2016 STREET IMPROVEMENTS
PROJECT#: 115.0718

CITY OF KNOXVILLE
MARION COUNTY

This project is covered by the Iowa Department of Natural Resources NPDES General Permit No. 2. The Contractor shall carry out the terms and conditions of General Permit No. 2 and the storm water pollution prevention plan which is a part of these contract documents. Refer Specifications for additional information.

CONSTRUCTION OF THESE IMPROVEMENTS SHALL COMPLY WITH 2016 VERSION OF IOWA STATEWIDE URBAN DESIGN & SPECIFICATIONS (IOWA SUDAS)

ROADWAY SUMMARY

ROADWAY ID	BEGIN STATION	END STATION
JEFFERSON	101+50.00	103+40.74
JEFFERSON	104+70.81	108+42.34
WASHINGTON	201+11.28	204+00.00
WASHINGTON	204+72.88	207+22.62
WASHINGTON	210+73.54	216+53.59
1ST STREET	500+93.83	507+23.00
1ST STREET	507+59.25	514+21.42
1ST STREET	514+54.23	517+17.50
1ST STREET	518+22.25	526+39.55
GEBHARDT	700+91.88	708+62.36
JACKSON	800+93.19	807+08.43
JACKSON	808+13.28	812+63.62

EXPANDED PROJECT DESCRIPTION:
ON JEFFERSON STREET, FROM DAYTON STREET TO BROBST STREET. ON WASHINGTON STREET FROM KENT STREET TO ROCHE STREET AND 1ST STREET TO 3RD STREET. ON 1ST STREET FROM ROBINSON STREET TO ROCK ISLAND STREET. ON GEBHARDT STREET FROM LARSON STREET TO JACKSON STREET. ON JACKSON STREET FROM NORTH OF STONE DRIVE TO GEBHARDT STREET.

SUDAS FIGURE LIST

THE FOLLOWING SUDAS STANDARD FIGURES SHALL BE CONSIDERED APPLICABLE TO CONSTRUCTION WORK ON THIS PROJECT.

NUMBER	DATE	TITLE
2010.102	10/21/14	Designation of Roadway Earthwork Items
3010.101	4/21/09	Trench Bedding and Backfill Zones (SW-101)
3010.103	4/21/09	Flexible Gravity Pipe Trench Bedding (SW-103)
3010.901	10/21/14	Sewer Pipe Support Over Existing Utility Line
4020.211	10/16/12	Special Pipe Connections for Storm Sewer (SW-211)
4040.231	10/21/14	Subdrains
4040.232	10/21/14	Subdrain Cleanouts
4040.233	10/21/14	Subdrain Outlets
5010.901	10/21/14	Minimum Clearance Between Water Service and Structure
6010.501	10/16/12	Single Grate Intake (SW-501)
6010.507	10/21/14	Single Open-Throat Curb Intake, Small Box (SW-507)
6010.511	4/21/09	Rectagular Area Intake (SW-511)
6010.602	4/21/15	Castings for Storm Manholes (SW-602)
6010.603	10/15/13	Castings for Grate Intakes (SW-603)
7010.101	4/21/15	Joints (PV-101)
7010.102	4/15/14	PCC Curb Details (PV-102)
7010.103	4/19/11	Manhole Boxouts in PCC Pavement (PV-103)
7010.901	10/16/12	PCC Pavement Jointing
7010.904	10/19/10	Typical Jointing Layout
7030.101	10/15/13	Concrete Driveway, Type A
7030.103	10/21/14	Driveway Grading
7030.104	10/21/14	Right-of-way Grading
9040.102	10/21/14	Filter Berm and Filter Sock
9040.119	10/21/14	Silt Fence
9040.120	10/21/14	Stabilzed Construction Entrance

IOWA ONE CALL
1-800-292-8989 | 811
www.iowaonecall.com

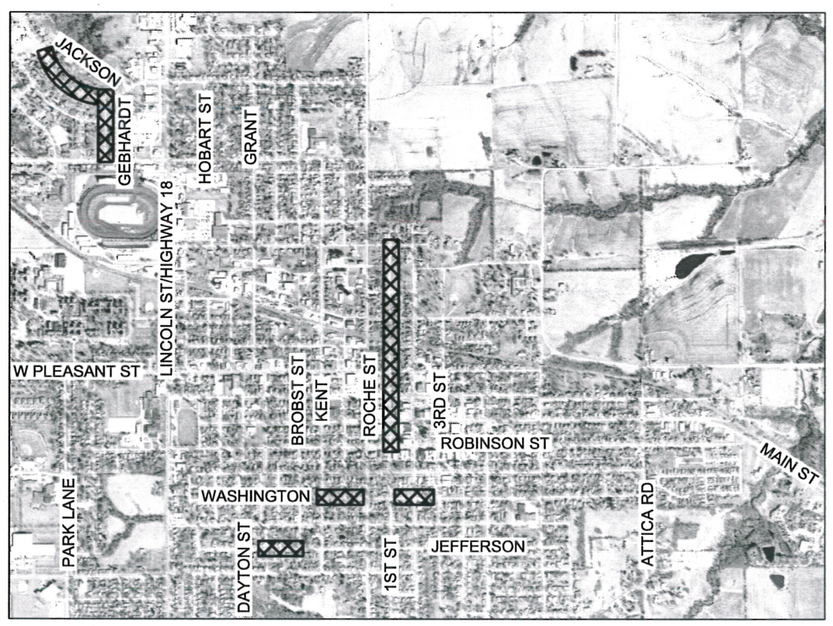
CONSTRUCTION PLANS FOR

CITY OF KNOXVILLE

MARION COUNTY, IOWA

2016 STREET IMPROVEMENTS

PAVEMENT REHABILITATION ON JEFFERSON, WASHINGTON, 1ST, GEBHARDT, AND JACKSON STREETS.



VICINITY MAP

Legend

Project Location

SCALE 1"-1000'

REVISIONS

	TOTAL
	86
PROJECT IDENTIFICATION NUMBER	
PROJECT NUMBER	
115.0718	
RAIL CROSSING NUMBER	
063208M	

INDEX OF SHEETS

No.	Description
A.1	TITLE SHEET
A.2	GENERAL AND UTILITY NOTES
B.1 - B.2	TYPICAL SECTIONS
C.1 - C.8	QUANTITIES AND TABULATIONS
D.1 - D.12	PLAN AND PROFILE SHEETS
G.1 - G.2	HORIZONTAL & VERTICAL CONTROL
J.1 - J.8	TRAFFIC CONTROL AND STAGING
L.1 - L.15	INTERSECTION DETAILS
M.1	STORM SEWER TABULATION
S.1 - S.19	PEDESTRIAN RAMP DETAILS
U.1 - U.3	SPECIAL DETAILS
W.1 - W.3	JEFFERSON CROSS SECTIONS
W.4 - W.6	FIRST STREET CROSS SECTIONS
W.7 - W.9	GEBHARDT CROSS SECTIONS
W.10 - W.14	JACKSON CROSS SECTIONS

APPROVED FOR CONSTRUCTION
CITY OF KNOXVILLE

City Manager Date

LICENSED PROFESSIONAL ENGINEER
ANDREW G. BURKE
19498
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.

01/29/16

Andrew G. Burke, P.E. Date

License Number 19498

My License Renewal Date is December 31, 2016

Pages or sheets covered by this seal:
A.1-A.2, B.1-B.2, C.1-C.8 D.1-D.12, G.1-G.2, J.1-J.8, L.1-L.15, M.1, S.1-S.19, U.1-U.3, W.1-W.14

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	A.1	REVISED

LEGEND

Features	Existing	Proposed
Spot Elevation	93.0	x93.0
Contour Elevation	93	93
Fence (Barbed, Field, Hog)	—x—x—	
Fence (Chain Link)	—//—//—	
Fence (Wood)	—•—	
Fence (Silt)	—o—	— • —
Tree Line		
Tree Stump		
Deciduous Tree or Shrub		
Coniferous Tree or Shrub		
Communication	——C(*)——	—C—
Overhead Communication	——OC(*)——	—OC—
Fiber Optic	——FO(*)——	—FO—
Underground Electric	——E(*)——	—E—
Overhead Electric	——OE(*)——	—OE—
Gas Main with Size	——4" G(*)——	—4" G—
High Pressure Gas Main with Size	——4" HPG(*)——	—4" HPG—
Water Main with Size	——8" W(*)——	—8" W—
Sanitary Sewer with Size	——8" S(*)——	—8" S—
Duct Bank	——DUCT(*)——	
Test Hole Location for SUE w/ID	1	

(*) Denotes the survey quality service level for utilities

Sanitary Manhole		
Storm Sewer with Size	12" ST	12" ST
Storm Manhole		
Single Storm Sewer Intake		
Double Storm Sewer Intake		
Fire Hydrant		
Fire Hydrant on Building		
Water Main Valve		
Water Service Valve		
Well		
Utility Pole		
Guy Anchor		
Utility Pole with Light		
Utility Pole with Transformer		
Street Light		
Yard Light		
Electric Box	EB	
Electric Transformer		
Traffic Sign		
Communication Pedestal		
Communication Manhole		
Communication Handhole		
Fiber Optic Manhole		
Fiber Optic Handhole		
Gas Valve		
Gas Manhole		
Gas Apparatus		
Fence Post or Guard Post		
Underground Storage Tank	UST	
Above Ground Storage Tank	AST	
Sign		
Satellite Dish		
Mailbox		
Soil Boring		

UTILITY QUALITY SERVICE LEVELS

QUALITY LEVELS OF UTILITIES ARE SHOWN IN THE PARENTHESES WITH THE UTILITY TYPE AND WHEN APPLICABLE, SIZE. THE QUALITY LEVELS ARE BASED ON THE CI/ ASCE 38-02 STANDARD.

QUALITY LEVEL (D) INFORMATION IS DERIVED FROM EXISTING UTILITY RECORDS OR ORAL RECOLLECTIONS.

QUALITY LEVEL (C) INFORMATION IS OBTAINED BY SURVEYING AND PLOTTING VISIBLE ABOVE-GROUND UTILITY FEATURES AND USING PROFESSIONAL JUDGMENT IN CORRELATING THIS INFORMATION WITH QUALITY D INFORMATION.

QUALITY LEVEL (B) INFORMATION IS OBTAINED THROUGH THE APPLICATION OF APPROPRIATE SURFACE GEOPHYSICAL METHODS TO DETERMINE THE EXISTENCE AND APPROXIMATE HORIZONTAL POSITION OF SUBSURFACE UTILITIES.

QUALITY LEVEL (A) IS HORIZONTAL AND VERTICAL POSITION OF UNDERGROUND UTILITIES OBTAINED BY ACTUAL EXPOSURE OR VERIFICATION OF PREVIOUSLY EXPOSED SUBSURFACE UTILITIES, AS WELL AS THE TYPE, SIZE, CONDITION, MATERIAL, AND OTHER CHARACTERISTICS.

UTILITY CONTACT INFORMATION

UTILITY CONTACT FOR MAPPING INFORMATION SHOWN AS RECEIVED FROM THE IOWA ONE CALL DESIGN REQUEST SYSTEM, TICKET NUMBER 551501663.

UTILITY NOTES:

1. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE UTILITY COMPANIES WITH RESPECT TO RELOCATING AND CONSTRUCTING THEIR FACILITIES. CALL IOWA ONE CALL FOR UTILITY LOCATIONS 48 HOURS BEFORE CONSTRUCTION, 1-800-292-8989.
2. CONTACT THE CITY AND DESIGN ENGINEER AT LEAST 24 HOURS PRIOR TO STARTING WORK.
3. BEFORE STARTING CONSTRUCTION IN EACH STAGE, THE CONTRACTOR SHALL EXCAVATE ALL UTILITIES WHICH MAY BE IN CONFLICT WITH PROPOSED CONSTRUCTION. THE CONTRACTOR PROVIDED SURVEYOR SHALL OBTAIN ELEVATIONS OF THE UTILITIES AND NOTIFY THE ENGINEER.
4. THE CONTRACTOR SHALL EXERCISE CAUTION AND USE CONSTRUCTION METHODS AND EQUIPMENT TO COMPLETE THE WORK WITHOUT DAMAGING UTILITIES.
5. THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT.
6. IT IS ANTICIPATED THAT UTILITY RELOCATION WORK BY VARIOUS UTILITY COMPANIES WILL BE DONE IN CONJUNCTION WITH CONSTRUCTION OF THIS PROJECT. CONTRACTOR IS REQUIRED TO COORDINATE AND COOPERATE WITH THESE UTILITY COMPANIES DURING CONSTRUCTION.

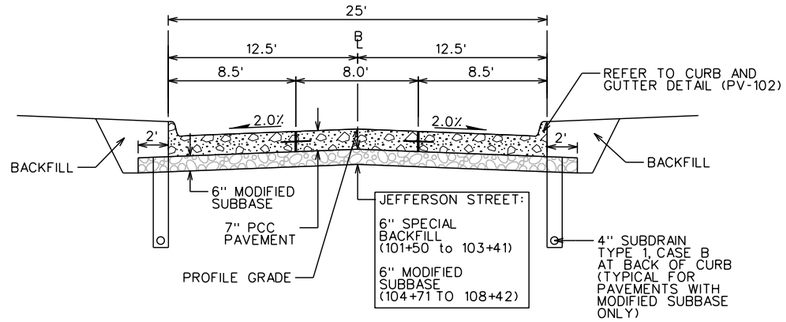
S(D)	KNOXVILLE DENNIS WEBB 309 W RENO KNOXVILLE, IA 50138 OFFICE: 641-828-0553 ACM@KNOXVILLEIA.GOV
ST	KNOXVILLE PAT MURPHY 1703 E PLEASANT STREET KNOXVILLE, IA 50138 OFFICE: 641-828-0587 WRF@KNOXVILLEIA.GOV
W	KNOXVILLE WATER WORKS BRIAN BAILY 600 N ROCHE STREET KNOXVILLE, IA 50138 641-88-0557 KNOXVILLEWATER@MCHSI.COM
E(D)	MID AMERICAN ENERGY, ELECTRIC JASON SANDIFER 2411 N MARKET STREET OSKALOOSA, IA 52577 641-672-7008
G(D)	MID AMERICAN ENERGY, GAS JOHN BIXLER/JASON SANDIFER 641-683-4171 (JOHN BIXLER) 641-672-7008 (JASON SANDIFER) JTBIXLER@MIDAMERICAN.COM
G(D), E(D)	ALLIANT ENERGY, GAS/ELECTRIC STEVE SMITH/LAURA BARR 641-774-3503 (STEVE SMITH) 319-386-1315 (LAURA BARR) STEVEJSMITH@ALLIANTENERGY.COM
C(D)	WINDSTREAM COMMUNICATIONS TERRY BURKE/DAVID ACKERMAN 641-787-2259 (TERRY BURKE) 319-790-1464 (DAVID ACKERMAN) TERRY.R.BURKE@WINDSTREAM.COM DAVID.F.ACKERMAN@WINDSTREAM.COM
FO, C(D)	MEDIACOM CURT HODGES 515-669-3647 CHODGES@MEDIACOMCC.COM
W	MARION COUNTY RURAL WATER RANDALL BRANSON 641-842-3304 MCRWMGR@IOWATELETCOM.NET
C(D)	UNITE PRIVATE NETWORK ROD WISECUP/CLARK LUNDY 515-783-4590 (ROD WISECUP) 515-321-3336 (CLARK LUNDY) ROD.WISECUP@UPNFIBER.COM CLARK.LUNDY@UPNLLC.COM
C(D)	LISO CORPORATION FRAZER JONES 641-919-9645 FJONES@LISCOCORP.COM
MISC	KNOXVILLE COMMUNITY SCHOOLS TROY PEARSON TROY.PEARSON@KCSD.K12.IA.US

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONFINE GRADING OPERATIONS TO WITHIN THE GRADING LIMITS AS SHOWN ON THE PLANS UNLESS AUTHORIZED BY THE ENGINEER TO DO OTHERWISE. THE CONTRACTOR SHALL COMPENSATE THE PROPERTY OWNER FOR DAMAGES OUTSIDE OF THE AUTHORIZED GRADING LIMITS.
2. DRAINAGE SHALL BE MAINTAINED AT ALL TIMES. EXISTING STORM SEWER THAT IS DESIGNATED TO BE REMOVED SHALL BE REMOVED ONLY WHEN CONSTRUCTION HAS PROGRESSED TO THAT LOCATION.
3. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER INLETS AND UTILITY ACCESSES FROM SILTATION AND DEBRIS DURING CONSTRUCTION. REFER TO POLLUTION PREVENTION PLAN.
4. ALL REMOVAL AND DISPOSAL OF ABANDONED UTILITY LINES INCLUDING GAS MAINS, WATER MAINS, TELEPHONE CONDUITS, SERVICE LINES, ETC., REQUIRED TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THIS PROJECT.
5. ALL HOLES RESULTING FROM OPERATIONS OF THE CONTRACTOR, INCLUDING REMOVAL OF FENCE POSTS AND SIGNAL EQUIPMENT, SHALL BE FILLED AND CONSOLIDATED TO FINISHED GRADE TO PREVENT FUTURE SETTLEMENT. THE VOIDS SHALL BE FILLED AS SOON AS PRACTICAL - PREFERABLY THE DAY CREATED AND NOT LATER THAN THE FOLLOWING DAY. ANY PORTION OF THE RIGHT OF WAY OR PROJECT LIMITS DISTURBED BY ANY SUCH OPERATIONS SHALL BE RESTORED TO AN ACCEPTABLE CONDITION. THESE OPERATIONS SHALL BE CONSIDERED INCIDENTAL TO THIS PROJECT.
6. UNLESS OTHERWISE DIRECTED OR AUTHORIZED, ALL REMOVED ASPHALTIC CEMENT CONCRETE AND OTHER BITUMINOUS MATERIALS WHICH ARE NOT SPECIFICALLY ADDRESSED OR DESCRIBED IN THE PLANS SHALL BECOME PROPERTY OF THE CONTRACTOR. THE CONTRACTOR MAY REMOVE THE MATERIAL FROM THE PROJECT AND STOCKPILE FOR FUTURE USE, OR DISPOSE OF THE MATERIAL IN A LICENSED LANDFILL, IN ACCORDANCE WITH CURRENT RULES AND REGULATIONS OF THE IOWA DEPARTMENT OF NATURAL RESOURCES.
7. UNLESS OTHERWISE NOTED ON THE PLANS, ALL PARKING AREAS, BACKSLOPES, AND EASEMENT AREAS DISTURBED BY CONSTRUCTION SHALL BE SHAPED TO FINISHED GRADE AND SEEDED. PAYMENT SHALL BE FOR THOSE DISTURBED AREAS WITHIN THE GRADING LIMITS OR EASEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOT DISTURB DESIRABLE GRASS AREAS AND DESIRABLE TREES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR WILL NOT BE PERMITTED TO PARK OR SERVICE VEHICLES AND EQUIPMENT OR USE THESE AREAS FOR STORAGE OF MATERIALS. STORAGE, PARKING AND SERVICE AREA(S) WILL BE SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER.
8. UNLESS OTHERWISE APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL ORGANIZE WEEKLY CONSTRUCTION MEETINGS DURING THE DURATION OF THE PROJECT. THIS INCLUDES NOTIFYING SUBCONTRACTORS AND UTILITY COMPANIES AS NECESSARY.
9. THE CONTRACTOR WILL BE REQUIRED TO HAVE A REPRESENTATIVE AT THE FINAL INSPECTION AND WILL BE RESPONSIBLE TO OPEN ALL MANHOLES AND INTAKES FOR INSPECTION.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE WASTE AREAS OR DISPOSAL SITES FOR EXCESS MATERIAL (EXCAVATED MATERIAL OR BROKEN CONCRETE) WHICH IS NOT DESIRABLE TO BE INCORPORATED INTO THE WORK INVOLVED ON THIS PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT AREAS (INCLUDING HAUL ROADS) SELECTED FOR WASTE OR DISPOSAL NOT IMPACT 1) CULTURALLY SENSITIVE SITES OR GRAVES OR 2) WETLANDS OR "WATERS OF THE U.S.", INCLUDING STREAMS OR STREAM BANKS BELOW THE "ORDINARY HIGH WATER MARK", WITHOUT AN APPROVED U.S. ARMY CORPS OF ENGINEERS SECTION 404 PERMIT. NO PAYMENT FOR OVERHAUL WILL BE ALLOWED FOR MATERIAL HAULED TO THESE SITES. NO WASTE MATERIAL SHALL BE PLACED WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY STATED IN THE PLANS.
11. SPECIAL CARE SHALL BE TAKEN WHEN FORMING AT INTERSECTIONS SO THAT THE PROFILES AND ELEVATIONS SHOWN ON THE CROSS SECTIONS, STREET RETURN PROFILE SHEETS, AND STAKING DIAGRAM SHEETS ARE OBTAINED. SHORT LENGTHS OF FORMS OR FLEXIBLE FORMS MAY BE NECESSARY AT THESE LOCATIONS.
12. THE TOP SIX (6) INCHES OF THE DISTURBED AREAS SHALL BE FREE OF ROCK AND DEBRIS AND SHALL BE SUITABLE FOR THE ESTABLISHMENT OF VEGETATION, SUBJECT TO THE APPROVAL OF THE ENGINEER.
13. THE CONTRACTOR IS EXPECTED TO HAVE MATERIALS, EQUIPMENT, AND LABOR AVAILABLE ON A DAILY BASIS TO INSTALL AND MAINTAIN EROSION CONTROL FEATURES ON THE PROJECT. THIS MAY INVOLVE SEEDING, SILT FENCE, ROCK DITCH CHECKS, SILT BASINS, OR SILT DIKES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ACCESS TO INDIVIDUAL PROPERTIES DURING CONSTRUCTION. RELOCATED ACCESS SHALL BE COMPLETED TO INDIVIDUAL PROPERTIES PRIOR TO REMOVAL OF EXISTING ACCESS. IF THE PERMANENT ACCESS CANNOT BE COMPLETED PRIOR TO REMOVAL OF THE EXISTING ACCESS, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN ALTERNATE ACCESS. TEMPORARY GRANULAR SURFACING WILL BE PAID FOR AS A CONTRACT ITEM OR BY EXTRA WORK.
15. THE CONTRACTOR IS HEREBY NOTIFIED THAT REMOVAL OF ANY EXISTING TRAFFIC MARKERS, WARNING DEVICES OR GUARDRAIL BARRIERS SHALL BE SCHEDULED SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR MAY BE REQUIRED TO PLACE TEMPORARY WARNING DEVICES AT CERTAIN LOCATIONS WHERE REPLACEMENT FEATURES ARE NOT INSTALLED THE SAME DAY DURING WHICH ANY SUCH REMOVALS TAKE PLACE.
16. A PLAN FOR STAGE CONSTRUCTION OF LOCAL ACCESSES WHICH ARE REQUIRED TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
17. PROTECT ALL EXISTING UTILITIES UNLESS OTHERWISE NOTED.
18. CITY TO REMOVE AND REINSTALL ALL TRAFFIC SIGNAGE. COORDINATE WITH CITY AT LEAST 72 HOURS PRIOR TO REQUIRING SIGNAGE REMOVAL. COORDINATE WITH CITY AT LEAST ONE WEEK PRIOR TO REINSTALLATION OF TRAFFIC SIGNAGE.
19. PROTECT ALL EXISTING TREES UNLESS OTHERWISE NOTED.

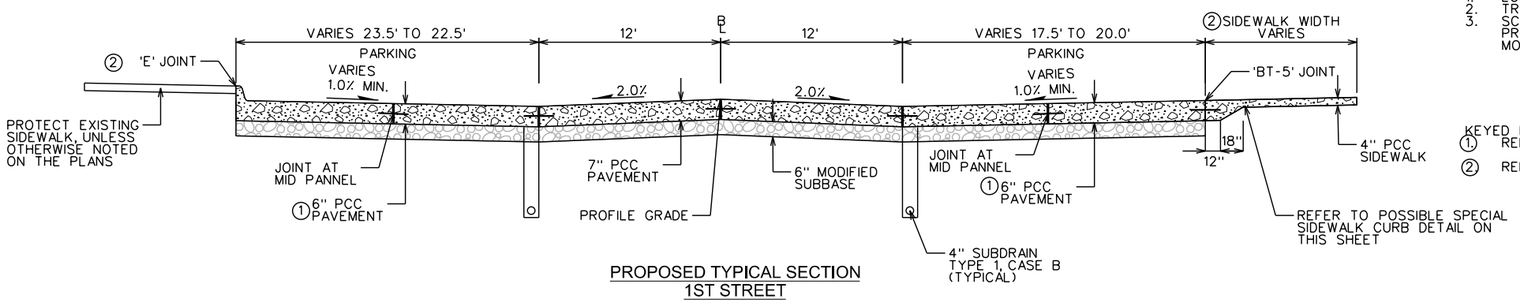
UTILITY WARNING

THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND/OR RECORDS OBTAINED. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN COMPRISE ALL SUCH ITEMS IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES OR SUBSURFACE FEATURES SHOWN ARE IN THE EXACT LOCATION INDICATED EXCEPT WHERE NOTED AS QUALITY LEVEL A.



TYPICAL GENERAL NOTES:
1. LONGITUDINAL JOINTING IS 'L-1'
2. TRANSVERSE JOINTING IS 'C'
3. SCARIFY AND RECOMPACT 12" OF SUBGRADE TO 95% STANDARD PROCTOR DENSITY AND WITHIN 2% BELOW AND 4% ABOVE OPTIMUM MOISTURE CONTENT.

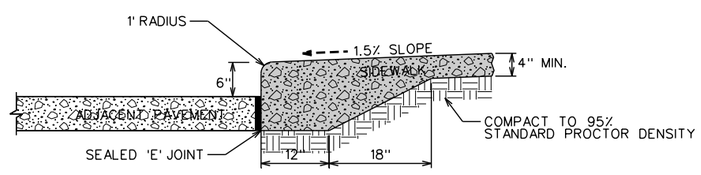
PROPOSED TYPICAL SECTION
JEFFERSON STREET
STA. 101+50.00 TO 103+40.74
104+70.81 TO 108+42.34
JACKSON STREET
STA. 800+93.19 TO 807+08.43
STA. 808+13.28 TO 808+12+63.62
GEBHARDT STREET
STA. 700+91.88 TO 708+62.36 (DIVISION 2)
(NOT TO SCALE)



TYPICAL GENERAL NOTES:
1. LONGITUDINAL JOINTING IS 'L-1'
2. TRANSVERSE JOINTING IS 'C'
3. SCARIFY AND RECOMPACT 12" OF SUBGRADE TO 95% STANDARD PROCTOR DENSITY AND WITHIN 2% BELOW AND 4% ABOVE OPTIMUM MOISTURE CONTENT.

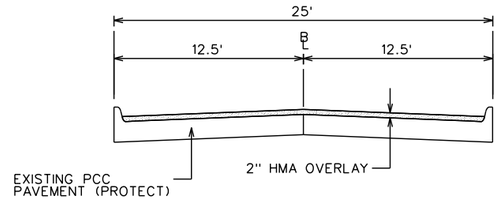
KEYED NOTES:
① REFER TO PLANS FOR AREAS OF PARKING RECONSTRUCTION.
② REFER TO PLANS FOR SIDEWALK REPLACEMENT LIMITS.

PROPOSED TYPICAL SECTION
1ST STREET
STA. 500+93.83 TO 507+23
(NOT TO SCALE)



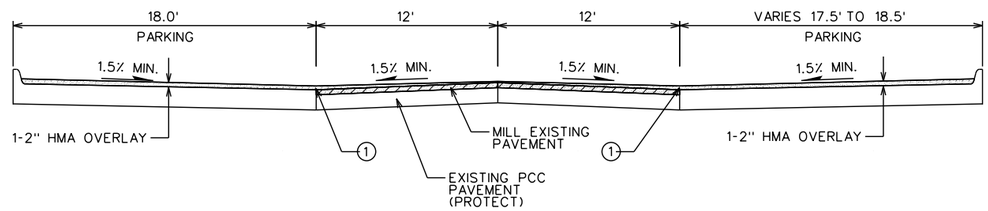
TYPICAL GENERAL NOTES:
1. REFER TO PLANS FOR LOCATIONS OF SIDEWALK CURB DETAILS.

SIDEWALK CURB DETAIL
1ST STREET
(NOT TO SCALE)



TYPICAL GENERAL NOTES:
1. EXISTING HMA OVERLAY SHALL BE SCARIFIED PRIOR TO PLACEMENT OF NEW OVERLAY. DEPTH VARIES, REFER TO PAVEMENT CORES FOR SAMPLE DEPTHS.
2. MAINTAIN POSITIVE LONGITUDINAL GUTTER SLOPE.
3. FINISHED CROSS SLOPE SHALL CLOSELY MATCH EXISTING. MINIMUM ALLOWABLE IS 1.5% AND MAXIMUM ALLOWABLE IS 3.0%, UNLESS APPROVED BY OWNER OR ENGINEER.

PROPOSED TYPICAL SECTION
WASHINGTON STREET
STA. 201+11.28 TO 204+00.00
STA. 204+72.88 TO 207+22.62
STA. 210+73.54 TO 216+53.59
1ST STREET
STA. 510+01.21 TO 514+15.70
STA. 514+54.23 TO 517+56.00

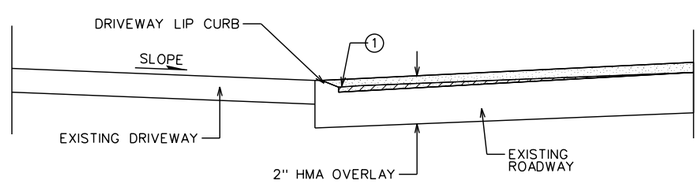


TYPICAL GENERAL NOTES:
1. EXISTING HMA OVERLAY SHALL BE SCARIFIED PRIOR TO PLACEMENT OF NEW OVERLAY. DEPTH VARIES, REFER TO PAVEMENT CORES FOR SAMPLE DEPTHS.
2. MAINTAIN POSITIVE LONGITUDINAL GUTTER SLOPE.
3. FINISHED CROSS SLOPE SHALL CLOSELY MATCH EXISTING. MINIMUM ALLOWABLE IS 1.5% AND MAXIMUM ALLOWABLE IS 3.0%, UNLESS APPROVED BY OWNER OR ENGINEER.

KEYED NOTES:

1. PROVIDE 1" HMA OVERLAY AT BEGINNING OF PARKING AREA. FLATTEN ROADWAY CROSS SLOPE TO OBTAIN THIS DEPTH. MINIMUM CROSS SLOPE TO BE 1.5%. INCREASE DEPTH AT CENTERLINE TO MAINTAIN THIS CROSS SLOPE.

PROPOSED TYPICAL SECTION
1ST STREET
STA. 507+59.25 TO 510+01.21



HMA DRIVEWAY TRANSITION TYPICAL SECTION

TYPICAL GENERAL NOTES:
1. MAINTAIN POSITIVE LONGITUDINAL GUTTER SLOPE.
2. MAINTAIN SLOPE FROM DRIVEWAY TO GUTTER AND DO NOT DIRECT ROADWAY DRAINAGE INTO DRIVEWAY.
3. IF NO DRIVEWAY LIP CURB IS PRESENT. PROVIDE HMA WEDGE FILLET AS NEEDED TO MAINTAIN LONGITUDINAL GUTTER SLOPE AND POSITIVE DRIVEWAY TO GUTTER SLOPE.

KEYED NOTES:

1. MINIMUM DEPTH AT GUTTER LINE IS 2.0". MILL ADDITIONAL DEPTH AS NEEDED TO OBTAIN THIS DEPTH AND MAINTAIN POSITIVE DRAINAGE FROM THE DRIVEWAY TO THE ROADWAY.

100-1A
MODIFIED

ESTIMATED PROJECT QUANTITIES
(1 DIVISION PROJECT)

Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2010-108-D-1	TOPSOIL, ON SITE	CY	1326	
2	2010-108-E-0	EXCAVATION, CLASS 10	CY	2060	
3	2010-108-G-0	SUBGRADE PREPERATION, POLYMER GRID	SY	3590	
4	2010-108-G-0	SUBGRADE PREPERATION	SY	12960	
5	2010-108-I-1	SUBBASE, SPECIAL BACKFILL, 6 INCHES	TON	200	
6	2010-108-I-1	SUBBASE, MODIFIED, 6 INCHES	CY	2036	
7	2010-999-9-9	EARTH SHOULDER FINISHING	STA	47.45	
8	2010-108-L-0	COMPATION TESTING	LS	1	
9	3010-108-F-0	TRENCH COMPACTION TESTING	LS	1	
10	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 8 IN.	LF	337	
11	4040-108-A-0	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	5675	
12	4040-108-C-0	SUBDRAIN CLEANOUT	EACH	12	
13	4040-108-D-0	SUBDRAIN OUTLET AND CONNECTIONS, DR-303	EACH	14	
14	6010-108-B-0	INTAKE, SW-501	EACH	6	
15	6010-108-B-0	INTAKE, SW-507 MODIFIED	EACH	2	
16	6010-108-B-0	INTAKE, SW-511	EACH	4	
17	6010-108-C-0	DROP CONNECTION, SW-307	EACH	1	
18	6010-108-E-0	MANHOLE ADJUSTMENT, MINOR	EACH	10	
19	6010-108-E-0	INTAKE ADJUSTMENT, MINOR	EACH	6	
20	6010-108-F-0	INTAKE ADJUSTMENT, MAJOR	EACH	3	
21	6010-108-G-0	CONNECTION TO EXISTING MANHOLE	EACH	3	
22	6010-108-H-0	REMOVE INTAKE	EACH	12	
23	7010-108-A-0	PAVEMENT, PCC, 6 IN.	SY	1865	
24	7010-108-A-0	PAVEMENT, PCC, 7 IN.	SY	9027	
25	7010-108-A-0	DRIVEWAY, PAVED, PCC, 6 IN.	SY	1173	
26	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING	LS	1	
27	7020-108-A-0	OVERLAY, HMA (1,000,000 ESAL)	TON	750	
28	7020-108-H-0	HMA PAVEMENT SAMPLES AND TESTING	LS	1	
29	7030-108-A-0	REMOVAL OF SIDEWALK	SY	595	
30	7030-108-A-0	REMOVAL OF DRIVEWAY	SY	993	
31	7030-108-E-0	SIDEWALK, PCC, 6 INCHES	SY	554	
32	7030-108-G-0	DETECTABLE WARNINGS	SF	336	
33	7040-108-A-0	FULL-DEPTH PATCHES	SY	1233	
34	7040-108-G-0	MILLING	SY	5746	
35	7040-108-H-0	PAVEMENT REMOVAL	SY	11006	
36	9010-108-B-0	HYDRAULIC SEEDING, FERTILIZATION, AND MULCHING	ACRE	4	
37	9010-108-E-0	WARRANTY	LS	1	
38	9040-108-A-2	SWPPP MANAGEMENT AND INSPECTIONS	LS	1	
39	9040-108-D-1	FILTER SOCKS, 6"	LF	775	
40	9040-108-D-2	FILTER SOCKS, REMOVAL	LF	775	
41	9040-108-O-1	STABILIZED CONSTRUCTION ENTRANCE	TON	150	
42	9040-108-T-1	INLET PROTECTION DEVICE, WATTLE	EACH	31	
43	9040-108-T-2	INLET PROTECTION DEVICE, MAINTENANCE	EACH	31	
44	9999-999-9-9	TRAFFIC CONTROL	LS	1	
45	9999-999-9-9	SAFETY CLOSURE	EACH	30	
46	9999-999-9-9	ADJUSTMENT OF VALVE BOX	EACH	6	
47	9999-999-9-9	P.C. CONCRETE PARKING BUMPER	EACH	31	
48	9999-999-9-9	CLEANING AND PREPERATION OF BASE	MILE	0.4	
49	9999-999-9-9	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	420	
50	9999-999-9-9	BNSF WORK ON RAILROAD RIGHT-OF-WAY AND FLAGGER PROTECTION	LS	1	
51	9999-999-9-9	PATCHES BY COUNT	EACH	13	
52	11010-108-A	CONSTRUCTION SURVEY	LS	1	
53	11020-108-A	MOBILIZATION	LS	1	
54	11030-108-B	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT BASED	STA	25.83	
55	11040-108-A	MAINTENANCE OF POSTAL SERVICE	LS	1	
56	11040-108-B	MAINTENANCE OF SOLID WASTE AND RECYCLING COLLECTION	LS	1	
57	11060-108-A	CONCRETE WASHOUT	LS	1	

100-1D
10-18-05

PROJECT DESCRIPTION

This project includes pavement rehabilitation and reconstruction at various locations within the City of Knoxville. Rehabilitation work includes pavement scarification and HMA overlay and PCC full depth patching.

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MODIFIED

INDEX OF TABULATIONS

Tabulation	Tabulation Title	Sheet No.
C Sheets		
100-1A	ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)	C.1
100-1C	ESTIMATED PROJECT QUANTITIES (UP TO A 5 DIVISION PROJECT)	No Sheet No.
100-1D	PROJECT DESCRIPTION	C.1
100-4A	ESTIMATE REFERENCE INFORMATION	C.2 - C.3
100-19	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE	C.3
102-3	ACCESS POINTS AND SAFETY RAMPS	C.4
102-6C	FULL-DEPTH PATCHES	C.5
104-9	LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE	C.6
104-10	ADJUSTMENT OF FIXTURES	C.3
108-13A	SAFETY CLOSURES	C.4
108-22	PAVEMENT MARKING LINE TYPES	C.5
110-1	REMOVAL OF PAVEMENT	C.5
110-5	SIDEWALK REMOVAL	C.6
110-8	REMOVAL OF CONCRETE DRIVES	C.7
110-12A	POLLUTION PREVENTION PLAN	C.8 - C.8
111-25	INDEX OF TABULATIONS	C.1
113-1	SIDEWALKS	C.7

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2010-108-D-1	TOPSOIL, ON SITE Quantity is based on cut depths of 6 inches over vegetative distrubed areas. Topsoil placement to be a uniform 6 inches over all distrubed areas. Quantity includes 1,215 CY of strip and 1,579 CY of placement + 30% shrink for a Contractor furnish of 364 CY. All Contractor imported material is considered incidental to this item.
2	2010-108-E-0	EXCAVATION, CLASS 10 Quantity includes 340 CY of cut (Jefferson), 580 CY of cut (1st Street), 400 Cy of cut (Gebhardt, 670 CY of cut (Jackson), and 70 CY of Cut (2" overexcavation for patch) for a total of 2,060 CY of cut. Minimal fill quantity is need and was not calculated. The cut material shall be used for minimal fill required. Waste material shall be hauled and disposed of offsite. No additional compensation for hauling of material offsite.
3	2010-108-G-0	SUBGRADE PREPERATION, POLYMER GRID To be used when unsuitable or unstable material is encountered. Coordinate with City prior to use of this item. Type 2 Geogrid shall be used.
4	2010-108-G-0	SUBRADE PREPERATION, SPECIAL COMPACTION OF SUBGRADE Refer to typical sections on B Sheets. Use on all reconstruction segments.
5	2010-108-I-1	SUBBASE, SPECIAL BACKFILL, 6 INCHES Refer to typical sections on B Sheets and Tab 100-24 for locations.
6	2010-108-I-4	SUBBASE, MODIFIED, 6 INCHES Refer to typical sections on B Sheets and Tab 100-24 for locations.
7	2010-999-9-9	EARTH SHOULDER FINISHING Includes backfill and finish grading along all roadway pavement.
8	2010-108-l-0	COMPACTION TESTING Includes all compaction testing required for pavement per the Specifications.
9	3010-108-F-0	TRENCH COMPACTION TESTING This item shall be used for all sanitary sewer pipe installation.
10	4010-108-A-1	SANITARY SEWER GRAVITY MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 8 IN Refer to U Sheets for sanitary sewer locations. Provide solid wall PVC, SDR 35 is not allowed. Class F-3 bedding shall be used. Provide video inspection for this item per the Specifications. Provide inspection video media in digital format (DVD or approved equal).
11	4040-108-A-0	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA. Refer to Tabulation 104-9 and D sheets for locations. No engineering fabric shall be used. Type 1 shall be used. If corrugated PE is used it shall be AASHTO M252 Type S (corrugated exterior and smooth interior). Type B installation shall be used. Assure rock interaction between porous backfill and subbase.
12	4040-108-C-0	SUBDRAIN CLEANOUT This item includes construction of a subdrain cleanout at locations noted on tabulation 104-9 on the C Sheets. Refer to U Sheets for detail of cleanout. Item includes all excavation, materials, labor, and equipment required to install the cleanouts according to the detail in the plans. Cleanouts that are installed per the plans will be counted and paid for per each.
13	4040-108-D-0	SUBDRAIN OUTLET AND CONNECTIONS, DR-303 Refer to B Sheets for typcial sections. See Tab 104-9 for locations and details.
14	6010-108-B-0	INTAKE, SW-501
15	6010-108-B-0	INTAKE, SW-507 MODIFIED
16	6010-108-B-0	INTAKE, SW-511 Refer to D Sheets for locations and additional information. Modified intake shall match existing pipe and flowline elevations. Approximate depths and sizes of existing intakes are shown on the plans. Replacement sizes shall be in resonable close conformance with the existing sizes. Structures shall be cast-in-place type. Precast is allowed if field verification on flowlines are performed by the contractor. Provide steps in all structures.
17	6010-108-C-0	DROP CONNECTION, SW-307 Refer to U sheets for locations.
18	6010-108-E-0	MANHOLE ADJUSTMENT, MINOR Refer to Tab 104-10. Manhole adjustments in pavement shall include replacement with three-piece casting, SW-601 Type B or SW-602 Type F.
19	6010-108-E-0	INTAKE ADJUSTMENT, MINOR Refer to Tab 104-10. Included is removal and replacement of throat section, if noted in plans. Reuse of existing casting may be used if approved by the City at time of construction.
20	6010-102-F-0	INTAKE ADJUSTMENT, MAJOR Refer to Tab 104-10. Included is removal and replacement of throat section, if noted in plans. Also included sawcut, removal, and rebuild intake top as indicated. Reuse of existing casting may be used if approved by the City at time of construction.
21	6010-108-G-0	CONNECTION TO EXISTING MANHOLE This item to be used for connection of sanitary sewer main into existing manholes along 1st Street. Refer to U.2 Sheet for additional information. Connection should be watertight.
22	6010-108-H-0	REMOVE INTAKE Removal of intakes as noted in the plans.

