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CITY OF MUSCATINE

PCC PAVEMENT - REPLACE

LETTING DATE

OCTOBER 20, 2026

STP-U-5330(634)--70-70

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF
NATURAL RESOURCES NPDES GENERAL PERMIT No. 2.

THE CONTRACTOR SHALL CARRY OUT THE TERMS AND
CONDITIONS OF GENERAL PERMIT No. 2 AND THE STORM
WATER POLLUTION PREVENTION PLAN WHICH IS PART OF
THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602
OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL
INFORMATION.

CITY OF MUSCATINE

City Hall:
215 Sycamore St
Muscatine, IA 52761
563-264-1550

Mayor:
Dr. Brad Bark

City Council Members:
Don Lampe
Jeff Osborne
Peggy Gordon
Nadine Brockert
John Jindrich
Angela Lewis
Matt Conard

Public Works Director:
Brian Stinemam

City Engineer:
Kevin Coon

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MUSCATINE POWER & WATER
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SEGRA
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SEGRA
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stephen.kness@windstream.com

MP NEXLEVEL
Contact Name: Dan Cole
Contact Phone: 319-440-8094
mpnexlevel.us

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS
PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE
CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR
TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE
LAW. NOTIFY IOWA ONE CALL 1-800-292-8989 OR 811

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS
UTILITY QUALITY LEVEL D UNLESS OTHERWISE NOTED. THIS
UTILITY LEVEL WAS DETERMINED ACCORDING TO THE
GUIDELINES OF C/ASCE 38-22, ENTITLED "STANDARD
GUIDELINES FOR THE COLLECTION AND DEPICTION OF
EXISTING SUBSURFACE UTILITY DATA."

MILEAGE SUMMARY

DIV.	LOCATION	LINEAR FEET	MILES
			####
			####
			####
			####
			####
	TOTAL:	###	####

PLAN REVISIONS

DATE	SHEET NUMBER	APPROVED BY

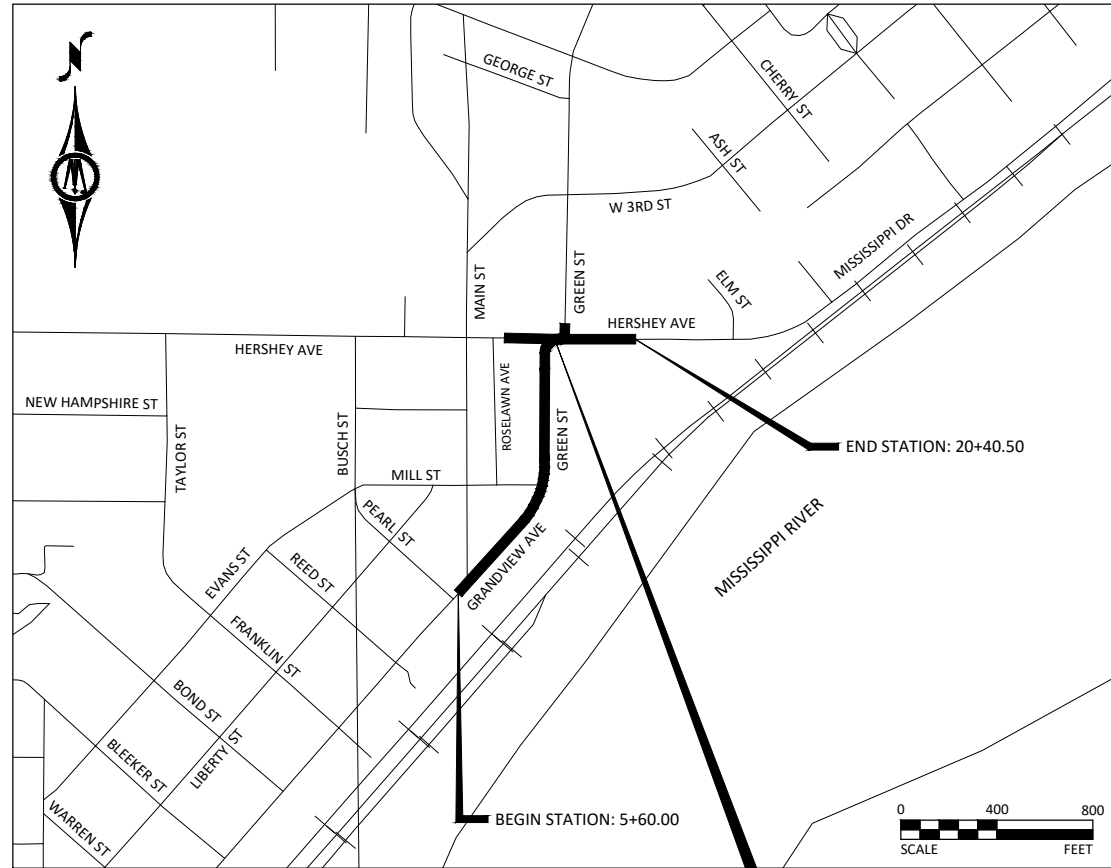
CITY OF MUSCATINE

CONSTRUCTION PLANS FOR

CARVER CORNER ROUNDABOUT

IN THE CITY OF MUSCATINE, CONSTRUCT ROUNDABOUT AT GREEN ST/HERSHEY AVE; RESURFACE ROADS ENTERING ROUNDABOUT

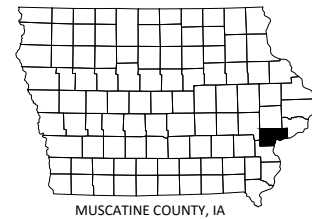
URBAN ROAD SYSTEM
STP-U-5330(634)--70-70
PCC PAVEMENT - REPLACE



MAP OF A PORTION OF THE
CITY OF MUSCATINE
MUSCATINE COUNTY, IA

PROJECT LOCATION

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS. REFER TO SHEET C.07 FOR LIST OF APPLICABLE STANDARD ROAD PLANS.



SHEET NUMBER	SHEET TITLE
A.01 - A.02	TITLE SHEET, LEGEND
A.03 - A.04	PROJECT OVERVIEW
B.01 - B.08	TYPICAL SECTIONS & DETAILS
C.01 - C.05	ESTIMATED QUANTITIES & REFERENCE NOTES
C.06 - C.27	TABULATIONS
D.01 - D.09	PRIMARY PLAN & PROFILE SHEETS
E.01 - E.10	SECONDARY PLAN & PROFILE SHEETS
F.01	DETOUR PAVEMENT PLAN & PROFILE
G.01 - G.13	REFERENCES & BENCHMARKS
H.01 - H.02	EASEMENTS & RIGHT-OF-WAY
J.01 - J.35	STAGING & TRAFFIC CONTROL
K.01 - K.07	INTERSECTION DETAILS
L.01 - L.05	GEOMETRICS & JOINTING
M.01 - M.08	STORM SEWER PLAN & PROFILE
MWM.01 - MWM.04	WATER MAIN PLAN & PROFILE
P.01 - P.05	LIGHTING & CONDUIT LAYOUT
PM.01 - PM.11	PAVEMENT MARKINGS & SIGNAGE
Q.01 - Q.04	REMOVALS PLAN
RC.01 - RC.05	EROSION CONTROL TABULATIONS
RR.01 - RR.04	EROSION CONTROL PLAN SHEETS
S.01 - S.09	SIDEWALK COMPLIANCE
T.01	EARTHWORK TABULATIONS
U.01	SPECIAL DETAILS
V.01	RETAINING WALL PLAN & PROFILE
W.01 - W.04	MAINLINE CROSS-SECTIONS
Y.01 - Y.06	LANDSCAPING SHEETS
THIS PLAN SET CONTAINS 185 SHEETS.	



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS
PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF IOWA.

Adrian L. Holmes, P.E.

LICENSE NUMBER: 17935 DATE: _____

MY LICENSE RENEWAL DATE IS 12/31/2027

PAGES OR SHEETS COVERED BY THIS SEAL:

ALL SHEETS

ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

TITLE SHEET

SHEET NUMBER

A.01

REVISED

07/29/2026

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EXISTING TOPOGRAPHIC SYMBOLS

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

PROPOSED TOPOGRAPHIC SYMBOLS

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

SURVEY SYMBOLS

	BENCHMARK LOCATION		CAST IRON MONUMENT
	CONTROL POINT		STONE MONUMENT
	MONUMENT FOUND		

EXISTING TOPOGRAPHIC LINES

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

SURVEY LINES

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

EXISTING UTILITY LINES

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

PROPOSED UTILITY LINES

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

GRADING INFORMATION

	EXISTING CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	PROPOSED CONTOUR MAJOR
	PROPOSED GRADING LIMITS / SLOPE LIMITS
	PROJECT LIMITS
	PROPOSED SPOT ELEVATION
	RISE:RUN (SLOPE)

HATCH PATTERNS

	HMA PAVEMENT		PCC SIDEWALK
	PCC DRIVEWAY		PCC PAVEMENT

EXISTING PRIVATE UTILITY LINES

NOTE:
EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY IOWA ONE CALL - 1-800-292-8989

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

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

UTILITIES IDENTIFIED WITH A QUALITY LEVEL OTHER THAN D:

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

UTILITY QUALITY LEVELS:

LEVEL D - INFORMATION COMES SOLELY FROM EXISTING UTILITY RECORDS.

LEVEL C - SURVEYING ABOVE GROUND UTILITY FACILITIES, SUCH AS MANHOLES, VALVE BOXES, ETC; AND CORRELATING THIS INFORMATION WITH EXISTING UTILITY RECORDS.

LEVEL B - THE USE OF SURFACE GEOPHYSICAL TECHNIQUES TO DETERMINE THE EXISTENCE AND HORIZONTAL POSITION OF UNDERGROUND UTILITIES.

LEVEL A - THE USE OF NONDESTRUCTIVE DIGGING EQUIPMENT AT HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

ABBREVIATIONS

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

ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

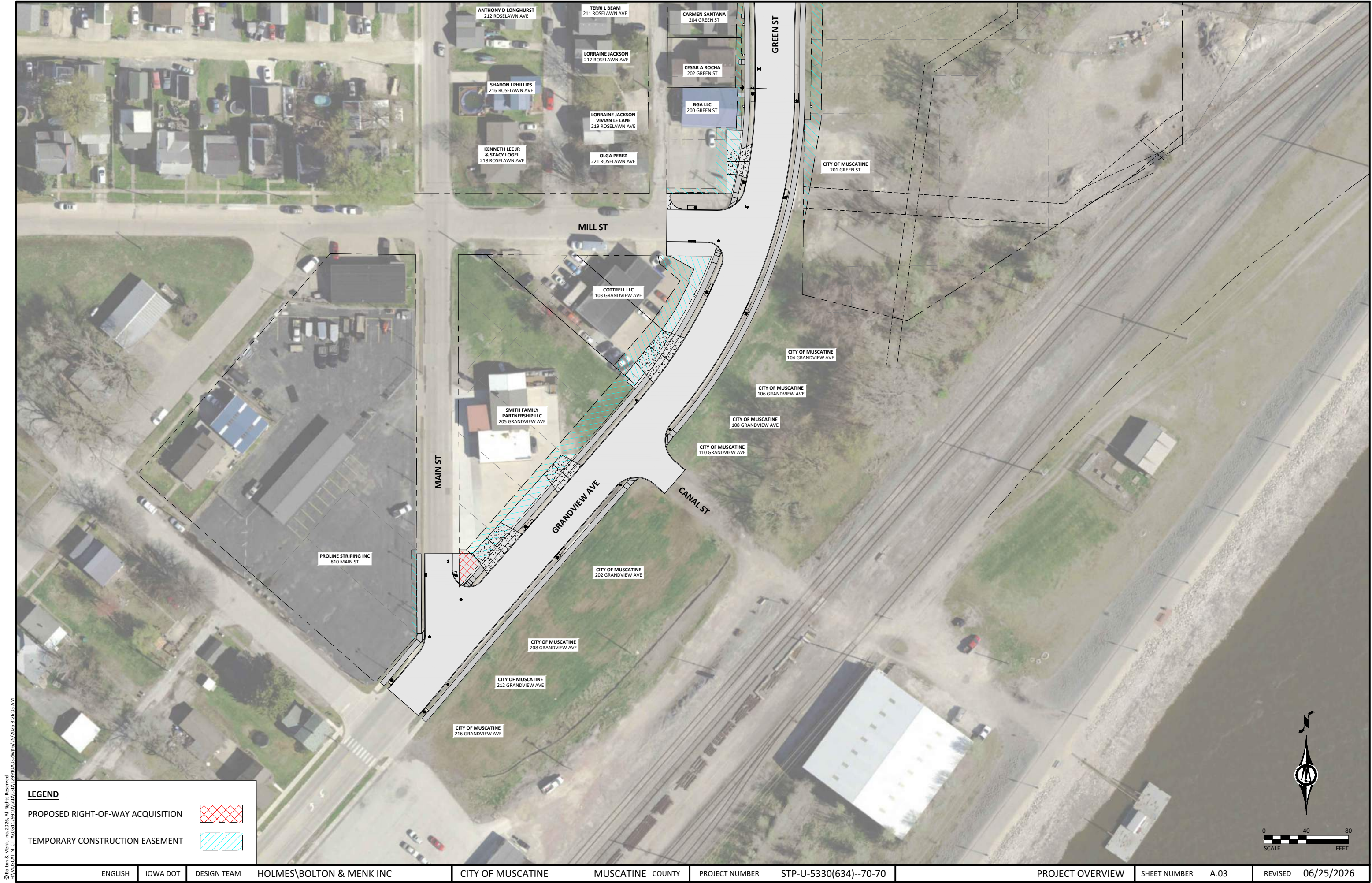
LEGEND

SHEET NUMBER

A.02

REVISED

06/25/2026



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MUSCATINE, IA AUG122510 CAD (3) 122510.dwg 6/25/2026 9:26:05 AM

ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

PROJECT OVERVIEW

SHEET NUMBER A.03

REVISED 06/25/2026



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LEGEND

PROPOSED RIGHT-OF-WAY ACQUISITION

TEMPORARY CONSTRUCTION EASEMENT

[illegible]

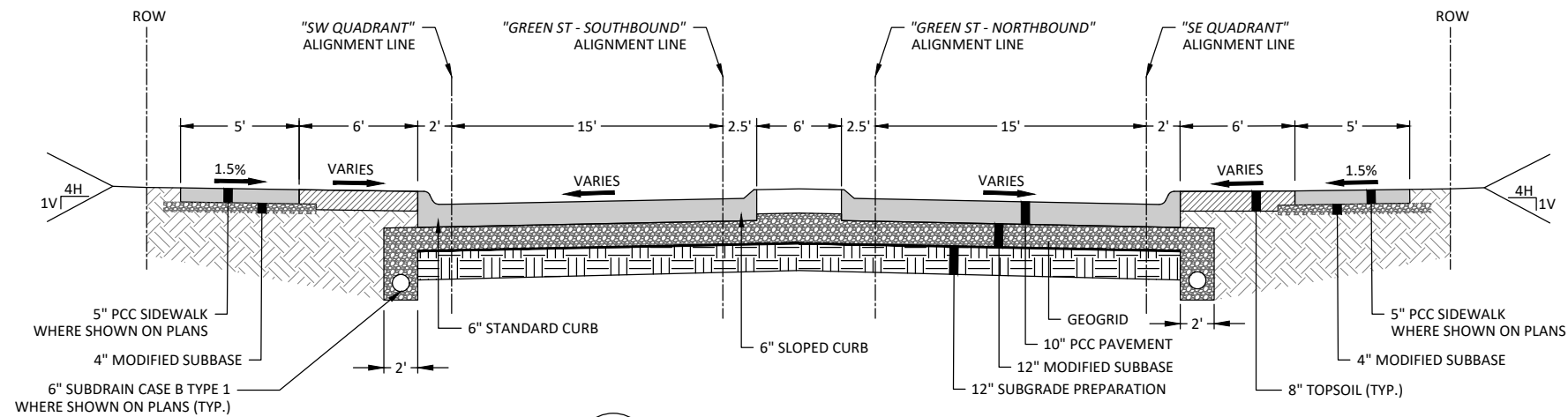
2 GRANDVIEW AVE - MAINLINE @ SOUTH END
 B.01 STA: 5+60.00 TO 13+96.00 NOT TO SCALE
 NOTE: "GRANDVIEW AVE" TRANSITIONS INTO "GREEN ST"

Diagram illustrating the cross-section of a road and shoulder assembly, showing various layers and dimensions.

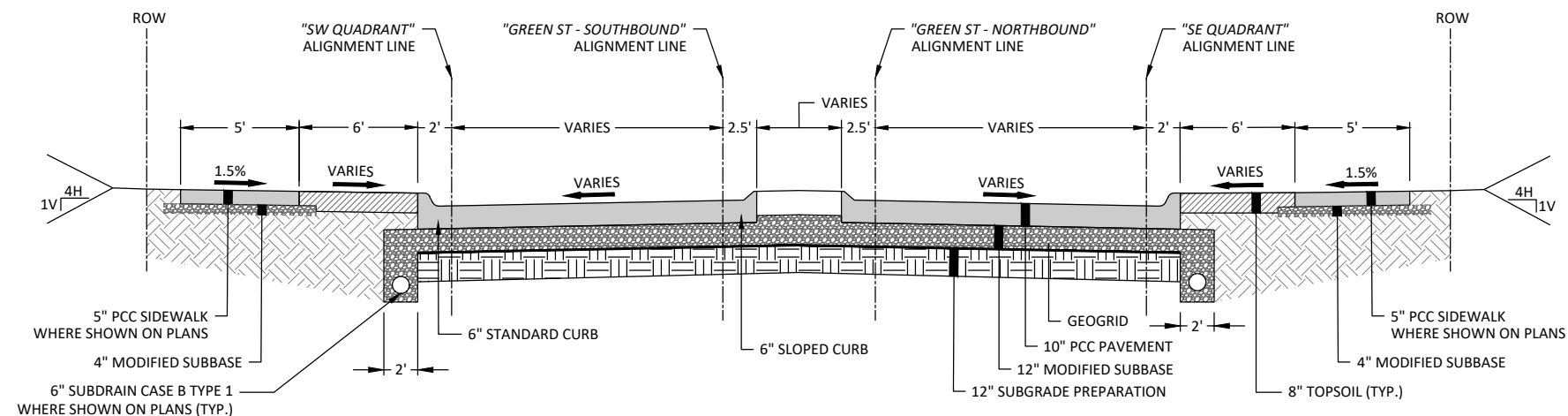
Key Components and Dimensions:

- Shoulder Assembly (Left and Right):**
 - 5" PCC Sidewalk (Where Shown on Plans)
 - 4" Modified Subbase
 - 8" Topsoil (Typ.)
 - Width: VARIES
 - Slope: 1.5%
- Road Assembly (Center):**
 - 10" PCC Pavement
 - 12" Modified Subbase
 - 12" Subgrade Preparation
 - Width: 22.5'
 - Slope: 2.0%
- Curbs and Drainage:**
 - 6" Standard Curb
 - 6" Subdrain Case B Type 1 (Where Shown on Plans) (Typ.)
- Alignment and Reference Lines:**
 - "SW Quadrant" Alignment Line
 - "Carver Corner - Mainline" Alignment Reference Line
 - "SE Quadrant" Alignment Line
- Other Dimensions:**
 - 2' (Shoulder width from curb)
 - 2' (Subbase width from curb)
 - 2' (Subdrain width)

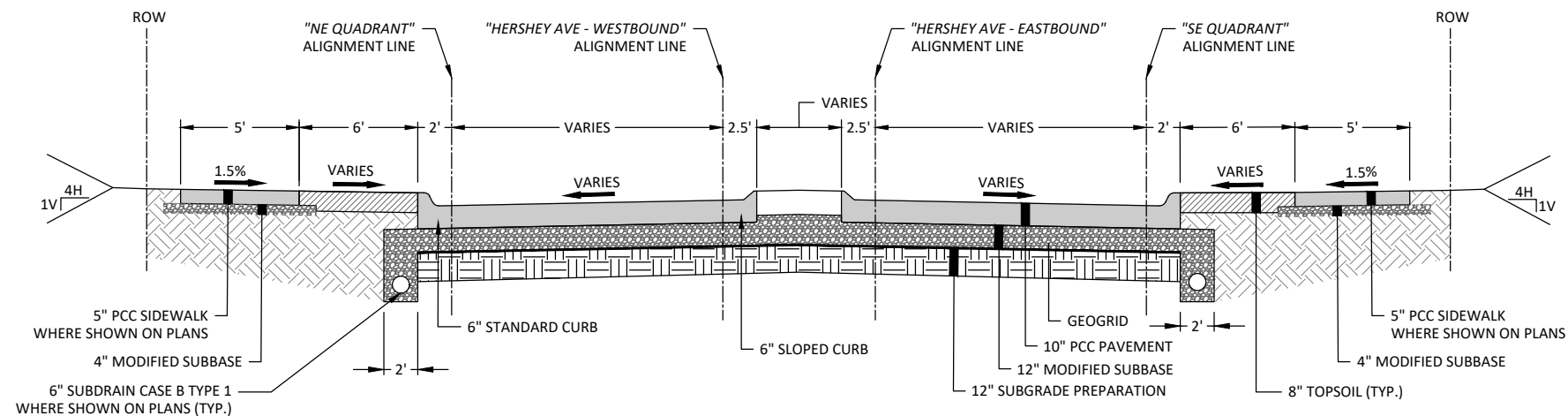
3
B.01
GREEN ST - MAINLINE @ SOUTH END
 STA: 13+96.00 TO 14+71.70 NOT TO SCALE
 NOTE: "GRANDVIEW AVE" TRANSITIONS INTO "GREEN ST"



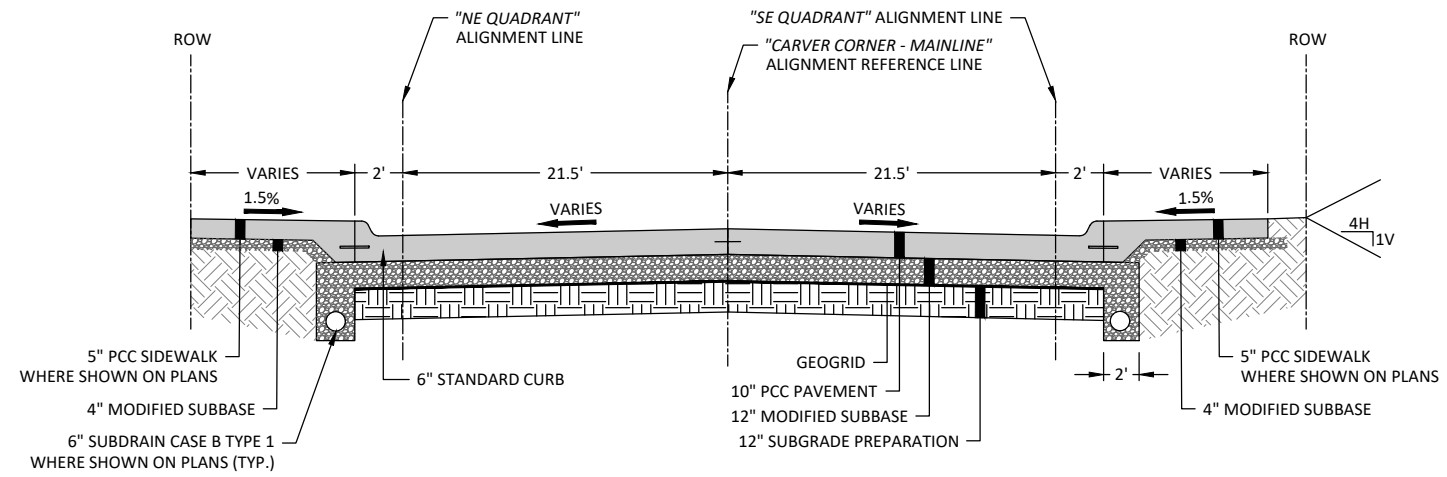
1
B.02 GREEN ST - SOUTH END WITH MEDIAN
STA: 14+71.70 TO 15+32.22
NOT TO SCALE



2
B.02 GREEN ST - SOUTH END MEDIAN WIDENING
STA: 15+32.22 TO 16+07.52
NOT TO SCALE

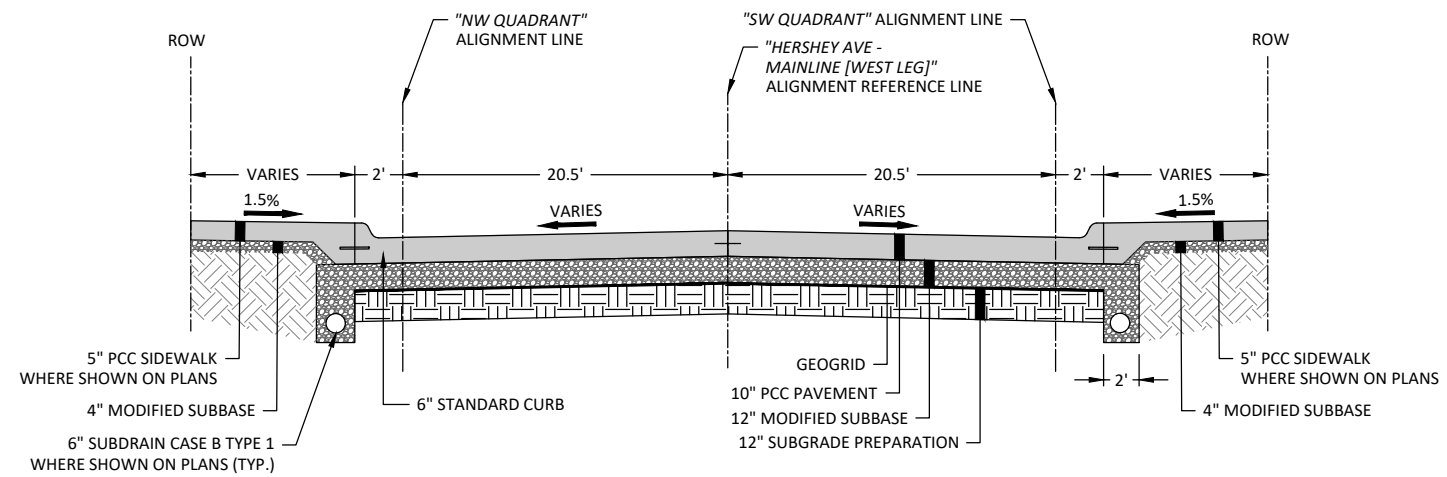


3
B.02 HERSHEY AVE - EAST END MEDIAN WIDENING
STA: 17+74.85 TO 19+88.40
NOT TO SCALE



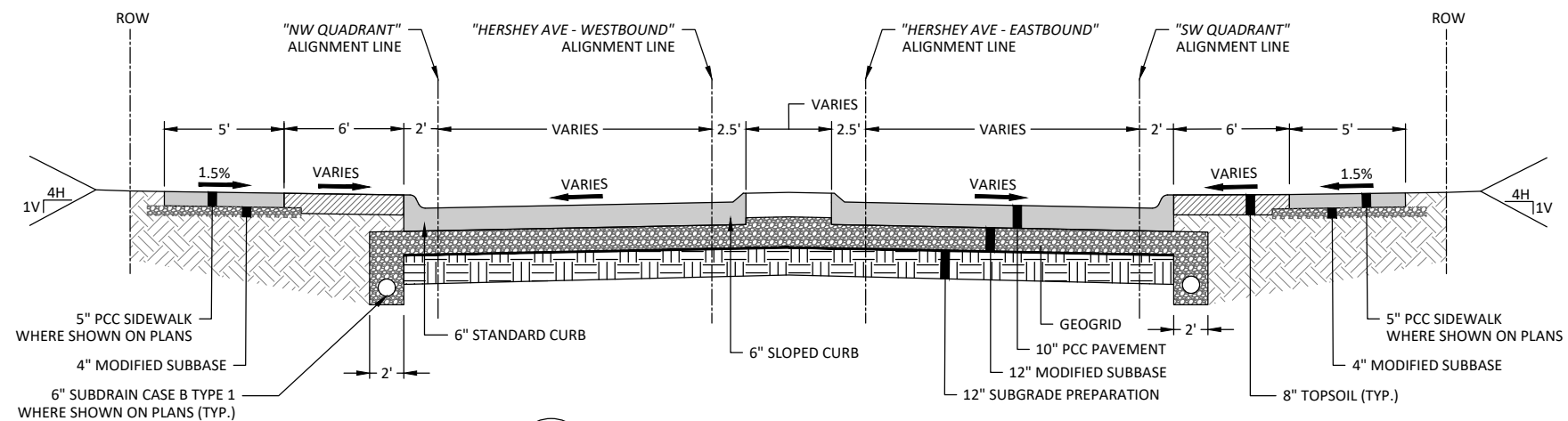
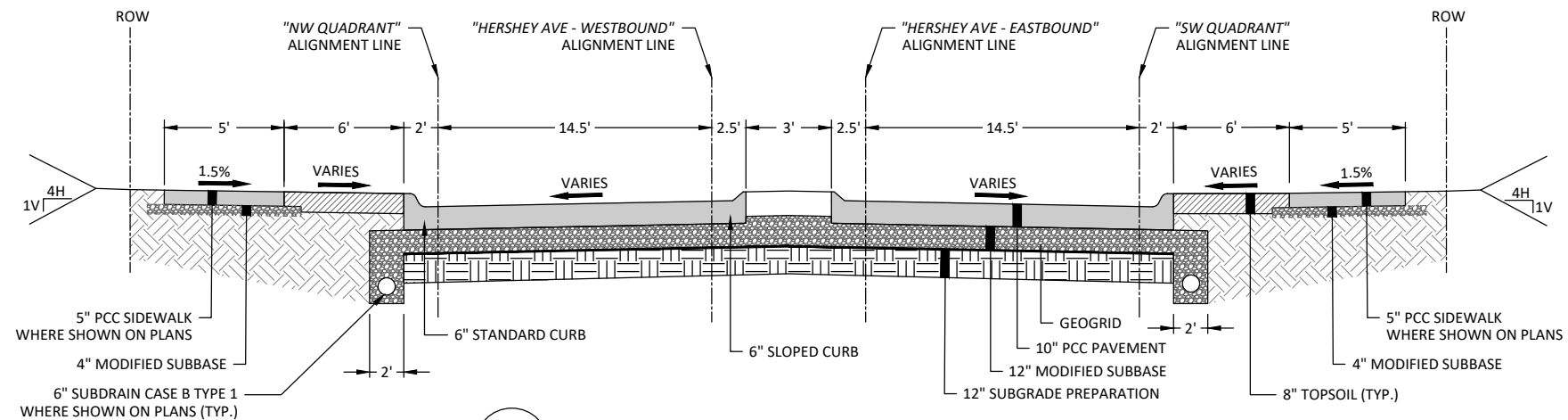
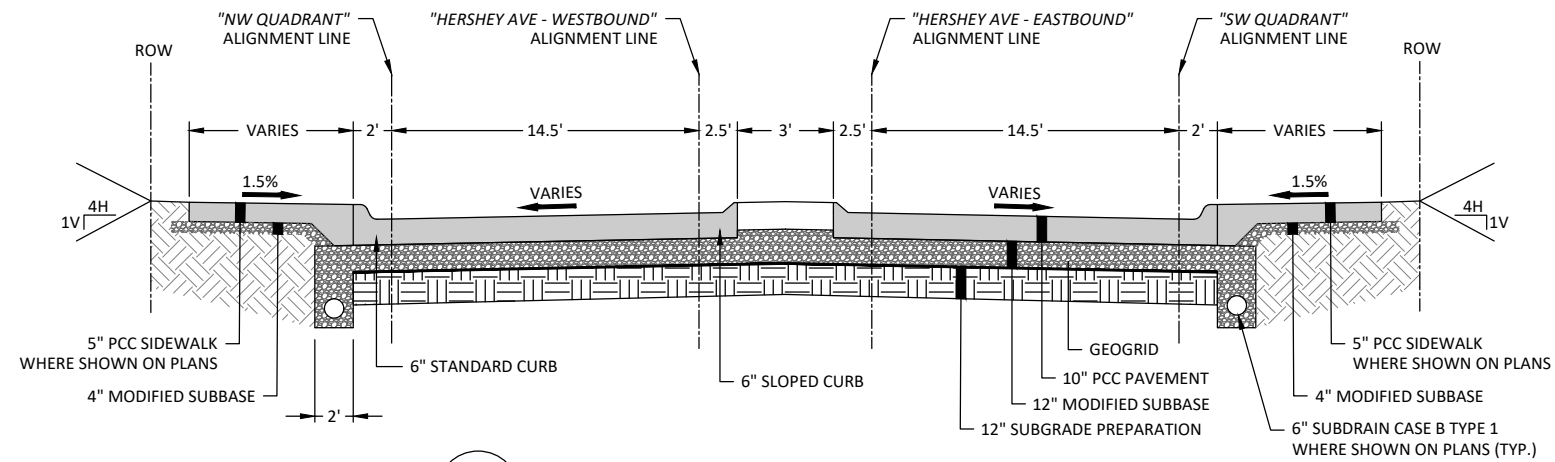
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B.03

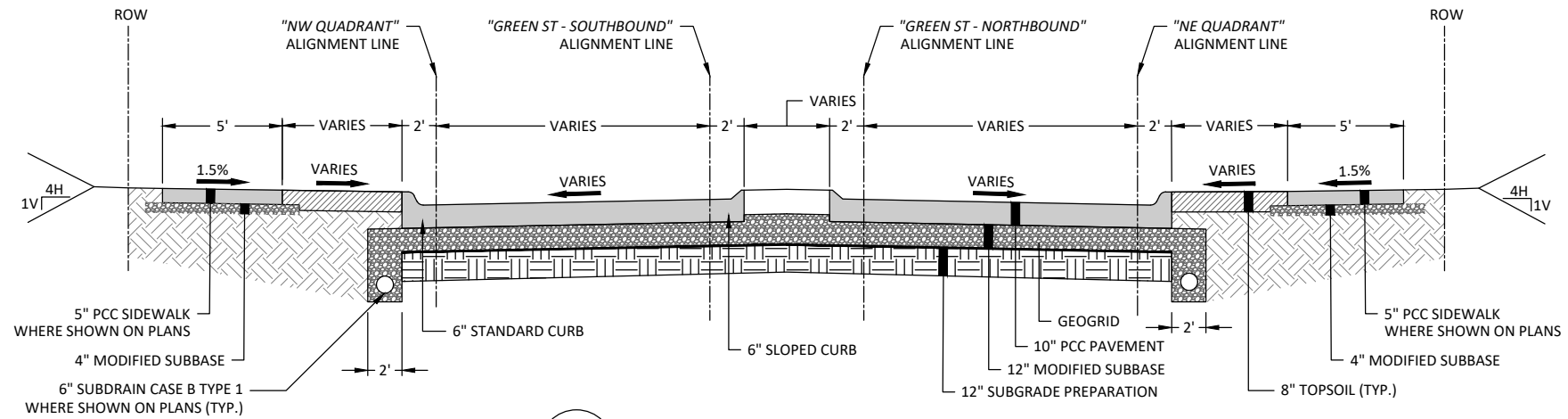
HERSHEY AVE - MAINLINE @ EAST END
STA: 19+88.40 TO 20+09.50
NOT TO SCALE



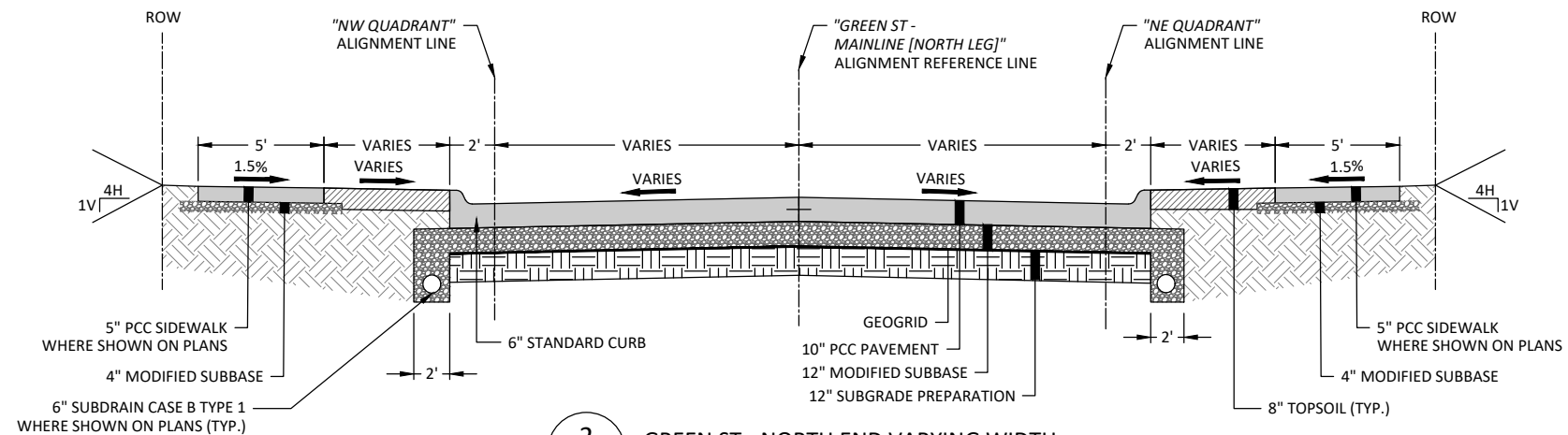
2
B.03

HERSHEY AVE - MAINLINE @ WEST END
STA: 31+62.00 TO STA: 32+18.00
NOT TO SCALE

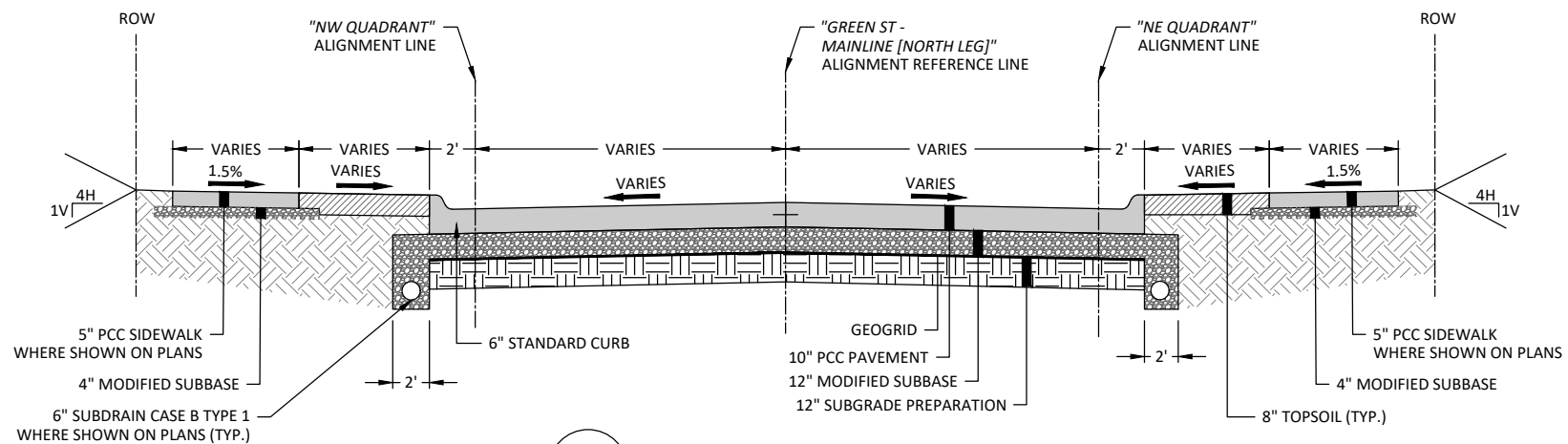




1
B.05 GREEN ST - NORTH END WITH MEDIAN
STA: 42+02.40 TO 42+22.30
NOT TO SCALE

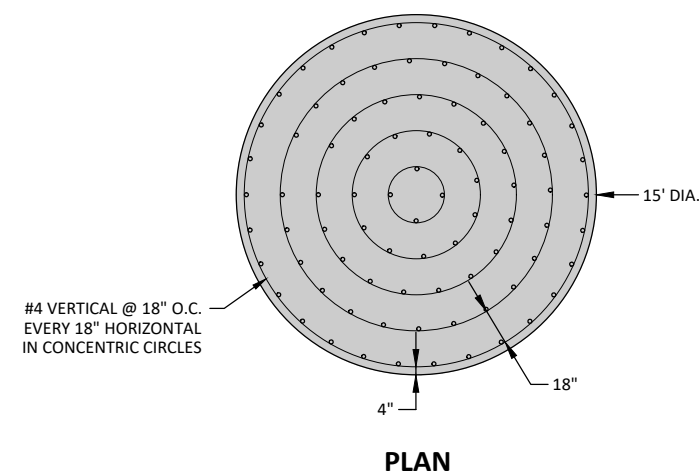
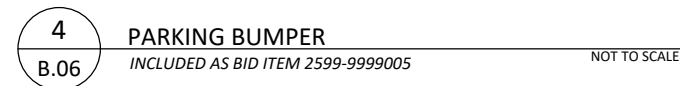
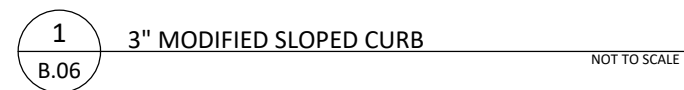


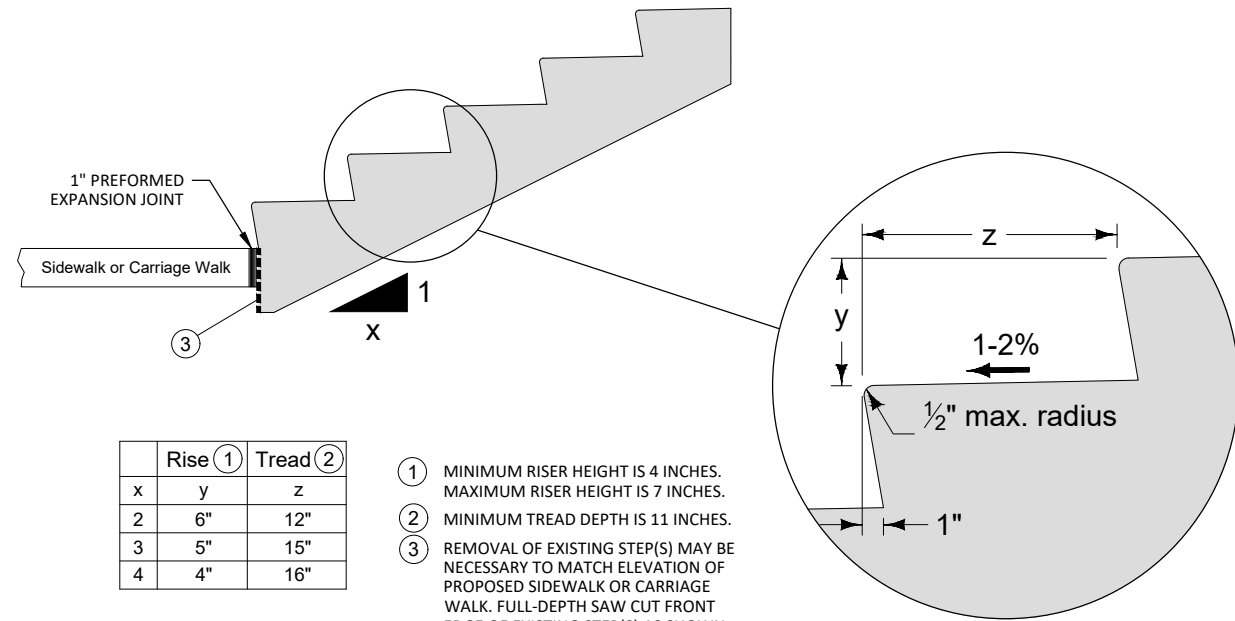
2
B.05 GREEN ST - NORTH END VARYING WIDTH
STA: 42+22.30 TO 42+75.00
NOT TO SCALE



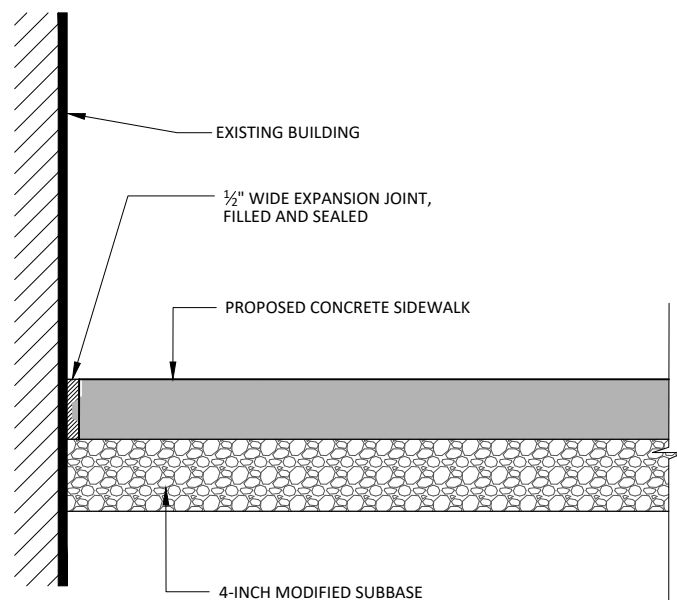
3
B.05 GREEN ST - MAINLINE @ NORTH END
STA: 42+75.00 TO 42+92.50
NOT TO SCALE

1. THICKENED EDGE SHALL BE USED AT ALL LOCATIONS WHERE INTEGRAL COLOR PCC PAVEMENT ABUTS 3" MODIFIED SLOPED CURB.
2. MODIFIED SUBBASE UNDERNEATH INTEGRAL COLOR PCC PAVEMENT SHALL HAVE A 15" THICKNESS.
3. ADDITIONAL PAVEMENT FOR THICKENED EDGE SHALL BE INCIDENTAL TO THE INTEGRAL COLOR PCC PAVEMENT.



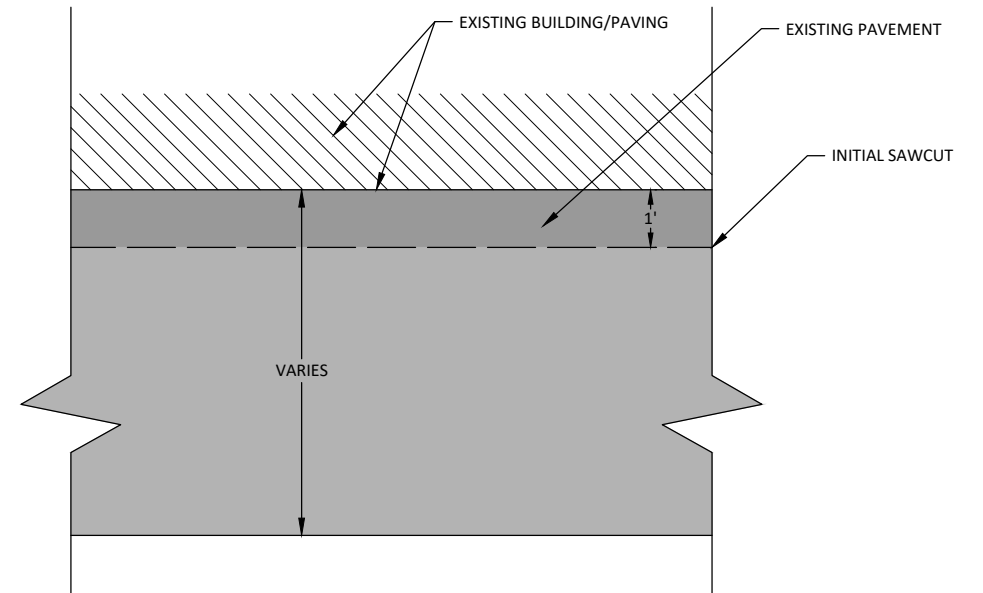


1 STEPS ADJACENT TO SIDEWALK OR CARRIAGE WALK
 B.07 INCLUDED AS BID ITEM 2599-9999005 NOT TO SCALE

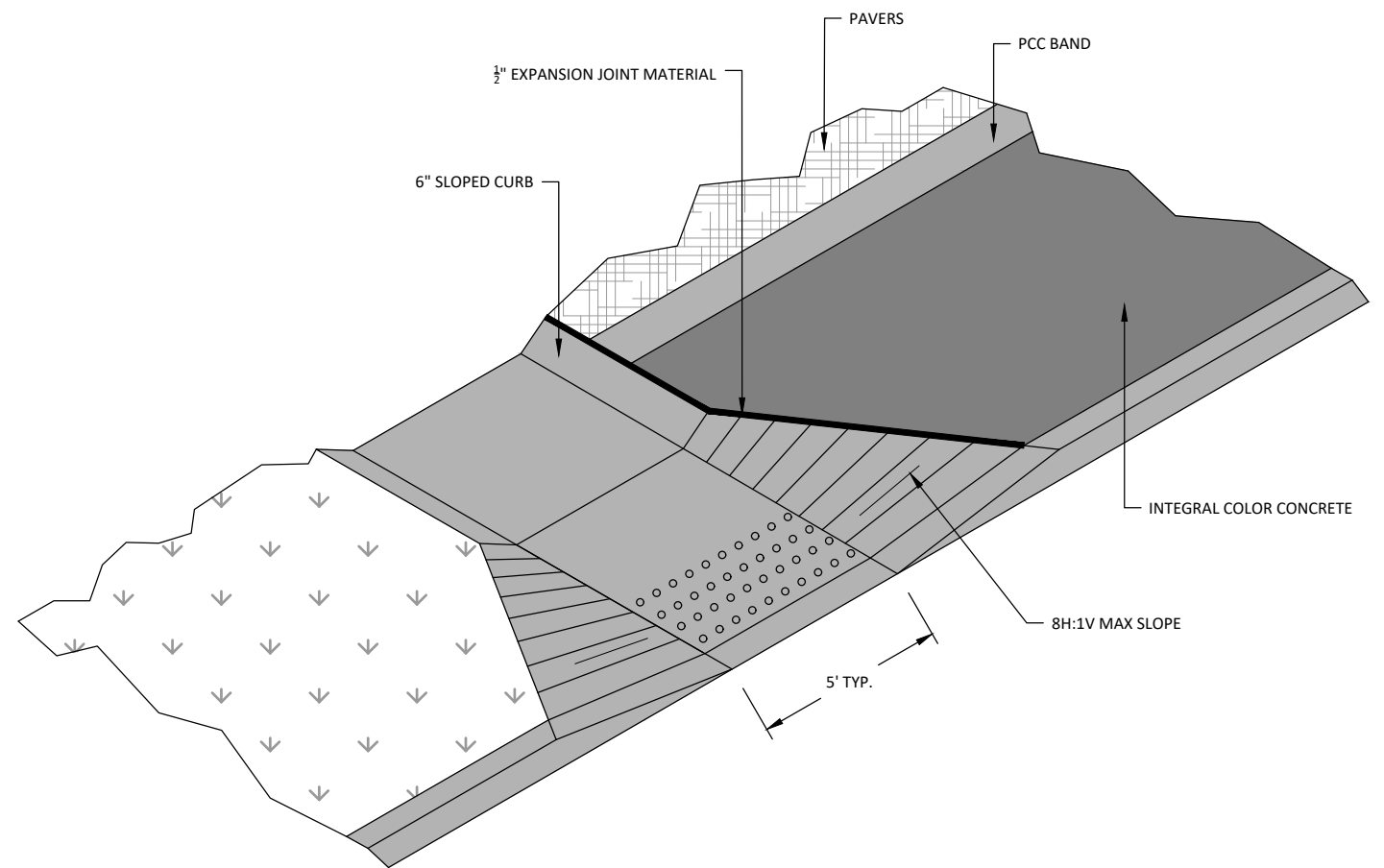


3 CONCRETE SIDEWALK ADJACENT TO BUILDING EDGE
 B.07 NOT TO SCALE

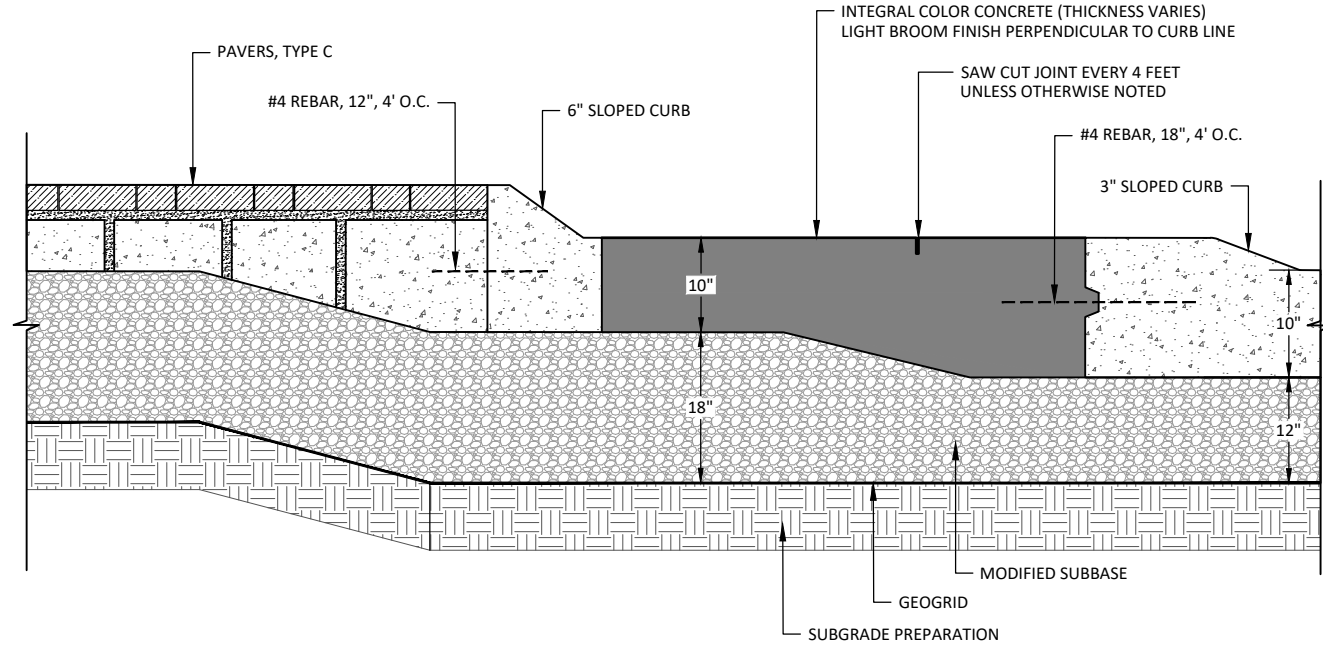
- PAVEMENT REMOVAL PROCESS
1. FULL DEPTH SAWCUT 1' FROM BUILDING FACE OR EXISTING PAVEMENT.
 2. REMOVE PAVEMENT OUTSIDE OF 1' STRIP.
 3. REMOVE 1' OF REMAINING MATERIAL USING HAND-HELD JACK HAMMER WEIGHING 30 POUNDS OR LESS OR OTHER LIGHT DUTY EQUIPMENT WHICH WILL NOT CAUSE DISTRESS ON BUILDING OR PAVEMENT TO REMAIN.
 4. ANY DAMAGE ON THE ADJACENT BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRED AT THEIR EXPENSE.
 5. SHIELD BUILDING FACE AND WINDOWS FROM CONCRETE SPLATTER AND DUST. CONTRACTOR IS RESPONSIBLE FOR BUILDING FACADE CLEANING, RESTORATION, AND/OR REPAIR.



2 PAVEMENT REMOVAL ADJACENT TO BUILDING EDGE
 B.07 NOT TO SCALE



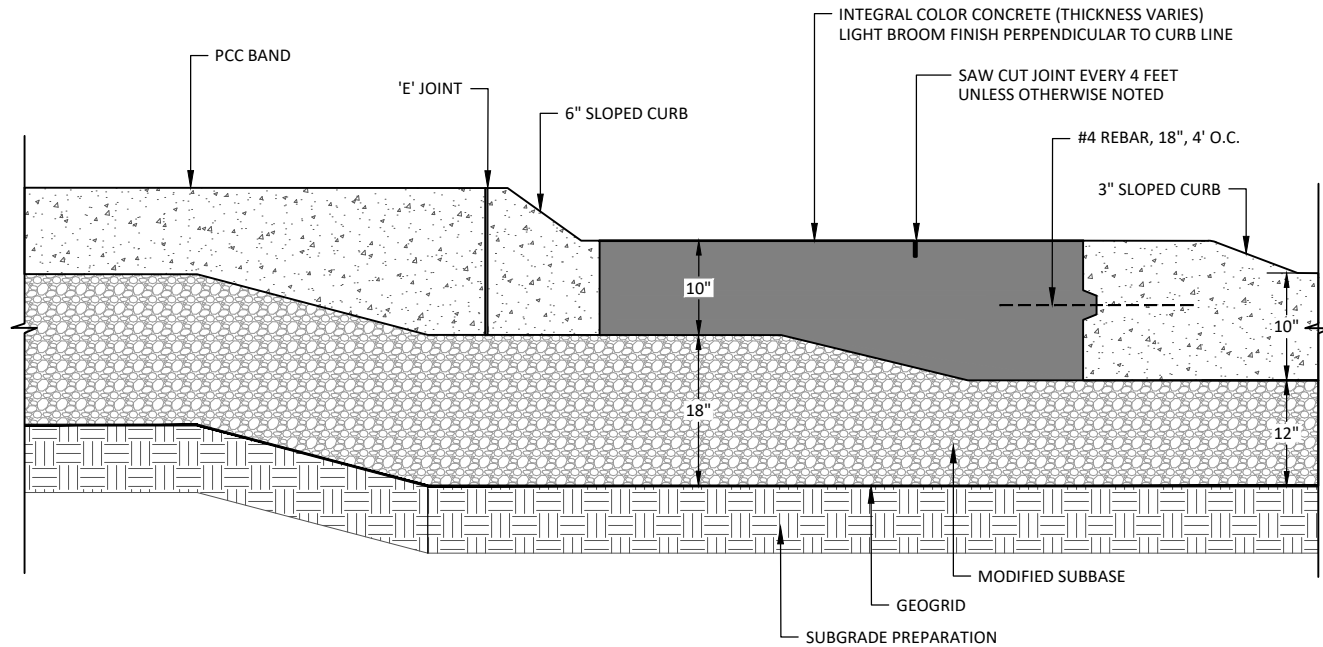
4 MEDIAN SIDEWALK DETAIL
 B.07 NOT TO SCALE



COLOR CONCRETE NOTES:

- COLOR: ONYX WITH MATTE SEALER
- APPROVAL OF ALTERNATE INTEGRAL COLOR WILL REQUIRE THE CONTRACTOR TO PROVIDE (2) 4' X 4' MOCKUP PANELS WITH SEALER PRIOR TO APPROVAL

1
B.08
ROUNDABOUT APRON AT PAVERS
NOT TO SCALE



COLOR CONCRETE NOTES:

- COLOR: ONYX WITH MATTE SEALER
- APPROVAL OF ALTERNATE INTEGRAL COLOR WILL REQUIRE THE CONTRACTOR TO PROVIDE (2) 4' X 4' MOCKUP PANELS WITH SEALER PRIOR TO APPROVAL

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B.08
ROUNDABOUT APRON AT CONCRETE BAND
NOT TO SCALE

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ESTIMATED PROJECT QUANTITIES					
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL EST. QUANT.	AS BUILT QUANT.
1	2101-0850002	CLEARING AND GRUBBING	UNIT	4	
2	2102-2713070	EXCAVATION, CLASS 13, ROADWAY AND BORROW	CY	6125	
3	2102-2713090	EXCAVATION, CLASS 13, WASTE	CY	625	
4	2105-8425005	TOPSOIL, FURNISH AND SPREAD	CY	900	
5	2109-8225100	SPECIAL COMPACTION OF SUBGRADE	STA	26	
6	2113-0001000	SUBGRADE STABILIZATION MATERIAL, GEOGRID	SY	11930	
7	2115-0100000	MODIFIED SUBBASE	CY	5130	
8	2123-7450020	SHOULDER FINISHING, EARTH	STA	37	
9	2301-1033100	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 10 IN.	SY	9608	
10	2301-4875010	MEDIAN, P.C. CONCRETE, 10 IN. CLASS C	SY	142	
11	2301-4875010	MEDIAN, P.C. CONCRETE, 10 IN. INTEGRAL COLOR	SY	518	
12	2301-4875010	MEDIAN, P.C. CONCRETE, 10 IN. INTEGRAL COLOR WITH STAMPED PAVER PATTERN	SY	78	
13	2301-6911722	PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES	LS	1	
14	2304-0100000	DETOUR PAVEMENT	SY	1400	
15	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	CY	30	
16	2435-0130196	MANHOLE, SANITARY SEWER, SW-301, 96 IN. STORM	EACH	1	
17	2435-0140160	MANHOLE, STORM SEWER, SW-401, 60 IN.	EACH	1	
18	2435-0140172	MANHOLE, STORM SEWER, SW-401, 72 IN.	EACH	3	
19	2435-0140196	MANHOLE, STORM SEWER, SW-401, 96 IN.	EACH	1	
20	2435-0250260	INTAKE, SW-502, 60 IN.	EACH	2	
21	2435-0250296	INTAKE, SW-502, 96 IN.	EACH	1	
22	2435-0250500	INTAKE, SW-505	EACH	4	
23	2435-0250700	INTAKE, SW-507	EACH	3	
24	2435-0250900	INTAKE, SW-509	EACH	14	
25	2435-0251218	INTAKE, SW-512, 18 IN.	EACH	2	
26	2435-0251236	INTAKE, SW-512, 36 IN.	EACH	2	
27	2435-0254500	INTAKE, SW-545	EACH	4	
28	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH	4	
29	2502-8212306	SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN	LF	1400	
30	2502-8221006	SUBDRAIN RISER, 6 IN., AS PER PLAN	EACH	5	
31	2502-8221303	SUBDRAIN OUTLET, DR-303	EACH	16	
32	2503-0112012	STORM SEWER GRAVITY MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 12 IN.	LF	202	
33	2503-0114212	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 12 IN.	LF	12	
34	2503-0114215	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.	LF	272	
35	2503-0114218	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.	LF	696	
36	2503-0114224	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.	LF	72	
37	2503-0114248	STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 48 IN.	LF	60	
38	2503-0116318	STORM SEWER GRAVITY MAIN, TRENCHED, 2000D LOW CLEARANCE CONCRETE PIPE, EQUIVALENT DIAMETER 18 IN.	LF	196	
39	2503-0200036	REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.	LF	1240	
40	2503-0200136	REMOVE STORM SEWER PIPE GREATER THAN 36 IN.	LF	60	
41	2504-0200406	SANITARY SEWER SERVICE STUB, POLYVINYL CHLORIDE PIPE (PVC), 6 IN.	LF	60	
42	2510-6745850	REMOVAL OF PAVEMENT	SY	9921	
43	2510-6750600	REMOVAL OF INTAKES AND UTILITY ACCESSES	EACH	22	
44	2511-6745900	REMOVAL OF SIDEWALK	SY	2205	
45	2511-7526005	SIDEWALK, P.C. CONCRETE, 5 IN.	SY	1720	
46	2511-7526006	SIDEWALK, P.C. CONCRETE, 6 IN.	SY	185	
47	2511-7528101	DETECTABLE WARNINGS	SF	285	
48	2512-1725206	CURB AND GUTTER, P.C. CONCRETE, 2.0 FT.	LF	25	
49	2515-2475006	DRIVEWAY, P.C. CONCRETE, 6 IN.	SY	1845	
50	2515-6745600	REMOVAL OF PAVED DRIVEWAY	SY	2265	
51	2516-8625000	COMBINED CONCRETE SIDEWALK AND RETAINING WALL	CY	35	
52	2519-4200020	REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK	LF	40	
53	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EACH	7	
54	2524-6765210	REMOVAL OF TYPE A SIGN ASSEMBLY	EACH	23	
55	2524-9210007	REFERENCE LOCATION SIGNS	EACH	2	
56	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	525	
57	2524-9276021	PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY SOIL INSTALLATION	EACH	37	
58	2524-9276024	PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY CONCRETE INSTALLATION	EACH	10	
59	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	384	
60	2527-9263147	PAINTED SYMBOLS AND LEGENDS, MULTI-COMPONENT LIQUID	EACH	10	
61	2527-9263216	PAINTED PAVEMENT MARKINGS, MULTI-COMPONENT LIQUID	STA	5.7	
62	2527-9263217	PAINTED PAVEMENT MARKINGS, DURABLE	STA	43.2	
63	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	44.7	
64	2527-9270120	GROOVES CUT FOR SYMBOLS AND LEGENDS	EACH	10	
65	2528-2518000	SAFETY CLOSURE	EACH	11	

66	2528-8445110	TRAFFIC CONTROL	LS	1	
67	2533-4980005	MOBILIZATION	LS	1	
68	2537-8900500	AMENDED SOIL	CY	212	
69	2552-0000210	TRENCH FOUNDATION	TON	100	
70	2552-0000220	REMOVAL, DISPOSAL, AND REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL	CY	50	
71	2552-0000300	TRENCH COMPACTION TESTING	LS	1	
72	2554-0112010	WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 10 IN.	LF	317	
73	2554-0112012	WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 12 IN.	LF	22	
74	2554-0112016	WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 16 IN.	LF	28	
75	2554-0203000	FITTINGS BY WEIGHT, DUCTILE IRON	LB	3385	
76	2554-0204110	WATER SERVICE STUB, COPPER, 1 IN.	EACH	5	
77	2554-0204120	WATER SERVICE STUB, COPPER, 2 IN.	EACH	9	
78	2554-0208010	TAPPING VALVE ASSEMBLY, 10 IN.	EACH	6	
79	2554-0208012	TAPPING VALVE ASSEMBLY, 12 IN.	EACH	2	
80	2554-0209000	VALVE REMOVAL, 16 IN.	EACH	1	
81	2554-0209010	VALVE REMOVAL, 10 IN.	EACH	2	
82	2554-0210201	FIRE HYDRANT ASSEMBLY, WM-201	EACH	1	
83	2554-0210205	FIRE HYDRANT ASSEMBLY REMOVAL	EACH	1	
84	2554-0212030	VALVE BOX REPLACEMENT	EACH	6	
85	2554-0214000	FIRE HYDRANT ADJUSTMENT	EACH	3	
86	2599-9999005	INSERTION VALVE, STAINLESS STEEL, 16 IN.	EACH	1	
87	2599-9999005	ORNAMENTAL GRASSES, FURNISHED AND INSTALLED WITH WARRANTY	EACH	160	
88	2599-9999005	PARKING BUMPERS	EACH	20	
89	2599-9999005	PERENNIAL PLANTS, FURNISHED AND INSTALLED WITH WARRANTY	EACH	672	
90	2599-9999005	STEP REPLACEMENT	EACH	6	
91	2599-9999009	ELECTRICAL CONDUIT, OPEN CUT, HDPE OR PVC	LF	100	
92	2599-9999010	CONCRETE WASHOUT	LS	1	
93	2599-9999010	MAINTENANCE OF POSTAL SERVICE	LS	1	
94	2599-9999010	MAINTENANCE OF SOLID WASTE COLLECTION	LS	1	
95	2599-9999014	CONCRETE UNIT PAVERS WITH SAND SETTING BED & PCC SUBBASE (TYPE 'B' AND 'C')	SF	5260	
96	2599-9999014	HISTORIC PAVERS, TYPE 'A' WITH SAND SETTING BED & PCC SUBBASE (PAVERS FURNISHED BY CITY)	SF	370	
97	2599-9999014	REINFORCED CONCRETE BAND, VARIABLE WIDTH	SF	2006	
98	2601-2639010	SODDING	SQ	480	
99	2601-2643110	WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION	MGAL	480	
100	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	2550	
101	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	2550	
102	2602-0000500	OPEN-THROAT CURB INTAKE SEDIMENT FILTER, EC-602	LF	192	
103	2602-0000510	MAINTENANCE OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	63	
104	2602-0000520	REMOVAL OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER	EACH	21	
105	2602-0000530	GRATE INTAKE SEDIMENT FILTER BAG, EC-604	EACH	10	
106	2602-0000540	MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	30	
107	2602-0000550	REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG	EACH	10	
108	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	21	
109	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	6	
110	2610-0000212	MULCH, SHREDDED BARK	CY	31	
111	2611-0000100	SHRUBS, FURNISHED AND INSTALLED WITH WARRANTY	EACH	24	
112	2611-0000200	TREES, FURNISHED AND INSTALLED WITH WARRANTY	EACH	1	
113	2611-0000200	UNDERSTORY TREES, FURNISHED AND INSTALLED WITH WARRANTY	EACH	3	

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ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	DESCRIPTION
1	2101-0850002	<u>CLEARING AND GRUBBING</u> THIS ITEM IS FOR THE REMOVAL OF BRUSH ADJACENT TO DETOUR PAVEMENT, IF NECESSARY, UP TO 500 SQUARE FEET. REFER TO SHEET Q.04 FOR LOCATION. ALL MATERIAL GENERATED AS A RESULT OF CLEARING AND GRUBBING SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND MUST BE DISPOSED OFF SITE. ALL WOOD MATERIAL MUST BE DISPOSED OF ACCORDING TO IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP EMERALD ASH BORER QUARANTINE ORDER. FOR MORE INFORMATION SEE WWW.IOWATREEPESTS.COM.
2	2102-2713070	<u>EXCAVATION, CLASS 13, ROADWAY AND BORROW</u> A. EXCAVATION QUANTITY HAS BEEN CALCULATED AS FOLLOWS: RAW CUT = 6,125 CY RAW FILL = 475 CY B. EXCESS MATERIAL SHALL BE DISPOSED OFF SITE AT A LOCATION FURNISHED BY THE CONTRACTOR. SUITABLE EXCESS MATERIAL SHALL BE USED ON SITE FOR REPLACEMENT OF UNSUITABLE OR UNSTABLE MATERIAL. C. REMOVAL OF GRANULAR SURFACING, INCLUDING BUT NOT LIMITED TO GRAVEL AND ASPHALT MILLINGS IS INCLUDED IN THIS ITEM, COST INCIDENTAL. D. THIS ITEM WILL BE PLAN QUANTITY AND NO MEASUREMENT WILL BE MADE FOR PAYMENT. E. EARTHWORK REQUIRED TO ESTABLISH GRADE BENEATH DETOUR PAVEMENT IS NOT INCLUDED IN THIS ITEM AND SHALL BE INCIDENTAL TO PRICE BID FOR DETOUR PAVEMENT. F. THIS CALCULATION ASSUMES THE FOLLOWING SECTION DEPTHS AND DOES NOT ACCOUNT FOR PIPE SPOILS: 12-INCH EXISTING PAVEMENT, 4-INCH EXISTING SIDEWALK, AND 8-INCH EXISTING DRIVEWAY; 10-INCH ROADWAY PAVEMENT WITH 12-INCH SUBBASE, 6-INCH PARKING LOT PAVEMENT WITH 12-INCH SUBBASE, 5-INCH AND 6-INCH SIDEWALK WITH 4-INCH SUBBASE, 18-INCH MODIFIED SUBBASE BENEATH CONCRETE MEDIANS, CONCRETE BANDS AND PAVERS.
3	2102-2713090	<u>EXCAVATION, CLASS 13, WASTE</u> QUANTITY IS BASED ON OVEREXCAVATION OF 1 FOOT DEPTH OF UNSUITABLE SUBGRADE MATERIAL OVER APPROXIMATELY 10% OF THE PAVEMENT SUBGRADE AREA. AREAS TO BE OVEREXCAVATED WILL BE DESIGNATED BY THE ENGINEER AFTER PAVEMENT HAS BEEN REMOVED, PRIOR TO SUBGRADE PREPARATION. QUANTITY WILL BE FIELD MEASURED FOR PAYMENT. BACKFILL MATERIAL SHALL BE SUITABLE MATERIALS FROM CL 13 EXCAVATION, RDWY+BORROW, OR CONTRACTOR MAY ELECT TO PROVIDE SUITABLE MATERIAL FROM OFF SITE AT NO ADDITIONAL COST TO OWNER.
4	2105-8425005	<u>TOPSOIL, FURNISH AND SPREAD</u> A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, HAULING AND SPREADING TOPSOIL TO A MINIMUM FINISHED DEPTH OF 8 INCHES. QUANTITY WILL BE FIELD MEASURED FOR PAYMENT BASED ON TRUCK SCALE TICKETS OR TRUCK COUNT AND AN ASSUMED DENSITY OF 110 PCF.
5	2109-8225100	<u>SPECIAL COMPACTION OF SUBGRADE</u> A. INCLUDES SUBGRADE PREPARATION BENEATH ALL MAINLINE AND SIDE ROAD PAVEMENT TO A DEPTH OF 12 INCHES. SUBGRADE PREPARATION SHALL BE COMPLETED IN TWO 6-INCH LIFTS, EXTENDING 2 FEET BEYOND THE PAVEMENT EDGE. BOTH LIFTS SHALL BE COMPACTED AND PROOF ROLLED TO SATISFACTION OF ENGINEER. THE TOP LIFT SHALL BE LEVELED AND PROOF ROLLED PRIOR TO PLACING GEOGRID AND SUBBASE. B. IN INSTANCES OF CONFLICT WITH UTILITIES, THE DEPTH MAY BE REDUCED AS DIRECTED BY THE ENGINEER. PREPARATION UNDER DETOUR PAVEMENT, ENTRANCES, DRIVEWAYS AND SIDEWALKS SHALL BE INCIDENTAL TO THOSE ITEMS.
6	2113-0001000	<u>SUBGRADE STABILIZATION MATERIAL, GEOGRID</u> THIS PAY ITEM SHALL BE FOR THE FURNISHING AND INSTALLATION OF THE GEOTEXTILE UNDER ALL ROADWAY SUBBASE AS SHOWN IN THE TYPICAL ROADWAY SECTIONS. MATERIAL SHALL BE TRIAXIAL POLYMER GRID PER TABLE 4196.01-5B.
7	2115-0100000	<u>MODIFIED SUBBASE</u> MODIFIED SUBBASE TO BE INSTALLED WHERE NOTED IN THE TYPICAL SECTIONS. 18-INCH MODIFIED SUBBASE SHALL BE INSTALLED BENEATH CONCRETE MEDIANS, CONCRETE BANDS AND PAVERS. 12-INCH MODIFIED SUBBASE SHALL BE INSTALLED BENEATH ROADWAY PAVEMENT, WITH A 2-FOOT EXTENSION BEYOND THE BACK OF CURB; AS WELL AS BENEATH ALL PCC DRIVEWAYS INCLUDING PARKING LOTS. 4-INCH MODIFIED SUBBASE SHALL BE INSTALLED BENEATH ALL PCC SIDEWALK WITH A 1-FOOT EXTENSION ON EACH SIDE. 12-INCH MODIFIED SUBBASE BENEATH DETOUR PAVEMENT IS NOT INCLUDED IN THIS ITEM AND SHALL BE INCIDENTAL TO PRICE BID FOR DETOUR PAVEMENT.
8	2123-7450020	<u>SHOULDER FINISHING, EARTH</u> A. THIS ITEM INCLUDES BACKFILLING AND FINISHING ALL AREAS BEHIND MAINLINE AND SIDE ROAD PAVEMENT BACK OF CURB. VOLUME OF EARTH SHOULDER IS INCLUDED IN THE CLASS 13 EXCAVATION QUANTITY.
9	2301-1033100	<u>STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 10 IN.</u> A. REFER TO SHEET C.08 FOR TABULATION. REFER TO 'B' SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO 'D' SHEETS FOR LAYOUT. REFER TO 'L' SHEETS FOR JOINT SPACING. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR.

10	2301-4875010	<u>MEDIAN, P.C. CONCRETE, 10 IN. CLASS C</u> A. THIS ITEM IS FOR CONCRETE MEDIANS. REFER TO SHEET C.21 FOR TABULATION. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. VARIATIONS IN THICKNESS AND WIDTH AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY THE CONTRACTOR. C. THIS ITEM TO BE MEASURED BY SQUARE YARD OF CONCRETE MEDIAN INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE YARD OF CONCRETE MEDIAN INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL.
11	2301-4875010	<u>MEDIAN, P.C. CONCRETE, 10 IN. INTEGRAL COLOR</u> A. THIS ITEM IS FOR INTEGRAL COLOR CONCRETE WITHIN MEDIANS AND TRUCK APRONS. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. VARIATIONS IN THICKNESS AND WIDTH AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY THE CONTRACTOR. C. THIS ITEM TO BE MEASURED BY SQUARE YARD OF INTEGRAL COLOR CONCRETE MEDIAN AND TRUCK APRON INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE YARD OF INTEGRAL COLOR CONCRETE MEDIAN AND TRUCK APRON INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL.
12	2301-4875010	<u>MEDIAN, P.C. CONCRETE, 10 IN. INTEGRAL COLOR WITH STAMPED PAVER PATTERN</u> A. THIS ITEM IS FOR INTEGRAL COLOR CONCRETE WITH STAMPED PAVER PATTERN IN CROSSWALKS. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. VARIATIONS IN THICKNESS AND WIDTH AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY THE CONTRACTOR. C. THIS ITEM TO BE MEASURED BY SQUARE YARD OF INTEGRAL COLOR CONCRETE WITH STAMPED PAVER PATTERN INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE YARD OF INTEGRAL COLOR CONCRETE WITH STAMPED PAVER PATTERN INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL.
13	2301-6911722	<u>PORTLAND CEMENT CONCRETE PAVEMENT SAMPLES</u>
14	2304-0100000	<u>DETOUR PAVEMENT</u> THIS ITEM IS FOR INSTALLATION AND REMOVAL OF TEMPORARY DETOUR PAVEMENT DURING CONSTRUCTION. DETOUR PAVEMENT SHALL BE HMA WITH A 6-INCH MINIMUM THICKNESS. REFER TO SHEET B.06 FOR DETAIL AND SHEET F.01 FOR LOCATION. EARTHWORK REQUIRED TO ESTABLISH SUBGRADE BENEATH DETOUR PAVEMENT SHALL BE INCIDENTAL TO THIS ITEM. INSTALLATION AND REMOVAL OF 12-INCH MODIFIED SUBBASE BENEATH DETOUR PAVEMENT SHALL BE INCIDENTAL TO THIS ITEM.
15	2403-0100000	<u>STRUCTURAL CONCRETE (MISCELLANEOUS)</u> A. THIS ITEM IS FOR A 15-FOOT-DIAMETER, 4.5-FOOT-THICK CONCRETE PAD IN THE CENTER OF THE ROUNDABOUT. REFER TO SHEET B.06 FOR DETAIL AND SHEET D.09 FOR LOCATION. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY THE CONTRACTOR. C. THIS ITEM TO BE MEASURED BY CUBIC YARDS OF STRUCTURAL CONCRETE INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF STRUCTURAL CONCRETE INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL THE STRUCTURAL CONCRETE.
16	2435-0130196	<u>MANHOLE, SANITARY SEWER, SW-301, 96 IN. STORM</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" WITH CONCEALED PICK HOLES.
17	2435-0140160	<u>MANHOLE, STORM SEWER, SW-401, 60 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" WITH CONCEALED PICK HOLES.
18	2435-0140172	<u>MANHOLE, STORM SEWER, SW-401, 72 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" WITH CONCEALED PICK HOLES.
19	2435-0140196	<u>MANHOLE, STORM SEWER, SW-401, 96 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" WITH CONCEALED PICK HOLES.
20	2435-0250260	<u>INTAKE, SW-502, 60 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" WITH CONCEALED PICK HOLES.

21	2435-0250296	<u>INTAKE, SW-502, 96 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
22	2435-0250500	<u>INTAKE, SW-505</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
23	2435-0250700	<u>INTAKE, SW-507</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
24	2435-0250900	<u>INTAKE, SW-509</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
25	2435-0251218	<u>INTAKE, SW-512, 18 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
26	2435-0251236	<u>INTAKE, SW-512, 36 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
27	2435-0254500	<u>INTAKE, SW-545</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. B. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
28	2435-0600010	<u>MANHOLE ADJUSTMENT, MINOR</u> A. REFER TO SHEET C.12 FOR TABULATION. REFER TO 'Q' SHEETS FOR MANHOLE ADJUSTMENT LOCATIONS. CASTING SHALL HAVE CONCEALED PICK HOLES.
29	2502-8212306	<u>SUBDRAIN, STANDARD, PERFORATED, 6 IN., AS PER PLAN</u> A. REFER TO SHEET C.11 FOR SUBDRAIN TABULATION. REFER TO 'B' SHEETS FOR TYPICAL ROADWAY SECTIONS AND 'M' SHEETS FOR SUBDRAIN LOCATIONS.
30	2502-8221006	<u>SUBDRAIN RISER, 6 IN., AS PER PLAN</u> A. REFER TO SHEET C.11 FOR SUBDRAIN TABULATION. REFER TO 'B' SHEETS FOR TYPICAL ROADWAY SECTIONS AND 'M' SHEETS FOR SUBDRAIN LOCATIONS. B. THIS ITEM SHALL BE PAID PER EACH SUBDRAIN 6 INCH SUBDRAIN RISER INSTALLED IN THE FIELD.
31	2502-8221303	<u>SUBDRAIN OUTLET, DR-303</u> A. REFER TO SHEET C.11 FOR SUBDRAIN TABULATION. REFER TO 'B' SHEETS FOR TYPICAL ROADWAY SECTIONS AND 'M' SHEETS FOR SUBDRAIN LOCATIONS.
32	2503-0112012	<u>STORM SEWER GRAVITY MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 12 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
33	2503-0114212	<u>STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 12 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.

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34	2503-0114215	<u>STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 15 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
35	2503-0114218	<u>STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 18 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
36	2503-0114224	<u>STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 24 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
37	2503-0114248	<u>STORM SEWER GRAVITY MAIN, TRENCHED, REINFORCED CONCRETE PIPE (RCP), 2000D (CLASS III), 48 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
38	2503-0116318	<u>STORM SEWER GRAVITY MAIN, TRENCHED, 2000D LOW CLEARANCE CONCRETE PIPE, EQUIVALENT DIAMETER 18 IN.</u> A. REFER TO SHEET C.10 FOR TABULATION. REFER TO 'M' SHEETS FOR STORM UTILITY LOCATIONS. CONTRACTOR SHALL MANDREL TEST AND TELEWISE ALL STORM SEWERS AND TURN OVER DATA TO CITY UPON COMPLETION OF THE TESTING AND INSPECTION AND PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. B. BEDDING CLASS SHALL BE R-2. JOINTS SHALL BE TOUNGE AND GROOVE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OR OVER A WATER MAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. BID ITEM INCLUDES STORM SEWER PIPE CONNECTIONS PER SW-211, COST INCIDENTAL.
39	2503-0200036	<u>REMOVE STORM SEWER PIPE LESS THAN OR EQUAL TO 36 IN.</u> A. REFER TO SHEET C.19 FOR TABULATION AND 'Q' SHEETS FOR LOCATIONS. EXISTING PIPE TRENCH SHALL BE FILLED WITH NATIVE MATERIAL. REPLACEMENT OF UNSUITABLE NATIVE MATERIAL SHALL BE FOR UNDER "REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL" ITEM. MAXIMUM TRENCH WIDTH ALLOWED SHALL BE PIPE DIAMETER PLUS TWO FEET AND FILLED TO BOTTOM OF SUBBASE.
40	2503-0200136	<u>REMOVE STORM SEWER PIPE GREATER THAN 36 IN.</u> A. REFER TO SHEET C.19 FOR TABULATION AND 'Q' SHEETS FOR LOCATIONS. EXISTING PIPE TRENCH SHALL BE FILLED WITH NATIVE MATERIAL. REPLACEMENT OF UNSUITABLE NATIVE MATERIAL SHALL BE FOR UNDER "REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL" ITEM. MAXIMUM TRENCH WIDTH ALLOWED SHALL BE PIPE DIAMETER PLUS TWO FEET AND FILLED TO BOTTOM OF SUBBASE.
41	2504-0200406	<u>SANITARY SEWER SERVICE STUB, POLYVINYL CHLORIDE PIPE (PVC), 6 IN.</u> REFER TO SHEET MWM.04 FOR LOCATION. FURNISHING OF ELOWS AND TEES, BEDDING, AND GRANULAR BACKFILL MATERIAL SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.

42	2510-6745850	<u>REMOVAL OF PAVEMENT</u> A. REFER TO SHEET C.16 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS. THE THICKNESS OF THE EXISTING PAVEMENT IS VARIABLE. FULL DEPTH SAW CUTS ALONG THE REMOVAL LIMITS ARE INCIDENTAL TO THIS ITEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL REMOVAL, EARTHWORK, SUBGRADE PREPARATION, MODIFIED SUBBASE AND PAVING EXPENSES DUE TO DAMAGED EDGES. ADDITIONAL REMOVAL TO BE DETERMINED BY ENGINEER. PAYMENT SHALL BE MADE FOR THE AREA OF PAVEMENT REMOVED, REGARDLESS OF THICKNESS AND MATERIAL.
43	2510-6750600	<u>REMOVAL OF INTAKES AND UTILITY ACCESSES</u> A. REFER TO SHEET C.20 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS.
44	2511-6745900	<u>REMOVAL OF SIDEWALK</u> A. REFER TO SHEET C.17 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS. B. ALL REMOVALS TO BE MARKED AND MEASURED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL REMOVAL, EARTHWORK, SUBGRADE PREPARATION, MODIFIED SUBBASE AND PAVING EXPENSES DUE TO DAMAGED EDGES. ADDITIONAL REMOVAL TO BE DETERMINED BY ENGINEER. PAYMENT SHALL BE MADE FOR THE AREA OF PAVEMENT REMOVED, REGARDLESS OF THICKNESS.
45	2511-7526005	<u>SIDEWALK, P.C. CONCRETE, 5 IN.</u> A. REFER TO SHEET C.22 FOR TABULATION. REFER TO 'B' SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO 'S' SHEETS FOR LAYOUT AND LOCATIONS. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
46	2511-7526006	<u>SIDEWALK, P.C. CONCRETE, 6 IN.</u> A. REFER TO SHEET C.22 FOR TABULATION. REFER TO 'B' SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO 'S' SHEETS FOR LAYOUT AND LOCATIONS. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
47	2511-7528101	<u>DETECTABLE WARNINGS</u> REFER TO SHEET C.22 FOR TABULATION. REFER TO 'S' SHEETS FOR LAYOUT AND LOCATIONS.
48	2512-1725206	<u>CURB AND GUTTER, P.C. CONCRETE, 2.0 FT.</u> A. THIS ITEM IS FOR 10-INCH THICK, 2-FOOT WIDE P.C. CONCRETE CURB AND GUTTER. REFER TO SHEET D.08 AND S.09 FOR LAYOUT AND LOCATION. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR.
49	2515-2475006	<u>DRIVEWAY, P.C. CONCRETE, 6 IN.</u> A. REFER TO SHEET C.09 FOR TABULATION. REFER TO 'B' SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO 'D' AND 'E' SHEETS FOR LAYOUT AND LOCATIONS. ALL JOINTS SHALL BE CUT TO A DEPTH OF T/3 AND SEALED. REFER TO 'W' SHEETS FOR DRIVEWAY CENTERLINE LONGITUDINAL GRADES. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR.
50	2515-6745600	<u>REMOVAL OF PAVED DRIVEWAY</u> A. REFER TO SHEET C.18 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS. B. ALL REMOVALS TO BE MARKED AND MEASURED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL REMOVAL, EARTHWORK, SUBGRADE PREPARATION, MODIFIED SUBBASE AND PAVING EXPENSES DUE TO DAMAGED EDGES. ADDITIONAL REMOVAL TO BE DETERMINED BY ENGINEER. PAYMENT SHALL BE MADE FOR THE AREA OF PAVEMENT REMOVED, REGARDLESS OF THICKNESS.
51	2516-8625000	<u>COMBINED CONCRETE SIDEWALK AND RETAINING WALL</u> REFER TO 'V' SHEETS FOR LOCATIONS AND LAYOUT. REMOVAL OF EXISTING CONCRETE RETAINING WALL AT 1033 HERSHEY AVENUE SHALL BE INCIDENTAL TO THIS ITEM. REMOVAL OF EXISTING SEGMENTAL BLOCK LANDSCAPING WALL AT 1033 HERSHEY AVENUE SHALL BE INCIDENTAL TO THIS ITEM AND SHALL BE SALVAGED TO OWNER.
52	2519-4200020	<u>REMOVAL AND REINSTALLATION OF FENCE, CHAIN LINK</u> REFER TO 'D' AND 'Q' SHEETS FOR LOCATIONS.
53	2524-6765010	<u>REMOVE AND REINSTALL SIGN AS PER PLAN</u> A. REFER TO 'PM' SHEETS FOR LOCATIONS AND DETAILS. B. CONTRACTOR SHALL PROTECT EXISTING SIGNS AND SIGN POSTS NOT SCHEDULED FOR REMOVAL. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY SIGN OR POST DAMAGED DURING CONSTRUCTION.
54	2524-6765210	<u>REMOVAL OF TYPE A SIGN ASSEMBLY</u> A. REFER TO SHEET C.26 FOR TABULATION AND 'Q' SHEETS FOR LOCATIONS. B. THIS ITEM SHALL BE MEASURED AND PAID BY EACH TYPE A SIGN IN THE FIELD.
55	2524-9210007	<u>REFERENCE LOCATION SIGNS</u> REFER TO SHEET C.24 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS.

56	2524-9276010	<u>PERFORATED SQUARE STEEL TUBE POSTS</u> REFER TO SHEET C.24 FOR TABULATION AND 'PM' SHEETS FOR SIGNAGE.
57	2524-9276021	<u>PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY SOIL INSTALLATION</u> REFER TO SHEET C.24 FOR TABULATION AND 'PM' SHEETS FOR SIGNAGE.
58	2524-9276024	<u>PERFORATED SQUARE STEEL TUBE POST ANCHOR, BREAK-AWAY CONCRETE INSTALLATION</u> REFER TO SHEET C.24 FOR TABULATION AND 'PM' SHEETS FOR SIGNAGE.
59	2524-9325001	<u>TYPE A SIGNS, SHEET ALUMINUM</u> REFER TO SHEET C.24 FOR TABULATION AND 'PM' SHEETS FOR SIGNAGE.
60	2527-9263147	<u>PAINTED SYMBOLS AND LEGENDS, MULTI-COMPONENT LIQUID</u> A. REFER TO SHEET C.15 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS. B. THIS ITEM SHALL BE PAID PER EACH SYMBOL OR LEGEND PAINTED IN THE FIELD.
61	2527-9263216	<u>PAINTED PAVEMENT MARKINGS, MULTI-COMPONENT LIQUID</u> REFER TO SHEET C.13 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS. REFER TO DEVELOPMENTAL SPECIFICATION FOR MULTI-COMPONENT LIQUID PAVEMENT MARKINGS.
62	2527-9263217	<u>PAINTED PAVEMENT MARKINGS, DURABLE</u> REFER TO SHEET C.13 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS.
63	2527-9270112	<u>GROOVES CUT FOR PAVEMENT MARKINGS</u> REFER TO SHEET C.13 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS.
64	2527-9270120	<u>GROOVES CUT FOR SYMBOLS AND LEGENDS</u> REFER TO SHEET C.15 FOR TABULATION AND 'PM' SHEETS FOR LOCATIONS.
65	2528-2518000	<u>SAFETY CLOSURE</u>
66	2528-8445110	<u>TRAFFIC CONTROL</u> REFER TO 'J' SHEETS FOR TRAFFIC CONTROL AND STAGING REQUIREMENTS. DETOUR SIGNS FOR BUSINESSES SHALL BE INCIDENTAL TO THIS ITEM.
67	2533-4980005	<u>MOBILIZATION</u> THIS ITEM IS FOR ALL PREPARATORY WORK AND COST INCURRED BEFORE AND DURING THE WORK ON THE PROJECT. THIS ITEM SHALL INCLUDE THE COSTS FOR ANY STAGED CONSTRUCTION AND EQUIPMENT SET UP TO COMPLETE THE WORK. MISCELLANEOUS MINOR WORK ITEMS SHOWN IN THE PLANS AND WHICH HAVE NO STANDARD BID ITEM SHALL BE INCIDENTAL TO THIS ITEM. EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO GRASS AND VEGETATION REMOVAL, GRAVEL SURFACING REMOVAL, BOLLARD REMOVAL, SITE CLEANUP, CONSTRUCTION SAFETY FENCING, SCHEDULING OF WORK, MEETINGS, SECURING OF CITY WORK IN RIGHT-OF-WAY PERMIT, COORDINATION AND COOPERATION WITH UTILITY COMPANIES, COORDINATION WITH OTHER PROJECTS IN THE AREA, QUANTITY MEASUREMENT AND PAY APPLICATIONS, TESTING REPORTS, COOPERATION WITH AFFECTED ADJACENT PROPERTY OWNERS AND CONTRACTORS, AND STAGING IN ACCORDANCE WITH STAGING PLANS AND SPECIFICATIONS.
68	2537-8900500	<u>AMENDED SOIL</u> A. EXCAVATION SOIL FROM GRADING, TRENCHING, OR CLEARING SHALL NOT BE USED IN MAKING AMENDED SOIL. B. AMENDED SOIL SHALL BE USED FOR PLANTING BACKFILL AND WHERE INDICATED PER PLANTING DETAILS. C. AMENDED SOIL MIX SHALL MEET THE FOLLOWING REQUIREMENTS: 1) TOPSOIL: ASTM D 5268 TOPSOIL, WITH PH RANGE OF 5.5 TO 7, MINIMUM OF 6% ORGANIC MATERIAL CONTENT, FREE OF STONE 1 INCH OR LARGER. 2) ORGANIC MATTER: A PRODUCT OF PEAT MOSS, COMPOST OR LOCALLY AVAILABLE ORGANIC WASTE. ORGANIC MATTER SHOULD BE FREE FROM DEBRIS, WEED SEEDS, AND INSECTS OR DISEASES WHICH MAY BE HARMFUL TO INTENDED PLANTINGS. 3) SAND: CONCRETE SAND, SECTION 4110, GRADATION NO. 1. D. CONTRACTOR TO BLEND TOPSOIL, ORGANIC MATTER AND SAND IN THE FOLLOWING RATIOS TO FORM AMENDED SOIL MIXTURE: 10% ORGANIC MATTER, 35-45% SAND AND 45-55% TOPSOIL. E. SOIL REPORT TO BE SUBMITTED WITH GALLON SAMPLE FOR APPROVAL OF MIX. F. METHOD OF MEASUREMENT: AMENDED PLANTING SOIL TO BE MEASURED BY THE CUBIC YARD INSTALLED TO THE DEPTH INDICATED ON DRAWINGS. G. BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER CUBIC YARD OF AMENDED PLANTING SOIL.
69	2552-0000210	<u>TRENCH FOUNDATION</u> AT THE DISCRETION OF THE ENGINEER, THIS ITEM IS TO INCORPORATE TRENCH FOUNDATION WHERE UNSUITABLE MATERIALS ARE FOUND BELOW THE PIPE BEDDING DURING CONSTRUCTION. QUANTITY IS ESTIMATED TO ESTABLISH A UNIT PRICE. THE ACTUAL TRENCH FOUNDATION QUANTITY USED WILL BE PAID. ENGINEER SHALL APPROVE ALL TRENCH FOUNDATION LOCATIONS PRIOR TO CONTRACTOR PERFORMING THIS WORK. MATERIAL SHALL BE PROVIDED BY THE CONTRACTOR AND SUITABLE MATERIALS HARVESTED ON SITE WILL BE ALLOWED.

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70	2552-0000220	<u>REMOVAL, DISPOSAL, AND REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL</u> AT THE DISCRETION OF THE ENGINEER, THIS ITEM IS TO INCORPORATE CLASS II OR CLASS III BACKFILL WHERE UNSUITABLE MATERIALS ARE ENCOUNTERED IN PIPE TRENCH. QUANTITY IS ESTIMATED TO ESTABLISH A UNIT PRICE. THE ACTUAL BACKFILL QUANTITY USED WILL BE PAID. ENGINEER SHALL APPROVE ALL TRENCH BACKFILL LOCATIONS PRIOR TO CONTRACTOR PERFORMING THIS WORK. MATERIAL SHALL BE PROVIDED BY THE CONTRACTOR AND SUITABLE MATERIALS HARVESTED ON SITE WILL BE ALLOWED.
71	2552-0000300	<u>TRENCH COMPACTION TESTING</u> TRENCH COMPACTION TESTING IS REQUIRED FOR ALL TRENCHES WHERE TRENCH IS WITHIN 5 FEET OF ROADWAY PAVING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPACTION TESTING. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY HIRED BY THE CONTRACTOR.
72	2554-0112010	<u>WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 10 IN.</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. PIPE SHALL BE MINIMUM CLASS 52. BACKFILL WITH LOW PERMEABILITY SOIL WITHIN 10 FEET OF SANITARY AND STORM SEWER. DIP SHALL CONFORM TO ANSI/AWWA C151/A21.51. PIPE SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.53. THICKNESS DESIGN OF PIPE SHALL CONFORM TO ANSI/AWWA C150/A21.51. PIPE SHALL BE MANUFACTURED WITH A BITUMINOUS COAL TAR BASE EXTERIOR COATING SYSTEM NOT LESS THAN 1 MIL THICK IN ACCORDANCE WITH AWWA C151/ANSI A21.4. NITRILE GASKETS SHALL BE PROVIDED. ALL PIPE AND PIPE JOINTS SHALL BE PUSH-ON, RESTRAINED, OR MECHANICAL AND SHALL CONFORM TO ANSI/AWWA C111/A21.11. ALL TRACER WIRE COMPONENTS SHALL BE COPPERHEAD BRAND, BLUE POLYETHYLENE JACKETED DIRECT BURY TYPE. USE NUMBER 12 SUPERFLEX PART NUMBER\1230B-SF-500',1000',2500' WITH A 45 MIL COATING. ALL PIPE SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER. REMOVAL AND DISPOSAL OF EXISTING WATER MAIN PIPE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL ACTIVITIES INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE REMOVAL.
73	2554-0112012	<u>WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 12 IN.</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. PIPE SHALL BE MINIMUM CLASS 52. BACKFILL WITH LOW PERMEABILITY SOIL WITHIN 10 FEET OF SANITARY AND STORM SEWER. DIP SHALL CONFORM TO ANSI/AWWA C151/A21.51. PIPE SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.53. THICKNESS DESIGN OF PIPE SHALL CONFORM TO ANSI/AWWA C150/A21.51. PIPE SHALL BE MANUFACTURED WITH A BITUMINOUS COAL TAR BASE EXTERIOR COATING SYSTEM NOT LESS THAN 1 MIL THICK IN ACCORDANCE WITH AWWA C151/ANSI A21.4. NITRILE GASKETS SHALL BE PROVIDED. ALL PIPE AND PIPE JOINTS SHALL BE PUSH-ON, RESTRAINED, OR MECHANICAL AND SHALL CONFORM TO ANSI/AWWA C111/A21.11. ALL TRACER WIRE COMPONENTS SHALL BE COPPERHEAD BRAND, BLUE POLYETHYLENE JACKETED DIRECT BURY TYPE. USE NUMBER 12 SUPERFLEX PART NUMBER\1230B-SF-500',1000',2500' WITH A 45 MIL COATING. ALL PIPE SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER. REMOVAL AND DISPOSAL OF EXISTING WATER MAIN PIPE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL ACTIVITIES INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE REMOVAL.
74	2554-0112016	<u>WATER MAIN, TRENCHED, DUCTILE IRON PIPE (DIP), 16 IN.</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. PIPE SHALL BE MINIMUM CLASS 52. BACKFILL WITH LOW PERMEABILITY SOIL WITHIN 10 FEET OF SANITARY AND STORM SEWER. DIP SHALL CONFORM TO ANSI/AWWA C151/A21.51. PIPE SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.53. THICKNESS DESIGN OF PIPE SHALL CONFORM TO ANSI/AWWA C150/A21.51. PIPE SHALL BE MANUFACTURED WITH A BITUMINOUS COAL TAR BASE EXTERIOR COATING SYSTEM NOT LESS THAN 1 MIL THICK IN ACCORDANCE WITH AWWA C151/ANSI A21.4. NITRILE GASKETS SHALL BE PROVIDED. ALL PIPE AND PIPE JOINTS SHALL BE PUSH-ON, RESTRAINED, OR MECHANICAL AND SHALL CONFORM TO ANSI/AWWA C111/A21.11. ALL TRACER WIRE COMPONENTS SHALL BE COPPERHEAD BRAND, BLUE POLYETHYLENE JACKETED DIRECT BURY TYPE. USE NUMBER 12 SUPERFLEX PART NUMBER\1230B-SF-500',1000',2500' WITH A 45 MIL COATING. ALL PIPE SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER. REMOVAL AND DISPOSAL OF EXISTING WATER MAIN PIPE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL ACTIVITIES INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE REMOVAL.
75	2554-0203000	<u>FITTINGS BY WEIGHT, DUCTILE IRON</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. DUCTILE IRON FITTINGS SHALL CONFORM TO ANSI/AWWA C153/A21.53 (COMPACT). FITTINGS SHALL BE CEMENT-MORTAR LINED IN ACCORDANCE WITH ANSI/AWWA C104/A21.4.95. BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL OR HIGH STRENGH LOW ALLOY COR-TEN BLUE. WEIGHTS ARE PER AWWA C-153. ALL SLEEVES SHALL BE SOLID SLEEVES, DRESSER COUPLINGS WILL NOT BE ALLOWED. POLYETHYLENE WRAP AND BEDDING MATERIAL IS CONSIDERED INCIDENTAL TO THIS ITEM. ALL FITTINGS SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER.

76	2554-0204110	<u>WATER SERVICE STUB, COPPER, 1 IN.</u> REFER TO 'MWM' SHEETS FOR LOCATIONS. SERVICE LINES SHALL BE TYPE K (HEAVY), SOFT ANNEALED, SEAMLESS COPPER. CONNECTIONS TO EXISTING SERVICE LINES SHALL BE 3-PIECE COMPRESSION TYPE, MUELLER 110 CONDUCTIVE COMPRESSION CONNECTION. IF THE MAIN IS WRAPPED WITH POLY-WRAP, THE SERVICE SHOULD ALSO BE WRAPPED 3-4 FEET FROM THE MAIN. TAPPING DUCTILE IRON SHALL BE JCM 406, ROMAC STYLE 202NS, SMITH BLAIR 317, MUELLER DR2S OR FORD FC202 SERVICE SADDLES, NYLON OR THICK EPOXY COATED WITH STAINLESS STEEL STRAPS FOR USE ON DUCTILE IRON. CORPORATION SHALL BE MUELLER NO. B-25008, 1-INCH LEAD FREE BRASS. CURB STOPS SHALL BE LEAD FREE BRASS MUELLER H-10314 CURB STOP VALVE, MUELLER OR AY MCDONALD BOXES AND VALVE WITH 5' LONG CURB BOX, EXTENSION TYPE - ARCH PATTERN BASE, ONE PIECE LID WITH ROD, UPPER SECTION LID TO BE TWO-HOLE STYLE. REMOVAL AND DISPOSAL OF EXISTING WATER SERVICE PIPE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL ACTIVITIES INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE REMOVAL.
77	2554-0204120	<u>WATER SERVICE STUB, COPPER, 2 IN.</u> REFER TO 'MWM' SHEETS FOR LOCATIONS. SERVICE LINES SHALL BE TYPE K (HEAVY), SOFT ANNEALED, SEAMLESS COPPER. CONNECTIONS TO EXISTING SERVICE LINES SHALL BE 3-PIECE COMPRESSION TYPE, MUELLER 110 CONDUCTIVE COMPRESSION CONNECTION. IF THE MAIN IS WRAPPED WITH POLY-WRAP, THE SERVICE SHOULD ALSO BE WRAPPED 3-4 FEET FROM THE MAIN. TAPPING DUCTILE IRON SHALL BE JCM 406, ROMAC STYLE 202NS, SMITH BLAIR 317, MUELLER DR2S OR FORD FC202 SERVICE SADDLES, NYLON OR THICK EPOXY COATED WITH STAINLESS STEEL STRAPS FOR USE ON DUCTILE IRON. CORPORATION SHALL BE MUELLER NO. B-25008, 1-INCH LEAD FREE BRASS. CURB STOPS SHALL BE LEAD FREE BRASS MUELLER H-10314 CURB STOP VALVE, MUELLER OR AY MCDONALD BOXES AND VALVE WITH 5' LONG CURB BOX, EXTENSION TYPE - ARCH PATTERN BASE, ONE PIECE LID WITH ROD, UPPER SECTION LID TO BE TWO-HOLE STYLE. REMOVAL AND DISPOSAL OF EXISTING WATER SERVICE PIPE SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL ACTIVITIES INCLUDING ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO COMPLETE REMOVAL.
78	2554-0208010	<u>TAPPING VALVE ASSEMBLY, 10 IN.</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. TAPPING VALVES SHALL BE FULLY OPEN STYLE TO ACCOMMODATE MUSCATINE POWER AND WATER'S TAPPING MACHINE (MJ TO MECHANICAL JOINT). TAPPING VALVES CAN BE MJ X MJ IF USING THE FORD FTSS SLEEVE WITH MJ OUTLET. APPROVED APPLICATION IS MJ X MJ GATE VALVE WITH THE FORD FTSS SLEEVE WITH MJ OUTLET. TAPPING SLEEVES SHALL BE STAINLESS STEEL PER ASTM A-240, FULLY ENCLOSED TAPPING SLEEVE, FULL WRAP GASKET, FULL FLANGE, AND STAINLESS STEEL BOLTS AND NUTS WITH 3/4-INCH NPT TEST PLUG WITH STAINLESS PLUG. APPROVED TAPPING SLEEVE STYLES INCLUDE JCM-432, FORD-FTSS, MUELLER-H-304 OR APPROVED EQUAL WITH NITRILE GASKET.
79	2554-0208012	<u>TAPPING VALVE ASSEMBLY, 12 IN.</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. TAPPING VALVES SHALL BE FULLY OPEN STYLE TO ACCOMMODATE MUSCATINE POWER AND WATER'S TAPPING MACHINE (MJ TO MECHANICAL JOINT). TAPPING VALVES CAN BE MJ X MJ IF USING THE FORD FTSS SLEEVE WITH MJ OUTLET. APPROVED APPLICATION IS MJ X MJ GATE VALVE WITH THE FORD FTSS SLEEVE WITH MJ OUTLET. TAPPING SLEEVES SHALL BE STAINLESS STEEL PER ASTM A-240, FULLY ENCLOSED TAPPING SLEEVE, FULL WRAP GASKET, FULL FLANGE, AND STAINLESS STEEL BOLTS AND NUTS WITH 3/4-INCH NPT TEST PLUG WITH STAINLESS PLUG. APPROVED TAPPING SLEEVE STYLES INCLUDE JCM-432, FORD-FTSS, MUELLER-H-304 OR APPROVED EQUAL WITH NITRILE GASKET.
80	2554-0209000	<u>VALVE REMOVAL, 16 IN.</u> REFER TO SHEET C.20 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS.
81	2554-0209010	<u>VALVE REMOVAL, 10 IN.</u> REFER TO SHEET C.20 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS.
82	2554-0210201	<u>FIRE HYDRANT ASSEMBLY, WM-201</u> REFER TO SHEET C.27 FOR TABULATION AND 'MWM' SHEETS FOR LOCATIONS. FIRE HYDRANTS SHALL CONFORM TO AWWA C502. ALL HYDRANTS SHALL BE MUELLER SUPER CENTURION OR WATEROUS PACER MEETING THE FOLLOWING SPECIFIC REQUIREMENTS: 6-INCH MECHANICAL JOINT CONNECTION, DIRECTION TO OPEN SHALL BE CLOCKWISE (RIGHT), NOZZLES: TWO 2-1/2-INCH HOSE NOZZLES, ONE 4-1/2-INCH PUMPER NOZZLE, NOZZLES TO BE NATIONAL STANDARD THREAD (NST) STYLE, O-RING PACKING NITRILE, SUITABLE FOR 5'-0" DEPTH OF COVER. VALVE OPENING OF 4-1/2-INCH, AUTOMATIC DRAIN VALVE TO DRAIN HYDRANT BARREL WHEN MAIN VALVE IS CLOSED. OPERATING NUT SHALL BE NATIONAL STANDARD 1-INCH SQUARE, OVERSIZED MECHANICAL JOINT SHOE, EPOXY COATED BOWL. ALL UNDERGROUND PARTS SHALL BE CONSTRUCTED OF DUCTILE IRON WITH STAINLESS STEEL BOLTS. SHALL INCLUDE 1-INCH WASHED ROCK AROUND THE DRIPS IN THE HYDRANT. EXPOSED HYDRANT BODY SHALL BE FACTORY PRIMED PAINTED WHITE AND BURIED PORTION SHALL HAVE TOP COATS BLACK. ALL BURIED HYDRANT BARRELS SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER.
83	2554-0210205	<u>FIRE HYDRANT ASSEMBLY REMOVAL</u> REFER TO SHEET C.20 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS.

84	2554-0212030	<u>VALVE BOX REPLACEMENT</u> REFER TO SHEET C.12 FOR TABULATION. REFER TO 'Q' SHEETS FOR LOCATIONS. VALVE BOXES SHALL BE DOMESTIC ONLY, HEAVY DUTY, TYLER 664S OR EAST JORDAN WITH CENTERING RING OR APPROVED EQUAL. COVER SHALL HAVE THE WORD "WATER" CAST INTO THE COVER.
85	2554-0214000	<u>FIRE HYDRANT ADJUSTMENT</u> REFER TO SHEET C.12 FOR TABULATION. REFER TO 'Q' SHEETS AND SHEET MWM.04 FOR LOCATIONS. HYDRANT BRANCH EXTENSION OR REPLACEMENT, HYDRANT BRANCH FITTINGS, HYDRANT REPLACEMENT (IF NECESSARY) AND CONNECTION TO EXISTING HYDRANT VALVE SHALL BE INCIDENTAL TO THIS ITEM. ANTICIPATED HYDRANT BRANCH FITTINGS INCLUDE, BUT ARE NOT LIMITED TO, 90-DEGREE BENDS. FIRE HYDRANTS SHALL CONFORM TO AWWA C502. ALL HYDRANTS SHALL BE MUELLER SUPER CENTURION OR WATEROUS PACER MEETING THE FOLLOWING SPECIFIC REQUIREMENTS: 6-INCH MECHANICAL JOINT CONNECTION, DIRECTION TO OPEN SHALL BE CLOCKWISE (RIGHT), NOZZLES: TWO 2-1/2-INCH HOSE NOZZLES, ONE 4-1/2-INCH PUMPER NOZZLE, NOZZLES TO BE NATIONAL STANDARD THREAD (NST) STYLE, O-RING PACKING NITRILE, SUITABLE FOR 5'-0" DEPTH OF COVER. VALVE OPENING OF 4-1/2-INCH, AUTOMATIC DRAIN VALVE TO DRAIN HYDRANT BARREL WHEN MAIN VALVE IS CLOSED. OPERATING NUT SHALL BE NATIONAL STANDARD 1-INCH SQUARE, OVERSIZED MECHANICAL JOINT SHOE, EPOXY COATED BOWL. ALL UNDERGROUND PARTS SHALL BE CONSTRUCTED OF DUCTILE IRON WITH STAINLESS STEEL BOLTS. SHALL INCLUDE 1-INCH WASHED ROCK AROUND THE DRIPS IN THE HYDRANT. EXPOSED HYDRANT BODY SHALL BE FACTORY PRIMED PAINTED WHITE AND BURIED PORTION SHALL HAVE TOP COATS BLACK. ALL BURIED HYDRANT BARRELS SHALL BE PROTECTED FROM CORROSIVE SOILS BY WRAPPING WITH NLT 10-MIL THICK POLYETHYLENE TUBING OR SHEETING CONFORMING TO ANSI/AWWA C105/A21.5. THE POLY-WRAP SHALL BE SECURED AROUND THE PIPE WITH 2-INCH WIDE BY 10-MIL THICK TAPE SUPPLIED BY THE POLY-WRAP MANUFACTURER.
86	2599-9999005	<u>INSERTION VALVE, STAINLESS STEEL, 16 IN.</u> A. THIS ITEM INCLUDES FURNISH AND INSTALLATION OF 16-INCH STAINLESS STEEL INSERTION VALVE. REFER TO SHEET MWM.01 FOR LOCATION. B. 16-INCH STAINLESS STEEL INSERTION VALVE SHALL BE HYDRA-STOP INSTA-VALVE PLUS 250. C. PRIOR TO INSTALLATION, REFER TO HYDRA-STOP INSTALLATION INSTRUCTIONS FOR 14"-16" INSTA-VALVE PLUS 250 TO ENSURE CRITICAL STEPS ARE FOLLOWED. HYDRA-STOP TECHNICAL SUPPORT CAN BE REACHED AT 708-389-5111. D. THIS ITEM SHALL BE PAID BY EACH 16-INCH STAINLESS STEEL INSERTION VALVE INSTALLED. E. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER EACH 16-INCH STAINLESS STEEL INSERTION VALVE INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, MATERIALS, TESTING AND DISINFECTION REQUIRED TO INSTALL EACH 16-INCH STAINLESS STEEL INSERTION VALVE.
87	2599-9999005	<u>ORNAMENTAL GRASSES, FURNISHED AND INSTALLED WITH WARRANTY</u> A. CONTRACTOR TO FURNISH AND INSTALL ORNAMENTAL GRASSES WHERE INDICATED ON 'Y' SHEETS. REFER TO DETAILS ON 'Y' SHEETS FOR INSTALLATION. B. SEE PLANT TABULATION ON SHEET Y.01 FOR ORNAMENTAL GRASS TYPES, QUANTITIES AND SIZES. C. PLANTING BACKFILL SHALL BE PER AMENDED PLANTING SOIL BID ITEM, MULCHING SHALL BE PER HARDWOOD MULCH BID ITEM. D. THIS ITEM TO BE PAID PER EACH ORNAMENTAL GRASS FURNISHED AND INSTALLED. PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR INSTALLATION OF ORNAMENTAL GRASSES. EXCAVATION, PREPARATION, FURNISHING, PLACEMENT, FURNISHING WATER AND OTHER CARE, NECESSARY UNTIL FINAL ACCEPTANCE SHALL BE CONSIDERED INCIDENTAL. E. METHOD OF MEASUREMENT: EACH ORNAMENTAL GRASS WILL BE COUNTED. F. BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH. THIS ITEM INCLUDES ALL MATERIALS AND LABOR FOR COMPLETE INSTALLATION OF ORNAMENTAL GRASSES.
88	2599-9999005	<u>PARKING BUMPERS</u> A. REFER TO SHEET B.06 FOR DETAIL AND 'D' SHEETS FOR LOCATIONS. B. PARKING BUMPERS SHALL BE 6 FEET LONG AND MADE OF PCC WITH A COMPRESSIVE STRENGTH OF 4,000 PSI. C. THIS ITEM SHALL BE PAID BY EACH 6-FOOT PARKING BUMPER INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER EACH PARKING BUMPER INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL EACH PARKING BUMPER.
89	2599-9999005	<u>PERENNIAL PLANTS, FURNISHED AND INSTALLED WITH WARRANTY</u> A. CONTRACTOR TO FURNISH AND INSTALL PERENNIAL PLANTS WHERE INDICATED ON 'Y' SHEETS. REFER TO DETAILS ON 'Y' SHEETS FOR INSTALLATION. B. SEE PLANT TABULATION ON SHEET Y.01 FOR PERENNIAL TYPES, QUANTITIES AND SIZES. C. PLANTING BACKFILL SHALL BE PER AMENDED PLANTING SOIL BID ITEM, MULCHING SHALL BE PER HARDWOOD MULCH BID ITEM. D. THIS ITEM TO BE PAID PER EACH PERENNIAL PLANT FURNISHED AND INSTALLED. PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED FOR INSTALLATION OF PERENNIAL PLANTS. EXCAVATION, PREPARATION, FURNISHING, PLACEMENT, FURNISHING WATER AND OTHER CARE, NECESSARY UNTIL FINAL ACCEPTANCE SHALL BE CONSIDERED INCIDENTAL. E. METHOD OF MEASUREMENT: EACH PERENNIAL PLANT WILL BE COUNTED. F. BASIS OF PAYMENT: PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE PER EACH. THIS ITEM INCLUDES ALL MATERIALS AND LABOR FOR COMPLETE INSTALLATION OF PERENNIAL PLANTS.

