022 LIC. NO. 41883

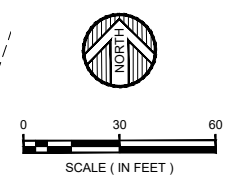
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 ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

SHEET NO.
30

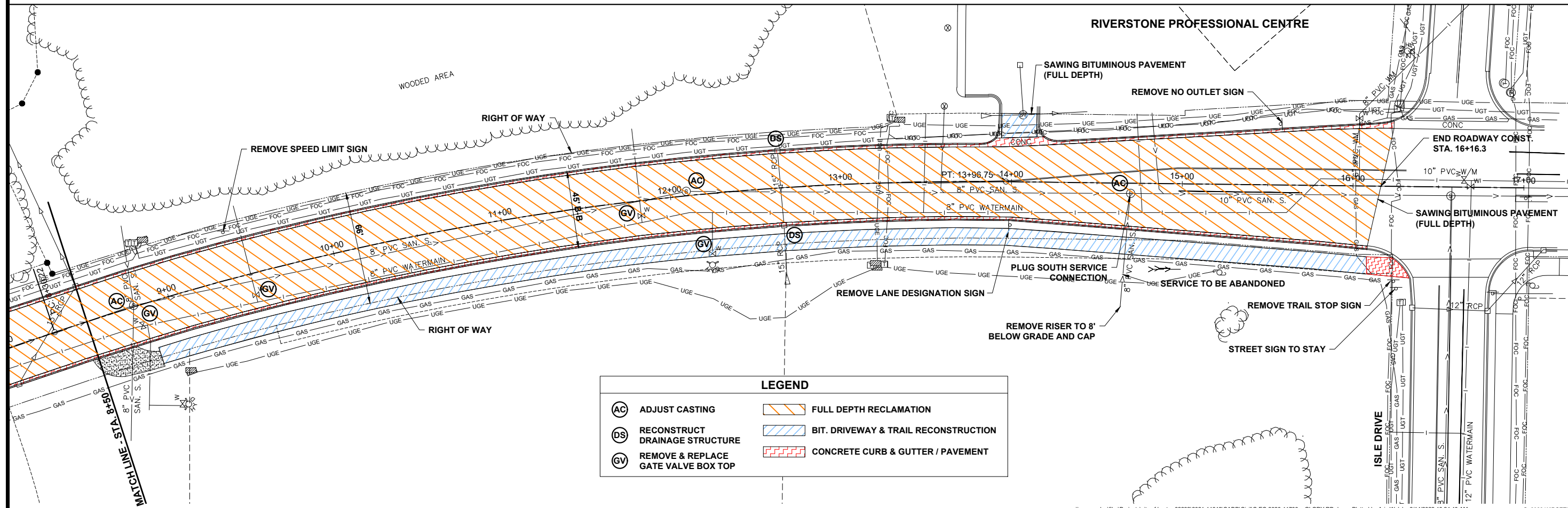
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LEGEND			
(AC)	ADJUST CASTING		FULL DEPTH RECLAMATION
(DS)	RECONSTRUCT DRAINAGE STRUCTURE		BIT. DRIVEWAY & TRAIL RECONSTRUCTION
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		CONCRETE CURB & GUTTER / PAVEMENT



GLORY ROAD



LEGEND			
(AC)	ADJUST CASTING		FULL DEPTH RECLAMATION
(DS)	RECONSTRUCT DRAINAGE STRUCTURE		BIT. DRIVEWAY & TRAIL RECONSTRUCTION
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		CONCRETE CURB & GUTTER / PAVEMENT

WIDSETH

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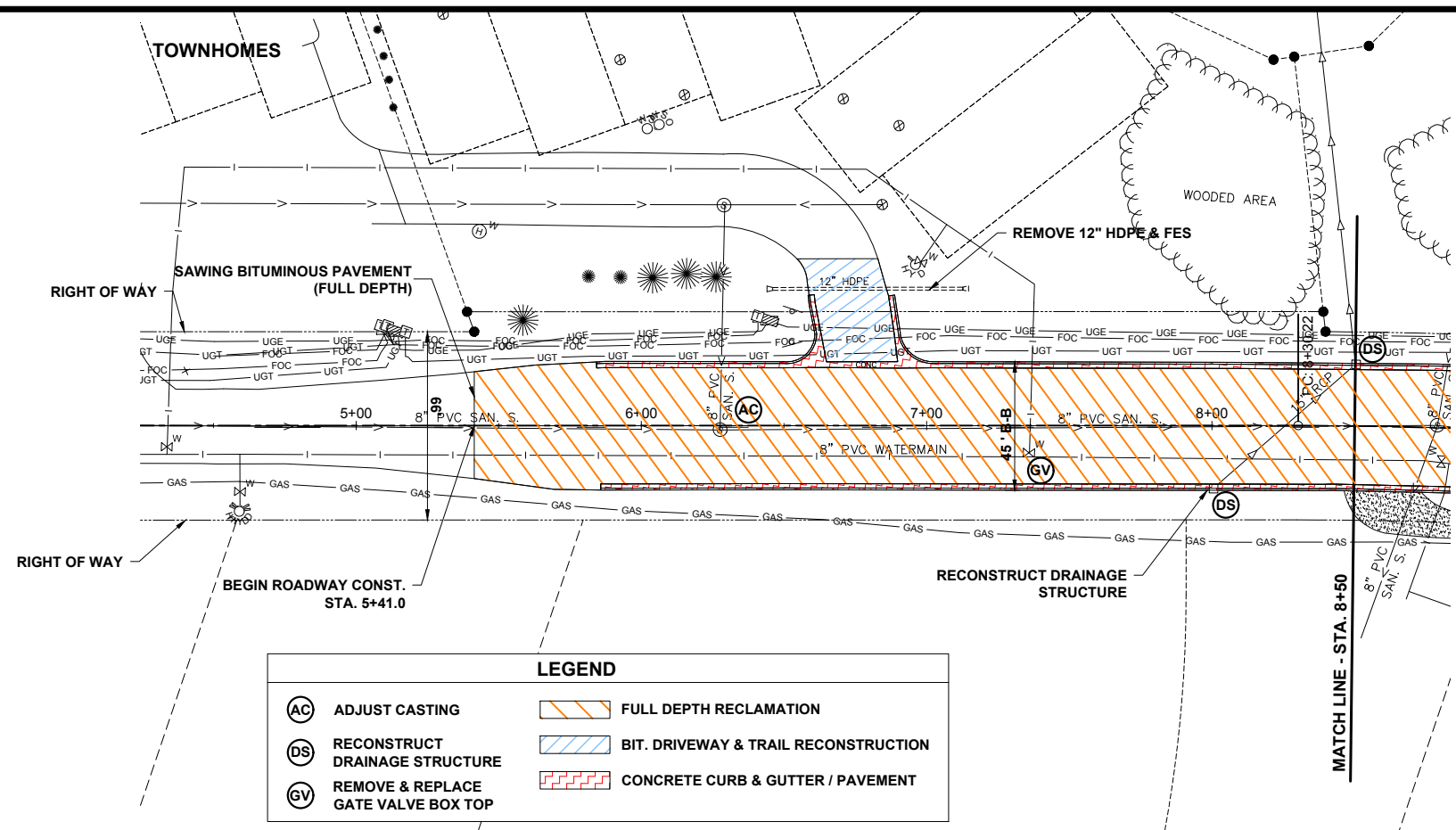
BY: ARLIC L. WELCH, LIC. NO. 41883
 DATE: 02-14-2022

PROJECT: 2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA

SHEET NO. 31

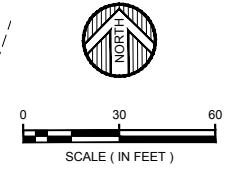
NOV. 2021	NOV. 2021	NOV. 2021	NOV. 2021
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	DRAWN BY: ADB		DRAWN BY: ADB
	CHECKED BY: ALW		CHECKED BY: ALW
	JOB NUMBER: 2021-11648		JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
EXIST. CONDS. & REMOVALS - GLORY ROAD

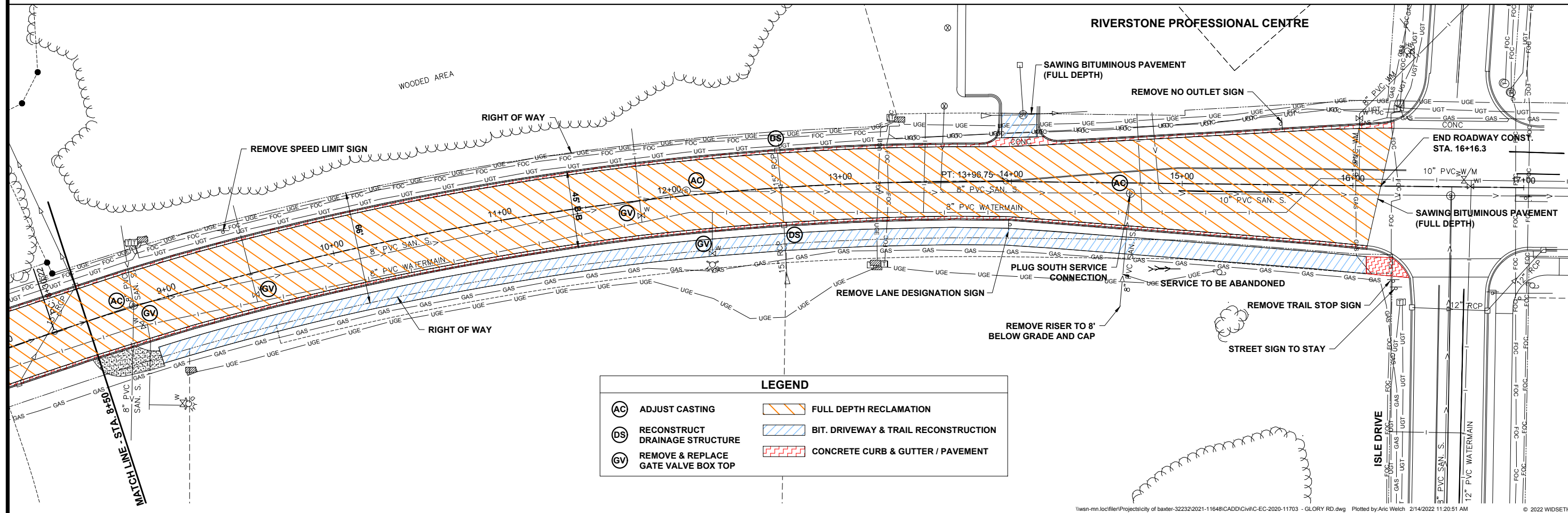


LEGEND

(AC) ADJUST CASTING	FULL DEPTH RECLAMATION
(DS) RECONSTRUCT DRAINAGE STRUCTURE	BIT. DRIVEWAY & TRAIL RECONSTRUCTION
(GV) REMOVE & REPLACE GATE VALVE BOX TOP	CONCRETE CURB & GUTTER / PAVEMENT



GLORY ROAD



LEGEND

(AC) ADJUST CASTING	FULL DEPTH RECLAMATION
(DS) RECONSTRUCT DRAINAGE STRUCTURE	BIT. DRIVEWAY & TRAIL RECONSTRUCTION
(GV) REMOVE & REPLACE GATE VALVE BOX TOP	CONCRETE CURB & GUTTER / PAVEMENT

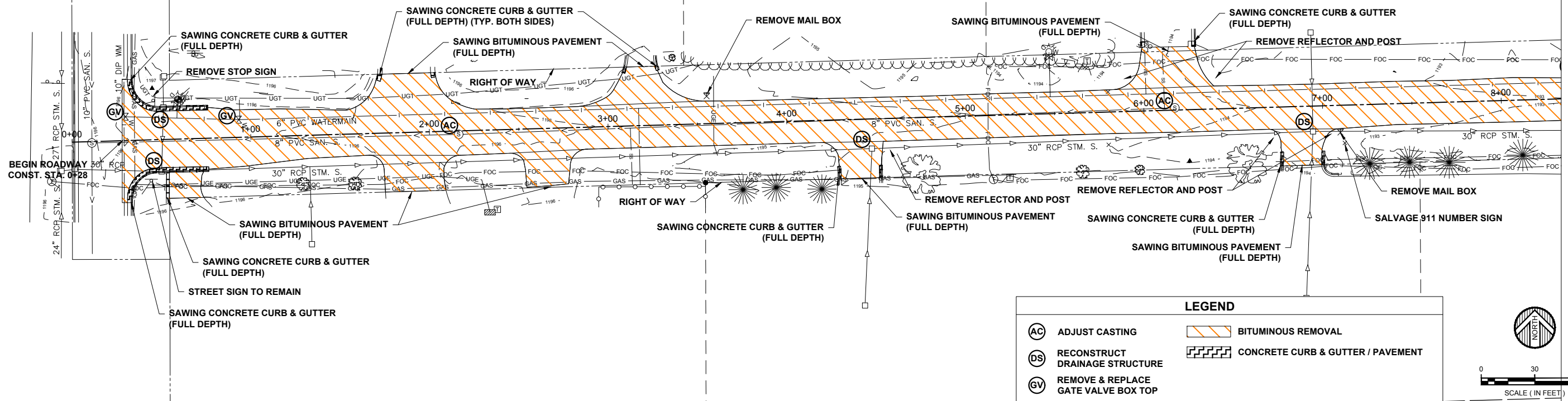
THESE PLANS AND SPECIFICATIONS FOR THE PROJECT WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Aric Welch
ARIC L. WELCH
DATE: 02-14-2022 LIC. NO. 41883

NO.	DATE	REVISION DESCRIPTION

DATE	REV	DESCRIPTION

DATE: NOV. 2021	NOV. 2021
SCALE: AS SHOWN	AS SHOWN
DRAWN BY: ADB	ADB
CHECKED BY: ALW	ALW
JOB NUMBER: 2021-11648	2021-11648

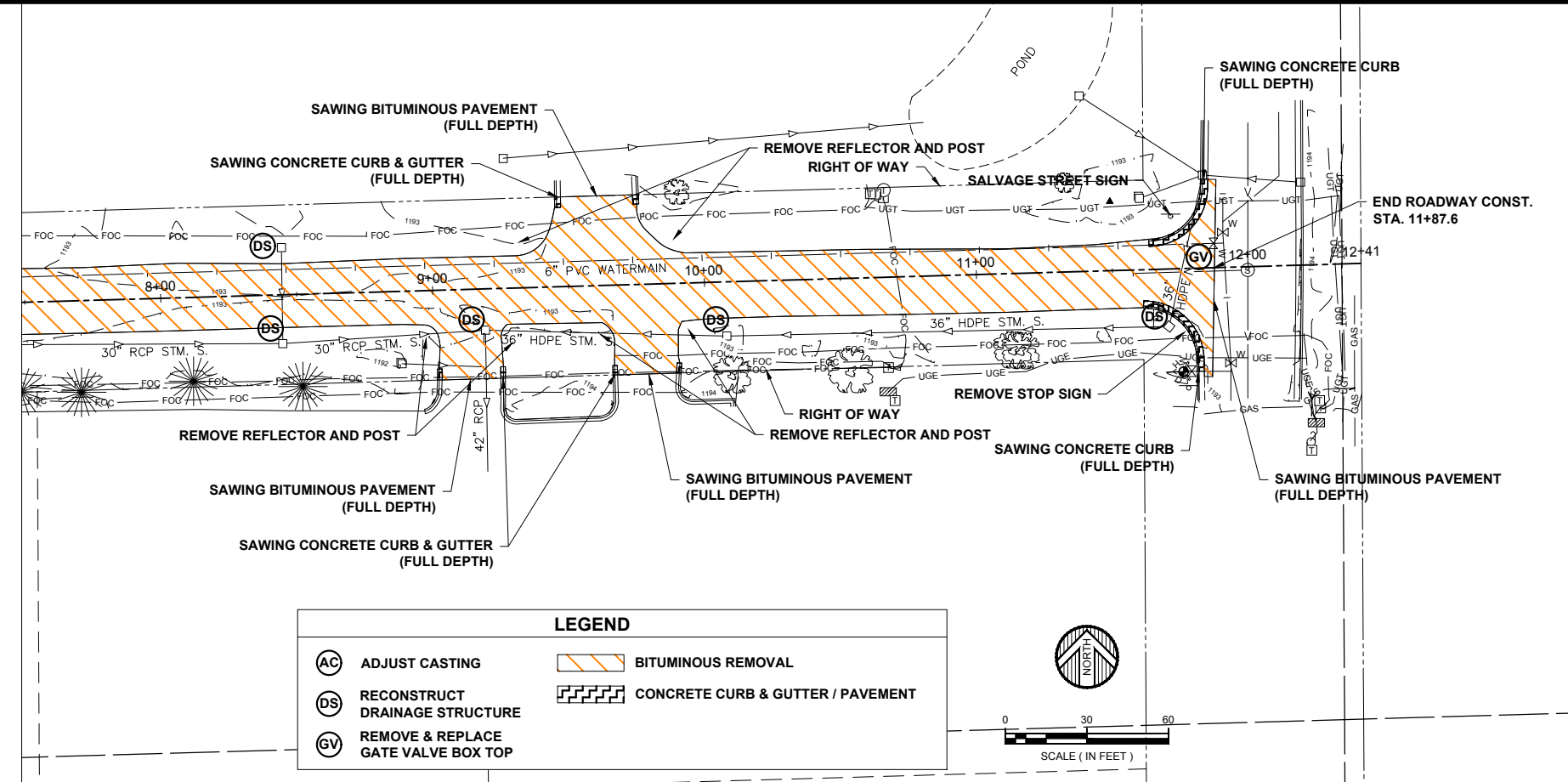


LEGEND

(AC)	ADJUST CASTING		BITUMINOUS REMOVAL
(DS)	RECONSTRUCT DRAINAGE STRUCTURE		CONCRETE CURB & GUTTER / PAVEMENT
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		

SCALE (IN FEET) 0 30 60

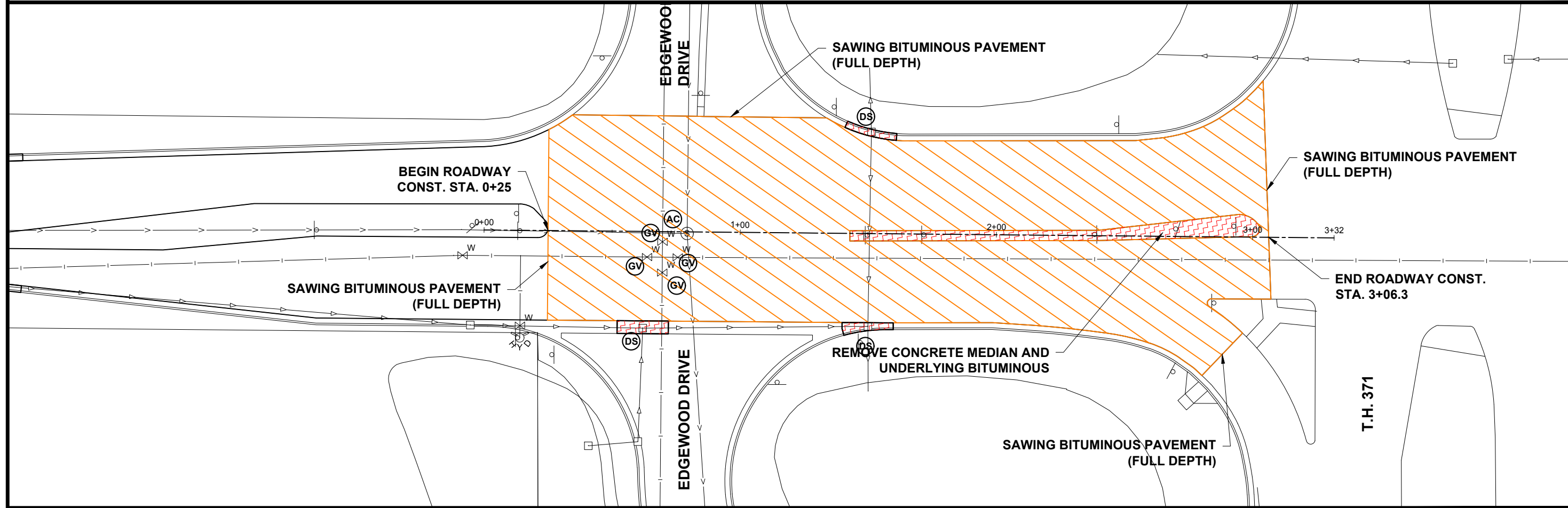
UNIVERSAL ROAD



LEGEND

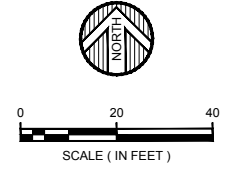
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(DS)	RECONSTRUCT DRAINAGE STRUCTURE		CONCRETE CURB & GUTTER / PAVEMENT
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		

SCALE (IN FEET) 0 30 60



WOIDA ROAD

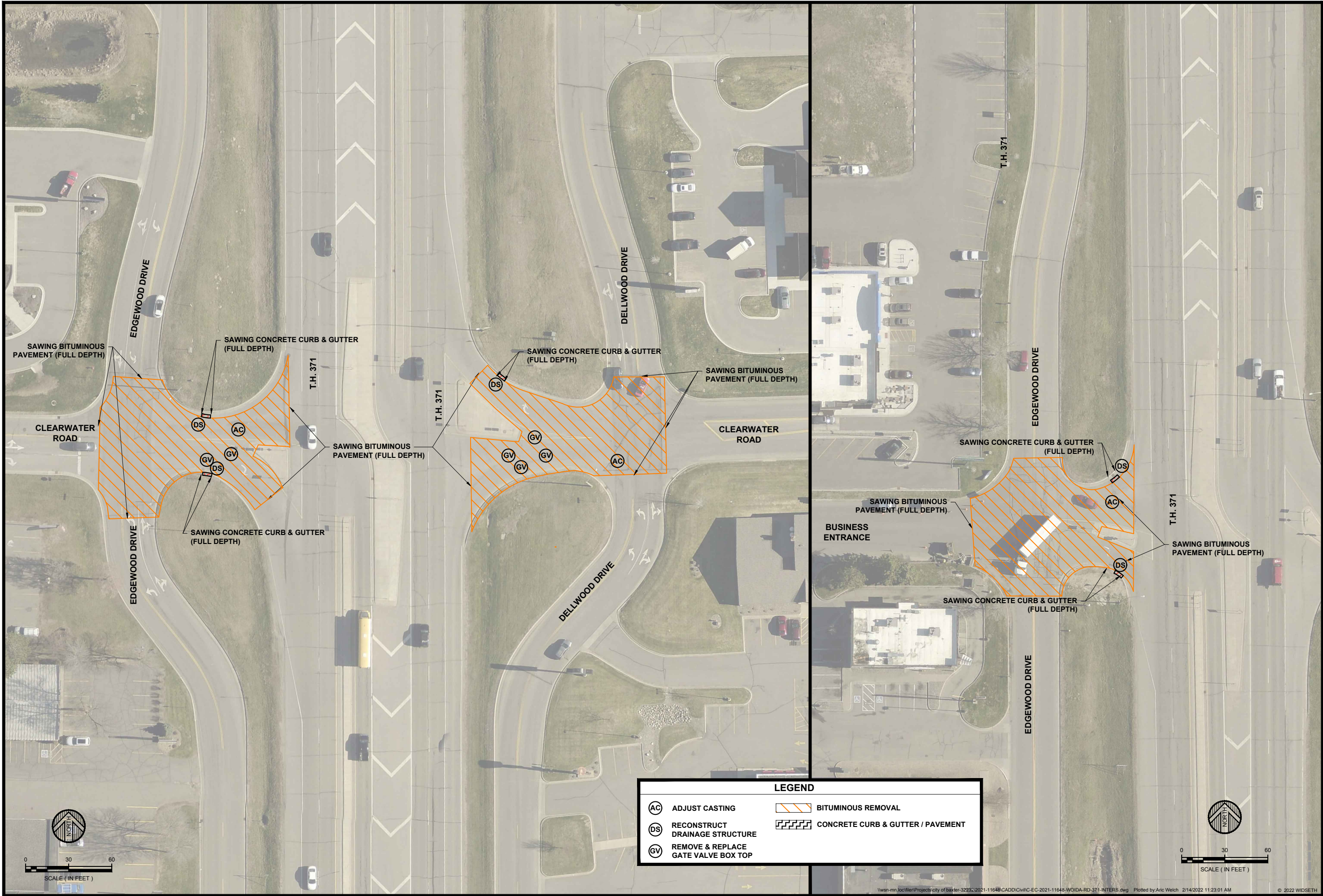
LEGEND	
(AC) ADJUST CASTING	FULL DEPTH RECLAMATION
(DS) RECONSTRUCT DRAINAGE STRUCTURE	CONCRETE CURB & GUTTER / PAVEMENT
(GV) REMOVE & REPLACE GATE VALVE BOX TOP	



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Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 47883

REVISIONS DESCRIPTION	DATE	BY

NOV. 2021 AS SHOWN
SCALE: DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2021-11648
2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
EXIST. COND. & REMOVALS - WOIDA ROAD



LEGEND

(AC)	ADJUST CASTING		BITUMINOUS REMOVAL
(DS)	RECONSTRUCT DRAINAGE STRUCTURE		CONCRETE CURB & GUTTER / PAVEMENT
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP		

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Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

