

INDEX OF SHEETS	
No.	DESCRIPTION
<b>A Sheets</b>	<b>Title Sheets</b>
A.1	Title Sheet
A.2	Location Map Sheet
<b>B Sheets</b>	<b>Typical Cross Sections and Details</b>
B.1 - 7	Typical Cross Sections and Details
<b>D Sheets</b>	<b>Mainline Plan and Profile Sheets</b>
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 9	US Hwy 69/S. Ankeny Blvd.
<b>E Sheets</b>	<b>Side Road Plan and Profile Sheets</b>
* E.1	Peterson Drive
* E.2 - 3	3rd Street
* E.4	2nd Street
* E.5	1st Street
<b>F Sheets</b>	<b>Removal Sheets</b>
* F.1 - 7	Removal Sheets
<b>G Sheets</b>	<b>Survey Sheets</b>
G.1 - 3	Reference Ties and Bench Marks
<b>H Sheets</b>	<b>Right-of-Way Sheets</b>
H.1 - 4	US Hwy 69/S. Ankeny Blvd.
HE.1	SE Peterson Drive
HE.2	SW/SW Third Street
HE.3	W/E First Street
<b>J Sheets</b>	<b>Traffic Control and Staging Sheets</b>
* J.1 - 2	Traffic Control & Staging Notes
* J.3	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.4 - 5	Staging Typical
* J.6 - 13	Detour Routes
* J.14 - 18	Traffic Control & Staging - Stage 1
* J.19 - 22	Traffic Control & Staging - Stage 2
* J.23 - 24	Traffic Control & Staging - Stage 3
* J.25 - 26	Traffic Control & Staging - Stage 4
<b>L Sheets</b>	<b>Geometric, Staking and Jointing Sheets</b>
L.1	Geometric, Staking & Jointing Information Sheets
L.2 - 20	US Hwy 69/S. Ankeny Blvd.
L.21 - 23	Peterson Drive
L.24 - 26	3rd Street
L.27 - 29	1st Street
<b>M Sheets</b>	<b>Storm Sewer Sheets</b>
* M.1	Storm Sewer Tabulations
* M.2	Storm Sewer Legend & Symbol Info. Sheet
* M.3 - 10	Storm Sewer Plan and Profile Sheets - S. Ankeny Blvd.
* M.11	Storm Sewer Plan and Profile Sheets - 3rd Street
* M.12	Storm Sewer Plan and Profile Sheets - 2nd Street
<b>MWM Sheets</b>	<b>Water Main Plan and Profile Sheets</b>
* MWM.1 - 4	US Hwy 69/S. Ankeny Blvd.
* MWM.5	3rd Street
* MWM.6	1st Street Irrigation Water Supply Relocation
<b>MSA Sheets</b>	<b>Sanitary Sewer Plan and Profile Sheets</b>
* MSA.1 - 4	US Hwy 69/S. Ankeny Blvd.
* MSA.5	3rd Street
<b>N Sheets</b>	<b>Traffic Signal Sheets</b>
* N.1 - 16	Traffic Signal Sheets
<b>PM Sheets</b>	<b>Pavement Marking Layout Sheets</b>
PM.1 - 6	Pavement Marking and Sign Sheets
<b>S Sheets</b>	<b>Sidewalk Sheets</b>
* S.1	Sidewalk Legend & Symbol Information Sheet
* S.2 - 5	Sidewalk Plan Sheets
* S.	Sidewalk Tabulations
<b>U Sheets</b>	<b>500 Series, Mod.Stds. and Detail Sheets</b>
* U.1 - 4	Retaining Wall Plan and Profiles
* U.5 - 9	Joint Utility Trench
* U.10 - 11	Joint Utility Trench Crossings
U.12 - 13	Detail Sheets
<b>W Sheets</b>	<b>Mainline Cross Sections</b>
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 36	US Hwy 69/S Ankeny Blvd Cross Sections
<b>X Sheets</b>	<b>Side Road Cross Sections</b>
X.1 - 22	Side Road Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE  
**PRIMARY ROAD SYSTEM**  
**Polk COUNTY**  
**PCC Paving Grade and New**  
 U.S. Highway 69 (South Ankeny Boulevard)  
 from south of SE Peterson Drive  
 to 1st Street  
 SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.  
 Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS

TOTAL  
215

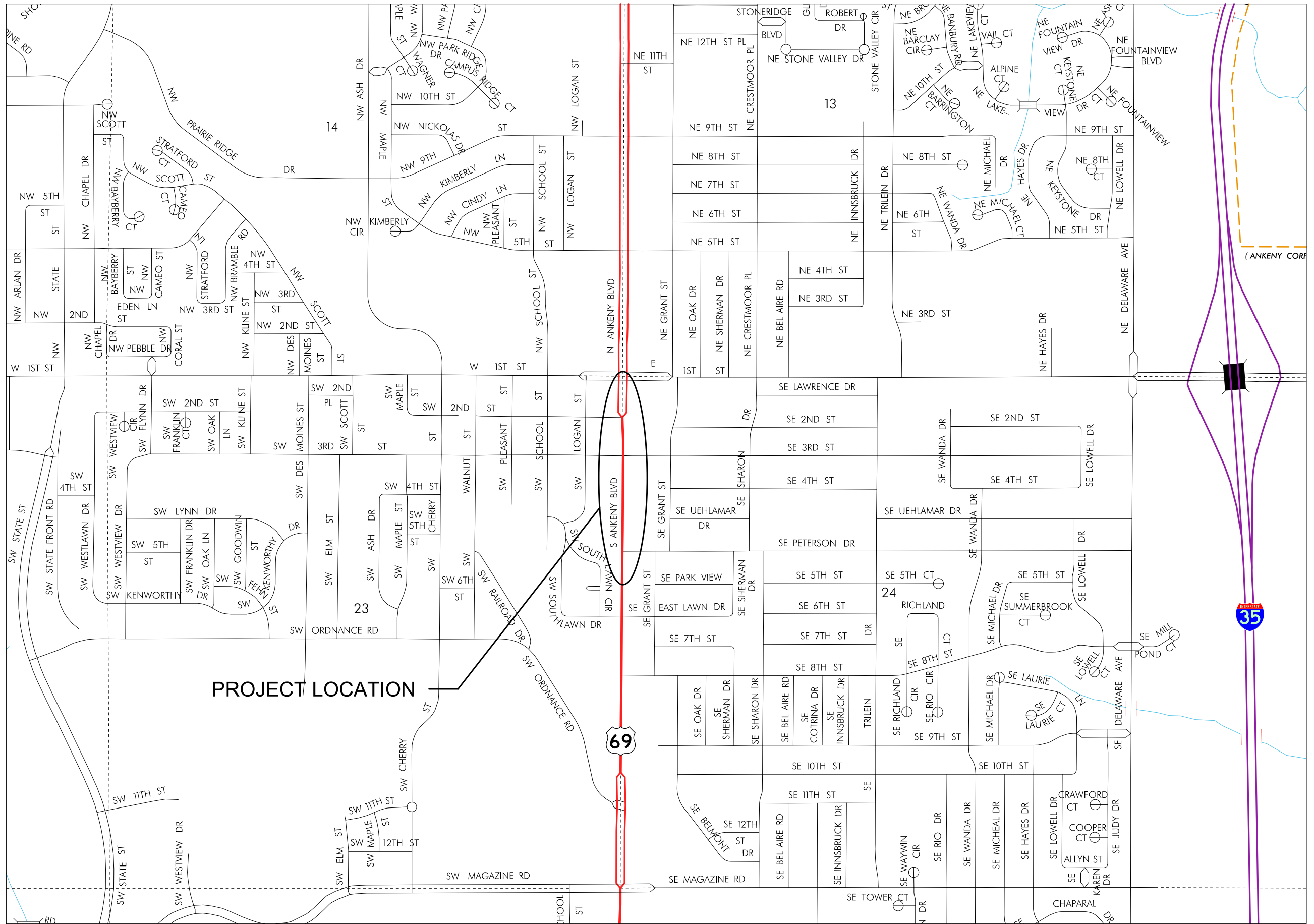
PROJECT IDENTIFICATION NUMBER  
20-77-069-010  
PROJECT NUMBER  
NHSX-069-4(136)--3H-77  
R.O.W. PROJECT NUMBER

For Project Location Map refer to Sheet A.2

U.S. Hwy 69/ S Ankeny Boulevard DESIGN DATA URBAN			
2022	AADT	22,300	V.P.D.
2050	AADT	35,200	V.P.D.
20	-- DHV	--	V.P.H.
	TRUCKS	1.5	%
	Total		
	Design ESALs	--	

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	Andrew G. Burke	Primary Signature Block	X
N.1	Andrew J. Houchin	Traffic Signalization	X

**PROGRESS PLANS**  
**PRELIMINARY**  
 Subject to change for final design.



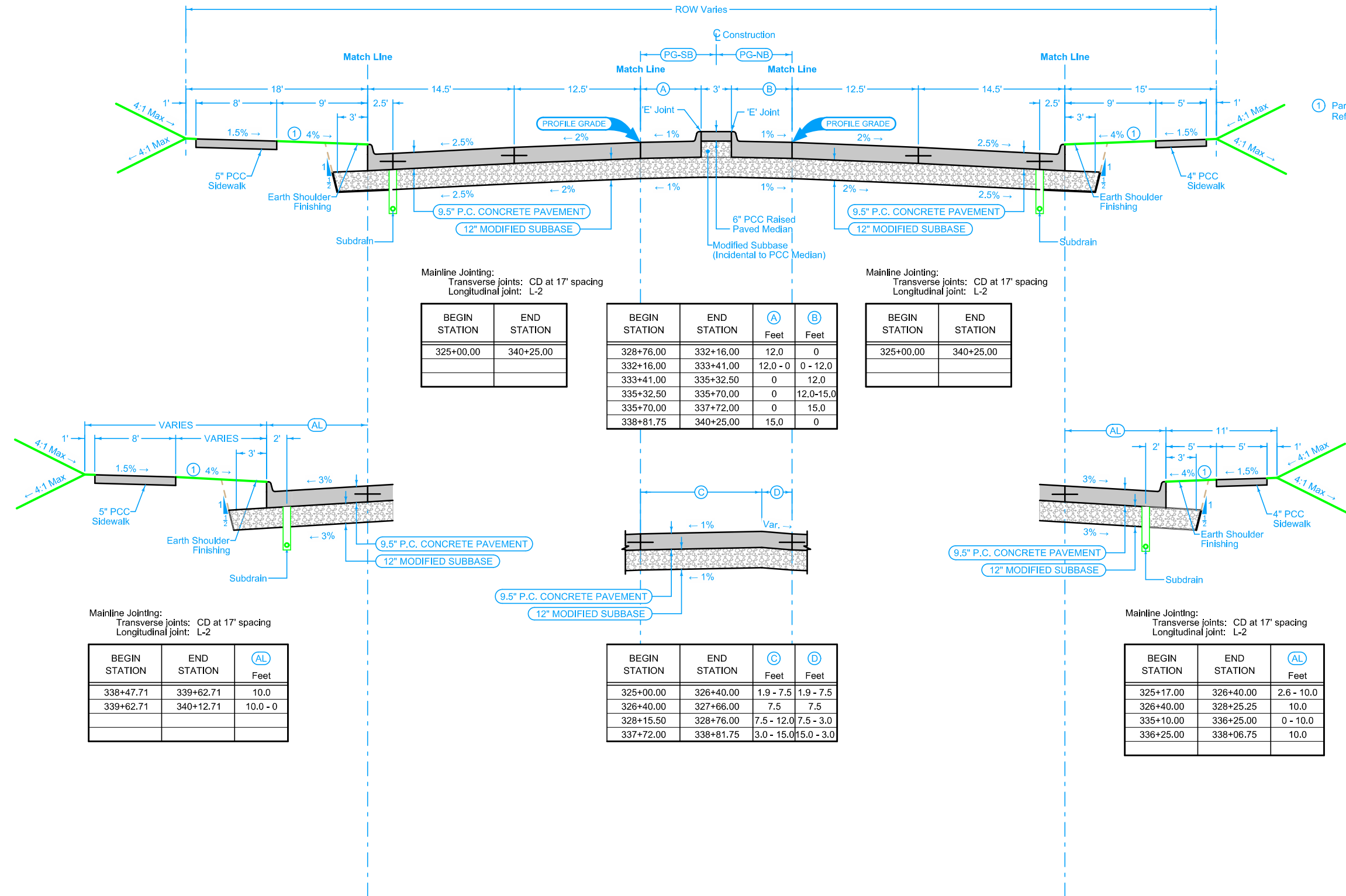
PROJECT LOCATION

69

35



BEGIN STATION	END STATION	(PG-SB) Feet	(PG-NB) Feet
325+00.00	325+17.00	0.5 - 2.6	NA
325+00.00	326+40.00	2.6 - 7.5	2.6 - 7.5
326+40.00	335+32.50	7.5	7.5
335+32.50	335+70.00	7.5 - 9.0	7.5 - 9.0
335+70.00	340+25.00	9.0	9.0



① Parkway Slope 4% Typical, 2% Minimum and 10% Maximum. Refer to L Sheets for Cross Slope Transition Lengths.

Mainline Jointing:  
Transverse joints: CD at 17' spacing  
Longitudinal joint: L-2

BEGIN STATION	END STATION
325+00.00	340+25.00

Mainline Jointing:  
Transverse joints: CD at 17' spacing  
Longitudinal joint: L-2

BEGIN STATION	END STATION
325+00.00	340+25.00

BEGIN STATION	END STATION	(A) Feet	(B) Feet
328+76.00	332+16.00	12.0	0
332+16.00	333+41.00	12.0 - 0	0 - 12.0
333+41.00	335+32.50	0	12.0
335+32.50	335+70.00	0	12.0-15.0
335+70.00	337+72.00	0	15.0
338+81.75	340+25.00	15.0	0

Mainline Jointing:  
Transverse joints: CD at 17' spacing  
Longitudinal joint: L-2

BEGIN STATION	END STATION	(AL) Feet
338+47.71	339+62.71	10.0
339+62.71	340+12.71	10.0 - 0

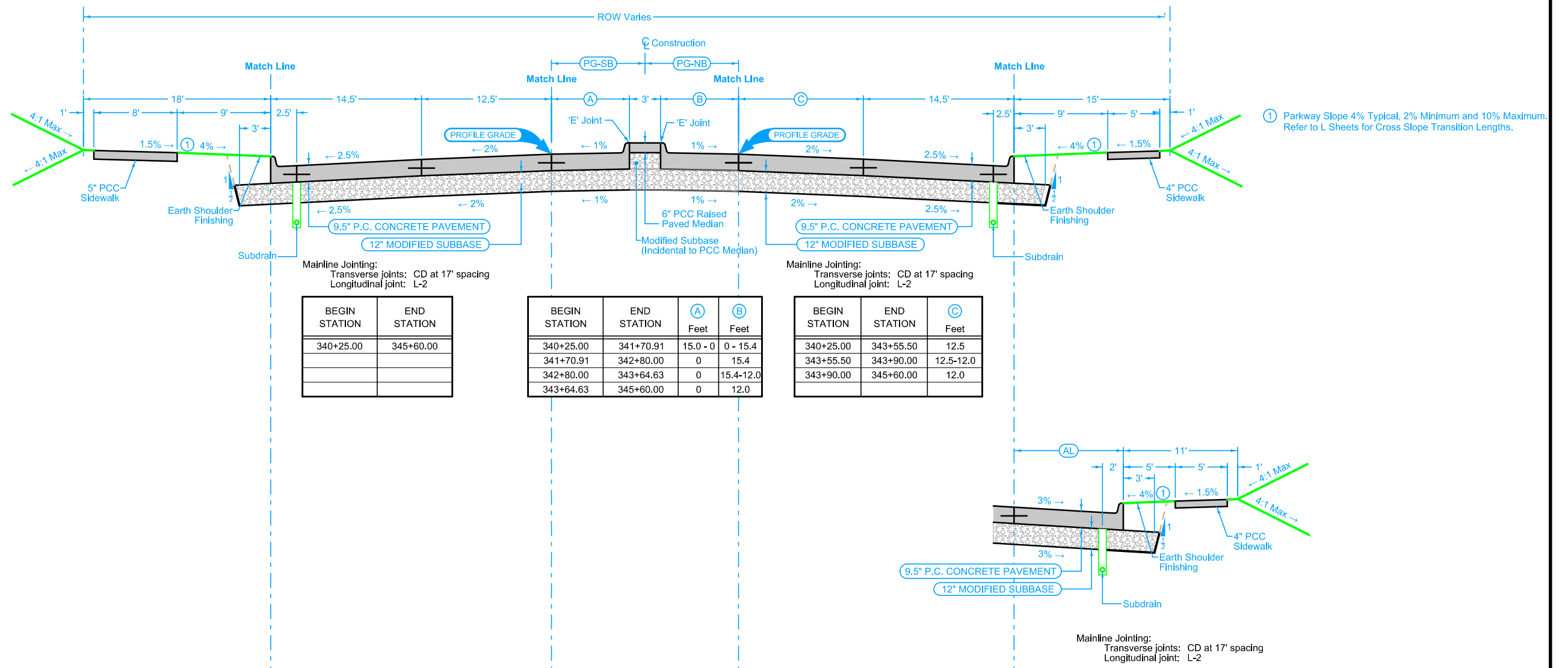
Mainline Jointing:  
Transverse joints: CD at 17' spacing  
Longitudinal joint: L-2

BEGIN STATION	END STATION	(AL) Feet
325+17.00	326+40.00	2.6 - 10.0
326+40.00	328+25.25	10.0
335+10.00	336+25.00	0 - 10.0
336+25.00	338+06.75	10.0

BEGIN STATION	END STATION	(C) Feet	(D) Feet
325+00.00	326+40.00	1.9 - 7.5	1.9 - 7.5
326+40.00	327+66.00	7.5	7.5
328+15.50	328+76.00	7.5 - 12.0	7.5 - 3.0
337+72.00	338+81.75	3.0 - 15.0	15.0 - 3.0

**S Ankeny Boulevard (US 69)  
From South of SE Peterson Drive  
to South of 2nd Street**

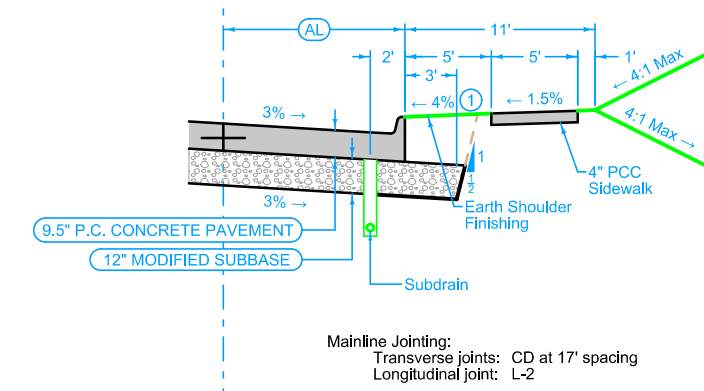
BEGIN STATION	END STATION	(PG-SB) Feet	(PG-NB) Feet
340+25.00	340+89.38	9.0 Lt	
340+25.00	340+99.00		9.0 Rt
340+89.38	342+80.00	9.0 Lt - 16.63 Lt	
340+99.00	343+64.63		9.0 Rt - 1.63 Lt
342+80.00	345+60.00	16.63 Lt	
343+64.63	345+60.00		1.63 Lt



BEGIN STATION	END STATION
340+25.00	345+60.00

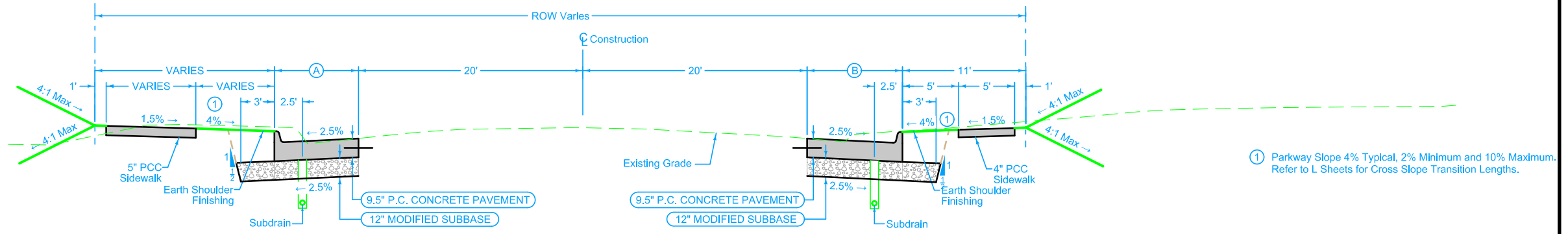
BEGIN STATION	END STATION	(A) Feet	(B) Feet
340+25.00	341+70.91	15.0 - 0	0 - 15.4
341+70.91	342+80.00	0	15.4
342+80.00	343+64.63	0	15.4-12.0
343+64.63	345+60.00	0	12.0

BEGIN STATION	END STATION	(C) Feet
340+25.00	343+55.50	12.5
343+55.50	343+90.00	12.5-12.0
343+90.00	345+60.00	12.0



BEGIN STATION	END STATION	(AL) Feet
343+35.25	344+18.50	0 - 10.0
344+18.50	345+60.00	10.0

**S Ankeny Boulevard (US 69)  
From South of SW 2nd Street  
to 1st Street Intersection**



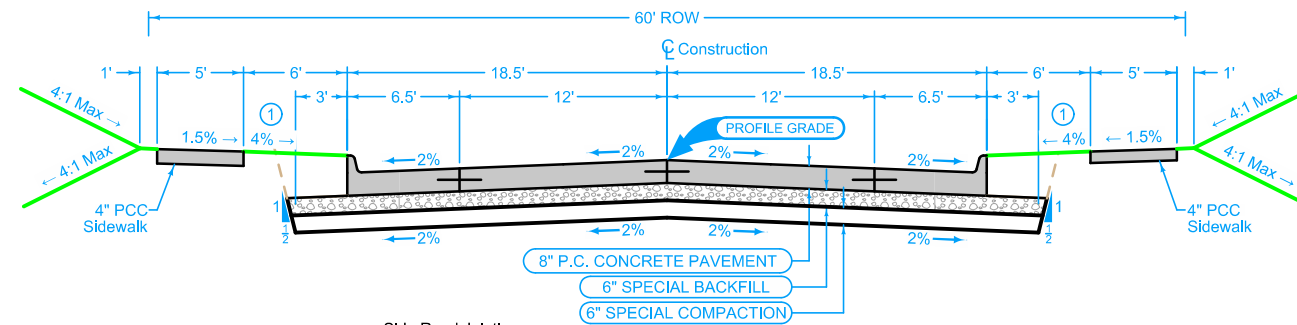
Mainline Jointing:  
 Transverse joints: CD at 17' spacing  
 Longitudinal joint: L-2

BEGIN STATION	END STATION	Ⓐ Feet
324+10.00	324+15.00	5.5
324+15.00	325+00.00	5.5 - 8.9

Mainline Jointing:  
 Transverse joints: CD at 17' spacing  
 Longitudinal joint: L-2

BEGIN STATION	END STATION	Ⓑ Feet
324+25.00	324+35.00	4.0
324+35.00	325+00.00	4.0 - 10.5

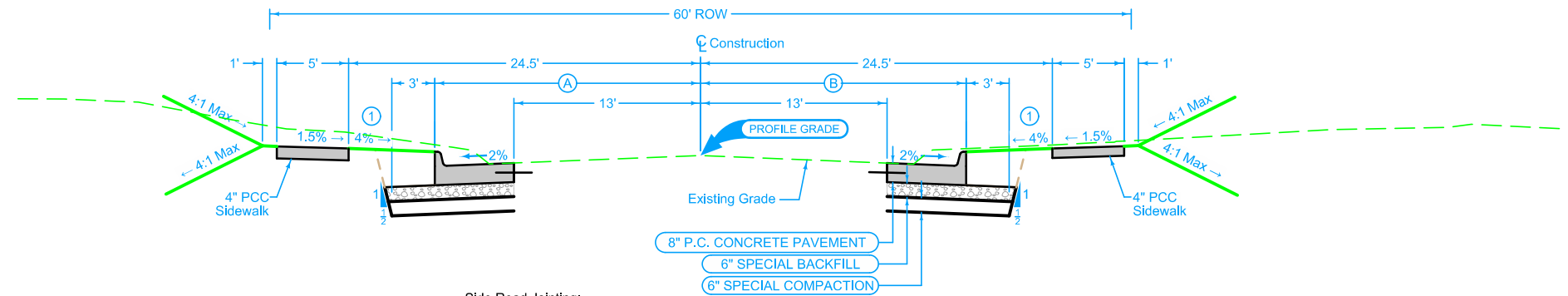
**S Ankeny Boulevard (US 69)  
 Widening  
 South of SE Peterson Drive**



① Parkway Slope 4% Typical, 2% Minimum and 10% Maximum. Refer to L Sheets for Cross Slope Transition Lengths.

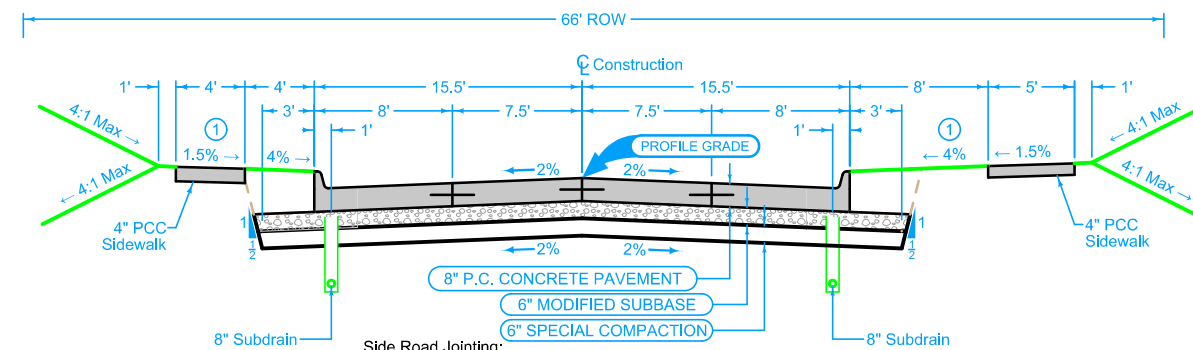
Side Road Joining:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION
SE PETERSON DRIVE	32844+34.50	32845+15.00



Side Road Joining:  
 Transverse joints: CD match Existing or 15' Max. spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION	(A) Feet	(B) Feet
SE PETERSON DRIVE	32845+15.00	32846+58.41	18.5	
SE PETERSON DRIVE	32846+58.41	32846+72.16	18.5 - 15.75	
SE PETERSON DRIVE	32845+15.00	32846+62.75		18.5
SE PETERSON DRIVE	32846+62.75	32846+98.75		18.5 - 16.1

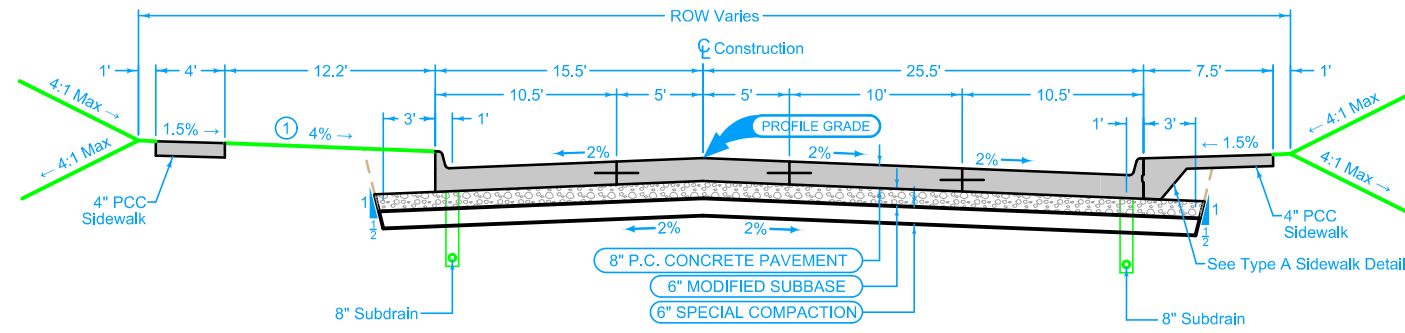


Side Road Joining:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION
SW 2ND STREET	34227+13.50	34228+05.44

### SE Peterson Drive and SW 2nd Street

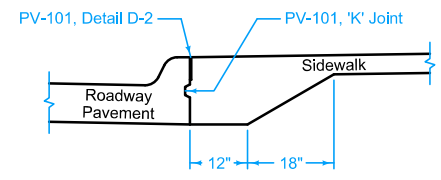




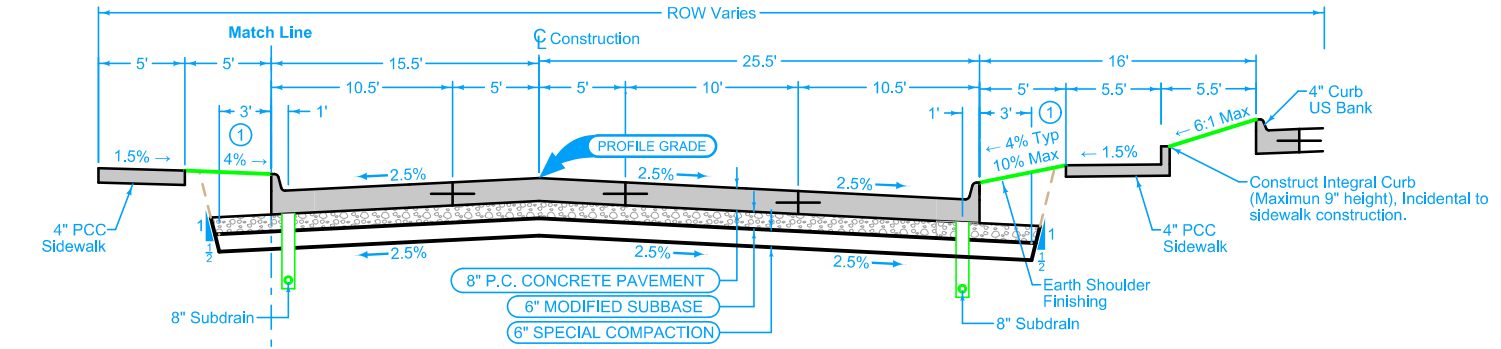
① Parkway Slope 4% Typical, 2% Minimum and 10% Maximum. Refer to L Sheets for Cross Slope Transition Lengths.

Side Road Jointing:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION
SW 3RD STREET	98+10.00	99+69.00

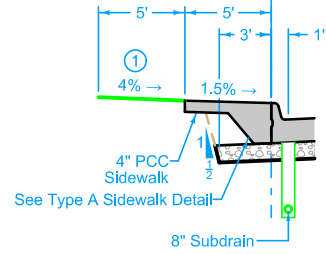


Type A Sidewalk Detail

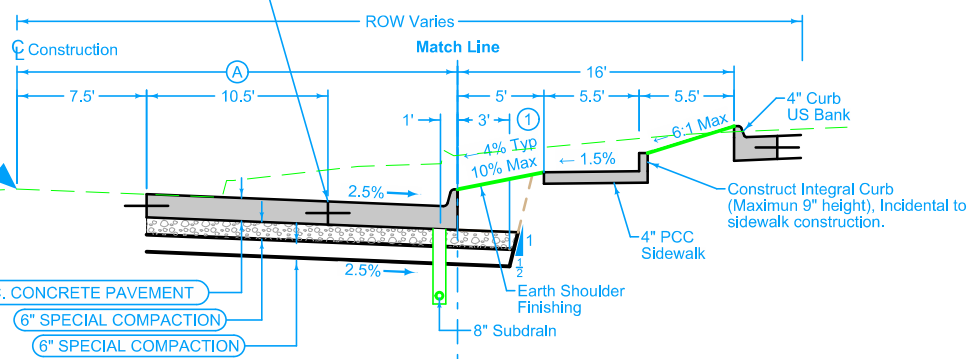


Side Road Jointing:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION
SE 3RD STREET	100+41.00	101+34.42

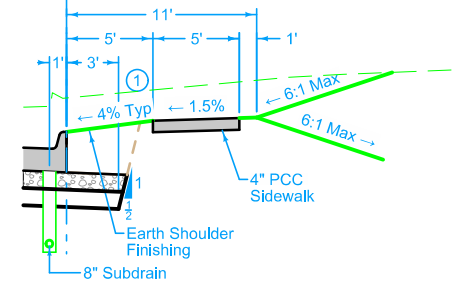


Refer to L Sheets for Jointing

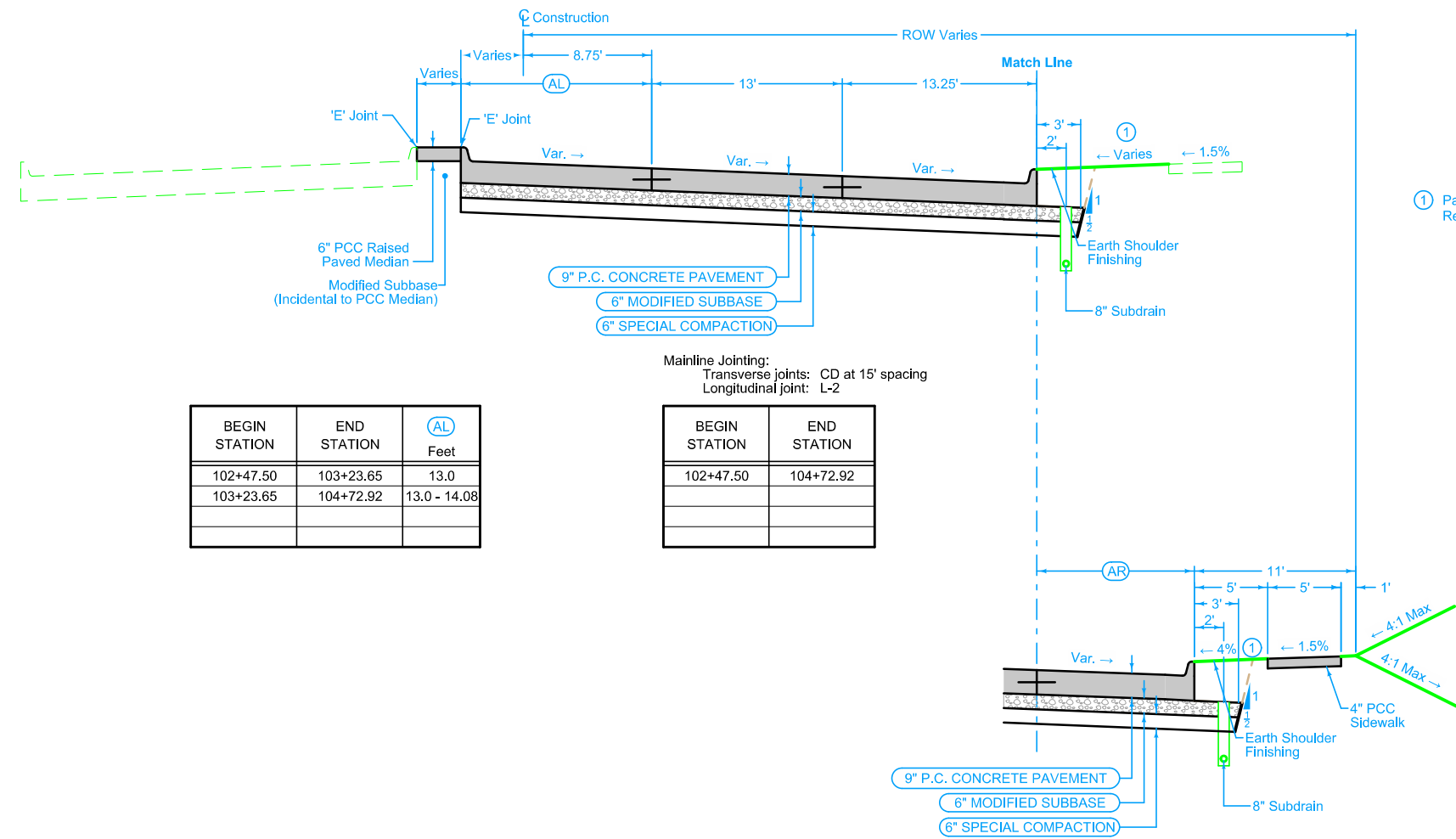


Side Road Jointing:  
 Transverse joints: CD match Existing or 15' Max. spacing  
 Longitudinal joint: L-2

ROAD NAME	BEGIN STATION	END STATION	(A) Feet
SE 3RD STREET	101+34.42	101+95.90	25.5
SE 3RD STREET	101+95.90	103+45.90	25.5 - 15.5
SE 3RD STREET	103+45.90	103+52.50	15.5



SW and SE 3rd Street



① Parkway Slope 4% Typical, 2% Minimum and 10% Maximum. Refer to L Sheets for Cross Slope Transition Lengths.

Mainline Jointing:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

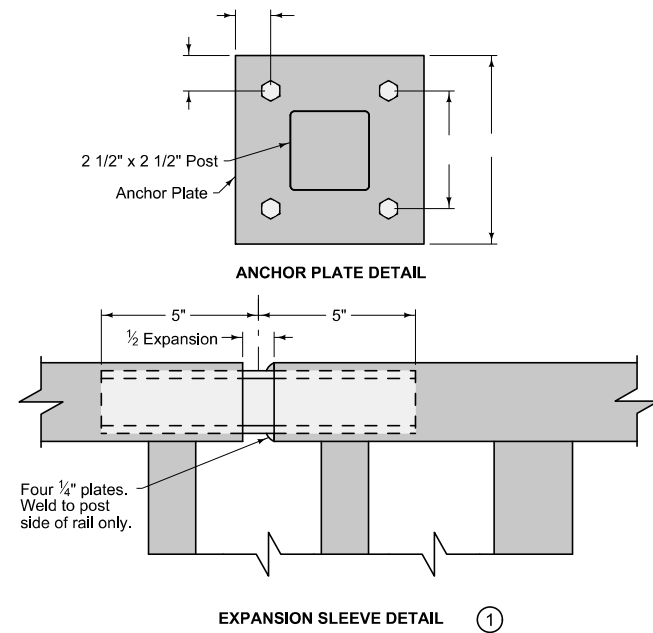
BEGIN STATION	END STATION	(AL) Feet
102+47.50	103+23.65	13.0
103+23.65	104+72.92	13.0 - 14.08

BEGIN STATION	END STATION
102+47.50	104+72.92

Mainline Jointing:  
 Transverse joints: CD at 15' spacing  
 Longitudinal joint: L-2

BEGIN STATION	END STATION	(AR) Feet
103+36.60	104+00.35	0 - 12.75
104+00.35	104+72.92	12.75

**W 1st Street**



① Detail shown is for top rail. Expansion joint for bottom rail is similar.

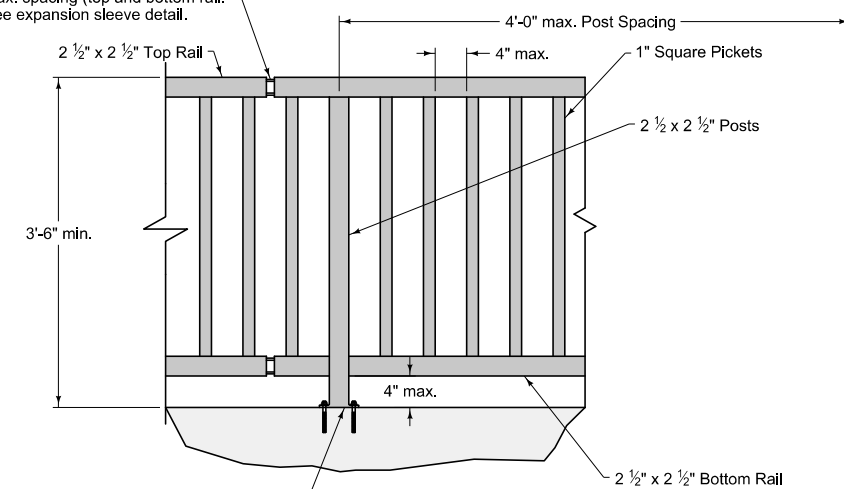
Weld all components with 1/4 inch fillet welds. Grind welds and connections as required to provide a smooth surface, free of burrs.

Paint safety rail black, federal standard color 17038, with a paint system per Standard Specification Section 2508 with complete primer, intermediate, and finish coat. Intermediate and finish coat allowed to be shop applied prior to installation or field applied. Touch up paint repairs may be needed in the field, as directed by the Engineer.

Rails and post: 2 1/2" by 2 1/2" tubular high strength steel with 1/4 inch minimum wall thickness. Comply with ASTM A500, Grade B.

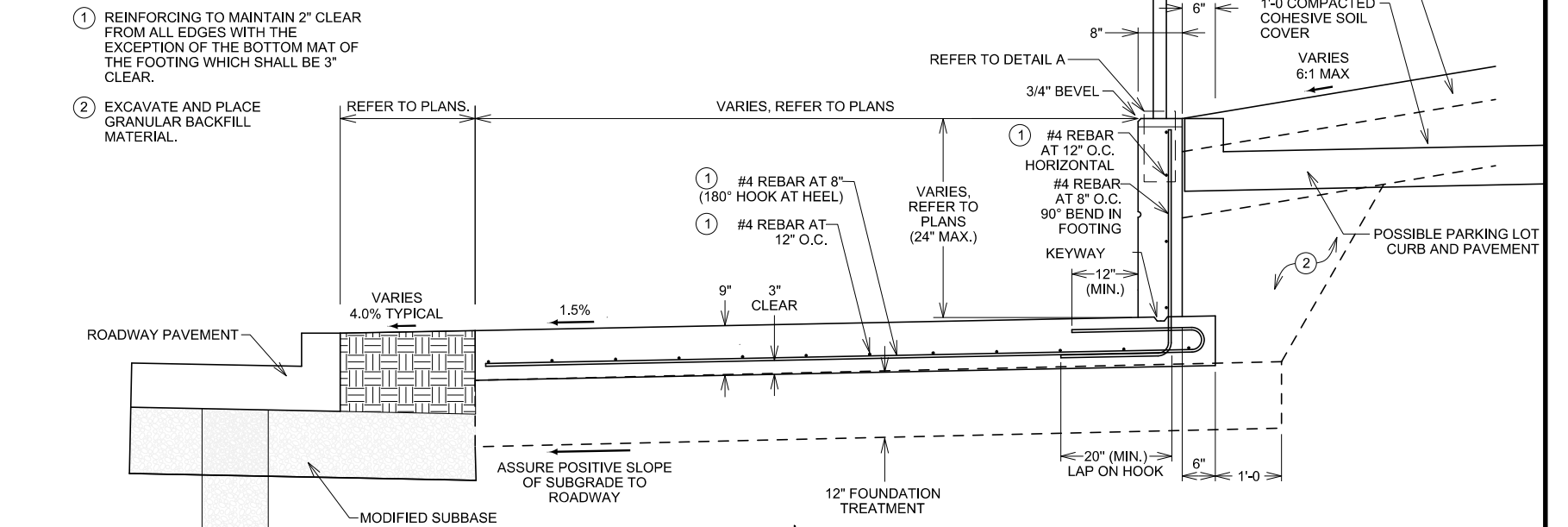
Picket: 1" by 1" tubular strength steel with 1/8 inch minimum wall thickness. Comply with ASTM A500, Grade B

Provide expansion joint at 48'-0" max. spacing (top and bottom rail). See expansion sleeve detail.

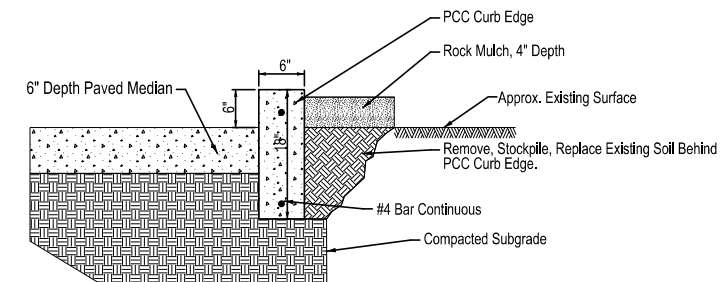


Attach railing to concrete pavement or concrete retaining wall with base plate and anchor rods. See anchor plate detail.

① **RETAINING WALL SAFETY RAIL DETAIL**  
B.7 NO SCALE



② **RETAINING WALL DETAIL TYPE C**  
B.7 NO SCALE



③ **PCC CURB EDGE**  
B.7 NO SCALE

### SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box
- Utility Pole

### UTILITY LEGEND

- City of Ankeny  
Roger McFarland  
515-460-3747  
RMCFARLAND@ANKENYIOWA.GOV
- City of Ankeny  
Shawn Buckner  
515-979-6987  
SBUCKNER@ANKENYIOWA.GOV
- City of Ankeny Traffic  
Tom Dozler  
515-963-3527  
TDOZLER@ANKENYIOWA.GOV
- ACSD Ankeny Fiber  
Paul Mahoney  
515-965-9604 ext. 52993  
PAUL.MAHONEY@ANKENYSCHOOLS.ORG
- Aureon  
Jeff Klocko  
515-830-0445  
JEFF.KLOCKO@AUREON.COM
- Lumen Technologies  
Austin Freese  
515-263-7385  
AUSTIN.FREESE@LUMEN.COM
- Mediacom  
Dave Meyers  
515-991-7833  
DMEYERS2@MEDIACOMCC.COM
- Metronet (Metro Fibernet)  
Chas Antle  
641-841-0384  
CHAS.ANTLE@METRONET.COM
- MidAmerican - Electric  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- MidAmerican - Gas  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- Unite Private Networks  
Dakota Pardekooper  
515-371-7104  
DAKOTA.PARDEKOOPER@UPNFIBER.COM
- U.S. Cellular  
Daryl Morris  
603-486-9357  
DARYL.MORRIS@USCELLULAR.COM
- Verizon (MCI)  
Thanh (TK) Nguyen  
515-783-7177  
THANH.NGUYEN3@VERIZON.COM
- Verizon Wireless  
Ryan Schaffer  
515-201-5382  
RYAN.SCHAFFER@VERIZONWIRELESS.COM
- Windstream  
Kelly Wingfield  
515-559-4031  
kelly.wingfield@windstream.com

### PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Lavender	(9)		Temporary Pavement Shading
Yellow	(4)		Proposed Pavement Shading
Orange	(6)		Proposed Granular Shading
Orange	(70)		Proposed Shoulder Granular Shading
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)		Grading Shading
Orange, Light	(134)		Proposed Granular Entrance Shading
Yellow	(220)		Proposed Paved Entrance Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading
Green, Light	(225)		Existing Pavement Shading
Red	(3)		Proposed Structure Shading
Red	(3)		Delineates Restricted Areas

### PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

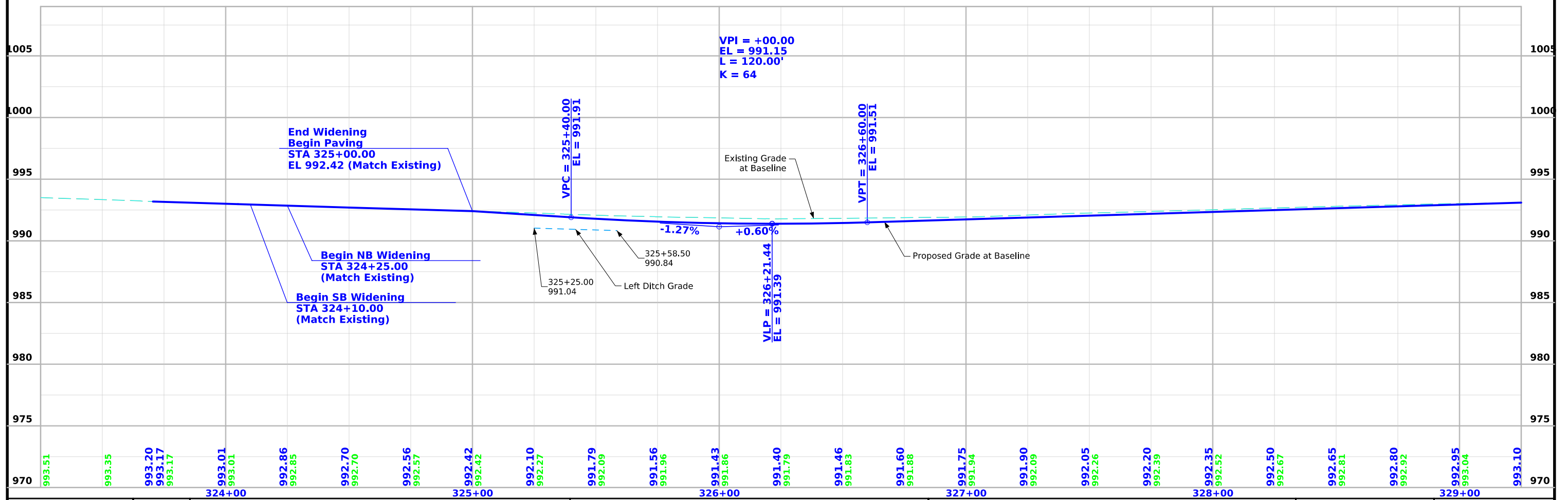
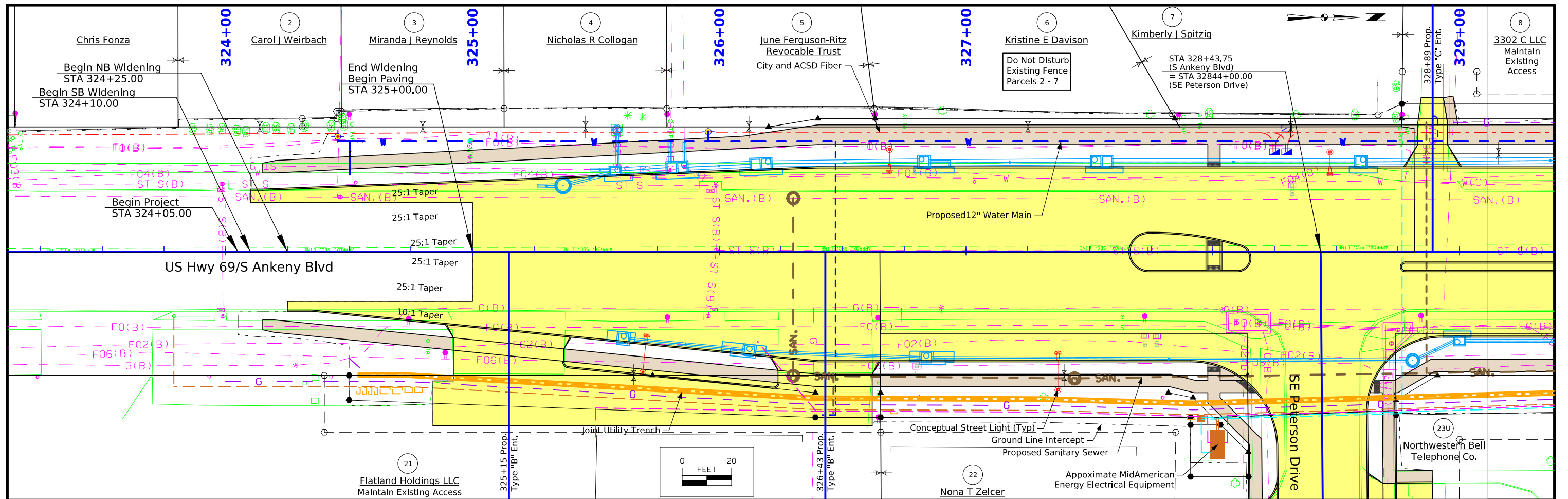
- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- High Tension Cable Guardrail
- Sheet Pile
- Joint Utility Trench
- 6" Gas
- 6" Underground Electric
- 4" Underground Electric
- 2" Underground Electric
- 2" City Fiber

- ### RIGHT-OF-WAY LEGEND
- Proposed Right-of-Way
  - Existing Right of Way
  - Existing and Proposed Right-of-Way
  - Easement and Existing Right-of-Way
  - Easement (Temporary)
  - Easement
  - Access Control
  - Property Line

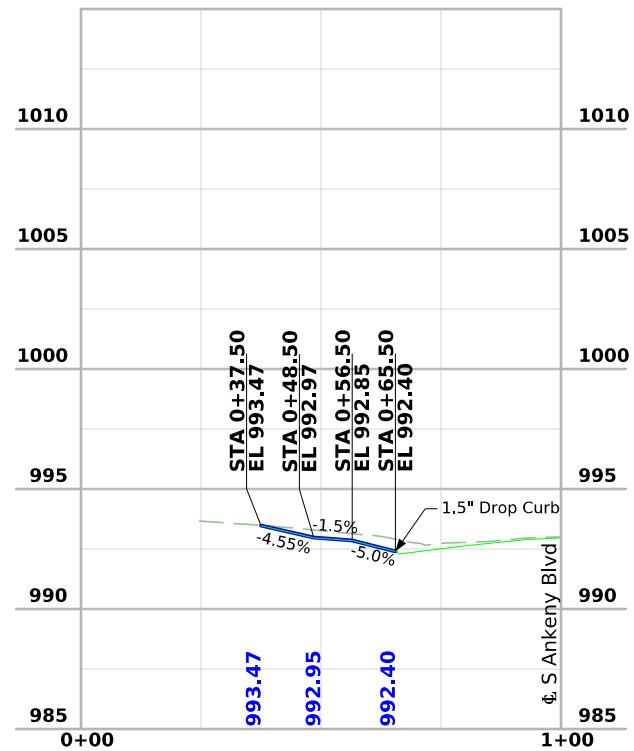
## PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

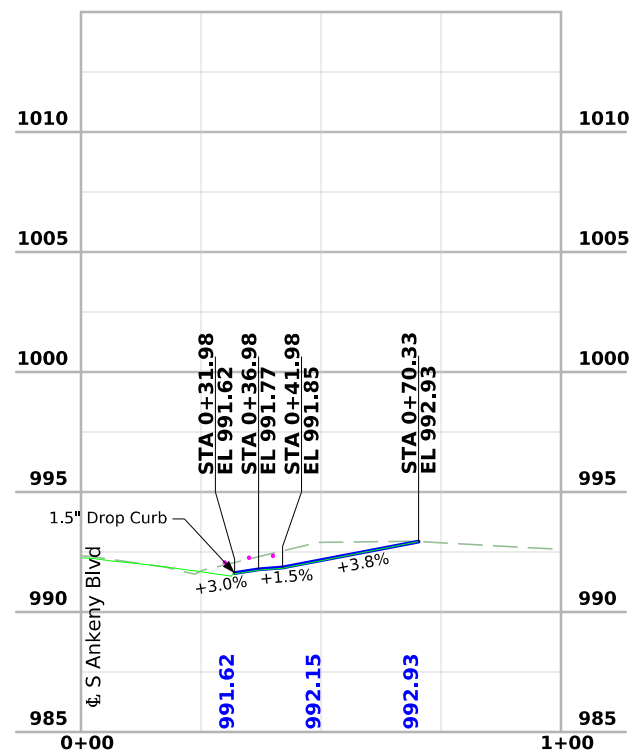




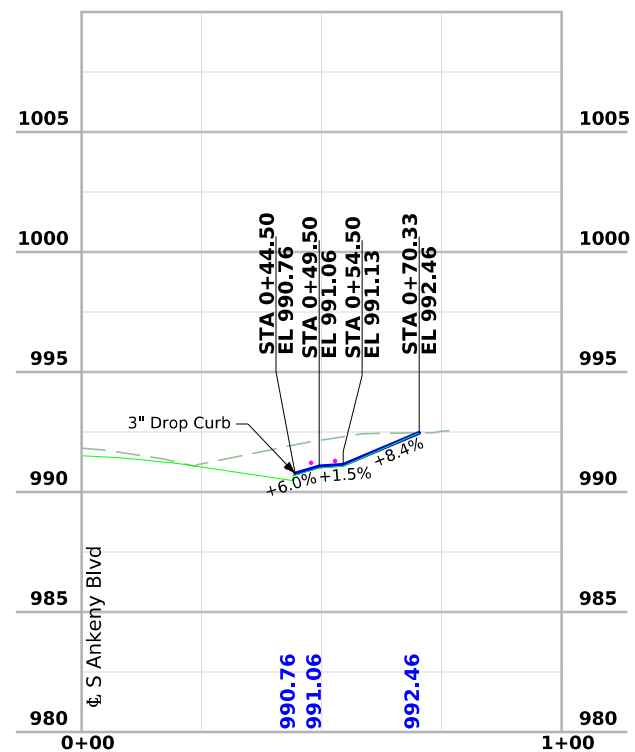
FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>D.2</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------



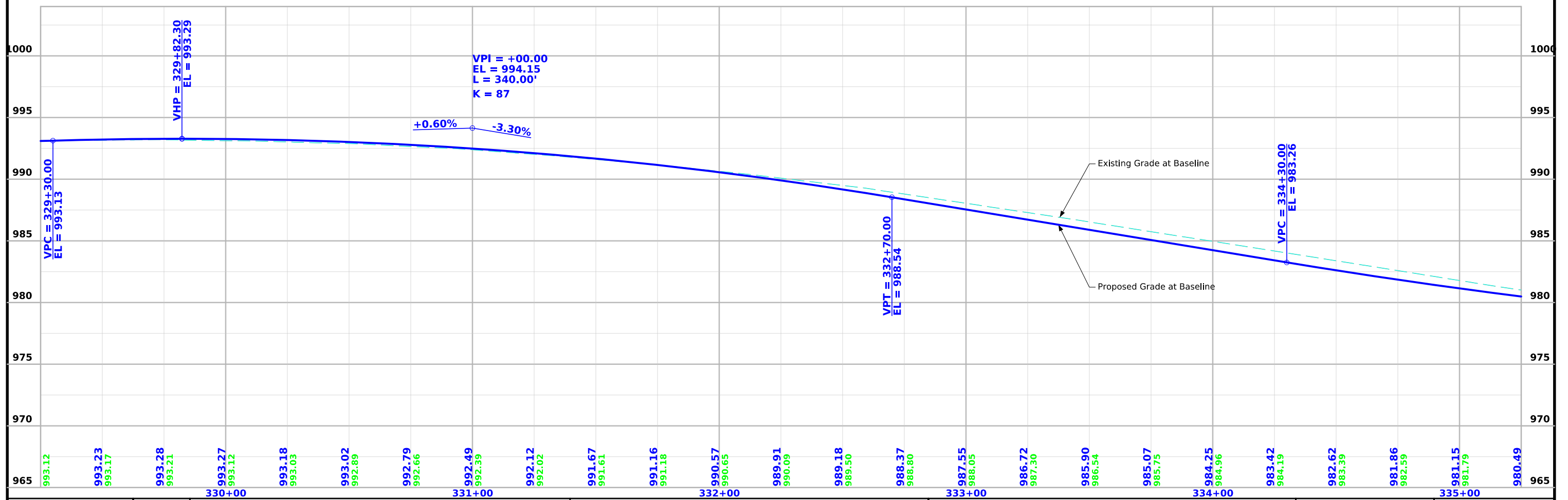
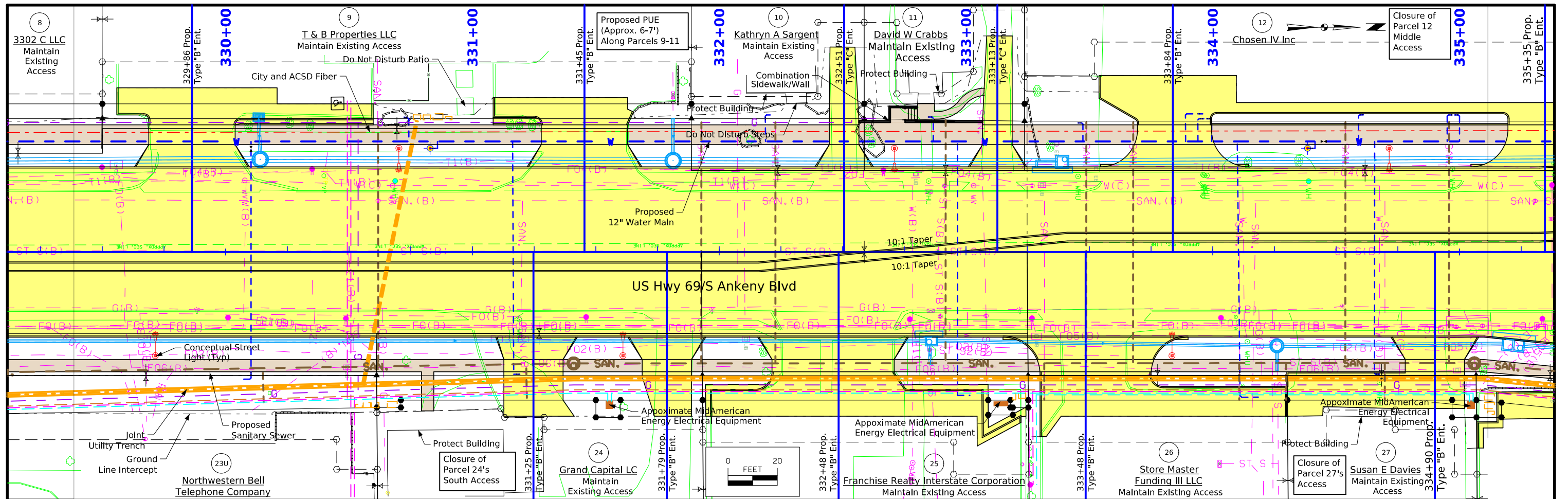
**328+89**  
**GeoENT\_08**

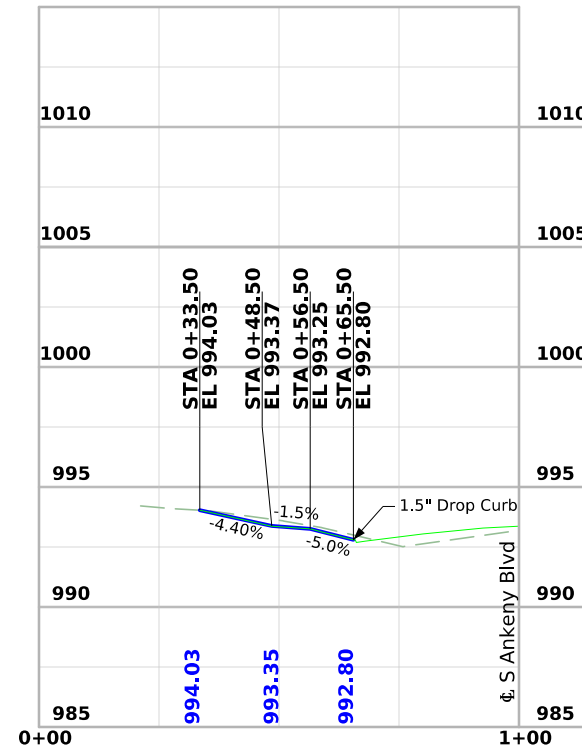


**325+15**  
**GeoENT\_21S**

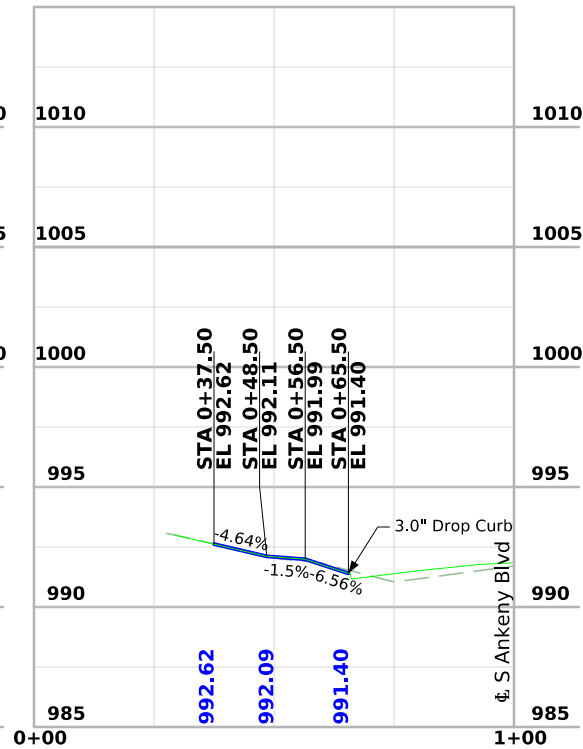


**326+43**  
**GeoENT\_21N**

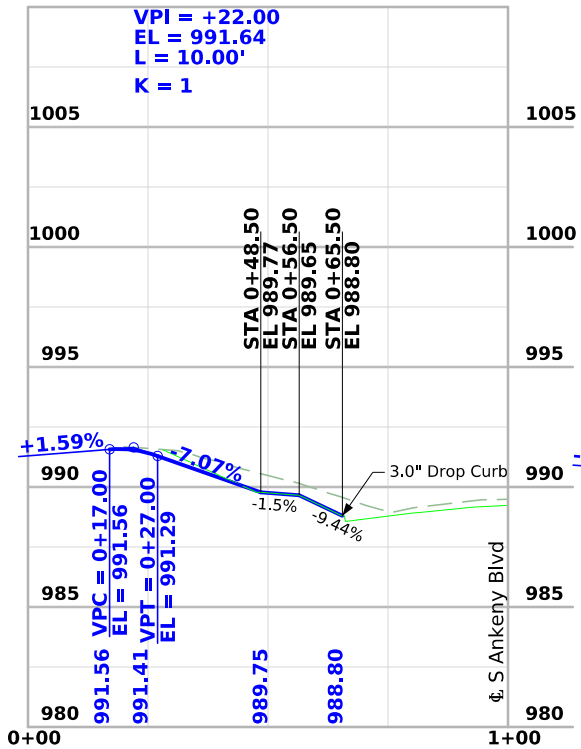




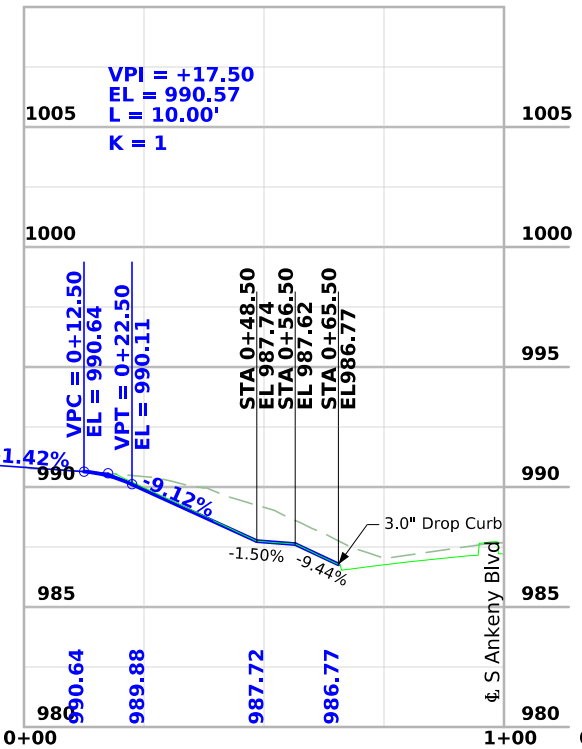
**329+86  
GeoENT\_09S**



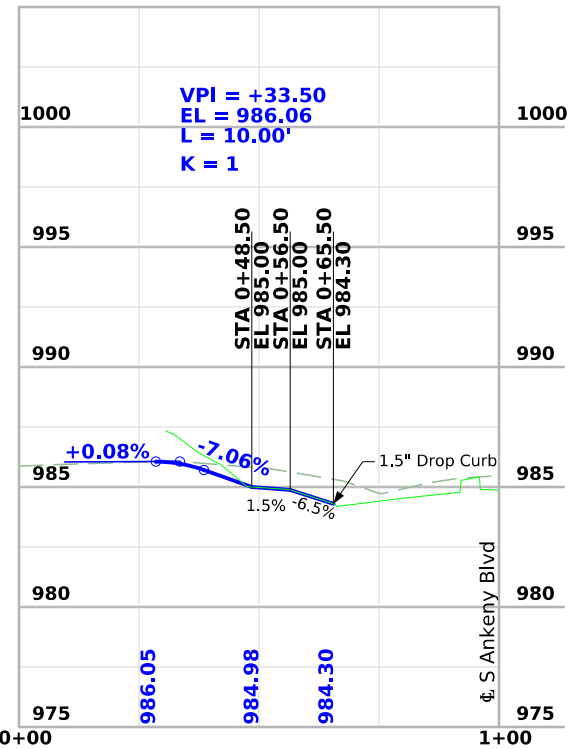
**331+45  
GeoENT\_09N**



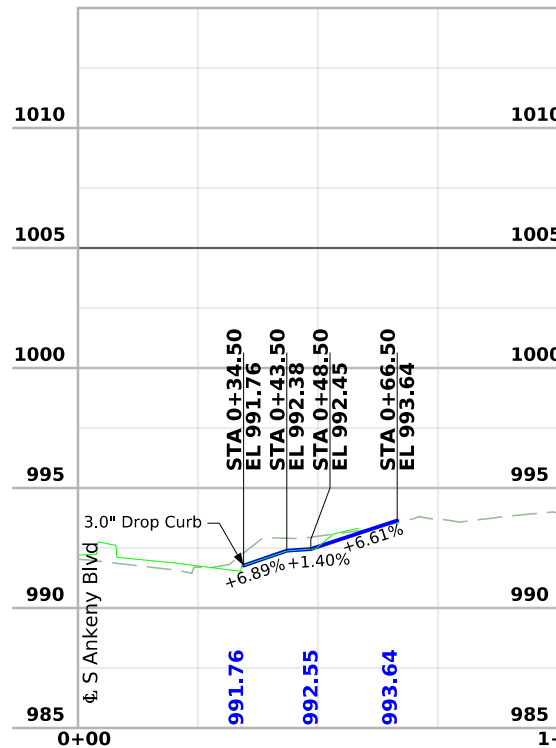
**332+51  
GeoENT\_10**



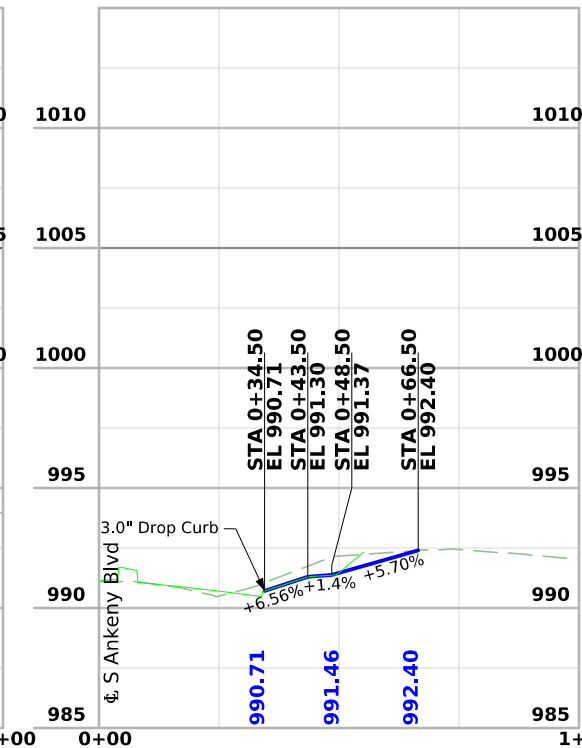
**333+13  
GeoENT\_11**



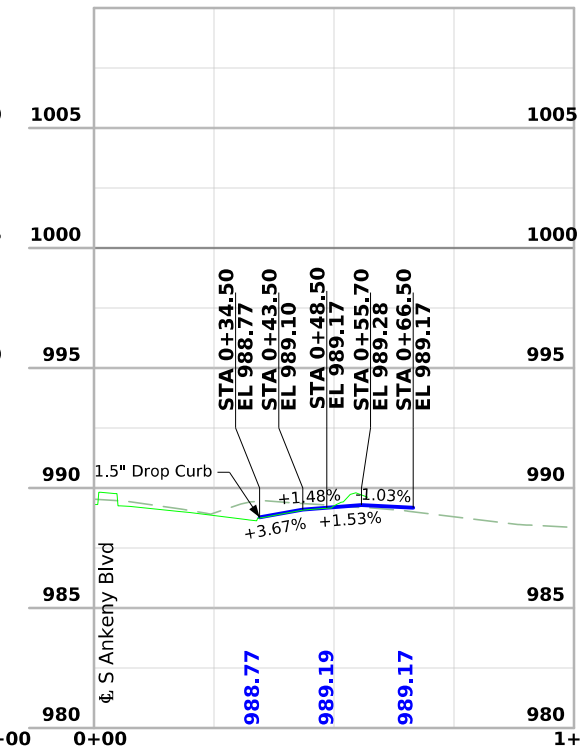
**333+84  
GeoENT\_12S**



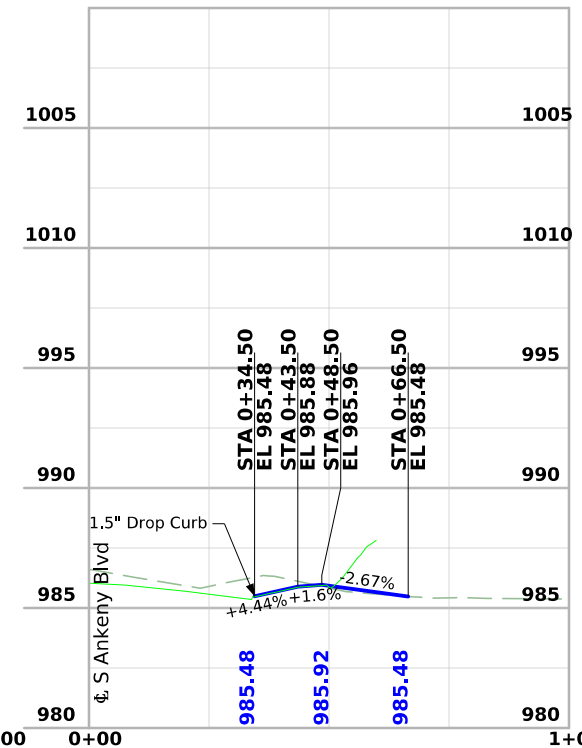
**331+25  
GeoENT\_24S**



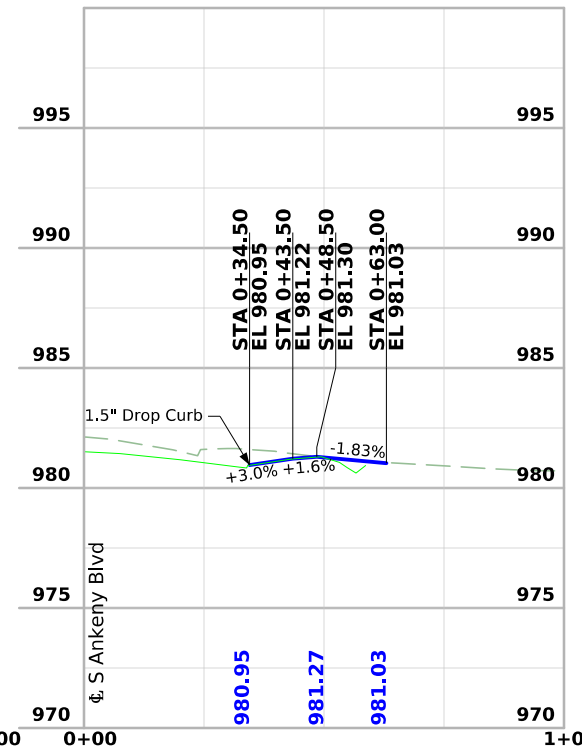
**331+79  
GeoENT\_24N**



**332+48  
GeoENT\_25**

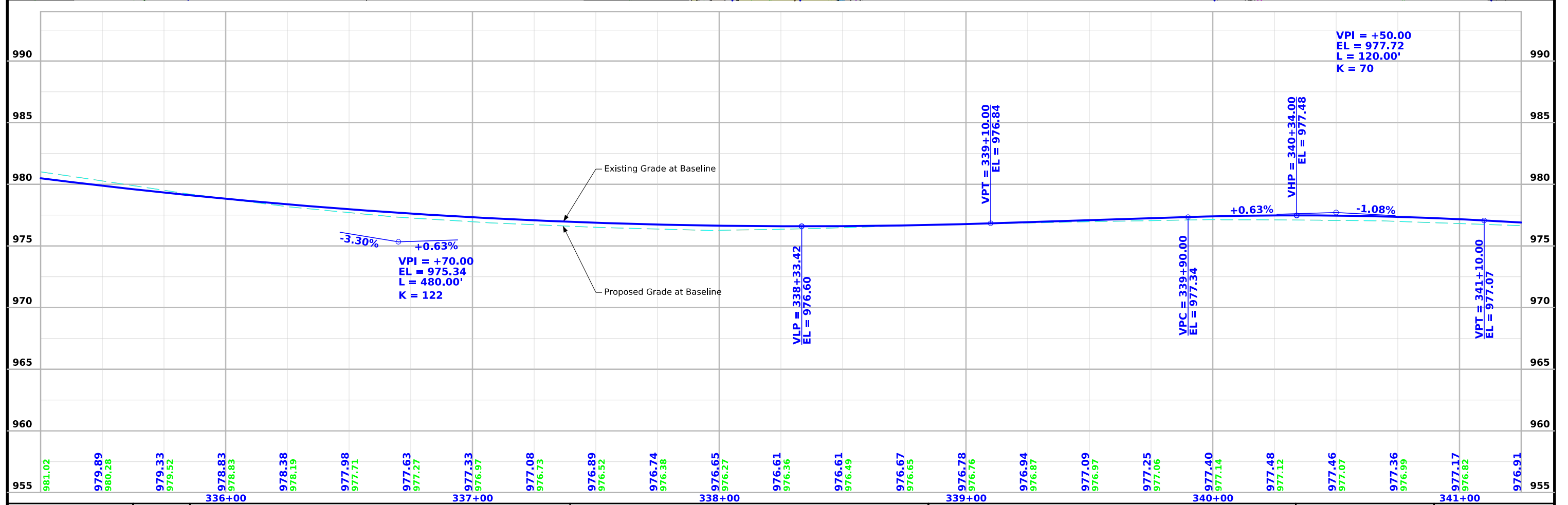
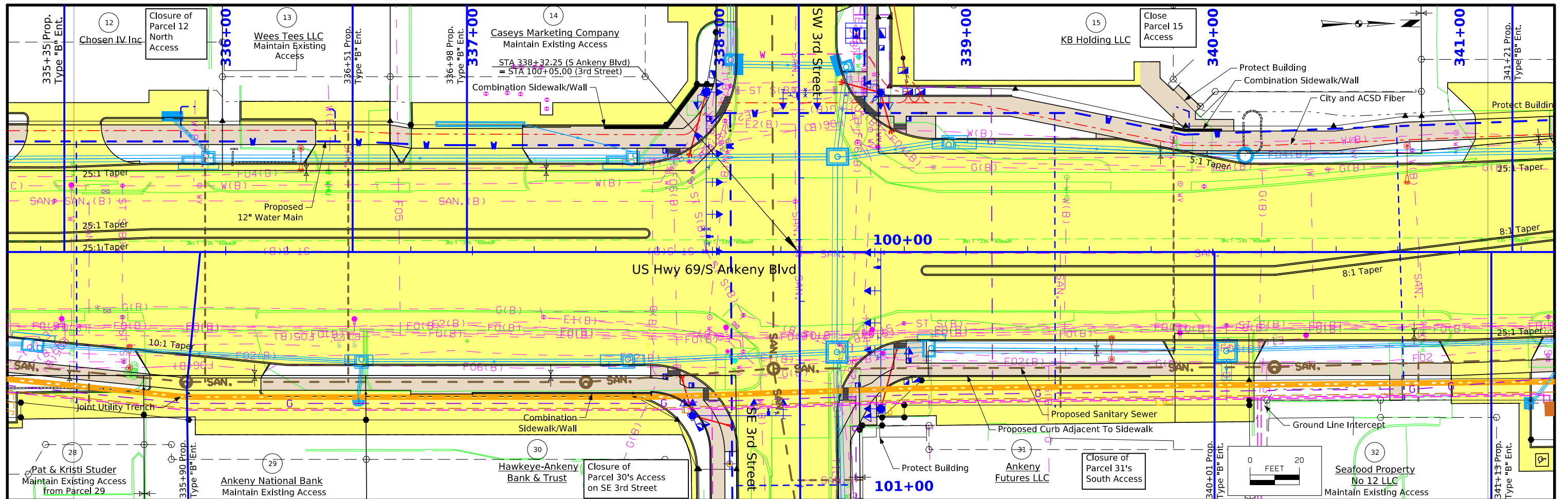


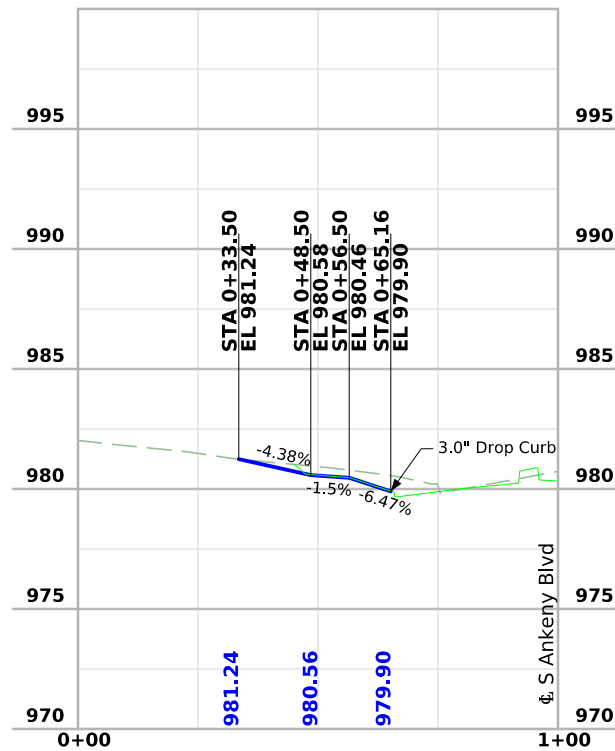
**333+48  
GeoENT\_26**



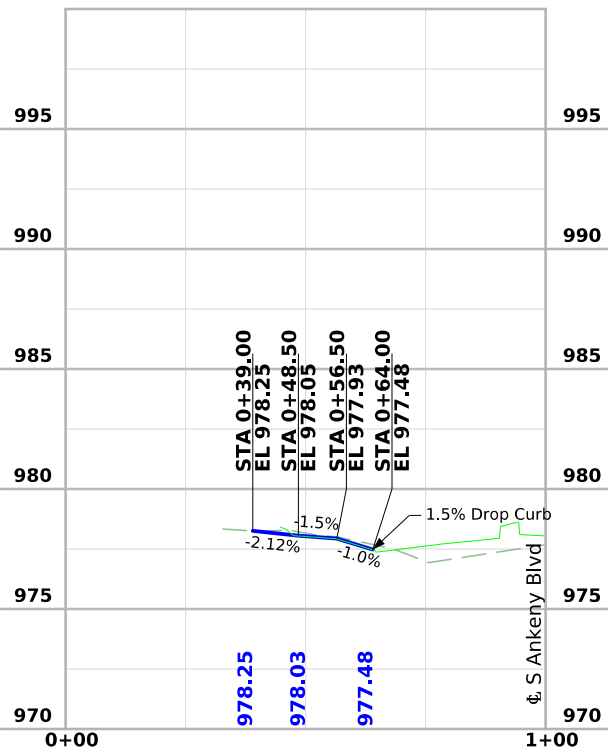
**334+90  
GeoENT\_27**



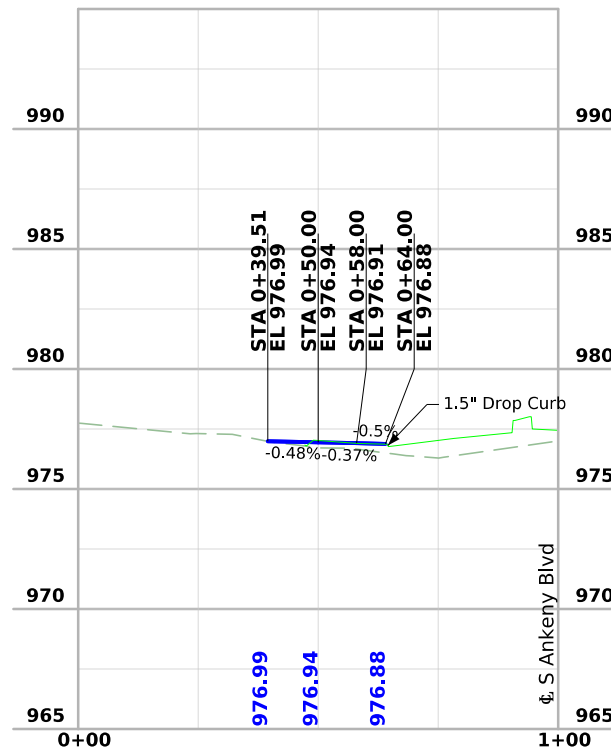




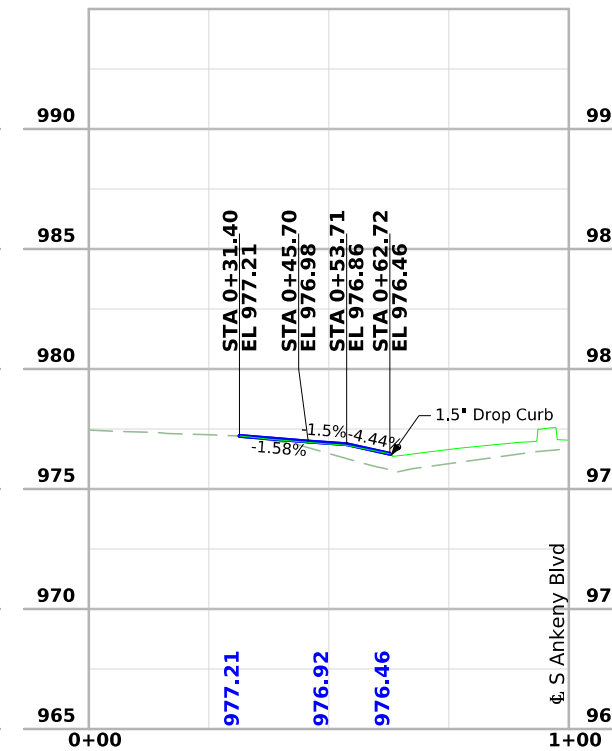
**335+35  
GeoENT\_12N**



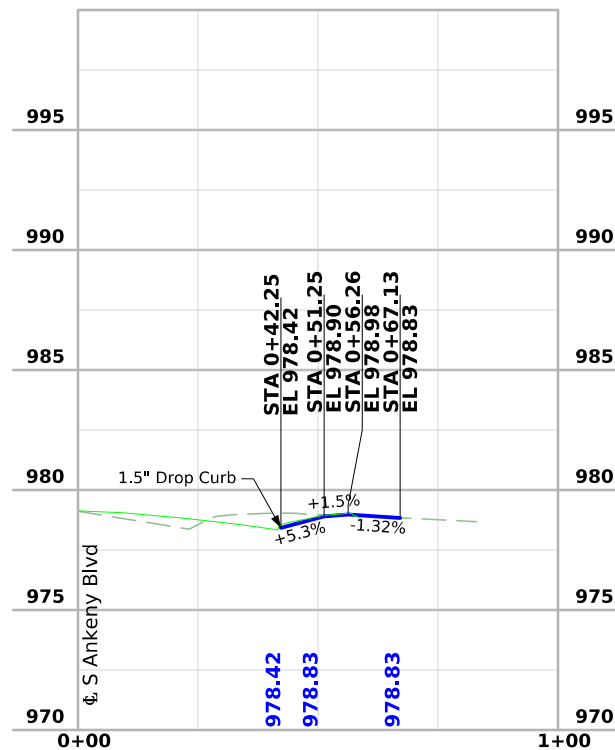
**336+51  
GeoENT\_13**



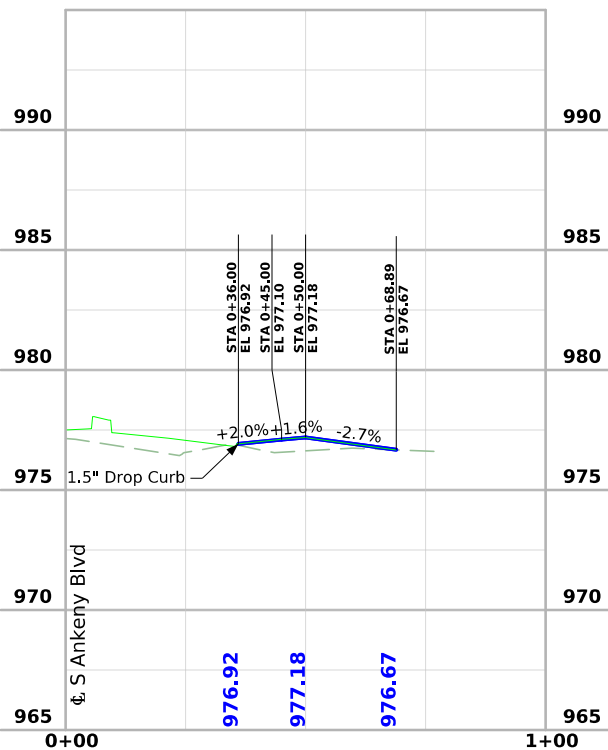
**336+98  
GeoENT\_14S**



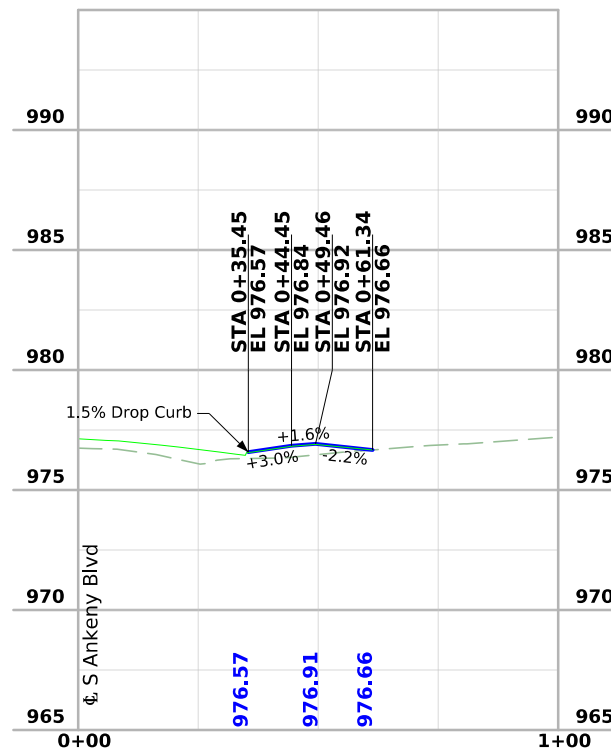
**341+21  
GeoENT\_16**



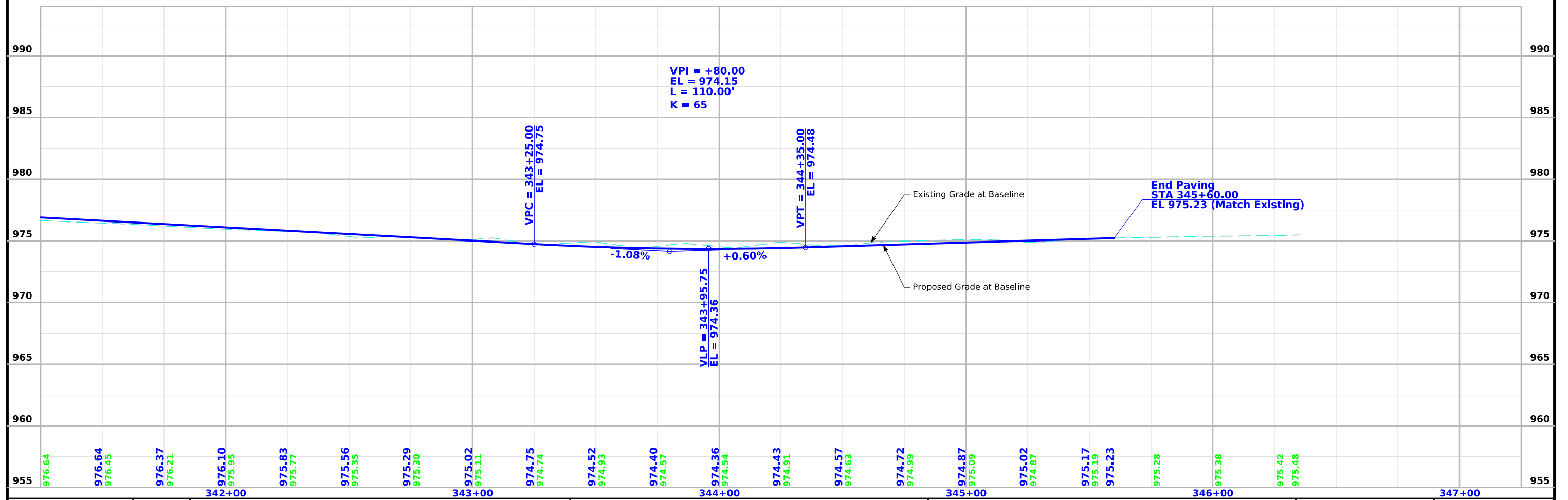
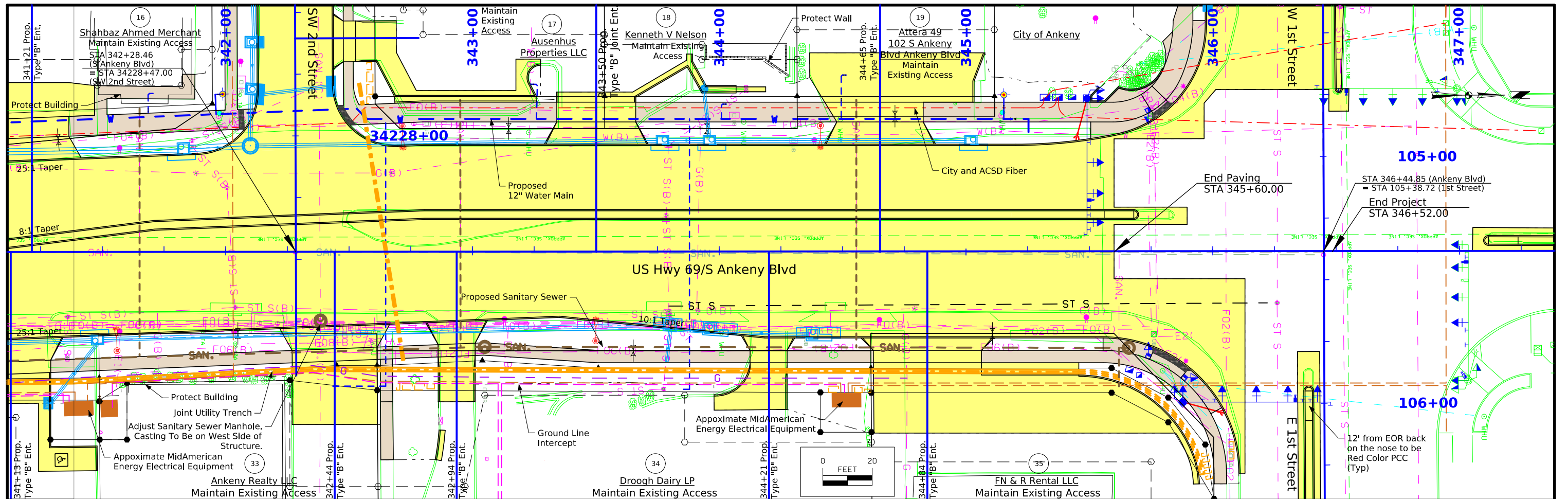
**335+90  
GeoENT\_29**



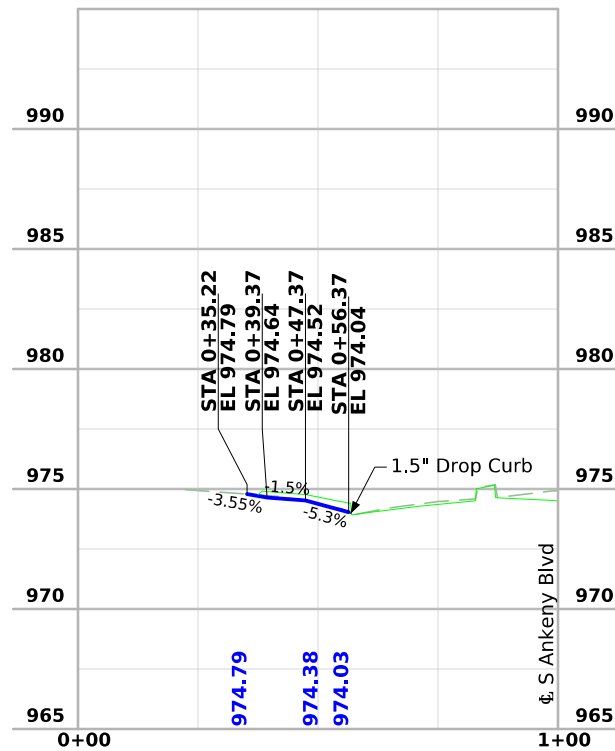
**340+01  
GeoENT\_31**



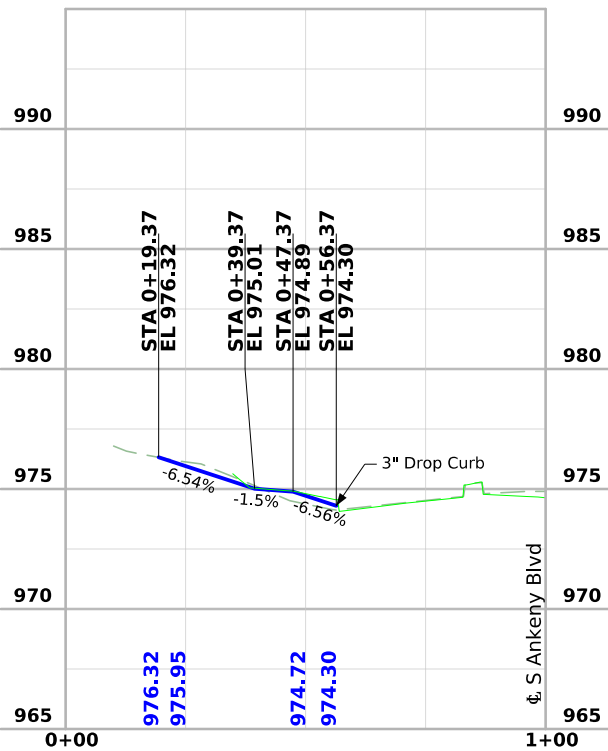
**341+13  
GeoENT\_32**



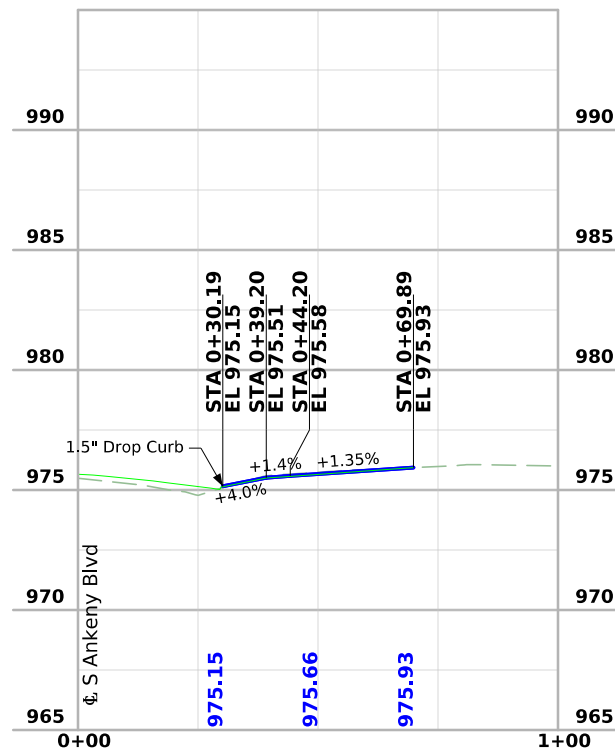
FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	POLK COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>D.8</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------



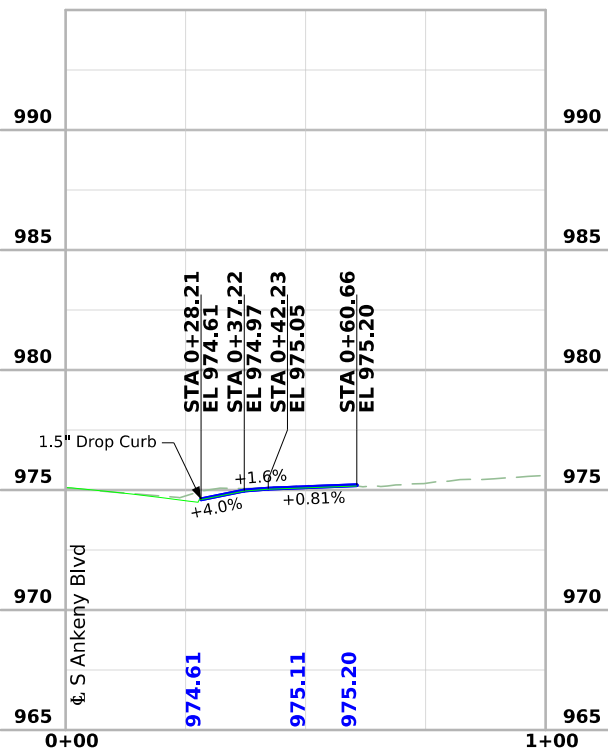
**343+50  
GeoENT\_17N**



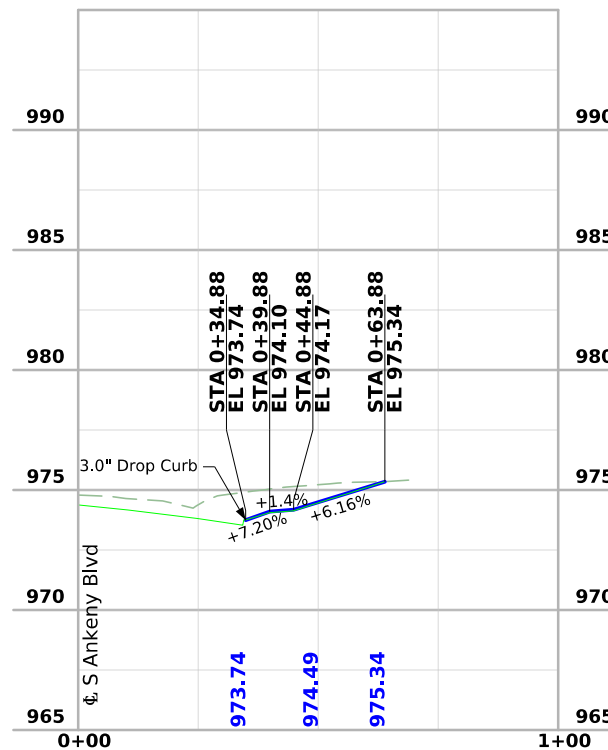
**344+65  
GeoENT\_19**



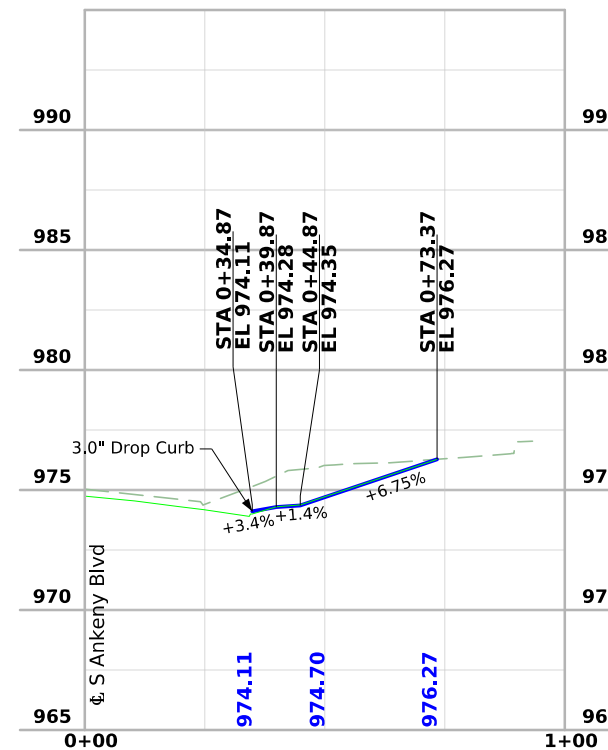
**342+44  
GeoENT\_33**



**342+94  
GeoENT\_34S**

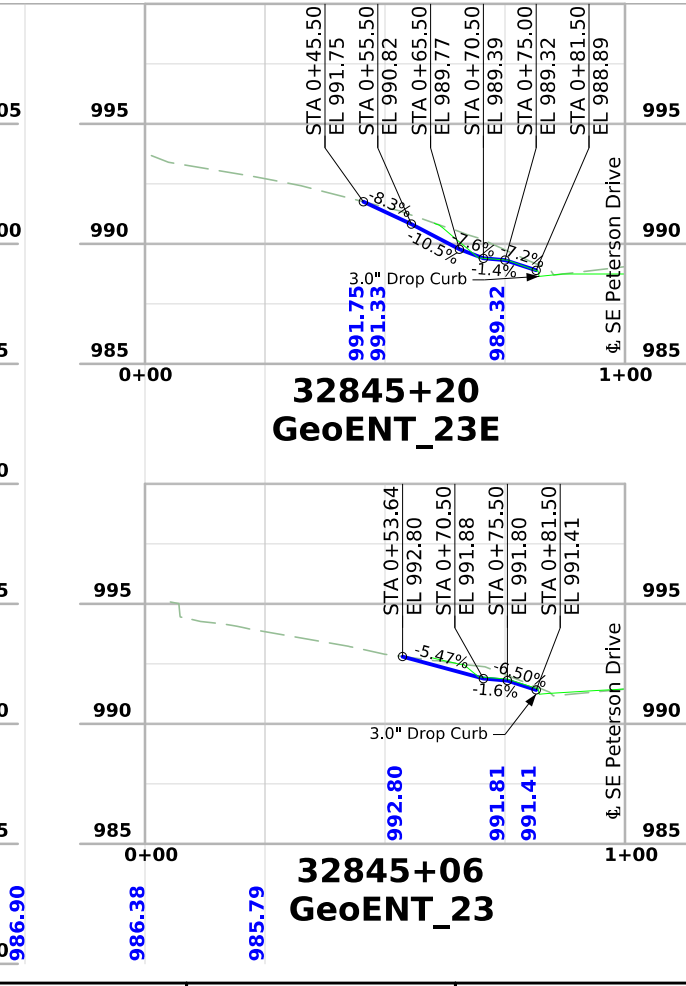
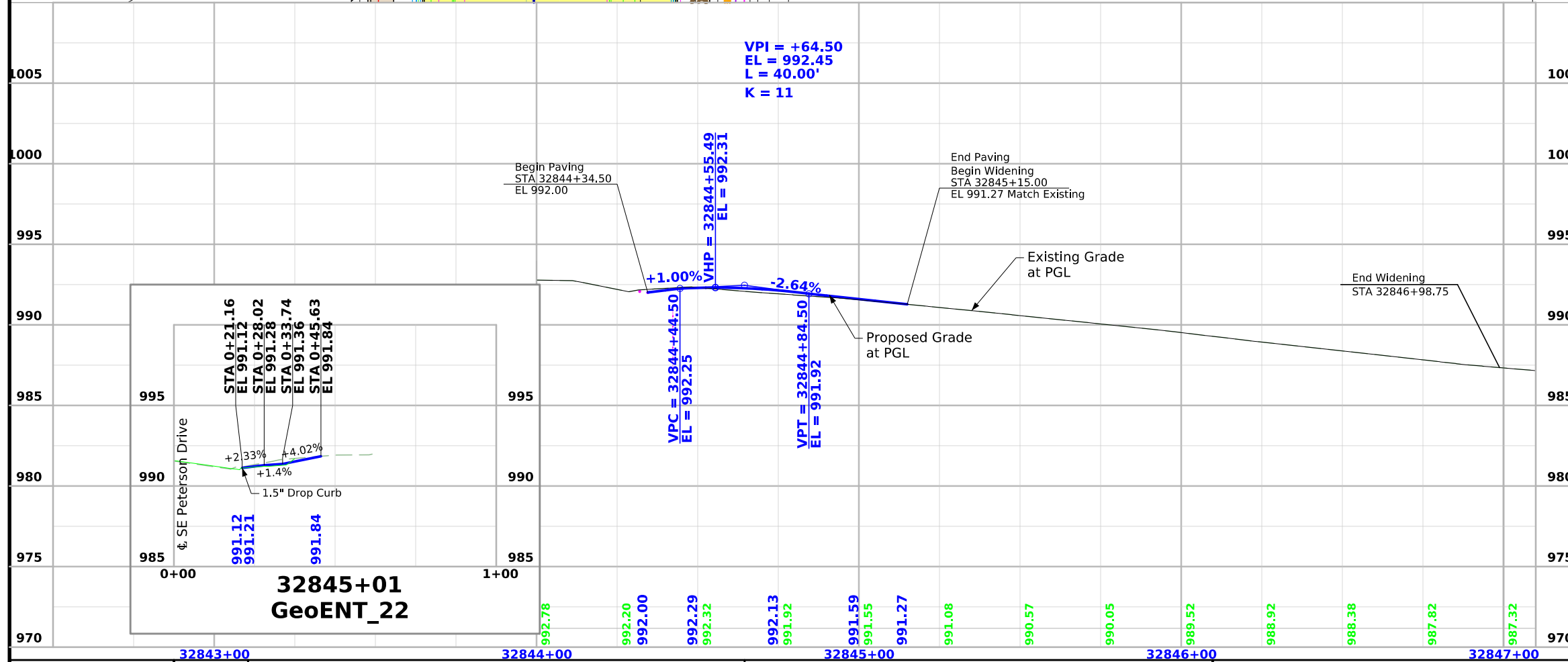
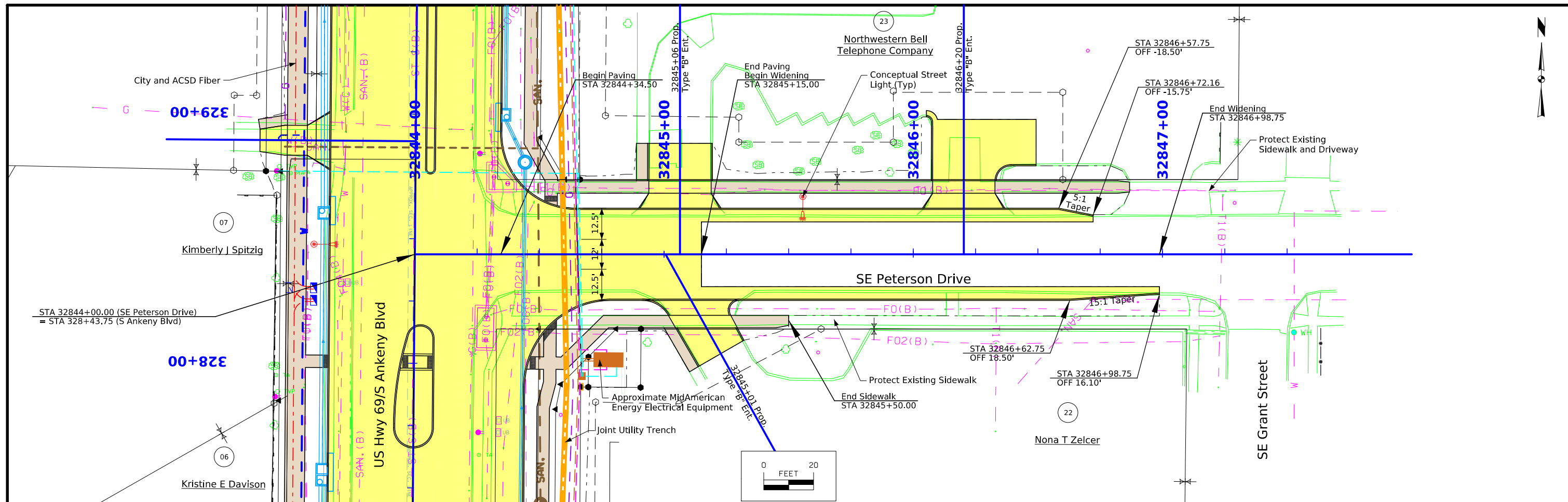


**344+21  
GeoENT\_34N**

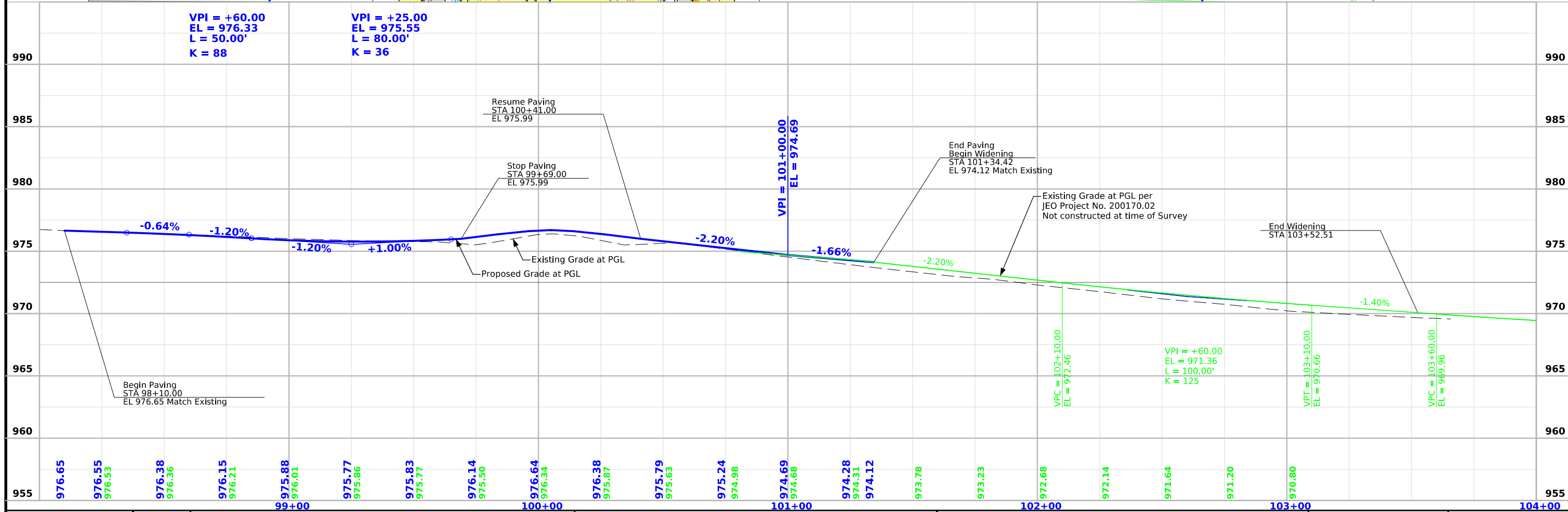
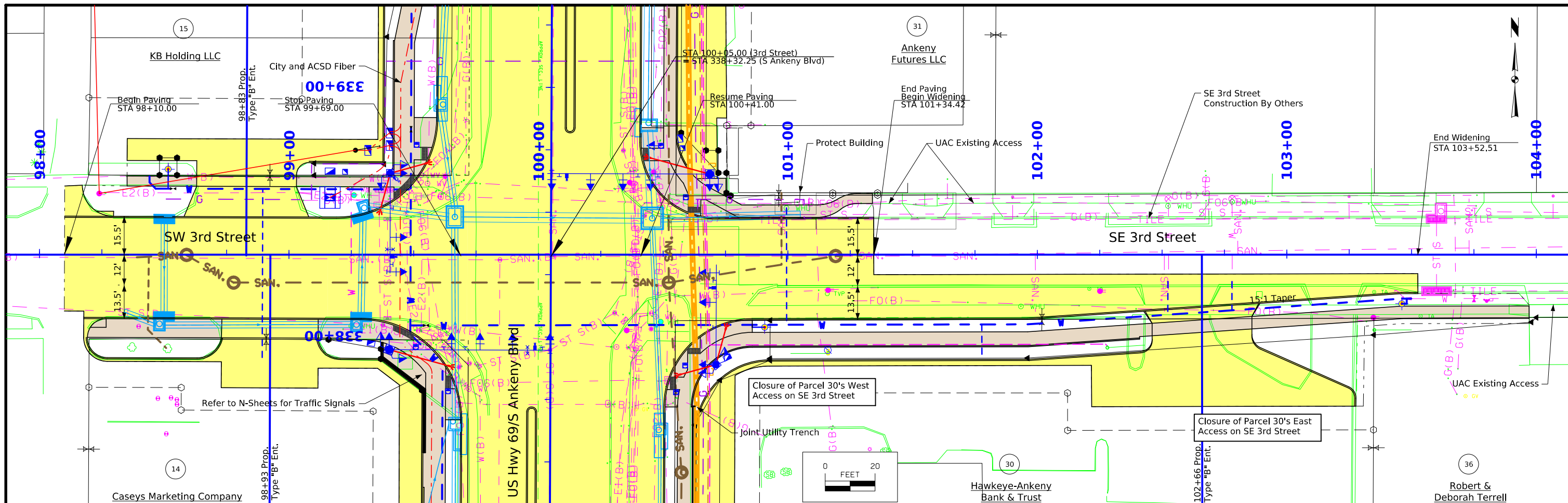


**344+84  
GeoENT\_35**

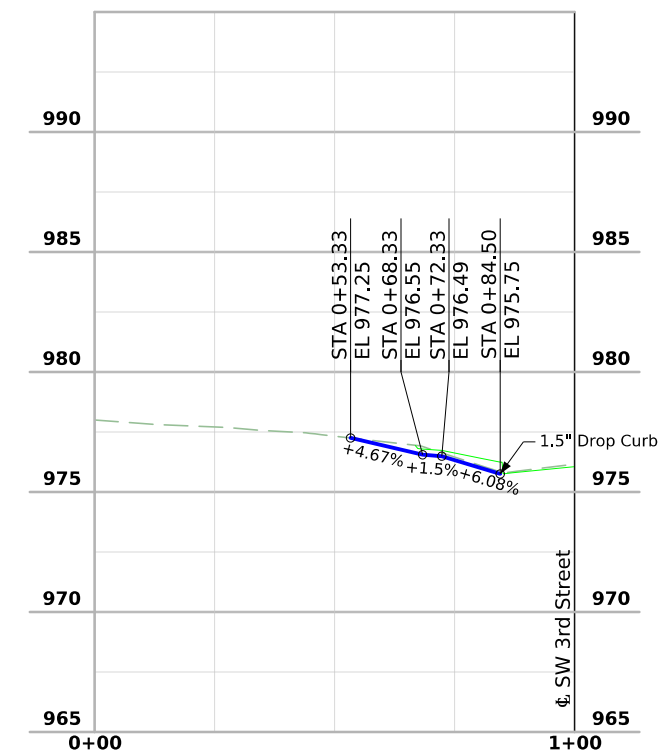




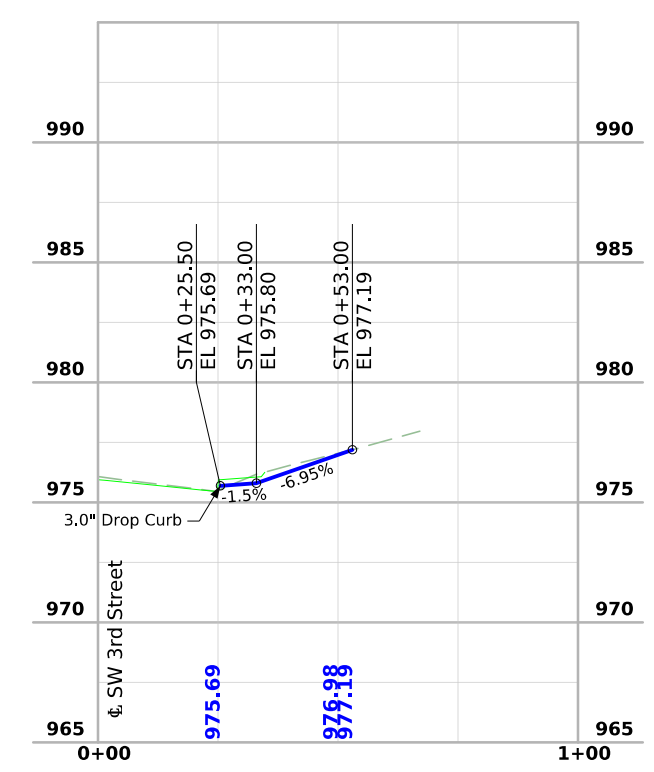
FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	POLK COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>E.1</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------



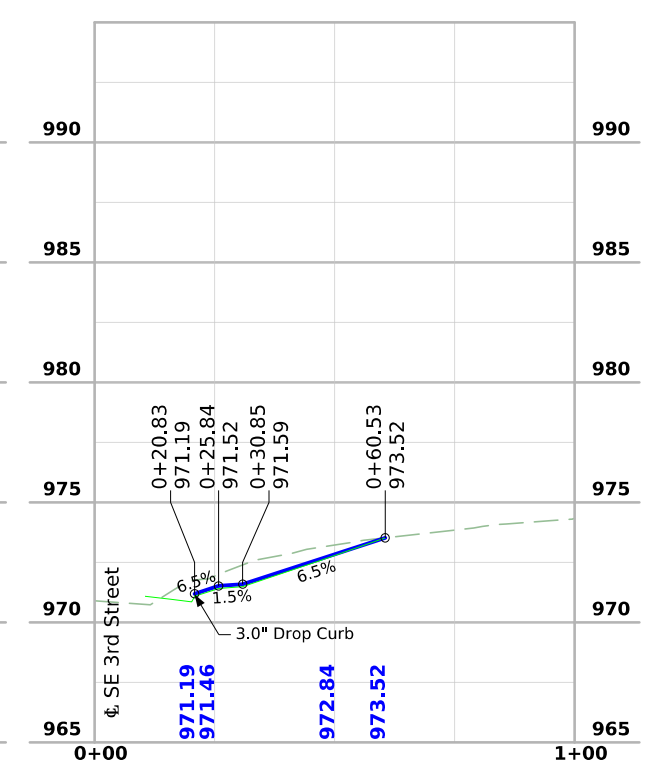
FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>E.2</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------



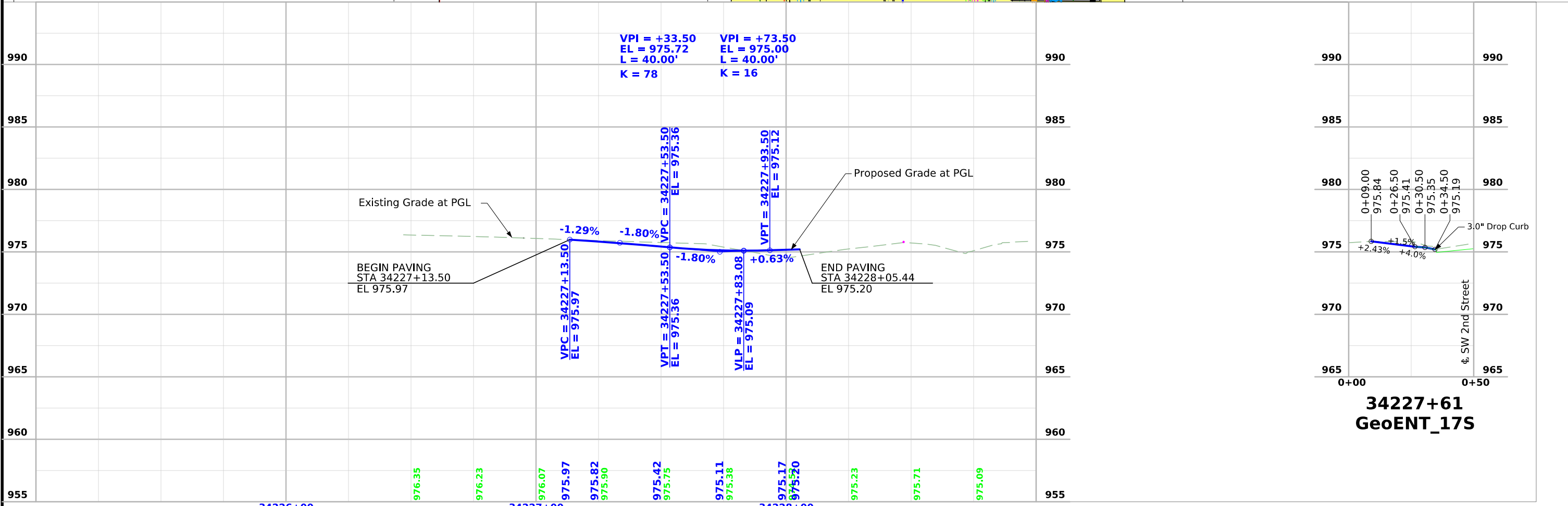
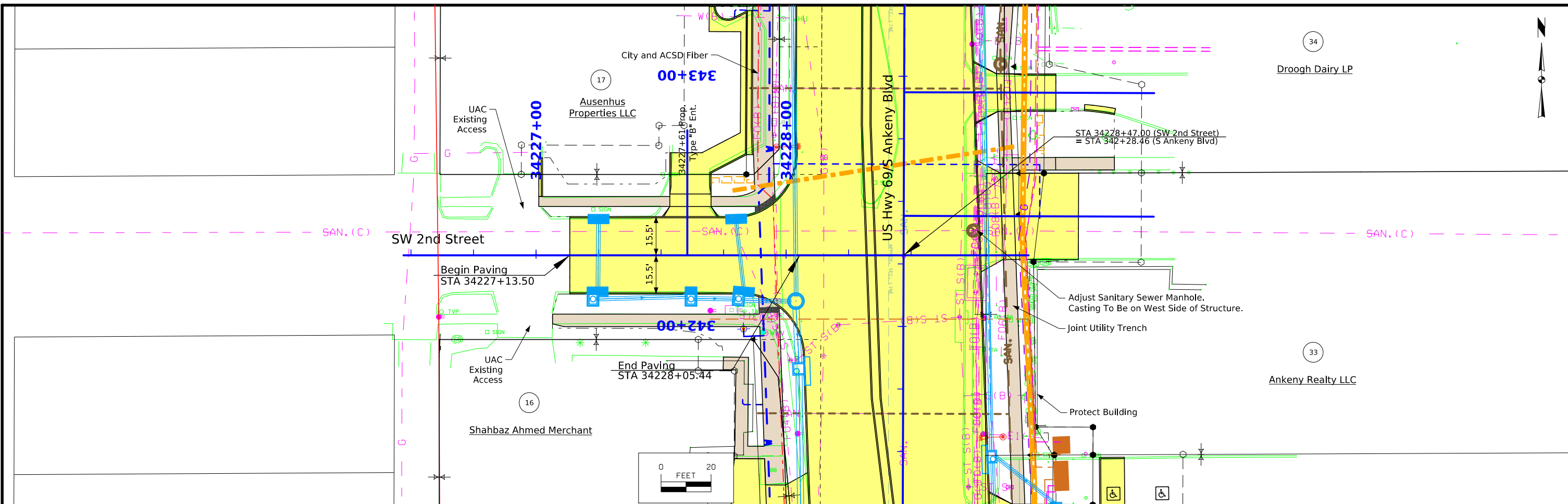
**98+83  
GeoENT\_15**

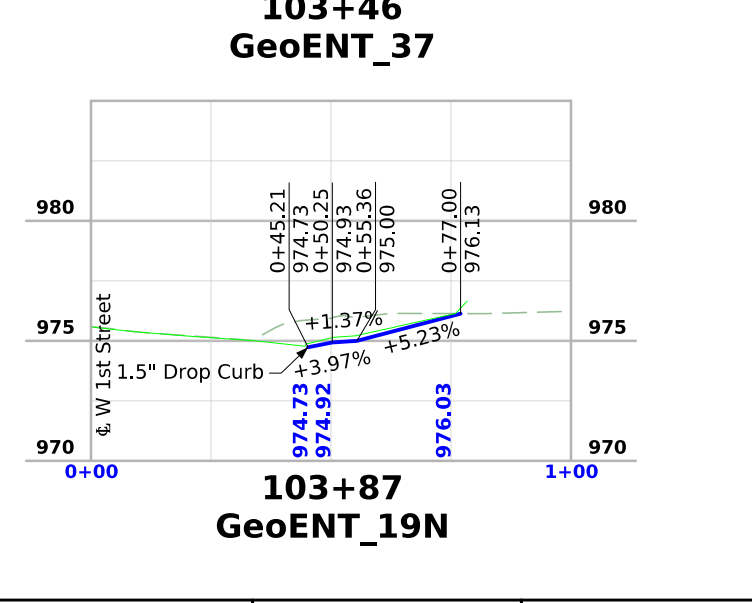
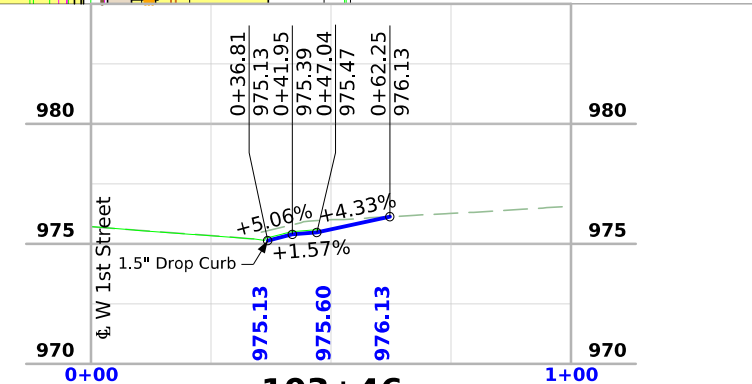
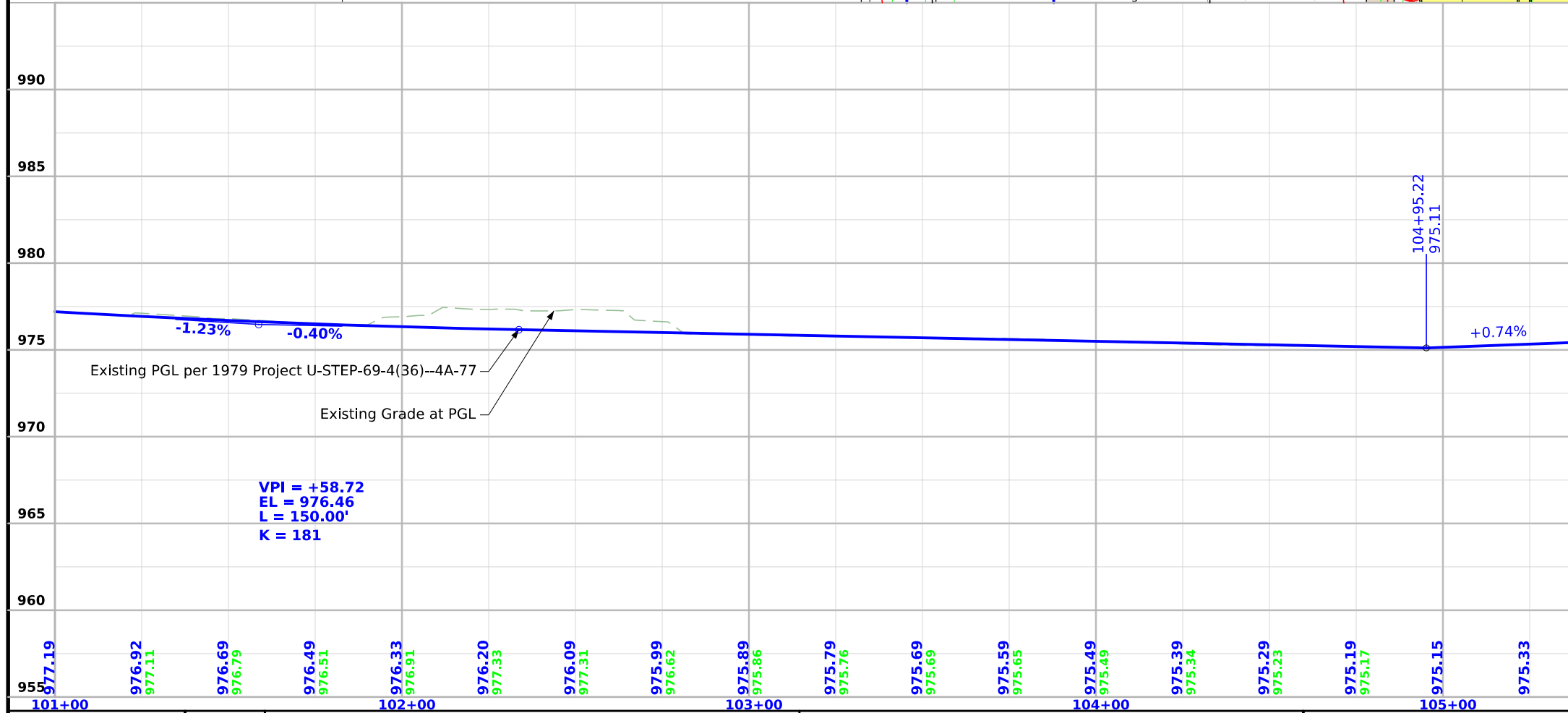
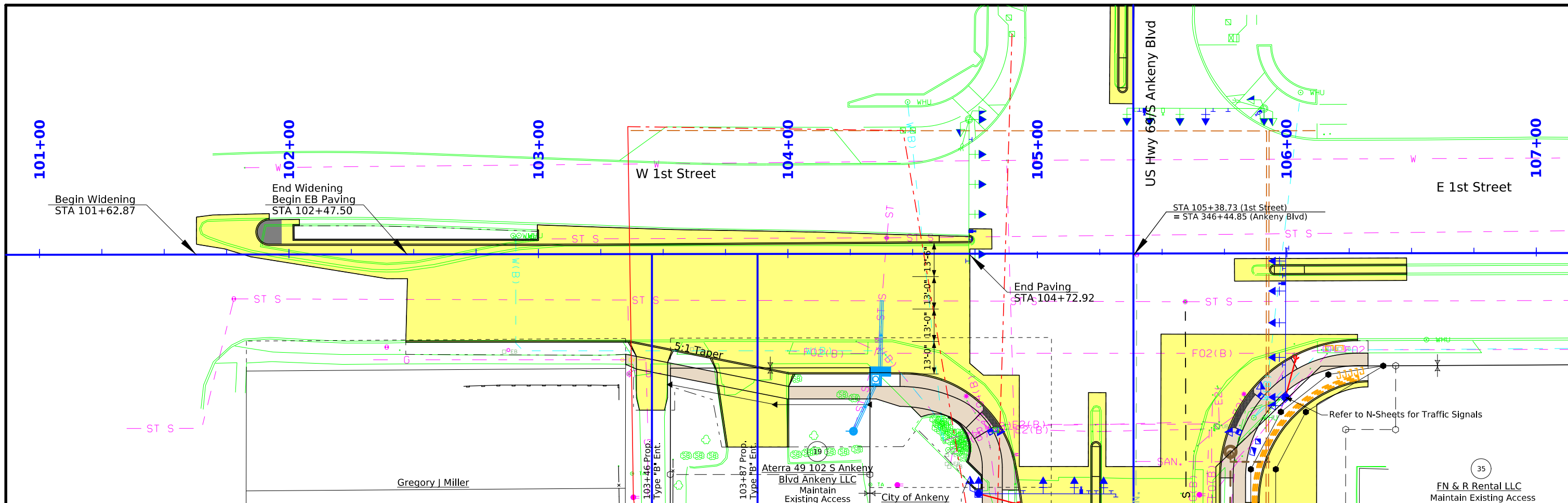


**98+93  
GeoENT\_14N**

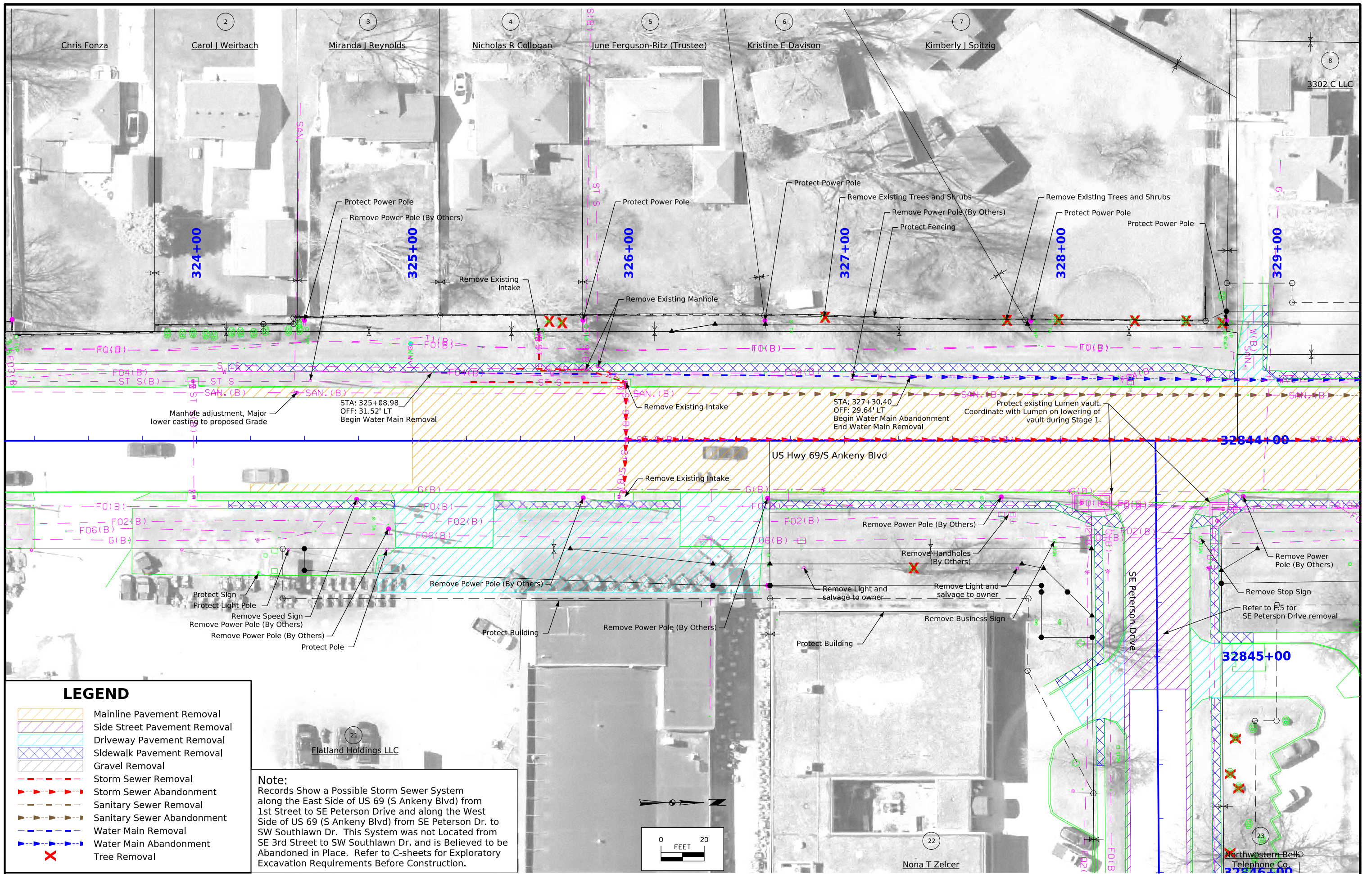


**102+66  
GeoENT\_30**

















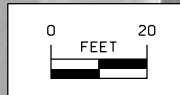




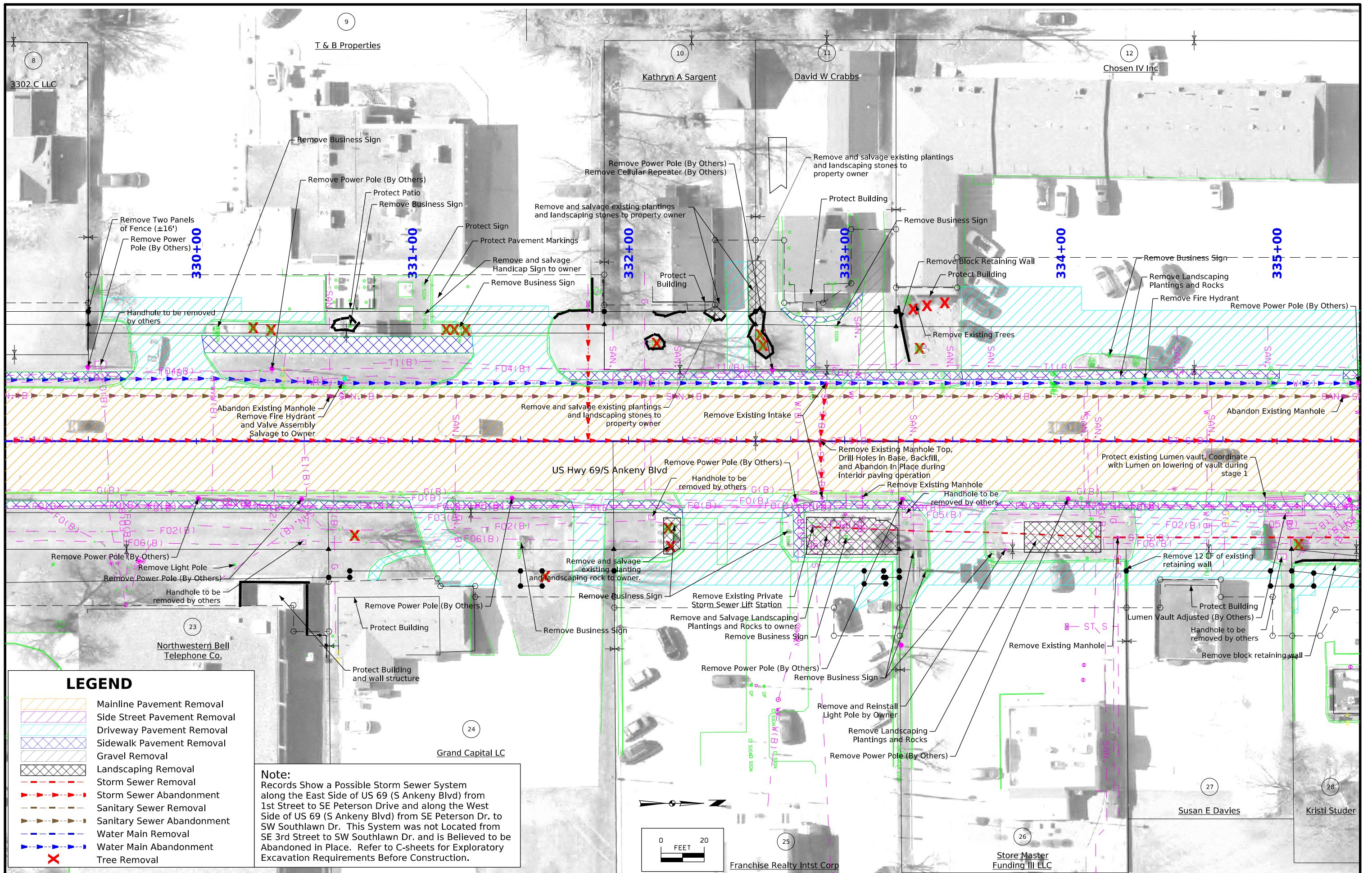
**LEGEND**

-  Mainline Pavement Removal
-  Side Street Pavement Removal
-  Driveway Pavement Removal
-  Sidewalk Pavement Removal
-  Gravel Removal
-  Storm Sewer Removal
-  Storm Sewer Abandonment
-  Sanitary Sewer Removal
-  Sanitary Sewer Abandonment
-  Water Main Removal
-  Water Main Abandonment
-  Tree Removal














**Note:**  
 Records Show a Possible Storm Sewer System along the East Side of US 69 (S Ankeny Blvd) from 1st Street to SE Peterson Drive and along the West Side of US 69 (S Ankeny Blvd) from SE Peterson Dr. to SW Southlawn Dr. This System was not Located from SE 3rd Street to SW Southlawn Dr. and is Believed to be Abandoned in Place. Refer to C-sheets for Exploratory Excavation Requirements Before Construction.



