

PCC Pavement - Grade and Pave
HSIPX-030-4(113)--3L-08

BOONE COUNTY

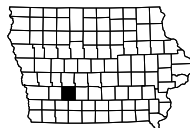
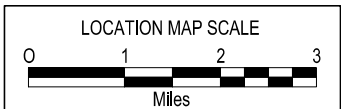
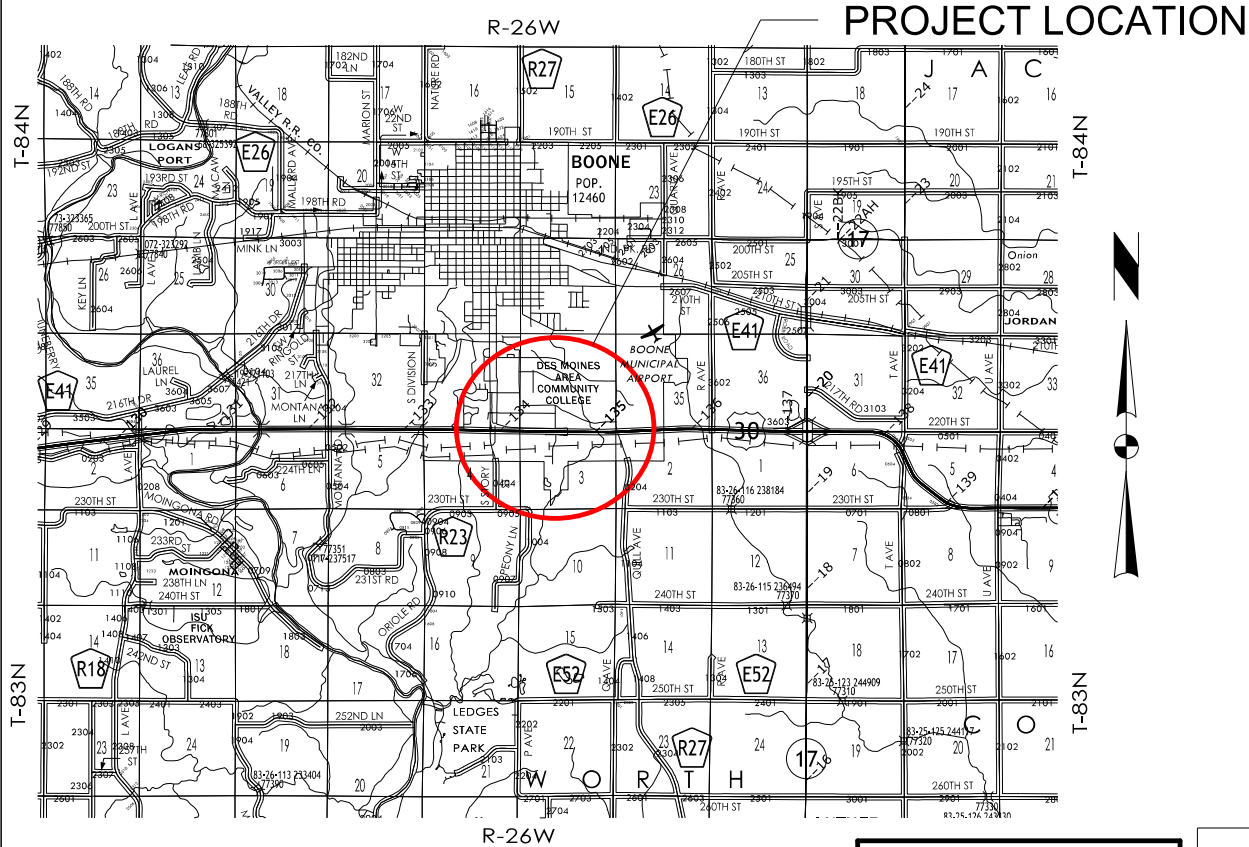
LETTING DATE
Dec 15 2026



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
BOONE COUNTY
PCC Pavement - Grade and Pave
Linn St. and SE Marshall St.
Intersection in Boone
Location
SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



US 30				
DESIGN DATA RURAL				
2019	AADT	12,066	V.P.D.	
2047	AADT	14,325	V.P.D.	
20	DHV		V.P.H.	
TRUCKS		8	%	
Total Design ESALs			-	

INDEX OF SEALS			
SHEET NO.	NAME	TYPE	BID QUANTITY SHEETS
A.1	X	Primary Signature Block	X
X	X	X	X

Schedule:
DM5 - 09/01/2026
D8 - 10/06/2026

REVISIONS

TOTAL
113

PROJECT IDENTIFICATION NUMBER

24-08-030-020

PROJECT NUMBER

HSIPX-030-4(113)--3L-08

R.O.W. PROJECT NUMBER

--

--

--

INDEX OF SHEETS

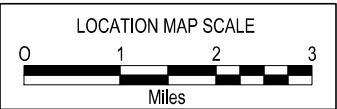
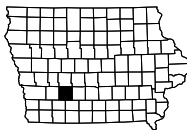
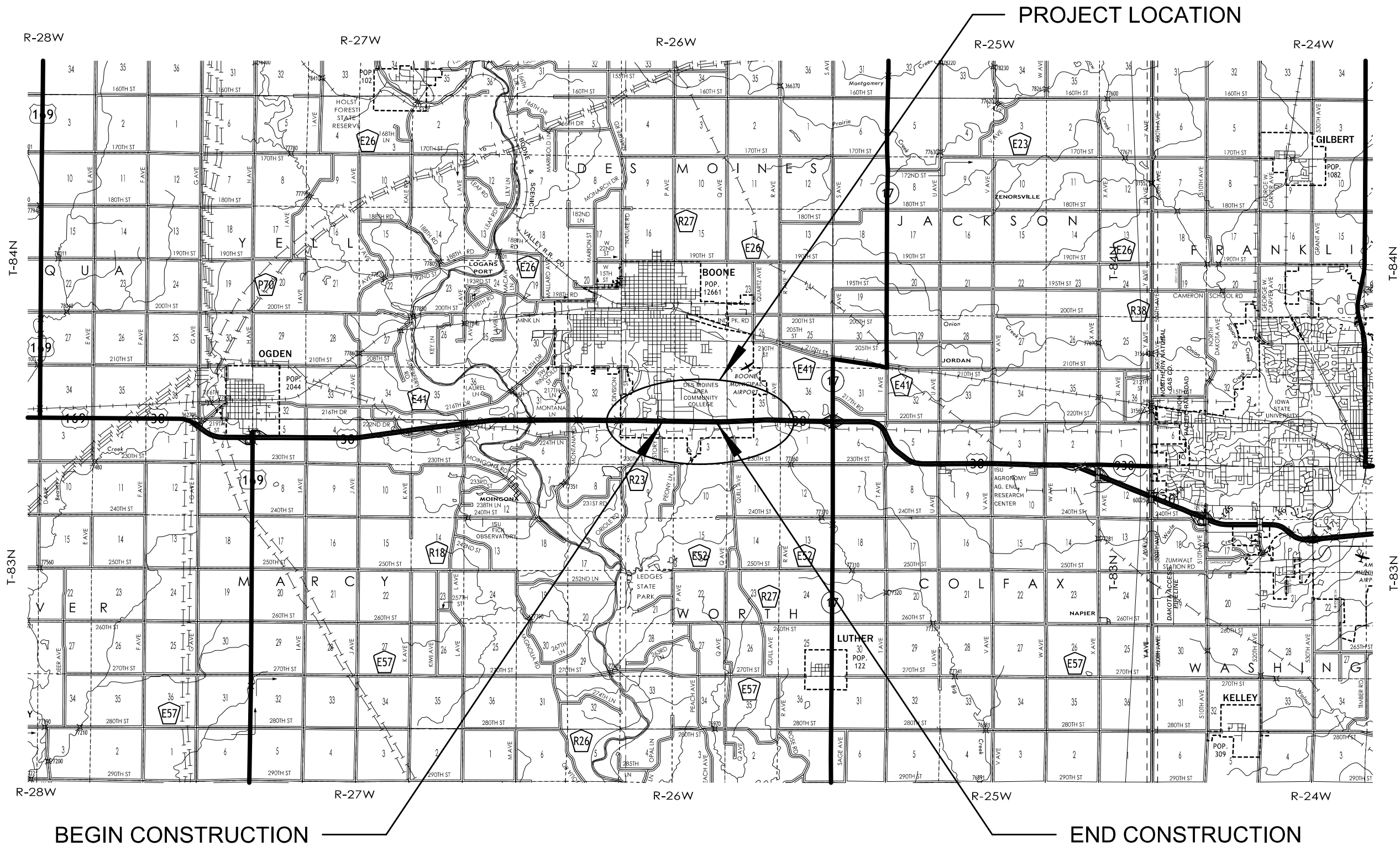
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
* B.1 - 14	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 6	US 30 P&S Sheets
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 8	SR and Roundabout P&P Sheets
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
G.4 - 6	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.2	511 Travel Restrictions
J.3	Staging Notes
J.4	Coordinated Operations
L Sheets	Geometric, Staking and Jointing Sheets
* L.1 - 4	Geometric details
* L.5 - 9	Staking details
* L.10 - 11	Jointing details
* L.12	Edge Profiles
M Sheets	Storm Sewer Sheets
* M.1 - 4	Storm Sewer Plan and Profile Sheets "ML or SR Name"
U Sheets	500 Series, Mod.Stds. and Detail Sheets
* U.1	AutoTurn - Oversize vehicle - through traffic
W Sheets	Mainline Cross Sections
* W.1	Cross Sections Legend & Symbol Information Sheet
* W.2 - 30	US 30 Cross Sections
X Sheets	Side Road Cross Sections
* X.1 - 19	SR 30, SE Marshall St. & Crown Flair Dr. Cross Sections
Y Sheets	Roundabout Cross Sections
* Y.1 - 7	Roundabout Cross Sections
	* Color Plan Sheets

PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN - 01-28-2025

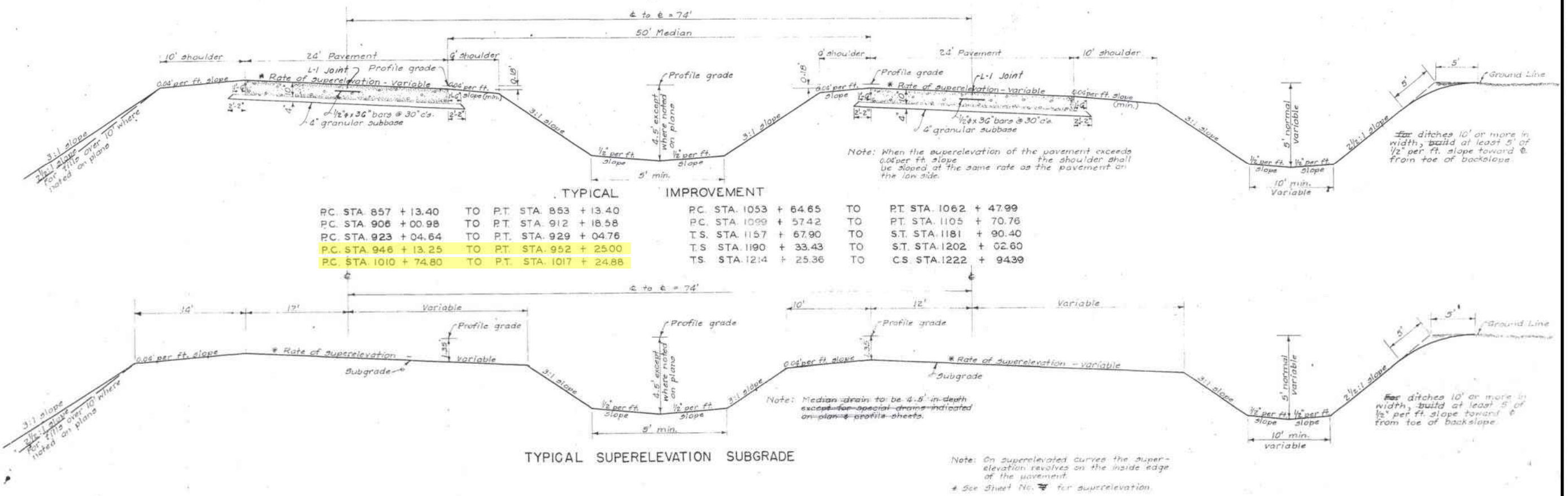
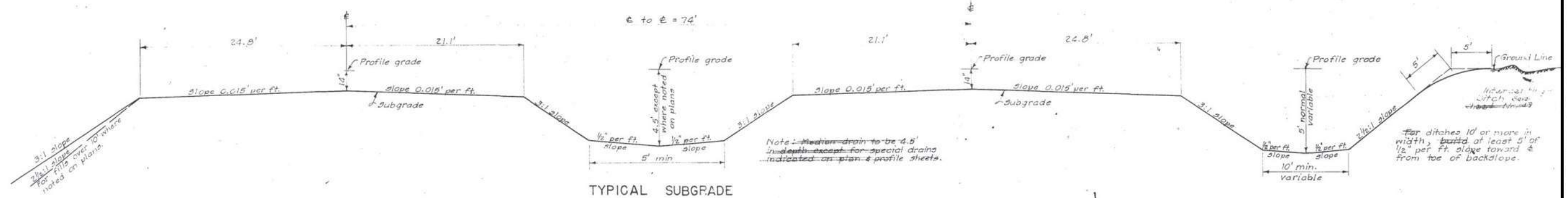
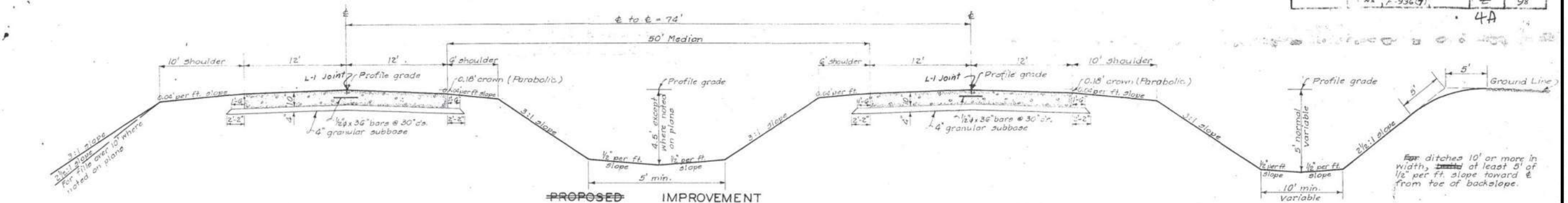
BOONE COUNTY



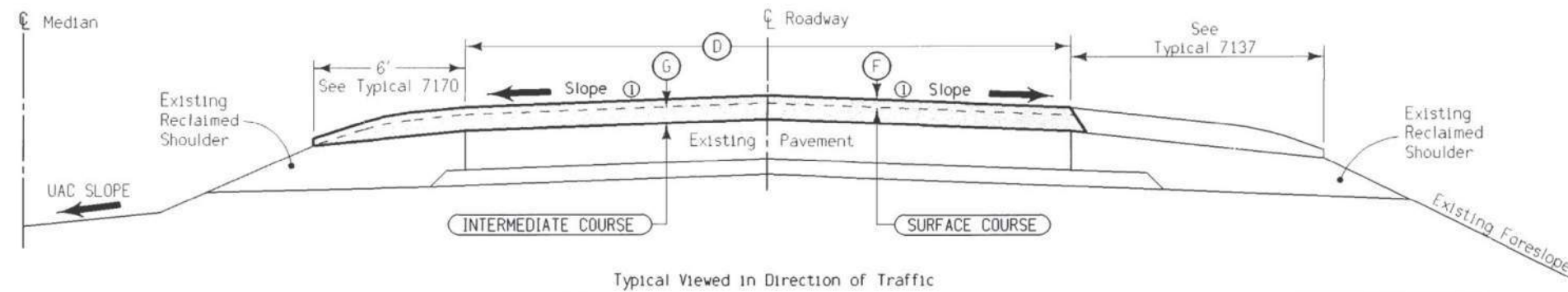
8

TYPICAL CROSS SECTIONS

FED. AID	DATE	PROJECT NO.	SHEET NO.	AT
NA	F-936(7)		4A	98



HMA RESURFACING



Notes:

- Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
- Tack Coat estimated for 2 applications.
- Rates include quantity for Median Shoulder.
- Refer to sheets L.01-L.07 for Paved Crossover details and quantities.
- Includes 16.6 tons for crown correction from existing 1.5% slope to the proposed 2% slope.

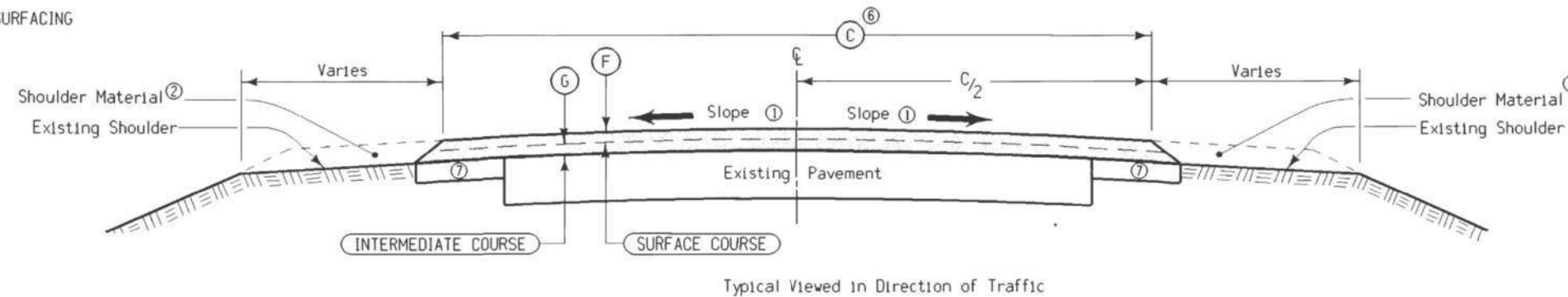
DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

(A) EQUATION:
Sta. 2785+47.3 = Sta. 787+70.9

LOCATION		DIMENSIONS			Per Station			
ROAD IDENTIFICATION	STATION TO STATION	(F)	(G)	(D)	TACK COAT Gallons ②	ASPHALT BINDER Tons	HOT MIX ASPHALT Tons	
US 30 (EBL)	2750+00 (A) 860+13±	2.0"	2.5"	24.0'	33.64	5.44	36.42	59.08 ⑤
US 30 (WBL)	2750+00 (A) 860+13±	2.0"	2.5"	24.0'	33.64	5.44	36.42	59.08 ⑤

TYPICAL CROSS SECTION FOR HMA RESURFACING

HMA RESURFACING



Notes:

- Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
- Shoulder material as specified elsewhere in these plans; refer to Typical 7151, 7151A, and 7170A.
- Tack Coat estimated for 2 applications.
- Refer to sheets L.01-L.07 for Paved Crossover details and quantities.
- Includes 16.6 tons for crown correction of the existing 24' PCC pavement. (from existing 1.5% slope to the proposed 2% slope)
- Width includes 24' pavement and 2-4' retrofit shoulders (refer to Typical 7151 and 7151A on sheet B.08).
- Proposed Retrofit Shoulder, refer to Typical 7151 and 7151A on sheet B.08.

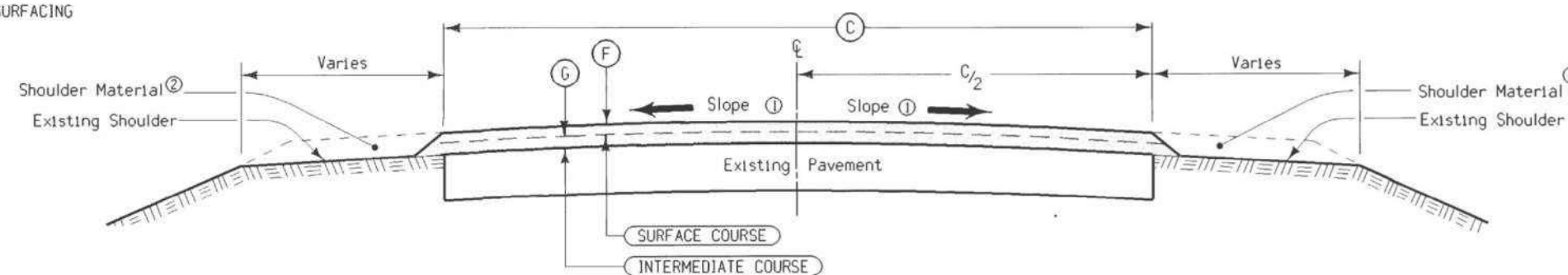
DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

LOCATION		(F)	(G)	(C)	TACK COAT Gallons ③	ASPHALT BINDER Tons	HOT MIX ASPHALT (Tons)	
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Feet			SURFACE	INTERMEDIATE
US 30 (EBL)	860+13± 1152+00 (A)	2.0	2.5	32.0	36.16	5.95	38.95	65.67 ⑤
US 30 (WBL)	860+13± 1152+00 (A)	2.0	2.5	32.0	36.16	5.95	38.95	65.67 ⑤

(A) EQUATION:
Sta. 1105+70.74 = Sta. 1105+63.98
Lengthens Line 6.76'

TYPICAL CROSS SECTION HMA RESURFACING

HMA RESURFACING



Notes:

- Finished slope shall match existing pavement except that the maximum allowable slope is 3.0%, minimum allowable slope is 2.0%. Section may be modified as directed by the Engineer through areas of special shaping. Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
- Shoulder material as specified elsewhere in these plans.
- Tack Coat estimated for 2 applications.
- Includes 16.6 tons for crown correction of the existing 24' PCC pavement. (from existing 1.5% slope to the proposed 2% slope)
- (A) Width includes 24' pavement and 2-3' shoulder strengthening.

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

LOCATION		(F)	(G)	(C)	TACK COAT Gallons ③	ASPHALT BINDER Tons	HOT MIX ASPHALT (Tons)	
ROAD IDENTIFICATION	STATION TO STATION	Inches	Inches	Feet			SURFACE	INTERMEDIATE
IA 17	634+45 645+03	1.5	1.5	24	27.08	3.44	21.86	38.69 ④
IA 17	645+93 648+26	1.5	1.5	30 (A)	33.76	4.07	27.30	44.13 ④
IA 17	652+40 654+72	1.5	1.5	30 (A)	33.76	4.07	27.30	44.13 ④
IA 17	655+36 665+75	1.5	1.5	24	27.08	3.44	21.86	38.69 ④

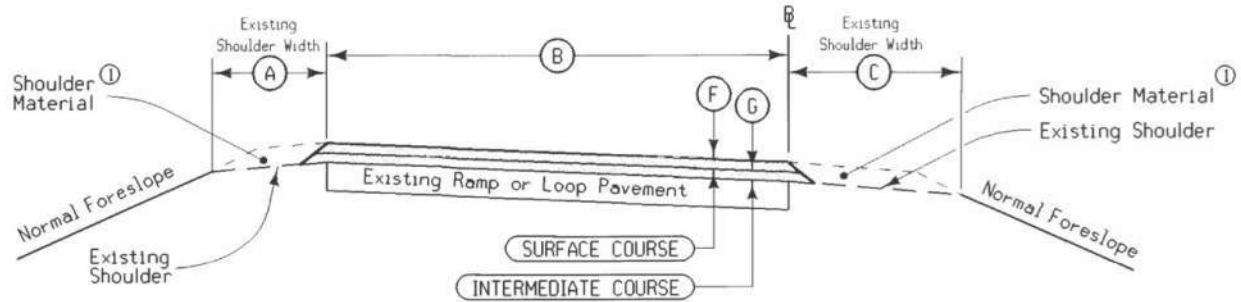
TYPICAL CROSS SECTION HMA RESURFACING

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu.ft.
Intermediate Course	145 lbs./cu.ft.
Tack Coat	0.05 gal./sq.yd.

Note:
Normal section shown may be appropriately modified at areas specifically designated by the engineer, such as intersections or superelevated curves.
Section view is in the direction of traffic.
Refer to other drawings for details of shoulder design and construction.
① Shoulder material as specified elsewhere in these plans; refer to typical 7135 for "Type 'B' Granular Surfaced Shoulder".