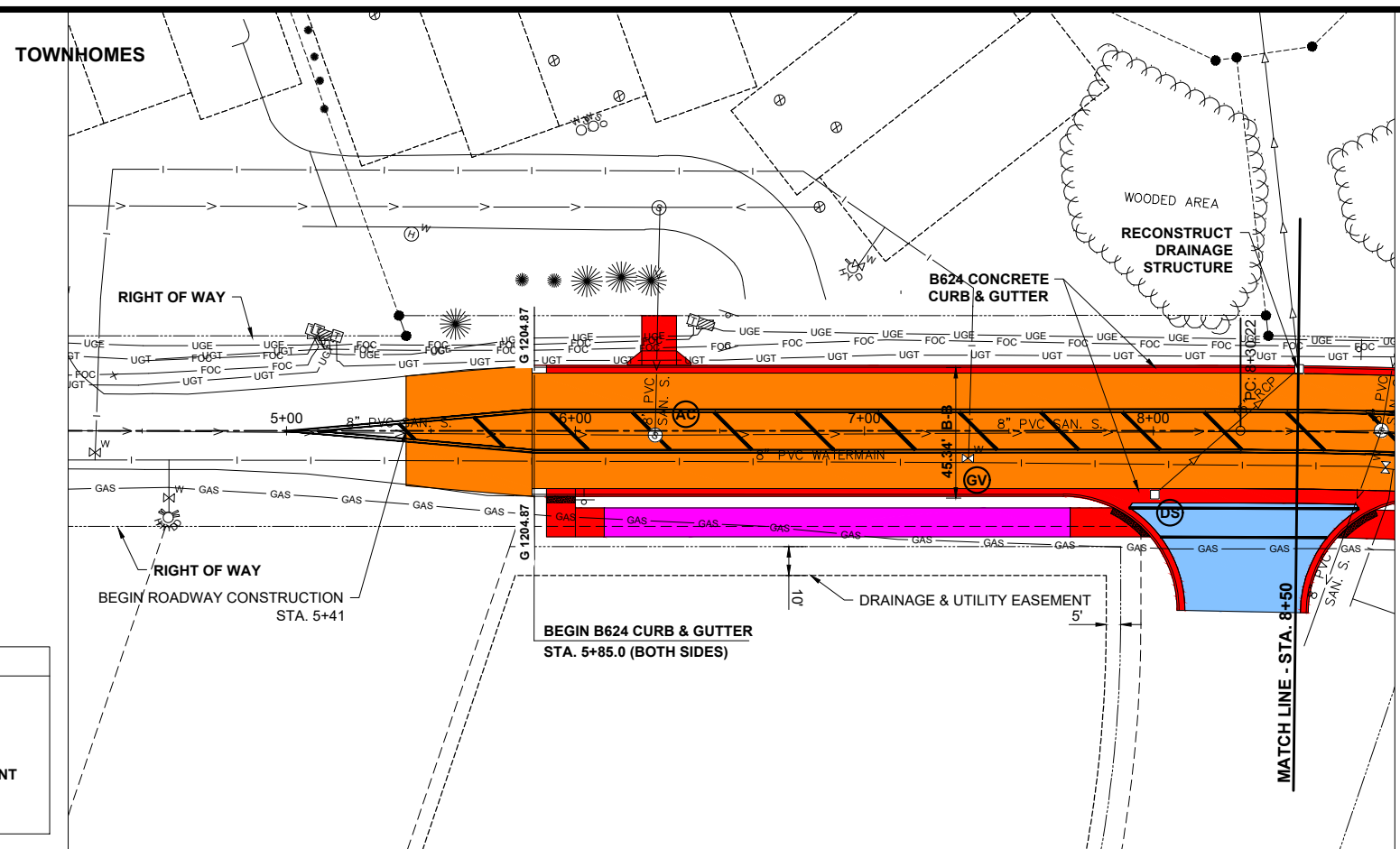
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DATE: NOV. 2021	NOV. 2021	NOV. 2021
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JOB NUMBER: 2021-11648	2021-11648	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
EXIST. COND. & REMOVALS - T.H. 371 INTERSECTIONS

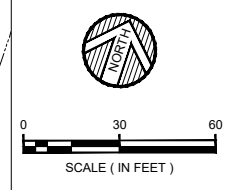
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SHEET 34 OF ###

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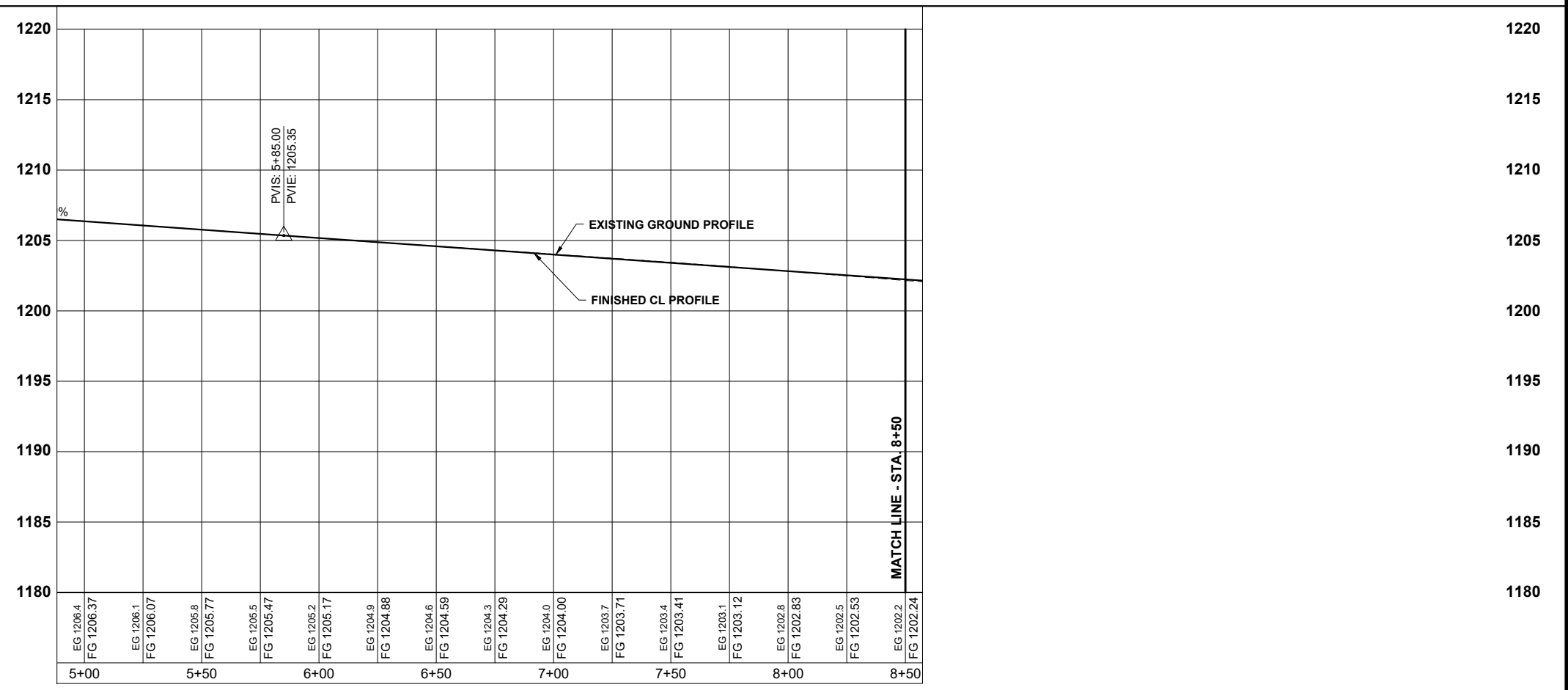
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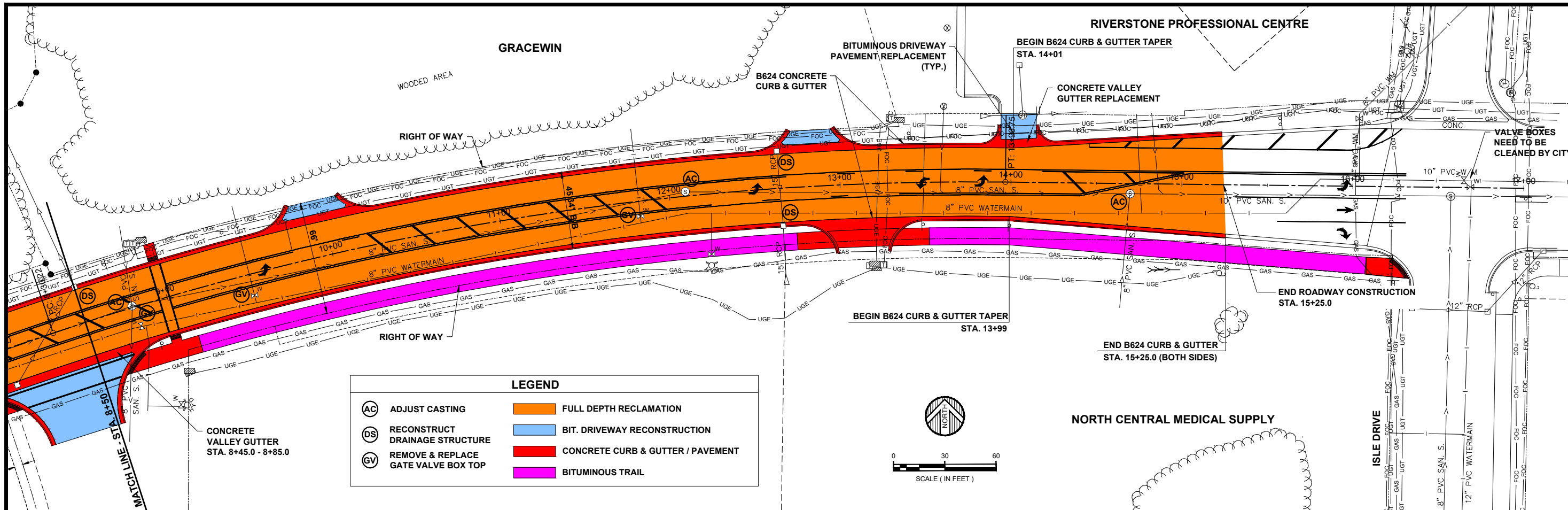
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(DS)	RECONSTRUCT DRAINAGE STRUCTURE	(Blue)	BIT. DRIVEWAY RECONSTRUCTION
(GV)	REMOVE & REPLACE GATE VALVE BOX TOP	(Red)	CONCRETE CURB & GUTTER / PAVEMENT
		(Pink)	BITUMINOUS TRAIL



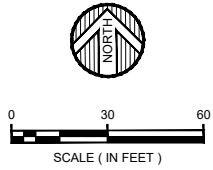
GLORY ROAD

NOTE:
SALVAGE EXISTING 911 SIGNS
AND REINSTALL BEHIND MAILBOX



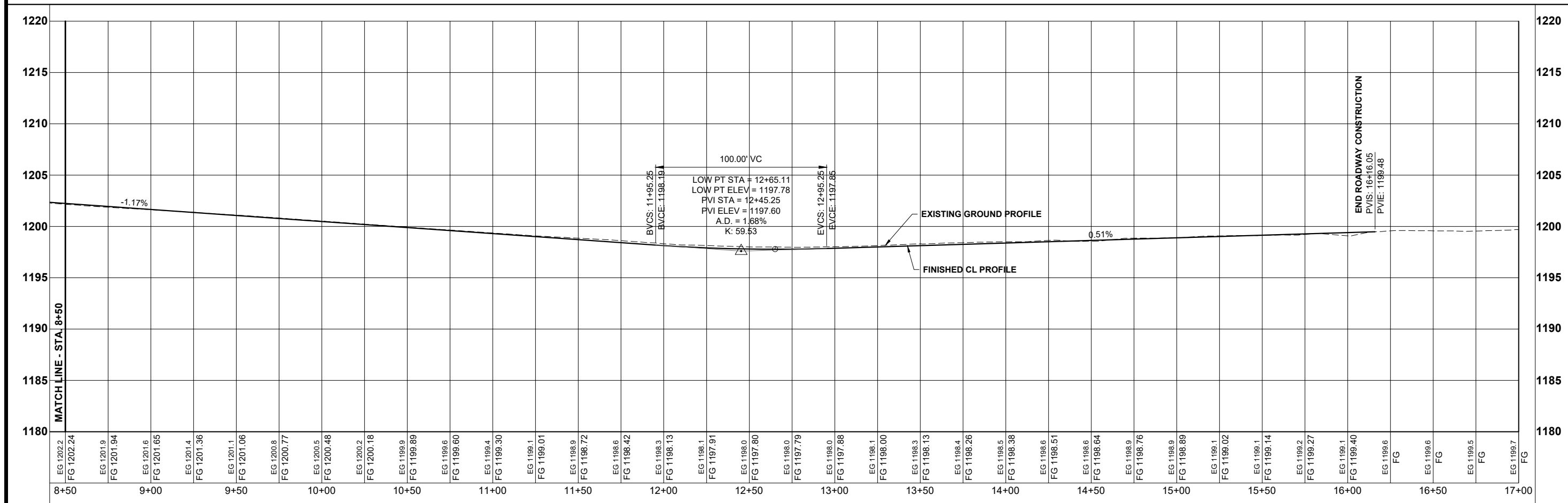


LEGEND	
(AC)	ADJUST CASTING
(DS)	RECONSTRUCT DRAINAGE STRUCTURE
(SV)	REMOVE & REPLACE GATE VALVE BOX TOP
[Orange Box]	FULL DEPTH RECLAMATION
[Blue Box]	BIT. DRIVEWAY RECONSTRUCTION
[Red Box]	CONCRETE CURB & GUTTER / PAVEMENT
[Purple Box]	BITUMINOUS TRAIL



GLORY ROAD

NOTE: SALVAGE EXISTING 911 SIGNS AND REINSTALL BEHIND MAILBOX



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DATE:	NOV. 2021
SCALE:	AS SHOWN
DRAWN BY:	ADB
CHECKED BY:	ALW
JOB NUMBER:	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT

CITY OF BAXTER

BAXTER, MINNESOTA

PLAN & PROFILE - GLORY ROAD

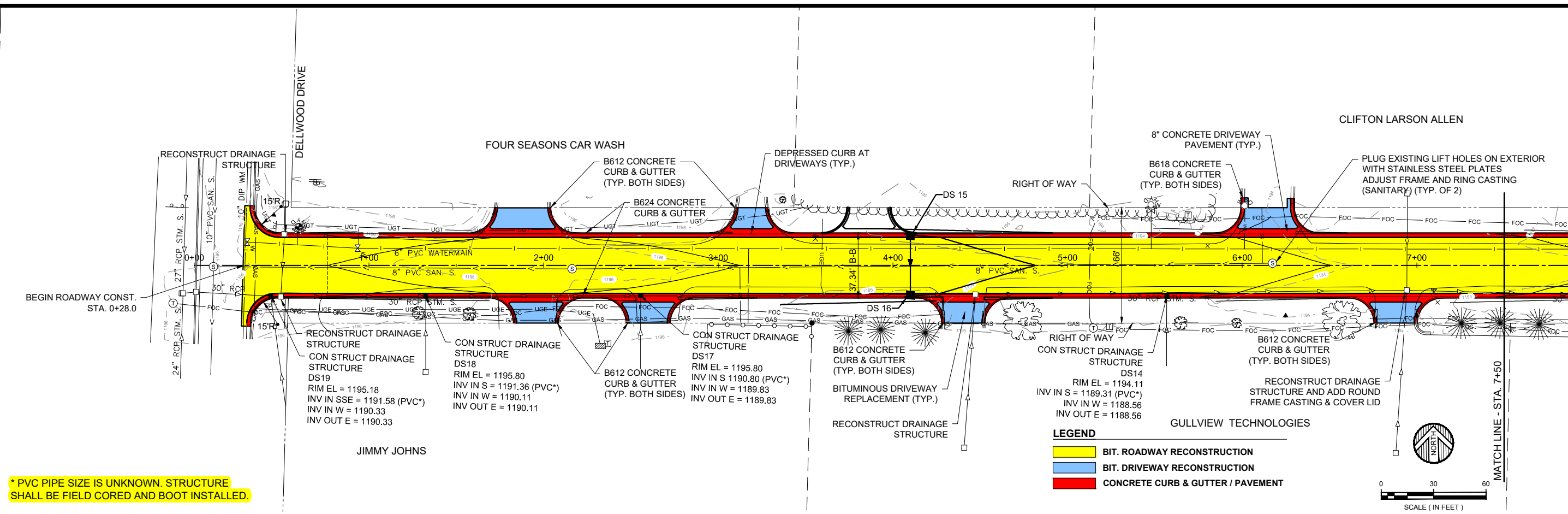
SHEET NO. **36R**

BY: ARCHITECT/ENGINEER/SCIENTIST/SURVEYOR FOR REPORT
 THAT HAS BEEN 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.
Alex Bitter
 ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

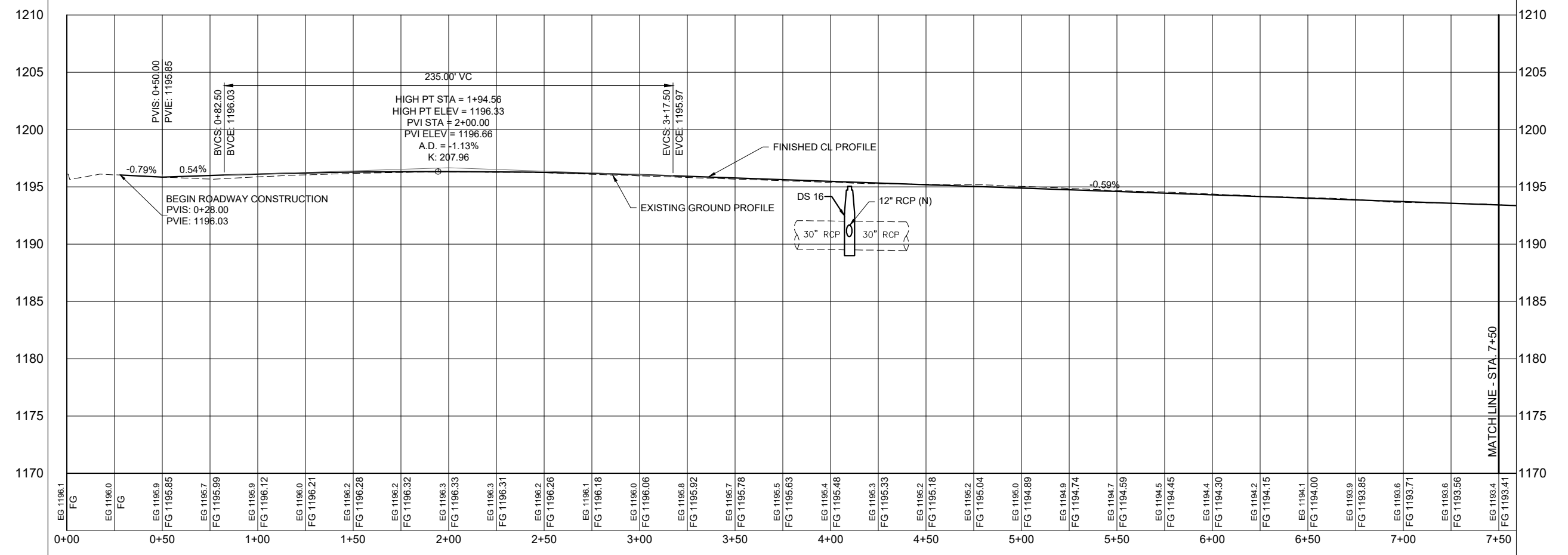
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2	02-14-2022	REVISION CHANGE ORDER #1

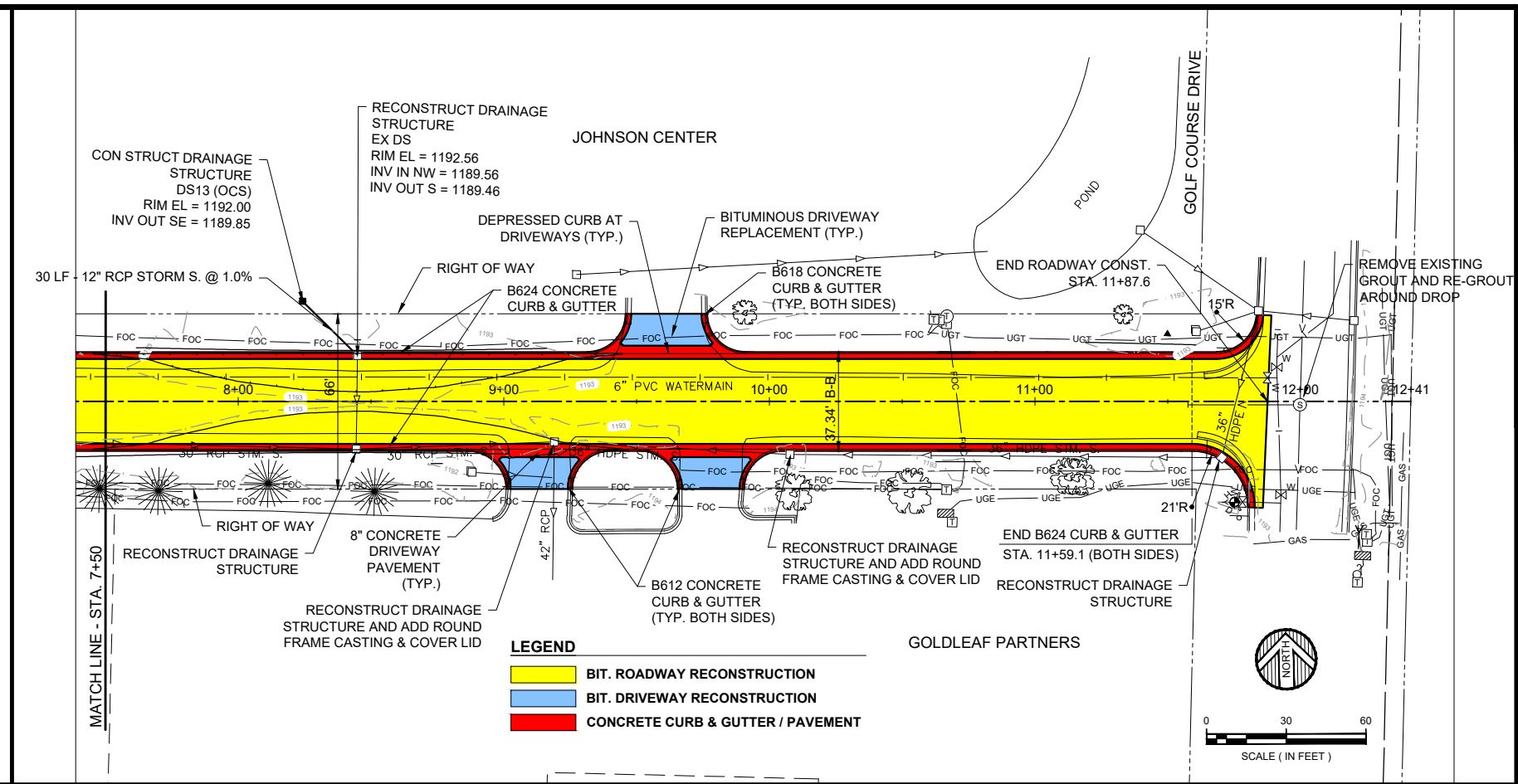
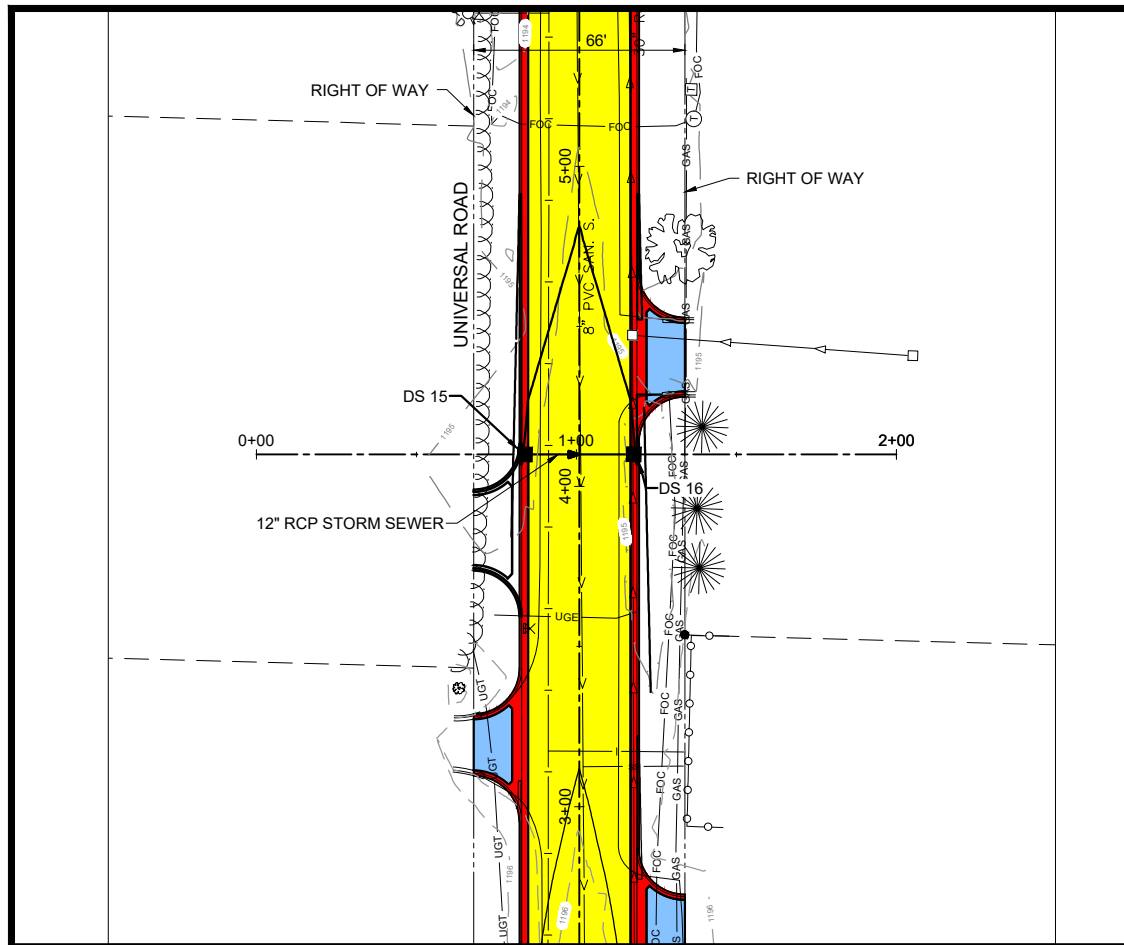
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NOV 2021	AS SHOWN	ADB	ALW

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
PLAN & PROFILE - UNIVERSAL ROAD