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90	2599-9999005	<u>STEP REPLACEMENT</u> A. THIS ITEM IS FOR THE REMOVAL AND REPLACEMENT OF CONCRETE STEP ADJACENT TO SIDEWALK OR CARRIAGE WALK. VARIATIONS IN THICKNESS AND WIDTH AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. REFER TO SHEET B.07 FOR DETAIL AND 'D' SHEETS FOR LOCATION. B. THIS ITEM TO BE MEASURED BY EACH CONCRETE STEP REMOVED OR REPLACED ADJACENT TO SIDEWALK OR CARRIAGE WALK. C. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER EACH CONCRETE STEP REMOVED OR REPLACED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO REMOVE AND REPLACE EACH CONCRETE STEP.
91	2599-9999009	<u>ELECTRICAL CONDUIT, OPEN CUT, HDPE OR PVC</u> A. REFER TO SHEET P.05 FOR LAYOUT. IN EACH CONDUIT INSTALL 1/2 INCH DETECTABLE POLYESTER PULLING TAPE WITH A MINIMUM BREAKING STRENGTH OF 1,000 LB AND MEASUREMENT MARKINGS. BOTH ENDS OF CONDUIT SHALL BE SEALED. B. THIS ITEM TO BE MEASURED BY LINEAR FEET OF ELECTRICAL CONDUIT INSTALLED. C. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER LINEAR FOOT OF ELECTRICAL CONDUIT INSTALLED. THIS ITEM INCLUDES TRENCHING, BACKFILL, COMPACTION, MATERIALS AND INSTALLATION OF ALL ELECTRICAL CONDUIT MATERIALS INCLUDING LONG SWEEPS INTO ELECTRICAL INFRASTRUCTURE. THIS COST SHALL ALSO INCLUDE ANY DIRECTIONAL DRILLING.
92	2599-9999010	<u>CONCRETE WASHOUT</u> A. MEASUREMENT: LUMP SUM ITEM; NO MEASUREMENT WILL BE MADE. B. PAYMENT: PAYMENT WILL BE AT THE LUMP SUM PRICE FOR CONCRETE WASHOUT. C. INCLUDES: LUMP SUM PRICE INCLUDES, BUT IS NOT LIMITED TO, PROVIDING CONCRETE WASHWATER CONTAINMENT, COLLECTION, AND DISPOSAL. REFER TO SHEET J.01 FOR EXECUTION INSTRUCTIONS.
93	2599-9999010	<u>MAINTENANCE OF POSTAL SERVICE</u> A. MEASUREMENT: LUMP SUM ITEM; NO MEASUREMENT WILL BE MADE. B. PAYMENT: PAYMENT WILL BE AT THE LUMP SUM PRICE FOR MAINTENANCE OF POSTAL SERVICE. C. INCLUDES: LUMP SUM PRICE INCLUDES, BUT IS NOT LIMITED TO, COORDINATING WITH USPS AND ERECTING AND MAINTAINING TEMPORARY MAILBOXES. CONTRACTOR TO MAINTAIN POSTAL SERVICE AT ALL TIMES DURING CONSTRUCTION. THERE MAY BE TIMES DURING CONSTRUCTION WHERE THE POSTAL SERVICE OR OTHER DELIVERY SERVICES MAY NOT HAVE ACCESS TO MAIL FACILITIES AT WHICH THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY ACCESS TO THOSE FACILITIES. TEMPORARY MAILBOX RELOCATION AND REINSTALLATION OR THE ESTABLISHMENT OF A TEMPORARY MAIL DROP BOX OR A COMBINATION OF THESE ITEMS SHALL BE INCLUDED IN THIS ITEM. REFER TO SHEET U.01 FOR SPECIAL DETAIL FOR TEMPORARY MAILBOXES. REFER TO SHEET J.01 FOR EXECUTION INSTRUCTIONS.
94	2599-9999010	<u>MAINTENANCE OF SOLID WASTE COLLECTION</u> A. MEASUREMENT: LUMP SUM ITEM; NO MEASUREMENT WILL BE MADE. B. PAYMENT: PAYMENT WILL BE AT THE LUMP SUM PRICE FOR MAINTENANCE OF SOLID WASTE COLLECTION. C. INCLUDES: LUMP SUM PRICE INCLUDES, BUT IS NOT LIMITED TO, COORDINATING AND MAINTAINING SOLID WASTE COLLECTION SERVICES INCLUDING ESTABLISHING ALTERNATE COLLECTION SITES IF REQUIRED. CONTRACTOR TO MAINTAIN SOLID WASTE COLLECTION AT ALL TIMES DURING CONSTRUCTION. THERE MAY BE TIMES DURING CONSTRUCTION WHERE THE SOLID WASTE COLLECTION AGENCIES MAY NOT HAVE ACCESS TO SOLID WASTE RECEPTACLES OR FACILITIES AT WHICH THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TEMPORARY ACCESS TO THOSE RECEPTACLES OR FACILITIES. THE ESTABLISHMENT OF A TEMPORARY TRASH PICKUP AREA SHALL BE COORDINATED WITH THE SOLID WASTE COLLECTION AGENCY PRIOR TO THE ESTABLISHMENT OF THE TEMPORARY AREA AND SHALL BE INCLUDED IN THIS ITEM. REFER TO SHEET J.01 FOR EXECUTION INSTRUCTIONS.

95	2599-9999014	<u>CONCRETE UNIT PAVERS WITH SAND SETTING BED & PCC SUBBASE (TYPE 'B' AND 'C')</u> A. THIS ITEM INCLUDES FURNISH AND INSTALLATION OF CONCRETE UNIT PAVERS WITH SAND SETTING BED AND PCC SUBBASE, PAVES TYPES 'B' AND 'C'. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. B. THIS ITEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING MATERIALS: CONCRETE BASE, SAND SETTING BED, CONCRETE UNIT PAVERS, GEOTEXTILE FABRIC AND POLYMERIC SAND FOR JOINT FILLER. CONCRETE BASE SHALL COMPLY WITH ALL SECTION 2511 REQUIREMENTS. TYPE "B" CONCRETE UNIT PAVERS SHALL MEET THE FOLLOWING REQUIREMENTS: GRANITE AND QUARTZ BLEND PAVES 8 IN. LONG AND 4 IN. WIDE NOMINAL WITH A 2-3/4 IN. (7CM) HEIGHT. PAVES SHALL INCLUDE A HEIGHTENED COLOR RETENTION FACE MIX FINISH AND SHALL INCLUDE A BEVELED EDGE. COLOR SHALL BE A CHARCOAL GRAY AND BLACK MIX. TYPE "C" CONCRETE UNIT PAVERS SHALL MEET THE FOLLOWING REQUIREMENTS: BE VARIABLE PAVES SIZES, INCLUDING 6.625" X 4.875", 13.25" X 4.875", 17.75" X 4.875", 8.875" X 7.375", 13.25" X 7.375", 17.75" X 7.375", 10.375" X 4.875" NOMINAL HEIGHT OF 2-3/4 IN. (7CM). PAVES SHALL INCLUDE A HEIGHTENED COLOR RETENTION FACE MIX FINISH AND SHALL INCLUDE A BEVELED EDGE. COLOR SHALL BE A BLEND OF BROWN, TAN, AND LIGHT GRAY. CONTRACTOR TO PROVIDE OWNER WITH COLOR SAMPLES FOR ALL TYPES FOR APPROVAL. CONCRETE UNIT PAVERS SHALL MEET THE MINIMUM REQUIREMENTS AND PHYSICAL PROPERTIES SET FORTH IN ASTM C 936, STANDARD SPECIFICATION FOR INTERLOCKING CONCRETE PAVING UNITS: AVERAGE COMPRESSIVE STRENGTH 8,000 PSI WITH NO INDIVIDUAL UNIT UNDER 7,200 PSI., AVERAGE ABSORPTION OF 5% WITH NO UNIT GREATER THAN 7% WHEN TESTED ACCORDING TO ASTM C 140, RESISTANCE TO FREEZE-THAW CYCLES, WHEN TESTED ACCORDING TO ASTM C1645, WITH NO BREAKAGE GREATER THAN 1.0% LOSS IN DRY WEIGHT OF ANY INDIVIDUAL UNIT. (THIS TEST METHOD SHOULD BE CONDUCTED NO MORE THAN 12 MONTHS PRIOR TO DELIVERY OF UNITS). C. PAVES TO MATCH CONCRETE UNIT PAVES PATTERN, COLOR AND FINISH INSTALLED ON MISSISSIPPI DRIVE BETWEEN PINE STREET AND WALNUT STREET OR APPROVED EQUAL. D. THICKENED CONCRETE EDGE FOR PCC SUBBASE AND REQUIRED REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. E. CONCRETE BASE PAVEMENT SHALL BE RECESSED FROM ADJOINING PAVEMENT FOR PLACEMENT OF CONCRETE UNIT PAVERS AS SHOWN IN DETAILS. PROVIDE A SMOOTH, LEVEL SURFACE WITH NO CONTROL JOINTS. PAVERS SHALL BE PLACED ON SMOOTH, COMPACTED BEDDING SAND MEETING ASTM C33 AND TIGHTLY SET BY HAND. PAVES JOINTS TO BE FILLED WITH POLYMERIC SAND MEETING ASTM C144. F. THE ENGINEER SHALL MEASURE THE SQUARE FOOT OF INSTALLED PAVERS. G. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF INSTALLED PAVERS.
96	2599-9999014	<u>HISTORIC PAVERS, TYPE 'A' WITH SAND SETTING BED & PCC SUBBASE (PAVERS FURNISHED BY CITY)</u> A. THIS ITEM INCLUDES THE INSTALLATION OF HISTORIC PAVERS TYPE 'A', ON SAND SETTING BED WITH PCC SUBBASE. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. THIS ITEM INCLUDES POLYMERIC SAND FOR JOINTS, SAND SETTING BED, GEOTEXTILE FABRIC, 4-INCH THICK CONCRETE BASE, REBAR, AND AGGREGATE SUBBASE. HISTORIC PAVERS TO BE FURNISHED BY OWNER. B. THIS ITEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING MATERIALS: CONCRETE BASE, SAND SETTING BED, CITY FURNISHED HISTORIC PAVERS, GEOTEXTILE FABRIC AND POLYMERIC SAND FOR JOINT FILLER. CONCRETE BASE SHALL COMPLY WITH ALL SECTION 2511 REQUIREMENTS. C. PAVES TO MATCH CONCRETE UNIT PAVES PATTERN, COLOR AND FINISH INSTALLED ON MISSISSIPPI DRIVE BETWEEN PINE STREET AND WALNUT STREET OR APPROVED EQUAL. D. THICKENED CONCRETE EDGE FOR PCC SUBBASE AND REQUIRED REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. E. CONCRETE BASE PAVEMENT SHALL BE RECESSED FROM ADJOINING PAVEMENT FOR PLACEMENT OF CONCRETE UNIT PAVERS AS SHOWN IN DETAILS. PROVIDE A SMOOTH, LEVEL SURFACE WITH NO CONTROL JOINTS. PAVERS SHALL BE PLACED ON SMOOTH, COMPACTED BEDDING SAND MEETING ASTM C33 AND TIGHTLY SET BY HAND. PAVES JOINTS TO BE FILLED WITH POLYMERIC SAND MEETING ASTM C144. F. THE ENGINEER SHALL MEASURE THE SQUARE FOOT OF INSTALLED PAVERS. G. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF INSTALLED PAVERS.
97	2599-9999014	<u>REINFORCED CONCRETE BAND, VARIABLE WIDTH</u> A. THIS ITEM INCLUDES ALL CONCRETE BANDS INDICATED AS 12", 18" AND 24" WIDTH. VARIATIONS IN THICKNESS AND WIDTH AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. REFER TO 'Y' SHEETS FOR LOCATIONS AND INSTALLATION DETAILS. B. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY THE CONTRACTOR. C. THIS ITEM TO BE MEASURED BY SQUARE FOOT OF REINFORCED CONCRETE BAND INSTALLED. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT UNIT PRICE PER SQUARE FOOT OF REINFORCED CONCRETE BAND INSTALLED. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL THE REINFORCED CONCRETE BANDS.
98	2601-2639010	<u>SODDING</u> REFER TO 'RR' SHEETS FOR LOCATIONS.
99	2601-2643110	<u>WATERING FOR SOD, SPECIAL DITCH CONTROL, OR SLOPE PROTECTION</u> REFER TO 'RR' SHEETS FOR LOCATIONS.

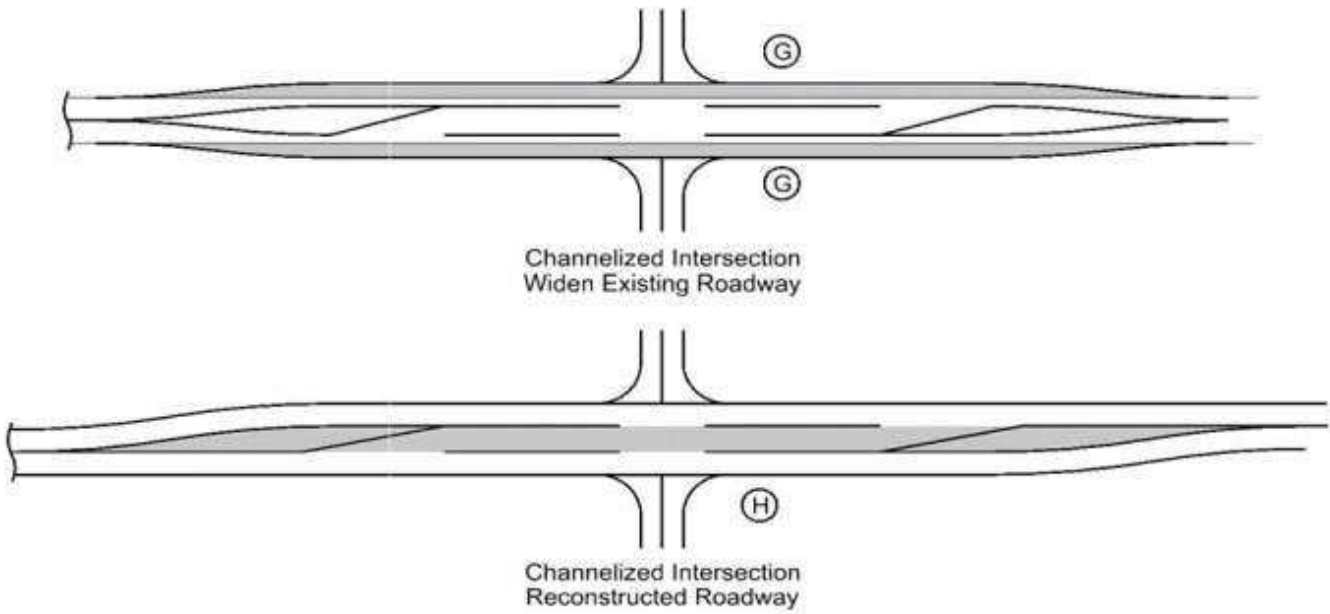
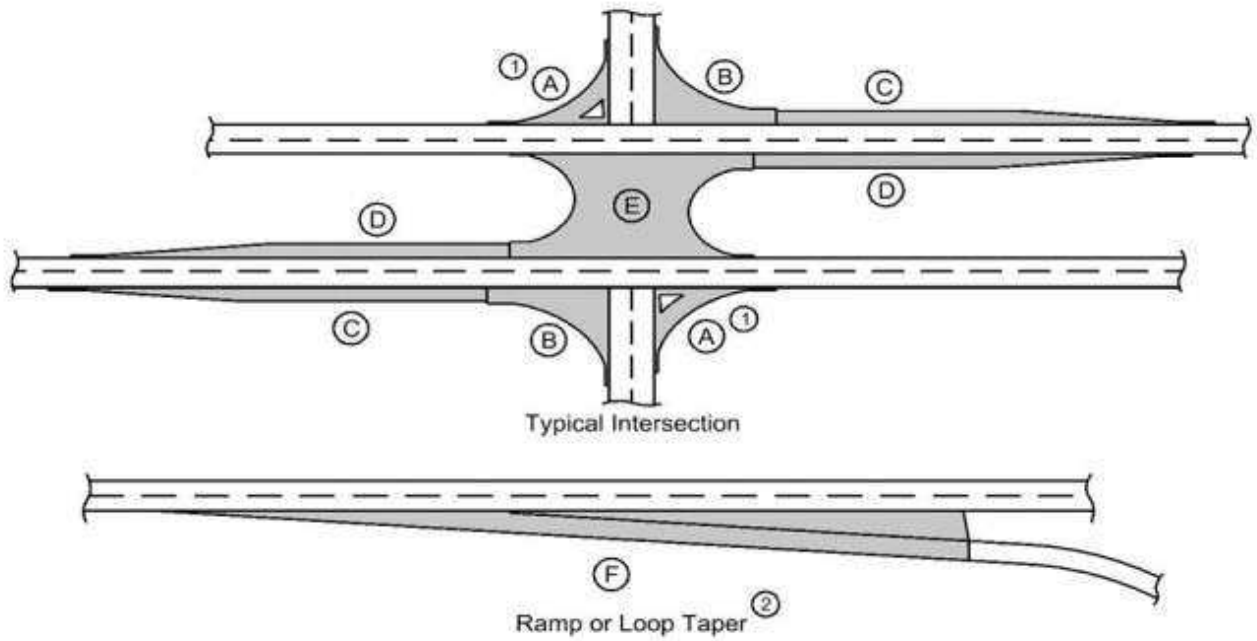
100	2602-0000312	<u>PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.03 FOR TABULATION.
101	2602-0000351	<u>REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.03 FOR TABULATION.
102	2602-0000500	<u>OPEN-THROAT CURB INTAKE SEDIMENT FILTER, EC-602</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.04 FOR TABULATION.
103	2602-0000510	<u>MAINTENANCE OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.04 FOR TABULATION.
104	2602-0000520	<u>REMOVAL OF OPEN-THROAT CURB INTAKE SEDIMENT FILTER</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.04 FOR TABULATION.
105	2602-0000530	<u>GRATE INTAKE SEDIMENT FILTER BAG, EC-604</u> REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.05 FOR TABULATION.
106	2602-0000540	<u>MAINTENANCE OF GRATE INTAKE SEDIMENT FILTER BAG</u> A. REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.05 FOR TABULATION. B. THIS ITEM SHALL BE PAID PER EACH GRATE INTAKE SEDIMENT FILTER BAG MAINTAINED THROUGHOUT THE PROJECT. THIS ITEM INCLUDES MAINTENANCE OF THE SEDIMENT FILTER BAG THROUGHOUT THE PROJECT REGARDLESS OF AMOUNT OF TIMES THE FILTER BAGS ARE MAINTAINED.
107	2602-0000550	<u>REMOVAL OF GRATE INTAKE SEDIMENT FILTER BAG</u> A. REFER TO 'RR' SHEETS FOR LOCATIONS AND SHEET RC.05 FOR TABULATION. B. THIS ITEM SHALL BE PAID PER EACH GRATE INTAKE SEDIMENT FILTER BAG REMOVED.
108	2602-0010010	<u>MOBILIZATIONS, EROSION CONTROL</u> REFER TO 'RR' SHEETS FOR LOCATIONS.
109	2602-0010020	<u>MOBILIZATIONS, EMERGENCY EROSION CONTROL</u> REFER TO 'RR' SHEETS FOR LOCATIONS.
110	2610-0000212	<u>MULCH, SHREDDED BARK</u> A. THIS ITEM SHALL BE PLACED AROUND TREES, UNDERSTORY TREES, SHRUBS, ORNAMENTAL GRASSES, AND PERENNIALS PER DETAILS ON SHEET Y.06. B. MULCH SHALL MEET THE FOLLOWING REQUIREMENTS: 1) FINELY SHREDDED, DOUBLE PROCESSED HARDWOOD BARK GRADED FROM 0.25 IN. - 0.5 IN. DIAMETER AND MAXIMUM OF 3 INCHES IN LENGTH. 2) GREEN OR FRESHLY CHIPPED OR SHREDDED MULCH SHALL BE REJECTED. 3) MULCH SHALL BE FREE OF WEEDS, WEED SEED, CHAFF, DISEASES, OR OTHER FOREIGN MATERIAL.
111	2611-0000100	<u>SHRUBS, FURNISHED AND INSTALLED WITH WARRANTY</u> A. CONTRACTOR TO FURNISH AND INSTALL SHRUBS WHERE INDICATED ON 'Y' SHEETS. REFER TO DETAILS IN 'Y' SHEETS FOR INSTALLATION. B. SEE PLANT TABULATION ON SHEET Y.01 FOR SHRUB TYPES, QUANTITIES, AND SIZES. C. PLANTING BACKFILL SHALL BE PER AMENDED PLANTING SOIL BID ITEM, MUCH SHALL BE PER HARDWOOD MULCH BID ITEM. D. THIS ITEM TO BE PAID PER EACH TREE FURNISHED AND INSTALLED. PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR INSTALLATION OF SHRUBS. EXCAVATION, PREPARATION, FURNISHING, PLACEMENT, FURNISHING WATER AND OTHER CARE, UNTIL FINAL ACCEPTANCE SHALL BE CONSIDERED INCIDENTAL.
112	2611-0000200	<u>TREES, FURNISHED AND INSTALLED WITH WARRANTY</u> A. CONTRACTOR TO FURNISH AND INSTALL TREES WHERE INDICATED ON 'Y' SHEETS. REFER TO DETAILS IN 'Y' SHEETS FOR INSTALLATION. B. SEE PLANT TABULATION ON SHEET Y.01 FOR TREE TYPES, QUANTITIES, AND SIZES. C. PLANTING BACKFILL SHALL BE PER AMENDED PLANTING SOIL BID ITEM, MUCH SHALL BE PER HARDWOOD MULCH BID ITEM. D. THIS ITEM TO BE PAID PER EACH TREE FURNISHED AND INSTALLED. PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR INSTALLATION OF TREES. EXCAVATION, PREPARATION, FURNISHING, PLACEMENT, FURNISHING WATER AND OTHER CARE, UNTIL FINAL ACCEPTANCE SHALL BE CONSIDERED INCIDENTAL.
113	2611-0000200	<u>UNDERSTORY TREES, FURNISHED AND INSTALLED WITH WARRANTY</u> A. CONTRACTOR TO FURNISH AND INSTALL TREES WHERE INDICATED ON 'Y' SHEETS. REFER TO DETAILS IN 'Y' SHEETS FOR INSTALLATION. B. SEE PLANT TABULATION SHEET ON Y.01 FOR TREE TYPES, QUANTITIES, AND SIZES. C. PLANTING BACKFILL SHALL BE PER AMENDED PLANTING SOIL BID ITEM, MUCH SHALL BE PER HARDWOOD MULCH BID ITEM. D. THIS ITEM TO BE PAID PER EACH TREE FURNISHED AND INSTALLED. PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR INSTALLATION OF TREES. EXCAVATION, PREPARATION, FURNISHING, PLACEMENT, FURNISHING WATER AND OTHER CARE, UNTIL FINAL ACCEPTANCE SHALL BE CONSIDERED INCIDENTAL.

111_25 4/30/25			
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105_04 10/21/25 STANDARDS The following Standards apply to construction work on this project.		
Number	Date	Title
DR-303	10-17-17	Subdrains (Longitudinal)
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-602	10-15-24	Open-Throat Curb Intake Sediment Filter
EC-603	10-17-23	Erosion Control for Intake or Manhole Well
EC-604	10-17-23	Grate Intake Sediment Filter Bag
EW-101	10-17-17	Embankment and Rebuilding Embankments
MI-102	10-20-15	Chain Link Fence Construction
MI-210	10-21-25	PCC Driveways and Alleys
MI-220	04-15-25	Detectable Warnings and Pedestrian Ramp
MI-221	10-21-25	Combined Retaining Wall - Sidewalk
PM-110	10-15-24	Line Types
PM-111	04-21-20	Symbols and Legends
PV-101	10-20-26	Joints
PV-102	10-21-25	PCC Curb Details
PV-103	10-21-25	Manhole Boxouts in PCC Pavement
PV-104	10-21-25	Ramped Median Nose
SI-101	04-19-16	Locations - Type 'A' Signs
SI-131	10-18-16	Installation - Type 'A' Signs
SI-171	04-18-17	Reference Location Sign Posts
SW-101	10-21-25	Trench Bedding and Backfill Zones
SW-102	10-21-25	Rigid Gravity Pipe Trench Bedding
SW-104	10-21-25	Pressure Pipe Trench Bedding
SW-201	10-21-25	Sanitary Sewer Service Stub
SW-211	10-21-25	Storm Sewer Pipe Connections
SW-301	10-21-25	Circular Sanitary Sewer Manhole
SW-401	10-21-25	Circular Storm Sewer Manhole
SW-502	10-21-25	Circular Single Grate Intake
SW-505	10-21-25	Double Grate Intake
SW-507	10-21-25	Single Open-Throat Intake, Small Box
SW-509	10-21-25	Double Open-Throat Curb Intake, Small Box
SW-512	10-21-25	Circular Area Intake
SW-514	10-21-25	Boxouts for Grate Intakes
SW-545	10-21-25	Single Open-Throat Curb Intake with Extended Opening
SW-601	10-21-25	Castings for Sanitary Sewer Manholes
SW-602	10-21-25	Castings for Storm Sewer Manholes
SW-603	10-21-25	Castings for Grate Intakes
SW-604	10-21-25	Castings for Area Intakes
TC-252	10-20-26	Routes Closed to Traffic
TC-253	04-18-23	Paved On-Site Detour
TC-601	10-15-19	Pedestrian Detour
WM-101	10-20-26	Thrust Blocks
WM-102	10-21-25	Tracer System
WM-201	10-21-25	Fire Hydrant Assembly

PCC PAVEMENT

100_24
10/15/24



(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area by Thickness - Thickness(IN)	Area by Thickness - Area (SY)	Polymer Grid (SY)	Special Backfill (TON)	Modified Subbase (CY)	Granular Subbase (SY)	Remarks
1.0	CARVER CORNER - MAINLINE	NB	5+60.00	5+75.00	19.5	15.00	32.00			35.20		11.70		
2.0	CARVER CORNER - MAINLINE	NB	5+75.00	6+50.00		75.00	163.60			180.40		60.10		
3.0	CARVER CORNER - MAINLINE	NB	6+50.00	10+79.20	19.0	429.20	912.90			1010.00		331.70		
4.0	CARVER CORNER - MAINLINE	SB	5+60.00	5+75.00	19.5	15.00	32.00			35.20		11.70		
5.0	CARVER CORNER - MAINLINE	SB	5+75.00	6+00.00		25.00	53.60			59.10		19.70		
6.0	CARVER CORNER - MAINLINE	SB	6+00.00	10+79.20	19.0	479.20	1005.20			1111.50		362.40		
7.0	MAIN ST - CENTERLINE	NB	900+28.77	901+00.00		71.23	131.40			124.60		46.20		
8.0	MAIN ST - CENTERLINE	SB	900+28.77	901+00.00		71.23	119.50			132.30		49.00		
9.0	CANAL ST - CENTERLINE		850+19.00	850+57.50		38.50	157.90			170.90		57.00		
10.0	CARVER CORNER - MAINLINE	NB	10+79.20	15+27.71		448.50	1010.70			1112.80		370.90		
11.0	CARVER CORNER - MAINLINE	SB	10+79.20	15+27.71		448.50	988.40			1076.90		359.00		
12.0	MILL ST - CENTERLINE		802+66.00	803+30.25		64.30	241.50			246.20		82.10		
13.0	GREEN ST - NORTHBOUND	NB	112+21.74	116+39.17		417.40	1100.10			1178.00		392.70		
14.0	GREEN ST - SOUTHBOUND	SB	122+21.66	125+01.00		279.30	741.30			794.80		264.90		
15.0	GREEN ST - MAINLINE [NORTH LEG]	SB	115+83.52	116+39.07		55.50	87.60			99.70		33.20		
16.0	CARVER CORNER - MAINLINE	EB	16+07.52	16+30.86		23.30	121.80			121.80		40.60		
17.0	GREEN ST - MAINLINE [NORTH LEG]	WB	41+80.11	42+02.41		22.30	92.20			92.20		30.70		
18.0	HERSHEY AVE - MAINLINE [WEST LEG]		31+62.00	32+18.01	41.0	56.00	255.40			255.40		85.10		
19.0	HERSHEY AVE - MAINLINE [WEST LEG]	WB	32+18.01	34+28.88		210.90	451.00			485.40		161.80		
20.0	HERSHEY AVE - MAINLINE [WEST LEG]	EB	32+18.02	34+29.14		211.10	471.80			485.10		161.70		
21.0	ALLEYWAY - CENTERLINE		1000+20.00	1001+98.43		178.40	414.30			494.10		164.70		
22.0	CARVER CORNER - MAINLINE	EB	17+79.49	19+88.33		208.80	443.90			467.70		154.30		
23.0	CARVER CORNER - MAINLINE	WB	17+75.38	19+88.42		213.00	479.70			498.80		166.20		
24.0	CARVER CORNER - MAINLINE		19+88.42	20+09.50		21.00	99.40			99.40		33.10		

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

102_03
10/15/24

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.

- (1) Refer to MI-210.
- (2) Refer to EW-501.
- (3) Refer to EW-501 or EW-502.

*Predetermined for access point not constructed with this project.

Line No.	Station	Side	Access Type	Descriptor	Case	Curb Type	Curb Length (1) (LF)	Width (FT)	PR (1) (2) (FT)	SR (2) (FT)	Driveway Surface Type	Driveway Surface Area (SY)	Driveway Surfacing Material (TON)	Remarks
1.0	7+28.90	Left	A		2	3.0 inch Dropped	49.5	39.5			PCC	111.8		
2.0	8+22.50	Left	A		2	3.0 inch Dropped	34.0	24.0			PCC	68.6		
3.0	9+71.01	Left	A		2	3.0 inch Dropped	51.6	39.5			PCC	120.3		EXTEND 3.0-inch Dropped CURB TO STA:10+35.00
4.0	11+84.61	Left	A		2	3.0 inch Dropped	32.3	24.0			PCC	60.3		PARKING LOT ENTRANCE DRIVEWAY TO 39.90' LT
5.0	14+52.51	Left	A		1	3.0 inch Dropped	35.7	26.0			PCC	67.4		INCLUDES PAVEMENT UP TO 14+69.52, 44.62' LT
6.0	18+88.68	Left	A		1	3.0 inch Dropped	29.9	14.0			PCC	43.8		25' RADIUS ON WEST SIDE ONLY
7.0	32+00.40	Right	A	Alley	2	3.0 inch Dropped	26.3	20.3			PCC	49.2		ROSELAWN AVENUE ALLEY ENTRANCE
8.0	42+53.80	Right	A		2	3.0 inch Dropped	31.0	24.5			PCC	53.6		PARKING LOT ENTRANCE DRIVEWAY TO 35.45' RT
9.0	802+66.00	Left	A	Alley	1	3.0 inch Dropped	13.5	3.5			PCC	9.4		PARTIAL WIDTH RECONSTRUCTION
10.0	900+70.18	Right									PCC	62.3		205 GRANDVIEW PARKING LOT TO 901+00.00, 32.17' RT
11.0	7+48.64	Left									PCC	81.5		205 GRANDVIEW PARKING LOT TO 8+10.50, 40.50' LT
12.0	9+28.02	Left									PCC	29.2		103 GRANDVIEW PARKING LOT TO 9+49.25, 44.00'LT
13.0	9+92.62	Left									PCC	85.7		103 GRANDVIEW PARKING LOT TO 10+63.93, 41.10' LT
14.0	802+66.00	Right									PCC	108.6		103 GRANDVIEW PARKING LOT TO 803+13.28, 18.60' RT
15.0	11+48.10	Left									PCC	15.5		200 GREEN ST PARKING LOT TO 11+67.80, 37.78' LT
16.0	11+93.71	Left									PCC	28.2		200 GREEN ST PARKING LOT TO 12+13.13, 43.70' LT
17.0	1100+38.22	Left									PCC	491.9		216 GREEN ST PARKING LOT TO 1100+72.92, 60.74' LT
18.0	18+13.04	Left									PCC	132.9		1033 HERSHEY PARKING LOT TO 18+90.88, 49.50' LT
19.0	19+83.80	Left									PCC	13.3		1033 HERSHEY PARKING LOT TO 20+06.50, 33.56' LT
20.0	42+07.84	Right									PCC	210.3		1045 HERSHEY PARKING LOT TO 42+67.00, 83.02' RT

104_05B
3/6/25

STORM SEWER

(1) Diameter or equivalent diameter
* Bid Item
** For SW-545
Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 2 ft length is added to each end of the Design Length to account for estimated length to center of structures.

No.	Location Station	Offset	Type or Standard Road Plan*	Form Grade Elev.	Notes	Line Number	Intake / Utility Access No. From	Intake / Utility Access No. To	Class 'D'	Pipe Size (1) (IN)	Bid Length* (FT)	Design Length (FT)	Slope %	Connected Pipe Joint (DR-121)	Flow Line Inlet Elev.	Flow Line Outlet Elev.	Flow Line Other Elev.	Pipe Profile Sheet No.	Notes
INTK - 01	5+67.50	19.5	SW-507	545.41	OFFSET LEFT	1	INTK - 02	INTK - 01	2000	15.0	39	39.0	0.5		542.60	542.80			
INTK - 02	5+67.50	19.5	SW-507	545.44	OFFSET RIGHT	2	INTK - 03	MH - 01	2000	15.0	25	23.0	0.5		541.70	541.82			
INTK - 03	900+80.00	14.0	SW-507	544.70	OFFSET RIGHT	3	INTK - 04	MH - 06	2000	15.0	59	56.0	0.5		541.75	542.03			
INTK - 04	900+80.00	13.5	SW-502 (60-INCH)	544.73	OFFSET LEFT	4	MH - 01	MH - 06	2000	18.0	46	46.0	0.1		541.65	541.70			18-IN. EQUIV ARCH
INTK - 05	7+60.00	19.0	SW-545	544.37	OFFSET LEFT	5	MH - 06	INTK - 01	2000	18.0	56	54.0	0.1		541.60	541.65			18-IN. EQUIV ARCH
INTK - 06	7+60.00	19.0	SW-545	544.37	OFFSET RIGHT	6	INTK - 05	MH - 01	2000	18.0	91	89.0	0.1		541.70	541.79			18-IN. EQUIV ARCH
INTK - 07	802+90.00	15.5	SW-505	544.96	CAST-IN-PLACE	7	INTK - 06	INTK - 05	2000	15.0	38	38.0	0.5		541.79	541.98			
INTK - 08	802+90.00	15.5	SW-509	544.96	OFFSET LEFT	8	INTK - 07	EX PIPE	2000	18.0	6	6.0	0.5		541.34	541.37			
INTK - 09	10+47.00	19.0	SW-545	544.43	OFFSET LEFT	9	INTK - 08	INTK - 07	2000	15.0	31	30.0	1.0		541.37	541.67			
INTK - 10	10+47.00	19.0	SW-545	544.43	OFFSET RIGHT	10	MH - 02	INTK - 07	2000	18.0	26	26.0	0.5		541.37	541.50			
INTK - 11	11+60.00	19.0	SW-509	545.40	OFFSET LEFT	11	MH - 02	INTK - 09	2000	15.0	51	46.0	0.5		541.60	541.83			
INTK - 12	11+60.00	19.0	SW-509	545.40	OFFSET RIGHT	12	INTK - 10	INTK - 09	2000	15.0	41	41.0	0.5		541.83	542.03			
INTK - 13	12+48.00	19.0	SW-509	547.42	OFFSET RIGHT	13	INTK - 11	MH - 02	2000	18.0	58	54.0	0.5		541.60	541.87			
INTK - 14	12+48.00	19.0	SW-509	547.42	OFFSET LEFT	14	INTK - 12	INTK - 11	2000	18.0	38	38.0	0.5		541.87	542.06			
INTK - 15	13+90.00	22.5	SW-509	551.23	OFFSET RIGHT	15	EX PIPE	INTK - 12	2000	18.0	16	16.0	0.5		542.07	542.15			
INTK - 16	13+90.00	22.5	SW-505	551.23	OFFSET LEFT	16	INTK - 13	INTK - 12	2000	18.0	92	84.0	0.8		542.16	542.79			
INTK - 17	15+95.00	47.4	SW-509	556.16	OFFSET RIGHT	17	INTK - 14	INTK - 13	2000	15.0	38	38.0	0.5		543.91	544.10			
INTK - 18	17+91.00	33.5	SW-509	557.89	OFFSET RIGHT	18	EX PIPE	INTK - 13	2000	12.0	12	12.0	0.5		542.81	542.87			
INTK - 19	17+87.00	31.8	SW-502 (60-INCH)	558.13	OFFSET LEFT	19	INTK - 15	INTK - 13	2000	18.0	143	135.0	2.0		543.59	546.27			
INTK - 20	17+95.00	53.8	SW-512 (36-INCH)	556.24	OFFSET LEFT	20	INTK - 16	INTK - 15	2000	15.0	45	44.0	1.5		547.27	547.93			
INTK - 21	15+98.00	27.3	SW-509	556.54	OFFSET LEFT	21	INTK - 18	INTK - 17	2000	18.0	161	157.0	0.5		551.54	552.32			
INTK - 22	34+20.00	46.1	SW-509	557.82	OFFSET RIGHT	22	INTK - 19	INTK - 18	2000	15.0	66	65.0	1.0		552.52	553.17			
INTK - 23	34+21.00	22.8	SW-502 (96-INCH)	558.38	OFFSET LEFT	23	INTK - 20	INTK - 19	2000	15.0	24	24.0	1.3		553.27	553.56			
INTK - 24	42+30.00	22.4	SW-509	560.16	OFFSET RIGHT	24	INTK - 17	INTK - 21	2000	18.0	78	78.0	0.5		551.05	551.44			
INTK - 25	42+35.00	15.5	SW-509	561.10	OFFSET LEFT	25	INTK - 21	INTK - 22	2000	18.0	75	66.0	1.0		550.29	550.95			
INTK - 26	42+77.00	13.7	SW-509	565.74	OFFSET LEFT	26	INTK - 22	INTK - 23	2000	24.0	69	64.0	1.0		549.25	549.89			
INTK - 27	42+77.00	14.3	SW-509	565.87	OFFSET RIGHT	27	MH - 03	INTK - 23	2000	48.0	59	55.0	0.5		547.75	548.03			
INTK - 28	33+41.00	20.5	SW-505	559.54	OFFSET LEFT	28	MH - 04	MH - 03	2000	15.0	41	41.0	8.0		553.53	556.77			
INTK - 29	33+69.00	36.0	SW-512 (36-INCH)	558.05	OFFSET LEFT	29	INTK - 24	MH - 04	2000	15.0	22	22.0	1.0		556.87	557.08			
INTK - 30	19+45.67	36.4	SW-512 (18-INCH)	558.15	OFFSET LEFT	30	INTK - 25	MH - 04	2000	15.0	17	17.0	1.0		556.87	557.04			
INTK - 31	19+82.18	33.2	SW-512 (18-INCH)	558.21	OFFSET LEFT	31	INTK - 26	INTK - 25	2000	15.0	44	40.0	8.0		557.57	560.71			
MH - 01	6+69.00	21.5	SW-401 (72-INCH)	544.48	OFFSET LEFT	32	INTK - 27	INTK - 26	2000	15.0	31	31.0	1.0		562.11	562.42			
MH - 02	11+00.00	29.0	SW-401 (72-INCH)	544.28	OFFSET LEFT	33	INTK - 28	MH - 05	2000	15.0	19	14.0	1.0		554.85	554.99			
MH - 03	41+91.35	9.2	SW-401 (96-INCH)	558.86	OFFSET LEFT	34	INTK - 29	INTK - 28	2000	15.0	37	37.0	1.0		555.49	555.86			
MH - 04	42+30.00	1.0	SW-401 (60-INCH)	560.46	OFFSET RIGHT	35	INTK - 31	INTK - 30	PVC	12.0	39	39.0	0.5		554.63	554.82			12-IN. PVC
MH - 05	33+44.00	1.5	SW-301 (96-INCH)	559.84	OFFSET LEFT	36	INTK - 30	5 HORIZ. BEND	PVC	12.0	36	36.0	0.5		554.35	554.53			12-IN. PVC
MH - 06	6+23.00	20.8	SW-401 (72-INCH)	545.32	OFFSET LEFT	37	5 HORIZ. BEND	12 HORIZ. BEND	PVC	12.0	79	79.0	0.5		553.95	554.35			12-IN. PVC
						38	12 HORIZ. BEND	INTK - 20	PVC	12.0	48	48.0	0.5		553.71	553.95			12-IN. PVC

104_05C
8/15/22

LIST OF SUBDRAIN WORK

Possible Standards: DR-121, DR-201, DR-203, DR-301, DR-302, DR-303, DR-305 and DR-306. Possible Detail: 500-10.

* Not a bid item

Line No.	Station From	Station To	Type of Installation	Pipe Type	Pipe Diameter (IN)	Pipe Length (LF)	Apron Type	Apron Quantity	Outlet Type	Outlet Quantity	Connected Pipe Joints Type* (DR-121)	Connected Pipe Joints No.* (DR-121)	Trench Drain (LF)	Granular Blanket Material (CY)	Porous Backfill* (CY)	Class ""A"" Crushed Stone* (CY)	Remarks
1.0	5+70.00	6+00.50			6.0	30.5											OFFSET RIGHT
2.0	6+00.50	7+57.50			6.0	157.0											OFFSET RIGHT
3.0	7+62.50	8+50.00			6.0	87.5											OFFSET RIGHT
4.0	7+62.50	9+20.00			6.0	157.5											OFFSET LEFT
5.0	9+20.00	10+44.37			6.0	118.9											OFFSET LEFT
6.0	9+20.00	10+44.62			6.0	130.2											OFFSET RIGHT
7.0	10+49.41	11+55.69			6.0	111.0											OFFSET RIGHT
8.0	11+64.72	12+43.29			6.0	75.1											OFFSET LEFT
9.0	12+52.71	13+86.17			6.0	133.8											OFFSET LEFT
10.0	13+93.84	14+35.00			6.0	43.1											OFFSET LEFT
11.0	14+35.00	15+93.92			6.0	168.8											OFFSET LEFT
12.0	13+94.47	15+88.03			6.0	185.1											OFFSET RIGHT

FILE NO.

ENGLISH

DESIGN TEAM

Bolton & Menk CR

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

SHEET NUMBER

C.11

2/16/2026 3:40:24 PM

BRANDONKAKERT@IOWAID

104_10
4/16/24

ADJUSTMENT OF FIXTURES						
Line No.	Item No.	Location Station	Side	Distance	Type of Fixture	Adjustment
1.0	2554-0212030	6+56.77	Left	-0.41'	VALVE BOX	VALVE BOX REPLACEMENT
2.0	2554-0212030	8+09.16	Left	-0.76'	VALVE BOX	VALVE BOX REPLACEMENT
3.0	2554-0214000	8+62.74	Left	0.5'	FIRE HYDRANT	FIRE HYDRANT ADJUSTMENT
4.0	2554-0212030	14+10.89	Right	0.04'	VALVE BOX	VALVE BOX REPLACEMENT
5.0	2554-0214000	14+68.30	Left	SEE MWM.04	FIRE HYDRANT	FIRE HYDRANT ADJUSTMENT
6.0	2554-0212030	31+98.92	Right	0.04'	VALVE BOX	VALVE BOX REPLACEMENT
7.0	2435-0600010	33+24.06	Left	0.01'	SANITARY MANHOLE	MINOR MANHOLE ADJUSTMENT
8.0	2554-0212030	33+89.18	Left	-0.88'	VALVE BOX	VALVE BOX REPLACEMENT
9.0	2435-0600010	34+79.45	Left	0.92'	SANITARY MANHOLE	MINOR MANHOLE ADJUSTMENT
10.0	2554-0212030	34+94.52	Left	1.28'	VALVE BOX	VALVE BOX REPLACEMENT
11.0	2554-0214000	42+20.26	Right	SEE MWM.04	FIRE HYDRANT	FIRE HYDRANT ADJUSTMENT
12.0	2435-0600010	19+75.99	Left	-0.01'	SANITARY MANHOLE	MINOR MANHOLE ADJUSTMENT
13.0	2435-0600010	19+77.26	Right	0.16'	SANITARY MANHOLE	MINOR MANHOLE ADJUSTMENT

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.

*BCY4 - Place on the same side of the roadway to match existing markings near the project.

**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.

***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17

BCY6: Broken Centerline (Yellow) @ 0.25

BLC6: Broken Line Contrast (White/Black) @ 0.50

BLW4: Broken Lane Line (White) @ 0.17

BLW6: Broken Lane Line (White) @ 0.25

CBW6: Crosswalk Bar (White) @ 10.00

CHW8: Channelizing Line (White) @ 1.33

CHW10: Channelizing Line (White) @ 1.67

CHY8: Channelizing Line (Yellow) @ 1.33

CHY10: Channelizing Line (Yellow) @ 1.67

CLW6: Crosswalk Line (White) @ 2.00

DCY4: Double Centerline (Yellow) @ 1.34

DCY6: Double Centerline (Yellow) @ 2.00

DDY4: Double Dotted Line (Yellow) @ 0.44

DDY6: Double Dotted Line (Yellow) @ 0.67

DLW4: Dotted Line (White) @ 0.22

DLW6: Dotted Line (White) @ 0.33

DLY4: Dotted Line (Yellow) @ 0.22

DLY6: Dotted Line (Yellow) @ 0.33

ELW4: Edge Line Right (White) @ 0.67

ELW6: Edge Line Right (White) @ 1.00

ELY4: Edge Line Left (Yellow) @ 0.67

ELY6: Edge Line Left (Yellow) @ 1.00

LDW8: Lane Drop (White) @ 0.33

LDW10: Lane Drop (White) @ 0.42

MNY6: Median Nose (Yellow) @ 1.00

NPY4: No Passing Zone Line (Yellow) @ 0.84

NPY6: No Passing Zone Line (Yellow) @ 1.25

RLW4: Ramp Edge Line Right (White) @ 0.67

RLW6: Ramp Edge Line Right (White) @ 1.00

RLY4: Ramp Edge Line Left (Yellow) @ 0.67

RLY6: Ramp Edge Line Left (Yellow) @ 1.00

SLW2: Stop Line (White) @ 4.00

SLW4: Solid Lane Line (White) @ 0.67

SLW6: Solid Lane Line (White) @ 1.00

SPW4: Sloped Curb 4" (White) @ 2.16

SPW6: Sloped Curb 6" (White) @ 2.28

SPY4: Sloped Curb 4" (Yellow) @ 2.16

SPY6: Sloped Curb 6" (Yellow) @ 2.28

STW6: Standard Curb 6" (Yellow) @ 2.03

STY6: Standard Curb 6" (Yellow) @ 2.03

YLW2: Yield Line (White) @ 1.15

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	CHY10 Factored (STA)	DCY6 Factored (STA)	DLW4 Factored (STA)	ELW6 Factored (STA)	ELY6 Factored (STA)	NPY6** Factored (STA)	SPW4 Factored (STA)	YLW2 Factored (STA)	Remarks
1.0	GRANDVIEW AVE	5+60.00	6+10.00	SB	Durable Paint	1			Yes	0.63						0.63			
2.0	GRANDVIEW AVE	5+60.00	6+10.00	NB	Durable Paint			1	Yes	0.63						0.63			
3.0	GRANDVIEW AVE	6+94.60	10+79.20	SB	Durable Paint	1			Yes	4.81						4.81			
4.0	GRANDVIEW AVE	6+94.60	10+79.20	NB	Durable Paint			1	Yes	4.84						4.84			
5.0	GREEN ST	11+56.80	14+72.00	SB	Durable Paint	1			Yes	3.94						3.94			
6.0	GREEN ST	11+56.80	14+71.50	NB	Durable Paint			1	Yes	3.95						3.95			
7.0	GREEN ST	14+72.00	15+80.50	SB	Durable Paint	1			Yes	1.09					1.09				
8.0	GREEN ST	14+71.50	15+77.00	NB	Durable Paint			1	Yes	1.06					1.06				
9.0	GREEN ST	15+24.60	15+43.50	Both	Durable Paint	1			No								2.92		SLY4
10.0	GREEN ST	15+39.00	15+46.10	Both	Durable Paint	1			No								3.78		SLY4
11.0	GREEN ST	15+86.30	16+04.00	SB	Durable Paint	1			Yes	0.19					0.19				
12.0	GREEN ST	15+83.20	16+05.90	NB	Durable Paint			1	Yes	0.22					0.22				
13.0	GREEN ST	16+04.00	16+13.60	SB	Durable Paint	1			Yes	0.12				0.12					
14.0	GREEN ST	16+05.90	16+12.40	NB	Durable Paint			1	Yes	0.07				0.07					
15.0	GREEN ST	16+12.40	16+13.60	Both	Durable Paint		1		Yes	0.43				0.43					
16.0	GREEN ST	15+97.70	16+05.90	NB	Multi-Component Liquid Material			1	Yes	0.26								0.26	
17.0	GREEN ST	16+12.40	16+38.30	NB	Multi-Component Liquid Material			1	Yes	0.09			0.09						DLW12
18.0	GREEN ST	16+27.90	17+28.30	NB	Durable Paint			1	Yes	1.17					1.17				
19.0	HERSHEY AVE	17+28.30	17+48.60	WB	Durable Paint			1	Yes	0.93					0.93				
20.0	HERSHEY AVE	17+65.80	17+72.00	WB	Multi-Component Liquid Material	1			Yes	0.07			0.07						DLW12
21.0	HERSHEY AVE	17+77.20	17+84.00	WB	Multi-Component Liquid Material	1			Yes	0.23								0.23	
22.0	HERSHEY AVE	17+66.70	17+72.00	Both	Durable Paint		1		Yes	0.41				0.41					
23.0	HERSHEY AVE	17+72.00	17+77.20	WB	Durable Paint	1			Yes	0.06				0.06					
24.0	HERSHEY AVE	17+66.70	17+78.00	EB	Durable Paint			1	Yes	0.12				0.12					
25.0	HERSHEY AVE	17+77.20	17+96.20	WB	Durable Paint	1			Yes	0.21					0.21				
26.0	HERSHEY AVE	17+78.00	17+96.80	EB	Durable Paint			1	Yes	0.19					0.19				
27.0	HERSHEY AVE	18+02.00	19+88.60	WB	Durable Paint	1			Yes	1.90					1.90				
28.0	HERSHEY AVE	18+02.80	19+88.10	EB	Durable Paint			1	Yes	1.85					1.85				
29.0	HERSHEY AVE	18+19.10	18+65.90	Both	Durable Paint	1			No								3.89		SLY4
30.0	HERSHEY AVE	19+88.60	20+45.50	WB	Durable Paint	1			Yes	0.72						0.72			
31.0	HERSHEY AVE	19+88.10	20+40.50	EB	Durable Paint			1	Yes	0.65						0.65			
32.0	HERSHEY AVE	31+18.50	31+49.70	Both	Durable Paint		1		Yes	0.62		0.62							
33.0	HERSHEY AVE	31+49.70	32+18.00	WB	Multi-Component Liquid Material	1			Yes	1.15	1.15								
34.0	HERSHEY AVE	31+49.70	32+18.00	EB	Multi-Component Liquid Material			1	Yes	1.15	1.15								
35.0	HERSHEY AVE	31+69.90	31+73.70	Both	Multi-Component Liquid Material		1		Yes	0.10	0.10								
36.0	HERSHEY AVE	31+89.90	31+95.90	Both	Multi-Component Liquid Material		1		Yes	0.17	0.17								
37.0	HERSHEY AVE	32+09.90	32+18.00	Both	Multi-Component Liquid Material		1		Yes	0.20	0.20								
38.0	HERSHEY AVE	32+18.00	34+06.00	WB	Durable Paint	1			Yes	1.90					1.90				
39.0	HERSHEY AVE	32+18.00	34+03.30	EB	Durable Paint			1	Yes	1.85					1.85				
40.0	HERSHEY AVE	34+11.90	34+28.80	WB	Durable Paint	1			Yes	0.18					0.18				
41.0	HERSHEY AVE	34+09.10	34+29.20	EB	Durable Paint			1	Yes	0.22					0.22				
42.0	HERSHEY AVE	34+28.80	34+38.40	WB	Durable Paint	1			Yes	0.11				0.11					
43.0	HERSHEY AVE	34+29.20	34+33.90	EB	Durable Paint			1	Yes	0.06				0.06					

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - Estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17
CBW6: Crosswalk Bar (White) @ 10.00
CLW6: Crosswalk Line (White) @ 2.00
DLW4: Dotted Line (White) @ 0.22
ELW6: Edge Line Right (White) @ 1.00
MNY6: Median Nose (Yellow) @ 1.00
RLY4: Ramp Edge Line Left (Yellow) @ 0.67
SPW4: Sloped Curb 4" (White) @ 2.16
STY6: Standard Curb 6" (Yellow) @ 2.03

BCY6: Broken Centerline (Yellow) @ 0.25
CHW8: Channelizing Line (White) @ 1.33
DCY4: Double Centerline (Yellow) @ 1.34
DLW6: Dotted Line (White) @ 0.33
ELY4: Edge Line Left (Yellow) @ 0.67
NPY4: No Passing Zone Line (Yellow) @ 0.84
RLY6: Ramp Edge Line Left (Yellow) @ 1.00
SPW6: Sloped Curb 6" (White) @ 2.28
YLW2: Yield Line (White) @ 1.15

BLC6: Broken Line Contrast (White/Black) @ 0.50
CHW10: Channelizing Line (White) @ 1.67
DCY6: Double Centerline (Yellow) @ 2.00
DLY4: Dotted Line (Yellow) @ 0.22
ELY6: Edge Line Left (Yellow) @ 1.00
NPY6: No Passing Zone Line (Yellow) @ 1.25
SLW2: Stop Line (White) @ 4.00
SPY4: Sloped Curb 4" (Yellow) @ 2.16

BLW4: Broken Lane Line (White) @ 0.17
CHY8: Channelizing Line (Yellow) @ 1.33
DDY4: Double Dotted Line (Yellow) @ 0.44
DLY6: Dotted Line (Yellow) @ 0.33
LDW8: Lane Drop (White) @ 0.33
RLW4: Ramp Edge Line Right (White) @ 0.67
SLW4: Solid Lane Line (White) @ 0.67
SPY6: Sloped Curb 6" (Yellow) @ 2.28

BLW6: Broken Lane Line (White) @ 0.25
CHY10: Channelizing Line (Yellow) @ 1.67
DDY6: Double Dotted Line (Yellow) @ 0.67
ELW4: Edge Line Right (White) @ 0.67
LDW10: Lane Drop (White) @ 0.42
RLW6: Ramp Edge Line Right (White) @ 1.00
SLW6: Solid Lane Line (White) @ 1.00
STW6: Standard Curb 6" (Yellow) @ 2.03

Line No.	Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	Groove Marking Needed?	Groove Qty. (STA)	CHY10 Factored (STA)	DCY6 Factored (STA)	DLW4 Factored (STA)	ELW6 Factored (STA)	ELY6 Factored (STA)	NPY6** Factored (STA)	SPW4 Factored (STA)	YLW2 Factored (STA)	Remarks
44.0	HERSHEY AVE	34+33.90	34+38.40	Both	Durable Paint		1		Yes	0.36				0.36					
45.0	HERSHEY AVE	34+29.20	34+20.10	EB	Multi-Component Liquid Material			1	Yes	0.26								0.26	
46.0	HERSHEY AVE	34+33.90	34+44.70	EB	Multi-Component Liquid Material			1	Yes	0.09			0.09						DLW12
47.0	HERSHEY AVE	34+53.40	35+10.20	EB	Durable Paint			1	Yes	1.02					1.02				
48.0	GREEN ST	41+53.10	41+73.80	SB	Durable Paint		1		Yes	1.04					1.04				
49.0	GREEN ST	42+00.30	42+00.70	SB	Multi-Component Liquid Material	1			Yes	0.06			0.06						DLW12
50.0	GREEN ST	42+05.00	42+09.00	SB	Multi-Component Liquid Material	1			Yes	0.20								0.20	
51.0	GREEN ST	41+97.80	42+00.70	Both	Durable Paint		1		Yes	0.27				0.27					
52.0	GREEN ST	42+00.70	42+05.00	SB	Durable Paint	1			Yes	0.06				0.06					
53.0	GREEN ST	41+97.80	42+04.80	NB	Durable Paint			1	Yes	0.08				0.08					
54.0	GREEN ST	42+05.00	42+12.00	SB	Durable Paint	1			Yes	0.09					0.09				
55.0	GREEN ST	42+04.80	42+11.50	NB	Durable Paint			1	Yes	0.07					0.07				
56.0	GREEN ST	42+17.80	42+23.20	SB	Durable Paint	1			Yes	0.06					0.06				
57.0	GREEN ST	42+17.70	42+23.30	NB	Durable Paint			1	Yes	0.06					0.06				
58.0	GREEN ST	42+23.20	42+46.70	SB	Multi-Component Liquid Material	1			Yes	0.40	0.40								
59.0	GREEN ST	42+23.30	42+46.70	NB	Multi-Component Liquid Material			1	Yes	0.40	0.40								
60.0	GREEN ST	42+24.80	42+28.60	Both	Multi-Component Liquid Material		1		Yes	0.13	0.13								
61.0	GREEN ST	42+35.30	42+38.70	Both	Durable Paint			1	No								2.72		SLY4
62.0	GREEN ST	42+40.00	42+41.20	Both	Multi-Component Liquid Material		1		Yes	0.05	0.05								
63.0	GREEN ST	42+46.70	42+85.00	Both	Durable Paint			1	Yes	0.78		0.78							

PAVEMENT MARKING SYMBOLS AND LEGENDS							
Refer to PM-111							
Line No.	Roadway Identification	Station	Side	Pavement Symbol	Quantity (EA)	Groove Marking Needed?	Remarks
1.0	GRANDVIEW AVE	7+44.60	Median	LTAW	2	Yes	MMA with Grooving
2.0	GRANDVIEW AVE	10+29.20	Median	LTAW	2	Yes	MMA with Grooving
3.0	GREEN ST	12+06.90	Median	LTAW	2	Yes	MMA with Grooving
4.0	GREEN ST	13+84.80	Median	LTAW	2	Yes	MMA with Grooving

108_29
4/15/25

REMOVAL OF PAVEMENT								
* Not a bid item.								
Line No.	Station From	Station To	Side	Pavement Type	Width (FT)	Area (SY)	Saw Cut* (LF)	Remarks
1.0	1005+60.02	1006+11.25	Both	PCC	39.0	240.9	39.0	EXISTING CL - GRANDVIEW 12-INCH THICKNESS
2.0	1006+11.25	1009+00.00	Both	HMA	45.5	1459.7		EXISTING CL - GRANDVIEW 12-INCH THICKNESS
3.0	1009+00.00	1011+08.16	Both	HMA	45.5	1090.8		EXISTING CL - GRANDVIEW 12-INCH THICKNESS
4.0	1011+08.16	1015+00.00	Both	HMA	45.5	2046.9		EXISTING CL - GRANDVIEW 12-INCH THICKNESS
5.0	1015+00.00	1017+24.59	Both	HMA	45.5	1391.9		EXISTING CL - GRANDVIEW 12-INCH THICKNESS
6.0	2013+60.92	2016+03.67	Left	PCC	20.6	541.2	20.6	EXISTING CL - HERSHEY 12-INCH THICKNESS
7.0	2013+60.92	2016+03.67	Right	PCC	20.6	569.9	20.6	EXISTING CL - HERSHEY 12-INCH THICKNESS
8.0	2016+03.67	2020+09.50	Left	PCC	21.0	939.0	21.0	EXISTING CL - HERSHEY 12-INCH THICKNESS
9.0	2016+03.67	2020+09.50	Right	PCC	22.0	979.8	20.0	EXISTING CL - HERSHEY 12-INCH THICKNESS
10.0	2020+09.50	2020+34.00	Right	PCC	2.0	5.6	26.4	EXISTING CL - HERSHEY CURB AND GUTTER
11.0	42+14.00	42+92.50	Both	PCC	28.4	299.0	39.2	GREEN ST - MAINLINE 12-INCH THICKNESS
12.0	802+66.00	803+06.33	Both	PCC	31.0	138.7	31.0	MILL ST - CENTERLINE 12-INCH THICKNESS
13.0	900+34.60	901+00.00	Both	PCC	26.9	216.8	26.9	MAIN ST - CENTERLINE 12-INCH THICKNESS

110_01
4/5/24

110_05 8/15/22						
SIDEWALK REMOVAL						
* Not a bid item						
Line No.	Station From	Station To	Width (FT)	Area (SY)	Saw Cut* (LF)	Remarks
1.0	1005+60.00	1006+74.03	5.0	76.4	9.5	EXISTING CL - GRANDVIEW OFFSET LEFT
2.0	1005+60.00	1008+73.12	5.0	183.5	5.0	EXISTING CL - GRANDVIEW OFFSET RIGHT
3.0	1006+79.61	1010+52.03	5.0	218.5		EXISTING CL - GRANDVIEW OFFSET LEFT
4.0	1009+00.90	1012+69.65	4.0	170.8		EXISTING CL - GRANDVIEW OFFSET RIGHT
5.0	1011+38.98	1014+41.60	4.0	145.8		EXISTING CL - GRANDVIEW OFFSET LEFT
6.0	1014+78.47	1017+23.36	6.0	158.2		EXISTING CL - GRANDVIEW OFFSET LEFT
7.0	1014+32.59	1017+06.91	5.0	177.7		EXISTING CL - GRANDVIEW OFFSET RIGHT
8.0	1100+90.89	1101+09.98	5.0	10.8	10.0	216 GREEN ST - PARKING LOT ALIGNMENT
9.0	2013+60.98	2016+54.88	9.5	273.3	74.0	PRESERVE PANELS ADJACENT TO BUILDING 1203 HERSHEY
10.0	2013+61.00	2013+88.88	8.5	29.3	12.0	EXISTING CL - HERSHEY OFFSET RIGHT
11.0	2014+09.18	2014+89.02	8.5	80.9	4.0	EXISTING CL - HERSHEY OFFSET RIGHT
12.0	2015+05.77	2015+75.52	6.0	45.0		EXISTING CL - HERSHEY OFFSET RIGHT
13.0	2016+87.50	2020+34.00	7.0	295.7	14.2	EXISTING CL - HERSHEY OFFSET RIGHT
14.0	2017+05.69	2020+06.10	7.0	281.3	43.0	PRESERVE PANELS ADJACENT TO BUILDING 1045 HERSHEY
15.0	42+18.44	42+92.50	4.0	36.5	4.0	GREEN ST - MAINLINE OFFSET LEFT
16.0	42+46.98	42+92.50	4.0	19.0	4.0	GREEN ST - MAINLINE OFFSET RIGHT

							110_08 8/15/22
REMOVAL OF CONCRETE DRIVES							
* Not a Bid Item.							
Line No.	Station	Side	Length (FT)	Width (FT)	Area (SY)	Saw Cut* (LF)	Remarks
1.0	1006+78.26	Left	161.3	12.0	231.6	144.1	205 GRANDVIEW AVE PARKING LOT WIDTH VARIES
2.0	1009+27.83	Left	154.6	15.0	273.6	172.2	103 GRANDVIEW AVE PARKING LOT WIDTH VARIES
3.0	1011+15.17	Left	141.2	15.0	168.4	141.2	200 GREEN ST PARKING LOT WIDTH VARIES
4.0	1014+61.41	Left	234.6	14.0	352.3	234.6	216 GREEN ST PARKING LOT WIDTH VARIES
5.0	2013+98.91	Right	20.6	20.3	49.1	20.3	ROSELAWN AVE EXISTING DRIVEWAY
6.0	2014+97.59	Right	178.7	16.0	314.6	45.9	EXISTING ALLEYWAY WIDTH VARIES
7.0	2017+02.59	Left	66.5	43.0	245.8		1045 HERSHEY AVE PARKING LOT WIDTH VARIES
8.0	2017+98.99	Left	104.9	6.0	61.8	104.9	1033 HERSHEY AVE PARKING LOT WIDTH VARIES
9.0	2018+62.52	Right	125.0	39.7	550.7	125.0	1056 HERSHEY AVE PAVEMENT WIDTH VARIES
10.0	2019+82.73	Left	25.9	5.0	15.8	30.9	1033 HERSHEY AVE PARKING SPACE

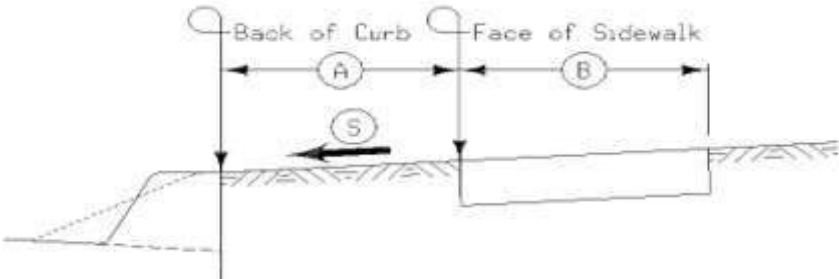
SANITARY OR STORM SEWER ABANDONMENT OR REMOVAL							110_14 7/11/24
* Not a bid item							
Line No.	Location Description	Sewer and Work Type	≤ 36 inch Diameter (LF)	> 36 inch Diameter (LF)	Plug Quantity (EA)	* Flowable Mortar or CLSM (CY)	Remarks
1.0	5+67.42 to 5+68.41	Storm Sewer - Removal	43.0				
2.0	5+68.41 to 6+69.01	Storm Sewer - Removal	101.0				
3.0	6+62.33 to 6+80.89	Storm Sewer - Removal	36.0				
4.0	6+69.01 to 6+80.89	Storm Sewer - Removal	17.0				
5.0	6+68.29 to 6+69.01	Storm Sewer - Removal	47.0				
6.0	6+69.01 to 7+42.19	Storm Sewer - Removal	73.0				
7.0	7+42.19 to 10+37.61	Storm Sewer - Removal	288.0				
8.0	10+89.76 to 11+14.95	Storm Sewer - Removal	34.0				
9.0	10+89.76 to 11+02.33	Storm Sewer - Removal	31.0				
10.0	11+02.33 to 11+50.97	Storm Sewer - Removal	46.0				
11.0	11+50.97 to 11+58.95	Storm Sewer - Removal	51.0				
12.0	11+58.95 to 11+60.38	Storm Sewer - Removal	11.0				
13.0	10+40.46 to 11+58.95	Storm Sewer - Removal	124.0				
14.0	11+58.95 to 12+47.87	Storm Sewer - Removal	94.0				
15.0	12+47.87 to 12+47.92	Storm Sewer - Removal	6.0				
16.0	33.71.07 to 33+76.45	Storm Sewer - Removal	40.0				
17.0	34+21.41 to 34+72.29	Storm Sewer - Removal		60.0			
18.0	41+91.35 to 42+30.27	Storm Sewer - Removal	44.0				
19.0	41+91.35 to 42+26.60	Storm Sewer - Removal	44.0				
20.0	42+26.60 to 42+54.80	Storm Sewer - Removal	26.0				
21.0	42+30.27 to 42+54.23	Storm Sewer - Removal	26.0				
22.0	42+54.23 to 42+81.46	Storm Sewer - Removal	28.0				
23.0	42+54.80 to 42+81.42	Storm Sewer - Removal	27.0				

REMOVAL OF INTAKES AND UTILITY ACCESSES				
Line No.	Item No.	Location Description	Type	Remarks
1.0	2510-6750600	5+67.42, 21.57' RT	Intakes	REMOVAL OF STORM INTAKE
2.0	2510-6750600	5+68.41, 21.16' LT	Intakes	REMOVAL OF STORM INTAKE
3.0	2554-0209000	6+60.03, 29.28' LT	Utilities	VALVE REMOVAL, 16 IN.
4.0	2510-6750600	6+62.33, 63.90' LT	Intakes	REMOVAL OF STORM INTAKE
5.0	2510-6750600	6+68.29, 25.54' RT	Intakes	REMOVAL OF STORM INTAKE
6.0	2510-6750600	6+69.01, 21.48' LT	Intakes	REMOVAL OF STORM INTAKE
7.0	2510-6750600	6+80.89, 33.22' LT	Intakes	REMOVAL OF STORM INTAKE
8.0	2510-6750600	10+37.61, 26.21' LT	Intakes	REMOVAL OF STORM INTAKE
9.0	2510-6750600	10+40.49, 23.90' RT	Intakes	REMOVAL OF STORM INTAKE
10.0	2510-6750600	10+89.76, 54.25' LT	Intakes	REMOVAL OF STORM INTAKE
11.0	2510-6750600	11+02.33, 25.57' LT	Utilities	REMOVAL OF STORM MANHOLE
12.0	2510-6750600	11+14.95, 80.40' LT	Intakes	REMOVAL OF STORM INTAKE
13.0	2510-6750600	11+50.97, 25.96' LT	Intakes	REMOVAL OF STORM INTAKE
14.0	2510-6750600	11+58.95, 24.22' RT	Intakes	REMOVAL OF STORM INTAKE
15.0	2510-6750600	12+47.87, 25.29' RT	Intakes	REMOVAL OF STORM INTAKE
16.0	2554-0209010	12+58.40, 17.49' LT	Utilities	VALVE REMOVAL, 10 IN.
17.0	2554-0210205	12+63.50, 25.08' LT	Utilities	FIRE HYDRANT ASSEMBLY REMOVAL
18.0	2510-6750600	33+43.73, 1.46' LT	Utilities	REMOVAL OF STORM MANHOLE
19.0	2510-6750600	33+71.07, 30.10' LT	Intakes	REMOVAL OF STORM INTAKE
20.0	2510-6750600	33+76.45, 9.38' RT	Intakes	REMOVAL OF STORM INTAKE
21.0	2554-0209010	34+51.81, 69.42' LT	Utilities	VALVE REMOVAL, 10 IN.
22.0	2510-6750600	34+72.29, 43.55' LT	Utilities	REMOVAL OF STORM MANHOLE
23.0	2510-6750600	42+26.60, 17.99' RT	Intakes	REMOVAL OF STORM INTAKE
24.0	2510-6750600	42+30.27, 22.68' LT	Intakes	REMOVAL OF STORM INTAKE
25.0	2510-6750600	42+54.23, 16.45' LT	Intakes	REMOVAL OF STORM INTAKE
26.0	2510-6750600	42+54.80, 16.26' RT	Intakes	REMOVAL OF STORM INTAKE

CONCRETE MEDIANS							112_05 8/15/22
* Bid item							
Line No.	Station From	Station To	Type	Area* (SY)	Modified Subbase (CY)	Special Backfill (CY)	Remarks
1.0	14+71.88	15+12.10	Median PCC 10"	24.9	12.44		18-IN. SUBBASE
2.0	19+35.78	19+88.39	Median PCC 10"	36.4	18.20		18-IN. SUBBASE
3.0	32+18.00	33+80.48	Median PCC 10"	54.3	27.15		18-IN. SUBBASE
4.0	42+07.28	42+11.27	Median PCC 10"	5.5	2.77		18-IN. SUBBASE
5.0	42+18.27	42+22.27	Median PCC 10"	2.3	1.14		18-IN. SUBBASE
6.0	1001+49.87	1001+79.09	Median PCC 10"	13.3	6.65		18-IN. SUBBASE
7.0	1001+96.04	1001+98.51	Median PCC 10"	5.2	2.58		18-IN. SUBBASE
8.0	700+00.00	704+11.55	Median PCC 10"	404.9	238.76		10-IN. INTEGRAL COLOR, 18-IN. SUBBASE, 2-FT OFFSET
9.0	15+12.10	15+22.13	Median PCC 10"	3.3	1.67		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
10.0	15+43.51	15+53.47	Median PCC 10"	4.6	2.28		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
11.0	15+76.29	15+80.63	Median PCC 10"	5.8	2.91		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
12.0	15+87.69	15+94.86	Median PCC 10"	11.9	5.96		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
13.0	17+85.73	17+93.81	Median PCC 10"	13.9	6.92		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
14.0	18+01.13	18+10.68	Median PCC 10"	7.0	3.50		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
15.0	18+32.05	18+42.03	Median PCC 10"	3.0	4.49		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
16.0	18+63.11	18+73.03	Median PCC 10"	4.5	2.23		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
17.0	18+94.38	19+04.39	Median PCC 10"	5.8	2.88		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
18.0	19+25.77	19+35.78	Median PCC 10"	5.4	2.72		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
19.0	34+01.40	34+05.81	Median PCC 10"	3.7	1.84		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
20.0	34+12.84	34+19.74	Median PCC 10"	7.6	3.81		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
21.0	1001+79.09	1001+89.03	Median PCC 10"	4.5	2.23		10-IN. INTEGRAL COLOR WITH 18-IN. SUBBASE
22.0	34+09.65	42+12.04	Median PCC 10"	31.3	15.65		10-IN. INTEGRAL COLOR, 18-IN. SUBBASE, INSIDE BLVD
23.0	15+66.47	15+82.91	Median PCC 10"	12.4	4.13		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
24.0	15+79.56	15+85.86	Median PCC 10"	8.4	2.80		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
25.0	17+96.53	18+06.39	Median PCC 10"	10.0	3.34		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
26.0	17+97.19	18+06.79	Median PCC 10"	8.7	2.91		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
27.0	33+94.68	34+08.85	Median PCC 10"	11.7	3.91		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
28.0	34+05.34	34+11.50	Median PCC 10"	8.2	2.73		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
29.0	42+11.39	42+17.20	Median PCC 10"	10.0	3.33		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE
30.0	42+12.46	42+17.44	Median PCC 10"	8.4	2.81		10-IN. INTEGRAL COLOR, STAMPED, 12-IN. SUBBASE

SIDEWALKS

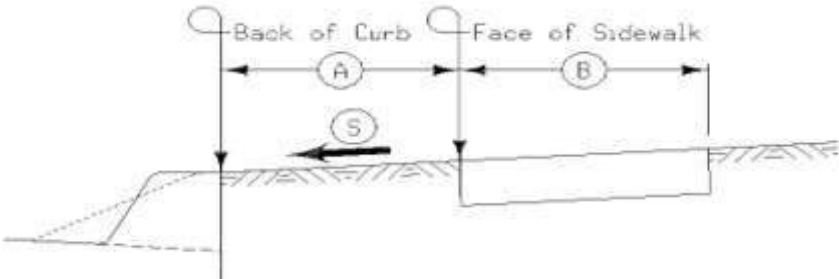
See MI-220 and S Sheets



Line No.	Road Identification	Station From	Station To	Side	A (FT)	B (FT)	S %	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Sidewalk Area (SY)	4" PCC Sidewalk (SY)	6" PCC Sidewalk (SY)	8" PCC Sidewalk (SY)	10" PCC Sidewalk (SY)	Detectable Warnings (SF)	Remarks
1.0	CARVER CORNER - MAINLINE	5+60.00	5+74.50	Right	4.0	5.0	2.0	5	14.5	5.0	8.1						
2.0	CARVER CORNER - MAINLINE	5+74.50	6+50.00	Right		5.0	2.0	5	75.5	5.0	41.9						
3.0	CARVER CORNER - MAINLINE	6+50.00	8+50.81	Right	4.5	5.0	2.0	5	200.3	5.0	111.6						
4.0	CARVER CORNER - MAINLINE	8+50.81	8+65.62	Right		5.0		6	14.8	5.0	8.2		7.7			14.6	
5.0	CARVER CORNER - MAINLINE	9+06.37	9+21.63	Right		5.0		6	14.9	5.0	8.3		8.0			14.6	
6.0	CARVER CORNER - MAINLINE	9+21.63	10+00.00	Right	4.5	5.0	2.0	5	83.2	5.0	46.0						
7.0	CARVER CORNER - MAINLINE	10+00.00	12+54.42	Right	4.5	5.0	2.0	5	254.4	5.0	149.3						
8.0	CARVER CORNER - MAINLINE	12+54.42	13+05.07	Right	4.5	5.0	2.0	5	50.6	5.0	28.1						
9.0	CARVER CORNER - MAINLINE	13+05.07	13+58.29	Right	4.7	5.0	2.0	5	53.2	5.0	29.7						
10.0	CARVER CORNER - MAINLINE	13+58.29	14+05.10	Right	6.0	5.0	2.0	5	46.8	5.0	25.9						
11.0	CARVER CORNER - MAINLINE	14+05.10	15+04.43	Right	6.0	5.0	2.0	5	99.3	5.0	52.2						
12.0	CARVER CORNER - MAINLINE	15+04.43	15+59.54	Right	6.0	5.0	2.0	5	54.7	5.0	30.4						
13.0	CARVER CORNER - MAINLINE	15+59.54	15+64.40	Right		5.0		6	11.0	5.0	6.1		6.8			10.0	
14.0	CARVER CORNER - MAINLINE	15+64.40	16+43.36	Right	6.0	5.0	2.0	5	141.8	5.0	31.6						
15.0	CARVER CORNER - MAINLINE	16+43.36	17+46.70	Right	6.0	5.0	2.0	5	79.8	5.0	43.2						
16.0	CARVER CORNER - MAINLINE	17+46.70	18+05.86	Right	6.0	5.0	2.0	5	61.6	5.0	34.3						
17.0	CARVER CORNER - MAINLINE	18+05.86	18+11.00	Right		5.0		6	11.0	5.0	6.1		6.8			10.0	
18.0	CARVER CORNER - MAINLINE	18+11.00	18+62.55	Right	4.0	5.0	2.0	5	49.7	5.0	28.1						
19.0	CARVER CORNER - MAINLINE	18+62.55	18+95.41	Right	3.0	5.0	2.0	5	31.2	5.0	17.4						
20.0	CARVER CORNER - MAINLINE	18+95.41	20+09.50	Right		7.5		5	114.1	7.5	88.2						CLASS A SIDEWALK
21.0	CARVER CORNER - MAINLINE	20+09.50	20+14.50	Right		7.0		6	5.0	7.0	3.9		3.8				CLASS A SIDEWALK
22.0	CARVER CORNER - MAINLINE	20+14.50	20+34.00	Right		7.0		5	19.5	7.0	15.3						CLASS A SIDEWALK
23.0	CARVER CORNER - MAINLINE	5+60.00	5+75.63	Left	4.2	5.0	2.0	5	15.6	5.0	8.1						
24.0	CARVER CORNER - MAINLINE	5+75.63	6+00.50	Left	4.2	5.0	2.0	5	24.9	5.0	14.4						
25.0	CARVER CORNER - MAINLINE	6+00.50	6+13.41	Left	4.5	5.0	2.0	5	12.9	5.0	7.2						
26.0	MAIN ST - CENTERLINE	900+15.98	900+24.40	Left		5.0		6	7.5	5.0	4.2		6.5			15.5	
27.0	MAIN ST - CENTERLINE	900+24.40	901+00.00	Left	3.0	5.0	2.0	5	75.6	5.0	37.8						
28.0	CARVER CORNER - MAINLINE	6+80.67	6+93.41	Left		5.0	2.0	6	11.4	5.0	6.3		7.0			10.0	
29.0	CARVER CORNER - MAINLINE	6+93.41	7+05.12	Left	4.5	5.0	2.0	5	12.3	5.0	6.8						
30.0	CARVER CORNER - MAINLINE	7+52.63	8+07.72	Left	4.5	5.0	2.0	5	55.1	5.0	30.6						
31.0	CARVER CORNER - MAINLINE	8+38.43	9+44.89	Left	4.5	5.0	2.0	5	106.5	5.0	59.0						
32.0	CARVER CORNER - MAINLINE	9+96.83	10+77.83	Left	4.5	5.0	2.0	5	81.0	5.0	42.8						
33.0	CARVER CORNER - MAINLINE	10+77.83	10+94.16	Left	4.5	5.0	2.0	6	16.3	5.0	9.1		8.5			10.0	
34.0	CARVER CORNER - MAINLINE	11+35.57	11+51.48	Left		5.0		6	15.9	5.0	8.8		7.8			14.8	
35.0	CARVER CORNER - MAINLINE	11+51.48	11+69.40	Left	4.5	5.0	2.0	5	17.9	5.0	9.2						
36.0	CARVER CORNER - MAINLINE	11+95.18	14+39.31	Left		5.0		5	244.1	5.0	152.1						INCLUDES CARRIAGE WALKS
37.0	CARVER CORNER - MAINLINE	14+64.27	15+78.83	Left	6.0	5.0	2.0	5	114.6	5.0	67.6						
38.0	CARVER CORNER - MAINLINE	15+82.49	15+83.65	Left		5.0		6	11.0	5.0	6.1		6.8			10.0	
39.0	CARVER CORNER - MAINLINE	15+83.00	16+33.73	Left	6.0	5.0	2.0	5	50.7	5.0	59.5						
40.0	CARVER CORNER - MAINLINE	15+83.77	15+86.14	Median		5.0		6	17.9	5.0	9.9		13.1			20.0	
41.0	HERSHEY AVE - MAINLINE [WEST LEG]	31+62.00	31+90.24	Right		8.8		5	28.2	8.8	26.0						CLASS A SIDEWALK
42.0	HERSHEY AVE - MAINLINE [WEST LEG]	31+86.24	31+90.24	Right		4.0		5	11.8	4.0	5.2						ROSELAWN WEST SIDE
43.0	HERSHEY AVE - MAINLINE [WEST LEG]	32+10.57	32+14.57	Right		4.0		5	11.8	4.0	5.2						ROSELAWN EAST SIDE
44.0	HERSHEY AVE - MAINLINE [WEST LEG]	32+10.57	32+78.47	Right		8.8		5	68.8	8.8	66.7						CLASS A SIDEWALK
45.0	HERSHEY AVE - MAINLINE [WEST LEG]	32+78.47	32+95.89	Right		6.0		6	16.5	6.0	11.0		9.2			15.4	CLASS A SIDEWALK

SIDEWALKS

See MI-220 and S Sheets



Line No.	Road Identification	Station From	Station To	Side	A (FT)	B (FT)	S %	Sidewalk Thickness (IN)	Sidewalk Length (FT)	Sidewalk Width (FT)	Sidewalk Area (SY)	4" PCC Sidewalk (SY)	6" PCC Sidewalk (SY)	8" PCC Sidewalk (SY)	10" PCC Sidewalk (SY)	Detectable Warnings (SF)	Remarks
46.0	HERSHEY AVE - MAINLINE [WEST LEG]	33+07.44	33+25.13	Right		5.0		6	16.7	5.0	9.3		10.7			20.0	
47.0	HERSHEY AVE - MAINLINE [WEST LEG]	33+36.23	33+53.58	Right		5.0		6	13.9	5.0	7.7		8.1			10.0	
48.0	HERSHEY AVE - MAINLINE [WEST LEG]	33+53.58	33+88.16	Right	6.0	5.0	2.0	5	34.8	5.0	19.2						
49.0	HERSHEY AVE - MAINLINE [WEST LEG]	33+88.16	33+98.40	Right		5.0		6	11.0	5.0	6.1		6.8			10.0	
50.0	HERSHEY AVE - MAINLINE [WEST LEG]	31+62.00	31+67.33	Left		10.0		5	5.3	10.0	6.0						CLASS A SIDEWALK
51.0	HERSHEY AVE - MAINLINE [WEST LEG]	31+67.33	32+44.31	Left		10.0		6	77.0	10.0	85.6		85.6				COMBINED SIDEWALK RETAINING WALL
52.0	HERSHEY AVE - MAINLINE [WEST LEG]	32+44.31	32+79.81	Left		9.7		5	35.5	9.7	37.8						CLASS A SIDEWALK
53.0	HERSHEY AVE - MAINLINE [WEST LEG]	32+79.81	33+96.67	Left	3.0	5.0	2.0	5	123.9	5.0	68.8						
54.0	HERSHEY AVE - MAINLINE [WEST LEG]	33+96.67	34+09.22	Left		5.0		6	13.6	5.0	7.6		9.5			10.0	
55.0	HERSHEY AVE - MAINLINE [WEST LEG]	34+03.91	34+05.69	Median		5.0		6	12.8	5.0	7.1		9.3			20.0	
56.0	HERSHEY AVE - MAINLINE [WEST LEG]	34+09.22	34+40.33	Left		5.0		5	37.6	5.0	20.9						
57.0	GREEN ST - MAINLINE [NORTH LEG]	42+13.32	42+19.75	Left		5.0		6	14.7	5.0	8.2		11.5			10.0	
58.0	GREEN ST - MAINLINE [NORTH LEG]	42+19.75	42+82.00	Left		5.0		5	62.3	5.0	39.1						
59.0	GREEN ST - MAINLINE [NORTH LEG]	42+82.00	42+92.50	Left		4.0		5	10.5	4.0	5.3						
60.0	GREEN ST - MAINLINE [NORTH LEG]	42+92.50	42+82.00	Right		5.0		5	10.5	5.0	5.3						
61.0	GREEN ST - MAINLINE [NORTH LEG]	42+82.00	42+66.35	Right		5.0		5	15.6	5.0	8.7						
62.0	GREEN ST - MAINLINE [NORTH LEG]	42+40.14	42+19.41	Right		5.0		5	20.7	5.0	11.3						
63.0	GREEN ST - MAINLINE [NORTH LEG]	42+19.41	42+07.90	Right		5.0		6	12.4	5.0	6.9		9.4			10.0	
64.0	GREEN ST - MAINLINE [NORTH LEG]	42+12.40	42+12.09	Median		5.0		6	10.3	5.0	5.7		6.7			20.0	
65.0	CARVER CORNER - MAINLINE	17+58.47	18+05.41	Left	6.0	5.0	2.0	5	79.8	5.0	43.6						
66.0	CARVER CORNER - MAINLINE	17+94.98	17+95.63	Median		5.0		6	14.8	5.0	8.2		10.3			20.0	
67.0	CARVER CORNER - MAINLINE	18+05.41	18+09.98	Left		5.0		6	11.0	5.0	6.1		6.8			10.0	
68.0	CARVER CORNER - MAINLINE	18+09.98	18+82.91	Left		5.0		5	72.9	5.0	41.6						
69.0	CARVER CORNER - MAINLINE	18+99.38	19+10.00	Left		7.0		5	10.6	7.0	9.9						CLASS A SIDEWALK
70.0	CARVER CORNER - MAINLINE	19+10.00	20+00.00	Left		7.0		6	90.0	7.0	70.0		70.0				COMBINED SIDEWALK RETAINING WALL
71.0	CARVER CORNER - MAINLINE	20+00.00	20+06.50	Left		7.0		5	6.5	7.0	5.3						CLASS A SIDEWALK
72.0	216 GREEN ST - PARKING LOT	1100+90.87	1101+13.37	Left		6.0		5	22.5	6.0	16.7						

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MATERIALS FOR TYPE 'A' SIGNS
Refer to SI-101, SI-111, SI-119 and N Sheets.

Line No.	Type A Signing Typical	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Steel Leg 3 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
1.0		D3-1 (2)	SB	6+21.90				13.5			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY R1-1
2.0		D3-1 (2)																							
3.0		R1-1																							
4.0		R3-9B	WB	8+91.10				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY R3-9B
5.0		R8-3																							
6.0		D3-1 (2)	NB	9+04.00				13.5			Soil											1	3.0	SOIL STABILIZING SLEEVE	
7.0		D3-1 (2)																							
8.0		R1-1																							
9.0		R3-9B	EB	9+47.40				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY
10.0		R8-3																							
11.0		D3-1 (2)	EB	10+91.30				13.5			Soil											1	3.0	SOIL STABILIZING SLEEVE	
12.0		D3-1 (2)																							
13.0		R1-1																							
14.0		R3-9B	SB	12+69.70				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY
15.0		R8-3																							
16.0		M4-3P	SB	13+86.30				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY NATIONAL SCENIC BYWAY SIGN
17.0		M1-4																							
18.0		CUSTOM SIGN																							
19.0		W2-6	NB	13+99.40				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY R8-3
20.0		R8-3																							
21.0		R4-7	NB	14+73.60				11.0			Concrete											1	3.0		
22.0		OM1-2																							
23.0		R2-1	SB	14+98.30				11.0			Soil											1	3.0		
24.0		W11-2	NB	15+61.20				11.0			Soil											1	3.0		
25.0		W16-7P																							
26.0		W11-2	SB	15+76.10				11.0			Soil											1	3.0		
27.0		W16-7P																							
28.0		M4-3P	SB	16+04.80				11.0			Concrete											1	3.0		
29.0		M1-4																							
30.0		M6-2R																							
31.0		R1-2	NB	16+06.70				11.0			Soil											1	3.0		
32.0		R6-4A	NB	16+70.00				11.0			Soil											1	3.0		
33.0		R6-4A	WB	17+18.10				11.0			Soil											1	3.0		
34.0		M4-3P	EB	17+77.70				11.0			Concrete											1	3.0		
35.0		M1-4																							
36.0		M6-2R																							
37.0		R1-2	WB	17+79.90				11.0			Soil											1	3.0		
38.0		W11-2	WB	18+11.20				11.0			Soil											1	3.0		
39.0		W16-7P																							
40.0		W11-2	EB	18+12.10				11.0			Soil											1	3.0		
41.0		W16-7P																							
42.0		R6-1R	WB	18+86.80				11.0			Soil											1	3.0		
43.0		R4-7	WB	19+87.40				11.0			Concrete											1	3.0		
44.0		OM1-2																							
45.0		W2-6	WB	19+89.30				11.0			Soil											1	3.0		
46.0		R2-1	EB	20+22.60				11.0			Soil											1	3.0		
47.0		CUSTOM SIGN	WB	20+52.70				11.0			Soil											1	3.0		INSTALL ONLY
48.0		CUSTOM SIGN	WB	21+02.70				11.0			Soil											1	3.0		INSTALL ONLY
49.0		M4-3P	EB	21+12.60				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	INSTALL ONLY NATIONAL SCENIC BYWAY SIGN
50.0		M1-4																							
51.0		CUSTOM SIGN																							
52.0		R8-3	EB	31+18.80				11.0			Soil											1	3.0		
53.0		R8-3	WB	31+49.80				11.0			Soil											1	3.0		
54.0		D3-1 (2)	EB	31+83.20				11.0			Soil											1	3.0		
55.0		W2-6	EB	32+18.00				11.0			Concrete											1	3.0		

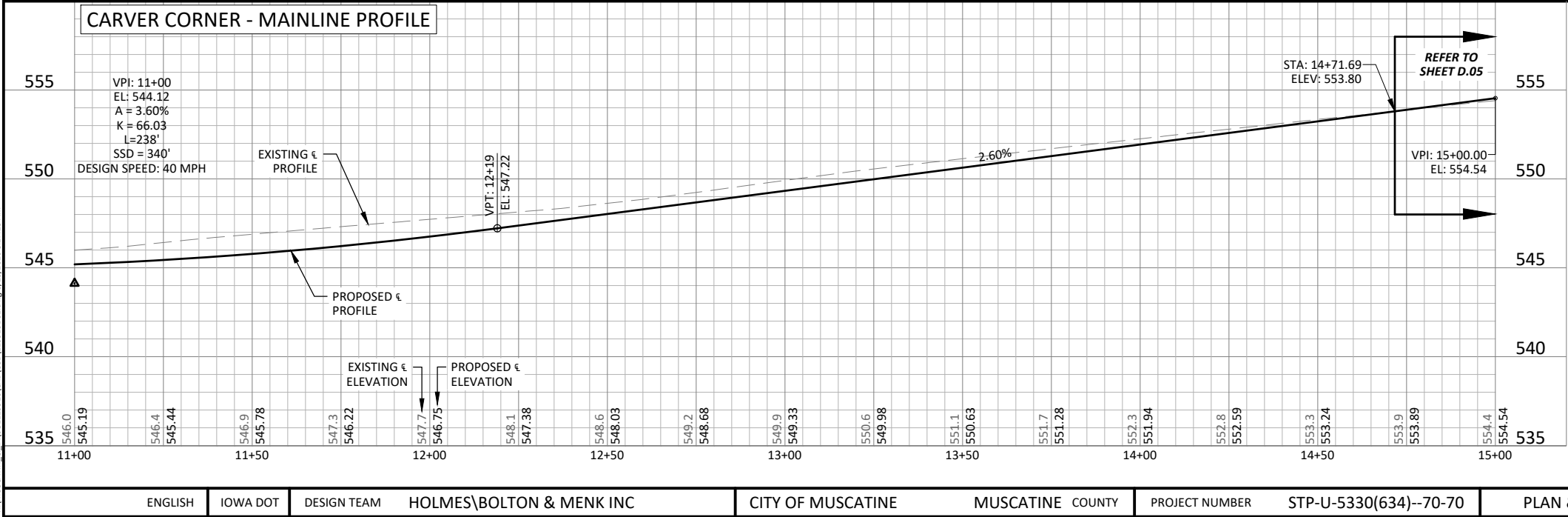
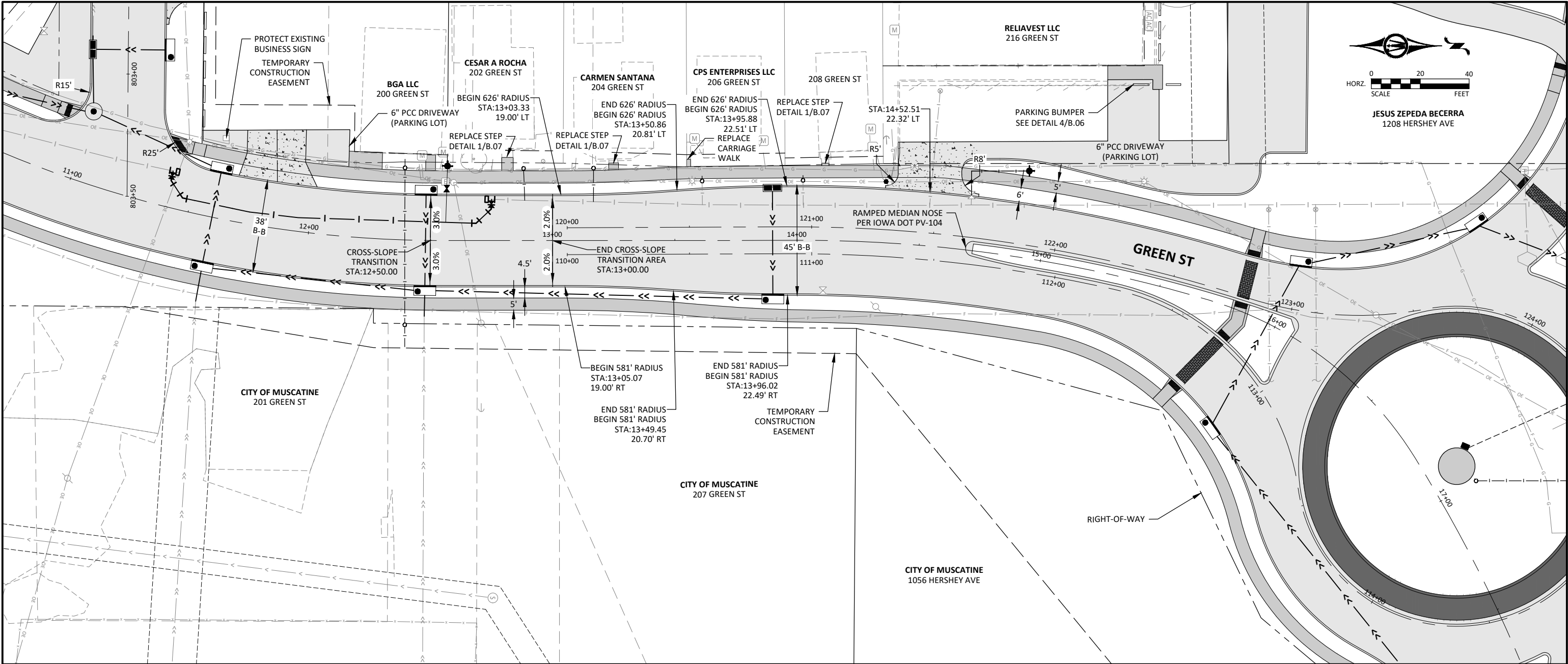
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MATERIALS FOR TYPE 'A' SIGNS
Refer to SI-101, SI-111, SI-119 and N Sheets.

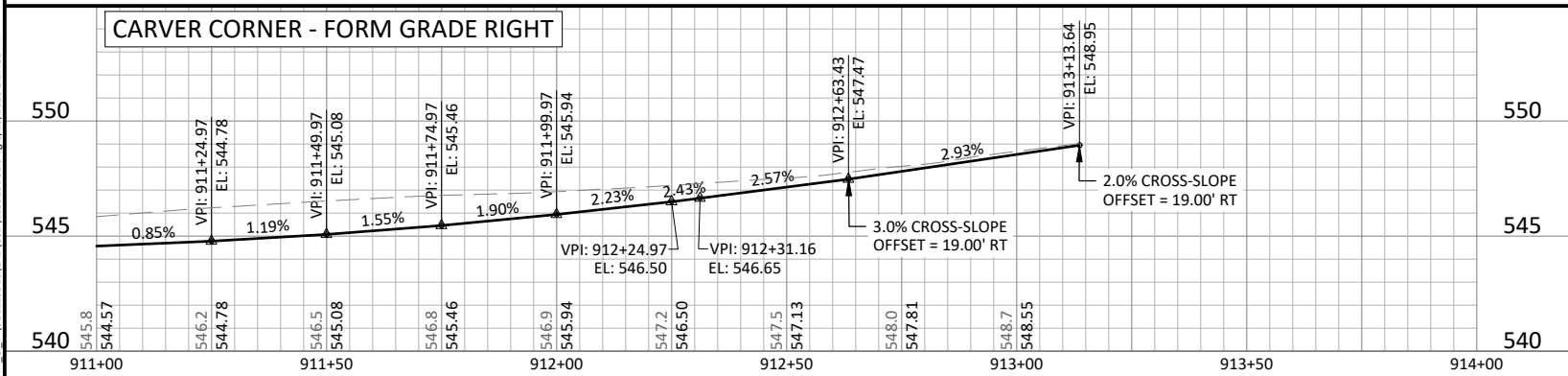
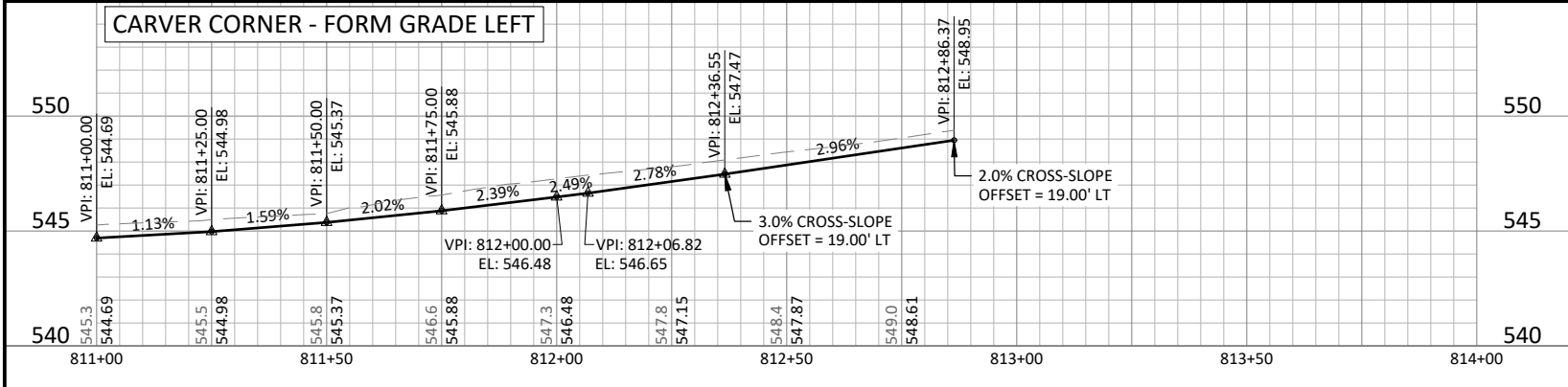
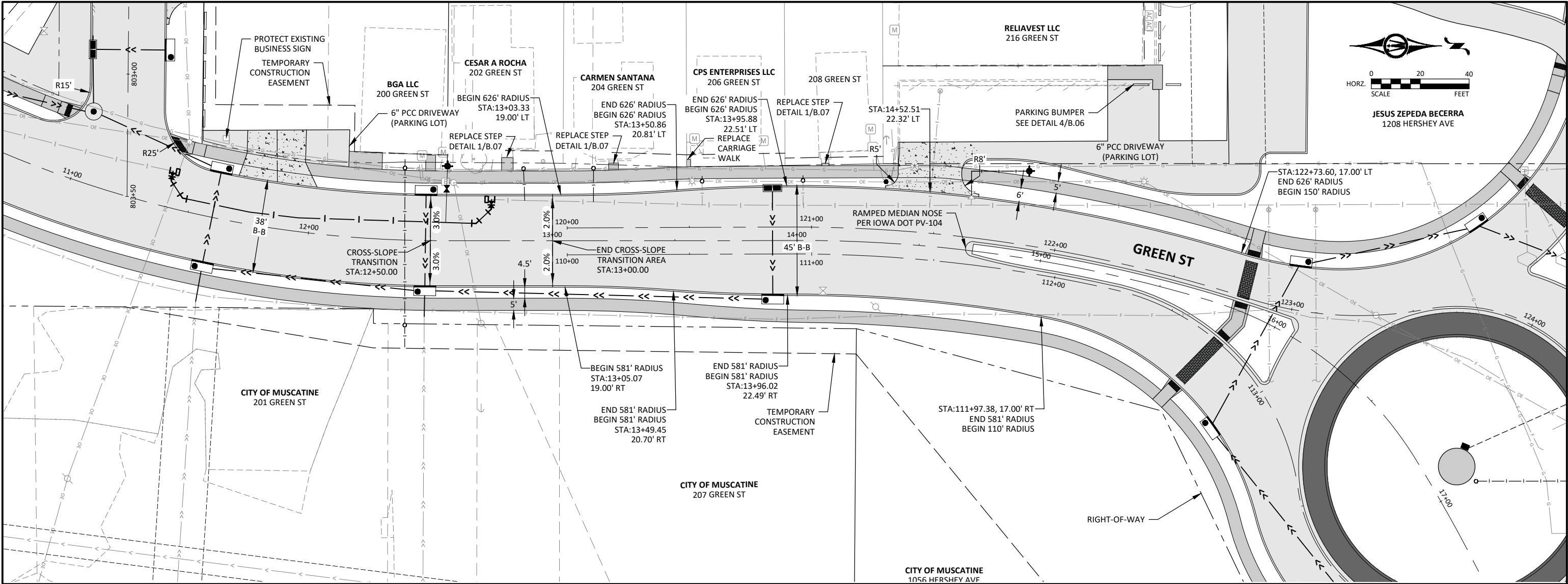
Line No.	Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Steel Leg 3 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
56.0		R4-7	EB	32+20.30				11.0			Concrete											1	3.0		
57.0		OM1-2																							
58.0		R6-1R	NB	33+16.60				11.0			Concrete											1	3.0		
59.0		R1-1	NB	33+38.10				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	
60.0		R3-2																							
61.0		R12-1	WB	33+51.40				11.0			Soil											1	3.0	SOIL STABILIZING SLEEVE	
62.0		R14-5																							
63.0		W11-2	EB	33+87.10				11.0			Soil											1	3.0		
64.0		W16-7P																							
65.0		W11-2	WB	34+01.90				11.0			Soil											1	3.0		
66.0		W16-7P																							
67.0		R1-2	EB	34+23.70				11.0			Soil											1	3.0		
68.0		D1-1d	WB	34+28.90				11.0			Concrete											1	3.0		
69.0		R6-4A	EB	34+96.90				11.0			Soil											1	3.0		
70.0		R6-4A	SB	41+49.40				11.0			Soil											1	3.0		
71.0		D1-1d	NB	42+04.80				11.0			Concrete											1	3.0		
72.0		R1-2	SB	42+06.30				11.0			Soil											1	3.0		
73.0		R4-7	SB	42+19.30				11.0			Concrete											1	3.0		
74.0		OM1-2																							
75.0		W11-2	SB	42+21.00				11.0			Soil											1	3.0		
76.0		W16-7P																							
77.0		W11-2	NB	42+23.60				11.0			Soil											1	3.0		
78.0		W16-7P																							
79.0		W2-6	SB	43+89.00				11.0			Soil											1	3.0		

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EXISTING SIGNS TO BE REMOVED											
Line No.	Sign Number or Description	Location Station	Direction of Travel	Type 'A' Sign Assembly (RA) (EA)	Type 'B' Sign Assembly (RB) (EA)	Type 'A' Remove and Reinstall (RR) (EA)	Type 'B' Remove and Reinstall (RR) (EA)	Concrete Foundation (RF) (EA)	Support Structure & Foundation (RS) (EA)	Applicable Signing Notes	Remarks
1.0	D3-1 (GRANDVIEW AVE / MAIN ST)	6+35.60	SB	1						MAIN ST	SALVAGE; PERFORATED SQUARE STEEL TUBE
2.0	R1-1 (STOP)										
3.0	R3-9B (TWO WAY LEFT TURN ONLY)	8+90.00	WB	1						GRANDVIEW AVE	SALVAGE R3-B, REMOVE R7-1X; PERF SQUARE STEEL TUBE
4.0	R7-1X (NO PARKING ANY TIME)										
5.0	R1-1 (STOP)	9+04.90	NB	1						CANAL ST	REMOVE; WOOD POLE
6.0	D3-1 (CANAL ST)	9+04.90	NB	1						CANAL ST	REMOVE; U CHANNEL POST
7.0	R3-9B (TWO WAY LEFT TURN ONLY)	9+53.90	EB	1						GRANDVIEW AVE	SALVAGE; UTILITY POLE
8.0	R8-3 (NO PARKING)										
9.0	R1-1 (STOP)	10+79.80	EB	1						MILL ST	REMOVE; PERFORATED SQUARE STEEL TUBE
10.0	R3-9B (TWO WAY LEFT TURN ONLY)	12+59.40	SB	1						GREEN ST	SALVAGE; UTILITY POLE
11.0	R8-3 (NO PARKING)										
12.0	R3-9B (TWO WAY LEFT TURN ONLY)	12+70.70	NB	1						GREEN ST	SALVAGE; UTILITY POLE
13.0	R8-3 (NO PARKING)										
14.0	CUSTOM SIGN (GREEN ST THRU TRAFFIC MUST USE)	14+33.60	NB	1						GREEN ST	REMOVE; UTILITY POLE
15.0	R7-1X (NO PARKING ANY TIME)	14+99.20	NB	1						GREEN ST	REMOVE; PERFORATED SQUARE STEEL TUBE
16.0	R3-9B (TWO WAY LEFT TURN ONLY)	15+34.00	SB	1						GREEN ST	REMOVE; UTILITY POLE
17.0	R8-3 (NO PARKING)										
18.0	M4-3P (BUSINESS - AUXILIARY)	15+47.80	NB	1						GREEN ST	REMOVE; PERFORATED SQUARE STEEL TUBE
19.0	M1-4 (US HIGHWAY 61)										
20.0	M5-1A (ADVANCE RIGHT TURN - AUXILIARY)										
21.0	R2-1 (SPEED LIMIT 35)	15+94.20	SB	1						GREEN ST	REMOVE; PERFORATED SQUARE STEEL TUBE
22.0	CUSTOM SIGN (NATIONAL SCENIC BYWAY)	16+29.30	NB	1						GREEN ST	SALVAGE NTNL SCENIC SIGN, REMOVE M6-1; UTIL POLE
23.0	M6-1 (TURN ARROW - RIGHT)										
24.0	D3-1 (HERSHEY AVE / GREEN ST)	16+83.80	NB	1						GREEN ST	REMOVE; PERFORATED SQUARE STEEL TUBE
25.0	R3-2 (NO LEFT TURN - SYMBOL)										
26.0	R3-2a (MODIFIED) (NO LEFT TURN)										
27.0	M4-3P (BUSINESS - AUXILIARY)	17+61.90	EB	1						HERSHEY AVE	REMOVE M4-3P & M1-4, SALVGE NTNL SCENIC; WOOD POLE
28.0	M1-4 (US HIGHWAY 61)										
29.0	CUSTOM SIGN (NATIONAL SCENIC BYWAY)										
30.0	R3-9B (TWO WAY LEFT TURN ONLY)	18+30.10	EB	1						HERSHEY AVE	SALVAGE; PERFORATED SQUARE STEEL TUBE
31.0	R2-1 (SPEED LIMIT 35)	18+54.40	EB	1						HERSHEY AVE	REMOVE; WOOD POLE
32.0	R7-1X (NO PARKING ANY TIME)										
33.0	CUSTOM SIGN (NATIONAL SCENIC BYWAY)	18+70.70	WB	1						HERSHEY AVE	SALVAGE; UTILITY POLE
34.0	CUSTOM SIGN (MUSCABUS STOP)	20+50.80	WB	1						HERSHEY AVE	SALVAGE; U CHANNEL POST
35.0	M4-3P (BUSINESS - AUXILIARY)	21+18.50	WB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
36.0	M1-4 (US HIGHWAY 61)										
37.0	M5-4P (MODIFIED) (LEFT LANE - AUXILIARY)										
38.0	R7-1X (NO PARKING ANY TIME)										
39.0	D3-1 (ROSELAWN AV)	31+96.00	WB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
40.0	R7-6 (MODIFIED) (NO PARKING LOADING ZONE WITH ARROW)	32+36.30	EB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
41.0	R7-11 (NO PARKING HERE TO CORNER)	33+36.90	EB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
42.0	R12-1 (WEIGHT LIMIT 8 TONS)	33+50.30	WB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
43.0	R14-5 (NATIONAL NETWORK PROHIBITED)										
44.0	R7-11 (NO PARKING HERE TO CORNER)										
45.0	R12-1 (WEIGHT LIMIT 8 TONS)	33+56.40	WB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
46.0	R5-2 (NO TRUCKS - SYMBOL)										
47.0	M4-3P (BUSINESS - AUXILIARY)	33+78.90	WB	1						HERSHEY AVE	REMOVE; PERFORATED SQUARE STEEL TUBE
48.0	M1-4 (US HIGHWAY 61)										
49.0	M6-1 (TURN ARROW LEFT)										
50.0	CUSTOM SIGN (GREEN ST WITH DIRECTIONAL ARROW)	34+05.30	NB	1						GREEN ST	REMOVE; SIGNAL POLE
51.0	R8-3 (NO PARKING SYMBOL)	43+09.90	NB	1						GREEN ST	REMOVE; U CHANNEL POST
52.0	R7-11 (NO PARKING HERE TO CORNER)	43+12.80	SB	1						GREEN ST	REMOVE; U CHANNEL POST