 HMA RESURFACING

2616
Modified



TYPICAL CROSS SECTION
HMA RESURFACING
RAMP or LOOP

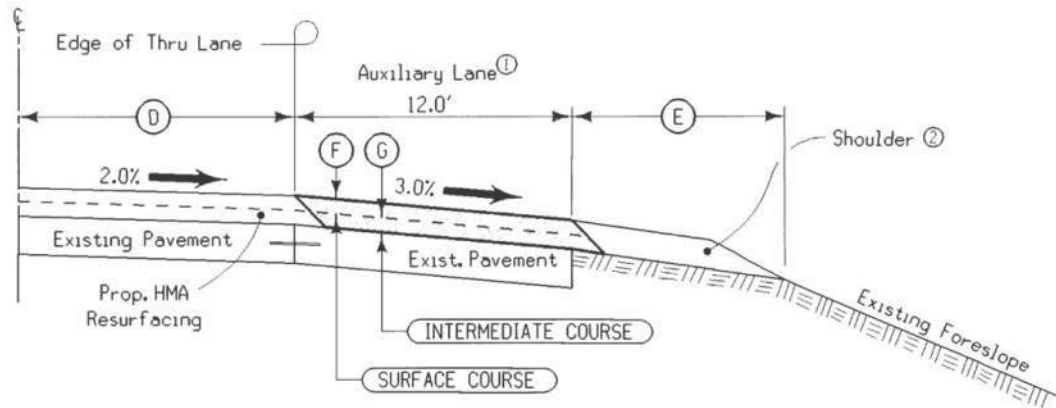
TABLE OF DESIGN QUANTITIES															Per Station		
INTERCHANGE	STATION TO STATION		RAMP/ LOOP IDENT.	DENSITY			(A) Feet	(B) Feet	(C) Feet	(G) Inches	(F) Inches	TACK COAT Gallons ③	ASPHALT BINDER Tons	HOT MIX ASPHALT Tons			
				94%	95%	96%								SURFACE	INTERMEDIATE		
1A 17	1522+66	1537+25	A	X			4	16.0	6	1.5	1.5	18.20	1.70	14.62	14.84		
1A 17	2510+00	2524+84	B	X			4	16.0	6	1.5	1.5	18.20	1.70	14.62	14.84		
1A 17	3511+05	3524+82	C	X			4	16.0	6	1.5	1.5	18.20	1.70	14.62	14.84		
1A 17	4522+60	4535+95	D	X			4	16.0	6	1.5	1.5	18.20	1.70	14.62	14.84		

 HMA RESURFACING

2205
Modified

(A) Includes 120' Taper (10:1 Ratio)

LOCATION				SIDE	D Feet	E Feet	F Inches	G Inches
ROAD IDENTIFICATION	STATION TO STATION							
US 30 - EBL	2750+90±	2754+37± (A)	Lt.		12.0	6.0	2	2.5
US 30 - WBL	2752+32±	2755+80± (A)	Rt.		12.0	6.0	2	2.5
US 30 - WBL	891+90±	896+40± (A)	Lt.		12.0	6.0	2	2.5
US 30 - EBL	946+31±	950+57± (A)	Lt.		12.5	6.0	2	2.5
US 30 - WBL	947+80±	952+06± (A)	Rt.		12.5	6.0	2	2.5
US 30 - EBL	988+70±	992+73± (A)	Lt.		12.0	6.0	2	2.5
US 30 - WBL	990+90±	995+08± (A)	Rt.		12.0	6.0	2	2.5



- Notes:
- ① Details shall be similar for construction on either side (by stationing) of roadway. Pavement for auxiliary lane shall be constructed according to requirements specified for through roadway pavement.
 - ② Refer to other drawings for details of shoulder design and construction.
 - ③ Refer to sheets L.06, L.07 for details of resurfacing at paved median intersections.

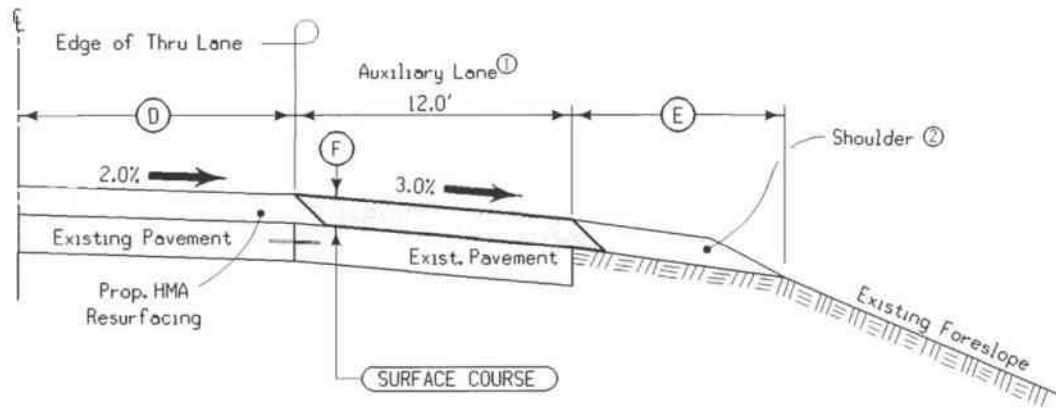
TYPICAL HALF SECTION
HMA RESURFACING
EXISTING AUXILIARY LANE

 HMA RESURFACING

2205A
Modified

(A) Includes 120' Taper (10:1 Ratio)

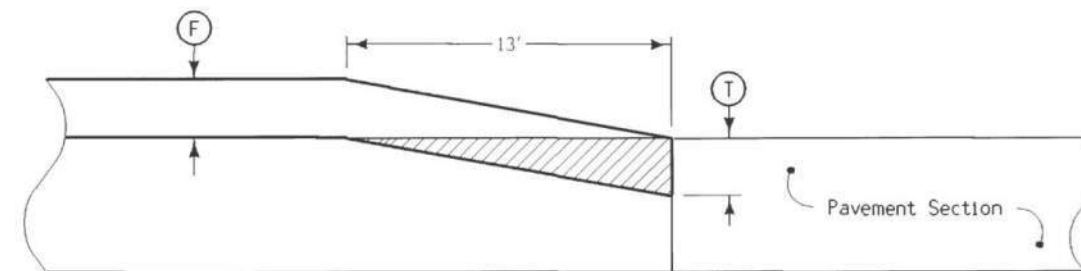
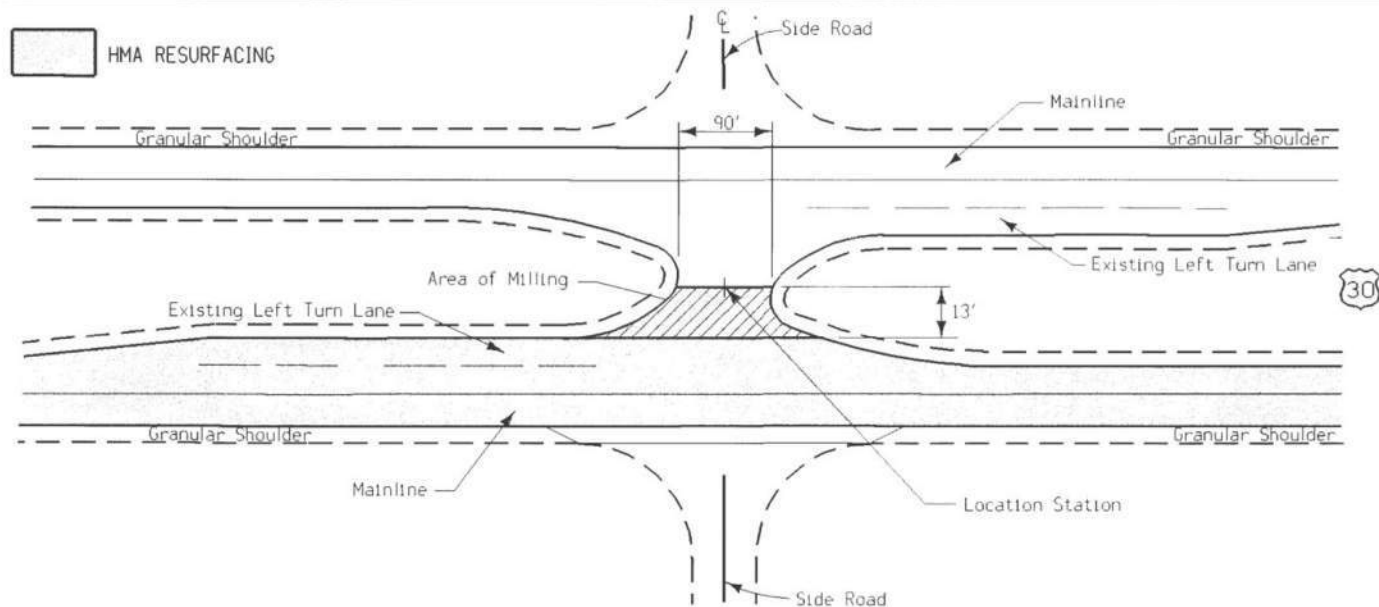
LOCATION				SIDE	D Feet	E Feet	F Inches
ROAD IDENTIFICATION	MILEPOST TO MILEPOST						
US 30 - EBL (580 Ave.)	152.864	152.957 (A)	Lt.		12.0	6.0	2
US 30 - EBL (590 Ave.)	153.823	154.016 (A)	Lt.		12.0	6.0	2
US 30 - EBL (600 Ave.)	154.873	154.966 (A)	Lt.		12.0	6.0	2
US 30 - EBL (610 Ave.)	155.875	155.968 (A)	Lt.		12.0	6.0	2



- Notes:
- ① Details shall be similar for construction on either side (by stationing) of roadway. Pavement for auxiliary lane shall be constructed according to requirements specified for through roadway pavement.
 - ② Refer to other drawings for details of shoulder design and construction.
 - ③ Refer to Typical INT-1 for details of resurfacing at paved median intersections.

Division 3 - Story Co.
MP-30-1(702)151--76-85

TYPICAL HALF SECTION
HMA RESURFACING
EXISTING AUXILIARY LANE



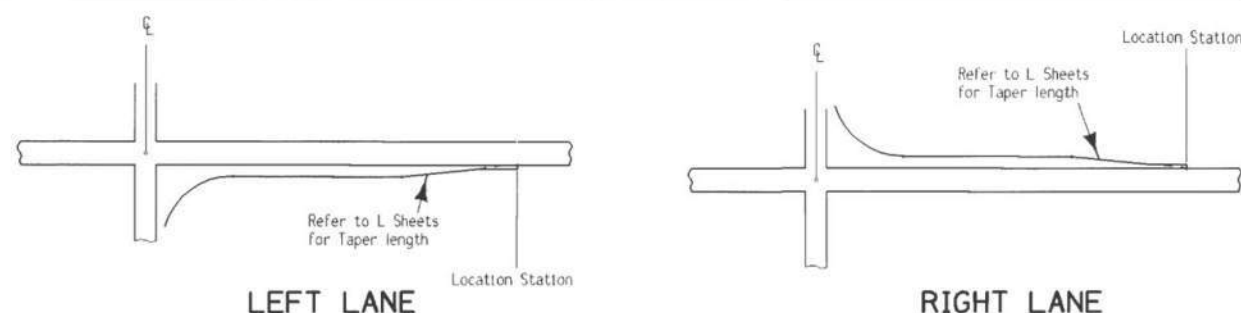
Location Station	L Feet	S Inches	T Inches
US 30 (580 Ave.)	100	2.0	2.0
US 30 (590 Ave.)	100	2.0	2.0
US 30 (600 Ave.)	100	2.0	2.0
US 30 (610 Ave.)	100	2.0	2.0

(F) Surface Course
(T) Milling

Division 3 - Story Co.
MP-30-1(702)151--76-85

EASTBOUND LANE
HMA RESURFACING DETAILS
Typical Intersection

LRTL-1



LEFT LANE

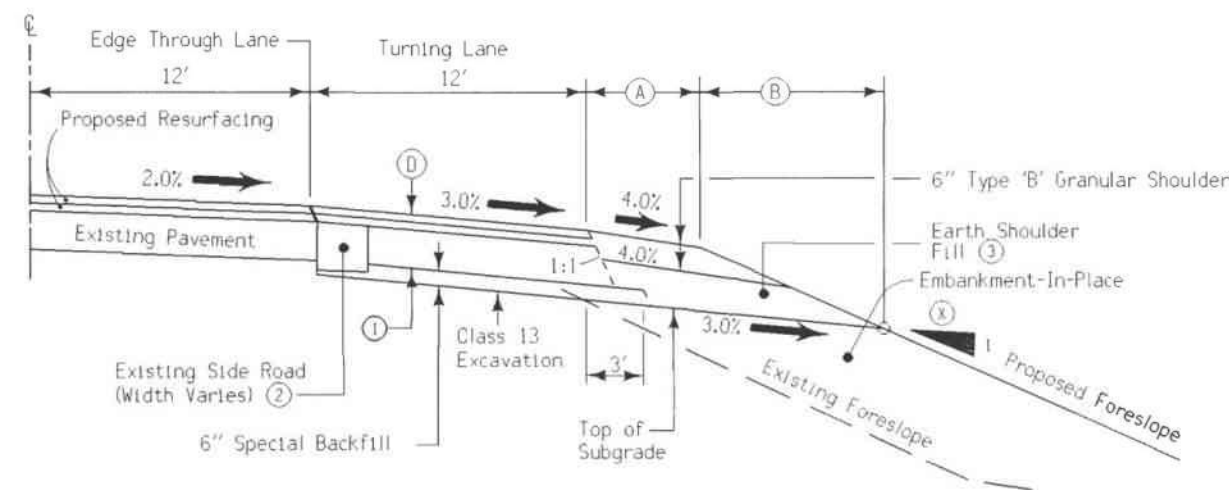
RIGHT LANE

Notes:
Normal section shown may be Modified appropriately in areas of superelevated curves or other locations specifically designated by the engineer.

See cross sections and sheets 0.01, 0.03-0.06 and L.01-L.05 for additional information.

- Pavement includes thickness of surface (2.0") and intermediate (2.5") plus base material.
- To be included with removal.
- Material to be included in the price bid for "Embankment-In-Place" and shaping to be bid as "Earth Shoulder Finishing".
- Includes taper.
- HMA 1M (ESAL) Base

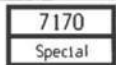
- (A) - Division 1
(B) - Division 2
(C) - 6:1 and/or 6:1/3:1 Barnroof (refer to cross sections)
(D) - 207 Cu. Yds. of cut is available
(E) - 83 Cu. Yds. of cut is available
(F) - 237 Cu. Yds. of cut is available
(G) - 287 Cu. Yds. of cut is available
(H) - 82 Cu. Yds. of cut is available
(I) - 256 Cu. Yds. of cut is available



TYPICAL HALF SECTION
HMA LEFT/RIGHT TURNING LANE

TOTAL QUANTITIES PER LOCATION															
LOCATION STATION	SIDE	① Inches	② Feet	③ Feet	④ (X)	HOT MIX ASPHALT COURSES Tons ④			TACK COAT Gallons	ASPHALT BINDER Tons	SPECIAL BACKFILL Tons	CLASS 13 EXCAVATION Cu.Yds.	EMBANK- IN-PLACE Cu.Yds.	SHOULDER FINISHING Stas.	GRANULAR SHOULDER Tons
						SURFACE	INTERMEDIATE	BASE ⑤							
(A) 2756+80 (WBL)	Rt.	10.0	6.0	9.30	(C)	24	29	67	44	7	84	24	230	1.6	49
(A) 806+11 (EBL)	Lt.	10.0	6.0	9.30	(C)	36	45	103	67	11	129	19	354	2.5	75
(A) 856+80 (EBL)	Lt.	10.0	6.0	9.30	(C)	36	45	104	68	11	130	30	357	2.5	76
(A) 863+45 (WBL)	Rt.	11.5	6.0	10.25	(C)	36	45	134	69	13	131	41	360	2.5	76
(A) 868+24 (WBL)	Lt.	11.5	6.0	10.25	(C)	112	140	413	211	39	405	326	3365 (D)	7.7	235
(B) 931+21 (EBL)	Lt.	10.0	6.0	9.30	(C)	36	45	103	67	11	129	60	185	2.5	75
(B) 962+25 (EBL)	Lt.	10.0	6.0	9.30	(C)	36	45	103	67	11	129	60	353	2.5	75
(B) 968+85 (WBL)	Rt.	10.0	6.0	9.30	(C)	36	45	103	68	11	130	60	185	2.5	75
(B) 972+60 (WBL)	Lt.	11.5	6.0	10.25	(C)	84	104	308	158	29	302	250	170 (E)	5.8	175
(B) 985+30 (EBL)	Rt.	11.5	6.0	10.25	(C)	73	91	270	138	26	265	229	85 (F)	5.0	154
(B) 998+65 (WBL)	Lt.	11.5	6.0	10.25	(C)	79	98	291	149	28	285	237	658 (G)	5.4	165
(B) 1012+20 (EBL)	Rt.	10.0	6.0	9.30	(C)	86	107	248	162	26	312	203	854	5.6	170
(B) 1012+40 (EBL)	Lt.	11.5	6.0	10.25	(C)	81	101	299	153	29	293	129	373 (H)	5.9	181
(B) 1023+10 (WBL)	Rt.	10.0	6.0	9.30	(C)	43	54	124	81	13	155	41	425	3.0	90
(B) 1026+80 (WBL)	Lt.	11.5	6.0	10.25	(C)	105	130	385	197	37	378	289	5148 (I)	7.2	219
(A) 1067+86 (EBL)	Lt.	10.0	6.0	9.30	(C)	36	45	103	68	11	129	30	354	2.5	75

① 6:1 Typical, may vary to 4:1 Maximum
② Roll to a Rounded Profile



(A) US 30 (EBL)
(B) US 30 (WBL)

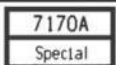
[illegible]

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

HMA SHOULDER
RESURFACING
(MEDIAN SHOULDER)

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

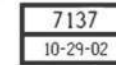
① 6:1 Typical, may vary to 4:1 Maximum
② Roll to a Rounded Profile



(A) US 30 (EBL) (C) Varies from 6' to 10'

[illegible]

HMA SHOULDER
RESURFACING
(MEDIAN/OUTSIDE SHOULDER)



Notes:

- ① 6:1 Typical, may vary to 4:1 Maximum
- ② Roll to a Rounded Profile

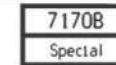
STATION TO STATION		RIGHT OR LEFT / INSIDE OR OUTSIDE	(Y) Inches	(E) Feet	TACK COAT Gallons	ASPHALT BINDER Tons	HOT MIX ASPHALT Tons
Eastbound Lane							
2750+00	819+43	Outside	4.5	10.0	11.12	2.65	44.24
826+62	860+00	Outside	4.5	10.0	11.12	2.65	44.24
Westbound Lane							
2750+00	819+13	Outside	4.5	10.0	11.12	2.65	44.24
827+57	860+00	Outside	4.5	10.0	11.12	2.65	44.24

DESIGN RATES	
ITEM	RATE
Base Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

	HMA (OUTSIDE)
ft.	SHOULDER
yd.	RESURFACING

DESIGN RATES	
ITEM	RATE
Surface Course	145 lbs./cu. ft.
Intermediate Course	145 lbs./cu. ft.
Tack Coat	0.05 gal./sq. yd.

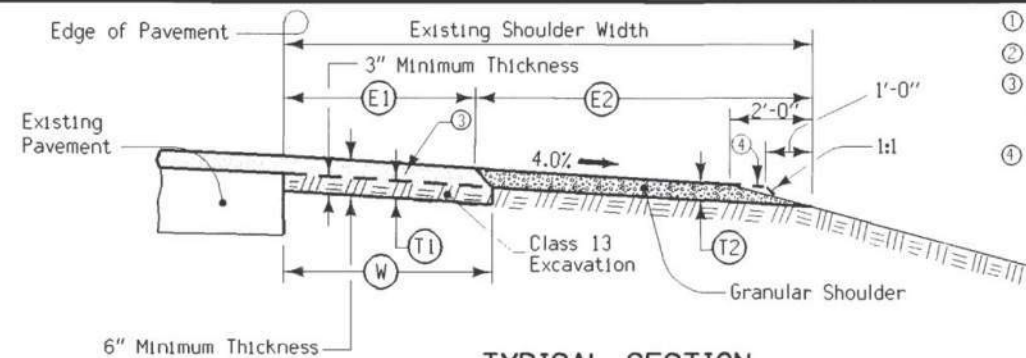
① 6:1 Typical, may vary to 4:1 Maximum
② Roll to a Rounded Profile



TYPICAL CROSS SECTION
HMA PAVED SHOULDER RETURN

(A) East and west side of crossover, refer to L sheets.

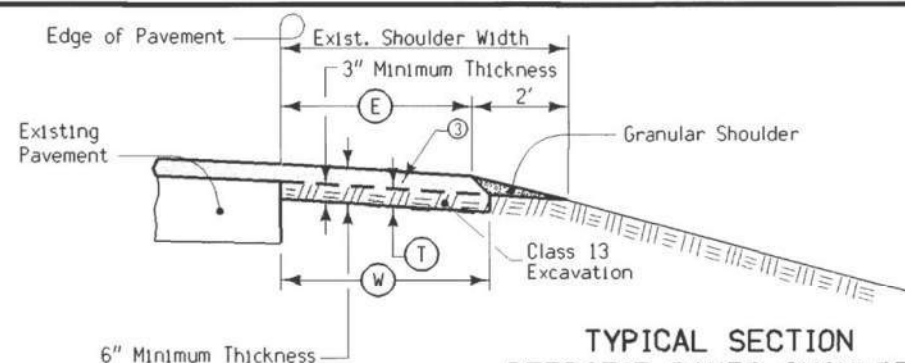
TABLE OF DESIGN QUANTITIES							Per Location				REMARKS
LOCATION STATION	SIDE	(F)	(G)	(E)	(T)	ASPHALT BINDER Tons	HOT MIX ASPHALT Tons			CLASS 13 EXCAVATION Cu. Yds.	
		Inches	Inches	Feet	Inches		SURFACE	INTERMEDIATE	BASE		
2753+35 (A)	Median	2.0	2.5	6.0	5.5	2	7	3	18	9	Co. Rd. R18
860+13 (A)	Median	2.0	2.5	6.0	5.5	3	13	6	37	19	Montana Road
934+51 (A)	Median	2.0	2.5	6.0	5.5	4	14	6	40	21	Kate Shelley Dr.
949+19 (A)	Median	2.0	2.5	6.0	5.5	3	11	5	31	16	South Story St.
965+78 (A)	Median	2.0	2.5	6.0	5.5	3	13	6	38	19	South Linn St.
1019+23 (A)	Median	2.0	2.5	6.0	5.5	4	15	6	41	21	Snedden Dr./Quill Ave.
1071+16 (A)	Median	2.0	2.5	6.0	5.5	4	14	6	40	21	R Ave.



- ① Per side per station.
- ② Bid Items.
- ③ HMA quantities above HMA base are included with mainline HMA quantities.
- ④ Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.

7151
Modified

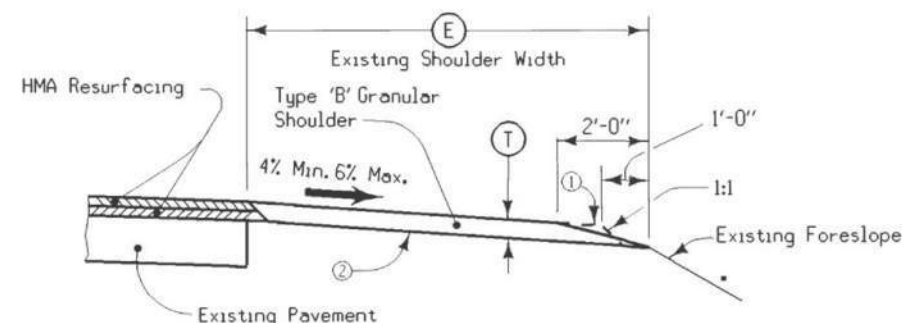
LOCATION				(E1)	(E2)	(T1)	(T2)	(W)	QUANTITIES ①				
ROAD IDENTIFICATION	STATION TO STATION		SIDE	Feet	Feet	Inches	Inches	Feet	HMA BASE ② WIDENING Tons	TACK COAT Gals.	ASPHALT BINDER Tons	GRANULAR SHOULDER ② Tons	CLASS 13 EXCAVATION Cu. Yds.
US 30 (EBL)	861+00	985+30	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (EBL)	992+90	1012+30	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (EBL)	1020+98	1104+90	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (EBL)	1145+95	1152+00	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	868+24	947+25	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	955+00	964+50	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	972+60	990+70	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	991+24	992+32	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	998+00	1017+43	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	1024+00	1101+05	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05
US 30 (WBL)	1142+35	1152+00	Outside	4.0	6.0	3.0	4.5	4.38	7.94	---	0.48	18	4.05



- ① Per side per station.
- ② Bid Items.
- ③ HMA quantities above HMA base are included with mainline HMA quantities.

7151A
Modified

LOCATION			①	②	③	④	⑤	QUANTITIES ①				
ROAD IDENTIFICATION	STATION TO STATION		Feet	Inches	Feet	Feet	Feet	HMA BASE ② WIDENING Tons	TACK COAT ② Gals.	ASPHALT BINDER ② Tons	GRANULAR SHOULDER ② Tons	CLASS 13 EXCAVATION Cu. Yds.
US 30 (EBL)	860+00	892+30	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	931+15	931+21	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	935+00	946+31	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	950+57	962+25	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	966+00	988+57	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	993+50	1012+40	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	1019+70	1067+86	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (EBL)	1071+70	1152+00	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	863+45	891+90	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	896+40	934+00	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	935+00	965+00	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	968+85	988+56	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	997+00	1018+70	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	1023+10	1070+50	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05
US 30 (WBL)	1071+70	1152+00	Inside	4.0	3.0	4.38	7.94	---	0.48	4	4	4.05



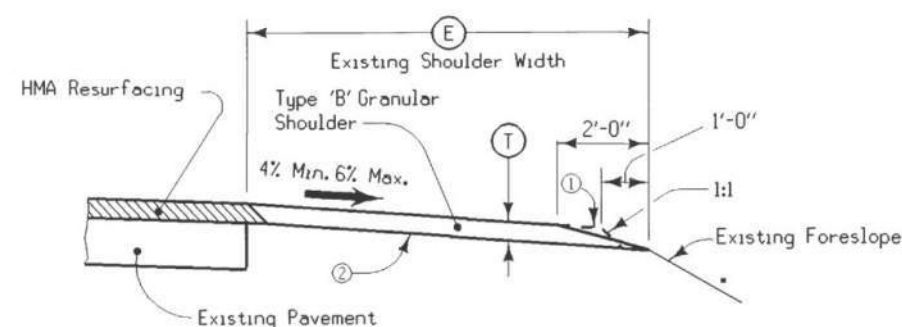
- Notes:
- Quantities have been determined on the basis of a design weight of 140 lbs. per cubic foot.
- ① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.
 - ② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing. Shaping shall be paid for in accordance with Section 2121 of the Standard Specifications.
 - ③ Tons per side per station.