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MODIFIED

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
23	7010-108-A-0	PAVEMENT, PCC, 6 IN.
24	7010-108-A-0	PAVEMENT, PCC, 7 IN. Refer to typical sections on B Sheets. See B and D Sheets for locations. Class C mix shall be used unless approved by Engineer. Cure all roadway paving.
25	7010-108-A-0	DRIVEWAY, PAVED, PCC, 6 IN. Refer to Tab 102-3. Class C mix shall be used. Cure all driveway paving.
26	7010-108-I-0	PCC PAVEMENT SAMPLES AND TESTING Provide testing per the Specification as well as all plastic concrete assurance testing. Plastic concrete testing shall be performed by an independent testing agency hired by the Contractor. Included in this item is testing for driveway and sidewalk paving as noted in Section 7030, 3.11 of the Specifications.
27	7020-108-H-0	OVERLAY, HMA (1,000,000 ESAL) Refer to typical sections on B Sheets. See B and D Sheets for locations. Milling depth at existing pavement shall be 1 to 1.5 inches.
28	7020-108-H-0	HMA PAVEMENT SAMPLES AND TESTING
29	7030-108-A-0	REMOVAL OF SIDEWALK Refer to Tab 110-5. Approximate depth of sidewalk is 4-inches.
30	7030-108-A-0	REMOVAL OF DRIVEWAY Refer to Tab 110-8. Existing driveway thickness is estimated at 6-inches.
31	7030-108-E-0	SIDEWALK, PCC, 6 IN. Refer to D and S Sheets for locations and tabulations. Additional work and material required for thickened edge as shown on B.1 is incidental. Class C mix shall be used. Cure all sidewalk paving.
32	7030-108-G-0	DETECTABLE WARNINGS Refer to D and S Sheets for locations and tabulations. Detectable warnings shall be installed at all pedestrian ramp locations. Material type shall be cast iron.
33	7040-108-A-0	FULL DEPTH PATCHES See D Sheets and Tab 102-6C for locations and details. Refer to U sheets for details. All patches shall be 8-inch in depth. Patches that are to be overlaid with 2-inches HMA shall maintain 8-inch thickness under the HMA overlay. Coordinate with City prior to removals. City reserves the right to remove or add patches depending on current pavement condition at the time of construction.
34	7040-108-G-0	MILLING This item is used for the milling and overlay of Washington and 1st Streets. Also used for runouts at intersections and project limits. Refer to typical sections on B Sheets and D Sheets for locations. Nominal depth of 2-inches, refer to pavement borings on D sheets.
35	7040-108-H-0	REMOVAL OF PAVEMENT Refer to Tab 110-1. Refer to pavement core information on D Sheets for pavement depths.
36	9010-108-A-0	HYDRAULIC SEEDING, FERTILIZATION, AND MULCHING Quantity includes approximately 1 Acre for permanent seeding and 3 Acres To be used for any temporary seeding that is needed to comply with NPDES permit. Mulch shall be Bonded Fiber Matrix Type. Seed Type shall be Type 1 Permanent Lawn Mixture.
37	9010-108-E-0	WARRANTY Provide 12 month warranty for all permanent seeding per the Specifications.
38	9040-108-A-2	SWPPP MANAGEMENT AND INSPECTIONS Includes management of SWPPP per the Specifications and inspections required per the Contact Documents to comply with Iowa DNR NPDES Permit.
39	9040-108-D-1	FILTER SOCKS, 6" Refer to Tab 100-19. This item to be used to minimize the transport of sediment offsite and for protection of intake structures.
40	9040-108-D-2	FILTER SOCKS, REMOVAL Length of material properly removed from project will be measured for payment. Payment will be made at the contract unit price per linear foot.
41	9040-108-O-1	STABILIZED CONSTRUCTION ENTRANCE Refer to Tab 102-3 for locations.
42	9040-108-T-1	INLET PROTECTION DEVICE, WATTLE Refer to Tab 100-19. Removal of device is considered incidental to this item.
43	9040-108-T-2	INLET PROTECTION DEVICE, MAINTENANCE Removal and off-site disposal of accumulated sedimet is considered incidental to this item.
44	9999-999-9-9	TRAFFIC CONTROL Refer to J Sheets for Traffic Control requirements.
45	9999-999-9-9	SAFETY CLOSURE Refer to Tab 108-13A and J Sheets for safety closure locations.
46	9999-999-9-9	ADJUSTMENT OF VALVE BOX To be used for adjustment of water valve boxes within full depth patches, HMA overlay locations, and

100-4A
MODIFIED

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
		reconstruction locations. Item includes all material, labor, and equipment required to adjust the valve box to finished grade. Valve boxes that are properly adjusted to final grade will be counted and paid for per each.
47	9999-999-9-9	P.C. CONCRETE PARKING CURB This item includes construction of P.C. Concrete parking curb bumpers at locations noted in the plans. Removal of existing bumpers is incidental. Item includes all materials, labor, and equipment required to install P.C. concrete parking bumpers secured into pavement as recommended by manufacturer. Parking curbs shall be reinforced along the entire length with at least two reinforcing bars. Parking curb height shall be no more than 6-inch and no less than 4-inch. Parking curb length shall be no more than 8-feet and no less than 6-feet. Parking curbs that are installed will be counted and paid for per each.
48	9999-999-9-9	CLEANING AND PREPERATION OF BASE This item is used for the milling and overlay of Washington and 1st Streets. Refer to typical sections on B Sheets and D Sheets for locations. Refer to Section 2212 in Iowa DOT Specifications for item requirements.
49	9999-999-9-9	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE This item to be used for temporary roadway and driveway access as required during construction. Refer to J Sheets for locations. This item includes removal of material following temporary use. Coordinate with City prior to using this item.
50	9999-999-9-9	BNSF WORK ON RAILROAD RIGHT-OF-WAY AND FLAGGER PROTECTION Refer to Special Provision for Work on Railroad Right-of-Way (BNSF Railway) for additional information. Item includes flagger protection, insurance requirements, and other requirements noted in the Special Provision.
51	9999-999-9-9	PATCHES BY COUNT Total number of patches will be counted by the Engineer. Payment is full compensation for providing the mobilization required for set up of each patch, installation of dowel bars at patch edge and for traffic control associated with each patch. Patches will be counted and paid per each.
52	11010-108-A	CONSTRUCTION SURVEY Includes the replacement of section corners and property pins, if disturbed.
53	11020-108-A	MOBILIZATION
54	11030-108-B	PAINTED PAVEMENT MARKING, WATERBORNE OR SOLVENT-BASED Refer to D Sheets for pavement marking locations and Tab 108-22 for pavement marking tabulation.
55	11040-108-A	MAINTENANCE OF POSTAL SERVICE Includes all work associated with the removal, salvage, and relocation of the mailboxes affected by the project. Also included is maintaining temporary mailboxes during construction to a location approved by US Postal Service, location shall be in the direct vicinity of the impacted property owners. Multiple locations for temporary mailboxes will be needed for Jackson Street. As soon as reconstructed segements are complete, reinstall the mailboxes 42-inches above the driving surface and 6-8 inches behind the back of curb. Not less than 72 hours prior to removing any mailbox, notify each property owner in writing notifying them of the move and the location of the temporary mailbox. All mailboxes removed shall be stored on the property to which it belongs and at a sufficient distance from the work area to ensure it will not be damaged. Provide an accessible route to the temporary mailbox location for each property. This item includes all materials, labor, equipment, and coordination to maintain postal service to property owners and properly reinstall mailboxes. Payment will be based on the contract lump sum price.
56	11040-108-B	MAINTENANCE OF SOLID WASTE AND RECYCLING COLLECTION Item includes maintaining garbage and recycling services to residents within the project limits throughout the duration of the project while property owners are impacted by construction. Item includes all materials, labor, and equipment required to haul garbage and recycling containers from the property owners home to a local pick-up point and back to the residents home following collection. Contractor shall coordinate a local pick-up point with the garbage and recycling services. A removable sticker shall be placed on each container to ensure that the containers are returned to the appropriate property owner. Contractor shall coordinate with the City, engineer, property owners, and garbage and recycling services. Item measurement shall be on a lump sum basis for completion of this item as described above. Payment will be based on the contract lump sum price.
57	11060-108-A	CONCRETE WASHOUT Coordinate washout location with City and Engineer prior to installation.

100-19
MODIFIED

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Location			Length of Installation				Remarks
Begin Station	End Station	Side	6 inch Dia	9 inch Dia	12 inch Dia	20 inch Dia	
			LF	LF	LF	LF	
Madison	Dayton		20.0				Offsite intake protection
Madison	Freemont		20.0				Offsite intake protection
104+50.00	104+50.00	LT	20.0				Intake protection
104+50.00	104+50.00	RT	20.0				Intake protection
Madison	Brobst		20.0				Offsite intake protection
213+75.00	213+75.00	LT	20.0				Intake protection
213+75.00	231+75.00	RT	20.0				Intake protection
500+80.00	500+80.00	LT	20.0				Intake protection
500+80.00	500+80.00	RT	20.0				Intake protection
503+15.00	503+15.00	LT	20.0				Intake protection
503+15.00	503+15.00	RT	20.0				Intake protection
503+50.00	503+50.00	RT	20.0				Intake protection
503+50.00	503+50.00	RT	20.0				Intake protection
504+05.00	504+05.00	RT	20.0				Intake protection
506+70.00	506+70.00	LT	20.0				Intake protection
506+70.00	506+70.00	RT	20.0				Intake protection
510+44.00	510+44.00	LT	20.0				Intake protection
510+44.00	510+44.00	RT	20.0				Intake protection
513+65.00	513+65.00	LT	20.0				Intake protection
513+65.00	513+65.00	RT	20.0				Intake protection
514+50.00	514+50.00	LT	20.0				Intake protection
514+50.00	514+50.00	RT	20.0				Intake protection
700+91.00	700+91.00	LT	20.0				Intake protection
700+91.00	700+91.00	RT	20.0				Intake protection
705+60.00	705+60.00	LT	20.0				Intake protection
706+80.00	706+80.00	RT	20.0				Intake protection
708+60.00	708+60.00	LT	20.0				Intake protection
807+13.00	807+13.00	LT	20.0				Intake protection
807+13.00	807+13.00	RT	20.0				Intake protection
808+06.00	808+06.00	RT	20.0				Intake protection
812+65.00	812+65.00	LT	20.0				Intake protection
	Subtotal:		620.0				
	25 Percent		155.0				
	Total:		775.0				

104-10
MODIFIED

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
1	105+16	SANITARY MANHOLE	MINOR ADJUSTMENT
2	108+06	SANITARY MANHOLE	MINOR ADJUSTMENT
3	107+74	VALVE BOX	
4	202+14	SANITARY MANHOLE	MINOR ADJUSTMENT
5	213+65	SANITARY MANHOLE	MINOR ADJUSTMENT
6	503+15	STORM INTAKE	MINOR ADJUSTMENT
7	503+48	STORM INTAKE	MINOR ADJUSTMENT
8	503+50	STORM INTAKE	MINOR ADJUSTMENT
9	503+78	SANITARY MANHOLE	MINOR ADJUSTMENT
10	504+06	STORM INTAKE	MINOR ADJUSTMENT
11	507+15	SANITARY MANHOLE	MINOR ADJUSTMENT
12	510+30	VALVE BOX (5)	CLUSTER OF FIVE VALVES
13	510+22	SANITARY MANHOLE	MINOR ADJUSTMENT, PCC BOXOUT
14	513+72	SANITARY MANHOLE	MINOR ADJUSTMENT, PCC BOXOUT
15	520+85	SANITARY MANHOLE	MINOR ADJUSTMENT
16	705+58	STORM INTAKE	MINOR ADJUSTMENT
17	705+95	SANITARY MANHOLE	MINOR ADJUSTMENT, REPLACE CASTING WITH SW-601, TYPE A
18	706+81	STORM INTAKE	MINOR ADJUSTMENT
	Totals	10	Manhole, Minor,
		6	Intake, Minor
		6	Valve Box

102-3
MODIFIED

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

*Predetermined for access point not constructed with this project.

Location		Type	Length of Opening			W	PR	SR	Pipe Culvert					Aprons	Driveway Surface Area		Construction Entrance	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	
101+77.38	LT	C	2		16.5	11.0										8.6		
101+82.23	RT	C	2		15.3	10.0										7.7		
102+16.71	LT	C	2		15.2	9.5										7.9		
102+54.59	LT	C	2		16.5	10.0										9.4		
102+84.41	LT	C	2		28.2	21.0										19.2		
104+77.61	LT	C	2		42.0	34.6										33.6		
105+49.95	LT	C	2		19.0	14.0										9.7		
106+12.58	LT	C	2		20.0	10.0										15.9		
106+22.61	RT	C	2		18.0	11.0										11.7		
106+35.75	LT	C	2		18.0	9.0										14.2		
701+73.01	LT	C	2	51.5		40.0										60.0		
702+44.30	LT	C	2	21.0		9.0										20.2		
702+91.18	LT	C	2	21.0		9.0										19.4		
703+12.17	RT	C	2	30.0		17.5										34.2		
703+18.16	LT	C	2	22.4		10.0										22.1		
703+68.41	LT	C	2	21.0		9.0										20.8		
703+93.77	LT	C	2	22.0		10.0										20.4		
704+42.25	LT	C	2	23.0		11.0										21.8		
705+45.28	RT	C	2	35.0		22.0										41.3		
707+23.41	LT	C	2	27.0		16.0										26.4		
707+54.97	RT	C	2	99.0		86.0										134.7		
707+76.30	RT	C	2	31.5		20.0										33.1		
801+13.55	LT	C	2	30.0		18.0										32.4		
803+20.20	RT	C	2		32.5	20.0										35.9		
803+29.45	LT	C	2	34.0		21.7										38.3		
804+19.70	LT	C	2	36.0		24.0										40.3		
804+49.57	RT	C	2		32.0	20.0										35.8		
805+02.33	RT	C	2		32.0	20.0										33.4		
805+64.11	LT	C	2	36.0		24.0										42.1		
805+90.31	RT	C	2		29.0	17.0										31.4		
806+43.41	LT	C	2	31.0		20.0										31.8		
808+28.67	RT	C	2	31.0		19.5										33.3		
808+75.91	LT	C	2	34.0		21.0										41.4		
809+54.57	RT	C	2	29.7		17.9										30.9		
809+82.64	LT	C	2	30.4		18.0										34.0		
810+37.71	RT	C	2	31.2		19.7										32.3		
810+65.24	LT	C	2	35.0		22.0										42.0		
811+34.60	RT	C	2	28.4		16.4										29.6		
812+35.70	LT	C	2	23.4		17.0										14.7		
														Total:		1172.2		

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SAFETY CLOSURES

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
Jeff/Dayton	1		
Jeff/Fremont	1		
Jeff/Brobst	4		
Wash/Kent	4		
Wash/2nd	4		
1st/Robinson	1		
1st/Alley	2		
1st/Main	2		
1st/Alley	2		
1st/Marion	1		
1st/Babbit	2		
Jack/Stone	2		
Jack/Valley	2		
Jack/Gebhardt	1		
Gebh/Larson	1		
Gebh/GrandV	1		
Gebh/Jackson	1		
Total	32		

108-22
MODIFIED

PAVEMENT MARKING LINE TYPES

*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	STA	
1st Street	500+97.00	501+94.00	SB	Waterborne/Solvent Paint	X							2.88											Parking
1st Street	503+58.00	503+39.00	SB	Waterborne/Solvent Paint	X							2.40											Parking
1st Street	504+56.00	505+40.00	SB	Waterborne/Solvent Paint	x							2.30											Parking
1st Street	505+55.00	506+58.00	SB	Waterborne/Solvent Paint	X							2.88											Parking
1st Street	508+05.00	508+75.00	SB	Waterborne/Solvent Paint	X							1.96											Parking
1st Street	500+94.00	501+98.00	NB	Waterborne/Solvent Paint			X					2.64											Parking
1st Street	502+17.00	503+33.00	NB	Waterborne/Solvent Paint			X					2.08											Parking
1st Street	504+30.00	505+39.00	NB	Waterborne/Solvent Paint			X					2.23											Parking
1st Street	507+56.00	508+67.00	NB	Waterborne/Solvent Paint			X					2.16											Parking
1st Street	508+92.00	510+00.00	NB	Waterborne/Solvent Paint			X					2.22											Parking
				Factored Total: Waterborne/Solvent Paint				-	-	-	-	23.75	-	-	-	-	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based							23.75												

102-6C
MODIFIED

FULL-DEPTH PATCHES

Location			Dimension			PCC Patches												
Count	Station or Milepost	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C	HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks
		L, R, or B	FT	FT	IN	SY	SY	SY	SY	TON	SY	SY	No.	No.	No.	No.	No.	
1	201+11.28		Varies	Varies	8.0		51.9											
2	201+15.66		Varies	Varies	8.0		94.7											
3	213+30.63		60.5	25.0	8.0		168.1											
4	503+90.51		Varies	Varies	8.0		101.0											
5	513+55.90		Varies	Varies	8.0		67.8											
6	518+22.25		Varies	Varies	8.0		26.3											
7	518+48.68		6.0	25.0	8.0		16.7											
8	520+18.81		36.0	25.0	8.0		100.4											
9	520+62.53		Varies	Varies	8.0		159.9											
10	520+79.56		Varies	Varies	8.0		123.7											
11	523+38.88		Varies	Varies	8.0		216.7											
12	526+19.55		20.0	25.0	8.0		55.6											
13	798+06.50		33.0	13.5	8.0		49.5											1805 W Jackson
				Total:			1232.1		Note: Refer to U Sheets for Modified PR-102									

110-1
MODIFIED

REMOVAL OF PAVEMENT

* Not a Bid Item

Begin Station	End Station	Side	Pavement Type	Area	Saw Cut*	Remarks
				SY	LF	
101+50.00	103+40.84	Both	PCC	526.2	60.0	
104+70.50	108+42.34	Both	PCC	1199.9	110.0	
500+93.60	507+23.14	Both	Composite	3777.4	1320.0	
700+91.93	708+62.48	Both	PCC	2294.1	140.0	
800+93.19	807+08.12	Both	PCC	1931.6	50.0	
808+13.17	812+62.91	Both	PCC	1276.0	60.0	
			Total:	11005.3	1740.0	

104-9
MODIFIED

LONGITUDINAL SUBDRAIN SHOULDER AND BACKSLOPE

Refer to Soils Sheets

*Not a bid Item

Location						Longitudinal Subdrain							Subdrain Outlet		Porous* Backfill	Class "A"* Crushed Stone	Remarks
Line No.	Road or Lane Ident.	Station to Station		Side	Depth (D)	Shoulder		Backslope		Bridge Berm			Station	Standard Road Plan and Type			
						Size	Length	Size	Length	Size	Type	Length					
					IN	IN	FT	IN	FT	IN		FT			CY	CY	
1	JEFFERSON	104+48.00	107+87.00	LT	32.0	4.0	379.0						104+48.00	DR-303	25.3		
																	SUBDRAIN CLEANOUT AT 107+87
2	JEFFERSON	104+74.00	107+86.00	RT	32.0	4.0	352.0								23.5		CONNECTION TO LINE 1
																	SUBDRAIN CLEANOUT AT 107+86
11	1ST	500+93.00	503+14.00	LT	32.0	4.0	261.0								17.5		CONNECT TO EXISTING CLEANOUT
													503+14.00	DR-303			CONNECT TO EXISTING INTAKE
12	1ST	500+92.00	503+37.00	RT	32.0	4.0	285.0								19.1		CONNECT TO EXISTING CLEANOUT
																	SUBDRAIN CLEANOUT AT 503+37
																	CROSS 1ST STREET AT 503+14 AND
																	CONNECT TO LINE 11
13	1ST	503+14.00	503+47.00	LT	32.0	4.0	73.0						503+14.00	DR-303	4.9		CONNECT TO EXISTING INTAKE
																	SUBDRAIN CLEANOUT AT 503+47
14	1ST	504+09.00	506+69.00	LT	32.0	4.0	300.0						504+09.00	DR-303	20.1		CONNECT TO EXISTING MANHOLE
													506+69.00	DR-303			CONNECT TO EXISTING INTAKE
15	1ST	504+07.00	506+53.00	RT	32.0	4.0	308.0						504+07.00	DR-303	20.6		CONNECT TO EXISTING INTAKE
																	CONNECT TO LINE 14
16	GEBHARDT	701+19.00	705+57.00	LT	32.0	4.0	478.0								32.0		SUBDRAIN CLEANOUT AT 701+19
													705+57.00	DR-303			CONNECT TO EXISTING INTAKE
17	GEBHARDT	701+19.00	706+81.00	RT	32.0	4.0	602.0								40.3		SUBDRAIN CLEANOUT AT 701+19
																	CONNECT TO EXISTING INTAKE
18	GEBHARDT	706+11.00	708+63.00	LT	32.0	4.0	292.0								19.5		SUBDRAIN CLEANOUT AT 706+11
													708+63.00	DR-303			CONNECT TO EXISTING INTAKE
19	GEBHARDT	706+83.00	708+60.00	RT	32.0	4.0	247.0						706+83.00	DR-303	16.5		CONNECT TO EXISTING INTAKE
													708+60.00	DR-303			CONNECT TO EXISTING INTAKE
																	CROSS STREET TO CONNECT
20	JACKSON	802+22.00	807+13.00	LT	32.0	4.0	531.0								35.5		SUBDRAIN CLEANOUT AT 802+22
													807+13.00	DR-303			CONNECT TO EXISTING INTAKE
21	JACKSON	802+21.00	807+13.00	RT	32.0	4.0	532.0								35.6		SUBDRAIN CLEANOUT AT 802+21
													807+13.00	DR-303			CONNECT TO EXISTING INTAKE
22	JACKSON	807+92.00	812+66.00	LT	32.0	4.0	514.0								34.4		SUBDRAIN CLEANOUT AT 807+92
													812+66.00	DR-303			CONNECT TO EXISTING INTAKE
23	JACKSON	808+05.00	812+60.00	RT	32.0	4.0	521.0						808+05.00	DR-303	34.8		CONNECT TO EXISTING INTAKE
																	CROSS STREET CONNECT TO LINE 22
					Total:		5675.0								379.6		

110-5
MODIFIED

SIDEWALK REMOVAL

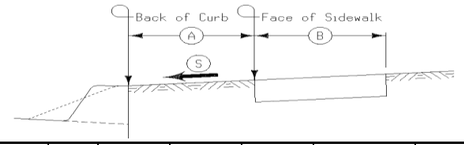
* Not a bid item

Begin Station	End Station	Area	Saw Cut*	Remarks
		SY	LF	
105+28.28	105+28.28	1.8	3.0	
105+54.62	105+54.62	1.9	2.3	
107+78.83	107+78.83	4.3	4.0	
107+78.02	107+78.02	10.5	5.0	
108+20.44	108+20.44	10.8	3.8	
201+08.53	201+24.54	24.2	8.0	
201+49.77	201+49.77	8.7	4.0	
207+10.94	207+10.94	23.6	8.0	
207+12.06	207+12.06	25.6	8.1	
213+26.10	213+26.10	4.7	4.0	
213+26.83	213+26.83	14.0	4.0	
216+47.22	216+47.22	16.0	4.0	
216+49.06	216+49.06	17.4	4.2	
503+39.21	503+39.21	45.9	64.5	
503+42.04	503+42.04	63.3	58.0	
503+98.42	504+10.96	52.3	29.0	
504+04.80	504+18.34	50.1	35.0	
506+79.80	506+79.80	17.9	12.0	
506+79.10	506+79.10	4.0	6.0	
517+02.85	517+02.85	10.0	4.0	
517+03.45	517+03.45	14.7	4.0	
521+19.50	521+19.50	6.4	4.0	
700+99.02	700+99.02	16.9	7.5	
701+03.59	701+03.59	10.9	3.7	
702+58.77	702+58.77	5.5	4.6	
703+65.30	703+65.30	5.4	3.9	
704+82.96	704+82.96	5.3	3.5	
705+48.25	705+48.25	23.7	4.4	
706+01.43	706+01.43	15.7	3.6	
706+02.74	706+02.74	4.8	4.0	
801+69.77	801+61.77	19.5	8.0	
801+69.51	801+69.51	19.2	4.3	
802+00.56	802+00.56	15.2	3.8	
802+15.05	802+15.05	20.6	4.0	
802+58.05	802+58.05	3.8	3.0	
	Total:	594.5	337.2	

113-1
MODIFIED

SIDEWALKS

SEE S SHEETS



Road Identification	Station to Station		Side	A	B	S	4" PCC Sidewalk	6" PCC Sidewalk	_" PCC Sidewalk	Detectable Warnings	Remarks
				FT	FT	%	SY	SY	SY	SF	
W Jefferson St	107+75.94	107+87.50	LT	Varies	4.00	Varies		9.3		16	NW Corner
W Jefferson St	107+76.42	107+80.44	RT	Varies	4.00	Varies		4.0		8	SW Corner
W Jefferson St	108+18.77	108+44.63	LT	Varies	4.00	Varies		10.9		8	NE Corner
Washington St	201+08.88	201+23.38	RT	Varies	4.00	Varies		21.2		16	SW Corner
Washington St	201+49.75	201+69.75	RT	Varies	4.00	Varies		8.9		8	SE Corner
Washington St	206+89.58	207+23.84	LT	Varies	4.00	Varies		24.0		16	NW Corner
Washington St	206+93.45	207+21.09	RT	Varies	4.00	Varies		21.7		16	SW Corner
Washington St	213+24.23	213+28.23	LT	Varies	4.00	Varies		4.1		8	NW Corner
Washington St	213+24.83	213+28.83	RT	Varies	4.00	Varies		13.9		8	SW Corner
Washington St	216+42.59	216+55.98	LT	Varies	4.00	Varies		17.3		16	NW Corner
Washington St	216+45.22	216+49.22	RT	Varies	4.00	Varies		10.6		8	SW Corner
1st Street	503+33.00	503+48.94	RT	Varies	Varies	Varies		45.7		16	SE Corner
1st Street	503+35.04	503+57.21	LT	Varies	Varies	Varies		63.4		16	SW Corner
1st Street	503+98.49	504+17.35	LT	Varies	Varies	Varies		52.8		20	NW Corner
1st Street	504+05.17	504+29.69	RT	Varies	Varies	Varies		50.1		16	NE Corner
1st Street	506+73.83	506+85.83	LT	Varies	4.00	Varies		16.8		8	SW Corner
1st Street	506+76.12	506+82.12	RT	Varies	6.00	Varies		4.0		12	SE Corner
1st Street	517+01.69	517+05.36	LT	Varies	4.00	Varies		15.4		8	SW Corner
1st Street	517+00.85	517+04.97	RT	Varies	4.00	Varies		10.0		8	SE Corner
1st Street	521+17.54	521+21.54	RT	Varies	4.00	Varies		6.4		8	SE Corner
Gebhardt St	701+00.27	701+12.18	LT	Varies	4.00	Varies		11.3		8	NW Corner
Gebhardt St	701+01.50	701+13.90	RT	Varies	4.00	Varies		13.9		8	NE Corner
Gebhardt St	705+36.67	705+61.85	LT	Varies	4.00	Varies		18.4		8	SW Corner
Gebhardt St	705+89.66	706+08.42	LT	Varies	4.00	Varies		14.7		16	NW Corner
Gebhardt St	705+95.98	706+07.94	RT	Varies	4.00	Varies		11.2		8	NE Corner
Jackson St	801+33.28	801+65.63	RT	Varies	4.00	Varies		25.3		16	SW Corner
Jackson St	801+35.02	801+71.16	LT	Varies	4.00	Varies		21.7		16	NW Corner
Jackson St	801+95.20	802+16.98	RT	Varies	4.00	Varies		12.6		8	SE Corner
Jackson St	802+00.57	802+25.09	LT	Varies	4.00	Varies		14.1		8	NE Corner
					Total:			553.4		336	

110-8
MODIFIED

REMOVAL OF CONCRETE DRIVES

Location		Area	Remarks
Station	Side	SY	
101+77.38	LT	7.5	
101+82.23	RT	9.1	
102+16.71	LT	7.3	
102+54.59	LT	9.7	
102+84.41	LT	18.3	
104+82.73	LT	28.6	
105+49.95	LT	10.2	
106+12.58	LT	13.1	
106+22.61	RT	11.1	
106+35.75	LT	9.3	
701+73.01	LT	55.9	
702+44.30	LT	16.8	
702+91.18	LT	17.3	
703+12.17	RT	28.6	
703+18.16	LT	14.0	
703+68.41	LT	13.2	
703+93.77	LT	14.5	
704+42.25	LT	15.4	
705+45.28	RT	37.2	
707+23.41	LT	20.7	
707+54.97	RT	125.0	
707+76.30	RT	26.0	
801+15.56	LT	30.5	
803+20.66	RT	30.9	
803+29.67	LT	30.7	
804+19.70	LT	32.4	
804+49.57	RT	33.9	
805+02.33	RT	28.3	
805+64.11	LT	36.8	
805+90.31	RT	25.5	
806+43.41	LT	26.2	
808+28.67	RT	32.4	
808+75.91	LT	31.4	
809+54.57	RT	23.4	
809+82.64	LT	25.8	
810+37.71	RT	25.2	
810+65.24	LT	33.2	
811+34.60	RT	22.4	
812+35.70	LT	14.2	
Total		992.1	

POLLUTION PREVENTION PLAN

This Base Pollution Prevention Plan (PPP) includes information on Roles and Responsibilities, Project Site Description, Controls, Maintenance Procedures, Inspection Requirements, Non-Storm Water Controls, Potential Sources of Off Right-of-Way Pollution, and Definitions. This plan references other documents rather than repeating the information contained in the documents. A copy of this Base Pollution Prevention Plan, amended as needed per plan revisions or by contract modification, will be readily available for review.

All contractors shall conduct their operations in a manner that controls pollutants, minimizes erosion, and prevents sediments from entering waters of the state and leaving the highway right-of-way. The prime contractor shall be responsible for compliance and implementation of the PPP for their entire contract. This responsibility shall be further shared with subcontractors whose work is a source of potential pollution as defined in this PPP.

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Signature authority on the Base PPP and NOI.

B. Contractor/Subcontractor:
1. Affected contractors/subcontractors are co-permittees with the City of Knoxville and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Submit a detailed schedule according to the Specifications and any additional plan notes.
3. Install and maintain appropriate controls.
4. Supervise and implement good housekeeping practices.
5. Conduct joint required inspections of the site with inspection staff.
6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.

C. RCE/Inspector:
1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
2. Maintain an up-to-date list that identifies contractors and subcontractors as co-permittees.
3. Make these plans available to the DNR upon their request.
4. Conduct joint required inspections of the site with the contractor/subcontractor.
5. Complete an inspection report after each inspection.
6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the construction of a roadway reconstruction.
B. This PPP covers approximately 4.5 acres with an estimated 4.5 acres being disturbed. The portion of the PPP covered by this contract has 4.5 acres disturbed.

C. The PPP is located in an area of Sharpsburg, Shelby, soil association.
The estimated average SCS runoff curve number for this PPP after completion will be 83.0.
D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
1. Drainage patterns – Plan and Profile sheets and Situation plans.
2. Proposed Slopes – Cross Sections.
3. Areas of Soil Disturbance – construction limits shown on Plan and Profile sheets.
4. Location of Structural Controls – Tabulations on C sheets.
5. Locations of Non-structural Controls – Tabulations on C sheets.
6. Locations of Stabilization Practices – generally within construction limits shown on Plan and Profile sheets.
7. Surface Waters (including wetlands) – Plan and Profile sheets.
8. Locations where storm water is discharged – Plan and Profile sheets.

E. The base site map is amended by contract modifications and progress payments of completed erosion control work.
F. Runoff from this work will flow into White Breast Creek to Lake Red Rock to Des Moines River.

III. CONTROLS

A. The contractor's work plan and sequence of operations for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
B. Preserve vegetation in areas not needed for construction.
C. Specifications define requirements to implement erosion and sediment control measures.
Actual quantities used may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to the Specifications.
1. EROSION AND SEDIMENT CONTROLS
a. Stabilization Practices
1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
4) Stabilization measures to be used for this project are located in the Estimated Project Quantities and Estimate Reference Information located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.
b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
2) Structural items to be used for this project are located in the Estimated Project Quantities and Estimate Reference Information located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.
c. Storm Water Management
1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

110-12A
Modified

POLLUTION PREVENTION PLAN

2. OTHER CONTROLS
a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
8) Vehicle and Equipment Fueling and Maintenance - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onside fuels and proper disposal of used engine oil or other fluids on site.
9) Litter Management - Ensure employees properly dispose of litter.
3. APPROVED STATE OR LOCAL PLANS
During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

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

V. INSPECTION REQUIREMENTS

A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
4. Rainfall amount.
5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identify corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of patio blocks, Class A stone, erosion stone or other appropriate materials.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

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

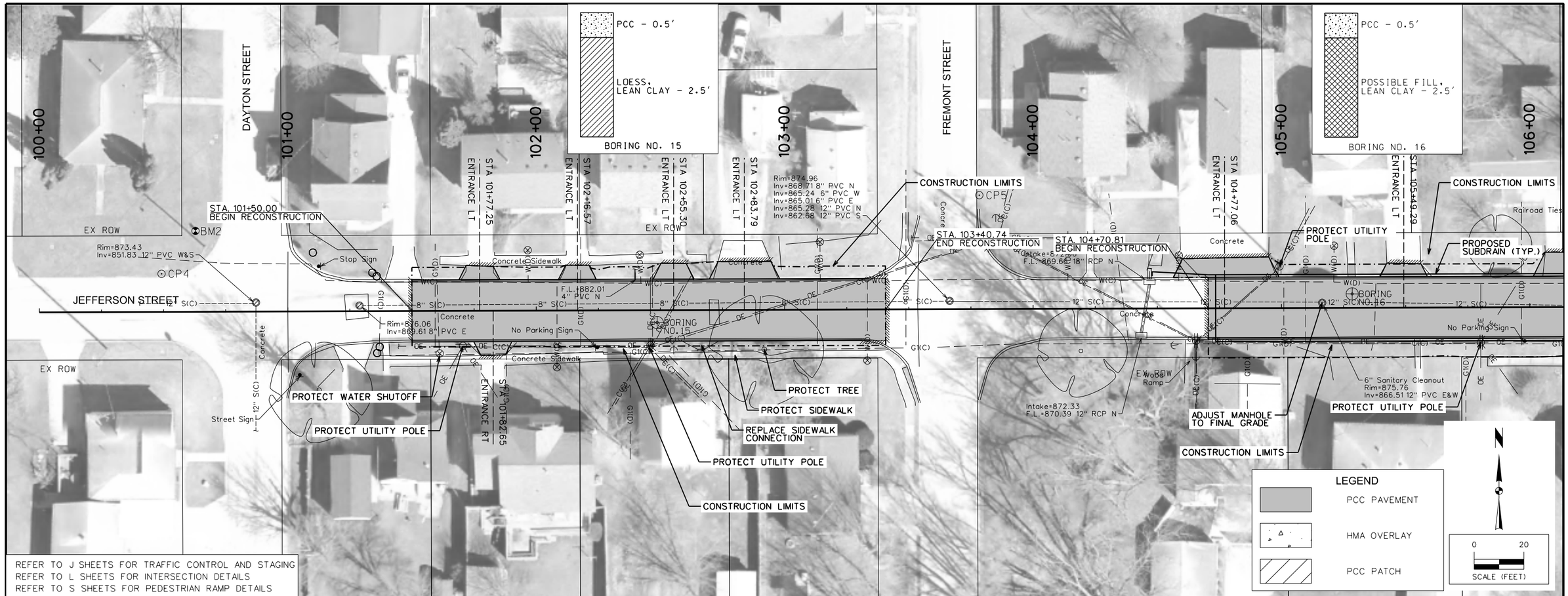
VIII. DEFINITIONS

A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.
C. IDR - Inspector's Daily Report – this contains the inspector's daily diary and item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials.
E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.

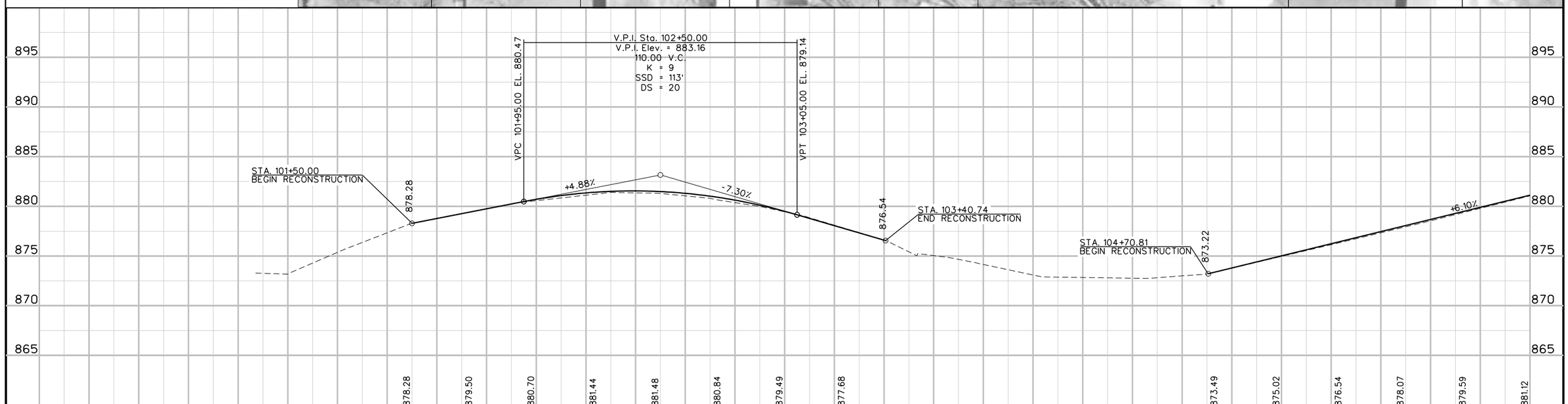
CERTIFICATION STATEMENT

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

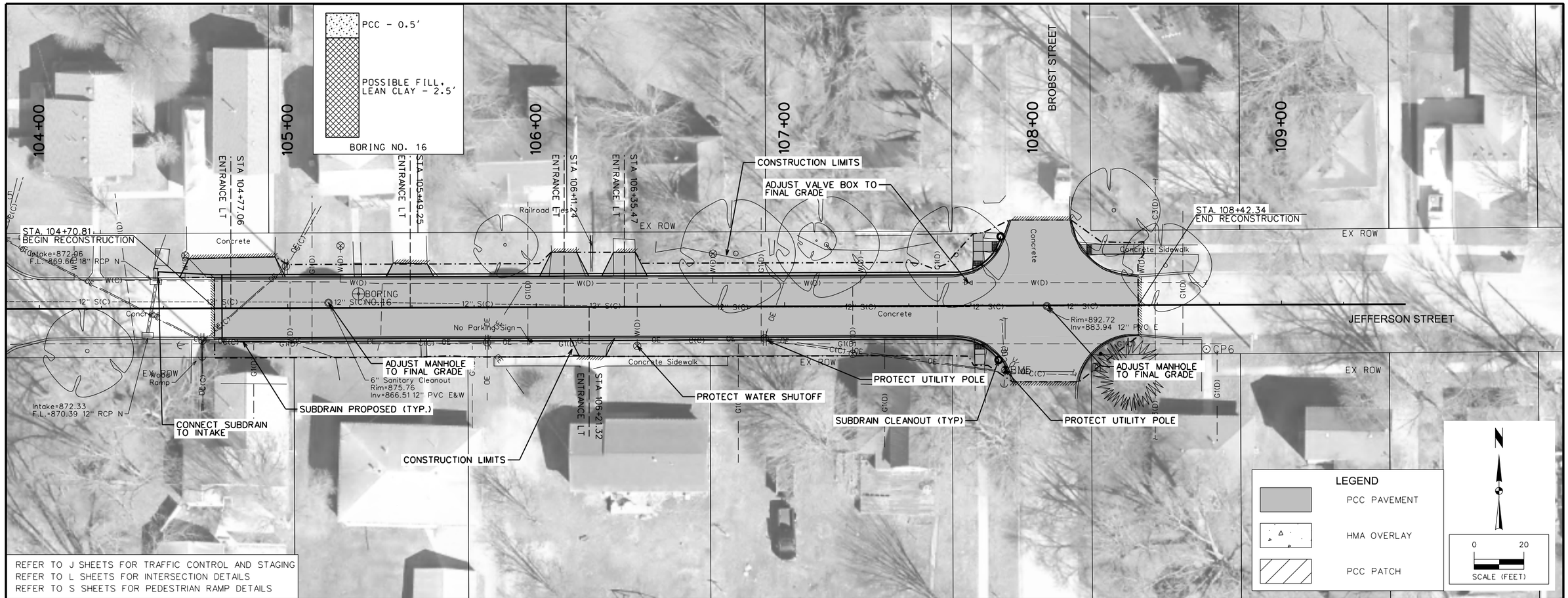
Consultant Signature	Contracting Authority Signature
Printed or Typed Name	Printed or Typed Name



REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS



ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	D.1	REVISED



REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
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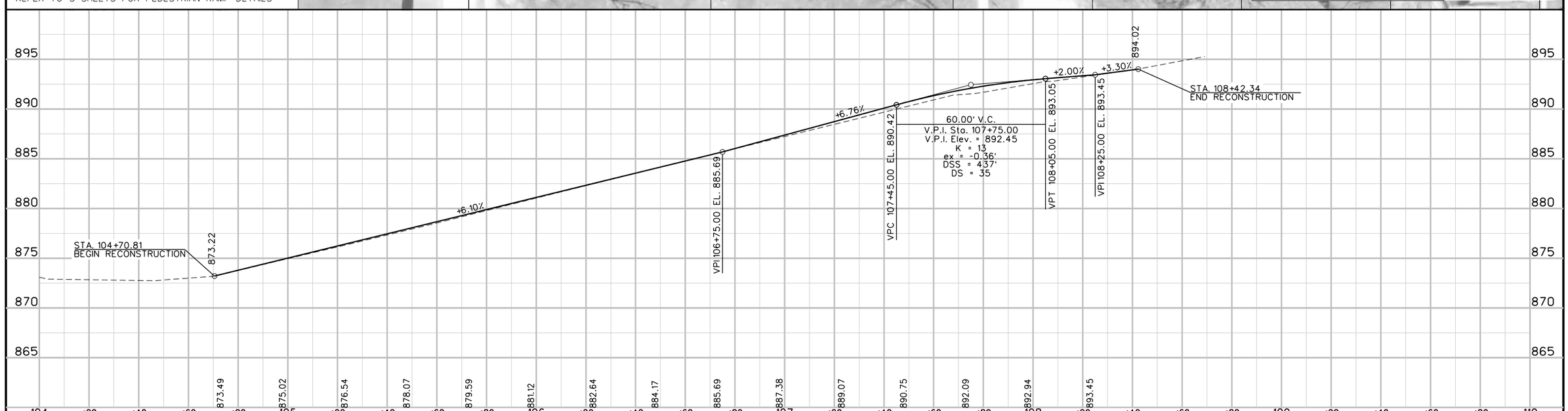
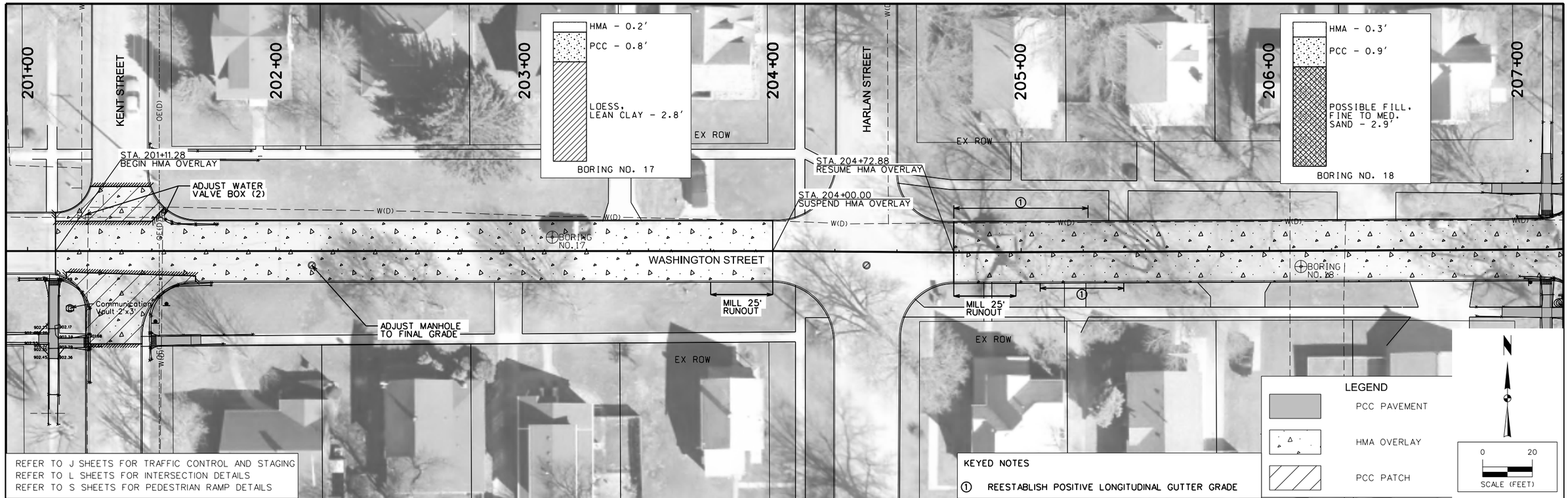
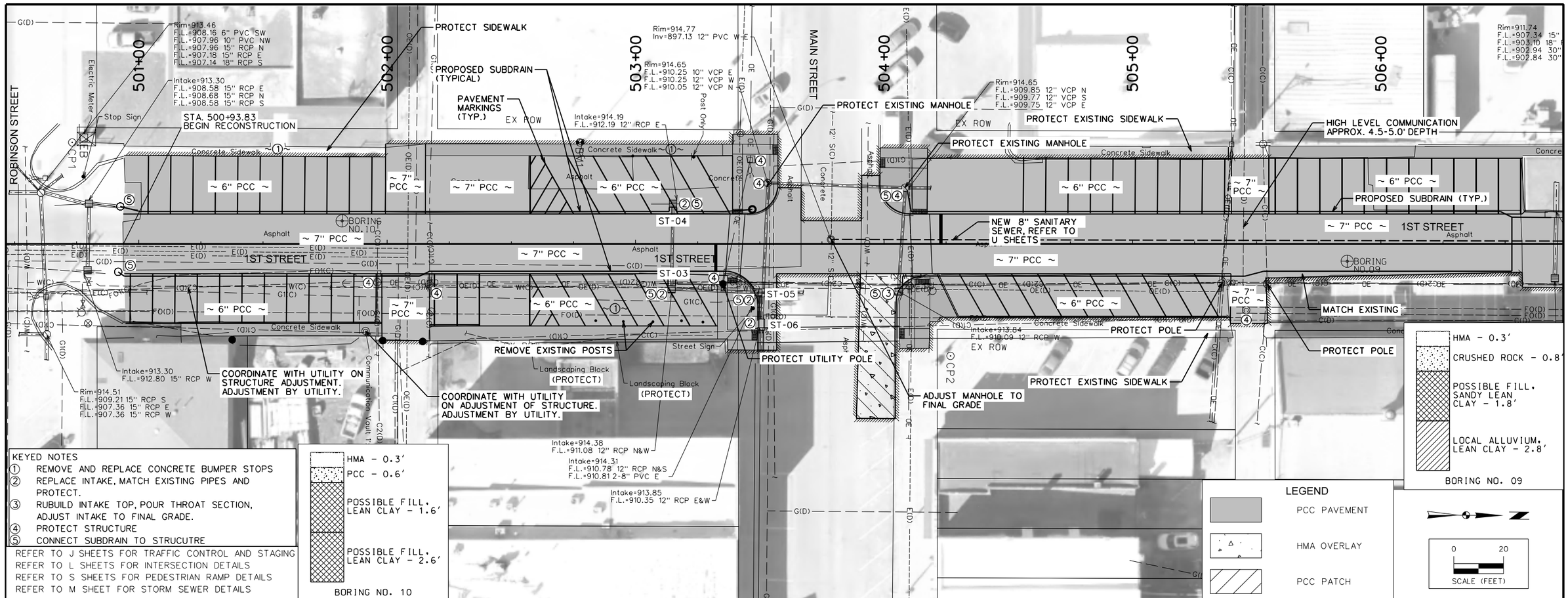


