CITY OF MUSCATINE, IA

CONSTRUCTION PLANS FOR

2ND STREET RECONSTRUCTION

NOVEMBER, 2019

GOVERNING SPECIFICATIONS

THE 2019 EDITION OF THE "IOWA STATEWIDE URBAN SPECIFICATIONS FOR PUBLIC IMPROVEMENTS" (SUDAS) SHALL GOVERN.

IOWA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION", SERIES 2015 AND ALL CURRENT GENERAL SUPPLEMENTAL SPECIFICATIONS AND MATERIALS INSTRUCTIONAL MEMORANDUM SHALL GOVERN AS REFERENCED.

MUTCD 2009 AS ADOPTED BY IOWA DEPARTMENT OF TRANSPORTATION.

UTILITY CONTACTS

Muscatine Public Works Department
1459 Washington St
Muscatine, IA 52761
Jim Edgmond
City Engineer
ph. 563-263-8933

Sewer Department
1459 Washington St
Muscatine, IA 52761

Street Department
1459 Washington St
Muscatine, IA 52761
Randy Howell

Water Mains:
Muscatine Power & Water
3205 Cedar St
Muscatine, IA 52761
ph. 563-263-2631

Electric Lines:
Eastern Iowa Light & Power
600 East 5th St
Wilton, IA 52778
Chad Ruden
ph. 563-529-3727

Muscatine Power & Water
3205 Cedar St
Muscatine, IA 52761
Dennis Easley
ph. 563-263-2631

Communication Lines:
Century LInk
3908 Utica Ridge Rd
Bettendorf, IA 52722
Antonio Glessner
ph. 563-355-6402

Windstream
1450 N. Center Point Rd
Hiawatha, IA 52233
Joe Green
ph. 319-790-7510

Muscatine Power & Water
3205 Cedar St
Muscatine, IA 52761
Tom Lewis
ph. 563-263-2631

Iowa Communications Network (ICN)
400 East 14th St
Des Moines, IA 50319
Kent Frie
ph. 515-725-4725

Gas Mains:
Alliant Energy
215 Oak St
Muscatine, IA 52761
John Carney
ph. 563-288-3322

PROJECT LOCATION

MAP OF THE
CITY OF MUSCATINE
MUSCATINE COUNTY, IA

0 200 400
SCALE FEET

SHEET NUMBER	SHEET TITLE
A.01 - A.02	TITLE SHEET, LEGEND
B.01 - B.07	TYPICAL SECTIONS, RAVINE LOCATION
C.01	ESTIMATED QUANTITIES
C.02 - C.06	ESTIMATE REFERENCE NOTES
C.07 - C.12	TABULATIONS
CE.01 - CE.09	EROSION CONTROL PLAN
D.01 - D.09	2ND STREET PLAN AND PROFILE
E.01	SIDE STREET PLAN AND PROFILE
E.02	2ND STREET PLAZA DETAILS
F.01 - F.09	REMOVAL PLAN
G.01 - G.02	ALIGNMENT AND BENCHMARK TABLES
H.01 - H.04	ROW SHEETS
J.01 - J.07	TRAFFIC CONTROL
K.01 - K.09	SIGNAGE AND MARKING PLAN
L.01 - L.06	INTERSECTION DETAILS
L.07 - L.15	JOINTING DETAILS
M.01 - M.11	STORM SEWER PLAN
M.12 - M.14	SANITARY SEWER PLAN
P.01 - P.07	STREETLIGHT PLAN
S.01 - S.07	SIDEWALK DETAILS
T.01 - T.09	LANDSCAPING PLAN
U.01 - U.06	LANDSCAPING DETAILS
W.01 - W.16	CROSS SECTIONS

THIS PLAN SET CONTAINS 146 SHEETS.

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."

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

MUSCATINE COUNTY, IA

PLAN REVISIONS

REV	ISSUED FOR	DATE

LICENSED PROFESSIONAL ENGINEER
RICHARD H. TEED
23299
IOWA

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.

RICHARD H. TEED

REG. NO. 23299 DATE: 11/21/2019

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2019

PAGES OR SHEETS COVERED BY THIS SEAL:

B.07, C.13, P.01-P.07

PROFESSIONAL LANDSCAPE ARCHITECT
CASEY BYERS
00637
IOWA

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CASEY BYERS

REG. NO. 00637 DATE: 11/21/2019

MY LICENSE RENEWAL DATE IS JUNE 30, 2021

PAGES OR SHEETS COVERED BY THIS SEAL:

T.01-U.06

LICENSED PROFESSIONAL ENGINEER
JACOB J. SHAW
23827
IOWA

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JACOB J. SHAW

REG. NO. 23827 DATE: 11/21/2019

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2019

PAGES OR SHEETS COVERED BY THIS SEAL:

B.05

LICENSED PROFESSIONAL ENGINEER
GREGORY A. BROUSSARD
21974
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GREGORY A. BROUSSARD

REG. NO. 21974 DATE: 11/21/2019

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2019

PAGES OR SHEETS COVERED BY THIS SEAL:

A.01-B.06, C.01-C.11, D.01-M.14, S.01-S.06, W.01-W.16

MUSCATINE
CITY OF MUSCATINE
ENGINEERING DEPARTMENT
MUSCATINE, IOWA

A Resolution of Necessity regarding this project was approved by the Muscatine City Council on _____

Approved for construction: _____
James Edgmond
City Engineer

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TITLE SHEET

SHEET A.01

EXISTING TOPOGRAPHIC SYMBOLS

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

SURVEY SYMBOLS

- BENCH MARK LOCATION
- CONTROL POINT
- MONUMENT IRON FOUND
- CAST IRON MONUMENT

EXISTING TOPOGRAPHIC LINES

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

SURVEY LINES

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

EXISTING UTILITY LINES

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

PROPOSED UTILITY LINES

- FORCEMAIN
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SEWER DRAIN TILE
- WATERMAIN
- WATER SERVICE
- PIPE CASING

GRADING INFORMATION

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

952 950 952 950 × 953.53 × STA:5+67.19 980.87 4:1

HATCH PATTERNS

- PCC PAVEMENT
- DRIVEWAY
- SIDEWALK
- CURB

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, 1-800-252-8989.

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 :

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

UTILITY QUALITY LEVELS:

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

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

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

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

ABBREVIATIONS

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

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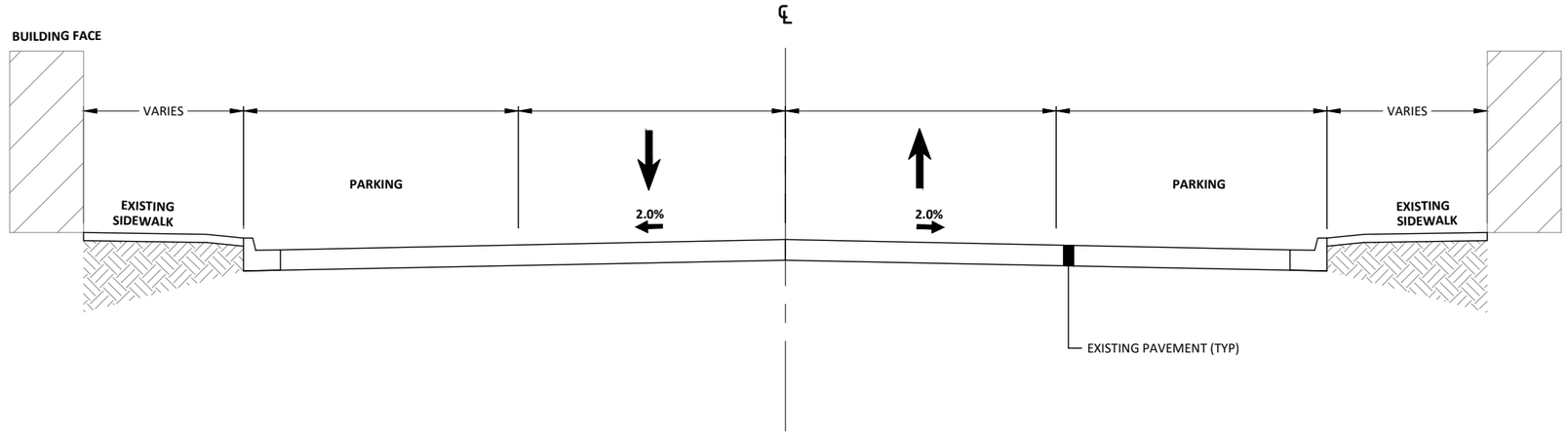
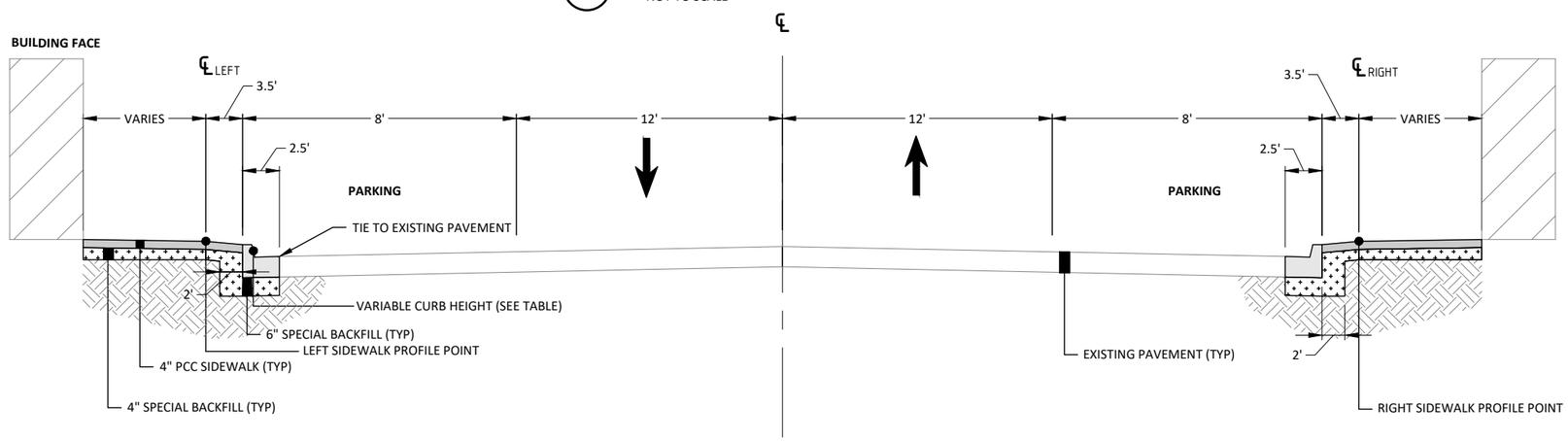
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
LEGEND SHEET

SHEET A.02



1 / B.01 EXISTING 2ND STREET 2-LANE TYPICAL SECTION
NOT TO SCALE



2 / B.01 PROPOSED 2ND STREET SIDEWALK RECONSTRUCTION
NOT TO SCALE

STREET	START STA.	END STA.	CURB HEIGHT
2ND STREET	14+95.05	18+36.63	7"
2ND STREET	18+58.63	22+01.41	7"
2ND STREET	22+39.92	25+80.11	7"
2ND STREET	26+07.61	29+39.35	7"
2ND STREET	29+66.35	32+94.26	6"
2ND STREET	33+34.58	35+96.24	6"
CEDAR STREET	93+20.99	95+73.62	6"

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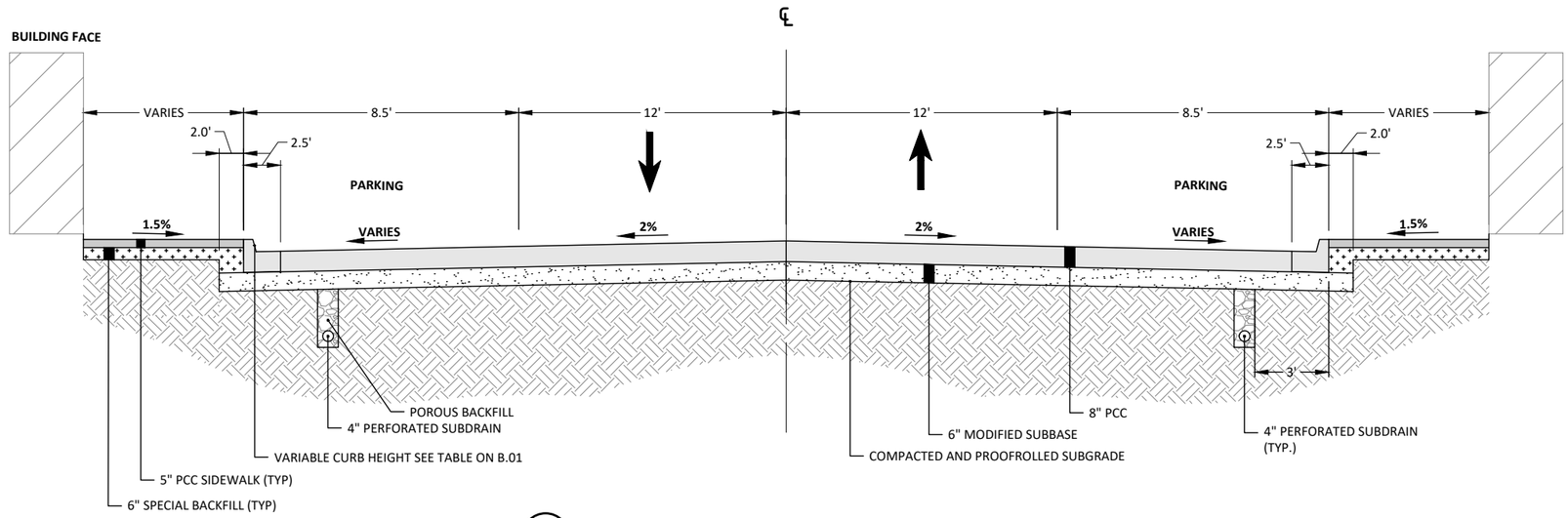
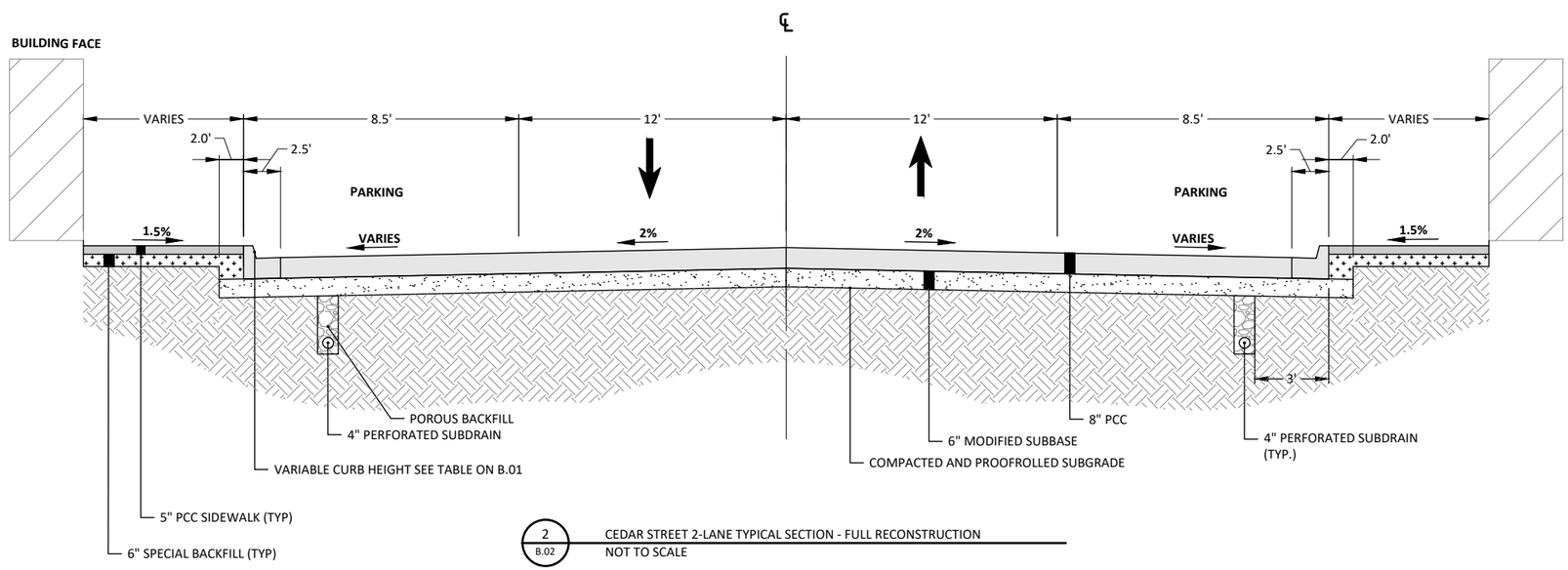
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TYPICAL CROSS SECTIONS AND DETAILS

SHEET B.01



1 / B.02 — 2ND STREET 2-LANE TYPICAL SECTION - FULL RECONSTRUCTION
NOT TO SCALE



2 / B.02 — CEDAR STREET 2-LANE TYPICAL SECTION - FULL RECONSTRUCTION
NOT TO SCALE

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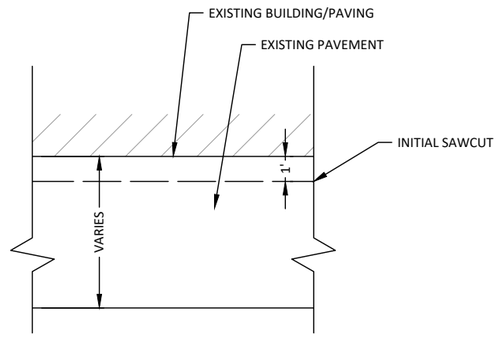
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TYPICAL CROSS SECTIONS

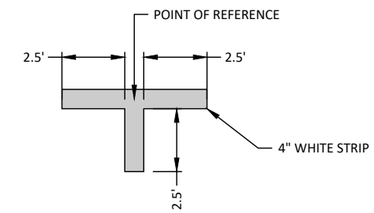
SHEET
B.02

PAVEMENT REMOVAL PROCESS

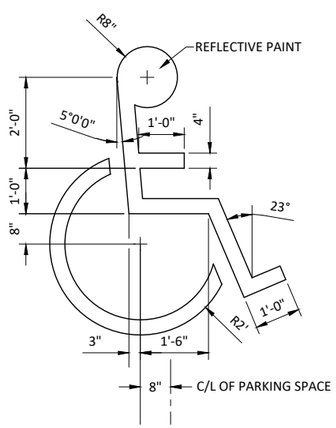
1. FULL DEPTH SAWCUT 1' FROM BUILDING FACE OR EXISTING PAVEMENT
2. REMOVE PAVEMENT OUTSIDE OF 1' STRIP
3. REMOVE 1' OF REMAINING MATERIAL USING HAND-HELD JACK HAMMER WEIGHING 30 POUNDS OR LESS OR OTHER LIGHT DUTY EQUIPMENT WHICH WILL NOT CAUSE DISTRESS ON BUILDING OR PAVEMENT TO REMAIN.



1 / B.03 FULL DEPTH SAW CUT TYPE 1
NOT TO SCALE

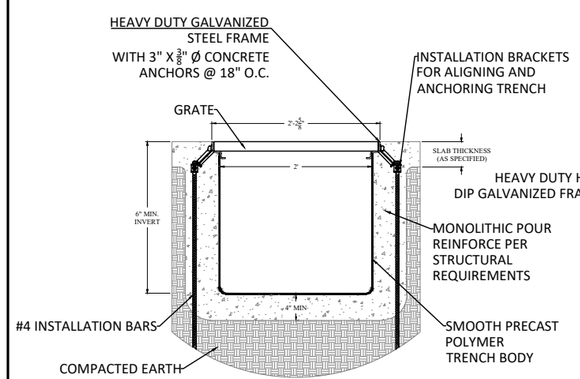


2 / B.03 PARALLEL PARKING STRIPING TYPICAL DETAIL
NOT TO SCALE



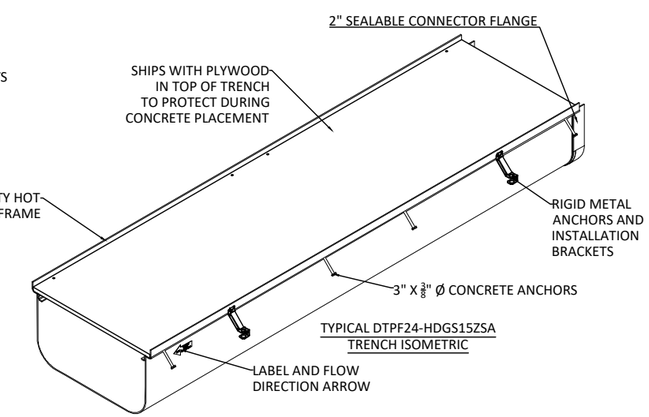
INTERNATIONAL HANDICAP SYMBOL
NOT TO SCALE

3 / B.03 HANDICAP PARKING STRIPING DETAIL
NOT TO SCALE



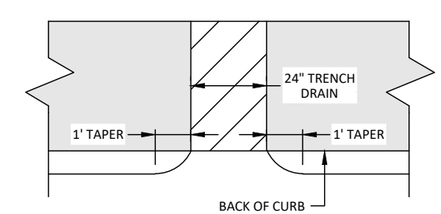
NOTES:
1. STANDARD SLOPE IS 0.5% UNLESS OTHERWISE SPECIFIED
2. REINFORCE ACCORDING TO STRUCTURAL REQUIREMENTS
3. TRENCH DRAIN MUST BE 3/8" BELOW FINISHED CONCRETE GRADE

TYPICAL TRENCH SECTION



TYPICAL DTPF24-HDGS15ZSA TRENCH ISOMETRIC

4 / B.03 TRENCH DRAIN DETAILS
NOT TO SCALE



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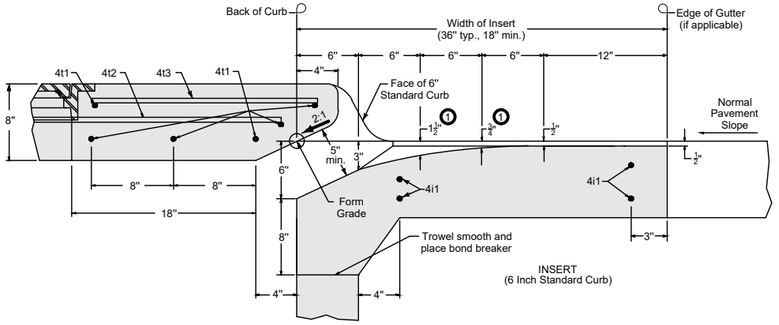
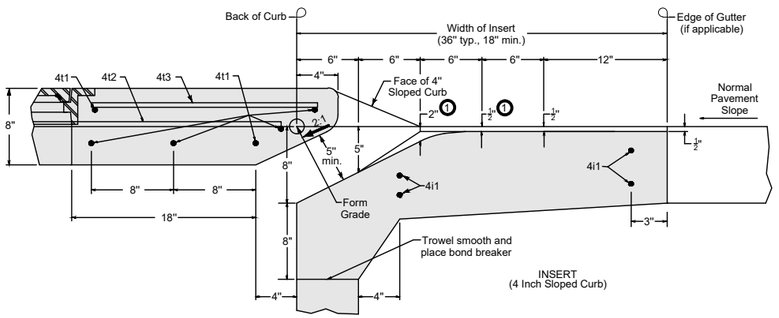
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
SAWCUT DETAILS

SHEET
B.03



INSERT
(6 Inch Standard Curb)



INSERT
(4 Inch Sloped Curb)

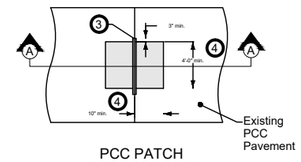
1. Insert shaping may be modified for insert widths less than 36 inches. For an 18 inch insert, reduce dimensions indicated by ½ inch.

		REVISED
		3 04-17-18
FIGURE 6010.508	STANDARD ROAD PLAN	SW-508
		SHEET 1 of 2

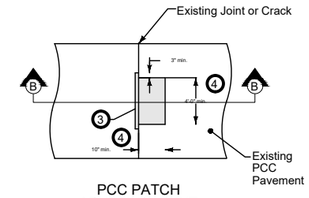
MODIFIED 3/2016 Jeffrey Greenquist drawing to include 4" curb, changed "Inverf" callout to "Concrete Filler", and modified circle notes.

SINGLE OPEN-THROAT CURB INTAKE, LARGE BOX

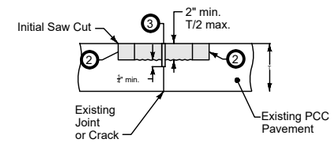
FIGURE 6010.508 SHEET 1 OF 2



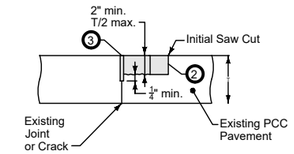
PCC PATCH
ACROSS JOINT



PCC PATCH
ABUTTING JOINT

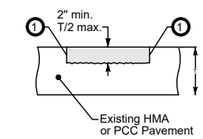


SECTION A-A
(Option 1: Sawed Edges)



SECTION B-B

1. Vertical saw cut (typical). Apply tack coat to sides and bottom.
2. Edges of partial depth patch shall be vertical faces
3. Saw and seal existing joint.
4. Extend patch limits at least 3 inches beyond distressed area.

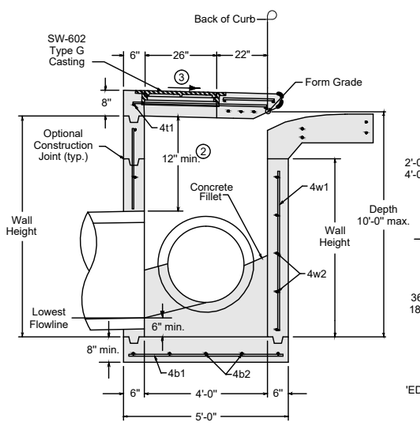


HMA PATCH

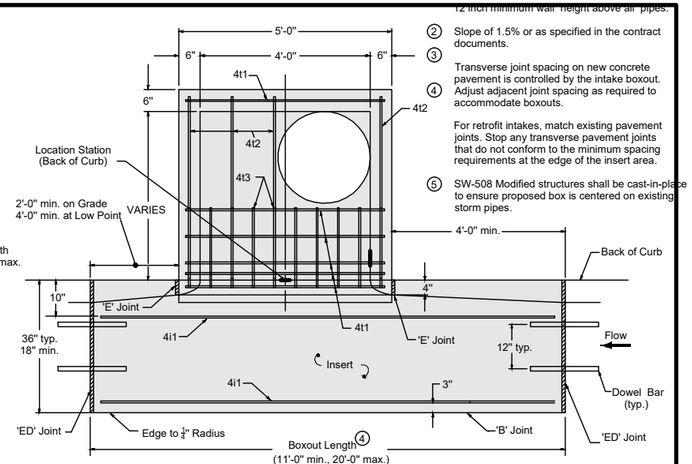
		REVISED
MODIFIED		1 10-17-17
		7040.104
		SHEET 1 of 1

PARTIAL DEPTH PATCHES

FIGURE 7040.104 SHEET 1 OF 1



TYPICAL SECTION



PLAN

1. 12 inch minimum wall height above all pipes.
2. Slope of 1.5% or as specified in the contract documents.
3. Transverse joint spacing on new concrete pavement is controlled by the intake boxout. Adjust adjacent joint spacing as required to accommodate boxouts.

   For retrofit intakes, match existing pavement joints. Stop any transverse pavement joints that do not conform to the minimum spacing requirements at the edge of the insert area.
4. SW-508 Modified structures shall be cast-in-place to ensure proposed box is centered on existing storm pipes.
5. SW-508 Modified structures shall be cast-in-place to ensure proposed box is centered on existing storm pipes.

MAXIMUM PIPE DIAMETERS	
Precast Structure	Cast-in-place Structure
30"	36"

REINFORCING BAR LIST						
Mark	Size	Location	Shape	Count	Length	Spacing
4t1	4	Top	——	7	4'-8"	See Insert
4t2	4	Top	——	4	4'-6"	12"
4t3	4	Top	——	10	1'-10"	6"
4b1	4	Base	——	6	4'-6"	11"
4b2	4	Base	——	6	4'-6"	11"
4i1	4	Insert	——	4	Boxout Length minus 8"	See Plan
4w1	4	Walls	——	16	Wall Height minus 4"	14"
4w2	4	Walls	——	Varies	4'-8"	12"
4w3	4	Walls	——	Varies	4'-8"	12"

		REVISED
MODIFIED		3 04-17-18
FIGURE 6010.508	STANDARD ROAD PLAN	SW-508
		SHEET 2 of 2

MODIFIED 3/2016 Jeffrey Greenquist drawing to include 4" curb, changed "Inverf" callout to "Concrete Filler", and modified circle notes.

SINGLE OPEN-THROAT CURB INTAKE, LARGE BOX

FIGURE 6010.508 SHEET 2 OF 2

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DRAWN	DEM			
CHECKED	GAB			
CLIENT PROJ. NO.	A13.117912			

MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
STANDARD DETAILS

SHEET
B.04

MATERIAL NOTES:

REINFORCED CONCRETE:

CONCRETE: CLASS C, IN ACCORDANCE WITH IOWA DOT SPECIFICATION 2403 (f'c = 4 KSI)

REINFORCEMENT BARS: DEFORMED BARS — GRADE 60, IN ACCORDANCE WITH IOWA DOT SPEC 2404

Ⓐ EMBEDMENT LENGTH AS REQUIRED TO FULLY DEVELOP REBAR. POLYMER GROUT AND REBAR SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS AND BEST PRACTICES.

Ⓑ THE WALL SHALL BE CONSTRUCTED WITH INSULATED CONCRETE FORMWORK, OR BY OTHER MEANS THAT ALLOW THE FORMWORK TO REMAIN IN PLACE. FORMWORK SHALL NOT BE CONNECTED TO, OR BRACED BY THE EXISTING FOUNDATION WALL. PROPOSED FORMING METHOD SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

VAULT LOCATIONS

STREET	START STA.	END STA.	SIDE	ESTIMATED REPAIR TYPE
2ND STREET	16+40.57	18+17.97	RT	TYPE 2
2ND STREET	18+77.31	19+02.	RT	TYPE 2
2ND STREET	19+02.	19+54.01	RT	TYPE 2
2ND STREET	19+13.44	19+16.44	LT	TYPE 2
2ND STREET	25+25.27	25+43.27	RT	TYPE 2
2ND STREET	25+29.24	25+38.76	LT	TYPE 2
2ND STREET	25+46.25	25+65.35	RT	TYPE 2
2ND STREET	25+49.32	25+58.84	LT	TYPE 2
2ND STREET	26+35.05	26+38.04	LT	TYPE 2
2ND STREET	26+56.03	26+70.03	RT	TYPE 2
2ND STREET	26+73.97	26+76.97	LT	TYPE 2
2ND STREET	27+12.79	27+21.77	RT	TYPE 2
2ND STREET	28+66.	28+85.99	LT	TYPE 2
2ND STREET	28+85.99	29+01.99	LT	TYPE 2
2ND STREET	31+35.28	31+95.28	LT	TYPE 2
2ND STREET	32+72.51	32+78.51	LT	TYPE 2
2ND STREET	35+05.66	35+45.66	LT	TYPE 2
CEDAR STREET	93+27.81	93+67.81	RT	TYPE 2

NOTE:
SIDEWALKS WERE DESIGNED FOR 90 PSF PEDESTRIAN LIVE LOADING. NO VEHICULAR LOADING WAS CONSIDERED FOR THE SIDEWALK DESIGN. MAINTENANCE VEHICLES ARE NOT ANTICIPATED.

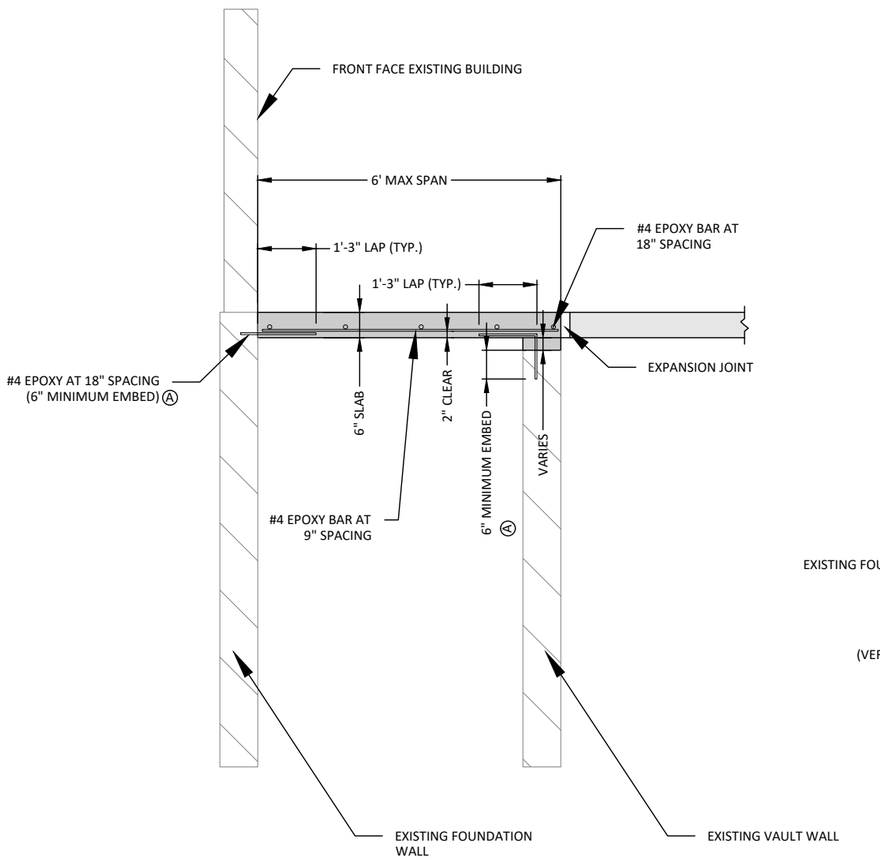
ALL REINFORCING STEEL IN THE SIDEWALK SLAB SHALL BE EPOXY COATED.

REINFORCING BARS SHALL HAVE 2" CLEAR COVER UNLESS NOTED OTHERWISE.

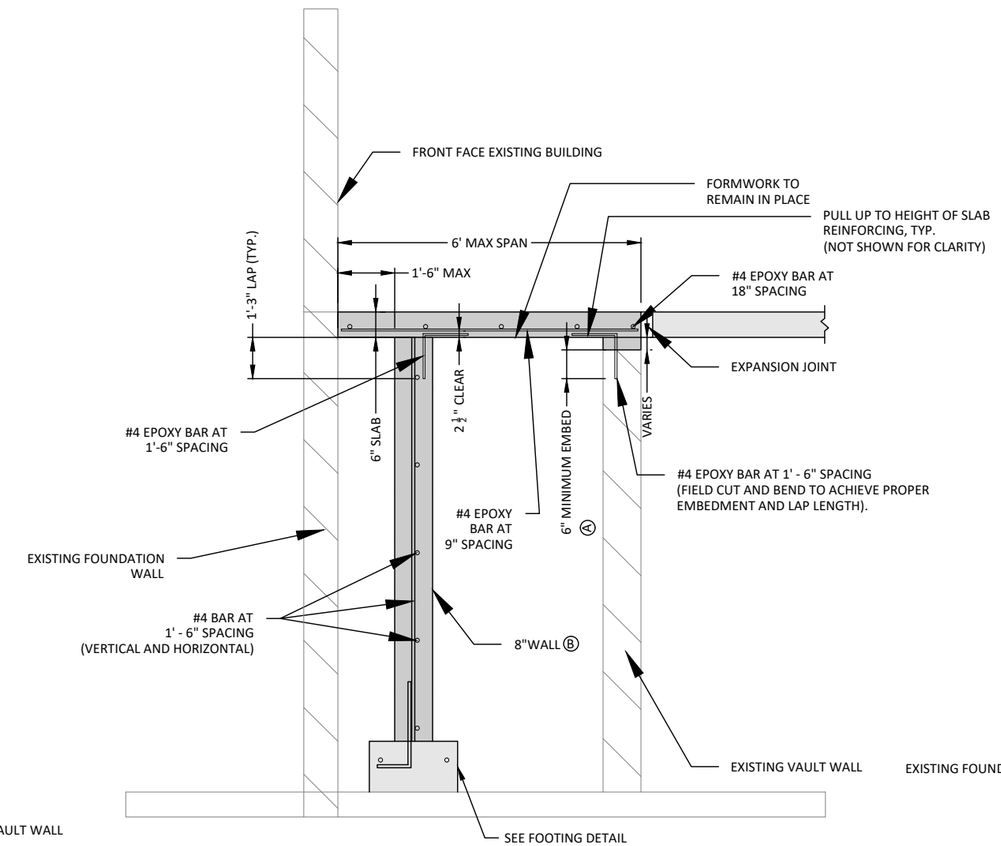
ALL SLAB REINFORCING IS TO BE SUPPORTED AT INTERVALS OF NOT MORE THAN 3'-0".

REINFORCEMENT BAR ADHESIVE SHALL BE LISTED ON THE IDOT 'MATERIALS APPROVED PRODUCT LIST ENTERPRISE' FOR 'GROUT, POLYMER (DOWEL BAR)', AND SHALL BE DESIGNED FOR USE IN MASONRY WALLS.

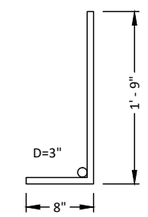
NOTE:
CONTRACTOR SHALL PROTECT EXISTING BUILDING AND VAULT. ANY DEBRIS OR WATER DAMAGE TO BUILDING OR VAULT AS A RESULT OF INADEQUATE PROTECTION DURING CONSTRUCTION OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



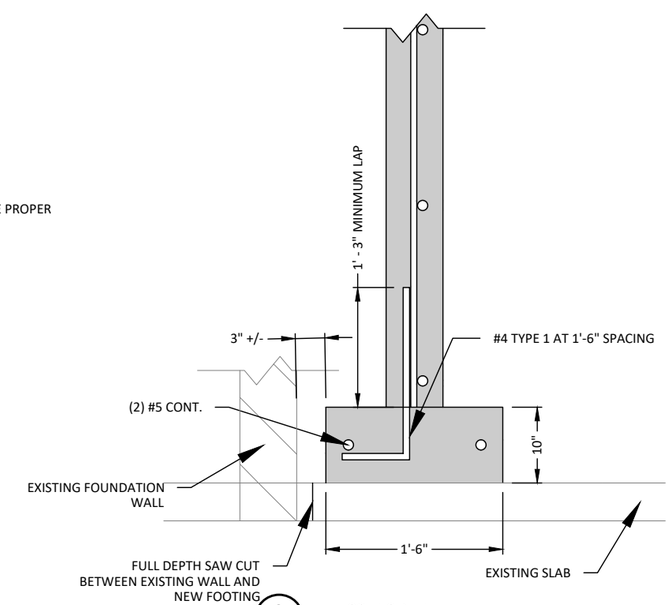
1 / B.05 — 2ND STREET VAULT REPAIR TYPE 1
NOT TO SCALE



2 / B.05 — 2ND STREET VAULT REPAIR TYPE 2
NOT TO SCALE



#4 TYPE 1



3 / B.05 — FOOTING DETAIL
NOT TO SCALE

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www.bolton-menk.com

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DRAWN DEM
CHECKED GAB
CLIENT PROJ. NO. A13.117912

NO.	ISSUED FOR	DATE

MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
STRUCTURAL DETAILS

SHEET B.05

HORZ. 0 500 1000
SCALE FEET

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DRAWN	DEM
CHECKED	GAB
CLIENT PROJ. NO.	A13.117912

NO.	ISSUED FOR	DATE

MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

RAVINE SHEET

SHEET B.06

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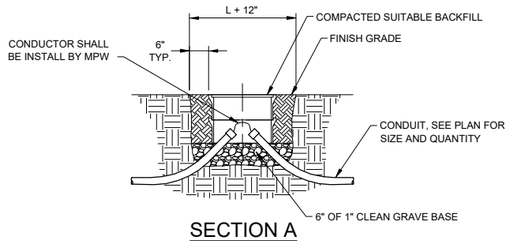
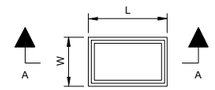


SECTION A

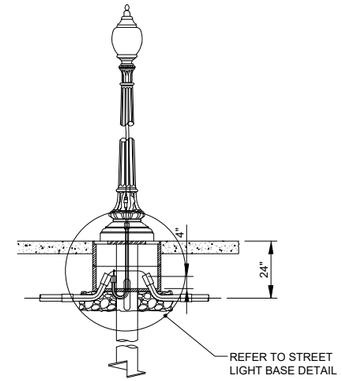


PLAN VIEW

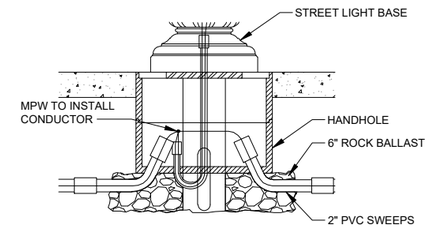
JUNCTION BOX AND HAND HOLE SCHEDULE *						
NO.	TYPE	W	L	D	PART NO.	
					COVER	BOX
1.	8" x 18" JUNCTION BOX	11-1/2"	21-1/2"	8"	PC0818HG0017	PC0818BG08
2.	13" x 24" JUNCTION BOX	15-1/2"	25"	18"	PG1324HA0017	PG1324BA18

* NOTE:
1. JUNCTION BOXES SHALL BE LOCATED AS INDICATED ON THE PLANS FOR FEED LIGHTING AND SINGLE PHASE JUNCTIONS.
2. ALL RECTANGULAR JUNCTION BOXES AND HAND HOLES SHALL BE A QUAZITE POLYMER CONCRETE BOX.
3. ALL ROUND HAND HOLES SHALL BE PENCELL HIGH DENSITY POLYETHYLENE BOXES.

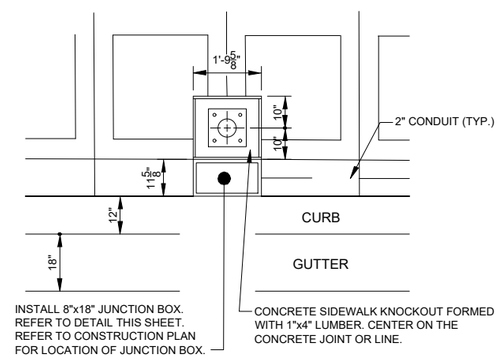
1 JUNCTION BOX / HANDHOLE DETAIL (TYP.)
SCALE: 1/2" = 1'-0"



ELEVATION



BASE DETAIL
SCALE: NTS



PLAN

2 STREET LIGHT DETAIL
SCALE: 1/2" = 1'-0"

GENERAL CONSTRUCTION NOTES

CONDUIT DELIVERY STORAGE, AND HANDLING SHALL COMPLY WITH SUDAS DIVISION 1 - GENERAL PROVISIONS AND COVENANTS.

CONDUIT MATERIAL SPECIFICATIONS:
1. FURNISH WATER PROOF FITTINGS OF IDENTICAL OR COMPATIBLE MATERIAL TO THE CONDUIT. USE STANDARD FACTORY ELBOWS, COUPLINGS, AND OTHER FITTINGS.
2. USE A MANUFACTURED CONDUIT SEALING COMPOUND THAT IS READILY WORKABLE MATERIAL AT TEMPERATURES AS LOW AS 30°F AND WILL NOT MELT OR RUN AT TEMPERATURES AS HIGH AS 300°F.
3. PLASTIC CONDUIT AND FITTINGS
   - 3.1. PVC
     - 3.1.1. PVC SCHEDULE 40 PLASTIC CONDUIT AND FITTINGS COMPLYING WITH NEMA TC-2 (PIPE), MENA TC-3 (FITTINGS), AND UL 651 FOR SCHEDULE 40 HEAVY WALL TYPE.
     - 3.1.2. SOLVENT WELDED, SOCKET TYPE FITTINGS, EXCEPT WHERE OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.
     - 3.1.3. PVC TO BE USED WHEN OPEN TRENCH CONSTRUCTION TECHNIQUE IS UTILIZED BY CONTRACTOR FOR ELECTRIC CONDUIT.

CONDUIT INSTALLATION SPECIFICATIONS:
1. PLACE CONDUIT TO A MINIMUM DEPTH OF 30 INCHES AND A MAXIMUM DEPTH OF 60 INCHES BELOW THE GUTTERLINE. WHEN CONDUIT IS PLACED BEHIND THE CURB, PLACE TO A MINIMUM DEPTH OF 24 INCHES AND A MAXIMUM DEPTH OF 48 INCHES BELOW TOP OF CURB.
2. CHANGE DIRECTION AT HANDHOLES OR BY BENDING, SUCH THAT THE CONDUIT WILL NOT BE DAMAGED OR ITS INTERNAL DIAMETER CHANGES. ENSURE BENDS ARE UNIFORM IN CURVATURE AND THE INSIDE RADIUS OF CURVATURE OF ANY BEND IS NO LESS THAN SIX TIMES THE INTERNAL DIAMETER OF THE CONDUIT.
3. ON THE EXPOSED ENDS OF CONDUIT, PLACE BELL-END FITTINGS ON PVC OR HDPE CONDUIT AND BUSHINGS ON STEEL CONDUIT. EXTEND ALL CONDUITS A MINIMUM OF 2-INCHES AND A MAXIMUM OF 14-INCHES ABOVE THE FINISHED SURFACE OF ANY FOUNDATION, FOOTING, OR STRUCTURAL BASE.
4. SEAL CONDUIT ENDS TO MINIMIZE INGRESS OF WATER OR ANY ITEM THAT MAY HINDER THE INSTALLATION OF WIRE.
5. MINIMUM TRENCH WIDTH SHALL BE 2 INCHES GREATER THAN THE NOMINAL DIAMETER OF EACH CONDUIT ADDED TOGETHER.
6. ALL CONDUIT SHALL BE INSTALLED ON THE BOTTOM OF THE TRENCH. ELECTRICAL AND COMMUNICATION SHALL BE PLACE ON OPPOSITE ENDS OF TRENCH. BENCHING OF CONDUIT WOULD ALSO BE ALLOWED WITH OWNER APPROVAL
7. SUITABLE BACKFILL SHALL BE MANUFACTURED SAND WHEN TRENCH IS WITHIN 10'-0" OF ROADWAY OR UNDER PAVEMENT.
8. CONCRETE ENCASE 13.8KV PRIMARY CONDUITS WHEN LESS THAN 20" OF COVER TO TOP OF CONDUIT. CONCRETE TO PROVIDE MIN. 2" OF COVER ABOVE HIGHEST CONDUIT.

REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

DRAWN BY: L SMITH — DATE: 11/04/2019
DESIGNED BY: — DATE:
CHECKED BY: — DATE:
APPROVED BY: — DATE:

MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET LIGHT REHAB
DECORATIVE STREET LIGHT & JUNCTION BOX DETAILS

REF No.
SCALE: NOTED
FILE No. 59
DRAWING No. DUG0109H
REV. No. 0
SHEET No. B.07

ESTIMATED PROJECT QUANTITIES

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL EST. QUANT.	AS BUILT QUANT.
1	2010-108-C-0	CLEARING AND GRUBBING	LS	1	
2	2010-108-D-3	TOPSOIL, OFF-SITE	CY	28	
3	2010-108-E-0	EXCAVATION, CLASS 13	CY	600	
4	2010-108-G-X	SUBGRADE STABILIZATION, 12 INCH	SY	4005	
5	2010-108-H-0	SUBGRADE TREATMENT, GEOTEXTILE	SY	4005	
6	2010-108-I-0	SUBBASE, SPECIAL BACKFILL, 4 INCH	SY	4923	
7	2010-108-I-0	SUBBASE, SPECIAL BACKFILL, 6 INCH	SY	662	
8	2010-108-I-0	SUBBASE, MODIFIED SUBBASE, 6 INCH	SY	6013	
9	2010-108-X-X	EXPLORATORY EXCAVATION	EA	20	
10	3010-108-C-0	TRENCH FOUNDATION	TON	100	
11	3010-108-D-0	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL (MANUFACTURED SAND)	CY	462	
12	3010-108-D-X	RAVINE FILL AREA EARTHWORK MANAGEMENT	CY	1062	
13	3010-108-F-0	TRENCH COMPACTION TESTING	LS	1	
14	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC TRUSS, 6 INCH	LF	50	
15	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC TRUSS, 8 INCH	LF	530	
16	4010-108-F-0	SANITARY SEWER SERVICE CONNECTION	EA	15	
17	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 12 INCH	LF	32	
18	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 15 INCH	LF	359	
19	4020-108-C-0	REMOVAL OF STORM SEWER, LESS THAN 36 INCH	LF	149	
20	4040-108-A-0	SUBDRAIN, HDPE, 4-INCH	LF	681	
21	4040-108-D-0	SUBDRAIN OUTLETS AND CONNECTIONS	EA	6	
22	5020-108-F-0	VALVE BOX EXTENSION	EA	5	
23	5020-108-G-0	VALVE BOX REPLACEMENT	EA	5	
24	6010-108-A-0	SANITARY MANHOLE, SW-301, 48 INCH	EA	5	
25	6010-108-A-0	STORM MANHOLE, SW-401, 48 INCH	EA	2	
26	6010-108-B-0	INTAKE, SW-501	EA	2	
27	6010-108-B-0	INTAKE, SW-508 MODIFIED	EA	2	
28	6010-108-B-0	INTAKE, SW-512, 24" FLAT COVER	EA	1	
29	6010-108-B-0	INTAKE, SW-541	EA	20	
30	6010-108-X-1	TRENCH DRAIN	LF	10	
31	6010-108-E-0	MANHOLE ADJUSTMENT, MINOR	EA	8	
32	6010-108-E-0	INTAKE ADJUSTMENT, MINOR	EA	2	
33	6010-108-G-0	CONNECTION TO EXISTING MANHOLE	EA	2	
34	6010-108-H-0	REMOVE MANHOLE	EA	7	
35	6010-108-H-0	REMOVE INTAKE	EA	22	
36	7010-108-A-0	PAVEMENT, PCC, 8 INCH	SY	5414	
37	7010-108-E-0	CURB AND GUTTER, 2.5 FEET, 6 INCH	LF	299	
38	7010-108-E-0	CURB AND GUTTER, 2.5 FEET, 7 INCH	LF	1024	
39	7030-108-A-0	REMOVAL OF SIDEWALK	SY	5361	
40	7030-108-A-0	REMOVAL OF DRIVEWAY	SY	279	
41	7030-108-B-0	REMOVAL OF CURB	LF	1278	
42	7030-108-E-0	SIDEWALK, PCC, 4 INCH	SY	4616	
43	7030-108-E-0	SIDEWALK, PCC, 6 INCH	SY	307	
44	7030-108-F-1	CONCRETE UNIT PAVERS WITH SAND SETTING BED & PCC SUBBASE	SF	4750	
45	7030-108-F-2	HISTORIC PAVERS, TYPE A WITH SAND SETTING BED & PCC SUBBASE (PAVERS FURNISHED BY CITY)	SF	2530	
46	7030-108-F-3	CROSSWALK PAVERS WITH 3/4" ASPHALT SETTING BED	SF	2245	
47	7030-108-G-0	DETECTABLE WARNING	SF	886	
48	7030-108-H-1	DRIVEWAY, PAVED, PCC, 6-INCH	SY	335	
49	7030-108-X-2	CONCRETE BAND, VARIABLE WIDTH	SY	103	
50	7040-108-A-0	FULL DEPTH PATCHES	SY	1002	
51	7040-108-C-0	PARTIAL DEPTH PATCHES	SF	2240	
52	7040-108-H-0	PAVEMENT REMOVAL	SY	5407	
53	8020-108-B-0	PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE	STA	20	
54	8020-108-G-1	PAINTED SYMBOLS AND LEGENDS	EA	10	
55	8020-108-G-2	PAINTED SYMBOLS, PARALLEL PARKING MARKER	EA	124	
56	8020-108-K-0	PAVEMENT MARKINGS REMOVED	STA	1.7	
57	8030-108-A-0	TEMPORARY TRAFFIC CONTROL	LS	1	
58	9020-108-A-0	SOD	SQ	16	
59	9030-108-B-0	OVERSTORY TREE	EA	10	
60	9030-108-B-0	ORNAMENTAL TREE	EA	22	
61	9030-108-B-0	PERENNIAL GROUND COVER (1 GAL)	EA	749	
62	9030-108-X-X	AMENDED PLANTING SOIL	CY	133	
63	9040-108-A-1	SWPPP PREPARATION	LS	1	
64	9040-108-A-2	SWPPP MANAGEMENT	LS	1	
65	9040-108-D-1	FILTER SOCK, 20 INCH	LF	203	
66	9040-108-O-1	STABILIZED CONSTRUCTION ENTRANCE	SY	900	
67	9040-108-T-X	INLET PROTECTION DEVICE, DROP IN PROTECTION	EA	28	
68	11010-108-A-1	CONSTRUCTION SURVEY	LS	1	
69	11020-108-A-1	MOBILIZATION	LS	1	
70	11050-108-A-0	CONCRETE WASHOUT	LS	1	
71	12000-108-X-1	VAULT REPAIR TYPE 1	LF	10	
72	12000-108-X-2	VAULT REPAIR TYPE 2	LF	440	
73	12010-108-X-6	STEEL BENCH	EA	9	
74	12010-108-X-7	LITTER RECEPTACLE	EA	9	
75	12010-108-X-8	BIKE RACK	EA	5	
76	12010-108-X-10	BOULDER SEATWALL	LF	115	
77	12010-108-X-13	INTERSECTION MARKER	EA	3	
78	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 3-INCH	LF	3294	
79	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, CONSTANT POWER	LF	3478	
80	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, STREET SOUNDS	LF	1172	
81	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, REPLACE	LF	464	
82	12030-108-X-X	JUNCTION BOX, ELECTRICAL, 13"X24"	EA	27	
83	12030-108-X-X	JUNCTION BOX, ELECTRICAL, 8"X18"	EA	94	
84	12030-108-X-X	EVENT POWER PEDESTAL	EA	9	
85	12030108-X-X	CHARGING PEDESTAL	EA	2	
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NO.	ISSUED FOR	DATE

MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
QUANTITIES AND ESTIMATE REFERENCE INFORMATION

SHEET C.01

ESTIMATE REFERENCE INFORMATION

ITEM NO.	ITEM CODE	
1	2010-108-C-0	CLEARING AND GRUBBING THIS ITEM COVERS THE CUTTING OF EXISING TREES AND REMOVAL OF STUMPS. SEE F SHEETS FOR LOCATIONS.
2	2010-108-D-3	TOPSOIL, OFF-SITE A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING, HAULING AND SPREADING TOPSOIL TO A MINIMUM FINISHED DEPTH OF 6 INCHES. SEE CE SHEETS FOR LOCATIONS.
3	2010-108-E-0	EXCAVATION, CLASS 13 A. THIS ITEM SHALL INCLUDE THE REMOVAL OF EXISTING SOIL AND AGGREGATE BASE, HAULING AND PLACEMENT OF THE MATERIAL WITHIN THE GRADING LIMITS, HAULING AND PLACEMENT OF EXCESS SOIL(WASTE), AND HAULING AND PLACEMENT OF BORROW MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS AND THESE PLANS. THE CONTRACTOR SHALL DISPOSE OF EXCESS MATERIAL AND MATERIAL THAT IS NOT SUITABLE FOR EMBANKMENT CONSTRUCTION TO LOCATIONS AS DESIGNATED BY THE ENGINEER. IF A SUBSTANTIAL QUANTITY OF BRICKS ARE FOUND UNDER THE STREET CONTRACTORS SHALL NOTIFY ENGINEER TO DETERMINE DISPOSAL/STOCKPILE LOCATION. ITEM DOES NOT INCLUDE ANY UTILITY TRENCH EXCAVATION. B. THE CITY RAVINE SITE SHALL BE USED FOR BOTH THE BORROW OF SUITABLE MATERIAL AND DISPOSAL OF UNSUITABLE OR EXCESS SOIL. REFER TO SHEET B.06 FOR LOCATION OF CITY RAVINE SITE. C. THE FINISHED SUBGRADE SHALL BE OF UNIFORM CROSS-SECTION AND APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF THE MODIFIED SUBBASE. CONTRACTOR SHALL NOTIFY CITY OF ANY DISPUTE WITH EXCAVATION PLAN QUANTITY PRIOR TO CONSTRUCTION, OTHERWISE PLAN QUANTITY WILL BE USED FOR PAYMENT. CUT = 140 CY, FILL + 30% = 589 CY, NET = 449 CUT
4	2010-108-G-X	SUBGRADE STABILIZATION, 12 INCH A. THIS ITEM SHALL BE USED AT THE DISCRETION OF THE ENGINEER/OWNER. CONTRACTOR SHALL OBTAIN APPROVAL OF ENGINEER/OWNER PRIOR TO UTILIZING THIS ITEM. THIS ITEM INVOLVES THE OVEREXCAVATION OF UNSUITABLE SOIL WITHIN THE RIGHT OF WAY. THE CONTRACTOR SHALL OVEREXCAVATION ONE FOOT OF MATERIAL, COMPACT BOTTOM OF OVEREXCAVATION, PLACE GEOTEXILE FABRIC ON BOTTOM OF OVEREXCAVATION (NOT A PART OF THIS BID ITEM) AND REPLACE UNSUITABLE MATERIAL WITH MODIFIED SUBBASE. B. THIS ITEM SHALL INCLUDE EXCAVATION OF UNSUITABLE MATERIAL, HAULING OF UNSUITABLE MATERIAL TO CITY RAVINE SITE, COMPACTION OF OVEREXCAVATED AREA, PLACEMENT OF ONE FOOT OF MODIFIED SUBBASE AND COMPACTION OF MODIFIED SUBBASE.
5	2010-108-H-0	SUBGRADE TREATMENT, GEOTEXTILE A. THIS PAY ITEM SHALL BE FOR THE FURNISHING AND INSTALLATION OF THE GEOTEXTILE FABRIC USED IN EXCAVATION, CLASS 13, UNSUITABLE OR UNSTABLE MATERIAL. THIS MATERIAL SHALL BE A WOVEN GEOTEXTILE FABRIC MEETING THE REQUIREMENT OF SUDAS 2010, 2.04.
6	2010-108-I-0	SUBBASE, SPECIAL BACKFILL, 4 INCH A. SPECIAL BACKFILL SUBBASE TO BE INSTALLED WHERE NOTED IN THE PLANS INCLUDING BELOW ALL SIDEWALKS. THIS MATERIAL SHALL BE RECYCLED MATERIAL, TYPICALLY THIS IS RECYCLED HMA PAVEMENT. B. SUBGRADE COMPACTION IS REQUIRED PRIOR TO PLACEMENT OF SPECIAL BACKFILL AND APPROVED BY THE ENGINEER.
7	2010-108-I-0	SUBBASE, SPECIAL BACKFILL, 6 INCH A. SPECIAL BACKFILL SUBBASE TO BE INSTALLED WHERE NOTED IN THE PLANS INCLUDING BELOW ALL CURBS. THIS MATERIAL SHALL BE RECYCLED MATERIAL, TYPICALLY THIS IS RECYCLED HMA PAVEMENT. ITEM INCLUDES SUBBASE EXTENDED 2' BEYOND BACK OF CURB. INCLUDES AREA BELOW SIDEWALK SPECIAL BACKFILL IN THE 2' EXTENSION OF SUBBASE. B. SUBGRADE COMPACTION IS REQUIRED PRIOR TO PLACEMENT OF SPECIAL BACKFILL AND APPROVED BY THE ENGINEER.
8	2010-108-I-0	SUBBASE, MODIFIED SUBBASE, 6 INCH A. MODIFIED SUBBASE TO BE INSTALLED WHERE NOTED IN THE TYPICAL SECTIONS, INCLUDING THE AREAS UNDER PCC PAVEMENT AND EXTEND 2' BEYOND THE BACK OF CURB. B. CONTRACTOR SHALL RECYCLE THE EXISTING PCC PAVEMENT THAT IS REMOVED AS PART OF THIS PROJECT TO CREATE THE MODIFIED SUBBASE MEETING THE GRADATION OF MODIFIED SUBBASE, IDOT GRADATION #14. ALL TESTING CONFIRMING GRADATION COMPLIANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. C. ANY SHORTAGE OF RECYCLED MATERIAL SHALL BE SUPPLEMENTED WITH VIRGIN MATERIAL AT NO ADDITIONAL COST.
9	2010-108-X-X	EXPLORATORY EXCAVATION A. THIS ITEM IS FOR THE INVESTIGATION OF LOCATIONS AND ELEVATIONS OF AN EXISTING UTILITY TO VERIFY THE POTENTIAL FOR CONFLICTS AND/OR CONNECTIONS. CONTRACTOR SHALL USE VACUUM TYPE EQUIPMENT TO PERFORM THE EXCAVATION. ITEM SHALL BE MEASURED PER LINEAR FOOT ALONG EXCAVATION REGARDLESS OF DEPTH. PAYMENT INCLUDES THE PROPER BACKFILLING OF THE EXCAVATION AND THE ENGINEER OR THEIR REPRESENTATIVE MUST VERIFY THE CONDITIONS FOUND. QUANTITY IS ESTIMATED TO ESTABLISH A UNIT PRICE, ONLY QUANTITY APPROVED BY ENGINEER PRIOR TO WORK WILL BE PAID. B. ITEM IS NOT INTENDED TO BE USED TO FIND KNOWN UTILITY LOCATIONS C. METHOD OF MEASUREMENT FOR THIS ITEM SHALL BE PER EACH LOCATION OF EXPLORATORY EXCVATION D. BASIS OF PAYMENT FOR THIS ITEM SHALL BE PER EACH LOCATION OF EXPLORATORY EXCAVATION INCLUDING ALL LABOR AND MATEIRALS REQUIRED FOR THE EXCAVATION AND BACKFILLING OF ANY OPEN HOLES OR TRENCHES.
10	3010-108-C-0	TRENCH FOUNDATION A. 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.
11	3010-108-D-0	REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL (MANUFACTURED SAND) A. THIS ITEM SHALL BE USED TO BACKFILL PIPE TRENCHES, CONDUIT TRENCHES, REMOVED SANITARY AND STORM SEWER PIPES, AND STRUCTURES WHERE THE PIPE, CONDUIT, OR STRUCTURE IS WITHIN 10 FOOT OF ROADWAY PAVEMENT. PIPE OR CONDUIT TRENCHES NOT WITHIN 10 FEET OF ROADWAY PAVEMENT SHALL HAVE NATIVE SOIL BACKFILL AND SHALL BE INCIDENTAL TO PIPE. EXCAVATED MATERIAL SHALL BE DISPOSED OF AT THE CITY RAVINE SITE. B. REPLACEMENT MATERIAL SHALL BE MANUFACTURED SAND AS APPROVED BY THE ENGINEER. C. REPLACEMENT MATERIAL QUANTITY IS CALCULATED AT A WIDTH OF PIPE DIAMETER PLUS 2 FOOT WITH VERTICAL TRENCH WALL TO WITHIN 2 FOOT OF THE BOTTOM OF THE MODIFIED SUBBASE AND THEN FLARE OUT AT A 1:1 SLOPE TO THE BOTTOM OF MODIFIED SUBBASE. REPLACEMENT MATERIAL SHALL BE MEASURED FROM TOP OF PIPE BEDDING TO BOTTOM OF SUBBASE MATERIAL. SEE SW-301 FOR DETAILS OF TRENCH BACKFILL MATERIAL. D. ASSUMED 2 TONS PER CUBIC YARD
12	3010-108-D-X	RAVINE FILL AREA EARTHWORK MANAGEMENT A. UNIT PRICE INCLUDES ALL COSTS OF LABOR AND EQUIPMENT NEEDED TO DO THE GRADING ASSOCIATED WITH WASTING AND BORROWING MATERIAL IN THE CITY OF MUSCATINE'S DESIGNATED RAVINE FILL AREA. WHERE THE MATERIAL IS TO BE BORROWED AND WASTED SHALL BE DEFINED BY THE CITY ENGINEER AND IS TO BE IN COMPLIANCE WITH THE CITY OF MUSCATINE'S RAVINE GRADING PLAN. THE PLAN IS AVAILABLE FOR REVIEW FROM THE CITY. PRICE INCLUDES GRADING AREAS WHERE WASTE EXCAVATION MATERIAL HAS BEEN DUMPED AT THE RAVINE AND REGRADING AREAS WHERE BORROW MATERIAL HAS BEEN EXCAVATED. THIS GRADING IS TO ESTABLISH REQUIRED DRAINAGE FOR THE AREAS CHANGED AND WILL BE DIRECTED BY THE ENGINEER. PAYMENT WILL BE BASED ON CALCULATIONS OF MATERIAL PLACED AS FILL FROM THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE MADE FOR MATERIALS REMOVED FROM THE RAVINE FOR USE ON THE 2ND STREET PROJECT. THE RAVINE IS ALSO USED FOR THE OPERATIONS OF THE CITY OF MUSCATINE'S WEST HILL AREA SANITARY AND STORM SEWER SEPARATION PROJECT CONTRACTOR, AS WELL BY CITY FORCES. CONTRACTOR IS REQUIRED TO COORDINATE HIS ACTIVITIES IN THIS RAVINE WITH ALL OTHER CONTRACTORS AND WORK WITH THE OTHER CONTRACTORS TO KEEP THE STREETS USED FOR ACCESS CLEAN AND CLEAR OF ALL MUD, DUST AND DELETERIOUS MATERIAL CREATED FROM THE HAULING OPERATIONS. ACCESS WILL BE FROM THE INTERSECTION OF WEST 6TH AND LOCUST STREETS, UNLESS DIRECTED OTHERWISE BY THE ENGINEER. B. REFER TO SHEET B.06 FOR LOCATION C. METHOD OF MEASUREMENT FOR THIS ITEM SHALL BE FOR EACH CUBIC YARD OF MATERIAL WASTED OR BORROWED FROM THE CITY RAVINE SITE. D. BASIS OF PAYMENT FOR THIS ITEM SHALL BE MADE AT THE CONTRACT UNIT PRICE PER EACH CUBIC YARD.
13	3010-108-F-0	TRENCH COMPACTION TESTING A. TRENCH COMPACTION TESTING IS REQUIRED FOR ALL TRENCHES WHERE PIPE OR CONDUIT IS WITHIN 10 FOOT OF ROADWAY PAVEMENT. COMPACTION SHALL BE THE REQUIREMENTS OF SUDAS 3010, 3.06
14	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC TRUSS, 6 INCH A. ITEMS COVERS THE REPLACEMNT OF ANY SERVICE LATERALS AS NECESSARY. CONTRACTOR SHALL TELEVISE AND MANDREL TEST SANITARY SEWER PIPES PER SUDAS 4060 AND PROVIDE ALL RESULTS TO THE CITY PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. ANY VISIBLE LEAKS SHALL BE REPAIRED REGARDLESS OF SEVERITY. CONTRACTOR SHALL RE-VIDEO ANY REQUIRED REPAIRS AND PROVIDE VIDEO TO THE CITY AT NO ADDITIONAL COST. B. PIPE EMBEDMENT DETAIL, TYPE F-3, MODIFIED TO REQUIRE ONLY 6" ABOVE THE TOP OF THE PIPE. FURNISHING AND PLACING ELBOWS AND TEES, PLUGS, CONNECTION TO EXISTING SANITARY SEWER AND BEDDING MATERIALS AS REQUIRED SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. CONNECTION TO EXISTING SANITARY PIPES SHALL BE INCIDENTAL TO THIS ITEM. C. CONTRACTOR SHALL PLUG SEWER AT THE END OF EACH WORKING DAY. DAMAGES RESULTING FROM THE CONTRACTOR'S INABILITY TO KEEP GROUND AND STORM WATER OUT OF THE SANITARY SYSTEM SHALL BE CHARGED TO THE CONTRACTOR.
15	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, PVC TRUSS, 8 INCH A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.12 THROUGH M.14 FOR SANITARY LOCATIONS. CONTRACTOR SHALL TELEVISE AND MANDREL TEST SANITARY SEWER PIPES PER SUDAS 4060 AND PROVIDE ALL RESULTS TO THE CITY PRIOR TO SUBGRADE PREPARATION. DATA SUBMITTAL TO BE APPROVED BY ENGINEER. ANY VISIBLE LEAKS SHALL BE REPAIRED REGARDLESS OF SEVERITY. CONTRACTOR SHALL RE-VIDEO ANY REQUIRED REPAIRS AND PROVIDE VIDEO TO THE CITY AT NO ADDITIONAL COST. B. PIPE EMBEDMENT DETAIL, TYPE F-3, MODIFIED TO REQUIRE ONLY 6" ABOVE THE TOP OF THE PIPE. FURNISHING AND PLACING ELBOWS AND TEES, PLUGS, CONNECTION TO EXISTING SANITARY SEWER AND BEDDING MATERIALS AS REQUIRED SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. CONNECTION TO EXISTING SANITARY PIPES SHALL BE INCIDENTAL TO THIS ITEM. C. CONTRACTOR SHALL PLUG SEWER AT THE END OF EACH WORKING DAY. DAMAGES RESULTING FROM THE CONTRACTOR'S INABILITY TO KEEP GROUND AND STORM WATER OUT OF THE SANITARY SYSTEM SHALL BE CHARGED TO THE CONTRACTOR.
16	4010-108-F-0	SANITARY SEWER SERVICE CONNECTION A. ITEM INCLUDED WYE, 10' OF NEW SERVICE LATERAL AND CONNECTION TO EXISTING SANITARY SERVICE PIPE. ITEM INCLUDED ALL LABOR AND MATERIAL NECESSARY TO COMPLETE WORK.
17	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 12 INCH A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEET M.11 FOR STORM LOCATIONS. CONTRACTOR SHALL MANDREL AND TELEVISE 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 FOR ALL PIPES. TYPE OF PIPE ALLOWED SHALL BE RCP, CLASS III. THE JOINTS WILL BE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OVER A WATERMAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE. C. ITEMS SHALL INCLUDE 12"X12" CONCRETE TEE FOR CONNECTION TO EXISTING STORM SEWER PIPE.
18	4020-108-A-1	STORM SEWER, TRENCHED, RCP, 15 INCH A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND STORM CROSS RUN INFORMATION. CONTRACTOR SHALL MANDREL AND TELEVISE 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 FOR ALL PIPES. TYPE OF PIPE ALLOWED SHALL BE RCP, CLASS III. THE JOINTS WILL BE WRAPPED WITH ENGINEERING FABRIC. ANY LOCATION WHERE THE STORM SEWER IS LOCATED WITHIN 18 INCHES VERTICALLY OVER A WATERMAIN THE STORM SEWER SHALL PIPE SHALL BE GASKETED WITH THE JOINTS LOCATED AS FAR FROM THE WATER MAIN AS POSSIBLE.
19	4020-108-C-0	REMOVAL OF STORM SEWER, LESS THAN 36 INCH A. REFER TO F SHEETS FOR LOCATIONS. EXISTING PIPE TRENCH SHALL BE FILLED WITH MANUFACTURED SAND MATERIAL AND PAID FOR UNDER "REPLACEMENT OF UNSUITABLE BACKFILL MATERIAL" ITEM. TRENCH WIDTH SHALL BE PIPE DIAMETER PLUS TWO FEET AND FILLED TO BOTTOM OF SUBBASE. B. ITEM ONLY INCLUDES REMOVAL OF STORM SEWER PIPE NOT LOCATED IN SAME TRENCH AS NEW STORM SEWER PIPE.
20	4040-108-A-0	SUBDRAIN, HDPE, 4-INCH A. SEE SHEETS M.08-M.10 FOR LOCATIONS. B. SUBRAIN SHALL BE CASE C, TYPE 1. SUBDRAIN PIPE SHALL BE WRAPPED IN FILTER SOCK. NO ENGINEERING FABRIC IS REQUIRED AROUND THE TRENCH.
21	4040-108-D-0	SUBDRAIN OUTLETS AND CONNECTIONS A. SEE M SHEETS FOR LOCATIONS. B. OUTLET THROUGH STORM STRUCTURE WALLS SHALL BE COMPLETED USING CMP WITH RODENT GUARD. CONNECTION SHALL BE A CORE DRILLED HOLE OR PRECAST.
22	5020-108-F-0	VALVE BOX EXTENSION A. THIS BID ITEM IS TO ESTABLISH A UNIT PRICE. B.ITEM SHALL COVER EXTENSION OF WATER VALVE BOX IF EXISTING VALVE BOX CANNOT BE ADJUSTED HIGH ENOUGH. THIS ITEM SHALL BE INSTALLED AND COMPLY WITH MUSCATINE POWER AND WATER SPECIFICATIONS
23	5020-108-G-0	VALVE BOX REPLACEMENT A. THIS BID ITEM IS TO ESTABLISH A UNIT PRICE. B. ITEM SHALL COVER REPLACEMENT OF WATER VALVE BOX IF EXISTING VALVE BOX CAN NOT BE ADJUSTED. THIS ITEM SHALL BE INSTALLED AND COMPLY WITH MUSCATINE POWER AND WATER SPECIFCIATIONS.
24	6010-108-A-0	SANITARY MANHOLE, SW-301, 48 INCH A. REFER TO SHEET C.11 FOR TABULATION. REFER TO SHEETS M.12 THROUGH M.14 FOR SANITARY LOCATIONS. B. ANY VISIBLE LEAKS SHALL BE REPAIRED. MANHOLE CASTINGS SHALL READ "SANITARY SEWER" AND BE AN EAST JORDAN THREE PIECE CASTINGS WITH CONCEALED PICK HOLES OR APPROVED EQUAL. SANITARY MANHOLE SHALL HAVE INTERNAL CHIMNEY SEAL.
25	6010-108-A-0	STORM MANHOLE, SW-401, 48 INCH A. REFER TO SHEET C.11 FOR TABULATION. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND CROSS RUN INFORMATION. B. MANHOLE CASTINGS SHALL READ "STORM SEWER" AND BE AN EAST JORDAN THREE PIECE CASTING WITH CONCEALED PICK HOLES

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
ESTIMATE REFERENCE NOTES

SHEET C.02

26	6010-108-B-0	INTAKE, SW-501 A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND STORM CROSS RUN INFORMATION. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
27	6010-108-B-0	INTAKE, SW-508 MODIFIED A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND STORM CROSS RUN INFORMATION. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
28	6010-108-B-0	INTAKE, SW-512, 24" FLAT COVER A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND STORM CROSS RUN INFORMATION. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
29	6010-108-B-0	INTAKE, SW-541 A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO SHEETS M.1 THROUGH M.11 FOR STORM UTILITY LOCATIONS AND STORM CROSS RUN INFORMATION. CASTING SHALL READ "NO DUMP, DRAINS TO WATERWAY" OR APPROVED EQUAL.
30	6010-108-X-1	TRENCH DRAIN A. TRENCH DRAIN SHALL BE DURA TRENCH 24" WIDE PRECAST TRENCH DRAIN, HEAVY DUTY GALVANIZED STEEL FAME WITH NON-SLIP BLACK POWDERCOATED STEEL ADA COMPLAINT GRATE OR APPROVED EQUAL. SEE SHEET B.03 FOR DETAILS. SEE SHEET M.01 FOR LOCATION.
31	6010-108-E-0	MANHOLE ADJUSTMENT, MINOR A. THIS BID ITEM SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO ADJUST CASTINGS TO FINISHED GRADE. THIS ITEM INCLUDES THE REMOVAL AND REPLACEMENT OF ADJUSTMENT RINGS AND THE INSTALLATION OF A NEW CASTING. OLD CASTING SHALL BE SALVAGED TO THE CITY YARD.
32	6010-108-E-0	INTAKE ADJUSTMENT, MINOR A. THIS BID ITEM SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO ADJUST CASTINGS TO FINISHED GRADE. THIS ITEM INCLUDES THE REMOVAL AND REPLACEMENT OF ADJUSTMENT RINGS AND THE INSTALLATION OF A NEW CASTING. OLD CASTING SHALL BE SALVAGED TO THE CITY YARD.
33	6010-108-G-0	CONNECTION TO EXISTING MANHOLE A. THIS ITEM SHALL INCLUDE ALL THE LABOR AND MATERIAL NECESSARY TO CONNECT EITHER PROPOSED STORM OR SANITARY SEWER PIPE TO AN EXISTING STRUCTURE, INCLUDING BUT NOT LIMITED TO CORING OR CUTTING INTO THE EXISTING STRUCTURE, PIPE CONNECTIONS, GROUT AND WATERSTOP (WHEN REQUIRED)
34	6010-108-H-0	REMOVE MANHOLE A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO F SHEETS FOR LOCATIONS. REMOVED STRUCTURE SHALL BECOME PROPERTY OF THE CONTRACTOR AND PROPERLY DISPOSED OF. CASTING SHALL BECOME PROPERTY OF THE CITY AND DELIEVERED TO THE CITY YARD.
35	6010-108-H-0	REMOVE INTAKE A. REFER TO SHEET C.11 FOR TABULATIONS. REFER TO F SHEETS FOR LOCATIONS. REMOVED STRUCTURE SHALL BECOME PROPERTY OF THE CONTRACTOR AND PROPERLY DISPOSED OF. CASTING SHALL BECOME PROPERTY OF THE CITY AND DELIEVERED TO THE CITY YARD.
36	7010-108-A-0	PAVEMENT, PCC, 8 INCH A. REFER TO SHEETS C.06 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO D SHEETS FOR LAYOUT. REFER TO L SHEETS FOR JOINT SPACING. ALL JOINTS SHALL BE CUT TO A DEPTH OF T/3 AND SEALED. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR. LOW AIR TOLERANCE LIMIT PER 7010-3.08-B. NO ADDITIONAL PAYMENT WILL BE MADE FOR COLD WEATHER CONCRETE OR COVERING IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED.. C. THIS ITEM SHALL INCLUDE QUANTITIES FOR CURB GUTTER SECTIONS CONNECTED TO THE PAVEMENT.
37	7010-108-E-0	CURB AND GUTTER, 2.5 FEET, 6 INCH A. REFER TO SHEETS C.06 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO D SHEETS FOR LAYOUT. REFER TO L SHEETS FOR JOINT SPACING. ALL JOINTS SHALL BE CUT TO A DEPTH OF T/3 AND SEALED. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR. LOW AIR TOLERANCE LIMIT PER 7010-3.08-B. NO ADDITIONAL PAYMENT WILL BE MADE FOR COLD WEATHER CONCRETE OR COVERING IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED..
38	7010-108-E-0	CURB AND GUTTER, 2.5 FEET, 7 INCH A. REFER TO SHEETS C.06 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO D SHEETS FOR LAYOUT. REFER TO L SHEETS FOR JOINT SPACING. ALL JOINTS SHALL BE CUT TO A DEPTH OF T/3 AND SEALED. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. CERTIFIED PLANT INSPECTION SHALL BE REQUIRED BY CONTRACTOR. LOW AIR TOLERANCE LIMIT PER 7010-3.08-B. NO ADDITIONAL PAYMENT WILL BE MADE FOR COLD WEATHER CONCRETE OR COVERING IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED.. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
39	7030-108-A-0	REMOVAL OF SIDEWALK A. REFER TO SHEET C.10 FOR TABULATIONS. REFER TO F SHEETS FOR LOCATIONS. B. ALL REMOVALS TO BE MARKED AND MEASURED BY THE ENGINEER. FULL DEPTH SAW CUTS ARE INCIDENTAL TO THIS ITEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL REMOVAL, EARTHWORK, SUBGRADE PREPARATION, SPECIAL BACKFILL 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. C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS.
40	7030-108-A-0	REMOVAL OF DRIVEWAY A. REFER TO SHEET C.10 FOR TABULATIONS. REFER TO F SHEETS FOR LOCATIONS. B. ALL REMOVALS TO BE MARKED AND MEASURED BY THE ENGINEER. FULL DEPTH SAW CUTS ARE INCIDENTAL TO THIS ITEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL REMOVAL, EARTHWORK, SUBGRADE PREPARATION, SPECIAL BACKFILL 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. C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS.
41	7030-108-B-0	REMOVAL OF CURB A. REFER TO SHEET C.09 FOR TABULATIONS. REFER TO F SHEETS FOR LOCATIONS. B. ALL REMOVALS TO BE MARKED AND MEASURED BY THE ENGINEER. FULL DEPTH SAW CUTS 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. C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS.
42	7030-108-E-0	SIDEWALK, PCC, 4 INCH A. REFER TO SHEET C.09 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO T SHEETS FOR LAYOUT AND JOINTING. ITEMS INCLUDES SCORING, DECORATIVE JOINTING AND REINFORCEMENT AS SHOWN ON THE T SHEETS AND DETAILED IN THE U SHEETS. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. COLD WEATHER CONCRETE WILL BE CONSIDERED INCIDENTAL IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
43	7030-108-E-0	SIDEWALK, PCC, 6 INCH A. REFER TO SHEET C.09 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO T SHEETS FOR LAYOUT AND JOINTING. ITEMS INCLUDES SCORING, DECORATIVE JOINTING AND REINFORCEMENT AS SHOWN ON THE T SHEETS AND DETAILED IN THE U SHEETS. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. COLD WEATHER CONCRETE WILL BE CONSIDERED INCIDENTAL IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
44	7030-108-F-1	CONCRETE UNIT PAVERS WITH SAND SETTING BED & PCC SUBBASE A. THIS ITEM INCLUDES PAVER TYPES B & C, POLYMERIC SAND FOR JOINTS, SAND SETTING BED, GEOTEXTILE FABRIC, 4 INCH THICK CONCRETE BASE, REBAR, AND AGGREGATE SUBBASE. B. REFER TO T SHEETS FOR TYPE, LOCATION AND PATTERN. SEE NOTES AND DETAILS ON U SHEETS REGARDING INSTALLATION AND INCIDENTAL ITEMS. C. SEE SPECIAL PROVISION FOR ADDITIONAL INFORMATION.
45	7030-108-F-2	HISTORIC PAVERS, TYPE A WITH SAND SETTING BED & PCC SUBBASE (PAVERS FURNISHED BY CITY) A. 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. REFER TO T SHEETS FOR TYPE, LOCATION AND PATTERN. SEE NOTES AND DETAILS ON U SHEETS REGARDING INSTALLATION AND INCIDENTAL ITEMS.
46	7030-108-F-3	CROSSWALK PAVERS WITH 3/4" ASPHALT SETTING BED A. THIS ITEM INCLUDES THE 8 CM THICK CROSSWALK CONCRETE UNIT PAVER, POLYMERIC SAND FOR JOINTS, BITUMINOUS SETTING BED, NEOPRENE MASTIC, 6 INCH THICK CONCRETE BASE, AND REBAR. B. REFER TO T SHEETS FOR TYPE, LOCATION AND PATTERN. SEE NOTES AND DETAILS ON U SHEETS REGARDING INSTALLATION AND INCIDENTAL ITEMS. C. SEE SPECIAL PROVISION FOR ADDITIONAL INFORMATION.
47	7030-108-G-0	DETECTABLE WARNING A. DETECTABLE WARNING SYSTEMS SHALL BE NEENAH DETECTABLE WARNING PLATES, MODEL 4984-36B OR APPROVED EQUAL. CONTRACTOR SHALL VERIFY TYPE WITH ENGINEER PRIOR TO ORDERING MATERIALS. B. REFER TO SHEETS S.01 - S.07 FOR LOCATIONS.
48	7030-108-H-1	DRIVEWAY, PAVED, PCC, 6-INCH A. REFER TO SHEET C.07 FOR QUANTITY TAB. REFER TO B SHEETS FOR TYPICAL PAVEMENT SECTIONS. REFER TO T SHEETS FOR LAYOUT AND JOINTING. ITEMS INCLUDES SCORING, DECORATIVE JOINTING AND REINFORCEMENT AS SHOWN ON THE T SHEETS AND DETAILED IN THE U SHEETS. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. COLD WEATHER CONCRETE WILL BE CONSIDERED INCIDENTAL IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED. C. THICKENED EDGES SHALL BE INCIDENTAL TO THIS ITEM AND NO ADDITIONAL PAYMENT SHALL BE MADE.
49	7030-108-X-2	CONCRETE BAND, VARIABLE WIDTH A. THIS ITEM INCLUDES ALL CONCRETE BAND INDICATED AS 18" OR 36" WIDTH. ALL VARIATIONS IN THICKNESS AND NECESSARY REBAR SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. B. ALL CONCRETE SHALL BE CLASS C AND MEET MINIMUM FLEXURAL STRENGTH REQUIREMENT OF 550 PSI AT 28 DAYS. AREAS NOT MEETING THIS REQUIREMENT SHALL BE SUBJECT TO REPAIRS, REPLACEMENT OR REDUCED PAYMENT AS DETERMINED BY THE ENGINEER AND TEST RESULTS WILL REPRESENT ALL CONCRETE PLACED IN THE SAME LOT. COLD WEATHER CONCRETE WILL BE CONSIDERED INCIDENTAL IF REQUIRED. CRACKED PANELS SHALL BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE UNLESS, IN THE JUDGEMENT OF THE ENGINEER, THE CRACK CAN BE ROUTED AND SEALED.
50	7040-108-A-0	FULL DEPTH PATCHES A. AREAS FOR PATCHING SHALL BE MARKED IN FIELD PRIOR TO BIDDING. REMOVALS SHALL INCLUDE A DOUBLE SAW CUT WHICH IS INCIDENTAL TO THE ITEM. B. ITEMS IT TO SET A UNIT PRICE. ENGINEER SHALL APROVE ALL LOCATIONS PRIOR TO ANY WORK. C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS
51	7040-108-C-0	PARTIAL DEPTH PATCHES A. AREAS FOR PATCHING SHALL BE MARKED IN FIELD PRIOR TO BIDDING. REMOVALS SHALL INCLUDE A DOUBLE SAW CUT WHICH IS INCIDENTAL TO THE ITEM. B. ITEMS IT TO SET A UNIT PRICE. ENGINEER SHALL APROVE ALL LOCATIONS PRIOR TO ANY WORK. SEE B SHEETS FOR PARTIAL DEPTH DETAIL C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS.