7135
10-02-01

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER ADJACENT TO HOT MIX ASPHALT RESURFACING

- (A) Radius Return (C) Plus 520' Taper
(B) Taper and Radius Return (D) Plus 993' Taper

LOCATION			TONS ③	T Inches	E Feet	
ROAD IDENTIFICATION	STATION TO STATION					SIDE
US 30 (EBL)	2750+90	2753+00	Median	18	4.5	6.0
US 30 (WBL)	2753+60	2754+60	Median	18	4.5	6.0
US 30 (EBL)	891+90	892+30 (A)	Median	18	4.5	6.0
US 30 (EBL)	893+15	893+35 (A)	Median	18	4.5	6.0
US 30 (WBL)	893+35	896+40	Median	18	4.5	6.0
US 30 (EBL)	946+31	948+57	Median	18	4.5	6.0
US 30 (WBL)	947+25	948+80 (B)	Outside	30	4.5	10.0
US 30 (EBL)	947+80	948+57 (A)	Median	18	4.5	6.0
US 30 (EBL)	949+80	950+57 (A)	Median	18	4.5	6.0
US 30 (WBL)	949+80	952+06	Median	18	4.5	6.0
IA 17	634+45	642+95	Lt.	23	3.0	10.0
IA 17	645+08	648+73	Lt.	16	3.0	7.0
IA 17	651+92	655+17	Lt.	16	3.0	7.0
IA 17	657+62	665+75	Lt.	23	3.0	10.0
IA 17	634+45	643+08	Rt.	23	3.0	10.0
IA 17	645+03	648+73	Rt.	16	3.0	7.0
IA 17	651+92	655+36	Rt.	16	3.0	7.0
IA 17	657+44	665+75	Rt.	23	3.0	10.0
IA 17 Interchange - Ramp A	1523+57	1537+25 (C)	Lt.	13	3.0	6.0
IA 17 Interchange - Ramp A	1524+18	1534+90	Rt.	8	3.0	4.0
IA 17 Interchange - Ramp B	2511+80	2523+33	Lt.	8	3.0	4.0
IA 17 Interchange - Ramp B	2510+00	2523+83 (C)	Rt.	13	3.0	6.0
IA 17 Interchange - Ramp C	3511+05	3523+71 (D)	Lt.	13	3.0	6.0
IA 17 Interchange - Ramp C	3513+00	3523+30	Rt.	8	3.0	4.0
IA 17 Interchange - Ramp D	4524+16	4534+00	Lt.	8	3.0	4.0
IA 17 Interchange - Ramp D	4523+59	4535+95 (D)	Rt.	13	3.0	6.0
IA 17 Interchange Ramp Tapers (2-520' and 2-993' in length)			Both	18	4.5	6.0



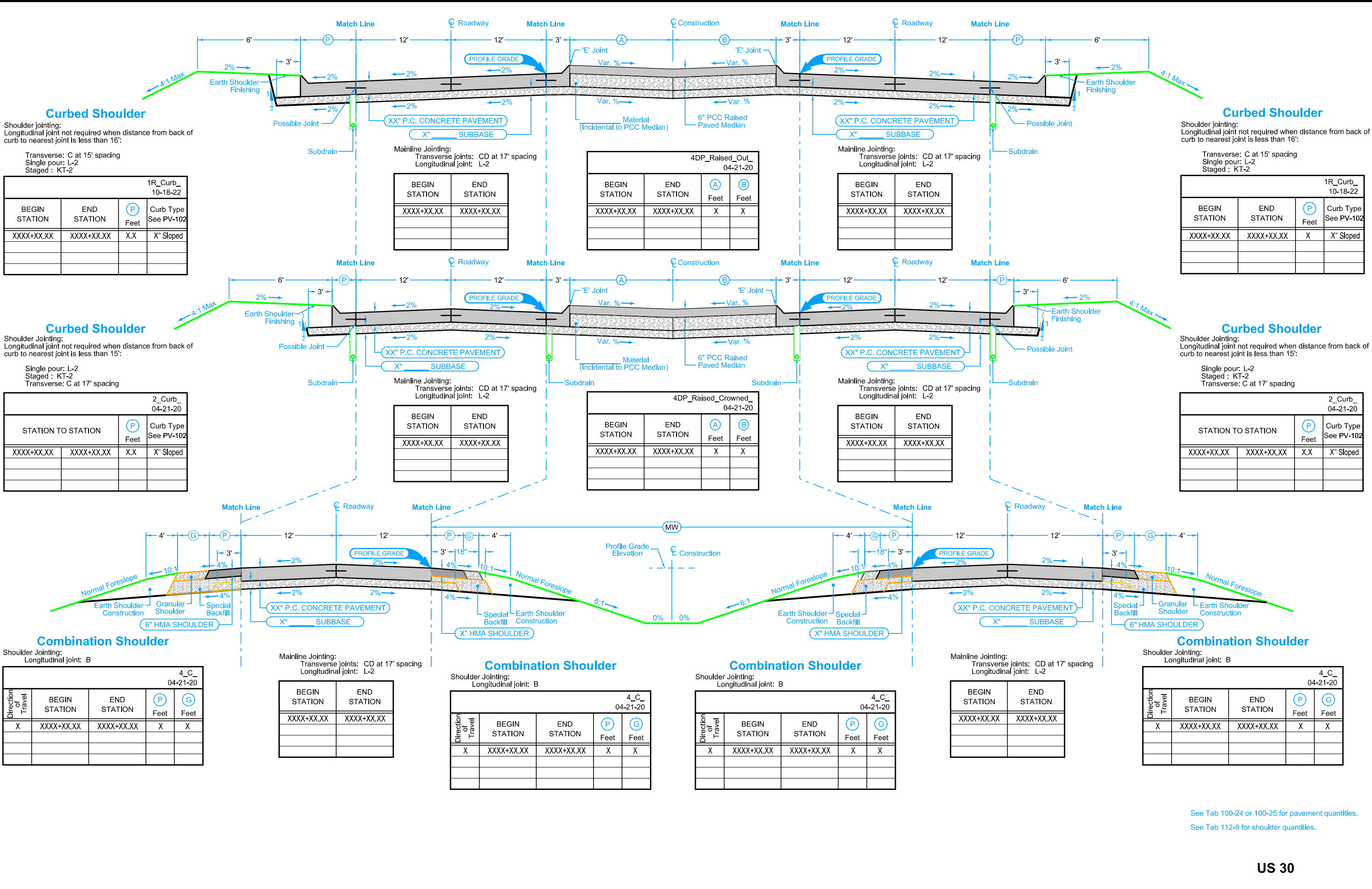
- Notes:
- Quantities have been determined on the basis of a design weight of 140 lbs. per cubic foot.
- ① Place and compact material to the dashed lines; then blade and shape to foreslope that portion above the solid line in the outer 2' and roll with loaded truck tire.
 - ② Existing shoulder surface to be shaped to a uniform cross slope prior to placing granular shoulder material. Shape to ensure the thickness of the granular shoulder material is not less than the thickness of the resurfacing. Shaping shall be paid for in accordance with Section 2121 of the Standard Specifications.
 - ③ Tons per side per station.

7135C
Modified

TYPICAL SECTION FOR TYPE 'B' GRANULAR SHOULDER ADJACENT TO HOT MIX ASPHALT RESURFACING

Division 3 - Story Co.
MP-30-1(702)151--76-85

LOCATION				TONS ③	T Inches	E Feet
ROAD IDENTIFICATION	MILEPOST TO MILEPOST		SIDE			
US 30 (WBL)	151.38	151.92	Outside	16	2.0	10.0
US 30 (WBL)	151.38	151.92	Inside	9	2.0	6.0
US 30 (EBL)	152.19	154.18	Outside	16	2.0	10.0
US 30 (EBL)	152.19	154.18	Inside	9	2.0	6.0
US 30 (EBL)	154.19	156.00	Outside	16	2.0	10.0
US 30 (EBL)	154.19	156.00	Inside	9	2.0	6.0



See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

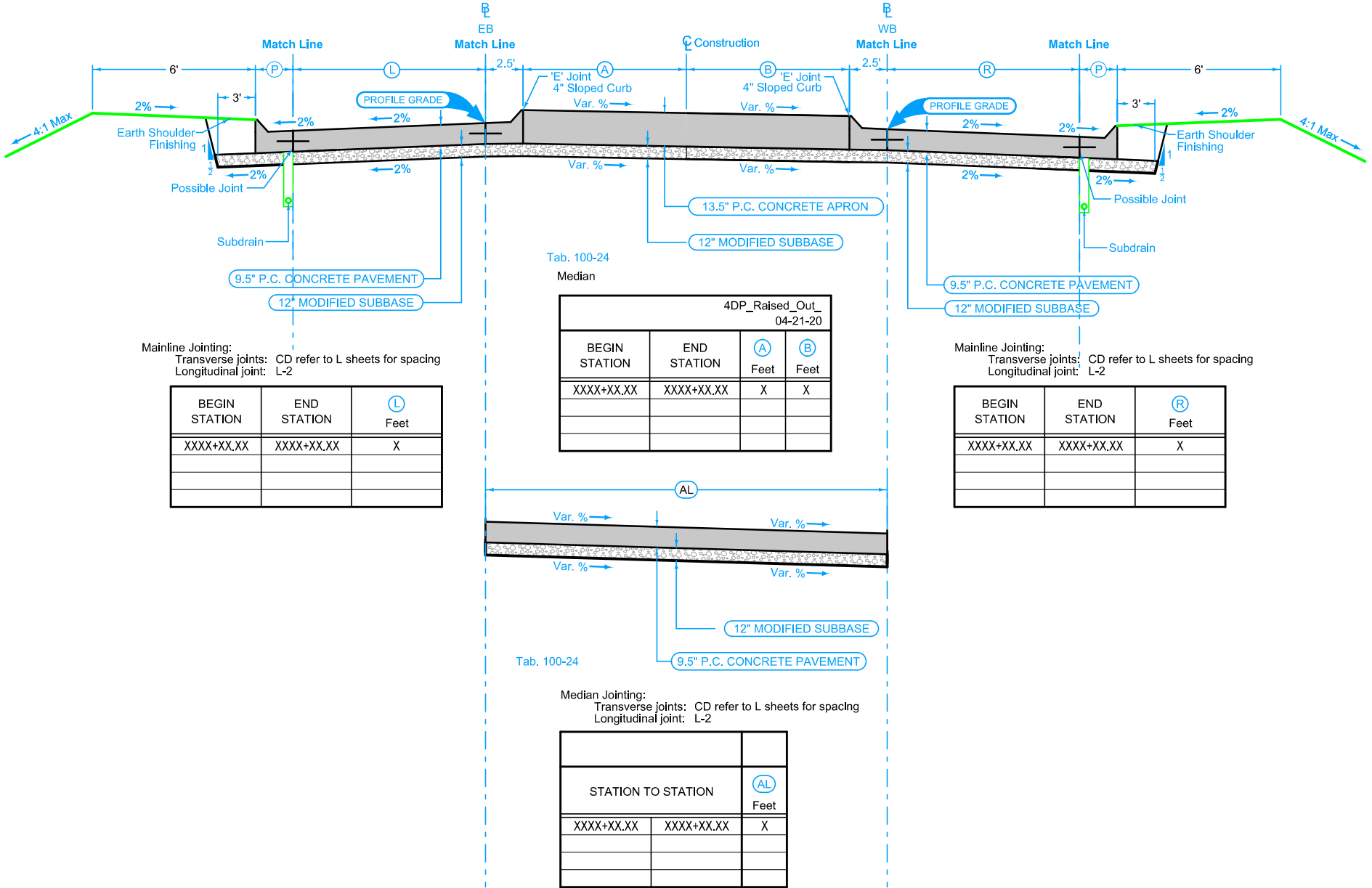
2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped



See Tab 100-24 or 100-25 for pavement quantities.
See Tab 112-9 for shoulder quantities.

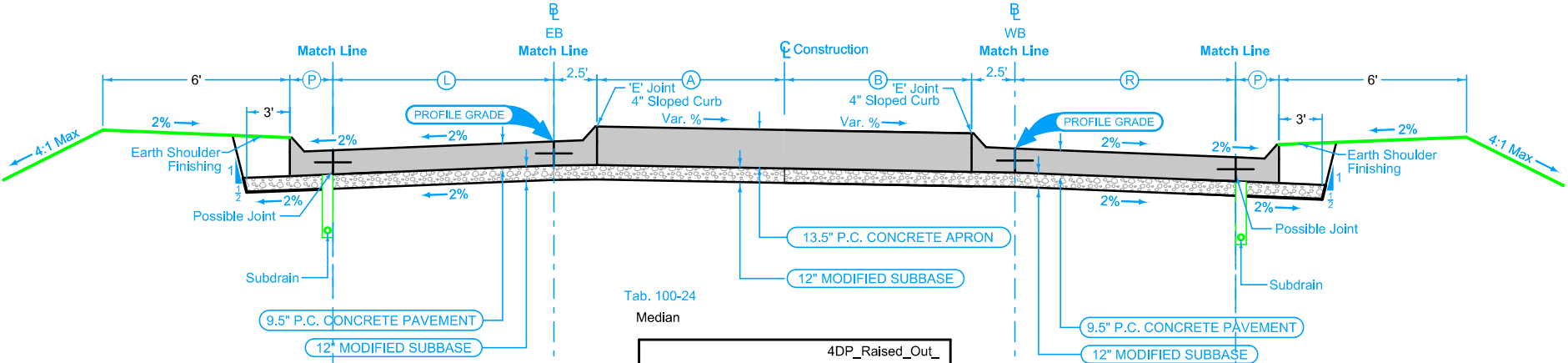
SE Marshall Street

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped



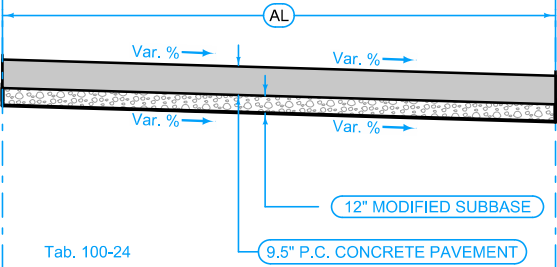
Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

BEGIN STATION	END STATION	(L) Feet
XXXX+XX.XX	XXXX+XX.XX	X

Tab. 100-24

Median

4DP_Raised_Out_ 04-21-20			
BEGIN STATION	END STATION	(A) Feet	(B) Feet
XXXX+XX.XX	XXXX+XX.XX	X	X



Tab. 100-24

Median Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

STATION TO STATION			(AL) Feet
XXXX+XX.XX	XXXX+XX.XX		X

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of
curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: CD refer to L sheets for spacing

2_Curb_ 04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

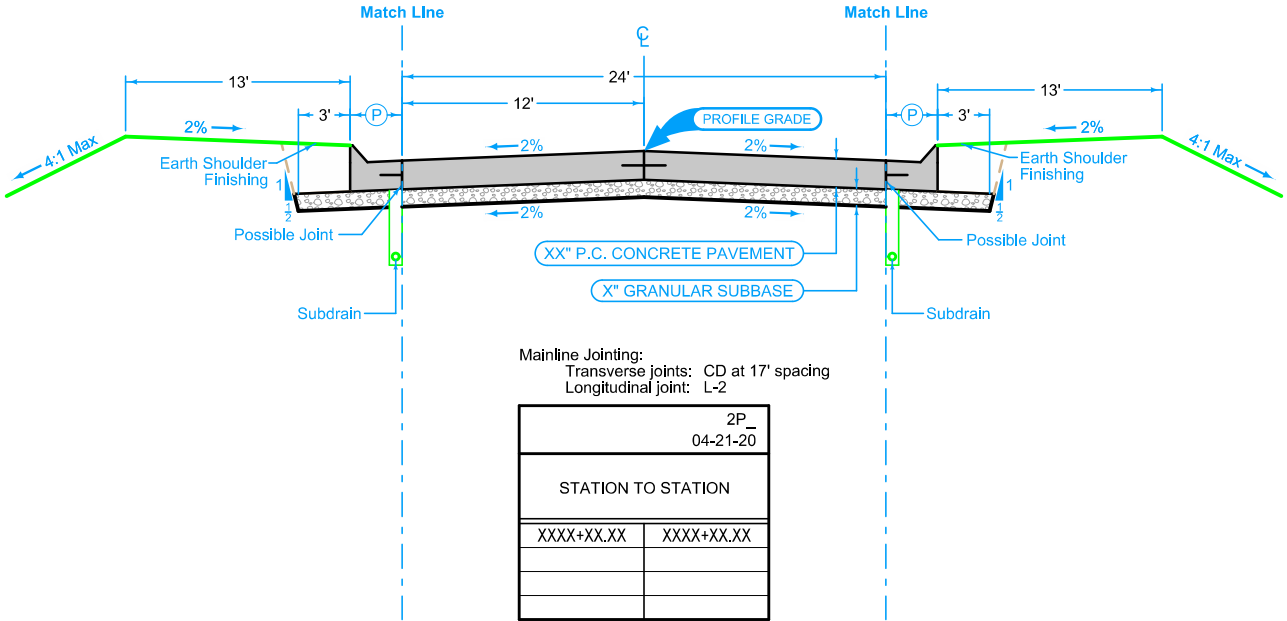
Crown Flair Drive

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: C at 17' spacing

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped



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

2P_04-21-20	
STATION TO STATION	
XXXX+XX.XX	XXXX+XX.XX

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: C at 17' spacing

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

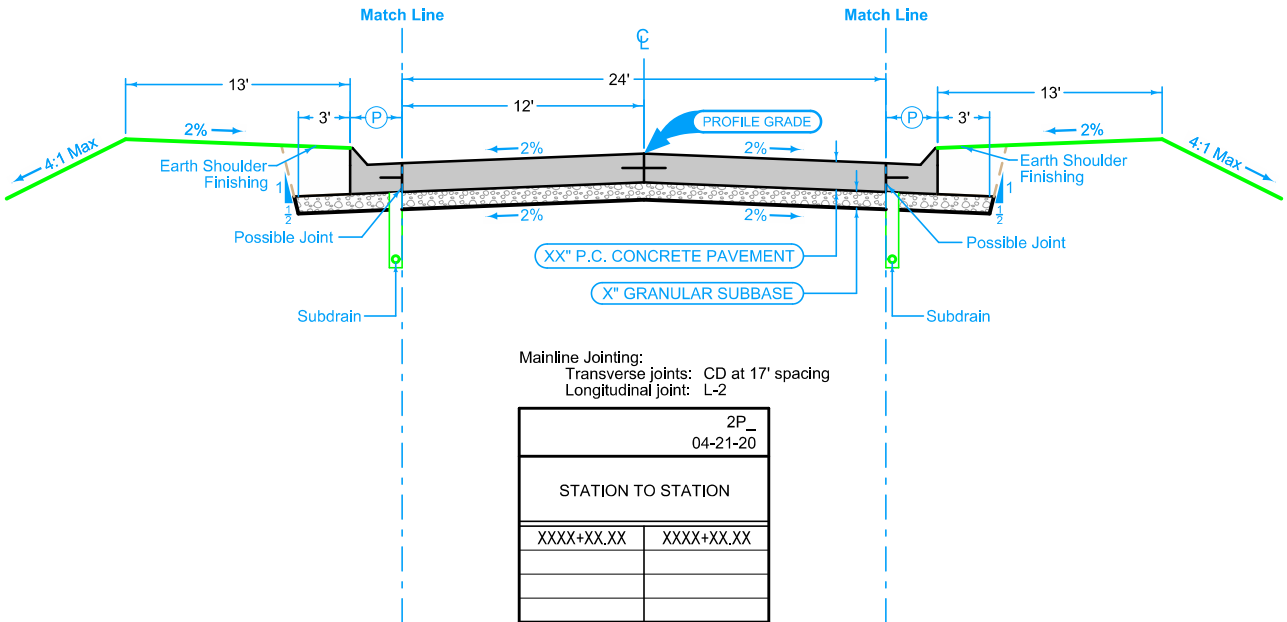
SE Marshall Street

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

Single pour: L-2
Staged : KT-2
Transverse: C at 17' spacing

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped



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

2P_04-21-20	
STATION TO STATION	
XXXX+XX.XX	XXXX+XX.XX

Curbed Shoulder

Shoulder Jointing:
Longitudinal joint not required when distance from back of curb to nearest joint is less than 15':

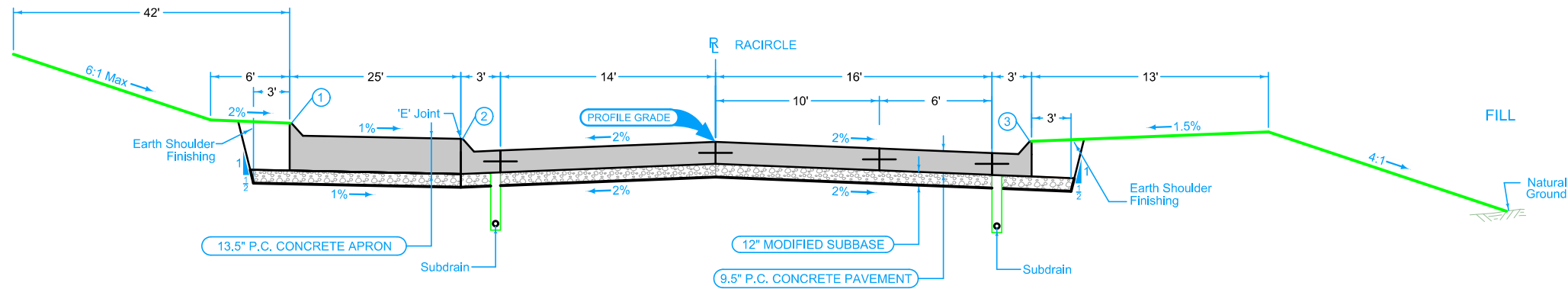
Single pour: L-2
Staged : KT-2
Transverse: C at 17' spacing

2_Curb_04-21-20			
STATION TO STATION		(P) Feet	Curb Type See PV-102
XXXX+XX.XX	XXXX+XX.XX	X.X	X" Sloped

See Tab 100-24 or 100-25 for pavement quantities.

See Tab 112-9 for shoulder quantities.