UNIVERSAL ROAD





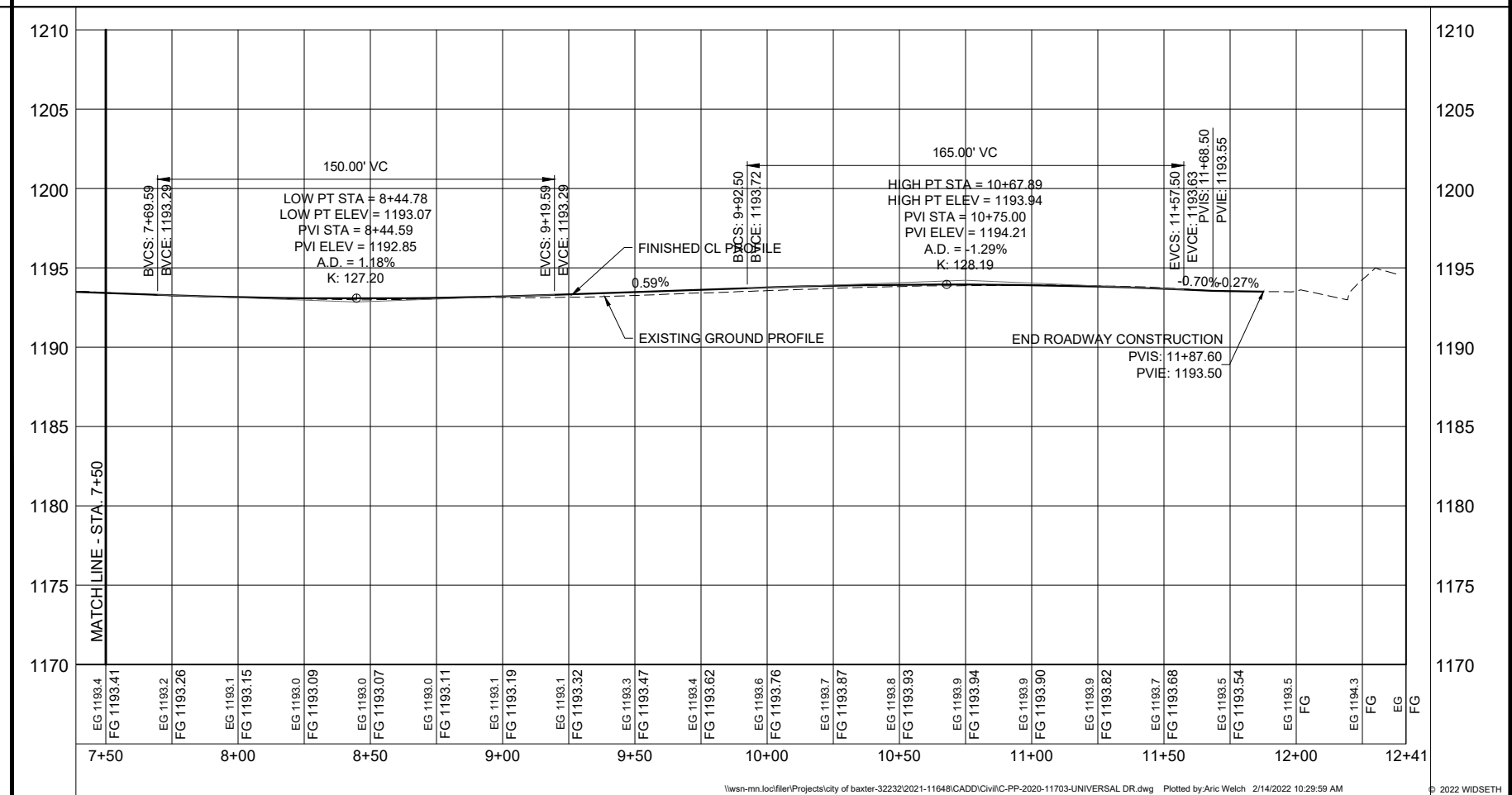
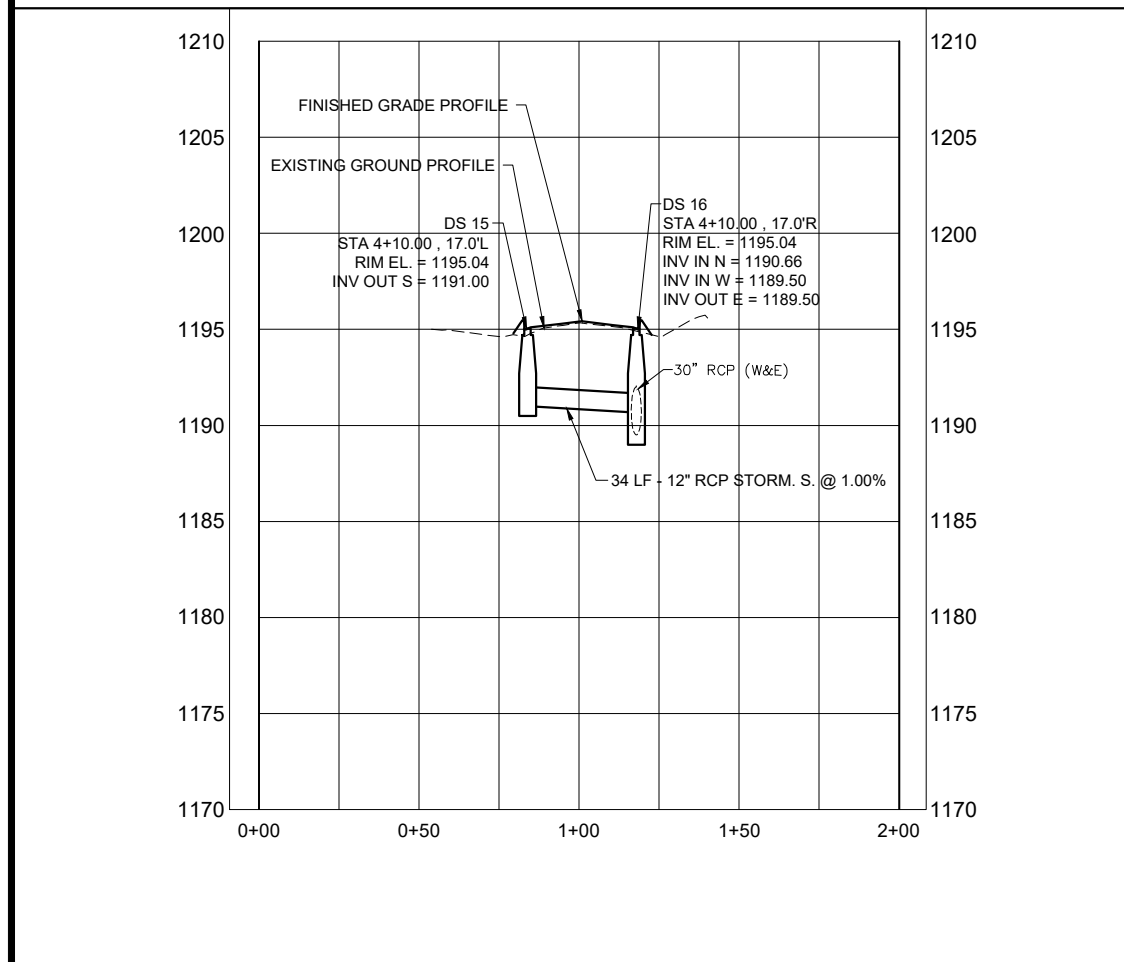
WIDSETH
ARCHITECTS - ENGINEERS - SCIENTISTS - SURVEYORS

BY: ARIC L. WELCH
DATE: 02-14-2022, LIC. NO. 41883

DS 5 TO DS 6 - STORM SEWER

UNIVERSAL ROAD

NOTE:
SALVAGE EXISTING 911 SIGNS
AND REINSTALL BEHIND MAILBOX



2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA

DATE: NOV. 2021
SCALE: AS SHOWN
DRAWN BY: ADB
CHECKED BY: ALW

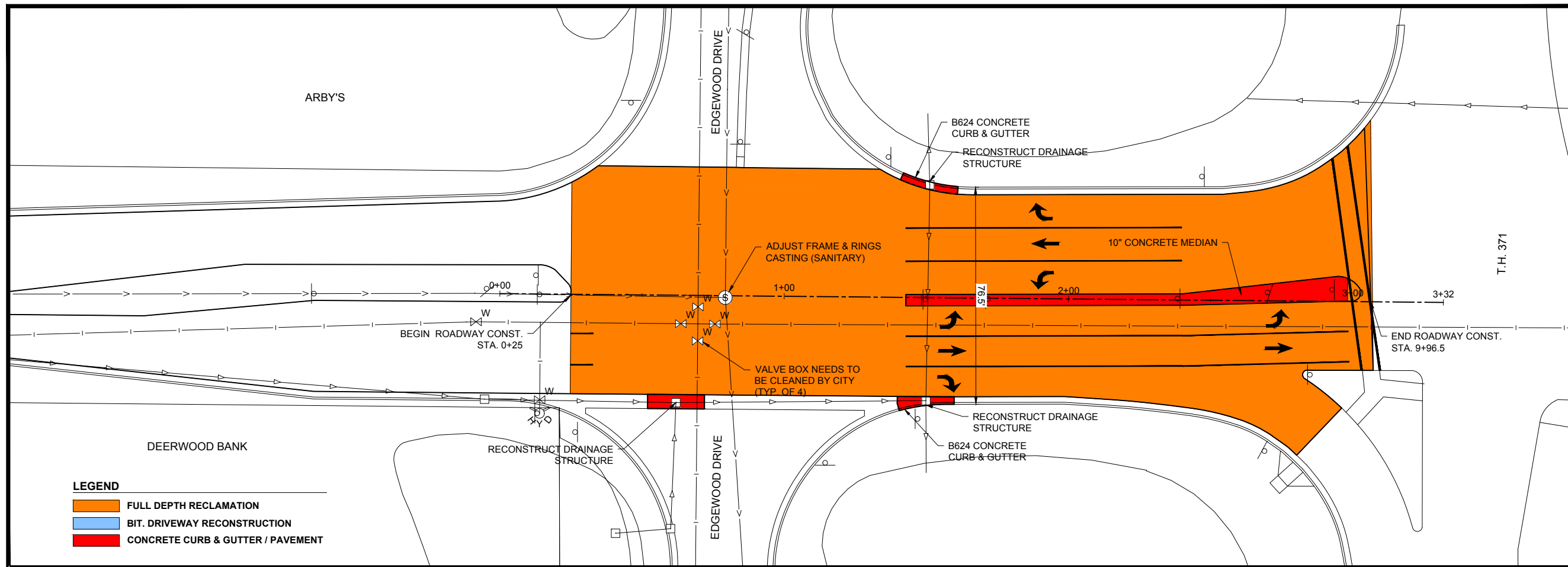
REVISIONS DESCRIPTION
ADDENDUM #1

DATE: 02-14-2022
BY: ARIC L. WELCH

JOB NUMBER: 2021-11648

PLAN & PROFILE - UNIVERSAL ROAD

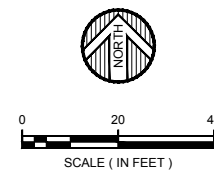
SHEET NO. **38**



LEGEND

	FULL DEPTH RECLAMATION
	BIT. DRIVEWAY RECONSTRUCTION
	CONCRETE CURB & GUTTER / PAVEMENT

WOIDA ROAD

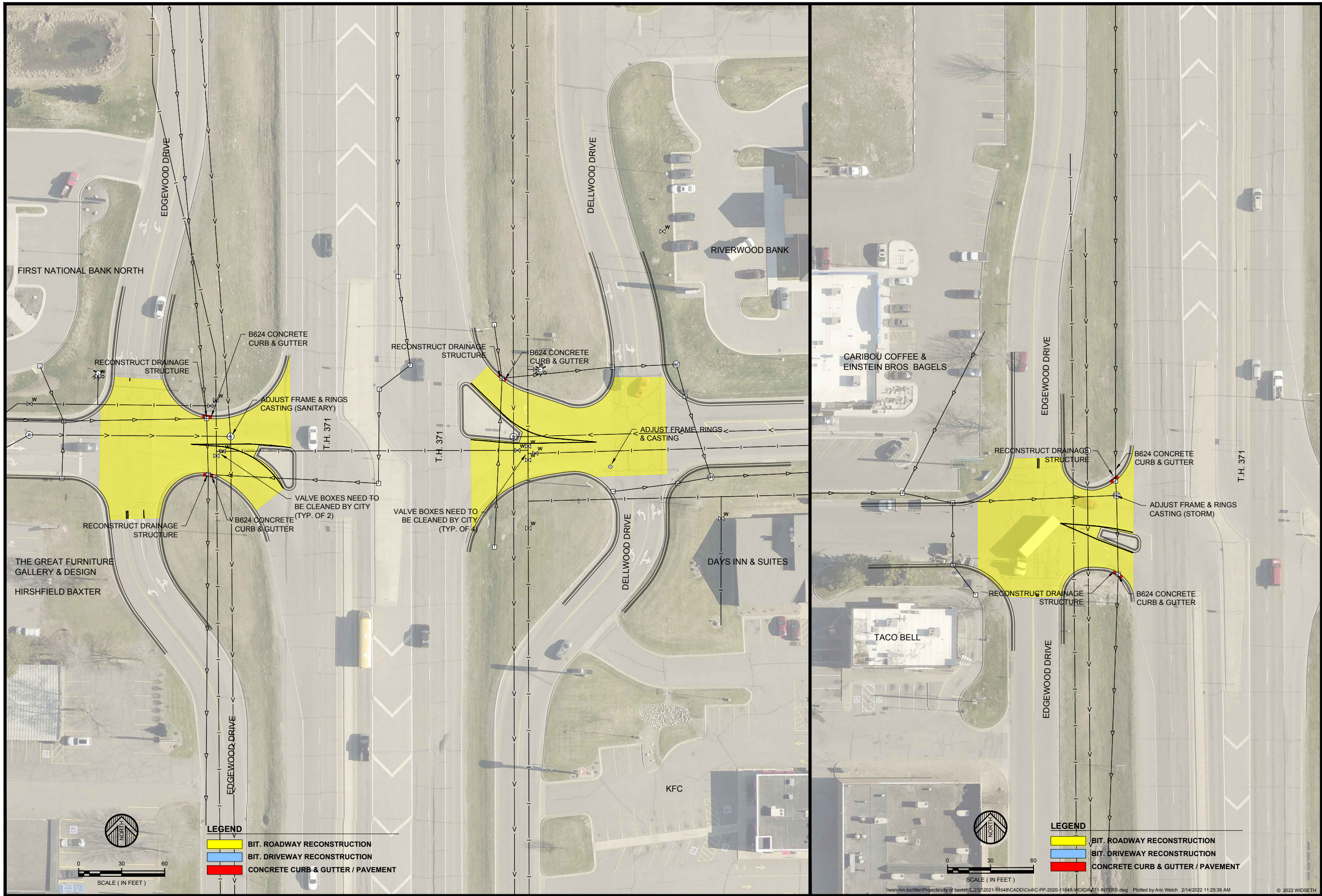


MEMBER COUNTY THAT HAS AN EXPIRATION FOR REPORT THAT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

REVISION DESCRIPTION	DATE	BY

DATE: NOV. 2021	AS SHOWN
DRAWN BY: ADB	CHECKED BY: ALW
JOB NUMBER: 2021-11648	

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PLAN - WOIDA ROAD



LEGEND

- BIT. ROADWAY RECONSTRUCTION
- BIT. DRIVEWAY RECONSTRUCTION
- CONCRETE CURB & GUTTER / PAVEMENT

LEGEND

- BIT. ROADWAY RECONSTRUCTION
- BIT. DRIVEWAY RECONSTRUCTION
- CONCRETE CURB & GUTTER / PAVEMENT

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
PLAN - T.H. 371 FRONTAGE ROAD INTERSECTIONS

DATE: NOV. 2021
SCALE: AS SHOWN
DRAWN BY: ADB
CHECKED BY: ALW
JOB NUMBER: 2021-11648

DATE	REV#	REVISIONS / DESCRIPTION

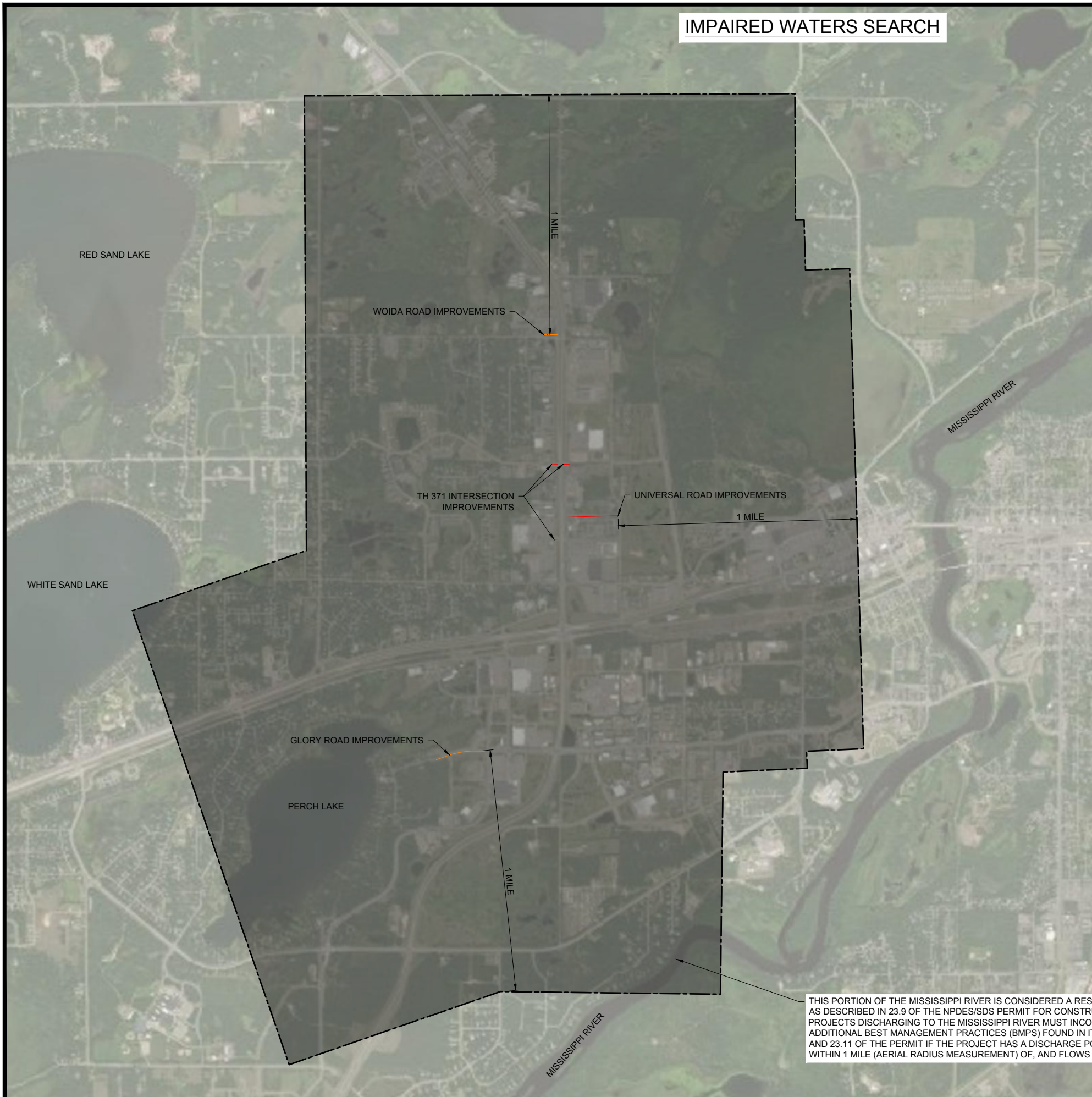
MEMBER CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Aric L. Welch
ARIC L. WELCH

DATE: 02-14-2022 LIC. NO. 41883

SHEET NO. **40**

IMPAIRED WATERS SEARCH



THIS PORTION OF THE MISSISSIPPI RIVER IS CONSIDERED A RESTRICTED WATER AS DESCRIBED IN 23.9 OF THE NPDES/SDS PERMIT FOR CONSTRUCTION. PROJECTS DISCHARGING TO THE MISSISSIPPI RIVER MUST INCORPORATE THE ADDITIONAL BEST MANAGEMENT PRACTICES (BMPs) FOUND IN ITEMS 23.9, 23.10 AND 23.11 OF THE PERMIT IF THE PROJECT HAS A DISCHARGE POINT ON THE PROJECT WITHIN 1 MILE (AERIAL RADIUS MEASUREMENT) OF, AND FLOWS TO THE MISSISSIPPI RIVER.