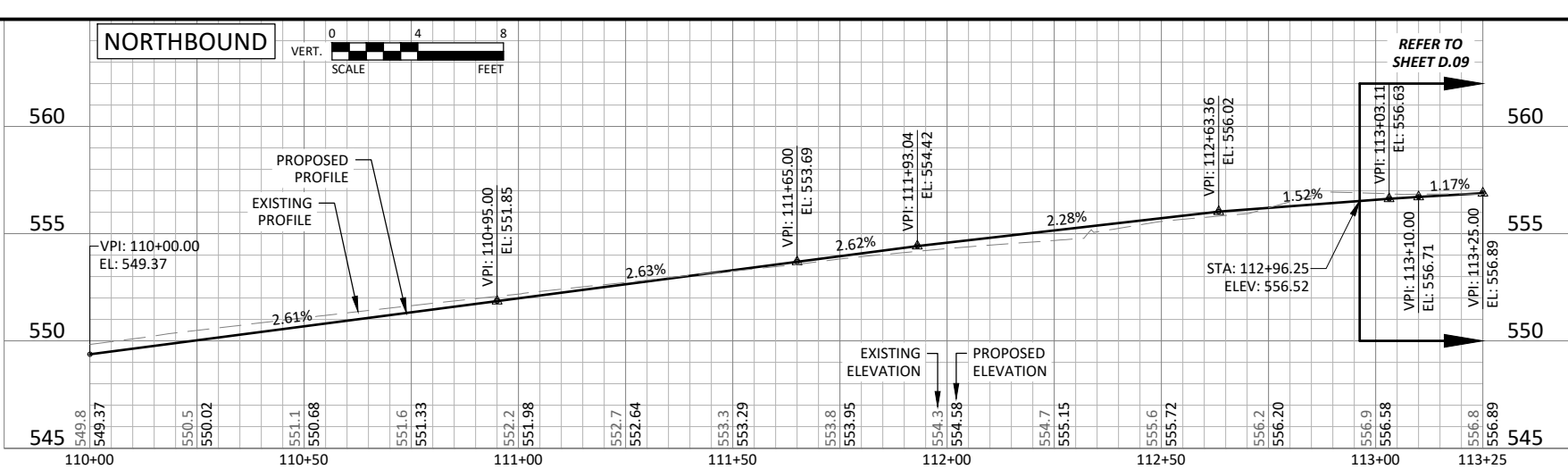
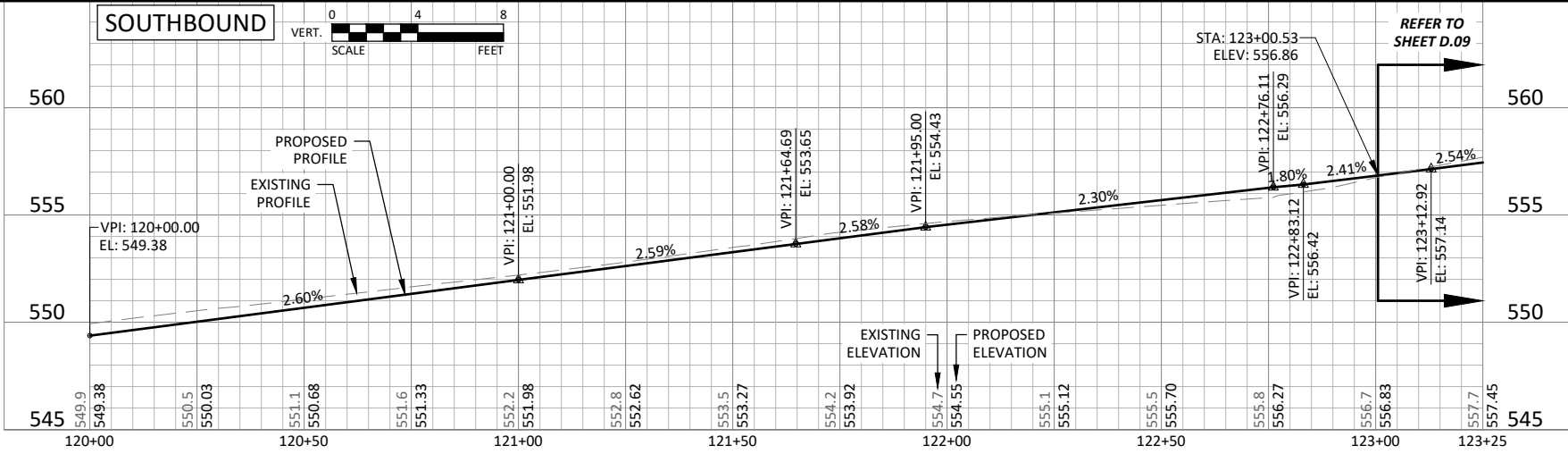
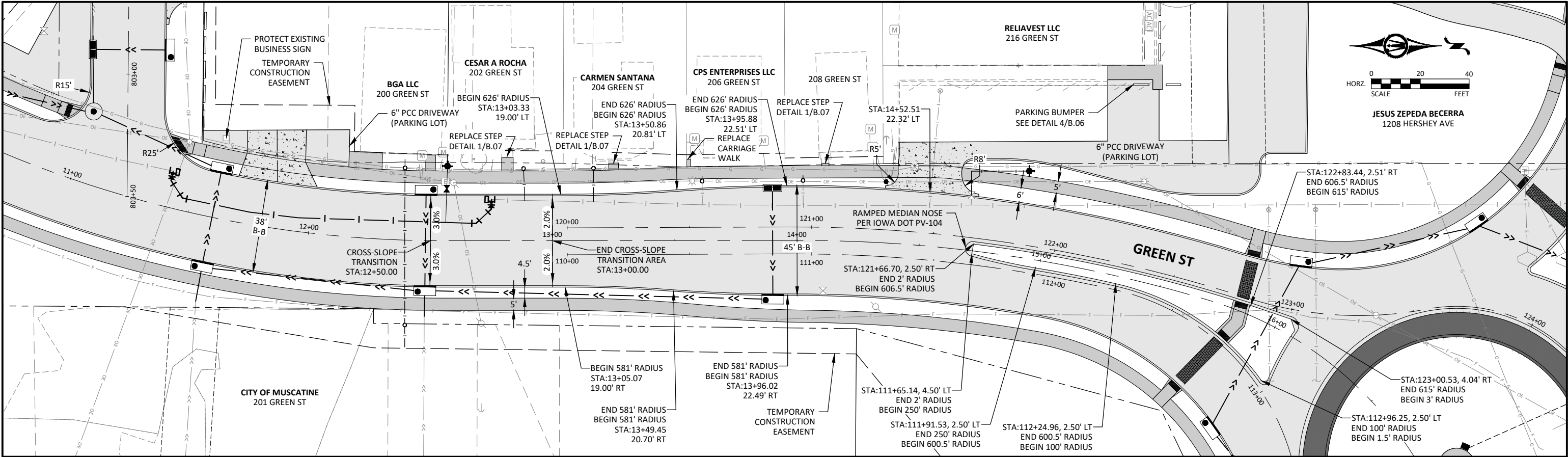
300_99 Modified										
WATER MAIN CONSTRUCTION										
Line No.	Station	Offset	Valve Type	Fitting Type	Fitting Weight (LBS)	Fire Hydrant Assembly	10" DIP (LF)	12" DIP (LF)	16" DIP (LF)	Notes
1	900+33.01	9.38' RT		16-INCH LONG SLEEVE	170				5.1	CONNECTION TO EXISTING MAIN
2	900+38.09	9.34' RT		16-INCH 45 VERTICAL BEND	202				0.9	
3	900+38.73	9.33' RT		16-INCH 45 VERTICAL BEND	202				8.0	
4	900+46.73	9.26' RT		16-INCH 45 VERTICAL BEND	202				0.9	
5	900+47.38	9.26' RT		16-INCH 45 VERTICAL BEND	202				12.4	
6	900+59.80	9.15' RT		16-INCH LONG SLEEVE	170					CONNECTION TO EXISTING MAIN
7	900+92.50	8.88' RT	16-INCH INSERTION							
8	7+46.20	14.36' LT		10-INCH LONG SLEEVE	62		5.0			CONNECTION TO EXISTING MAIN
9	7+51.19	14.64' LT		10-INCH 45 HORIZONTAL BEND	70		5.2			45 HORIZONTAL BEND WITH 5 VERTICAL DEFLECTION
10	7+55.01	11.22' LT		10-INCH 45 HORIZONTAL BEND	70		10.0			45 HORIZONTAL BEND WITH 5 VERTICAL DEFLECTION
11	7+64.99	11.77' LT		10-INCH 45 HORIZONTAL BEND	70		5.2			45 HORIZONTAL BEND WITH 5 VERTICAL DEFLECTION
12	7+68.42	15.60' LT		10-INCH 45 HORIZONTAL BEND	70		5.0			45 HORIZONTAL BEND WITH 5 VERTICAL DEFLECTION
13	7+73.41	15.87' LT		10-INCH LONG SLEEVE	62					CONNECTION TO EXISTING MAIN
14	11+40.00	14.91' LT	10-INCH TAPPING				4.0			
15	11+40.16	10.91' LT		10-INCH 45 HORIZONTAL BEND	70		8.5			
16	11+46.46	5.10' LT		10-INCH 45 HORIZONTAL BEND	70		5.0			
17	11+51.52	5.20' LT		10-INCH 45 VERTICAL BEND	70		1.3			
18	11+52.43	5.21' LT		10-INCH 45 VERTICAL BEND	70		15.0			
19	11+67.60	5.15' LT		10-INCH 45 VERTICAL BEND	70		2.9			
20	11+69.70	5.10' LT		10-INCH 45 VERTICAL BEND	70		5.0			
21	11+74.77	4.95' LT					20.0			5 HORIZONTAL DEFLECTION
22	11+94.99	5.61' LT					64.0			5 HORIZONTAL DEFLECTION
23	12+59.84	7.34' LT		10-INCH 45 VERTICAL BEND	70		3.0			
24	12+61.98	7.27' LT		10-INCH 45 VERTICAL BEND	70		6.7			
25	12+68.68	7.06' LT		10-INCH 45 HORIZONTAL BEND	70		8.5			
26	12+74.87	12.87' LT		10-INCH 45 HORIZONTAL BEND	70		4.0			
27	12+75.00	16.86' LT	10-INCH TAPPING							CONNECTION TO EXISTING MAIN
28	17+91.28	60.25' LT	12-INCH TAPPING					4.0		CONNECTION TO EXISTING MAIN
29	17+92.58	63.98' LT		12-INCH 45 HORIZONTAL BEND	86			4.0		
30	17+95.87	65.62' LT		12-INCH 45 HORIZONTAL BEND	86			6.0		
31	18+00.94	63.53' LT		12-INCH 45 HORIZONTAL BEND	86			4.0		
32	18+02.47	59.91' LT		12-INCH 45 HORIZONTAL BEND	86			4.0		
33	18+01.23	56.14' LT	12-INCH TAPPING							CONNECTION TO EXISTING MAIN
34	33+21.86	16.30' LT	10-INCH TAPPING				4.0			CONNECTION TO EXISTING MAIN
35	33+21.51	20.29' LT		10-INCH 45 HORIZONTAL BEND	70		12.6			
36	33+29.05	30.05' LT		10-INCH 45 HORIZONTAL BEND	70		27.3			
37	33+54.15	33.82' LT		10-INCH 45 HORIZONTAL BEND	70		1.1			45 HORIZONTAL BEND ROTATED 45 DOWNWARD
38	33+54.75	33.35' LT		10-INCH 45 VERTICAL BEND	70		11.2			
39	33+63.31	27.00' LT		10-INCH 45 VERTICAL BEND	70		0.9			
40	33+63.79	26.65' LT		10-INCH 45 HORIZONTAL BEND	70		4.0			45 HORIZONTAL BEND ROTATED 45 DOWNWARD
41	33+64.52	22.73' LT	10-INCH TAPPING							CONNECTION TO EXISTING MAIN
42	42+86.00	10.64' LT	10-INCH TAPPING				4.0			CONNECTION TO EXISTING MAIN
43	42+86.00	6.64' LT		10-INCH 45 HORIZONTAL BEND	70		4.0			
44	42+83.17	3.81' LT		10-INCH 45 HORIZONTAL BEND	70		12.1			
45	42+71.17	3.81' LT					14.2			5 HORIZONTAL DEFLECTION
46	42+57.06	5.12' LT		10-INCH 45 VERTICAL BEND	70		3.0			
47	42+54.96	5.32' LT		10-INCH 45 VERTICAL BEND	70		16.3			
48	42+39.19	7.42' LT					20.0			4 HORIZONTAL DEFLECTION
49	42+20.01	9.93' LT		10-INCH 90 HORIZONTAL BEND	89		4.0			
50	42+20.63	13.88' LT	10-INCH TAPPING							CONNECTION TO EXISTING MAIN
Total:							317	22	27.3	

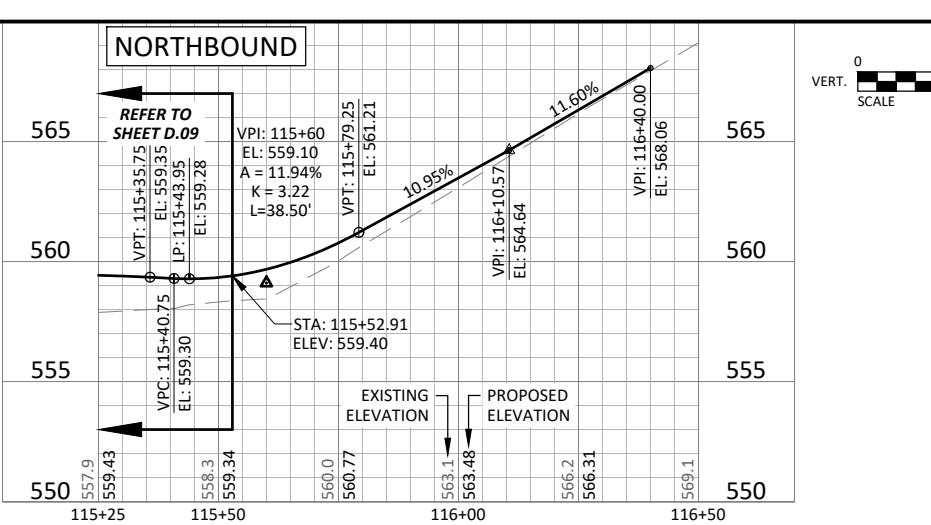
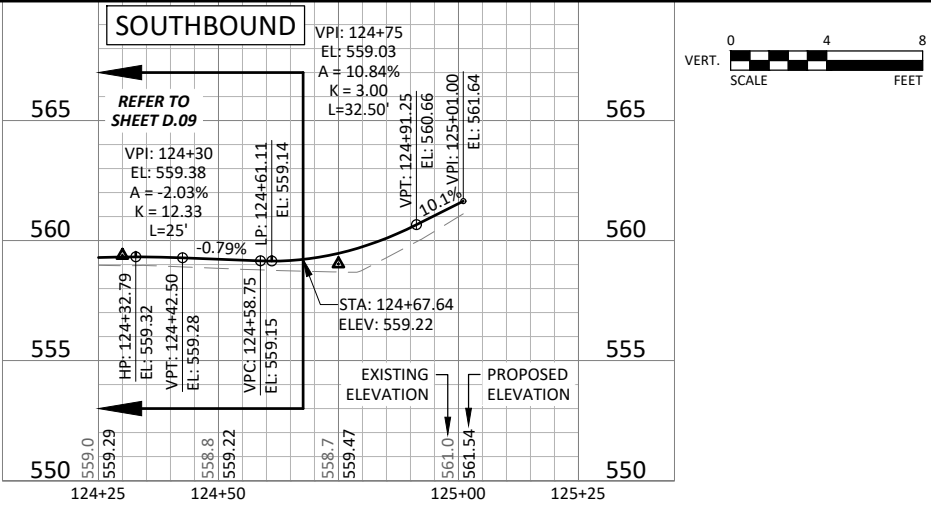
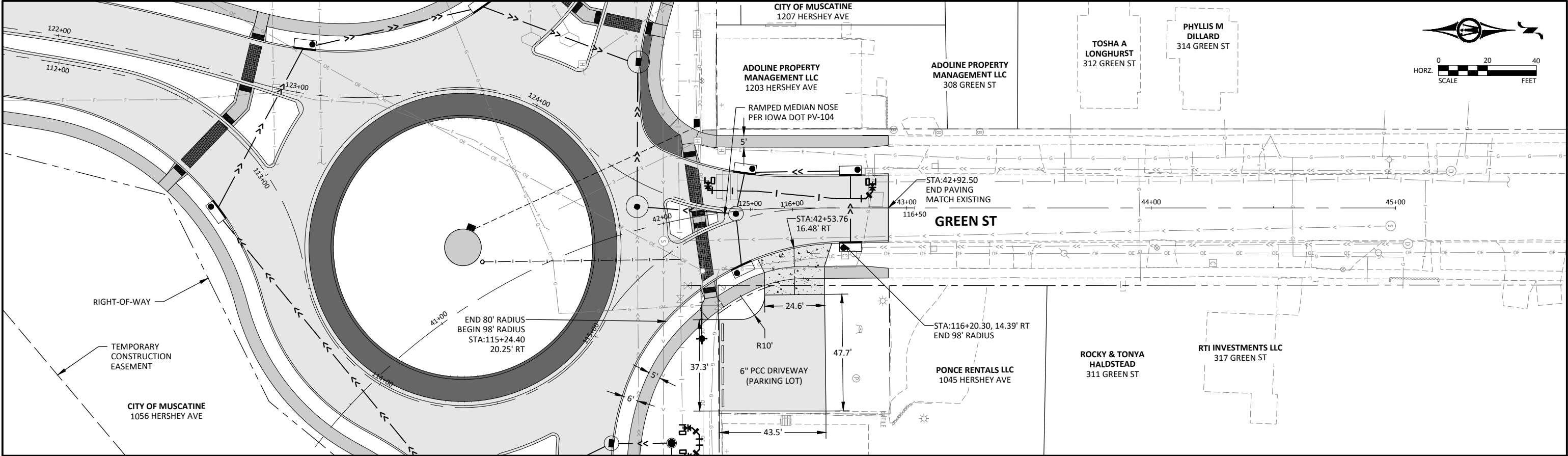


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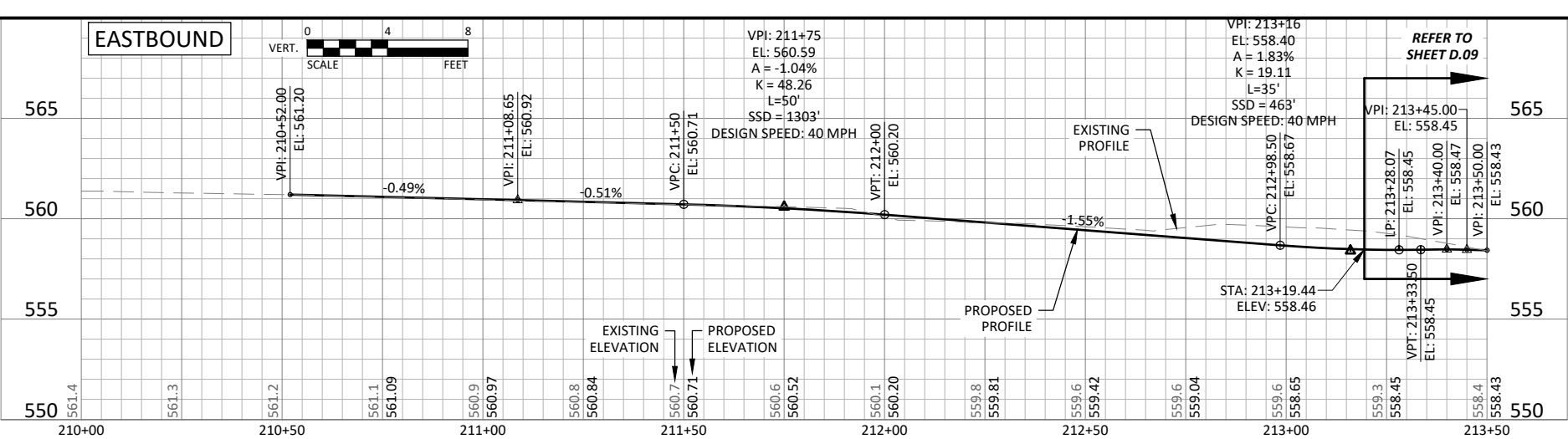
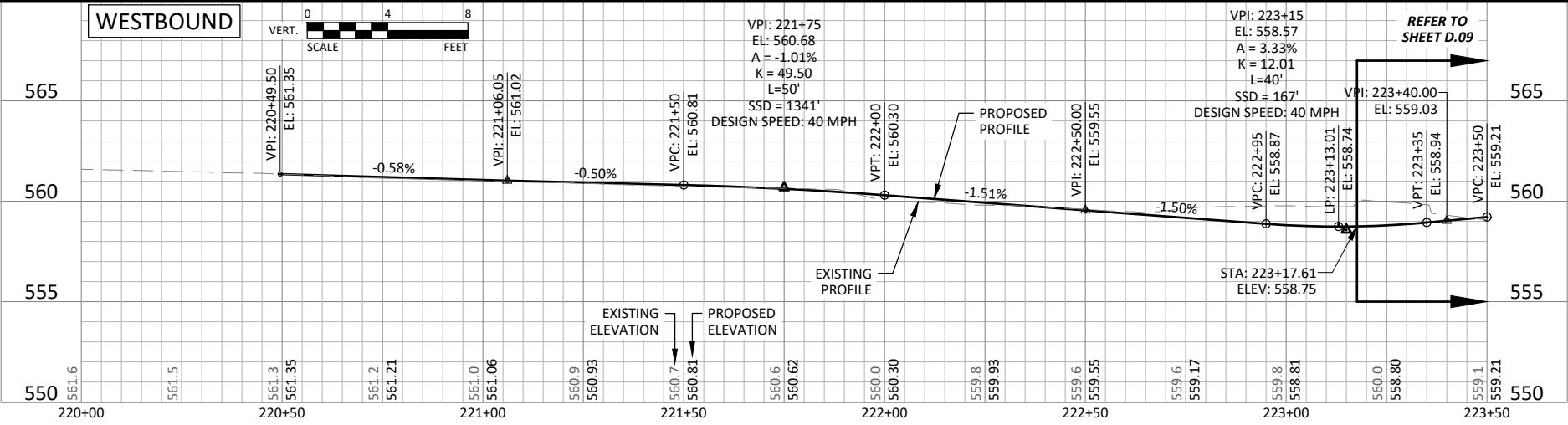
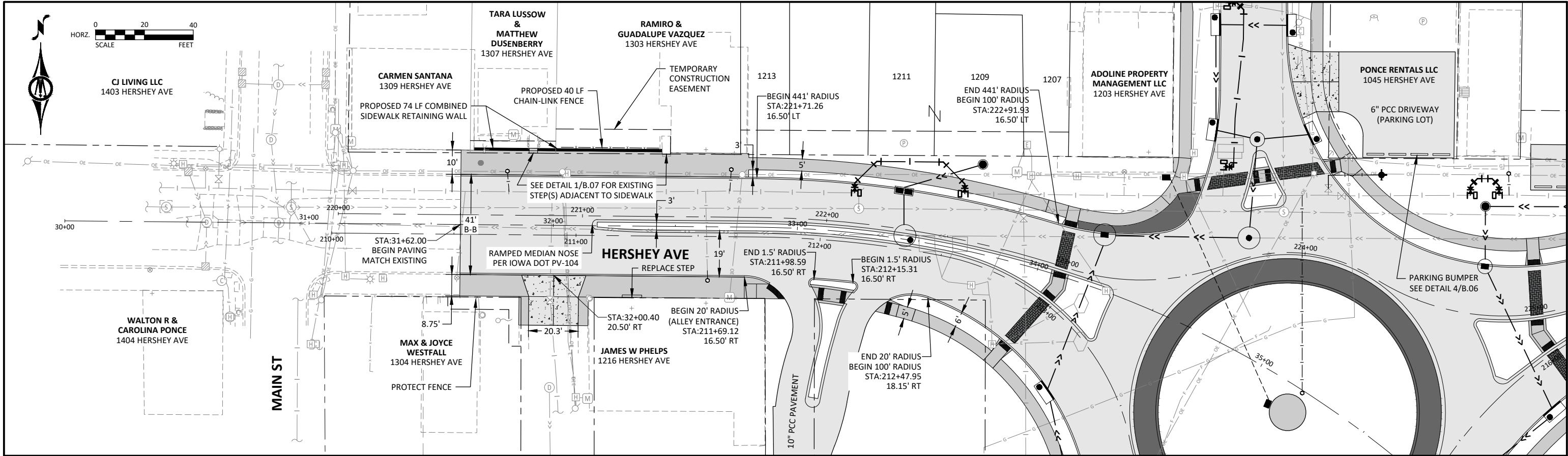


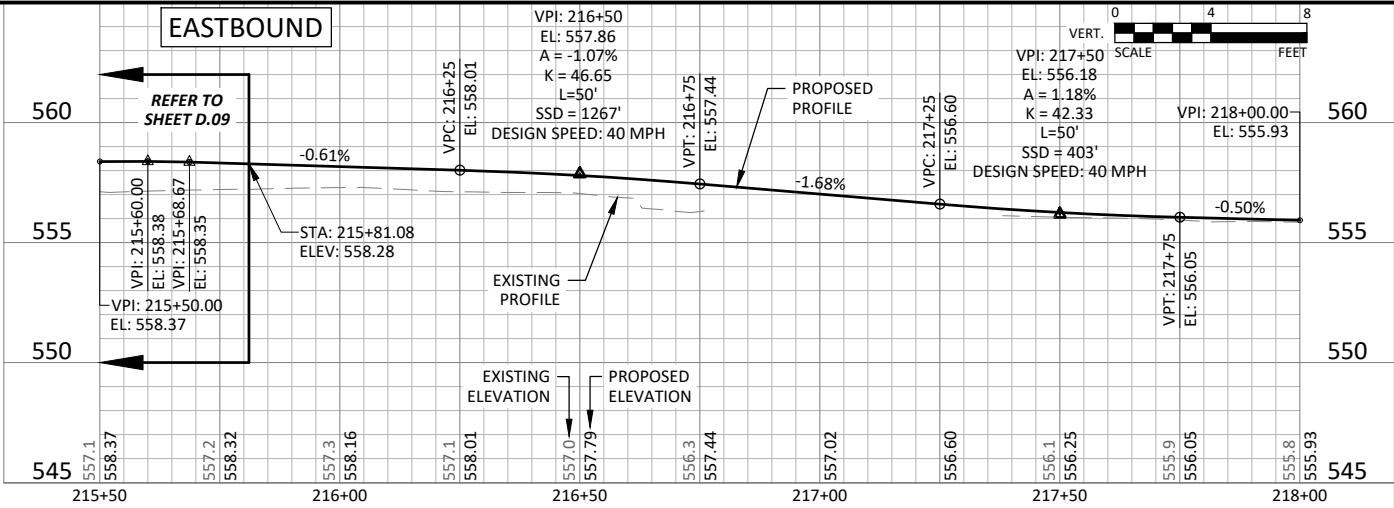
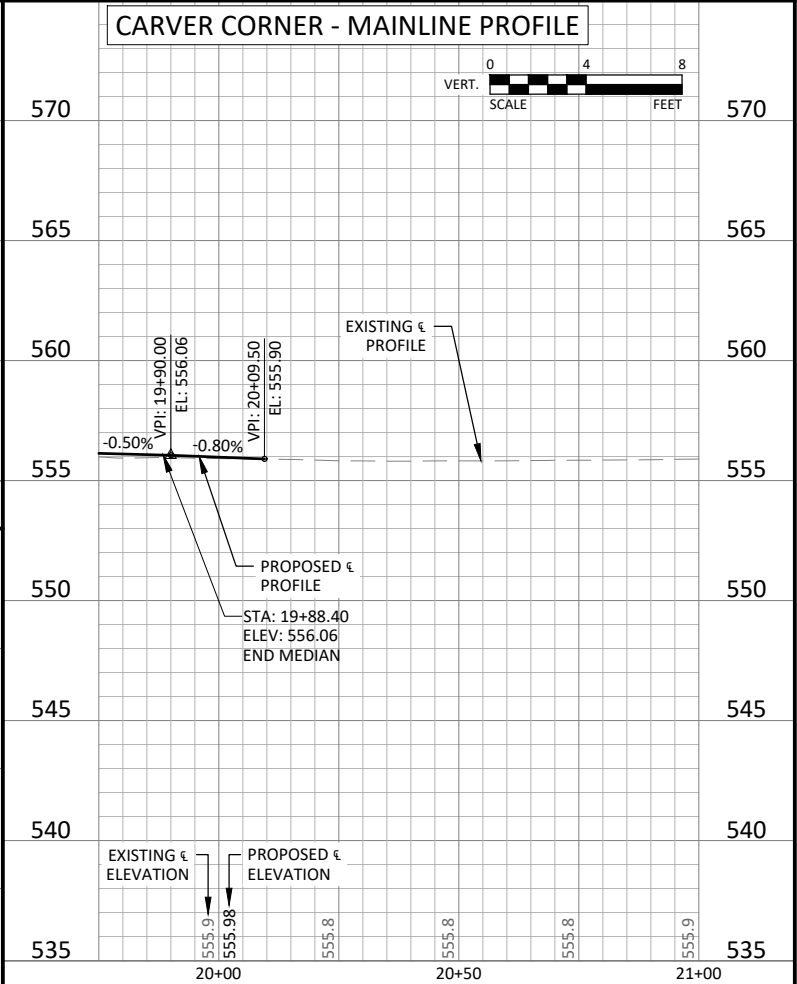
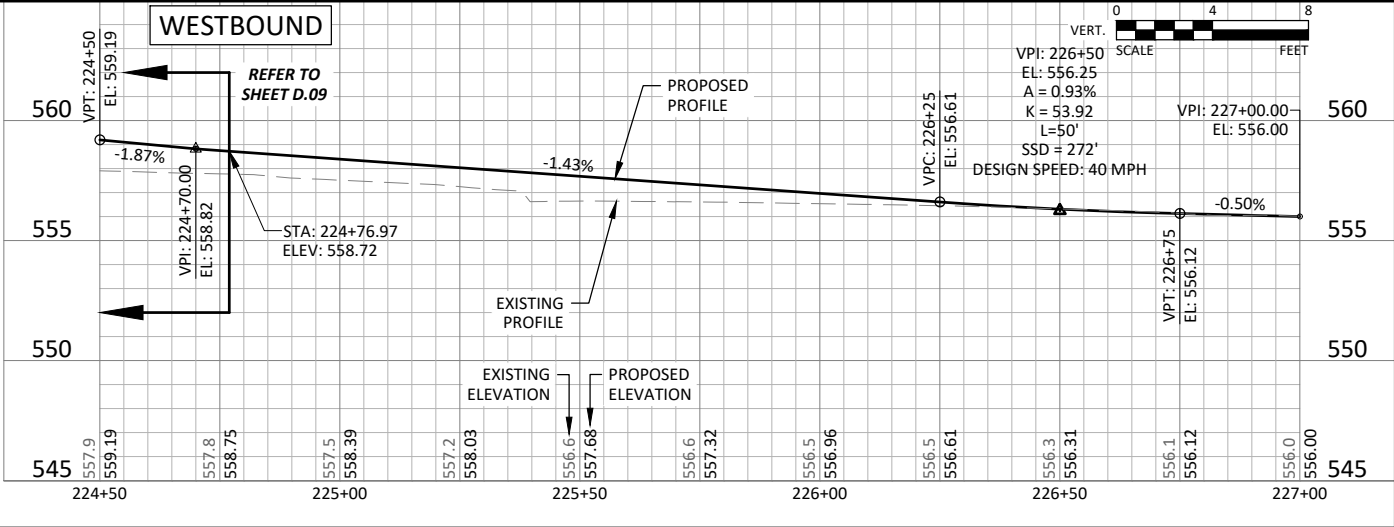
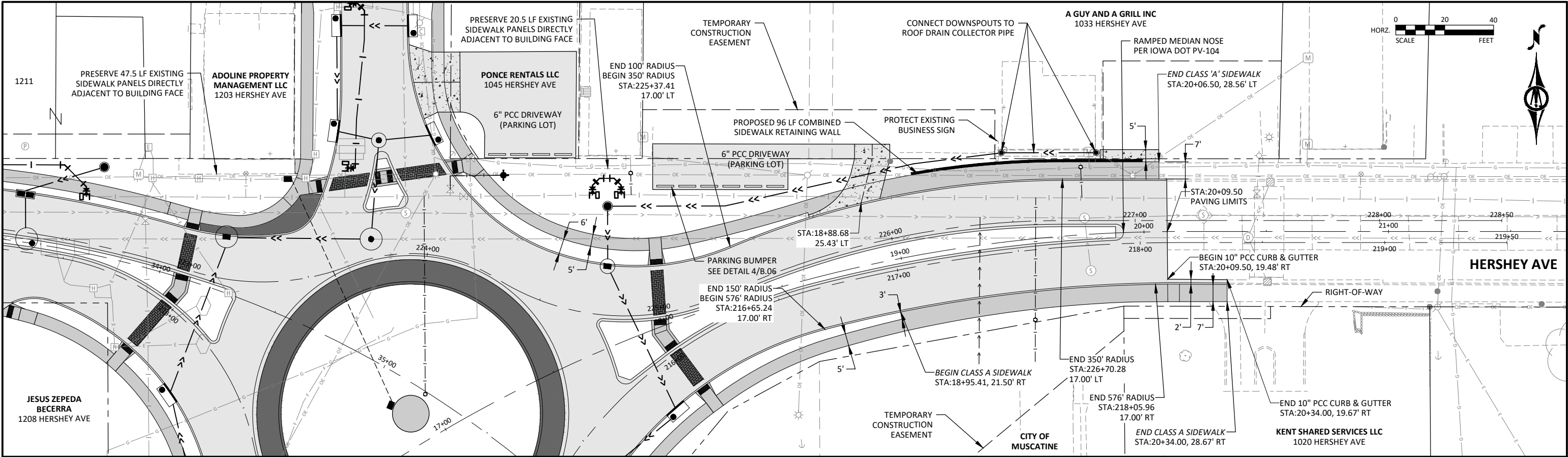
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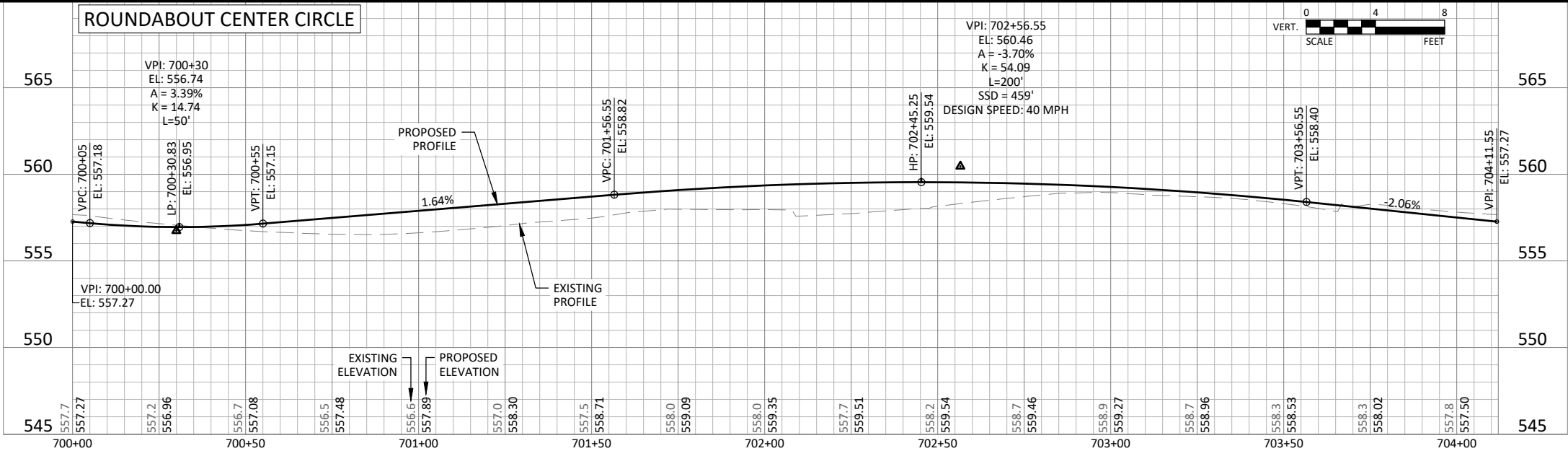
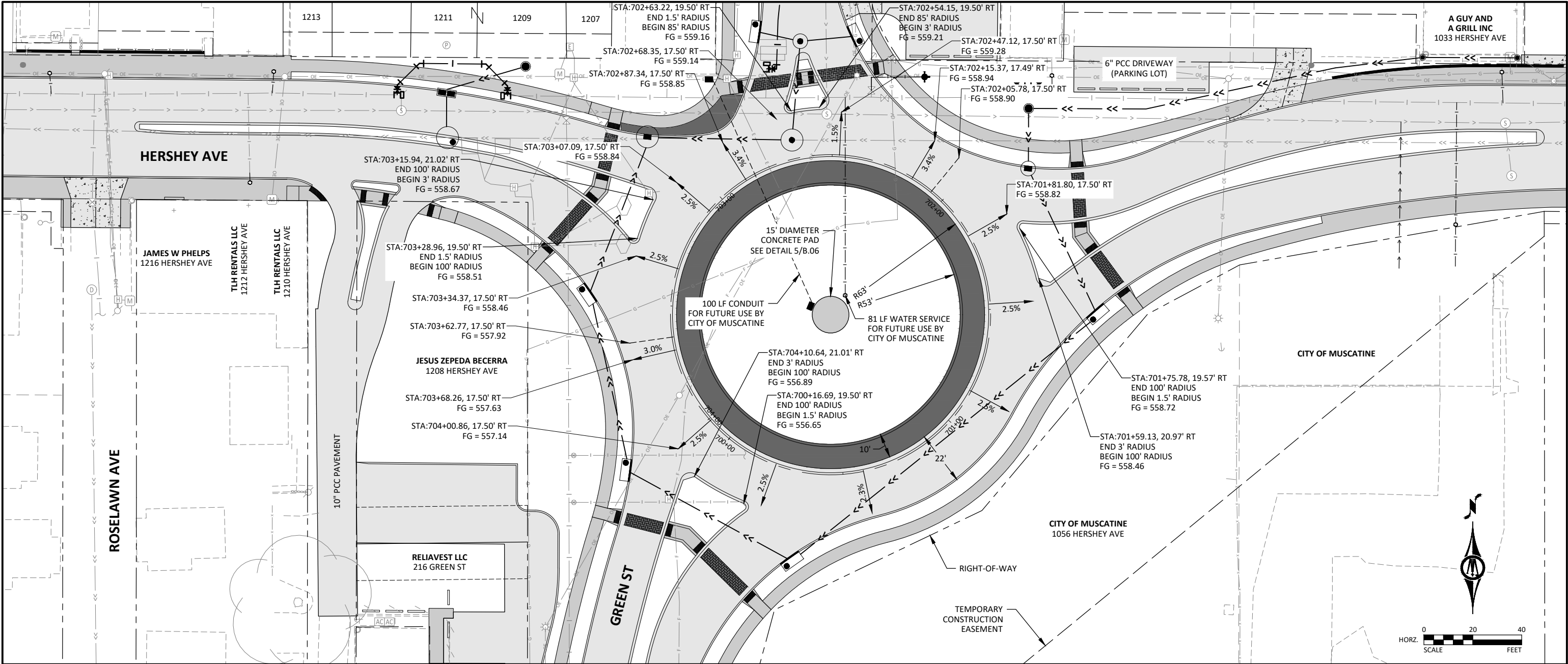




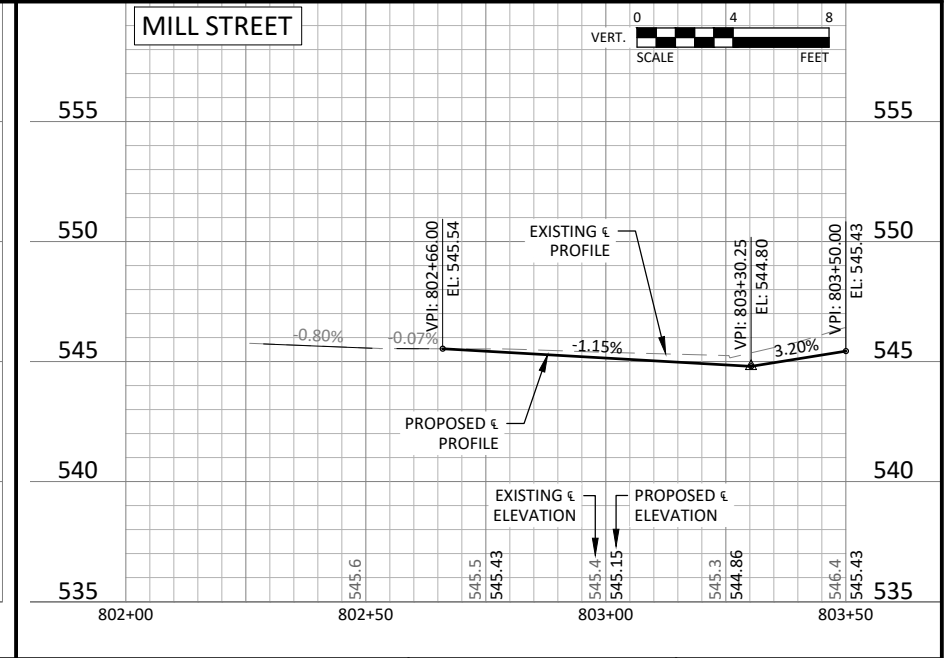
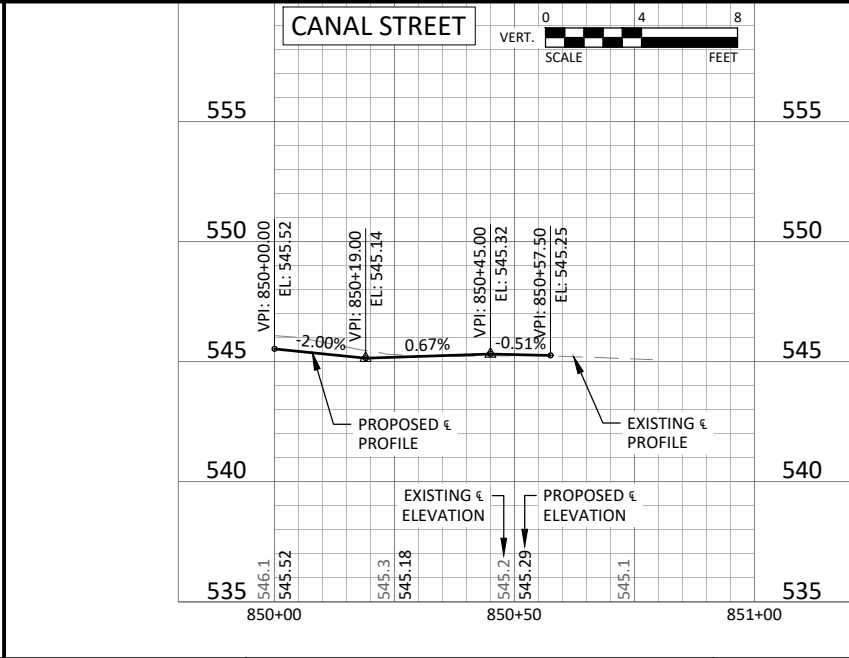
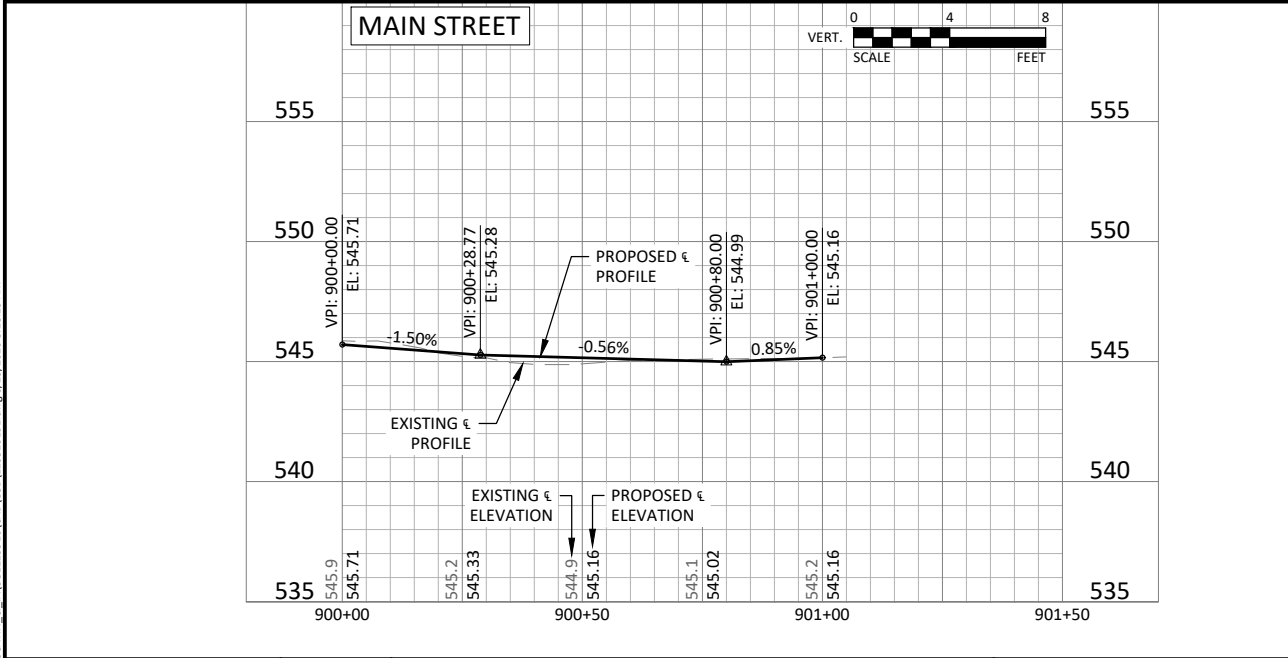
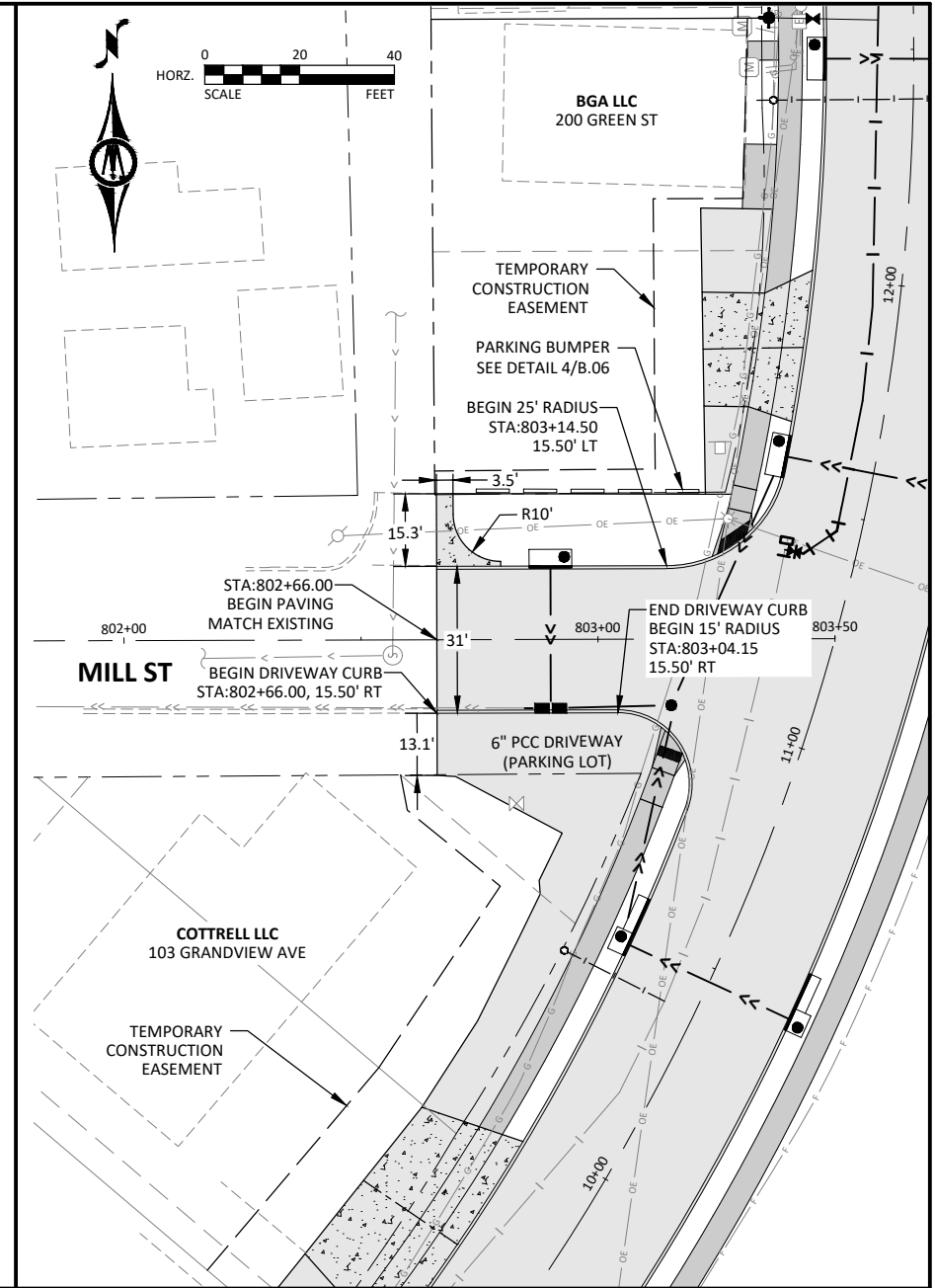
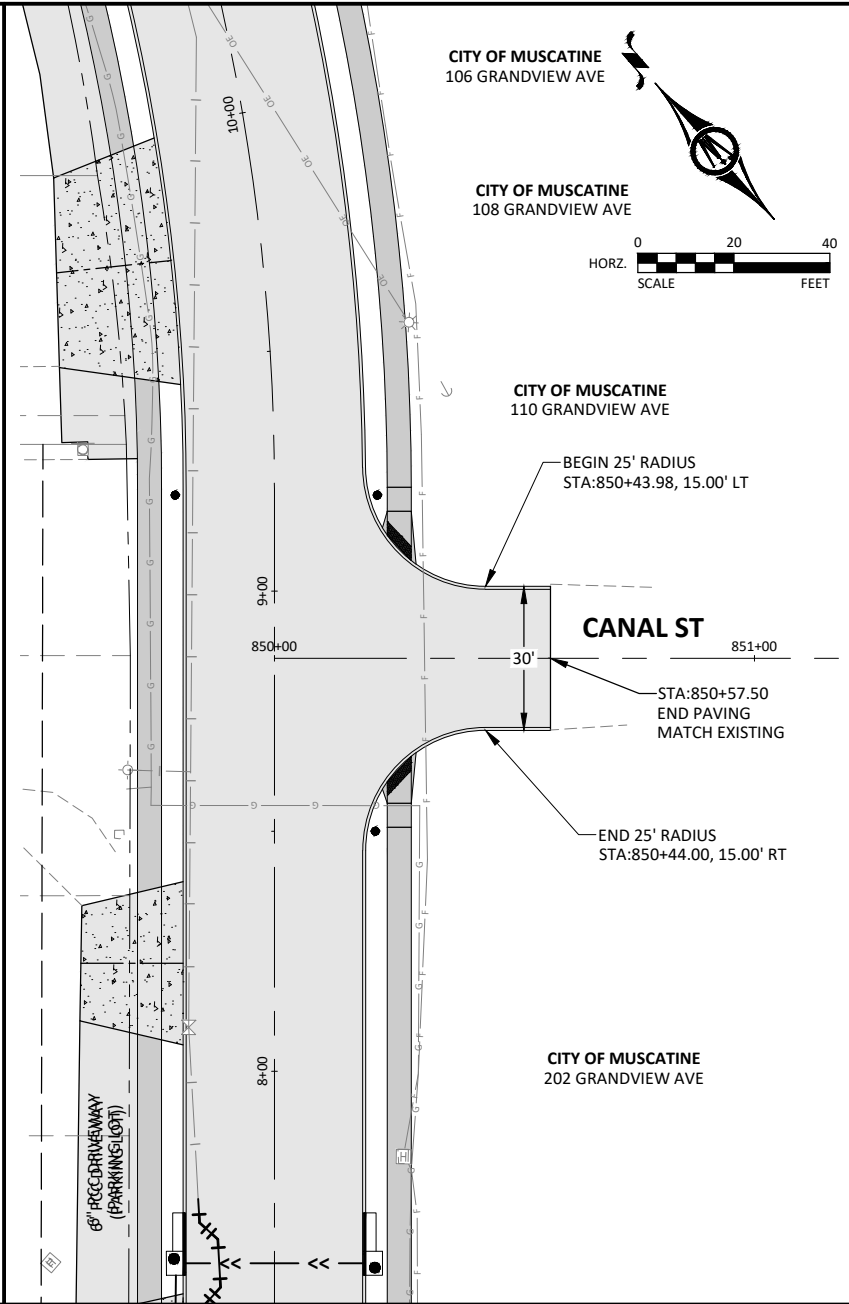
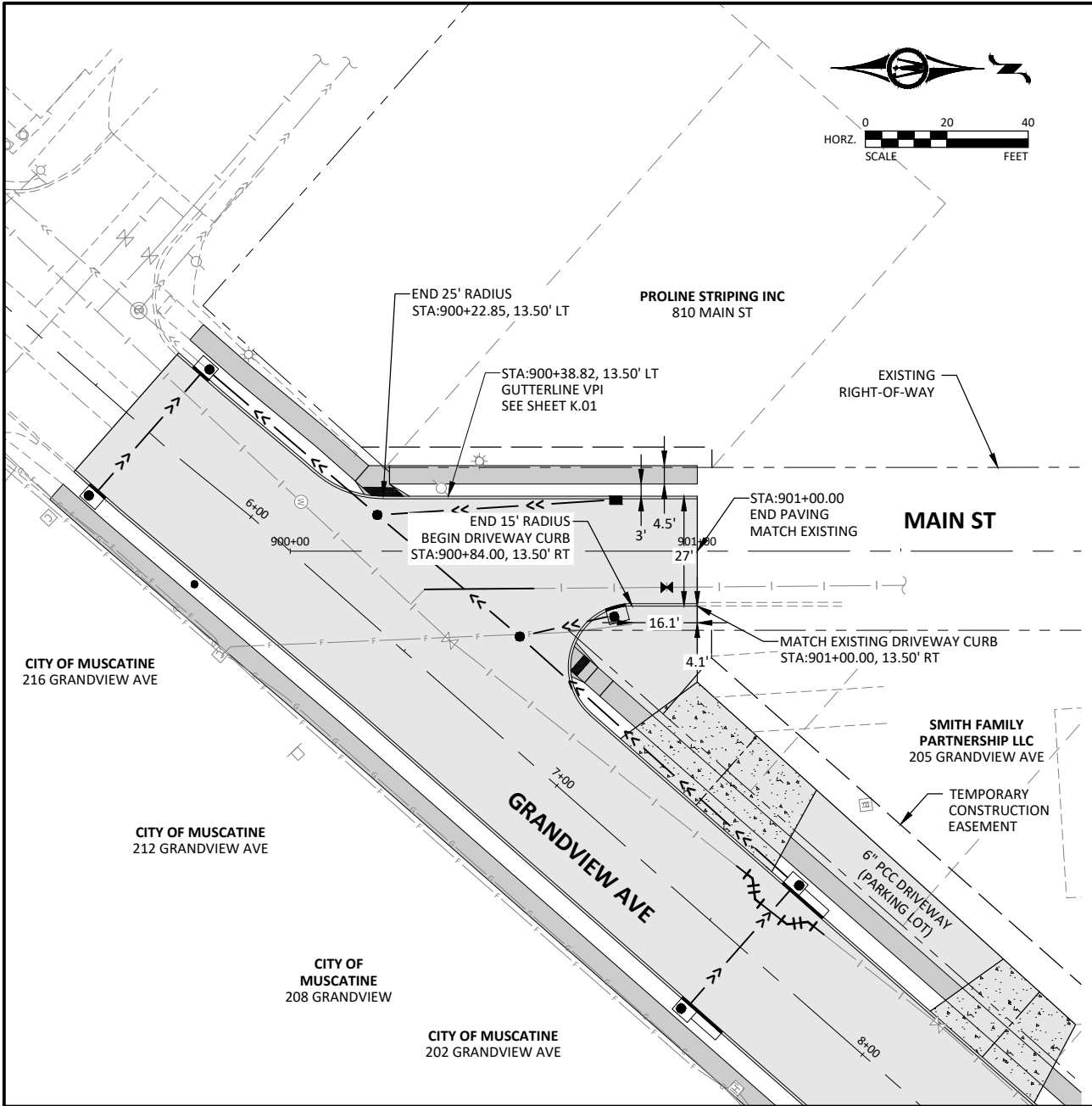
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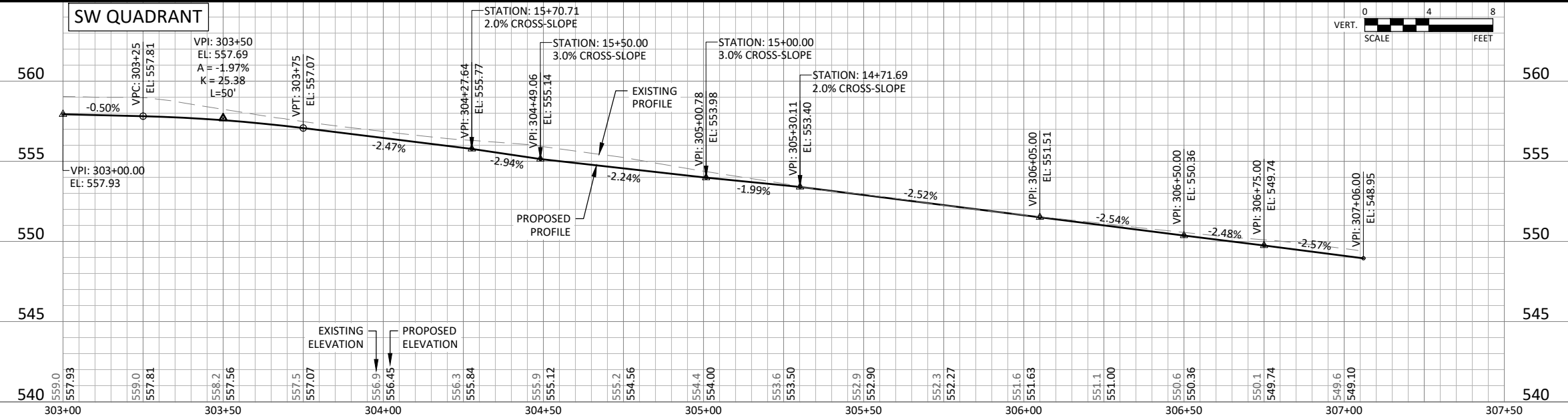
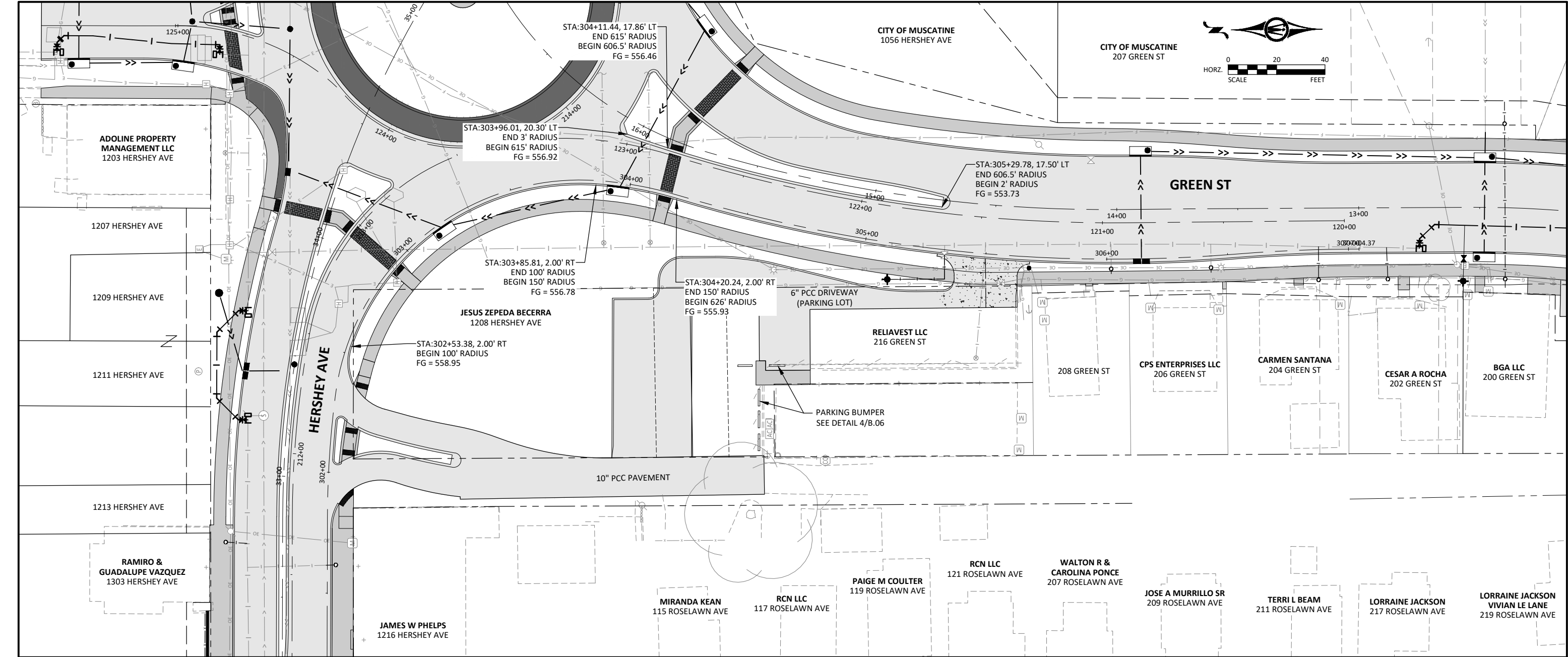




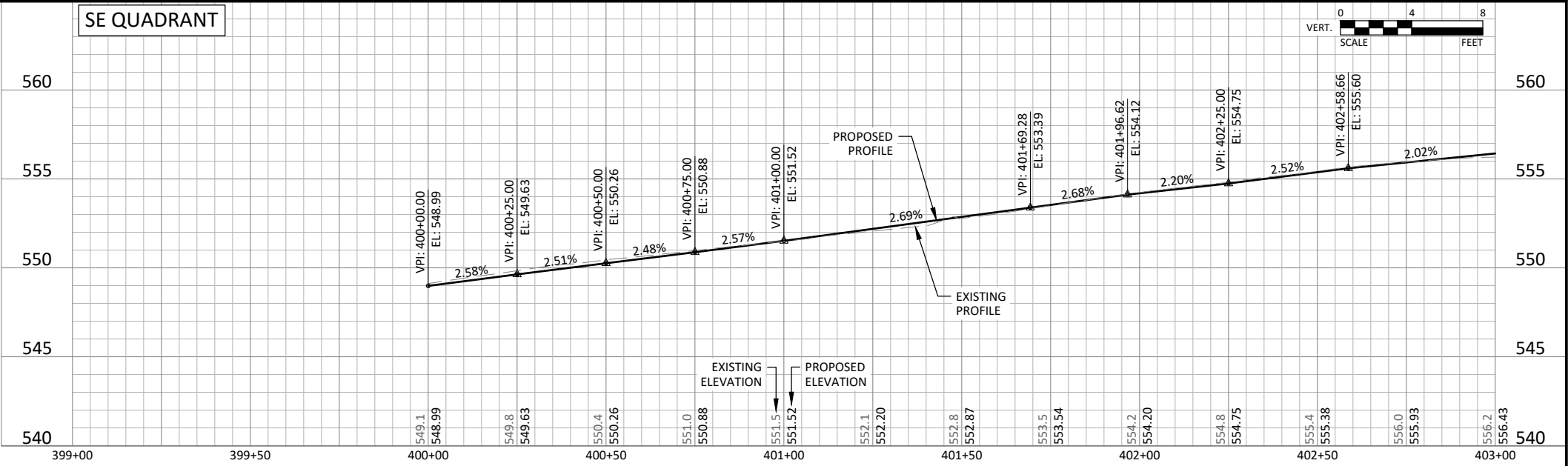
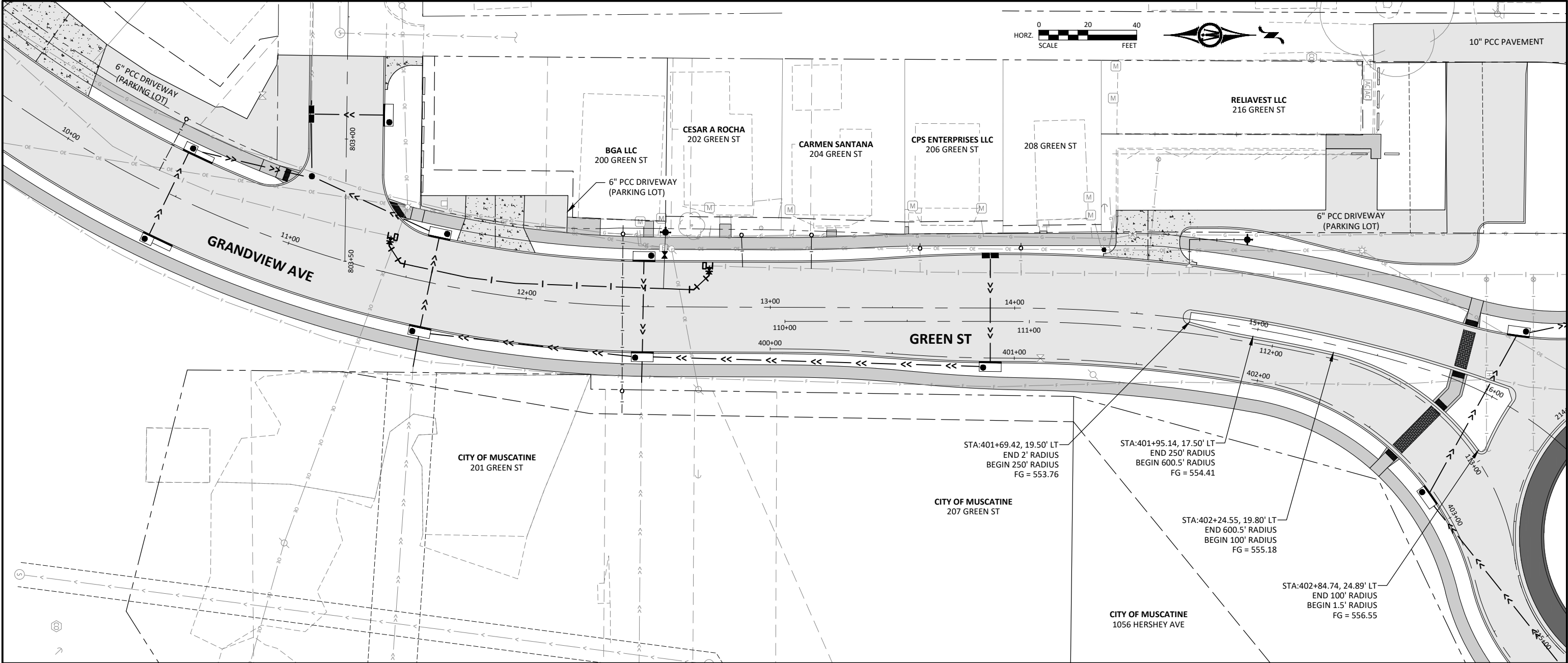


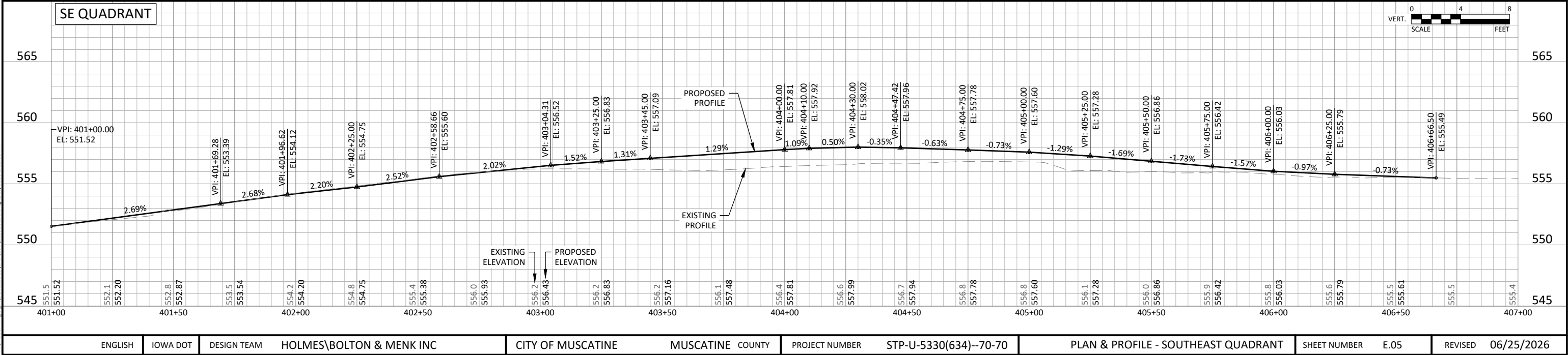
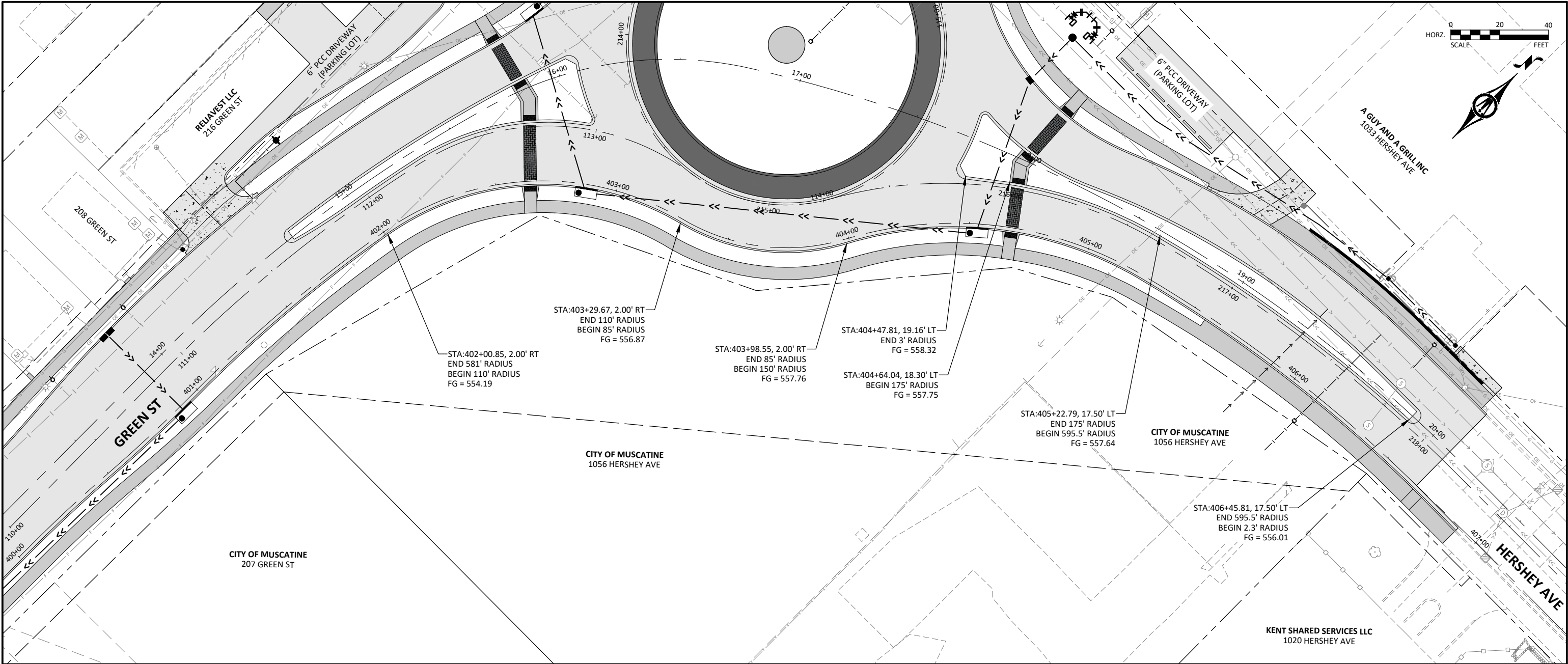
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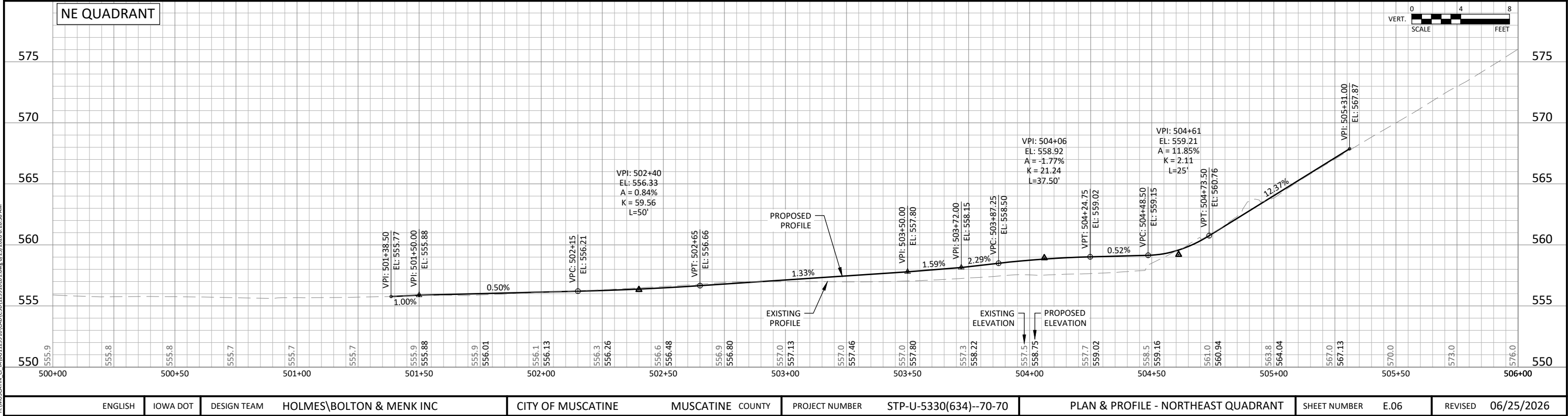
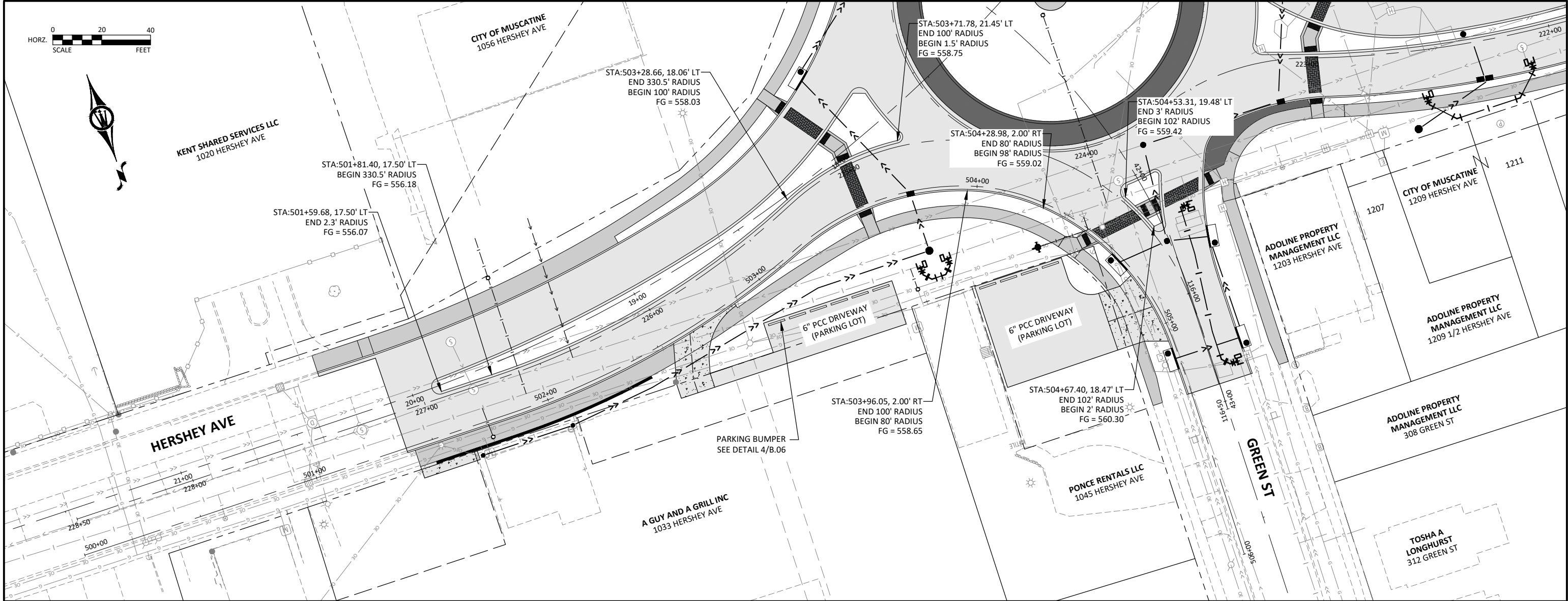


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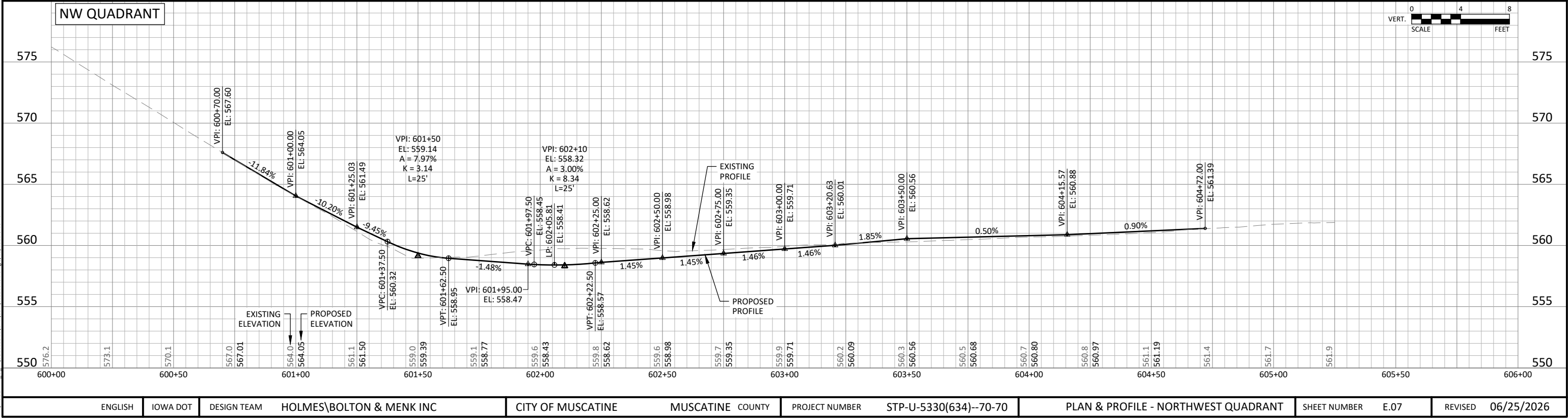
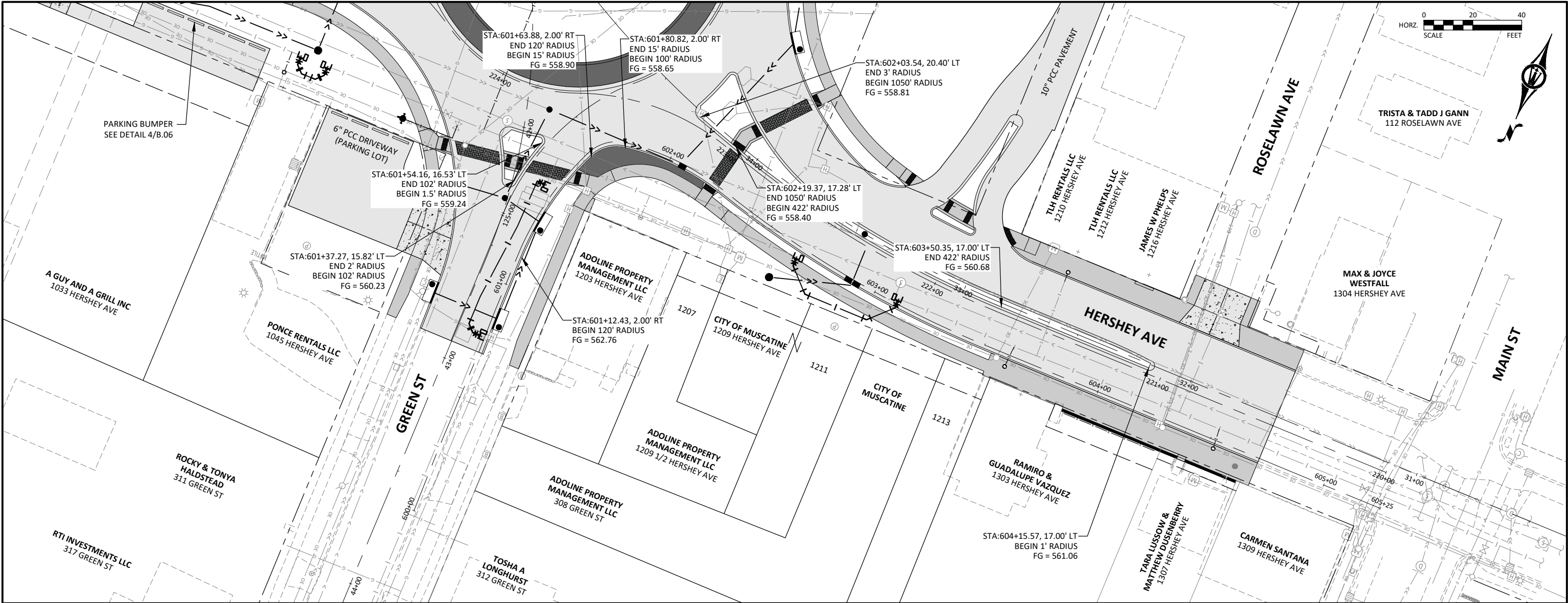




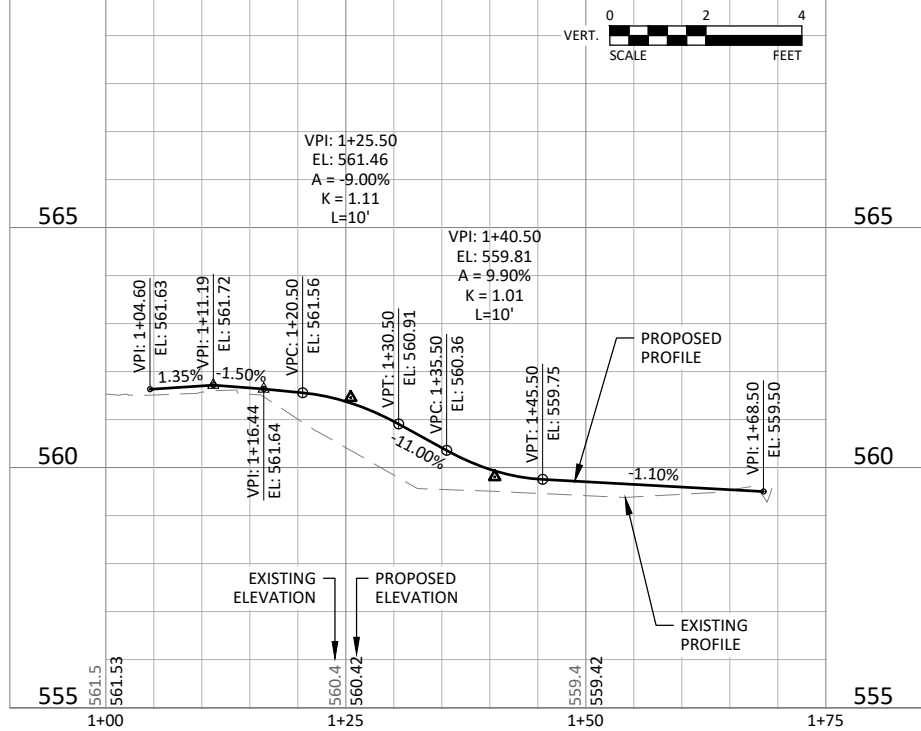
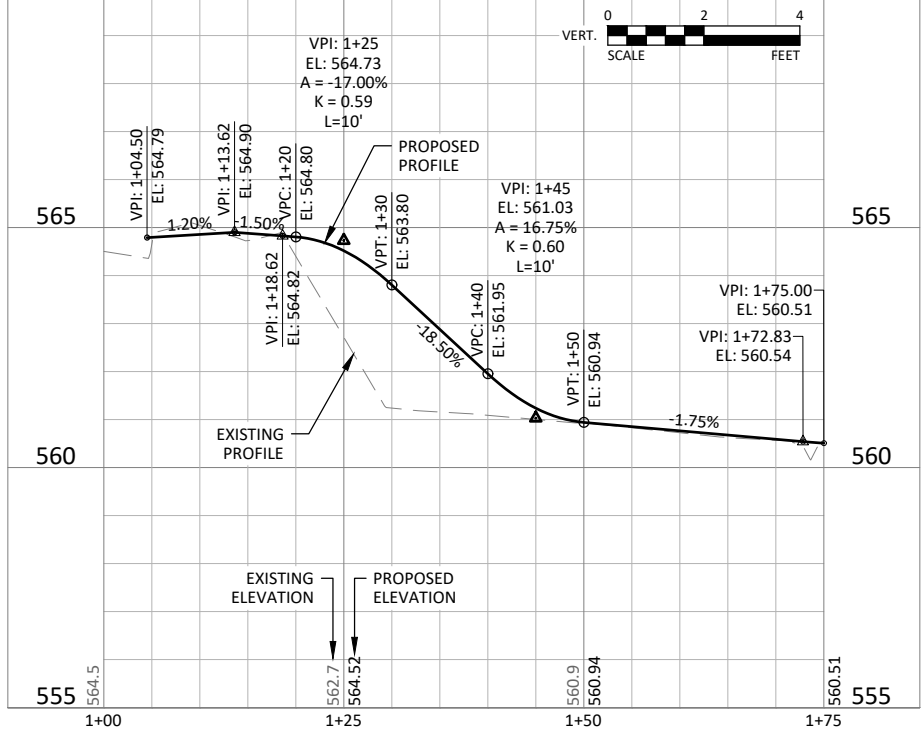
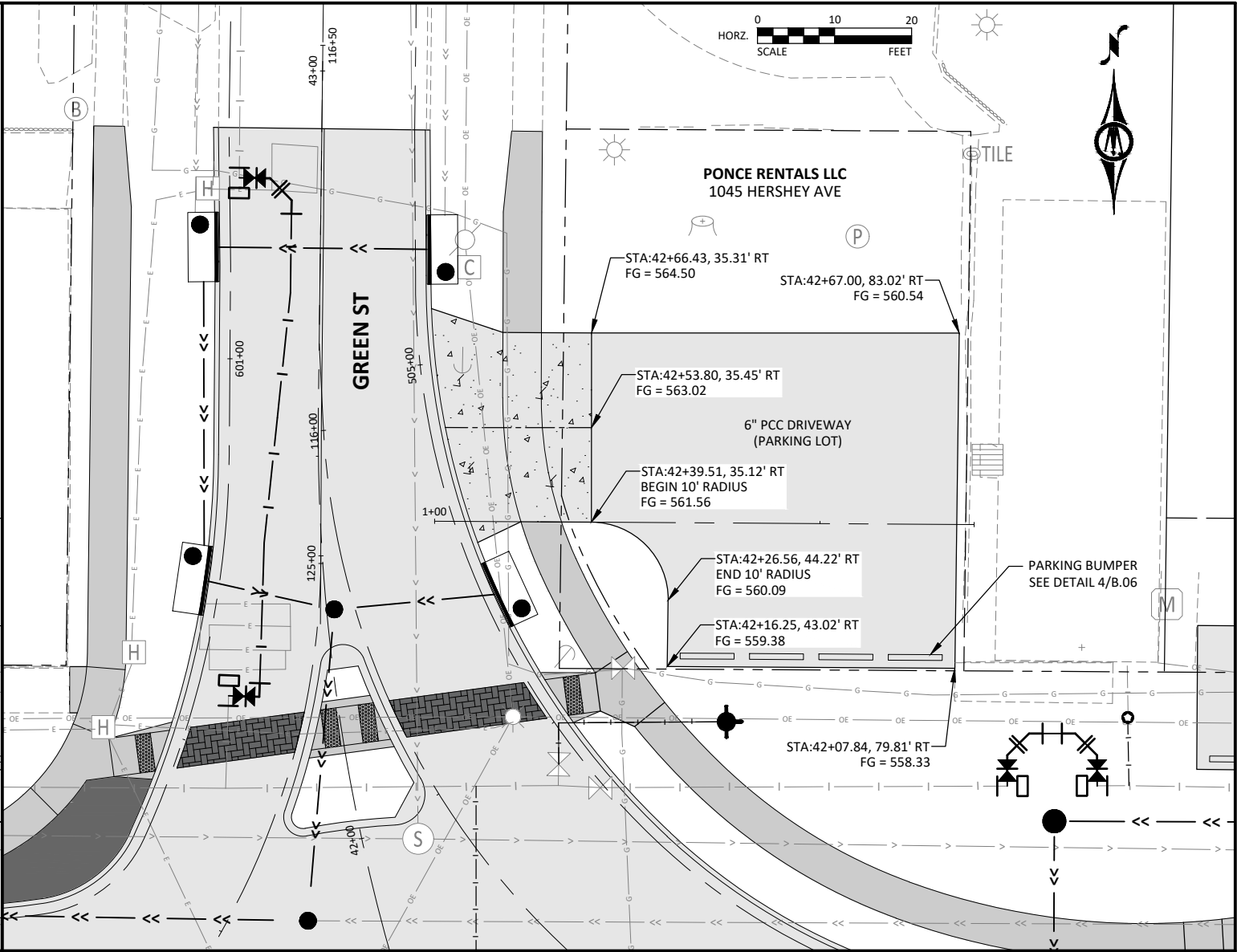
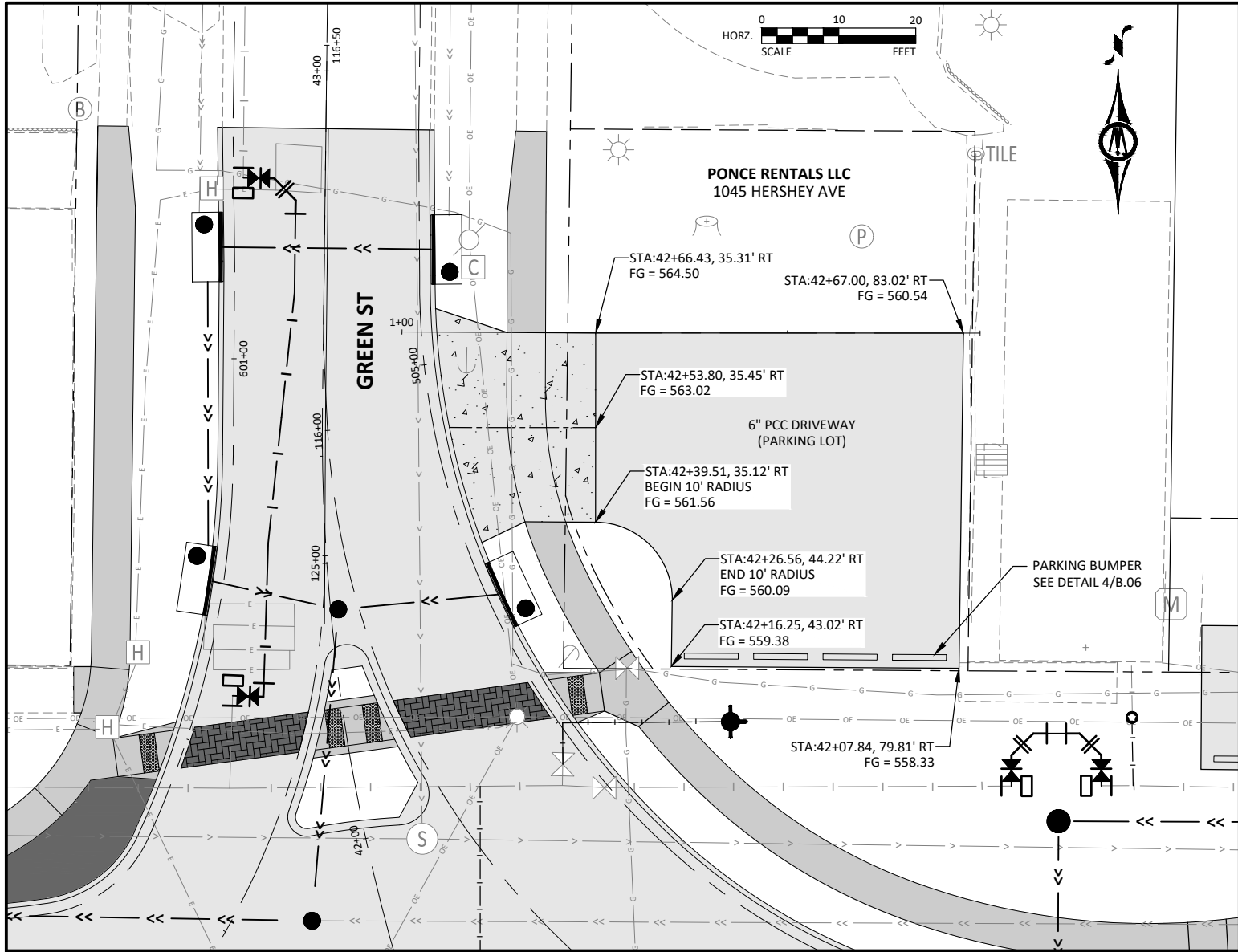
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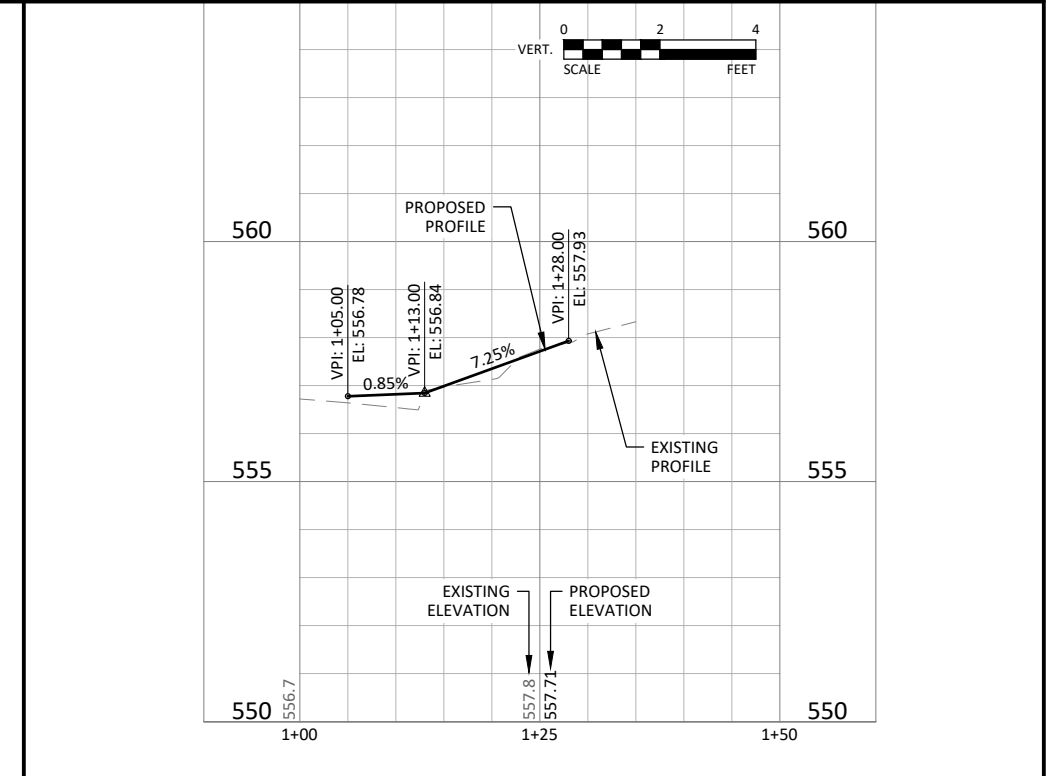
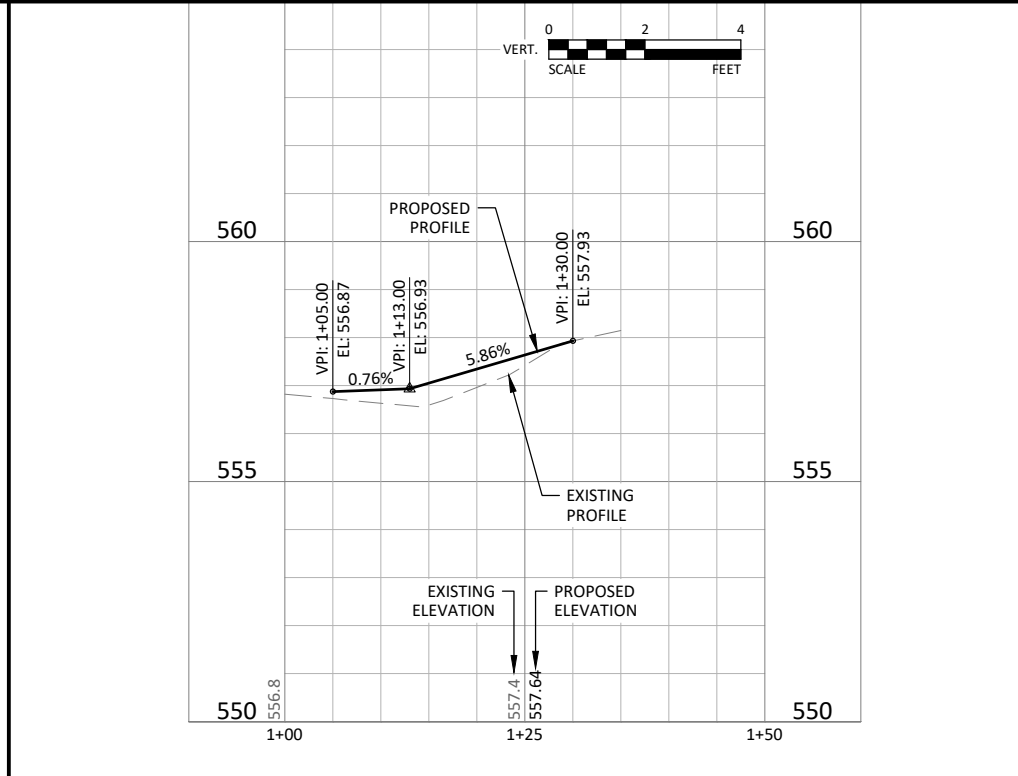
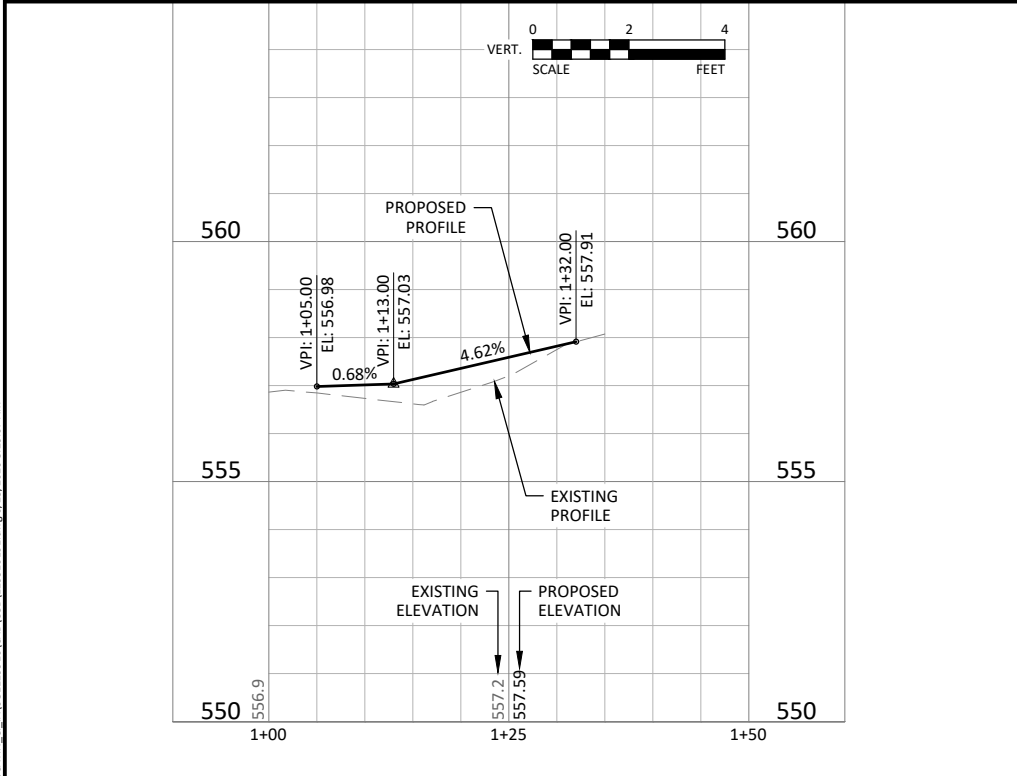
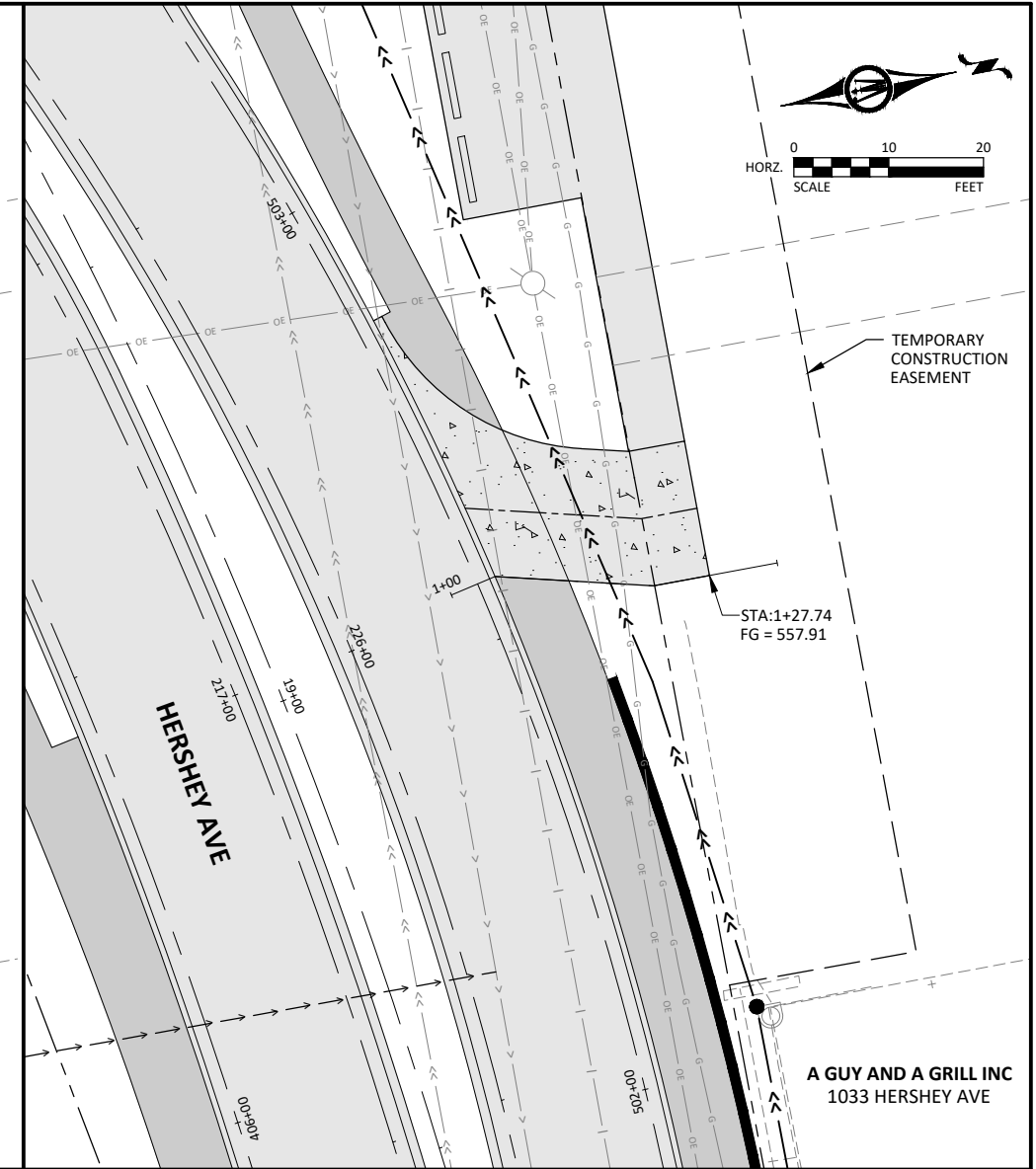
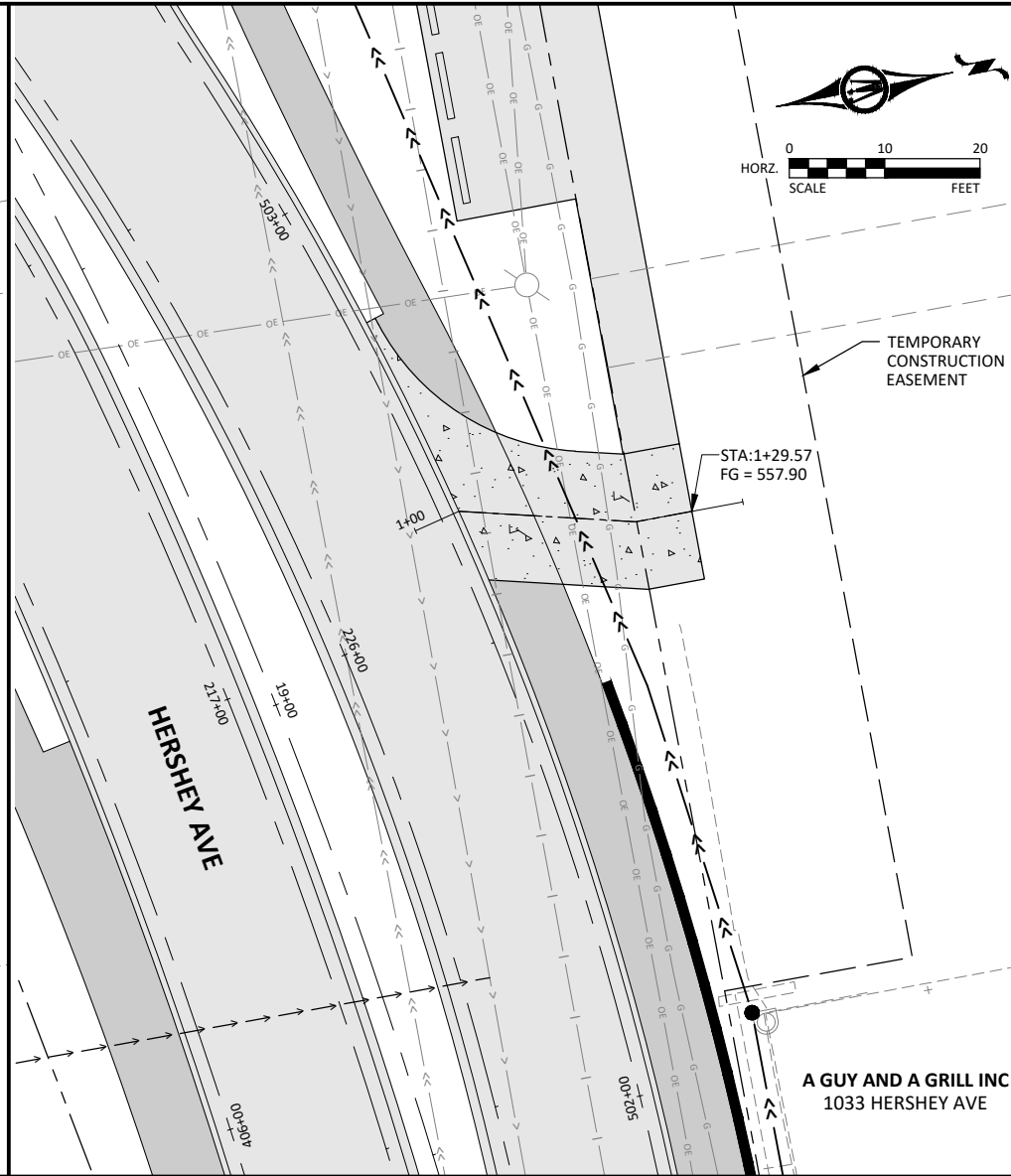
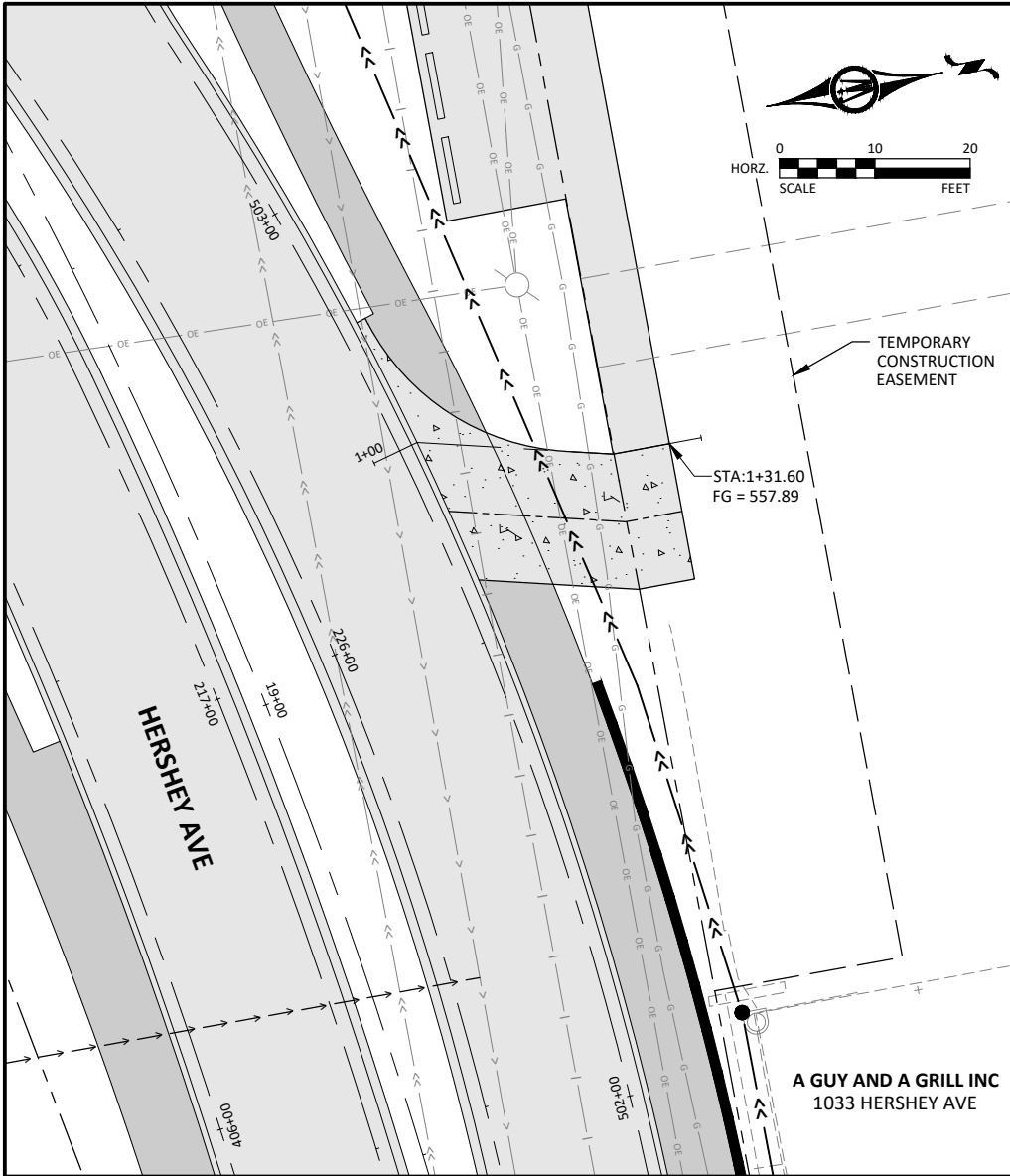
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STAGE 2 DETOUR PAVEMENT
SEE J.20-J.26 FOR MORE INFORMATION

0 20 40
SCALE FEET

A GUY AND A GRILL INC
1033 HERSHEY AVE

RELIAVEST LLC
216 GREEN ST

208 GREEN ST

GREEN ST

STA:14+78.42, 15.18' RT
MATCH EG = 553.38

8003+00 8004+00 8005+00

RIGHT-OF-WAY

UTILITY POLE TO BE RELOCATED BY OTHER

STA:19+21.49, 19.00' RT
FG = 555.95

8006+00

HERSHEY AVE

STA:20+09.50, 19.48' RT
FG = 555.49

STA:20+34.00, 19.67' RT
FG = 555.42

KENT SHARED SERVICES LLC
1020 HERSHEY AVE

CITY OF MUSCATINE
1056 HERSHEY AVE

CITY OF MUSCATINE
207 GREEN ST

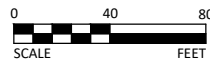
UTILITY POLE TO BE RELOCATED BY OTHER

TEMPORARY CONSTRUCTION EASEMENT

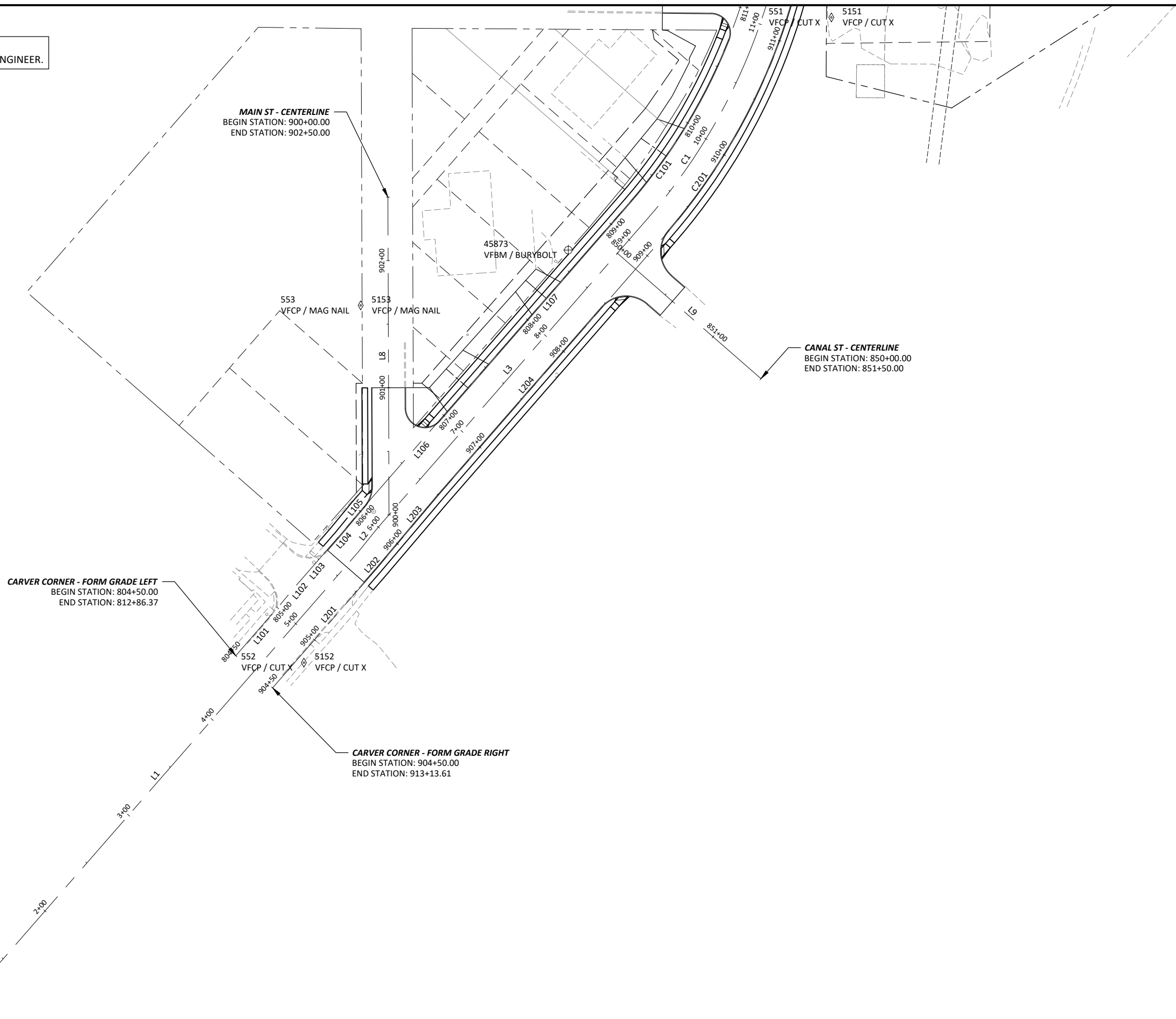
CITY OF MUSCATINE

LEGEND:
PREVIOUSLY CONSTRUCTED PAVEMENT
PROPOSED PAVEMENT CONSTRUCTION

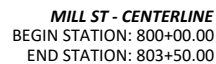
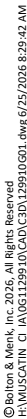




NOTE:
• CONSTRUCTION STAKING TO BE PROVIDED BY ENGINEER.