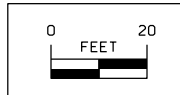




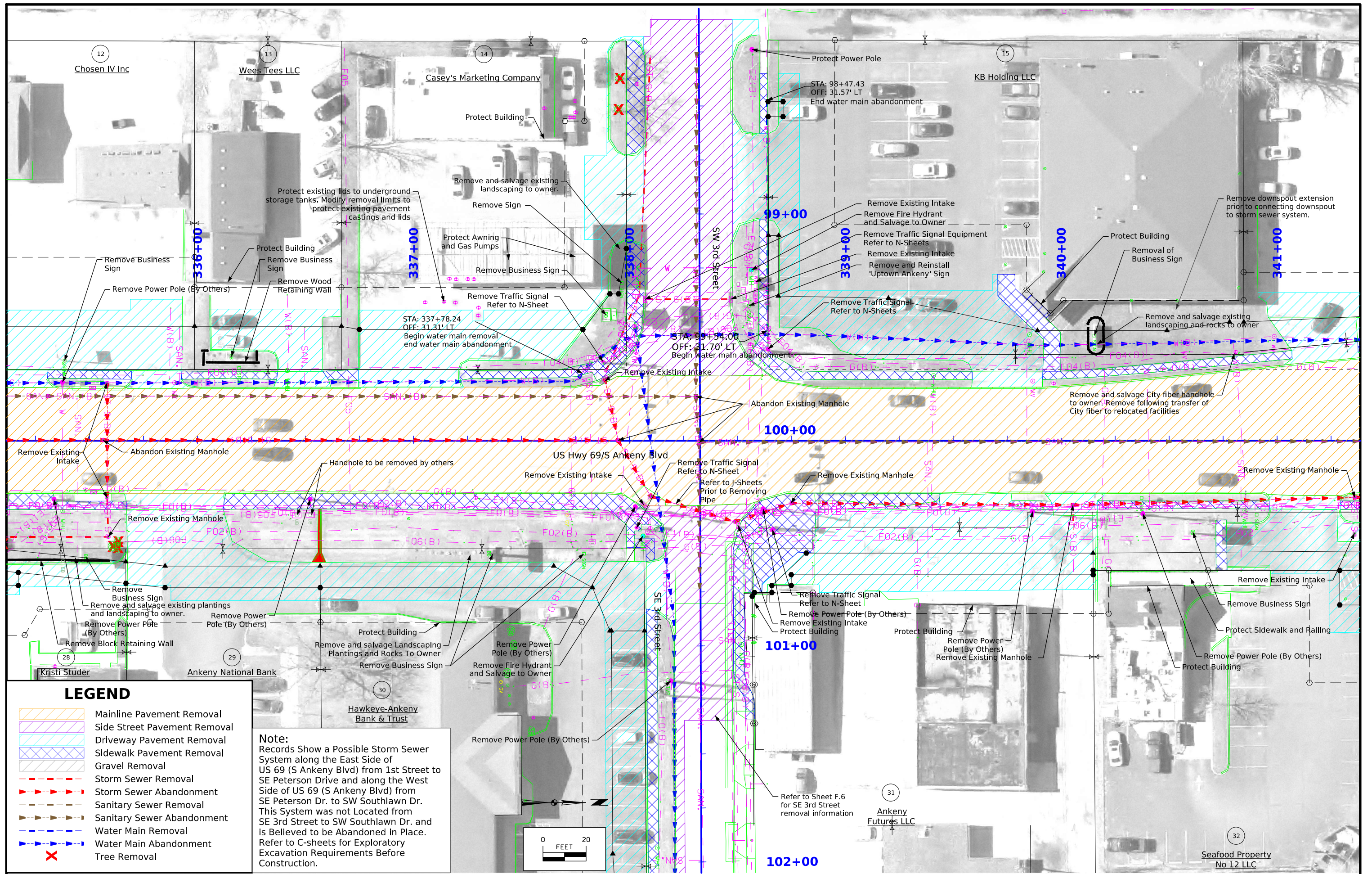
**LEGEND**

-  Mainline Pavement Removal
-  Side Street Pavement Removal
-  Driveway Pavement Removal
-  Sidewalk Pavement Removal
-  Gravel Removal
-  Landscaping Removal
-  Storm Sewer Removal
-  Storm Sewer Abandonment
-  Sanitary Sewer Removal
-  Sanitary Sewer Abandonment
-  Water Main Removal
-  Water Main Abandonment
-  Tree Removal

**Note:**  
 Records Show a Possible Storm Sewer System along the East Side of US 69 (S Ankeny Blvd) from 1st Street to SE Peterson Drive and along the West Side of US 69 (S Ankeny Blvd) from SE Peterson Dr. to SW Southlawn Dr. This System was not Located from SE 3rd Street to SW Southlawn Dr. and is Believed to be Abandoned in Place. Refer to C-sheets for Exploratory Excavation Requirements Before Construction.



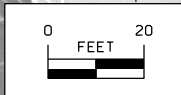




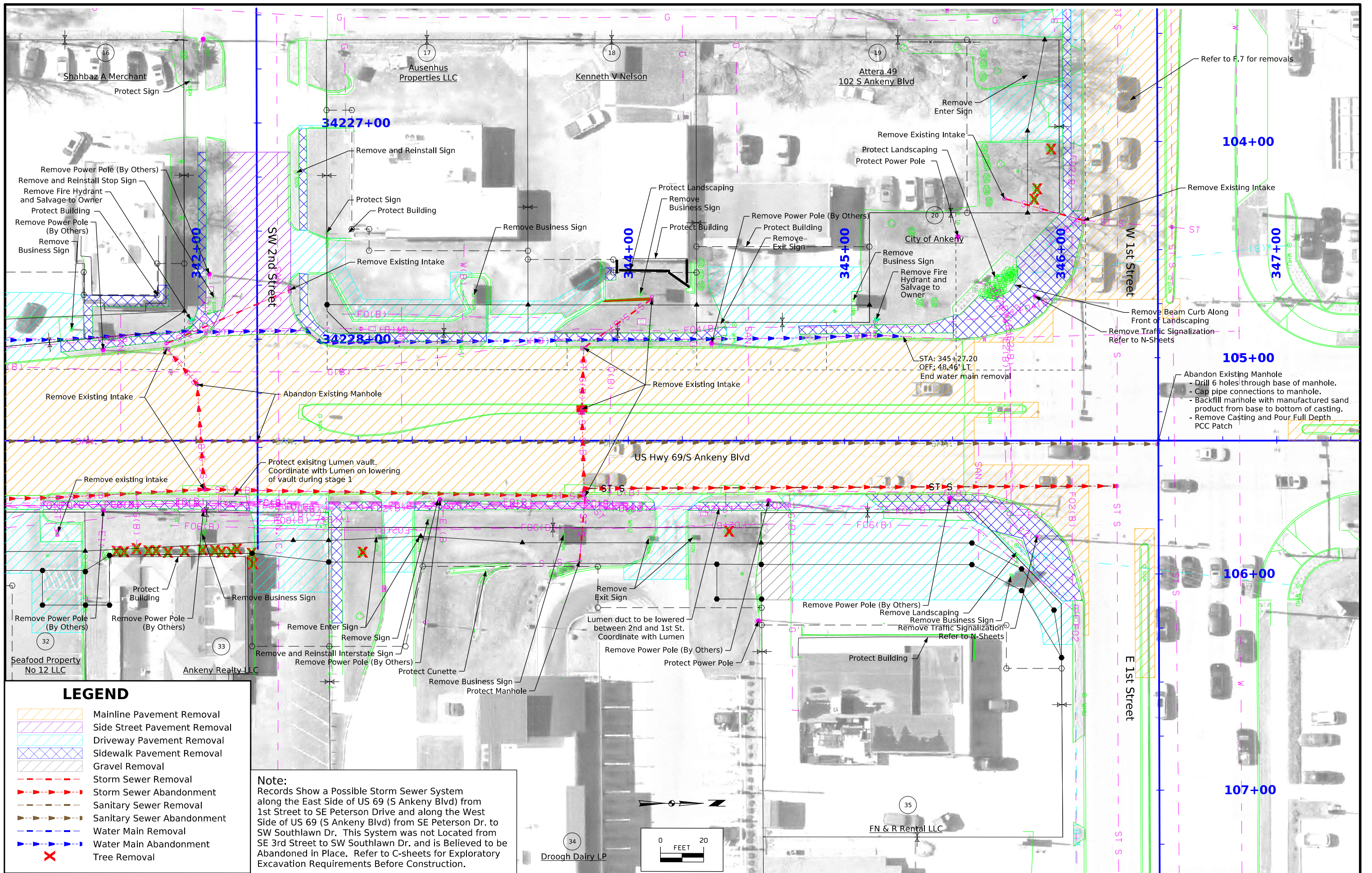
**LEGEND**

- Mainline Pavement Removal
- Side Street Pavement Removal
- Driveway Pavement Removal
- Sidewalk Pavement Removal
- Gravel Removal
- Storm Sewer Removal
- Storm Sewer Abandonment
- Sanitary Sewer Removal
- Sanitary Sewer Abandonment
- Water Main Removal
- Water Main Abandonment
- X Tree Removal

**Note:**  
 Records Show a Possible Storm Sewer System along the East Side of US 69 (S Ankeny Blvd) from 1st Street to SE Peterson Drive and along the West Side of US 69 (S Ankeny Blvd) from SE Peterson Dr. to SW Southlawn Dr. This System was not Located from SE 3rd Street to SW Southlawn Dr. and is Believed to be Abandoned in Place. Refer to C-sheets for Exploratory Excavation Requirements Before Construction.



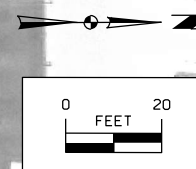




**LEGEND**

- Mainline Pavement Removal
- Side Street Pavement Removal
- Driveway Pavement Removal
- Sidewalk Pavement Removal
- Gravel Removal
- Storm Sewer Removal
- Storm Sewer Abandonment
- Sanitary Sewer Removal
- Sanitary Sewer Abandonment
- Water Main Removal
- Water Main Abandonment
- X Tree Removal

**Note:**  
 Records Show a Possible Storm Sewer System along the East Side of US 69 (S Ankeny Blvd) from 1st Street to SE Peterson Drive and along the West Side of US 69 (S Ankeny Blvd) from SE Peterson Dr. to SW Southlawn Dr. This System was not Located from SE 3rd Street to SW Southlawn Dr. and is Believed to be Abandoned in Place. Refer to C-sheets for Exploratory Excavation Requirements Before Construction.

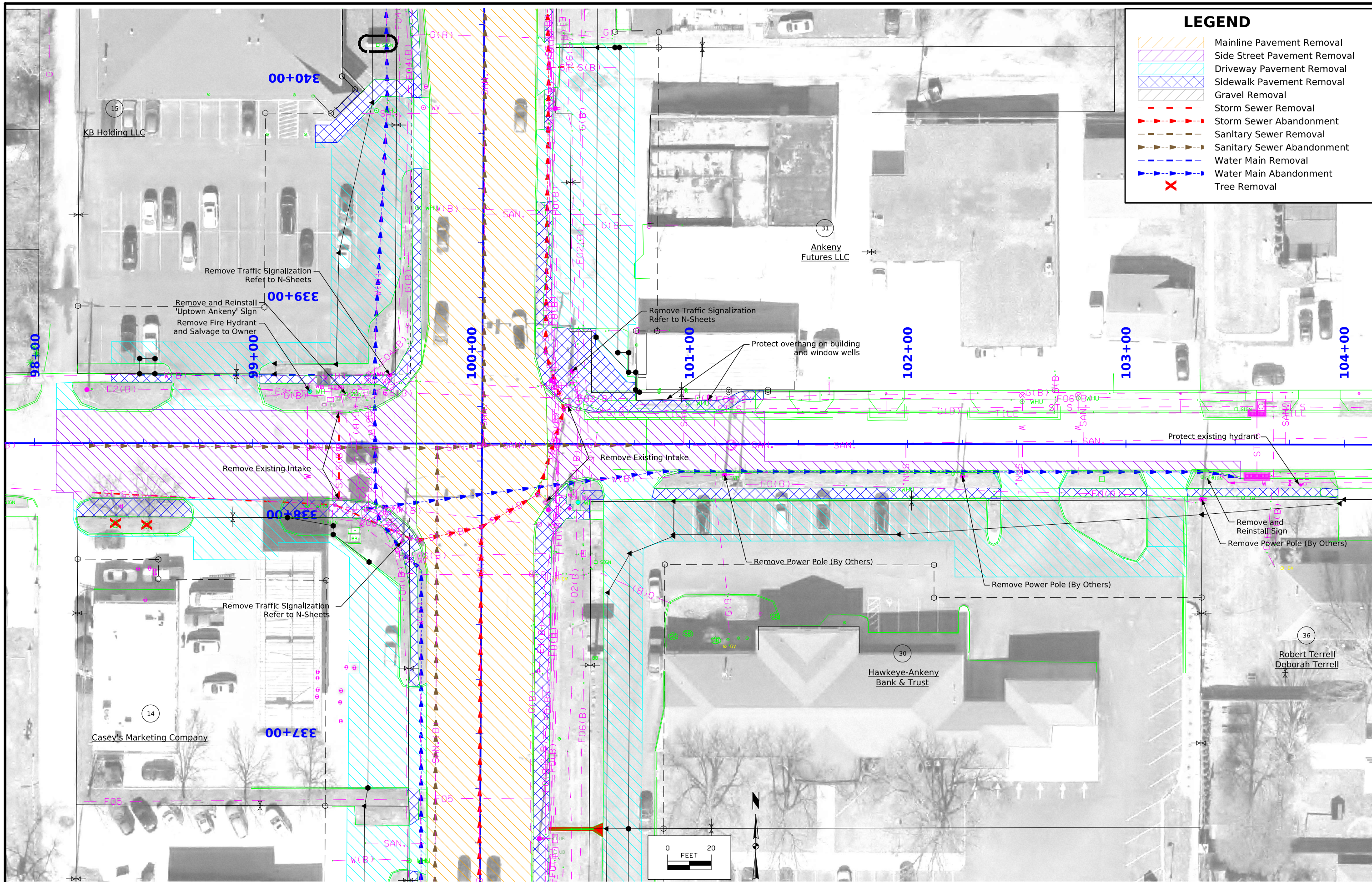






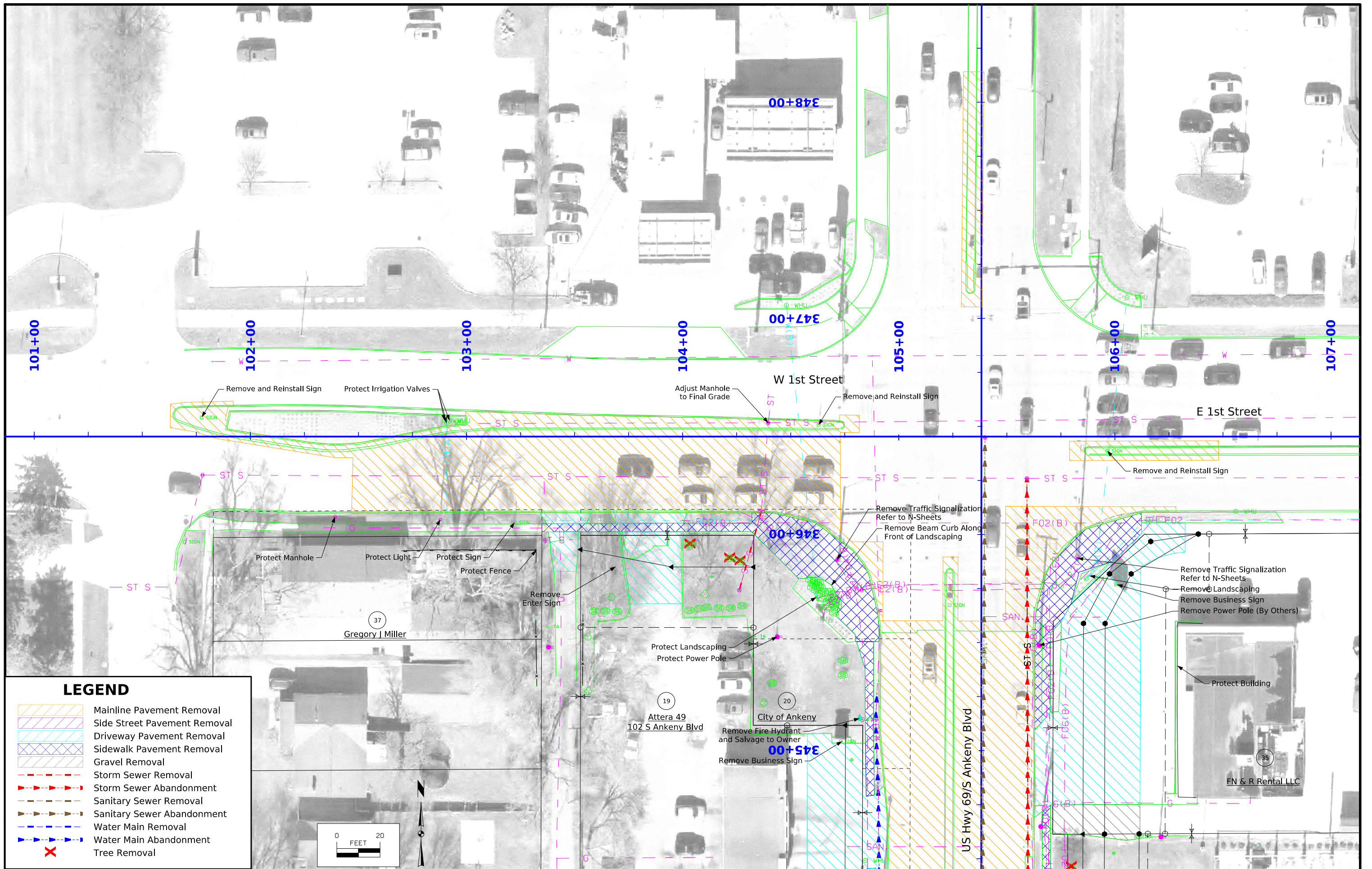
LEGEND	
	Mainline Pavement Removal
	Side Street Pavement Removal
	Driveway Pavement Removal
	Sidewalk Pavement Removal
	Gravel Removal
	Storm Sewer Removal
	Storm Sewer Abandonment
	Sanitary Sewer Removal
	Sanitary Sewer Abandonment
	Water Main Removal
	Water Main Abandonment
	Tree Removal














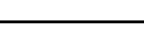


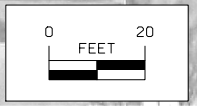
LEGEND	
	Mainline Pavement Removal
	Side Street Pavement Removal
	Driveway Pavement Removal
	Sidewalk Pavement Removal
	Gravel Removal
	Storm Sewer Removal
	Storm Sewer Abandonment
	Sanitary Sewer Removal
	Sanitary Sewer Abandonment
	Water Main Removal
	Water Main Abandonment
	Tree Removal





**LEGEND**

-  Mainline Pavement Removal
-  Side Street Pavement Removal
-  Driveway Pavement Removal
-  Sidewalk Pavement Removal
-  Gravel Removal
-  Storm Sewer Removal
-  Storm Sewer Abandonment
-  Sanitary Sewer Removal
-  Sanitary Sewer Abandonment
-  Water Main Removal
-  Water Main Abandonment
-  Tree Removal





## Survey Information

SAP# \_\_\_\_\_

Last Date Revised – 04-29-2024  
Update above when revisions are made.

**City of Ankeny - POLK County**  
**NHSX-069-4(136)--3H-77**  
**South Ankeny Blvd Improvements**  
**SE Peterson Dr. To 1<sup>st</sup> Street**  
**PIN 20-77-069-010**

### Party Personnel

Terry Coady - Survey Manager/PLS  
Adam Catrenich - Survey Party Chief  
Brian Leonard - Survey Party Chief  
Jeff Pavelke – Survey Party Chief  
Jason Poole - Survey Office Technician  
Sam Blaisdell – Survey Office Technician  
Roman Lopreato – Survey Field Technician  
Trevor Thompson - Survey Field Technician  
Nick Osmonson - Survey Field Technician

### Date(s) of Survey

Begin Date                5/10/2023  
End Date                    4/25/2023

### General Information

Measurement units for this survey are US survey feet. This survey is for Preliminary Engineering Survey for the proposed improvements to South Ankeny Boulevard (Hwy 69) in Ankeny, Iowa.

### Vertical Control

Vertical datum for this survey is relative to NAVD88 Geoid 12b. Vertical datum originated from project F-69-4(1)20-77 no longer exists. Additional primary control points elevations were added. Each primary control was acquired by one 20 minute observation in the AM and one 20 minute observation in the PM and then averaged.

### Horizontal Control

Measurement units for this survey are US Survey Feet.

The project coordinate system is the Iowa Regional Coordinate System, Zone 8 Ames – Des Moines. The datum for the IaRTN is currently NAD83(2011)(Epoch 2010.000). Originally the IaRTN was on NAD83(CORS96)(Epoch 2002.0000), but switched over to NAD83(2011)(Epoch 2010.000) on January 7, 2013.

### Alignment Information

This horizontal alignment was provided by IDOT.

### Utility Information

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 *Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data*.

#### Remark abbreviations

**QLA** – Quality Level A Highest guideline quality level.

*Involves the use of nondestructive digging equipment at critical points to determine the precise horizontal and vertical position of underground utilities, as well as the type, size, condition, material, and other characteristics. This activity is called "locating". It is the highest level presently available. When surveyed and mapped, precise plan and profile information is available for use in making final design decisions. By knowing exactly where a utility is positioned in three dimensions, the designer can often make small adjustments in elevations or horizontal locations and avoid the need to relocate utilities. Additional information such as utility material, condition, size, soil contamination, and paving thickness also assists the designer and utility owner in their decisions.*

**QLB** – Quality Level B Second highest guideline quality level.

*Involves use of surface geophysical techniques to determine the existence and horizontal position of underground utilities. This activity is called "designating". Two-dimensional mapping information is obtained. This information is usually sufficient to accomplish preliminary engineering goals. Decisions can be made on where to place storm sewer*

*Drainage systems, footings, foundations, and other design features in order to avoid conflicts with existing utilities. Slight adjustments in the design can produce substantial cost savings by eliminating utility relocations.*

**QLC** – Quality Level C Third highest guideline quality level.

*Involves surveying visible, above-ground utility facilities, such as manholes, valve boxes, posts, etc., and correlating this information with existing utility records. When using this information, it is not unusual to find that many underground utilities have been either omitted or erroneously plotted. Its usefulness, therefore, should be confined to rural projects where utilities are not prevalent, or are not too expensive to repair or relocate.*

**QLD** – Quality Level D Lowest guideline quality level  
*Information comes solely from existing utility records. It may provide an Overall "feel" for the congestion of utilities, but it is often highly limited in terms of Comprehensiveness and accuracy. Its usefulness should be confined to project planning and route selection activities.*

**One-call Design Information request:**

Ticket # 552302671 submitted 4/18/23.

**One-call Design Information converted to Locate request:**

Ticket # 552302971 & 552302972 submitted 05/03/23.

**Iowa One-Call Does not allow joint meets for survey related requests.**

**The following Companies were listed:**

<u>Company (Quality)</u>	<u>Symbol</u>	<u>Remark</u>
City of Ankeny	-SA-	
City of Ankeny	-SA2-	Marked as Private
City of Ankeny	-WL1-	QLB&QLD
City of Ankeny	-WL2-	Marked as Private
City of Ankeny Traffic	-E2-	QLB
Ankeny Community School	-FO4-	QLB
Aureon	-FO7-	QLD
Centurylink	-FO1-	QLB&QLD
Centurylink	-TL1-	QLB&QLD
Mediacom	-TV1-	QLB
Metronet (Metro Fibernet)	-FO5-	QLB&QLD
MidAmerican-Electric	-E1-	QLB&QLD
MidAmerican-Gas	-GL1-	QLB&QLD
Unite Private Networks	-FO2-	QLB&QLD
Verizon (MCI)	-FO6-	QLB&QLD
Windstream		Clear of Project

**Companies responses to One-Call requests:**

4/18/23 Submitted Iowa One Call Design Ticket. Received email from Iowa One Call. Design information results for ticket 552302671.

4/18/23 Received email from Mindi J Burgett (Centurylink) at Mindi.Burgett@lumen.com. Attached was a map of their facilities for ticket 552302671.

4/18/23 Received email from Kennedy Dunn (MidAmerican Energy Company) at mecdsmdesignlocates@midamerican.com. Attached was a map of their facilities for ticket 552302671.

4/18/23 Received email from Sam Vohsen (UPN) at UPNGIS@upnfiber.com. Attached was a map of their facilities for ticket 552302671.

4/18/23 Received email from Lisa Zingula (Windstream) at Lisa.Zingula@windstream.com. Attached was a map of their facilities for ticket 552302671. Mapping showed cleared of project area.

4/18/23 Received email from Jeff Klocko (Aureon) at jeff.klocko@aureon.com. Attached was a map of their facilities for ticket 552302671.

4/18/23 Received email from Tom Dozler (City of Ankeny) at tdozler@ankenyiowa.gov. Attached was a map of their facilities for ticket 552302671.

4/19/23 Received email from Amanda Hayden (City of Ankeny) at ahayden@ankenyiowa.gov. Attached was a map of their facilities for ticket 552302671.

4/21/23 Received email from Lori Kemper (Metronet) at lori.kemper@metronet.com. Attached was a map of their facilities for ticket 552302671.

5/03/23 Logged on to Iowa One Call; downloaded Mediacom's facilities map for ticket 552301461.

5/03/23 Received email for converting Design Information Request to Design Locate Request for ticket 552302971 & 552302972.

5/03/23 Received courtesy notice e-mails from Centurylink notifying us that they received our ticket 552302971 & 552302792.

5/03/23 Received e-mail from Mindi Burgett (Centurylink) with a map of their facilities for ticket 552302972.

5/03/23 Received email from [windstreamprs@korweb.com](mailto:windstreamprs@korweb.com) (Windstream) stating they are clear for ticket 552302972.

5/03/23 Submitted 2 Dig Tickets: # 231231412 & 231231448. Received confirmation e-mails from Iowa One Call.

5/03/23 Received courtesy notice e-mails from Centurylink notifying us that they received excavation ticket 231231412 & 231231448.

5/03/23 Received e-mail from Mindi Burgett (Centurylink) with a map of their facilities for ticket 552302971.

5/03/23 Received e-mail from [agt\\_comm@irth.com](mailto:agt_comm@irth.com) (UPN) stating they do not have any underground facilities affected in our dig area.

5/03/23 Received 3 e-mails from Matt Knoll (City of Ankeny) at [MKnoll@ankenylowa.gov](mailto:MKnoll@ankenylowa.gov). Attached to each email was one map of their facilities for ticket 552302971.

5/03/23 through 5/25/23 Preliminary survey of existing features and utilities.

5/08/24 Received an email from [cl\\_irth\\_comm@irth.com](mailto:cl_irth_comm@irth.com) (Centurylink) stating Centurylink has been marked in the described dig area for ticket 231231448.

5/08/24 Received an email from [cl\\_irth\\_comm@irth.com](mailto:cl_irth_comm@irth.com) (Centurylink) stating Centurylink has been marked in the described dig area for ticket 231231412.

5/08/24 Received an email from [metronetincprc@korweb.com](mailto:metronetincprc@korweb.com) (Metronet) stating their facilities are clear for ticket 231231412.

5/10/24 Received a Ticket Check Status update from Iowa One Call for ticket 231231412:

District Code	Status
ANKENY, CITY OF	Clear
CITY OF ANKENY TRAFFIC	Marked
ANKENY COMMUNITY SCHOOLS	Marked
CENTURYLINK	Marked
MIDAMER-ELEC	Clear
MIDAMER-GAS	Clear
VERIZON	Clear
METRO FIBERNET, LLC	Clear
MEDIACOM	Marked
UNITE PRIVATE NETWORKS, LLC	Clear

5/10/24 Received a Ticket Check Status update from Iowa One Call for ticket 231231448:

District Code	Status
ANKENY, CITY OF	Clear
CENTURYLINK	Marked
MIDAMER-ELEC	Clear
MIDAMER-GAS	Clear

VERIZON	Clear
MEDIACOM	Clear

5/14/24 Received e-mail from [agt\\_comm@irth.com](mailto:agt_comm@irth.com) (UPN) stating UPN has marked their underground facilities for ticket 552302971.

5/14/24 Received e-mail from [cl\\_irth\\_comm@irth.com](mailto:cl_irth_comm@irth.com) (Centurylink,) stating Centurylink has marked their facilities for ticket 552302971.

5/14/24 Received e-mail from [metronetincprc@korweb.com](mailto:metronetincprc@korweb.com) (Metronet,) stating Metronet has marked their facilities for ticket 552302971.

5/14/2024 Received a Ticket Check Status update from Iowa One Call for ticket 552302971:

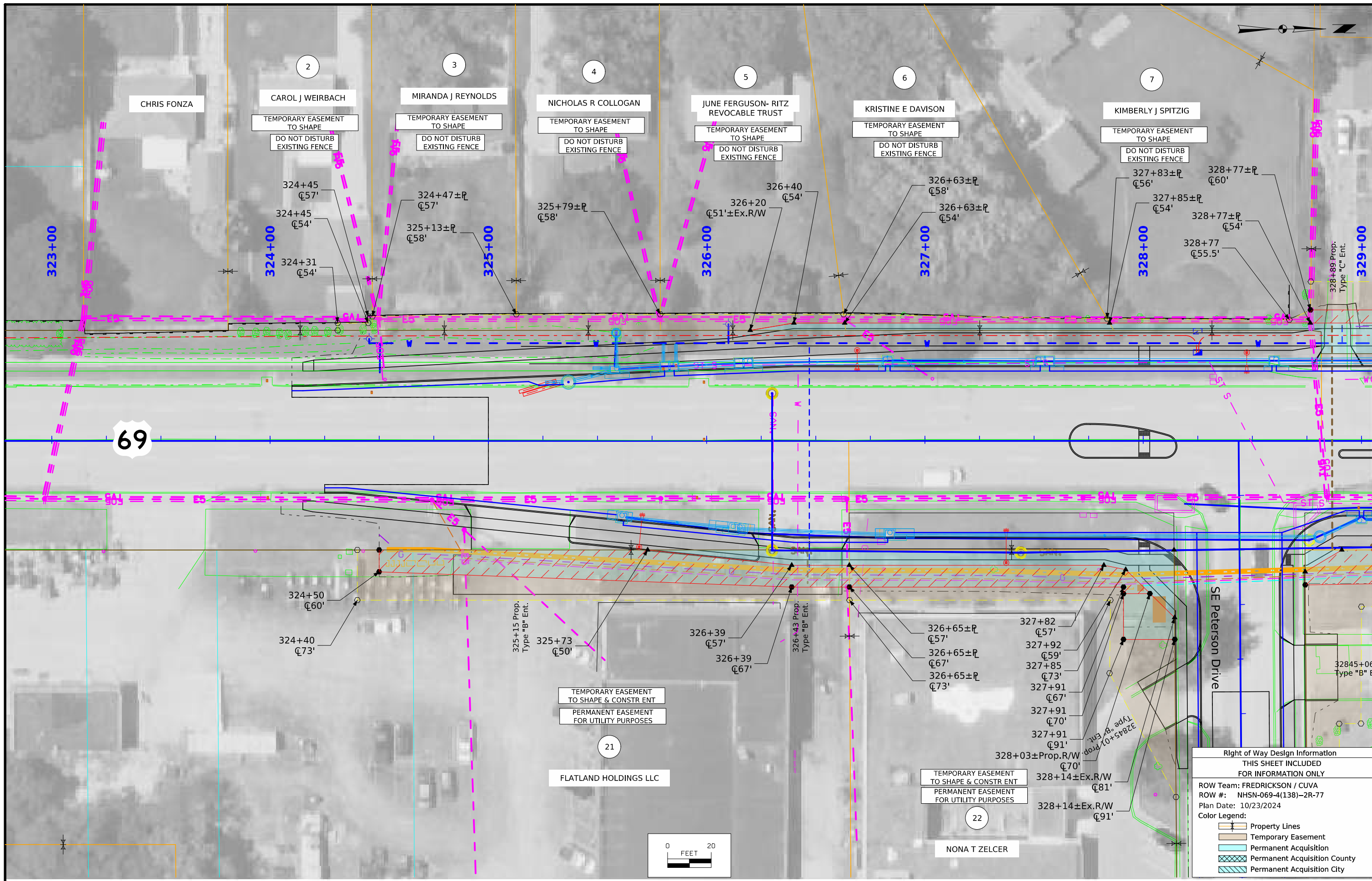
District Code	Status
ANKENY, CITY OF	Marked
CITY OF ANKENY TRAFFIC	Marked
ANKENY COMMUNITY SCHOOLS	Marked
CENTURYLINK	Marked
MIDAMER-ELEC	Marked
MIDAMER-GAS	Marked
VERIZON	Clear
METRO FIBERNET, LLC	Marked
MEDIACOM	Marked
UNITE PRIVATE NETWORKS, LLC	Marked

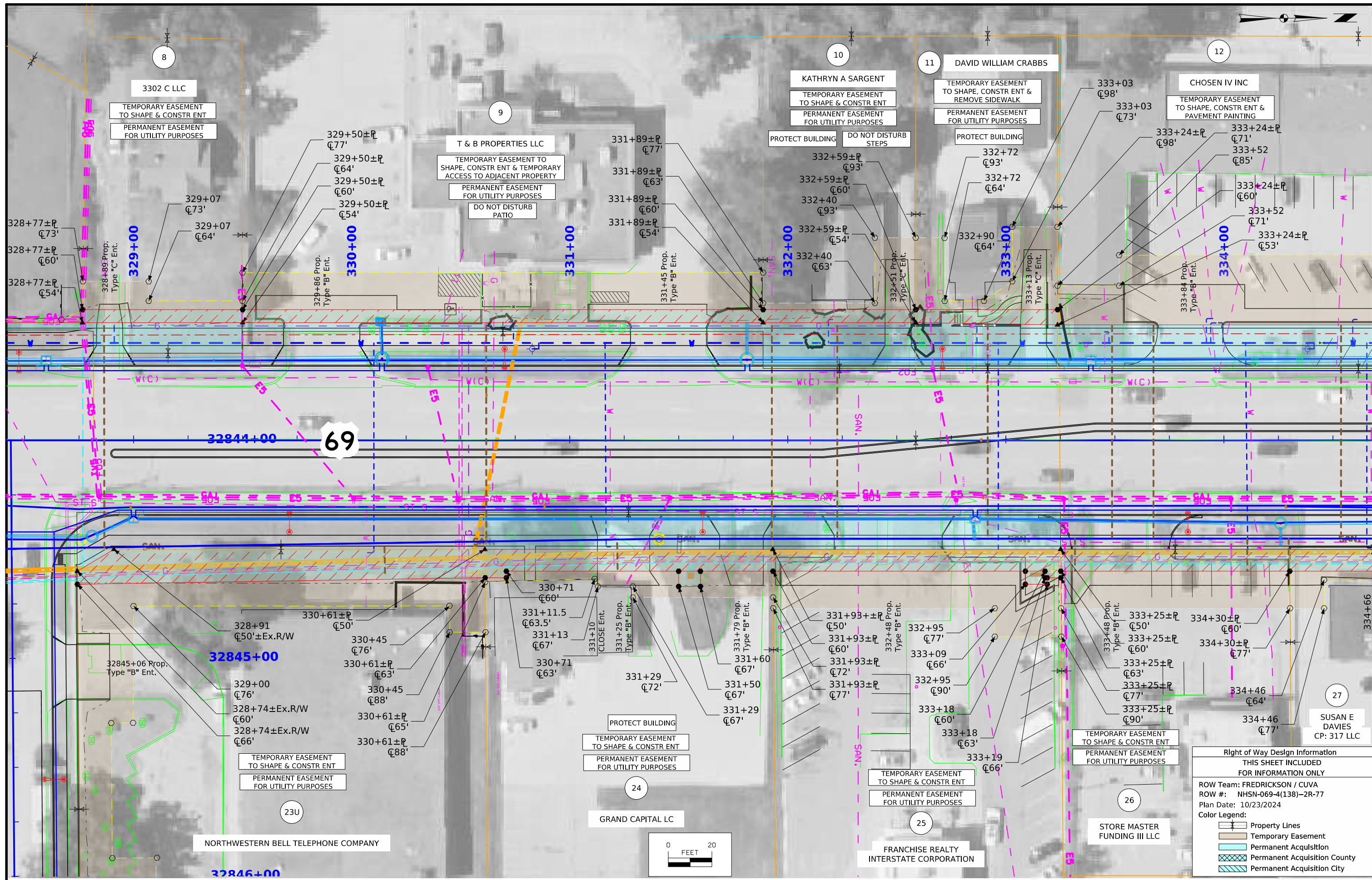
**Additional Notes**

At the time of the initial field survey

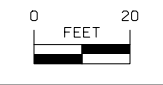
- MidAmerican electric and gas appeared to be located. Mapping was used to fill in areas that were not located.
- City of Ankeny located some of the sewer structures, but did not locate water.
- City of Ankeny Traffic located at controlled intersections
- Ankeny Community Schools was located.
- Centurylink/Lumen had some areas located. The duct that travels north to south through the project area was not located for the converted ticket. Many areas had old and faded paint that can still be determined to be Centurylink/Lumen was recorded. Mapping was used to fill in areas that were not located.



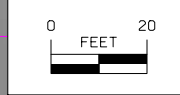
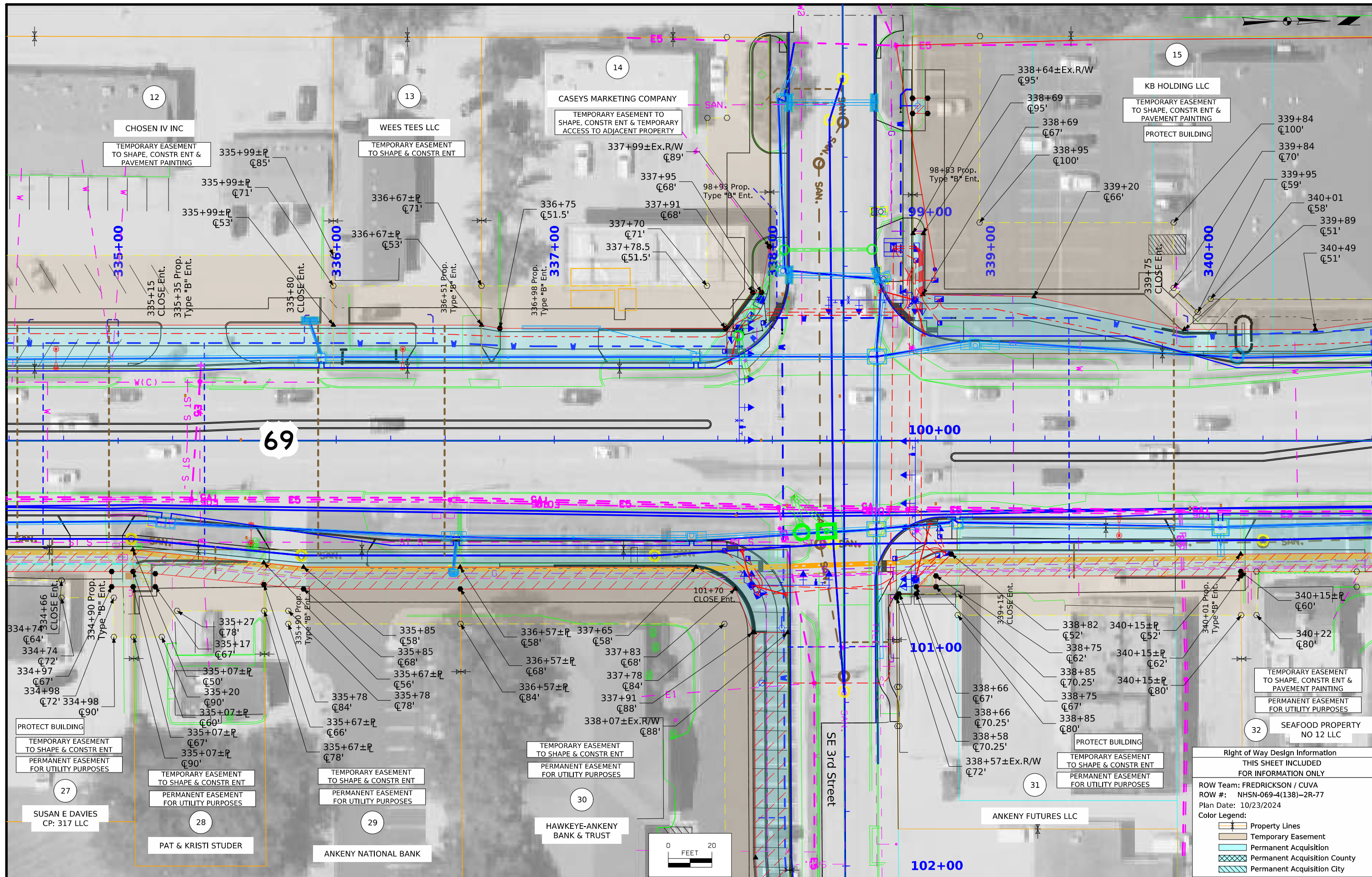




Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-069-4(138)-2R-77	
Plan Date: 10/23/2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City

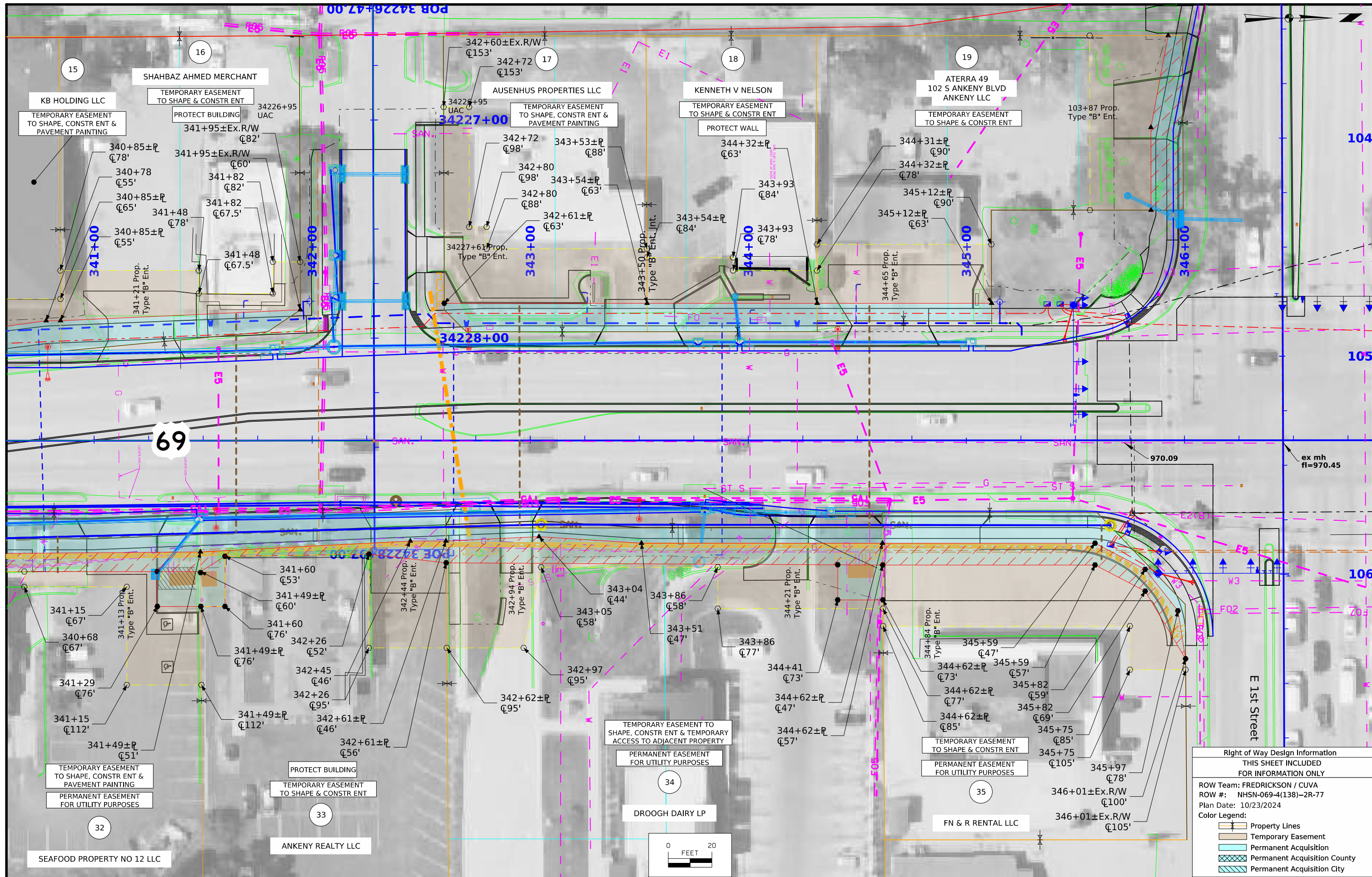




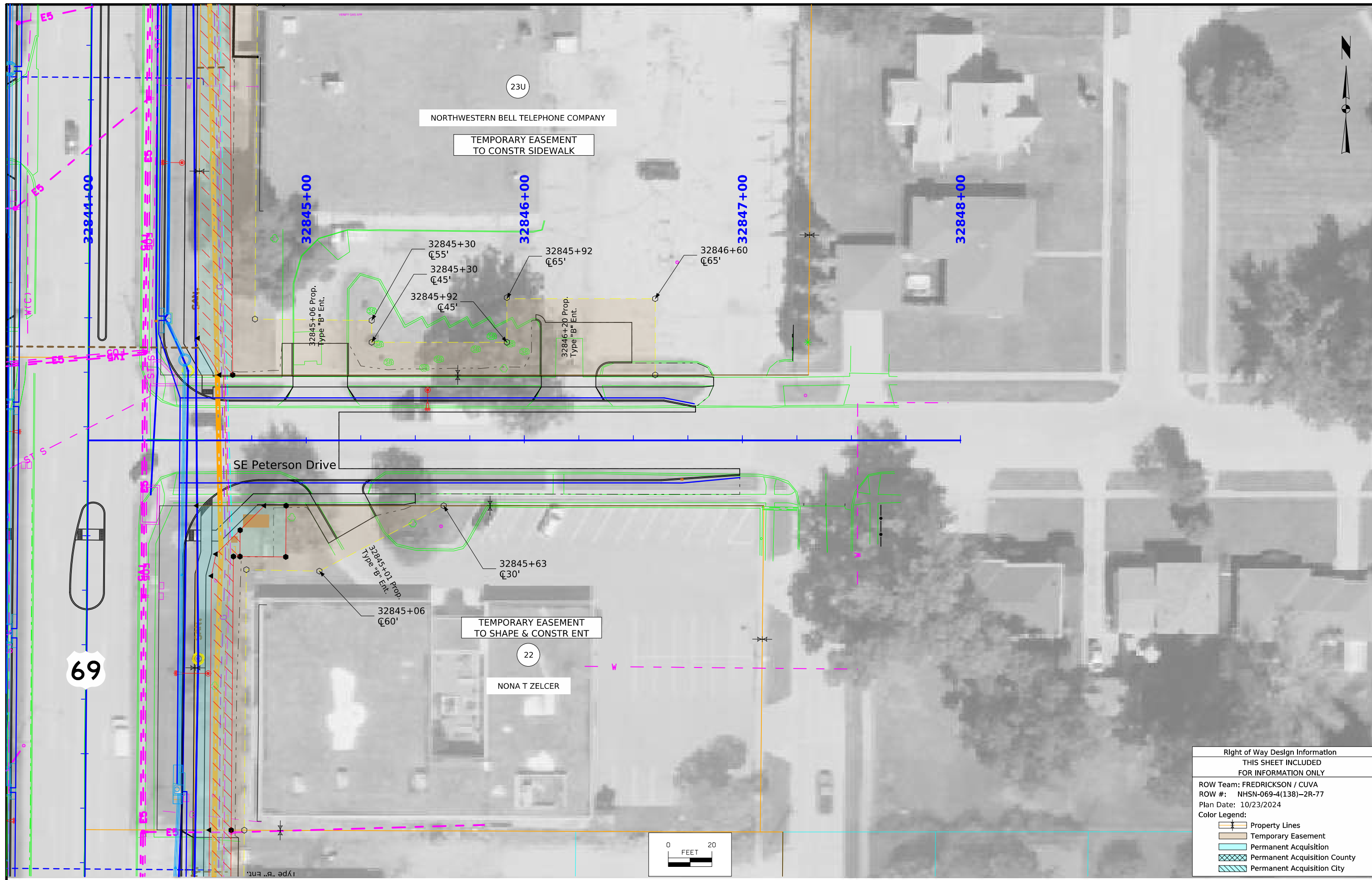


Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-069-4(138)-2R-77	
Plan Date: 10/23/2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City



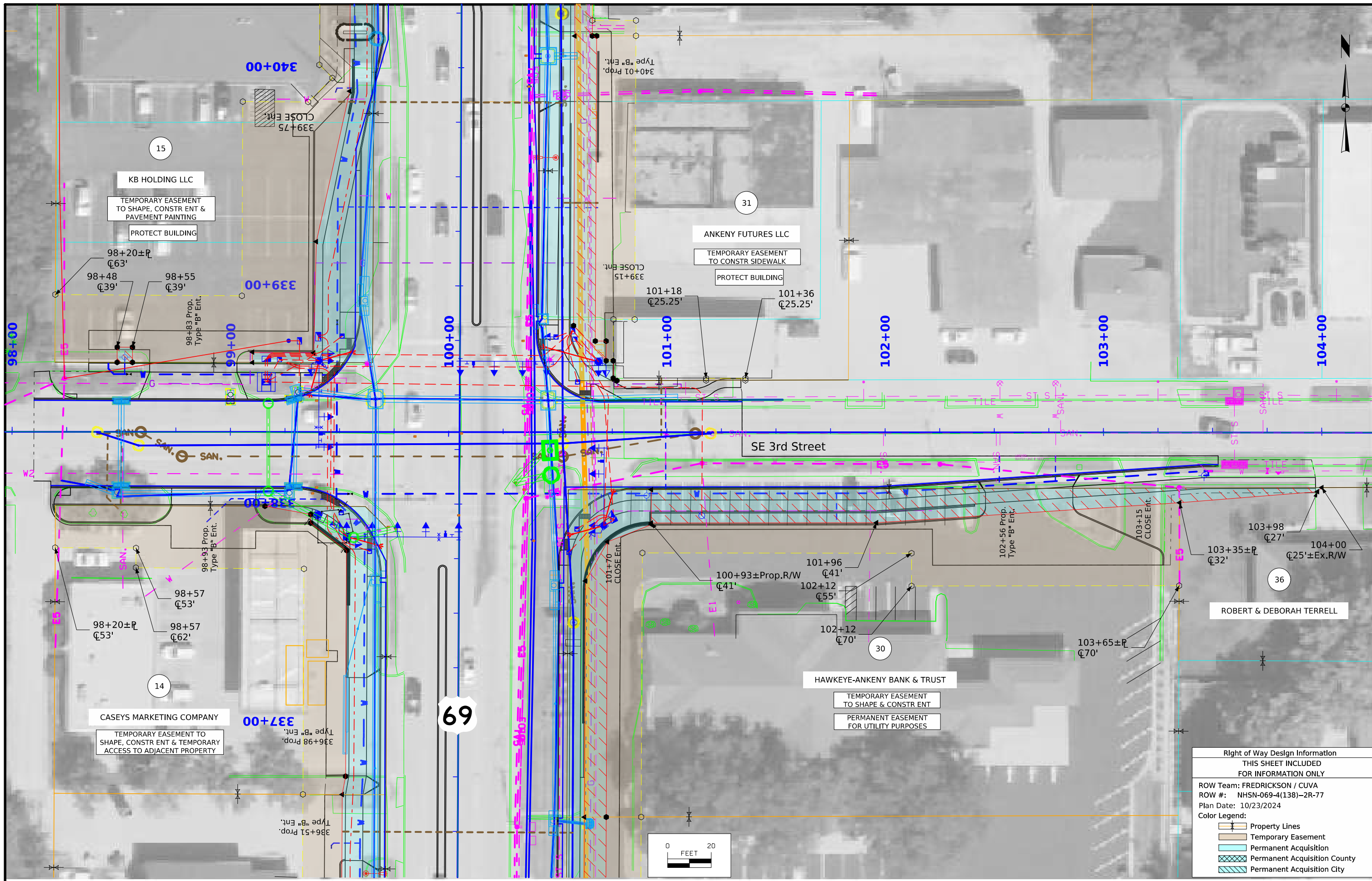


Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-069-4(138)-2R-77	
Plan Date: 10/23/2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City

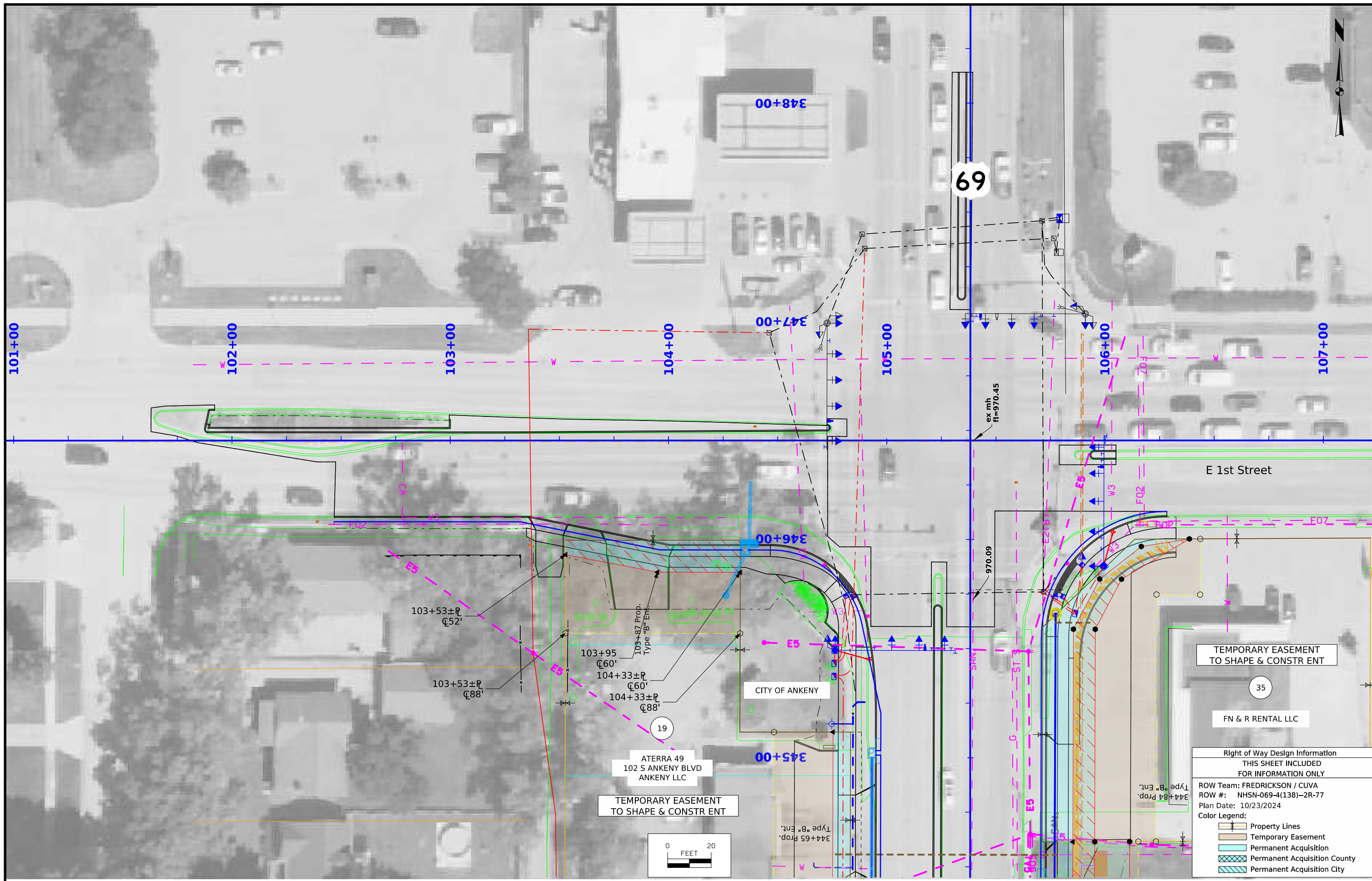


Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-069-4(138)--2R-77	
Plan Date: 10/23/2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City





Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-069-4(138)-2R-77	
Plan Date: 10/23/2024	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City



TEMPORARY EASEMENT TO SHAPE & CONSTR ENT

35

FN & R RENTAL LLC

Right of Way Design Information  
THIS SHEET INCLUDED FOR INFORMATION ONLY

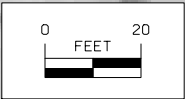
ROW Team: FREDRICKSON / CUVA  
ROW #: NHSN-069-4(138)--2R-77  
Plan Date: 10/23/2024

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition
- Permanent Acquisition County
- Permanent Acquisition City

ATERRA 49  
102 S ANKENY BLVD  
ANKENY LLC

TEMPORARY EASEMENT TO SHAPE & CONSTR ENT



**511 TRAVEL RESTRICTIONS**

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
U.S. 69	SB / NB	POLK	FROM 1ST STREET TO SE PETERSON DRIVE	M.P. 95 94.5 TO M.P. 95.1	Traffic Control Device		Horizontal	N/A	12.5 FT	11.5 FT		STG 1
U.S. 69	SB	POLK	FROM 1ST STREET TO SE PETERSON DRIVE	M.P. 95 94.5 TO M.P. 95.1	Traffic Control Device		Horizontal	N/A	11 FT	10 FT		STG 2
U.S. 69	NB	POLK	FROM 1ST STREET TO SE PETERSON DRIVE	M.P. 95 94.5 TO M.P. 95.1	Traffic Control Device		Horizontal	N/A	11.5 FT	10.5 FT		STG 2
U.S. 69	SB / NB	POLK	FROM 1ST STREET TO SE PETERSON DRIVE	M.P. 95 94.5 TO M.P. 95.1	Traffic Control Device		Horizontal	N/A	12.5 FT	11.5 FT		STG 3
U.S. 69	SB / NB	POLK	FROM 1ST STREET TO SE PETERSON DRIVE	M.P. 95 94.5 TO M.P. 95.1	Traffic Control Device		Horizontal	N/A	N/A	N/A		STG 4

**TRAFFIC CONTROL PLAN**

1. Refer to following J-sheets for layouts of construction.
2. Refer to following J-sheets for layouts of traffic detour routes, pedestrian detour routes, and restricted width routes.
3. The Contractor shall coordinate traffic control with other projects in the area and special events.
4. Traffic control on this project shall be found in accordance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways as adopted by the Iowa Department of Transportation per 761 of the Iowa Administrative Code (IAC) Chapter 130.
5. All advisory traffic WORK ZONE speed limit signage for US 69 (S Ankeny Blvd) shall be 25 MPH. When existing signage posts higher speeds, cover or modify signs as needed to post the work zone speed limit.
6. All traffic control devices shall be furnished, erected, maintained, cleaned, and removed by the Contractor. All traffic control will remain the sole responsibility of the Contractor. The Contractor shall check traffic control devices daily and repair or replace damaged or misaligned devices promptly. Permanent signing that conveys a message contrary to the messages of the temporary signing and not applicable to the working conditions shall be covered by the Contractor when directed by the Department.
7. All post mounted signs shall be placed to provide a minimum of 2-feet clearance beyond the curb or edge of shoulder. All signs must be post mounted.
8. Proposed sign spacing may be modified as approved by the Department to meet existing field conditions or to prevent obstruction of the motorist's view of permanent signing.
9. Ingress and egress from the work area will be allowed only at locations specified in the Contract Documents or as approved by the Engineer. All truck hauling material to and from the work area shall display a 16-inch x 48-inch retro reflective sign with the legend "DO NOT FOLLOW INTO THE WORK AREA". The sign shall be orange with black lettering (4-inch height) and be comprised of Type VII sheeting.
10. The Contractor shall provide, prior to the start of construction, the name and 24-hour phone number of the Contractor's representative in charge of traffic control. Prompt response to traffic control related items is required.
11. Proposed changes in the Traffic Control Plan shall be reviewed with the Department at least 48-hours before changes are made in the field.
12. Post PDMS five (5) business days prior to performing lane closure or roadway closure. Coordinate with the Department on message content at least 72 business hours prior to installing PDMS.
13. The Contractor shall communicate traffic control changes detailed in these plans with property owners/business owners along the project corridor at least two (2) weeks prior to changes.
14. The Contractor shall maintain access to all private residences and businesses at all times. Contractor shall coordinate with private residences and businesses a minimum of five (5) days prior to modifying temporary access locations for construction activities which conflict with accessibility.
15. All required directional signage for businesses, detour, and truck routing is included in the Traffic Control bid item. All businesses require directional wayfinding signage during construction. Signs to be installed in advance of the business access at a location coordinated with the Department. Coordinate with the property owner on business name prior to construction. Business directional wayfinding signage shall be 6" Type D font, and provide a directional arrow. This work is incidental to the Traffic Control bid item.
16. Access for garbage, recycling, and postal service must be maintained at all times unless arranged otherwise by an agreement between the Contractor and property owner/business owner.
17. Contractor will be responsible for securing a safe storage area for equipment and materials to be used on the project. The Contractor will be responsible for storing equipment and materials in storage areas which do not impede visibility for traffic from side roads, private residences, and businesses when accessing U.S. 69 (S Ankeny Blvd).
18. During pedestrian ramp construction, close pedestrian paths per Standard Road Plan TC-601.

**STAGING NOTES**

- The Contractor shall not start any work until after traffic control is in place and approved by the Department.
- The Contractor is allowed to submit for review and approval a revised staging plan to the Department to meet the Contractor's construction schedule for specific items.
- Utility companies will be relocating existing facilities with this project. The Contractor shall coordinate all construction with utility companies and their relocations and services. Contractor to protect and support existing utilities during construction.
- Safety fence, signs, temporary delineators, drums, and barricades are considered incidental to the Traffic Control bid item.
- Contractor to contact City of Ankeny a minimum of 10 days prior to implementing any traffic disruptions along US 69 or side streets.
- Contractor to contact the Department a minimum of 10 days prior to implementing any traffic disruptions along US 69.
- Temporary material laydown and staging area shall be within the work area. No special staging area is available as a part of this Project. Contractor shall coordinate with adjacent property owners for any staging areas outside of established easements.
- Contractor to provide all business directional / wayfinding signage during construction. Not all business directional / wayfinding signage is shown on the plans and additional signage may be required. Each business impacted by the construction shall have wayfinding sign for each stage of construction.
- Contractor to provide submittal of non-standard temporary traffic control signage for review and approval prior to fabrication.
- Traffic control plans do not show all required signage. Contractor installation of traffic control to comply with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), as adopted by the Department per 761 of the Iowa Administrative Code (IAC), Chapter 130.
- Pedestrian pathways shall be maintained or closed during construction. Type II or Type III closures are required when pathways are closed depending on width of pathway.
- Maintain access to local properties and businesses at all times. Contractor shall coordinate with local properties and businesses when work shall impact and cross accesses. Reestablish access to local properties and businesses immediately following completion of activities that impact accesses.
- STAGE 1 TRAFFIC CONTROL & STAGING**  
Construction of city fiber optic communications relocation, Joint Utility Trench (JUT), sanitary sewer, water main, storm sewer, and temporary widening.
- Temporary Traffic Control**
- Establish temporary traffic control for inside lane closures along US 69 per Iowa DOT TC-419.
  - Install Stage 1 temporary lane separator system (TLSS) per plan. Refer to J-sheets for additional information.
  - Adjust temporary traffic control devices for outside lane closures per plan. Refer to J-sheets for additional information.
  - Close east/west traffic at SW Southlawn Drive and SE East Lawn Drive per plan.
  - Close SW 3rd Street and SE 3rd Street per 3rd Street Substage 1. Refer to J-sheets for additional information.
  - Install temporary barrier rail along S Ankeny Boulevard / US 69 per Stage 1 plan. Refer to J-sheets for additional information.
  - SE Peterson Drive and SW 2nd Street shall remain open until storm, water, and sanitary sewer construction require crossing either side road. The Contractor shall work to reestablish each side road with a minimal length of closure.
  - Coordinate with City of Ankeny Public Works to modify temporary traffic signalization at the intersection of S Ankeny Boulevard / U.S. 69 and 1st Street. Refer to N-sheets for information.
- City Fiber Optic Communications, Joint Utility Trench (JUT)**
- Remove existing pavements per 3rd Street Substage 1 plan. Refer to J-sheets for additional information.
  - Remove existing grass median in northwest corner of Parcel 14. Install temporary pavement per staging plan. Refer to J-sheets for additional information. Contractor shall coordinate with Parcel 14 on delivery times and facilitate access to the site for deliveries only. SW 3rd Street traffic shall be prevented from using Parcel 14 to bypass SW 3rd Street closure.
  - Construct temporary and permanent city fiber optic communications relocations per plan. Refer to N-sheets for additional information. Do not disturb areas occupied by temporary or permanent city fiber optic communications until permanent relocations are completed. Ensure temporary city fiber optic communications are operational and in use prior to disturbing existing infrastructure between S 3rd Street and 1st Street, and all permanent fiber optic communications are operational prior to disturbing existing infrastructure from the south project limits to S 3rd Street.
  - Construct JUT per plan. Refer to U-sheets for additional information.
  - Coordinate with Lumen staff regarding lowering work of four (4) fiber optic vaults located throughout the project corridor.
  - Coordinate with Lumen staff regarding lowering of fiber optic duct between 3rd Street and 1st Street.
  - Upon completion of JUT, notify Engineer of the facility completion. Engineer shall notify private franchise utilities and provide (XX) days for private franchise utilities to mobilize and establish connection to JUT. Contractor may begin additional construction work that does not disturb private franchise utilities.
- Sanitary Sewer, Water Main, and Storm Sewer**
- Contractor shall coordinate with private franchise utilities on relocation status prior to beginning substage construction.
  - Protect and support existing joint utility trench along SE 3rd Street, relocated gas main along SW 3rd Street, relocated underground power at SE 3rd Street, and city fiber optic communications at SW 3rd Street.
  - Remove existing signal equipment along SW 3rd Street and SE 3rd Street.
  - Begin sanitary sewer construction from sanitary sewer structures SA-01 to SA-07, SA-11 to SA-14 per plan. Refer to MSA-sheets



**STAGING NOTES**

for information. Refer to 3rd Street Substaging for information related to sanitary sewer operations at 3rd Street.

- Begin water main construction from beginning of project to STA 336+75.00, STA 339+00.00 to end of project. Refer to MWM-sheets for information. Closure of SW 2nd Street shall be minimized when water main construction conflicts with existing roadway.

Refer to 3rd Street Substaging for information related to water main operations at 3rd Street.

- Following sanitary sewer and water main construction, begin storm sewer construction from ST-1 to ST-12, ST-15 to ST-22, ST-99 to ST-110. Construct temporary storm sewer connection at ST-15. Refer to M-sheets for information. Maintain offsite drainage to existing storm sewer where in conflict. Refer to 3rd Street Substaging for information related to storm sewer operations at 3rd Street.

- Following completion of all underground utilities across accesses, Contractor shall reestablish access with temporary granular surfacing. Prior to winter shut down, Contractor shall provide temporary pavements over granular surfacing.

**3rd Street Substaging****Substage 1**

- Parcel 14 public access from S Ankeny Boulevard / U.S. 69 and SW 3rd Street. Maintain Parcel 14 delivery access on temporary pavement. Parcel 15 public access and delivery access from SW 3rd Street pavement. Parcel 30 and 31 public and delivery access from SE 3rd Street driveways.

- Install temporary water main along SW 3rd Street and SE 3rd Street per Substage 1 plans. Completion of the temporary water main is required prior to excavations for sanitary sewer, water main, and storm sewer trenchless construction areas. Refer to MWM-sheets for design and connections of temporary system.

- Install temporary storm sewer along SW 3rd Street per Substage 1 plans. Completion of the temporary storm sewer is required prior to excavations for sanitary sewer, water main, and storm sewer trenchless construction areas.

**Substage 2**

- Maintain access to Parcels 14, 15, 30, and 31 per Substage 1 plan unless otherwise noted.
- Protect and support temporary storm sewer routing, temporary water main, and joint utility trench during Substage 2 construction.
- Remove existing SW 3rd Street and SE 3rd Street water main abandoned in place during Substage 1 temporary water main construction.
- Remove existing SW 3rd Street storm sewer abandoned in place during Substage 1 temporary storm sewer construction.
- Remove existing storm sewer manhole in NE corner of SE 3rd Street intersection, existing storm sewer intake in SE corner of SE 3rd Street, and storm sewer pipe conflicting with sanitary sewer and water main construction areas. Bypass flow from existing storm sewer system from S Ankeny Boulevard / U.S. 69 and SW 3rd Street to existing outlet pipe along SE 3rd Street.

**Sanitary Sewer**

- Support bypass storm sewer system east of S Ankeny Boulevard / U.S. 69.
- Construct trenchless sanitary sewer pipe SAP-11 per plan. Construct SAP-11 to STA 98+90.00 for connection in Substage 3.

Support existing sanitary sewer pipe along SW 3rd Street and SE 3rd Street during construction.

- Construct sanitary sewer structure SA-EX, SA-08 and connections to SA-07 and SA-11 per plan. Maintain sanitary sewer flows in existing system at SA-EX. The proposed sanitary sewer from SE 3rd Street to 1st Street is required to be operational prior to storm sewer operations.

**Water Main**

- Construct trenchless water main per plan. Protect sanitary sewer pipe SAP-07, Substage 1 temporary storm sewer pipe and intakes during construction.

- Construct SW 3rd Street and SE 3rd Street water main per plan.

- Parcel 14 public access to be maintained from S Ankeny Boulevard / U.S. 69 via temporary accesses at alternating locations along the Parcel's frontage. Coordinate with the store manager prior to traffic switches.

- Parcel 15 access to be maintained from alleyway during water main construction and testing.

- Parcel 31 access to be maintained on alternating driveways during water main construction and testing.

**Storm Sewer**

- Verify the proposed sanitary sewer system from SE 3rd Street to 1st Street is operational prior to trenchless construction.
- Verify the proposed water main system from SE 3rd Street to 1st Street is operational prior to trenchless construction.
- Construct trenchless storm sewer per plan. Storm sewer profile will conflict with existing sanitary sewer pipe at crossing.
- Construct ST-13 and P-200 per plan, P-12 per staging plan with temporary connection to existing S Ankeny Boulevard storm sewer system. Construct ST-14, P-13, and P-14 per plan. Refer to M-sheets for information.
- Construct ST-114, ST-133, and ST-132, P-133 and P-135. Construct P-132 per plan to a location that is accessible during Substage 3. Connect P-132 to SW 3rd Street storm sewer system temporarily.
- Remove the temporary storm sewer constructed in Substage 1. Protect the existing intake in the SW corner of SW 3rd Street.
- Construct ST-113 to ST-116, P-119 to STA 340+75.00 for connection during Stage 2 construction.

**Substage 3**

- Parcel 14 public and delivery access from S Ankeny Boulevard / U.S. 69. Parcel 15 public and delivery access maintained from alleyway. Parcel 30 and 31 access maintained from SE 3rd Street.

- Modify temporary traffic control per plan. Refer to J-sheets for information.

- Remove remaining SW 3rd Street pavements per plan.

- Construct remaining SW 3rd Street sanitary sewer per plan from Substage 2 ending location.

- Construct remaining SW 3rd Street storm sewer per plan from Substage 2 ending location.

**Substage 4**

- Construct temporary pavements on SE 3rd Street per plan.

- Construct permanent and temporary pavements on SW 3rd Street to S Ankeny Boulevard per Substage 3 plan. Refer to J-sheets for additional information.

- Construct temporary signal equipment at intersection of 3rd Street and S Ankeny Boulevard / U.S. 69. Coordinate with City of Ankeny Public Works prior to installation. Refer to N-sheets.

- Install temporary traffic control along SW 3rd Street and SE 3rd Street per plan.

- Upon completion of all Substage 4 work along SW 3rd Street and SE 3rd Street, coordinate with City and Iowa DOT staff on any remaining items to be addressed.

- Remove temporary barrier rail along S Ankeny Boulevard / U.S. 69 and reopen SW 3rd Street and SE 3rd Street intersection with S Ankeny Boulevard / U.S. 69.

**STAGE 1 WINTER SHUTDOWN**

Reopen roadway corridor to four-lane, two-way traffic over winter shutdown.

- Cover all directional wayfinding signage for detour routes.

- Temporary traffic signalization shall be installed and active prior to winter shutdown. Coordinate with City of Ankeny Public Works prior to modification of temporary traffic signalization.

- Contractor will remove Stage 1 temporary lane separator system.

- Contractor will have all sanitary sewer and water main facilities active and services connected prior to winter shutdown.

- Contractor will have storm sewer temporary connections made prior to winter shutdown.

- Contractor to pave all temporary accesses (((with what?))) prior to the winter shutdown.

**STAGE 2 TRAFFIC CONTROL & STAGING**

Construction of remaining west storm sewer system, SW 2nd Street storm sewer, 1st Street storm sewer, southbound S Ankeny Boulevard / U.S. 69, 1 1st Street, SW 2nd Street, and remaining SW 3rd Street pavements.

- Establish temporary traffic control for inside lane closure of eastbound E 1st Street, and left turn lane closure for westbound

**STAGING NOTES**

E 1st Street traffic.

- Construct median pavement along E 1st Street. Refer to L-sheets.

- Establish temporary traffic control for inside lane closure of northbound Ankeny Boulevard / U.S. 69, and left turn lane closure for southbound S Ankeny Boulevard / U.S. 69.

- Remove existing median pavement and construct temporary patch along N Ankeny Boulevard.

- Establish temporary traffic control for outside lane closure of northbound S Ankeny Boulevard / U.S. 69 traffic.

- Install Stage 2 temporary lane separator system (TLSS) per plan. Refer to J-sheets for additional information.

- Adjust temporary traffic control devices and establish temporary traffic control per plan. Refer to J-sheets for additional information.

- Establish temporary traffic control for northbound inside lane closure for Ankeny Boulevard / U.S. 69, northbound one-lane traffic to be maintained on northbound outside lane per plan.

- Establish temporary traffic control for southbound inside and outside lane closure of southbound S Ankeny Boulevard / U.S. 69, southbound one-lane traffic to be maintained on northbound inside lane per plan.

- Close east/west traffic at SW Southlawn Drive and SE East Lawn Drive per plan.

- Close SW 3rd Street and SW 2nd Street per plan. Establish detour routes per Traffic Control Plan. Refer to J-sheets for additional information.

- Modify traffic signalization at the intersections of S Ankeny Boulevard / U.S. 69 and 1st Street. Refer to N-sheets for additional information. Coordinate with City of Ankeny Public Works prior to modification of signal equipment.

- Remove existing pavements per plan. Refer to F-sheets and J-sheets for additional information.

- Remove temporary signalization at the intersection of S Ankeny Boulevard / U.S. 69 and 3rd Street.

- Install temporary accesses per plan. Refer to J-sheets for additional information.

- Construct remaining storm sewer network on west side of project corridor from Stage 1 limits. Construct remaining Stage 1 intake and manhole tops per plan. Refer to M-sheets for additional information.

- Construct proposed and temporary pavements along S Ankeny Boulevard / U.S. 69, SW 3rd Street, and SW 2nd Street per plan.

- Refer to D-sheets, L-sheets, and J-sheets for additional information.

- Construct proposed W 1st Street pavement per the 1st Street Substaging plan below.

**1ST STREET SUBSTAGING**

- Work along 1st Street shall occur upon completion of of mainline S Ankeny Boulevard / U.S. 69 pavement between W 1st Street and SW 2nd Street.

**SUBSTAGE 1**

- Establish temporary traffic control for outside lane closure of eastbound W 1st Street per plan.

- Establish temporary closure of alleyway between S Ankeny Boulevard / U.S. 69 and SW Logan Street at SW 2nd Street.

- Maintain W 1st Street access to Parcel 19 at all times via temporary granular drive and staged construction of the access.

- Remove existing pavements per plan. Refer to J-sheets per plan.

- Construct W 1st Street storm sewer per plan.

- Construct permanent outside lane and right turn-lane pavement per plan.

**SUBSTAGE 2**

- Establish temporary traffic control for left turn lane closure of eastbound W 1st Street per plan. Maintain outside lane traffic on Substage 1 through lane pavement, eastbound left turn lane on inside lane, eastbound right turn lane to S Ankeny Boulevard / U.S. 69 temporary traffic control for southbound traffic.

- Establish temporary traffic control for inside lane closure of westbound W 1st Street per plan.

- Construct permanent left turn-lane and turn-lane extension per plan.

**SUBSTAGE 3**

- Maintain temporary traffic control for left turn lane closure of eastbound W 1st Street per plan, establish temporary traffic control for inside lane closure of eastbound W 1st Street per plan. Maintain outside lane traffic on Substage 1 through lane pavement, eastbound right turn lane to S Ankeny Boulevard. Provide left turn movement for eastbound W 1st Street per plan.

- Construct permanent inside through lane per plan.

**SUBSTAGE 4**

- Construct proposed pavement per plan. Refer to D-sheets, L-sheets, and J-sheets for information.

- Remove Stage 3 TLSS and all temporary traffic control.

**STAGE 3 TRAFFIC CONTROL & STAGING**

Construction of remaining northbound storm sewer, northbound S Ankeny Boulevard / U.S. 69, SE Peterson Drive, and SE 3rd Street pavements.

- Install Stage 3 temporary lane separator system (TLSS) per plan. Refer to J-sheets for additional information.

- Establish temporary traffic control per plan. Refer to J-sheets for additional information.

- Shift traffic to Stage 2 permanent and temporary pavement.

- Maintain closure of east/west traffic at SW Southlawn Drive and SE East Lawn Drive per plan.

- Close SE Peterson Drive and SE 3rd Street per plan. Establish detour routes per Traffic Control Plan. Refer to J-sheets for additional information.

- Modify traffic signalization at the intersections of S Ankeny Boulevard / U.S. 69 and 1st Street. Refer to N-sheets for additional information. Coordinate with City of Ankeny Public Works prior to modification of signal equipment.

- Remove existing pavements per plan. Refer to F-sheets and J-sheets for additional information.

- Install temporary access pavements per plan. Refer to J-sheets for additional information.

- Construct remaining storm sewer network on east side of project corridor.

- Remove Stage 1 temporary storm sewer connections.

- Adjust Stage 1 storm sewer to proposed grade on east side of project corridor.

- Construct proposed pavements per plan. Refer to D-sheets, L-sheets, and J-sheets for information.

**STAGE 4 TRAFFIC CONTROL & STAGING**

Construction of paved median, left turn lanes, and intersection pavements.

- Maintain Stage 3 TLSS.

- Maintain Stage 3 temporary traffic control for west half of corridor.

- Establish temporary traffic control per plan. Refer to J-sheets for additional information.

- Maintain closure of east/west traffic at SW Southlawn Drive and SE East Lawn Drive per plan.

- Remove Stage 2 temporary pavements.

- Construct proposed pavements per plan. Refer to D-sheets, L-sheets, and J-sheets for information.










- Remove Stage 3 TLSS and all temporary traffic control.



**CROSS SECTION VIEW COLOR LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Brown, Med	(237)	Future Proposed Pavement Shading

**CROSS SECTION VIEW PATTERN AND SYMBOL LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**





















	Pavement Removal		Proposed Granular Shoulder
	Proposed Granular Subbase		Temporary Shoulder
	Proposed Special Backfill		Existing Shoulder Strengthening
	Temporary Barrier Rail		Permanent Barrier Rail
			Channelizing Device

**PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS**

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Pavement Marking Call Outs
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White
Violet	(15)	Temporary barrier rail, Unpinned
Flush Orange	(228)	Temporary barrier rail, Pinned

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Med	(80)	Proposed Granular Surface Shading
Gray, Med	(80)	Previously Constructed Granular Surface Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement Shading
Gold	(108)	Temporary Driveway, Asphalt Millings Shading
Brown, Light	(236)	Proposed Grading Limits Shading
Pink, Dark	(13)	Proposed MSE or CIP Wall Shading
Red	(3)	Proposed Bridge Shading and Sign Trusses
Black w/Gray, Light Fill	(0,48)	Previously Constructed Structure

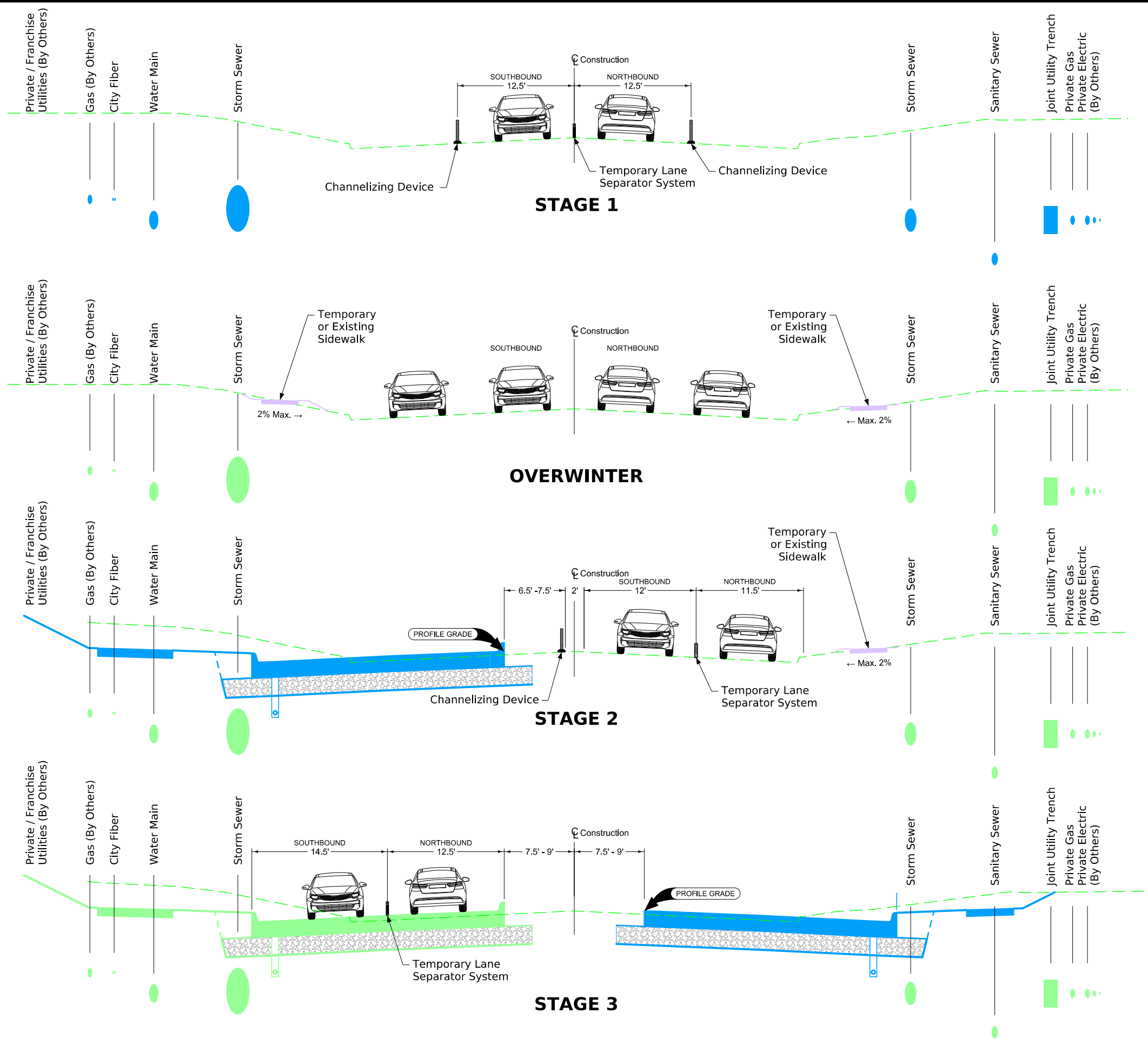
**PLAN VIEW PATTERN AND SYMBOL LEGEND  
OF TRAFFIC CONTROL AND STAGING SHEETS**

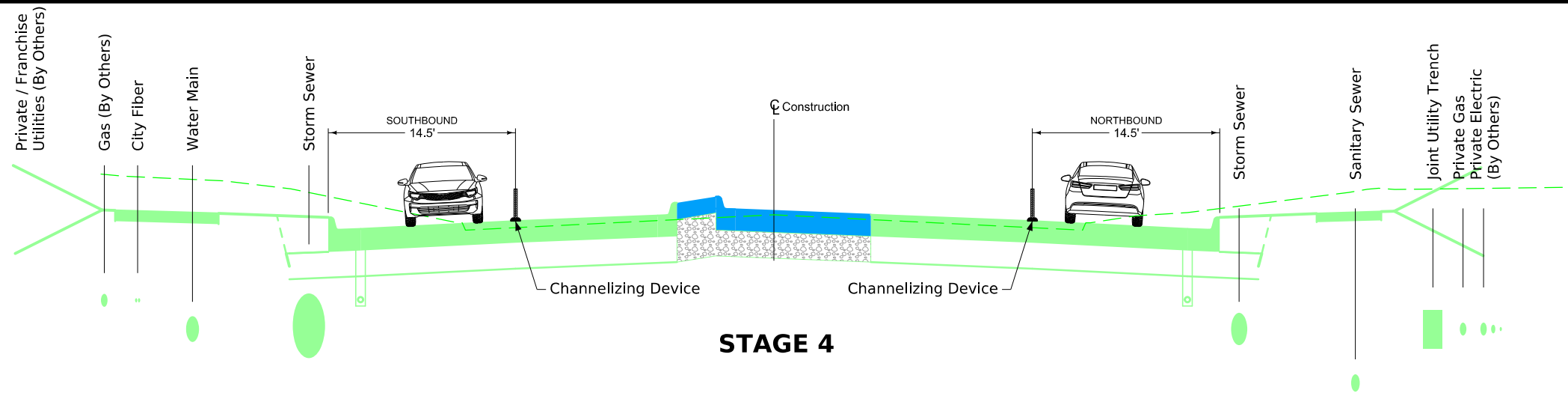
	Channelizing Device		Crash Cushion (Temp or Perm)
	Drum		Traffic Signal
	Temporary Lane Separator		Flagger
	Tubular Marker		Temporary Floodlighting
	Channelizer Marker		Traffic Sign
	Concrete Barrier Marker		Type III Barricade
	Delineator		Type A Warning Light
	Temporary Barrier Rail		Direction of Traffic
	Pavement Removal		Safety Closure
	Sand Barrel Layout		Lane Identification

**NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.**

**TRAFFIC CONTROL  
AND  
STAGING  
LEGEND AND SYMBOL  
INFORMATION SHEET**

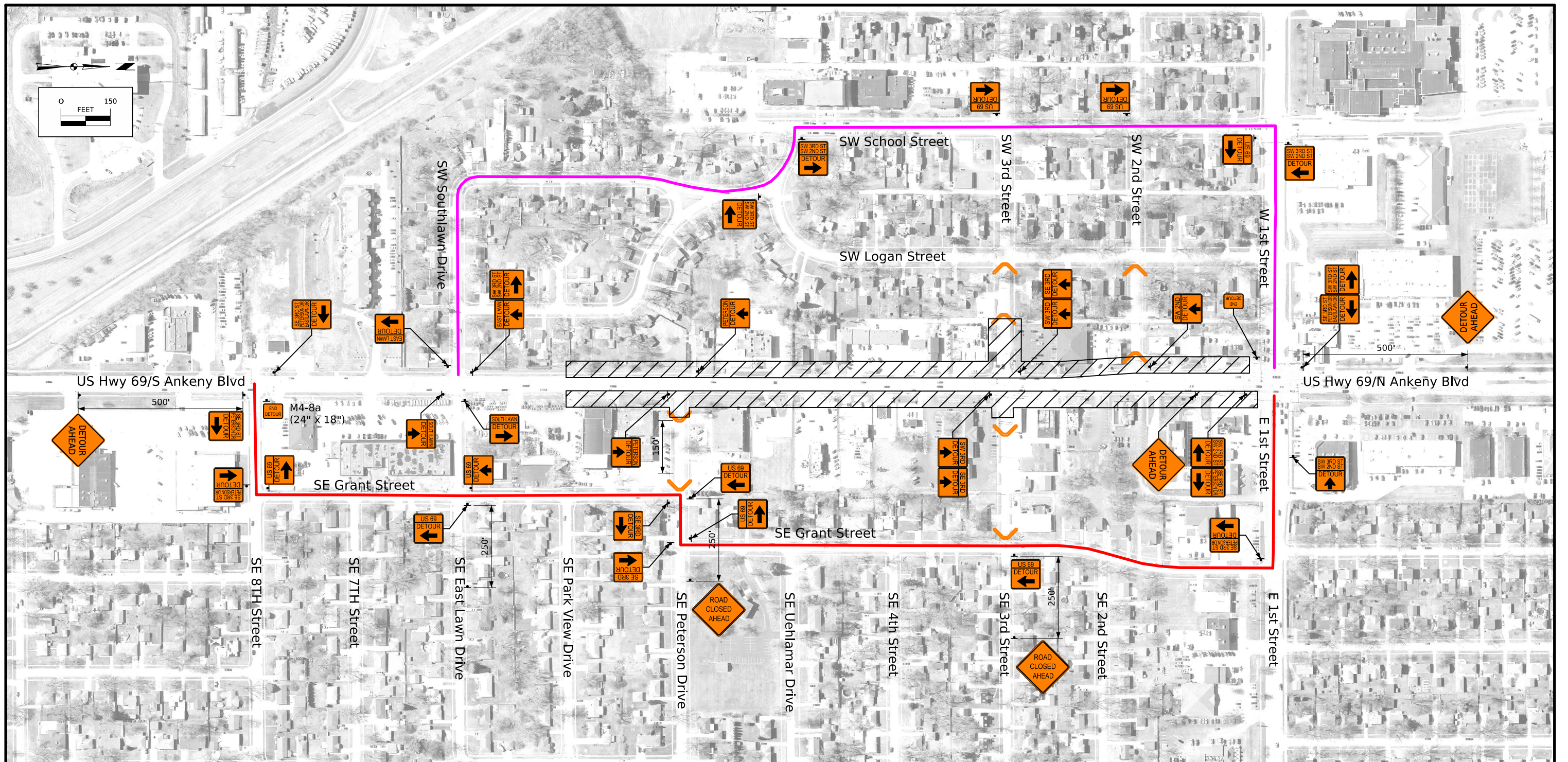
(COVERS SHEET SERIES J)





**STAGE 4**





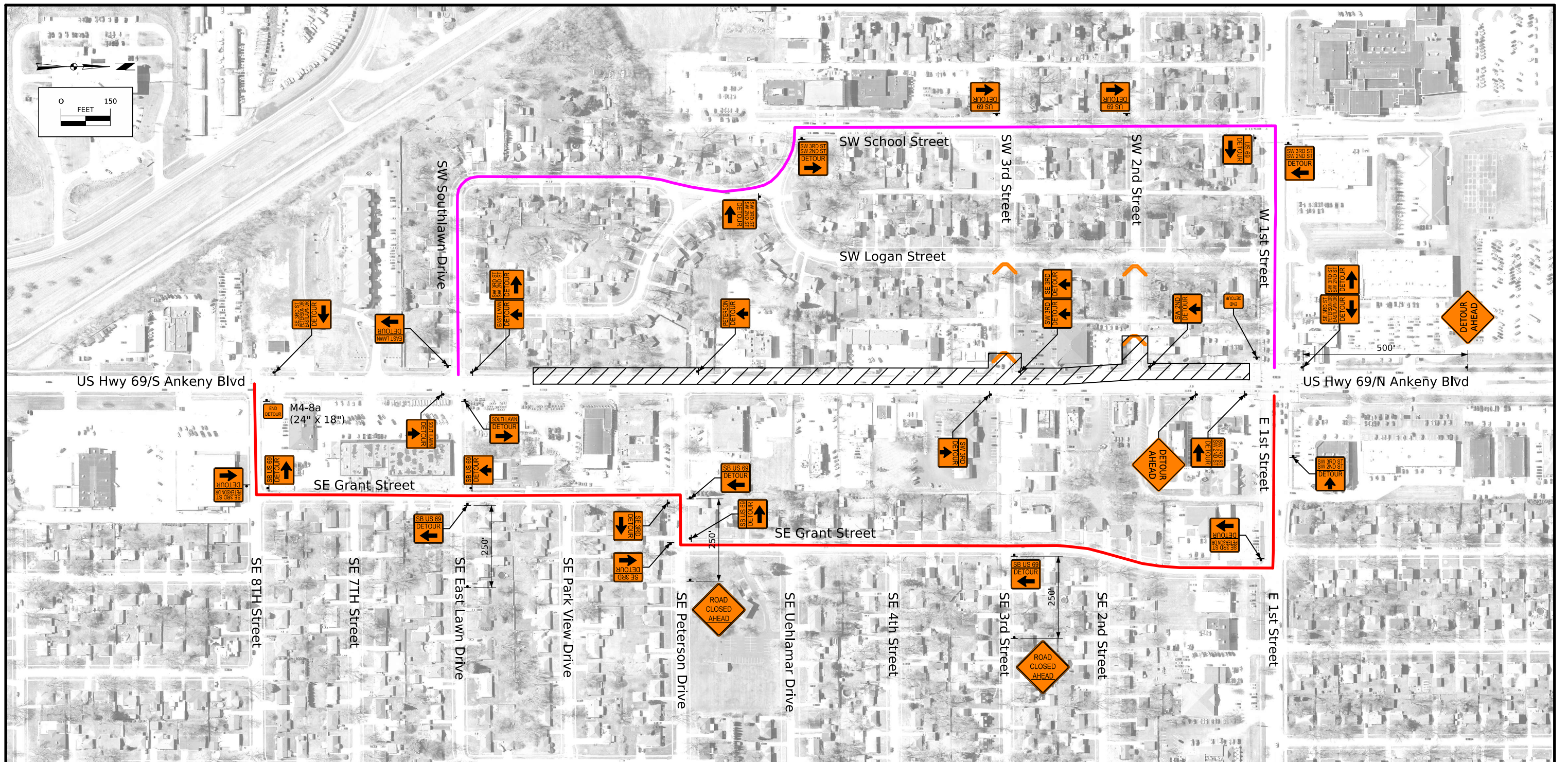
36" x 36"	36" x 36"	36" x 36"	36" x 36"	36" x 36"	36" x 36"	36" x 36"
3 x M4-9R 5 x M4-9L 1 x M4-9S	2 x M4-9S	1 x M4-9R 1 x M4-9L 2 x M4-9S	2 x M4-9S	1 x M4-9S	1 x M4-9R 1 x M4-9S	1 x M4-9R 1 x M4-9S

36" x 44"	36" x 48"	36" x 44"
3 x M4-9R 1 x M4-9L	2 x M4-9L	3 x M4-9R 3 x M4-9L 1 x M4-9S

48" x 48"	24" x 18"	48" x 48"
2 x W20-3	2 x M4-8a	3 x W20-2

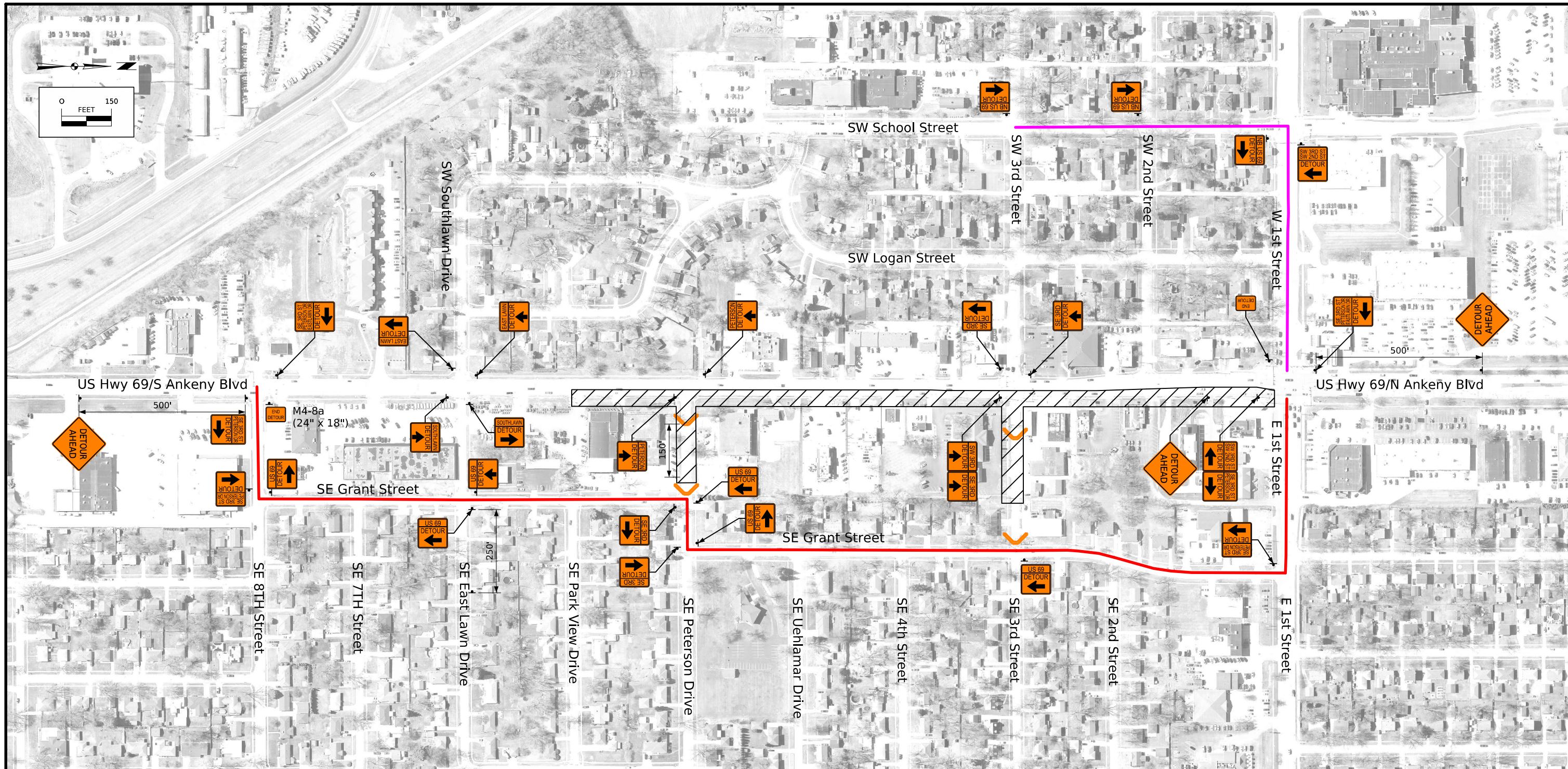
**STAGE 1  
VEHICLE DETOUR ROUTE**  
SE PETERSON DRIVE, SW 3RD STREET,  
SE 3RD STREET AND SW 2ND STREET  
INTERSECTIONS TEMPORARILY CLOSED  
TO US HWY 69 (S ANKENY BOULEVARD)





													<p><b>STAGE 2</b>  <b>VEHICLE DETOUR ROUTE</b>          SW 3RD STREET AND SW 2ND STREET INTERSECTIONS TEMPORARILY CLOSED TO US HWY 69 (S ANKENY BOULEVARD)</p>	
36" x 36" 1 x M4-9R 2 x M4-9L	36" x 36" 2 x M4-9S	36" x 36" 1 x M4-9R 1 x M4-9L 1 x M4-9S	36" x 36" 1 x M4-9S	36" x 36" 1 x M4-9S	36" x 36" 1 x M4-9R 1 x M4-9S	36" x 36" 1 x M4-9R 1 x M4-9S	36" x 36" 2 x M4-9R 3 x M4-9L 1 x M4-9S	36" x 44" 1 x M4-9R 1 x M4-9L	36" x 48" 2 x M4-9L	36" x 44" 3 x M4-9R 3 x M4-9L 1 x M4-9S	48" x 48" 2 x W20-3	24" x 18" 2 x M4-8a	48" x 48" 2 x W20-2	





- 36" x 36"  
2 x M4-9R  
3 x M4-9L  
1 x M4-9S
- 36" x 36"  
2 x M4-9S
- 36" x 36"  
2 x M4-9R  
1 x M4-9L  
2 x M4-9S
- 36" x 36"  
2 x M4-9S

- 36" x 36"  
1 x M4-9R  
1 x M4-9S
- 36" x 36"  
1 x M4-9R  
1 x M4-9S
- 36" x 36"  
1 x M4-9R  
2 x M4-9L

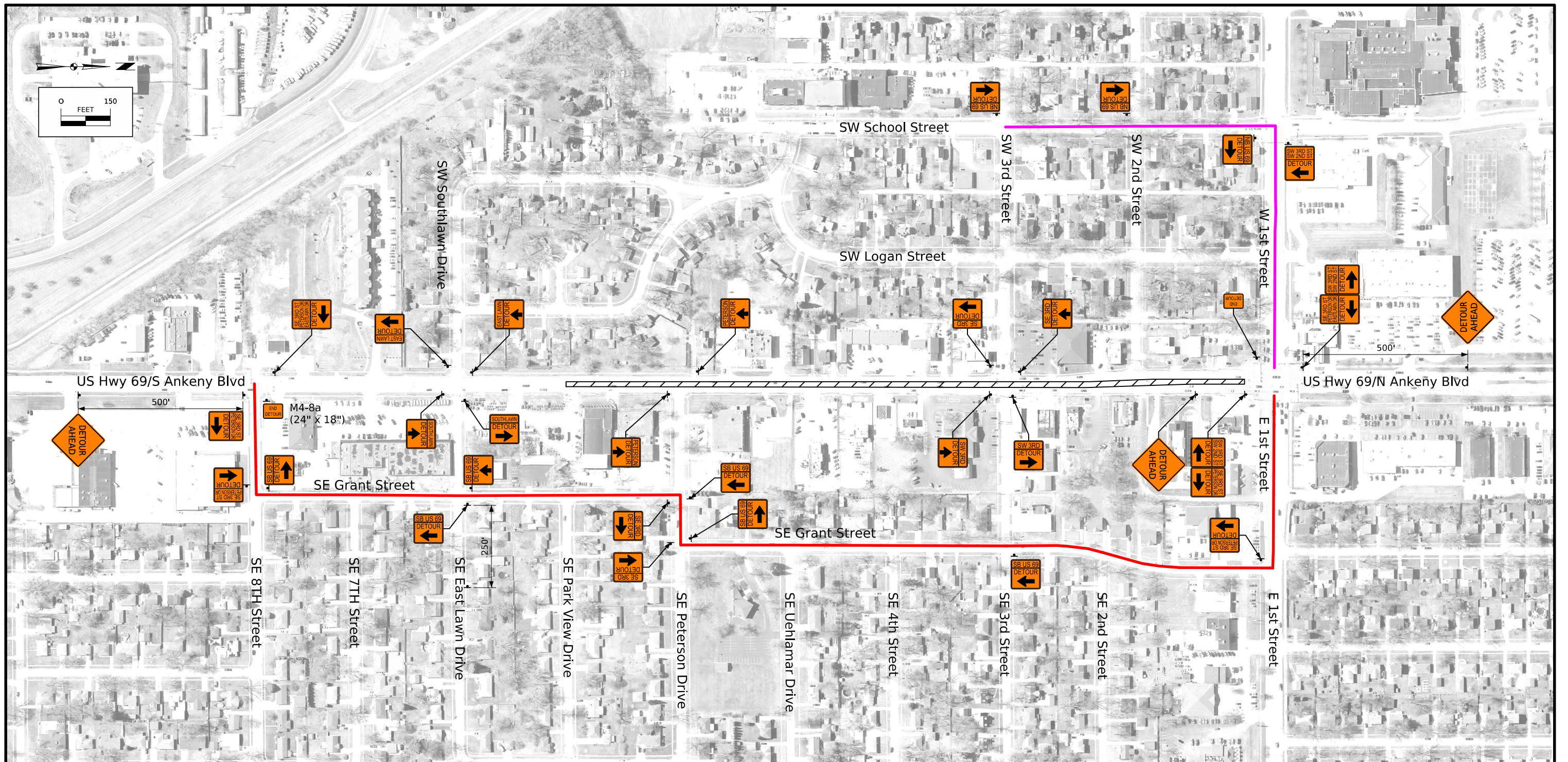
- 36" x 44"  
3 x M4-9R  
1 x M4-9L
- 36" x 48"  
2 x M4-9L
- 36" x 44"  
2 x M4-9L




END  
DETOUR










**STAGE 3**  
**VEHICLE DETOUR ROUTE**  
SE PETERSON DRIVE AND SE 3RD STREET  
INTERSECTIONS TEMPORARILY CLOSED  
TO US HWY 69 (S ANKENY BOULEVARD)







-   
 36" x 36"  
 1 x M4-9R  
 1 x M4-9S
-   
 36" x 36"  
 2 x M4-9R  
 1 x M4-9L  
 1 x M4-9S
-   
 36" x 36"  
 2 x M4-9S

-   
 36" x 36"  
 1 x M4-9R  
 1 x M4-9S
-   
 36" x 36"  
 1 x M4-9R  
 1 x M4-9S
-   
 36" x 36"  
 1 x M4-9R  
 2 x M4-9L
-   
 36" x 36"  
 2 x M4-9R  
 3 x M4-9L  
 1 x M4-9S

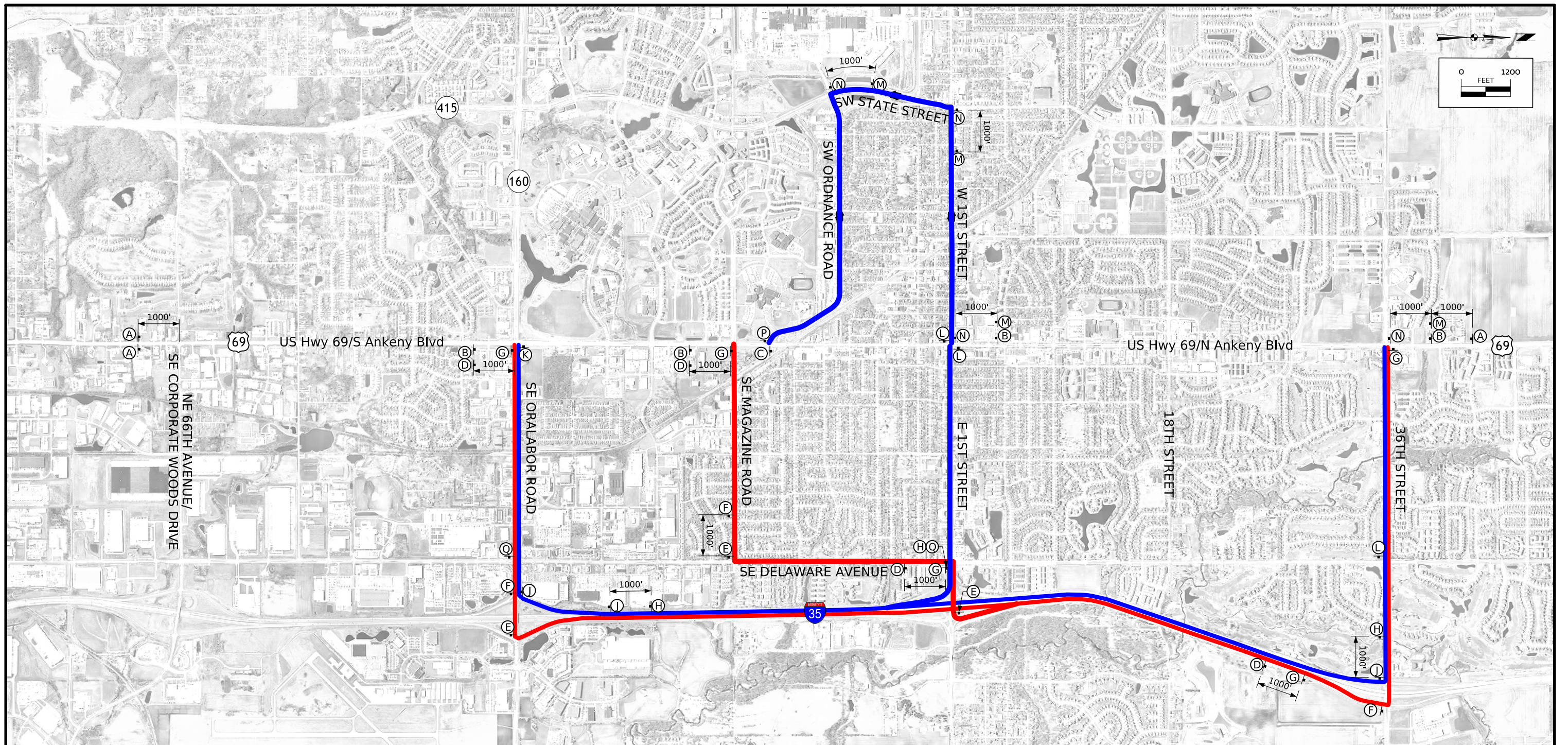
-   
 36" x 44"  
 3 x M4-9R  
 1 x M4-9L
-   
 36" x 48"  
 2 x M4-9L
-   
 36" x 44"  
 1 x M4-9R  
 2 x M4-9L

  
 24" x 18"  
 2 x M4-8a

  
 48" x 48"  
 3 x W20-2

**STAGE 4**  
**VEHICLE DETOUR ROUTE**  
 SE PETERSON DRIVE, SW 3RD STREET,  
 SE 3RD STREET AND SW 2ND STREET  
 INTERSECTIONS RIGHT-IN, RIGHT-OUT  
 TO US HWY 69 (S ANKENY BOULEVARD)





**RESTRICTED WIDTH  
12'-6"  
2 MILES AHEAD**

**A**  
G20-52 A  
90" x 36"  
(Refer to Note 3)

**RESTRICTED  
WIDTH AHEAD  
12'-6"**

**C**  
G20-55A  
66" x 36"  
(Refer to Note 3)

**WIDE LOADS  
OVER 12'-6"  
EXIT HERE**

**B**  
G20-53A  
72" x 36"  
(Refer to Note 3)

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1R (21" x 15")  
**D**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
**E**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1L (21" x 15")  
**F**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
**G**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1R (21" x 15")  
**H**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
**I**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
M4-8a (24" x 18")  
**K**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-3 (21" x 15")  
**L**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1L (21" x 15")  
**M**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
**N**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
M4-8a (24" x 18")  
**P**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-3 (21" x 15")  
**Q**

**Note:**

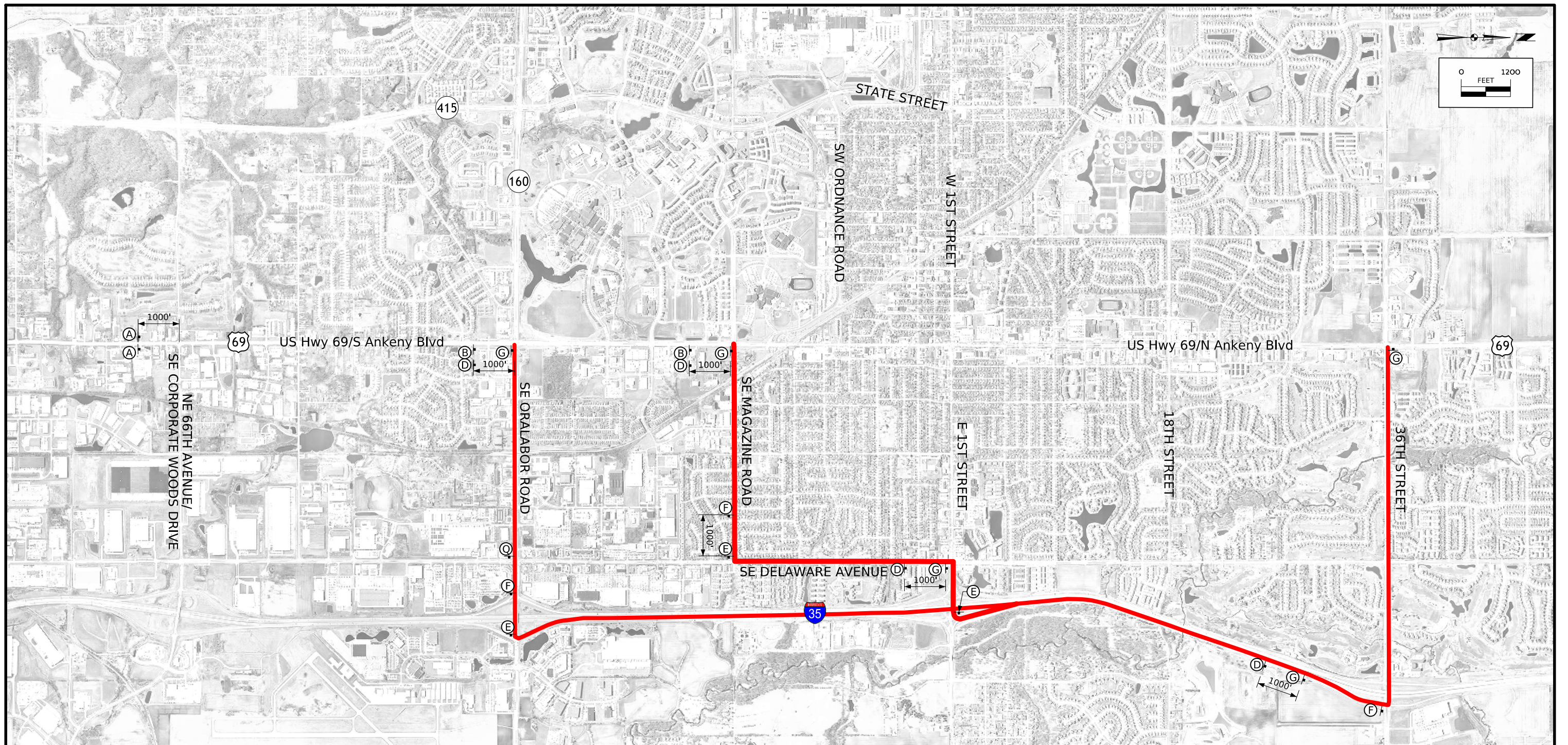
1. Coordinate signing in conjunction with other traffic control in the area.
2. Place restricted width signing (Sign C) after ROAD WORK AHEAD sign, refer to Staging Sheets.
3. Refer to SI-882 for Sign Details.

**Legend:**

- Red line: Northbound Detour Route
- Blue line: Southbound Detour Route

**RESTRICTED LANE WIDTH  
DETOUR ROUTE  
(STAGES 1 AND 2)**





**RESTRICTED WIDTH  
12'-6"  
2 MILES AHEAD**

**A**  
G20-52 A  
90" x 36"  
(Refer to Note 3)

**RESTRICTED  
WIDTH AHEAD  
12'-6"**

**C**  
G20-55A  
66" x 36"  
(Refer to Note 3)

**WIDE LOADS  
OVER 12'-6"  
EXIT HERE**

**B**  
G20-53A  
72" x 36"  
(Refer to Note 3)

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1R (21" x 15")  
**D**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
**E**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1L (21" x 15")  
**F**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
**G**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1R (21" x 15")  
**H**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
**I**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
M4-8a (24" x 18")  
**K**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-3 (21" x 15")  
**L**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M5-1L (21" x 15")  
**M**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1L (21" x 15")  
**N**

**DETOUR**  
**SOUTH**  
M4-8 (24" x 12")  
M3-3 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-1R (21" x 15")  
M4-8a (24" x 18")  
**P**

**DETOUR**  
**NORTH**  
M4-8 (24" x 12")  
M3-1 (24" x 12")  
M1-4 (24" x 24")  
**TRUCK ROUTE**  
R14-1 (24" x 18")  
M6-3 (21" x 15")  
**Q**

**Note:**

1. Coordinate signing in conjunction with other traffic control in the area.
2. Place restricted width signing (Sign C) after ROAD WORK AHEAD sign, refer to Staging Sheets.
3. Refer to SI-882 for Sign Details.