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
ESTIMATE REFERENCE NOTES

SHEET C.03

52	7040-108-H-0	PAVEMENT REMOVAL A. 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. B. REMOVED PAVMENT SHALL BE SALVAGED TO THE CITY YARD. SAW CUTS SHALL BE INCIDENTAL TO ITEMS. C. REFER TO B.03 FOR SAW CUT DETAIL. CONTRACTOR SHALL SUBMIT PROPSOED REMOVAL EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ANY REMOVALS. EQUIPMENT SHALL NOT CAUSE ANY DAMAGE TO EXISTING BUILDINGS INCLUDING FOOTING, FOUNDATION WALLS, WALLS, WINDOWS, GLASS OR OTHER DECORATIONS.
53	8020-108-B-0	PAINTED PAVEMENT MARKINGS, SOLVENT/WATERBORNE A. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.PAVEMENT SHALL BE CLEAN AND FREE OF ALL DEBRIS AND CURE PRIOR TO PAINTING. METHOD OF CLEANING SHALL BE BY HIGH PRESSURE WATER BLASTING.QUANTITY IS DOUBLED TO ALLOW FOR TWO PAINT APPLICATIONS, ONE AT THE COMPLETION OF EACH PHASE AND ONE AT THE END OF THE PROJECT. B. REFER TO SHEET C.07 FOR TABULATIONS.
54	8020-108-G-1	PAINTED SYMBOLS AND LEGENDS A. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.PAVEMENT SHALL BE CLEAN AND FREE OF ALL DEBRIS AND CURE PRIOR TO PAINTING. METHOD OF CLEANING SHALL BE BY HIGH PRESSURE WATER BLASTING.QUANTITY IS DOUBLED TO ALLOW FOR TWO PAINT APPLICATIONS, ONE AT THE COMPLETION OF EACH PHASE AND ONE AT THE END OF THE PROJECT. B. REFER TO SHEET C.02 FOR TABULATIONS.
55	8020-108-G-2	PAINTED SYMBOLS, PARALLEL PARKING MARKER A. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS ADOPTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.PAVEMENT SHALL BE CLEAN AND FREE OF ALL DEBRIS AND CURE PRIOR TO PAINTING. METHOD OF CLEANING SHALL BE BY HIGH PRESSURE WATER BLASTING.QUANTITY IS DOUBLED TO ALLOW FOR TWO PAINT APPLICATIONS, ONE AT THE COMPLETION OF EACH PHASE AND ONE AT THE END OF THE PROJECT. B. REFER TO SHEET C.02 FOR TABULATIONS.
56	8020-108-K-0	PAVEMENT MARKINGS REMOVED A. PAVEMENT MARKINGS SHALL BE REMOVED USING HIGH PRESSURE WATER BLASTING ONLY. REFER TO F SHEETS FOR LOCATIONS
57	8030-108-A-0	TEMPORARY TRAFFIC CONTROL A. REFER TO J SHEETS FOR DETAILS. B. EXISTING SIGNS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN PROPERTY OF THE CITY OF MUSCATINE. CONTRACTOR IS TO NOTIFY THE CITY WHEN SIGNS NEED TO BE PICKED UP.
58	9020-108-A-0	SOD A. SOD ALL AREAS DISTURBED BY CONSTRUCTION UNLESS INDICATED ON PLANS. COST FOR WATERING SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. ROCK PICKING, FINISH GRADING, AND REWORK, INCLUDING REGRADING AND ADJUSTING GRADING, ARE CONSIDERED INCIDENTAL TO THIS ITEM. CONTRACTOR RESPONSIBLE FOR PROTECTING ALL SODDED AREAS THRU ESTABLISHMENT AND ACCEPTANCE. CONTRACTOR RESPONSIBLE FOR MOWING AND MAINTAINING SODDED AREAS UNTIL PROJECT IS ACCEPTED BY OWNER. SODDING OF AREAS OUTSIDE OF CONSTRUCTION LIMITS SHALL BE RESPONSIBILITY OF CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
59	9030-108-B-0	OVERSTORY TREE A. THIS ITEM INCLUDES LABOR, MATERIAL, AND EQUIPMENT TO FURNISH AND INSTALL DECIDUOUS TREE IN ACCORDANCE WITH SUDAS SECTION 9030 AND AMENDED AS FOLLOWS: PLANTINGS SHALL HAVE ONE YEAR WARRANTY FROM DATE OF FINAL ACCEPTANCE FOR ALL PLANTINGS IN THE PROJECT. ACCEPTANCE OF PLANT MATERIALS CONSTRUES FULL PAYMENT (MINUS ANY PROJECT RETAINAGE). INCLUDES ALL, BUT NOT LIMITED TO, AMENDED SOILS DELIVERY, EXCAVATION, INSTALLATION, MULCHING, HERBICIDE, MAINTENANCE DURING ESTABLISHMENT PERIOD, AND WARRANTY AND REJECTION REPLACEMENTS.
60	9030-108-B-0	ORNAMENTAL TREE A. THIS ITEM INCLUDES LABOR, MATERIAL, AND EQUIPMENT TO FURNISH AND INSTALL ORNAMENTAL TREE IN ACCORDANCE WITH SUDAS SECTION 9030 AND AMENDED AS FOLLOWS: PLANTINGS SHALL HAVE ONE YEAR WARRANTY FROM DATE OF FINAL ACCEPTANCE FOR ALL PLANTINGS IN THE PROJECT. ACCEPTANCE OF PLANT MATERIALS CONSTRUES FULL PAYMENT (MINUS ANY PROJECT RETAINAGE). INCLUDES ALL, BUT NOT LIMITED TO, AMENDED SOILS DELIVERY, EXCAVATION, INSTALLATION, MULCHING, HERBICIDE, MAINTENANCE DURING ESTABLISHMENT PERIOD, AND WARRANTY AND REJECTION REPLACEMENTS.
61	9030-108-B-0	PERENNIAL GROUND COVER (1 GAL) A. THIS ITEM INCLUDES LABOR, MATERIAL, AND EQUIPMENT TO FURNISH AND INSTALL PERENNIAL GROUND COVER (1 GAL) IN ACCORDANCE WITH SUDAS SECTION 9030 AND AMENDED AS FOLLOWS: PLANTINGS SHALL HAVE ONE YEAR WARRANTY FROM DATE OF FINAL ACCEPTANCE FOR ALL PLANTINGS IN THE PROJECT. ACCEPTANCE OF PLANT MATERIALS CONSTRUES FULL PAYMENT (MINUS ANY PROJECT RETAINAGE). INCLUDES ALL, BUT NOT LIMITED TO, EXCAVATION, INSTALLATION, MULCHING, HERBICIDE, MAINTENANCE DURING ESTABLISHMENT PERIOD, AND WARRANTY AND REJECTION REPLACEMENTS.
62	9030-108-X-X	AMENDED PLANTING SOIL A. INCLUDES EXCAVATION, FURNISHING AND PLACEMENT OF AMENDED PLANTING SOIL FOR PLANTING BEDS. AMENDED PLANTING SOIL SHALL BE MEASURED BY CY INSTALLED. SOIL MIX IS CALLED OUT ON T.01, LOCATIONS ARE SHOWN ON T SHEETS, SEE U SHEETS FOR DETAILS. SOIL MIX MUST BE APPROVED BY ENGINEER. EXCAVATION FOR PLACEMENT OF AMENDED PLANTING SOIL SHALL BE CONSIDERED INCIDENTAL. B. SEE SUPPLEMENTAL SPECIFICATION FOR ADDITIONAL INFORMATION.
63	9040-108-A-1	SWPPP PREPARATION A. CONTRACTOR TO PREPARE SWPPP IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF MUSCATINE, IOWA DNR AND SUDAS. B. CITY WILL COMPLET THE NOTICE OF INTENT AND PUBLICATION OF NOTICE FOR THE PROJECT.
64	9040-108-A-2	SWPPP MANAGEMENT A. INSPECTIONS WILL MEET THE REQUIREMENTS AS SET FORTH IN THE NPDES GENERAL PERMIT NO. 2 AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE COPIES OF THE SWPPP PLAN AND ALL INSPECTION REPORTS TO THE CITY AND SHALL BE RESPONSIBLE FOR ALL INSPECTIONS UNTIL THE NOTICE OF DISCONTINUATION. WEEKLY INSPECTIONS SHALL BE REQUIRED. C. THIS ITEM TO BE MEASURED BY LUMP SUM FOR MANAGEMENT OF THE SWPPP UNTIL THE FINAL SEEDING IS ESTABLISHED PER THE PERMIT AS APPROVED BY THE ENGINEER. D. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT LUMP SUM PRICE FOR MANAGEMENT OF THE SWPPP. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO MAINTAIN THE SWPPP.
65	9040-108-D-1	FILTER SOCK, 20 INCH A. ITEM IS AN ASSUMED AMOUNT NEEDED FOR EROSION CONTROL. ITEM INCLUDES INSTALLATION, MAINTENANCE AND REMOVAL OF FILTER SOCKS.
66	9040-108-O-1	STABILIZED CONSTRUCTION ENTRANCE A. ITEM INCLUDES THE INSTALLATION AND REMOVAL OF THE ROCK AND SUBGRADE STABILIZATION FABRIC FOR STABILIZED CONSTRUCTION ENTRANCES. B. STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT THE CITY RAVINE SITE.
67	9040-108-T-X	INLET PROTECTION DEVICE, DROP IN PROTECTION A. ALL DEVICES SHALL BE DROP IN STYLE AS PER SUDAS 9040-2.18-A. ADDITIONAL QUANTITY, IF REQUIRED, SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. REMOVAL OF INLET PROTECTION DEVICE SHALL BE CONSIDERED INCIDENTAL. SILT TRAPPED IN THE DEVICE SHALL BE REMOVED AND DISPOSED OF AT NO ADDITIONAL COST.
68	11010-108-A-1	CONSTRUCTION SURVEY A. THIS ITEM IS FOR ALL SURVEY WORK NECESSARY FOR CONSTRUCTION OF THIS PROJECT AS DETAILED ON THE CONSTRUCTION DOCUMENTS AND APPROVED REVISIONS. ELECTRONIC DRAWINGS AND FILES ARE AVAILABLE FOR THE CONTRACTORS USE.
69	11020-108-A-1	MOBILIZATION A. THIS ITEM IS FOR ALL PREPATORY WORK AND COSTS INCURRED BEFORE BEGINNING THE WORK ON THE PROJECT AND DURING THE PROJECT. THIS ITEM SHALL ALSO INCLUDE THE COSTS FOR ANY STAGED CONSTRUCTION AND EQUIPMENT SET UP TO COMPLETE THE WORK. NO CHANGE IN CONTRACT PRICE WILL BE MADE FOR ANY COMBINATION OF ADD/ALTERNATES ADDED TO THE CONTRACT. PROJECT CONSTRUCTION IS ANTICIPATED TO TWO YEARS TO COMPLETE AND NO ADDITIONAL PAYMENT WILL BE MADE FOR MOBILIZATION BEYOND THE CONTRACT UNIT PRICE.
70	11050-108-A-0	CONCRETE WASHOUT A. THIS ITEM INCLUDES FURNISHING, PERIODIC CLEANING AND MAINTENANCE OF THE WASHOUT AREA AS DIRECTED BY THE ENGINEER. CONCRETE WASHOUTS SHALL BE MAINTAINED THROUGH THE DURATION OF THE PROJECT. CONCRETE WASHOUT LOCATION SHALL BE NOTED IN THE SWPPP. B. THIS ITEM TO BE MEASURED BY LUMP SUM FOR USE OF CONCRETE WASHOUTS ON THE PROJECT SITE. C. PAYMENT FOR THIS ITEM SHALL BE AT THE CONTRACT LUMP SUM PRICE TO INSTALL, AND MAINTAIN ALL CONCRETE WASHOUTS ON THE PROJECT SITE. THIS PAYMENT SHALL BE CONSIDERED FULL COMPENSATION FOR ALL LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL AND MAINTAIN ALL CONCRETE WASHOUTS USED.
71	12000-108-X-1	VAULT REPAIR TYPE 1 A. INCLUDES ALL CONCRETE, REINFORCING, POLYMER GROUT, FORMWORK, AND CONCRETE DRILLING. B. REFER TO SHEET B.05 FOR DETAILS.
72	12000-108-X-2	VAULT REPAIR TYPE 2 A. INCLUDES ALL CONCRETE, REINFORCING, POLYMER GROUT, FORMWORK, CONCRETE DRILLING, AND SAW CUTS. B. REFER TO SHEET B.05 FOR DETAILS.
73	12010-108-X-6	STEEL BENCH A. THIS ITEM INCLUDES LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND INSTALL STEEL BENCHES. SEE T SHEETS FOR LOCATIONS AND U SHEETS FOR DETAILS. ITEM IS TO BE PAID ON A COUNT BASIS PER EACH. B. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
74	12010-108-X-7	LITTER RECEPTACLE A. THIS ITEM INCLUDES LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND INSTALL LITTER RECEPTACLES. SEE T SHEETS FOR LOCATIONS AND U.03 FOR DETAILS. ITEM IS TO BE PAID ON A COUNT BASIS PER EACH. B. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
75	12010-108-X-8	BIKE RACK A. THIS ITEM INCLUDES LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND INSTALL BIKE RACKS. SEE T SHEETS FOR LOCATIONS AND U SHEETS FOR DETAILS. ITEM IS TO BE PAID ON A COUNT BASIS PER EACH. B. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
76	12010-108-X-10	BOULDER SEATWALL A. THIS ITEM INCLUDES LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND INSTALL BOULDER SEATWALLS. SEE T SHEETS FOR LOCATIONS AND U SHEETS FOR DETAILS. ITEM IS TO BE PAID ON A COUNT BASIS PER LINEAR FOOT OF INSTALLED SEATWALL. B. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
77	12010-108-X-13	INTERSECTION MARKER A. THIS ITEM INCLUDES LABOR, MATERIALS AND EQUIPMENT TO FURNISH AND INSTALL INTERSECTION MARKER. SEE T SHEETS FOR LOCATIONS AND U SHEETS FOR DETAILS. ITEM IS TO BE PAID ON A COUNT BASIS PER EACH. B. THIS ITEM SHALL INCLUDE ALL ITEMS NECESSARY FOR COMPLETE INSTALLATION OF INTERSECTION MARKERS; INCLUDING BUT NOT LIMITED TO THE FOLLOWING: EXCAVATION FOR FOOTINGS, REMOVAL AND DISPOSAL OF EXCAVATED MATERIAL, REINFORCED CONCRETE FOOTING, REINFORCED CMU CORE, ALL STONE VENEER AND STONE CAPS, ALL REQUIRED ELECTRICAL COMPONENTS INCLUDING: WIRING, DRIVERS, LED LIGHTING AND SECURE ACCESS BOX, AND ALL METAL WORK AND LETTERING. C. CONTRACTOR SHALL SUBMIT STRUCTURAL ENGINEER APPROVED SHOP DRAWINGS FOR APPROVAL.
78	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 3-INCH A. REFER TO SHEETS P.01 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES MATERIAL AND INSTALLATION OF ALL ELECTRICAL CONDUIT MATERIAL INCLUDING SWEEPS INTO ELECTRICAL INFRASTRUCTURE. THIS ITEM INCLUDES TRENCHING, BACKFILL, AND COMPACTION. THE MATERIAL SHALL BE 3-INCH SCHEDULE 40 PVC WITH PULL STRING. BOTH ENDS OF CONDUIT SHALL BE SEALED. METHOD OF MEASUREMENT IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
79	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, CONSTANT POWER A. REFER TO SHEETS P.01 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES MATERIAL AND INSTALLATION OF ALL ELECTRICAL CONDUIT MATERIAL INCLUDING SWEEPS INTO ELECTRICAL INFRASTRUCTURE. THIS ITEM INCLUDES TRENCHING, BACKFILL, AND COMPACTION. THE MATERIAL SHALL BE 2-INCH SCHEDULE 40 PVC WITH PULL STRING. BOTH ENDS OF CONDUIT SHALL BE SEALED. METHOD OF MEASUREMENT IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
80	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, STREET SOUNDS A. REFER TO SHEETS P.01 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES MATERIAL AND INSTALLATION OF ALL ELECTRICAL CONDUIT MATERIAL INCLUDING SWEEPS INTO ELECTRICAL INFRASTRUCTURE. THIS ITEM INCLUDES TRENCHING, BACKFILL, AND COMPACTION. THE MATERIAL SHALL BE 2-INCH SCHEDULE 40 PVC WITH PULL STRING. BOTH ENDS OF CONDUIT SHALL BE SEALED. METHOD OF MEASUREMENT IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
81	12030-108-X-X	ELECTRICAL CONDUIT, OPEN CUT, PVC, 2-INCH, REPLACE A. REFER TO SHEETS P.02, P.03, AND P.05 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES MATERIAL AND INSTALLATION OF ALL ELECTRICAL CONDUIT MATERIAL INCLUDING SWEEPS INTO ELECTRICAL INFRASTRUCTURE. THIS ITEM INCLUDES TRENCHING, BACKFILL, AND COMPACTION. THE MATERIAL SHALL BE 2-INCH SCHEDULE 40 PVC WITH PULL STRING. BOTH ENDS OF CONDUIT SHALL BE SEALED. METHOD OF MEASUREMENT IS FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
82	12030-108-X-X	JUNCTION BOX, ELECTRICAL, 13"X24"

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
ESTIMATE REFERENCE NOTES

SHEET
C.04

		A. REFER TO SHEETS P.01 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES EXCAVATION AND GRANULAR BASE. CONTRACTOR FURNISH AND INSTALL JUNCTION BOX AND LID.
83	12030-108-X-X	JUNCTION BOX, ELECTRICAL, 8"X18" A. REFER TO SHEETS P.01 THRU P.07 FOR LAYOUT. REFER TO SHEET C.13 FOR TABULATIONS. REFER TO SHEET B.07 FOR DETAILS. THIS ITEM INCLUDES BOTH NEW AND EXISTING BOX LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NEW JUNCTION BOXES OR REMOVING AND REPLACING EXISTING JUNCTION BOXES IN THE SAME LOCATION. THIS ITEM INCLUDES ANY REQUIRED EXCAVATION AND GRANULAR BASE. CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION BOX AND LID.
84	12030-108-X-X	EVENT POWER PEDESTAL A. THIS ITEM INCLUDES FURNISH AND INSTALL OF EVENT POWER PEDESTALS. PER DETAIL 1/U.06. REFER TO T SHEETS FOR LOCATIONS.
85	12030108-X-X	CHARGING PEDESTAL A. THIS ITEM INCLUDES FURNISH AND INSTALL OF CHARGING PEDESTALS. PER DETAIL 2/U.06. REFER TO T SHEETS FOR LOCATIONS.
86		

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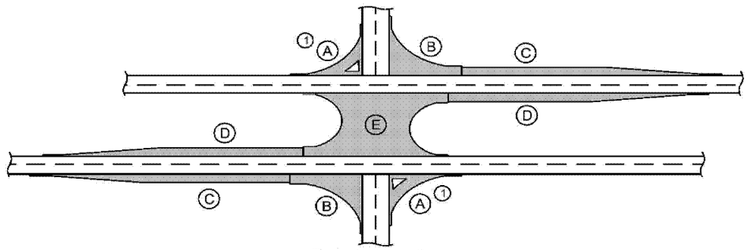
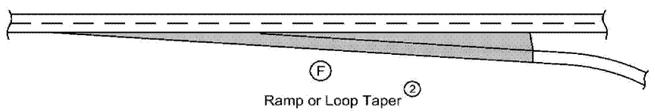
ESTIMATE REFERENCE NOTES

SHEET C.05

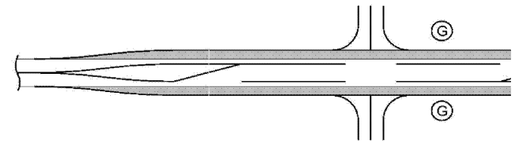
PCC PAVEMENT



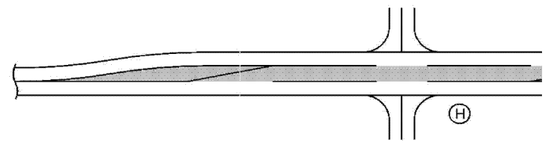
Typical Intersection



Ramp or Loop Taper 2



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

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.

Location				Mainline			Area 3								Total Area By Pavement Thickness		Special Backfill	Modified Subbase	Granular Subbase	Remarks
Road Identification	Direction of Travel	Station to Station		Width	Length	Area	A 1	B	C	D	E	F 2	G	H	SY					
				FT	FT	SY	SY	SY	SY	SY	SY	SY	SY	SY	10 IN	10½ IN	TONS	CY	SY	
2ND STREET	S	14+95.38	15+25.63		30.3			30.7												
2ND STREET	S	17+54.37	17+85.28		30.9					26.7										
2ND STREET	S	18+09.44	18+36.92		27.5		48.4													
2ND STREET	S	18+58.92	20+23.89		165.0			182.1												
2ND STREET	S	20+94.39	21+17.55		23.2					12.4										
2ND STREET	BOTH	21+42.78	23+07.00		164.2						1025.6									
2ND STREET	S	23+69.43	24+48.41		79.0				75.5											
2nd STREET	BOTH	25+03.27	26+80.24		177.0						938.8									
2nd STREET	S	27+36.36	28+06.95		70.6				65.8											
2nd STREET	BOTH	28+89.45	33+04.03		414.6						1963.6									
2nd STREET	S	33+32.42	33+44.58		12.2			8.8												
2nd STREET	N	14+95.05	15+38.82		43.8			40.2												
2nd STREET	N	17+85.34	18+36.63		51.3			48.7												
2nd STREET	N	18+58.63	19+54.97		96.3			97.0												
2nd STREET	N	23+69.64	24+48.59		79.0					74.3										
2nd STREET	N	24+74.20	24+89.48		15.3					10.2										
2nd STREET	N	27+36.11	28+07.28		71.2					67.6										
2nd STREET	N	33+31.56	33+54.38		22.8			21.7												
WALNUT STREET	N	104+54.28	104+63.79		9.5				5.3											
CEDAR STREET	BOTH	93+20.99	94+61.50		140.5						593.3									
CEDAR STREET	BOTH	95+58.33	95+73.62		15.3					20.4										

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TABULATIONS

SHEET C.06

102-3
10-16-18

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

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.

Location		Type	Length of Opening (1)			W	PR (1)(2)	SR (2)	Pipe Culvert (3)					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks
Station	Side	A, B, C, Safety Ramp, or Predetermined*	Case	1½" Dropped Curb	3" Dropped Curb				H	Size	Pipe Length	Lt.	Rt.		HMA	PCC		
			1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF	No.	SY	SY	TON	
15+45.51	LT	A	1	39.8												52.6		
16+05.61	LT	A	1	35.5												36.7		
16+28.38	RT	A	1	30.9												40.8		
20+72.01	LT	A	1	40.7												49.3		
28+88.04	RT	A	1	28.1												24.8		
93+20.02	LT	A	1	30.3												30.6		
93+20.99	RT	A	1	28.3												45.2		

108-22
04-16-13

PAVEMENT MARKING LINE TYPES

See PM-110

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY4 - Factor of 1.00 as value includes number of 4-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.25
DCY4: Double Centerline (Yellow) @ 2.00
NPY4: No Passing Zone Line (Yellow) @ 1.25
BLW4: Broken Lane Line (White) @ 0.25
ELW4: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 1.00

Location						Length by Line Type (Unfactored)														Remarks
Road ID	Station to Station		Dir. of Travel	Marking Type	Side	BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4									
					L C R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
2ND STREET	15+21.76	18+11.28	BOTH	Waterborne/Solvent Paint	X	2.90														
CHESTNUT STREET	64+36.84	64+62.20	BOTH	Waterborne/Solvent Paint	X	0.25														
2ND STREET	18+85.81	21+78.66	BOTH	Waterborne/Solvent Paint	X	2.93														
IOWA AVENUE	74+47.72	74+64.56	BOTH	Waterborne/Solvent Paint	X	0.17														
IOWA AVENUE	75+35.64	75+74.74	BOTH	Waterborne/Solvent Paint	X	0.39														
2ND STREET	22+67.25	25+60.24	BOTH	Waterborne/Solvent Paint	X	2.93														
SYCAMORE STREET	84+28.01	84+64.66	BOTH	Waterborne/Solvent Paint	X	0.37														
SYCAMORE STREET	85+36.30	85+50.00	BOTH	Waterborne/Solvent Paint	X	0.14														
2ND STREET	26+28.30	29+19.45	BOTH	Waterborne/Solvent Paint	X	2.91														
2ND STREET	29+86.51	32+73.35	BOTH	Waterborne/Solvent Paint	X	2.87														
2ND STREET	33+52.04	35+96.24	BOTH	Waterborne/Solvent Paint	X	2.44														
CEDAR STREET	93+20.99	94+63.84	BOTH	Waterborne/Solvent Paint	X	1.43														
CEDAR STREET	95+35.96	95+46.04	BOTH	Waterborne/Solvent Paint	X	0.10														

04-21-15

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Road Identification	Location																								Remarks
	Station	Side	STAW	RTAW	LTAW	CSRW	CSLW	CSTW	CRLW	FERW	LLRW	RLRW	RRCW	BLSW	WCSW	WPSB	SCLW	XNGW	STPW	AHDW	ONLW	BIKW	LANW	XITW	Groove Cuts	
																									EACH	
2ND STREET	15+50.39	RT													1											
2ND STREET	17+58.61	LT													1											
2ND STREET	19+11.60	RT													1											
2ND STREET	21+28.15	LT													1											
2ND STREET	23+09.51	RT													1											
2ND STREET	25+06.80	LT													1											
2ND STREET	26+77.84	RT													1											
2ND STREET	28+83.58	LT													1											
2ND STREET	30+37.32	LT													1											
2ND STREET	32+57.32	LT													1											

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TABULATIONS

SHEET C.07

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
1	14+98.86	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
2	17+70.25	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
3	18+17.00	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
4	18+62.47	VALVE BOX	ADJUST VALVE BOX TO GRADE (CHESTNUT STREET)
5	18+79.41	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
6	19+56.53	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
7	20+33.87	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
8	22+39.57	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
9	22+69.66	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
10	25+57.42	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
11	25+63.86	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
12	25+84.15	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
13	25+85.19	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
14	26+45.14	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
15	29+28.63	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
16	29+63.50	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
17	29+64.33	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
18	29+83.58	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
19	31+91.41	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
20	22+46.17	VALVE BOX	ADJUST VALVE BOX TO GRADE (2ND STREET)
21	18+17.25	FIRE HYDRANT	ADJUST FIRE HYDRANT TO GRADE (2ND STREET)
22	22+51.79	FIRE HYDRANT	ADJUST FIRE HYDRANT TO GRADE (2ND STREET)
23	25+57.74	FIRE HYDRANT	ADJUST FIRE HYDRANT TO GRADE (2ND STREET)
24	29+84.04	FIRE HYDRANT	ADJUST FIRE HYDRANT TO GRADE (2ND STREET)
25	33+44.68	FIRE HYDRANT	ADJUST FIRE HYDRANT TO GRADE (2ND STREET)
26	15+36.54	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
27	15+78.76	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
28	16+51.01	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
29	16+62.90	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
30	16+71.34	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
31	16+72.05	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
32	17+01.40	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
33	17+09.50	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
34	17+24.10	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
35	17+41.70	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
36	17+43.81	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
37	17+81.40	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
38	18+04.57	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
39	18+96.45	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
40	19+08.01	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
41	19+17.24	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
42	19+22.00	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
43	19+51.55	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
44	19+77.81	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
45	20+20.82	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
46	20+25.36	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
47	21+93.56	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
48	21+13.63	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
49	21+71.11	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
50	22+51.16	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
51	22+68.81	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
52	23+17.11	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
53	23+29.72	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
54	23+56.66	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
55	23+76.19	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
56	23+81.92	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
57	23+86.26	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
58	24+14.92	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
59	24+31.74	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
60	24+39.33	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
61	24+66.11	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
62	24+91.14	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
63	24+94.51	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
64	25+08.13	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
65	25+19.33	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
66	25+28.79	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)

104-10
08-01-08

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
67	25+40.11	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
68	25+58.73	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
69	26+40.16	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
70	26+51.91	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
71	26+81.47	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
72	26+84.02	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
73	27+19.29	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
74	27+29.17	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
75	27+54.57	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
76	27+66.72	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
77	27+67.83	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
78	27+82.34	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
79	27+87.36	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
80	28+16.95	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
81	28+31.35	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
82	28+37.91	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
83	28+57.13	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
84	28+77.49	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
85	28+93.74	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
86	29+16.96	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
87	29+99.54	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
88	30+13.25	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
89	30+30.49	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
90	30+49.08	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
91	31+01.72	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
92	31+09.61	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
93	31+51.00	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
94	32+09.78	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
95	34+65.83	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
96	34+86.63	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
97	35+21.38	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
98	35+26.48	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
99	35+40.81	CURB STOP	ADJUST CURB STOP TO GRADE (2ND STREET)
100	93+50.59	CURB STOP	ADJUST CURB STOP TO GRADE (CEDAR STREET)
101	93+55.16	CURB STOP	ADJUST CURB STOP TO GRADE (CEDAR STREET)

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
TABULATIONS

SHEET C.08

110-1
04-16-13

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area SY	Saw Cut* LF	Remarks
14+95.38	15+25.63	LT		27.0	65.5	2ND STREET
15+52.89	15+97.93	LT		181.9	156.1	2ND STREET
17+54.37	18+36.92	LT		95.3	151.1	2ND STREET
18+58.92	20+23.89	LT		178.8	231.9	2ND STREET
20+94.39	21+17.55	LT		12.8	30.2	2ND STREET
21+42.78	23+07.00	BOTH		935.8	215.0	2ND STREET
23+69.43	24+48.41	LT		38.1	91.2	2ND STREET
25+06.40	26+80.24	BOTH		917.8	126.3	2ND STREET
27+36.36	28+06.95	LT		30.0	82.3	2ND STREET
95+58.33	95+73.55	LT		9.6	24.8	CEDAR STREET
95+58.33	95+73.62	RT		9.3	24.6	CEDAR STREET
28+89.45	33+04.47	BOTH		1924.0	163.8	2ND STREET
33+30.35	NEED STA	LT		5.1	14.5	2ND STREET
33+32.42	33+44.58	LT		8.5	12.5	2ND STREET
14+95.05	15+38.82	RT		35.6	77.8	2ND STREET
17+85.34	18+36.63	RT		42.4	88.1	2ND STREET
18+58.62	19+54.97	RT		90.7	136.2	2ND STREET
23+69.40	24+48.61	RT		38.0	90.9	2ND STREET
24+74.20	25+06.40	RT		34.3	39.2	2ND STREET
27+36.04	28+07.28	RT		31.3	83.2	2ND STREET
33+30.96	33+54.38	RT		20.5	52.5	2ND STREET
93+20.99	94+69.92	BOTH		624.1	36.0	CEDAR STREET

110-2
04-16-13

REMOVAL OF EXISTING STRUCTURES

Location	Description	Remarks
STA. 17+90.67 19.78-LT	INTAKE	REMOVE
STA. 17+90.23 19.62-RT	INTAKE	REMOVE
STA. 20+06.47 17.88-LT	INTAKE	REMOVE
STA. 20+79.14 26.21-LT	INTAKE	REMOVE
STA. 21+55.55 18.05-RT	STORM MANHOLE	REMOVE
STA. 21+55.87 17.84-LT	STORM MANHOLE	REMOVE
STA. 23+94.25 18.35-RT	INATKE	REMOVE
STA. 23+95.38 17.59-LT	INTAKE	REMOVE
STA. 25+27.22 18.32-RT	STORM MANHOLE	REMOVE
STA. 25+28.31 17.31-LT	STORM MANHOLE	REMOVE
STA. 25+75.12 62.83-LT	STORM MANHOLE	REMOVE
STA. 26+54.92 18.33-LT	STORM MANHOLE	REMOVE
STA. 26+55.03 17.55-RT	STORM MANHOLE	REMOVE
STA. 27+91.67 17.40-RT	INTAKE	REMOVE
STA. 26+91.79 18.63-LT	INTAKE	REMOVE
STA. 30+16.79 18.76-LT	STORM MANHOLE	REMOVE
STA. 30+17.03 18.09-RT	STORM MANHOLE	REMOVE
STA. 32+81.32 18.61-LT	INTAKE	REMOVE
STA. 32+81.48 20.96-RT	INTAKE	REMOVE
STA. 32+94.73 34.83-LT	STORM MANHOLE	REMOVE
STA. 33+33.16 40.27-LT	INTAKE	REMOVE
STA. 94+38.64 18.69-LT	STORM MANHOLE	REMOVE
STA. 94+38.71 18.18-RT	STORM MANHOLE	REMOVE
STA. 29+43.89 11.18-RT	SANITARY MANHOLE	REMOVE
STA. 31+67.06 12.44-RT	SANITARY MANHOLE	REMOVE
STA. 32+99.93 7.15-RT	SANITARY MANHOLE	REMOVE
STA. 93+36.88 9.23-RT	SANITARY MANHOLE	REMOVE
STA. 94+63.53 9.10-RT	SANITARY MANHOLE	REMOVE

110-4
08-01-08

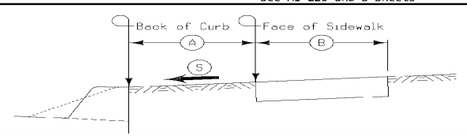
CURB REMOVAL

Begin Station	End Station	Side	Length STA	Remarks
15+65.39	15+85.43	LT	0.2	2ND STREET
16+20.93	17+54.37	LT	1.3	2ND STREET
20+23.89	20+49.64	LT	0.3	2ND STREET
21+17.55	21+42.78	LT	0.3	2ND STREET
23+07.00	23+69.43	LT	0.6	2ND STREET
24+48.41	25+06.40	LT	0.6	2ND STREET
26+80.24	27+36.36	LT	0.6	2ND STREET
28+07.03	28+89.45	LT	0.8	2ND STREET
95+46.04	95+58.33	LT	0.1	CEDAR STREET
95+46.04	95+58.33	RT	0.1	CEDAR STREET
104+63.79	104+68.98	LT	0.1	WALNUT STREET
104+53.98	104+60.98	RT	0.1	WALNUT STREET
33+44.58	35+96.24	LT	2.5	2ND STREET
15+38.82	17+85.34	RT	2.5	2ND STREET
20+99.88	21+42.78	RT	0.4	2ND STREET
23+07.00	23+69.44	RT	0.6	2ND STREET
24+48.61	24+74.20	RT	0.3	2ND STREET
26+80.24	27+36.06	RT	0.6	2ND STREET
28+07.20	28+89.45	RT	0.8	2ND STREET
105+71.72	105+81.65	LT	0.1	WALNUT STREET

113-1
04-16-19

SIDEWALKS

See MI-220 and S Sheets



Intersection/Road	Quadrant/Side	Length	A FT	B FT	S %	4" PCC Sidewalk SY	6" PCC Sidewalk SY	8" PCC Sidewalk SY	10" PCC Sidewalk SY	Detectable Warnings SF	Remarks
2ND STREET	RIGHT	25.01	10.50	5.00	VAR	38.2	23.4			47	STA. 15+13.81 - 15+38.82
2ND STREET	RIGHT	76.91	3.50	5.00	VAR	105.4					STA. 15+38.82 - 16+15.73
2ND STREET	RIGHT	153.21	3.50	5.00	VAR	156.1					STA. 16+40.62 - 17+93.83
2ND STREET	RIGHT	25.45	10.50	5.00	VAR	49.2	13.2			37	STA. 17+93.83 - 18+19.28
2ND STREET	LEFT	21.82	10.50	5.00	VAR	53.1				37	STA. 15+13.81 - 15+35.63
2ND STREET	LEFT	40.04	10.50	5.00	VAR	136.2					STA. 15+55.39 - 15+95.43
2ND STREET	LEFT	154.07	3.50	5.00	VAR	159.5					STA. 16+15.93 - 17+70.00
2ND STREET	LEFT	49.28	10.50	5.00	VAR	111.7	24.1			47	STA. 17+70.00 - 18+19.28
2ND STREET	RIGHT	22.48	10.50	5.00	VAR	40.0	26.6			51	STA. 18+77.81 - 19+00.29
2ND STREET	RIGHT	54.68	3.50	5.00	VAR	54.9					STA. 19+00.29 - 19+54.97
2ND STREET	RIGHT	42.9	3.50	5.00	VAR	46.9					STA. 20+99.88 - 21+42.78
2ND STREET	RIGHT	42	10.50	5.00	VAR	125.8	14.6			39	STA. 21+42.78 - 21+84.78
2ND STREET	LEFT	25.8	10.50	5.00	VAR	75.4	15.7			40	STA. 18+77.81 - 19+03.61
2ND STREET	LEFT	98	3.50	5.00	VAR	106.4					STA. 19+03.61 - 20+01.61
2ND STREET	LEFT	63.03	10.50	5.00	VAR	85.4					STA. 20+01.61 - 20+64.64
2ND STREET	LEFT	38.16	10.50	5.00	VAR	48.6	10.4			10	STA. 20+79.39 - 21+17.55
2ND STREET	LEFT	25.23	3.50	5.00	VAR	27.0					STA. 21+17.55 - 21+42.78
2ND STREET	LEFT	42	10.50	5.00	VAR	95.7	15.6			40	STA. 21+42.78 - 21+84.78
	LEFT	58.19	10.50	5.00	VAR	12.1	35.3			49	STA. 22+40.01 - 22+98.20
2ND STREET	RIGHT	37.05	10.50	5.00	VAR	130.7	35.1			61	STA. 22+61.15 - 22+98.20
2ND STREET	RIGHT	176	3.50	5.00	VAR	191.0					STA. 22+98.20 - 24+74.20
2ND STREET	RIGHT	92.15	10.50	5.00	VAR	171.1	13.2			37	STA. 24+74.20 - 25+65.35
2ND STREET	LEFT	165.15	3.50	5.00	VAR	155.6					STA. 23+53.05 - 25+18.20
2ND STREET	LEFT	48.15	10.50	5.00	VAR	119.3	20.6			43	STA. 25+18.20 - 25+66.35
2ND STREET	RIGHT	43.5	10.50	5.00	VAR	89.1	22.4			45	STA. 26+22.15 - 26+65.65
2ND STREET	RIGHT	211.22	3.50	5.00	VAR	216.1					STA. 26+65.65 - 28+76.87
2ND STREET	RIGHT	23.59	10.50	5.00	VAR	100.3	12.3			35	STA. 29+01.98 - 29+25.57
2ND STREET	LEFT	43.5	10.50	5.00	VAR	129.4	11.6			34	STA. 26+22.15 - 26+65.65
2ND STREET	LEFT	231.2	3.50	5.00	VAR	138.7					STA. 25+65.65 - 28+96.85
2ND STREET	LEFT	28.72	10.50	5.00	VAR	35.3	22.3			45	STA. 28+96.85 - 29+25.57
2ND STREET	RIGHT	46.33	10.50	5.00	VAR	172.9	11.5			34	STA. 29+80.39 - 30+26.72
2ND STREET	RIGHT	252	3.50	5.00	VAR	283.4	11.2			35	STA. 30+26.72 - 32+78.75
2ND STREET	LEFT	46.33	10.50	5.00	VAR	61.4	22.9			45	STA. 29+80.39 - 30+26.72
2ND STREET	LEFT	259.07	3.50	5.00	VAR	300.6	6.3			22	STA. 30+26.72 - 32+85.79
2ND STREET	LEFT	252.69	3.50	5.00	VAR	269.7	7.3			26	STA. 33+43.55 - 35+96.24
2ND STREET	RIGHT	252.69	3.50	5.00	VAR	90.7	7.8			28	STA. 33+44.59 - 35+16.20
CEDAR STREET	RIGHT	98.66	3.50	5.00	VAR	90.5					STA. 93+30.18 - 94+28.84
CEDAR STREET	RIGHT	41.12	10.50	5.00	VAR	65.5					STA. 94+28.84 - 94+69.96
CEDAR STREET	LEFT	98.66	3.50	5.00	VAR	95.9					STA. 94+28.84 - 93+30.18
CEDAR STREET	LEFT	41.12	10.50	5.00	VAR	59.2					STA. 94+28.84 - 94+69.96

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2ND STREET RECONSTRUCTION
TABULATIONS

SHEET C.09

110-5
10-20-15

SIDEWALK REMOVAL

* Not a bid item

Begin Station	End Station	Area SY	Saw Cut* LF	Remarks
14+98.44	15+35.88	79.1	14.8	2ND STREET-LT
15+55.39	15+95.70	67.2	0.0	2ND STREET-LT
16+15.66	18+34.54	293.1	9.4	2ND STREET-LT
18+61.41	20+64.64	315.5	6.3	2ND STREET-LT
20+79.48	22+01.49	220.4	17.6	2ND STREET-LT
22+39.90	25+80.20	433.7	163.6	2ND STREET-LT
26+07.00	29+38.85	496.3	15.5	2ND STREET-LT
93+30.17	94+69.84	163.0	0.0	CEDAR STREET-RT
93+30.05	94+69.92	161.0	0.0	CEDAR STREET-LT
29+67.22	32+94.62	400.3	9.5	2ND STREET-LT
33+34.62	35+96.23	280.3	10.0	2ND STREET-LT
14+98.84	16+15.73	171.9	15.1	2ND STREET-RT
16+40.62	18+34.41	231.7	16.4	2ND STREET-RT
18+61.32	19+54.97	127.8	24.9	2ND STREET-RT
20+99.88	22+00.86	210.6	18.2	2ND STREET-RT
22+39.85	25+81.11	601.4	25.9	2ND STREET-RT
26+08.10	28+76.93	377.6	15.8	2ND STREET-RT
28+99.21	29+40.06	133.5	9.6	2ND STREET-RT
29+67.13	32+93.31	492.3	49.4	2ND STREET-RT
105+71.72	105+81.65	11.7	21.2	WALNUT STREET-LT
33+33.17	35+16.21	100.2	359.6	2ND STREET-RT

110-08
04-17-18

REMOVAL OF CONCRETE DRIVES

* Not a Bid Item

Location Station	Side	Area SY	Saw Cut* LF	Remarks
15+45.51	LT	55.2	59.5	2ND STREET
16+03.18	LT	38.2	63.0	2ND STREET
16+28.22	RT	40.5	35.2	2ND STREET
20+72.02	LT	50.5	51.5	2ND STREET
28+87.46	RT	25.5	22.3	2ND STREET
93+21.21	LT	27.5	51.1	CEDAR STREET
93+20.66	RT	41.1	75.8	CEDAR STREET

190-62
10-15-13

EXISTING SIGNS TO BE REMOVED

SIGN NUMBER OR DESCRIPTION	LOCATION STATION	DIRECTION OF TRAVEL	TYPE 'A' SIGN ASSEMBLY (RA) EACH	TYPE 'B' SIGN ASSEMBLY (RB) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'A' (RR) EACH	REMOVE & REINSTALL EXISTING SIGNS TYPE 'B' (RR) EACH	CONCRETE FOUNDATION (RF) EACH	SUPPORT STRUCTURE & FOUNDATION (RS) EACH	APPLICABLE SIGNING NOTES	REMARKS
STREET NAME SIGN	15+01.76	BOTH								PINE STREET
DUAL LANES	15+22.21	EB								2ND STREET
STOP SIGN	15+23.56	WB								2ND STREET
NO PARKING	15+42.74	EB								2ND STREET
RESERVE PARK	15+63.79									2ND STREET
RESERVED PARKING	15+75.32									2ND STREET
RESERVED PARKING	15+75.39									2ND STREET
RESERVED PARKING	15+75.68									2ND STREET
EXIT SIGN	15+92.06	WB								2ND STREET
LOADING ZONE	16+26.04	WB								2ND STREET
NO PARKING	16+46.68	EB								2ND STREET
NO PARKING	16+47.31	WB								2ND STREET
NO PARKING	17+43.21	EB								2ND STREET
NO PARKING	17+43.45	WB								2ND STREET
STOP SIGN	18+10.94	EB								2ND STREET
STOP SIGN	18+29.90	SB								CHESTNUT STREET
STOP SIGN	18+65.75	NB								CHESTNUT STREET
STOP SIGN	18+86.10	WB								2ND STREET
NO PARKING	19+45.45	EB								2ND STREET
NO PARKING	19+46.00	WB								2ND STREET
HISTORIC SIGN	20+38.16	WB								2ND STREET
STOP SIGN	21+75.88	EB								2ND STREET
STOP SIGN	21+99.67	SB								IOWA AVENUE
STOP SIGN	22+41.75	NB								IOWA AVENUE
STOP SIGN	22+69.06	WB								2ND STREET
LOADING ZONE	23+09.02	EB								2ND STREET
NO PARKING	23+57.37	WB								2ND STREET
NO PARKING	23+58.88	EB								2ND STREET
NO PARKING	24+91.83	EB								2ND STREET
NO PARKING	24+98.86	WB								2ND STREET
STOP SIGN	25+56.04	EB								2ND STREET
SIGN POST	25+78.33	SB								2ND STREET
STOP SIGN	25+78.61	SB								2ND STREET
STOP SIGN	26+09.74	NB								SYCAMORE STREET
STOP SIGN	26+30.22	WB								2ND STREET
LOADING ZONE	26+72.80	EB								2ND STREET
PARKING	26+89.19	WB								2ND STREET
NO PARKING	27+16.26	EB								2ND STREET
NO PARKING	27+16.67	WB								2ND STREET
NO PARKING	28+31.04	EB								2ND STREET
NO PARKING	28+53.72	WB								2ND STREET
STOP SIGN	29+16.86	EB								2ND STREET
STOP SIGN	29+88.87	WB								2ND STREET
LOADING ZONE	30+30.58	WB								2ND STREET
2 HR PARKING	30+80.58	WB								2ND STREET
2 HR PARKING	30+81.72	EB								2ND STREET
2 HR PARKING	31+08.92	WB								2ND STREET
2 HR PARKING	31+85.86	EB								2ND STREET
NO PARKING	31+85.40	WB								2ND STREET
HISTORIC SIGN	32+33.93	WB								2ND STREET
STOP SIGN	32+68.77	EB								2ND STREET
SIGN POST	32+90.23	EB								2ND STREET
STOP SIGN	32+91.17	SB								WALNUT STREET
STOP SIGN	33+37.25	NB								WALNUT STREET
SIGN POST	33+37.87	NB								2ND STREET
STOP SIGN	33+56.10	WB								2ND STREET
NO PARKING	33+75.78	WB								2ND STREET
LOADING ZONE	34+53.51	WB								2ND STREET
LOADING ZONE	93+57.75	SB								CEDAR STREET
STOP SIGN	94+64.02	SB								CEDAR STREET
SIGN POST	95+36.50	SB								CEDAR STREET
STOP SIGN	95+36.84	NB								CEDAR STREET

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TABULATIONS

SHEET C.10

SANITARY SEWER PIPES

FROM STRUCTURE	TO STRUCTURE	PIPE DIA	Length	PIPE GRADE	START INV	END INV
MH - A	MH - B	8" PVC	127 LF	0.58%	558.58	557.84
MH - B	MH - C	8" PVC	47 LF	1.56%	557.74	557.00
MH - D	MH - E	8" PVC	133 LF	0.78%	561.14	560.10
MH - D	MH - C	8" PVC	223 LF	1.99%	561.43	557.00

SANITARY SEWER STRUCTURES

Struc NO.	STATION	OFFSET	TYPE	RIM ELEV	OUTLET ELEV
MH - A	93+36.88	9.23' R	SW-301 N	568.66	558.58
MH - B	94+63.53	9.10' R	SW-301 N	568.06	557.74
MH - C	29+44.00	11.01' R	SW-301 N	567.45	556.90
MH - D	31+67.06	12.44' R	SW-301 N	569.75	561.43 561.14
MH - E	32+99.93	7.15' R	SW-301 N	567.43	555.86

STORM SEWER PIPES

FROM STRUCTURE	TO STRUCTURE	PIPE DIA	Length	PIPE GRADE	START INV	END INV
EX-3	INT - 5	15" RCP	10 LF	0.50%	563.34	563.29
INT - 1	MH - 1	15" RCP	31 LF	0.50%	569.48	569.32
INT - 3	MH - 2	15" RCP	12 LF	0.50%	565.35	565.29
INT - 9	INT - 10	15" RCP	34 LF	6.18%	555.64	553.54
INT - 11	INT - 12	15" RCP	41 LF	4.20%	555.68	553.96
INT - 15	INT - 16	15" RCP	41 LF	0.50%	564.57	564.37
INT - 16	MH - 4	12" RCP	12 LF	0.40%	564.37	564.32
INT - 17	INT - 18	15" RCP	41 LF	0.95%	565.57	565.18
INT - 18	EX-6	15" RCP	89 LF	2.67%	565.09	562.72
INT - 19	INT - 20	15" RCP	42 LF	0.38%	564.67	564.51
INT - 20	INT - 21	15" RCP	18 LF	1.63%	564.58	564.28

STORM SEWER STRUCTURES

Struc NO.	STATION	OFFSET	TYPE	RIM/FG ELEV	OUTLET ELEV
INT - 1	17+59.37	-20.50' L	SW-541 N	574.30	569.48
INT - 2	17+90.23	20.50' R	SW-541 N	573.22	568.68
INT - 3	20+18.89	-13.50' L	SW-541 N	569.03	565.35
INT - 4	20+79.39	-26.11' L	SW-501 N	568.45	564.11
INT - 5	21+55.83	-13.75' L	SW-541 N	566.20	563.29
INT - 6	21+55.59	13.81' R	SW-508(MODIFIED)	566.05	563.42 562.46
INT - 7	23+95.45	-20.50' L	SW-541 N	561.99	558.61
INT - 8	23+94.10	20.50' R	SW-541 N	561.82	557.00
INT - 9	25+10.73	-20.50' L	SW-541 N	559.48	555.64
INT - 10	25+10.77	13.50' R	SW-508(MODIFIED)	559.22	552.83
INT - 11	26+72.74	-20.50' L	SW-541 N	559.58	555.68
INT - 12	26+72.74	20.50' R	SW-541 N	559.29	553.54
INT - 13	27+91.56	-20.50' L	SW-541 N	562.97	558.92
INT - 14	27+91.53	20.50' R	SW-541 N	562.82	558.92
INT - 15	29+73.13	-73.29' L	SW-541 N	568.40	564.57
INT - 16	29+32.58	-73.03' L	SW-541 N	568.21	564.37
INT - 17	30+29.60	-20.50' L	SW-541 N	568.61	565.57
INT - 18	30+29.60	20.50' R	SW-541 N	568.27	565.09
INT - 19	32+74.72	20.73' R	SW-541 N	567.42	564.67
INT - 20	32+81.46	-20.50' L	SW-541 N	567.41	564.58
INT - 21	32+94.31	-34.50' L	SW-541 N	567.16	564.44
INT - 22	33+34.61	-40.23' L	SW-541 N	567.42	563.87
INT - 23	33+54.66	77.14' R	SW-512 N	565.78	
MH - 1	17+90.67	-19.78' L	SW-401 N	574.49	569.22
MH - 2	20+06.49	-13.45' L	SW-401 N	569.16	565.19

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
STORM AND SANITARY TABLES

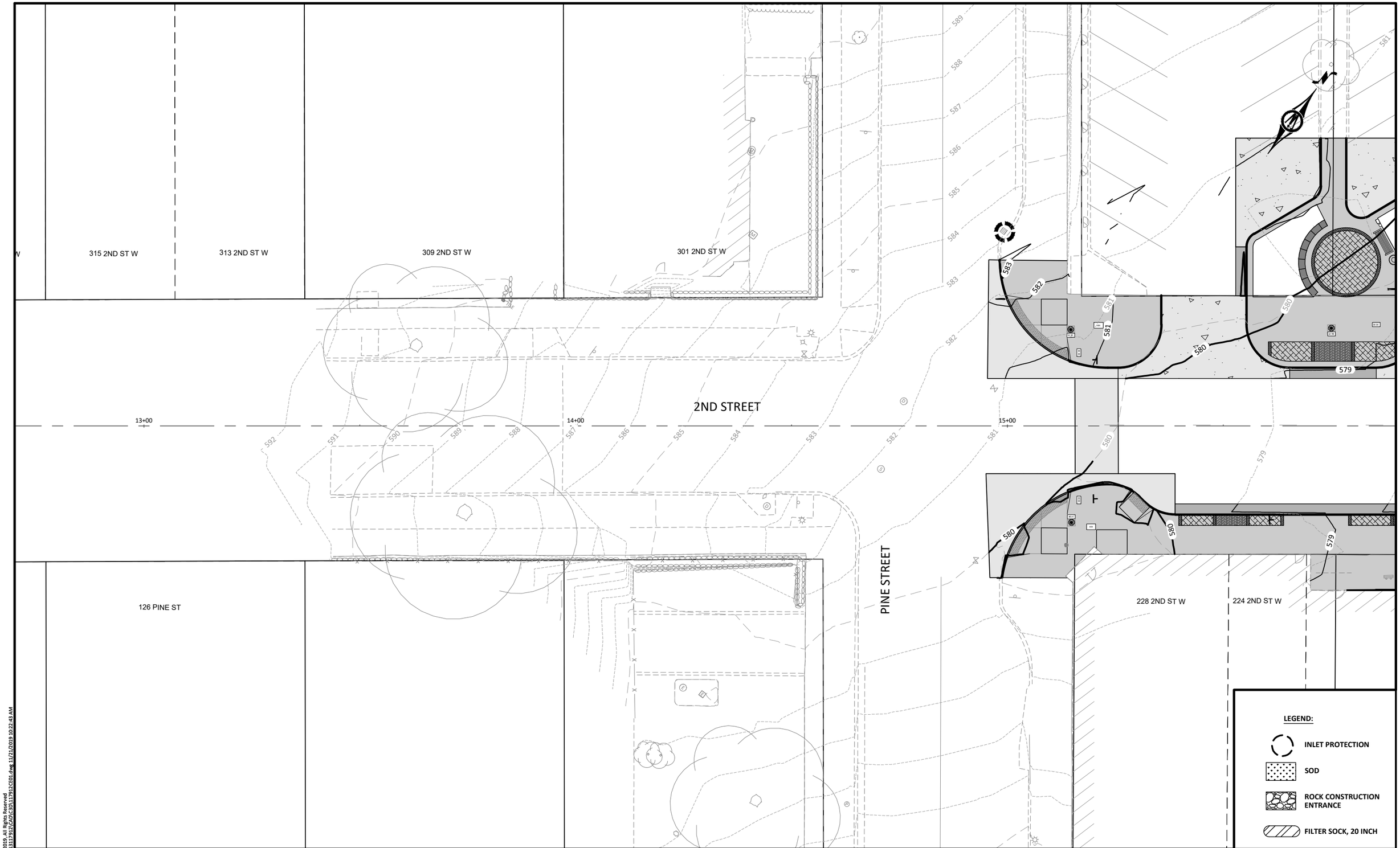
SHEET C.11

ELECTRIC FIXTURES INSTALLATIONS

Location		Type	Remarks
No.	Station		
1	15+15',21'RT	JUNCTION BOX, 8"x18"	REPLACE
2	15+15',24'LT	JUNCTION BOX, 8"x18"	REPLACE
3	15+17',17'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
4	15+17',17'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
5	15+19',23'LT	JUNCTION BOX, 13"x24"	NEW
6	15+19',24'RT	JUNCTION BOX, 13"x24"	NEW
7	15+75',21'LT	JUNCTION BOX, 8"x18"	REPLACE
8	15+85',25'LT	JUNCTION BOX, 13"x24"	NEW
9	15+86',47'LT	JUNCTION BOX, 8"x18"	EVENT POWER
10	15+87',48'LT	JUNCTION BOX, 13"x24"	NEW
11	16+12',21'RT	JUNCTION BOX, 8"x18"	REPLACE
12	16+58',21'LT	JUNCTION BOX, 8"x18"	REPLACE
13	16+97',21'RT	JUNCTION BOX, 8"x18"	REPLACE
14	17+38',21'LT	JUNCTION BOX, 8"x18"	REPLACE
15	17+78',21'RT	JUNCTION BOX, 8"x18"	REPLACE
16	18+03',23'RT	JUNCTION BOX, 13"x24"	NEW
17	18+03',23'LT	JUNCTION BOX, 13"x24"	NEW
18	18+03',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
19	18+10',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
20	18+18',22'RT	JUNCTION BOX, 8"x18"	REPLACE
21	18+19',21'LT	JUNCTION BOX, 8"x18"	REPLACE
22	18+78',21'RT	JUNCTION BOX, 8"x18"	REPLACE
23	18+79',21'LT	JUNCTION BOX, 8"x18"	REPLACE
24	18+88',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
25	18+88',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
26	18+98',23'RT	JUNCTION BOX, 13"x24"	NEW
27	18+98',23'LT	JUNCTION BOX, 13"x24"	NEW
28	19+15',22'LT	JUNCTION BOX, 8"x18"	REPLACE
29	19+50',22'RT	JUNCTION BOX, 8"x18"	REPLACE
30	19+90',21'LT	JUNCTION BOX, 8"x18"	REPLACE
31	20+89',20'LT	JUNCTION BOX, 8"x18"	REPLACE
32	21+37',22'RT	JUNCTION BOX, 8"x18"	REPLACE
33	21+57',19'LT	JUNCTION BOX, 8"x18"	EVENT POWER
34	21+68',23'RT	JUNCTION BOX, 13"x24"	NEW
35	21+68',23'LT	JUNCTION BOX, 13"x24"	NEW
36	21+69',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
37	21+69',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
38	21+73',20'RT	JUNCTION BOX, 8"x18"	INTERSECTION MARKER
39	21+84',21'RT	JUNCTION BOX, 8"x18"	REPLACE
40	21+84',20'LT	JUNCTION BOX, 8"x18"	REPLACE
41	22+53',39'LT	JUNCTION BOX, 8"x18"	REPLACE
42	22+58',74'RT	JUNCTION BOX, 13"x24"	NEW
43	22+62',21'RT	JUNCTION BOX, 8"x18"	REPLACE
44	22+62',19'LT	JUNCTION BOX, 8"x18"	REPLACE
45	22+72',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
46	22+72',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
47	22+72',23'RT	JUNCTION BOX, 13"x24"	NEW
48	23+06',21'RT	JUNCTION BOX, 8"x18"	REPLACE
49	23+08',21'RT	JUNCTION BOX, 8"x18"	EVENT POWER
50	23+54',21'LT	JUNCTION BOX, 8"x18"	REPLACE
51	24+05',21'RT	JUNCTION BOX, 8"x18"	REPLACE
52	24+35',21'LT	JUNCTION BOX, 8"x18"	REPLACE
53	24+84',21'RT	JUNCTION BOX, 8"x18"	REPLACE
54	24+93',21'RT	JUNCTION BOX, 8"x18"	EVENT POWER
55	25+16',21'LT	JUNCTION BOX, 8"x18"	REPLACE
56	25+53',22'LT	JUNCTION BOX, 13"x24"	NEW
57	25+53',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
58	25+53',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
59	25+53',23'RT	JUNCTION BOX, 13"x24"	NEW
60	25+57',20'RT	JUNCTION BOX, 8"x18"	INTERSECTION MARKER
61	25+65',22'RT	JUNCTION BOX, 8"x18"	REPLACE
62	25+65',21'LT	JUNCTION BOX, 8"x18"	REPLACE
63	26+23',71'LT	JUNCTION BOX, 13"x24"	NEW
64	26+24',21'LT	JUNCTION BOX, 8"x18"	REPLACE
65	26+24',21'RT	JUNCTION BOX, 8"x18"	REPLACE
66	26+38',23'RT	JUNCTION BOX, 13"x24"	NEW
67	26+38',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
68	26+38',16'LF	JUNCTION BOX, 8"x18"	FUTURE KIOSK
69	26+38',23'LT	JUNCTION BOX, 13"x24"	NEW
70	26+68',21'LT	JUNCTION BOX, 8"x18"	EVENT POWER
71	26+69',21'RT	JUNCTION BOX, 8"x18"	REPLACE
72	27+25',21'LT	JUNCTION BOX, 8"x18"	REPLACE
73	27+51',22'RT	JUNCTION BOX, 8"x18"	REPLACE
74	28+04',21'LT	JUNCTION BOX, 8"x18"	REPLACE
75	28+06',21'LT	JUNCTION BOX, 8"x18"	EVENT POWER
76	28+39',22'RT	JUNCTION BOX, 8"x18"	REPLACE
77	28+81',22'LT	JUNCTION BOX, 8"x18"	REPLACE
78	29+02',23'RT	JUNCTION BOX, 13"x24"	NEW
79	29+02',23'LT	JUNCTION BOX, 13"x24"	NEW
80	29+12',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
81	29+16',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
82	29+19',20'RT	JUNCTION BOX, 8"x18"	INTERSECTION MARKER
83	29+24',21'RT	JUNCTION BOX, 8"x18"	REPLACE
84	29+24',21'LT	JUNCTION BOX, 8"x18"	REPLACE

ELECTRIC FIXTURES INSTALLATIONS

Location		Type	Remarks
No.	Station		
85	29+82',21'LT	JUNCTION BOX, 8"x18"	REPLACE
86	29+82',21'RT	JUNCTION BOX, 8"x18"	REPLACE
87	30+00',23'LT	JUNCTION BOX, 13"x24"	NEW
88	30+00',16'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
89	30+00',16'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
90	30+00',23'RT	JUNCTION BOX, 13"x24"	NEW
91	30+24',21'RT	JUNCTION BOX, 8"x18"	REPLACE
92	30+27',21'LT	JUNCTION BOX, 8"x18"	EVENT POWER
93	30+37',21'LT	JUNCTION BOX, 8"x18"	REPLACE
94	30+67',21'LT	JUNCTION BOX, 8"x18"	REPLACE
95	31+12',21'RT	JUNCTION BOX, 8"x18"	REPLACE
96	31+54',21'LT	JUNCTION BOX, 8"x18"	REPLACE
97	31+96',21'RT	JUNCTION BOX, 8"x18"	REPLACE
98	32+40',21'LT	JUNCTION BOX, 8"x18"	REPLACE
99	32+42',21'LT	JUNCTION BOX, 8"x18"	EVENT POWER
100	32+71',21'RT	JUNCTION BOX, 8"x18"	REPLACE
101	32+74',23'RT	JUNCTION BOX, 13"x24"	NEW
102	32+76',23'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
103	32+77',23'LT	JUNCTION BOX, 13"x24"	NEW
104	32+82',23'RT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
105	32+85',24'LT	JUNCTION BOX, 8"x18"	REPLACE
106	32+91',46'LT	JUNCTION BOX, 13"x24"	NEW
107	33+46',23'LT	JUNCTION BOX, 13"x24"	NEW
108	33+46',22'LT	JUNCTION BOX, 8"x18"	FUTURE KIOSK
109	33+49',21'LT	JUNCTION BOX, 8"x18"	REPLACE
110	33+53',21'LT	JUNCTION BOX, 8"x18"	REPLACE
111	33+54',21'RT	JUNCTION BOX, 8"x18"	REPLACE
112	34+09',20'RT	JUNCTION BOX, 8"x18"	REPLACE
113	34+30',20'LT	JUNCTION BOX, 8"x18"	REPLACE
114	34+55',20'RT	JUNCTION BOX, 8"x18"	REPLACE
115	35+13',20'RT	JUNCTION BOX, 8"x18"	EVENT POWER
116	35+14',20'LT	JUNCTION BOX, 8"x18"	REPLACE
117	35+17',20'LT	JUNCTION BOX, 8"x18"	REPLACE
118	35+95',25'LT	JUNCTION BOX, 13"x24"	NEW
119	35+95',25'RT	JUNCTION BOX, 13"x24"	NEW
120	35+78',21'RT	JUNCTION BOX, 8"x18"	REPLACE
121	35+96',20'LT	JUNCTION BOX, 8"x18"	REPLACE



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217 2ND ST W
215 2ND ST W
211 2ND ST W
209 2ND ST W
207 2ND ST W
205 2ND ST W
201 2ND ST W
222 2ND ST W
218 2ND ST W
208 2ND ST W
200 2ND ST W
2ND STREET
CHESTNUT STREET
INT - 1
INT - 2
MH - 1
16+00
17+00
18+00

LEGEND:

- INLET PROTECTION
- SOD
- ROCK CONSTRUCTION ENTRANCE
- FILTER SOCK, 20 INCH

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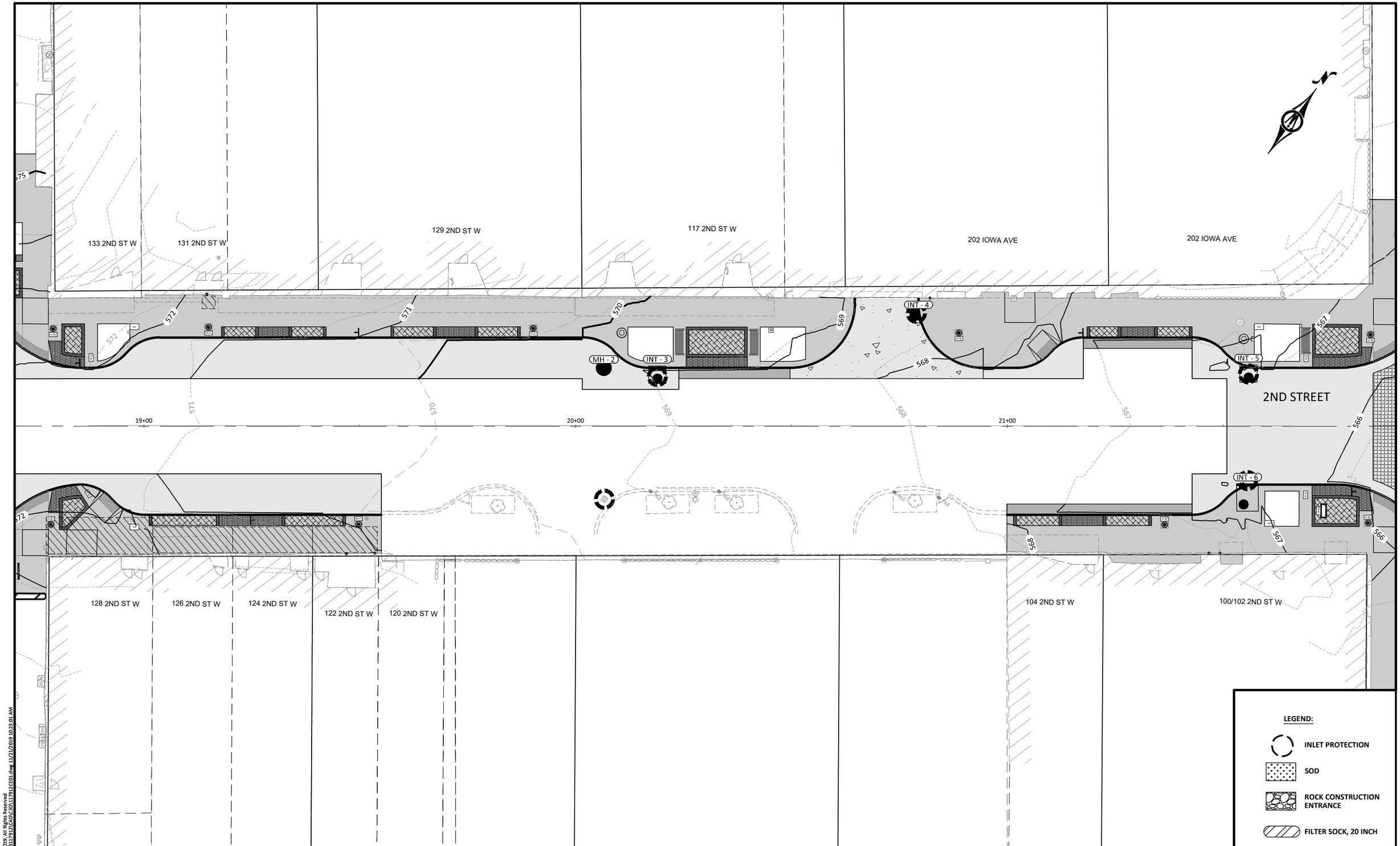

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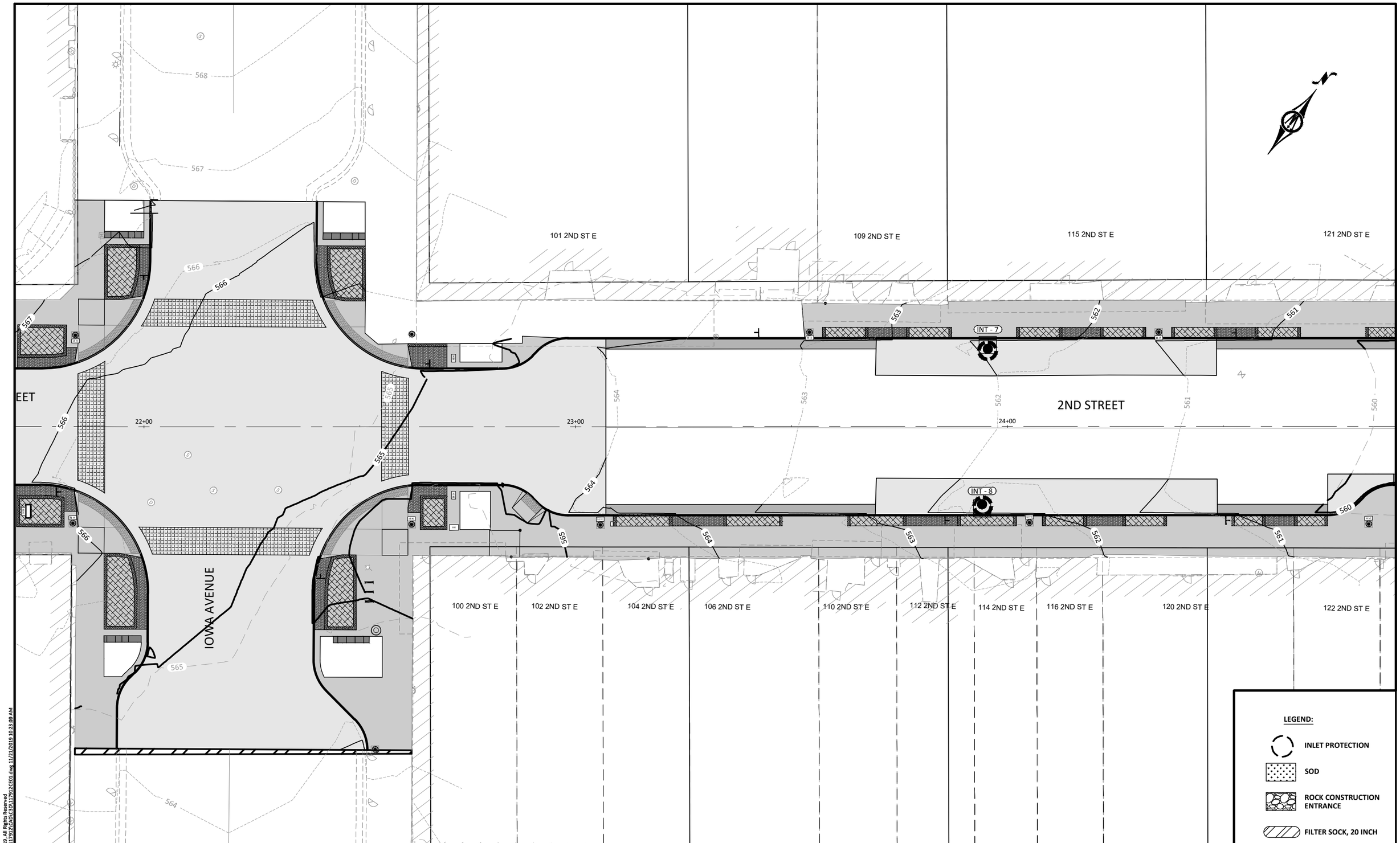

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214 2ND ST E
216 2ND ST E

2ND STREET

SYCAMORE STREET

INT - 9
INT - 10
INT - 11
INT - 12

25+00
26+00
27+00

LEGEND:

- INLET PROTECTION
- SOD
- ROCK CONSTRUCTION ENTRANCE
- FILTER SOCK, 20 INCH

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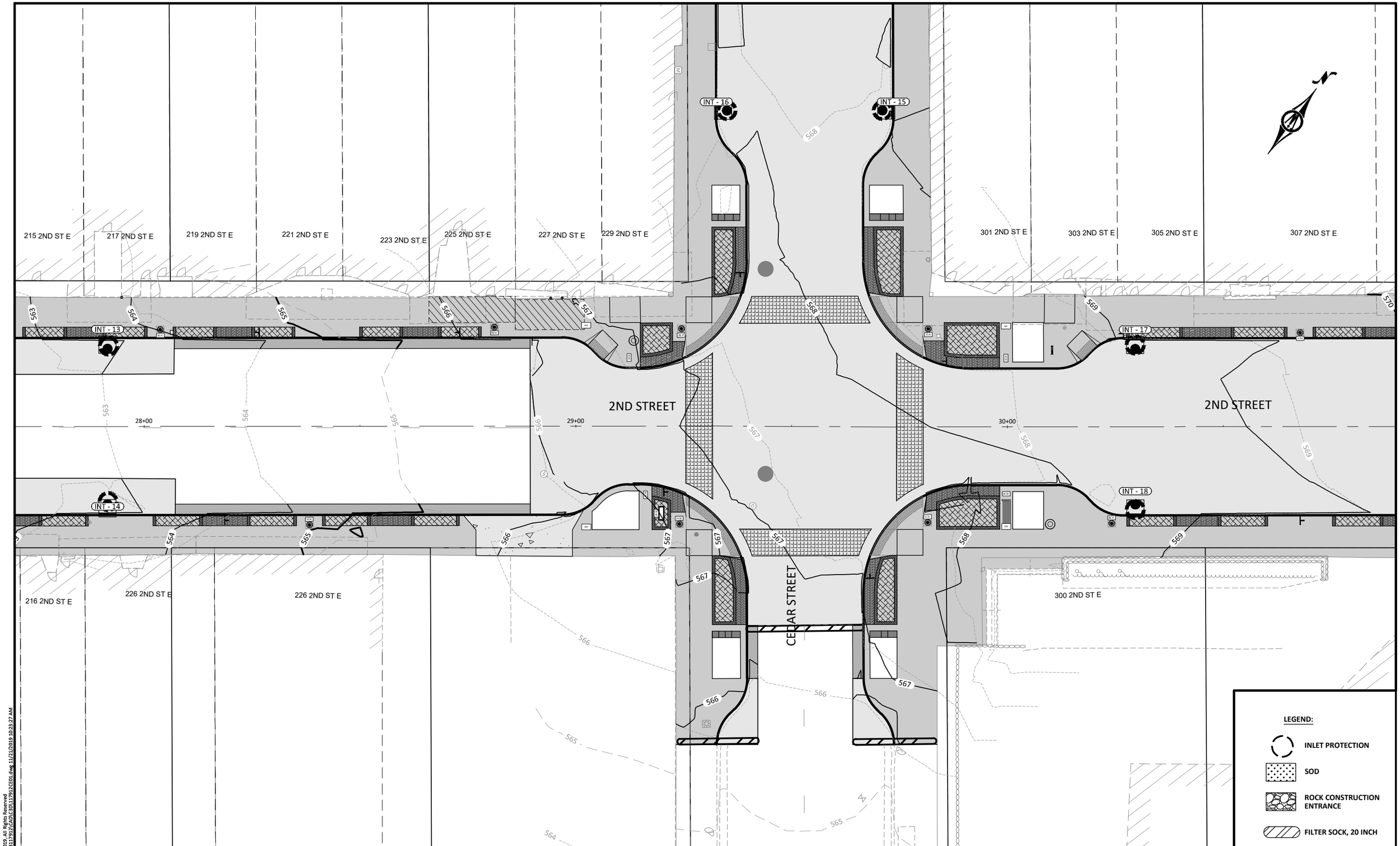

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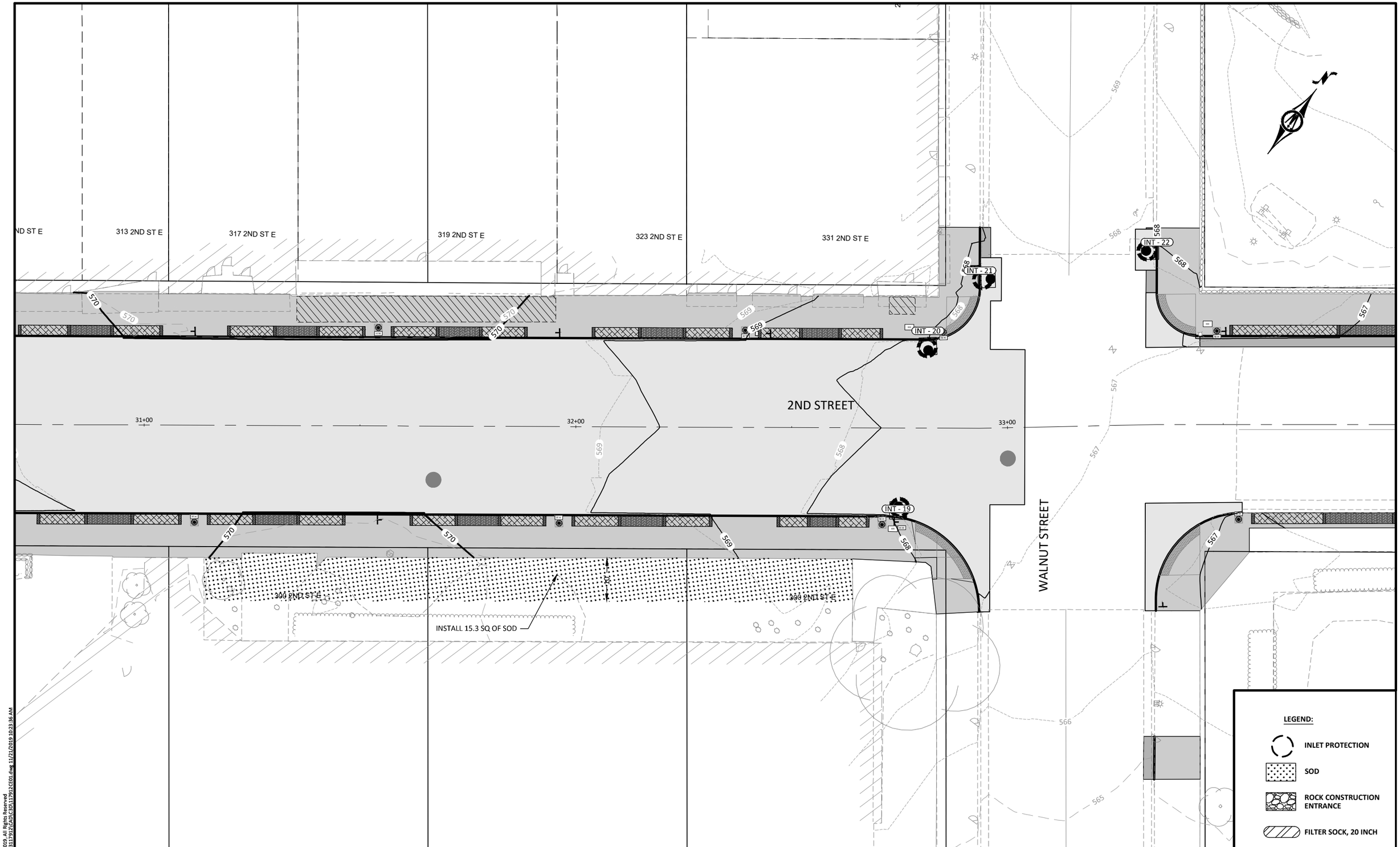

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EROSION CONTROL SHEETS

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211 WALNUT ST

413 2ND ST E

417 2ND ST E

204 MULBERRY AVE

2ND STREET

34+00

35+00

36+00

567

566

565

564

563

562

561

560

LEGEND:

INLET PROTECTION

SOD

ROCK CONSTRUCTION ENTRANCE

FILTER SOCK, 20 INCH

HORZ. 0 10 20

SCALE FEET

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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

EROSION CONTROL SHEETS

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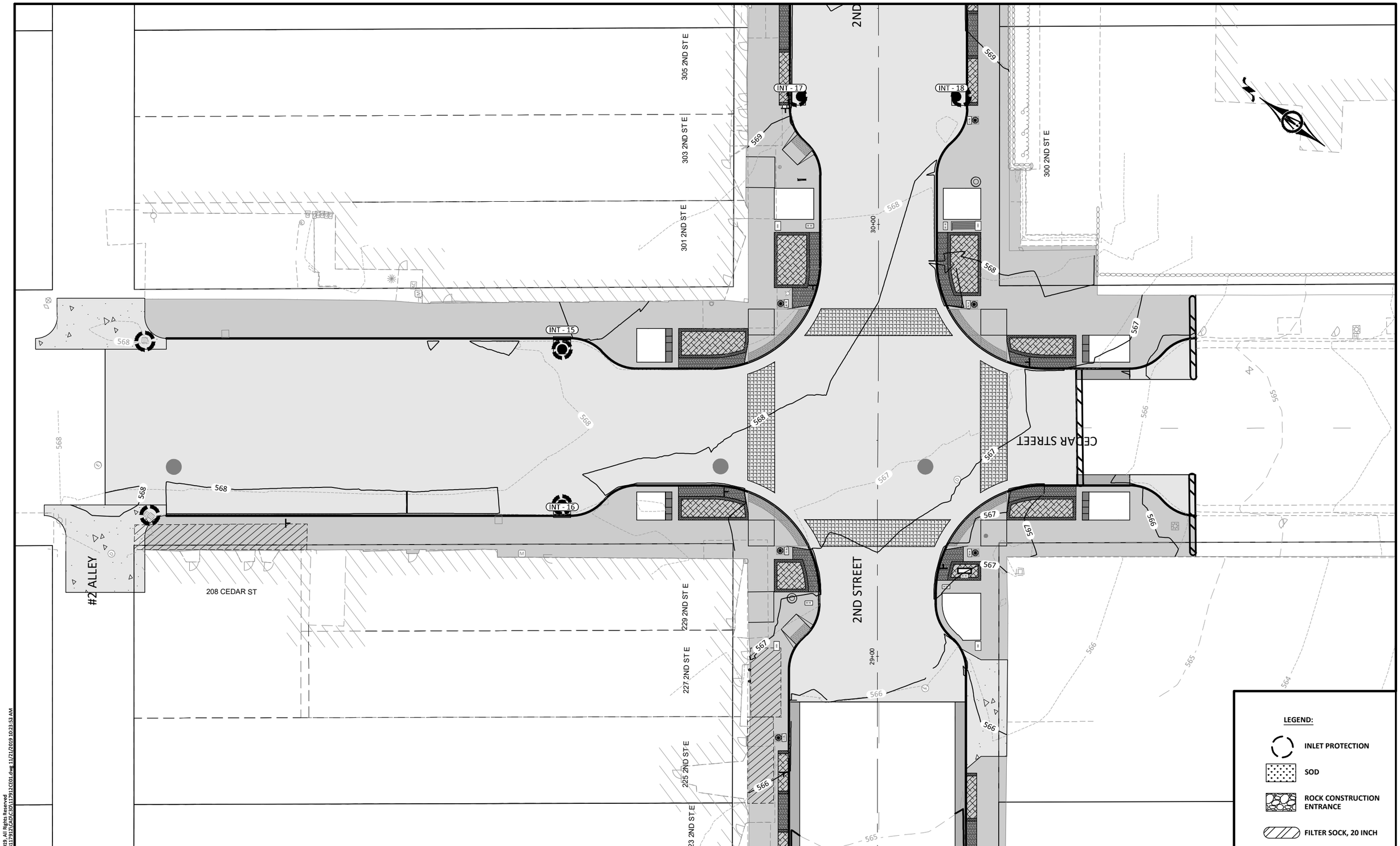