Legend

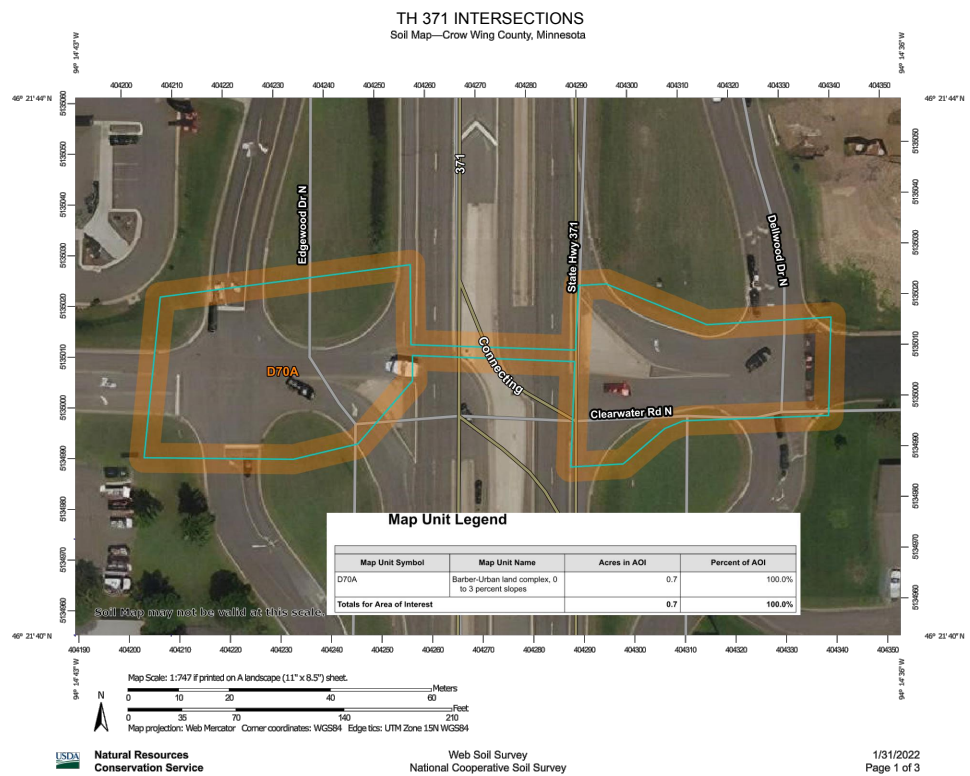
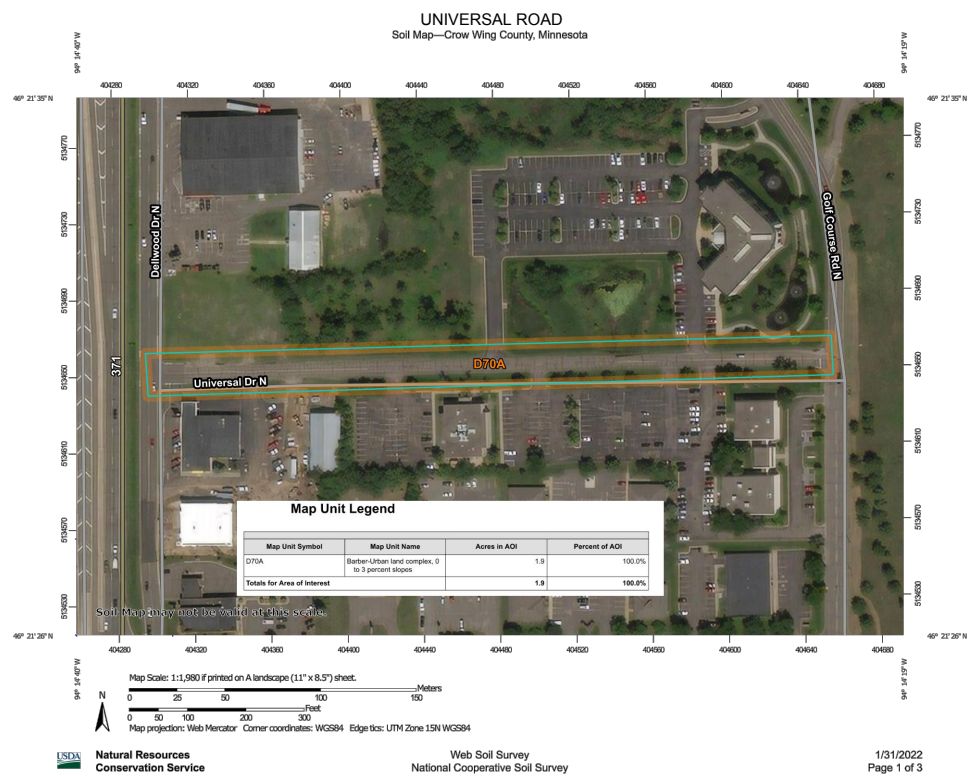
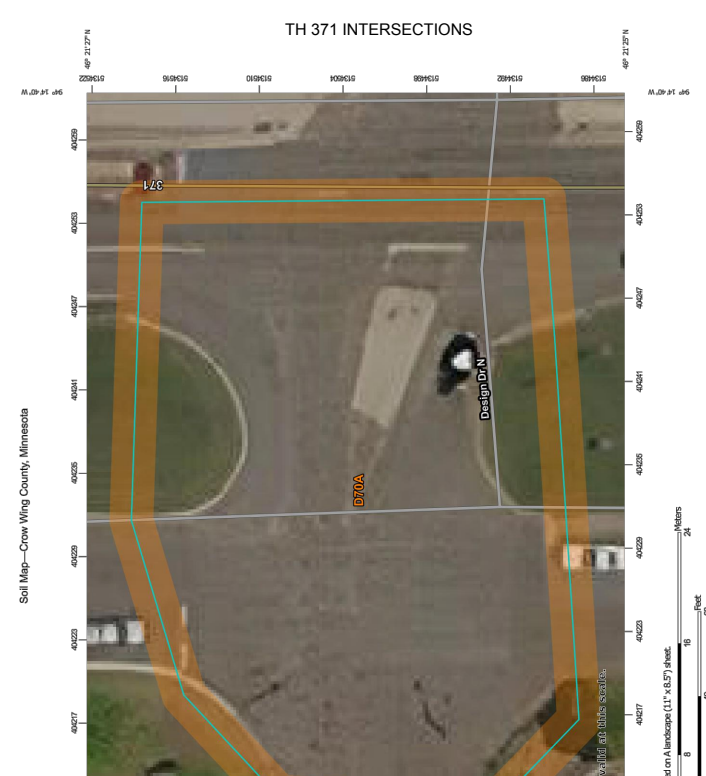
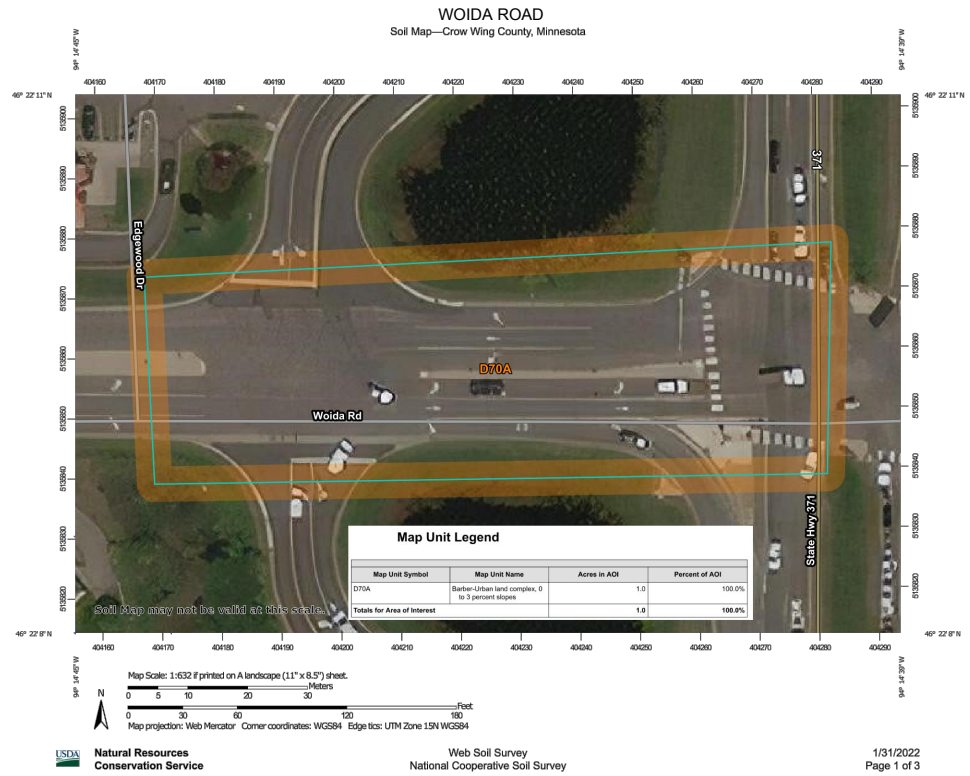
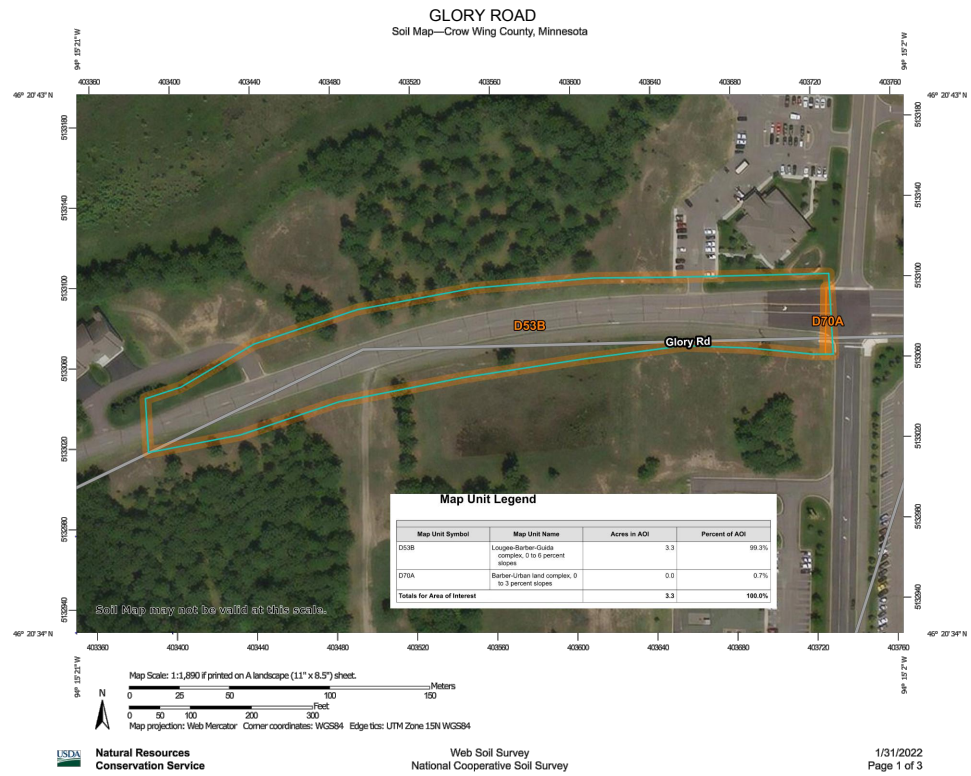
- Mississippi River
- Scenic and Recreational River Segments
- Trout Stream
- Trout Stream Tributary
- Scientific and Natural Area
- Trout Lake
- Lake Trout Lake
- Trout Lake and Lake Trout Lake
- Lake Superior ORW - Restricted Discharge
- Lake Superior ORW - Prohibited Discharge
- Impaired Streams with additional construction requirements
- Impaired Streams without additional construction requirements
- Impaired Wetlands with additional construction requirements
- Impaired Wetlands without additional construction requirements
- Impaired Lakes with additional construction requirements
- Impaired Lakes without additional construction requirements
- Waterbodies
 - Waterbody Units - Streams (1)
 - Waterbody Units - Lakes (1)

MEMBER CERTIFY THAT THIS IS AN ORIGINAL WORK REPORT THAT 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.
Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

REVISIONS DESCRIPTION	DATE	REV#	BY
	NOV, 2021 <td> </td> <td> </td>		

DATE	SCALE	AS SHOWN	DRAWN BY	CHECKED BY	JOB NUMBER
			ADB	ALW	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
SWPPP MAPS



1/31/2022
Page 1 of 3

1/31/2022
Page 1 of 3

1/31/2022
Page 1 of 3

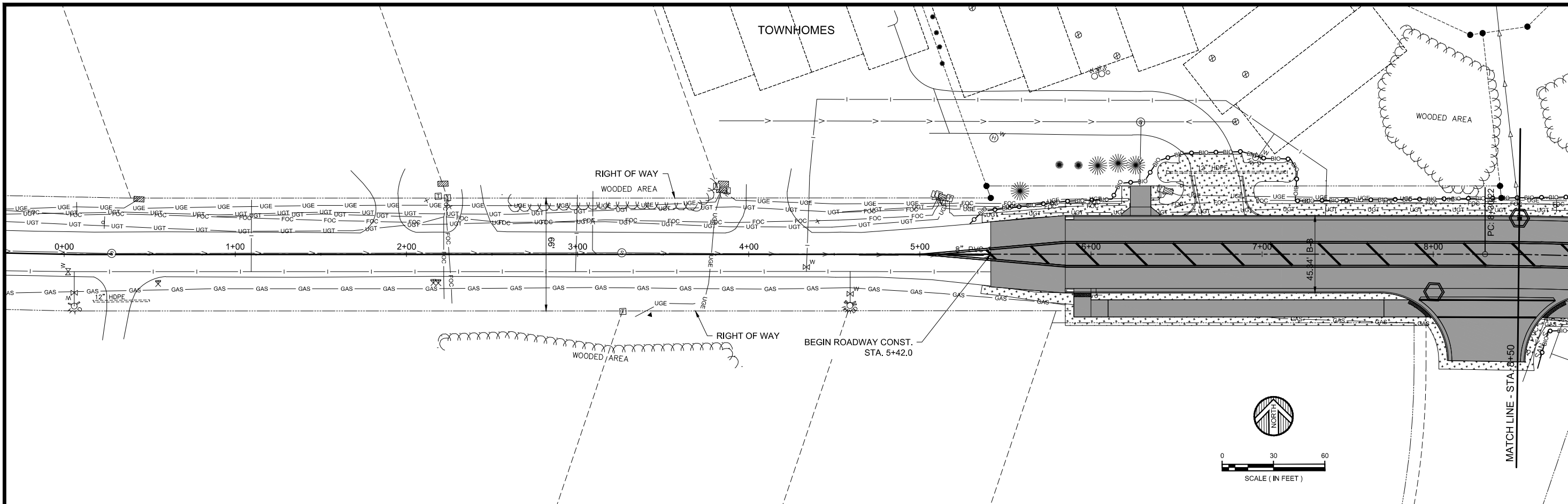
WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

DATE: 02-14-2022 LIC. NO. 41883
ARIC L. WELCH

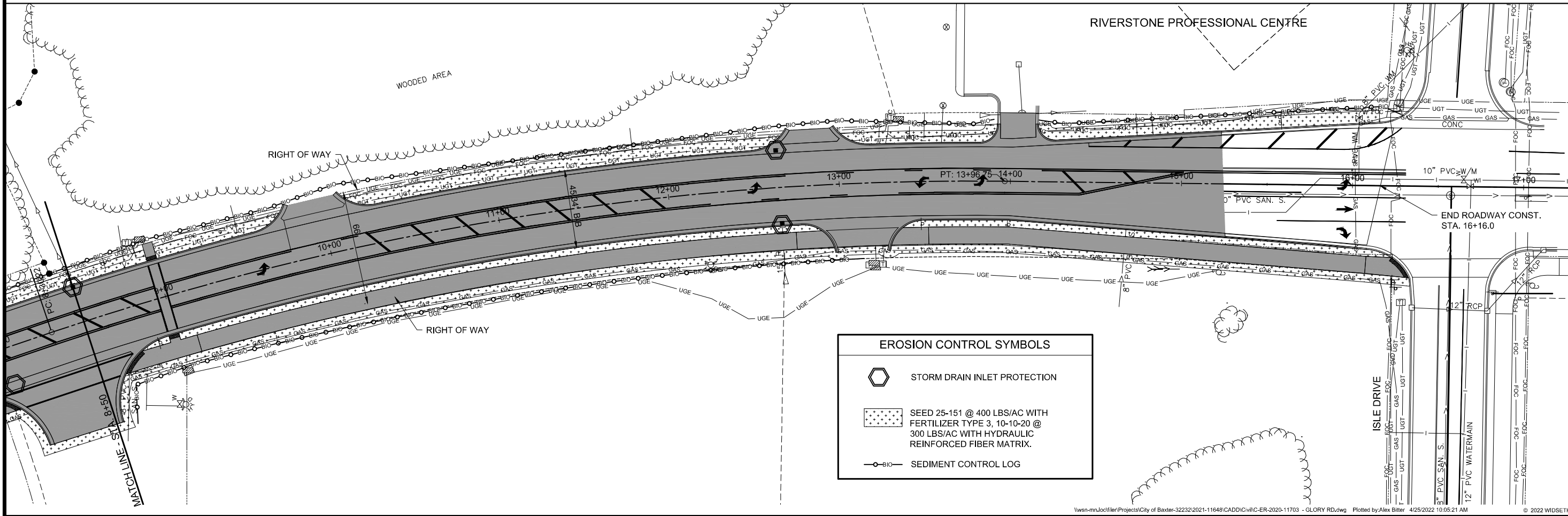
NO.	DATE	BY	REVISIONS DESCRIPTION


2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
SWPPP MAPS

SHEET NO.
43




GLORY ROAD





ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

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.



ALEX BILLET
ARIC L. WELCH

DATE: 02-14-2022 LIC. NO. 41883

DATE	REV	REVISIONS DESCRIPTION
NOV. 2021	AS SHOWN	
	AD3	
	ALW	

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA

JOB NUMBER: 2021-11648

EROSION CONTROL PLAN - GLORY ROAD

SHEET NO. 44R

\wss-m\JocJ\er\Projects\City of Baxter-32232\2021-11648\CADD\VIC-ER-2020-11703 - GLORY RD.dwg

Plotted by: Alex Billet 4/25/2022 10:05:21 AM

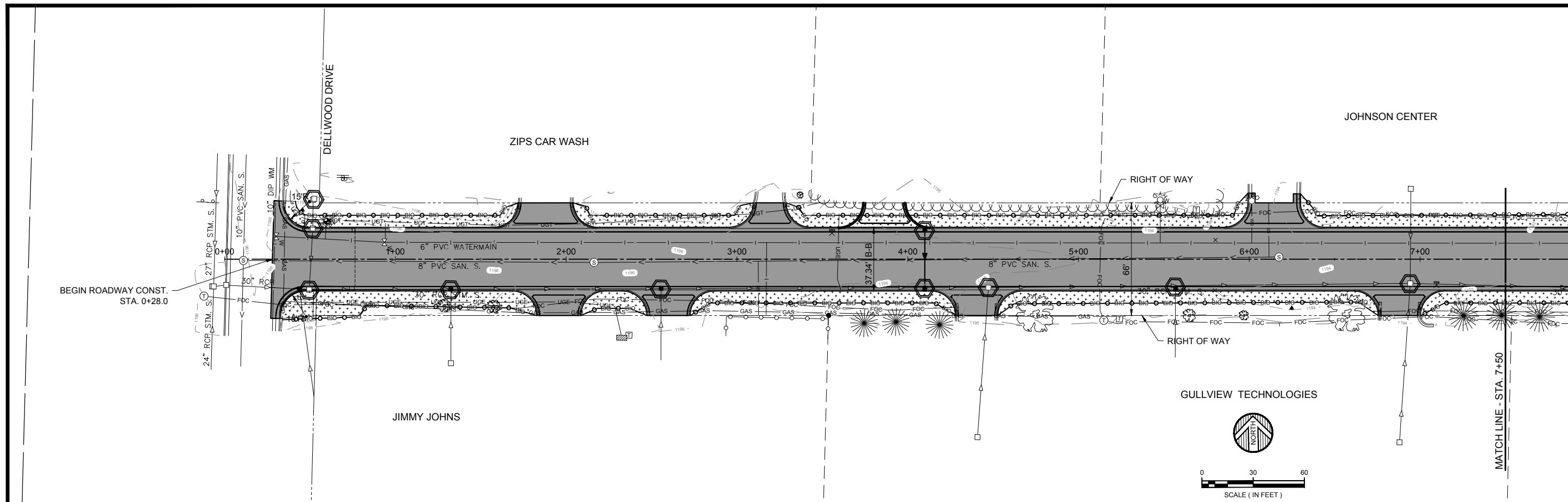
© 2022 WIDSETH

BY: ARIC L. WELCH
DATE: 02-14-2022 LIC. NO. 41983

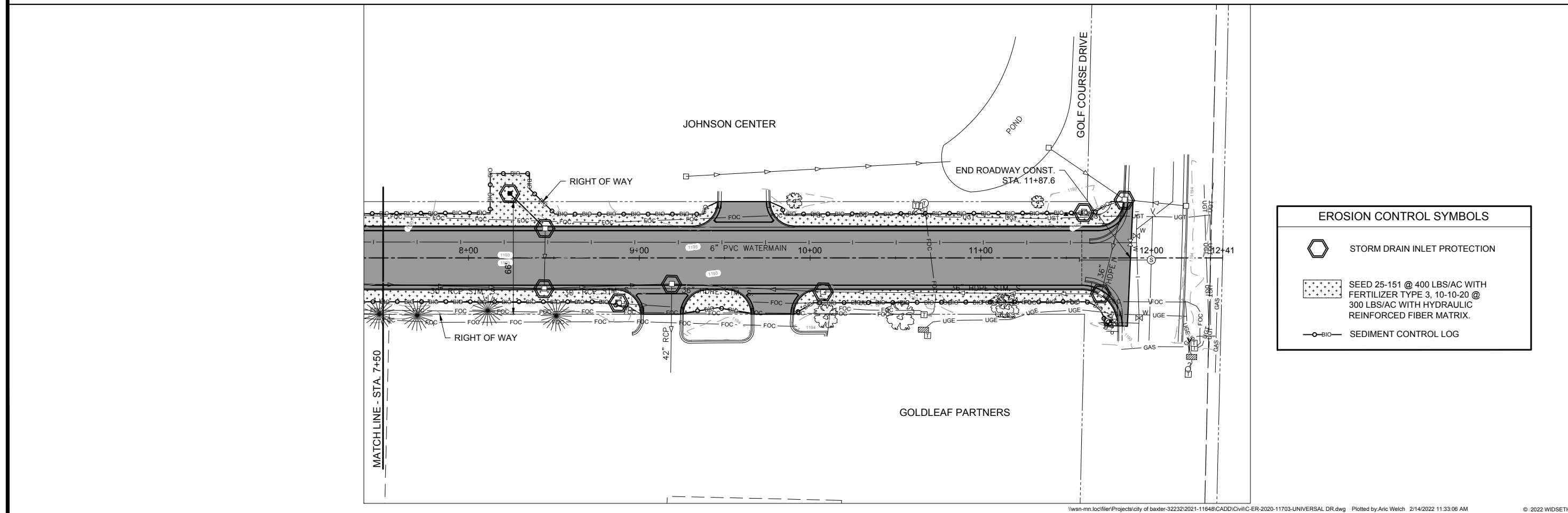
REVISIONS DESCRIPTION	DATE	REV

DATE: NOV. 2021	AS SHOWN
SCALE: ADB	ALW
DRAWN BY: ALW	ALW
CHECKED BY: ALW	ALW
JOB NUMBER: 2021-11648	



2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
EROSION CONTROL PLAN - UNIVERSAL ROAD

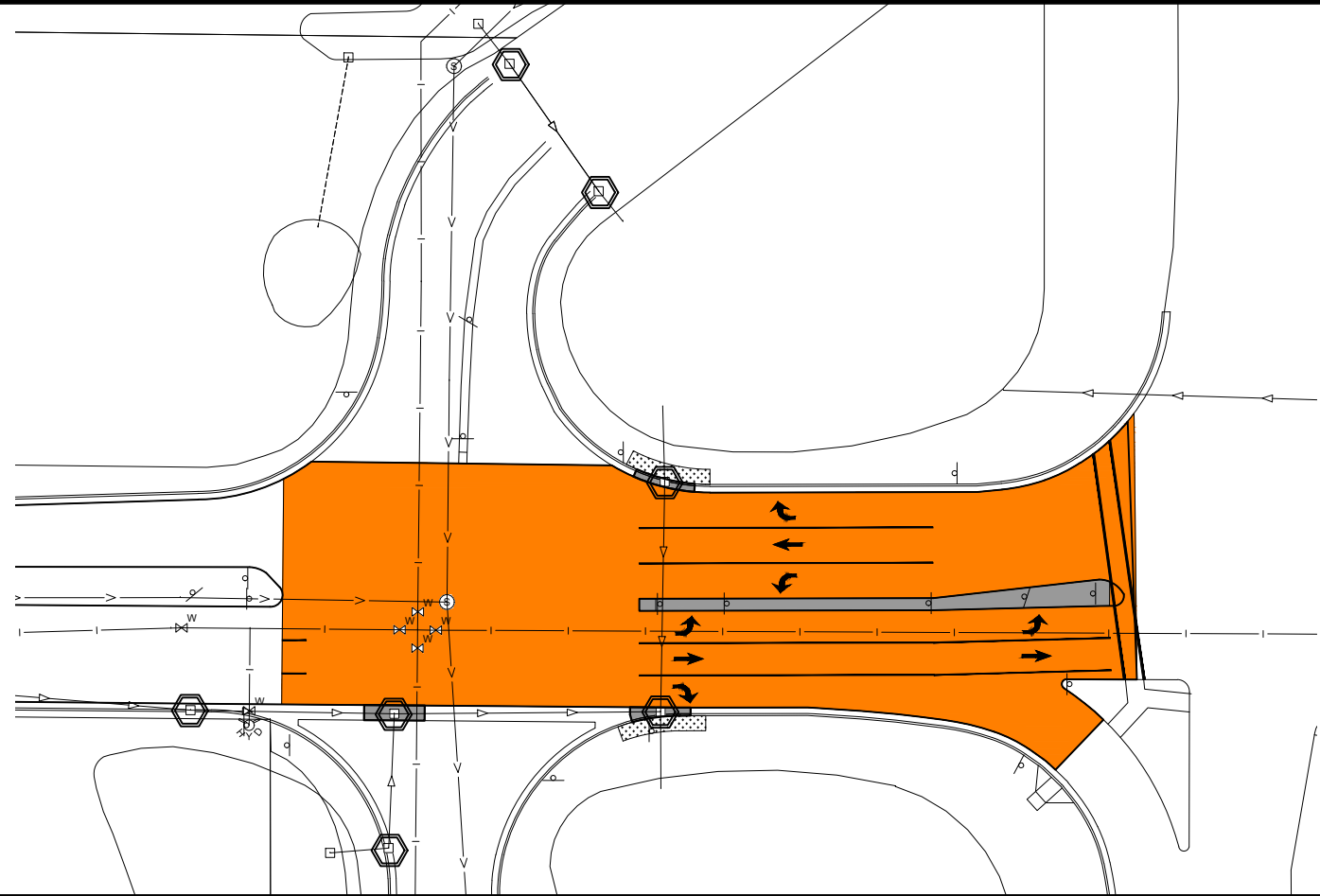


UNIVERSAL ROAD



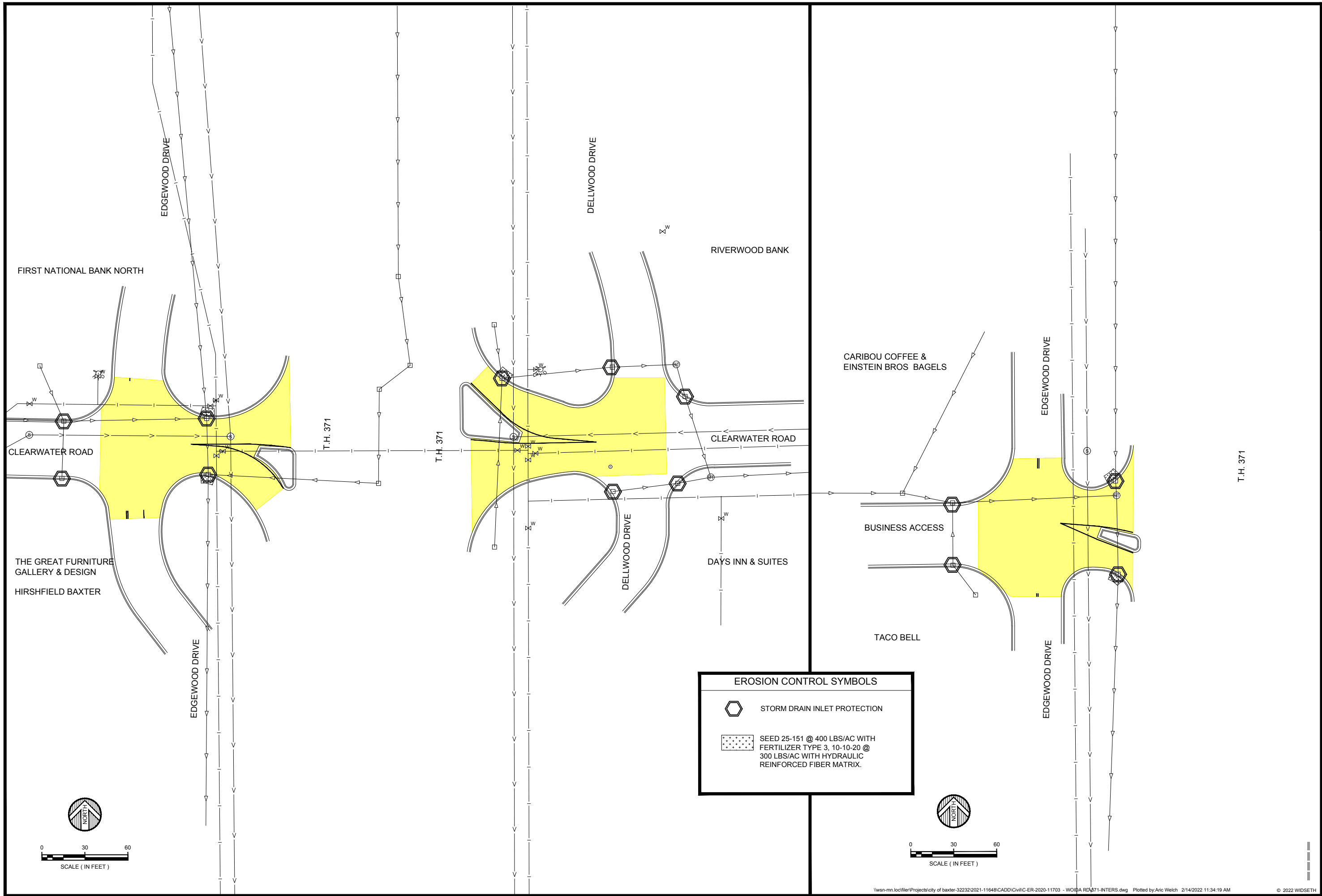
EROSION CONTROL SYMBOLS	
	STORM DRAIN INLET PROTECTION
	SEED 25-151 @ 400 LBS/AC WITH FERTILIZER TYPE 3, 10-10-20 @ 300 LBS/AC WITH HYDRAULIC REINFORCED FIBER MATRIX.
	SEDIMENT CONTROL LOG

EROSION CONTROL SYMBOLS	
	STORM DRAIN INLET PROTECTION
	SEED 25-151 @ 400 LBS/AC WITH FERTILIZER TYPE 3, 10-10-20 @ 300 LBS/AC WITH HYDRAULIC REINFORCED FIBER MATRIX.