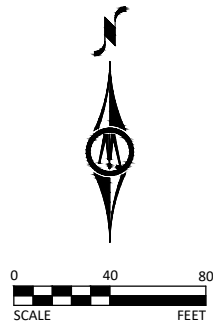


MILL ST - CENTERLINE
BEGIN STATION: 800+00.00
END STATION: 803+50.00

— **RTWL - A GUY AND A GRILL**
 BEGIN STATION: 1+25.00
 END STATION: 2+82.00

— **GREEN ST - MAINLINE [NORTH LEG]**
BEGIN STATION: 40+00.00
END STATION: 45+00.00

HERSHEY AVE - MAINLINE [WEST LEG]
BEGIN STATION: 30+00.00
END STATION: 36+50.00



EXISTING CL - HERSHEY
BEGIN STATION: 2012+00.00
END STATION: 2030+00.00

EXISTING CL - GRANDVIEW
BEGIN STATION: 1001+00.00
END STATION: 1017+45.00

TEMP DETOUR
BEGIN: 8000+00.00
END: 8007+50.00

TEMP DETOUR
BEGIN: 8000+00.00
END: 8007+50.00

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ENGLISH

IOWA DOT

DESIGN TEAM
HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

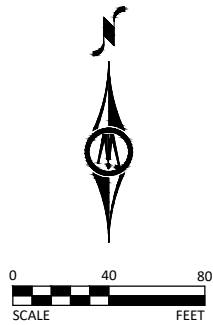
MUSCATINE COUNTY

PROJECT NUMBER
STP-U-5330(634)--70-70

REFERENCES & BENCHMARKS

SHEET NUMBER
G.04

REVISED
06/25/2026



GREEN ST - MAINLINE [NORTH LEG]
BEGIN STATION: 40+00.00
END STATION: 45+00.00

CARVER CORNER - MAINLINE
BEGIN STATION: 1+00.00
END STATION: 30+00.00

RTWL - A GUY AND A GRILL
BEGIN STATION: 1+25.00
END STATION: 2+82.00

HERSHEY AVE - MAINLINE [WEST LEG]
BEGIN STATION: 30+00.00
END STATION: 36+50.00

GREEN ST - MAINLINE [NORTH LEG]
BEGIN STATION: 40+00.00
END STATION: 45+00.00

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L7^a

2029+00

2028+00

2027+00

C62

2026+00

2025+00

2024+00

2023+00

2022+00

2021+00

MAGNA

- 5401

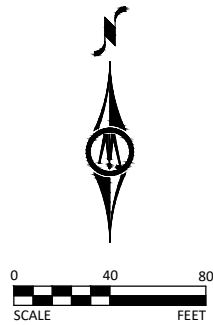
VFBM / BOLT IN THE WORD MUELLER

5400

5400
VFBM / BOLT IN THE WORD MUELLER

5000
VFCEP / CUT X

5013
VFCP / NOS BMI CNT CAP



HERSHEY AVE - WESTBOUND
BEGIN STATION: 220+00.00
END STATION: 228+50.00

HERSHEY AVE - EASTBOUND
BEGIN STATION: 210+00.00
END STATION: 219+50.00

GREEN ST - SOUTHBOUND
BEGIN STATION: 120+00.00
END STATION: 125+00.00

GREEN ST - NORTHBOUND
BEGIN STATION: 110+00.00
END STATION: 116+50.00

HERSHEY AVE - WESTBOUND
BEGIN STATION: 220+00.00
END STATION: 228+50.00

HERSHEY AVE - EASTBOUND
BEGIN STATION: 210+00.00
END STATION: 219+50.00

GREEN ST - SOUTHBOUND
BEGIN STATION: 120+00.00
END STATION: 125+00.00

GREEN ST - NORTHBOUND
BEGIN STATION: 110+00.00
END STATION: 116+50.00

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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

REFERENCES & BENCHMARKS

SHEET NUMBER G.07

REVISED 06/25/2026



— **NE QUADRANT**
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END STATION: 506+00.00

SW QUADRANT
BEGIN STATION: 300+00.00
END STATION: 307+06.00

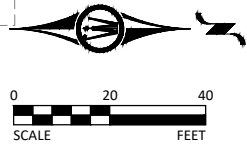
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— **SE QUADRANT**
BEGIN STATION: 400+00.00
END STATION: 408+06.17

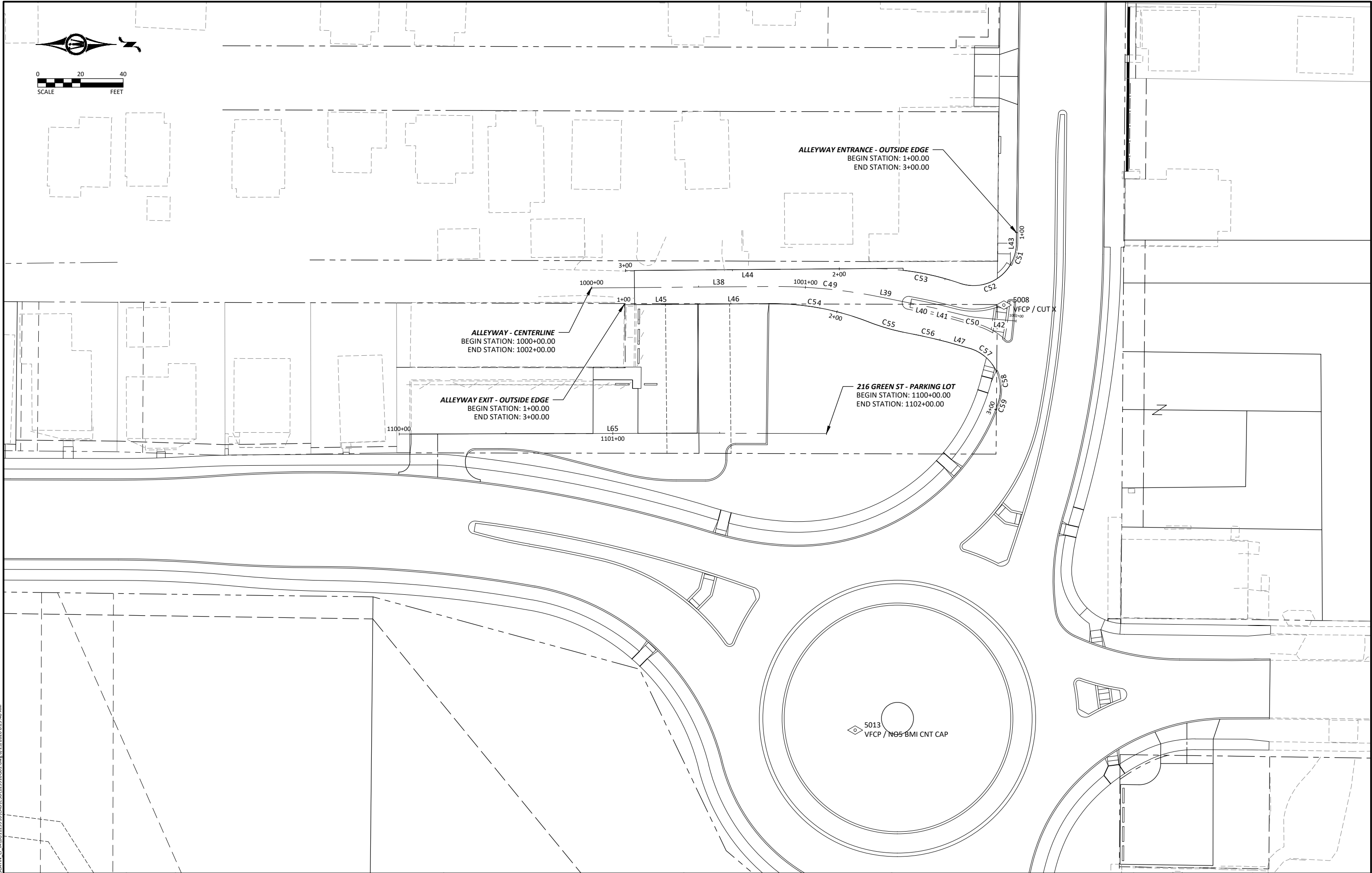
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END STATION: 704+08.40

— **SE QUADRANT**
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SW QUADRANT
BEGIN STATION: 300+00.00
END STATION: 307+06.00

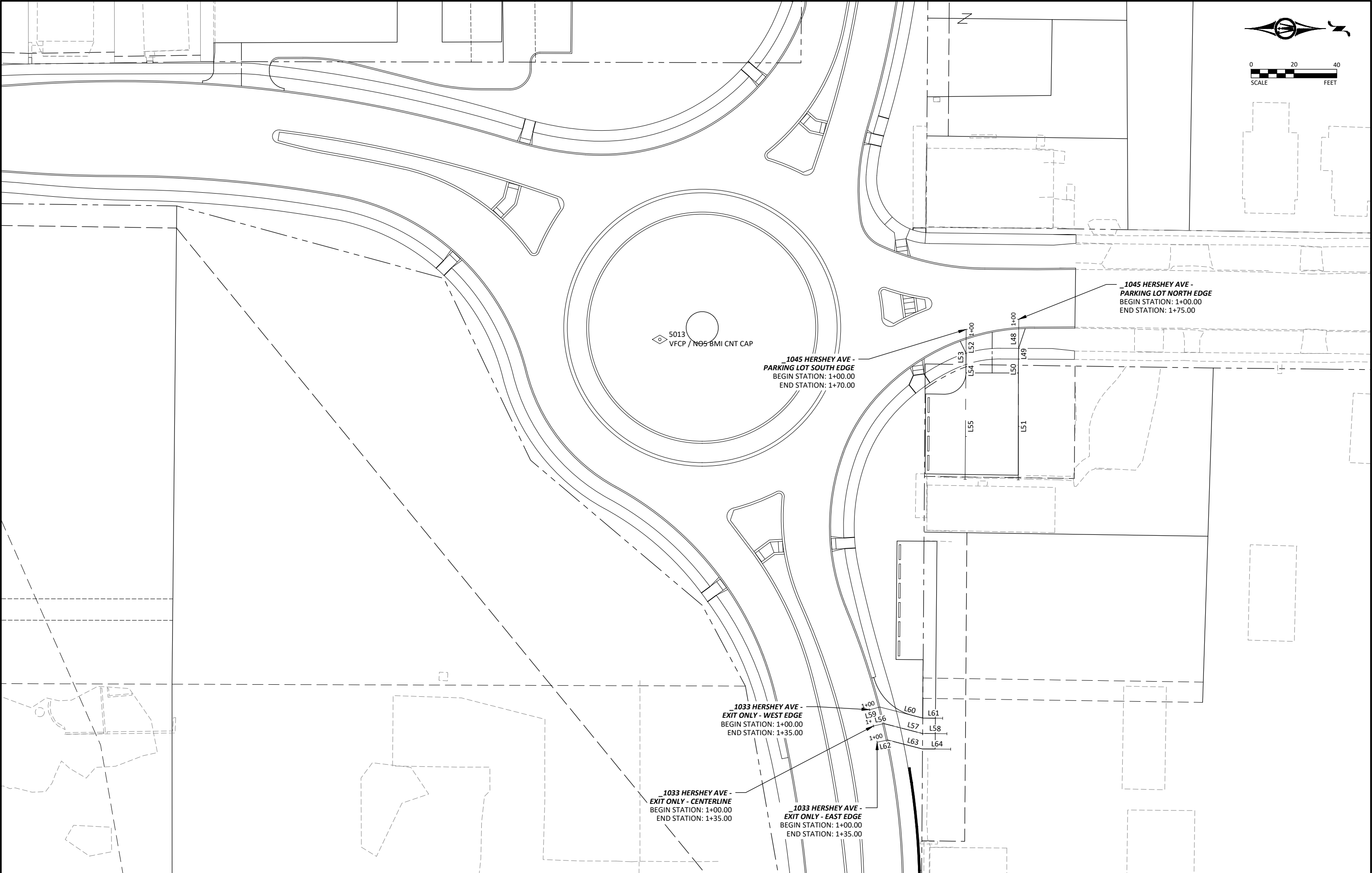


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ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	REFERENCES & BENCHMARKS	SHEET NUMBER	G.09	REVISED	06/25/2026
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ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	REFERENCES & BENCHMARKS	SHEET NUMBER	G.10	REVISED	06/25/2026
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CARVER CORNER - MAINLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L1	1+00	5+75	475.00				523649.54	2309530.45	524007.37	2309842.82	N41° 07' 12"E
L2	5+75	6+00	25.00				524007.37	2309842.82	524026.84	2309858.51	N38° 51' 17"E
L3	6+00	9+21.22	321.22				524026.84	2309858.51	524268.83	2310069.76	N41° 07' 12"E
C1	9+21.22	10+00	78.78	9°42'23"	465.00	78.68	524268.83	2310069.76	524332.27	2310116.30	N36° 16' 01"E
C2	10+00	12+54.42	254.42	31°20'57"	465.00	251.26	524332.27	2310116.30	524574.11	2310184.46	N15° 44' 21"E
L4	12+54.42	13+69.67	115.25				524574.11	2310184.46	524689.36	2310184.59	N0° 03' 52"E
L5	13+69.67	13+99.01	29.33				524689.36	2310184.59	524718.69	2310184.51	N0° 09' 28"W
C3	13+99.01	15+70.71	171.70	16°51'37"	583.50	171.09	524718.69	2310184.51	524888.00	2310209.12	N8° 16' 21"E
C4	15+70.71	16+79.35	108.64	41°29'51"	150.00	106.28	524888.00	2310209.12	524972.37	2310273.75	N37° 27' 05"E
C5	16+79.35	20+14.48	335.13	32°08'13"	597.50	330.76	524972.37	2310273.75	525062.05	2310592.12	N74° 16' 06"E
L6	20+14.48	24+40.99	426.51				525062.05	2310592.12	525059.54	2311018.62	S89° 39' 47"E
C6	24+40.99	27+53.57	312.58	38°30'53"	465.00	306.72	525059.54	2311018.62	525159.00	2311308.77	N71° 04' 46"E
L7	27+53.57	30+00	246.43				525159.00	2311308.77	525311.32	2311502.49	N51° 49' 20"E

CARVER CORNER - FORM GRADE LEFT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L101	804+50	804+99.99	49.99				523925.71	2309746.31	523963.37	2309779.19	N41° 07' 12"E
L102	804+99.99	805+25	25.00				523963.37	2309779.19	523982.53	2309795.25	N39° 58' 27"E
L103	805+25	805+60	35.00				523982.53	2309795.25	524008.90	2309818.27	N41° 07' 12"E
L104	805+60	805+74.50	14.50				524008.90	2309818.27	524019.82	2309827.81	N41° 07' 12"E
L105	805+74.50	806+00.49	25.99				524019.82	2309827.81	524039.72	2309844.52	N40° 02' 36"E
L106	806+00.49	806+94.61	94.12				524039.72	2309844.52	524110.62	2309906.42	N41° 07' 12"E
L107	806+94.61	809+21.21	226.60				524110.62	2309906.42	524281.33	2310055.44	N41° 07' 12"E
C101	809+21.21	809+96.77	75.56	9°42'23"	446.00	75.47	524281.33	2310055.44	524342.17	2310100.09	N36° 16' 01"E
C102	809+96.77	812+40.79	244.03	31°20'57"	446.00	240.99	524342.17	2310100.09	524574.13	2310165.46	N15° 44' 21"E
L108	812+40.79	812+86.37	45.58				524574.13	2310165.46	524619.71	2310165.51	N0° 03' 52"E

CARVER CORNER - FORM GRADE RIGHT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L201	904+50	905+60	110.00				523900.38	2309775.31	523983.25	2309847.65	N41° 07' 12"E
L202	905+60	905+74.50	14.50				523983.25	2309847.65	523994.17	2309857.19	N41° 07' 12"E
L203	905+74.50	906+50	75.50				523994.17	2309857.19	524052.01	2309905.70	N39° 59' 26"E
L204	906+50	909+21.22	271.22				524052.01	2309905.70	524256.34	2310084.07	N41° 07' 12"E
C201	909+21.22	910+03.21	81.99	9°42'23"	484.00	81.90	524256.34	2310084.07	524322.37	2310132.52	N36° 16' 01"E
C202	910+03.21	912+68.03	264.82	31°20'57"	484.00	261.53	524322.37	2310132.52	524574.09	2310203.46	N15° 44' 21"E
L205	912+68.03	913+13.61	45.58				524574.09	2310203.46	524619.67	2310203.51	N0° 03' 52"E

MAIN ST - CENTERLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L8	900+00	902+50	250.00				524036.48	2309866.92	524286.48	2309866.03	N0° 12' 20"W

CANAL ST - CENTERLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L9	850+00	851+50	150.00				524242.30	2310046.59	524143.65	2310159.59	S48° 52' 48"E

MILL ST - CENTERLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L10	800+00	803+50	350.00				524449.22	2309816.22	524445.61	2310166.20	S89° 24' 34"E

HERSHEY AVE - MAINLINE [WEST LEG]											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L11	30+00	32+83.22	283.22				525067.88	2309776.57	525065.29	2310059.78	S89° 28' 31"E
C7	32+83.22	36+50	366.78	49°58'36"	420.50	355.27	525065.29	2310059.78	524912.27	2310380.40	S64° 29' 13"E

GREEN ST - MAINLINE [NORTH LEG]											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
C8	40+00	42+56.27	256.27	58°44'00"	250.00	245.20	524912.27	2310380.40	525127.42	2310262.79	N28° 39' 47"W
L12	42+56.27	45+00	243.73				525127.42	2310262.79	525371.13	2310265.78	N0° 42' 13"E

GREEN ST - NORTHBOUND											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L13	110+00	110+89.90	89.90				524625.69	2310190.28	524715.59	2310190.01	N0° 10' 25"W
C9	110+89.90	112+24.96	135.06	12°56'24"	598.00	134.77	524715.59	2310190.01	524849.54	2310204.79	N6° 17' 47"E
C10	112+24.96	113+42.80	117.84	69°15'03"	97.50	110.80	524849.54	2310204.79	524924.55	2310286.34	N47° 23' 30"E
C12	115+18.67	116+00.95	82.28	47°08'38"	100.00	79.98	525053.74	2310298.84	525125.44	2310263.40	N26° 18' 20"W
L14	116+00.95	116+11.52	10.57				525125.44	2310263.40	525136.00	2310262.89	N2° 44' 01"W
L15	116+11.52	116+50	38.48				525136.00	2310262.89	525174.47	2310263.37	N0° 42' 13"E

GREEN ST - SOUTHBOUND											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L16	120+00	120+89.90	89.90				524625.65	2310179.28	524715.55	2310179.01	N0° 10' 25"W
C13	120+89.90	122+81.70	191.80	18°02'40"	609.00	191.00	524715.55	2310179.01	524904.29	2310208.39	N8° 50' 55"E
C14	122+81.70	123+55.48	73.78	28°39'33"	147.50	73.01	524904.29	2310208.39	524977.16	2310212.90	N3° 32' 29"E
C16	124+35.82	125+01	65.18	37°21'22"	99.97	64.03	525047.65	2310242.40	525108.23	2310263.12	N18° 52' 38"E

HERSHEY AVE - EASTBOUND											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L17	210+00	211+73.87	173.87				525062.88	2309885.88	525061.29	2310059.74	S89° 28' 31"E
C17	211+73.87	212+50.73	76.86	10°34'24"	416.50	76.75	525061.29	2310059.74	525053.52	2310136.10	S84° 11' 19"E
C18	212+50.73	213+65.98	115.26	67°43'55"	97.50	108.66	525053.52	2310136.10	524976.73	2310212.98	S45° 02' 10"E
C19	213+65.98	215+25.16	159.18	139°14'21"	65.50	122.80	524976.73	2310212.98	524957.08	2310334.20	S80° 47' 23"E
C20	215+25.16	216+63.75	138.59	46°01'58"	172.50	134.89	524957.08	2310334.20	525038.99	2310441.37	N52° 36' 26"E
C21	216+63.75	218+16.03	152.28	14°42'48"	593.00	151.86	525038.99	2310441.37	525057.55	2310592.09	N82° 58' 49"E
L18	218+16.03	219+50	133.97				525057.55	2310592.09	525056.76	2310726.06	S89° 39' 47"E

HERSHEY AVE - WESTBOUND											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L19	220+00	221+71.26	171.26				525070.86	2309888.56	525069.29	2310059.81	S89° 28' 31"E
C22	221+71.26	223+01.08	129.82	17°31'17"	424.50	129.31	525069.29	2310059.81	525048.43	2310187.43	S80° 42' 53"E
C23	223+01.08	223+68.29	67.21	39°29'48"	97.50	65.89	525048.43	2310187.43	525050.38	2310253.29	N88° 17' 52"E
C24	223+68.29	224+30.34	62.05	54°16'44"	65.50	59.76	525050.38	2310253.29	525044.46	2310312.75	S84° 18' 39"E
C25	224+30.34	225+27.45	97.11	57°04'02"	97.50	93.15	525044.46	2310312.75	525037.48	2310405.63	S85° 42' 18"E
C26	225+27.45	226+70.28	142.83	24°34'32"	333.00	141.74	525037.48	2310405.63	525066.83	2310544.30	N78° 02' 57"E
L20	226+70.28	228+50	179.72				525066.83	2310544.30	525065.78	2310724.02	S89° 39' 47"E

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SW QUADRANT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L21	300+00	301+81.51	181.51				525048.45	2309878.11	525046.79	2310059.61	S89° 28' 31"E
C27	301+81.51	302+31.98	50.47	7°11'36"	402.00	50.44	525046.79	2310059.61	525043.17	2310109.91	S85° 52' 43"E
C28	302+31.98	302+53.38	21.41	12°01'26"	102.00	21.37	525043.17	2310109.91	525038.09	2310130.67	S76° 16' 11"E
C29	302+53.38	303+85.81	132.43	74°23'17"	102.00	123.32	525038.09	2310130.67	524934.74	2310197.95	S33° 03' 50"E
C30	303+85.81	304+20.24	34.43	12°58'43"	152.00	34.36	524934.74	2310197.95	524900.97	2310191.62	S10° 37' 11"W
C31	304+20.24	306+53.30	233.05	21°23'56"	624.00	231.70	524900.97	2310191.62	524670.72	2310165.75	S6° 24' 34"W
C32	306+53.30	307+01.03	47.73	4°21'16"	628.00	47.72	524670.72	2310165.75	524623.04	2310167.51	S2° 06' 46"E
L22	307+01.03	307+04.37	3.34				524623.04	2310167.51	524619.70	2310167.51	S0° 03' 52"W

SE QUADRANT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L23	400+00	400+05.08	5.08				524619.66	2310201.51	524624.74	2310201.51	N0° 03' 52"E
C33	400+05.08	400+49.66	44.58	4°22'51"	583.00	44.56	524624.74	2310201.51	524669.27	2310203.27	N2° 15' 17"E
C34	400+49.66	400+96.20	46.54	4°36'20"	579.00	46.53	524669.27	2310203.27	524715.77	2310205.01	N2° 08' 33"E
C35	400+96.20	402+00.83	104.63	10°16'58"	583.00	104.49	524715.77	2310205.01	524819.86	2310214.08	N4° 58' 51"E
C36	402+00.83	403+29.67	128.84	65°54'30"	112.00	121.85	524819.86	2310214.08	524908.88	2310297.29	N43° 04' 09"E
C37	403+29.67	403+98.50	68.84	47°31'12"	83.00	66.88	524908.88	2310297.29	524949.81	2310350.18	N52° 15' 48"E
C38	403+98.50	405+24.13	125.63	47°21'18"	152.00	122.08	524949.81	2310350.18	525024.82	2310446.50	N52° 05' 24"E
C39	405+24.13	406+61.29	137.16	13°35'45"	578.00	136.83	525024.82	2310446.50	525042.53	2310582.18	N82° 33' 56"E

NE QUADRANT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L25	500+00	501+81.40	181.40				525080.77	2310725.78	525081.83	2310544.39	N89° 39' 47"W
C40	501+81.40	503+20.25	138.86	22°51'42"	348.00	137.94	525081.83	2310544.39	525055.29	2310409.03	S78° 54' 21"W
C41	503+20.25	503+96.05	75.80	42°34'43"	102.00	74.07	525055.29	2310409.03	525053.69	2310334.98	S88° 45' 52"W
C42	503+96.05	504+28.98	32.92	23°00'15"	82.00	32.70	525053.69	2310334.98	525070.81	2310307.11	N58° 26' 39"W
C43	504+28.98	505+11.65	82.67	47°22'05"	100.00	80.34	525070.81	2310307.11	525144.62	2310275.39	N23° 15' 29"W
L26	505+11.65	505+30.53	18.88				525144.62	2310275.39	525163.50	2310275.28	N0° 19' 27"W
L27	505+30.53	505+43.28	12.75				525163.50	2310275.28	525176.24	2310275.45	N0° 43' 45"E
L28	505+43.28	505+58.38	15.10				525176.24	2310275.45	525191.35	2310275.51	N0° 15' 15"E
L29	505+58.38	505+72.18	13.80				525191.35	2310275.51	525205.15	2310275.68	N0° 42' 52"E
L30	505+72.18	506+00	27.82				525205.15	2310275.68	525232.96	2310276.05	N0° 45' 48"E

NW QUADRANT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L31	600+00	600+27.23	27.23				525233.79	2310251.64	525206.56	2310251.78	S0° 18' 21"E
L32	600+27.23	600+42.83	15.60				525206.56	2310251.78	525190.96	2310251.54	S0° 52' 26"W
L33	600+42.83	600+56.07	13.24				525190.96	2310251.54	525177.72	2310251.40	S0° 37' 54"W
L34	600+56.07	600+70	13.93				525177.72	2310251.40	525163.79	2310251.19	S0° 52' 10"W
L35	600+70	600+87.89	17.89				525163.79	2310251.19	525145.91	2310251.40	S0° 40' 56"E
L36	600+87.89	601+12.43	24.54				525145.91	2310251.40	525121.37	2310251.22	S0° 25' 33"W
C44	601+12.43	601+63.88	51.46	24°10'01"	122.00	51.08	525121.37	2310251.22	525071.50	2310240.15	S12° 30' 34"W
C45	601+63.88	601+80.82	16.94	57°05'28"	17.00	16.25	525071.50	2310240.15	525061.76	2310227.15	S53° 08' 19"W
C46	601+80.82	602+25.56	44.73	25°07'41"	102.00	44.38	525061.76	2310227.15	525065.04	2310182.90	N85° 45' 07"W
C47	602+25.56	603+50.35	124.79	16°17'15"	439.00	124.37	525065.04	2310182.90	525083.79	2310059.95	N81° 19' 54"W
L37	603+50.35	605+25	174.65				525083.79	2310059.95	525085.39	2309885.30	N89° 28' 31"W

CENTER CIRCLE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
C48	702+14.58	704+11.55	196.96	172°17'37"	65.50	130.70	525045.22	2310311.55	524938.73	2310235.76	S35° 26' 11"W

ALLEYWAY - CENTERLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L38	1000+00	1000+83.62	83.62				524846.15	2310075.94	524929.77	2310075.17	N0° 31' 40"W
C49	1000+83.62	1001+36.17	52.55	12°02'39"	250.00	52.46	524929.77	2310075.17	524981.99	2310080.19	N5° 29' 39"E
L39	1001+36.17	1001+49.87	13.70				524981.99	2310080.19	524995.41	2310082.93	N11° 30' 58"E
L40	1001+49.87	1001+60.54	10.66				524995.41	2310082.93	525005.86	2310085.06	N11° 30' 58"E
L41	1001+60.54	1001+75.19	14.66				525005.86	2310085.06	525020.11	2310088.49	N13° 33' 55"E
C50	1001+75.19	1001+82.63	7.44	8°31'17"	50.00	7.43	525020.11	2310088.49	525027.44	2310089.70	N9° 18' 16"E
L42	1001+82.63	1002+00	17.37				525027.44	2310089.70	525044.74	2310091.22	N5° 02' 38"E

ALLEYWAY ENTRANCE - OUTSIDE EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L43	1+00	1+05	5.00				525044.88	2310049.85	525044.83	2310054.85	S89° 28' 31"E
C51	1+05	1+15.62	10.62	30°24'52"	20.00	10.49	525044.83	2310054.85	525041.99	2310064.95	S74° 16' 52"E
C52	1+15.62	1+42.88	27.27	78°06'44"	20.00	25.20	525041.99	2310064.95	525018.31	2310073.57	S20° 01' 04"E
C53	1+42.88	1+85.57	42.69	19°33'59"	125.00	42.48	525018.31	2310073.57	524976.38	2310066.74	S9° 15' 19"W
L44	1+85.57	3+00	114.43				524976.38	2310066.74	524861.96	2310067.80	S0° 31' 40"E

ALLEYWAY EXIT - OUTSIDE EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L45	1+00	1+34.89	34.89				524861.23	2310083.80	524896.12	2310083.48	N0° 31' 40"W
L46	1+34.89	1+67.90	33.01				524896.12	2310083.48	524929.12	2310083.18	N0° 31' 40"W
C54	1+67.90	2+15.52	47.62	21°49'43"	125.00	47.34	524929.12	2310083.18	524975.68	2310091.71	N10° 23' 05"E
C55	2+15.52	2+34.13	18.61	10°39'52"	100.00	18.59	524975.68	2310091.71	524993.55	2310096.82	N15° 58' 01"E
C56	2+34.13	2+53.58	19.45	3°54'56"	284.61	19.45	524993.55	2310096.82	525012.53	2310101.06	N12° 35' 33"E
L47	2+53.58	2+64.31	10.73				525012.53	2310101.06	525022.85	2310104.00	N15° 52' 45"E
C57	2+64.31	2+81.33	17.01	48°44'36"	20.00	16.51	525022.85	2310104.00	525035.45	2310114.65	N40° 12' 41"E
C58	2+81.33	2+97.09	15.76	45°09'33"	20.00	15.36	525035.45	2310114.65	525036.21	2310129.99	N87° 09' 45"E
C59	2+97.09	3+00	2.91	1°40'02"	100.00	2.91	525036.21	2310129.99	525035.19	2310132.72	S69° 25' 28"E

_1045 HERSHEY AVE - PARKING LOT NORTH EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L48	1+00	1+13.62	13.62				525137.28	2310273.11	525137.21	2310286.73	S89° 41' 14"E
L49	1+13.62	1+18.62	5.00				525137.21	2310286.73	525137.18	2310291.73	S89° 41' 14"E
L50	1+18.62	1+25.12	6.49				525137.18	2310291.73	525137.14	2310298.22	S89° 41' 14"E
L51	1+25.12	1+75	49.88				525137.14	2310298.22	525137.13	2310348.10	S89° 59' 09"E

_1045 HERSHEY AVE - PARKING LOT SOUTH EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L52	1+00	1+11.19	11.19				525112.72	2310277.87	525112.65	2310289.06	S89° 39' 00"E
L53	1+11.19	1+16.44	5.26				525112.65	2310289.06	525112.62	2310294.31	S89° 39' 00"E
L54	1+16.44	1+20.35	3.90				525112.62	2310294.31	525112.59	2310298.22	S89° 39' 00"E
L55	1+20.35	1+70	49.65				525112.59	2310298.22	525112.29	2310347.87	S89° 39' 00"E

_1033 HERSHEY AVE - EXIT ONLY - CENTERLINE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L56	1+00	1+05	5.00				525069.63	2310463.14	525074.49	2310462.00	N13° 16' 17"W
L57	1+05	1+23.57	18.57				525074.49	2310462.00	525092.48	2310466.60	N14° 22' 00"E
L58	1+23.57	1+35	11.43				525092.48	2310466.60	525103.91	2310466.69	N0° 26' 54"E

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_1033 HERSHEY AVE - EXIT ONLY - WEST EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L59	1+00	1+05	5.00				525067.74	2310455.54	525072.58	2310454.28	N14° 34' 22"W
L60	1+05	1+25.60	20.60				525072.58	2310454.28	525092.54	2310459.39	N14° 22' 00"E
L61	1+25.60	1+35	9.40				525092.54	2310459.39	525101.93	2310459.47	N0° 26' 54"E

_1033 HERSHEY AVE - EXIT ONLY - EAST EDGE											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L62	1+00	1+05	5.00				525071.32	2310470.70	525076.21	2310469.66	N11° 59' 07"W
L63	1+05	1+21.74	16.74				525076.21	2310469.66	525092.43	2310473.82	N14° 22' 00"E
L64	1+21.74	1+35	13.26				525092.43	2310473.82	525105.69	2310473.92	N0° 26' 54"E

216 GREEN ST - PARKING LOT											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L65	1100+00	1101+39.50	139.50				524756.08	2310144.42	524895.58	2310143.86	N0° 13' 47"W

EXISTING CL - GRANDVIEW											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L66	1001+00	1009+21.22	821.22				523650.18	2309529.69	524268.83	2310069.76	N41° 07' 12"E
C60	1009+21.22	1010+00	78.78	9°42'23"	465.00	78.68	524268.83	2310069.76	524332.27	2310116.30	N36° 16' 01"E
C61	1010+00	1012+54.42	254.42	31°20'57"	465.00	251.26	524332.27	2310116.30	524574.11	2310184.46	N15° 44' 21"E
L67	1012+54.42	1013+69.67	115.25				524574.11	2310184.46	524689.36	2310184.59	N0° 03' 52"E
L68	1013+69.67	1013+99.01	29.33				524689.36	2310184.59	524718.69	2310184.51	N0° 09' 28"W
L69	1013+99.01	1017+45	345.99				524718.69	2310184.51	525064.67	2310181.31	N0° 31' 44"W

EXISTING CL - HERSHEY											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L70	2012+00	2024+40.99	1240.99				525067.88	2309777.66	525059.54	2311018.62	S89° 36' 55"E
C62	2024+40.99	2027+53.57	312.58	38°30'53"	465.00	306.72	525059.54	2311018.62	525159.00	2311308.77	N71° 04' 46"E
L71	2027+53.57	2030+00	246.43				525159.00	2311308.77	525311.32	2311502.49	N51° 49' 20"E

TEMP DETOUR											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L72	8000+00	8000+34.98	34.98				524618.40	2310178.14	524653.38	2310178.07	N0° 06' 55"W
C63	8000+34.98	8002+46.07	211.09	48°22'34"	250.01	204.88	524653.38	2310178.07	524840.44	2310261.64	N24° 04' 24"E
L73	8002+46.07	8002+99.09	53.02				524840.44	2310261.64	524875.57	2310301.34	N48° 29' 49"E
C64	8002+99.09	8004+37.48	138.39	7°55'45"	1000.00	138.28	524875.57	2310301.34	524959.82	2310410.99	N52° 27' 41"E
L74	8004+37.48	8005+58.07	120.60				524959.82	2310410.99	525026.51	2310511.47	N56° 25' 34"E
C65	8005+58.07	8007+06.48	148.40	34°00'41"	250.00	146.23	525026.51	2310511.47	525068.21	2310651.63	N73° 25' 54"E
L75	8007+06.48	8007+50	43.52				525068.21	2310651.63	525067.88	2310695.16	S89° 33' 45"E

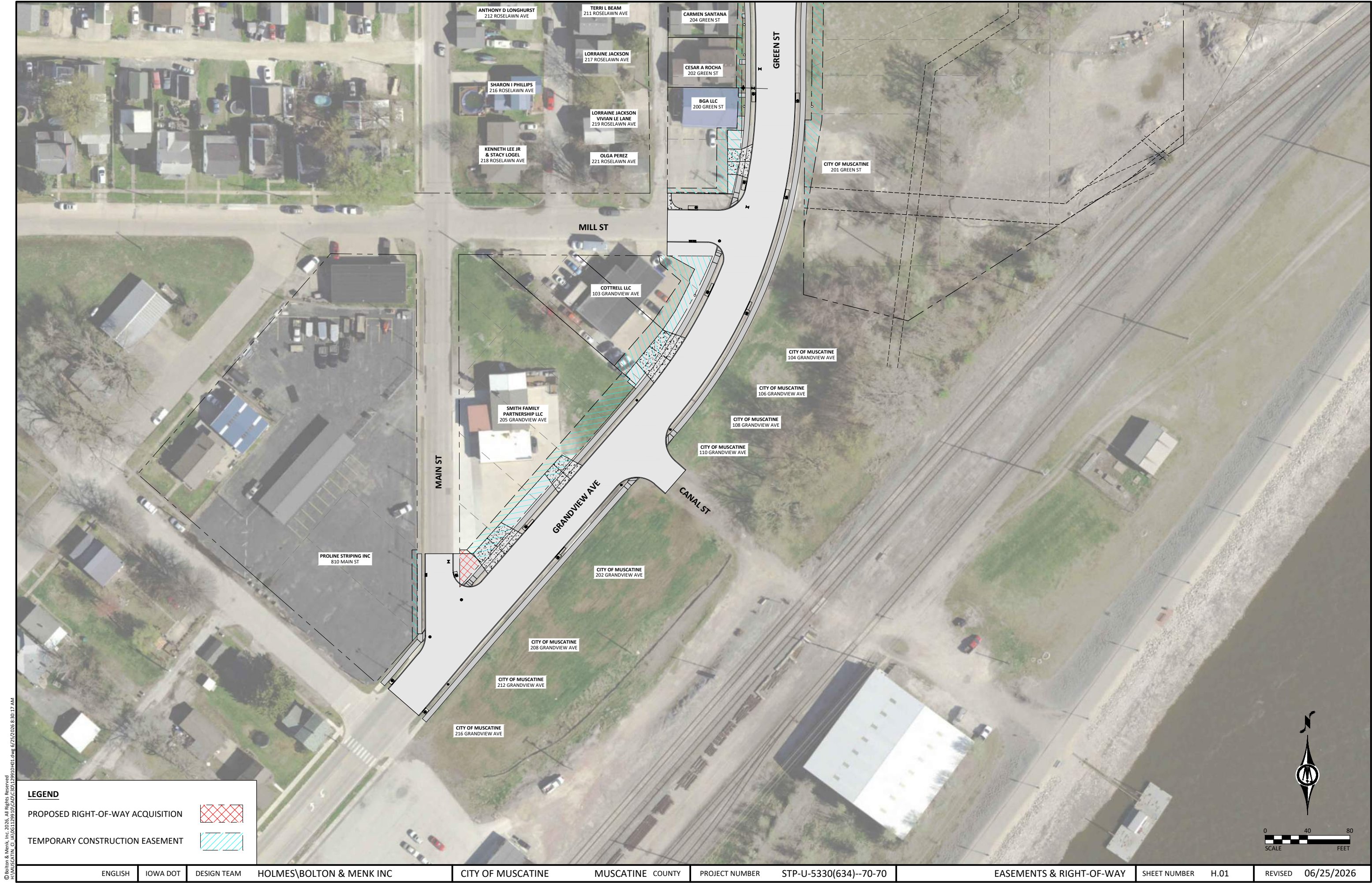
_RTWL - HERSHEY AVENUE WEST END											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L76	0+05	0+95	90.00				525096.94	2309934.85	525096.11	2310024.84	S89° 28' 31"E

_RTWL - A GUY AND A GRILL											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
C66	1+25	1+99.32	74.32	11°55'39"	357.00	74.18	525083.56	2310470.62	525090.83	2310544.44	N84° 22' 23"E
L77	1+99.32	2+38.30	38.98				525090.83	2310544.44	525090.60	2310583.43	S89° 39' 47"E
L78	2+38.30	2+82	43.70				525090.60	2310583.43	525090.35	2310627.12	S89° 39' 47"E

MONUMENT PRESERVATION				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTH	EAST
5504	LMFP / 1" ID	546.542	524737.23	2310694.55
5505	LMFP / 1" ID BENT	546.596	524735.05	2310676.84
5506	LMFR / NO 4 YPC 10316	547.392	524523.56	2310569.92
5507	LMFP / 3" ID	547.001	524531.31	2310577.81
5508	LMFR / NO4 YPC 10316	555.517	525031.68	2310569.18
5509	LMFR / NO4 YPC 10316	547.107	524777.55	2310569.56
5510	LMFP / 1" ID	555.119	525027.99	2311065.91
5511	LMFR / NO 5 YPC 10316	552.777	525027.08	2311202.52
5514	LMFR / NO 4 BENT SHOT BASE	544.094	524269.92	2310120.24
5515	LMFD / ROW RAIL SHOT CTR	544.517	524187.06	2310159.16
5534	LMFR / NO 4 BENT SHOT BASE	552.654	524754.98	2310153.20
5535	LMFR / 1/2" ID	551.141	524674.62	2310154.44
5536	LMFR / 1" ID	548.433	524576.68	2310152.40
5537	LMFP / 1" ID BENT SHOT BASE	548.127	524577.32	2310082.67
5538	LMFP / 1" ID	549.109	524624.41	2310082.91
5540	LMFP / 1/2" ID	576.842	525228.17	2310295.78
5541	LMFR / NO4 YPC 10316	583.285	525282.02	2310296.27
5542	LMFX	559.036	525093.62	2310294.04
5543	LMFP / 1/2" ID	557.115	525092.74	2310440.69
5544	LMFP / 3/4" ID BENT SHOT BASE	556.764	525091.18	2310693.03
5545	LMFD / BAR IN CONC TENATIVE	557.655	525090.56	2310864.63
5546	LMFP / 3/4" ID	571.904	525220.72	2310888.85
5547	LMFP / 1/2" ID	571.735	525209.58	2310866.06
5548	LMFR / 1/2" ID	570.997	525209.89	2310816.01
5549	LMFR / 1/2" ID BENT SHOT BASE TENATIVE	575.277	525230.77	2310817.01
5550	LMFP / 1" ID	585.195	525228.59	2310697.17
5551	LMFP / 1/2" ID	573.157	525223.59	2310442.50
5552	LMFP / 1/2" ID	572.275	525223.32	2310451.95
5553	LMFR / 1/2" TENATIVE	556.687	524929.18	2310215.62
5554	LMFP / 1"	551.512	524743.99	2310214.60
5555	LMFR / NO4	547.854	524552.40	2310212.30
5556	LMFR / NO4	545.744	524407.35	2310210.99
5557	LMFP / 2" OD	546.922	524381.28	2310210.88
5558	LMFP / 1" BENT SHOT HOLE	546.489	524588.86	2310213.60
5559	LMFP / 1"	586.026	525310.77	2310234.46
5560	LMFP / 1" ID IMU	592.729	525365.37	2310233.38
5561	LMFP / METAL CAP	639.219	525691.35	2310237.60
5562	LMFR / NO4	634.045	525633.26	2310300.76
5563	LMFP / 1" ID	612.097	525498.61	2310299.41
5564	LMFP / 1" ID	593.865	525362.39	2310295.44
5565	LMFR / NO 4	545.471	524470.54	2309958.24
5566	LMFR / NO 4	545.779	524465.64	2310005.50
5567	LMFR / NO5	550.811	524794.62	2309992.99
5568	LMFR / NO4 SHOT BASE TENATIVE	573.743	525222.06	2309894.17
5569	LMFR/ NO 3	577.827	525220.70	2309982.82
5570	LMFR / NO4 YPC 10316	563.047	525098.35	2309838.79
5571	LMFX	564.485	525099.60	2309719.70
5572	LMFR / NO.4 BENT SHOT BASE	570.012	525187.57	2310133.48
5573	LMFD / BENT IRON POST SHOT BASE TENTATIVE	569.660	525187.82	2310172.40

MONUMENT PRESERVATION				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTH	EAST
5914	LMFR / 1" TENATIVE	544.624	523961.98	2309853.10
5915	LMFR / 3/8" TENATIVE	543.698	523996.61	2310002.38
5916	LMFP / 2" BENT SHOT BASE	542.016	524141.93	2310124.62
5917	LMFR / 1/2" YPC 6282	547.256	524356.56	2310309.64
5918	LMFR / 10316 NO4 YPC	547.976	524209.70	2310421.37
5919	LMFR / 10316 NO4 YPC	549.009	524305.86	2310516.04
5920	LMFR / 10316 NO4 YPC	548.547	524398.44	2310620.30
5921	LMFR / 10316 NO4 YPC	550.238	524481.14	2310726.95
5922	LMFR / 10316 NO4 YPC	550.770	524498.09	2310750.36
5923	LMFR / 10316 NO4 YPC	548.192	524170.31	2310385.76
5924	LMFR / 10316 NO4 YPC	547.003	523846.58	2310102.32
5925	LMFP / 3/4" BENT SHOT HOLE	545.739	524381.29	2310207.92
5926	LMFP / 3/4" BENT SHOT BASE	547.268	524552.26	2310213.27
5927	LMFR / NO 4	547.519	524393.04	2310443.14
5928	LMFR / NO4 YPC 6282	547.096	524421.40	2310469.57
5929	LMFR / NO4	546.545	524458.64	2310469.68
5930	LMFD / NAIL WITH ORANGE RIBBON	545.353	524321.69	2310275.45
5931	LMFP / 3/4"	553.662	524915.42	2310063.31
5932	LMFR / NO5	550.068	524753.80	2309992.10
5933	LMFR / NO5	550.080	524753.79	2309992.07
5934	LMFR / NO4 YPC IL	550.641	524714.23	2310062.97
5935	LMFP / 1" BENT SHOT BASE	549.156	524624.14	2310064.16
5940	LMFR / NO4 YPC 11809	548.947	524673.32	2309992.79
5941	LMFP / 3/4"	550.245	524624.05	2310152.85

SURVEY CONTROL POINT DATA [IA83-SF]				
POINT NUMBER	RAW DESCRIPTION	ELEVATION	NORTH	EAST
551	VFCP / CUT X	546.688	524427.85	2310215.01
552	VFCP / CUT X	545.550	523920.19	2309799.93
553	VFCP / MAG NAIL	545.627	524201.29	2309844.63
5000	VFCP / CUT X	555.230	525035.84	2311178.20
5003	VFCP / MAGNAIL	557.390	525102.24	2310606.88
5008	VFCP / CUT X	560.440	525038.99	2310083.75
5013	VFCP / NO5 BMI CNT CAP	557.880	524969.62	2310282.73
5151	VFCP / CUT X	546.771	524427.83	2310215.01
5152	VFCP / CUT X	545.644	523920.21	2309799.92
5153	VFCP / MAG NAIL	545.712	524201.29	2309844.64
5400	VFBM / BOLT IN THE WORD MUELLER	559.441	525087.96	2311000.46
5401	VFBM / BOLT IN THE WORD MUELLER	558.447	525092.58	2310624.75
45873	VFBM / BURYBOLT	547.388	524244.77	2310007.99



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LEGEND

PROPOSED RIGHT-OF-WAY ACQUISITION

TEMPORARY CONSTRUCTION EASEMENT



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LEGEND

PROPOSED RIGHT-OF-WAY ACQUISITION

TEMPORARY CONSTRUCTION EASEMENT

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GENERAL NOTES:

INSPECTION: THE CONTRACTOR SHALL CONTACT THE PRINCIPAL CONSTRUCTION INSPECTOR FOR THE CITY OF MUSCATINE ENGINEERING DEPARTMENT 48 HOURS BEFORE BEGINNING CONSTRUCTION.

UTILITIES: THE CONTRACTOR SHALL COORDINATE WORK WITH UTILITY COMPANIES WITH RESPECT TO PROTECTING, RELOCATING AND CONSTRUCTING UTILITY FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING THE GUIDELINES OF EACH UTILITY IN PROTECTING THEIR FACILITIES AND SHALL EXERCISE ALL DUE CAUTION AND USE CONSTRUCTION METHODS AND EQUIPMENT TO COMPLETE WORK WITHOUT DAMAGING UTILITIES.

ALL COSTS FOR STAGING CONSTRUCTION FOR UTILITY INSTALLATION, PROVIDING TEMPORARY SUPPORTS FOR UTILITIES WITH ASSISTANCE FROM THE AFFECTED UTILITY COMPANY, AND COORDINATING WITH UTILITIES, INCLUDING DELAYS, SHALL BE INCIDENTAL TO THE CONTRACT. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ADDITIONAL FACILITIES, OTHER THAN THOSE SHOWN ON THE PLANS, MAY BE PRESENT.

CONSTRUCTION LIMITS: THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE OF CONSTRUCTION LIMITS. THE CONTRACTOR SHALL NOT PARK, SERVICE VEHICLES AND EQUIPMENT, OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER, OR AS DESIGNATED ON PLANS. THE CONTRACTOR SHALL ACCESS THE SITE IN A MANNER THAT DOES NOT DAMAGE EXISTING PAVED SURFACES, SIDEWALKS, AND TRAILS NOT DESIGNATED FOR REPLACEMENT. ANY DAMAGE TO THESE SURFACES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AS APPROVED BY THE ENGINEER.

ALL WORK SHALL BE CONFINED TO THE PROJECT RIGHT OF WAY LIMITS AND TEMPORARY CONSTRUCTION EASEMENTS. THIS INCLUDES, BUT SHALL NOT LIMITED TO, EXCAVATION, PIPE INSTALLATION, PAVING OPERATIONS AND REMOVALS. ANY DAMAGE CAUSED TO ADJACENT PROPERTY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR REPAIR AND REPLACE WITH NO ADDITIONAL COST TO THE OWNER.

ACCESS TO PROPERTIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ACCESS TO INDIVIDUAL PROPERTIES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH AREA RESIDENTS/PROPERTY OWNERS PRIOR TO CHANGING ACCESS TO ADJACENT PROPERTIES.

WORK SEQUENCE: THE CONTRACTOR SHALL SCHEDULE THEIR WORK AND THE WORK OF THEIR SUBCONTRACTORS IN SUCH A MANNER THAT WILL ENSURE A MINIMAL AMOUNT OF INCONVENIENCE TO ABUTTING PROPERTY OWNERS. FINAL GRADING SHALL FOLLOW COMPLETION OF THE PAVING AS SOON AS POSSIBLE. IF THE ENGINEER DETERMINES PROGRESS OF THE WORK TO BE UNSATISFACTORY, PARTIAL PAYMENTS WILL BE WITHHELD IN FULL OR PART UNTIL SATISFACTORY PROGRESS IS MADE.

CLEAN UP OF THE SITE IS REQUIRED WHEN WORK IS EITHER SUSPENDED OR COMPLETED. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL SUBMIT A STAGING SCHEDULE FOR THE ENGINEER'S APPROVAL. THE STAGING SCHEDULE SHALL BE UPDATED PERIODICALLY TO REFLECT ANY CHANGES.

TRAFFIC SIGNS: THE CONTRACTOR SHALL NOT REMOVE ANY CITY OF MUSCATINE TRAFFIC CONTROL SIGNS OUTSIDE OF PROJECT LIMITS. THE CONTRACTOR SHALL NOTIFY MUSCATINE PUBLIC WORKS, A MINIMUM OF TWO (2) BUSINESS DAYS IN ADVANCE FOR SIGN REMOVAL, RELOCATION, AND RESET. WORK SHALL BE COMPLETED BY CITY PERSONNEL ONLY.

PAVEMENT REMOVAL: EXISTING PAVEMENT TO BE REMOVED SHALL BE SAW CUT AT REMOVAL LIMITS UNLESS OTHERWISE SPECIFIED BY THE ENGINEER. UNNECESSARY SURFACE BREAKS OR PREMATURE SPALLING THAT OCCURS DURING THE REMOVAL PROCESS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE METHOD OF REPAIR WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. ALL HOT MIX ASPHALT AND CONCRETE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR DISPOSAL UNLESS OTHERWISE SPECIFIED IN PLANS.

ABANDONED UTILITY LINES: ALL REMOVAL AND DISPOSAL OF ABANDONED UTILITY LINES INCLUDING GAS MAINS, WATER MAINS, TELEPHONE CONDUITS, SERVICE LINES, ETC., REQUIRED TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE CONTRACT.

BACKFILLING HOLES: ALL HOLES RESULTING FROM OPERATIONS OF THE CONTRACTOR, INCLUDING REMOVAL OF GUARDRAIL POSTS, FENCE POSTS, AND UTILITY POLES, SHALL BE FILLED AND CONSOLIDATED TO FINISHED GRADE, TO PREVENT FUTURE SETTLEMENT AND SHALL BE FILLED IMMEDIATELY, AS APPROVED BY THE ENGINEER. ANY PORTION OF THE RIGHT-OF-WAY OR PROJECT LIMITS DISTURBED BY ANY SUCH OPERATIONS SHALL BE RESTORED TO AN ACCEPTABLE CONDITION. THIS OPERATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

STORM/SANITARY SEWERS: THE CONTRACTOR SHALL MAINTAIN FLOW AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FLOW DIVERTING AND/OR BYPASS PUMPING REQUIRED TO FACILITATE CONSTRUCTION.

THE CONTRACTOR SHALL PROTECT ALL STORM SEWER INLETS AND CULVERTS FROM SILTATION AND DEBRIS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE STEEL PLATES OVER INTAKES AND MANHOLES PRIOR TO PLACEMENT OF PAVEMENT TO PREVENT SOIL FROM ENTERING INTO THE SEWER. THE COSTS FOR PLATING FOR PLACEMENT OF PAVEMENT SHALL BE INCIDENTAL TO CONTRACT ITEMS.

FINAL INSPECTION: THE CONTRACTOR SHALL HAVE A REPRESENTATIVE AT THE FINAL INSPECTION AND WILL BE RESPONSIBLE FOR OPENING ALL MANHOLES AND INTAKES FOR INSPECTION BY CITY PERSONNEL. WORKING DAYS WILL BE SUSPENDED AFTER SUBSTANTIAL COMPLETION OF WORK. A PUNCH LIST WILL BE ASSEMBLED AND THE CONTRACTOR WILL BE GIVEN A SCHEDULE IN WHICH TO COMPLETE PUNCH LIST ITEMS. IF THE PUNCH LIST ITEMS ARE NOT COMPLETED WITHIN THE SPECIFIED TIME, WORKING DAYS WILL RESUME.

ADA REQUIREMENTS: ALL WORK SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA). ANY WORK THAT DOES NOT MEET THESE REQUIREMENTS WILL BE CONSIDERED DEFECTIVE AND BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE CITY OR CONTRACT SPECIFIED CONSTRUCTION SURVEY SHALL PROVIDE SURVEY STAKING FOR THE GENERAL LAYOUT. PRIOR TO PLACEMENT OF THE SURFACE MATERIAL, THE CONTRACTOR WILL BE RESPONSIBLE TO VERIFY THAT THE SLOPES OF ALL SURFACES ARE WITHIN THE ALLOWABLE RANGES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF SLOPES CANNOT BE CONSTRUCTED WITHIN THE ALLOWABLE RANGE. FOLLOWING PLACEMENT OF THE SURFACE MATERIAL, THE CONTRACTOR SHALL MEASURE THE ACTUAL SURFACE SLOPE AND INITIAL AT THE APPROPRIATE LOCATION ON SIDEWALK COMPLIANCE SHEETS TO VERIFY THAT THE SLOPE IS WITHIN ALLOWABLE RANGES. THE CITY RESERVES THE RIGHT TO MEASURE THE SLOPES OF ANY SURFACE AFTER CONSTRUCTION. THERE IS NO TOLERANCE FOR SURFACES TO EXCEED THE MAXIMUM ALLOWABLE SLOPE. SURFACES THAT EXCEED THE MAXIMUM ALLOWABLE SLOPE WILL BE CONSIDERED DEFECTIVE AND SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PEDESTRIAN DETOUR ROUTES OR CLOSURES DURING CONSTRUCTION.

SITE CLEANUP: THE CONTRACTOR SHALL CLEAN ALL SURFACES PRIOR TO OPENING THE PROJECT TO THE PUBLIC. PICKUP BROOM OR STREET SWEEPER THAT CREATES A MINIMAL AMOUNT OF DUST SHALL BE USED FOR CLEANING. ALL COSTS FOR CLEANING SHALL BE INCIDENTAL TO THE CONTRACT.

STREET/LANE CLOSURE: THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF THREE (3) BUSINESS DAYS IN ADVANCE FOR LANE CLOSURE AND SHALL RECEIVE APPROVAL BEFORE CLOSING ANY LANE TO TRAFFIC. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF EIGHT (8) BUSINESS DAYS IN ADVANCE FOR STREET CLOSURE AND SHALL RECEIVE APPROVAL BEFORE CLOSING ANY STREET TO TRAFFIC.

ADJUSTMENT OF WATER VALVES: THE ADJUSTMENT OF WATER VALVES AND WATER SERVICE STOP BOXES TO FINAL GRADE (BOTH PUBLIC AND PRIVATE) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO PAVEMENT CONSTRUCTION. USE OF A THREADED COUPLING TO ADJUST THE CAP ELEVATION IS REQUIRED.

ROW AND EASEMENT LIMITS: STORAGE, PARKING, AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION.

RESTORATION: THE CONTRACTOR SHALL CONFINE HIS OPERATIONS TO WITHIN THE GRADING LIMITS AS SHOWN ON THE PLANS UNLESS AUTHORIZED BY THE ENGINEER TO DO OTHERWISE. ALL TREES, SHRUBS, GRASS OR TURF BEYOND THE GRADING LIMITS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR TO THE CONDITION THAT EXISTED PRIOR TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

ALL GRASS SURFACES DISTURBED BY CONSTRUCTION SHALL BE SEEDED OR SODDED AS DIRECTED BY THE PLANS. THIS INCLUDES TURF AREAS DAMAGED BY CONSTRUCTION ACCESS AND CONSTRUCTION ACTIVITIES. PAYMENT SHALL BE FOR THOSE DISTURBED AREAS WITHIN THE GRADING LIMITS.

WASTE SITES: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL, BROKEN PAVEMENT, ETC.) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO MATERIAL SHALL BE PLACED WITHIN THE CITY PROPERTY, UNLESS SPECIFICALLY STATED IN THE PLANS OR APPROVED BY THE ENGINEER.

DISPOSAL OF PAVEMENT: UNLESS OTHERWISE DIRECTED OR AUTHORIZED, ALL PAVEMENT MATERIALS WHICH ARE NOT SPECIFICALLY ADDRESSED OR DESCRIBED IN THE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR IN ACCORDANCE WITH CURRENT RULES AND REGULATIONS OF THE IOWA DEPARTMENT OF NATURAL RESOURCES MAY:

1. REMOVE THE MATERIAL FROM THE PROJECT AND STOCKPILE FOR THE CONTRACTOR'S FUTURE USE.
2. DISPOSE OF IN A LICENSED LANDFILL.

SAW-CUT TREE ROOTS: ALL TREE ROOTS EXCEEDING 1-1/2" IN DIAMETER WHICH ARE MANGLED BY EQUIPMENT DURING GRADING OR EXCAVATION SHALL BE CUT CLEANLY WITH A SAW. NO ROOTS WHICH EXCEED THE SPECIFIED DIAMETER SHALL BE LEFT STRIPPED OR MANGLED PRIOR TO BACKFILLING. CUTTING OF ROOTS IS CONSIDERED INCIDENTAL TO EXCAVATION.

NO WORK ZONE, TREE PROTECTION AREA: CONTRACTOR SHALL NOT ENTER THE "NO WORK ZONE" WITH CONSTRUCTION VEHICLES. THE CONTRACTOR SHALL USE EXTREME CARE TO AVOID TREE ROOT SYSTEMS, WHICH ARE TYPICALLY TO THE DRIP LINE OF THE TREE.

REINFORCING STEEL: ALL REINFORCING STEEL DOWELS AND TIE BARS IN THE PAVING SHALL BE EPOXY-COATED UNLESS OTHERWISE NOTED.

MAINTENANCE OF POSTAL SERVICE

COORDINATE DELIVERY OF MAIL WITH THE USPS. MAINTAIN POSTAL SERVICE TO ALL PROPERTIES WITHIN THE PROJECT AREA. MEET THE NEEDS OF PHYSICALLY CHALLENGED INDIVIDUALS WITHIN THE PROJECT AREA. WHEN CONSTRUCTION STAGING PROHIBITS ACCESS TO NORMAL MAILBOX LOCATIONS BY THE USPS, ESTABLISH TEMPORARY MAIL SERVICE AS FOLLOWS:

1. COORDINATE WITH THE USPS TO ESTABLISH AN ACCEPTABLE LOCATION FOR A TEMPORARY GROUP MAILBOX.
2. VERIFY PROPOSED LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION.
3. ERECT AND MAINTAIN A TEMPORARY GROUP MAILBOX OR PROVIDE A TEMPORARY USPS APPROVED CLUSTER BOX, PER DETAIL ON SHEET U.01.

MAINTENANCE OF SOLID WASTE COLLECTION

COORDINATE COLLECTION OF SOLID WASTE WITH PROPERTY OWNERS AND THE SOLID WASTE COLLECTION AGENCIES OPERATING IN THE PROJECT AREA. MAINTAIN ACCESS FOR SOLID WASTE COLLECTION VEHICLES DURING CONSTRUCTION. WHEN CONSTRUCTION STAGING PROHIBITS ACCESS TO NORMAL COLLECTION LOCATIONS BY SOLID WASTE COLLECTION VEHICLES, COMPLY WITH THE FOLLOWING:

1. COORDINATE WITH SOLID WASTE COLLECTION AGENCIES TO ESTABLISH A COMMON LOCATION FOR COLLECTION OUTSIDE INACCESSIBLE AREA.
2. COORDINATE WITH RESIDENTS/BUSINESSES WITHIN THE PROJECT AREA FOR THE ALTERNATE SOLID WASTE COLLECTION PROCEDURES.
3. AFFIX A TEMPORARY LABEL TO SOLID WASTE CONTAINERS IDENTIFYING THE PROPERTY OWNER'S OR RENTER'S NAME OR ADDRESS.
4. PRIOR TO THE NORMAL COLLECTION TIME, GATHER CONTAINERS FROM PROPERTIES WITHIN THE INACCESSIBLE AREA, AND TRANSPORT TO THE COMMON LOCATION ACCESSIBLE BY SOLID WASTE COLLECTION VEHICLES.
5. RETURN SOLID WASTE CONTAINERS TO EACH PROPERTY WITHIN 24 HOURS AFTER COLLECTION.

CONCRETE WASHOUT

PROVIDE CONCRETE WASHWATER CONTAINMENT ON ALL PROJECTS WHERE CONCRETE WASHWATER WILL BE GENERATED. CLEARLY MARK THE LOCATION OF THE WASHOUT AREA AND PROVIDE DIRECTIONS TO TRUCK DRIVERS. LOCATE CONCRETE WASHOUT CONTAINMENT SYSTEMS A MINIMUM OF 50 FEET FROM PROPOSED OR EXISTING STORM SEWER INTAKES, OPEN DITCHES, OR WATERBODIES. COLLECT ALL CONCRETE WASHWATER FROM READY MIXED TRUCKS, PUMPER TRUCKS, AND CLEANING OF TOOLS AND OTHER EQUIPMENT. RETAIN CONCRETE WASHWATER WITHIN THE CONTAINMENT SYSTEM UNTIL THE WATER EVAPORATES OR IS COLLECTED AND DISPOSED. PRIOR TO RAIN EVENTS, LOWER THE LIQUID LEVEL OR COVER THE CONCRETE WASHOUT CONTAINMENT AREA TO PREVENT OVERFLOW. CLEAN OUT THE CONCRETE WASHWATER CONTAINMENT AREA WHEN IT REACHES 75% TOTAL CAPACITY. HARDENED SOLIDS MAY BE REMOVED FROM THE CONTAINMENT AREA AND DISPOSED OF AS OTHER NON-HAZARDOUS WASTES OR MAY BE BROKEN UP AND USED ON THE SITE FOR OTHER APPROPRIATE USES. ALL MANUFACTURED WASHOUT CONTAINMENT FACILITIES SHALL BE REMOVED FROM PROJECT AREA AT COMPLETION OF PROJECT. FOR EXCAVATED PITS, PUMP OUT AND PROPERLY DISPOSE OF ALL REMAINING WATER, REMOVE ANY HARDENED SOLIDS, REMOVE ALL PLASTIC LINER MATERIALS AND FILL PIT AREA FLUSH WITH SURROUNDING GROUND. FOR ABOVE-GRADE CONTAINMENT FACILITIES, PUMP OUT AND PROPERLY DISPOSE OF ALL REMAINING WATER, REMOVE ANY HARDENED SOLIDS, REMOVE ALL PLASTIC LINER MATERIALS AND SPREAD OUT EARTHEN BERMS.

TRAFFIC CONTROL DEVICES & SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	DRUM
	42" CHANNELIZER
	TRAFFIC SIGN
	TYPE III BARRICADE
	PREVIOUSLY CONSTRUCTED AREA
	PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION
	TEMPORARY (DETOUR) PAVEMENT
	DIRECTION OF TRAFFIC

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STAGING NOTES:

1. THESE STAGING NOTES ARE NOT INTENDED TO CONFINE THE CONTRACTOR'S ACTIVITIES TO THE AREAS OF SUGGESTED STAGES ALONE. IT IS UNDERSTOOD THAT VARIOUS STEPS INCLUDED HEREIN MAY OCCUR SIMULTANEOUSLY. THE CONTRACTOR MAY CONDUCT SEVERAL OPERATIONS CONCURRENTLY, PROVIDED THAT TRAFFIC AND ACCESS IS MAINTAINED AND THESE OPERATIONS DO NOT CONFLICT WITH THE STAGING INDICATED HEREIN, OTHER PORTIONS OF THIS PROJECT AND OTHER CONSTRUCTION ACTIVITIES.
2. AS LONG AS WORK REMAINS ON THE PROJECT, THE CONTRACTOR SHALL REMAIN ON THE PROJECT. IF ISSUES EXIST WITHIN A STAGE OF THE PROJECT WHICH ARE BEYOND THE CONTRACTOR'S CONTROL, THE CITY HAS THE OPTION TO REVISE CONSTRUCTION STAGING AND DIRECT THE CONTRACTOR TO WORK ON OTHER "UNAFFECTED" STAGES OR AREAS OF THE PROJECT AS SHOWN WITHIN THE CONTRACT DOCUMENTS, AT NO ADDITIONAL COST TO THE OWNER. THE OWNER MAY, AT THE OWNER'S DISCRETION, PROVIDE ADDITIONAL DAYS TO THE CONTRACTOR BASED ON RELOCATION EFFORTS AND SCHEDULING JUSTIFICATION.
3. ONCE WORK WITHIN A STAGE HAS COMMENCED, THE CONTRACTOR SHALL CONTINUE WORK WITHIN THAT STAGE UNTIL ALL WORK WITHIN THAT STAGE HAS BEEN COMPLETED. IF WORK WITHIN THAT STAGE IS NOT COMPLETED AND THE CONTRACTOR REMOVES THE "NORMAL" SIZE CREW (AND/OR EQUIPMENT) FROM THE PROJECT WITHOUT WRITTEN AUTHORIZATION FROM THE OWNER, THEN THE CONTRACTOR WILL BE CHARGED FOR EACH DAY THE SITUATION REMAINS.
4. ANY ADJUSTMENT TO THE STAGING/TRAFFIC CONTROL SHALL BE COORDINATED WITH THE CITY OF MUSCATINE AND ENGINEER OF RECORD A MINIMUM OF TWO (2) WEEKS IN ADVANCE.

SIDEWALKS:

1. THE CONTRACTOR SHALL PROVIDE A PEDESTRIAN AND BIKE DETOUR / CONTROL PLAN FOR ALL STAGES.
2. REFER TO IOWA DOT STANDARD ROAD PLAN TC-601 FOR SIDEWALK CLOSURE INFORMATION AND STANDARDS. PEDESTRIAN PATH CLOSURE BARRICADES SHALL BE PLACED AT THE BEGINNING AND END OF SIDEWALK CONSTRUCTION AREAS WITHIN EACH STAGE. BARRICADES SHALL BE PLACED REGARDLESS OF WHETHER AN EXISTING PAVED PATH IS PRESENT OR NOT.
3. EXISTING SIDEWALK TO REMAIN IN PLACE AS LONG AS POSSIBLE TO PROVIDE ACCESS.
4. SIDEWALK TRAFFIC CONTROL SHALL REMAIN IN PLACE UNTIL SIDEWALKS ARE REPLACED, CLEANED AND ACCESSIBLE.
5. THE COST FOR SIDEWALK ACCOMMODATIONS IS INCIDENTAL TO TEMPORARY TRAFFIC CONTROL.

PRIVATE UTILITY RELOCATIONS WITHIN PROJECT SITE

PRIVATE UTILITY RELOCATIONS ARE ENCOURAGED TO TAKE PLACE PRIOR TO CONSTRUCTION BUT MAY BE REQUIRED WITHIN THE PROJECT SITE DURING THE CONSTRUCTION PERIOD. THE WORKING DAYS ALLOTTED IN THE CONTRACT SHALL INCLUDE 15 WORKING DAYS OF SHUT DOWN OF CONTRACTOR'S CONTROLLING OPERATIONS. SHUT DOWN OF CONTROLLING OPERATION FOR 15 NON-CONSECUTIVE WORKING DAYS SHALL BE INCLUDED IN THE PRICE BID FOR MOBILIZATION. CONTRACTOR WILL NOT BE ALLOWED TO CHARGE UTILITIES SEPARATELY FROM THE CONTRACT FOR SHUT DOWN, EQUIPMENT IDLE TIME, DEMOBILIZATION, OR MOBILIZATION FOR THESE 15 WORKING DAYS. PRIVATE UTILITY RELOCATIONS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

MUSCATINE POWER AND WATER (MPW): 563-262-3467 or 563-263-2631

THE FOLLOWING OVERHEAD UTILITY POLES ARE TO BE **REMOVED** BY MUSCATINE POWER AND WATER:

- STA: 12+59.50, 23.72' LT
- STA: 13+57.00, 24.40' LT
- STA: 14+33.60, 26.26' RT
- STA: 14+36.20, 25.00' LT
- STA: 15+34.00, 40.15' LT
- STA: 16+29.30, 27.00' LT

THE FOLLOWING OVERHEAD UTILITY POLES ARE TO BE **RELOCATED** BY MUSCATINE POWER AND WATER:

- STA: 9+54.00, 29.22' RT
- STA: 11+43.80, 28.09' LT
- STA: 18+41.30, 52.26' RT
- STA: 42+12.40, 22.24' RT
- STA: 42+78.30, 18.74' RT

THE FOLLOWING OVERHEAD UTILITY POLES ARE TO **REMAIN** AND SHALL BE SUPPORTED-IN-PLACE BY MUSCATINE POWER AND WATER DURING CONSTRUCTION OPERATIONS WHICH MAY IMPACT THEM:

- STA: 18+70.80, 41.45' LT
- STA: 19+96.00, 23.15' LT
- STA: 32+03.50, 21.97' LT
- STA: 32+77.20, 21.51' LT
- STA: 33+82.00, 35.08' LT

ALLIANT ENERGY: 563-288-3322

- STA: 11+00.00, 29.00' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 12+57.00, 30.50' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 14+45.70, 31.92' LT (EXISTING GAS VALVE TO BE ADJUSTED TO FINISHED GRADE BY ALLIANT)
- STA: 14+90.00, 35.50' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 16+30.40, 71.59' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 19+05.70, 36.80' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 42+17.00, 37.33' LT (EXISTING GAS VALVE TO BE ADJUSTED TO FINISHED GRADE BY ALLIANT)
- STA: 42+30.00, 22.45' RT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 42+77.00, 14.33' RT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)
- STA: 42+86.00, 8.64' LT (UNDERGROUND GAS *LIKELY IN CONFLICT* TO BE ADJUSTED BY ALLIANT)

LUMEN: 563-355-2592 or 563-321-3860

- EXISTING UTILITY POLE TO BE RELOCATED (IN CONJUNCTION WITH MPW) @ STA: 42+12.40, 22.24' RT

SEGRA: 319-304-5597 or 319-252-7463

- EXISTING HANDHOLE TO BE RELOCATED PRIOR TO CONSTRUCTION @ STA: 7+82.20, 26.87' RT.

UNITI/WINDSTREAM: 319-538-1985 or 319-440-8094

- EXISTING HANDHOLE TO BE ADJUSTED **DURING** CONSTRUCTION @ STA: 6+16.60, 30.36' RT.

TRAFFIC CONTROL NOTES:

1. THE J SHEETS DESCRIBE TRAFFIC CONTROL NECESSARY FOR THE CONSTRUCTION OF GREEN STREET, HERSHEY AVENUE, AND THE ROUNDABOUT. LOCAL TRAFFIC TO ADJACENT PROPERTIES SHALL BE MAINTAINED. ALL TRAFFIC CONTROL SIGNS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
2. SPECIFIC TRAFFIC CONTROL LAYOUTS ARE SHOWN ON THESE PLANS. THESE ARE GENERAL TRAFFIC CONTROL LAYOUTS FOR INFORMATION ONLY.
3. THE CONTRACTOR SHALL COORDINATE TRAFFIC CONTROL WITH OTHER PROJECTS IN THE AREA AS REQUIRED. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CLOSURES SHOWN ON THE 'J' SHEETS. FOR ADDITIONAL INFORMATION, REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. THE LUMP SUM BID ITEM FOR "TEMPORARY TRAFFIC CONTROL" SHALL INCLUDE ALL COSTS FOR TRAFFIC CONTROL MEASURES DURING CONSTRUCTION FOR THIS PROJECT. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.
5. TRAFFIC CONTROL DEVICES, PROCEDURES, LAYOUTS, SIGNING, AND PAVEMENT MARKINGS INSTALLED WITHIN THE LIMITS OF THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130.
6. ALL TRAFFIC CONTROL SIGNS SHALL BE PLACED A MINIMUM OF TWO (2) FEET CLEAR OF THE BACK OF CURB OR OUTSIDE EDGE OF SHOULDER WHERE POSSIBLE.
7. ALL DETOUR SIGNS AND ROAD CLOSURE BARRICADES SHALL BE INSTALLED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO CLOSING THE ROAD.
8. ALL SIGNS SHALL BE POST MOUNTED UNLESS NOTED OR OTHERWISE APPROVED BY THE CITY.
9. PROPOSED SIGN SPACING MAY BE MODIFIED, AS APPROVED BY THE ENGINEER, TO MEET EXISTING FIELD RESTRICTIONS, OR TO PREVENT OBSTRUCTION OF THE MOTORIST'S VIEW OF PERMANENT SIGNING.
10. PROPOSED CHANGES IN THE TRAFFIC CONTROL PLAN SHALL BE REVIEWED WITH THE CITY AND ENGINEER BEFORE CHANGES ARE MADE.
11. THIS LAYOUT DOES NOT INCLUDE ALL BARRICADES AS MAY BE REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
12. ALL "STOP" AND OTHER REGULATORY SIGNS SHALL NOT BE DISTURBED. PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF THE TEMPORARY SIGNING NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR AS APPROVED BY THE CITY. IF THE CONTRACTOR AND THE CITY DETERMINE A SIGN MUST BE REMOVED FOR ANY STAGE OF CONSTRUCTION IT SHALL BE REMOVED AND RELOCATED BY PERSONNEL FROM THE CITY OF MUSCATINE. THE CONTRACTOR SHALL NOTIFY PUBLIC WORKS A MINIMUM OF TWO (2) BUSINESS DAYS IN ADVANCE FOR SIGN REMOVAL, RELOCATION, AND RESET. WORK SHALL BE COMPLETED BY CITY PERSONNEL ONLY.
13. ANY TEMPORARY REGULATORY SIGNS ARE TO BE PROVIDED, LOCATED, AND MAINTAINED BY THE CONTRACTOR.
14. ALL CONTRACTOR FURNISHED TRAFFIC CONTROL AND FIXED, POST MOUNTED, TRAFFIC CONTROL SIGNS USED ON THIS PROJECT SHALL BE SHEETED WITH HIGH-VISIBILITY PRISMATIC REFLECTIVE SHEETING (TYPE III OR HIGHER).
15. TYPE "C" STEADY BURN WARNING LIGHTS ARE NOT REQUIRED FOR VERTICAL PANELS, BARRICADES, AND DRUMS WHEN THESE TRAFFIC CONTROL DEVICES ARE SHEETED WITH HIGH-VISIBILITY PRISMATIC REFLECTIVE SHEETING (TYPE III OR HIGHER).
16. ALL TRAFFIC LANE CLOSURES SHALL BE RE-OPENED FOR PUBLIC USE WITHIN 24 HOURS OF THE COMPLETION OF ACTIVE CONSTRUCTION WORK. THE CONTRACTOR SHALL PROPERLY CLEAN ALL SURFACES AND ELIMINATE ALL UNSAFE CONDITIONS PRIOR TO REMOVING TRAFFIC CONTROL DEVICES.
17. THE CONTRACTOR SHALL FURNISH THE CITY WITH NAMES AND TELEPHONE NUMBERS OF INDIVIDUALS RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES AND SIGNING. THE INDIVIDUAL(S) SHALL BE AVAILABLE FOR CORRECTIVE ACTION 24 HOURS A DAY, 7 DAYS A WEEK.
18. THE CONTRACTOR SHALL NOTIFY THE CITY OF STREET CLOSURE EIGHT (8) DAYS OR LANE CLOSURE THREE (3) DAYS PRIOR TO THE CLOSURE. THE CONTRACTOR SHALL COORDINATE CLOSURE WITH THE CITY TO ENSURE THE ABOVE DEADLINES ARE ACHIEVED.
19. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, MOVE, AND REMOVE ALL TRAFFIC CONTROL DEVICES ON THE PROJECT. ALL SIGNS SHALL BE REFLECTORIZED AND CONFORM AS TO DESIGN, COLOR, SIZE, AND LEGEND TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."
20. PAVEMENT MARKINGS THAT CONFLICT WITH THE MEANING OF TEMPORARY PAVEMENT MARKINGS OR BARRICADES FOR THE STAGE UNDER CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR. TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED AS INDICATED ON THE STAGING PLANS.

21. THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS, WITH BOTH WRITTEN NOTICE AND PERSONAL CONTACT, WHEN ACCESS TO A PROPERTY WILL EITHER BE RESTRICTED OR NOT BE AVAILABLE DUE TO CONSTRUCTION ACTIVITIES.
22. NO FIELD MEASUREMENT SHALL BE MADE FOR THE TRAFFIC CONTROL BID ITEM. THE CONTRACTOR SHALL BE PAID THE LUMP SUM BID AMOUNT FOR TRAFFIC CONTROL.
23. SOME CONSTRUCTION MAY REQUIRE TEMPORARY LANE CLOSURES NOT SHOWN ON THE PLANS. REFER TO PART 6 OF THE MUTCD FOR STANDARD LANE CLOSURE SIGNAGE.
24. SIGNAGE MAINTENANCE SHALL BE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL AND REQUIRED AS NECESSARY OR DIRECTED BY THE ENGINEER.
25. THE LOCATION FOR STORAGE OF EQUIPMENT BY THE CONTRACTOR DURING NONWORKING HOURS SHALL BE AS APPROVED BY THE ENGINEER, AND THE CONTRACTOR SHALL PROVIDE A WRITTEN AGREEMENT WITH THE PROPERTY OWNER.

SPECIFIC STAGING NOTES:

1. THE ROADWAY CLOSURE DURING PHASE 1 MAY BE CLOSED FOR 21 CALENDAR DAYS TOTAL. ADDITIONAL CLOSURE TIME OF THE ROADWAY MUST BE APPROVED BY THE ENGINEER. ROADWAY MEDIAN CAN BE CONSTRUCTED AS PART OF PHASE 4 TO FACILITATE TRAFFIC MOVEMENTS TO TEMPORARY ROADWAY.
2. TEMPORARY ROADWAY SHALL BE CONSTRUCTED PRIOR TO THE START OF PHASE 2.
3. TEMPORARY PAVEMENT MARKING MATERIAL INSTALLATION AND REMOVAL SHALL BE INCIDENTAL TO THE TRAFFIC CONTROL LUMP SUM ITEM. TEMPORARY PAVEMENT MARKINGS SHALL BE WET REFLECTIVE TAPE.
4. AFTER REMOVAL OF THE TEMPORARY ROADWAY, CONTRACTOR SHALL CONSTRUCT THE REMAINING CURB ALONG THE HERSHEY AVENUE.

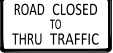
SPECIAL SIGN			
SIGN	SIGN NO.	COLOR	SIZE (INCHES)
	SPECIAL SIGN	BLACK ON ORANGE	66 X 30
	D3-1	BLACK ON ORANGE	54 X 12
	D3-1	BLACK ON ORANGE	36 X 12
	SPECIAL SIGN	BLACK ON ORANGE	66 X 30

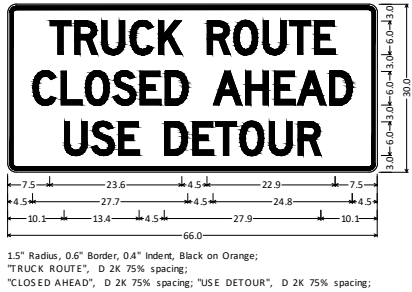
"M" SERIES			
SIGN	SIGN NO.	COLOR	SIZE (INCHES)
	M4-9L	BLACK ON ORANGE	30 X 24 42 X 36 *
	M4-9R	BLACK ON ORANGE	30 X 24 42 X 36 *
	M4-9ATL	BLACK ON ORANGE	30 X 24 42 X 36 *
	M4-9ATR	BLACK ON ORANGE	30 X 24 42 X 36 *
	M4-9T	BLACK ON ORANGE	30 X 24 42 X 36 *
	M4-8A	BLACK ON ORANGE	24 X 18
	M4-3P	BLACK ON ORANGE	24 X 12 36 X 18 *
	M3-1P	BLACK ON ORANGE	24 X 12 36 X 18 *
	M3-2P	BLACK ON ORANGE	24 X 12 36 X 18 *
	M3-3P	BLACK ON ORANGE	24 X 12 36 X 18 *
	M3-4P	BLACK ON ORANGE	24 X 12 36 X 18 *

* TO BE USED ON US HIGHWAY 61 WHEN SPEEDS ARE GREATER THAN OR EQUAL TO 45 MPH.

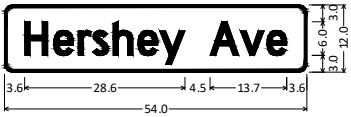
"W" SERIES			
SIGN	SIGN NO.	COLOR	SIZE (INCHES)
	W20-1	BLACK ON ORANGE	36 X 36
	W20-2	BLACK ON ORANGE	36 X 36 48 X 48 *
	W20-3	BLACK ON ORANGE	36 X 36
	W1-2L	BLACK ON ORANGE	36 X 36
	W1-2R	BLACK ON ORANGE	36 X 36
	W13-1P	BLACK ON ORANGE	18 X 18
	SPECIAL WARNING SIGN	BLACK ON ORANGE	36 X 36

"T" SERIES			
SIGN	SIGN NO.	COLOR	SIZE (INCHES)
	T3L	ORANGE ON WHITE	6' MINIMUM
	T3R	ORANGE ON WHITE	6' MINIMUM

"R" SERIES			
SIGN	SIGN NO.	COLOR	SIZE (INCHES)
	R11-2	BLACK ON WHITE	48 X 30
	R14-1	BLACK ON WHITE	24 X 18
	R3-1	BLACK ON WHITE	24 X 24
	R3-2	BLACK ON WHITE	24 X 24
	R11-4	BLACK ON WHITE	60 X 30

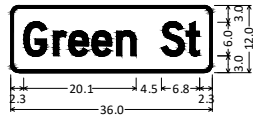


1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
"TRUCK ROUTE", D 2K 75% spacing;
"CLOSED AHEAD", D 2K 75% spacing; "USE DETOUR", D 2K 75% spacing;



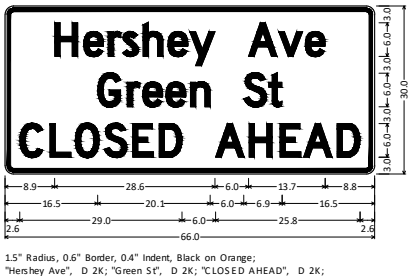
1.5" Radius, 0.5" Border, White on Green;
"Hershey", D 2K; "Ave", D 2K;

Table of letter and object lefts									
H	e	r	s	h	e	v	A	v	e
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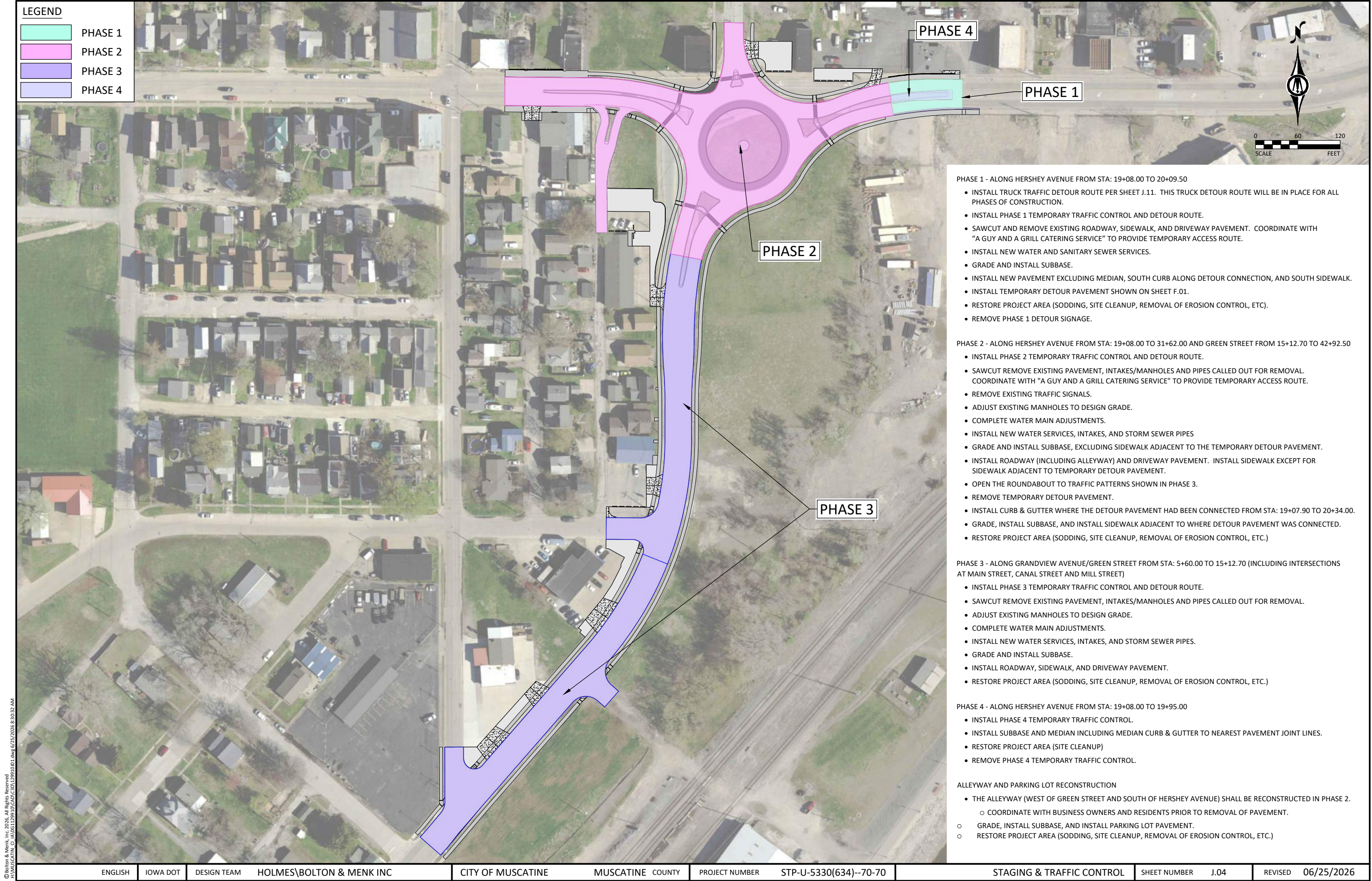


1.5" Radius, 0.5" Border, White on Green;
"Green", D 2K; "St", D 2K;

Table of letter and object lefts					
G	r	e	e	n	S
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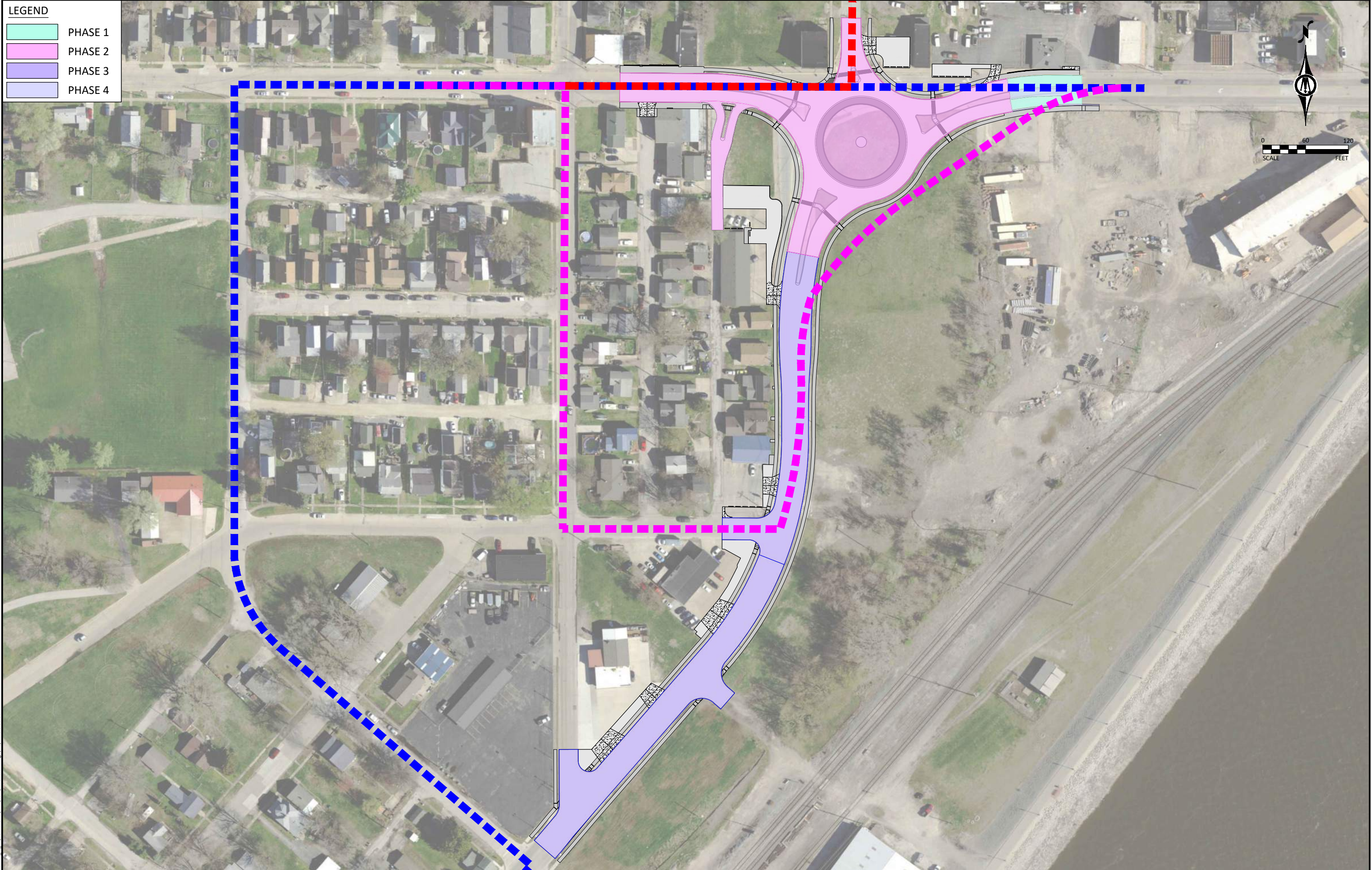
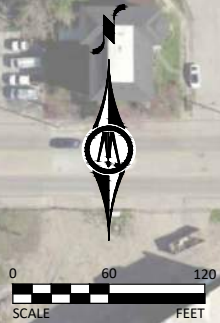


1.5" Radius, 0.6" Border, 0.4" Indent, Black on Orange;
"Hershey Ave", D 2K; "Green St", D 2K; "CLOSED AHEAD", D 2K;



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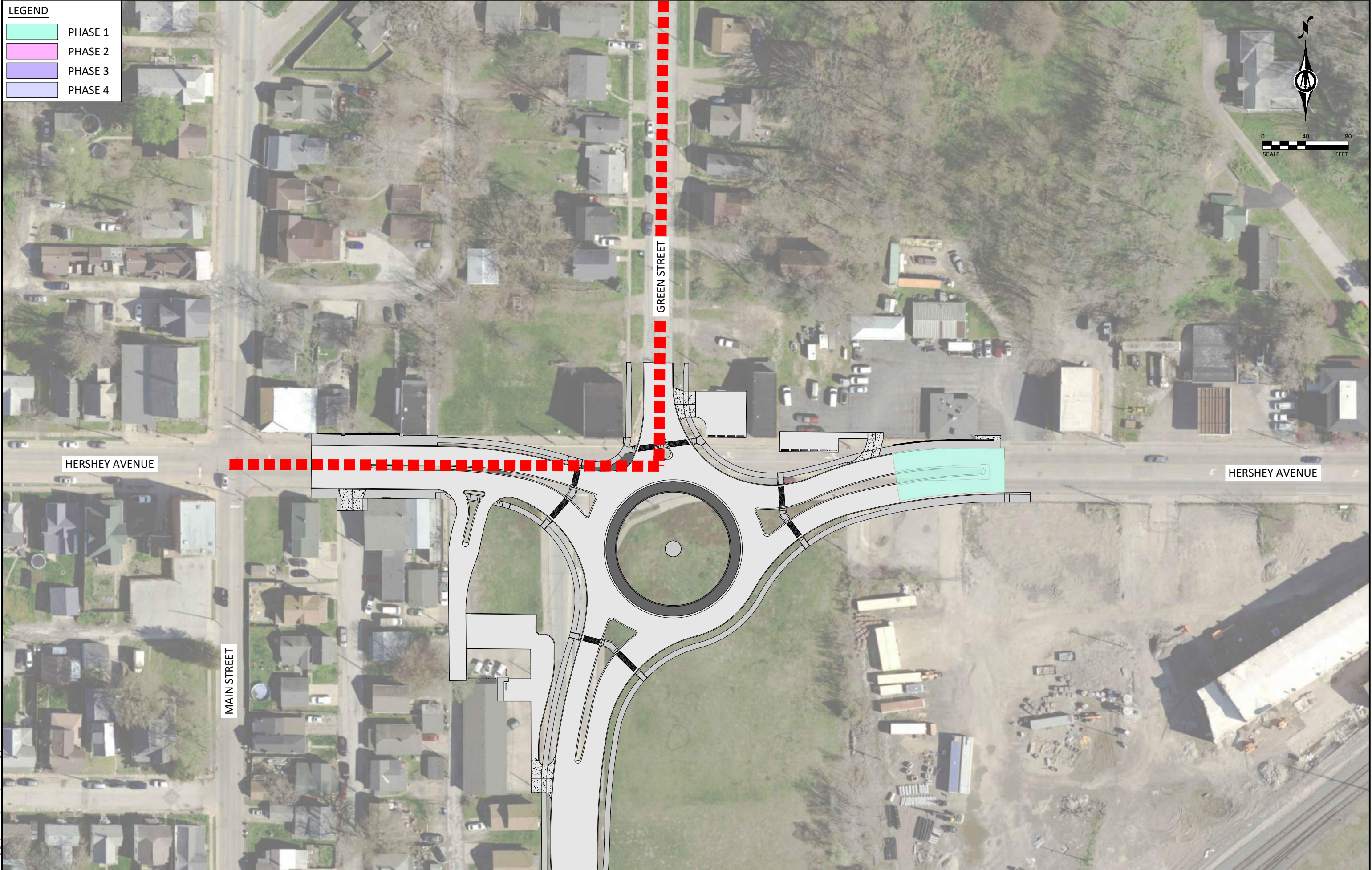
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	PHASE 2
	PHASE 3
	PHASE 4



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[Pink Box]	PHASE 1
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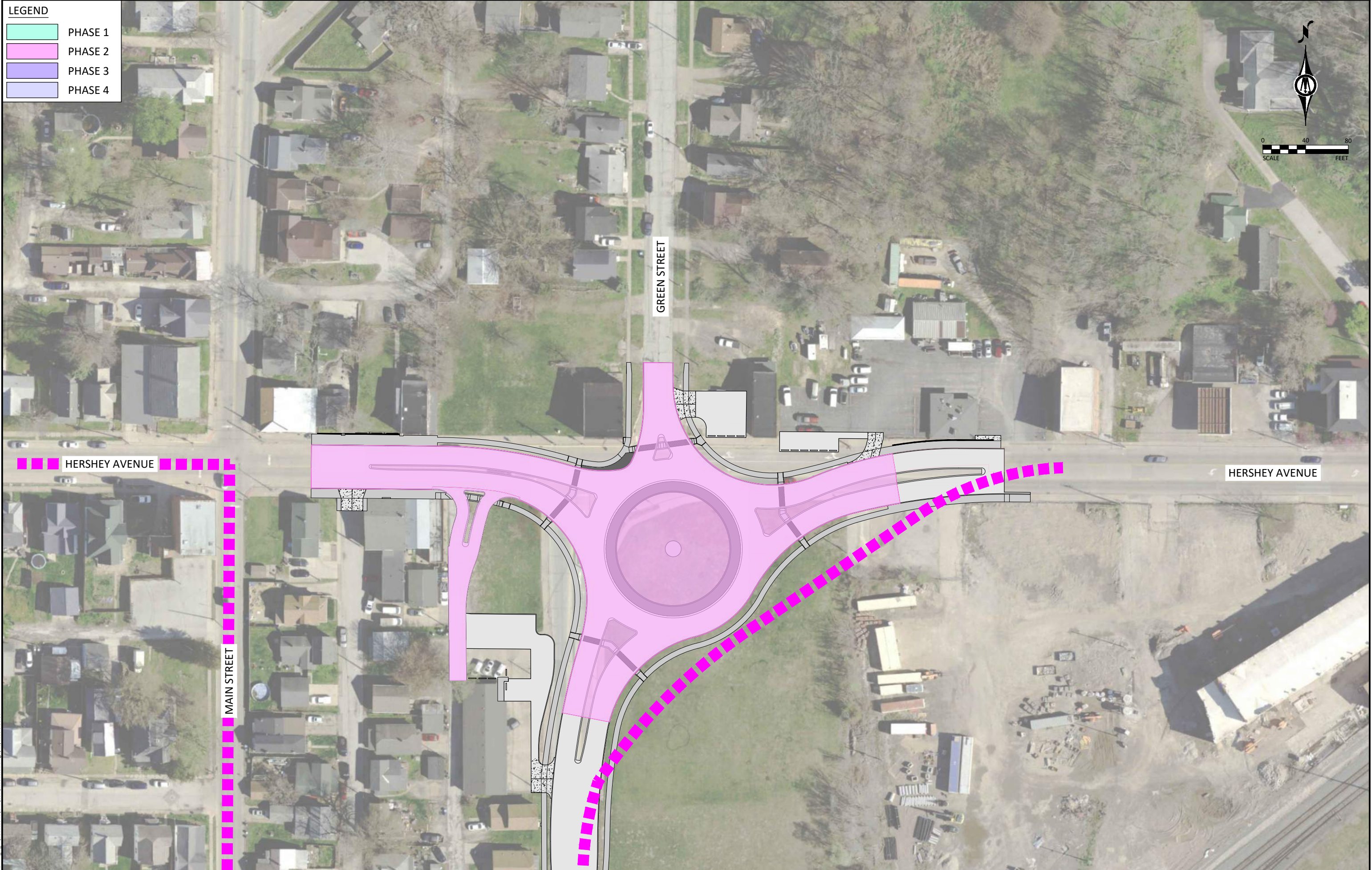


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ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	STAGING & TRAFFIC CONTROL	SHEET NUMBER	J.06	REVISED	06/25/2026
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LEGEND

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	PHASE 2
	PHASE 3
	PHASE 4

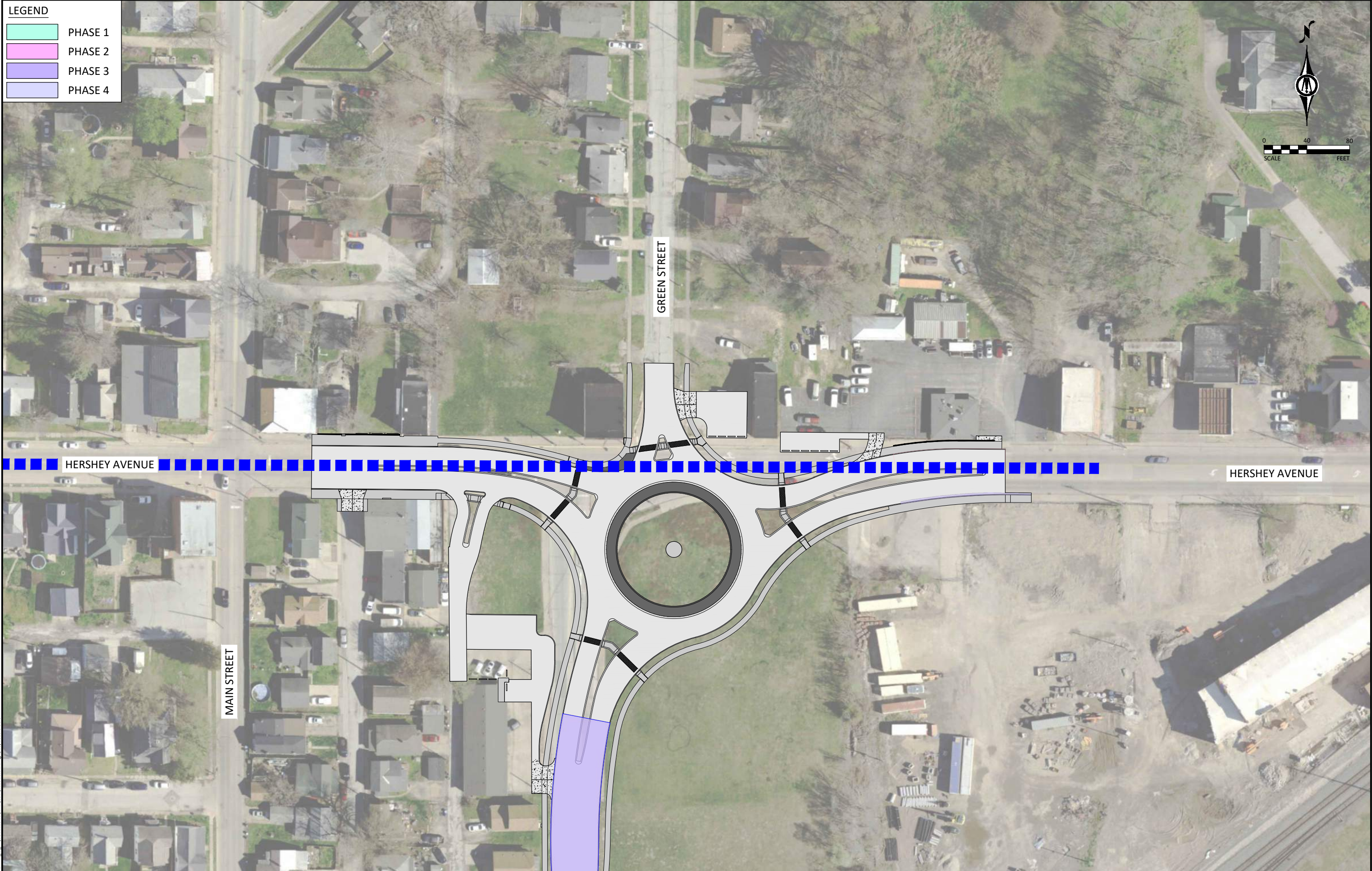


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ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	STAGING & TRAFFIC CONTROL	SHEET NUMBER	J.07	REVISED	06/25/2026
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LEGEND

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[Light Yellow Box]	PHASE 4



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ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	STAGING & TRAFFIC CONTROL	SHEET NUMBER	J.08	REVISED	06/25/2026
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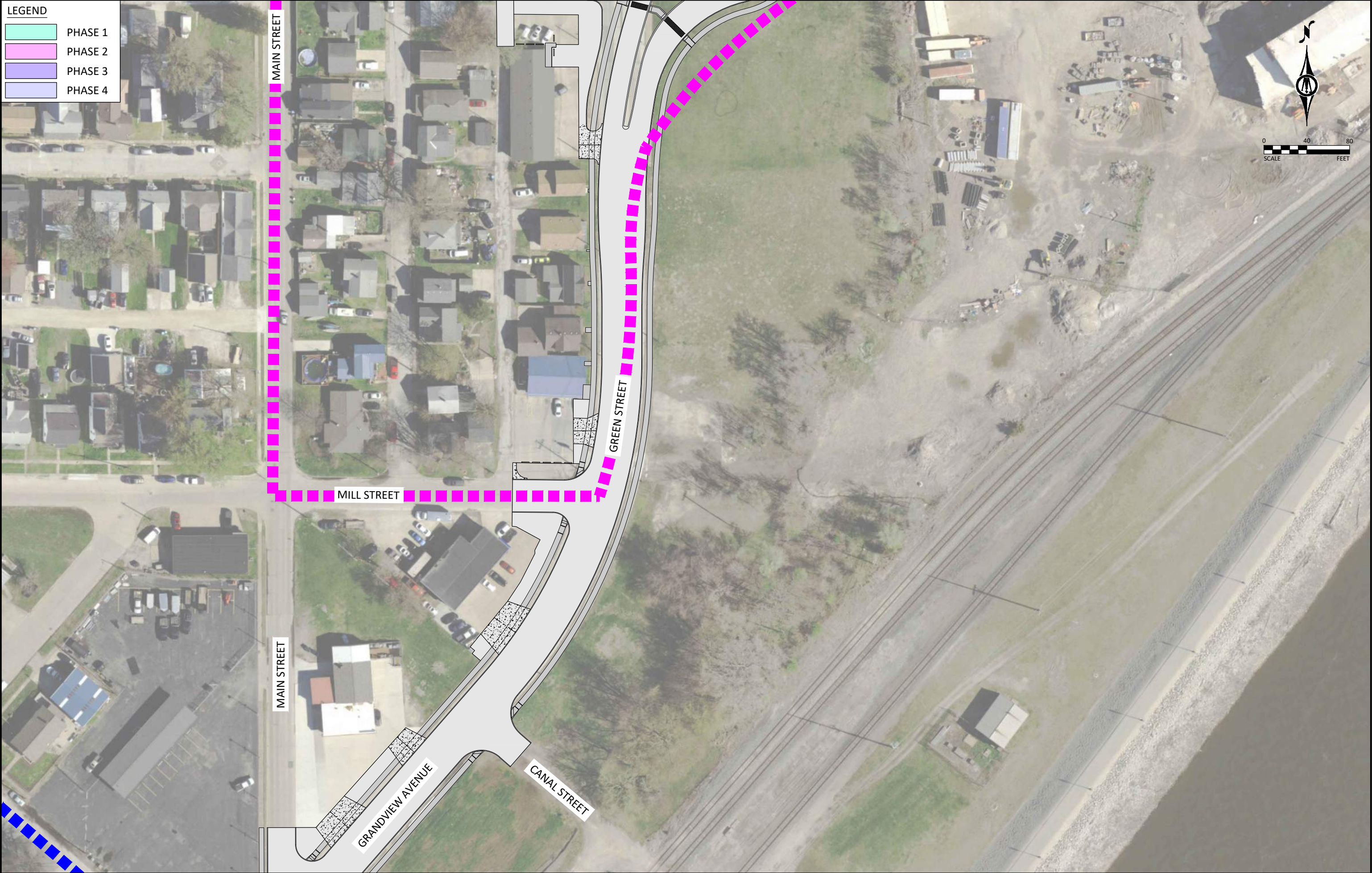
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PHASE 1

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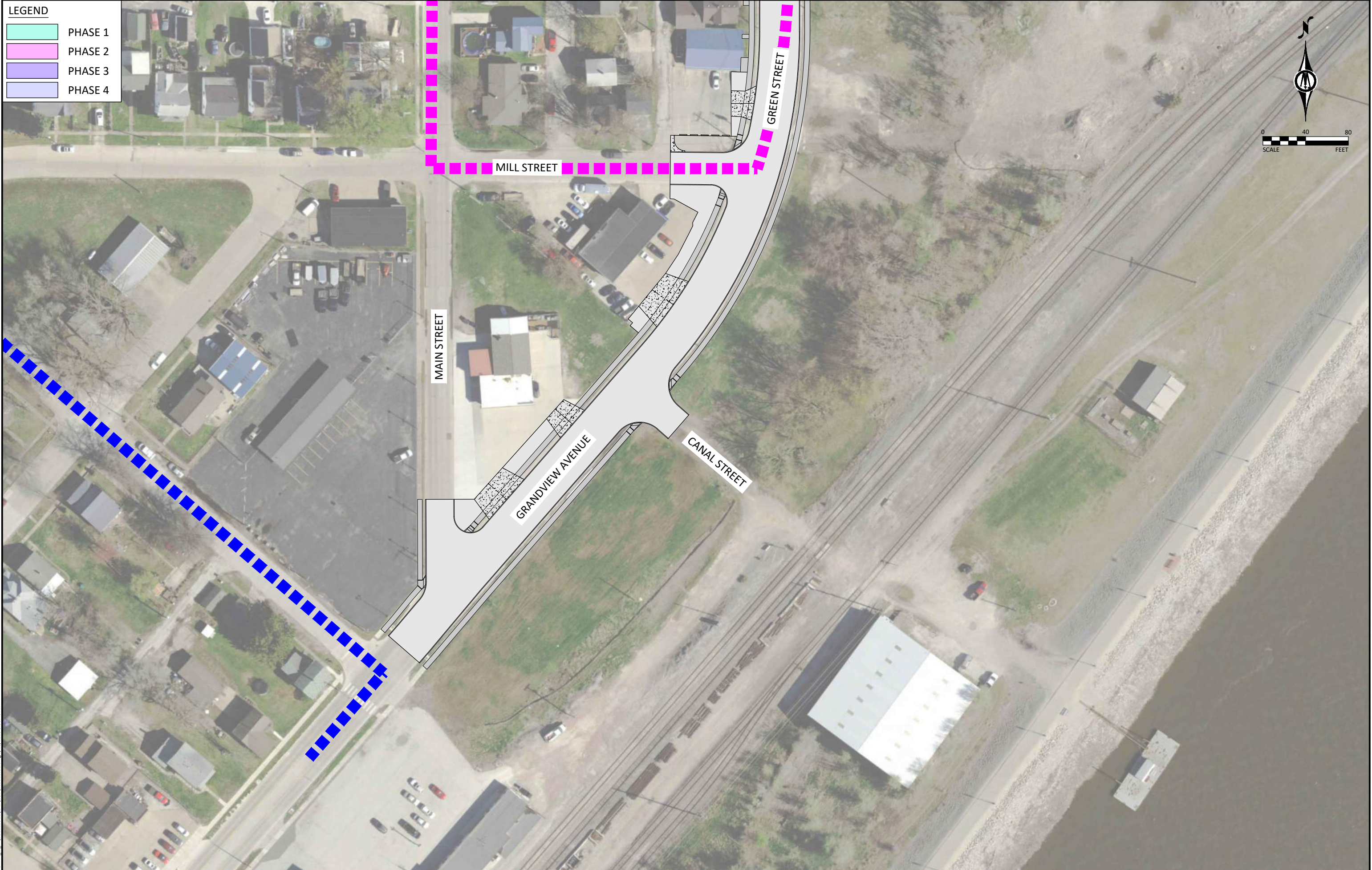
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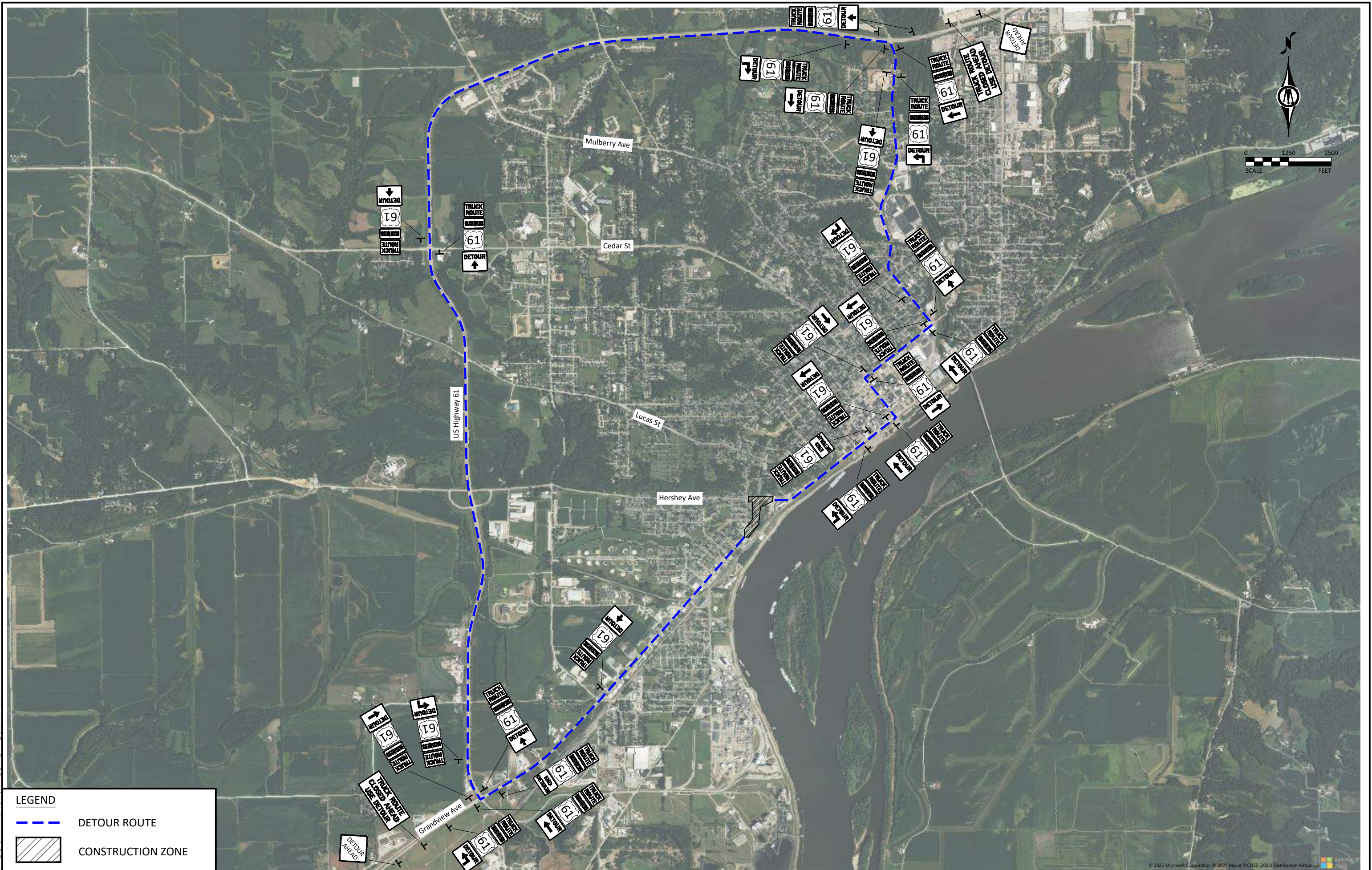
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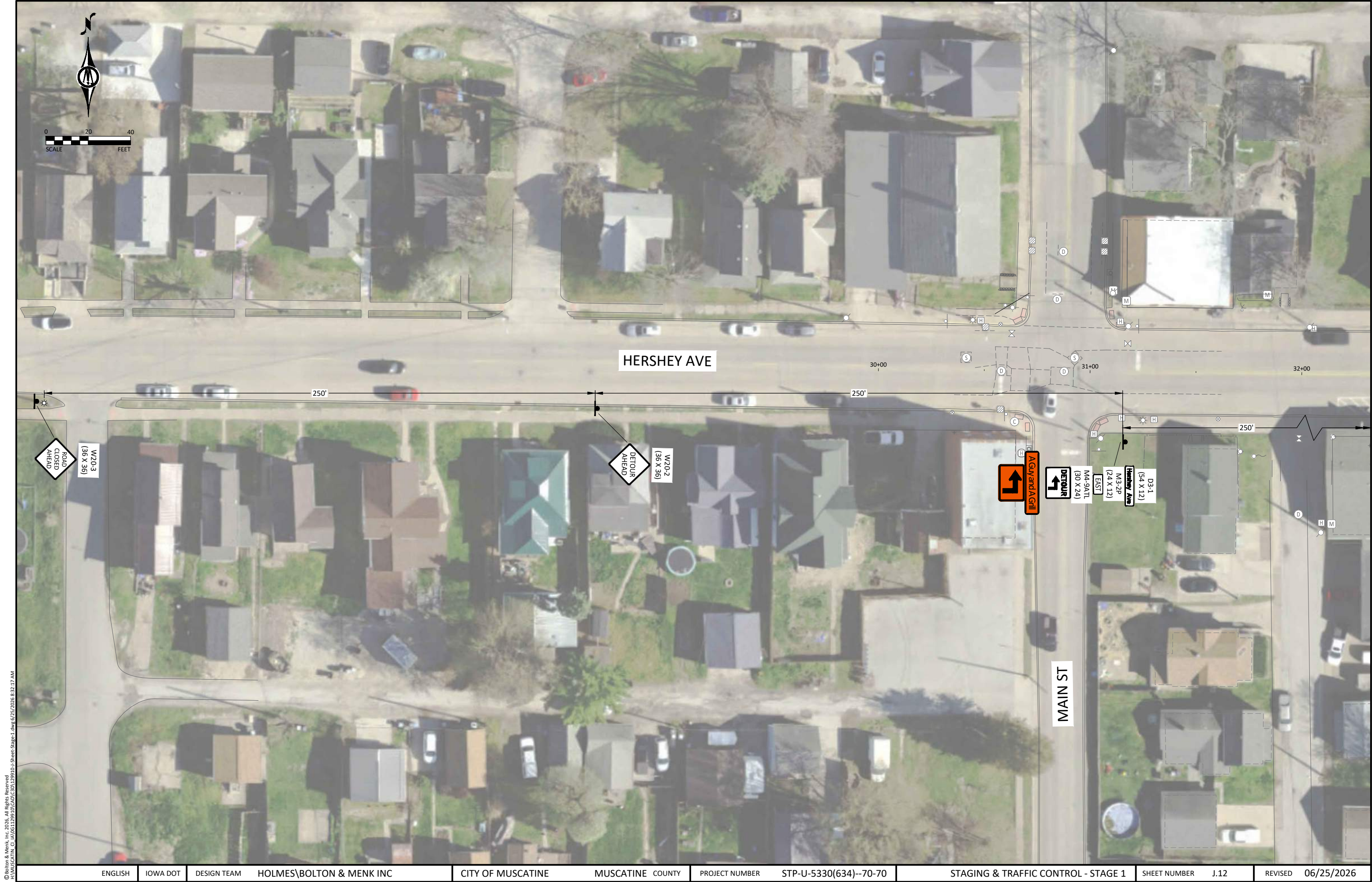
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LEGEND

DETOUR ROUTE

CONSTRUCTION ZONE



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ENGLISH

IOWA DOT

DESIGN TEAM
HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER
STP-U-5330(634)--70-70

STAGING & TRAFFIC CONTROL - STAGE 1

SHEET NUMBER
J.12

REVISED
06/25/2026

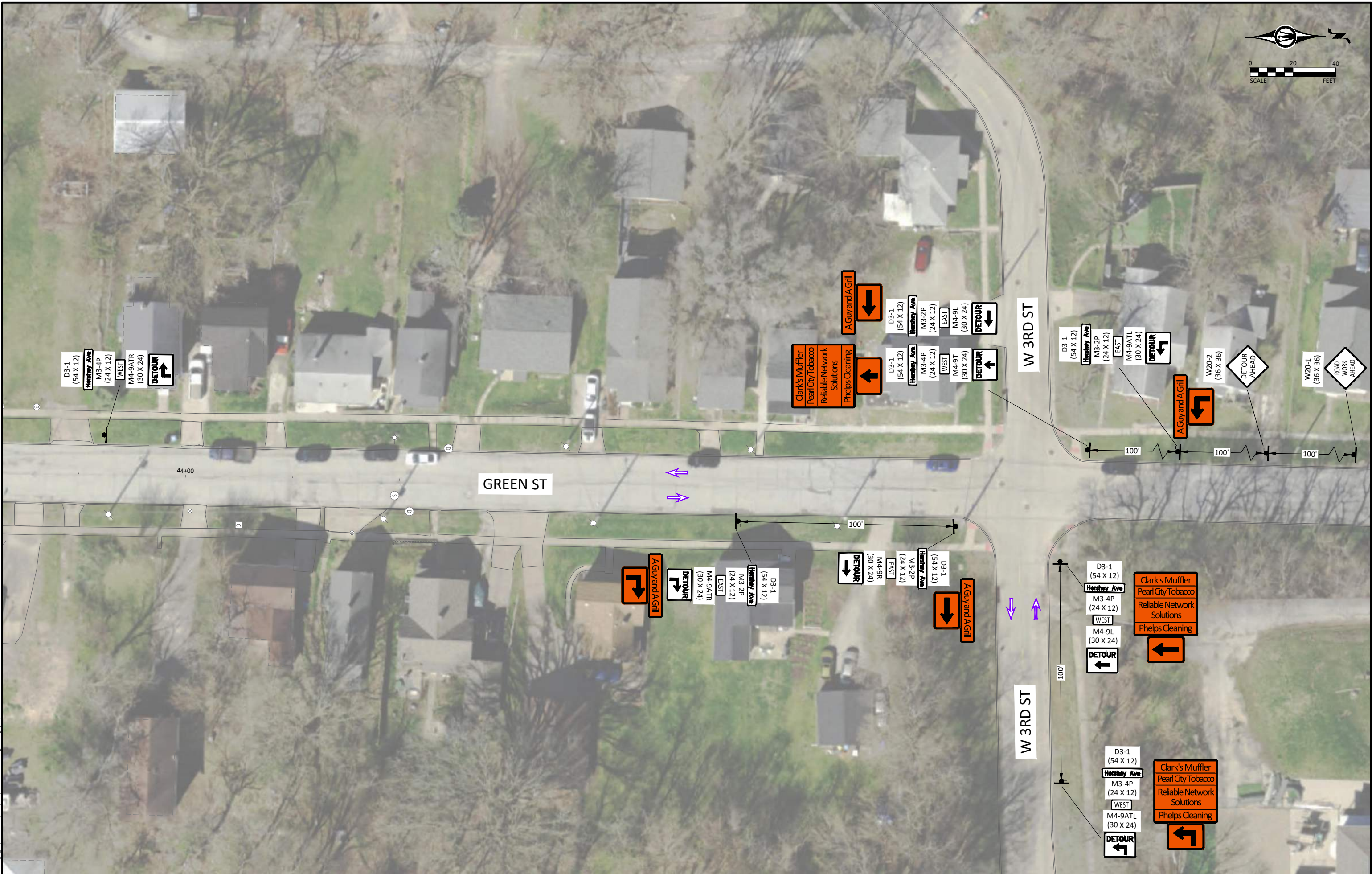
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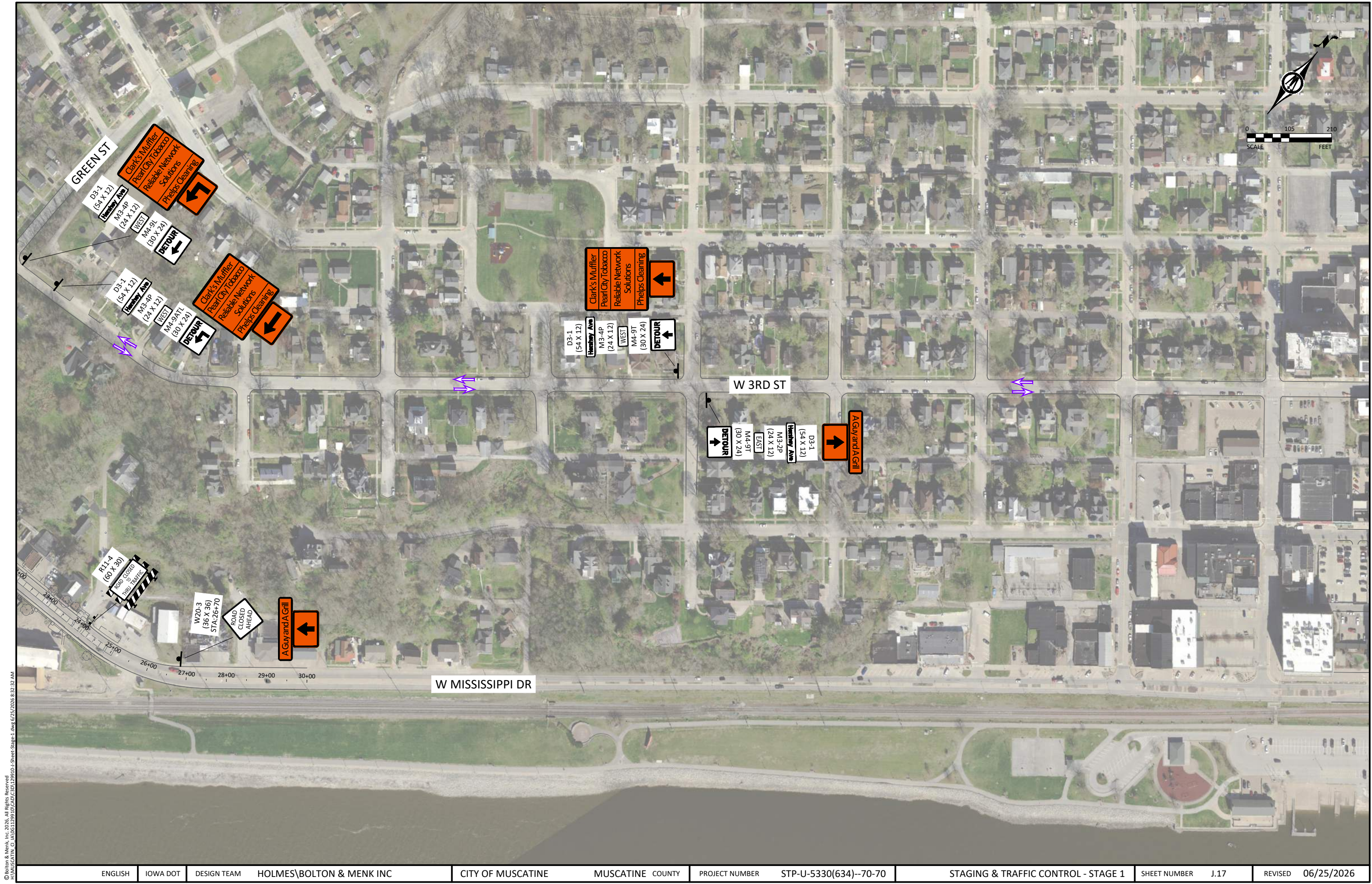


NOTE:
EAST DRIVEWAY AT 1033 HERSHEY AVENUE (A GUY AND A GRILL) SHALL REMAIN OPEN AT ALL TIMES. DELIVERY TRUCKS ENTER THROUGH EAST DRIVEWAY AND EXIT THROUGH WEST DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH BUSINESS OWNER TO ACCOMMODATE DELIVERIES DURING CONSTRUCTION. INSTALL TEMPORARY ROCK ACCESS AT WEST DRIVEWAY AT THE END OF EACH WORK DAY.