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SCALE FEET

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2ND STREET RECONSTRUCTION
EROSION CONTROL SHEETS

SHEET
CE.09

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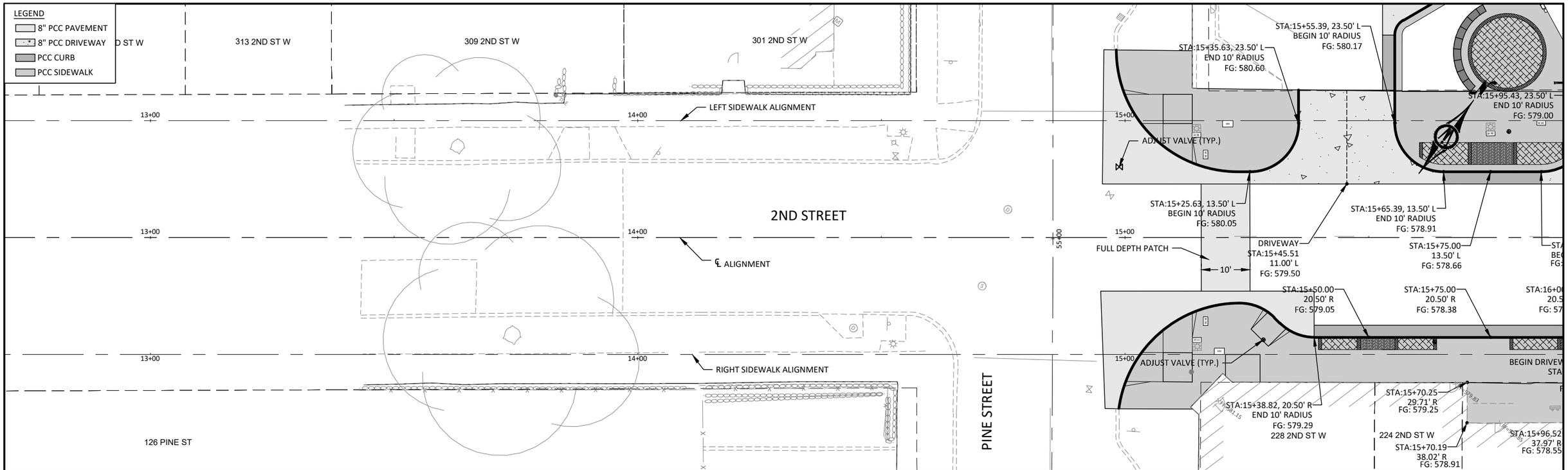

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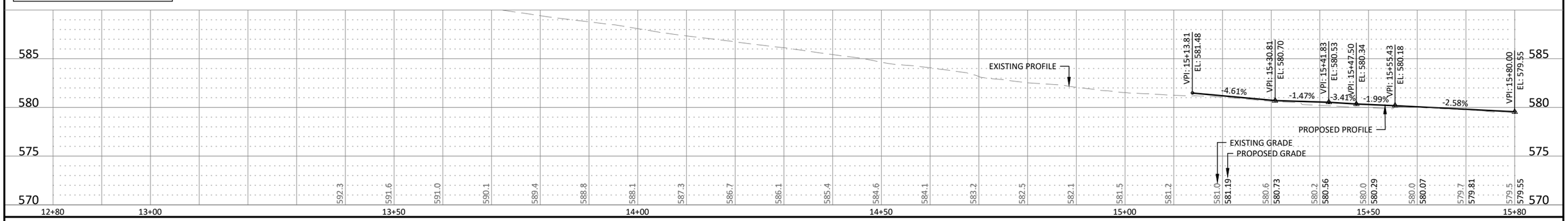

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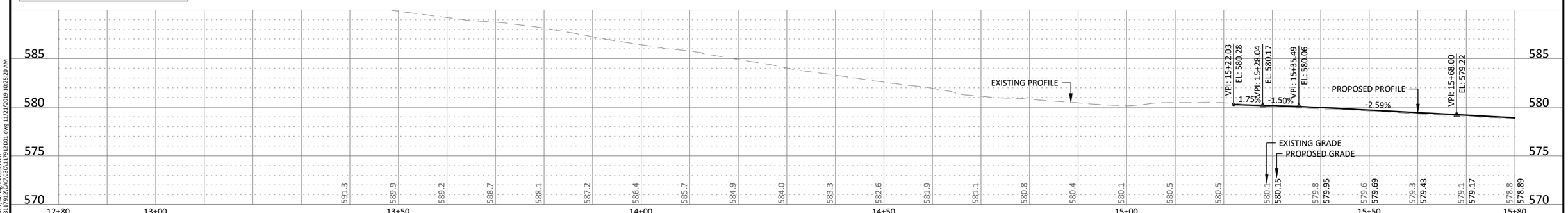

HORZ. 0 10 20 SCALE FEET

VERT. 0 5 10 SCALE FEET

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CHECKED	GAB
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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

SIDEWALK PLAN AND PROFILE

SHEET D.01

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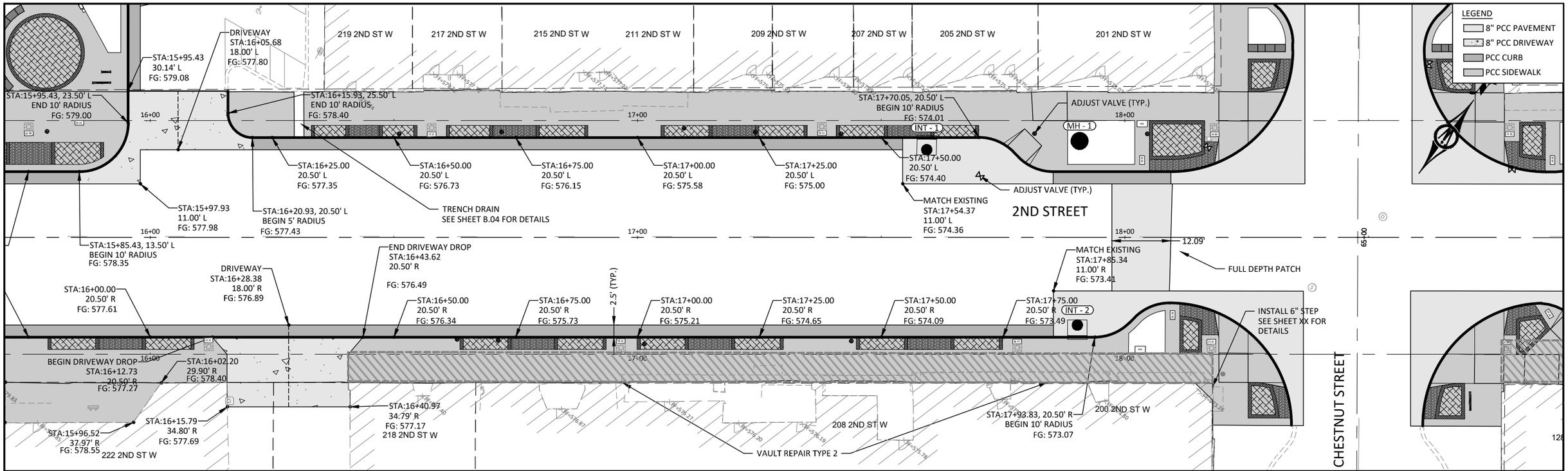
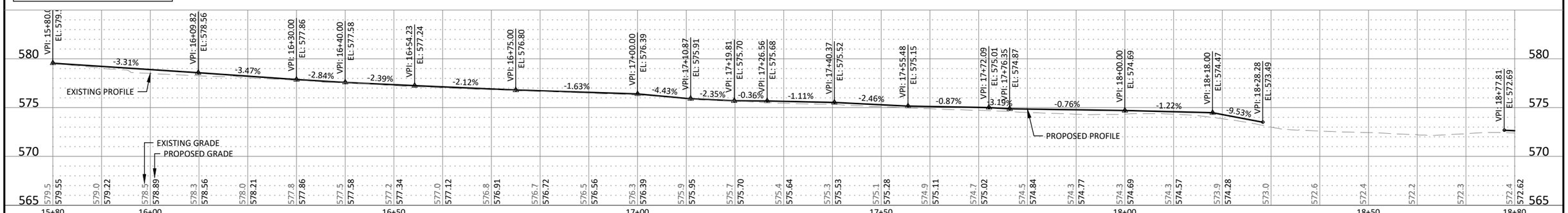


LEFT SIDEWALK PROFILE



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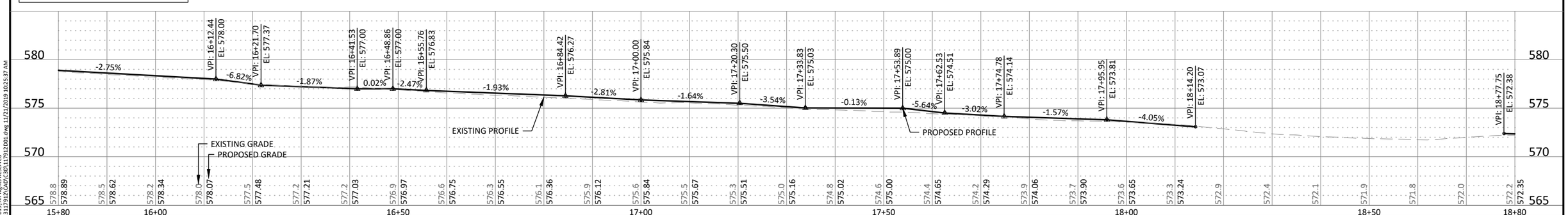

HORZ. 0 10 20 SCALE FEET

VERT. 0 5 10 SCALE FEET

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SIDEWALK PLAN AND PROFILE

SHEET D.02

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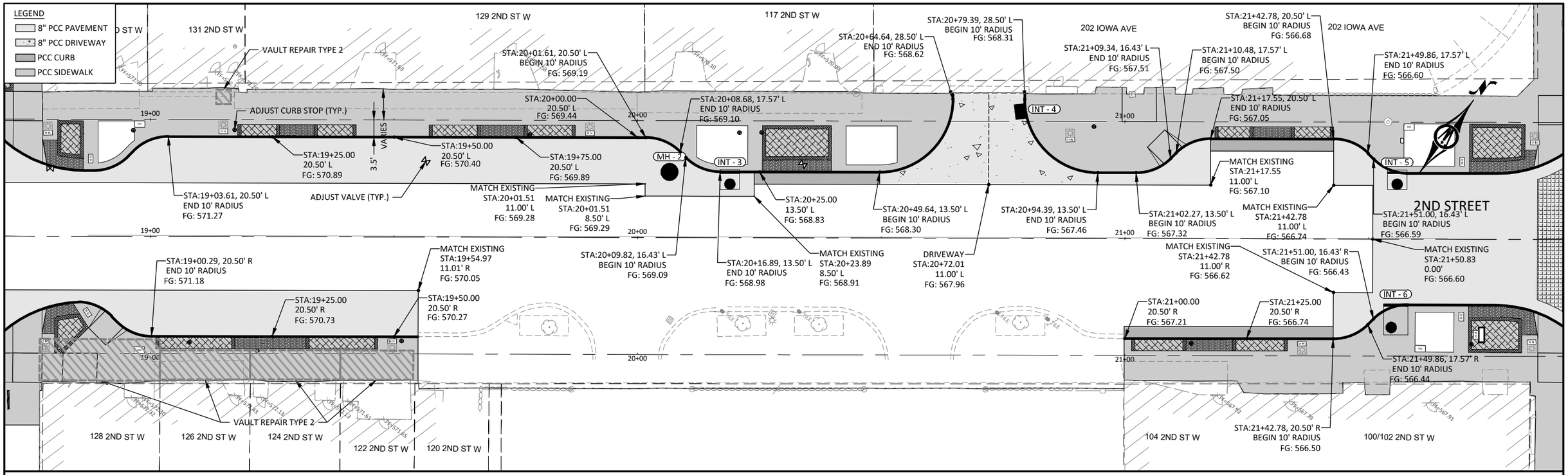

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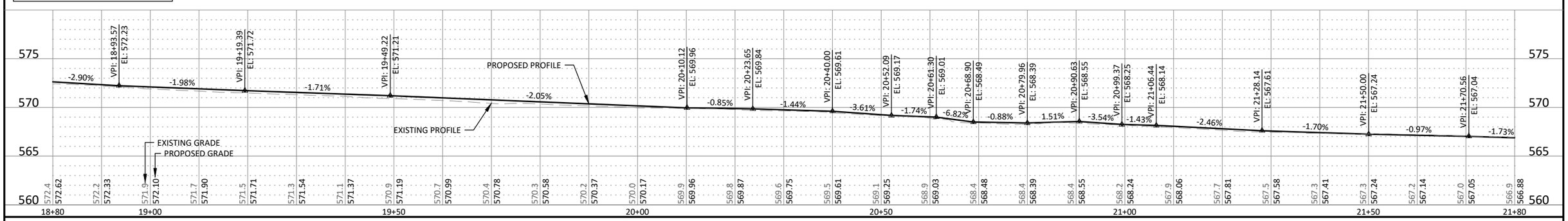

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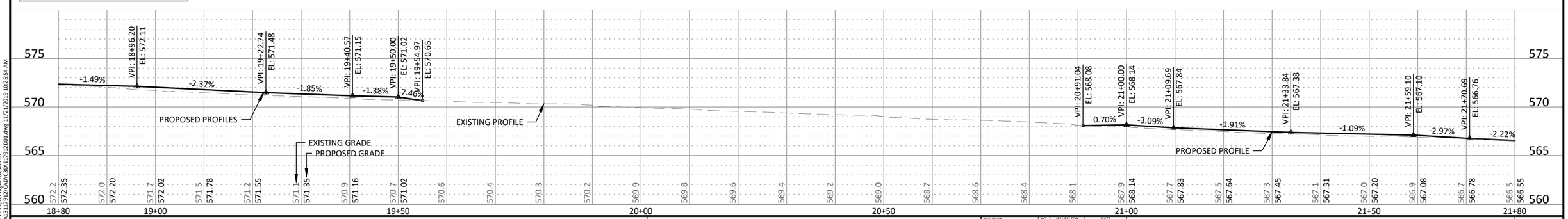

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SIDEWALK PLAN AND PROFILE

SHEET D.03

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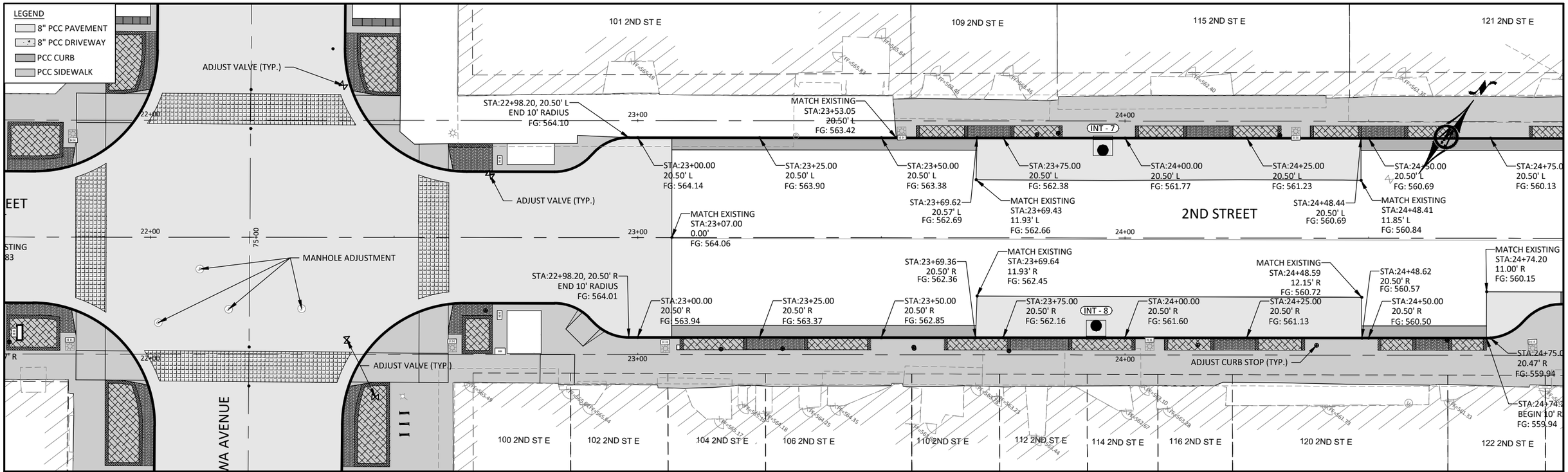

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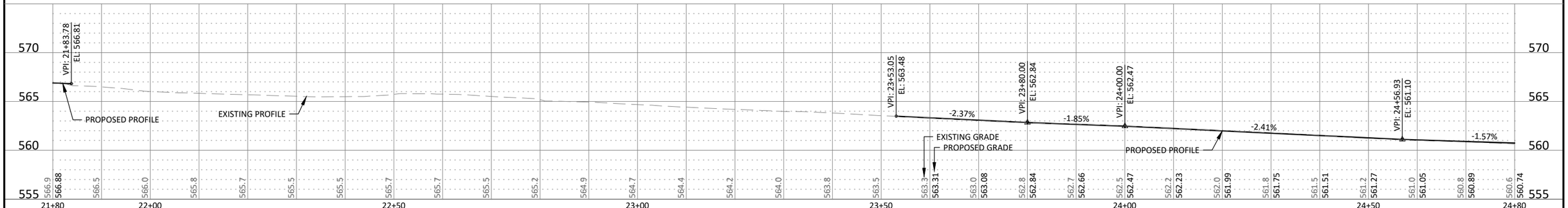

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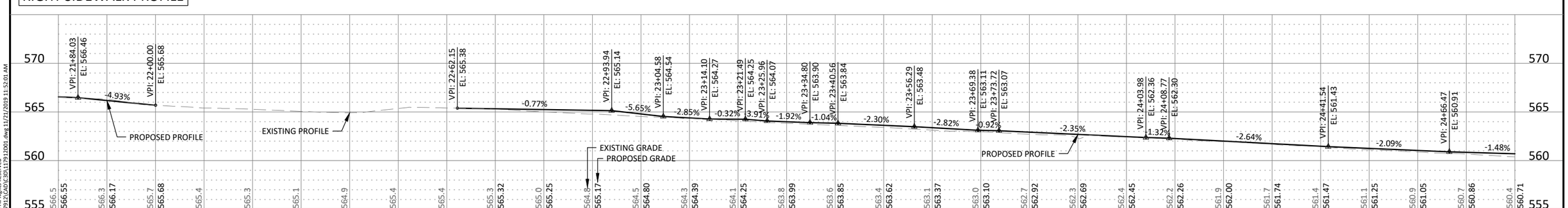

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VERT. 0 5 10 SCALE FEET

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SIDEWALK PLAN AND PROFILE

SHEET D.04

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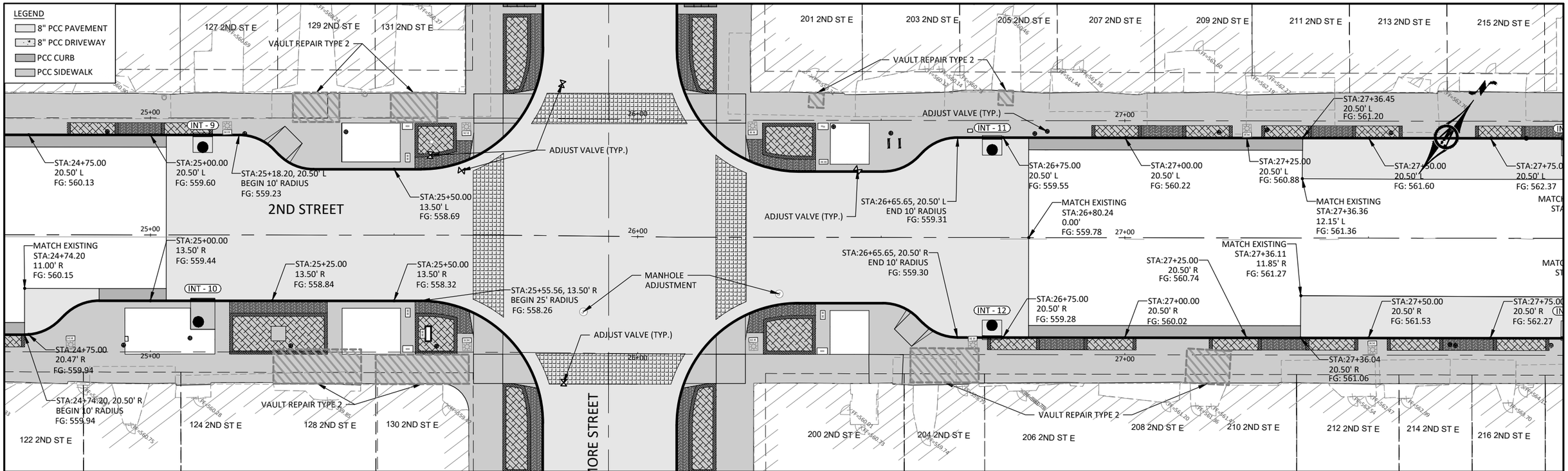

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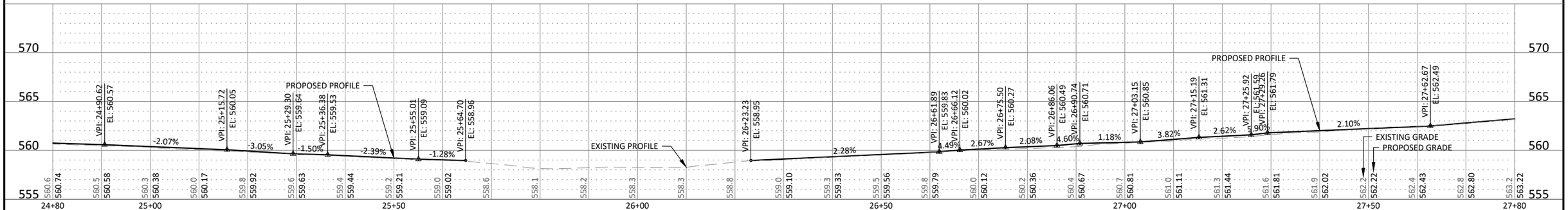

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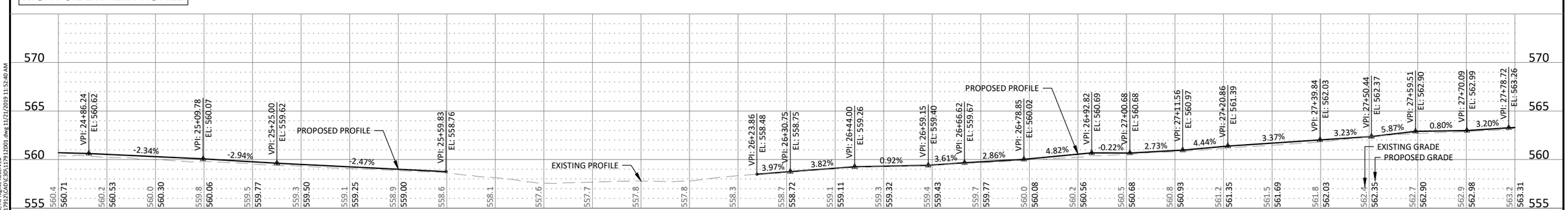

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VERT. 0 5 10 SCALE FEET

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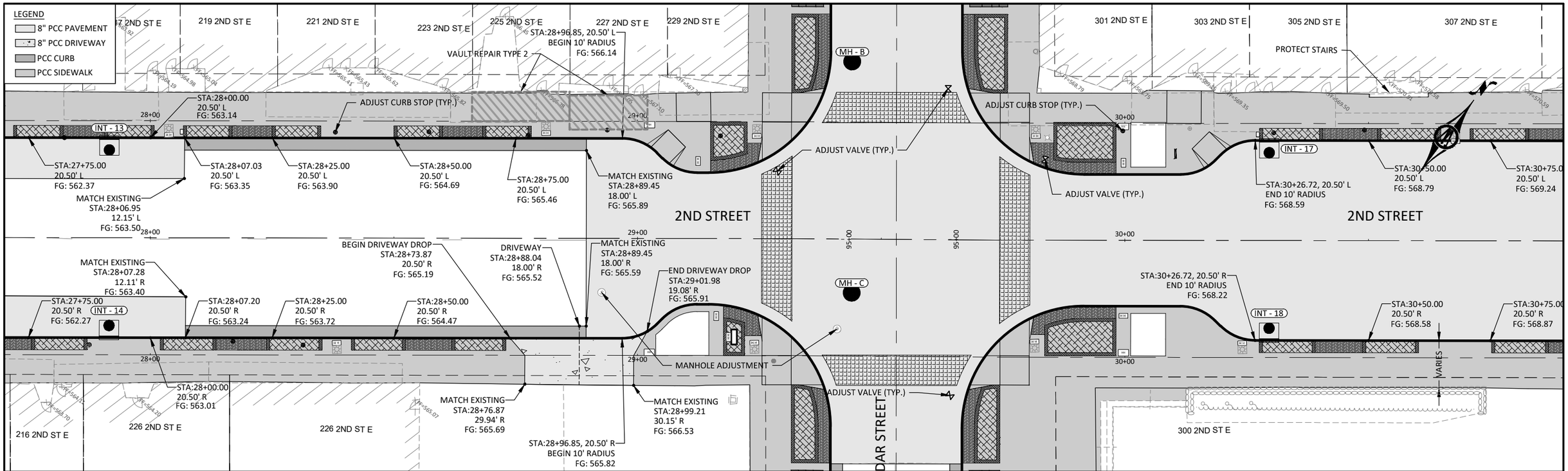

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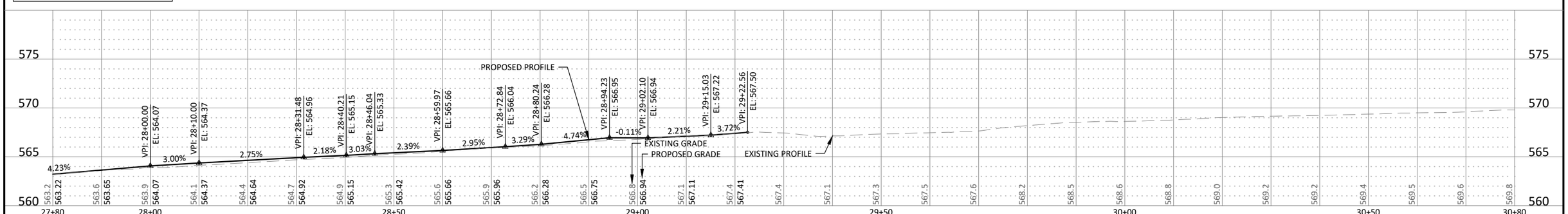

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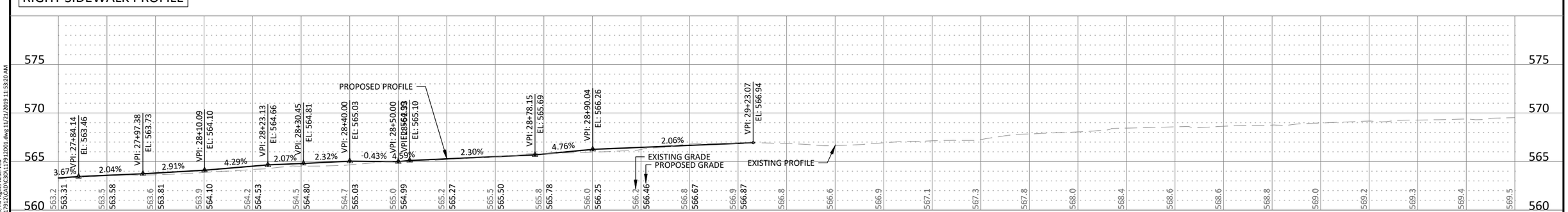

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SHEET D.06

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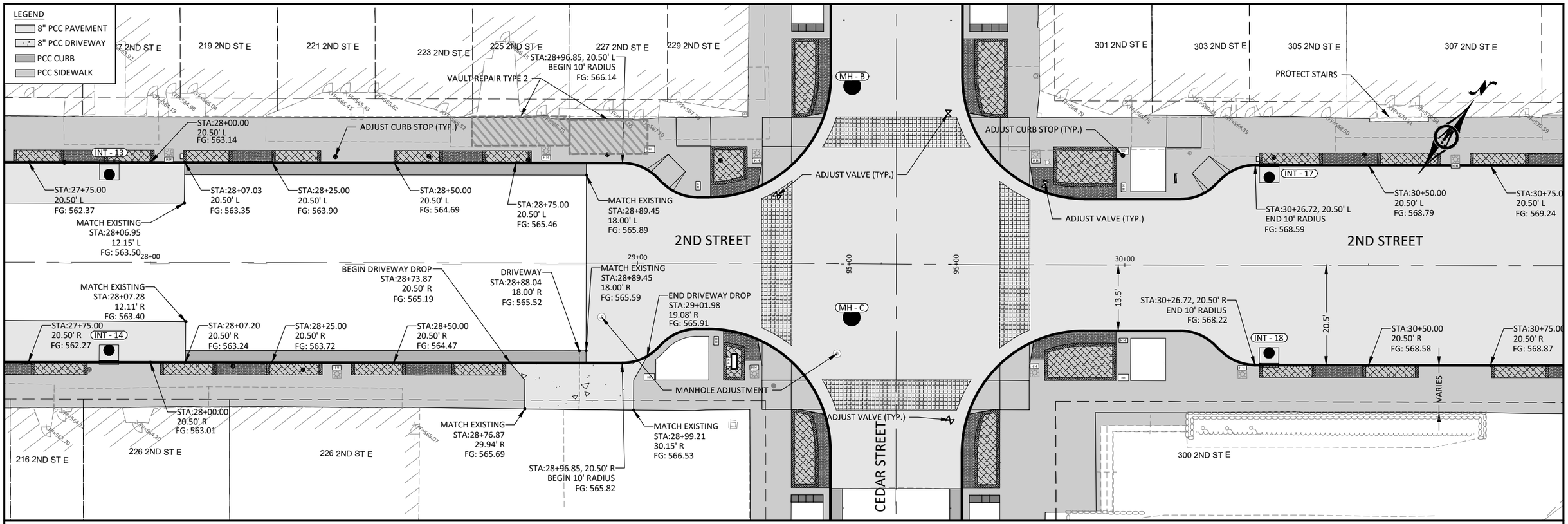

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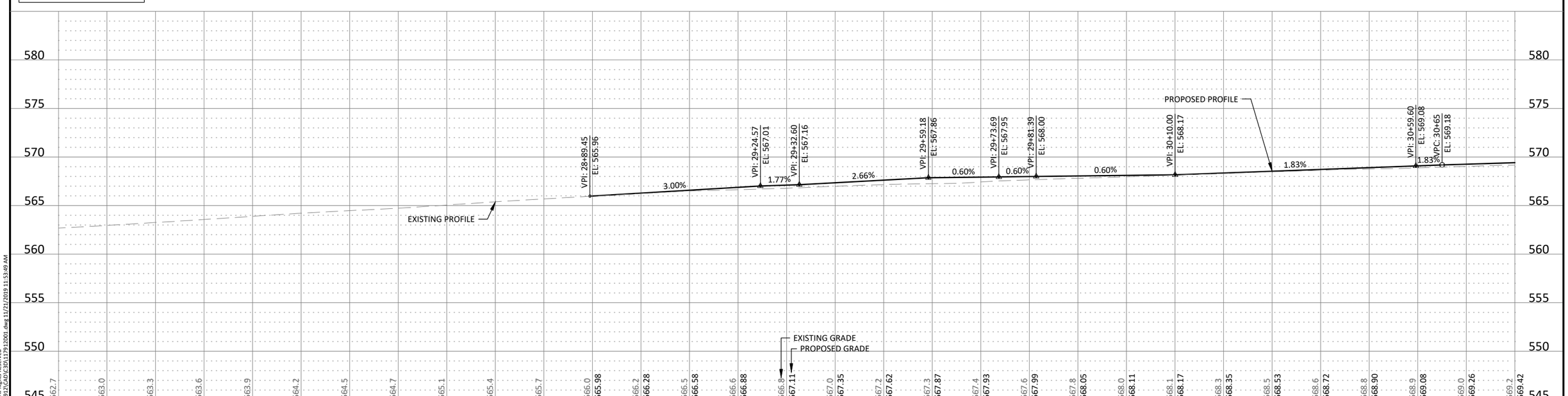

HORZ. 0 10 20 SCALE FEET

VERT. 0 5 10 SCALE FEET

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MAINLINE PLAN AND PROFILE

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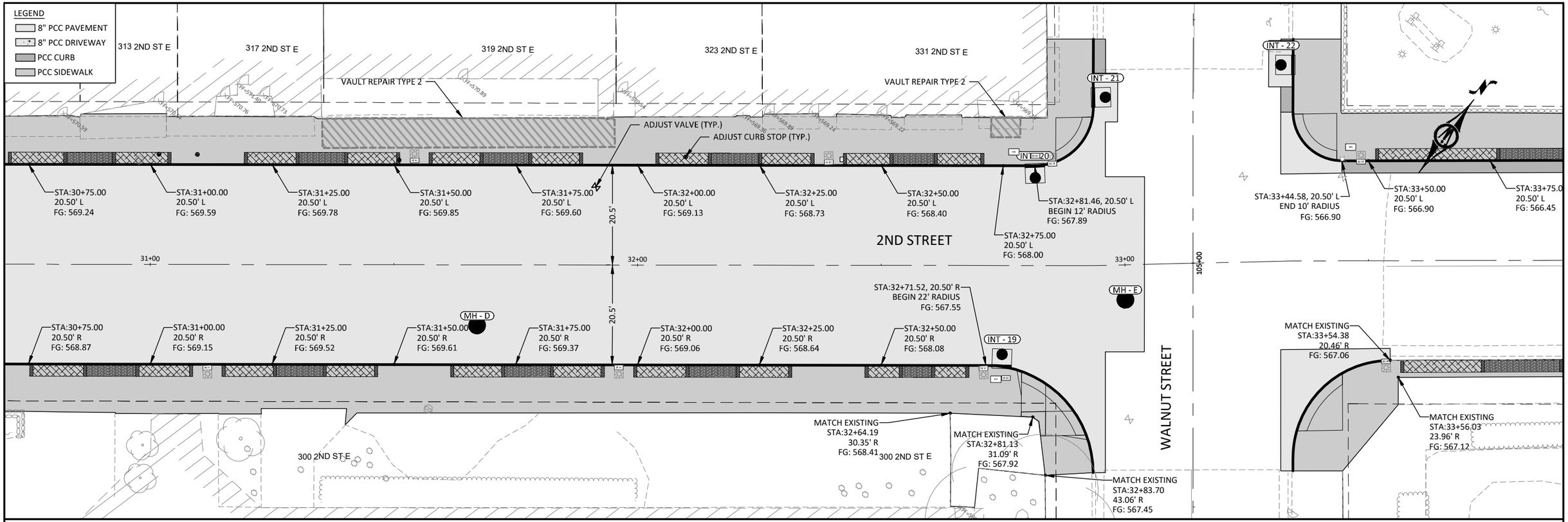

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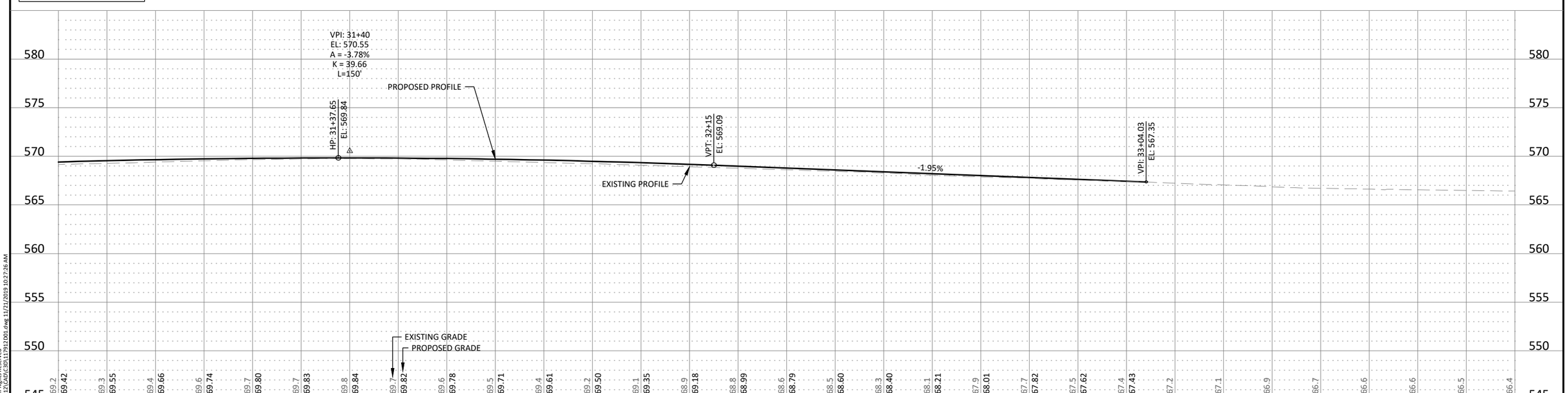

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VERT. 0 5 10 SCALE FEET

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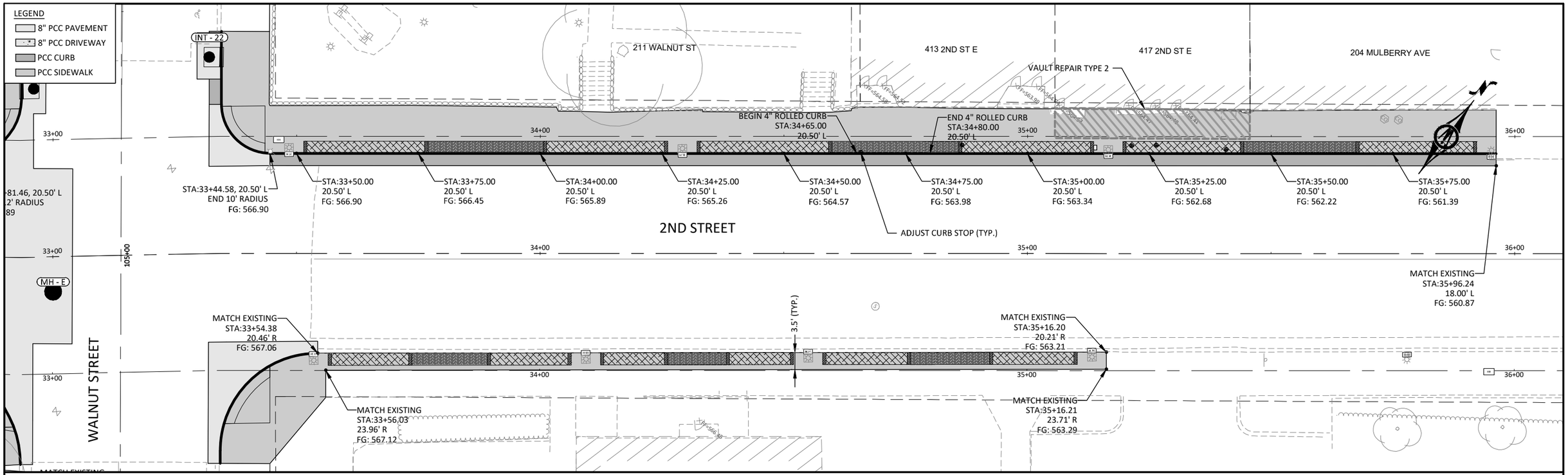
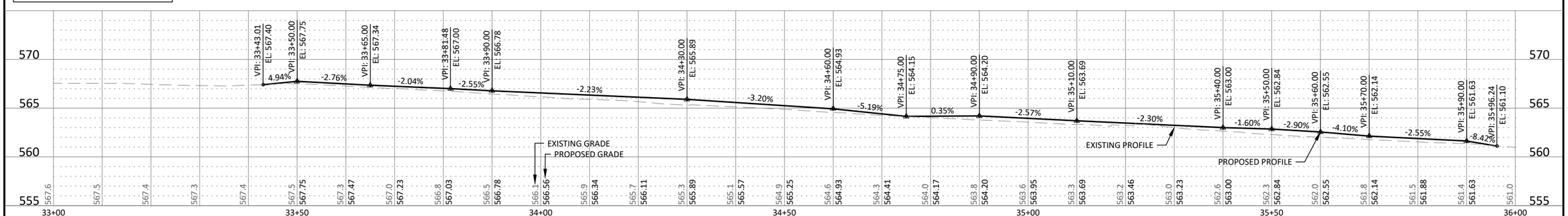


LEFT SIDEWALK PROFILE



RIGHT SIDEWALK PROFILE

HORZ. 0 10 20 SCALE FEET

VERT. 0 5 10 SCALE FEET

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SIDEWALK PLAN AND PROFILE

SHEET D.09

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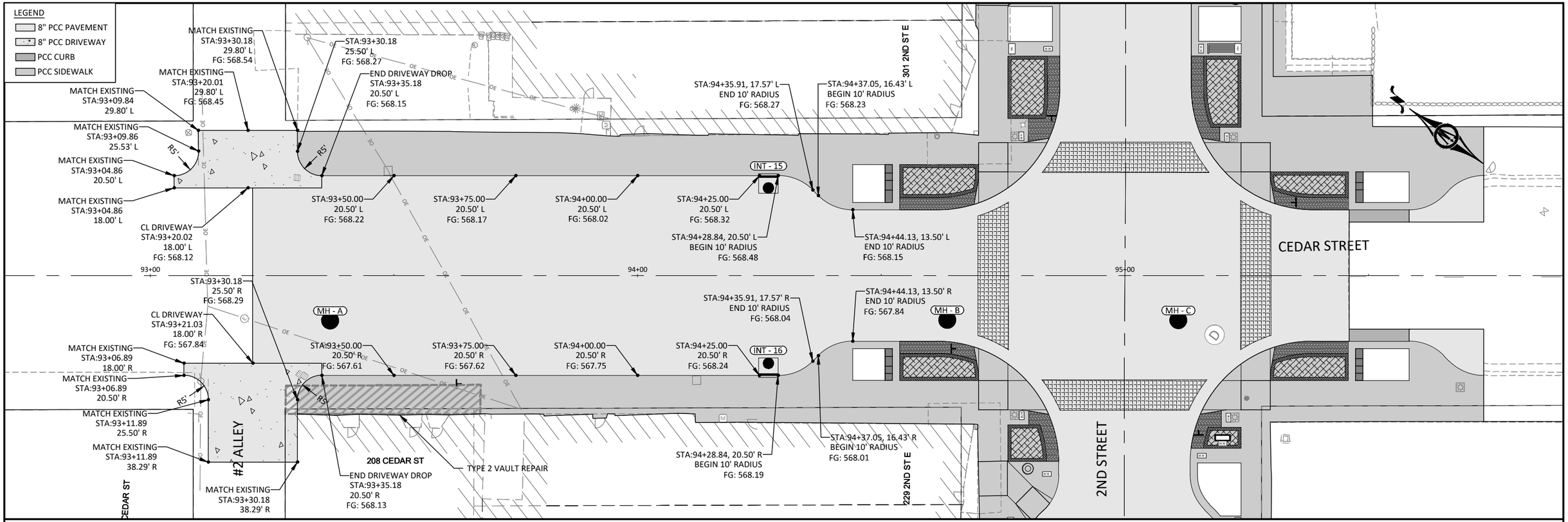
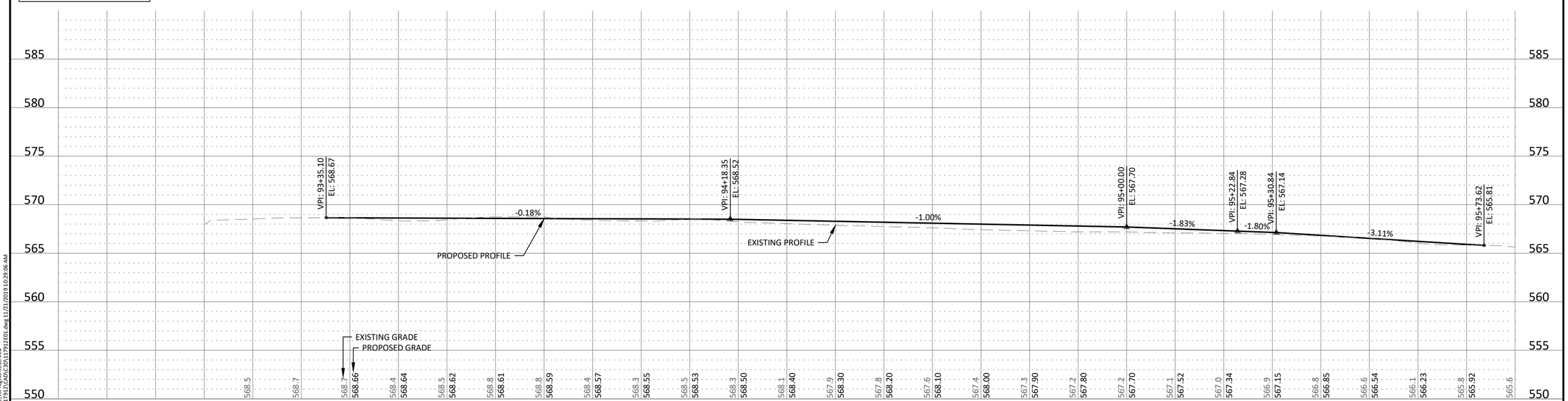


SIDE ROAD PROFILE



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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

CEDAR STREET MAINLINE PLAN AND PROFILE

SHEET E.01

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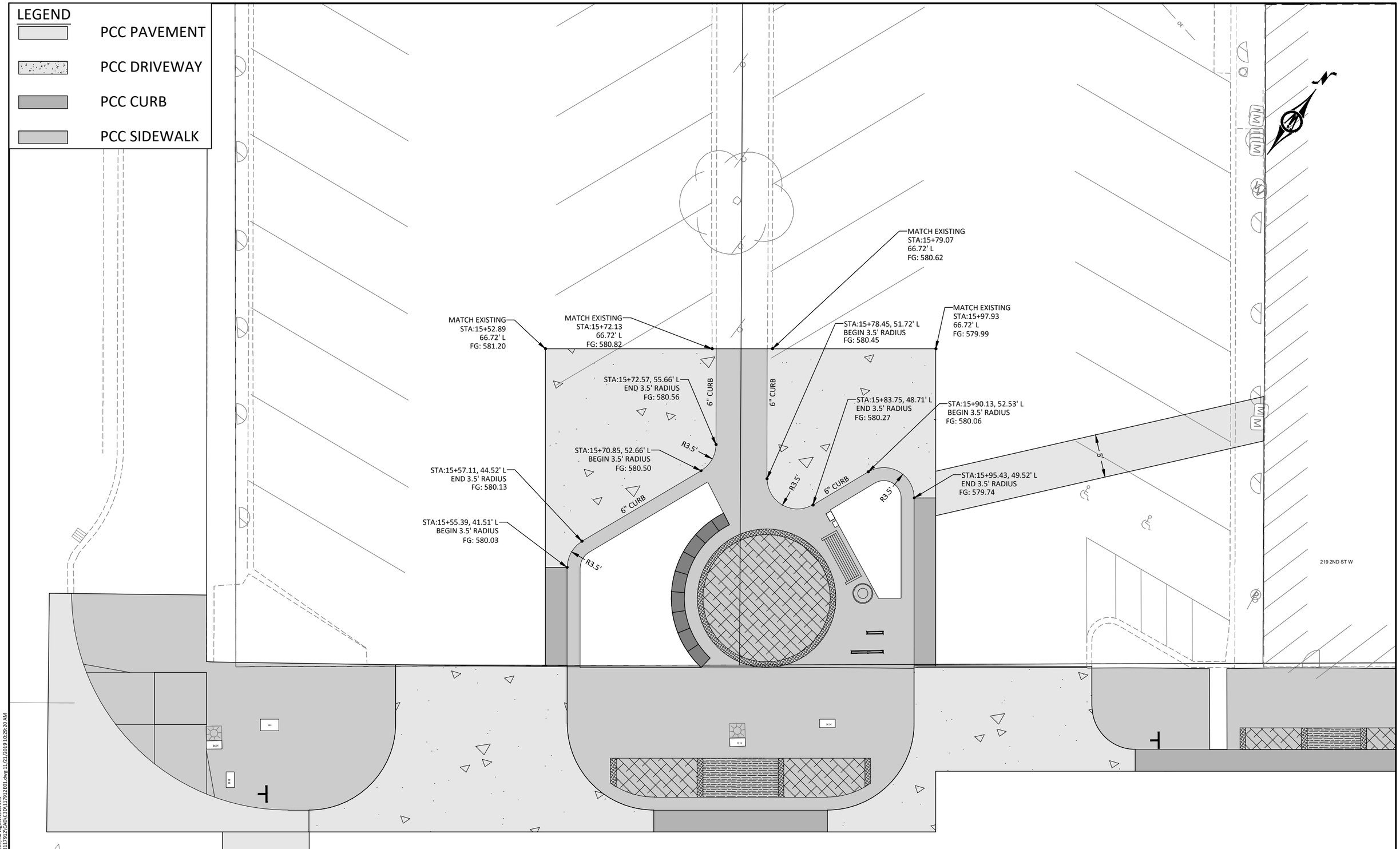

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SCALE FEET

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
2ND STREET PLAZA DETAILS

SHEET
E.02

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315 2ND ST W

313 2ND ST W

309 2ND ST W

301 2ND ST W

2ND STREET

PINE STREET

126 PINE ST

228 2ND ST W

224 2ND ST W

13+00

14+00

15+00

55+00

STA:15+52.89
66.72' L

STA:14+95.68
38.53' L

STA:15+13.81
38.33' L

STA:15+52.89
30.23' L

PROTECT EXISTING
LIGHT (TYP.)

ADJUST CURB STOP

ADJUST WATER VALVE

STA:14+95.38
11.00' L

STA:15+15.64
11.00' L

STA:15+25.64
11.00' L

STA:14+95.05
11.00' R

STA:15+15.76
10.99' R

STA:15+25.69
11.00' R

STA:15+38.82
11.00' R

STA:15+38.82
18.00' R

ADJUST CURB STOP

ADJUST CURB STOP

STA:14+95.92
35.11' R

SEE BUILDING SAW CUT
DETAIL 1-B.03

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

NOTE:

- ALL SIGNS SHALL BE REMOVED BY CITY OF MUSCATINE
- ALL BOLDED ITEMS SHALL BE REMOVED UNLESS NOTED

HORZ. SCALE 0 10 20 FEET

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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

REMOVALS

SHEET F.01

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STA:15+97.93
66.72' L

STA:16+35.77
61.22' L

STA:15+97.93
52.60' L

STA:16+35.76
56.09' L

STA:15+97.93
47.47' L

219 2ND ST W

217 2ND ST W

215 2ND ST W

211 2ND ST W

209 2ND ST W

207 2ND ST W

205 2ND ST W

201 2ND ST W

STA:15+97.93
30.14' L

STA:16+15.93
30.10' L

STA:18+58.94
63.11' L

STA:18+36.94
63.20' L

PROTECT HYDRANT

PROTECT EXISTING
LIGHT (TYP.)

ADJUST CURB STOP

ADJUST WATER VALVE

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST WATER VALVE

STA:15+97.93
18.00' L

STA:17+54.37
18.00' L

STA:18+36.92
10.99' L

STA:15+97.93
11.00' L

STA:17+54.37
11.00' L

STA:17+97.35
11.00' L

STA:18+09.75
11.00' L

STA:18+58.92
10.98' L

2ND STREET

16+00

17+00

18+00

65+00

STA:17+97.35
11.00' R

STA:17+85.41
10.99' R

STA:18+09.13
11.00' R

STA:18+58.63
11.03' R

STA:18+36.63
11.02' R

STA:17+85.41
17.99' R

ADJUST CURB STOP

BIKE RACK TO BE SALVAGED
BY OWNER

ADJUST CURB STOP

STA:18+58.62
38.70' R

200 2ND ST W

208 2ND ST W

218 2ND ST W

STA:18+36.62
38.61' R

222 2ND ST W

EXISTING VAULT

EXISTING VAULT

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

NOTE:

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- ALL BOLDED ITEMS SHALL BE REMOVED UNLESS NOTED

HORZ. 0 10 20
SCALE FEET

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MUSCATINE, IOWA
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REMOVALS

SHEET
F.02

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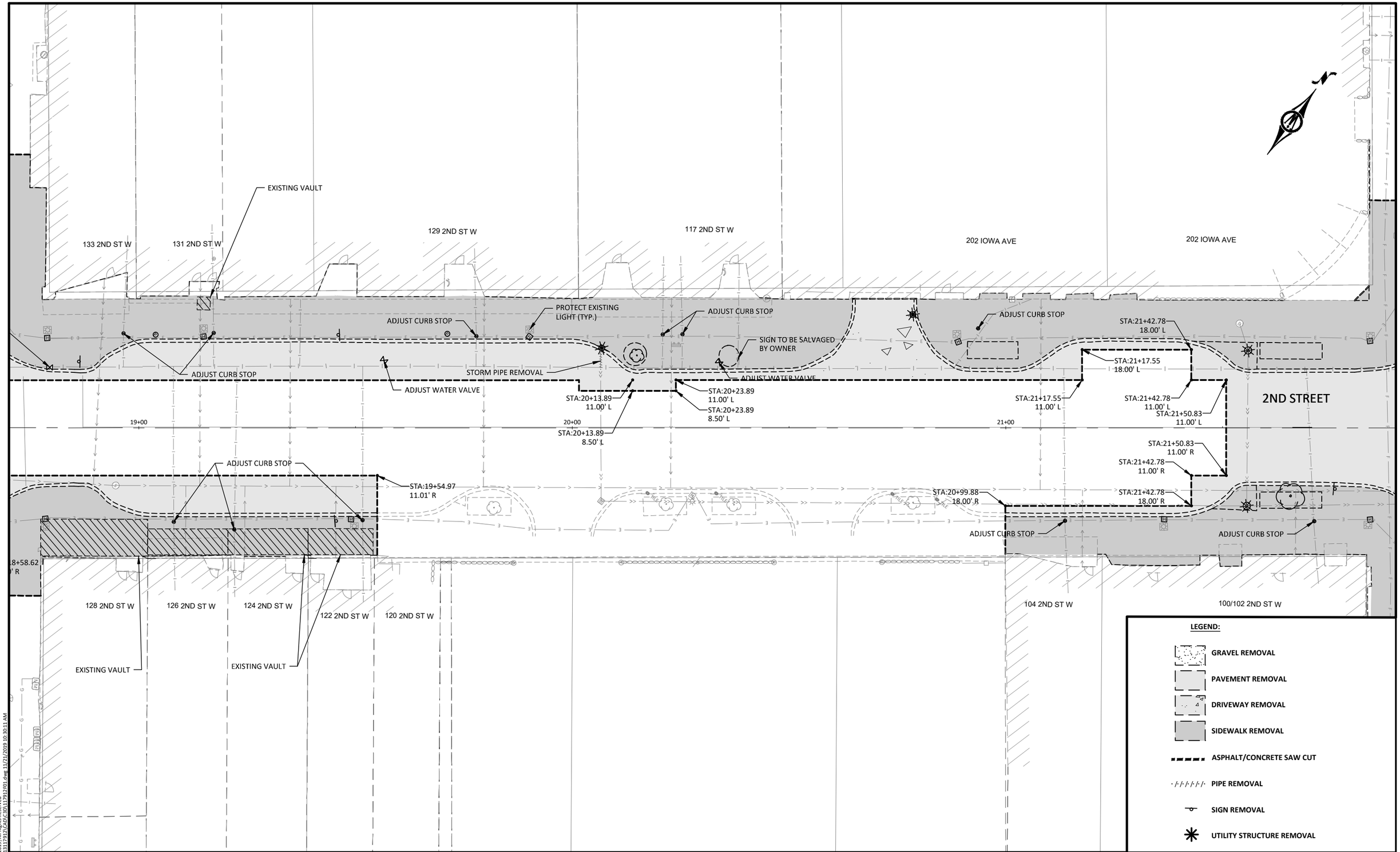

HORZ. 0 10 20
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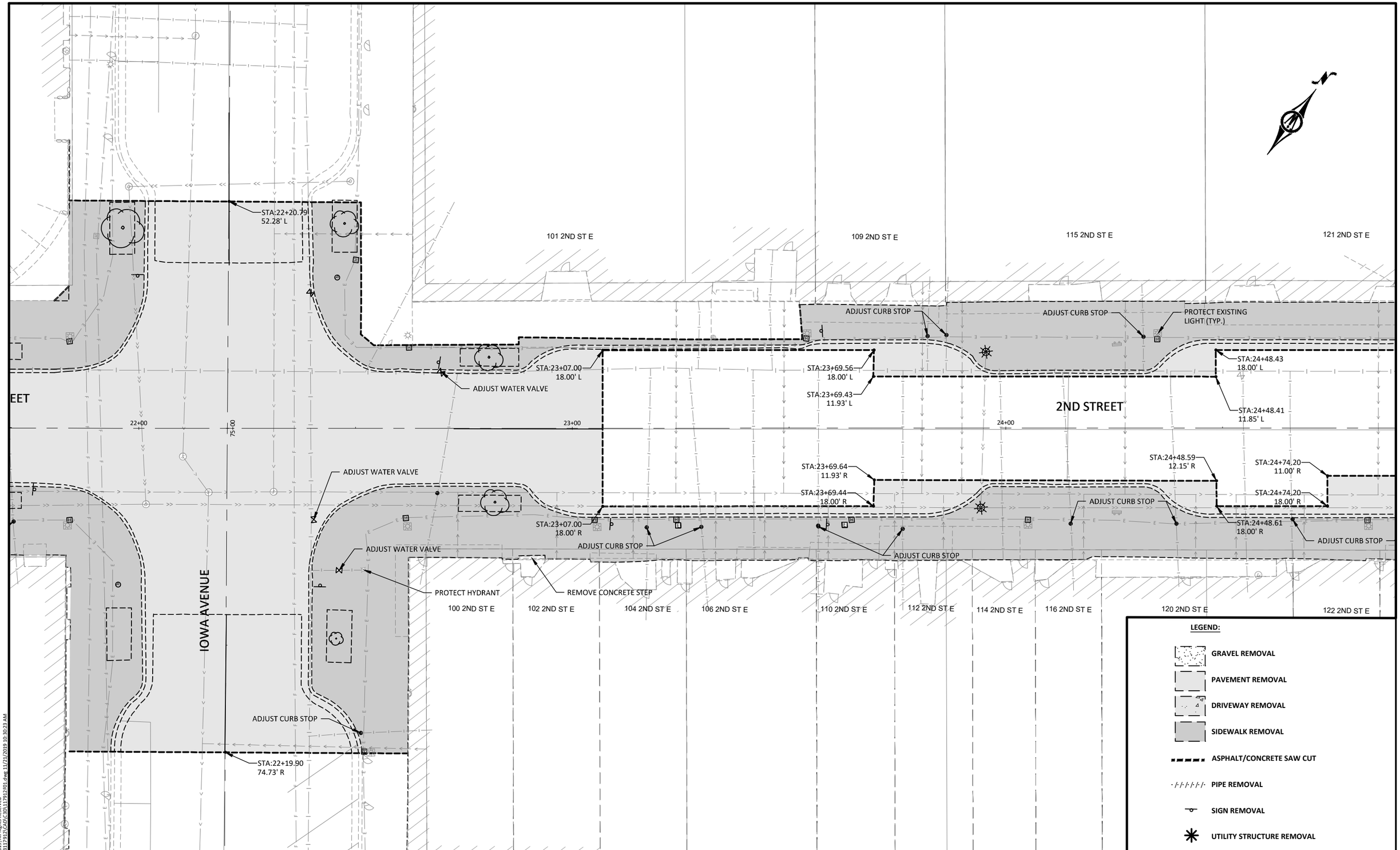
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
REMOVALS

SHEET
F.03



HORZ. 0 10 20
SCALE FEET

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MUSCATINE, IOWA
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REMOVALS

SHEET
F.04

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121 2ND ST E
127 2ND ST E
129 2ND ST E
131 2ND ST E
EXISTING VAULT
ADJUST CURB STOP
PROTECT HYDRANT
ADJUST WATER VALVE
STA:25+06.40
18.00' L
2ND STREET
25+00
STA:25+06.40
11.00' R
ADJUST CURB STOP
ADJUST CURB STOP
122 2ND ST E
124 2ND ST E
128 2ND ST E
130 2ND ST E
EXISTING VAULT
STA:25+98.80
72.05' L
ADJUST WATER VALVE
85+00
26+00
ADJUST WATER VALVE
SYCAMORE STREET
STA:25+94.61
50.00' R
201 2ND ST E
203 2ND ST E
205 2ND ST E
207 2ND ST E
209 2ND ST E
211 2ND ST E
213 2ND ST E
215 2ND ST E
EXISTING VAULT
ADJUST CURB STOP
ADJUST WATER VALVE
STA:26+80.24
18.00' L
27+00
STA:26+80.24
0.00'
STA:26+80.24
18.00' R
PROTECT EXISTING
LIGHT (TYP.)
ADJUST CURB STOP
STA:27+36.42
18.00' L
STA:27+36.36
12.15' L
STA:27+36.11
11.85' R
STA:27+36.06
18.00' R
ADJUST CURB STOP
200 2ND ST E
204 2ND ST E
206 2ND ST E
208 2ND ST E
210 2ND ST E
212 2ND ST E
214 2ND ST E
216 2ND ST E
EXISTING VAULT

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

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215 2ND ST E
217 2ND ST E
219 2ND ST E
221 2ND ST E
223 2ND ST E
225 2ND ST E
227 2ND ST E
229 2ND ST E
301 2ND ST E
303 2ND ST E
305 2ND ST E
307 2ND ST E
216 2ND ST E
226 2ND ST E
226 2ND ST E
300 2ND ST E

EXISTING VAULT

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST CURB STOP

ADJUST WATER VALVE

ADJUST WATER VALVE

ADJUST WATER VALVE

ADJUST WATER VALVE

PROTECT EXISTING LIGHT (TYP.)

PROTECT HYDRANT

BIKE RACK TO BE SALVAGED BY OWNER

BIKE RACK TO BE SALVAGED BY OWNER

STA:28+07.01
18.00' L

STA:28+06.95
12.15' L

STA:28+07.28
12.11' R

STA:28+07.22
18.00' R

STA:28+89.45
18.00' L

STA:28+89.45
18.00' R

STA:29+53.39
46.04' R

STA:29+64.56
73.55' R

STA:29+42.56
73.69' R

2ND STREET

2ND STREET

CEDAR STREET

28+00

29+00

30+00

95+00

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

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ND ST E
313 2ND ST E
317 2ND ST E
319 2ND ST E
323 2ND ST E
331 2ND ST E
300 2ND ST E
300 2ND ST E

EXISTING VAULT
EXISTING VAULT
ADJUST CURB STOP
ADJUST CURB STOP
ADJUST CURB STOP
PROTECT EXISTING LIGHT (TYP.)
ADJUST WATER VALVE
PROTECT HYDRANT

STA:32+97.10 46.43' L
STA:32+99.43 39.38' L
STA:32+99.19 29.38' L
STA:32+96.42 18.17' L
STA:33+30.58 45.33' L
STA:33+30.35 35.83' L
STA:33+32.85 35.77' L
STA:33+32.42 17.88' L
STA:33+04.47 17.98' L

2ND STREET
31+00
32+00
33+00
105+00

STA:33+03.58 17.93' R
STA:32+95.56 17.74' R
STA:33+54.38 18.00' R
STA:33+54.38 20.46' R
STA:33+31.56 18.15' R
STA:33+56.03 23.96' R
STA:33+56.04 29.56' R
STA:33+30.96 43.39' R
STA:32+94.97 42.53' R
STA:33+30.07 72.12' R
STA:33+29.77 82.05' R

WALNUT STREET

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

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EXISTING VAULT

211 WALNUT ST

413 2ND ST E

417 2ND ST E

204 MULBERRY AVE

ADJUST CURB STOP

PROTECT EXISTING LIGHT (TYP.)

ADJUST CURB STOP

STA:35+96.24
18.00' L

2ND STREET

34+00

35+00

36+00

38

36.03

36.04

3.5'

STA:35+16.20
20.21' R

STA:35+16.21
23.71' R

LEGEND:

- GRAVEL REMOVAL
- PAVEMENT REMOVAL
- DRIVEWAY REMOVAL
- SIDEWALK REMOVAL
- ASPHALT/CONCRETE SAW CUT
- PIPE REMOVAL
- SIGN REMOVAL
- UTILITY STRUCTURE REMOVAL

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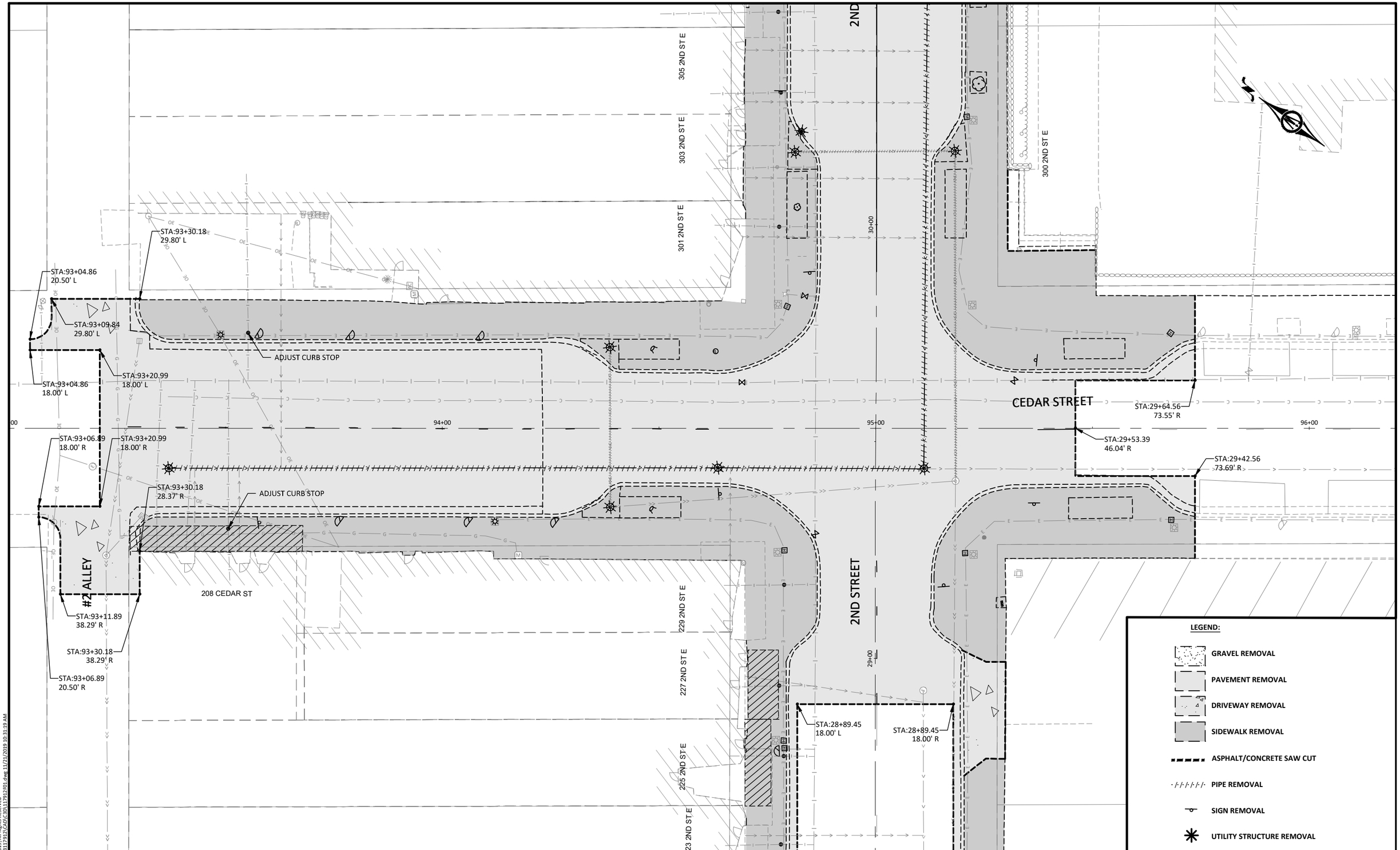

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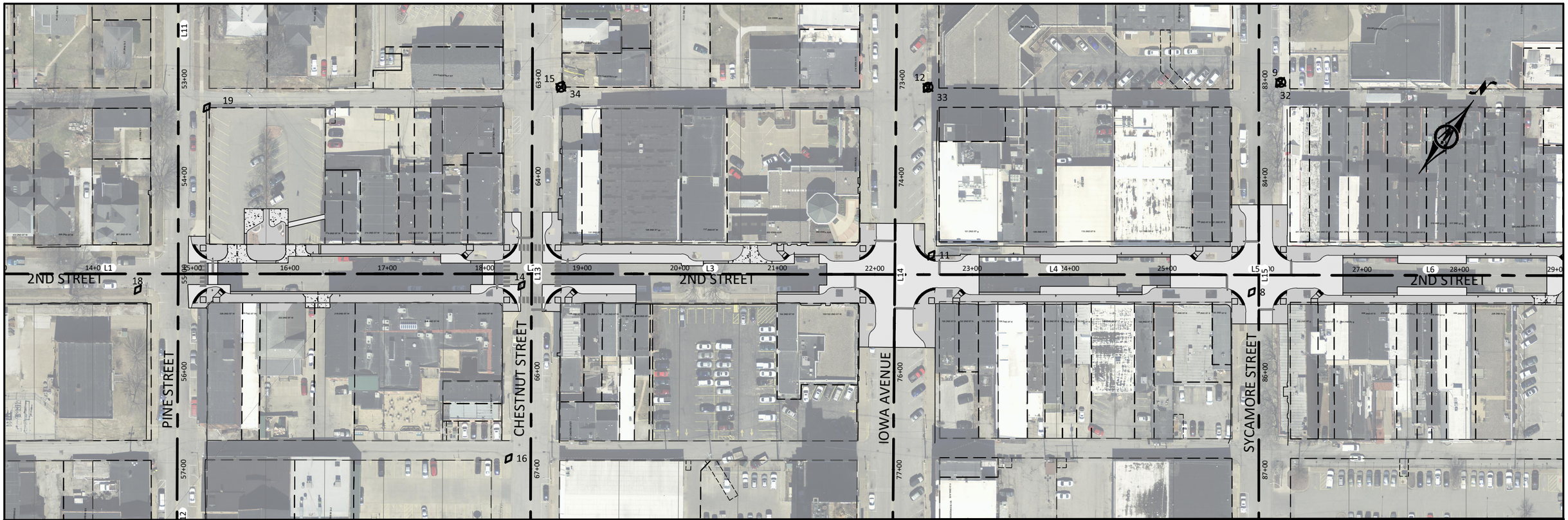

2ND STREET

NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L1	10+00	18+27.27	827.27				6626095.48	24555052.53	6626590.67	24555715.23	N53° 13' 53"E
L2	18+27.27	18+68.27	41.00				6626590.67	24555715.23	6626615.21	24555748.08	N53° 14' 31"E
L3	18+68.27	21+94.15	325.88				6626615.21	24555748.08	6626809.71	24556009.55	N53° 21' 19"E
L4	21+94.15	25+73.54	379.39				6626809.71	24556009.55	6627036.57	24556313.64	N53° 16' 35"E
L5	25+73.54	26+08.05	34.50				6627036.57	24556313.64	6627056.90	24556341.52	N53° 53' 53"E
L6	26+08.05	29+32.60	324.55				6627056.90	24556341.52	6627250.82	24556601.76	N53° 18' 32"E
L7	29+32.60	29+73.60	41.00				6627250.82	24556601.76	6627275.12	24556634.79	N53° 39' 23"E
L8	29+73.60	32+93.49	319.89				6627275.12	24556634.79	6627466.27	24556891.29	N53° 18' 21"E
L9	32+93.49	33+34.50	41.01				6627466.27	24556891.29	6627491.58	24556923.56	N51° 53' 20"E
L10	33+34.50	38+00	465.50				6627491.58	24556923.56	6627771.11	24557295.79	N53° 05' 43"E

PINE STREET

NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L11	50+00	55+00	500.00				6626786.23	24555142.07	6626385.72	24555441.40	S36° 46' 26"E
L12	55+00	60+00	500.00				6626385.72	24555441.40	6625983.63	24555738.59	S36° 28' 05"E

CHESTNUT STREET

NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L13	60+00	70+00	1000.00				6627004.73	24555434.05	6626201.15	24556029.25	S36° 31' 36"E

IOWA AVENUE

NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L14	70+00	80+00	1000.00				6627228.19	24555734.33	6626422.63	24556326.84	S36° 20' 07"E

SYCAMORE STREET

NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L15	80+00	90+00	1000.00				6627449.27	24556031.04	6626648.03	24556629.37	S36° 45' 03"E

CONTROL POINT TABLE

POINT NUMBER	NORTH	EAST	ELEVATION	DESCRIPTION
1	6,627,632.05	24,557,159.56	561.33	Ctrl Pt /CUT X
2	6,627,525.36	24,556,916.95	569.01	Ctrl Pt /CUT X
3	6,627,649.06	24,556,806.49	571.94	Ctrl Pt /CUT X
4	6,627,223.32	24,557,112.62	552.96	Ctrl Pt /CUT X
5	6,627,261.02	24,556,671.10	568.19	Ctrl Pt /MAG
6	6,627,434.11	24,556,525.50	568.47	Ctrl Pt /CUT X
7	6,626,996.49	24,556,803.06	554.85	Ctrl Pt /CUT X
8	6,627,030.24	24,556,334.91	557.66	Ctrl Pt /CUT X
9	6,627,219.16	24,556,228.58	563.05	Ctrl Pt /CUT X
10	6,626,792.54	24,556,503.05	551.88	Ctrl Pt /CUT X
11	6,626,863.77	24,556,048.89	565.60	Ctrl Pt /MAG
12	6,626,998.60	24,555,942.18	571.00	Ctrl Pt /CUT X
13	6,626,550.59	24,556,232.03	555.02	Ctrl Pt /CUT X
14	6,626,587.24	24,555,730.54	572.18	Ctrl Pt /CUT X
15	6,626,774.88	24,555,639.60	583.62	Ctrl Pt /CUT X

CONTROL POINT TABLE

POINT NUMBER	NORTH	EAST	ELEVATION	DESCRIPTION
16	6,626,437.29	24,555,826.13	563.14	Ctrl Pt /CUT X
17	6,626,113.38	24,555,642.67	556.87	Ctrl Pt /CUT X
18	6,626,348.06	24,555,417.73	583.40	Ctrl Pt /CUT X
19	6,626,540.08	24,555,362.68	597.21	Ctrl Pt /CUT X
20	6,627,633.49	24,557,153.05	560.83	Ctrl Pt /MAG
30	6,627,649.79	24,556,806.03	574.19	BM Loc /ARROW
31	6,627,434.58	24,556,526.93	570.70	BM Loc /ARROW
32	6,627,220.15	24,556,229.93	565.57	BM Loc /ARROW
33	6,626,999.47	24,555,943.08	573.41	BM Loc /ARROW
34	6,626,774.00	24,555,641.29	585.49	BM Loc /ARROW

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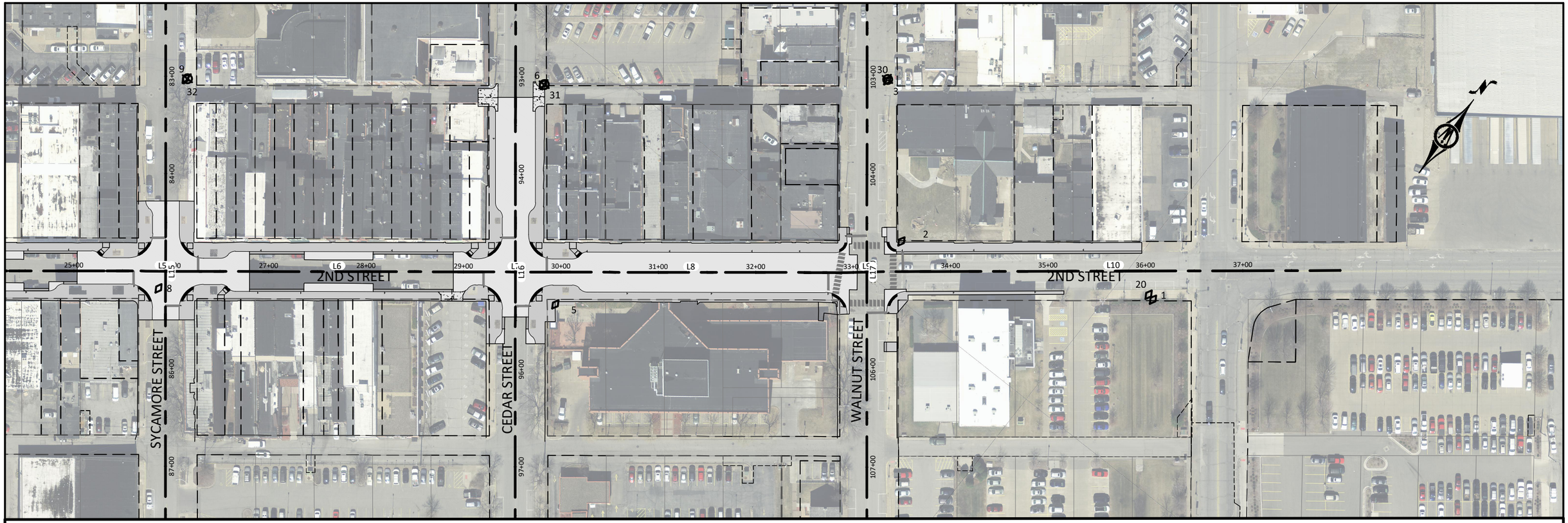

CEDAR STREET											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L16	90+00	100+00	1000.00				6627663.83	24556319.43	6626862.11	24556917.12	S36° 42' 19"E

WALNUT STREET											
NUMBER	START STATION	END STATION	LENGTH	DELTA	RADIUS	CHORD	START N	START E	END N	END E	LINE / CHORD DIRECTION
L17	100+00	110+00	1000.00				6627879.58	24556608.31	6627078.26	24557206.54	S36° 44' 36"E

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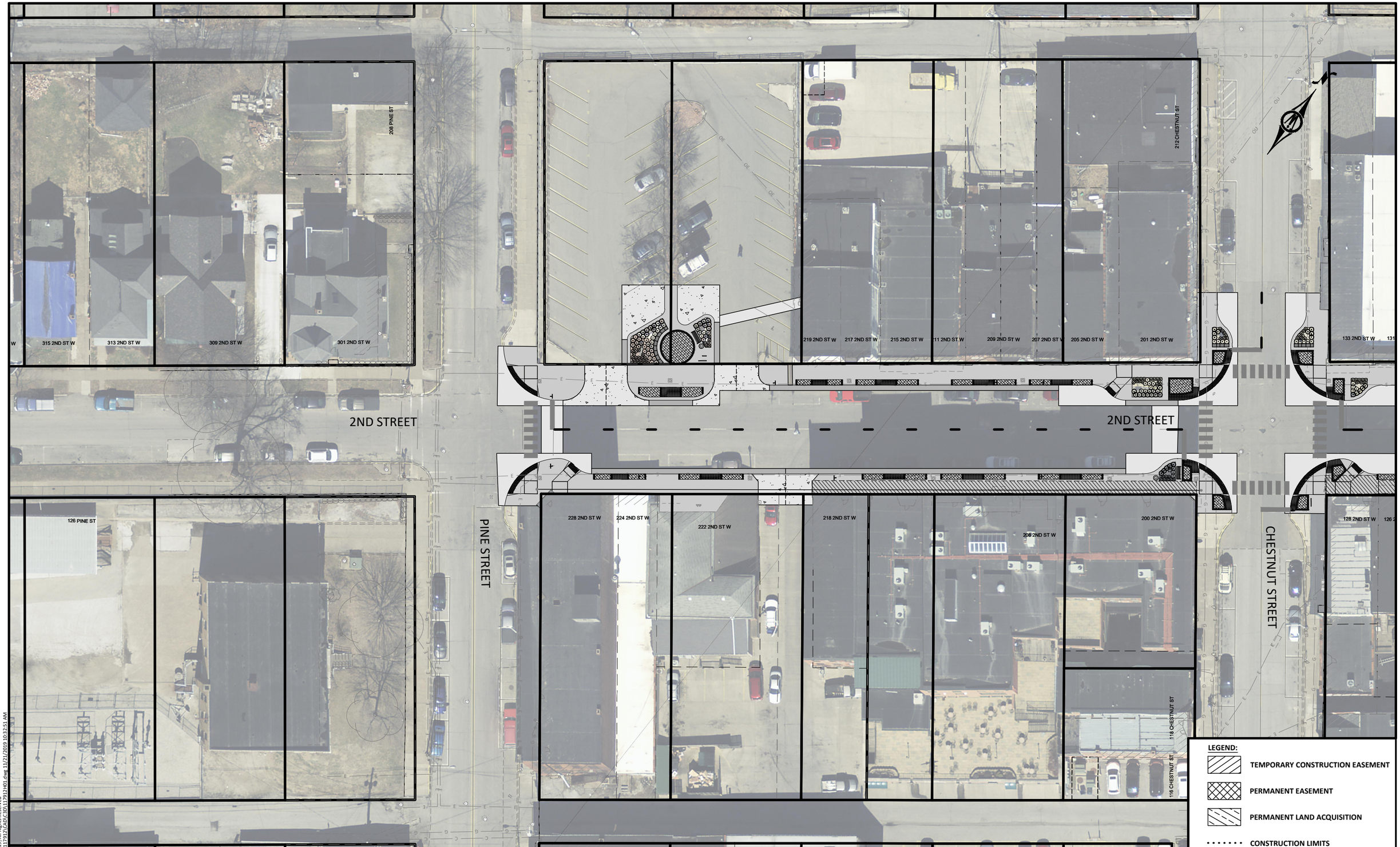

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RIGHT-OF-WAY

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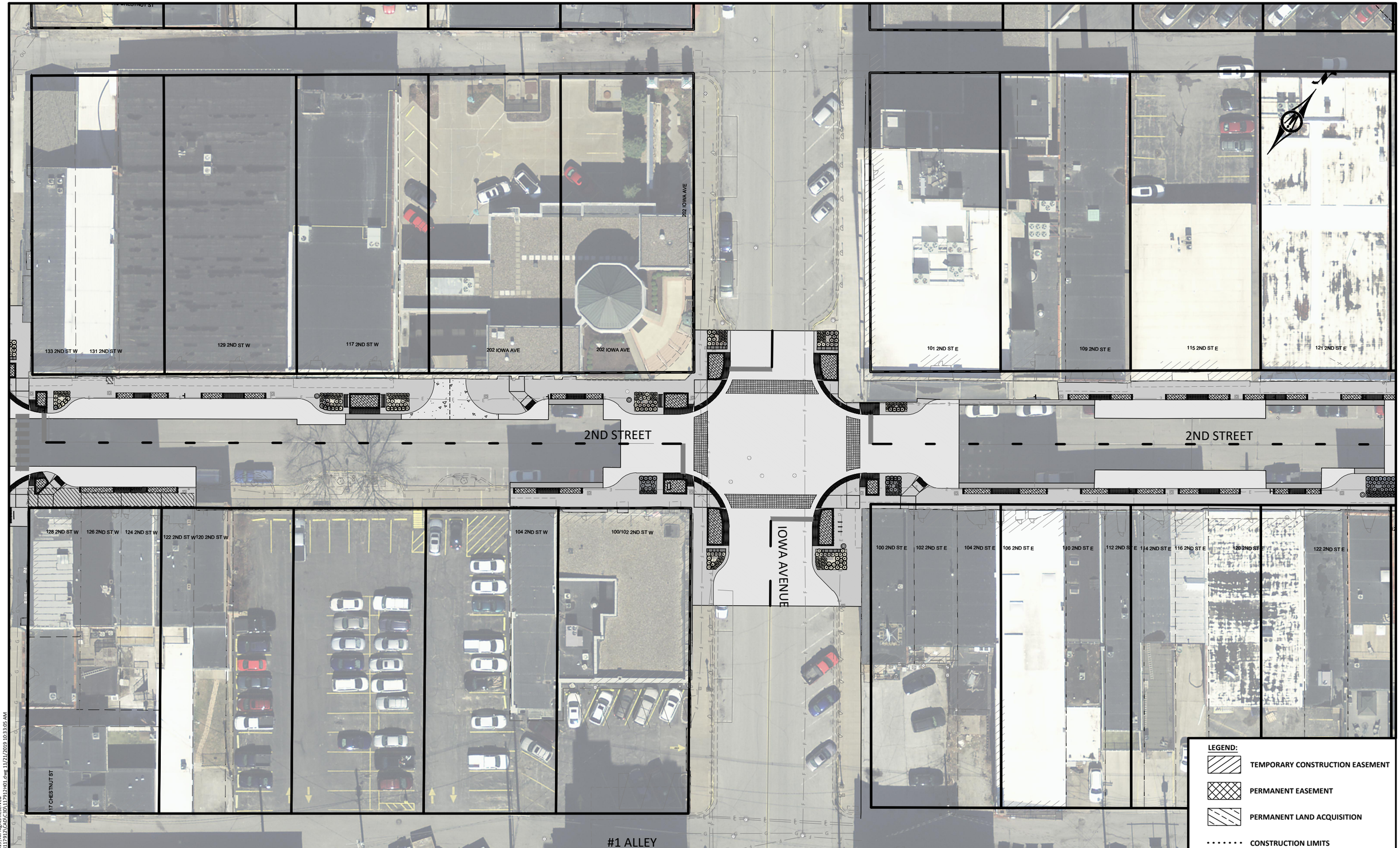

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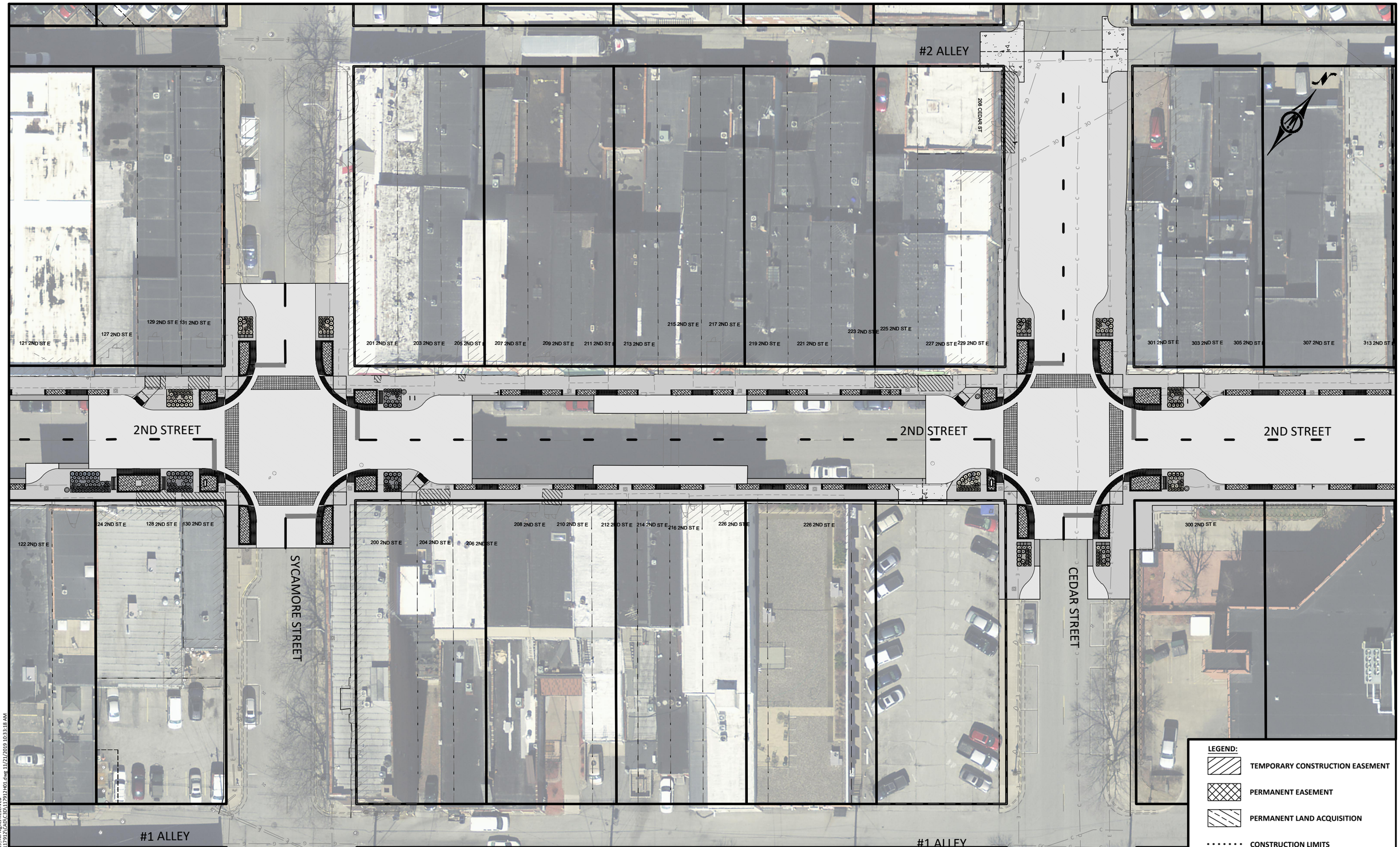

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214 WALNUT ST
210 WALNUT ST
206 WALNUT ST
2ND ST E
313 2ND ST E
317 2ND ST E
319 2ND ST E
323 2ND ST
331 2ND ST E
211 WALNUT ST
413 2ND ST E
417 2ND ST E
204 MULBERRY AVE
EET
2ND STREET
2ND STREET
300 2ND ST E
300 2ND ST E
WALNUT STREET
400 2ND ST E

LEGEND:

- TEMPORARY CONSTRUCTION EASEMENT
- PERMANENT EASEMENT
- PERMANENT LAND ACQUISITION
- CONSTRUCTION LIMITS

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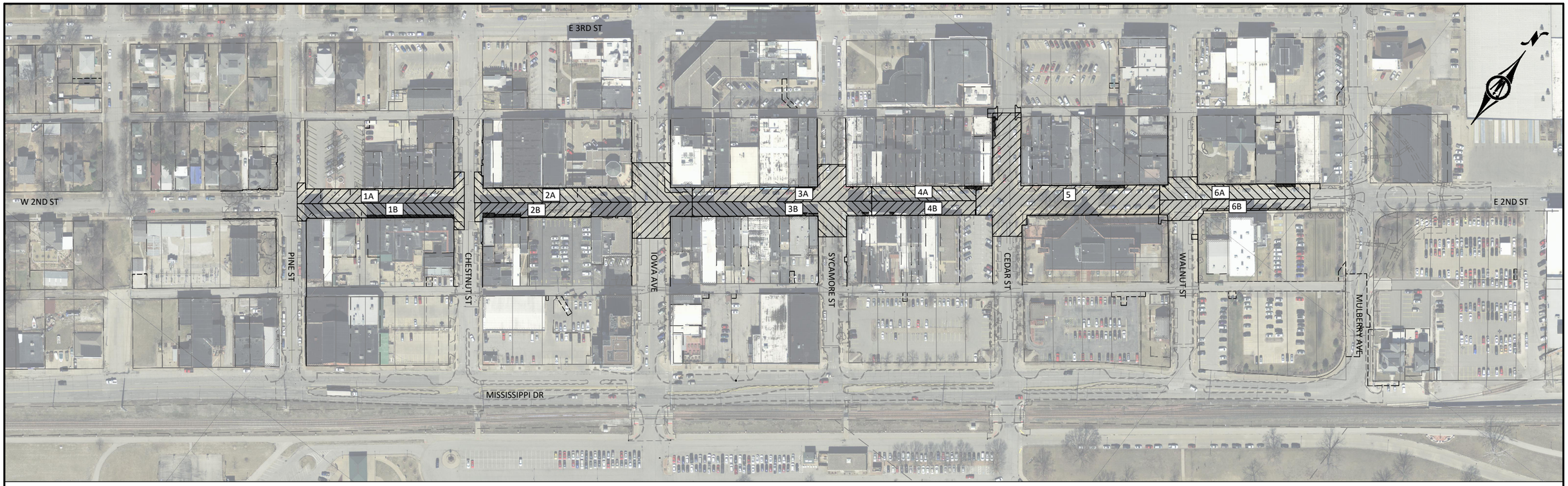

GENERAL STAGING NOTES:

1. ONLY ONE STAGE/SUBSTAGE TO BE CONSTRUCTED AT A TIME.
2. EACH STAGE TO BE COMPLETED BEFORE A SUBSEQUENT STAGE STARTED
3. CHANGES TO STAGING TO BE APPROVED BY THE ENGINEER
4. TRAFFIC CONTROL TO BE IN ACCORDANCE WITH THE MUTCD
5. SIDEWALK ACCESS TO BE MAINTAINED WITH THE EXCEPTION OF CONCRETE POURS AND CURING TIME. TEMPORARY BOARDWALKS TO BE USED WHEN SIDEWALK REMOVED PRIOR TO CONCRETE POURS.
6. DETOUR ROUTES NOTED ON SUBSEQUENT STAGING SHEETS.