Crown Flair Drive

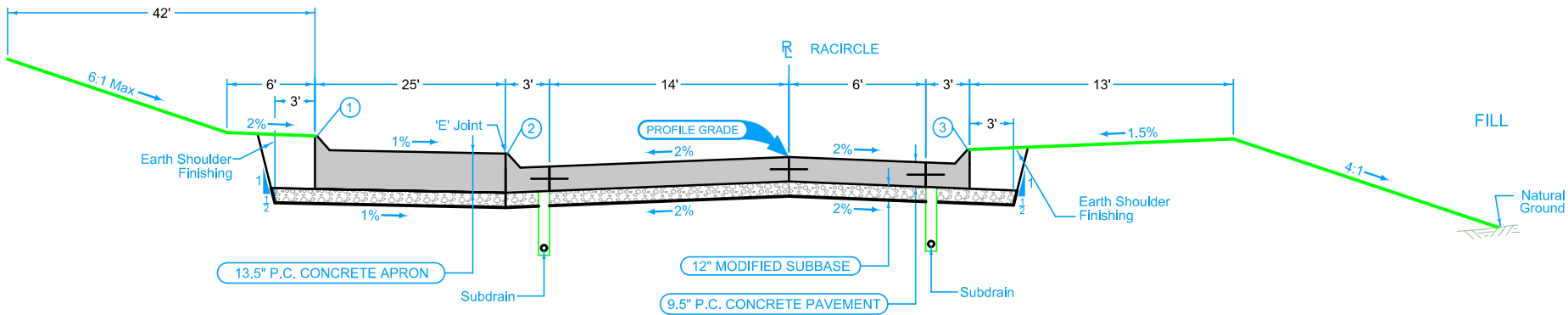


- ① 6" Standard Curb
- ② 4" Sloped Curb
- ③ 6" Sloped Curb

Note: See 'L' Sheets for Jointing Layout

Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

LOCATION			
ROAD IDENTIFICATION	STATION TO STATION		X Feet
RACIRCLE	XXXX+XX.XX	XXXX+XX.XX	X.X
RACIRCLE	XXXX+XX.XX	XXXX+XX.XX	X.X



- ① 6" Standard Curb
- ② 4" Sloped Curb
- ③ 6" Sloped Curb

Note: See 'L' Sheets for Jointing Layout

Mainline Jointing:
Transverse joints: CD refer to L sheets for spacing
Longitudinal joint: L-2

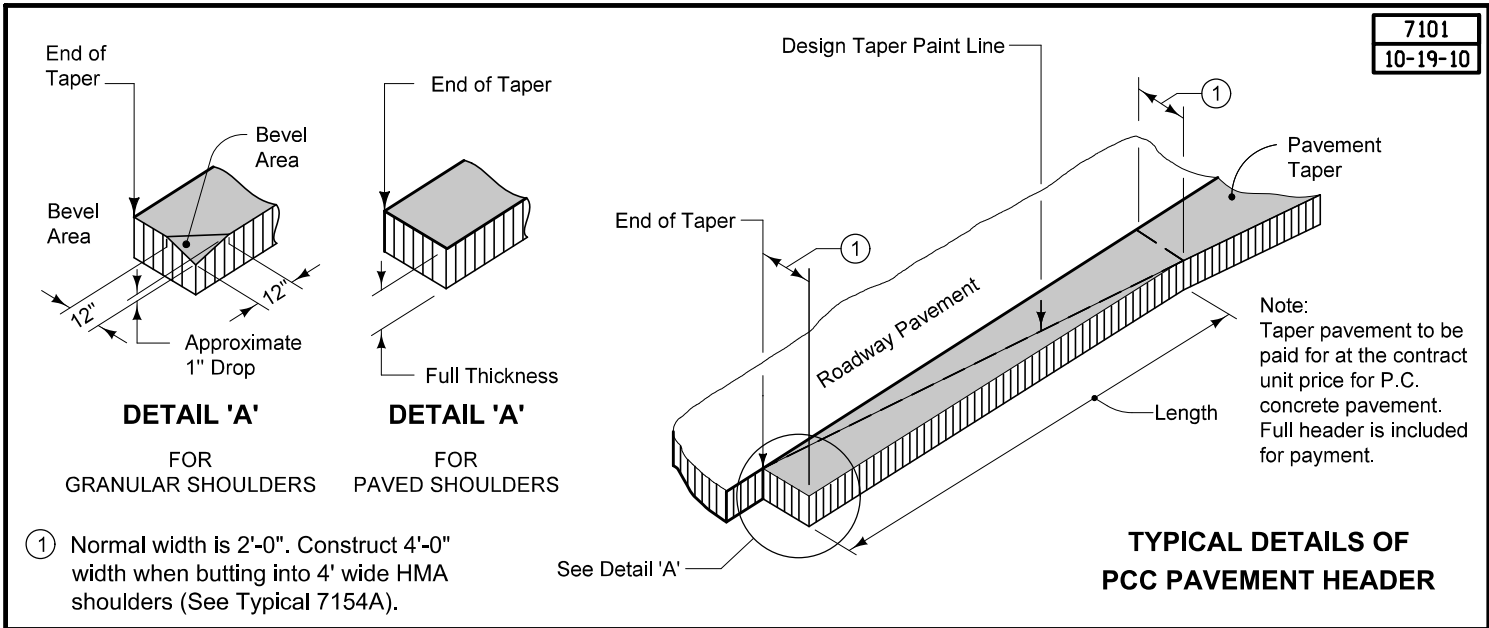
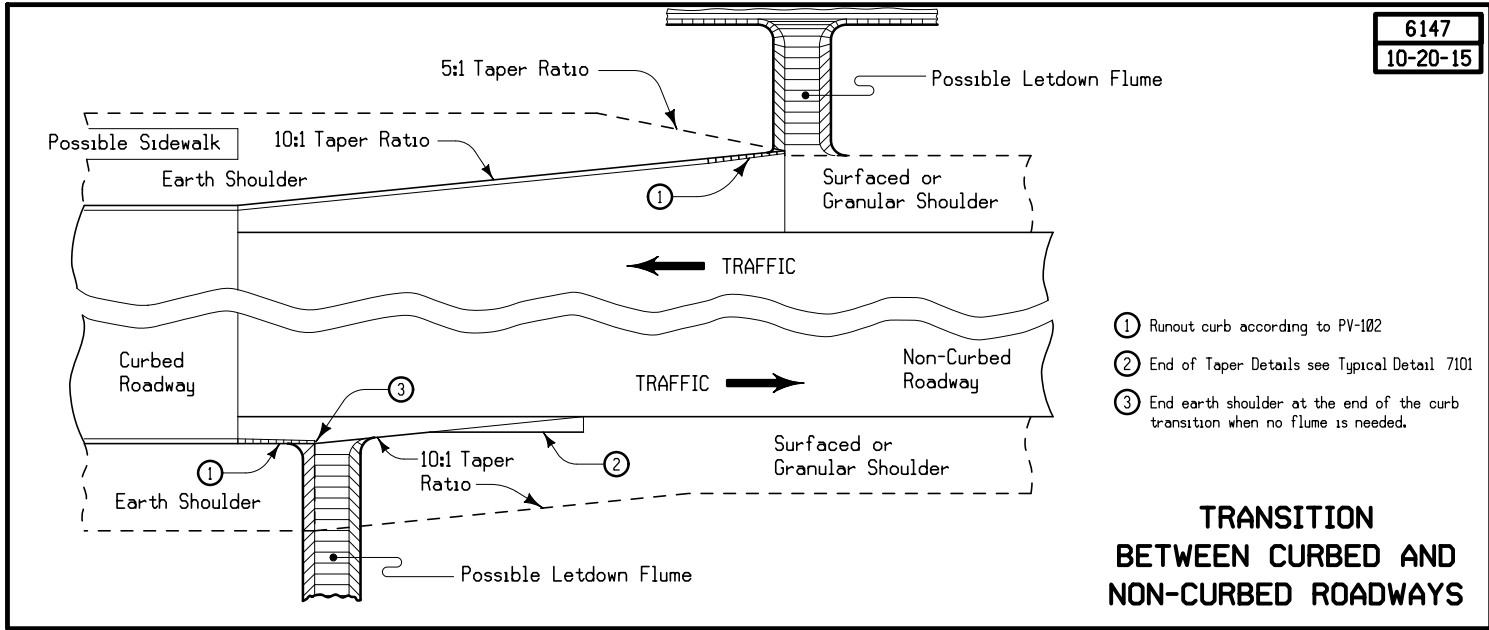
LOCATION			
ROAD IDENTIFICATION	STATION TO STATION		X Feet
RACIRCLE	XXXX+XX.XX	XXXX+XX.XX	X.X
RACIRCLE	XXXX+XX.XX	XXXX+XX.XX	X.X

See Tab 100-24 or 100-25 for pavement quantities.

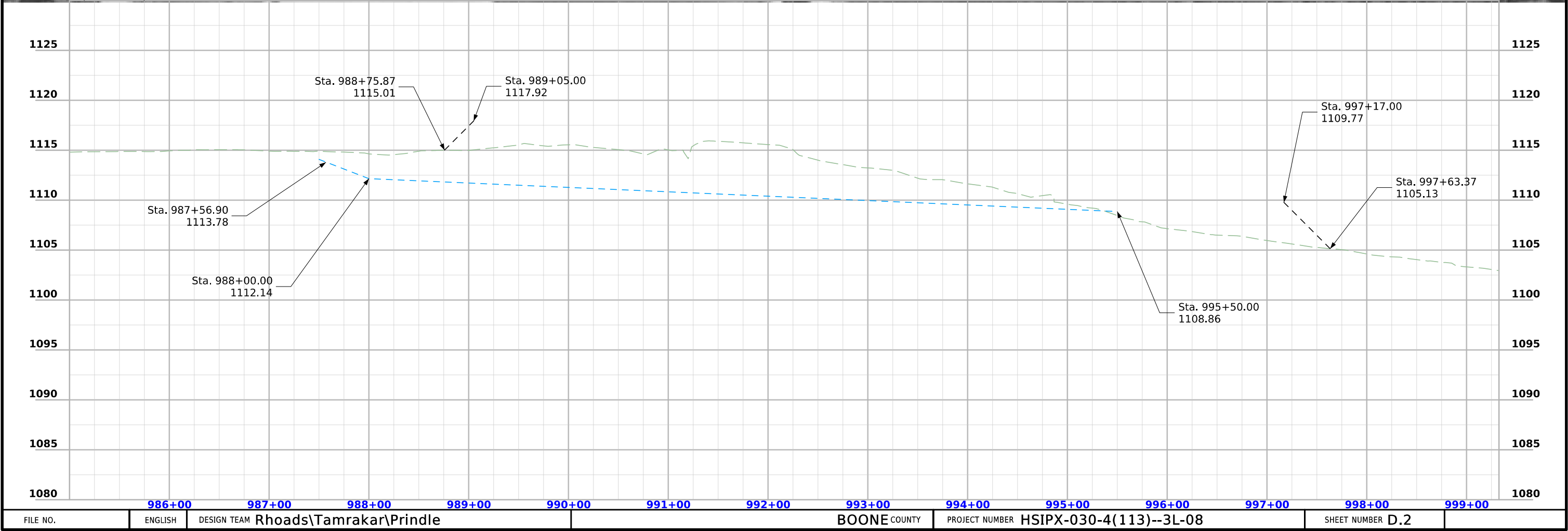
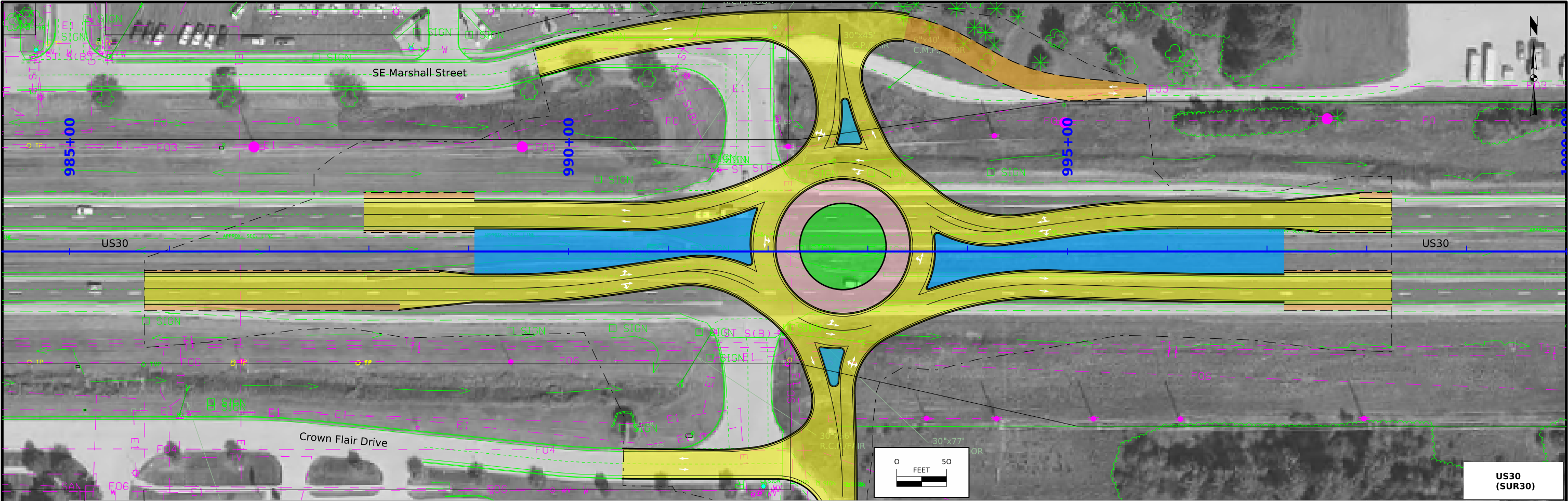
See Tab 112-9 for shoulder quantities.

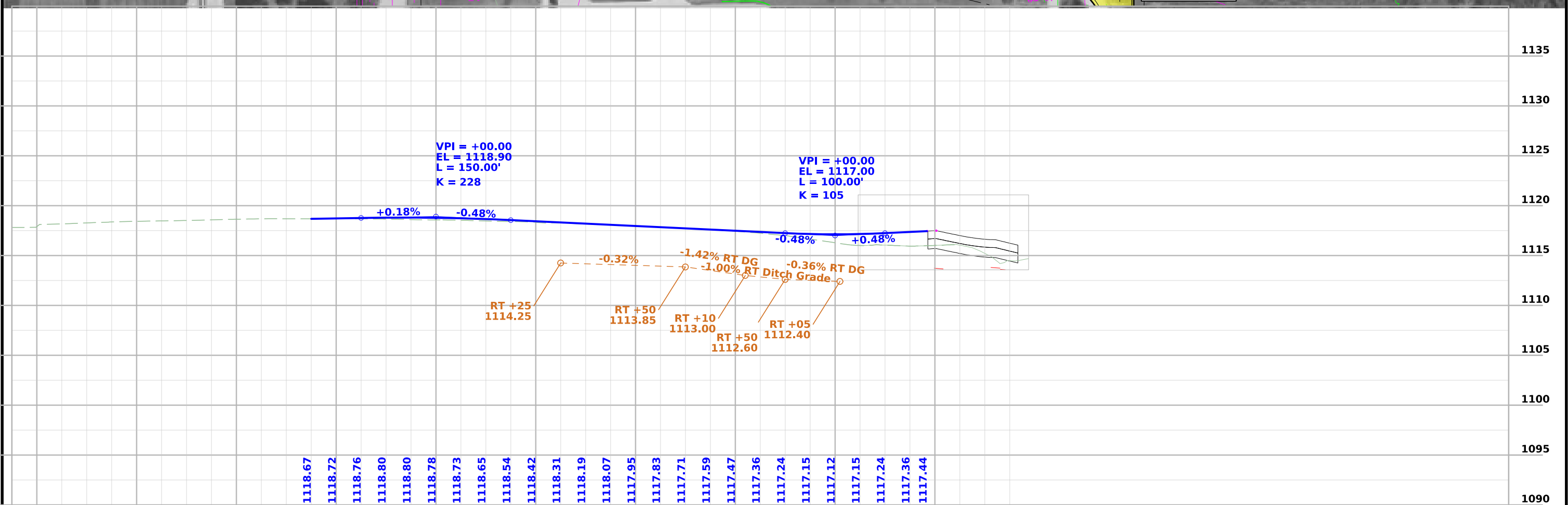
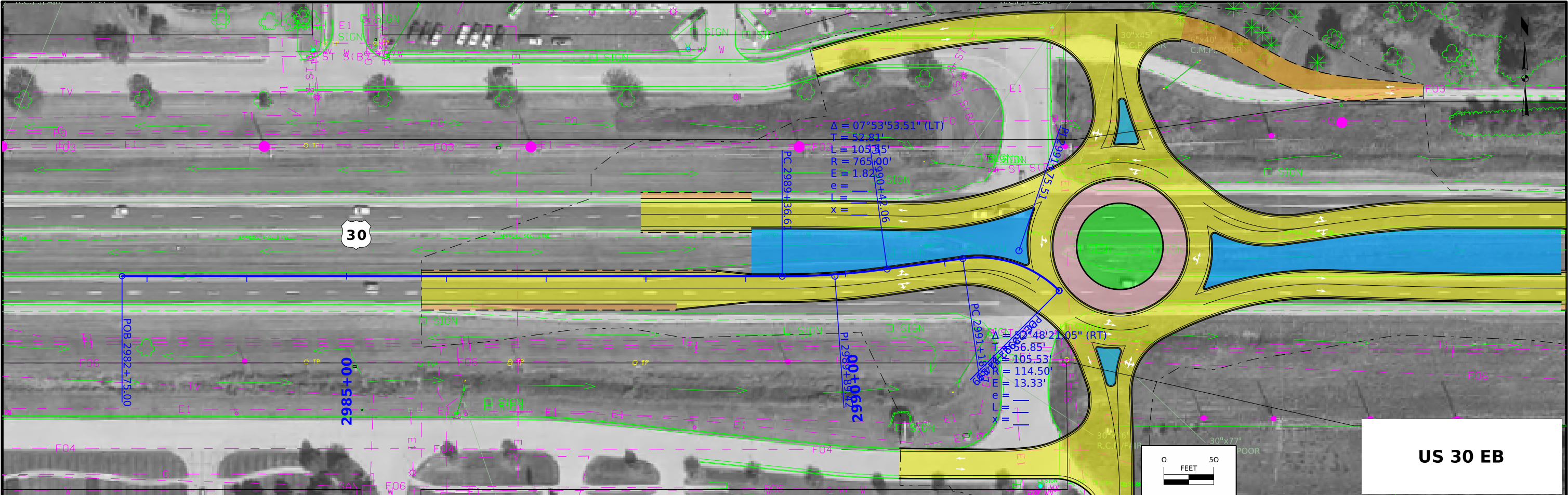
Roundabout

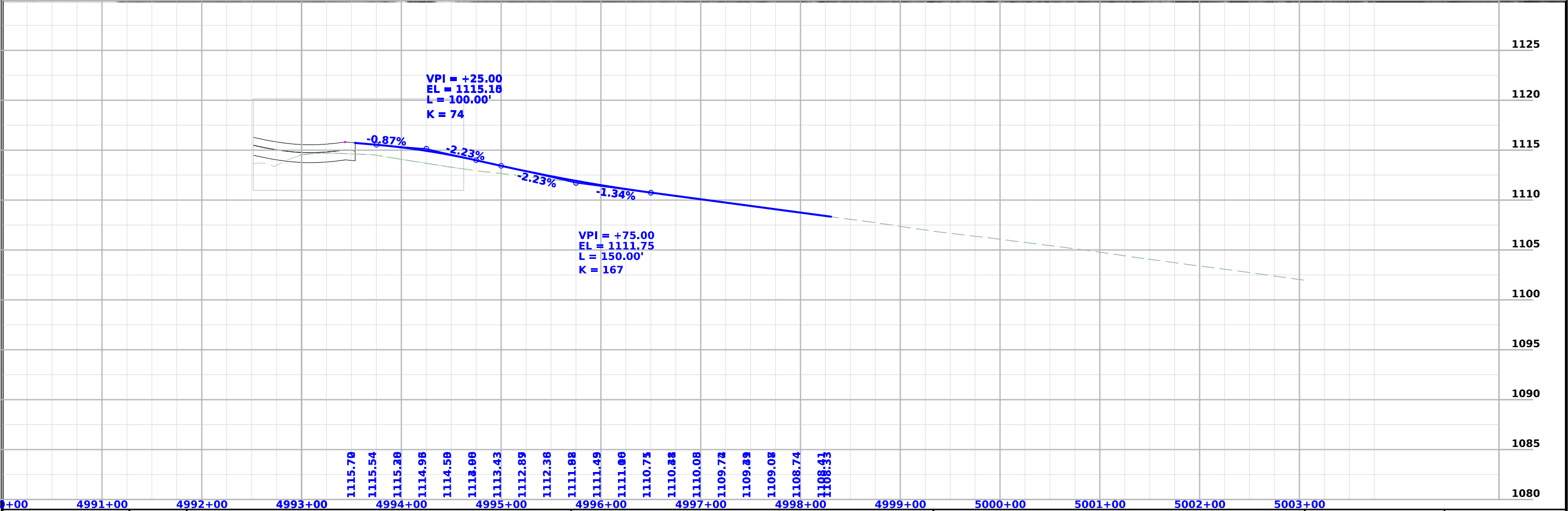
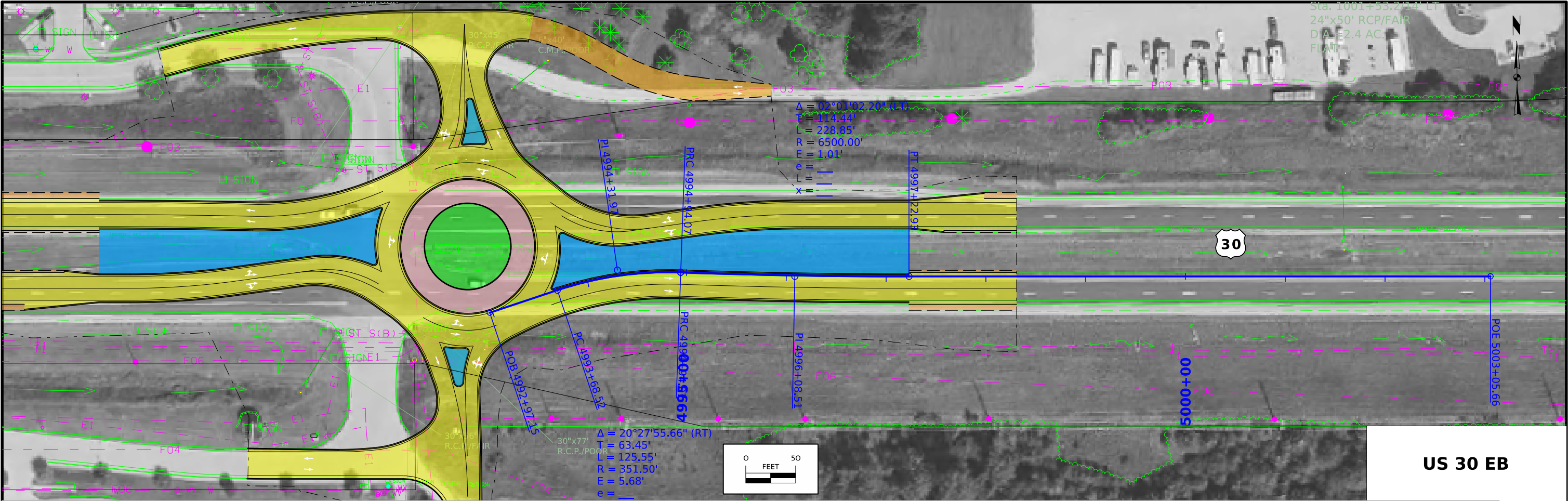
[illegible]

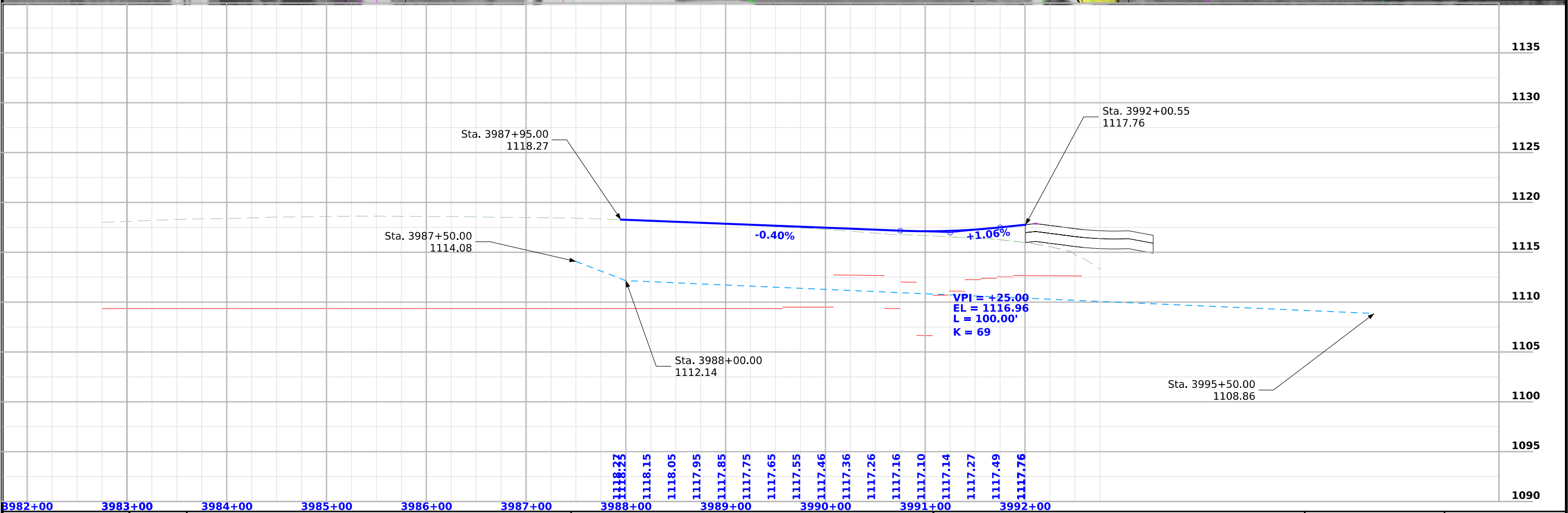
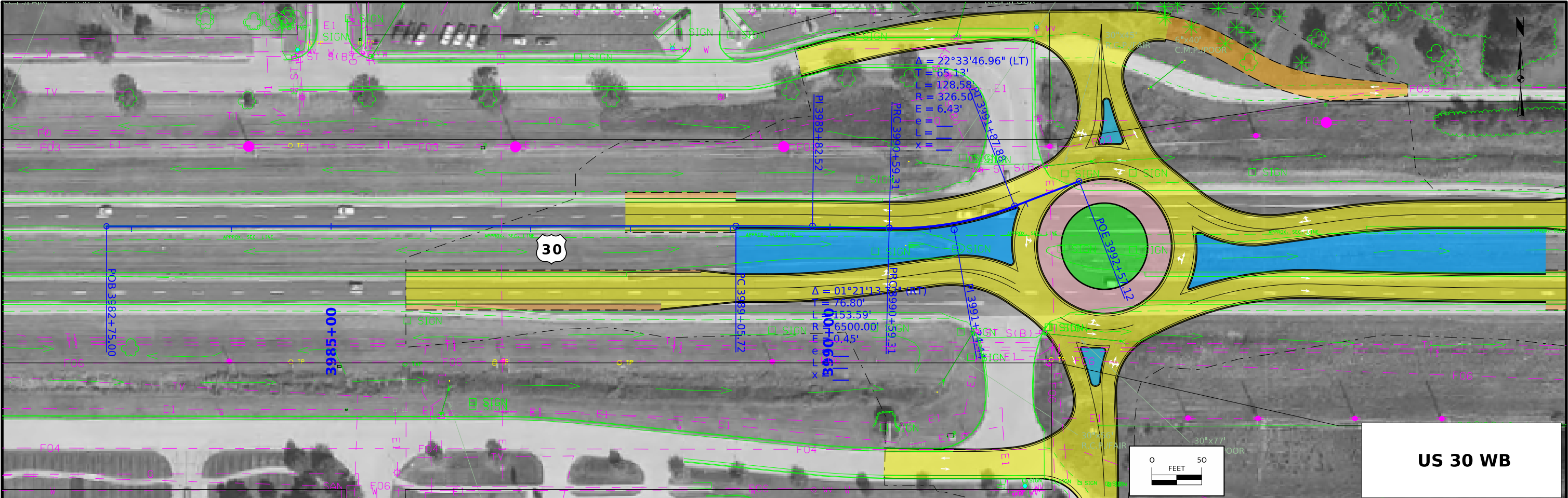