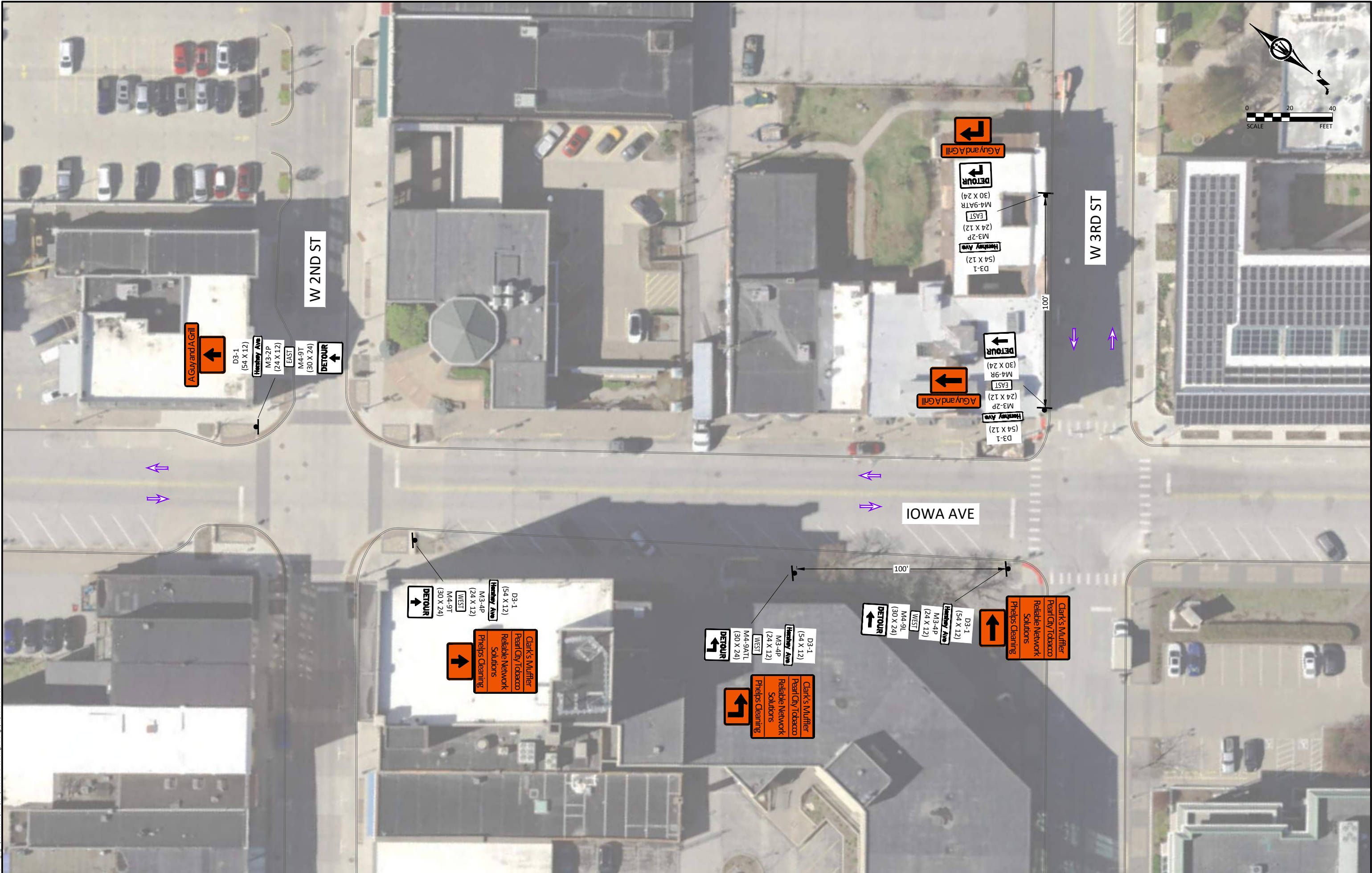
PROPOSED PAVEMENT CONSTRUCTION



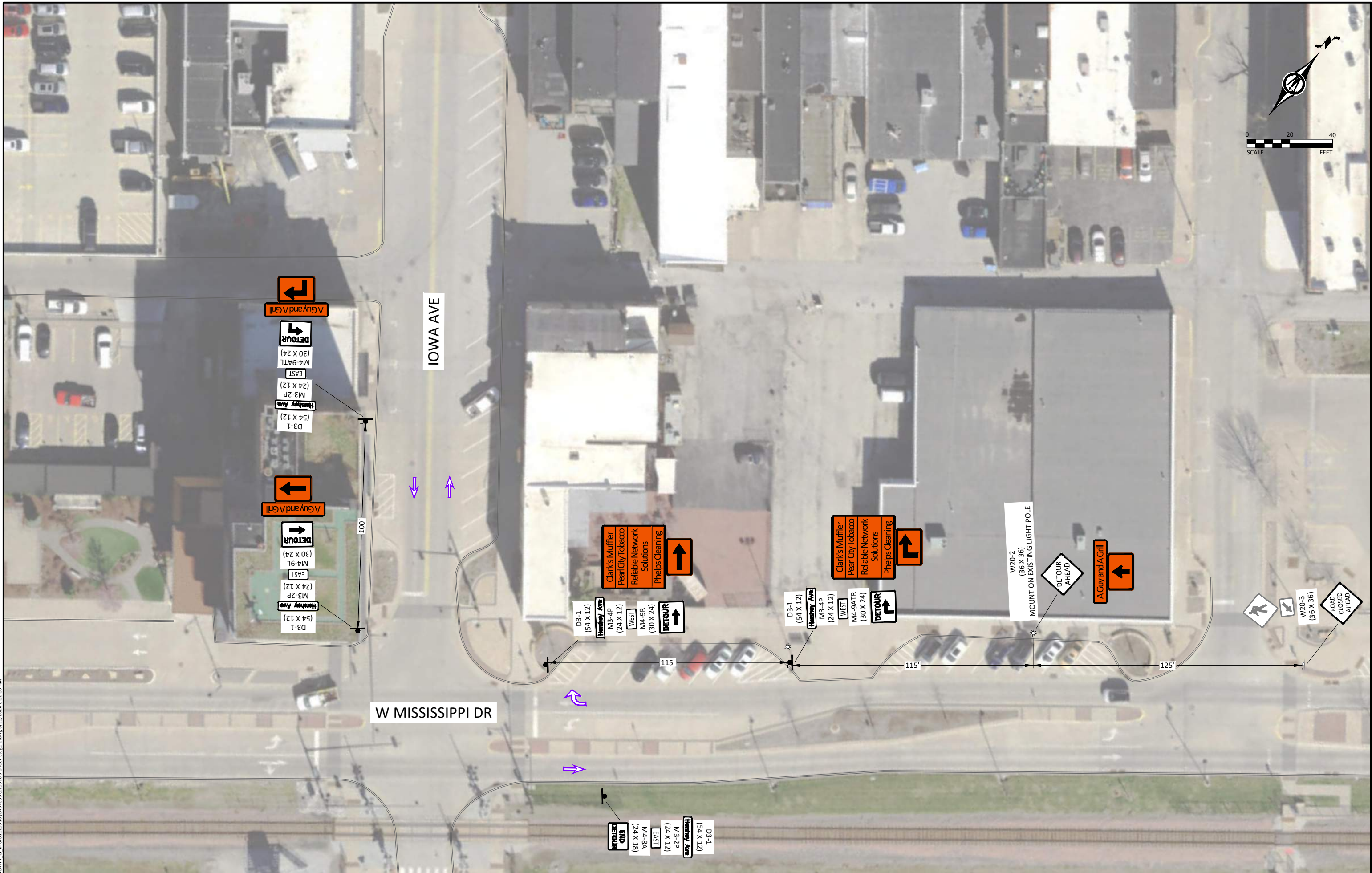


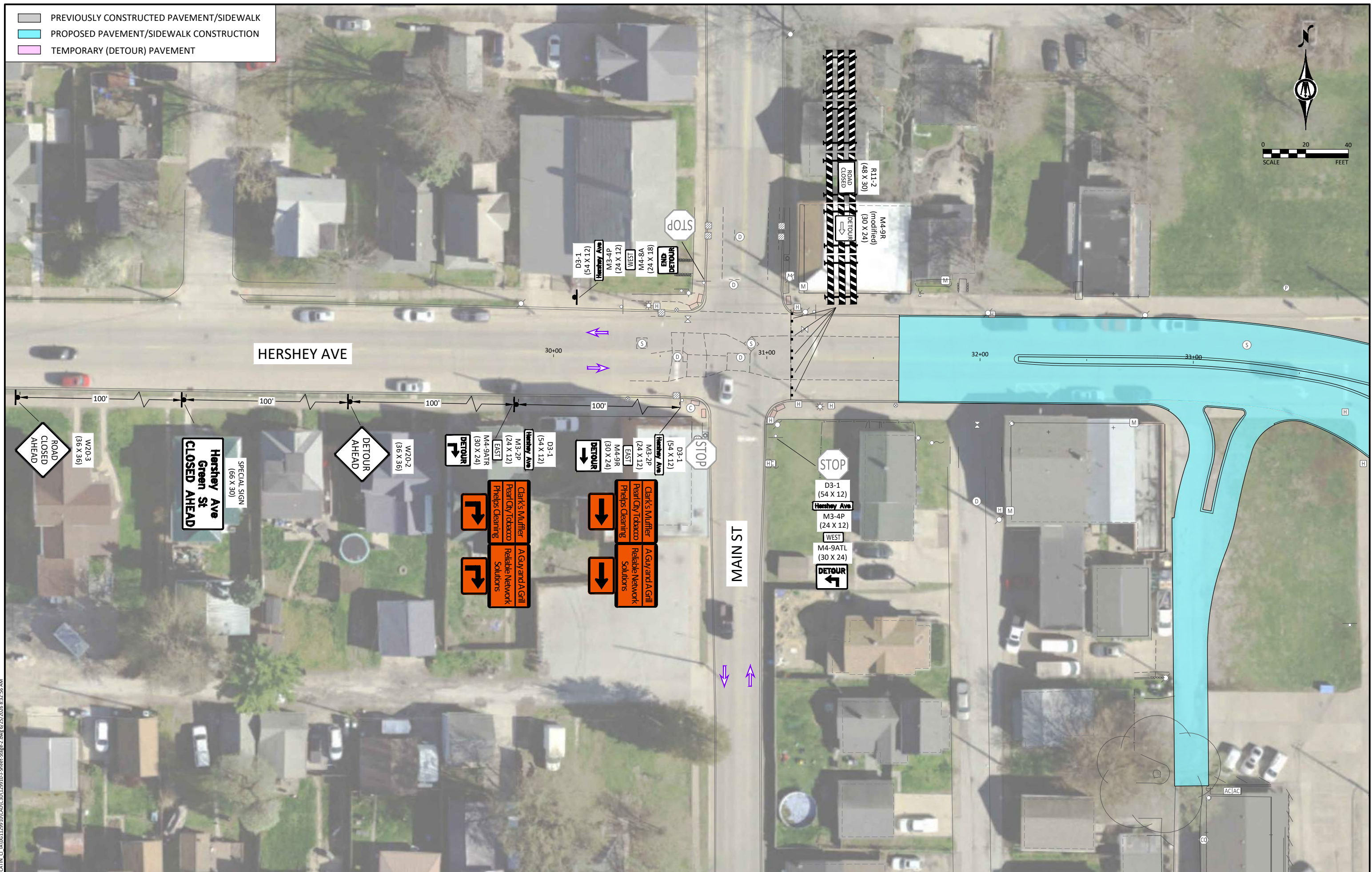


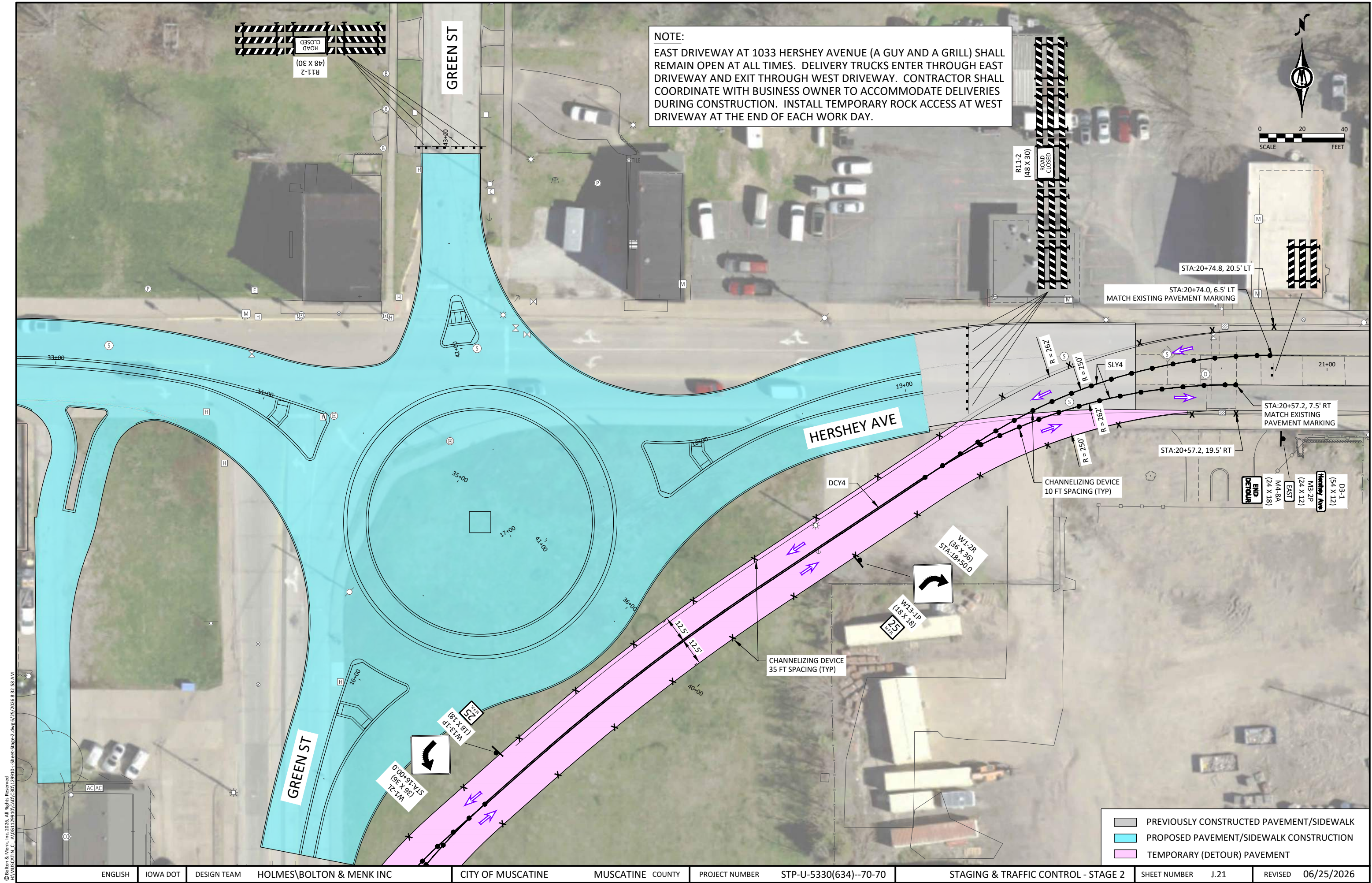
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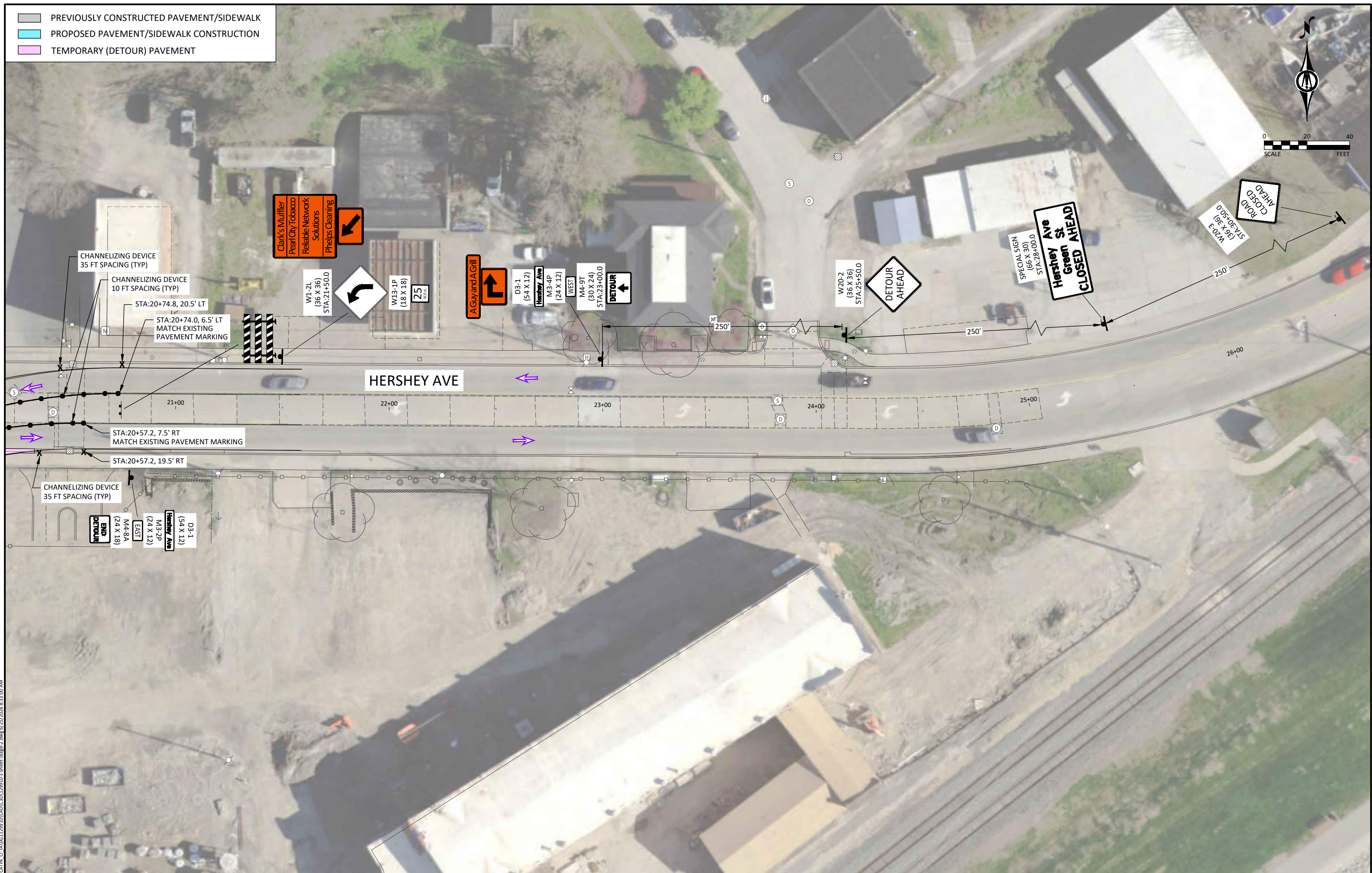




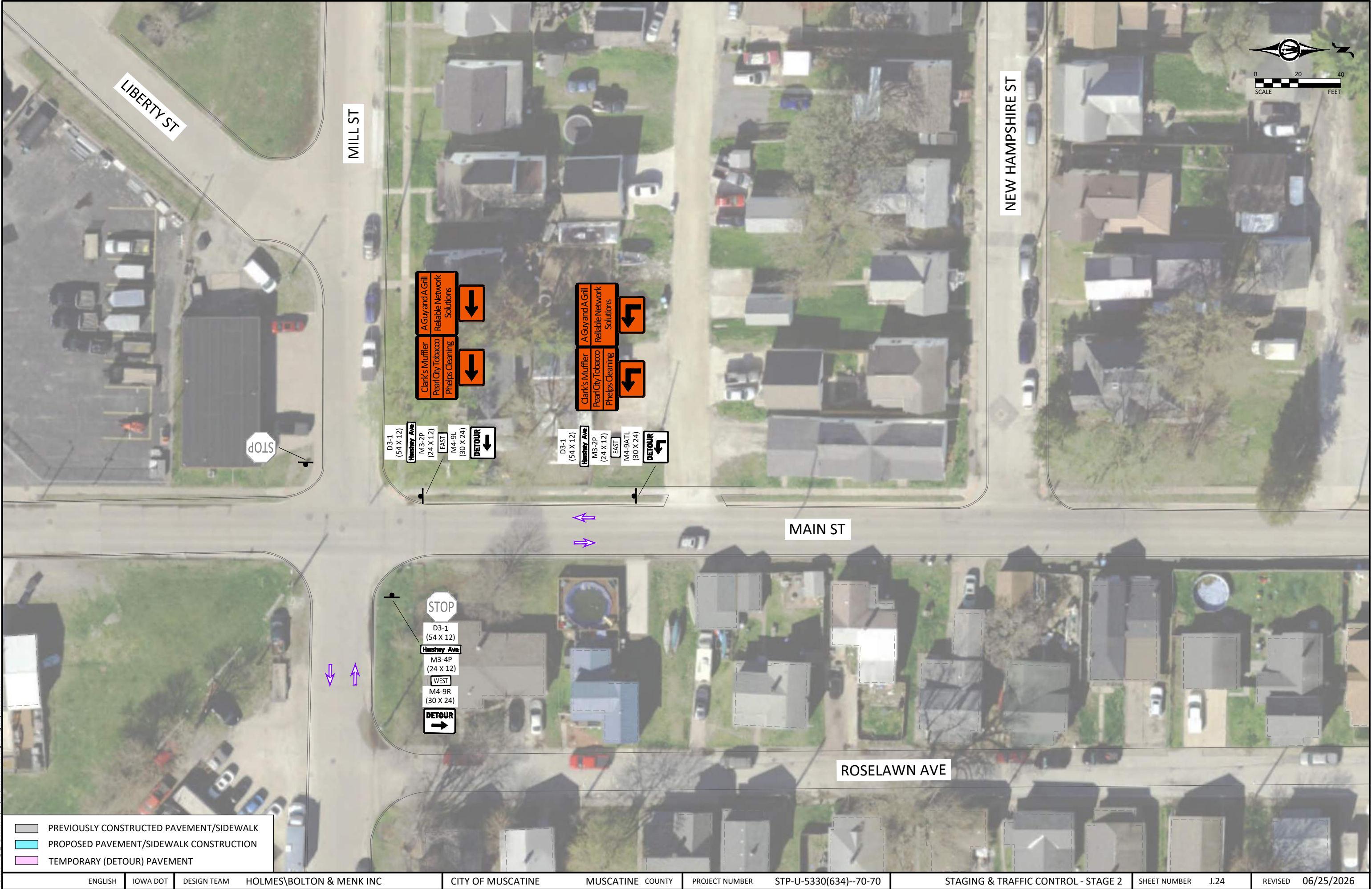


NOTE:
EAST DRIVEWAY AT 1033 HERSHEY AVENUE (A GUY AND A GRILL) SHALL REMAIN OPEN AT ALL TIMES. DELIVERY TRUCKS ENTER THROUGH EAST DRIVEWAY AND EXIT THROUGH WEST DRIVEWAY. CONTRACTOR SHALL COORDINATE WITH BUSINESS OWNER TO ACCOMMODATE DELIVERIES DURING CONSTRUCTION. INSTALL TEMPORARY ROCK ACCESS AT WEST DRIVEWAY AT THE END OF EACH WORK DAY.

- PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
- PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION
- TEMPORARY (DETOUR) PAVEMENT

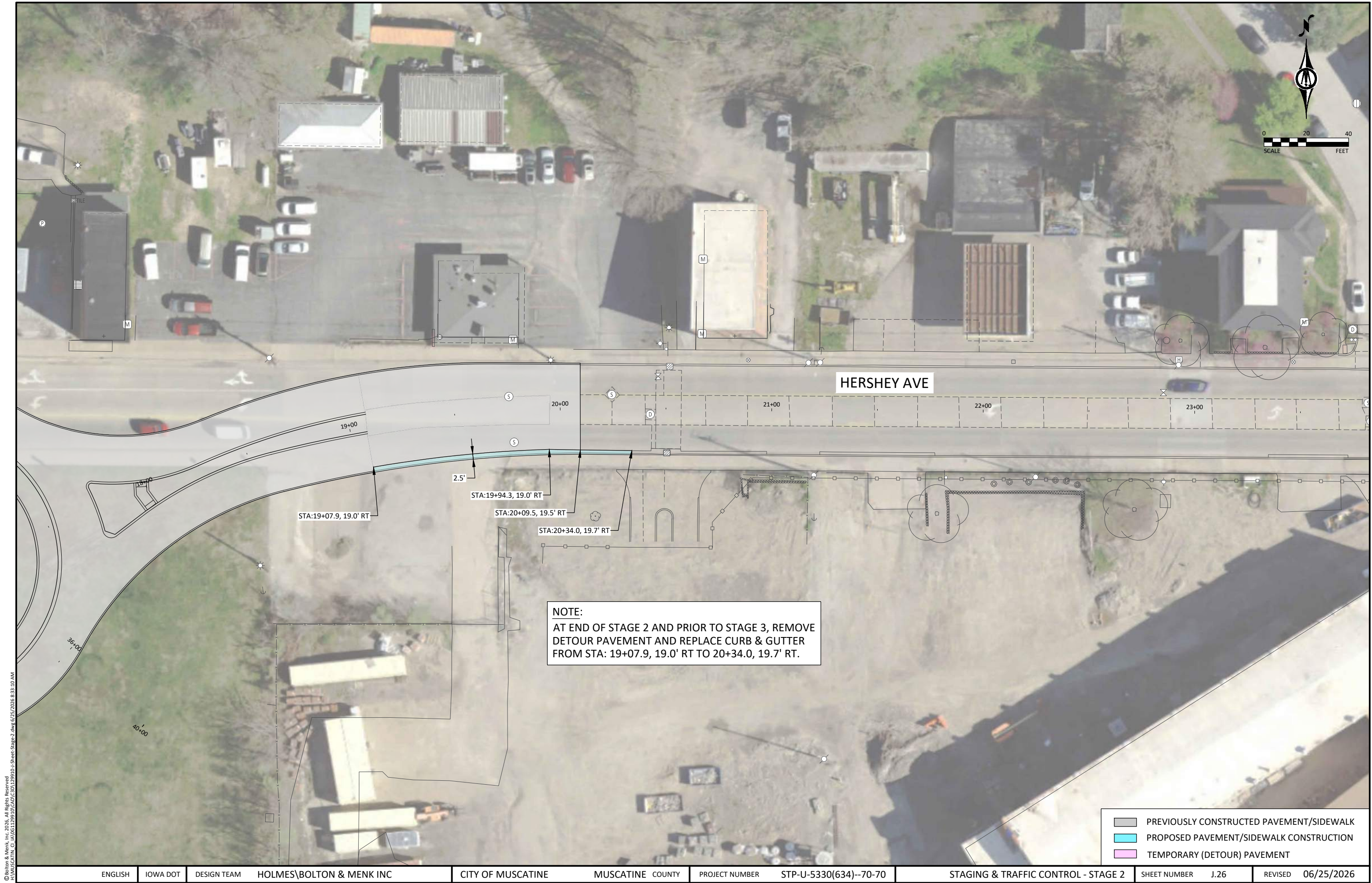


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NOTE:
AT END OF STAGE 2 AND PRIOR TO STAGE 3, REMOVE
DETOUR PAVEMENT AND REPLACE CURB & GUTTER
FROM STA: 19+07.9, 19.0' RT TO 20+34.0, 19.7' RT.

- PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
- PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION
- TEMPORARY (DETOUR) PAVEMENT

ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

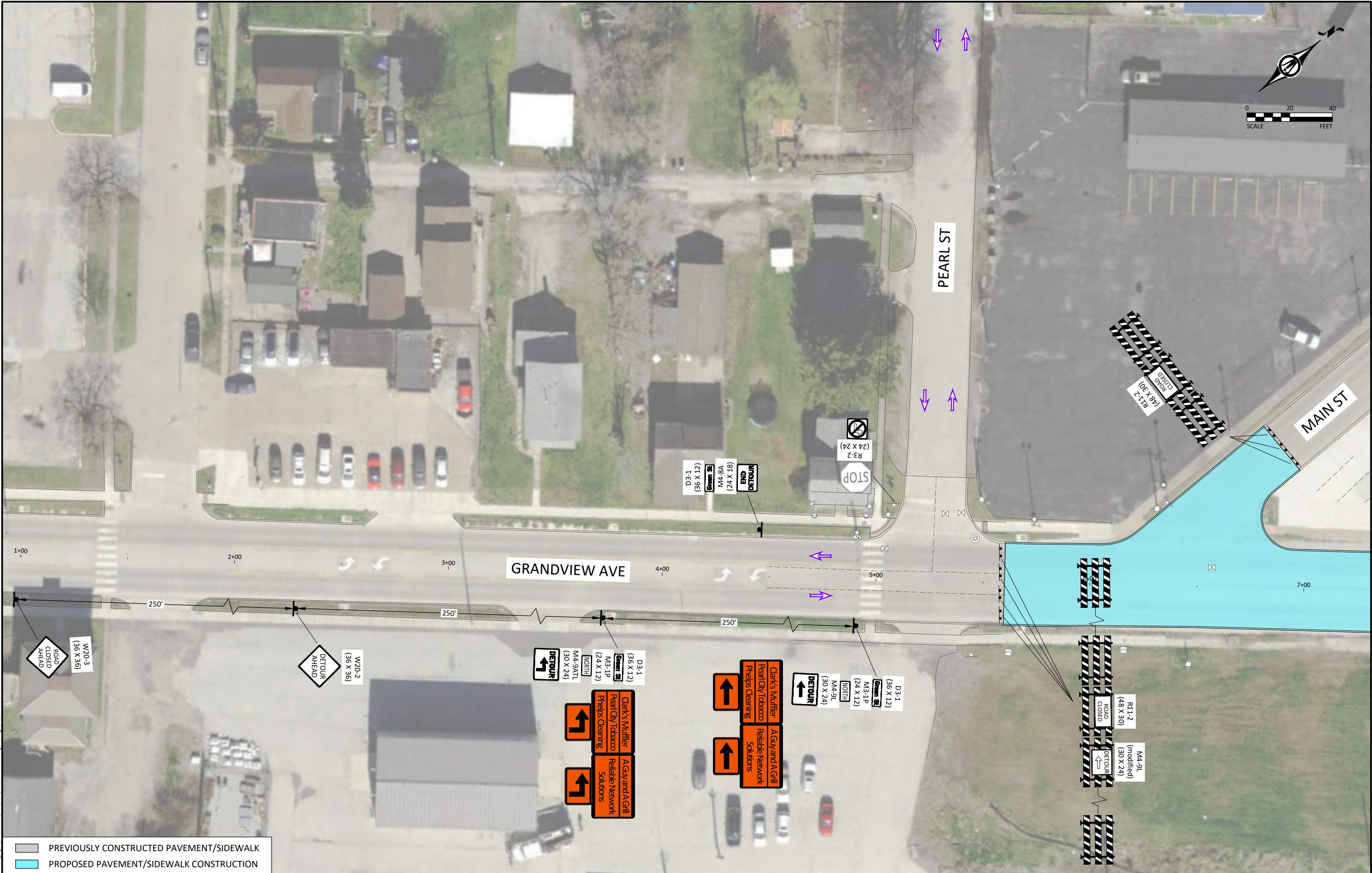
PROJECT NUMBER

STP-U-5330(634)--70-70

STAGING & TRAFFIC CONTROL - STAGE 2

SHEET NUMBER J.26

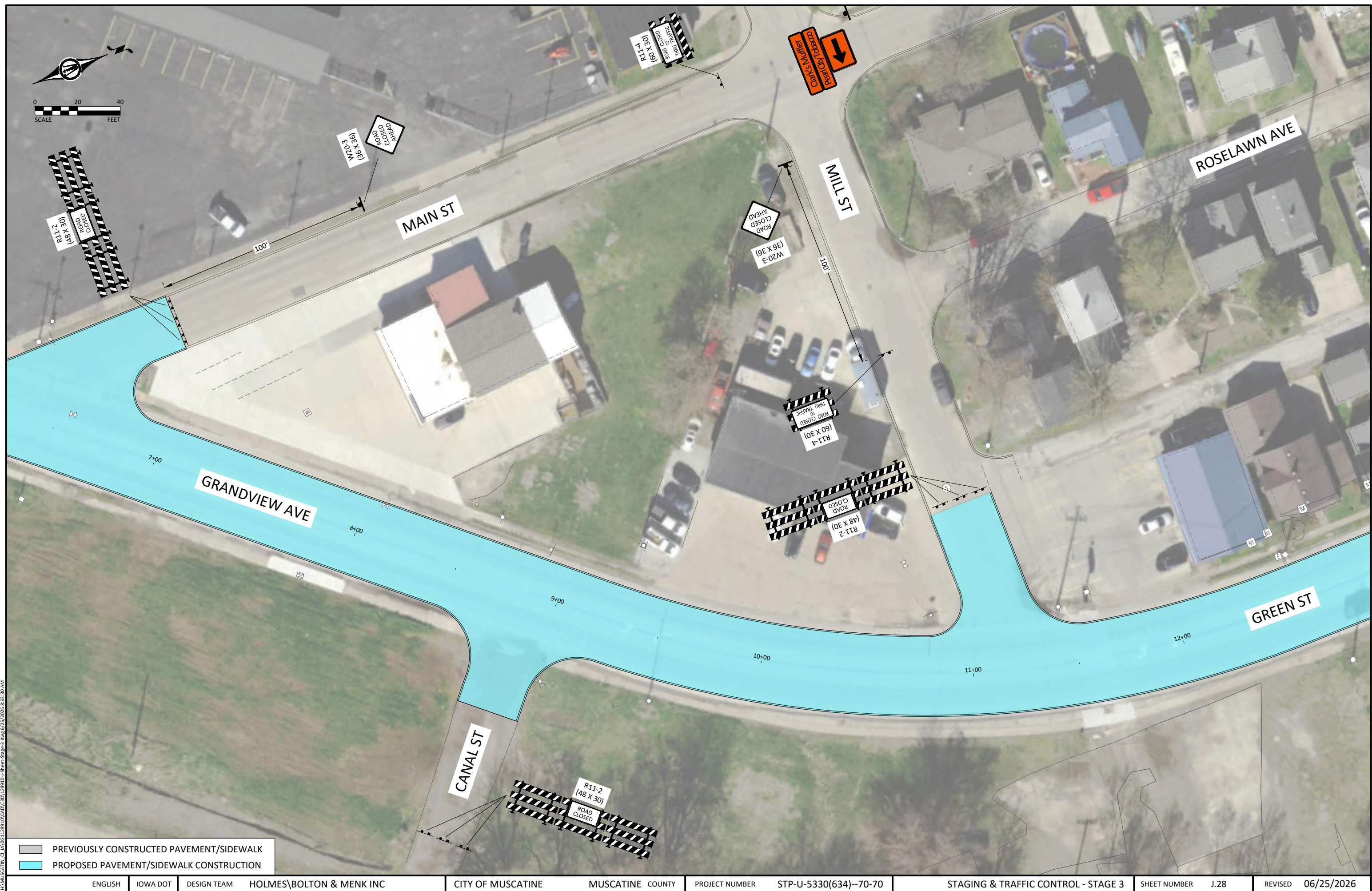
REVISED 06/25/2026

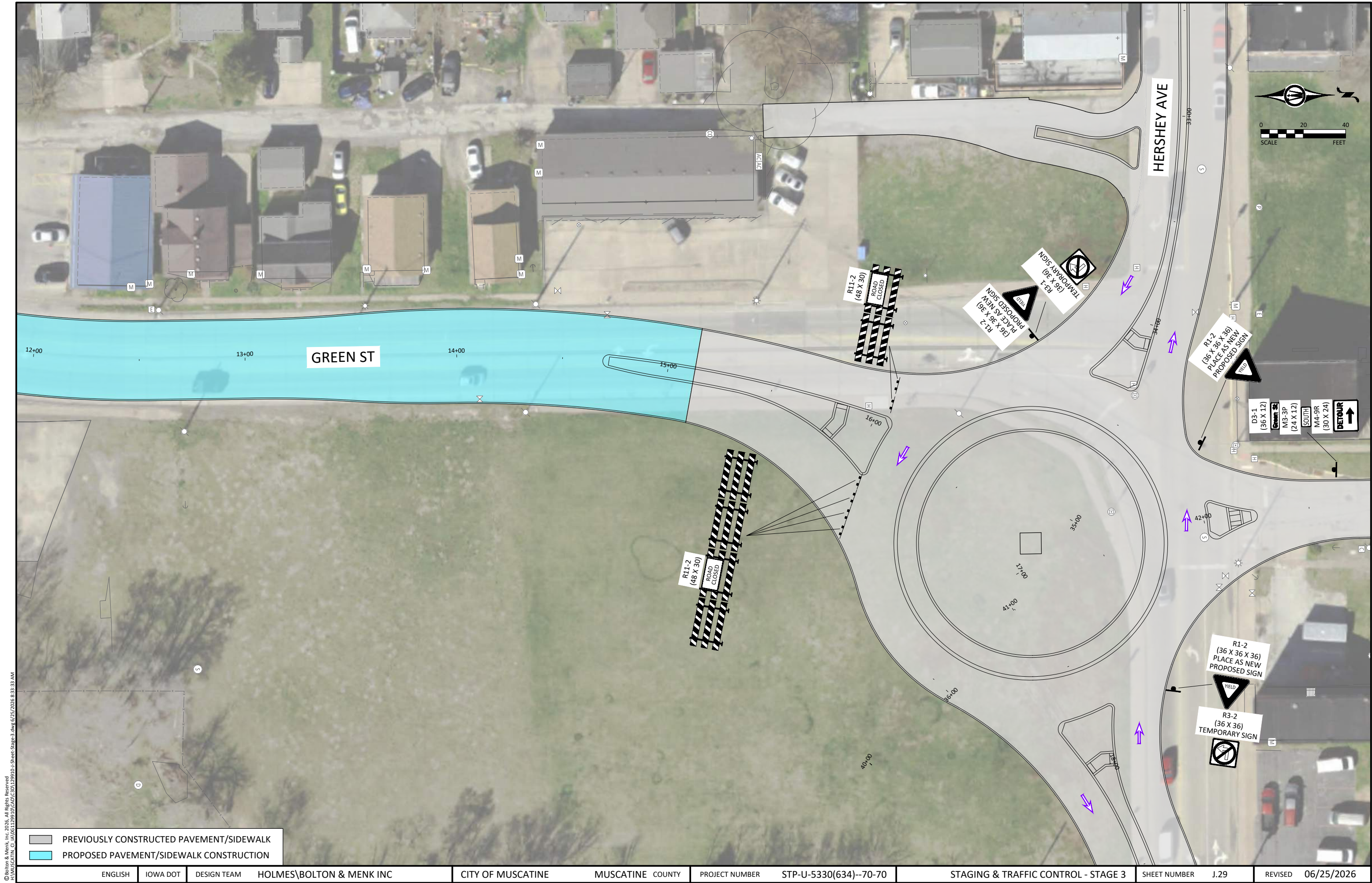


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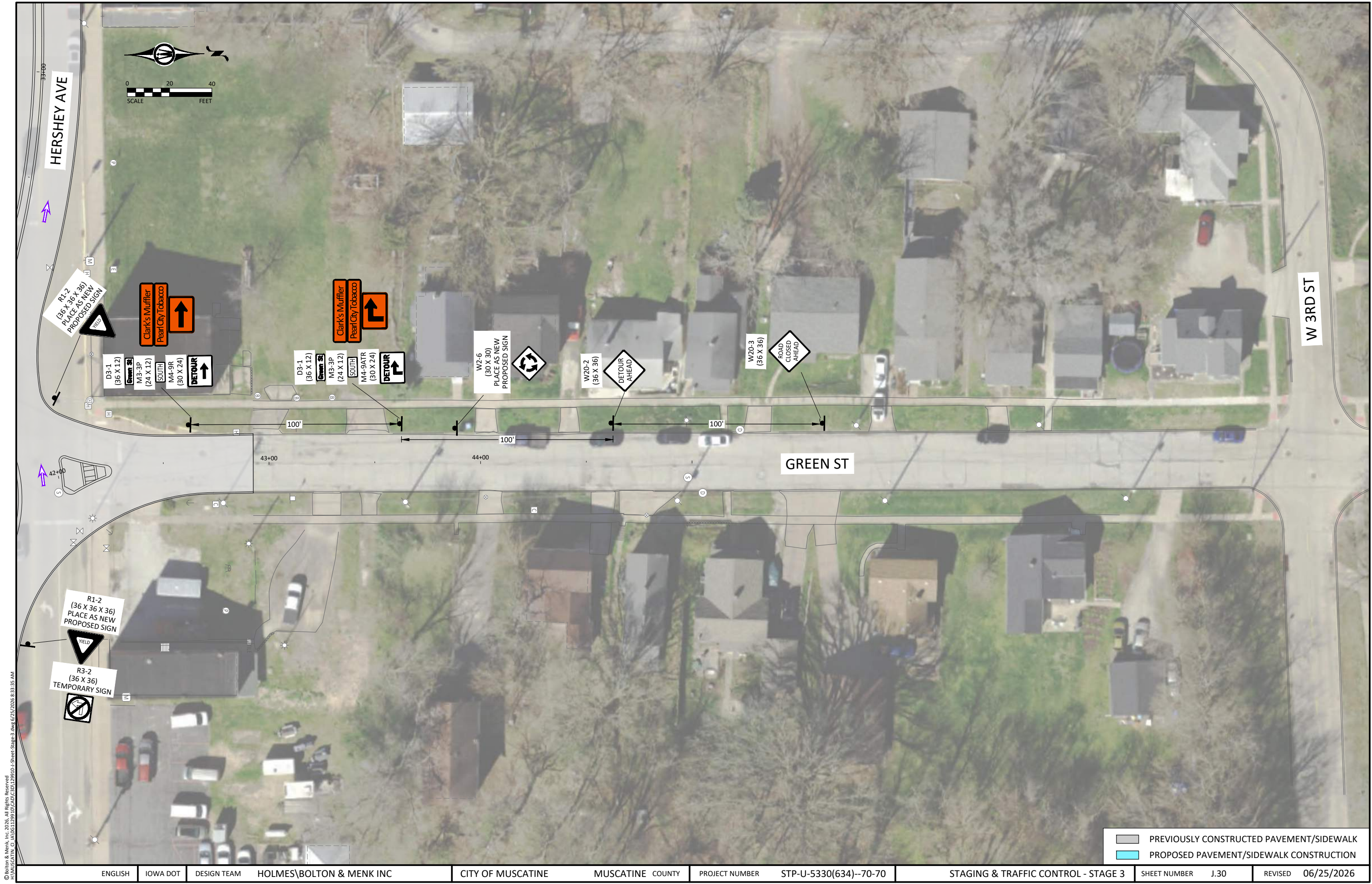
	PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
	PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION

ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	STAGING & TRAFFIC CONTROL - STAGE 3	SHEET NUMBER	J.27	REVISED	06/25/2026
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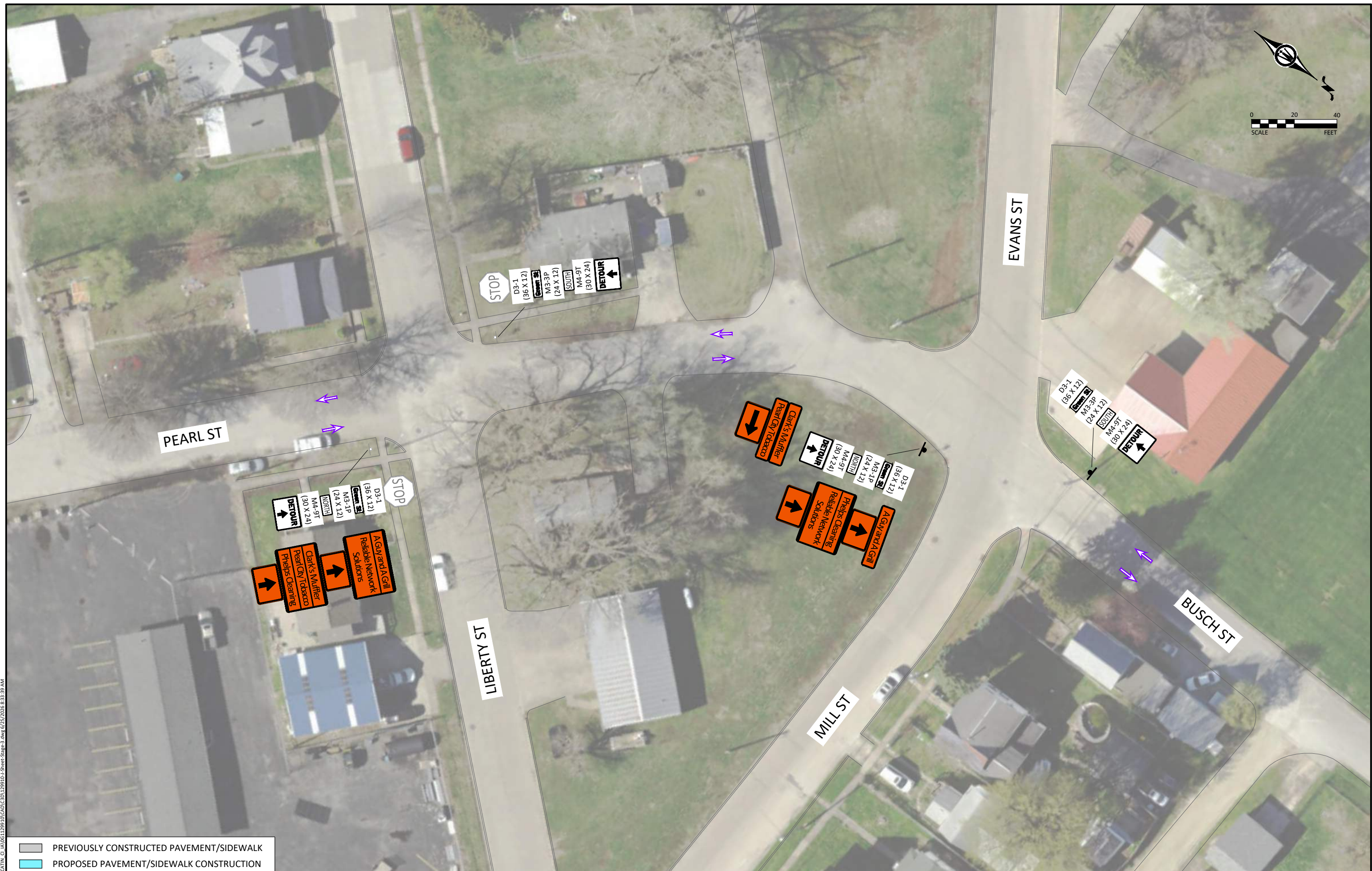
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	PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
	PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION

ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	STAGING & TRAFFIC CONTROL - STAGE 3	SHEET NUMBER	J.30	REVISED	06/25/2026
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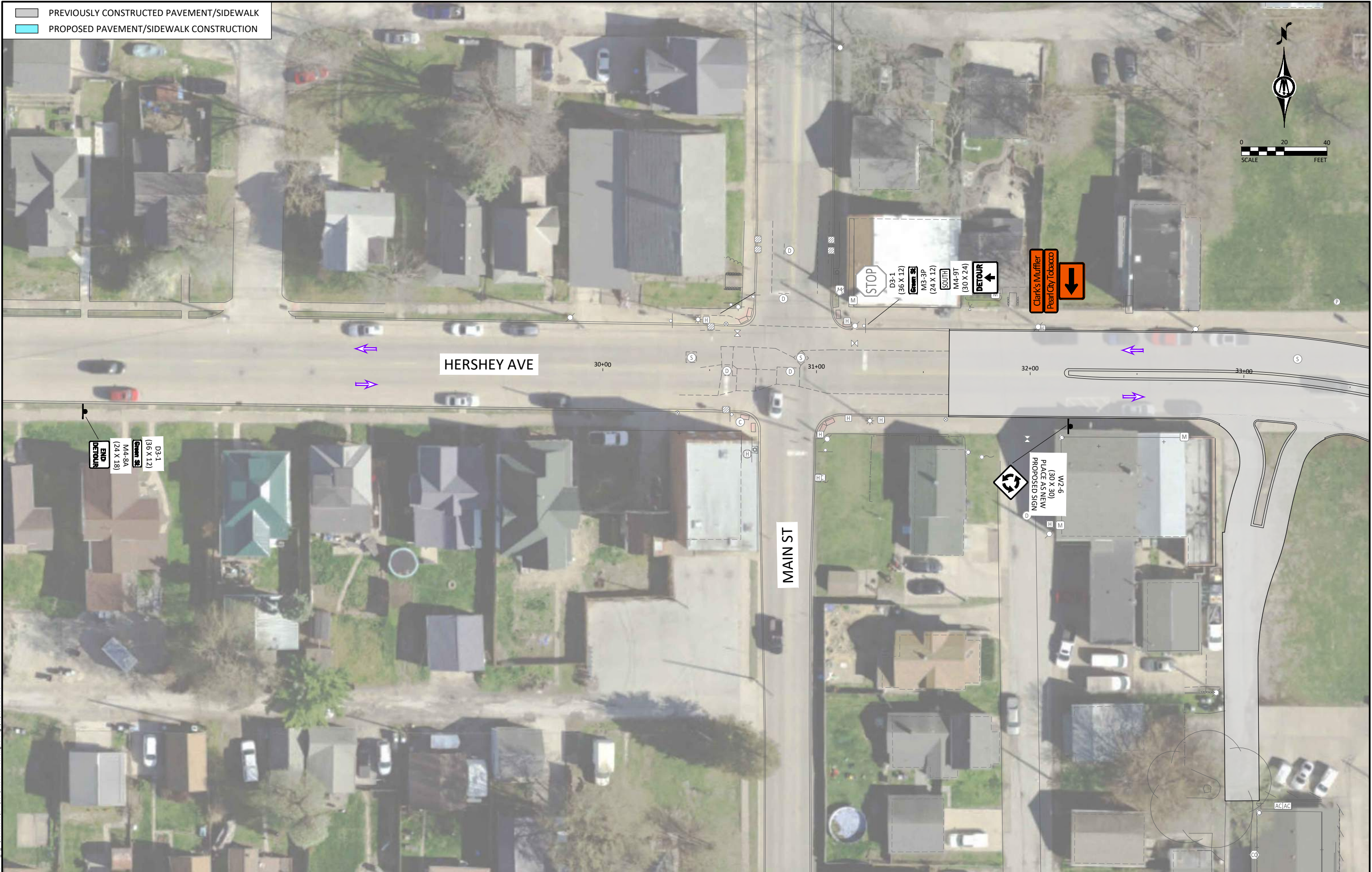


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PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION



ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

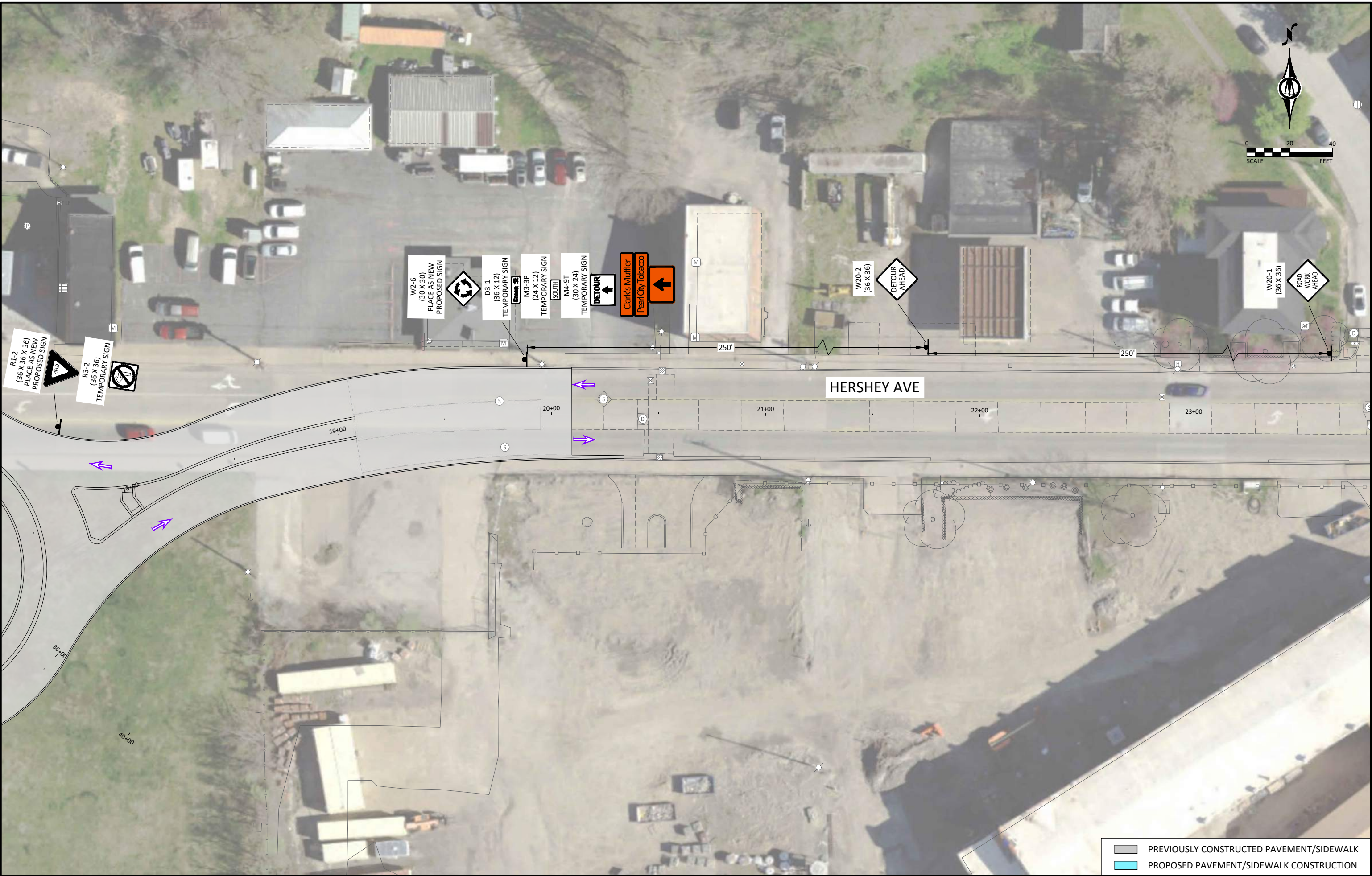
STP-U-5330(634)--70-70

STAGING & TRAFFIC CONTROL - STAGE 3

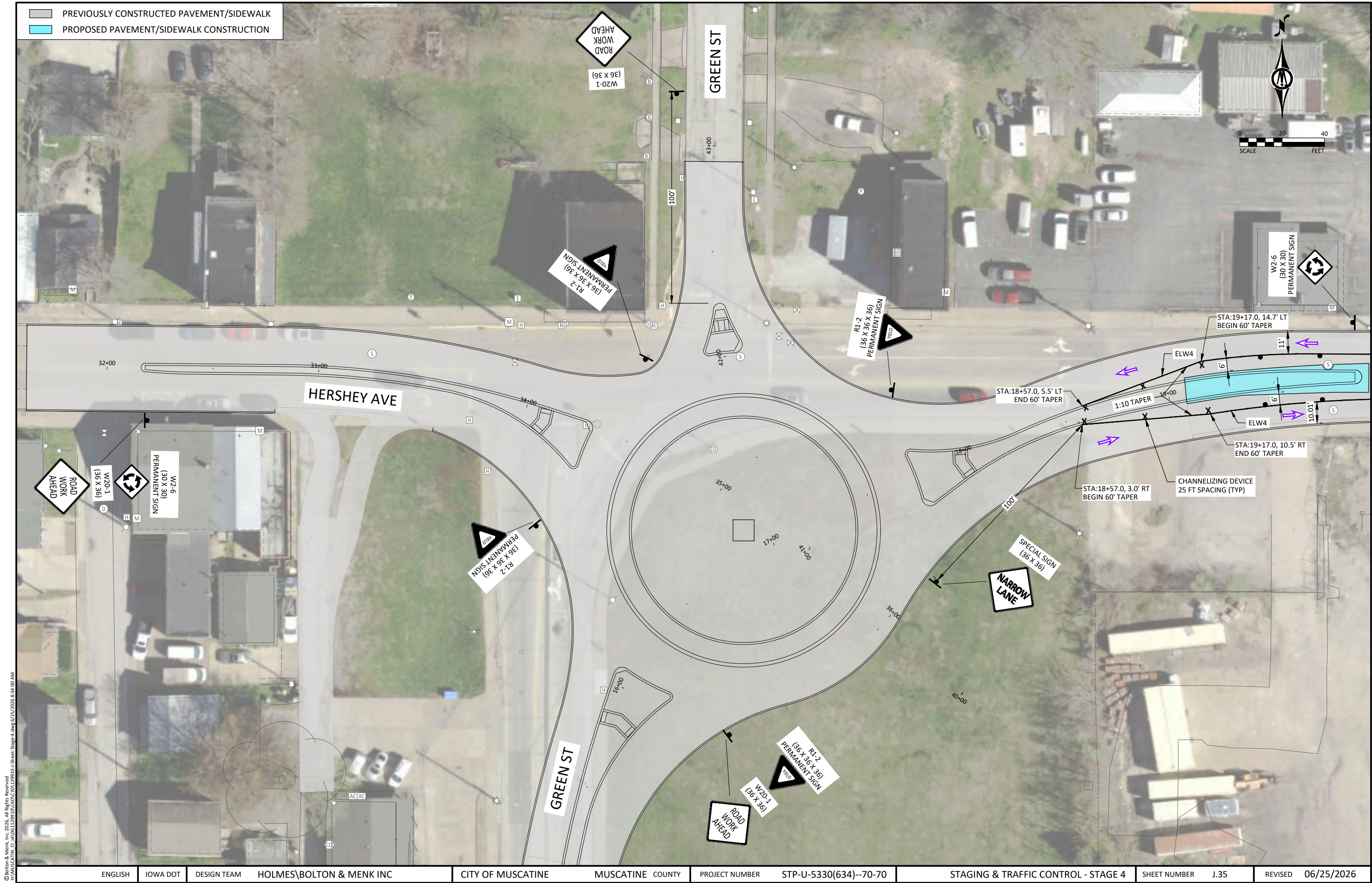
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	PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK
	PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION



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ENGLISH

IOWA DOT

DESIGN TEAM
HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER
STP-U-5330(634)--70-70

STAGING & TRAFFIC CONTROL - STAGE 4

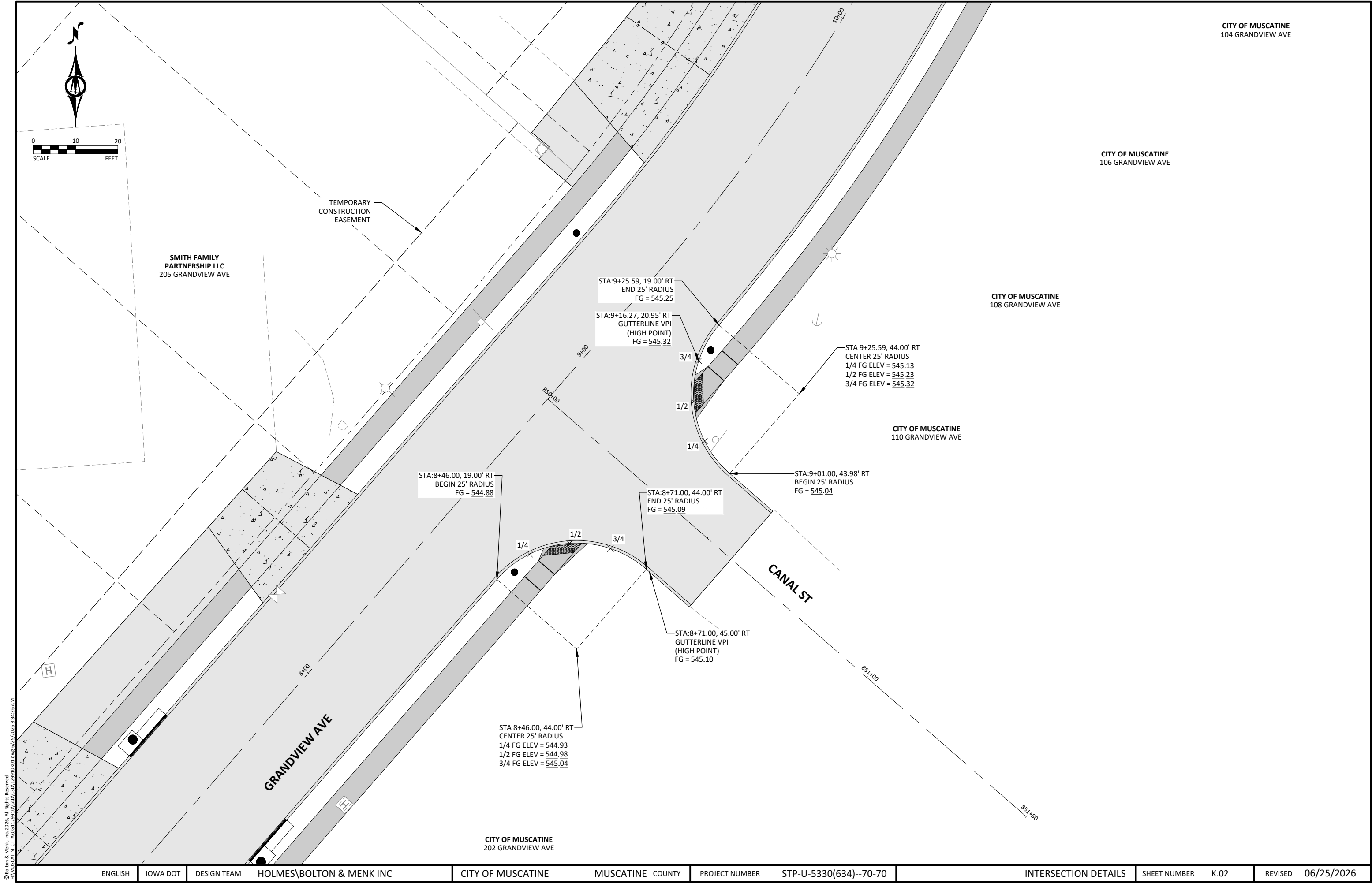
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REVISED
06/25/2026

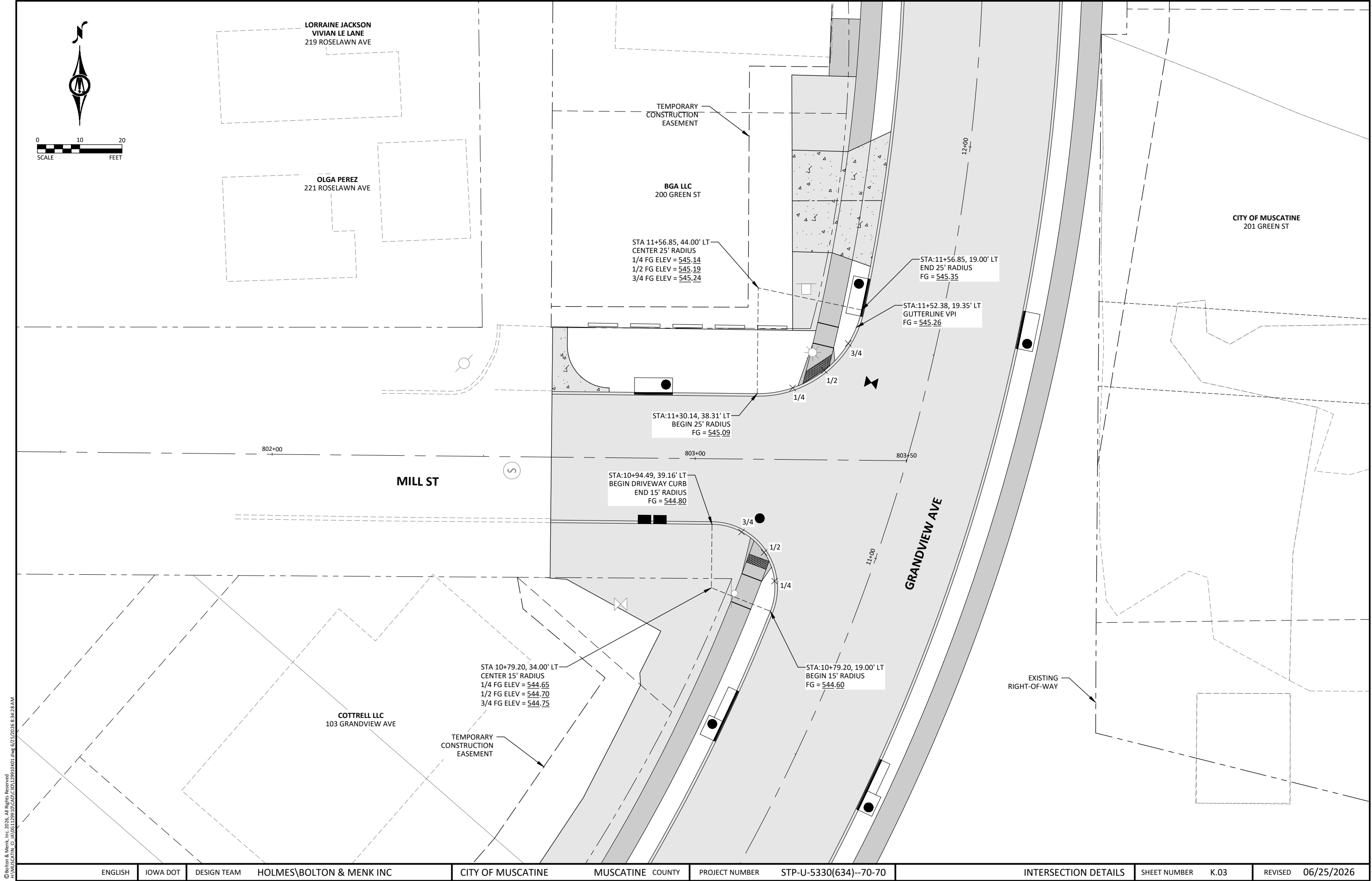


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										PREVIOUSLY CONSTRUCTED PAVEMENT/SIDEWALK		PROPOSED PAVEMENT/SIDEWALK CONSTRUCTION													
ENGLISH		IOWA DOT		DESIGN TEAM		HOLMES\BOLTON & MENK INC		CITY OF MUSCATINE		MUSCATINE COUNTY		PROJECT NUMBER		STP-U-5330(634)--70-70		STAGING & TRAFFIC CONTROL - STAGE 4		SHEET NUMBER		J.36		REVISED		06/25/2026	



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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

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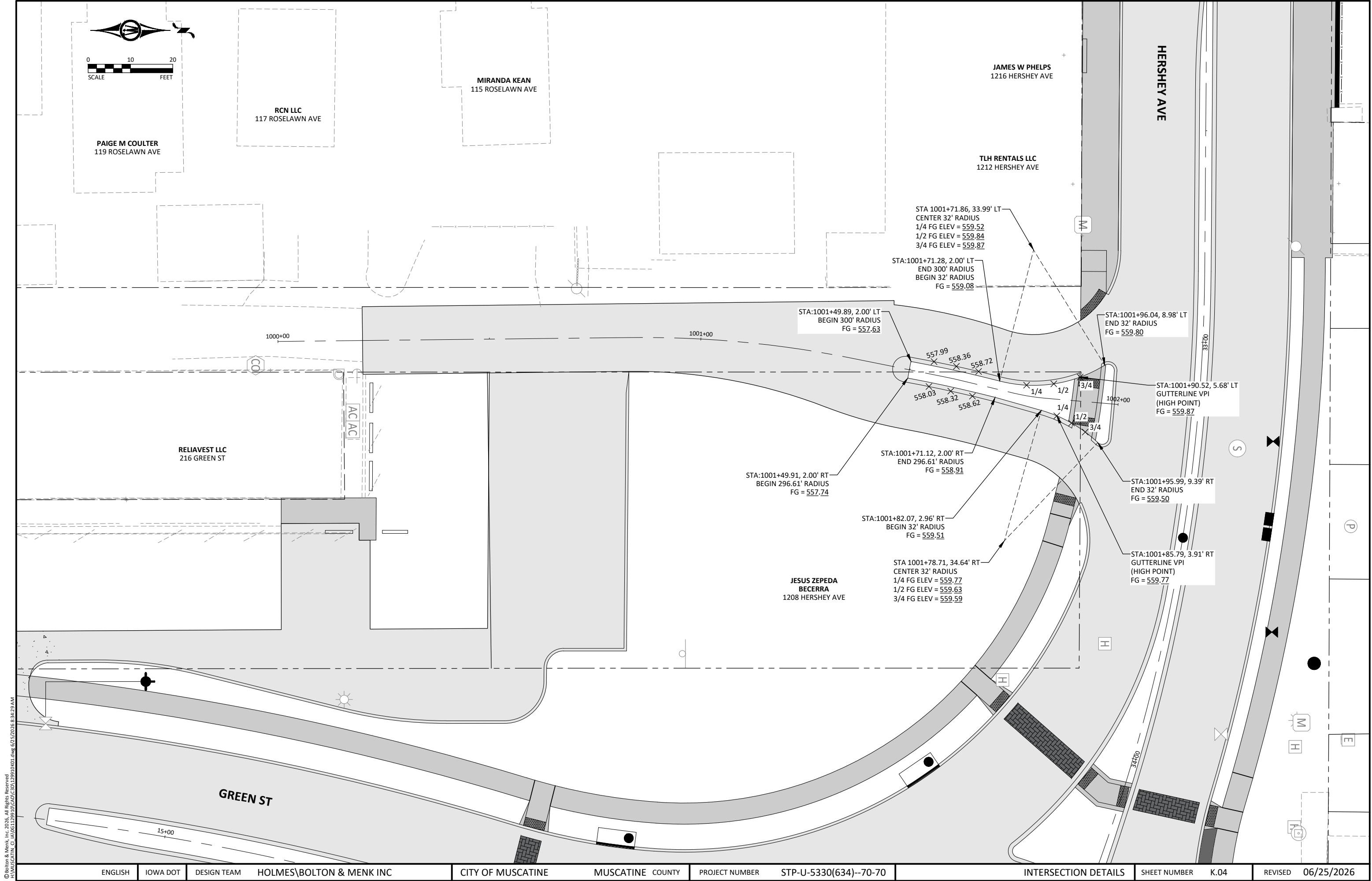
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06/25/2026



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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

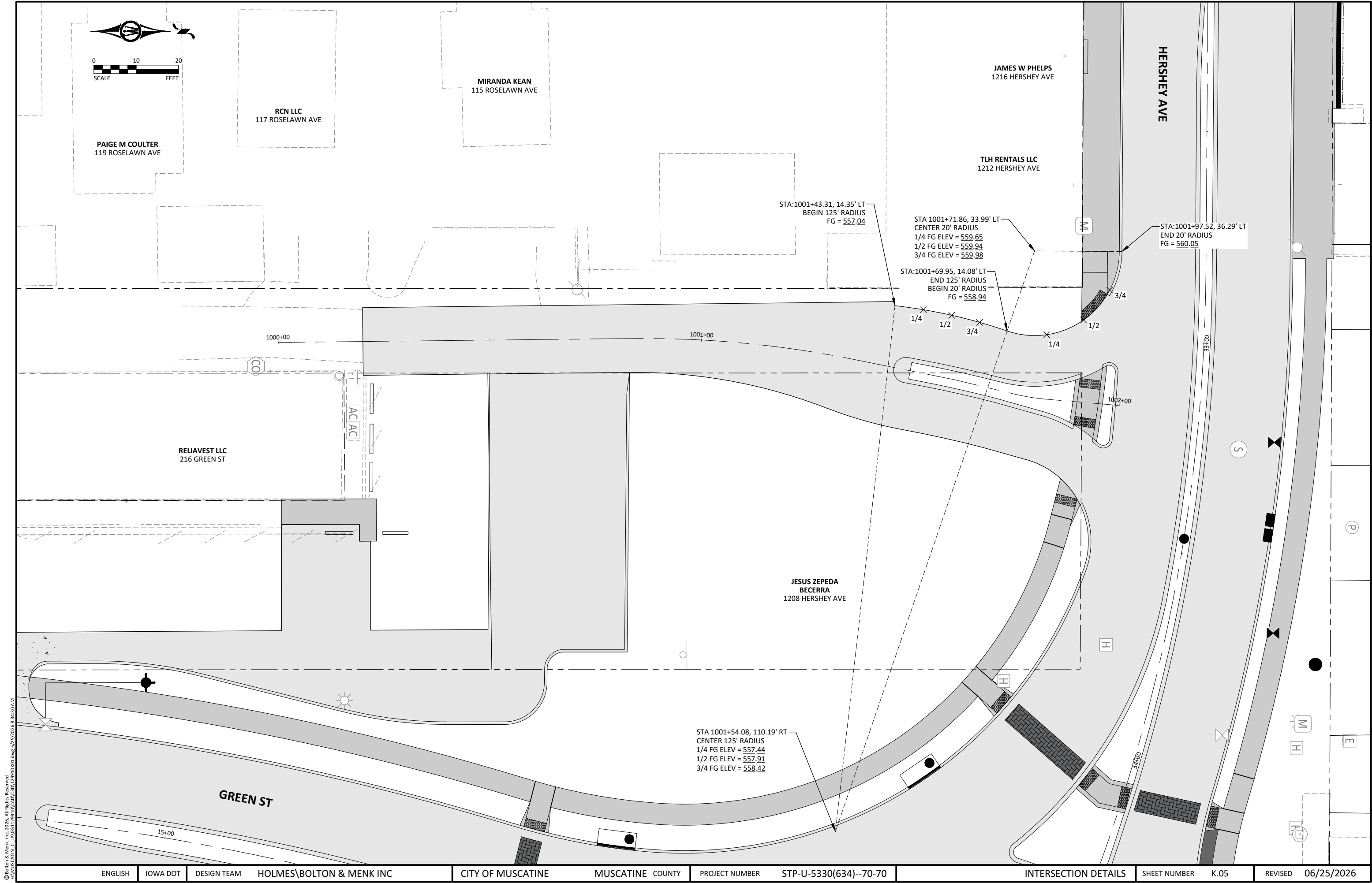
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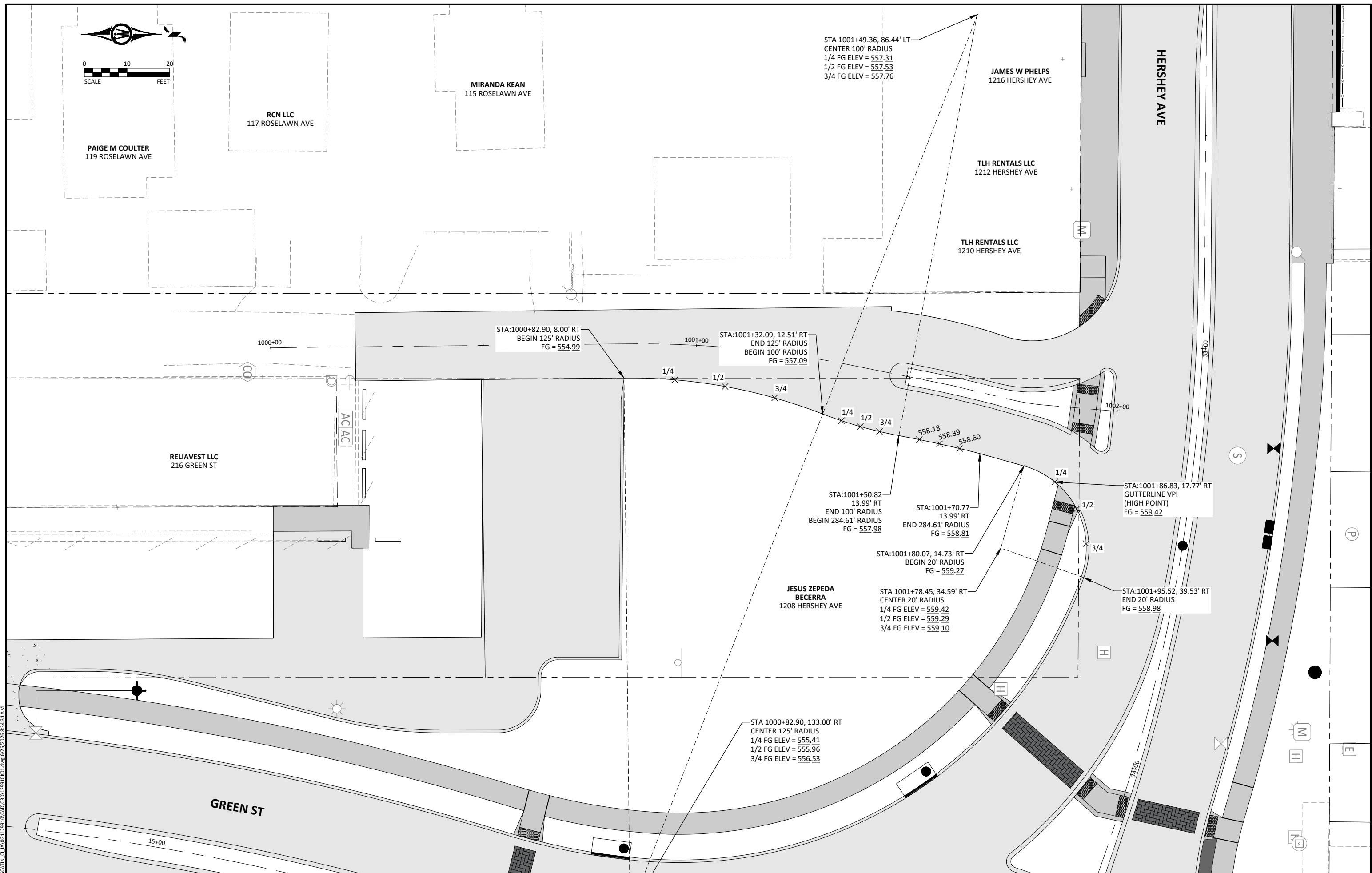
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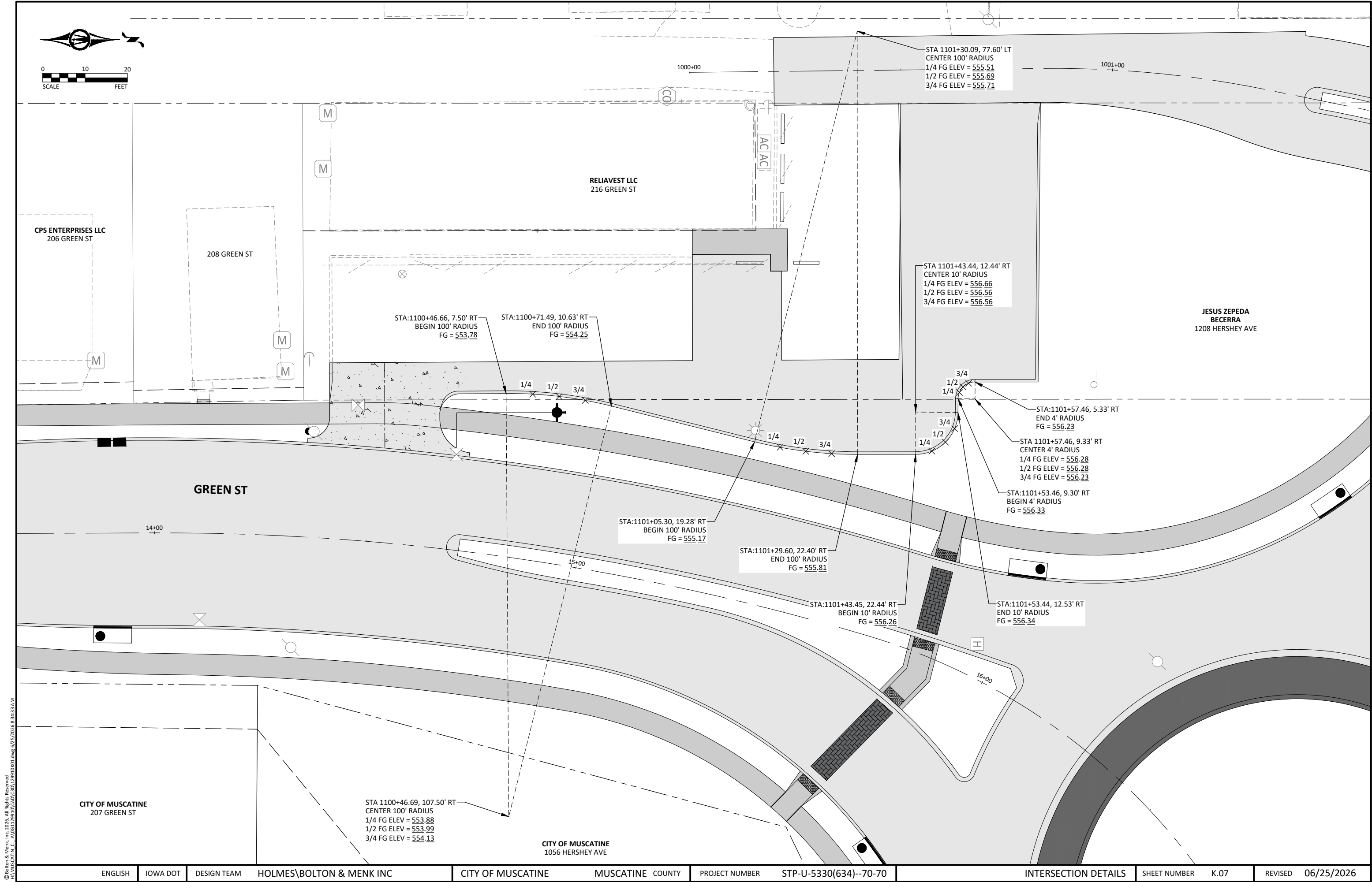
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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

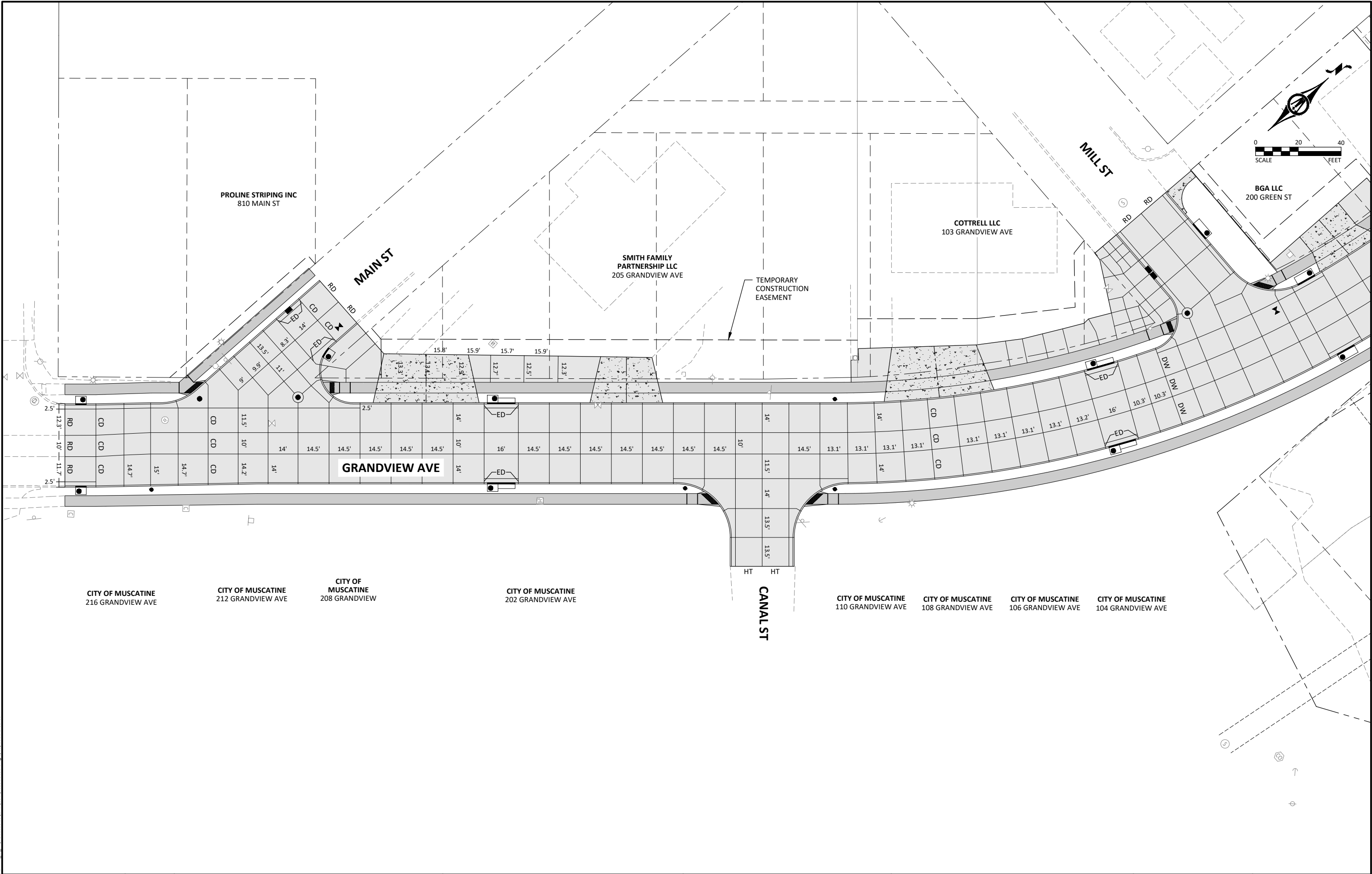
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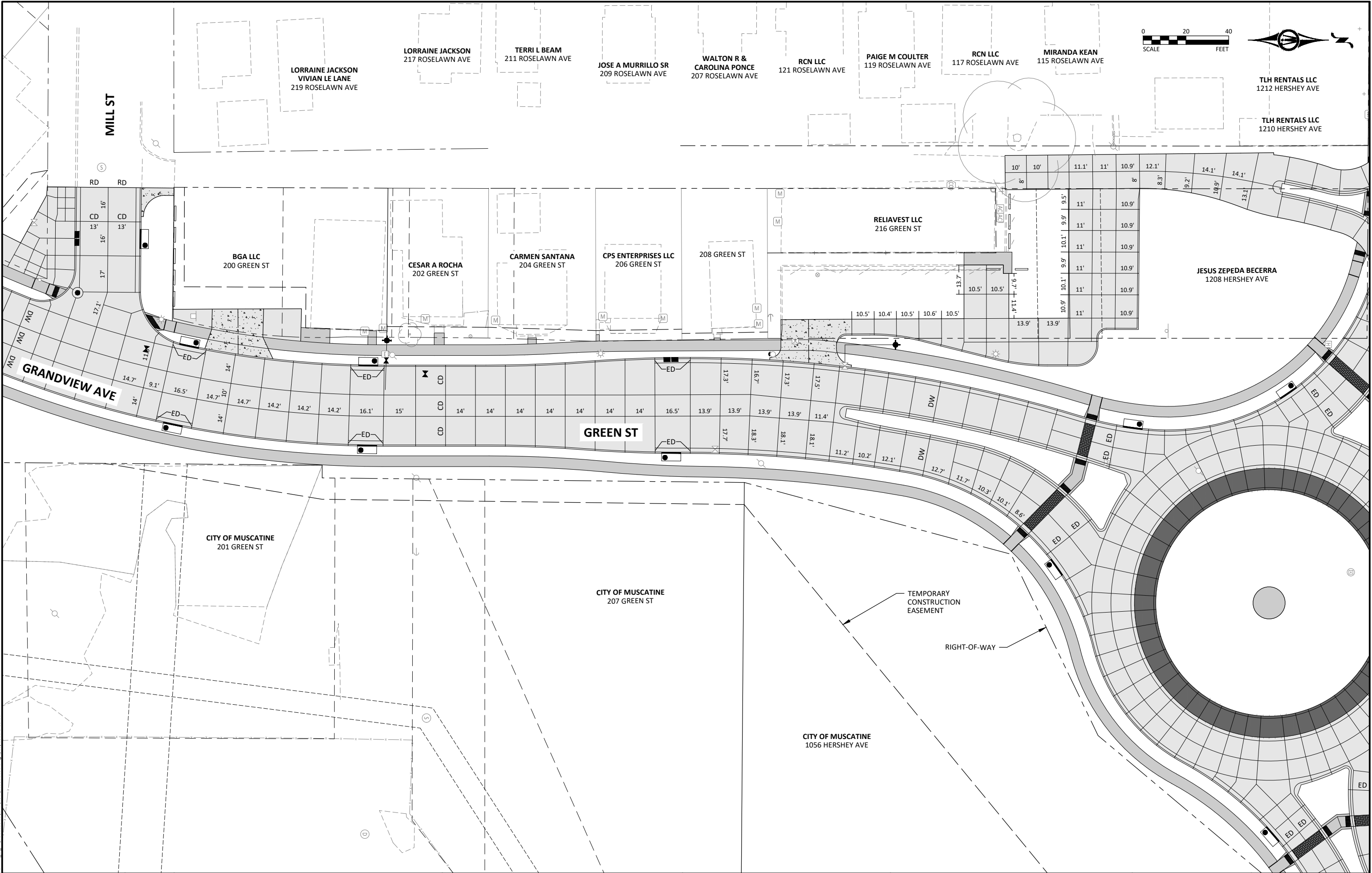
SHEET NUMBER K.07

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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

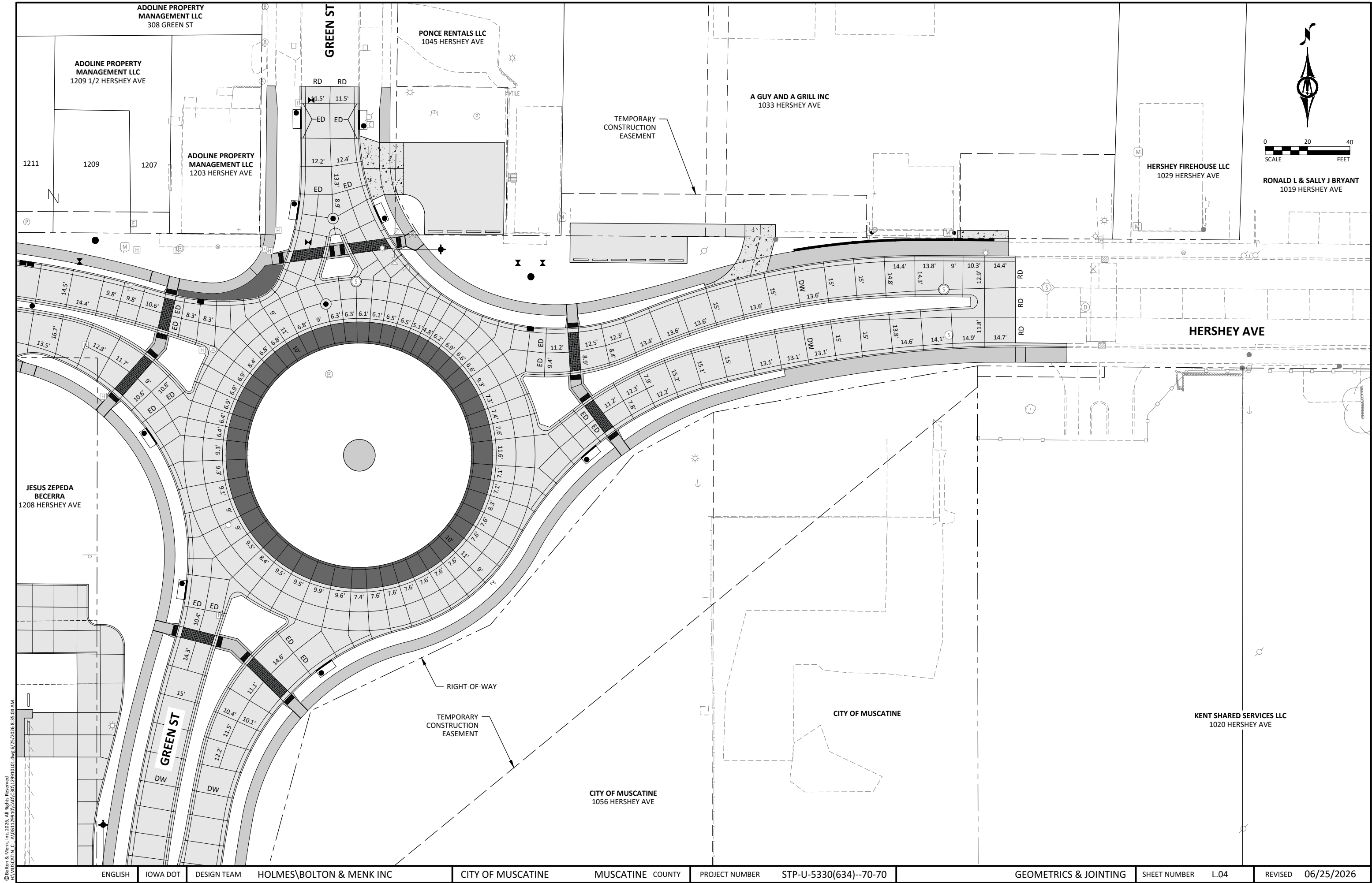
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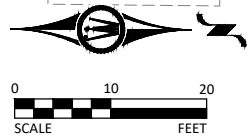
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REVISED

06/25/2026



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WALTON R &
CAROLINA PONCE
207 ROSELAWN AVE

RCN LLC
121 ROSELAWN AVE

PAIGE M COULTER
119 ROSELAWN AVE

RCN LLC
117 ROSELAWN AVE

MIRANDA KEAN
115 ROSELAWN AVE

TLH RENTALS LLC
1212 HERSEY AVE

TLH RENTALS LLC
1210 HERSEY AVE

RELIAVEST LLC
216 GREEN ST

JESUS ZEPEDA BECERRA
1208 HERSEY AVE

HERSEY AVE

GREEN ST

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ENGLISH

IOWA DOT

DESIGN TEAM
HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

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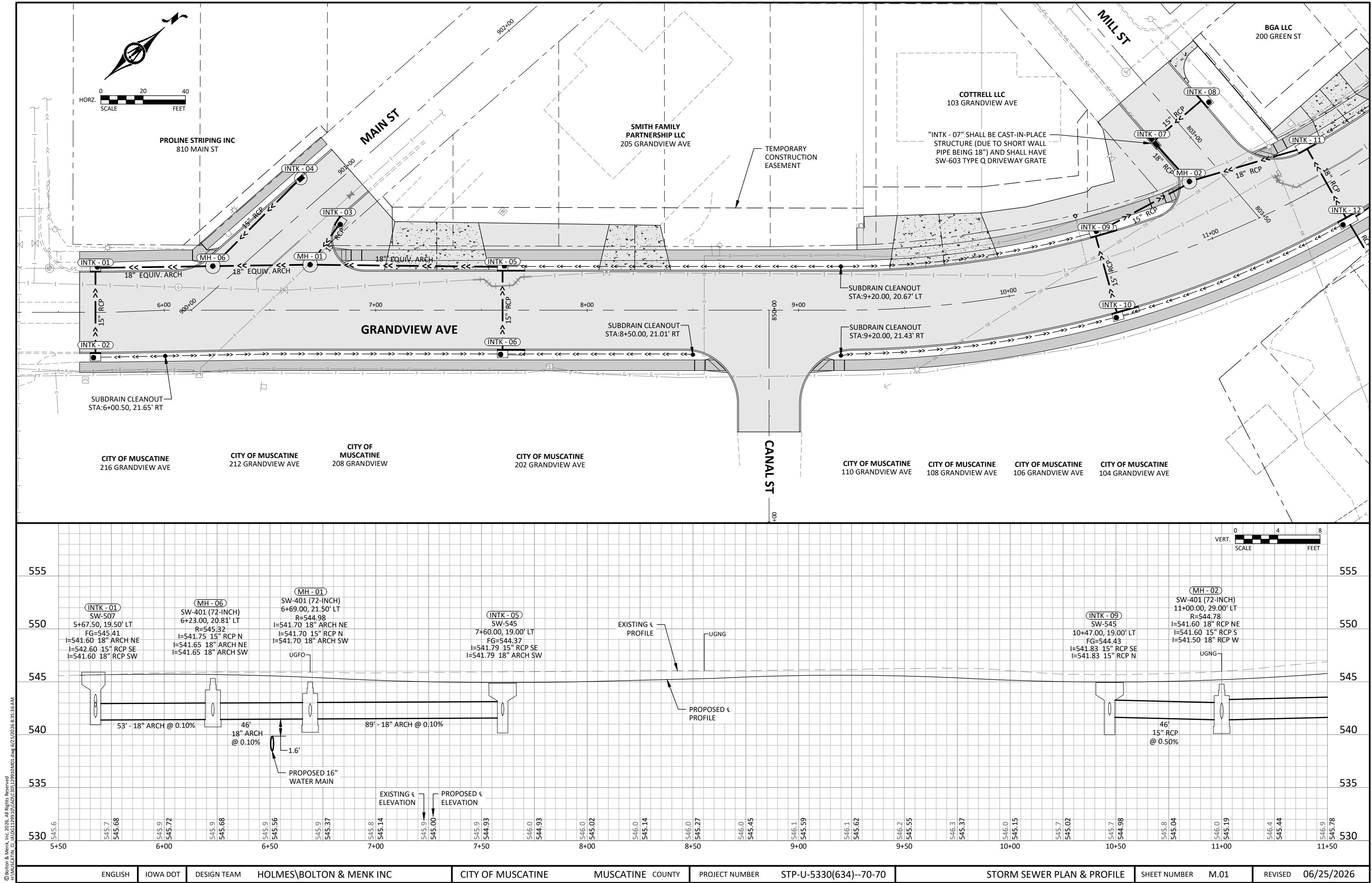
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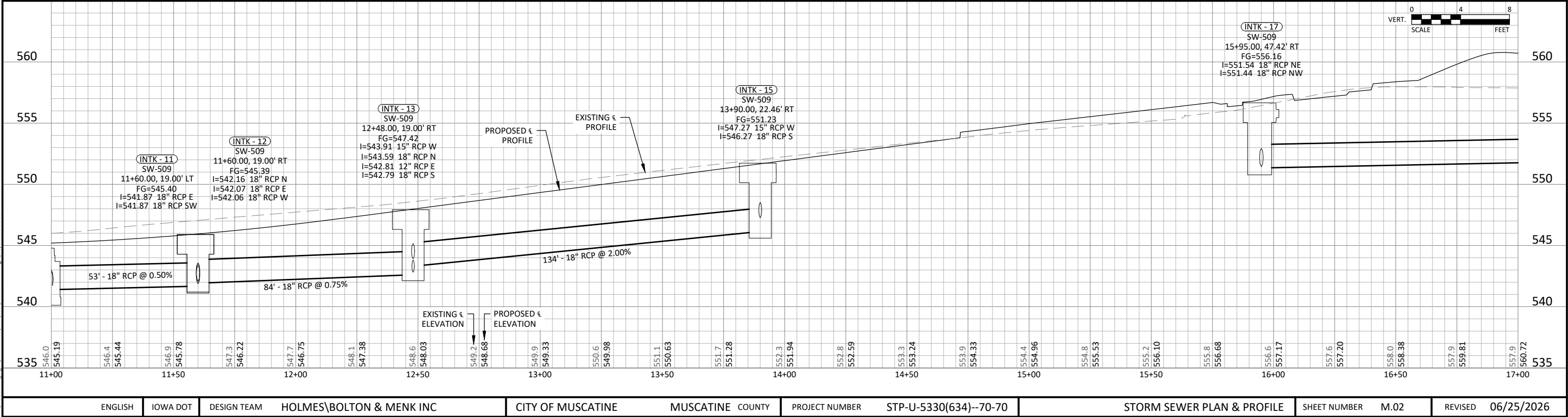
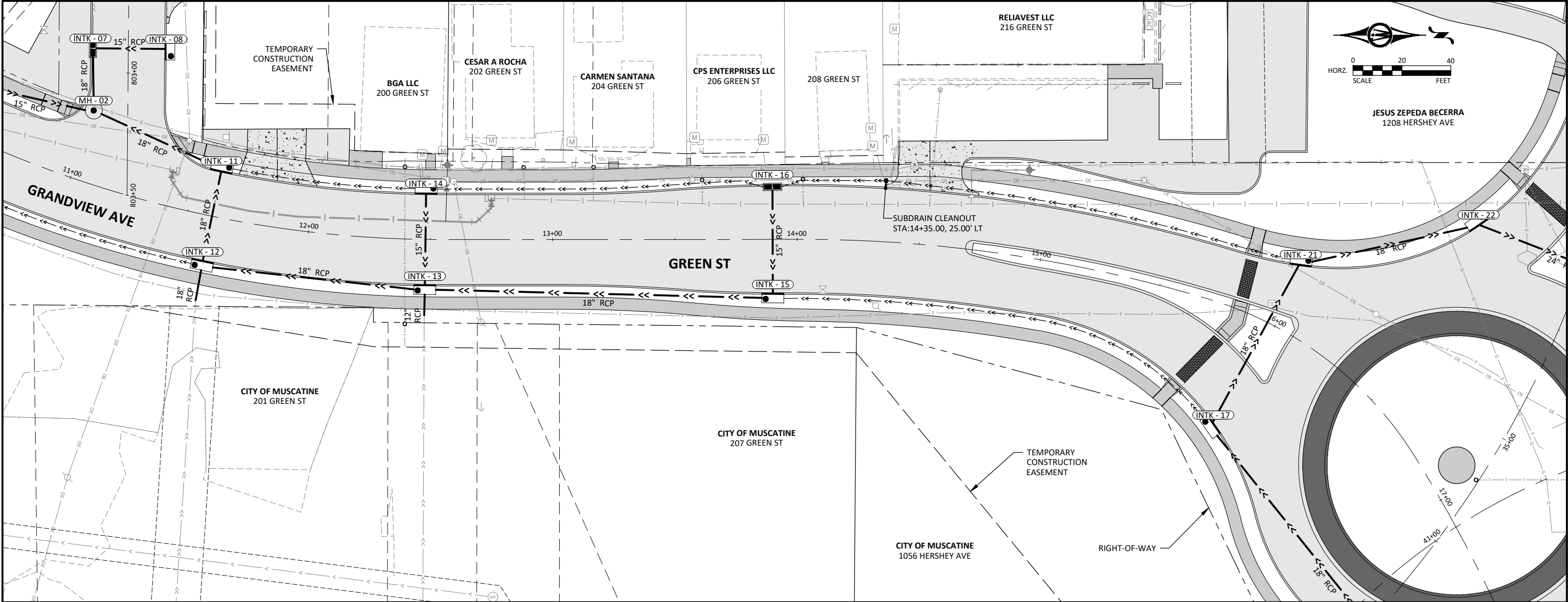
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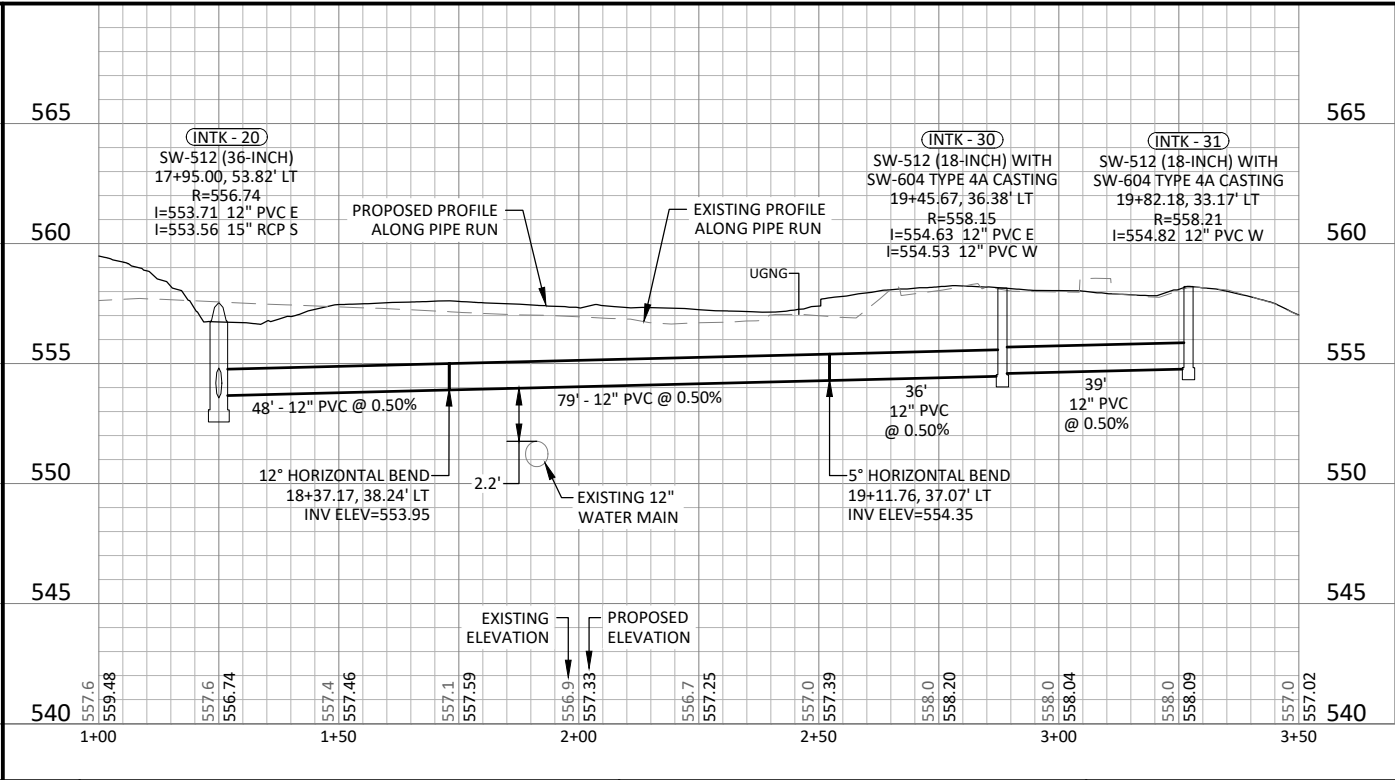
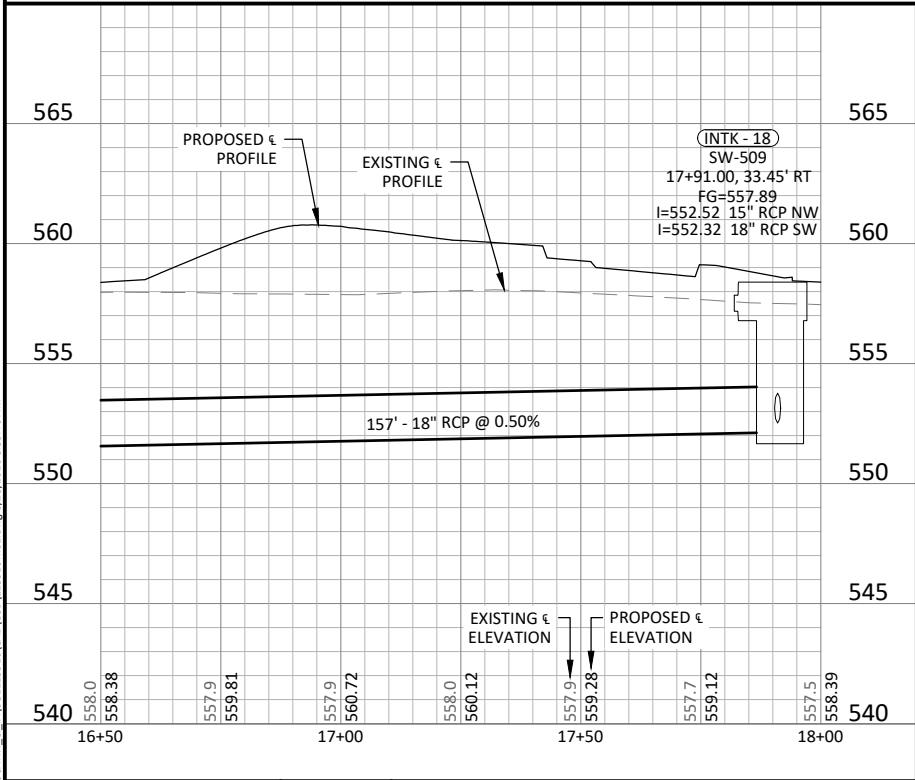
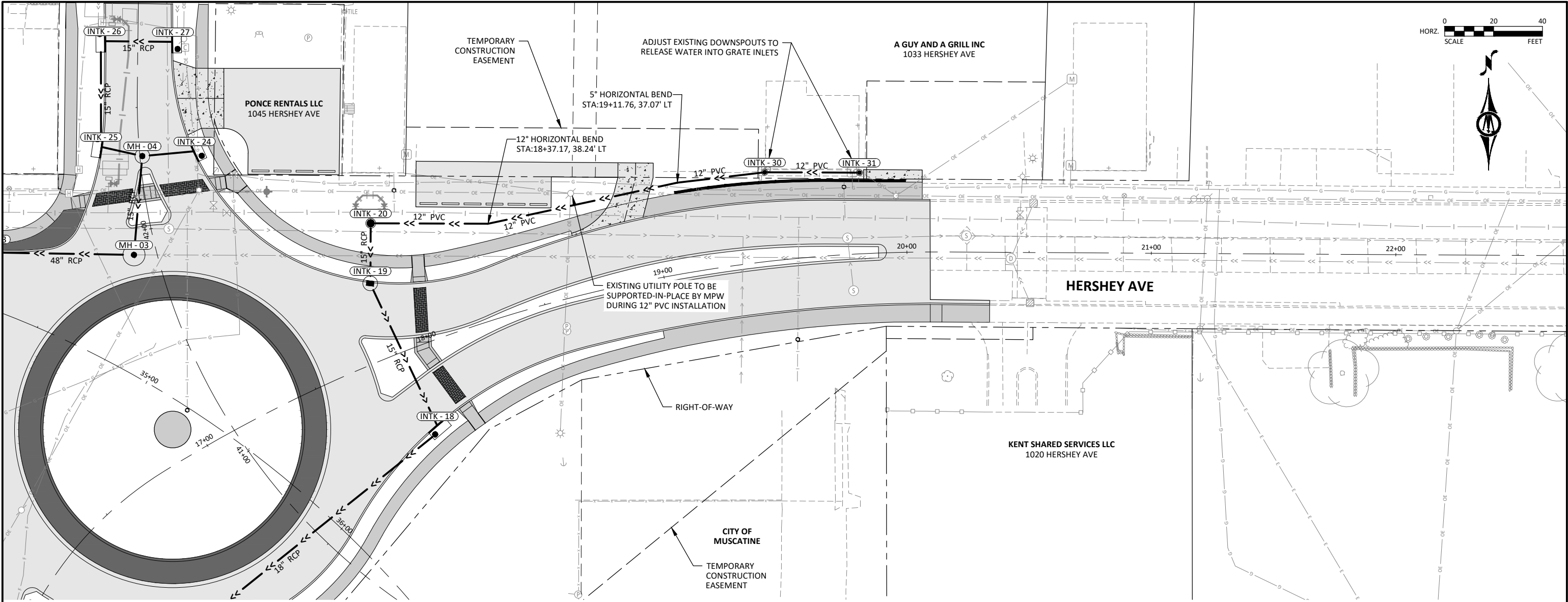
REVISED