ENGLISH	DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.2	REVISED



ENGLISH		DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	D.3	REVISED

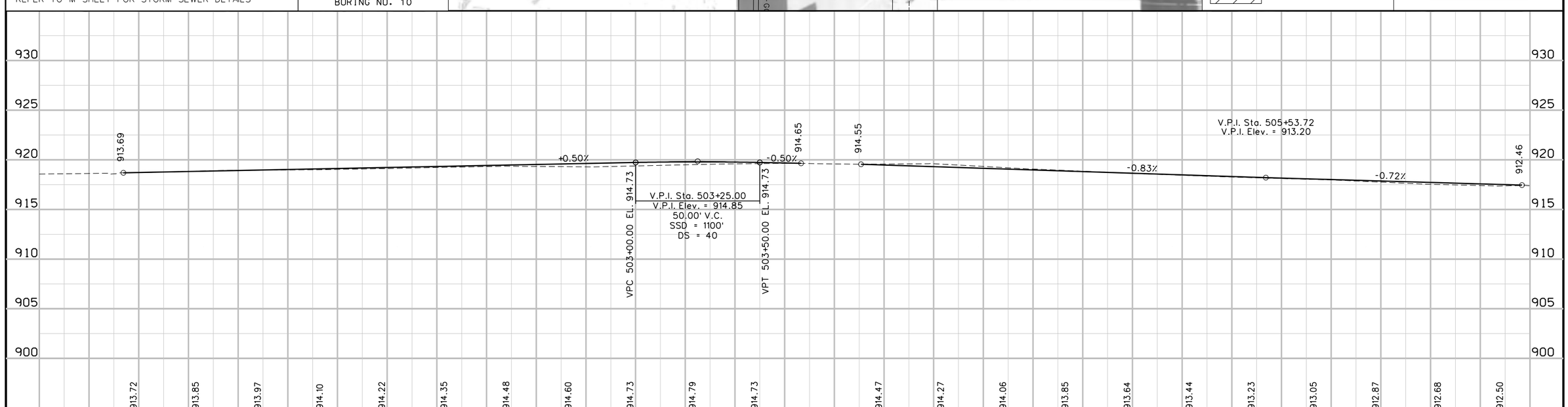
2ND STREET
214+00
215+00
216+00
3RD STREET
217+00
HMA - 0.2'
PCC - 0.6'
POSSIBLE FILL, LEAN CLAY - 1.6'
LOESS, LEAN CLAY - 2.6'
BORING NO. 20
EX ROW
REPLACE INTAKE CONNECT TO EXISTING PIPES AND PROTECT. SW-507 MODIFIED. APPROX DEPTH 45". EXTEND SOUTH 15" PIPE TO NEW STRUCTURE.
ST-02
STA. 216+53.59
END HMA OVERLAY
W(D)
WASHINGTON STREET
BORING NO.20
REPLACE INTAKE CONNECT TO EXISTING PIPES AND PROTECT. SW-507 MODIFIED. APPROX DEPTH 48".
ST-01
MILL 25' RUNOUT
Communication Vault 2'x3'
Intake=897.81
OE(D)
ADJUST MANHOLE TO FINAL GRADE
LEGEND
PCC PAVEMENT
HMA OVERLAY
PCC PATCH
0
20
SCALE (FEET)
REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS
REFER TO M SHEET FOR STORM SEWER DETAILS



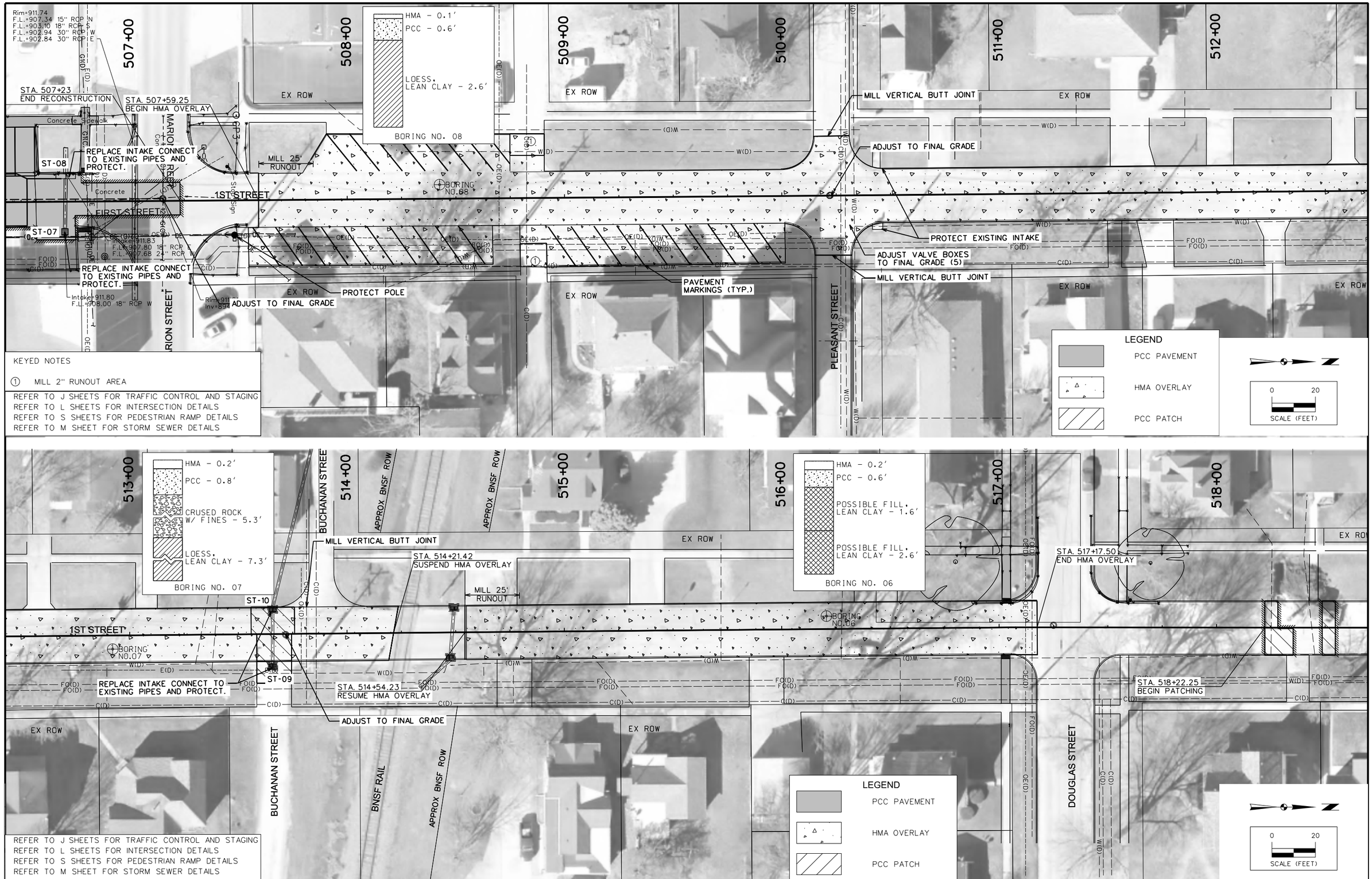
KEYED NOTES

1. REMOVE AND REPLACE CONCRETE BUMPER STOPS
2. REPLACE INTAKE, MATCH EXISTING PIPES AND PROTECT.
3. RUBUILD INTAKE TOP, POUR THROAT SECTION, ADJUST INTAKE TO FINAL GRADE.
4. PROTECT STRUCTURE
5. CONNECT SUBDRAIN TO STRUCUTRE

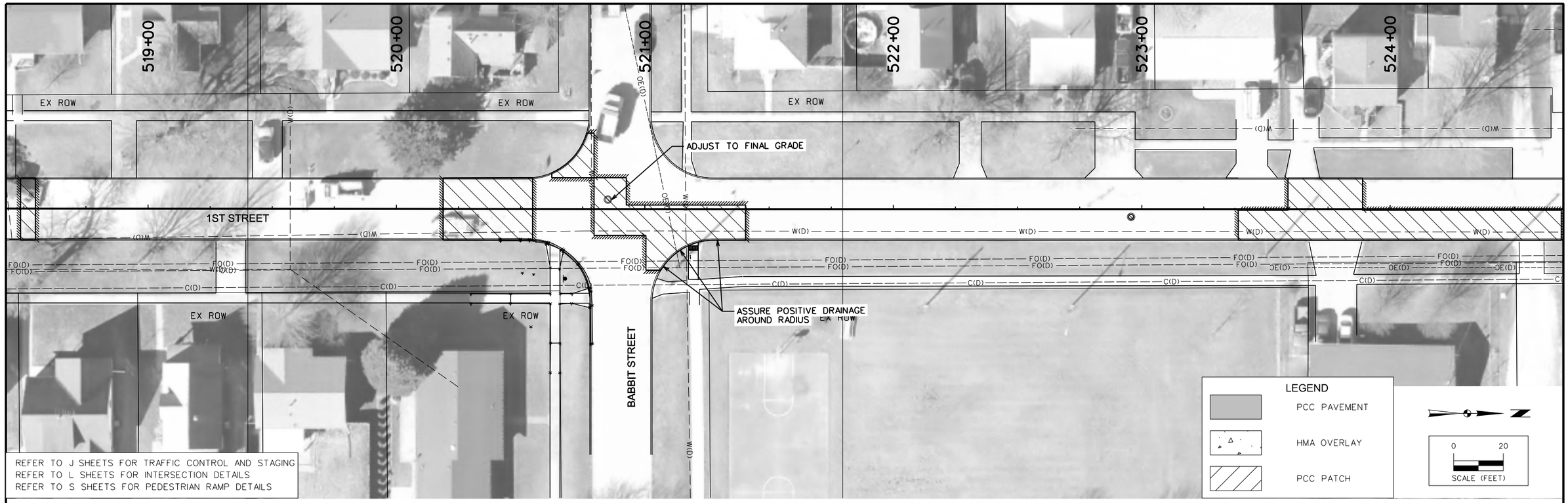
REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS
REFER TO M SHEET FOR STORM SEWER DETAILS



ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.5	REVISED



ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	D.6	REVISED



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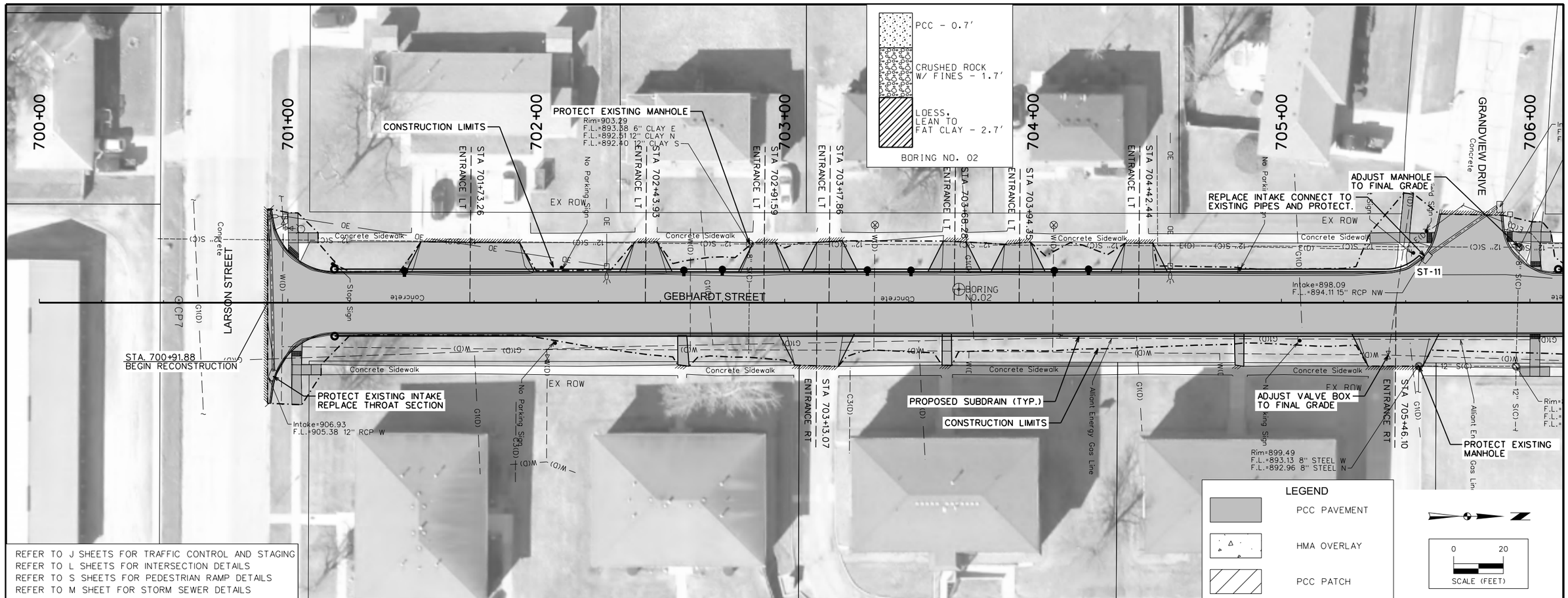
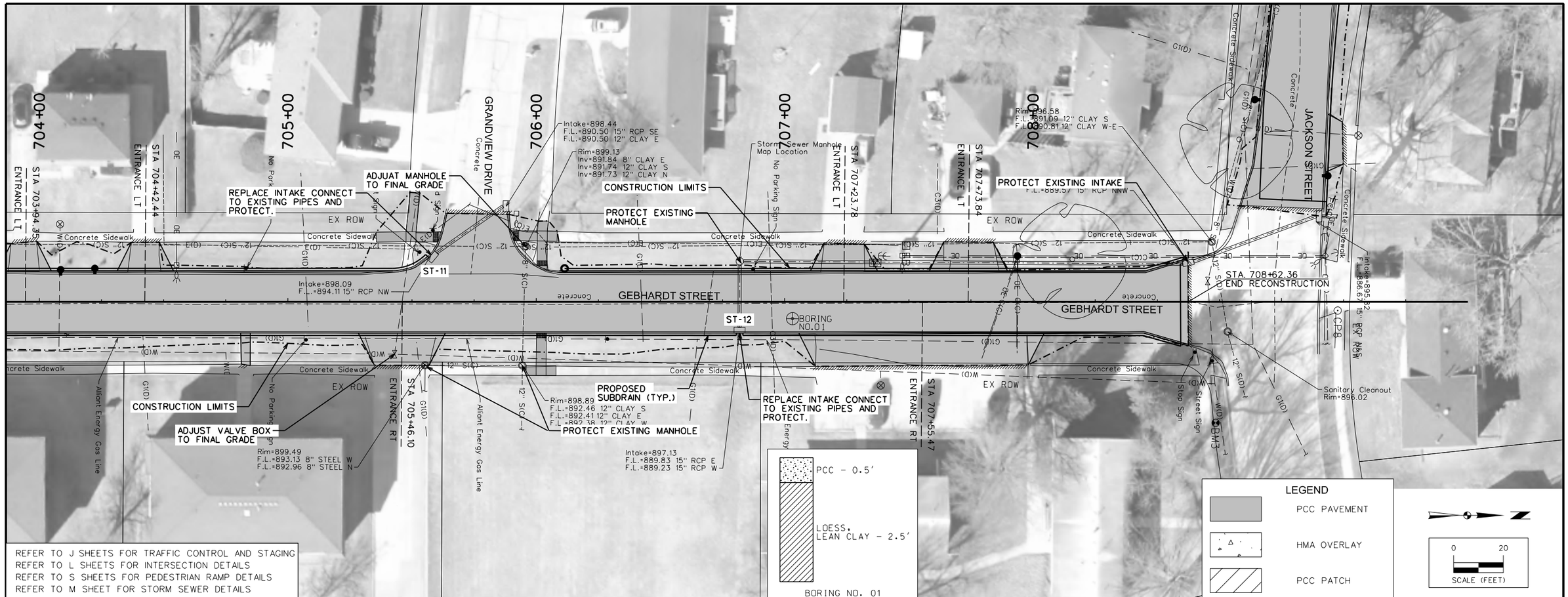
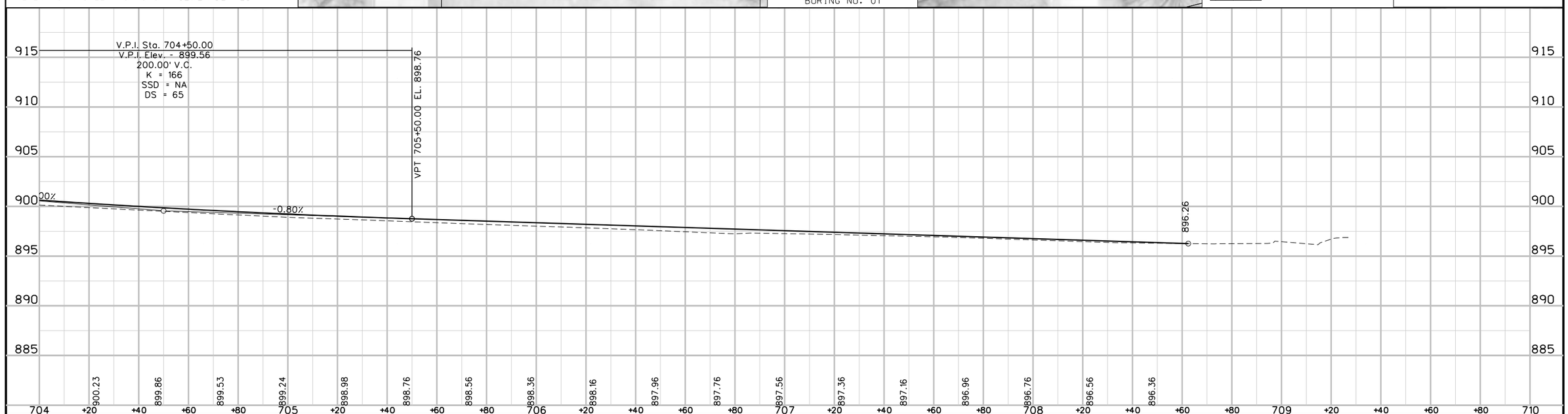


REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS
REFER TO M SHEET FOR STORM SEWER DETAILS

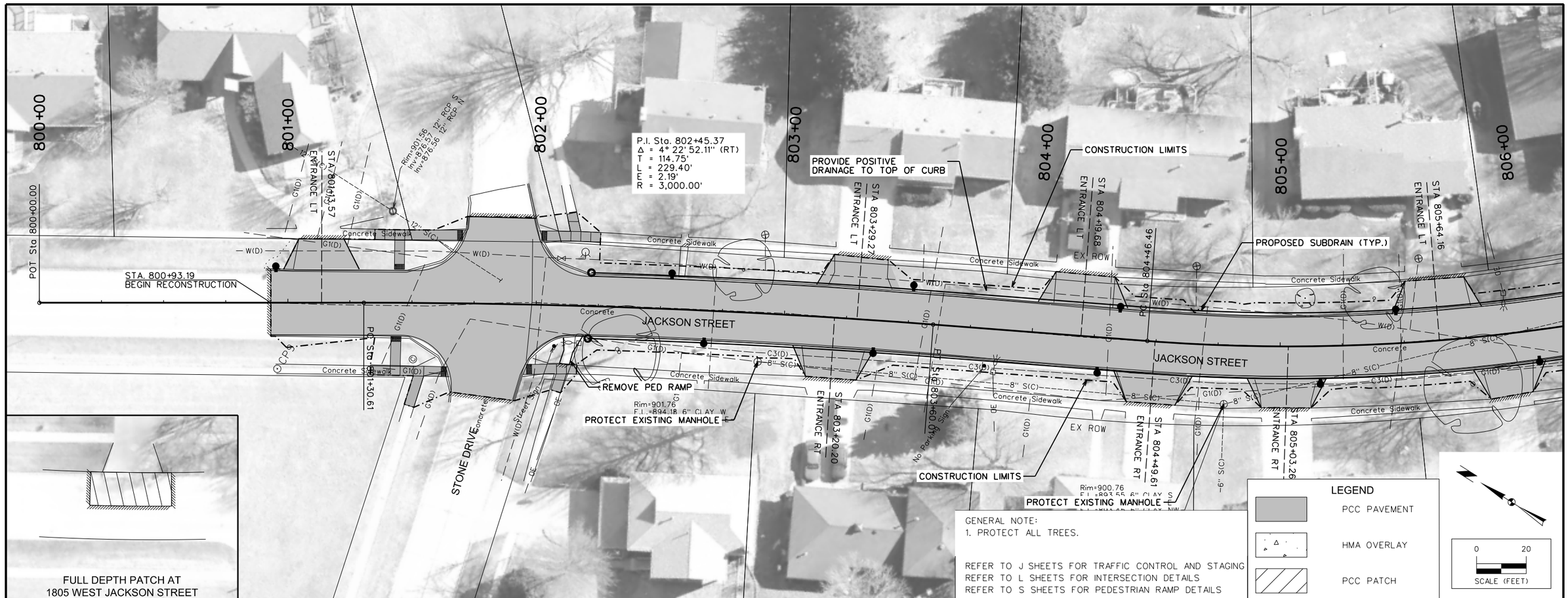
ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.8	REVISED



REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS
REFER TO M SHEET FOR STORM SEWER DETAILS



ENGLISH	DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.9	REVISED



FULL DEPTH PATCH AT
1805 WEST JACKSON STREET

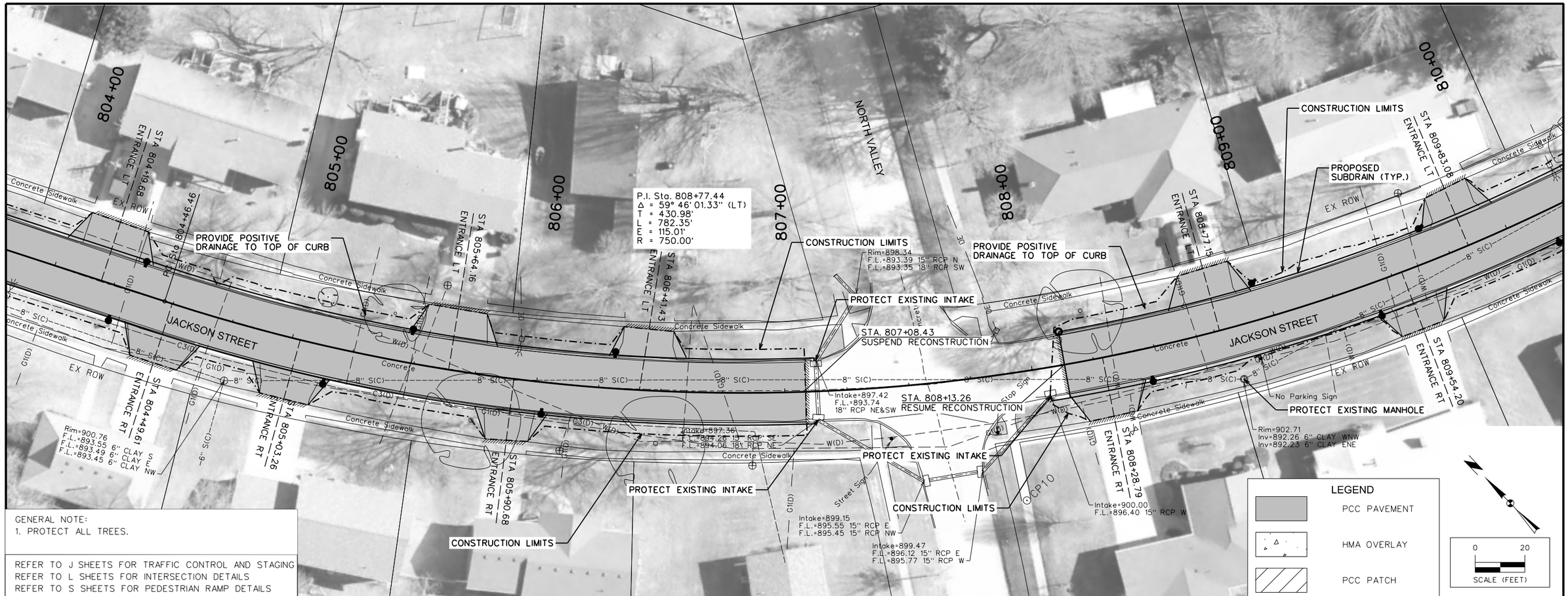
GENERAL NOTE:
1. PROTECT ALL TREES.

REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS

LEGEND
- PCC PAVEMENT
- HMA OVERLAY
- PCC PATCH

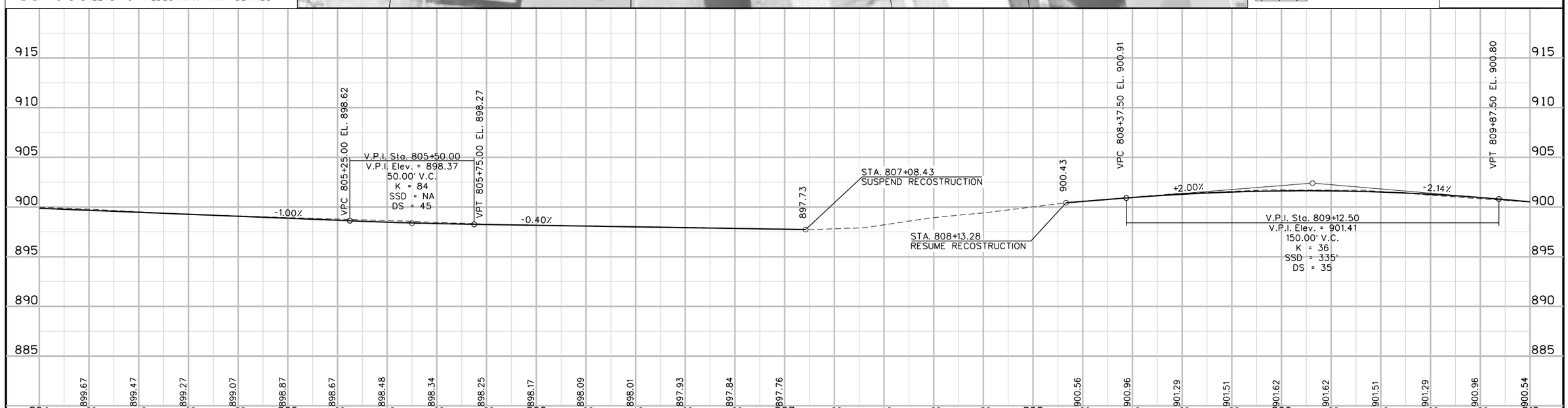
0 20
SCALE (FEET)

ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.10	REVISED



GENERAL NOTE:
1. PROTECT ALL TREES.

REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS



ENGLISH	DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.11	REVISED

P.I. Sta. 808+77.44
Δ = 59° 46' 01.33" (LT)
T = 430.98'
L = 782.35'
E = 115.01'
R = 750.00'

STA. 808+13.26
RESUME RECONSTRUCTION

STA 808+77.15
ENTRANCE LT

STA 809+83.35
ENTRANCE LT

STA 810+64.77
ENTRANCE LT

STA 812+28.81
ENTRANCE LT

STA 812+36.77
ENTRANCE LT

STA 808+76.28
ENTRANCE RT

STA 809+54.20
ENTRANCE RT

STA 810+37.29
ENTRANCE RT

STA 810+37.29
ENTRANCE RT

JACKSON STREET

GEBHARDT STREET

CONSTRUCTION LIMITS

PROPOSED SUBDRAIN (TYP.)

PROTECT EXISTING INTAKE

PROTECT EXISTING MANHOLE

STA. 812+63.62
END RECONSTRUCTION

Intake=895.82
F.L.=886.67 15" RCP N

Intake=900.00
F.L.=896.40 15" RCP W

Rim=902.71
Inv=892.26 6" CLAY WNW
Inv=892.29 6" CLAY ENE

Sanitary Rim=896

CP8

BM3

Stop Sign

Street Sign

No Parking Sign

No Parking

Concrete Sidewalk

Concrete

EX ROW

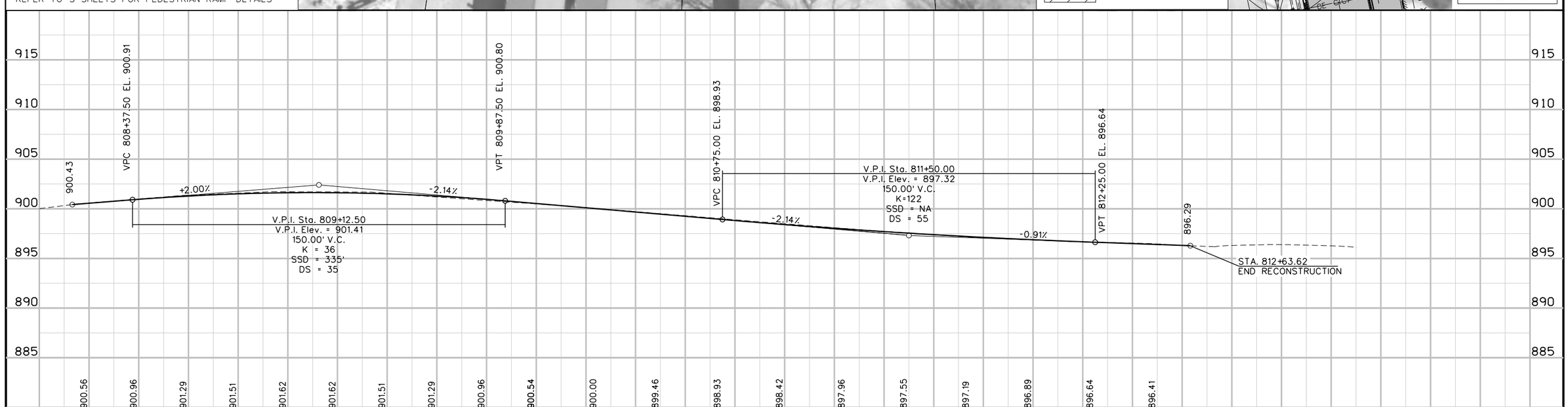
POT Sta 813+64.76

GENERAL NOTE:
1. PROTECT ALL TREES

REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO L SHEETS FOR INTERSECTION DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS

LEGEND
PCC PAVEMENT
HMA OVERLAY
PCC PATCH

0 20
SCALE (FEET)



ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER D.12	REVISED

CONTROL POINTS

CP #1 - FOUND MAG NAIL IN NW COR 1ST & ROBINSON, +/- 3' NW OF CIRCLE, ELEV.= 914.30

CP #2 - SET MAG NAIL NE COR 1ST & MAIN STREET, +/- 7' X 7' BEHIND BACK OF SWK, ELEV.= 914.72

CP #3 - SET MAG NAIL IN CTR N-S SWK, NW COR 1ST & MARION ST. @ S. EDGE E-W SDK, ELEV.= 911.92

CP #4 - CUT 'X' IN CLEAN OUT, NEW COR DAYTON & JEFFERSON, W. END EOR, ELEV.= 872.48

CP #5 - SET MAG NAIL TOP OF CURB, NE QUAD, S FREMONT & JEFFERSON, +/- 7' N OF N EOR, ELEV.= 875.95

CP #6 - SET MAG NAIL IN CTR WSK TO 414 JEFFERSON, +/- 4' S OF CURB, SE QUAD, BROBST ST & JEFFERSON, ELEV.= 895.53

CP #8 - SET MAG NAIL IN SWK @ E EDGE DRIVEWAY @ N END GEBHARDT & JACKSON ST, ELEV.= 896.93

CP #9 - SET MAG NAIL IN CTR SWK, N OF STONE ON JACKSON, ACROSS FROM MAILBOX @ 1713, ELEV.= 902.02

CP #10 - SET MAG NAIL SE QUAD OF N VALLEY DR & JACKSON, CTR SWK +/- 25' S. OF CANDING, ELEV.= 902.57

CP #11 - SET 1/2" RB W/RPC 1' BEHIND S CURB JACKSON ST @ CTR GARAGE 405 BRICK HOUSE, ELEV.= 894.55

BENCHMARKS

BM - FOUND CITY BM16 @ SE QUAD, BROBST & JACKSON

BM #1 - CHISLED 'X' IN C.P. BASE IN FRONT OF DOOR 512 OF KNOXVILLE FIRE STATION

BM #2 - TOP NUT ON HYDT, NW QUAD DAYTON & JEFFERSON

BM #3 - TOP NUT ON HYDT SE QUAD JACKSON & GEBHARDT

BM #4 - CHISLED 'X' ON N SIDE MH RIM @ CL X CL JACKSON & BROBST

BM #5 - SPIKE IN PP, SW QUAD BROBST & JEFFERSON

ENGLISH		DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	G.1	REVISED

Chain ML_FIRST contains:
500 501 502 503 504

Beginning chain ML_FIRST description
==========

Point 500 N 480,409.9335 E 1,750,628.2257 Sta 500+00.00

Course from 500 to 501 N 0° 27' 16.34" W Dist 1,000.0000

Point 501 N 481,409.9021 E 1,750,620.2926 Sta 510+00.00

Course from 501 to 502 N 0° 31' 00.29" W Dist 704.8591

Point 502 N 482,114.7325 E 1,750,613.9356 Sta 517+04.86

Course from 502 to 503 N 0° 02' 40.13" E Dist 423.0083

Point 503 N 482,537.7406 E 1,750,614.2640 Sta 521+27.87

Course from 503 to 504 Due North Dist 640.6979

Point 504 N 483,178.4385 E 1,750,614.2640 Sta 527+68.57

==========
Ending chain ML_FIRST description

Chain ML_GEBHART contains:
700 701

Beginning chain ML_GEBHART description
==========

Point 700 N 484,150.2245 E 1,746,846.8489 Sta 700+00.00

Course from 700 to 701 N 0° 30' 16.21" W Dist 975.0000

Point 701 N 485,125.1867 E 1,746,838.2639 Sta 709+75.00

==========
Ending chain ML_GEBHART description

Chain ML_JEFFERSON contains:
100 101

Beginning chain ML_JEFFERSON description
==========

Point 100 N 479,103.3944 E 1,748,627.1072 Sta 100+00.00

Course from 100 to 101 N 89° 48' 09.75" E Dist 950.0000

Point 101 N 479,106.6656 E 1,749,577.1015 Sta 109+50.00

==========
Ending chain ML_JEFFERSON description

Chain ML_JACKSON_WE contains:
800 CUR ML_JACKSON_WE-1 CUR ML_JACKSON_WE-2 801

Beginning chain ML_JACKSON_WE description
==========

Point 800 N 485,833.2273 E 1,745,903.8691 Sta 800+00.00

Course from 800 to PC ML_JACKSON_WE-1 S 32° 40' 59.43" E Dist 130.6123

Curve Data
x----------x

Curve ML_JACKSON_WE-1
P.I. Station 802+45.37 N 485,626.7100 E 1,746,036.3653
Delta = 4° 22' 52.11" (RT)
Degree = 1° 54' 35.49"
Tangent = 114.7540
Length = 229.3961
Radius = 3,000.0000
External = 2.1939
Long Chord = 229.3402
Mid. Ord. = 2.1923
P.C. Station 801+30.61 N 485,723.2949 E 1,745,974.3989
P.T. Station 803+60.01 N 485,525.6737 E 1,746,090.7723
C.C. N 484,103.3154 E 1,743,449.3907
Back = S 32° 40' 59.43" E
Ahead = S 28° 18' 07.31" E
Chord Bear = S 30° 29' 33.37" E

Course from PT ML_JACKSON_WE-1 to PC ML_JACKSON_WE-2 S 28° 18' 07.31" E Dist 86.4513

Curve Data
x----------x

Curve ML_JACKSON_WE-2
P.I. Station 808+77.44 N 485,070.0940 E 1,746,336.0975
Delta = 59° 46' 01.33" (LT)
Degree = 7° 38' 21.97"
Tangent = 430.9821
Length = 782.3487
Radius = 750.0000
External = 115.0119
Long Chord = 747.3575
Mid. Ord. = 99.7199
P.C. Station 804+46.46 N 485,449.5568 E 1,746,131.7606
P.T. Station 812+28.81 N 485,055.5722 E 1,746,766.8349
C.C. N 485,805.1463 E 1,746,792.1060
Back = S 28° 18' 07.31" E
Ahead = S 88° 04' 08.64" E
Chord Bear = S 58° 11' 07.98" E

Course from PT ML_JACKSON_WE-2 to 801 S 88° 04' 08.64" E Dist 135.9530

Point 801 N 485,050.9913 E 1,746,902.7107 Sta 813+64.76

==========
Ending chain ML_JACKSON_WE description

Chain ML_WASHINGTON contains:
200 201 202 203 204 205 206 207 208

Beginning chain ML_WASHINGTON description
==========

Point 200 N 479,769.6030 E 1,749,589.0613 Sta 200+00.00

Course from 200 to 201 Due East Dist 400.0000

Point 201 N 479,769.6030 E 1,749,989.0613 Sta 204+00.00

Course from 201 to 202 S 89° 32' 54.51" E Dist 72.8181

Point 202 N 479,769.0292 E 1,750,061.8772 Sta 204+72.82

Course from 202 to 203 N 89° 43' 21.15" E Dist 241.4512

Point 203 N 479,770.1984 E 1,750,303.3255 Sta 207+14.27

Course from 203 to 204 N 86° 11' 35.48" E Dist 40.1855

Point 204 N 479,772.8664 E 1,750,343.4224 Sta 207+54.45

Course from 204 to 205 Due East Dist 259.6560

Point 205 N 479,772.8664 E 1,750,603.0783 Sta 210+14.11

Course from 205 to 206 N 89° 16' 43.84" E Dist 316.8608

Point 206 N 479,776.8545 E 1,750,919.9140 Sta 213+30.97

Course from 206 to 207 N 88° 07' 00.36" E Dist 58.1385

Point 207 N 479,778.7651 E 1,750,978.0211 Sta 213+89.11

Course from 207 to 208 Due East Dist 400.0000

Point 208 N 479,778.7651 E 1,751,378.0211 Sta 217+89.11

==========
Ending chain ML_WASHINGTON description

108-23A
08-01-08

TRAFFIC CONTROL PLAN

Jefferson Street:
Phase 1
Provide Road Closed signage at Dayton Street and Fremont Street. Notify impacted property owners at least one week prior to construction. Provide door hangers to notify the property owners. Coordinate with Engineer and City prior to notification.

Phase 2
Provide Road Closed signage at Fremont Street and Brobst Street. Notify impacted property owners at least one week prior to construction. Provide door hangers to notify the property owners. Coordinate with Engineer and City prior to notification.

Phase 3
Provide Road Closed signage at intersection of Jefferson and Brobst Street. Provide advanced Road Closed Ahead signage at South Street, Madison Street, and Kent Street.

Washington Street:
Provide Road Closed signage at intersection of Washington Street and Kent Street and Washington Street and 2nd Street while patching work is being performed. Provide advanced Road Closed Ahead signage at adjacent intersections for this work. Provide Road Closed to Through Traffic during milling and overlay operations. Removal of this signage should take place as soon as work is complete. Local property owner traffic shall be open at days end during milling operations. Overlay operations may require an additional day of road closures. Notify impacted property owners at least one week prior to construction. Provide door hangers to notify the property owners. Coordinate with Engineer and City prior to notification.

1st Street Between Robinson Street and Marion Street:
Phase 1:
Between Robinson Street and Main Street. Provide Road Closed signage at the intersection of 1st Street and Robinson Street and 1st Street and Main Street. Maintain full operation of Main Street. Provide detour signage to route traffic around the construction area using Roche Street. Provide Road Closed signage at the alley intersection within this segment at 2nd Street and Roche Street. Notify impacted property owners and business owners at least one week prior to construction. Provide door hangers to notify the property owners and business owners. Coordinate with Engineer and City prior to notification.

Phase 2:
Between Main Street and Marion Street. Provide Road Closed signage at the intersection of 1st Street and Main Street and 1st Street and Marion Street. Close Main Street only during sanitary sewer installation and associated patching work. Provide detour signage to route traffic around the construction area using Robinson Street. Provide Road Closed signage at the alley intersection within this segment at 2nd Street and Roche Street. Notify impacted property owners and business owners at least one week prior to construction. Provide door hangers to notify the property owners and business owners. Coordinate with Engineer and City prior to notification.

1st Street Between Marion Street and Douglas Street:
Provide Road Closed to Through Traffic during milling and overlay operations. Remove this signage as soon as this work is complete. Local property owner access shall be open at days end during milling operations. Overlay operations may require an additional day of closures. Notify impacted property owners and businesses at least one week prior to construction. Provide door hangers to notify the property owners and businesses. Coordinate with Engineer and City prior to notification. Notify City four weeks prior to work to coordinate notification with BNSF Railroad.

1st Street Between Douglas Street and Rock Island Street:
Provide Road Closed to Through Traffic at the north and south limits of this segment. Provide full access to property owners during this work unless work has progressed to the direct vicinity of driveway access. Re-establish vehicular access as soon as possible. Provide Road Closed signage during full width patching work.

Gebhardt Street:
Phase 1 (Between Larson Street and GrandView):
Provide Road Closed signage at Larson Street and south leg of GrandView intersection. Maintain access to north apartment complex on east side of Gebhardt Street during this Phase. Notify impacted property owners and apartment managers at least two weeks, prior to beginning construction. Provide door hangers to notify the property owners and apartment managers. Coordinate with Engineer and City prior to notification. Coordinate with City at least two weeks prior to construction for coordination with apartment manager on parking needs and access for apartment complex.

Phase 2 (Between Grandview and Jackson Street)
Provide Road Closed signage at north leg of Grandview intersection and Jackson Street. Maintain access to north apartment complex on east side of Gebhardt Street during this Phase. Notify impacted property owners at least one week prior to beginning construction. Provide door hangers to notify property owners. Coordinate with Engineer and City prior to notification.

Jackson Street Between Stone Drive and Valley Drive:
Provide Road Closed signage at Stone Drive and Valley Drive. Notify impacted property owners at least one week prior to beginning construction. Provide door hangers to notify property owners. Coordinate with Engineer and City prior to notification.

Jackson Street Between Valley Drive and Gebhardt Street:
Provide Road Closed signage at Valley Drive and Gebhardt Street. Notify impacted property owners at least one week prior to beginning construction. Provide door hangers to notify property owners. Coordinate with Engineer and City prior to notification.

Provide access to emergency vehicles at all times during construction.

113-2
04-16-13

PEDESTRIAN PATH CLOSURES

Refer to TC-601.

*Assumes 6 foot wide barricade.
Closures may need to be removed and re-established.

Location	Side	Type III Barricades* No.	Remarks
Jefferson Street and Brobst Street (NW, SW, and NE)	LT/RT	3	
Washington Street and Kent Street (NW, SW, SE)	LT/RT	5	
Washington Street and Roche Street (NW and SW)	LT/RT	4	
Washington Street and 2nd Street (NW and SW)	LT/RT	2	
Washington Street and 3rd Street (NW and SW)	LT/RT	2	
1st Street and Main Street (All 4 quads)	LT/RT	8	
1st Street and Marion Street (All 4 quads)	LT/RT	8	
1st Street and Douglas Street (SW and SE)	LT/RT	2	
1st Street and Babbit Street (NE and NW)	LT/RT	2	
Gebhardt Street and Larson Street (NE and NW)	LT/RT	4	
Gebhardt Street and GrandView Drive (NW, SW, NE)	LT/RT	5	
Jackson Street and Stone Drive (All 4 quads)	LT/RT	6	

111-01
04-17-12

COORDINATED OPERATIONS

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

Project	Type of Work
City of Knoxville	Sanitary Sewer Repair in Various Locations in City
Sprint Car Nationals August 10 - 13, 2016	No work shall take place during these dates and following streets shall be open to normal operations: 1st Street.