STAGE 1 A &B

- TO INCLUDE WORK BETWEEN PINE ST AND CHESTNUT ST
- MAINTAIN TWO WAY TRAFFIC ON PINE ST AND CHESTNUT ST
- ONE-WAY TRAFFIC ON 2ND ST WITH TRAFFIC OPPOSITE OF PROJECT TO REMAIN OPEN

STAGE 2 A &B

- TO INCLUDE WORK FROM CHESTNUT ST TO END OF BUMPOUT, EAST OF IOWA AVE
- CHESTNUT ST TO REMAIN OPEN TO TWO WAY TRAFFIC
- ONE-WAY TRAFFIC ON 2ND ST WITH TRAFFIC OPPOSITE OF PROJECT TO REMAIN OPEN

STAGE 3 A &B

- TO INCLUDE WORK FROM END OF STAGE 2 TO END OF BUMP OUT EAST OF SYCAMORE ST
- ONE-WAY TRAFFIC ON 2ND ST WITH TRAFFIC OPPOSITE OF PROJECT TO REMAIN OPEN

STAGE 4 A &B

- TO INCLUDE WORK FROM END OF STAGE 3 TO END OF BUMP OUT EAST OF WALNUT ST
- ONE-WAY TRAFFIC ON 2ND ST WITH TRAFFIC OPPOSITE OF PROJECT TO REMAIN OPEN

STAGE 5

- TO INCLUDE WORK ON CEDAR ST AND E 2ND ST

STAGE 6 A &B

- TO INCLUDE WORK FROM END OF STAGE 5TO ROUNDABOUT PROJECT
- COORDINATE WORK WITH ROUNDABOUT PROJECT AS NECESSARY
- ONE-WAY TRAFFIC ON 2ND ST WITH TRAFFIC OPPOSITE OF PROJECT TO REMAIN OPEN

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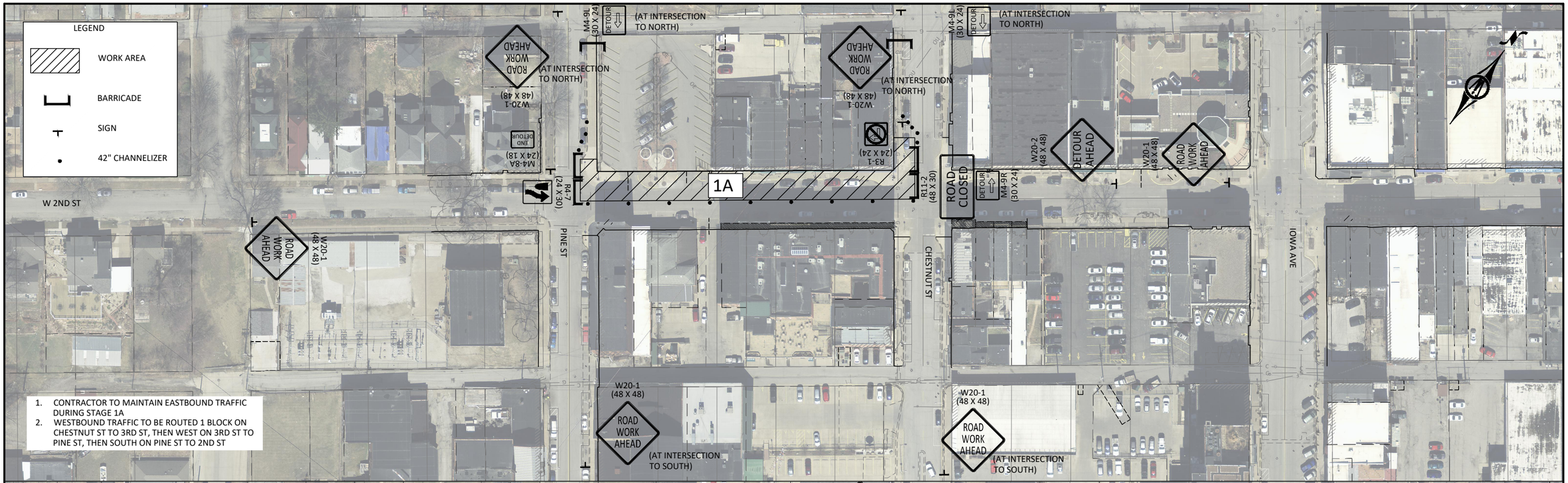
MUSCATINE, IOWA

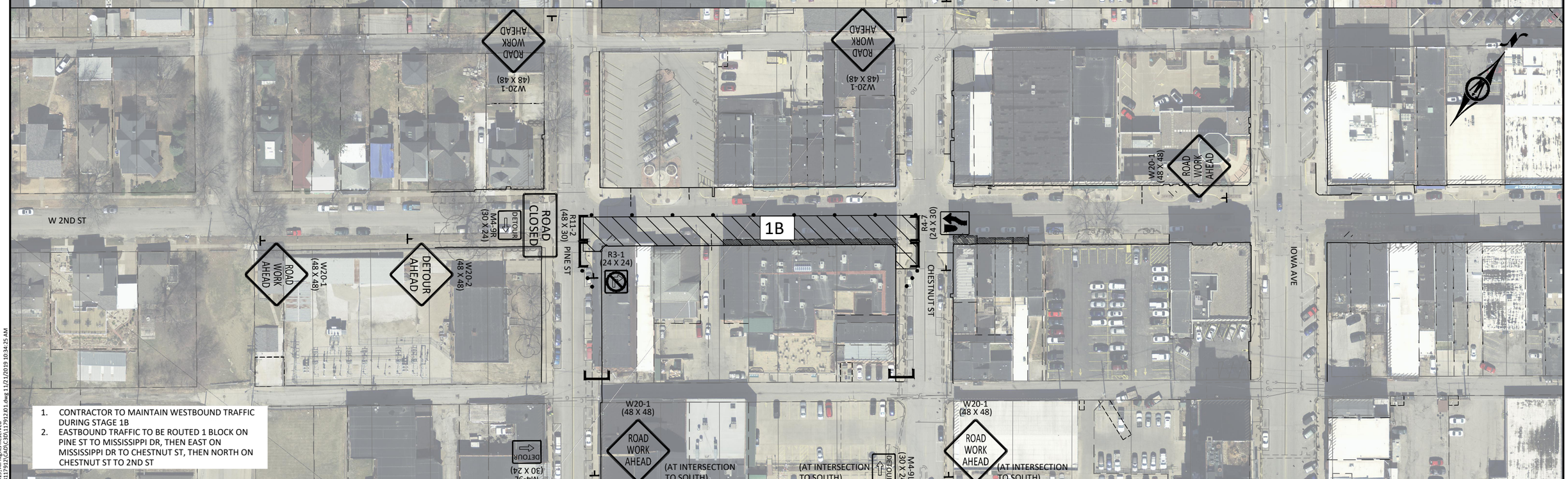
2ND STREET RECONSTRUCTION

TRAFFIC CONTROL AND STAGING SHEETS

SHEET J.01



1. CONTRACTOR TO MAINTAIN EASTBOUND TRAFFIC DURING STAGE 1A
2. WESTBOUND TRAFFIC TO BE ROUTED 1 BLOCK ON CHESTNUT ST TO 3RD ST, THEN WEST ON 3RD ST TO PINE ST, THEN SOUTH ON PINE ST TO 2ND ST



1. CONTRACTOR TO MAINTAIN WESTBOUND TRAFFIC DURING STAGE 1B
2. EASTBOUND TRAFFIC TO BE ROUTED 1 BLOCK ON PINE ST TO MISSISSIPPI DR, THEN EAST ON MISSISSIPPI DR TO CHESTNUT ST, THEN NORTH ON CHESTNUT ST TO 2ND ST

HORZ. 0 50 100
SCALE FEET

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MUSCATINE, IOWA
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TRAFFIC CONTROL STAGE 1

SHEET J.02

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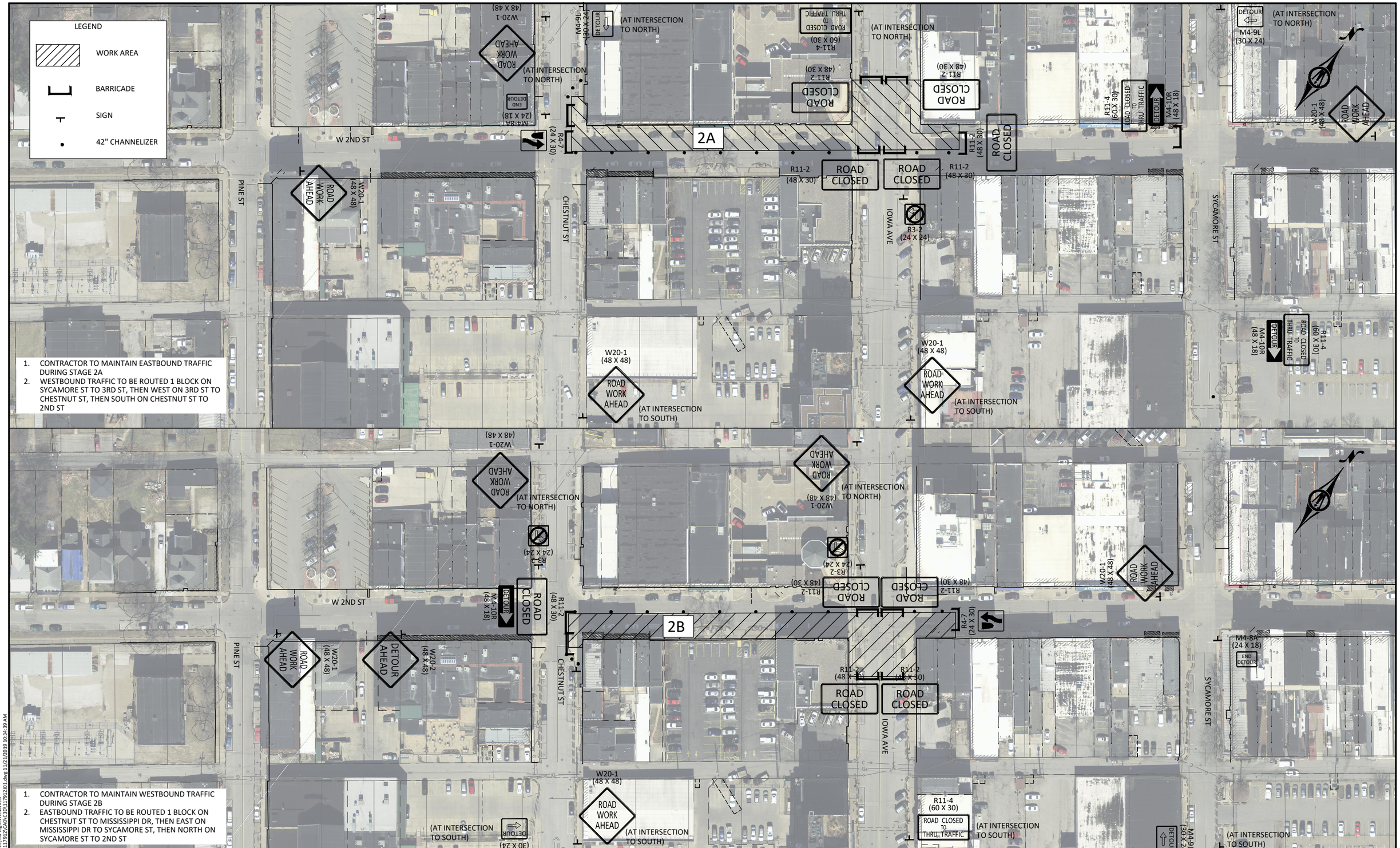

HORZ. 0 50 100
SCALE FEET

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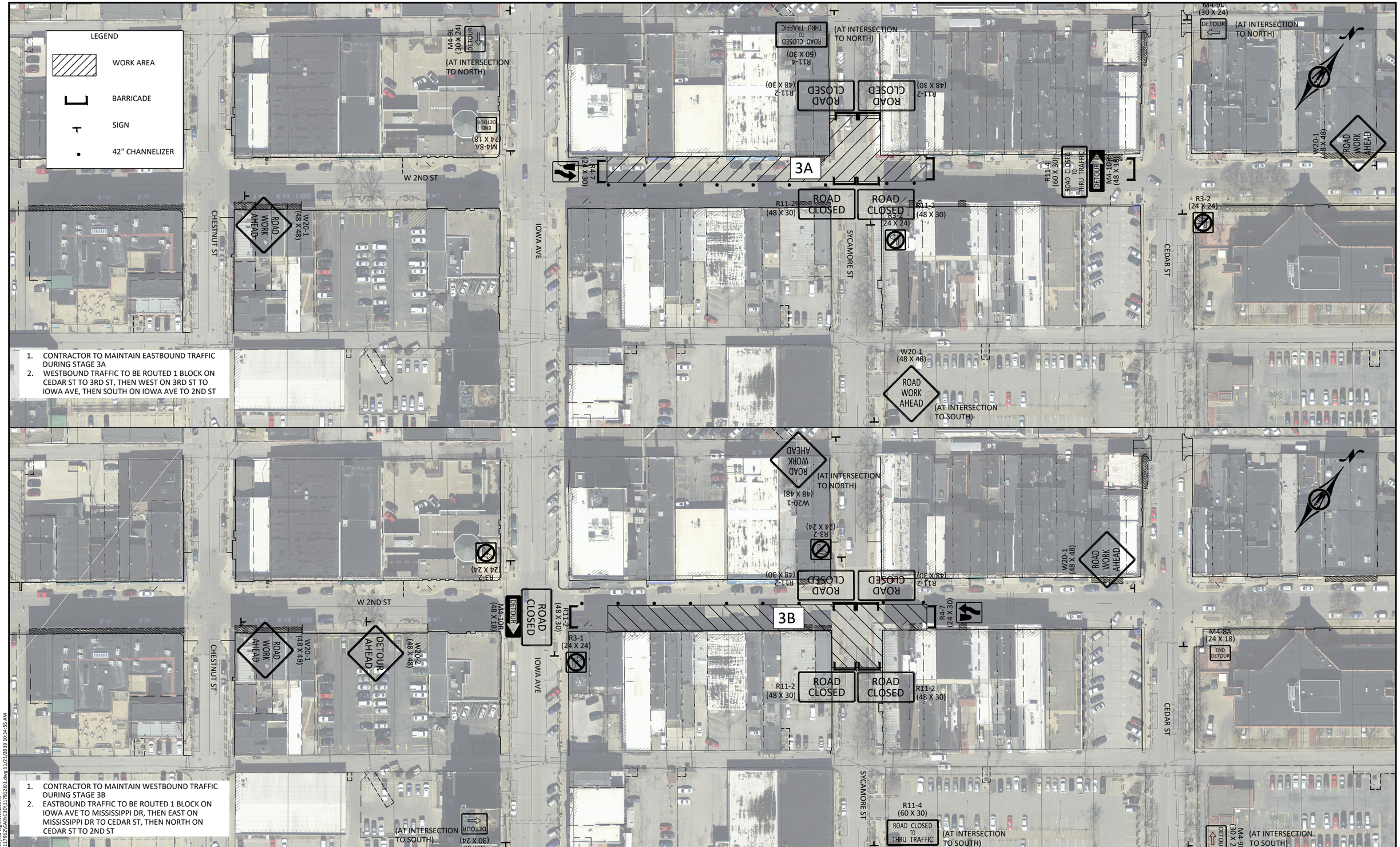
TRAFFIC CONTROL STAGE 2

SHEET
J.03



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HORZ. SCALE 0 50 100 FEET

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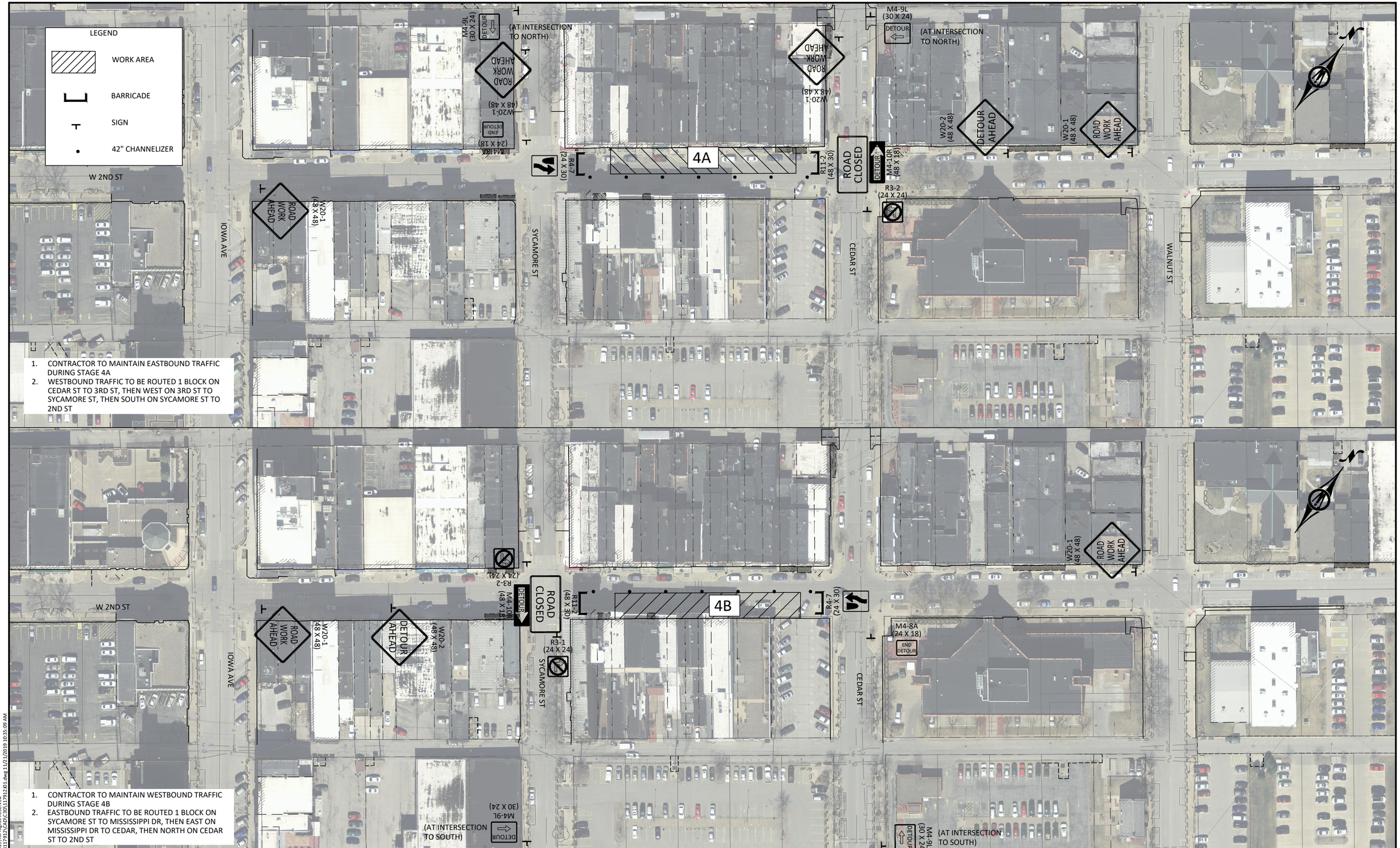
2ND STREET RECONSTRUCTION

TRAFFIC CONTROL STAGE 3

SHEET J.04



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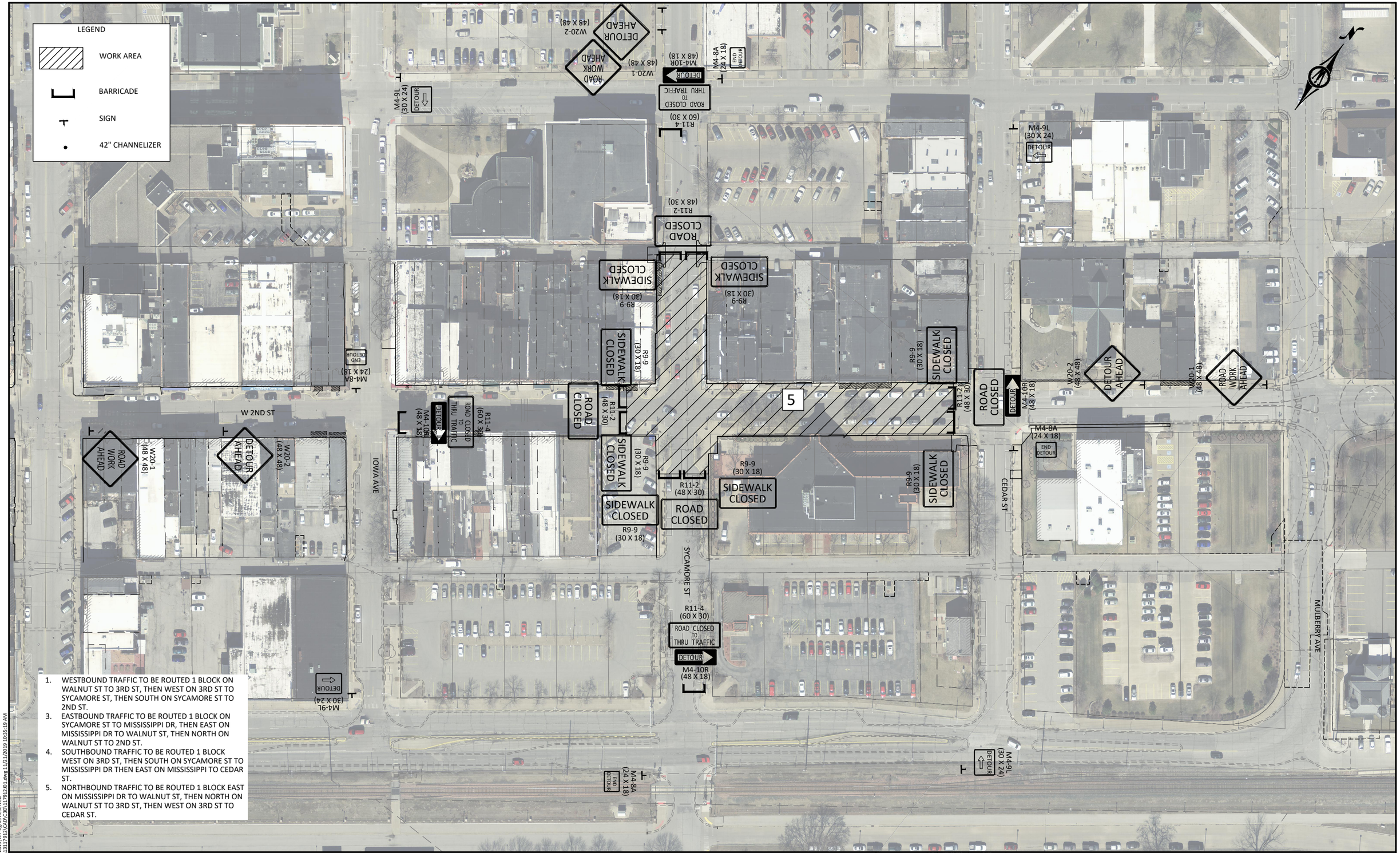
TRAFFIC CONTROL STAGE 4

SHEET J.05



1. WESTBOUND TRAFFIC TO BE ROUTED 1 BLOCK ON WALNUT ST TO 3RD ST, THEN WEST ON 3RD ST TO SYCAMORE ST, THEN SOUTH ON SYCAMORE ST TO 2ND ST.
3. EASTBOUND TRAFFIC TO BE ROUTED 1 BLOCK ON SYCAMORE ST TO MISSISSIPPI DR, THEN EAST ON MISSISSIPPI DR TO WALNUT ST, THEN NORTH ON WALNUT ST TO 2ND ST.
4. SOUTHBOUND TRAFFIC TO BE ROUTED 1 BLOCK WEST ON 3RD ST, THEN SOUTH ON SYCAMORE ST TO MISSISSIPPI DR THEN EAST ON MISSISSIPPI TO CEDAR ST.
5. NORTHBOUND TRAFFIC TO BE ROUTED 1 BLOCK EAST ON MISSISSIPPI DR TO WALNUT ST, THEN NORTH ON WALNUT ST TO 3RD ST, THEN WEST ON 3RD ST TO CEDAR ST.

HORZ. 0 50 100
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TRAFFIC CONTROL STAGE 5

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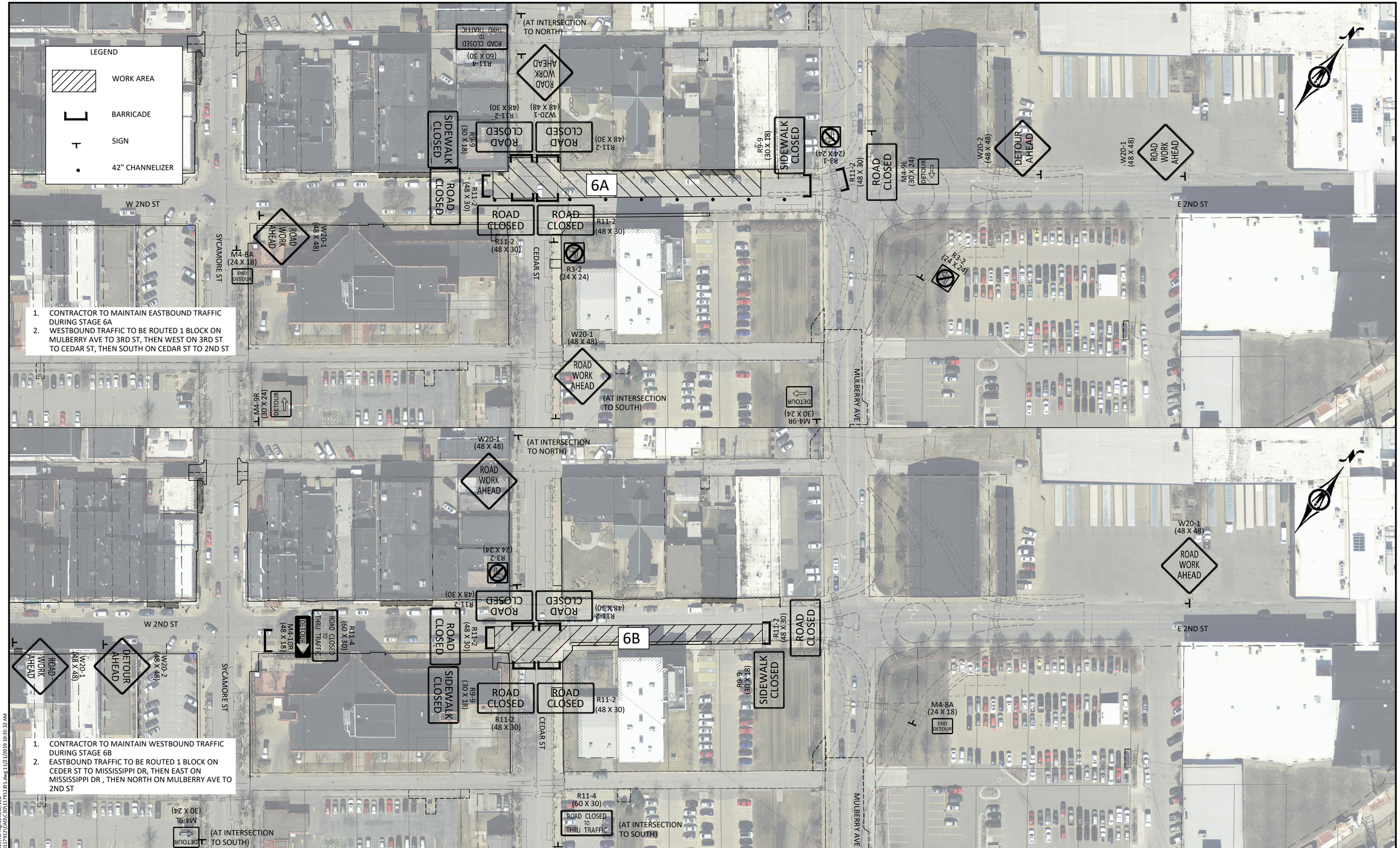

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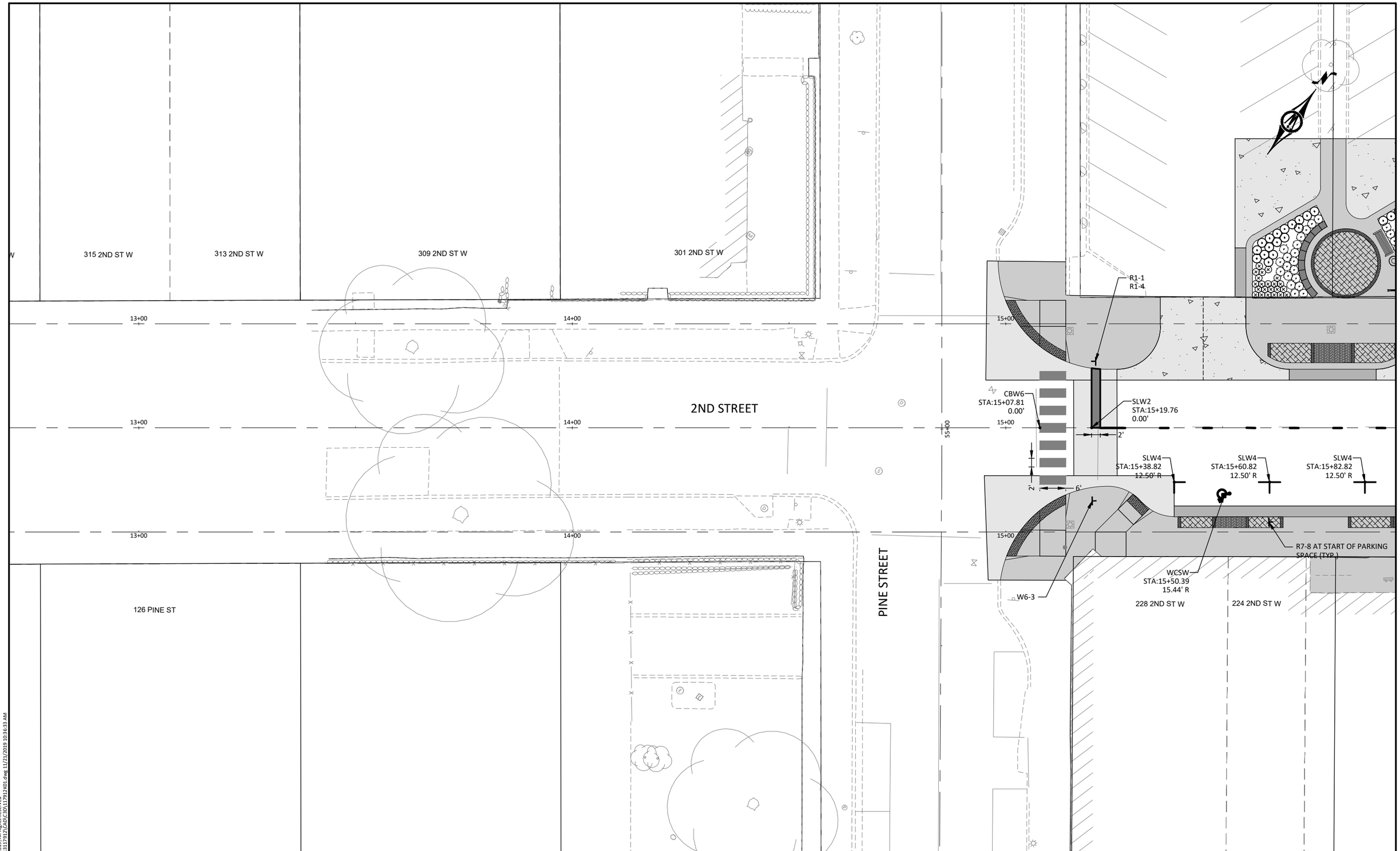
TRAFFIC CONTROL STAGE 6

SHEET J.07



HORZ. 0 10 20
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SIGNAGE AND MARKING SHEET

SHEET K.01

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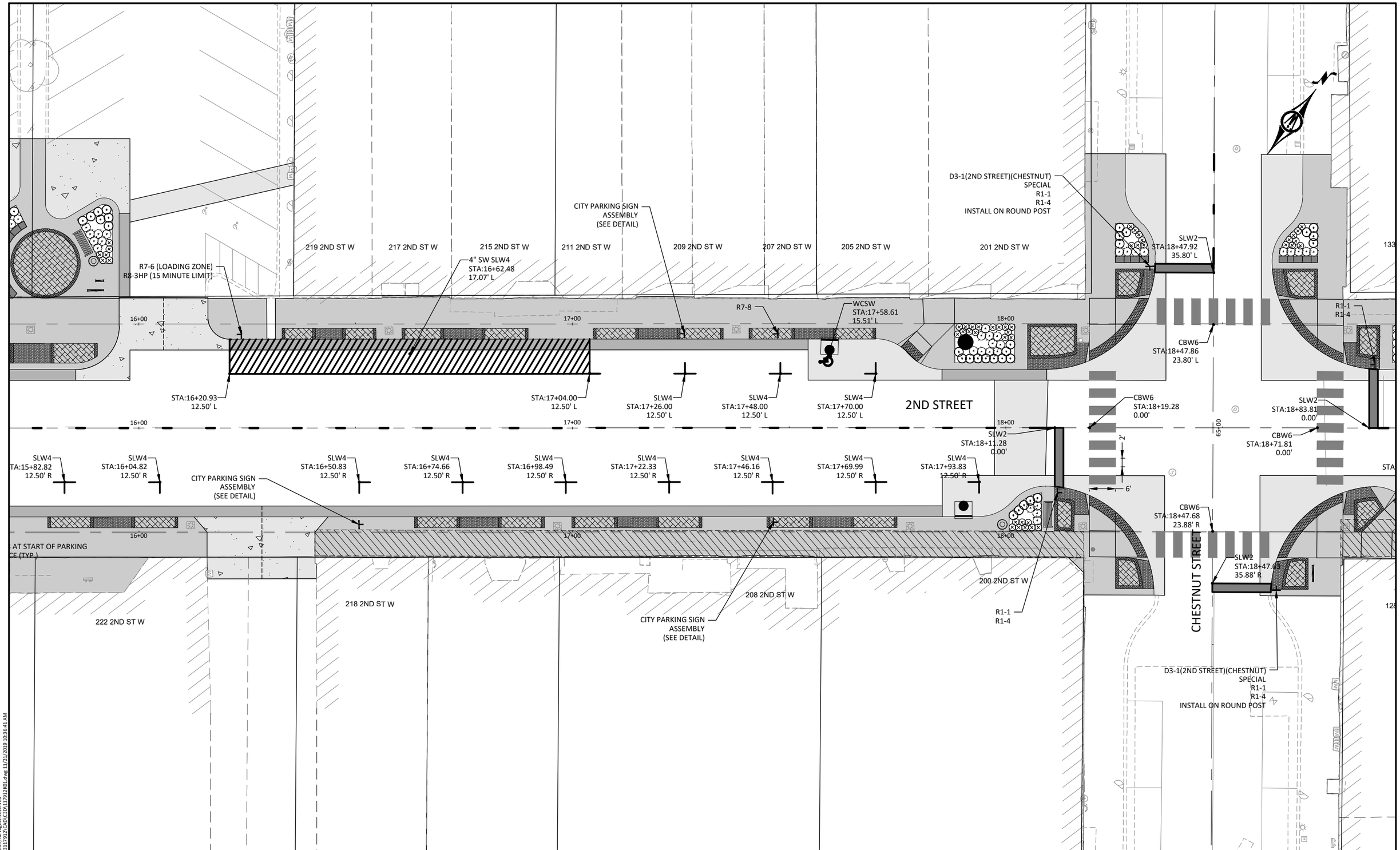

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SHEET
K.02

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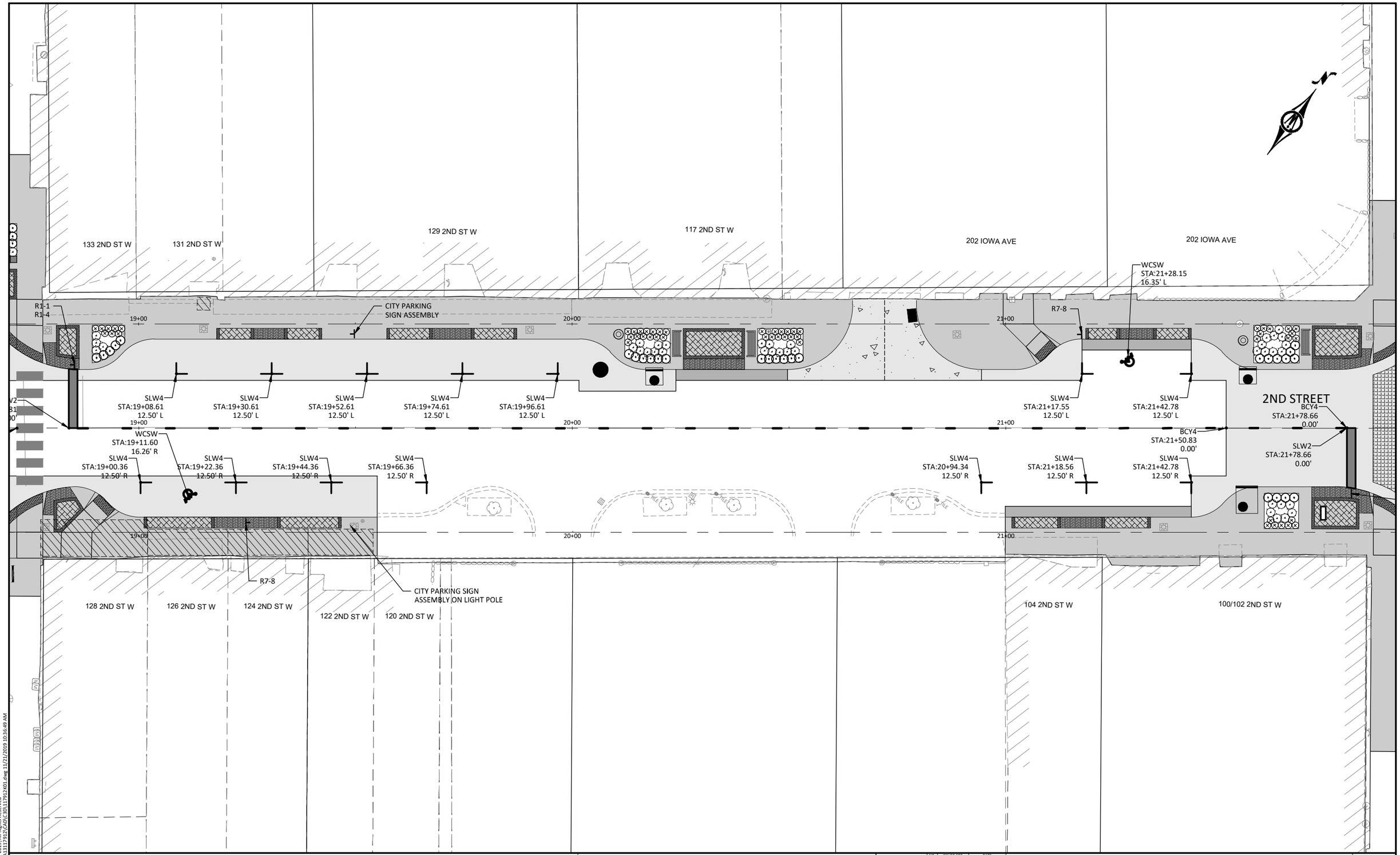

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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

SIGNAGE AND MARKING SHEET

SHEET K.03

D3-1 (2ND STREET) (IOWA AVENUE)
SPECIAL
R1-1
R1-4
INSTALL ON ROUND POST

BCY4
STA:74+47.72
0.00'

STA:22+20.63
33.44' L

BCY4
STA:74+64.56
0.00'

101 2ND ST E

109 2ND ST E

115 2ND ST E

121 2ND ST E

CITY PARKING
SIGN ASSEMBLY

CITY PARKING
SIGN ASSEMBLY

R7-8

22+00

23+00

24+00

R1-1
R1-4

SLW4
STA:24+30.20
12.50' L

SLW2
STA:22+65.25
0.00'

SLW4
STA:22+98.20
12.50' L

SLW4
STA:23+20.20
12.50' L

SLW4
STA:23+42.20
12.50' L

SLW4
STA:23+64.20
12.50' L

SLW4
STA:23+86.20
12.50' L

SLW4
STA:24+08.20
12.50' L

2ND STREET

SLW4
STA:24+52.20
12.50' L

SLW4
STA:24+74.20
12.50' L

BCY4
STA:22+67.25
0.00'

BCY4
STA:23+06.99
0.00'

SLW4
STA:22+98.20
12.50' R

SLW4
STA:23+20.20
12.50' R

SLW4
STA:23+42.20
12.50' R

SLW4
STA:23+64.20
12.50' R

SLW4
STA:23+86.20
12.50' R

SLW4
STA:24+08.20
12.50' R

SLW4
STA:24+30.20
12.50' R

SLW4
STA:24+52.20
12.50' R

SLW4
STA:24+74.20
12.50' R

75+00

R1-1
R1-4

R7-8
ON LIGHT POLE

WCSW
STA:23+09.51
16.27' R

CITY PARKING
SIGN ASSEMBLY

CITY PARKING
SIGN ASSEMBLY

IOWA AVENUE

SLW2
STA:22+20.18
33.64' R

BCY4
STA:75+35.64
0.00'

100 2ND ST E

102 2ND ST E

104 2ND ST E

106 2ND ST E

110 2ND ST E

112 2ND ST E

114 2ND ST E

116 2ND ST E

120 2ND ST E

122 2ND ST E

D3-1 (2ND STREET) (IOWA AVENUE)
SPECIAL
R1-1
R1-4
INSTALL ON ROUND POST

BCY4
STA:75+74.74
0.00'

HORZ. 0 10 20
SCALE FEET

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SIGNAGE AND MARKING SHEET

SHEET
K.04

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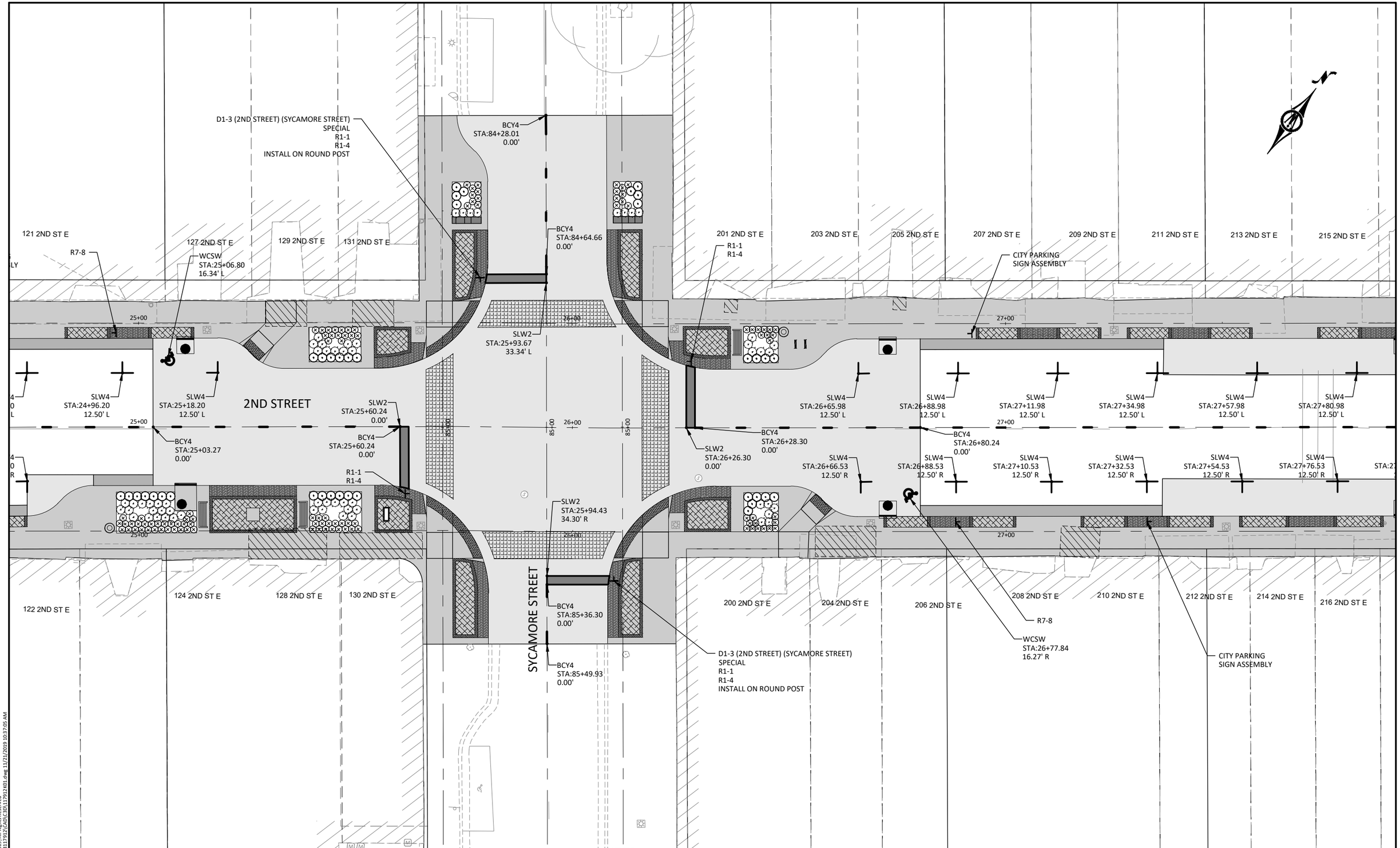

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SHEET
K.05

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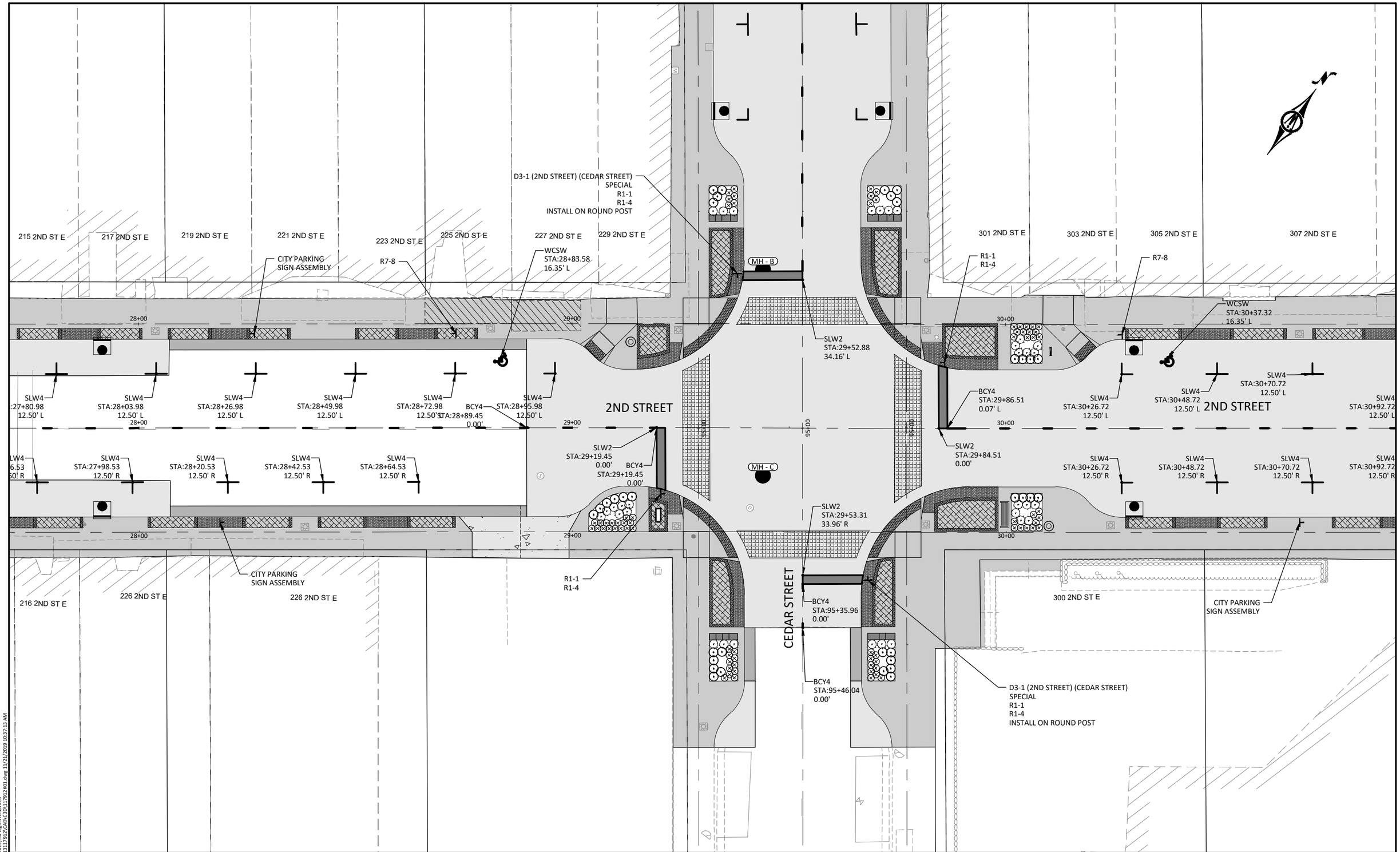

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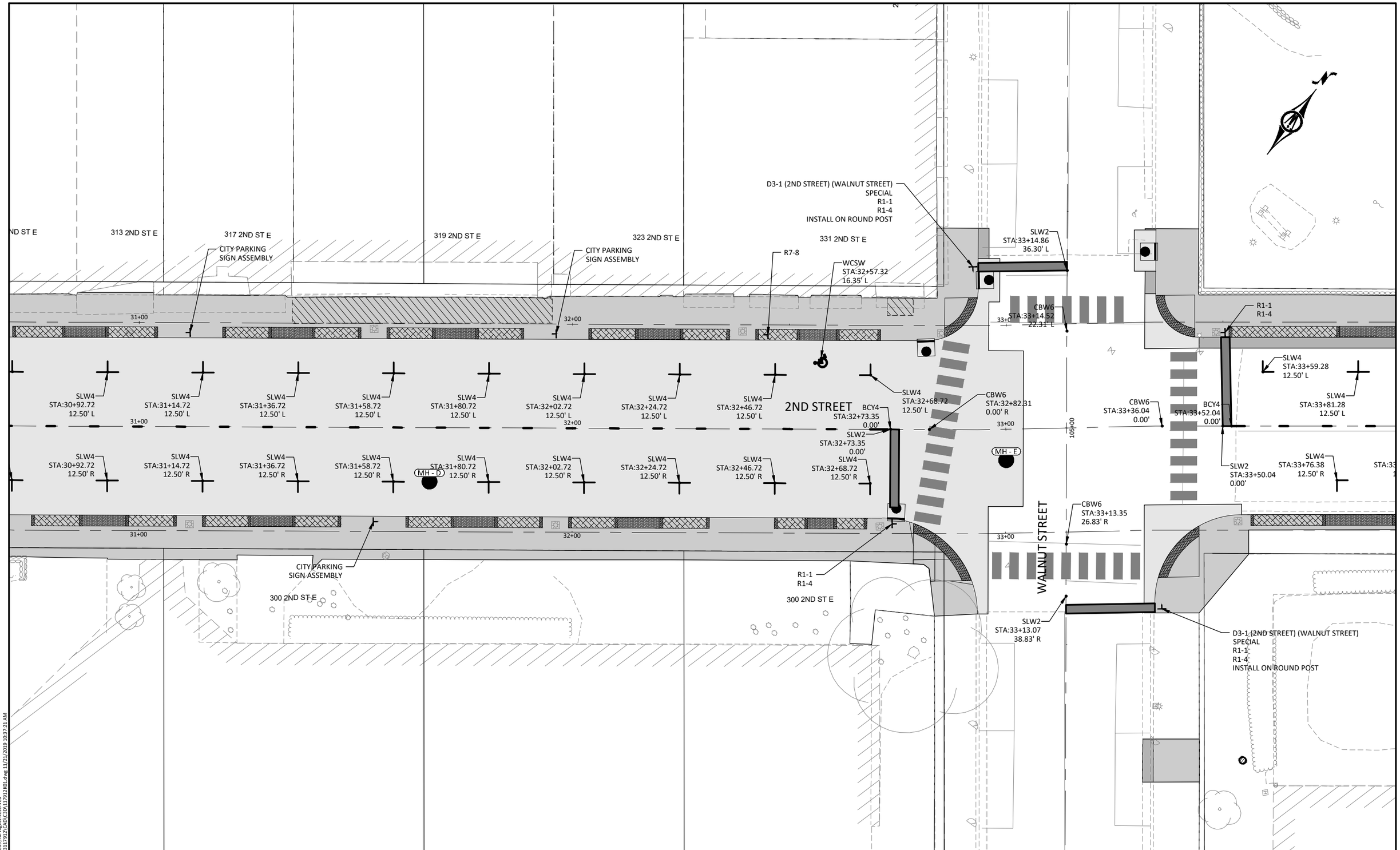
SIGNAGE AND MARKING SHEET

SHEET
K.06



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SHEET
K.07

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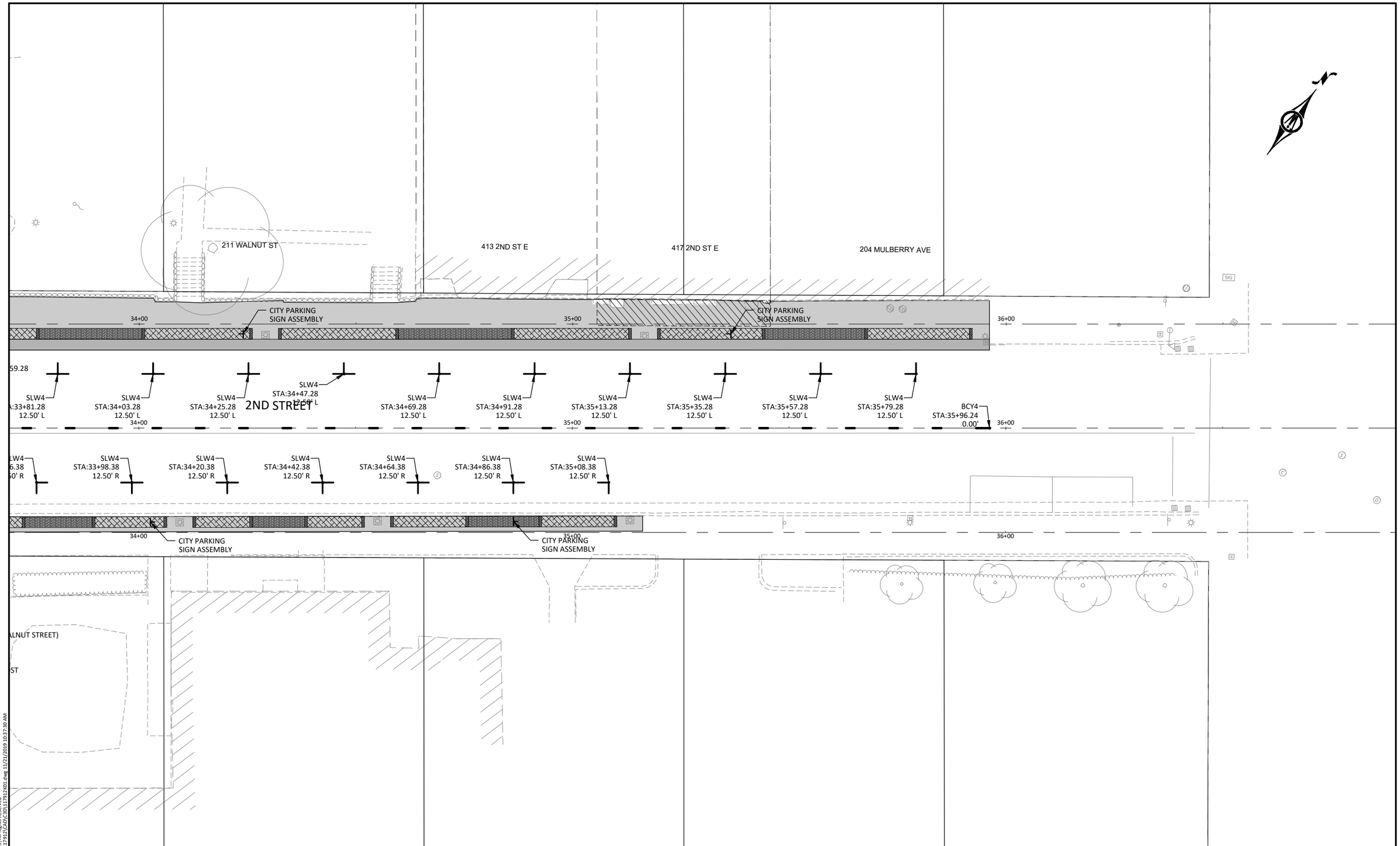

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SHEET K.08

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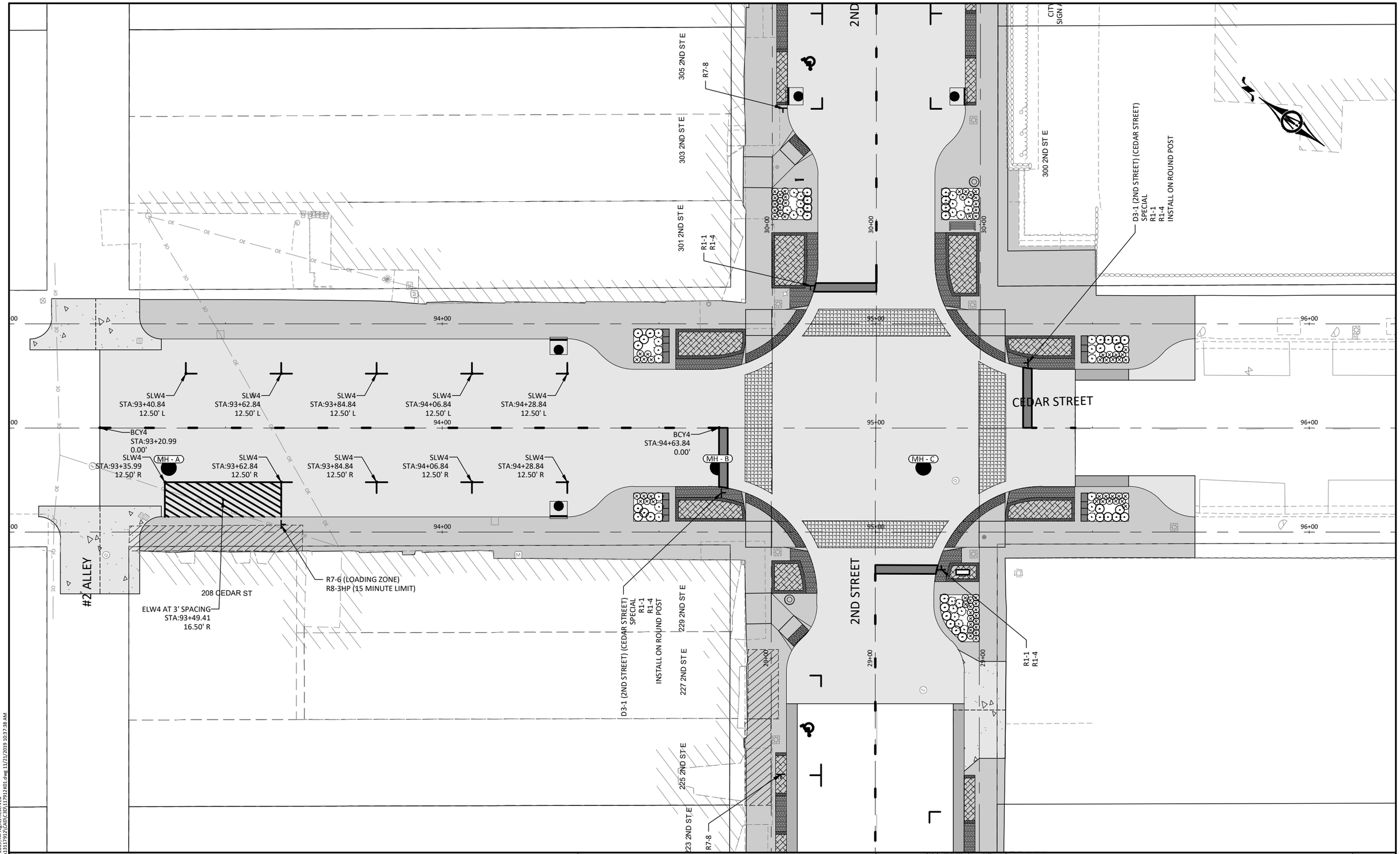

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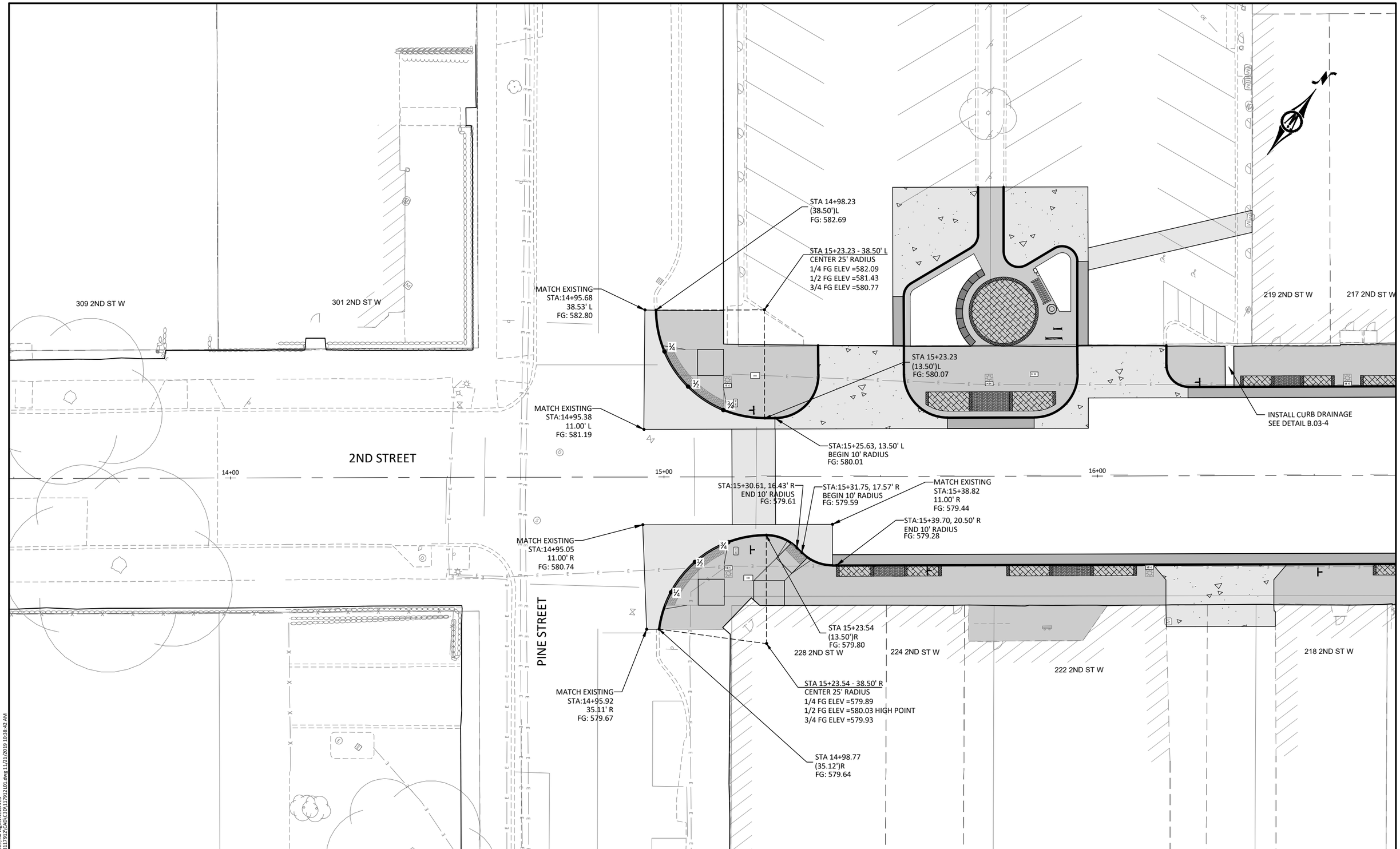
SHEET
K.09



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INTERSECTION DETAIL

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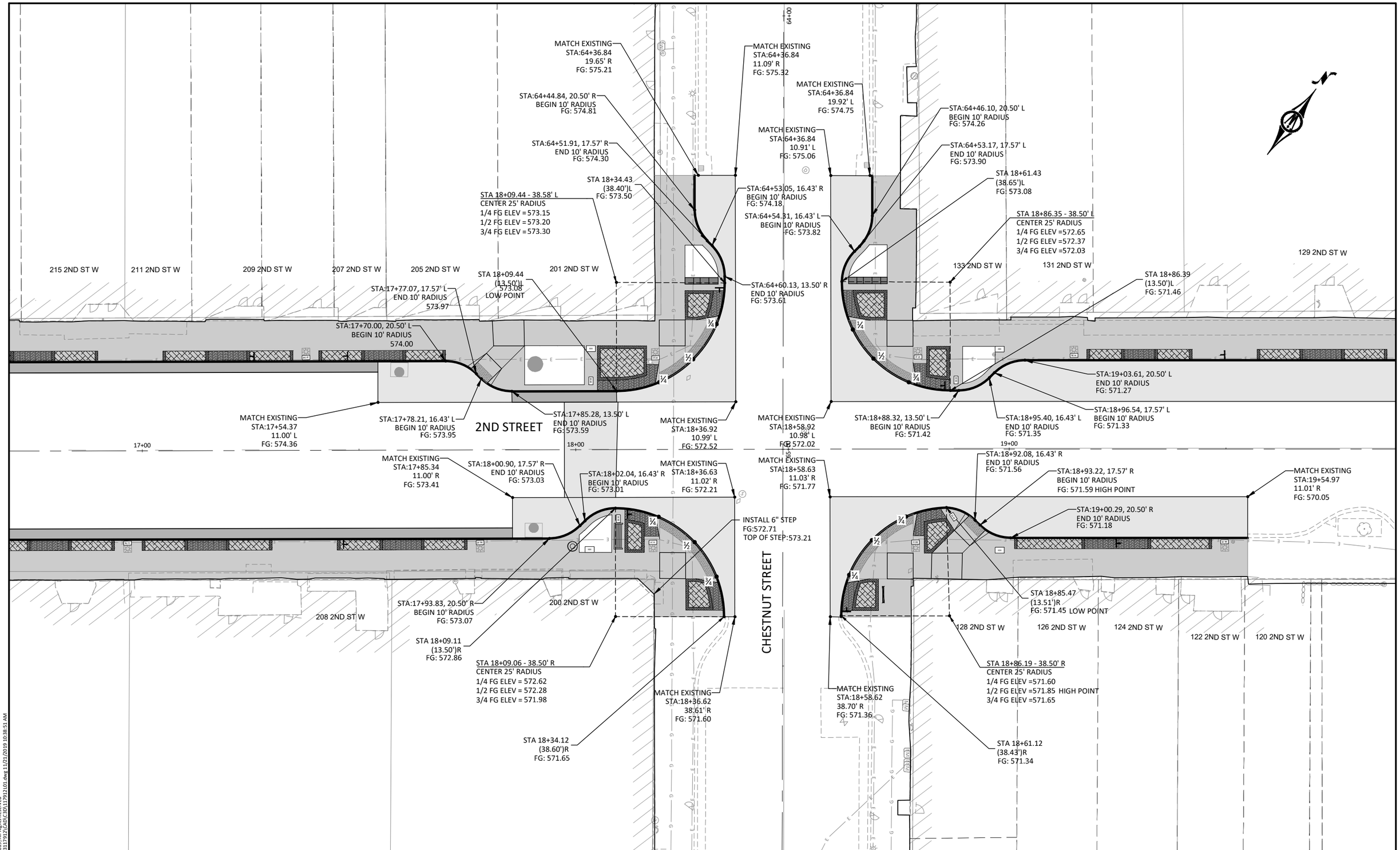

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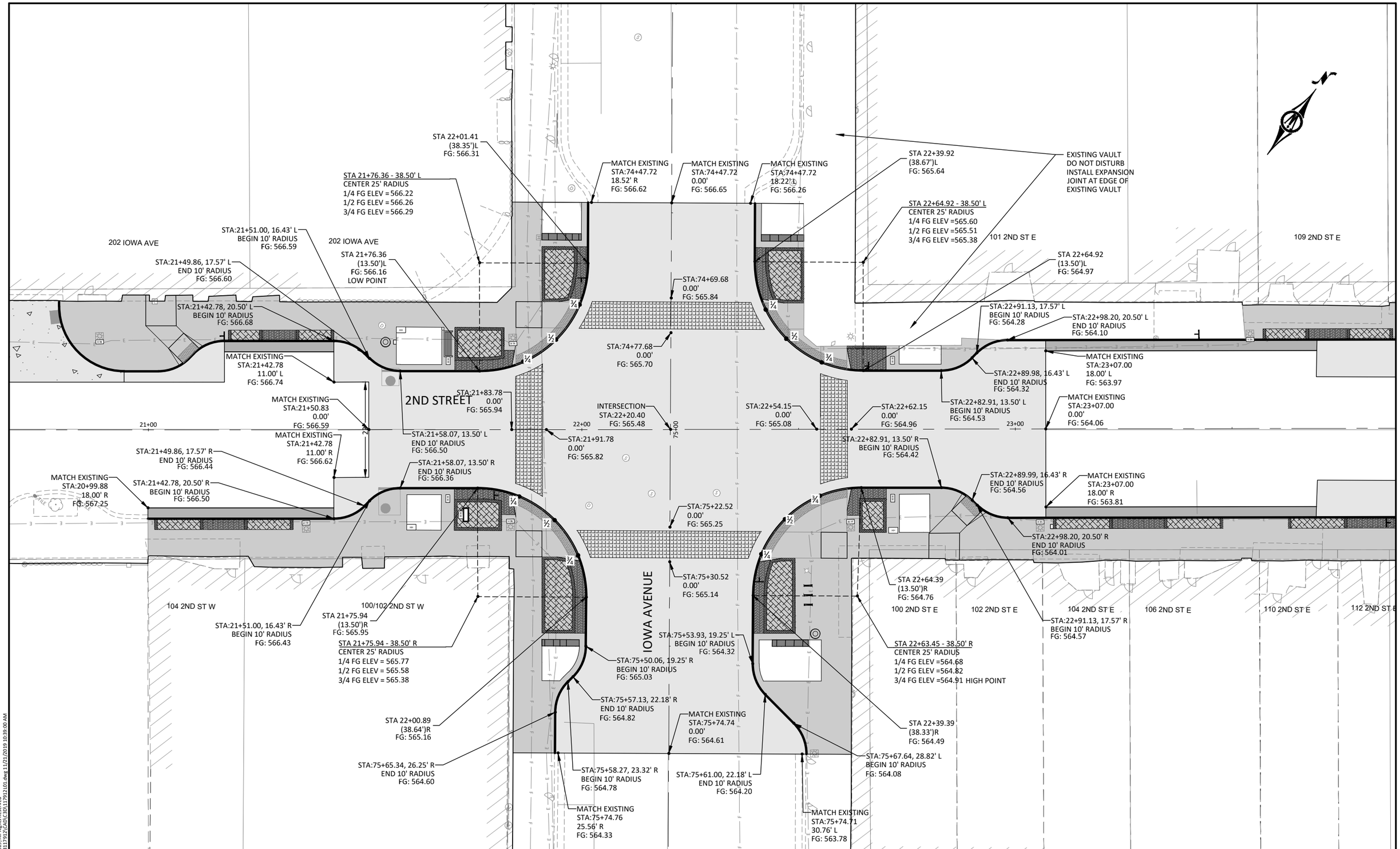
2ND STREET RECONSTRUCTION

INTERSECTION DETAIL

SHEET

L.02



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INTERSECTION DETAIL

SHEET L.03

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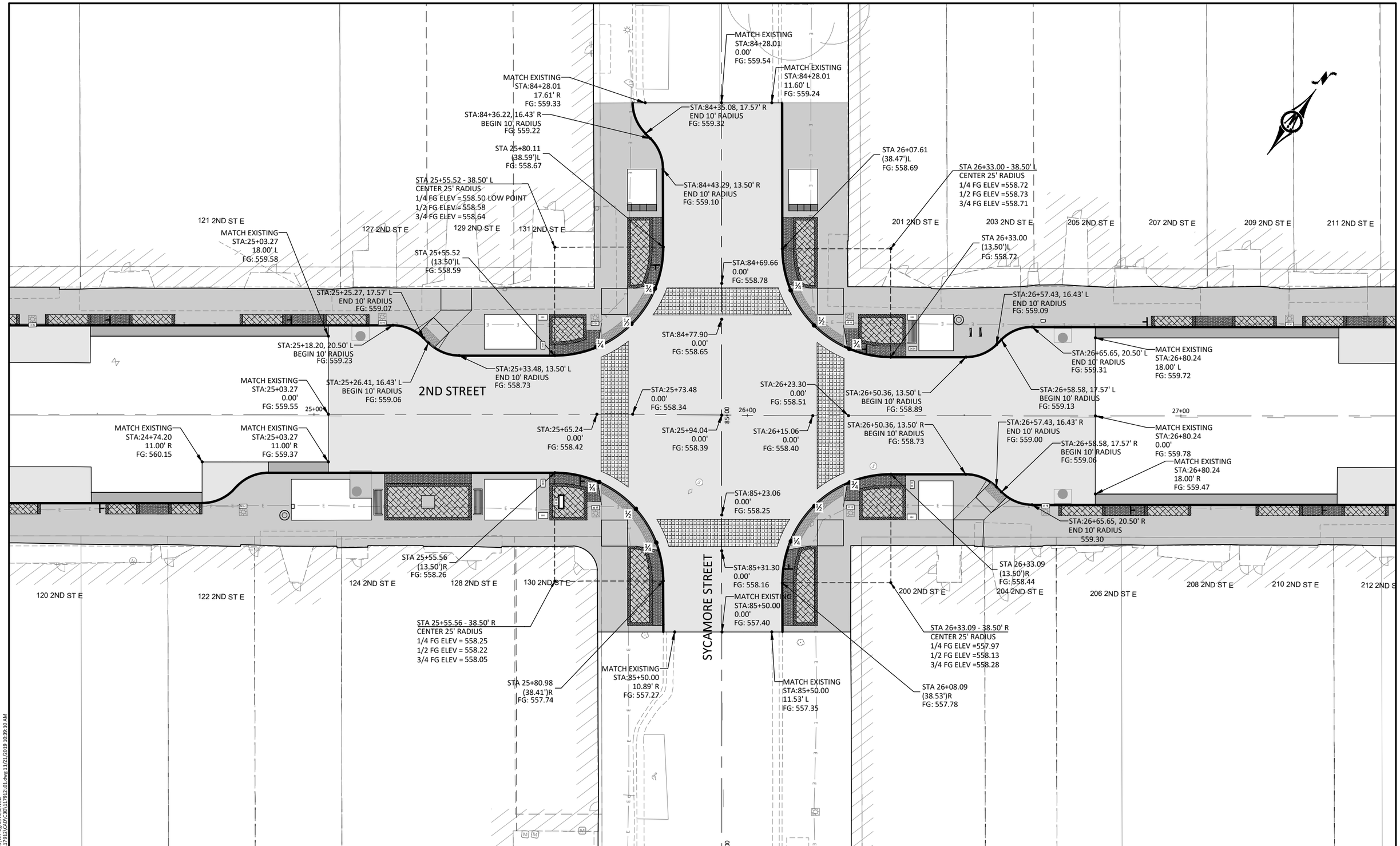