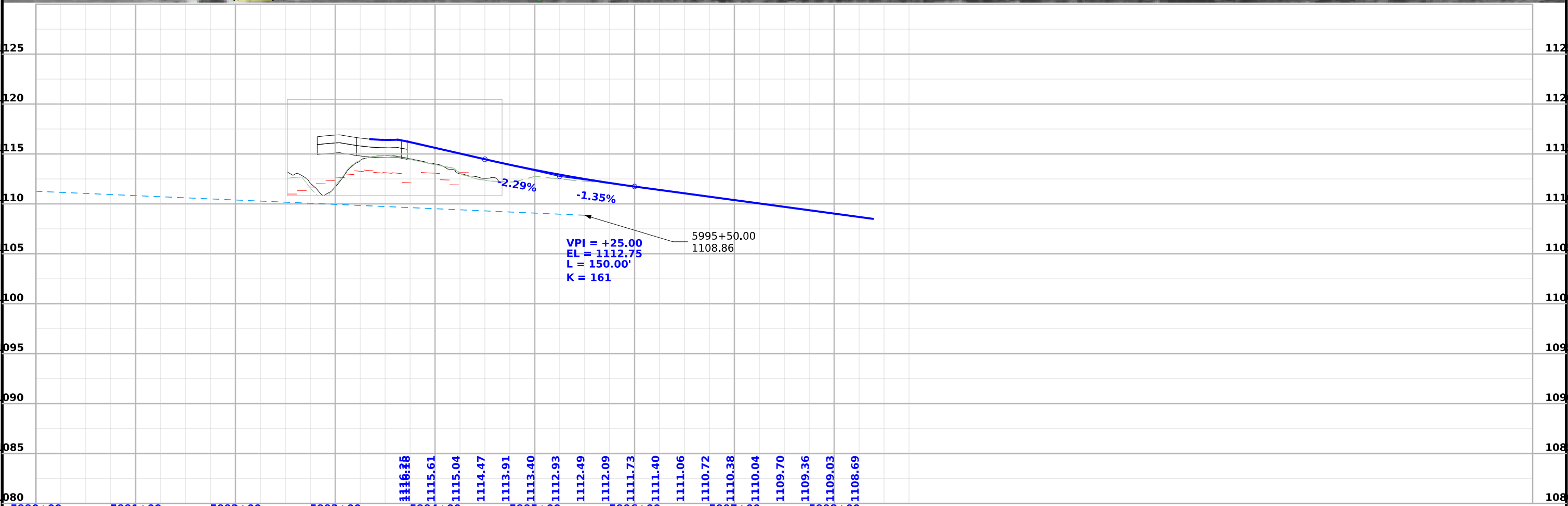
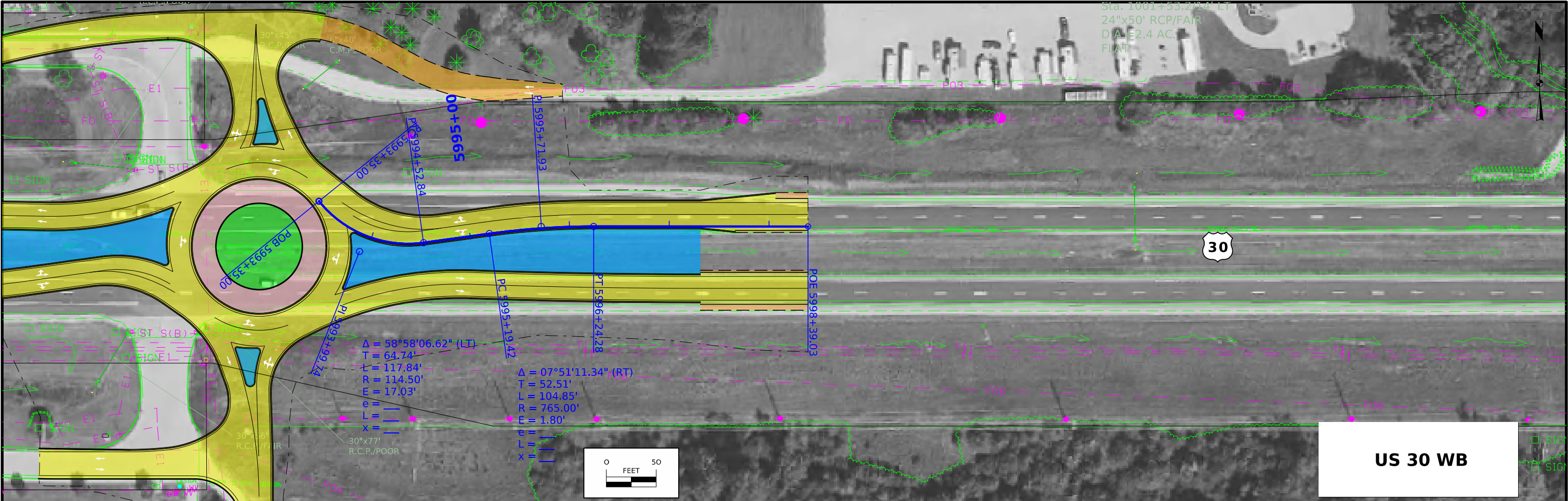
SURVEY SYMBOLS					
 AST, Above Ground Storage Tank BB, Billboard BBL, Bottom of Bridge Beam BCL, Bridge Centerline BD, Bridge Deck BIN, Grain Bin BL, Topo Breakline BLD, Building or Foundation BLS, Bridge Low Steel BM, Bench Mark BRK, Stream Bank BRG, Bridge C, Centerline BL of Road -ML or SR CAV, Cave CEL, Cell Phone Tower CIS, Cistern CON, Concrete or A/C Slab CP, Control Point CPP, Corporation Line CS, Curve Point CU, Back of Curb CUL, Culvert D, Centerline Draw or Stream -Down DAB, Drainage Area Boundary DIK, Centerline of Dike or Dam DTM, Photogrammetry Elev Control Check DU, Centerline Draw or Stream -Up EB, Electrical Box EG, Edge of Gravel Road ENP, Edge Paved Entrance and Park Lot ENT, Centerline BL of Entrance ENU, Edge Unpaved Entrance and Parking EP, Edge of Paved Roads -ML or SR EW, Edge of Water FCL, Chain Link and Security Fence FENO, FENO Monument FHD, Fire Hydrants FLG, Flag Poles FP, Filler Pipe FW, Wire Fence FWD, Wood Fence GDC, Guard Rail Cable GD, Guard Rail Steel GP, Guard Post -Less Than 4 Posts CPR, Guard Post -4 or More Posts GR, Ground Shot GRV, Grave GU, Gutter In Front of Curb GV, Gas Valve HDG, Hedge Row HS, Hydric Soil -Wetlands HT, Electrical Highline Tower IN, Storm Sewer Intake INS, Storm Sewer Beehive Intake LC, Lot Corner LIN, Miscellaneous Line LP, L.P. Tank LUM, Luminaire MH, Utility Access -Manhole MIS, Miscellaneous MM, Mile Marker Post OUT, Tile Outlet PC, Curve Point PCP, Photo Control Point PCT, Photo Control Target PI, Tangent Point PIP, Pipe Culvert PL, Location of Photo -Wetlands PLG, Location of General Photo POC, Curve Point POST, Spiral Point PR, Electric Riser Pole PRO, Profile Shot PT, Curve Point REF, Reference Tie Point RET, Retaining Walls RIP, Rip-Rap ROC, Rock Outcropping ROW, Right of Way Mark RR, Centerline of Railroad Tracks RRB, Railroad Signal Box RRF, Railroad Frog RRR, Railroad Rail RRS, Railroad Signal RRW, Railroad Switch RT, Radio Tower S, Soil Sampling Site -Wetlands SBR, Size of Bridge SC, Spiral Point SCR, Section Corner SEP, Septic Tank SF, Silt Fence -Wetlands SG, Staff Gauge -Wetlands SH, Paved Shoulder SHR, Shrub SI, Sign SL, Speed Limit Sign SLN, Section Line SLO, Silo SNK, Sink Hole SNP, Unpaved Shoulder SP, Stream Profile STP, Stump SWK, Sidewalk SWP, Swamp or Marsh TA, Tower Anchor TBO, Telephone Booth TCB, Traffic Signal Box TDC, Tree Deciduous TDL, Traffic Detection Loop TER, Terrace TEV, Evergreen Tree TFR, Tree Fruit TGP, Telegraph Pole TIL, Tile Line TLNK, Tree Line Left TLNR, Tree Line Right TOP, Top of Bridge Pier TPA, Telephone Pole Co. 1 TPB, Telephone Pole Co. 2 TPC, Telephone Pole Co. 3 TR, Telephone Riser Pole TRL, Trail TS, Spiral Point TSB, Telephone Switch Box TSG, Traffic Signal TSL, Traffic Signal and Luminaire TV, Satellite TV Dish TVP, TV Pedestal TW, Top of Water UB, Utility Box UE, Utility Elevation UPH, Utility Pot Hole - Quality A UST, Underground Tank UV, Underground Utility Vault VS, Channel Cross Section WC, Wild Card -Misc. Field Shot WEL, Well WHD, Water Hydrant WHH, RV Water Hook Up WM, Wind Mill WND, Wind Turbine WV, Water Valve					
UTILITY LEGEND					
G GL1D, Alliant Energy Gas - Quality D Billie Reid billiereid@alliantenergy.com 319-786-3703 E1 EL1D, Alliant Energy Elec - Quality D Midland Power Cooperative Electric Distribution ITC Midwest LLC Electric Transmission Billie Reid billiereid@alliantenergy.com 319-786-3703 Dan Kyle dkyle@midlandpower.coop 515 370 1071 Chad Levi clevi@itctransco.com 3198999969 G2 GL2D, Black Hills Energy - Quality D Brad Fleming brad.fleming@blackhillscorp.com 402 660 0812 F0 F01D, CenturyLink-Lumens - Quality D Steve Parker Steven.Parker4@lumen.com 507 358 1978 T1 TL1D, CenturyLink-Lumens - Quality D Steve Parker Steven.Parker4@lumen.com 507 358 1978 W WL1D, City of Boone - Quality D ST S ST1D, City of Boone - Quality D SAN, SA1D, City of Boone- Quality D F02 F02D, ICN-IDOT - Quality D Jason Dale Jason.Dale@iowadot.us 515-239-1995 F03 F03D, ICN Network - Quality D David Augspurger daugspurger@icn.state.ia.us 515-725-4604 F04 F04D, Jefferson Telephone Company - Quality D Duane Russell duane@jeffersontelecom.com 515 386 4705 F05 F05D, Mediacom - Quality D Jerry Broughton jbroughton@mediacomcc.com (845) 587-2521 TV TV1D, Mediacom - Quality D Jerry Broughton jbroughton@mediacomcc.com (845) 587-2521 G3 GL3D, Northern Natural Gas - Quality D F06 F06D, Ogden Telephone - Quality D Joel Munson ogdentel@netins.net 515-275-2050					
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.				Transparency
Pink, Dark	(13)		Temporary Pavement Shading		50%
Yellow	(4)		Proposed Pavement Shading		50%
Orange	(6)		Proposed Granular Shading		50%
Orange	(70)		Proposed Shoulder Granular Shading		50%
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading		50%
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading		50%
Brown, Light	(236)		Grading Shading		50%
Orange, Light	(134)		Proposed Granular Entrance Shading		50%
Yellow	(220)		Proposed Paved Entrance Shading		50%
Tan	(8)		Proposed Sidewalk Shading		50%
Blue, Light	(230)		Proposed Sidewalk Landing Shading		50%
Pink	(11)		Proposed Sidewalk Ramp Shading		50%
Red					

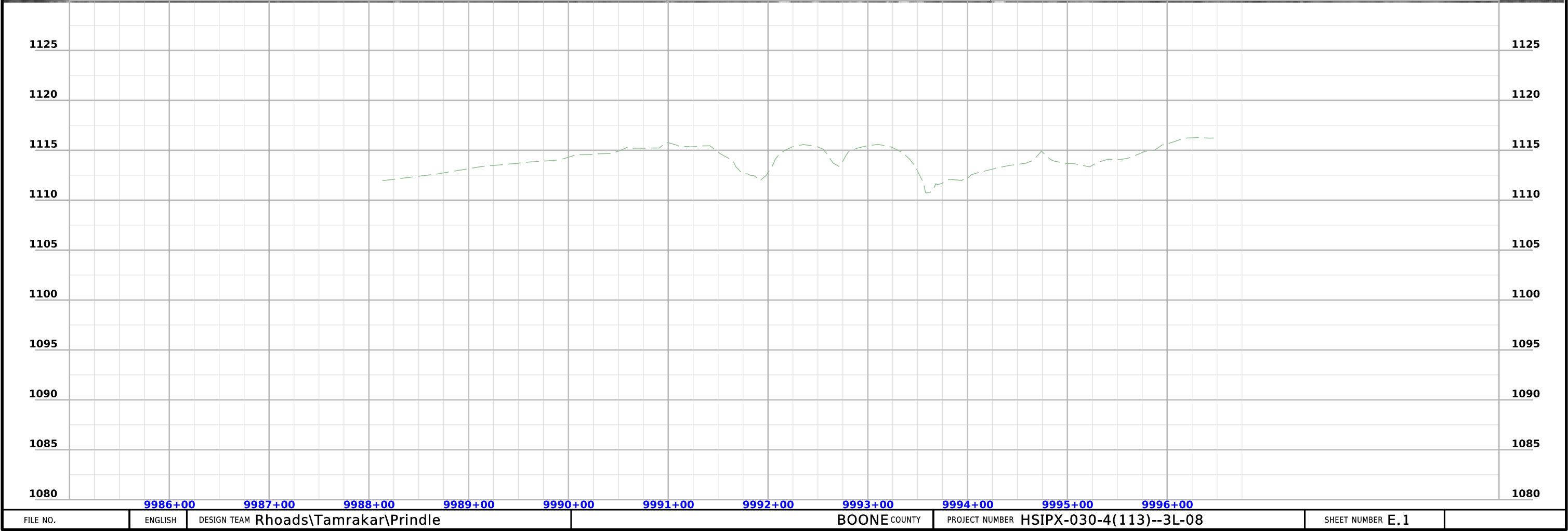
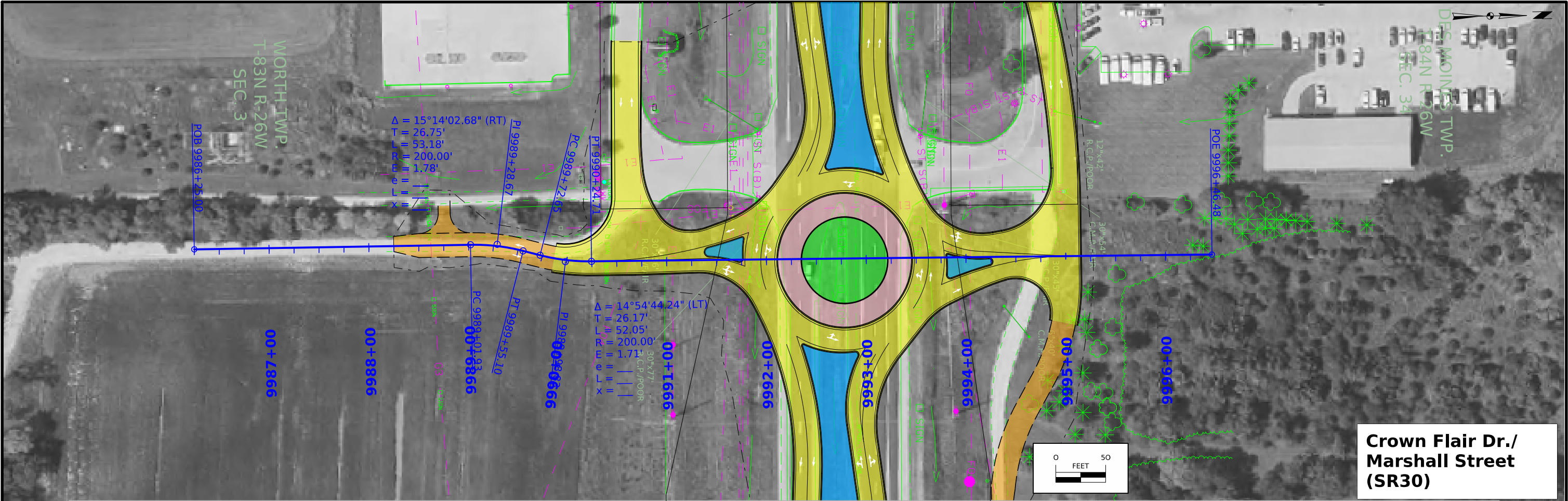