06/25/2026

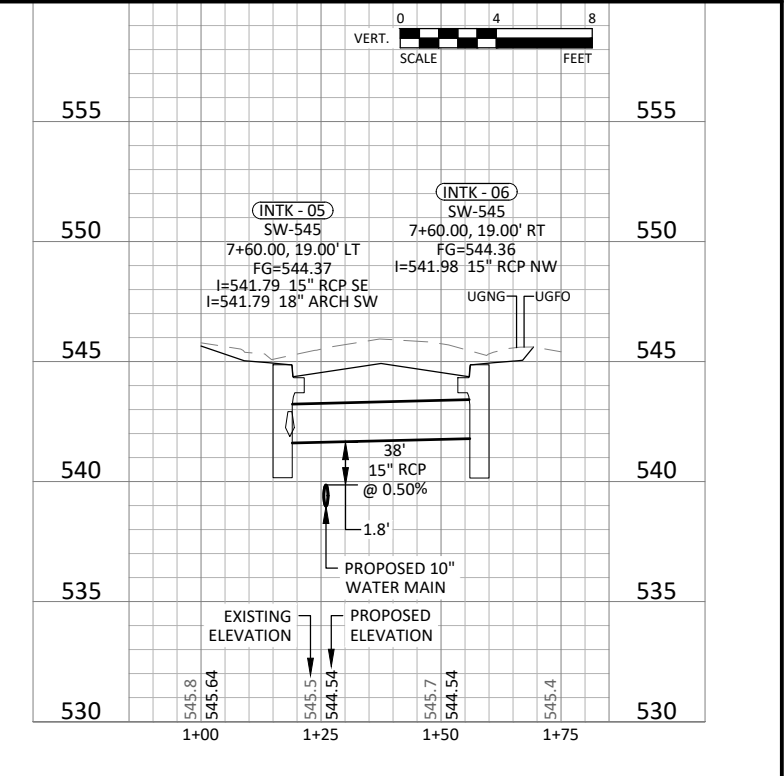
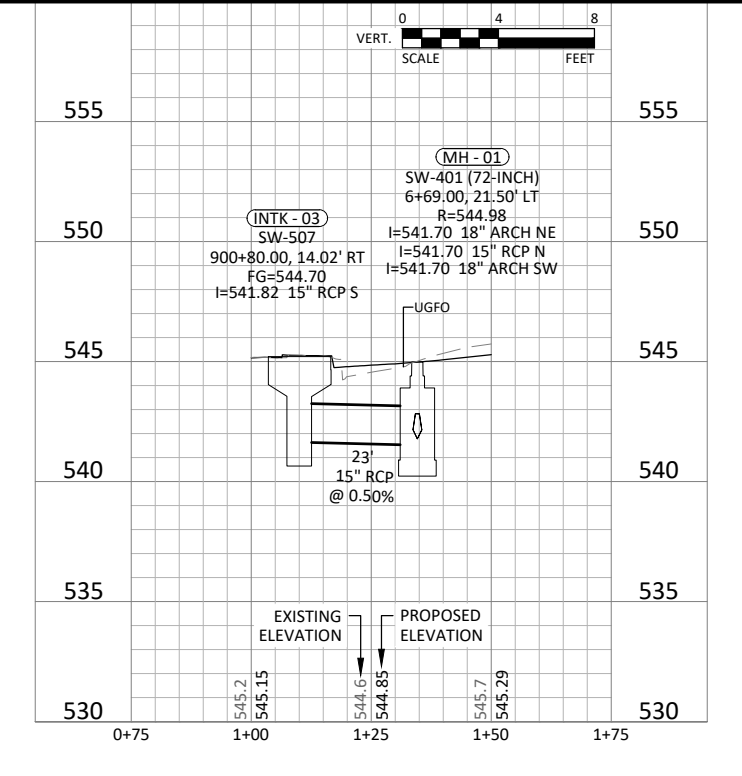
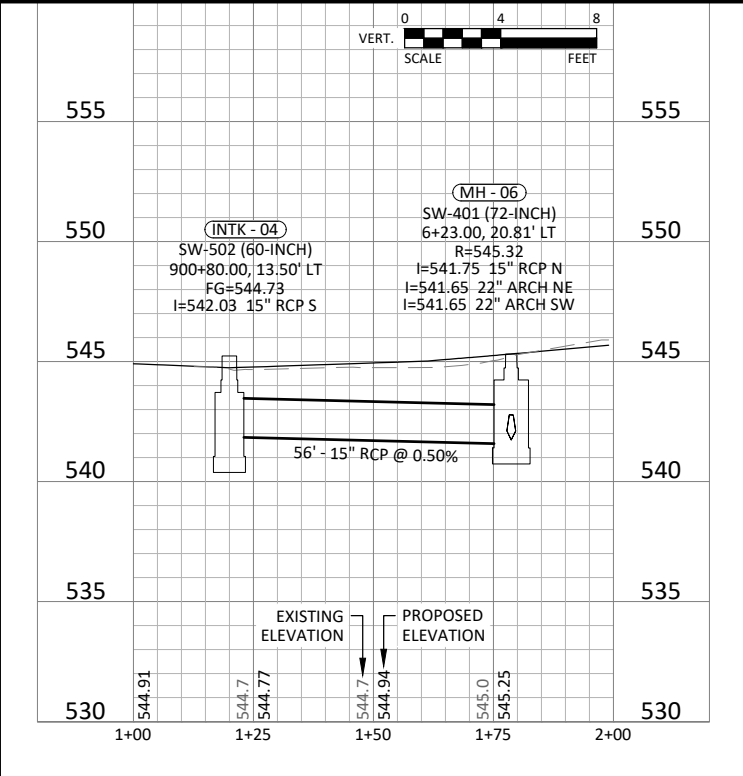
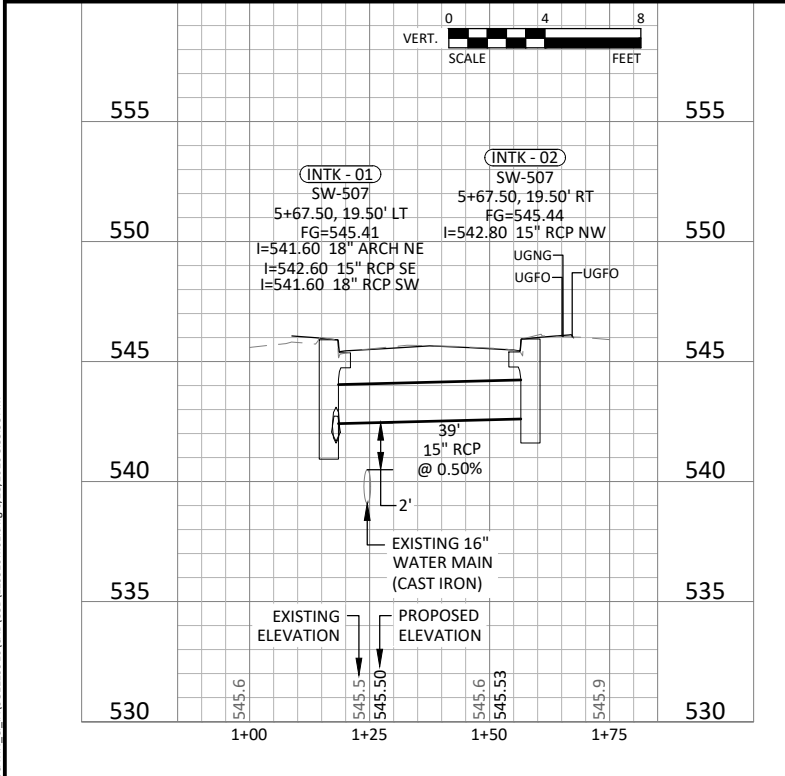
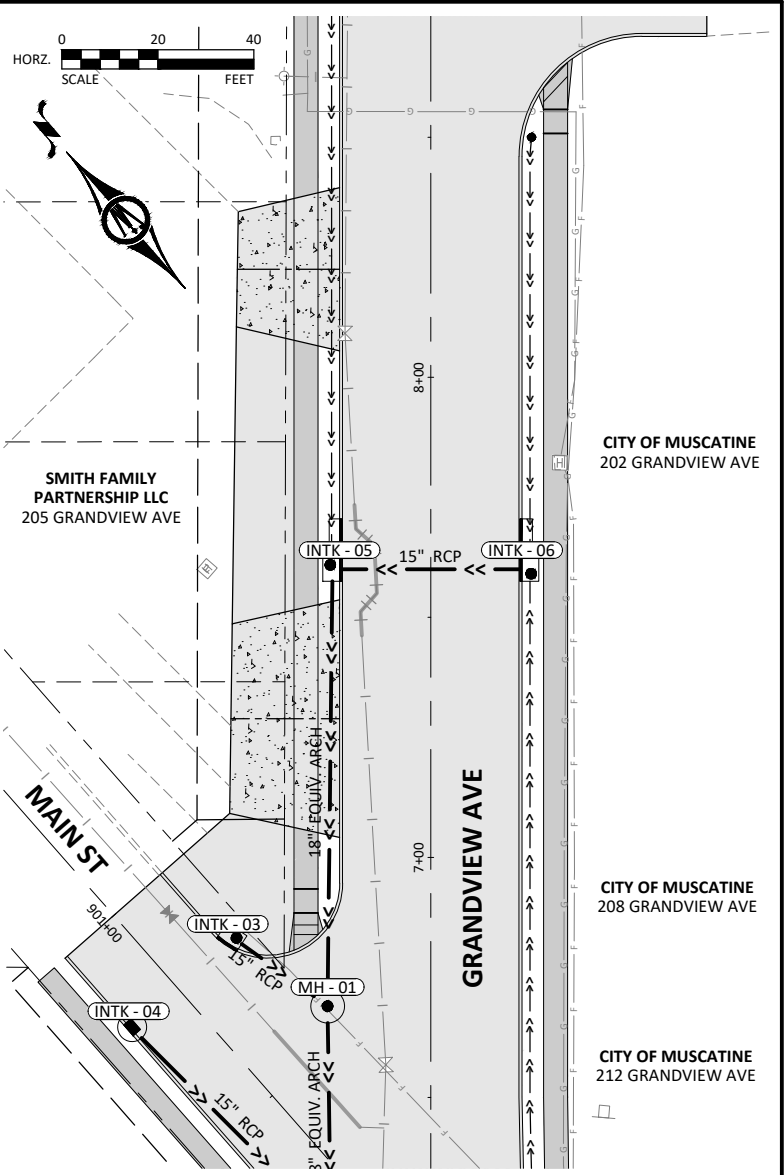
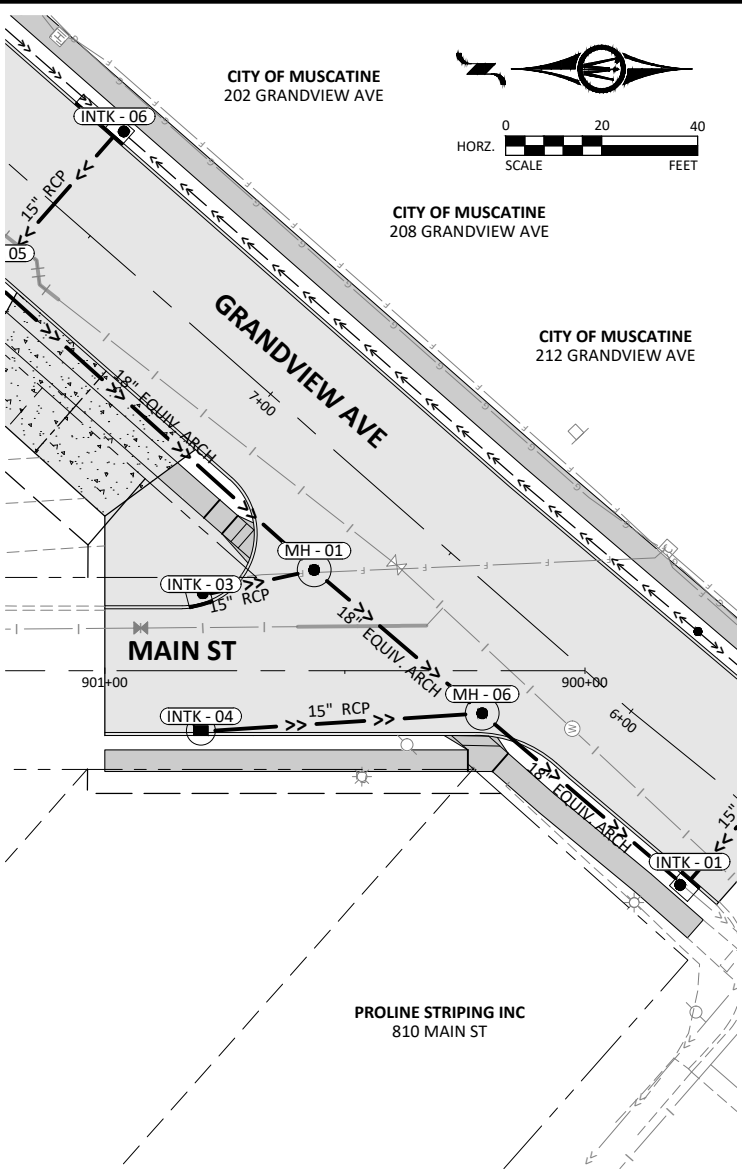
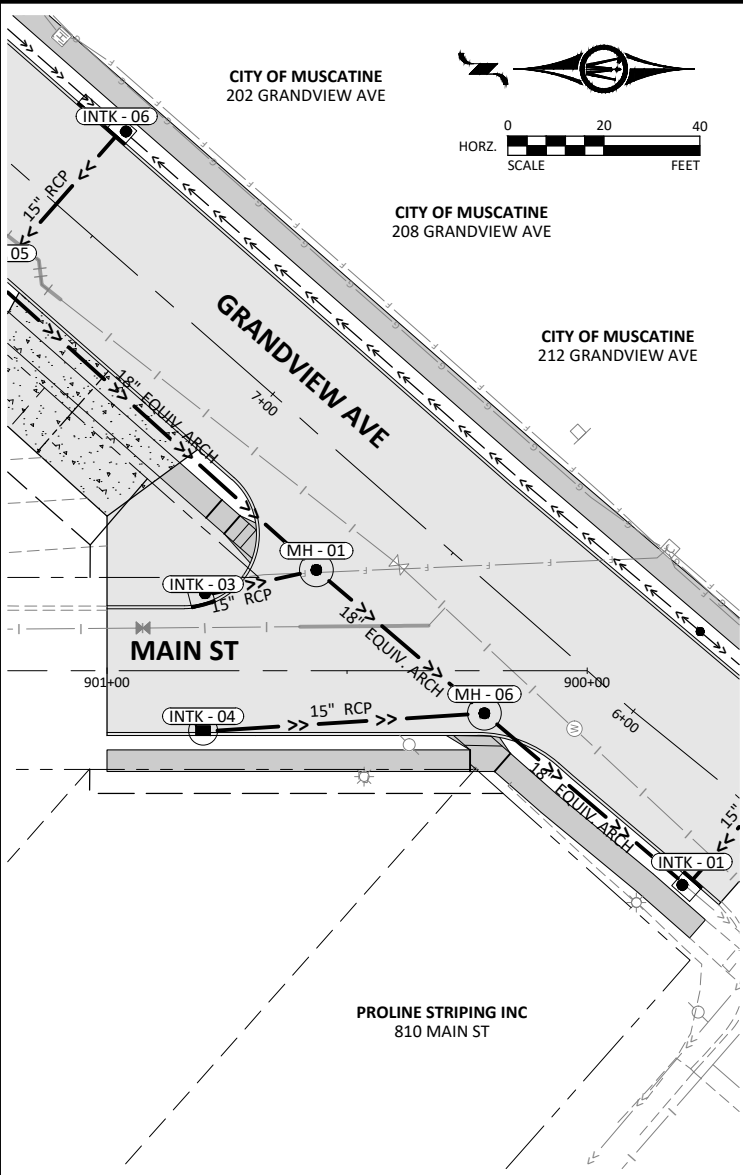
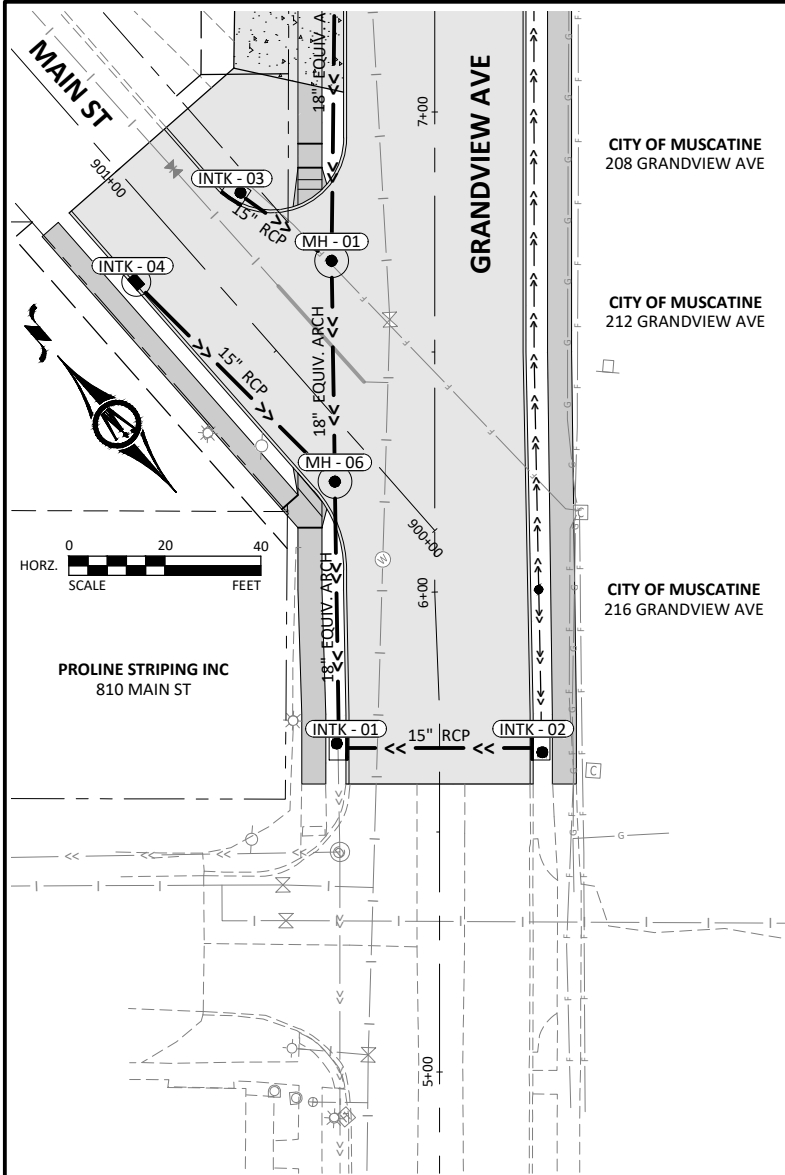




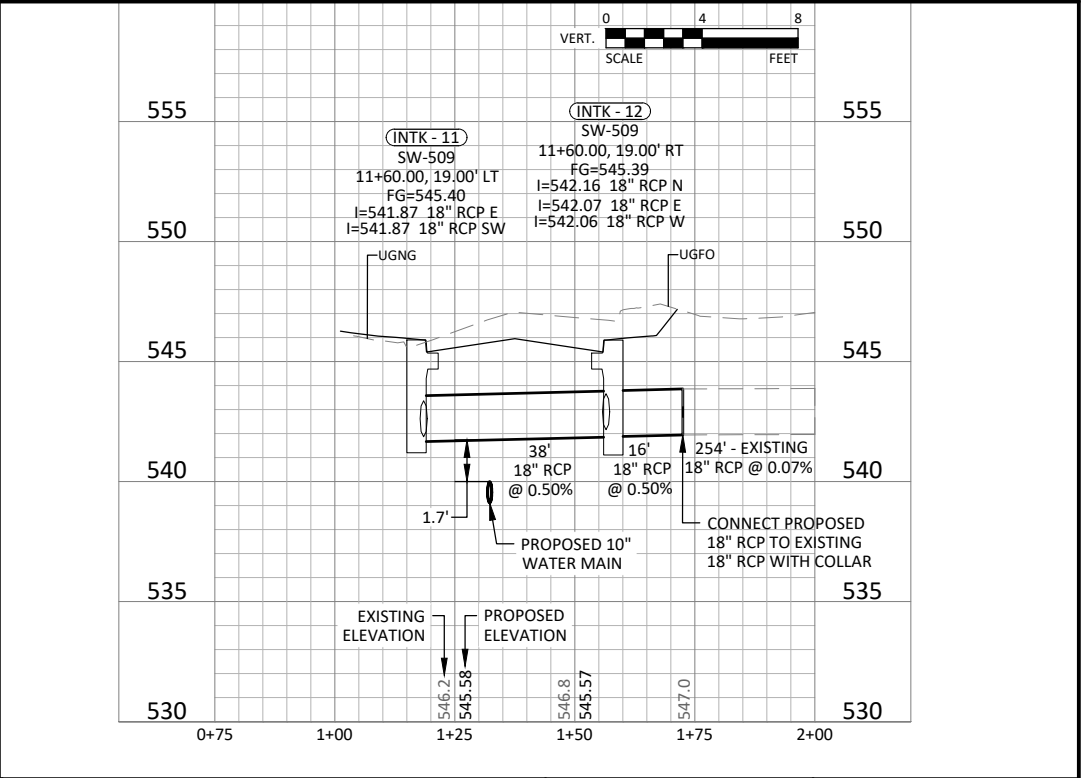
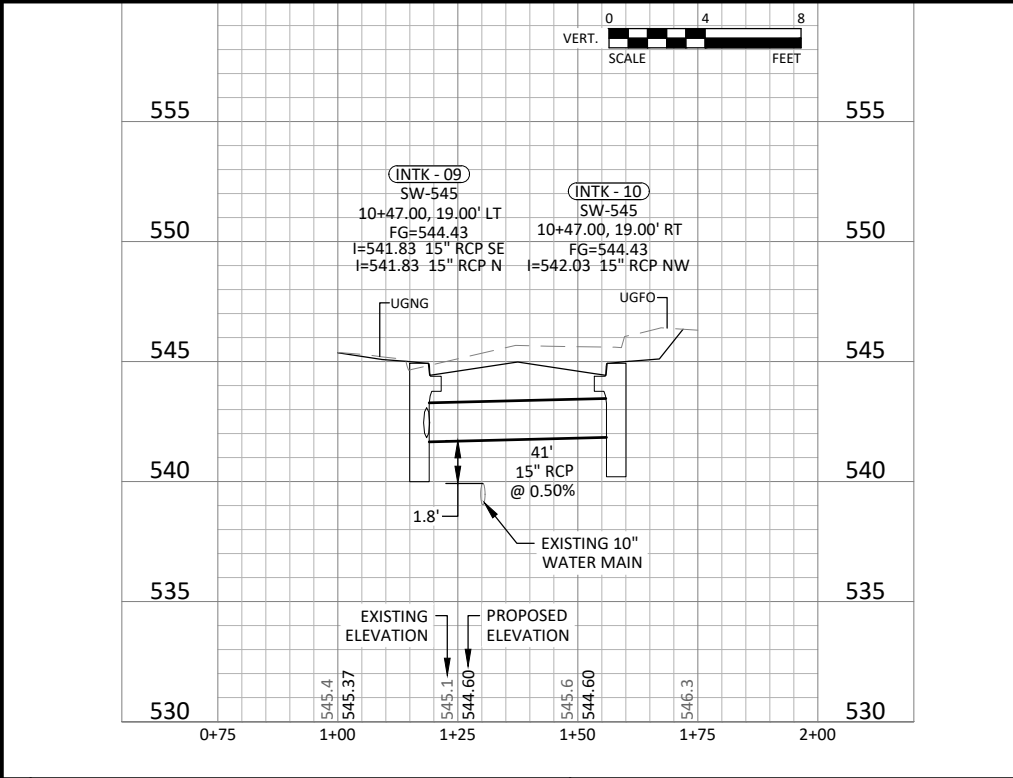
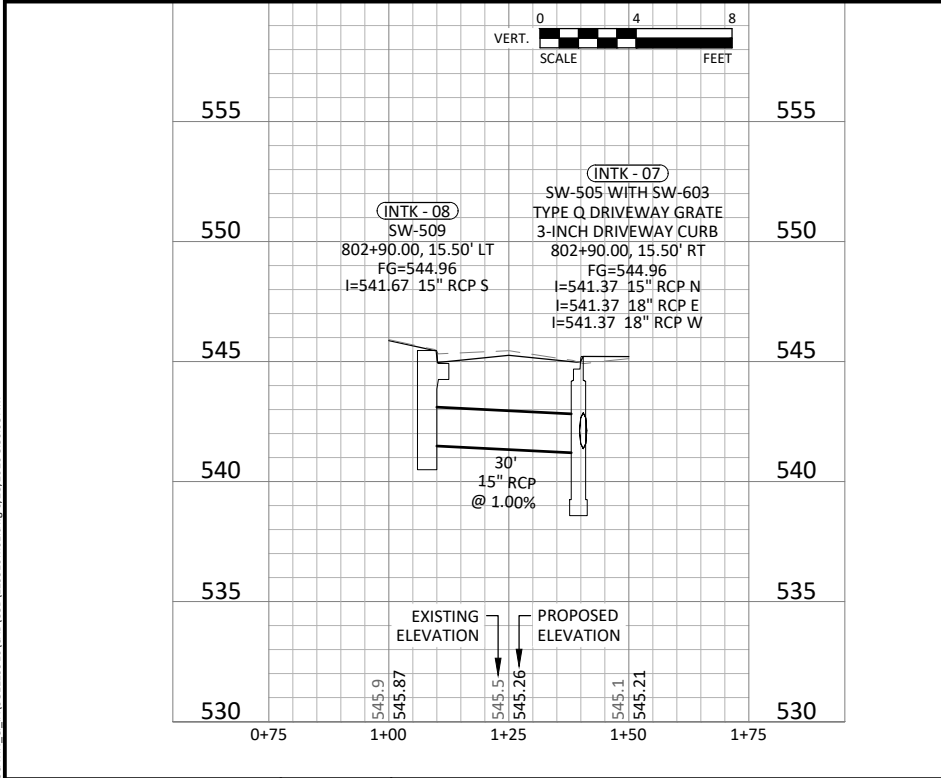
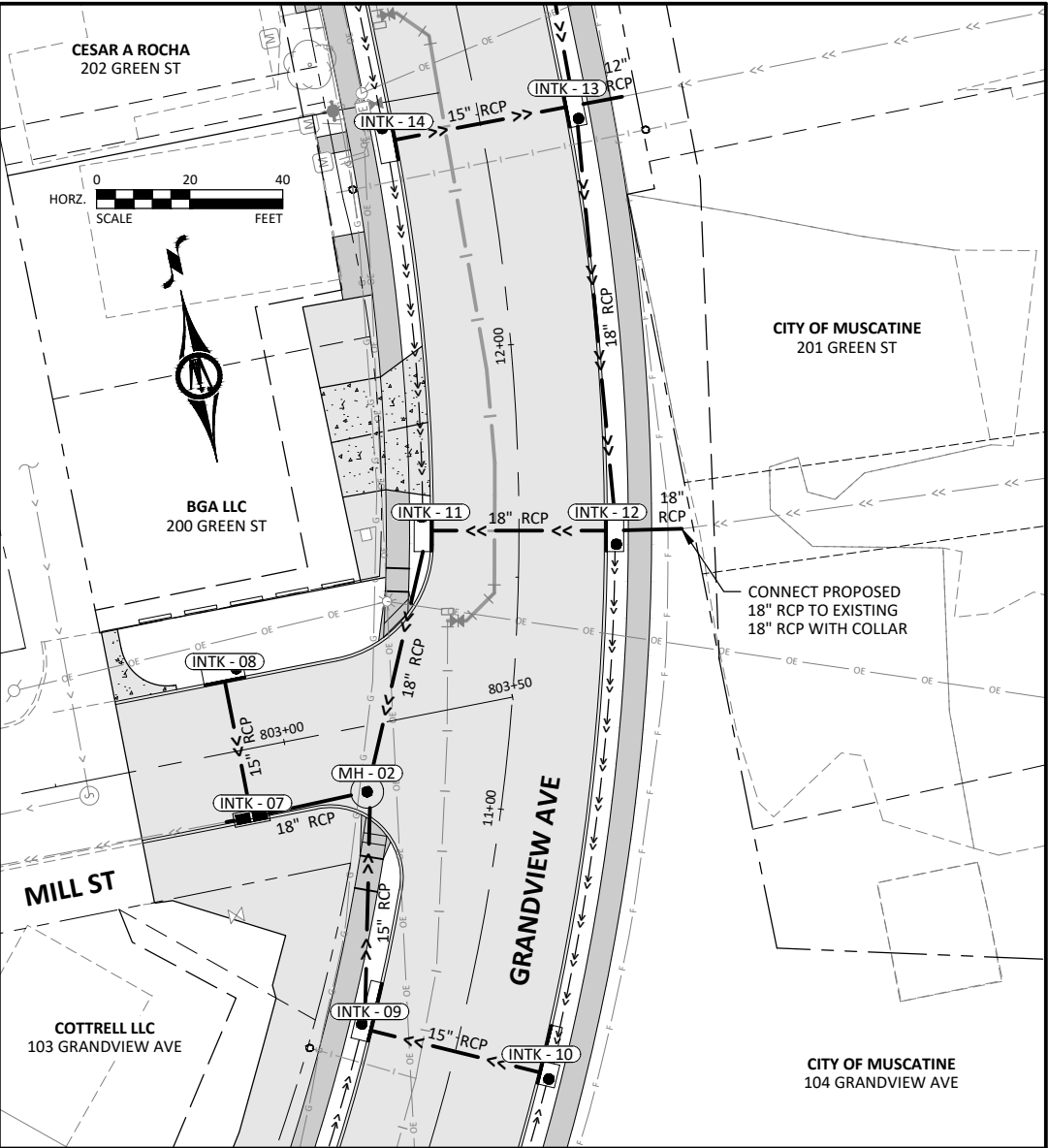
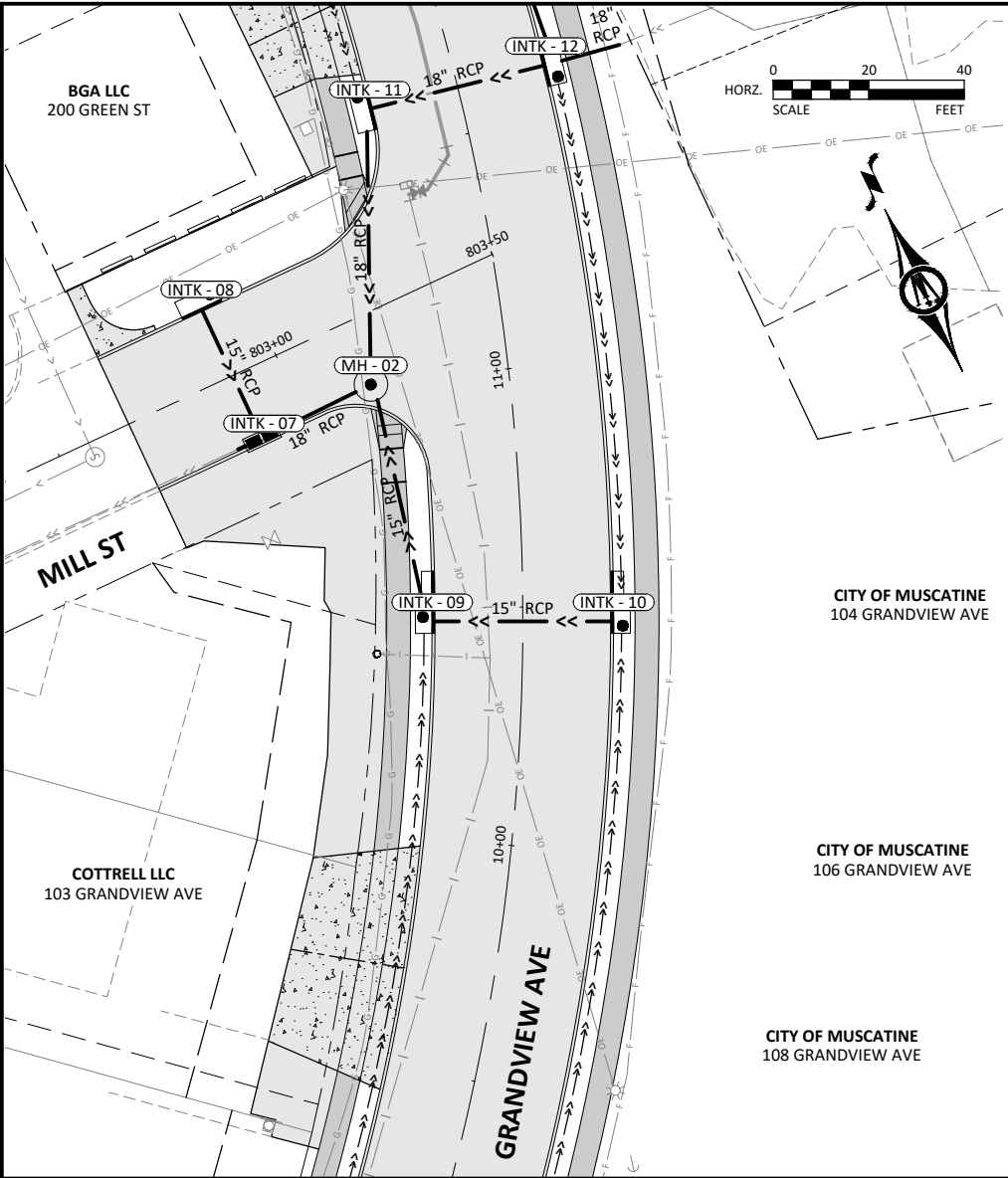
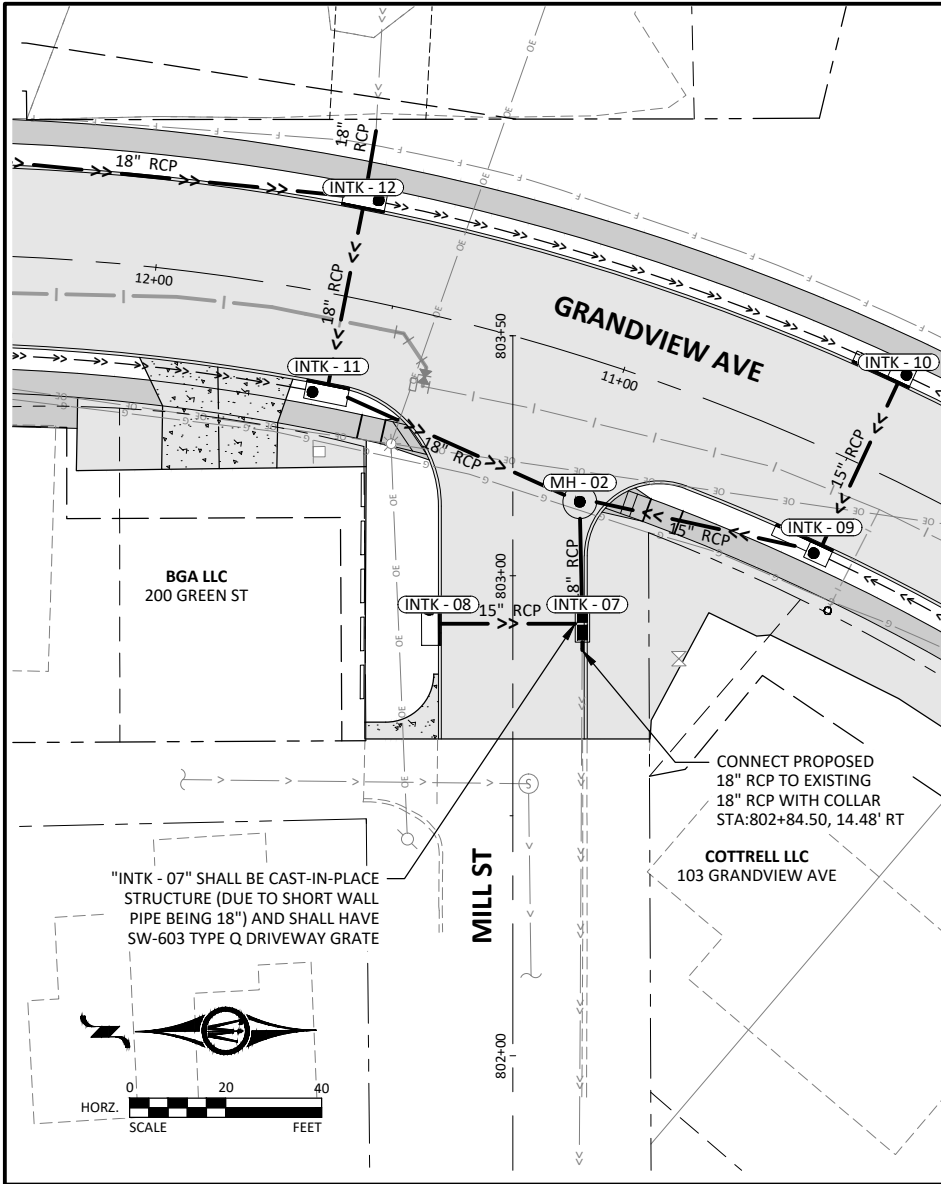
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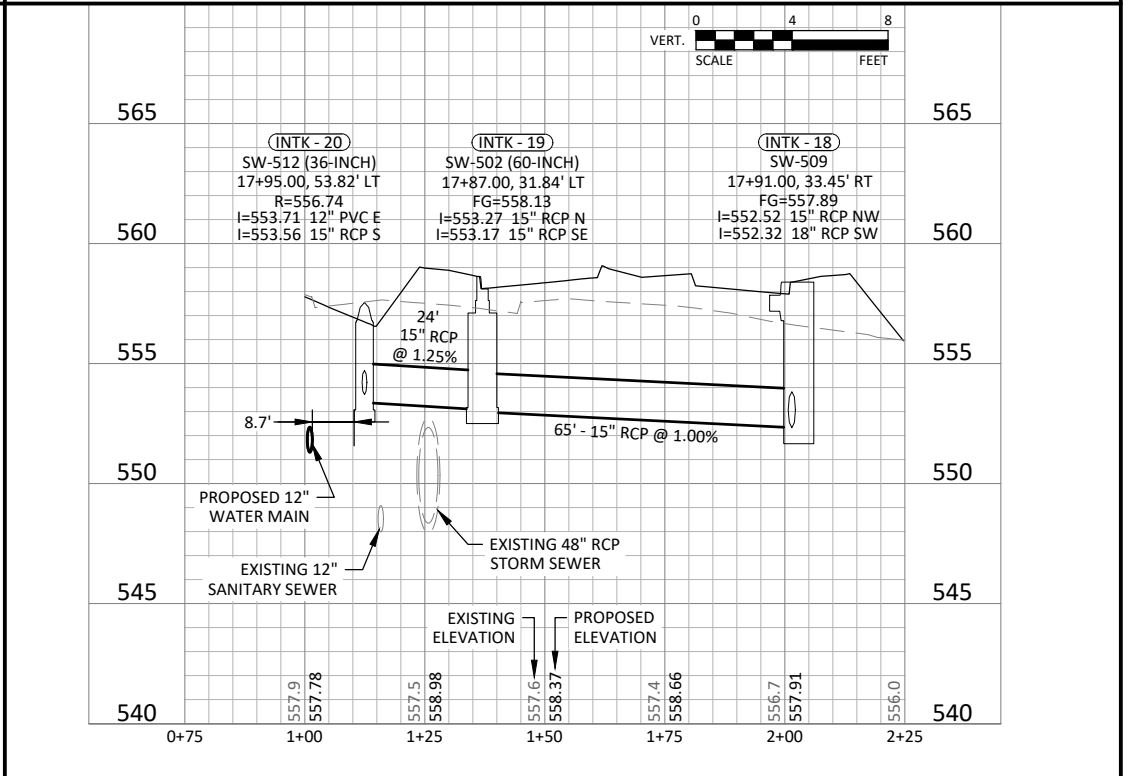
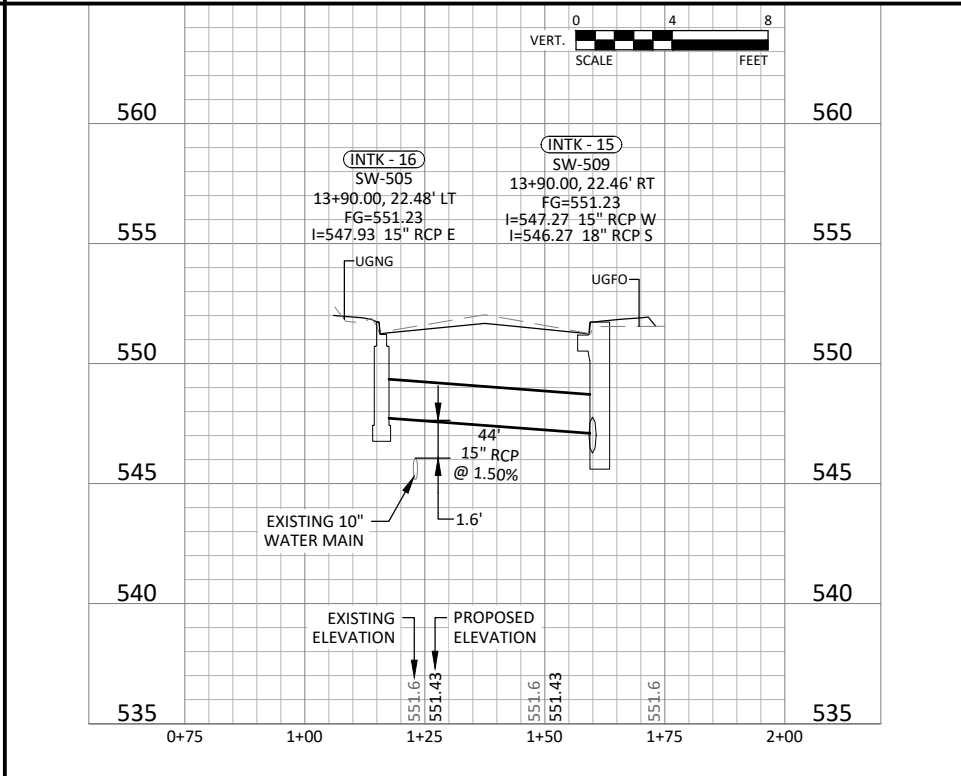
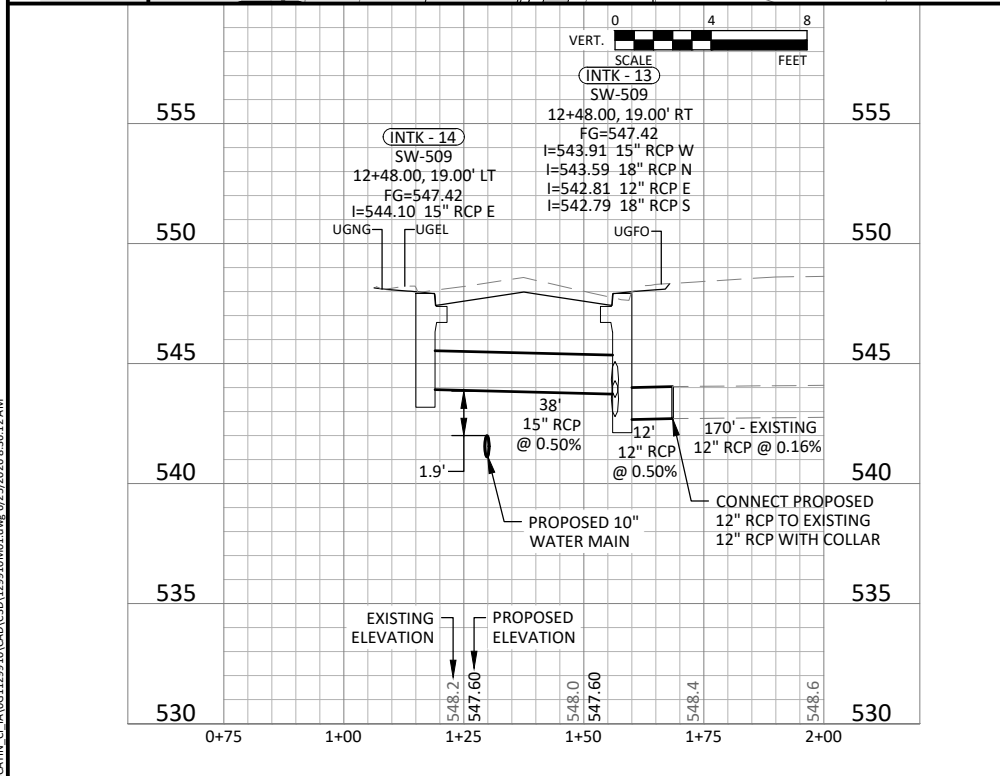
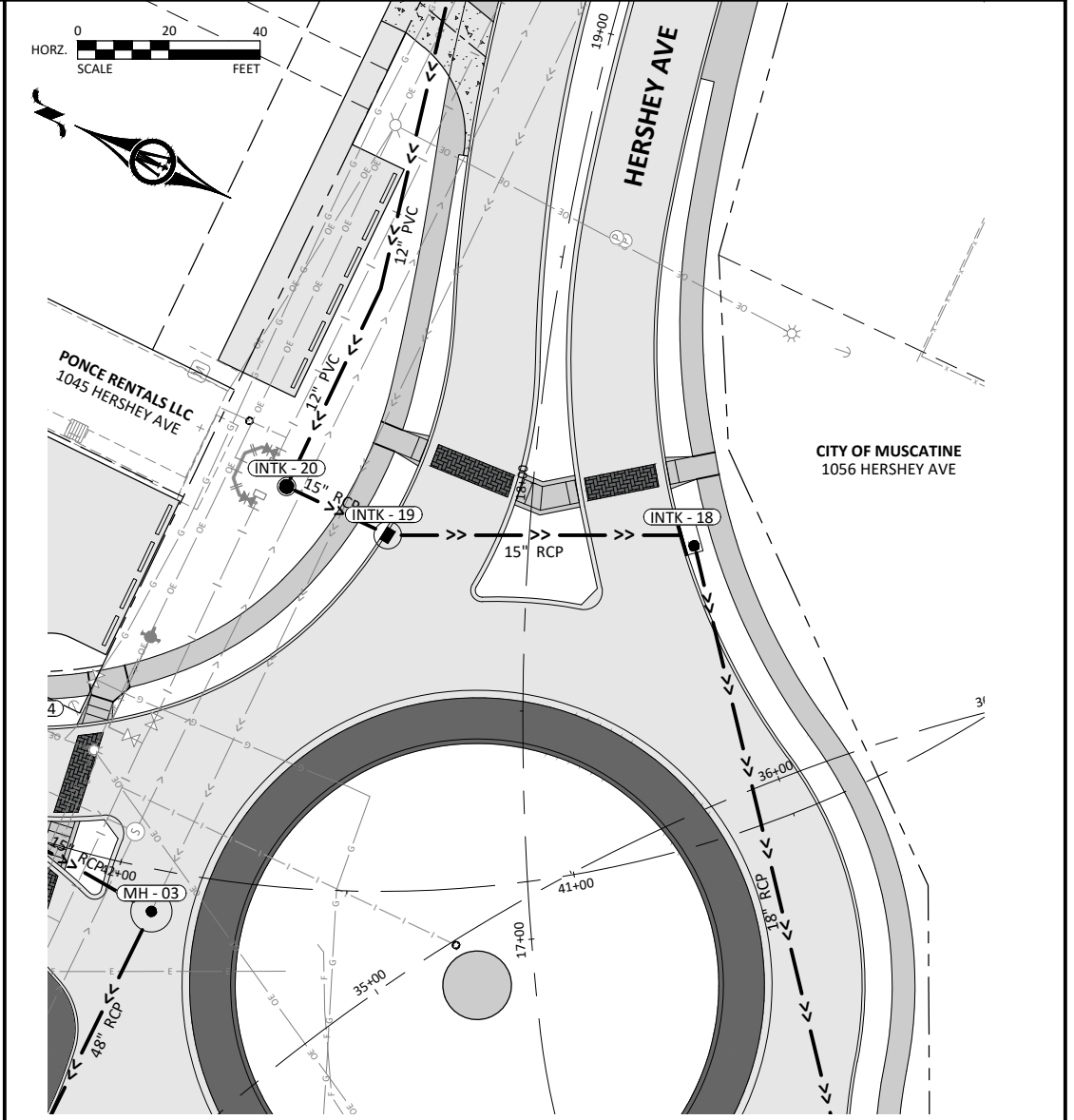
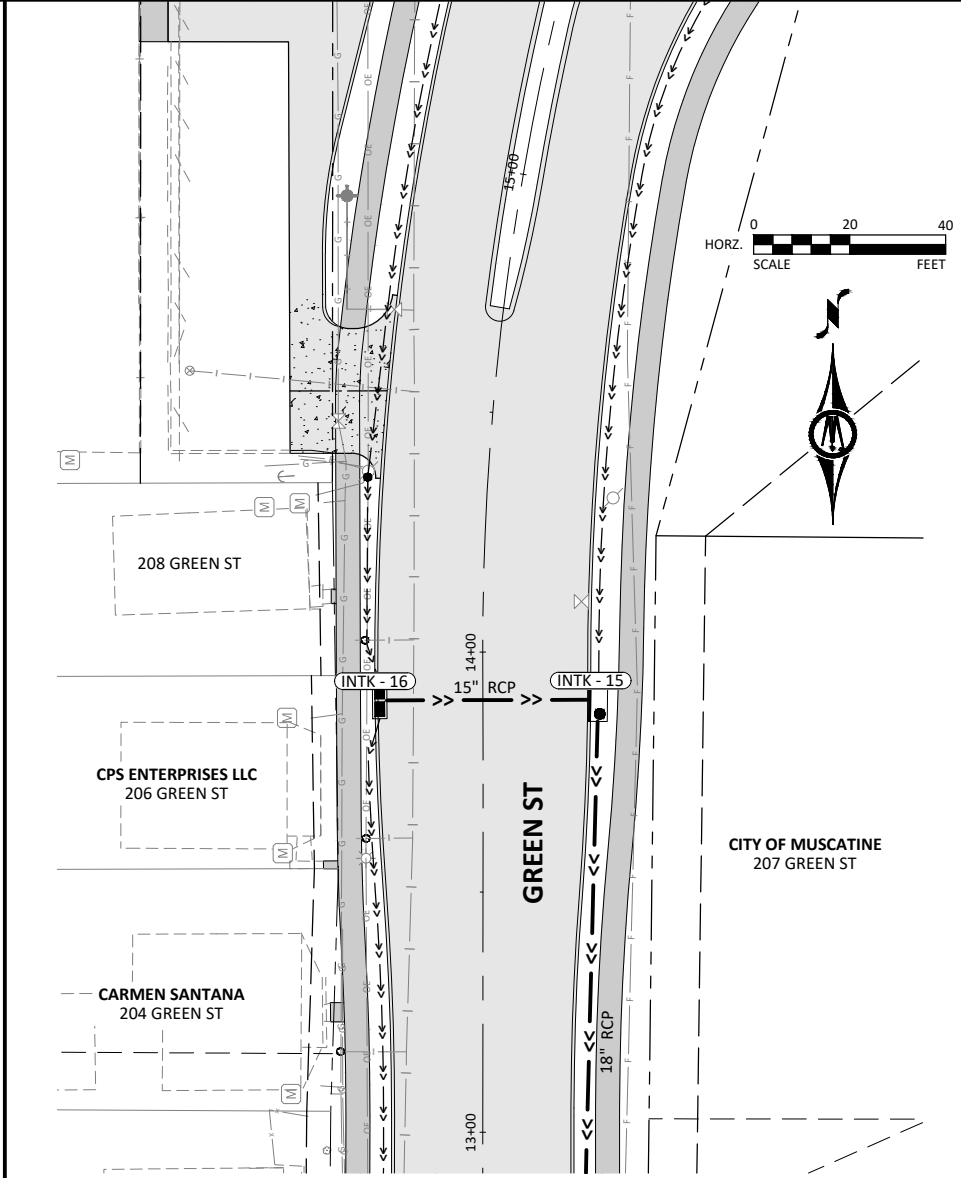
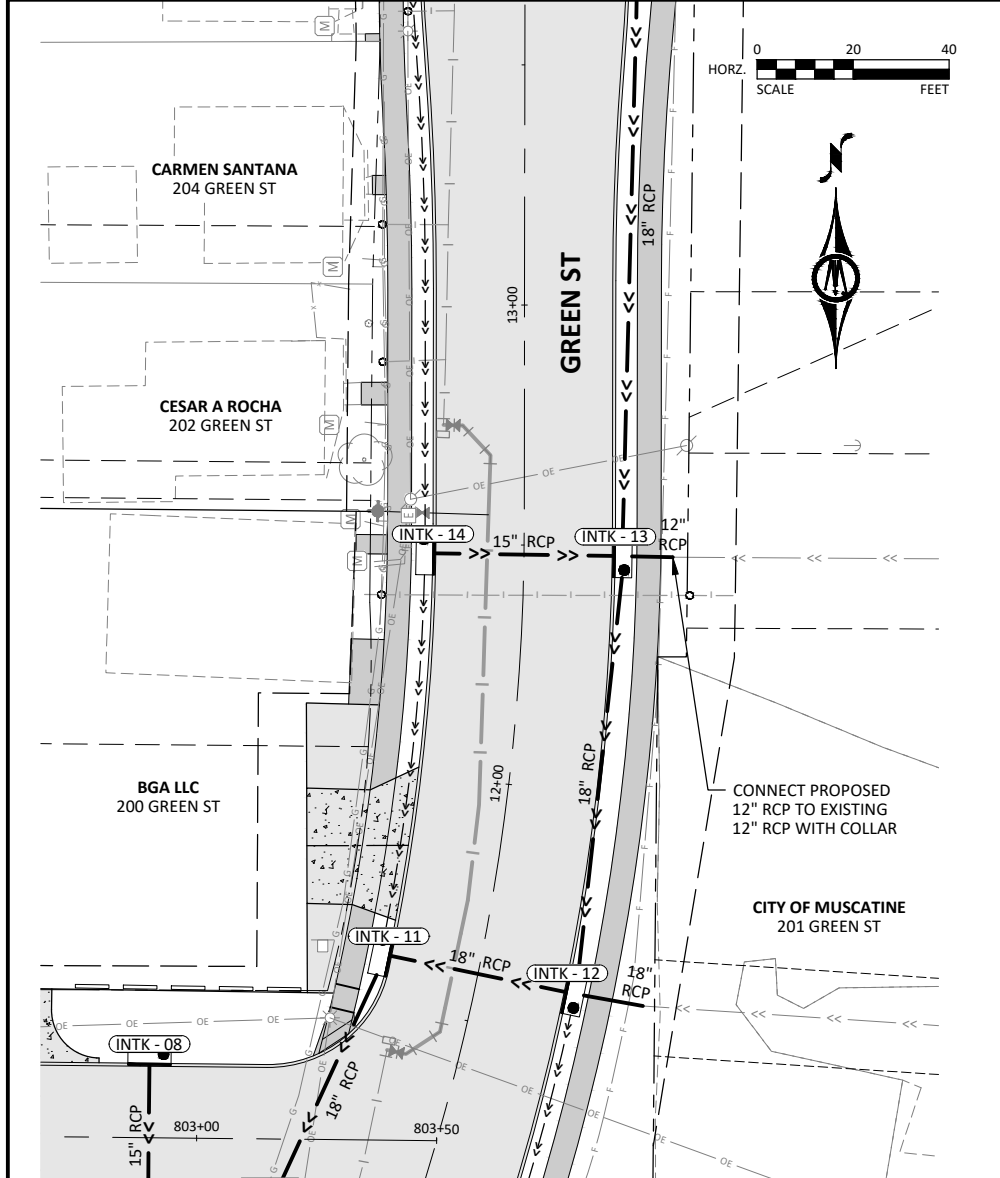


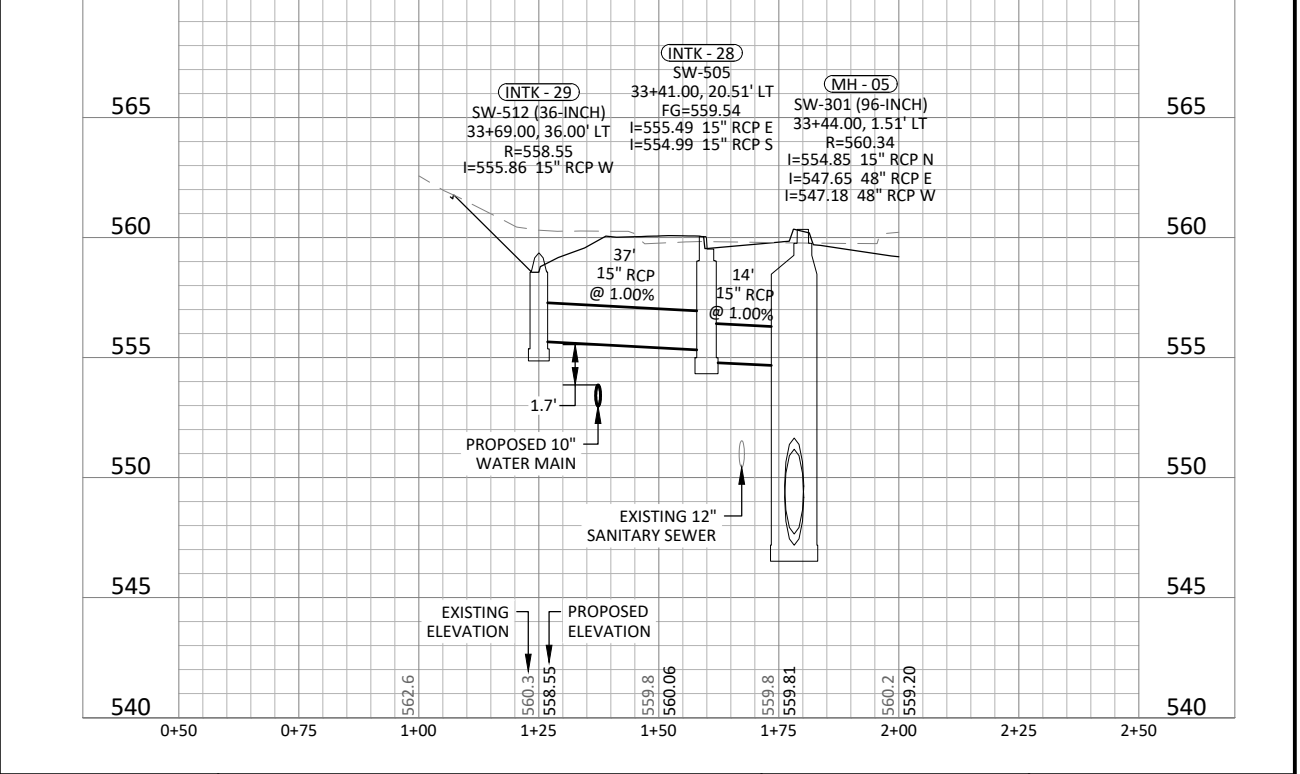
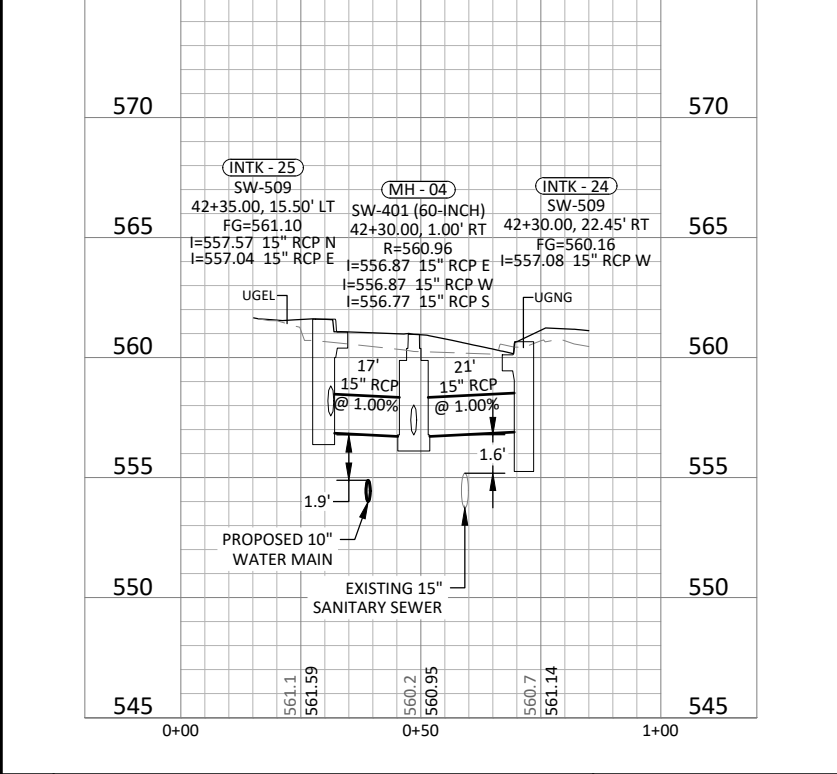
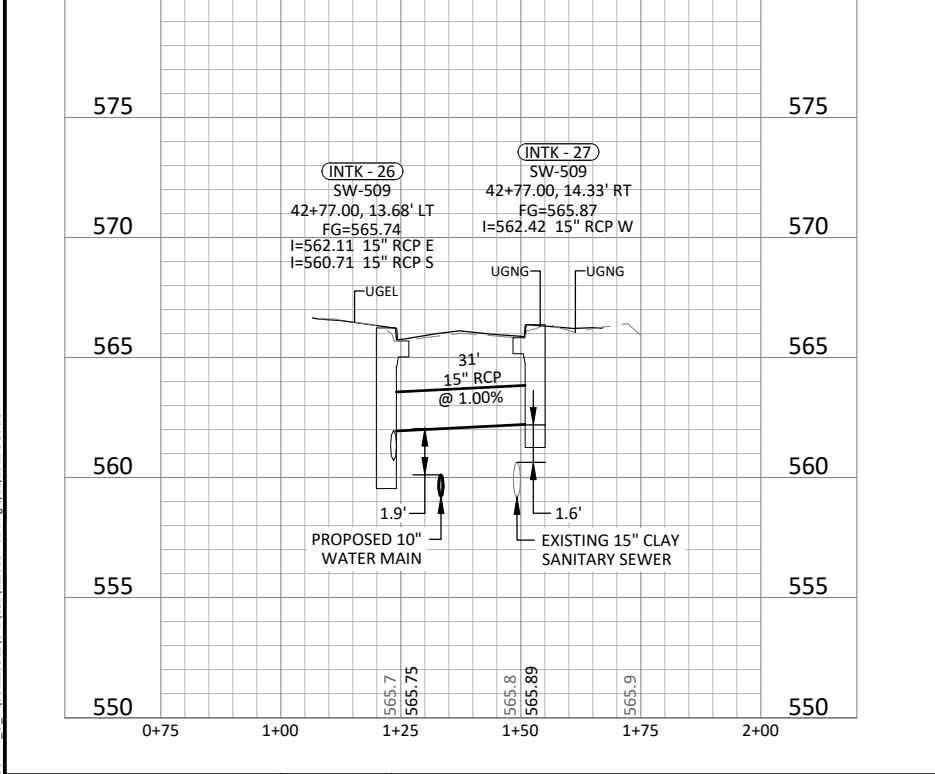
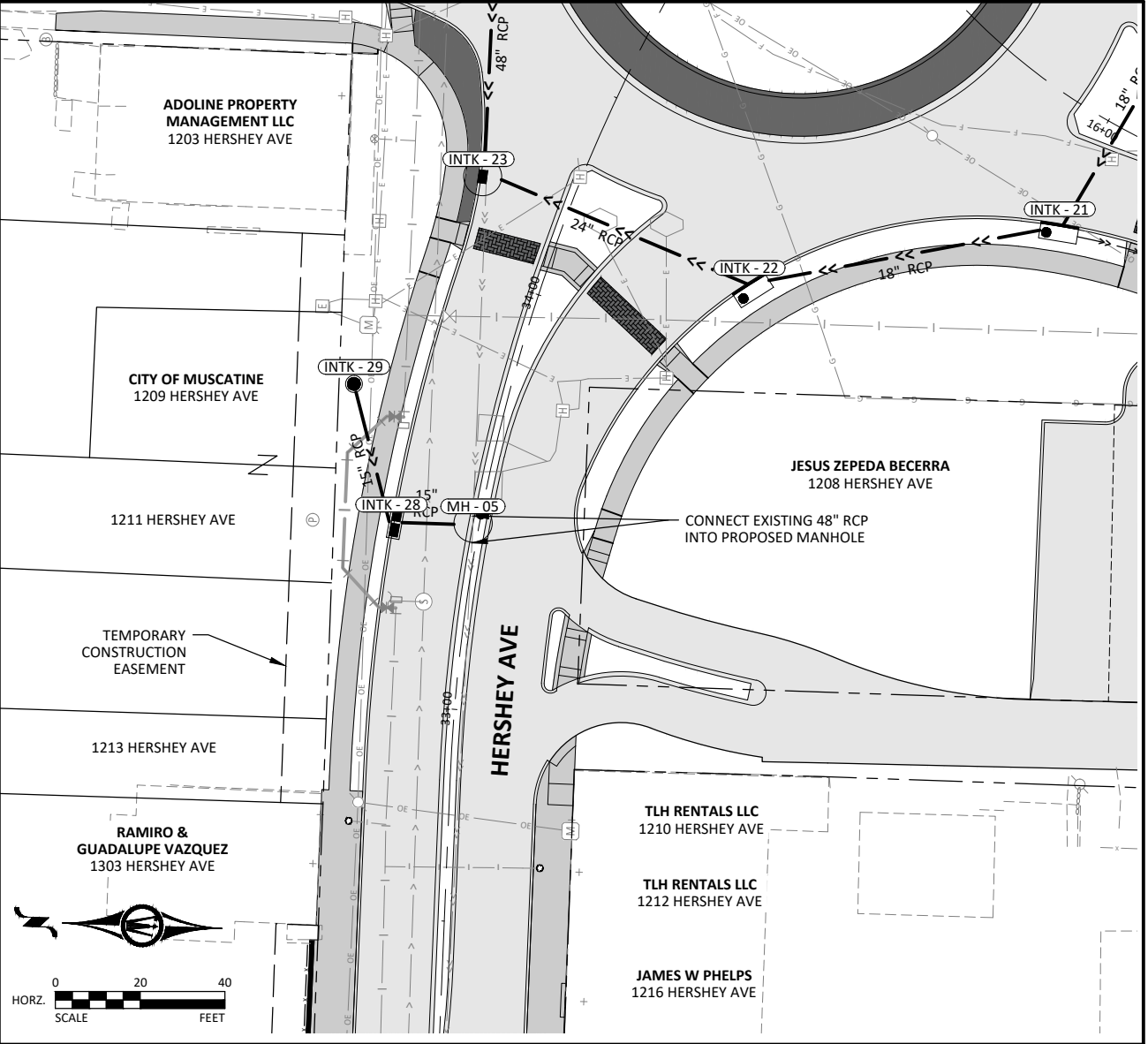
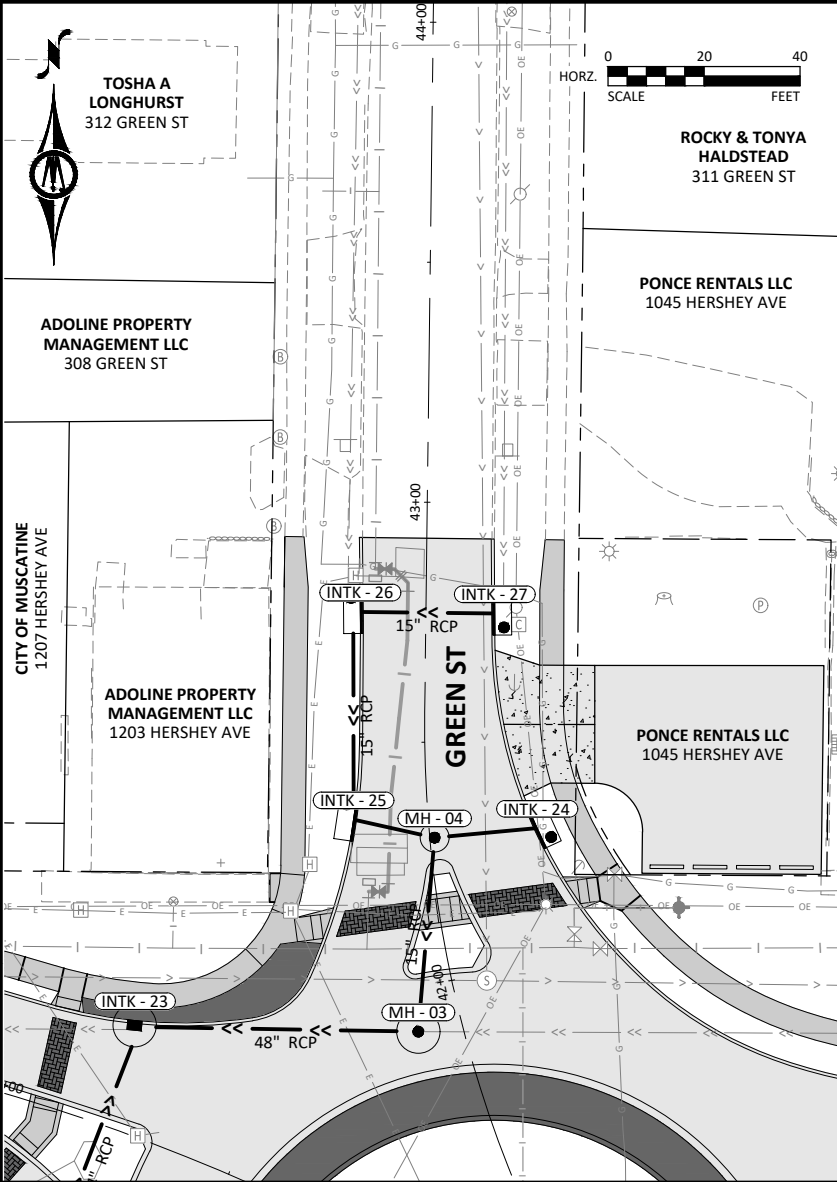
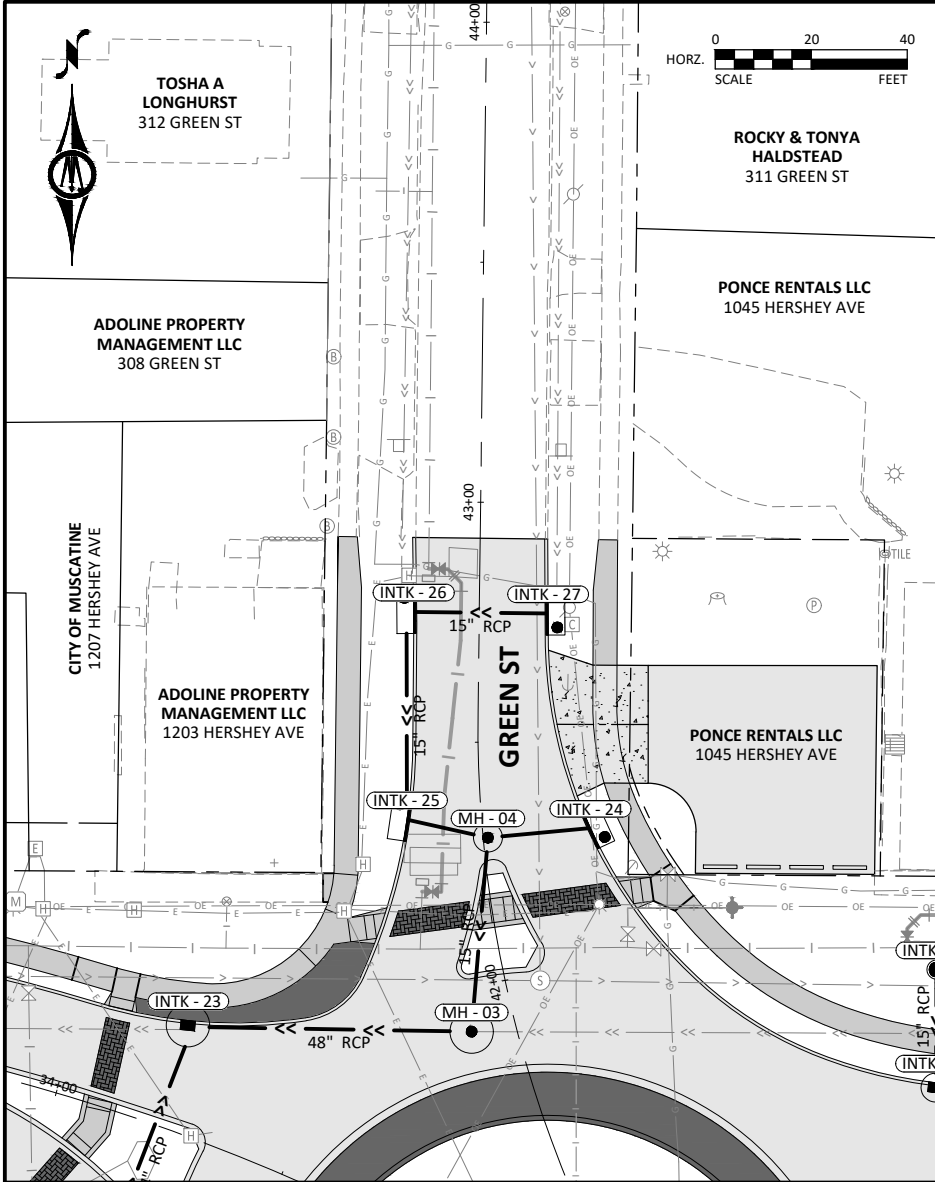
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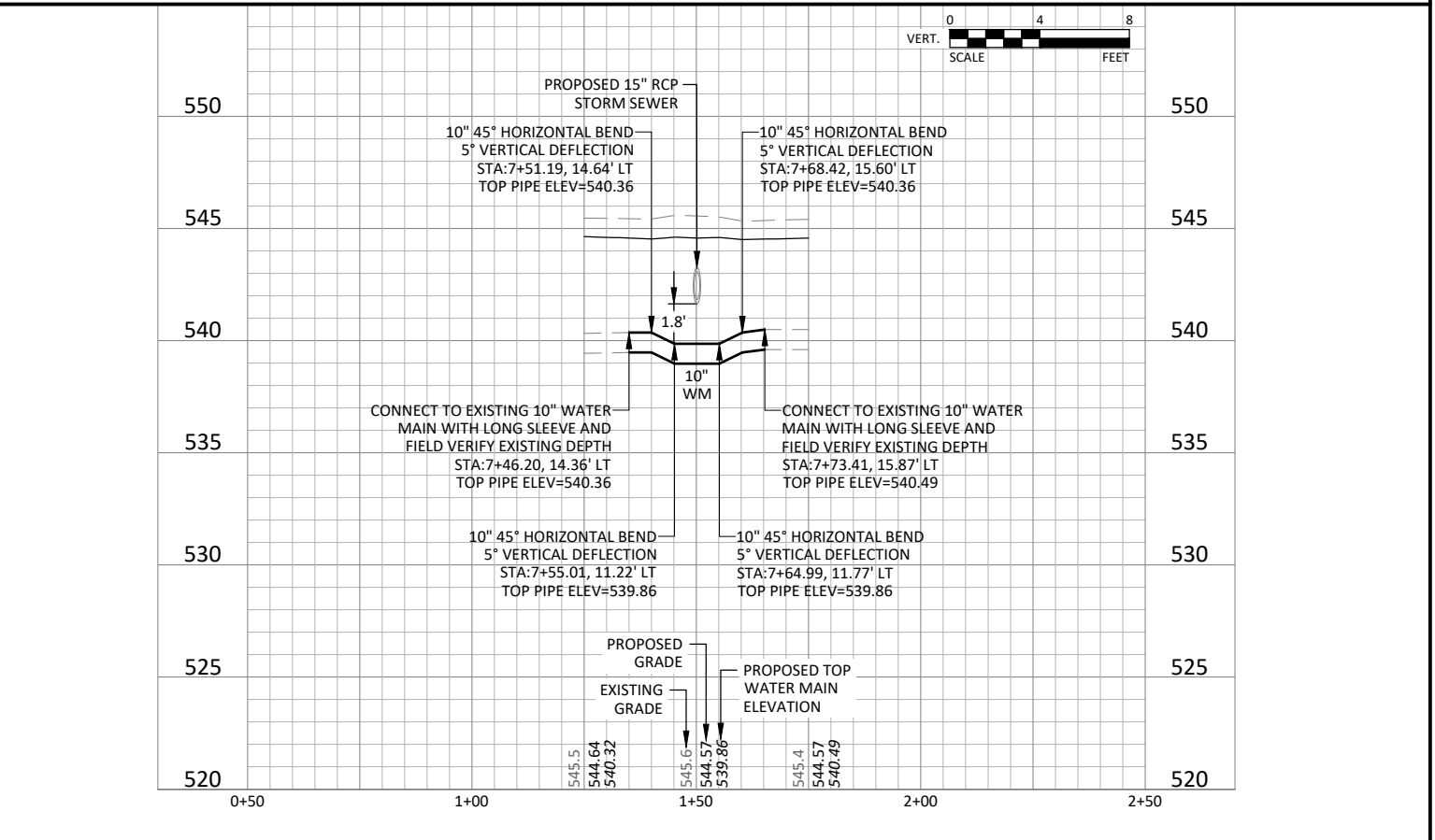
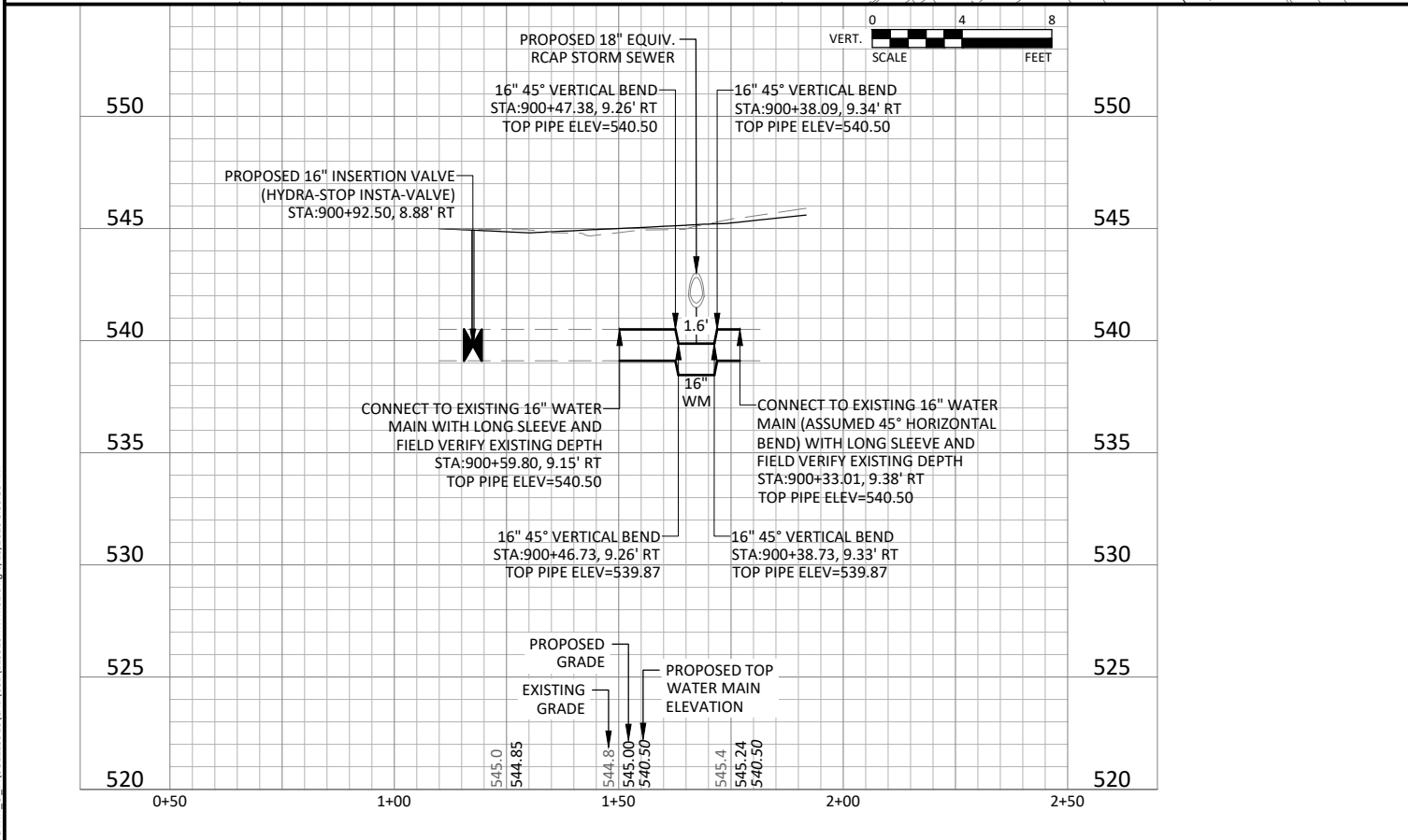
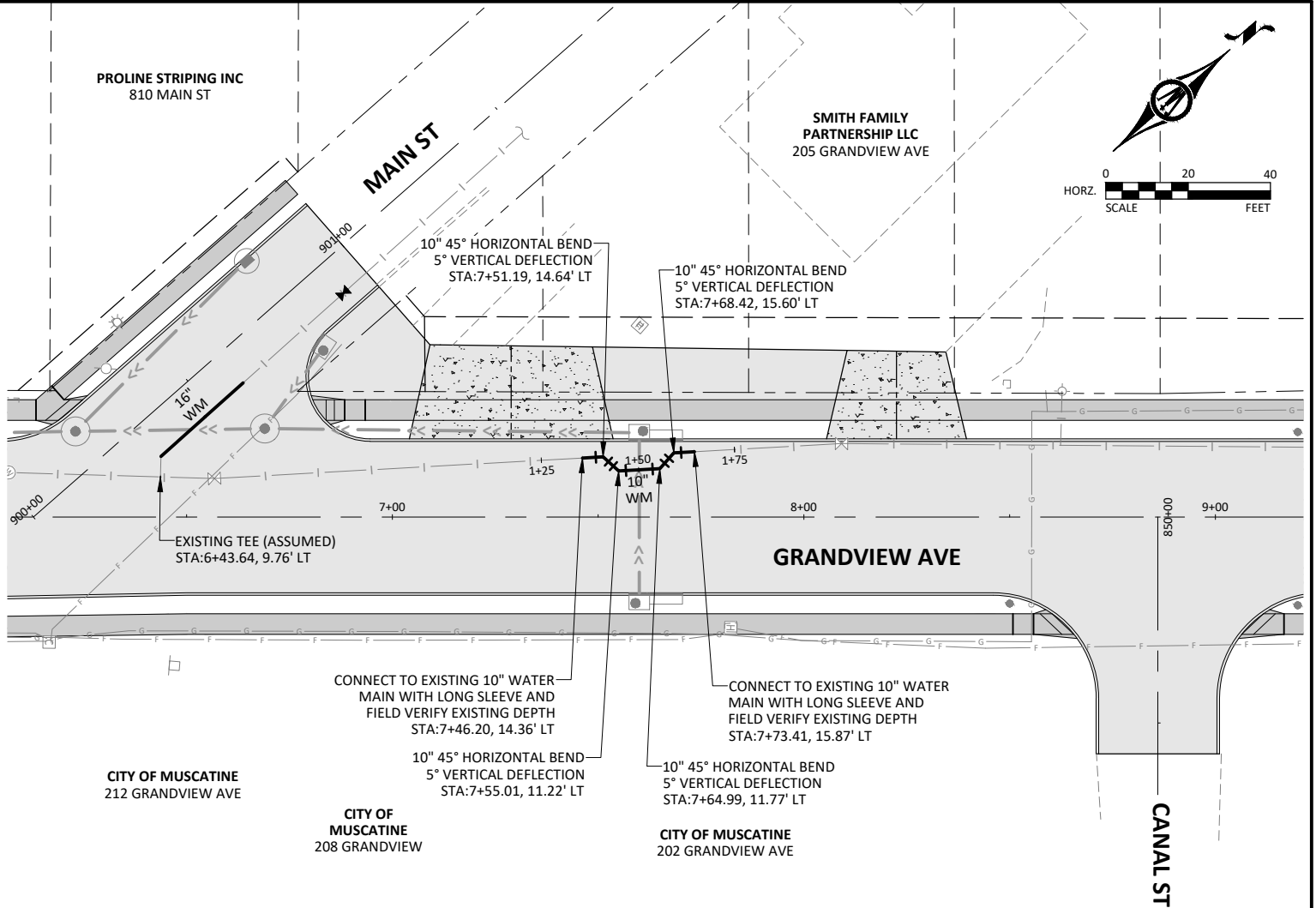
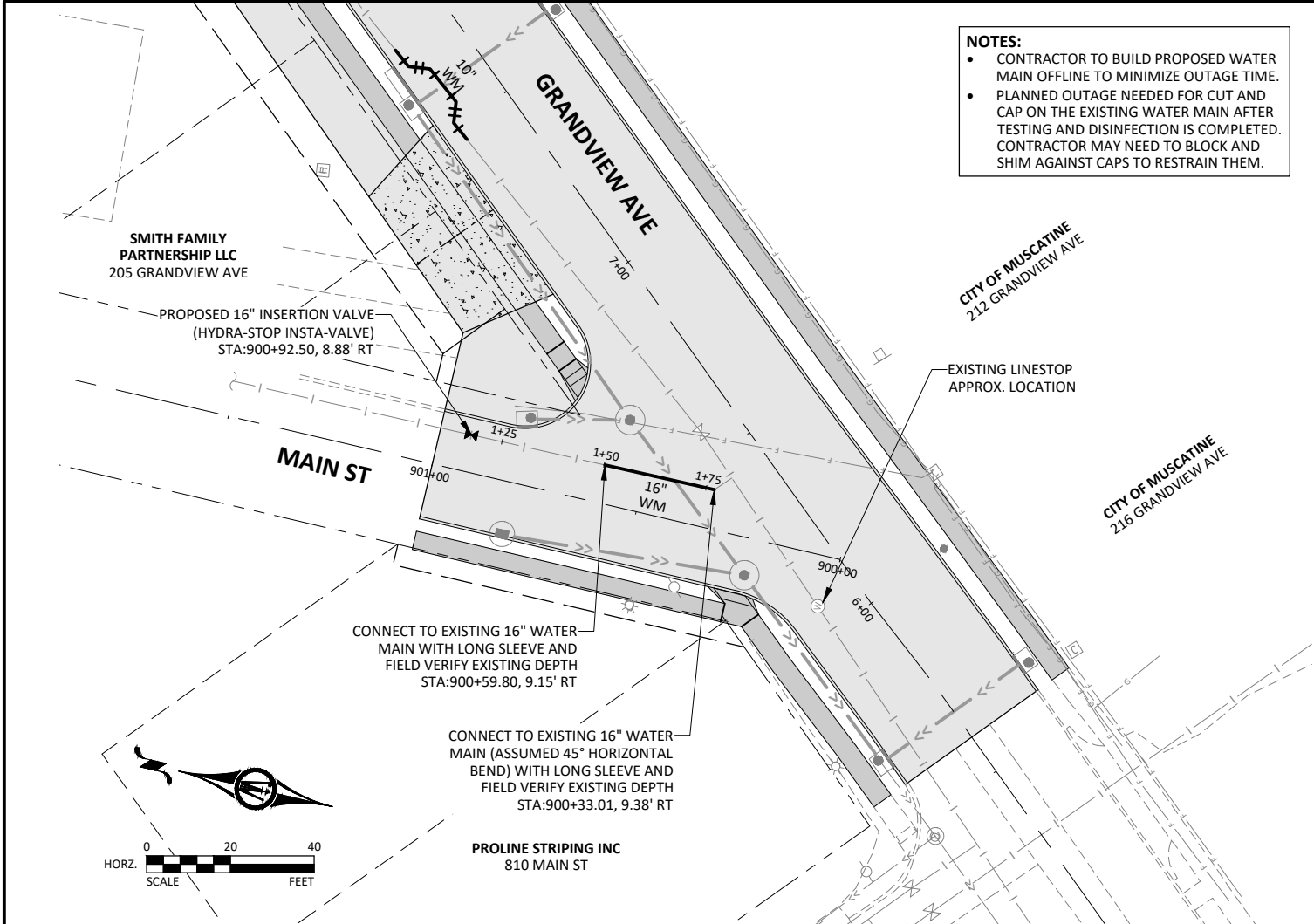
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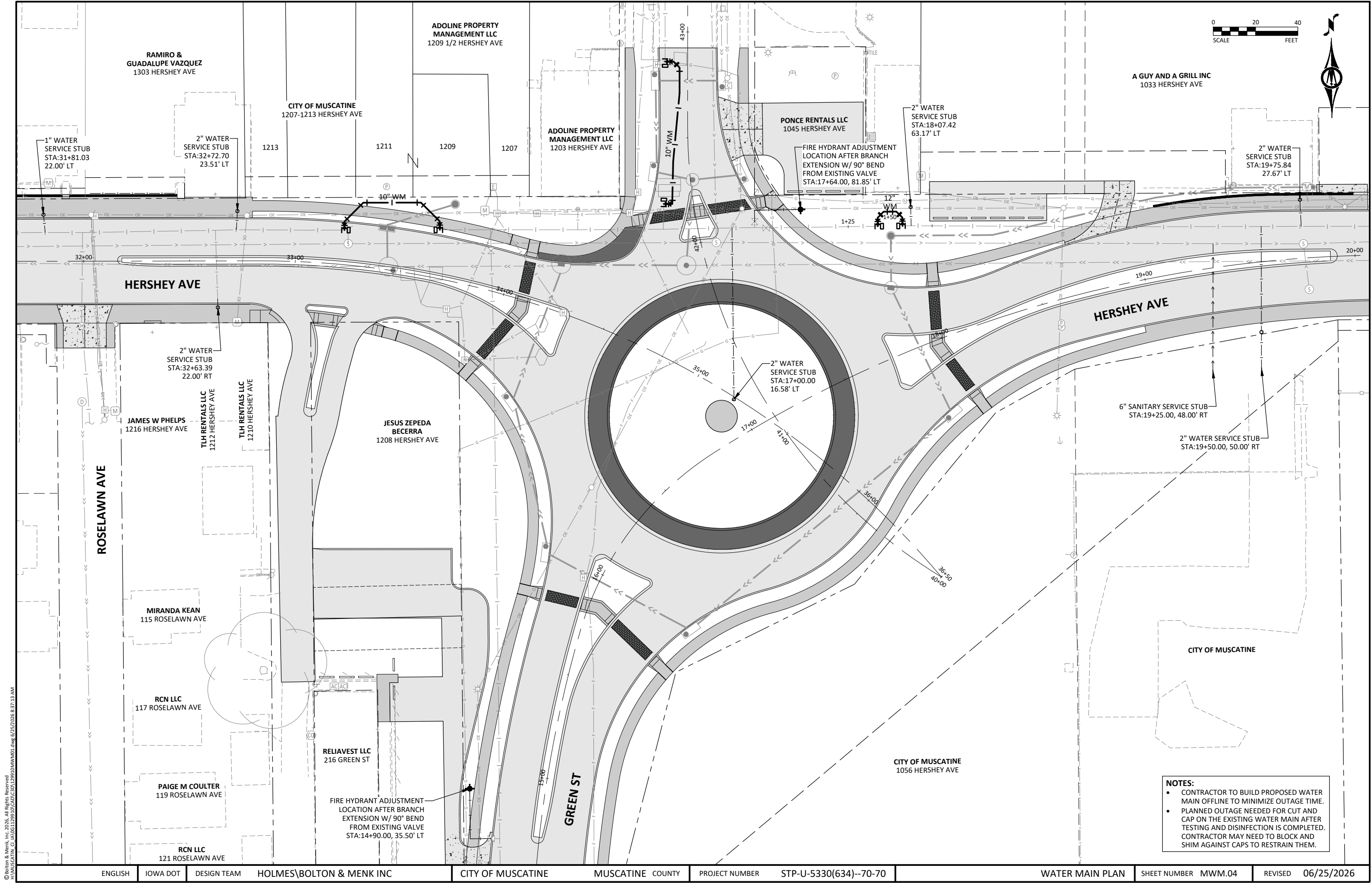
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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

WATER MAIN PLAN

SHEET NUMBER MWM.04

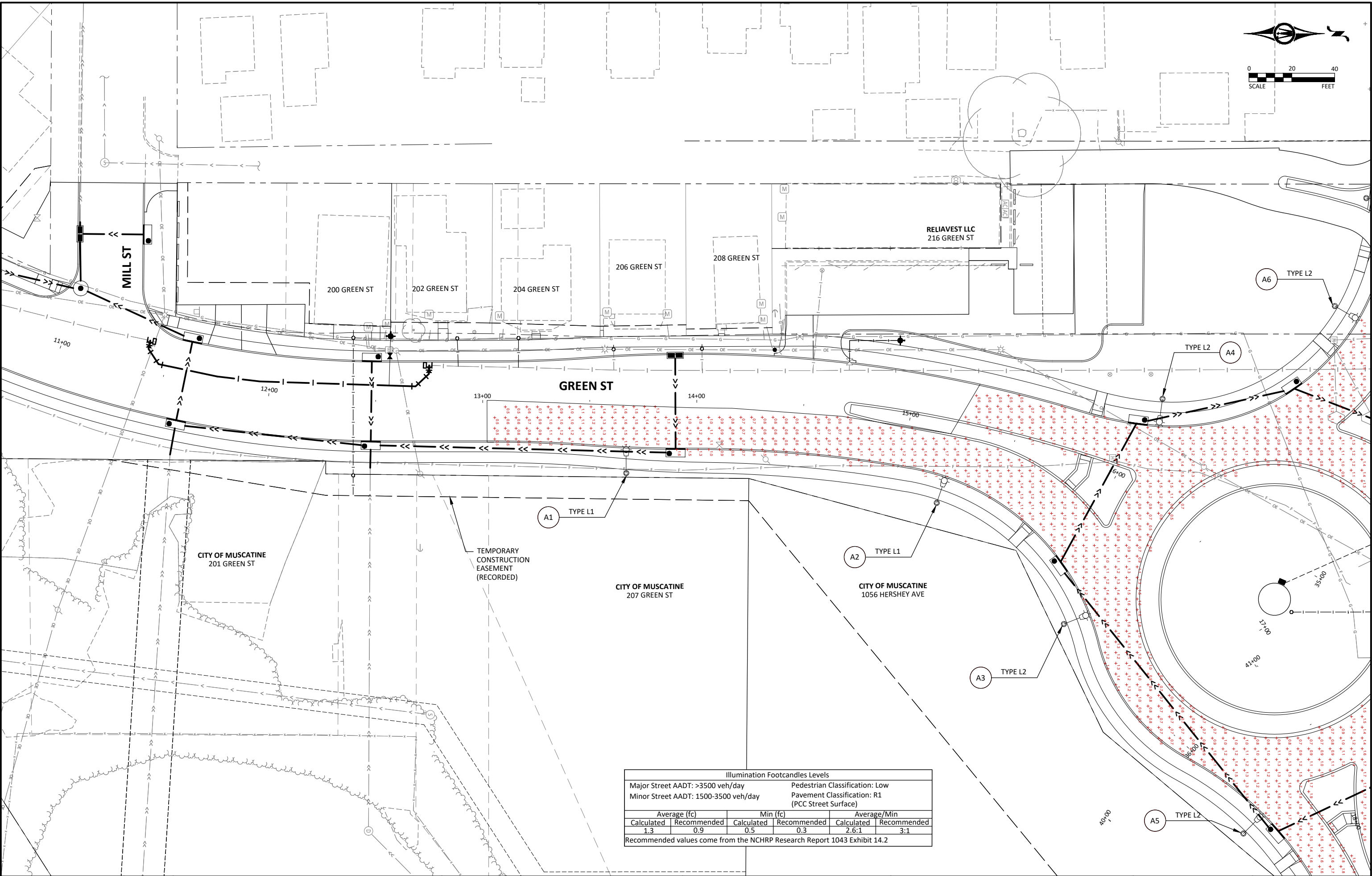
REVISED 06/25/2026

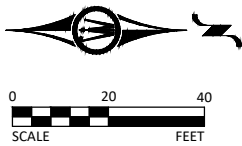
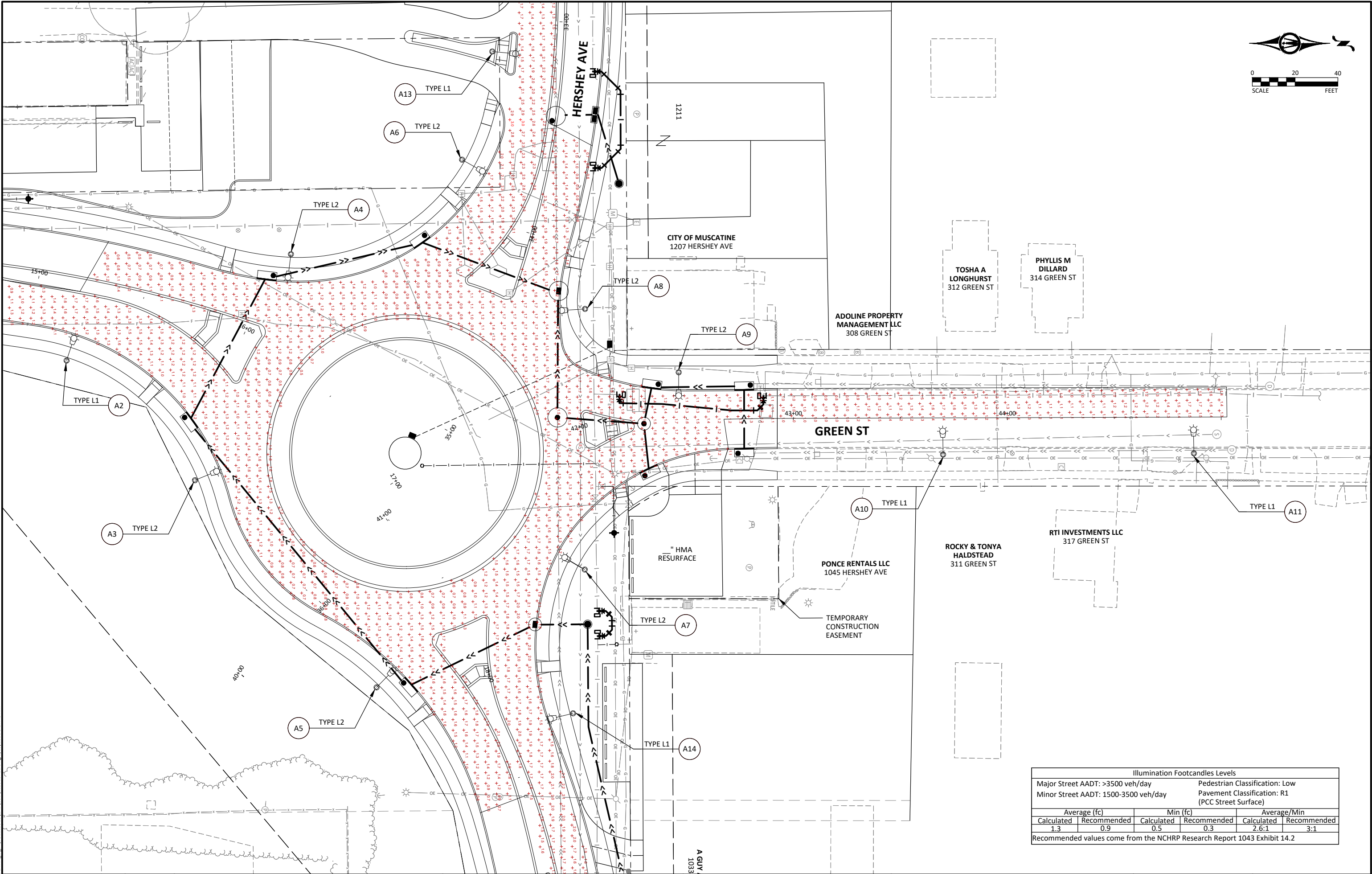
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LIGHTING UNIT SCHEDULE				
TYPE	DESCRIPTION	FIXTURE MODEL	POLE MODEL	MASTARM
L1	ROUNDAABOUT APPROACH LIGHTS	STR-LWY-2M-HT-06-E-UL-BK-700-40K-R, Black, 60-LED, BetaLED LEDway	Black, 30', Composite, Whatley TR50-30-AB-BLK-SMS-DTC-BLKHDWR	Black, 8', Composite, Whatley MA96-BLK-BLKHDWR
L2	ROUNDAABOUT CIRCULATORY LIGHTS	STR-LWY-2M-HT-08-E-UL-BK-700-40K-R, Black, 80-LED, BetaLED LEDway	Black, 30', Composite, Whatley TR50-30-AB-BLK-SMS-DTC-BLKHDWR	Black, 8', Composite, Whatley MA96-BLK-BLKHDWR

FEEDPOINT					
LIGHTING STANDARDS AND FOUNDATIONS					
NO.	STATION	OFFSET	POSITION	LOCATION	TYPE
A1	13+67	33.4	RIGHT	GREEN ST	L1
A2	15+20	36.1	RIGHT	GREEN ST	L1
A3	16+21	71.0	RIGHT	GREEN ST	L2
A4	16+02	42.7	LEFT	GREEN ST	L2
A5	17+86	48.8	RIGHT	HERSHEY AVE	L2
A6	33+73	38.1	RIGHT	HERSHEY AVE	L2
A7	17+73	62.3	LEFT	HERSHEY AVE	L2
A8	34+25	36.2	LEFT	HERSHEY AVE	L2
A9	42+47	21.8	LEFT	GREEN ST	L2
A10	43+70	16.8	RIGHT	GREEN ST	L1
A11	44+87	16.2	RIGHT	GREEN ST	L1
A12	31+88	30.6	RIGHT	HERSHEY AVE	L1
A13	33+16	31.3	RIGHT	HERSHEY AVE	L1
A14	18+29	33.3	LEFT	HERSHEY AVE	L1
A15	19+09	34.1	LEFT	HERSHEY AVE	L1
A16	20+49	30.6	LEFT	HERSHEY AVE	L1

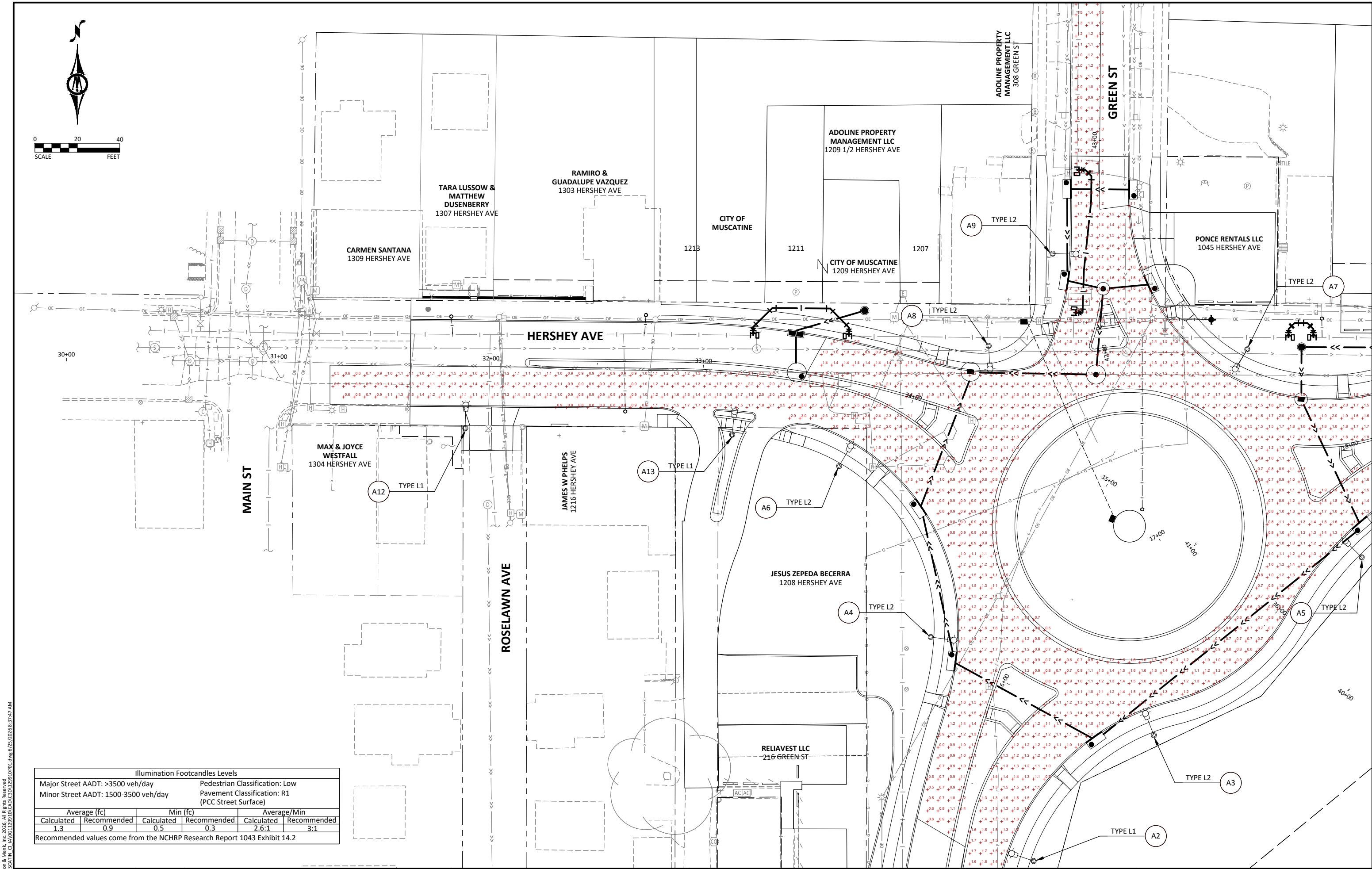
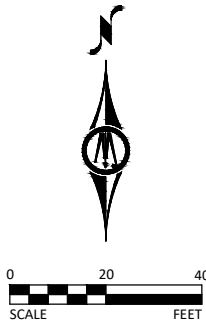
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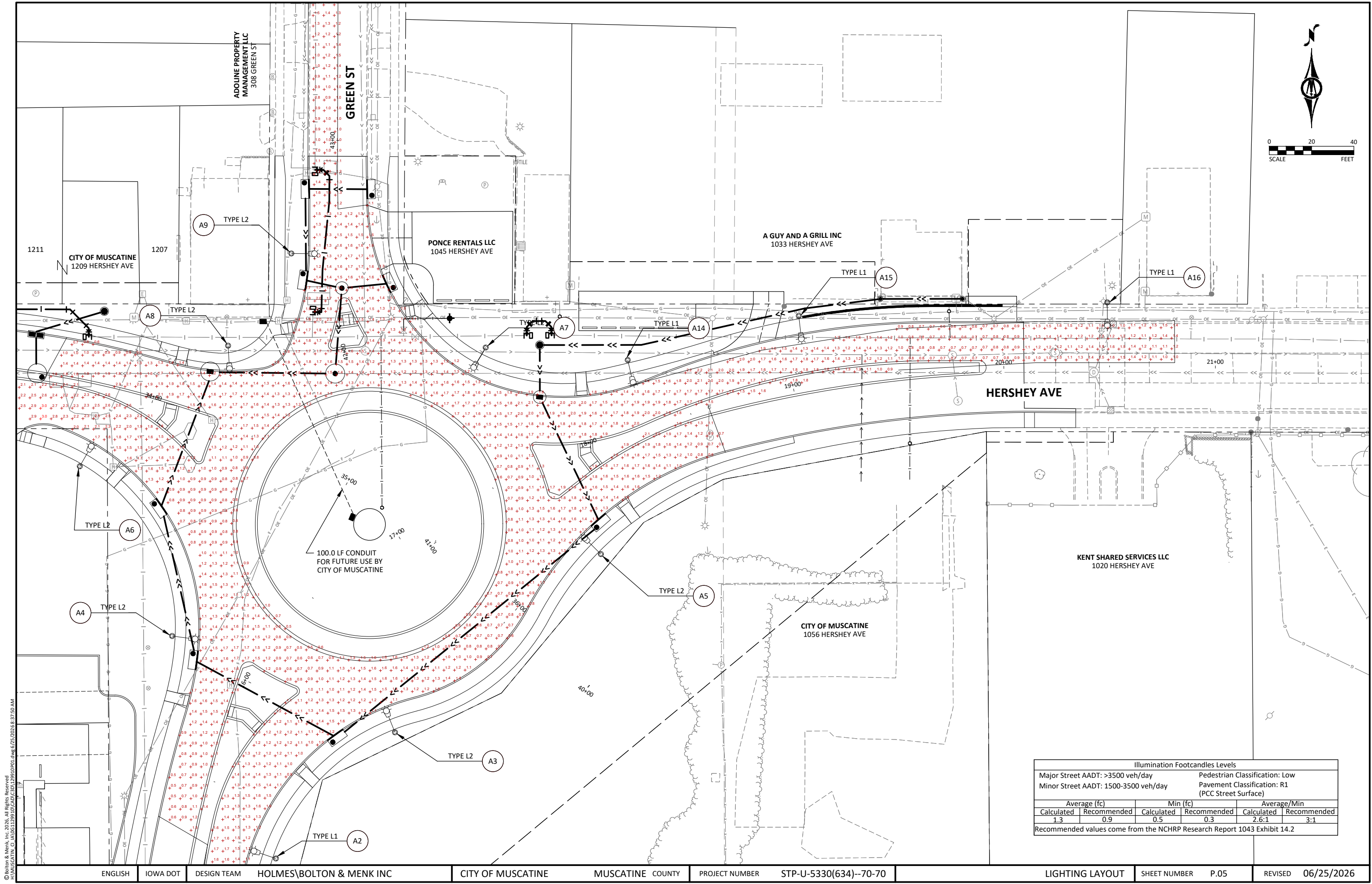
Illumination Footcandles Levels					
Major Street AADT: >3500 veh/day			Pedestrian Classification: Low		
Minor Street AADT: 1500-3500 veh/day			Pavement Classification: R1 (PCC Street Surface)		
Average (fc)		Min (fc)		Average/Min	
Calculated	Recommended	Calculated	Recommended	Calculated	Recommended
1.3	0.9	0.5	0.3	2.6:1	3:1

Recommended values come from the NCHRP Research Report 1043 Exhibit 14.2



Illumination Footcandle Levels					
Major Street AADT: >3500 veh/day			Pedestrian Classification: Low		
Minor Street AADT: 1500-3500 veh/day			Pavement Classification: R1 (PCC Street Surface)		
Average (fc)		Min (fc)		Average/Min	
Calculated	Recommended	Calculated	Recommended	Calculated	Recommended
1.3	0.9	0.5	0.3	2.6:1	3:1
Recommended values come from the NCHRP Research Report 1043 Exhibit 14.2					

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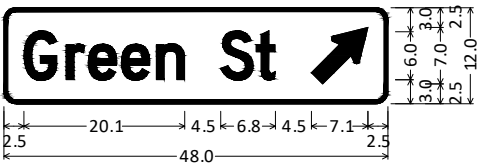


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MUSCATINE, IA 52591-1000, d:\w\6/25/2026\6.37.50 AM

Illumination Footcandles Levels					
Major Street AADT: >3500 veh/day			Pedestrian Classification: Low		
Minor Street AADT: 1500-3500 veh/day			Pavement Classification: R1 (PCC Street Surface)		
Average (fc)		Min (fc)		Average/Min	
Calculated	Recommended	Calculated	Recommended	Calculated	Recommended
1.3	0.9	0.5	0.3	2.6:1	3:1
Recommended values come from the NCHRP Research Report 1043 Exhibit 14.2					

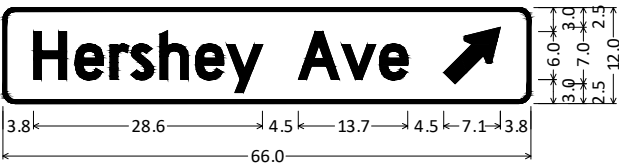
PERMANENT SIGNING AND STRIPING PLAN NOTES & GUIDANCE

1. SIGNING AND PAVEMENT MARKINGS SHALL BE PLACED TO MEET THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. PAVEMENT MARKINGS SHALL BE INSTALLED ACCORDING TO IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SECTION 2527.
3. THE ENGINEERS INVOLVEMENT IN THE APPLICATION OF THE MATERIAL TO BE LIMITED TO FIELD CONSULTATION AND INSPECTION. THE CONTRACTOR WILL PLACE "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND DETERMINE NECESSARY STARTING AND CUTOFF POINTS. LONGITUDINAL JOINTS, PAVEMENT EDGES, AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.
4. JUST PRIOR TO PLACEMENT OF PAVEMENT MARKINGS THE ROAD SURFACE SHALL BE CLEANED AND FREE OF CONTAMINATION AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENTS AND/OR LAITANCE.
5. APPLY ALL PAVEMENT MARKINGS AS RECOMMENDED BY THE MATERIAL MANUFACTURER.
6. THE FILLING OF TANKS, POURING OF MATERIALS, OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.