WOIDA ROAD

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT		DATE: NOV. 2021	BY: ARIC L. WELCH
CITY OF BAXTER		AS SHOWN	DATE: 02-14-2022 LIC. NO. 41983
BAXTER, MINNESOTA		DRAWN BY: ADB	
EROSION CONTROL PLAN - WOIDA ROAD		CHECKED BY: ALW	
SHEET NO. 46		JOB NUMBER: 2021-11648	
		REVISIONS DESCRIPTION	
		DATE	
		REV#	



EROSION CONTROL SYMBOLS

- STORM DRAIN INLET PROTECTION
- SEED 25-151 @ 400 LBS/AC WITH FERTILIZER TYPE 3, 10-10-20 @ 300 LBS/AC WITH HYDRAULIC REINFORCED FIBER MATRIX.

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

MEMBER COUNTY 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.
Aric Welch
ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

REV#	DATE	DESCRIPTION

DATE: NOV. 2021 AS SHOWN
SCALE: DRAWN BY: ADB CHECKED BY: ALW
JOB NUMBER: 2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
EROSION CONTROL PLAN - T.H. 371 INTERSECTIONS

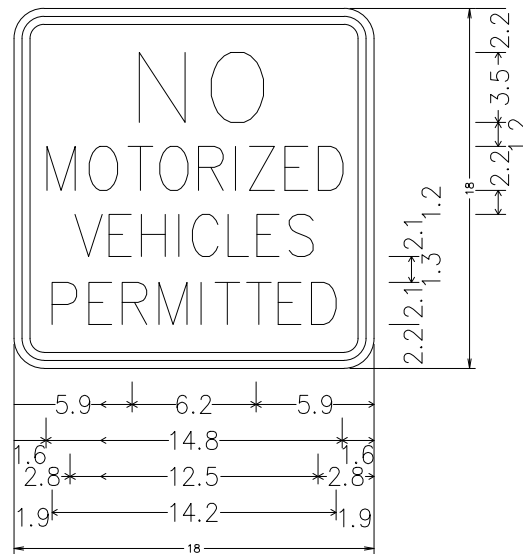
SHEET NO. **47**

\\wsn-mn.local\filer\Projects\city of baxter-32232\2021-11648\CADD\Civil\ER-2020-11703 - WOODA RD\671-INTERS.dwg Plotted by: Aric Welch 2/14/2022 11:34:19 AM © 2022 WIDSETH

SIGN PANELS TYPE C													
SIGN NO.	QUANTITY			POSTS NO. & TYPE	KNEE BRACES QUANT.	PANEL SIZE	AREA (SQ FT)	TOTAL AREA			CODE NO.	PANEL LEGEND	NOTES
	GLORY ROAD	UNIVERSAL ROAD	WOIDA ROAD					GLORY ROAD	UNIVERSAL RAOD	WOIDA ROAD			
C-1		2		1U		36" x 36"	9.00		18		R1-1	STOP	1
C-2			1	1U		36" x 36" x 36"	4.50		4.5		R1-2	YIELD	1
C-3	2			1U		24" x 30"	5.00	10			R2-1	SPEED LIMIT 30	1
C-4			1	1U		30" x 30"	6.25		6.25		R3-5	LEFT TURN LANE	1
C-5	1		1	2U		54" x 30"	11.25	11.25	11.25		R3-30ACA	LEFT ONLY - THRU ONLY - RIGHT ONLY	1
C-6			2	1U		24" x 30"	5.00		10		R4-7	STAY RIGHT SYMBOL	1
C-7			2	1U		36" x 36"	9.00		18		R5-1	DO NOT ENTER	1
C-8	4			1U		24" x 24"	4.00	16			R6-3	NO PARKING SYMBOL	1,2
C-9	1			1U		30" x 30"	6.25	6.25			W14-2	NO OUTLET	1
C-10	4			1U		18" x 18"	2.25	9			R1-1	STOP (TRAIL)	1,3
	4			1U		18" x 18"	2.25	9			R5-3	NO MOTORIZED VEHICLES PERMITTED	1,3,4
ROADWAY TOTAL								61.5	18	50			
PROJECT TOTAL								129.5					

NOTES:

- 1 FURNISH AND INSTALL
- 2 MOUNT BELOW SIGN WHEN NECESSARY
- 3 MOUNT BACK TO BACK
- 4 SEE MODIFIED SIGN LETTERING DETAIL



C-10

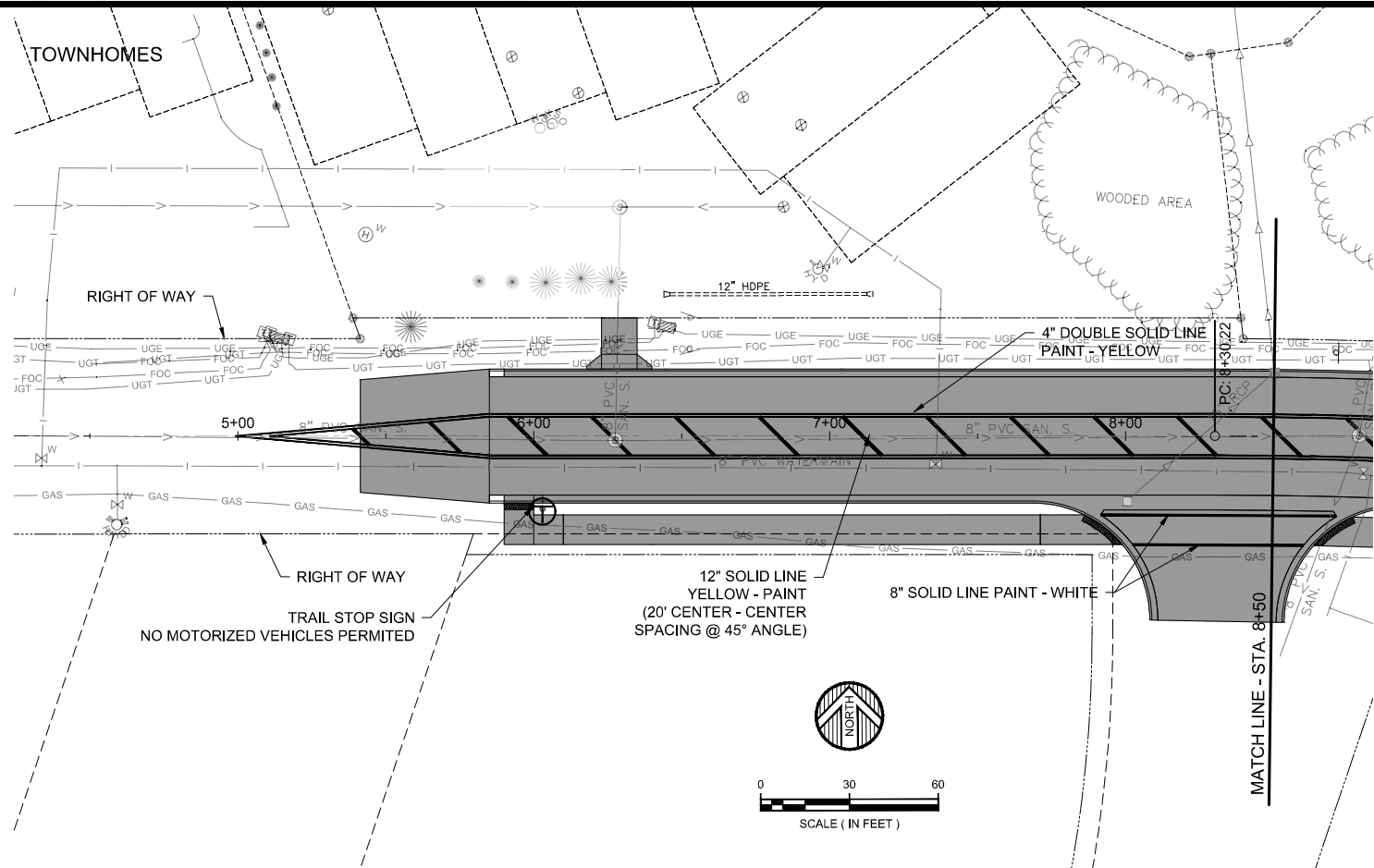
1.5" Radius, 0.4" Border, 0.4" Indent, Black on White;
 [NO] E specified length;
 [MOTORIZED] D specified length;
 [VEHICLES] D specified length;
 [PERMITTED] D specified length;

TYPICAL TRAIL SIGN

MEMBER 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.
Aric Welch
 ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

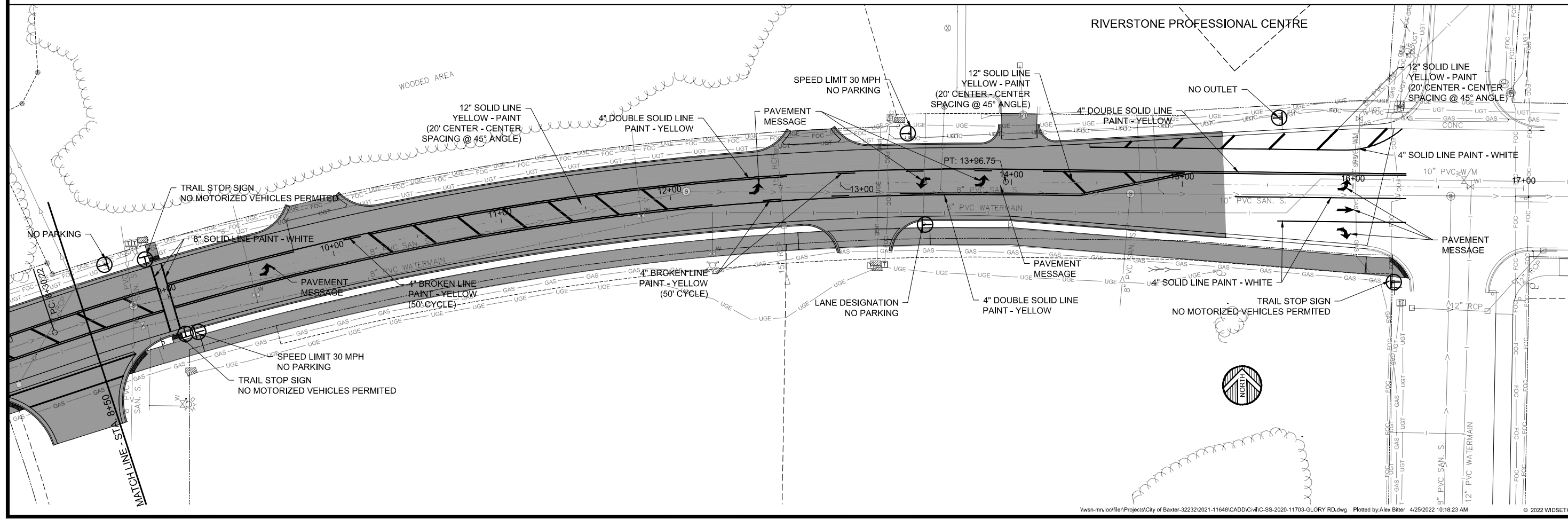
REVISIONS DESCRIPTION	DATE	REV#	BY
ADDENDUM 1	NOV 2021		ALW

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 SIGN TABULATION



GLORY ROAD

LEGEND	
	REMOVE & REPLACE SIGN

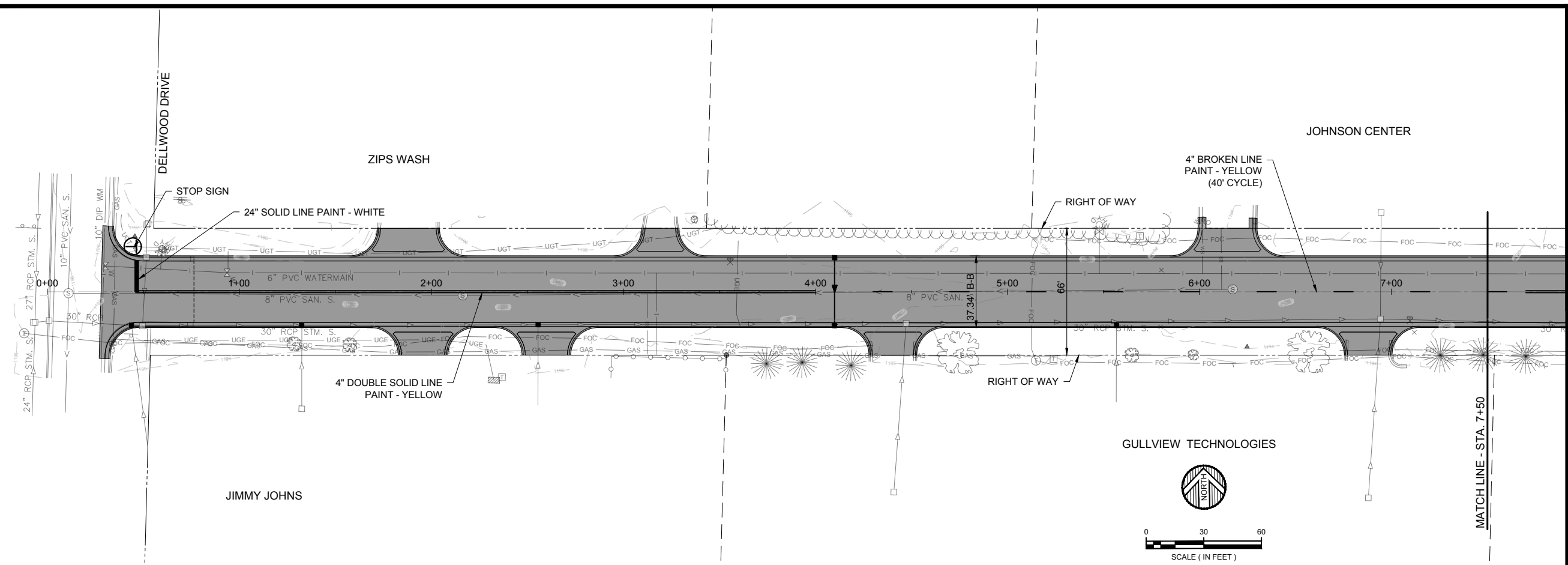


DESIGNED BY: ARIC L. WELCH
DATE: 02-14-2022, LIC. NO. 41883

DATE	REVISION DESCRIPTION
NOV. 2021	AS SHOWN
	DRAWN BY: AOB
	CHECKED BY: ALW

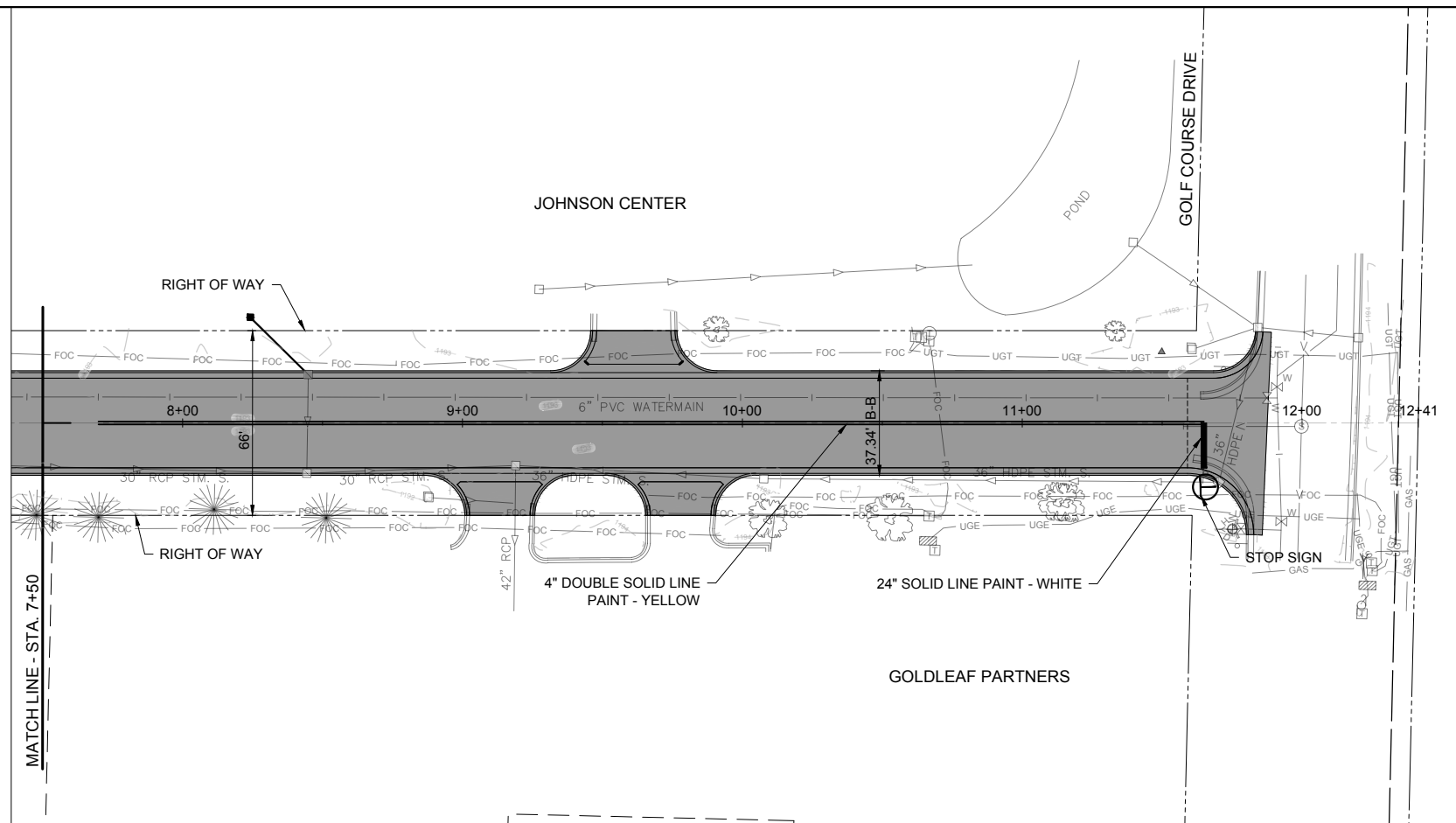
DATE: NOV. 2021
SCALE: AS SHOWN
DRAWN BY: AOB
CHECKED BY: ALW

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
BAXTER, MINNESOTA
SIGNAGE & PAVEMENT MARKING PLAN - GLORY ROAD



UNIVERSAL ROAD

REVISIONS	
NO.	DESCRIPTION

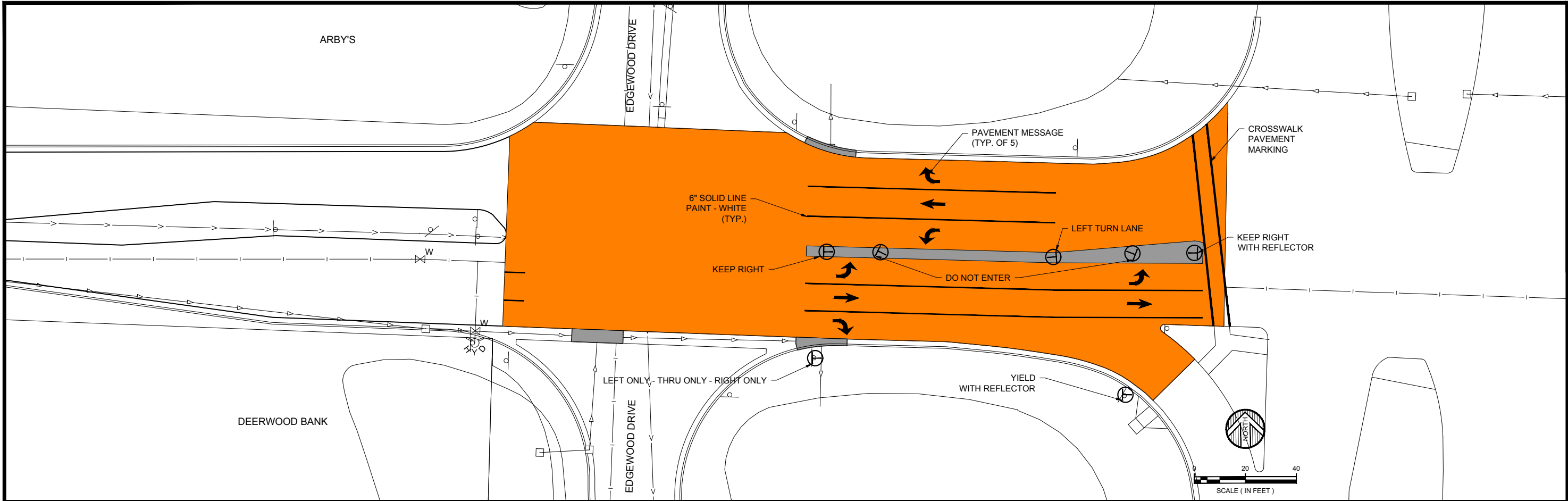


BY: ARIC L. WELCH
 I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, AND REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 Aric Welch
 ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41883

DATE	REVISION	DESCRIPTION

DATE:	NOV. 2021
SCALE:	AS SHOWN
DRAWN BY:	ADB
CHECKED BY:	ALW
JOB NUMBER:	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 SIGNAGE & PAVEMENT MARKING PLAN - UNIVERSAL ROAD



WOIDA ROAD

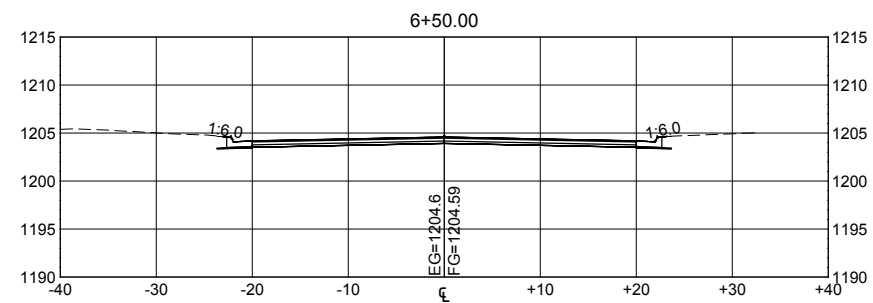
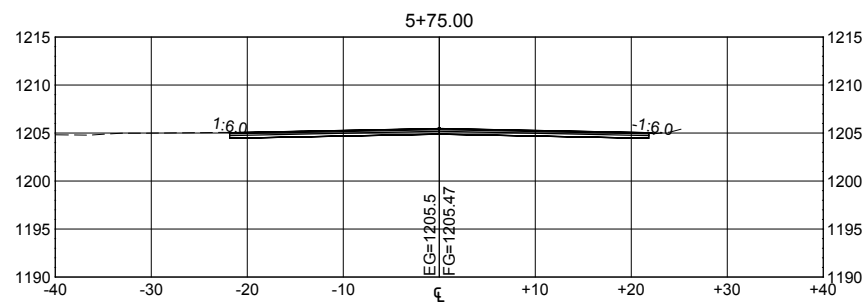
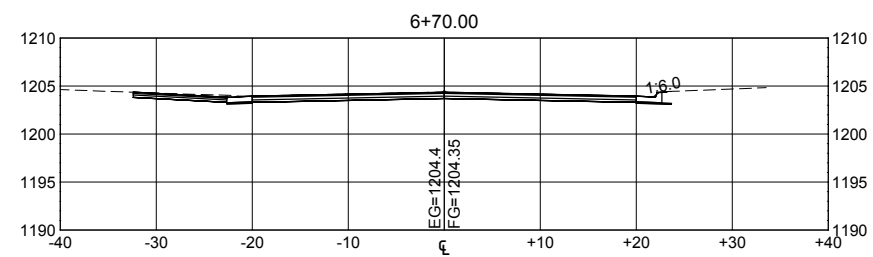
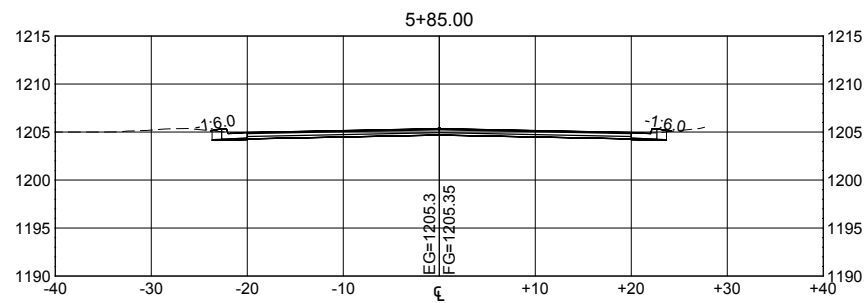
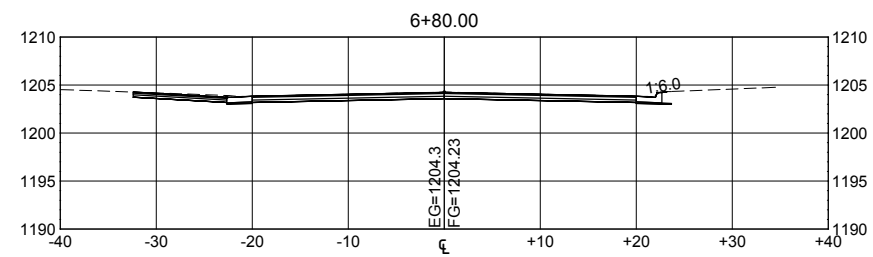
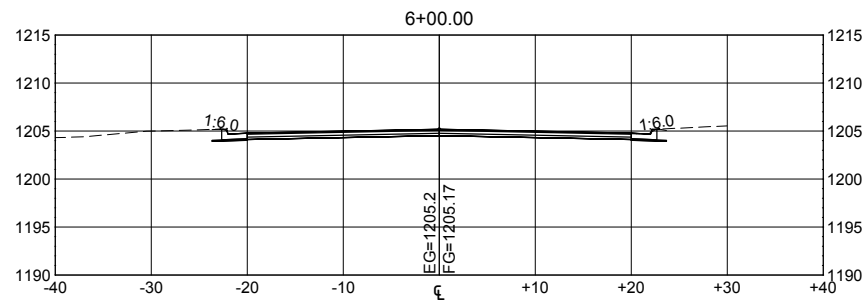
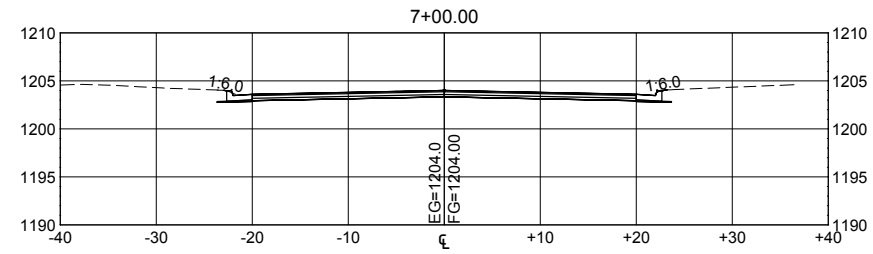
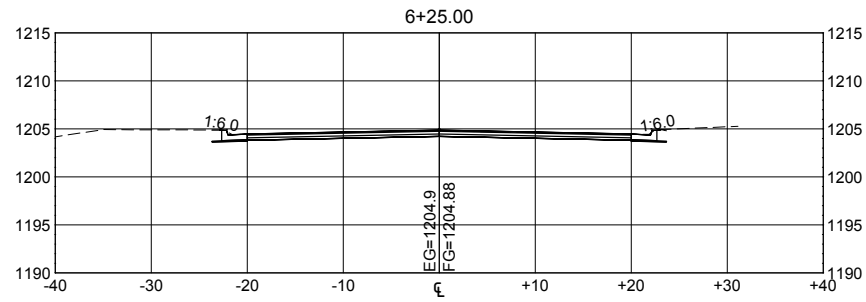
LEGEND	
	REMOVE & REPLACE SIGN