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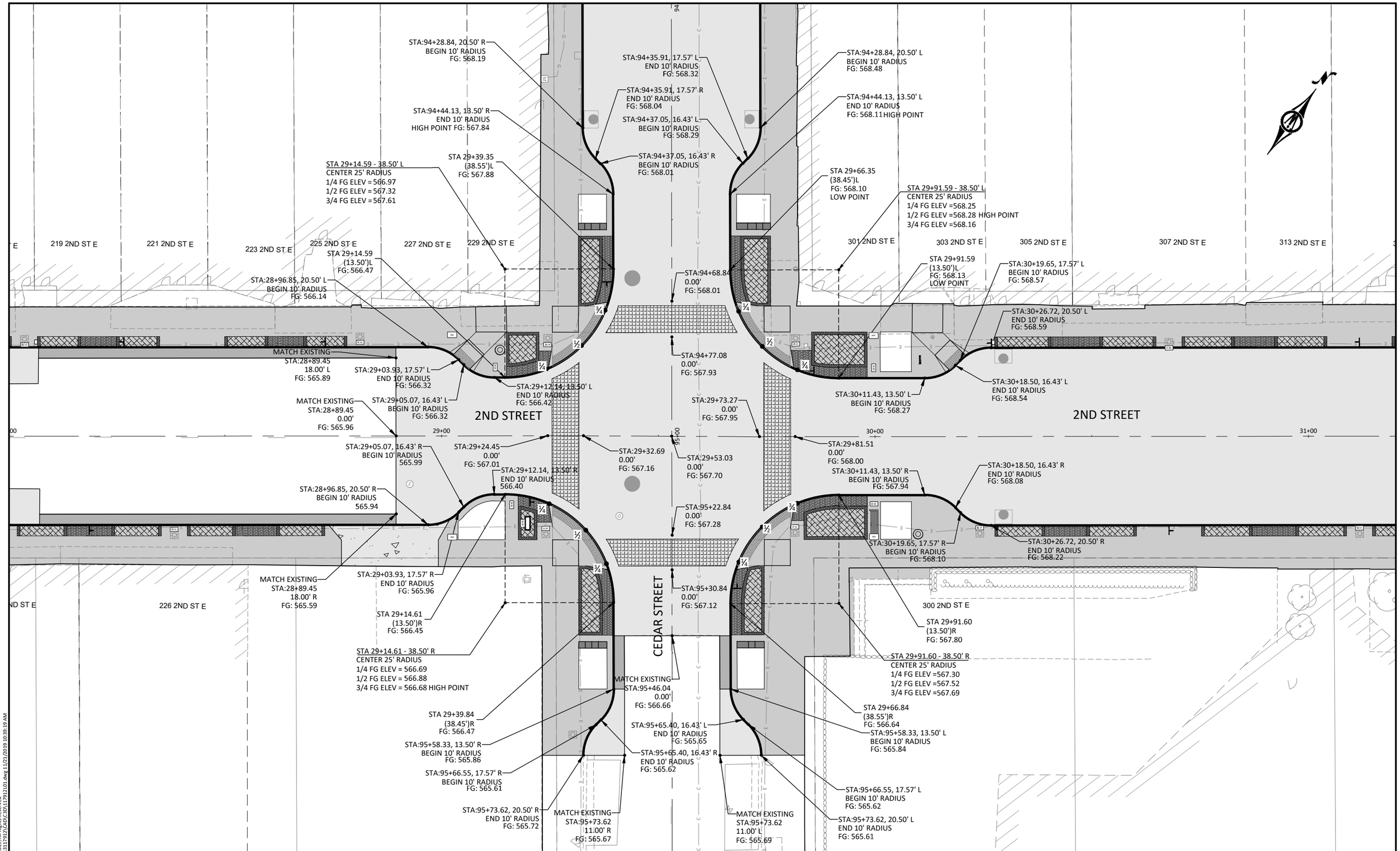

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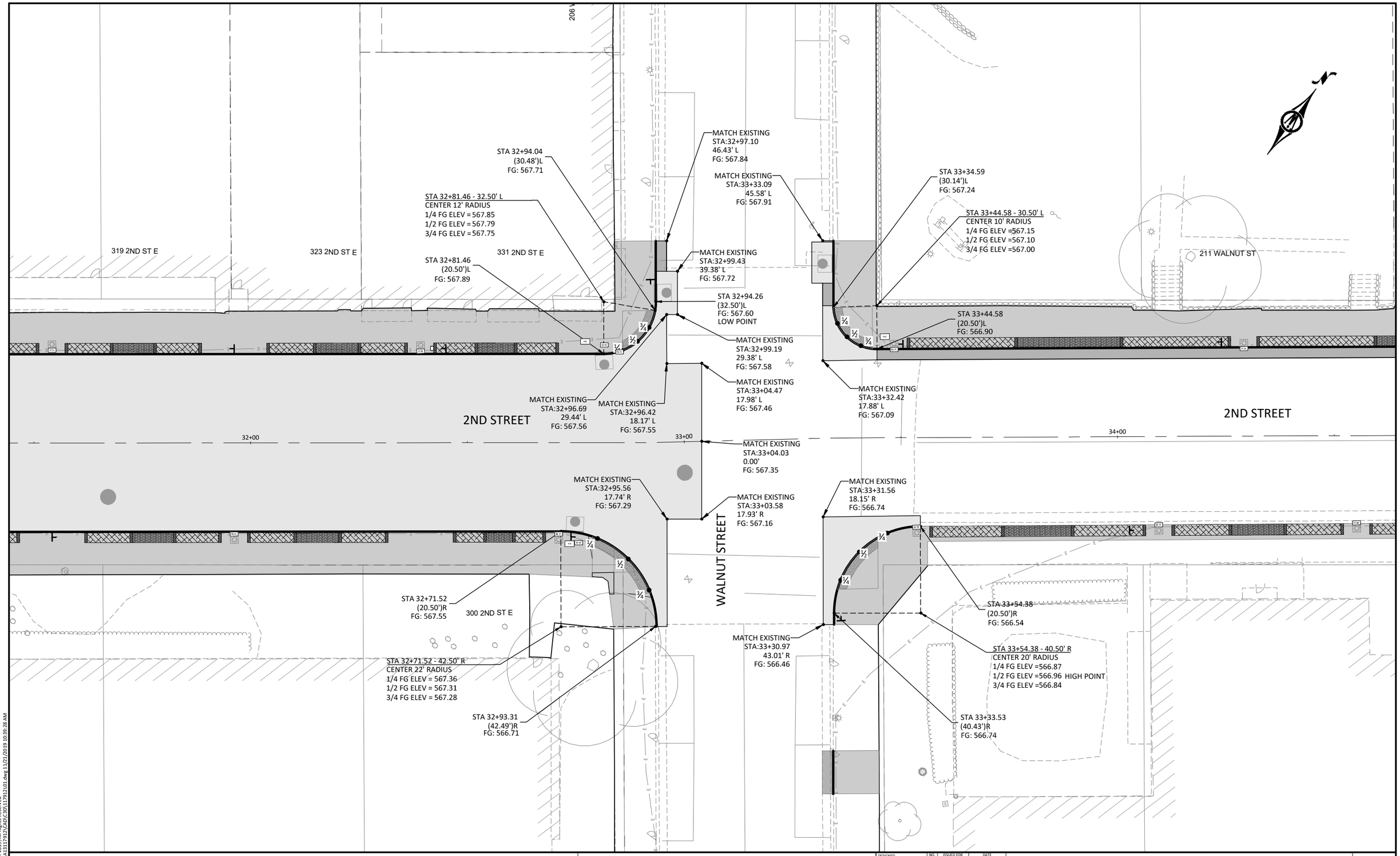
INTERSECTION DETAIL

SHEET
L.05



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L.06

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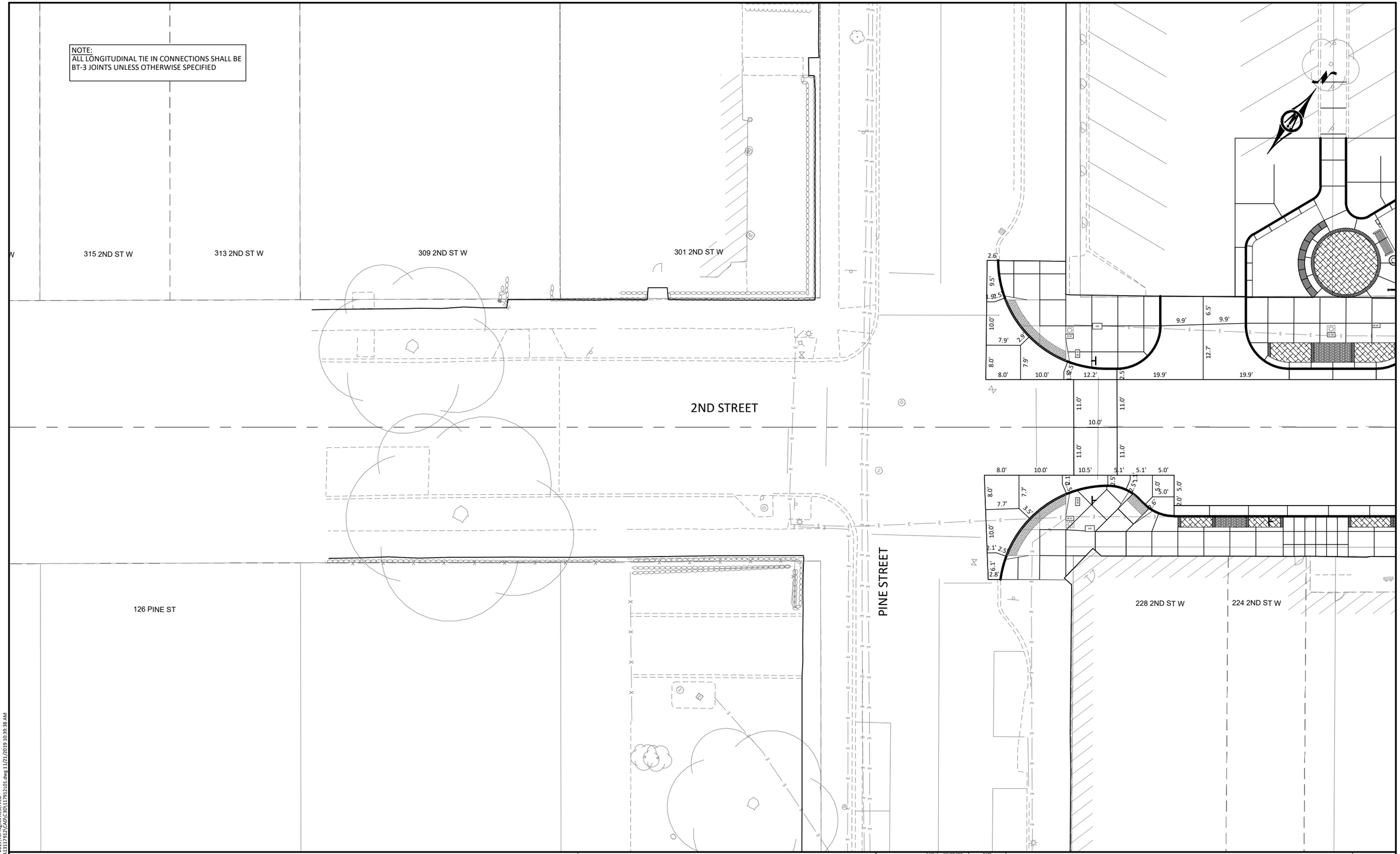

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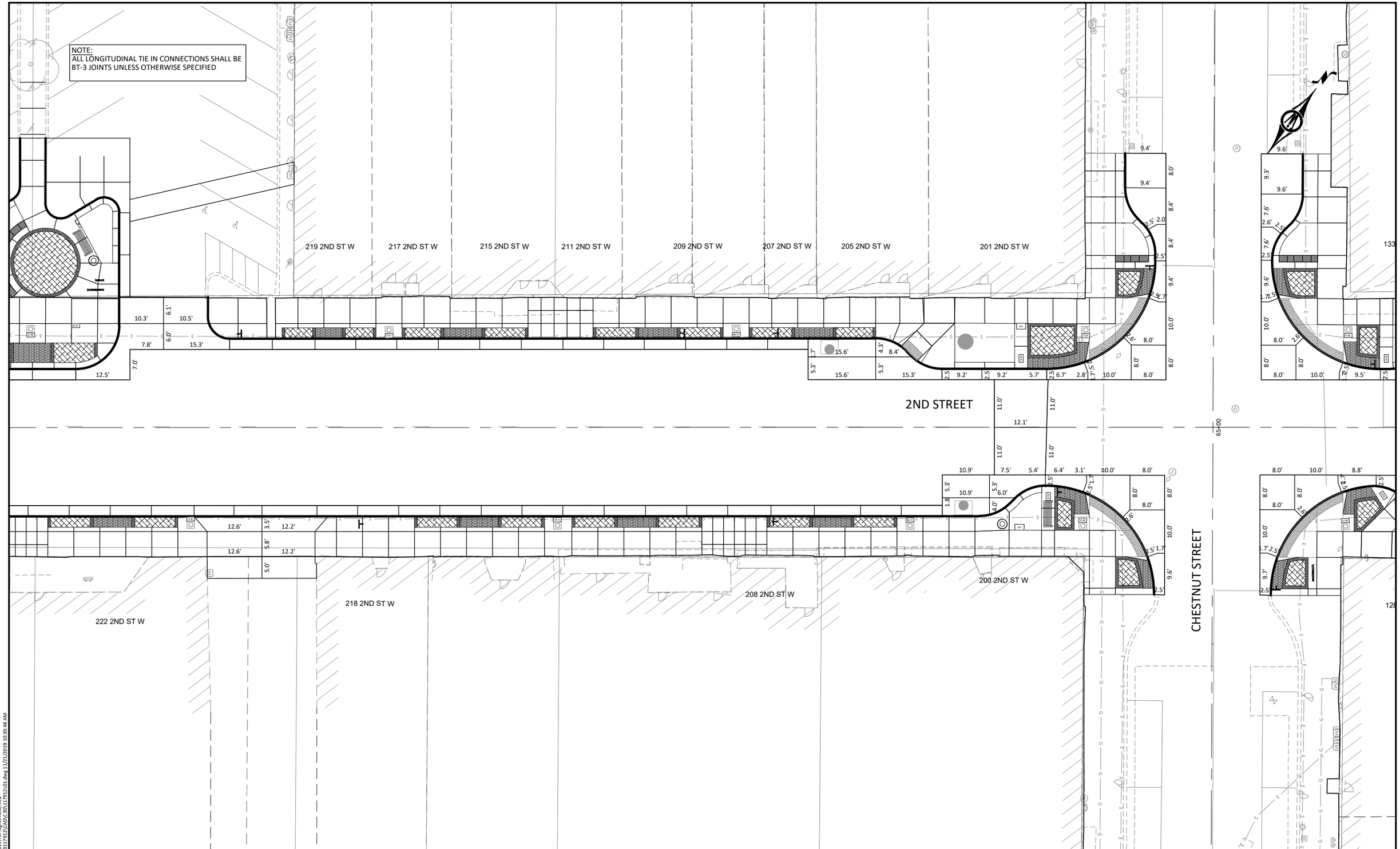

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SHEET
L.08

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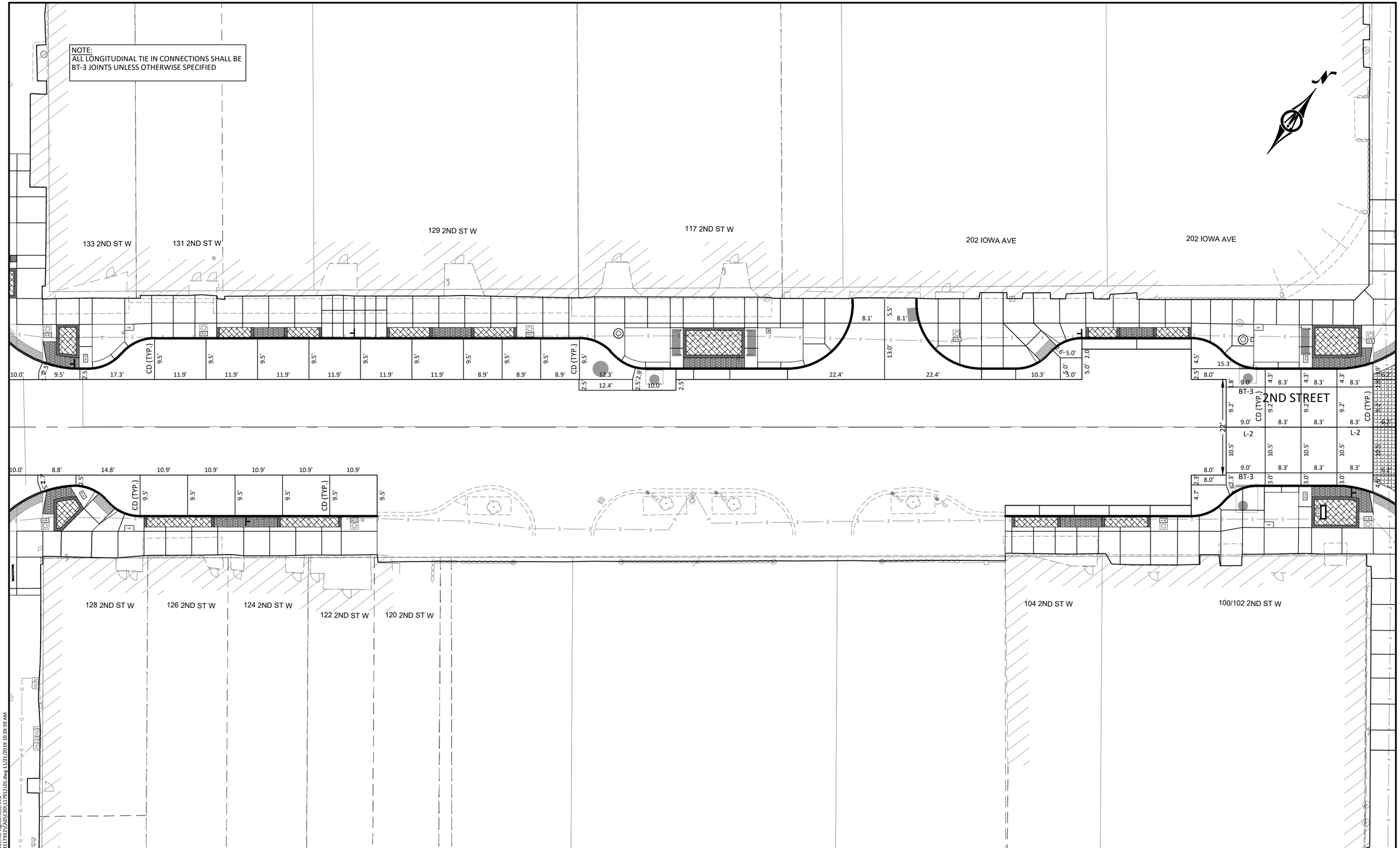

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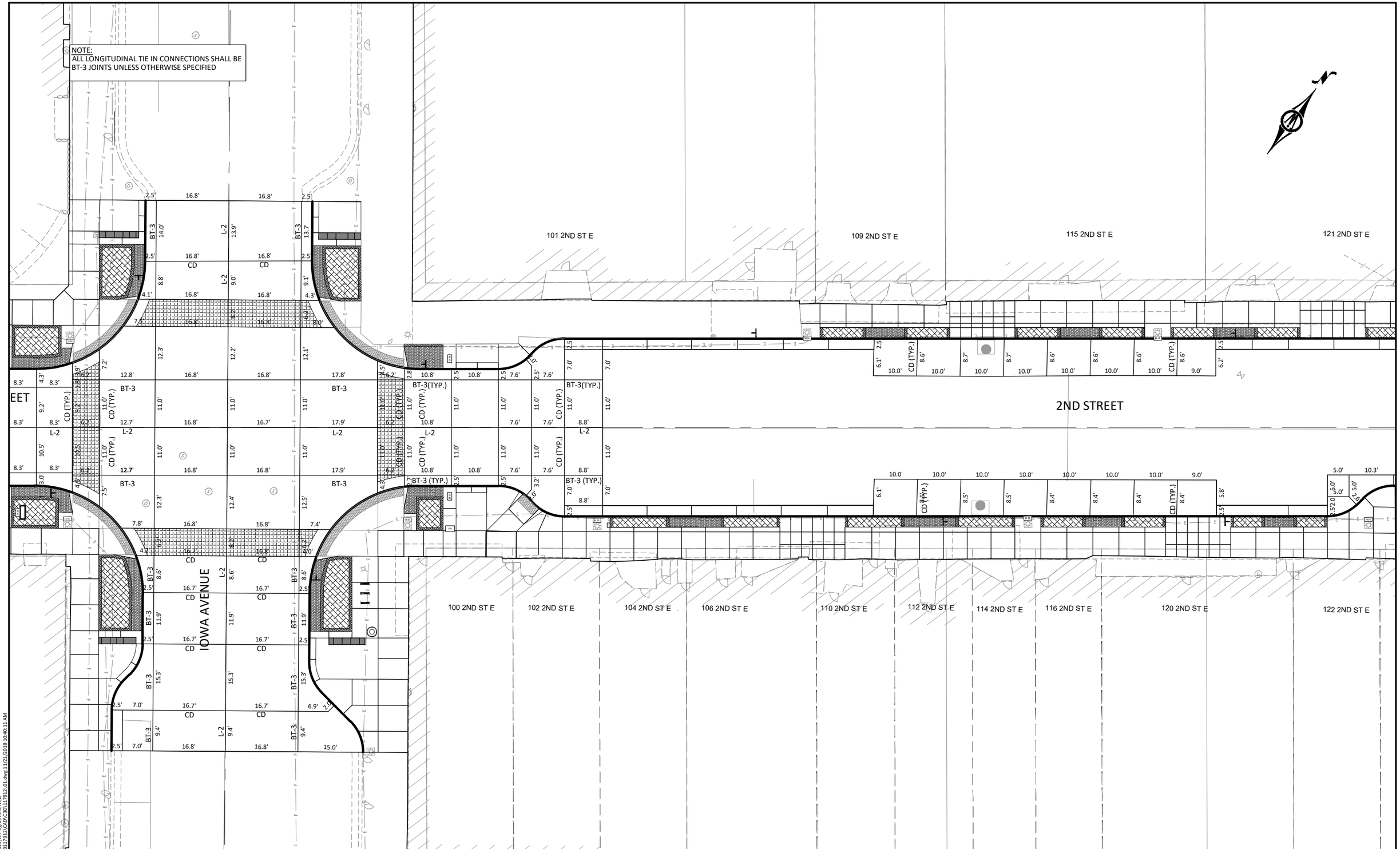

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L.10

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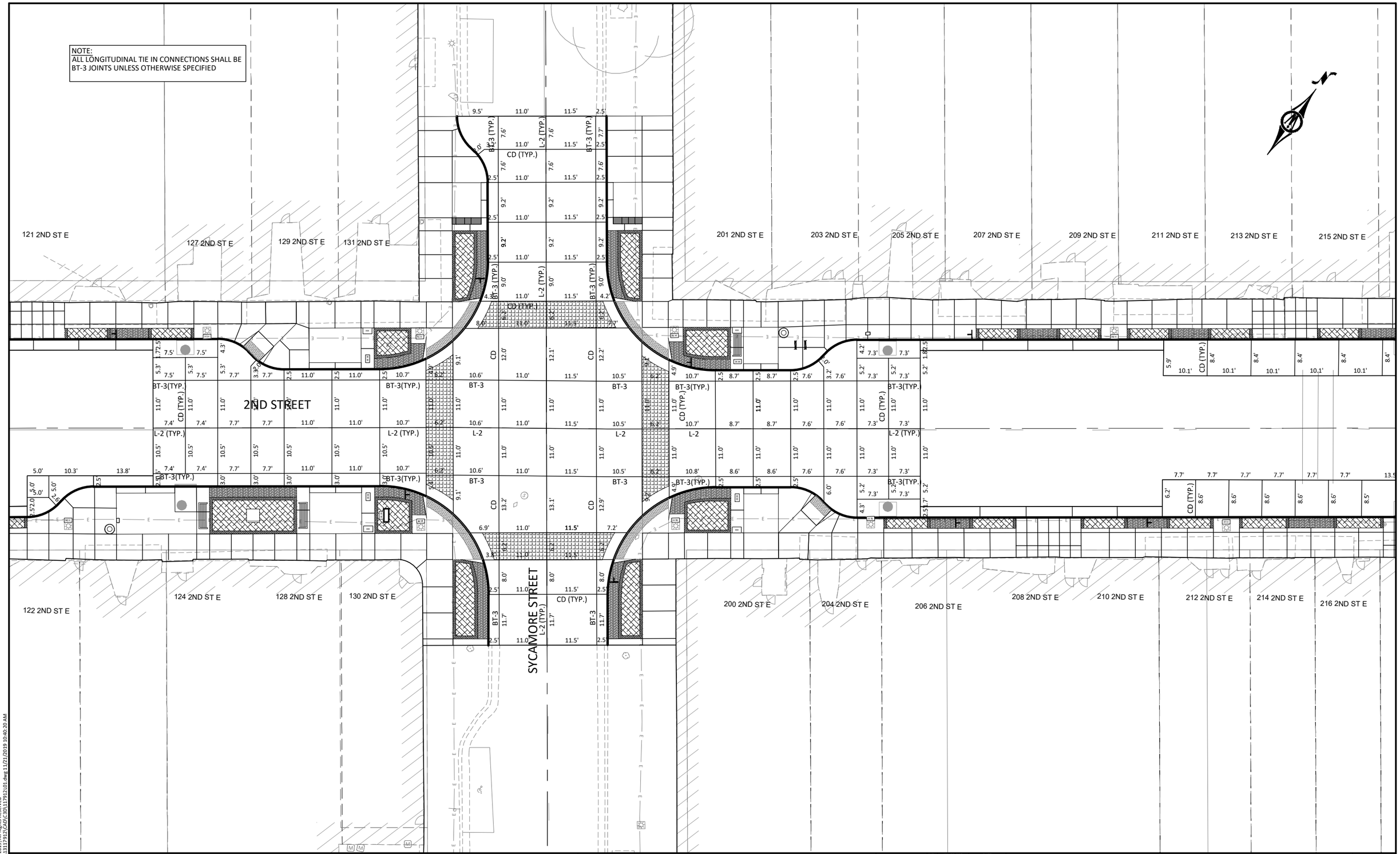

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SHEET
L.11

NOTE:
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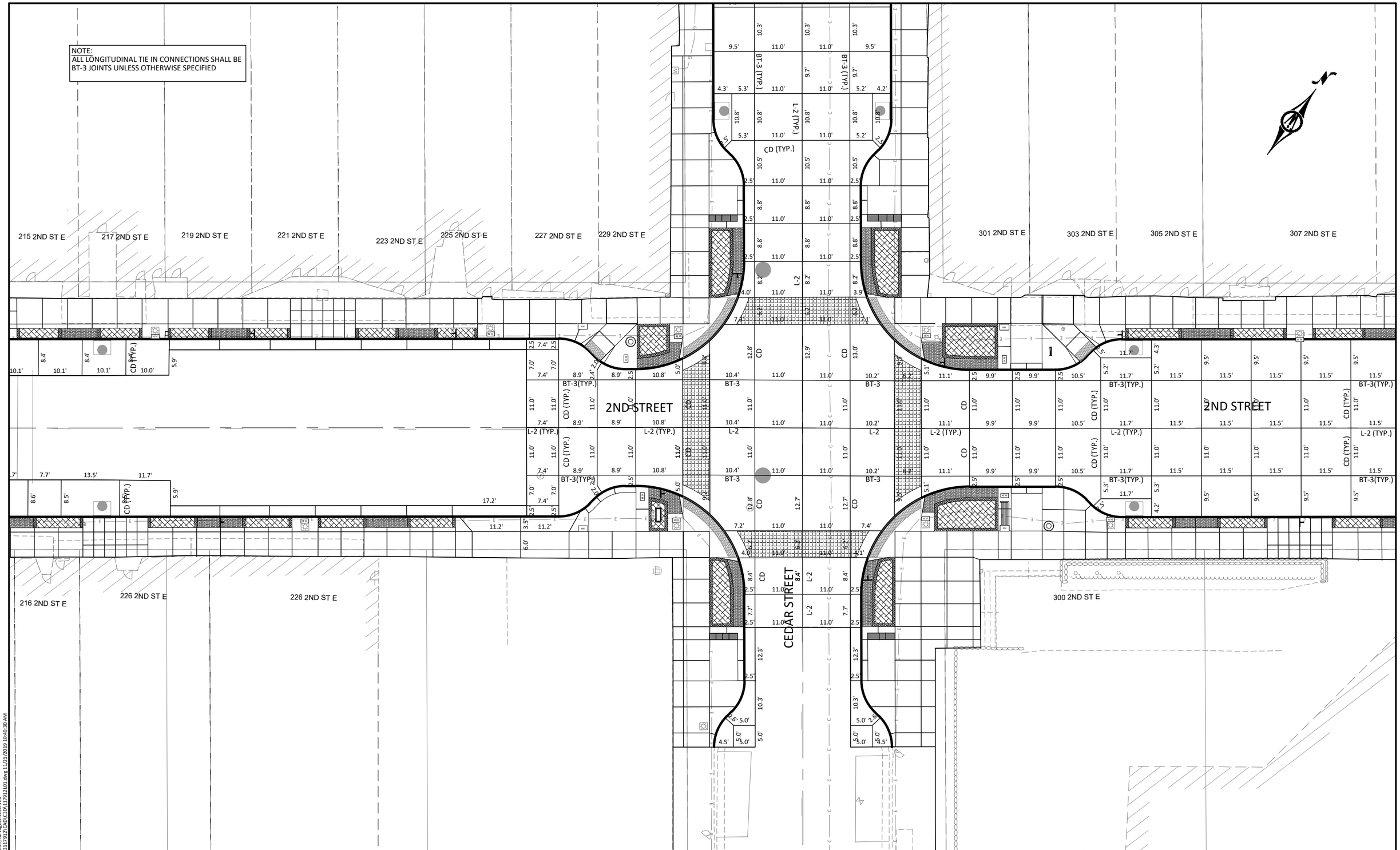

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SHEET
L.12

NOTE:
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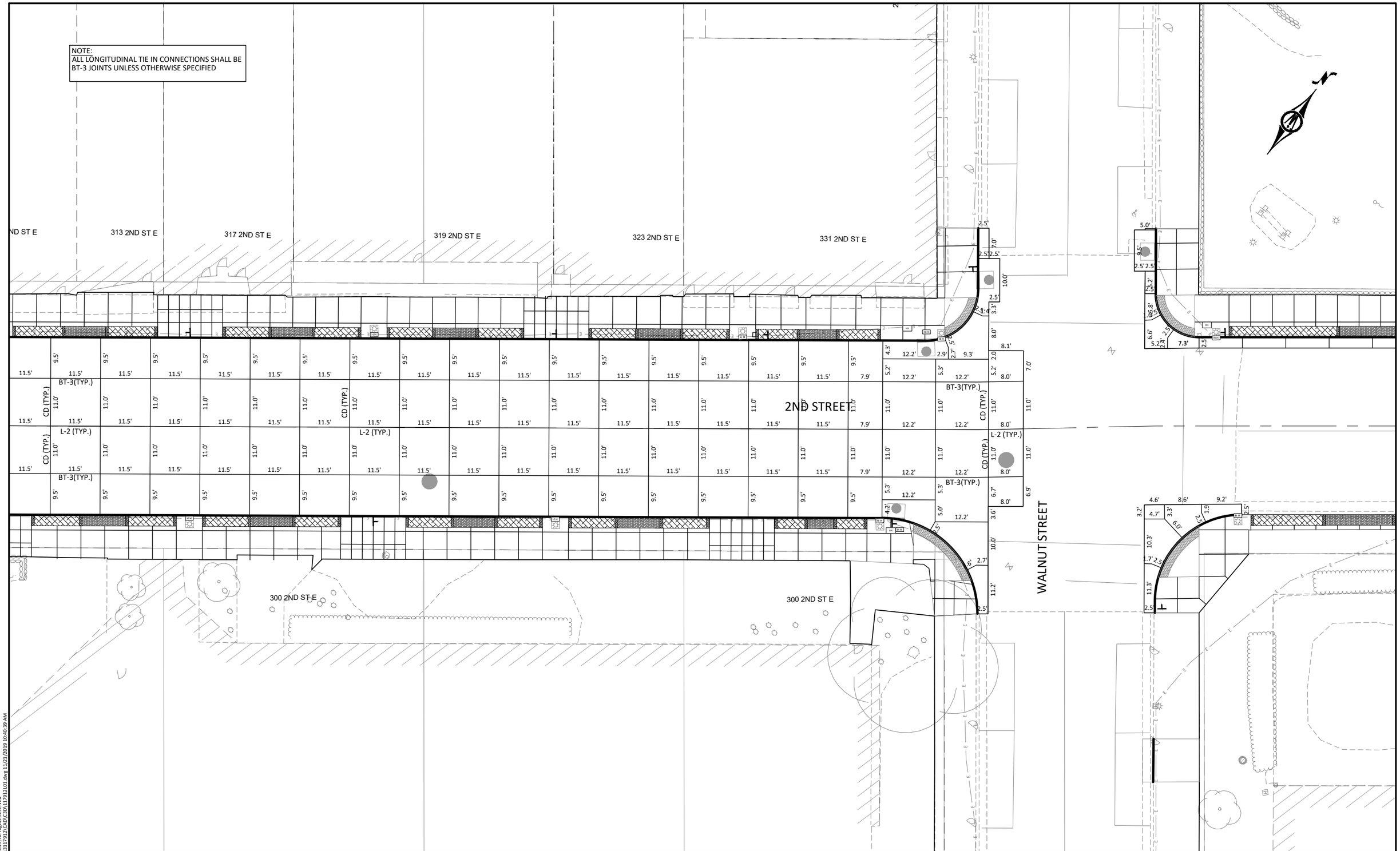

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SHEET
L.13

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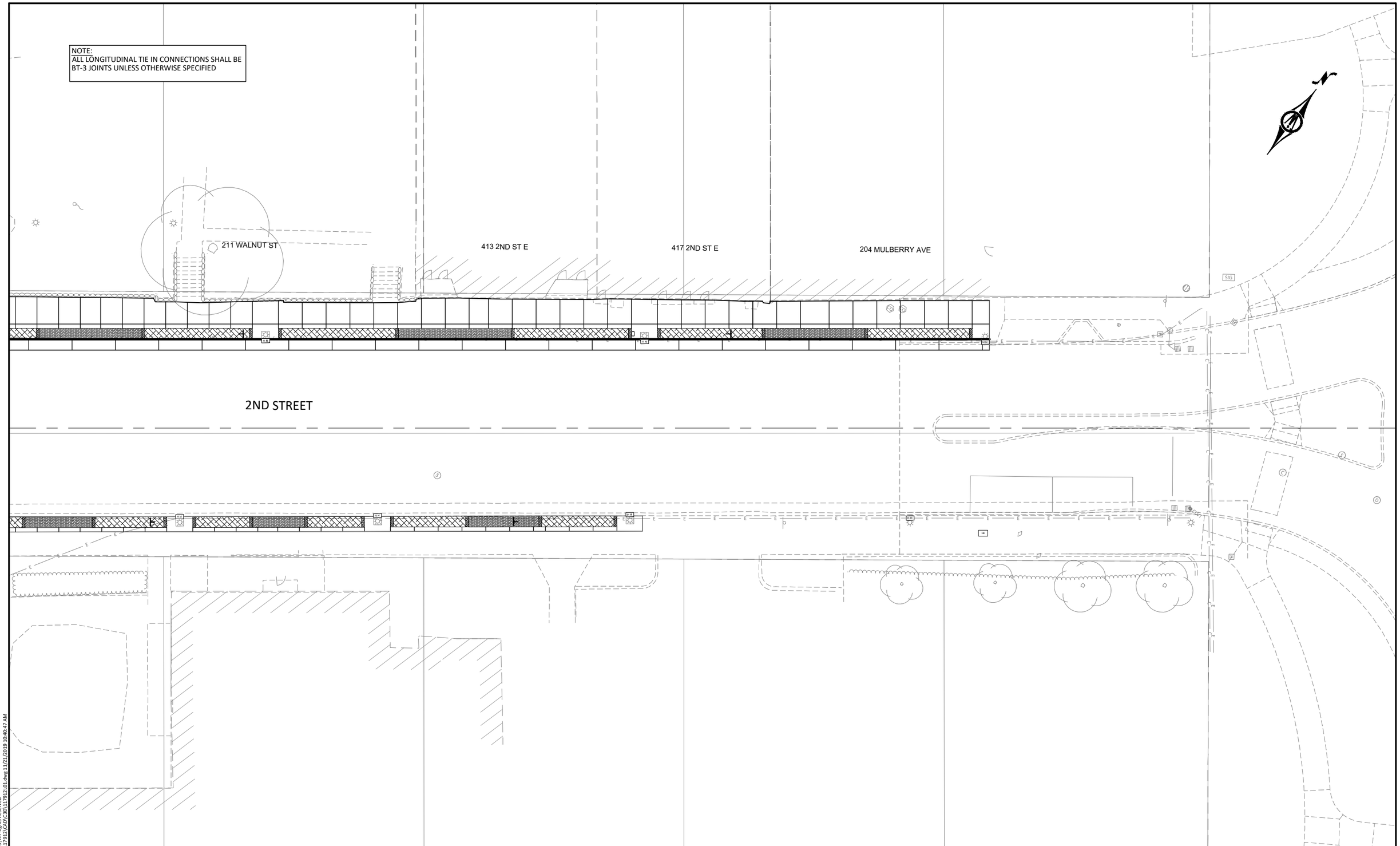

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SHEET
L.14

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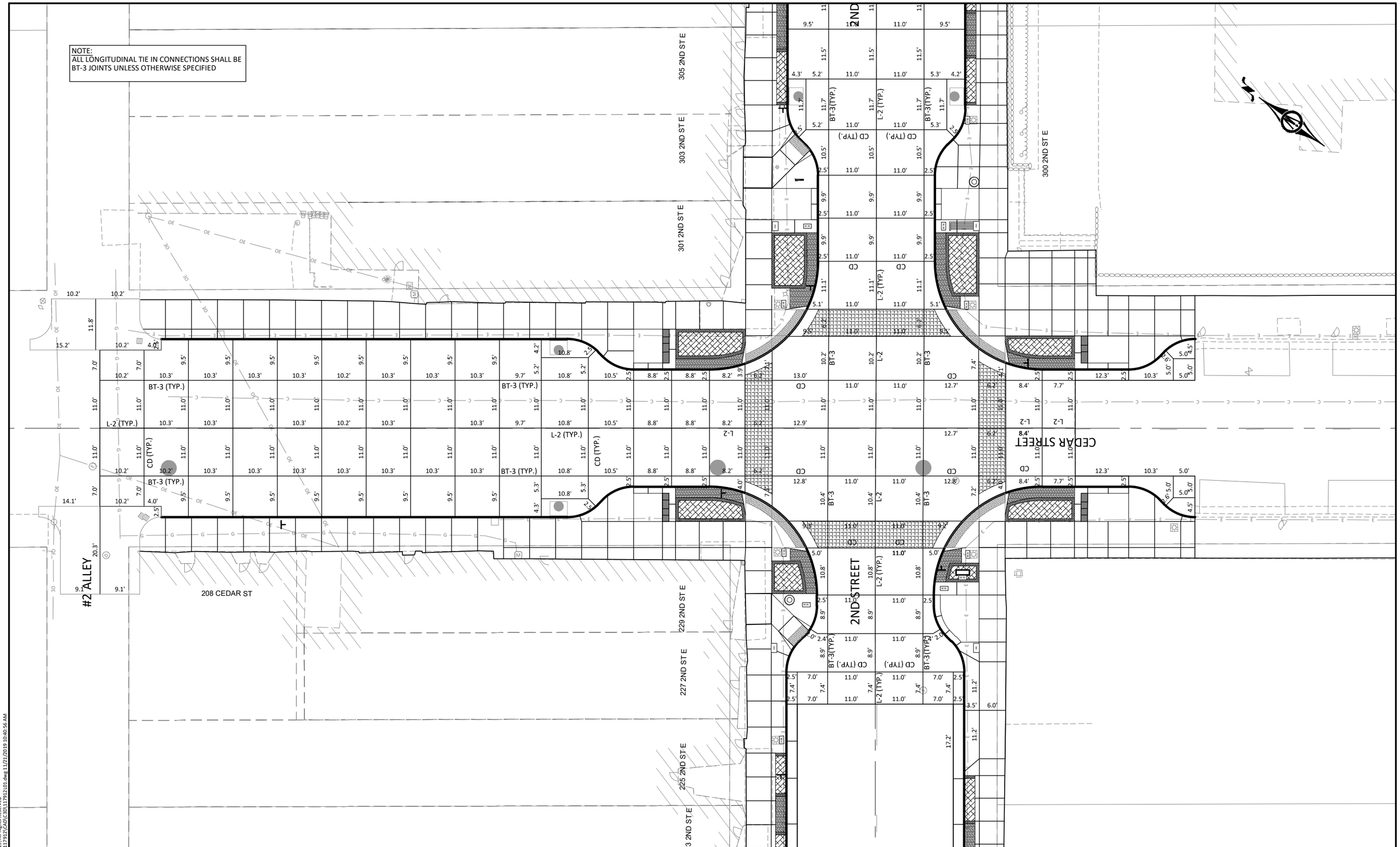

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L.15

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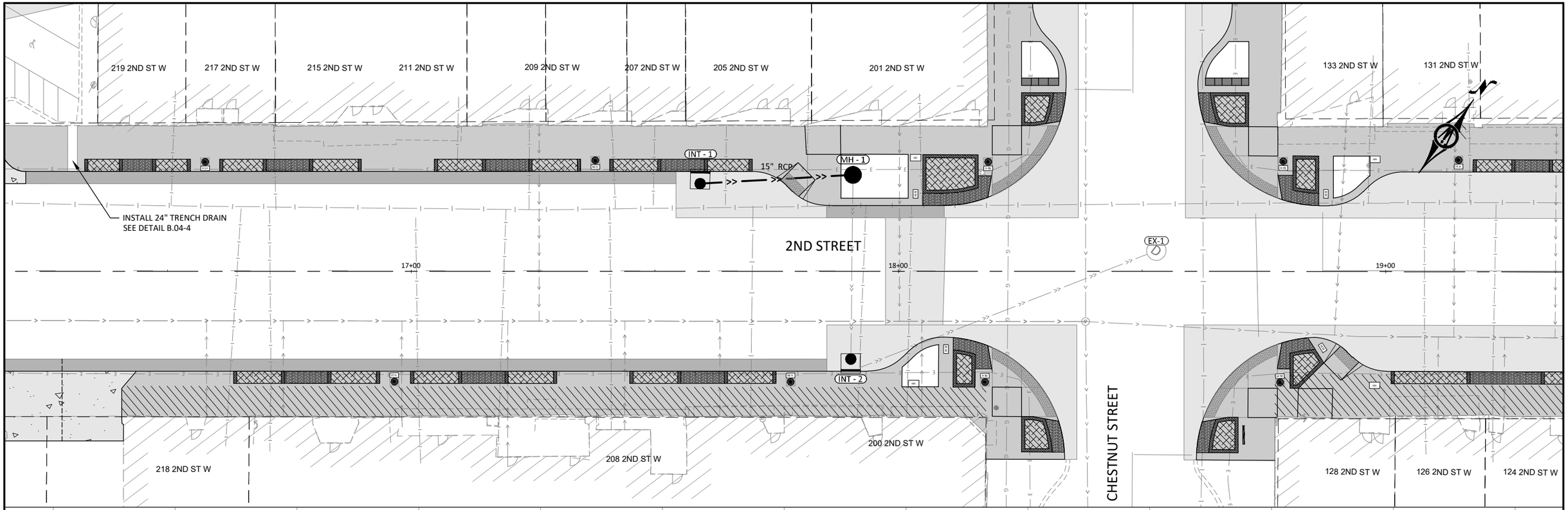

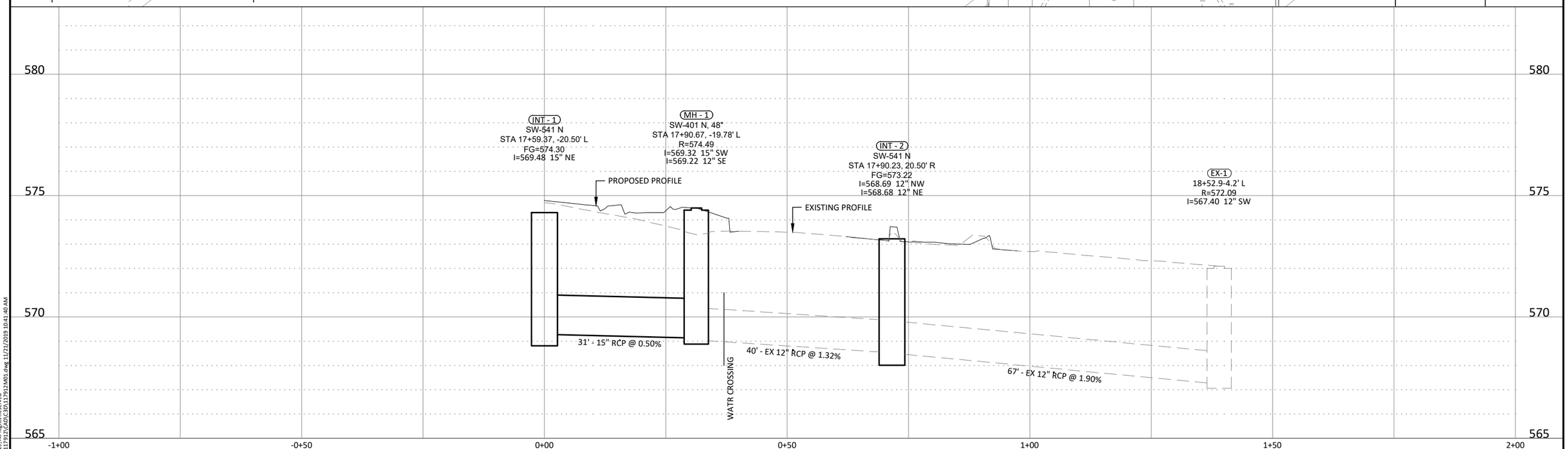

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STORM SEWER

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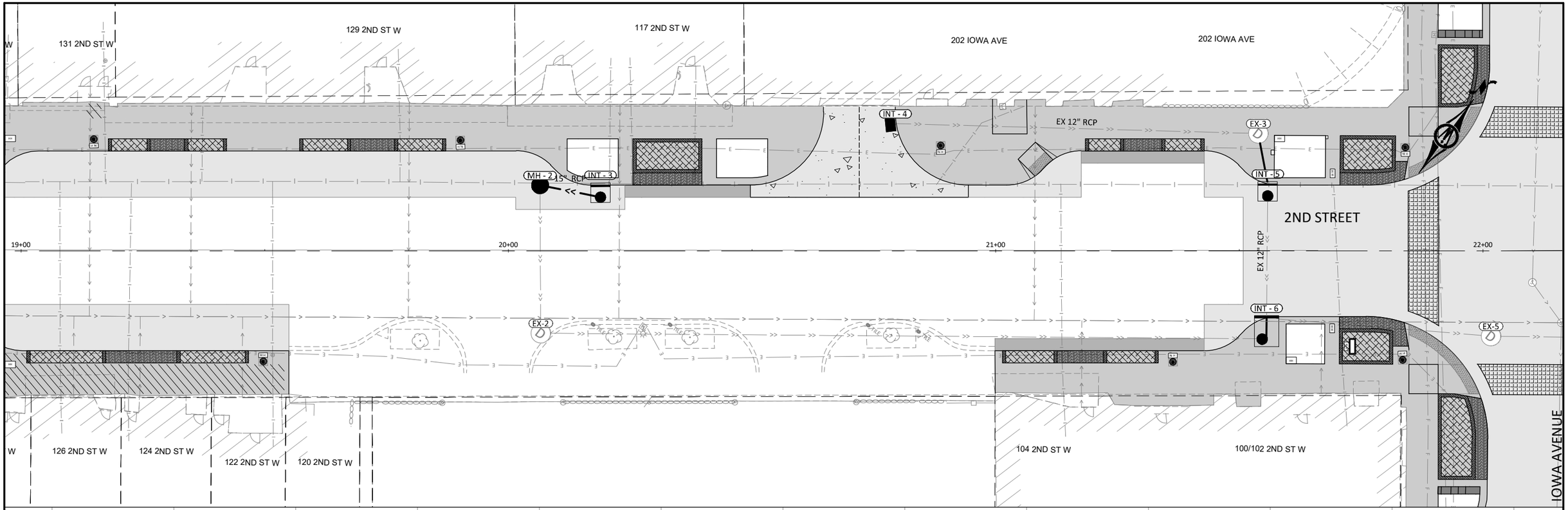

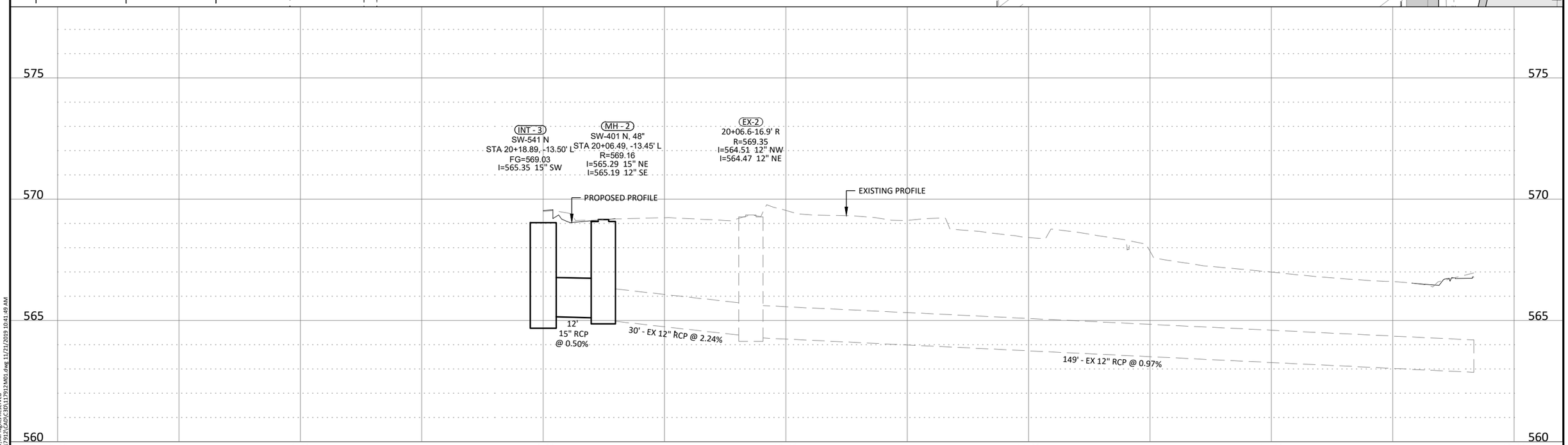

HORZ. 0 10 20 SCALE FEET

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STORM SEWER

SHEET M.02

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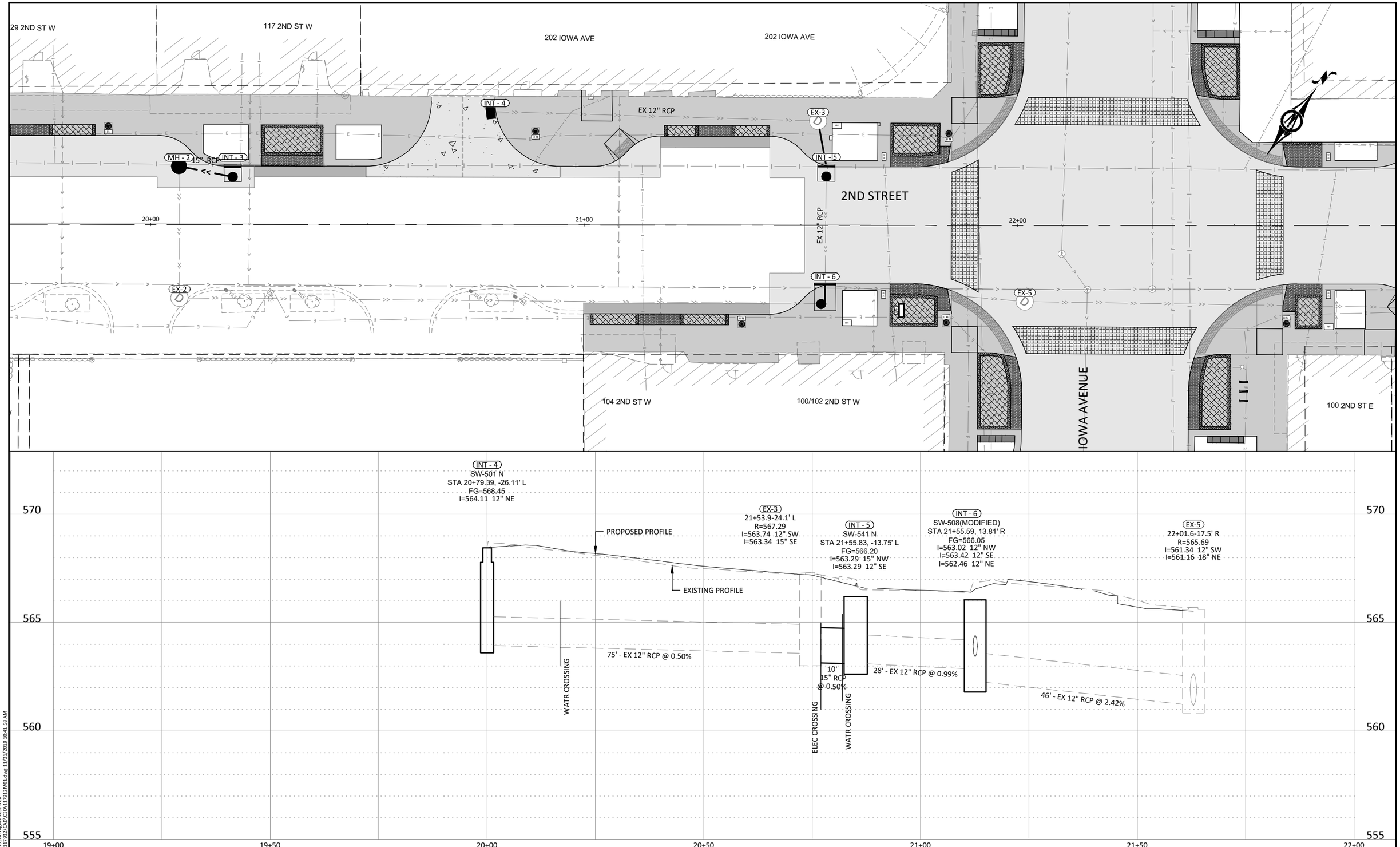

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STORM SEWER

SHEET M.03

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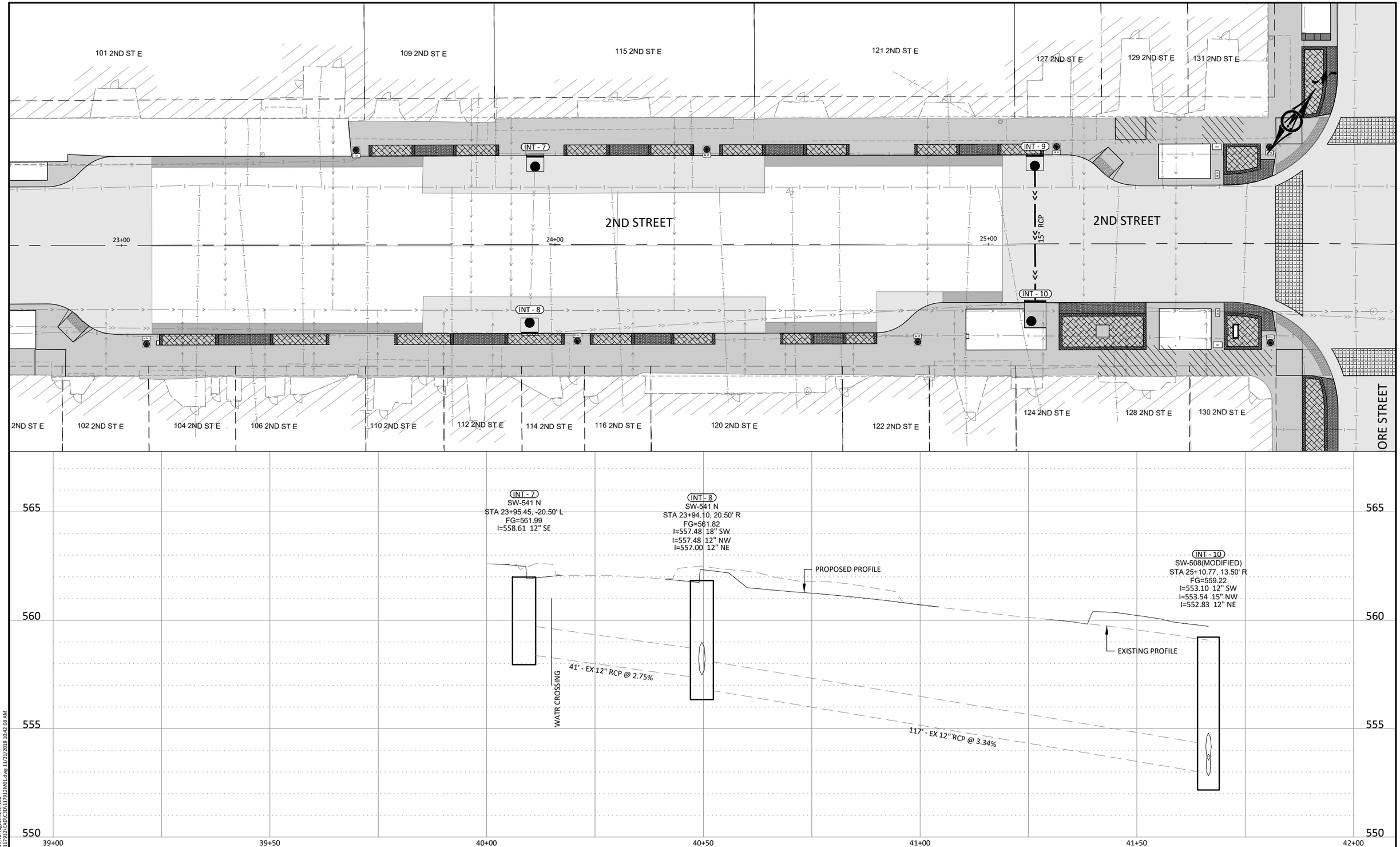

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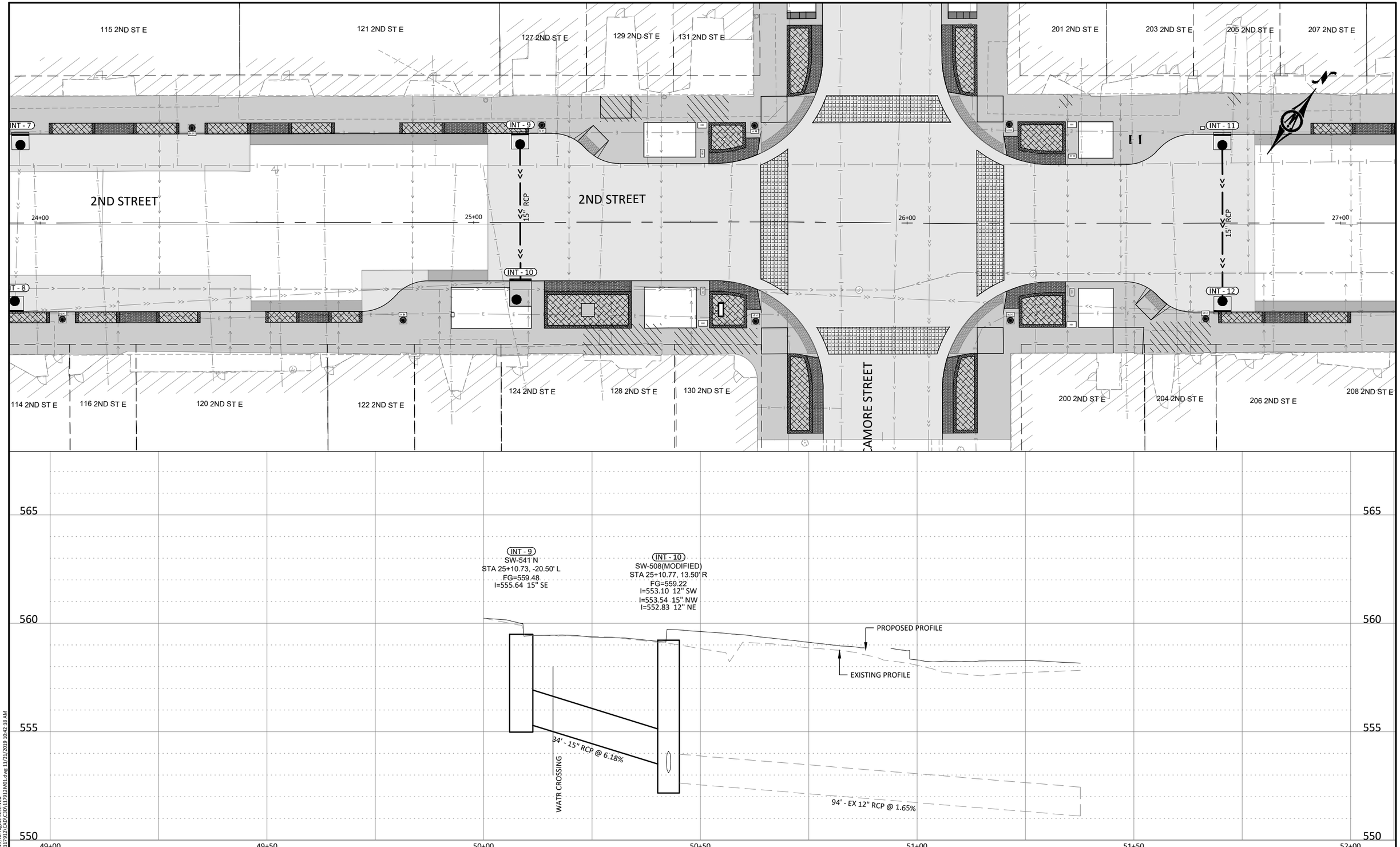

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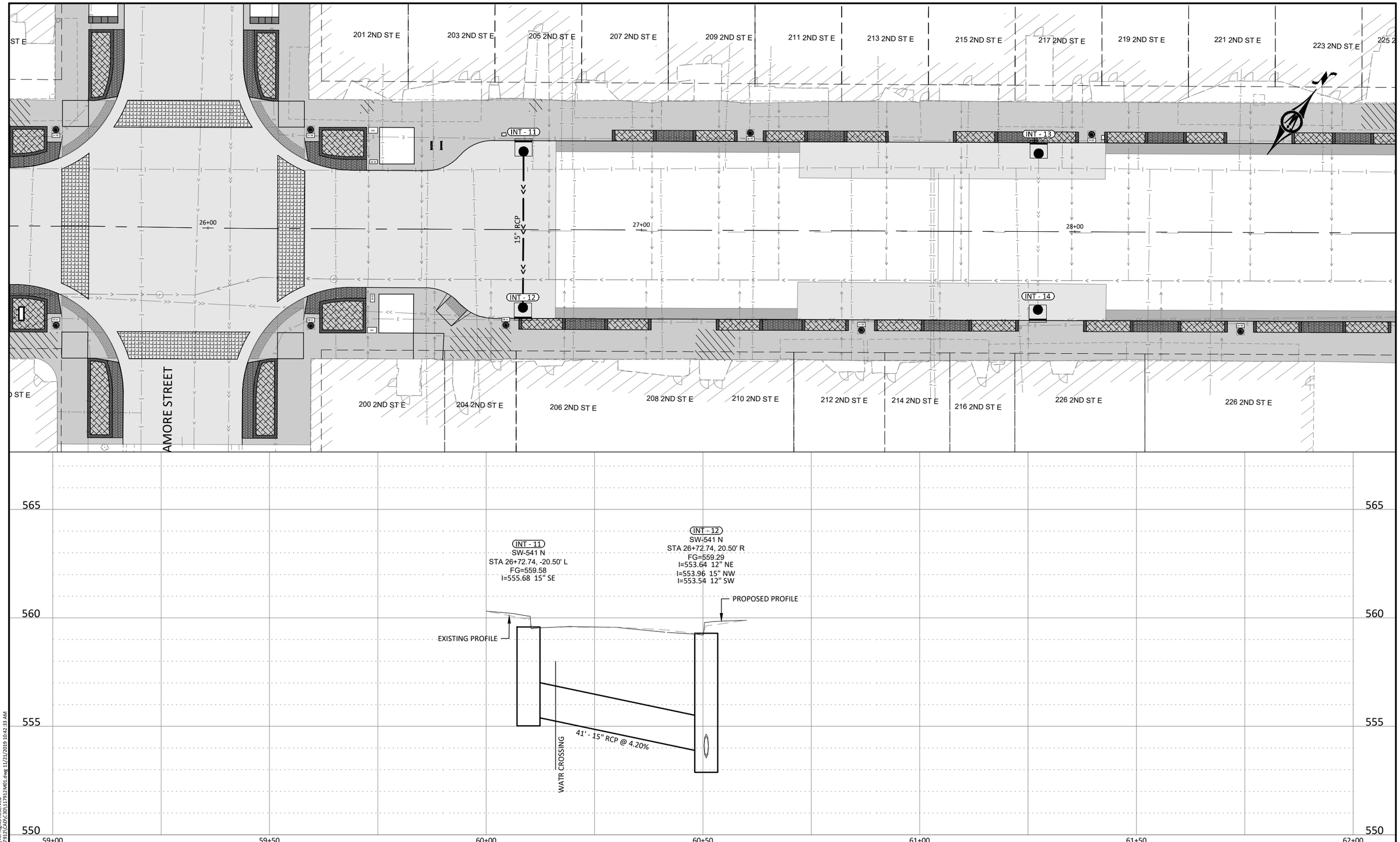

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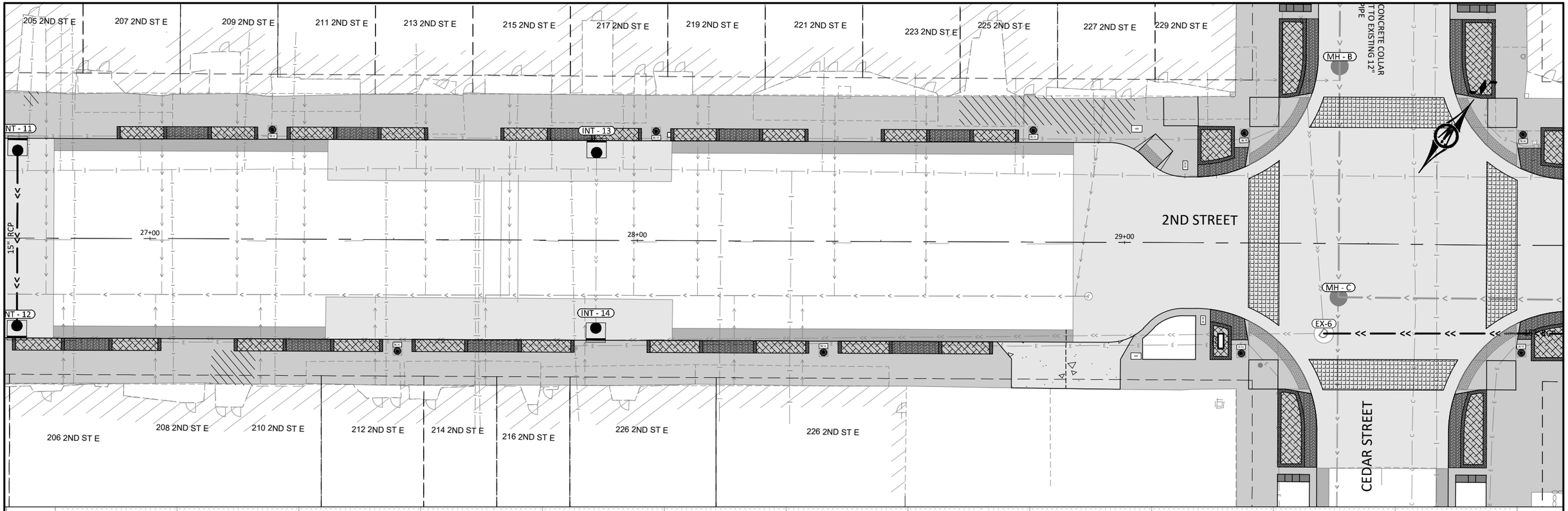

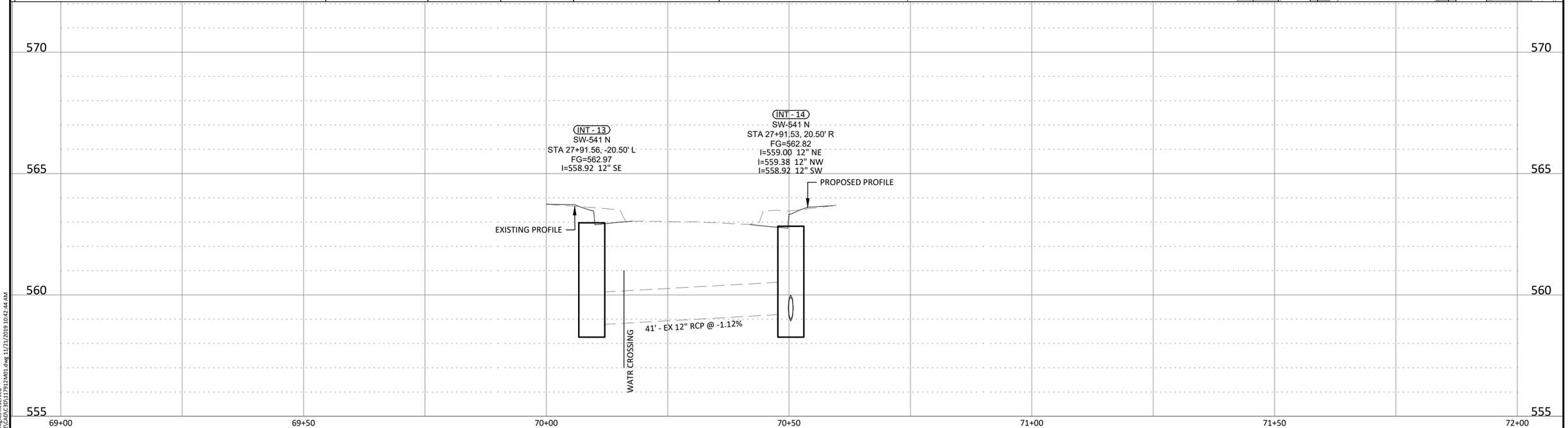

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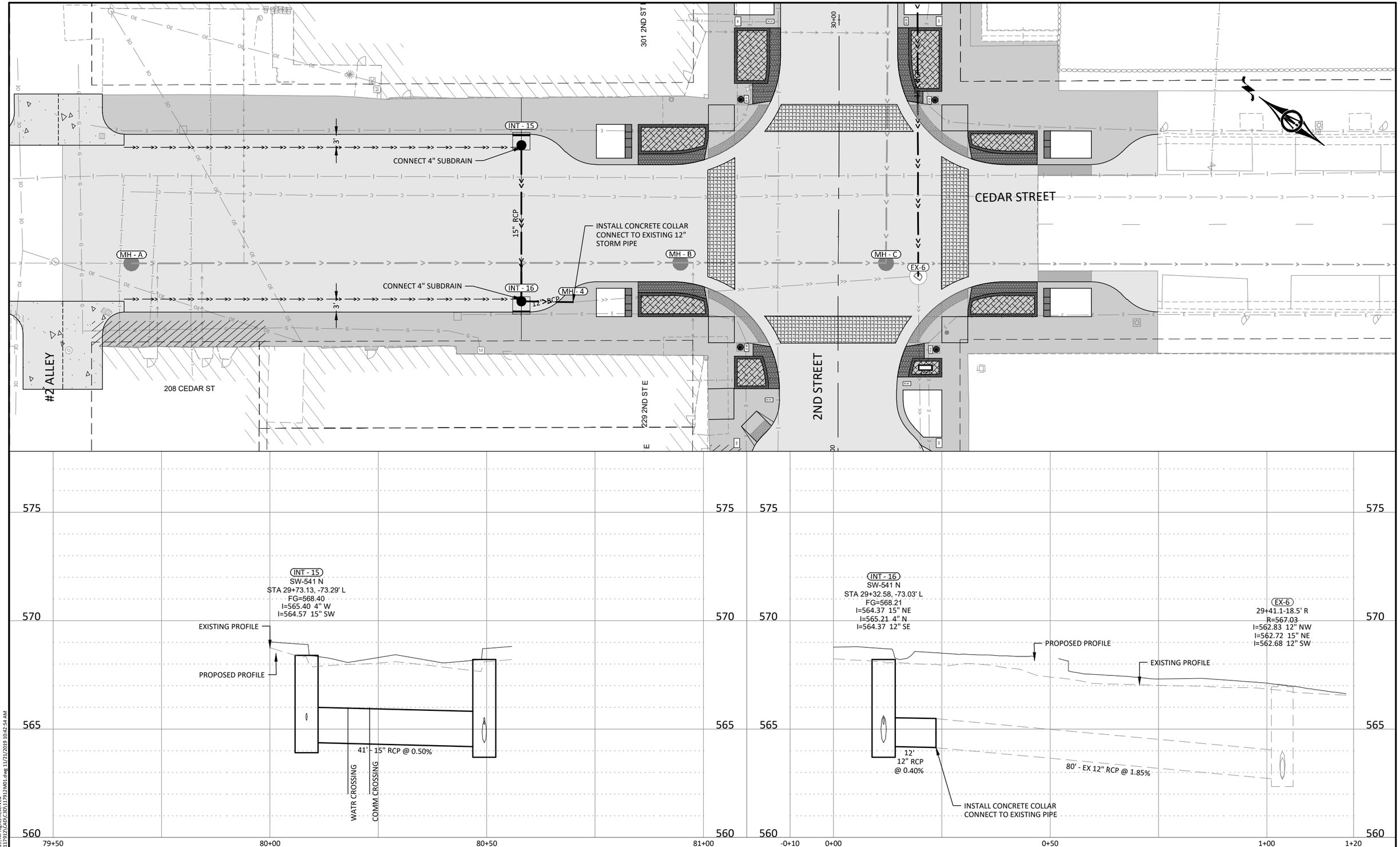

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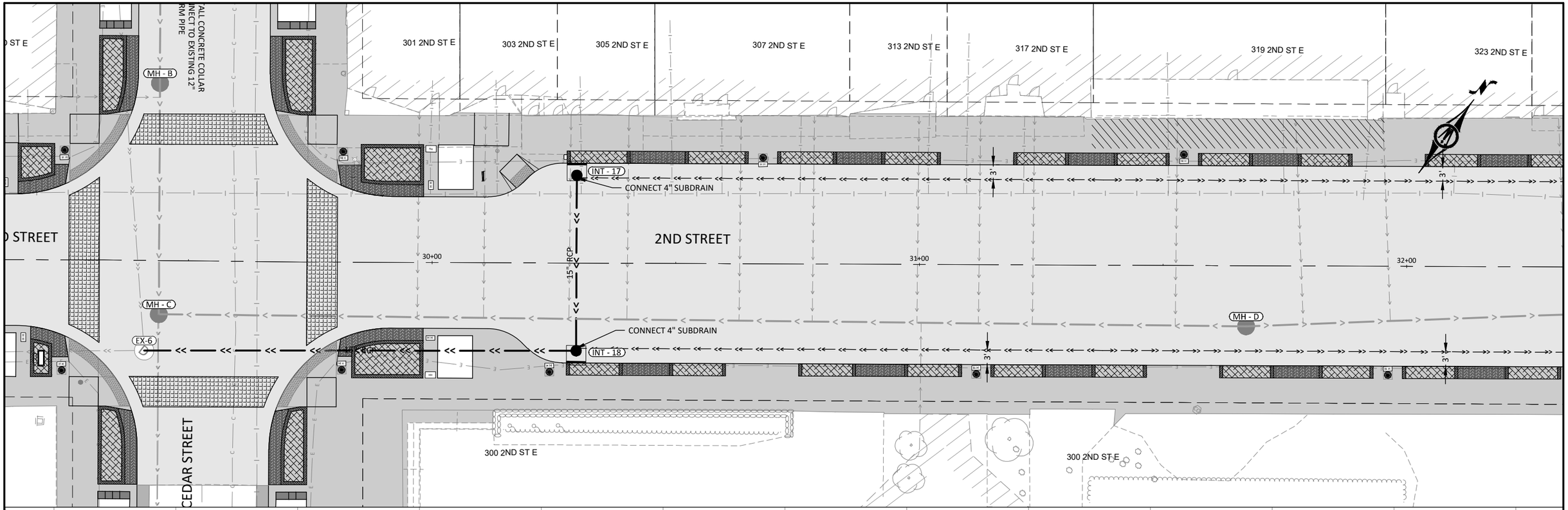

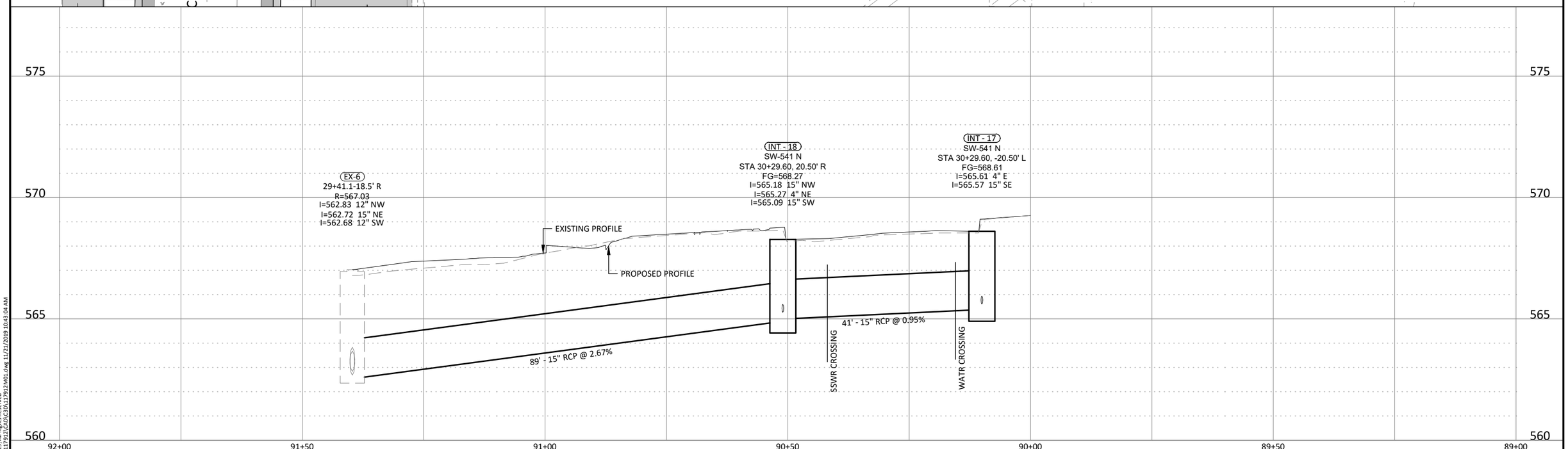

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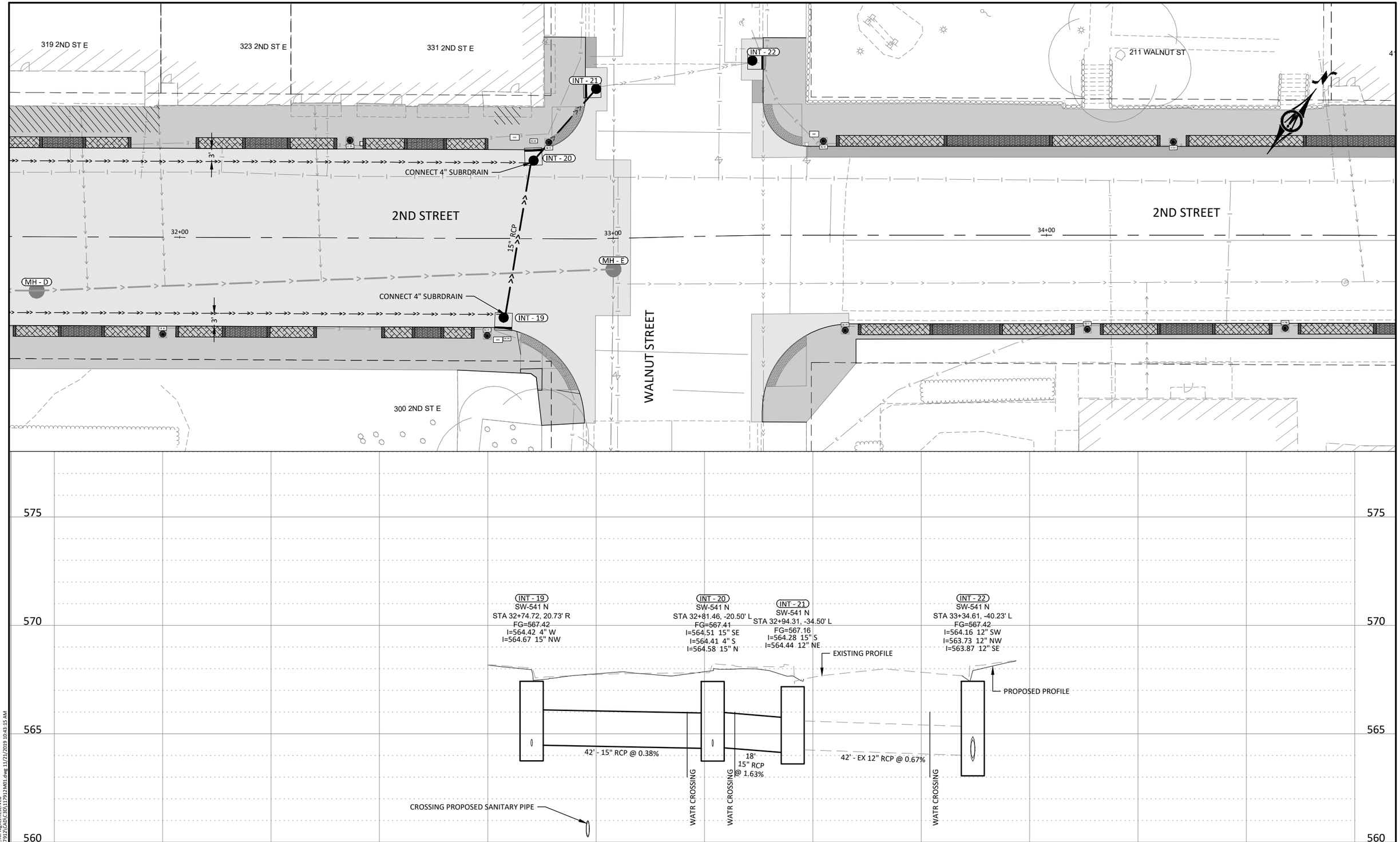

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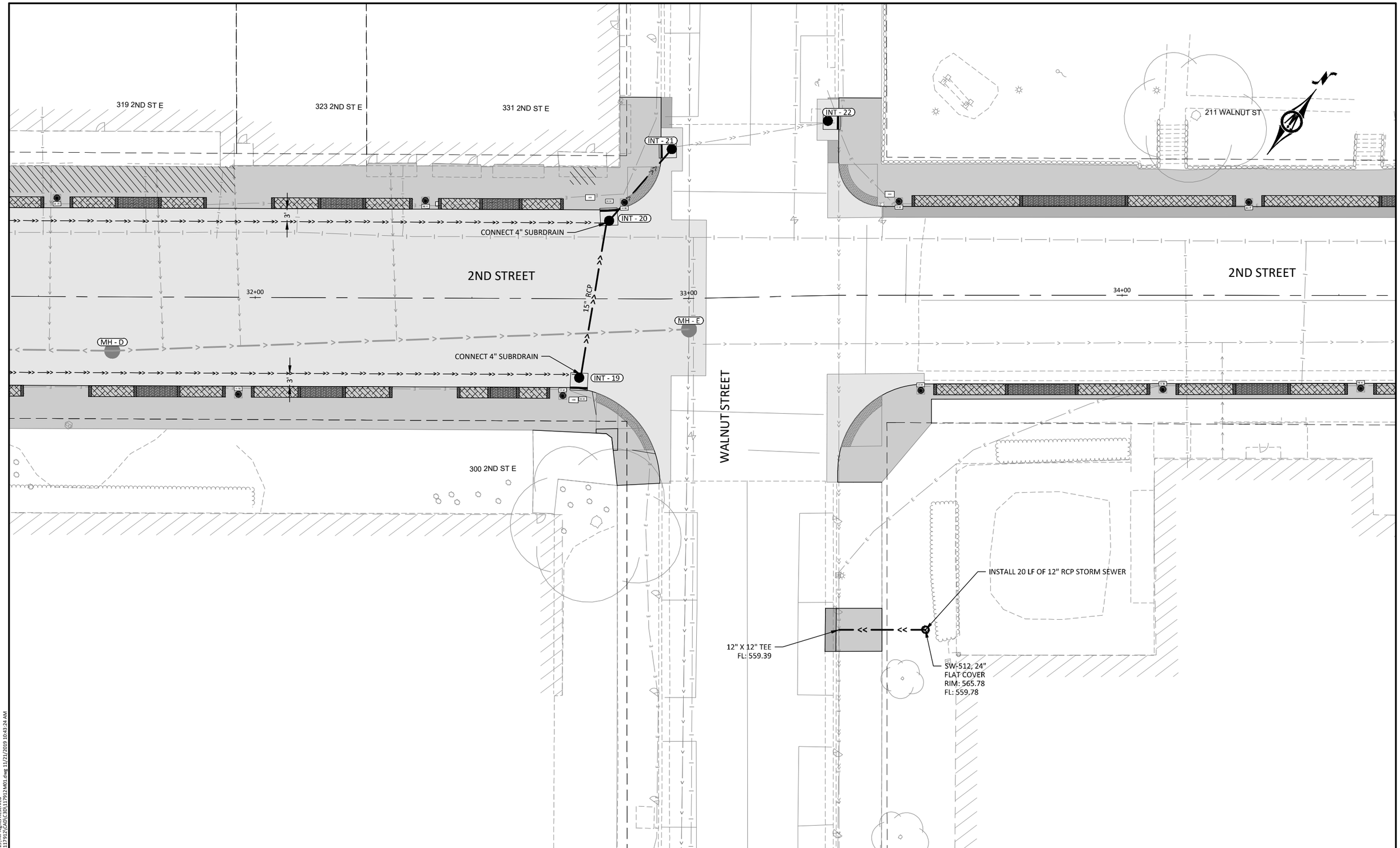