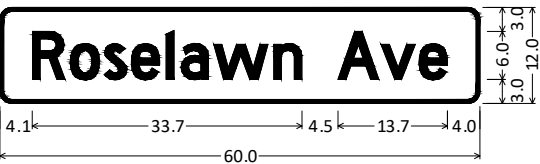
1.5" Radius, 0.5" Border, White on Green;
"Green", D 2K; "St", D 2K;
Arrow Custom - 9.0" 45°;
Table of letter and object lefts

G	r	e	e	n	S	t	↗
2.5	7.8	10.5	14.7	19.1	27.1	31.5	38.4



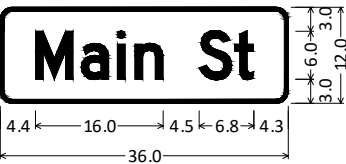
1.5" Radius, 0.5" Border, White on Green;
"Hershey", D 2K; "Ave", D 2K; Arrow Custom - 9.0" 45°;
Table of letter and object lefts

H	e	r	s	h	e	y	A	v	e	↗
3.8	9.0	13.4	16.0	19.6	24.0	27.9	36.9	42.3	47.1	55.1



1.5" Radius, 0.5" Border, White on Green;
"Roselawn", D 2K; "Ave", D 2K;
Table of letter and object lefts

R	o	s	e	l	a	w	n	A	v	e
4.1	8.8	13.1	16.4	20.8	22.7	26.7	34.2	42.3	47.7	52.4



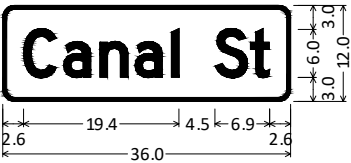
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"Main", D 2K; "St", D 2K;
Table of letter and object lefts

M	a	i	n	S	t
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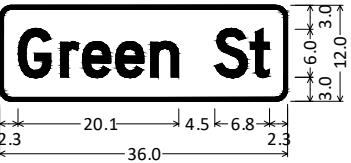
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"Mill", D 2K; "St", D 2K;
Table of letter and object lefts

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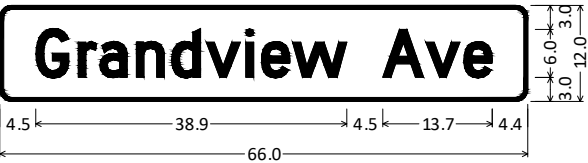
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"Canal", D 2K; "St", D 2K;
Table of letter and object lefts

C	a	n	a	l	S	t
2.6	7.6	12.1	16.5	21.1	26.5	31.0



1.5" Radius, 0.5" Border, White on Green;
"Green", D 2K; "St", D 2K;
Table of letter and object lefts

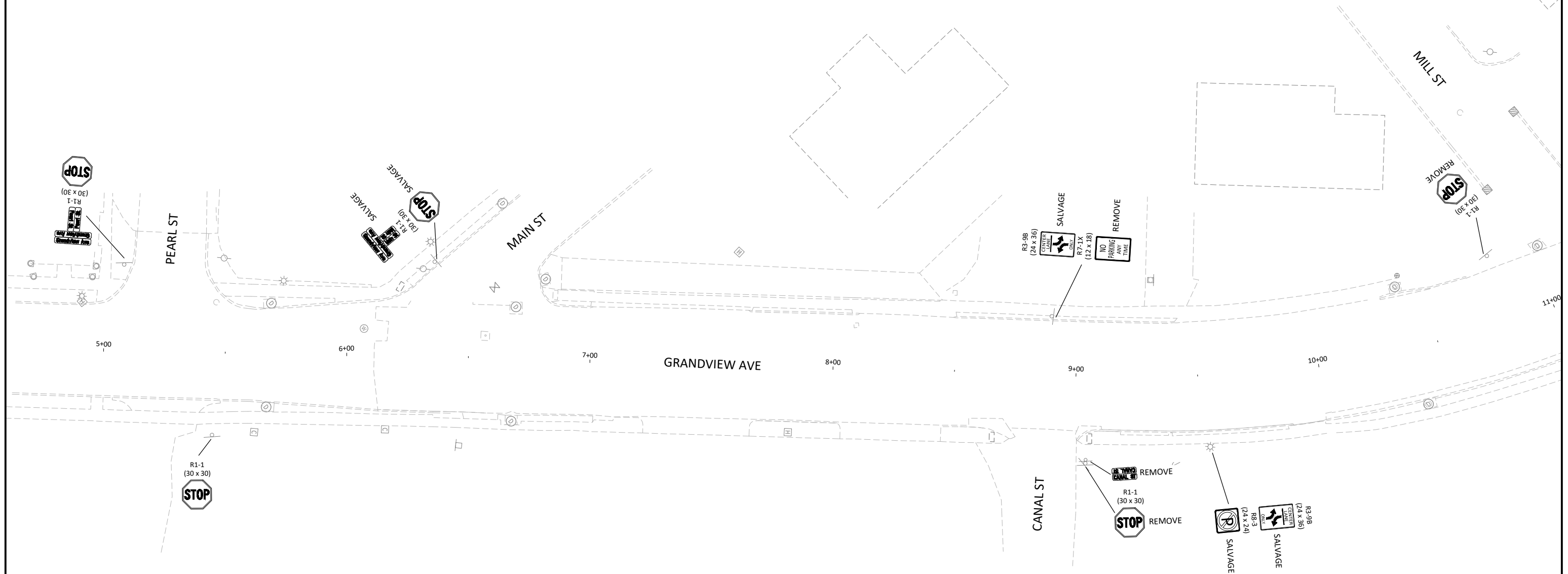
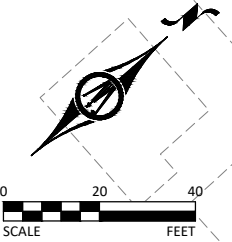
G	r	e	e	n	S	t
2.3	7.6	10.3	14.5	18.9	26.9	31.3



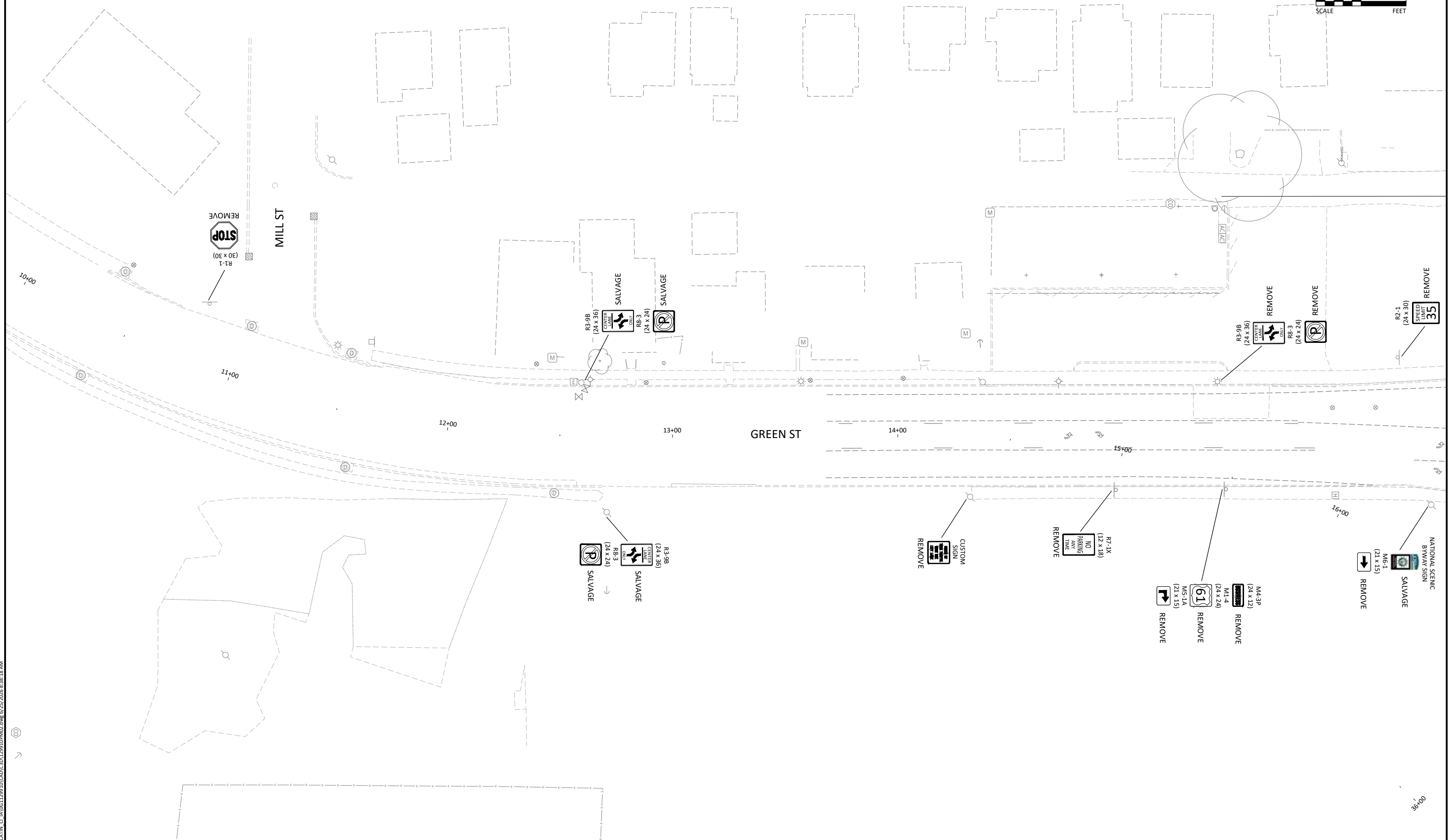
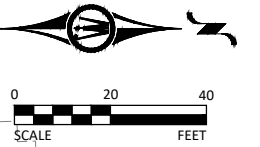
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"Grandview", D 2K; "Ave", D 2K;
Table of letter and object lefts

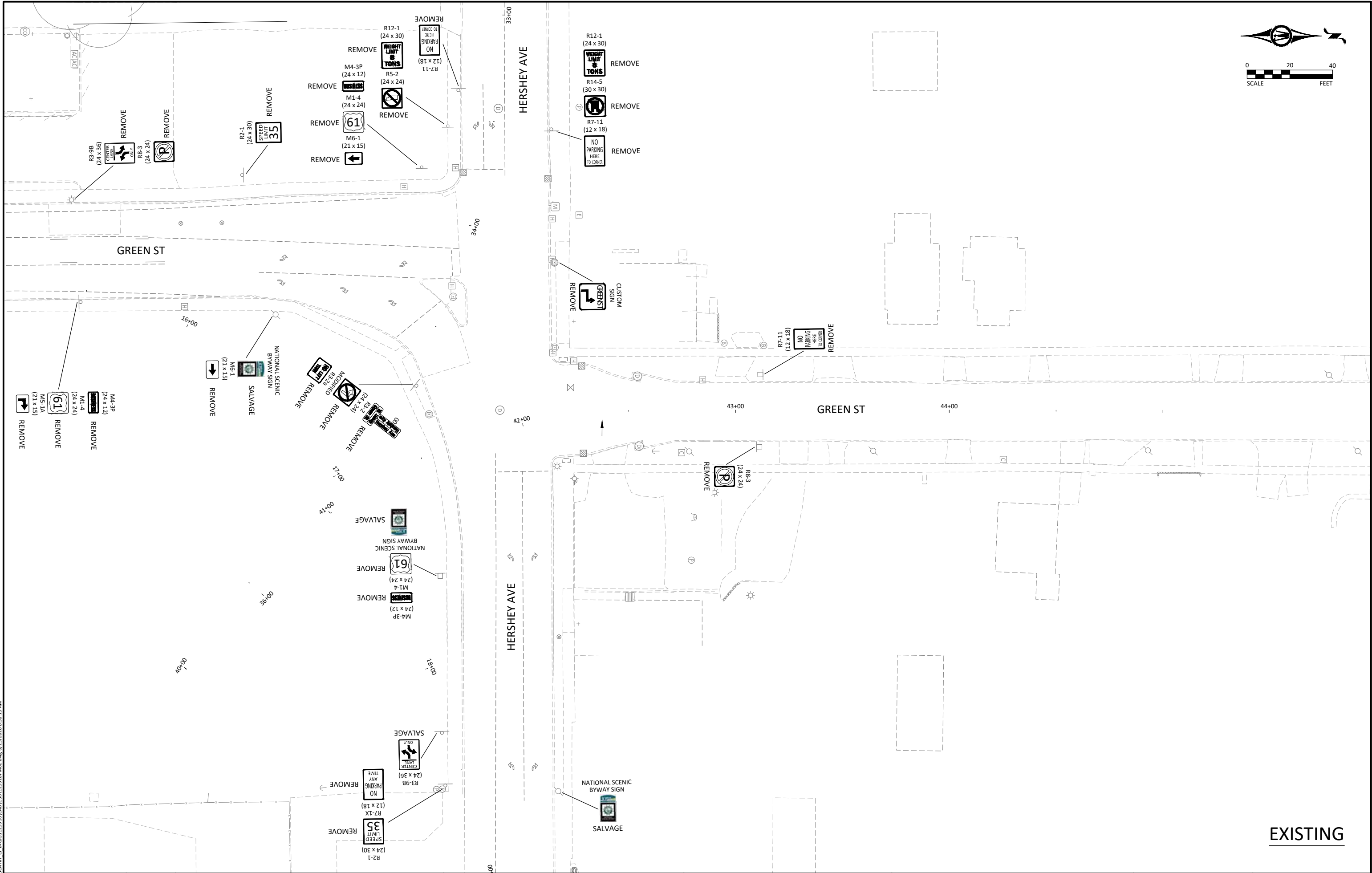
G	r	a	n	d	v	i	e	w	A	v	e
4.5	9.8	12.5	17.0	21.5	25.8	30.8	32.7	36.6	47.9	53.3	58.0

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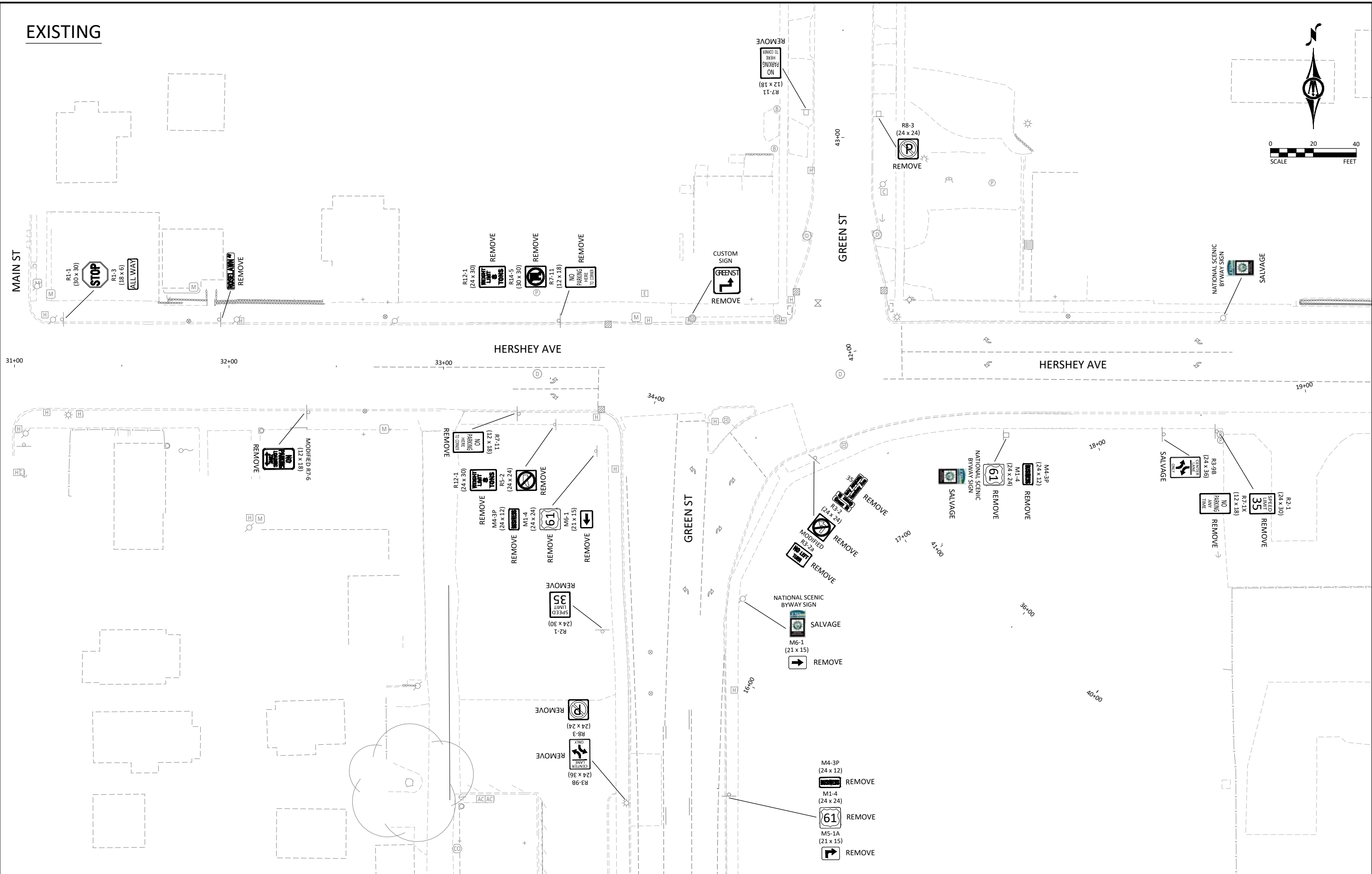
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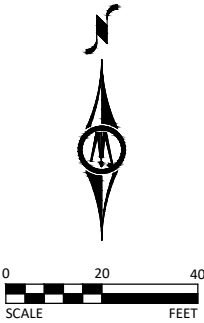
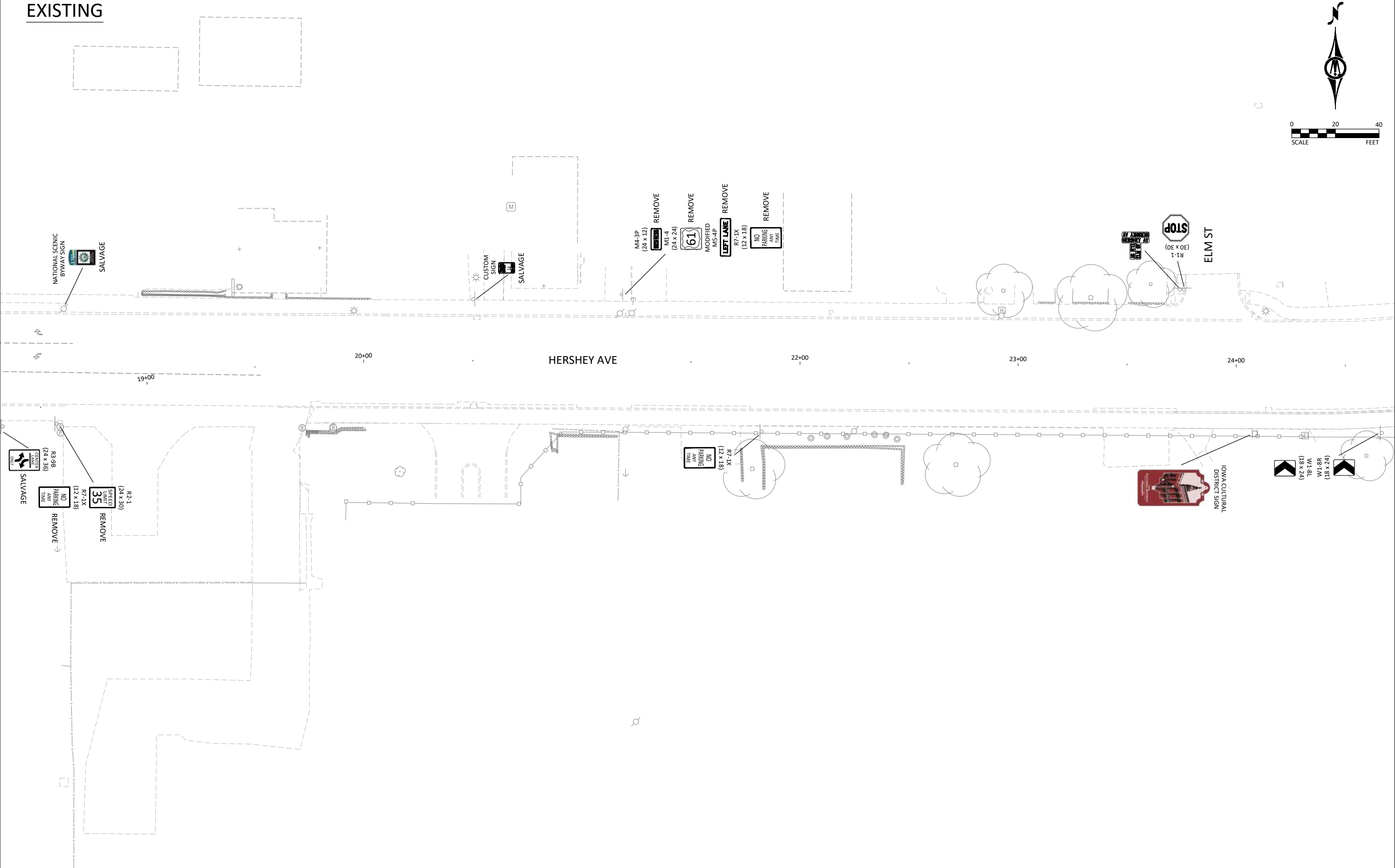


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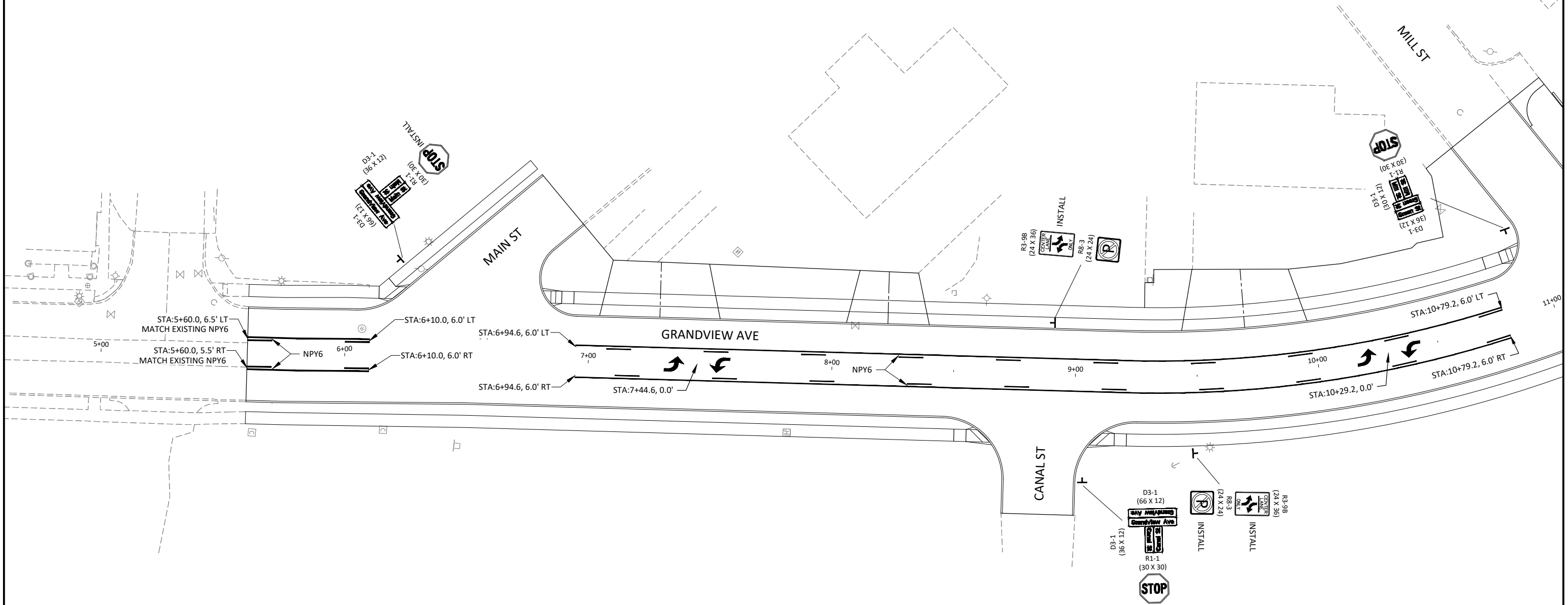
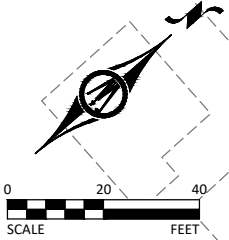
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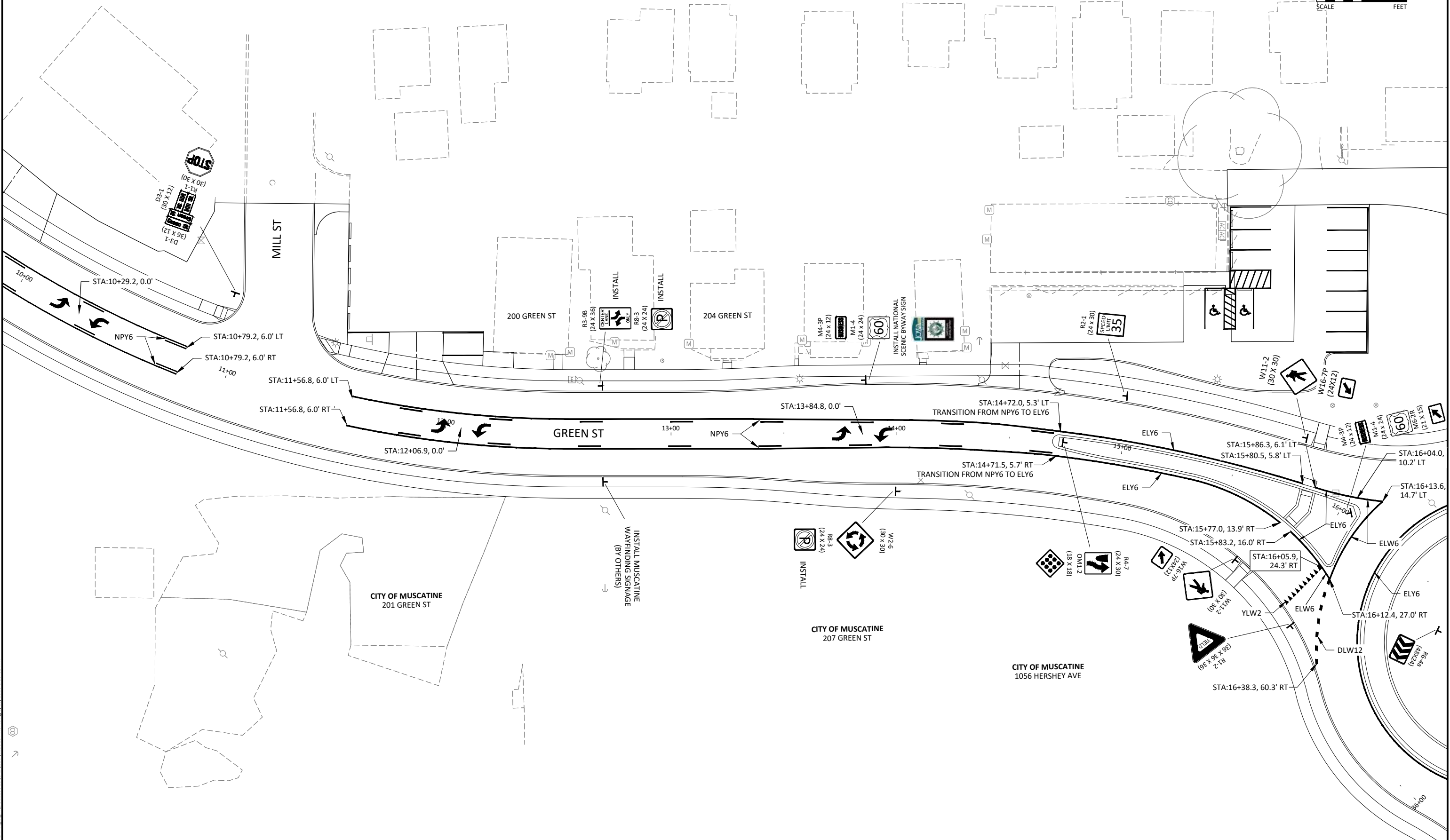
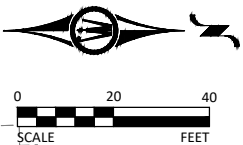


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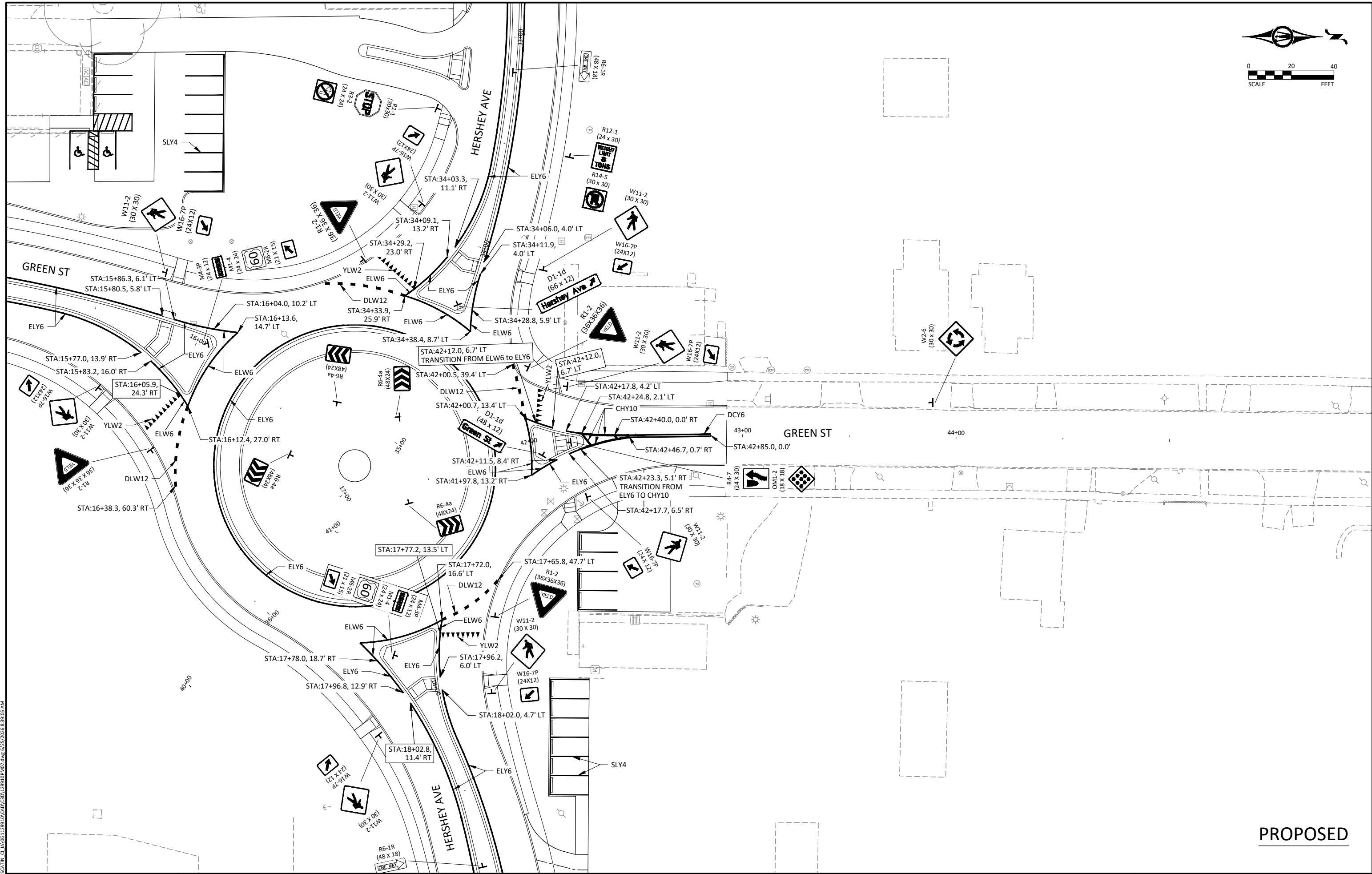


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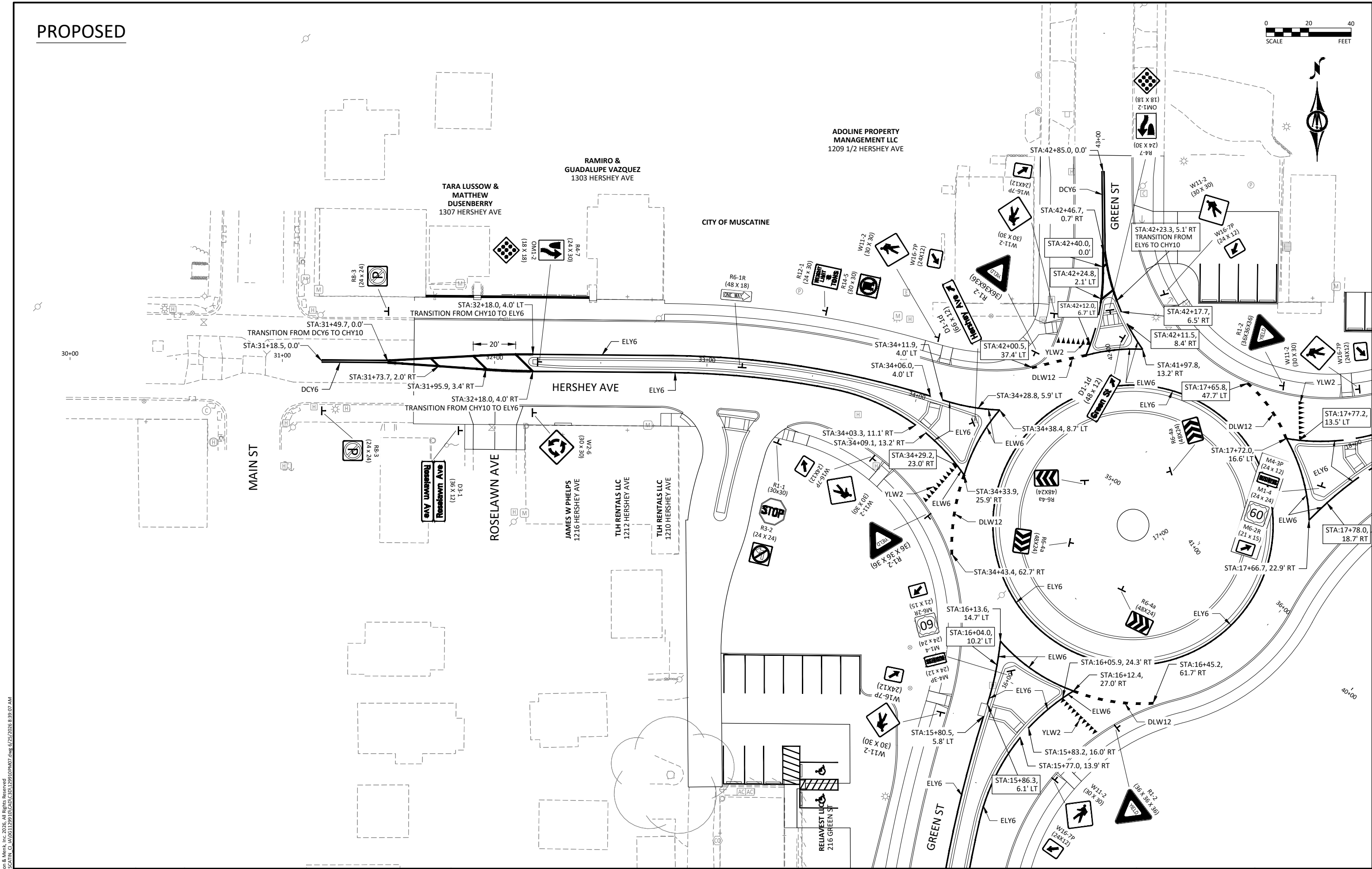
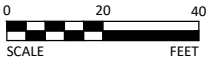
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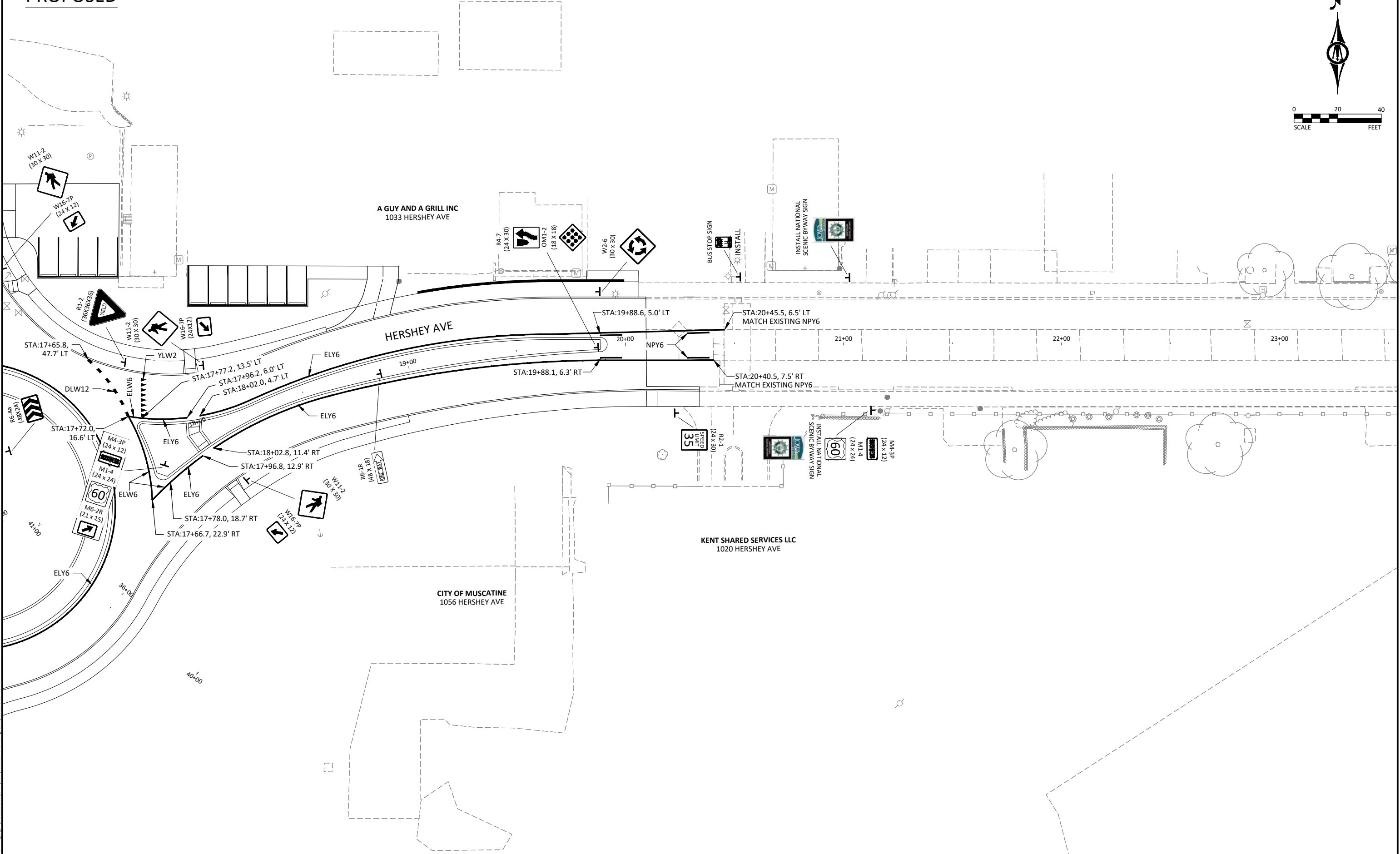
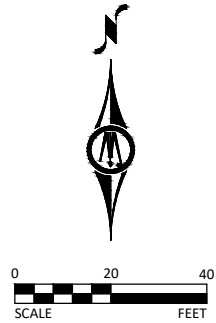
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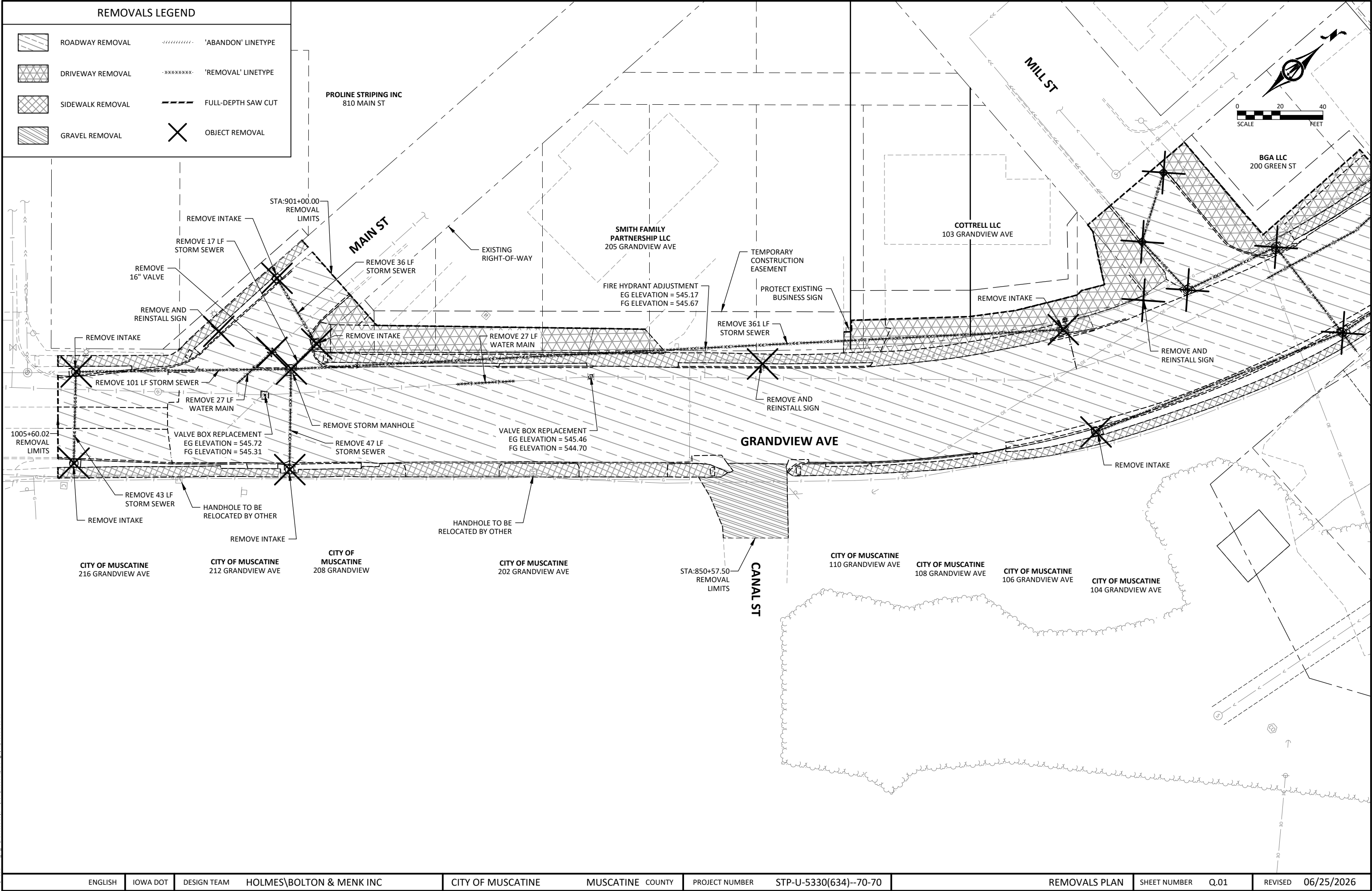


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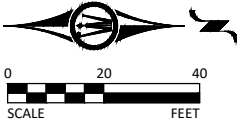
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REMOVALS LEGEND

	ROADWAY REMOVAL		'ABANDON' LINETYPE
	DRIVEWAY REMOVAL		'REMOVAL' LINETYPE
	SIDEWALK REMOVAL		FULL-DEPTH SAW CUT
	GRAVEL REMOVAL		OBJECT REMOVAL

ROSELAWN AVE



LORRAINE JACKSON
VIVIAN LE LANE
219 ROSELAWN AVE

LORRAINE JACKSON
217 ROSELAWN AVE

TERRI L BEAM
211 ROSELAWN AVE

JOSE A MURRILLO SR
209 ROSELAWN AVE

WALTON R &
CAROLINA PONCE
207 ROSELAWN AVE

RCN LLC
121 ROSELAWN AVE

PAIGE M COULTER
119 ROSELAWN AVE

RCN LLC
117 ROSELAWN AVE

MIRANDA KEAN
115 ROSELAWN AVE

COTTRELL LLC
103 GRANDVIEW AVE

MILL ST

STA:802+66.00
REMOVAL
LIMITS

REMOVE 34 LF
STORM SEWER

REMOVE INTAKE

REMOVE 31 LF
STORM SEWER

REMOVE STORM
MANHOLE

REMOVE AND
REINSTALL SIGN

REMOVE 46 LF
STORM SEWER

UTILITY POLE TO BE
RELOCATED BY OTHER

REMOVE 51 LF
STORM SEWER

REMOVE 124 LF
STORM SEWER

REMOVE INTAKE

REMOVE 94 LF
STORM SEWER

REMOVE 11 LF
STORM SEWER

CITY OF MUSCATINE
201 GREEN ST

REMOVE 6 LF
STORM SEWER

REMOVE INTAKE

ELECTRIC PEDESTAL TO
BE RELOCATED BY OTHER
UTILITY POLE TO BE
RELOCATED BY OTHER

REMOVE 10" VALVE

REMOVE 115 LF
WATER MAIN

BGA LLC
200 GREEN ST

CESAR A ROCHA
202 GREEN ST

CARMEN SANTANA
204 GREEN ST

REPLACE STEP(S)
SEE DETAIL 1/B.07

REPLACE CARRIAGE
WALK

CPS ENTERPRISES LLC
206 GREEN ST

REPLACE STEP(S)
SEE DETAIL 1/B.07

208 GREEN ST

RELIAVEST LLC
216 GREEN ST

GAS VALVE SHALL BE ADJUSTED
TO FINISHED GRADE BY OTHER

FIRE HYDRANT ADJUSTMENT
(REFER TO SHEET MWM.04
FOR MORE INFORMATION)

JESUS ZEPEDA
BECERRA
1208 HERSHEY AVE

GREEN ST

VALVE BOX REPLACEMENT
EG ELEVATION = 551.77
FG ELEVATION = 551.81

REMOVE 17 LF
WATER MAIN

PROTECT
TREE

LIGHT POLE TO BE
ADJUSTED BY OTHER

LIGHT POLE TO BE
RELOCATED BY OTHER

UTILITY POLE TO BE
RELOCATED BY OTHER

REMOVE SIGN

REMOVE SIGN

HANDHOLE TO BE
RELOCATED BY OTHER

UTILITY POLE TO BE
RELOCATED BY OTHER

UTILITY POLE TO BE
SUPPORTED-IN-PLACE
DURING CONSTRUCTION

TEMPORARY
CONSTRUCTION
EASEMENT

RIGHT-OF-WAY

CITY OF MUSCATINE
1056 HERSHEY AVE

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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

REMOVALS PLAN

SHEET NUMBER

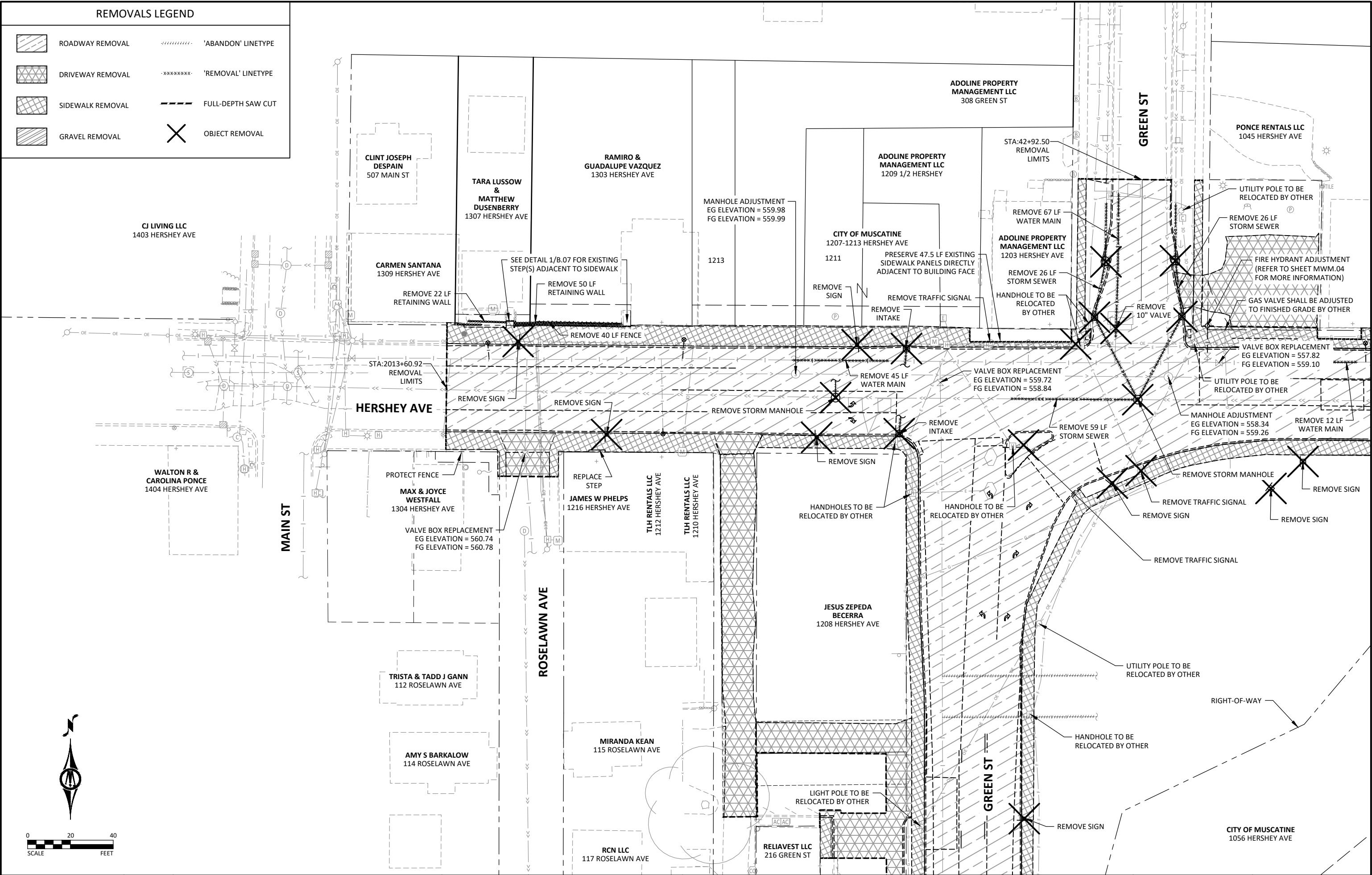
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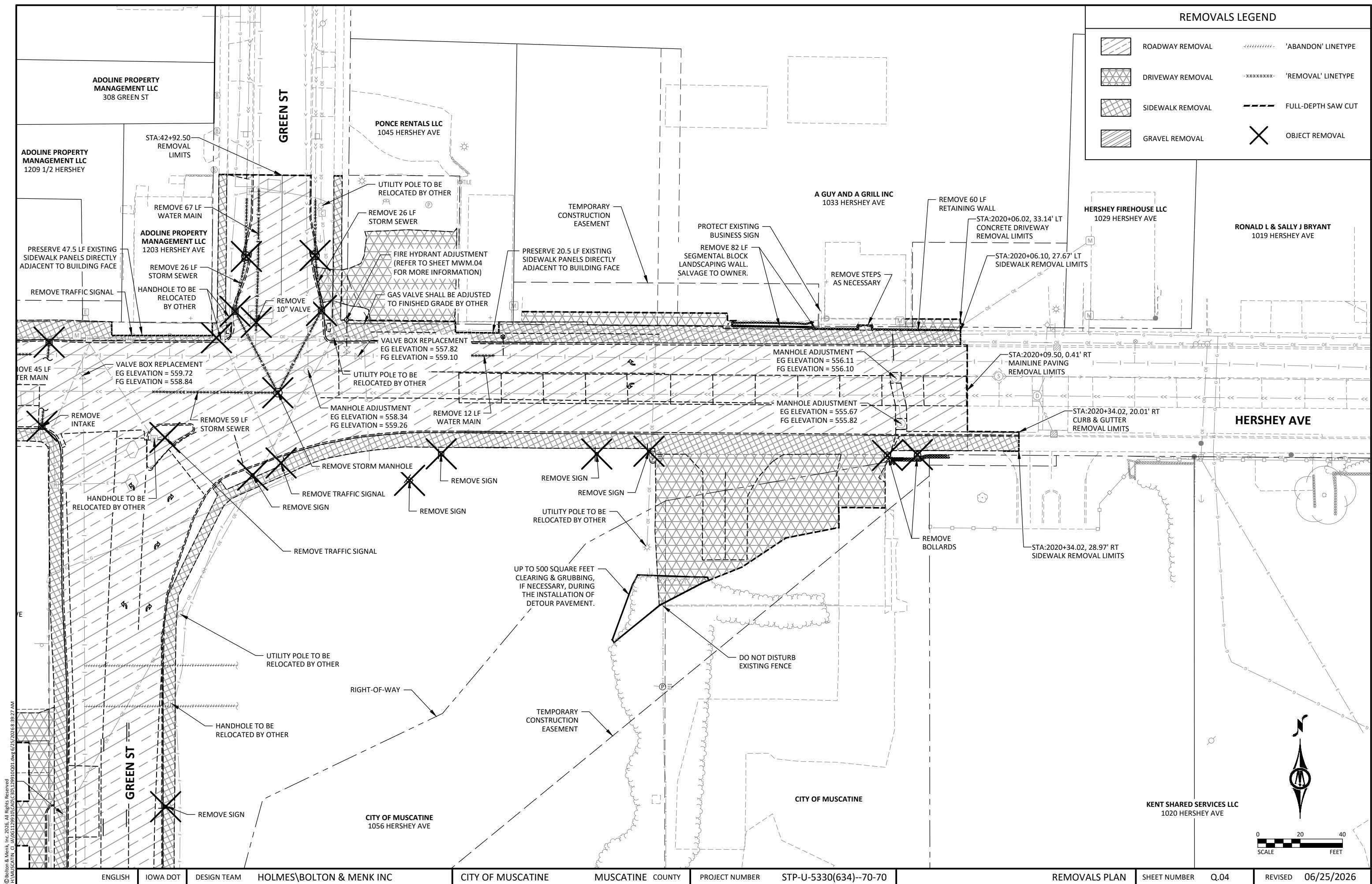
REVISED

06/25/2026

REMOVALS LEGEND		
	ROADWAY REMOVAL	- - - - - 'ABANDON' LINETYPE
	DRIVEWAY REMOVAL	- . X X X X X X X X - 'REMOVAL' LINETYPE
	SIDEWALK REMOVAL	- - - - - FULL-DEPTH SAW CUT
	GRAVEL REMOVAL	X OBJECT REMOVAL

REMOVALS LEGEND		
	ROADWAY REMOVAL	- - - - - 'ABANDON' LINETYPE
	DRIVEWAY REMOVAL	- . X X X X X X X X - 'REMOVAL' LINETYPE
	SIDEWALK REMOVAL	- - - - - FULL-DEPTH SAW CUT
	GRAVEL REMOVAL	X OBJECT REMOVAL





110_12 1/13/23 POLLUTION PREVENTION PLAN This project is regulated by the requirements of the Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) General Permit No. 2 OR an Iowa Department of Natural Resources (DNR) National Pollutant Discharge Elimination System (NPDES) individual storm water permit. The Contractor shall carry out the terms and conditions of this permit and the Pollution Prevention Plan (PPP). This Base PPP includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed during construction, will be readily available for review. All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The Contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP. I. ROLES AND RESPONSIBILITES A. Designer: - Prepares Base PPP included in the project plan. - Prepares Notice of Intent (NOI) submitted to Iowa DNR. - Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required. B. Contractor: - Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP. - Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications. - Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications. - Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231). - Supervises and implements good housekeeping practices according to Paragraph III, C, 2. - Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports. - Complies with training and certification requirements of Section 2602 of the Standard Specifications. - Submits amended PPP site map according to Section 2602 of the Standard Specifications. C. Subcontractors: - Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or performing work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP. - Implement good housekeeping practices according to Paragraph III, C, 2. D. RCE/Project Engineer: - Is Project Storm Water Manager. - On projects where DOT is the Contracting Authority, is current with erosion control training or certification. - Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance. - Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit. - Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors. - Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements. - Is familiar with the Project PPP and storm water site map. - On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies. - Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements. - Is signature authority on Notice of Discontinuation. - Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231). - Makes information to determine permit compliance available to the DNR upon their request.				110_12 1/13/23 POLLUTION PREVENTION PLAN E. Inspector: - Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project. - Makes information to determine permit compliance available to the DNR upon their request. - Conducts joint required inspections of the site with the contractor/subcontractor. - Completes an inspection report after each inspection. - Is signature authority on storm water inspection reports. II. PROJECT SITE DESCRIPTION A. This Pollution Prevention Plan (PPP) is for the construction of a roundabout at the intersection of Hershey Avenue and Green Street. B. This PPP covers approximately 8.1 acres with an estimated 4.2 acres being disturbed. The portion of the PPP covered by this contract has 4.2 acres disturbed. C. The PPP is located in an area of Shaffton-Urban Land Complex soil association in Hydrologic Soil Groups B and D. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.63. D. Storm Water Site Map is located in the 'RR' sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the 'C' or 'RC' sheets. E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map. F. Runoff from this work will flow into Muscatine Slough. III. CONTROLS A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented. B. Preserve vegetation in areas not needed for construction. C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications. 1. EROSION AND SEDIMENT CONTROLS a. Stabilization Practices - Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized. - Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have: - Permanently ceased on any portion of the site, or - Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. - Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above. - Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets. - Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips. - Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications. b. Structural Practices - Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas. - Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets.				
FILE NO.	ENGLISH	DESIGN TEAM	Bolton & Menk CR	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634) - -70-70	SHEET NUMBER	RC.01

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POLLUTION PREVENTION PLAN

Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.

- During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:

1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
- C. Fieldbook Entries - This contains the inspector's daily diary and bid item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
- E. Signature Authority - Representative authorized to sign various storm water documents.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jeremy Hopkins

Printed or Typed Name

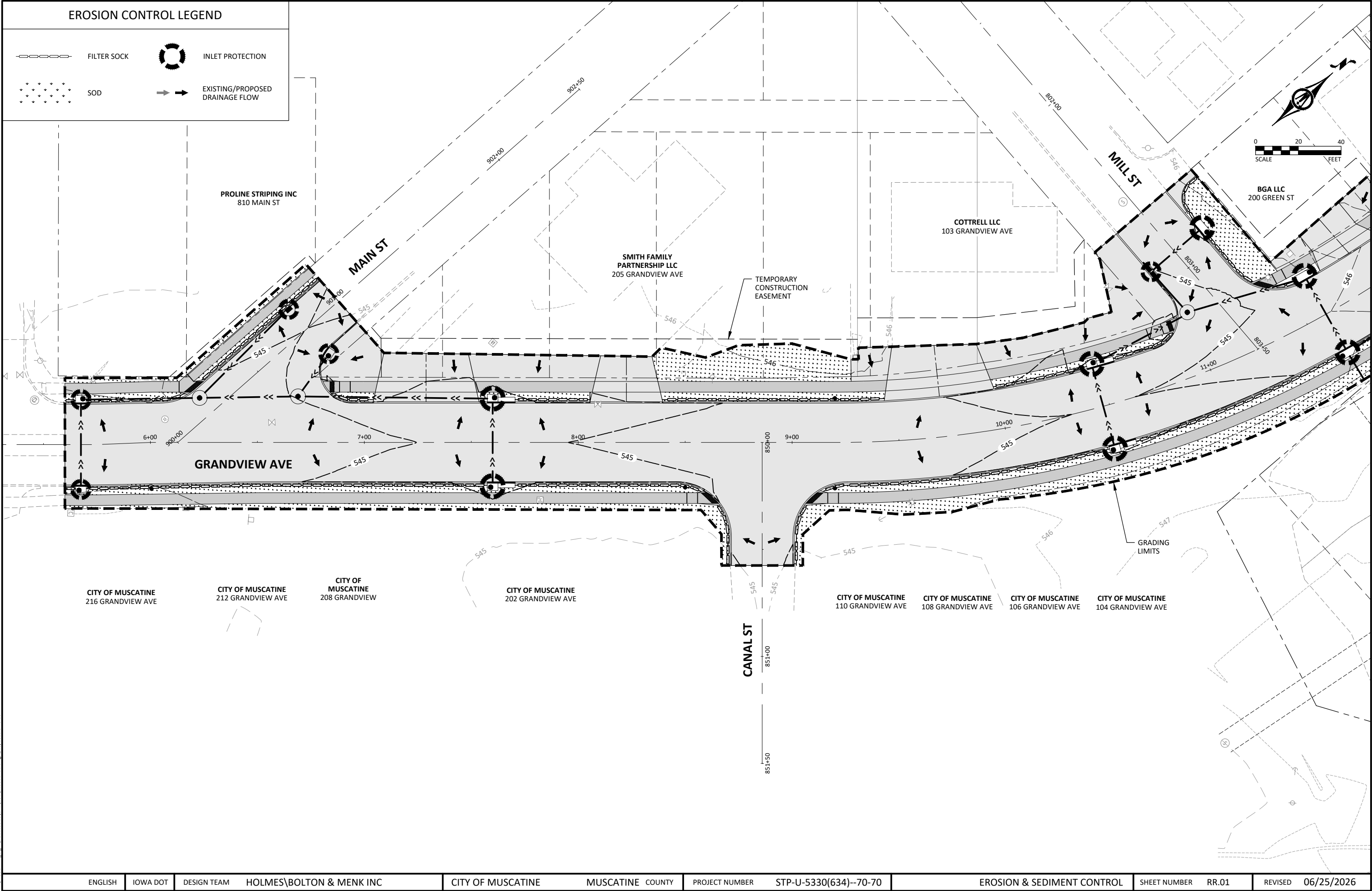
PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE							
Possible Standards: EC-204							
Line No.	Station From	Station To	Side	Sediment Control Device Type	Diameter Size	Length (LF)	Remarks
1.0	5+60.00	6+15.90	Left	Perimeter and Slope	12 inch	51.40	
2.0	5+60.00	7+57.50	Right	Perimeter and Slope	12 inch	192.50	
3.0	900+27.70	901+00.00	Left	Perimeter and Slope	12 inch	72.30	
4.0	6+86.20	7+04.40	Left	Perimeter and Slope	12 inch	18.80	
5.0	7+70.50	8+05.70	Left	Perimeter and Slope	12 inch	35.20	
6.0	7+70.50	8+57.40	Right	Perimeter and Slope	12 inch	87.50	
7.0	850+29.40	859+57.50	Right	Perimeter and Slope	12 inch	29.25	
8.0	850+29.40	850+57.50	Left	Perimeter and Slope	12 inch	29.25	
9.0	8+39.30	9+44.10	Left	Perimeter and Slope	12 inch	103.94	
10.0	9+14.50	10+44.60	Right	Perimeter and Slope	12 inch	135.93	
11.0	9+97.70	10+44.40	Left	Perimeter and Slope	12 inch	44.73	
12.0	10+57.10	11+55.60	Right	Perimeter and Slope	12 inch	102.90	
13.0	10+58.00	10+88.10	Left	Perimeter and Slope	12 inch	29.50	
14.0	802+70.50	802+85.50	Left	Perimeter and Slope	12 inch	24.50	
15.0	802+94.50	803+24.50	Left	Perimeter and Slope	12 inch	30.40	
16.0	11+44.50	11+55.30	Left	Perimeter and Slope	12 inch	10.80	
17.0	11+64.40	12+43.70	Right	Perimeter and Slope	12 inch	82.80	
18.0	12+00.80	12+43.30	Left	Perimeter and Slope	12 inch	40.70	
19.0	12+52.30	13+85.50	Right	Perimeter and Slope	12 inch	133.44	
20.0	12+52.70	14+34.90	Left	Perimeter and Slope	12 inch	183.59	
21.0	13+94.50	15+63.90	Right	Perimeter and Slope	12 inch	164.10	
22.0	14+69.30	15+78.50	Left	Perimeter and Slope	12 inch	114.60	
23.0	15+70.30	15+88.50	Right	Perimeter and Slope	12 inch	14.90	
24.0	15+84.30	15+94.00	Left	Perimeter and Slope	12 inch	11.80	
25.0	16+00.20	17+86.90	Right	Perimeter and Slope	12 inch	156.90	
26.0	17+95.90	18+01.90	Right	Perimeter and Slope	12 inch	6.00	
27.0	18+08.20	18+67.50	Left	Perimeter and Slope	12 inch	62.00	
28.0	18+08.70	18+95.40	Right	Perimeter and Slope	12 inch	83.80	
29.0	32+79.80	34+04.40	Left	Perimeter and Slope	12 inch	130.80	
30.0	33+43.50	33+92.20	Right	Perimeter and Slope	12 inch	47.70	
31.0	33+98.80	34+69.40	Right	Perimeter and Slope	12 inch	83.90	
32.0	34+10.50	42+12.20	Left	Perimeter and Slope	12 inch	56.30	NORTHWEST QUADRANT
33.0	41+30.50	42+10.20	Right	Perimeter and Slope	12 inch	89.80	NORTHEAST QUADRANT
34.0	42+17.90	42+25.70	Right	Perimeter and Slope	12 inch	7.50	
35.0	42+18.30	42+31.10	Left	Perimeter and Slope	12 inch	14.80	
36.0	42+39.40	42+72.50	Left	Perimeter and Slope	12 inch	34.20	
37.0	42+81.50	42+92.50	Left	Perimeter and Slope	12 inch	11.00	
38.0	42+81.50	42+92.50	Right	Perimeter and Slope	12 inch	11.00	

100_19
10/15/24

100_36
8/15/22

OPEN-THROAT CURB INTAKE SEDIMENT FILTER						
Possible Standard: EC-602						
Line No.	Station	Side	Installation (LF)	Maintenance (Each)	Removal (Each)	Remarks
1.0	900+80.00	Right	5.0	3	1.0	
2.0	5+67.50	Left	5.0	3	1.0	
3.0	5+67.50	Right	5.0	3	1.0	
4.0	7+60.00	Left	14.0	3	1.0	
5.0	7+60.00	Right	14.0	3	1.0	
6.0	802+90.00	Left	9.0	3	1.0	
7.0	10+47.00	Left	14.0	3	1.0	
8.0	10+47.00	Right	14.0	3	1.0	
9.0	11+60.00	Left	9.0	3	1.0	
10.0	11+60.00	Right	9.0	3	1.0	
11.0	12+48.00	Right	9.0	3	1.0	
12.0	12+48.00	Left	9.0	3	1.0	
13.0	13+90.00	Right	9.0	3	1.0	
14.0	15+95.00	Right	9.0	3	1.0	
15.0	15+98.00	Left	9.0	3	1.0	
16.0	17+91.00	Right	9.0	3	1.0	
17.0	34+20.00	Right	9.0	3	1.0	
18.0	42+30.00	Right	9.0	3	1.0	
19.0	42+35.00	Left	9.0	3	1.0	
20.0	42+77.00	Left	9.0	3	1.0	
21.0	42+77.00	Right	9.0	3	1.0	

100_37 4/16/24 GRATE INTAKE SEDIMENT FILTER BAG Possible Standard Road Plan : EC-604						
Line No.	Location Station	Side	Installation (Each)	Maintenance (Each)	Removal (Each)	Remarks
1.0	900+80.00	Left	1.0	3	1.0	
2.0	802+90.00	Right	1.0	3	1.0	
3.0	13+90.00	Left	1.0	3	1.0	
4.0	17+87.00	Left	1.0	3	1.0	
5.0	17+95.00	Left	1.0	3	1.0	
6.0	19+45.67	Left	1.0	3	1.0	
7.0	19+82.18	Left	1.0	3	1.0	
8.0	33+41.00	Left	1.0	3	1.0	
9.0	33+69.00	Left	1.0	3	1.0	
10.0	34+21.00	Left	1.0	3	1.0	



EROSION CONTROL LEGEND

-  FILTER SOCK
-  INLET PROTECTION
-  SOD
-  EXISTING/PROPOSED DRAINAGE FLOW



LORRAINE JACKSON
217 ROSELAWN AVE

TERRI L BEAM
211 ROSELAWN AVE

JOSE A MURRILLO SR
209 ROSELAWN AVE

WALTON R &
CAROLINA PONCE
207 ROSELAWN AVE

RCN LLC
121 ROSELAWN AVE

PAIGE M COULTER
119 ROSELAWN AVE

RCN LLC
117 ROSELAWN AVE

MIRANDA KEAN
115 ROSELAWN AVE

TLH RENTALS LLC
1212 HERSEY AVE

TLH RENTALS LLC
1210 HERSEY AVE

BGA LLC
200 GREEN ST

CESAR A ROCHA
202 GREEN ST

CARMEN SANTANA
204 GREEN ST

CPS ENTERPRISES LLC
206 GREEN ST

208 GREEN ST

RELIAVEST LLC
216 GREEN ST

JESUS ZEPEDA BECERRA
1208 HERSEY AVE

CITY OF MUSCATINE
201 GREEN ST

CITY OF MUSCATINE
207 GREEN ST

CITY OF MUSCATINE
1056 HERSEY AVE

GRANDVIEW AVE

GREEN ST

GRADING LIMITS

RIGHT-OF-WAY

TEMPORARY
CONSTRUCTION
EASEMENT

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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

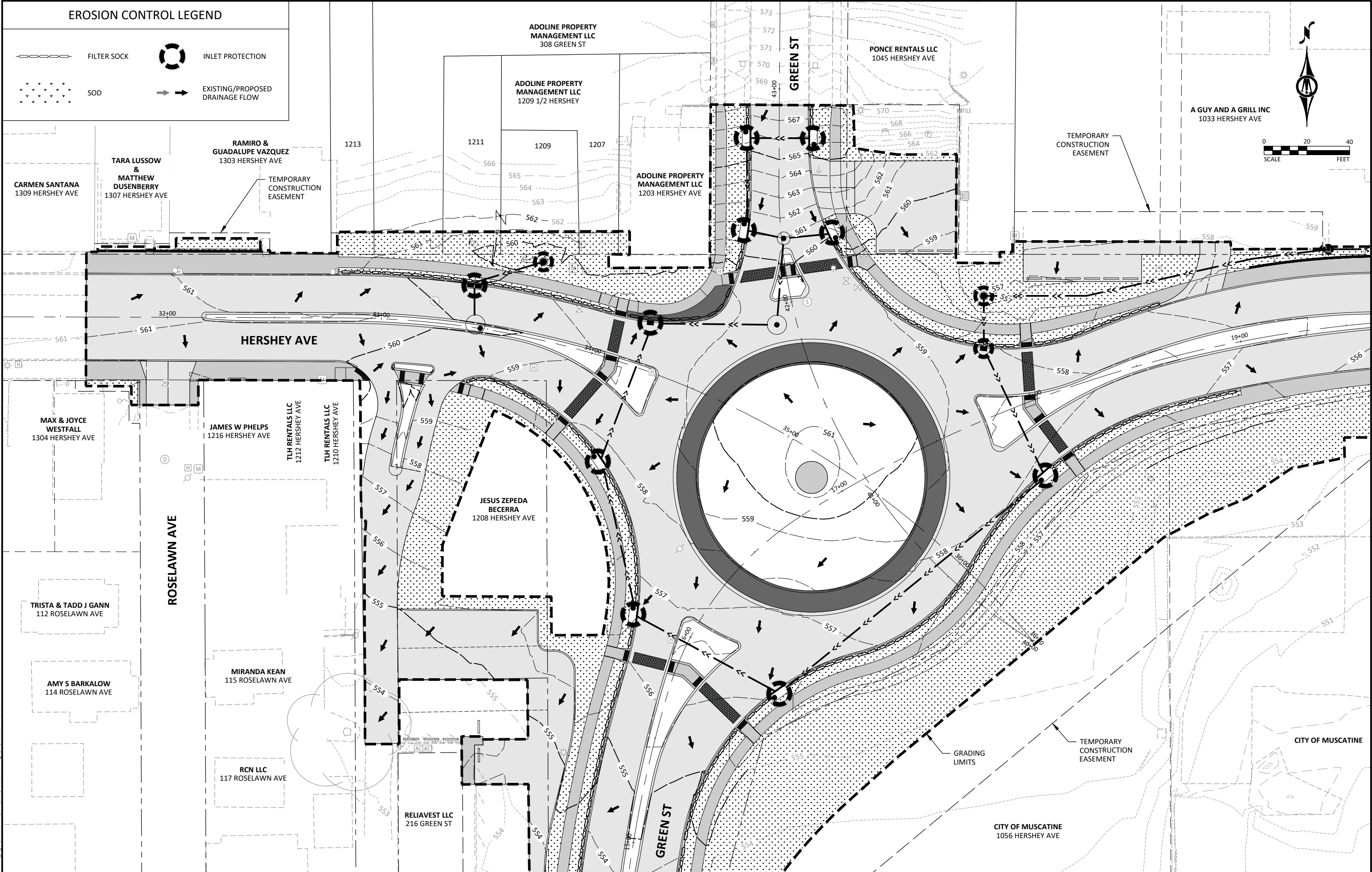
EROSION & SEDIMENT CONTROL

SHEET NUMBER

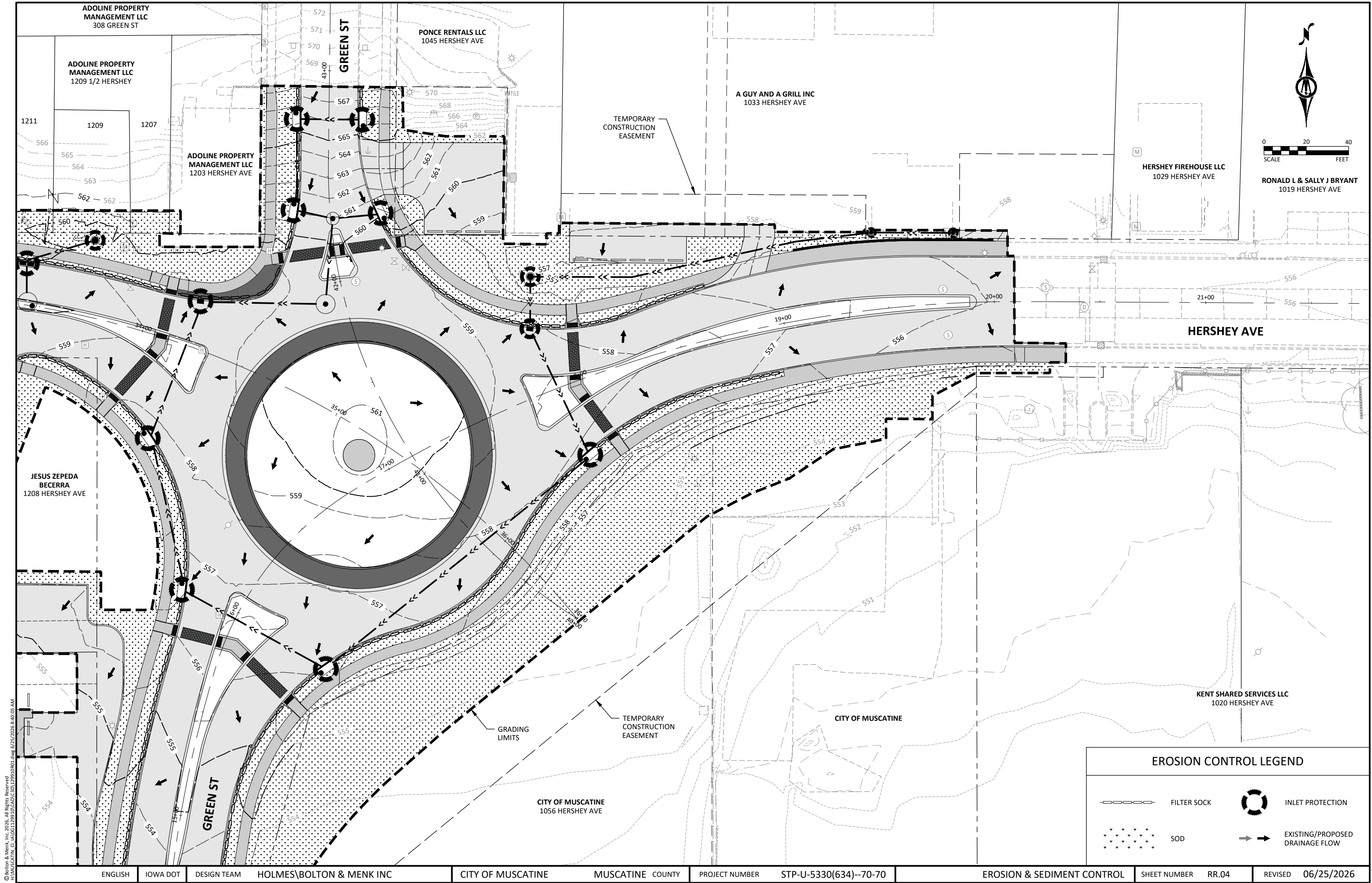
RR.02

REVISED

06/25/2026



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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

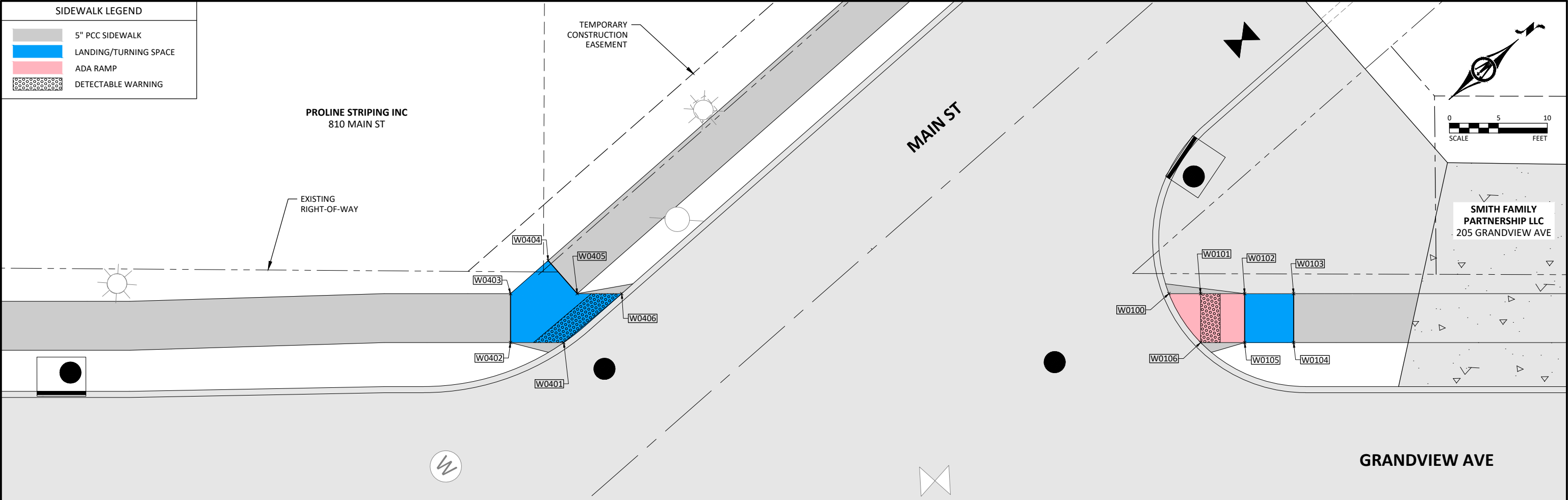
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SHEET NUMBER

RR.04

REVISED

06/25/2026

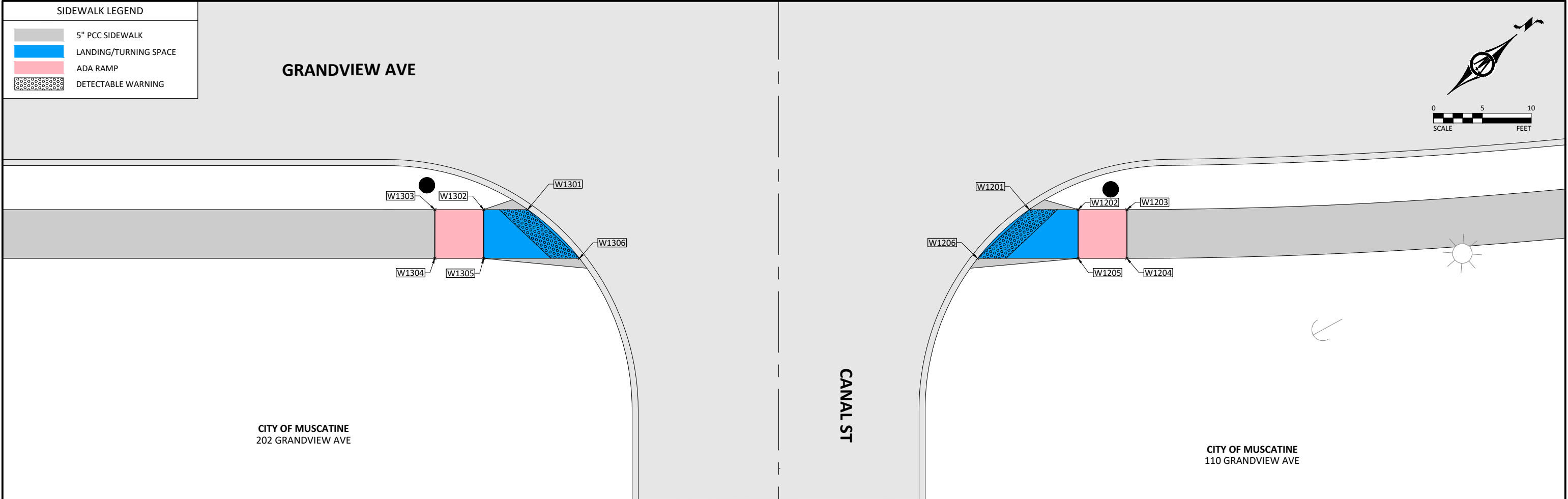


SIDEWALK COMPLIANCE

See S Sheets

*Does not include curb
① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications
② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	5" PCC Sidewalk ②	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes			
				(FT)	(FT)	(%)	Pos. or Neg.		(%)			Point	Station	Offset	Elevation
W0401	W0402	Landing/Turning Space	6	5.43	-0.04	-0.74%	0.1% to 2%					W0100	6+80.67	-28.50	544.83
W0402	W0403	Landing/Turning Space	6	5.00	-0.04	-0.73%	0.1% to 2%					W0101	6+83.91	-28.50	544.87
W0403	W0405	Landing/Turning Space	6	6.81	0.13	1.90%	0.1% to 2%	Yes				W0102	6+88.41	-28.50	545.24
W0403	W0404	Landing/Turning Space	6	5.12	0.05	1.04%	0.1% to 2%					W0103	6+93.41	-28.50	545.32
W0404	W0405	Landing/Turning Space	6	4.50	0.08	1.70%	0.1% to 2%	Yes				W0104	6+93.41	-23.50	545.29
W0401	W0405	Landing/Turning Space	6	5.19	0.05	1.02%	0.1% to 2%					W0105	6+88.41	-23.50	545.22
W0405	W0406	Landing/Turning Space	6	4.54	0.09	1.90%	0.1% to 2%	Yes				W0106	6+83.91	-23.50	544.86
W0401	W0406	Landing/Turning Space	6	7.75	0.14	1.80%	0.1% to 2%	Yes				W0401	6+18.84	-23.50	545.33
												W0402	6+13.41	-23.50	545.37
W0101	W0102	Ramp Running Slope	6	4.50	-0.37	-8.22%	0.5% to 8.3%	Yes				W0403	6+13.41	-28.50	545.41
W0102	W0103	Landing/Turning Space	6	5.00	-0.08	-1.50%	0.1% to 2%	Yes				W0404	6+17.25	-31.88	545.36
W0103	W0104	Landing/Turning Space	6	5.00	0.02	0.50%	0.1% to 2%					W0405	6+20.22	-28.50	545.28
W0104	W0105	Landing/Turning Space	6	5.00	0.08	1.50%	0.1% to 2%	Yes				W0406	6+24.77	-28.50	545.19
W0105	W0106	Ramp Running Slope	6	4.50	0.36	8.00%	0.5% to 8.3%	Yes							
W0102	W0105	Landing/Turning Space	6	5.00	0.02	0.50%	0.1% to 2%								
W0101	W0106	Ramp Cross Slope	6	5.00	0.01	0.30%	0.1% to 2%								
W0100	W0101	Ramp Running Slope	6	3.24	-0.05	-1.50%	0.5% to 8.3%								
W0100	W0106	Ramp Cross Slope	6	5.96	-0.03	-0.57%	0.1% to 2%								



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5

10

SCALE

FEET

113-10A

04-21-20

SIDEWALK COMPLIANCE

See S Sheets

*Does not include curb

① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications

② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	5" PCC Sidewalk ②	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes			
				(FT)	(FT)	(%)	Pos. or Neg.	(%)	Point			Station	Offset	Elevation	
W1301	W1302	Landing/Turning Space	6	4.50	-0.07	-1.50%	0.1% to 2%					W1201	9+11.66	23.50	545.31
W1302	W1303	Ramp Running Slope	6	4.99	-0.23	-4.67%	0.5% to 8.3%					W1202	9+16.66	23.50	545.34
W1303	W1304	Ramp Cross Slope	6	5.00	-0.08	-1.50%	0.1% to 2%	Yes				W1203	9+21.64	23.50	545.62
W1304	W1305	Ramp Running Slope	6	5.00	0.23	4.66%	0.5% to 8.3%					W1204	9+21.63	28.50	545.70
W1302	W1305	Landing/Turning Space	6	5.00	-0.08	-1.50%	0.1% to 2%	Yes				W1205	9+16.66	28.50	545.40
W1305	W1306	Landing/Turning Space	6	9.81	0.10	1.02%	0.1% to 2%					W1206	9+06.37	28.50	545.24
W1301	W1306	Landing/Turning Space	6	7.29	-0.04	-0.58%	0.1% to 2%					W1301	8+60.31	23.50	545.00
												W1302	8+55.81	23.50	545.07
W1201	W1202	Landing/Turning Space	6	5.00	-0.03	-0.50%	0.1% to 2%					W1303	8+50.82	23.50	545.30
W1202	W1203	Ramp Running Slope	6	4.98	-0.29	-5.78%	0.5% to 8.3%					W1304	8+50.81	28.50	545.37
W1203	W1204	Ramp Cross Slope	6	5.00	-0.07	-1.50%	0.1% to 2%	Yes				W1305	8+55.81	28.50	545.14
W1204	W1205	Ramp Running Slope	6	4.97	0.30	6.05%	0.5% to 8.3%					W1306	8+65.62	28.50	545.04
W1205	W1206	Landing/Turning Space	6	10.29	0.15	1.50%	0.1% to 2%	Yes							
W1202	W1205	Landing/Turning Space	6	5.00	-0.06	-1.24%	0.1% to 2%								
W1206	W1201	Landing/Turning Space	6	7.28	-0.07	-0.93%	0.1% to 2%								

ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

SIDEWALK COMPLIANCE

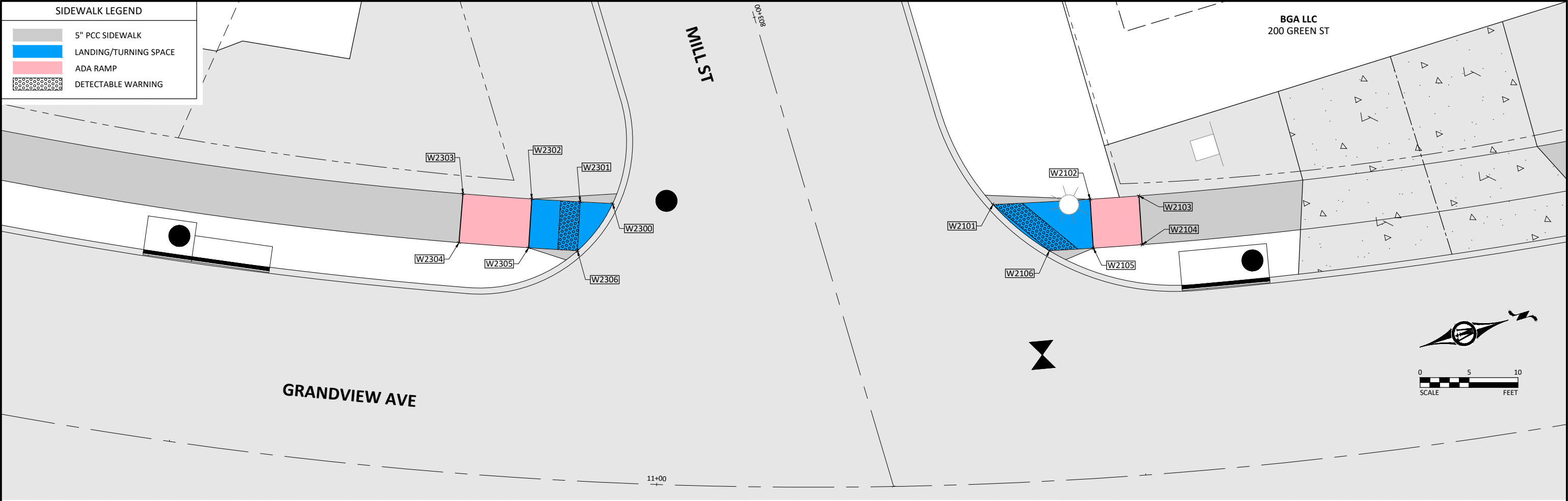
SHEET NUMBER

S.02

REVISED

06/25/2026

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113-10A
04-21-20

SIDEWALK COMPLIANCE

See S Sheets

*Does not include curb

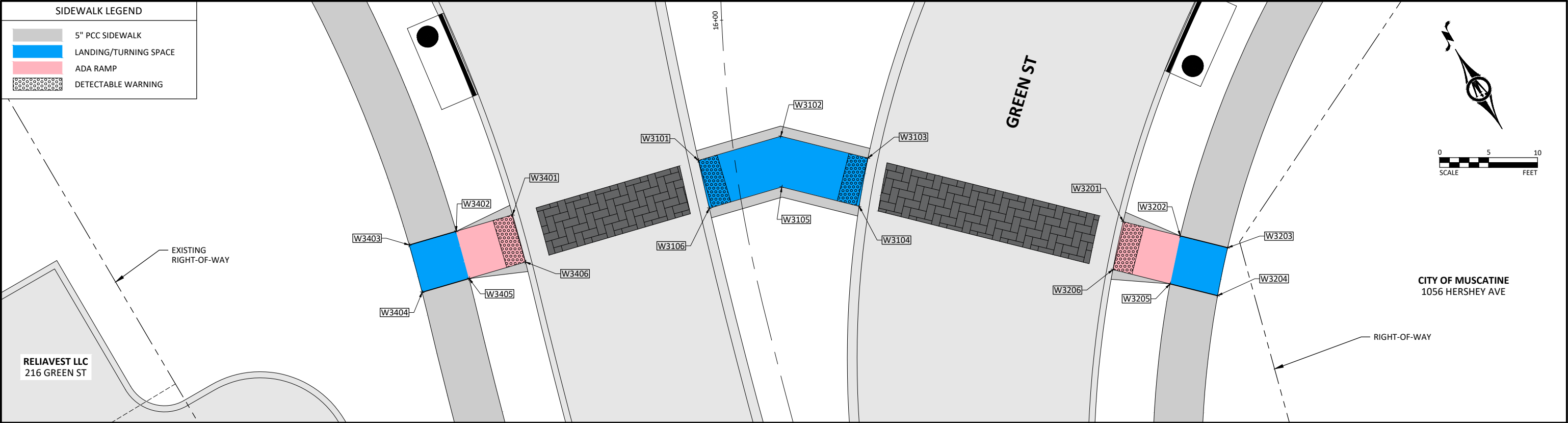
① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications

② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	5" PCC Sidewalk ②	Distance* (FT)	Δ Elevation (FT)	Slope (%)	Acceptable Constructed Range Pos. or Neg.	Staking Required on this Quadrant? ①	Measured Slope (%)	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes			
												Point	Station	Offset	Elevation
W2301	W2302	Landing/Turning Space	6	5.27	-0.07	-1.39%	0.1% to 2%					W2101	11+35.57	-28.50	545.20
W2302	W2303	Ramp Running Slope	6	7.52	-0.19	-2.56%	0.5% to 8.3%					W2102	11+46.15	-28.50	545.38
W2303	W2304	Ramp Cross Slope	6	5.00	0.07	1.50%	0.1% to 2%					W2103	11+51.48	-28.50	545.76
W2304	W2305	Ramp Running Slope	6	7.52	0.19	2.56%	0.5% to 8.3%					W2104	11+51.42	-23.50	545.68
W2302	W2305	Landing/Turning Space	6	5.00	0.07	1.50%	0.1% to 2%					W2105	11+46.15	-23.50	545.31
W2305	W2306	Landing/Turning Space	6	5.27	0.09	1.71%	0.1% to 2%	Yes				W2106	11+41.42	-23.50	545.24
W2301	W2306	Landing/Turning Space	6	5.00	0.09	1.83%	0.1% to 2%	Yes				W2300	10+94.16	-28.50	544.76
W2300	W2301	Landing/Turning Space	6	3.54	-0.05	-1.39%	0.1% to 2%					W2301	10+90.62	-28.50	544.81
W2300	W2306	Landing/Turning Space	6	6.13	0.04	0.69%	0.1% to 2%					W2302	10+85.35	-28.50	544.89
												W2303	10+77.83	-28.50	545.08
W2101	W2102	Landing/Turning Space	6	10.58	-0.18	-1.75%	0.1% to 2%	Yes				W2304	10+77.83	-23.50	545.00
W2102	W2103	Ramp Running Slope	6	5.33	-0.38	-7.04%	0.5% to 8.3%					W2305	10+85.35	-23.50	544.81
W2103	W2104	Ramp Cross Slope	6	5.00	0.08	1.50%	0.1% to 2%					W2306	10+90.62	-23.50	544.72
W2104	W2105	Ramp Running Slope	6	5.27	0.38	7.12%	0.5% to 8.3%								
W2102	W2105	Landing/Turning Space	6	5.00	0.07	1.50%	0.1% to 2%								
W2105	W2106	Landing/Turning Space	6	4.74	0.07	1.42%	0.1% to 2%								
W2101	W2106	Landing/Turning Space	6	7.69	-0.04	-0.55%	0.1% to 2%								

ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	SIDEWALK COMPLIANCE	SHEET NUMBER	S.03	REVISED	06/25/2026
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SIDEWALK COMPLIANCE

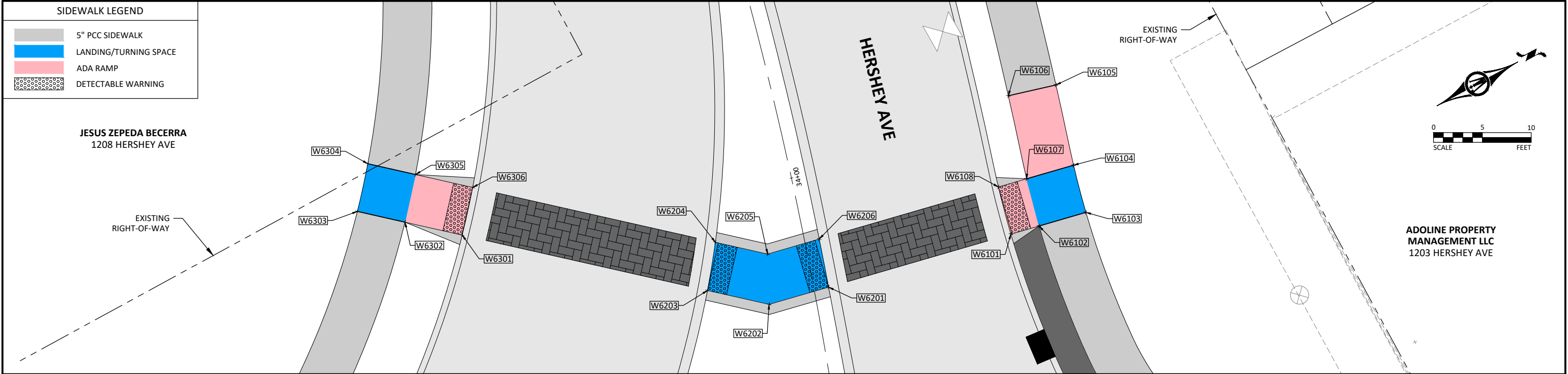
See S Sheets

*Does not include curb

- ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications
- ② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	5" PCC Sidewalk	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant?	Measured Slope	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes					
												②	(FT)	(FT)	(%)	Pos. or Neg.	①
			W3401	W3402	Ramp Running Slope	6	5.99	-0.28	-4.64%	0.5% to 8.3%					W3101	15+86.14	-3.69
W3402	W3403	Landing/Turning Space	6	4.99	-0.08	-1.50%	0.1% to 2%	Yes				W3102	15+87.46	4.99	556.40		
W3403	W3404	Landing/Turning Space	6	4.09	0.07	1.83%	0.1% to 2%	Yes				W3103	15+83.77	13.49	556.28		
W3404	W3405	Landing/Turning Space	6	5.00	0.08	1.50%	0.1% to 2%	Yes				W3104	15+78.64	11.77	556.21		
W3402	W3405	Landing/Turning Space	6	4.20	0.08	1.79%	0.1% to 2%	Yes				W3105	15+82.15	4.33	556.31		
W3405	W3406	Ramp Running Slope	6	6.00	0.33	5.51%	0.5% to 8.3%					W3106	15+81.25	-3.34	556.39		
W3401	W3406	alk Cross Slope - No Yield Consee b sheets		4.34	0.13	2.94%	0% to 5%					W3201	15+70.00	37.78	555.98		
												W3202	15+66.97	43.08	556.28		
W3101	W3102	Landing/Turning Space	6	8.78	0.08	0.93%	0.1% to 2%					W3203	15+64.40	47.48	556.36		
W3102	W3103	Landing/Turning Space	6	9.27	0.12	1.26%	0.1% to 2%					W3204	15+59.54	45.24	556.31		
W3103	W3104	Landing/Turning Space	6	5.42	0.07	1.32%	0.1% to 2%					W3205	15+62.14	40.85	556.23		
W3104	W3105	Landing/Turning Space	6	8.22	-0.10	-1.16%	0.1% to 2%					W3206	15+65.21	35.57	555.88		
W3105	W3106	Landing/Turning Space	6	7.72	-0.09	-1.10%	0.1% to 2%					W3401	15+83.65	-23.27	556.36		
W3101	W3106	Landing/Turning Space	6	4.90	0.09	1.83%	0.1% to 2%	Yes				W3402	15+83.00	-29.22	556.64		
W3102	W3105	Landing/Turning Space	6	5.34	0.09	1.75%	0.1% to 2%	Yes				W3403	15+82.49	-34.19	556.71		
												W3404	15+78.43	-33.74	556.64		
W3201	W3202	Ramp Running Slope	6	6.10	-0.30	-4.92%	0.5% to 8.3%					W3405	15+78.83	-28.76	556.56		
W3202	W3203	Landing/Turning Space	6	5.10	-0.08	-1.47%	0.1% to 2%					W3406	15+79.33	-22.78	556.23		
W3203	W3204	Landing/Turning Space	6	5.35	0.05	0.94%	0.1% to 2%										
W3204	W3205	Landing/Turning Space	6	5.10	0.08	1.47%	0.1% to 2%										
W3202	W3205	Landing/Turning Space	6	5.32	0.05	0.94%	0.1% to 2%										
W3205	W3206	Ramp Running Slope	6	6.11	0.35	5.77%	0.5% to 8.3%										
W3201	W3206	Ramp Cross Slope	6	5.27	0.10	1.94%	0.1% to 2%	Yes									
ENGLISH		IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC		CITY OF MUSCATINE		MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70		SIDEWALK COMPLIANCE		SHEET NUMBER	S.04	REVISED	06/25/2026

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SIDEWALK COMPLIANCE

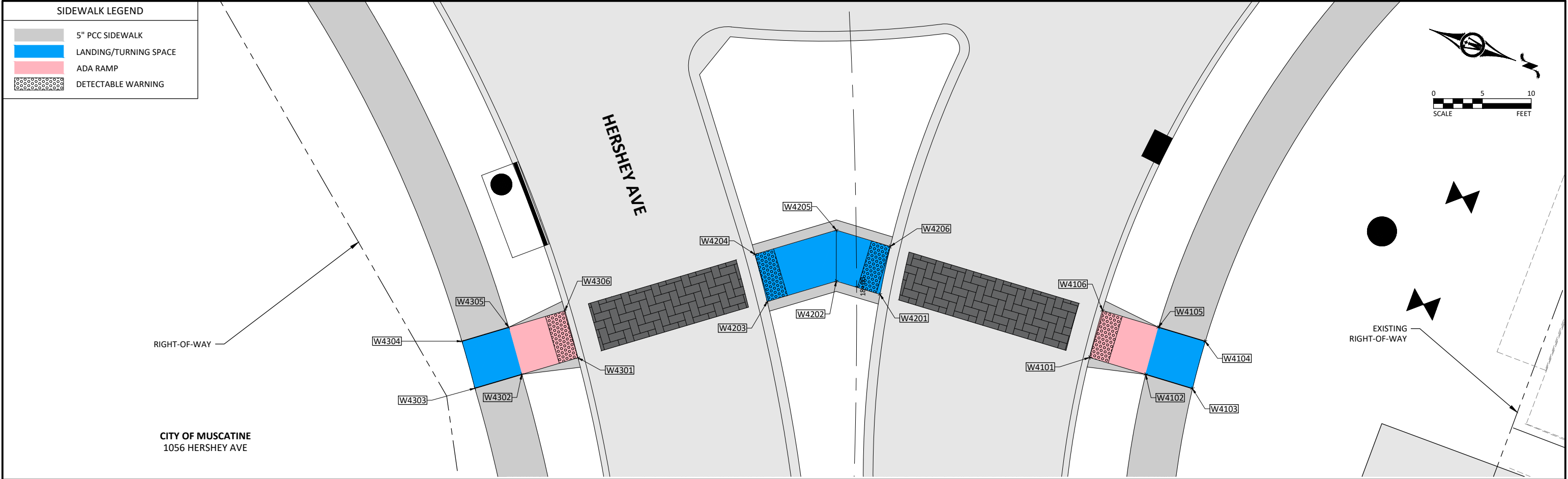
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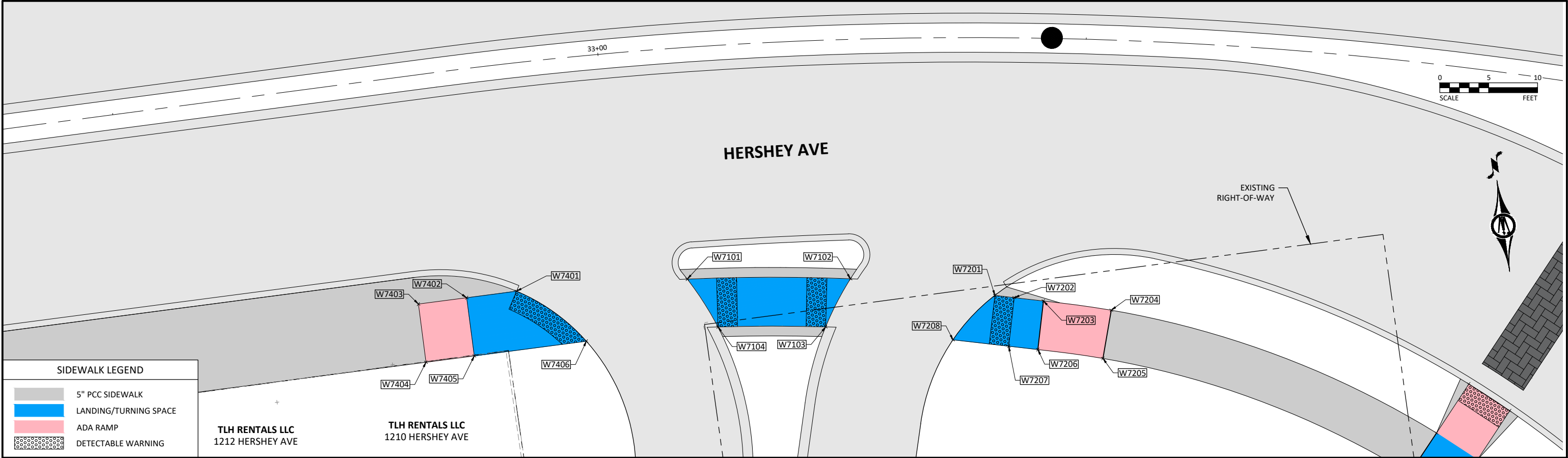
*Does not include curb

- ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications
② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	_ " PCC Sidewalk ②	Distance* (FT)	Δ Elevation (FT)	Slope (%)	Acceptable Constructed Range Pos. or Neg.	Staking Required on this Quadrant? ①	Measured Slope (%)	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes			
												Point	Station	Offset	Elevation
W6301	W6302	Ramp Running Slope	6	6.11	-0.41	-6.72%	0.5% to 8.3%					W6101	34+09.91	-20.85	558.51
W6302	W6303	Landing/Turning Space	6	5.11	-0.08	-1.47%	0.1% to 2%					W6102	34+09.65	-23.83	558.66
W6303	W6304	Landing/Turning Space	6	5.47	-0.07	-1.37%	0.1% to 2%					W6103	34+09.22	-28.81	558.71
W6304	W6305	Landing/Turning Space	6	5.11	0.08	1.48%	0.1% to 2%					W6104	34+04.54	-28.52	558.78
W6302	W6305	Landing/Turning Space	6	5.41	-0.07	-1.38%	0.1% to 2%					W6105	33+96.67	-28.50	559.39
W6305	W6306	Ramp Running Slope	6	6.11	0.39	6.31%	0.5% to 8.3%					W6106	33+96.67	-23.50	559.31
W6301	W6306	Ramp Cross Slope	6	5.35	-0.10	-1.86%	0.1% to 2%	Yes				W6107	34+04.92	-23.53	558.73
												W6108	34+05.15	-20.54	558.60
W6201	W6202	Landing/Turning Space	6	6.34	0.07	1.03%	0.1% to 2%					W6201	34+11.69	-1.50	558.88
W6202	W6203	Landing/Turning Space	6	6.49	0.07	1.02%	0.1% to 2%					W6202	34+12.31	4.81	558.81
W6203	W6204	Landing/Turning Space	6	5.11	-0.08	-1.48%	0.1% to 2%					W6203	34+09.68	10.74	558.74
W6204	W6205	Landing/Turning Space	6	5.49	-0.06	-1.08%	0.1% to 2%					W6204	34+04.87	8.98	558.82
W6205	W6206	Landing/Turning Space	6	5.50	-0.06	-1.08%	0.1% to 2%					W6205	34+07.16	3.98	558.88
W6201	W6206	Landing/Turning Space	6	5.00	-0.06	-1.25%	0.1% to 2%					W6206	34+06.69	-1.50	558.94
W6202	W6205	Landing/Turning Space	6	5.22	-0.07	-1.31%	0.1% to 2%					W6301	33+98.41	34.17	558.05
												W6302	33+95.59	39.59	558.46
W6101	W6102	Ramp Running Slope	6	3.00	-0.15	-5.00%	0.5% to 8.3%					W6303	33+93.17	44.10	558.54
W6102	W6103	Landing/Turning Space	6	5.00	-0.05	-1.00%	0.1% to 2%					W6304	33+88.16	41.91	558.61
W6103	W6104	Landing/Turning Space	6	4.68	-0.08	-1.60%	0.1% to 2%	Yes				W6305	33+90.62	37.43	558.53
W6104	W6107	Landing/Turning Space	6	5.01	0.05	1.00%	0.1% to 2%					W6306	33+93.50	32.04	558.15
W6102	W6107	Landing/Turning Space	6	4.74	-0.08	-1.58%	0.1% to 2%	Yes							
W6107	W6108	Ramp Running Slope	6	3.00	0.14	4.62%	0.5% to 8.3%								
W6101	W6108	Ramp Cross Slope	6	4.77	-0.09	-1.81%	0.1% to 2%	Yes							
W6104	W6105	Ramp Running Slope	6	7.88	-0.60	-7.68%	0.5% to 8.3%	Yes							
W6105	W6106	Ramp Cross Slope	6	5.00	0.07	1.50%	0.1% to 2%								
W6106	W6107	Ramp Running Slope	6	8.25	0.58	7.03%	0.5% to 8.3%								