**Legend:**

- Northbound Detour Route
- Southbound Detour Route

**RESTRICTED LANE WIDTH  
DETOUR ROUTE  
(STAGES 3)**



- SIDEWALK CLOSED AT SE EAST LAWN FOLLOW DETOUR

SPECIAL 30" x 18"

SIDEWALK CLOSED AHEAD CROSS HERE

R9-11 24" x 18"

(A)
- SIDEWALK CLOSED AHEAD FOLLOW DETOUR

SPECIAL 24" x 18"

↑

M6-3 21" x 15"

(B)
- SIDEWALK CLOSED AHEAD FOLLOW DETOUR

SPECIAL 24" x 18"

←

M6-1 21" x 15"

(C)
- SIDEWALK DETOUR

SPECIAL 24" x 12"

↑

M6-3 21" x 15"

(D)
- SIDEWALK CLOSED

R9-9 24" x 12"

(E)
- SIDEWALK CLOSED AT SW LOGAN ST FOLLOW DETOUR

SPECIAL 30" x 18"

↔

M6-4 21" x 15"

(F)
- SIDEWALK CLOSED AT SW LOGAN ST FOLLOW DETOUR

SPECIAL 30" x 18"

SIDEWALK CLOSED AHEAD CROSS HERE

R9-11 24" x 18"

(G)

- SIDEWALK DETOUR

SPECIAL 24" x 12"

←

M6-1 21" x 15"

(H)
- SIDEWALK CLOSED AT SE GRANT ST FOLLOW DETOUR

SPECIAL 30" x 18"

→

M6-1 21" x 15"

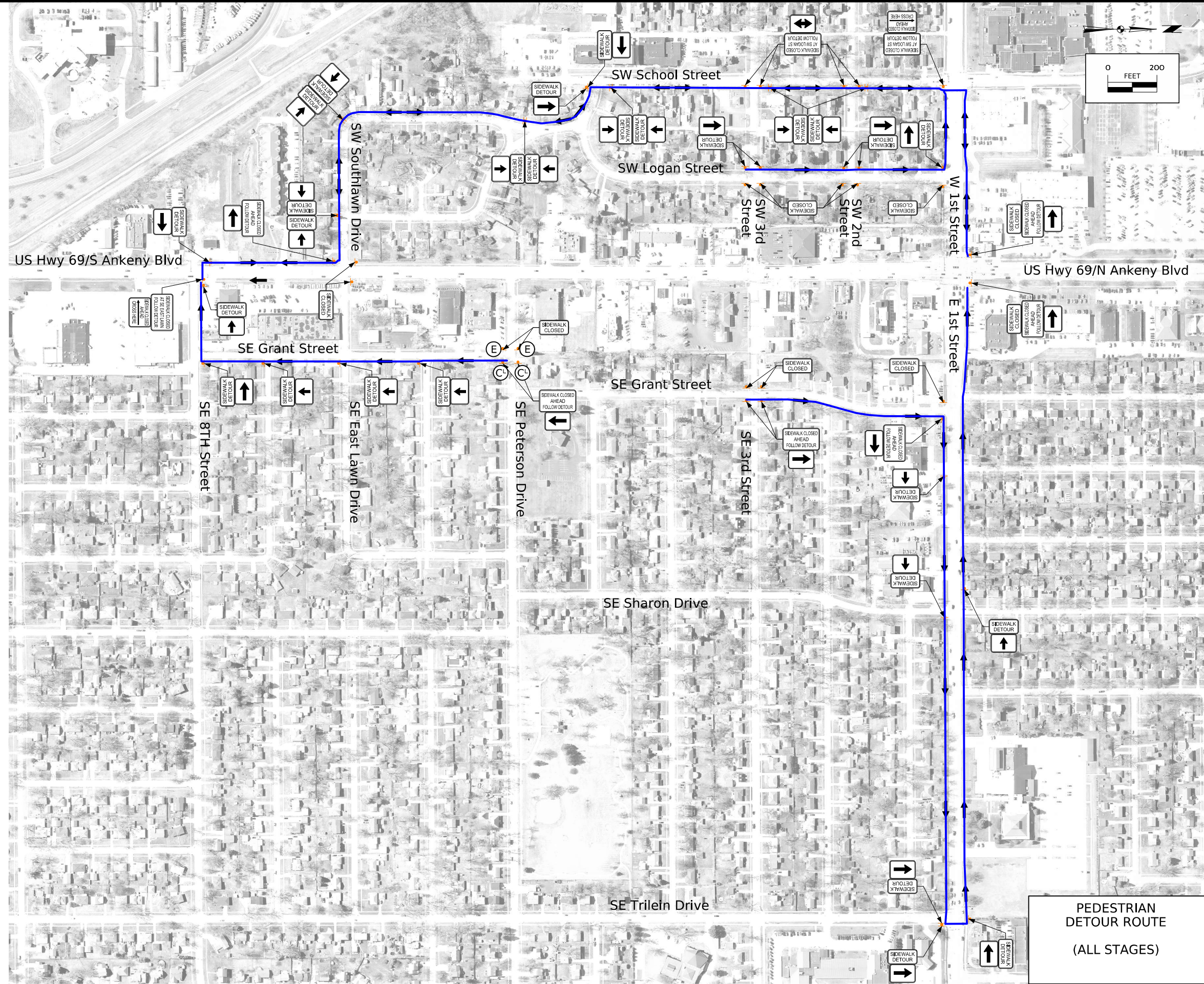
(K)
- SIDEWALK CLOSED AT SE GRANT ST FOLLOW DETOUR

SPECIAL 30" x 18"

SIDEWALK CLOSED AHEAD CROSS HERE

R9-11 24" x 18"

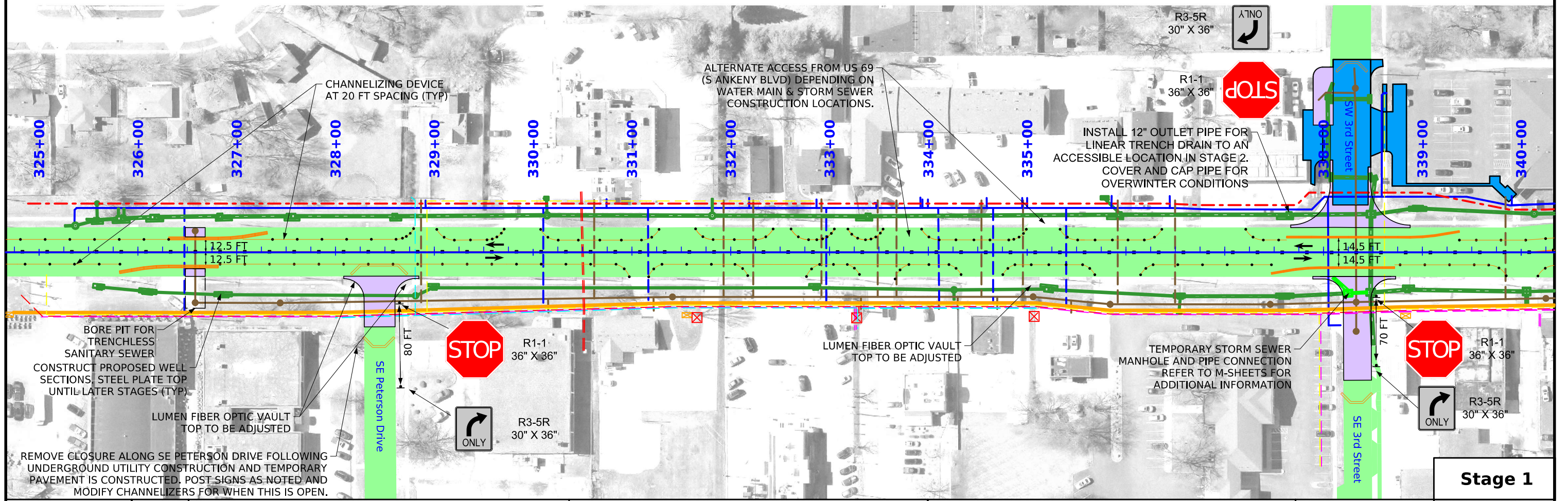
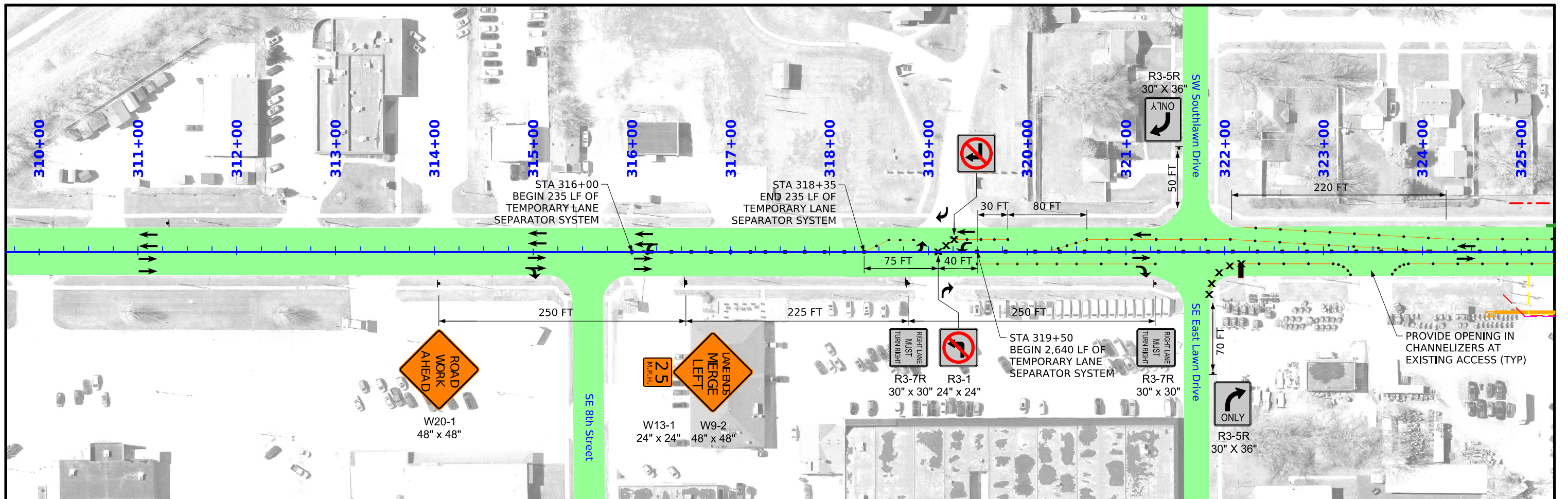
(L)



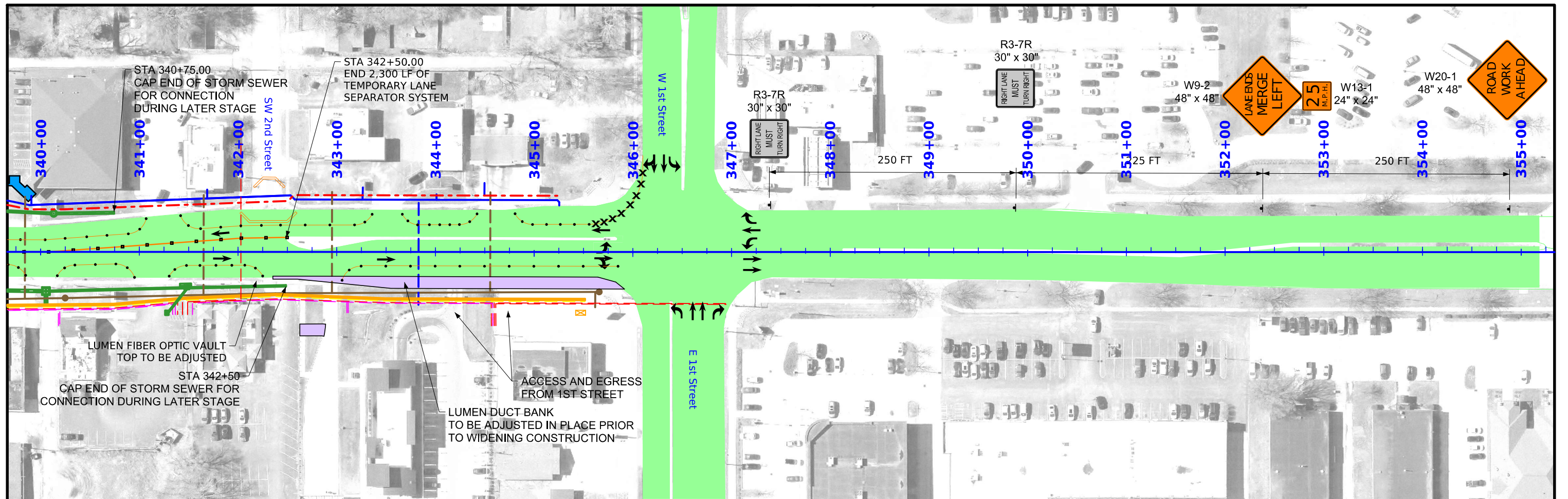
Note:  
Orientate Arrow as needed for Detour Route.

PEDESTRIAN  
DETOUR ROUTE  
(ALL STAGES)



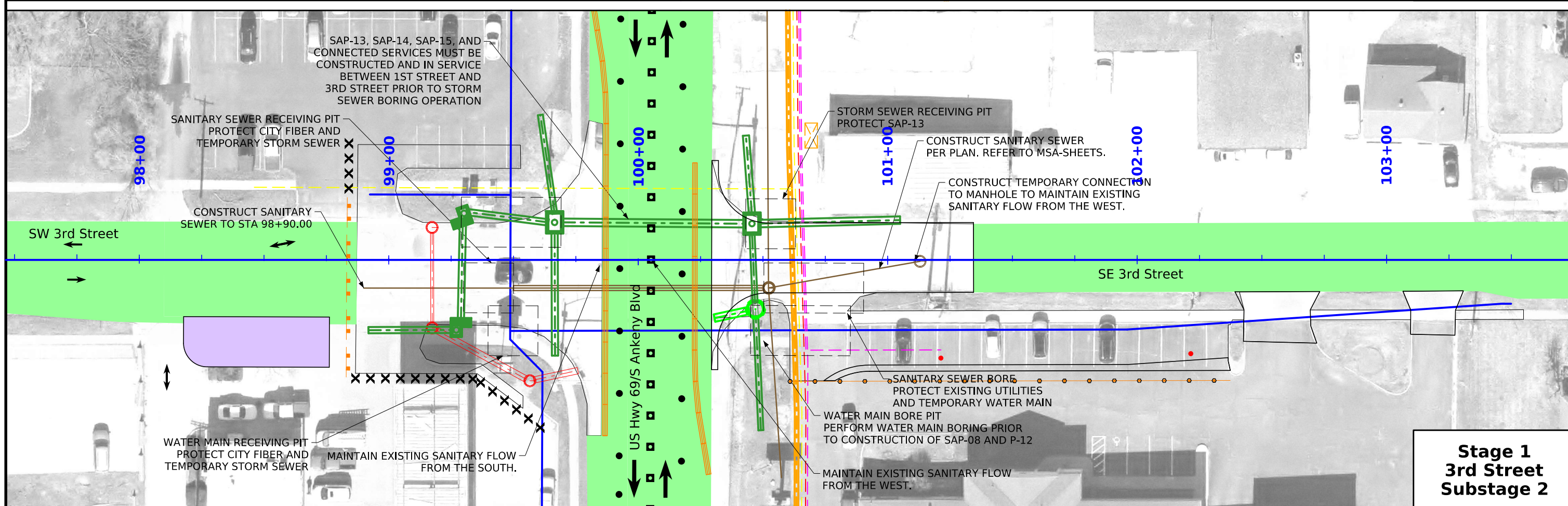
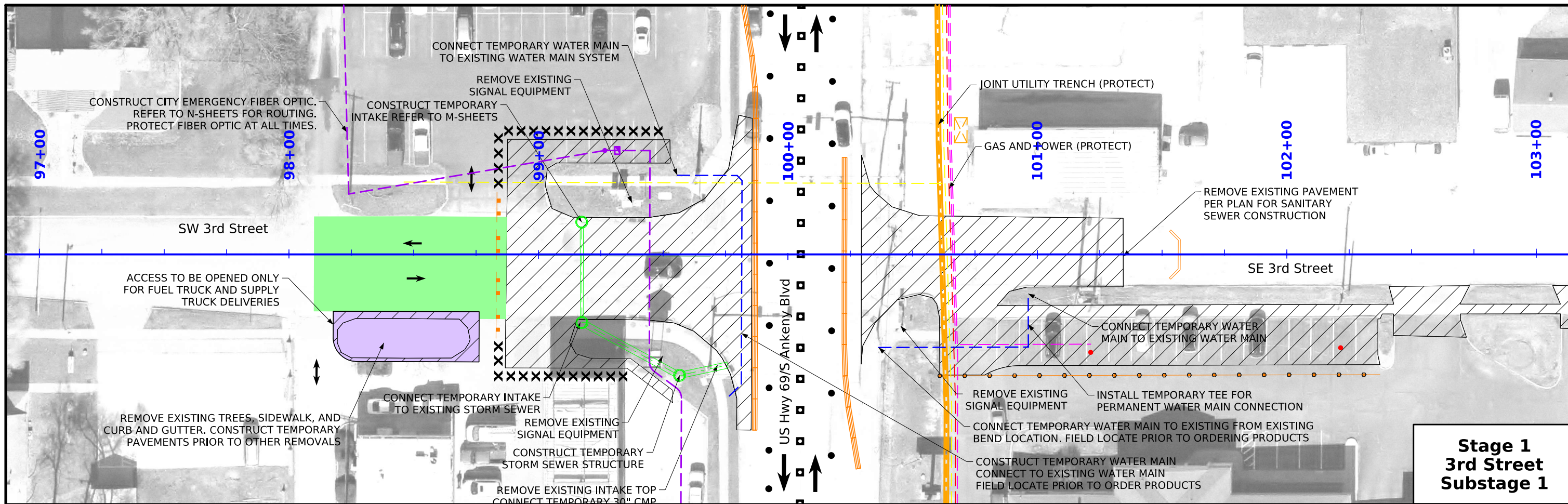




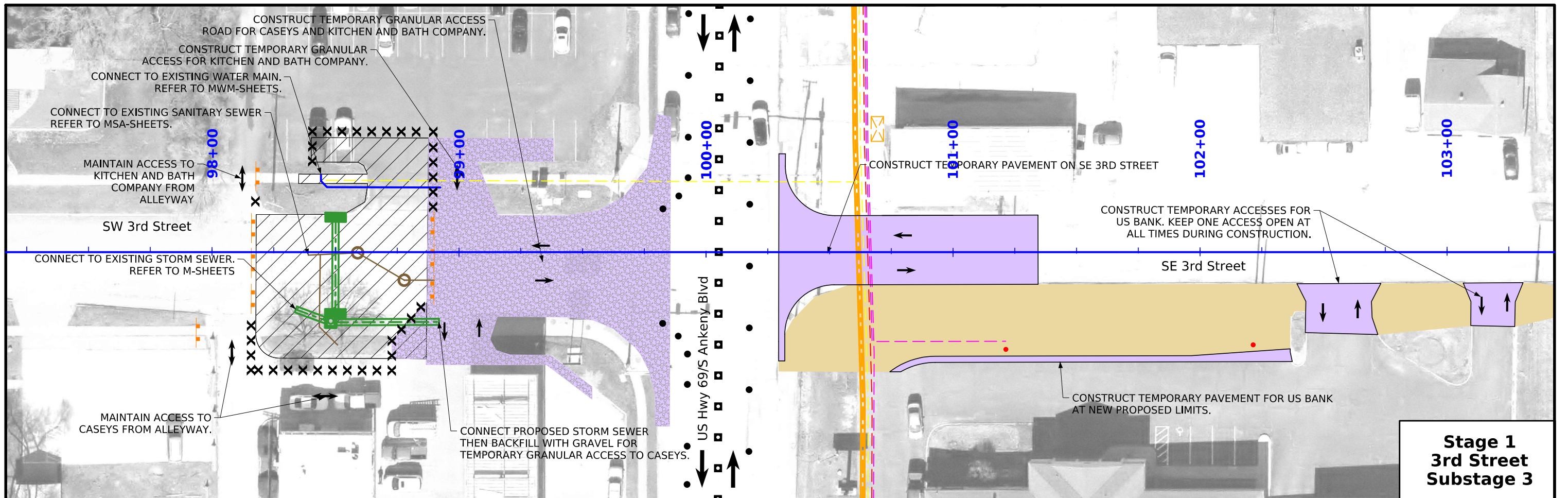


**Stage 1**

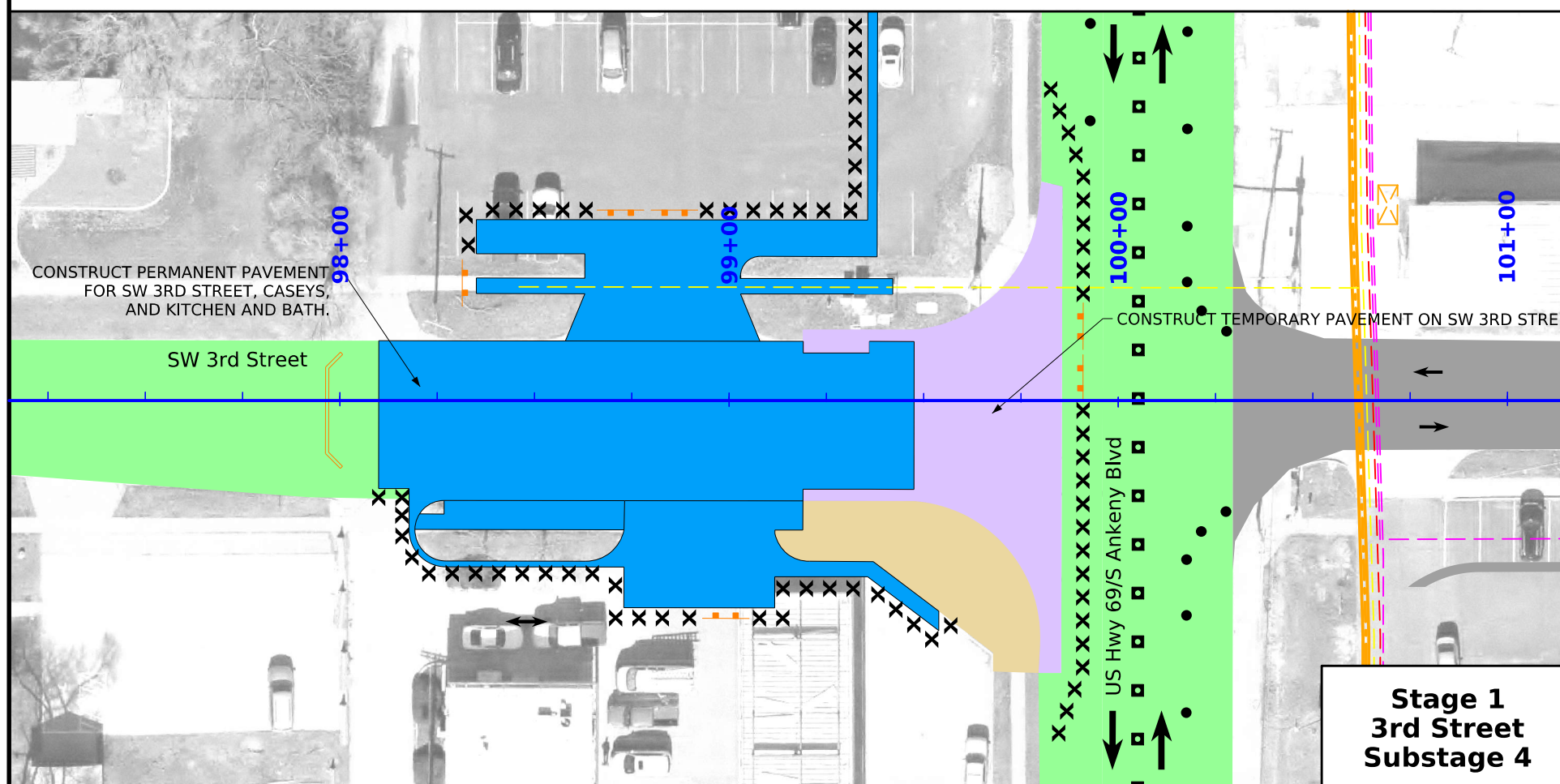




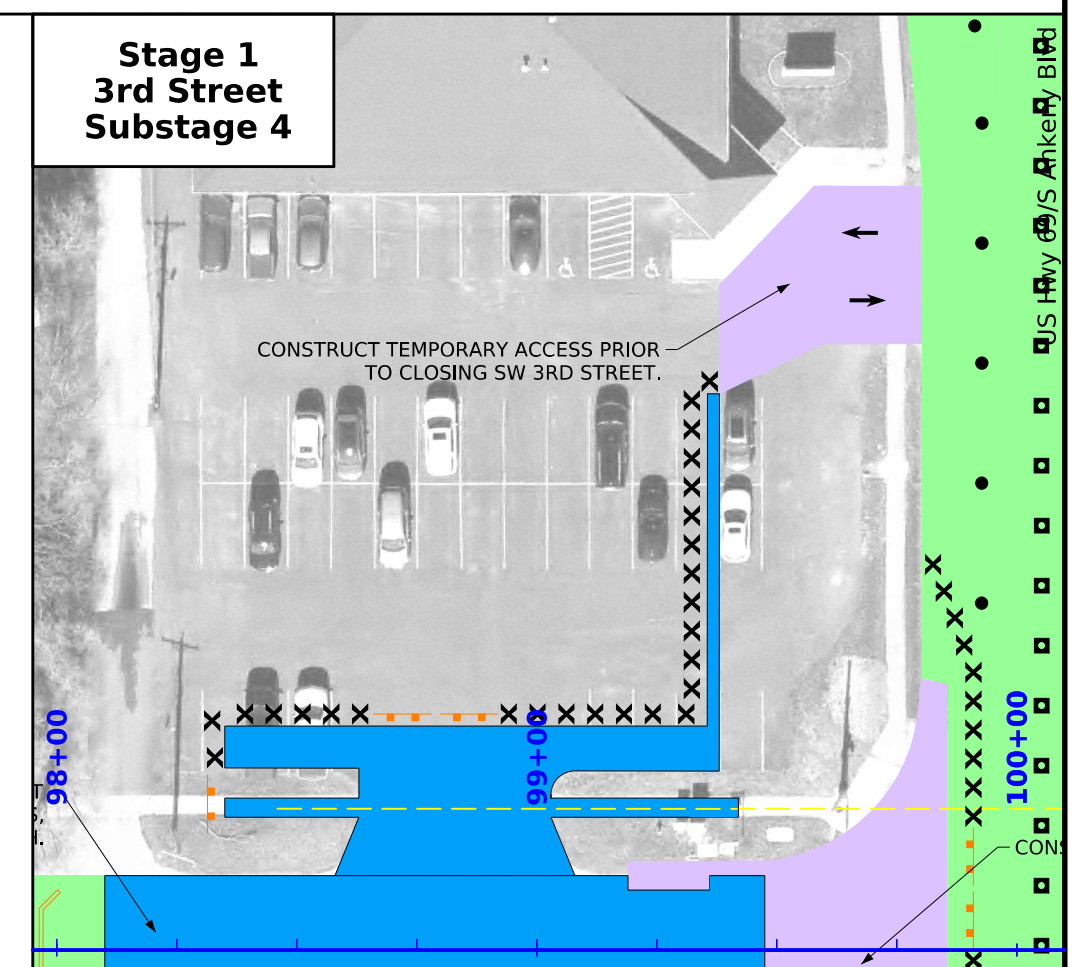




**Stage 1  
3rd Street  
Substage 3**

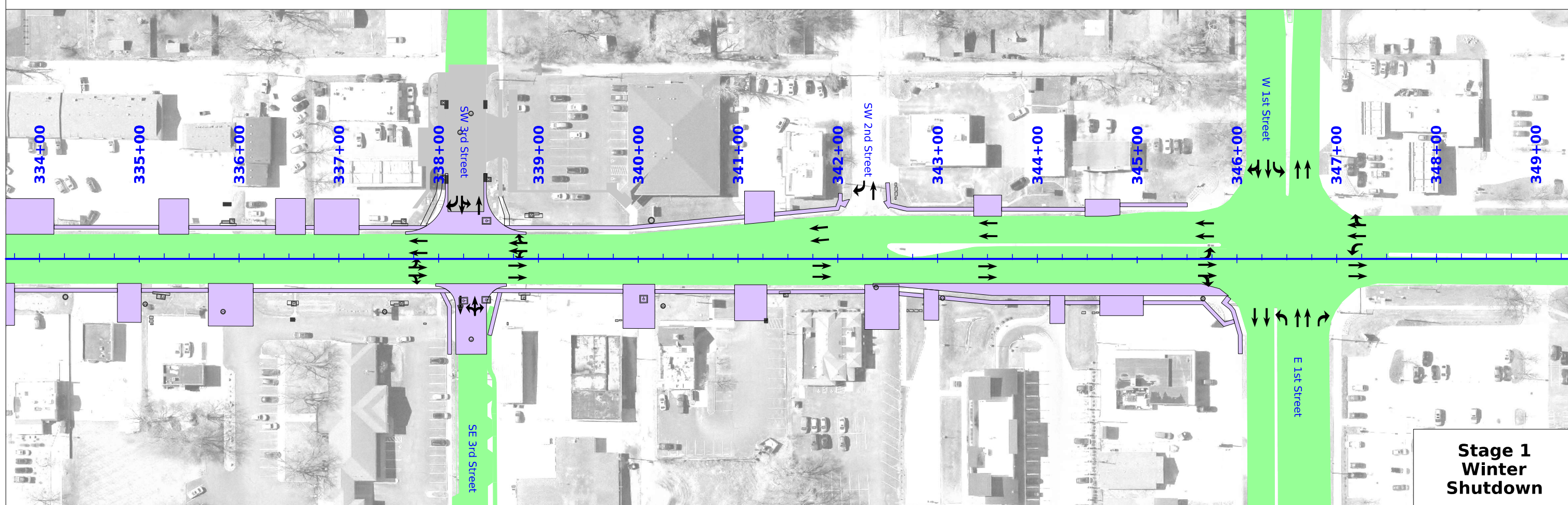
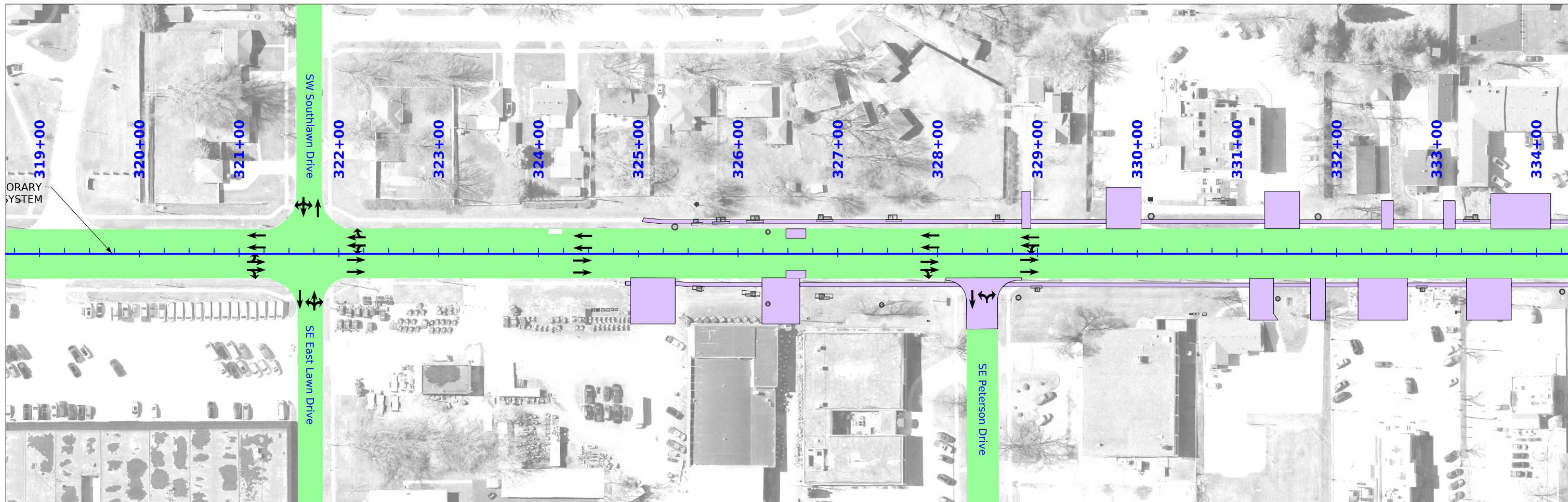


**Stage 1  
3rd Street  
Substage 4**



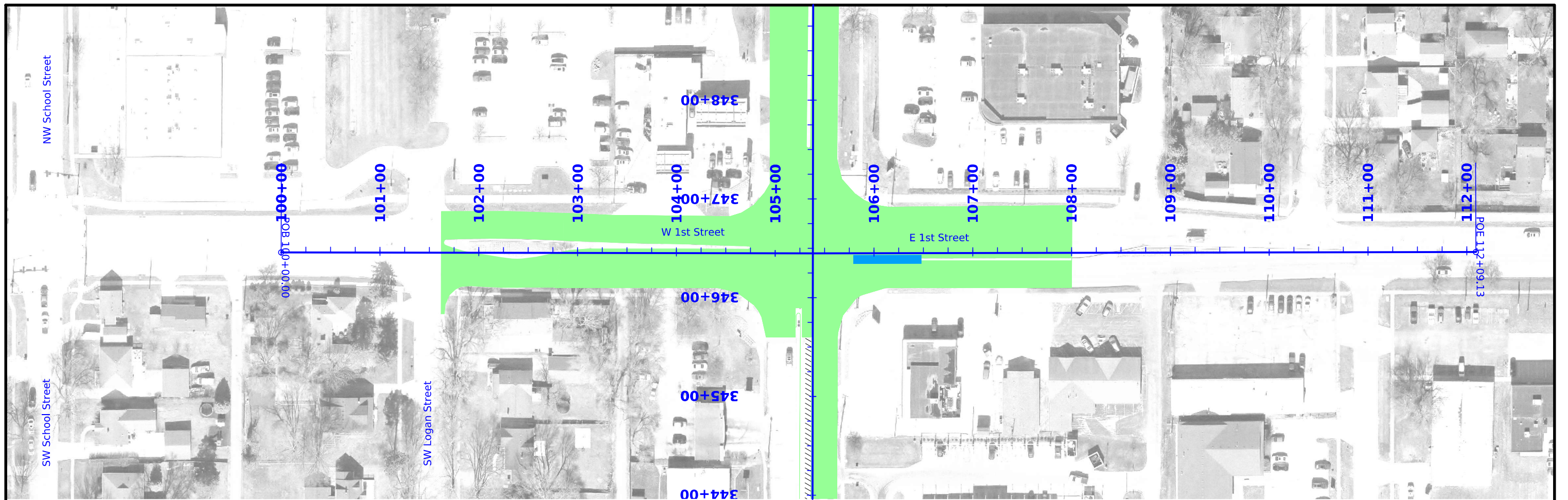
**Stage 1  
3rd Street  
Substage 4**





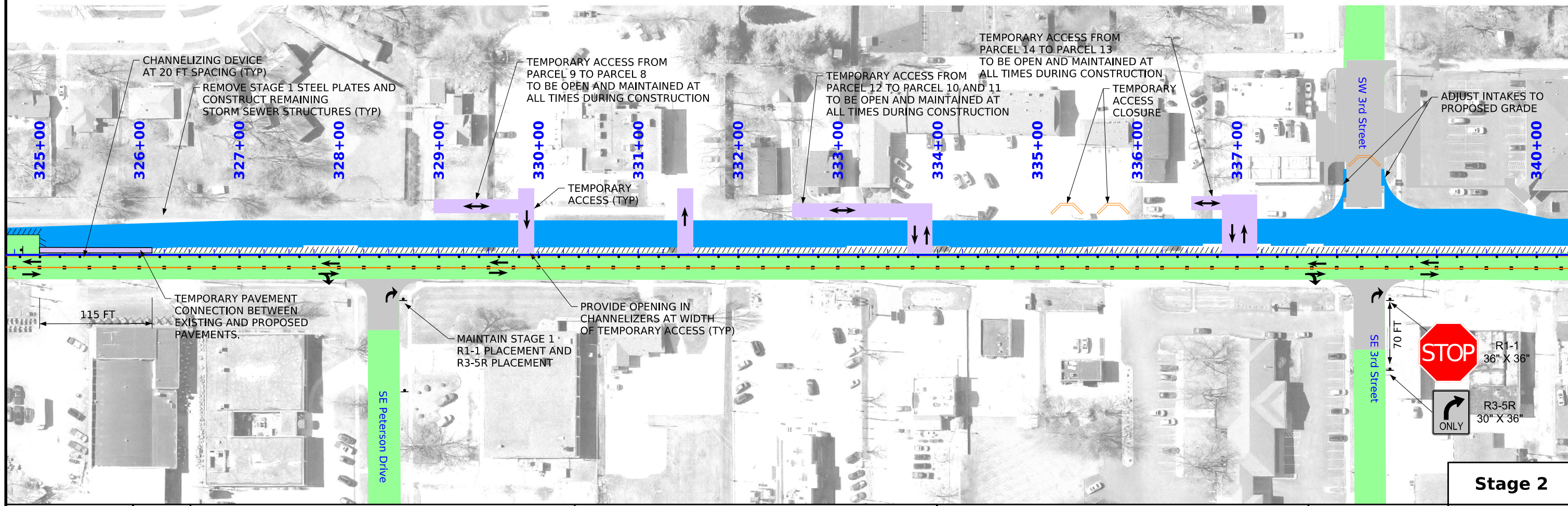
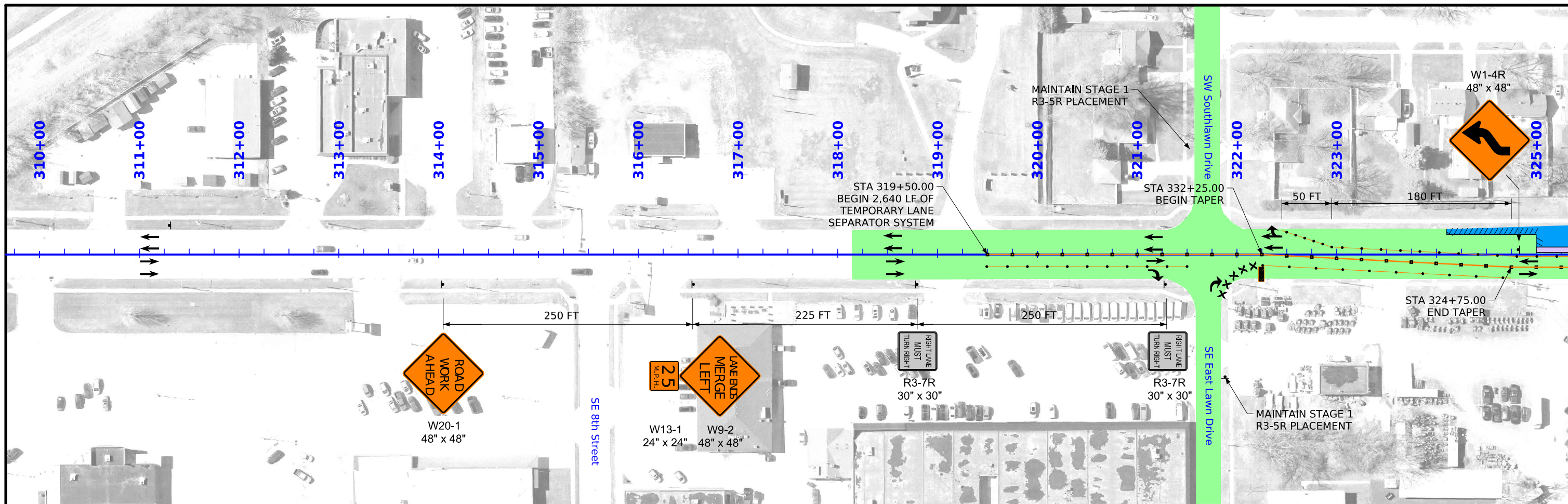
**Stage 1  
Winter  
Shutdown**



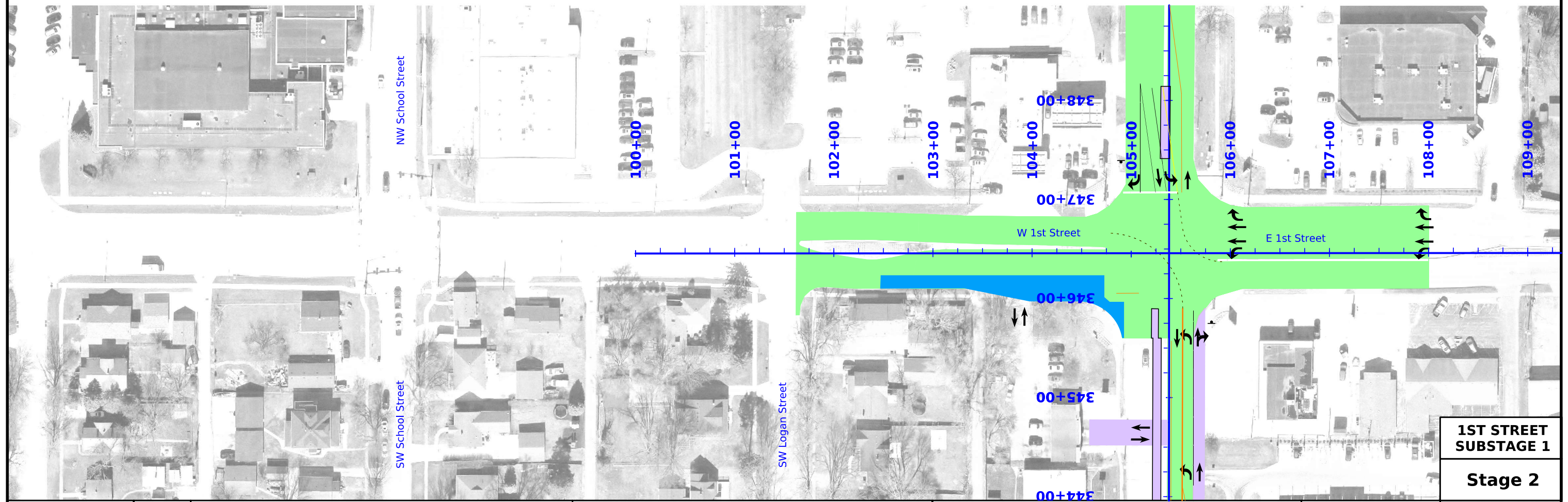
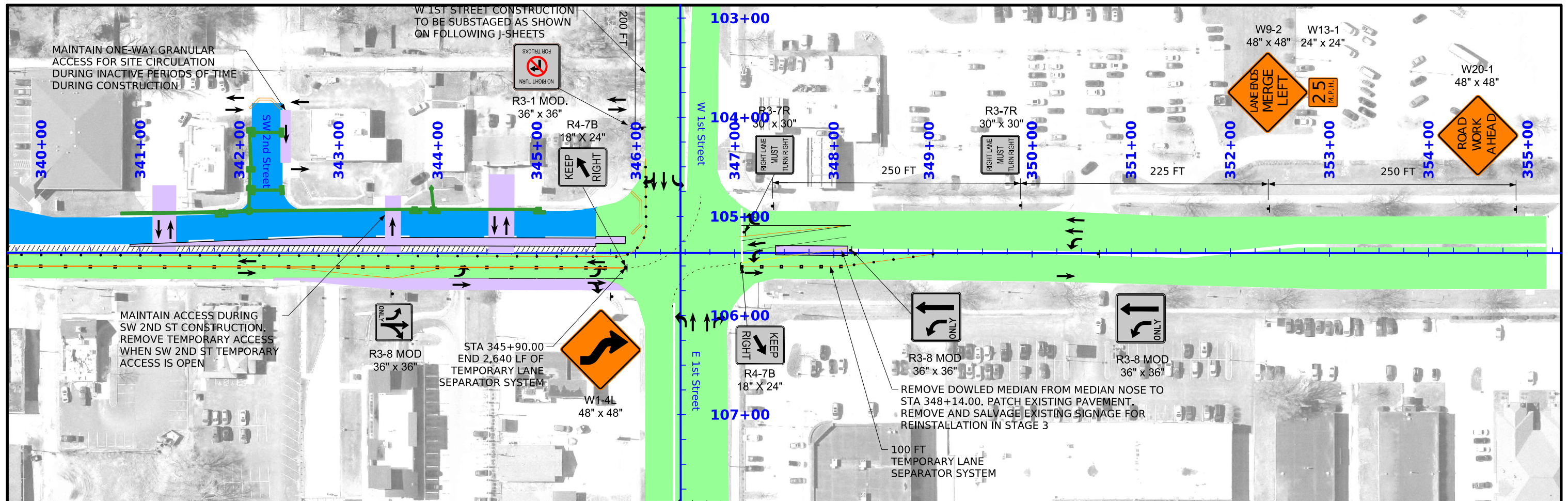


**Stage 2**

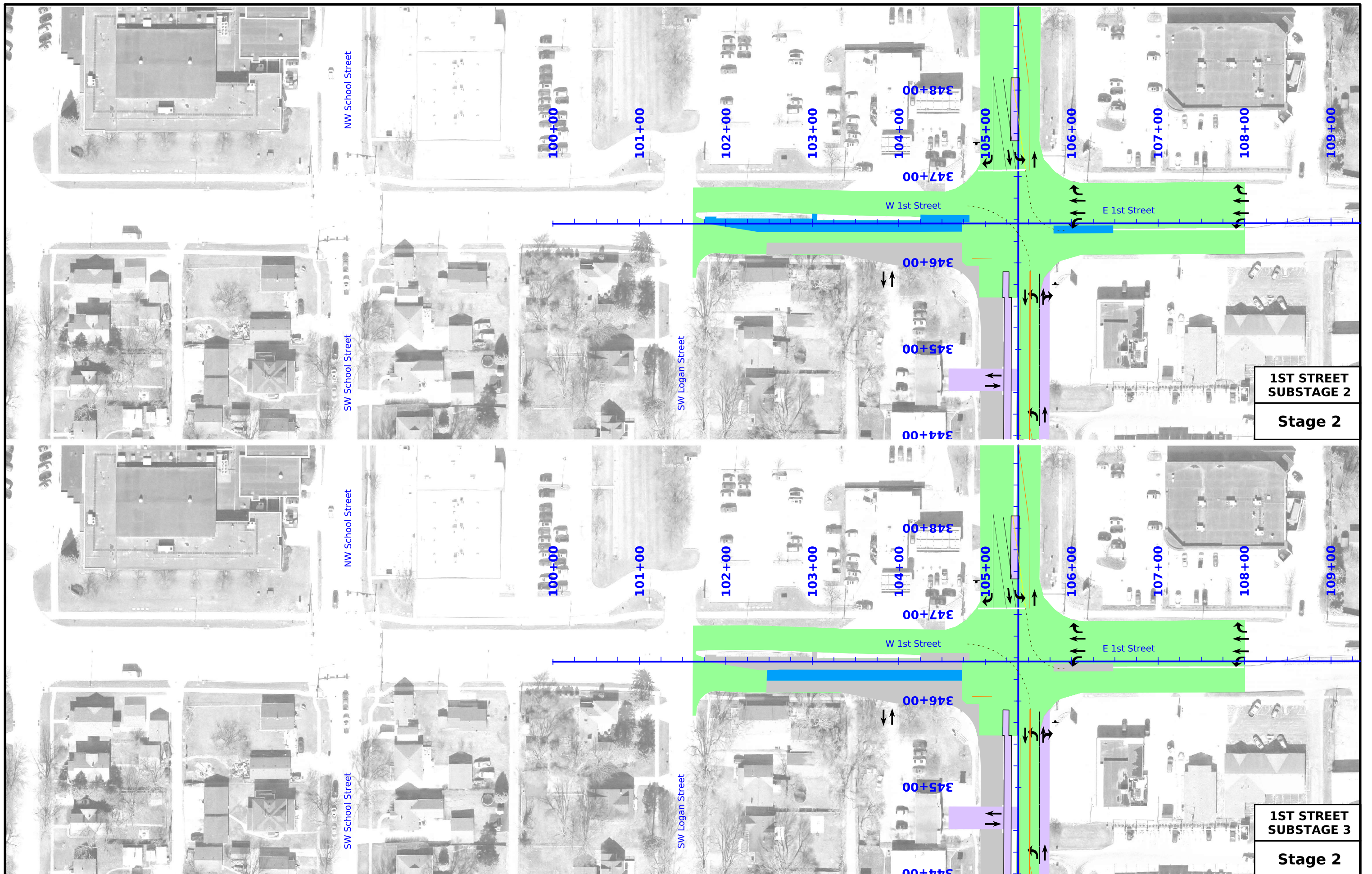












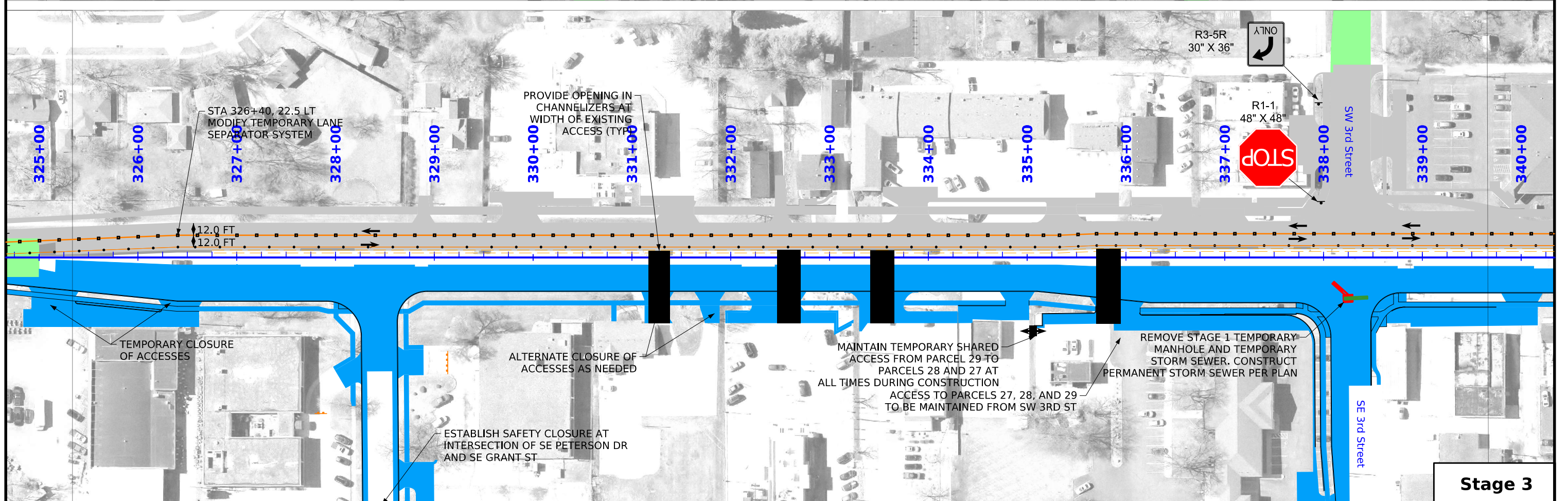
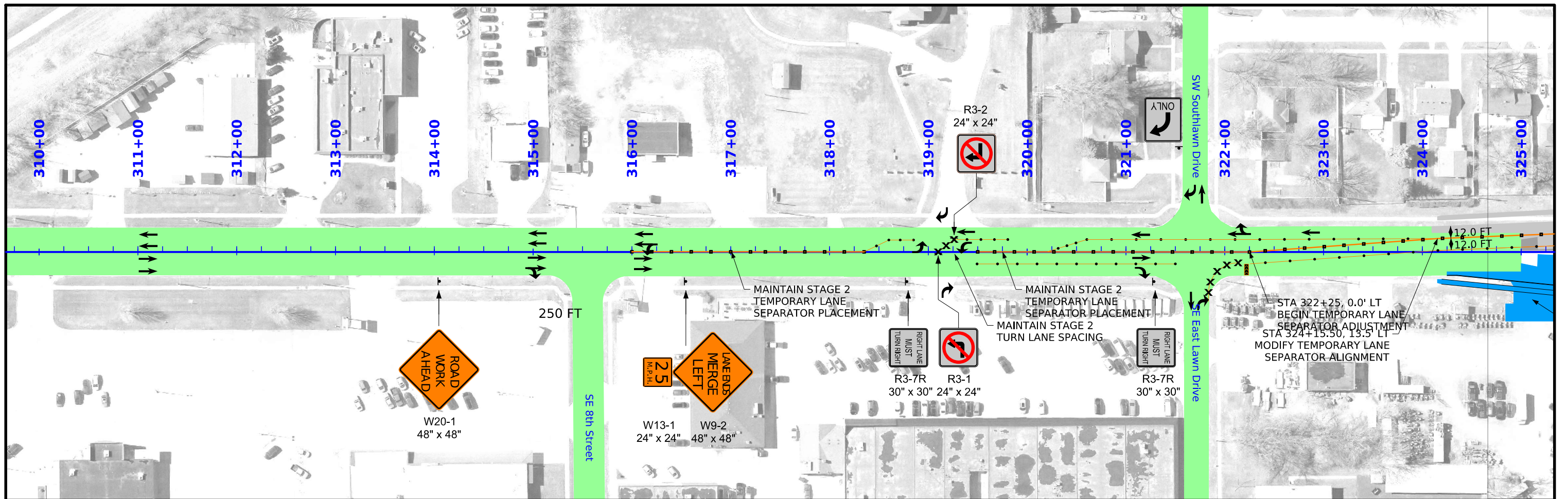
**1ST STREET  
SUBSTAGE 2**

**Stage 2**

**1ST STREET  
SUBSTAGE 3**

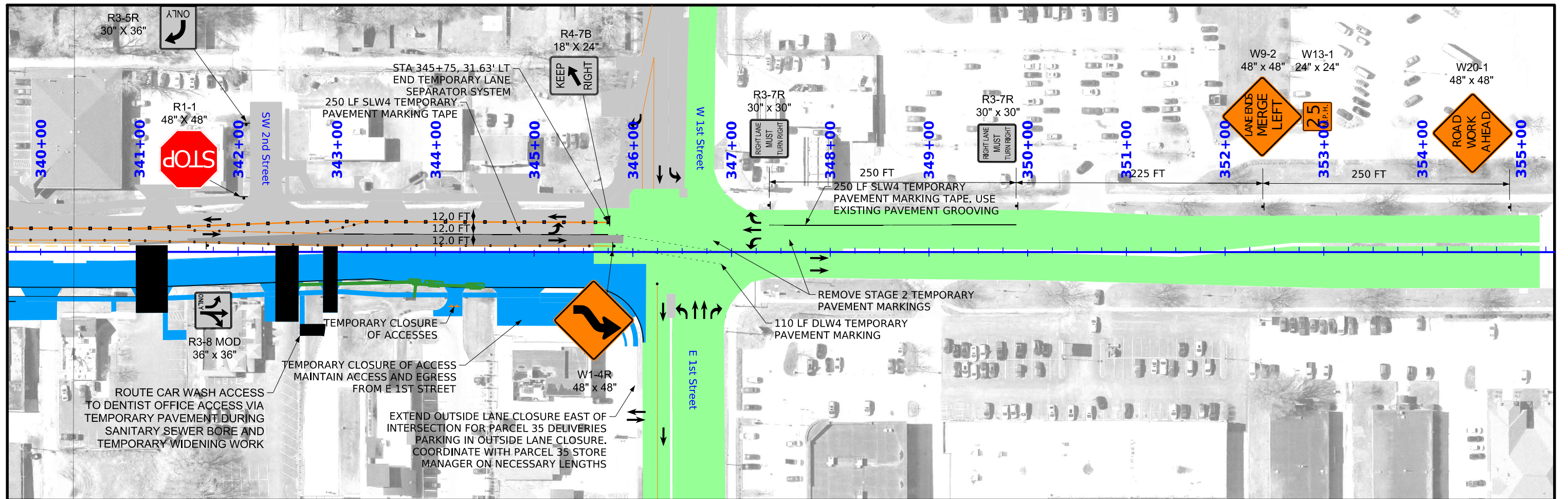
**Stage 2**





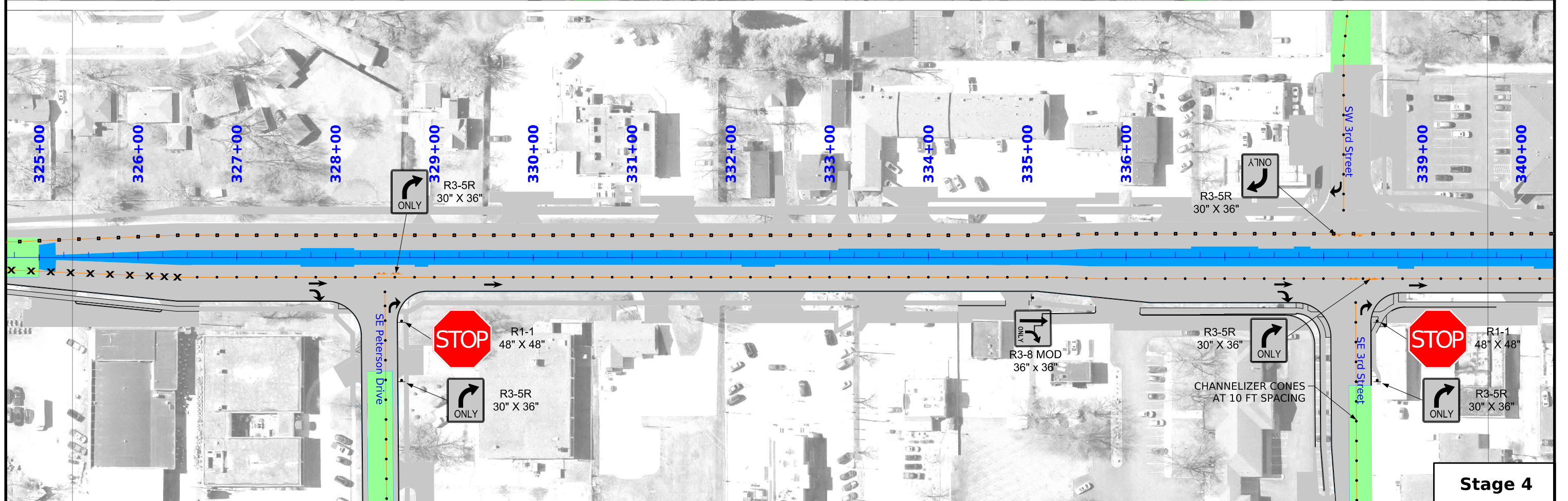
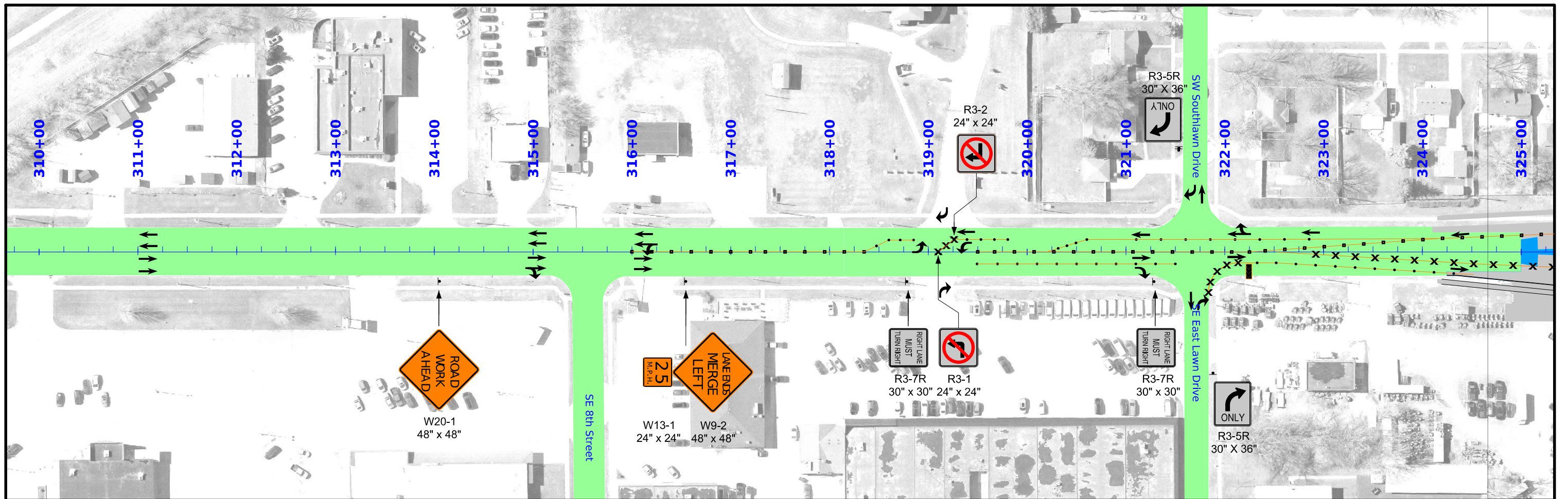
**Stage 3**





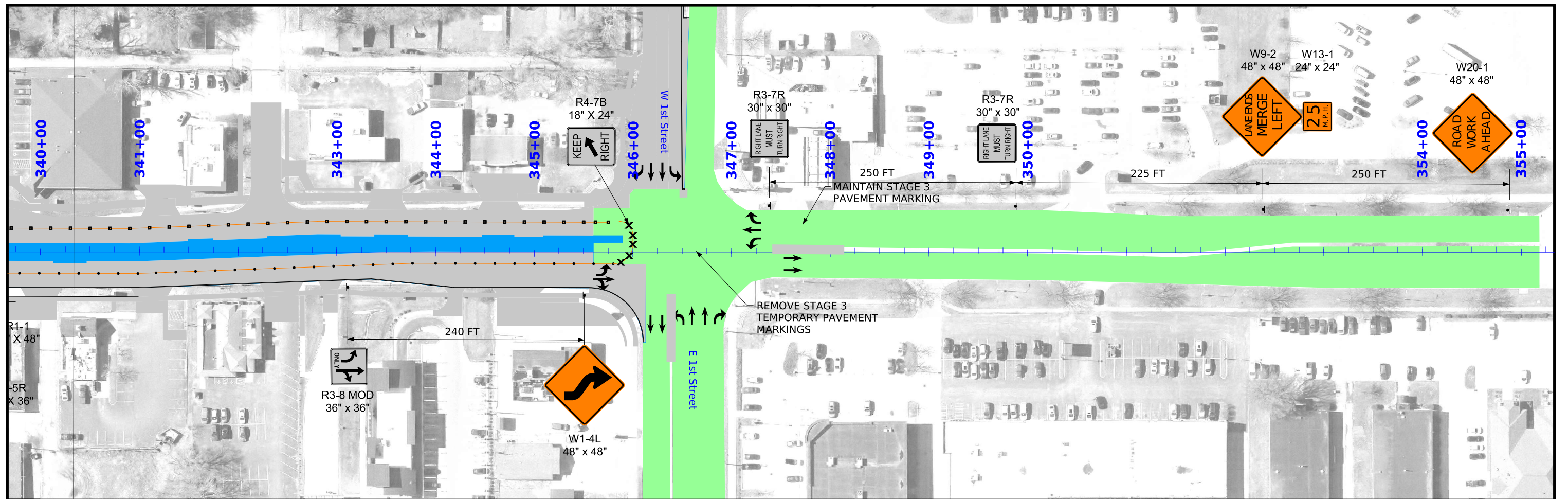
**Stage 3**





**Stage 4**





**Stage 4**



**PLAN VIEW COLOR LEGEND OF JOINTING SHEETS**

Design Color No.	Feature
(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
(55)	B Joint
(71)	C Joint
(77)	CD Joint
(76)	CT Joint
(76)	DW Joint
(76)	HT Joint
(77)	RD Joint
(76)	RT Joint
(130)	CF-1 Joint
(130)	CF-2 Joint
(130)	CF-3 Joint
(130)	CF-4 Joint
(72)	E Joint
(142)	ED Joint
(142)	EE Joint
(142)	EF Joint
(72)	ES Joint
(64)	BT-1 Joint
(64)	BT-2 Joint
(128)	BT-3 Joint
(128)	BT-4 Joint
(128)	BT-5 Joint
(79)	K Joint
(70)	KS-1 Joint
(70)	KS-2 Joint
(143)	KT-1 Joint
(143)	KT-2 Joint
(143)	KT-3 Joint
(138)	L-1 Joint
(138)	L-2 Joint
(138)	L-3 Joint

**JOINTING NOTES:**

All longitudinal joints shall be either BT-3 or L-2 unless indicated otherwise.  
 All transverse joints shall be CD joints with a maximum 17' spacing along US-69 unless indicated otherwise,  
 All transverse joints shall be CD joints with a maximum 15' spacing along side streets unless indicated otherwise,  
 If a joint length is 2', a C joint shall be used instead of a CD joint.  
 Refer to Typical 7101 for details of paved header.  
 Refer to Typical 7154A and 7154B for paved shoulder details.

**GEOMETRICS AND STAKING NOTES:**

Refer to Appropriate Standard Road Plans for Additional Information.  
 Refer to G Sheets for Horizontal Alignment Information.

**JOINTING AND GEOMETRICS  
 LEGEND AND INFORMATION SHEET**

(COVERS SHEET SERIES L)















- NOTES:**
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

⊗ Top of Drop Curb (DC) Elevations

POINT	STATION	OFFSET	ELEVATION
701	327+97.20	-5.64	992.35
702	328+03.79	-4.31	992.40
703	327+97.20	7.50	992.33
704	328+03.79	7.50	992.37

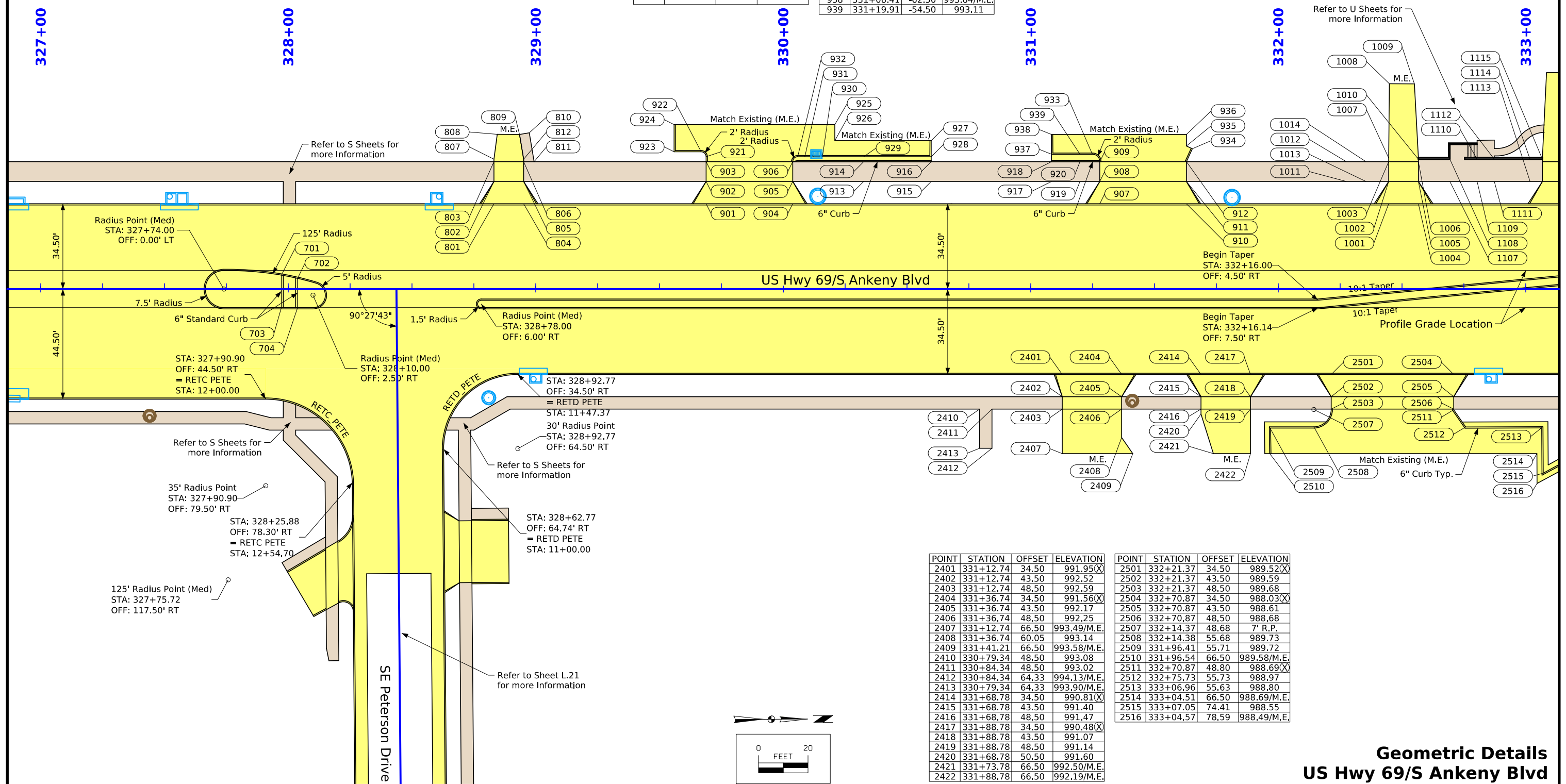
POINT	STATION	OFFSET	ELEVATION
801	328+83.09	-34.50	992.37(X)
802	328+83.09	-43.50	992.82
803	328+83.09	-51.50	992.94
804	328+95.09	-34.50	992.44(X)
805	328+95.09	-43.50	992.89
806	328+95.09	-51.50	993.01
807	328+83.09	-52.50	992.99
808	328+84.46	-62.51	993.54/M.E.
809	328+93.41	-62.49	993.42/M.E.
810	328+97.37	-63.15	993.36
811	328+99.31	-51.50	993.07
812	328+95.09	-52.50	993.05

POINT	STATION	OFFSET	ELEVATION
901	329+68.83	-34.50	992.78(X)
902	329+68.83	-43.50	993.23
903	329+68.83	-51.50	993.35
904	330+03.83	-34.50	992.77(X)
905	330+03.83	-43.50	993.22
906	330+03.83	-51.50	993.34
907	331+27.91	-34.50	991.71(X)
908	331+27.91	-43.50	992.30
909	331+27.91	-51.50	992.42
910	331+62.91	-34.50	991.06(X)
911	331+62.91	-43.50	991.65
912	331+62.91	-51.50	991.77
913	330+32.52	-43.50	993.93
914	330+32.52	-51.50	994.05
915	330+59.75	-43.50	993.73
916	330+59.75	-51.50	993.85
917	331+08.41	-43.50	993.16
918	331+08.41	-51.50	993.28

POINT	STATION	OFFSET	ELEVATION
919	331+19.91	-43.50	992.81
920	331+19.91	-51.50	992.91
921	329+68.83	-53.50	993.46
922	329+66.83	-55.50	993.59
923	329+55.91	-55.50	993.66
924	329+55.91	-66.50	994.39/M.E.
925	330+20.83	-66.50	994.11/M.E.
926	330+20.83	-60.00	994.00/M.E.
927	330+59.75	-60.00	994.28/M.E.
928	330+59.75	-53.50	994.15
929	330+62.52	-53.50	993.87
930	331+08.41	-54.50	993.46
931	331+08.41	-62.50	993.45
932	331+19.91	-54.50	993.42
933	331+24.91	-54.50	992.97
934	331+65.30	-56.69	991.87/M.E.
935	331+62.91	-57.79	991.95/M.E.
936	331+62.91	-62.50	992.07/M.E.
937	331+08.41	-54.50	993.44
938	331+08.41	-62.50	993.84/M.E.
939	331+19.91	-54.50	993.11

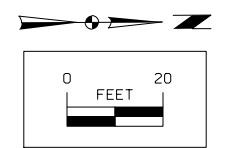
POINT	STATION	OFFSET	ELEVATION
1001	332+44.63	-34.50	989.02(X)
1002	332+44.63	-43.50	989.88
1003	332+44.63	-51.50	990.00
1004	332+56.63	-34.50	988.52(X)
1005	332+56.63	-43.50	989.48
1006	332+56.63	-51.50	989.60
1007	332+44.63	-53.00	990.03
1008	332+44.89	-83.00	991.56/M.E.
1009	332+55.01	-82.95	991.56/M.E.
1010	332+56.63	-52.50	989.61
1011	332+27.50	-43.50	990.63
1012	332+27.50	-51.50	990.75
1013	332+35.43	-43.50	990.40
1014	332+35.43	-51.50	990.52

POINT	STATION	OFFSET	ELEVATION
1107	332+72.36	-43.50	989.26
1108	332+72.36	-52.50	989.38/M.E.
1109	332+80.36	-43.50	989.00/M.E.
1110	332+80.36	-52.50	989.12
1111	332+87.26	-43.50	988.76
1112	332+87.26	-52.50	988.89
1113	333+01.74	-43.50	988.09
1114	333+01.74	-52.50	988.21
1115	333+06.74	-52.50	987.97



POINT	STATION	OFFSET	ELEVATION
2401	331+12.74	34.50	991.95(X)
2402	331+12.74	43.50	992.52
2403	331+12.74	48.50	992.59
2404	331+36.74	34.50	991.56(X)
2405	331+36.74	43.50	992.17
2406	331+36.74	48.50	992.25
2407	331+12.74	66.50	993.49/M.E.
2408	331+36.74	60.05	993.14
2409	331+41.21	66.50	993.58/M.E.
2410	330+79.34	48.50	993.08
2411	330+84.34	48.50	993.02
2412	330+84.34	64.33	994.13/M.E.
2413	330+79.34	64.33	993.90/M.E.
2414	331+68.78	34.50	990.81(X)
2415	331+68.78	43.50	991.40
2416	331+68.78	48.50	991.47
2417	331+88.78	34.50	990.48(X)
2418	331+88.78	43.50	991.07
2419	331+88.78	48.50	991.14
2420	331+68.78	50.50	991.60
2421	331+73.78	66.50	992.50/M.E.
2422	331+88.78	66.50	992.19/M.E.

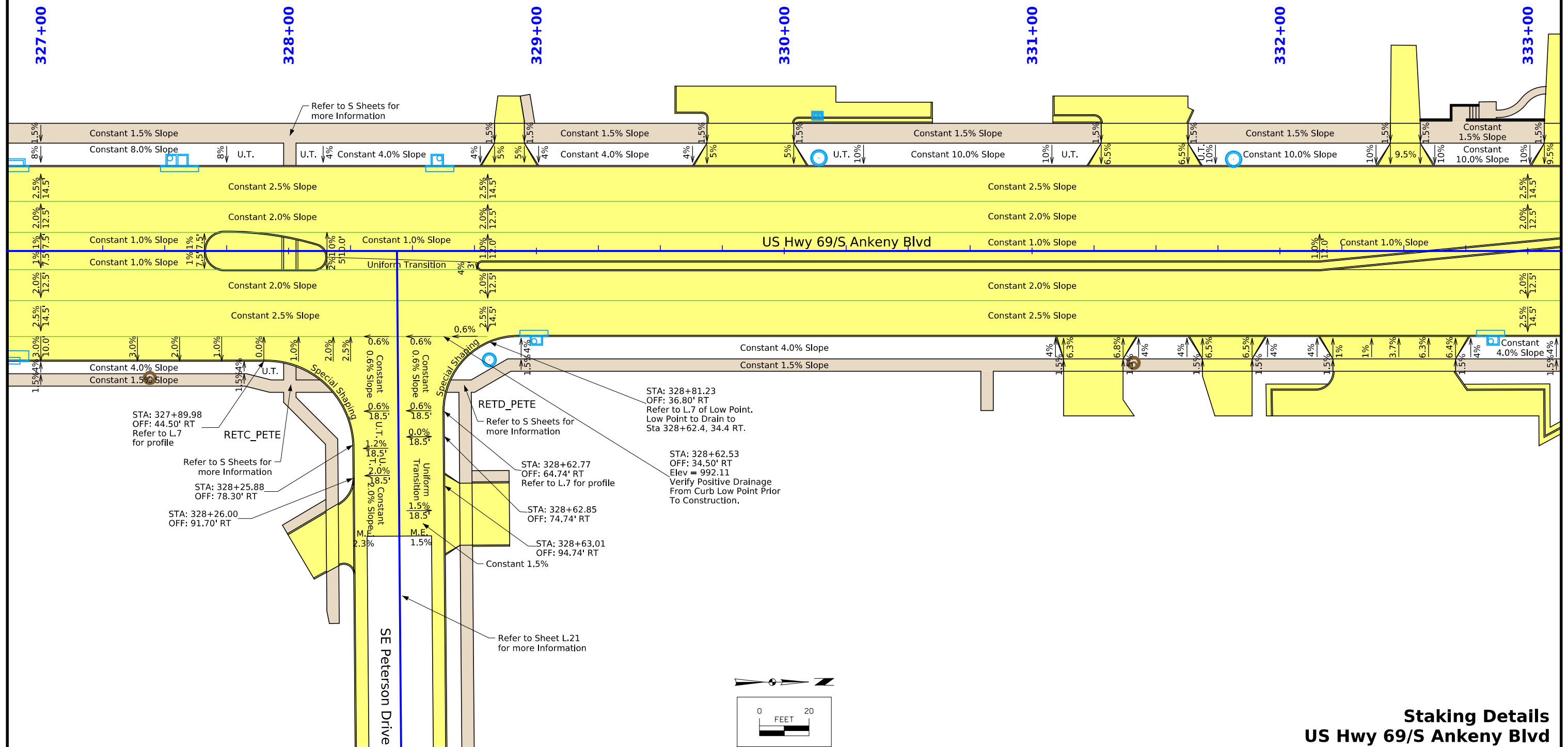
POINT	STATION	OFFSET	ELEVATION
2501	332+21.37	34.50	989.52(X)
2502	332+21.37	43.50	989.59
2503	332+21.37	48.50	989.68
2504	332+70.87	34.50	988.03(X)
2505	332+70.87	43.50	988.61
2506	332+70.87	48.50	988.68
2507	332+14.37	48.68	7' R.P.
2508	332+14.38	55.68	989.73
2509	331+96.41	55.71	989.72
2510	331+96.54	66.50	989.58/M.E.
2511	332+70.87	48.80	988.69(X)
2512	332+75.73	55.73	988.97
2513	333+06.96	55.63	988.80
2514	333+04.51	66.50	988.69/M.E.
2515	333+07.05	74.41	988.55
2516	333+04.57	78.59	988.49/M.E.



**Geometric Details  
US Hwy 69/S Ankeny Blvd**



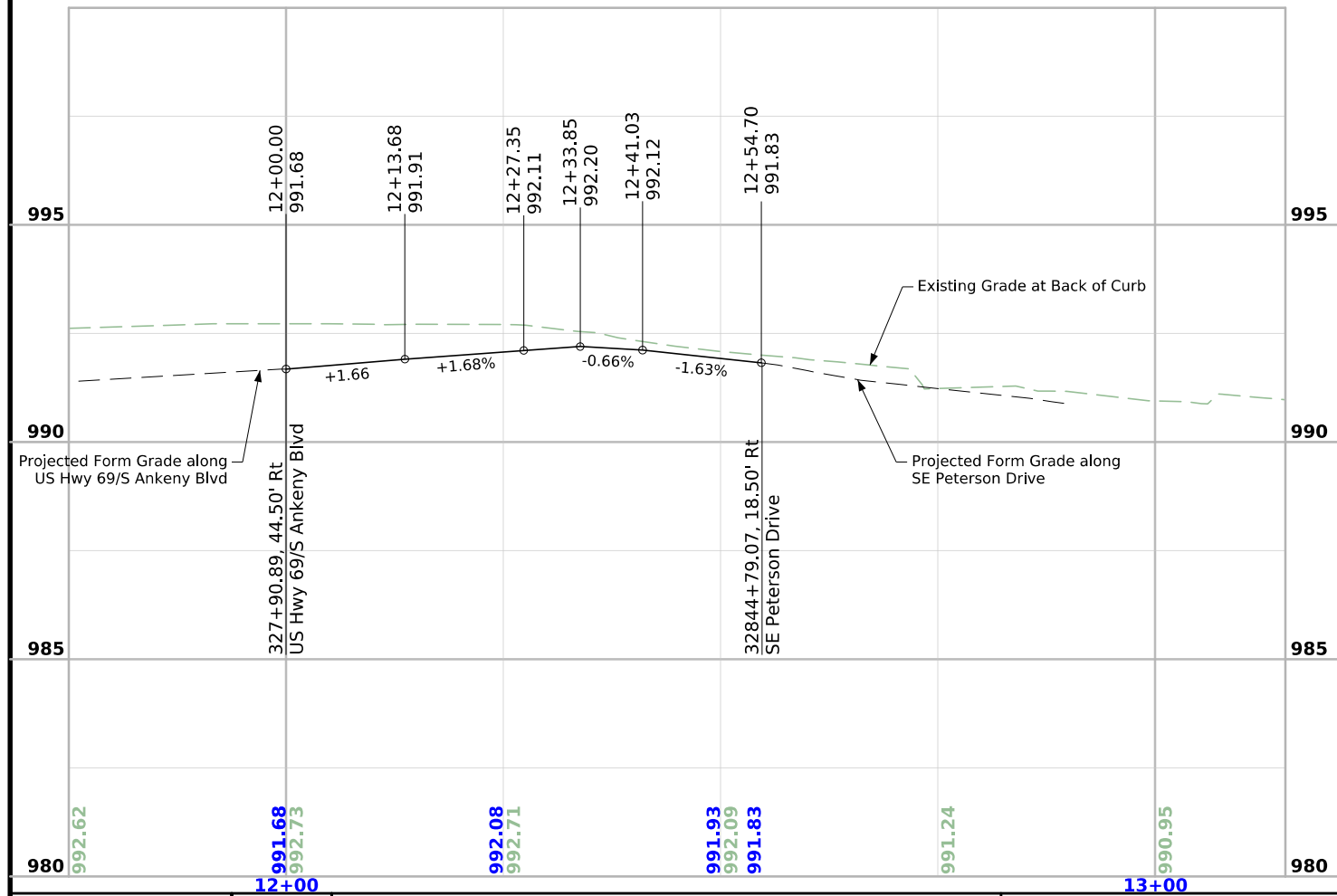
- NOTES:
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.



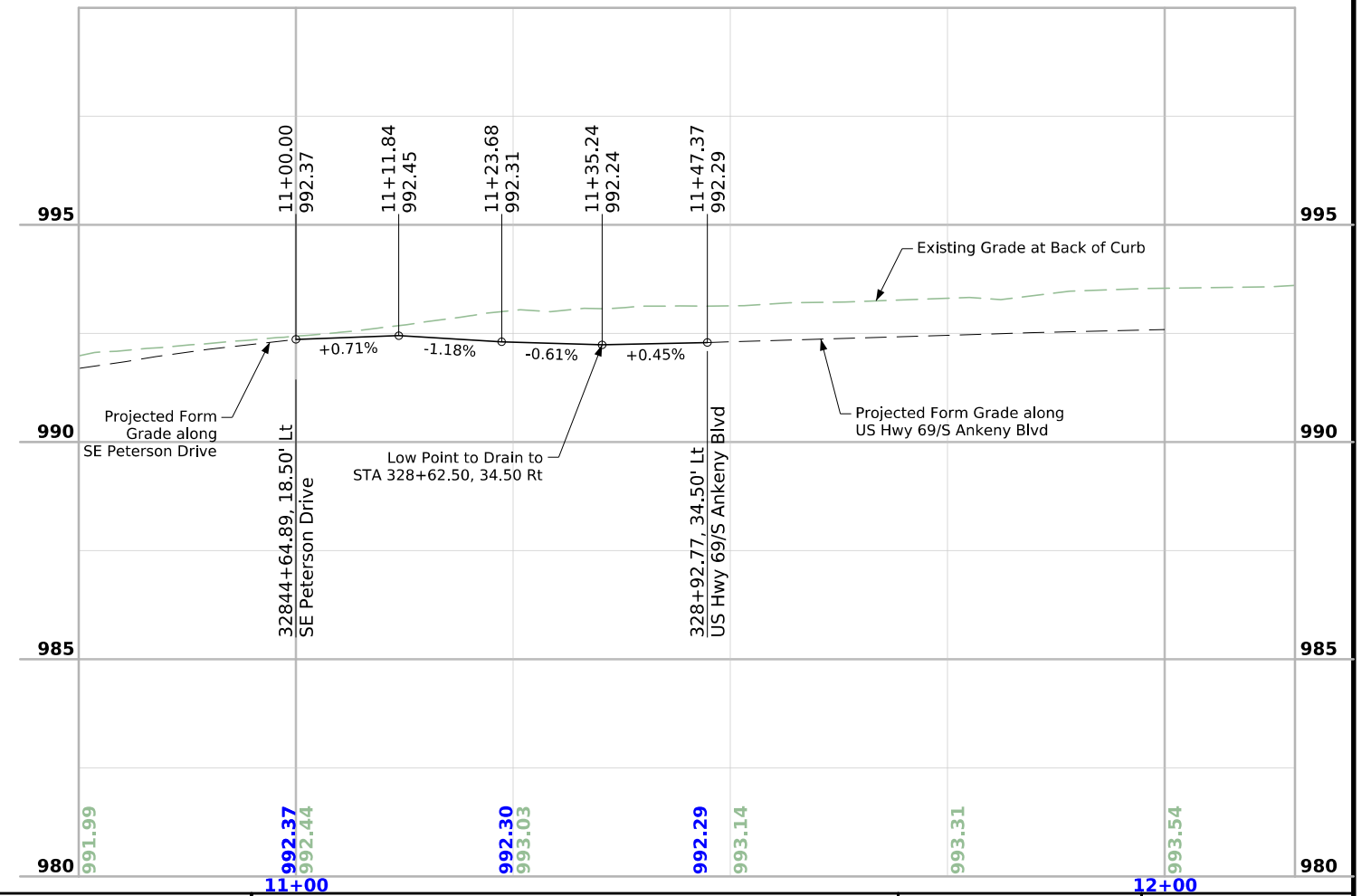
**Staking Details  
US Hwy 69/S Ankeny Blvd**



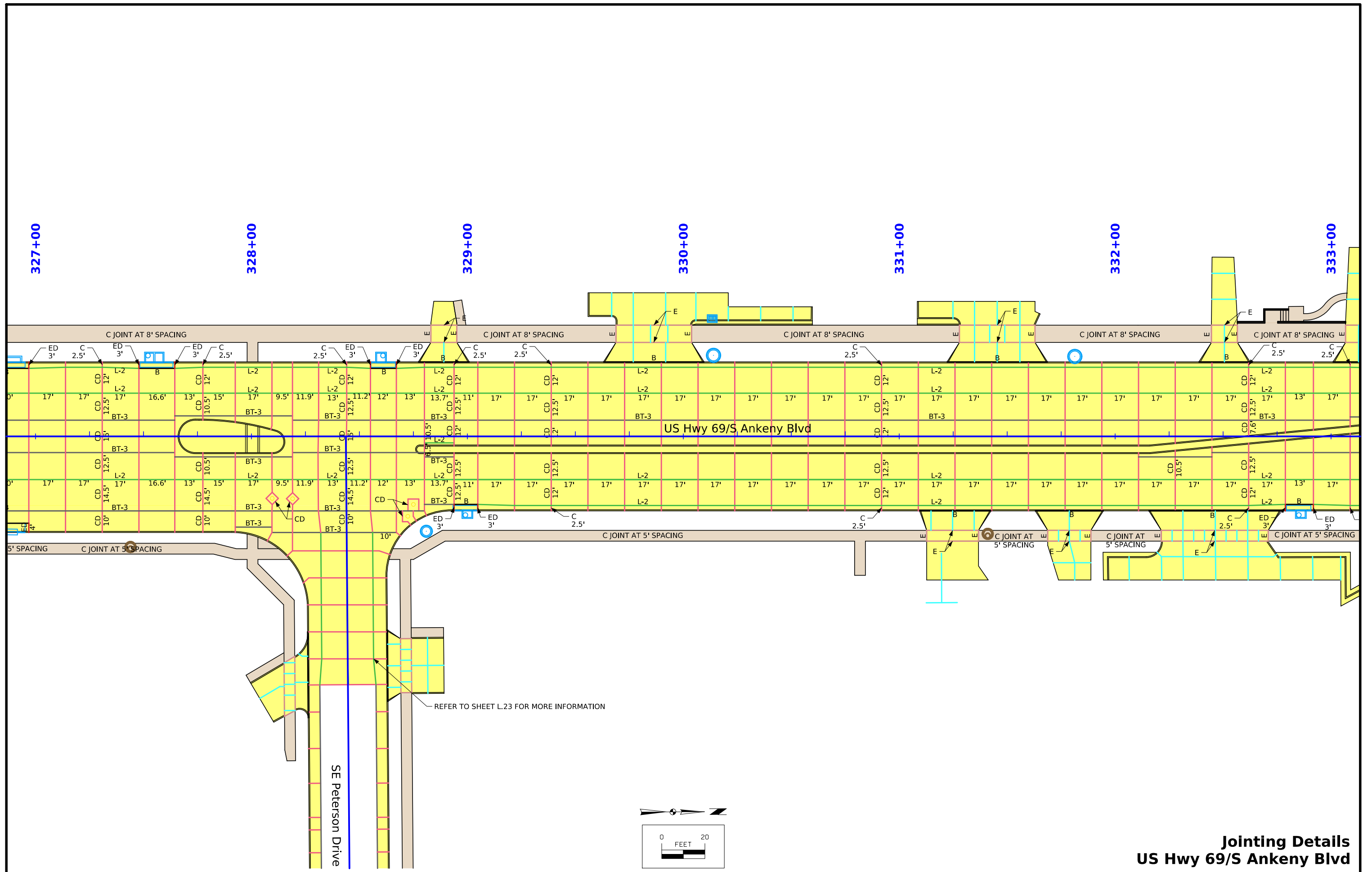
### RETC\_PETE



### RETD\_PETE



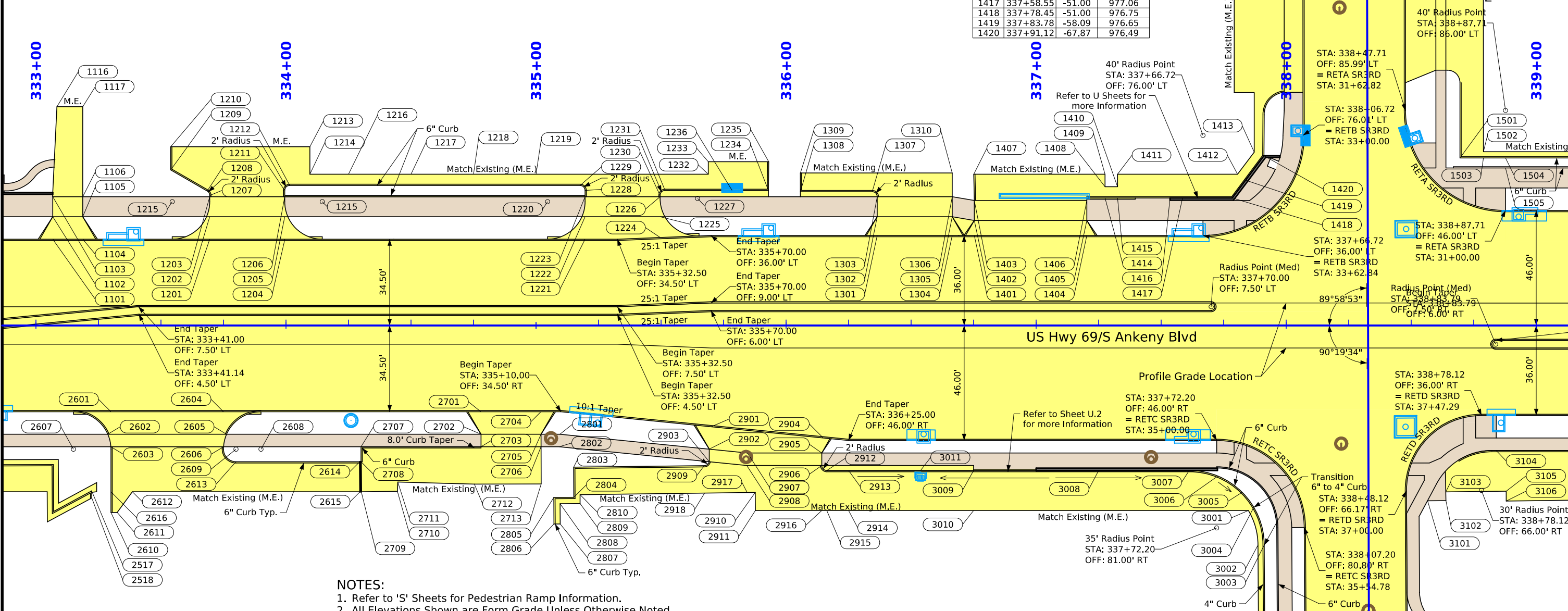




**Jointing Details  
US Hwy 69/S Ankeny Blvd**

FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>L.8</b>
10:29:49 AM	2/18/2025	mbeerends	pw:\projectwise.dot.int.lan:PWMMain\Documents\Projects\7706901020\Design\CADD_Files\Sheet_Files\SHT_77069136Z08_L02.dgn		

POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION
1101	333+06.74	-34.50	986.97(X)	1201	333+69.50	-34.50	984.77(X)	1216	334+25.00	-60.50	984.74/M.E.	1221	335+19.61	-34.50	980.27(X)	1301	336+36.46	-36.00	977.71(X)	1401	336+75.26	-36.00	977.14
1102	333+06.74	-43.50	987.83	1202	333+69.50	-43.50	985.36	1217	334+50.00	-60.50	983.92/M.E.	1222	335+19.61	-43.50	980.86	1302	336+36.46	-43.50	978.26	1402	336+75.26	-42.00	977.17
1103	333+06.74	-51.50	987.95	1203	333+69.50	-51.50	985.48	1218	334+75.00	-60.50	983.15/M.E.	1223	335+19.61	-51.50	980.98	1303	336+36.46	-51.50	978.38	1403	336+75.26	-50.00	977.21
1104	333+18.74	-34.50	986.57(X)	1204	333+69.50	-34.50	983.78(X)	1219	335+00.00	-60.50	982.29/M.E.	1224	335+49.61	-35.18	979.53(X)	1304	336+66.46	-36.00	977.26(X)	1404	337+20.26	-36.00	976.51
1105	333+18.74	-43.50	987.43	1205	333+69.50	-43.50	984.37	1220	335+04.61	-49.50	15' R.P.	1225	335+49.61	-43.50	980.06	1305	336+66.46	-43.50	977.53	1405	337+20.26	-42.00	976.66
1106	333+18.74	-51.50	989.57	1206	333+69.50	-51.50	984.49	1221	335+49.61	-51.50	980.18	1226	335+49.61	-51.50	980.18	1306	336+66.46	-51.50	977.65	1406	337+20.26	-50.00	976.70
1116	333+08.41	-87.50	990.60/M.E.	1207	333+69.50	-52.00	985.52	1222	335+64.61	-50.82	15' R.P.	1227	335+64.61	-50.82	15' R.P.	1307	336+34.46	-53.50	978.46	1407	337+20.26	-60.49	977.13/M.E.
1117	333+18.71	-87.50	990.75/M.E.	1208	333+68.50	-53.76	985.69	1228	335+19.61	-54.00	981.16	1228	335+19.61	-54.00	981.16	1308	336+05.74	-53.50	979.24	1408	337+27.56	-55.48	976.78
				1209	333+53.89	-62.19	986.66	1229	335+17.61	-56.00	981.46	1229	335+17.61	-56.00	981.46	1309	336+05.70	-61.00	979.35/M.E.	1409	337+27.56	-60.49	976.93/M.E.
				1210	333+53.89	-71.50	987.13/M.E.	1230	335+49.61	-52.00	980.21	1230	335+49.61	-52.00	980.21	1310	336+66.45	-61.00	978.16/M.E.	1410	337+32.56	-55.48	976.81
				1211	333+99.50	-54.00	984.68	1231	335+51.61	-54.00	980.32	1231	335+51.61	-54.00	980.32	1411	337+32.56	-60.49	976.92	1411	337+32.56	-60.49	976.92
				1212	334+01.50	-56.00	984.88	1232	335+68.89	-60.50	980.13/M.E.	1232	335+68.89	-60.50	980.13/M.E.	1412	337+80.58	-60.49	976.73/M.E.	1412	337+80.58	-60.49	976.73/M.E.
				1213	334+09.57	-71.50	985.34/M.E.	1233	335+68.89	-65.50	980.30/M.E.	1233	335+68.89	-65.50	980.30/M.E.	1413	337+87.22	-69.33	976.57/M.E.	1413	337+87.22	-69.33	976.57/M.E.
				1214	334+09.57	-60.50	985.19/M.E.	1234	335+92.97	-54.00	979.53	1234	335+92.97	-54.00	979.53	1414	337+27.56	-51.00	976.76	1414	337+27.56	-51.00	976.76
				1215	333+54.50	-49.50	15' R.P.	1235	335+93.05	-65.50	979.59/M.E.	1235	335+93.05	-65.50	979.59/M.E.	1415	337+32.56	-51.00	976.79	1415	337+32.56	-51.00	976.79
								1236	335+78.50	-54.00	979.45	1236	335+78.50	-54.00	979.45	1416	337+53.58	-51.00	976.97	1416	337+53.58	-51.00	976.97



- NOTES:**
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

⊗ Top of Drop Curb (DC) Elevations

POINT	STATION	OFFSET	ELEVATION
2517	333+22.30	66.18	988.72
2518	333+22.32	69.01	988.67/M.E.
2601	333+30.00	34.50	986.07(X)
2602	333+28.74	43.50	986.44
2603	333+29.96	48.50	986.49
2604	333+75.00	34.50	984.59(X)
2605	333+76.25	43.50	985.00
2606	333+75.03	48.50	985.06
2607	333+15.00	49.50	15' R.P.
2608	333+90.00	49.50	15' R.P.
2609	333+80.00	49.50	5' R.P.
2610	333+30.00	74.80	986.60
2611	333+32.50	74.80	985.51/M.E.
2612	333+38.53	66.50	986.16/M.E.
2613	333+80.00	54.50	984.48
2614	334+29.51	54.50	984.27
2615	334+29.62	66.50	984.25/M.E.
2616	333+30.00	66.50	986.63

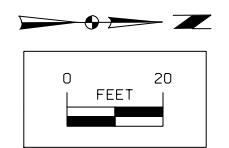
POINT	STATION	OFFSET	ELEVATION
2701	334+77.95	34.50	981.29(X)
2702	334+77.99	43.50	981.65
2703	334+78.00	48.50	981.73
2704	335+01.95	34.50	980.61(X)
2705	335+01.99	43.50	980.79
2706	335+02.01	48.50	980.87
2707	334+30.01	48.50	982.91
2708	334+30.01	54.50	982.99
2709	334+30.12	66.50	983.12/M.E.
2710	334+44.57	66.37	982.52/M.E.
2711	334+44.74	62.62	982.47/M.E.
2712	334+75.32	63.49	981.65/M.E.
2713	335+02.06	63.39	980.51/M.E.

POINT	STATION	OFFSET	ELEVATION
2801	335+09.55	43.50	981.13
2802	335+09.30	48.50	981.21
2803	335+15.07	56.70	979.46
2804	335+15.12	68.76	979.28
2805	335+07.12	68.80	979.44
2806	335+07.16	79.41	979.23/M.E.
2807	335+09.66	79.40	979.20/M.E.
2808	335+09.63	71.29	979.34/M.E.
2809	335+17.63	71.25	979.18/M.E.
2810	335+17.62	67.67	979.25/M.E.

POINT	STATION	OFFSET	ELEVATION
2901	335+69.25	40.43	978.93(X)
2902	335+69.25	49.47	979.26
2903	335+69.25	54.50	979.34
2904	336+14.25	44.93	977.93(X)
2905	336+14.25	51.00	978.14
2906	336+14.25	56.00	978.22
2907	335+84.55	51.00	978.90
2908	335+84.30	56.00	978.98
2909	335+67.28	56.07	979.26
2910	335+87.66	66.83	978.84/M.E.
2911	335+87.74	74.00	978.76/M.E.
2912	336+16.25	58.00	978.18
2913	336+25.00	58.00	977.94
2914	336+25.00	74.00	978.26
2915	336+16.25	74.00	978.42
2916	336+14.25	73.72	978.47
2917	335+84.43	66.87	978.83
2918	335+67.41	67.07	978.80

POINT	STATION	OFFSET	ELEVATION
3001	337+84.91	74.00	976.43/M.E.
3002	337+88.74	87.84	976.43/M.E.
3003	337+91.24	87.83	976.21
3004	337+87.06	72.73	976.38
3005	337+82.39	66.73	976.51
3006	337+72.68	60.27	976.70
3007	337+61.24	58.00	976.90
3008	337+25.00	58.00	977.57
3009	336+75.00	58.00	977.45
3010	336+75.00	74.00	977.77/M.E.
3011	336+53.79	58.00	977.35

POINT	STATION	OFFSET	ELEVATION
3101	338+56.53	70.14	975.66
3102	338+63.90	70.08	975.68
3103	338+63.83	66.58	975.67
3104	338+83.99	50.00	976.54
3105	338+88.01	66.29	975.56/M.E.
3106	338+88.01	70.24	975.45

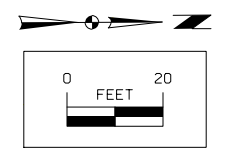
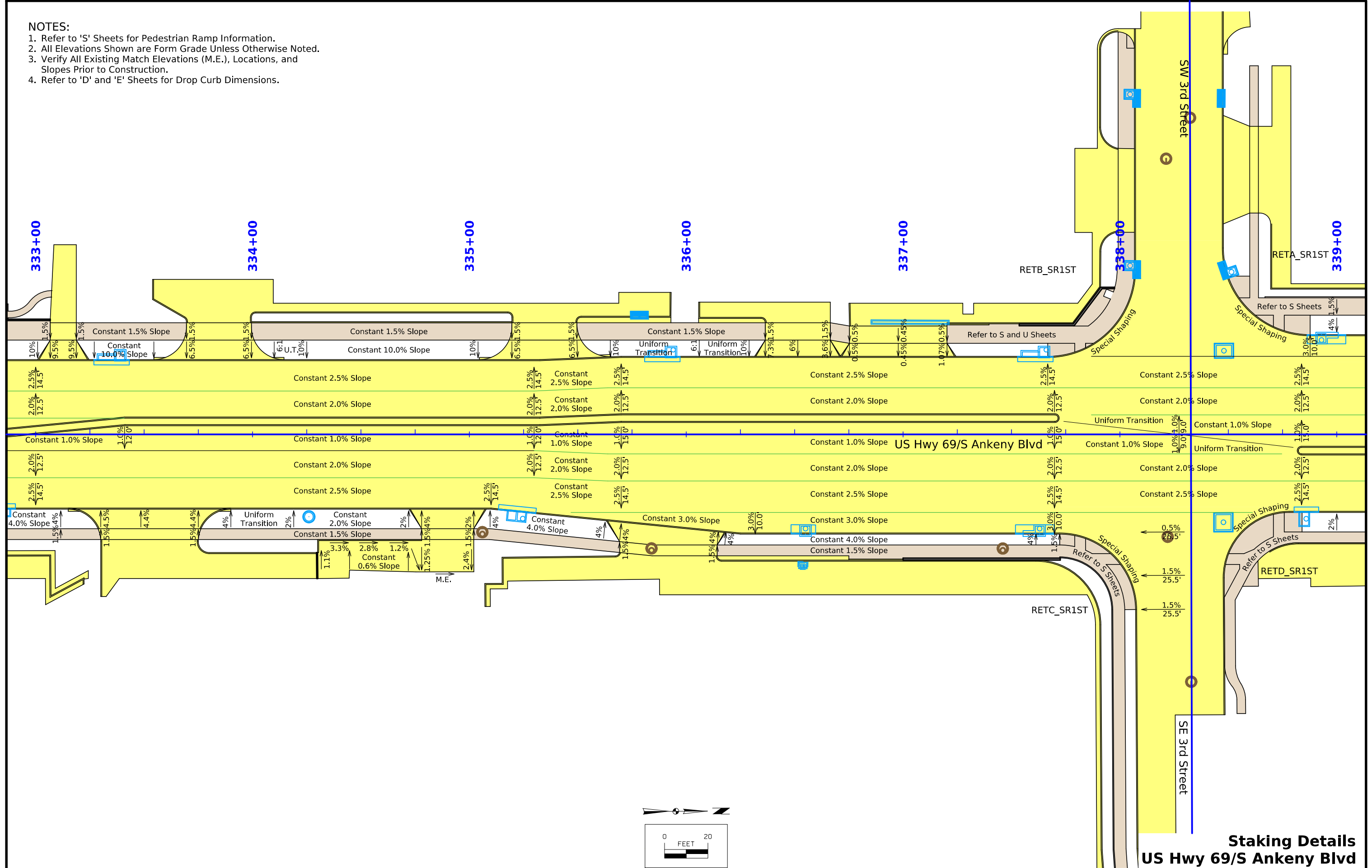


**Geometric Details  
US Hwy 69/S Ankeny Blvd**



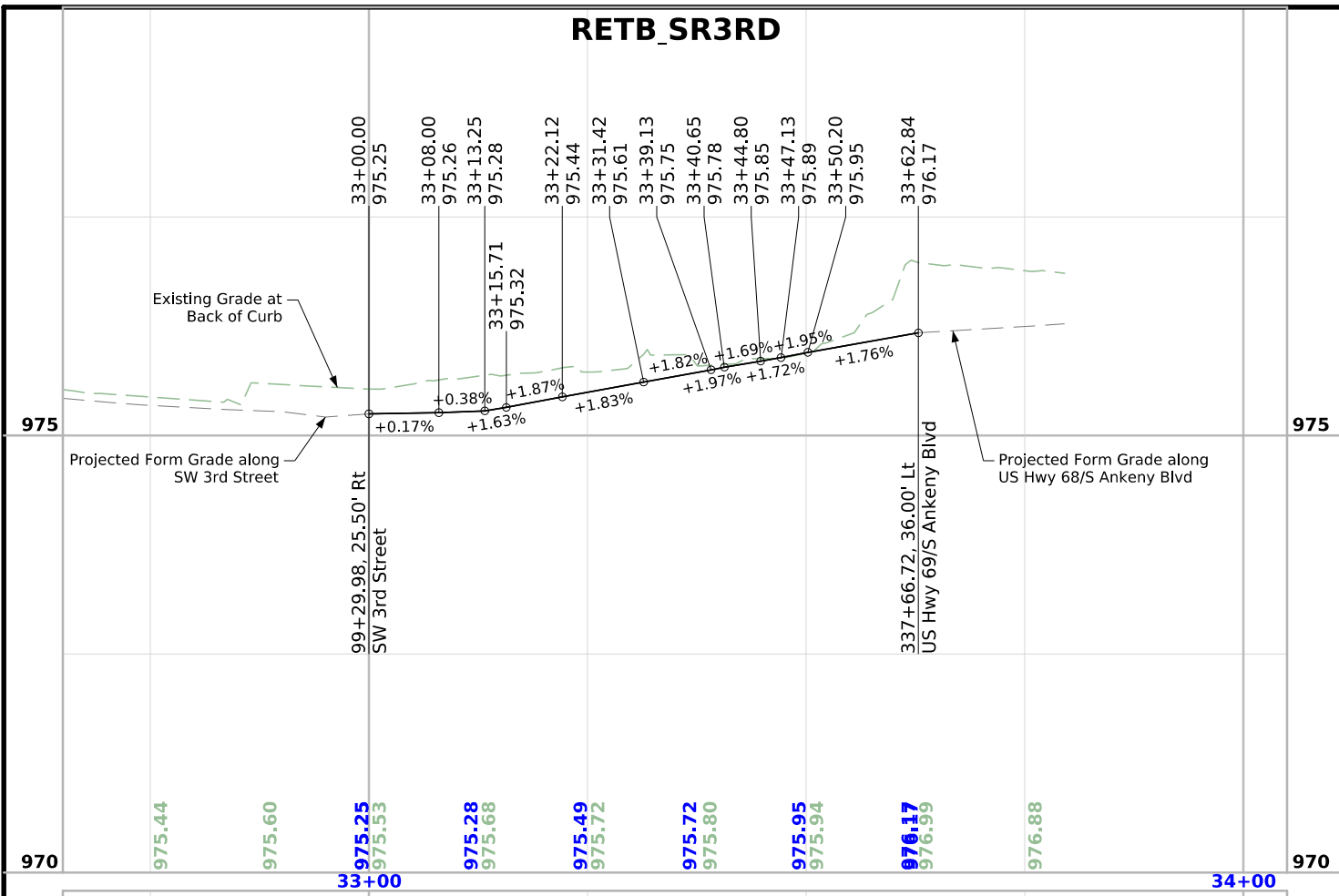
**NOTES:**

1. Refer to 'S' Sheets for Pedestrian Ramp Information.
2. All Elevations Shown are Form Grade Unless Otherwise Noted.
3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

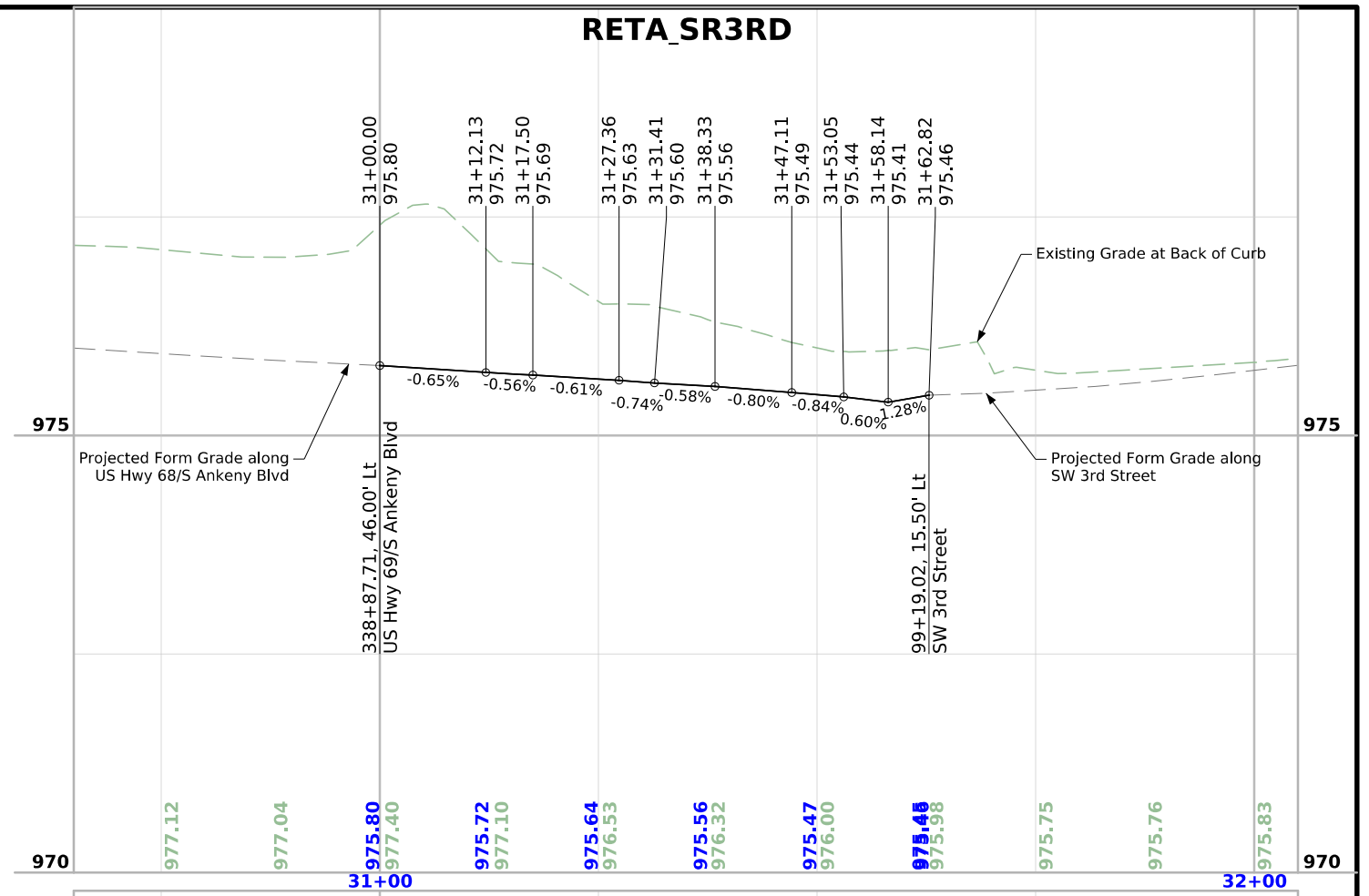


**Staking Details  
US Hwy 69/S Ankeny Blvd**

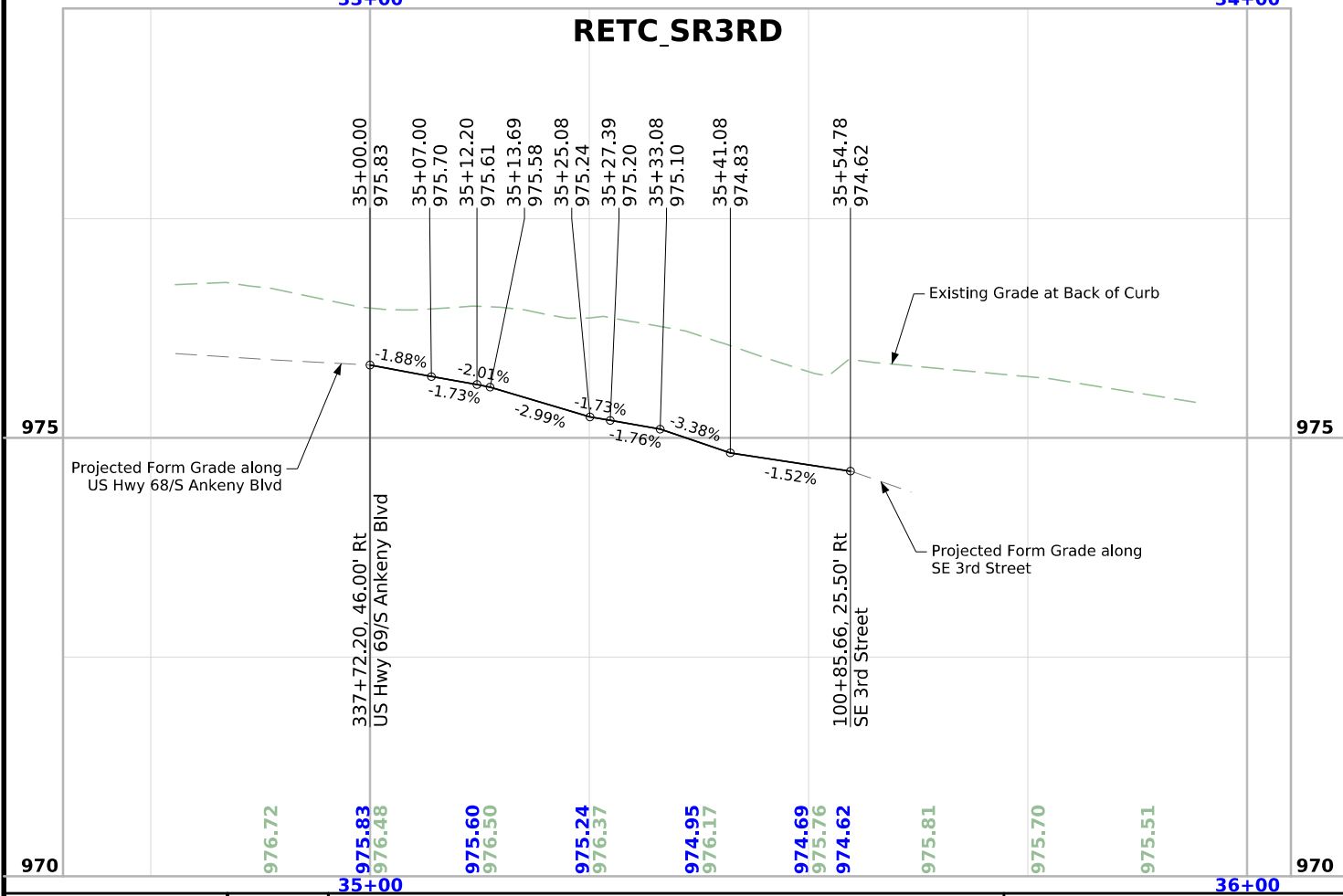
### RETB\_SR3RD



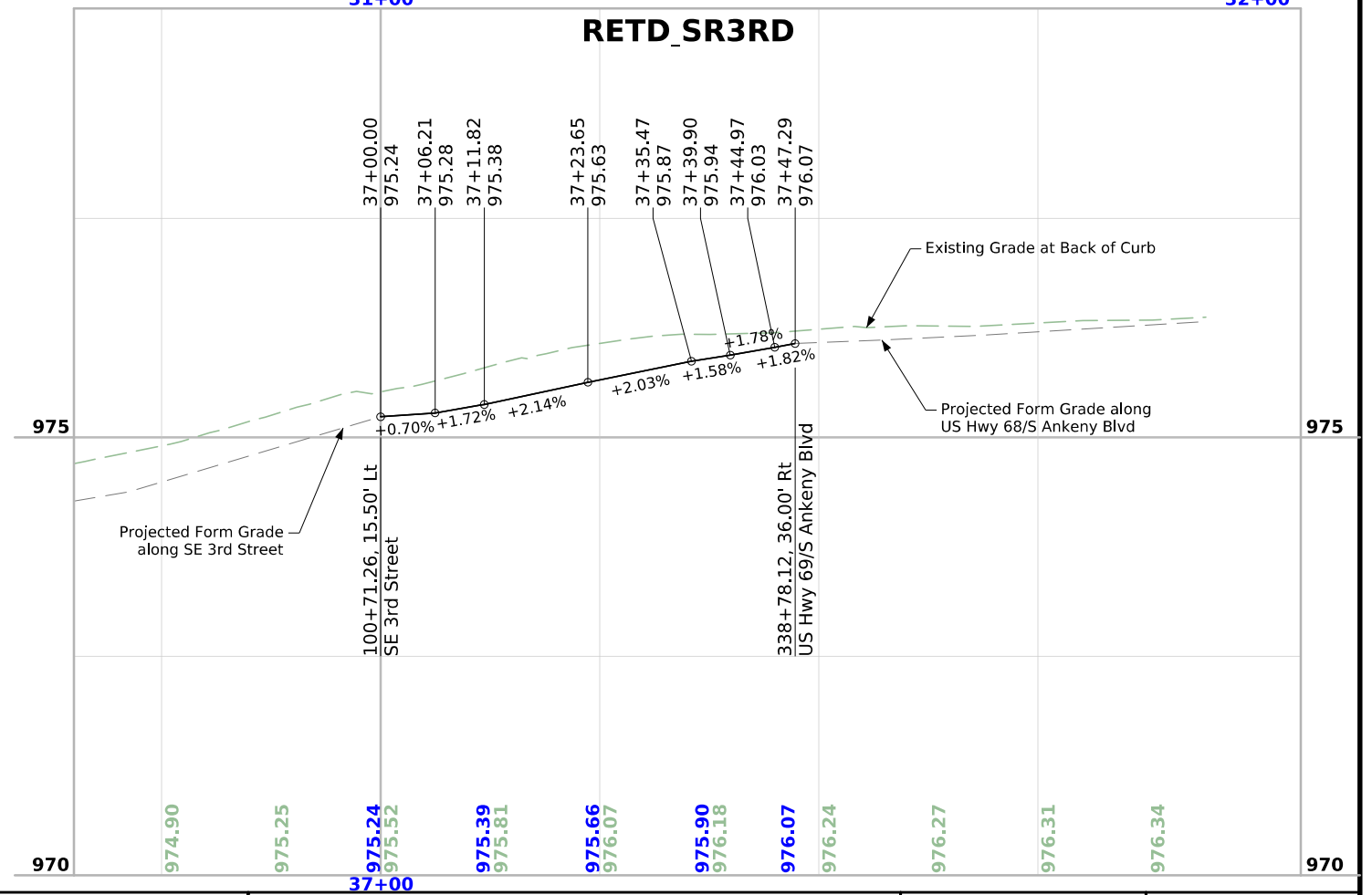
### RETA\_SR3RD



### RETC\_SR3RD



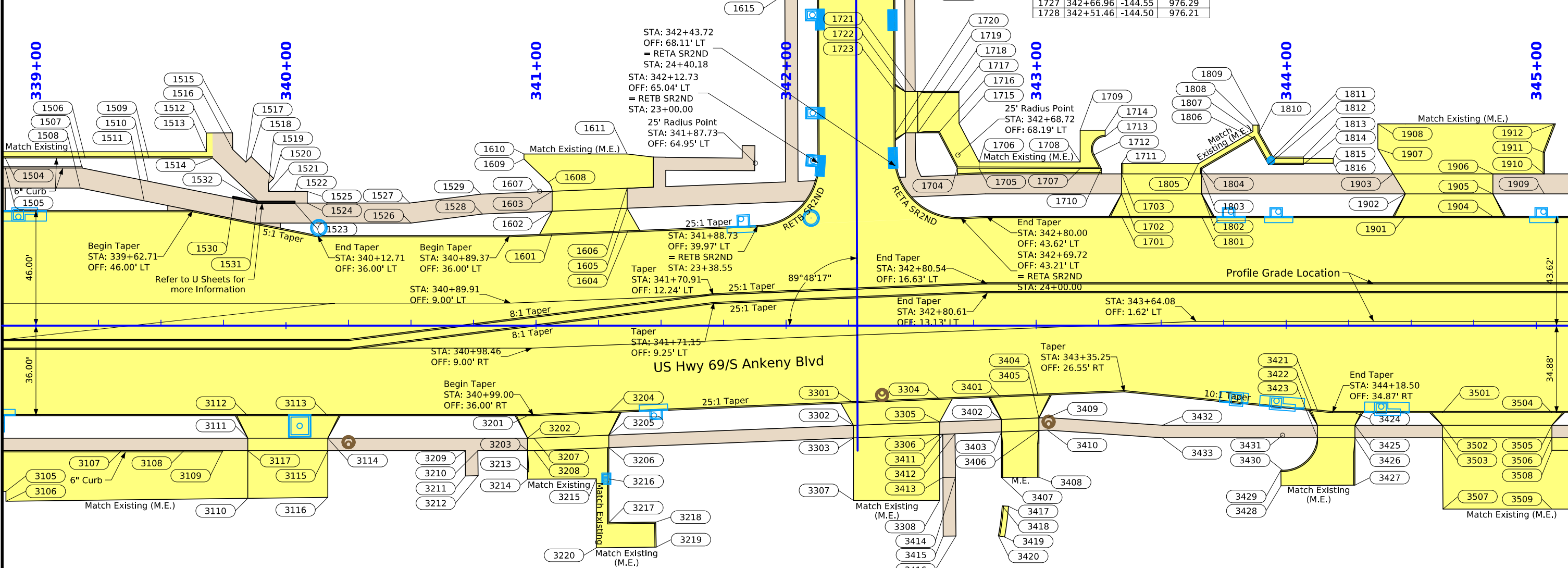
### RETD\_SR3RD







POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION
1504	338+87.71	-67.00	977.13	1517	339+83.95	-65.39	977.49	1601	341+06.44	-36.68	976.61(X)	1701	343+34.18	-43.63	974.29(X)	1801	343+66.18	-43.63	974.07(X)	1901	344+47.69	-43.63	974.20(X)
1505	338+87.71	-63.00	976.78	1518	339+86.06	-67.60	977.54	1602	341+06.44	-45.69	976.97	1702	343+34.18	-52.63	974.65	1802	343+66.18	-52.63	974.43	1902	344+47.69	-52.63	974.79
1506	339+19.65	-67.00	977.30	1519	339+92.99	-56.80	977.83	1603	341+06.44	-53.70	977.09	1703	343+34.18	-60.63	974.77	1803	343+66.18	-60.63	974.55	1903	344+47.69	-60.63	974.93
1507	339+18.51	-63.00	976.95	1520	339+95.08	-58.81	977.87	1604	341+36.44	-37.88	976.29(X)	1704	342+68.42	-62.93	975.73	1804	343+66.18	-62.63	974.50	1904	344+82.69	-43.63	974.41(X)
1508	339+17.71	-55.00	976.83	1521	339+92.99	-53.67	977.78	1605	341+36.44	-46.89	976.65	1705	342+75.82	-62.91	975.69	1805	343+64.92	-64.78	974.55	1905	344+82.69	-52.63	975.00
1509	339+45.15	-67.00	977.41	1522	340+03.51	-53.67	977.46	1606	341+36.44	-54.90	976.77	1706	342+77.20	-65.43	975.68/M.E.	1806	343+87.07	-74.89	974.07	1906	344+82.69	-60.63	975.12
1510	339+44.85	-57.73	976.82	1523	340+03.51	-49.00	977.39	1607	341+01.44	-53.70	5' R.P.	1707	343+17.59	-62.79	975.44	1807	343+86.71	-77.58	974.10	1907	344+36.68	-70.63	975.87
1511	339+43.28	-49.89	976.70	1524	340+08.51	-49.00	977.45	1608	341+04.89	-57.31	977.01	1708	343+17.59	-65.43	975.39/M.E.	1808	343+86.69	-80.13	974.13	1908	344+36.68	-80.63	976.42/M.E.
1512	339+68.12	-76.99	977.80/M.E.	1525	340+08.51	-53.67	977.52	1609	340+95.18	-66.60	977.30	1709	343+17.59	-78.09	975.22/M.E.	1809	343+89.19	-80.15	974.22	1909	345+03.28	-52.63	975.14
1513	339+68.15	-69.50	977.67/M.E.	1526	340+50.00	-41.00	977.55	1610	340+95.18	-68.60	977.32	1710	343+26.03	-62.79	975.39	1810	343+89.22	-77.20	974.08	1910	345+03.28	-60.63	975.26
1514	339+70.66	-67.00	977.63	1527	340+49.50	-49.00	977.67	1611	341+36.44	-68.60	977.19	1711	343+34.18	-64.78	974.88/M.E.	1811	343+94.71	-67.39	973.99	1911	345+03.29	-69.16	975.63
1515	339+78.62	-77.03	977.89/M.E.	1528	340+78.61	-44.58	977.56	1612	342+04.48	-140.34	976.36/M.E.	1712	342+23.16	-68.27	975.36	1812	343+92.95	-64.39	973.99	1912	345+07.67	-80.63	976.15
1516	339+78.64	-70.44	977.67	1529	340+77.95	-52.56	977.68	1613	342+00.57	-140.32	976.50/M.E.	1713	342+23.16	-75.59	974.99/M.E.	1813	344+06.83	-67.39	974.15				
				1530	339+79.23	-50.86	977.06	1614	341+99.49	-135.82	976.40	1714	342+27.59	-78.09	975.04/M.E.	1814	344+06.83	-64.39	974.15				
				1531	339+88.51	-49.00	977.18	1615	342+04.49	-135.83	976.34	1715	342+27.59	-80.78	975.82/M.E.	1815	344+18.83	-66.89	974.30				
				1532	339+88.57	-49.67						1716	342+61.00	-77.10	975.59	1816	344+18.83	-64.89	974.30				



- NOTES:**
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

(X) Top of Drop Curb (DC) Elevations

POINT	STATION	OFFSET	ELEVATION
3105	338+88.01	66.29	975.56/M.E.
3106	338+88.01	70.24	975.45/M.E.
3107	339+34.16	50.00	976.64
3108	339+59.16	50.00	976.80
3109	339+74.75	50.00	976.90
3110	339+84.75	36.00	976.34
3111	339+84.75	45.00	976.79
3112	339+84.75	50.00	976.53(X)
3113	340+16.75	36.00	976.97(X)
3114	340+16.75	45.00	977.15
3115	340+16.75	50.00	977.23
3116	340+16.75	68.70	977.24
3117	339+84.75	50.00	976.79

POINT	STATION	OFFSET	ELEVATION
3201	340+96.61	36.00	976.72(X)
3202	340+96.61	45.00	976.99
3203	340+96.61	50.00	977.04
3204	341+29.11	34.80	976.40(X)
3205	341+29.11	43.80	976.67
3206	341+29.11	48.81	976.75
3207	340+99.18	45.00	976.61
3208	340+99.28	50.00	976.69
3209	340+71.71	50.00	977.70
3210	340+76.72	50.00	977.67
3211	340+71.80	60.13	977.44/M.E.
3212	340+76.84	60.01	977.37/M.E.
3213	340+96.61	57.83	976.82/M.E.
3214	340+96.63	61.42	976.72/M.E.
3215	341+24.11	61.28	976.59/M.E.
3216	341+29.11	61.30	976.56
3217	341+29.11	78.80	976.71
3218	341+47.91	78.58	976.78
3219	341+48.03	88.58	976.81/M.E.
3220	341+24.11	88.86	976.93/M.E.

POINT	STATION	OFFSET	ELEVATION
3301	342+26.94	30.88	975.34(X)
3302	342+26.94	39.89	975.70
3303	342+26.94	44.89	975.77
3304	342+61.44	29.50	974.97(X)
3305	342+61.44	38.51	975.33
3306	342+61.44	43.51	975.40
3307	342+26.94	69.89	976.09/M.E.
3308	342+61.44	69.89	976.08/M.E.

POINT	STATION	OFFSET	ELEVATION
3401	342+86.12	28.51	974.86(X)
3402	342+86.12	37.52	975.22
3403	342+86.12	42.53	975.30
3404	343+01.12	27.91	974.53(X)
3405	343+01.12	36.92	974.89
3406	343+01.12	41.93	974.97
3407	342+86.12	60.67	975.29/M.E.
3408	343+01.12	60.64	975.09/M.E.
3409	343+04.55	36.79	974.94
3410	343+04.48	41.79	975.02
3411	342+62.64	43.47	975.41
3412	342+67.56	43.27	975.46
3413	342+62.72	60.70	975.89
3414	342+67.72	60.65	975.87
3415	342+62.84	84.19	976.36/M.E.
3416	342+67.94	84.16	976.34/M.E.
3417	342+88.96	72.26	975.16/M.E.