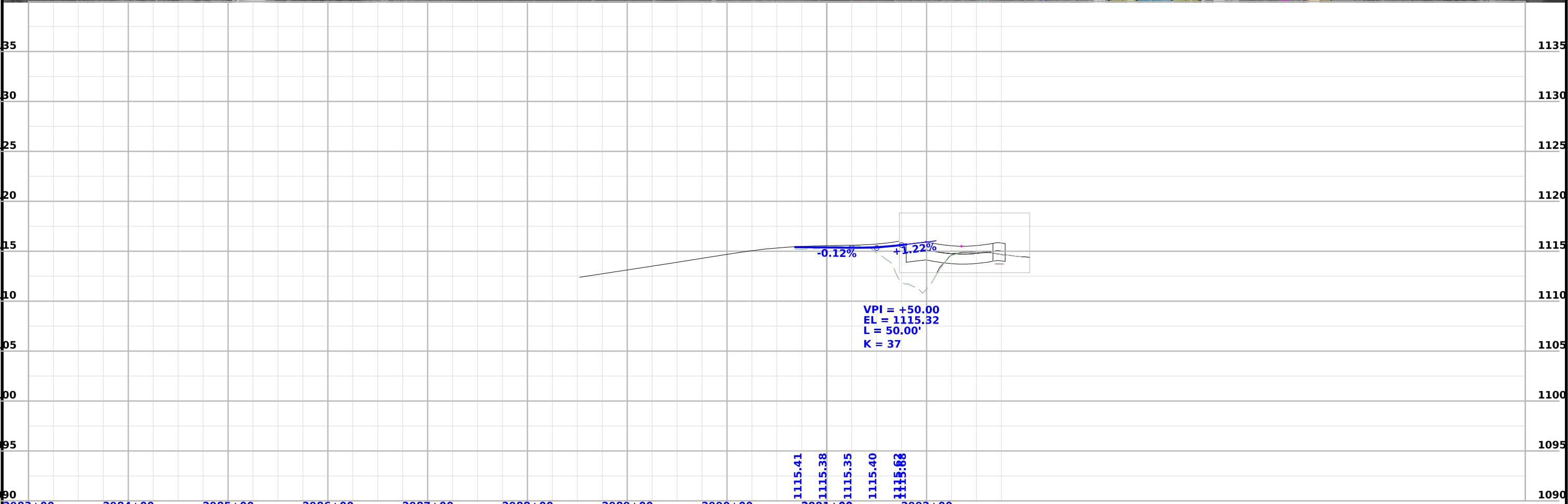


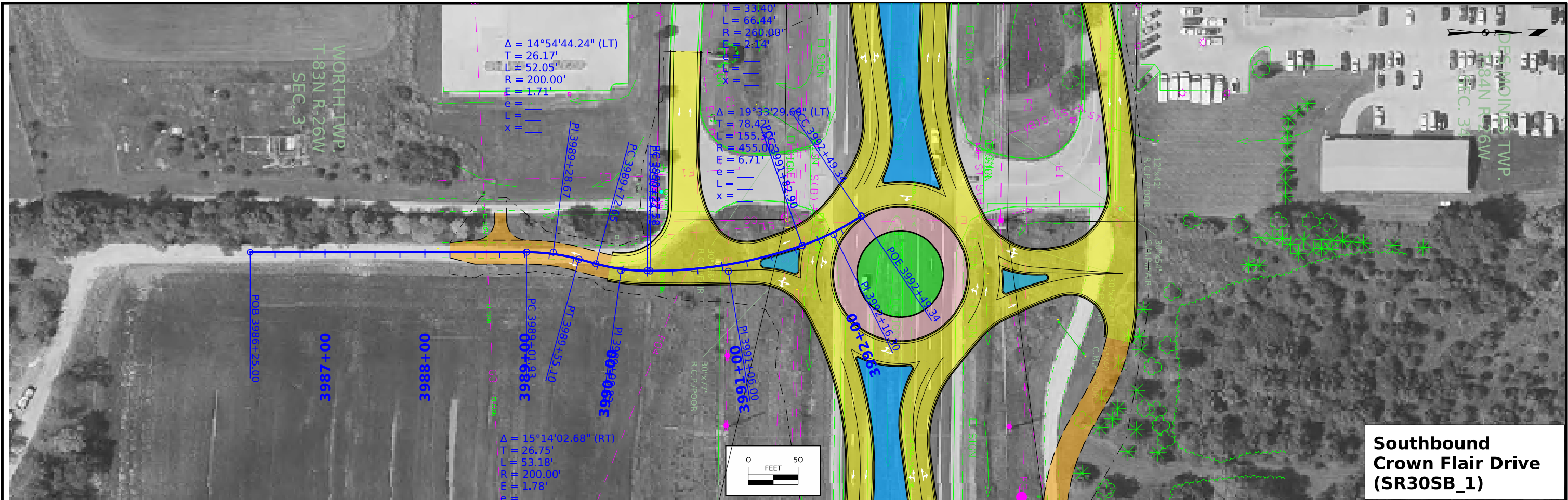




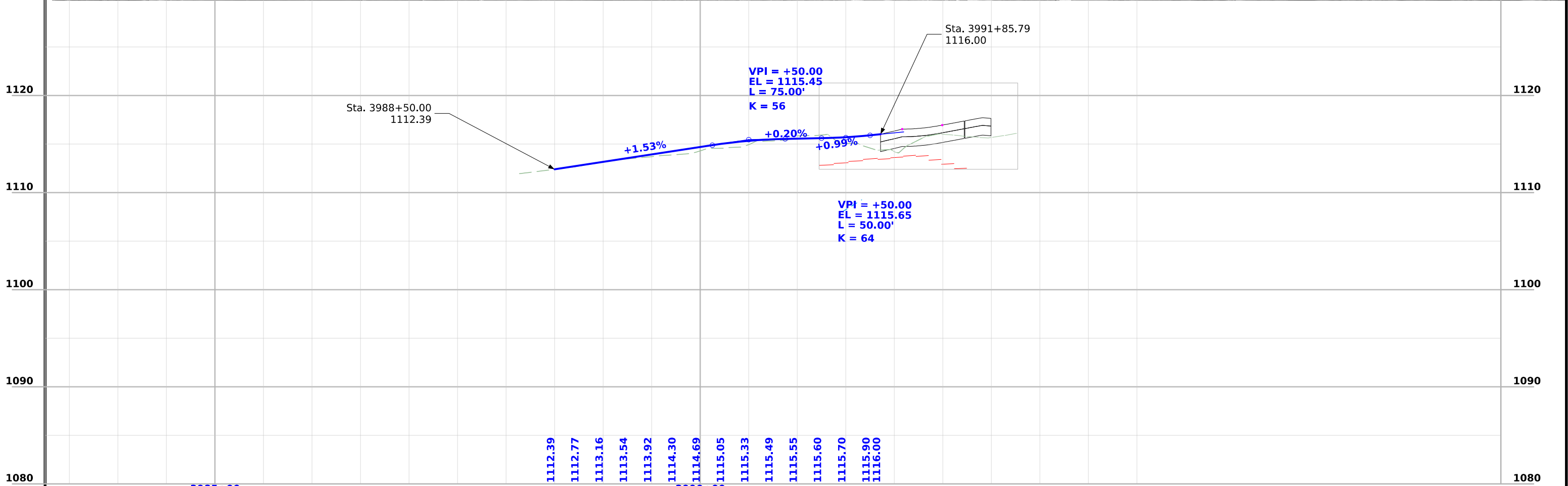


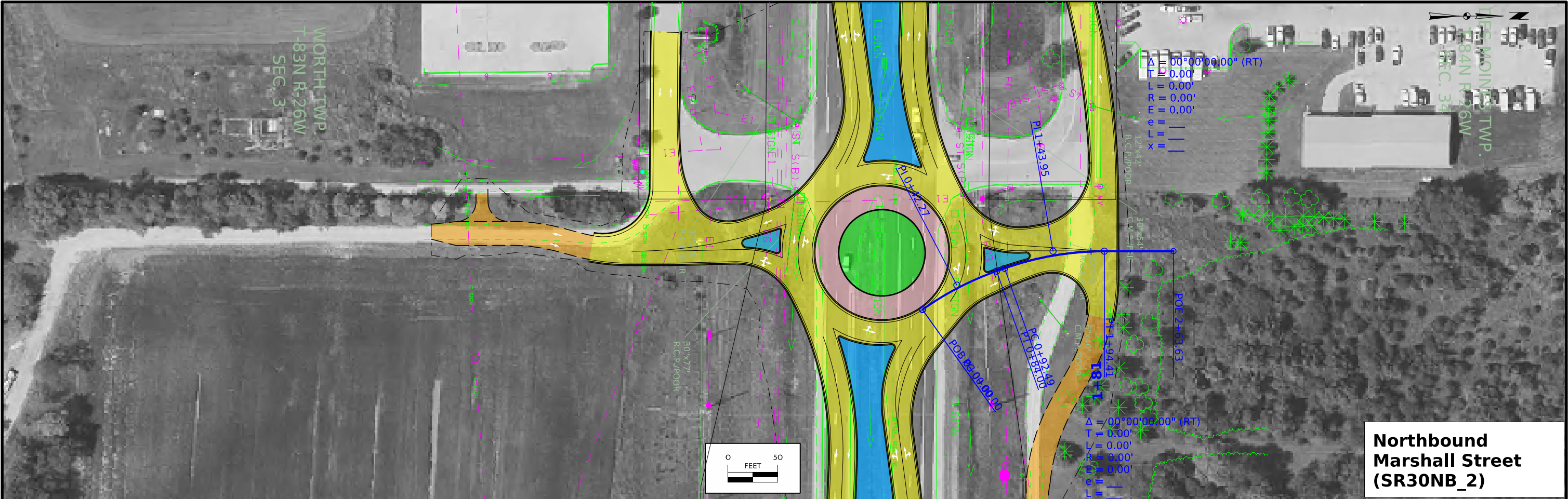


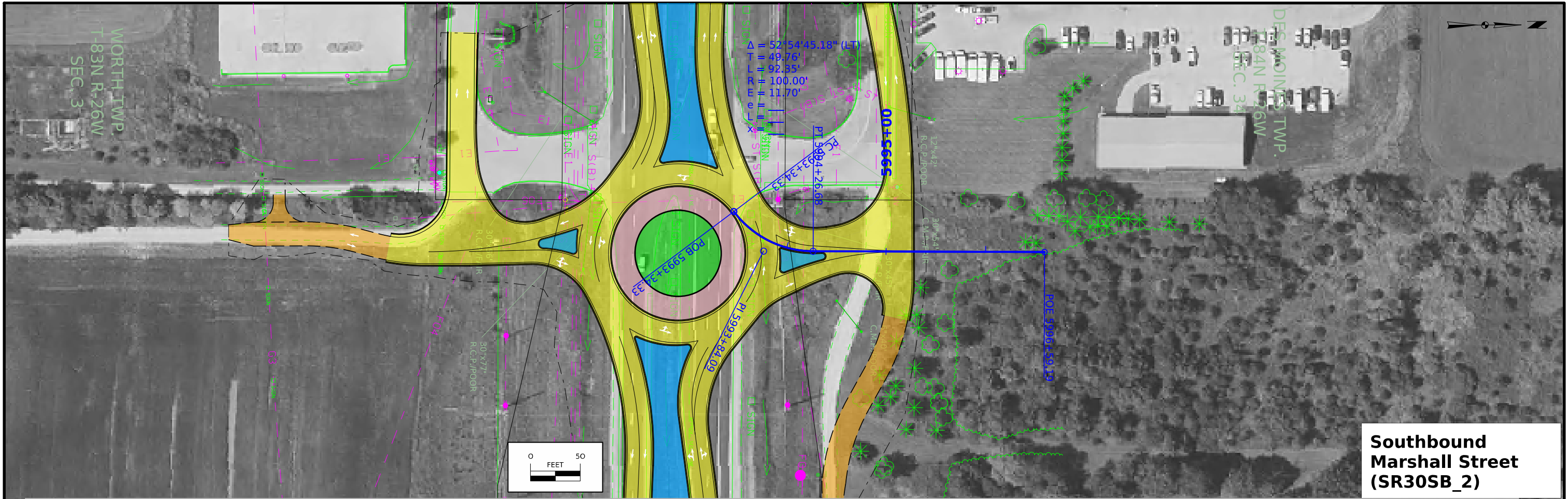




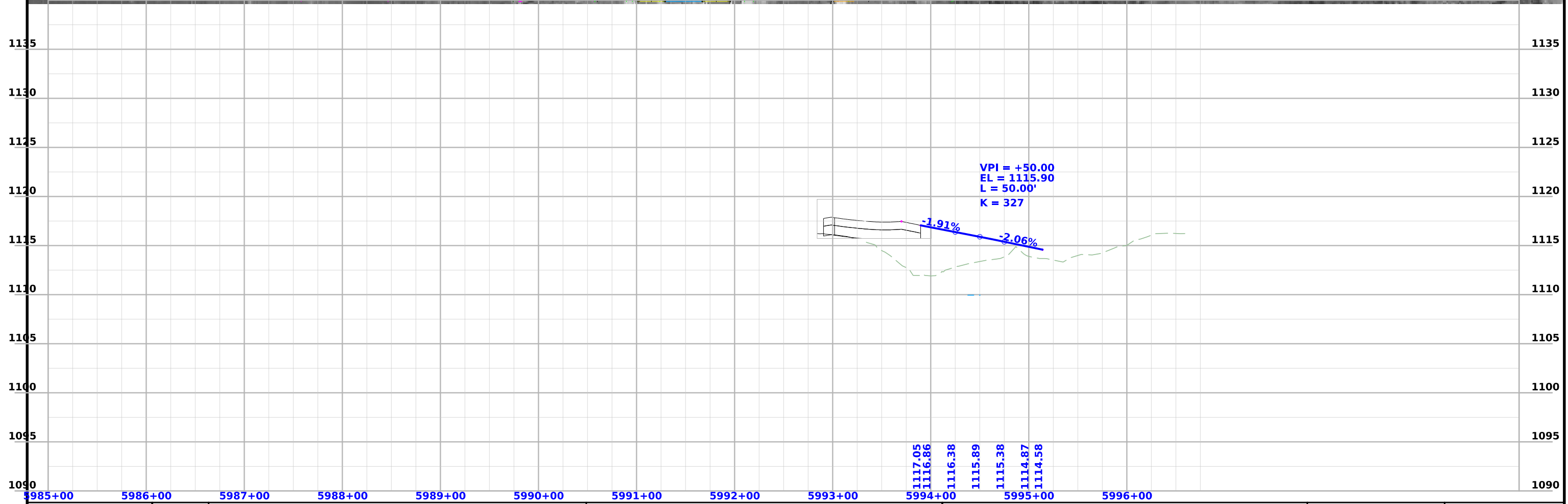
Southbound
Crown Flair Drive
(SR30SB_1)

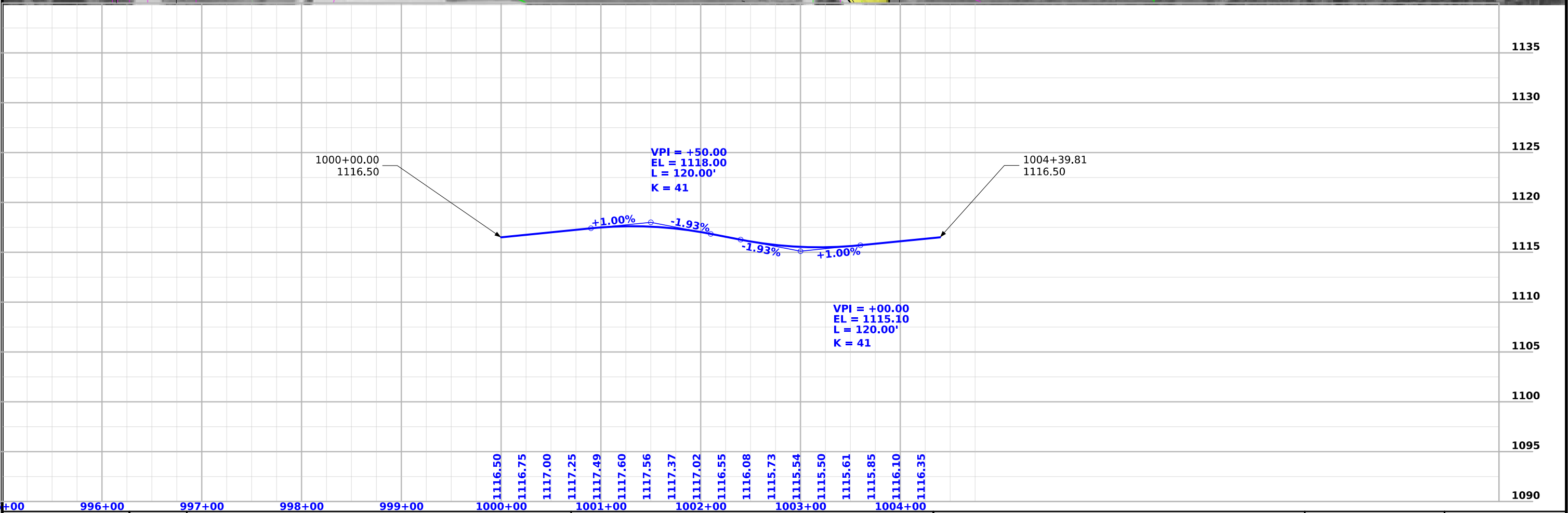
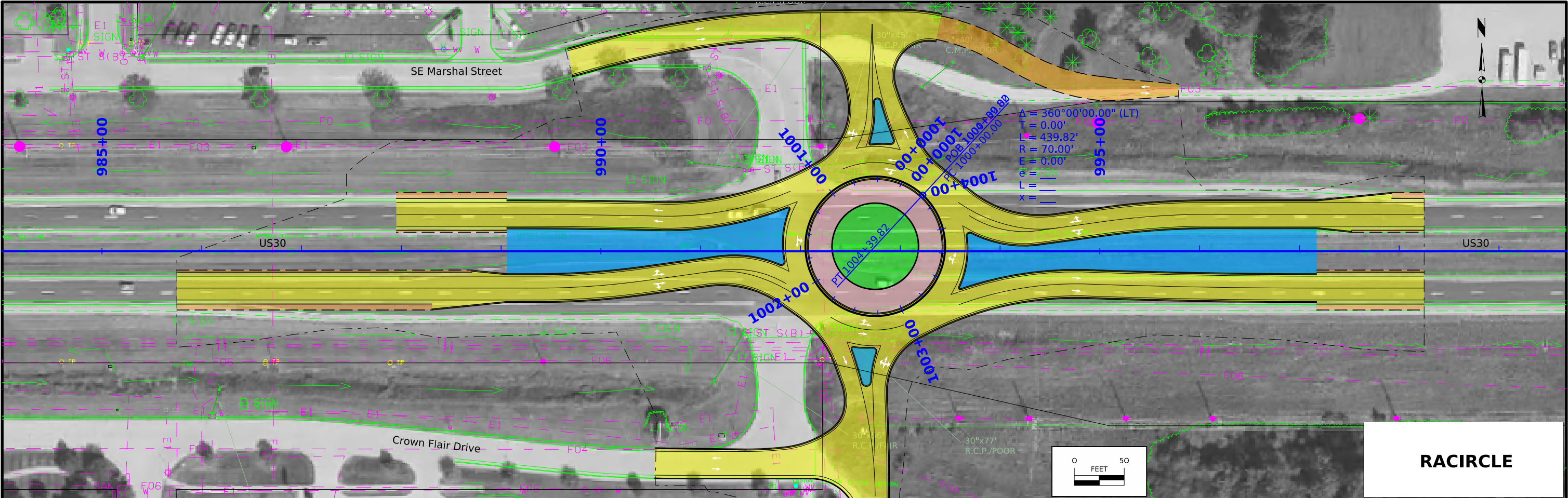


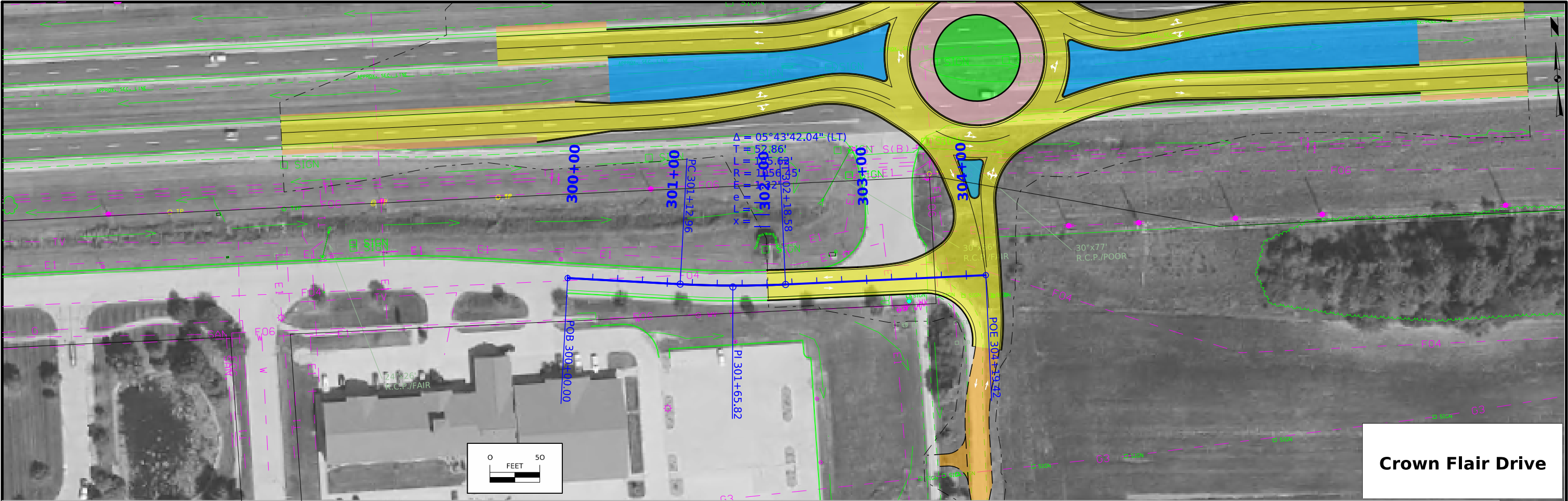




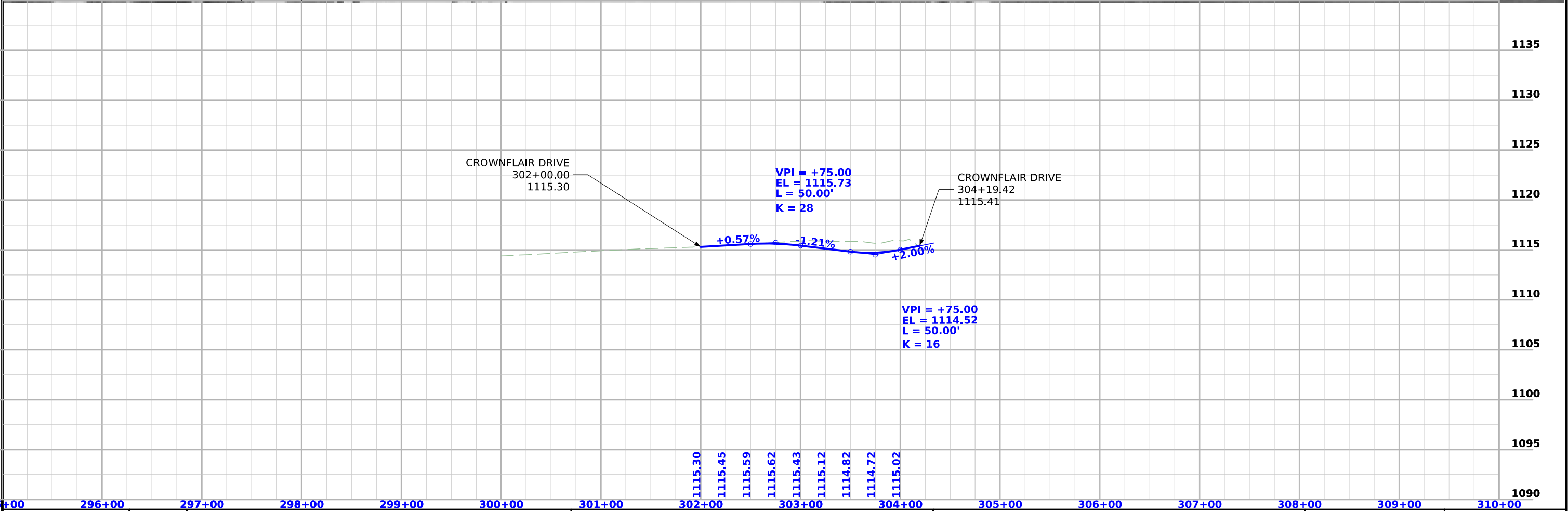
Southbound
Marshall Street
(SR30SB_2)

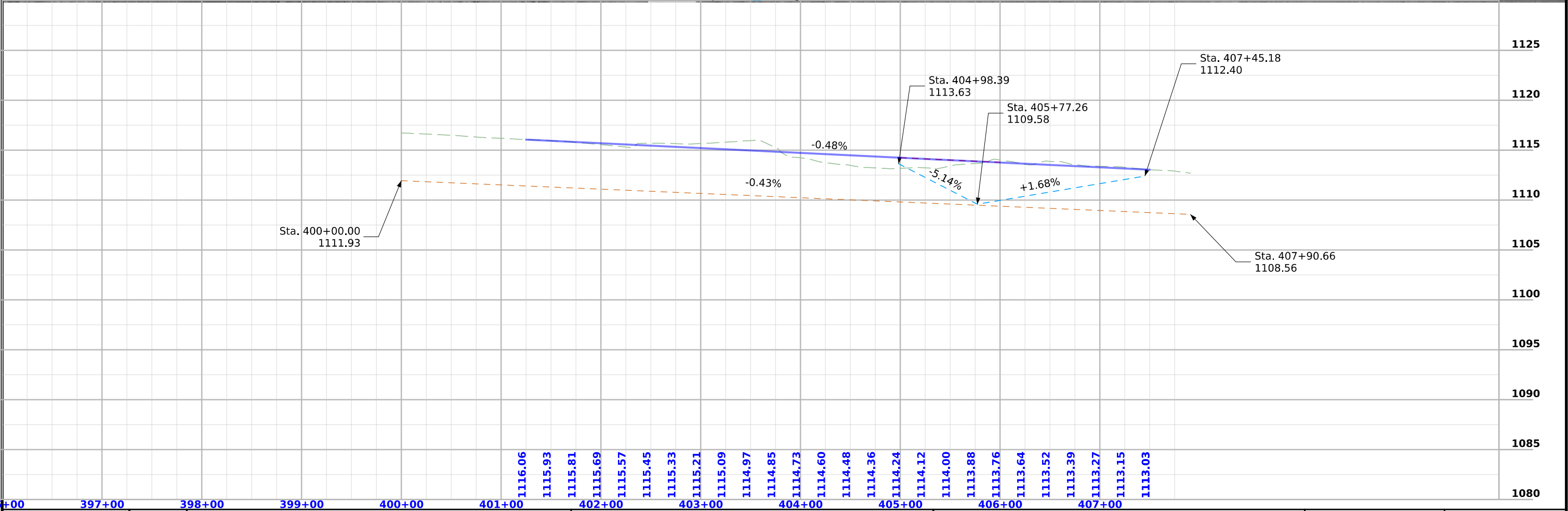
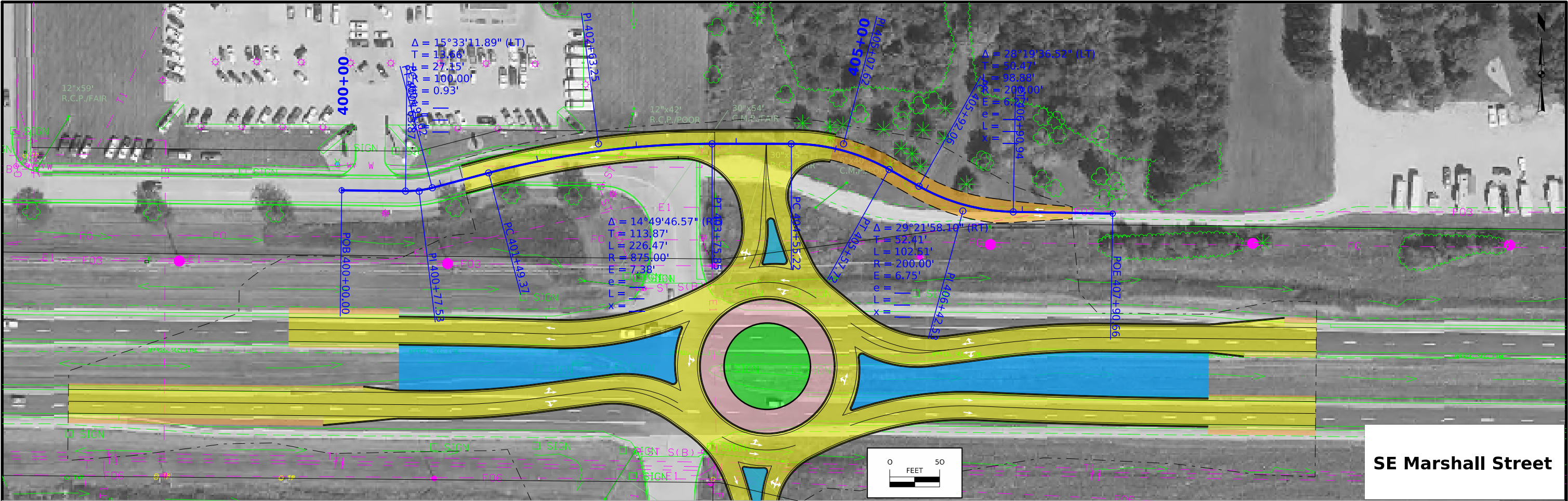






Crown Flair Drive





Survey Information

SURVEY INDEX

County: Boone
PIN: 21-51-034-010
Project Number: NHSN-030-4(116)--2R-08
Location: US 30 from 0.2 miles E. of S. Story St. to Quill Ave.
Type of Work: Partial DTM Survey
Project Directory: 0803002024

Survey Personnel

Tom Hoyle – Lead Survey Technician
Brad Duffy – Survey Technician
Max Phillips - Survey Technician
Dave Ciskowski – Survey Technician

Date(s) of Survey

Begin Date 03/28/2024
End Date 05/23/2024

General Information

This survey is for US Hwy 30 from 0.2 mi E of South Story St. to Quill Ave. This survey includes portions of SE Marshall St. and Crown Flair Drive. This project is a Partial Field DTM, Project Control, Post Flight Photo control and SUE QLD.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Between three and five (300 epoch) five-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values.

A double run level loop was run through control points 1-4. The RTN derived elevations of control points 1 - 4 were held fixed. The estimated standard error of the observed height differences from the network adjustment was 0.0157 ft/mile.

NGS mark GSVS 080 (DP4534), CP4 was tied it's record orthometric height of 1109.56 is 0.034' lower than the elevation derived by this survey of 1109.594. NGS mark GSVS 081 (DP4535) was leveled through its record orthometric height of 1113.48 is 0.011' lower than the elevation derived by this survey of 1113.491. NGS mark GSVS 082 (DP4536), CP1 was tied it's record orthometric height of 1139.78 is 0.028' lower than the elevation derived by this survey of 1139.808. Due to the proximity of NGS mark GSVS 081 (DP4535) to a tree it was not used as a primary control point on this project.

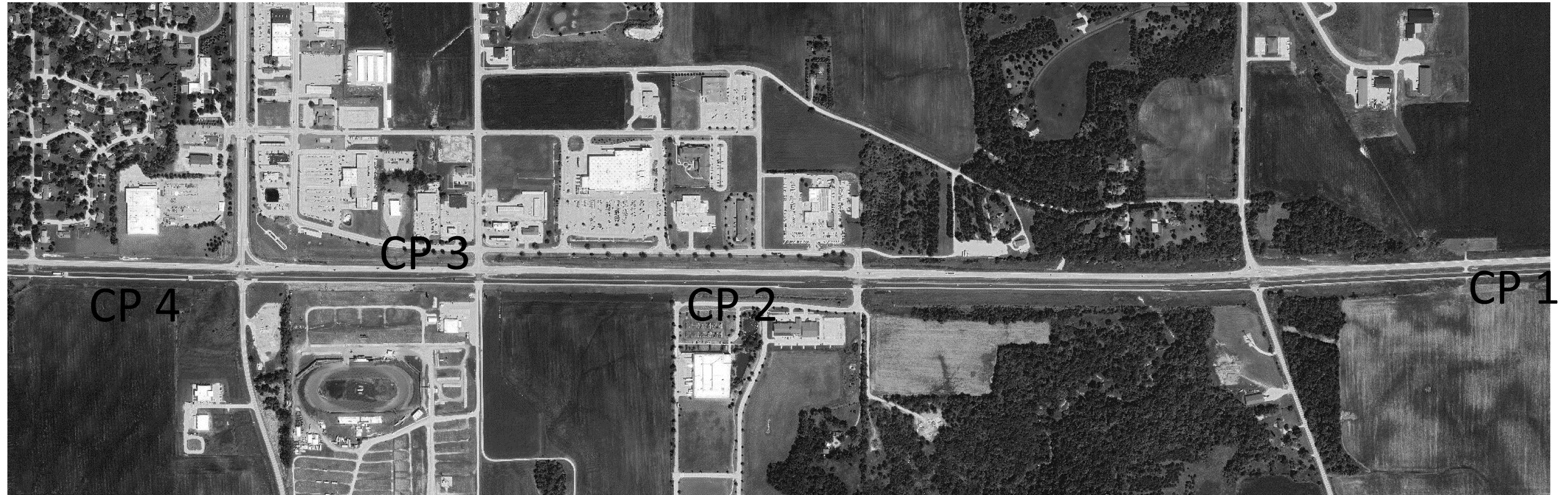
PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 8
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018

Alignment Information

No alignment requested.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 08 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 08 (U.S. Survey Foot)
VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Code-Description
CP1	7650237.6520	18464179.2860	1139.81	CP FOUND NGS STATION GSVS 082 0.27 MILES E OF QUILL AVE. 69.2' S OF THE CL OF US 30 EB LANES 140' E OF AN ELEC BOW WITH METER 69' W OF A PP 12' N OF A WITNESS POST.
CP2	7650126.9530	18458761.6880	1113.21	FENO SET FENO MONUMENT FLUSH WITH GOUND SURFACE 0.6 MILES EAST SOUTH STORY ST. 120' SOUTH OF THE CL OF THE US 30 EB LANES 78.7' SE OF A PP 36.5' E OF A LIGHT POLE 7.2' N OF CROWN FLAIR DR BACK OF CURB.
CP3	7650481.0610	18456632.8400	1109.03	FENO SET FENO MONUMENT FLUSH WITH GROUND SURFACE 0.2 MILES EAST SOUTH STORY ST. 139' NORTH OF THE CL OF THE US 30 WB LANES 161.3' NW OF A PP 33.2' S OF A MH LID ON AN INLET 28.6' S OF SE MARSHALL ST. BACK OF CURB.
CP4	7650241.0810	18454626.3000	1109.59	CP FOUND NGS STATION GSVS 080 0.2 MILES WEST SOUTH STORY ST. 62.6' S OF THE CL OF US 30 EB LANES 73' WNW OF A PP 46.4' SE OF MP 133.70 10' N OF A WITNESS POST.