ENGLISH	IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC	CITY OF MUSCATINE	MUSCATINE COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70	SIDEWALK COMPLIANCE	SHEET NUMBER	S.05	REVISED	06/25/2026
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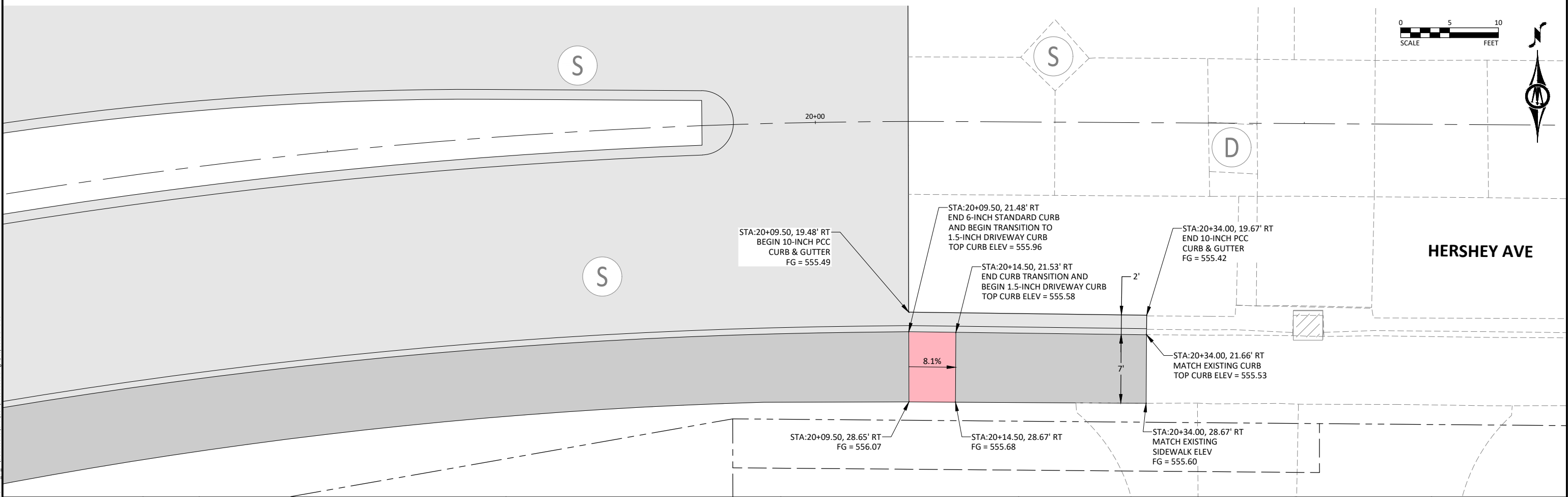
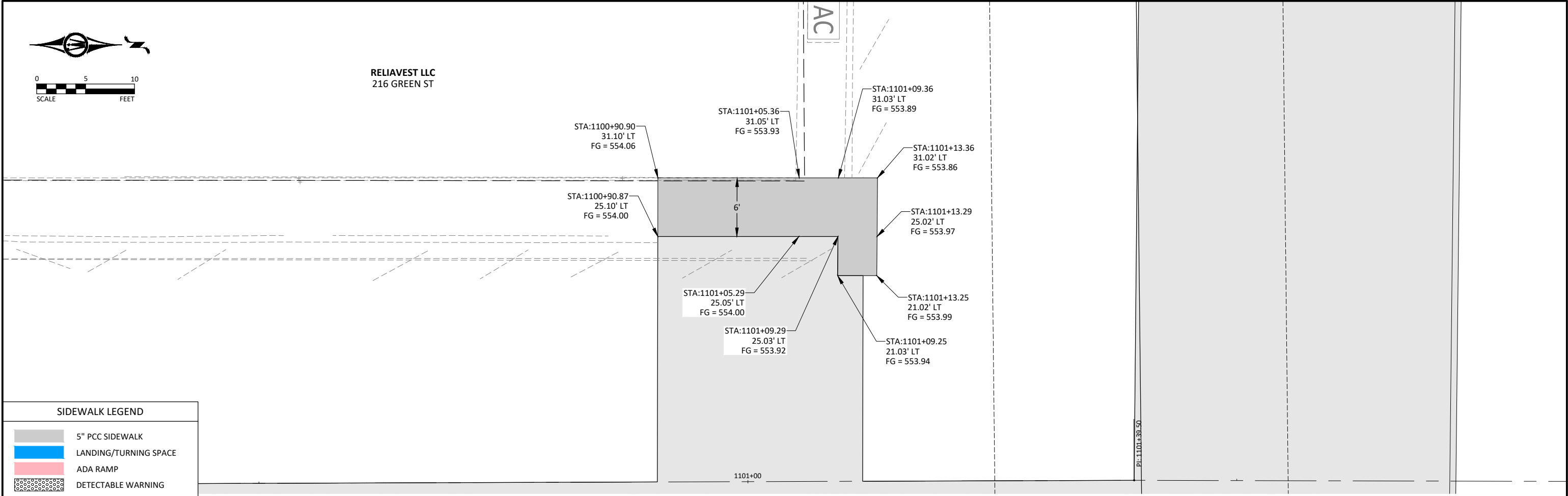
SIDEWALK COMPLIANCE

See S Sheets

- *Does not include curb
- ① Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications
 - ② Refer to tabulation 113-01 for bid quantities

Point to Point		Description	5" PCC Sidewalk ②	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? ①	Measured Slope (%)	Initials	Remarks	For Information Purposes Only: values used to determine designed slopes							
				(FT)	(FT)	(%)	Pos. or Neg.					Point	Station	Offset	Elevation				
W7401	W7402	Landing/Turning Space	6	5.44	-0.09	-1.70%	0.1% to 2%	Yes					W7101	33+07.44	23.63	559.82			
W7402	W7403	Ramp Running Slope	6	5.00	-0.27	-5.40%	0.5% to 8.3%						W7102	33+25.13	24.47	559.55			
W7403	W7404	Ramp Cross Slope	6	6.00	-0.08	-1.36%	0.1% to 2%						W7103	33+22.24	29.30	559.66			
W7404	W7405	Ramp Running Slope	6	5.00	0.28	5.62%	0.5% to 8.3%						W7104	33+10.42	28.73	559.87			
W7402	W7405	Landing/Turning Space	6	6.00	-0.07	-1.18%	0.1% to 2%						W7201	33+40.83	26.34	559.28			
W7405	W7406	Landing/Turning Space	6	12.42	0.21	1.68%	0.1% to 2%	Yes					W7202	33+42.95	26.55	559.31			
W7401	W7406	Landing/Turning Space	6	9.11	0.04	0.49%	0.1% to 2%						W7203	33+46.14	26.85	559.36			
													W7204	33+53.58	27.60	559.58			
W7101	W7102	Landing/Turning Space	6	17.71	0.26	1.49%	0.1% to 2%						W7205	33+52.86	32.56	559.66			
W7102	W7103	Landing/Turning Space	6	5.63	-0.11	-1.89%	0.1% to 2%	Yes					W7206	33+45.62	31.83	559.43			
W7103	W7104	Landing/Turning Space	6	11.83	-0.21	-1.77%	0.1% to 2%	Yes					W7207	33+42.39	31.53	559.39			
W7101	W7104	Landing/Turning Space	6	5.90	-0.05	-0.87%	0.1% to 2%						W7208	33+36.23	30.89	559.41			
													W7401	32+88.91	23.21	559.99			
W7201	W7202	Landing/Turning Space	6	2.13	-0.03	-1.41%	0.1% to 2%						W7402	32+83.47	23.25	560.08			
W7202	W7203	Landing/Turning Space	6	3.20	-0.04	-1.41%	0.1% to 2%						W7403	32+78.47	23.25	560.35			
W7203	W7204	Ramp Running Slope	6	7.48	-0.23	-3.01%	0.5% to 8.3%						W7404	32+78.47	29.25	560.43			
W7204	W7205	Ramp Cross Slope	6	5.01	-0.08	-1.50%	0.1% to 2%						W7405	32+83.47	29.25	560.15			
W7205	W7206	Ramp Running Slope	6	7.27	0.23	3.10%	0.5% to 8.3%						W7406	32+95.89	29.07	559.94			
W7206	W7203	Landing/Turning Space	6	5.00	0.08	1.50%	0.1% to 2%												
W7206	W7207	Landing/Turning Space	6	3.24	0.04	1.39%	0.1% to 2%												
W7207	W7208	Landing/Turning Space	6	6.19	-0.02	-0.28%	0.1% to 2%												
W7202	W7207	Landing/Turning Space	6	5.00	-0.08	-1.50%	0.1% to 2%												
W7201	W7208	Landing/Turning Space	6	6.46	-0.12	-1.90%	0.1% to 2%	Yes											
ENGLISH		IOWA DOT	DESIGN TEAM	HOLMES\BOLTON & MENK INC			CITY OF MUSCATINE		MUSCATINE	COUNTY	PROJECT NUMBER	STP-U-5330(634)--70-70		SIDEWALK COMPLIANCE		SHEET NUMBER	S.08	REVISED	06/25/2026

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PHASE 1							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
19+09.50	43.61	3.29	0.00	0.00	0.00	0.00	0.00
19+25.00	46.43	4.43	26.23	2.19	26.23	2.19	24.03
19+50.00	56.61	0.51	48.33	2.33	74.55	4.53	70.02
19+75.00	63.33	0.00	55.85	0.24	130.40	4.76	125.63
20+00.00	62.12	0.00	57.96	0.00	188.36	4.77	183.59
20+09.50	48.72	0.00	19.38	0.00	207.74	4.77	202.97

PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
15+25.00	62.96	4.68	21.84	1.87	21.84	1.87	19.97
15+50.00	84.00	2.37	67.08	3.45	88.91	5.32	83.60
15+75.00	84.68	0.52	75.59	1.43	164.50	6.75	157.75
16+00.00	124.11	3.18	85.84	1.67	250.34	8.42	241.92

PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
17+75.00	50.29	72.73	0.00	0.00	0.00	0.00	0.00
18+00.00	45.27	22.97	43.71	46.16	43.71	46.16	-2.45
18+25.00	27.72	33.03	33.40	26.35	77.11	72.51	4.60
18+50.00	22.18	42.54	22.81	34.50	99.92	107.01	-7.08
18+75.00	15.29	29.54	17.33	32.23	117.25	139.24	-21.99
19+00.00	72.47	5.12	42.13	15.34	159.38	154.58	4.80

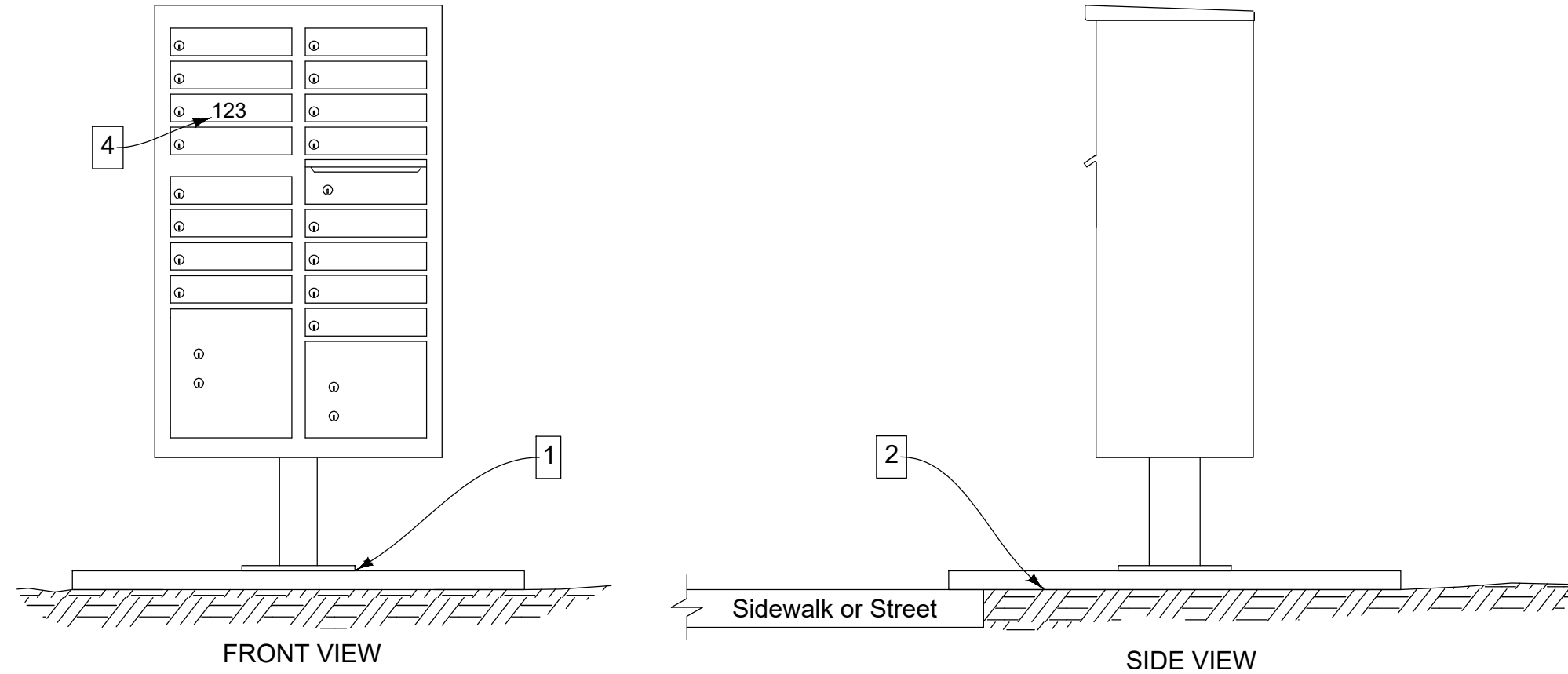
PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
31+62.50	75.67	0.00	0.00	0.00	0.00	0.00	0.00
31+75.00	64.78	0.00	32.51	0.00	32.51	0.00	32.51
32+00.00	55.04	0.00	55.47	0.00	87.98	0.00	87.98
32+25.00	67.74	0.00	56.84	0.00	144.83	0.00	144.83
32+50.00	72.03	0.00	64.71	0.00	209.54	0.00	209.54
32+75.00	53.79	0.00	58.25	0.00	267.79	0.00	267.79
33+00.00	172.73	0.00	101.98	0.00	369.77	0.00	369.77
33+25.00	198.16	0.41	161.00	0.20	530.77	0.20	530.57
33+50.00	101.06	0.98	131.57	0.68	662.34	0.88	661.46
33+75.00	101.98	1.35	92.40	1.15	754.74	2.03	752.71
34+00.00	94.12	0.00	89.54	0.67	844.27	2.70	841.57
34+25.00	136.35	0.00	103.90	0.00	948.18	2.70	945.48

PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
42+25.00	76.96	2.91	0.00	0.00	0.00	0.00	0.00
42+50.00	109.45	2.45	74.32	2.41	74.32	2.41	71.91
42+75.00	34.97	1.87	65.31	1.97	139.63	4.38	135.25
42+92.50	22.27	1.33	18.55	1.04	158.18	5.41	152.77

PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
700+00.00	163.38	2.75	0.00	0.00	0.00	0.00	0.00
700+25.00	195.21	3.31	178.07	0.36	178.07	0.36	177.71
700+50.00	93.62	8.91	138.76	3.74	316.83	4.11	312.73
700+75.00	57.71	15.96	59.71	11.09	376.54	15.20	361.34
701+00.00	35.06	24.35	37.00	20.06	413.54	35.26	378.28
701+25.00	30.72	27.53	27.32	26.96	440.86	62.22	378.65
701+50.00	42.15	11.21	34.47	18.40	475.33	80.62	394.71
701+75.00	62.11	6.77	58.76	4.58	534.09	85.20	448.89
702+00.00	1.55	61.54	38.22	39.54	572.30	124.73	447.57
702+25.00	25.04	63.89	21.32	72.75	593.62	197.48	396.14
702+50.00	9.97	32.06	28.93	47.97	622.55	245.45	377.10
702+75.00	25.41	9.80	22.74	17.41	645.29	262.86	382.42
703+00.00	69.17	3.44	52.21	4.32	697.50	267.18	430.32
703+25.00	132.03	0.88	110.78	1.11	808.27	268.29	539.98
703+50.00	106.55	1.11	119.73	0.14	928.01	268.43	659.57
703+75.00	98.53	2.64	82.21	0.80	1010.22	269.23	740.99
704+00.00	146.52	3.71	100.82	1.92	1111.04	271.14	839.90

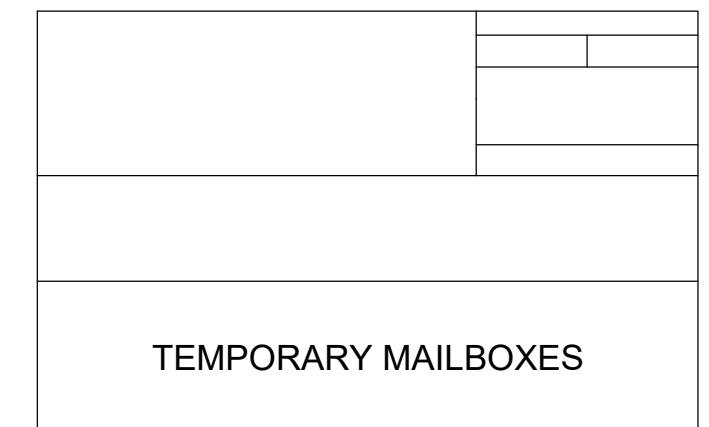
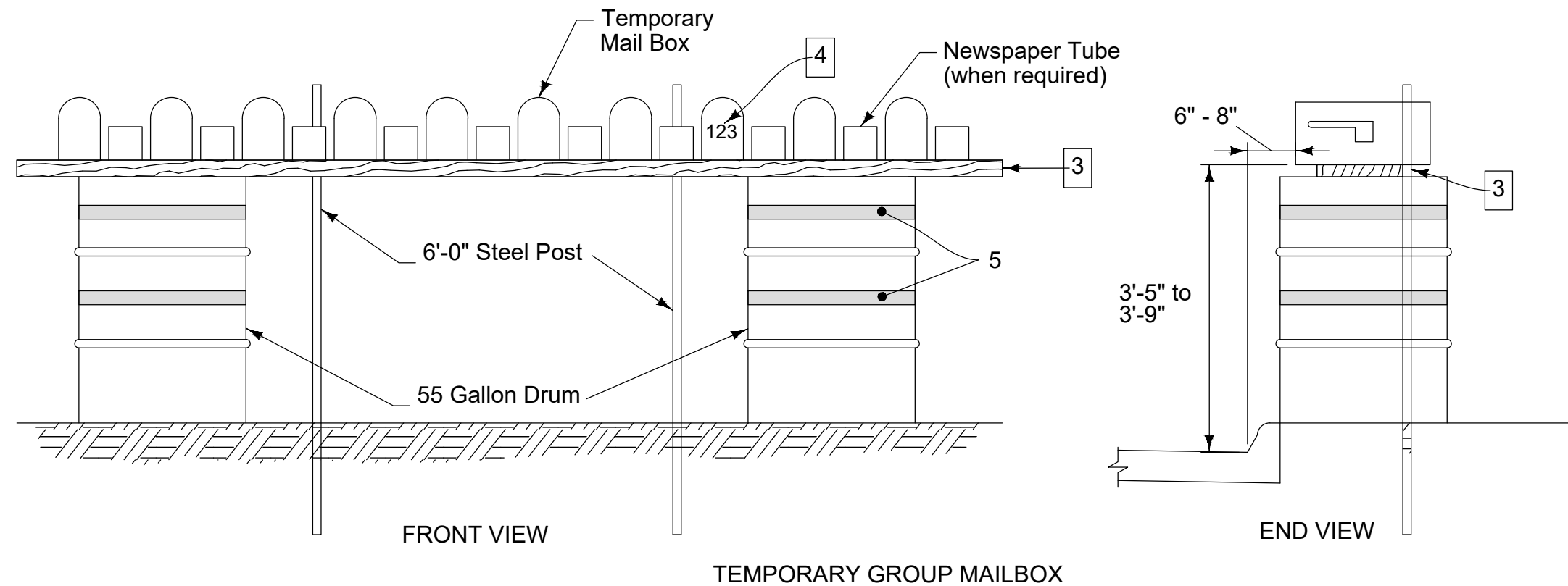
PHASE 2							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
1000+20.00	38.85	0.00	0.00	0.00	0.00	0.00	0.00
1000+25.00	43.70	0.00	7.64	0.00	7.64	0.00	7.64
1000+50.00	43.13	0.00	40.20	0.00	47.84	0.00	47.84
1000+75.00	41.20	0.00	39.04	0.00	86.88	0.00	86.88
1001+00.00	41.62	0.00	38.26	0.00	125.14	0.00	125.14
1001+25.00	83.25	0.00	56.62	0.00	181.76	0.00	181.76
1001+50.00	99.95	0.00	83.56	0.00	265.32	0.00	265.32
1001+75.00	94.00	0.09	88.97	0.04	354.29	0.04	354.25
1001+97.50	233.24	0.00	138.76	0.04	493.04	0.08	492.96

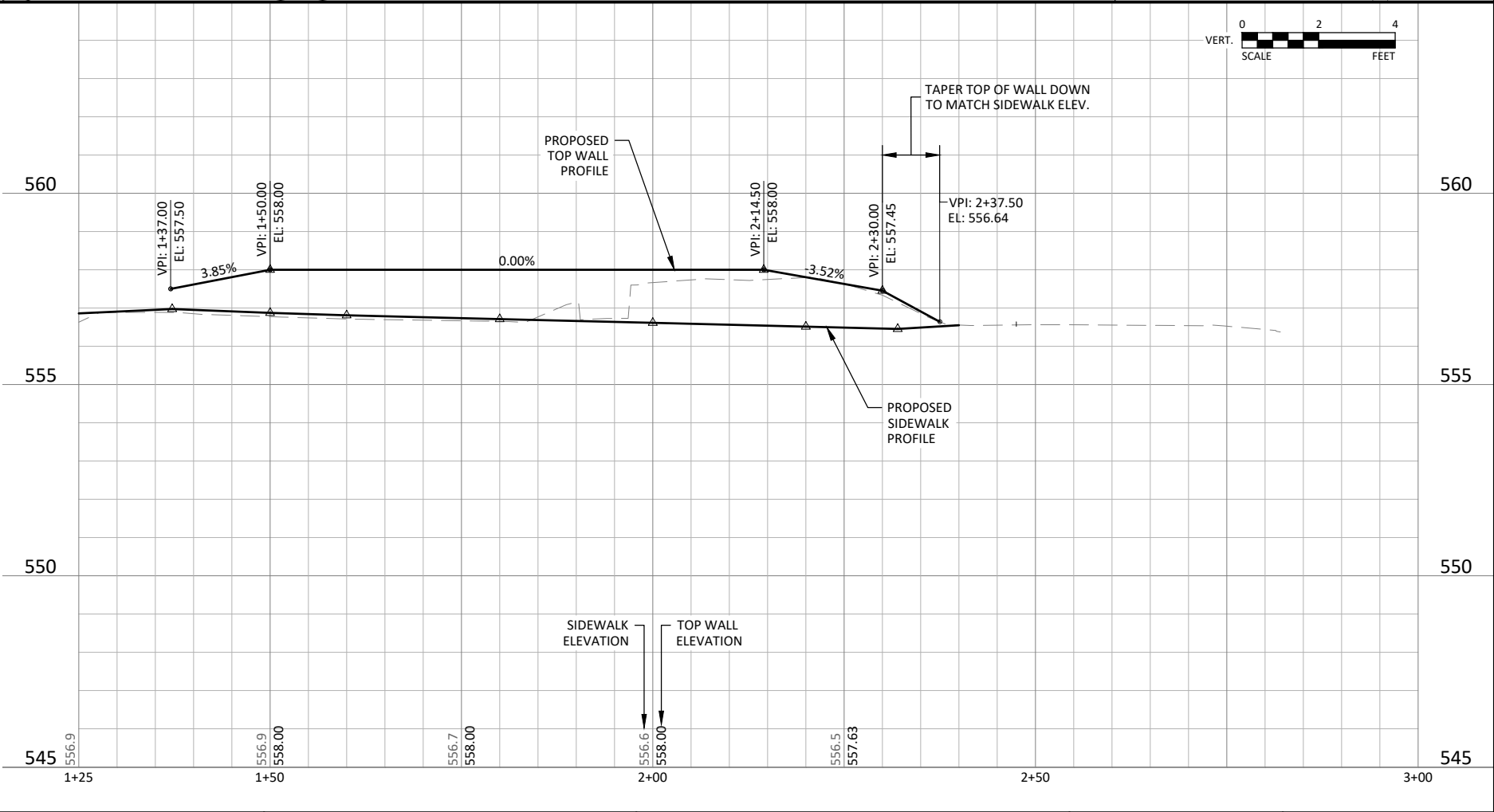
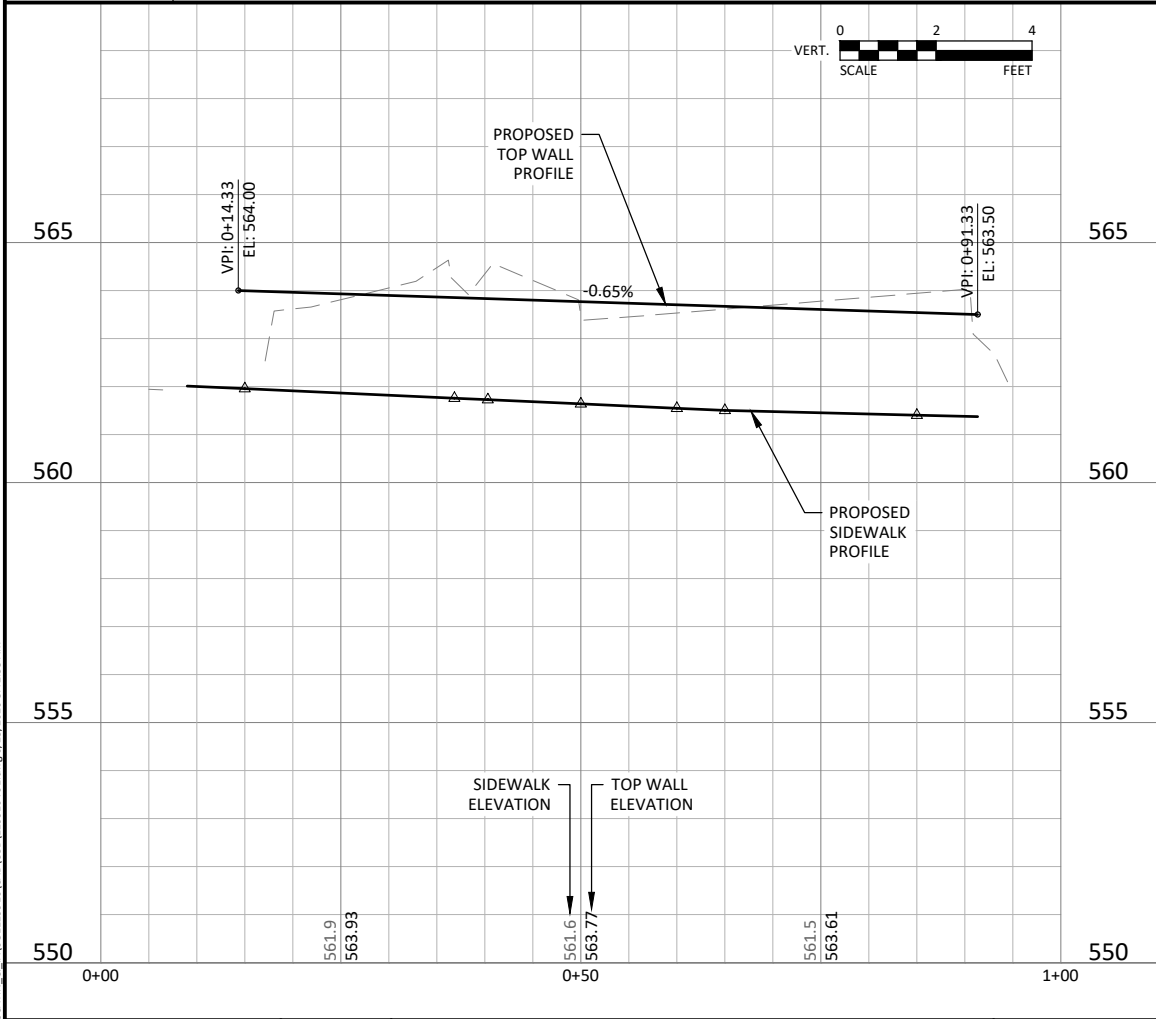
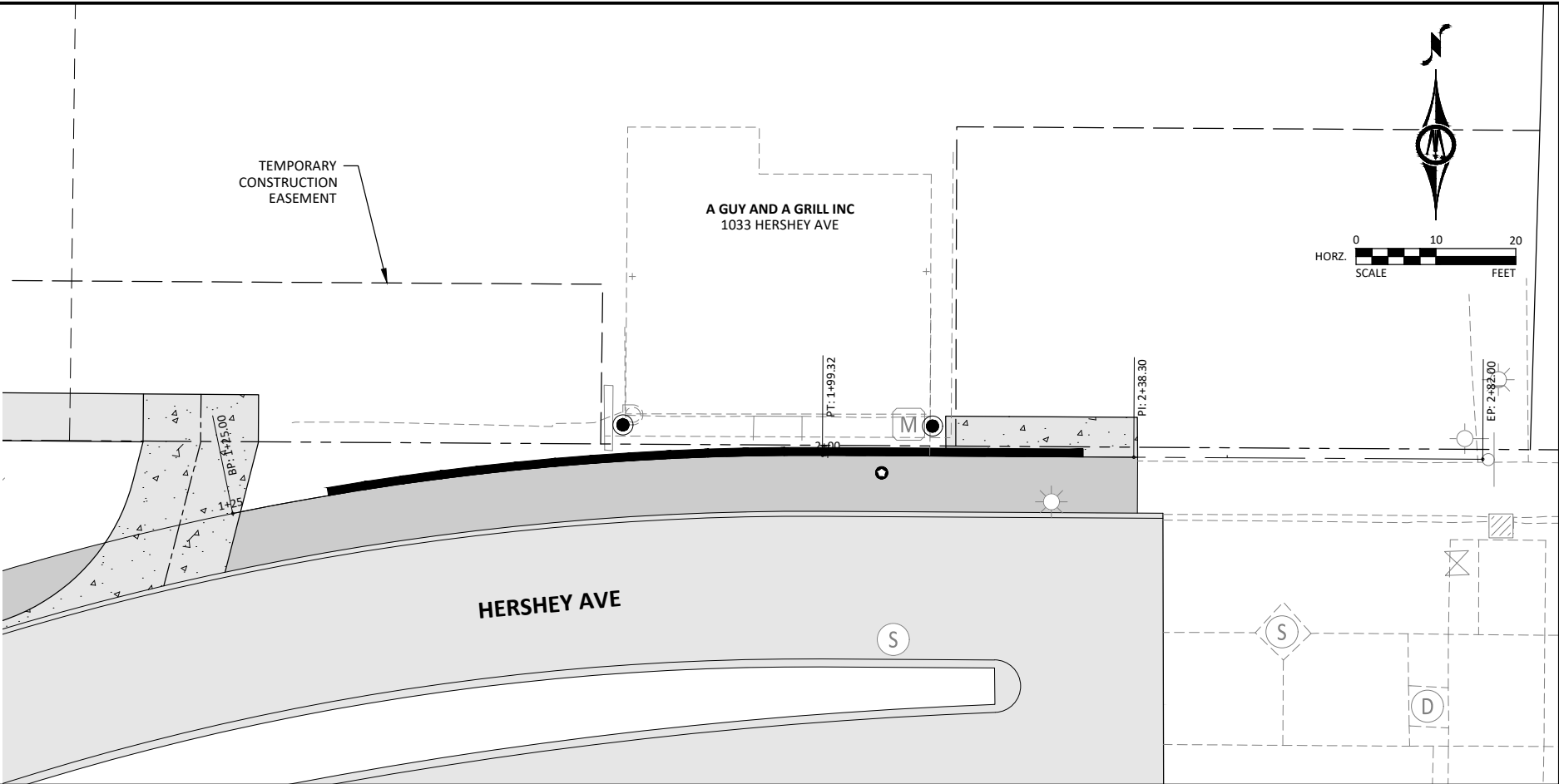
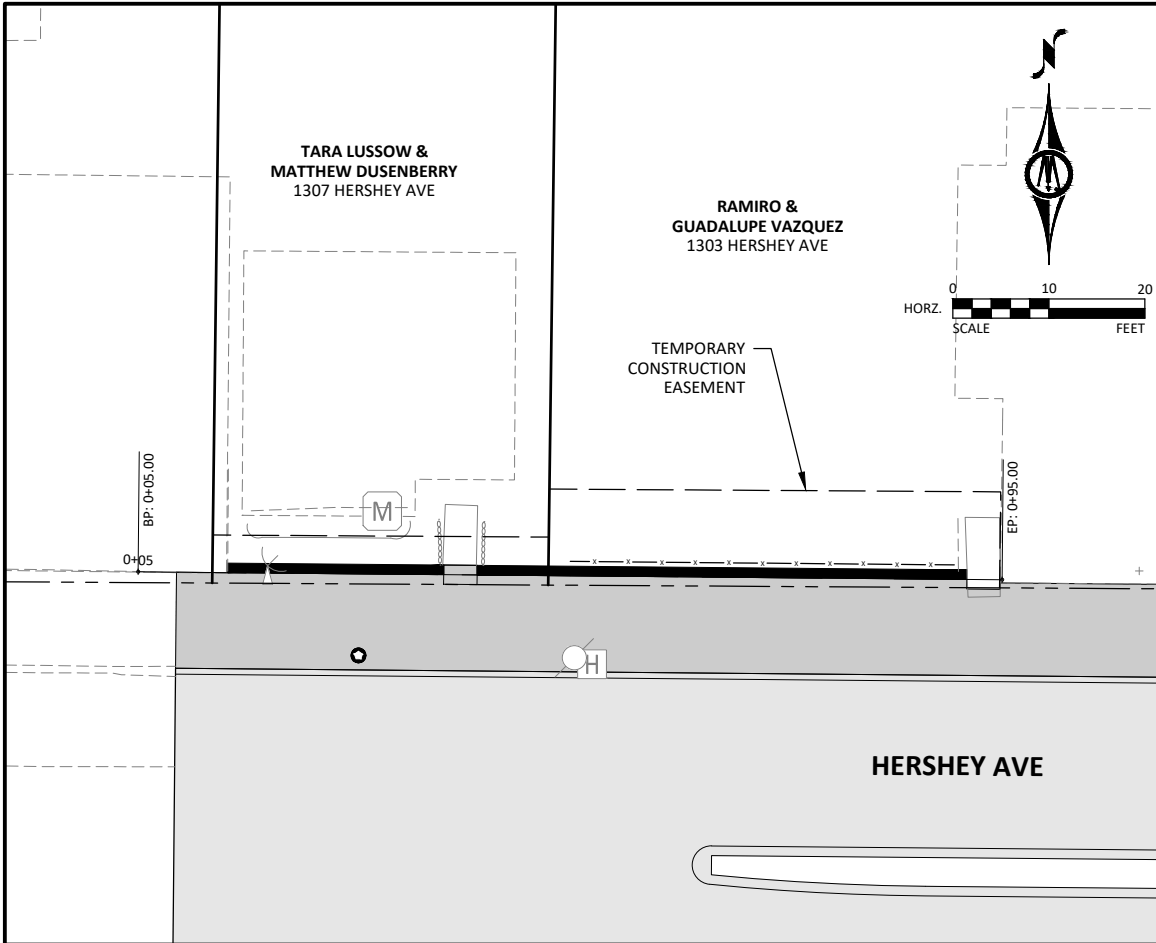
PHASE 3							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
5+60.00	46.77	0.00	0.00	0.00	0.00	0.00	0.00
5+75.00	52.15	0.00	27.41	0.00	27.41	0.00	27.41
6+00.00	49.51	0.00	47.06	0.00	74.47	0.00	74.47
6+25.00	46.66	0.00	44.42	0.00	118.89	0.00	118.89
6+50.00	59.90	2.53	49.33	1.17	168.22	1.17	167.05
6+75.00	91.27	0.02	69.99	1.18	238.22	2.35	235.86
7+00.00	72.58	0.90	75.86	0.43	314.08	2.78	311.30
7+25.00	87.66	0.00	74.19	0.42	388.26	3.20	385.07
7+50.00	84.92	0.00	79.89	0.00	468.16	3.20	464.96
7+75.00	105.28	0.00	88.05	0.00	556.21	3.20	553.02
8+00.00	100.45	0.00	95.25	0.00	651.46	3.20	648.26
8+25.00	84.06	0.00	85.42	0.00	736.88	3.20	733.68
8+50.00	72.51	0.00	72.49	0.00	809.37	3.20	806.17
8+75.00	121.55	0.00	89.84	0.00	899.21	3.20	896.02
9+00.00	116.90	0.00	110.40	0.00	1009.61	3.20	1006.41
9+25.00	59.71	0.00	81.88	0.00	1091.49	3.20	1088.29
9+50.00	83.60	0.33	65.97	0.14	1157.46	3.34	1154.12
9+75.00	92.07	0.26	81.33	0.26	1238.79	3.60	1235.19
10+00.00	83.37	0.00	81.50	0.11	1320.30	3.71	1316.58
10+25.00	92.81	0.28	82.56	0.12	1402.86	3.84	1399.02
10+50.00	104.22	0.00	92.43	0.12	1495.28	3.96	1491.32
10+75.00	122.03	1.64	104.58	0.72	1599.86	4.69	1595.18
11+00.00	139.38	0.00	118.94	0.72	1718.80	5.41	1713.39
11+25.00	153.67	0.00	132.03	0.00	1850.83	5.41	1845.42
11+50.00	101.51	0.00	116.88	0.00	1967.71	5.41	1962.30
11+75.00	110.50	0.00	99.40	0.00	2067.11	5.41	2061.70
12+00.00	86.75	0.00	92.19	0.00	2159.31	5.41	2153.90
12+25.00	77.51	0.67	76.96	0.30	2236.26	5.71	2230.56
12+50.00	72.62	0.00	69.89	0.30	2306.15	6.00	2300.15
12+75.00	51.32	2.60	57.36	1.21	2363.51	7.21	2356.30
13+00.00	62.32	3.07	52.61	2.62	2416.12	9.84	2406.28
13+25.00	52.64	3.00	53.22	2.81	2469.34	12.65	2456.70
13+50.00	59.02	0.48	51.69	1.61	2521.03	14.26	2506.77
13+75.00	59.28	0.07	54.76	0.26	2575.79	14.51	2561.28
14+00.00	45.45	3.72	48.49	1.75	2624.28	16.27	2608.01
14+25.00	50.69	0.31	44.51	1.79	2668.79	18.06	2650.74
14+50.00	42.89	1.39	43.32	0.80	2712.11	18.86	2693.25
14+75.00	47.94	2.83	42.01	2.00	2754.12	20.86	2733.26
15+00.00	46.97	4.75	43.77	3.64	2797.90	24.50	2773.39



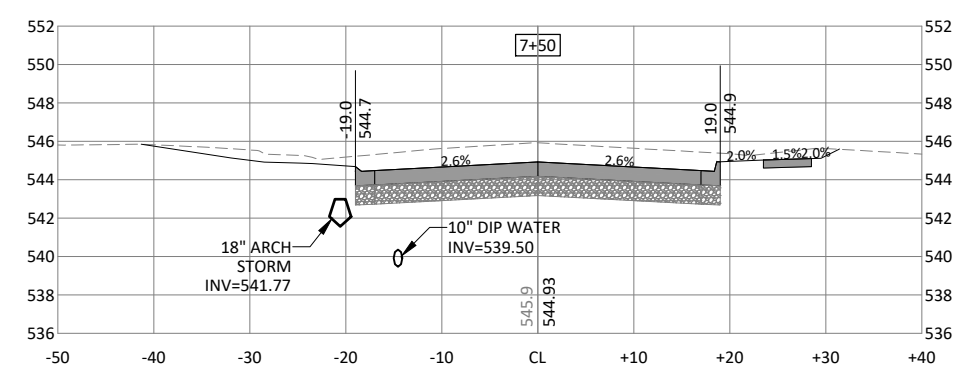
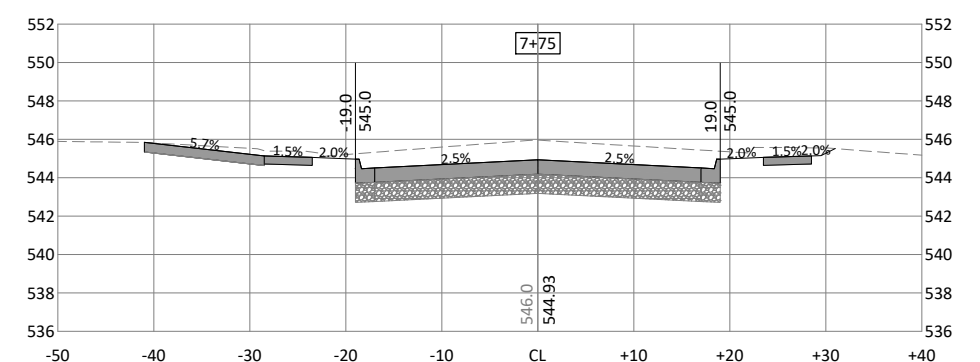
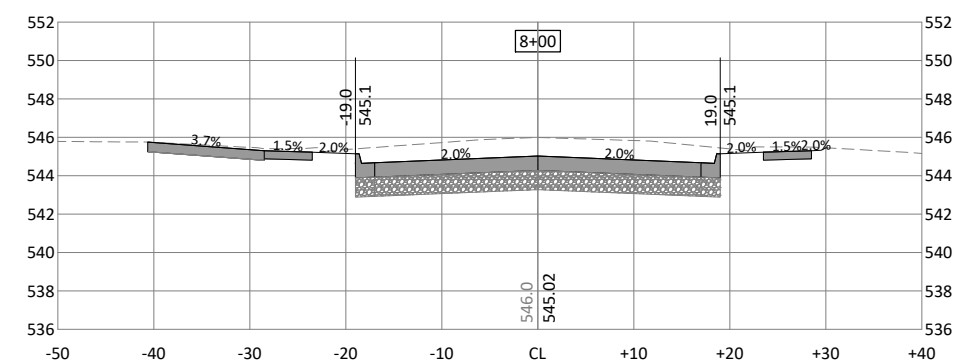
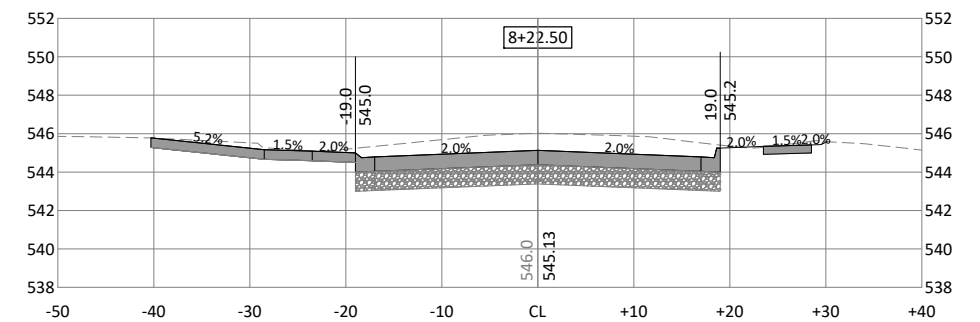
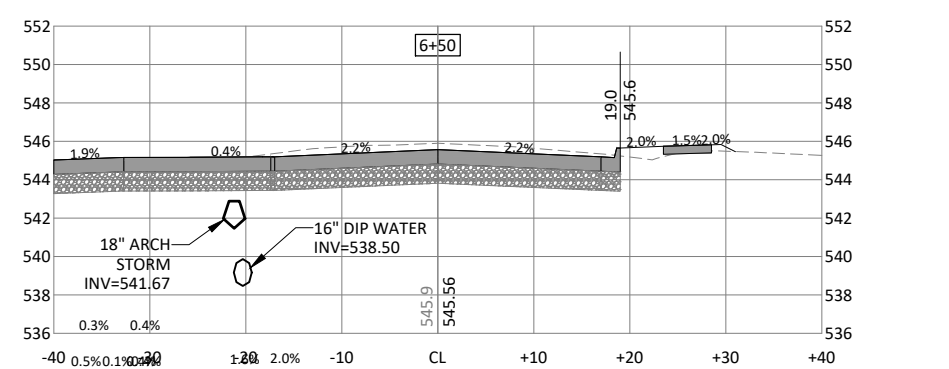
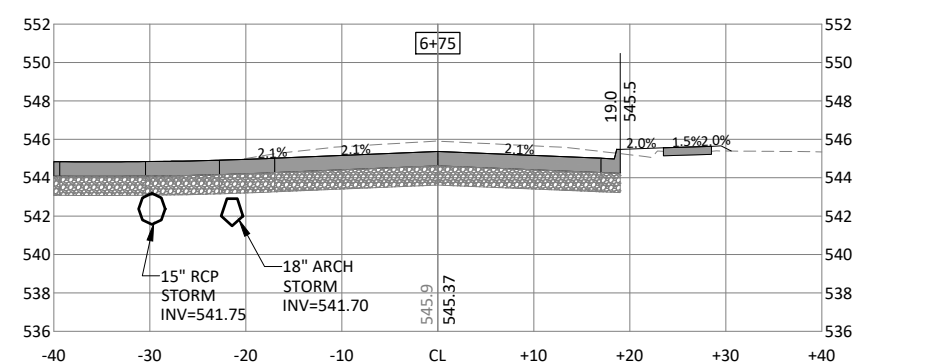
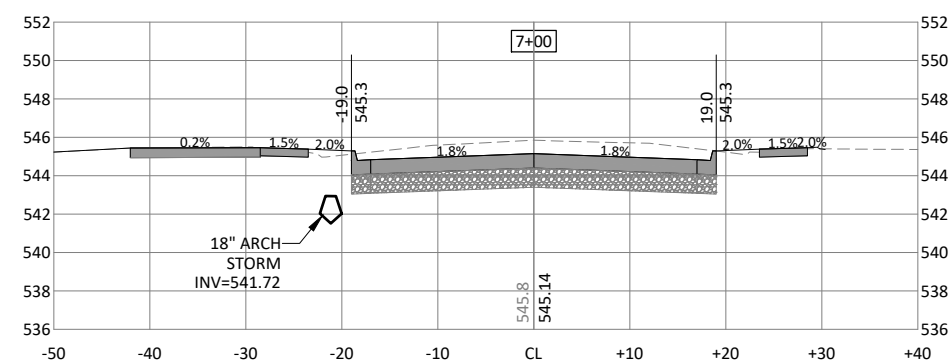
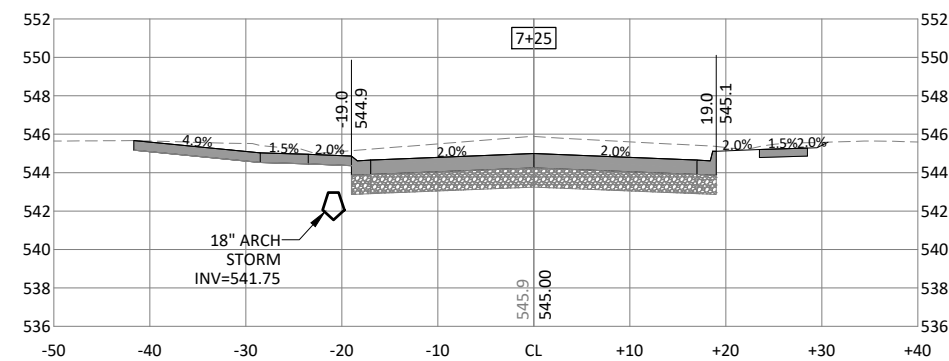
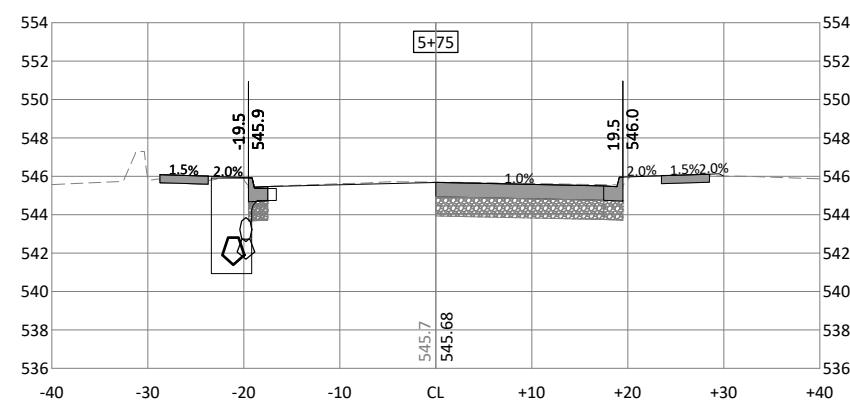
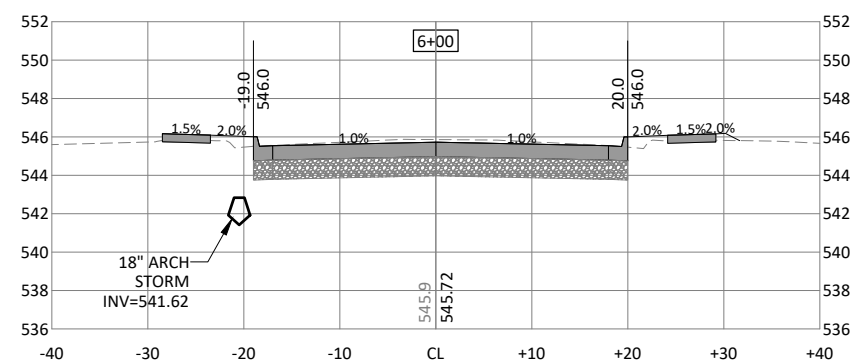
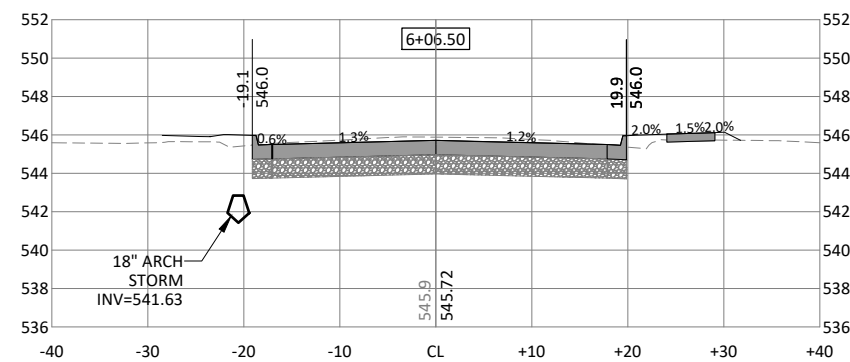
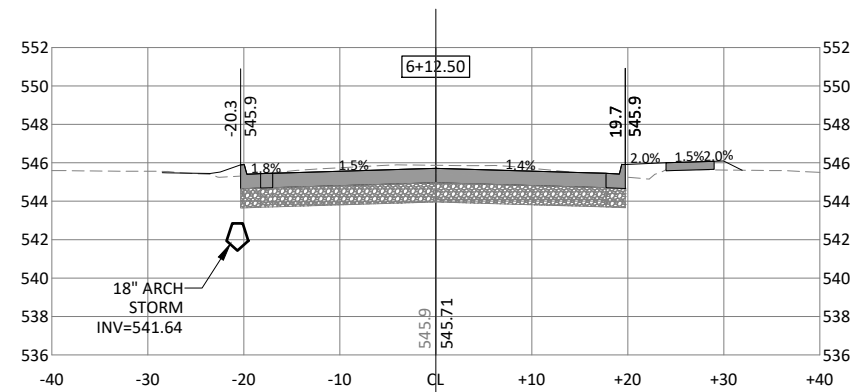
TEMPORARY CLUSTER BOX UNIT

- ① Attach cluster box unit to a stable skid or anchor plate.
- ② Set cluster box on firm and level ground adjacent to sidewalk or street paving. Provide anchorage as needed to prevent overturning.
- ③ Provide a 2 inch x 12 inch plank with length as required. Firmly attach mailboxes and newspaper tubes to plank. Secure plank to steel posts for lateral support.
- ④ Label each mailbox with property address.
- ⑤ Attach two bands of 2 inch wide reflectorized tape to each barrel.

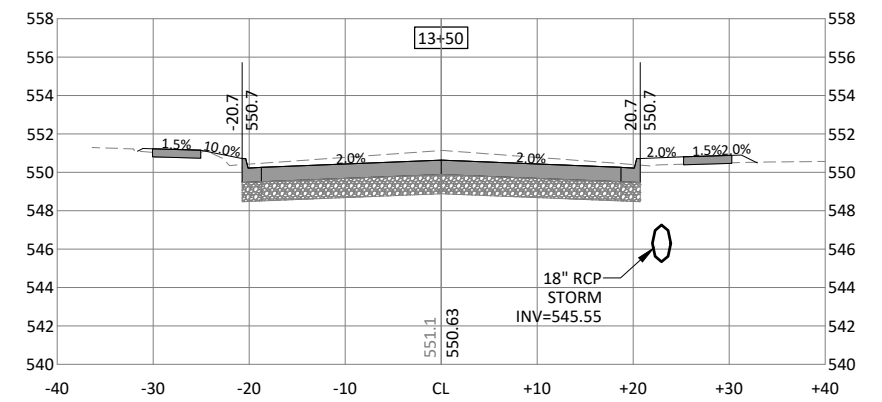
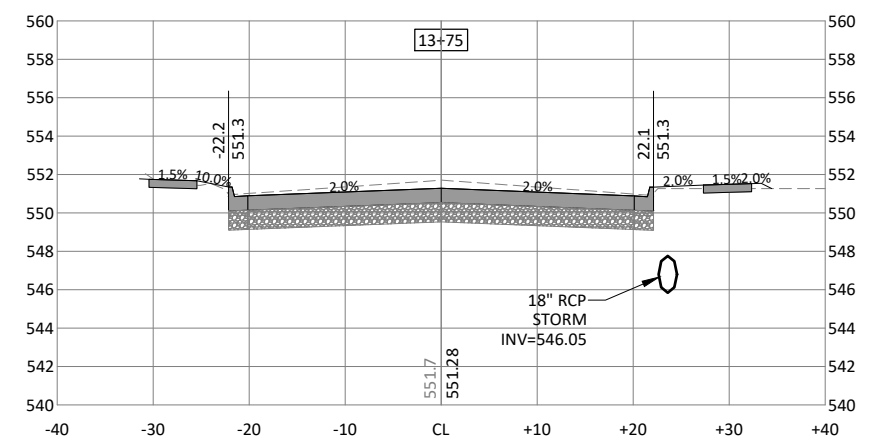
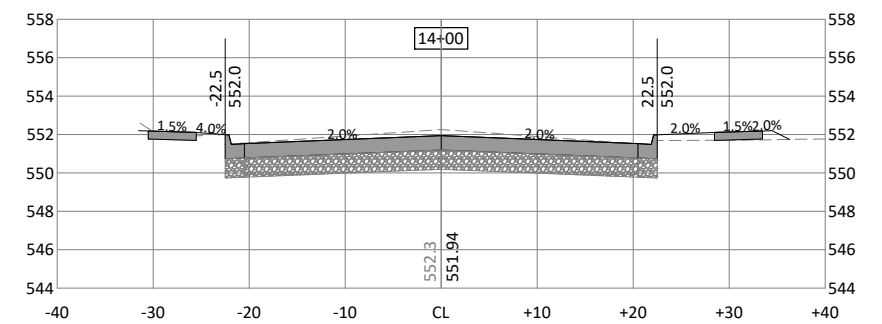
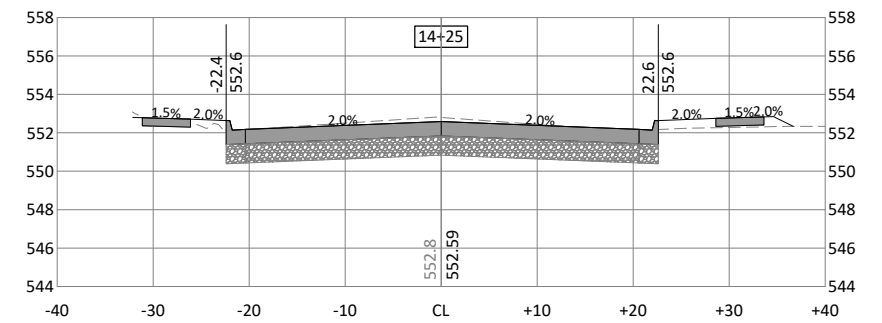
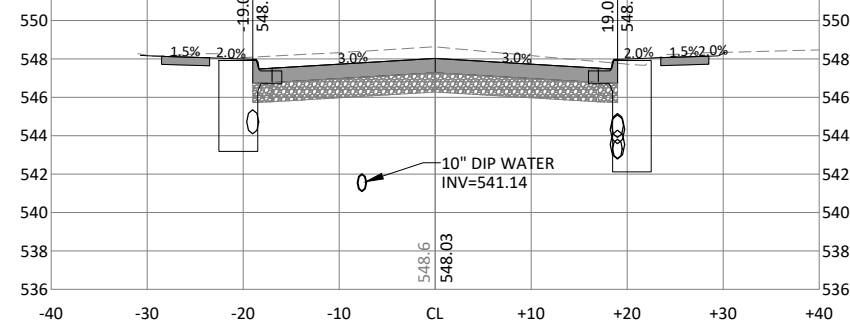
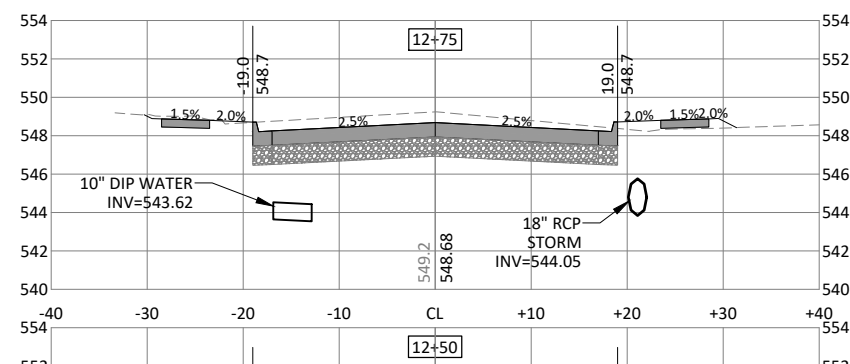
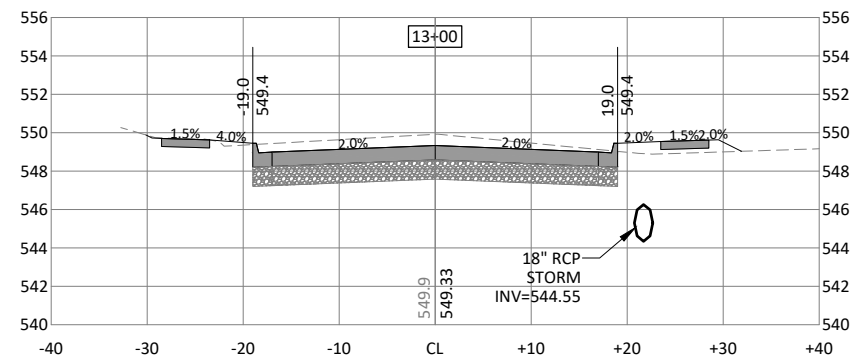
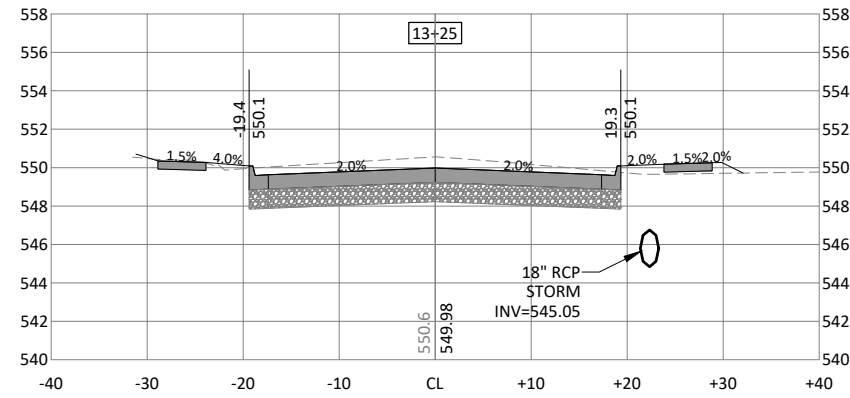
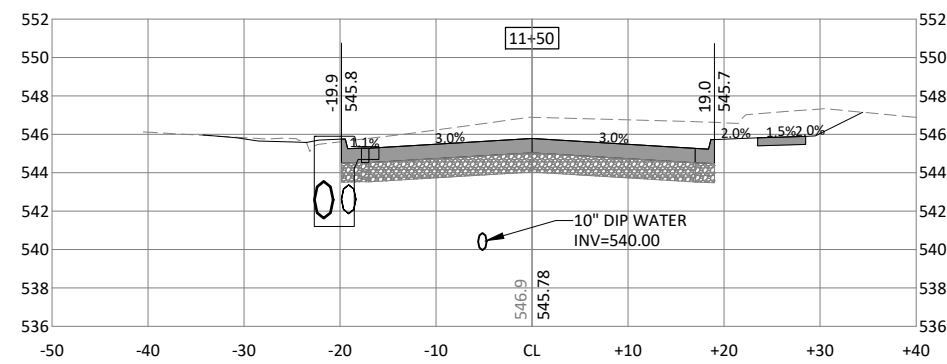
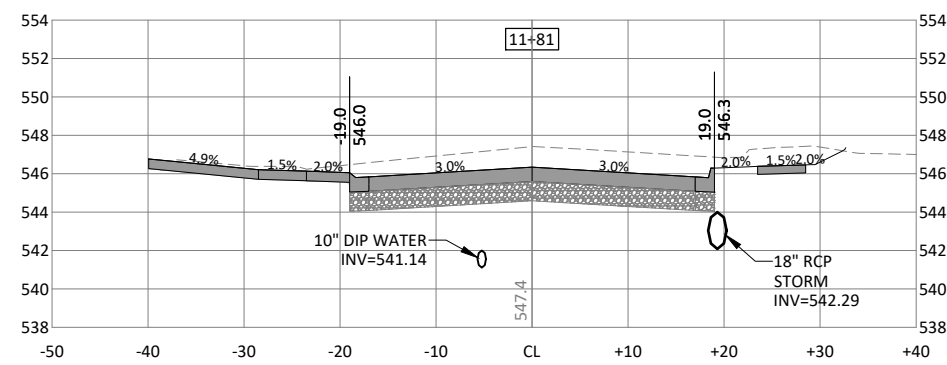
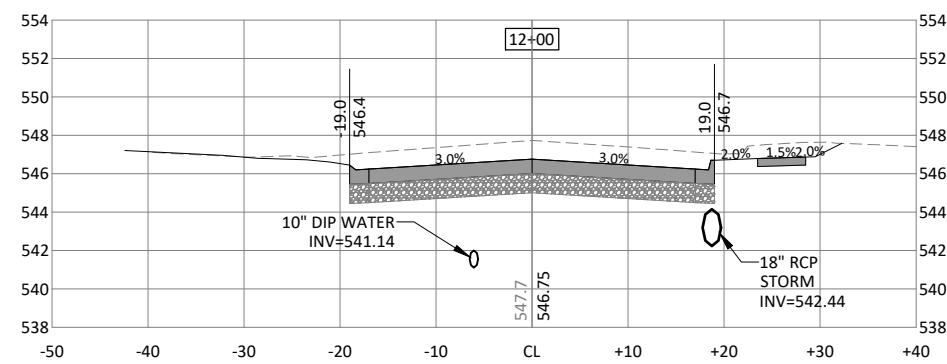
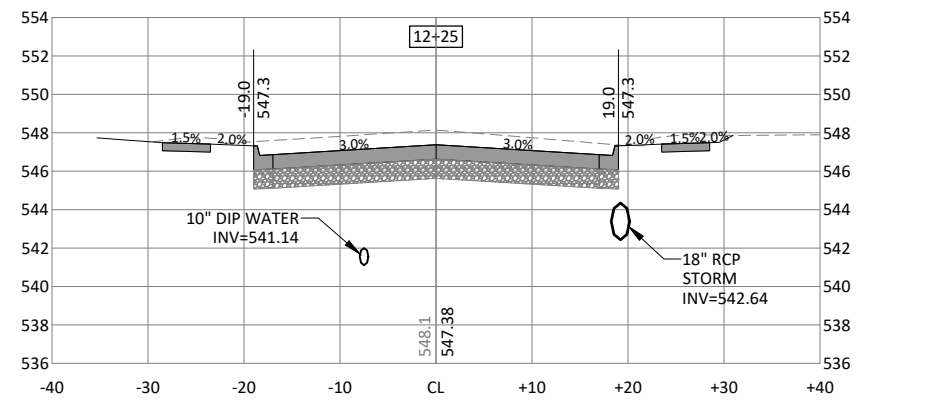




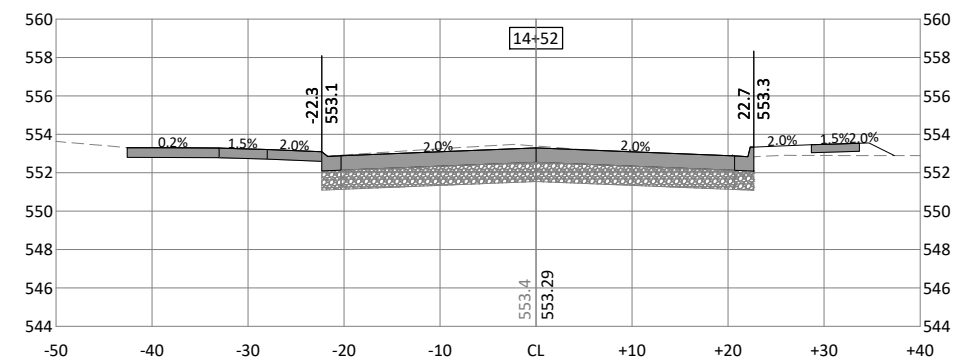
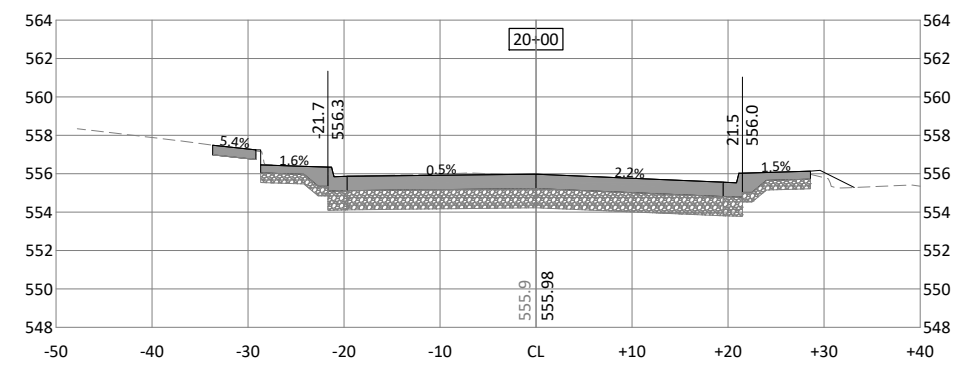
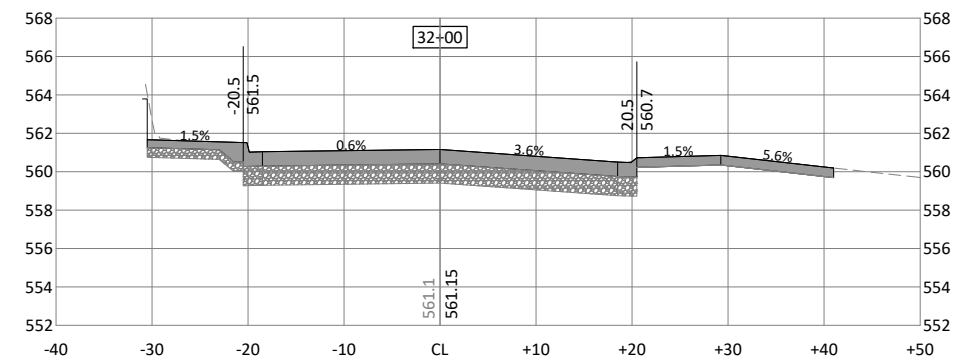
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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

MAINLINE CROSS SECTIONS

SHEET NUMBER

W.04

REVISED

06/25/2026

GENERAL NOTES:

1. UNDERGROUND UTILITIES: FIELD LOCATE UNDERGROUND UTILITIES PRIOR TO EXCAVATION FOR INSTALLATION OF SITE IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN PROPOSED SITE IMPROVEMENTS AND EXISTING OR PROPOSED UTILITIES, IMMEDIATELY ADVISE THE OWNERS REPRESENTATIVE.
2. DIMENSIONS: DIMENSIONS ARE FROM BACK OF CURB UNLESS NOTED OR SHOWN OTHERWISE ON THE DRAWINGS.
3. HORIZONTAL CONTROL: HORIZONTAL CONTROL FOR THE LAYOUT OF SITE IMPROVEMENTS WILL BE PROVIDED BY THE ENGINEER. STATIONS AND OFFSETS INDICATED ON THE DRAWINGS ARE RELATIVE TO THE ROADWAY STATIONING.
4. ISOLATION JOINTS IN SIDEWALK PAVING: GENERALLY, ISOLATION JOINTS WILL BE LOCATED ALONG THE BACK OF CURB BETWEEN SIDEWALK PAVEMENTS AND PERMANENT STRUCTURES, WALLS AND BUILDINGS. ISOLATION JOINTS WILL ALSO BE LOCATED WHERE THE SIDEWALK PAVEMENT TURNS OR CHANGES DIRECTION, AND AT EVERY 100 FOOT MARK OF LINEAR SIDEWALK.
5. ALL SIDEWALKS AND CONCRETE SURFACES TO HAVE A LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED, TYPICAL.
6. SAWCUTS TO BE MADE AS SHOWN ON PLANS UNLESS CONTRACTOR SUBMITTAL OTHERWISE APPROVED BY OWNERS REP.
7. CONTRACTOR IS TO PRESERVE AND PROTECT EXISTING VEGETATION TO REMAIN AT ALL STAGES OF CONSTRUCTION. DAMAGED PLANT MATERIAL WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
8. CONTRACTOR IS TO PRESERVE AND PROTECT EXISTING BUILDINGS AND FOUNDATIONS AT ALL STAGES OF CONSTRUCTION.
9. CONTRACTOR IS TO VERIFY THAT ALL SLOPES, CROSS SLOPES, LONGITUDINAL SLOPES, DROP CURB SLOPES, ETC. DO NOT EXCEED PROWAG MAXIMUMS. CONTRACTOR IS TO NOTIFY OWNER'S REPRESENTATIVE IF SLOPES EXCEED GUIDELINE RECOMMENDATIONS.
10. HATCH PATTERNS ON PLAN DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION OR SCALING PURPOSES. REFER TO CONSTRUCTION DETAILS FOR PAVER PATTERNS AND FINISHES.

GENERAL LANDSCAPE IMPROVEMENT NOTES:

1. MASTER PLANT SCHEDULE: SHRUBS AND PERENNIALS ARE LISTED IN THE MASTER PLANT SCHEDULE. IF THERE IS A CONFLICT BETWEEN THE QUANTITIES SHOWN ON THE DRAWING AND THE QUANTITIES SHOWN IN THE PLANT SCHEDULE, THE PLAN QUANTITIES SHALL PREVAIL.
2. PLANTING LAYOUT: LAYOUT A TYPICAL SHRUB AND PERENNIAL BED LAYOUT, AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. SHRUB AND PERENNIAL GROUPINGS SHALL BE PLANTED AND MULCHED IN ONE CONTINUOUSLY MULCHED BED.
4. SOD ALL AREAS WHERE INDICATED ON DRAWINGS.

SPECIALTY SOIL TYPES AND NOTES:

1. AMENDED PLANTING SOIL: INCIDENTAL TO PERENNIAL/GROUNDCOVER/SHRUB/TREE PLANTING TO DEPTHS SPECIFIED IN PLANTING/STREETSCAPE DETAILS ON Y.06 SHEET. REFER TO ESTIMATE REFERENCE NOTE FOR SOIL MIX.

CONCRETE PAVER TYPES/NOTES

CONTRACTOR SHALL REVIEW/CONFIRM PAVER PATTERNS WITH ENGINEER PRIOR TO INSTALLATION.

TYPE "A": HISTORIC PAVER, CITY FURNISHED TO CONTRACTOR FOR INSTALLATION, PATTERN: RUNNING BOND (SEE PLANS AND DETAILS)

TYPE "B": UNILOCK - SERIES, 7.75" x 4" x 2.375" (20 CM x 10 CM x 6 CM), COLOR: ONYX BLACK, PATTERN: SOLDIER COURSE (SEE PLANS AND DETAILS)

TYPE "C": UNILOCK - ARTLINE, VARIABLE SIZES PER STANDARD LAYING PATTERN, 2.75" (7 CM) THICKNESS, PREMIER FINISH, COLOR: COPPER RIDGE

CONTACT:

UNILOCK

301 E. SULLIVAN ROAD, AURORA, ILLINOIS 60505

BRAD PUNKE - TERRITORY MANAGER

O: 630-892-9191 EXT. 253 M: 847-489-0382

COLOR CONCRETE NOTES:

1. COLOR CONCRETE SHALL BE INTEGRALLY COLORED, SELECTED FROM MANUFACTURER'S COLOR CHARTS SHOWING FULL RANGE OF COLORS AVAILABLE.
2. CURING AND SEALING MATERIALS SHALL BE A PRODUCT FORMULATED TO PROTECT COLOR ARCHITECTURAL CONCRETE. PRODUCT SHALL BE 26% SOLIDS, NON-YELLOWING, CURE AND A SEAL MADE FROM PURE 100% ACRYLIC. SOLVENT SHALL BE CLEAR, DURABLE, ABRASION-, CHEMICAL-, WEATHER- AND UV-RESISTANT: ASTM C 309 TYPE 1 CLASS B, ASTM C-1315 TYPE 1 CLASS A, B, C. MATTE FINISH. SCHEDULE PLACEMENT TO MINIMIZE EXPOSURE TO WIND AND HOT SUN BEFORE CURING MATERIALS ARE APPLIED.
3. ONLY ONE BRAND OF CEMENT SHALL BE USED UNLESS WRITTEN PERMISSION TO USE ANOTHER BRAND OF CEMENT IS GRANTED BY THE PROJECT MANAGER AND/OR OWNER REPRESENTATIVE.
4. QUALITY ASSURANCE:

4.1. MANUFACTURER QUALIFICATIONS: MINIMUM 10 YEARS OF DOCUMENTED EXPERIENCE PRODUCING THE SPECIFIED PRODUCTS.

4.2. INSTALLER QUALIFICATIONS: MINIMUM 5 YEARS OF DOCUMENTED EXPERIENCE WITH WORK OF SIMILAR SCOPE AND COMPLEXITY REQUIRED BY THIS PROJECT AND ACCEPTABLE TO, OR CERTIFIED BY, STAMPED CONCRETE PAVING MANUFACTURER.

4.3. MATERIAL SOURCE: OBTAIN EACH SPECIFIED MATERIAL FROM THE SAME SOURCE. TO ENSURE CONSISTENCY AND UNIFORMITY.

4.4. NOTIFICATION: GIVE A MINIMUM 7 CALENDAR DAYS' NOTICE TO MANUFACTURER'S AUTHORIZED FIELD REPRESENTATIVE BEFORE DATE ESTABLISHED FOR COMMENCEMENT OF WORK.
5. REQUIRED MOCK-UP:

5.1. CONTRACTOR SHALL CONSTRUCT A MINIMUM 10 FOOT BY 10 FOOT MOCKUP AT LOCATION SELECTED BY OWNER.

5.2. PROVIDE INDIVIDUAL MOCKUPS FOR EACH COLOR REQUIRED.

5.3. MOCKUP CAN BE PART OF FINAL PROJECT IF, IN THE JUDGEMENT OF THE OWNER, PAVEMENT IS ACCEPTABLE.

5.4. CONSTRUCT MOCKUP USING MATERIALS, PROCESSES, AND TECHNIQUES REQUIRED FOR THE WORK, INCLUDING CURING PROCEDURES. INCORPORATE REPRESENTATIVE CONTROL, CONSTRUCTION, AND EXPANSION JOINTS ACCORDING TO PROJECT REQUIREMENTS. INSTALLER FOR THE WORK TO CONSTRUCT MOCKUP.

5.5. NOTIFY OWNER A MINIMUM OF SEVEN CALENDAR DAYS IN ADVANCE OF THE DATE SCHEDULED FOR EACH MOCKUP CONSTRUCTION.

5.6. OBTAIN THE OWNER'S ACCEPTANCE OF EACH MOCKUP PRIOR TO COMMENCEMENT OF THE WORK.

5.7. EACH MOCKUP TO REMAIN UNTIL COMPLETION OF THE WORK TO SERVE AS A QUALITY CONTROL STANDARD FOR THE WORK. PROVIDE SUITABLE PROTECTIONS TO PRECLUDE DAMAGE TO MOCKUP.

5.8. DEMOLISH AND REMOVE EACH MOCKUP FROM SITE WHEN DIRECTED.
6. SEALING

6.1. SEAL ALL COLORED CONCRETE WITH LIQUID MEMBRANE CURING AND SEALING COMPOUNDS AS RECOMMENDED BY MANUFACTURER.

6.2. APPLY TWO COATS OF SPECIFIED CURING AND SEALING COMPOUND ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

6.3. PRIOR TO SEALING, THE FOLLOWING CONDITIONS MUST BE PRESENT:

6.3.1. RELEASE AGENT HAS BEEN REMOVED.

6.3.2. MOISTURE CONTENT OF CONCRETE IS LOW ENOUGH THAT ALKALI AND OTHER SALTS DO NOT BECOME TRAPPED BENEATH SEALER. THIS WILL REQUIRE A MINIMUM OF 28 DAYS SUBSEQUENT TO CONCRETE PLACEMENT, OR LONGER IF REQUIRED.

6.3.3. NO EVIDENCE OF FREE WATER ON CONCRETE SURFACES TO RECEIVE CURING AND SEALING COMPOUND.

SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	
CANOPY TREES						
	TICO	1	TILIA CORDATA	LITTLELEAF LINDEN	2.5" CAL.	
UNDERSTORY TREES						
	CCIN	1	CRATAEGUS CRUS-GALLI VAR. INERMIS	THORNLESS COCKSPUR HAWTHORN	1.5" CAL.	
	MAAS	1	MAACKIA AMURENSIS 'SUMMERTIME'	SUMMERTIME MAACKIA	1.5" CAL.	
	SYRI	1	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	1.5" CAL.	
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SPREAD	SPACING
DECIDUOUS SHRUBS						
	ARME	6	ARONIA MELANOCARPA 'UCONNAM165'	LOW SCAPE MOUND® BLACK CHOKEBERRY	15 - 18" SPR.	48" o.c.
	CEAM	6	CEANOTHUS AMERICANUS	NEW JERSEY TEA	N.A.	60" o.c.
	COSA	6	CORNUS SERICEA 'ALLEMANS'	RED TWIG DOGWOOD	N.A.	60" o.c.
	SYPU	6	SYRINGA PUBESCENS SUBSP. PATULA 'MISS KIM'	DWARF MISS KIM LILAC	N.A.	60" o.c.
ORNAMENTAL GRASSES						
	BOCU	52	BOUTELOUA CURTIPENDULA	SIDE OATS GRAMA	N.A.	24" o.c.
	CAKF	28	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	KARL FOERSTER GRASS	N.A.	36" o.c.
	SCSC	52	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION'	'STANDING OVATION' LITTLE BLUESTEM	N.A.	24" o.c.
	SPHE	28	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	N.A.	36" o.c.
PERENNIALS						
	ADWB	144	ASTER X DUMOSUS 'WOODS BLUE'	WOODS BLUE ASTER	N.A.	18" o.c.
	HESO	330	HEMEROCALLIS 'STELLA DE ORO'	STELLA DE ORO DAYLILY	N.A.	12" o.c.
	NERW	38	NEPETA RACEMOSA 'WALKER'S LOW'	WALKER'S LOW CATMINT	N.A.	36" o.c.
	SANM	160	SALVIA NEMOROSA 'MAY NIGHT'	MAY NIGHT MEADOW SAGE	N.A.	18" o.c.

LEGEND

- 

DECIDUOUS/ORNAMENTAL TREES
- 

SHRUBS/PERENNIALS/GRASSES/ANNUALS
- 

INTEGRAL COLOR CONCRETE
- 

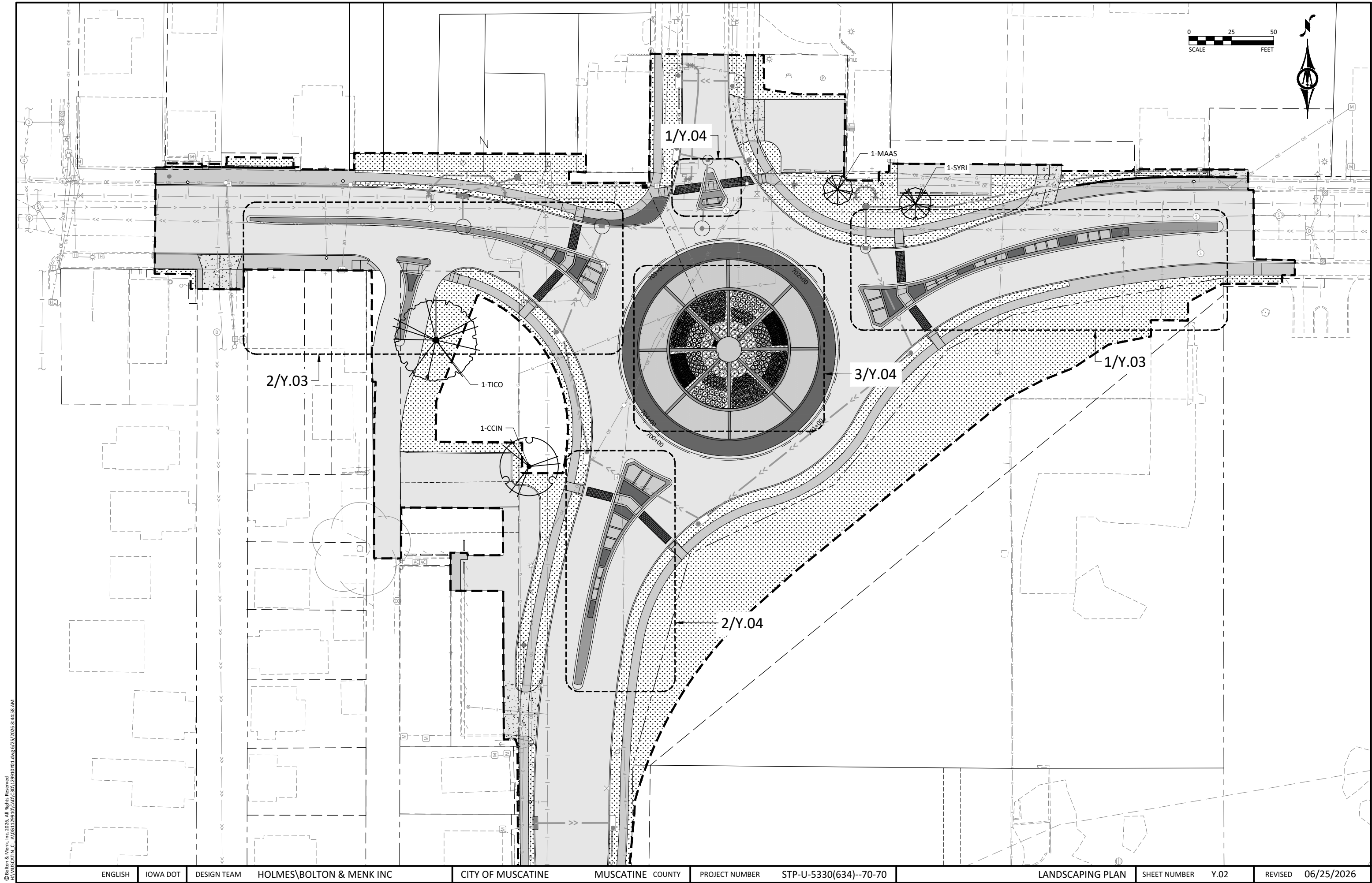
REINFORCED CONCRETE
- 

PAVER TYPE 'A'
- 

PAVER TYPE 'B'
- 

PAVER TYPE 'C'
- 

INTEGRAL COLOR CONCRETE WITH STAMPED PAVER PATTERN



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ENGLISH

IOWA DOT

DESIGN TEAM

HOLMES\BOLTON & MENK INC

CITY OF MUSCATINE

MUSCATINE COUNTY

PROJECT NUMBER

STP-U-5330(634)--70-70

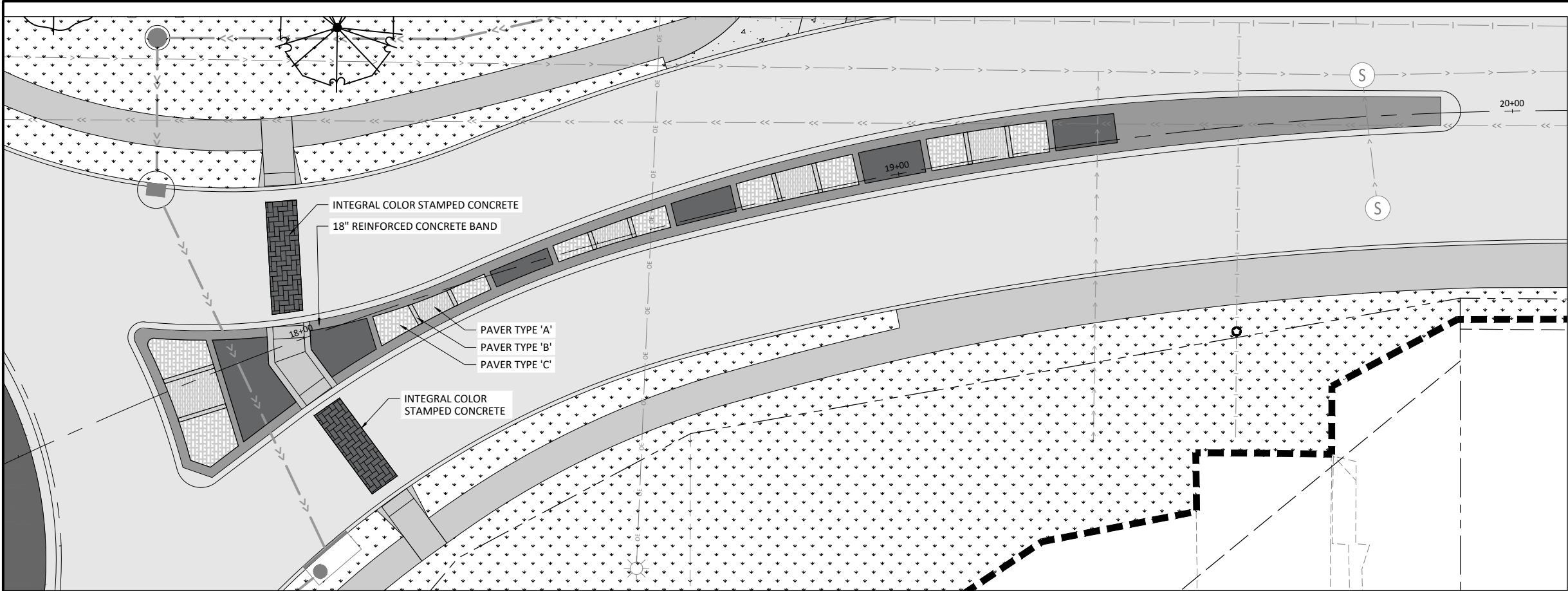
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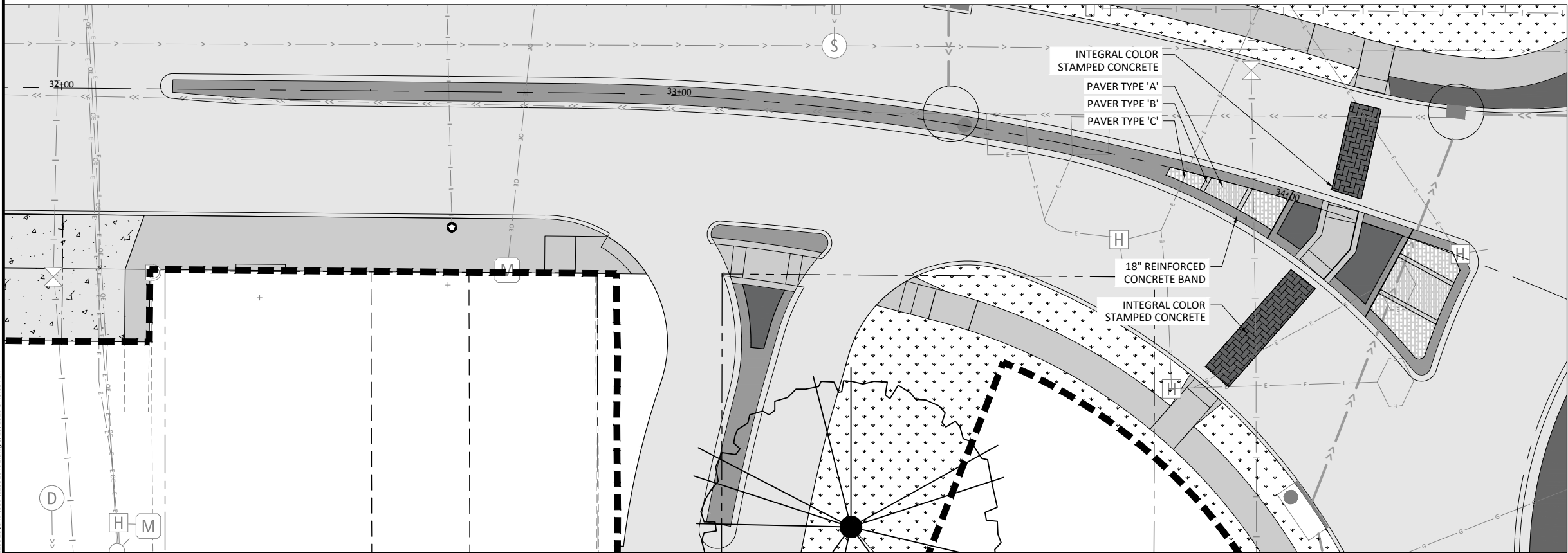
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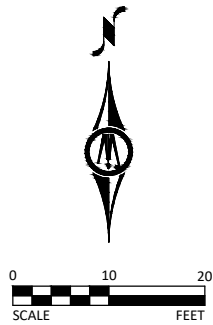
06/25/2026



1 HERSHEY AVE EAST SPLITTER ISLAND



2 HERSHEY AVE WEST SPLITTER ISLAND



LEGEND

DECIDUOUS/ORNAMENTAL TREES

SHRUBS/PERENNIALS/GRASSES/ANNUALS

INTEGRAL COLOR CONCRETE

REINFORCED CONCRETE

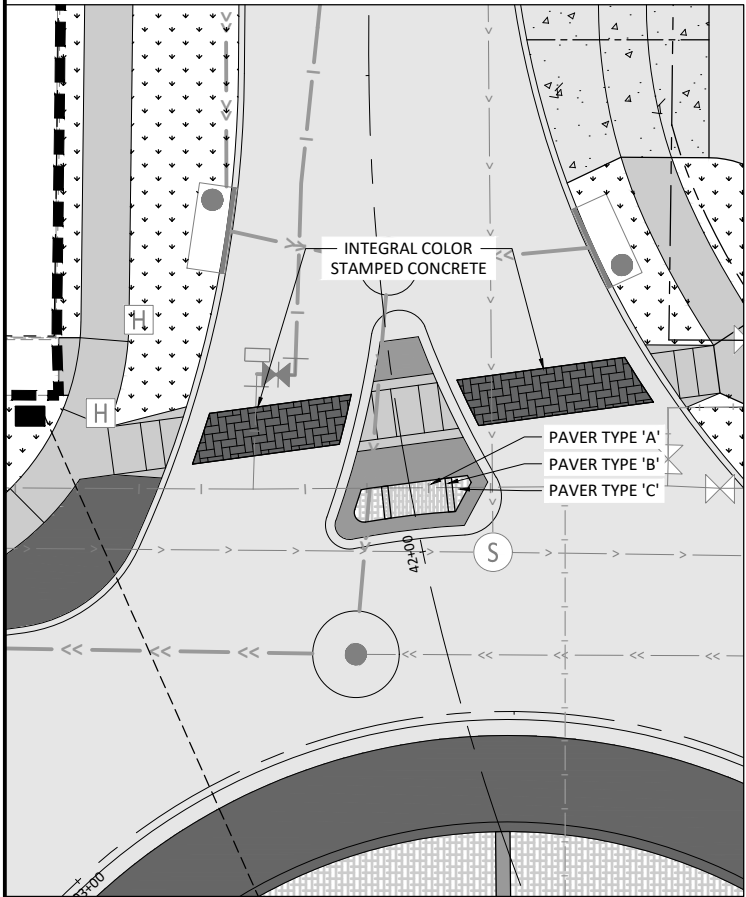
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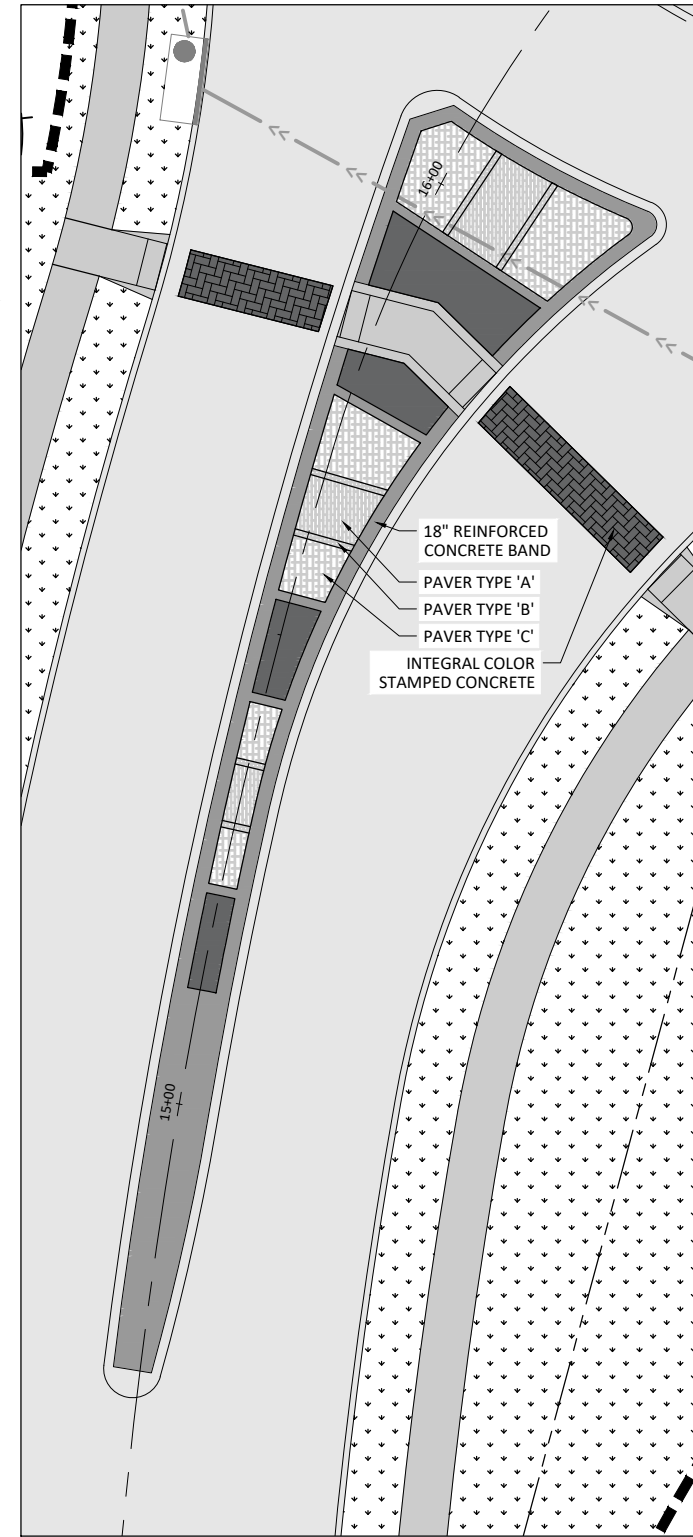
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INTEGRAL COLOR CONCRETE
WITH STAMPED PAVER PATTERN

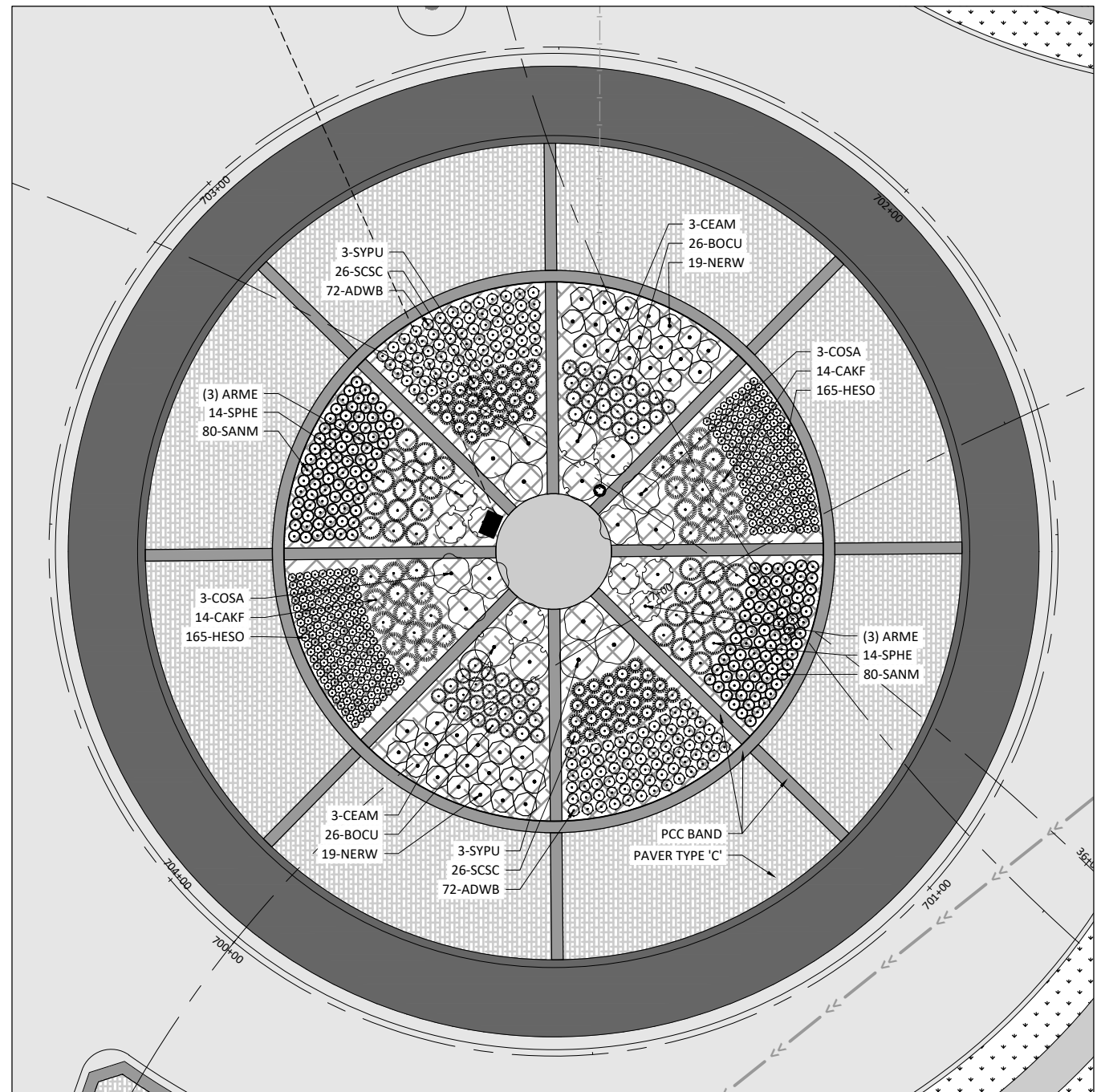
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1 HERSHEY AVE NORTH SPLITTER ISLAND



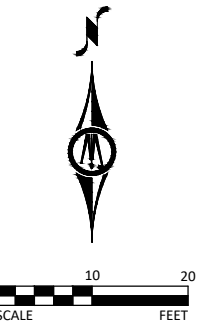
2 HERSHEY AVE SOUTH SPLITTER ISLAND

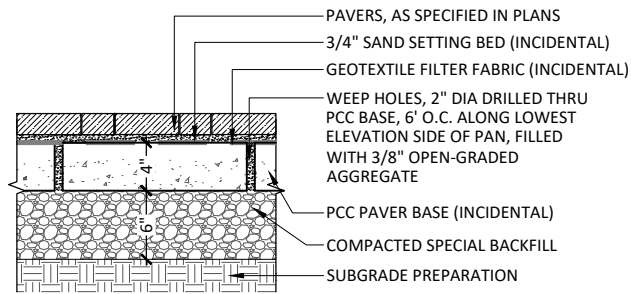


3 ROUNDABOUT ISLAND

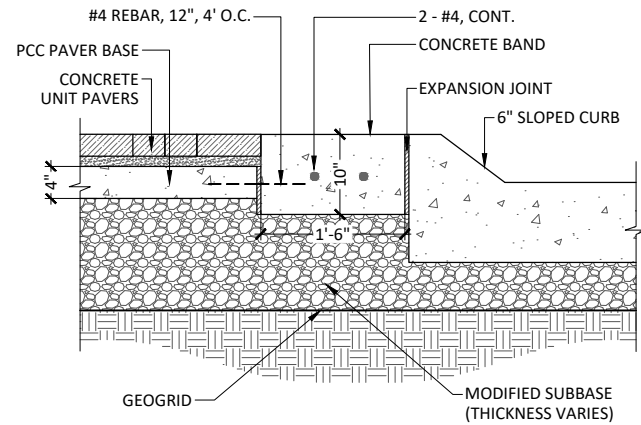
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- DECIDUOUS/ORNAMENTAL TREES
- SHRUBS/PERENNIALS/GRASSES/ANNUALS
- INTEGRAL COLOR CONCRETE
- REINFORCED CONCRETE
- PAVER TYPE 'A'
- PAVER TYPE 'B'
- PAVER TYPE 'C'
- INTEGRAL COLOR CONCRETE WITH STAMPED PAVER PATTERN

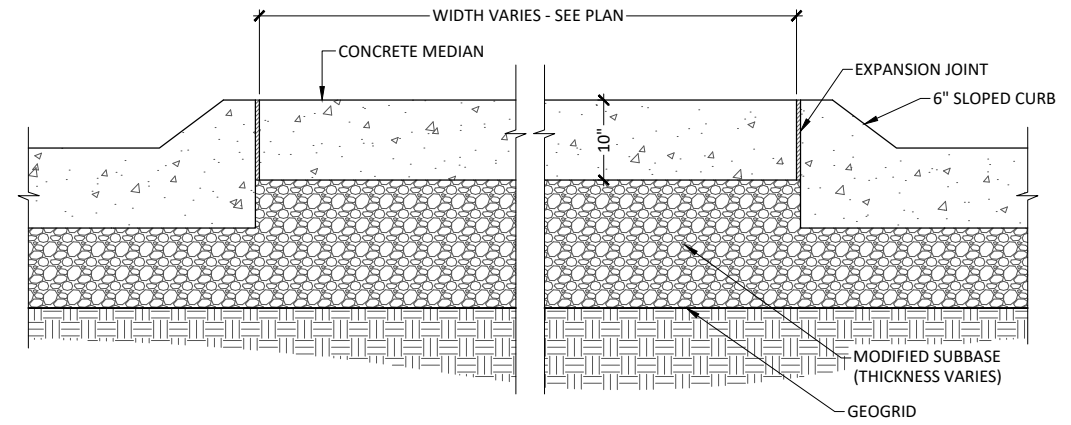




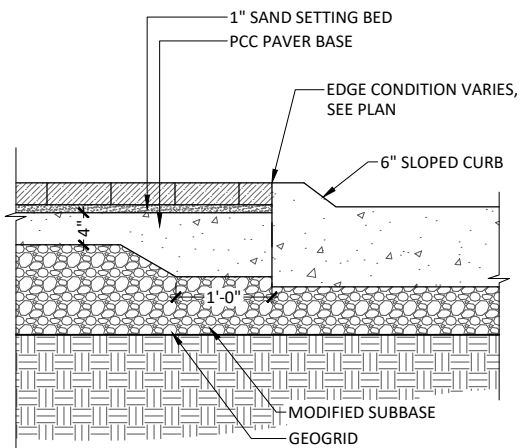
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SCALE: N.T.S.



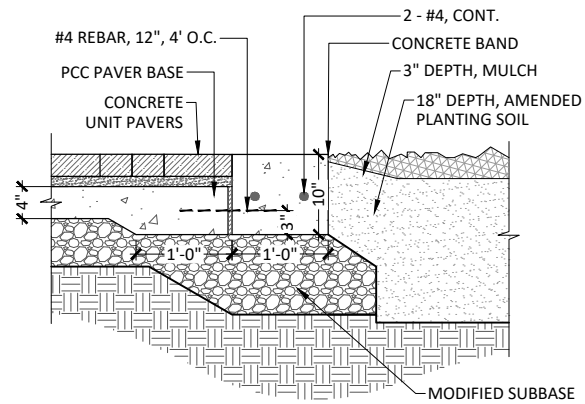
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SCALE: 1"=1'-0"



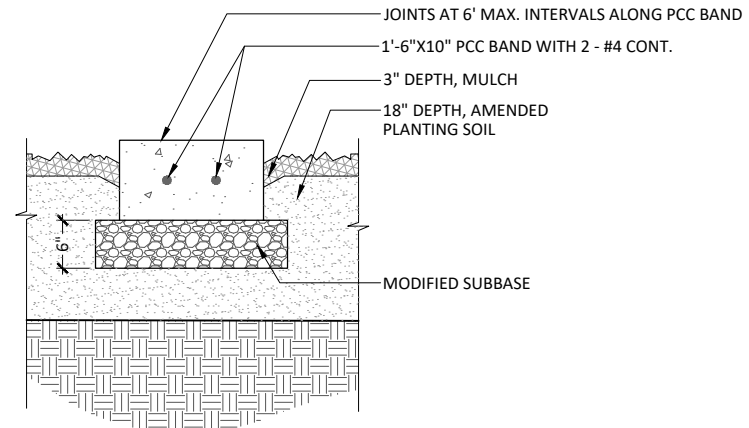
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SCALE: 1"=1'-0"



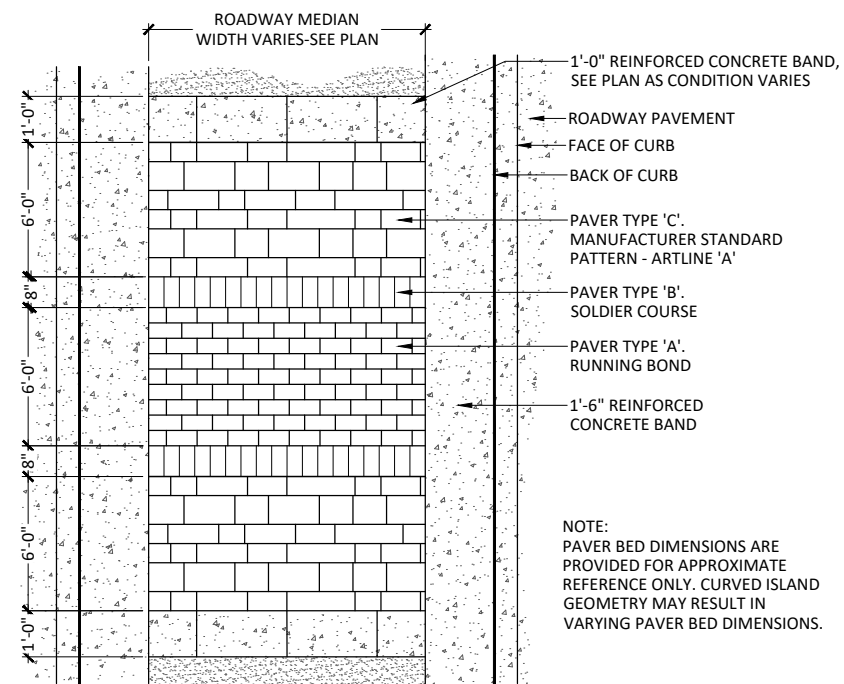
4 SECTION: PAVERS / 6" SLOPED CURB
SCALE: 1"=1'-0"



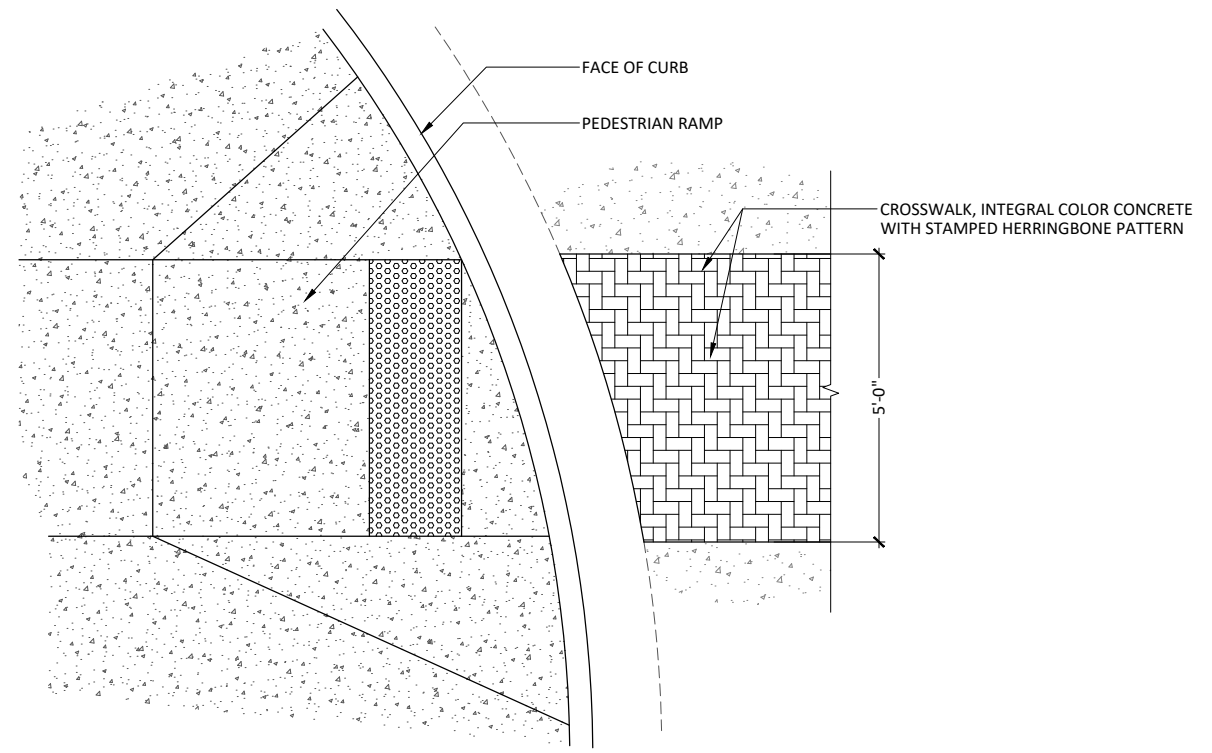
5 SECTION: CONCRETE BAND AT ROUNDABOUT LANDSCAPE ISLAND
SCALE: 1"=1'-0"



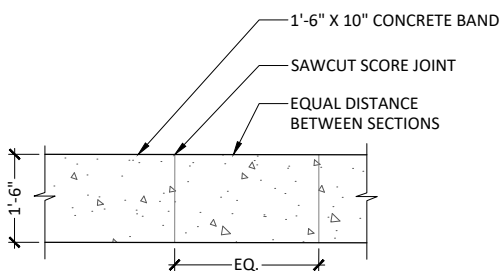
6 SECTION: PCC BAND AT ROUNDABOUT LANDSCAPE ISLAND
SCALE: N.T.S.



8 TYPICAL PAVER PATTERN: MEDIAN PAVERS
SCALE: N.T.S.

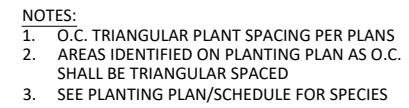


9 TYPICAL CROSSWALK: STAMPED INTEGRAL COLOR CONCRETE
SCALE: N.T.S.



7 CONCRETE BAND JOINTING
SCALE: N.T.S.

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3" DEPTH MULCH AS SPECIFIED,
KEEP MULCH CLEAR OF PLANT STEM AS SHOWN

AMENDED PLANTING SOIL, AS SPECIFIED

18"

O.C. SPACING PER PLANS

2x ROOT BALL DIAMETER

The diagram shows a cross-section of a tree being planted in a pit. The tree's root ball is supported by a wire basket. A steel post is driven into the ground next to the tree, and nylon strap guy assemblies are used to secure the tree. The diagram includes the following labels and instructions:

- DO NOT CUT LEADER
- NYLON STRAP GUY ASSEMBLY
- STEEL POST NOTCHED OR DRILLED FOR GUY WIRE.
- USE 3 GUY ASSEMBLIES FOR EVERGREENS
- 4" TREE WRAP ON DECIDUOUS TREES
- ROOT FLARE OF TREE
- 3" MULCH DEPTH, PULL BACK 4" FROM TREE TRUNK
- FINISH GRADE
- AMENDED PLANTING SOIL BACKFILL
- MIN. 2X ROOT BALL DIA.
- 4'-0" POST HEIGHT
- 3'-0" GUY HEIGHT
- REMOVE TOP 1/3 OF WIRE BASKET AFTER TREE IS IN THE PIT. REMOVE TWINE, & PULL BURLAP FROM TREE TRUNK
- NOTE: SET TOP OF ROOT BALL 1" TO 2" ABOVE SURROUNDING FINISH GRADE

3" MULCH, INCIDENTAL

18" DEPTH, AMENDED PLANTING SOIL

SLOPE VARIES

SCARIFY SUBGRADE ACROSS FULL ROUNDABOUT

COMPACTED EARTHEN FILL

54" CONCRETE PAD
ELEVATION = 561.20
(REFER TO DETAIL 5/B.06 FOR MORE INFORMATION)

REFER TO 'MWM' AND 'P' SHEETS FOR WATER SERVICE AND CONDUIT LOCATIONS

CONCRETE BAND
(REFER TO DETAIL 6/Y.05 FOR MORE INFORMATION)

SLOPE VARIES

27'-6"

15' DIAMETER

27'-6"

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