STAGING NOTES

Jefferson Street:
*Combining of Phases is allowed following review and approval of revised staging and traffic control plan.
*Once roadways are closed to traffic work shall be continuously progressing until substantial completion and normal traffic operations are in effect.

Phase 1
Between Dayton Street and Fremont Street.

Phase 2
Between Fremont Street and Brobst Street

Phase 3
Intersection of Jefferson Street and Brobst Street.

Washington Street
*Stage this segment to maintain local access following daily operations. Overlay work may require an additional day of roadway closures.
*During intake rebuild or adjustments maintain local access.

1st Street Between Robinson Street and Main Street:
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

1st Street Between Main Street and Marion Street:
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

1st Street Between Marion Street and Douglas Street:
*Stage this work to provide local property vehicular access during construction as much as possible.
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

1st Street Between Douglas Street and Rock Island Street:
*Stage this work to provide local property vehicular access during construction as much as possible. While performing work on full width patching maintaining local impacted property owner vehicular access is not required. Provide vehicular access as soon as possible following construction.
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

Gebhardt Street:
Phase 1 (Between Larson Street and GrandView):
*Stage this work to provide continuous access to the north apartment complex on the east side of Gebhardt Street. Maintain this access by use of temporary granular surfacing for driveway connection. End this phase at south leg of intersection with GrandView Drive.
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

Phase 2 (Between Grandview and Jackson Street):
*Stage this work to provide continuous access to the north apartment complex on the east side of Gebhardt Street. Maintain this access by use of temporary granular surfacing for driveway connection. Substage the intersection of Gebhardt Street and GrandView Street to maintain this access.
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

Jackson Street Between Stone Drive and Valley Drive:
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

Jackson Street Between Valley Drive and Gebhardt Street:
*Once property owners are impacted by work within this segment, work shall continuously progress until substantial completion and normal traffic operations are in effect.

Provide access to emergency vehicles at all times during construction.

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.3	REVISED

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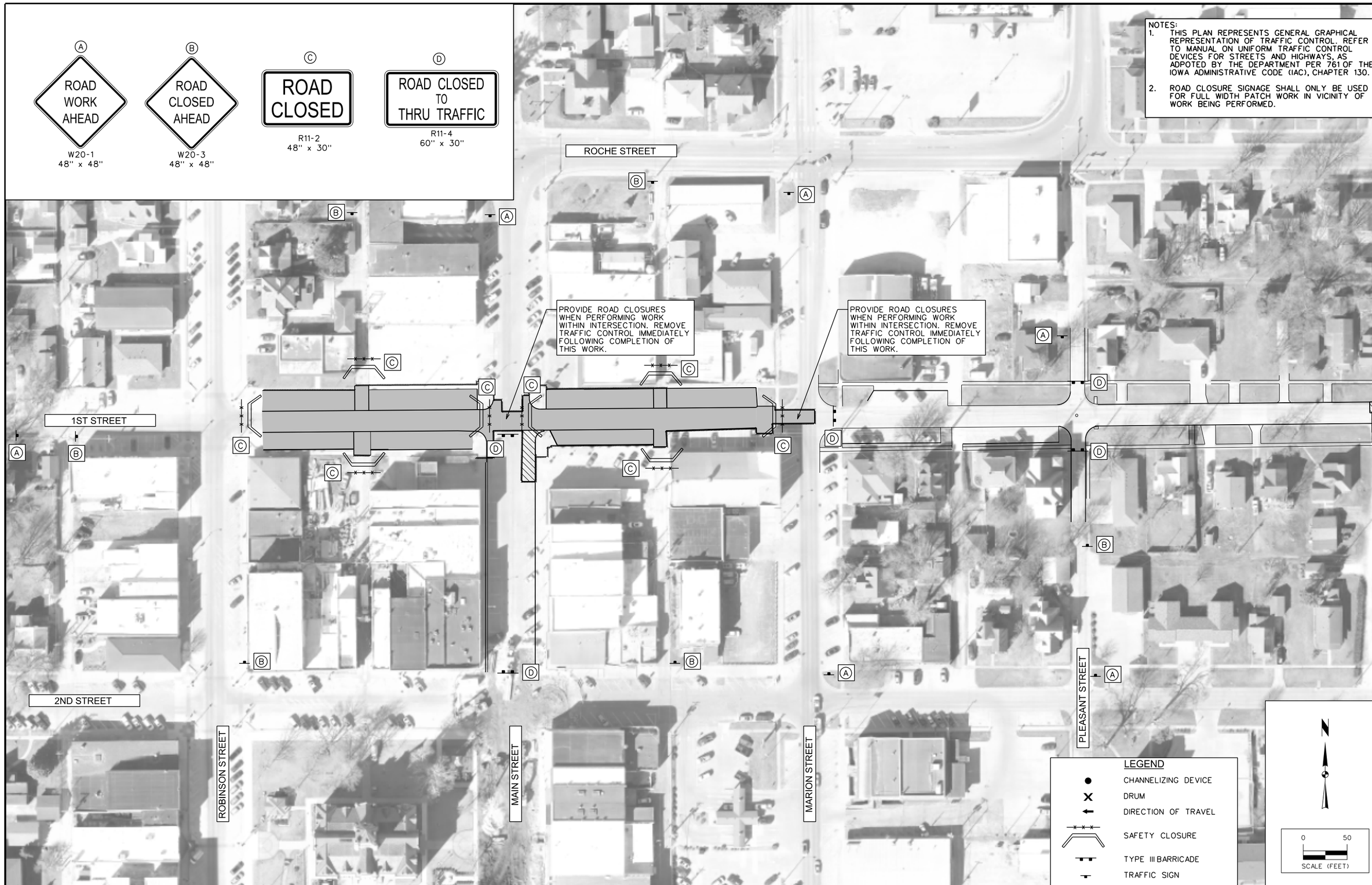
ENGLISH		DESIGN TEAM	Snyder & Associates	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.4	REVISED



ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.5	REVISED

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ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.6	REVISED

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NOTES:
1. THIS PLAN REPRESENTS GENERAL GRAPHICAL REPRESENTATION OF TRAFFIC CONTROL. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AS ADPOTED BY THE DEPARTMENT PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.

REMOVE AND REPLACE INTERSECTION PAVEMENT FIRST IN STAGING. OPEN INTERSECTION TO NORMAL TRAFFIC OPERATIONS ONCE COMPLETE.

STONE DRIVE

GRANDVIEW DRIVE

VALLEY DRIVE

PHASE 2

PHASE 3

MAINTAIN ACCESS FOR THIS DRIVEWAY THROUGHOUT CONSTRUCTION UNTIL PAVING WORK

MAINTAIN ACCESS FOR THIS DRIVEWAY THROUGHOUT CONSTRUCTION UNTIL PAVING WORK

JACKSON STREET

GEBHARDT STREET

A — ROAD WORK AHEAD
W20-1
48" x 48"

B — ROAD CLOSED AHEAD
W20-3
48" x 48"

C — ROAD CLOSED
R11-2
48" x 30"

D — ROAD CLOSED TO THRU TRAFFIC
R11-4
60" x 30"

LEGEND
- CHANNELIZING DEVICE
- DRUM
- DIRECTION OF TRAVEL
- SAFETY CLOSURE
- TYPE III BARRICADE
- TRAFFIC SIGN

N

0 50
SCALE (FEET)

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.7	REVISED

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	J.8	REVISED

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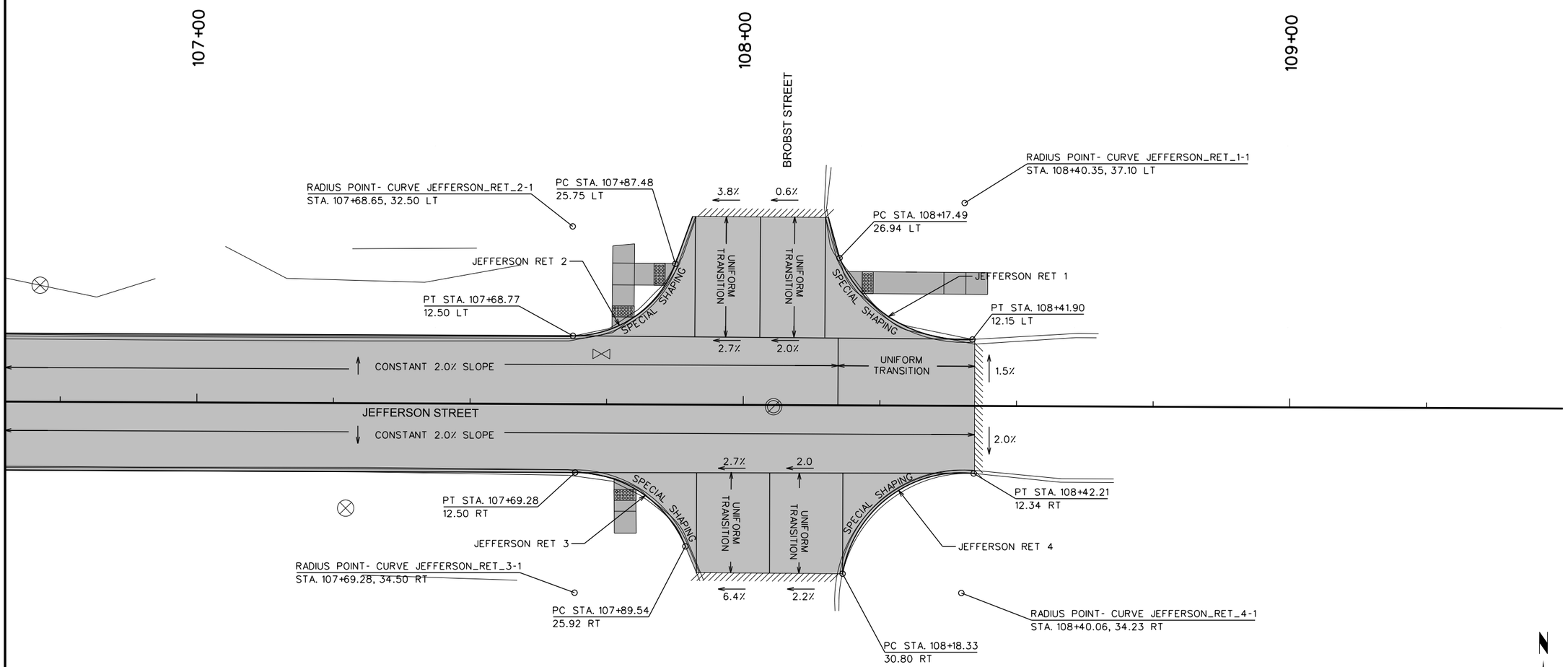
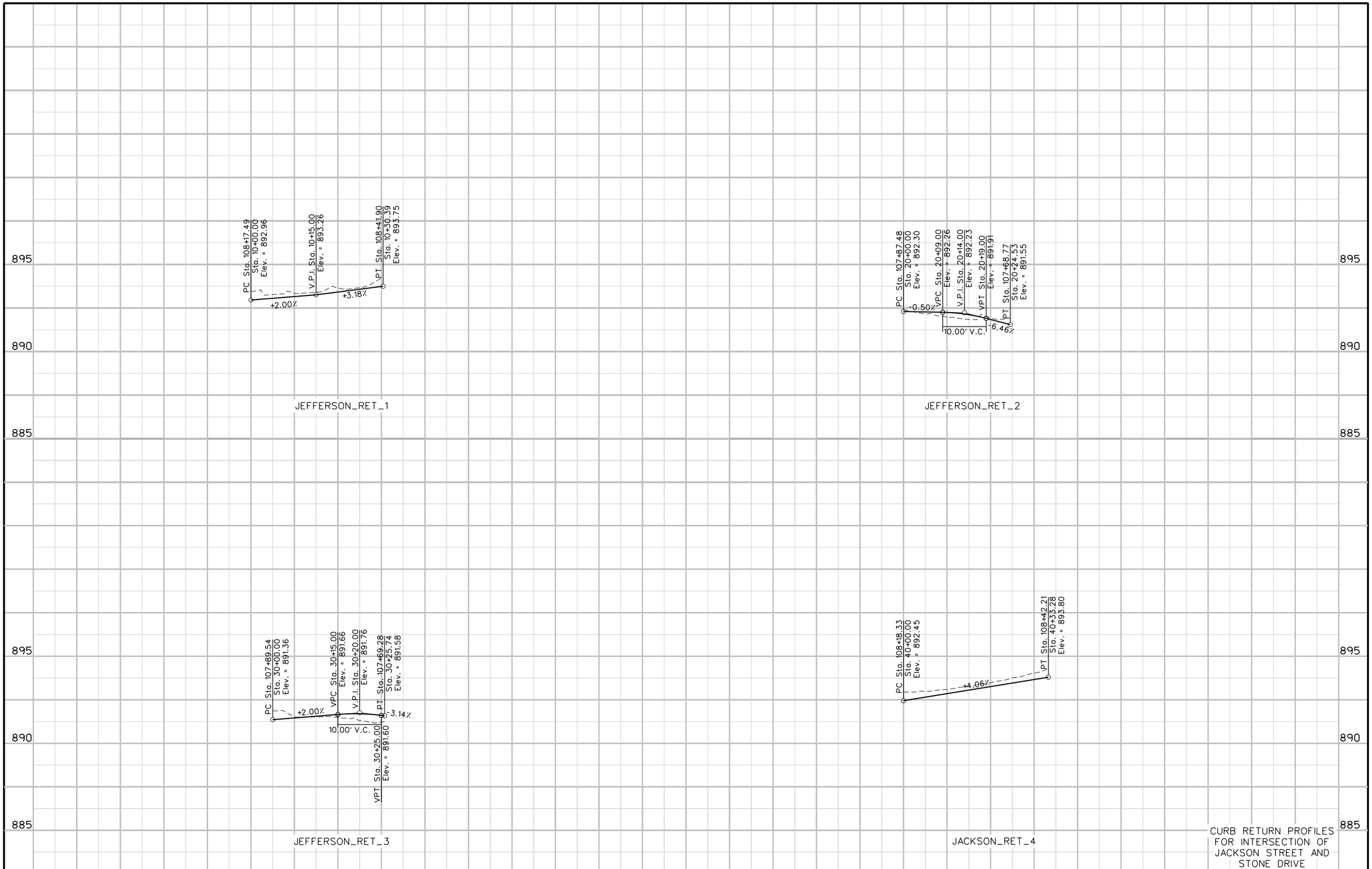


JEFFERSON STREET STAKING

CIRCULAR CURVE DATA

Name	Δ	D	T	L	E	R
JEFF_RET_1	69° 39' 24.16"	229° 10' 59.22"	17.39	30.39	5.45	25.00
JEFF_RET_2	70° 15' 45.66"	286° 28' 44.03"	14.07	24.53	4.45	20.00
JEFF_RET_3	67° 02' 27.39"	260° 26' 07.30"	14.57	25.74	4.39	22.00
JEFF_RET_4	86° 39' 58.04"	260° 26' 07.30"	20.76	33.28	8.25	22.00

ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER L.1	REVISED



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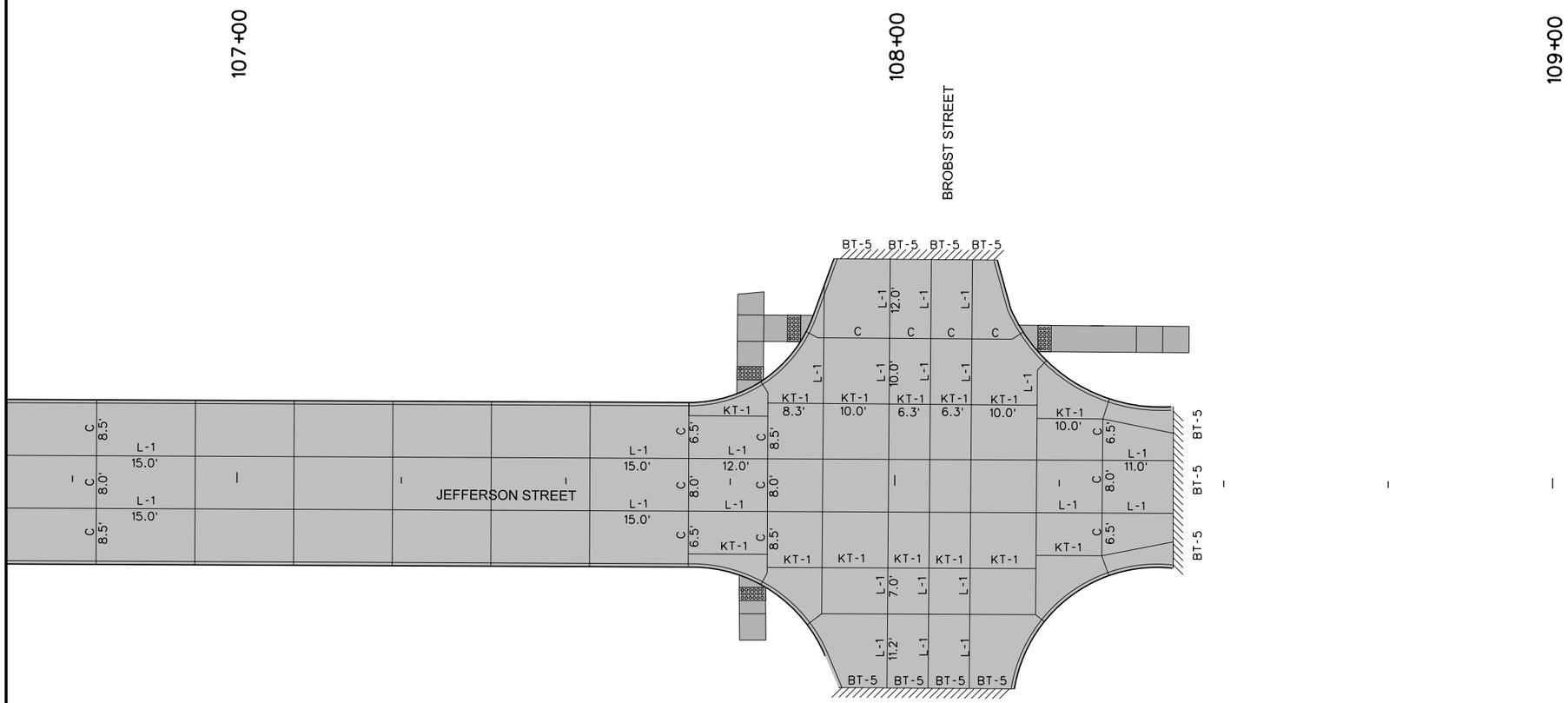
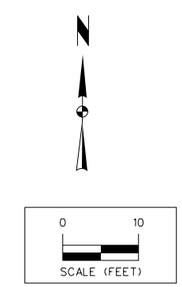
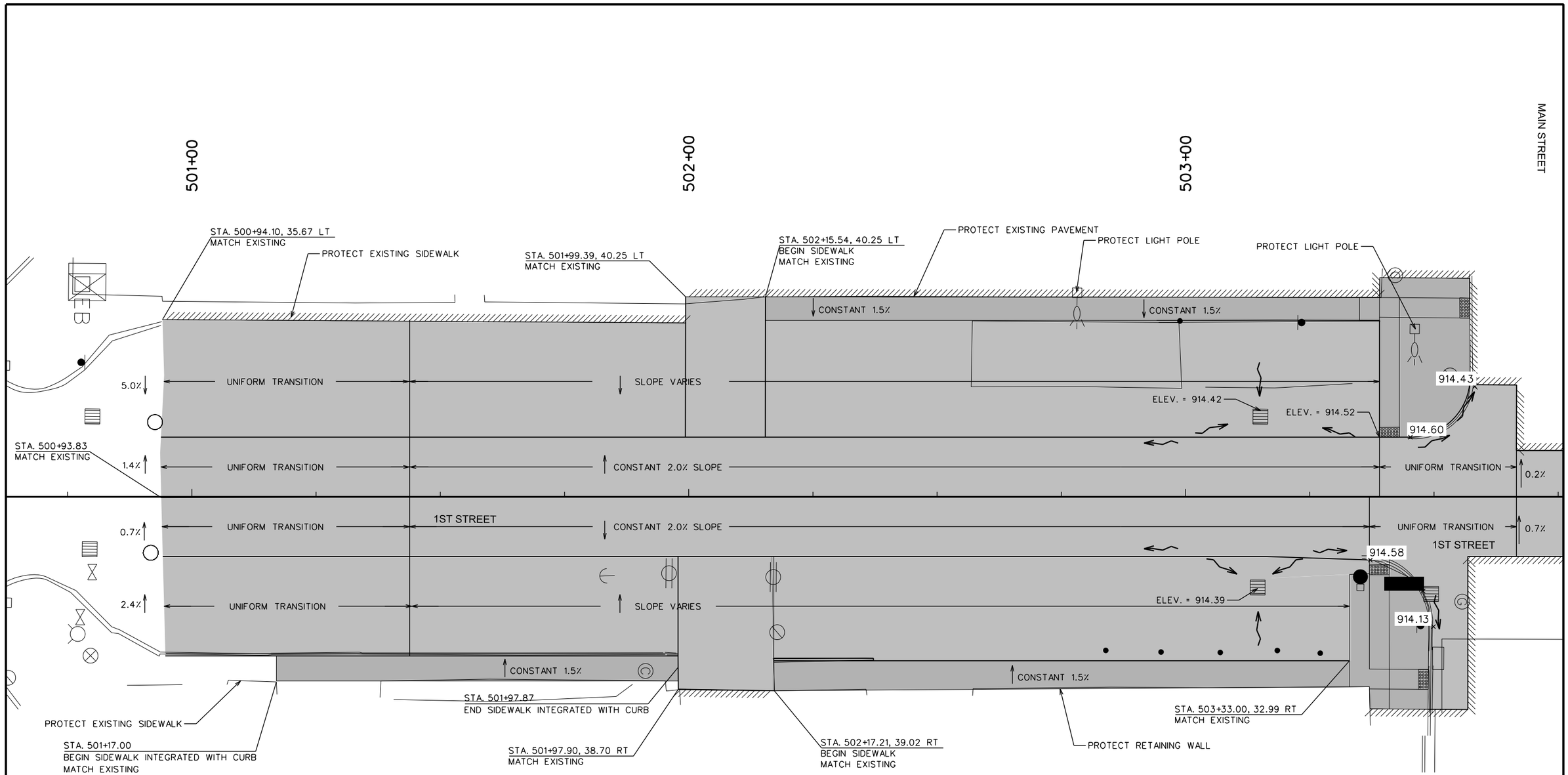




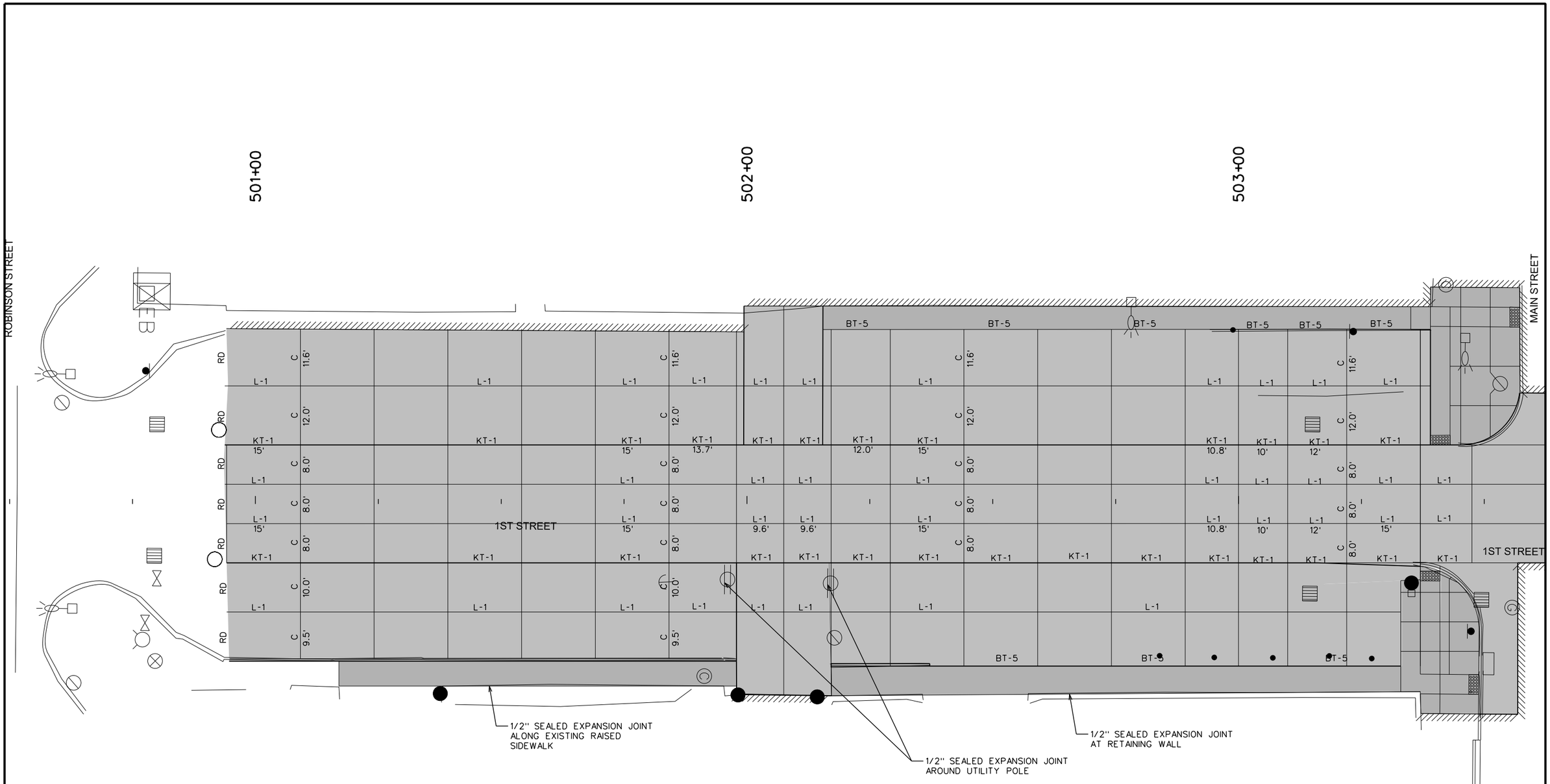
JEFFERSON STREET JOINTING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.3	REVISED



1ST STREET STAKING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.4	REVISED



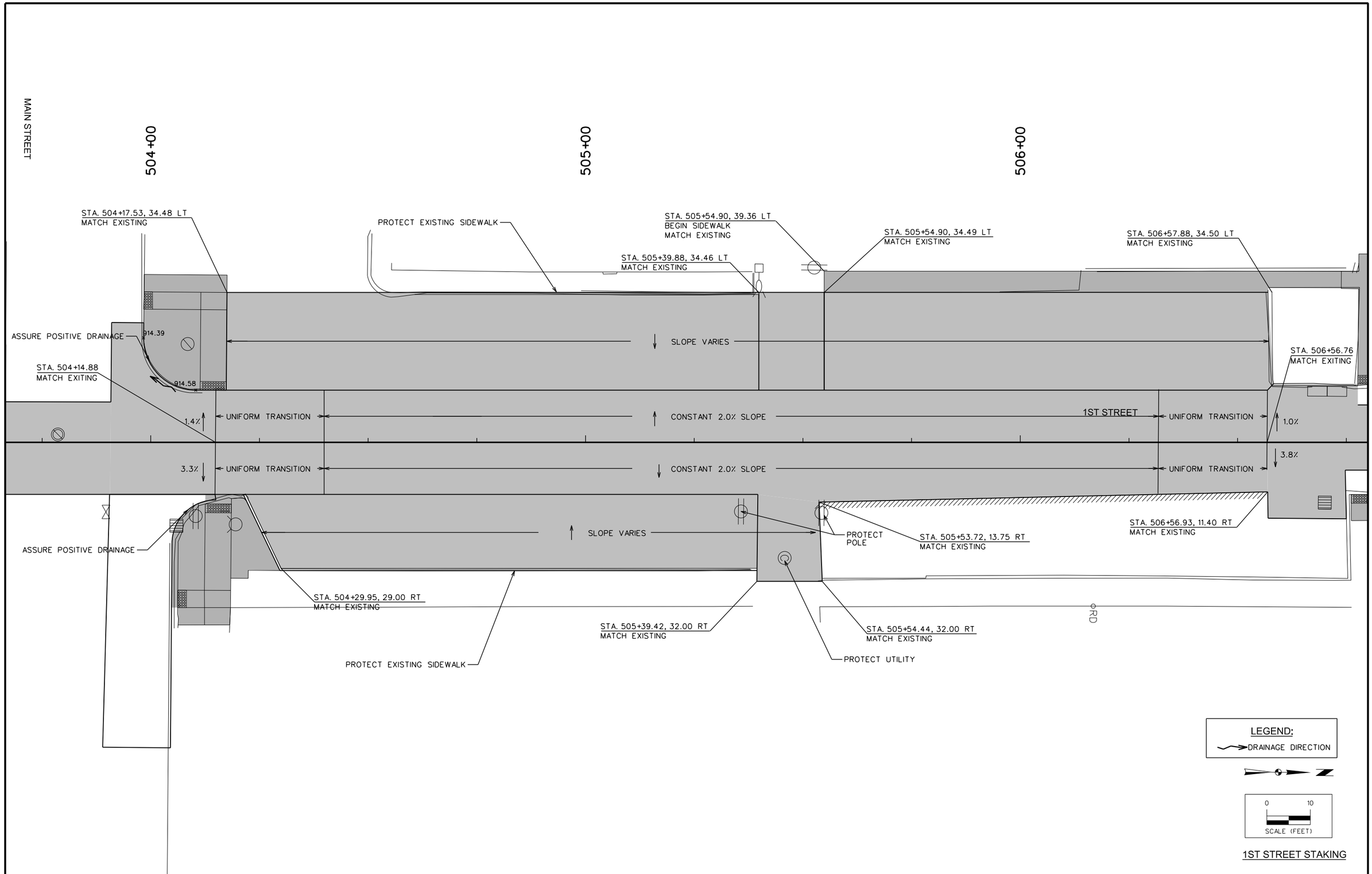
NOTES:

1. 'L' AND 'KT' JOINTS CAN BE USED INTERCHANGABLY DEPENDING ON POURING SEQUENCE.
2. HAND POURS REQUIRE REINFORCING TO BE SECURELY PLACED ON SUPPORTS AND APPROVED BY THE CITY OR ENGINEERING PRIOR TO PAVING.

0 10
SCALE (FEET)

1ST STREET JOINTING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE_.2	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.5	REVISED



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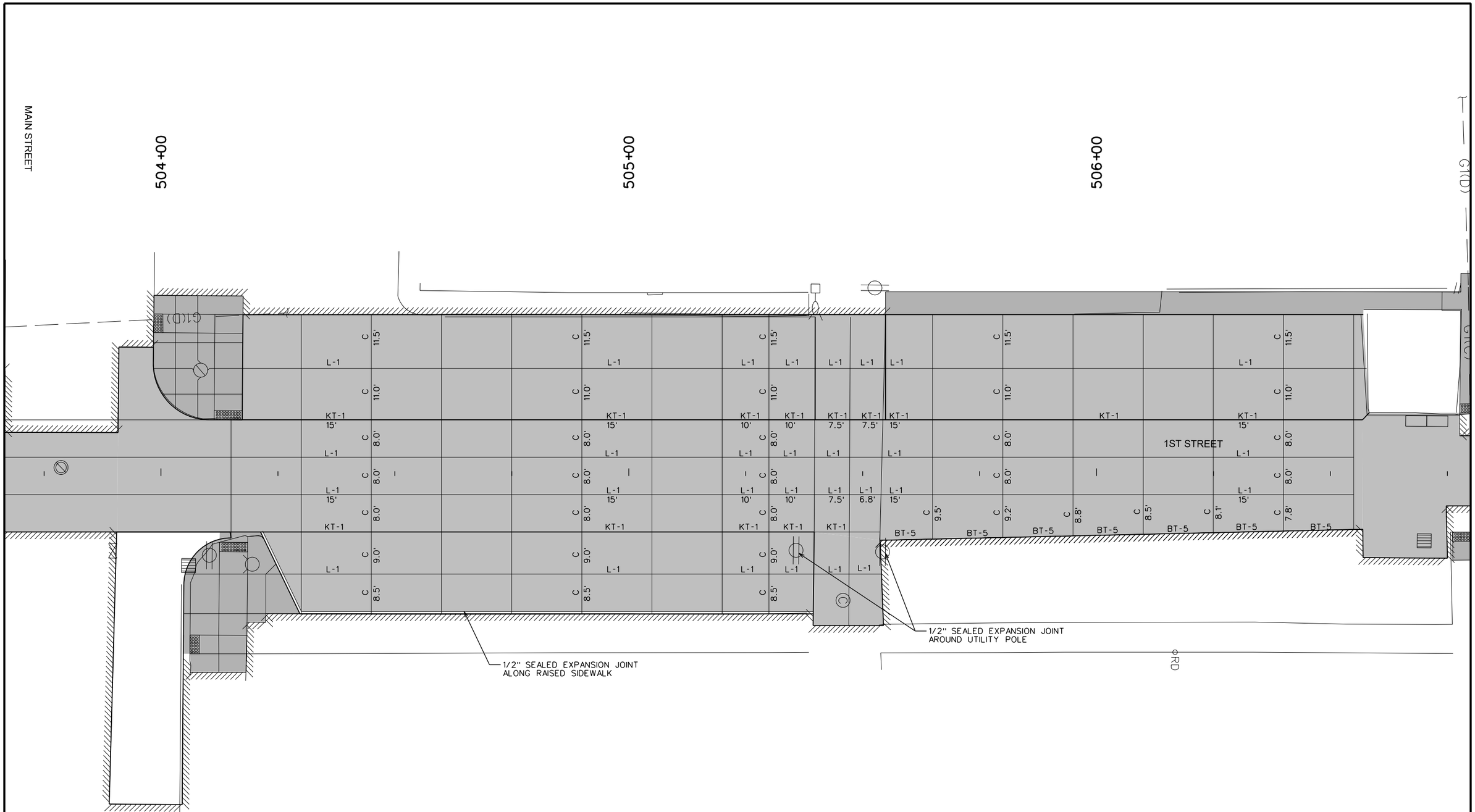

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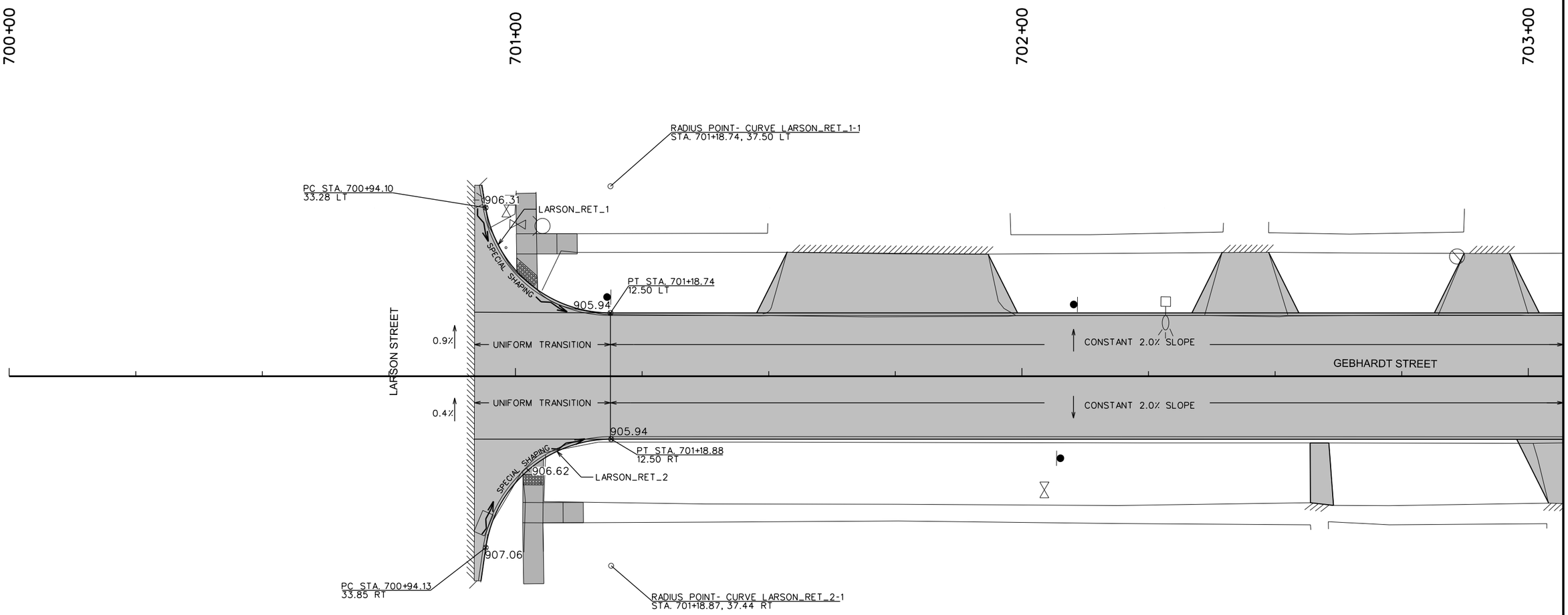
1ST STREET JOINTING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.7	REVISED



LEGEND:

DRAINAGE DIRECTION

0 10

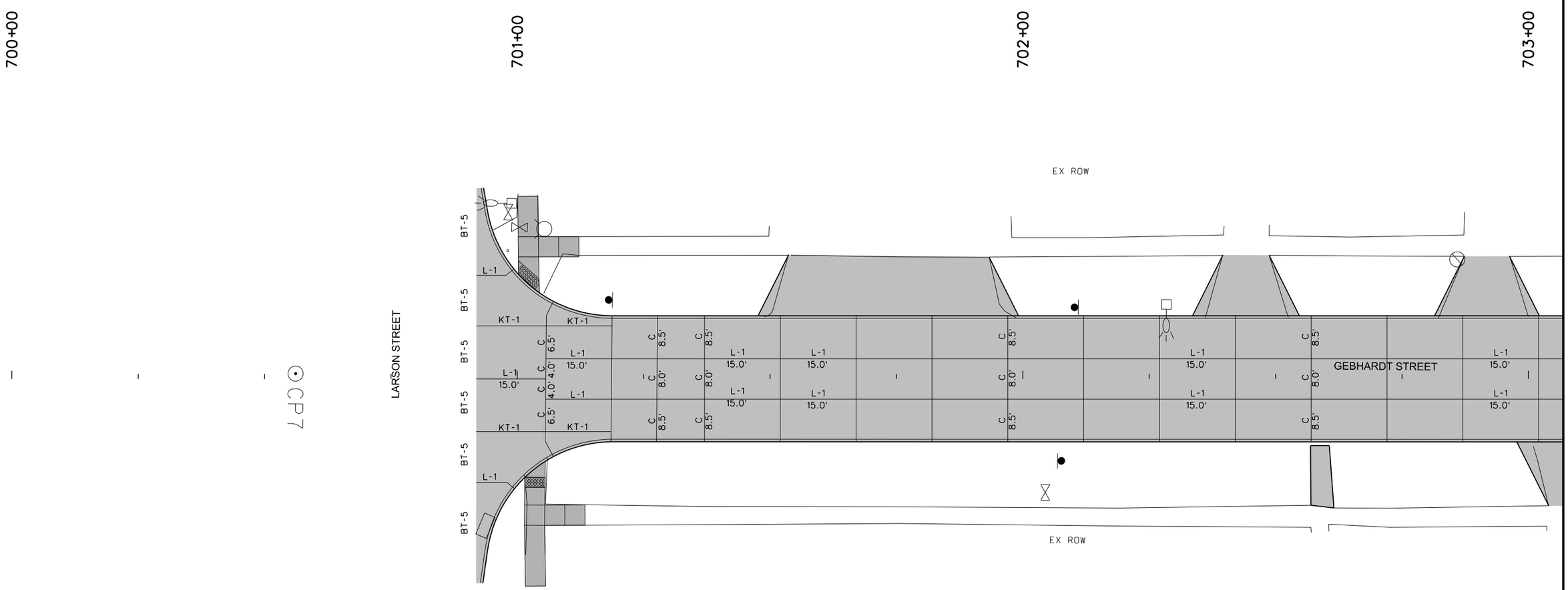
SCALE (FEET)

GEBHARDT STREET STAKING

CIRCULAR CURVE DATA

Name	Δ	D	T	L	E	R
LARSON_RET_1	80° 17' 01.51"	229° 10' 59.22"	21.08	25.03	7.70	25.00
LARSON_RET_2	81° 44' 54.11"	229° 10' 59.22"	21.64	35.67	8.06	25.00

ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER L.8	REVISED



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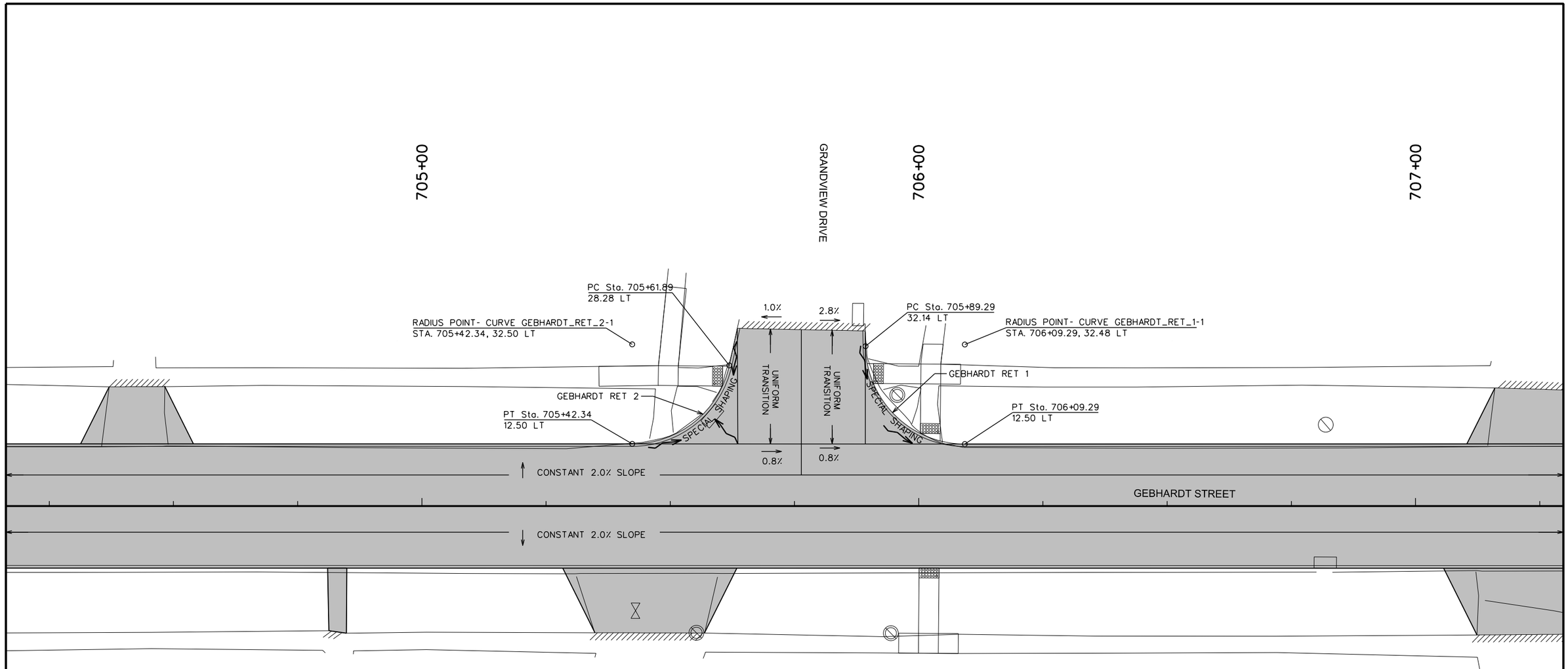
0 10
SCALE (FEET)

GEBHARDT STREET JOINTING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.9	REVISED



LEGEND:
DRAINAGE DIRECTION

0 10
SCALE (FEET)