ALIGNMENT COORDINATES																					101_16 1/17/24
Line No.	Name	Location	Poin on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting	
1.0	RACIRCLE							100000	76503+27.13	18460118.27	0+00.00			100439.823	76503+27.13	18460118.27					
1.0	CrownFlair	30000	76500+79.40	18459648.01																	
1.0	RETB							2000	76504+24.41	18460043.94	2026.644	76503+98.09	18460048.07	2050.148	76503+77.38	18460031.31					
1.0	RETC							3000	76502+37.57	18459902.34	3039.475	76502+42.61	18459941.49	3075.194	76502+19.55	18459973.53					
1.0	RETD							4000	76501+28.72	18460080.89	4037.756	76501+66.46	18460080.09	4067.399	76501+83.52	18460113.78					
1.0	RETB_Crown							2000	76501+37.94	18460034.94	2012.286	76501+26.34	18460038.98	2024.045	76501+14.23	18460036.89					
1.0	RETC_Crown							3000	76500+43.54	18460003.51	3055.858	76500+42.95	18460059.37	3081.521	76499+88.13	18460048.65					
1.0	SE Marshall	40000	76504+52.60	18459643.75																	
1.0	SR30							90606.553	76503+55.36	18451402.59	90915.364	76503+52.35	18451711.38	91224.153	76503+55.74	18452020.18					
1.0	ML30WB_1	398275	76503+06.10	18459070.4																	
1.0	ML30EB_2	499297.15	76502+09.67	18460091.65																	
1.0	ML30EB_1	298275	76502+56.10	18459069.91																	
1.0	ML30WB_2							599335	76503+21.04	18460130.6	599399.739	76502+70.25	18460170.73	599452.843	76502+78.45	18460234.95					
1.0	SR30	998625	76496+24.78	18460049.68																	
1.0	SR30SB_1	398625	76496+24.78	18460049.68																	
1.0	SR30NB_1	299068.26	76500+66.21	18460067.71																	
1.0	SR30NB_2							499319.05	76503+16.73	18460127.29	499361.324	76503+51.23	18460102.87	499403.045	76503+91.14	18460088.93					
1.0	SR30SB_2							599334.33	76503+32.42	18460028.33	599384.093	76503+62.15	18460068.24	599426.68	76504+11.92	18460068.58					
1.0	RETA							1000	76503+07.17	18460250.56	1047.029	76503+01.20	18460203.91	1088.883	76503+30.81	18460167.37					
2.0	SR30SB_2	599659.191	76506+44.42	18460070.2																	
2.0	SR30NB_1							299136.013	76501+33.94	18460066.28	299190.07	76501+87.99	18460065.13	299235.127	76502+18.55	18460109.72					
2.0	SR30SB_1							398901.926	76499+01.70	18460049.13	398928.672	76499+28.45	18460049.07	398955.103	76499+54.27	18460056.05					
2.0	SR30							998901.926	76499+01.70	18460049.13	998928.672	76499+28.45	18460049.07	998955.103	76499+54.27	18460056.05					
2.0	ML30EB_1							298936.61	76502+49.61	18459731.48	298989.421	76502+49.09	18459784.29	299042.065	76502+55.83	18459836.67					
2.0	ML30EB_2							499368.522	76502+31.59	18460159.58	499431.974	76502+51.08	18460219.96	499494.074	76502+48.22	18460283.35					
2.0	ML30WB_1							398905.72	76502+99.91	18459701.09	398982.516	76502+99.16	18459777.88	399059.305	76502+96.59	18459854.64					
2.0	SE Marshall							40063.87	76504+51.80	18459707.62	40077.527	76504+51.62	18459721.27	40091.016	76504+55.12	18459734.48					
2.0	RETB_Crown							2024.045	76501+14.23	18460036.89	2037.537	76501+00.93	18460034.59	2049.622	76500+93.17	18460023.55					
2.0	RETB							2050.148	76503+77.38	18460031.31	2058.304	76503+71.04	18460026.18	2066.386	76503+66.04	18460019.73					
2.0	CrownFlair							30112.963	76500+66.92	18459760.28	30165.818	76500+61.09	18459812.82	30218.585	76500+60.52	18459865.67					
3.0	Drive CrownFlair	30419.421	76500+58.37	18460066.49																	
3.0	Drive RETB							2066.386	76503+66.04	18460019.73	2069.93	76503+63.88	18460016.93	2073.462	76503+62.13	18460013.85					
3.0	RETD							4075.21	76501+87.04	18460120.75	4160.559	76502+25.59	18460196.89	4242.138	76502+21.75	18460282.16					
3.0	RETC							3096.284	76502+07.23	18459990.64	3129.443	76501+87.86	18460017.55	3160.52	76501+56.54	18460028.46					
3.0	RETB_Crown							2049.622	76500+93.17	18460023.55	2075.234	76500+78.45	18460002.6	2099.715	76500+75.92	18459977.11					
3.0	ML30WB_1							399059.305	76502+96.59	18459854.64	399124.437	76502+94.41	18459919.73	399187.881	76503+17.38	18459980.68					
3.0	ML30							92308.116	76503+67.63	18453104.07	92608.207	76503+70.93	18453404.15	92908.235	76503+63.54	18453704.15					
3.0	ML30EB_2							499494.074	76502+48.22	18460283.35	499608.513	76502+43.07	18460397.67	499722.927	76502+41.95	18460512.11					
3.0	ML30WB_2							599519.424	76502+86.89	18460300.99	599571.932	76502+93.55	18460353.08	599624.277	76502+93.03	18460405.59					
3.0	SR30NB_2							499411.543	76503+99.17	18460086.13	499462.998	76504+47.75	18460069.17	499513.461	76504+99.20	18460069.37					
3.0	RETA							1129.277	76503+56.24	18460135.98	1146.369	76503+67.00	18460122.7	1162.887	76503+82.45	18460115.4					
4.0	SR30NB_2	499582.677	76505+68.42	18460069.63																	
4.0	SR30							998972.652	76499+71.21	18460060.63	998998.826	76499+96.48	18460067.45	999024.705	76500+22.65	18460067.55					
4.0	SR30SB_1							398972.652	76499+71.21	18460060.63	398998.826	76499+96.48	18460067.45	399024.705	76500+22.65	18460067.55					
4.0	ML30WB_2	599839.026	76502+90.89	18460620.32																	
4.0	ML30EB_1							299118.667	76502+65.62	18459912.65	299175.513	76502+72.88	18459969.03	299224.194	76502+32.35	18460008.89					
4.0	ML30EB_2	500305.657	76502+36.23	18461094.81																	
4.0	ML30WB_1	399257.119	76503+41.79	18460045.47																	
4.0	RETB_Crown							2099.715	76500+75.92	18459977.11	2118.787	76500+74.03	18459958.13	2137.822	76500+74.24	18459939.06					
4.0	SE Marshall							40149.375</													

ALIGNMENT COORDINATES																				101_16 1/17/24
Line No.	Name	Location	Poin on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
7.0	ML30							101074.912	76502+53.63	18461869.93	101400	76502+50.44	18462195	101724.912	76502+65.75	18462519.73				
8.0	ML30	105805.433	76504+57.87	18466595.73																
8.0	SE Marshall							40592.06	76504+56.67	18460222.21	40642.532	76504+31.91	18460266.2	40690.939	76504+31.00	18460316.66				
9.0	SE Marshall	40790.66	76504+29.19	18460416.37																
Street																				
Street																				

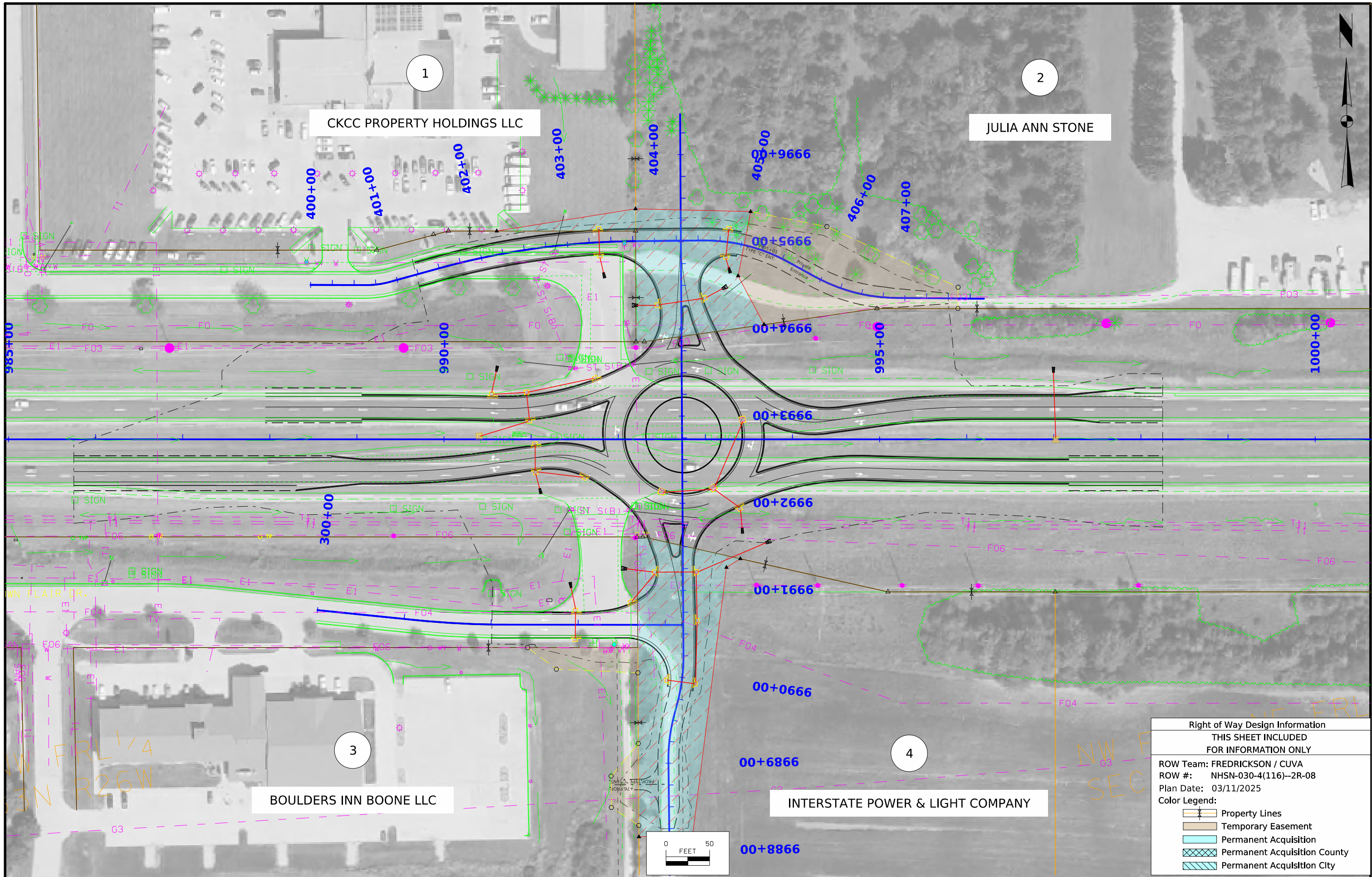
SPIRAL OR CIRCULAR CURVE DATA																	101_17 1/17/24
Line No.	Name	Location	SCS	S	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	C	T	L	R	E	Remarks
	C1	ML30										1.186	308.811	617.6	29824.175	1.599	
	C2	ML30										2.039	300.092	600.12	16864.182	2.67	
	C3	ML30										0.848	305.881	611.75	41333.989	1.132	
	C4	ML30										3.261	325.088	650	11421.359	4.626	
	C1	ML30EB_1										7.898	52.811	105.455	765	1.821	
	C2	ML30EB_1										52.806	56.846	105.527	114.5	13.335	
	C1	ML30WB_1										1.354	76.796	153.585	6500	0.454	
	C2	ML30WB_1										22.563	65.132	128.576	326.5	6.433	
	C1	ML30EB_2										20.465	63.452	125.552	351.5	5.681	
	C2	ML30EB_2										2.017	114.438	228.853	6500	1.007	
	C1	ML30WB_2										58.969	64.739	117.843	114.5	17.035	
	C2	ML30WB_2										7.853	52.509	104.853	765	1.8	
	C1	SR30										15.234	26.746	53.177	200	1.78	
	C2	SR30										14.912	26.175	52.054	200	1.706	
	C1	SR30NB_1										56.788	54.057	99.114	100	13.675	
	C1	SR30SB_1										15.234	26.746	53.177	200	1.78	
	C2	SR30SB_1										14.912	26.175	52.054	200	1.706	
	C3	SR30SB_1										19.558	78.421	155.317	455	6.709	
	C4	SR30SB_1										14.642	33.404	66.444	260	2.137	
	C1	SR30NB_2										16.042	42.274	83.995	300	2.964	
	C2	SR30NB_2										19.465	51.455	101.918	300	4.381	
	C1	SR30SB_2										52.913	49.763	92.35	100	11.698	
	C1	RETA										46.297	47.029	88.883	110	9.631	
	C2	RETA										25.677	17.092	33.611	75	1.923	
	C1	RETC										43.083	39.475	75.194	100	7.509	
	C2	RETC										35.052	33.159	64.236	105	5.111	
	C1	RETD										64.362	37.756	67.399	60	10.891	
	C2	RETD										29.429	85.349	166.928	325	11.02	
	C1	CrownFlair Drive										5.728	52.855	105.622	1056.449	1.321	
	C1	RETC_Crown										100.447	55.858	81.521	46.5	26.18	
	C1	SE Marshall										15.553	13.657	27.146	100	0.928	
	C2	SE Marshall										14.83	113.873	226.472	875	7.379	
	C3	SE Marshall										29.366	52.406	102.507	200	6.752	
	C4	SE Marshall										28.327	50.472	98.879	200	6.27	
		Street															

Boone		NHSN-030-4(116)--2R-08						Project Code		24-08-030-020									
		Linn St and SE Marshall St Intersections in Boone																	
		0803002024						Route		US 30									
		State			County			City					Temp Ease						
Parcel No	Owner Name	Fee	Ease		Fee	Ease		Fee	Ease		Excess			Mitigation	Other	Relocation Needed	A/C Only	Total Acq	
1	CKCC Property Holdings LLC							2,023.00 SF											
2	Julia Ann Stone							18,331.00 SF					19,889.00 SF						
3	Boulders Inn Boone LLC												4,968.00 SF						
4	Interstate Power and Light Company							27,841.00 SF											

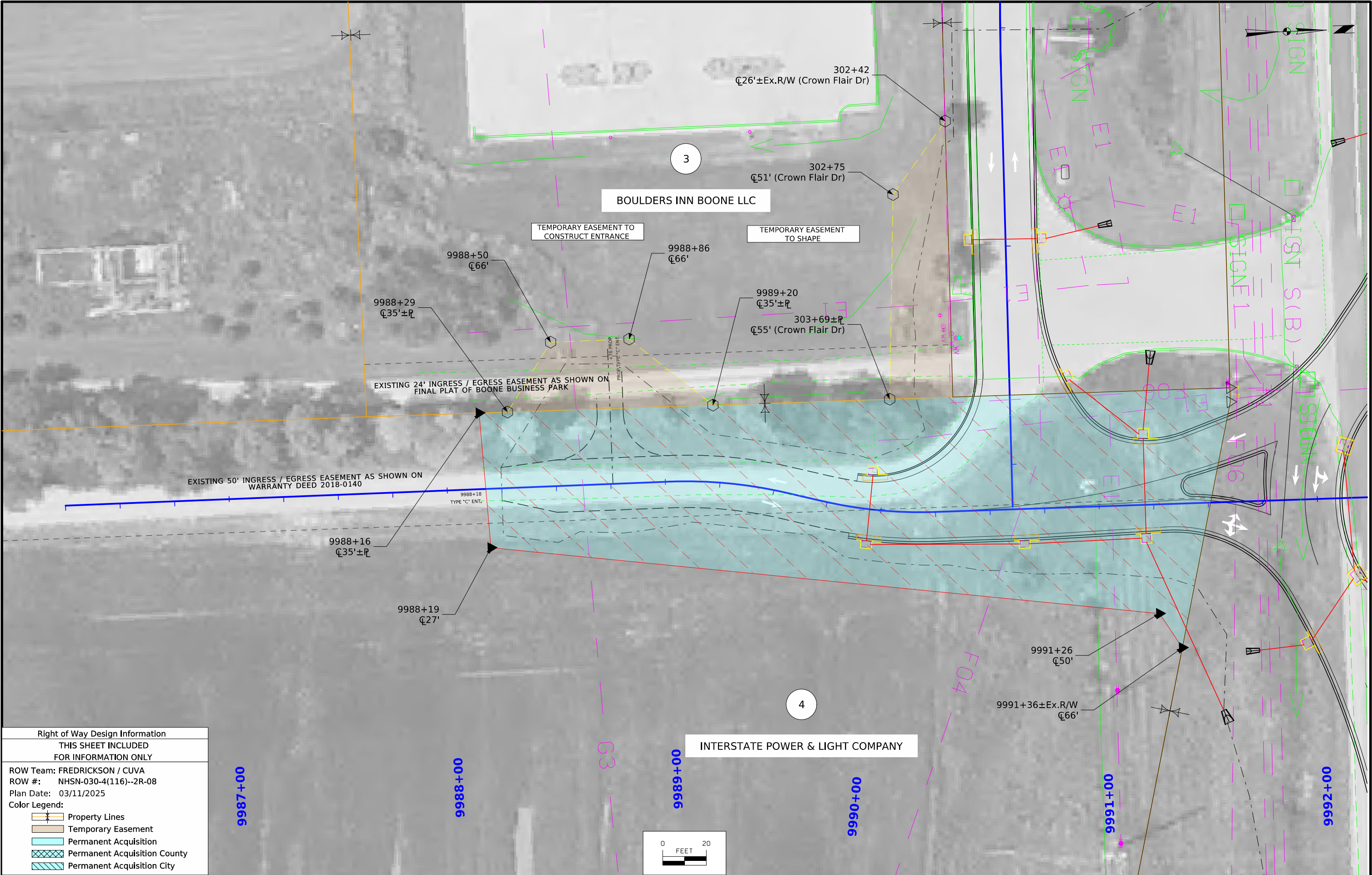
4 Parcels

NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

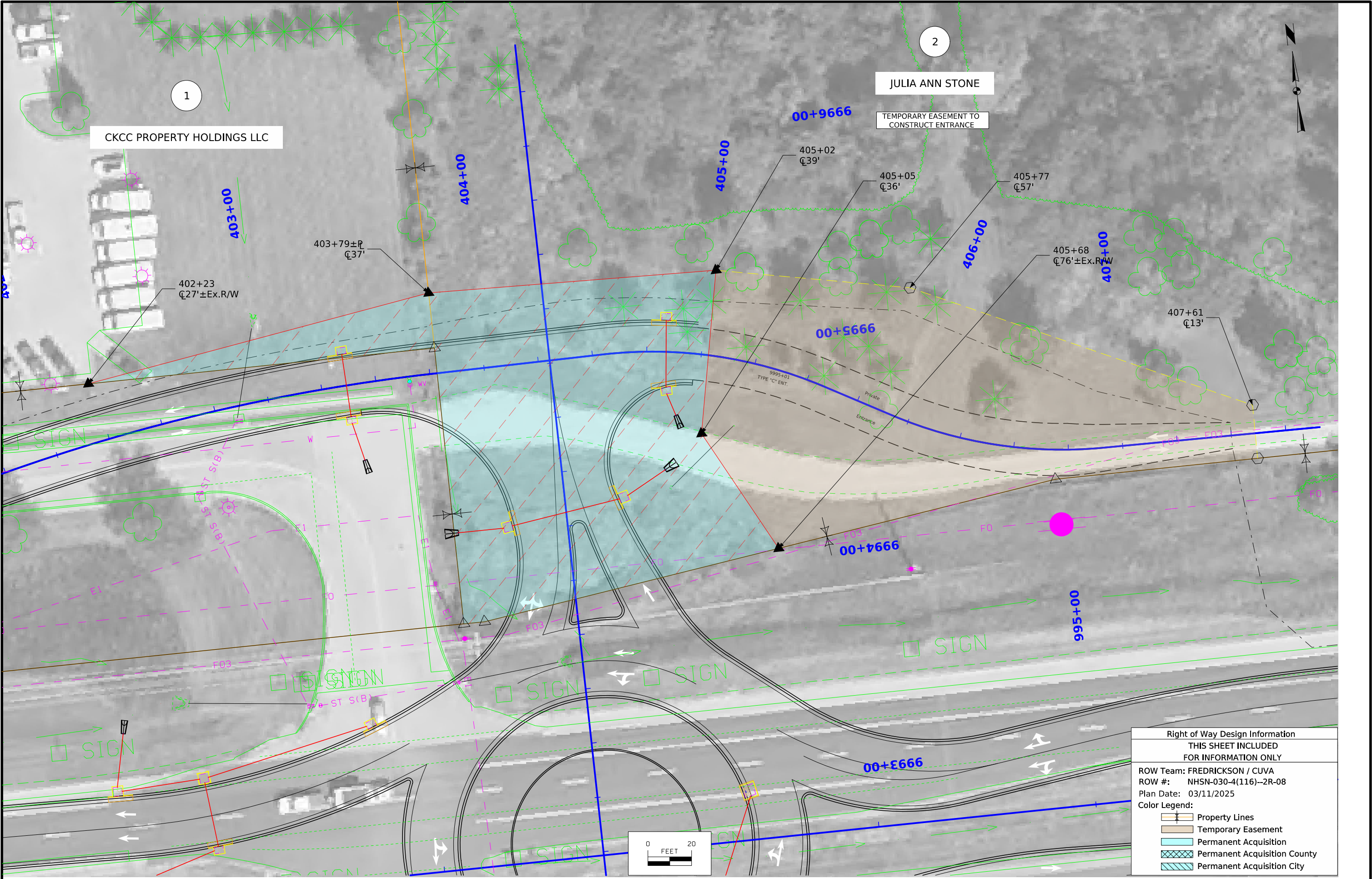
ACCESS CONTROL PREVIOUSLY ACQUIRED.



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: FREDRICKSON / CUVA	
ROW #: NHSN-030-4(116)--2R-08	
Plan Date: 03/11/2025	
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-030-4(116)--2R-08	
Plan Date: 03/11/2025	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition
	Permanent Acquisition County
	Permanent Acquisition City



TRAFFIC CONTROL PLAN		108_23A 8/15/22
Maintain a single lane of traffic on US-30 for the duration of the project. Some movements between Marshall Street, Crown Flair Drive, and US-30 will be restricted during construction. Maintain access for all property owners adjacent to the project at all times.		

511 TRAVEL RESTRICTIONS													108_25 3/28/24
Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
1.0	US 30	Both	Boone	Intersection of US30 and Marshall / Crown Flair Dr.		Traffic Control Device		Horizontal					

108_26A 8/15/22	STAGING NOTES
Staging Notes in progress.	