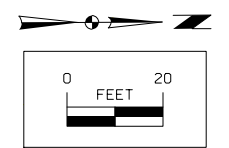
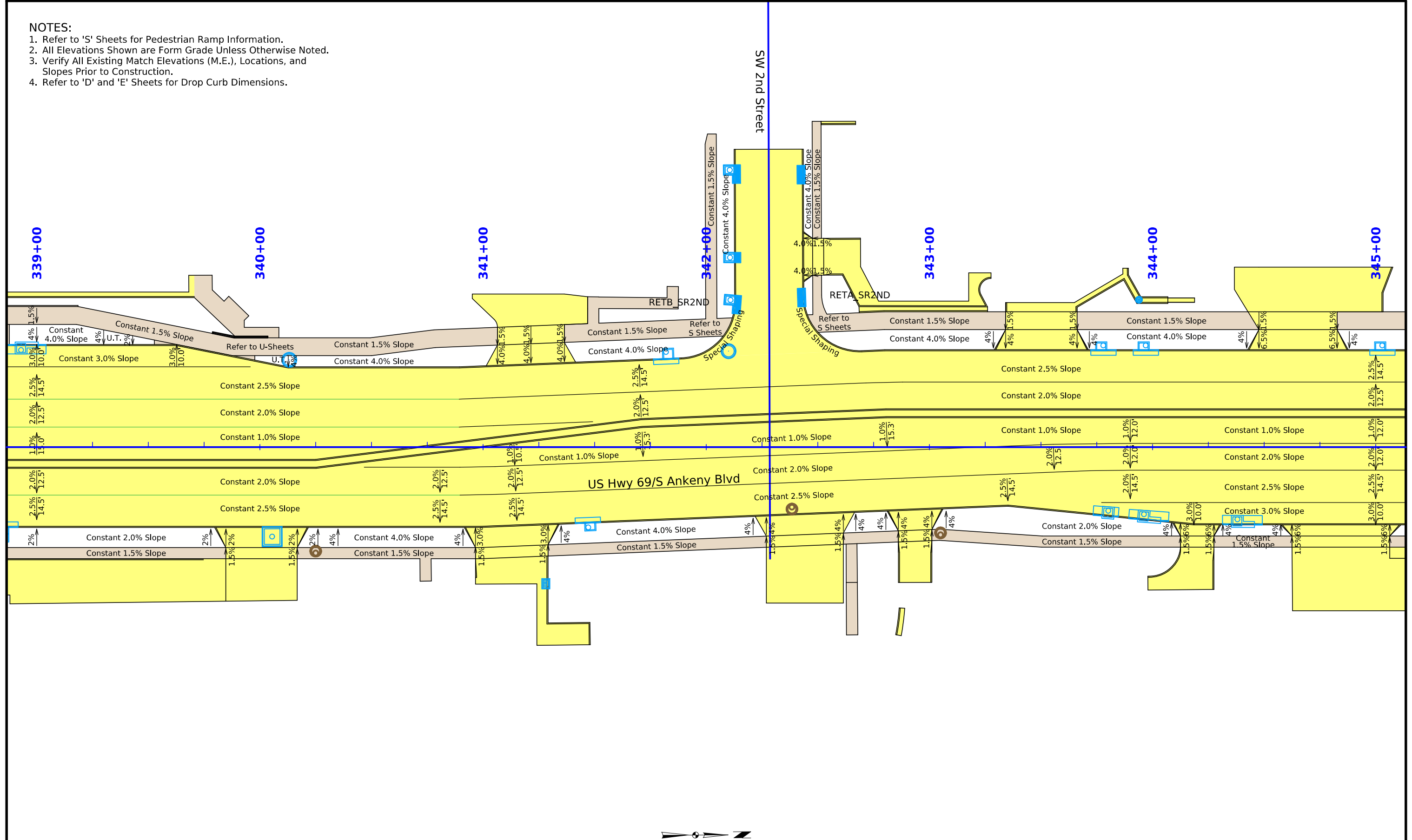
POINT	STATION	OFFSET	ELEVATION
3418	342+86.47	72.08	975.09/M.E.
3419	342+87.37	84.54	975.38/M.E.
3420	342+84.91	84.09	975.37/M.E.
3421	344+12.50	34.28	973.73(X)
3422	344+12.50	39.88	973.81
3423	344+12.50	44.88	973.88
3424	344+27.50	34.88	973.52(X)
3425	344+27.50	39.88	974.09
3426	344+27.50	44.88	974.17
3427	344+27.50	63.81	975.45/M.E.
3428	343+97.93	64.09	975.20/M.E.
3429	343+97.87	57.83	975.21/M.E.
3430	343+98.54	57.83	975.17
3431	343+98.54	43.83	14' R.P.
3432	343+50.57	39.88	974.60
3433	343+50.41	44.88	974.68

POINT	STATION	OFFSET	ELEVATION
3501	344+62.42	34.88	973.88(X)
3502	344+62.46	39.88	974.15
3503	344+62.50	44.88	974.26
3504	345+06.26	34.88	974.14(X)
3505	345+06.26	39.88	974.42
3506	345+06.26	44.88	974.50
3507	344+62.71	73.38	976.11/M.E.
3508	345+06.26	49.88	974.86
3509	345+06.26	73.38	976.43/M.E.

## Geometric Details US Hwy 69/S Ankeny Blvd



- NOTES:
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

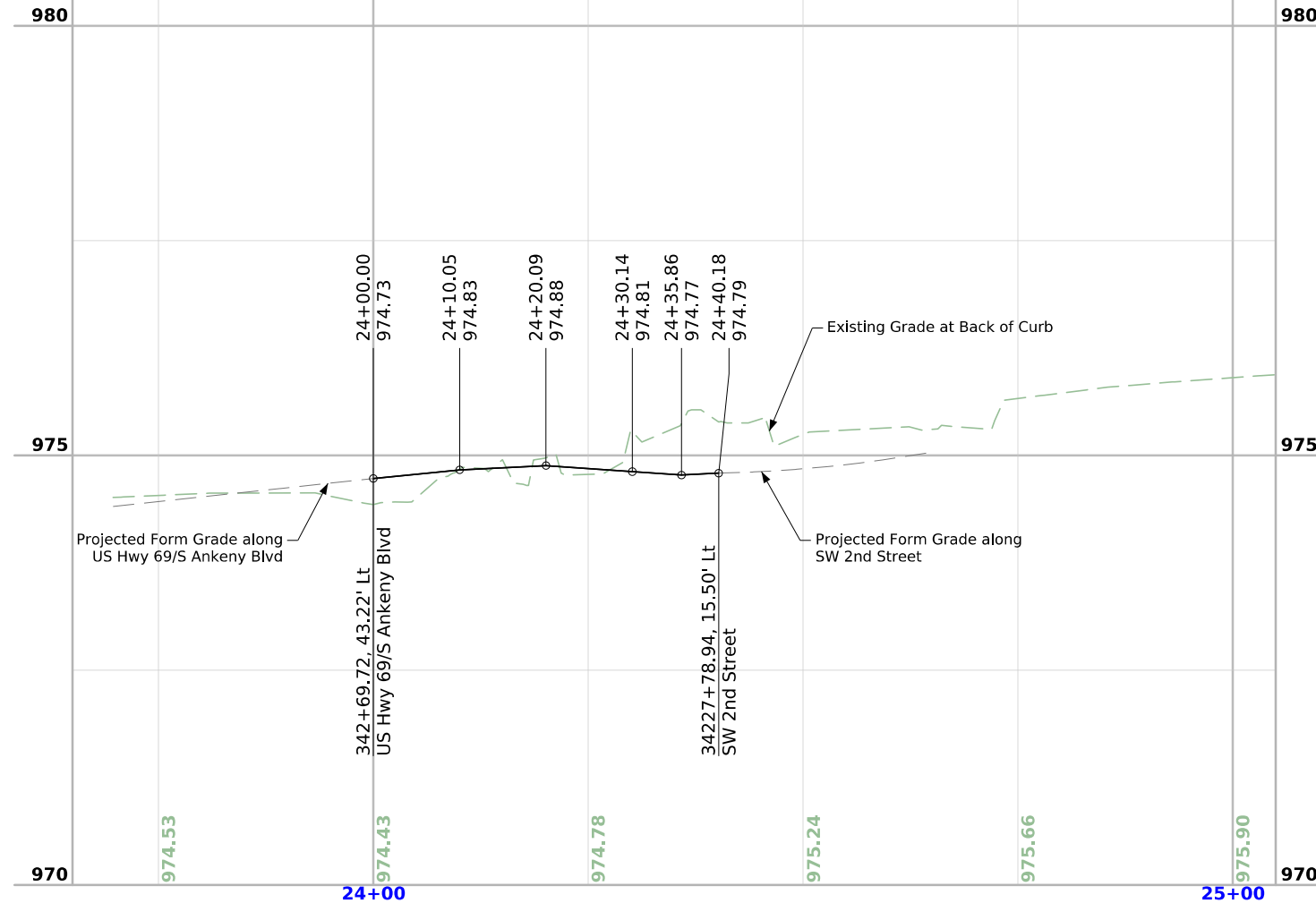
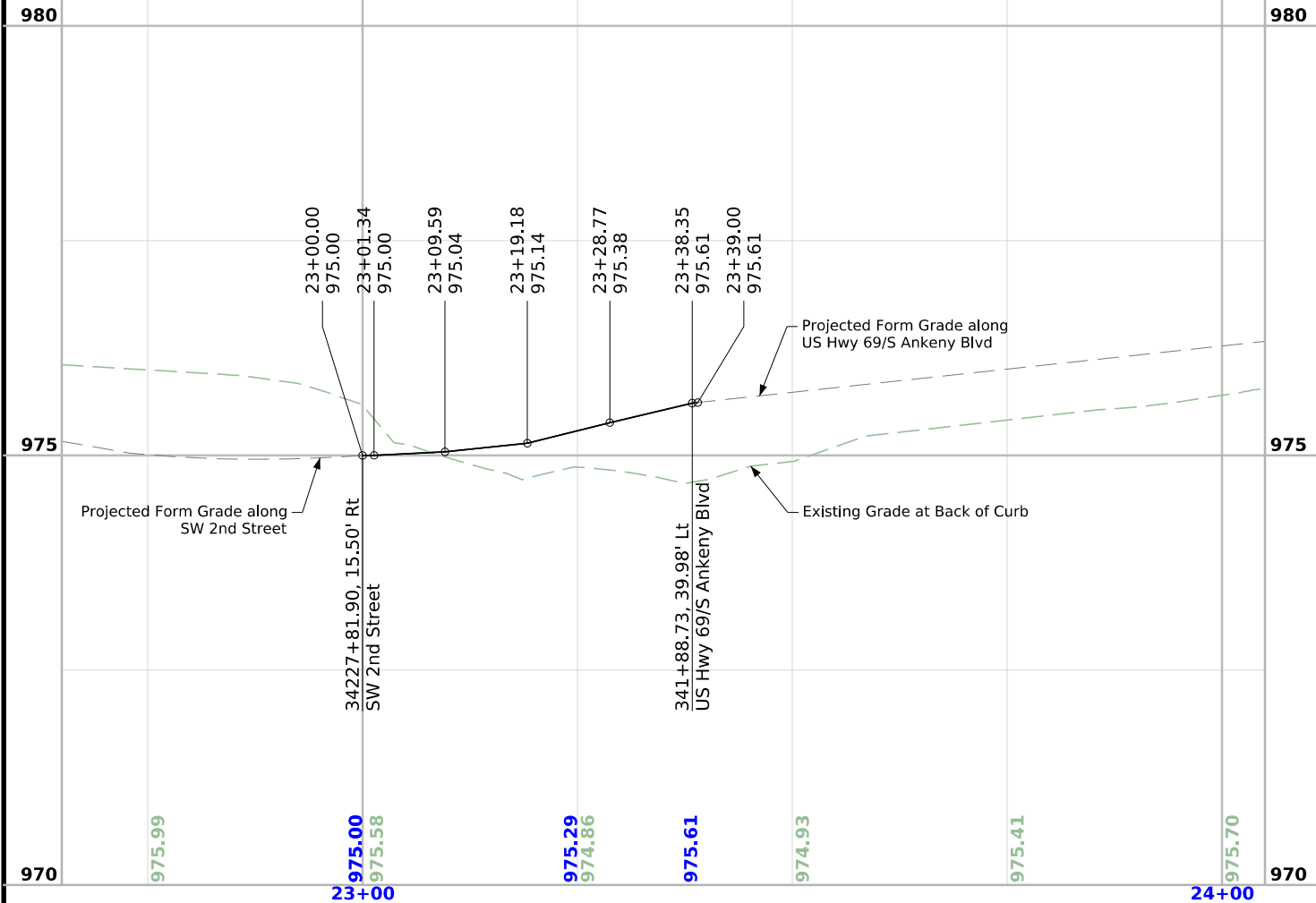


**Staking Details  
US Hwy 69/S Ankeny Blvd**

FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>L.14</b>
----------	---------	--	-------------	--	--------------------------

**RETB\_SR2ND**

**RETA\_SR2ND**

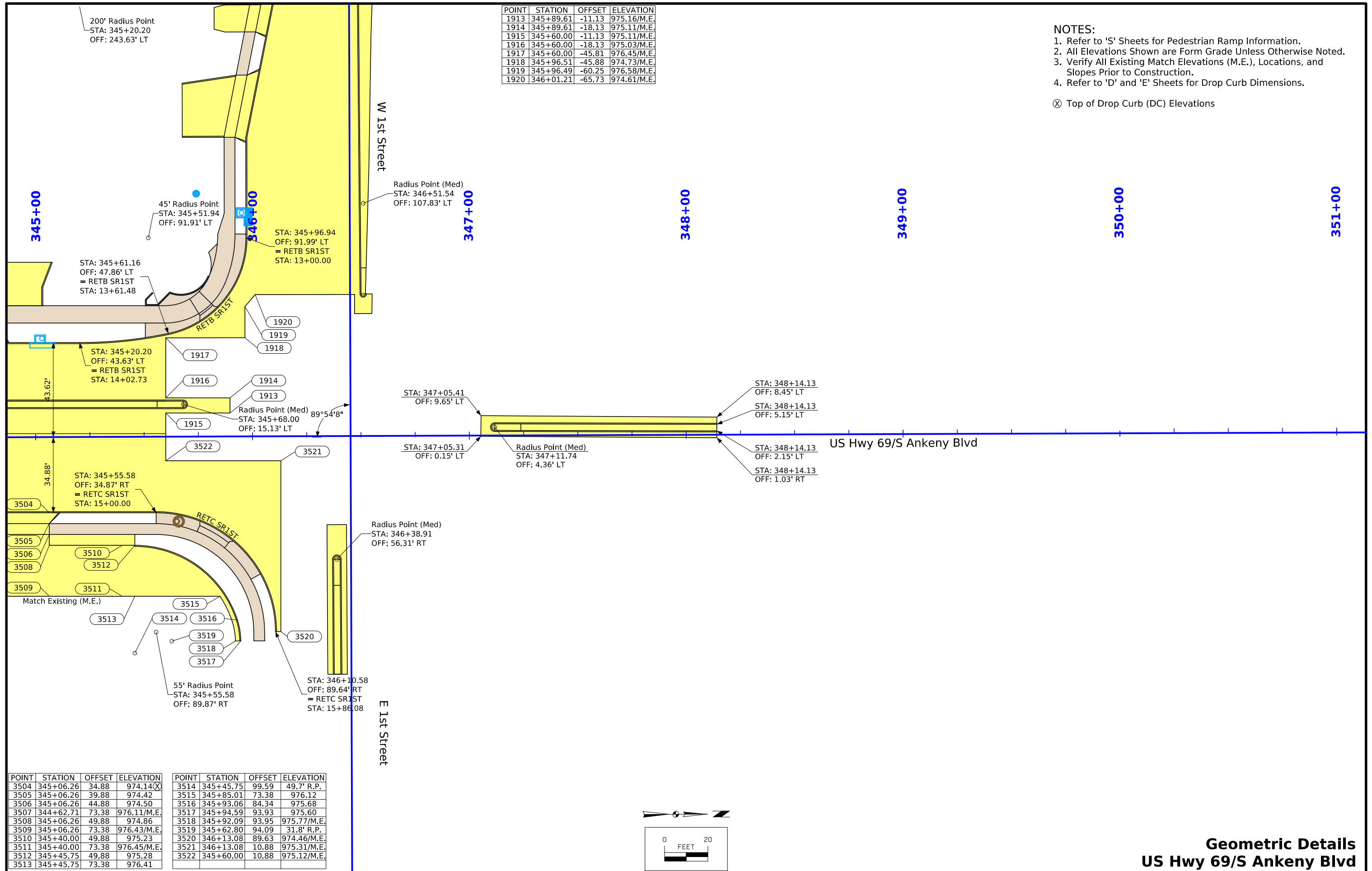






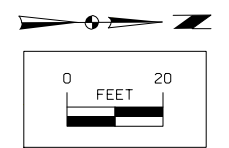
POINT	STATION	OFFSET	ELEVATION
1913	345+89.61	-11.13	975.16/M.E.
1914	345+89.61	-18.13	975.11/M.E.
1915	345+60.00	-11.13	975.11/M.E.
1916	345+60.00	-18.13	975.03/M.E.
1917	345+60.00	-45.81	976.45/M.E.
1918	345+96.51	-45.88	974.73/M.E.
1919	345+96.49	-60.25	976.58/M.E.
1920	346+01.21	-65.73	974.61/M.E.

- NOTES:
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.
- ⊗ Top of Drop Curb (DC) Elevations



POINT	STATION	OFFSET	ELEVATION
3504	345+06.26	34.88	974.14(⊗)
3505	345+06.26	39.88	974.42
3506	345+06.26	44.88	974.50
3507	344+62.71	73.38	976.11/M.E.
3508	345+06.26	49.88	974.86
3509	345+06.26	73.38	976.43/M.E.
3510	345+40.00	49.88	975.23
3511	345+40.00	73.38	976.45/M.E.
3512	345+45.75	49.88	975.28
3513	345+45.75	73.38	976.41

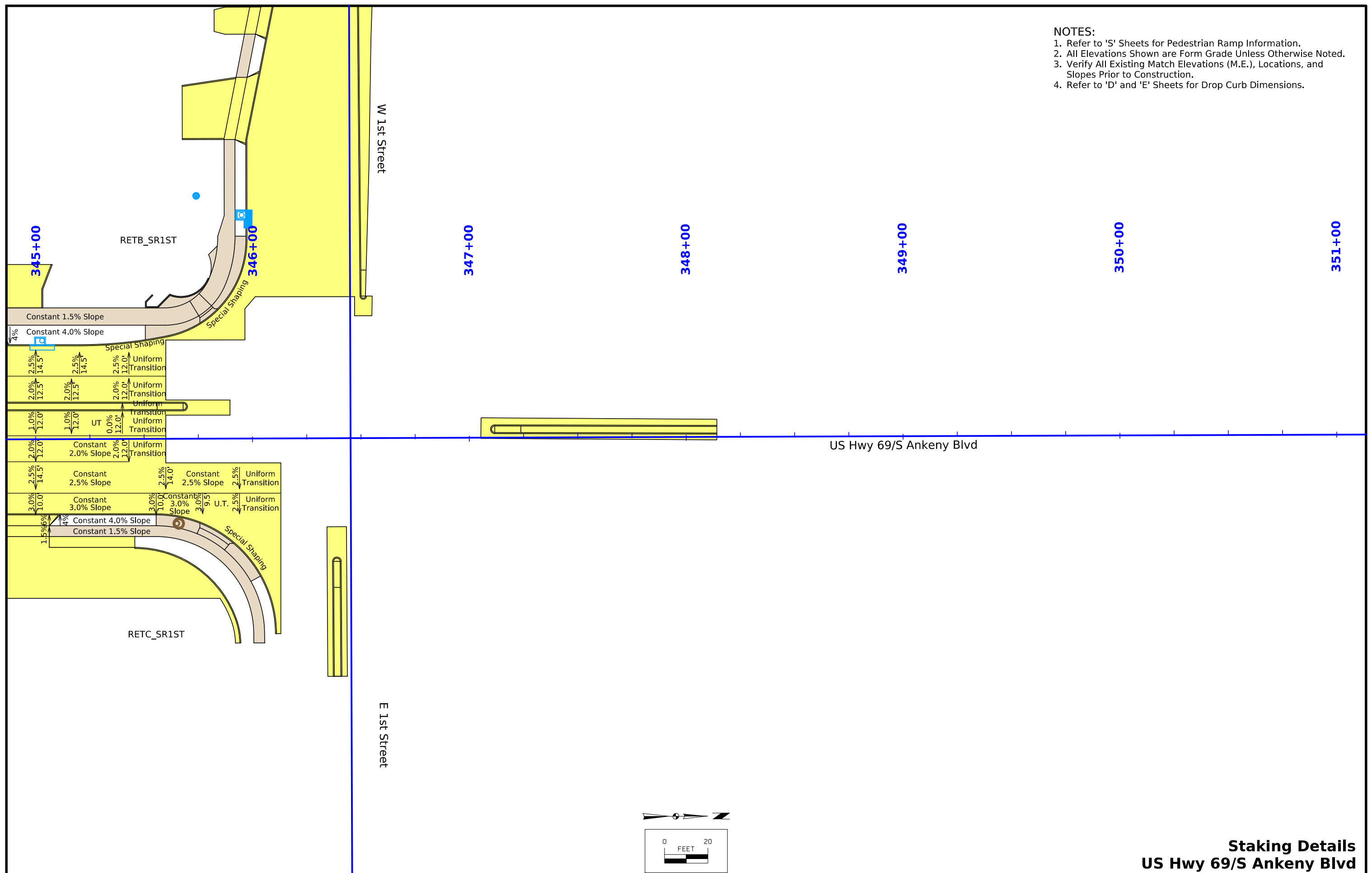
POINT	STATION	OFFSET	ELEVATION
3514	345+45.75	99.59	49.7' R.P.
3515	345+85.01	73.38	976.12
3516	345+93.06	84.34	975.68
3517	345+94.59	93.93	975.60
3518	345+92.09	93.95	975.77/M.E.
3519	345+62.80	94.09	31.8' R.P.
3520	346+13.08	89.63	974.46/M.E.
3521	346+13.08	10.88	975.31/M.E.
3522	345+60.00	10.88	975.12/M.E.



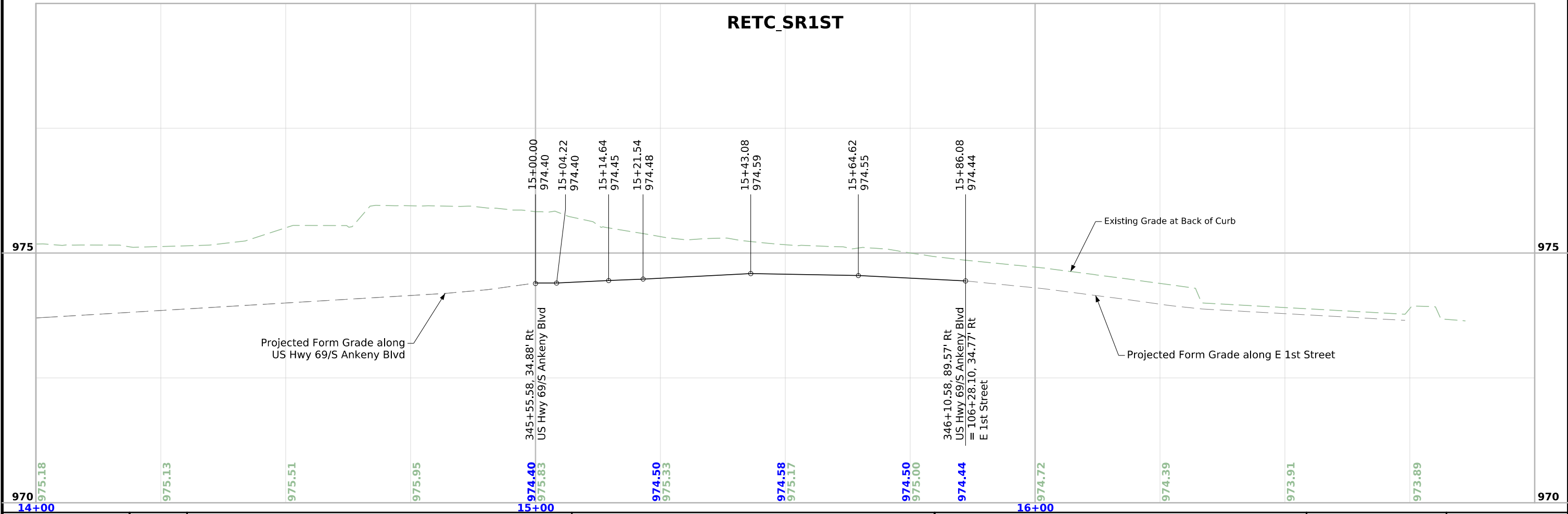
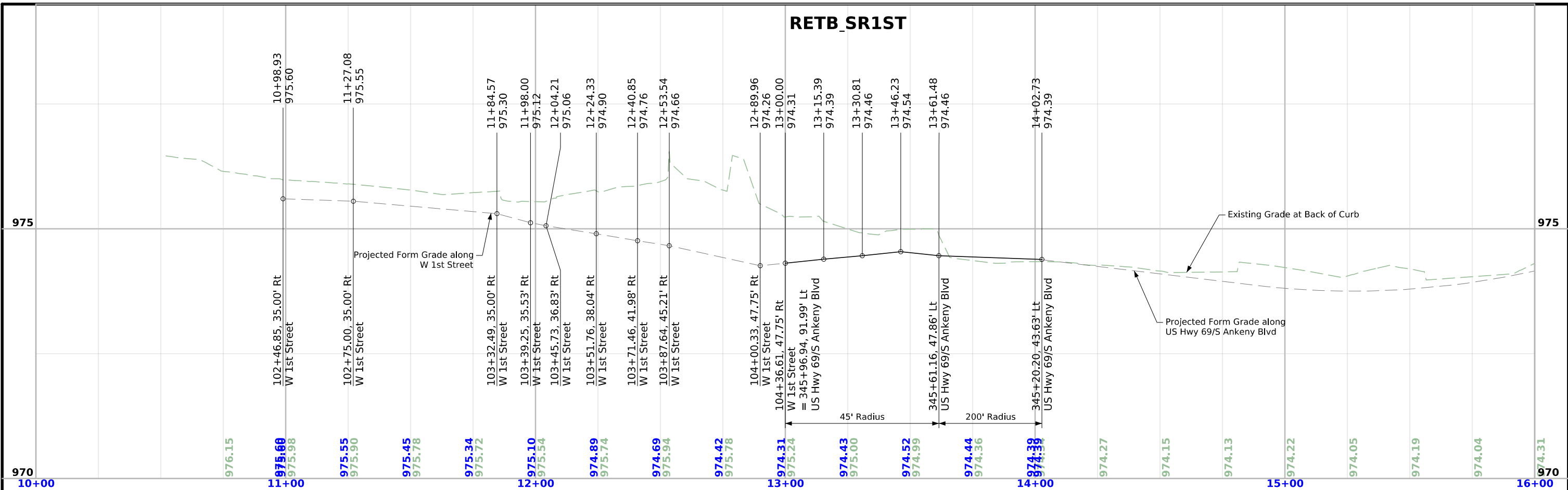
**Geometric Details**  
**US Hwy 69/S Ankeny Blvd**



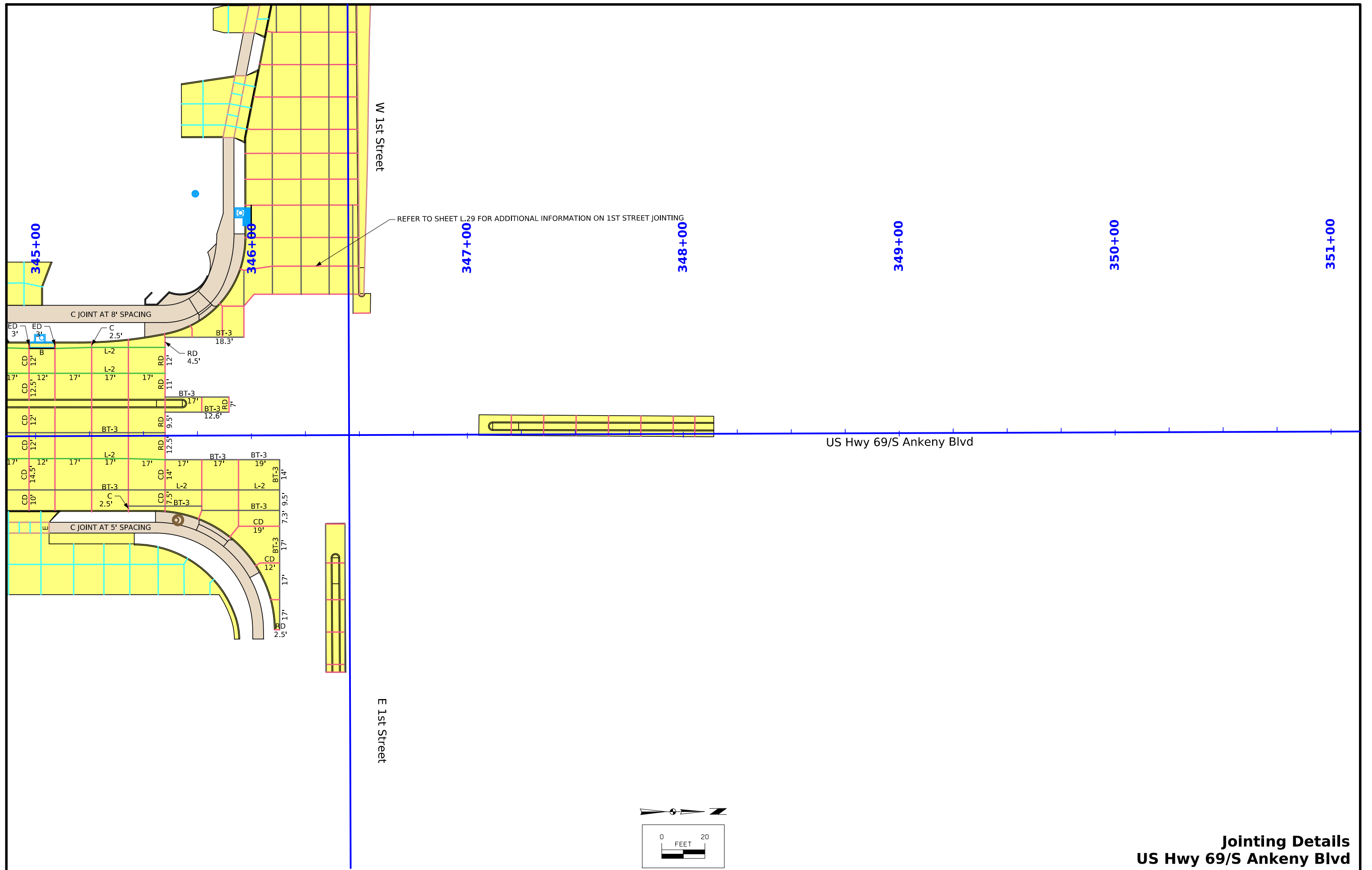
- NOTES:
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.



**Staking Details**  
**US Hwy 69/S Ankeny Blvd**







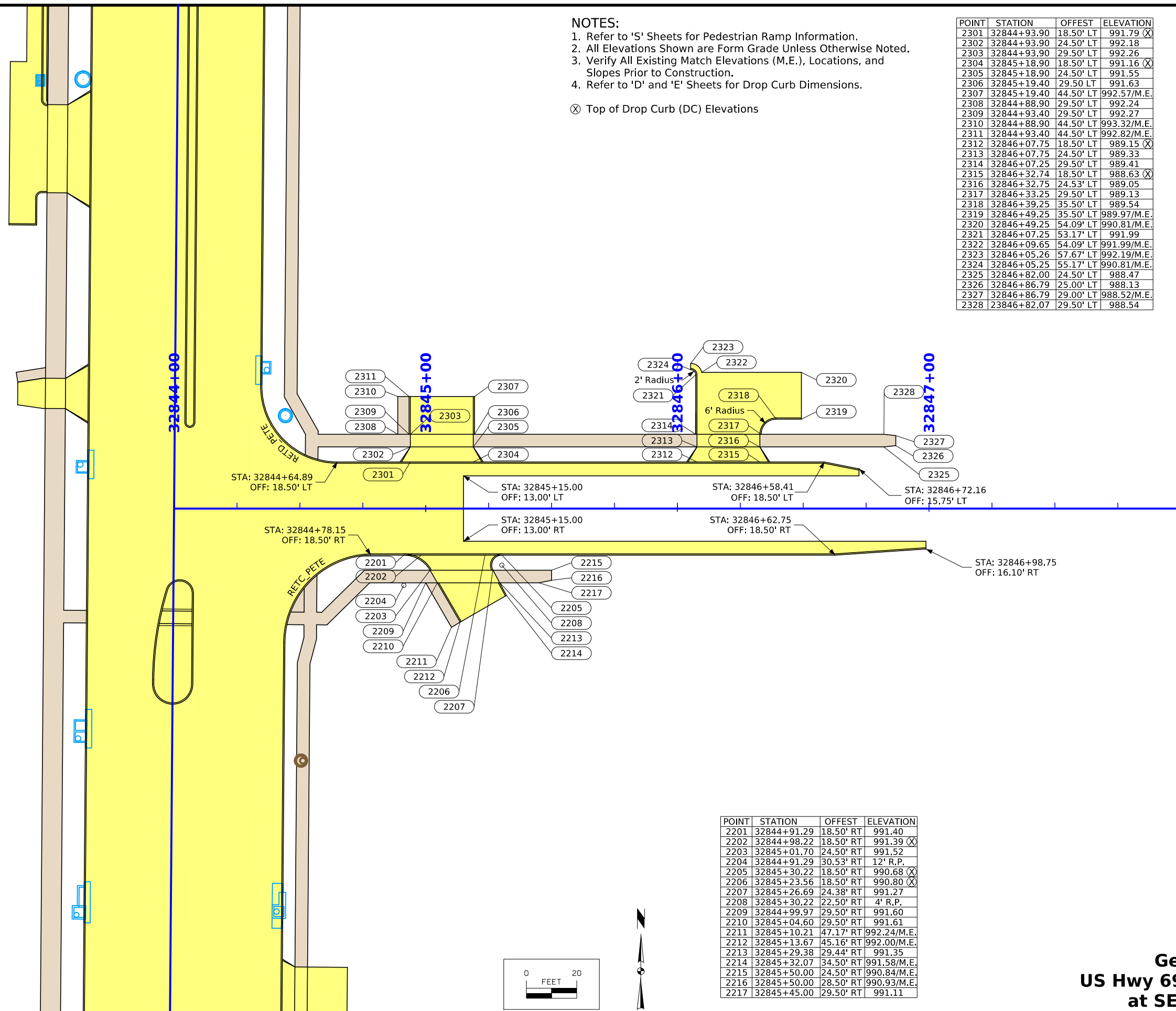
**Jointing Details**  
**US Hwy 69/S Ankeny Blvd**

**NOTES:**

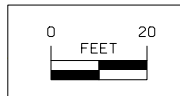
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
2. All Elevations Shown are Form Grade Unless Otherwise Noted.
3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

⊗ Top of Drop Curb (DC) Elevations

POINT	STATION	OFFSET	ELEVATION
2301	32844+93.90	18.50' LT	991.79 (⊗)
2302	32844+93.90	24.50' LT	992.18
2303	32844+93.90	29.50' LT	992.26
2304	32845+18.90	18.50' LT	991.16 (⊗)
2305	32845+18.90	24.50' LT	991.55
2306	32845+19.40	29.50' LT	991.63
2307	32845+19.40	44.50' LT	992.57/M.E.
2308	32844+88.90	29.50' LT	992.24
2309	32844+93.40	29.50' LT	992.27
2310	32844+88.90	44.50' LT	993.32/M.E.
2311	32844+93.40	44.50' LT	992.82/M.E.
2312	32846+07.75	18.50' LT	989.15 (⊗)
2313	32846+07.75	24.50' LT	989.33
2314	32846+07.25	29.50' LT	989.41
2315	32846+32.74	18.50' LT	988.63 (⊗)
2316	32846+32.75	24.53' LT	989.05
2317	32846+33.25	29.50' LT	989.13
2318	32846+39.25	35.50' LT	989.54
2319	32846+49.25	35.50' LT	989.97/M.E.
2320	32846+49.25	54.09' LT	990.81/M.E.
2321	32846+07.25	53.17' LT	991.99
2322	32846+09.65	54.09' LT	991.99/M.E.
2323	32846+05.26	57.67' LT	992.19/M.E.
2324	32846+05.25	55.17' LT	990.81/M.E.
2325	32846+82.00	24.50' LT	988.47
2326	32846+86.79	25.00' LT	988.13
2327	32846+86.79	29.00' LT	988.52/M.E.
2328	32846+82.07	29.50' LT	988.54

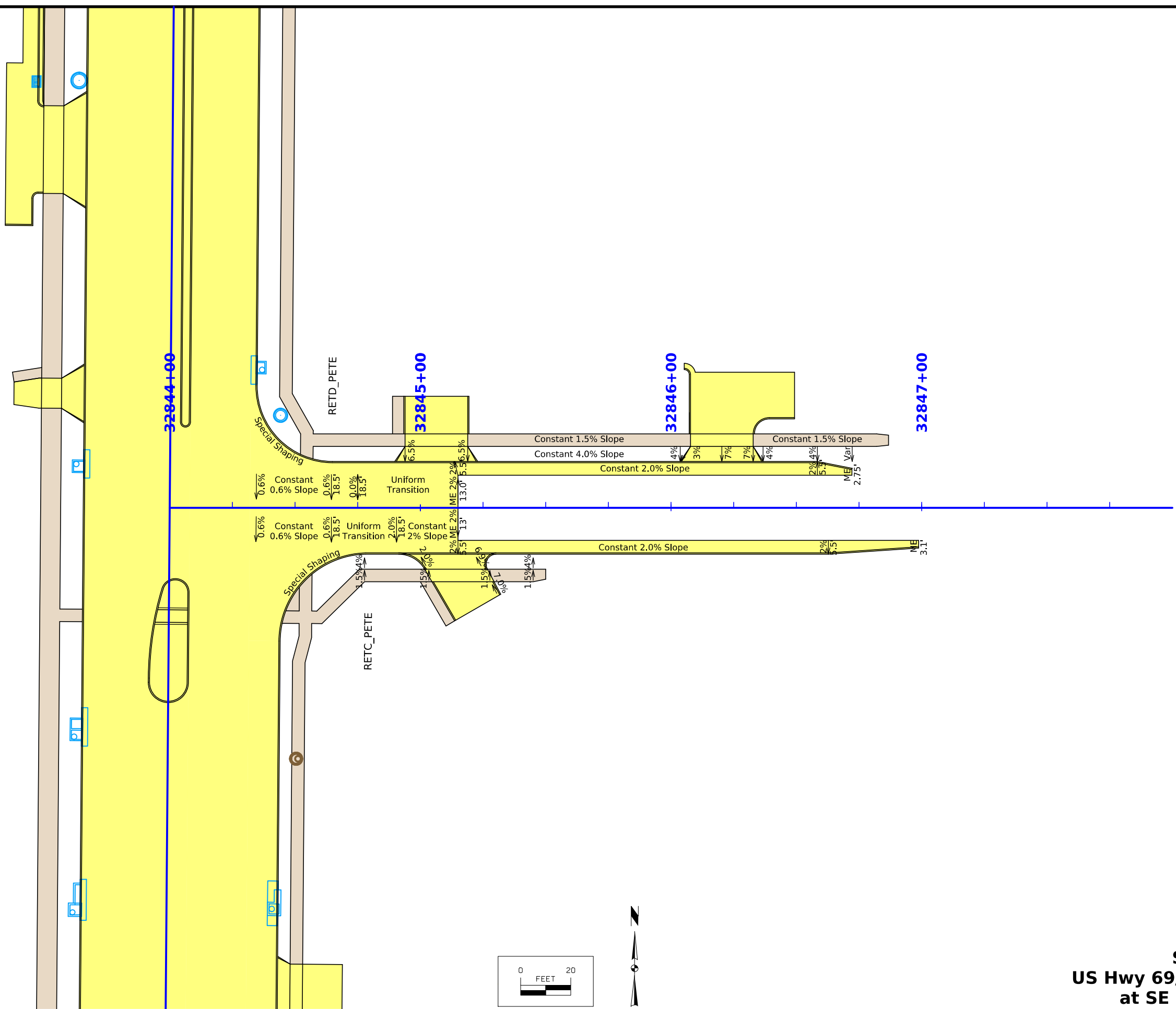


POINT	STATION	OFFSET	ELEVATION
2201	32844+91.29	18.50' RT	991.40
2202	32844+98.22	18.50' RT	991.39 (⊗)
2203	32845+01.70	24.50' RT	991.52
2204	32844+91.29	30.53' RT	12' R.P.
2205	32845+30.22	18.50' RT	990.68 (⊗)
2206	32845+23.56	18.50' RT	990.80 (⊗)
2207	32845+26.69	24.38' RT	991.27
2208	32845+30.22	22.50' RT	4' R.P.
2209	32844+99.97	29.50' RT	991.60
2210	32845+04.60	29.50' RT	991.61
2211	32845+10.21	47.17' RT	992.24/M.E.
2212	32845+13.67	45.16' RT	992.00/M.E.
2213	32845+29.38	29.44' RT	991.35
2214	32845+32.07	34.50' RT	991.58/M.E.
2215	32845+50.00	24.50' RT	990.84/M.E.
2216	32845+50.00	28.50' RT	990.93/M.E.
2217	32845+45.00	29.50' RT	991.11

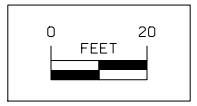


**Geometric Details  
US Hwy 69/S Ankeny Blvd  
at SE Peterson Drive**

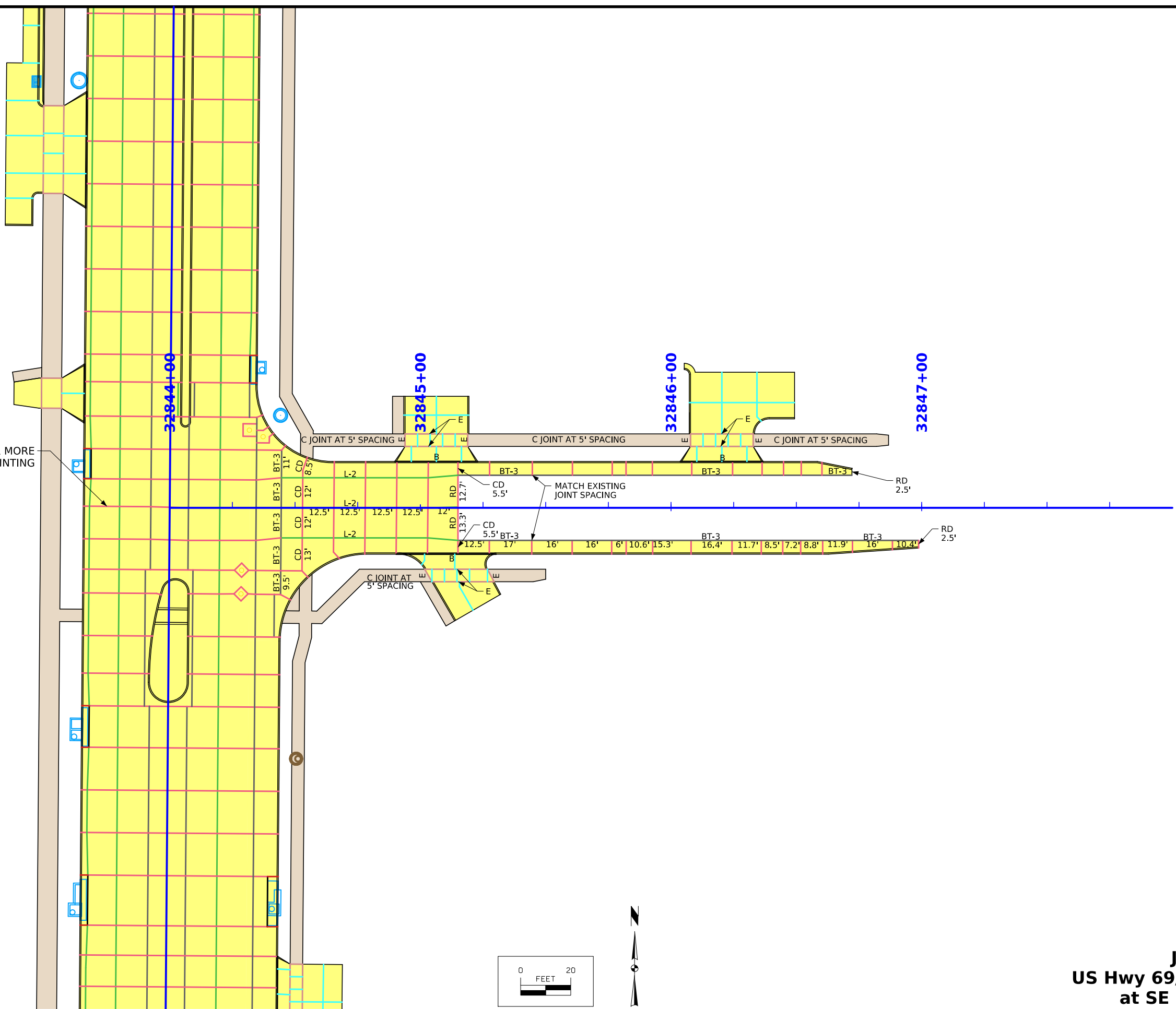




**Staking Details  
US Hwy 69/S Ankeny Blvd  
at SE Peterson Drive**



REFER TO SHEET L.8 FOR MORE INFORMATION ON MAINLINE JOINTING



**Jointing Details  
US Hwy 69/S Ankeny Blvd  
at SE Peterson Drive**



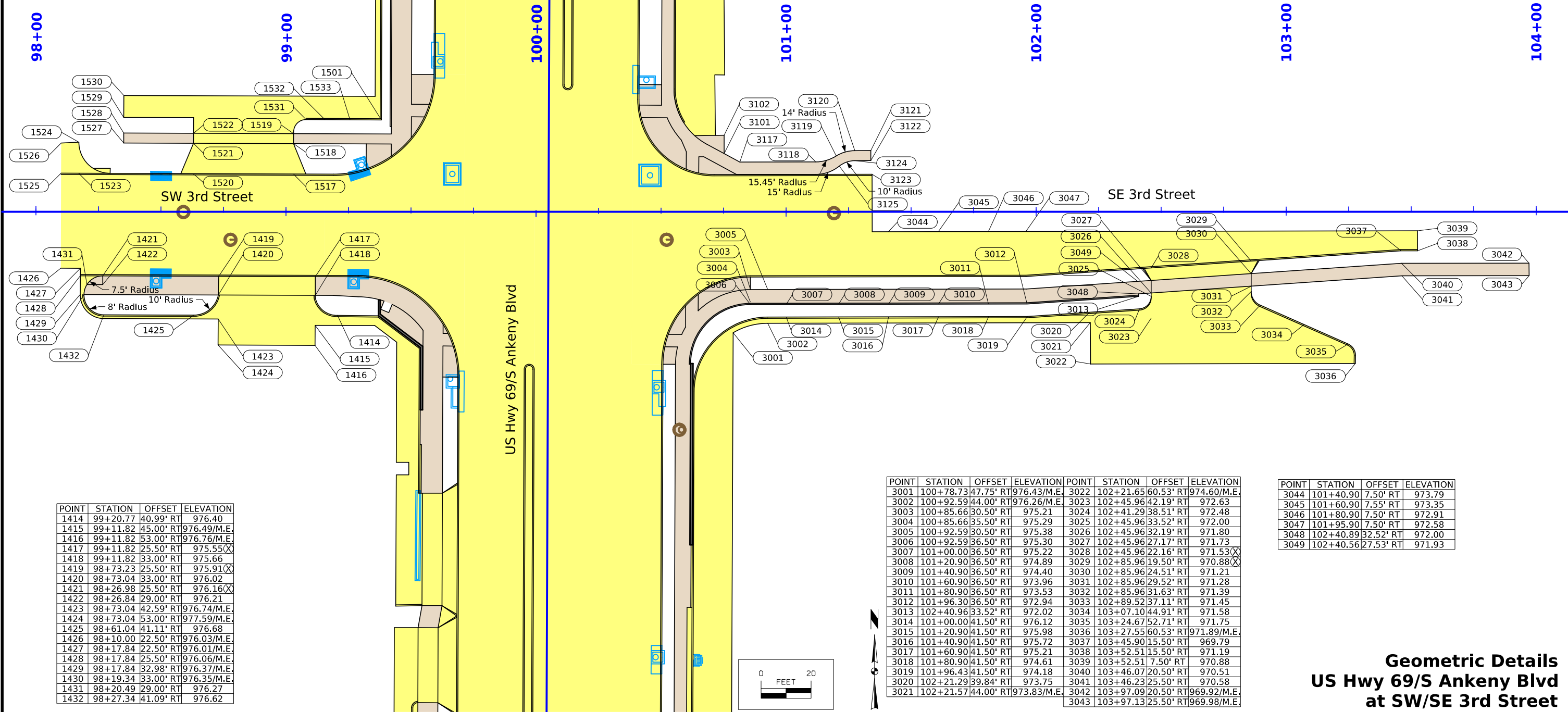
POINT	STATION	OFFSET	ELEVATION
1501	99+38.01	37.26' LT	977.04
1517	99+02.92	15.50' LT	975.68(X)
1518	99+02.92	31.67' LT	976.29
1519	99+02.92	27.67' LT	976.35
1520	98+62.92	15.50' LT	976.09(X)
1521	98+62.92	27.67' LT	976.69
1522	98+62.92	31.67' LT	976.76
1523	98+17.05	15.50' LT	976.29
1524	98+17.05	27.93' LT	976.79/M.E.
1525	98+10.00	15.50' LT	976.35/M.E.
1526	98+10.00	27.56' LT	976.53/M.E.
1527	98+35.00	27.67' LT	976.90/M.E.
1528	98+35.00	31.67' LT	977.06/M.E.
1529	98+35.00	37.90' LT	977.25/M.E.
1530	98+35.00	46.67' LT	977.38/M.E.
1531	99+07.93	37.31' LT	976.74
1532	99+15.50	37.30' LT	976.82
1533	99+25.50	37.28' LT	976.87

POINT	STATION	OFFSET	ELEVATION
3101	100+75.28	23.89' LT	975.66
3102	100+75.26	31.26' LT	975.68/M.E.
3117	100+81.53	20.50' LT	975.16
3118	101+11.91	20.50' LT	974.75
3119	101+20.12	22.86' LT	974.75
3120	101+27.55	25.00' LT	974.75
3121	101+33.93	25.00' LT	974.58/M.E.
3122	101+33.93	21.00' LT	974.52/M.E.
3123	101+34.42	15.50' LT	973.93
3124	101+27.56	21.00' LT	974.69
3125	101+21.30	18.80' LT	974.69

**NOTES:**

1. Refer to 'S' Sheets for Pedestrian Ramp Information.
2. All Elevations Shown are Form Grade Unless Otherwise Noted.
3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

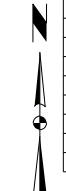
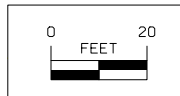
(X) Top of Drop Curb (DC) Elevations



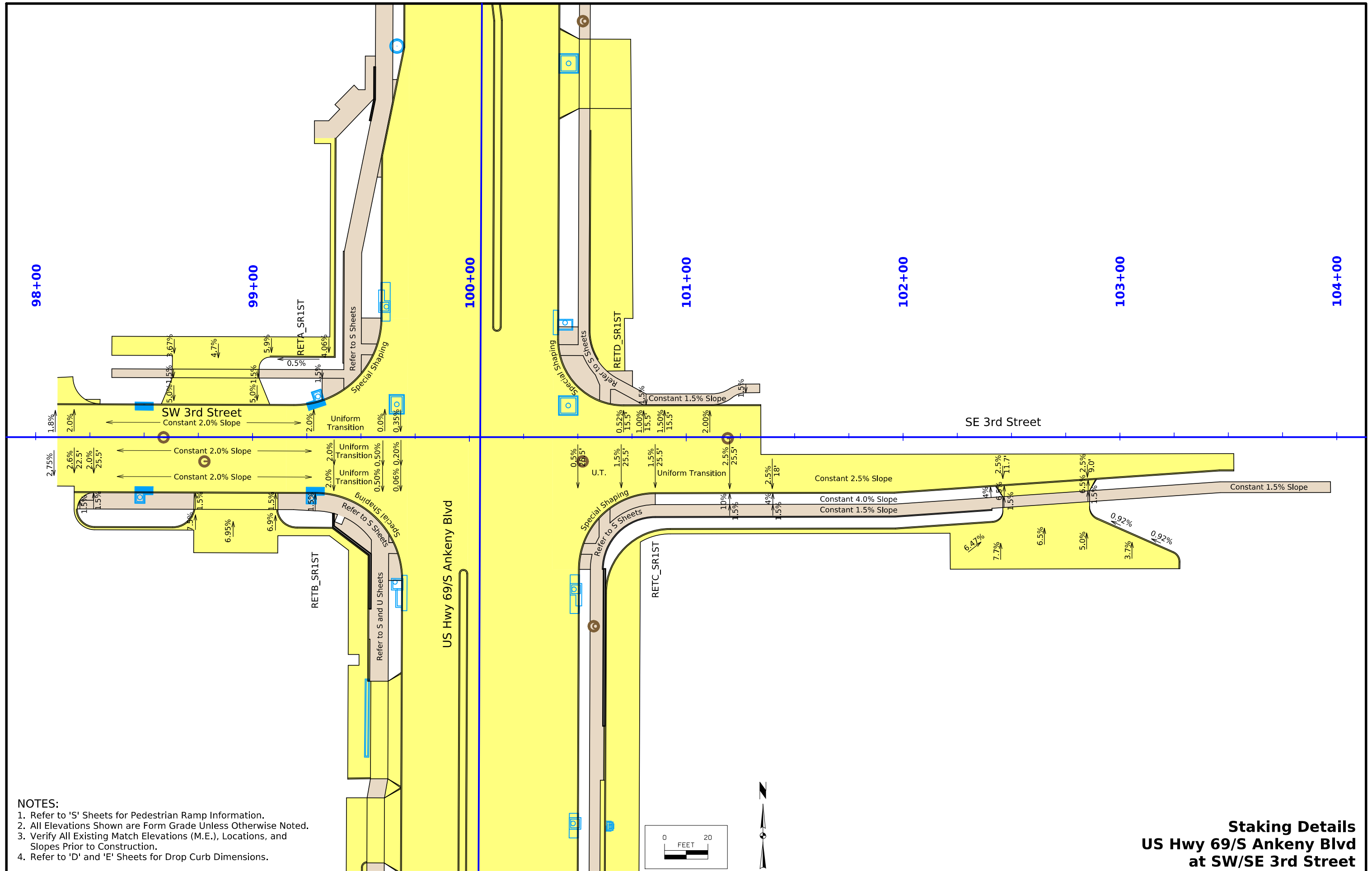
POINT	STATION	OFFSET	ELEVATION
1414	99+20.77	40.99' RT	976.40
1415	99+11.82	45.00' RT	976.49/M.E.
1416	99+11.82	53.00' RT	976.76/M.E.
1417	99+11.82	25.50' RT	975.55(X)
1418	99+11.82	33.00' RT	975.66
1419	98+73.23	25.50' RT	975.91(X)
1420	98+73.04	33.00' RT	976.02
1421	98+26.98	25.50' RT	976.16(X)
1422	98+26.84	29.00' RT	976.21
1423	98+73.04	42.59' RT	976.74/M.E.
1424	98+73.04	53.00' RT	977.59/M.E.
1425	98+61.04	41.11' RT	976.68
1426	98+10.00	22.50' RT	976.03/M.E.
1427	98+17.84	22.50' RT	976.01/M.E.
1428	98+17.84	25.50' RT	976.06/M.E.
1429	98+17.84	32.98' RT	976.37/M.E.
1430	98+19.34	33.00' RT	976.35/M.E.
1431	98+20.49	29.00' RT	976.27
1432	98+27.34	41.09' RT	976.62

POINT	STATION	OFFSET	ELEVATION	POINT	STATION	OFFSET	ELEVATION
3001	100+78.73	47.75' RT	976.43/M.E.	3022	102+21.65	60.53' RT	974.60/M.E.
3002	100+92.59	44.00' RT	976.26/M.E.	3023	102+45.96	42.19' RT	972.63
3003	100+85.66	30.50' RT	975.21	3024	102+41.29	38.51' RT	972.48
3004	100+85.66	35.50' RT	975.29	3025	102+45.96	33.52' RT	972.00
3005	100+92.59	30.50' RT	975.38	3026	102+45.96	32.19' RT	971.80
3006	100+92.59	36.50' RT	975.30	3027	102+45.96	27.17' RT	971.73
3007	101+00.00	36.50' RT	975.22	3028	102+45.96	22.16' RT	971.53(X)
3008	101+20.90	36.50' RT	974.89	3029	102+85.96	19.50' RT	970.88(X)
3009	101+40.90	36.50' RT	974.40	3030	102+85.96	24.51' RT	971.21
3010	101+60.90	36.50' RT	973.96	3031	102+85.96	29.52' RT	971.28
3011	101+80.90	36.50' RT	973.53	3032	102+85.96	31.63' RT	971.39
3012	101+96.30	36.50' RT	972.94	3033	102+89.52	37.11' RT	971.45
3013	102+40.96	33.52' RT	972.02	3034	103+07.10	44.91' RT	971.58
3014	101+00.00	41.50' RT	976.12	3035	103+24.67	52.71' RT	971.75
3015	101+20.90	41.50' RT	975.98	3036	103+27.55	60.53' RT	971.89/M.E.
3016	101+40.90	41.50' RT	975.72	3037	103+45.90	15.50' RT	969.79
3017	101+60.90	41.50' RT	975.21	3038	103+52.51	15.50' RT	971.19
3018	101+80.90	41.50' RT	974.61	3039	103+52.51	7.50' RT	970.88
3019	101+96.43	41.50' RT	974.18	3040	103+46.07	20.50' RT	970.51
3020	102+21.29	39.84' RT	973.75	3041	103+46.23	25.50' RT	970.58
3021	102+21.57	44.00' RT	973.83/M.E.	3042	103+97.09	20.50' RT	969.92/M.E.
				3043	103+97.13	25.50' RT	969.98/M.E.

POINT	STATION	OFFSET	ELEVATION
3044	101+40.90	7.50' RT	973.79
3045	101+60.90	7.55' RT	973.35
3046	101+80.90	7.50' RT	972.91
3047	101+95.90	7.50' RT	972.58
3048	102+40.89	32.52' RT	972.00
3049	102+40.56	27.53' RT	971.93



**Geometric Details  
US Hwy 69/S Ankeny Blvd  
at SW/SE 3rd Street**



**NOTES:**

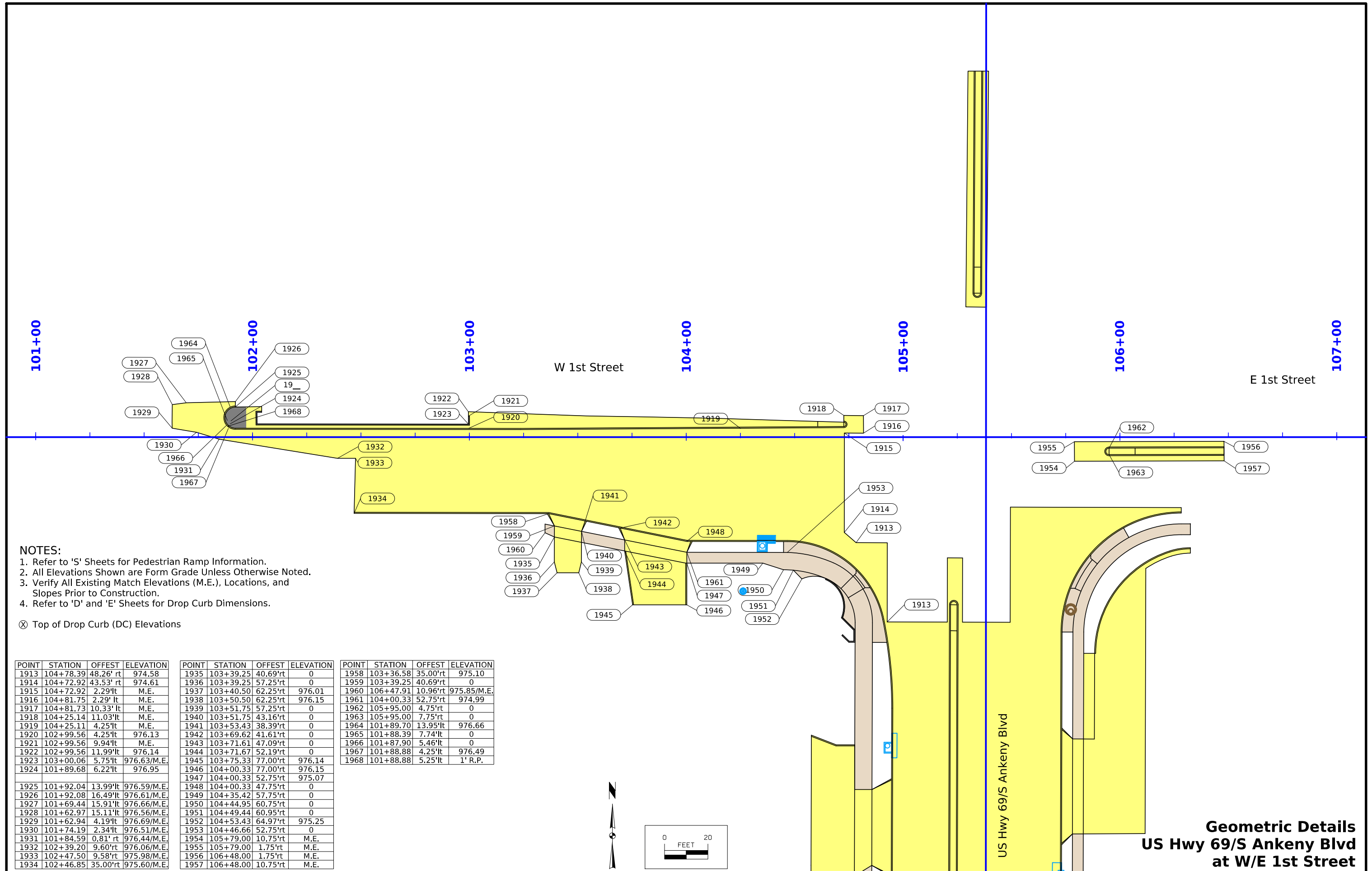
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
2. All Elevations Shown are Form Grade Unless Otherwise Noted.
3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

**Staking Details  
US Hwy 69/S Ankeny Blvd  
at SW/SE 3rd Street**

FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>L.25</b>
----------	---------	--	-------------	--	--------------------------







- NOTES:**
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

⊗ Top of Drop Curb (DC) Elevations

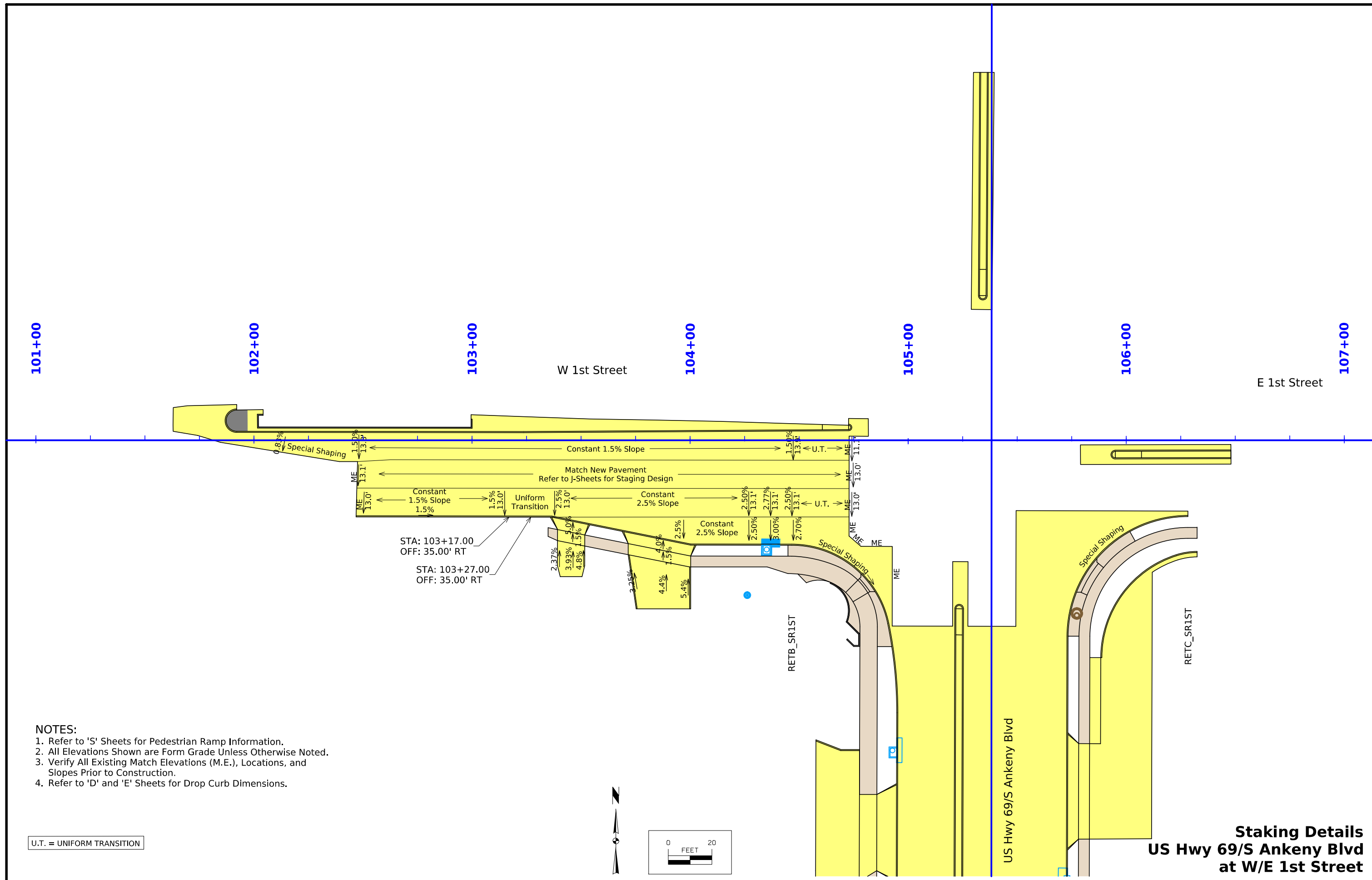
POINT	STATION	OFFSET	ELEVATION
1913	104+78.39	48.26' rt	974.58
1914	104+72.92	43.53' rt	974.61
1915	104+72.92	2.29'lt	M.E.
1916	104+81.75	2.29' lt	M.E.
1917	104+81.73	10.33'lt	M.E.
1918	104+25.14	11.03'lt	M.E.
1919	104+25.11	4.25'lt	M.E.
1920	102+99.56	4.25'lt	976.13
1921	102+99.56	9.94'lt	M.E.
1922	102+99.56	11.99'lt	976.14
1923	103+00.06	5.75'lt	976.63/M.E.
1924	101+89.68	6.22'lt	976.95
1925	101+92.04	13.99'lt	976.59/M.E.
1926	101+92.08	16.49'lt	976.61/M.E.
1927	101+69.44	15.91'lt	976.66/M.E.
1928	101+62.97	15.11'lt	976.56/M.E.
1929	101+62.94	4.19'lt	976.69/M.E.
1930	101+74.19	2.34'lt	976.51/M.E.
1931	101+84.59	0.81' rt	976.44/M.E.
1932	102+39.20	9.60'rt	976.06/M.E.
1933	102+47.50	9.58'rt	975.98/M.E.
1934	102+46.85	35.00'rt	975.60/M.E.

POINT	STATION	OFFSET	ELEVATION
1935	103+39.25	40.69'rt	0
1936	103+39.25	57.25'rt	0
1937	103+40.50	62.25'rt	976.01
1938	103+50.50	62.25'rt	976.15
1939	103+51.75	57.25'rt	0
1940	103+51.75	43.16'rt	0
1941	103+53.43	38.39'rt	0
1942	103+69.62	41.61'rt	0
1943	103+71.61	47.09'rt	0
1944	103+71.67	52.19'rt	0
1945	103+75.33	77.00'rt	976.14
1946	104+00.33	77.00'rt	976.15
1947	104+00.33	52.75'rt	975.07
1948	104+00.33	47.75'rt	0
1949	104+35.42	57.75'rt	0
1950	104+44.95	60.75'rt	0
1951	104+49.44	60.95'rt	0
1952	104+53.43	64.97'rt	975.25
1953	104+46.66	52.75'rt	0
1954	105+79.00	10.75'rt	M.E.
1955	105+79.00	1.75'rt	M.E.
1956	106+48.00	1.75'rt	M.E.
1957	106+48.00	10.75'rt	M.E.

POINT	STATION	OFFSET	ELEVATION
1958	103+36.58	35.00'rt	975.10
1959	103+39.25	40.69'rt	0
1960	106+47.91	10.96'rt	975.85/M.E.
1961	104+00.33	52.75'rt	974.99
1962	105+95.00	4.75'rt	0
1963	105+95.00	7.75'rt	0
1964	101+89.70	13.95'lt	976.66
1965	101+88.39	7.74'lt	0
1966	101+87.90	5.46'lt	0
1967	101+88.88	4.25'lt	976.49
1968	101+88.88	5.25'lt	1' R.P.

**Geometric Details  
US Hwy 69/S Ankeny Blvd  
at W/E 1st Street**

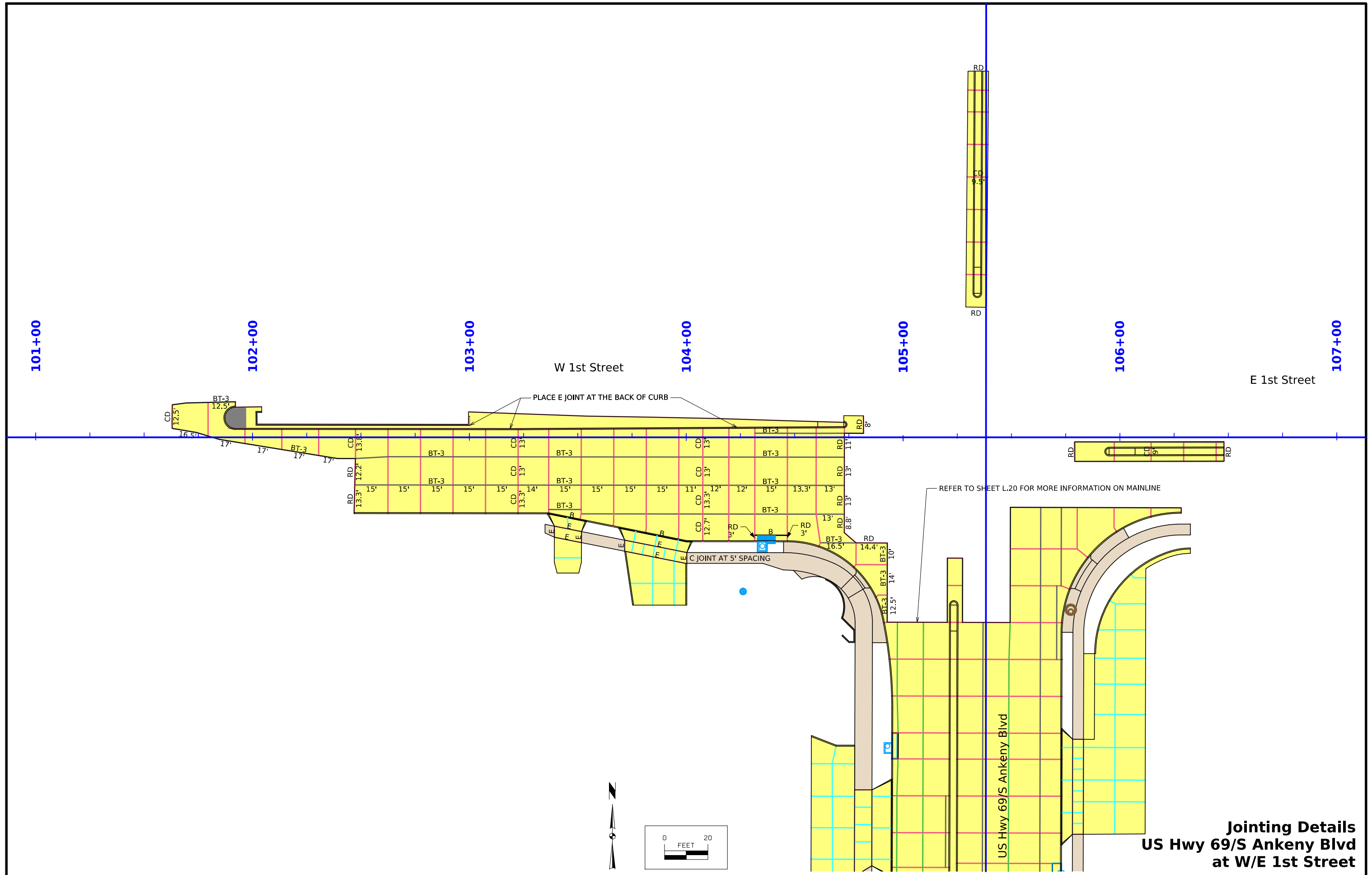




- NOTES:**
1. Refer to 'S' Sheets for Pedestrian Ramp Information.
  2. All Elevations Shown are Form Grade Unless Otherwise Noted.
  3. Verify All Existing Match Elevations (M.E.), Locations, and Slopes Prior to Construction.
  4. Refer to 'D' and 'E' Sheets for Drop Curb Dimensions.

U.T. = UNIFORM TRANSITION

**Staking Details  
US Hwy 69/S Ankeny Blvd  
at W/E 1st Street**



**Jointing Details  
US Hwy 69/S Ankeny Blvd  
at W/E 1st Street**



① Diameter or equivalent diameter

\* Bid Item

\*\* For SW-545

### STORM SEWER

INTAKES AND UTILITY ACCESSES							PIPES													
No.	Location Station and Offset	*Type or Standard Road Plan	Form	Bottom	Extension	Notes	Line Number	Intake/Utility Access No.		Class 'D'	Pipe Size ①	Bid* Length	Design Length	Slope %	Connected Pipe Joint (DR-121)	Flow Lines			Pipe Profile Sheet No.	Notes
			Elev.	Elev.	FT			From	To							Inlet Elevation	Outlet Elevation	Other Elevation		
			IN	FT	FT			Type												
ST-01	325+61.00, 34.6' RT	SW-541	990.95	986.14			P-01	ST-01	ST-03	2000	15	55	50.3	0.5		986.64	986.38		M.3	
ST-03	326+15.00, 40.0' RT	SW-541 W/ SW-542 EXTENSION	990.55	985.68			P-03	ST-03	ST-04	2000	15	70	65.3	0.6		986.18	985.78		M.3	
ST-04	326+84.00, 46.0' RT	SW-541	990.68	985.08			P-04	ST-04	ST-05	2000	15	192	188.0	0.6		985.58	984.47		M.3	
ST-05	328+76.00, 45.5' RT	SW-401 (48")	992.63	983.77			P-05	ST-05	ST-06	2000	15	26	22.0	0.6		984.27	984.14		M.3	
ST-06	329+00.00, 34.5' RT	SW-507	992.34	983.44			P-06	ST-06	ST-07	2000	15	386	382.0	1		983.94	980.12		M.3/M.4	
ST-07	332+86.00, 34.5' RT	SW-507	987.41	979.32			P-07	ST-07	ST-08	2000	15	140	136.0	2.5		979.82	976.78		M.4	
ST-08	334+26.00, 38.0' RT	SW-401 (48")	983.42	975.98			P-07A	EXIST	ST-07	2000	15	12	8.0	0.5		979.96	979.92		M.4	VERIFY ELEVATION
ST-09	335+18.00, 35.3' RT	SW-510	980.43	973.97			P-08	ST-08	ST-09	2000	18	92	87.9	1.4		976.48	974.77		M.4	
ST-10	336+55.00, 46.0' RT	SW-541	976.98	971.63			P-08A	EXIST	ST-08	2000	15	12	8.0	1.0		977.87	977.79		M.4	VERIFY ELEVATION
ST-11	336+54.00, 58.5' RT	SW-501	977.35	972.07			P-09	ST-09	ST-10	2000	18	138	133.4	1.5		974.47	972.43		M.4/M.5	
ST-12	337+63.00, 46.0' RT	SW-541 W/ SW-542 EXTENSION	975.88	968.32			P-10	ST-11	ST-10	2000	15	16	11.8	1		972.57	972.45		M.5	
ST-12A	338+13.50, 42.1' RT	SW-401 (72")	975.78	967.9		TEMPORARY	P-11	ST-10	ST-12	2000	24	108	104.0	0.6		972.13	971.53		M.5	
ST-13	338+48.00, 40.6' RT	SW-403 (7'x7')	975.91	967.55			P-12A	ST-12	ST-12A	2000	24	50	46.0	0.8		968.82	968.45		M.5	
ST-14	338+85.00, 36.0' RT	SW-508 MODIFIED	976.12	967.52			P-12B	ST-12A	ST-13	2000	24	26	21.4	0.8		968.4	970.6		M.5	
ST-15	340+05.50, 40.6' RT	SW-403 (7'x7')	977.49	966.86			P-13	ST-13	ST-14	2000	48	40	35.4	0.5		968.29	968.12		M.5	
ST-16	341+48.00, 34.0' RT	SW-507	976.07	967.75			P-14	ST-14	ST-15	2000	48	123	118.7	0.5		968.02	967.46		M.5	
ST-17	341+29.10, 61.3' RT	SW-501	976.54	968.11			P-15	ST-15	EXIST	2000	48	12	8.0	0.5		967.46	967.39		M.5/M.6	VERIFY ELEVATION
ST-18	342+72.50, 29.1' RT	SW-541	973.53	969.08			P-16	ST-16	ST-15	2000	18	145	140.5	0.5		968.25	967.57		M.6	
ST-19	343+80.00, 32.9' RT	SW-541 W/ SW-542 EXTENSION	973.5	969.24			P-17	ST-17	ST-16	2000	15	35	30.4	0.5		968.61	968.46		M.6	
ST-20	344+38.00, 34.8' RT	SW-541 W/ SW-542 EXTENSION	973.6	969.54			P-18	ST-18	ST-16	2000	18	233	228.1	0.5		968.97	968.35		M.6	
ST-99	325+36.75, 26.9' LT	SW-401 (48")	991.41	884.97			P-19	ST-19	ST-18	2000	18	17	12.2	0.5		969.74	969.68		M.6	
ST-100	325+58.50, 49.5' LT	SW-512 (24")	990.94	985.44			P-20	ST-20	ST-19	2000	15	42	38.0	0.5		970.04	969.84		M.6	
ST-101	325+58.00, 30.5' LT	SW-507	991.05	984.04			P-21	EXIST	ST-18	2000	15	20	15.3	1.8		969.96	969.68		M.6	
ST-102	325+83.00, 31.2' LT	SW-510	990.89	983.74			P-99	EXIST	ST-99	2000	18	12	8.0	1.5		985.69	985.57		M.7	VERIFY ELEVATION
ST-103	326+17.00, 32.2' LT	SW-510	990.78	983.51			P-100	EXIST	ST-101	2000	15	12	8.0	1		984.73	984.65		M.7	VERIFY ELEVATION
ST-104	326+83.00, 32.0' LT	SW-545	991.04	983.11			P-100A	ST-99	ST-101	2000	18	22	17.6	2		985.47	985.11		M.7	
ST-105	327+55.00, 34.5' LT	SW-510	991.87	982.67			P-101	ST-100	ST-101	2000	15	19	15.0	2		985.94	985.64		M.7	
ST-106	328+60.00, 34.5' LT	SW-507	992.1	982.08			P-102	ST-101	ST-102	2000	30	24	19.1	0.5		984.54	984.44		M.7	
ST-107	330+14.00, 37.5' LT	SW-401 (60")	993.23	981.22			P-103	EXIST	ST-102	2000	15	12	8.0	0.5		984.5	984.45		M.7	
ST-108	330+14.00, 54.0' LT	SW-501	993.32	981.32			P-104	EXIST	ST-102	2000	15	12	8.0	0.5		984.6	984.55		M.7	
ST-108A	331+80.50, 37.1' LT	SW-401 (60")	991.07	980.3			P-105	ST-102	ST-103	2000	30	30	26.0	0.5		984.24	984.11		M.7	
ST-109	333+39.00, 34.5' LT	SW-545	985.65	979.44			P-106	ST-103	ST-104	2000	30	64	60.0	0.5		984.01	983.71		M.7	
ST-110	335+95.00, 36.0' LT	SW-545	978.36	972.26			P-107	ST-104	ST-105	2000	30	71	66.1	0.5		983.61	983.27		M.7	
ST-111	335+81.00, 54.0' LT	SW-505	979.5	973.3			P-108	ST-105	ST-106	2000	30	103	99.0	0.5		983.17	982.68		M.7	
ST-112	337+20.00, 54.0' LT	SW-521	976.18	970.06			P-109	ST-106	ST-107	2000	30	154	150.0	0.5		982.58	981.82		M.7/M.8	
ST-113	337+65.00, 36.0' LT	SW-545	976.18	970.06			P-110	ST-108	ST-107	2000	15	19	14.5	1		981.82	989.15		M.8	
ST-114	338+48.00, 38.6' LT	SW-403 (5'x7')	975.77	968.07			P-110A	EXIST	ST-108A	2000	15	19	14.6	0.5		988.34	988.27		M.8	
ST-115	338+93.00, 46.0' LT	SW-541 W/ SW-542 EXTENSION	975.8	968.35			P-111	ST-107	ST-108A	2000	30	167	162.4	0.5		981.72	980.91		M.8	
ST-116	340+13.00, 37.9' LT	SW-401 (60")	977.35	968.97			P-111A	ST-108A	ST-109	2000	30	159	154.7	0.5		980.81	980.04		M.8	
ST-117	341+83.00, 39.8' LT	SW-508	975.66	969.81			P-112	ST-109	ST-110	2000	30	254	250.0	2.9		979.94	973.86		M.8/M.9	
ST-118	342+10.00, 43.0' LT	SW-401 (48")	975.33	970.01			P-113	ST-114	ST-13	2000	48	77	72.7	0.5		968.58	968.19		M.9	
ST-119	343+77.00, 43.6' LT	SW-507	974.19	970.84			P-114	ST-110	ST-113	2000	30	173	168.1	1.2		972.76	970.75		M.9	
ST-120	343+96.00, 43.6' LT	SW-507	973.75	971.01			P-115	ST-111	ST-110	2000	15	21	16.7	2		973.8	973.5		M.9	
ST-121	343+94.00, 65.9' LT	SW-512 (18")	974	971.1			P-116	ST-113	ST-114	2000	30	81	77.0	2		970.56	969.02		M.9	
ST-122	345+02.00, 43.6' LT	SW-507	974.33	971.47			P-117	ST-115	ST-114	2000	30	44	39.7	0.5		968.75	968.57		M.9	
ST-130	98+50.00, 25.5' RT	SW-506	975.79	970.56			P-118	ST-116	ST-115	2000	30	120	115.8	0.5		969.37	968.85		M.9	
ST-131	98+50.00, 16.0' LT	SW-505	975.99	971.13			P-119	ST-117	ST-116	2000	30	170	165.5	0.5		970.21	969.47		M.9/M.10	
ST-132	99+29.00, 23.5' RT	SW-506	974.86	969.34			P-120	ST-118	ST-117	2000	30	27	22.6	0.5		970.41	970.31		M.10	
ST-133	99+29.00, 16.8' LT	SW-506	975.06	968.69			P-121	ST-119	ST-118	2000	18 EQ	167	162.5	0.5		971.24	970.51		M.10	
ST-140	34227+25.00, 15.5' RT	SW-506	975.61	971.28			P-122	ST-120	ST-119	2000	18 EQ	19	15.0	0.5		971.41	971.34		M.10	
ST-141	34227+25.00, 15.5' LT	SW-505	975.51	971.65			P-123	ST-121	ST-120	2000	15	23	18.4	0.5		971.6	971.51		M.10	
ST-142	34227+62.00, 15.5' RT	SW-503	974.92	970.81			P-124	ST-122	ST-120	2000	18 EQ	106	102.0	0.5		971.97	971.51		M.10	
ST-143	34227+83.00, 15.5' RT	SW-506	974.78	970.47			P-130	EX	ST-130	2000	30	18	13.5	0.5		971.36	971.26		M.11	
ST-144	34227+83.00, 15.5' LT	SW-505	974.78	971			P-131	ST-131	ST-130	2000	15	41	37.0	1		971.63	971.26		M.11	
							P-132	ST-130	ST-132	2000	30	80	75.5	1.5		971.06	970.04		M.11	
							P-133	ST-132	ST-133	2000	30	43	38.4	1.5		969.84	969.29		M.11	
							P-135	ST-133	ST											

### SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box
- Electric Box
- Utility Pole

### UTILITY LEGEND

- City of Ankeny  
Roger McFarland  
515-460-3747  
RMCFARLAND@ANKENYIOWA.GOV
- City of Ankeny  
Shawn Buckner  
515-979-6987  
SBUCKNER@ANKENYIOWA.GOV
- City of Ankeny Traffic  
Tom Dozler  
515-963-3527  
TDOZLER@ANKENYIOWA.GOV
- ACSD Ankeny Fiber  
Paul Mahoney  
515-965-9604 ext. 52993  
PAUL.MAHONEY@ANKENYSCHOOLS.ORG
- Aureon  
Jeff Klocko  
515-830-0445  
JEFF.KLOCKO@AUREON.COM
- Lumen Technologies  
Austin Freese  
515-263-7385  
AUSTIN.FREESE@LUMEN.COM
- Mediacom  
Dave Meyers  
515-991-7833  
DMEYERS2@MEDIACOMCC.COM
- Metronet (Metro Fibernet)  
Chas Antle  
641-841-0384  
CHAS.ANTLE@METRONET.COM
- MidAmerican - Electric  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- MidAmerican - Gas  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- Unite Private Networks  
Dakota Pardekooper  
515-371-7104  
DAKOTA.PARDEKOOPER@UPNFIBER.COM
- U.S. Cellular  
Daryl Morris  
603-486-9357  
DARYL.MORRIS@USCELLULAR.COM
- Verizon (MCI)  
Thanh (TK) Nguyen  
515-783-7177  
THANH.NGUYEN3@VERIZON.COM
- Verizon Wireless  
Ryan Schaffer  
515-201-5382  
RYAN.SCHAFFER@VERIZONWIRELESS.COM
- Windstream  
Kelly Wingfield  
515-559-4031  
kelly.wingfield@windstream.com

### PLAN VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK		Design Color No.	
Gray, Dark	(112)		Existing Topographic Features, Utilities, and Labels
Black	(17)		Proposed Storm Sewer Details, Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING		Design Color No.	
Gray, Light	(48)		Proposed Pavement Shading

### PROFILE VIEW COLOR LEGEND OF STORM SEWER SHEETS

LINEWORK		Design Color No.	
Gray, Dark	(112)		Existing Ground Line Profile and Existing Utilities Information
Black	(17)		Proposed Pipes and Intakes

### PLAN VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

- Plug and Abandon Existing Pipe or Structure
- Removal of Existing Pipe or Structure
- Previously Constructed Pipe or Structure
- Direction of Pipe Flow

### PROFILE VIEW LINE STYLE LEGEND OF STORM SEWER SHEETS

- Existing Ground
- Proposed Ground
- Previously Constructed Pipe or Structure
- Proposed Pipe or Structure

**Reference Point**

- Station
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Clearing & Grubbing Area
- Pavement Removal

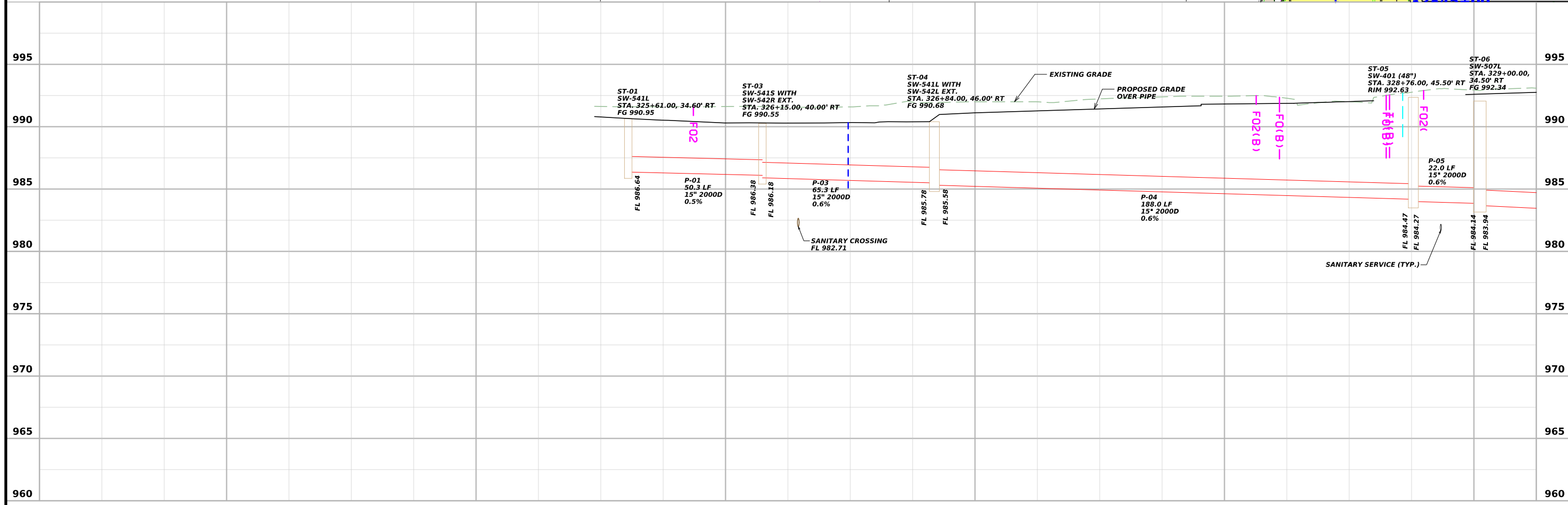
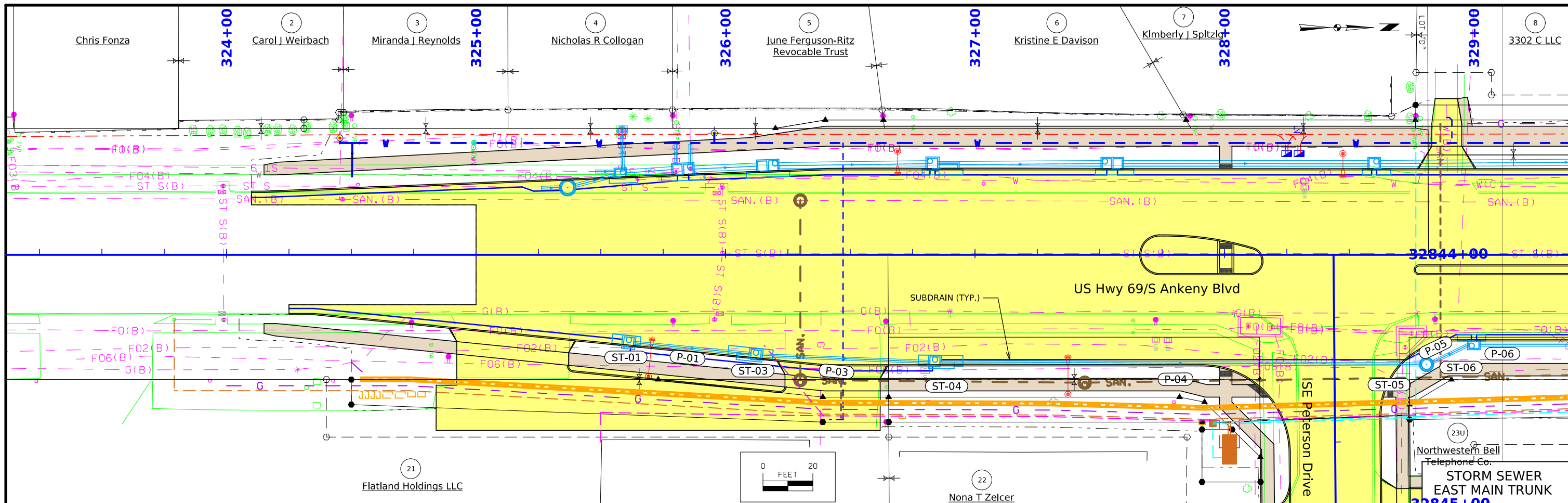
### RIGHT-OF-WAY LEGEND

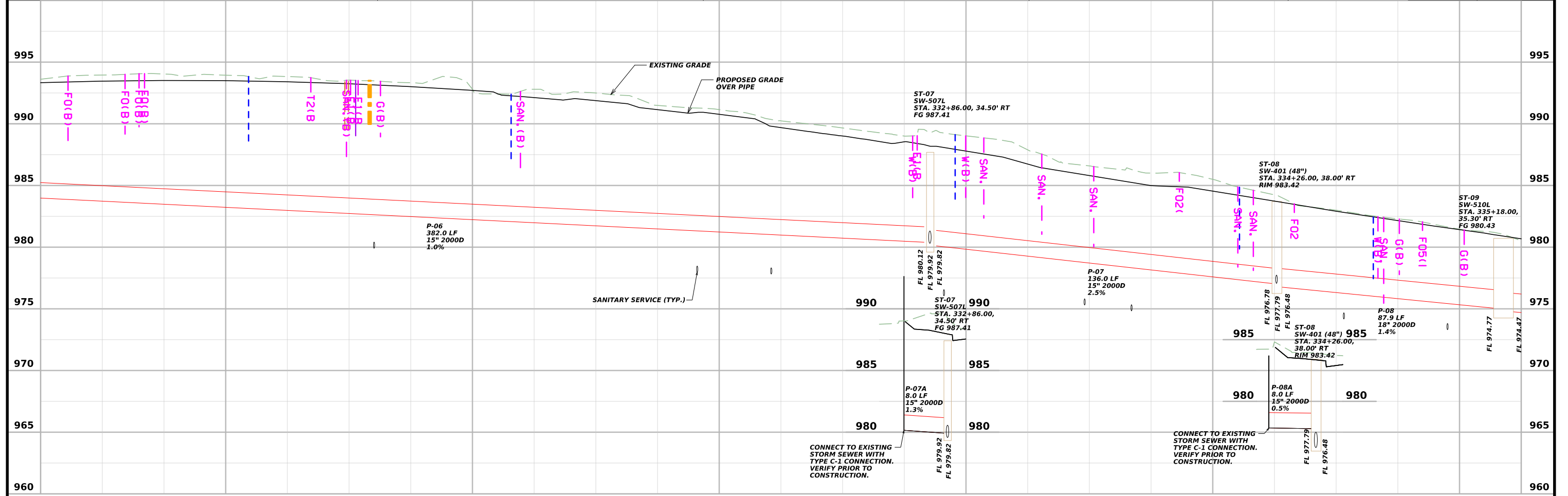
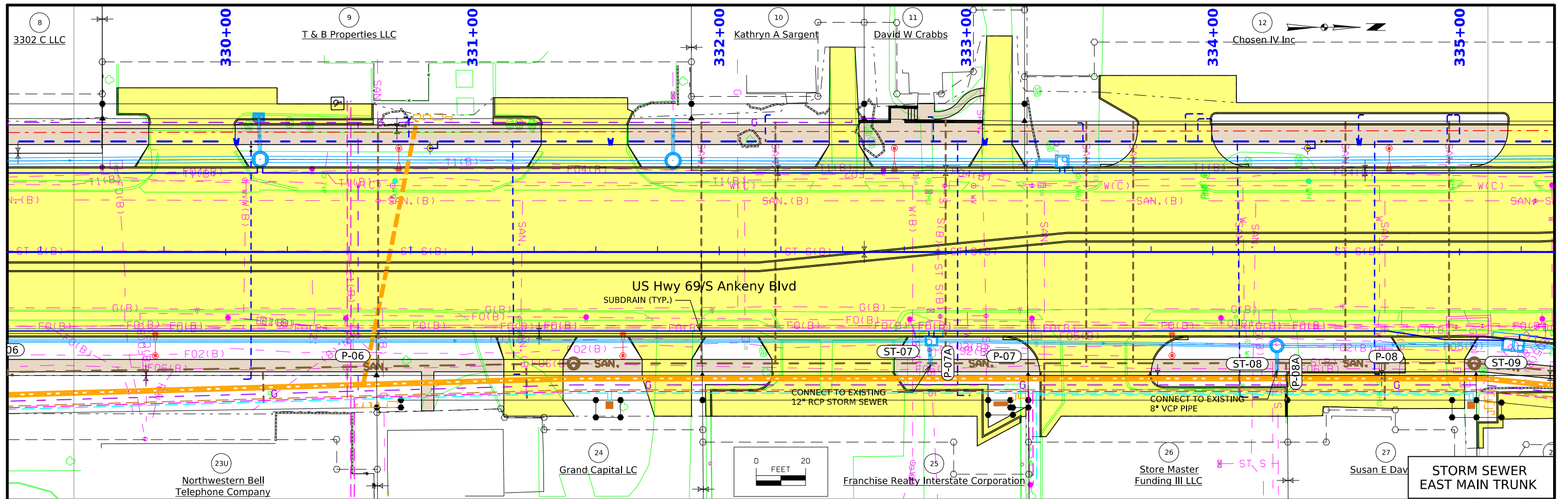
- Proposed Right-of-Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- Access Control

# STORM SEWER LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES M)

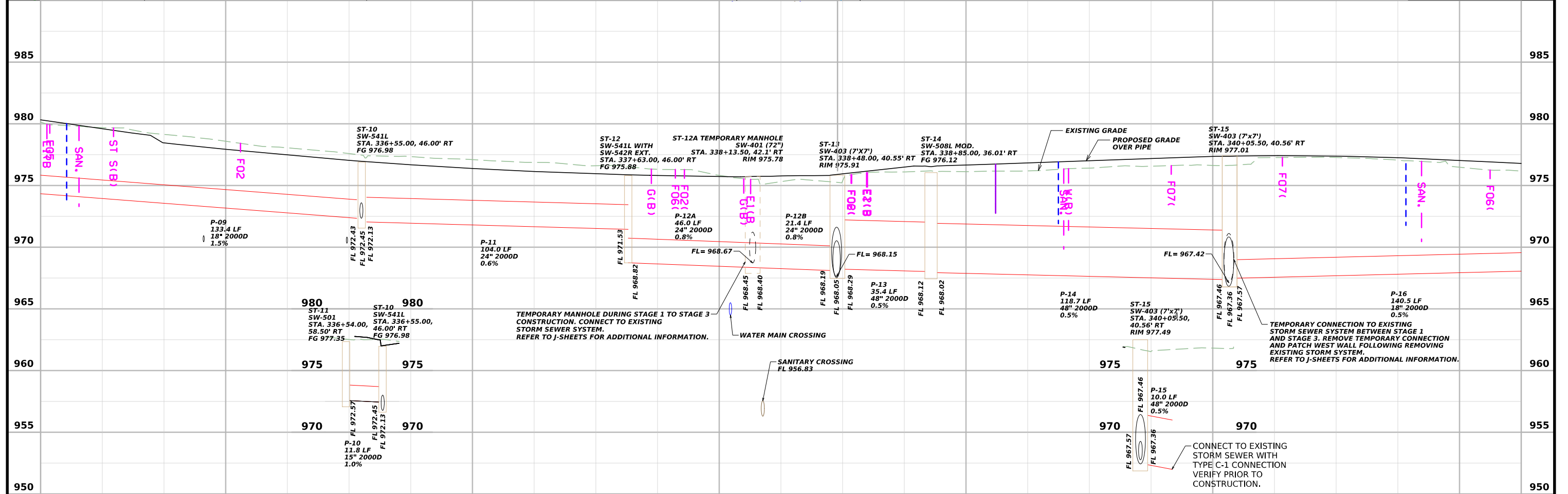
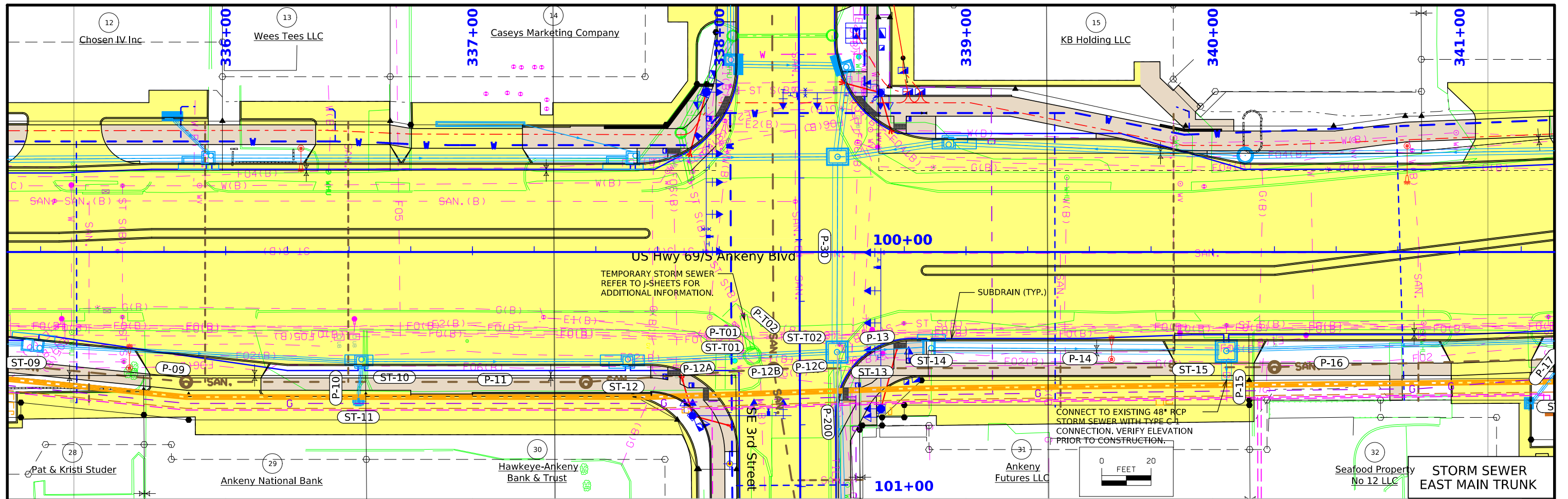






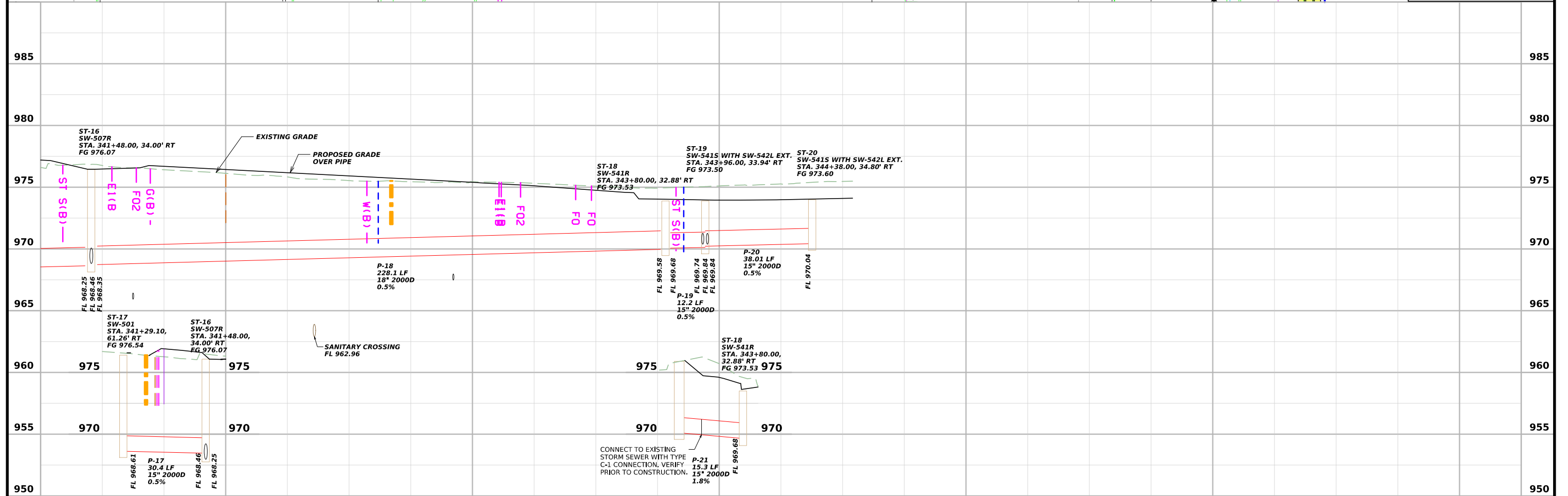
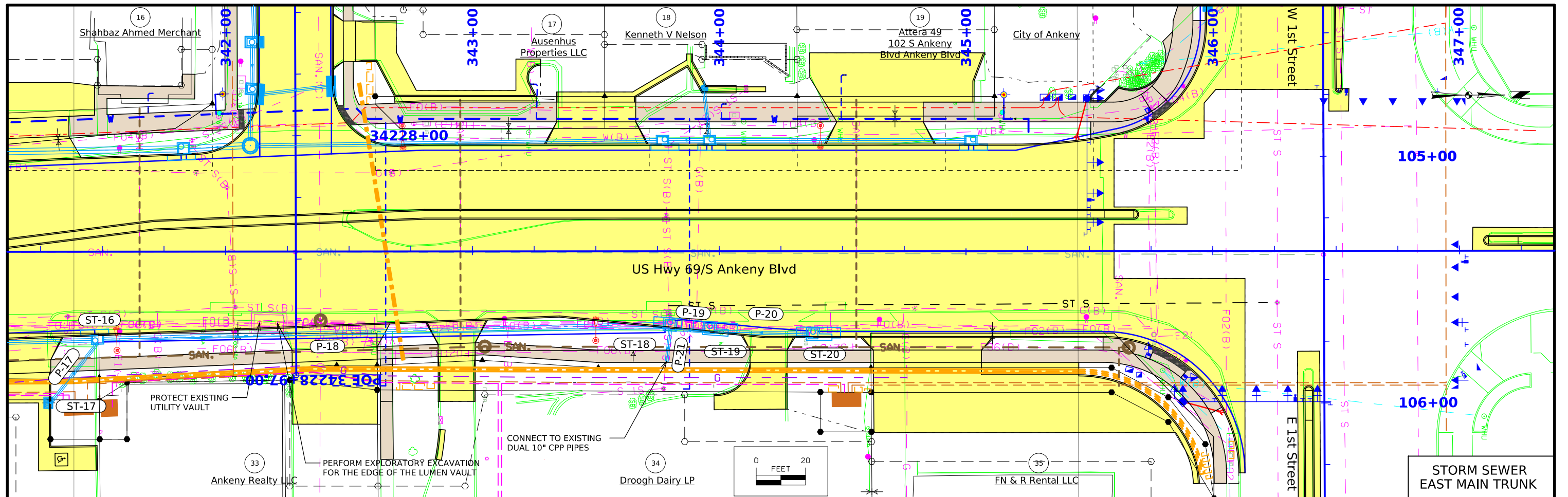
FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>M.4</b>
----------	---------	--	-------------	--	-------------------------



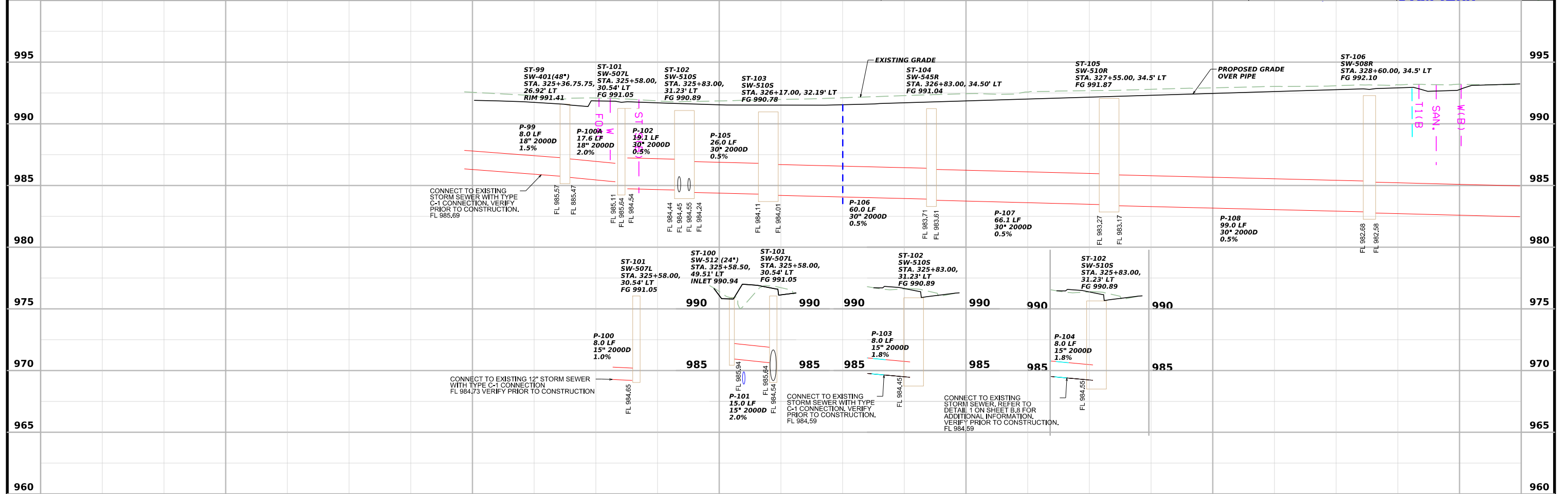
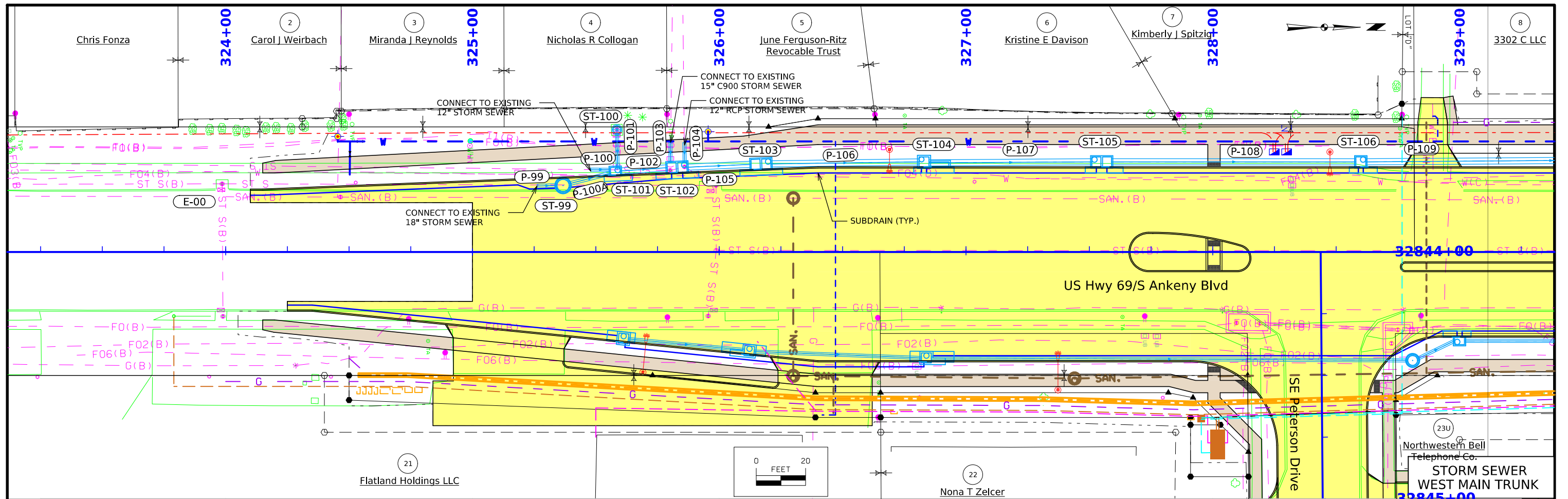


FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>M.5</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------

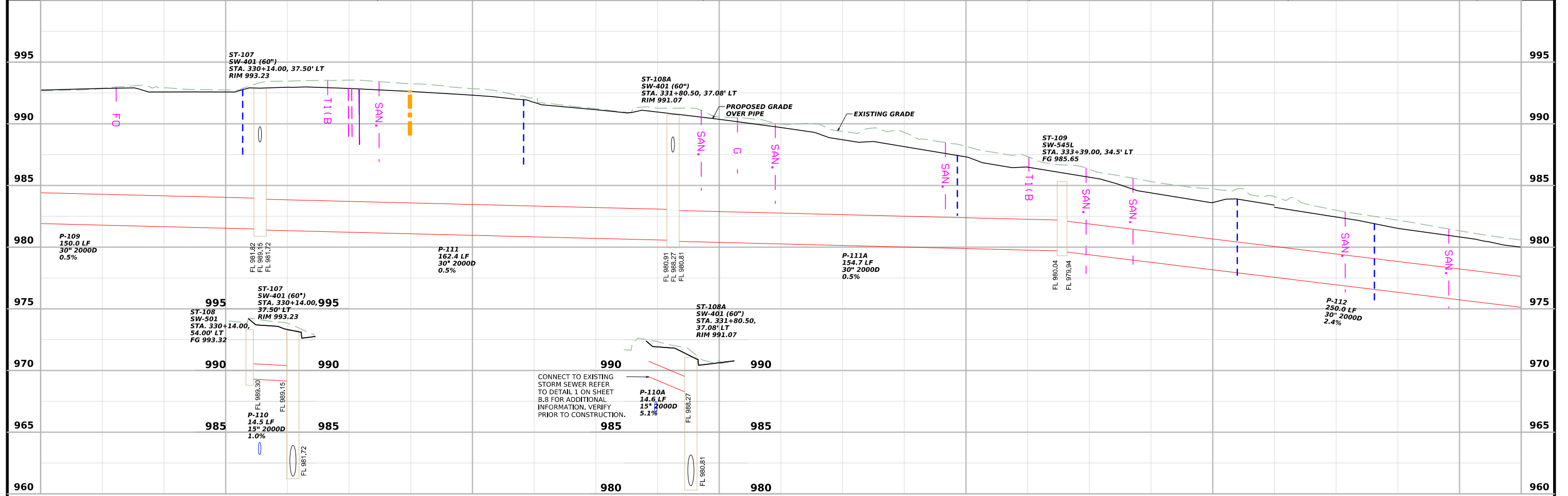
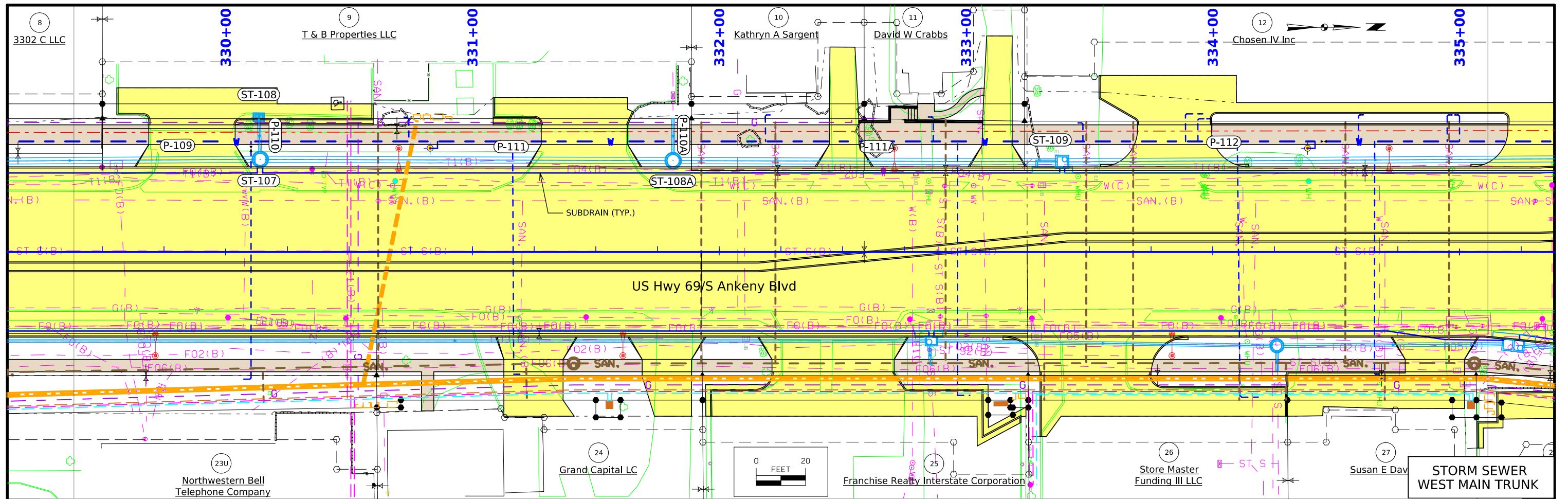
10:30:48 AM 2/18/2025 mbeerends pw:\projectwise.dot.int.lan:PWMMain\Documents\Projects\7706901020\Design\CADD\_Files\Sheet\_Files\SH\_77069136208\_M04.dgn



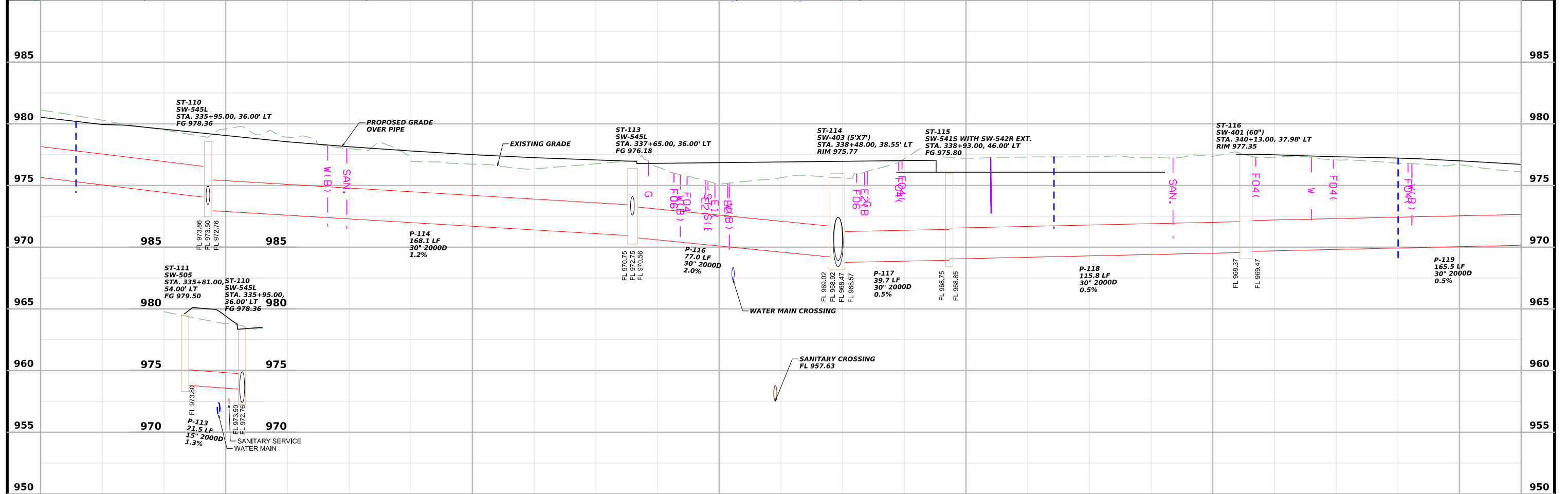
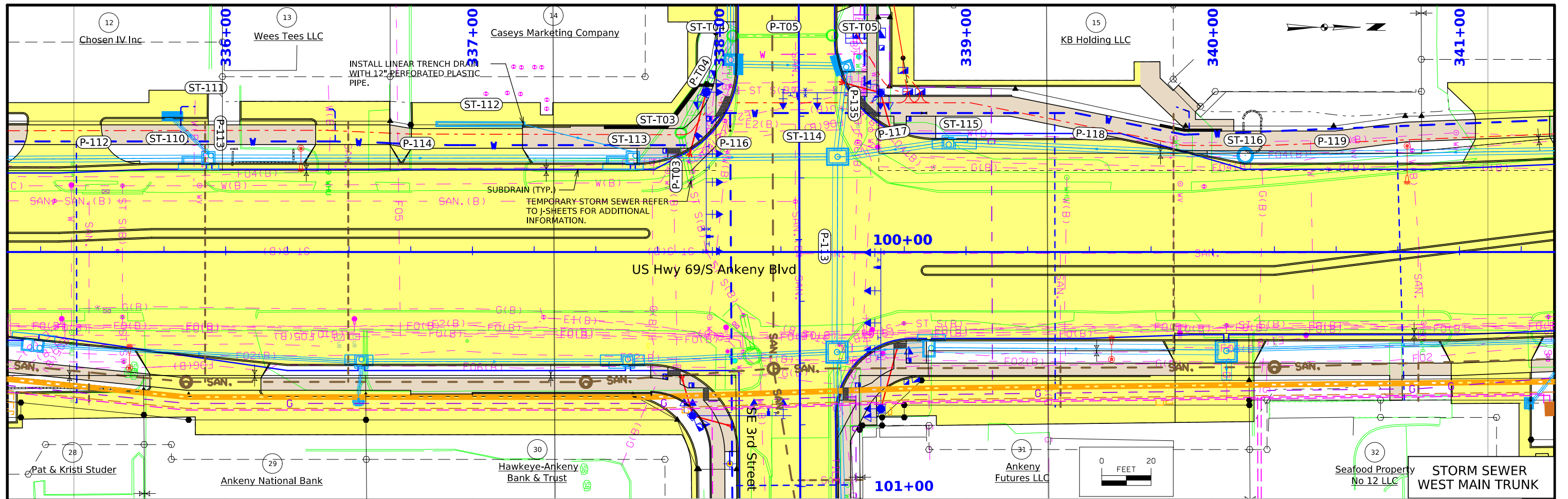


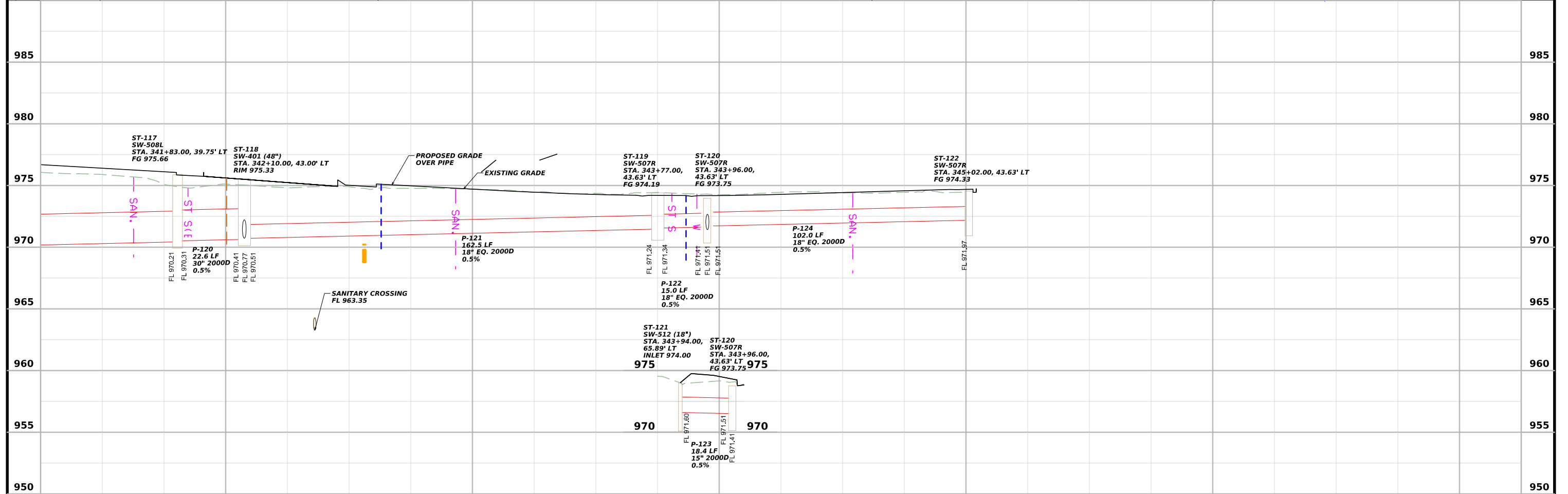
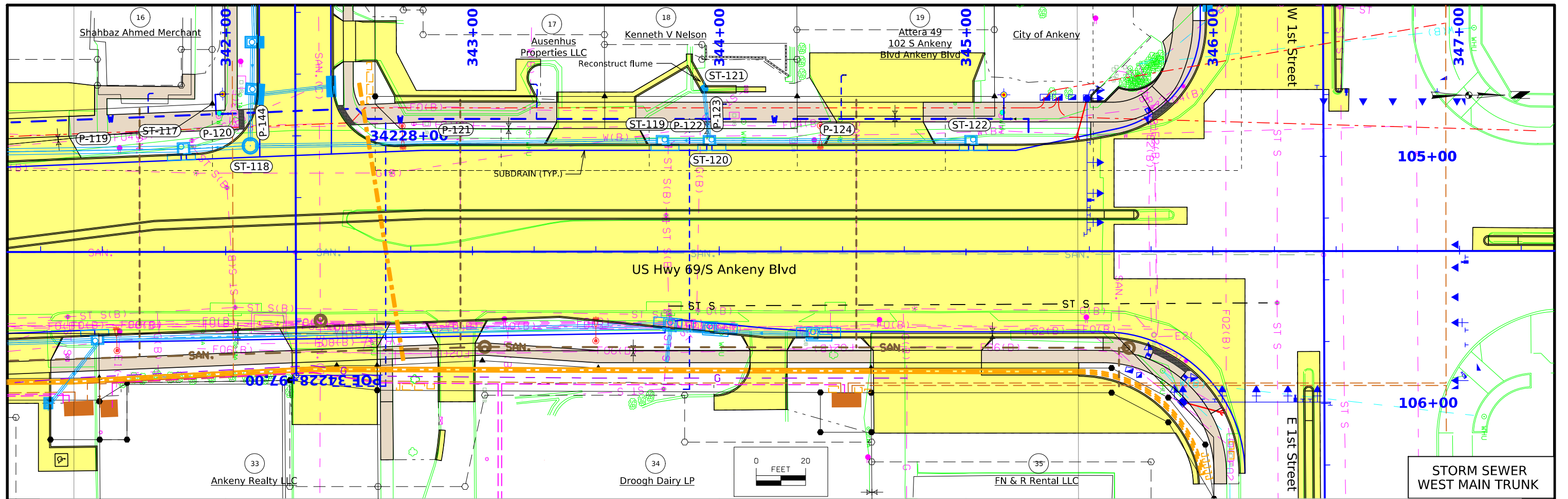


FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>M.7</b>
----------	---------	--	-------------	--	-------------------------

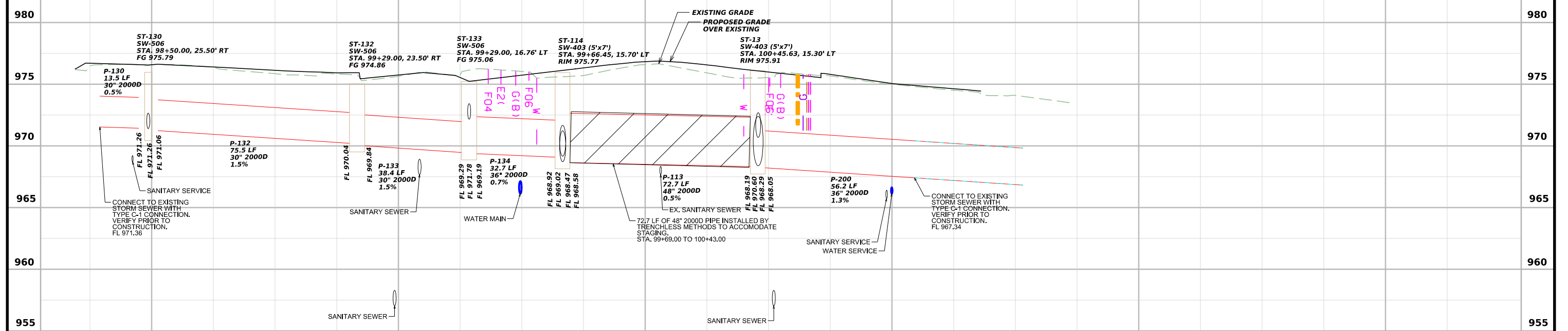
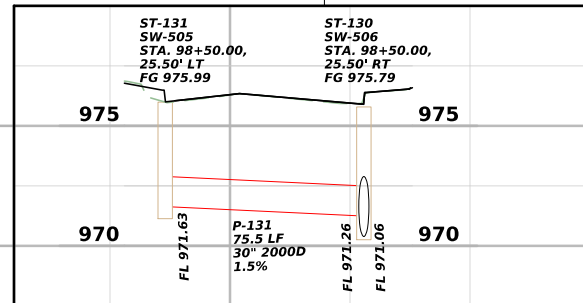
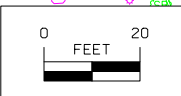
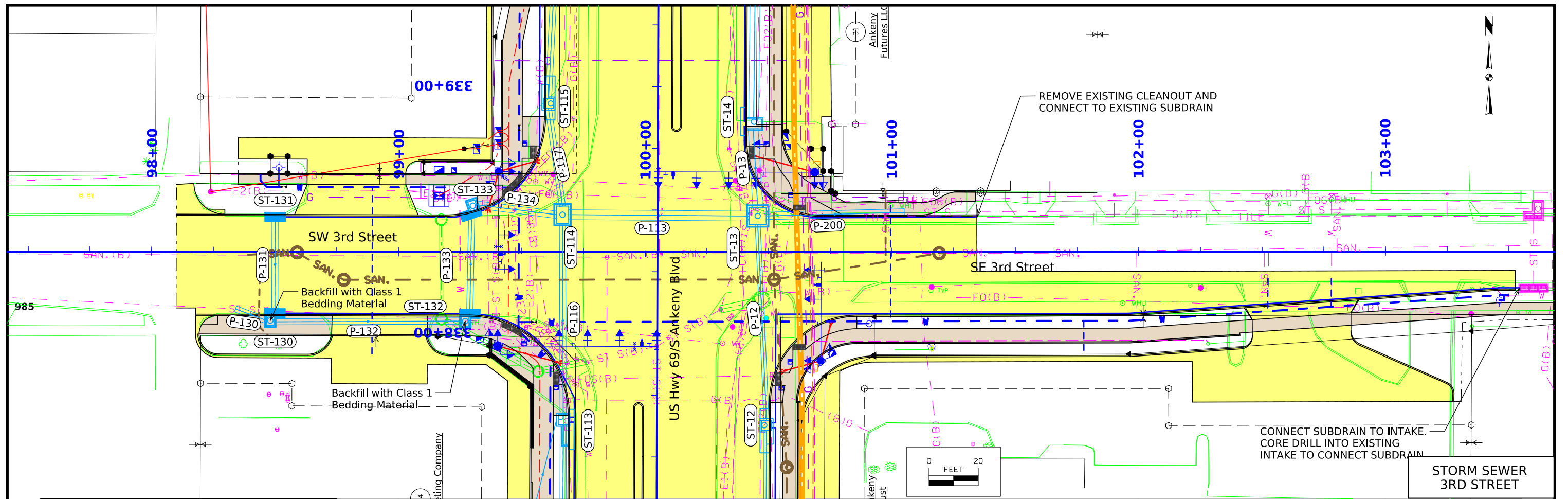