GEBHARDT STREET STAKING

CIRCULAR CURVE DATA

Name	Δ	D	T	L	E	R
GEBHART_RET_1	89° 02' 06.02"	286° 28' 44.03"	19.67	31.08	8.05	20.00
GEBHART_RET_2	77° 49' 10.75"	286° 28' 44.03"	16.14	27.16	5.70	20.00

ENGLISH	DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER 115.0718	SHEET NUMBER L.10	REVISED

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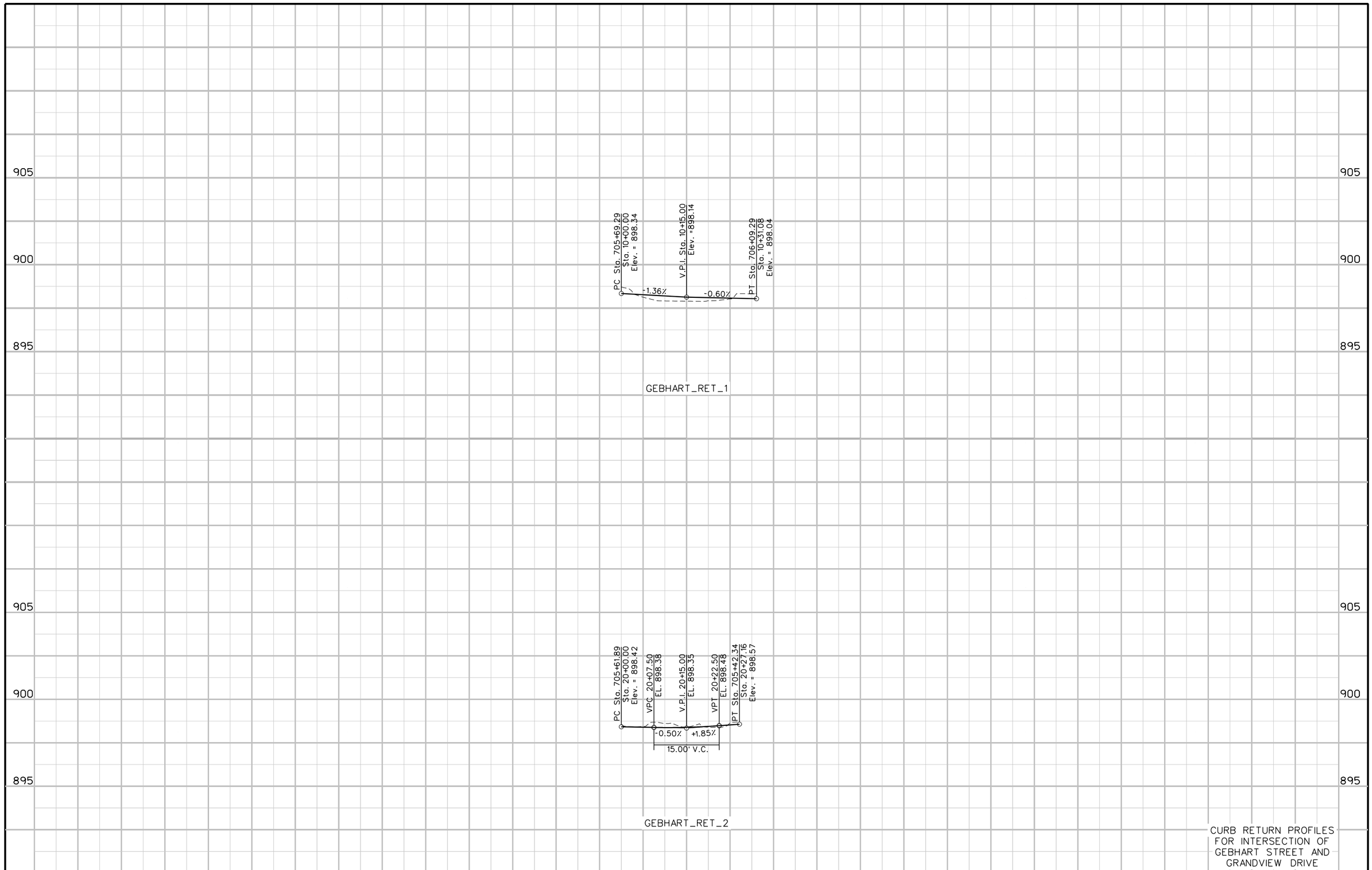
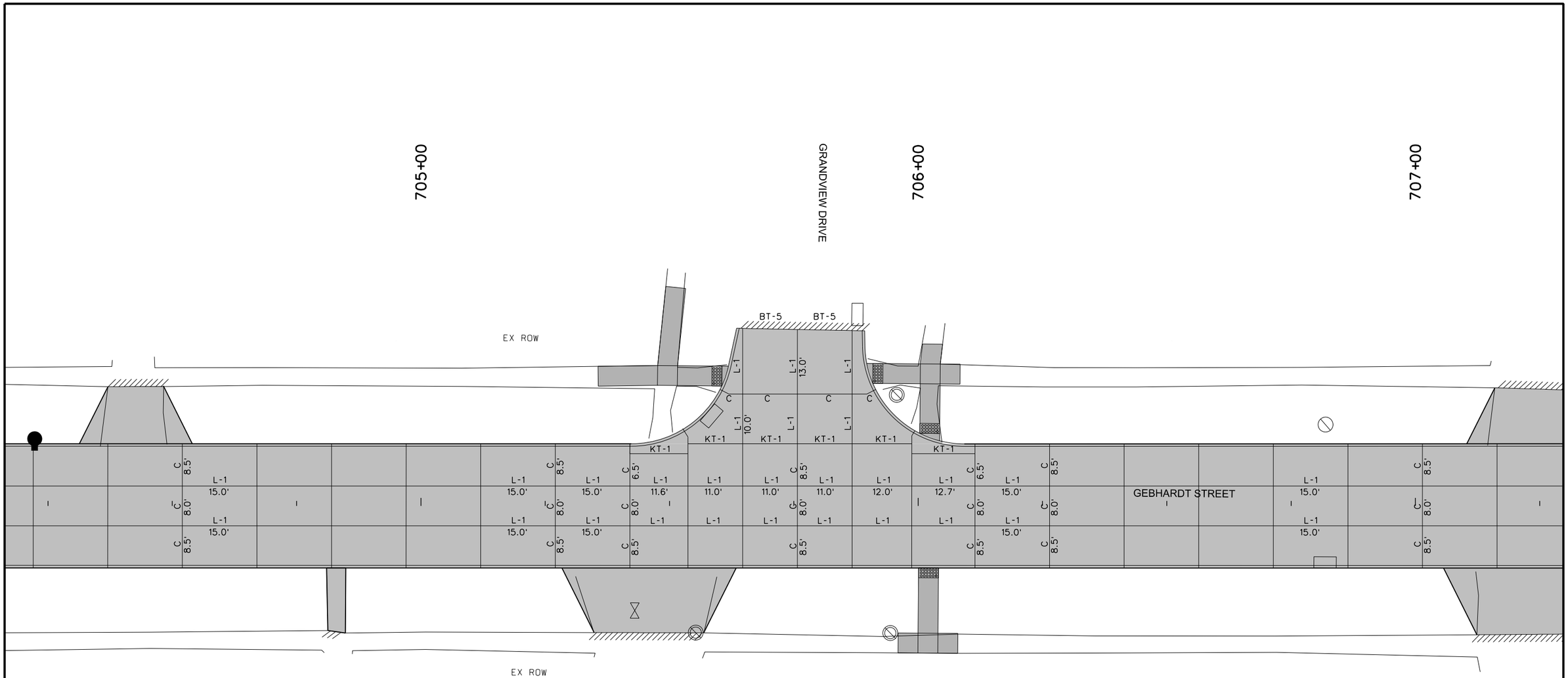


CURB RETURN PROFILES
FOR INTERSECTION OF
GEBHART STREET AND
GRANDVIEW DRIVE

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.11	REVISED



NOTES:

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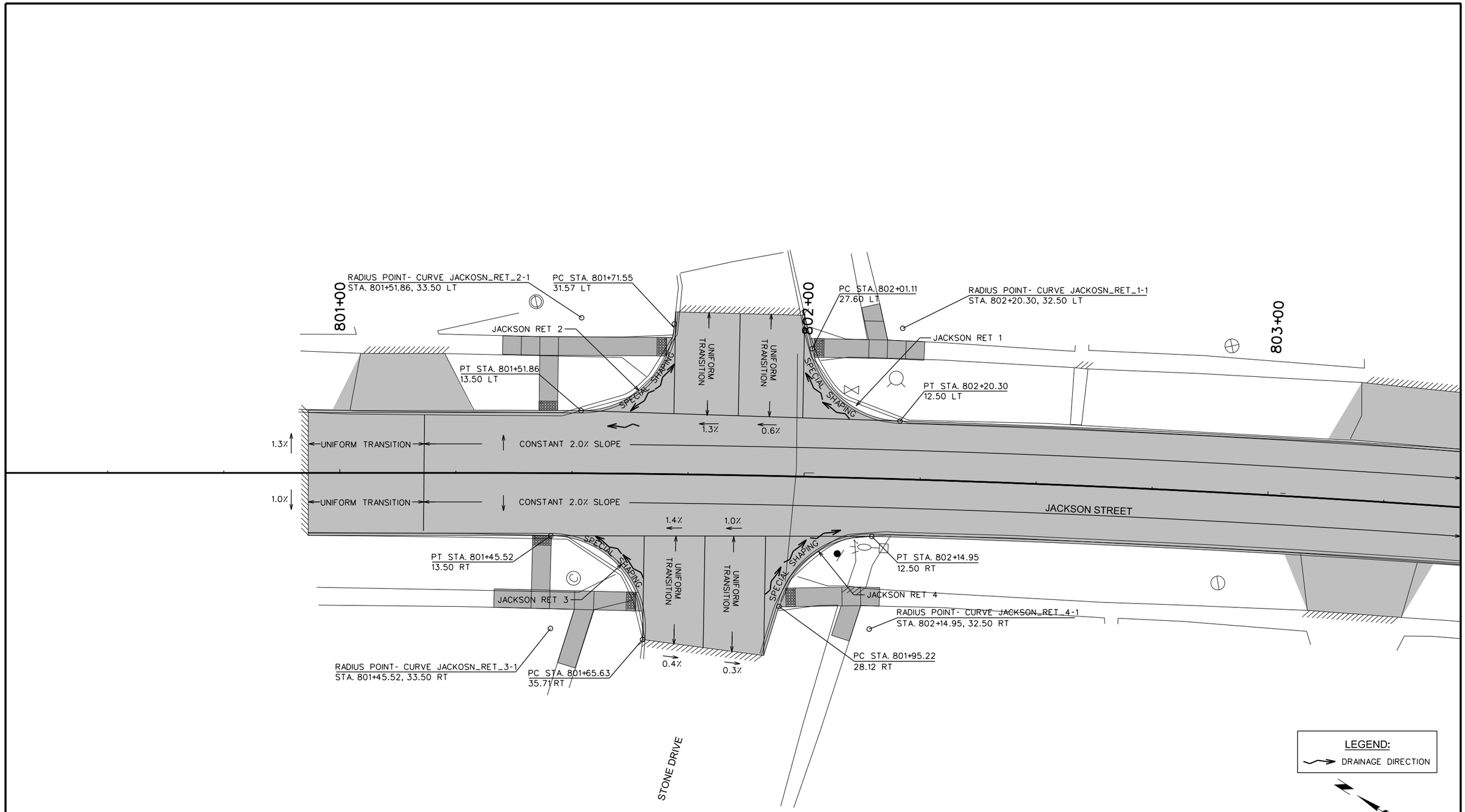
2. HAND POURS REQUIRE REINFORCING TO BE SECURELY PLACED ON SUPPORTS AND APPROVED BY THE CITY OR ENGINEER PRIOR TO PAVING.

0 10
SCALE (FEET)

GEBHARDT STREET JOINTING

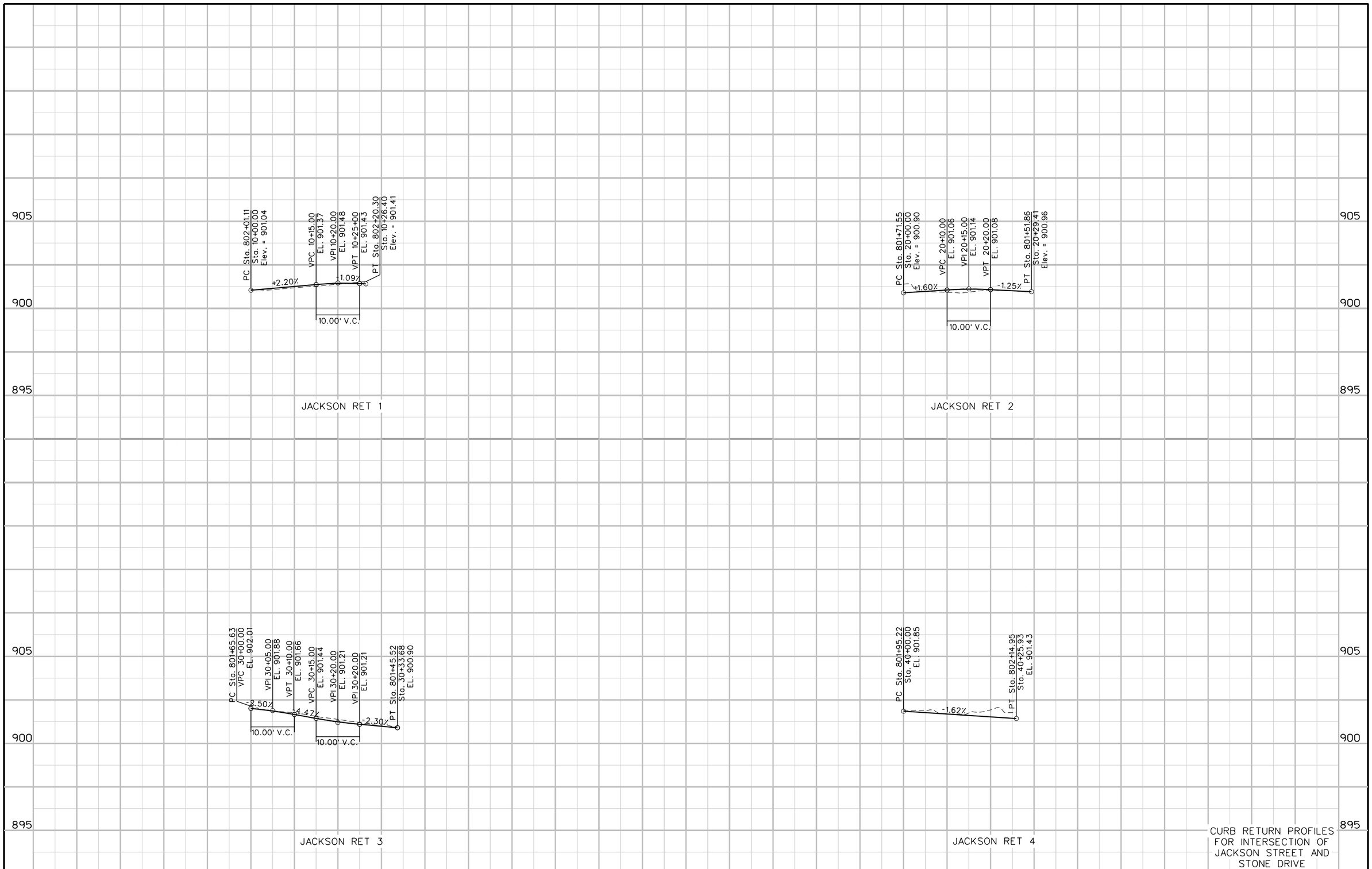
ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.12	REVISED



JACKSON STREET STAKING

CIRCULAR CURVE DATA

Name	Δ	D	T	L	E	R
JACKSON_RET_1	75° 37' 45.27"	286° 28' 44.03"	15.52	26.40	5.31	20.00
JACKSON_RET_2	84° 15' 37.73"	286° 28' 44.03"	18.09	29.41	6.97	20.00
JACKSON_RET_3	96° 29' 43.88"	286° 28' 44.03"	22.41	33.68	10.03	20.00
JACKSON_RET_4	74° 17' 40.25"	286° 28' 44.03"	15.15	25.93	5.09	20.00



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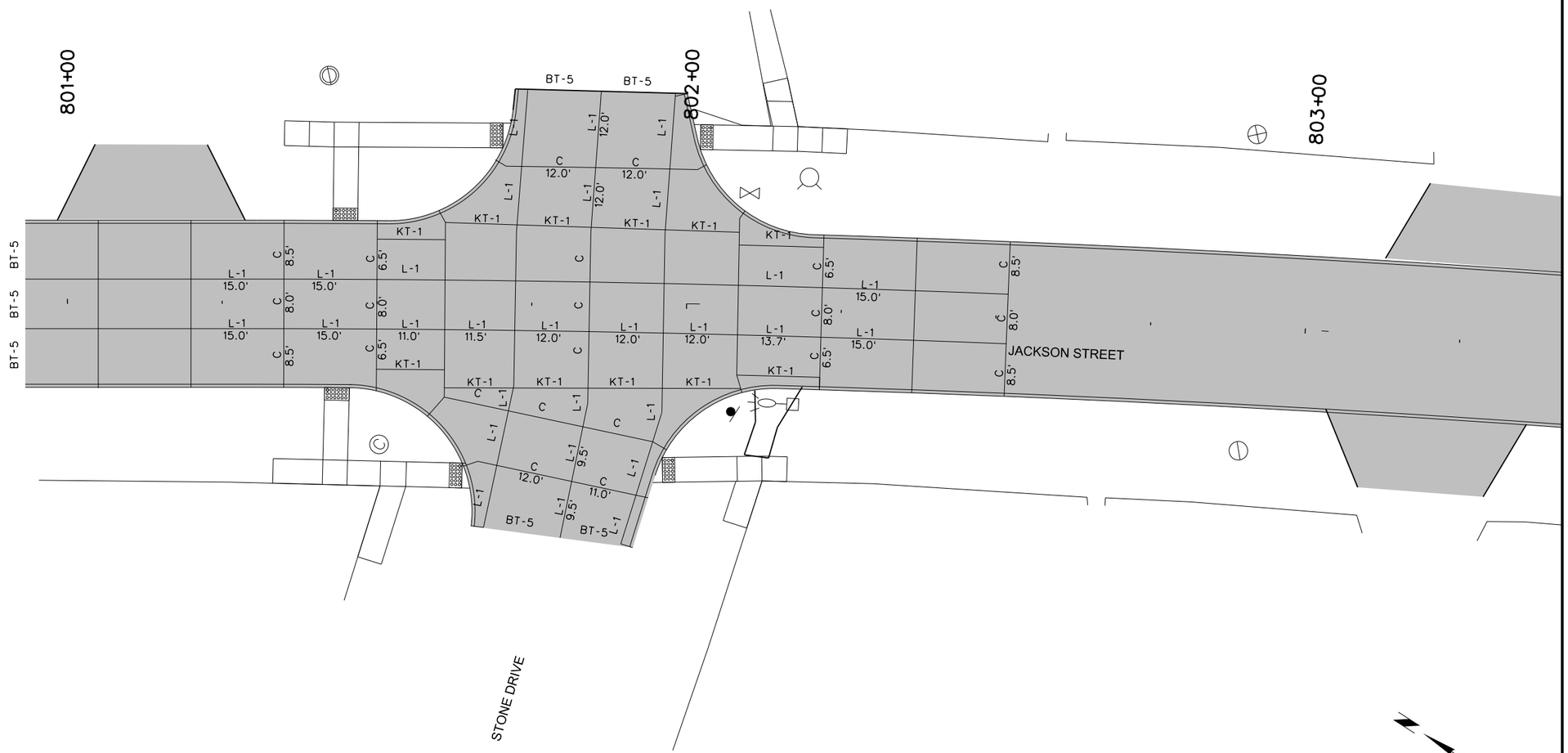

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JACKSON STREET JOINTING

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	L.15	REVISED

STORM SEWER

* Bid Item

INTAKES AND UTILITY ACCESSES

No.	Location Station and Offset	*Type	Form Grade Elev.	Bottom Well Elev.	Extension Length FT	Notes
ST-01	213+80.21, 14.52 RT	SW-507	MATCH EX.			Modify SW-507 to match existing pipes (1)
ST-02	213+87.89, 12.79 LT	SW-507	MATCH EX.			Aproximate 45" Depth (2)
ST-03	503+14.50, 19.73 RT	SW-511	914.39			Match existing flowlines protect pipes
ST-04	503+15.13, 17.67 LT	SW-511	914.42			Match existing flowlines protect pipes
ST-05	503+47.92, 19.50 RT	SW-501	MATCH EX.			Match existing flowlines protect pipes
ST-06	503+49.72, 32.50 RT	SW-501	MATCH EX.			Match existing flowlines protect pipes
ST-07	506+70.03, 15.36 RT	SW-511	911.8			Match existing flowlines protect pipes
ST-08	506+70.61, 12.85 LT	SW-501	911.83			Match existing flowlines protect pipes
ST-09	513+65.62, 15.81 RT	SW-511	MATCH EX.			Aprox. 68" Depth, 48" x 36" Structure
ST-10	513+65.88, 12.36 LT	SW-501	MATCH EX.			Approx. 72" Depth, 24" x 36" Structure
ST-11	705+57.61, 18.82 LT	SW-501	898.37			Match existing flowlines protect pipes
ST-12	706+81.82, 12.50 RT	SW-511	897.46			Match existing flowlines protect pipes

1. Approximate Depth 48"
2. Minimal pipe extension to new intake considered incidental to intake.

PIPES

Design Length, Slope, and Flowlines are calculated from inside wall to inside wall along CL of pipe. An additional 6 ft length is added to Design Length to account for estimated length to center of structures.

Line Number	Intake/ Utility Access No. From	Intake/ Utility Access No. To	Class 'D'	Pipe Diameter IN	Bid* Length FT	Design Length FT	Slope %	Flow Lines Inlet Elevation	Flow Lines Outlet Elevation	Flow Lines Other Elevation	Pipe Profile Sheet No.	Notes

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Black	(0)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation

SHADING	Design Color No.	
Brown, Light	(234)	Proposed Sidewalk Shading
Blue, Light	(30)	Proposed Sidewalk Landing Shading
Pink, Light	(160)	Proposed Sidewalk Ramp Shading
Red	(3)	Delineates Restricted Areas
Gray, Medium	(253)	Proposed Pavement Shading

Reference Point

Station

Survey Line

Section Corner

Ground Line Intercept

Saw Cut

Guardrail

RIGHT-OF-WAY LEGEND

Proposed Right-of-Way

Existing and Proposed Right-of-Way

Easement and Existing Right-of-Way

Borrow

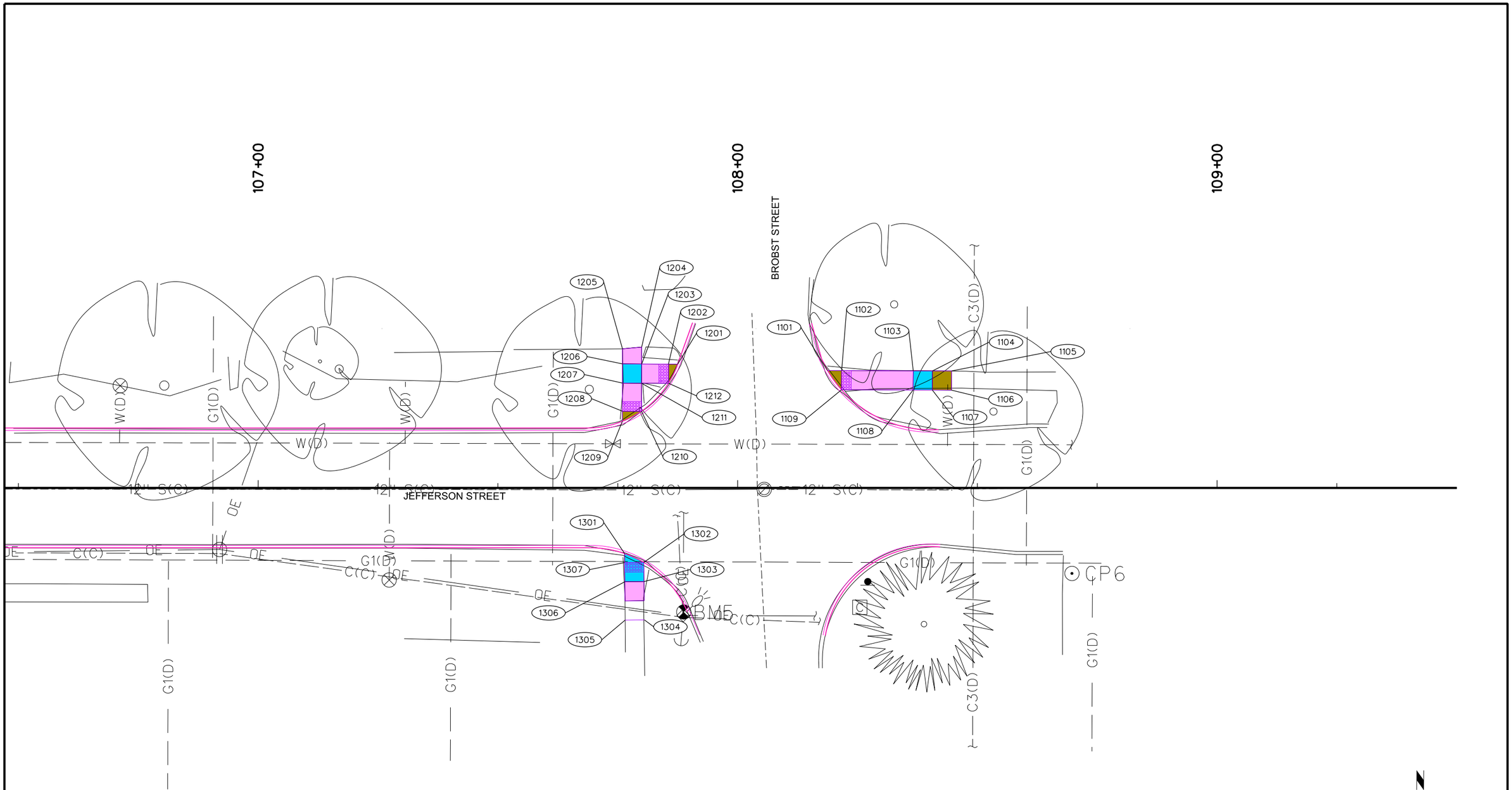
Easement (Temporary)

Easement

Excess

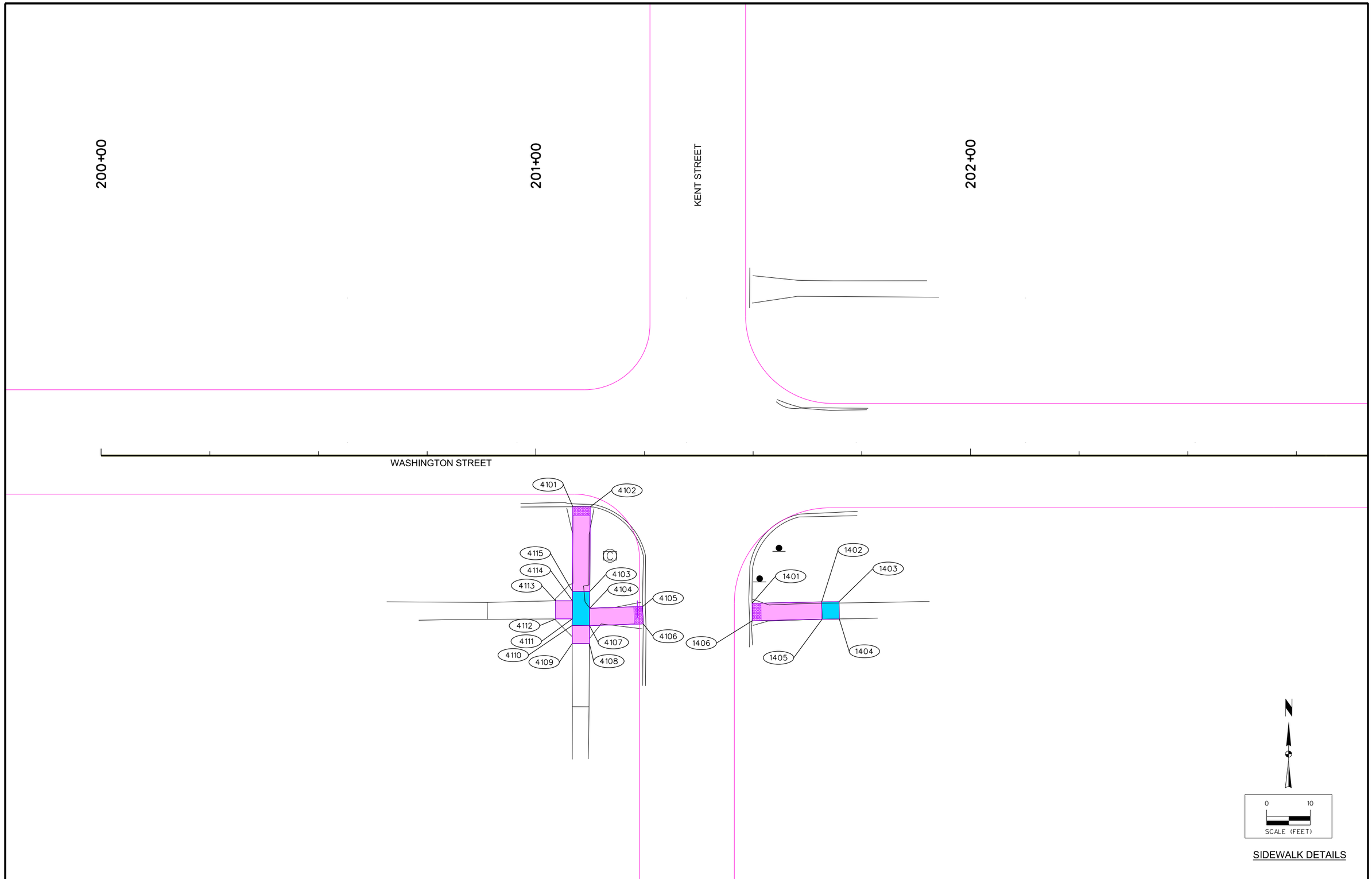
A/C Access Control

SIDEWALK
LEGEND AND SYMBOL
INFORMATION SHEET
(COVERS SHEET SERIES S)



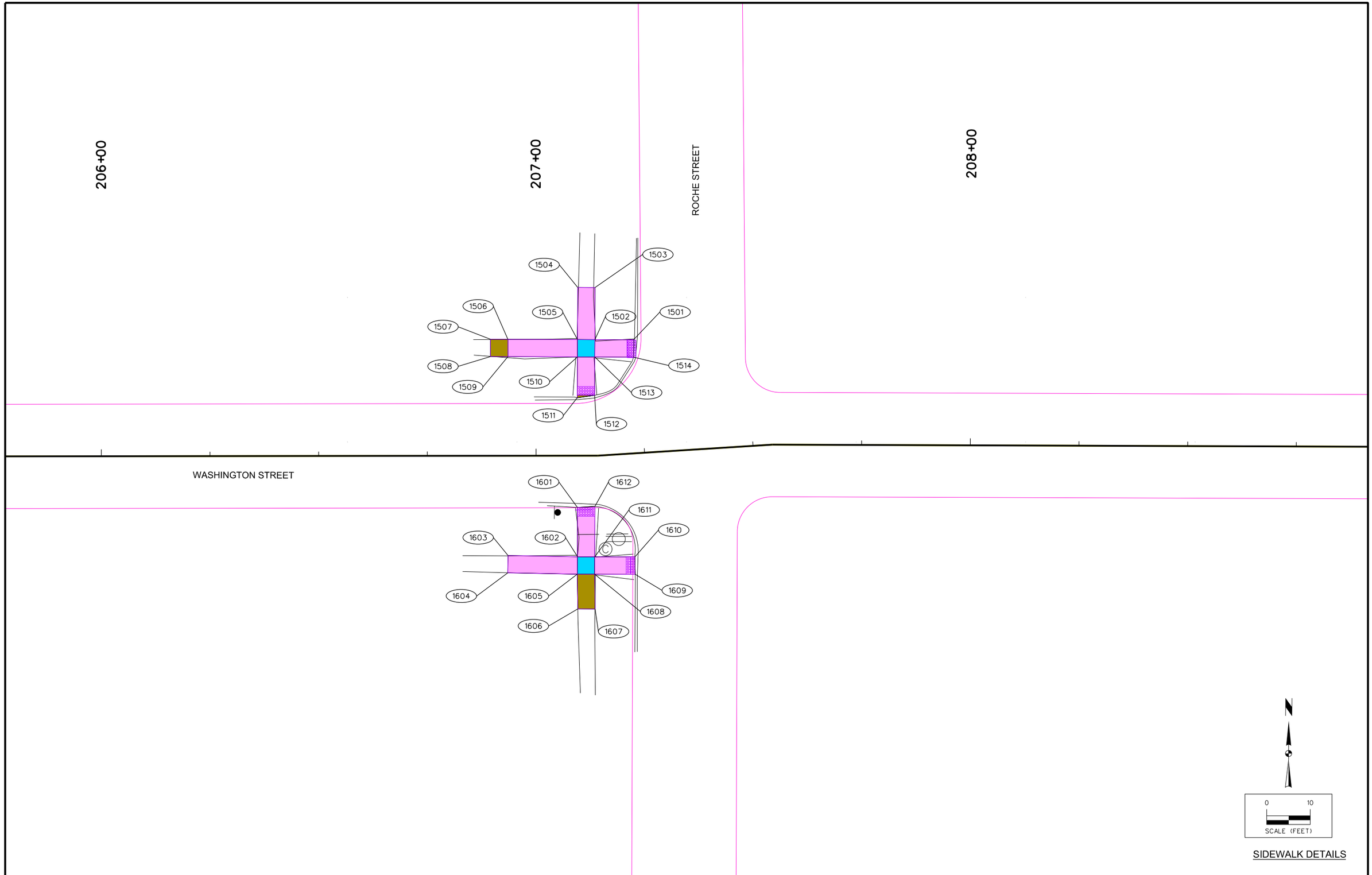
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.2	REVISED



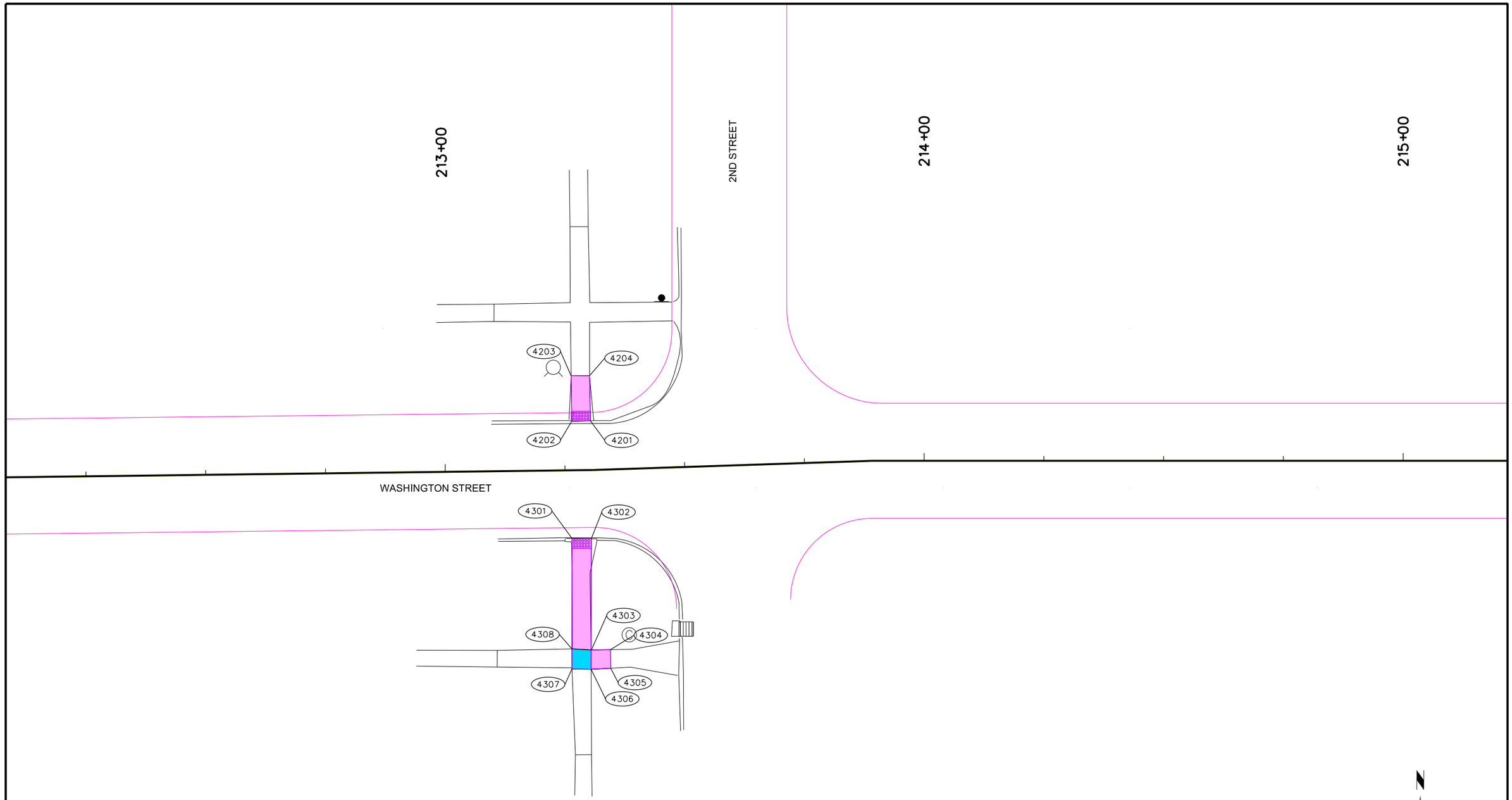
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.3	REVISED



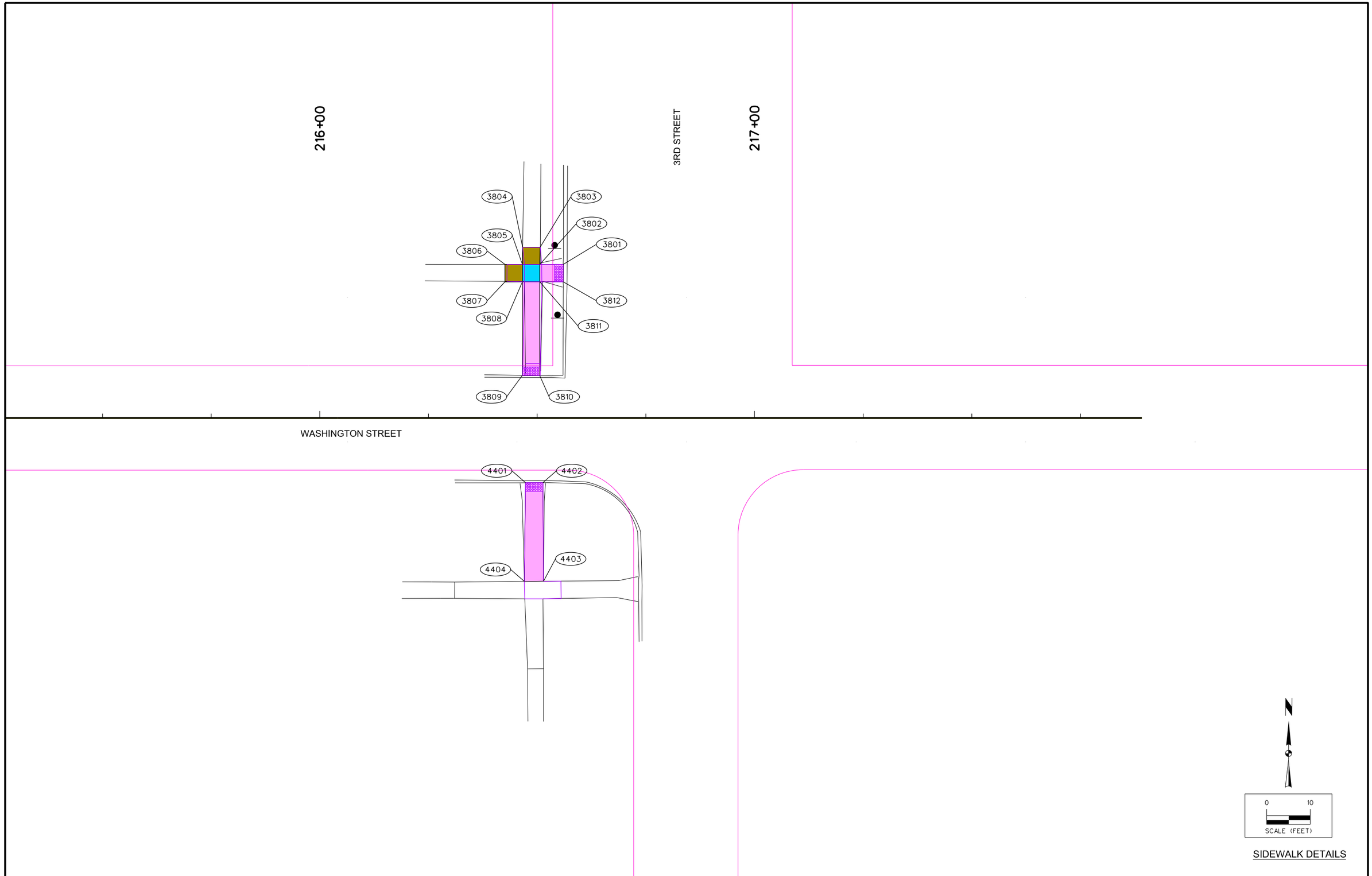
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.4	REVISED



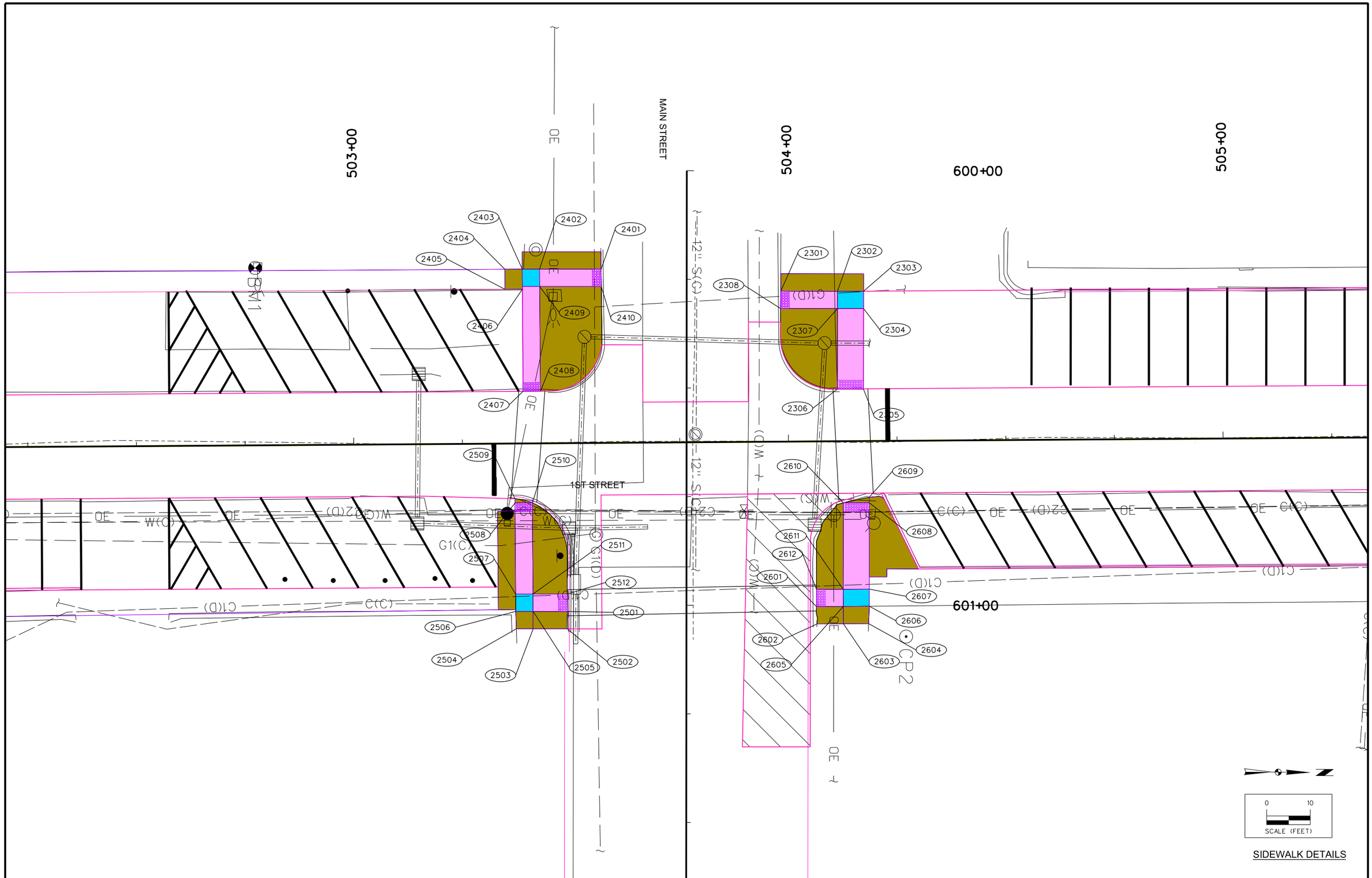
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.5	REVISED