BY: ARIC L. WELCH
MEMBER 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.
 DATE: 02-14-2022 LIC. NO. 41883

REVISIONS DESCRIPTION	DATE	REV#

DATE: NOV. 2021	AS SHOWN
DRAWN BY: ADB	CHECKED BY: ALW
JOB NUMBER: 2021-11648	

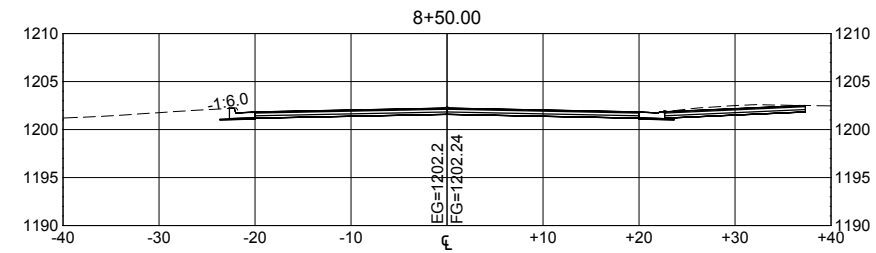
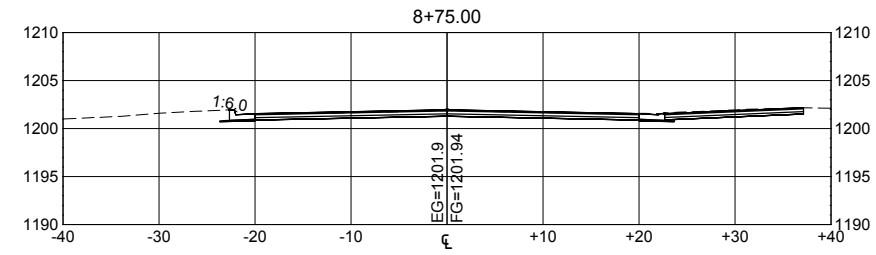
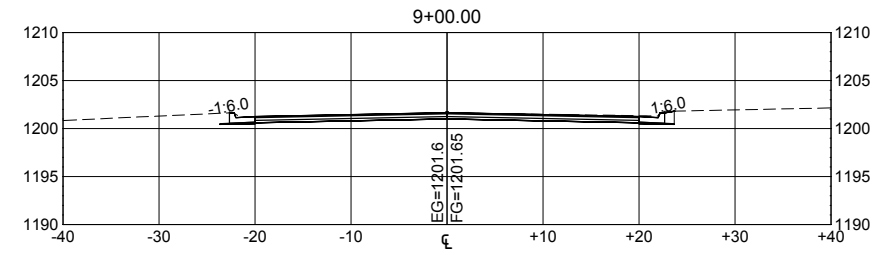
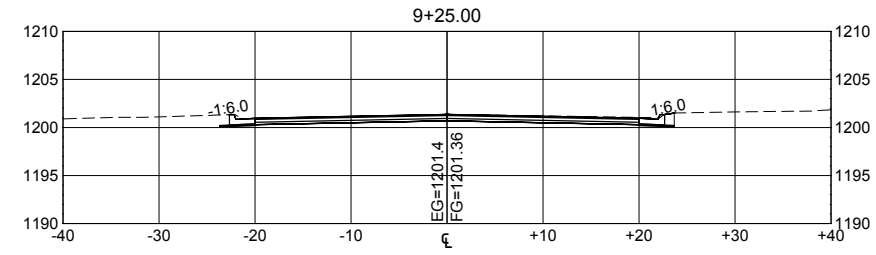
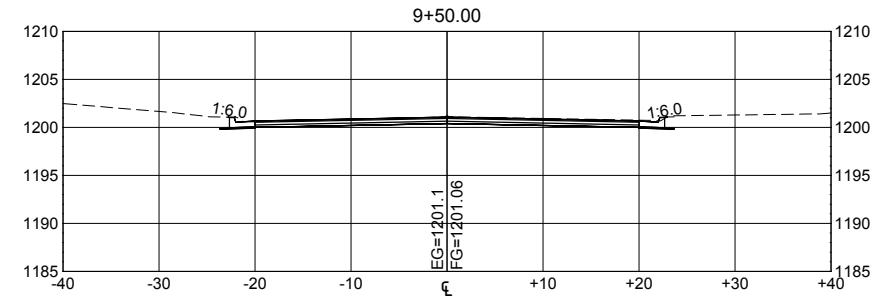
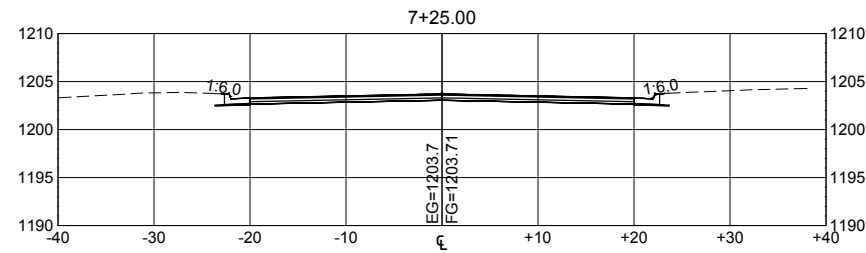
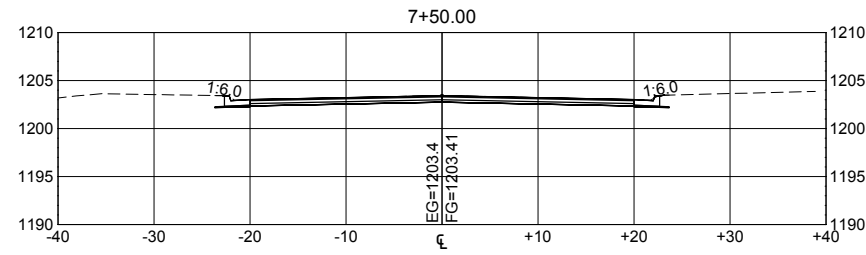
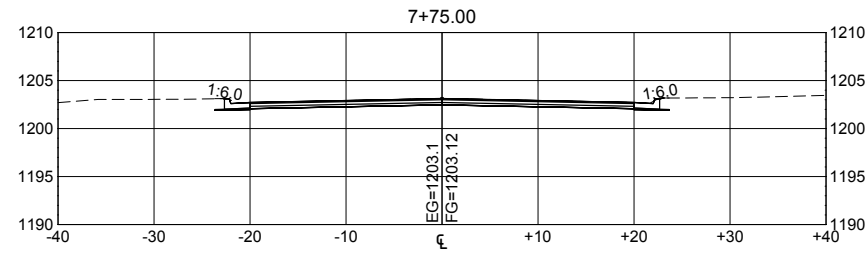
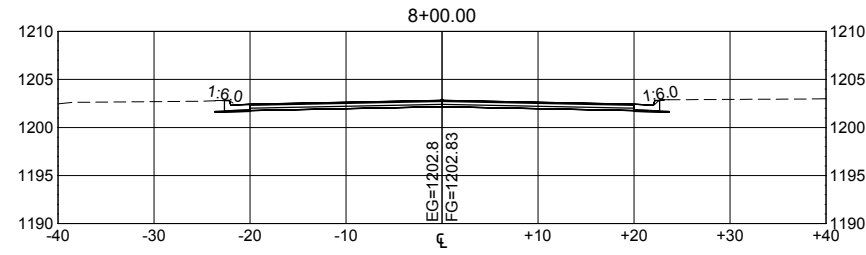
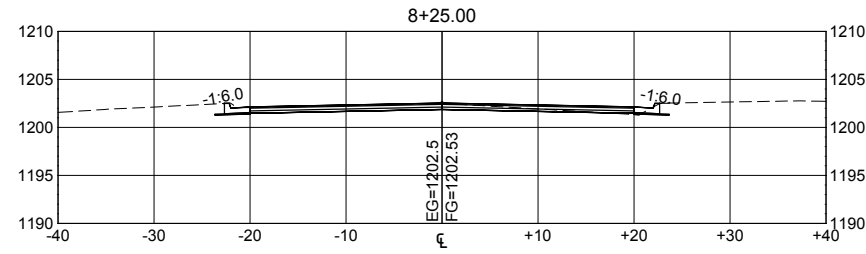
2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 SIGNAGE & PAVEMENT MARKING PLAN - WOIDA ROAD



I HEREBY CERTIFY THAT THIS IS AN ACCURATE AND CORRECT REPORT
 THAT 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.
Aric Welch
 ARIC L. WELCH DATE: 02/14/2022 LIC. NO. 41983

DATE	REVISION DESCRIPTION	BY
NOV. 2021 <td>AS SHOWN <td>ADB </td></td>	AS SHOWN <td>ADB </td>	ADB
		ALW

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
 CITY OF BAXTER
 BAXTER, MINNESOTA
 CROSS SECTIONS - GLORY ROAD
 JOB NUMBER: 2021-11648

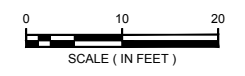
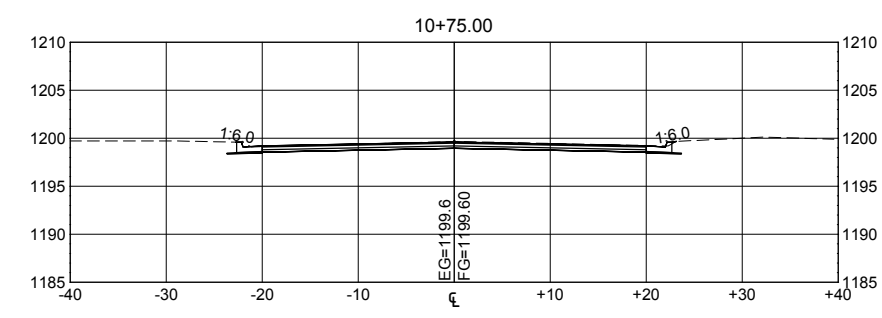
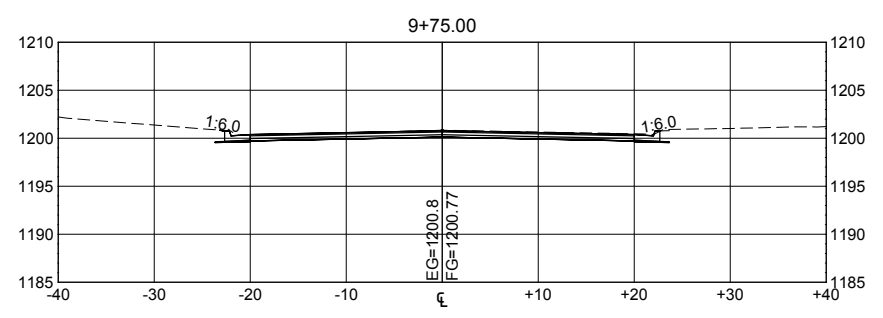
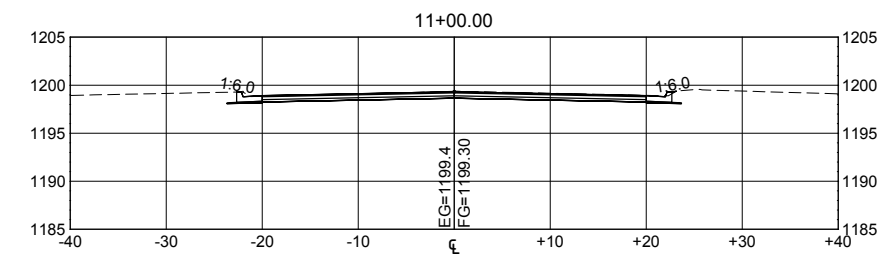
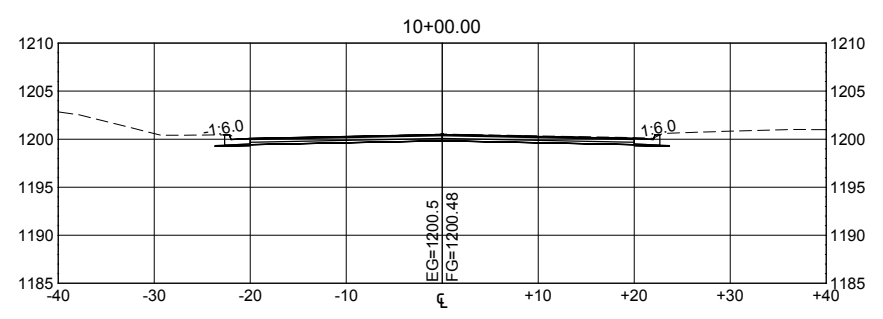
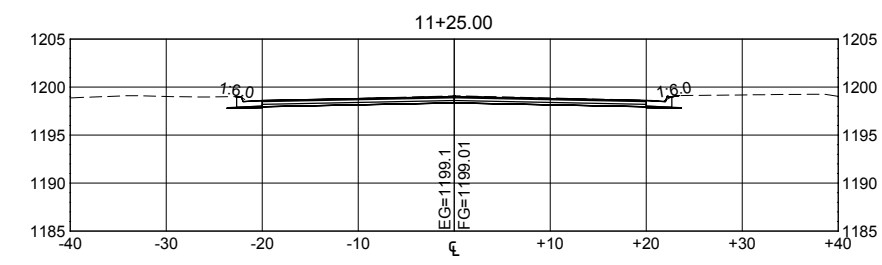
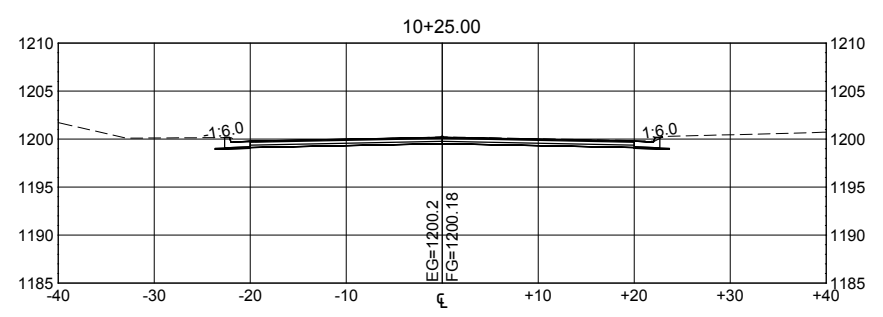
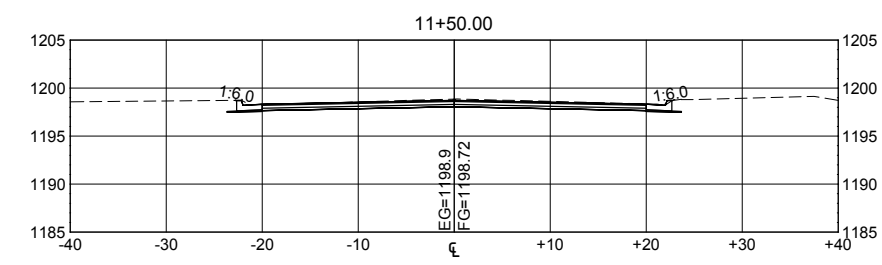
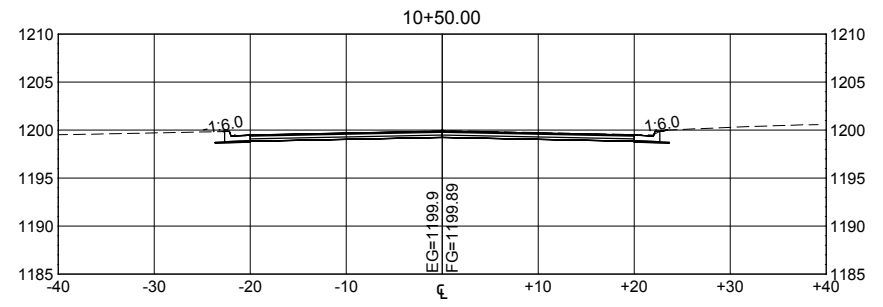


MEMBER CERTIFY THAT THIS PLAN, SPECIFICATION, JOB REPORT, AND ALL OTHER DOCUMENTS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Aric Welch
ARIC L. WELCH DATE: 02/14/2022 LIC. NO. 41983

REV#	DATE	DESCRIPTION

DATE:	NOV. 2021
SCALE:	AS SHOWN
DRAWN BY:	ADB
CHECKED BY:	ALW
JOB NUMBER:	2021-11648

2022 FDR & RECONSTRUCTION IMPROVEMENTS PROJECT
CITY OF BAXTER
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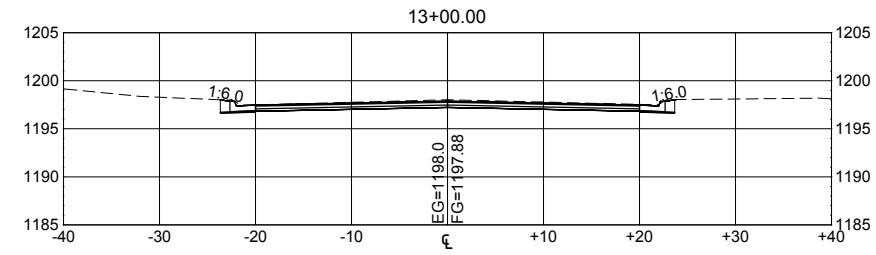
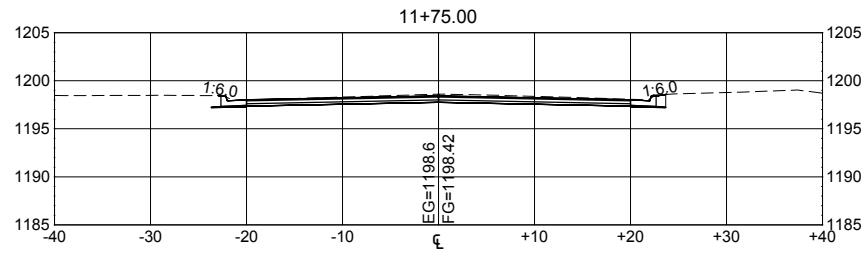
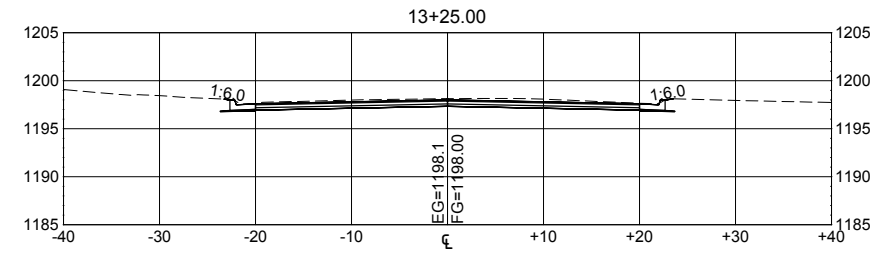
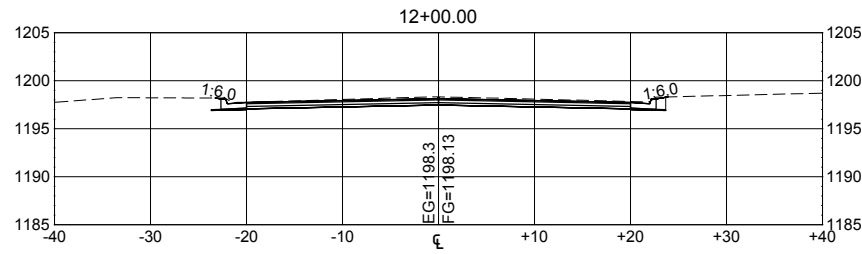
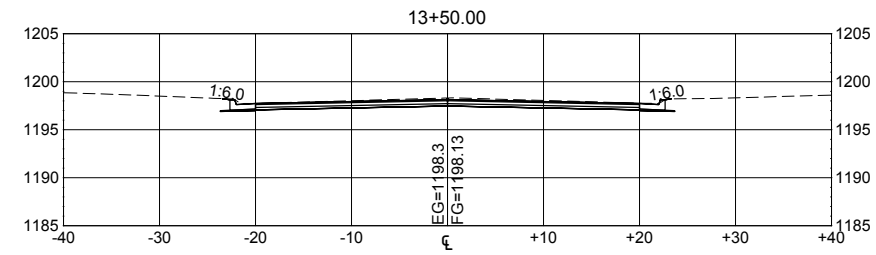
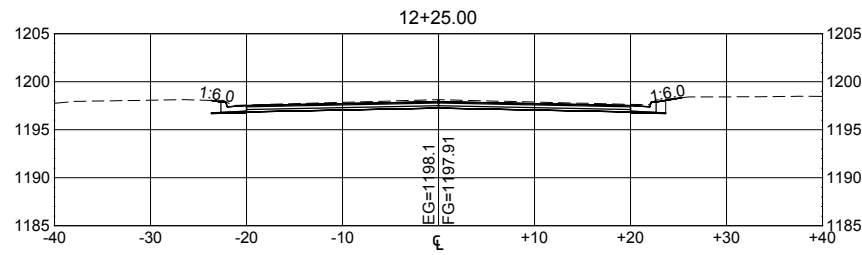
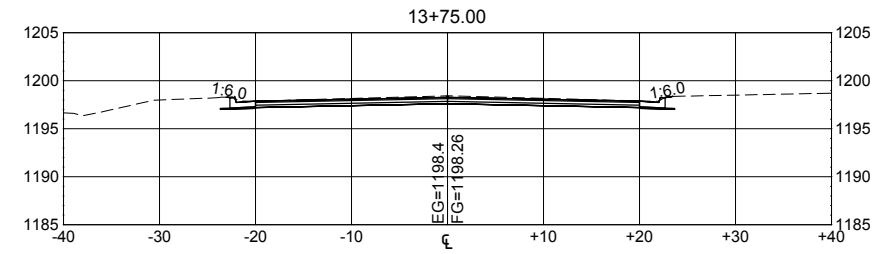
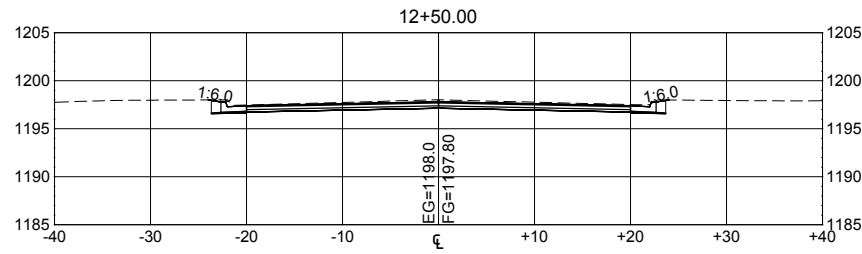
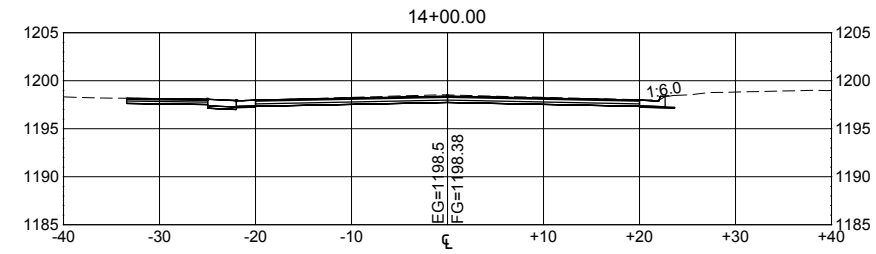
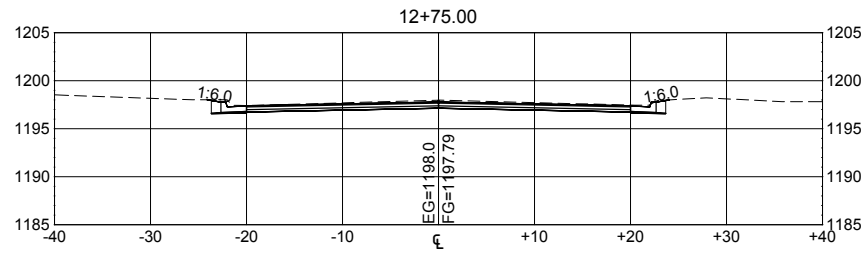