HORZ. 0 10 20 SCALE FEET

VERT. 0 5 10 SCALE FEET

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CHECKED	GAB
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MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

STORM SEWER

SHEET M.11

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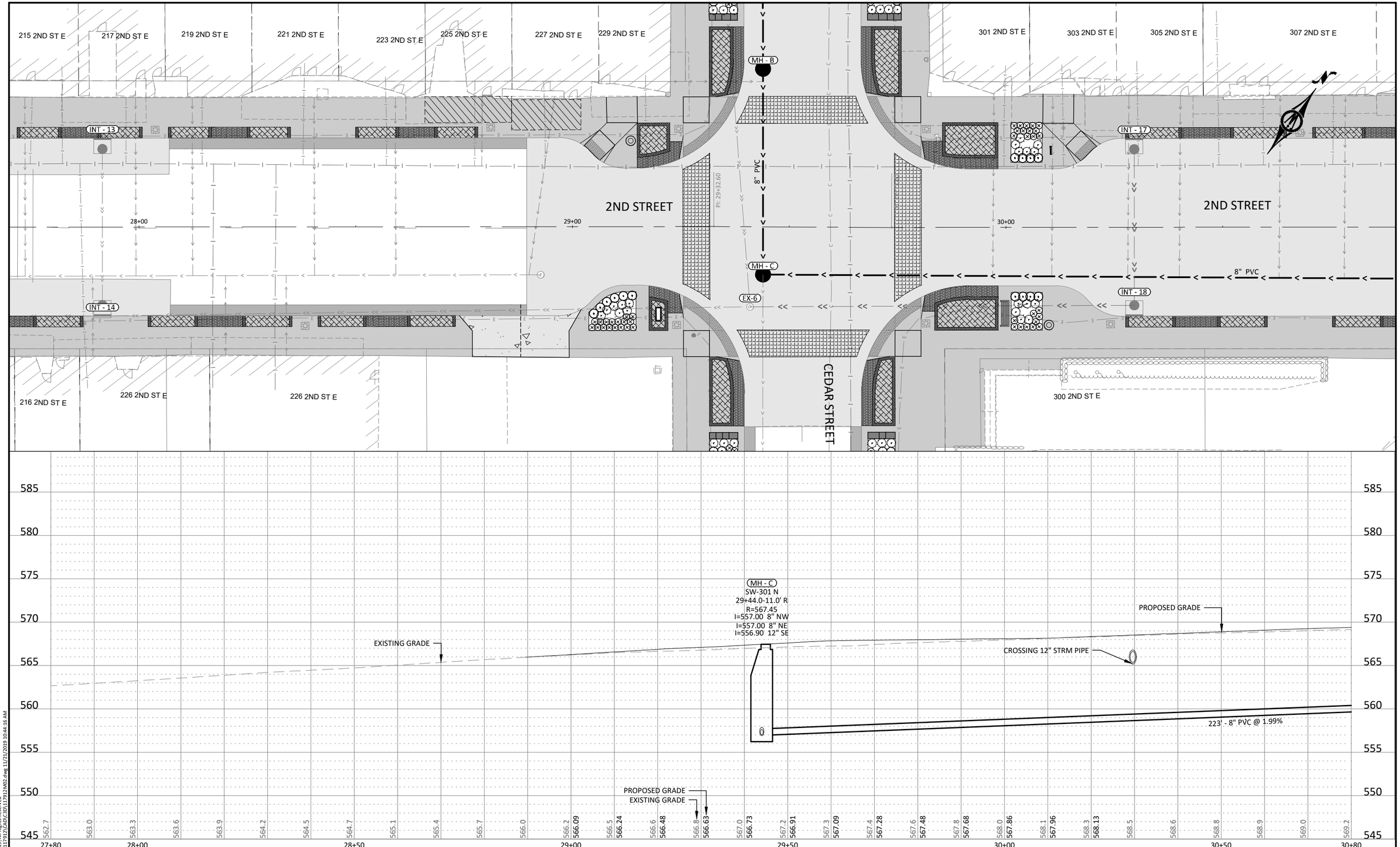

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2ND STREET RECONSTRUCTION

SANITARY PLAN AND PROFILE

SHEET M.12

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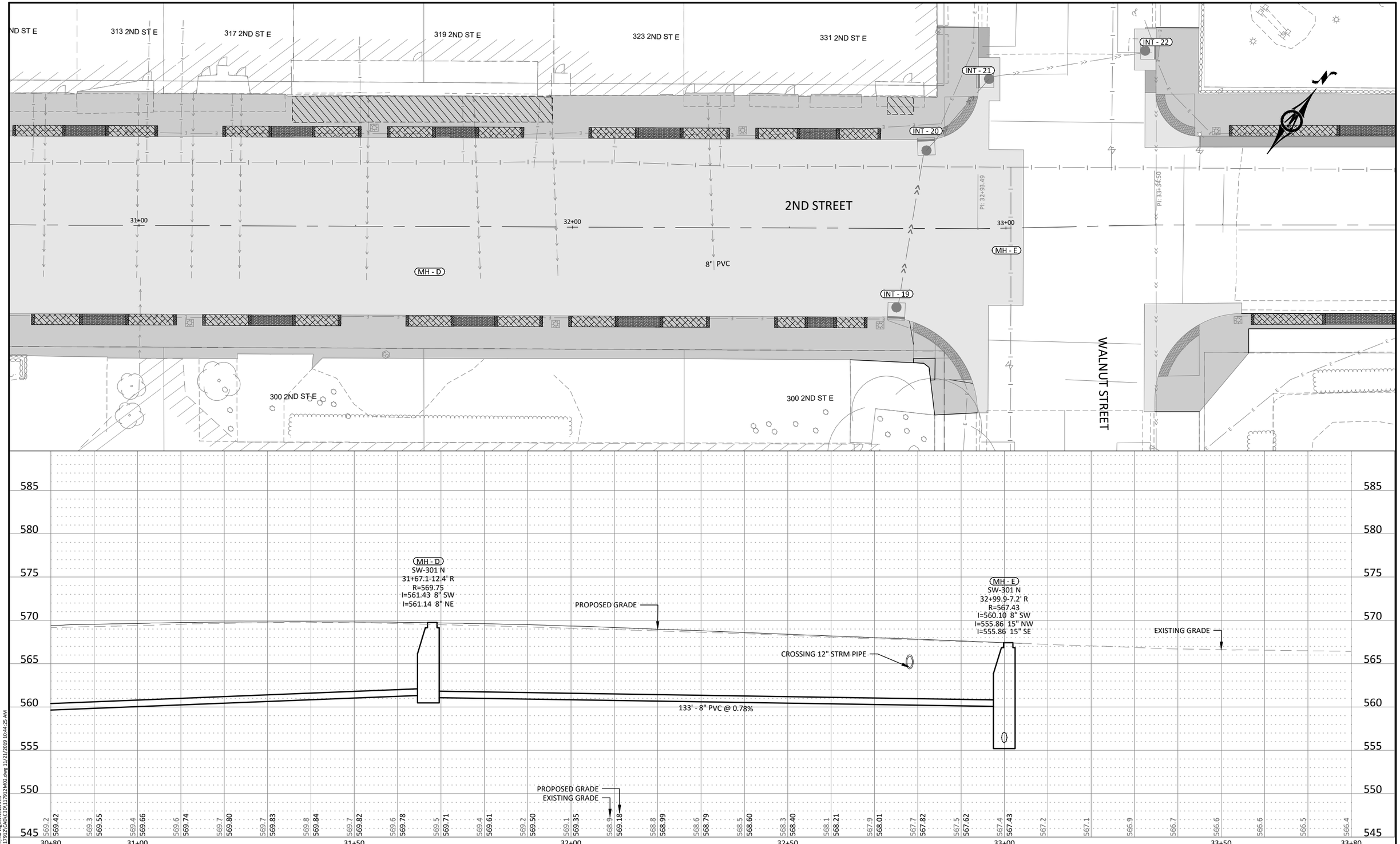

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VERT. 0 5 10 SCALE FEET

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2ND STREET RECONSTRUCTION

SANITARY PLAN AND PROFILE

SHEET M.13

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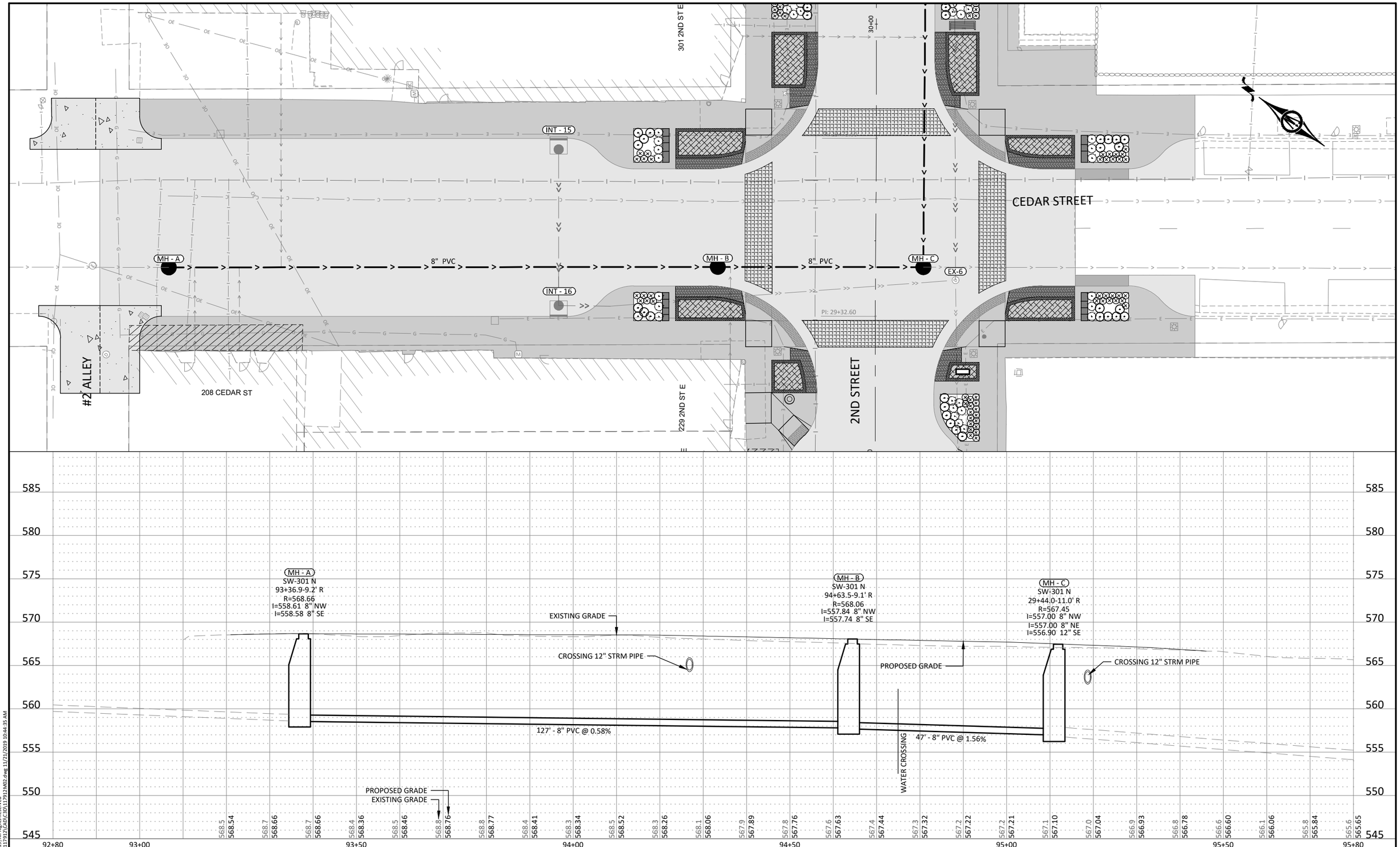

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2ND STREET RECONSTRUCTION

SANITARY PLAN AND PROFILE

SHEET M.14

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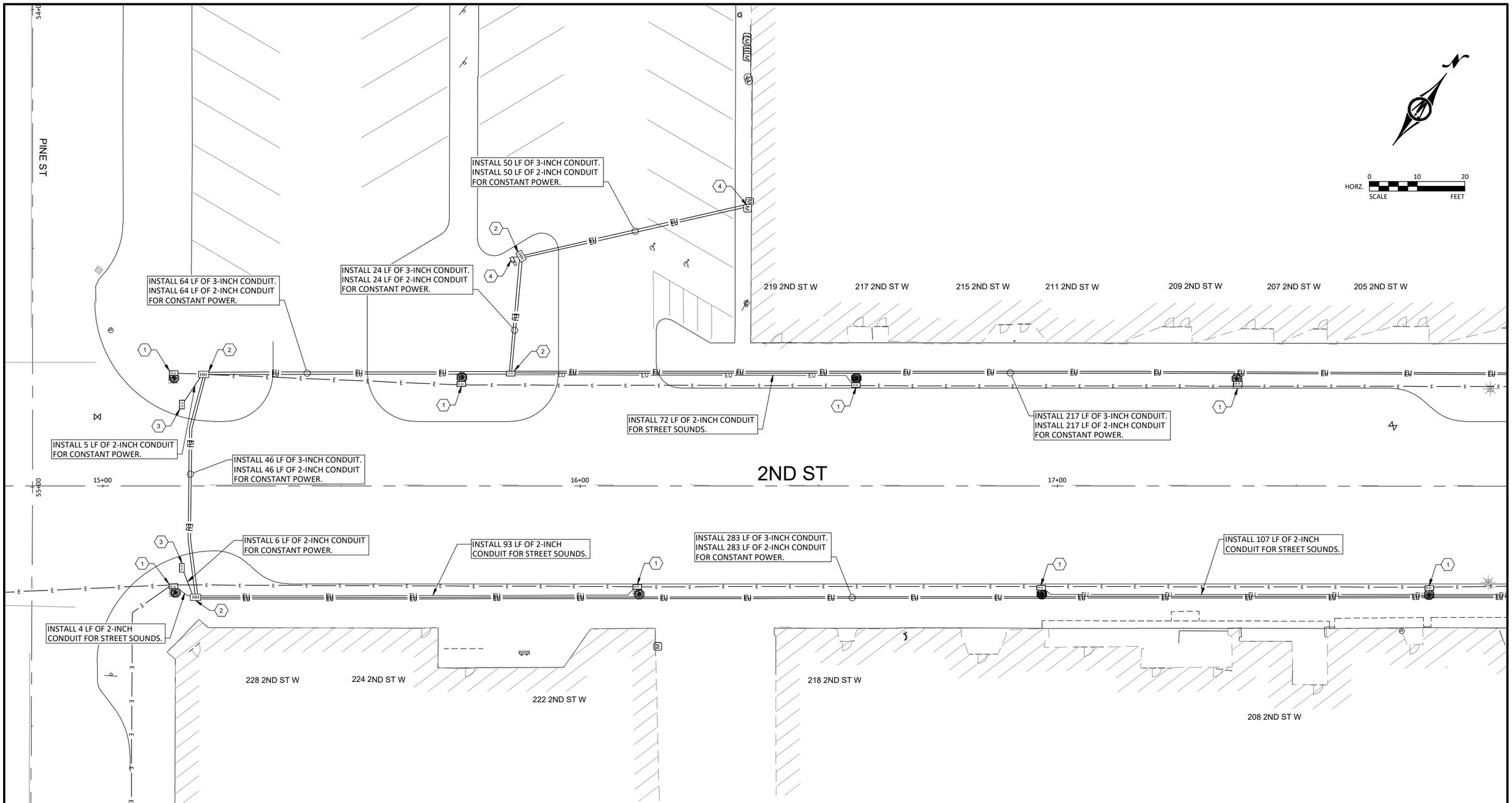


REFERENCE NOTES

1. REMOVE EXISTING & REPLACE USING 8"X18" JUNCTION BOX.
2. INSTALL 13"x24" ELECTRICAL JUNCTION BOX.
3. INSTALL 8"x18" ELECTRICAL JUNCTION BOX FOR FUTURE KIOSK LOCATION.
4. INSTALL 8"X18" ELECTRICAL JUNCTION BOX FOR EVENT POWER.
5. INSTALL 8"X18" ELECTRICAL JUNCTION BOX FOR INTERSECTION MARKER.

REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

DRAWN BY:	DAMION SHANNON	DATE:	10/31/19
DESIGNED BY:		DATE:	
CHECKED BY:		DATE:	
APPROVED BY:		DATE:	

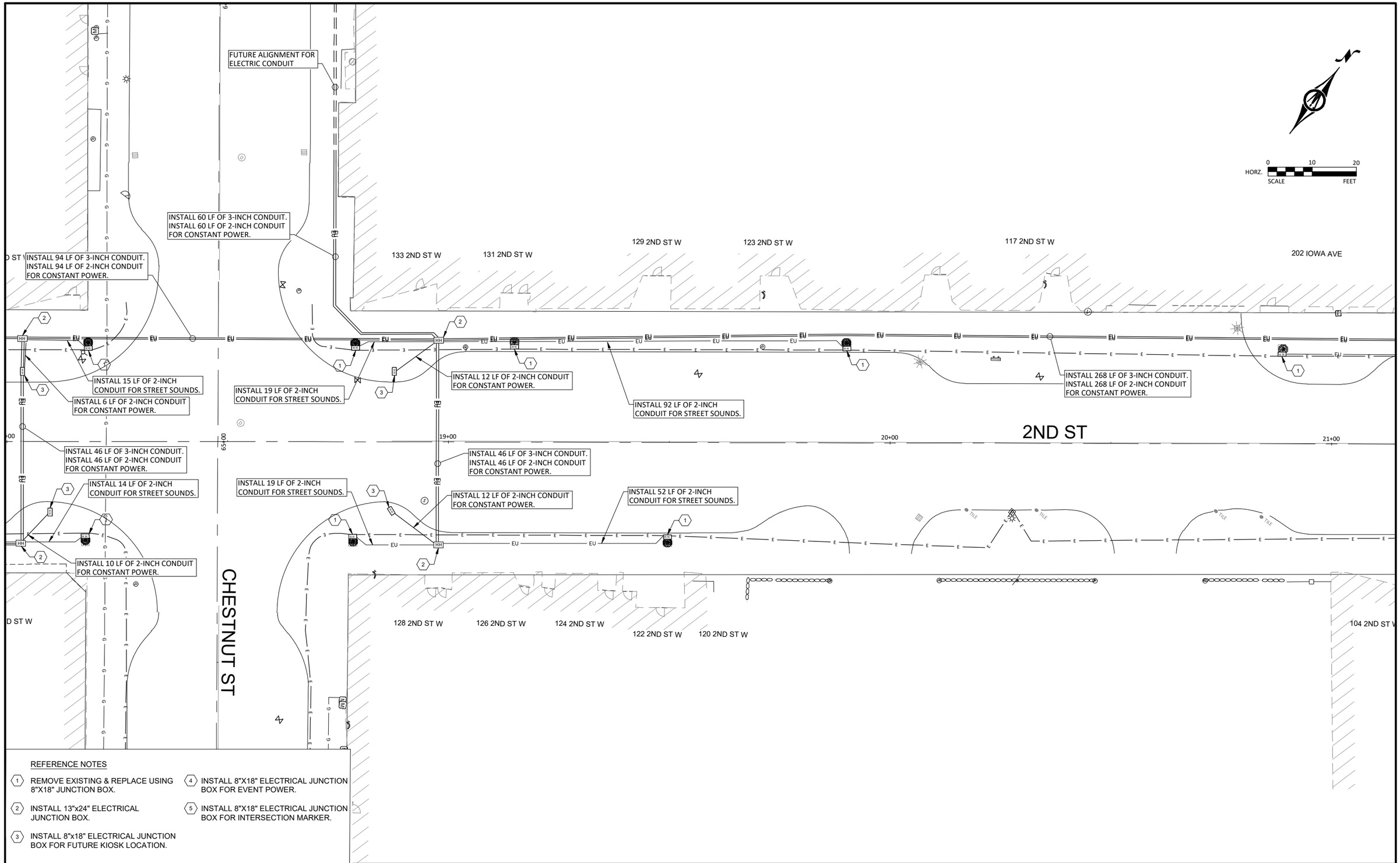
MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
PINE ST. TO CHESTNUT ST.
ELECTRIC CONDUIT PLAN

REF No.			
SCALE: 1"=10'	FILE No.	59	
DRAWING No.		REV. No.	
DUG0109A		0	

SHEET No. P.01



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REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE
REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

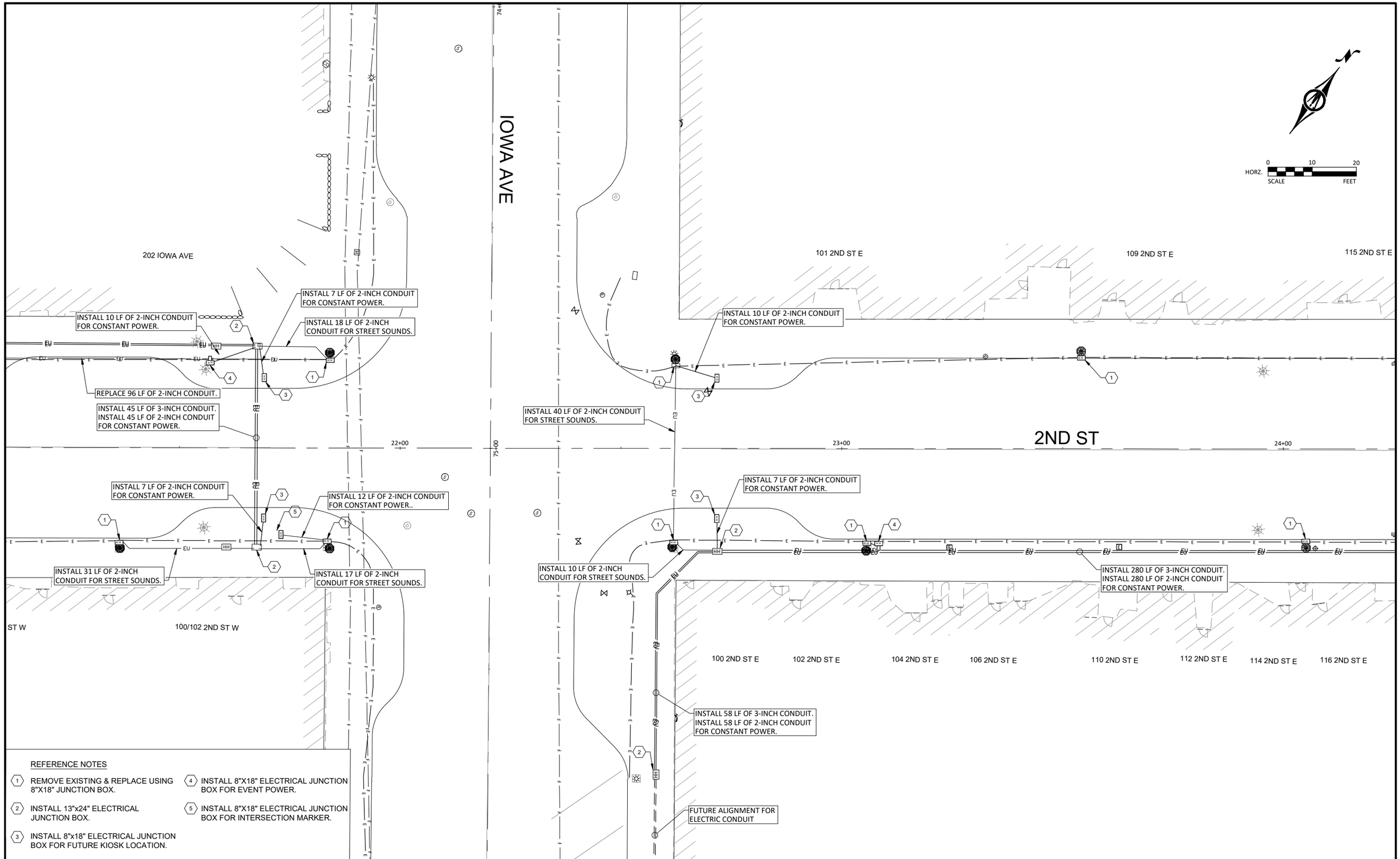
DRAWN BY: DAMION SHANNON — DATE: 10/31/19
DESIGNED BY: — DATE:
CHECKED BY: — DATE:
APPROVED BY: — DATE:

MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
CHESTNUT ST. TO IOWA AVE.
ELECTRIC CONDUIT PLAN

REF No.
SCALE: 1"=10'
FILE No. 59
DRAWING No. DUG0109B
REV. No. 0
SHEET No. P.02



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REV.	DESCRIPTION	WORK ORDER	REV BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

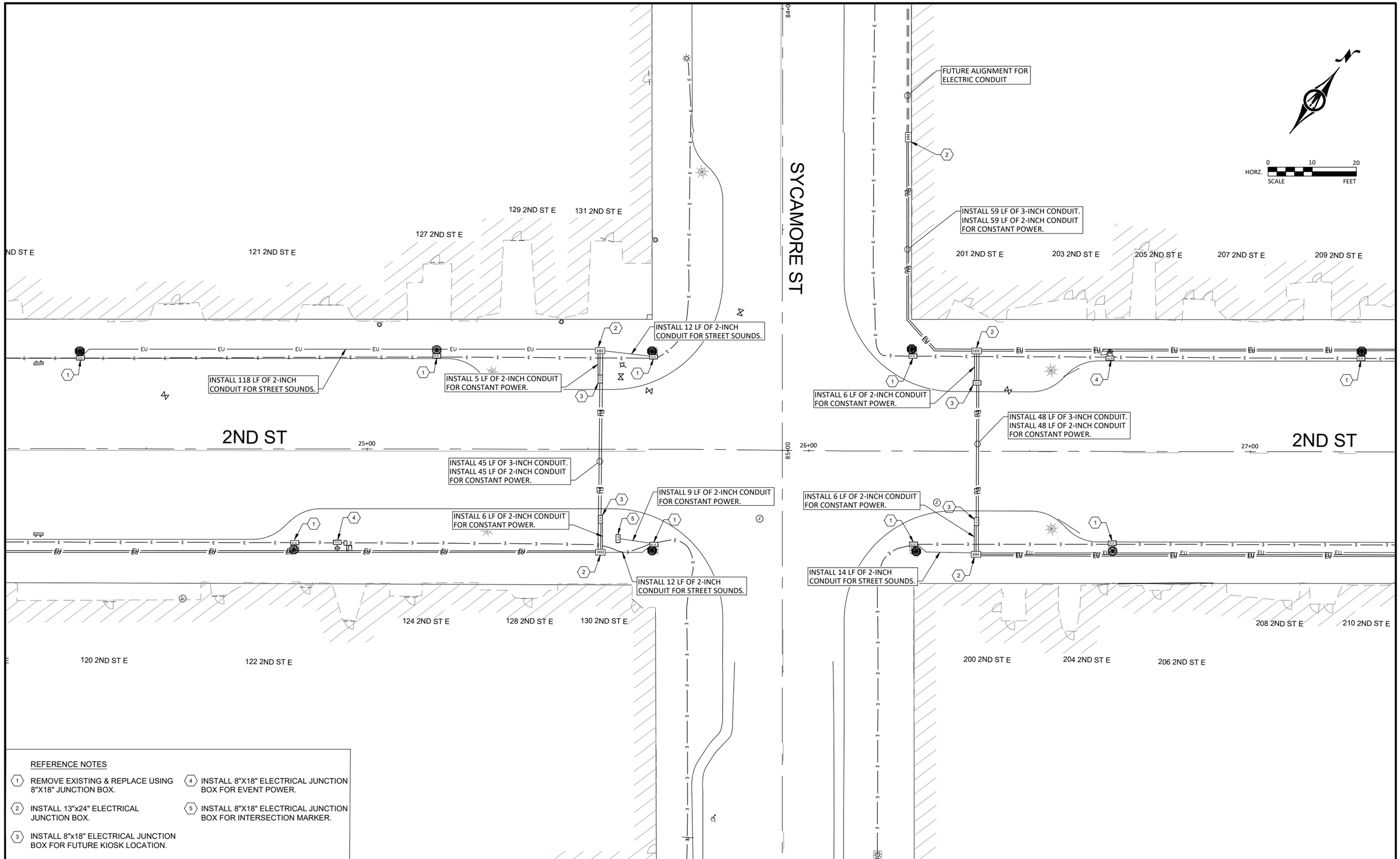
DRAWN BY: DAMION SHANNON	DATE: 10/31/19
DESIGNED BY:	DATE:
CHECKED BY:	DATE:
APPROVED BY:	DATE:

MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
IOWA AVE.
ELECTRIC CONDUIT PLAN

REF No.		SHEET No.
SCALE: 1"=10'	FILE No. 59	P.03
DRAWING No. DUG0190C	REV. No. 0	



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REV.	DESCRIPTION	WORK ORDER	REV BY	DATE	CHKD BY	APPV BY	APPV BY	DATE	REV.	DESCRIPTION	WORK ORDER	REV BY	DATE	CHKD BY	APPV BY	APPV BY	DATE

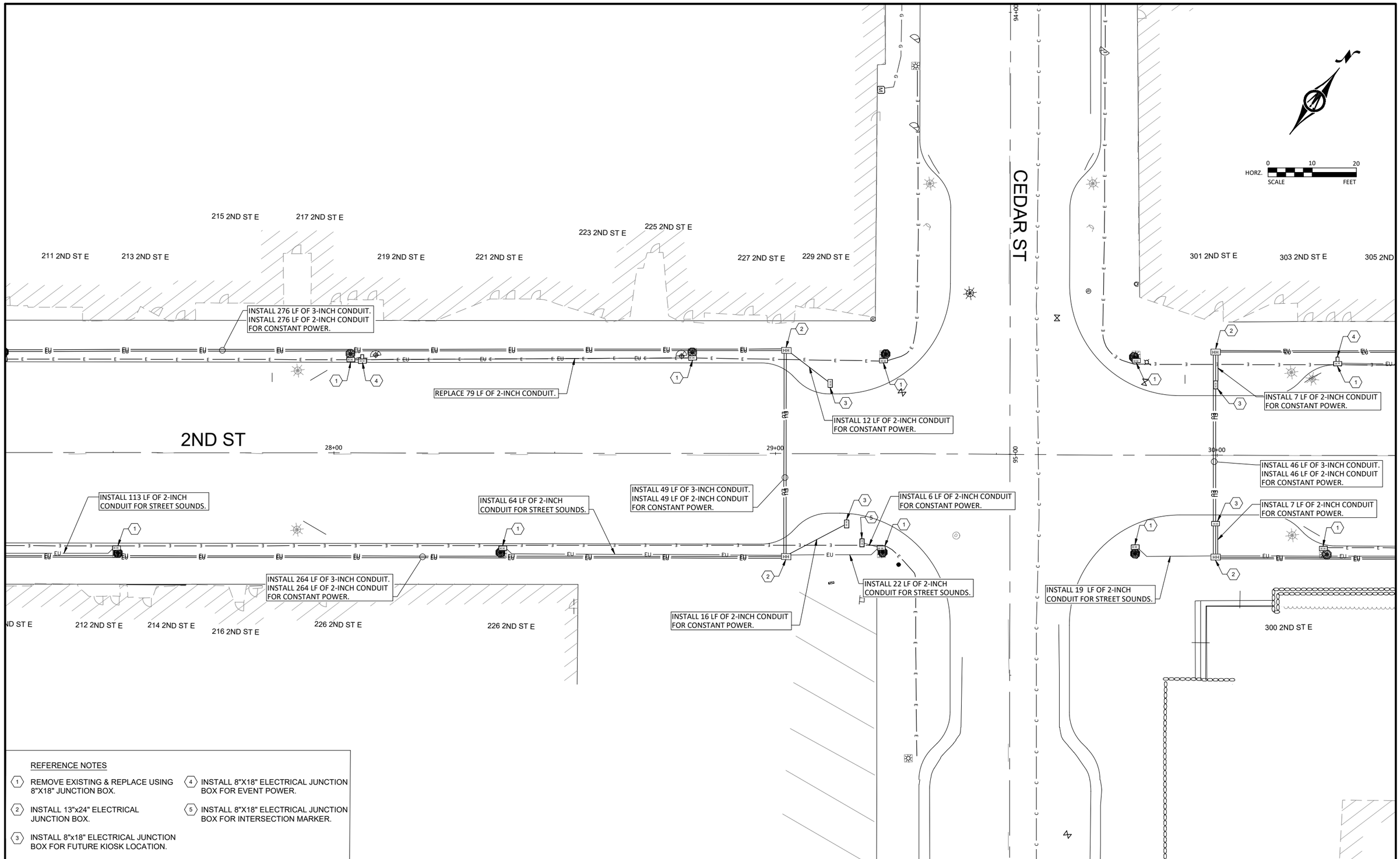
DRAWN BY: DAMION SHANNON	DATE: 10/31/19
DESIGNED BY:	DATE:
CHECKED BY:	DATE:
APPROVED BY:	DATE:

MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
SYCAMORE ST.
ELECTRIC CONDUIT PLAN

REF No.		SHEET No.
SCALE: 1"=10'	FILE No. 59	P.04
DRAWING No. DUG0109D	REV. No. 0	



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REV.	DESCRIPTION	WORK ORDER	REV BY	DATE	CHKD BY	APPV BY	APPV BY	DATE

DRAWN BY: DAMION SHANNON — DATE:
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MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
CEDAR ST.
ELECTRIC CONDUIT PLAN

REF No.
SCALE: 1"=10'
FILE No. 59
DRAWING No. DUG0109E
REV. No. 0
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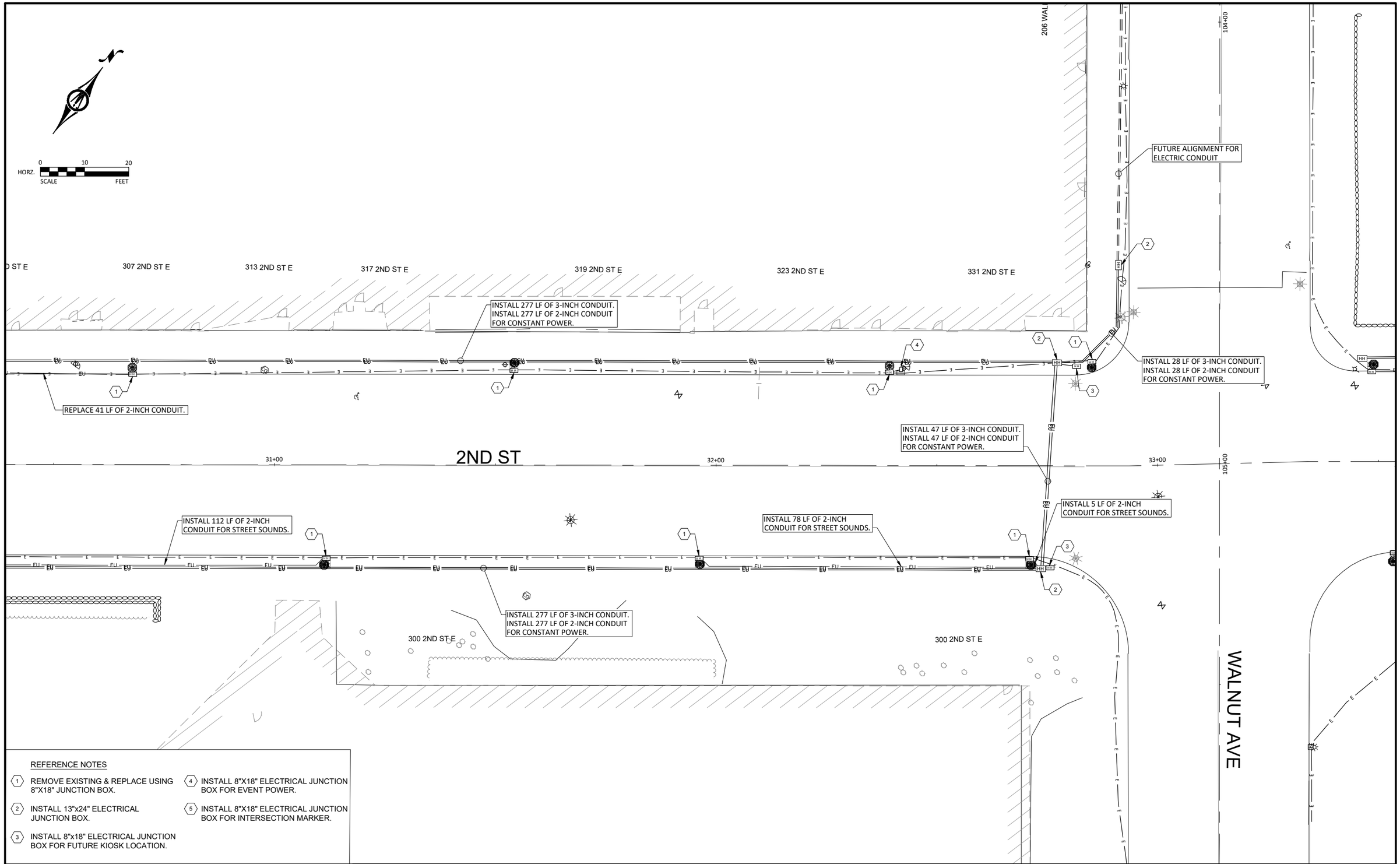

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REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

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MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
WALNUT AVE.
ELECTRIC CONDUIT PLAN

REF No.			SHEET No.
SCALE: 1"=10"	FILE No. 59		P.06
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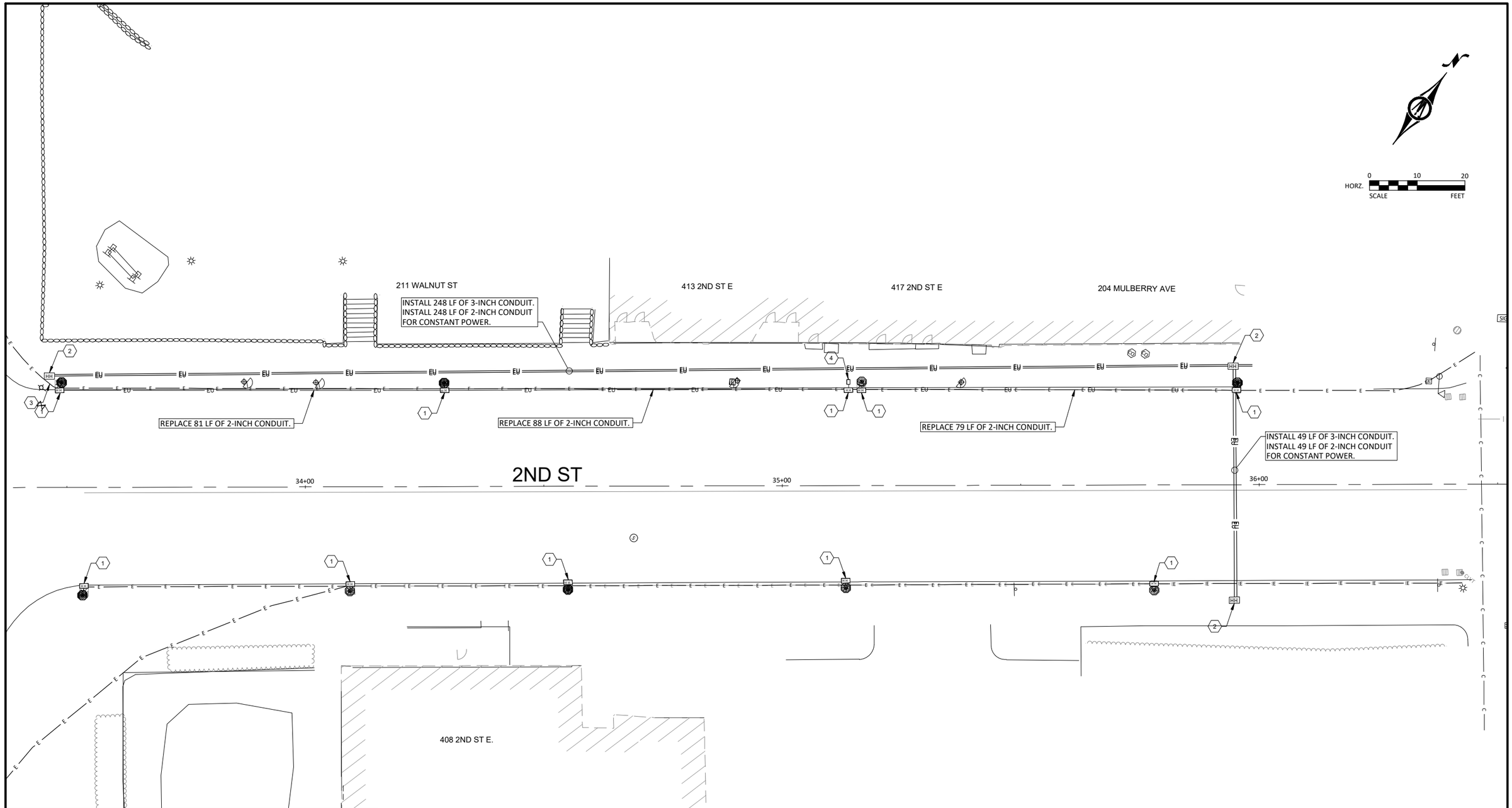

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REV.	DESCRIPTION	WORK ORDER	REV. BY	DATE	CHKD. BY	APPV. BY	APPV. BY	DATE

DRAWN BY: DAMION SHANNON	DATE: 10/31/19
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MUSCATINE POWER & WATER

UNDERGROUND

2ND STREET REHAB
WALNUT TO MULBERRY
ELECTRIC CONDUIT PLAN

REF No.		SHEET No.
SCALE: 1"=10'	FILE No. 59	P.07
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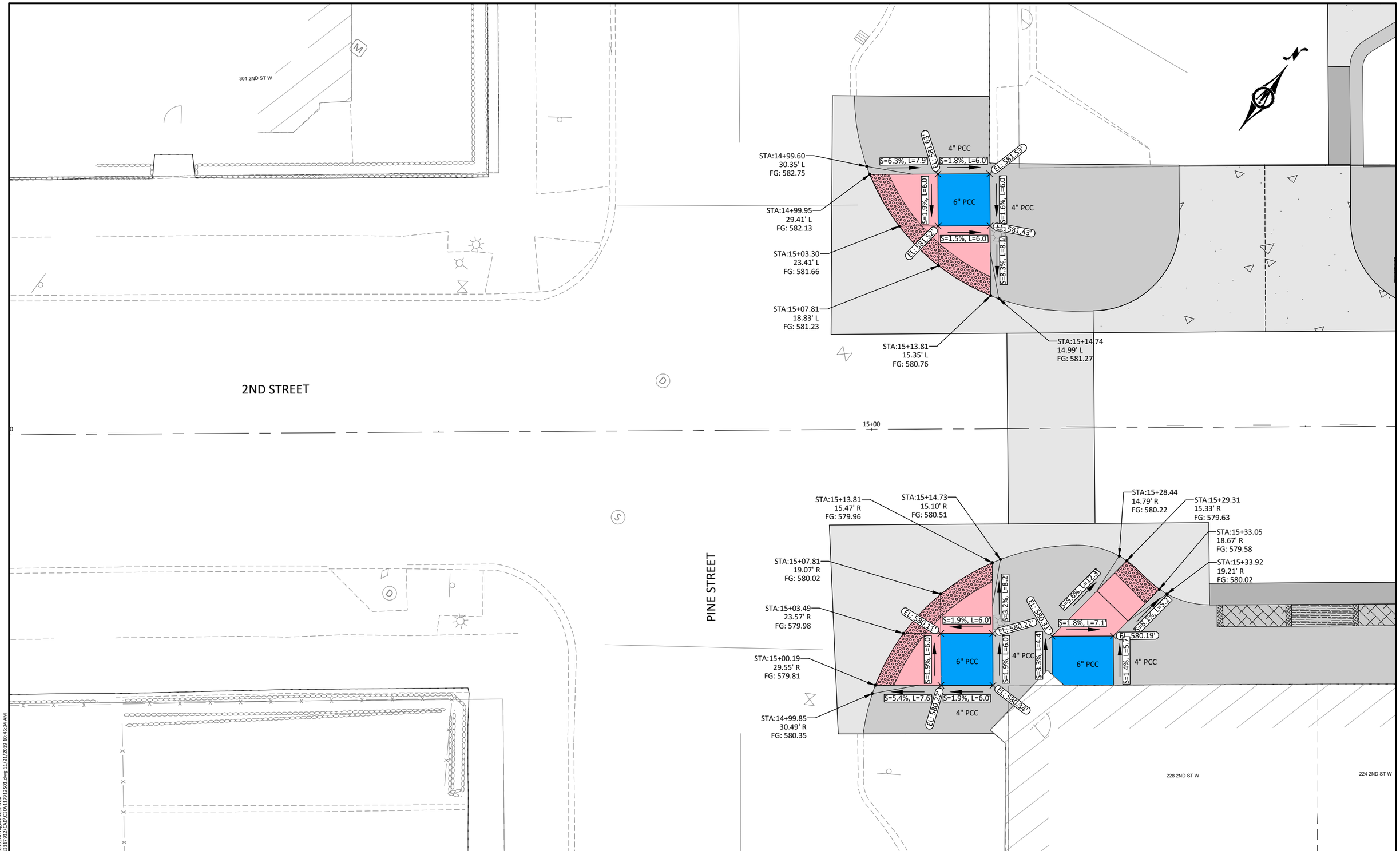

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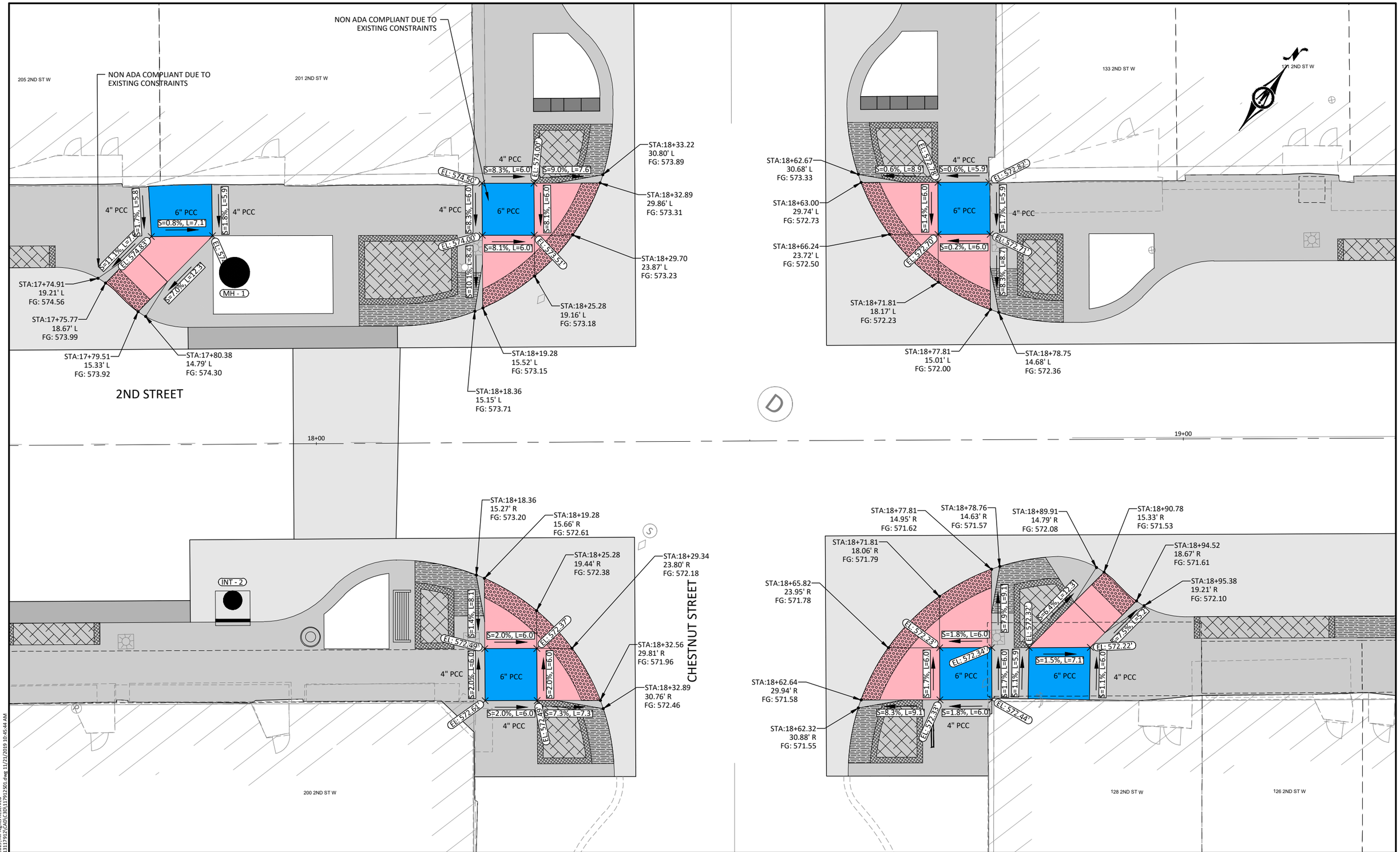
MUSCATINE, IOWA

2ND STREET RECONSTRUCTION

PINE AND 2ND SIDEWALK DETAILS

SHEET S.01



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2ND STREET RECONSTRUCTION
CHESTNUT AND 2ND SIDEWALK DETAILS

SHEET
S.02

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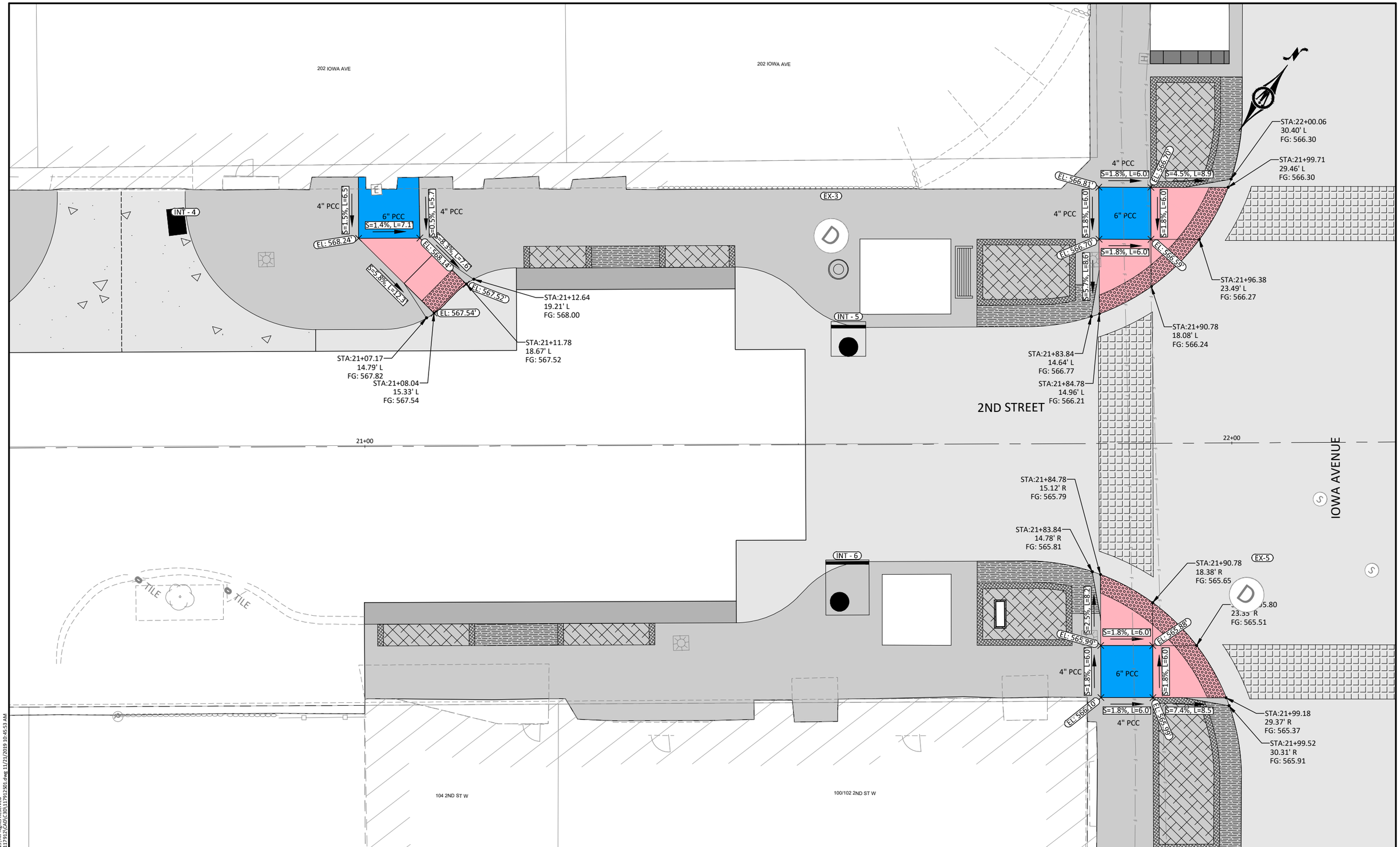

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2ND STREET RECONSTRUCTION

2ND STREET SIDEWALK DETAILS

SHEET S.03

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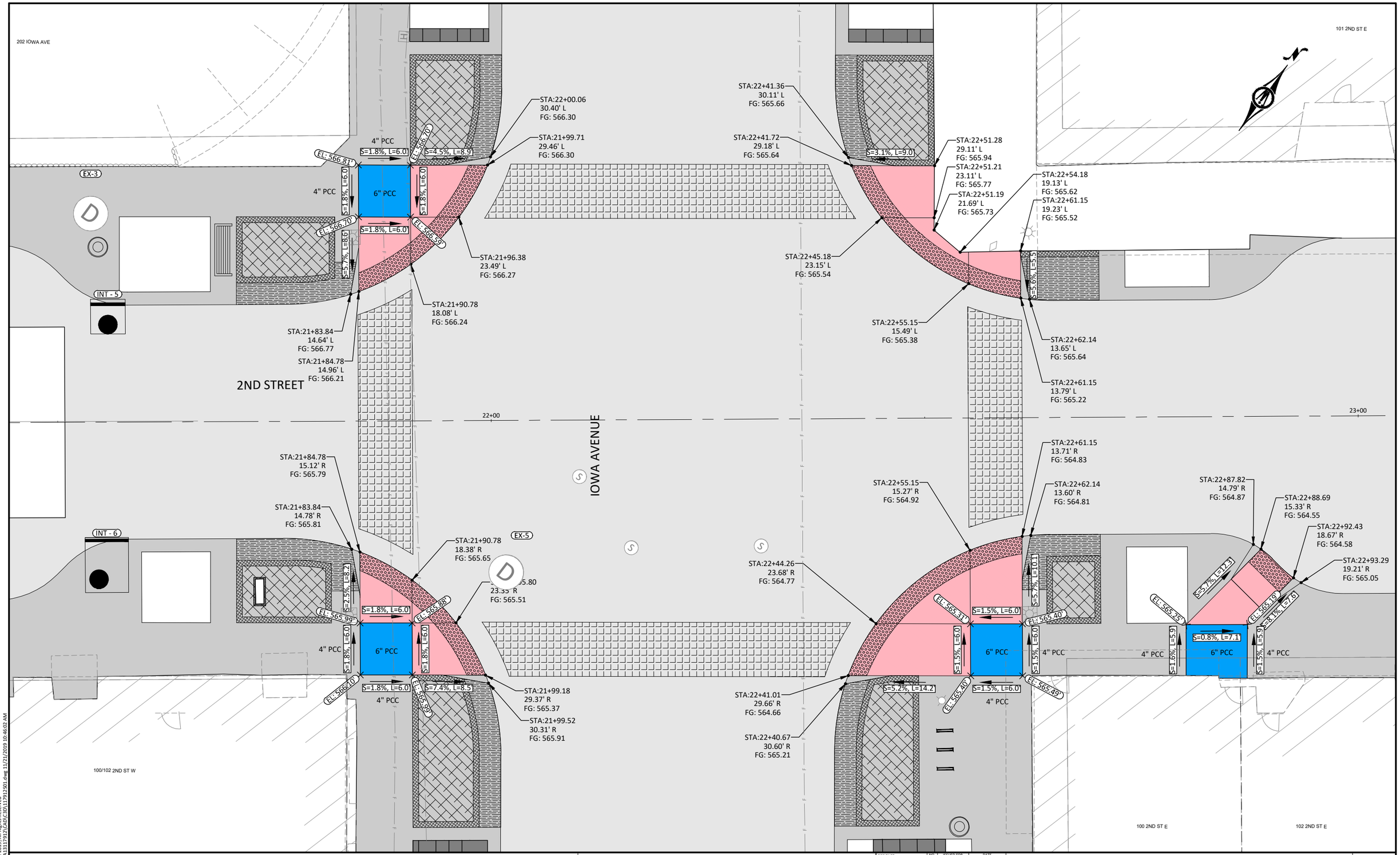

HORZ. 0 5 10
SCALE FEET

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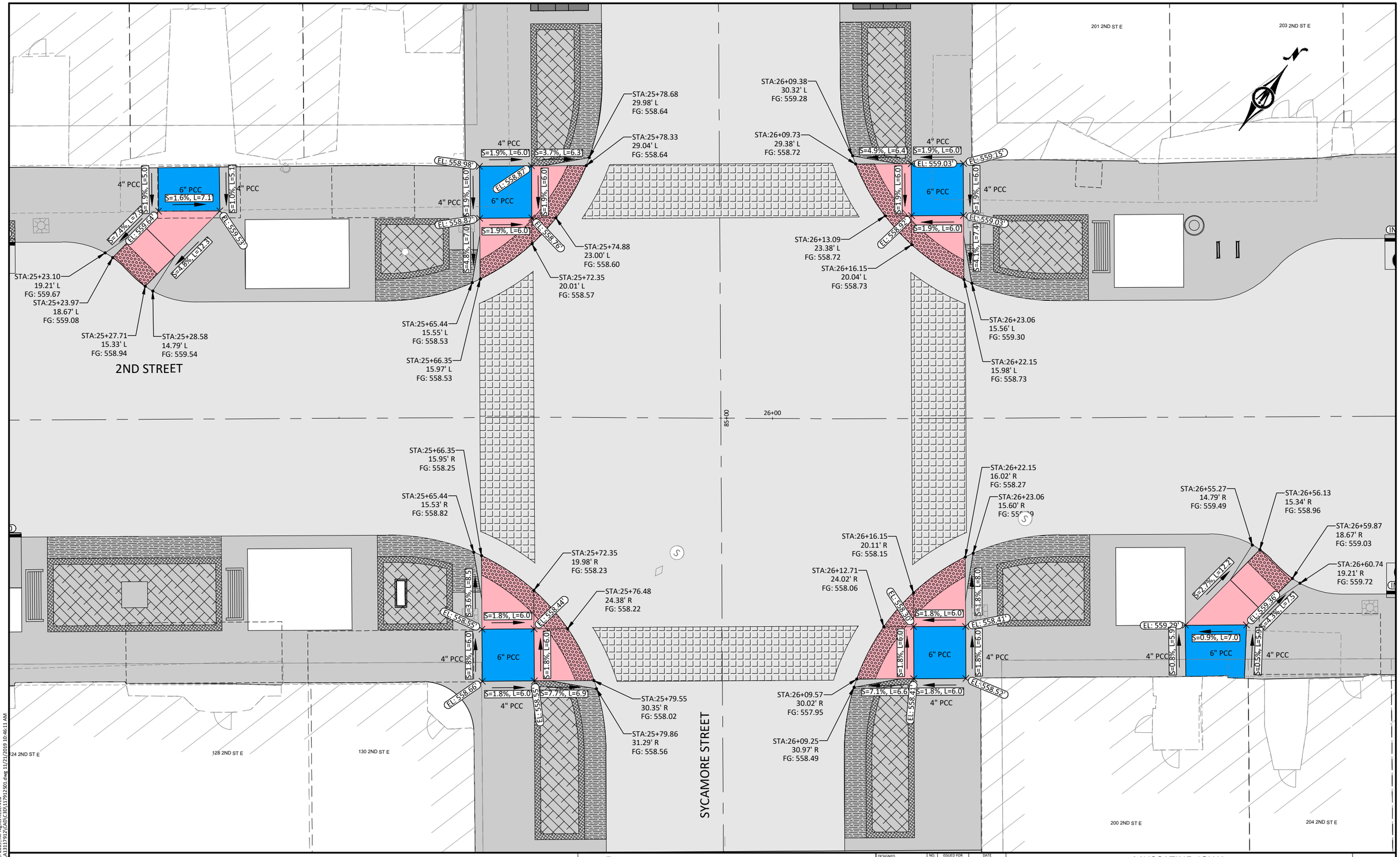
MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
IOWA AND 2ND SIDEWALK DETAILS

SHEET
S.04



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2ND STREET RECONSTRUCTION

SYCAMORE AND 2ND SIDEWALK DETAILS

SHEET S.05

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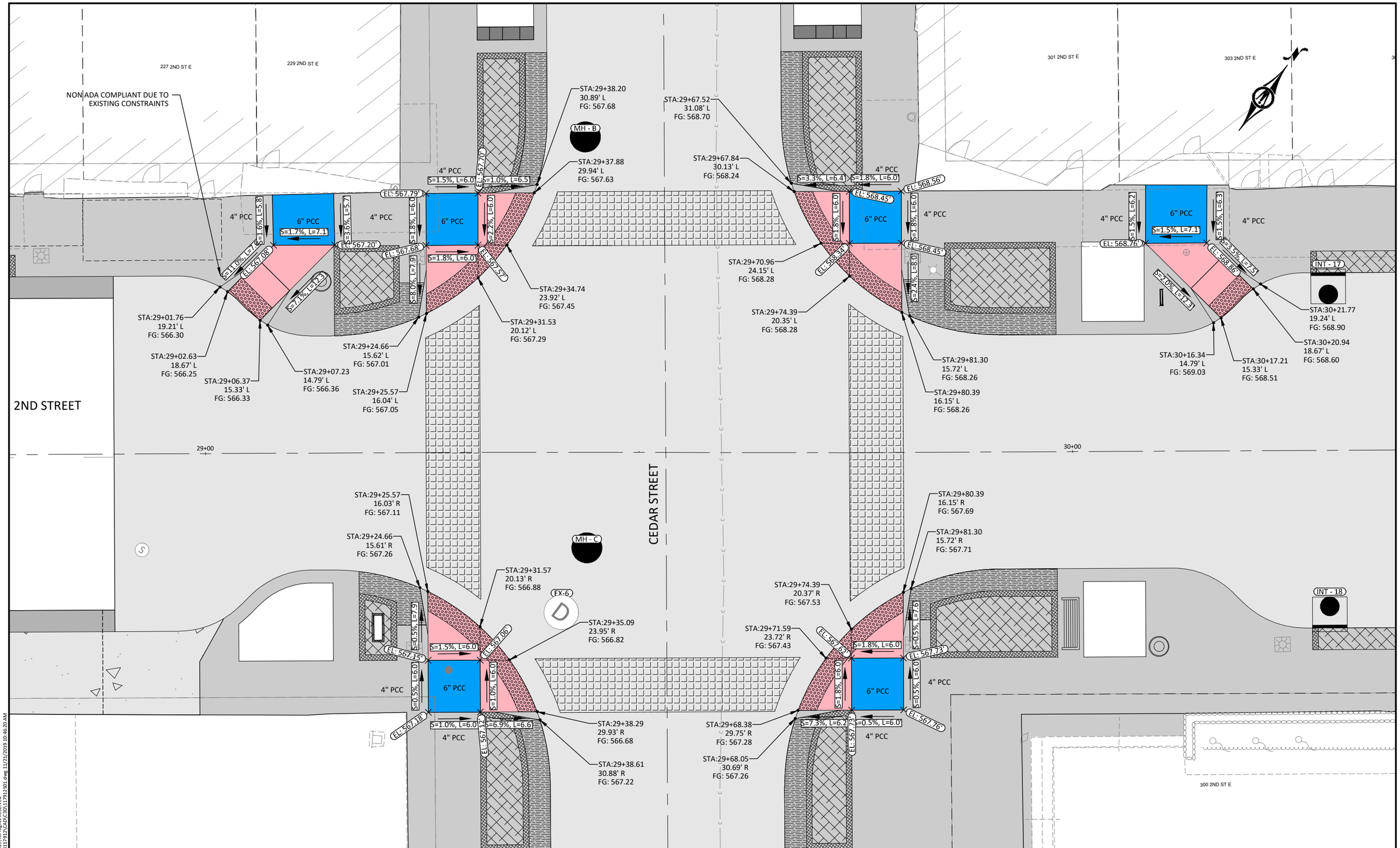

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MUSCATINE, IOWA
2ND STREET RECONSTRUCTION
CEDAR AND 2ND SIDEWALK DETAILS

SHEET
S.06

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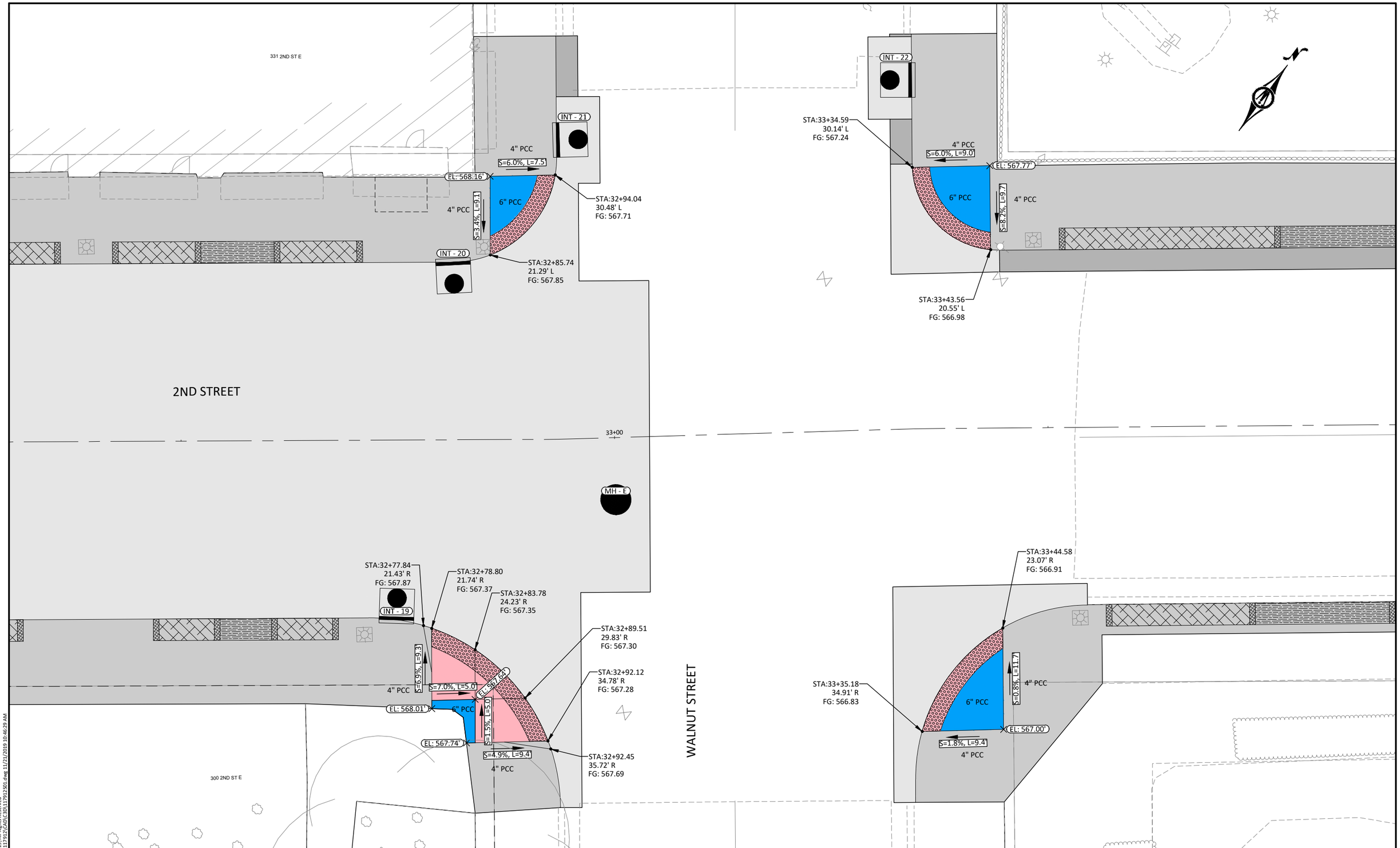

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2ND STREET RECONSTRUCTION
WALNUT AND 2ND SIDEWALK DETAILS

SHEET S.07

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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. SPOT ELEVATIONS: WHERE SHOWN ON THESE DRAWINGS, SPOT ELEVATIONS ARE TO THE TOP OF FINISH SURFACES
3. DIMENSIONS: DIMENSIONS ARE FROM BACK OF CURB UNLESS NOTED OR SHOWN OTHERWISE ON THE DRAWINGS.
4. 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.
5. 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.
6. ALL SIDEWALKS AND CONCRETE SURFACES TO HAVE A LIGHT BROOM FINISH PERPENDICULAR TO DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED, TYPICAL.
7. SAWCUTS TO BE MADE AS SHOWN ON PLANS UNLESS CONTRACTOR SUBMITTAL OTHERWISE APPROVED BY OWNERS REP.
8. 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.
9. CONTRACTOR IS TO PRESERVE AND PROTECT EXISTING BUILDINGS AND FOUNDATIONS AT ALL STAGES OF CONSTRUCTION.
10. 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.
11. HATCH PATTERNS ON PLAN DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION OR SCALING PURPOSES. REFER TO CONSTRUCTION DETAILS FOR PAVER PATTERNS AND FINISHES.

LEGEND

- DECIDUOUS/ORNAMENTAL TREES
- SHRUBS/PERENNIALS/GRASSES/ANNUALS
- PAVER TYPE 'A'
- PAVER TYPE 'B'
- PAVER TYPE 'C'
- PAVER TYPE 'D', CROSSWALK PAVERS
- EXISTING STREET LIGHT (PROTECT-IN-PLACE)
- BOULDER SEATWALL
- STEEL BENCH
- LITTER RECEPTACLE
- [A] BIKE RACK, VICTOR STANLEY
  [B] BIKE RACK, BY OTHERS

UNIT PAVER TYPES

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

TYPE "B": UNILOCK - SERIES 3000, 7.75" x 4" x 2.75" (20 CM x 10 CM x 7 CM), COLOR: ONYX BLACK, PATTERN: SOLDIER COURSE (SEE PLANS AND DETAILS), OR APPROVED EQUAL

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

TYPE "D": UNILOCK - HOLLAND PREMIER, 7.75" x 4" x 3.25" (20 CM x 10 CM x 8 CM), COLOR: CHARCOAL, PREMIER FINISH, PATTERN: SOLDIER COURSE BORDER, 90 DEGREE HERRINGBONE FIELD (SEE PLANS AND DETAILS), OR APPROVED EQUAL

CONTACT:

UNILOCK

301 E. SULLIVAN ROAD, AURORA, ILLINOIS 60505

BRAD PUNKE - TERRITORY MANAGER

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

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.

SPECIALTY SOIL TYPES AND NOTES:

AMENDED PLANTING SOIL: PLANTING BACKFILL SHALL BE COMPOSED OF SUITABLE TOPSOIL AMENDED TO CONSIST OF 30% TOPSOIL, 60% SAND AND 10% COMPOST TO DEPTHS SPECIFIED IN PLANTING/STREETSCAPE DETAILS ON U SHEETS.