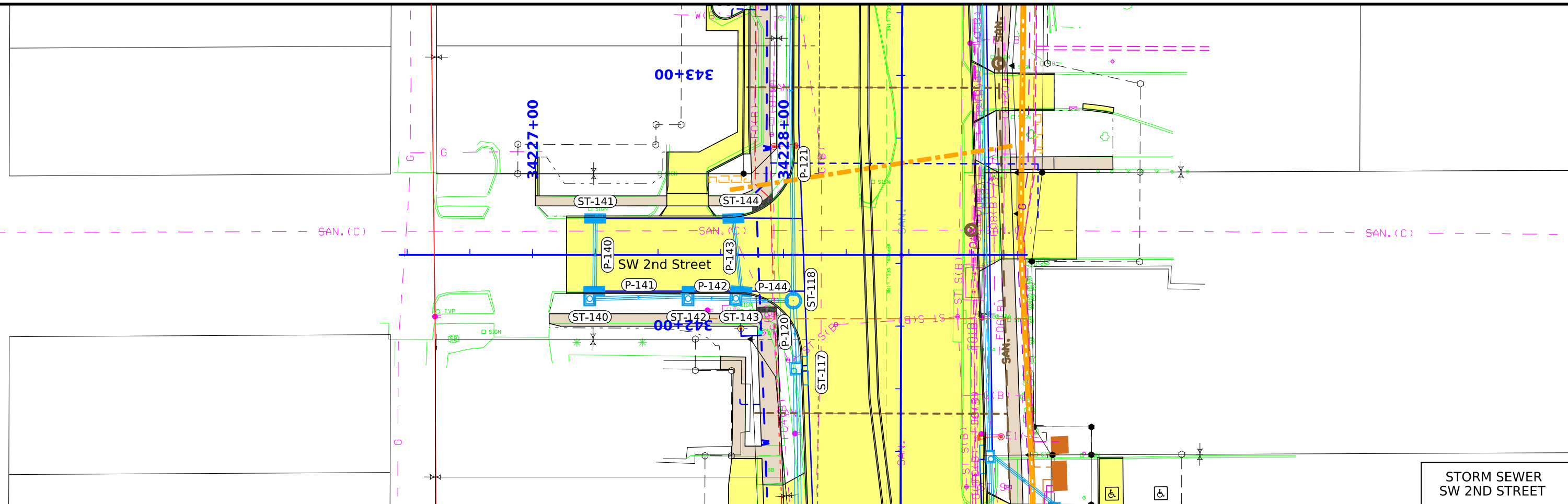




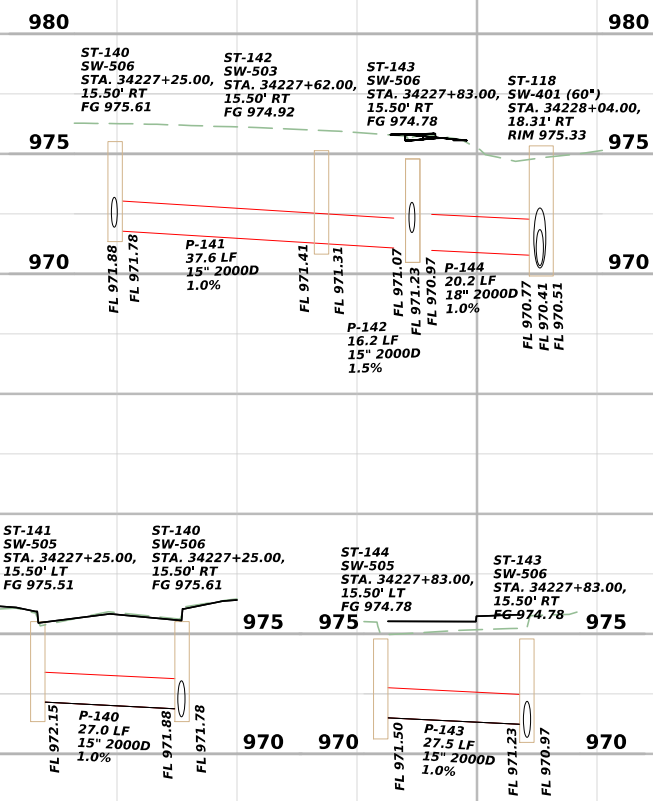




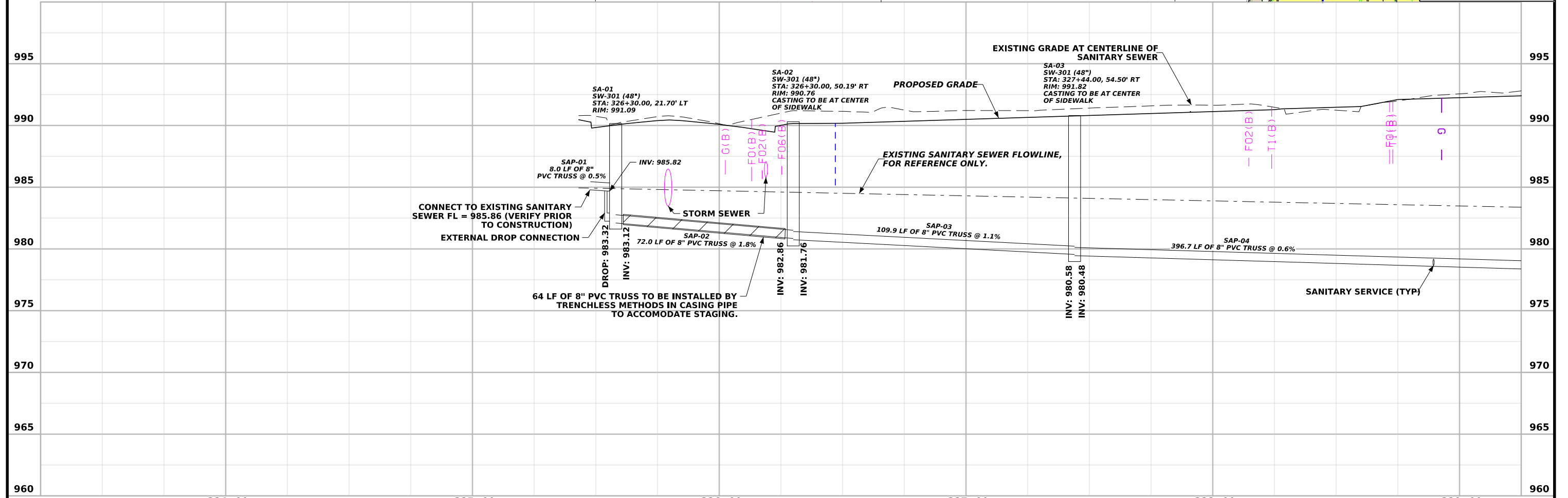
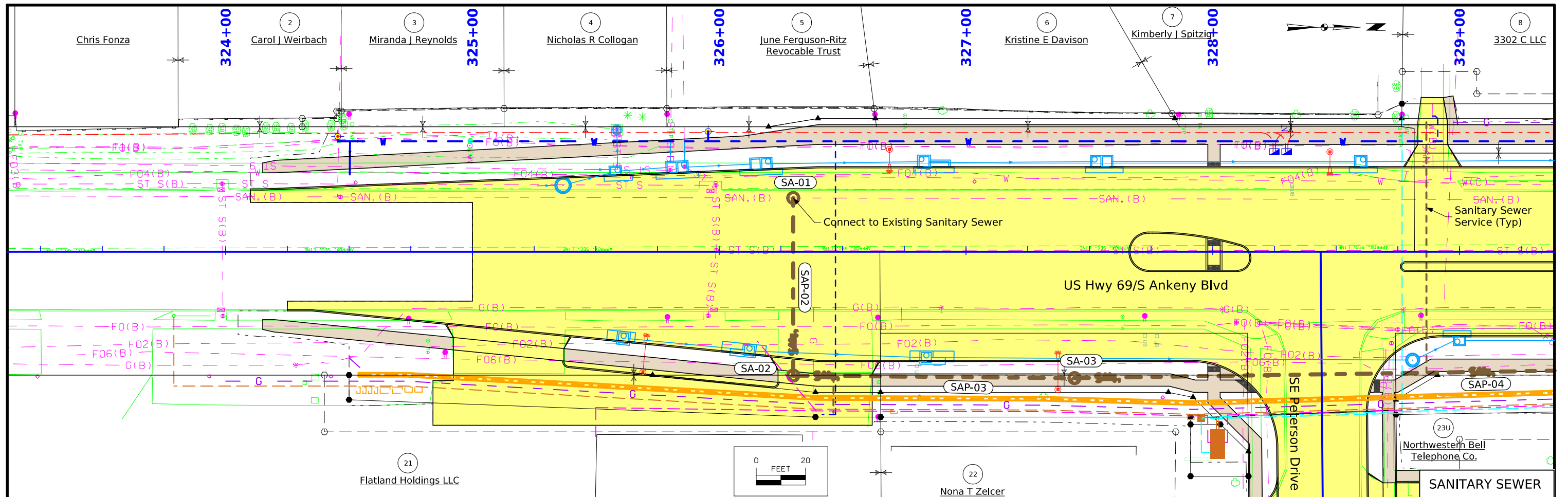


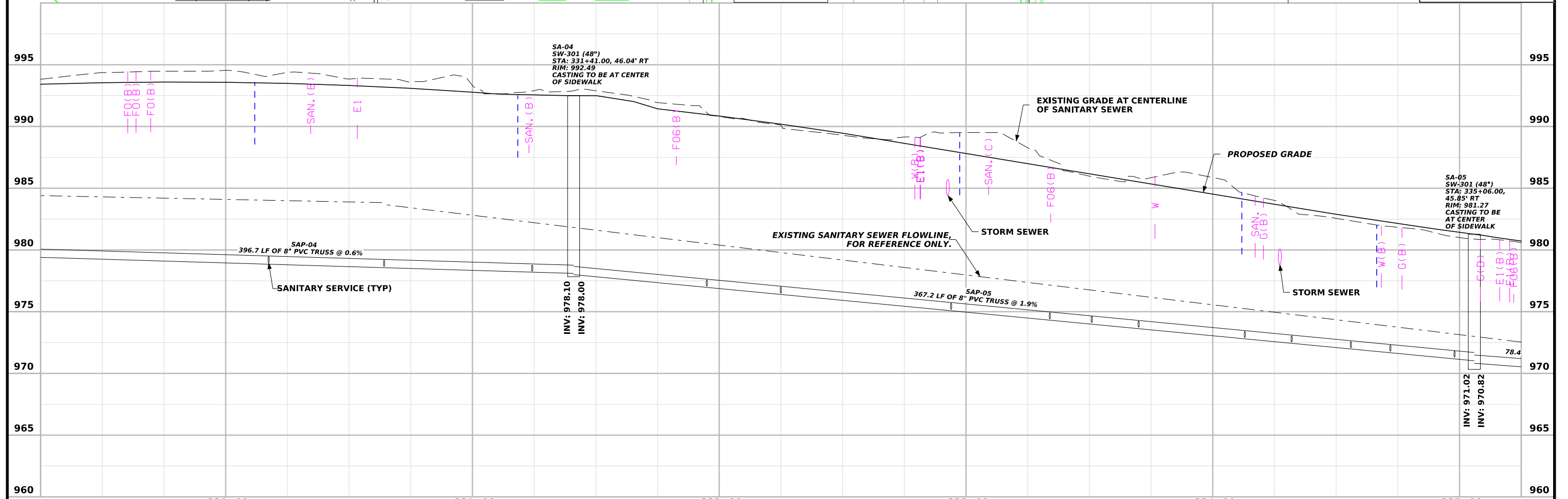
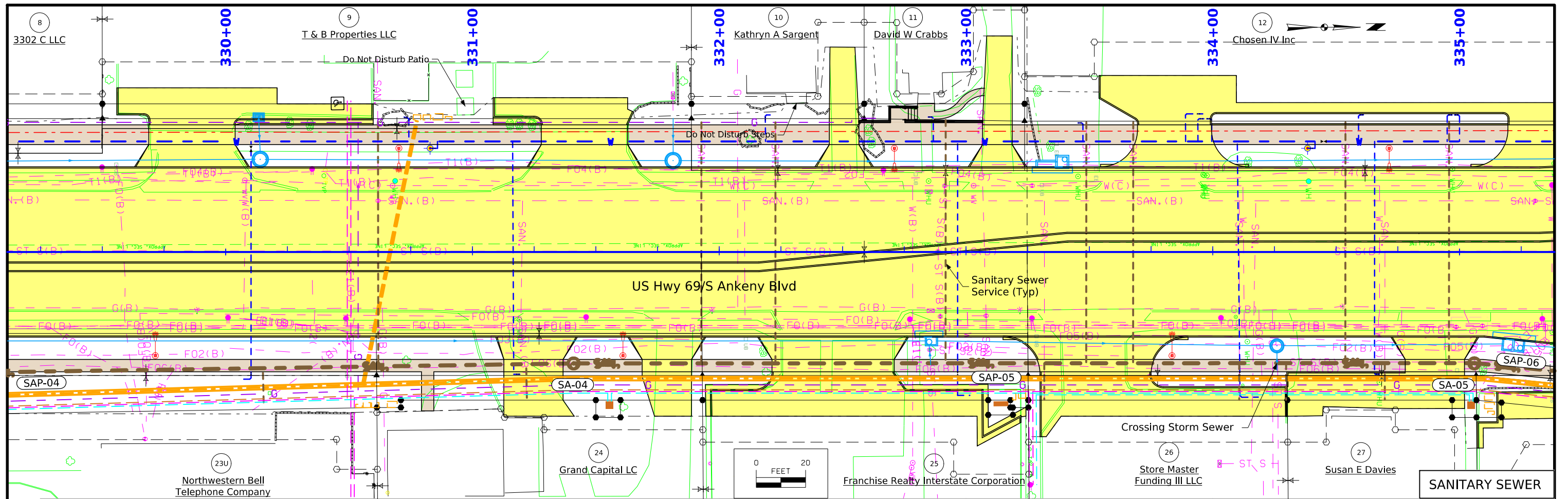


STORM SEWER  
SW 2ND STREET



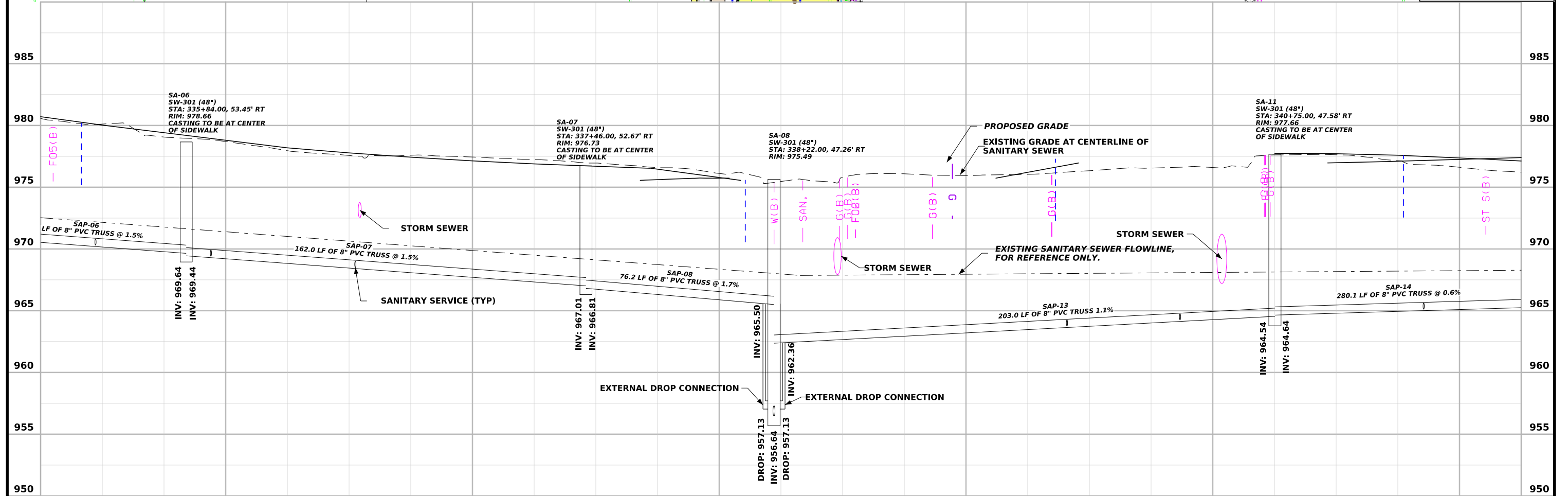
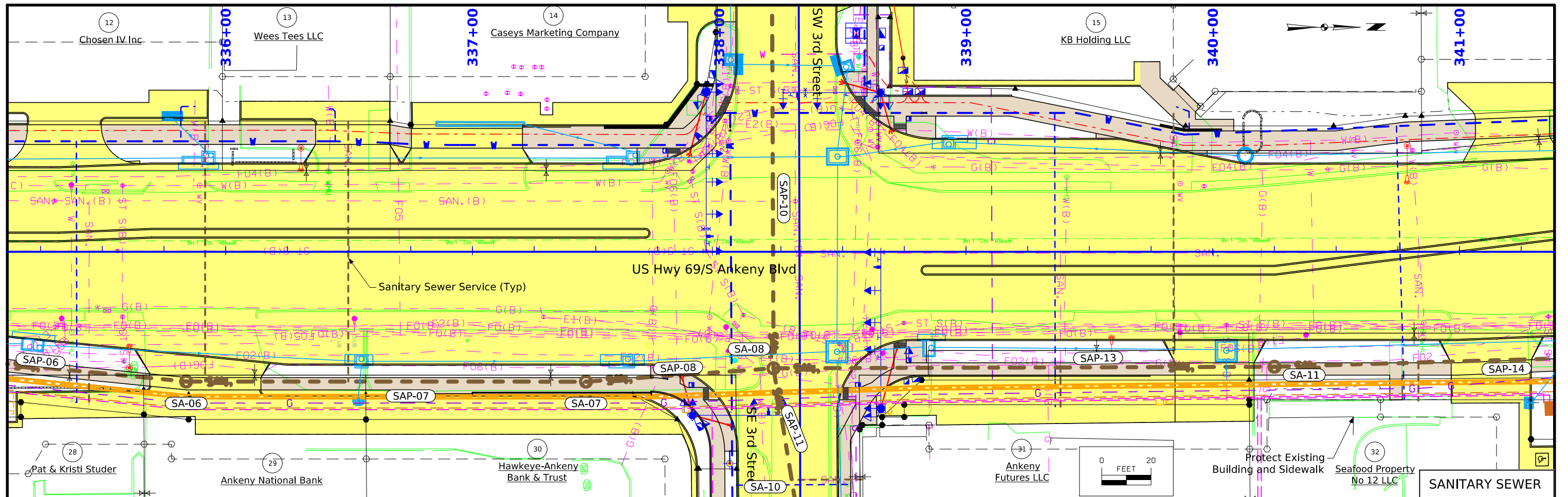




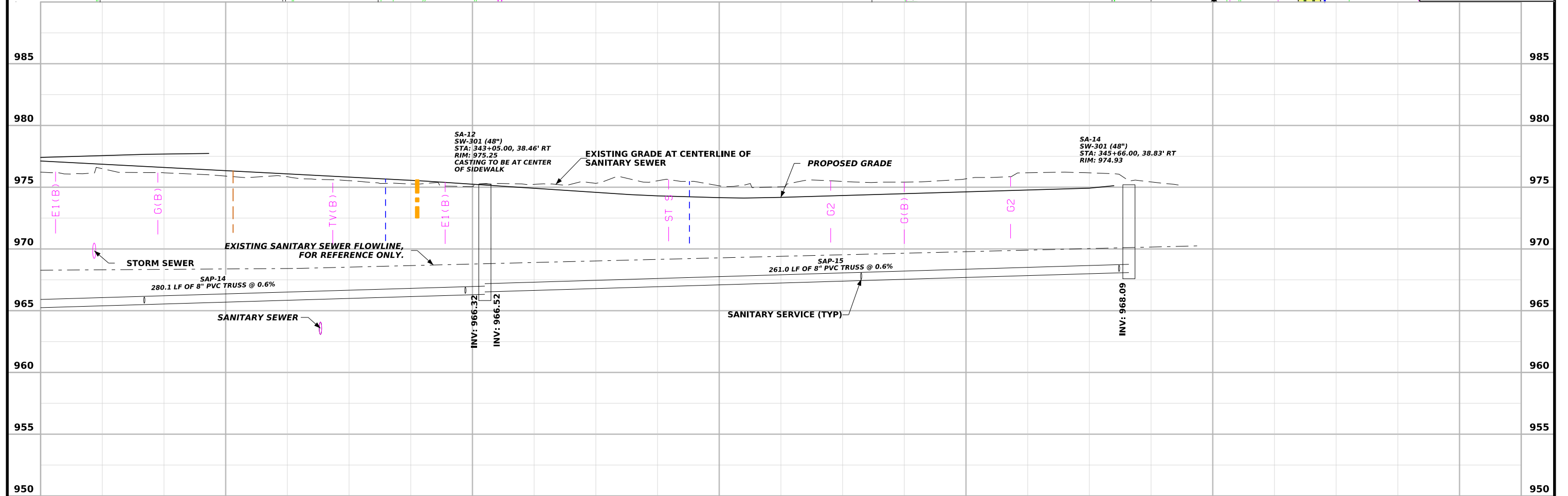
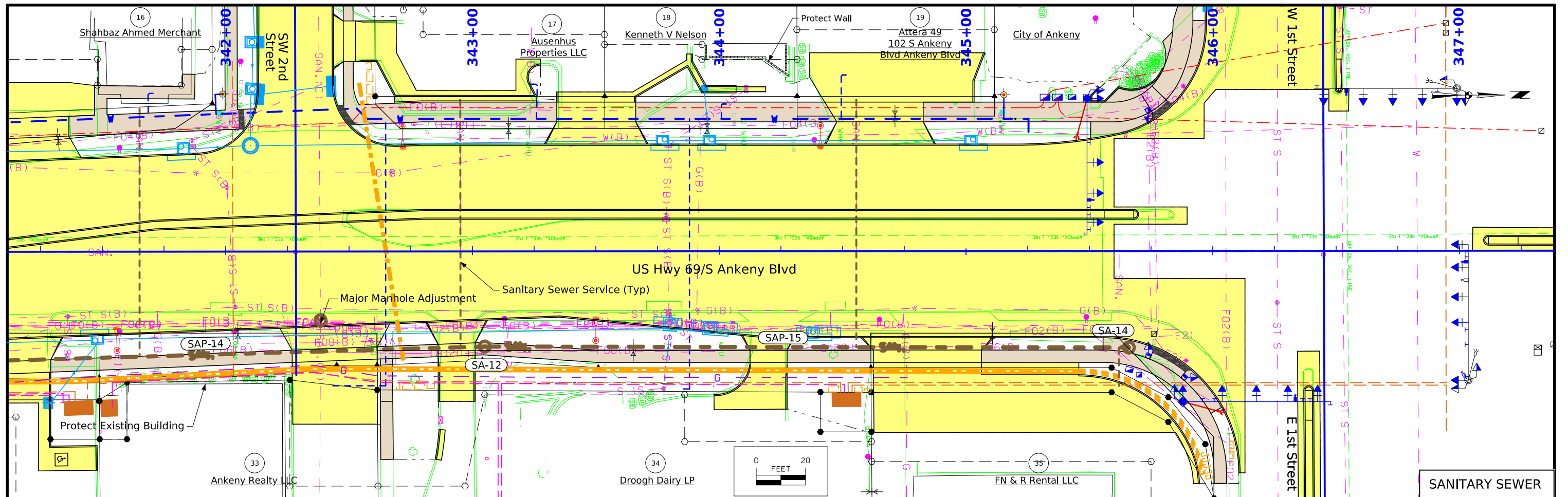


FILE NO.	ENGLISH	DESIGN TEAM	Polk COUNTY	PROJECT NUMBER	SHEET NUMBER
		<b>Snyder &amp; Associates</b>		<b>NHSX-069-4(136)--3H-77</b>	<b>MSA.2</b>



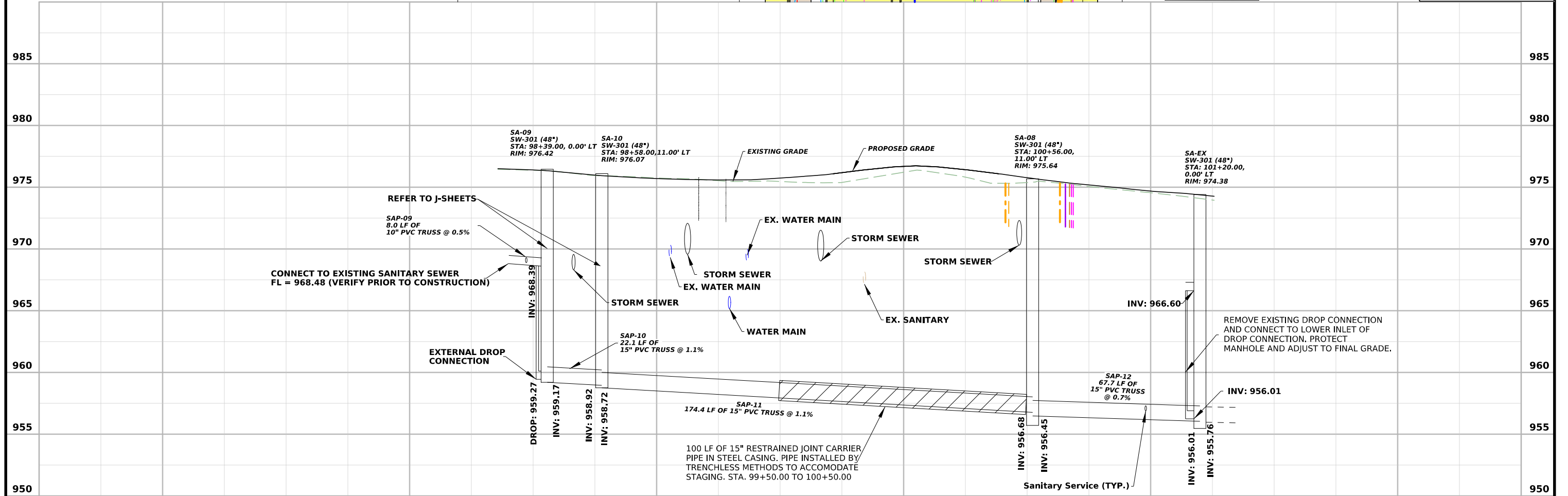
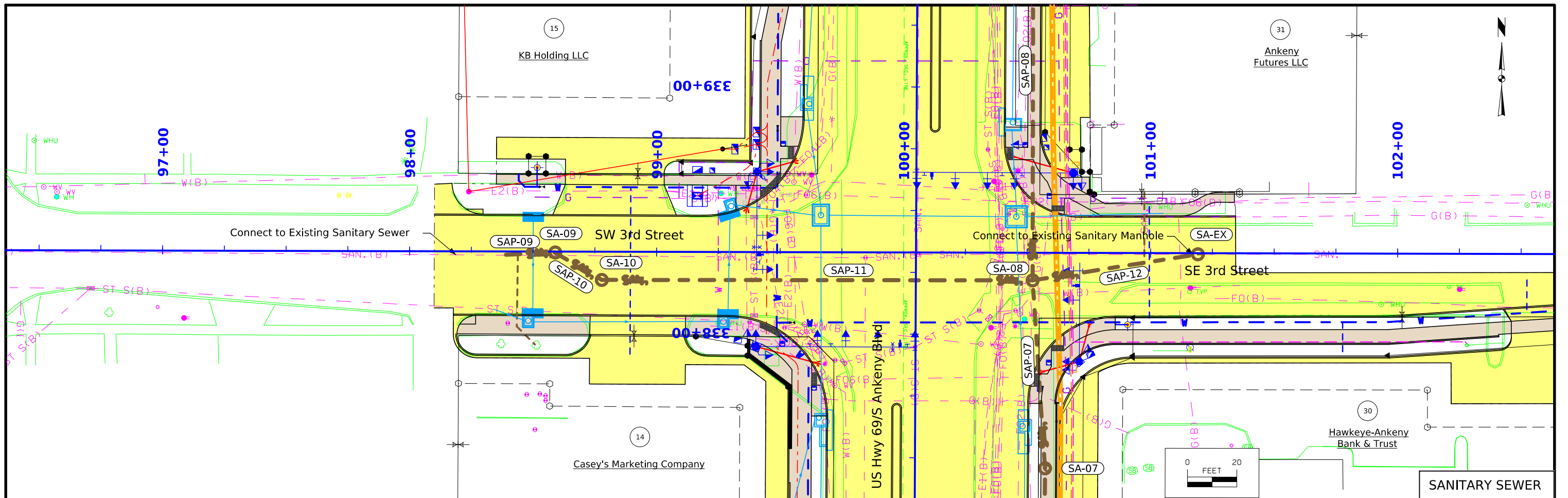


FILE NO.	ENGLISH	DESIGN TEAM	Polk COUNTY	PROJECT NUMBER	SHEET NUMBER
		<b>Snyder &amp; Associates</b>		<b>NHSX-069-4(136)--3H-77</b>	<b>MSA.3</b>

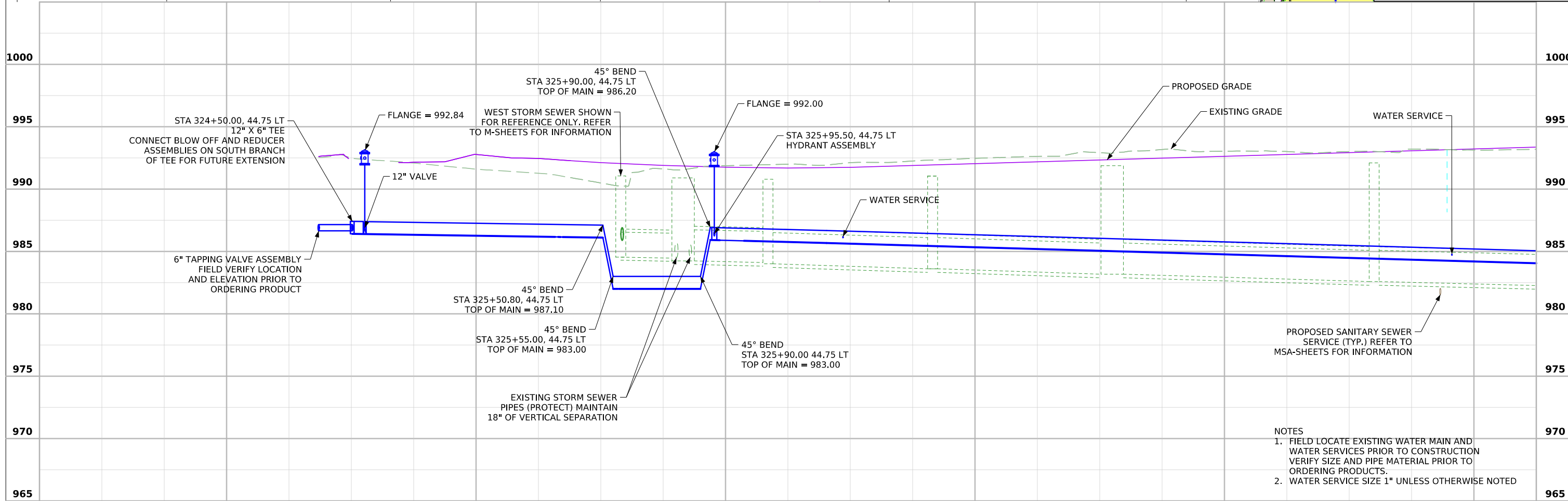
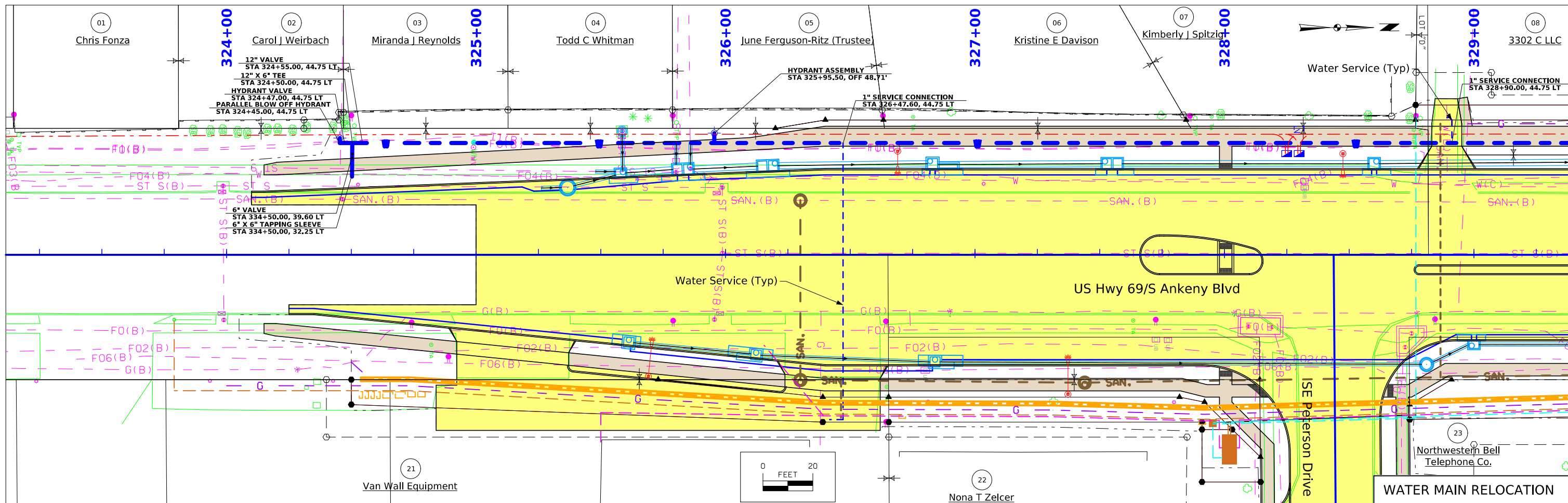


FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	Polk COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>MSA.4</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	--------------



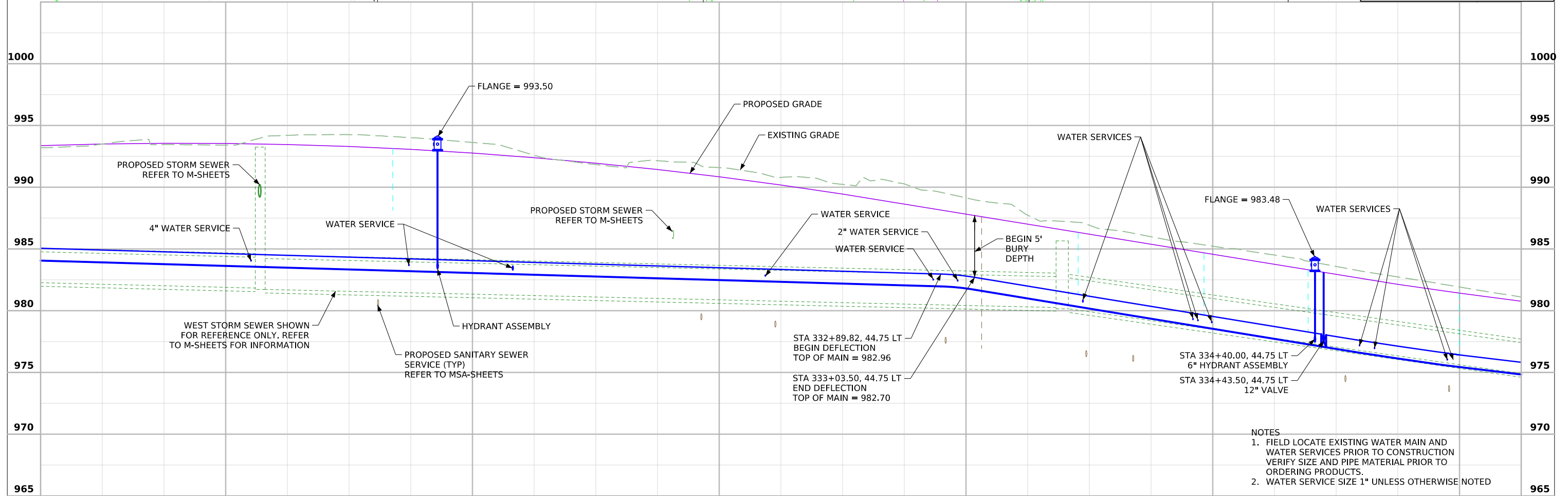
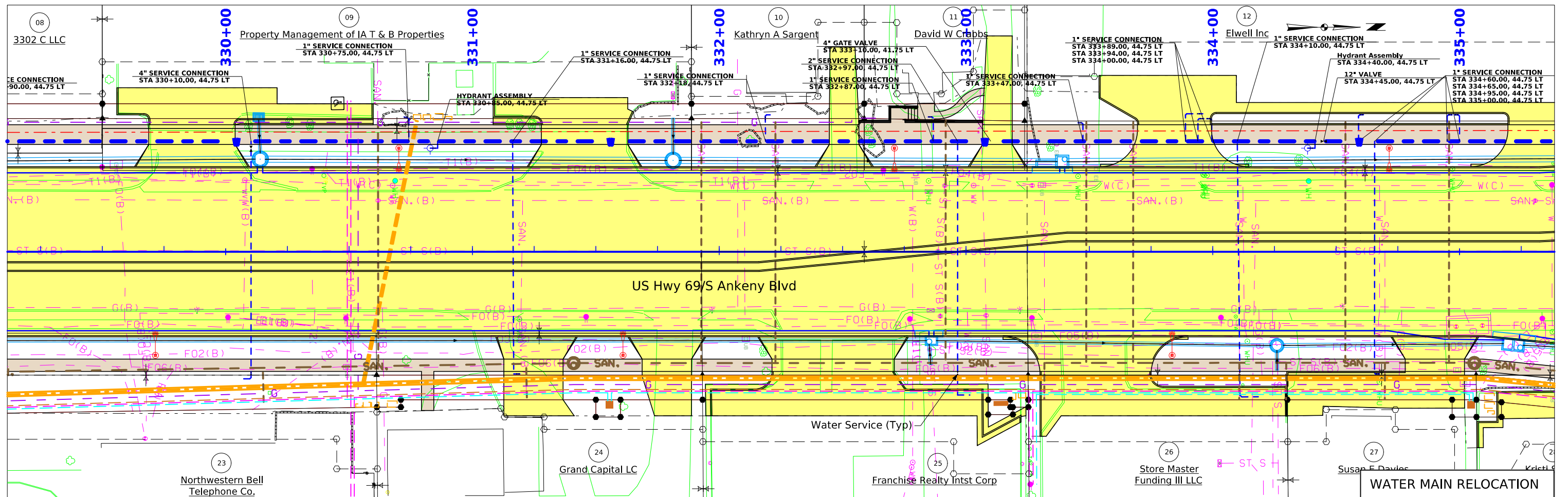


FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>MSA.5</b>
----------	---------	-------------	--------------------------------	----------------	-------------------------------	--------------	--------------

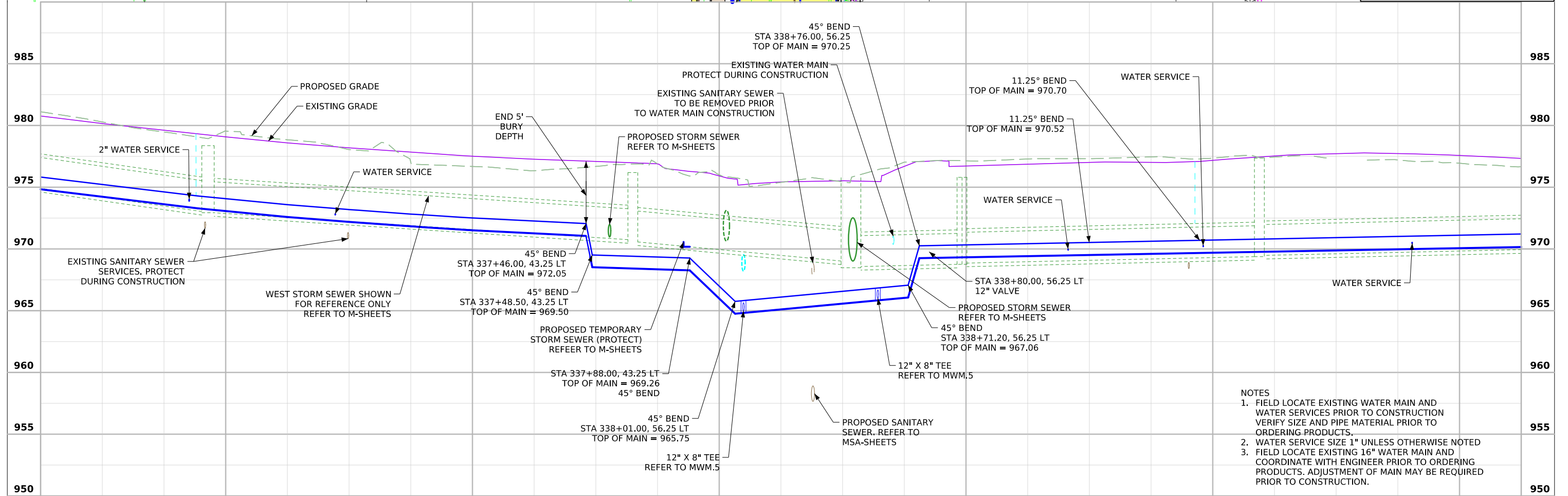
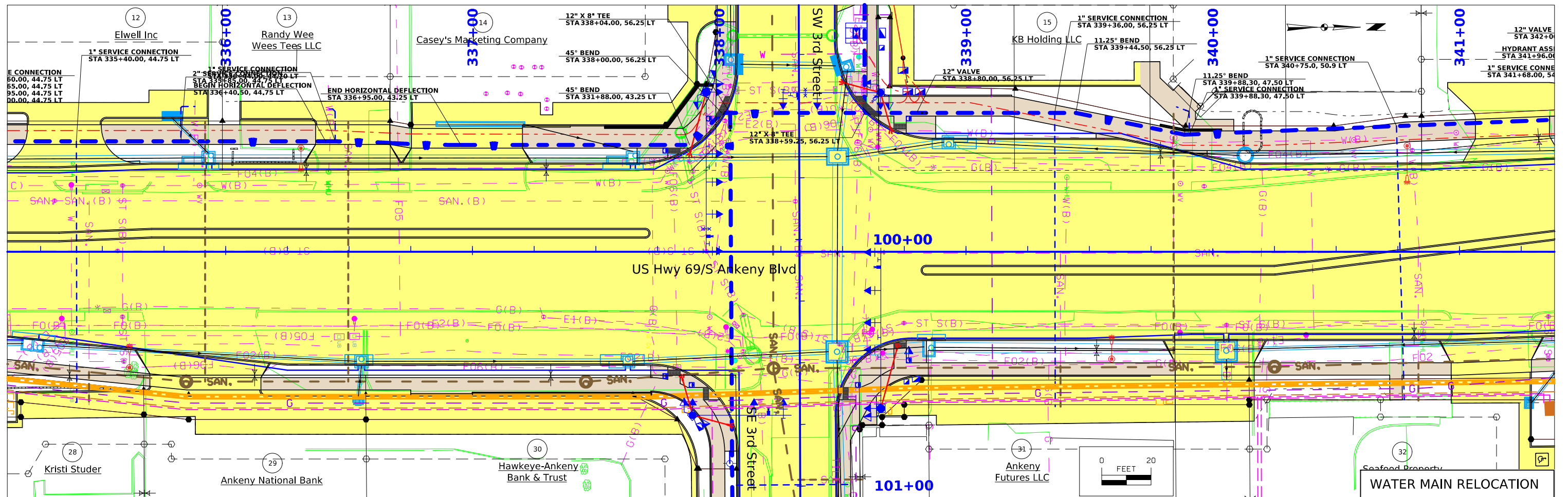


- NOTES
1. FIELD LOCATE EXISTING WATER MAIN AND WATER SERVICES PRIOR TO CONSTRUCTION. VERIFY SIZE AND PIPE MATERIAL PRIOR TO ORDERING PRODUCTS.
  2. WATER SERVICE SIZE 1" UNLESS OTHERWISE NOTED



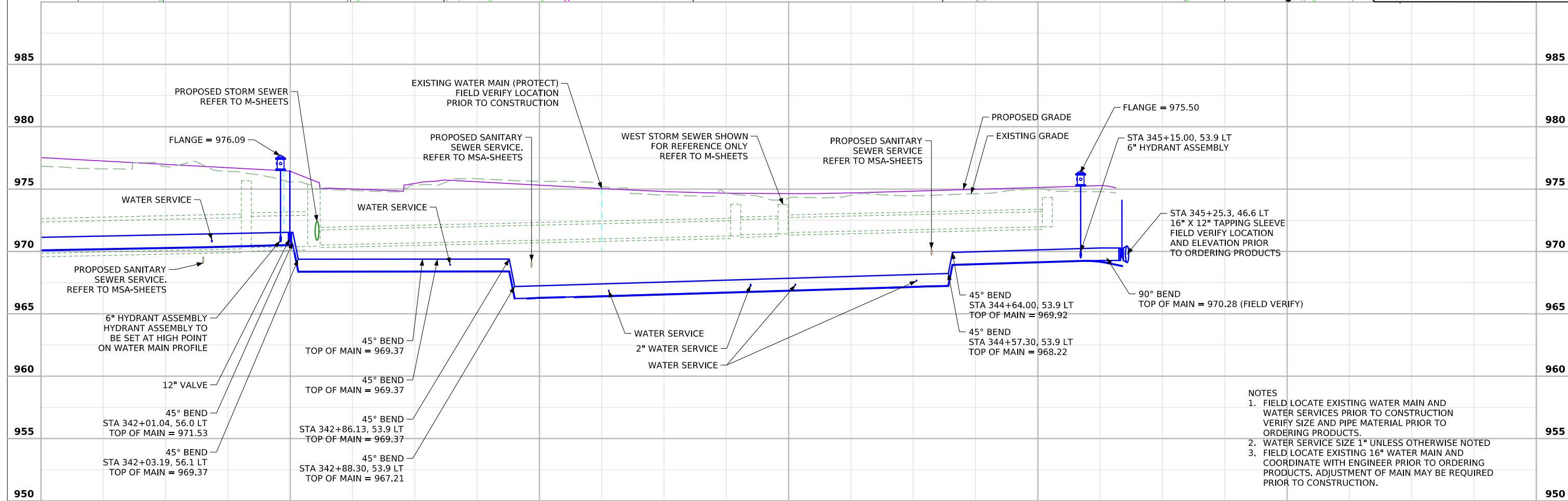
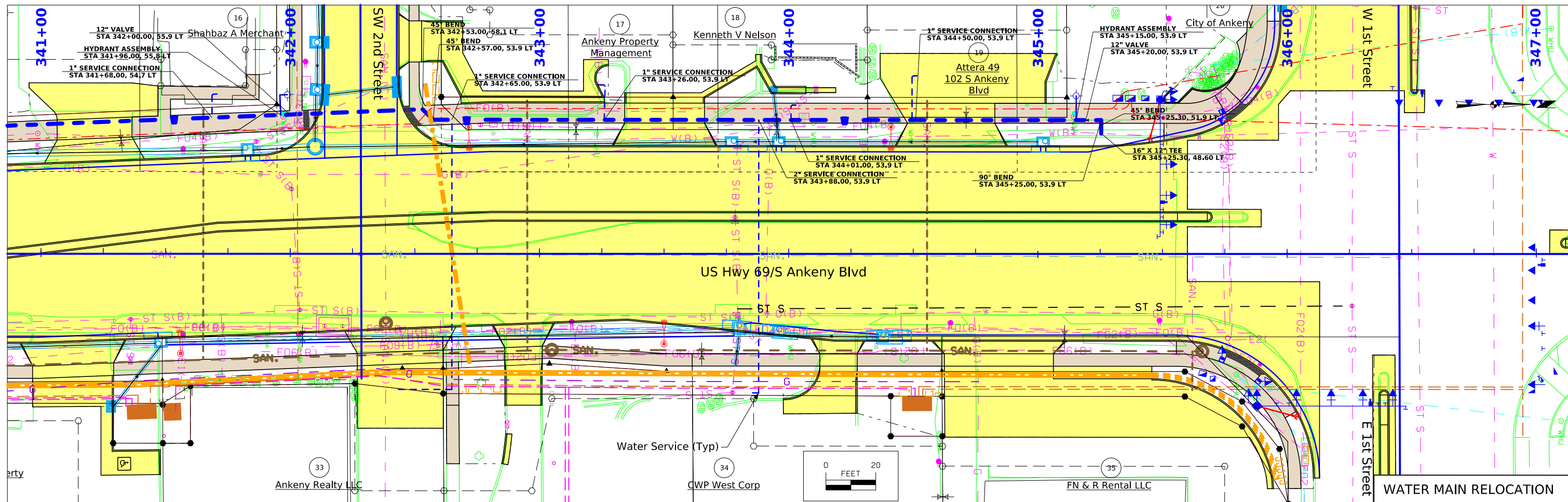


- NOTES
1. FIELD LOCATE EXISTING WATER MAIN AND WATER SERVICES PRIOR TO CONSTRUCTION. VERIFY SIZE AND PIPE MATERIAL PRIOR TO ORDERING PRODUCTS.
  2. WATER SERVICE SIZE 1" UNLESS OTHERWISE NOTED

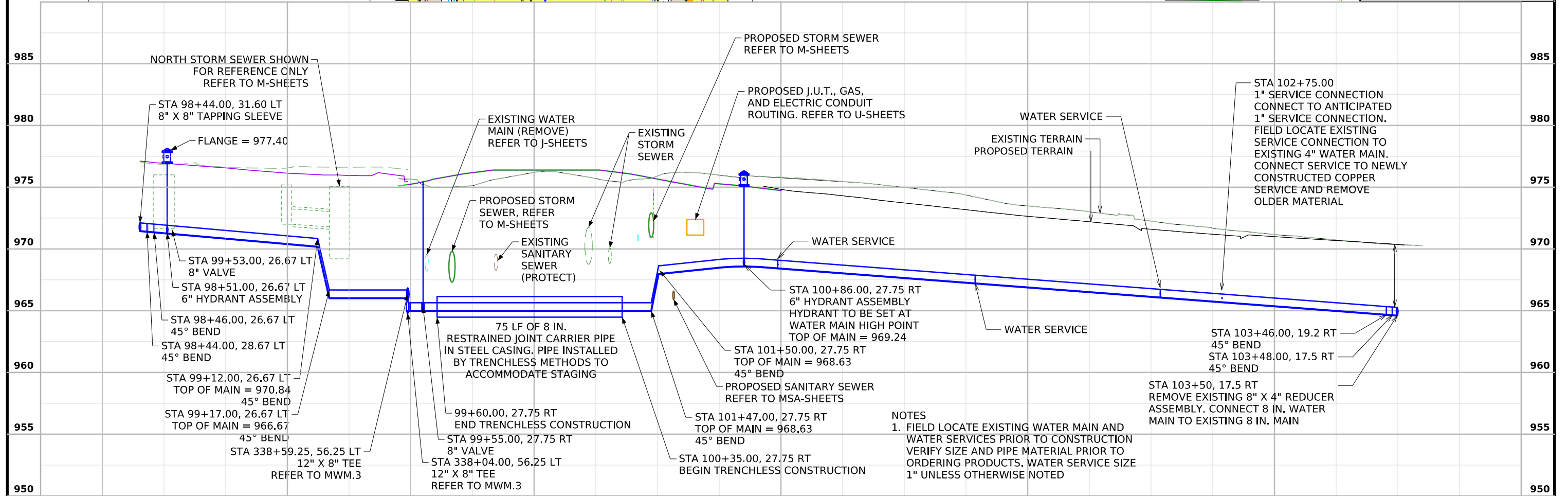
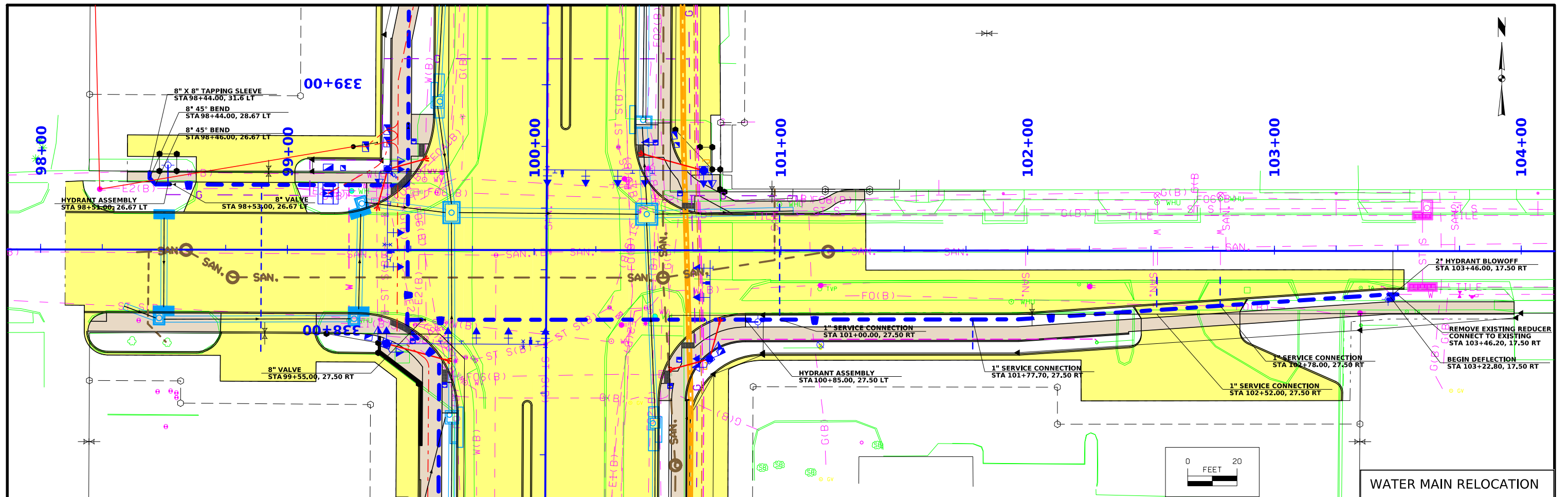


- NOTES
1. FIELD LOCATE EXISTING WATER MAIN AND WATER SERVICES PRIOR TO CONSTRUCTION. VERIFY SIZE AND PIPE MATERIAL PRIOR TO ORDERING PRODUCTS.
  2. WATER SERVICE SIZE 1" UNLESS OTHERWISE NOTED.
  3. FIELD LOCATE EXISTING 16" WATER MAIN AND COORDINATE WITH ENGINEER PRIOR TO ORDERING PRODUCTS. ADJUSTMENT OF MAIN MAY BE REQUIRED PRIOR TO CONSTRUCTION.

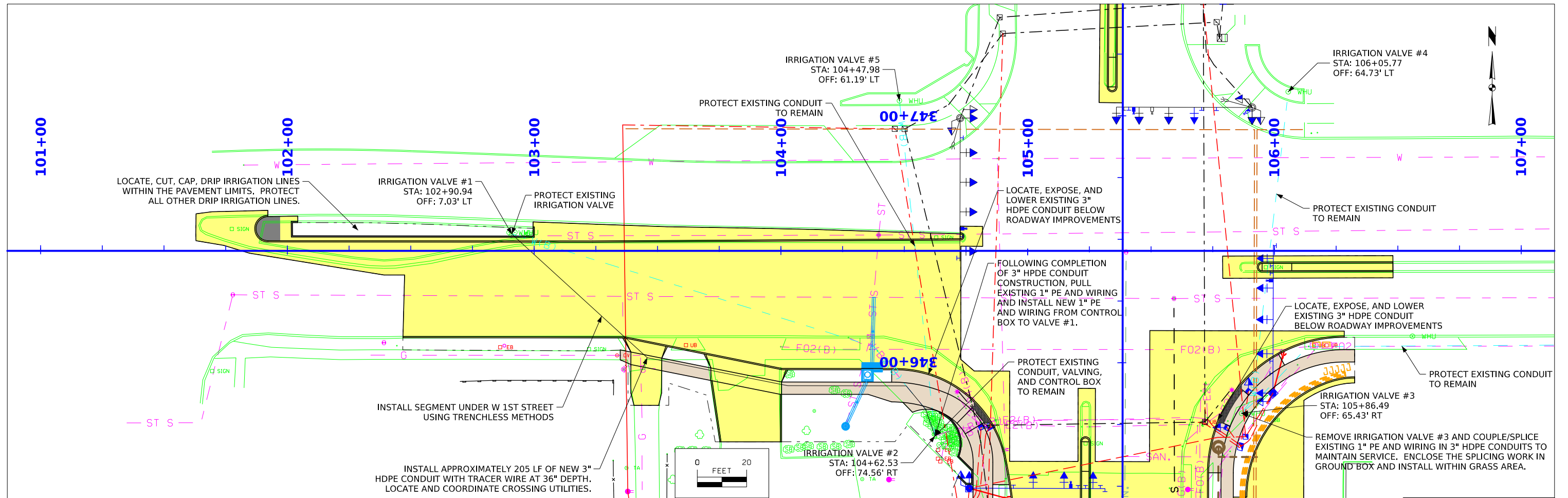




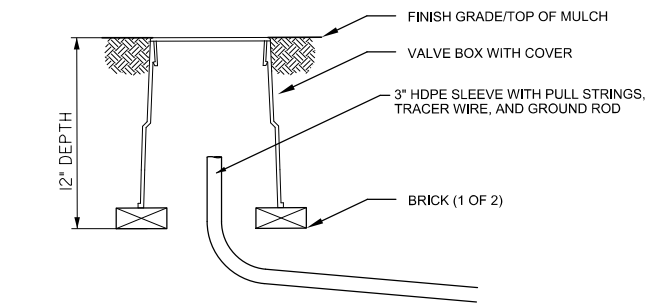
- NOTES
1. FIELD LOCATE EXISTING WATER MAIN AND WATER SERVICES PRIOR TO CONSTRUCTION. VERIFY SIZE AND PIPE MATERIAL PRIOR TO ORDERING PRODUCTS.
  2. WATER SERVICE SIZE 1" UNLESS OTHERWISE NOTED.
  3. FIELD LOCATE EXISTING 16" WATER MAIN AND COORDINATE WITH ENGINEER PRIOR TO ORDERING PRODUCTS. ADJUSTMENT OF MAIN MAY BE REQUIRED PRIOR TO CONSTRUCTION.







**IRRIGATION WATER SUPPLY RELOCATION**



1 GROUND BOX  
NO SCALE

ESTIMATE OF TRAFFIC SIGNAL QUANTITIES

ITEM	DESCRIPTION	UNITS	\$ 3RD ST	1ST ST	TOTAL
CONTROLLER AND CABINET	ATC CONTROLLER, CABINET, 12" RISER, AND ACCESSORIES	LS	1	1	2
	UNINTERRUPTIBLE POWER SUPPLY (BATTERY BACK-UP)	LS	1	1	2
	EMERGENCY VEHICLE PREEMPTION INTERFACE CARD AND RACK	LS	1		1
	TRAFFIC MONITORING CAMERA SYSTEM	LS	1	1	1
DETECTION	VIDEO DETECTION CAMERAS (4) WITH PROCESSOR AND ACCESSORIES	LS	1	1	2
	APS PEDESTRIAN PUSHBUTTON WITH SIGN	EACH	8	8	16
TRAFFIC SIGNAL HEADS	EMERGENCY VEHICLE PREEMPTION DETECTORS, BIDIRECTIONAL	EACH	2		2
	12" <R,<Y,<G (48V LED) W/ BACKPLATE, MAST-ARM MOUNTED	EACH	4	2	6
	12" R,Y,G (48V LED) W/ BACKPLATE, MAST-ARM MOUNTED	EACH	6	4	10
	12" R,Y,G (48V LED), SIDE-OF-POLE MOUNTED	EACH	2	1	3
	12" R,Y,G,Y>,>G (48V LED) W/ BACKPLATE, MAST-ARM MOUNTED	EACH	2	2	4
	12" R,Y,G,Y>,>G (48V LED), SIDE-OF-POLE MOUNTED	EACH	2	2	4
	16" PEDESTRIAN HEAD (48V LED), HAND/PERSON, COUNTDOWN SIDE-OF-POLE MOUNTED	EACH	8	4	12
	REPLACE EXISTING LED MODULE W/ 48V MODULE (PER INDICATION)	EACH		38	38
POWER	POWER SUPPLY	EACH	1		1
	TYPE I - 24" DIAMETER PRE-CAST CONCRETE HANDHOLE WITH "LIGHTING" LID	EACH	2		2
HANDHOLES	TYPE III - 24" x 36" PRE-CAST POLYMER-CONCRETE HANDHOLE WITH "TRAFFIC" LID	EACH	3	2	5
	TYPE IV - 30" x 48" PRE-CAST POLYMER-CONCRETE HANDHOLE WITH "TRAFFIC" LID	EACH	1		1
	SIGNAL CABLE - 16c #14 AWG	LIN FT	660	440	1,100
WIRE AND CABLE	SIGNAL CABLE - 7c #14 AWG	LIN FT	880	660	1,540
	SIGNAL CABLE - 5c #14 AWG	LIN FT	310	760	1,070
	SIGNAL CABLE - 2c #14 AWG	LIN FT	1,660	950	2,610
	EMERGENCY VEHICLE PREEMPTION CABLE	LIN FT	620		620
	VIDEO DETECTION CABLE	LIN FT	950	960	1,910
	TRAFFIC MONITORING CABLE	LIN FT	100		100
	LUMINAIRE CABLE - 1c #8 AWG	LIN FT	820	850	1,670
	LUMINAIRE CABLE - 1c #10 AWG	LIN FT	890	290	1,180
	POWER CABLE - 1c #6 AWG	LIN FT	550		550
	GROUND WIRE - 1c #6 BARE	LIN FT	1,360	500	1,860
	TRACER WIRE - 1c #10	LIN FT	1,360	500	1,860
	PULL TAPE	LIN FT	1,360	710	2,070
CONDUIT	2" PVC OR HDPE, TRENCHED/BORED	LIN FT	860	80	940
	3" PVC OR HDPE, TRENCHED/BORED	LIN FT	450	140	590
CONCRETE FOOTING	SIGNAL CONTROLLER CABINET FOOTING	EACH	1		1
	POLE FOOTING, 2" DIA x 4' DEPTH	EACH	7	3	10
	POLE FOOTING, 3" DIA x 14' DEPTH (WITH SONOTUBE)	EACH	2		2
	POLE FOOTING, 3" DIA x 16' DEPTH	EACH		1	1
	POLE FOOTING, 3" DIA x 18' DEPTH	EACH		1	1
	POLE FOOTING, 3.5" DIA x 18' DEPTH (WITH SONOTUBE)	EACH	2		2
TRAFFIC SIGNAL POLES	STEEL COMBINATION SIGNAL/DUAL LIGHTING - 40' MAST ARM	EACH	2		2
	STEEL COMBINATION SIGNAL/LIGHTING - 55' MAST ARM	EACH		1	1
	STEEL COMBINATION SIGNAL/LIGHTING - 60' MAST ARM	EACH		1	1
	STEEL COMBINATION SIGNAL/LIGHTING - 65' MAST ARM	EACH	2		2
	ALUMINUM PEDESTAL POLE - HEIGHT 5'	EACH	6		6
	ALUMINUM PEDESTAL POLE - HEIGHT 10'	EACH	1	3	4
LUMINAIRE	LUMINAIRE FIXTURE	EACH	6	2	8
	CONNECTOR - Y-1, UNFUSED	EACH	6	2	8
	CONNECTOR - Y-1, FUSED	EACH	4		4
	CONNECTOR - L-1, FUSED	EACH	4	4	8
MISC	STREET NAME SIGN - 54" x 24", MAST-ARM MOUNTED	EACH		2	2
	STREET NAME SIGN - 62" x 24", MAST-ARM MOUNTED	EACH	2		2
	STREET NAME SIGN - 106" x 24", MAST-ARM MOUNTED	EACH		2	2
	STREET NAME SIGN - 120" x 24", MAST-ARM MOUNTED	EACH	2		2
	TRAFFIC SIGN - R3-SL, 30" x 36", MAST-ARM MOUNTED	EACH	4	3	7
	TRAFFIC SIGN - R3-SR, 30" x 36", MAST-ARM MOUNTED	EACH	2	2	4
	TRAFFIC SIGN - SPECIAL (FYA), 30" x 36", MAST-ARM MOUNTED	EACH	4	2	6
	TRAFFIC SIGN - R3-4, 36" x 36", MAST-ARM MOUNTED	EACH		4	4
TRAFFIC SIGN (RELOCATED)	EACH		1	1	
WIND DAMPENING DEVICE (PER MANUFACTURER SPECIFICATIONS)	EACH	4	2	6	

GENERAL NOTES:

- ALL QUANTITIES SHOWN IN THE TRAFFIC SIGNAL PLANS ARE FOR INFORMATIONAL AND ESTIMATING PURPOSES ONLY. THE CONTRACTOR'S LUMP SUM BID SHALL INCLUDE ALL LABOR, EQUIPMENT, AND MATERIAL NECESSARY TO PROVIDE COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL INSTALLATIONS IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS.
- PROVIDE TRAFFIC CONTROL DEVICES (INCLUDING THOSE REQUIRED TO FACILITATE CONSTRUCTION OF TRAFFIC SIGNALS) IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR THE STREETS AND HIGHWAYS, AS ADOPTED BY THE IOWA DEPARTMENT OF TRANSPORTATION PER 761 OF THE IOWA ADMINISTRATIVE CODE (IAC), CHAPTER 130.
- TRAFFIC SIGNALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST IOWA DOT STANDARD SPECIFICATIONS, EXCEPT AS MODIFIED BY THE PLANS.
- THE CONTRACTOR SHALL HAVE AN EMPLOYEE ON THE PROJECT SITE WITH A LEVEL II INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) TRAFFIC SIGNAL TECHNICIAN CERTIFICATION.
- THE CONTRACTOR SHALL FURNISH A SCHEDULE OF UNIT PRICES FOR ESTIMATED TRAFFIC SIGNAL QUANTITIES AT PROJECT PRE-CONSTRUCTION MEETING. PAYMENT WILL BE BASED ON PLAN QUANTITIES. QUANTITIES WILL NOT BE FIELD MEASURED.
- ROADWAY GEOMETRICS REPRESENT EXISTING AND PROPOSED FEATURES.
- THE PLAN LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION ON THE PROJECT TO ESTABLISH LOCATIONS.
- THE PLAN LOCATIONS OF ALL HANDHOLES ARE APPROXIMATE ONLY AND ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER. OBTAIN ENGINEER'S APPROVAL PRIOR TO PLACING HANDHOLES AND CONSTRUCTING FOOTINGS.
- PROVIDE STRUCTURAL CONCRETE TESTING (2 CYLINDERS, 7-DAY AND 28-DAY, FOR EACH BATCH) IN ACCORDANCE WITH ASTM C39 AS POURED FOR POLE FOOTINGS.
- PROVIDE TWO WEEK NOTICE TO THE CITY OF ANKENY BEFORE PLACING THE PERMANENT TRAFFIC SIGNALS INTO OPERATION. PROVIDE PORTABLE DYNAMIC MESSAGE SIGNS ON THE S ANKENY BLVD APPROACHES OF THE PROPOSED SIGNALS A MINIMUM OF 7 DAYS PRIOR TO ACTIVATION IN ACCORDANCE WITH THE IOWA DOT'S SIGNAL TURN-ON PROCEDURES.
- INSTALL ONE SIGNAL CABLE FROM EACH SIGNAL HEAD TO THE BASE OF THE POLE. A 7-CONDUCTOR CABLE SHALL BE USED IN THE POLE FOR EACH VEHICLE SIGNAL HEAD, AND A 5-CONDUCTOR CABLE SHALL BE USED IN THE POLE FOR EACH PEDESTRIAN SIGNAL HEAD. ALL SIGNAL CABLE SHALL BE #14 AWG UNLESS OTHERWISE NOTED ON THE PLANS.
- INSTALL A GROUND ROD IN EACH PROPOSED HANDHOLE WITH TRAFFIC SIGNAL CIRCUITS AND GROUND WIRE. INSTALL A #6 AWG BARE COPPER GROUND WIRE BETWEEN THE SIGNAL FOOTING AND HANDHOLE GROUND RODS TO FORM A CONTINUOUSLY GROUNDED SYSTEM. TERMINATE THE GROUNDING CIRCUIT AT THE HANDHOLE NEAREST THE CONTROLLER CABINET. GROUND THE CONTROLLER CABINET SEPARATELY WITH AN ADDITIONAL GROUND ROD IN THE HANDHOLE NEAREST TO THE CONTROLLER CABINET AND A GROUND ROD ADJACENT TO THE CABINET FOOTING.
- VIDEO, TMC, AND EVP CABLES SHALL BE AS PER SUPPLIER SPECIFICATIONS. NO SPLICES ALLOWED IN DETECTION, TMC, OR EVP CABLES.
- ABOVE GROUND RISERS SHALL BE RIGID STEEL CONDUIT. ALL OTHER CONDUIT SHALL BE RIGID PVC CONDUIT OR DIRECTIONAL BORED HDPE CONDUIT.
- UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.
- TRAFFIC SIGNAL MOUNTING BRACKETS SHALL UTILIZE STAINLESS STEEL BANDING FOR SIDE OF POLE MOUNTING AND GALVANIZED STEEL CABLE FOR MAST ARM MOUNTING.
- MAST ARMS AND POLES SHALL BE DESIGNED TO SUPPORT TRAFFIC SIGNALS, SIGNS, AND EQUIPMENT (INCLUDING FUTURE ITEMS) AS SHOWN IN THE PLANS AS WELL AS THE MAX LOADING PER SUDAS.
- ALL SIGNAL INDICATIONS SHALL BE LED (48V) IN ACCORDANCE WITH MOST RECENT ITE SPECIFICATIONS. SIGNAL HEADS SHALL HAVE BLACK FACES, VISORS, BODIES, AND BACKPLATES (WHERE INDICATED). VISORS SHALL BE CAP STYLE.**
- PEDESTRIAN PUSHBUTTON STATIONS SHALL BE ACCESSIBLE PEDESTRIAN SIGNAL (APS) COMPLIANT. PROVIDE R10-3E SIGN ABOVE EACH PEDESTRIAN PUSHBUTTON. ALL NECESSARY APPURTENANCES TO OPERATE THE PEDESTRIAN PUSHBUTTON STATION SHALL BE INCLUDED. VOICE MESSAGES TO BE APPROVED BY ANKENY TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION.
- STREET NAME SIGNS SHALL HAVE HIGHWAY SERIES C 12" FONT ON BLUE BACKGROUND WITH WHITE FONT AND WHITE BORDER.
- INSTALL WIND DAMPENING DEVICE PER MANUFACTURER SPECIFICATIONS ON ALL MAST ARMS. SIGN BLANK IS NOT ACCEPTABLE.
- CONTROLLER CABINETS SHALL BE SAFETRAN ATCC CABINET OR APPROVED EQUIVALENT WITH ACCESSORIES WITH 12" RISER. NOMINAL CABINET WIDTH 44" x DEPTH 26". NO AUXILIARY OR PIGGY-BACK UNITS ARE ALLOWED.
- LUMINAIRES SHALL BE AUTOBAHN ATB0-304-MVOLT-R3-P7-PCLL-SH.
- INSTALL TWO (2) 1-CONDUCTOR #10 CABLES FROM THE LUMINAIRE HEAD TO THE BASE OF THE POLE. FURNISH AND INSTALL FUSED L OR Y CONNECTORS IN THE POLE BASE (L FOR SINGLE LUMINAIRES AND Y FOR DUAL LUMINAIRES). FURNISH AND INSTALL UNFUSED Y CONNECTORS IN THE ADJACENT HANDHOLE WHERE APPLICABLE.
- ELECTRICAL SERVICE SHALL BE 120 V SINGLE-PHASE. CABINET WILL PROVIDE 48V DC OUTPUT TO SIGNAL HEADS. SIGNALS AND LIGHTING SHALL BE METERED. LIGHTING SHALL BE ON SEPARATE 20 AMPERE BREAKER. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. SIGNAL CABINET ADDRESSES SHALL BE THE SAME AS EXISTING ADDRESSES.
- SECONDARY SERVICE LOCATIONS ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR COORDINATING POWER SERVICE LOCATIONS WITH POWER SERVICE PROVIDER PRIOR TO CONDUIT/CIRCUIT INSTALLATION.
- VIDEO DETECTION SYSTEMS SHALL BE AUTOSCOPE VISION WITH 4 CAMERAS PER INTERSECTION.
- INSTALL RODENT GUARD (NOT GROUT) BETWEEN MAST ARM POLE BASES AND TOP OF POLE FOUNDATIONS INTERIOR TO BASE. PROVIDE STIFFENER COLLARS FOR PUSHBUTTON POSTS.
- TRAFFIC SIGNAL REMOVAL ITEM INCLUDES REMOVAL OF TRAFFIC SIGNAL HEADS (VEHICULAR AND PEDESTRIAN), POLES, SIGNAL CABINET AND EQUIPMENT, VIDEO DETECTION CAMERAS (4), EXISTING SIGNAL CABLE FROM EXISTING CONDUITS, AND HANDHOLES. CONTRACTOR TO SALVAGE EXISTING SIGNAL AND COMMUNICATION EQUIPMENT - COORDINATE WITH CITY FOR DELIVERY OF SALVAGED MATERIALS. ABANDON CONDUITS IN PLACE. REMOVE MAST ARM POLE FOUNDATIONS TO DEPTH OF AT LEAST 3 FEET BELOW FINISHED GRADE. COMPLETELY REMOVE PEDESTAL POLE FOOTINGS AND CABINET FOOTINGS. EXISTING SIGNAL AT THE S ANKENY BLVD & S 3RD ST INTERSECTION SHALL BE COMPLETELY REMOVED. EXISTING MAST ARMS, ASSOCIATED EQUIPMENT, AND SIGNAL HANDHOLES IN THE SOUTHWEST AND SOUTHEAST CORNERS OF THE ANKENY BLVD & 1ST ST INTERSECTION SHALL BE REMOVED.
- EACH PROPOSED TRAFFIC SIGNAL SHALL BE FULLY OPERATIONAL PRIOR TO REOPENING ITS RESPECTIVE INTERSECTION TO FULL ACCESS.
- ANY WORK INVOLVING CITY OF ANKENY FIBER OPTIC CABLE REQUIRES THE CONTRACTOR TO NOTIFY THE ANKENY TRAFFIC ENGINEERING DIVISION A MINIMUM OF TWO BUSINESS DAYS IN ADVANCE. COORDINATE WITH THE CITY TO CONFIRM WORK ACTIVITIES DO NOT DISRUPT EXISTING COMMUNICATION.
- COIL 100' OF FIBER OPTIC CABLE IN EACH TYPE III OR IV HANDHOLE AND 30' IN EACH SIGNAL CABINET.
- CONTRACTOR TO VERIFY THE LOCATION AND CONDITION OF EXISTING CONDUIT AND NOTIFY ENGINEER OF ANY VARIANCES FROM THE PROPOSED PLAN PRIOR TO INSTALLATION OF CONDUIT AND FIBER. IN INSTANCES WHERE CONTRACTOR IS UNABLE TO UTILIZE EXISTING CONDUIT, CONTRACTOR SHALL RECEIVE APPROVAL FROM ENGINEER PRIOR TO INSTALLATION OF ADDITIONAL CONDUIT OR REPAIR.
- CONTRACTOR SHALL PROVIDE AS-BUILT CABLE FOOTAGE MARKS IN/OUT OF ALL FIBER HANDHOLES. PROVIDE TAGGING SYSTEM THAT SHOWS "TRAFFIC CABLE" OR "NETWORK CABLE"..

TRAFFIC SIGNAL EQUIPMENT

EQUIPMENT	MANUFACTURER	MODEL NO.
CONTROLLER	Q-FREE	YCT-XN-HTS, RACK-MOUNT
EMERGENCY VEHICLE PREEMPTION		
DETECTORS	OPTICOM	GTT 721
PHASE SELECTOR	OPTICOM	GTT 764
CARD RACK ASSEMBLY	OPTICOM	GTT 760
CABLE	OPTICOM	GTT 138
VIDEO DETECTION		
FOUR (4) CAMERA SYSTEM	AUTOSCOPE	VISION
UNINTERRUPTIBLE POWER SUPPLY	SIGNAL SENSE	SDDC-1000 (24V, 4 BATTERIES)
PEDESTAL POLES	PELCO	PB SERIES, SCHEDULE 80
ACCESSIBLE PEDESTRIAN SIGNALS		
PUSHBUTTON STATION	POLARA	IN23TNO-B
CONTROL UNIT	POLARA	iCCU2-S
TRAFFIC MONITORING CAMERA	PELCO	SPECTRA ENHANCED 8 SERIES 50% SMOKED GLASS DOME AND MOUNT. PROVIDE SEPARATE POE INJECTOR.

ABOVE EQUIPMENT IS INCLUDED IN OR INCIDENTAL TO ITEMS SHOWN IN THE ESTIMATE OF TRAFFIC SIGNAL QUANTITIES. MANUFACTURERS SHALL PROVIDE ANY AND ALL CABLING TO PROVIDE FULLY FUNCTIONING COMMUNICATIONS WITH THEIR EQUIPMENT.

IOWA DOT STANDARD ROAD PLANS

NUMBER	DATE	IDENTIFICATION	NUMBER	DATE	IDENTIFICATION
LI-103	04-19-22	Traffic Signal Pole Foundation			
TS-102	04-19-22	Conduit and Precast Handholes			

TRAFFIC SIGNAL LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED

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.

Andrew J. Houchin, P.E.

License Number P25711

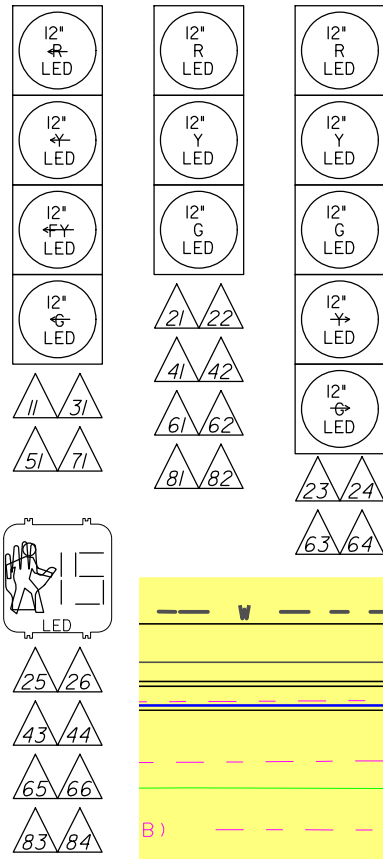
My License Renewal Date is December 31, 2024

Pages or sheets covered by this seal:  
ALL N SHEETS

Date \_\_\_\_\_



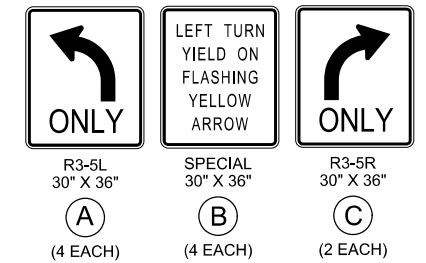
**TRAFFIC SIGNAL FACES**



**LAYOUT NOTES**

- SEE N.3 FOR LOCATIONS OF ADVANCE VIDEO DETECTION ZONES.
- POWER SOURCE LOCATION WILL BE UTILITY POLE ON THE SOUTH SIDE OF S 3RD ST. APPROXIMATELY 80 FEET EAST OF S ANKENY BLVD. EXISTING POLE WILL BE RELOCATED TO A SIMILAR LOCATION WITH THIS PROJECT. COORDINATE EXACT LOCATION AND POWER SOURCE CONNECTION WITH MIDAMERICAN ENERGY (MATT NOVY, 515-252-6730).
- SEE N.06 THROUGH N.12 FOR LOCATIONS OF FIBER OPTIC HANDHOLES, PERMANENT FIBER OPTIC CONNECTION INFORMATION, AND TEMPORARY FIBER OPTIC CONNECTION INFORMATION.
- INSTALL POLE FOOTING AND/OR HANDHOLE PRIOR TO SIDEWALK TO ALLOW FOR ADDITIONAL SIDEWALK REINFORCEMENT TO BE INSTALLED SURROUNDING IT FOR THE COMBINATION SIDEWALK/RETAINING WALL.
- UNSTABLE SOIL CONDITIONS MAY BE PRESENT DUE TO PROPOSED UTILITY CONSTRUCTION. IF NECESSARY, SONOTUBES OR OTHER SIMILAR FORMS TO MAINTAIN INTEGRITY OF SIGNAL FOOTING HOLE SHALL BE PROVIDED BY CONTRACTOR AT NO ADDITIONAL CHARGE.
- ACCESS HANDHOLE IN POLE BASE SHALL BE ON THE NORTH SIDE OF POLE (270 DEGREES CLOCKWISE FROM MAST ARM, WHEN VIEWED FROM ABOVE).

**TRAFFIC SIGNS**

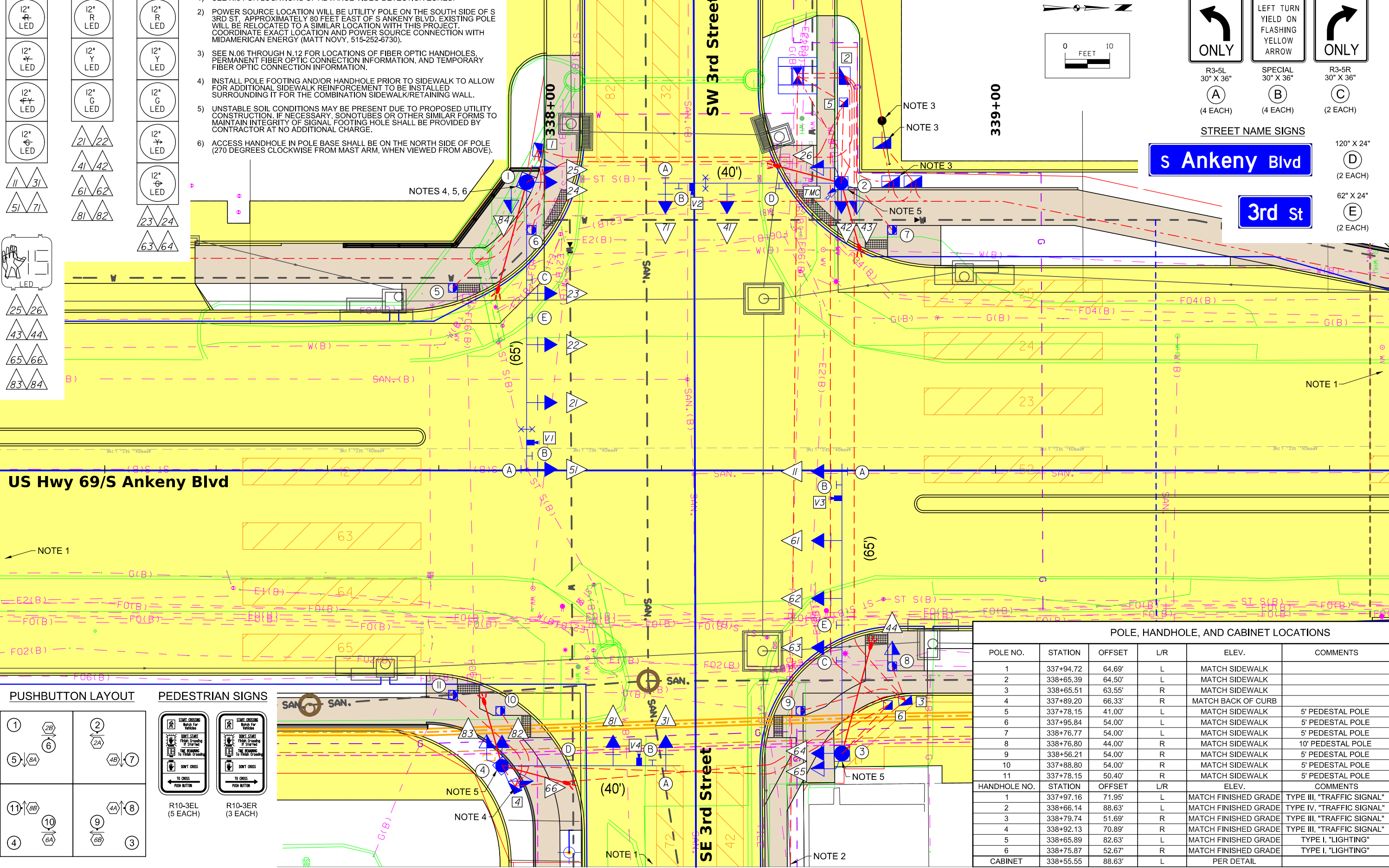


**STREET NAME SIGNS**



- 120" X 24" (D) (2 EACH)
- 62" X 24" (E) (2 EACH)

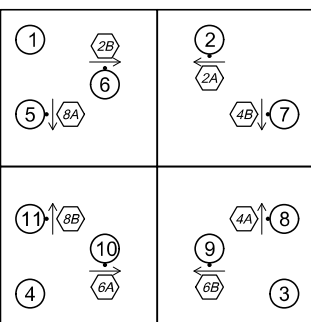
**US Hwy 69/S Ankeny Blvd**



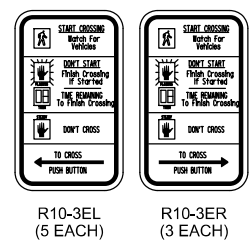
**POLE, HANDHOLE, AND CABINET LOCATIONS**

POLE NO.	STATION	OFFSET	L/R	ELEV.	COMMENTS
1	337+94.72	64.69'	L	MATCH SIDEWALK	
2	338+65.39	64.50'	L	MATCH SIDEWALK	
3	338+65.51	63.55'	R	MATCH SIDEWALK	
4	337+89.20	66.33'	R	MATCH BACK OF CURB	
5	337+78.15	41.00'	L	MATCH SIDEWALK	5' PEDESTAL POLE
6	337+95.84	54.00'	L	MATCH SIDEWALK	5' PEDESTAL POLE
7	338+76.77	54.00'	L	MATCH SIDEWALK	5' PEDESTAL POLE
8	338+76.80	44.00'	R	MATCH SIDEWALK	10' PEDESTAL POLE
9	338+56.21	54.00'	R	MATCH SIDEWALK	5' PEDESTAL POLE
10	337+88.80	54.00'	R	MATCH SIDEWALK	5' PEDESTAL POLE
11	337+78.15	50.40'	R	MATCH SIDEWALK	5' PEDESTAL POLE
HANDHOLE NO.	STATION	OFFSET	L/R	ELEV.	COMMENTS
1	337+97.16	71.95'	L	MATCH FINISHED GRADE	TYPE III, "TRAFFIC SIGNAL"
2	338+66.14	88.63'	L	MATCH FINISHED GRADE	TYPE IV, "TRAFFIC SIGNAL"
3	338+79.74	51.69'	R	MATCH FINISHED GRADE	TYPE III, "TRAFFIC SIGNAL"
4	338+92.13	70.89'	R	MATCH FINISHED GRADE	TYPE III, "TRAFFIC SIGNAL"
5	338+65.89	82.63'	L	MATCH FINISHED GRADE	TYPE I, "LIGHTING"
6	338+75.87	52.67'	R	MATCH FINISHED GRADE	TYPE I, "LIGHTING"
CABINET	338+55.55	88.63'	L	PER DETAIL	

**PUSHBUTTON LAYOUT**

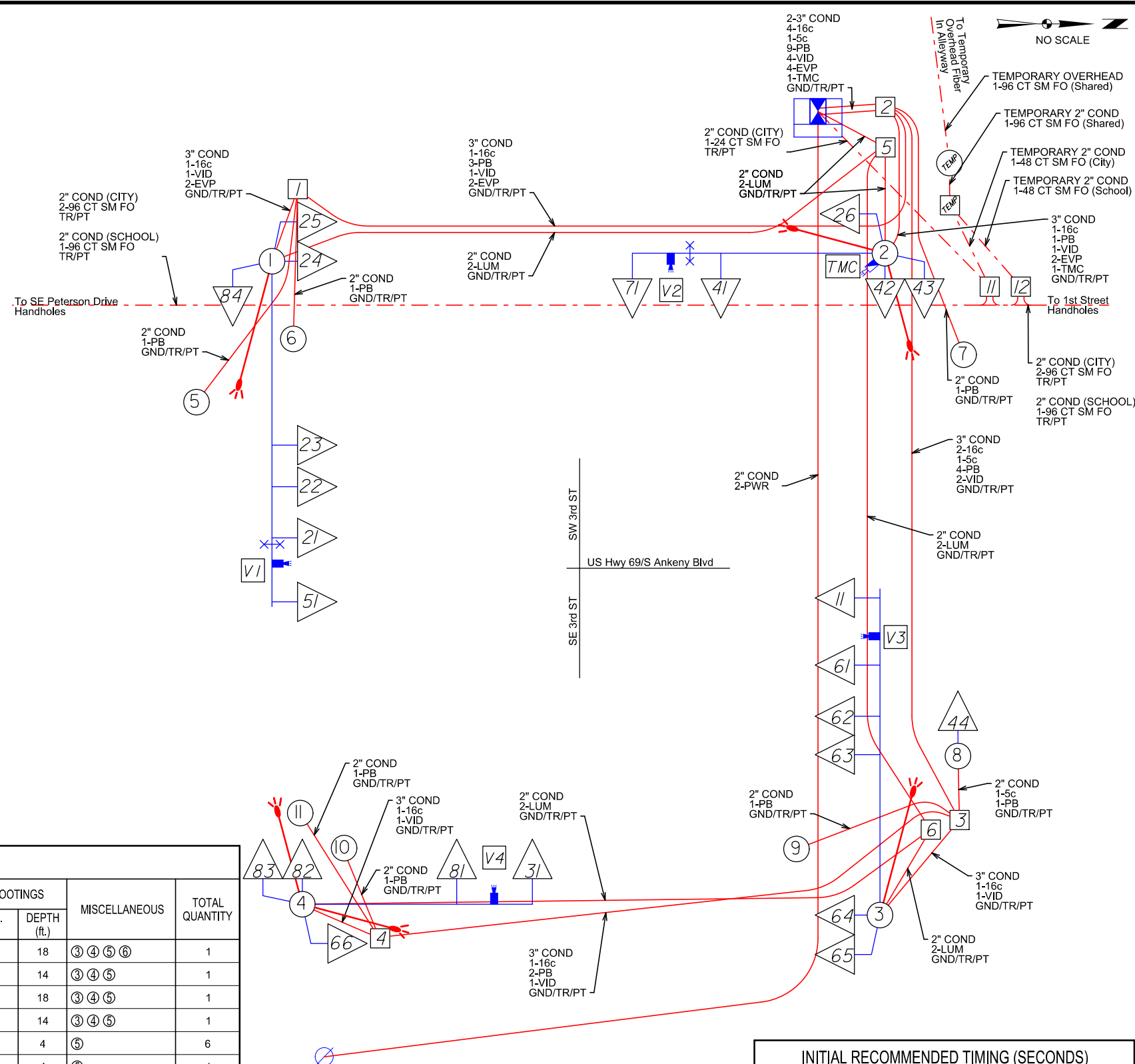


**PEDESTRIAN SIGNS**



DETECTOR SUMMARY						
CAMERA NUMBER	DETECTION ZONE	ZONE LIMITS (DISTANCE FROM STOP LINE)	PHASE CALLED	PHASE EXTENDED	DETECTOR INPUT ASSIGNMENT	COMMENTS
V1	21	210' TO 250'	2	2	26	
	22	210' TO 250'	2	2	34	
	23	0' TO 40'	2	2	2	
	24	0' TO 40'	2	2	10	
	51	100' TO 140'	2	2	29	
V2	52	0' TO 40'	2.5	2.5	5	
	41	115' TO 155'	4	4	28	
	42	0' TO 40'	4	4	4	
	71	115' TO 155'	4	4	31	
	72	0' TO 40'	4.7	4.7	7	
V3	11	210' TO 250'	6	6	25	
	12	0' TO 40'	1.6	1.6	1	
	61	210' TO 250'	6	6	30	
	62	210' TO 250'	6	6	38	
	63	0' TO 40'	6	6	6	
V4	64	0' TO 40'	6	6	14	
	31	115' TO 155'	8	8	27	
	32	0' TO 40'	3.8	3.8	3	
	81	115' TO 155'	8	8	32	
	82	0' TO 40'	8	8	8	
2A,2B						PED PB
4A,4B						PED PB
6A,6B						PED PB
8A,8B						PED PB

WIRING LEGEND	
	SIGNAL NUMBER
	POLE NUMBER
	HANDHOLE NUMBER
	EXISTING DETECTOR NUMBER
	PROPOSED DETECTOR NUMBER
	VIDEO DETECTION CAMERA
	PTZ CAMERA
	VIDEO CAMERA CAMERA
	EMERGENCY VEHICLE DETECTOR
<b>COND</b>	CONDUIT
<b>PWR</b>	POWER CABLE
<b>LUM</b>	LUMINAIRE (1c #8)
<b>PB</b>	PEDESTRIAN PUSHBUTTON (2c)
<b>EVP</b>	EMERGENCY VEHICLE PREEMPTION
<b>TMC</b>	TRAFFIC MONITOR CAMERA CABLE
<b>VID</b>	VIDEO OR DETECTION CABLE(S)
<b>FO</b>	FIBER OPTIC CABLE
<b>GND</b>	GROUND WIRE (1c #6)
<b>TR</b>	TRACER WIRE (1c #10)
<b>PT</b>	PULL TAPE

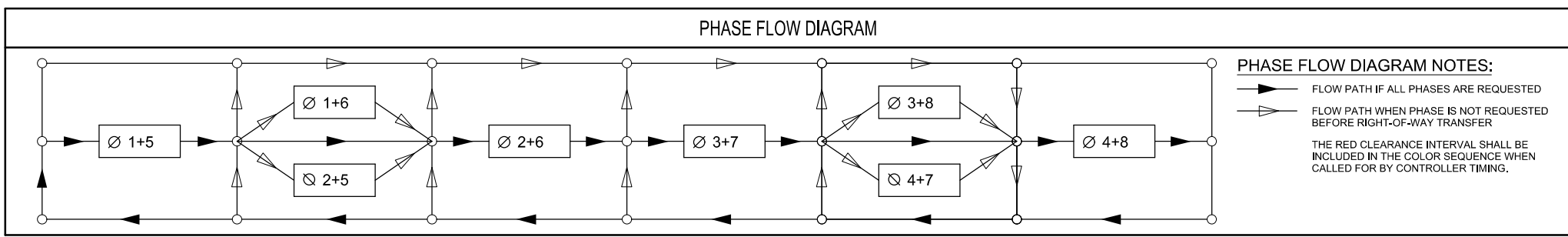


- DETECTION NOTES:**
1. ZONE LIMITS ARE FOR DETECTION LIMITS ONLY. ACTUAL DETECTION AREAS FOR EACH ZONE WILL BE DETERMINED IN THE FIELD.
  2. DELAYS SHALL BE ENTERED IN THE SIGNAL CONTROLLER BY THE CITY.

- WIRING NOTES:**
1. SEE N.06 THROUGH N.12 FOR FIBER OPTIC CONNECTION NOTES.

- TRAFFIC SIGNAL POLE NOTES:**
- ① LOCATION REPRESENTS APPROXIMATE LINEAR DISTANCE FROM POLE MEASURED OUTWARD TO END OF ARM.
  - ② ORIENTATION OF LUMINAIRE ARM REPRESENTS A CLOCKWISE ANGLE MEASURED FROM THE CENTERLINE OF THE MAST ARM, WHEN VIEWED FROM ABOVE.
  - ③ POLES SHALL BE DESIGNED AS PER THE SUDAS SPECIFICATIONS WITH A ONE-PIECE VERTICAL POLE.
  - ④ UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LEFT TURN AND DEPARTURE THROUGH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.
  - ⑤ TOP OF FOOTING TO BE FORMED SQUARE AND FLUSH WITH PROPOSED OR EXISTING SIDEWALK.
  - ⑥ ACCESS HANDHOLE IN POLE BASE SHALL BE LOCATED 270 DEGREES CLOCKWISE FROM THE CENTERLINE OF THE MAST ARM, WHEN VIEWED FROM ABOVE.

TRAFFIC SIGNAL POLE DATA														
POLE NO.	POLE TYPE	MAST ARM LENGTH/ PEDESTAL HEIGHT (ft.)	TRAFFIC SIGNAL HEADS		① TRAFFIC SIGNS		② LUMINAIRE ARM			FOOTINGS		MISCELLANEOUS	TOTAL QUANTITY	
			QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA. (ft.)			DEPTH (ft.)
1	COMBINATION SIGNAL/LIGHTING	65	4	64,49,36,25	4	64,61,30,22	58	25	40	0	3.5	18	③ ④ ⑤ ⑥	1
2	COMBINATION SIGNAL/DUAL LIGHTING	40	2	39,26	3	39,36,14	33	15,15	40	0,270	3	14	③ ④ ⑤	1
3	COMBINATION SIGNAL/LIGHTING	65	4	63,48,35,24	4	63,60,29,21	57	25	40	0	3.5	18	③ ④ ⑤	1
4	COMBINATION SIGNAL/DUAL LIGHTING	40	2	37,25	3	37,34,15	31	15,15	40	0,270	3	14	③ ④ ⑤	1
5-7, 9-11	PEDESTAL	5									2	4	⑤	6
8	PEDESTAL	10									2	4	⑤	1

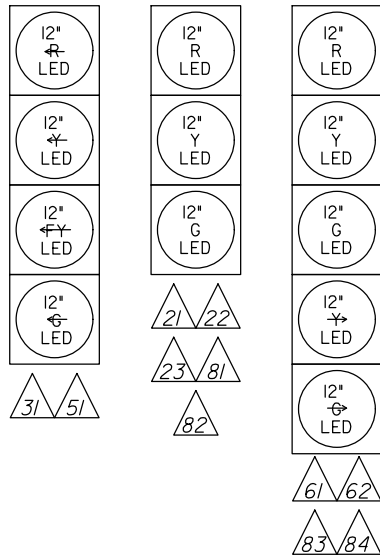


INITIAL RECOMMENDED TIMING (SECONDS)								
PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN								
PASSAGE								
MAXIMUM I								
MAXIMUM II								
YELLOW CHANGE								
RED CLEARANCE								
WALK								
PEDESTRIAN CLEARANCE								
ADDED INITIAL								
TIME TO REDUCE								
TIME BEFORE REDUCTION								
MINIMUM GAP								

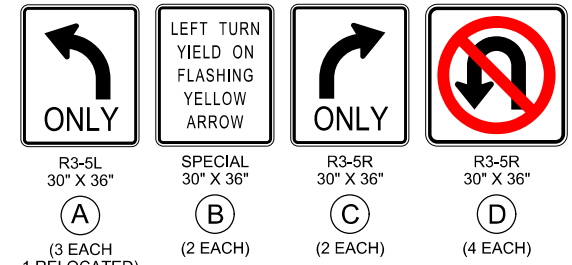
**PROVIDED BY CITY**



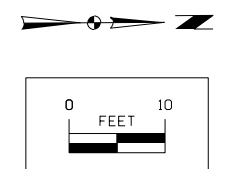
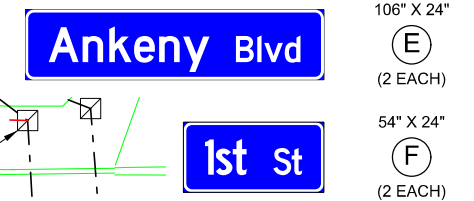
TRAFFIC SIGNAL FACES



TRAFFIC SIGNS



STREET NAME SIGNS



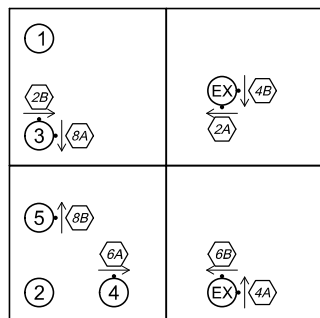
US Hwy 69/S Ankeny Blvd

W 1st Street

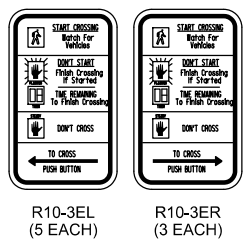
E 1st Street

- LAYOUT NOTES**
- 1) PROVIDE NEW AUTOSCOPE VEHICLE DETECTION SYSTEM (4 CAMERAS) TO BE USED DURING TEMPORARY SIGNAL STAGING AS WELL AS THE PERMANENT SIGNAL. LOCATE VIDEO CAMERAS ON TEMPORARY POLES AS NECESSARY. SEE SHEET N.5 FOR ADVANCE DETECTOR ZONE LOCATIONS.
  - 2) INTERCEPT EXISTING CONDUIT WITH CONDUIT SPLICE AND ROUTE PROPOSED CONDUIT TO PROPOSED HANDHOLE. REMOVE EXISTING HANDHOLE AND CABLES. ROUTE NEW CABLES THROUGH PROPOSED AND EXISTING CONDUIT INTO EXISTING CABINET. PROPOSED CABLES SHALL BE CONTINUOUS FROM POLE BASE TO CABINET.
  - 3) REPLACE EXISTING 3-SECTION HEAD WITH 5-SECTION RIGHT TURN HEAD.
  - 4) REPLACE EXISTING STREET NAME SIGN WITH PROPOSED SIGN.
  - 5) RELOCATE EXISTING R3-5L TO BACKSIDE OF POLE AT SAME LOCATION.
  - 6) SEE N.06 THROUGH N.12 FOR LOCATION OF FIBER OPTIC HANDHOLES, PERMANENT FIBER OPTIC CONNECTION INFORMATION, AND TEMPORARY FIBER OPTIC CONNECTION INFORMATION.
  - 7) REPLACE EXISTING TRAFFIC MONITORING AND PEDESTRIAN PUSHBUTTON SYSTEMS WITH SYSTEMS SPECIFIED ON SHEET N.1. INCLUDING NEW CABLES. SALVAGE EXISTING TRAFFIC MONITORING AND PEDESTRIAN PUSHBUTTON SYSTEMS TO THE CITY AT 211 SE LORENZ DR.
  - 8) REPLACE EXISTING SIGNAL CABINET WITH NEW LOW VOLTAGE ATC CABINET AND CONTROLLER ON EXISTING FOOTING. REUSE EVP SYSTEM IN NEW CABINET. SALVAGE ALL OTHER EXISTING SIGNAL EQUIPMENT AND EXISTING CABINET TO THE CITY. REPLACE EXISTING LED MODULES FOR ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS ON NORTHWEST AND NORTHEAST CORNER MAST ARM POLES WITH 48V HEADS USING EXISTING WIRING.
  - 9) REMOVE EXISTING MAST ARM POLES IN SOUTHWEST AND SOUTHEAST CORNERS. REMOVE TOP FOUR FEET OF EACH FOOTING. SALVAGE MAST ARM POLES TO THE CITY.

PUSHBUTTON LAYOUT



PEDESTRIAN SIGNS



- PUSHBUTTON NOTES**
1. PROVIDE DUAL MOUNTING BRACKET ON POLE 3 TO ALLOW TWO PUSHBUTTONS MOUNTED AT THE SAME HEIGHT.

POLE, HANDHOLE, AND CABINET LOCATIONS					
POLE NO.	STATION	OFFSET	L/R	ELEV.	COMMENTS
1	345+49.06	62.12'	L	MATCH SIDEWALK	
2	345+87.90	60.80'	R	MATCH SIDEWALK	
3	345+73.94	57.35'	L	MATCH SIDEWALK	10' PEDESTAL POLE
4	345+88.46	50.90'	R	MATCH SIDEWALK	5' PEDESTAL POLE
5	345+73.91	42.23'	R	MATCH SIDEWALK	5' PEDESTAL POLE
HANDHOLE NO.	STATION	OFFSET	L/R	ELEV.	COMMENTS
7	345+43.06	62.62'	L	MATCH GRADE	TYPE III, "TRAFFIC SIGNAL"
8	345+66.18	47.80'	R	MATCH GRADE	TYPE III, "TRAFFIC SIGNAL"
9	345+70.19	49.83'	R	MATCH GRADE	TYPE I, "LIGHTING"

DETECTOR SUMMARY						
CAMERA NUMBER	DETECTION ZONE	ZONE LIMITS (DISTANCE FROM STOP LINE)	PHASE CALLED	PHASE EXTENDED	DETECTOR INPUT ASSIGNMENT	COMMENTS
V1	21	210' TO 250'	2	2	26	
	22	210' TO 250'	2	2	34	
	23	0' TO 40'	2	2	2	
	24	0' TO 40'	2	2	10	
	51	140' TO 180'	2	2	29	
52	0' TO 40'	2.5	2.5	5		
V2	41	210' TO 250'	4	4	28	
	42	210' TO 250'	4	4	36	
	43	0' TO 40'	4	4	4	
	44	0' TO 40'	4	4	12	
	45	0' TO 40'	4	4	20	
71	180' TO 220'	4	4	31		
72	0' TO 40'	4.7	4.7	7		
V3	11	210' TO 250'	6	6	25	
	12	0' TO 40'	1.6	1.6	1	
	61	210' TO 250'	6	6	30	
	62	210' TO 250'	6	6	38	
	63	0' TO 40'	6	6	6	
64	0' TO 40'	6	6	14		
V4	31	210' TO 250'	8	8	27	
	32	0' TO 40'	3.8	3.8	3	
	81	210' TO 250'	8	8	32	
	82	210' TO 250'	8	8	40	
	83	0' TO 40'	8	8	8	
84	0' TO 40'	8	8	16		
85	0' TO 40'	8	8	24		
2A,2B						PED PB
4A,4B						PED PB
6A,6B						PED PB
8A,8B						PED PB

**DETECTION NOTES:**

- COORDINATE WITH CITY OF ANKENY TO CREATE VEHICLE DETECTION ZONES FOR PROPOSED VIDEO DETECTION SYSTEM.
- DELAYS SHALL BE ENTERED IN THE SIGNAL CONTROLLER BY THE CITY.

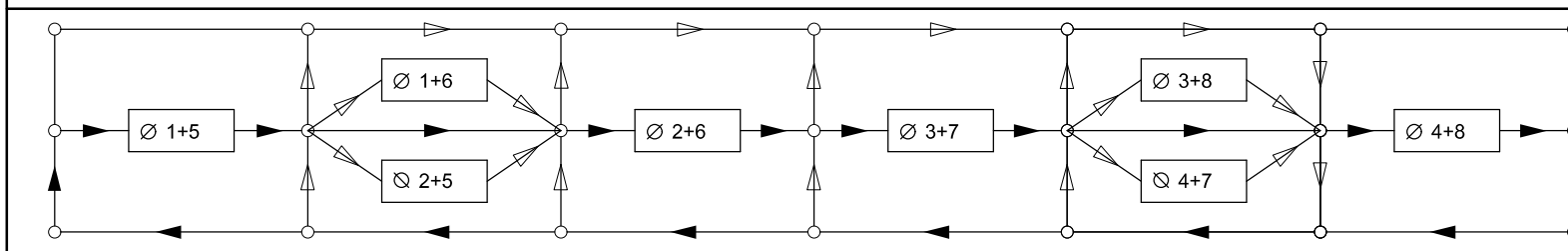
**TRAFFIC SIGNAL POLE NOTES:**

- LOCATION REPRESENTS APPROXIMATE LINEAR DISTANCE FROM POLE MEASURED OUTWARD TO END OF ARM.
- ORIENTATION OF LUMINAIRE ARM REPRESENTS A CLOCKWISE ANGLE MEASURED FROM THE CENTERLINE OF THE MAST ARM.
- POLES SHALL BE DESIGNED AS PER THE SUDAS SPECIFICATIONS WITH A ONE-PIECE VERTICAL POLE.
- UNLESS OTHERWISE DIRECTED, TRAFFIC SIGNAL HEADS ON MAST ARMS ARE TO BE ALIGNED OVER THE CENTER OF INTERSECTION APPROACH LEFT TURN AND DEPARTURE THROUGH LANES. APPROXIMATE LOCATIONS ARE AS SHOWN IN THE TRAFFIC SIGNAL POLE DATA TABLE. CONTRACTOR SHALL FIELD VERIFY SIGNAL HEAD LOCATIONS.
- TOP OF FOOTING TO BE FORMED SQUARE AND FLUSH WITH PROPOSED OR EXISTING SIDEWALK.
- SIGNAL HEAD AND SIGN LOCATIONS ON EXISTING POLES ARE APPROXIMATE. FIELD VERIFY LOCATIONS RELATIVE TO EXISTING SIGNAL HEADS AND SIGNS.

**TRAFFIC SIGNAL POLE DATA**

POLE NO.	POLE TYPE	MAST ARM LENGTH/ PEDESTAL HEIGHT (ft.)	TRAFFIC SIGNAL HEADS		TRAFFIC SIGNS		VIDEO CAMERAS		LUMINAIRE ARM			FOOTINGS		MISCELLANEOUS	TOTAL QUANTITY
			QTY.	LOCATION ON ARM (ft.)	QTY.	LOCATION ON ARM (ft.)	LOCATION ON ARM (ft.)	SPREAD (ft.)	MOUNTING HEIGHT (ft.)	ORIENTATION (degrees)	DIA. (ft.)	DEPTH (ft.)			
1	COMBINATION SIGNAL / LIGHTING	55	3	50,38,26	5	55,53,47,44,18	41	15	40	0	3	16	③ ④ ⑤	1	
2	COMBINATION SIGNAL / LIGHTING	60	4	54,42,30,16	5	60,51,48,13,8	45	15	40	0	3	18	③ ④ ⑤	1	
EX-NW	COMBINATION SIGNAL / LIGHTING				3	57,48,8	48						⑥		
EX-NE	COMBINATION SIGNAL / LIGHTING		1	23	3	49,20,14	40						⑥		
3,4	PEDESTAL	10									2	4	⑤	2	
5	PEDESTAL	5									2	4	⑤	1	

**PHASE FLOW DIAGRAM**



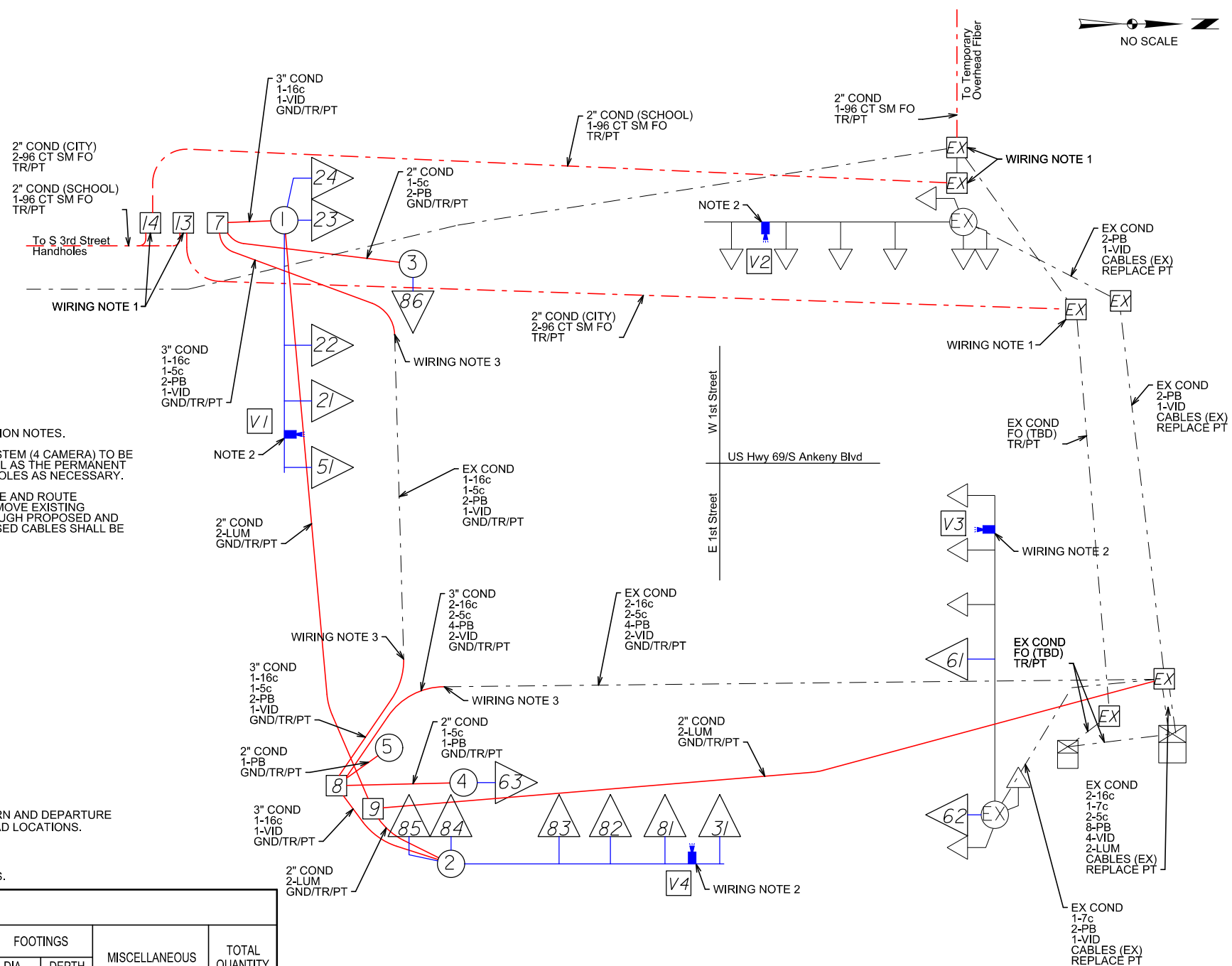
**PHASE FLOW DIAGRAM NOTES:**

- FLOW PATH IF ALL PHASES ARE REQUESTED
- FLOW PATH WHEN PHASE IS NOT REQUESTED BEFORE RIGHT-OF-WAY TRANSFER
- THE RED CLEARANCE INTERVAL SHALL BE INCLUDED IN THE COLOR SEQUENCE WHEN CALLED FOR BY CONTROLLER TIMING.

WIRING LEGEND	
	SIGNAL NUMBER
	POLE NUMBER
	HANDHOLE NUMBER
	EXISTING DETECTOR NUMBER
	PROPOSED DETECTOR NUMBER
	VIDEO DETECTION CAMERA
	PTZ CAMERA
	VIDEO CAMERA NUMBER
	EMERGENCY VEHICLE DETECTOR
<b>COND</b>	CONDUIT
<b>PWR</b>	POWER CABLE
<b>LUM</b>	LUMINAIRE (1c #8)
<b>PB</b>	PEDESTRIAN PUSHBUTTON (2c)
<b>EVP</b>	EMERGENCY VEHICLE PREEMPTION
<b>TMC</b>	TRAFFIC MONITOR CAMERA CABLE
<b>VID</b>	VIDEO OR DETECTION CABLE(S)
<b>FO</b>	FIBER OPTIC CABLE
<b>GND</b>	GROUND WIRE (1c #6)
<b>TR</b>	TRACER WIRE (1c #10)
<b>PT</b>	PULL TAPE

**WIRING NOTES:**

- SEE N.06 THROUGH N.12 FOR FIBER OPTIC CONNECTION NOTES.
- PROVIDE NEW AUTOSCOPE VEHICLE DETECTION SYSTEM (4 CAMERA) TO BE USED DURING TEMPORARY SIGNAL STAGING AS WELL AS THE PERMANENT SIGNAL. LOCATE VIDEO CAMERAS ON TEMPORARY POLES AS NECESSARY.
- INTERCEPT EXISTING CONDUIT WITH CONDUIT SPLICE AND ROUTE PROPOSED CONDUIT TO PROPOSED HANDHOLE. REMOVE EXISTING HANDHOLE AND CABLES. ROUTE NEW CABLES THROUGH PROPOSED AND EXISTING CONDUIT INTO EXISTING CABINET. PROPOSED CABLES SHALL BE CONTINUOUS FROM POLE BASE TO CABINET.



**INITIAL RECOMMENDED TIMING (SECONDS)**

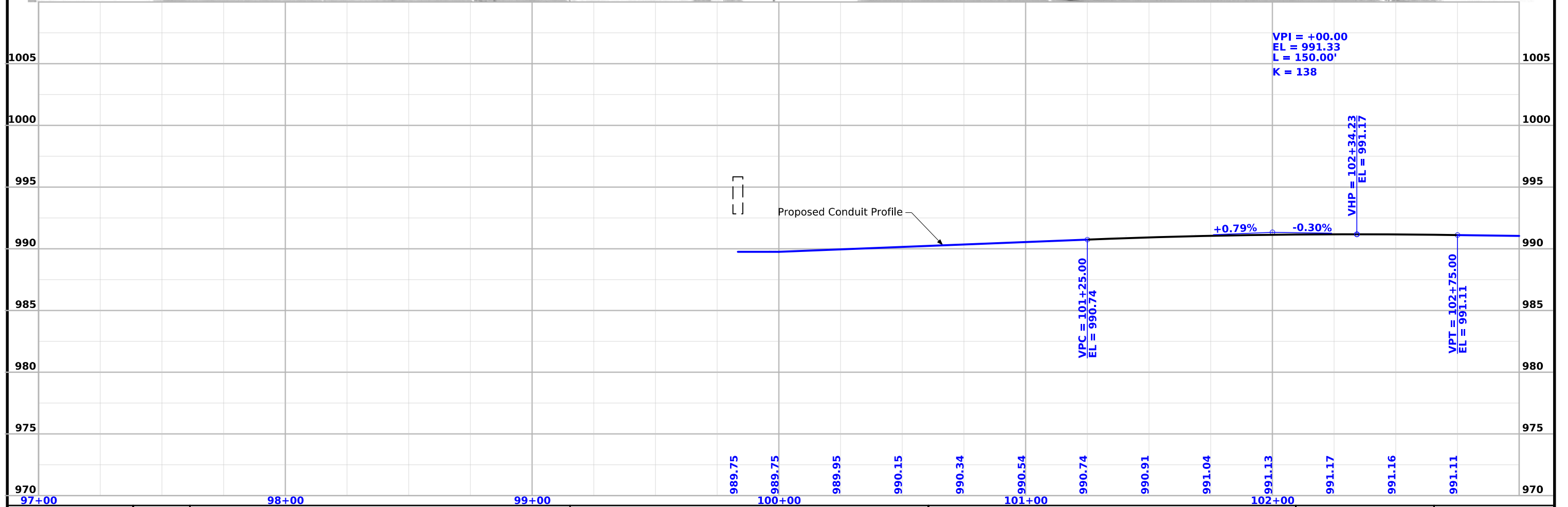
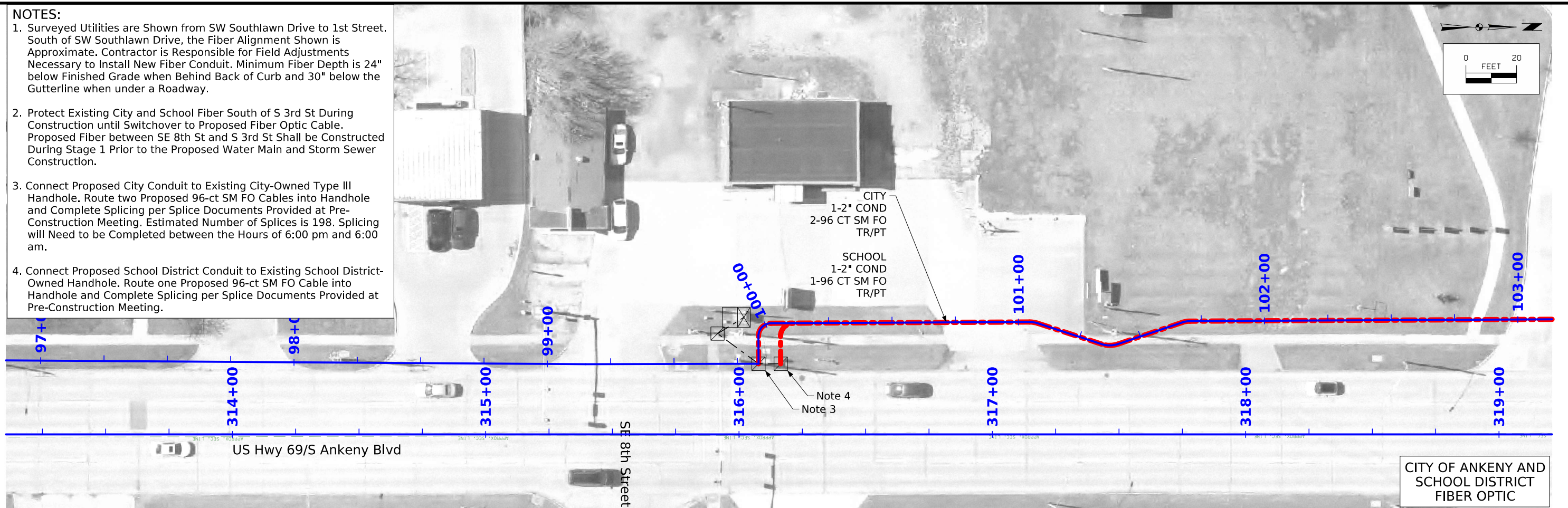
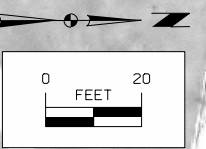
PHASE	1	2	3	4	5	6	7	8
MINIMUM GREEN								
PASSAGE								
MAXIMUM I								
MAXIMUM II								
YELLOW CHANGE								
RED CLEARANCE								
WALK								
PEDESTRIAN CLEARANCE								
ADDED INITIAL								
TIME TO REDUCE								
TIME BEFORE REDUCTION								
MINIMUM GAP								

PROVIDED BY CITY



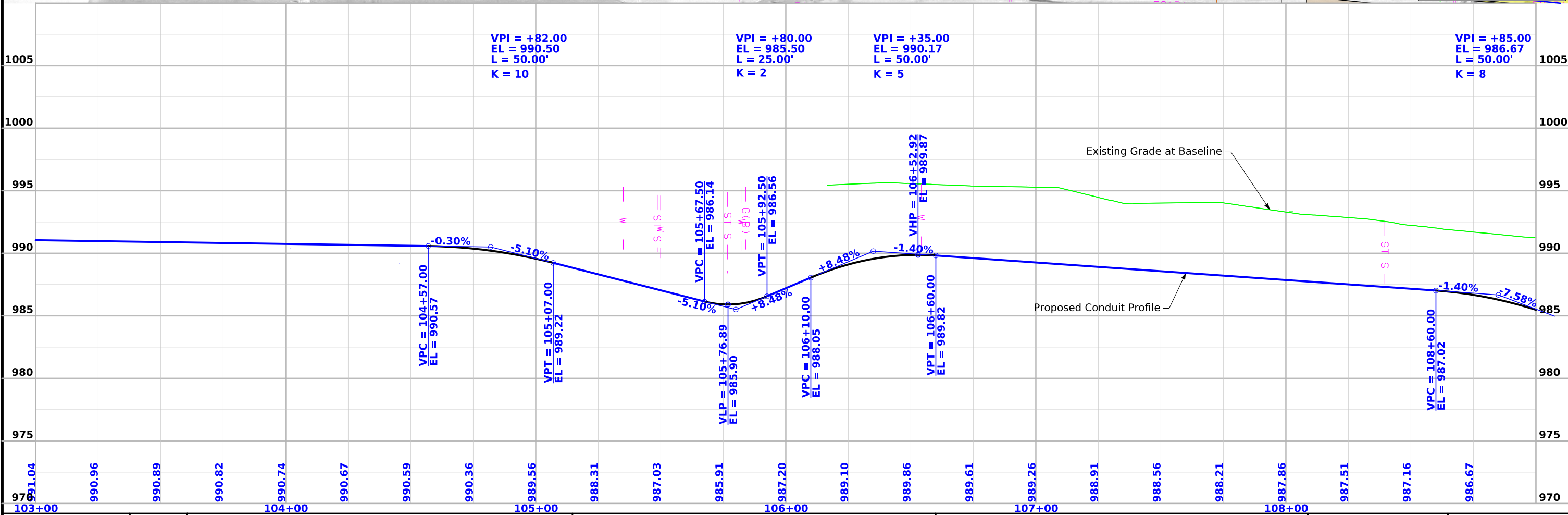
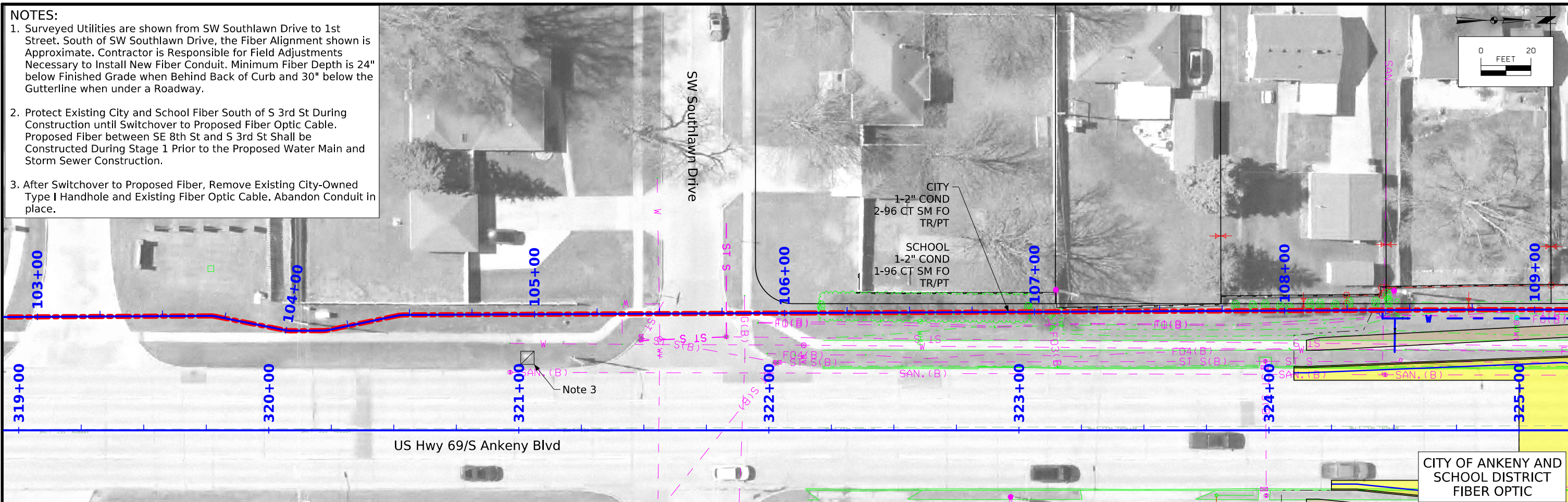
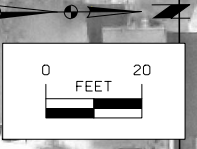
**NOTES:**

1. Surveyed Utilities are Shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment Shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install New Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
2. Protect Existing City and School Fiber South of S 3rd St During Construction until Switchover to Proposed Fiber Optic Cable. Proposed Fiber between SE 8th St and S 3rd St Shall be Constructed During Stage 1 Prior to the Proposed Water Main and Storm Sewer Construction.
3. Connect Proposed City Conduit to Existing City-Owned Type III Handhole. Route two Proposed 96-ct SM FO Cables into Handhole and Complete Splicing per Splice Documents Provided at Pre-Construction Meeting. Estimated Number of Splices is 198. Splicing will Need to be Completed between the Hours of 6:00 pm and 6:00 am.
4. Connect Proposed School District Conduit to Existing School District-Owned Handhole. Route one Proposed 96-ct SM FO Cable into Handhole and Complete Splicing per Splice Documents Provided at Pre-Construction Meeting.





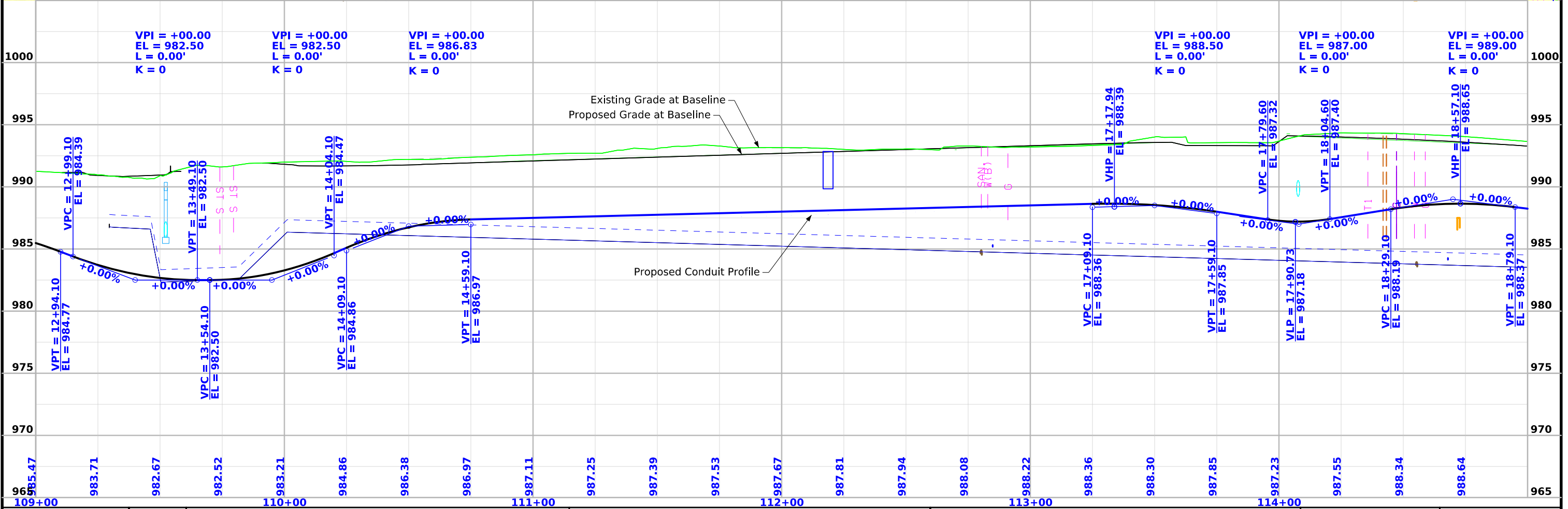
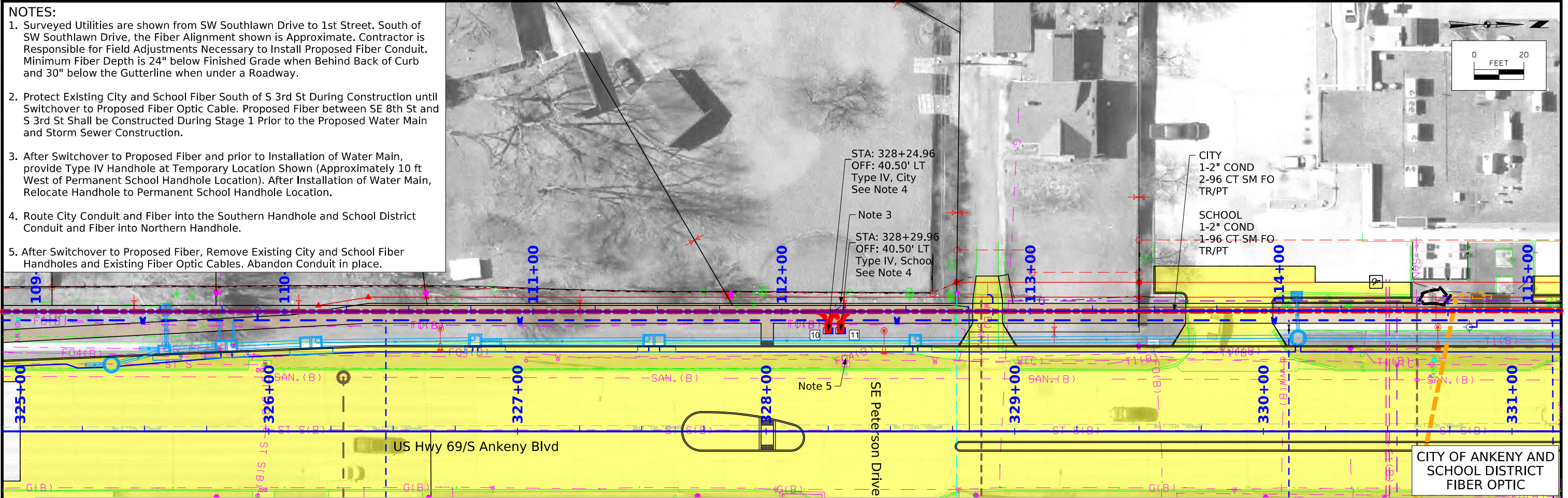
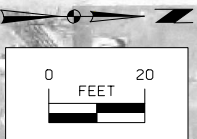
- NOTES:**
1. Surveyed Utilities are shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install New Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
  2. Protect Existing City and School Fiber South of S 3rd St During Construction until Switchover to Proposed Fiber Optic Cable. Proposed Fiber between SE 8th St and S 3rd St Shall be Constructed During Stage 1 Prior to the Proposed Water Main and Storm Sewer Construction.
  3. After Switchover to Proposed Fiber, Remove Existing City-Owned Type I Handhole and Existing Fiber Optic Cable. Abandon Conduit in place.