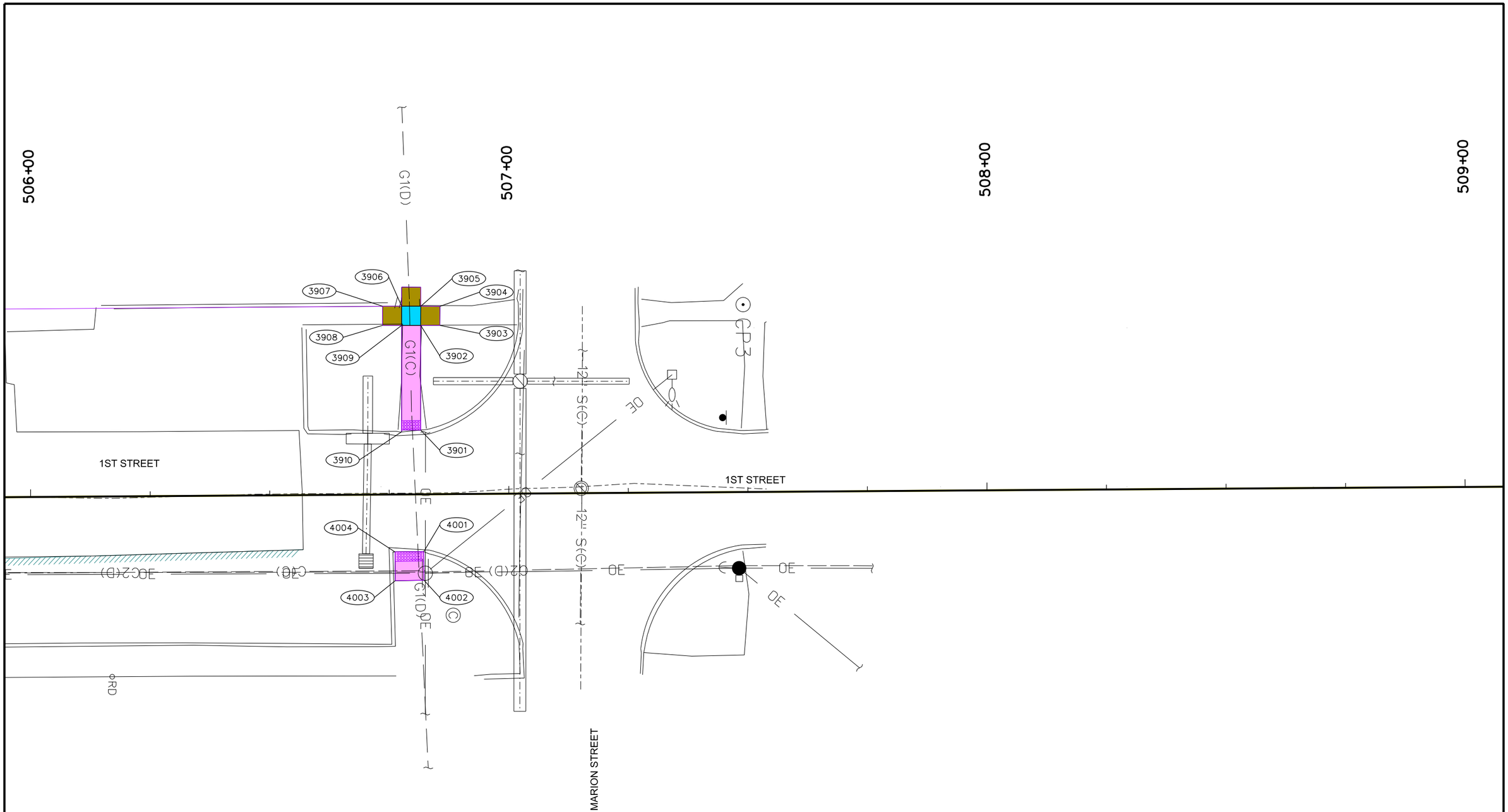
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.6	REVISED



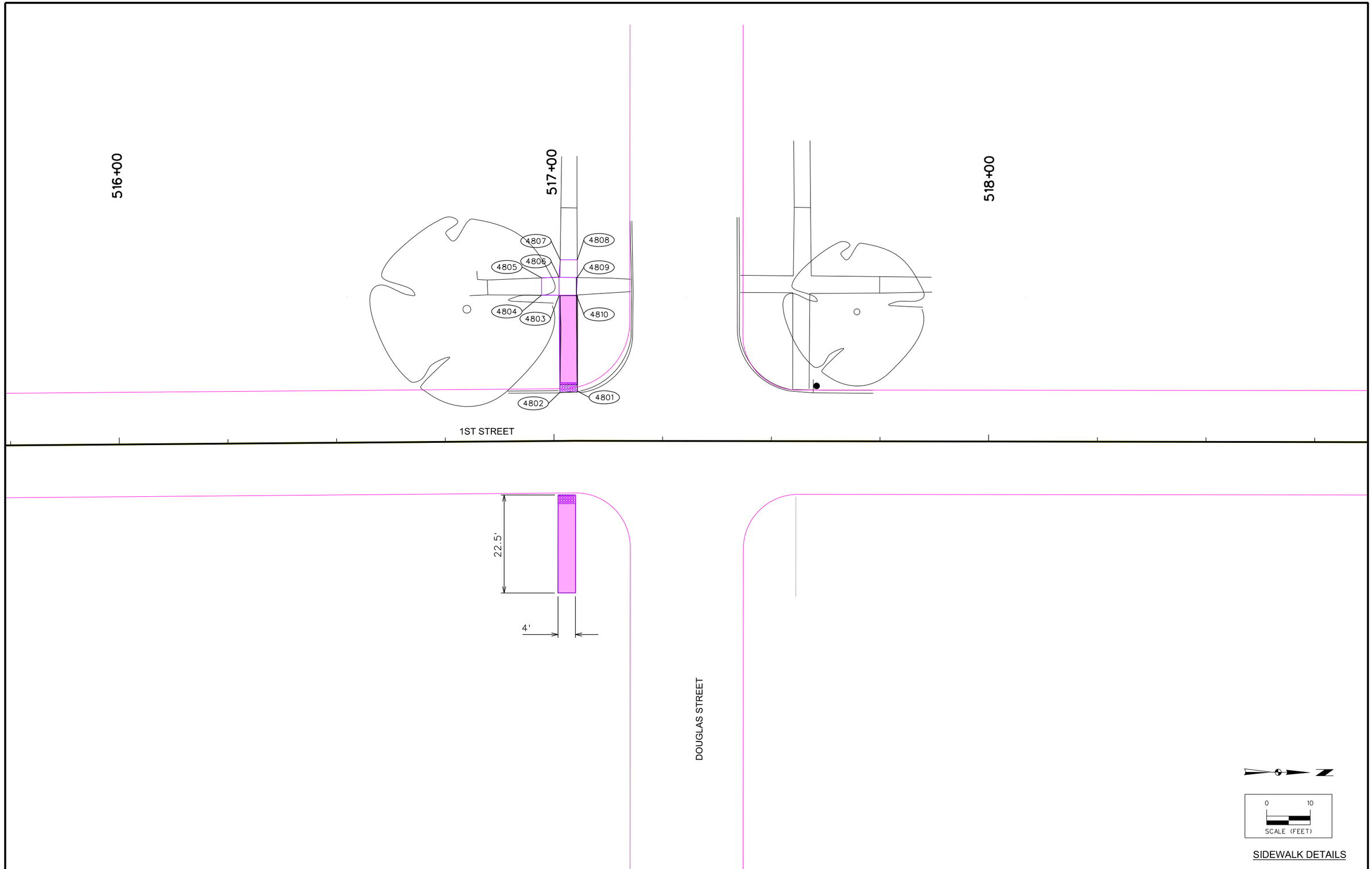
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.7	REVISED



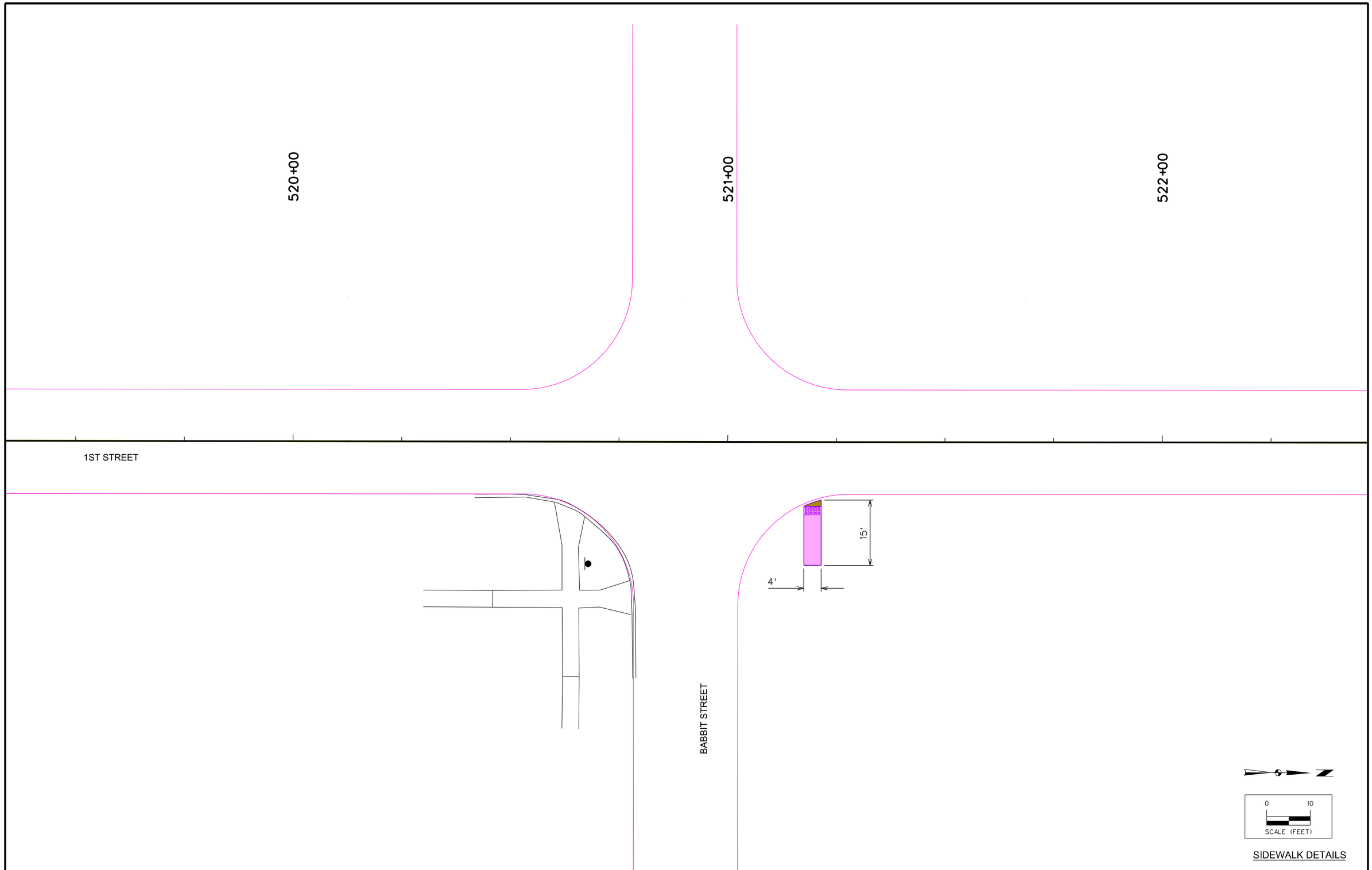
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.8	REVISED



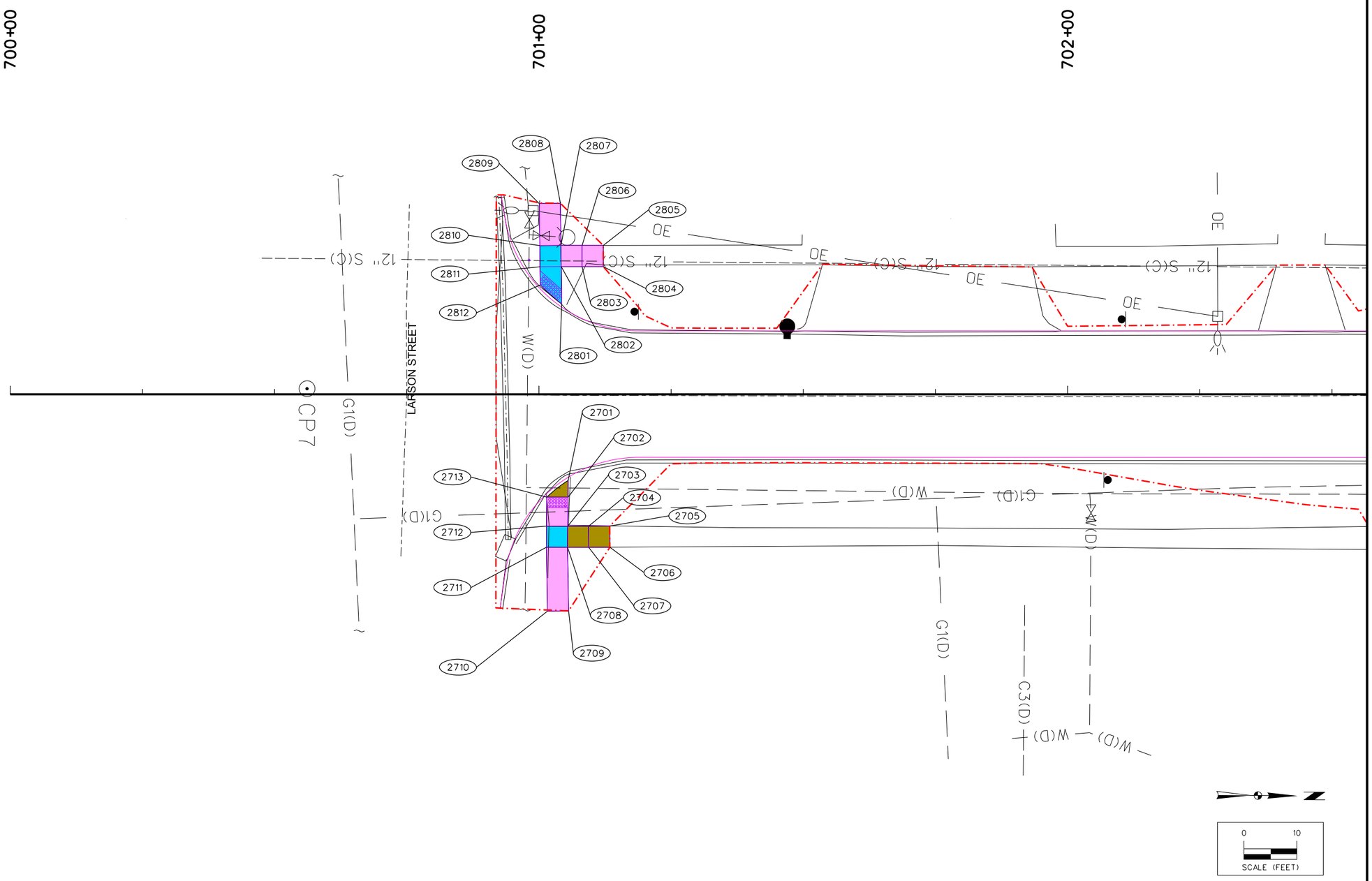
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.9	REVISED



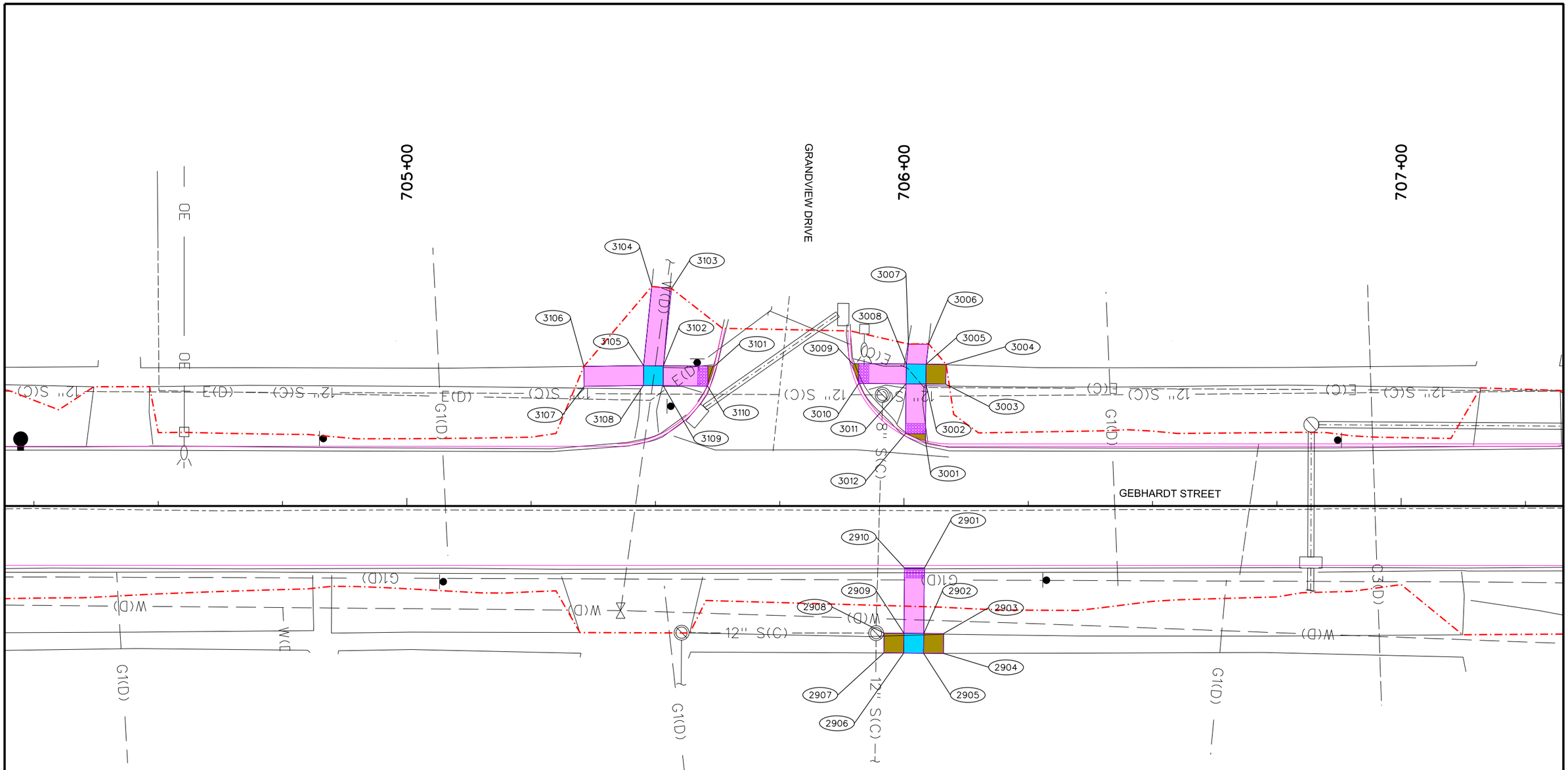
SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.10	REVISED



SIDEWALK DETAILS

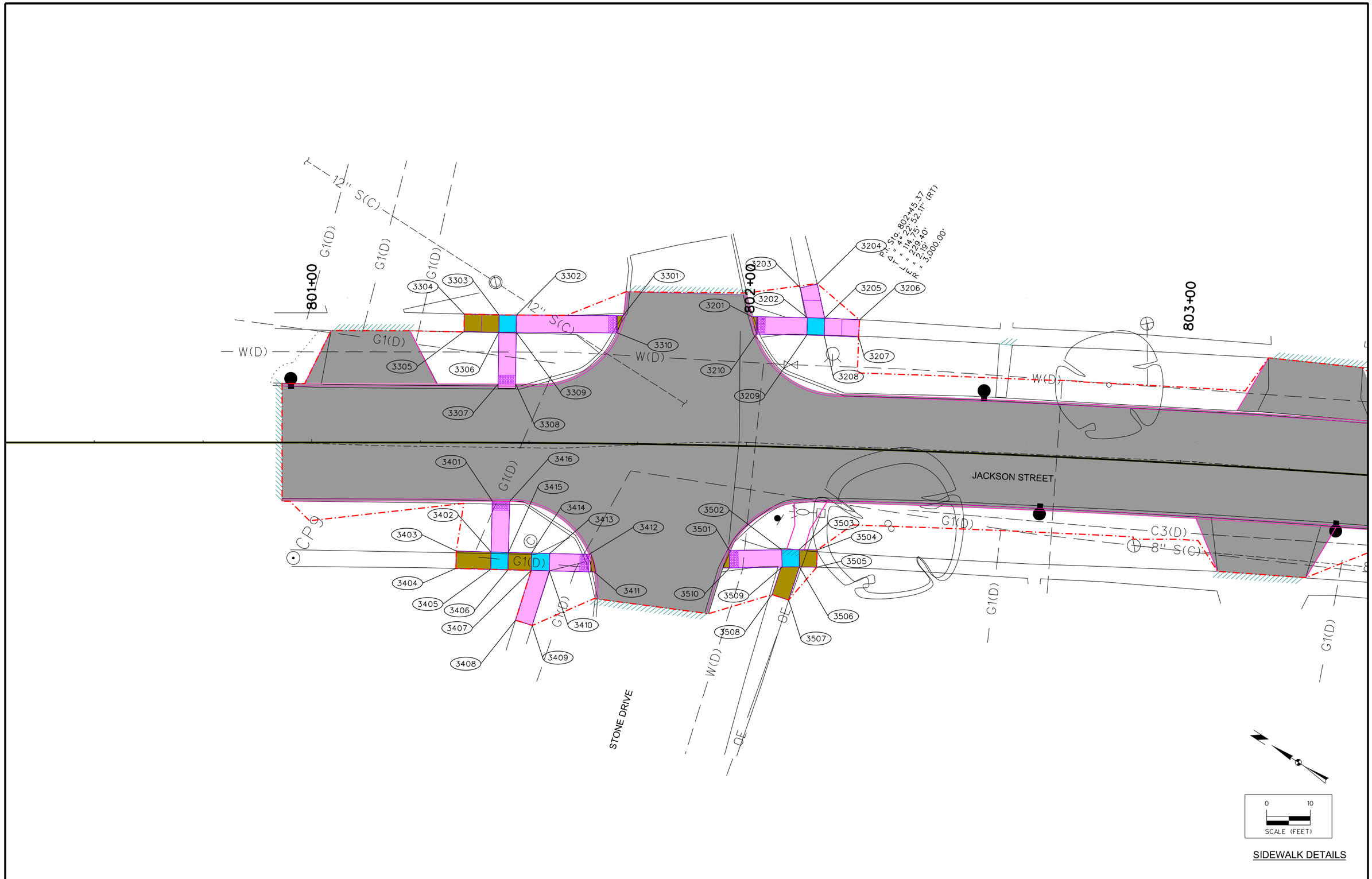
ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.11	REVISED



SCALE (FEET)

SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.12	REVISED



SIDEWALK DETAILS

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	S.13	REVISED

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
1101	1102	Sidewalk Running Slope	2.93	0.04	1.4%	0.5% to 5.0%						1101	108+18.72	-24.48	893.01
1102	1103	Ramp Running Slope	15.00	1.51	10.1%	0.5% to 11.1%				Length constructed must exceed 15 feet at a uniform running slope		1102	108+21.69	-24.47	893.05
1102	1109	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						1103	108+36.63	-24.42	894.56
1103	1104	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1104	108+40.63	-24.41	894.62
1103	1108	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1105	108+44.63	-24.39	894.77
1104	1105	Sidewalk Running Slope	4.00	0.15	3.7%	0.5% to 5.0%						1106	108+44.61	-20.39	894.86
1104	1107	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1107	108+40.61	-20.41	894.68
1105	1106	Match Existing Cross Slope	4.00	0.09	2.3%	Match Existing						1108	108+36.61	-20.42	894.62
1106	1107	Sidewalk Running Slope	4.00	-0.18	-4.5%	0.5% to 5.0%	Yes			Slope required to match existing conditions		1109	108+21.68	-20.47	893.11
1107	1108	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
1108	1109	Ramp Running Slope	15.00	-1.51	-10.1%	0.5% to 11.1%				Length constructed must exceed 15 feet at a uniform running slope					
1201	1202	Sidewalk Running Slope	1.92	0.05	2.6%	0.5% to 5.0%						1201	107+87.50	-25.82	892.30
1202	1203	Ramp Running Slope	5.60	0.35	6.3%	0.5% to 8.3%						1202	107+85.58	-25.82	892.35
1202	1212	Ramp Cross Slope	4.00	-0.06	-1.5%	0.1% to 2.0%						1203	107+79.98	-25.84	892.70
1203	1204	Ramp Running Slope	3.51	0.53	15.1%	0.5% to 16.1%						1204	107+80.00	-29.36	893.23
1203	1206	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1205	107+75.99	-28.30	893.23
1203	1211	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1206	107+75.98	-25.86	892.76
1204	1205	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing						1207	107+75.97	-21.86	892.69
1205	1206	Ramp Running Slope	3.10	-0.47	-15.2%	0.5% to 16.2%						1208	107+75.95	-16.01	892.21
1206	1207	Landing/Turning Space	4.00	-0.07	-1.7%	0.1% to 2.0%	Yes					1209	107+75.94	-13.88	892.04
1207	1208	Ramp Running Slope	5.85	-0.48	-8.2%	0.5% to 8.3%	Yes					1210	107+79.95	-16.00	892.20
1207	1211	Landing/Turning Space	4.00	-0.05	-1.3%	0.1% to 2.0%						1211	107+79.97	-21.84	892.64
1208	1209	Ramp Running Slope	2.10	-0.17	-8.1%	0.5% to 8.3%	Yes					1212	107+85.56	-21.82	892.29
1208	1210	Ramp Cross Slope	4.00	-0.01	-0.2%	0.1% to 2.0%									
1210	1211	Ramp Running Slope	5.85	0.44	7.5%	0.5% to 8.3%	Yes								
1211	1212	Ramp Running Slope	5.60	-0.35	-6.3%	0.5% to 8.3%									
1301	1307	Sidewalk Running Slope	1.88	0.02	1.1%	0.5% to 5.0%						1301	107+76.42	13.69	891.70
1302	1303	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1302	107+80.44	15.54	891.64
1302	1307	Landing/Turning Space	4.00	0.08	2.0%	0.1% to 2.0%	Yes					1303	107+80.54	27.53	891.70
1303	1304	Ramp Running Slope	8.00	-0.46	-5.8%	0.5% to 8.3%						1304	107+80.51	23.53	891.24
1303	1306	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1305	107+76.54	27.57	891.20
1304	1305	Match Existing Cross Slope	4.00	-0.04	-1.0%	Match Existing						1306	107+76.47	19.57	891.76
1305	1306	Ramp Running Slope	8.00	0.56	7.0%	0.5% to 8.3%						1307	107+76.44	15.57	891.72
1306	1307	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%									
1401	1402	Ramp Running Slope	16.00	1.93	12.1%					Length constructed must exceed 15 feet at a uniform running slope		1401	201+49.76	33.97	901.97
1401	1406	Match Existing Cross Slope	4.00	0.01	0.2%	Match Existing						1402	201+65.75	33.65	903.90
1402	1403	Ramp Running Slope	4.00	0.06	1.5%	0.5% to 8.3%						1403	201+69.75	33.57	903.96
1402	1405	Landing/Turning Space	4.00	-0.02	-0.5%	0.1% to 2.0%						1404	201+69.83	37.57	903.94
1403	1404	Landing/Turning Space	4.00	-0.02	-0.5%	0.1% to 2.0%						1405	201+65.83	37.65	903.88
1404	1405	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1406	201+49.74	37.97	901.98
1405	1406	Ramp Running Slope	16.00	-1.90	-11.9%	0.5% to 12.9%				Length constructed must exceed 15 feet at a uniform running slope					
1501	1502	Ramp Running Slope	9.11	0.76	8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		1501	207+24.31	-26.07	908.44
1502	1503	Ramp Running Slope	12.00	0.93	7.7%	0.5% to 8.3%	Yes			Slope required to match existing conditions		1502	207+15.22	-26.68	909.20
1502	1505	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						1503	207+16.02	-38.62	910.13
1502	1513	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1504	207+09.64	-38.68	910.18
1503	1504	Match Existing Cross Slope	4.00	0.05	1.2%	Match Existing						1505	207+09.58	-26.70	909.26
1504	1505	Ramp Running Slope	12.00	-0.92	-7.7%	0.5% to 8.3%	Yes			Slope required to match existing conditions		1506	206+93.58	-26.78	910.25
1505	1506	Ramp Running Slope	16.00	0.99	6.2%	0.5% to 8.3%						1507	206+89.58	-26.80	910.31
1505	1510	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1508	206+89.56	-22.80	910.46
1506	1507	Sidewalk Running Slope	4.00	0.06	1.5%	0.5% to 5.0%						1509	206+93.56	-22.78	910.31
1506	1509	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						1510	207+09.56	-22.70	909.20
1507	1508	Match Existing Cross Slope	4.00	0.15	3.8%	Match Existing						1511	207+09.51	-13.31	908.63
1508	1509	Sidewalk Running Slope	4.00	-0.15	-3.8%	0.5% to 5.0%						1512	207+13.52	-13.87	908.62
1509	1510	Ramp Running Slope	16.00	-1.11	-6.9%	0.5% to 8.3%						1513	207+13.56	-22.68	909.14
1510	1511	Ramp Running Slope	9.39	-0.57	-6.1%	0.5% to 8.3%						1514	207+23.84	-22.09	908.40
1510	1513	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
1512	1513	Ramp Running Slope	8.81	0.52	5.9%	0.5% to 8.3%									
1513	1514	Ramp Running Slope	8.90	-0.74	-8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed					
1601	1602	Ramp Running Slope	11.32	0.24	2.1%	0.5% to 8.3%						1601	207+09.53	11.94	908.36
1601	1612	Match Existing Cross Slope	4.00	-0.13	-3.4%	Match Existing						1602	207+09.47	23.26	908.60
1602	1603	Ramp Running Slope	16.00	1.10	6.8%	0.5% to 8.3%						1603	206+93.54	22.93	909.69
1602	1605	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1604	206+93.45	26.93	909.77
1602	1611	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1605	207+09.45	27.26	908.54
1603	1604	Match Existing Cross Slope	4.00	0.08	2.0%	Match Existing						1606	207+09.56	35.26	909.19
1604	1605	Ramp Running Slope	16.00	-1.24	-7.7%	0.5% to 8.3%	Yes			Slope required to match existing conditions		1607	207+13.56	35.28	909.11
1605	1606	Sidewalk Running Slope	8.00	0.66	8.2%	0.5% to 9.2%				Proposed slope is maximum allowed		1608	207+13.45	27.28	908.48

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
1605	1608	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						1609	207+21.09	27.80	907.70
1606	1607	Match Existing Cross Slope	4.00	-0.08	-2.0%	Match Existing						1610	207+21.26	23.80	907.83
1607	1608	Sidewalk Running Slope	8.00	-0.63	-7.9%	0.5% to 8.9%				Slope required to match existing conditions		1611	207+13.47	23.28	908.54
1608	1609	Ramp Running Slope	9.34	-0.77	-8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		1612	207+13.53	11.70	908.22
1608	1611	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%									
1609	1610	Match Existing Cross Slope	4.00	0.13	3.2%	Match Existing									
1610	1611	Ramp Running Slope	9.25	0.70	7.6%	0.5% to 8.3%	Yes			Slope required to match existing conditions					
1611	1612	Ramp Running Slope	11.58	-0.31	-2.7%	0.5% to 8.3%									
2301	2302	Sidewalk Running Slope	13.06	0.24	1.8%	0.5% to 5.0%						2301	503+98.46	-34.63	914.43
2301	2308	Match Existing Cross Slope	4.00	0.02	0.5%	Match Existing						2302	504+10.87	-34.53	914.67
2302	2303	Landing/Turning Space	6.00	0.06	1.0%	0.1% to 2.0%						2303	504+17.53	-34.48	914.73
2302	2307	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%						2304	504+17.49	-30.48	914.69
2303	2304	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%						2305	504+17.35	-11.95	914.62
2304	2305	Sidewalk Running Slope	18.50	-0.07	-0.4%	0.5% to 5.0%						2306	504+11.35	-12.00	914.55
2304	2307	Landing/Turning Space	6.00	-0.06	-1.0%	0.1% to 2.0%						2307	504+11.49	-31.53	914.63
2305	2306	Match Existing Cross Slope	4.00	-0.07	-1.8%	Match Existing						2308	503+98.42	-30.63	914.45
2306	2307	Sidewalk Running Slope	18.50	0.08	0.4%	0.5% to 5.0%									
2307	2308	Sidewalk Running Slope	13.08	-0.18	-1.4%	0.5% to 5.0%									
2401	2402	Sidewalk Running Slope	14.15	0.31	2.2%	0.5% to 5.0%						2401	503+57.18	-39.98	914.38
2401	2410	Match Existing Cross Slope	4.00	0.02	0.5%	Match Existing						2402	503+43.04	-40.09	914.69
2402	2403	Landing/Turning Space	4.00	0.03	0.7%	0.1% to 2.0%						2403	503+39.04	-40.12	914.72
2402	2409	Landing/Turning Space	4.00	0.03	0.7%	0.1% to 2.0%						2404	503+35.04	-40.12	914.75
2403	2404	Sidewalk Running Slope	4.00	0.03	0.7%	0.5% to 5.0%						2405	503+35.04	-35.50	914.85
2403	2406	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						2406	503+39.04	-36.12	914.78
2404	2405	Match Existing Cross Slope	4.62	0.10	2.2%	Match Existing						2407	503+39.04	-12.00	914.43
2405	2406	Sidewalk Running Slope	4.00	-0.07	-1.8%	0.5% to 5.0%						2408	503+43.04	-12.00	914.43
2406	2407	Sidewalk Running Slope	24.10	-0.35	-1.5%	0.5% to 5.0%						2409	503+43.04	-36.09	914.72
2406	2409	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2410	503+57.21	-35.97	914.40
2407	2408	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing									
2408	2409	Sidewalk Running Slope	24.10	0.29	1.2%	0.5% to 5.0%									
2409	2410	Sidewalk Running Slope	14.17	-0.32	-2.3%	0.5% to 5.0%									
2501	2505	Ramp Running Slope	7.84	0.64	8.2%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		2501	503+48.83	38.74	914.22
2501	2512	Match Existing Cross Slope	4.00	-0.03	-0.7%	Match Existing						2502	503+48.80	42.74	914.54
2502	2503	Match Existing Cross Slope	7.84	0.29	3.7%	Match Existing						2503	503+40.97	42.67	914.83
2503	2504	Match Existing Cross Slope	3.86	0.13	3.4%	Match Existing						2504	503+37.11	42.64	914.96
2503	2505	Sidewalk Running Slope	4.00	0.03	0.7%	0.5% to 5.0%						2505	503+41.00	38.67	914.86
2504	2506	Sidewalk Running Slope	4.00	-0.04	-1.0%	0.5% to 5.0%						2506	503+37.00	38.64	914.92
2505	2506	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						2507	503+37.00	34.64	914.86
2505	2511	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2508	503+37.00	13.69	914.67
2506	2507	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2509	503+37.00	12.70	914.66
2507	2508	Sidewalk Running Slope	21.00	-0.19	-0.9%	0.5% to 5.0%						2510	503+41.00	13.68	914.61
2507	2511	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2511	503+41.00	34.67	914.80
2508	2509	Sidewalk Running Slope	1.00	-0.01	-1.0%	0.5% to 5.0%						2512	503+48.86	34.73	914.19
2508	2510	Sidewalk Cross Slope	4.00	-0.06	-1.5%	0.5% to 2.0%									
2510	2511	Sidewalk Running Slope	21.00	0.19	0.9%	0.5% to 5.0%									
2511	2512	Ramp Running Slope	7.87	-0.61	-7.8%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed					
2601	2605	Ramp Running Slope	6.20	0.47	7.6%	0.5% to 8.3%	Yes			Slope required to match existing conditions		2601	504+06.17	38.03	914.07
2601	2612	Match Existing Cross Slope	4.00	0.05	1.2%	Match Existing						2602	504+06.28	42.03	914.38
2602	2603	Match Existing Cross Slope	6.10	0.10	1.6%	Match Existing						2603	504+12.35	42.02	914.48
2603	2604	Match Existing Cross Slope	5.80	0.15	2.6%	Match Existing						2604	504+18.16	42.01	914.63
2603	2605	Sidewalk Running Slope	4.00	0.06	1.5%	0.5% to 5.0%						2605	504+12.35	38.02	914.54
2604	2606	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing						2606	504+18.35	38.01	914.63
2605	2606	Landing/Turning Space	6.00	0.09	1.5%	0.1% to 2.0%						2607	504+18.38	34.07	914.57
2605	2611	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2608	504+18.53	14.24	914.42
2606	2607	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2609	504+18.54	12.95	914.40
2607	2608	Sidewalk Running Slope	19.78	-0.15	-0.8%	0.5% to 5.0%						2610	504+12.53	14.19	914.33
2607	2611	Landing/Turning Space	6.00	-0.09	-1.5%	0.1% to 2.0%						2611	504+12.34	34.06	914.48
2608	2609	Sidewalk Running Slope	1.29	-0.02	-1.6%	0.5% to 5.0%						2612	504+06.21	34.05	914.12
2608	2610	Sidewalk Cross Slope	6.00	-0.09	-1.5%	0.5% to 2.0%									
2610	2611	Sidewalk Running Slope	19.83	0.15	0.8%	0.5% to 5.0%									
2611	2612	Ramp Running Slope	6.10	-0.36	-5.9%	0.5% to 8.3%									
2701	2702	Sidewalk Running Slope	3.10	0.11	3.5%	0.5% to 5.0%						2701	701+05.53	16.30	906.47
2702	2703	Ramp Running Slope	6.17	0.51	8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		2702	701+05.51	18.64	906.58
2702	2713	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						2703	701+05.45	24.98	907.09
2703	2704	Sidewalk Running Slope	4.00	0.12	2.9%	0.5% to 5.0%						2704	701+09.39	24.96	907.21
2703	2708	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						2705	701+13.39	24.94	907.18
2703	2712	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2706	701+13.41	28.94	907.34

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
2704	2705	Sidewalk Running Slope	4.00	-0.03	-0.6%	0.5% to 5.0%						2707	701+09.41	28.96	907.25
2704	2707	Sidewalk Cross Slope	4.00	0.04	1.0%	0.5% to 2.0%						2708	701+05.39	28.98	907.15
2705	2706	Match Existing Cross Slope	4.00	0.16	4.0%	Match Existing						2709	701+05.61	40.98	907.88
2706	2707	Sidewalk Running Slope	4.00	-0.10	-2.4%	0.5% to 5.0%						2710	701+01.61	41.04	907.78
2707	2708	Sidewalk Running Slope	4.00	-0.10	-2.4%	0.5% to 5.0%						2711	701+04.41	28.94	907.09
2708	2709	Ramp Running Slope	12.00	0.73	6.0%	0.5% to 8.3%						2712	701+04.45	24.94	907.03
2708	2711	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2713	701+01.51	19.47	906.64
2709	2710	Match Existing Cross Slope	4.00	-0.10	-2.5%	Match Existing									
2710	2711	Ramp Running Slope	12.00	-0.68	-5.7%	0.5% to 8.3%									
2711	2712	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
2712	2713	Ramp Running Slope	5.48	-0.39	-7.1%	0.5% to 8.3%									
2801	2802	Landing/Turning Space	7.05	0.05	0.7%	0.1% to 2.0%						2801	701+04.32	-17.08	906.34
2802	2803	Ramp Running Slope	4.00	0.25	6.3%	0.5% to 8.3%						2802	701+04.22	-24.13	906.39
2802	2807	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						2803	701+08.18	-24.14	906.64
2802	2811	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2804	701+12.18	-24.15	906.81
2803	2804	Ramp Running Slope	4.00	0.17	4.2%	0.5% to 8.3%						2805	701+12.17	-28.15	906.94
2803	2806	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						2806	701+08.17	-28.14	906.70
2804	2805	Match Existing Cross Slope	4.00	0.13	3.3%	Match Existing						2807	701+04.17	-28.13	906.45
2805	2806	Ramp Running Slope	4.00	-0.24	-6.0%	0.5% to 8.3%						2808	701+04.06	-36.13	907.11
2806	2807	Ramp Running Slope	4.00	-0.25	-6.3%	0.5% to 8.3%						2809	701+00.06	-36.08	907.05
2807	2808	Ramp Running Slope	8.00	0.66	8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		2810	701+00.17	-28.13	906.39
2807	2810	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2811	701+00.22	-24.13	906.33
2808	2809	Match Existing Cross Slope	4.00	-0.06	-1.5%	Match Existing						2812	701+00.27	-20.66	906.28
2809	2810	Ramp Running Slope	8.00	-0.66	-8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed					
2810	2811	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
2811	2812	Landing/Turning Space	3.47	-0.05	-1.5%	0.1% to 2.0%									
2901	2902	Ramp Running Slope	13.14	0.95	7.2%	0.5% to 8.3%						2901	706+04.09	12.49	898.12
2901	2910	Match Existing Cross Slope	4.00	0.03	0.7%	Match Existing						2902	706+03.97	25.63	899.07
2902	2903	Sidewalk Running Slope	4.00	-0.01	-0.3%	0.5% to 5.0%						2903	706+07.98	25.66	899.06
2902	2905	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						2904	706+07.94	29.66	899.16
2902	2909	Landing/Turning Space	4.00	-0.03	-0.8%	0.1% to 2.0%						2905	706+03.94	29.63	899.13
2903	2904	Match Existing Cross Slope	4.00	0.10	2.5%	Match Existing						2906	705+99.94	29.61	899.10
2904	2905	Sidewalk Running Slope	4.00	-0.03	-0.7%	0.5% to 5.0%						2907	705+95.94	29.57	899.06
2905	2906	Landing/Turning Space	4.00	-0.03	-0.7%	0.1% to 2.0%						2908	705+95.98	25.57	898.94
2906	2907	Sidewalk Running Slope	4.00	-0.04	-1.0%	0.5% to 5.0%						2909	705+99.97	25.61	899.04
2906	2909	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						2910	706+00.09	14.49	898.15
2907	2908	Match Existing Cross Slope	4.00	-0.12	-3.0%	Match Existing									
2908	2909	Sidewalk Running Slope	4.00	0.10	2.5%	0.5% to 5.0%									
2909	2910	Ramp Running Slope	13.11	-0.89	-6.8%	0.5% to 8.3%									
3001	3002	Ramp Running Slope	11.47	0.76	6.6%	0.5% to 8.3%						3001	706+04.32	-13.10	898.11
3002	3003	Sidewalk Running Slope	4.00	0.12	3.0%	0.5% to 5.0%						3002	706+04.42	-24.57	898.87
3002	3005	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3003	706+08.42	-24.49	898.99
3002	3011	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3004	706+08.45	-28.49	899.04
3003	3004	Match Existing Cross Slope	4.00	0.05	1.2%	Match Existing						3005	706+04.45	-28.53	898.93
3004	3005	Sidewalk Running Slope	4.00	-0.11	-2.8%	0.5% to 5.0%						3006	706+04.92	-32.52	899.24
3005	3006	Ramp Running Slope	4.00	0.31	7.8%	0.5% to 8.3%	Yes			Slope required to match existing conditions		3007	706+00.89	-32.56	899.20
3005	3008	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3008	706+00.45	-28.56	898.87
3006	3007	Match Existing Cross Slope	4.00	-0.04	-1.0%	Match Existing						3009	705+89.66	-28.66	898.33
3007	3008	Ramp Running Slope	4.00	-0.33	-8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		3010	705+90.89	-24.65	898.28
3008	3009	Ramp Running Slope	10.80	-0.54	-5.0%	0.5% to 8.3%						3011	706+00.42	-24.56	898.81
3008	3011	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3012	706+00.33	-14.60	898.14
3010	3011	Ramp Running Slope	9.53	0.53	5.6%	0.5% to 8.3%									
3011	3012	Ramp Running Slope	9.96	-0.67	-6.7%	0.5% to 8.3%									
3101	3102	Ramp Running Slope	10.24	0.79	7.7%	0.5% to 8.3%	Yes			Slope required to match existing conditions		3101	705+61.85	-28.11	898.46
3102	3103	Ramp Running Slope	15.62	1.61	10.3%					Length constructed must exceed 15 feet at a uniform running slope		3102	705+51.61	-28.20	899.25
3102	3105	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3103	705+53.24	-43.74	900.86
3102	3109	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3104	705+49.26	-44.15	901.05
3103	3104	Match Existing Cross Slope	4.00	0.19	4.7%	Match Existing						3105	705+47.61	-28.24	899.31
3104	3105	Ramp Running Slope	16.00	-1.74	-10.9%	0.5% to 11.9%				Length constructed must exceed 15 feet at a uniform running slope		3106	705+35.61	-28.07	900.15
3105	3106	Ramp Running Slope	12.00	0.84	7.0%	0.5% to 8.3%						3107	705+35.67	-24.07	900.12
3105	3108	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3108	705+47.58	-24.24	899.25
3106	3107	Match Existing Cross Slope	4.00	-0.03	-0.7%	Match Existing						3109	705+51.58	-24.20	899.19
3107	3108	Ramp Running Slope	12.00	-0.87	-7.3%	0.5% to 8.3%						3110	705+60.50	-24.12	898.44
3108	3109	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
3109	3110	Ramp Running Slope	8.95	-0.75	-8.3%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed					
3201	3202	Ramp Running Slope	12.77	0.73	5.7%	0.5% to 8.3%				Proposed slope is maximum allowed		3201	802+00.57	-29.77	900.94
3202	3203	Ramp Running Slope	7.00	0.23	3.3%	0.5% to 8.3%						3202	802+13.21	-29.85	901.67