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JOB NUMBER: 2021-11648

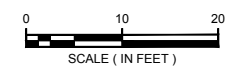
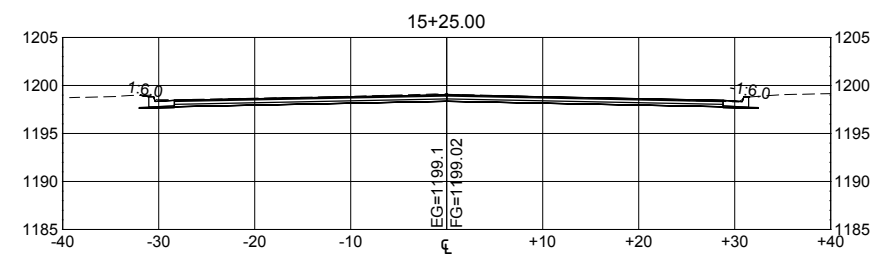
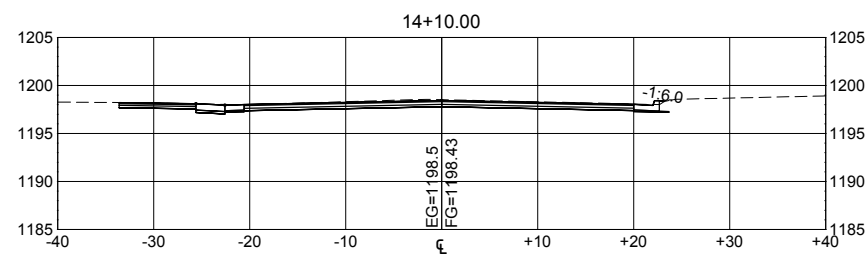
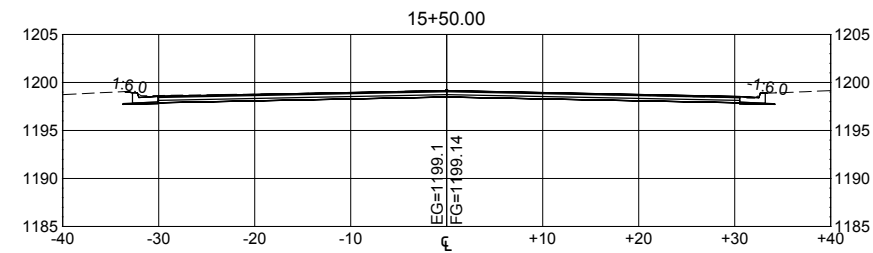
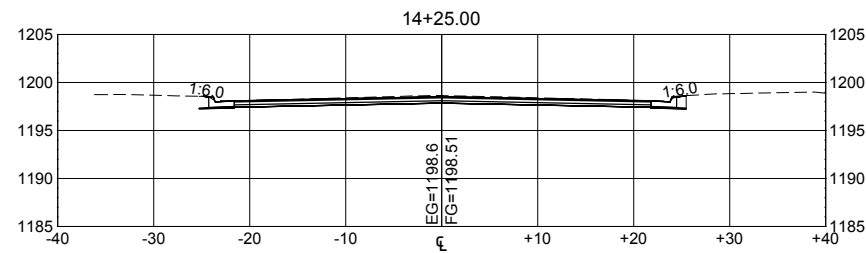
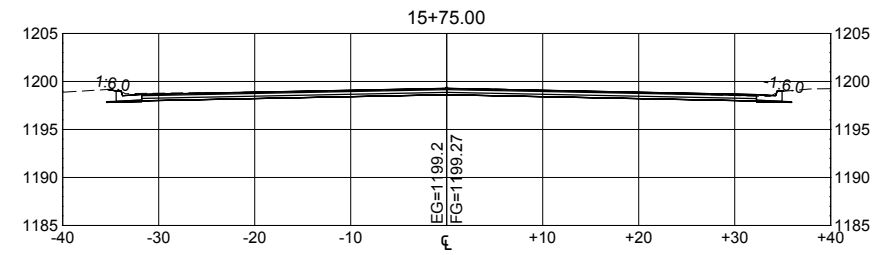
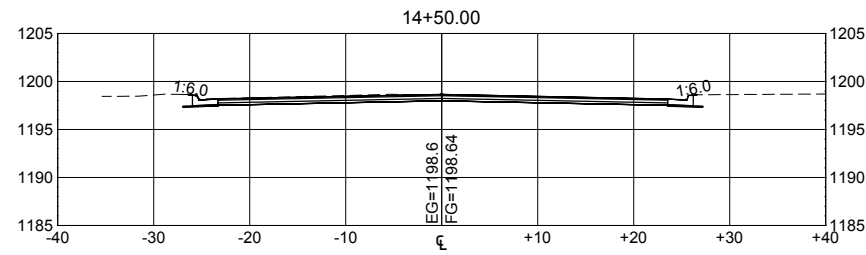
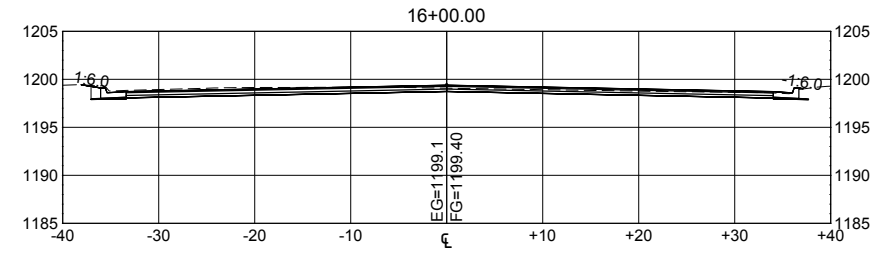
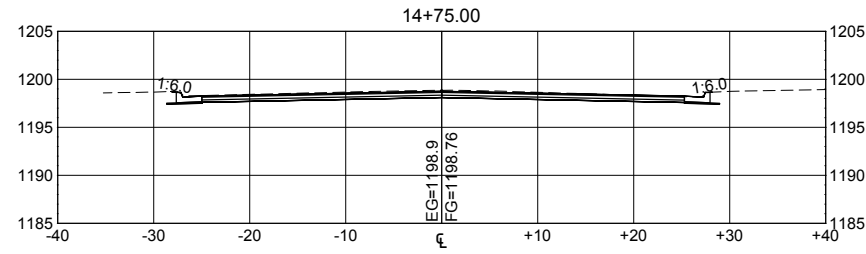
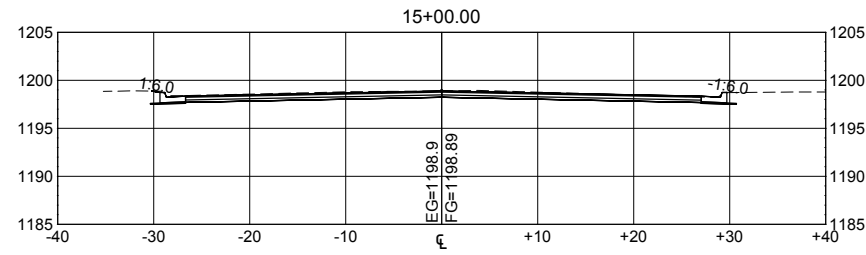
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WE HEREBY CERTIFY THAT THIS IS AN UNREVISIONED COPY OF A REPORT THAT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
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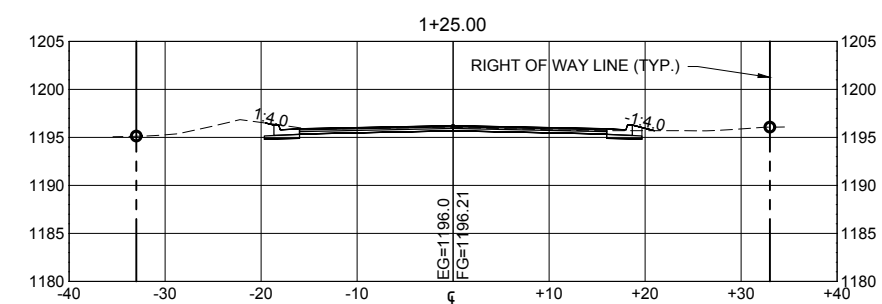
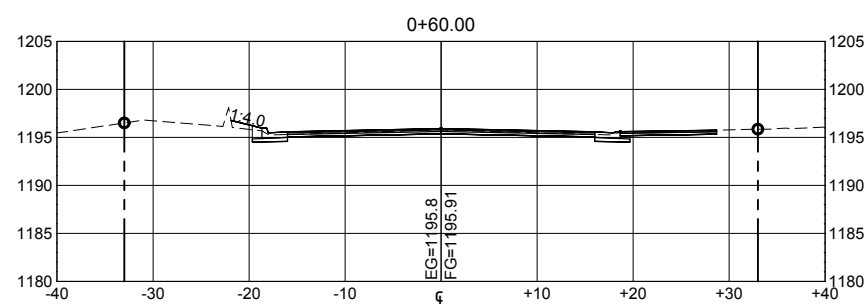
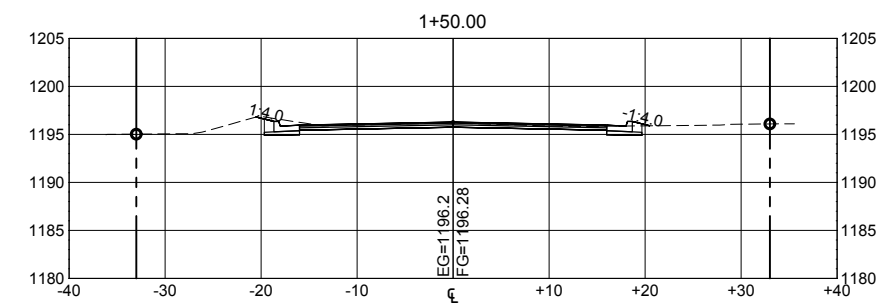
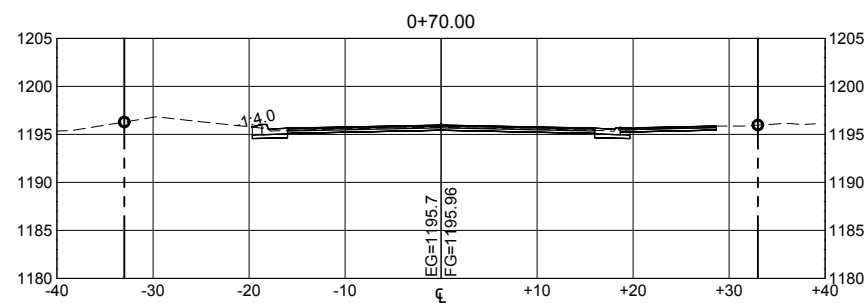
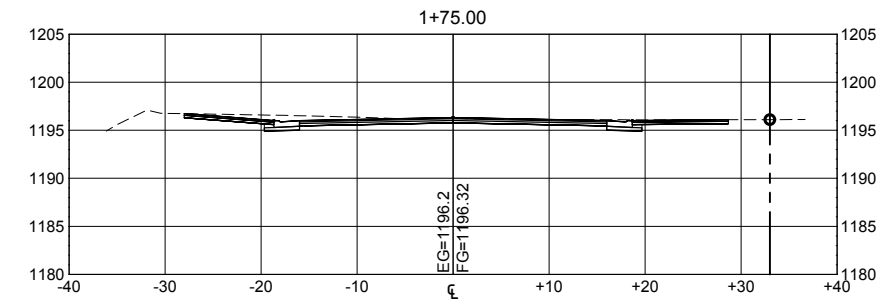
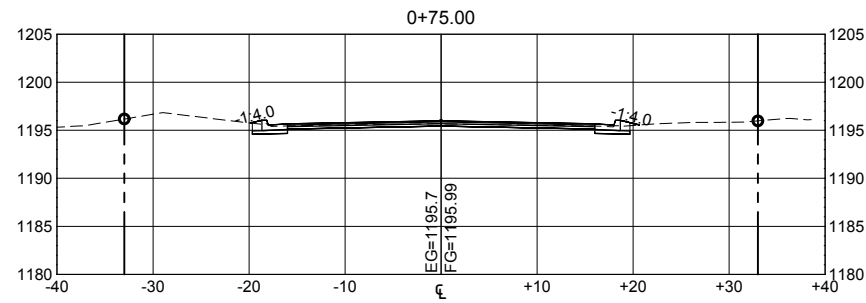
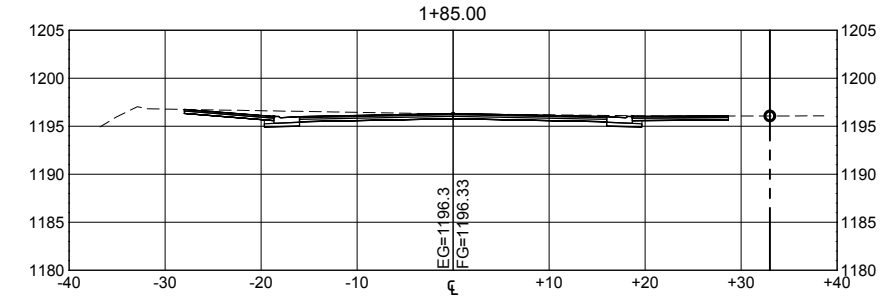
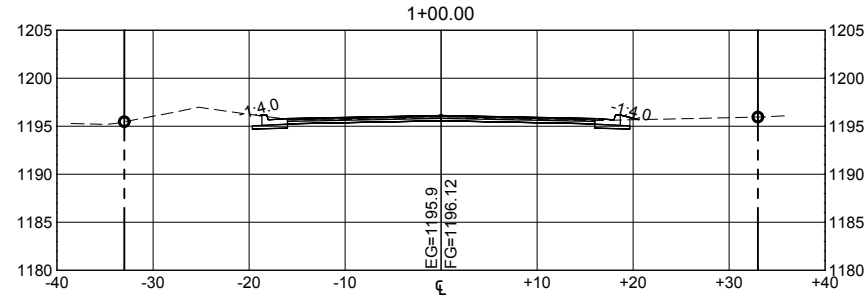
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	DRAWN BY: ADB
	CHECKED BY: ALW
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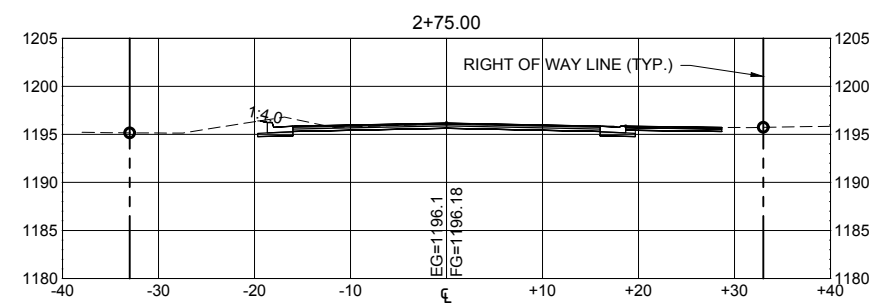
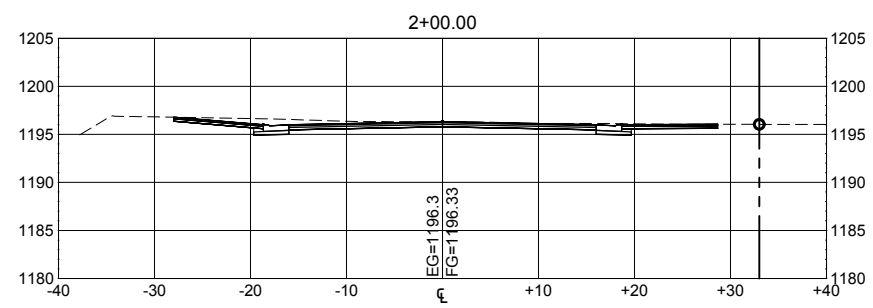
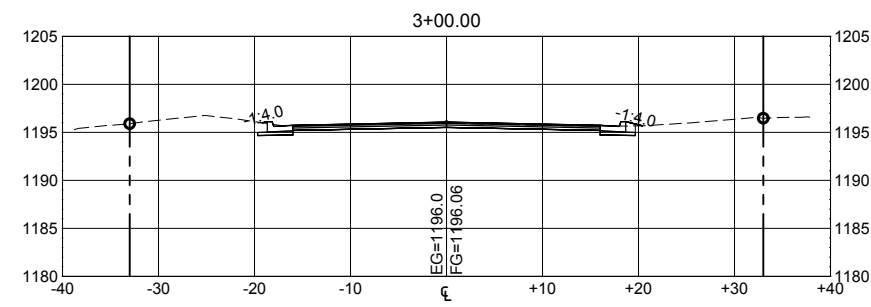
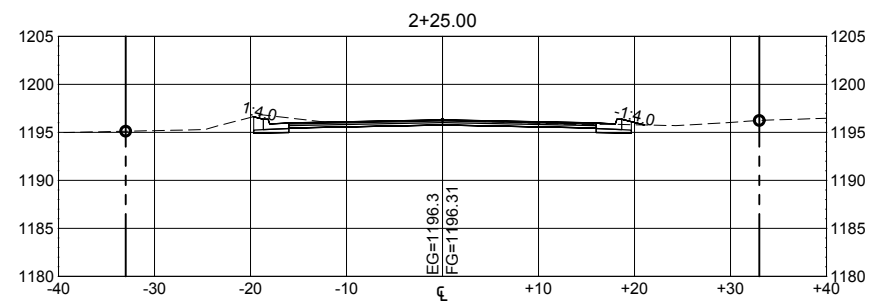
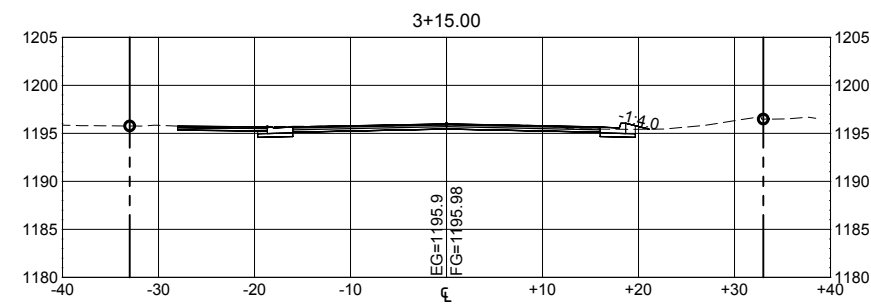
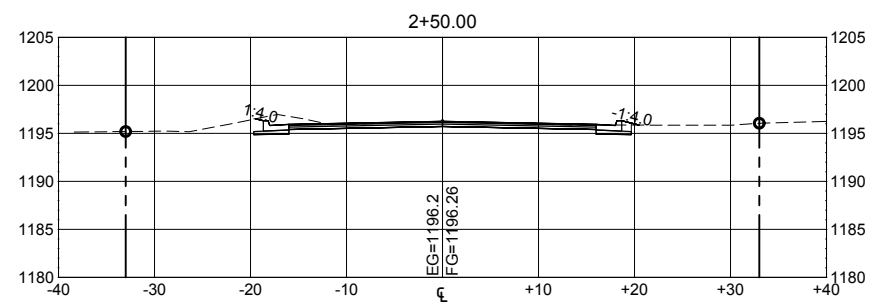
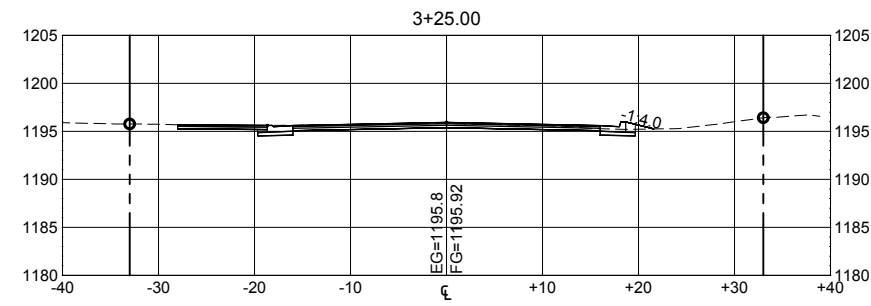
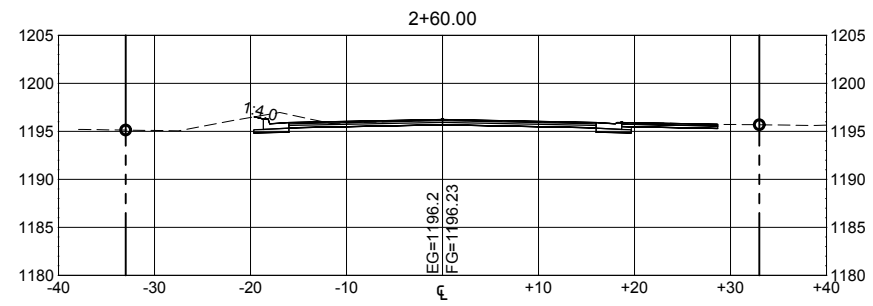
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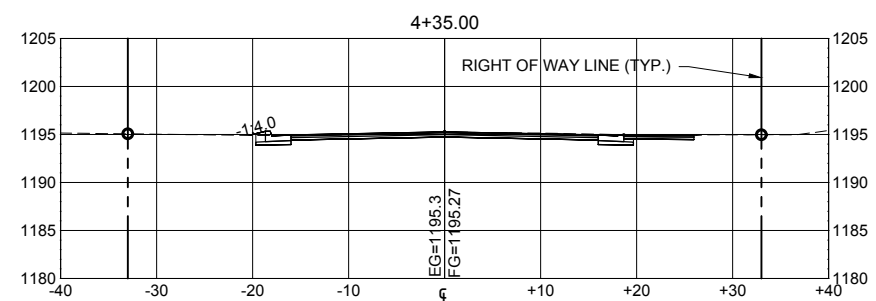
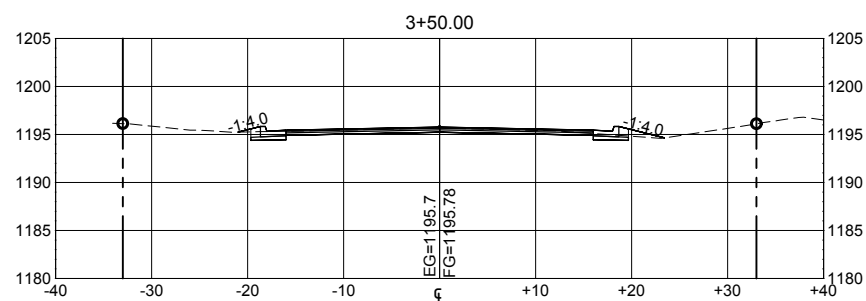
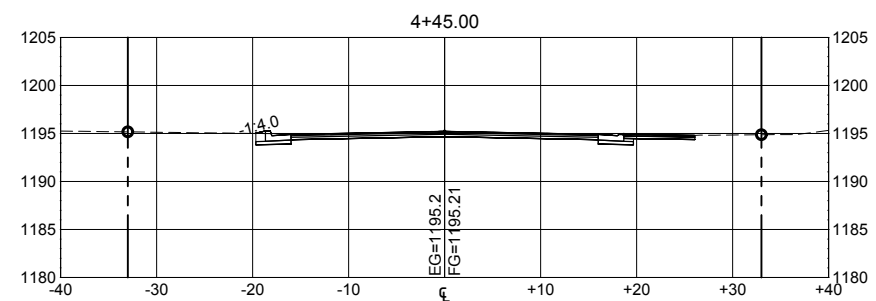
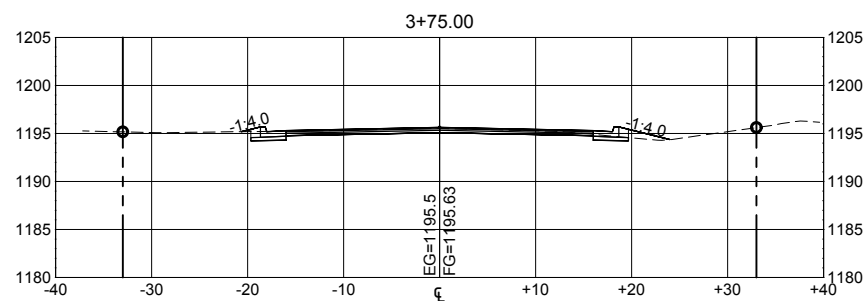
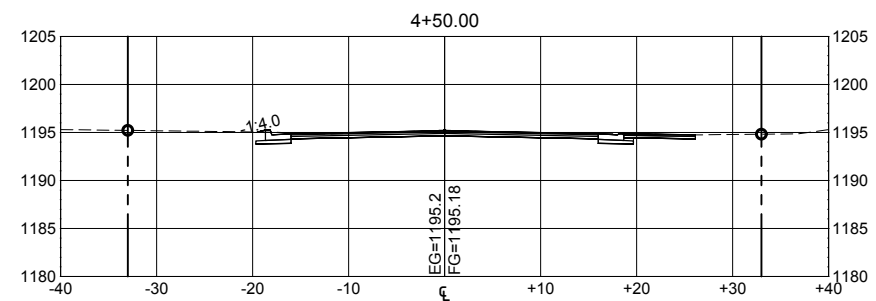
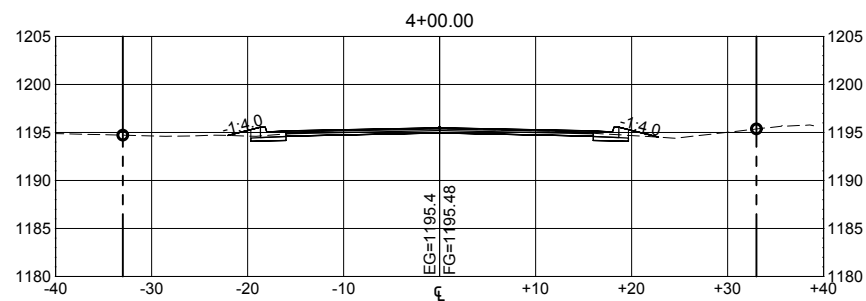
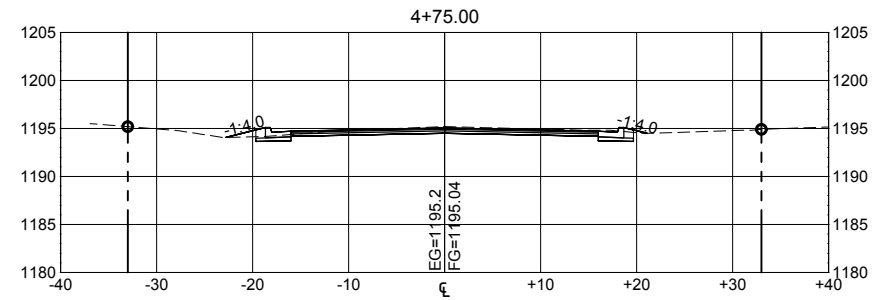
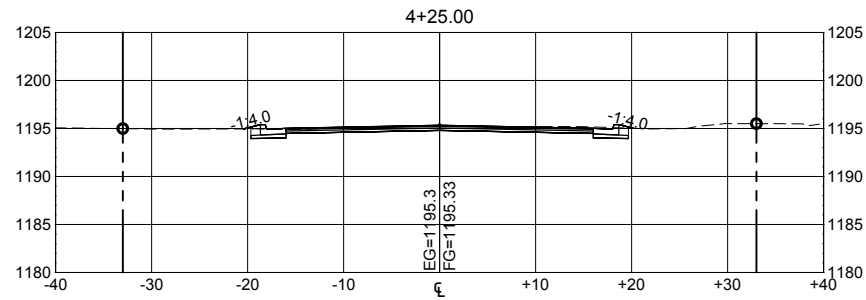