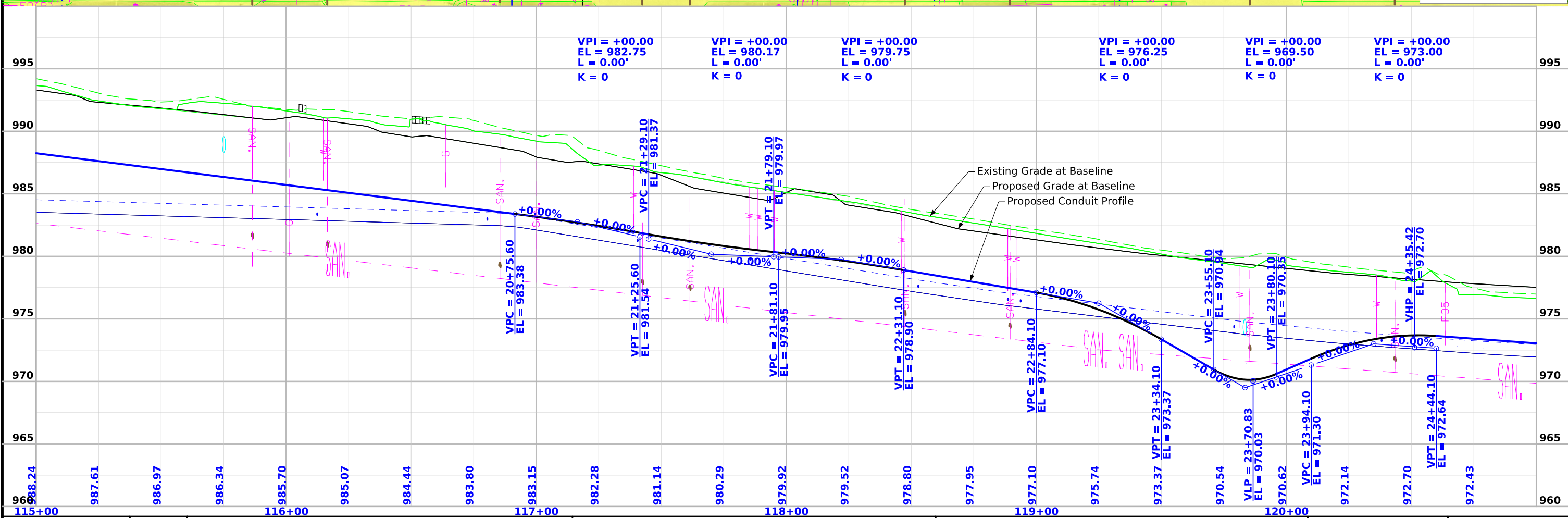
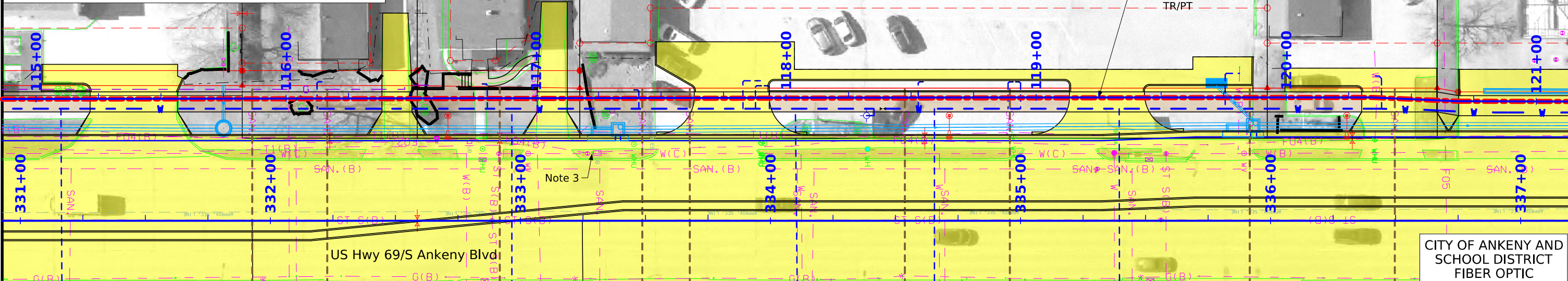
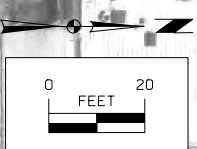
**NOTES:**

1. Surveyed Utilities are shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install Proposed Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
2. Protect Existing City and School Fiber South of S 3rd St During Construction until Switchover to Proposed Fiber Optic Cable. Proposed Fiber between SE 8th St and S 3rd St Shall be Constructed During Stage 1 Prior to the Proposed Water Main and Storm Sewer Construction.
3. After Switchover to Proposed Fiber and prior to Installation of Water Main, provide Type IV Handhole at Temporary Location Shown (Approximately 10 ft West of Permanent School Handhole Location). After Installation of Water Main, Relocate Handhole to Permanent School Handhole Location.
4. Route City Conduit and Fiber into the Southern Handhole and School District Conduit and Fiber into Northern Handhole.
5. After Switchover to Proposed Fiber, Remove Existing City and School Fiber Handholes and Existing Fiber Optic Cables. Abandon Conduit in place.





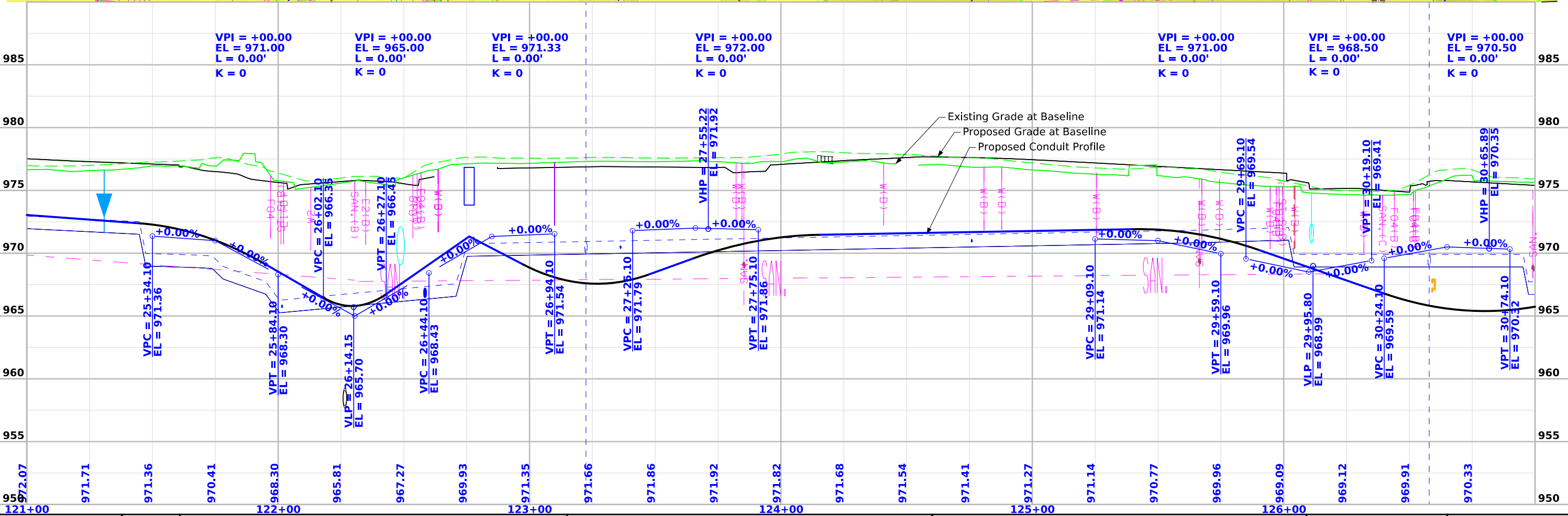
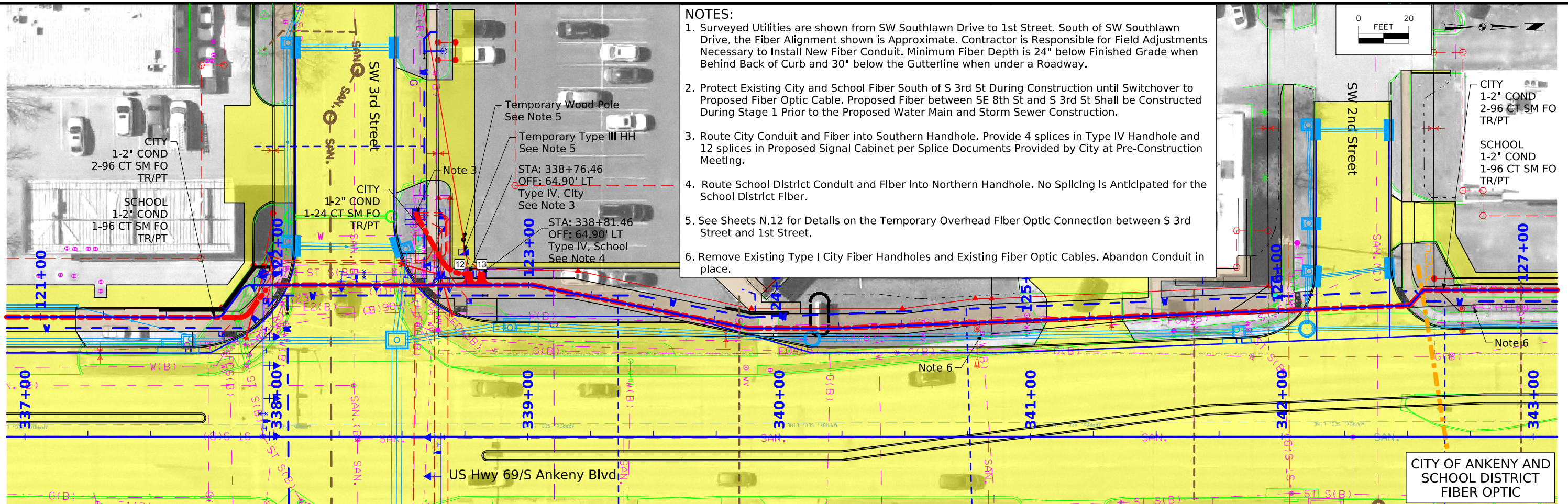
- NOTES:**
1. Surveyed Utilities are shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install New Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
  2. Protect Existing City and School Fiber South of S 3rd St During Construction until Switchover to Proposed Fiber Optic Cable. Proposed Fiber between SE 8th St and S 3rd St Shall be Constructed During Stage 1 Prior to the Proposed Water Main and Storm Sewer Construction.
  3. After Switchover to Proposed Fiber, Remove Existing City and School Fiber Handholes and Existing Fiber Optic Cables. Abandon Conduit in place.



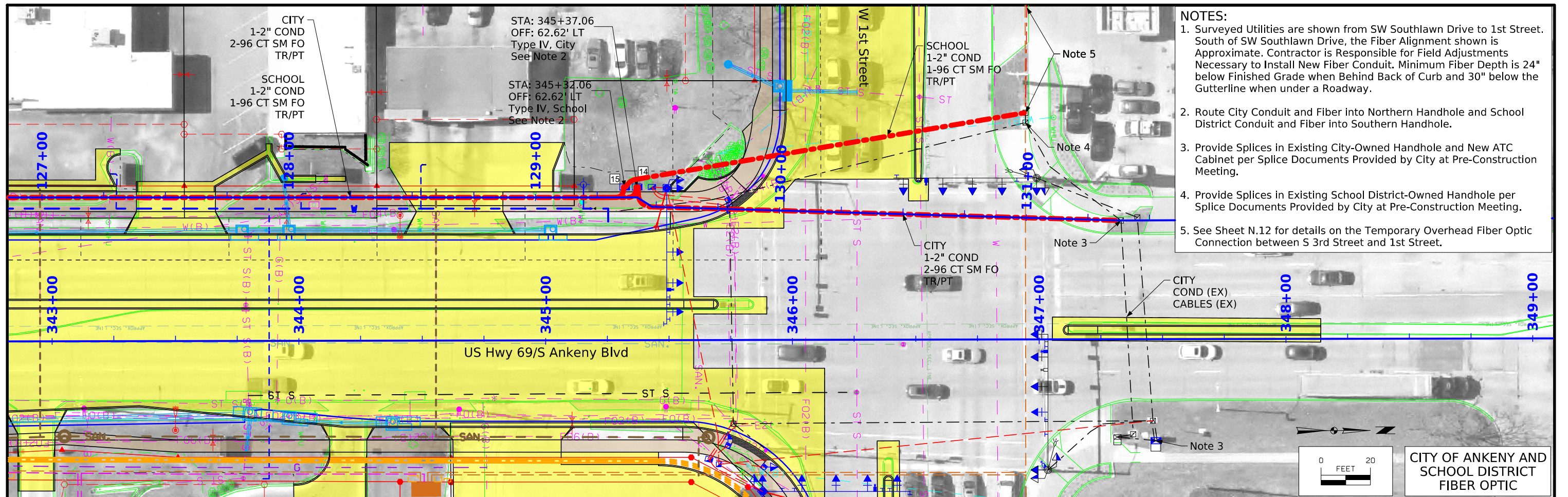


**NOTES:**

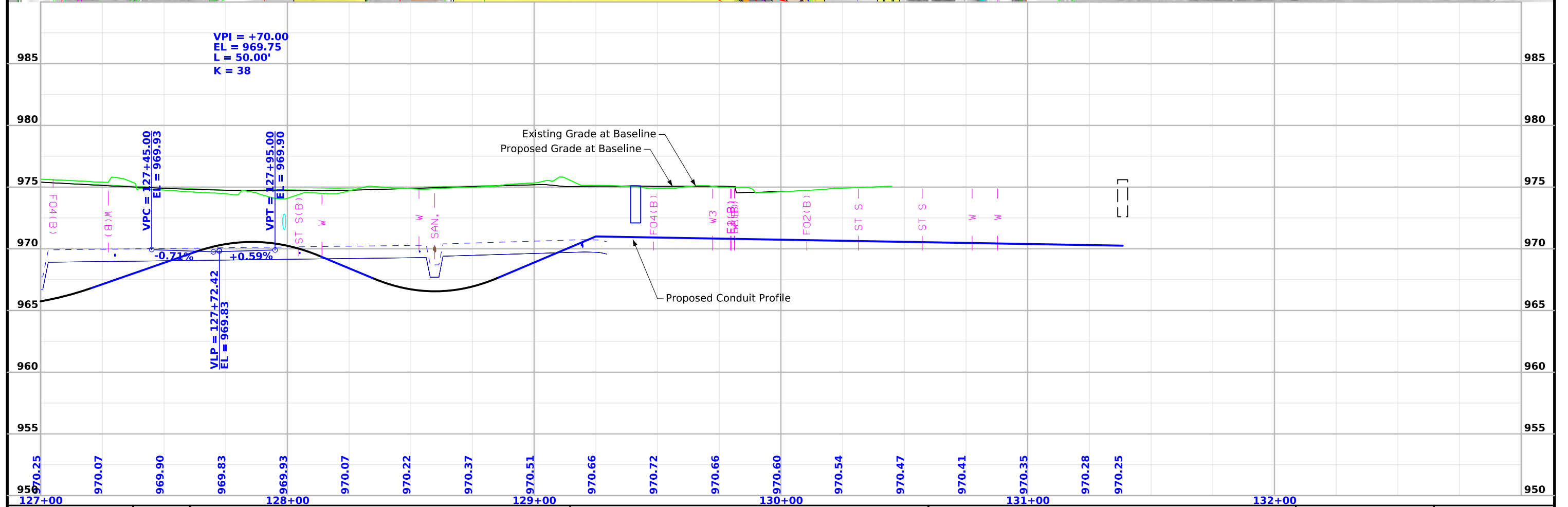
1. Surveyed Utilities are shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install New Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
2. Protect Existing City and School Fiber South of S 3rd St During Construction until Switchover to Proposed Fiber Optic Cable. Proposed Fiber between SE 8th St and S 3rd St Shall be Constructed During Stage 1 Prior to the Proposed Water Main and Storm Sewer Construction.
3. Route City Conduit and Fiber into Southern Handhole. Provide 4 splices in Type IV Handhole and 12 splices in Proposed Signal Cabinet per Splice Documents Provided by City at Pre-Construction Meeting.
4. Route School District Conduit and Fiber into Northern Handhole. No Splicing is Anticipated for the School District Fiber.
5. See Sheets N.12 for Details on the Temporary Overhead Fiber Optic Connection between S 3rd Street and 1st Street.
6. Remove Existing Type I City Fiber Handholes and Existing Fiber Optic Cables. Abandon Conduit in place.





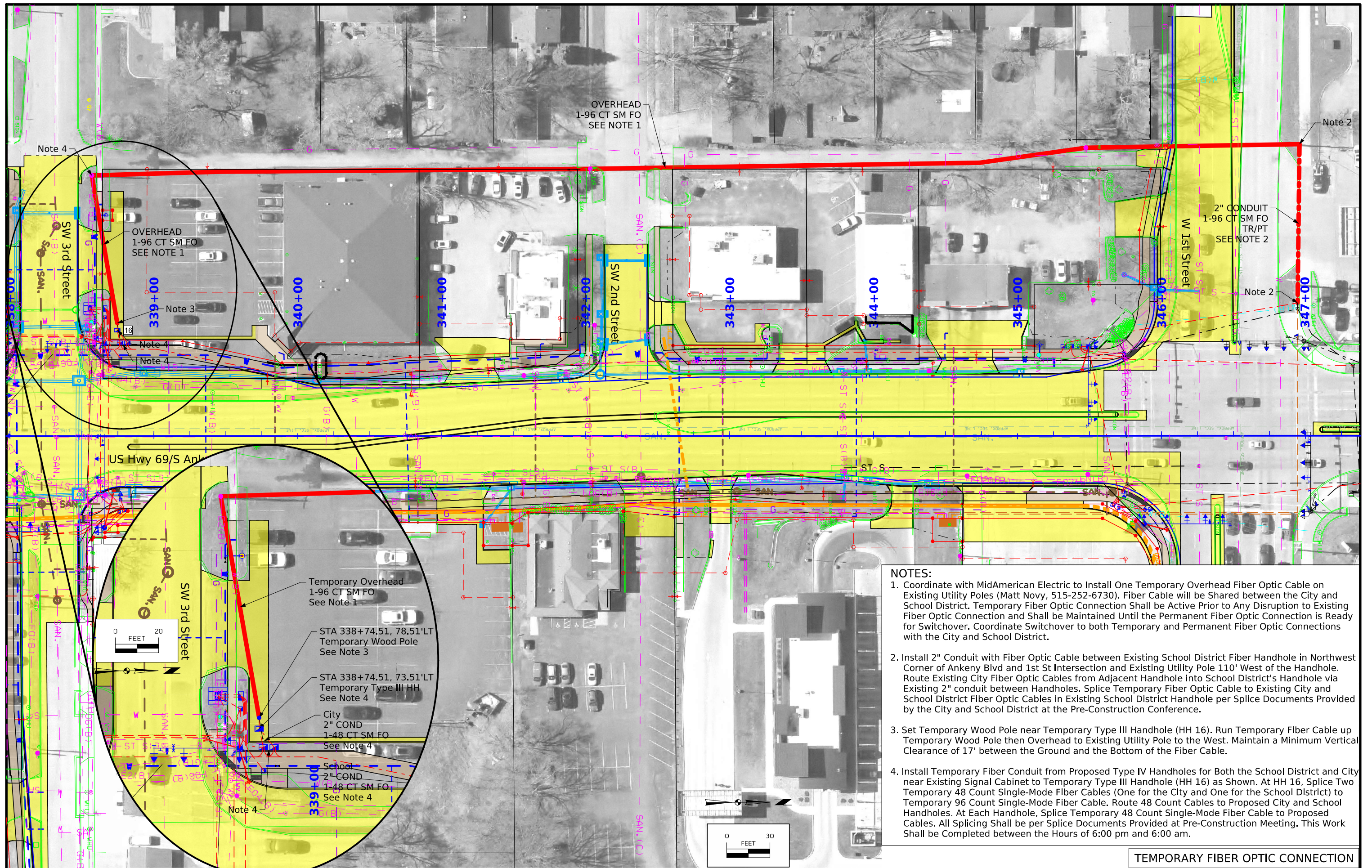


- NOTES:**
1. Surveyed Utilities are shown from SW Southlawn Drive to 1st Street. South of SW Southlawn Drive, the Fiber Alignment shown is Approximate. Contractor is Responsible for Field Adjustments Necessary to Install New Fiber Conduit. Minimum Fiber Depth is 24" below Finished Grade when Behind Back of Curb and 30" below the Gutterline when under a Roadway.
  2. Route City Conduit and Fiber into Northern Handhole and School District Conduit and Fiber into Southern Handhole.
  3. Provide Splices in Existing City-Owned Handhole and New ATC Cabinet per Splice Documents Provided by City at Pre-Construction Meeting.
  4. Provide Splices in Existing School District-Owned Handhole per Splice Documents Provided by City at Pre-Construction Meeting.
  5. See Sheet N.12 for details on the Temporary Overhead Fiber Optic Connection between S 3rd Street and 1st Street.



FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	Polk COUNTY	PROJECT NUMBER	NHSX-069-4(136)--3H-77	SHEET NUMBER	N.11
----------	---------	-------------	---------------------	-------------	----------------	------------------------	--------------	------





OVERHEAD  
1-96 CT SM FO  
SEE NOTE 1

Note 2

OVERHEAD  
1-96 CT SM FO  
SEE NOTE 1

2" CONDUIT  
1-96 CT SM FO  
TR/PT  
SEE NOTE 2

Note 3

Note 2

Note 4

Note 4

US Hwy 69/S Anky

**NOTES:**

1. Coordinate with MidAmerican Electric to Install One Temporary Overhead Fiber Optic Cable on Existing Utility Poles (Matt Novy, 515-252-6730). Fiber Cable will be Shared between the City and School District. Temporary Fiber Optic Connection Shall be Active Prior to Any Disruption to Existing Fiber Optic Connection and Shall be Maintained Until the Permanent Fiber Optic Connection is Ready for Switchover. Coordinate Switchover to both Temporary and Permanent Fiber Optic Connections with the City and School District.
2. Install 2" Conduit with Fiber Optic Cable between Existing School District Fiber Handhole in Northwest Corner of Ankeny Blvd and 1st St Intersection and Existing Utility Pole 110' West of the Handhole. Route Existing City Fiber Optic Cables from Adjacent Handhole into School District's Handhole via Existing 2" conduit between Handholes. Splice Temporary Fiber Optic Cable to Existing City and School District Fiber Optic Cables in Existing School District Handhole per Splice Documents Provided by the City and School District at the Pre-Construction Conference.
3. Set Temporary Wood Pole near Temporary Type III Handhole (HH 16). Run Temporary Fiber Cable up Temporary Wood Pole then Overhead to Existing Utility Pole to the West. Maintain a Minimum Vertical Clearance of 17' between the Ground and the Bottom of the Fiber Cable.
4. Install Temporary Fiber Conduit from Proposed Type IV Handholes for Both the School District and City near Existing Signal Cabinet to Temporary Type III Handhole (HH 16) as Shown. At HH 16, Splice Two Temporary 48 Count Single-Mode Fiber Cables (One for the City and One for the School District) to Temporary 96 Count Single-Mode Fiber Cable. Route 48 Count Cables to Proposed City and School Handholes. At Each Handhole, Splice Temporary 48 Count Single-Mode Fiber Cable to Proposed Cables. All Splicing Shall be per Splice Documents Provided at Pre-Construction Meeting. This Work Shall be Completed between the Hours of 6:00 pm and 6:00 am.

Temporary Overhead  
1-96 CT SM FO  
See Note 1

STA 338+74.51, 78.51'LT  
Temporary Wood Pole  
See Note 3

STA 338+74.51, 73.51'LT  
Temporary Type III HH  
See Note 4

City  
2" COND  
1-48 CT SM FO  
See Note 4

School  
2" COND  
1-48 CT SM FO  
See Note 4

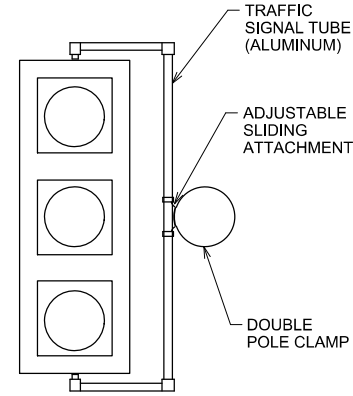
0 FEET 20

0 FEET 30

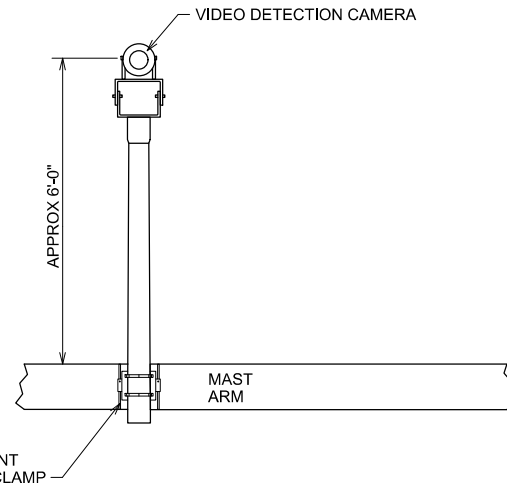
**TEMPORARY FIBER OPTIC CONNECTION**



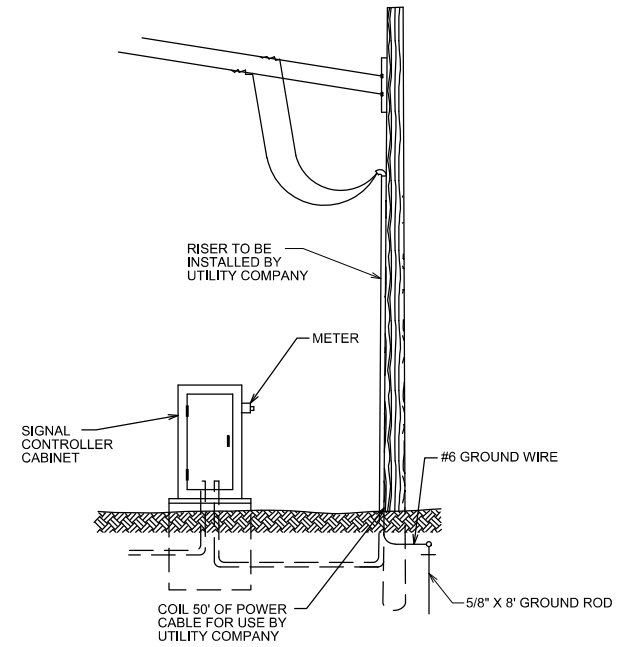
NOTE:  
BRACKET SHALL PROVIDE  
FOR COMPLETELY CONCEALED  
WIRING OF SIGNAL HEADS.



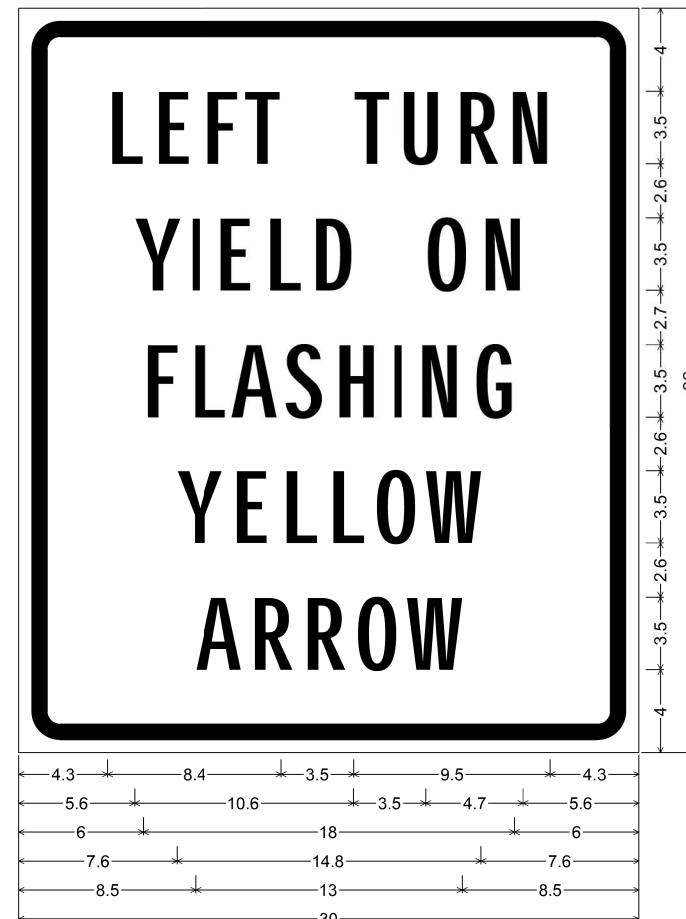
1 MAST ARM SIGNAL BRACKET  
N.9 NO SCALE



2 VIDEO DETECTION CAMERA  
N.9 NO SCALE

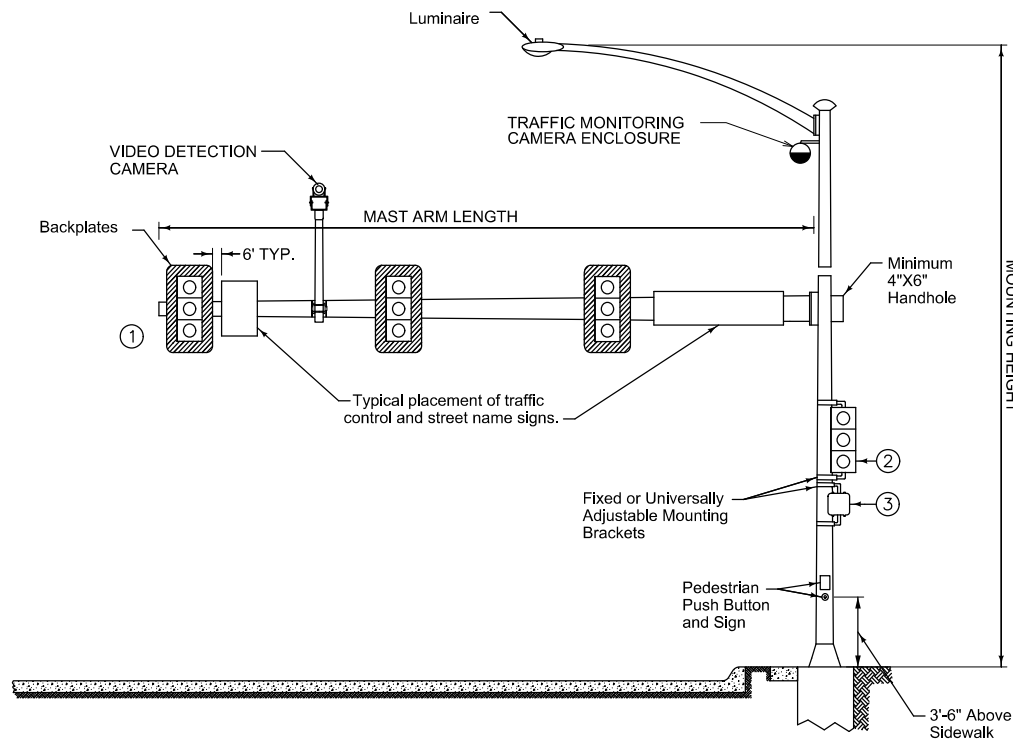


3 POWER SERVICE (FROM POLE)  
N.9 NO SCALE



2.0" Radius, 0.8" Border, 0.6" Indent, Black on White;  
"LEFT TURN" C 2K; "YIELD ON" C 2K; "FLASHING" C 2K; "YELLOW" C 2K;  
"ARROW" C 2K;

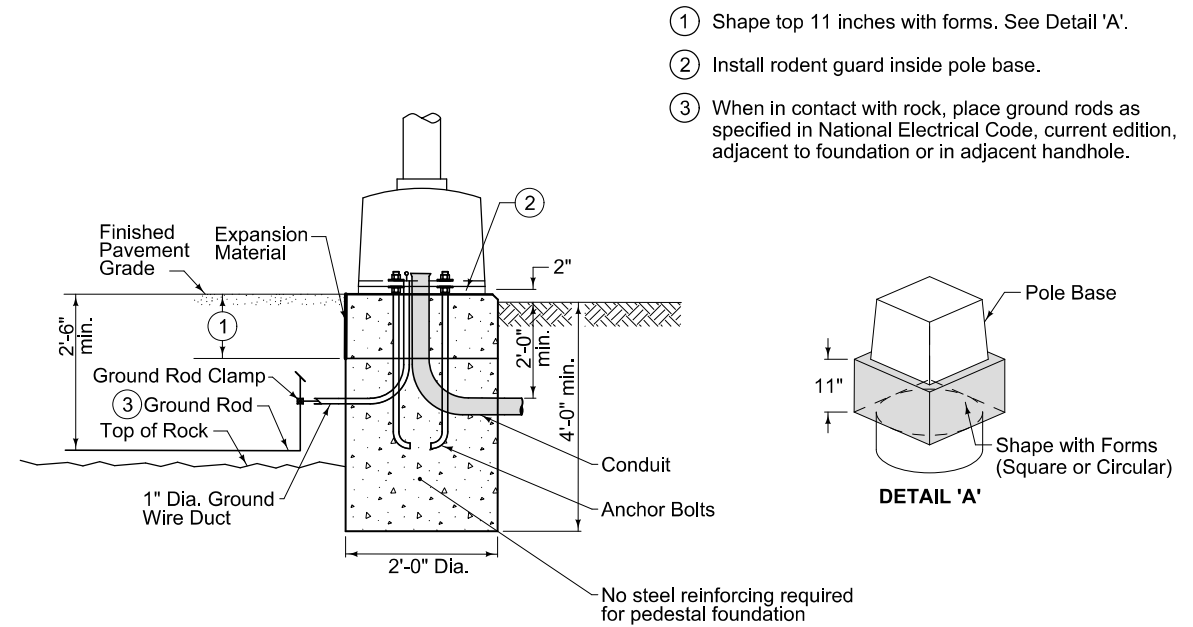
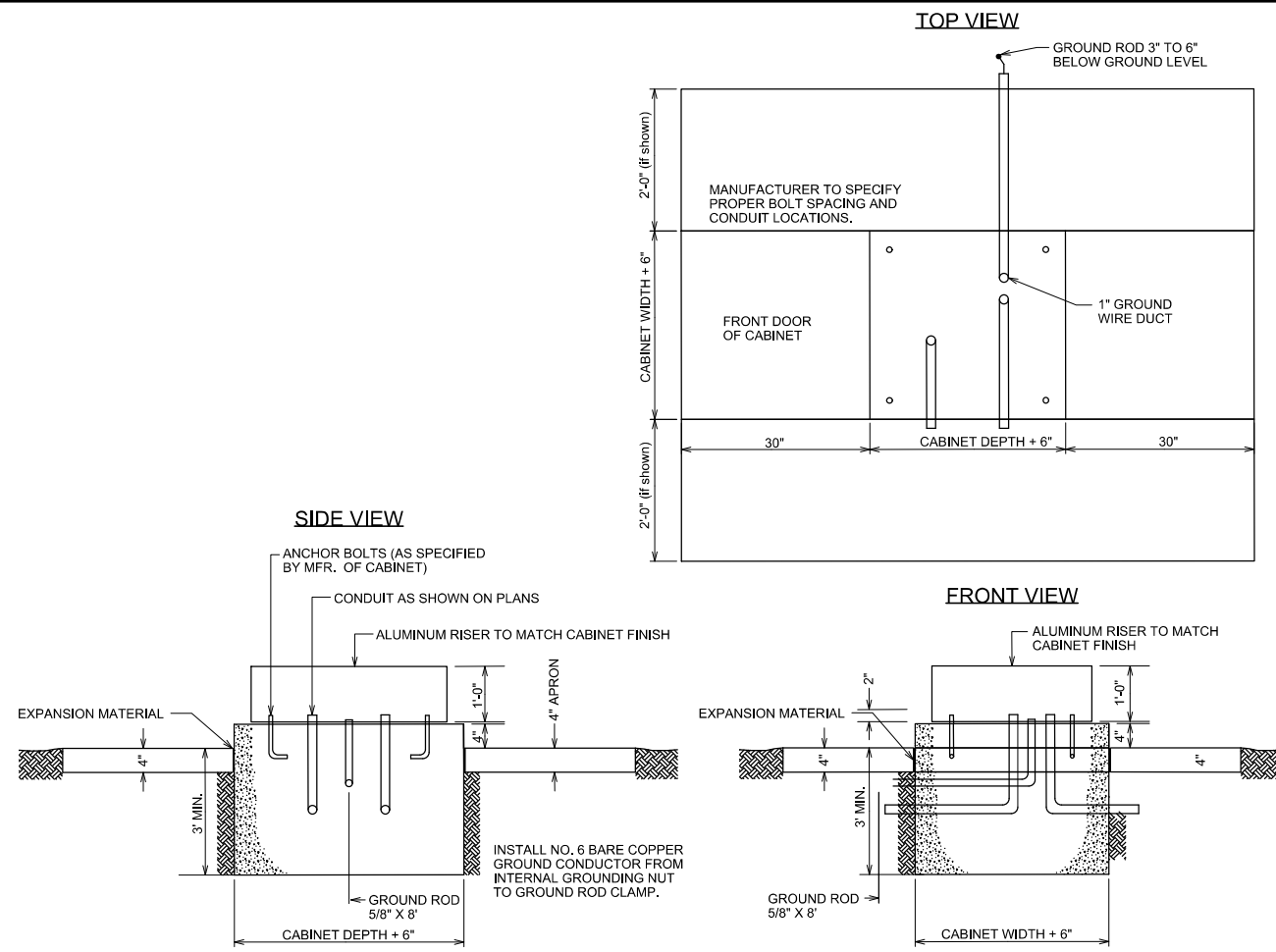
5 FLASHING YELLOW ARROW SIGN  
N.9 NO SCALE



- 1 Ensure the top of the signal housing is no more than 25.6 feet above the pavement. Ensure the bottom of the signal housing and related attachments are at least 16 feet above the pavement.
- 2 Ensure the bottom of the signal housing (including brackets) that is not located over a roadway is a minimum of 8 feet and a maximum of 19 feet above the sidewalk or, if there is no sidewalk, above the pavement grade at the center of the roadway.
- 3 Mount pedestrian signal heads with the bottom of the signal housing (including brackets) no less than 7 feet or more than 10 feet above the sidewalk level. Position and adjust heads to provide maximum visibility at the beginning of the controlled crosswalk.

4 STEEL MAST ARM POLE  
N.9 NO SCALE

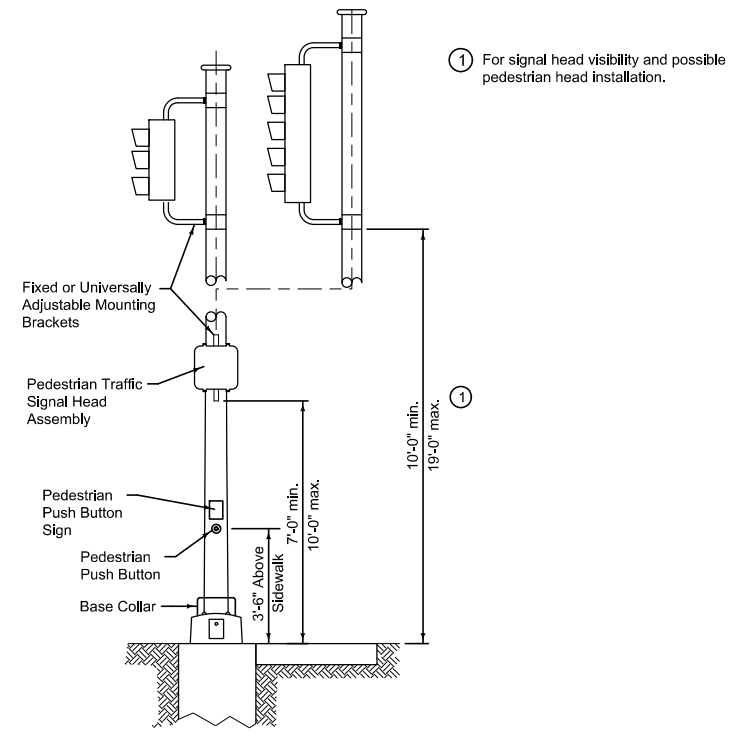




- ① Shape top 11 inches with forms. See Detail 'A'.
- ② Install rodent guard inside pole base.
- ③ When in contact with rock, place ground rods as specified in National Electrical Code, current edition, adjacent to foundation or in adjacent handhole.

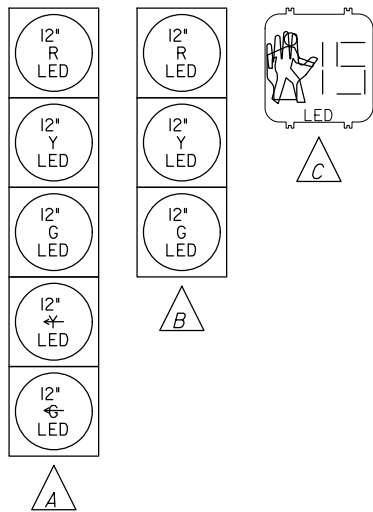
① SIGNAL CABINET FOOTING  
N.10 NO SCALE

② PEDESTAL POLE FOUNDATION  
N.10 NO SCALE



③ PEDESTAL POLE  
N.10 NO SCALE

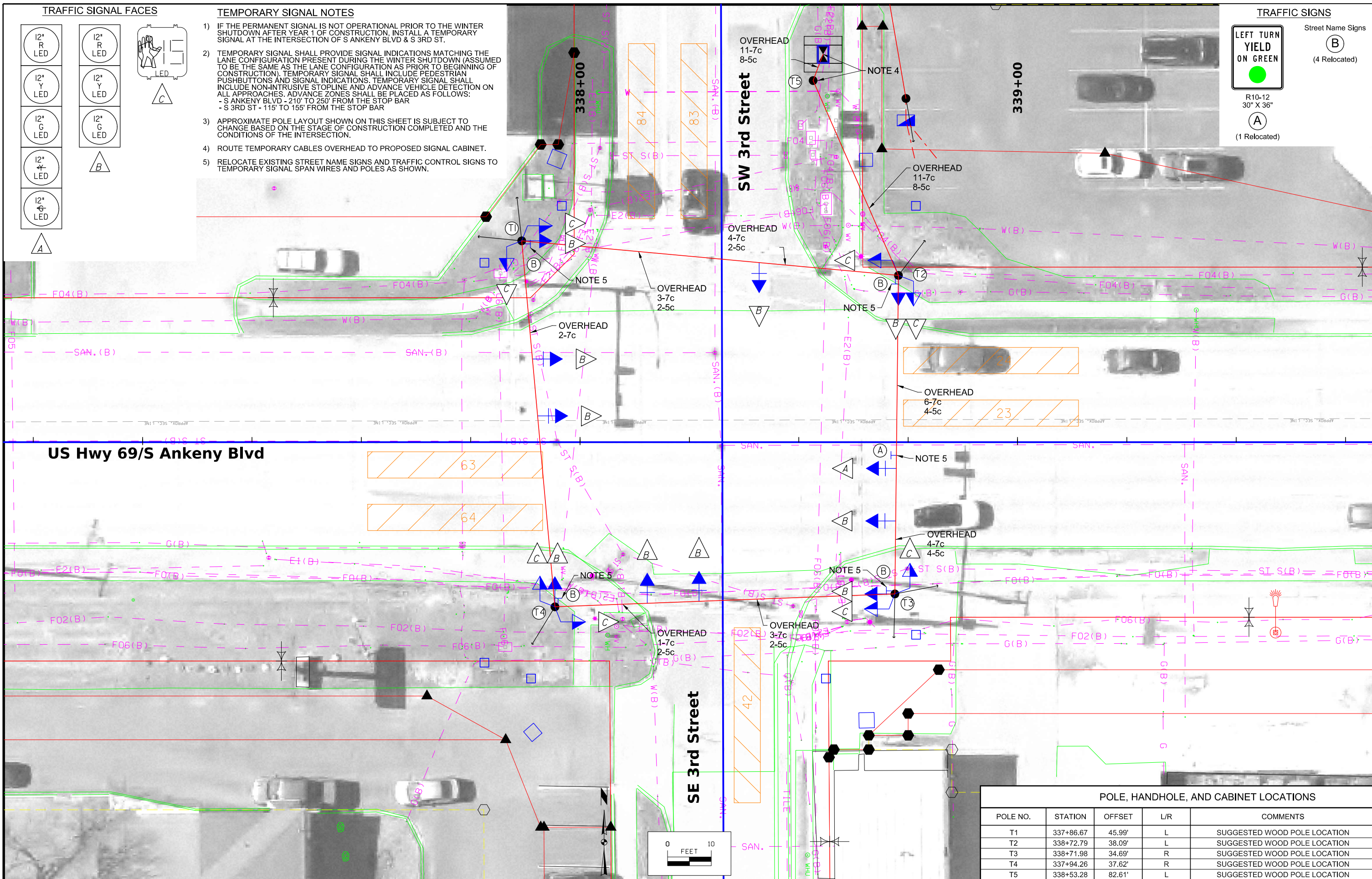
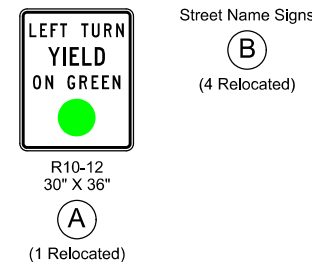
**TRAFFIC SIGNAL FACES**



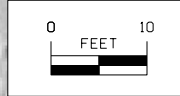
**TEMPORARY SIGNAL NOTES**

- 1) IF THE PERMANENT SIGNAL IS NOT OPERATIONAL PRIOR TO THE WINTER SHUTDOWN AFTER YEAR 1 OF CONSTRUCTION, INSTALL A TEMPORARY SIGNAL AT THE INTERSECTION OF S ANKENY BLVD & S 3RD ST.
- 2) TEMPORARY SIGNAL SHALL PROVIDE SIGNAL INDICATIONS MATCHING THE LANE CONFIGURATION PRESENT DURING THE WINTER SHUTDOWN (ASSUMED TO BE THE SAME AS THE LANE CONFIGURATION AS PRIOR TO BEGINNING OF CONSTRUCTION). TEMPORARY SIGNAL SHALL INCLUDE PEDESTRIAN PUSHBUTTONS AND SIGNAL INDICATIONS. TEMPORARY SIGNAL SHALL INCLUDE NON-INTRUSIVE STOPLINE AND ADVANCE VEHICLE DETECTION ON ALL APPROACHES. ADVANCE ZONES SHALL BE PLACED AS FOLLOWS:  
 - S ANKENY BLVD - 210' TO 250' FROM THE STOP BAR  
 - S 3RD ST - 115' TO 155' FROM THE STOP BAR
- 3) APPROXIMATE POLE LAYOUT SHOWN ON THIS SHEET IS SUBJECT TO CHANGE BASED ON THE STAGE OF CONSTRUCTION COMPLETED AND THE CONDITIONS OF THE INTERSECTION.
- 4) ROUTE TEMPORARY CABLES OVERHEAD TO PROPOSED SIGNAL CABINET.
- 5) RELOCATE EXISTING STREET NAME SIGNS AND TRAFFIC CONTROL SIGNS TO TEMPORARY SIGNAL SPAN WIRES AND POLES AS SHOWN.

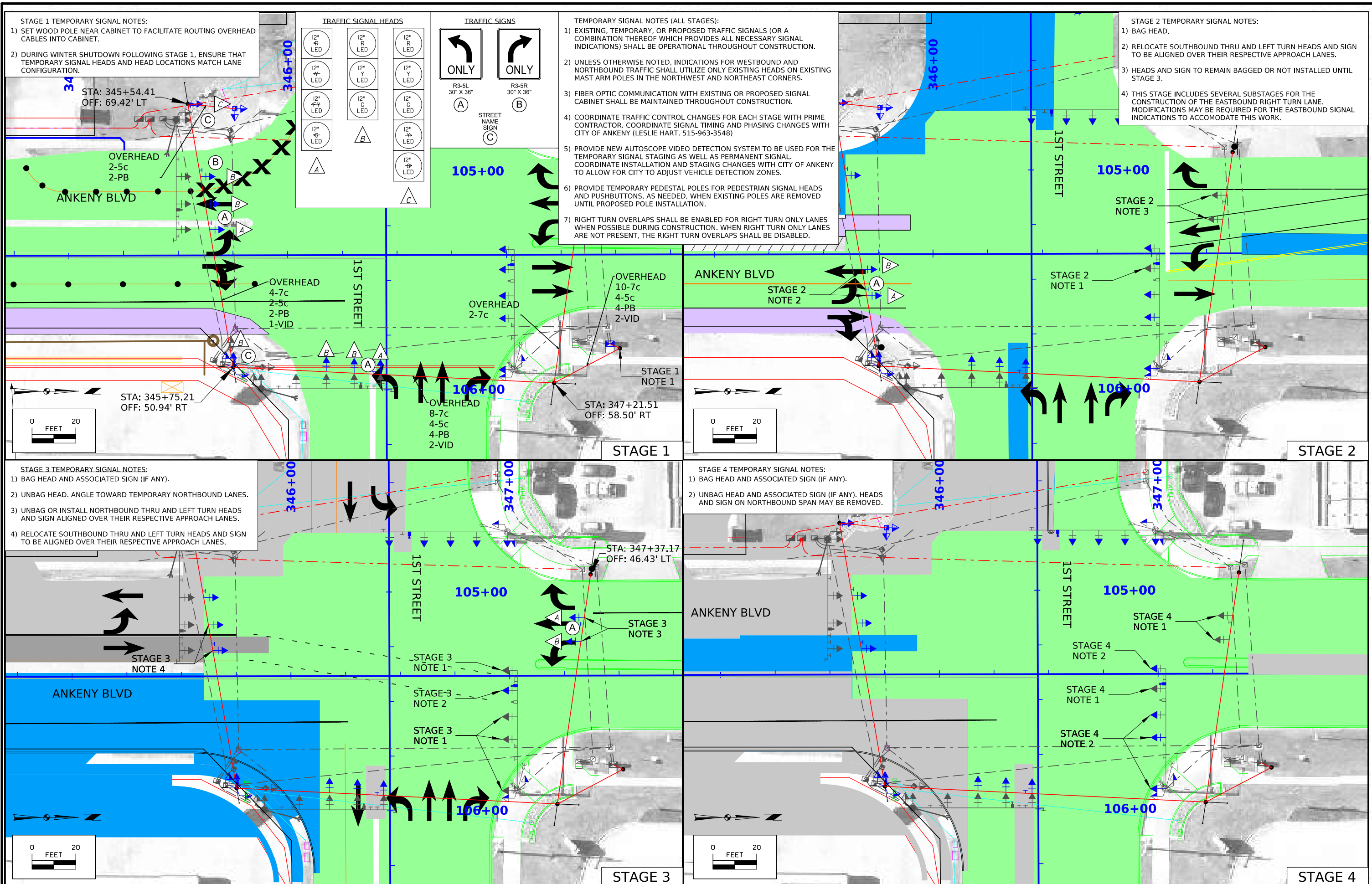
**TRAFFIC SIGNS**

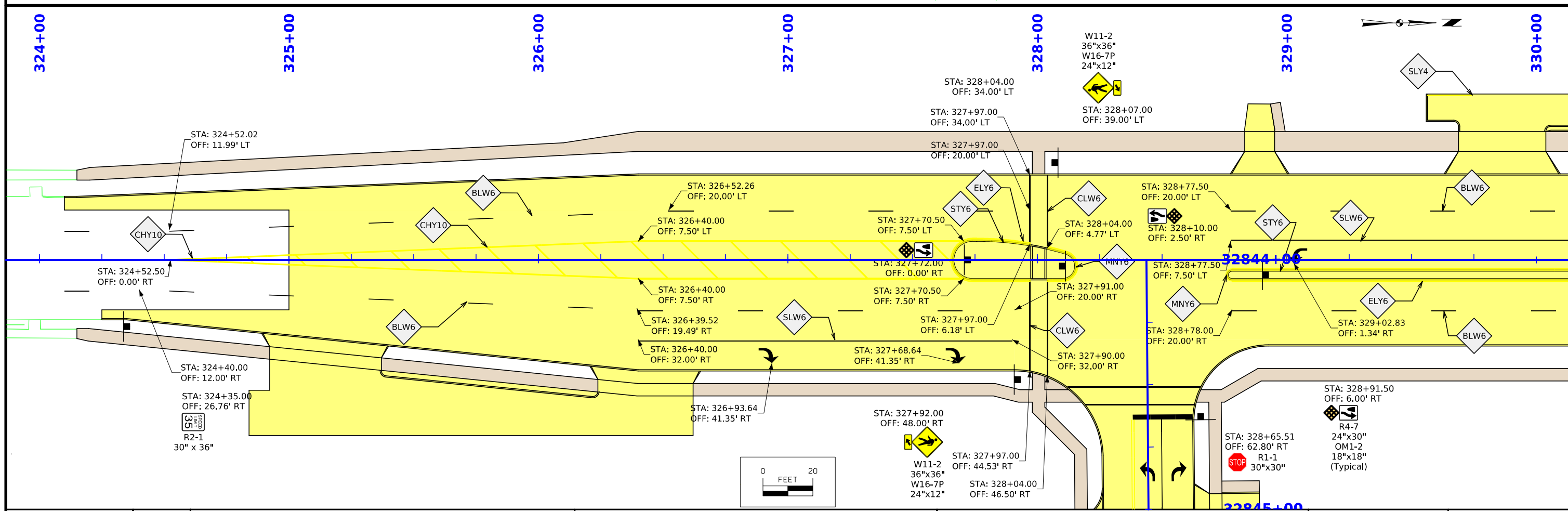
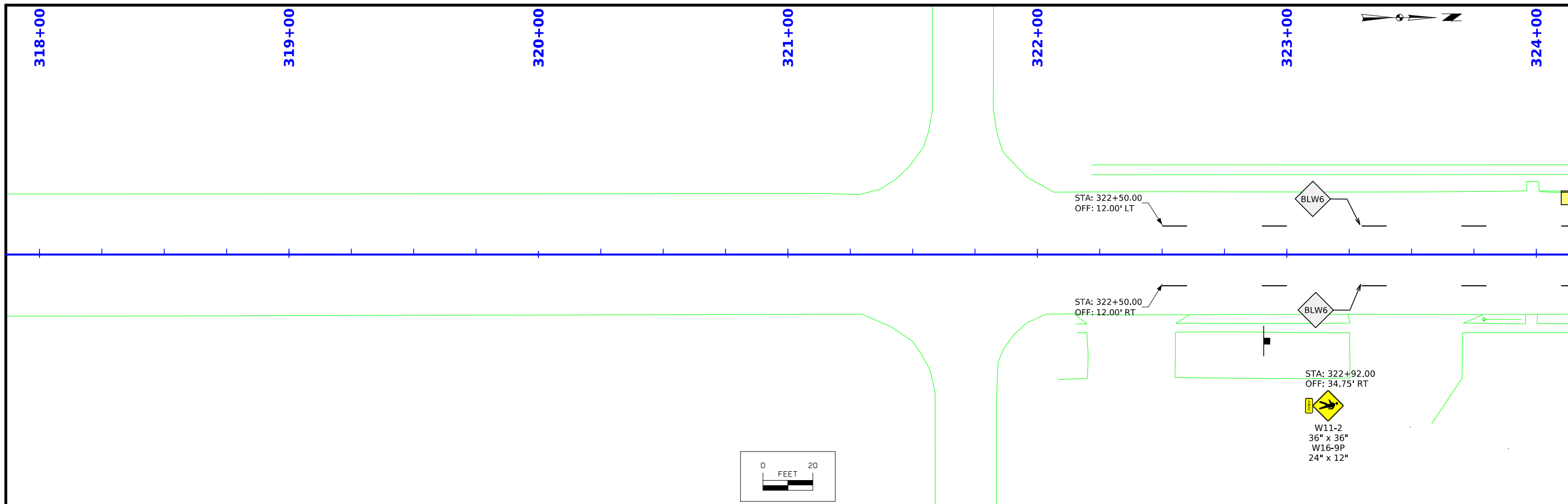


POLE, HANDHOLE, AND CABINET LOCATIONS				
POLE NO.	STATION	OFFSET	L/R	COMMENTS
T1	337+86.67	45.99'	L	SUGGESTED WOOD POLE LOCATION
T2	338+72.79	38.09'	L	SUGGESTED WOOD POLE LOCATION
T3	338+71.98	34.69'	R	SUGGESTED WOOD POLE LOCATION
T4	337+94.26	37.62'	R	SUGGESTED WOOD POLE LOCATION
T5	338+53.28	82.61'	L	SUGGESTED WOOD POLE LOCATION

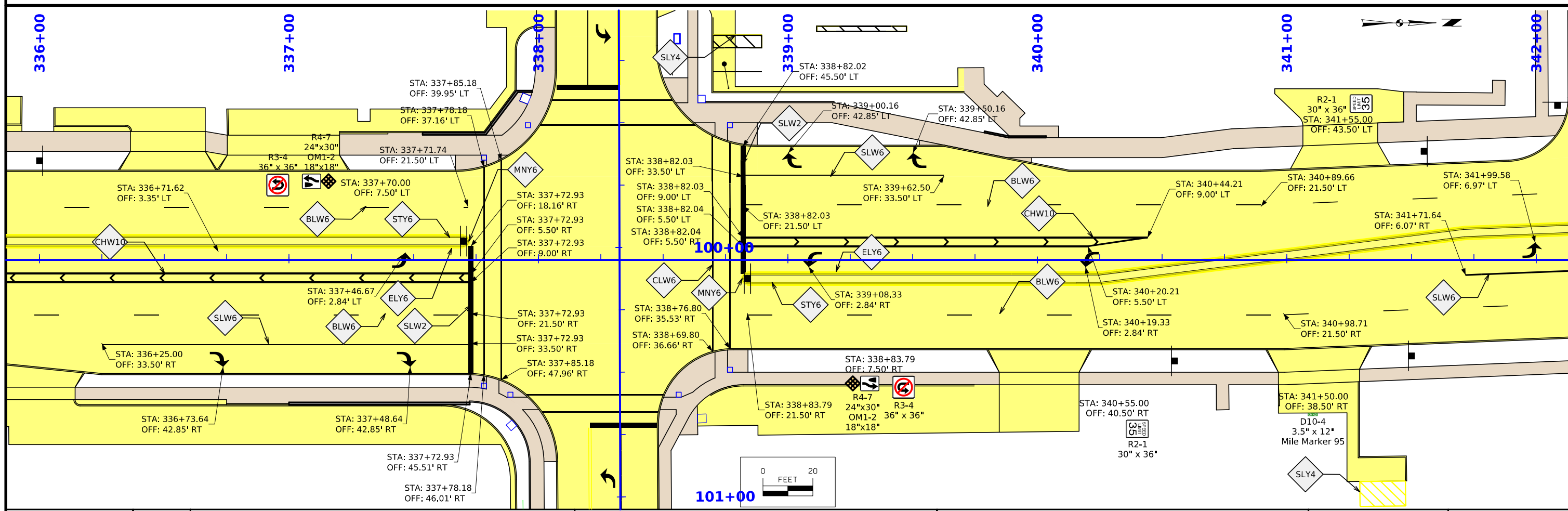
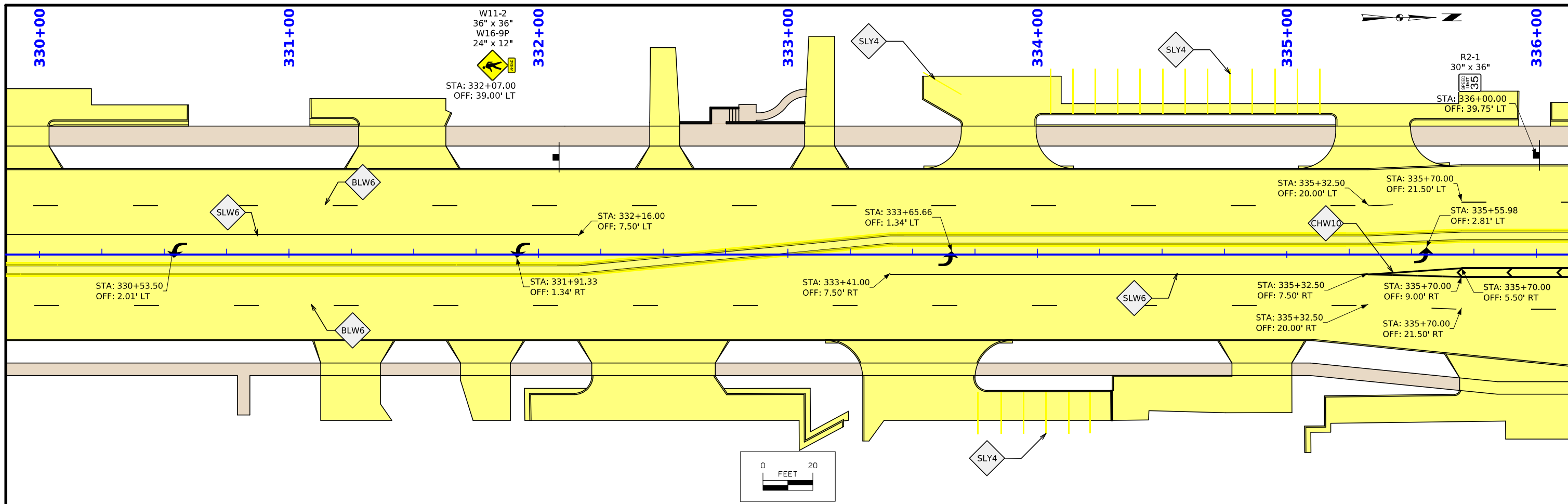


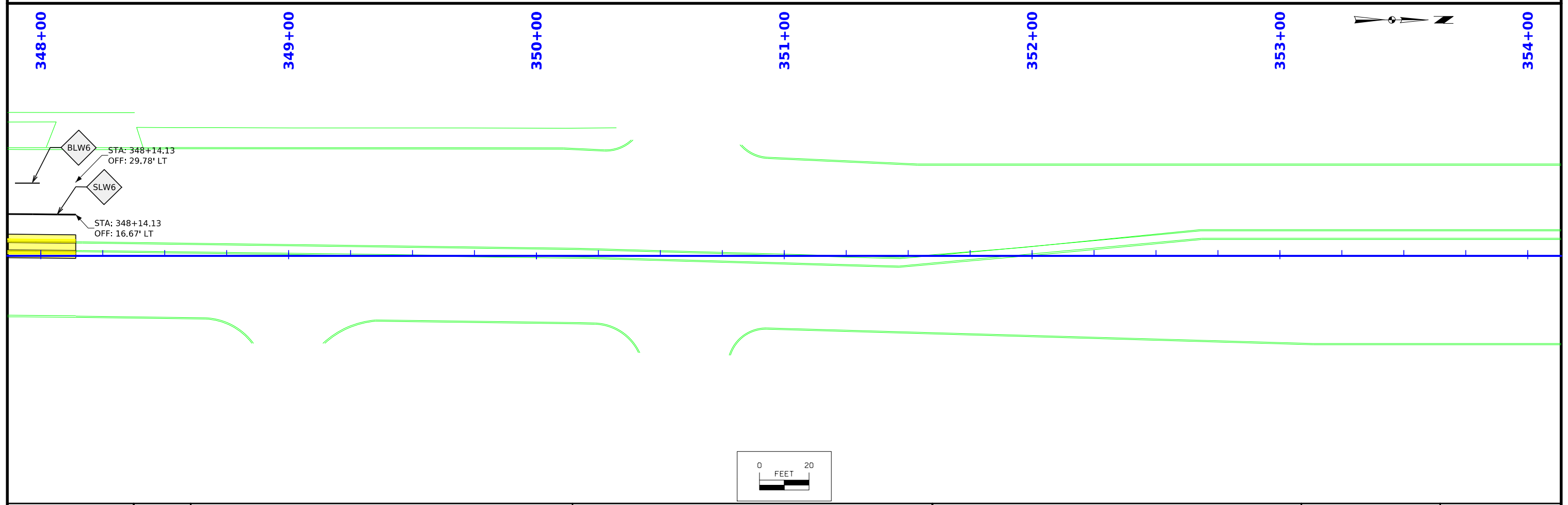
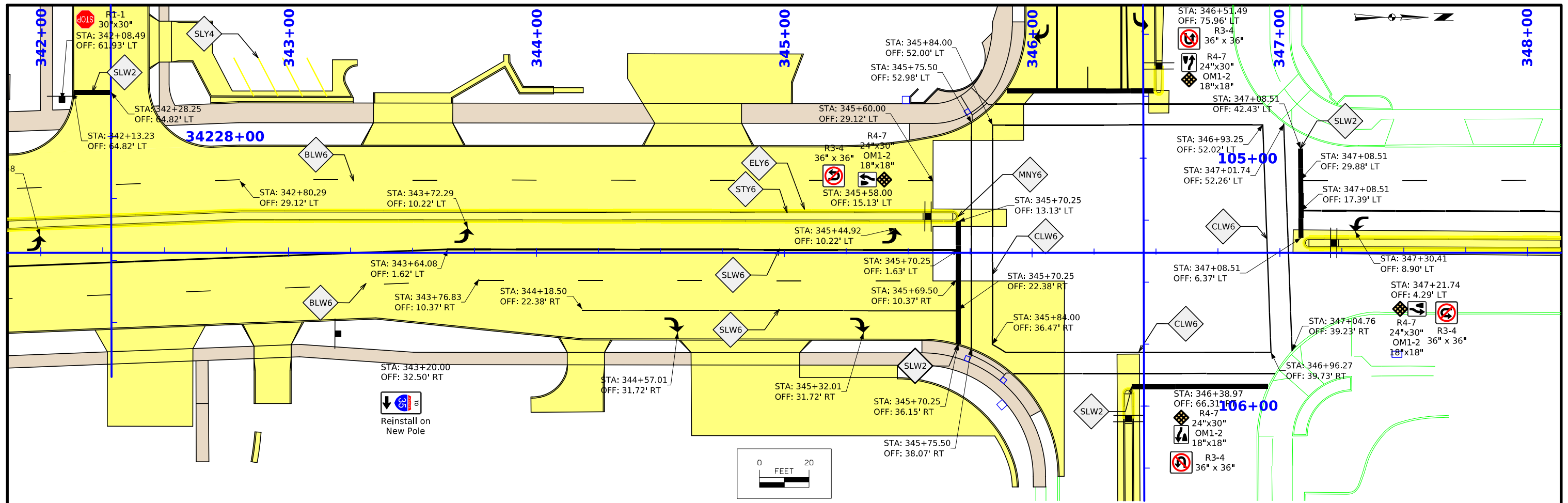




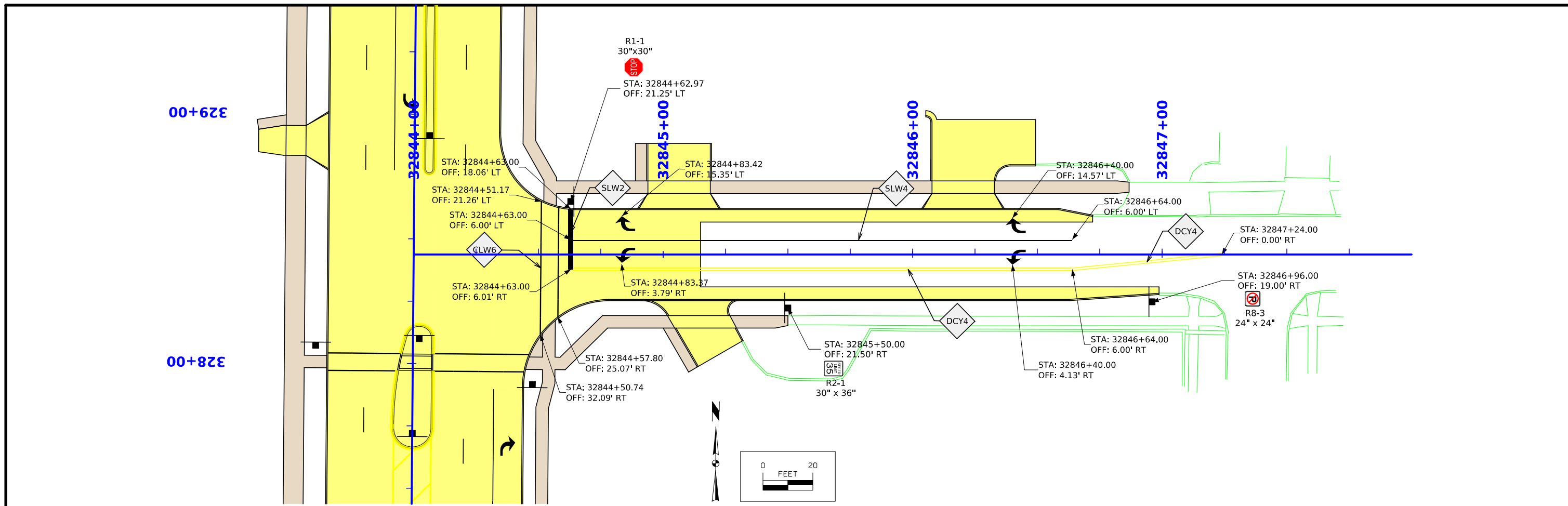


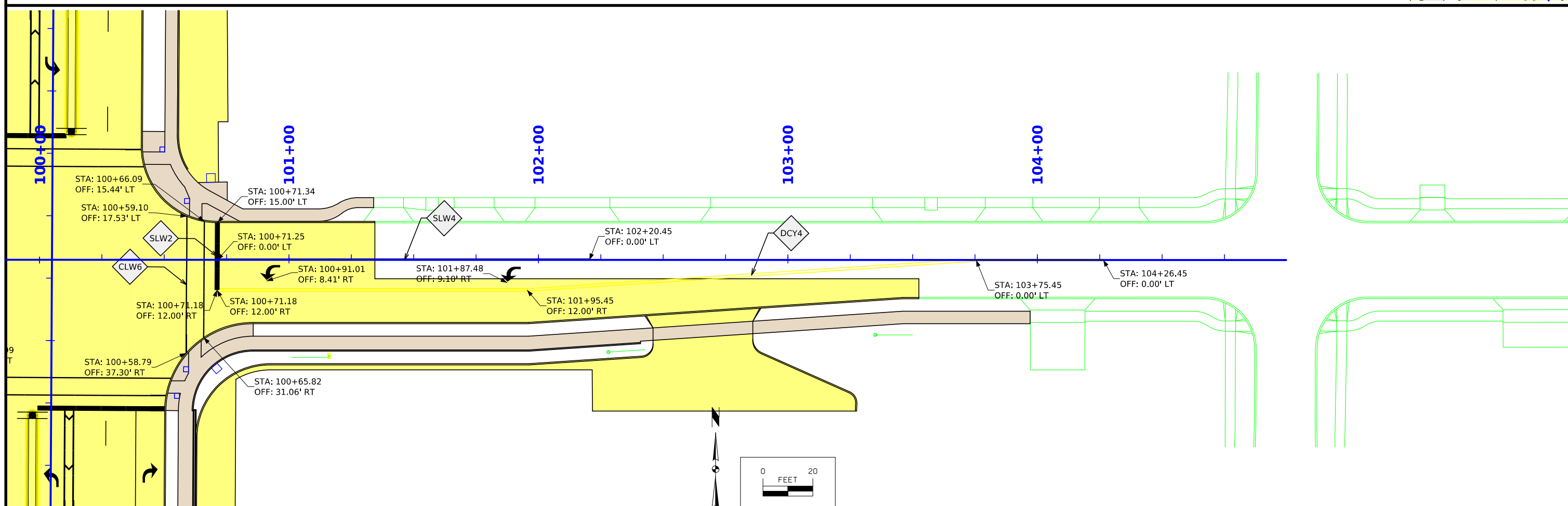
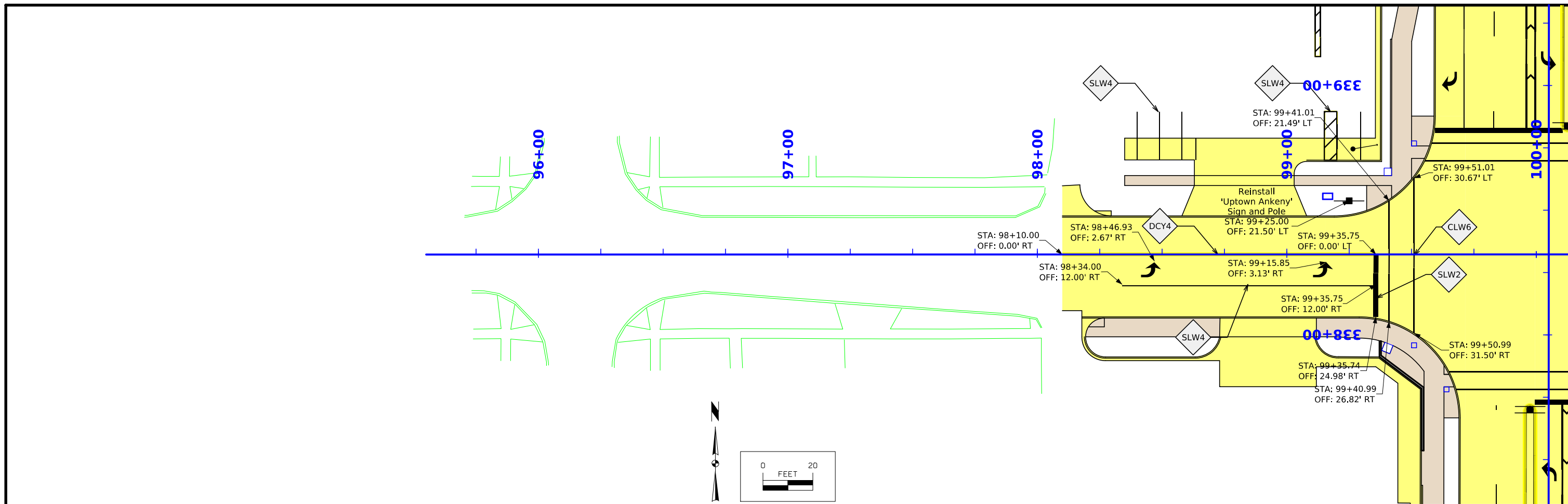




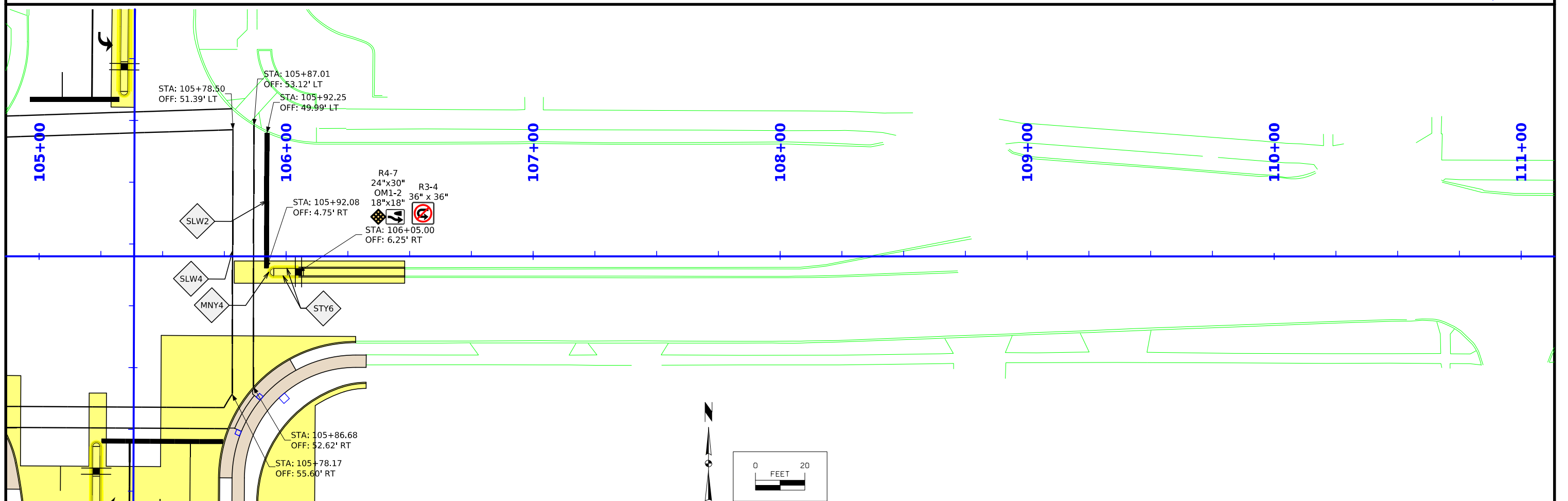
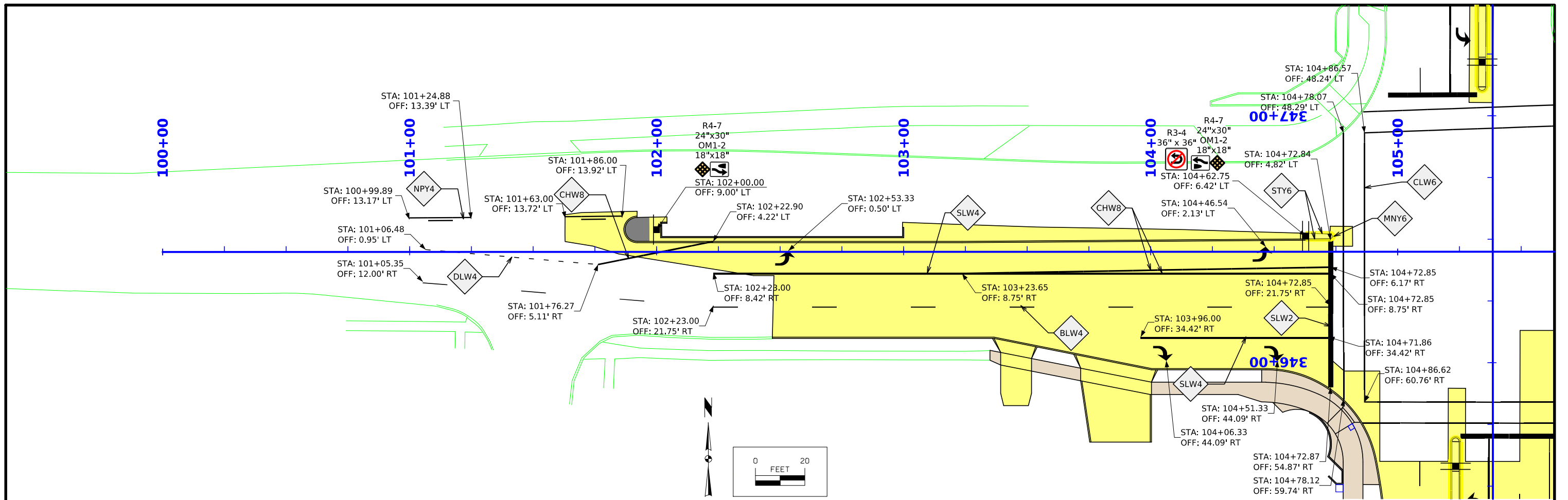












### SURVEY SYMBOLS

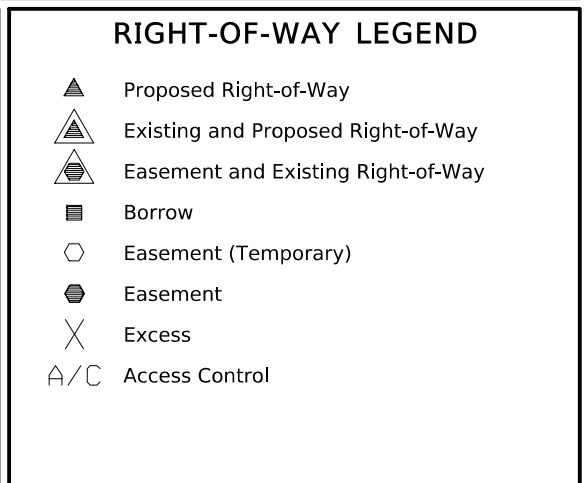
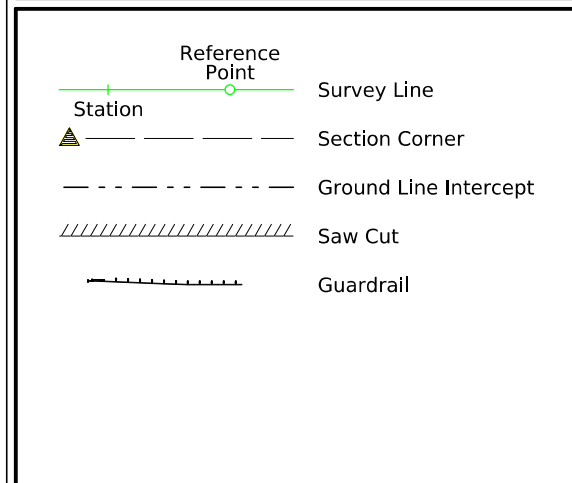
- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- Sign
- Traffic Signal Control Box
- Rail Road Signal Control Box
- Telephone Switch Box
- Electric Box
- Utility Pole

### UTILITY LEGEND

- City of Ankeny  
Roger McFarland  
515-460-3747  
RMCFARLAND@ANKENYIOWA.GOV
- City of Ankeny  
Shawn Buckner  
515-979-6987  
SBUCKNER@ANKENYIOWA.GOV
- City of Ankeny Traffic  
Tom Dozler  
515-963-3527  
TDOZLER@ANKENYIOWA.GOV
- City of Ankeny Traffic  
Tom Dozler  
515-963-3527  
TDOZLER@ANKENYIOWA.GOV
- City of Ankeny Traffic  
Tom Dozler  
515-963-3527  
TDOZLER@ANKENYIOWA.GOV
- ACSD Ankeny Fiber  
Paul Mahoney  
515-965-9604 ext. 52993  
PAUL.MAHONEY@ANKENYSCHOOLS.ORG
- ACSD Ankeny Fiber  
Paul Mahoney  
515-965-9604 ext. 52993  
PAUL.MAHONEY@ANKENYSCHOOLS.ORG
- Aureon  
Jeff Klocko  
515-830-0445  
JEFF.KLOCKO@AUREON.COM
- Lumen Technologies  
Austin Freeseaman  
515-263-7385  
AUSTIN.FREESEMAN@LUMEN.COM
- Lumen Technologies  
Austin Freeseaman  
515-263-7385  
AUSTIN.FREESEMAN@LUMEN.COM
- Mediacom  
Dave Meyers  
515-991-7833  
DMEYERS2@MEDIACOMCC.COM
- Mediacom  
Dave Meyers  
515-991-7833  
DMEYERS2@MEDIACOMCC.COM
- Metronet (Metro Fibernet)  
Chas Antle  
641-841-0384  
CHAS.ANTLE@METRONET.COM
- MidAmerican - Electric  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- MidAmerican - Electric  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- MidAmerican - Gas  
Matthew Novy  
515-252-6730  
MATTHEW.NOVY@MIDAMERICAN.COM
- Unite Private Networks  
Dakota Pardekooper  
515-371-7104  
DAKOTA.PARDEKOOPER@UPNFIBER.COM
- Unite Private Networks  
Dakota Pardekooper  
515-371-7104  
DAKOTA.PARDEKOOPER@UPNFIBER.COM
- U.S. Cellular  
Daryl Morris  
603-486-9357  
DARYL.MORRIS@USCELLULAR.COM
- Verizon (MCI)  
Thanh (TK) Nguyen  
515-783-7177  
THANH.NGUYEN3@VERIZON.COM
- Verizon Wireless  
Ryan Schaffer  
515-201-5382  
RYAN.SCHAFFER@VERIZONWIRELESS.COM
- Windstream  
Kelly Wingfield  
515-559-4031  
kelly.wingfield@windstream.com

### PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

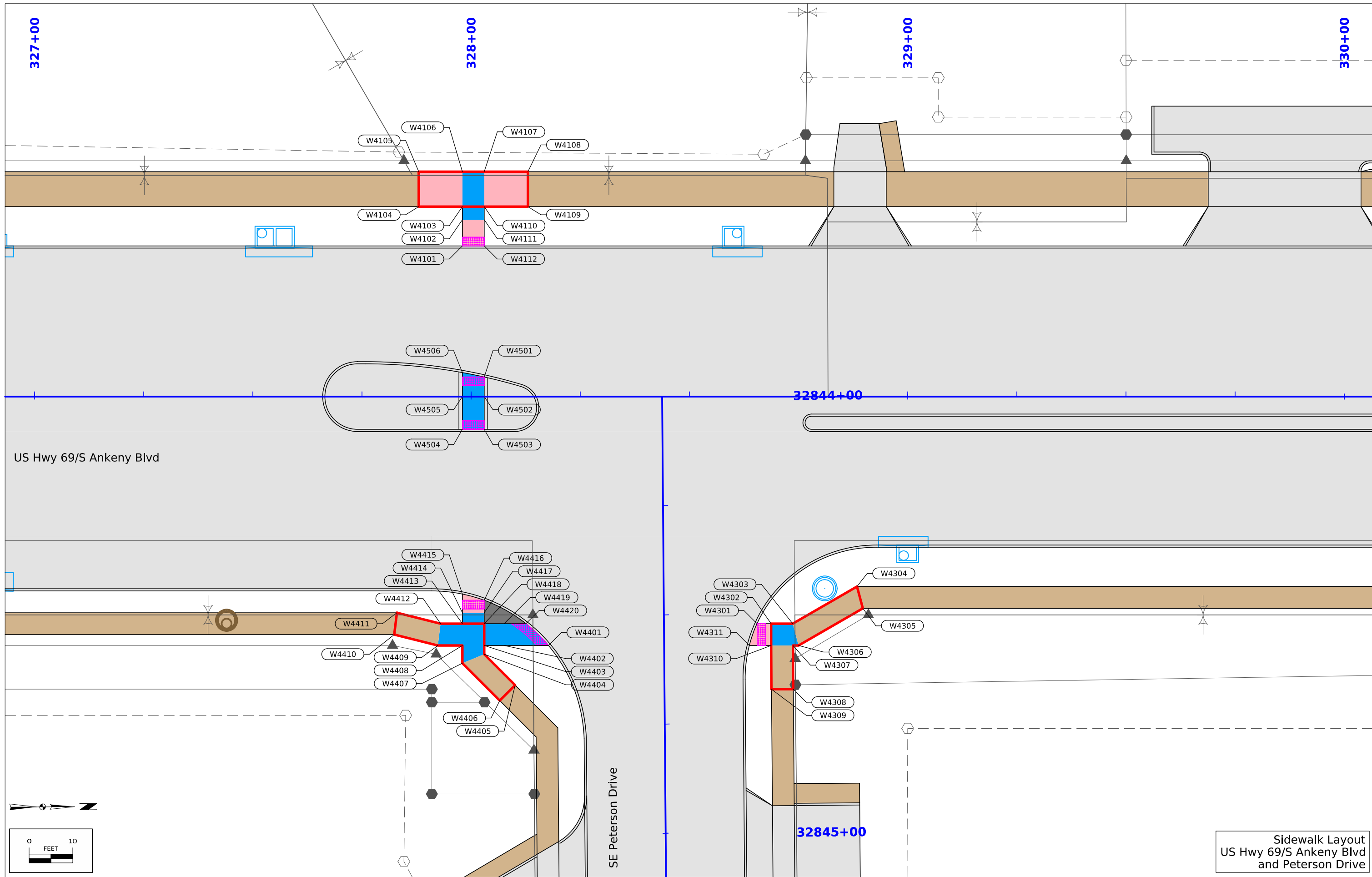
LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading
Gray, Dark	(112)		Proposed Sidewalk Textured Shading
Red	(3)		Proposed Sidewalk Colored and Textured Outline
Magenta	(5)		Detectable Warning
Yellow	(4)		Highlight for Critical Notes or Features
Red	(3)		Delineates Restricted Areas
Lavender	(9)		Temporary Pavement Shading
Gray, Light	(48)		Proposed Pavement Shading



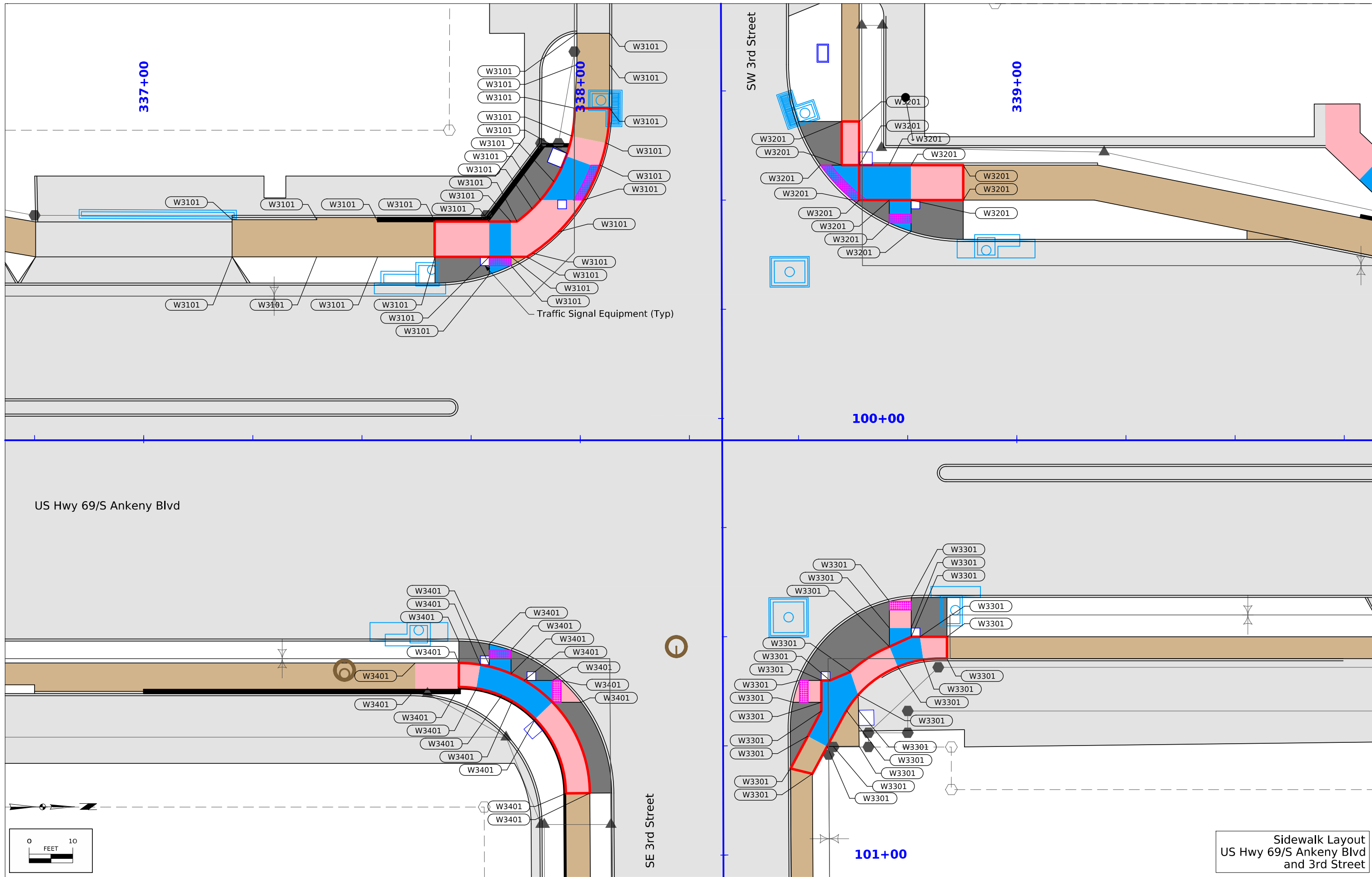
## SIDEWALK LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES S)

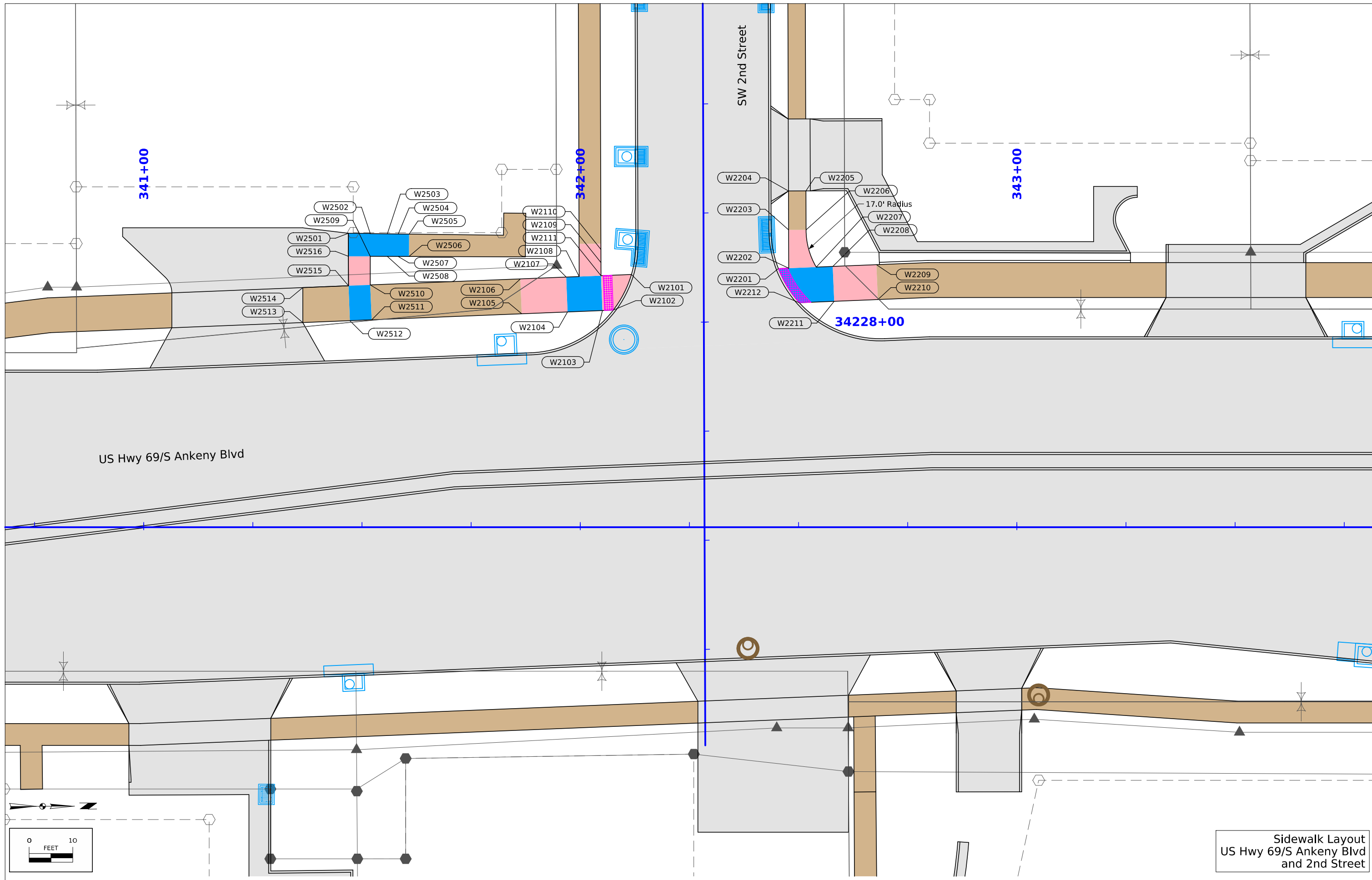




Sidewalk Layout  
 US Hwy 69/S Ankeny Blvd  
 and Peterson Drive







US Hwy 69/S Ankeny Blvd

SW 2nd Street

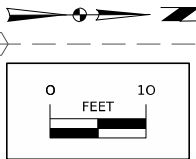
341+00

342+00

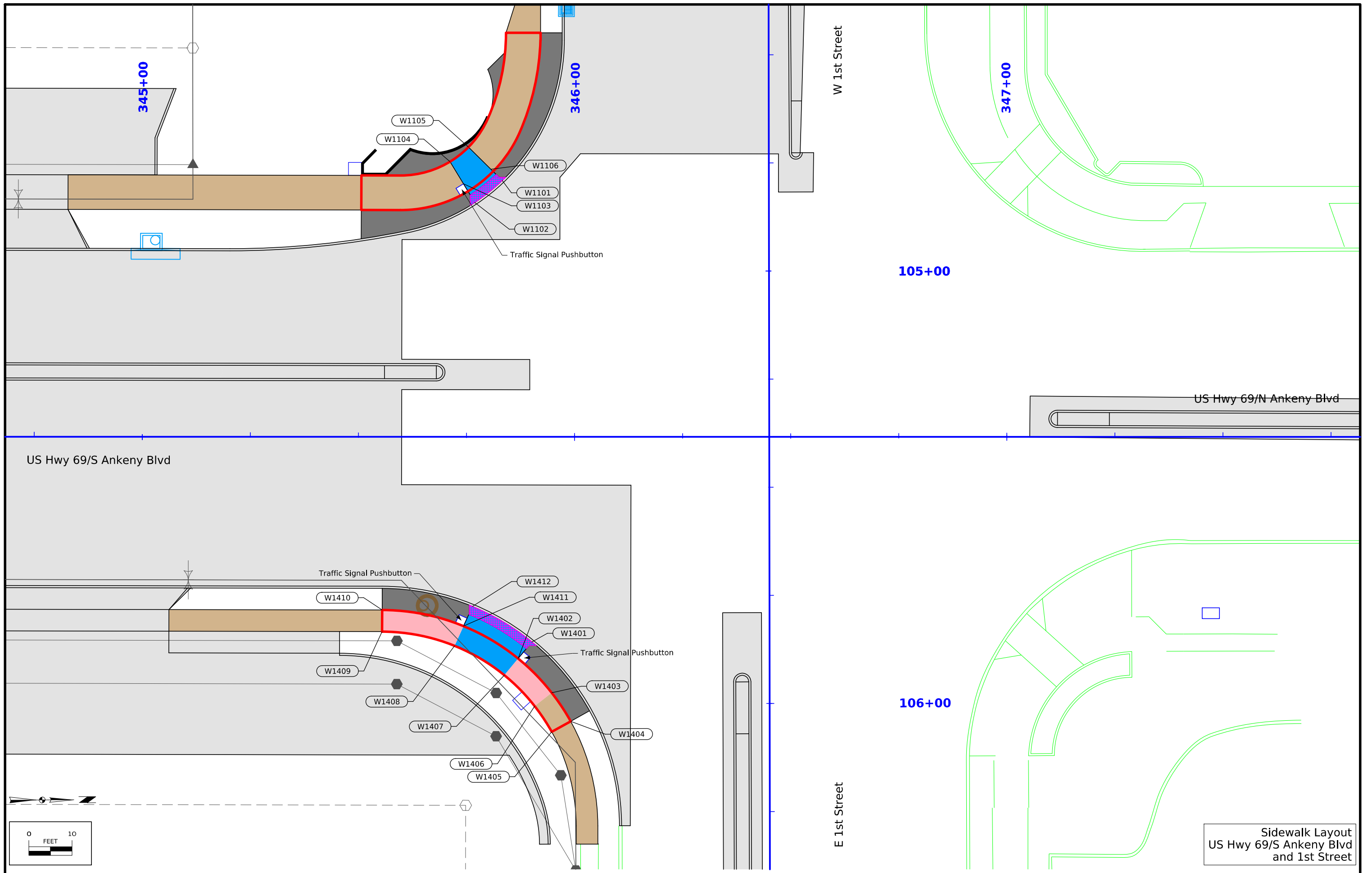
343+00

342+28+00

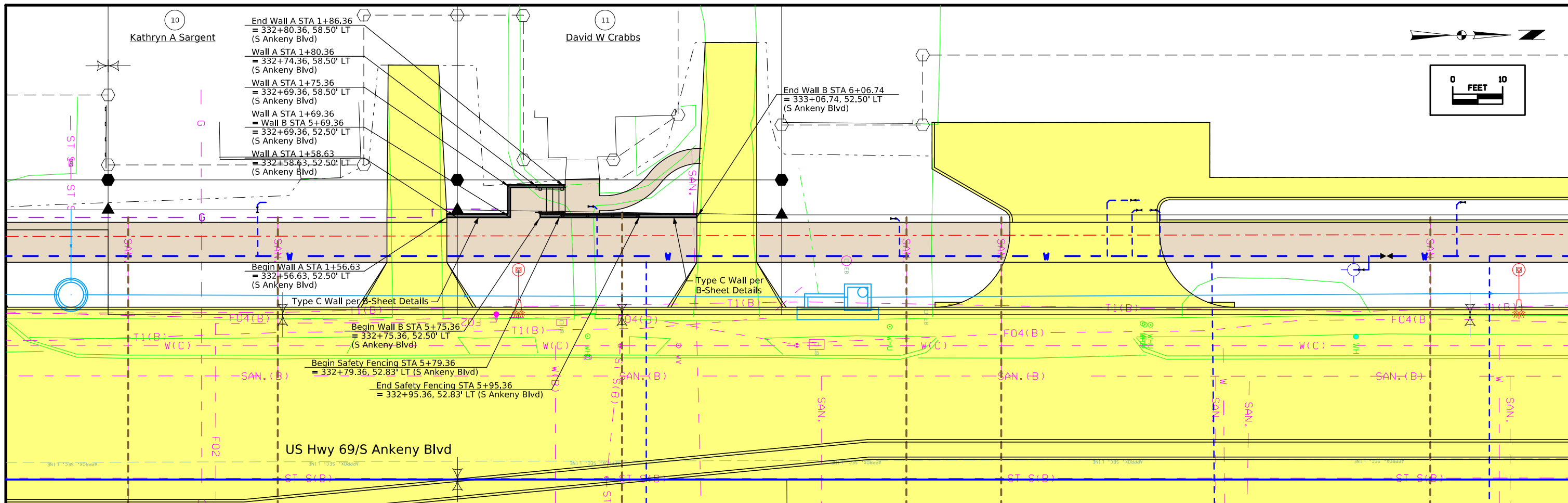
17.0' Radius



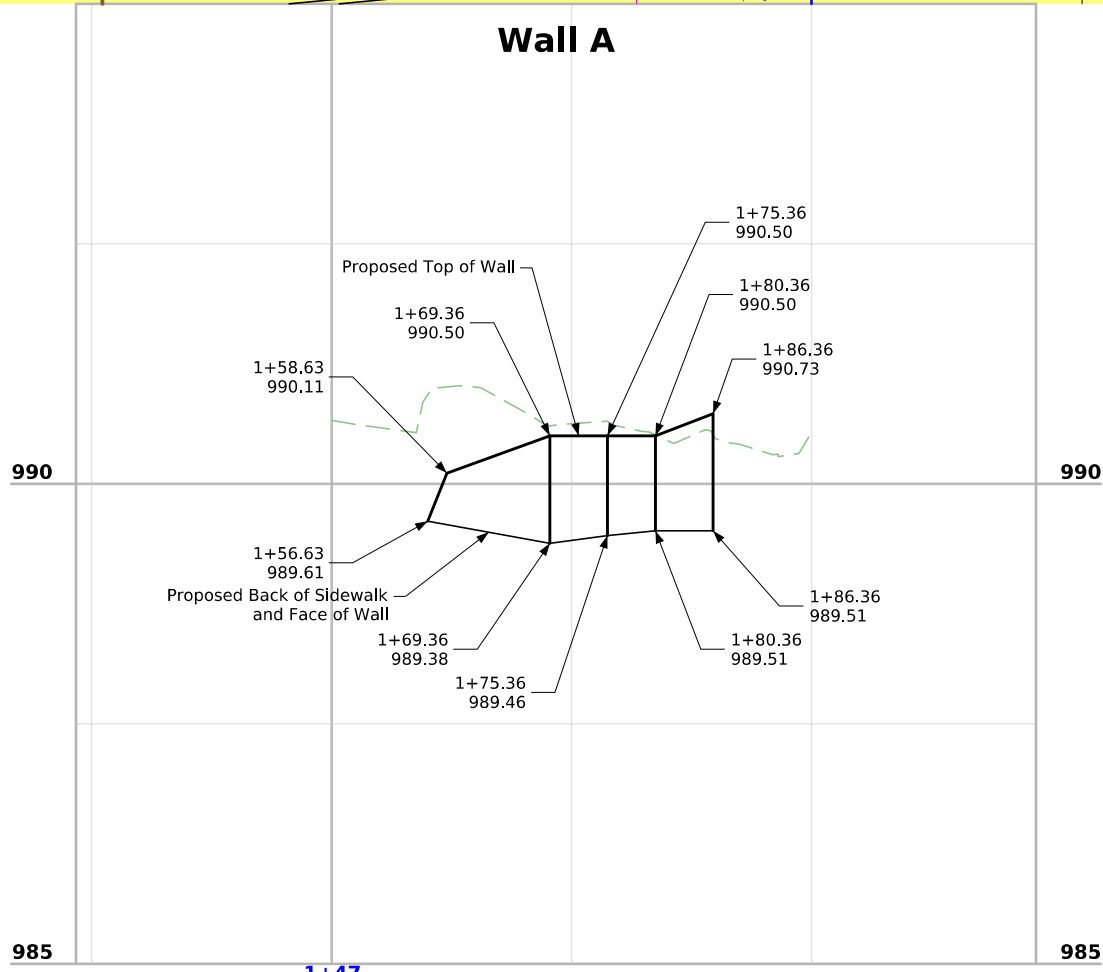
Sidewalk Layout  
US Hwy 69/S Ankeny Blvd  
and 2nd Street



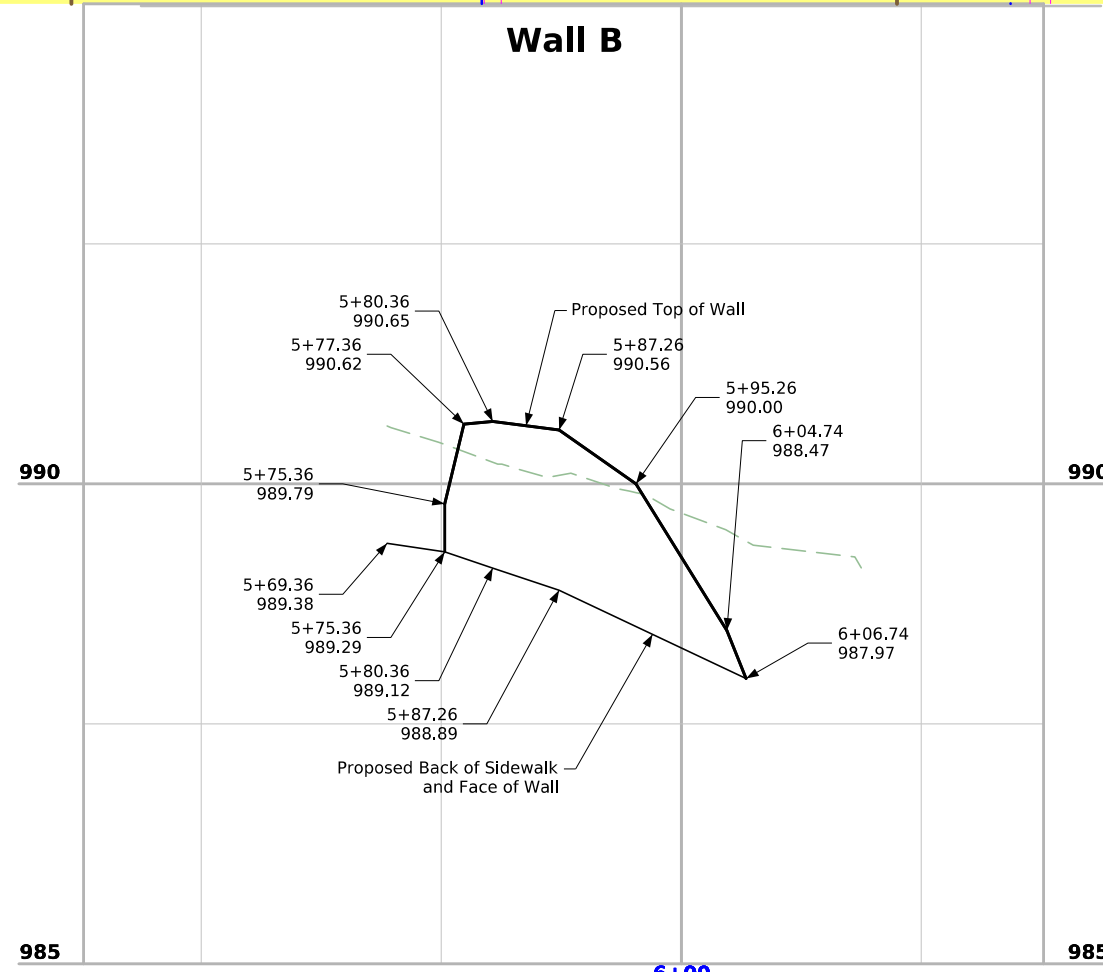


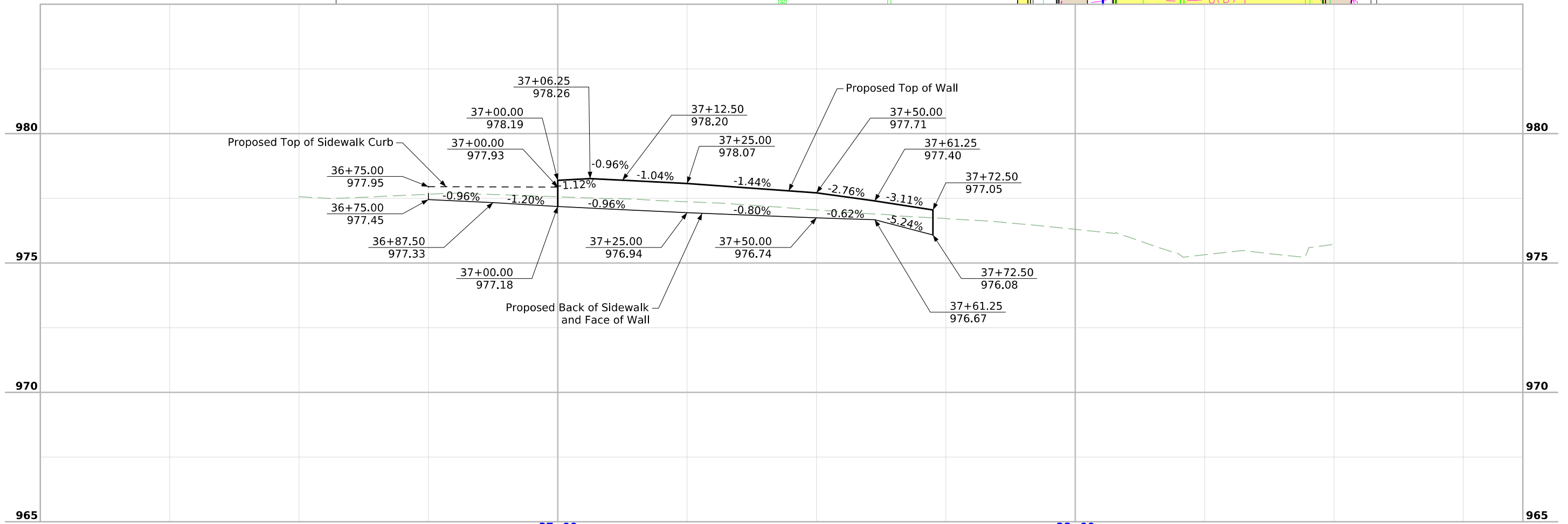
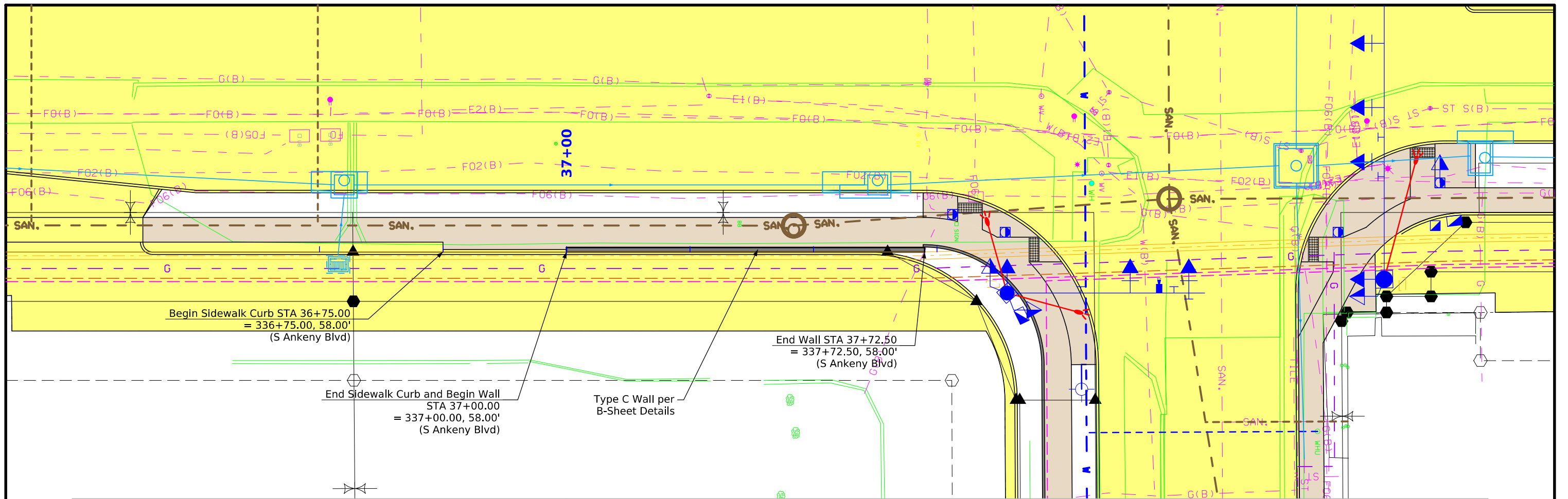


**Wall A**

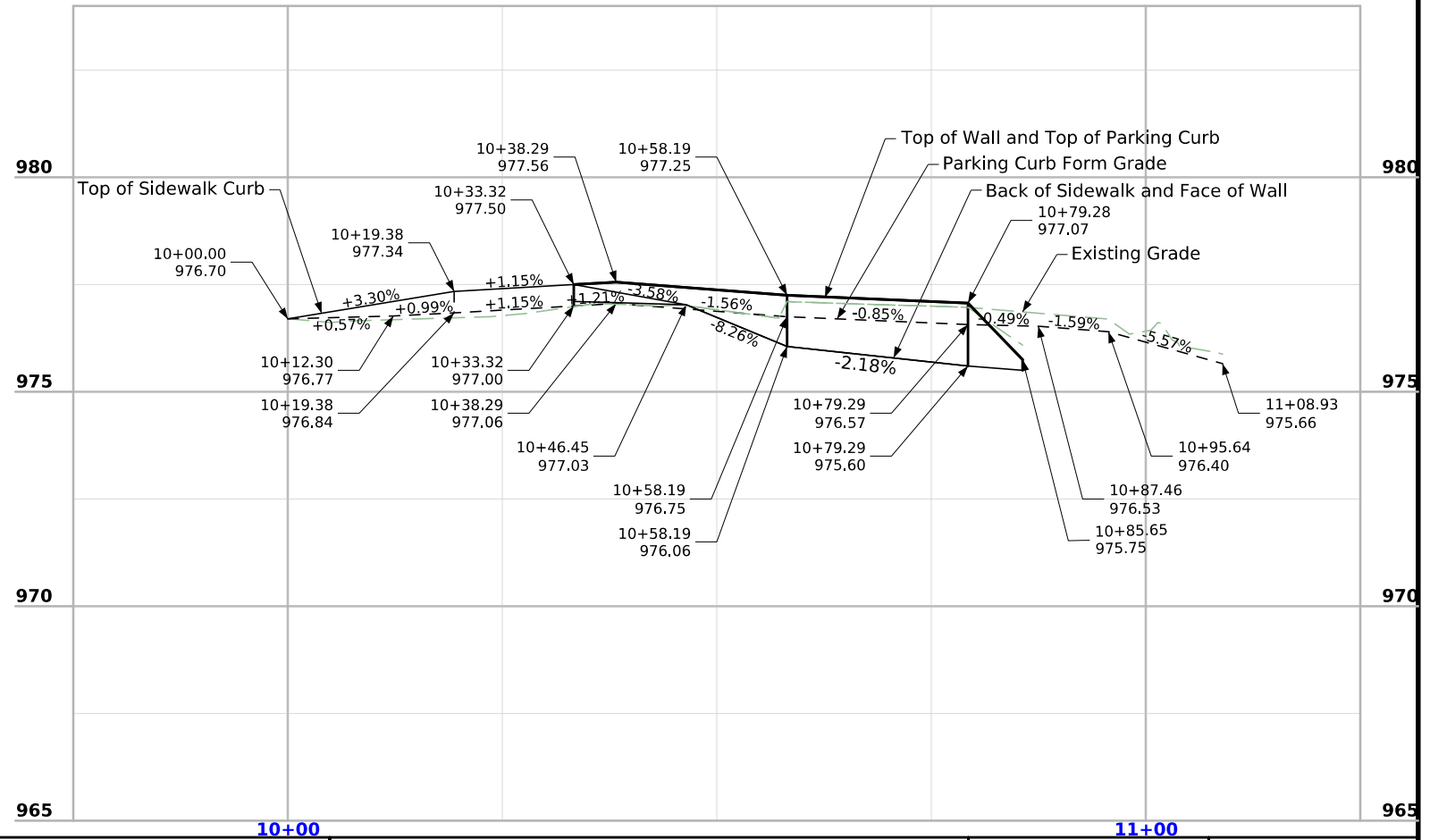
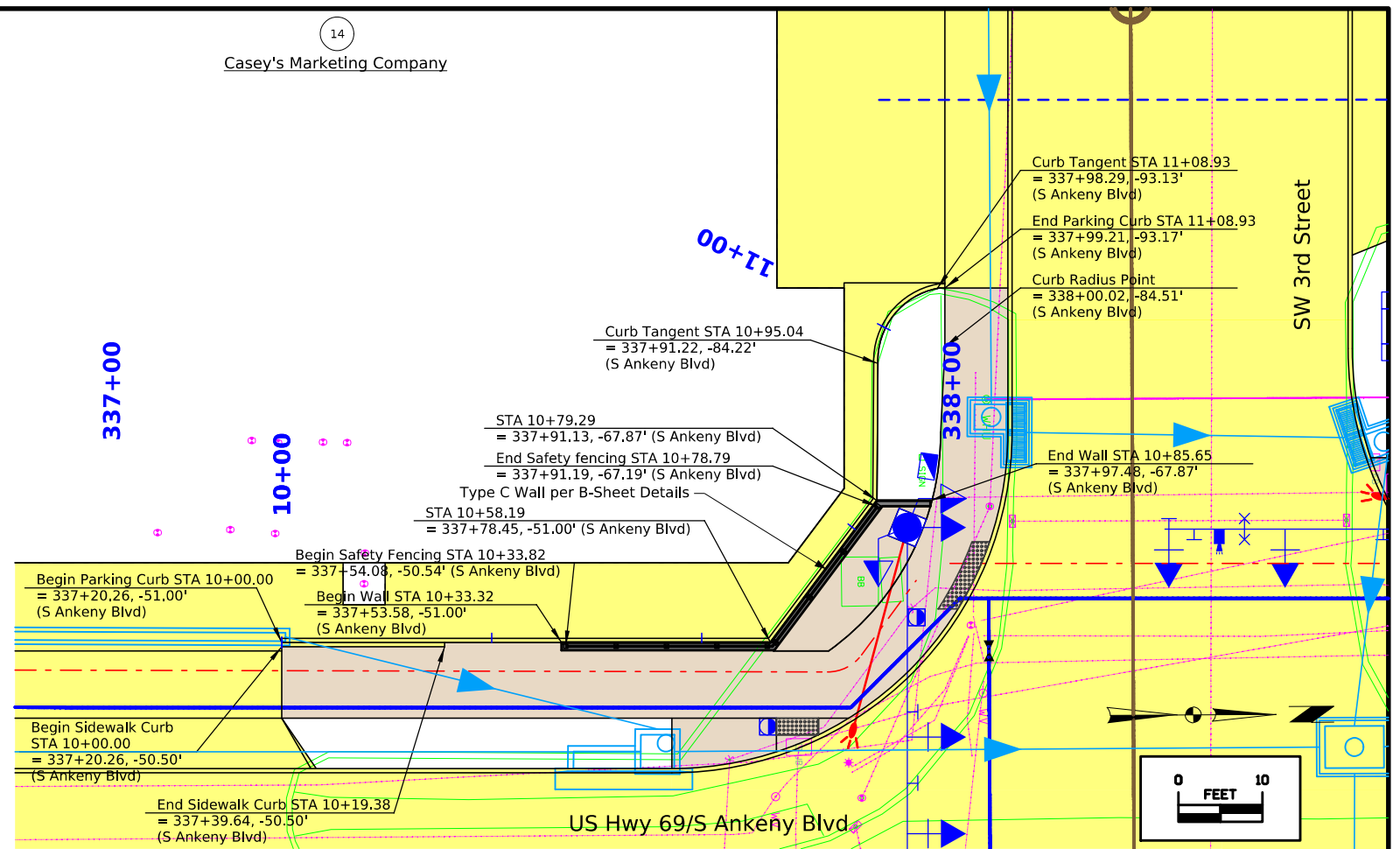


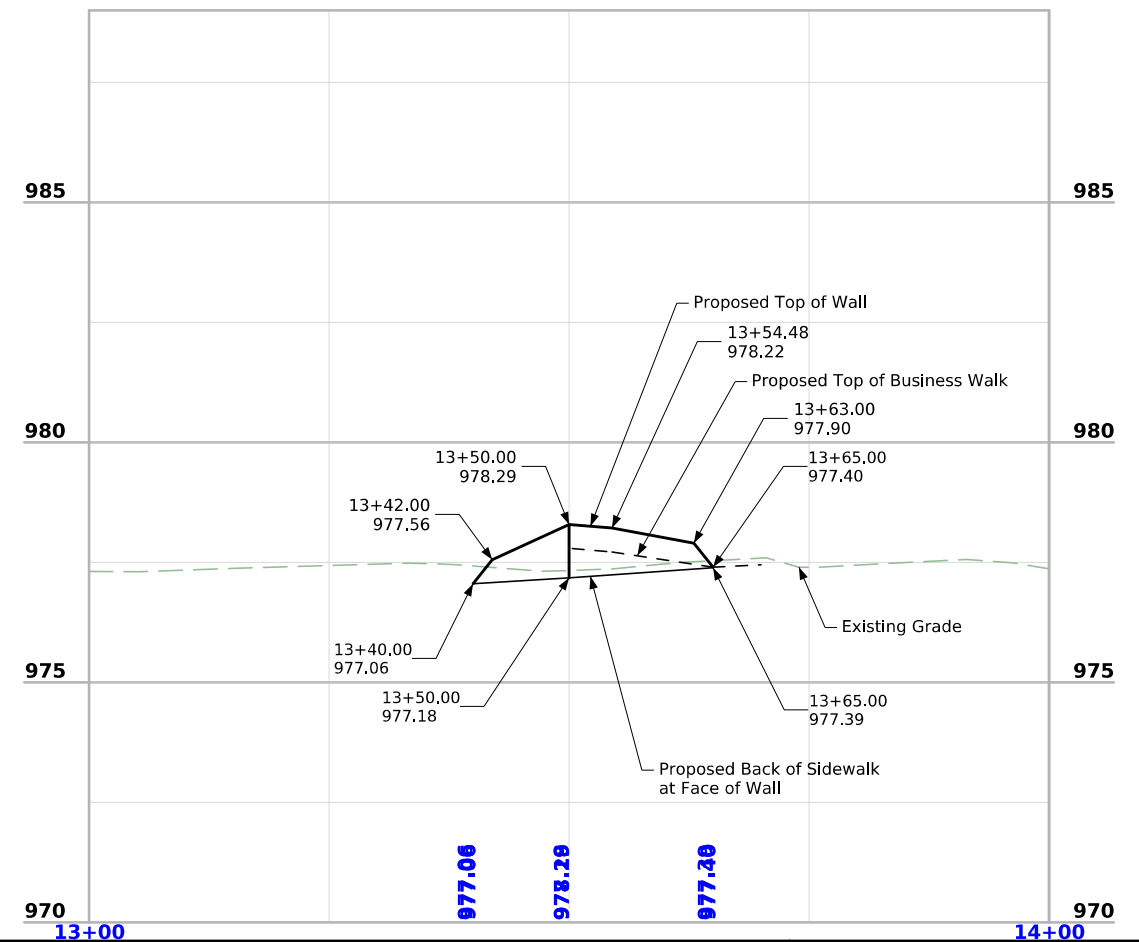
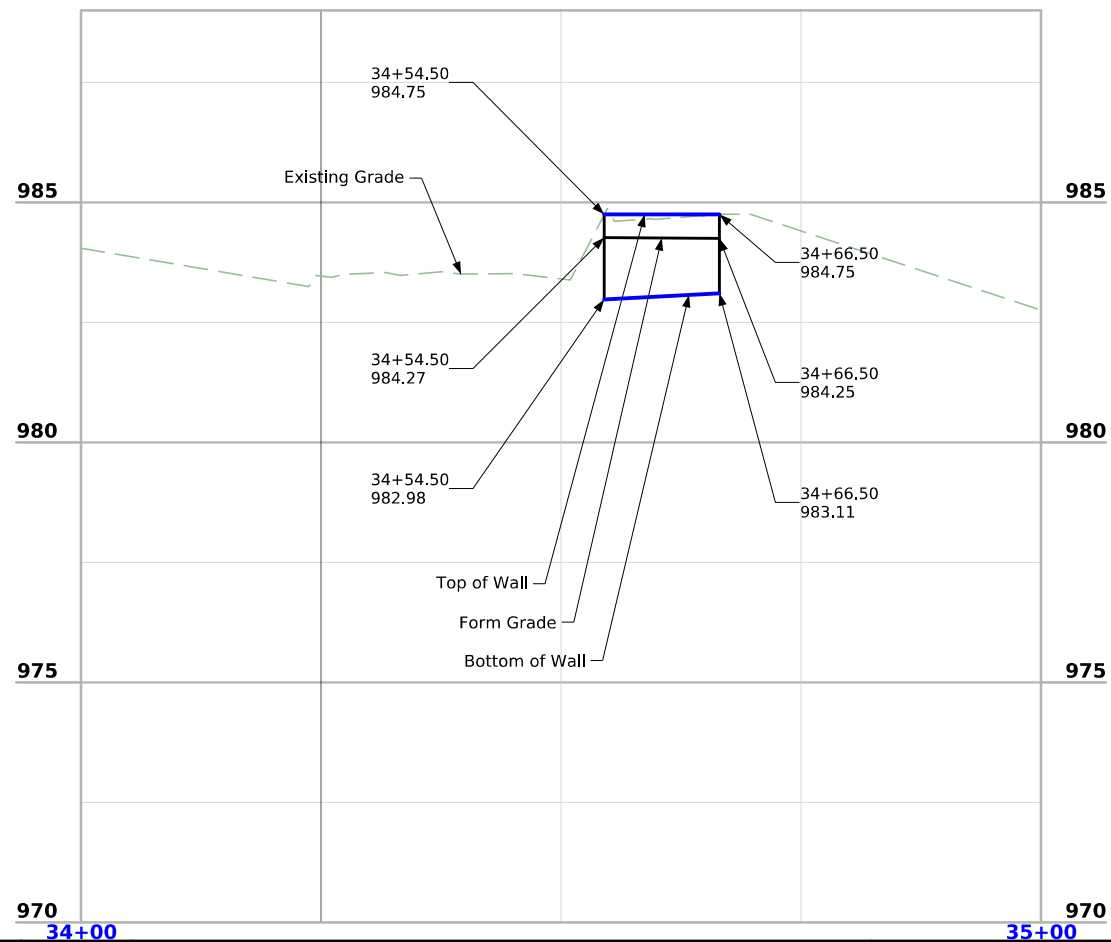
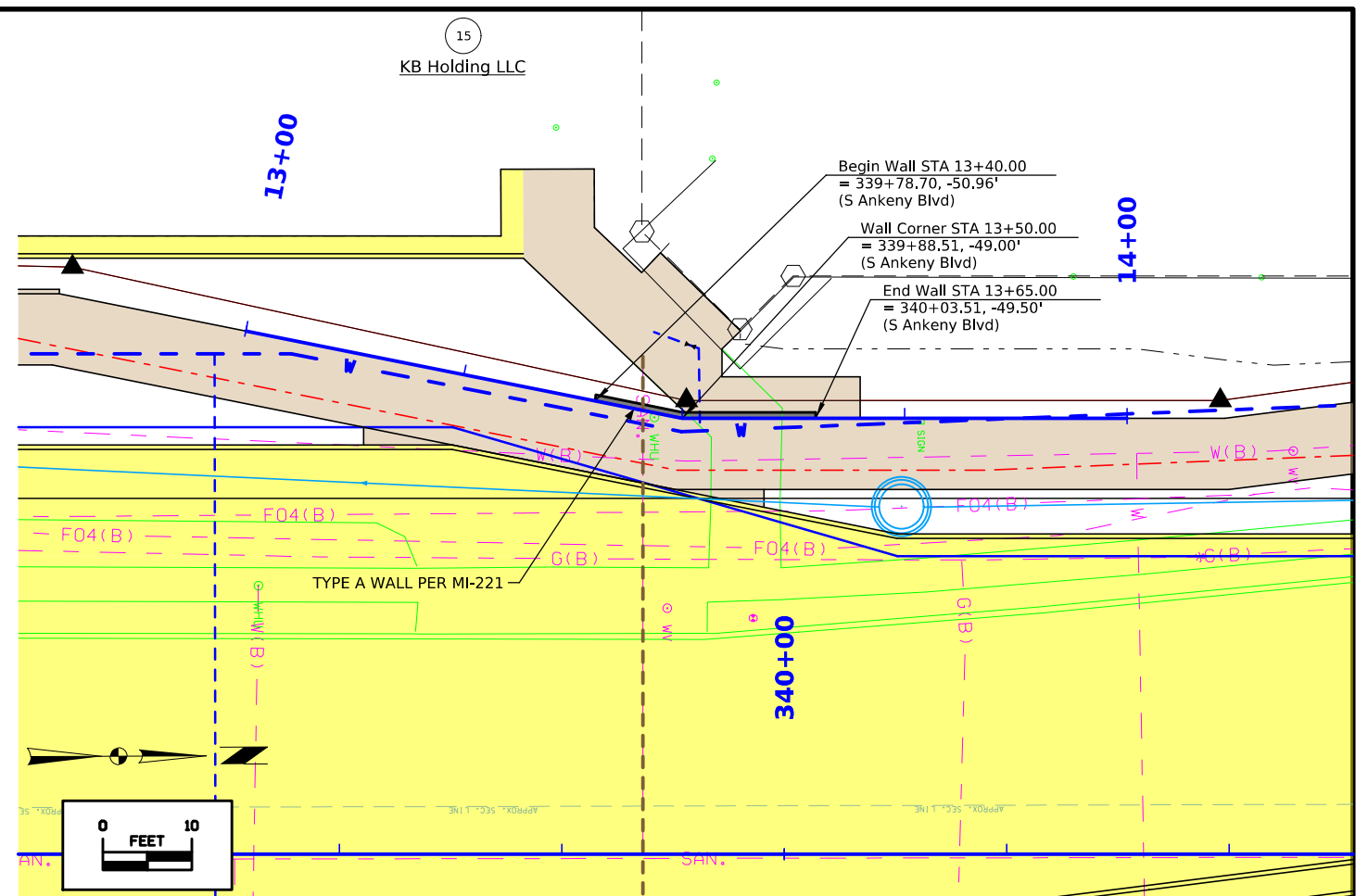
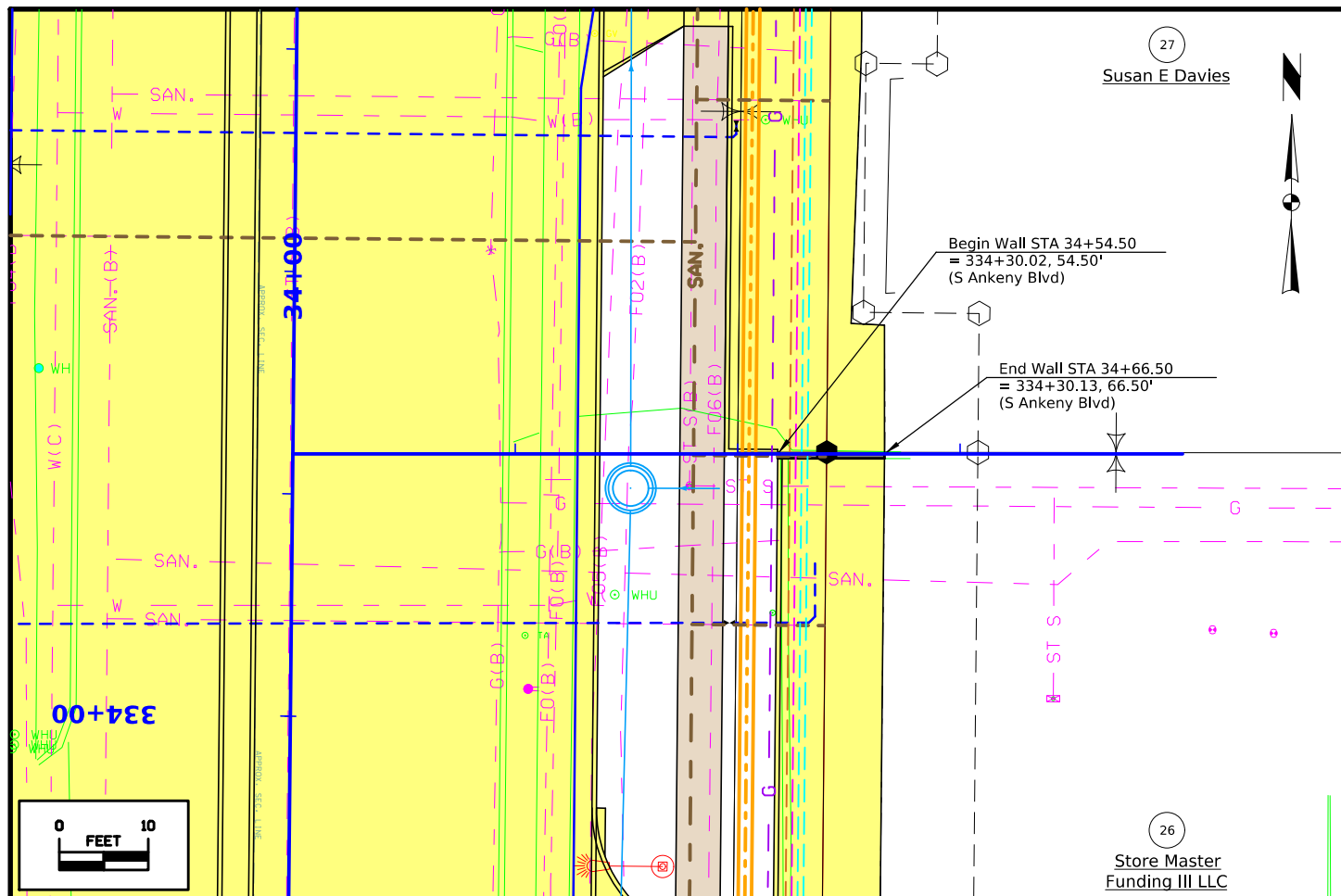
**Wall B**



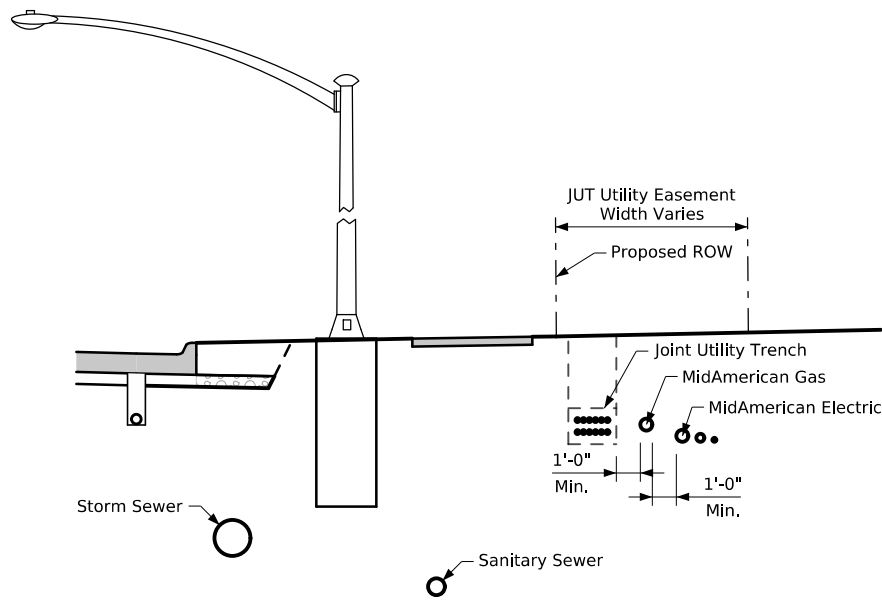




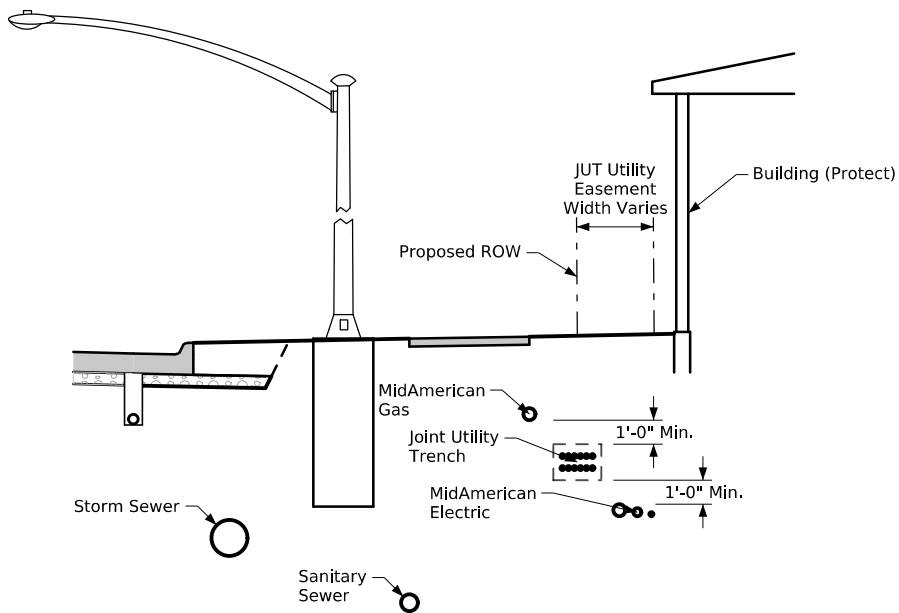






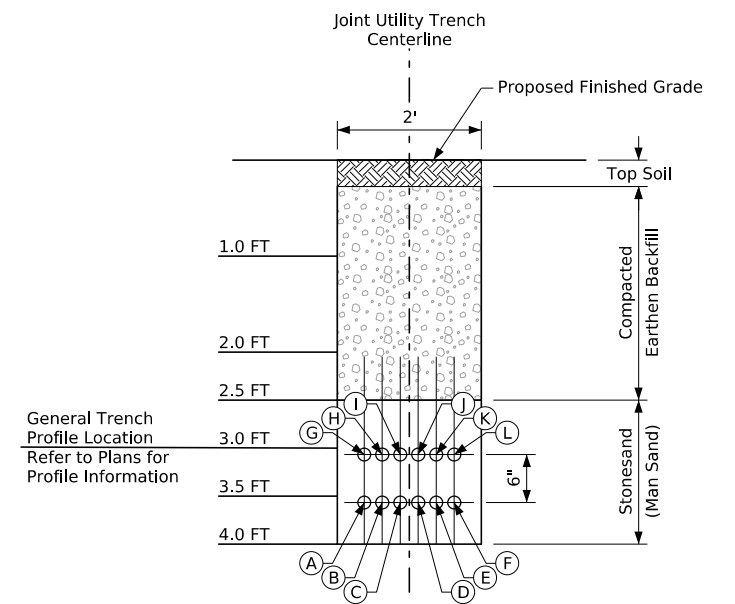


Typical Section 1  
(Refer to Plans for Additional Information)



Typical Section 2  
(Parcel 33 Frontage)

Conduit Tabulation					
ID#	CONDUIT OWNER	CONDUIT SIZE (IN)	CONDUIT COLOR	NUMBER OF CONDUITS (EA)	WIRING
A	LUMEN	2	GREEN W/ RED STRIPE	1	PR
B	LUMEN	2	GREEN W/ RED STRIPE	1	PR
C	UPN	2	GREEN W/ BLACK STRIPE	1	PR
D	UPN	2	GREEN W/ BLACK STRIPE	1	PR
E	VERIZON	2	GREEN W/ YELLOW STRIPE	1	PR
F	VERIZON	2	GREEN W/ YELLOW STRIPE	1	PR
G	MEDIACOM	2	GREEN W/ WHITE STRIPE	1	PR
H	MEDIACOM	2	GREEN W/ WHITE STRIPE	1	PR
I	METRONET	2	GREEN	1	PR
J	METRONET	2	GREEN	1	PR
K	FUTURE SPARE 1	2	ORANGE	1	PR
L	FUTURE SPARE 2	2	ORANGE W/ BLUE STRIPE	1	PR
	FUTURE SPARE 3		ORANGE W/ GREEN STRIPE		



Joint Utility Trench Detail - Trenched Construction  
US Hwy 69/S Ankeny Blvd

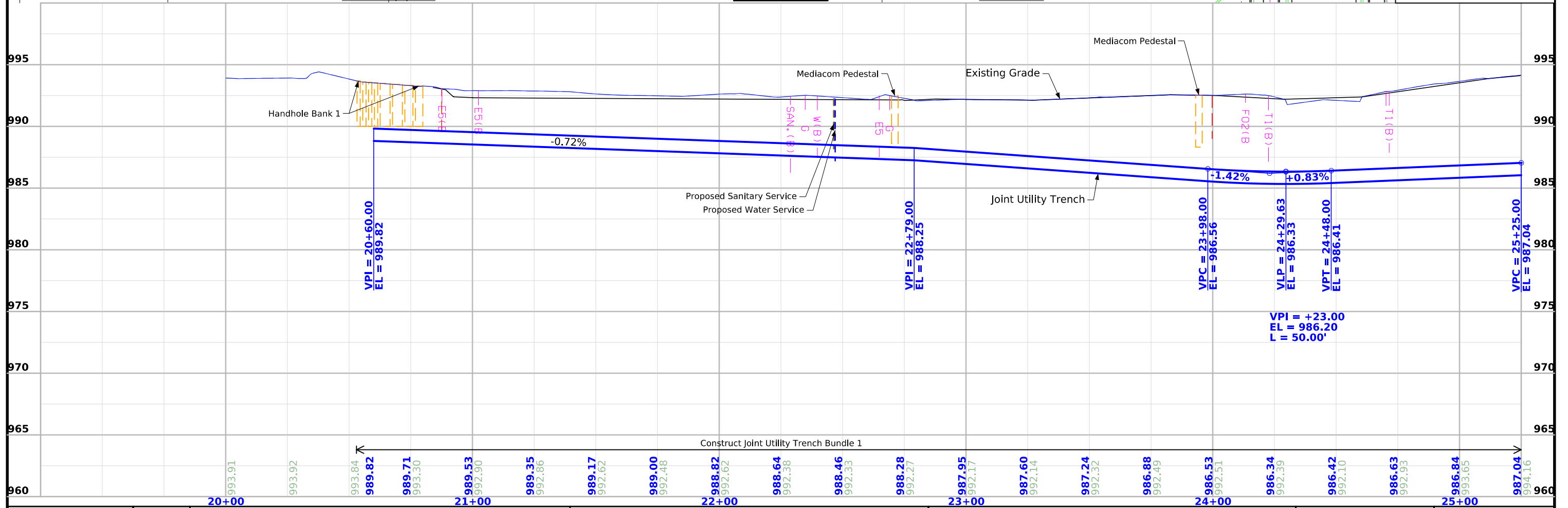
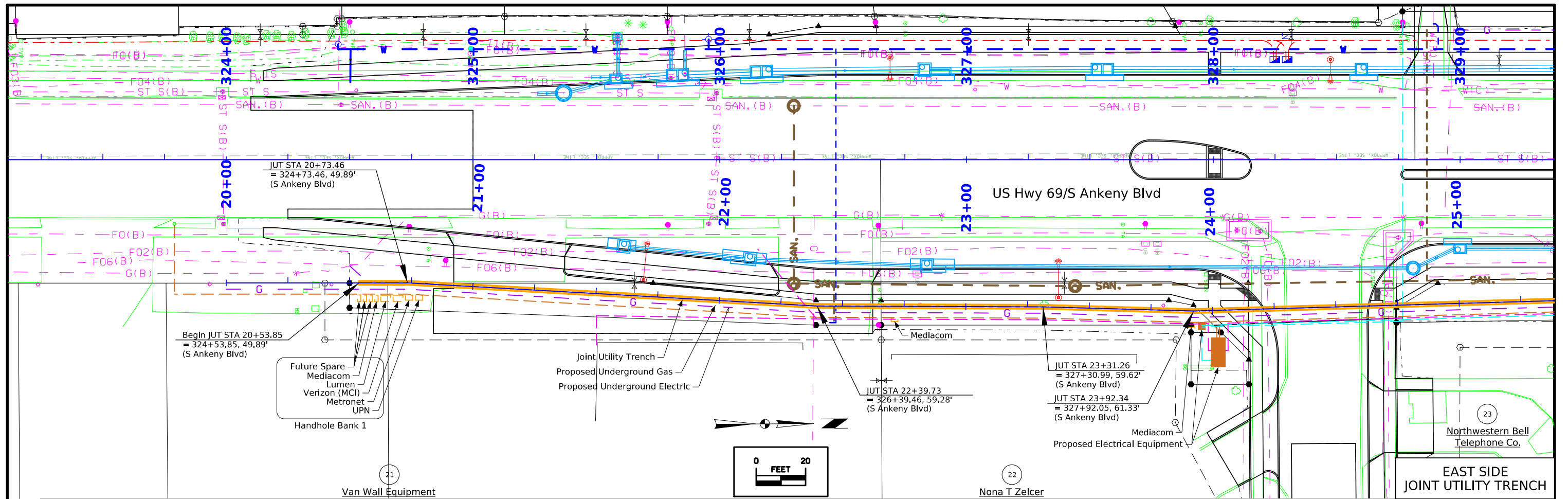
- Notes:
1. Ensure backfill material is free of cinders, concrete, or other rubble.
  2. Backfill material shall be compacted.
  3. Install tracer wire and pull rope in each conduit.
  4. Detail Shows Trenched Construction. Directional Bored Methods are Acceptable Means of Construction and Shall Follow the Same Conduit Information.
  5. Submit Alternate Conduit Layout to Engineer for Approval.