MASTER PLANT SCHEDULE (refer to plan drawings for locations)

Qty.	Sym.	Scientific Name	Common Name	Unit	Size	Spacing	Characteristics
		Trees					
11	SR	Syringa reticulata 'Ivory Silk'	Ivory Silk Japanese Tree Lilac	EA	1.5" B&B	see plan	B&B
11	AG	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	EA	1.5" B&B	see plan	B&B, Single Stem
5	AF	Acer x freemanii 'Sienna'	Sienna Glen Maple	EA	2" B&B	see plan	B&B
5	UA	Ulmus 'New Horizon'	New Horizon Elm	EA	2" B&B	see plan	B&B
		Perennials					
88	SA	Sedum x 'Autumn Joy'	Autumn Joy Sedum	EA	1 gal.	see plan	
119	SM	Salvia x sylvestris 'May Night'	Salvia May Night	EA	1 gal.	see plan	
86	LS	Liatris spicata 'Kobold'	Kobold Liatris	EA	1 gal.	see plan	
156	NR	Nepeta racemosa	Walker's Low Catmint	EA	1 gal.	see plan	
118	MD	Monarda didyma 'Grand Marshall'	Grand Marshall Bee Balm	EA	1 gal.	see plan	
		Perennial Grasses					
112	SH	Sporobolus heterolepis	Prairie Dropseed	EA	1 gal.	see plan	
70	BG	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama	EA	1 gal.	see plan	

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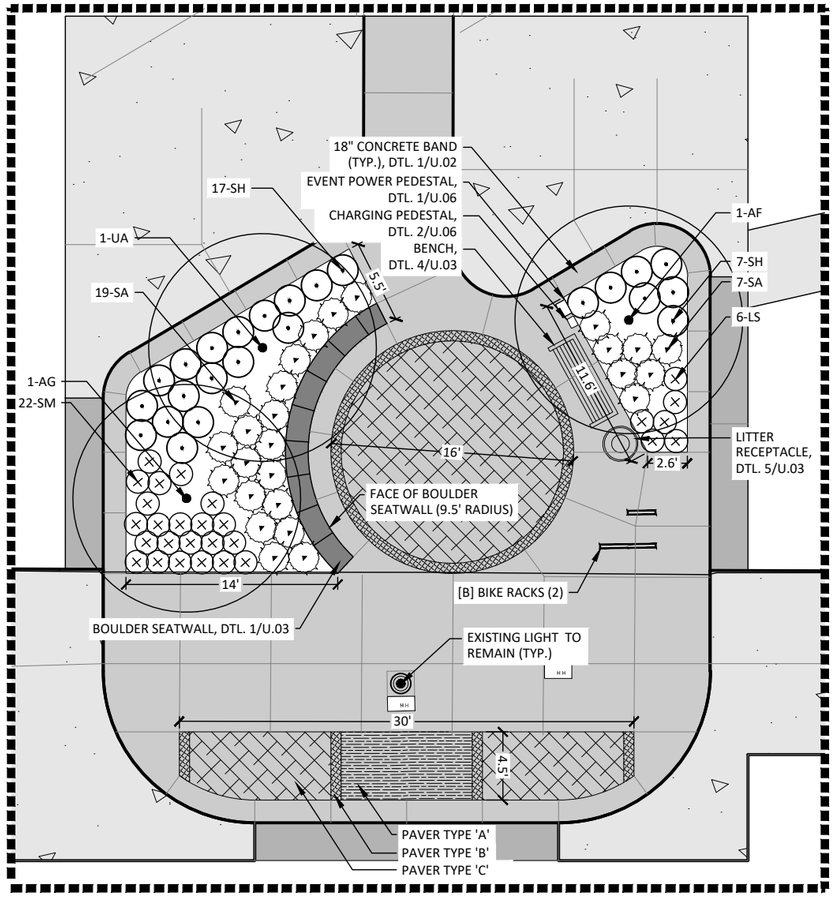
2ND STREET RECONSTRUCTION
LANDSCAPING PLAN

SHEET T.01



PLAN ENLARGEMENT 1/T.02

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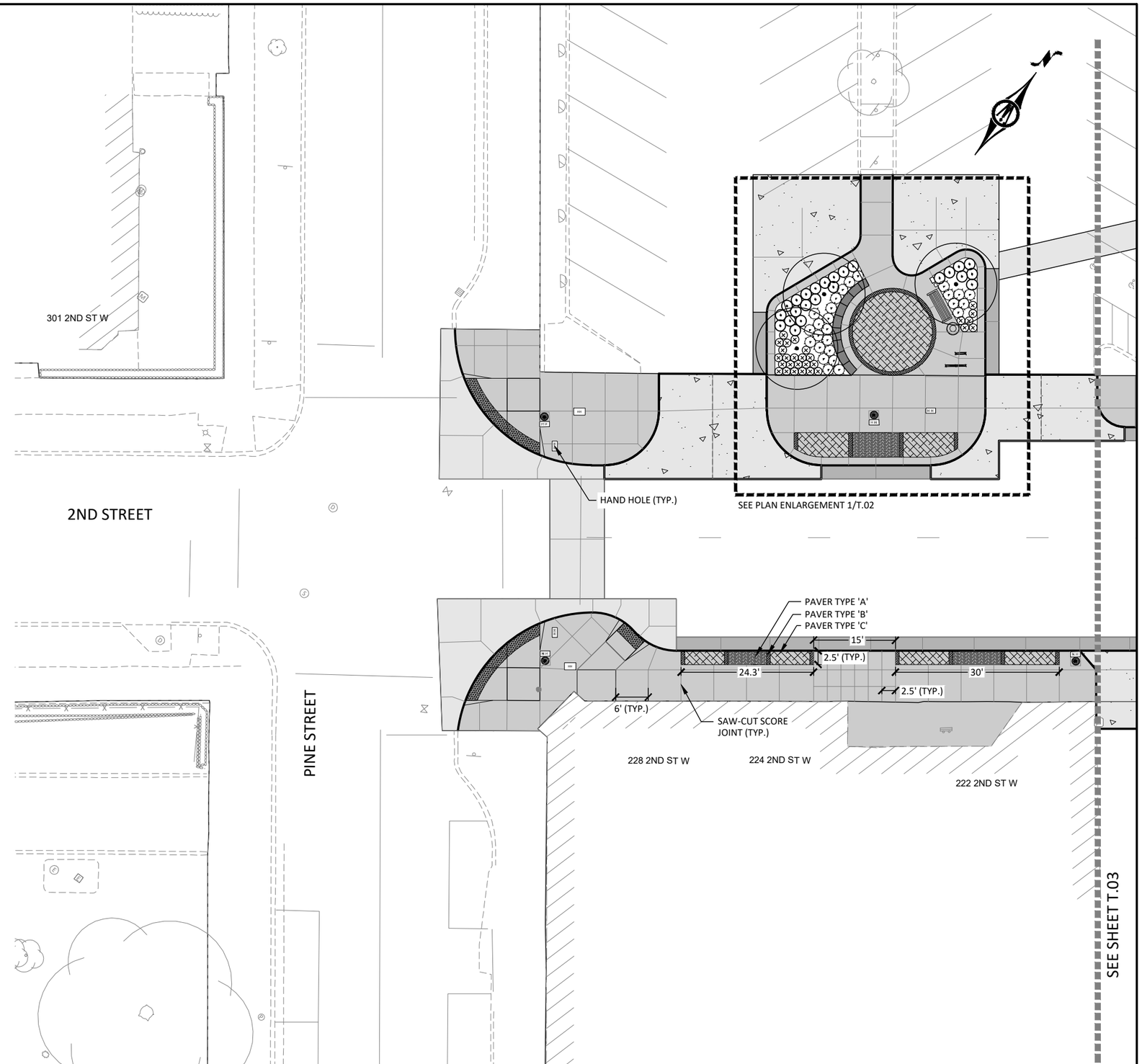

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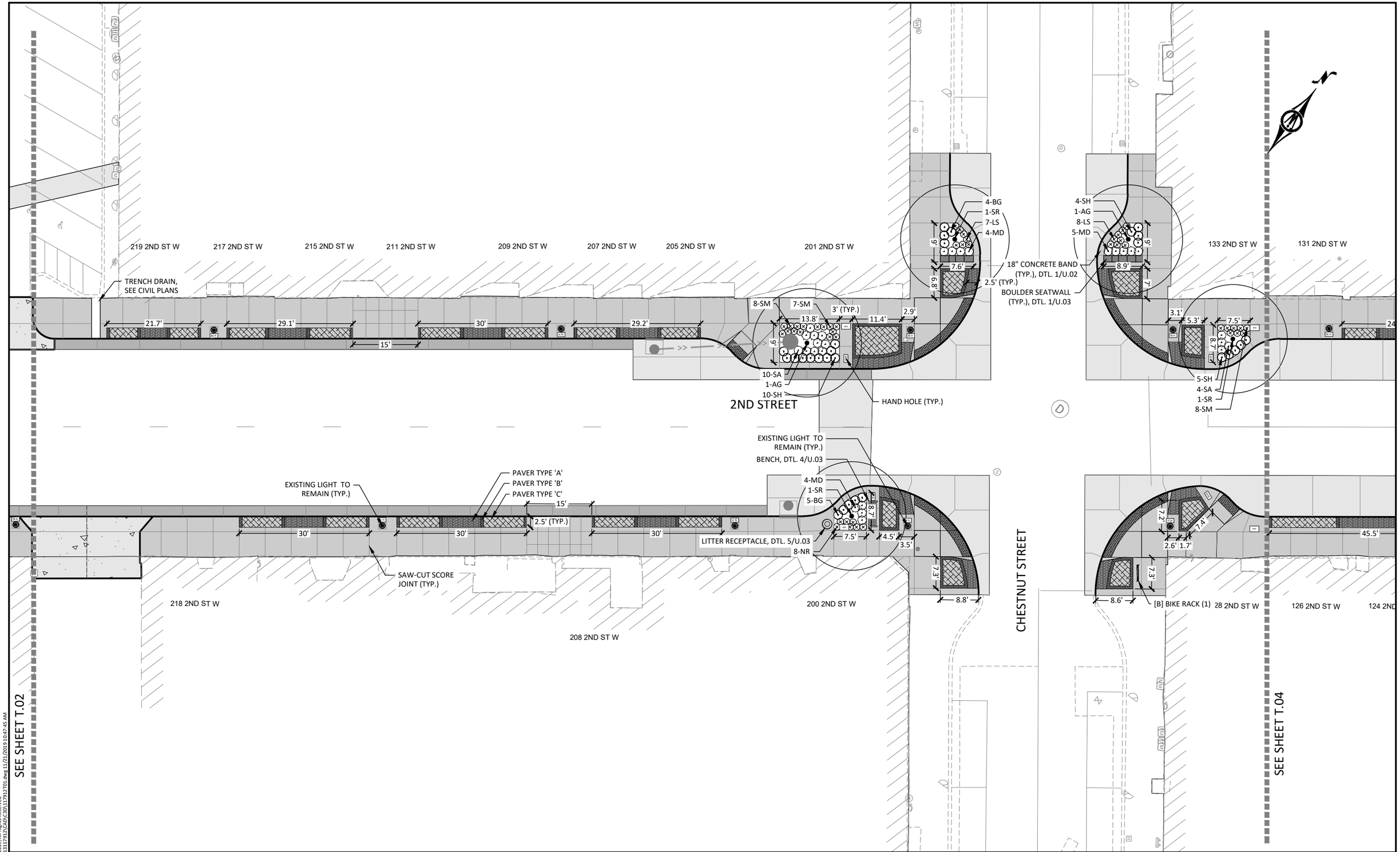

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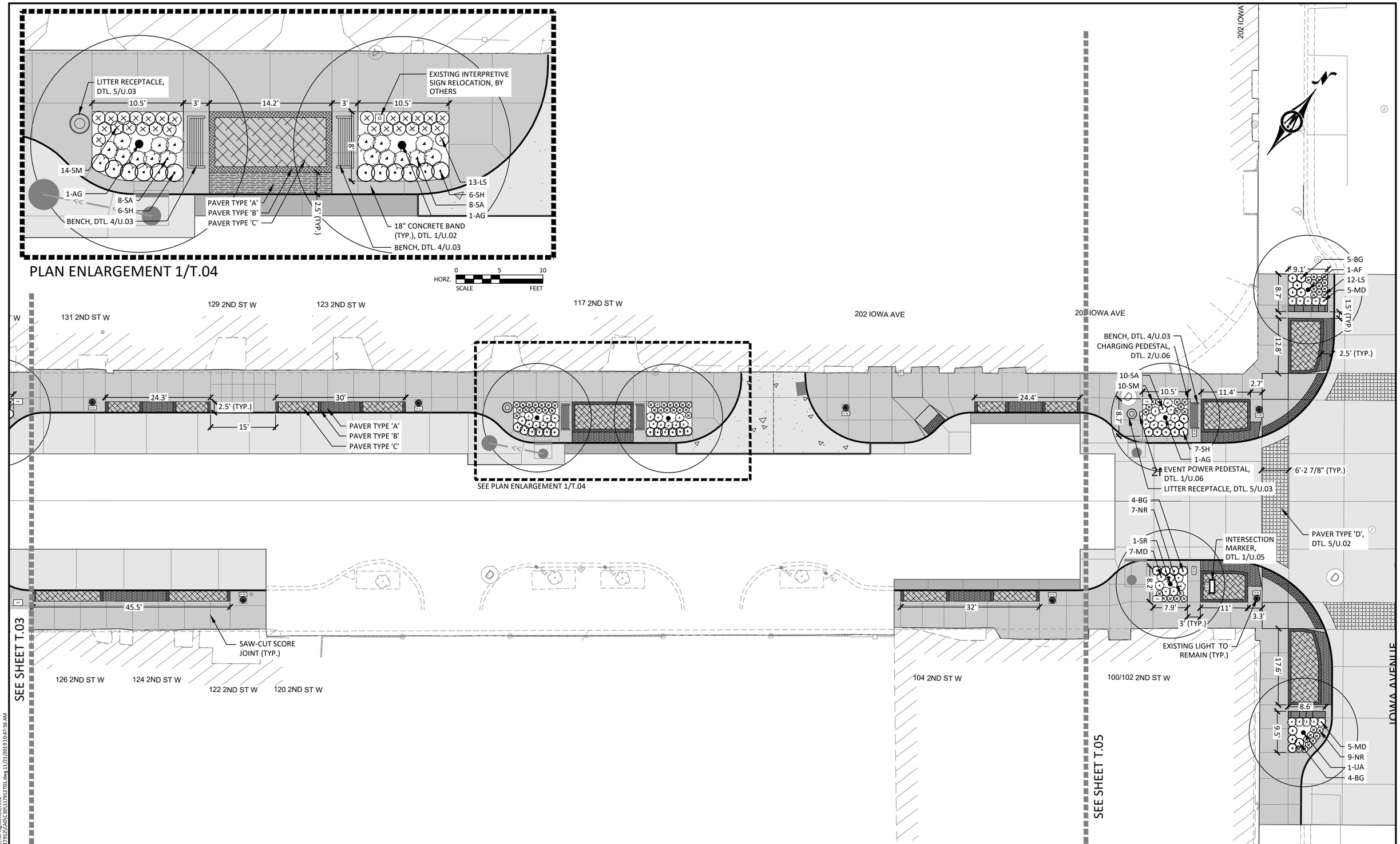

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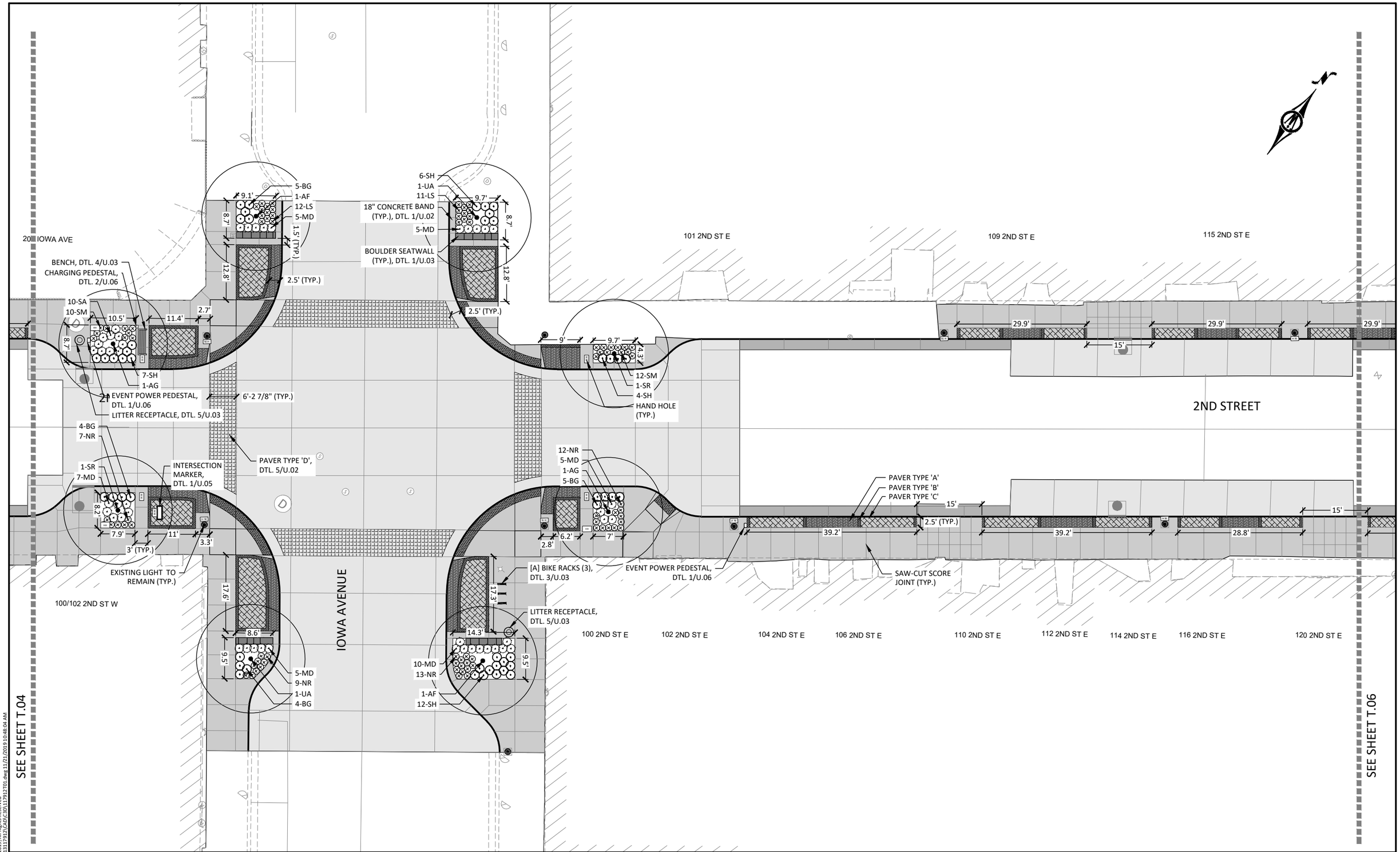

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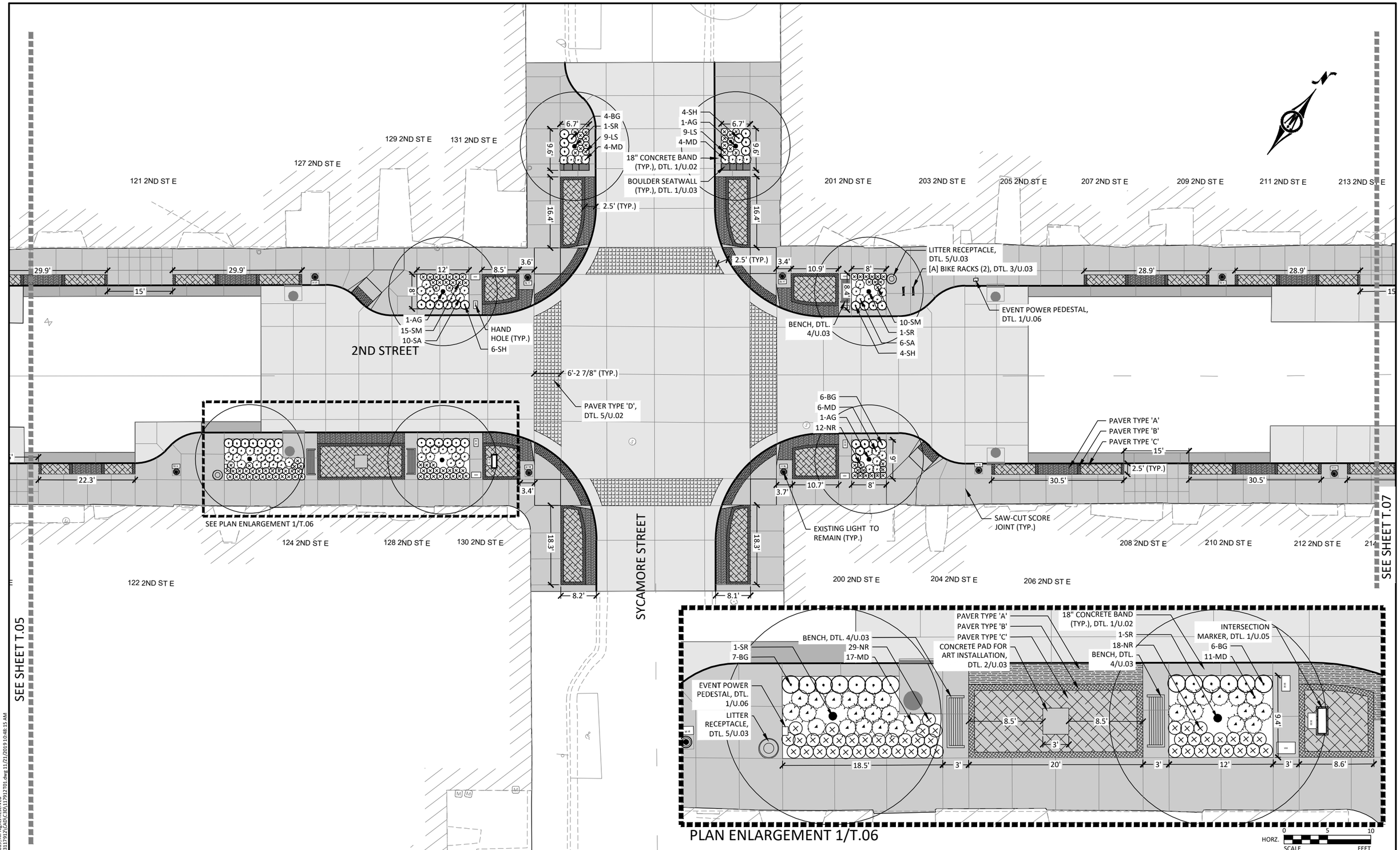

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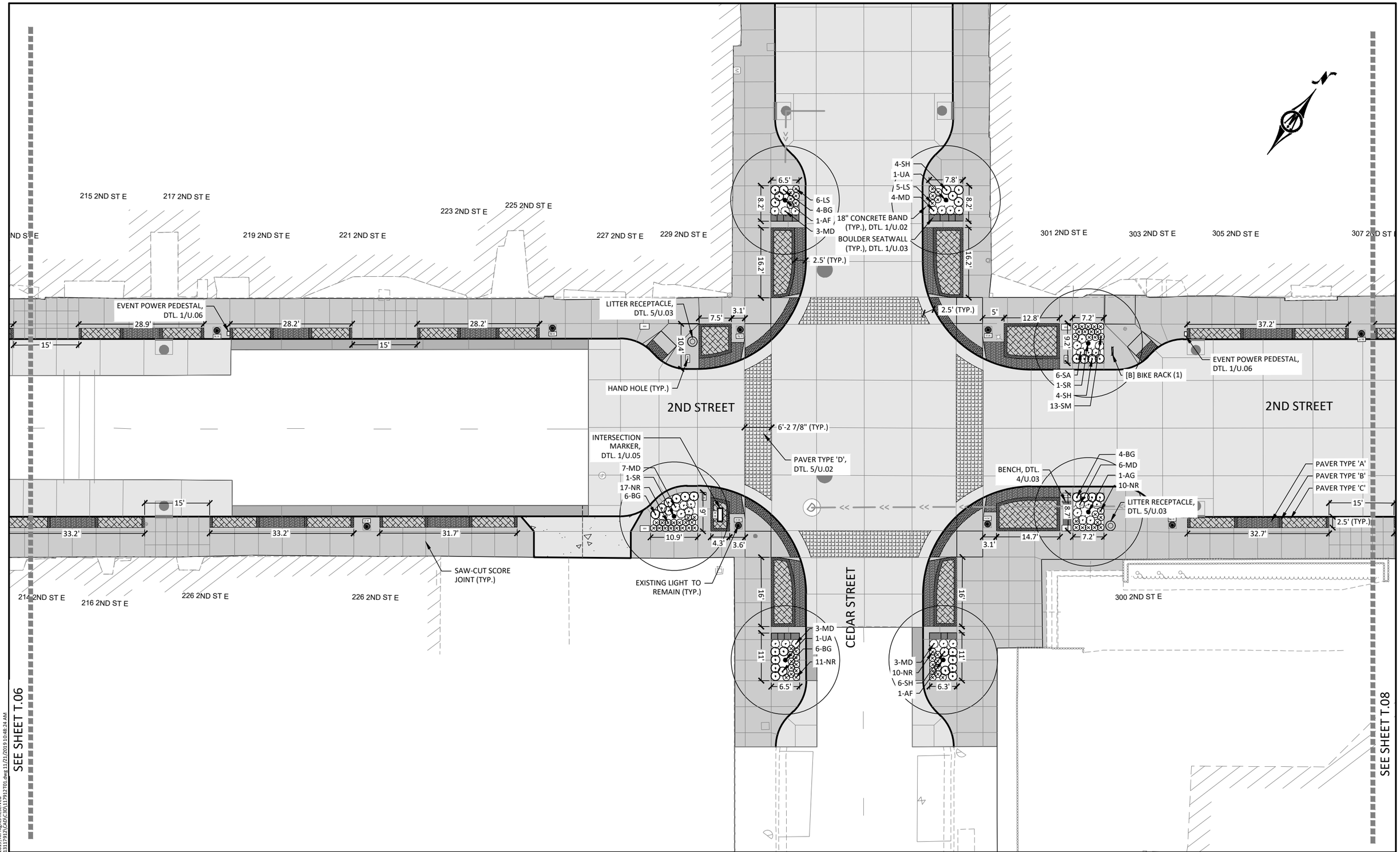

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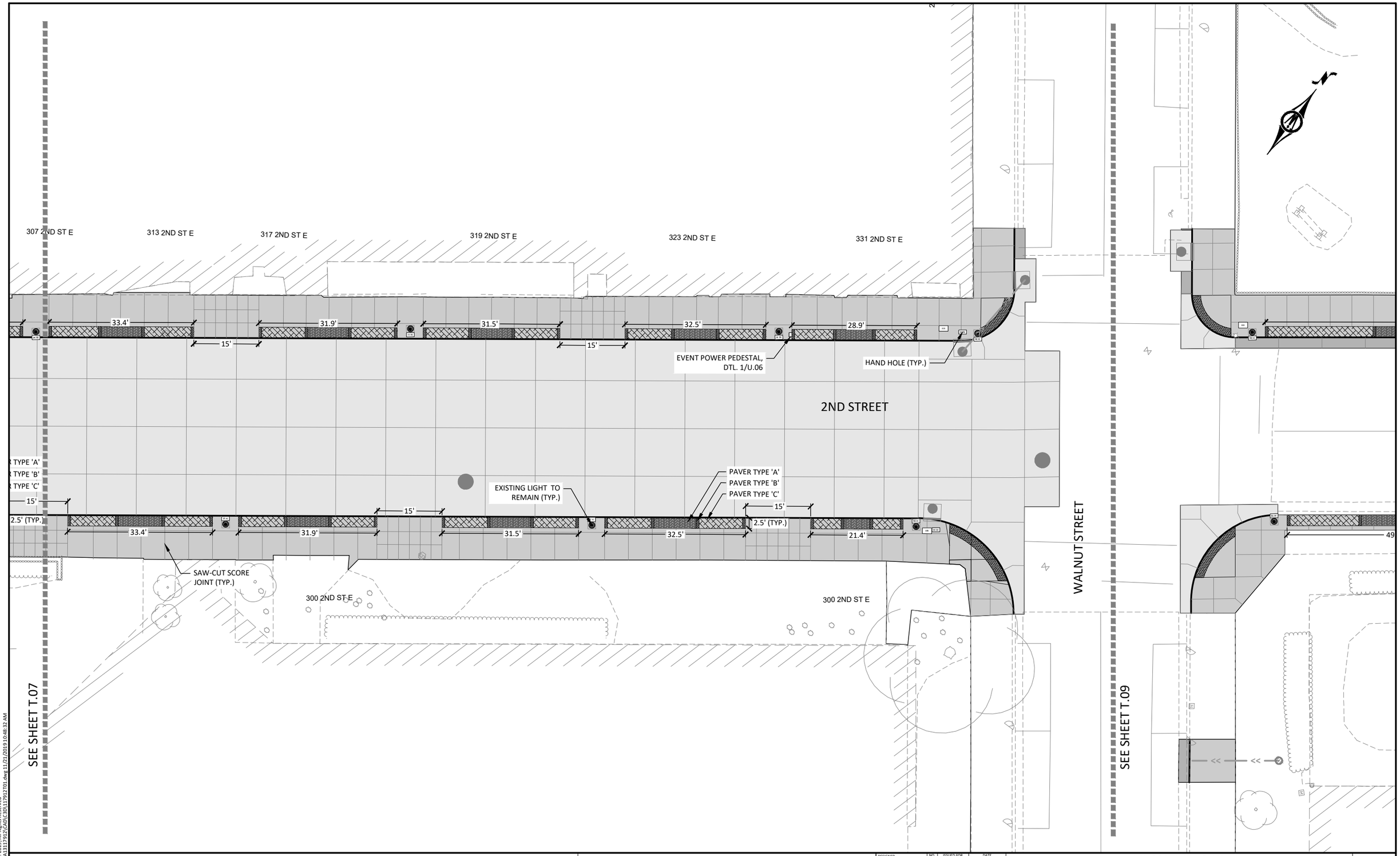

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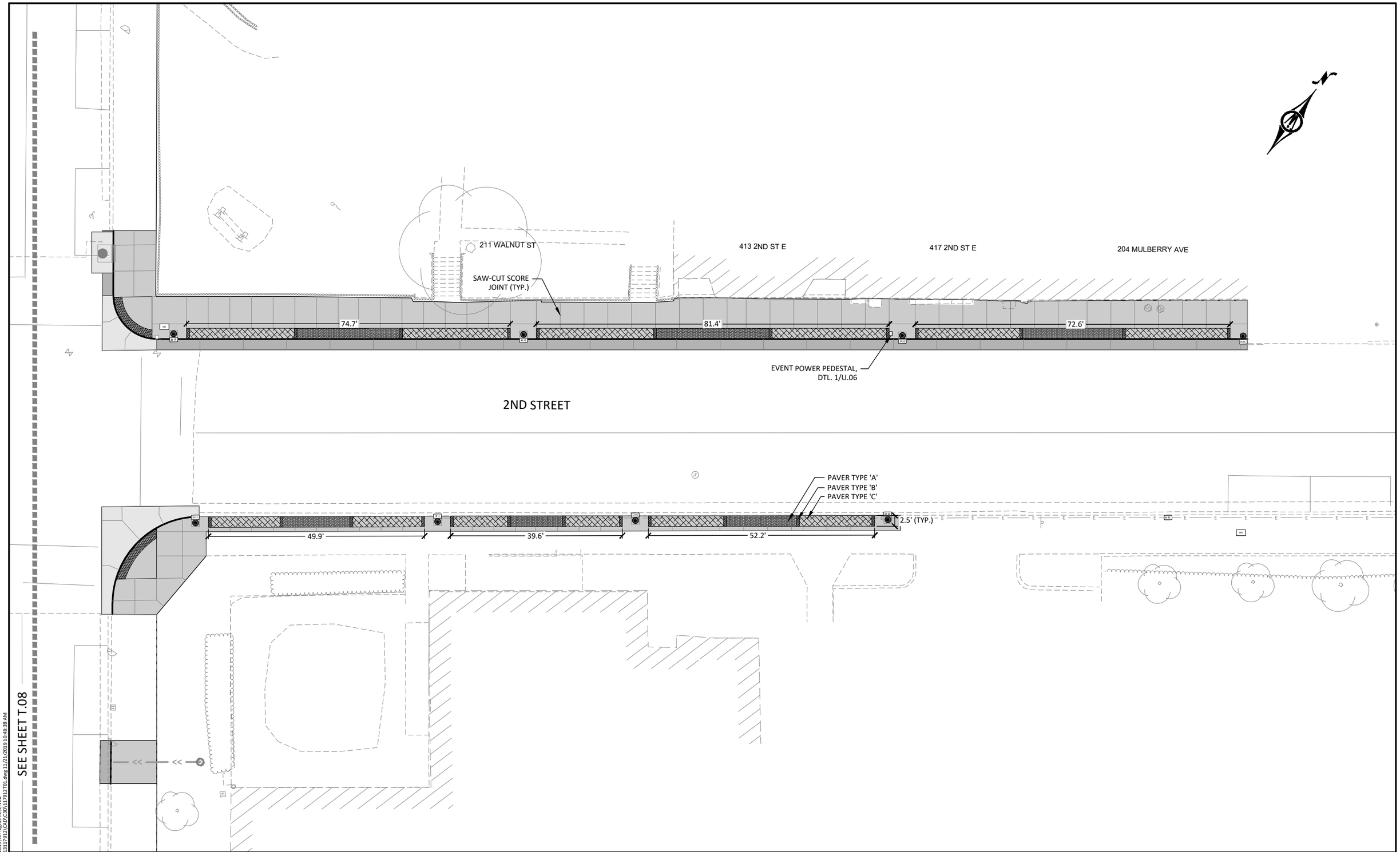

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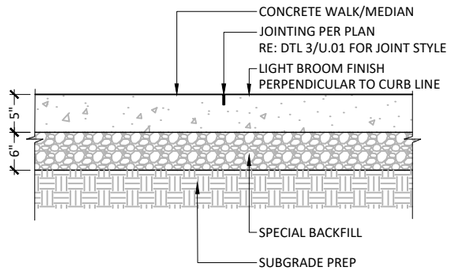
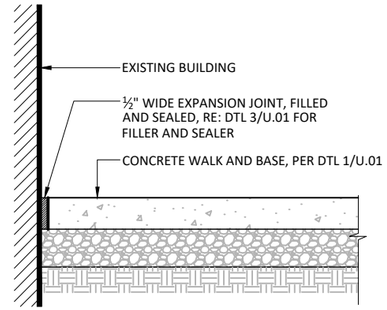
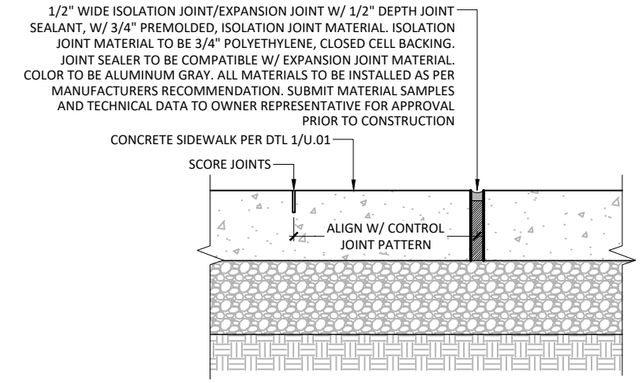


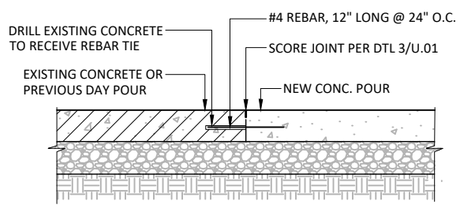
1 TYPICAL SECTION: PCC WALK
SCALE: 1"=1'-0"



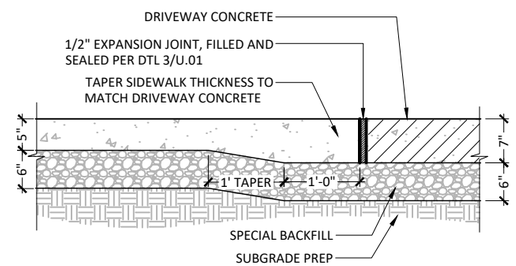
2 TYPICAL SECTION: CONCRETE SIDEWALK AT BUILDING EDGE
SCALE: 1"=1'-0"



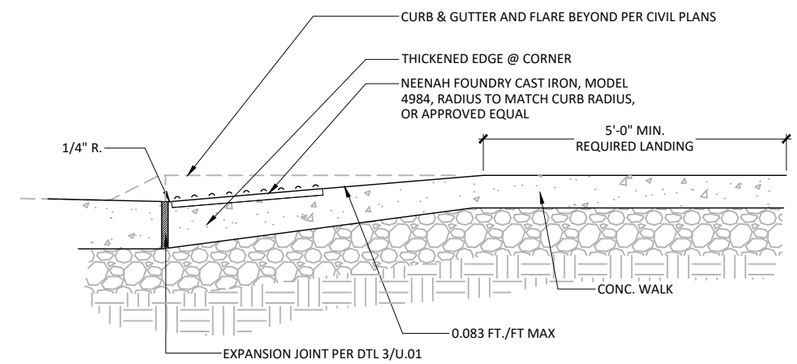
3 TYPICAL SECTION: CONCRETE SIDEWALK JOINTS
SCALE: N.T.S.



4 TYPICAL SECTION: SIDEWALK REINFORCED CONSTRUCTION JOINT
SCALE: 1"=1'-0"

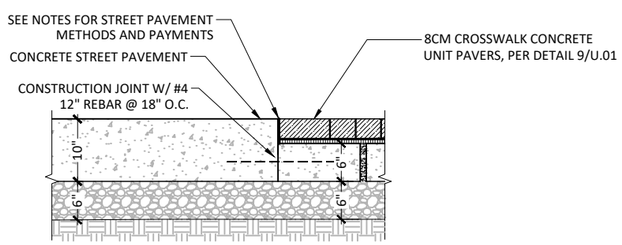


5 SECTION: SIDEWALK TO DRIVEWAY CONNECTION
SCALE: 1"=1'-0"



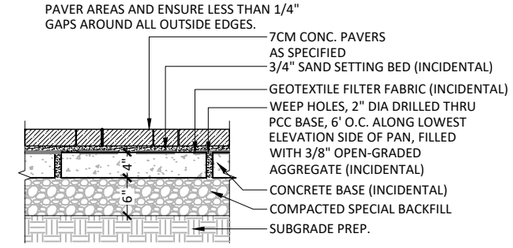
6 SECTION: PEDESTRIAN CURB RAMP / DETECTABLE WARNING PANEL
SCALE: 1"=1'-0"

NOTES:
1. IN PEDESTRIAN CROSSINGS, CONCRETE PAVEMENT SHALL BE PLACED WITHIN CROSSWALK AREAS IN CONJUNCTION WITH STREET PAVING OPERATIONS. THE EDGES OF THE CONCRETE PAVER CROSSWALKS SHALL THEN BE SAW CUT FULL-DEPTH AND THE CONCRETE REMOVED FOR THE PLACEMENT OF CONCRETE PAVERS AND CONCRETE BASE.
2. PAYMENT FOR CONCRETE PAVEMENT GREATER THAN 10" THICK ADJACENT TO CROSSWALK AND OTHER STREET PAVERS WILL BE AT THE UNIT PRICE BID FOR 10" CONCRETE PAVEMENT
3. PAYMENT FOR CONCRETE PAVEMENT PLACED AND SUBSEQUENTLY REMOVED WILL BE AT THE UNIT PRICE BID FOR 10" CONCRETE PAVEMENT. SAW CUTTING AND REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR 'CROSSWALK PAVERS W/ 6" CONCRETE BASE'



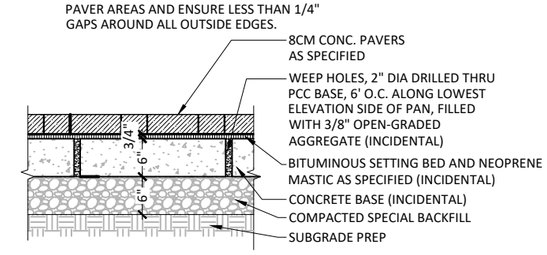
7 SECTION: CROSSWALK PAVERS WITH PCC BASE AND ROADWAY INTERFACE
SCALE: 1"=1'-0"

NOTES:
1. PAVER PATTERN MOCKUP SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. DO NOT USE PLAN HATCHES FOR SCALING OR DETERMINING PAVER PATTERNS.
3. PAVERS MAY REQUIRE CUTTING TO FIT PAVER AREAS AND ENSURE LESS THAN 1/4" GAPS AROUND ALL OUTSIDE EDGES.



8 SECTION: SIDEWALK CONCRETE UNIT PAVERS
SCALE: 1"=1'-0"

NOTES:
1. PAVER PATTERN MOCKUP SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. DO NOT USE PLAN HATCHES FOR SCALING OR DETERMINING PAVER PATTERNS.
3. PAVERS MAY REQUIRE CUTTING TO FIT PAVER AREAS AND ENSURE LESS THAN 1/4" GAPS AROUND ALL OUTSIDE EDGES.



9 SECTION: CROSSWALK CONCRETE UNIT PAVERS
SCALE: 1"=1'-0"

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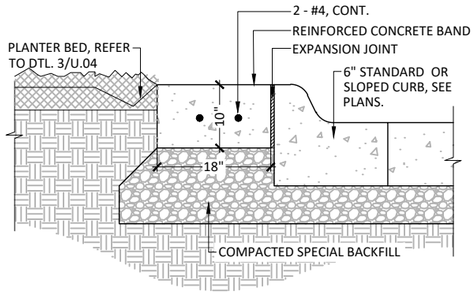
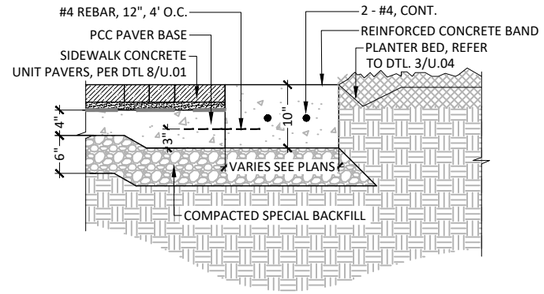
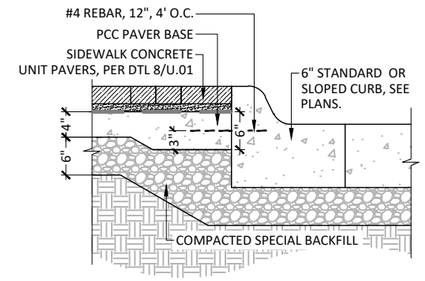


REINFORCED CONCRETE BAND AT CURB

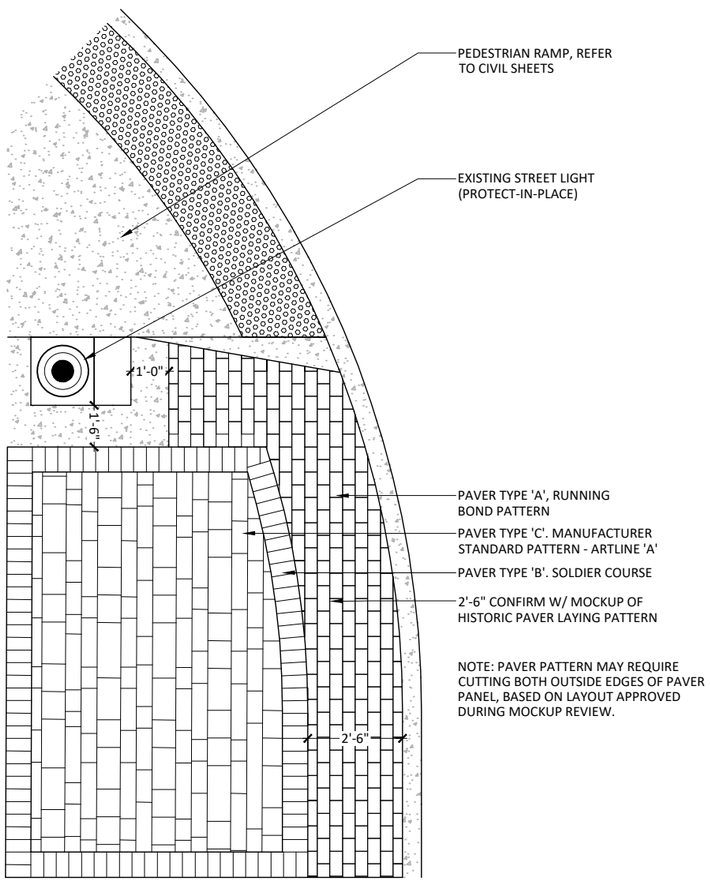


REINFORCED CONCRETE BAND AT SIDEWALK PAVERS / PLANTER BED

1 SECTION: REINFORCED CONCRETE BAND
SCALE: 1"=1'-0"

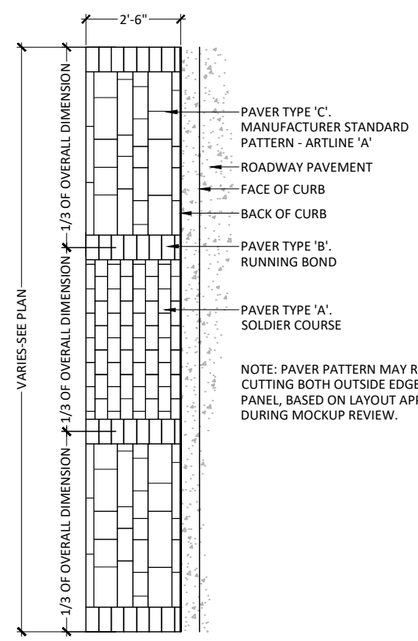


2 SECTION: SIDEWALK CONCRETE UNIT PAVERS AND CURB INTERFACE
SCALE: 1"=1'-0"



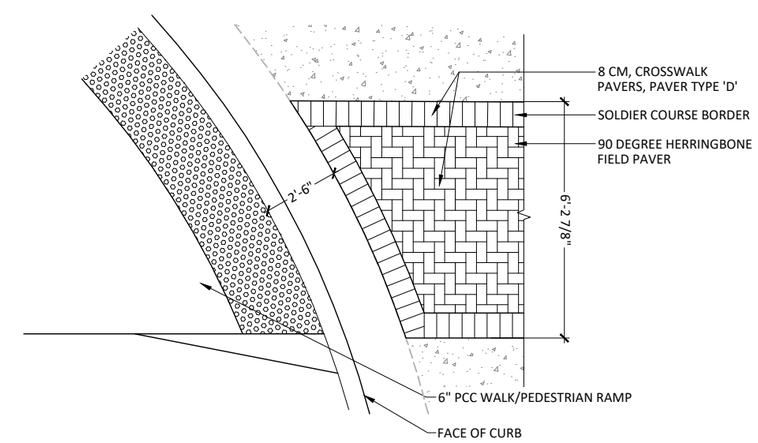
NOTE: PAVER PATTERN MAY REQUIRE CUTTING BOTH OUTSIDE EDGES OF PAVER PANEL, BASED ON LAYOUT APPROVED DURING MOCKUP REVIEW.

3 TYPICAL PAVER PATTERN: SIDEWALK PAVERS
SCALE: 1/2"=1'-0"



NOTE: PAVER PATTERN MAY REQUIRE CUTTING BOTH OUTSIDE EDGES OF PAVER PANEL, BASED ON LAYOUT APPROVED DURING MOCKUP REVIEW.

4 TYPICAL PAVER PATTERN: SIDEWALK PAVERS
SCALE: 1/2"=1'-0"



5 TYPICAL PAVER PATTERN: CROSSWALK PAVERS
SCALE: 1/2"=1'-0"

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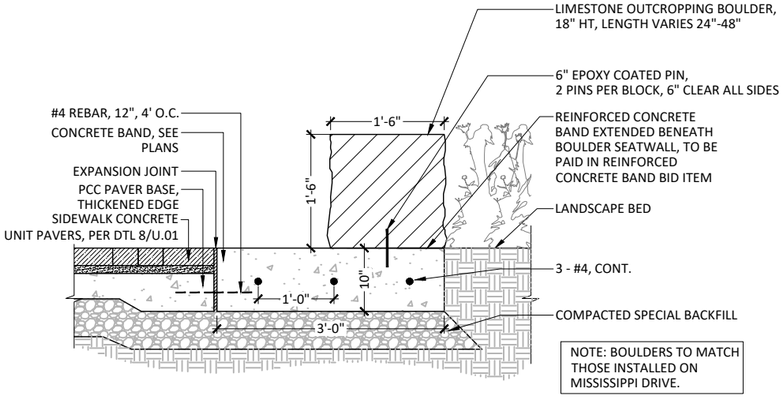


NOTE: BOULDERS TO MATCH THOSE INSTALLED ON MISSISSIPPI DRIVE.

BOULDER SEATWALL LIMESTONE TO MATCH MISSISSIPPI DRIVE.
APPROVED FABRICATOR/SOURCE: KASOTA STONE FABRICATORS - MANKATO, MN
CONTACT - ADAM BROOKINS (763) 227 - 1777

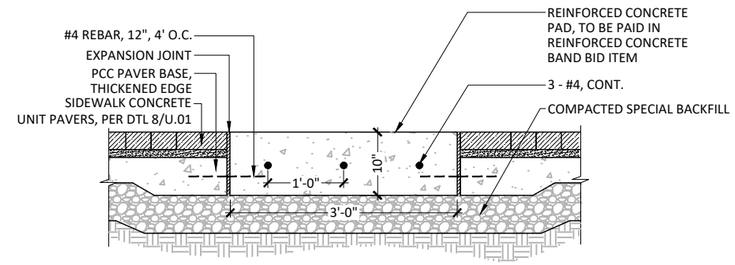
-KASOTA AMBER LIMESTONE CUSTOM BLOCK
-SPLITFACE FRONT/BACK
-NATURAL TOP/BOTTOM, WITH SAWN/ MITERED JOINTS AS REQUESTED TO FIT RADIUS.

PROVIDE SHOP DRAWINGS.

OR APPROVED EQUAL

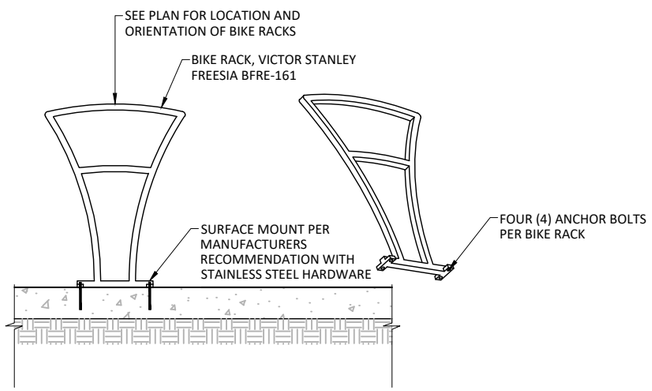
NOTE FOR BOULDER SEATWALL ON T.02: BOULDER LENGTH VARIES 18"-30" TO MAINTAIN CONSISTENT FACE OF WALL RADIUS.

1 SECTION: BOULDER SEATWALL
SCALE: 1"=1'-0"



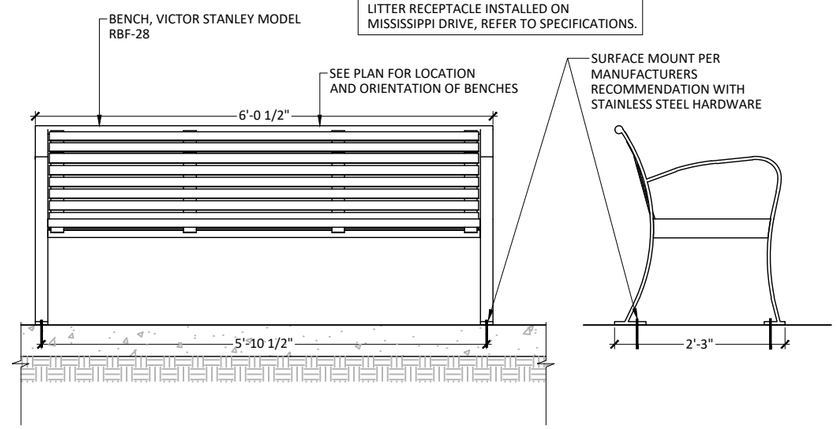
2 SECTION: REINFORCED CONCRETE ART PAD
SCALE: 1"=1'-0"

NOTE: SITE FURNISHINGS TO MATCH COLOR, STYLE AND SIZE AS BIKE RACK, BENCH AND LITTER RECEPTACLE INSTALLED ON MISSISSIPPI DRIVE, REFER TO SPECIFICATIONS.



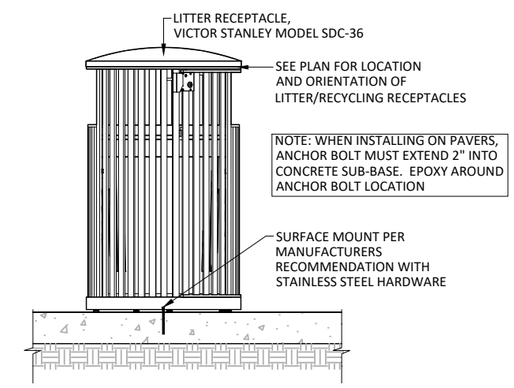
3 SECTION: BIKE RACK
SCALE: 1"=1'-0"

NOTE: SITE FURNISHINGS TO MATCH COLOR, STYLE AND SIZE AS BIKE RACK, BENCH AND LITTER RECEPTACLE INSTALLED ON MISSISSIPPI DRIVE, REFER TO SPECIFICATIONS.



4 SECTION: BENCH
SCALE: 1"=1'-0"

NOTE: SITE FURNISHINGS TO MATCH COLOR, STYLE AND SIZE AS BIKE RACK, BENCH AND LITTER RECEPTACLE INSTALLED ON MISSISSIPPI DRIVE, REFER TO SPECIFICATIONS.



NOTE: WHEN INSTALLING ON PAVERS, ANCHOR BOLT MUST EXTEND 2" INTO CONCRETE SUB-BASE. EPOXY AROUND ANCHOR BOLT LOCATION

5 SECTION: LITTER RECEPTACLE
SCALE: 1"=1'-0"

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2ND STREET RECONSTRUCTION
LANDSCAPING DETAILS

SHEET
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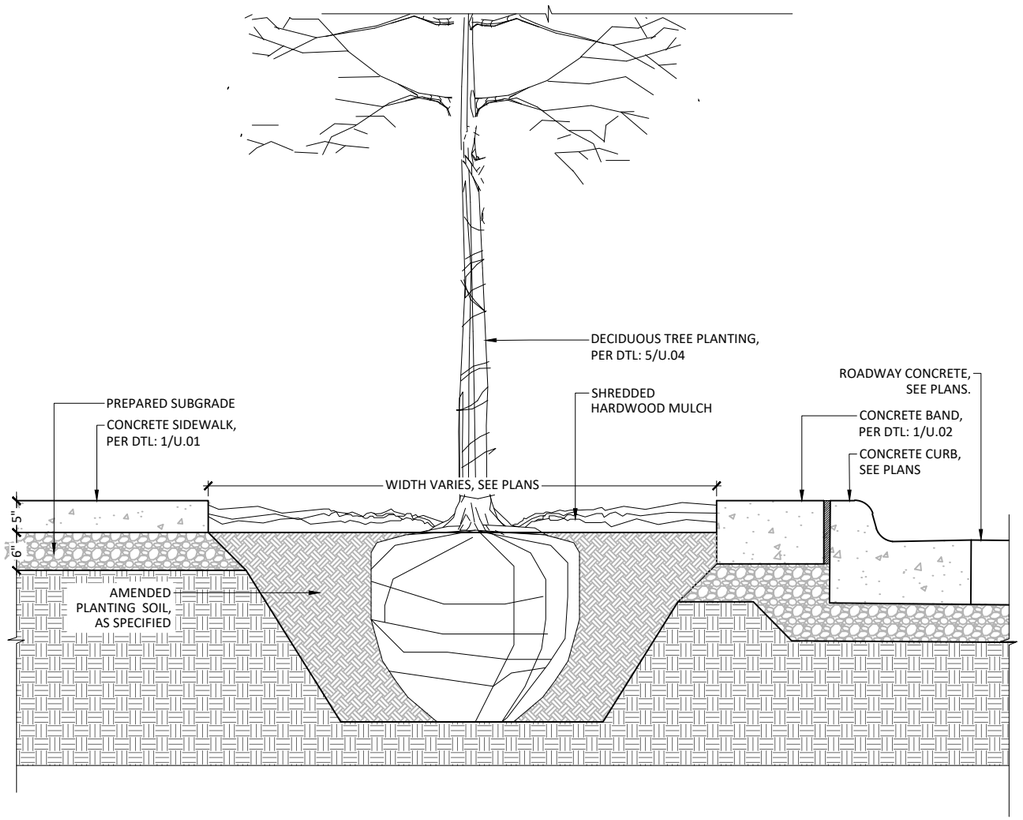
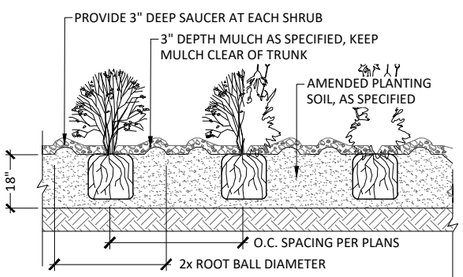
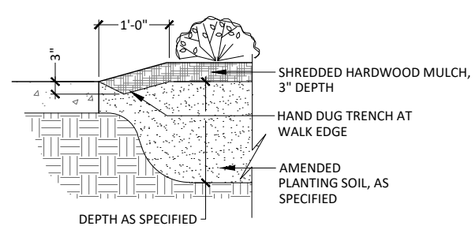


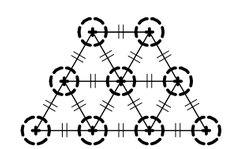
1 SECTION: STREET TREE PLANTING
SCALE: 1"=1'-0"



2 TYPICAL SECTION: SHRUB/PERENNIAL BED PLANTING
SCALE: N.T.S.

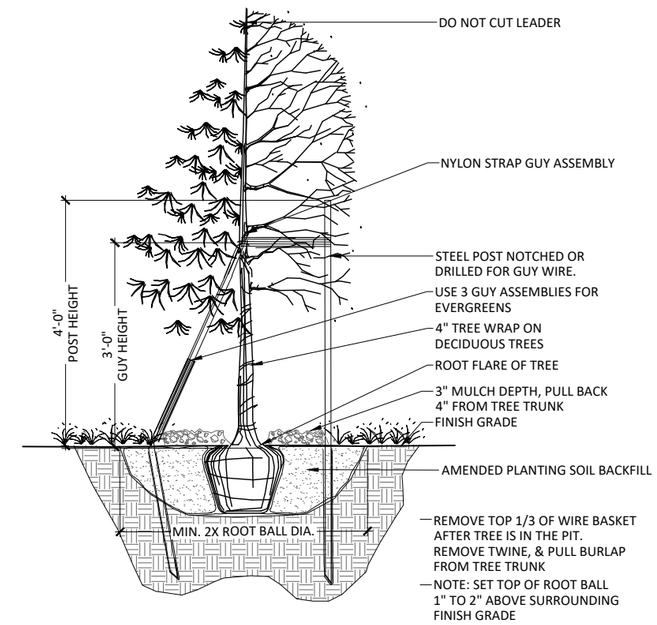


3 PLANTING EDGE AT EXISTING CONC. WALK
SCALE: N.T.S.



NOTES:
1. O.C. TRIANGULAR PLANT SPACING PER PLANS
2. AREAS IDENTIFIED ON PLANTING PLAN AS O.C. SHALL BE TRIANGULAR SPACED
3. SEE PLANTING PLAN/SCHEDULE FOR SPECIES

4 SECTION: PERENNIAL PLANT SPACING
SCALE: 1"=1'-0"



5 SECTION: TREE PLANTING IN MEDIAN/PLANTER DETAIL
SCALE: 1"=1'-0"

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LANDSCAPING DETAILS

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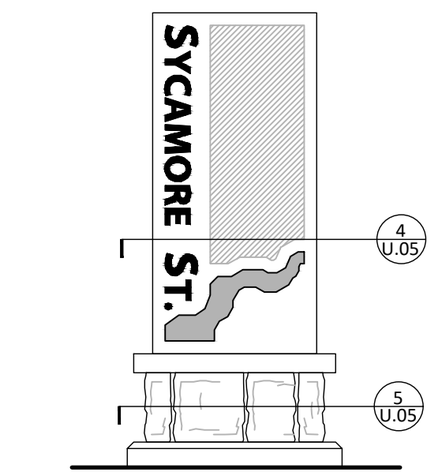
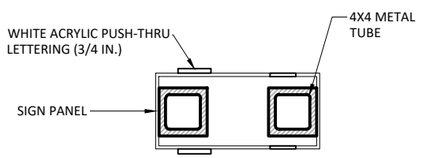
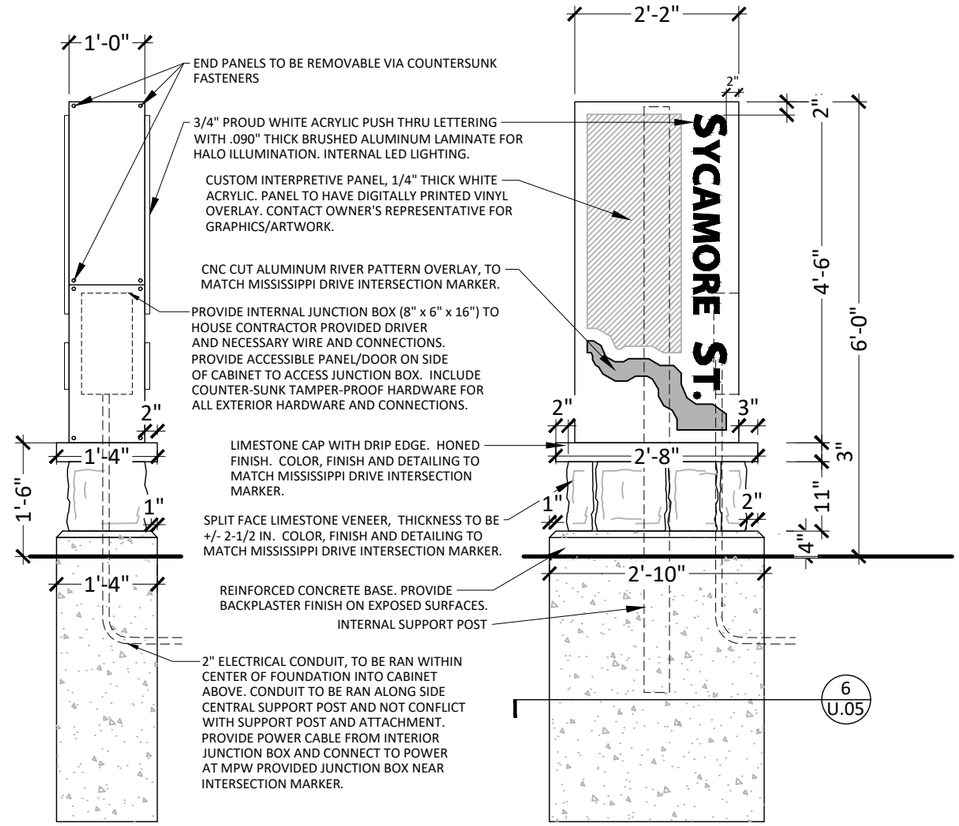


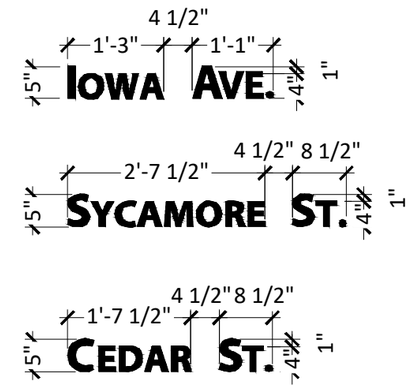
1 INTERSECTION MARKER
SCALE: 1"=1'-0"



4 SECTION: ALUMINUM SIGN HOUSING
SCALE: 1"=1'-0"



2 SECTION/ELEVATION
SCALE: 1"=1'-0"



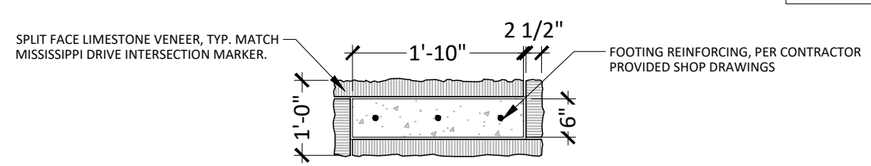
TEXT NOTES:

DIMENSIONS ABOVE ARE APPROXIMATE AND ARE INTENDED TO ESTABLISH PROPORTIONS ONLY. FINAL DIMENSIONS TO BE DETERMINED DURING SHOP DRAWING REVIEW.

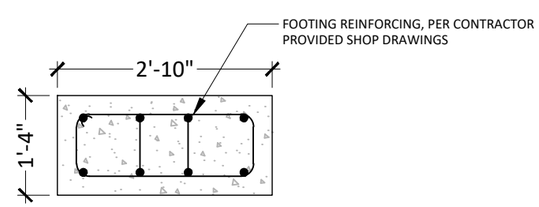
3 TEXT DIMENSIONS
SCALE: 1"=1'-0"

INTERSECTION GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE STRUCTURAL ENGINEER CERTIFIED SHOP DRAWINGS FOR DESIGN AND DETAILING OF INTERSECTION MARKERS, INCLUDING FOOTING, REINFORCING AND INTERIOR FRAMING/SUPPORT STRUCTURE.
2. FINISHES AND COLORS TO MATCH INTERSECTION MARKERS INSTALLED ON MISSISSIPPI DRIVE, WHERE INDICATED. CONTRACTOR TO SUBMIT SAMPLES FOR APPROVAL PRIOR TO FABRICATION.
3. FONT AND TEXT ON SIGN ARE FOR BIDDING PURPOSES ONLY. CONTACT OWNER'S REPRESENTATIVE FOR DIGITAL FILE OF TEXT OUTLINE FOR CONTRACTORS FABRICATION.
4. CONTRACTOR TO PROVIDE COLOR SAMPLES FOR ALL PAINTED METALWORK FOR OWNER APPROVAL. ALL PAINTED METALWORK SHALL HAVE EXTERIOR GRADE FINISHES.
5. ALL METAL SHALL BE PER SHOP DRAWINGS.
6. SIZING FOR ALL METALWORK IS FOR AESTHETIC REFERENCE ONLY. STRUCTURAL SIZING IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. GRIND SMOOTH ALL WELDS AND CUTS
8. ALL EXTERIOR JOINTS OF CABINET, SHALL BE WEATHERPROOF AND SEALED TO PREVENT WATER FROM ENTERING THE CABINET.
9. PROVIDE CONTINUOUS WELDS AT ALL JUNCTIONS.
10. ALL ANCHOR BOLTS, LIMESTONE VENEER TIES, AND OTHER SUCH HARDWARE SHALL BE STAINLESS STEEL AND PAINTED TO MATCH ADJACENT METALWORK OR BE HIDDEN FROM VIEW.
11. ALL ANCHORS AND EXTERIOR HARDWARE TO BE TAMPER PROOF.



5 SECTION: LIMESTONE VENEER BASE
SCALE: 1"=1'-0"



6 SECTION: CONCRETE FOOTING
SCALE: 1"=1'-0"

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2ND STREET RECONSTRUCTION
LANDSCAPING DETAILS

SHEET
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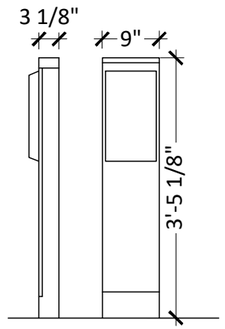
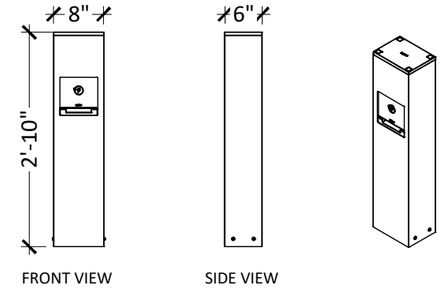
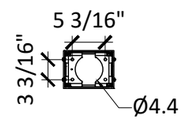


NOTES:

EVENT POWER PEDESTAL, AS MANUFACTURED BY MIDWEST ELECTRIC OR APPROVED EQUAL.
- SURFACE MOUNT WHERE INDICATED IN PAVED AREAS, DIRECT BURY WHERE LOCATED IN LANDSCAPE BEDS
- 100 AMP
- 120/240 VOLT
- RECEPTACLES: R32U, (2) 5-20R2GFCI
- LOCKING DOOR
- COLOR: BLACK

1 EVENT POWER PEDESTAL
SCALE: 1"=1'-0"





NOTES:

OUTDOOR CHARGING STATION, AS MANUFACTURED BY LANDSCAPE FORMS/LEGRAND OR APPROVED EQUAL
- PRODUCT NUMBER BM-PP-1G1U-BLACK
- 2 GANG, 1 DUPLEX GFCI RECEPTACLE, (1) 4-PORT USB OUTLET
- ALUMINUM, POWDER-COATED BLACK

2 CHARGING PEDESTAL
SCALE: 1"=1'-0"

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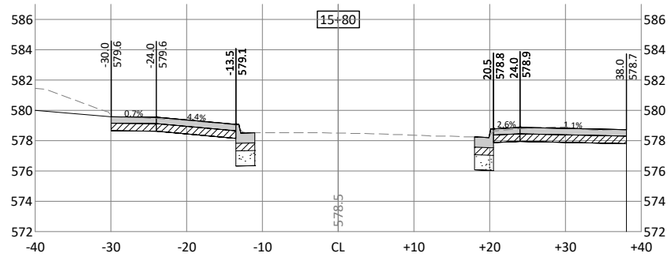

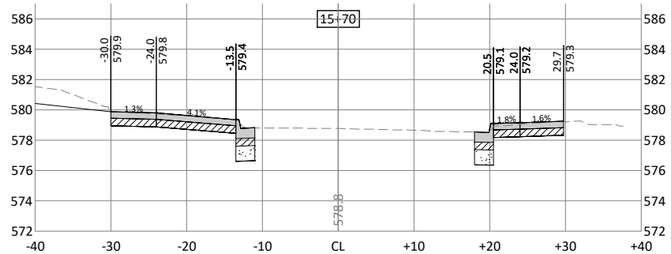

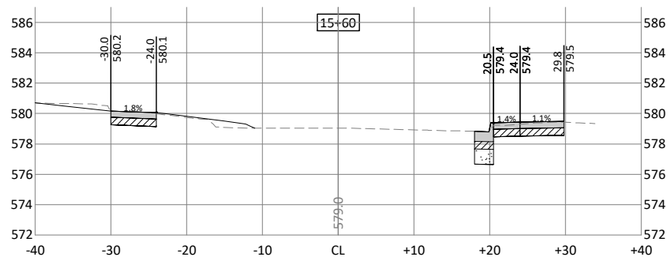

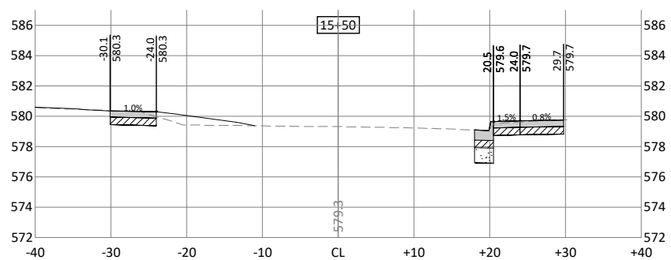

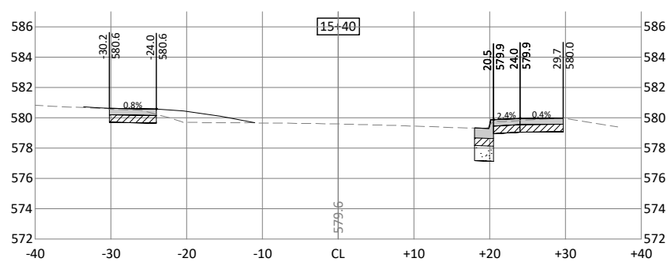

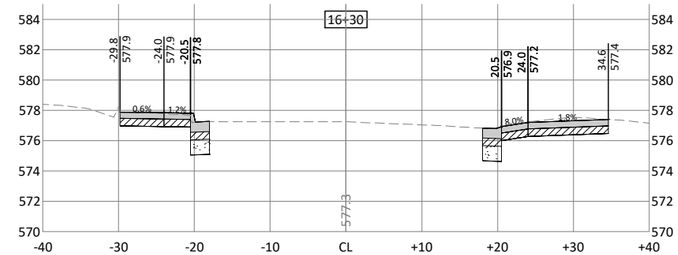

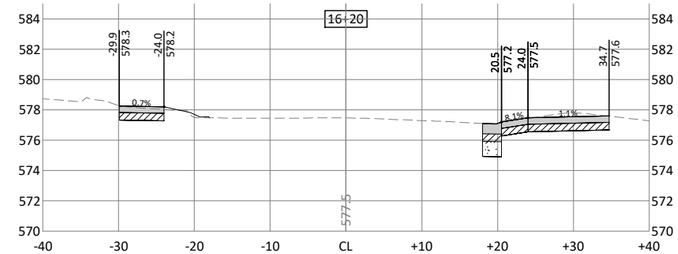

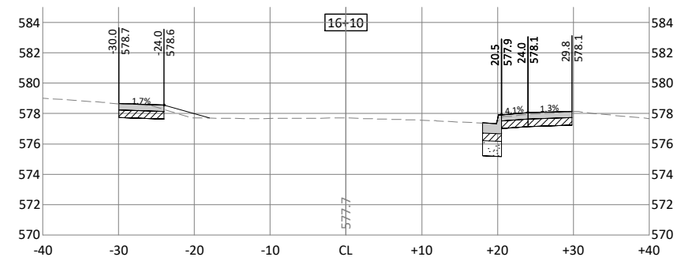

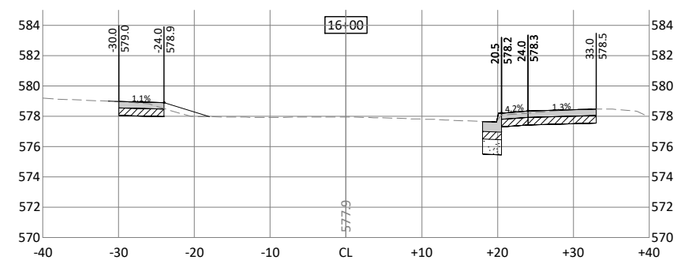

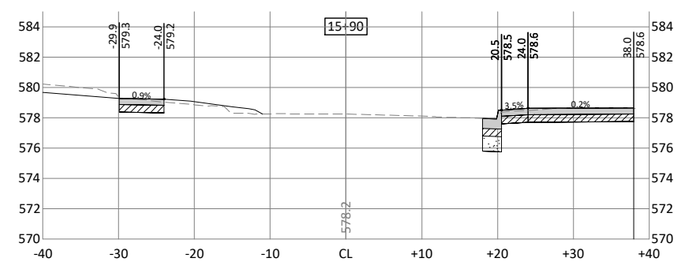

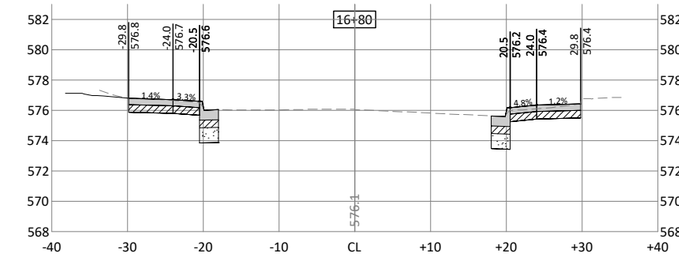

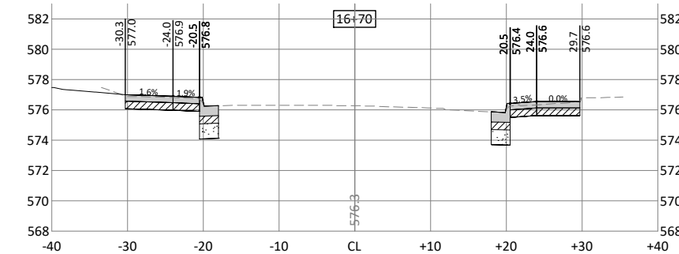

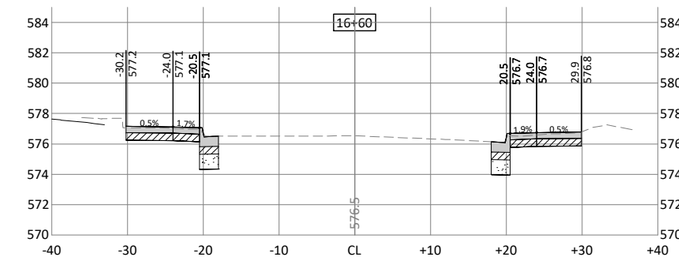

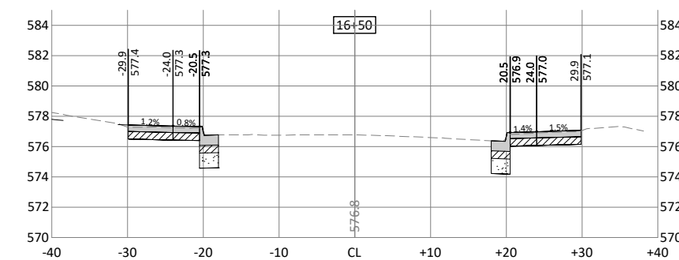

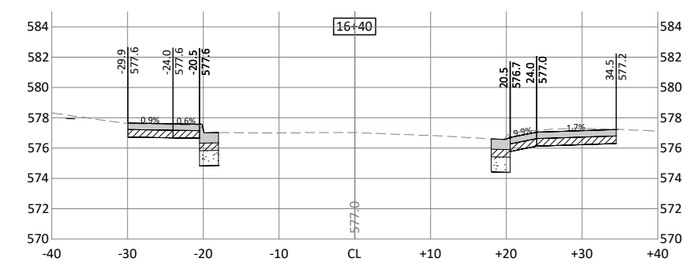

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CROSS SECTIONS

SHEET W.01

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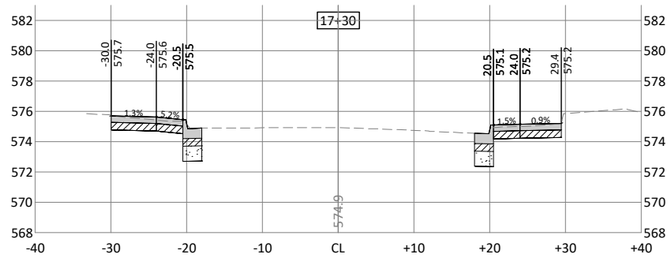

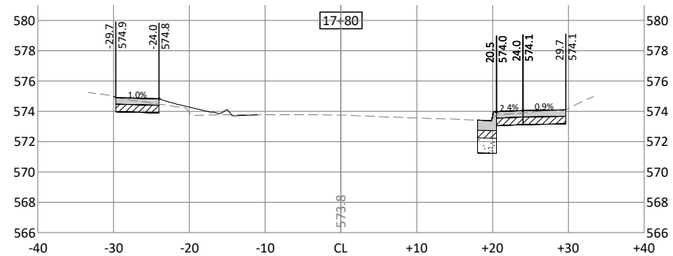

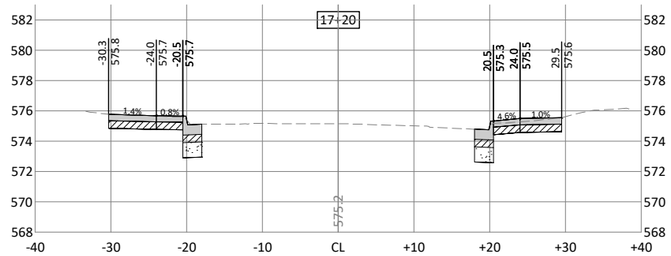

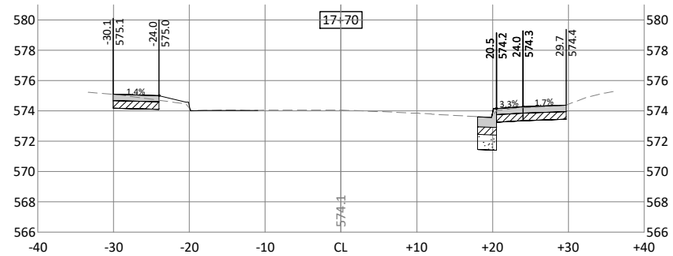

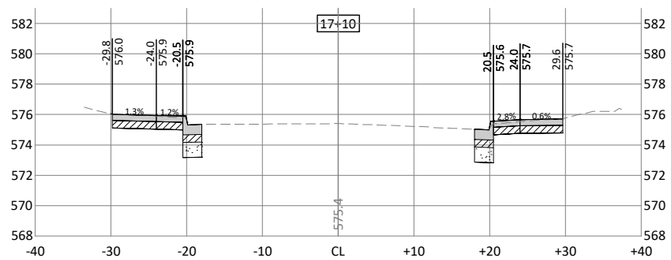

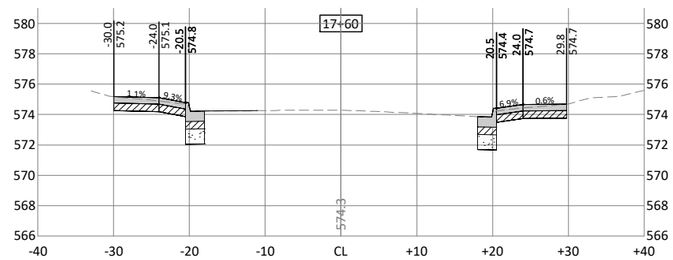

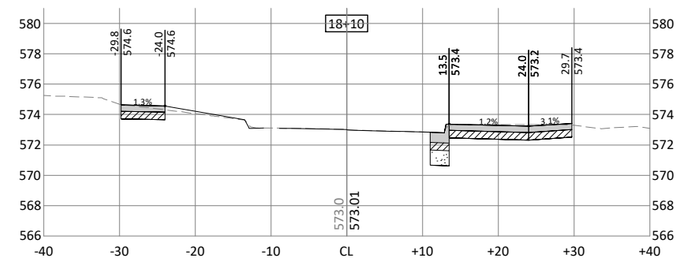

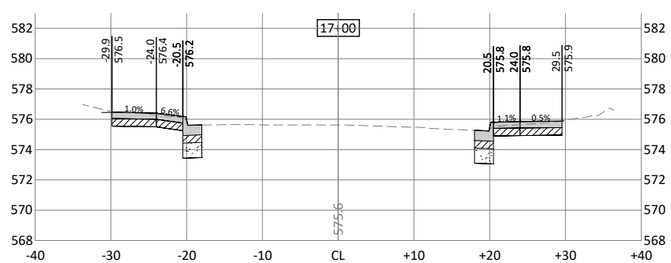

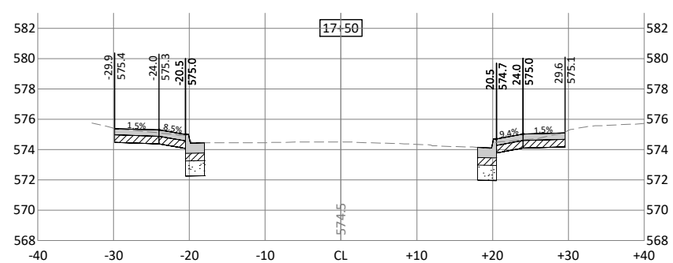

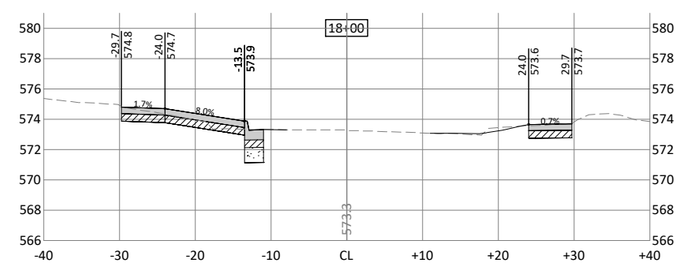

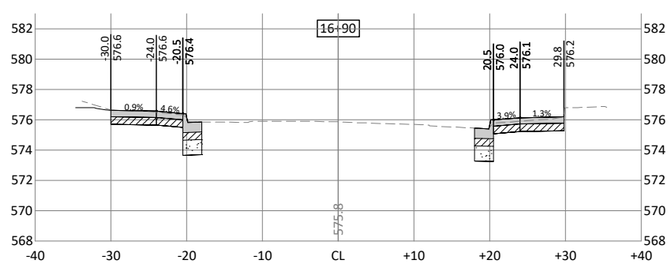

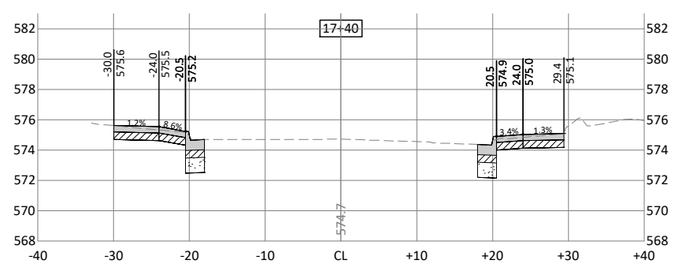

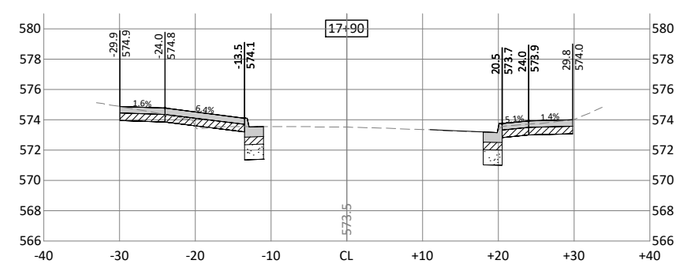

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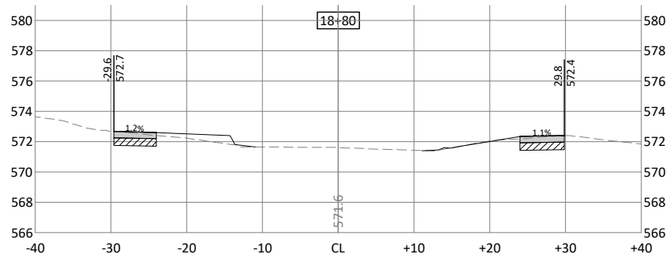

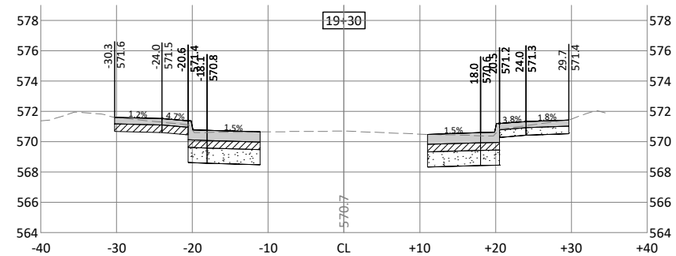

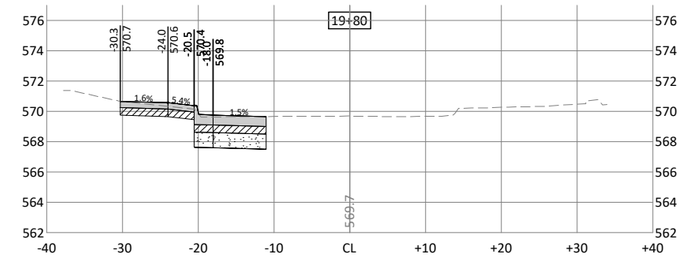

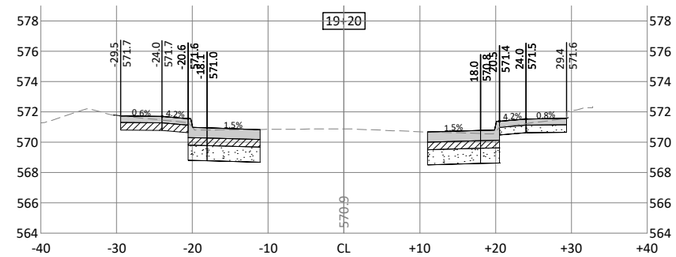

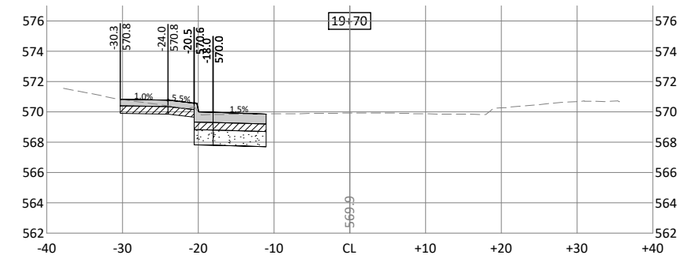

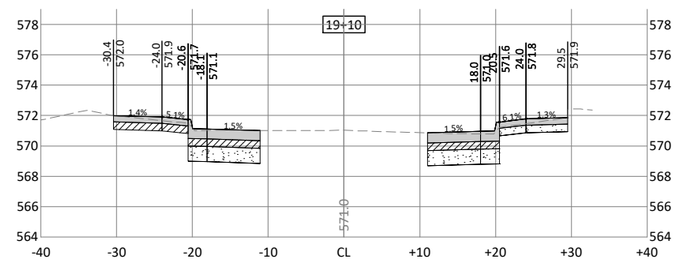

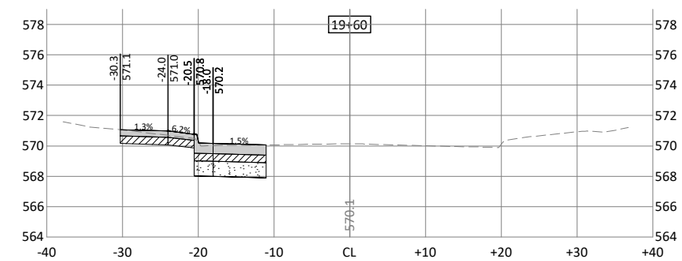

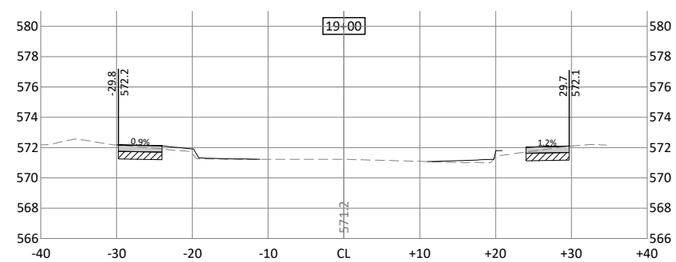

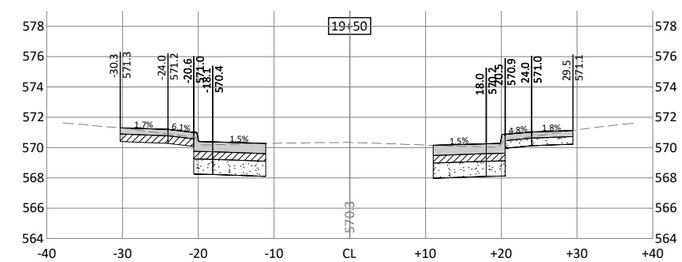

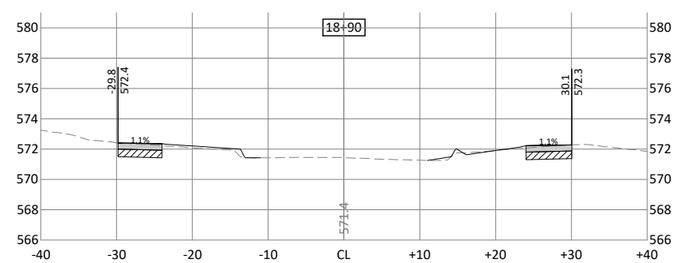

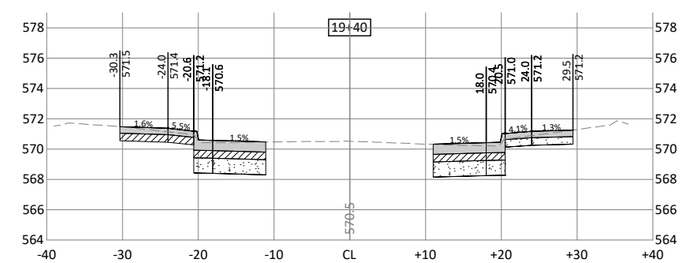

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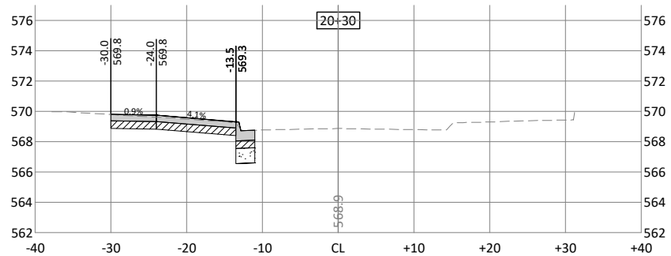