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
3202	3205	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3203	802+11.42	-36.68	901.90
3202	3209	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3204	802+15.26	-37.65	902.15
3203	3204	Match Existing Cross Slope	4.00	0.25	6.3%	Match Existing						3205	802+17.17	-29.88	901.73
3204	3205	Ramp Running Slope	8.00	-0.42	-5.2%	0.5% to 8.3%						3206	802+25.09	-29.74	902.32
3205	3206	Ramp Running Slope	8.00	0.59	7.4%	0.5% to 8.3%	Yes			Slope required to match existing conditions		3207	802+25.03	-25.74	902.27
3205	3208	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3208	802+17.10	-25.89	901.67
3206	3207	Match Existing Cross Slope	4.00	-0.05	-1.3%	Match Existing						3209	802+13.18	-25.85	901.61
3207	3208	Ramp Running Slope	8.00	-0.60	-7.5%	0.5% to 8.3%	Yes			Slope required to match existing conditions		3210	802+01.65	-25.77	901.08
3208	3209	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
3209	3210	Ramp Running Slope	11.64	-0.53	-4.6%	0.5% to 8.3%				Slope required to match existing conditions					
3301	3302	Ramp Running Slope	24.53	0.66	2.7%	0.5% to 8.3%						3301	801+71.24	-29.46	900.93
3302	3303	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3302	801+46.95	-29.37	901.59
3302	3309	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3303	801+42.99	-29.38	901.65
3303	3304	Sidewalk Running Slope	8.00	0.09	1.1%	0.5% to 5.0%						3304	801+35.06	-29.55	901.74
3303	3306	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3305	801+35.02	-25.55	901.77
3304	3305	Match Existing Cross Slope	4.00	0.03	0.7%	Match Existing						3306	801+42.95	-25.37	901.59
3305	3306	Sidewalk Running Slope	8.00	-0.18	-2.2%	0.5% to 5.0%						3307	801+42.84	-12.50	900.92
3306	3307	Ramp Running Slope	12.88	-0.67	-5.2%	0.5% to 8.3%						3308	801+46.83	-12.50	900.95
3306	3309	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3309	801+46.92	-25.37	901.53
3307	3308	Match Existing Cross Slope	4.00	0.03	0.8%	Match Existing						3310	801+69.99	-25.45	901.00
3308	3309	Ramp Running Slope	12.88	0.58	4.5%	0.5% to 8.3%									
3309	3310	Ramp Running Slope	23.27	-0.53	-2.3%	0.5% to 8.3%									
3401	3402	Ramp Running Slope	11.66	0.96	8.2%	0.5% to 8.3%	Yes			Proposed slope is maximum allowed		3401	801+41.62	13.50	900.89
3401	3416	Match Existing Cross Slope	4.00	0.03	0.7%	Match Existing						3402	801+41.35	25.16	901.85
3402	3403	Ramp Running Slope	8.00	0.37	4.6%	0.5% to 8.3%						3403	801+33.28	24.98	902.22
3402	3405	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3404	801+33.18	28.98	902.31
3402	3415	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3405	801+41.26	29.16	901.91
3403	3404	Match Existing Cross Slope	4.00	0.09	2.2%	Match Existing						3406	801+45.30	29.24	901.85
3404	3405	Ramp Running Slope	8.00	-0.40	-5.0%	0.5% to 8.3%						3407	801+50.69	29.34	901.95
3405	3406	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3408	801+47.12	40.81	902.88
3406	3407	Sidewalk Running Slope	5.33	0.10	1.9%	0.5% to 5.0%						3409	801+51.00	41.99	902.87
3406	3415	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3410	801+54.89	29.42	902.01
3407	3408	Ramp Running Slope	12.00	0.93	7.7%	0.5% to 8.3%	Yes					3411	801+65.33	29.57	901.82
3407	3410	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3412	801+64.05	25.56	901.64
3408	3409	Match Existing Cross Slope	4.00	-0.01	-0.2%	Match Existing						3413	801+54.96	25.42	901.97
3409	3410	Ramp Running Slope	13.15	-0.86	-6.5%	0.5% to 8.3%						3414	801+50.76	25.35	901.91
3410	3411	Ramp Running Slope	10.34	-0.19	-1.8%	0.5% to 8.3%						3415	801+45.38	25.25	901.79
3410	3413	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%						3416	801+45.63	13.50	900.92
3412	3413	Ramp Running Slope	9.02	0.33	3.7%	0.5% to 8.3%									
3413	3414	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
3414	3407	Landing/Turning Space	4.00	0.04	1.0%	0.1% to 2.0%									
3414	3415	Sidewalk Running Slope	5.34	-0.12	-2.2%	0.5% to 5.0%									
3415	3416	Ramp Running Slope	11.75	-0.87	-7.4%	0.5% to 8.3%	Yes			Slope required to match existing conditions					
3501	3502	Ramp Running Slope	12.00	0.77	6.4%	0.5% to 8.3%						3501	801+96.63	24.10	901.80
3502	3503	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3502	802+08.76	23.65	902.57
3502	3509	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3503	802+12.79	23.49	902.63
3503	3504	Sidewalk Running Slope	4.00	0.04	1.0%	0.5% to 5.0%						3504	802+16.98	23.47	902.67
3503	3506	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3505	802+16.99	27.47	902.71
3504	3505	Match Existing Cross Slope	4.00	0.04	1.0%	Match Existing						3506	802+12.95	27.48	902.69
3505	3506	Sidewalk Running Slope	4.00	-0.02	-0.5%	0.5% to 5.0%						3507	802+10.68	35.16	903.07
3506	3507	Sidewalk Running Slope	8.00	0.38	4.7%	0.5% to 5.0%	Yes			Slope required to match existing conditions		3508	802+06.79	34.03	902.95
3506	3509	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3509	802+08.69	27.65	902.63
3507	3508	Match Existing Cross Slope	4.00	-0.12	-3.0%	Match Existing						3510	701+95.20	28.15	901.87
3508	3509	Sidewalk Running Slope	6.65	-0.32	-4.8%	0.5% to 5.0%	Yes			Slope required to match existing conditions					
3509	3510	Ramp Running Slope	13.60	-0.76	-5.6%	0.5% to 8.3%									
3801	3802	Ramp Running Slope	5.40	0.25	4.6%	0.5% to 8.3%						3801	216+56.00	-35.31	904.40
3801	3812	Match Existing Cross Slope	4.00	-0.15	-3.7%	Match Existing						3802	216+50.59	-35.31	904.65
3802	3803	Sidewalk Running Slope	4.00	0.18	4.5%	0.5% to 5.0%	Yes			Slope required to match existing conditions		3803	216+50.65	-39.24	904.83
3802	3805	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3804	216+46.65	-39.31	904.85
3802	3811	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3805	216+46.59	-35.31	904.71
3803	3804	Match Existing Cross Slope	4.00	0.02	0.5%	Match Existing						3806	216+42.59	-35.31	904.69
3804	3805	Sidewalk Running Slope	4.00	-0.14	-3.5%	0.5% to 5.0%						3807	216+42.59	-31.31	904.59
3805	3806	Sidewalk Running Slope	4.00	-0.02	-0.5%	0.5% to 5.0%						3808	216+46.59	-31.31	904.65
3805	3808	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3809	216+46.59	-9.80	903.39
3806	3807	Match Existing Cross Slope	4.00	-0.10	-2.5%	Match Existing						3810	216+50.59	-9.73	903.45
3807	3808	Sidewalk Running Slope	4.00	0.06	1.5%	0.5% to 5.0%						3811	316+50.59	-31.31	904.59
3808	3809	Ramp Running Slope	21.50	-1.26	-5.9%	0.5% to 8.3%						3812	216+55.98	-31.31	904.25
3808	3811	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%									
3809	3810	Match Existing Cross Slope	4.00	0.06	1.5%	Match Existing									

SIDEWALK COMPLIANCE

See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

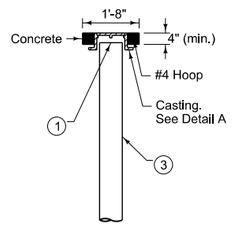
Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
3810	3811	Ramp Running Slope	21.50	1.14	5.3%	0.5% to 8.3%									
3811	3812	Ramp Running Slope	5.40	-0.34	-6.3%	0.5% to 8.3%									
3901	3902	Ramp Running Slope	21.88	0.19	0.9%	0.5% to 8.3%						3901	506+81.66	-13.44	912.14
3902	3903	Sidewalk Running Slope	4.00	-0.08	-2.0%	0.5% to 5.0%						3902	506+81.83	-35.32	912.33
3902	3905	Landing/Turning Space	4.00	-0.06	-1.5%	0.1% to 2.0%						3903	506+85.83	-35.29	912.25
3902	3909	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3904	506+85.86	-38.29	912.23
3903	3904	Match Existing Cross Slope	4.00	-0.02	-0.5%	Match Existing						3905	506+81.86	-39.32	912.27
3904	3905	Sidewalk Running Slope	4.00	0.04	1.0%	0.5% to 5.0%						3906	506+77.86	-39.35	912.33
3905	3906	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3907	506+73.86	-39.38	912.36
3906	3907	Sidewalk Running Slope	4.00	0.03	0.7%	0.5% to 5.0%						3908	506+73.83	-35.38	912.40
3906	3909	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						3909	506+77.83	-35.35	912.39
3907	3908	Match Existing Cross Slope	4.00	0.04	1.0%	Match Existing						3910	506+77.65	-13.08	912.11
3908	3909	Sidewalk Running Slope	4.00	-0.01	-0.2%	0.5% to 5.0%									
3909	3910	Ramp Running Slope	22.28	-0.28	-1.3%	0.5% to 8.3%									
4001	4002	Ramp Running Slope	6.00	0.40	6.7%	0.5% to 8.3%						4001	506+82.12	12.00	911.93
4001	4004	Match Existing Cross Slope	6.00	0.08	1.3%	Match Existing						4002	506+82.14	18.00	912.33
4002	4003	Ramp Cross Slope	6.00	-0.06	-1.0%	0.1% to 2.0%						4003	506+76.14	18.02	912.27
4003	4004	Ramp Running Slope	6.00	-0.26	-4.3%	0.5% to 8.3%						4004	506+76.12	12.02	912.01
4101	4102	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing						4101	201+08.53	11.77	901.49
4101	4115	Ramp Running Slope	19.45	0.74	3.8%	0.5% to 8.3%						4102	201+12.53	11.79	901.49
4102	4103	Ramp Running Slope	19.44	0.68	3.5%	0.5% to 8.3%						4103	201+12.42	31.24	902.17
4103	4104	Landing/Turning Space	3.85	0.06	1.6%	0.1% to 2.0%	Yes					4104	201+12.43	35.06	902.23
4103	4115	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						4105	201+24.57	34.70	901.68
4104	4105	Ramp Running Slope	12.15	-0.55	-4.5%	0.5% to 8.3%						4106	201+24.70	38.70	901.64
4104	4107	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						4107	201+12.38	39.09	902.29
4105	4106	Match Existing Cross Slope	4.00	-0.04	-1.0%	Match Existing						4108	201+12.33	43.25	902.36
4106	4107	Ramp Running Slope	12.33	0.65	5.3%	0.5% to 8.3%						4109	201+08.38	43.22	902.45
4107	4108	Ramp Running Slope	4.15	0.07	1.7%	0.5% to 8.3%						4110	201+08.38	39.07	902.35
4107	4110	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						4111	201+08.39	37.54	902.33
4108	4109	Match Existing Cross Slope	4.00	0.09	2.3%	Match Existing						4112	201+04.55	37.56	902.53
4109	4110	Ramp Running Slope	4.00	-0.10	-2.5%	0.5% to 8.3%						4113	201+04.55	33.37	902.46
4110	4111	Landing/Turning Space	1.53	-0.02	-1.3%	0.1% to 2.0%						4114	201+08.41	33.37	902.26
4111	4112	Ramp Running Slope	3.86	0.20	5.2%	0.5% to 8.3%						4115	201+08.42	31.22	902.23
4112	4113	Match Existing Cross Slope	4.00	-0.07	-1.7%	Match Existing									
4113	4114	Ramp Running Slope	3.86	-0.20	-5.2%	0.5% to 8.3%									
4114	4115	Landing/Turning Space	2.15	-0.03	-1.4%	0.1% to 2.0%									
4201	4202	Ramp Cross Slope	4.00	0.05	1.2%	0.1% to 2.0%						4201	201+30.44	-10.25	899.12
4201	4204	Ramp Running Slope	9.43	0.27	2.9%	0.5% to 8.3%						4202	213+26.55	-10.24	899.17
4202	4203	Ramp Running Slope	9.45	0.17	1.8%	0.5% to 8.3%						4203	213+26.54	-19.69	899.34
4203	4204	Ramp Cross Slope	3.82	0.05	1.3%	0.1% to 2.0%						4204	213+30.37	-19.69	899.39
4301	4302	Ramp Cross Slope	4.00	-0.07	-1.8%	0.1% to 2.0%	Yes					4301	213+26.31	14.22	898.75
4301	4308	Ramp Running Slope	23.06	0.26	1.1%	0.5% to 8.3%						4302	213+30.31	14.35	898.68
4302	4303	Ramp Running Slope	23.19	0.36	1.6%	0.5% to 8.3%						4303	213+30.05	37.54	899.04
4303	4304	Ramp Running Slope	4.00	-0.17	-4.2%	0.5% to 8.3%						4304	213+33.29	37.58	898.87
4303	4306	Landing/Turning Space	4.00	-0.03	-0.7%	0.1% to 2.0%						4305	213+33.17	41.46	898.94
4303	4308	Landing/Turning Space	4.00	-0.03	-0.7%	0.1% to 2.0%						4306	213+29.94	41.57	899.01
4304	4305	Ramp Cross Slope	3.88	0.07	1.8%	0.1% to 2.0%	Yes					4307	213+25.93	41.48	898.98
4305	4306	Ramp Running Slope	4.00	0.07	1.7%	0.5% to 8.3%						4308	213+26.05	37.28	899.01
4306	4307	Landing/Turning Space	4.00	-0.03	-0.7%	0.1% to 2.0%									
4307	4308	Landing/Turning Space	4.20	0.03	0.7%	0.1% to 2.0%									
4401	4402	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						4401	216+47.31	14.89	902.92
4401	4404	Ramp Running Slope	22.70	0.84	3.7%	0.5% to 8.3%						4402	216+51.31	14.89	902.98
4402	4403	Ramp Running Slope	22.71	0.78	3.4%	0.5% to 8.3%						4403	216+51.45	37.57	903.76
4403	4404	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing						4404	216+47.05	37.60	903.76
4501	4502	Ramp Cross Slope	4.64	0.04	0.9%	0.1% to 2.0%						4501	300+96.00	-13.79	911.76
4502	4504	Ramp Running Slope	12.10	0.11	0.9%	0.5% to 8.3%						4502	300+92.18	-16.37	911.80
4502	4503	Ramp Running Slope	9.60	0.08	0.8%	0.5% to 8.3%						4503	300+91.99	-26.00	911.88
4503	4504	Ramp Cross Slope	3.78	0.03	0.8%	0.1% to 2.0%						4504	300+95.76	-25.90	911.91
4601	4602	Ramp Cross Slope	4.00	0.01	0.2%	0.1% to 2.0%						4601	304+14.67	-11.47	906.76
4601	4608	Ramp Running Slope	22.80	0.20	0.9%	0.5% to 8.3%						4602	304+10.75	-12.31	906.77
4602	4603	Ramp Running Slope	23.60	0.23	1.0%	0.5% to 8.3%						4603	304+11.19	-35.10	907.00

SIDEWALK COMPLIANCE

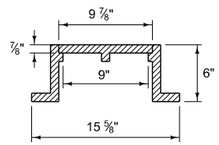
See S Sheets

* Does not include curb
(1) Staking required by Contracting Authority per Article 2511.03 of the Standard Specifications.

Point to Point		Sidewalk Designation	Distance*	Δ Elevation	Slope	Acceptable Constructed Range	Staking Required on this Quadrant? (1)	Measured Slope	Initials	Remarks		FOR INFORMATION ONLY: VALUES USED TO DETERMINE DESIGNED SLOPES			
			FT	FT	%	Pos. or Neg.		%				Point	Station	Offset	Elevation
4603	4604	Ramp Running Slope	13.67	-0.94	-6.9%	0.5% to 8.3%						4604	303+97.52	-35.22	906.06
4603	4606	Landing/Turning Space	4.00	0.04	1.0%	0.1% to 2.0%						4605	303+97.59	-39.22	905.98
4603	4608	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%						4606	304+11.27	-39.10	907.04
4604	4605	Ramp Cross Slope	4.00	-0.08	-2.0%	0.1% to 2.0%	Yes					4607	304+14.91	-39.07	907.00
4605	4606	Ramp Running Slope	13.66	1.06	7.8%	0.5% to 8.3%	Yes					4608	304+14.87	-35.07	906.96
4606	4607	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%									
4607	4608	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%									
4701	4714	Ramp Running Slope	7.21	0.04	0.5%	0.5% to 8.3%						4701	313+59.75	-34.12	897.70
4702	4703	Ramp Running Slope	6.08	0.12	2.0%	0.5% to 8.3%						4702	313+58.43	-29.21	897.54
4703	4704	Ramp Running Slope	10.73	-0.89	-8.3%	0.5% to 8.3%	Yes			Slope required to match existing conditions		4703	313+52.38	-29.70	897.66
4703	4707	Landing/Turning Space	6.00	-0.09	-1.5%	0.1% to 2.0%						4704	313+51.99	-18.97	896.77
4703	4714	Landing/Turning Space	5.00	0.08	1.5%	0.1% to 2.0%						4705	313+45.83	-14.92	896.10
4704	4706	Ramp Cross Slope	6.00	-0.09	-1.5%	0.1% to 2.0%						4706	313+45.99	-19.15	896.68
4705	4706	Ramp Running Slope	4.23	0.57	13.6%	0.5% to 14.6%				Slope required to match existing conditions		4707	313+46.38	-29.88	897.57
4706	4707	Ramp Running Slope	10.73	0.90	8.3%	0.5% to 8.3%	Yes			Slope required to match existing conditions		4708	313+43.67	-29.96	897.45
4707	4708	Sidewalk Running Slope	2.70	-0.12	-4.4%	0.5% to 5.0%	Yes			Proposed slope is maximum allowed		4709	313+36.73	-35.37	897.04
4707	4711	Landing/Turning Space	5.00	0.07	1.5%	0.1% to 2.0%						4710	313+40.31	-39.91	897.39
4708	4709	Sidewalk Running Slope	8.80	-0.41	-4.7%	0.5% to 5.0%	Yes			Proposed slope is maximum allowed		4711	313+46.56	-34.92	897.65
4709	4710	Match Existing Cross Slope	5.78	0.35	6.1%	Match Existing						4712	313+47.03	-42.91	898.25
4710	4711	Sidewalk Running Slope	8.00	0.25	3.2%	0.5% to 5.0%						4713	313+52.86	-42.76	898.28
4711	4712	Ramp Running Slope	8.00	0.60	7.5%	0.5% to 8.3%	Yes			Slope required to match existing conditions		4714	313+52.56	-34.70	897.74
4711	4714	Landing/Turning Space	6.00	0.09	1.5%	0.1% to 2.0%						4715			
4712	4713	Match Existing Cross Slope	5.80	0.03	0.6%	Match Existing									
4713	4714	Ramp Running Slope	8.00	-0.54	-6.8%	0.5% to 8.3%									
4801	4802	Ramp Cross Slope	4.00	-0.01	-0.2%	0.1% to 2.0%						4801	517+05.34	-11.41	908.64
4801	4810	Ramp Running Slope	22.10	-0.26	-1.2%	0.5% to 8.3%						4802	517+01.44	-11.14	908.63
4802	4803	Ramp Running Slope	22.36	-0.21	-0.9%	0.5% to 8.3%						4803	517+01.46	-33.50	908.42
4803	4804	Ramp Running Slope	4.00	0.04	1.0%	0.5% to 8.3%						4804	516+97.41	-33.55	908.46
4803	4806	Landing/Turning Space	4.00	0.04	1.0%	0.1% to 2.0%						4805	516+97.46	-37.51	908.48
4803	4810	Landing/Turning Space	4.00	-0.04	-1.0%	0.1% to 2.0%						4806	517+01.46	-37.64	908.46
4804	4805	Ramp Cross Slope	4.00	0.02	0.5%	0.1% to 2.0%						4807	517+01.76	-41.63	908.48
4805	4806	Ramp Running Slope	4.00	-0.02	-0.5%	0.5% to 8.3%						4808	517+05.27	-41.62	908.49
4806	4807	Ramp Running Slope	4.00	0.02	0.5%	0.5% to 8.3%						4809	517+05.29	-37.52	908.38
4806	4809	Landing/Turning Space	4.00	-0.08	-2.0%	0.1% to 2.0%	Yes					4810	517+05.13	-33.53	908.38
4807	4808	Match Existing Cross Slope	4.00	0.01	0.2%	Match Existing									
4808	4809	Ramp Running Slope	4.00	-0.11	-2.8%	0.5% to 8.3%									
4809	4810	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing									
4901	4902	Match Existing Cross Slope	4.00	0.00	0.0%	Match Existing						4901	323+55.26	-11.20	908.01
4901	4904	Ramp Running Slope	22.74	1.91	8.4%							4902	323+51.26	-11.09	908.01
4902	4903	Ramp Running Slope	22.64	1.96	8.7%							4903	323+51.30	-34.22	909.97
4903	4904	Ramp Cross Slope	4.00	-0.05	-1.3%	0.1% to 2.0%						4904	323+55.49	-33.94	909.92
5001	5002	Ramp Cross Slope	4.00	0.02	0.5%	0.1% to 2.0%						5001	323+52.03	13.74	907.99
5001	5018	Ramp Running Slope	21.70	1.59	7.3%	0.5% to 8.3%						5002	323+56.03	13.92	908.01
5002	5003	Ramp Running Slope	21.66	1.51	7.0%	0.5% to 8.3%						5003	323+55.66	35.58	909.52
5003	5004	Ramp Running Slope	10.09	-0.83	-8.2%	0.5% to 8.3%	Yes					5004	323+65.72	35.94	908.69
5003	5006	Landing/Turning Space	4.00	0.03	0.7%	0.1% to 2.0%						5005	323+65.69	39.94	908.75
5003	5018	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						5006	323+55.59	39.58	909.55
5004	5005	Ramp Cross Slope	4.00	0.06	1.5%	0.1% to 2.0%						5007	323+55.54	42.56	909.60
5005	5006	Ramp Running Slope	10.02	0.80	8.0%	0.5% to 8.3%	Yes					5008	323+55.47	46.56	909.76
5006	5007	Landing/Turning Space	3.02	0.05	1.7%	0.1% to 2.0%	Yes					5009	323+51.46	46.50	909.86
5007	5008	Ramp Running Slope	4.00	0.16	4.0%	0.5% to 8.3%						5010	323+51.53	42.50	909.66
5007	5010	Landing/Turning Space	4.00	0.06	1.5%	0.1% to 2.0%						5011	323+45.06	48.87	910.26
5008	5009	Match Existing Cross Slope	4.00	0.10	2.5%	Match Existing						5012	323+43.05	46.79	910.25
5009	5010	Ramp Running Slope	4.00	-0.20	-5.0%	0.5% to 8.3%						5013	323+48.76	41.37	909.72
5010	5011	Ramp Running Slope	9.08	0.60	6.6%	0.5% to 8.3%						5014	323+48.81	39.85	909.70
5010	5013	Landing/Turning Space	3.00	0.06	2.0%	0.1% to 2.0%	Yes					5015	323+44.81	39.74	910.25
5011	5012	Match Existing Cross Slope	2.92	-0.01	-0.3%	Match Existing						5016	323+44.81	35.66	910.43
5012	5013	Ramp Running Slope	8.00	-0.53	-6.6%	0.5% to 8.3%						5017	323+48.97	35.35	909.62
5013	5014	Landing/Turning Space	1.38	-0.02	-1.4%	0.1% to 2.0%						5018	323+51.66	35.44	909.58
5014	5015	Ramp Running Slope	12.00	0.55	4.6%	0.5% to 8.3%						5019			
5014	5017	Landing/Turning Space	4.50	-0.08	-1.8%	0.1% to 2.0%	Yes								
5015	5016	Match Existing Cross Slope	4.00	0.18	4.5%	Match Existing									
5016	5017	Ramp Running Slope	12.15	-0.81	-6.7%	0.5% to 8.3%									
5017	5018	Landing/Turning Space	2.68	-0.04	-1.5%	0.1% to 2.0%									



TYPE A-1 CLEANOUT

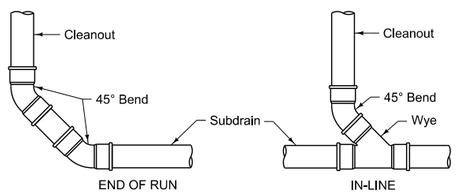


DETAIL A (1)(2)
(Dimensions are nominal)

(1) Heavy duty casting. Label lid with "Storm" or "Storm C.O."

(2) Design is intended for use in conjunction with 8 inch PVC riser pipe. Other sized caps may be used with smaller pipe, as approved by the Engineer.

(3) PVC riser pipe; match diameter of subdrain (8 inches maximum).



TYPE A CLEANOUT CONNECTIONS

SUBDRAIN CLEANOUT DETAIL

503+00
504+00
505+00
506+00
507+00
508+00
MAIN STREET
MARION STREET
1ST STREET
EX ROW
NEW 8" SANITARY SEWER
MATCH EXISTING
ADJUST CASTING TO FINAL GRADE
ADJUST CASTING TO FINAL GRADE
CP 3
LEGEND
PCC PAVEMENT
HMA OVERLAY
PCC PATCH
0 20
SCALE (FEET)

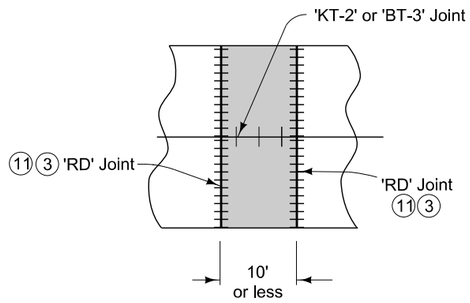
REFER TO J SHEETS FOR TRAFFIC CONTROL AND STAGING
REFER TO D AND L SHEETS FOR ROADWAY DETAILS
REFER TO S SHEETS FOR PEDESTRIAN RAMP DETAILS

925
920
915
910
905
900
895

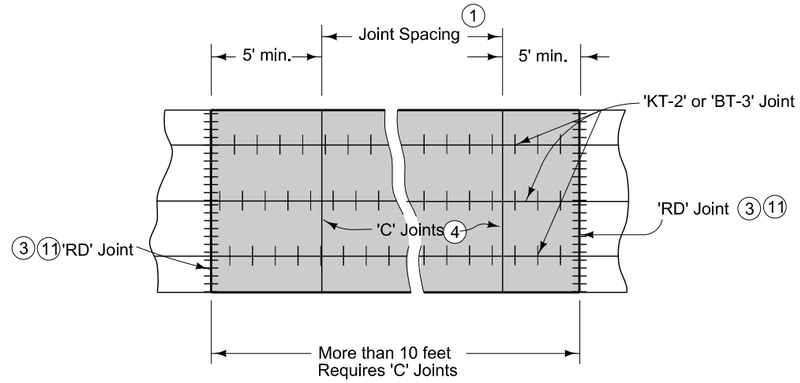
EXISTING RIM = 914.77
EXISTING WATERMAIN APPROX DEPTH, SHOWN AT 5.0'
EXISTING ELECTRIC (APPROX ONLY)
EXISTING 12" STORM
18" MIN CLEARANCE
EXISTING COMMUNICATION (APPROX ONLY)
EXISTING GAS (APPROX ONLY)
EXISTING ELEC (APPROX ONLY)
EXISTING RIM = 911.81
EXISTING 18" STORM
336.5 LF OF 8" SSWR AT 0.50%
FL = 906.81
EXISTING 30" STORM
FL = 905.13
DROP STRUCTURE
EXISTING FL = 897.13
F.L. 898.13
EXISTING FL = 894.71

+60 +80 503 +20 +40 +60 +80 504 +20 +40 +60 +80 505 +20 +40 +60 +80 506 +20 +40 +60 +80 507 +20 +40 +60 +80 508 +20 +40 +60

ENGLISH		DESIGN TEAM	SNYDER & ASSOCIATES	CITY OF KNOXVILLE	MARION COUNTY	PROJECT NUMBER	115.0718	SHEET NUMBER	U.2	REVISED



FULL ROADWAY WIDTH PATCH



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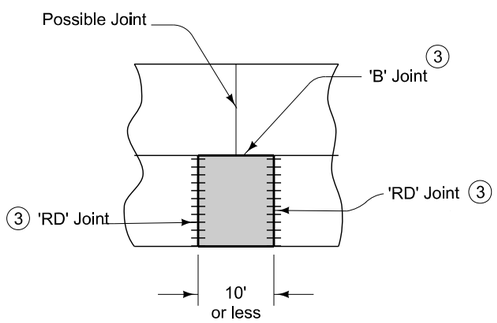
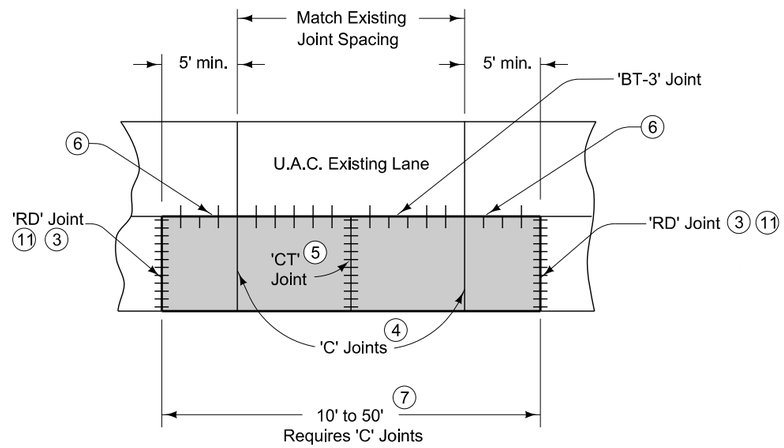
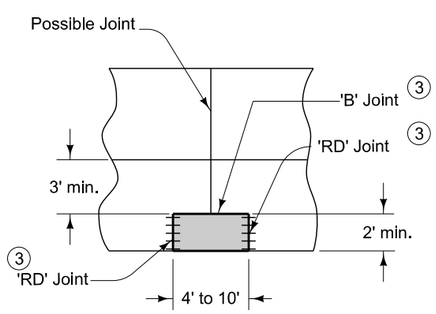


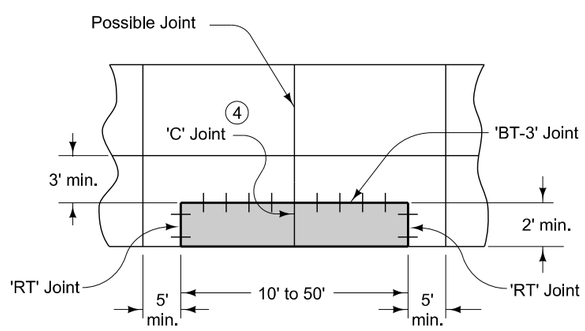
ONE LANE WIDTH PATCH



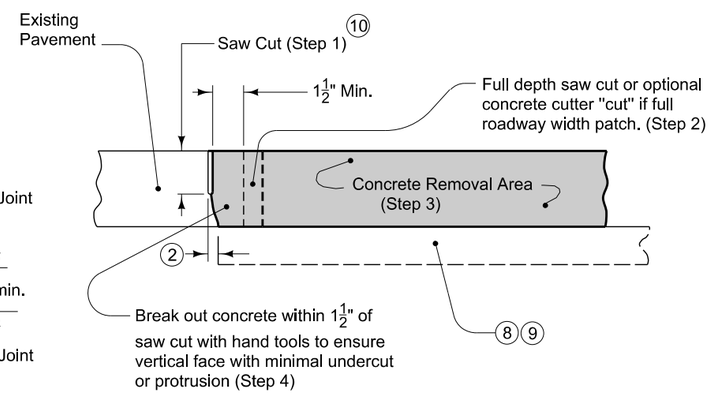
ONE LANE WIDTH PATCH



PARTIAL LANE WIDTH PATCH



PARTIAL LANE WIDTH PATCH



PAVEMENT REMOVAL

See PV-101 for joint and bar placement details.

Construct rectangular patches even when existing pavement joints are skewed.

1. Joint spacing 10 feet minimum, 15 feet maximum, 15 feet optimum.
2. The face of the patch should be near vertical. Protrusions less than 2 inches need not be removed if uniformly tapered from bottom of saw cut to bottom of patch. A step or ledge on this face will not be allowed.
3. If resurfacing is part of the contract, do not saw or seal joint after patching. If patch is not to be surfaced, then saw and seal according to PV-101.
4. If resurfacing is part of the contract, saw 'C' joints, but do not seal. If the patch is not to be resurfaced, then saw and seal according to PV-101.
5. Establish a new joint at approximate mid patch. This joint does not need to align with any existing joint or crack in adjacent pavement.
6. 'B' joint if end of patch does not match an existing joint or crack in the adjacent lane.
7. If one lane patch exceeds 50 feet, both lanes should be considered for patching.
8. Possible Subbase Patch, see PR-140.
9. If longitudinal subdrain (shoulder) is not to be placed or if it is not present on side of roadway to be patched, then place drain per PR-140.
10. Saw cut through overlay so that cut is $1\frac{1}{2}$ inches into original pavement.
11. 'RD' joint if aligns with existing joint & 'RT' joint if does not align with existing joint.

Possible Contract Items:
- CT Joint
- Patches, Full-Depth Repair
- Patches by Count (Repair)
- Patches, Full-Depth Finish, by Count
- Patches, Full-Depth Finish, by Area
- Patches, Full-Depth Finish, by Area (50 feet or greater in in length)

Possible Tabulation:
- 102-6C

MODIFIED

STANDARD ROAD PLAN

REVISION	
1	04-21-15

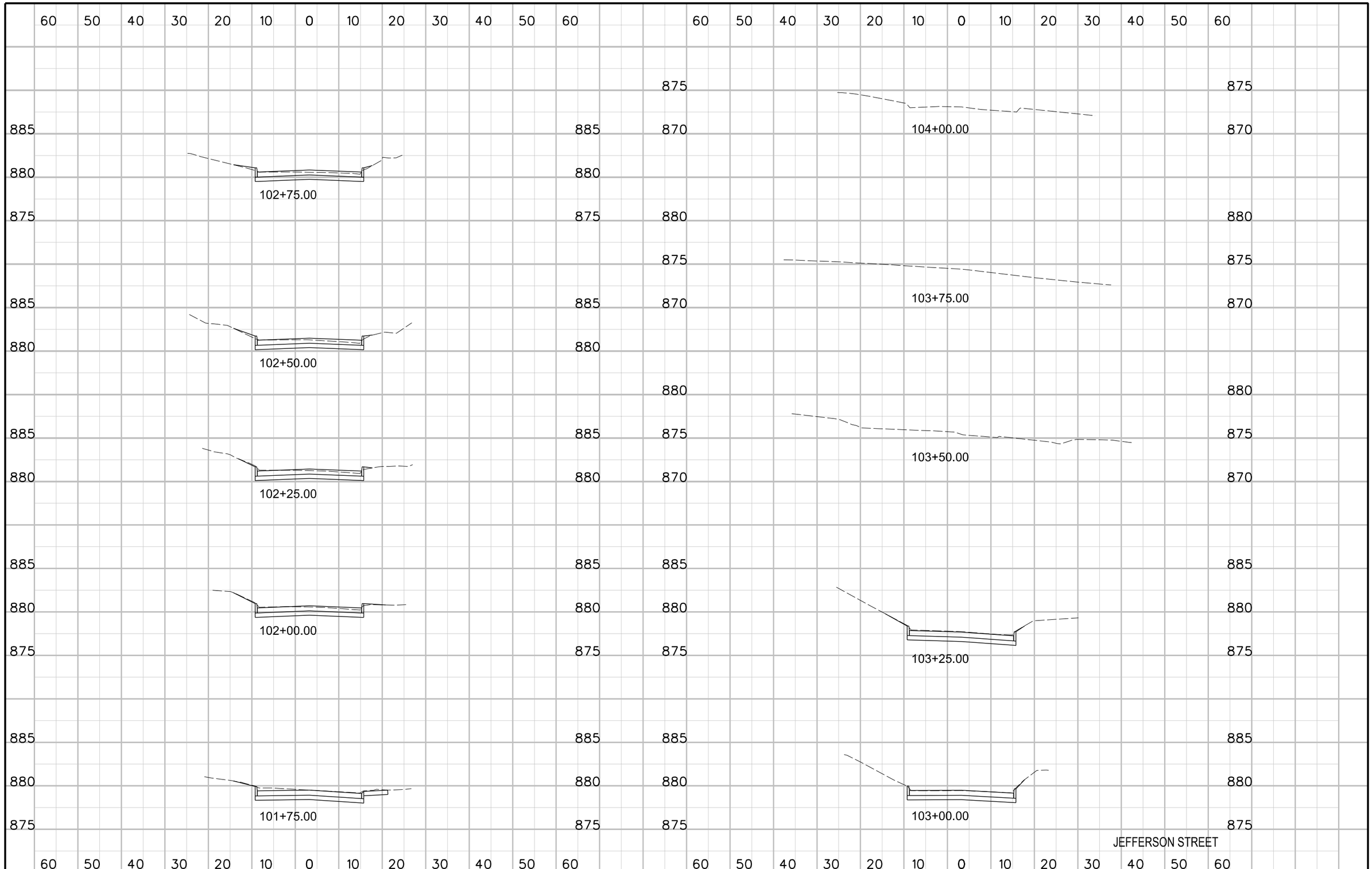
PR-102

SHEET 1 of 1

MODIFICATIONS: Removed reference to circle note 3 from 'BT-3' and 'RT' joints in the PARTIAL LANE WIDTH PATCH drawing.