Joint Utility Trench (JUT) Conduit Bundles					
BUNDLE ID#	STATION	STATION	SIDE	CONDUIT ID#	NOTES
1	20+55	40+65	RT	A, B, C, D, E, F, G, H, I, J, K, L	
2	40+65	42+00	RT	C, D, E, F, K, L	
3	2655+04	2656+20	CTR	A, C, G, I	
4	3872+12	3873+30	CTR	A, E, G, I	

GENERAL NOTE: STATION RANGES ARE APPROXIMATE ONLY AND DEPEND ON FINAL CONFIGURATION AND CONSTRUCTION OF HANDHOLES.

Handhole Tabulation					
HANDHOLE BANK	HANDHOLE	HANDHOLE OWNER	HANDHOLE TYPE	HANDHOLE LID	STRENGTH
HANDHOLE BANK 1	A & B	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
	C & D	UPN	TYPE IV	UTILITY PROVIDED	TIER 22
	E & F	VERIZON	TYPE IV	UTILITY PROVIDED	TIER 22
	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
	I & J	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	K	FUTURE SPARE 1	TYPE III	STANDARD, "FIBER OPTIC"	TIER 22
L	FUTURE SPARE 2	TYPE III	STANDARD, "FIBER OPTIC"	TIER 22	
HANDHOLE BANK 2	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
	A & B	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
	C & D	UPN	TYPE IV	UTILITY PROVIDED	TIER 22
	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 3	I & J	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 4	I & J	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	A & B	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 5	E & F	VERIZON	TYPE IV	UTILITY PROVIDED	TIER 22
	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 6	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
	I & J	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	A & B	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
	E & F	VERIZON	TYPE IV	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 7	G & H	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
	I & J	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	C & D	UPN	TYPE IV	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 8	E & F	VERIZON	TYPE IV	UTILITY PROVIDED	TIER 22
	K	FUTURE SPARE 1	TYPE III	STANDARD, "FIBER OPTIC"	TIER 22
	L	FUTURE SPARE 2	TYPE III	STANDARD, "FIBER OPTIC"	TIER 22
HANDHOLE BANK 9	A	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
	C	UPN	TYPE IV	UTILITY PROVIDED	TIER 22
	G	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 10	I	METRONET	TYPE III	UTILITY PROVIDED	TIER 22
	A	LUMEN	TYPE IV	UTILITY PROVIDED	TIER 22
	E	VERIZON	TYPE IV	UTILITY PROVIDED	TIER 22
HANDHOLE BANK 11	G	MEDIACOM	PEDESTALS	UTILITY PROVIDED	TIER 22
	I	METRONET	TYPE III	UTILITY PROVIDED	TIER 22

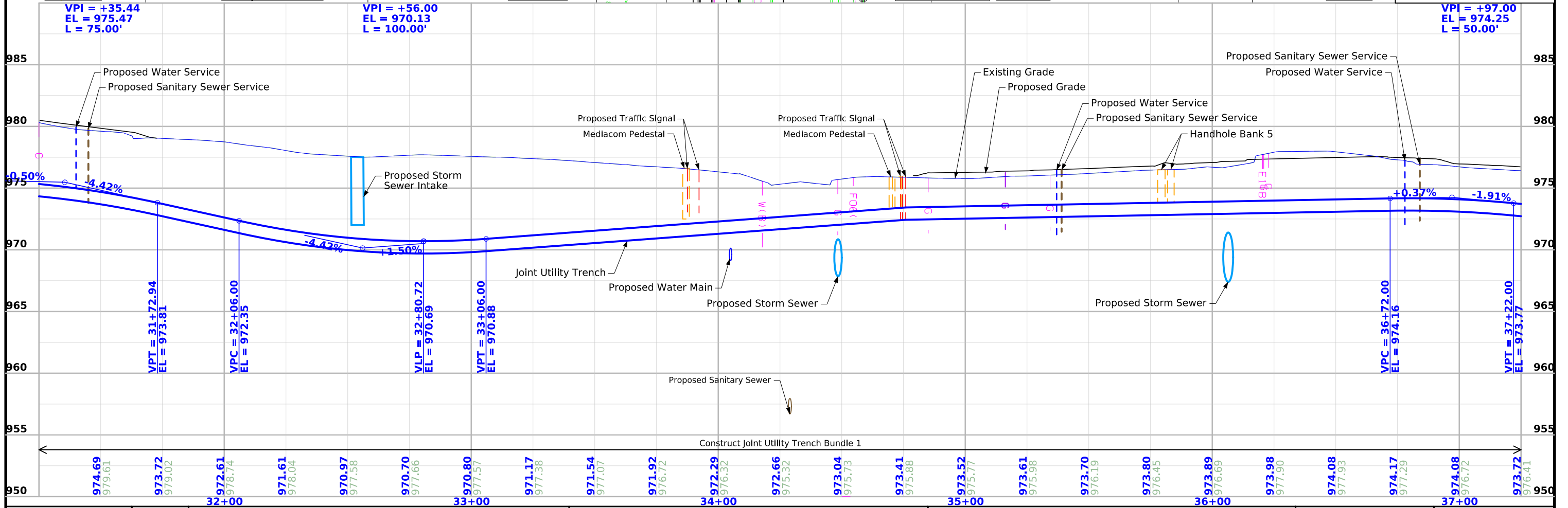
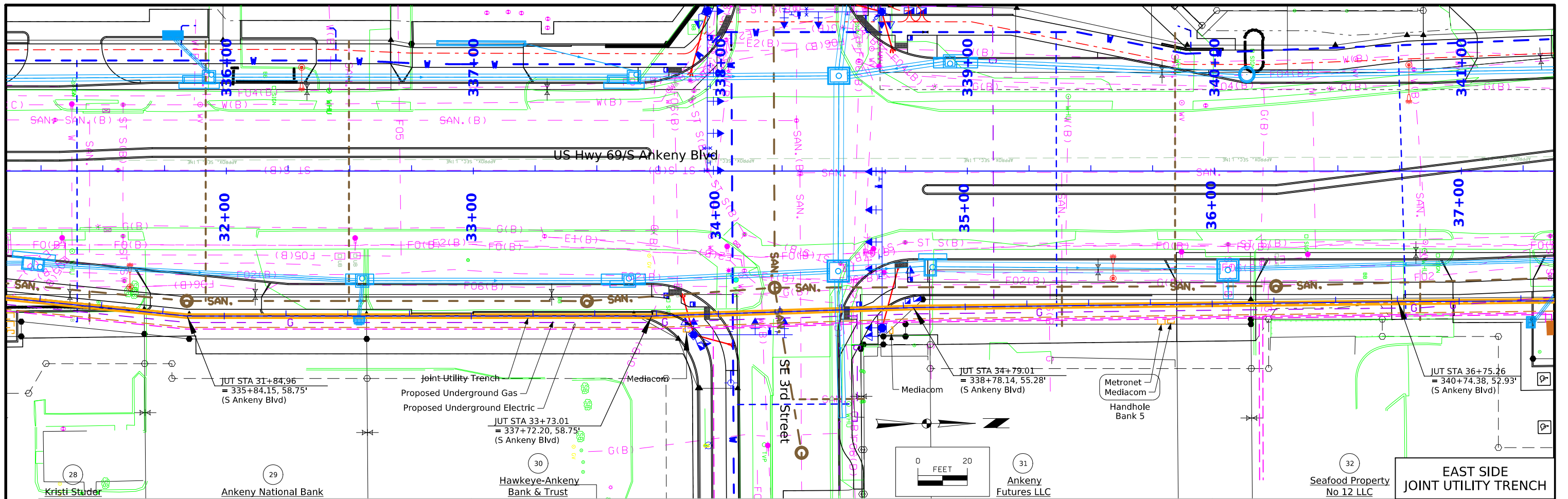
Note: Type IV Handholes supplied by Utility, installed by contractor.



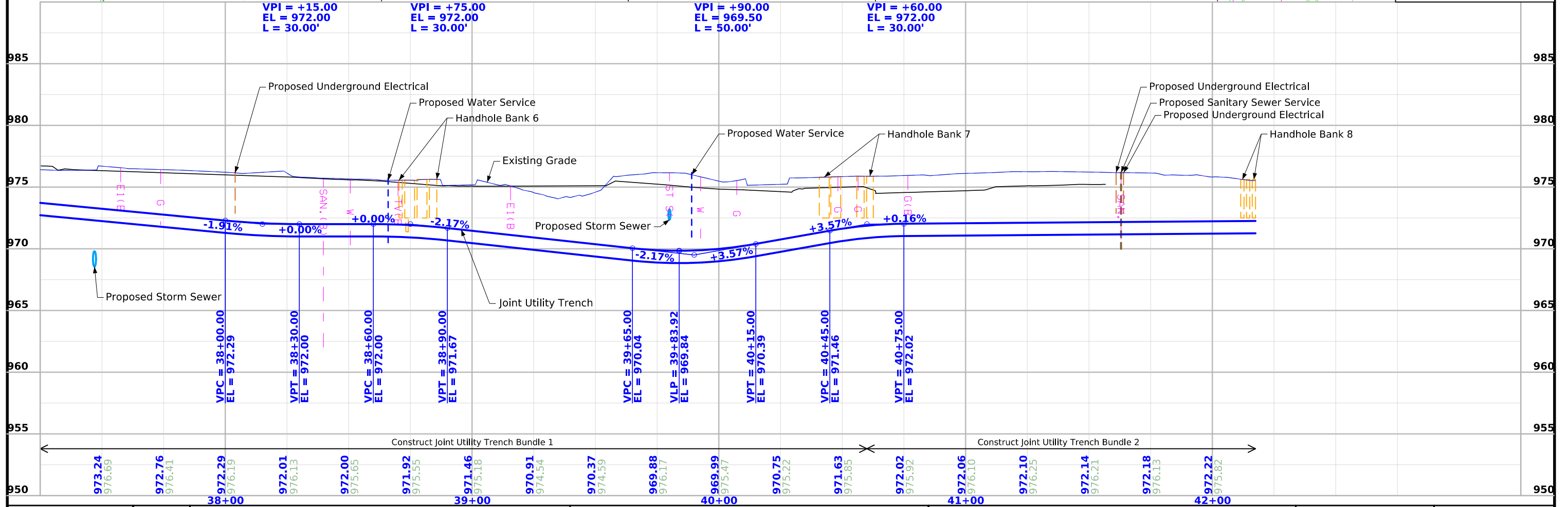
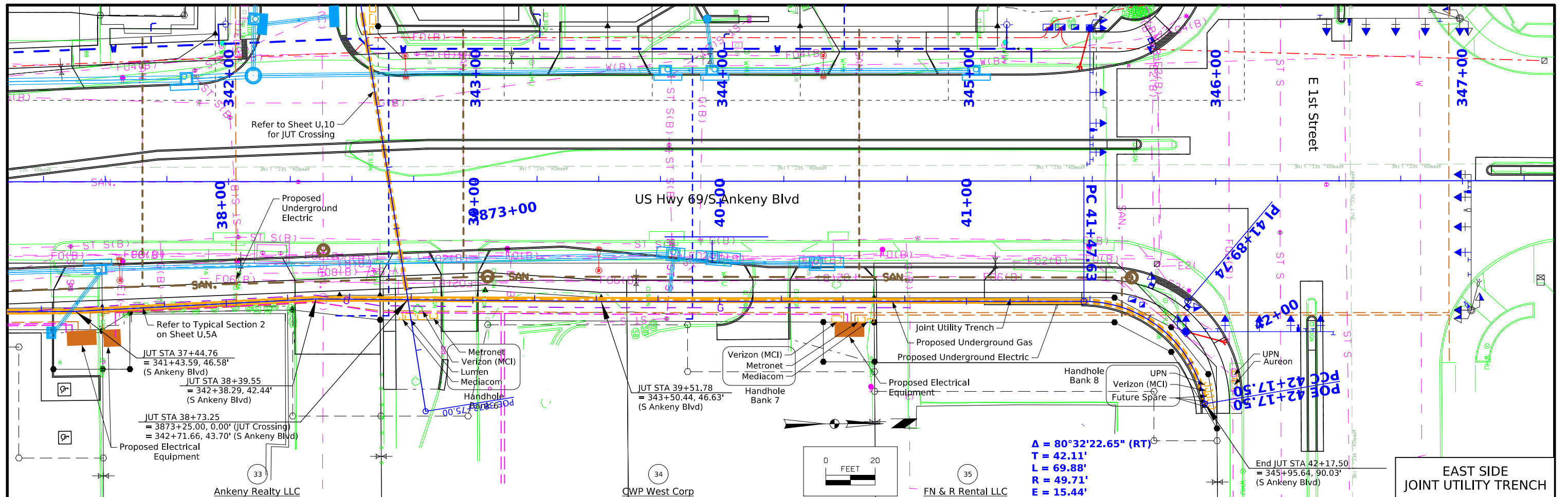
FILE NO.	ENGLISH	DESIGN TEAM	<b>Snyder &amp; Associates</b>	POLK COUNTY	PROJECT NUMBER	<b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER	<b>U.6</b>
----------	---------	-------------	--------------------------------	-------------	----------------	-------------------------------	--------------	------------



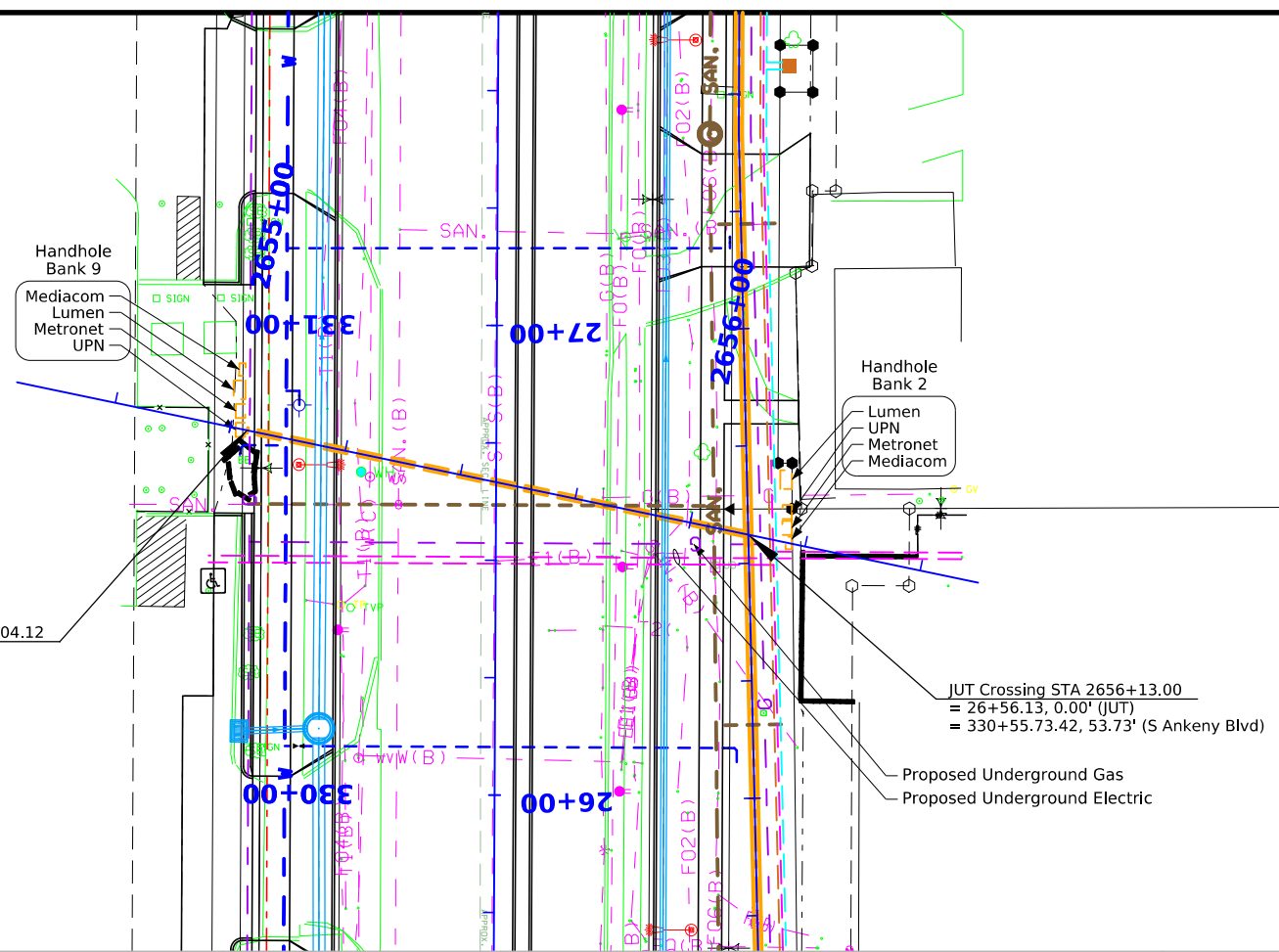






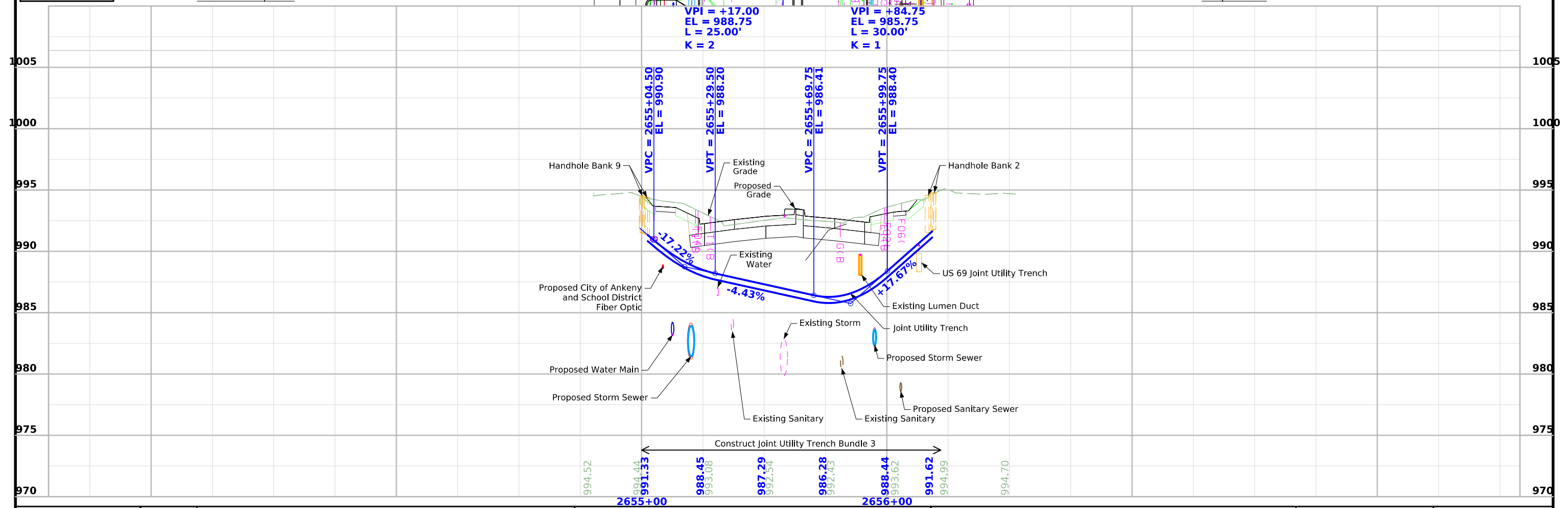
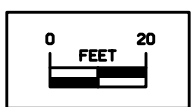


24  
Grand Capital LC



09  
Property Management  
of IA T & B Properties

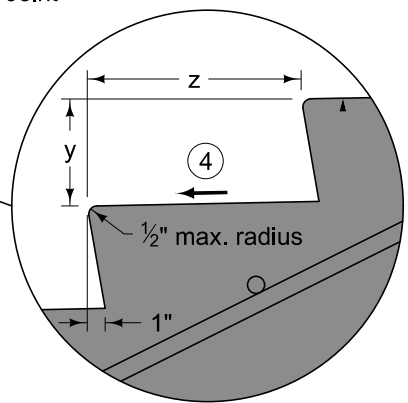
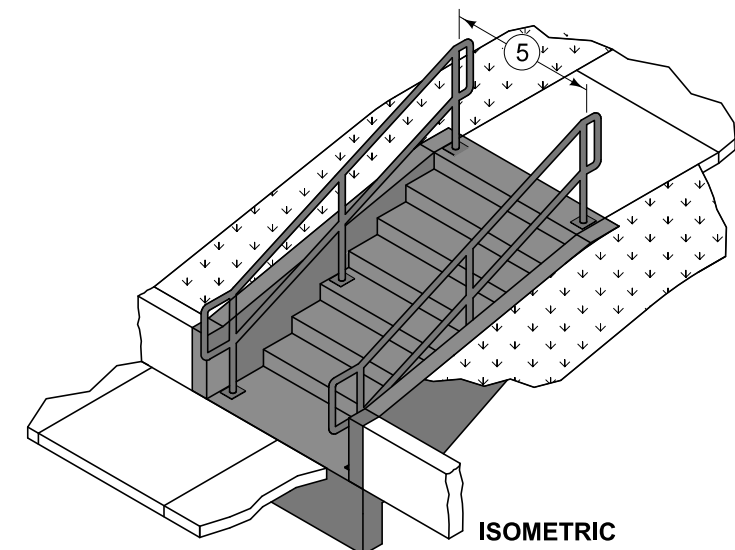
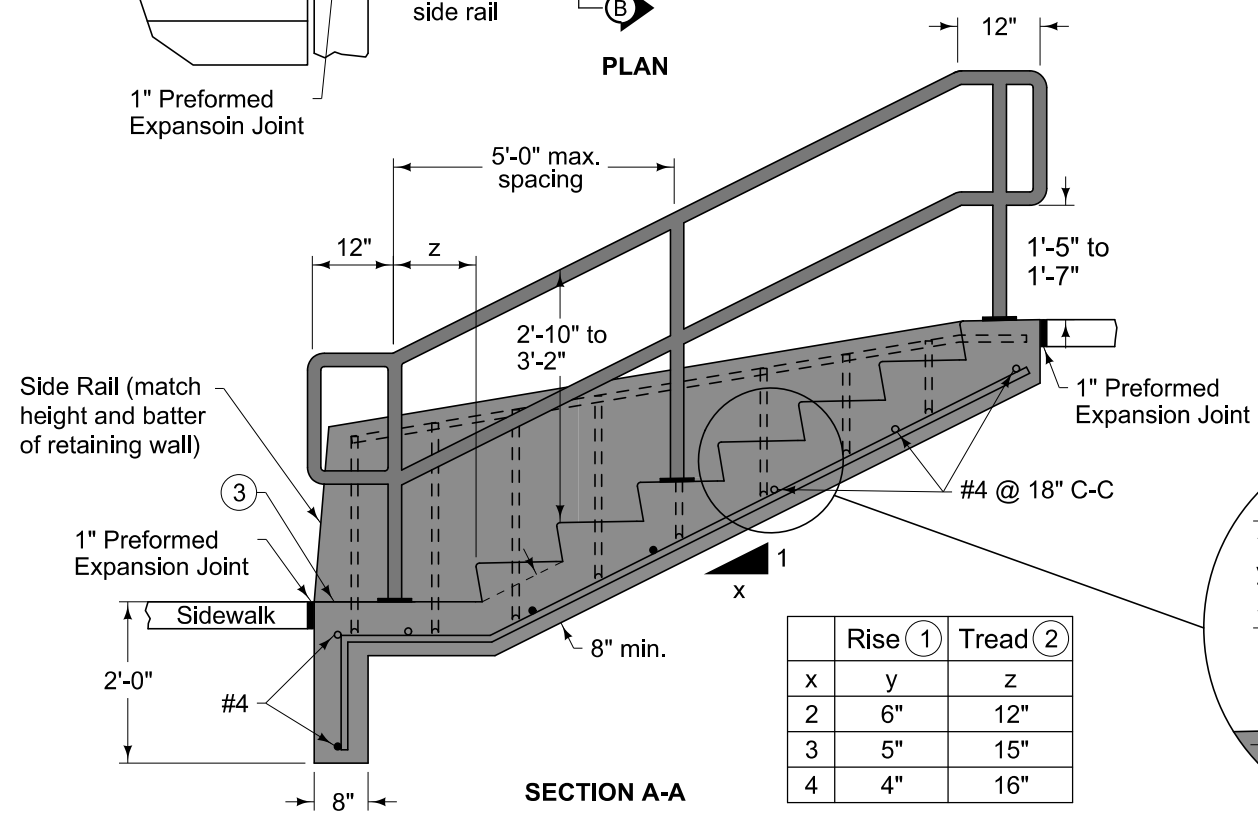
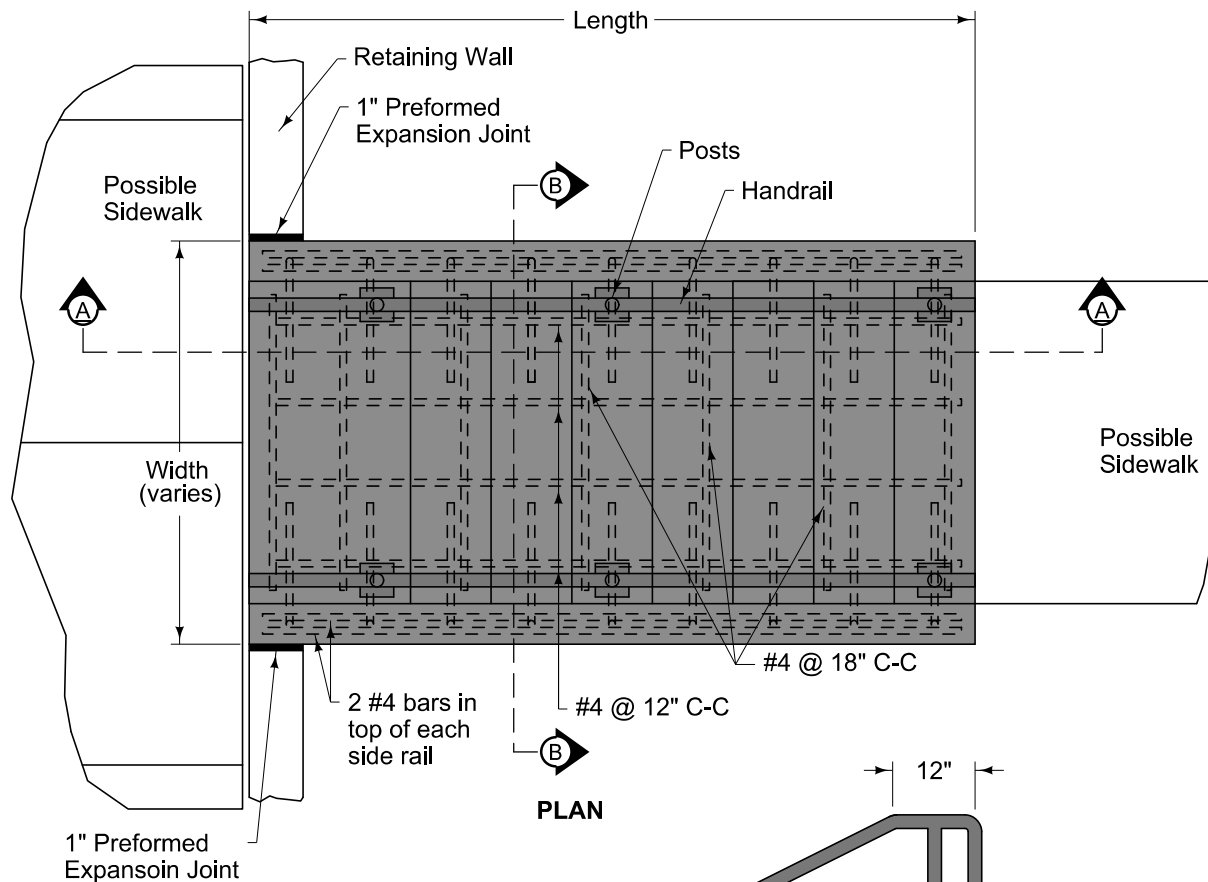
23  
Northwestern Bell  
Telephone Co.



FILE NO.	ENGLISH	DESIGN TEAM <b>Snyder &amp; Associates</b>	<b>Polk</b> COUNTY	PROJECT NUMBER <b>NHSX-069-4(136)--3H-77</b>	SHEET NUMBER <b>U.10</b>
----------	---------	--	--------------------	--	--------------------------







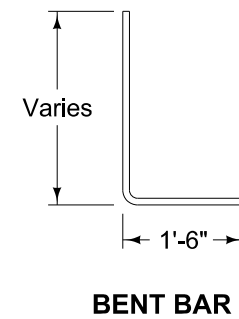
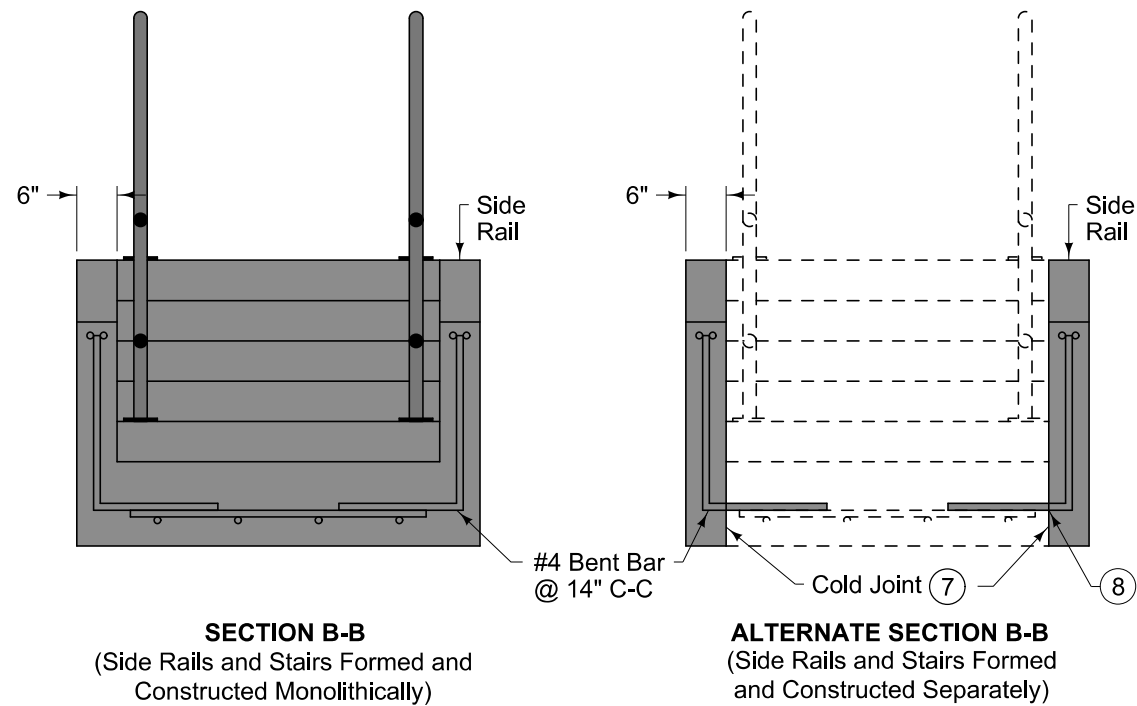
Provide a minimum of 2 inches of cover for all reinforcing.

Ensure all risers are an equal height and all treads are an equal depth within a flight of stairs.

- ① Minimum riser height is 4 inches. Maximum riser height is 7 inches.
- ② Minimum tread depth is 11 inches.
- ③ Construct cross slope of landing to match adjacent sidewalk.
- ④ Slope tread 1% minimum to 2% maximum in any direction.
- ⑤ Match existing sidewalk width.

**TYPE B CONCRETE STEPS WITH HANDRAIL**

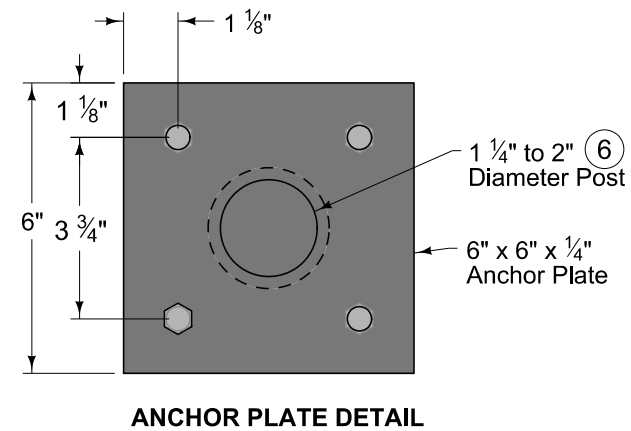




Provide a minimum of 2 inches of cover for all reinforcing.

Ensure all risers are an equal height and all treads are an equal depth within a flight of stairs.

- ⑥ Weld post to anchor plate with 1/4 inch weld. Grind weld to provide smooth surface, free of burrs.
- ⑦ Upon approval of Engineer, side rails may be formed and constructed separately from the stairs. Seal the cold joint between the side rail and stairs according to Section 7010.
- ⑧ If side rails and stairs are constructed separately, dowel bar substitutes may be used for the bent bars connections between the side rails and the stairs.



**TYPE B CONCRETE STEPS  
WITH HANDRAIL**

**CROSS SECTION VIEW COLOR LEGEND**

Design Color No.	Feature	Design Color No.	Feature
<b>Aggregate</b>			
(64)	Choke Stone	(112)	Noise Wall
(42)	Engineering Fabric	(112)	Noise Wall Footing
(8)	Flooded Backfill	(112)	Retaining Wall Back Excavate
(92)	Macadam Stone	(112)	Retaining Wall Back Excavate
(20)	Modified	(112)	Retaining Wall Face
(12)	Plowing Shaping	(112)	Retaining Wall Front Excavate
(14)	Porous Backfill	(112)	Retaining Wall Front Footing
(8)	Revetment Class A	(112)	Retaining Wall MSE Gutter
(6)	Revetment Class B	(112)	Retaining Wall Reinforced Earth
(62)	Revetment Class C		
(188)	Revetment Class D	<b>Grading</b>	
(28)	Revetment Class E	(8)	Behind Curb Cut
(12)	Shoulder Special Backfill	(6)	Granular
(12)	Special Backfill	(13)	Granular Back Fill
(20)	Subbase	(48)	Rock Undercut
(20)	Subbase Lower	(8)	Shoulder Earth Fill
(20)	Subbase Upper	(2)	Side Slopes
(118)	Subgrade Treatment	(226)	Side Slopes Dressing
<b>Structural</b>			
<b>Asphalt</b>			
(207)	HMA Base Course	(128)	Boulder Substrata
(207)	HMA Interim Course	(48)	Broken Weathered Substrata
(207)	HMA Surface Course	(3)	Core Out Substrata
<b>Concrete</b>			
(0)	Barrier Concrete	(203)	Existing Pavement Substrata
(0)	Barrier Concrete Footing	(6)	Loam Substrata
(0)	Curb Gutter	(80)	Rock Substrata
(48)	Flowable Mortar	(4)	Select Sand Substrata
(0)	Median Concrete	(3)	Shale Substrata
(0)	PCC Pavement	(10)	Topsoil Substrata
(0)	Sidewalk	<b>Unsuitable / Waste</b>	
<b>Shoulder</b>			
(209)	Shoulder HMA	(3)	Unsuitable Type A
(0)	Shoulder PCC	(13)	Unsuitable Type B
(6)	Shoulder Granular	(11)	Unsuitable Type C
<b>Existing</b>			
(0)	Existing Pavement	(3)	Waste
<b>Special Utility Consideration</b>			
		(3)	Existing Lumen Duct Bank

**CROSS SECTION UTILITY LEGEND**

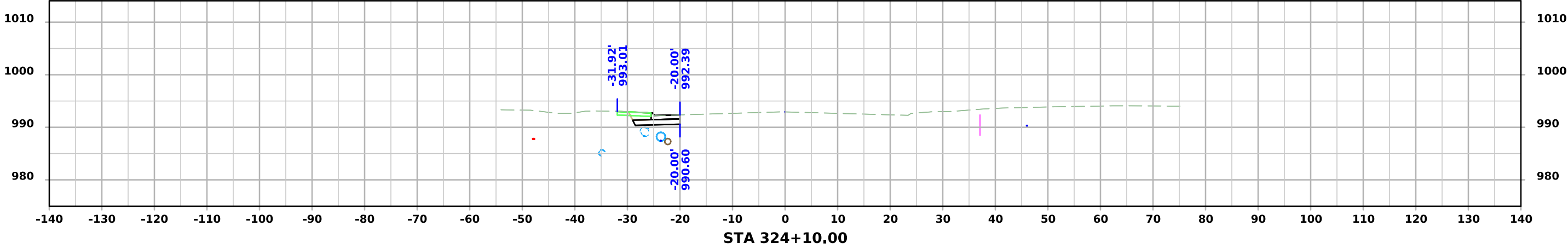
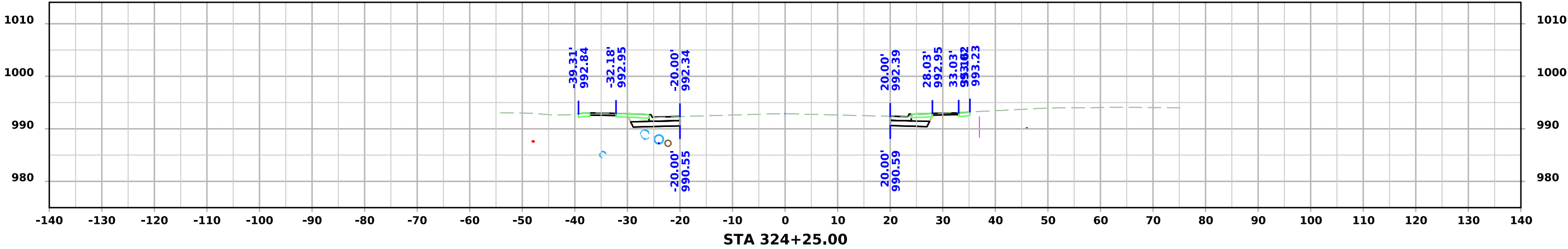
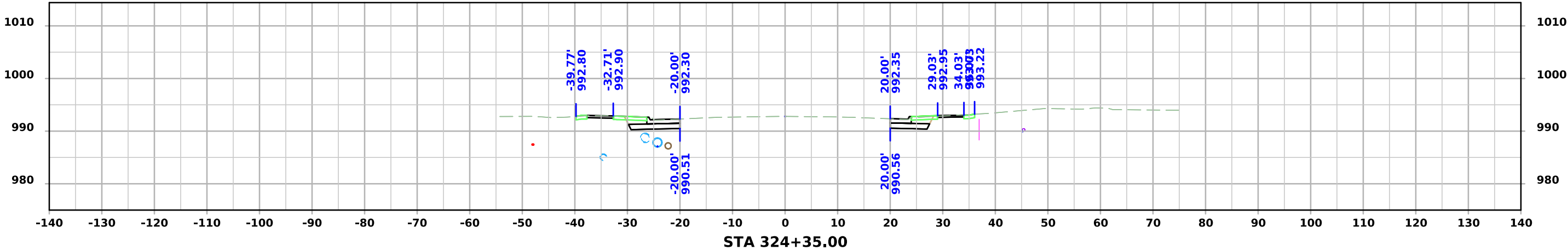
Color	Existing	Proposed	Utility
(238)	---	---	Sanitary Sewer
(230)	---	---	Storm Sewer
(1)	---	---	Water Main
(3)		○	City of Ankeny Traffic
(3)		○	Ankeny Community School District Fiber
			Aureon
(3)	□		Lumen Technologies
			Mediacom
			Metronet (Metro Fibernet)
			MidAmerican Energy - Electric
(15)	---		MidAmerican Energy - Gas
(5)	---		Unite Private Networks
			U.S. Cellular
			Verizon (MCI)
			Verizon Wireless

**CROSS SECTIONS  
LEGEND AND INFORMATION SHEET**

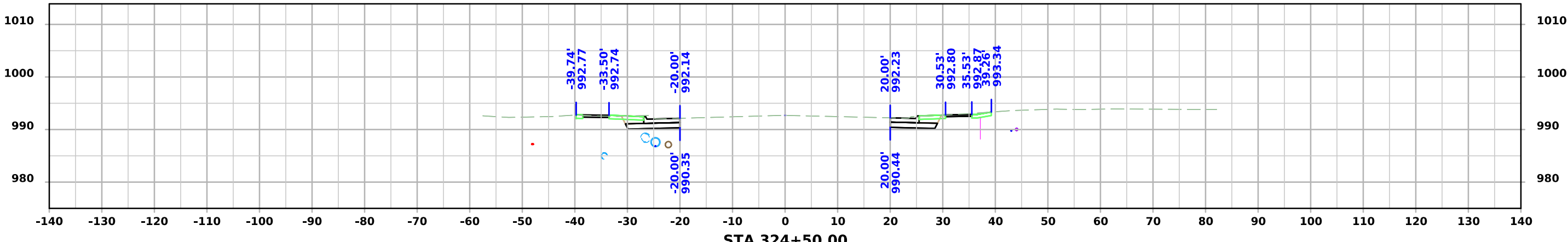
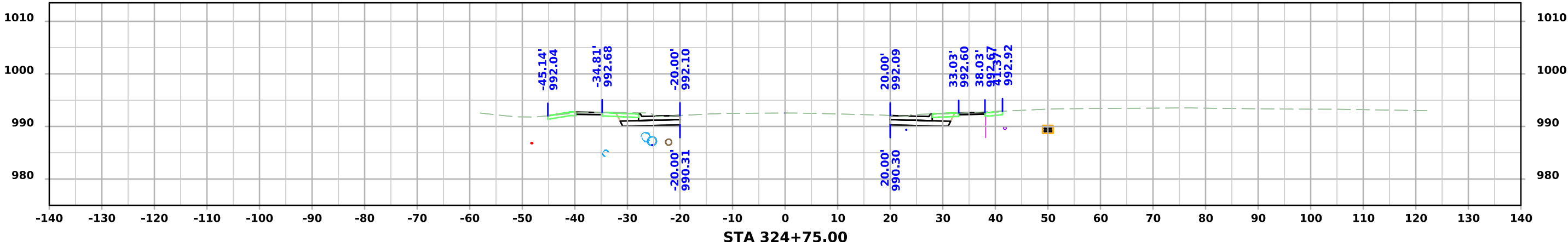
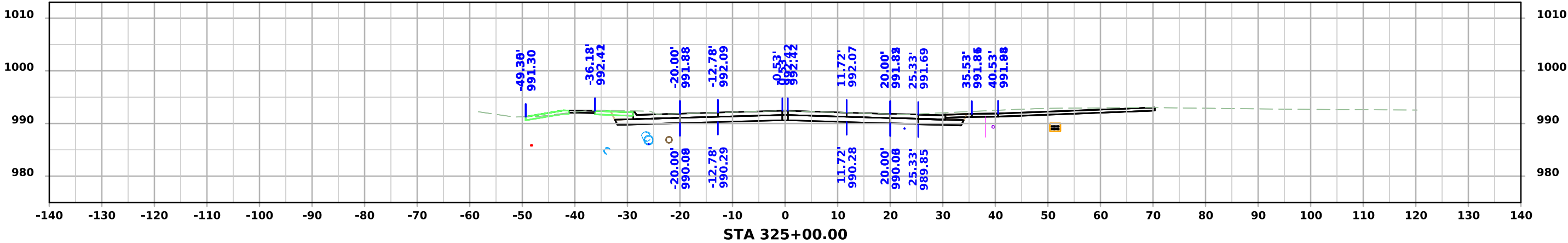
(COVERS SHEET SERIES W, X, Y, & Z)



# US Hwy 69/S Ankeny Blvd

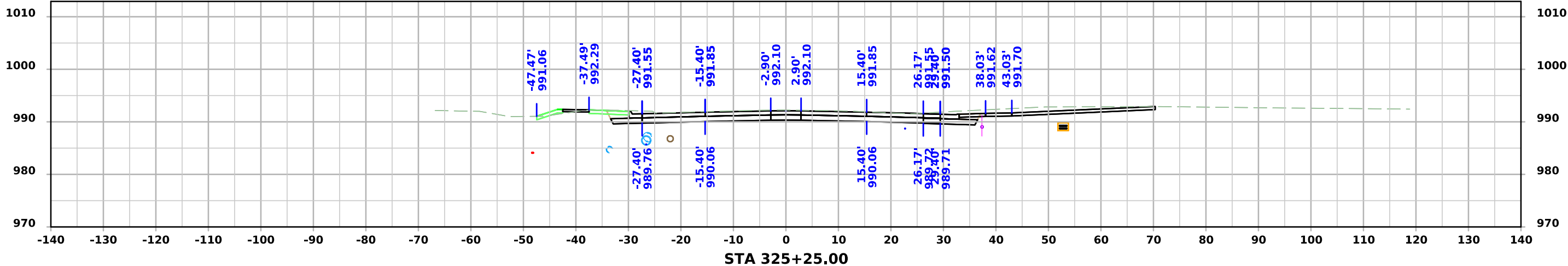
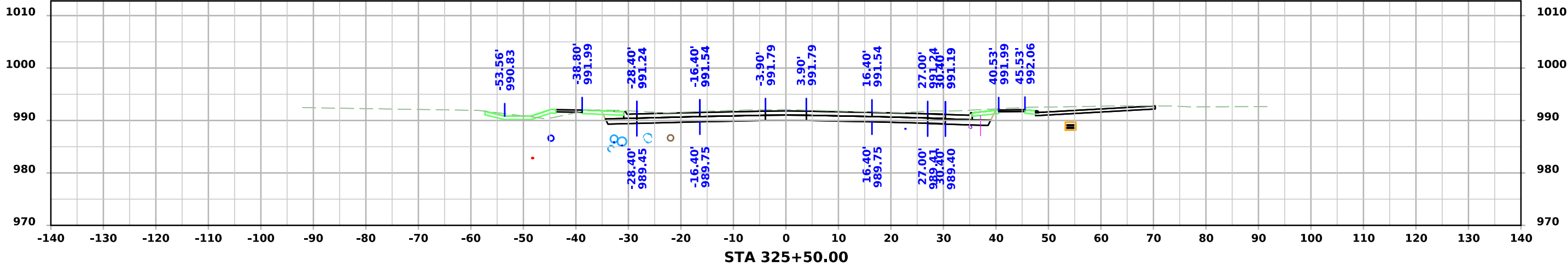
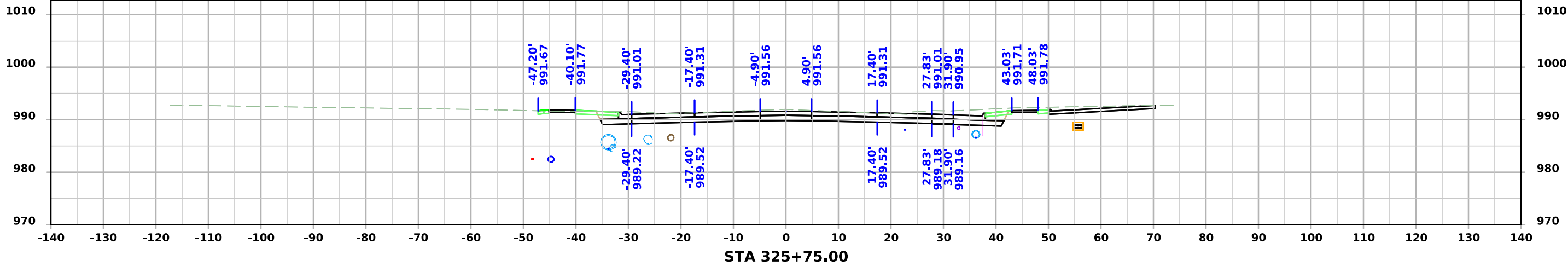


# US Hwy 69/S Ankeny Blvd

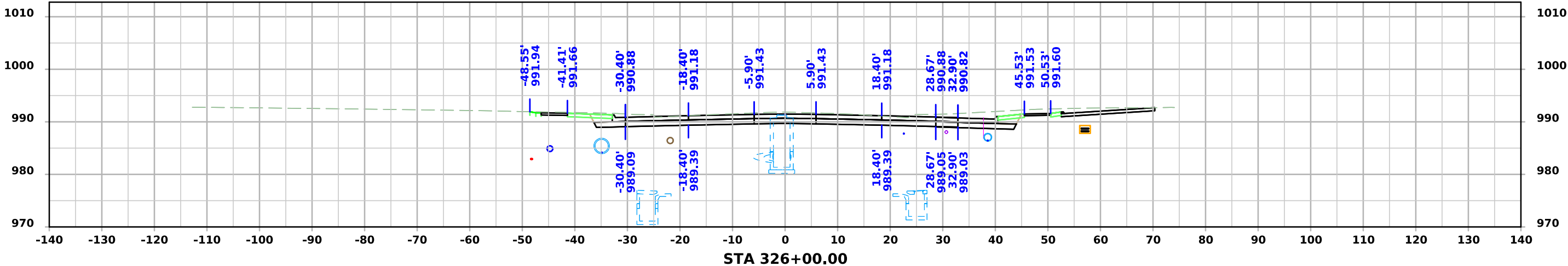
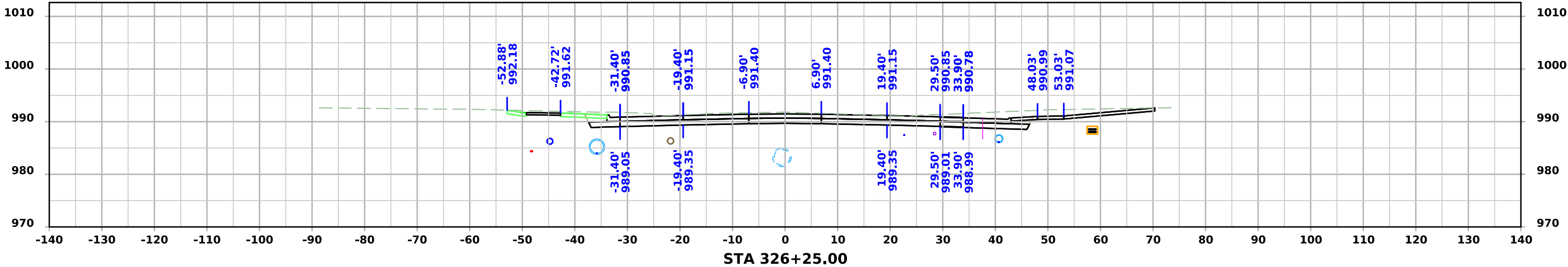
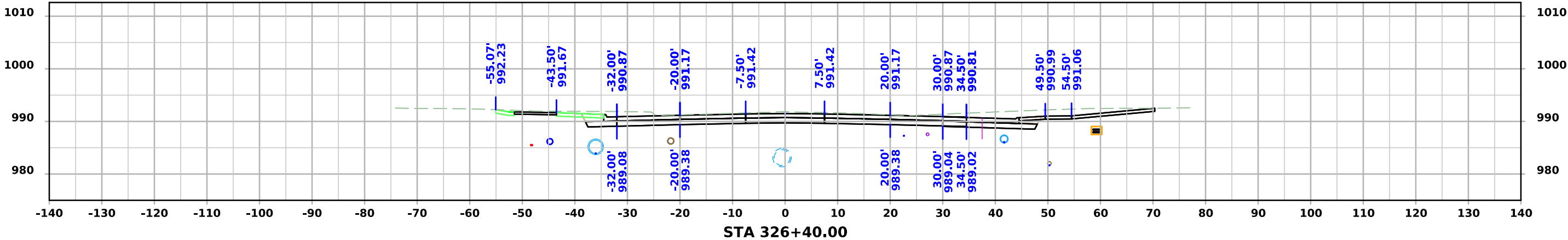




# US Hwy 69/S Ankeny Blvd

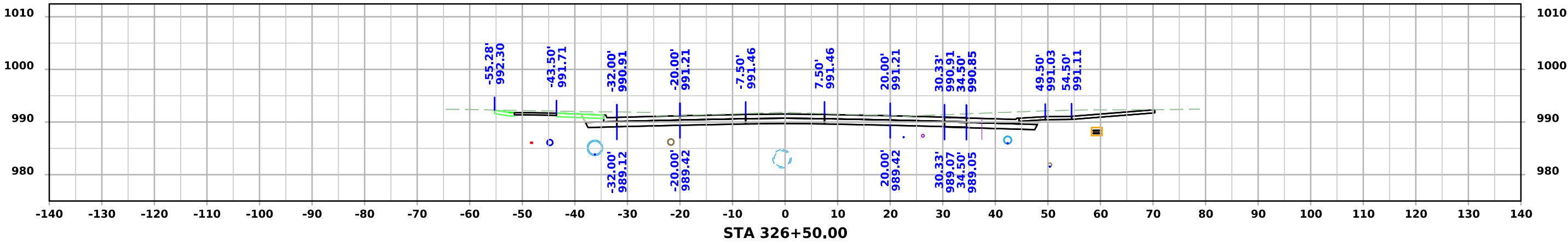
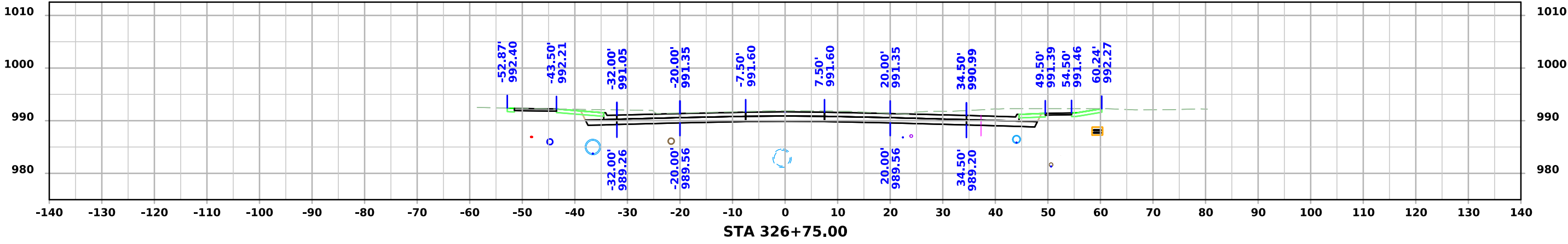
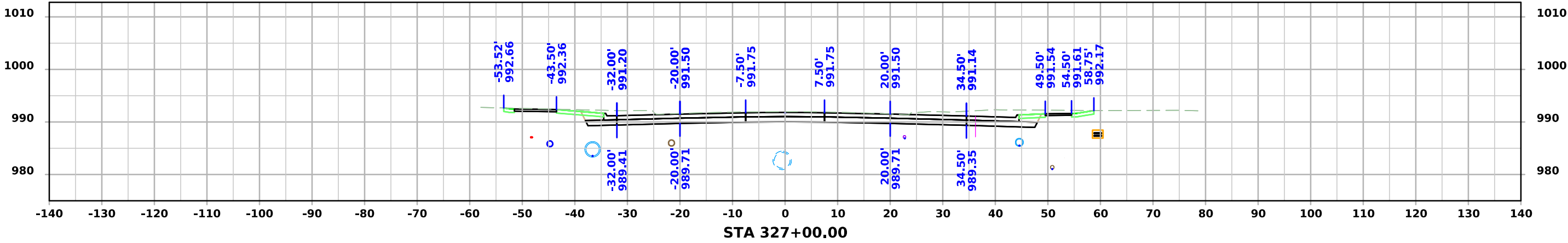


# US Hwy 69/S Ankeny Blvd

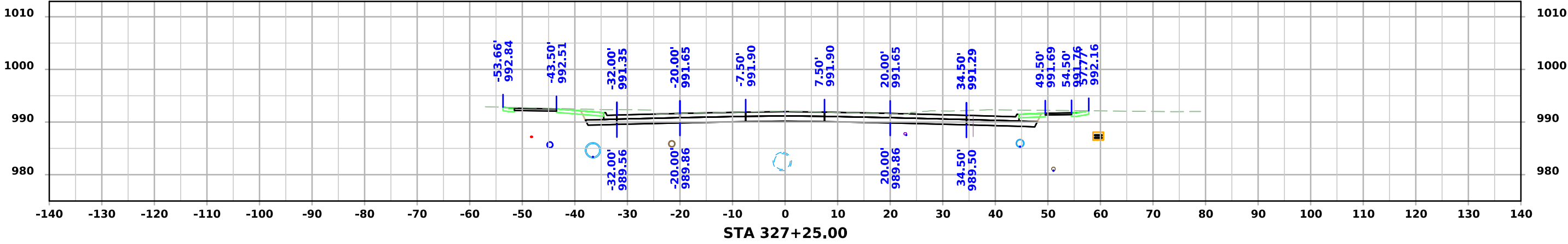
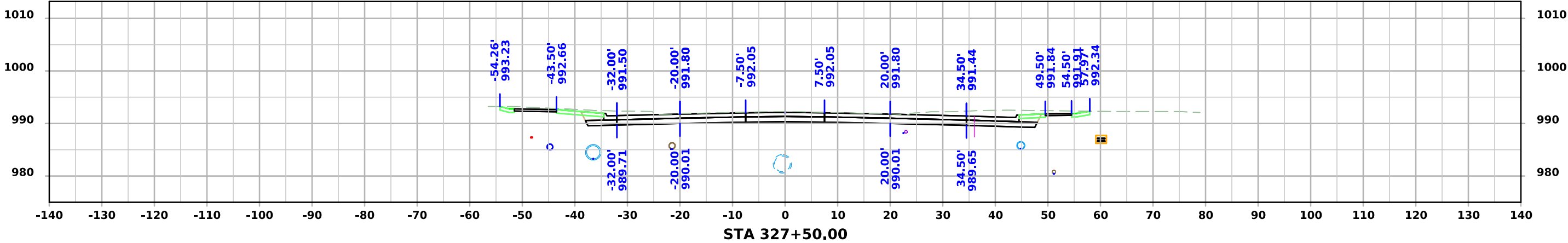
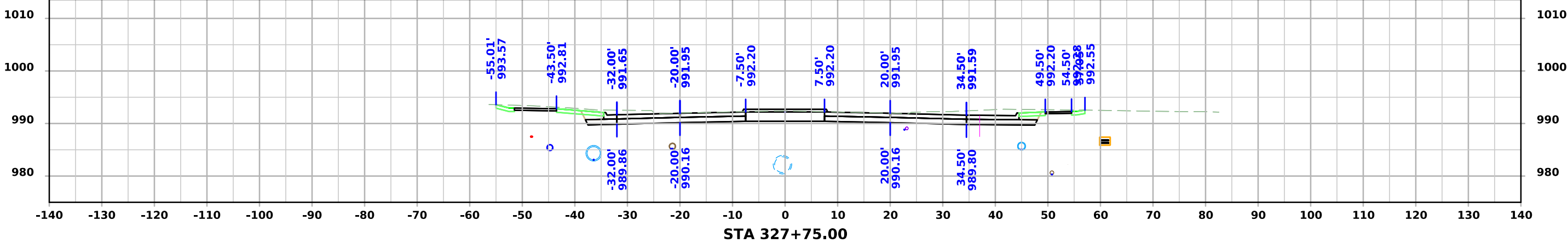




# US Hwy 69/S Ankeny Blvd

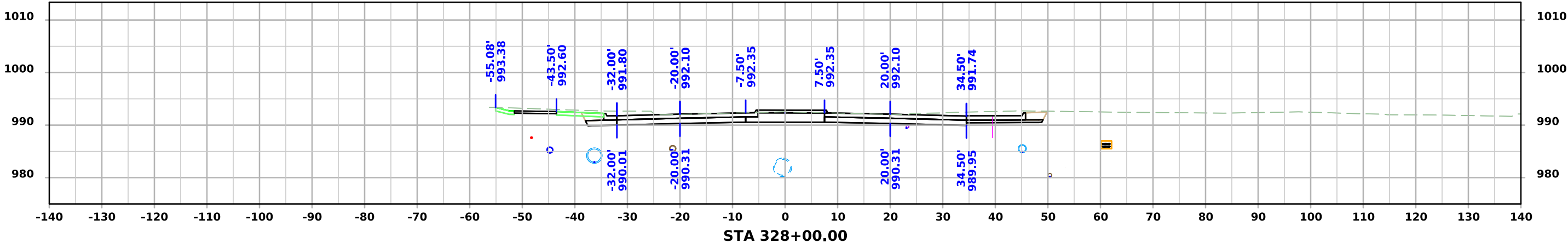
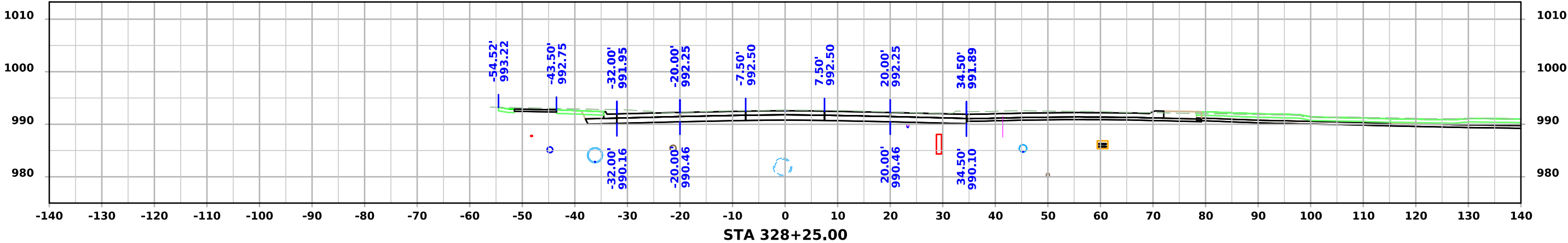
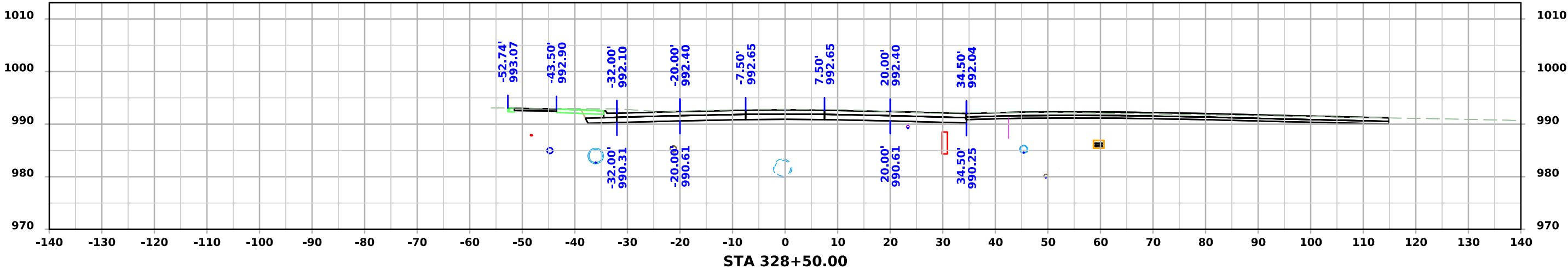


# US Hwy 69/S Ankeny Blvd

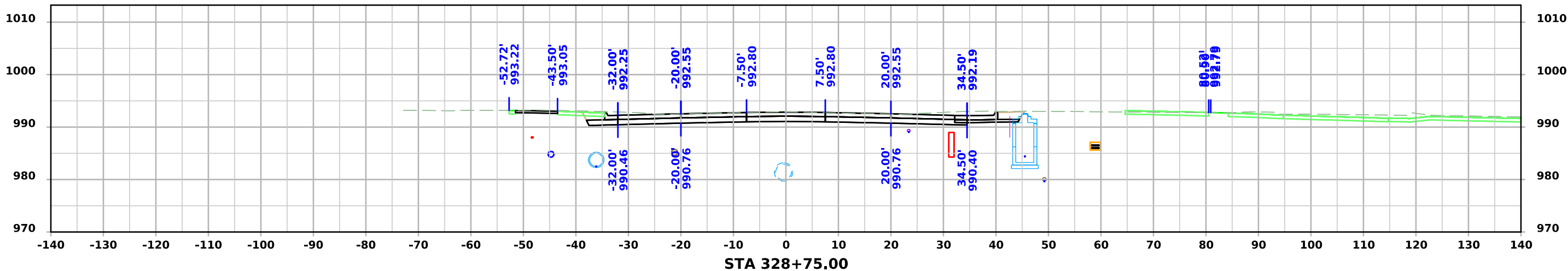
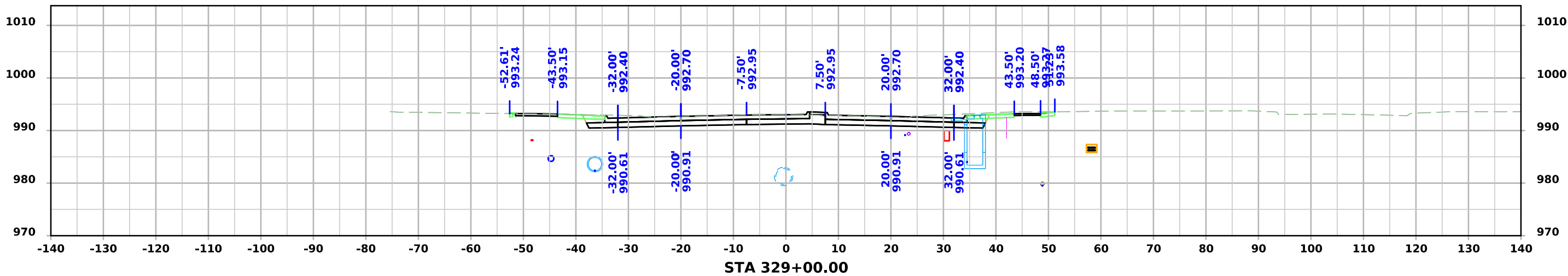
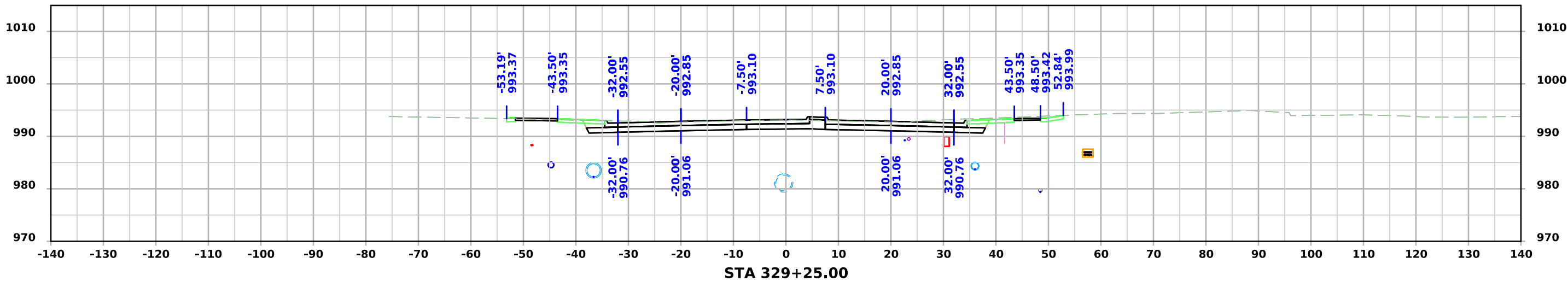




# US Hwy 69/S Ankeny Blvd

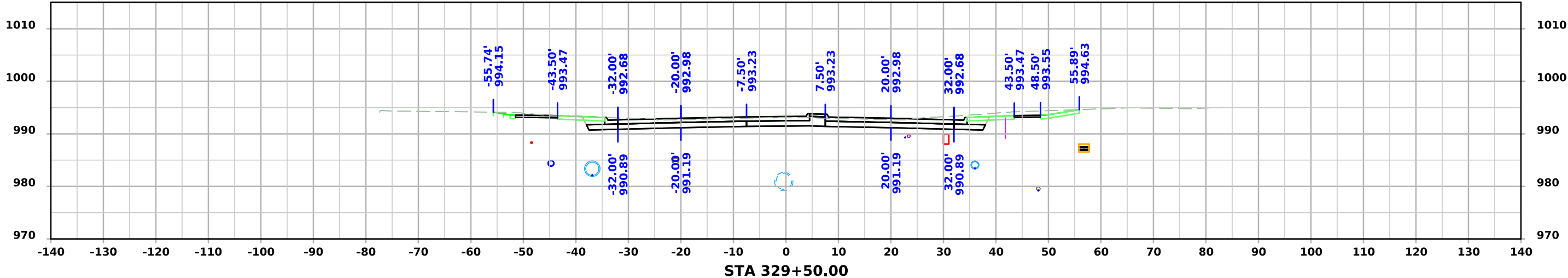
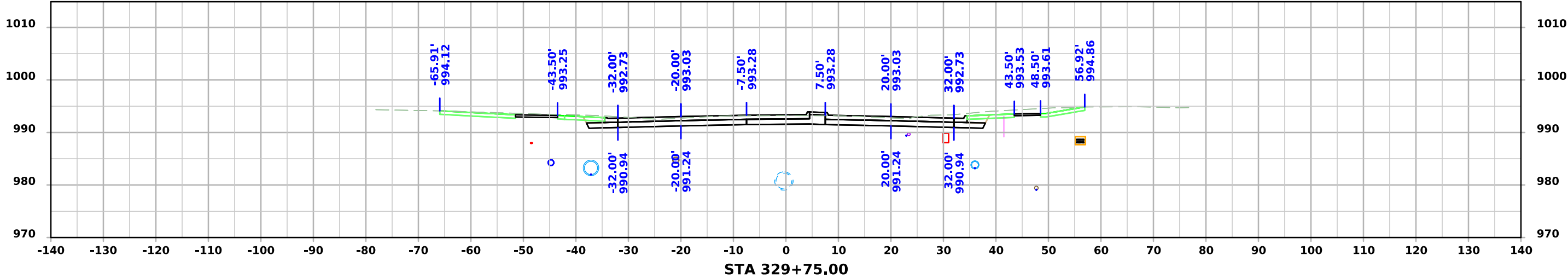
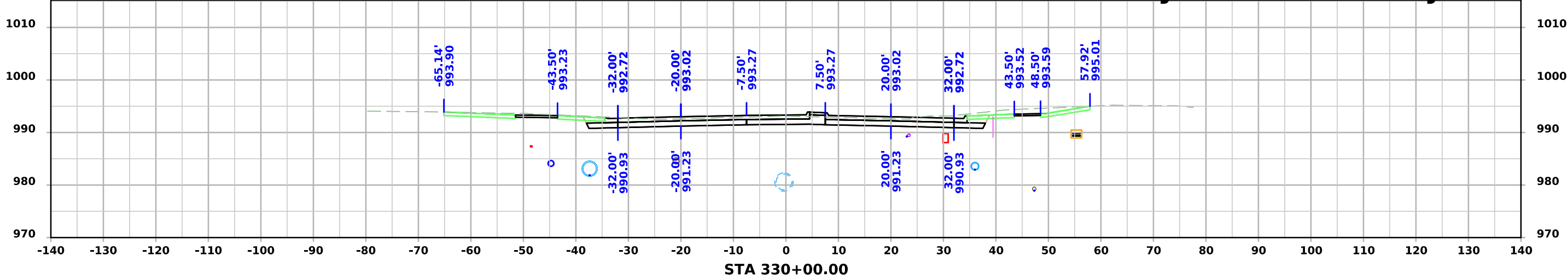


# US Hwy 69/S Ankeny Blvd

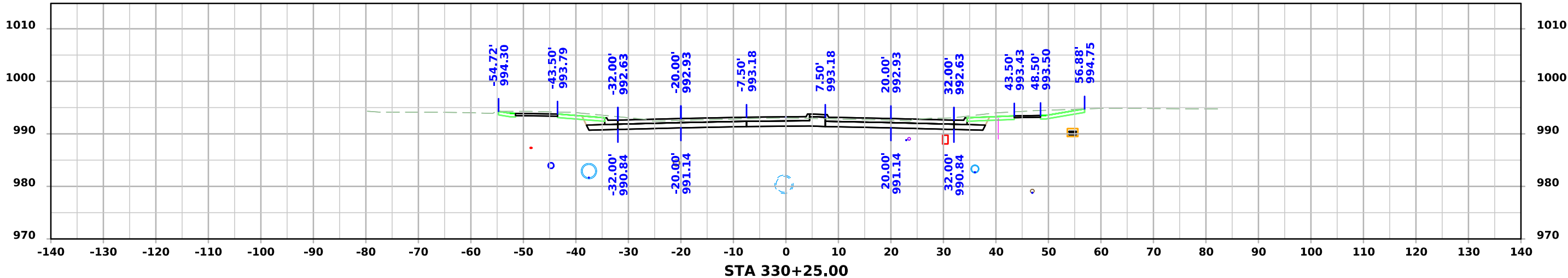
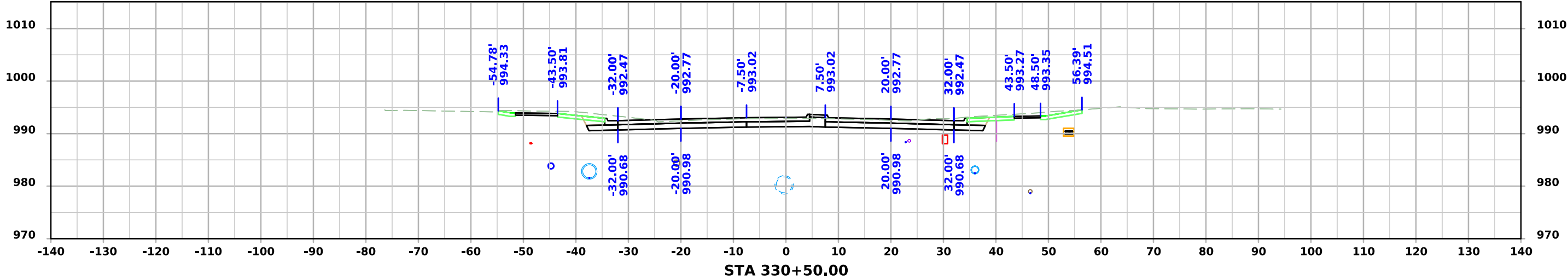
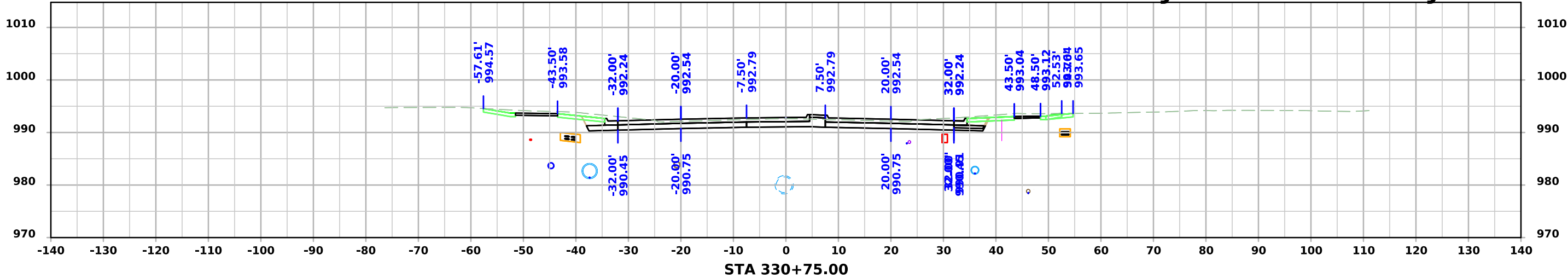




# US Hwy 69/S Ankeny Blvd

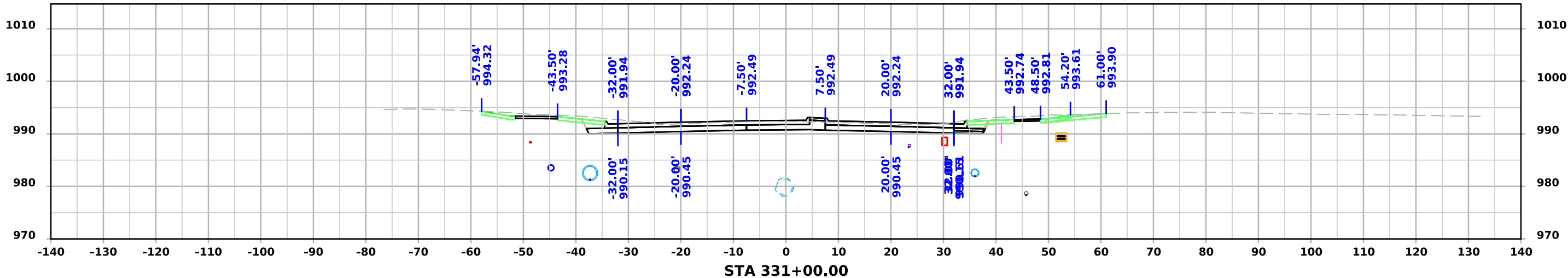
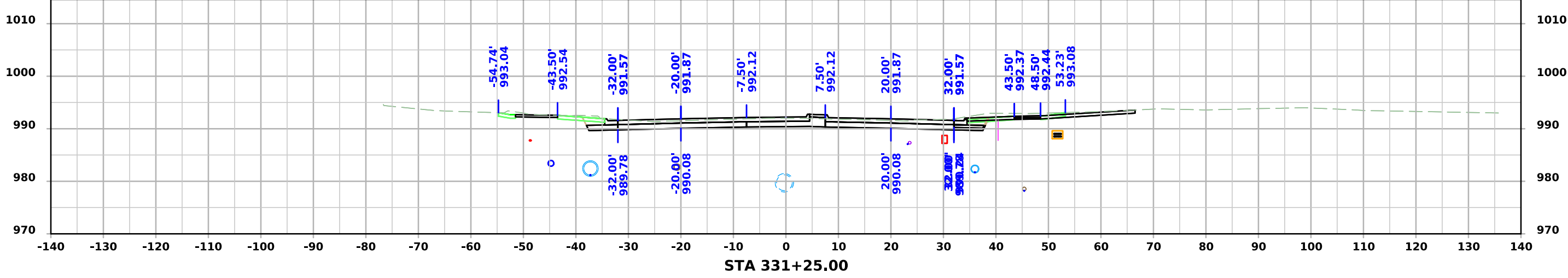
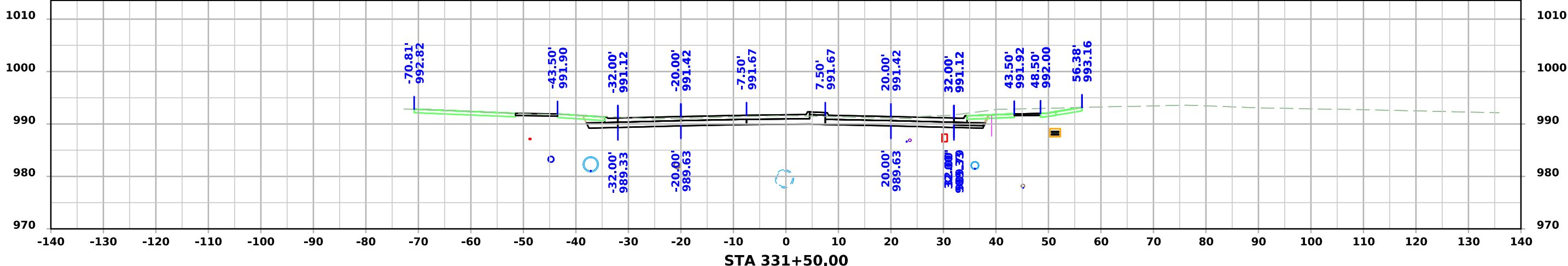


# US Hwy 69/S Ankeny Blvd

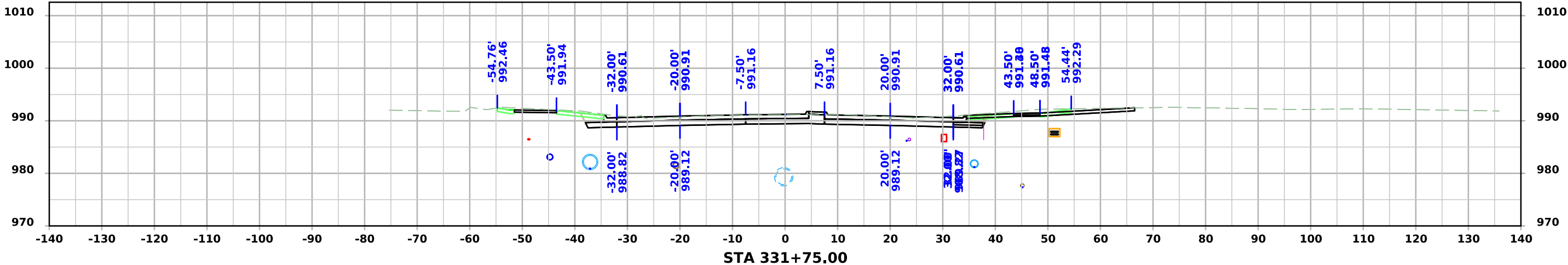
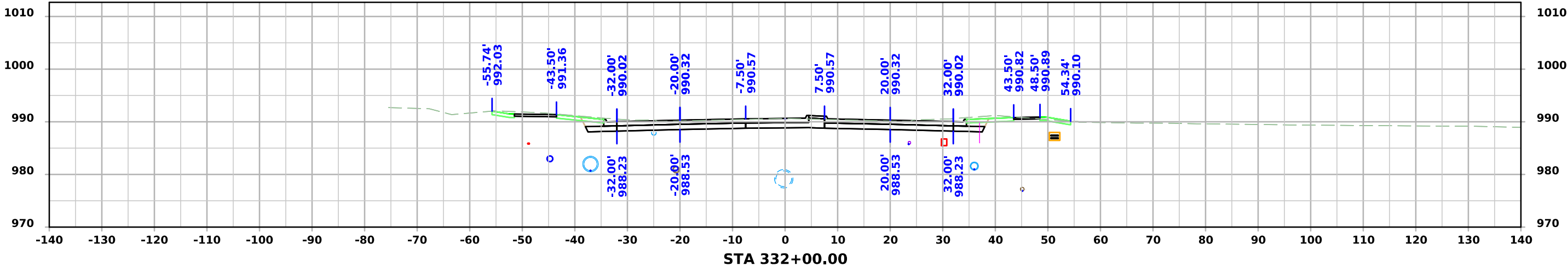
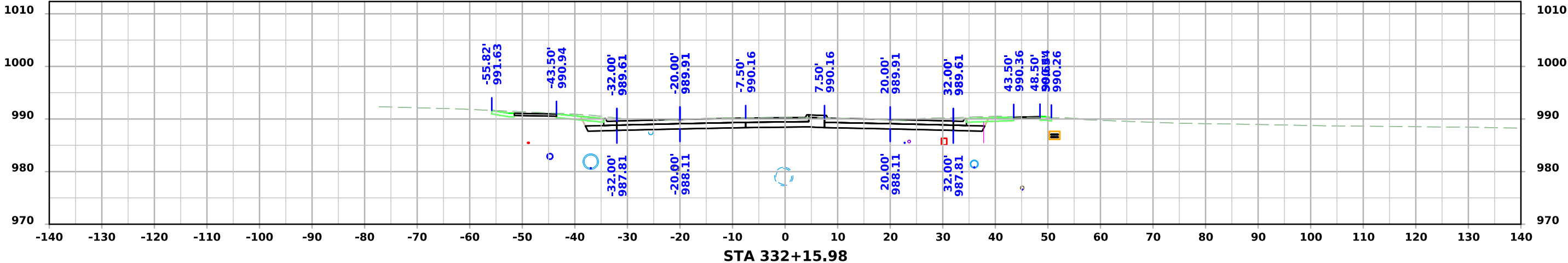




# US Hwy 69/S Ankeny Blvd

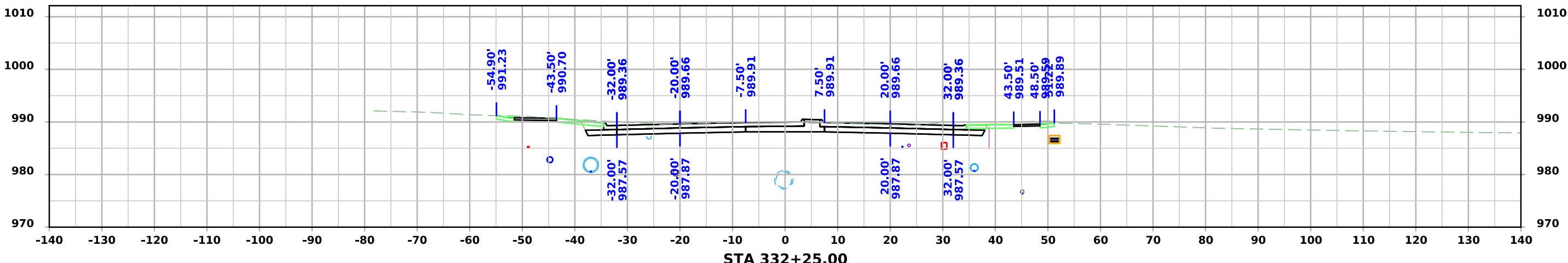
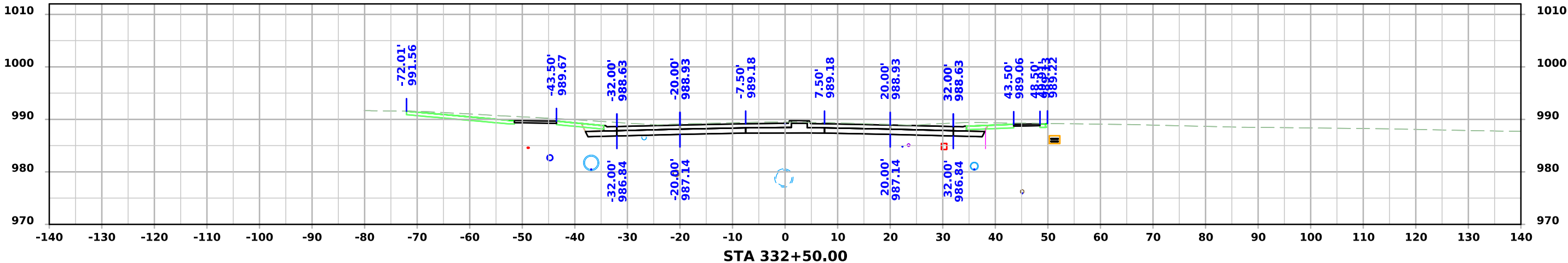
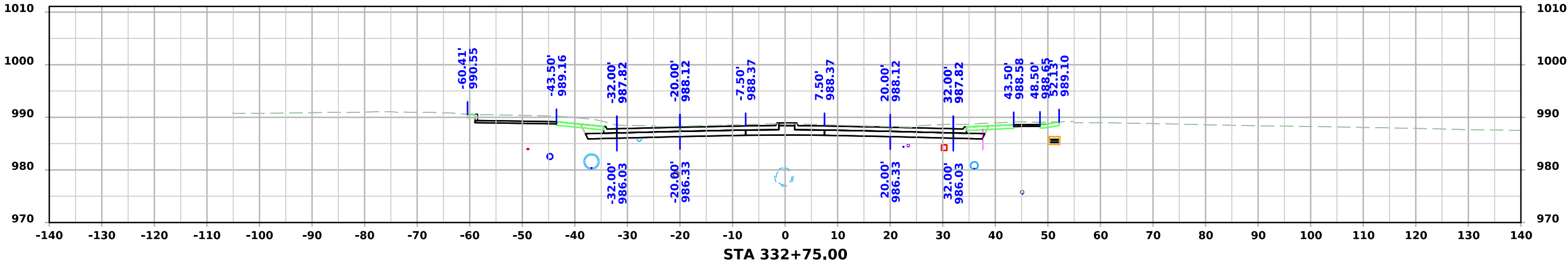


# US Hwy 69/S Ankeny Blvd

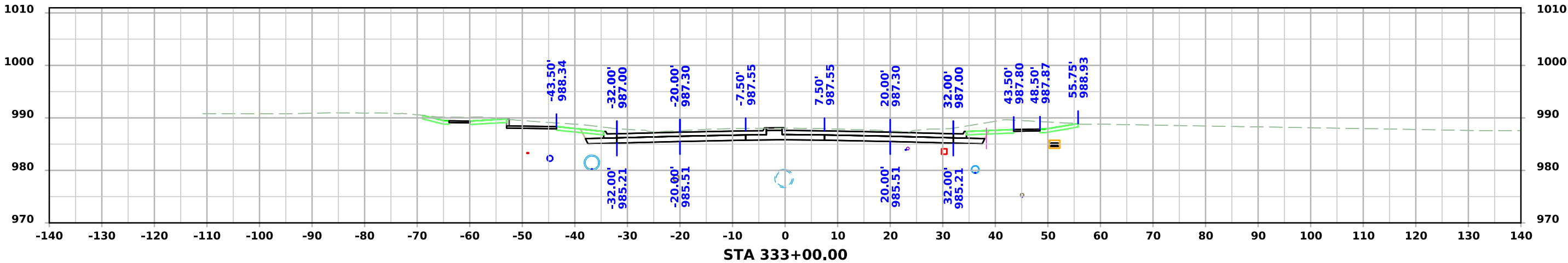
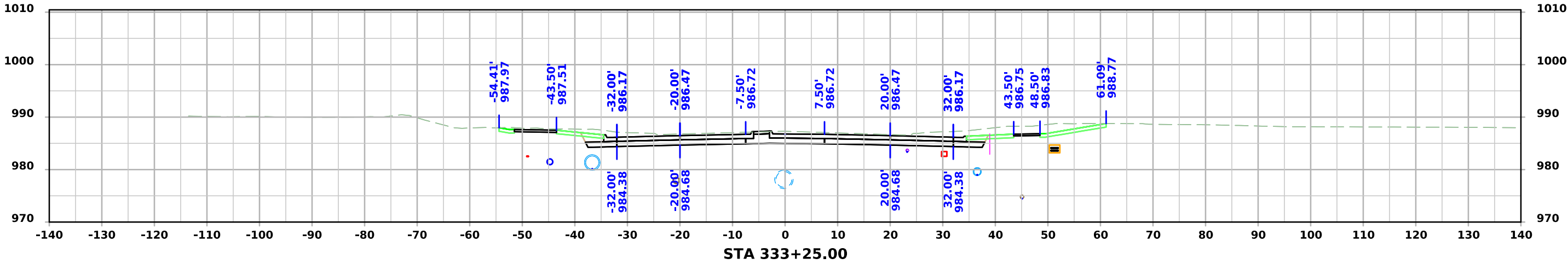
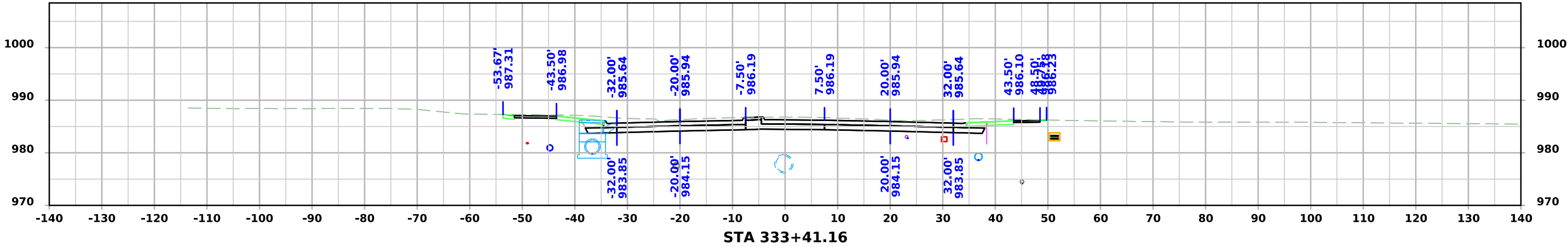




# US Hwy 69/S Ankeny Blvd

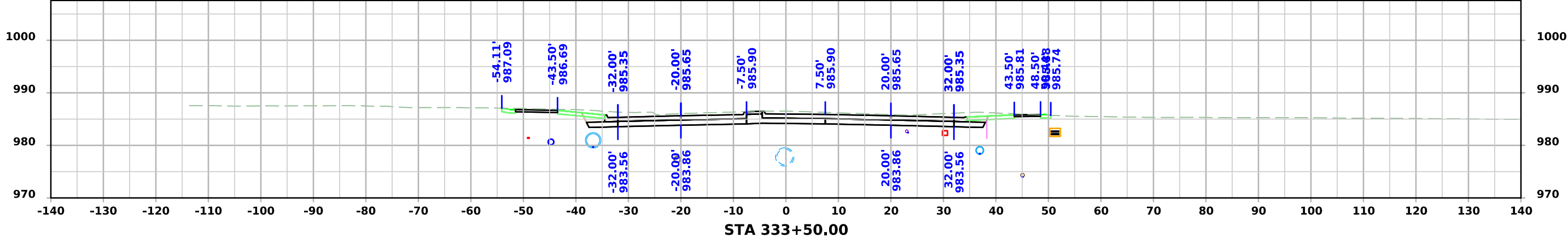
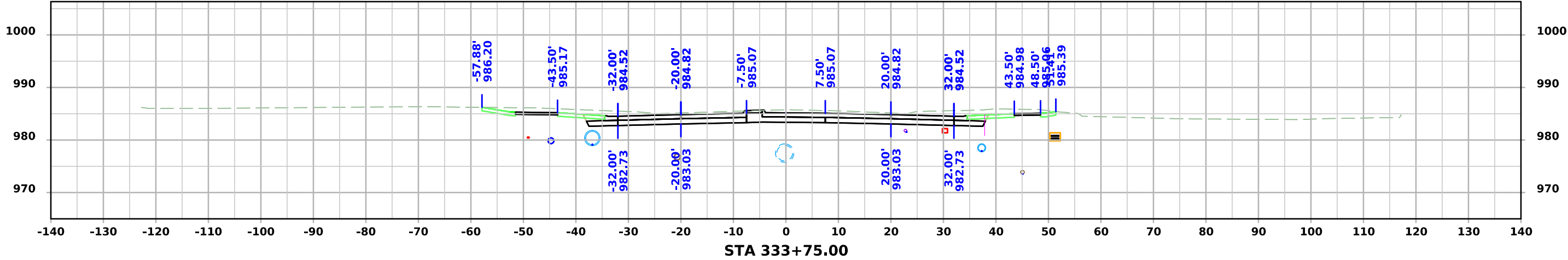
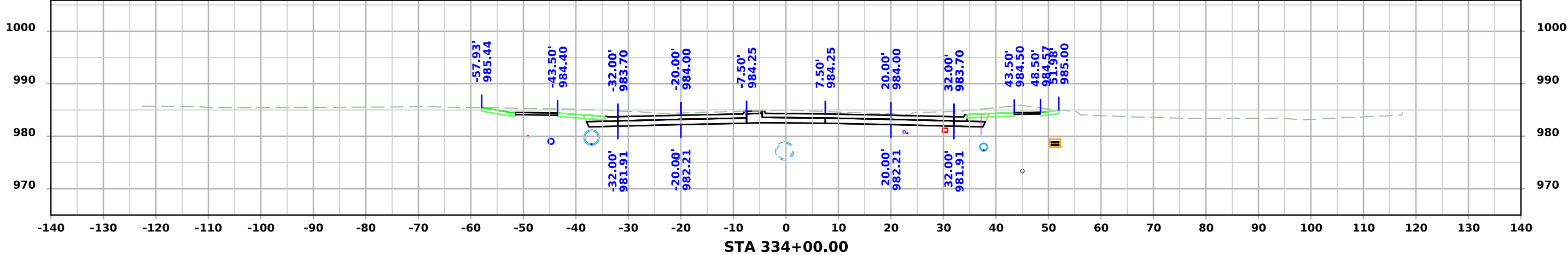


# US Hwy 69/S Ankeny Blvd

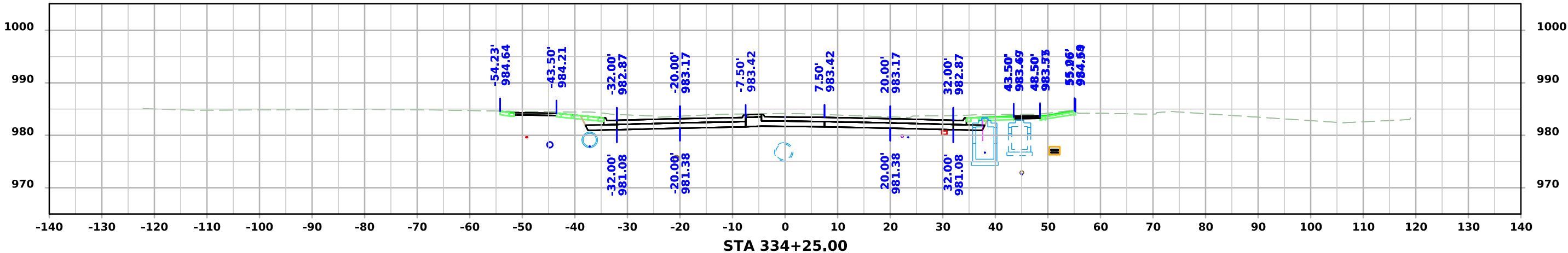
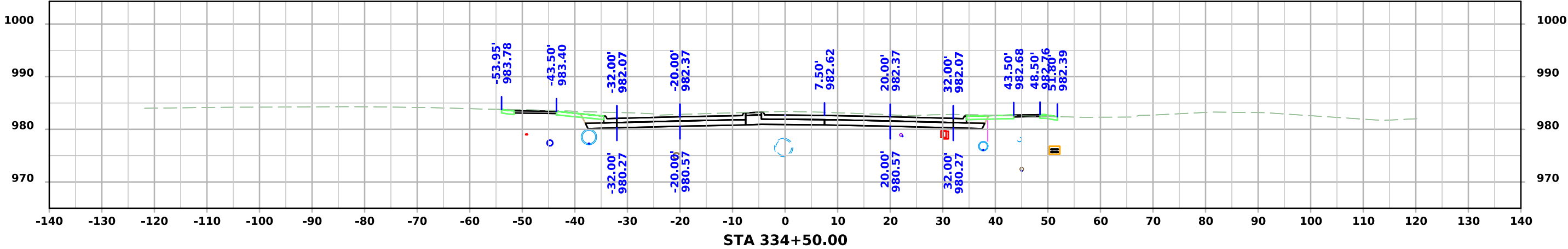
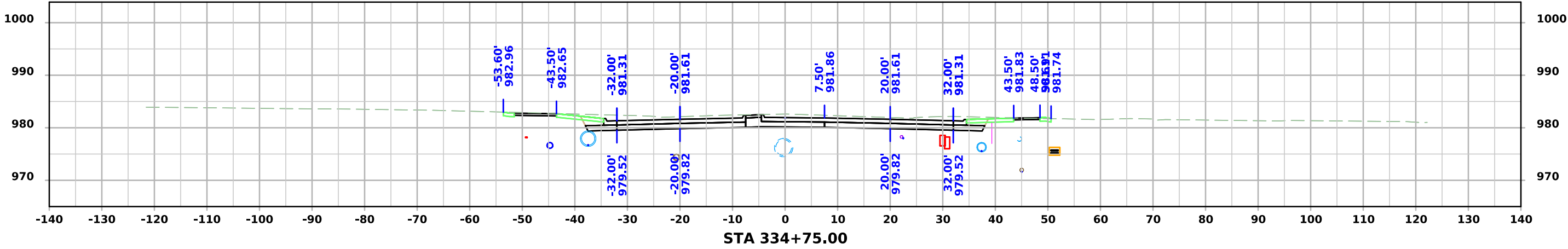




# US Hwy 69/S Ankeny Blvd

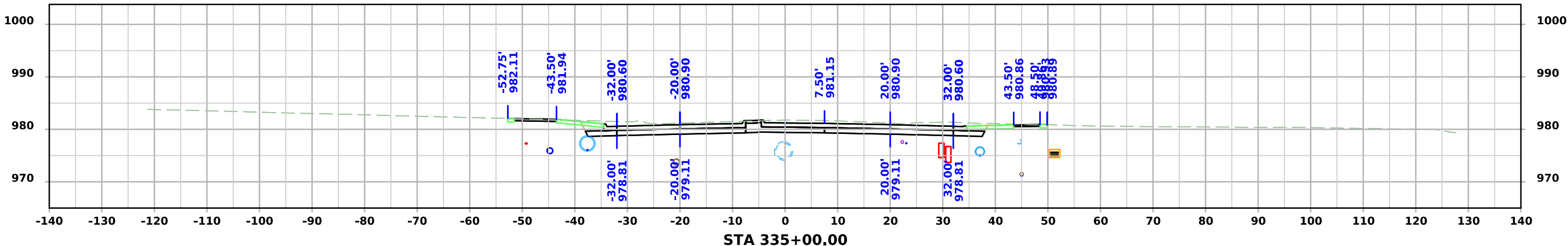
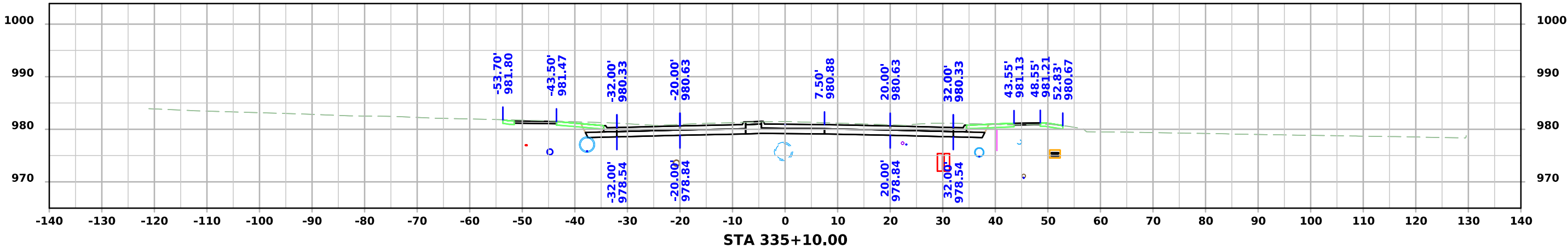
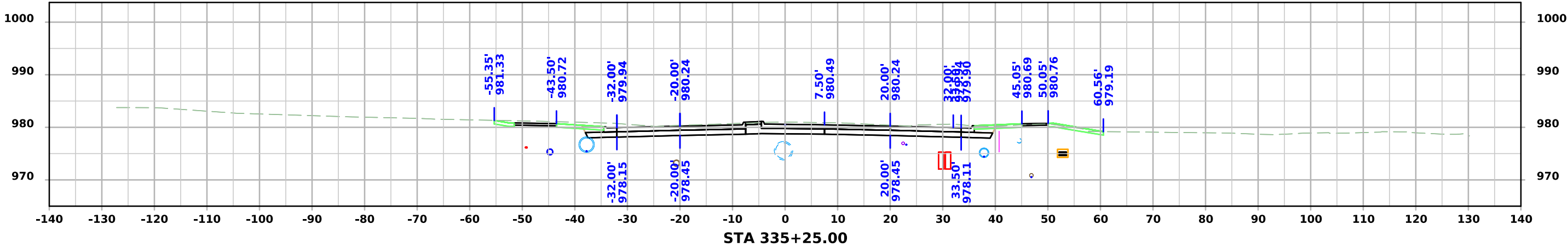


# US Hwy 69/S Ankeny Blvd

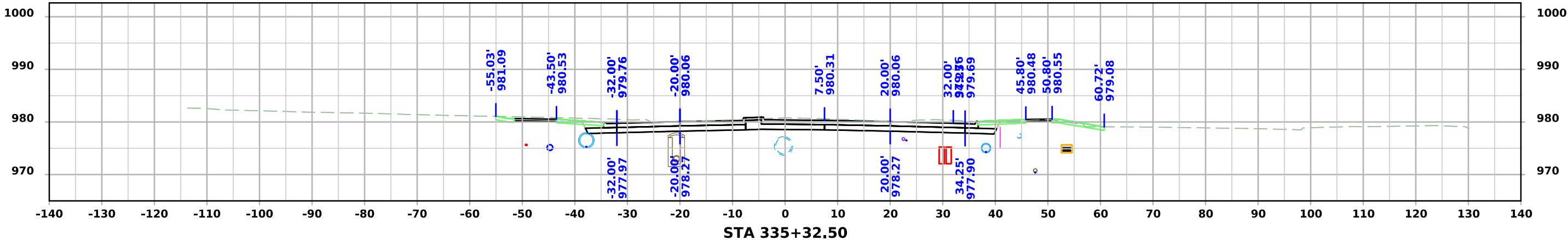
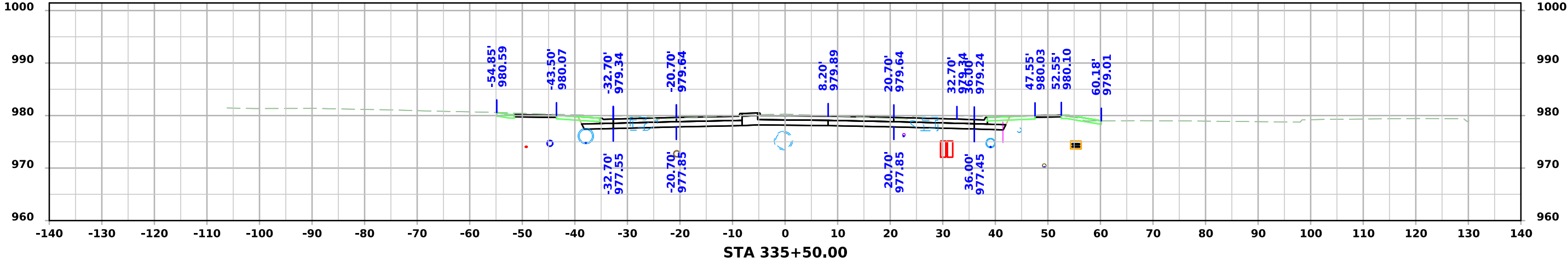
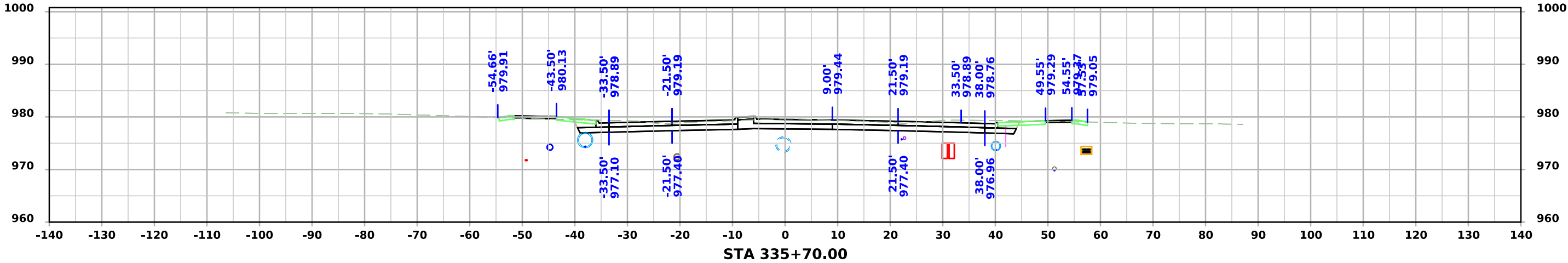




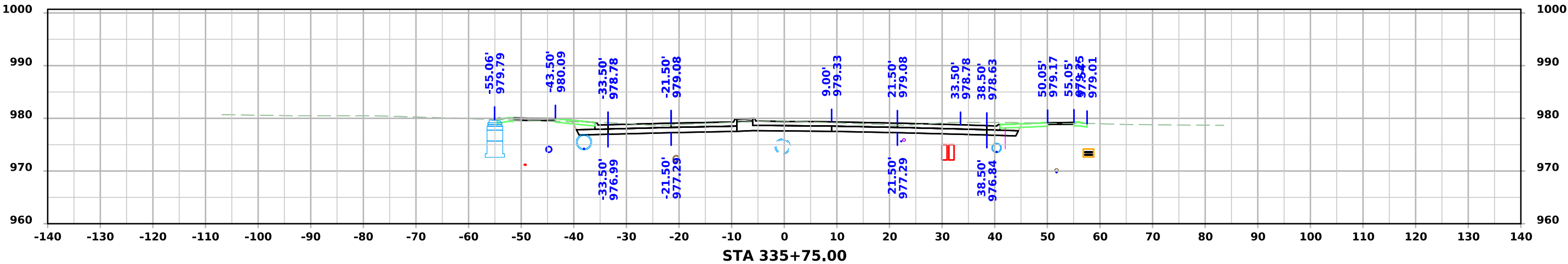
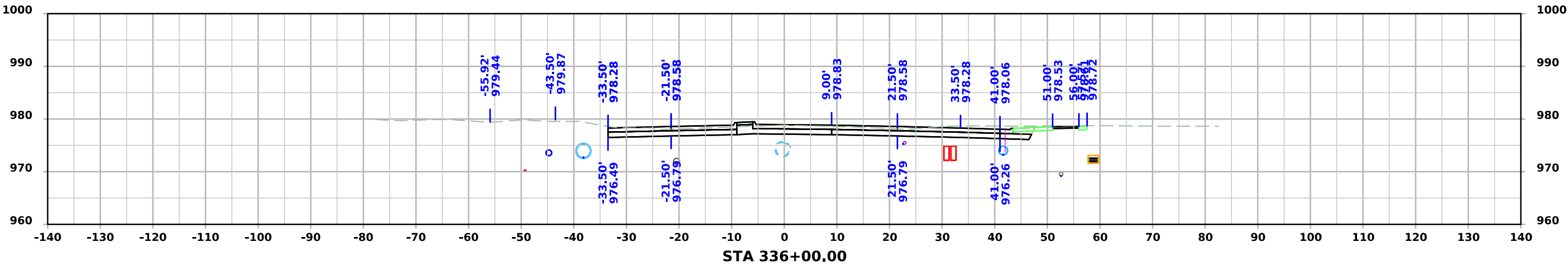
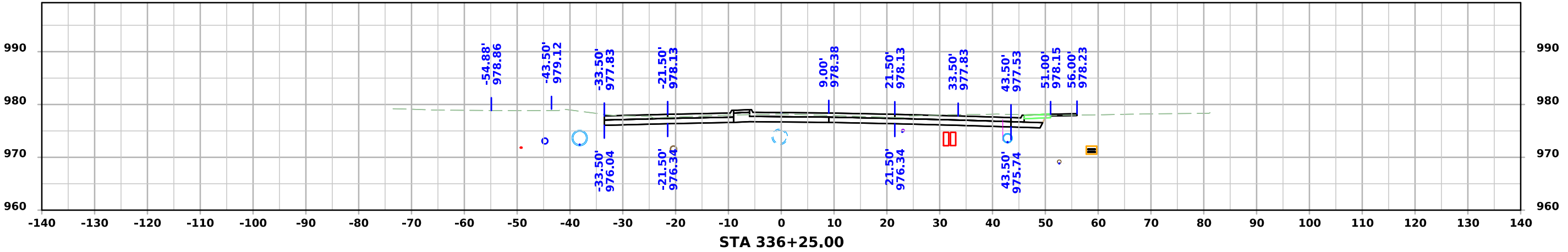
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