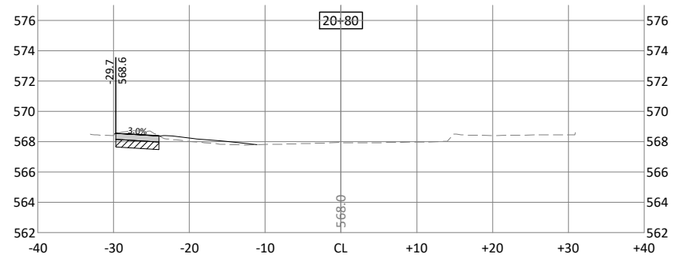

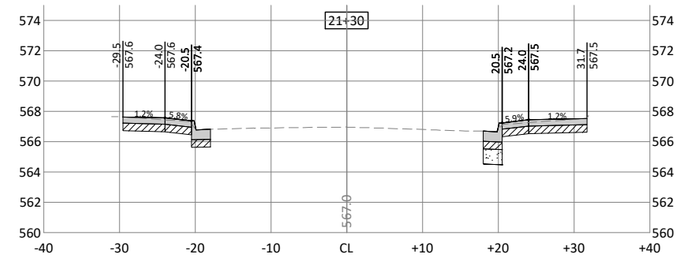

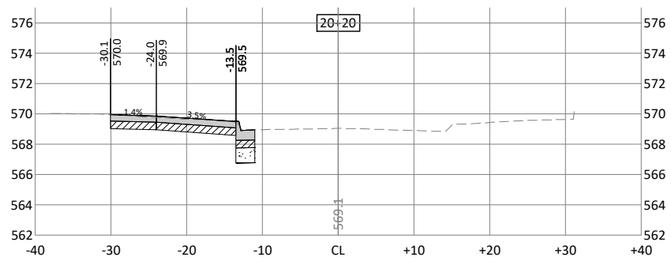

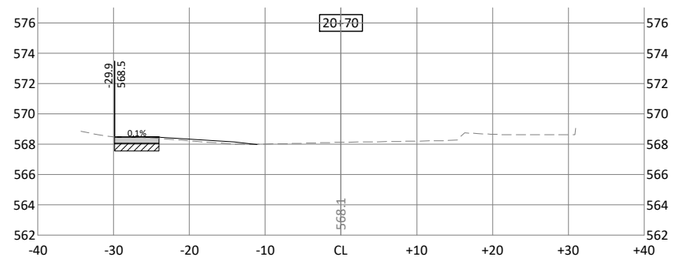

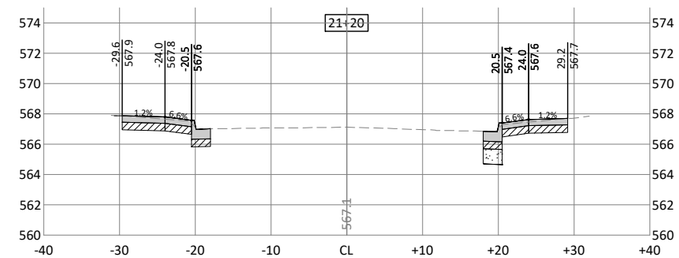

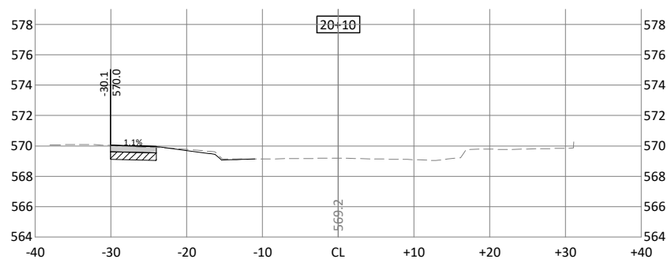

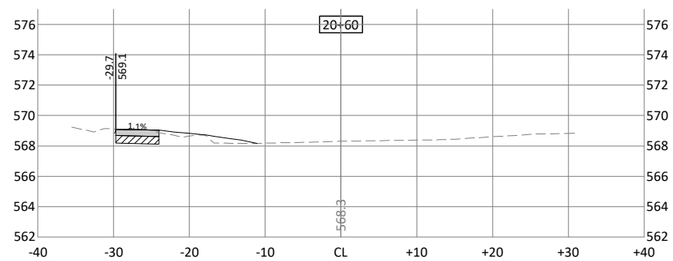

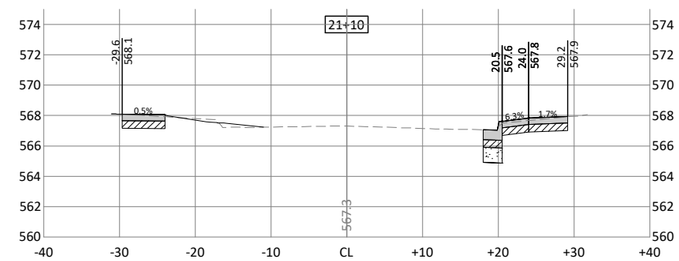

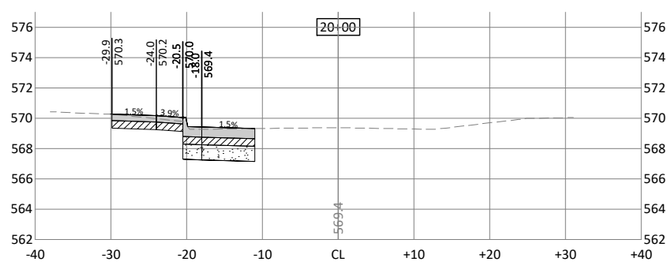

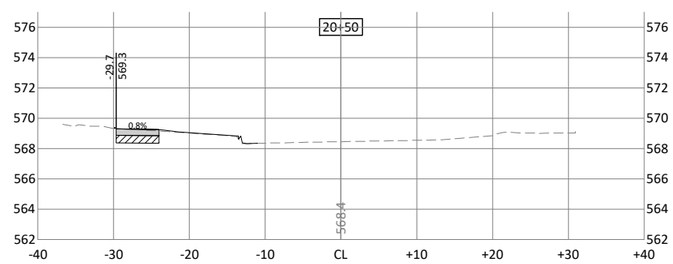

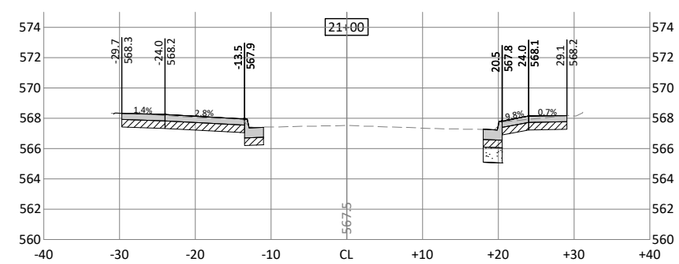

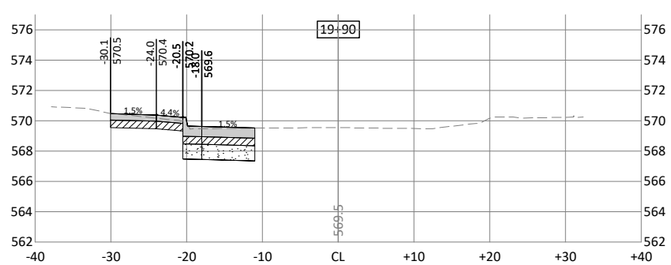

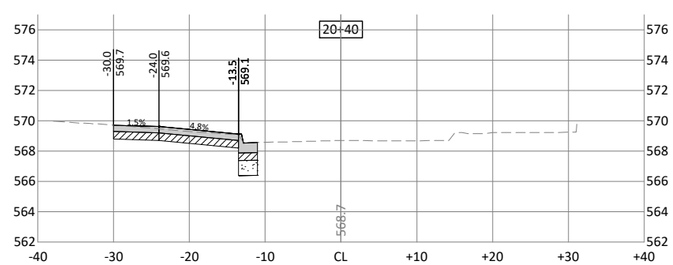

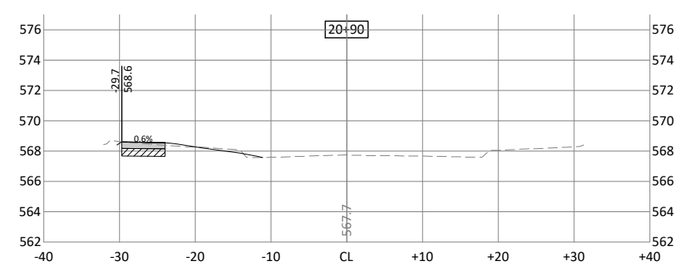

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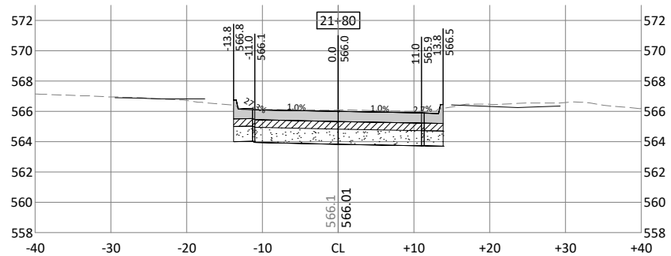

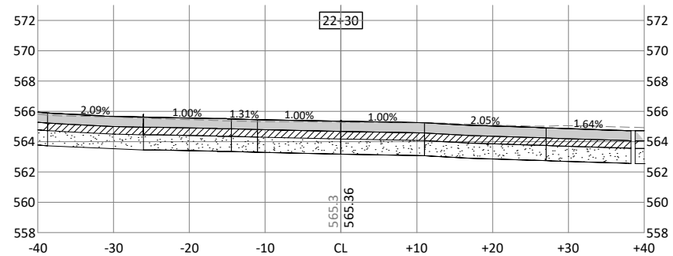

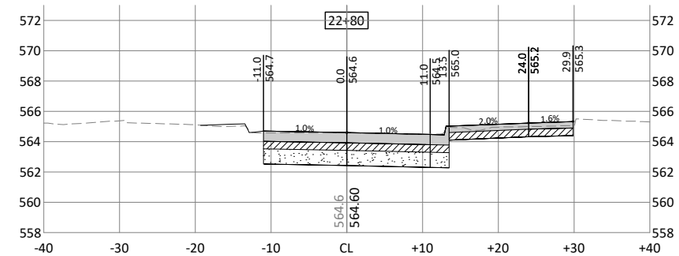

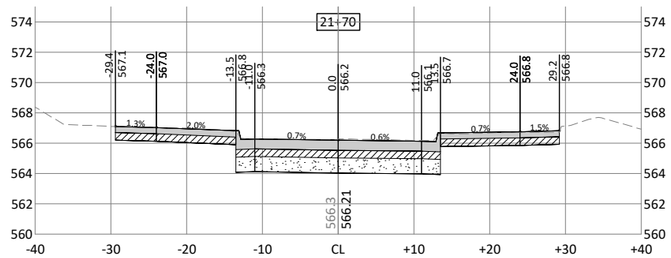

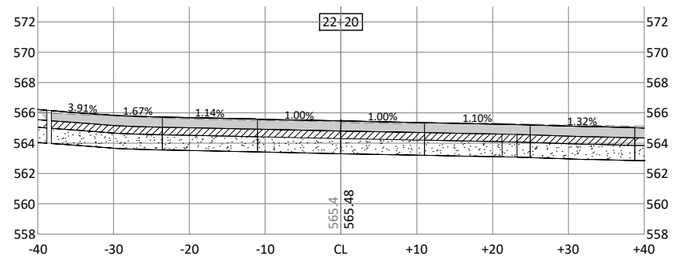

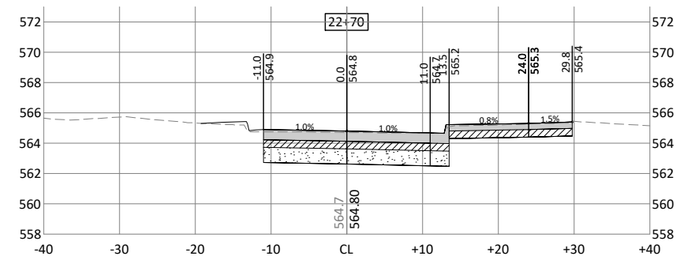

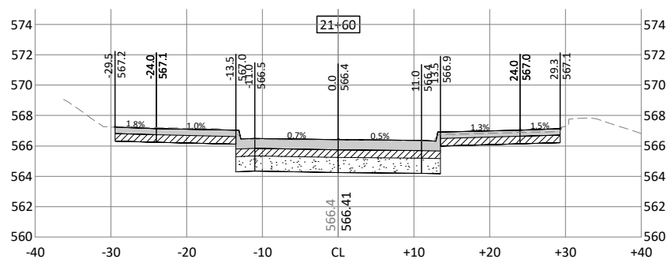

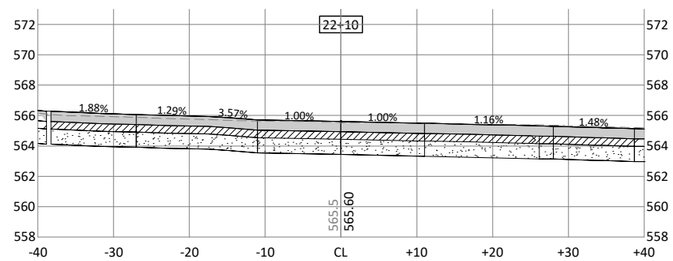

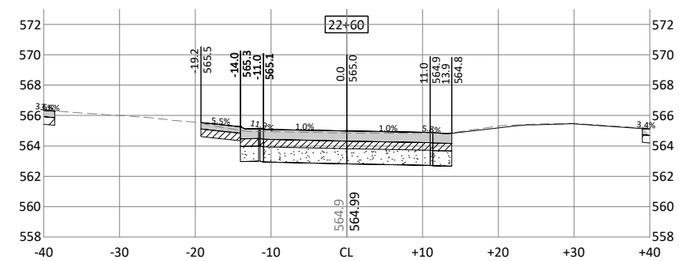

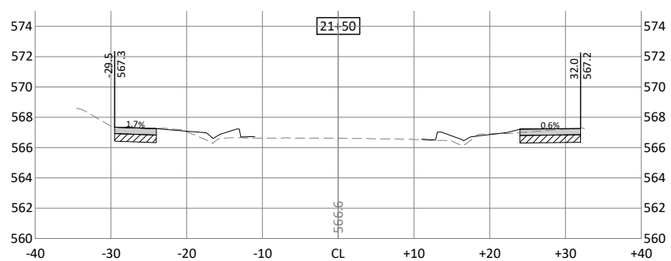

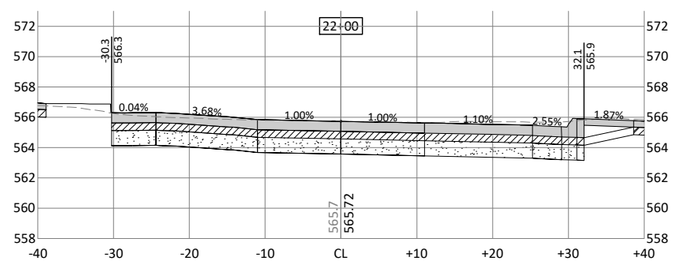

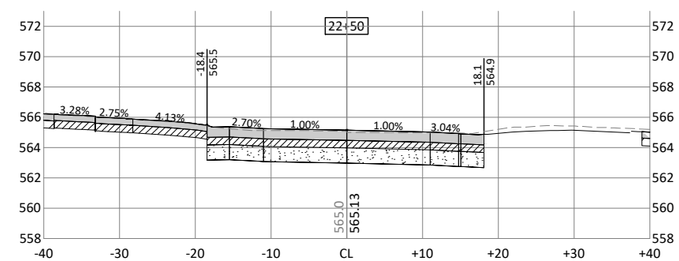

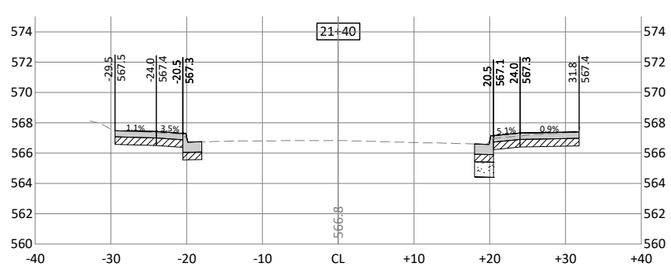

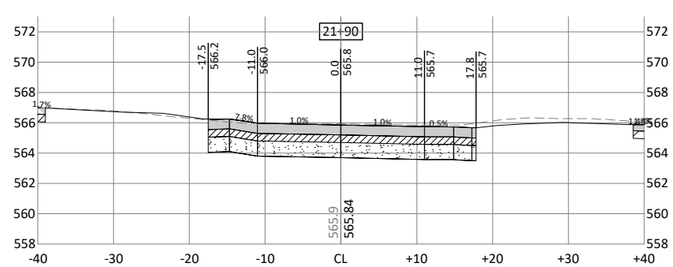

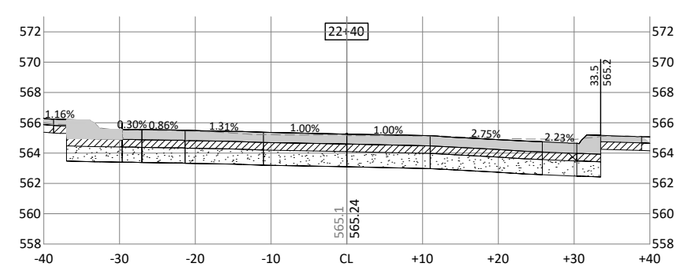

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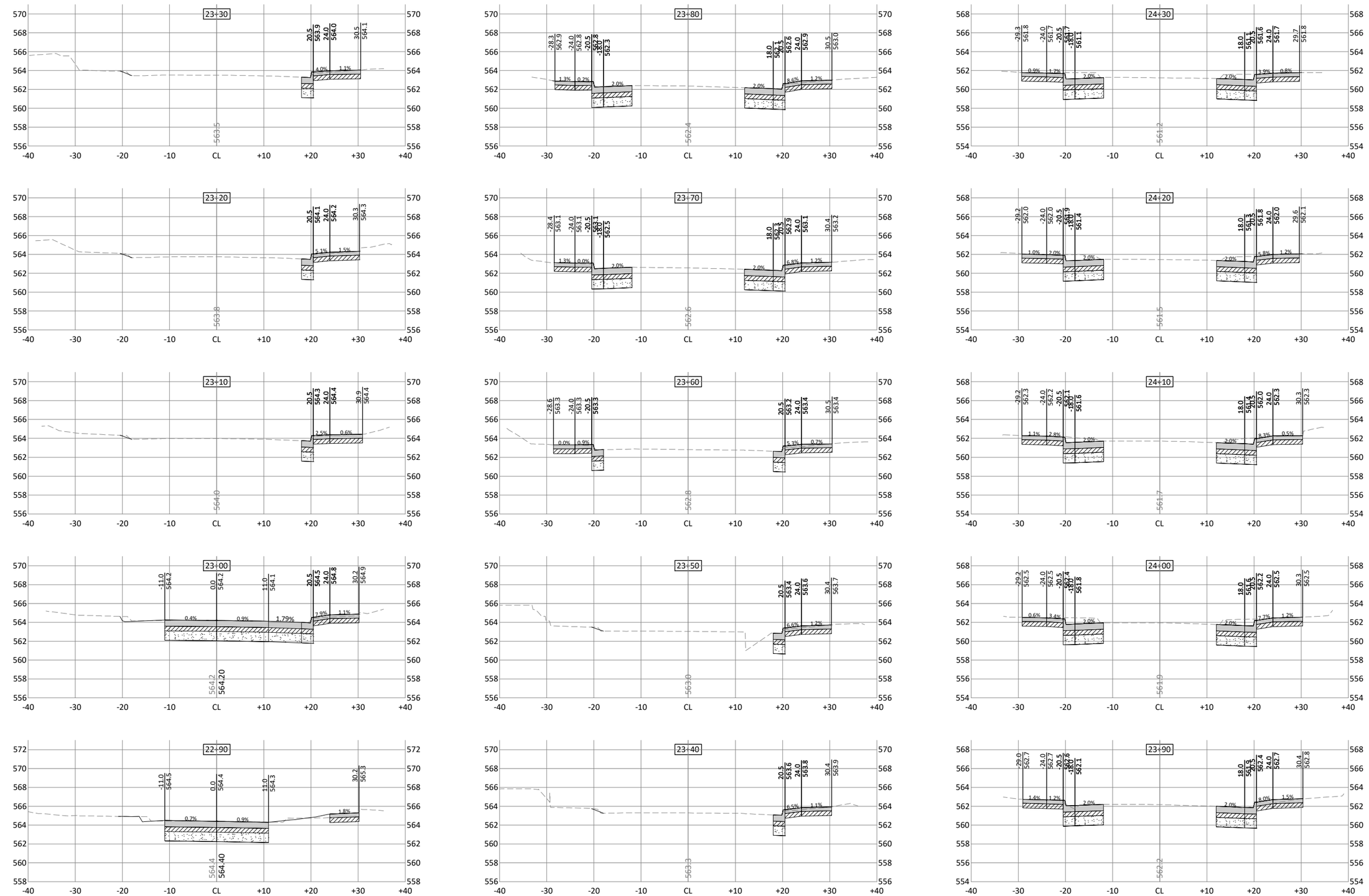

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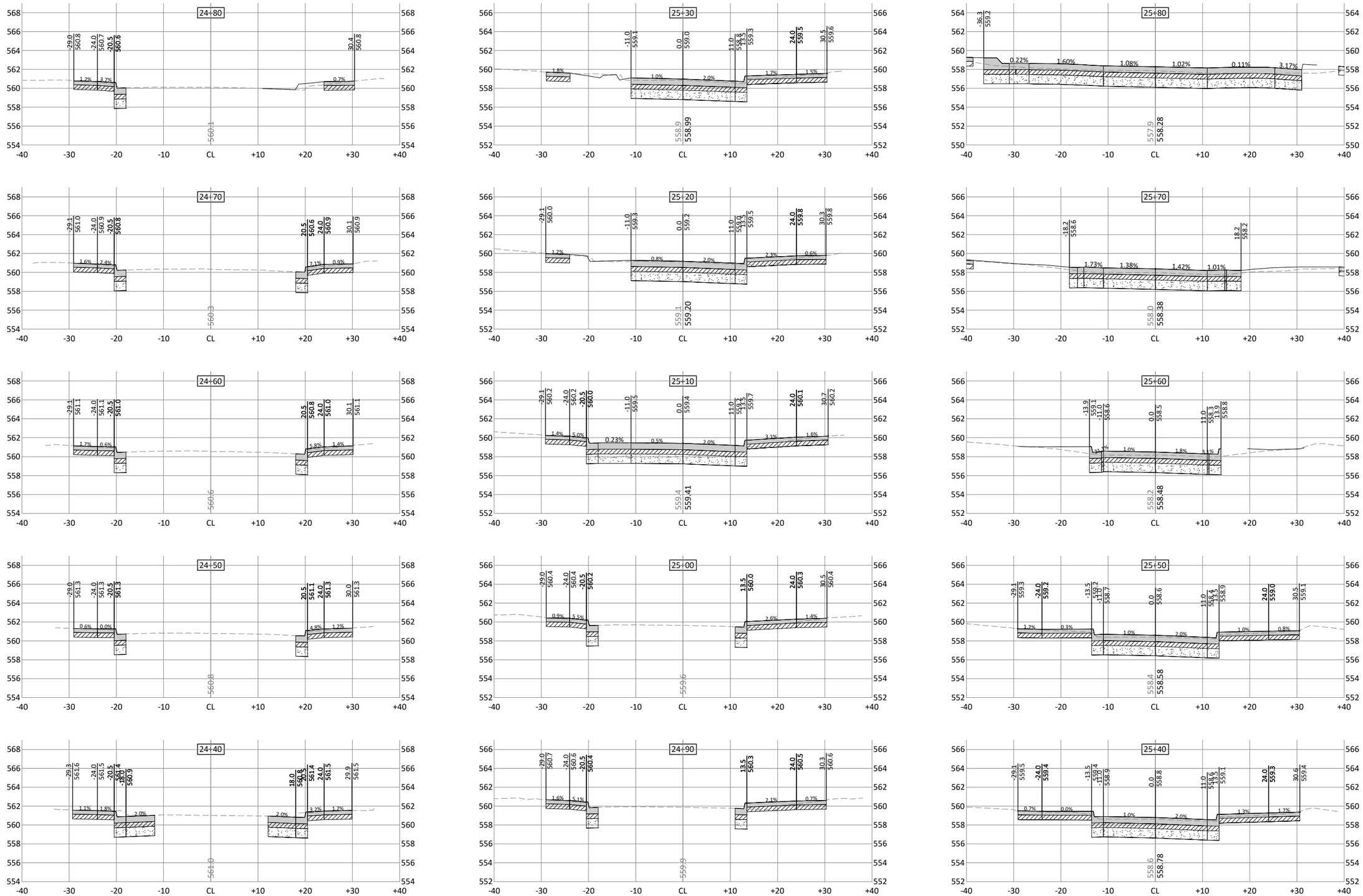

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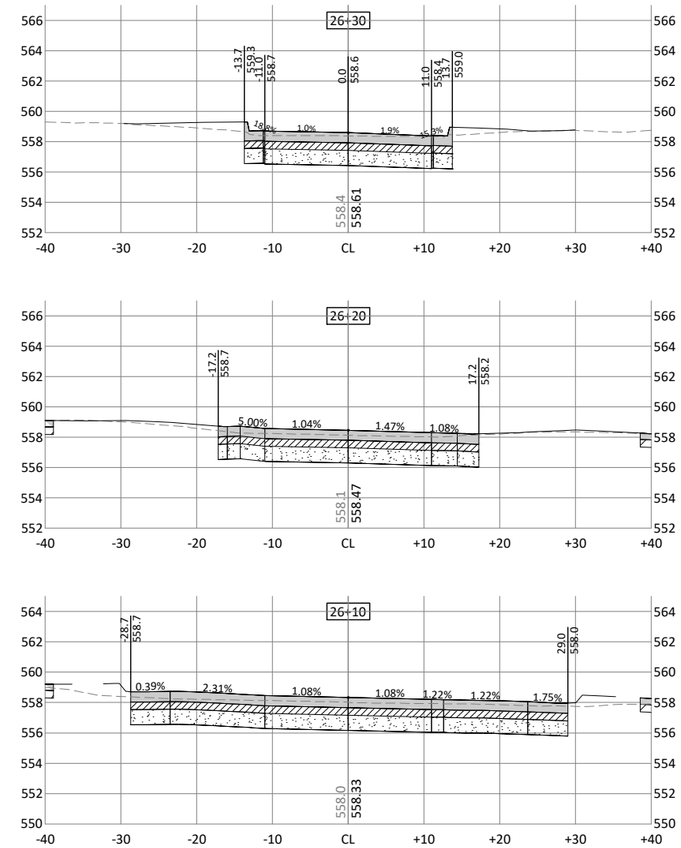

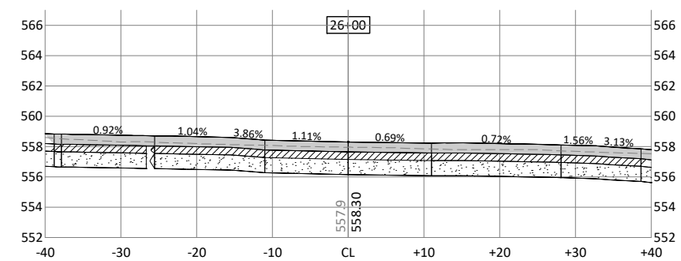

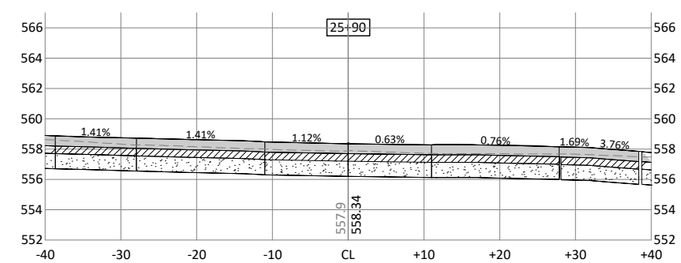

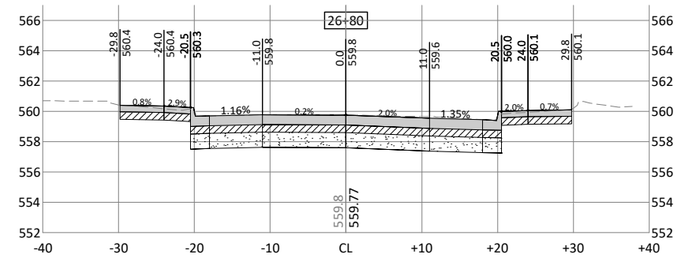

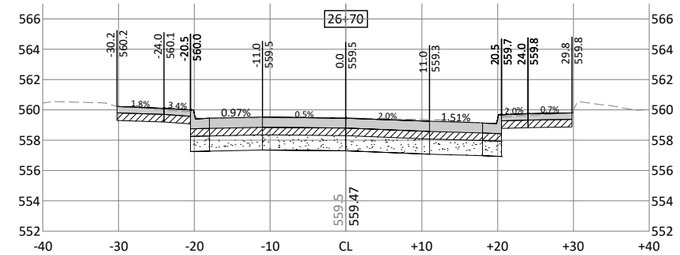

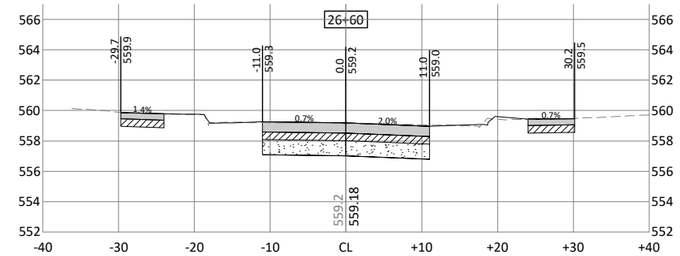

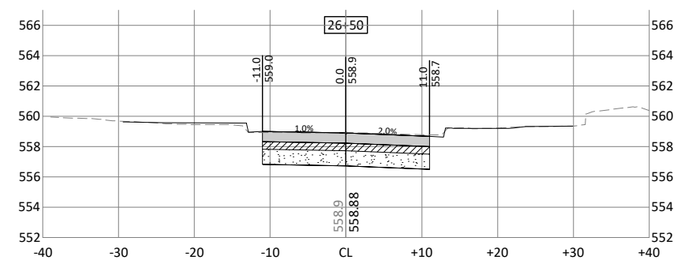

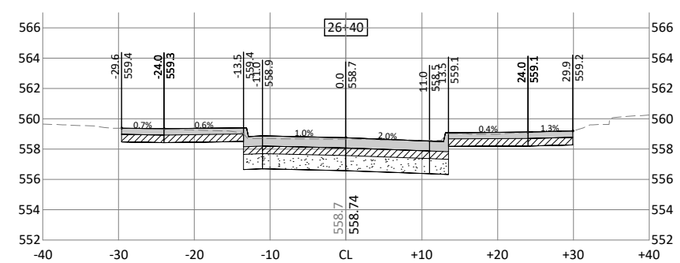

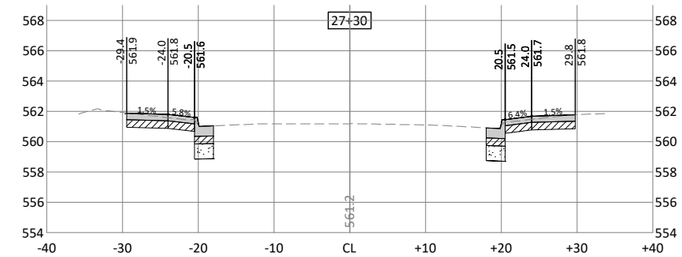

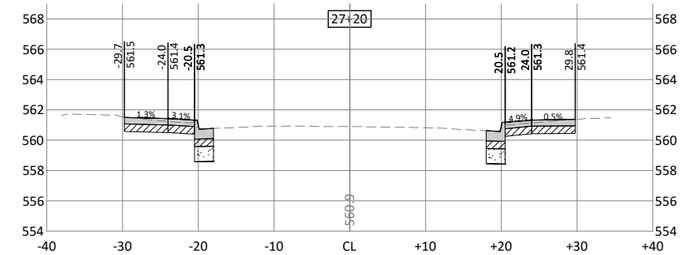

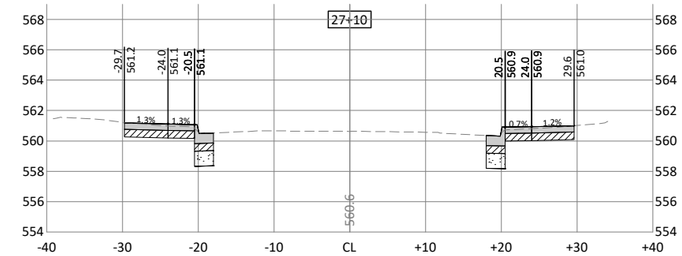

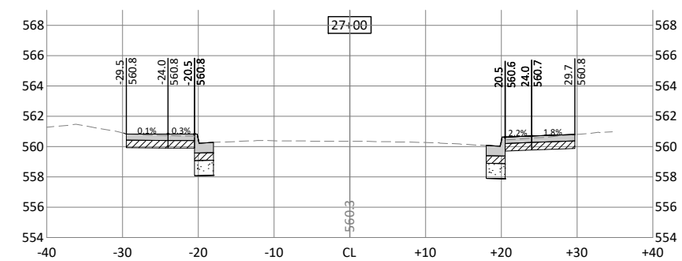

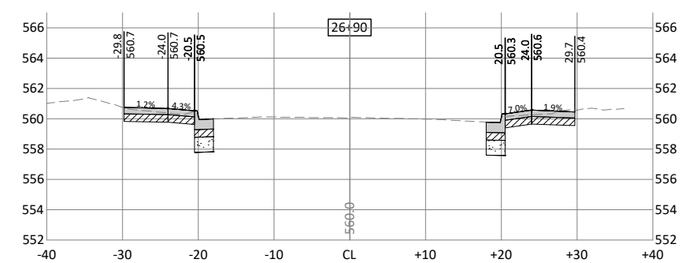

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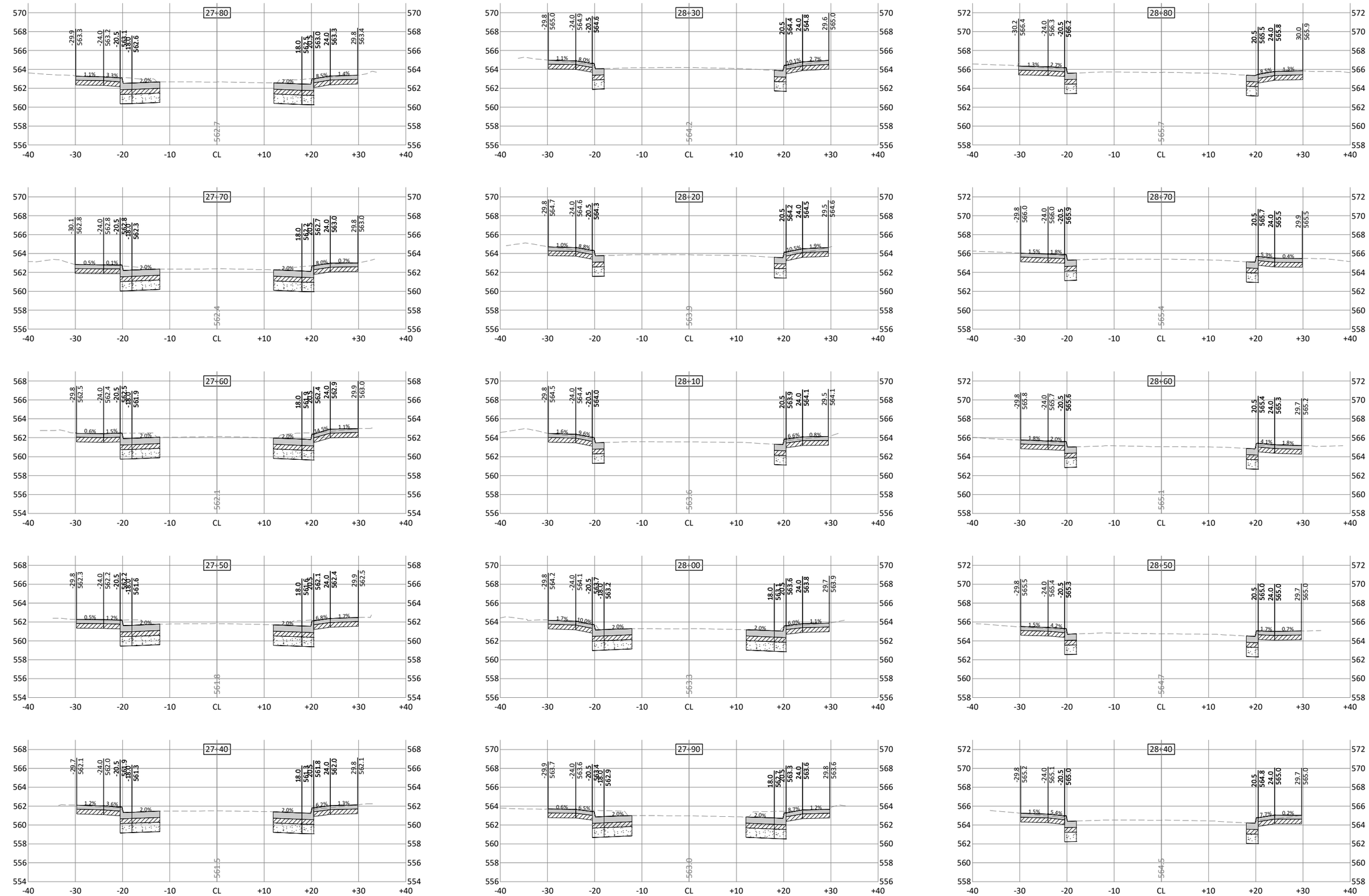

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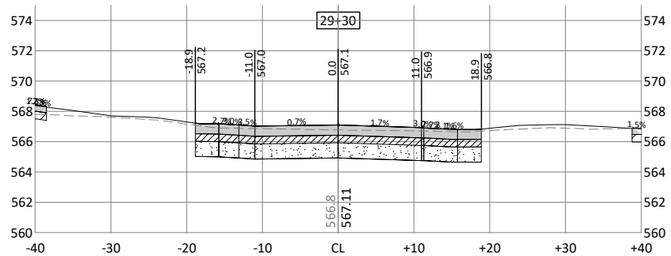

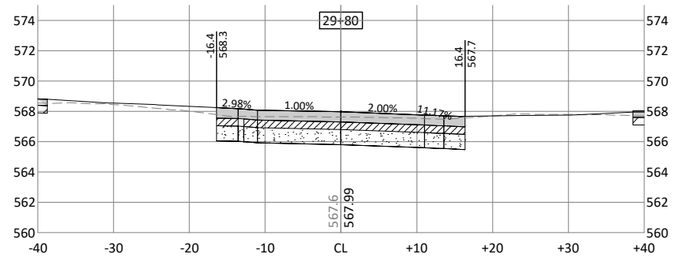

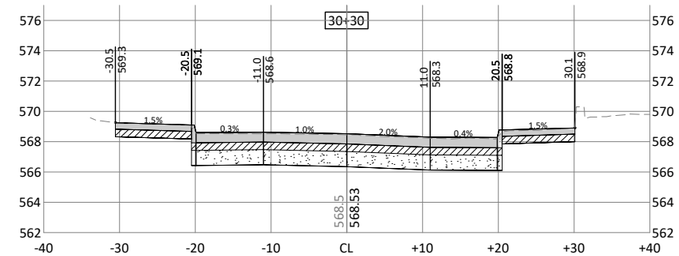

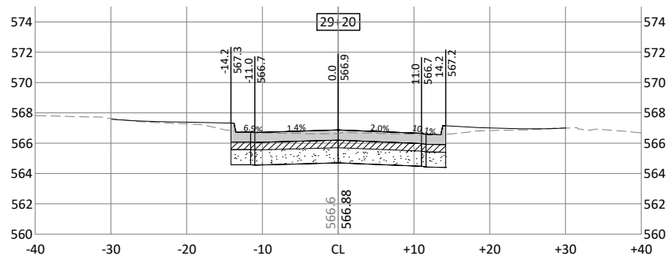

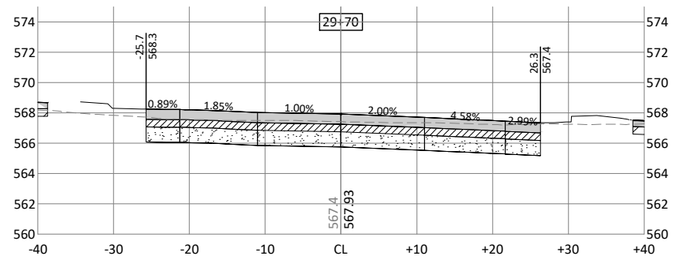

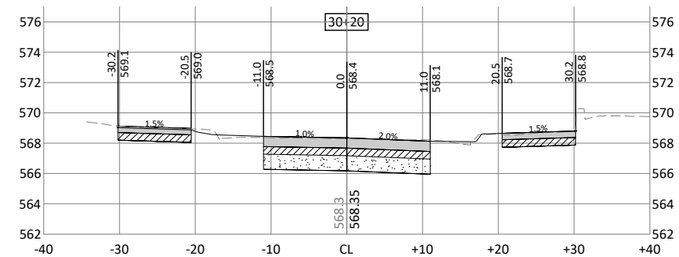

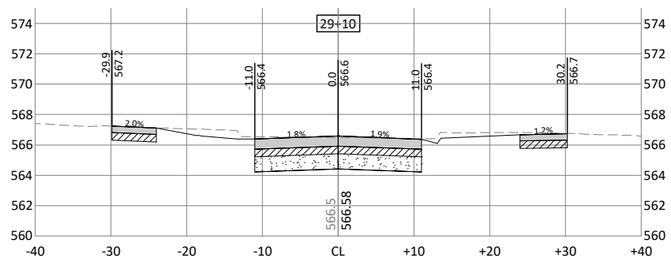

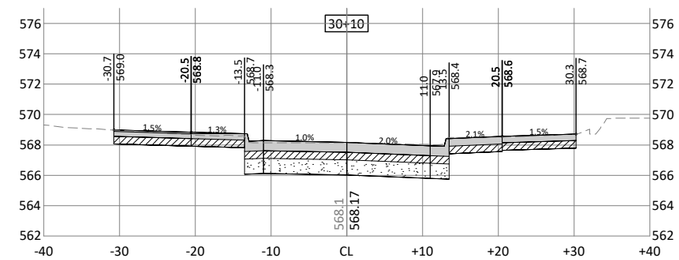

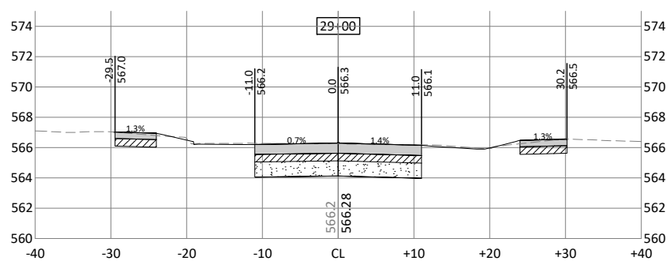

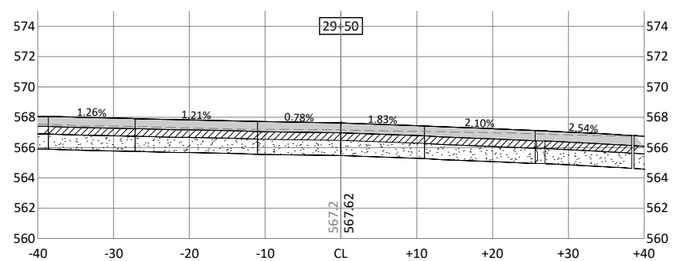

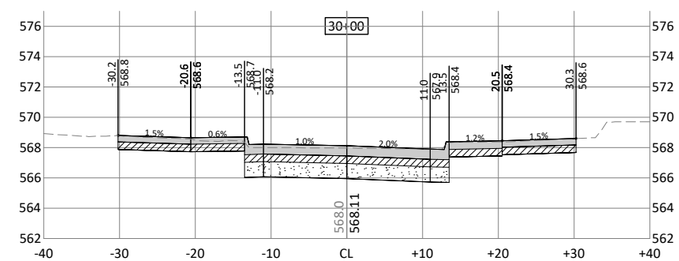

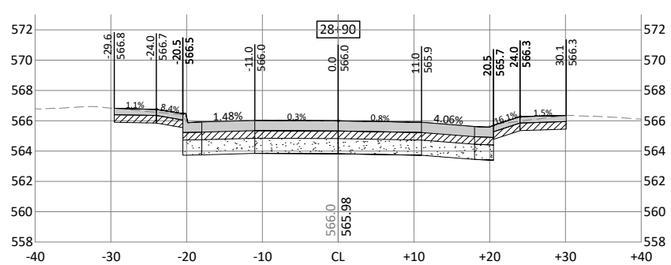

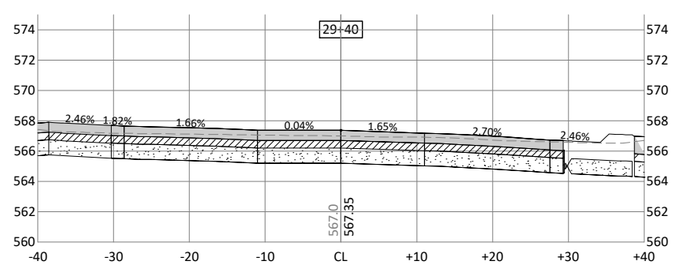

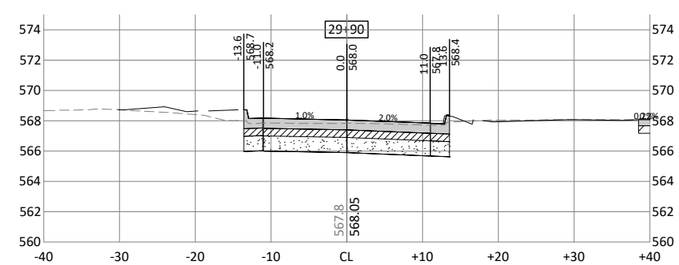

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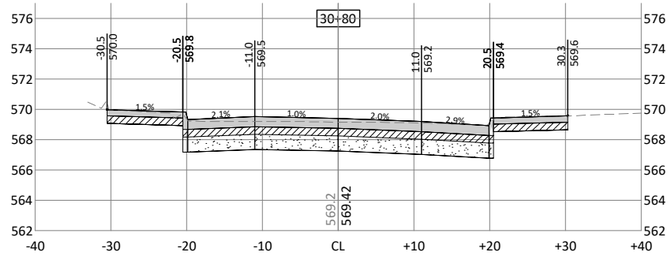

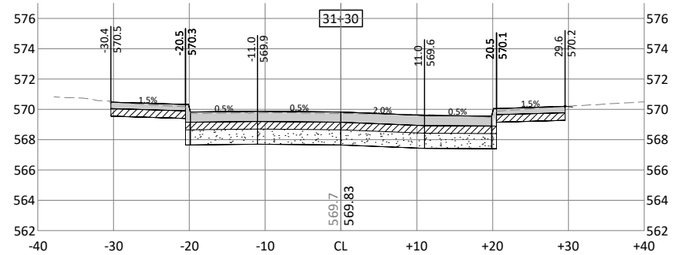

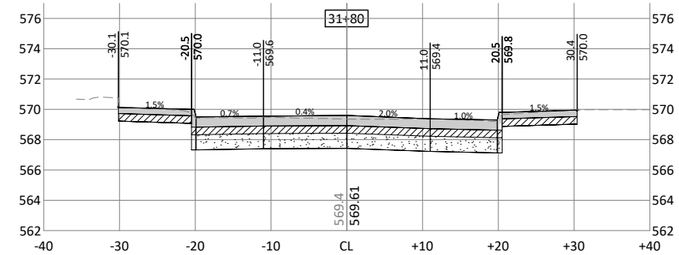

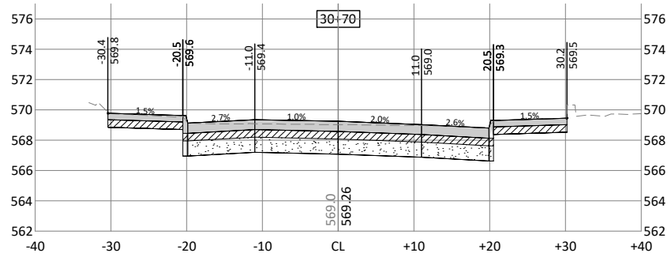

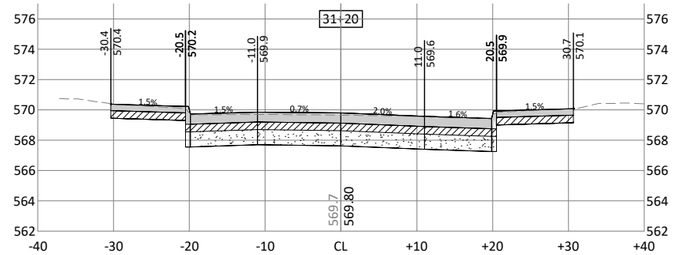

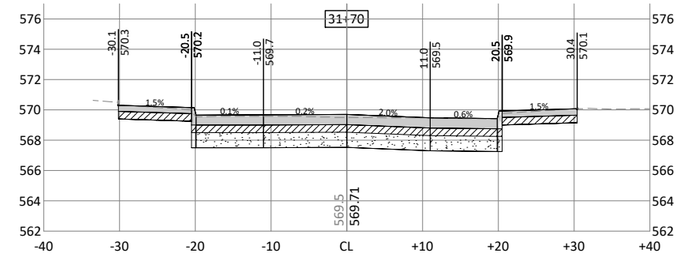

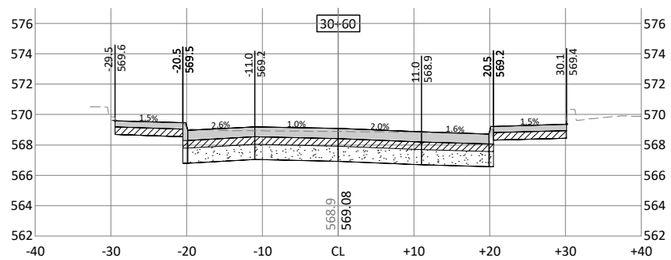

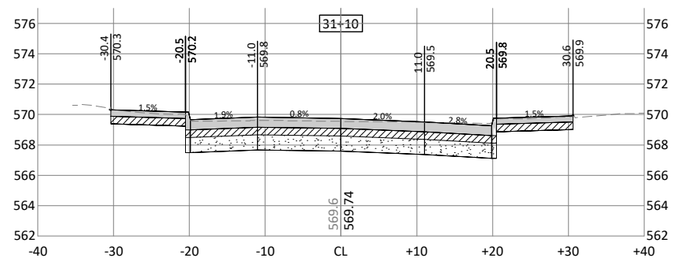

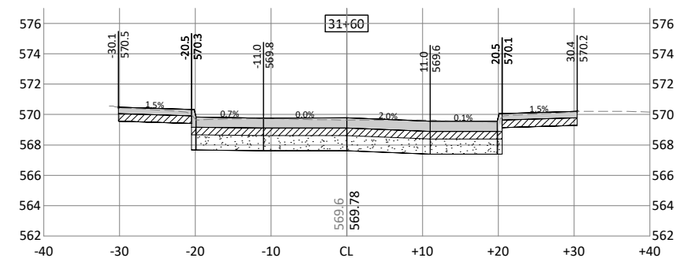

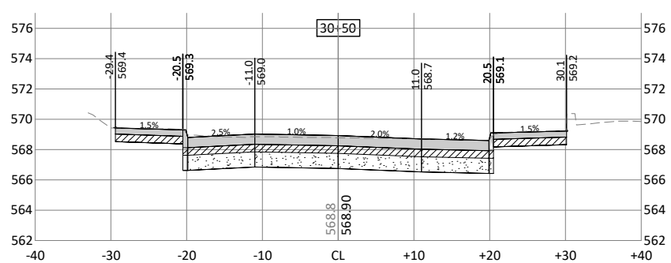

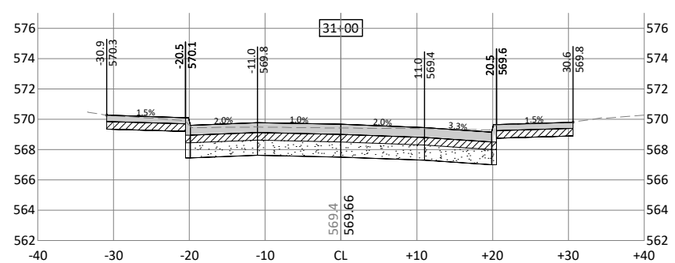

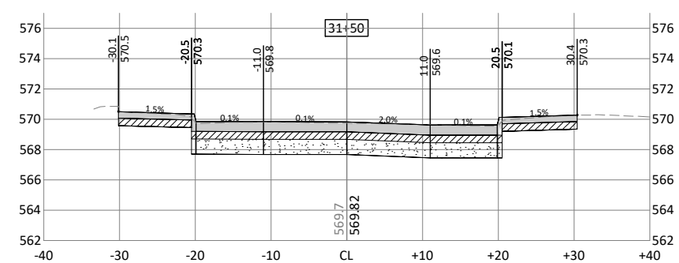

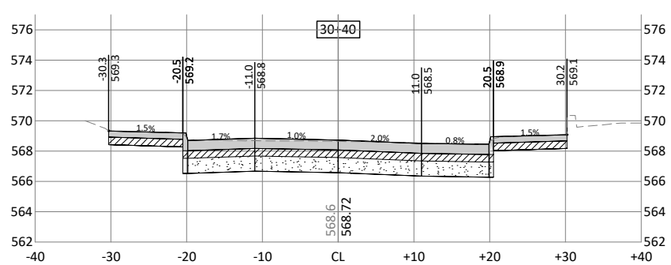

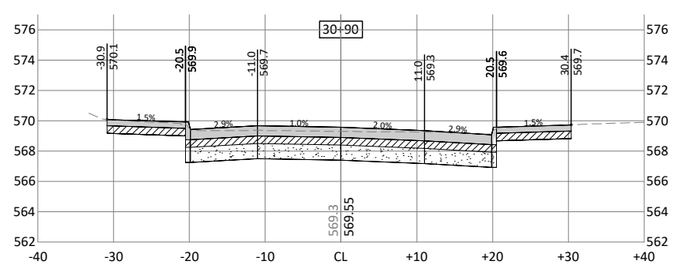

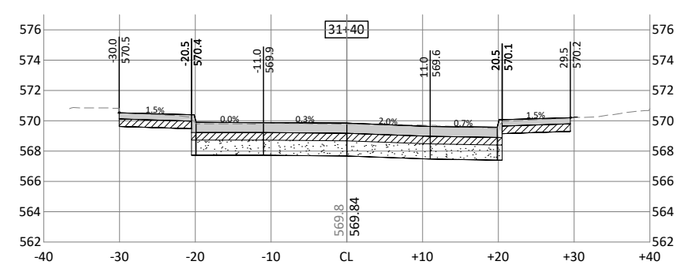

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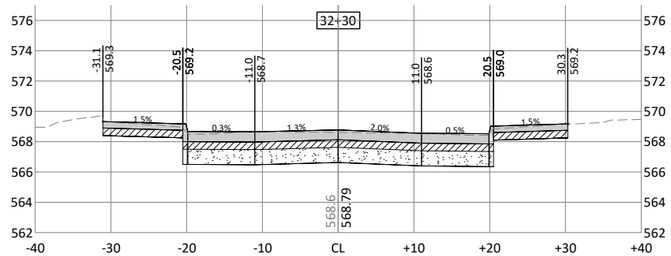

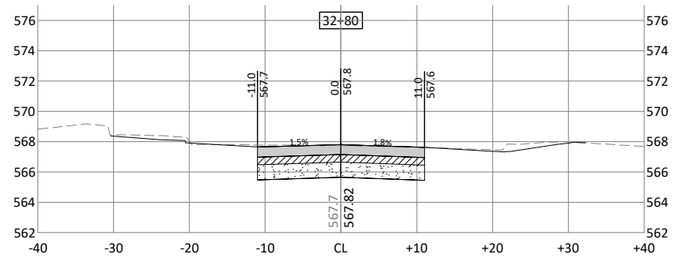

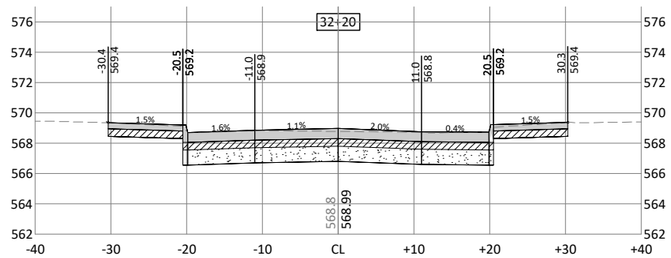

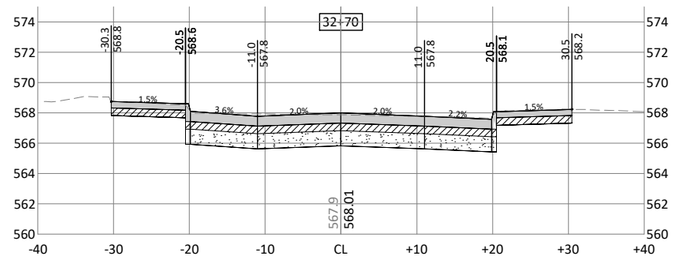

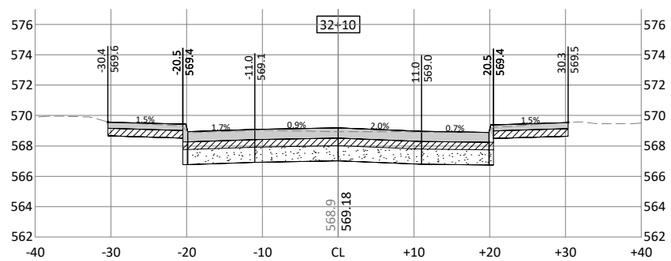

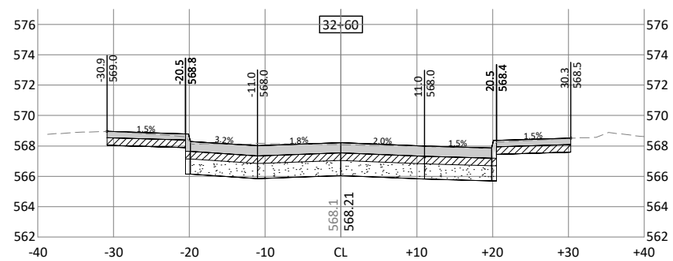

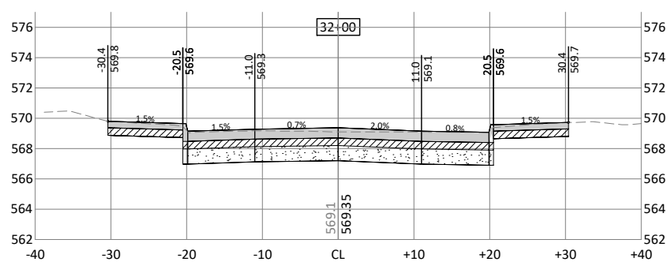

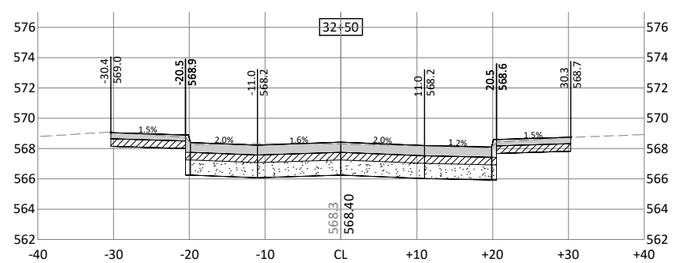

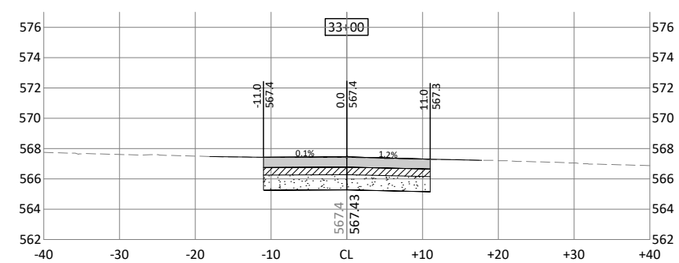

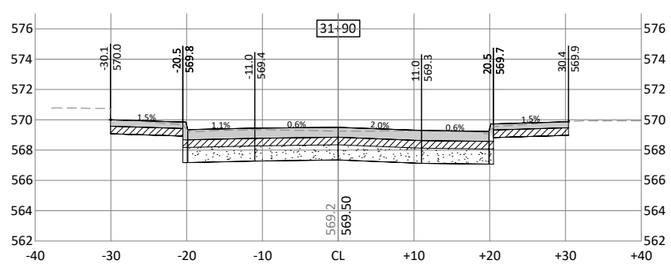

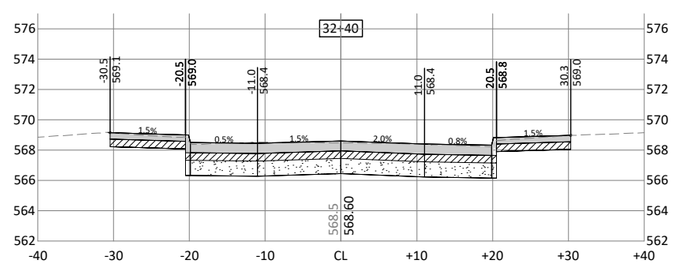

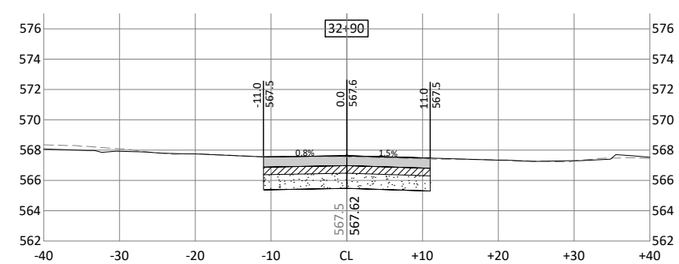

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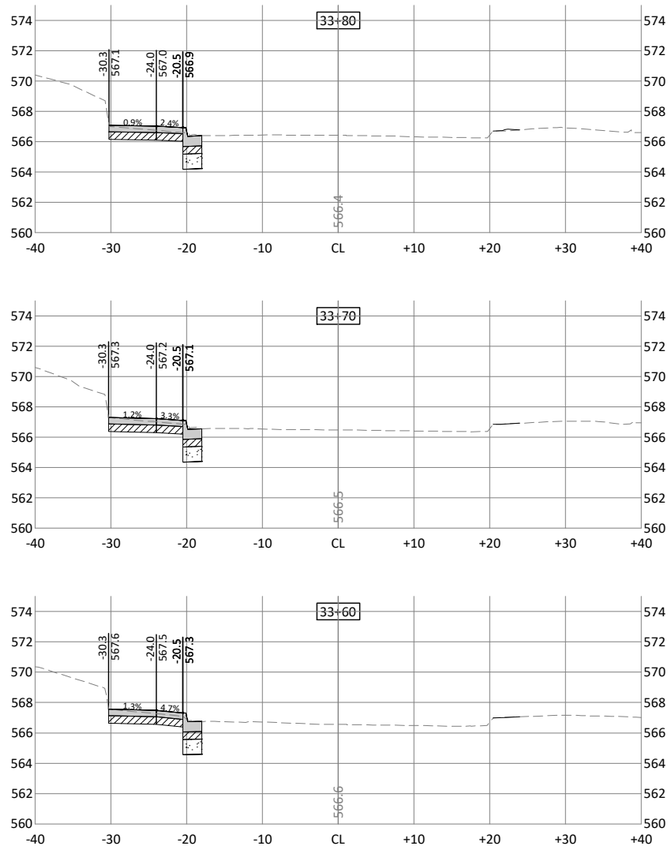

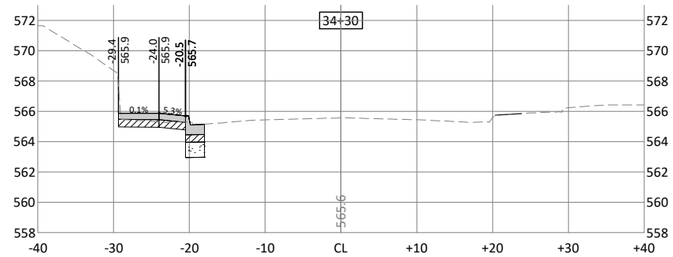

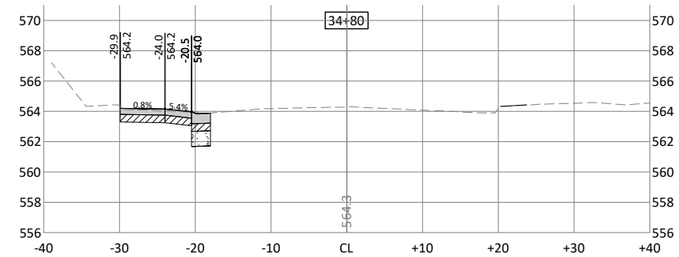

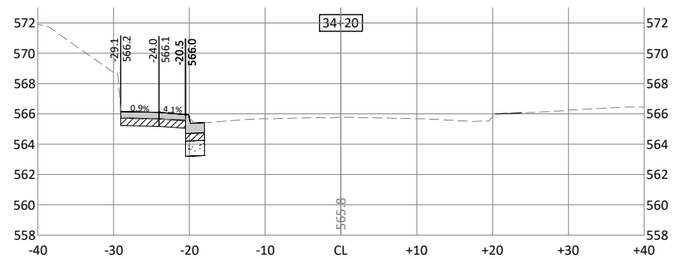

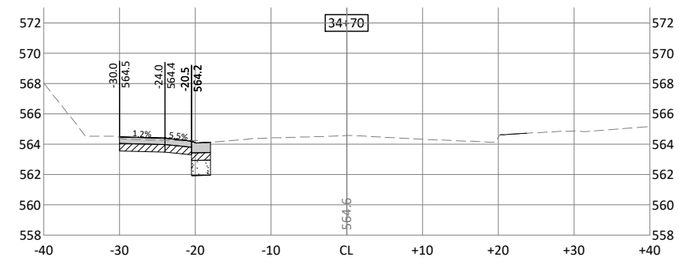

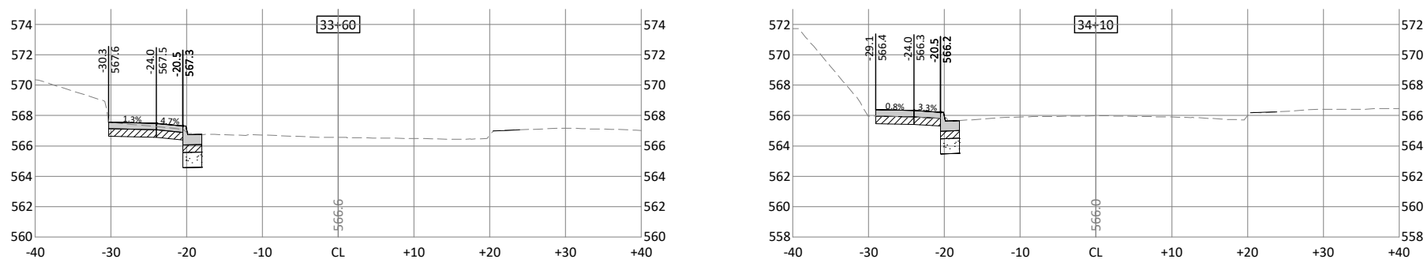

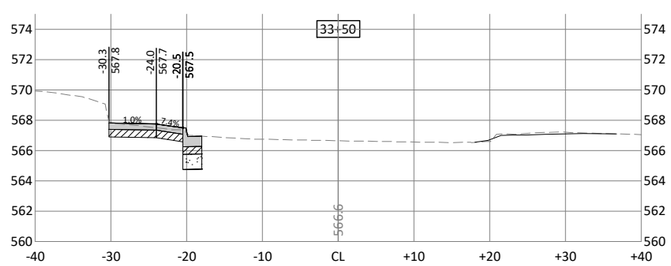

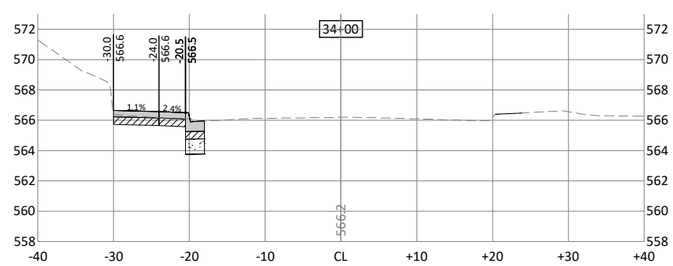

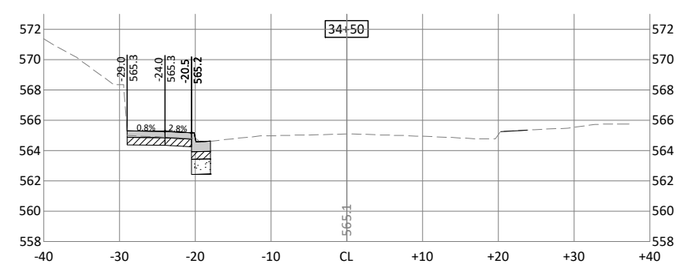

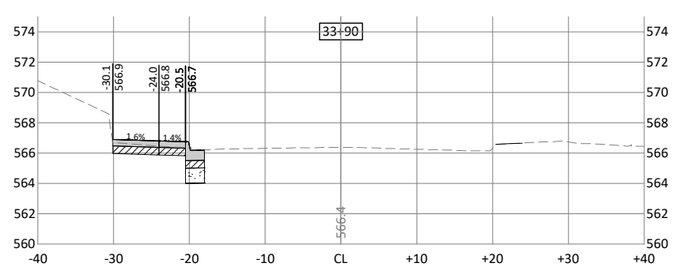

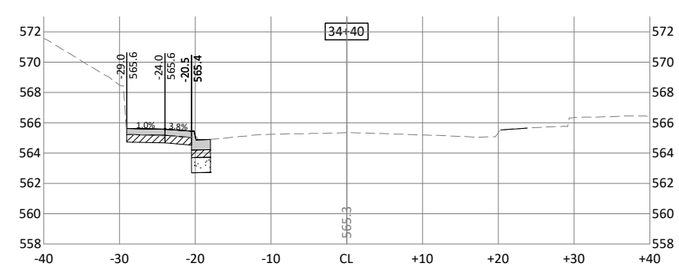

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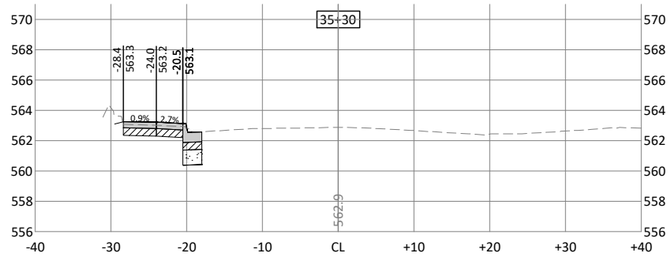

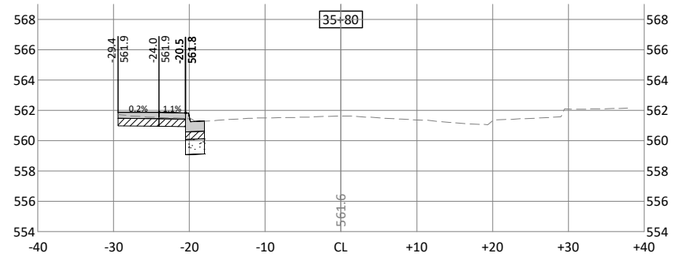

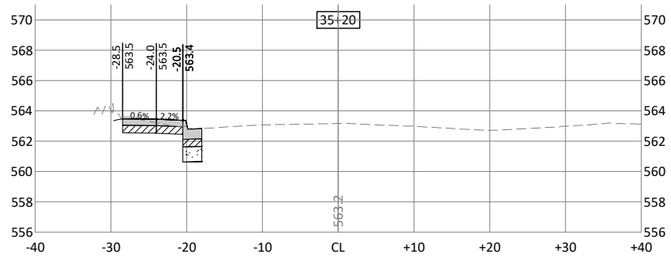

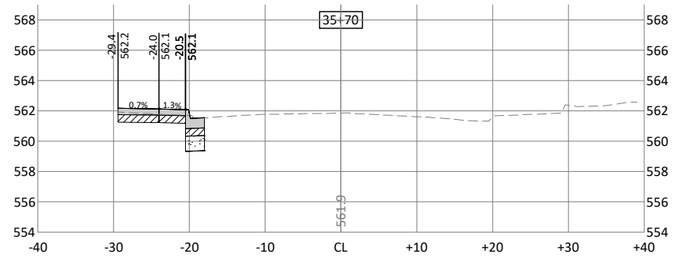

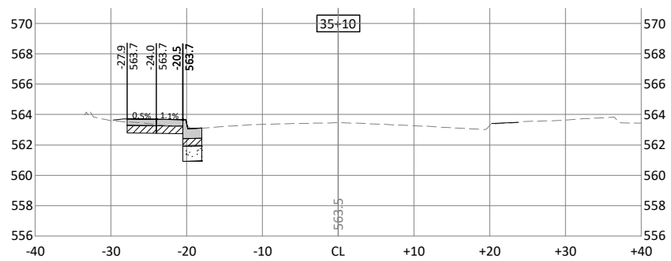

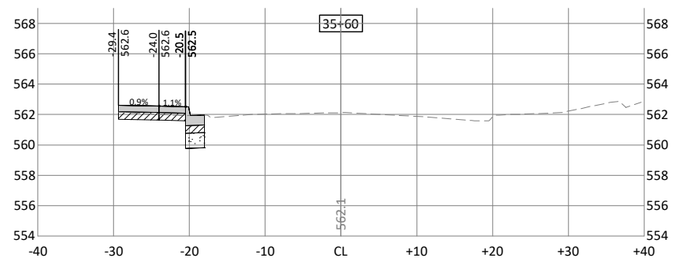

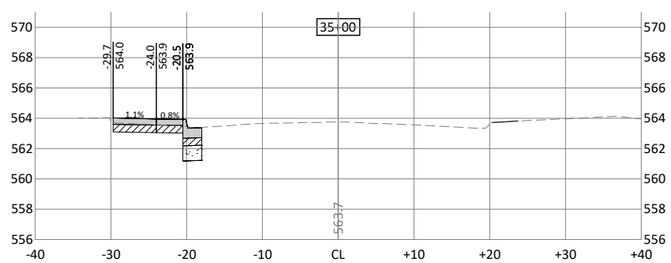

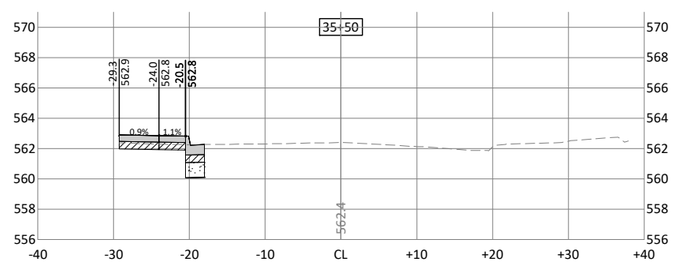

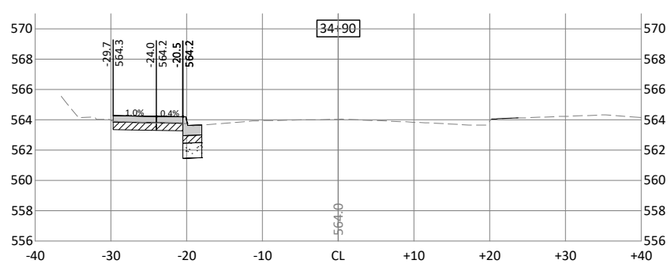

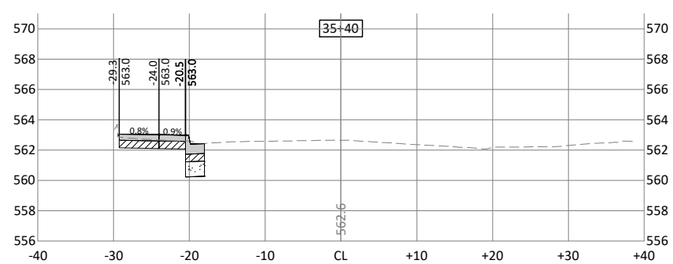

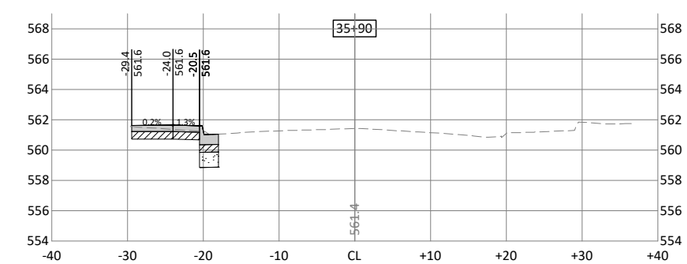

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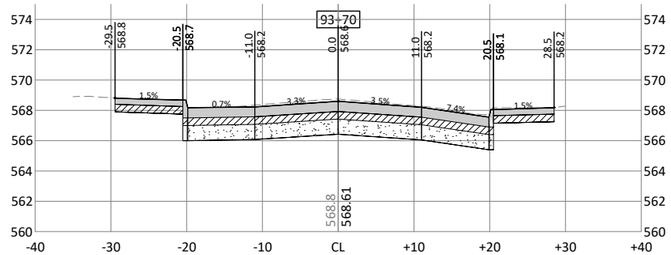

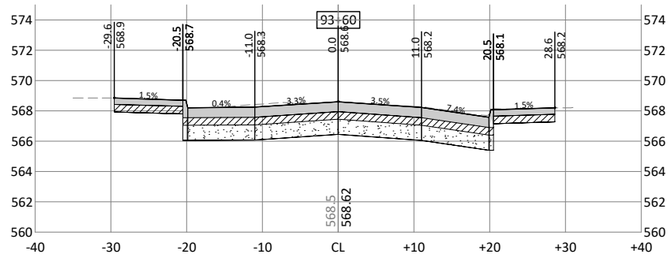

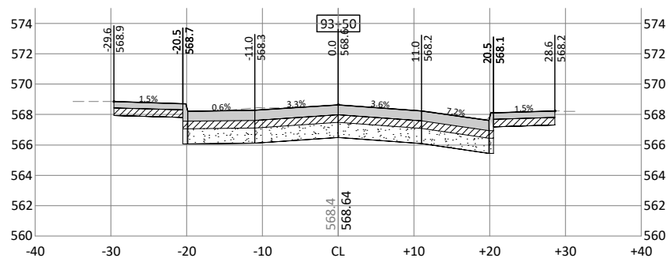

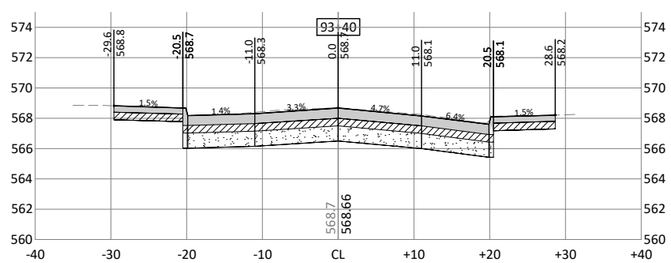

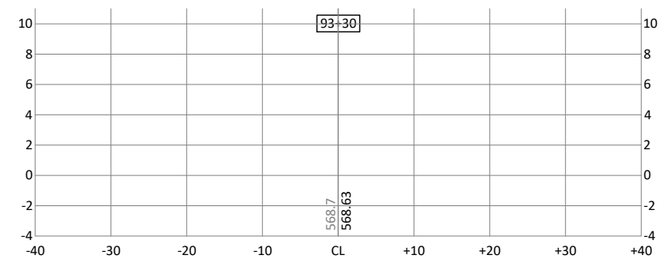

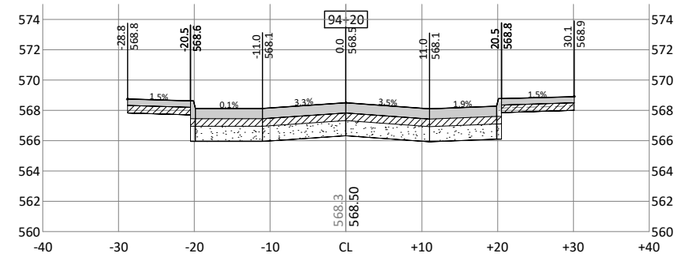

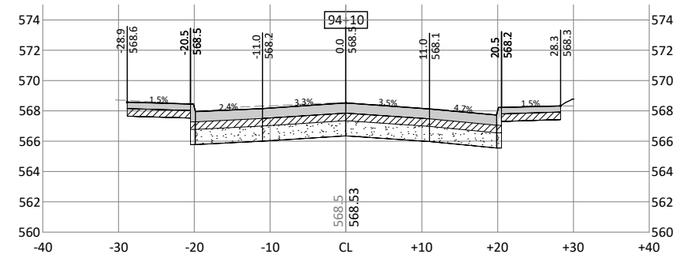

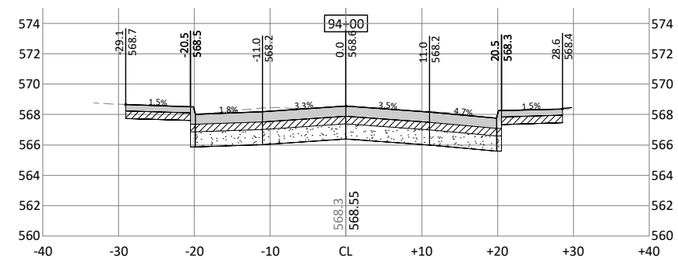

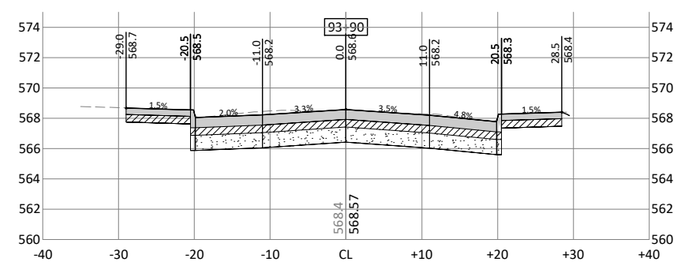

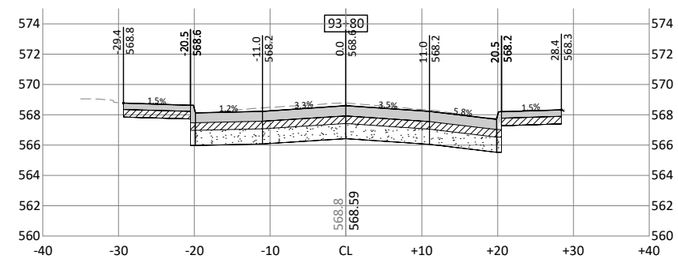

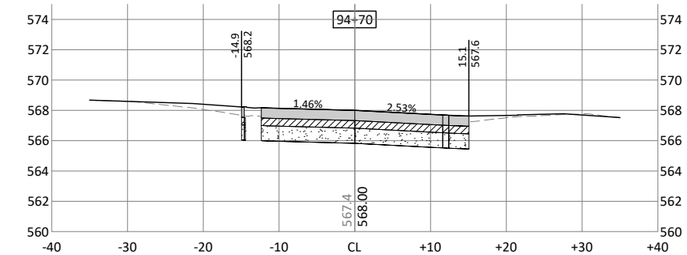

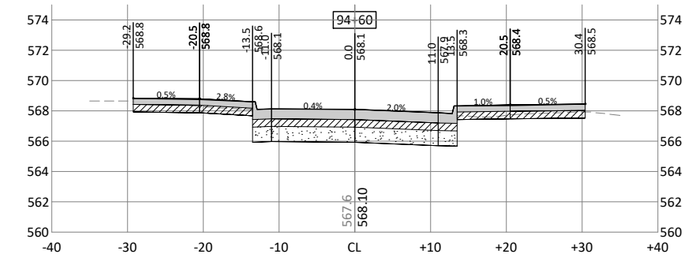

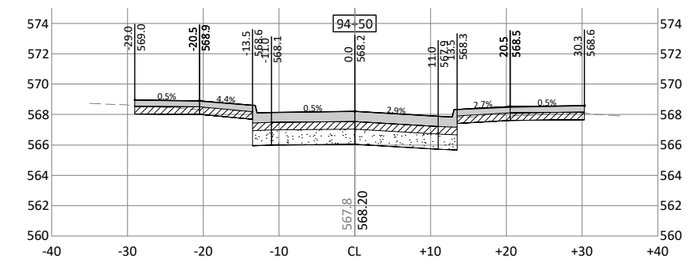

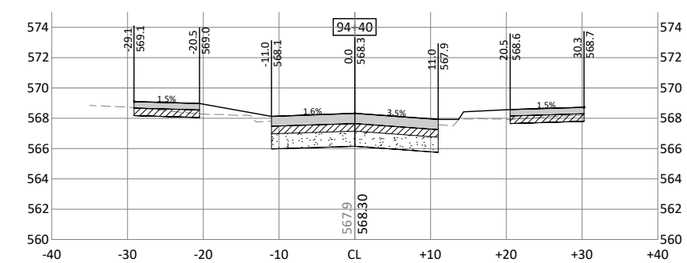

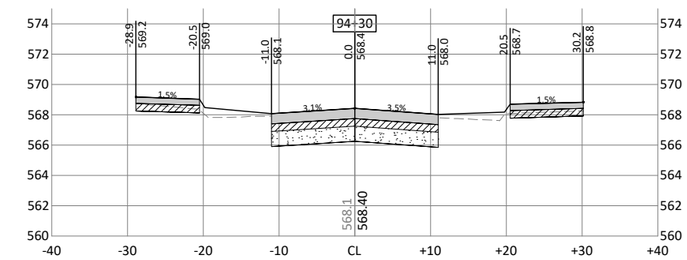

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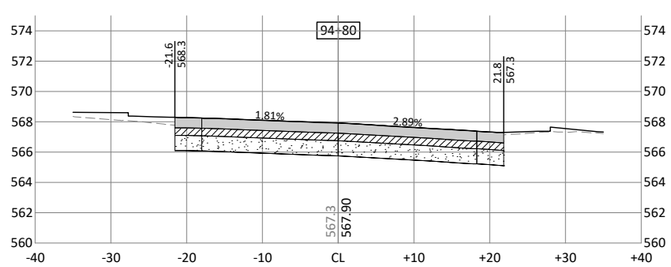

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