APPROVED BY DESIGN METHODS ENGINEER

FULL DEPTH PCC PATCH WITHOUT DOWELS



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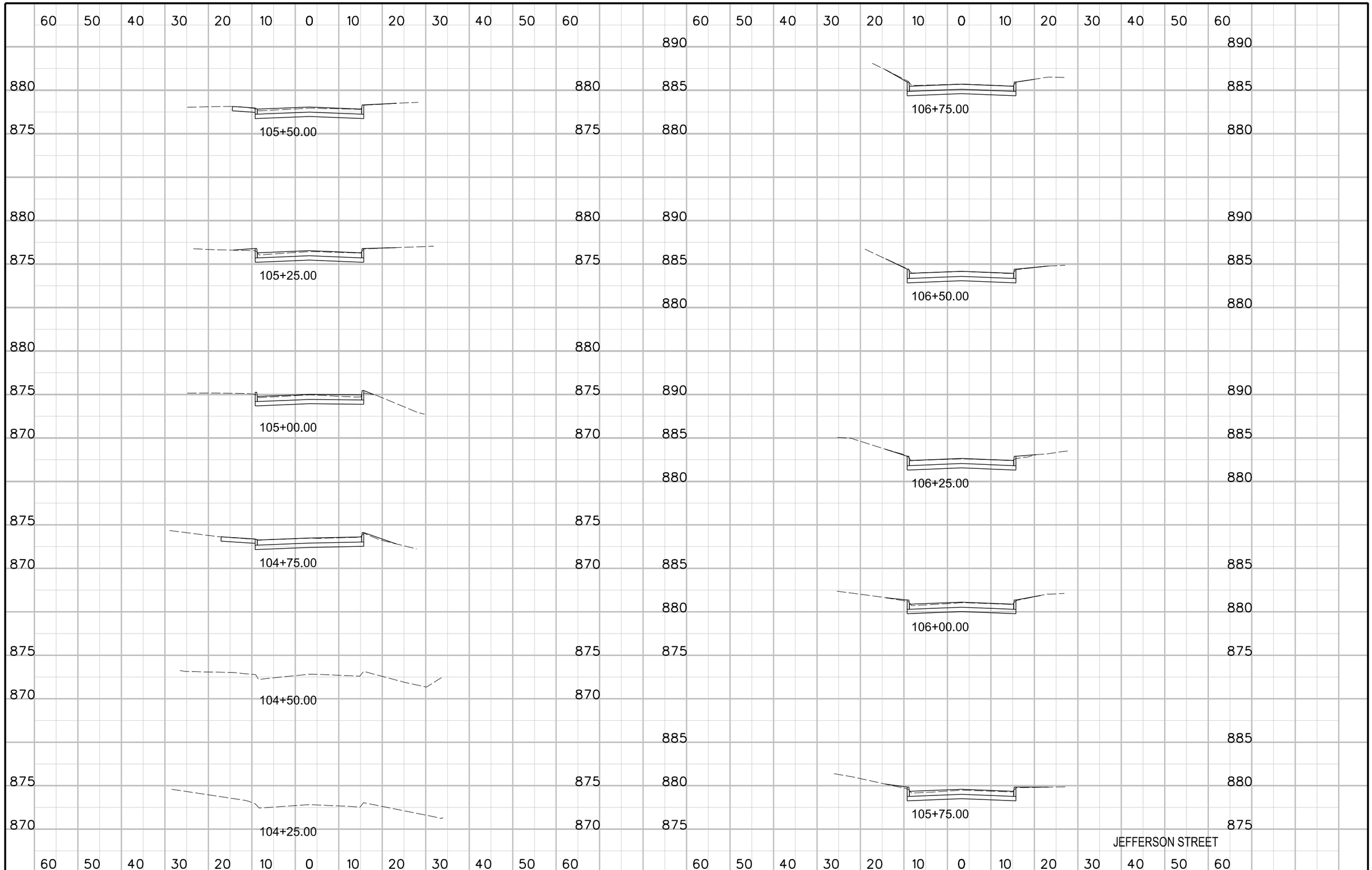

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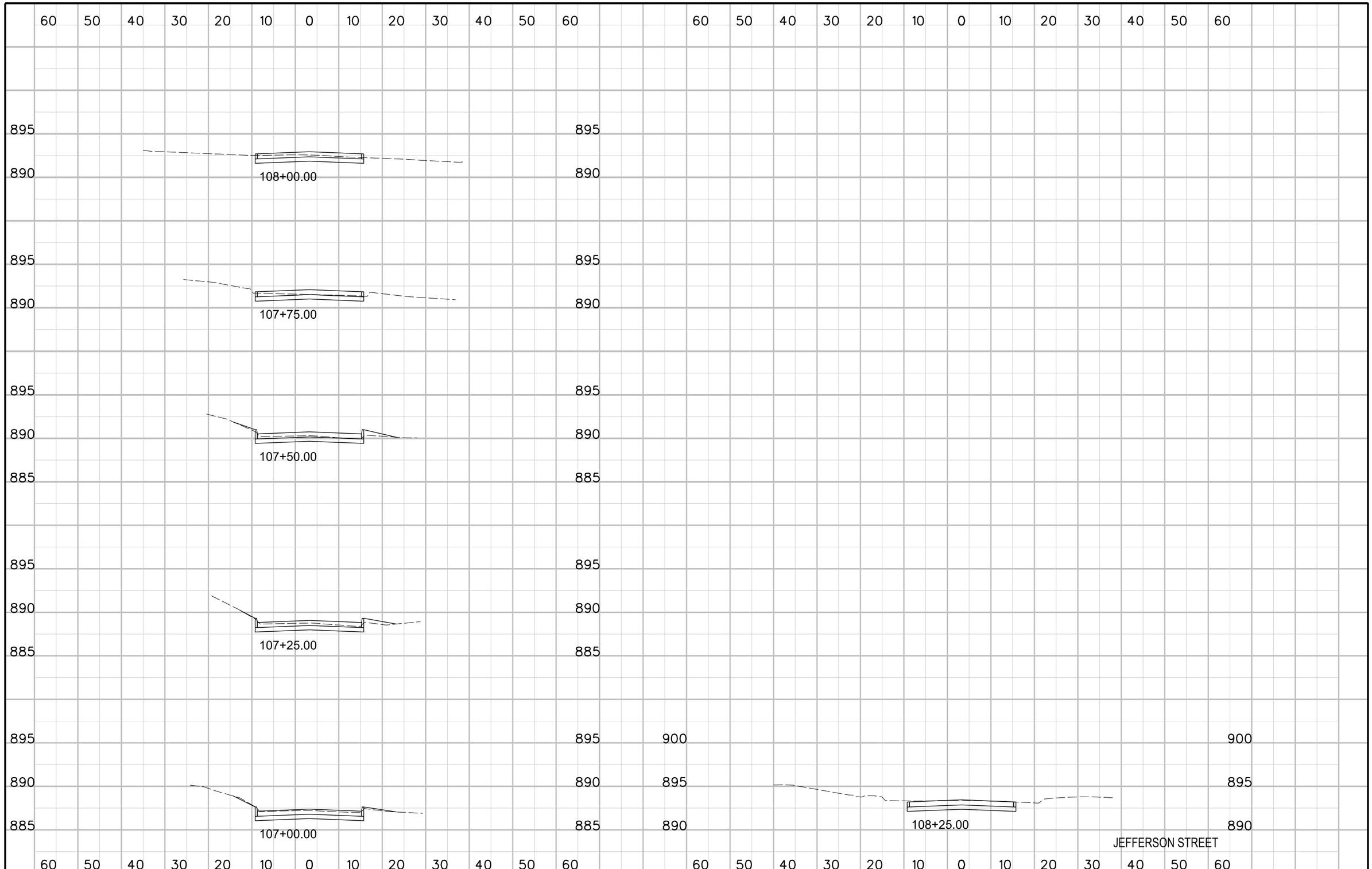

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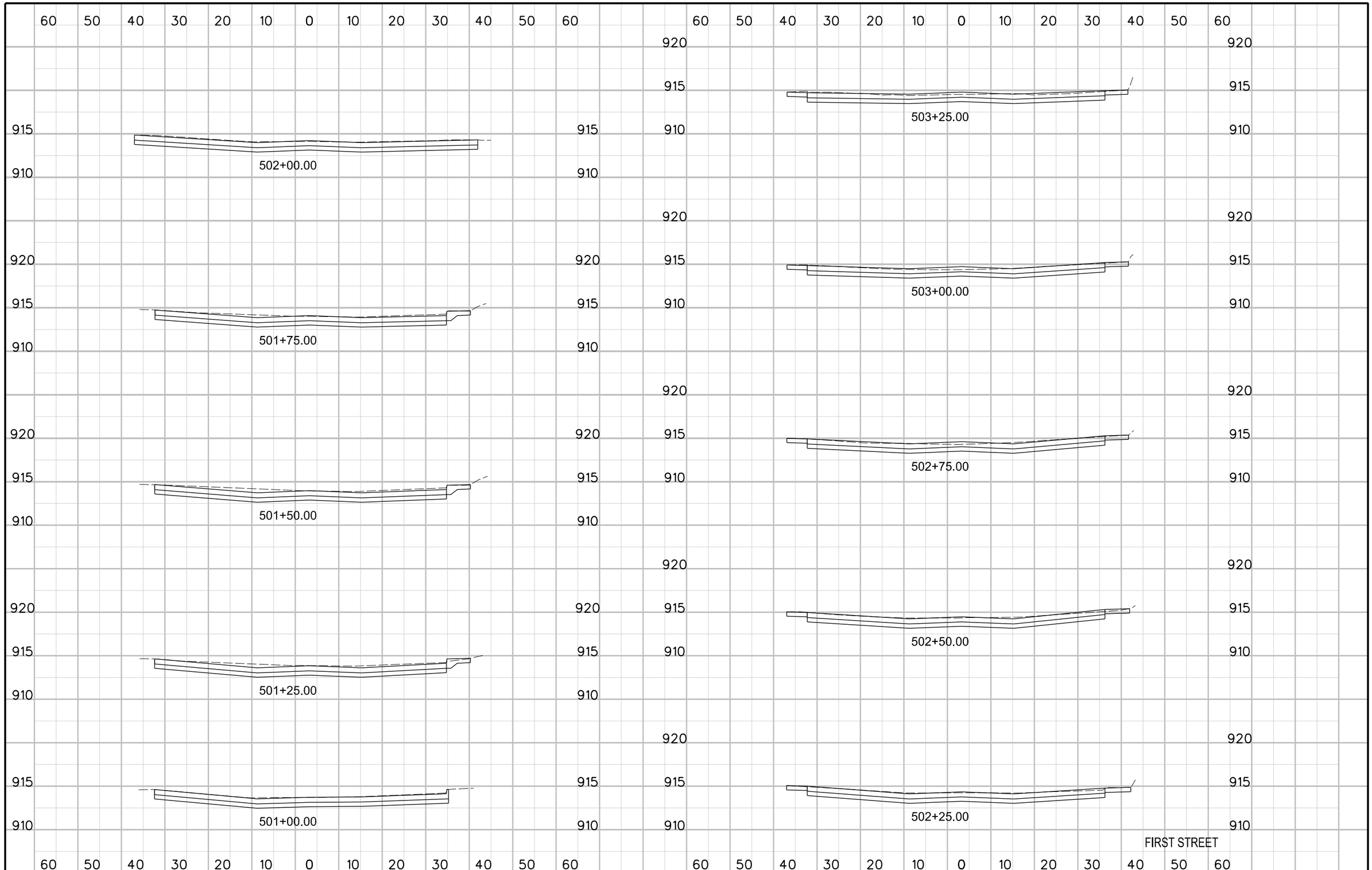

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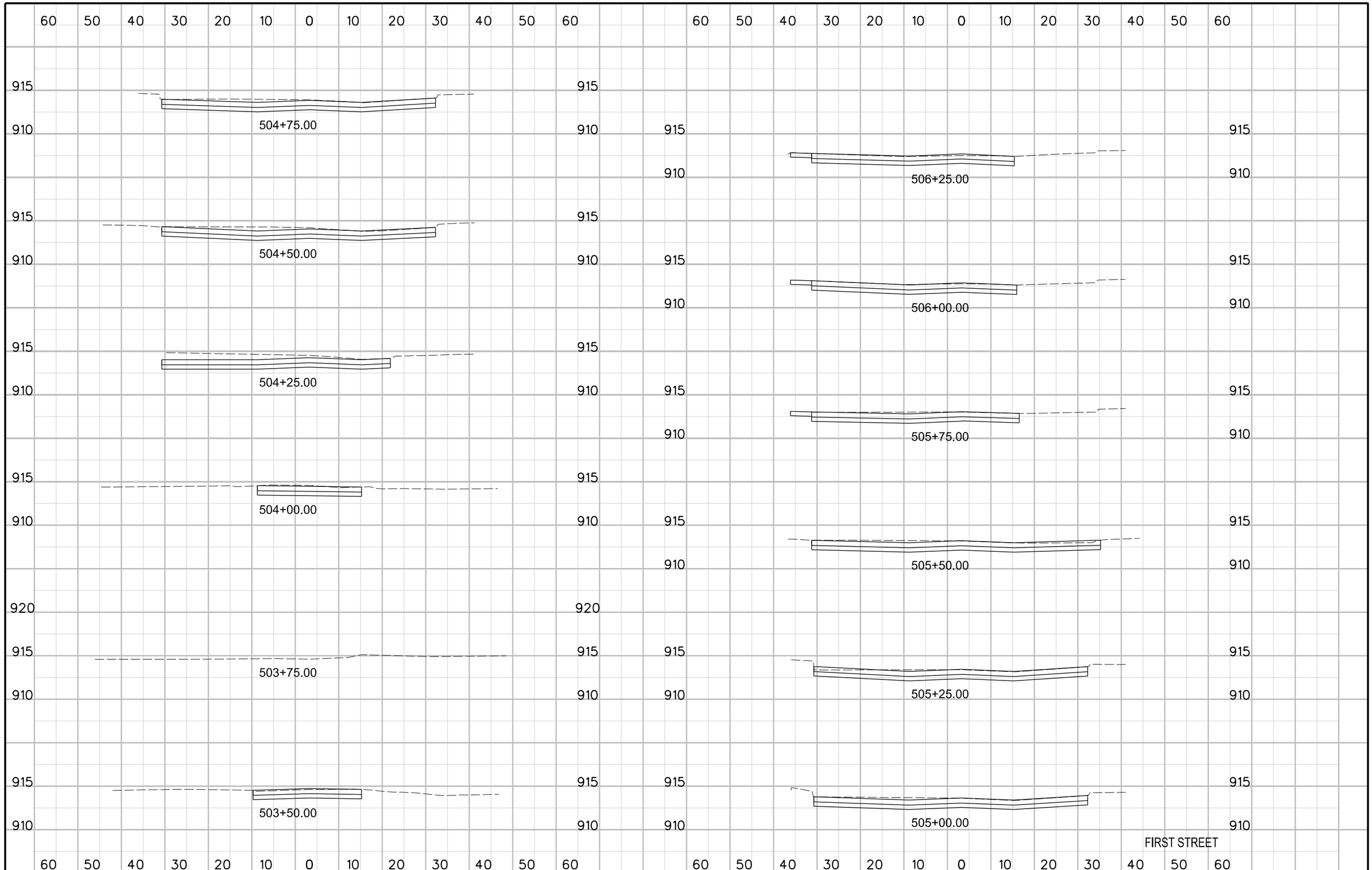

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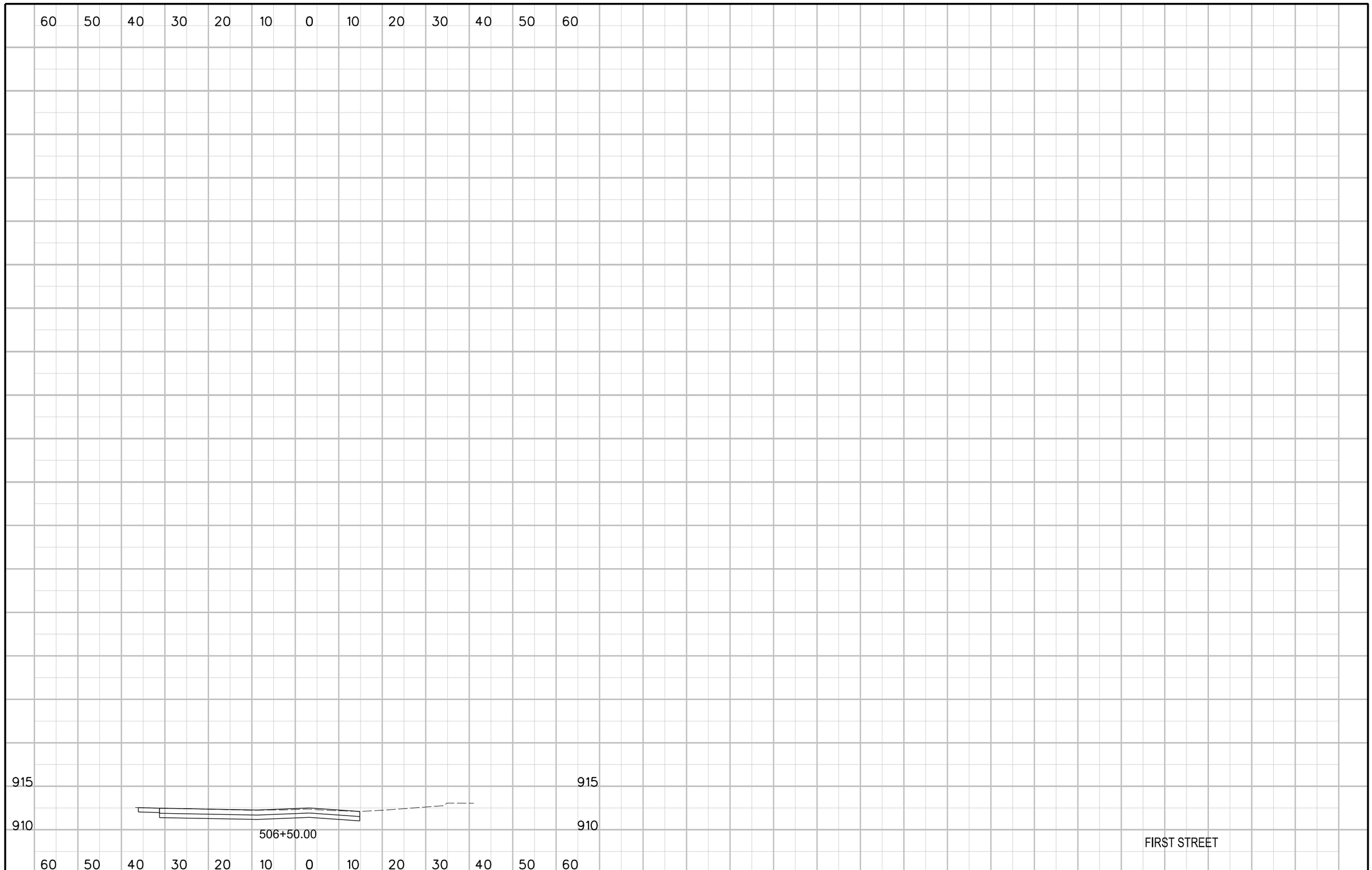

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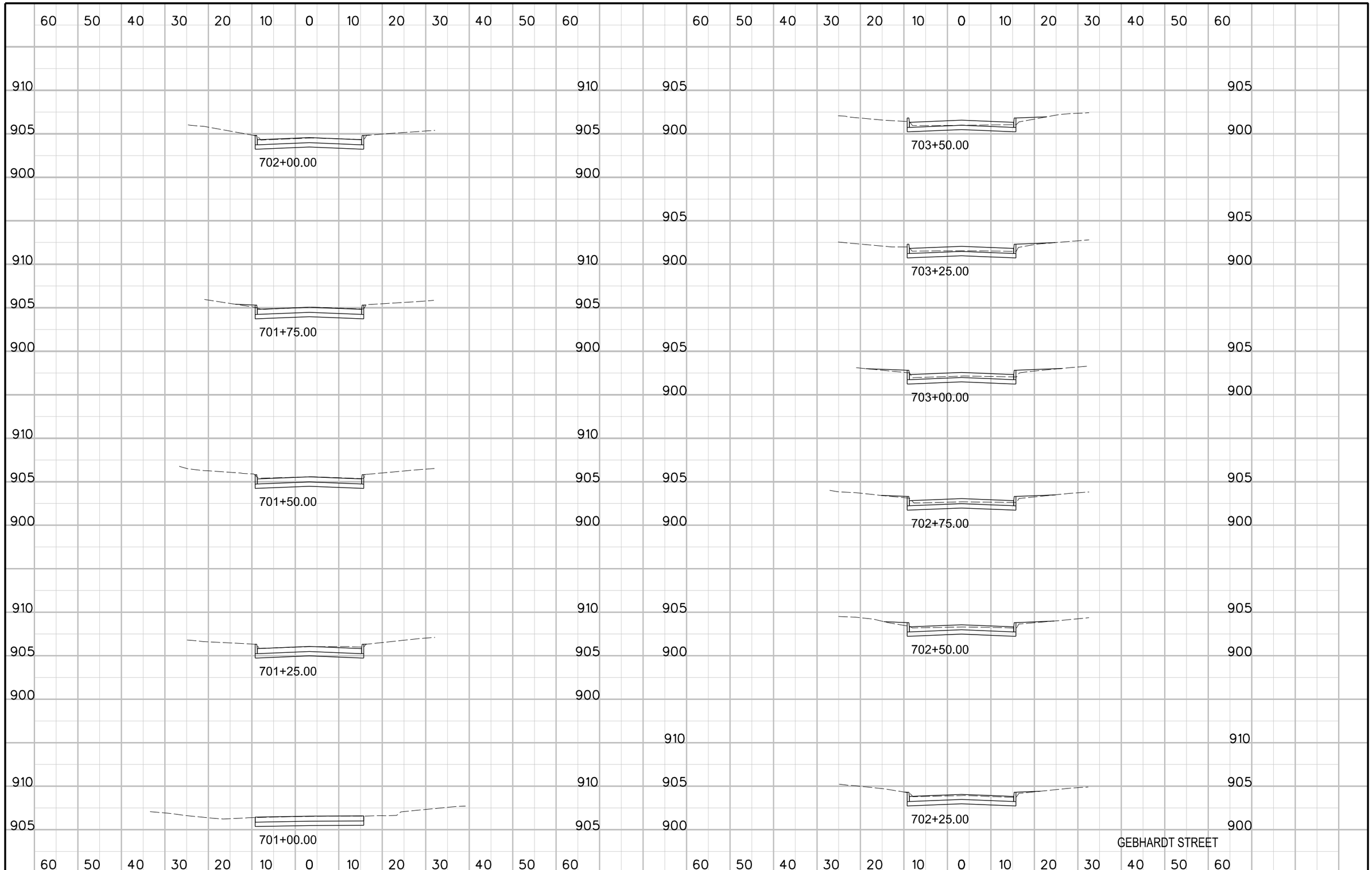

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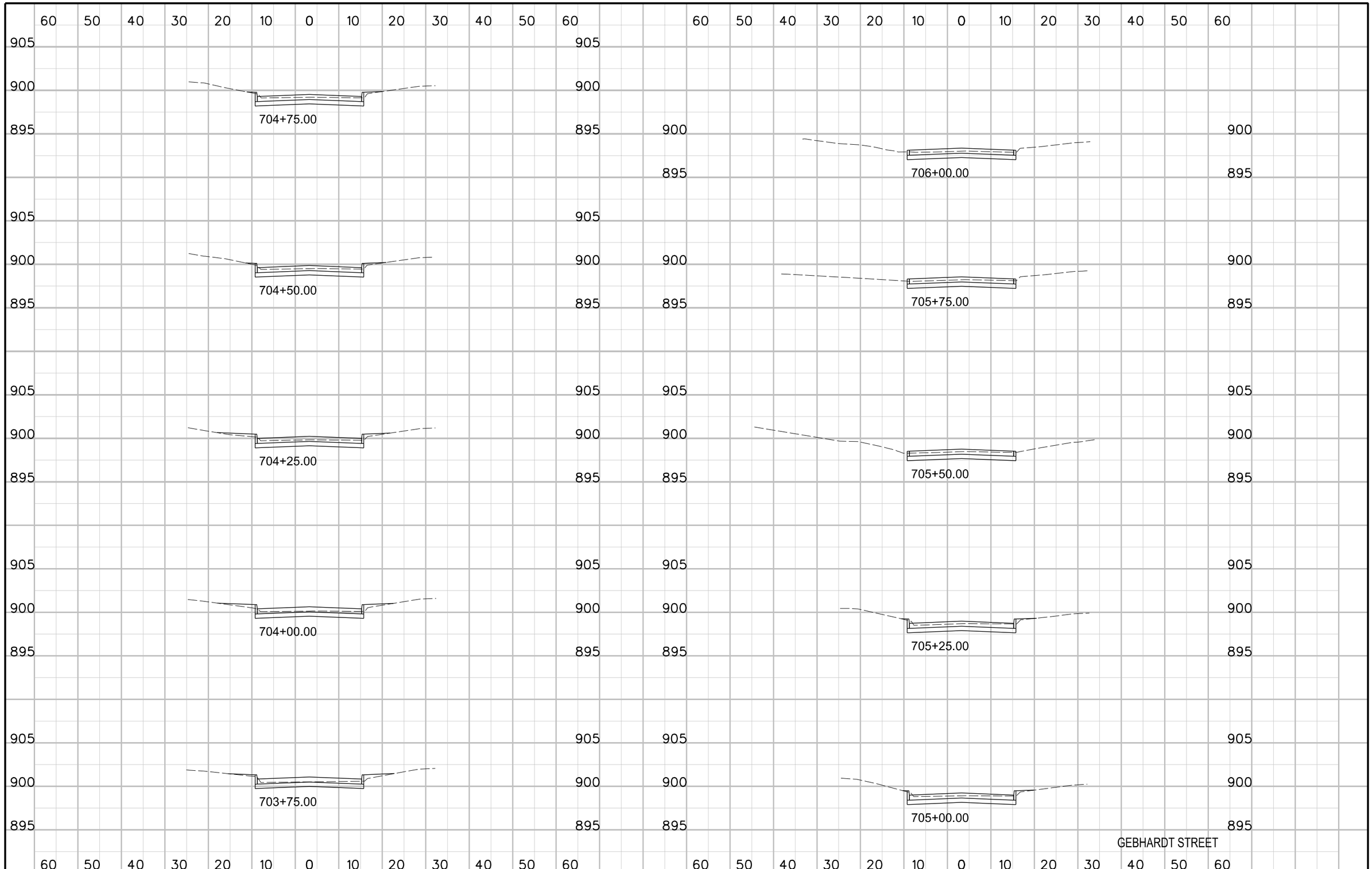

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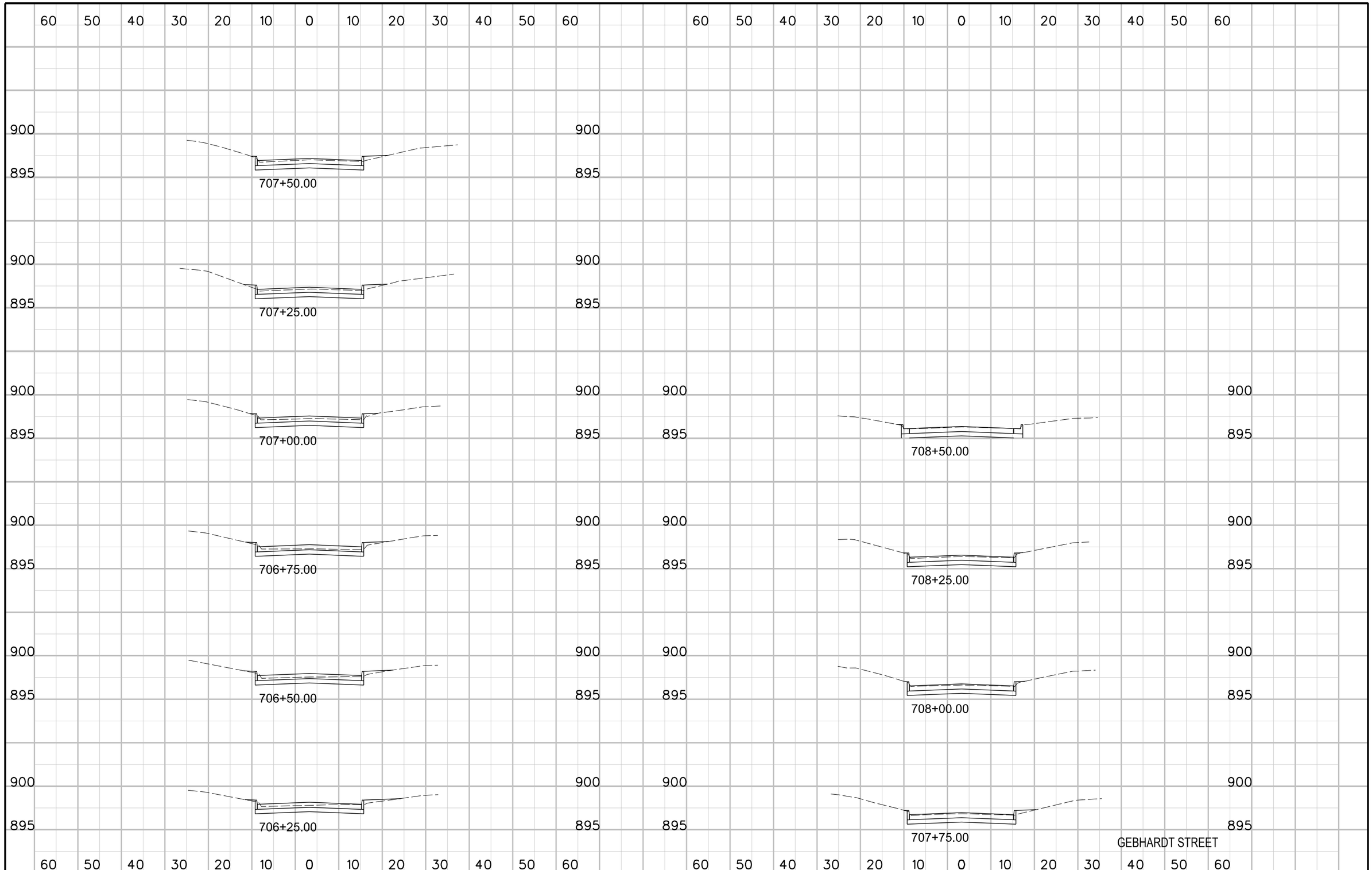

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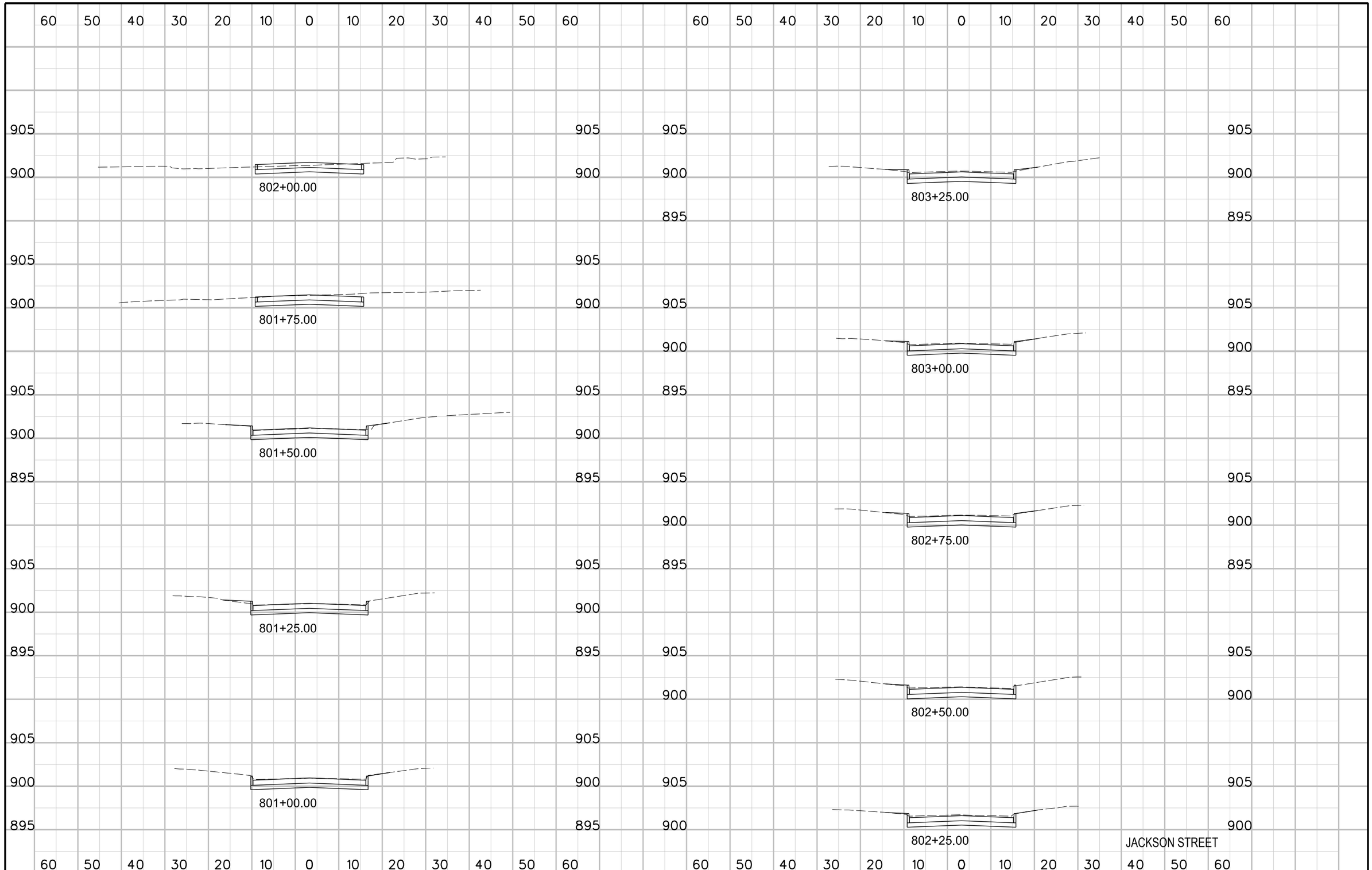

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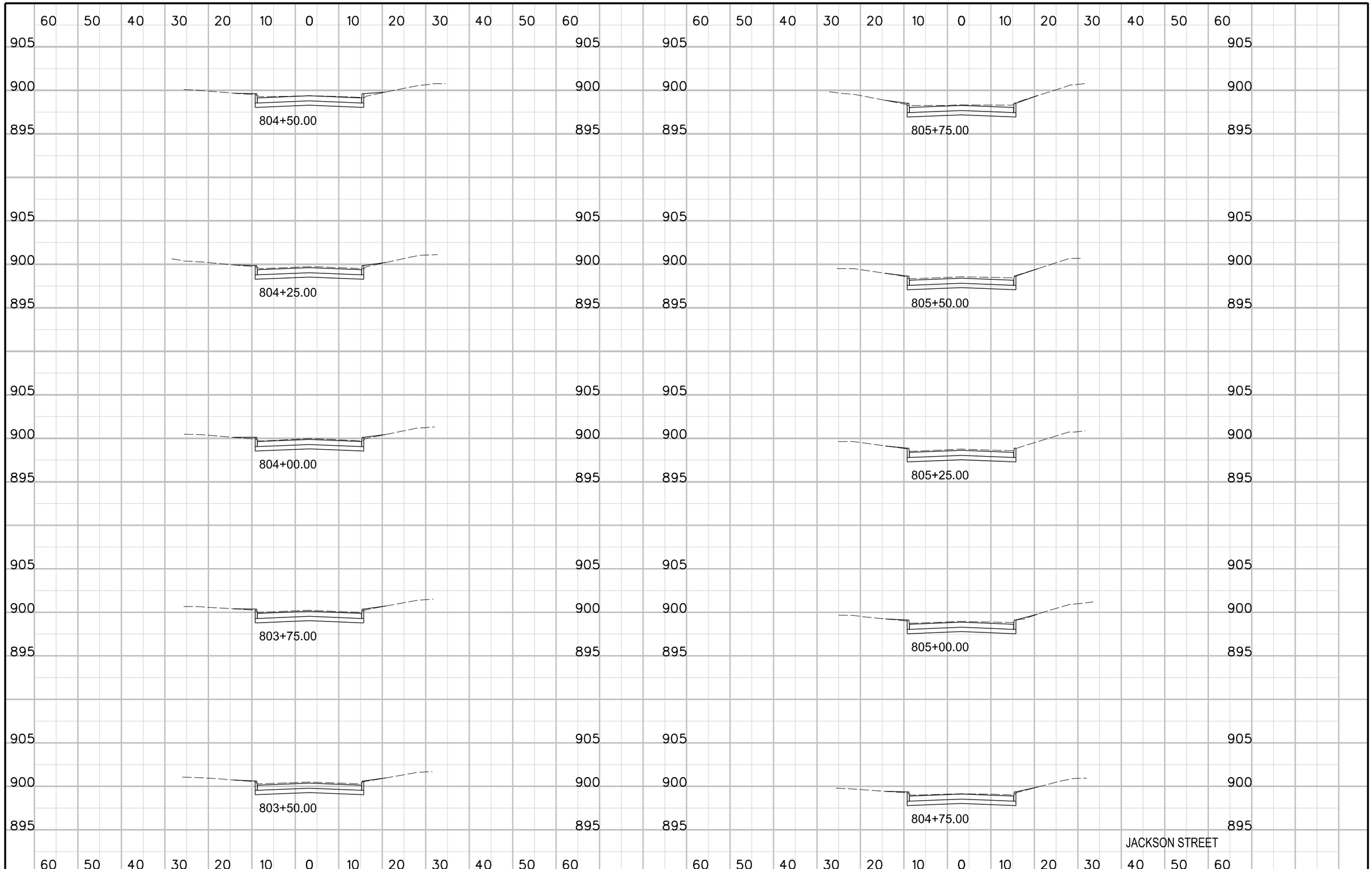

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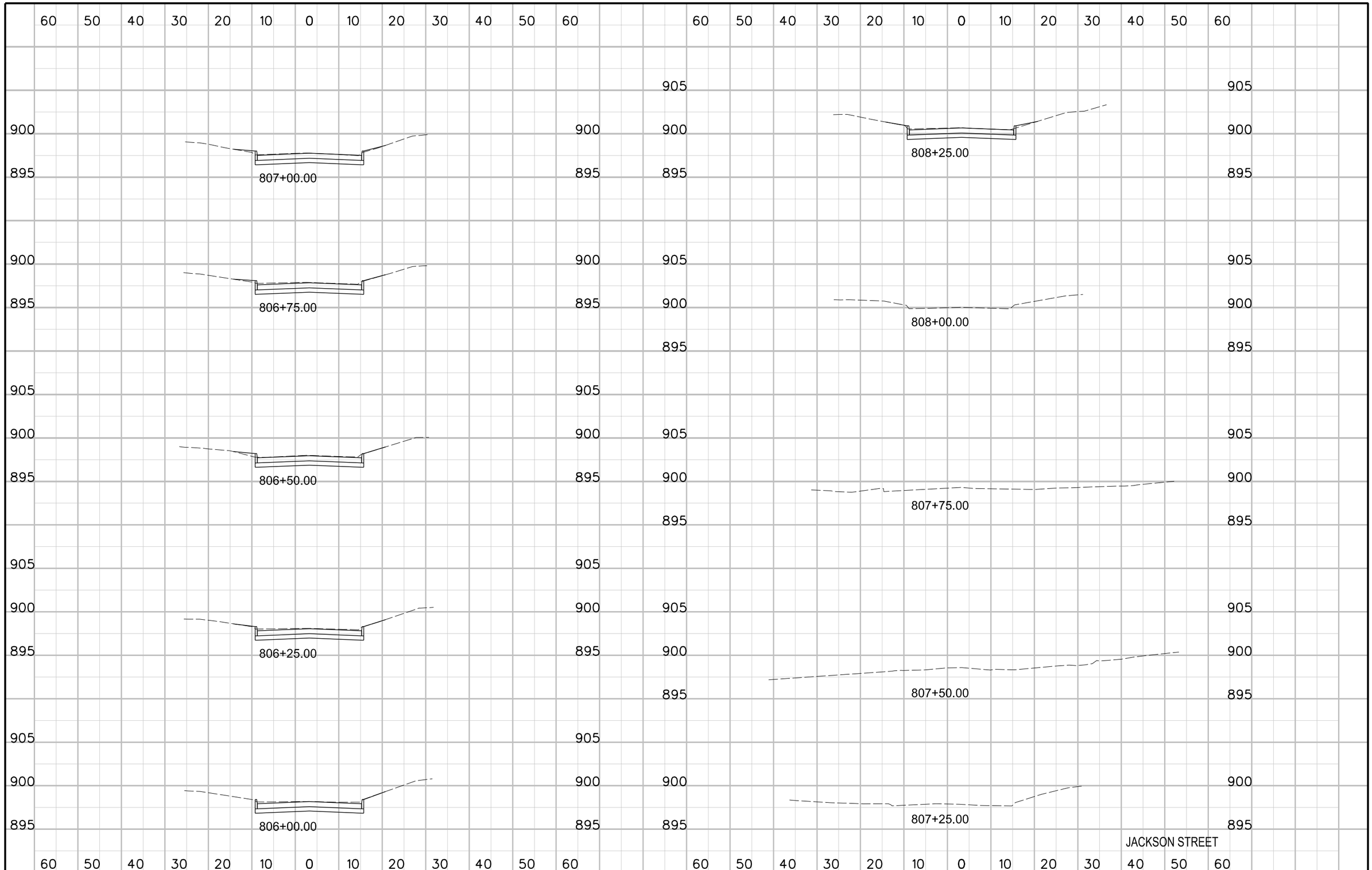

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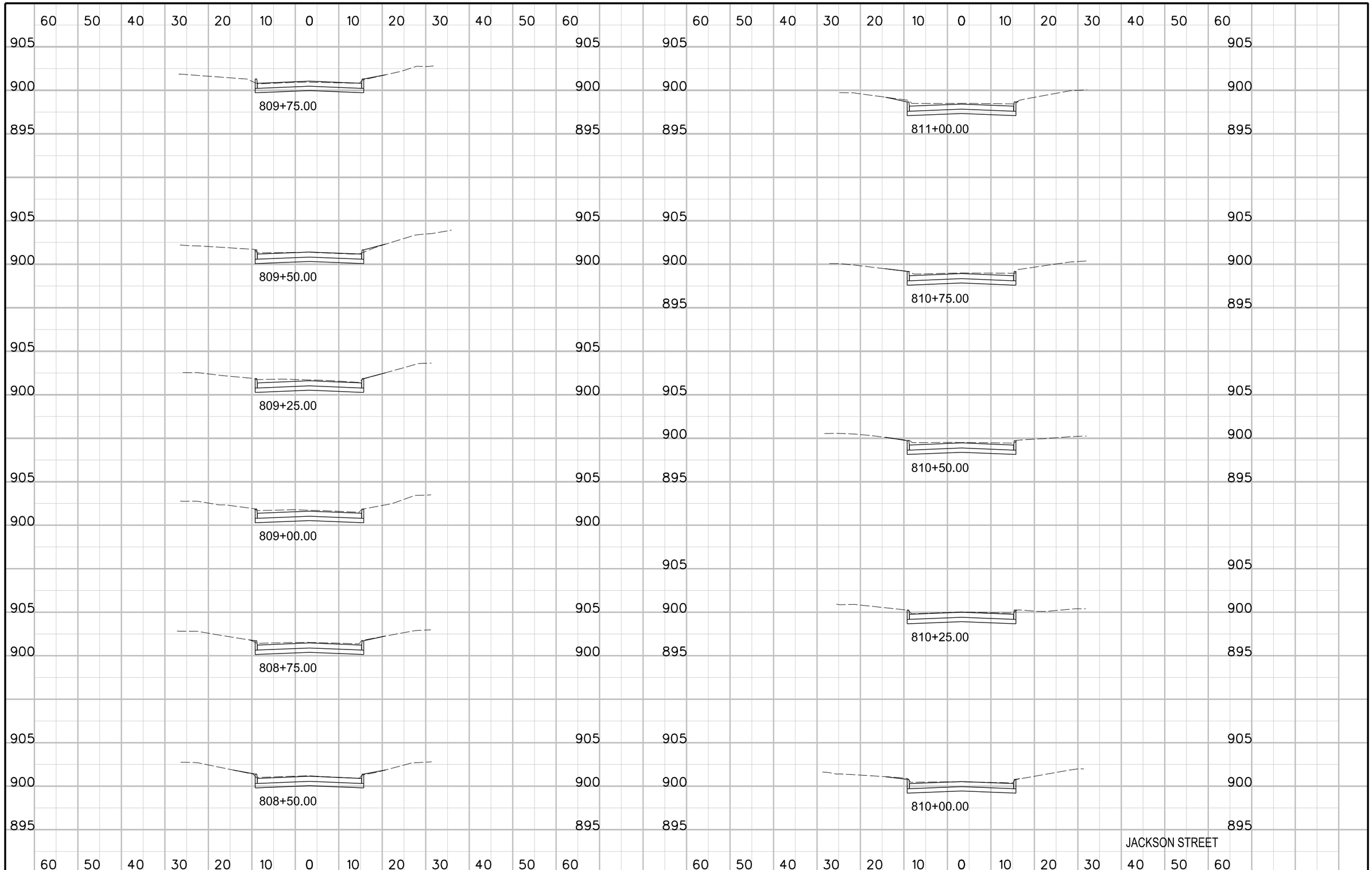

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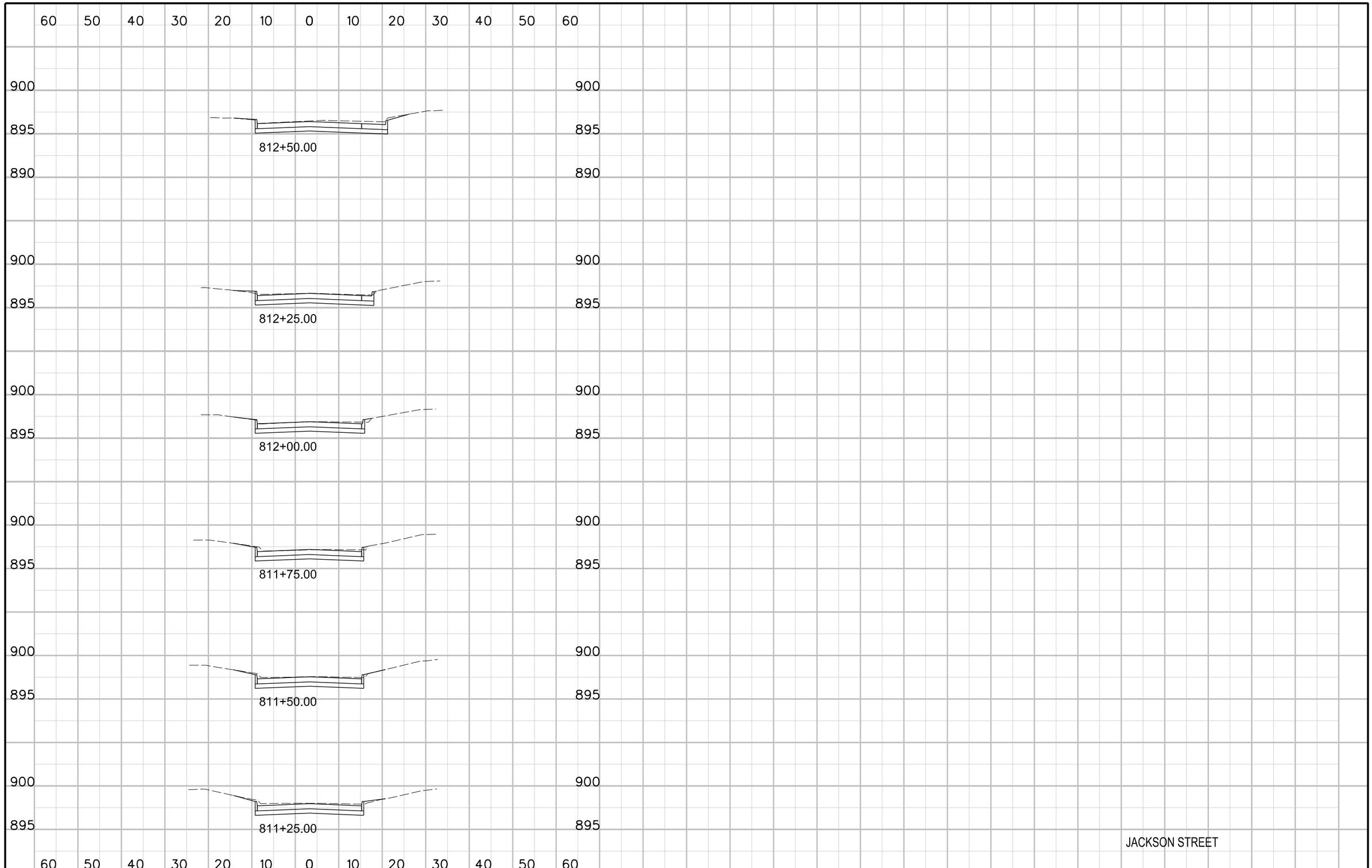

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