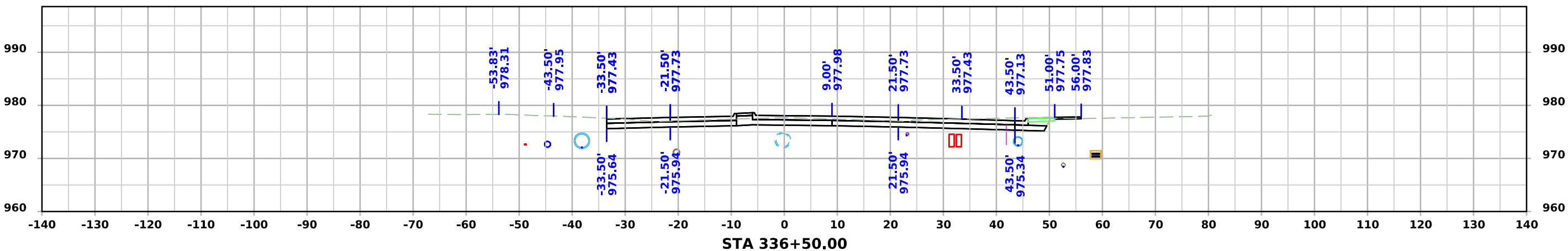
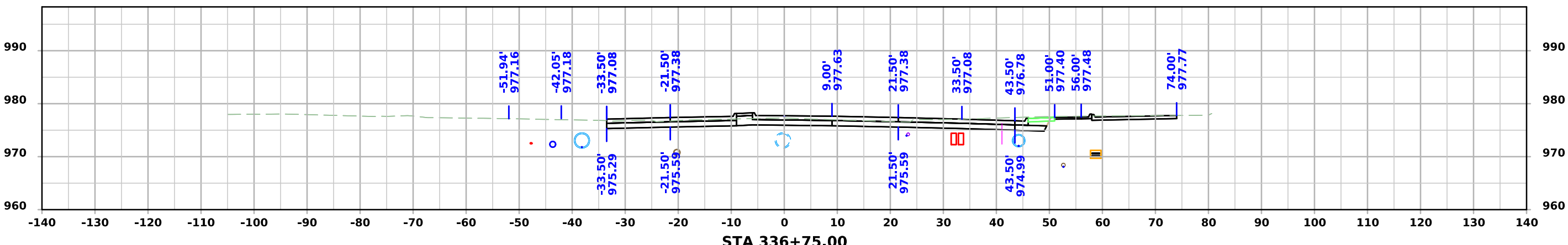
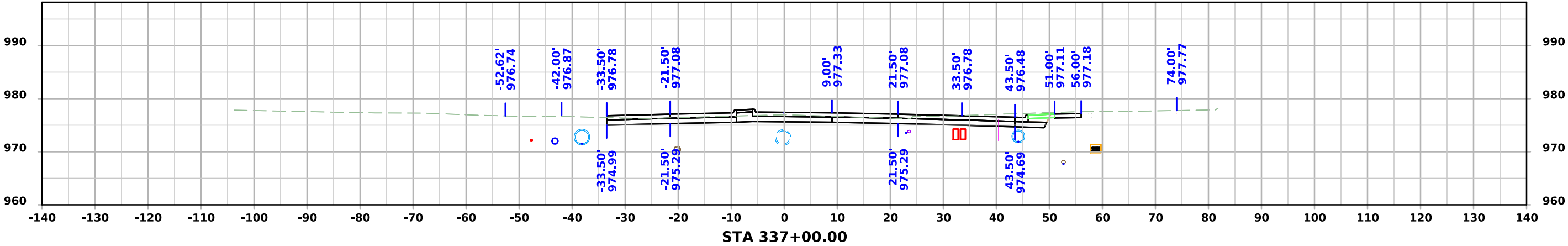


# US Hwy 69/S Ankeny Blvd

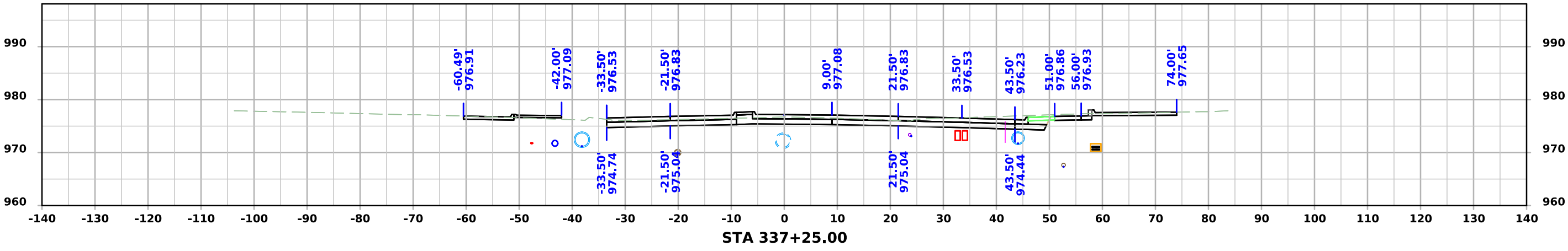
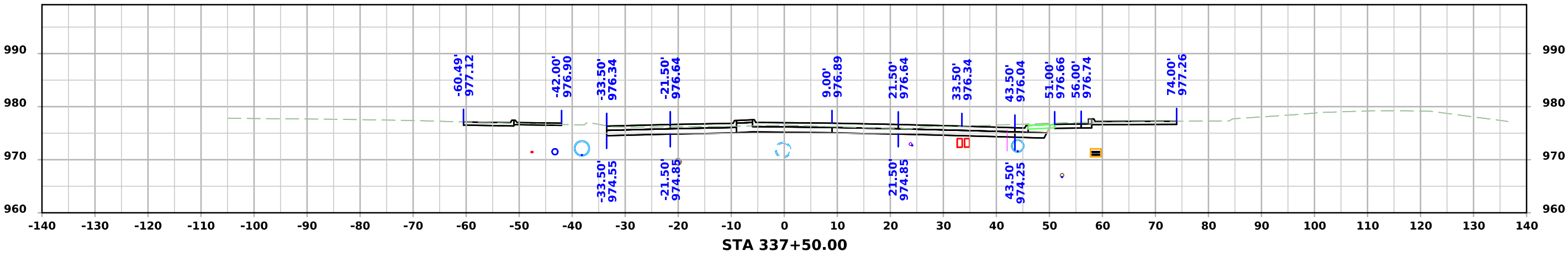
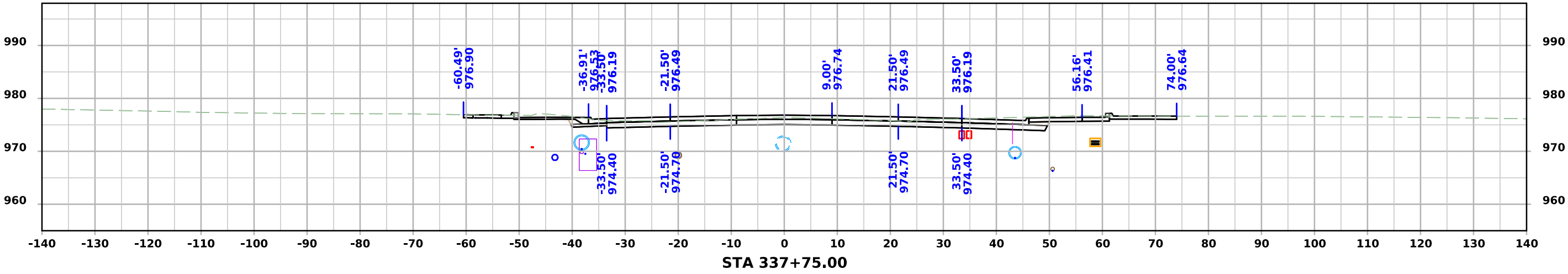




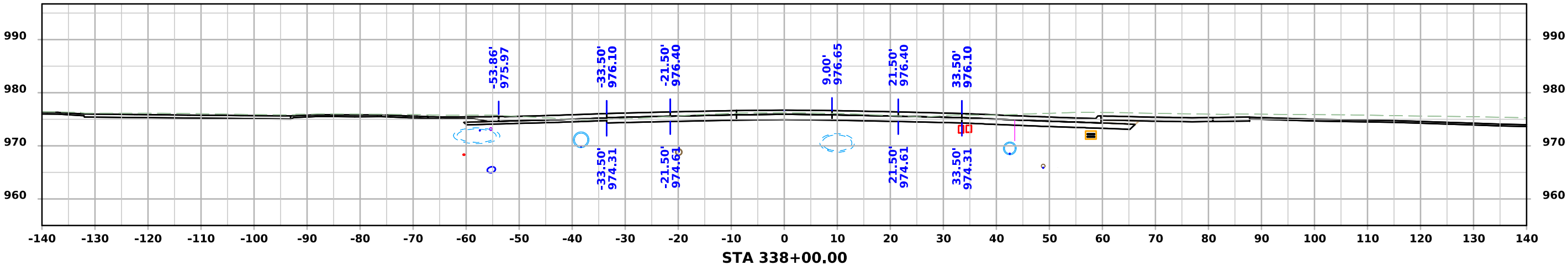
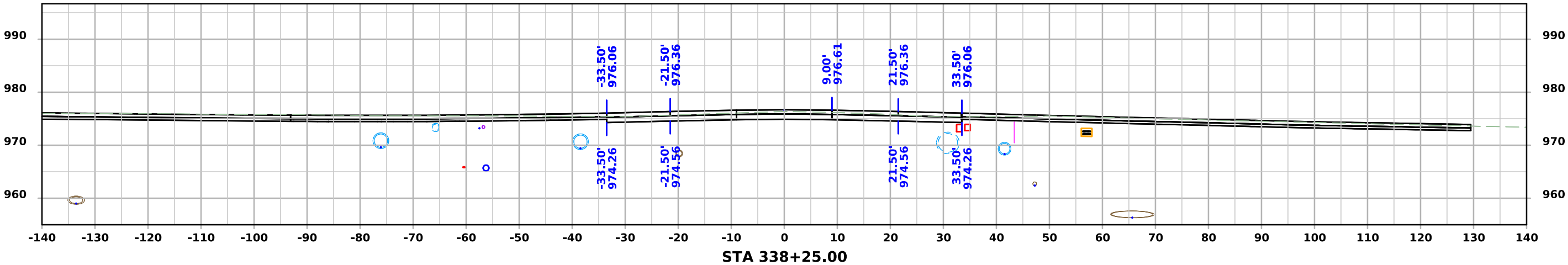
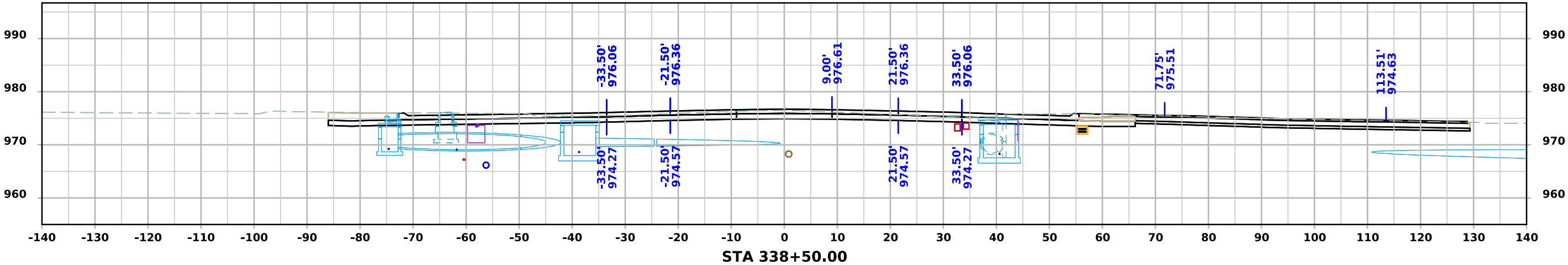
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

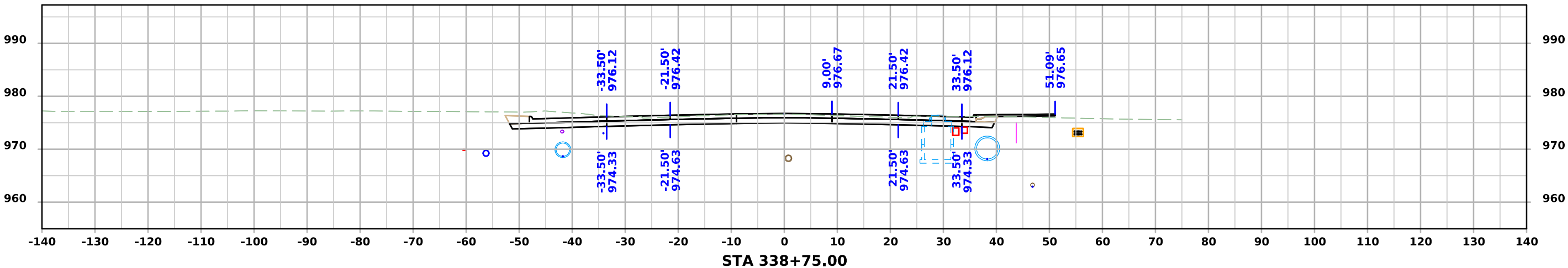
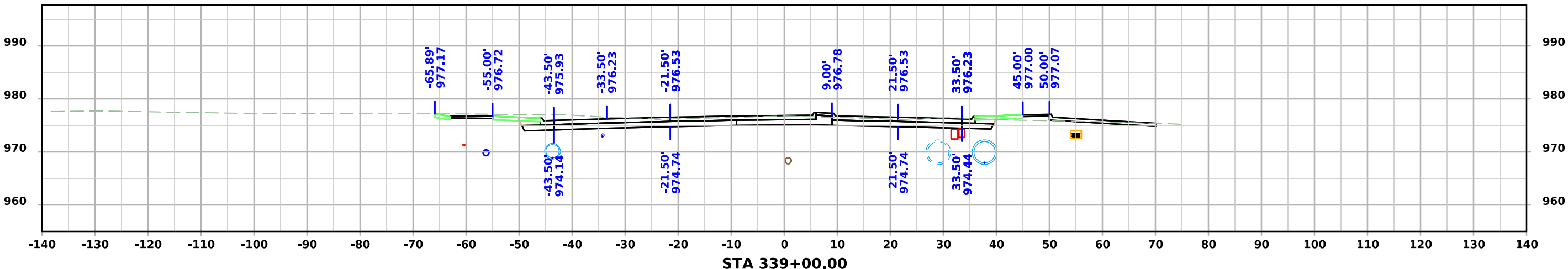
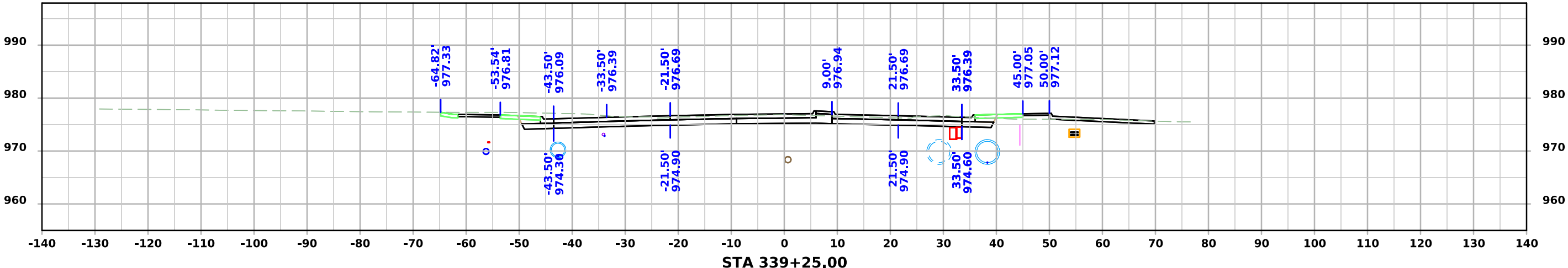


# US Hwy 69/S Ankeny Blvd

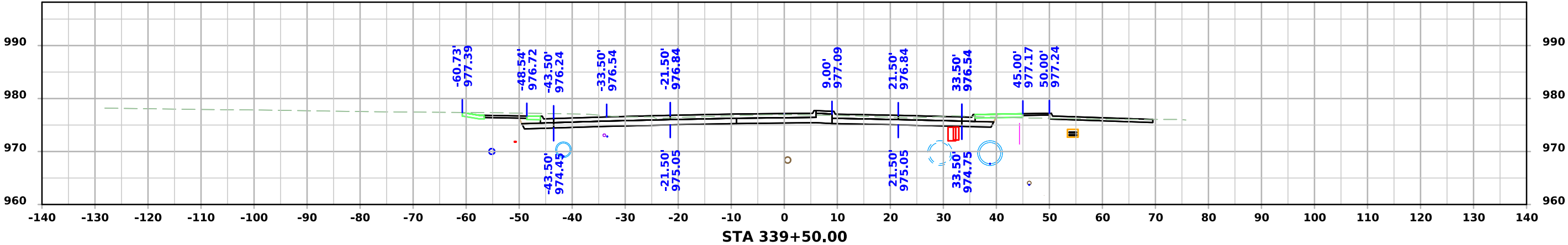
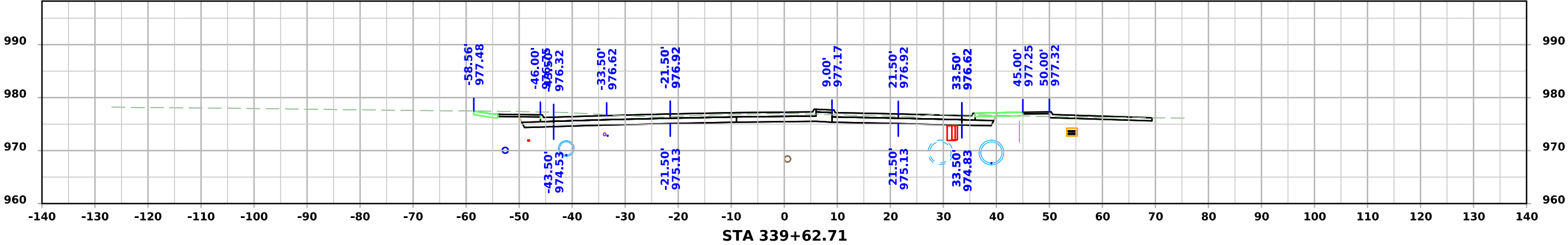
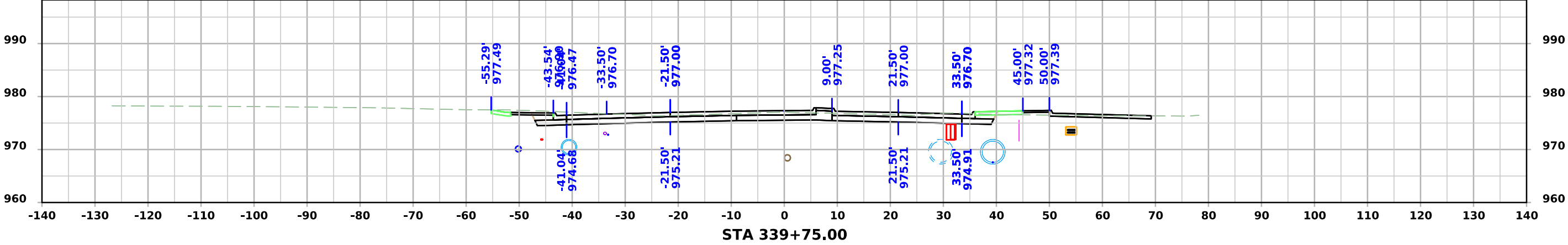




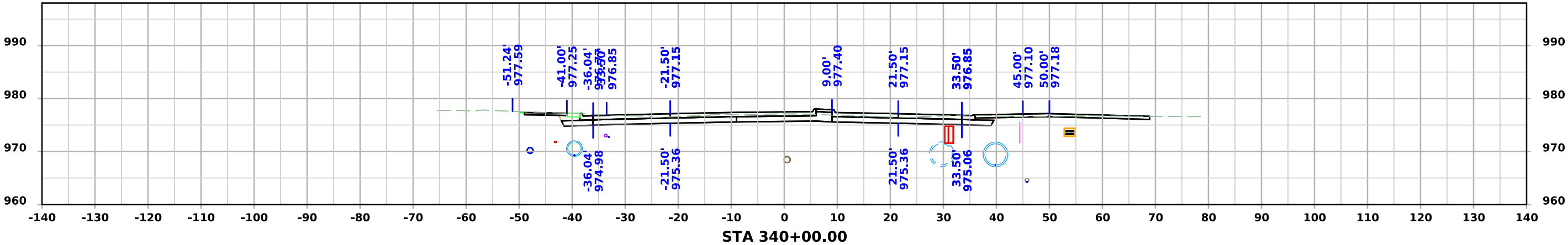
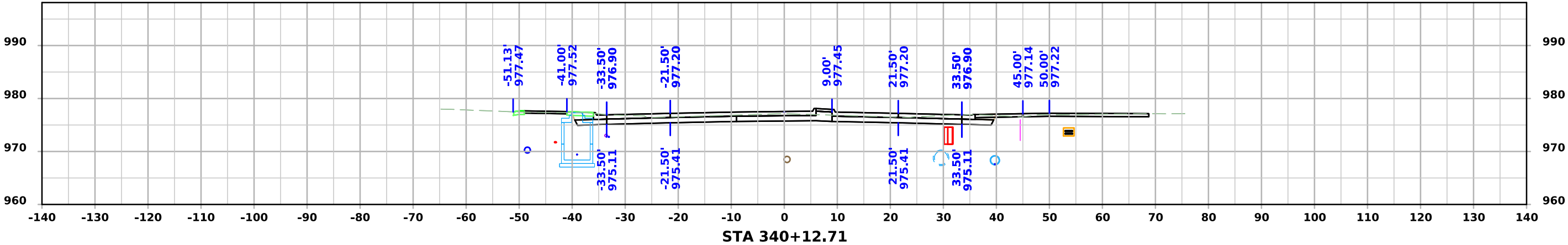
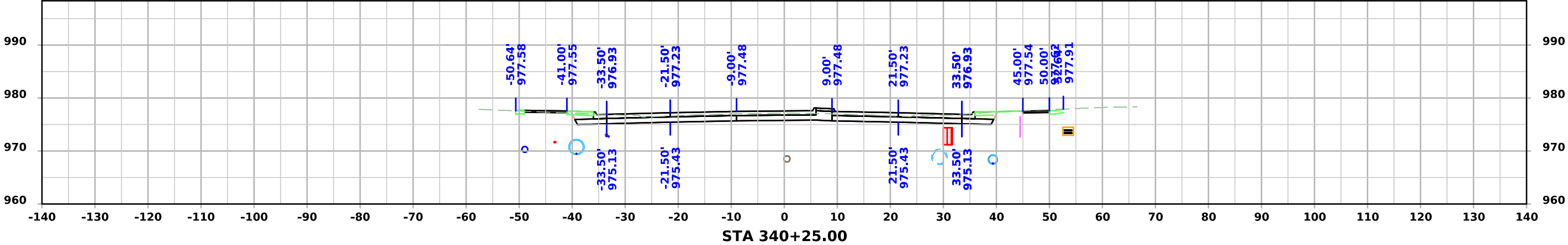
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

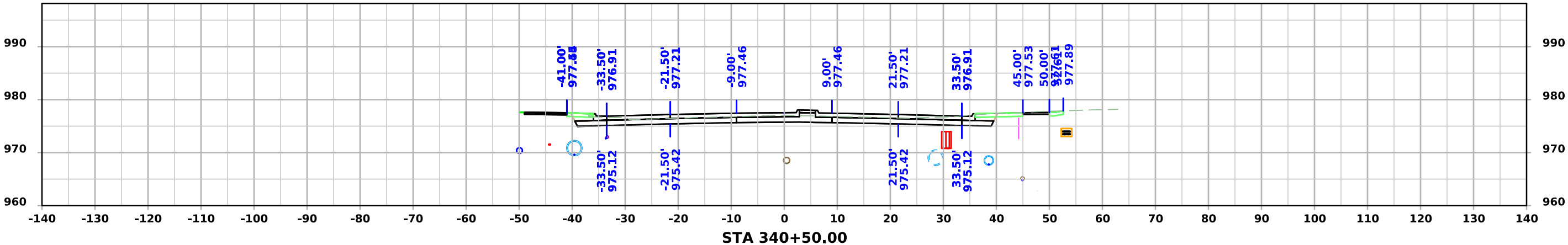
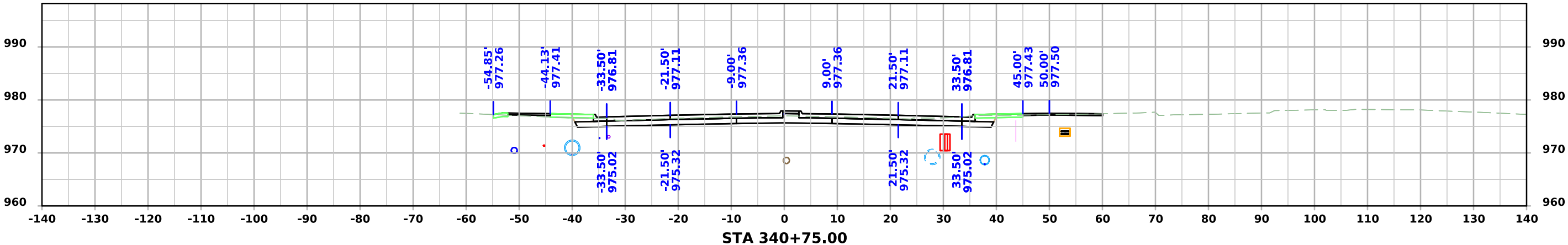
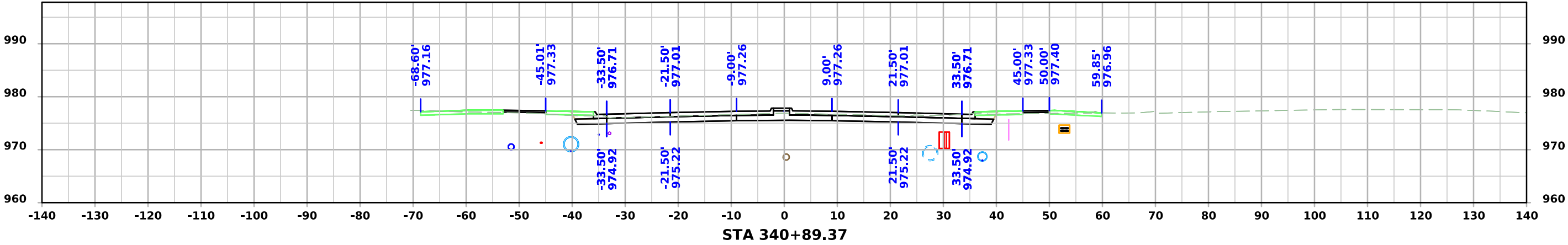


# US Hwy 69/S Ankeny Blvd

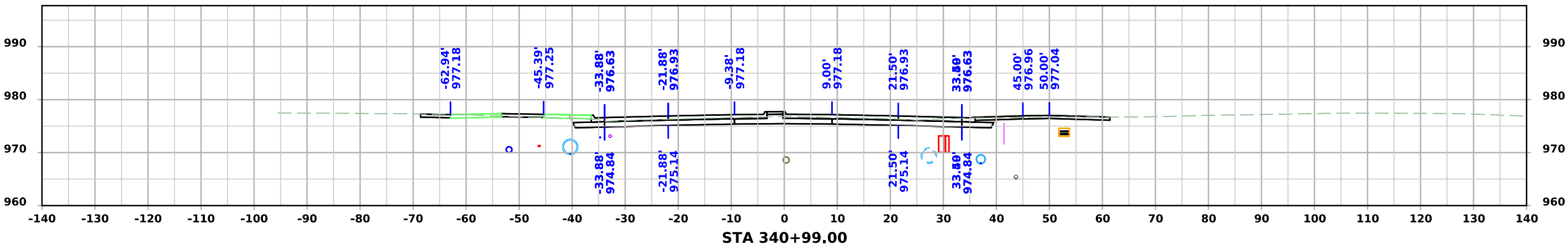
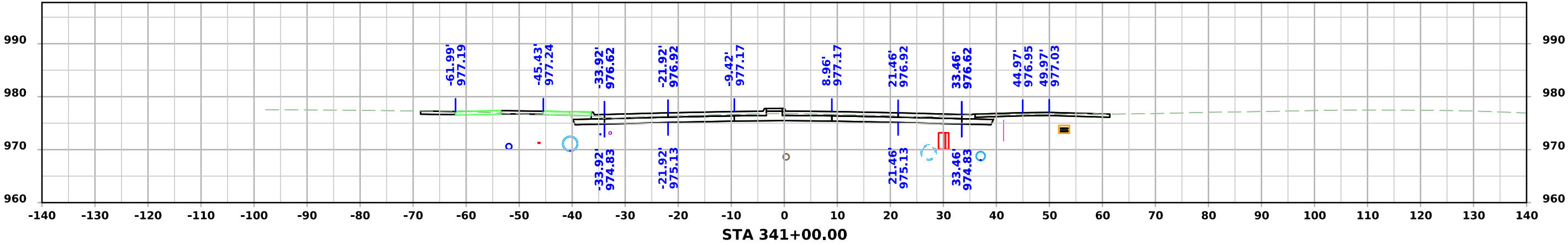
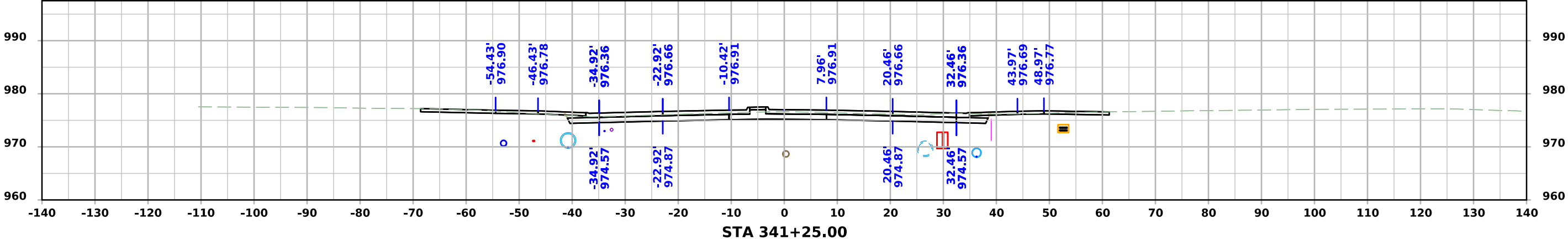




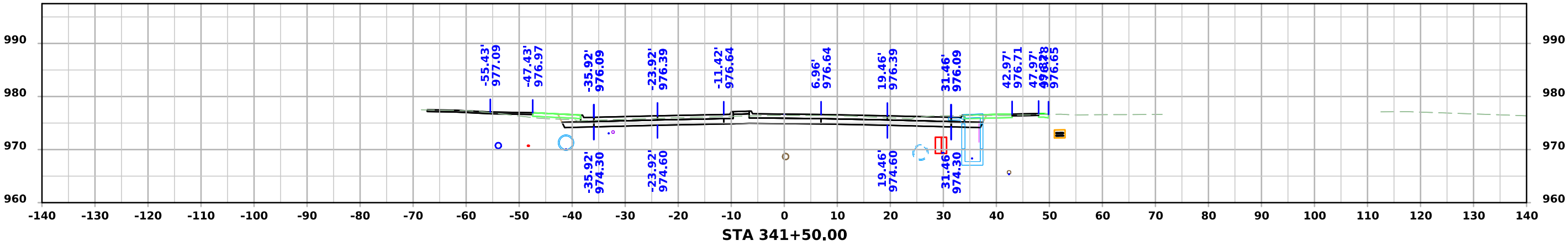
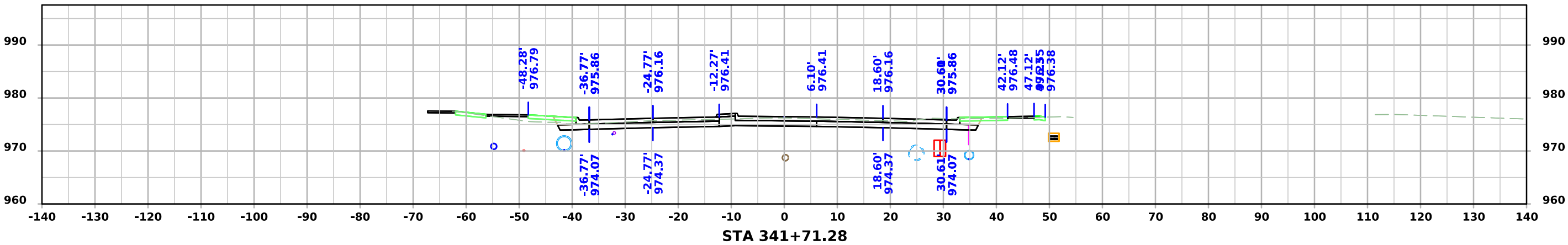
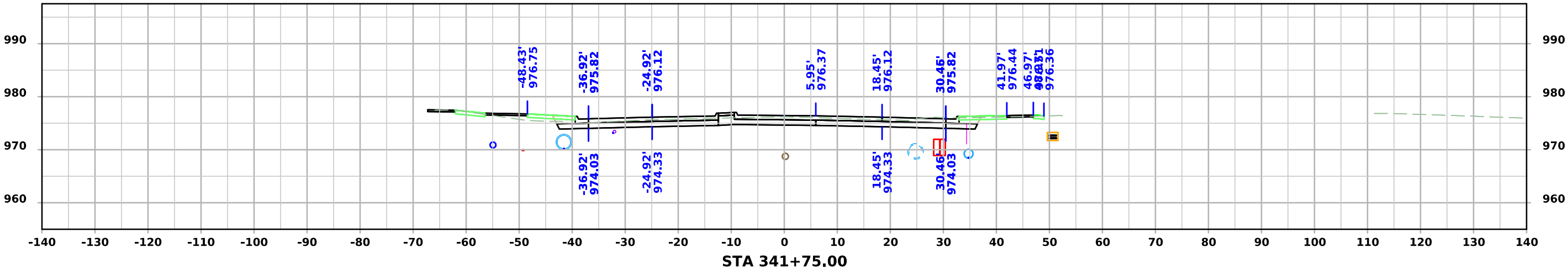
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

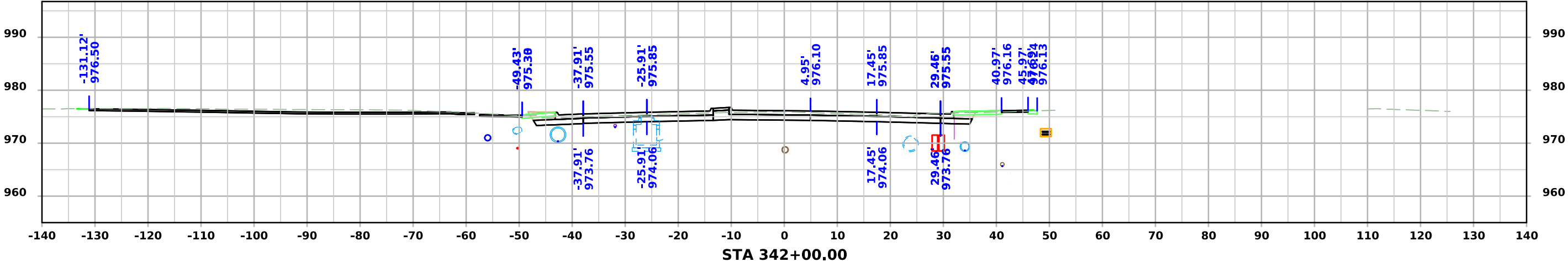
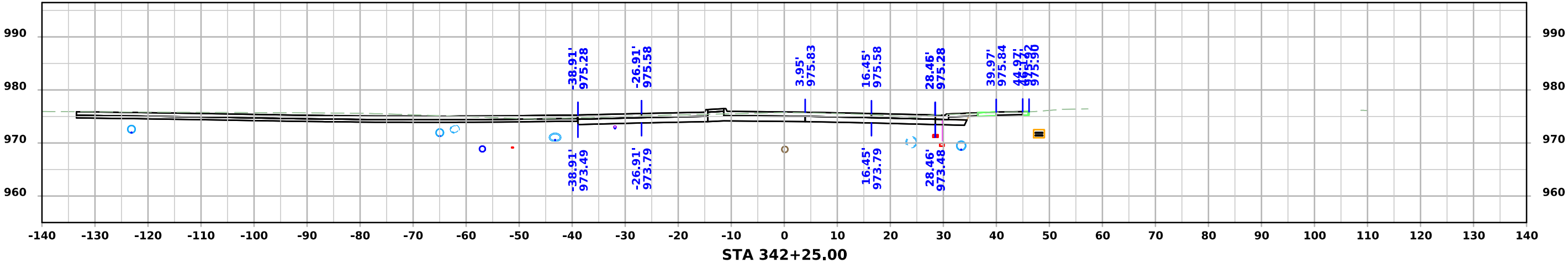
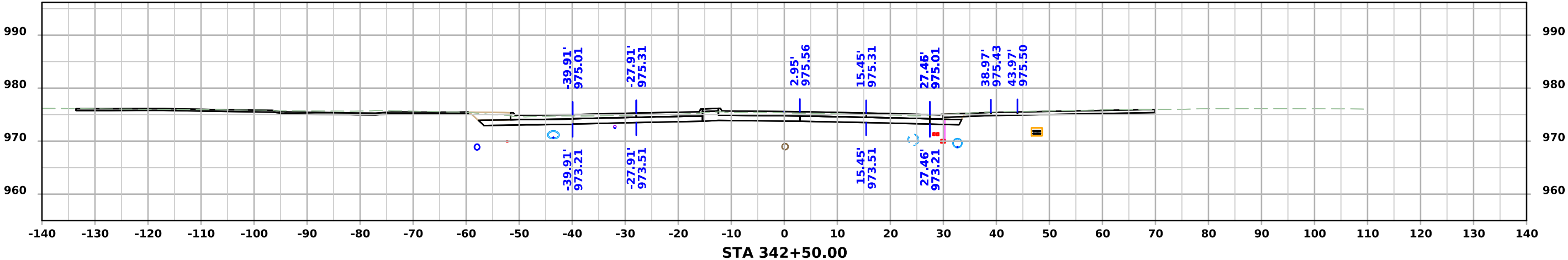


# US Hwy 69/S Ankeny Blvd

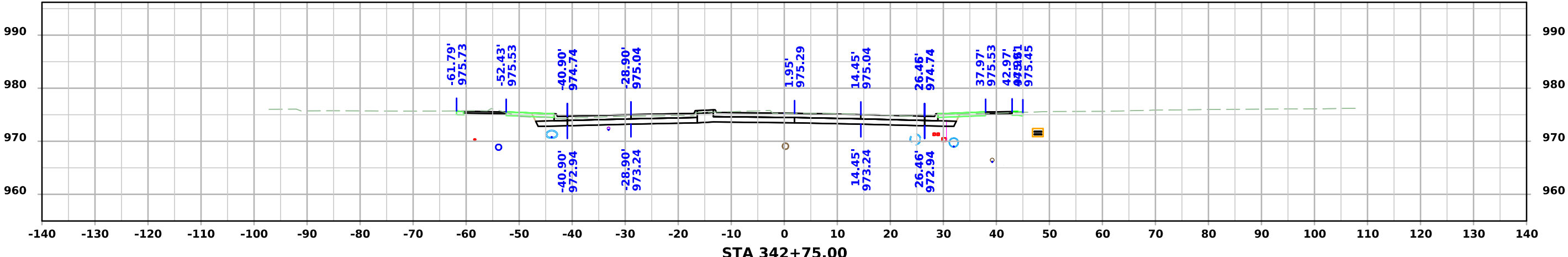
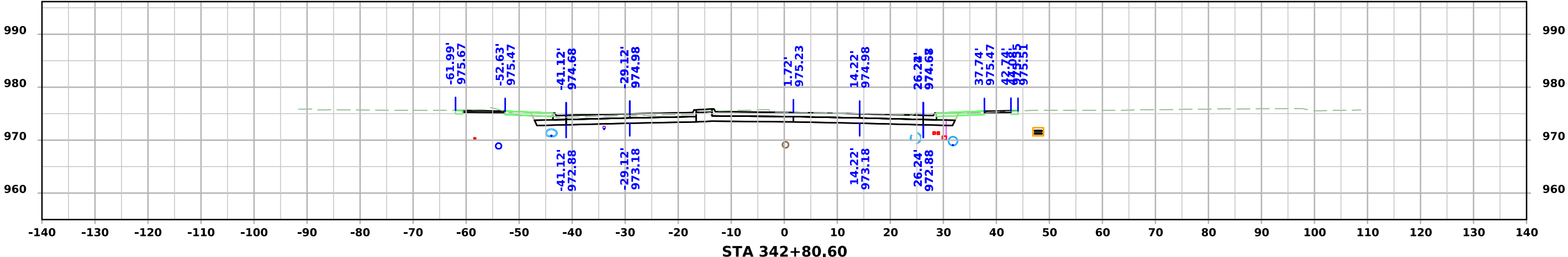
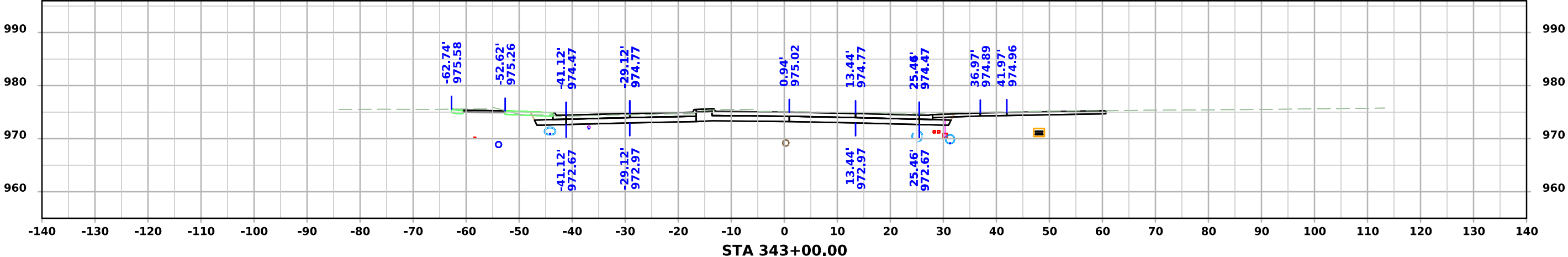




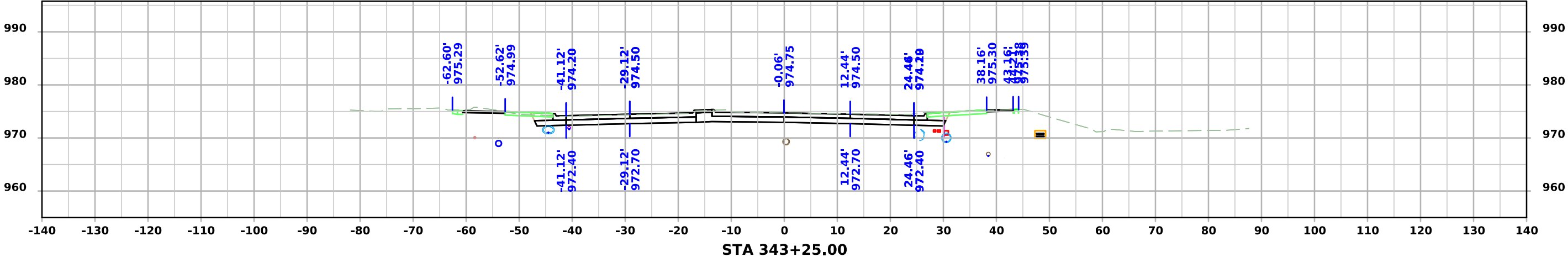
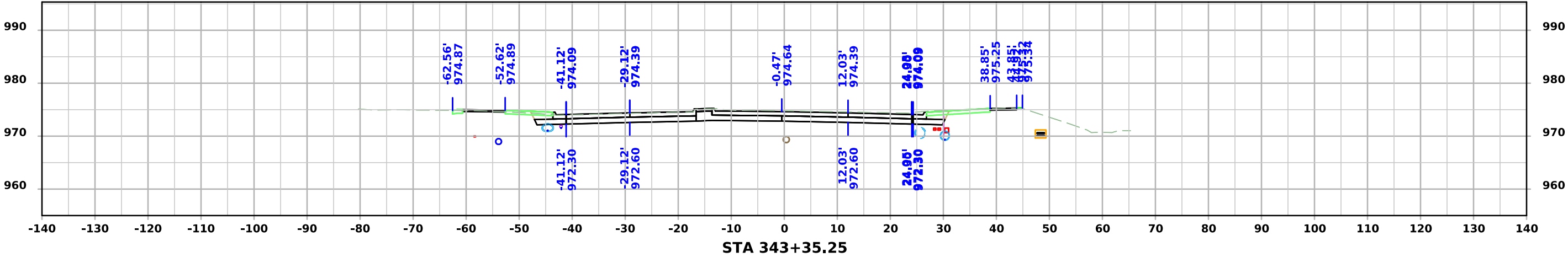
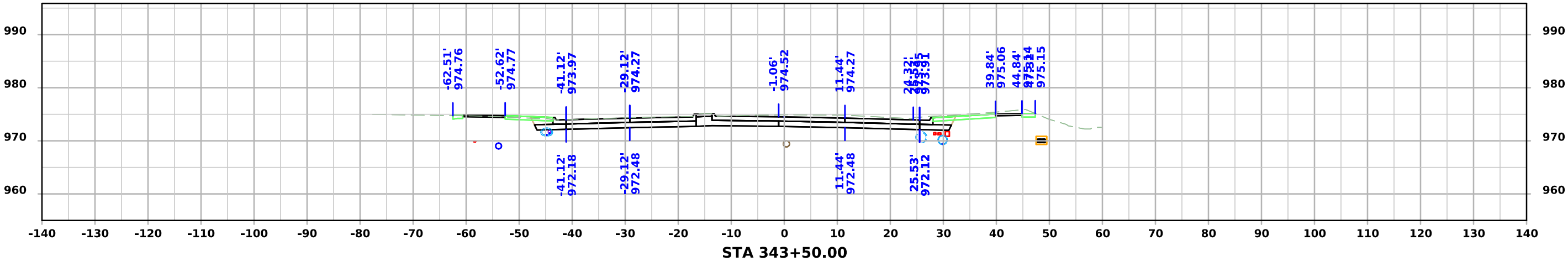
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

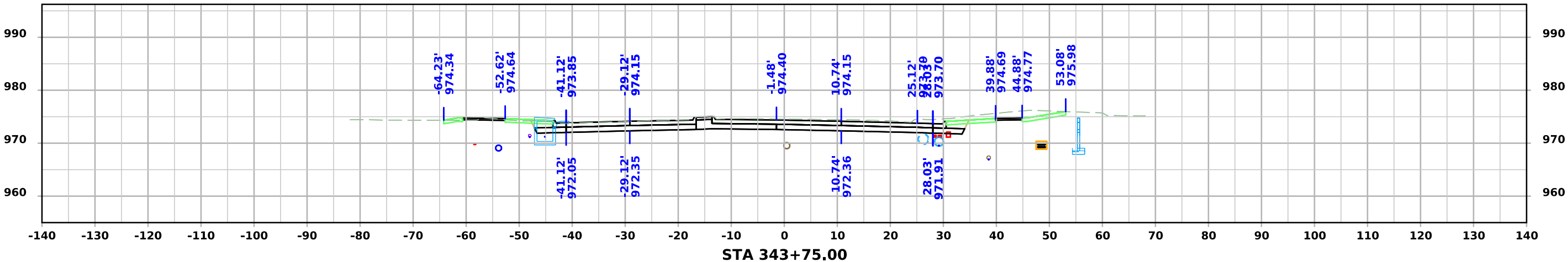
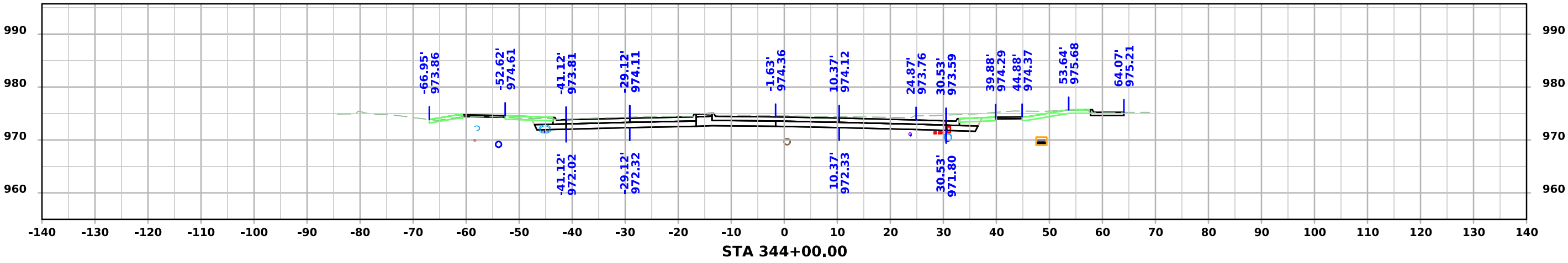
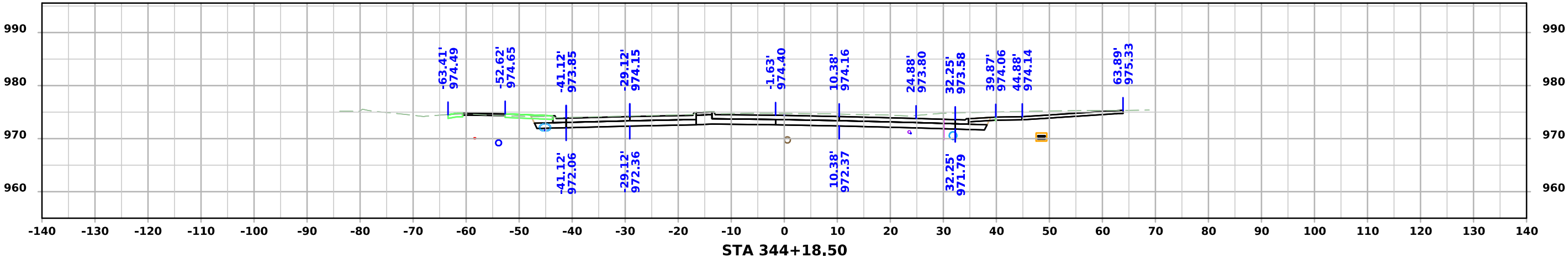


# US Hwy 69/S Ankeny Blvd

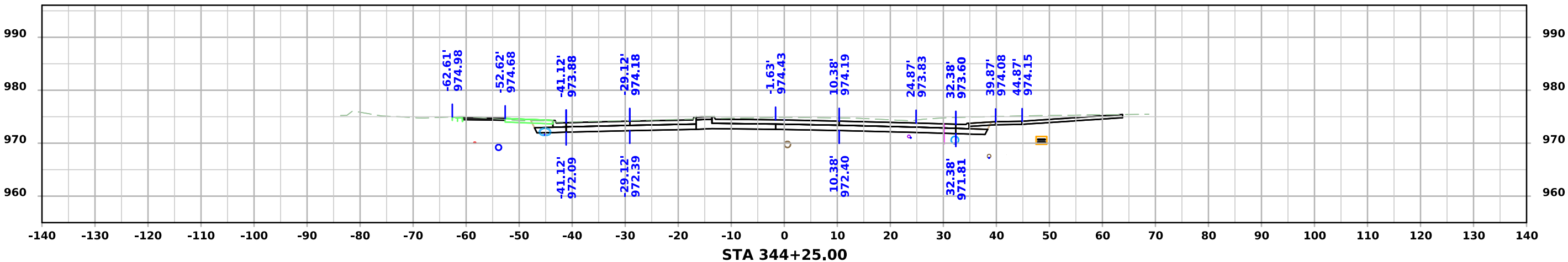
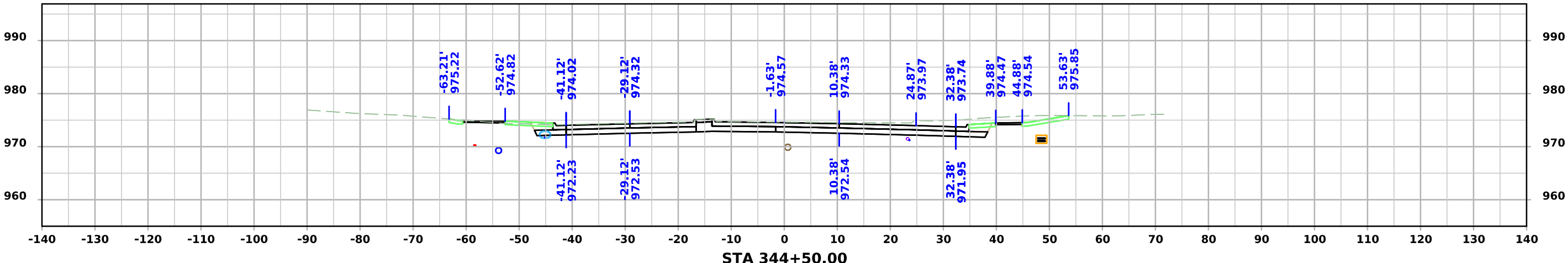
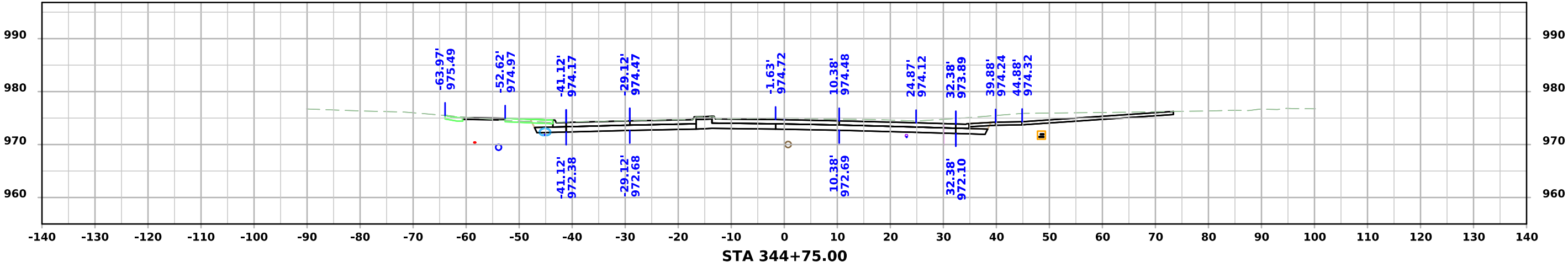




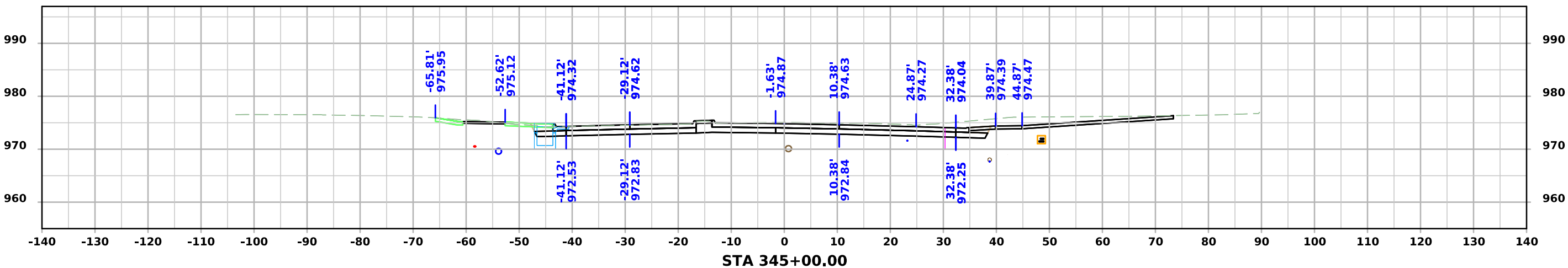
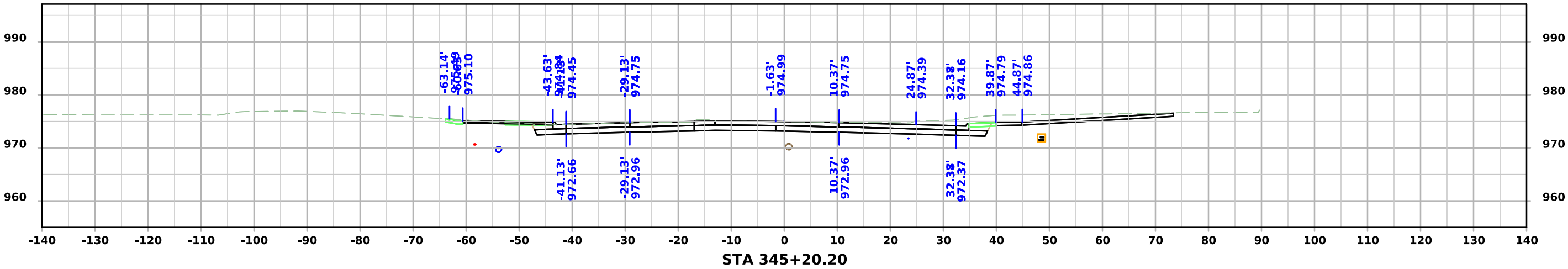
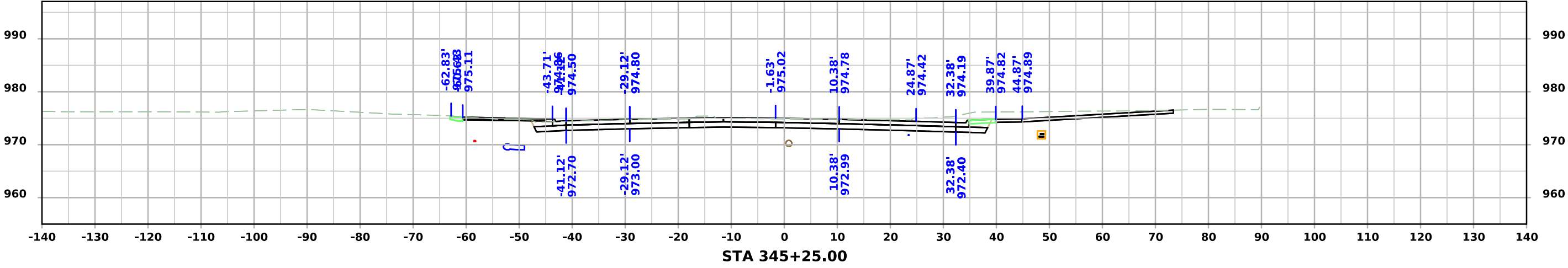
# US Hwy 69/S Ankeny Blvd



# US Hwy 69/S Ankeny Blvd

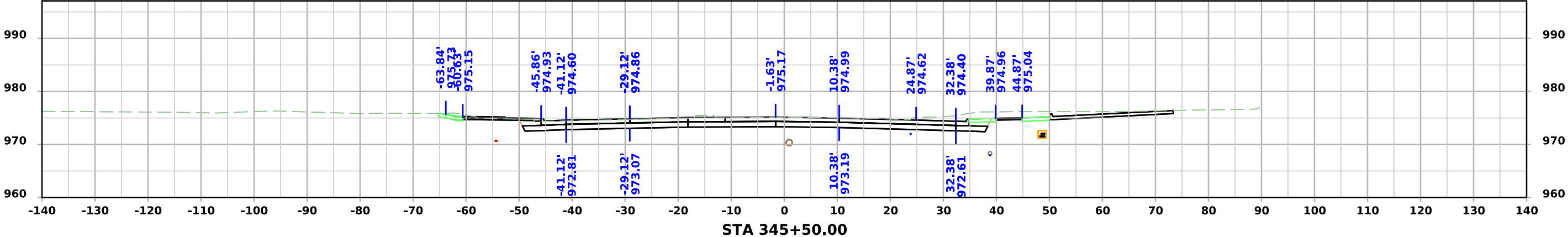
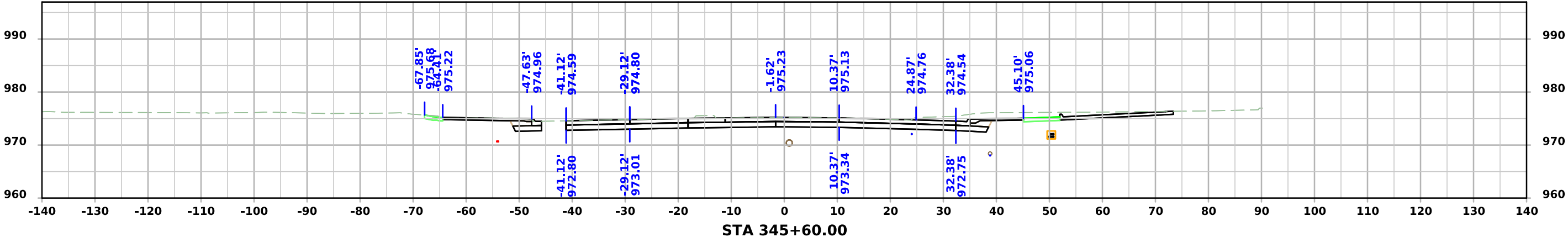


# US Hwy 69/S Ankeny Blvd

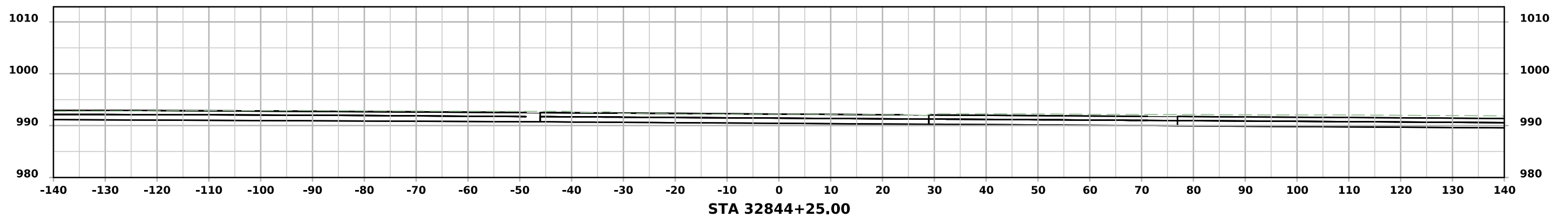
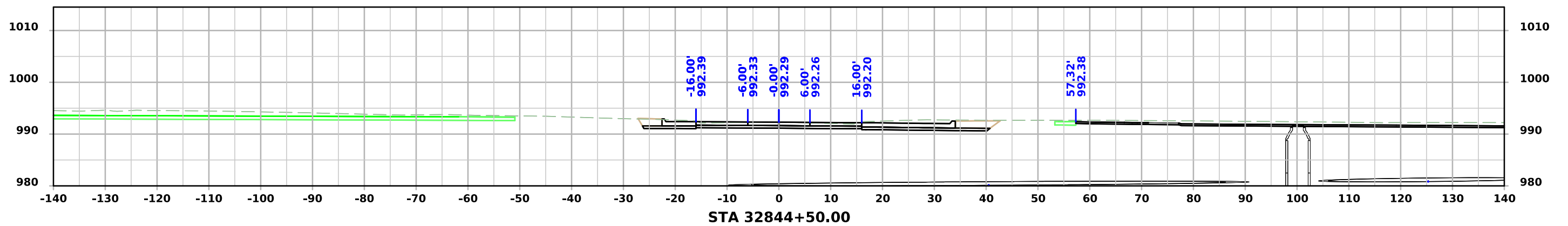
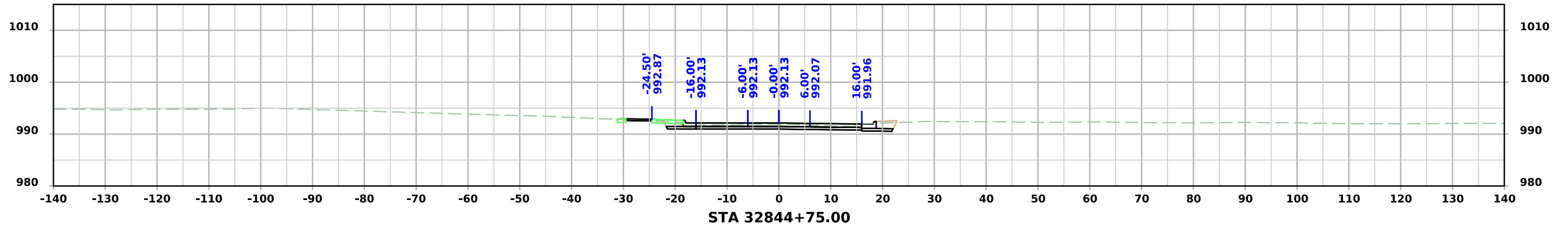




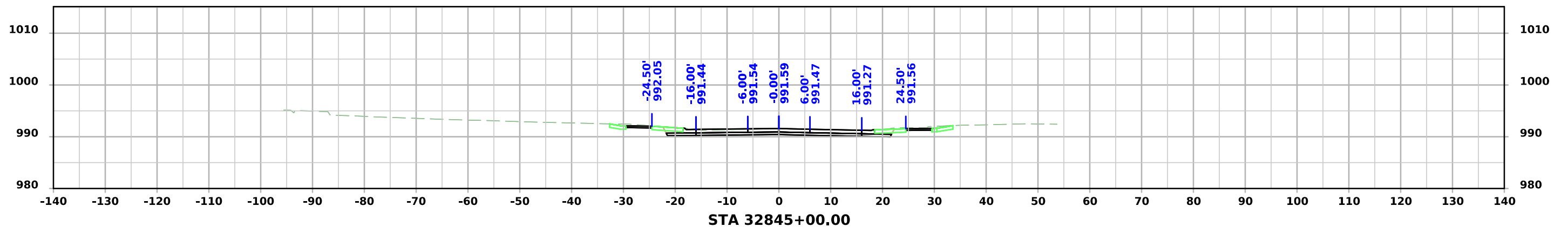
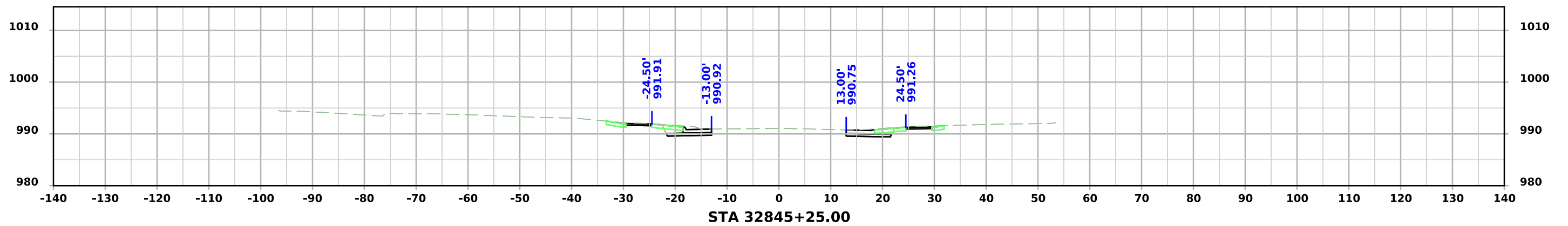
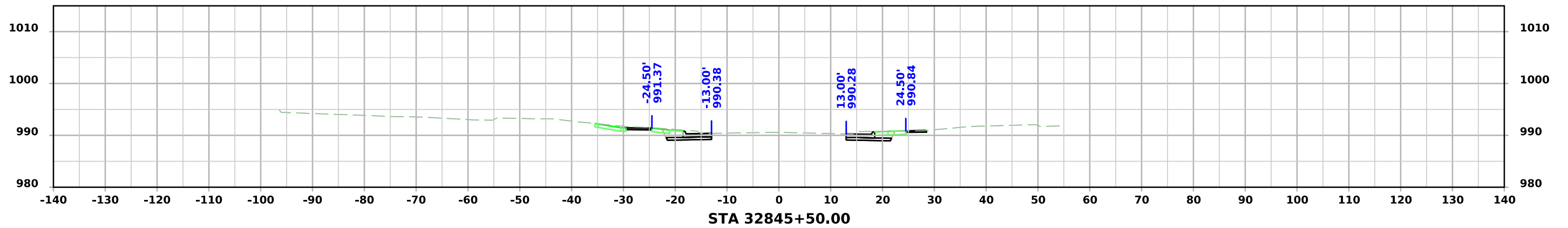
# US Hwy 69/S Ankeny Blvd



# SE Peterson Dr

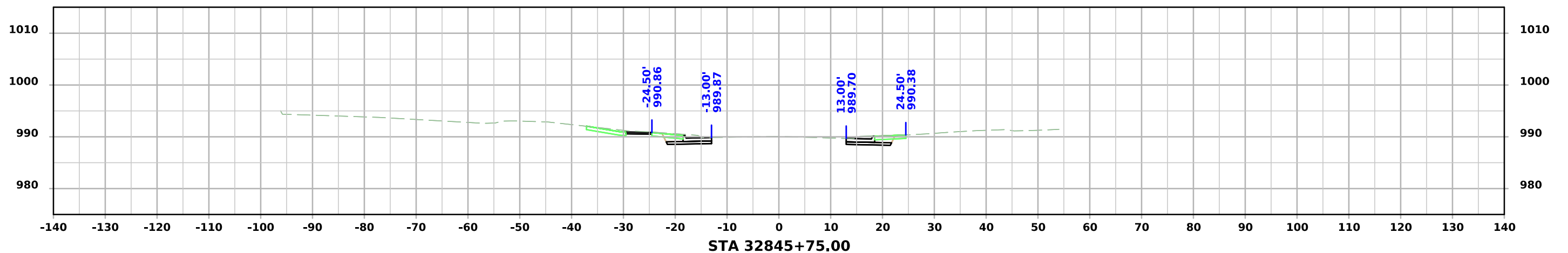
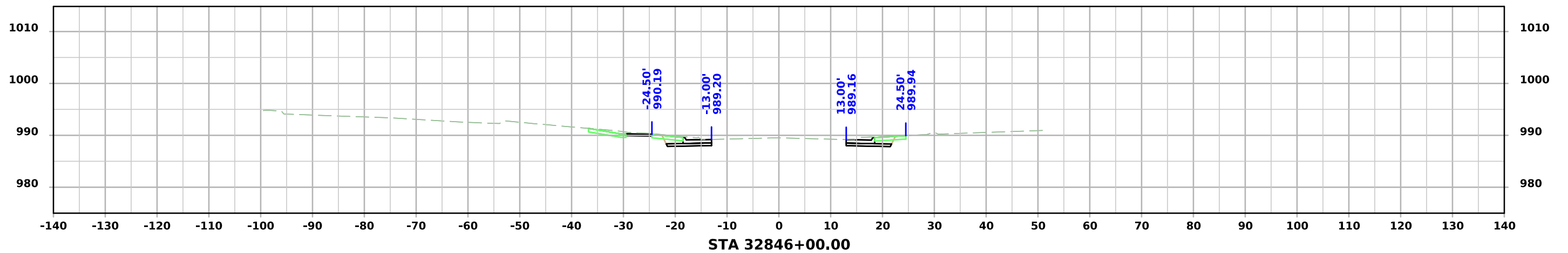
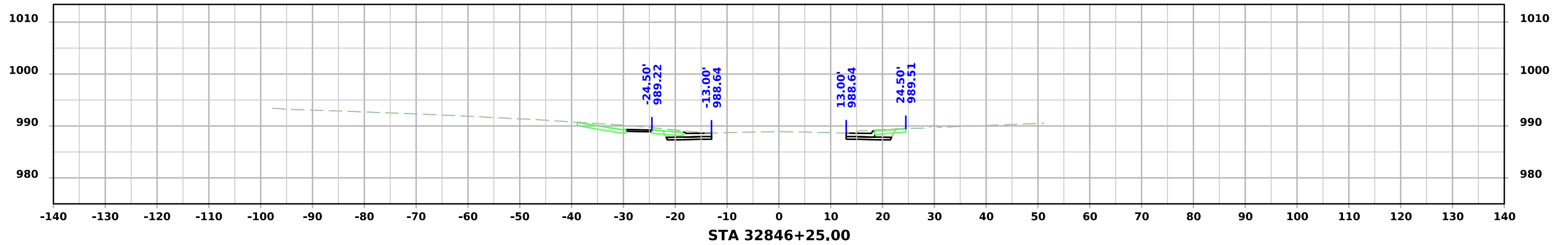


# SE Peterson Dr

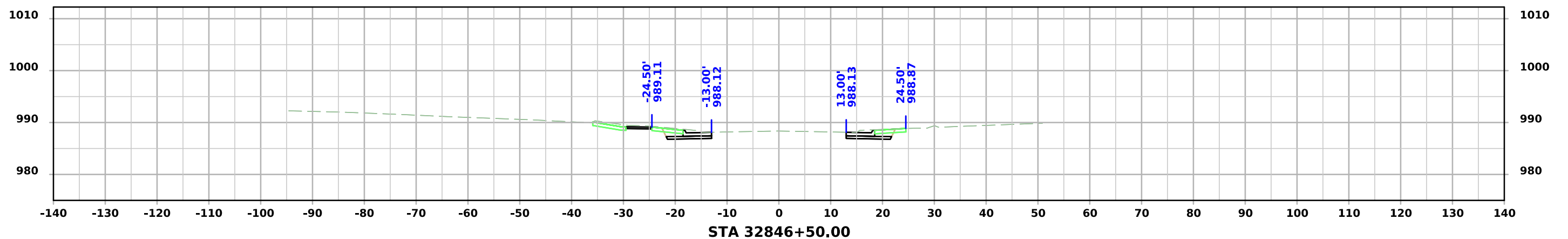
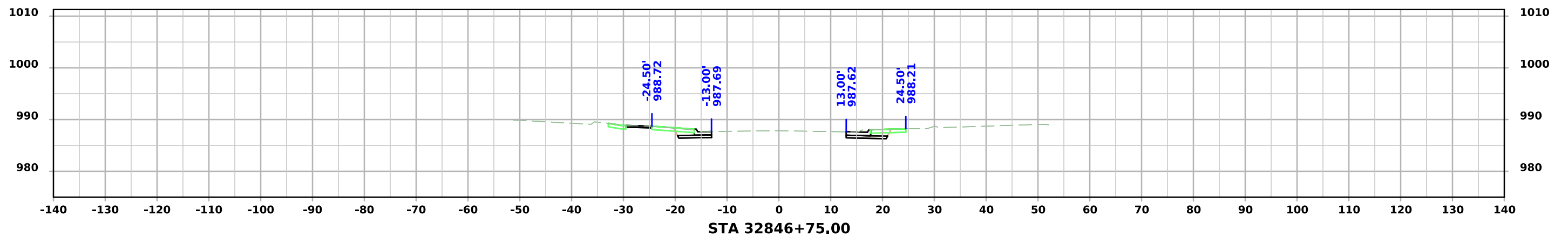
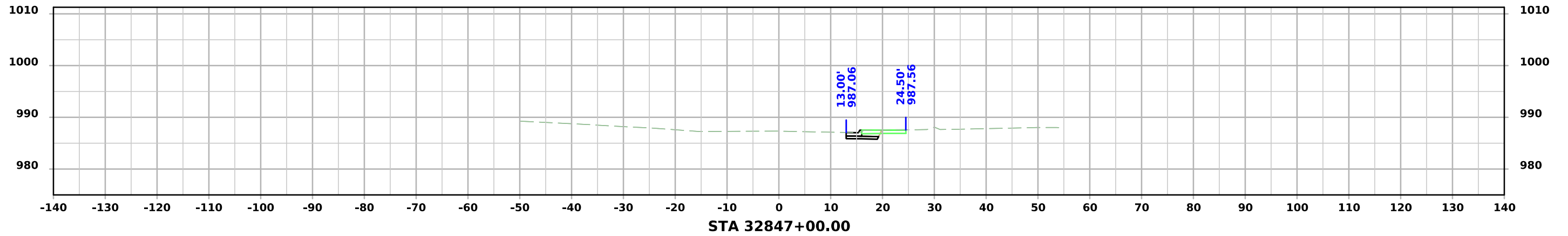




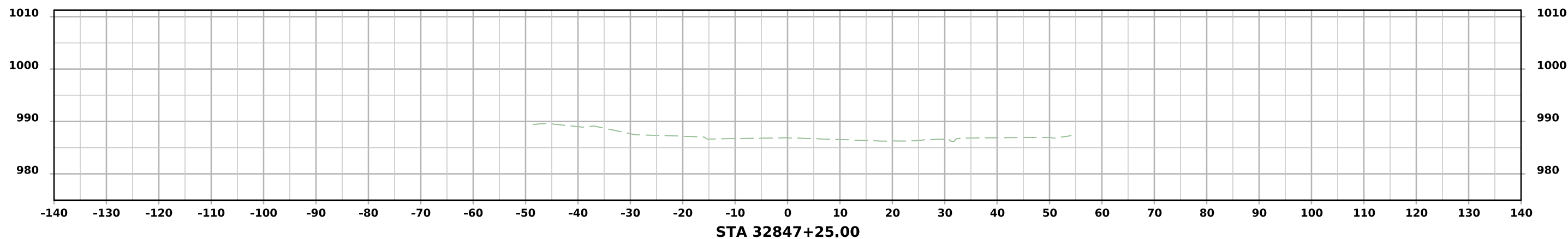
# SE Peterson Dr



# SE Peterson Dr

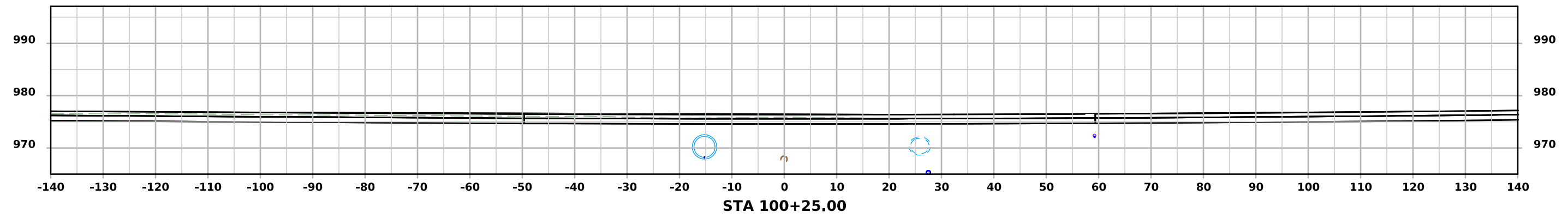
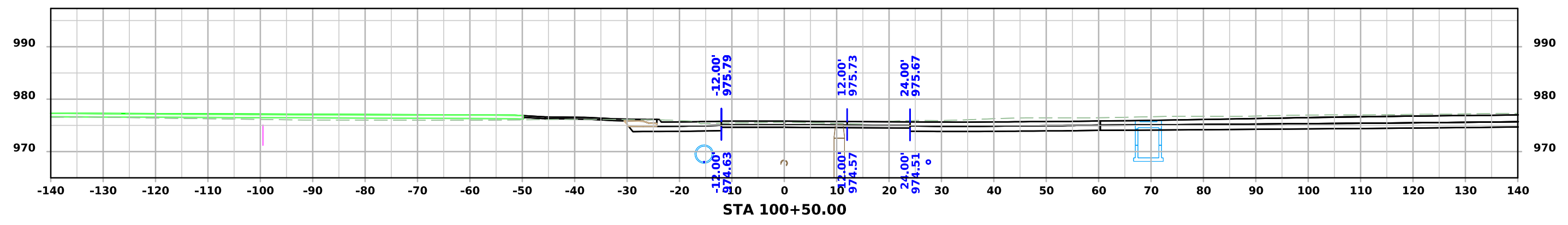
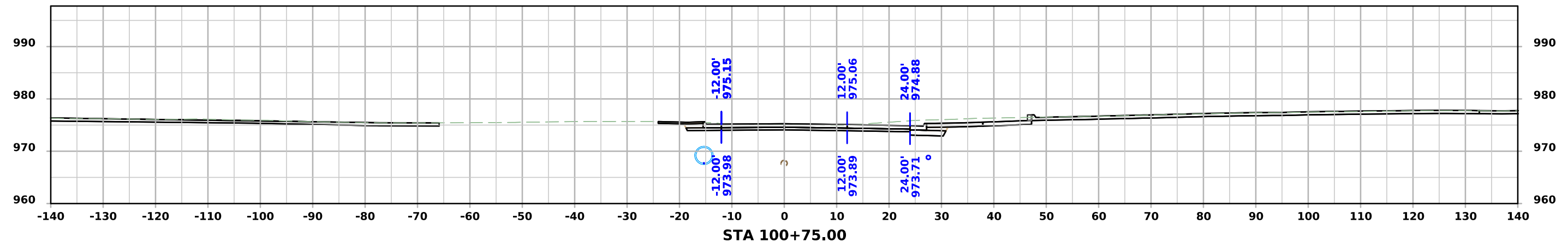


# SE Peterson Dr

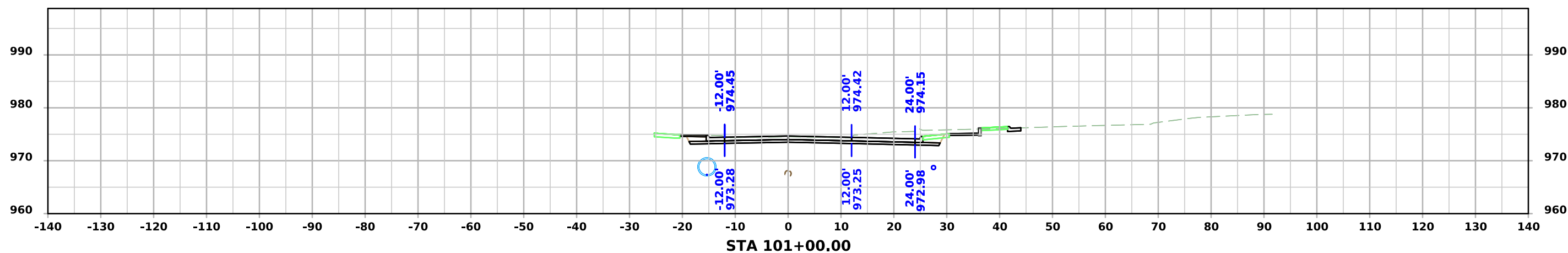
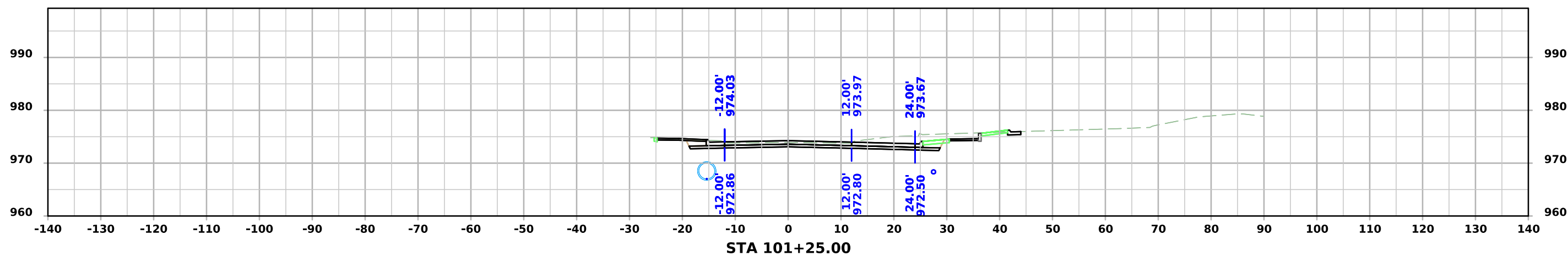
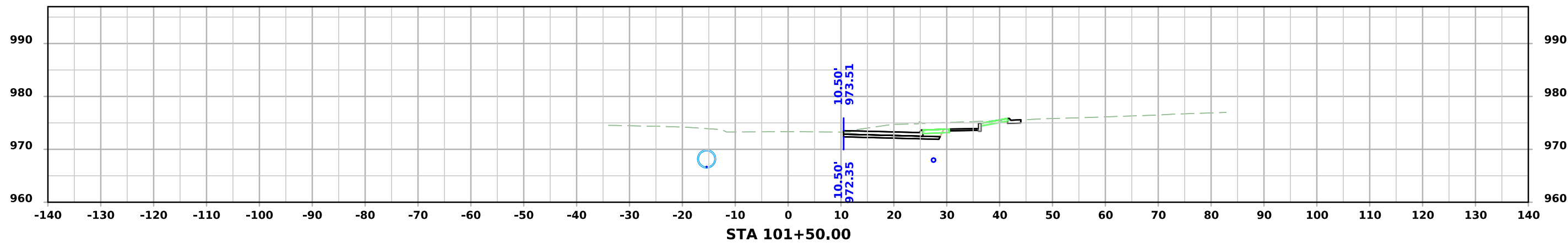




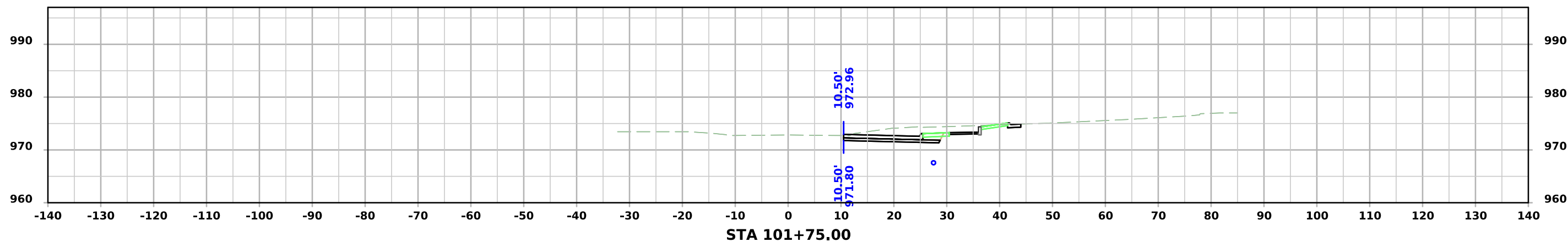
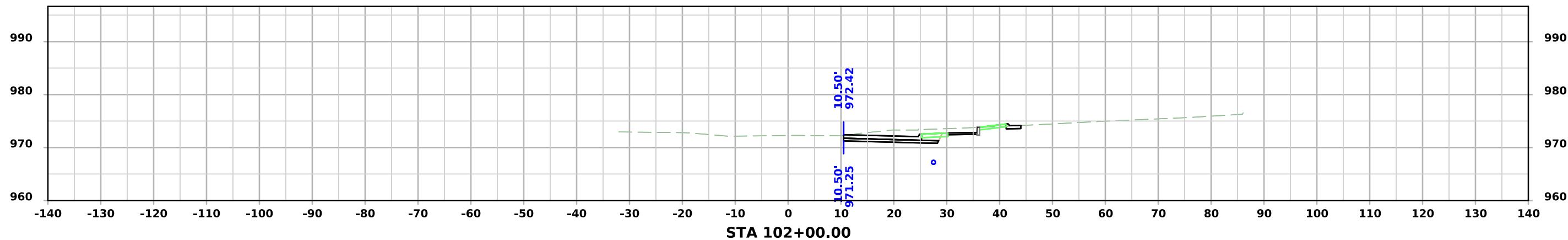
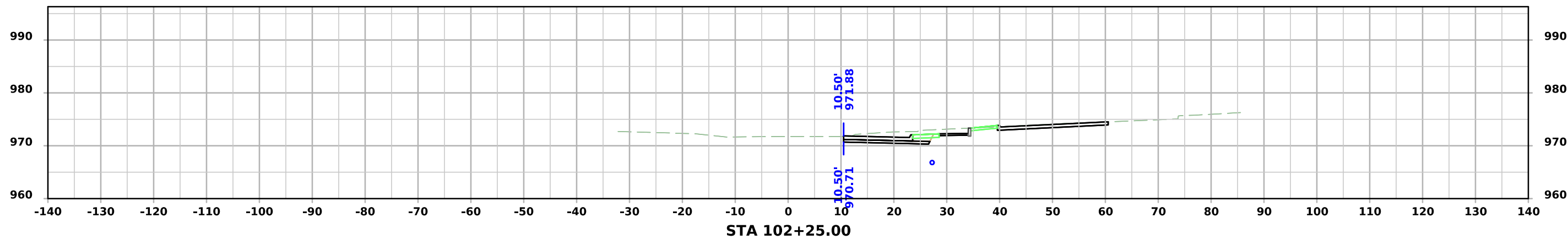
# 3rd St



# 3rd St

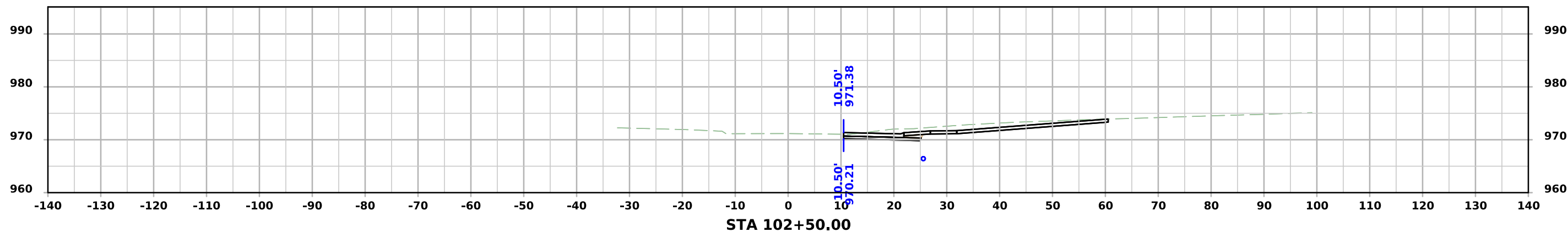
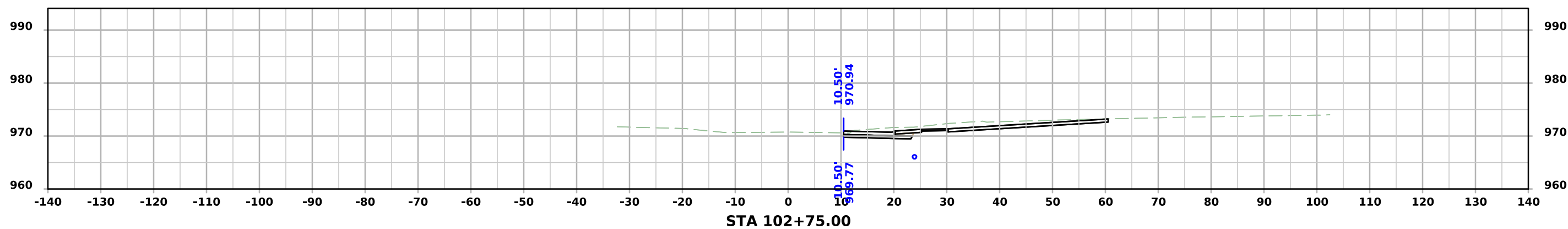
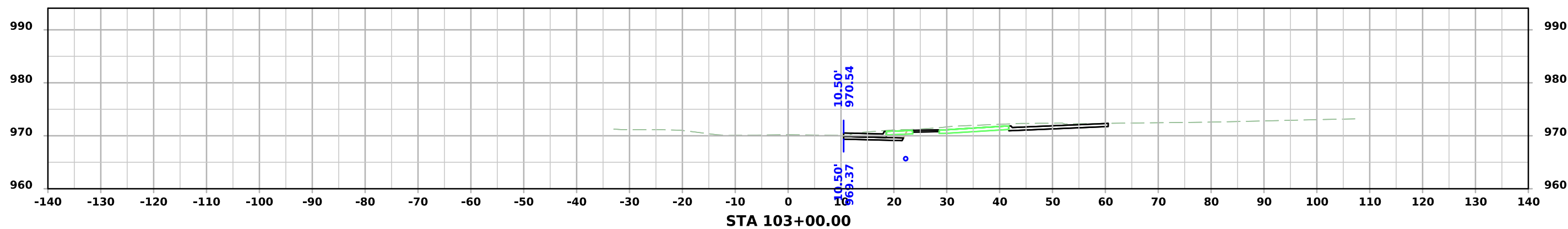


# 3rd St

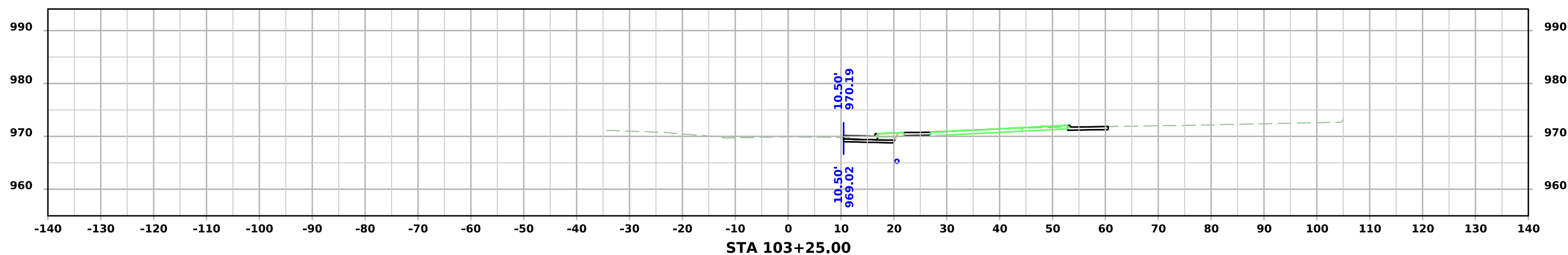
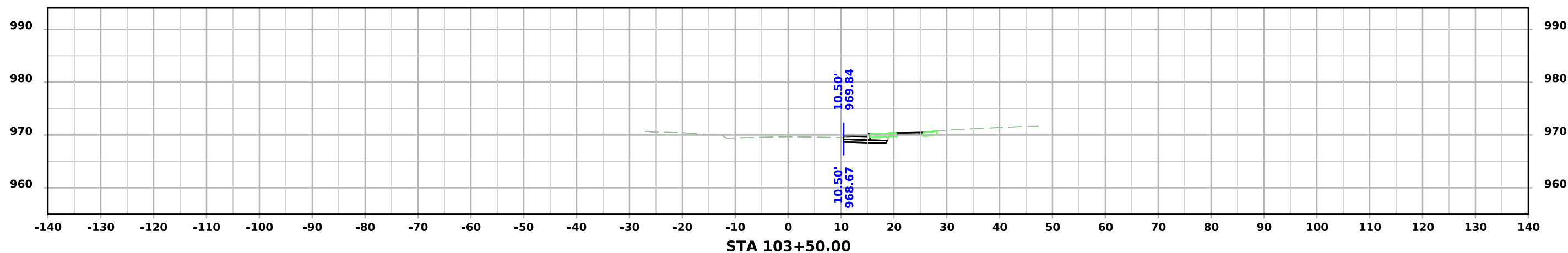
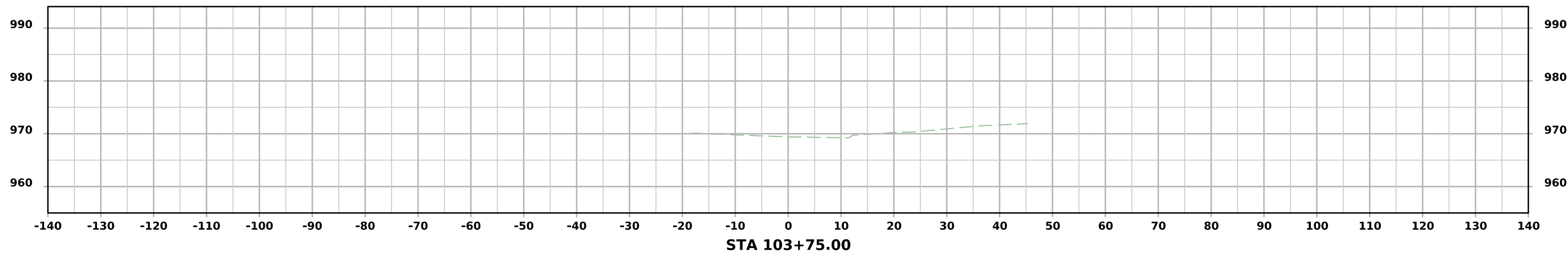




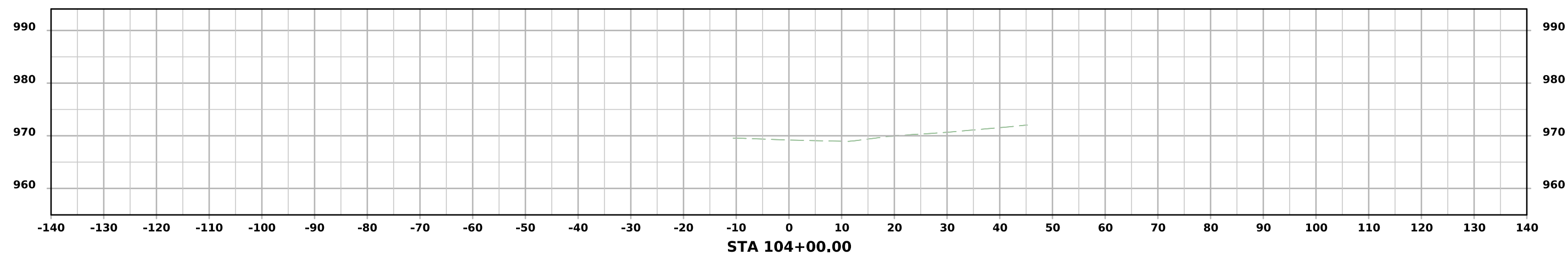
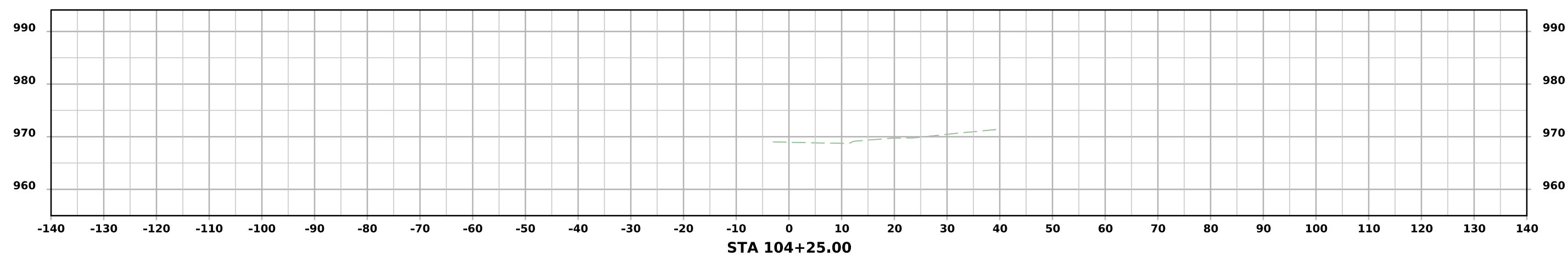
# 3rd St



# 3rd St

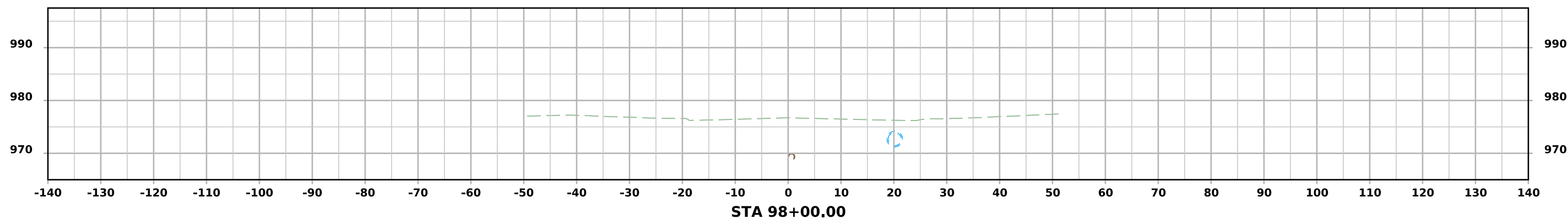
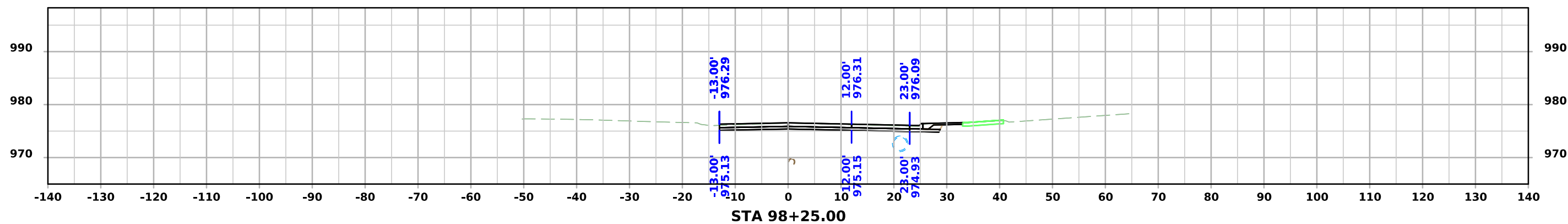
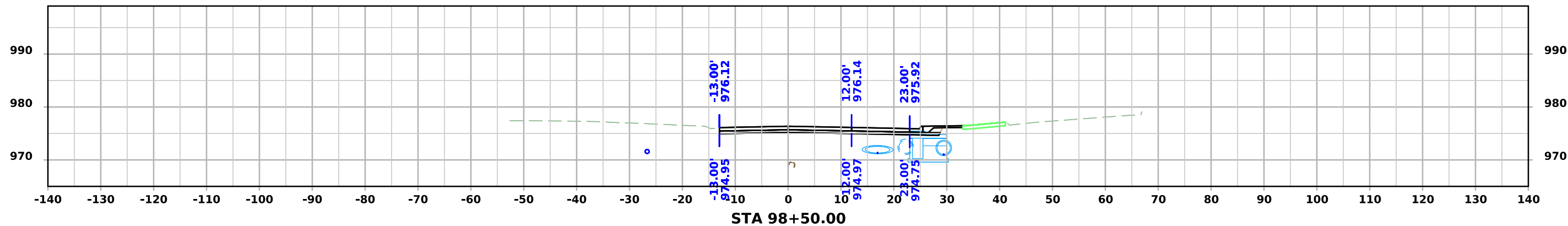


# 3rd St

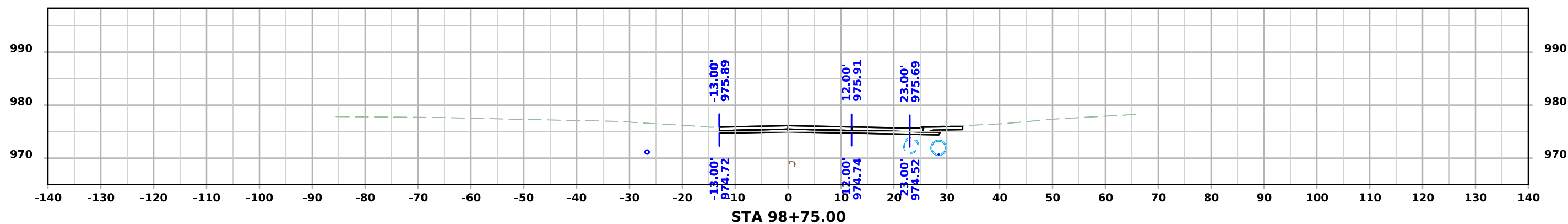
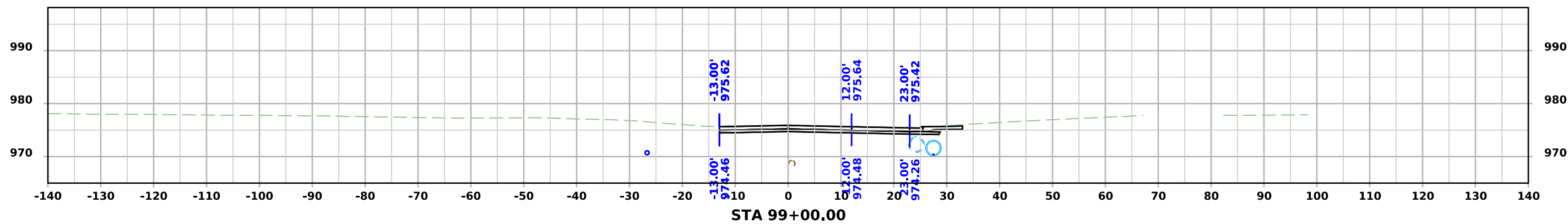
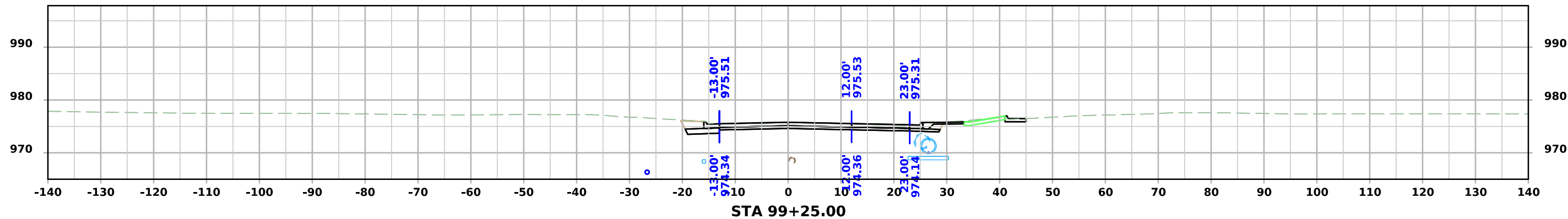




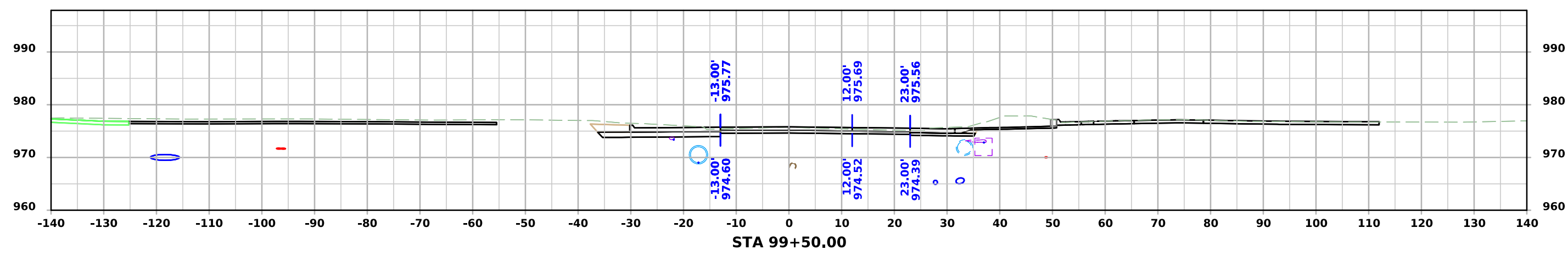
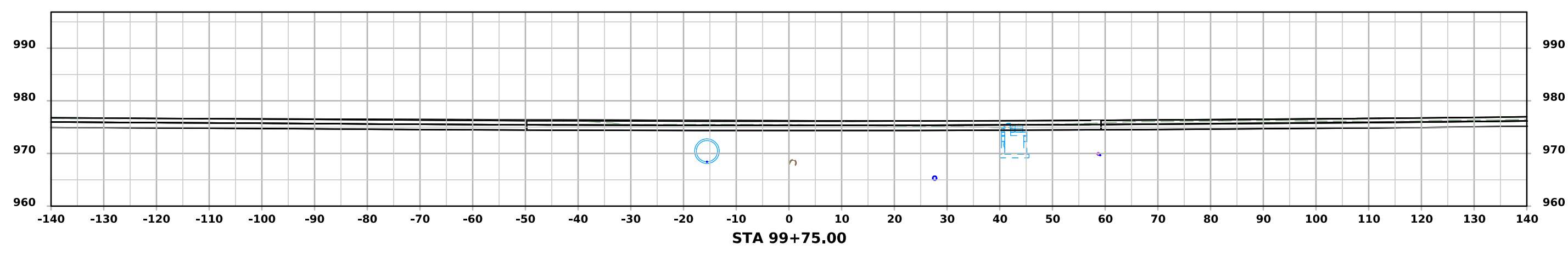
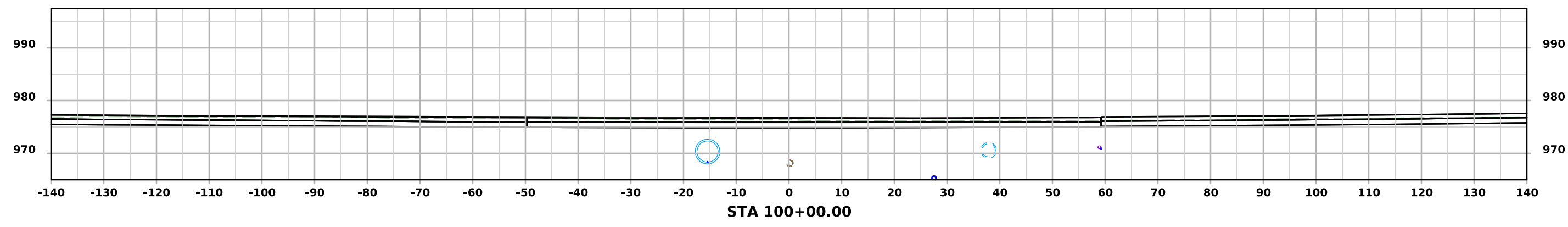
# 3rd St



# 3rd St

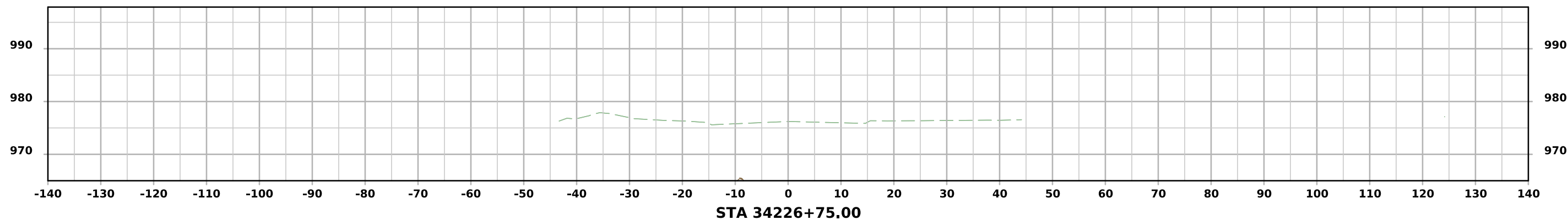
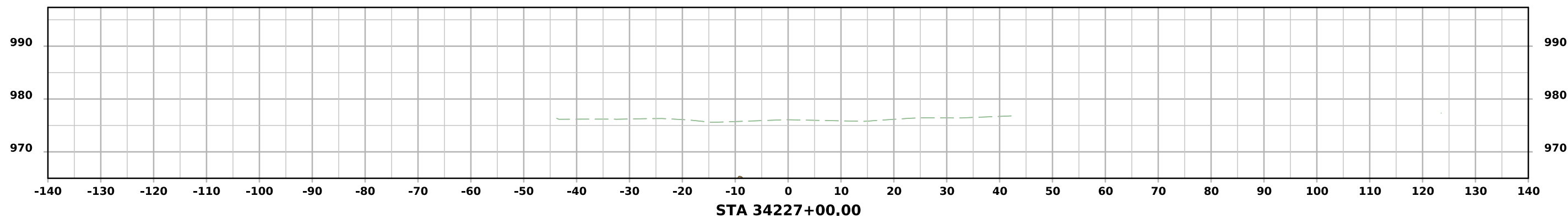
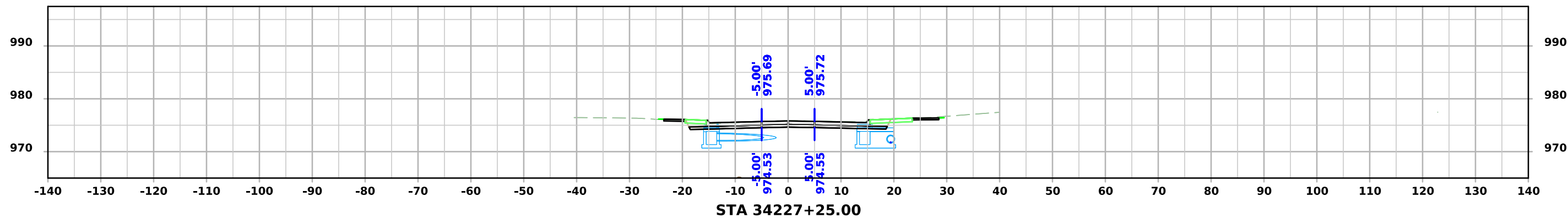


# 3rd St

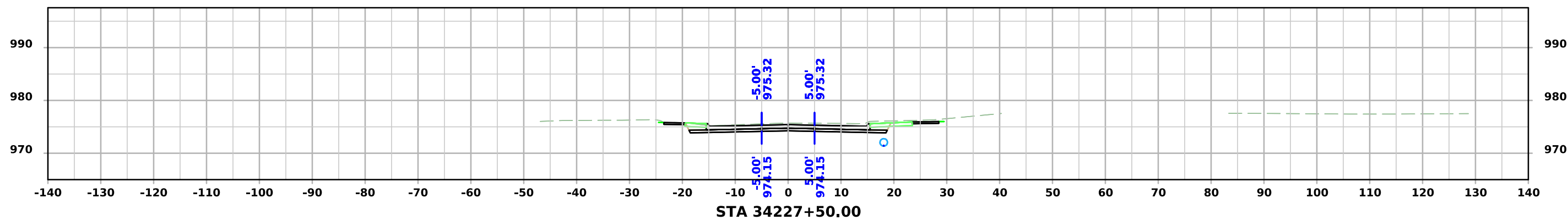
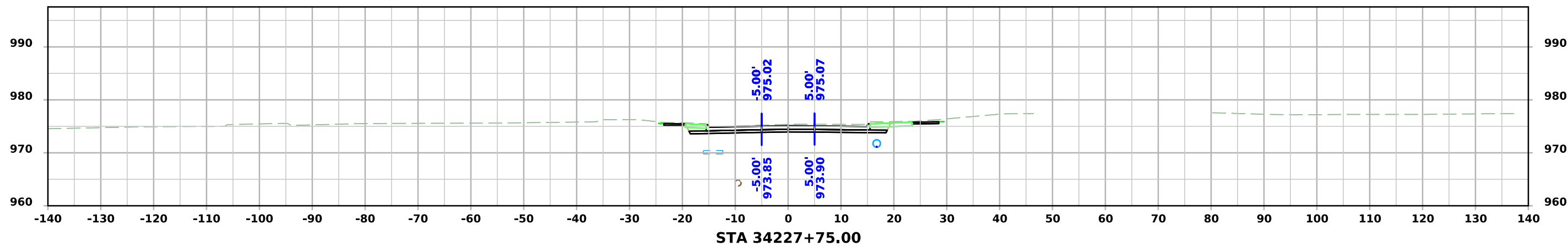
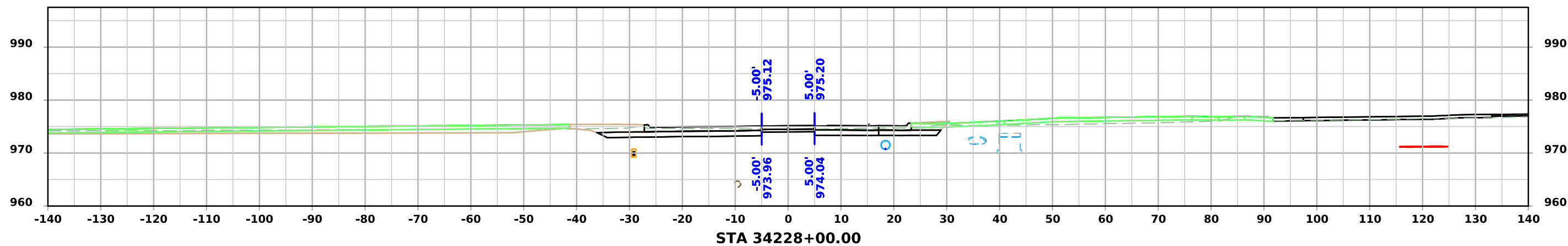




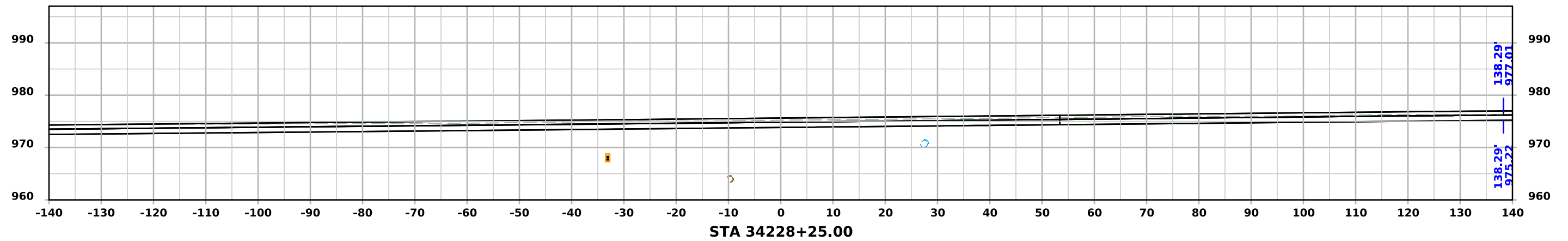
# SW 2nd St



# SW 2nd St



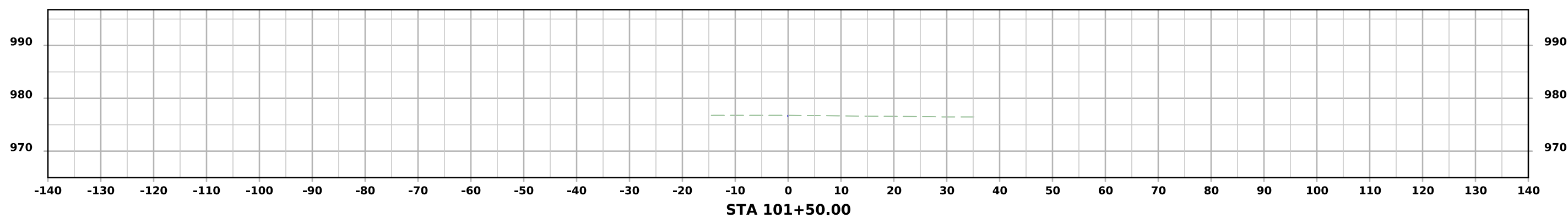
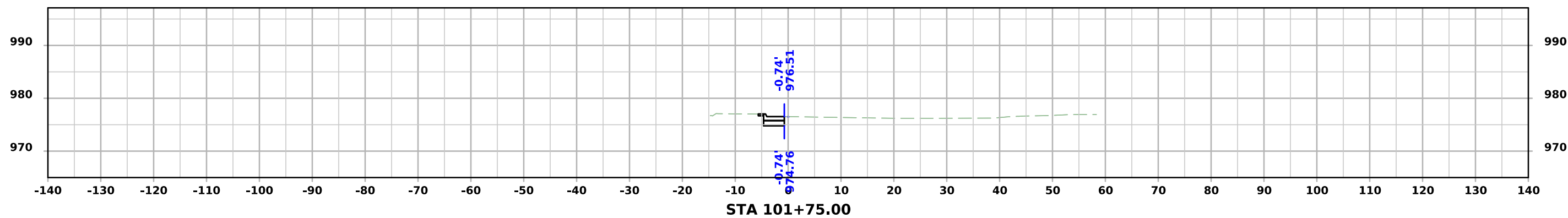
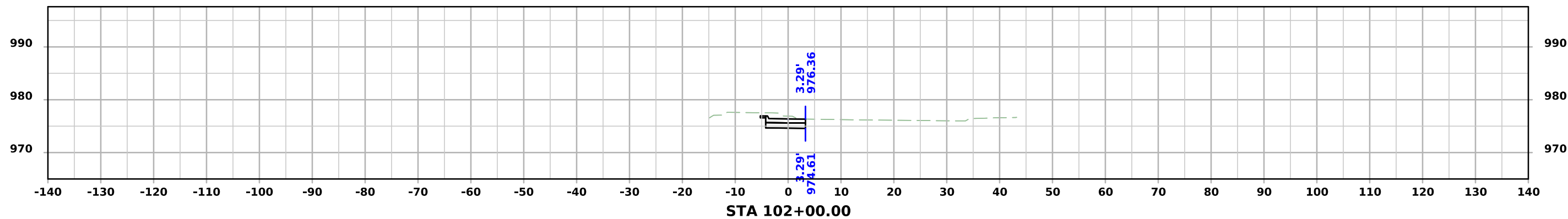
# SW 2nd St



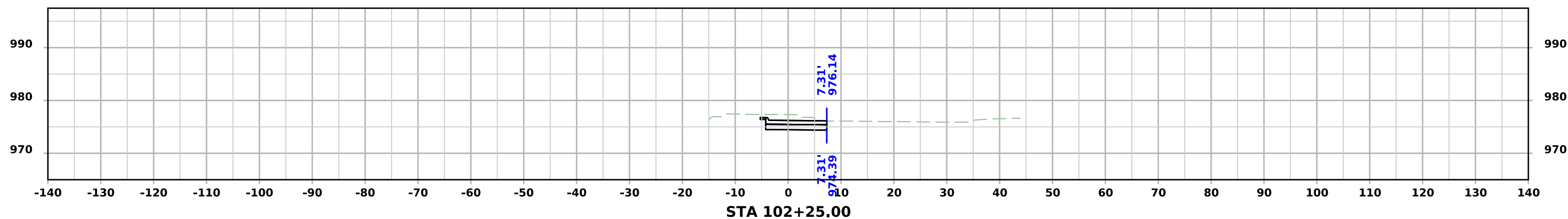
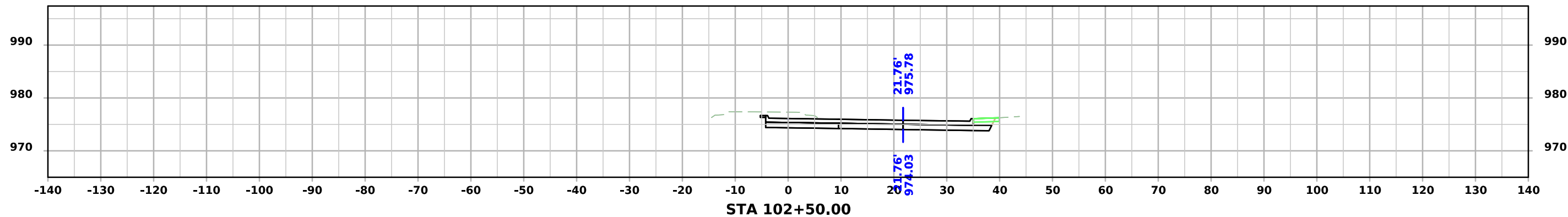
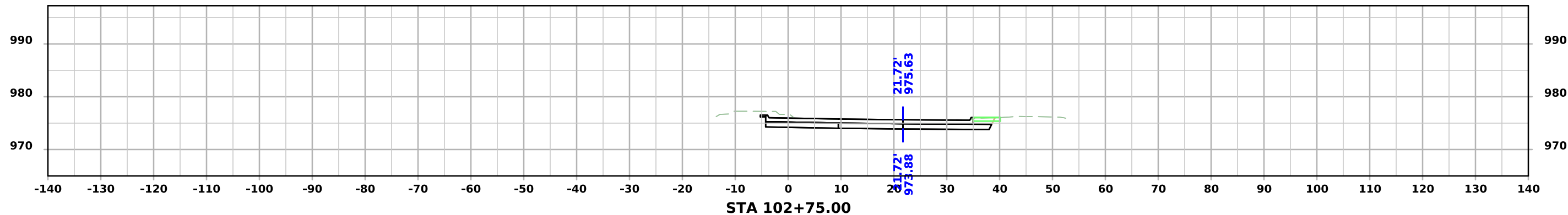
STA 34228+25.00



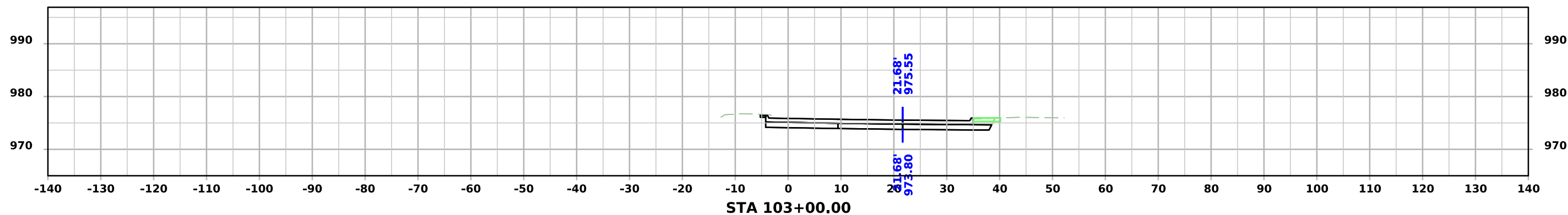
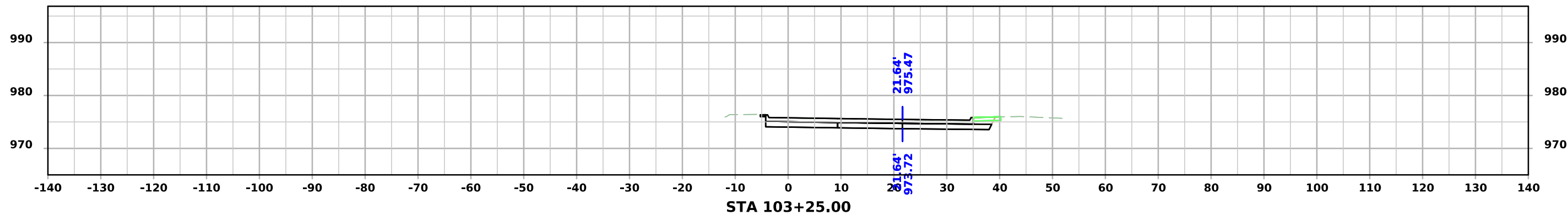
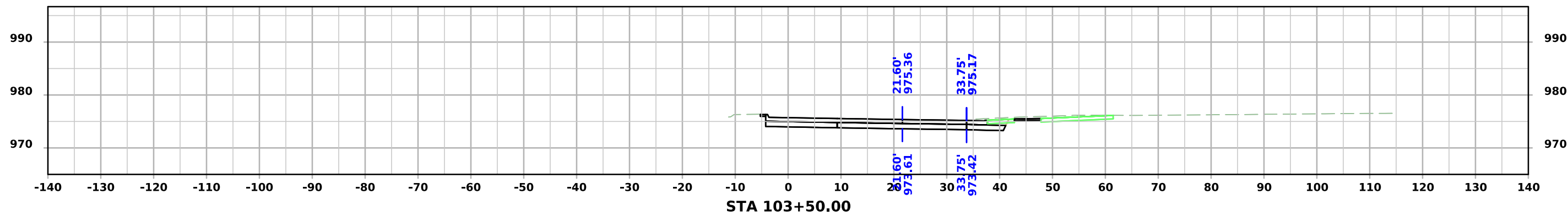
# W 1st St



# W 1st St

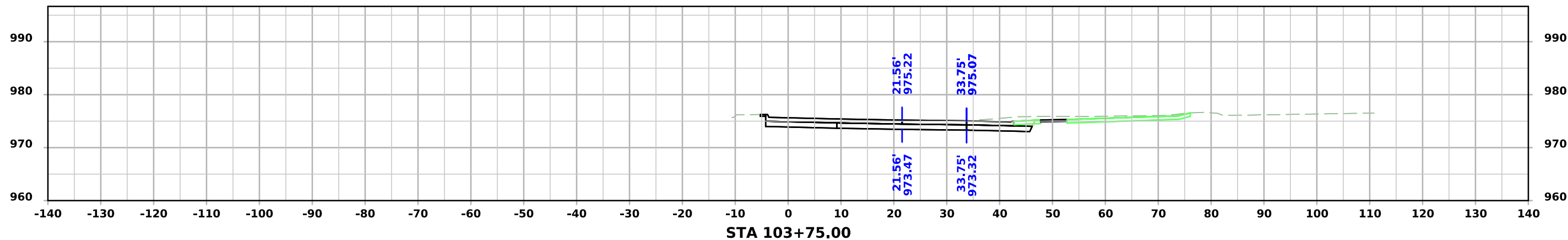
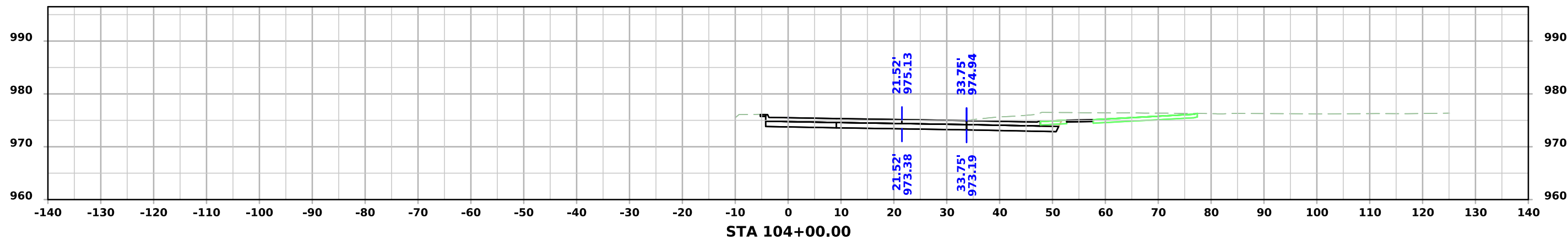
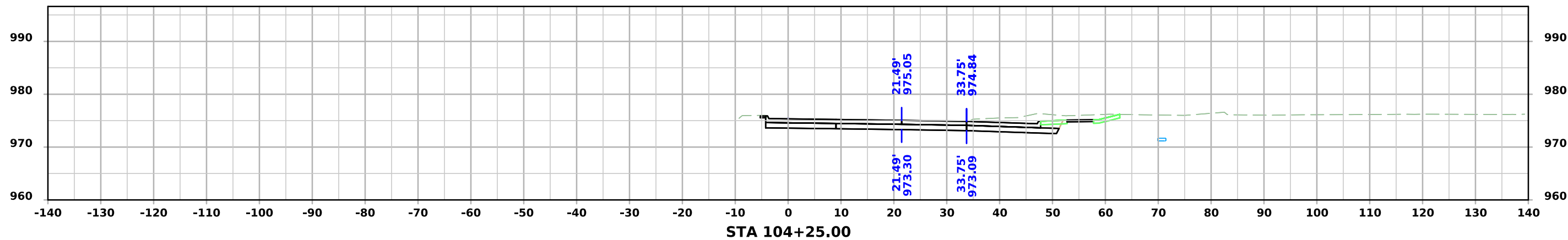


# W 1st St





# W 1st St



# W 1st St