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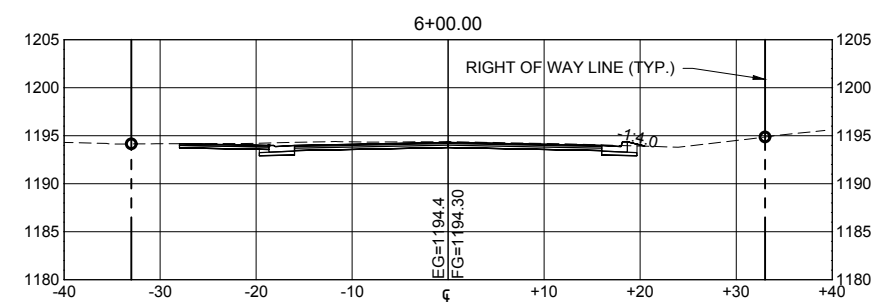
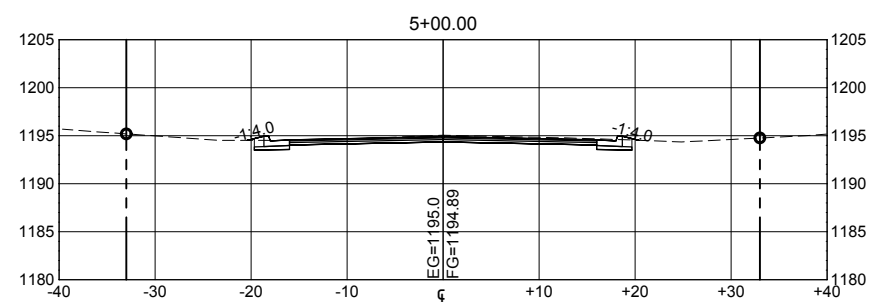
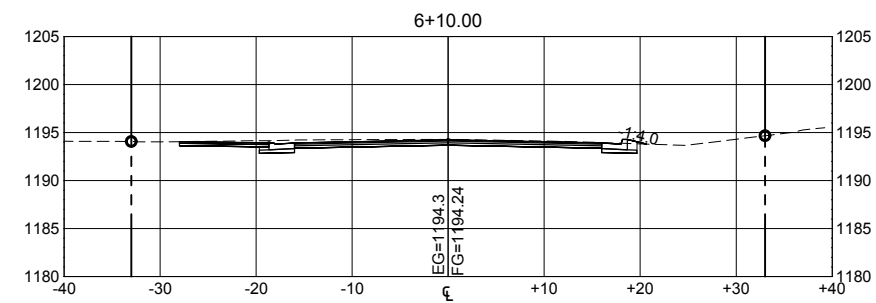
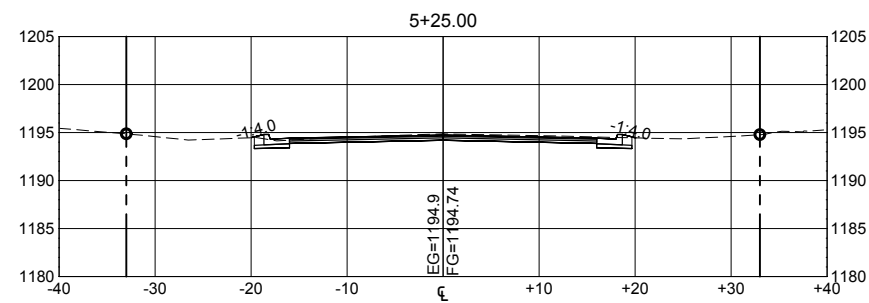
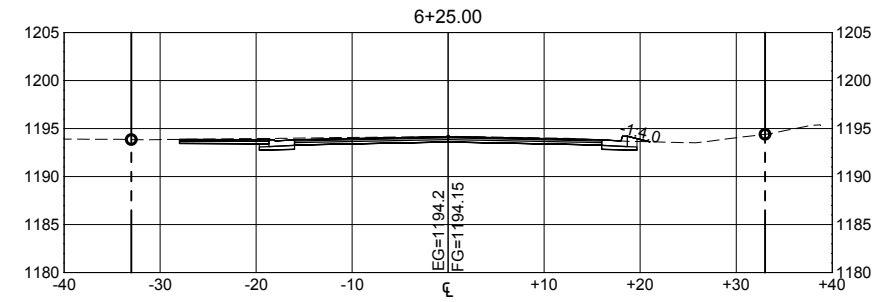
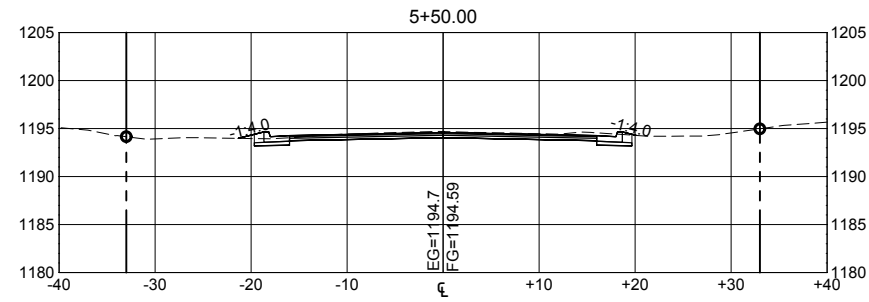
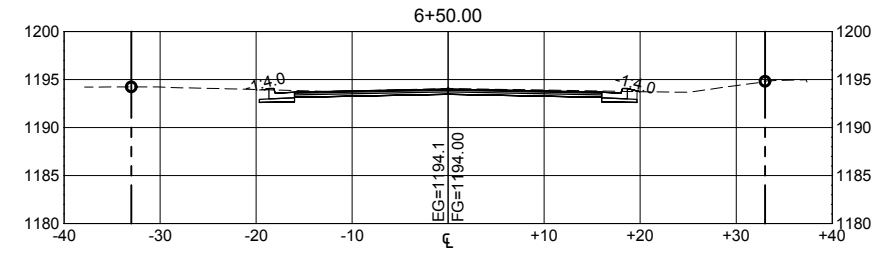
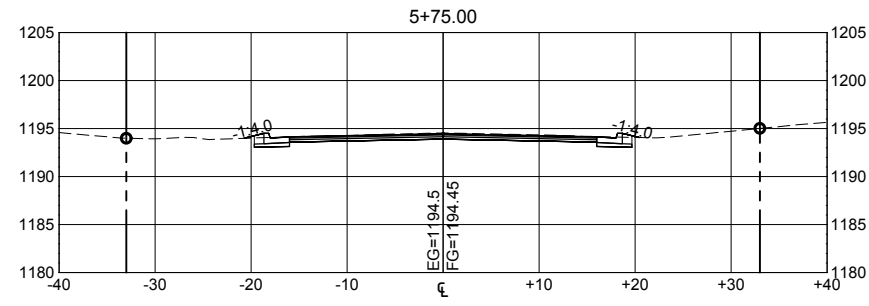


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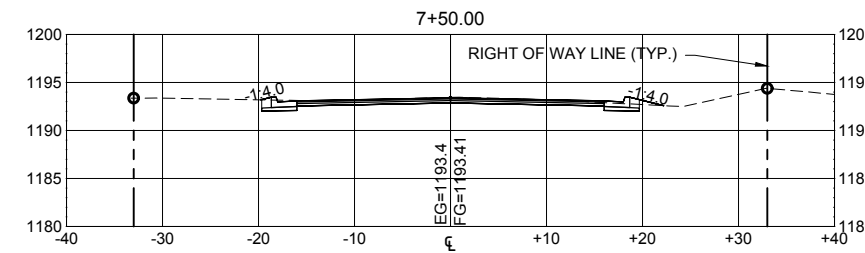
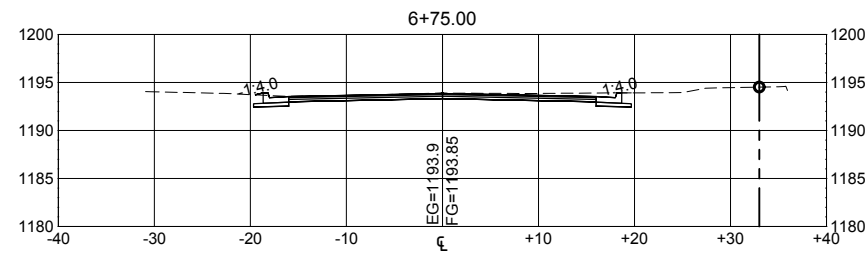
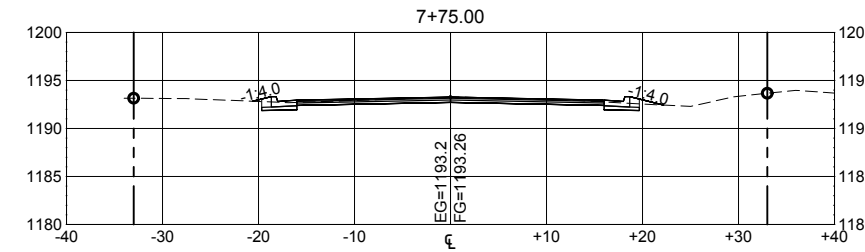
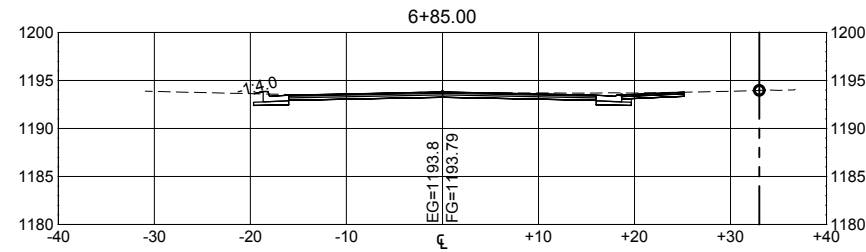
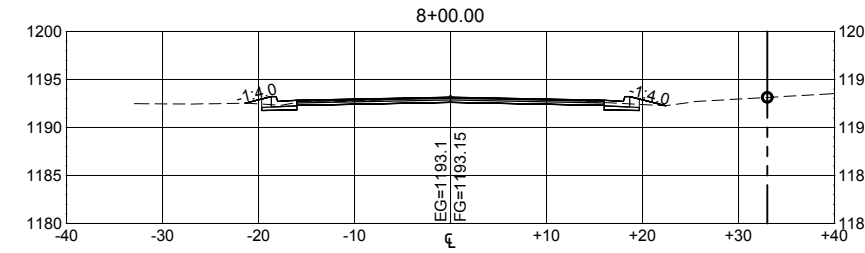
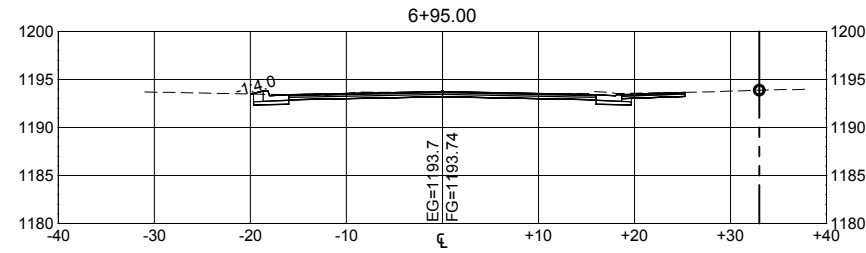
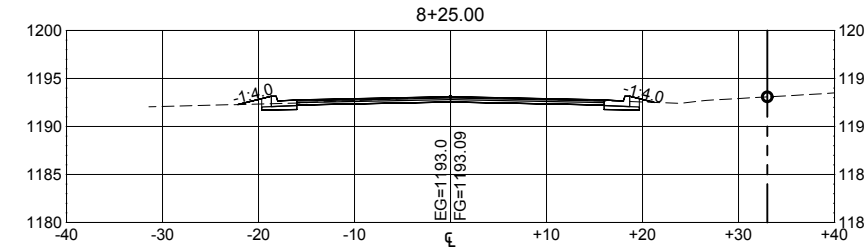
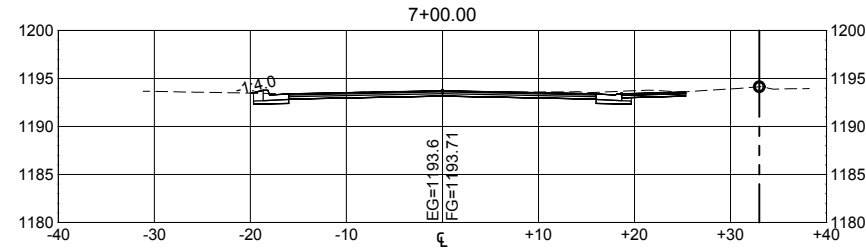
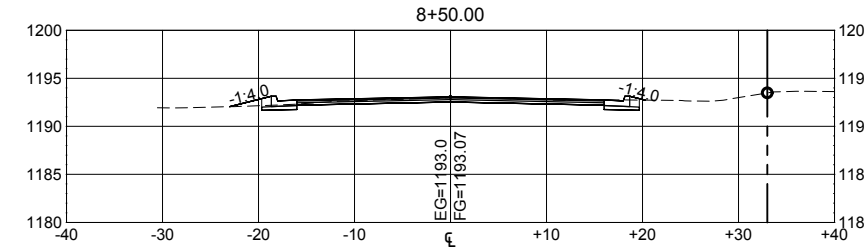
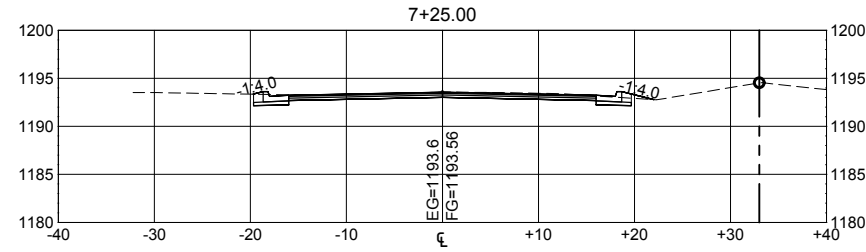
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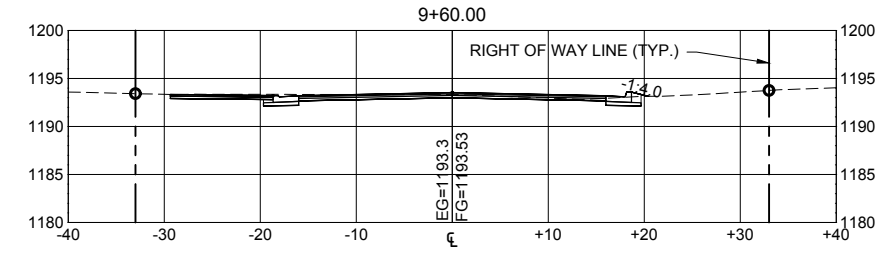
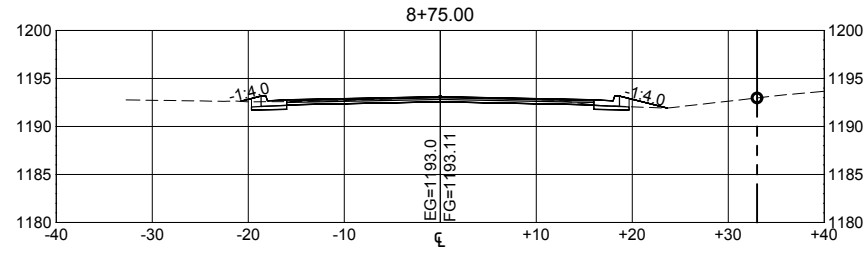
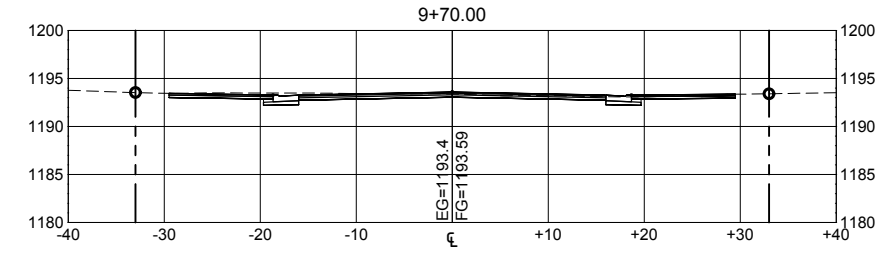
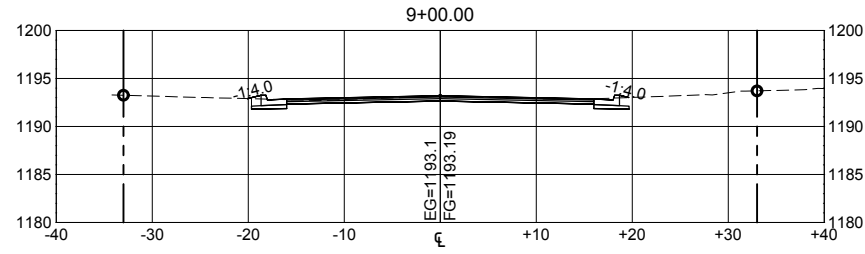
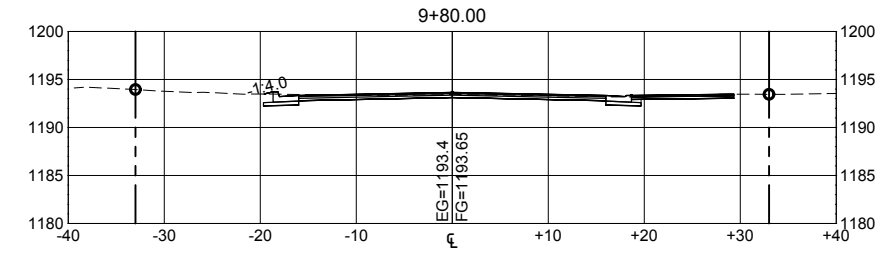
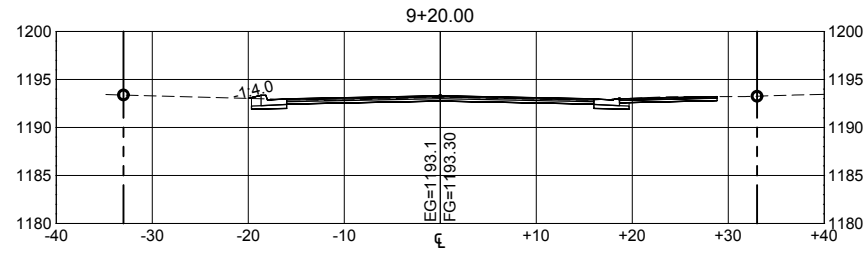
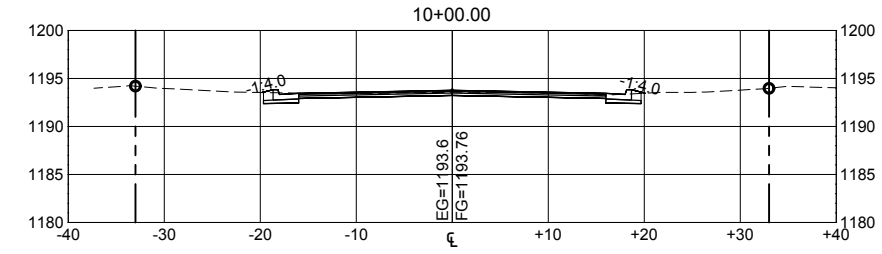
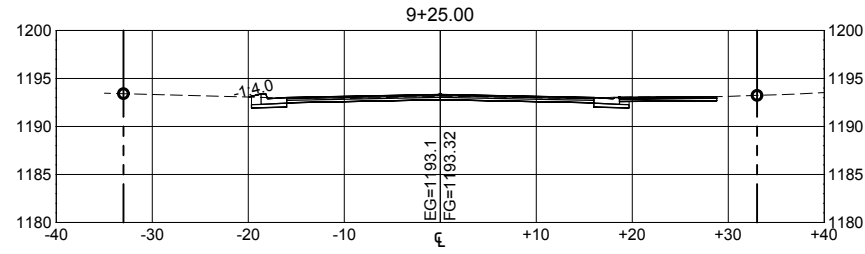
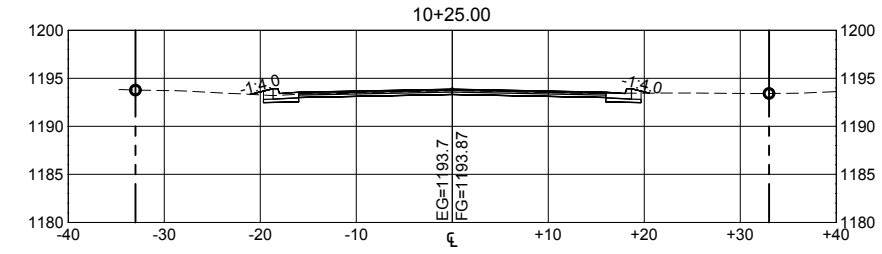
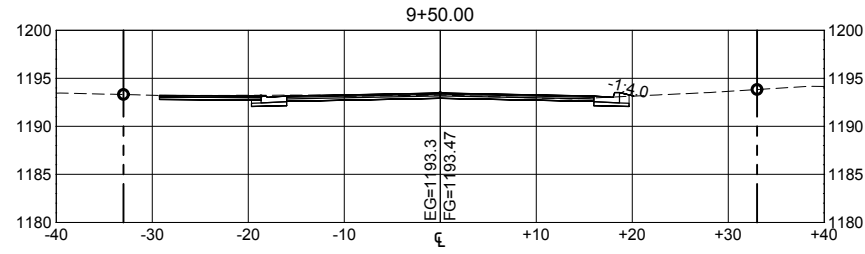


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ARIC L. WELCH DATE: 02-14-2022 LIC. NO. 41983

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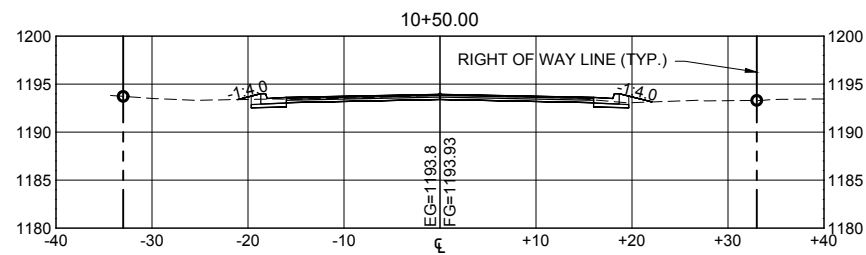
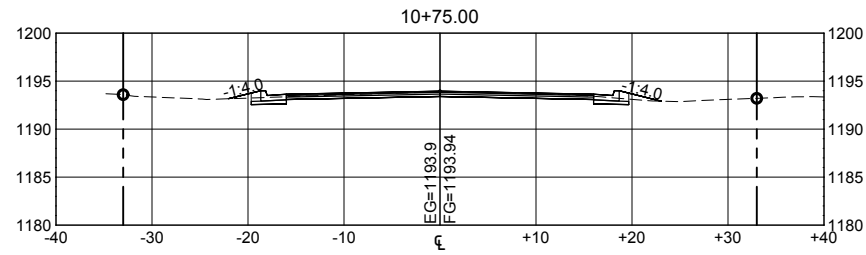
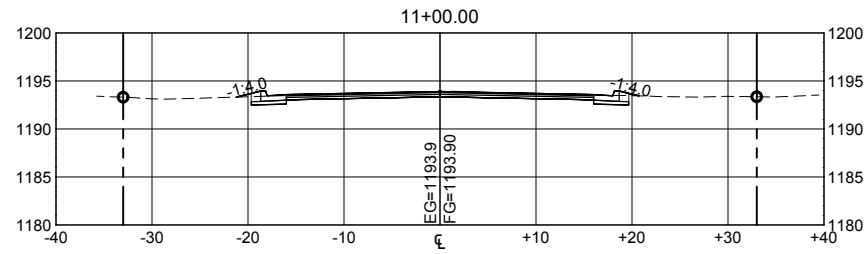
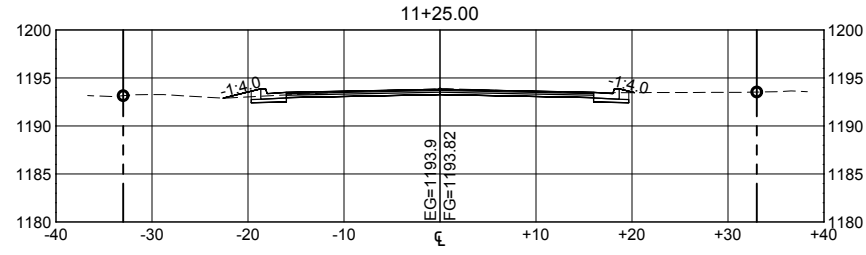
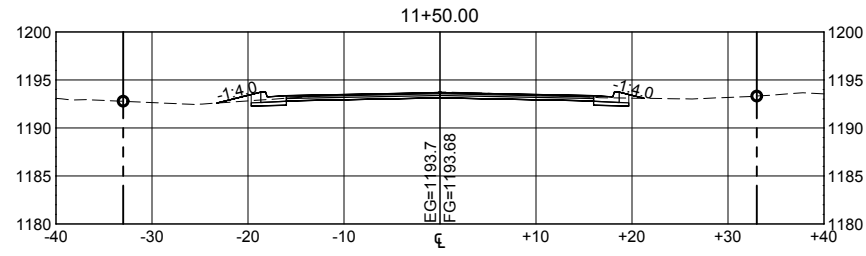


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