111_01 10/14/22 COORDINATED OPERATIONS Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.	
Project	Type of Work
NHSX-030-4(119)--3H-08	PCC Pavement - Grade and New



985+00

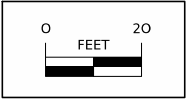
POT STA 987+95.00 25.0' LT(ML30)
= POT STA 3987+95.00 00.0' LT(ML30WB_1)

ML30WB_1

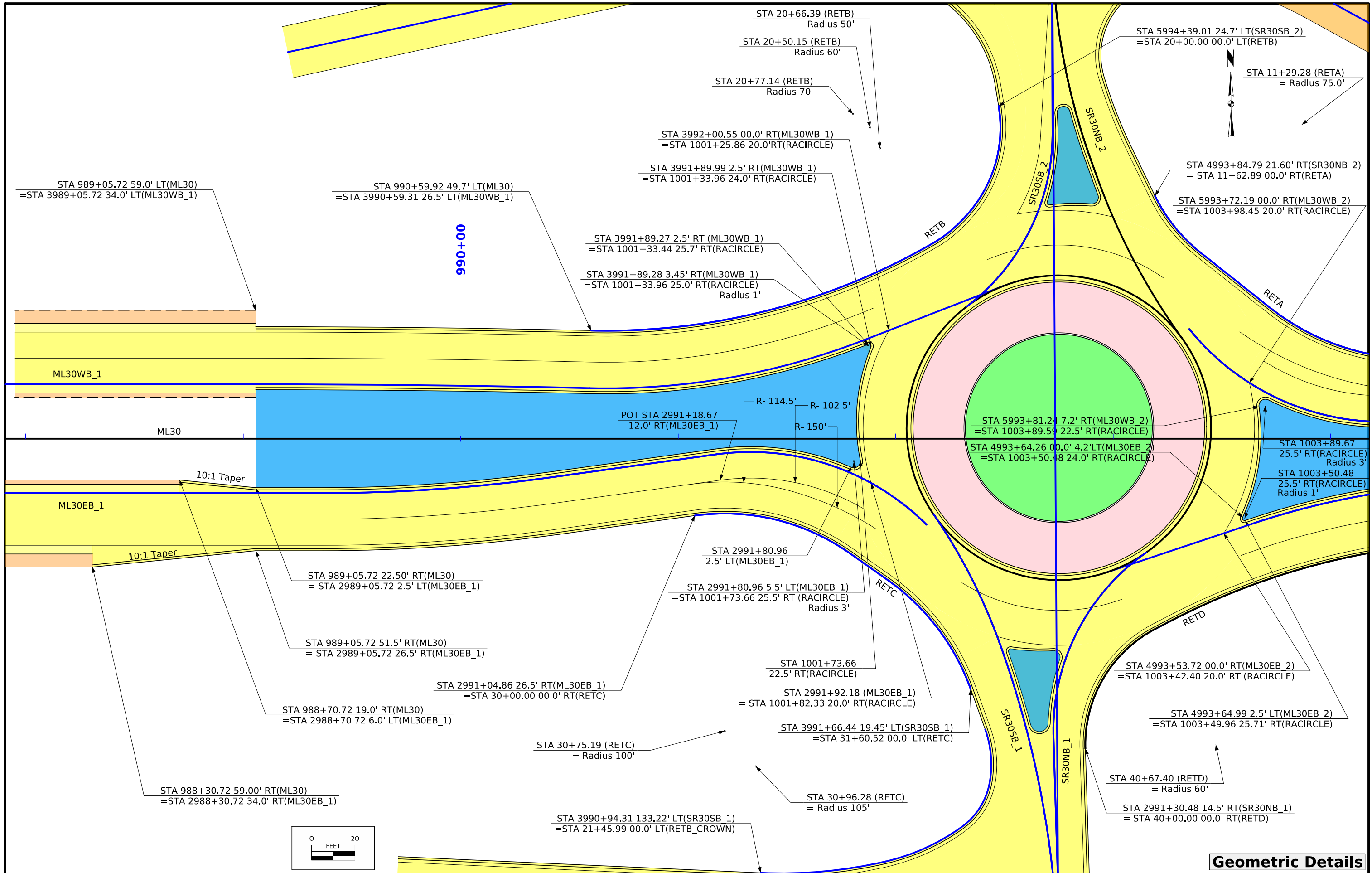
ML30

ML30EB_1

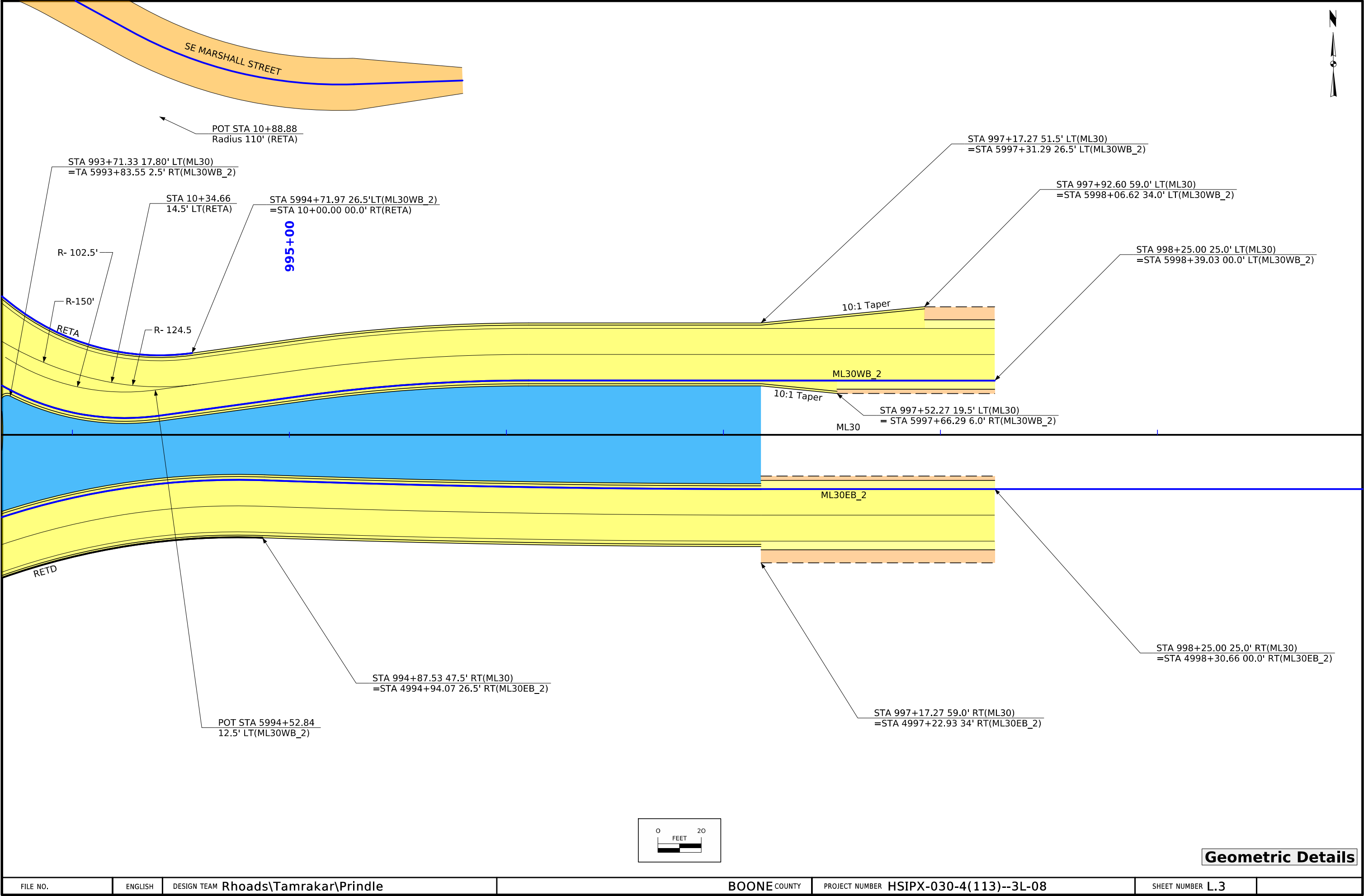
POT STA 985+75.00 25.0' RT(ML30)
= POT STA 2985+75.00 00.0' RT(ML30EB_1)

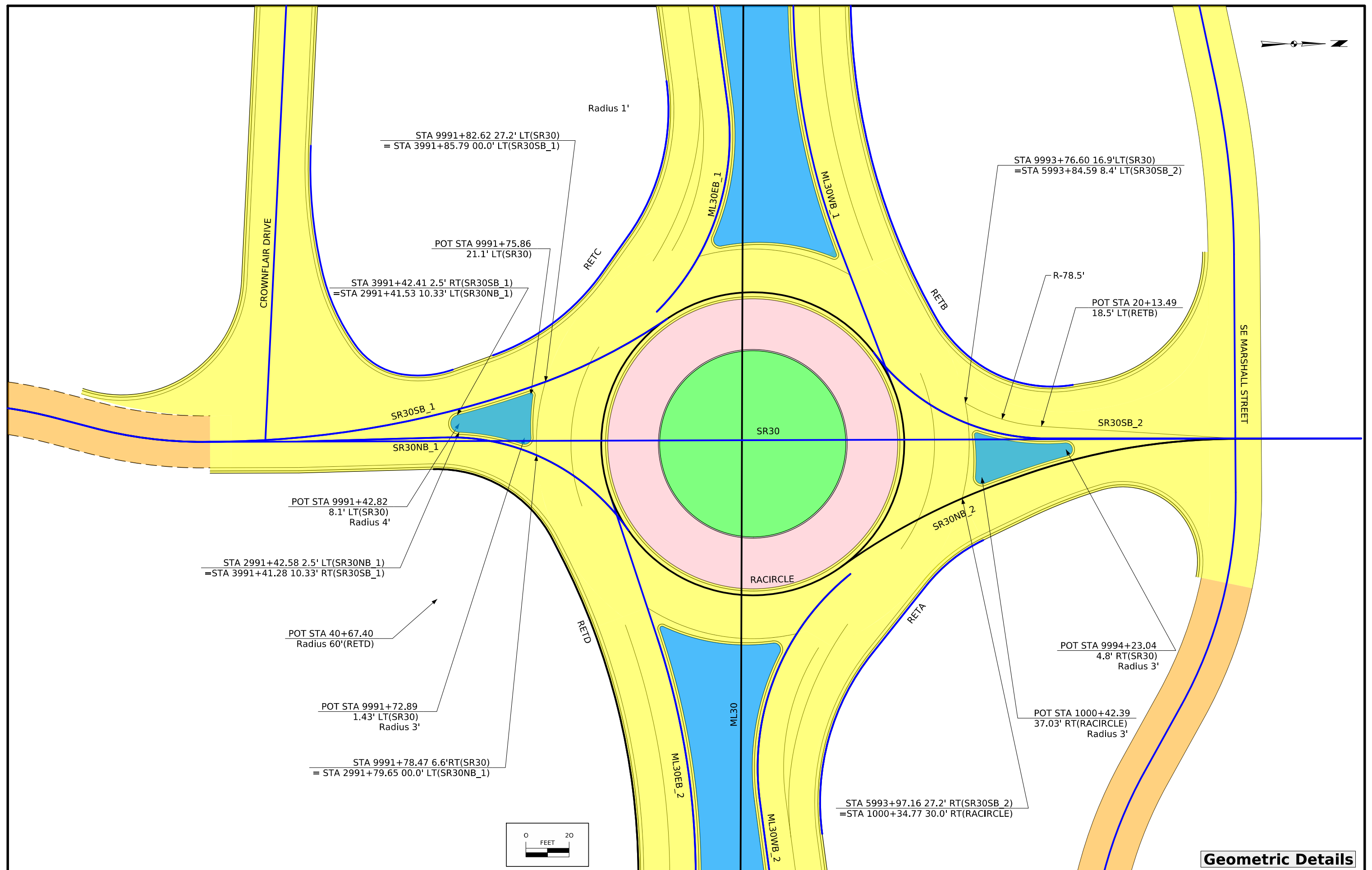


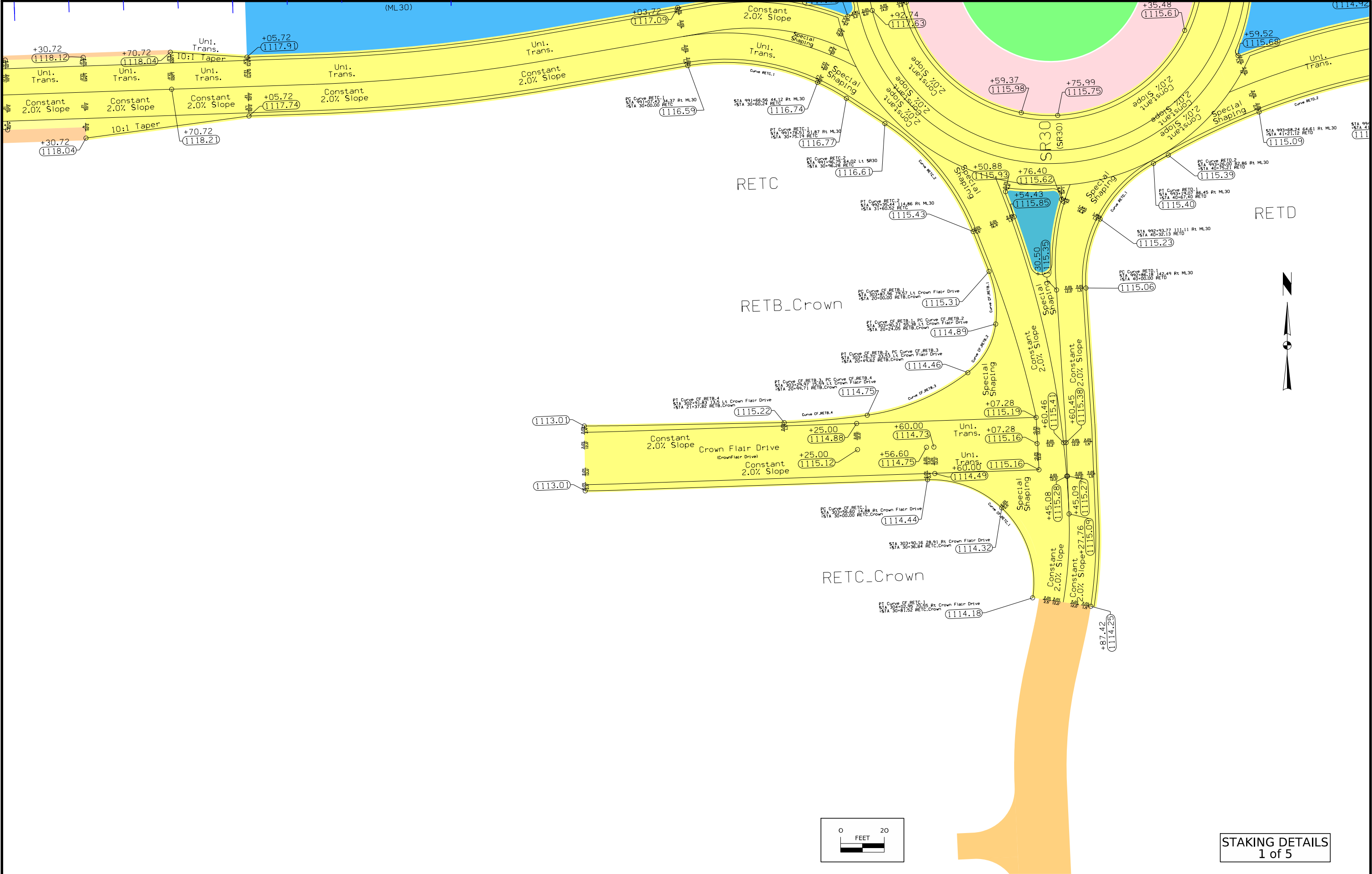
Geometric Details

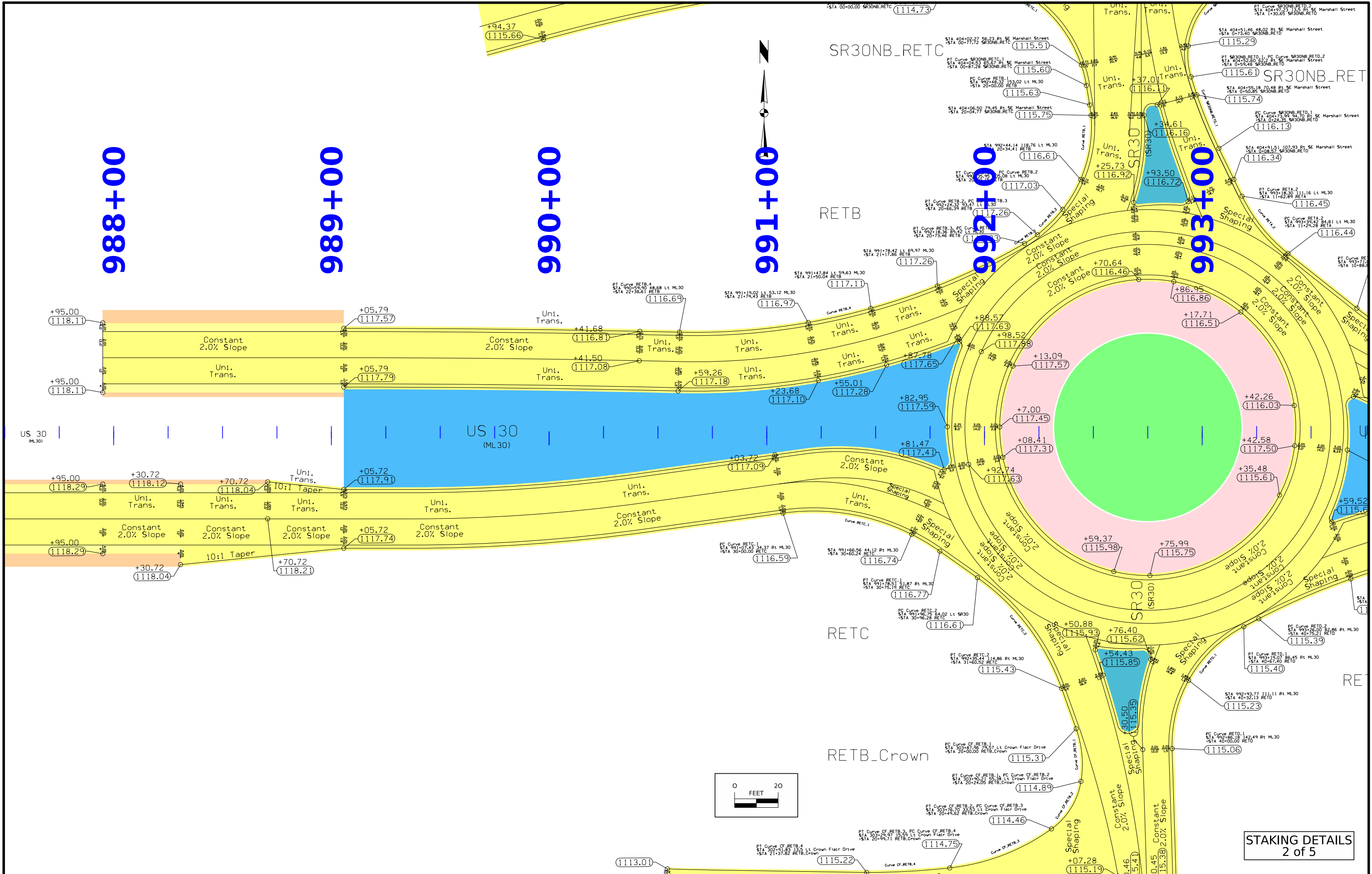


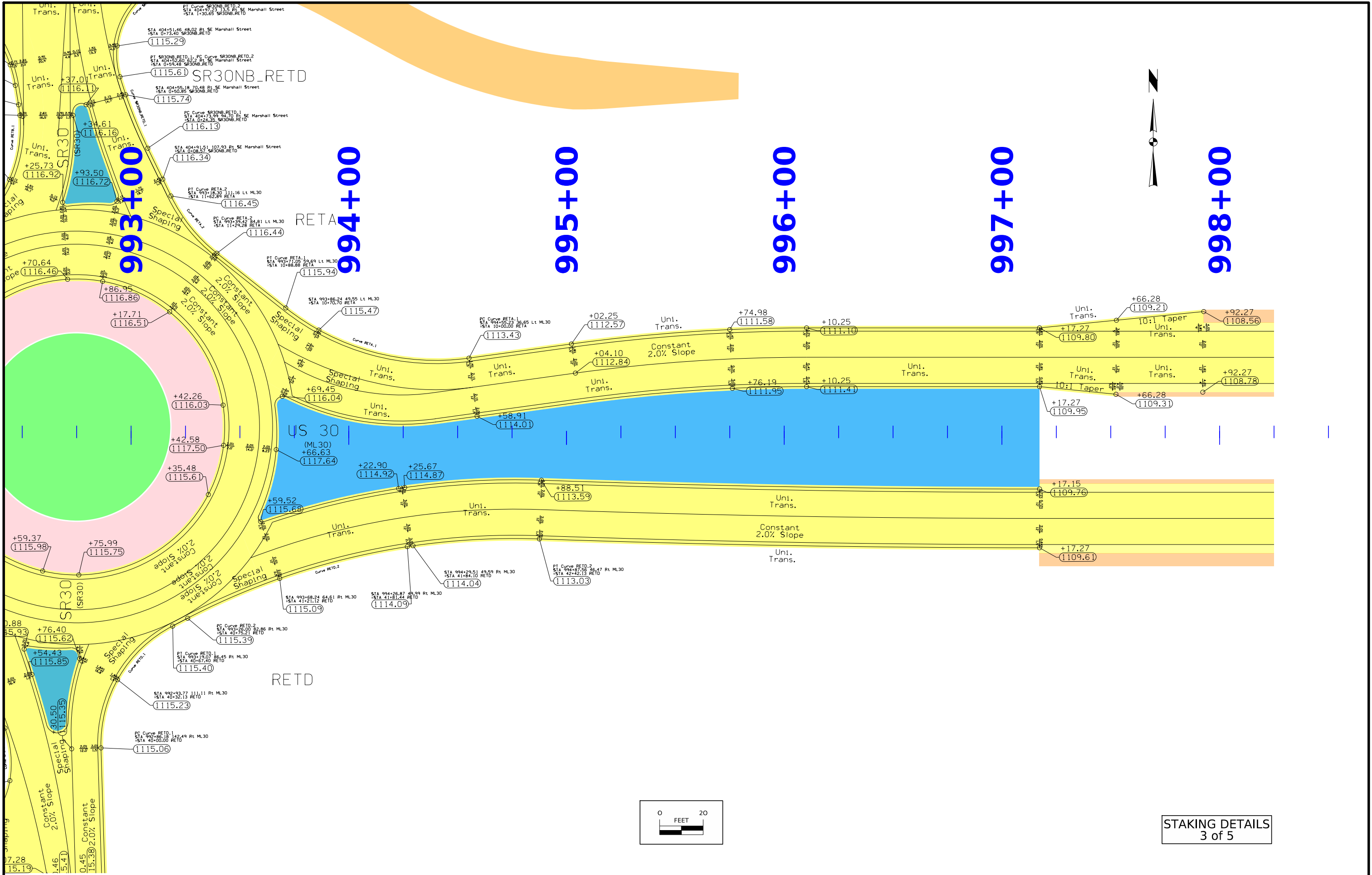
Geometric Details

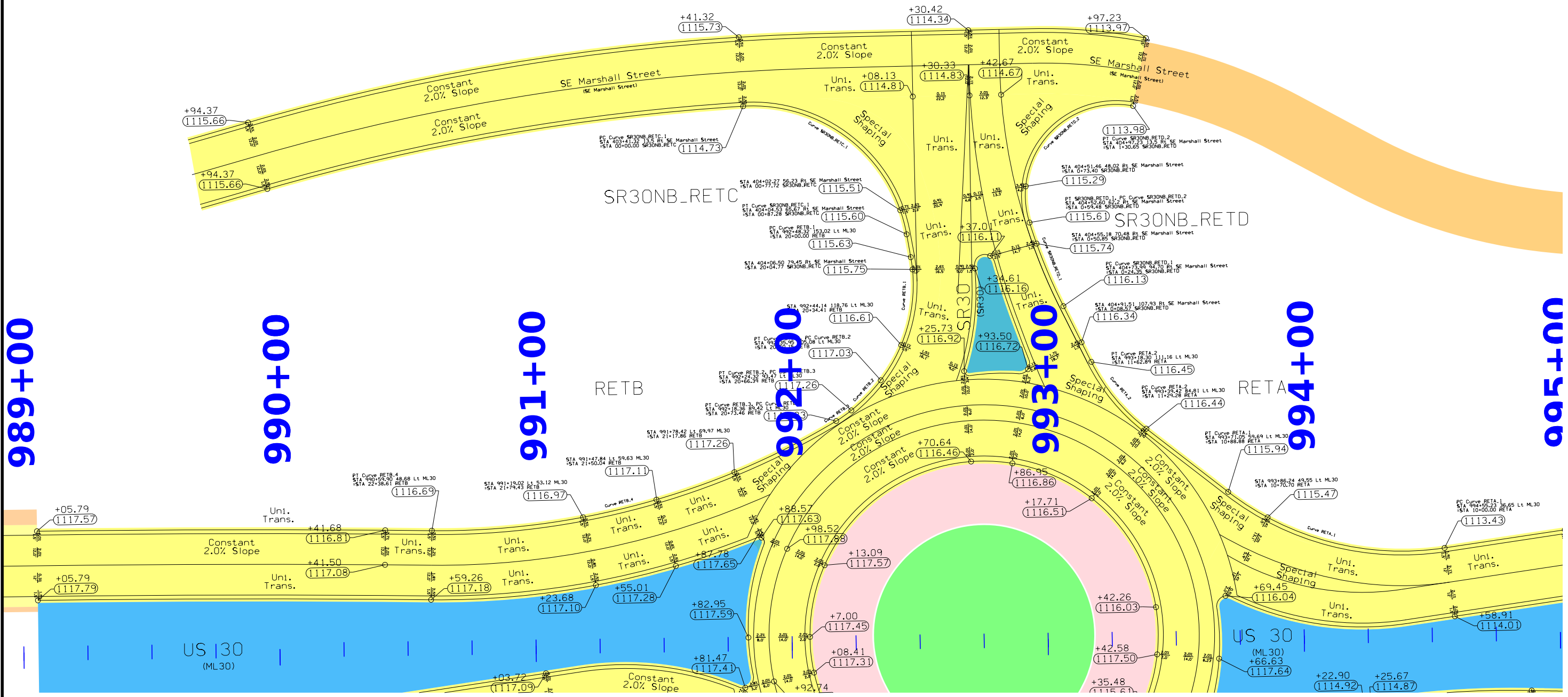
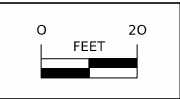


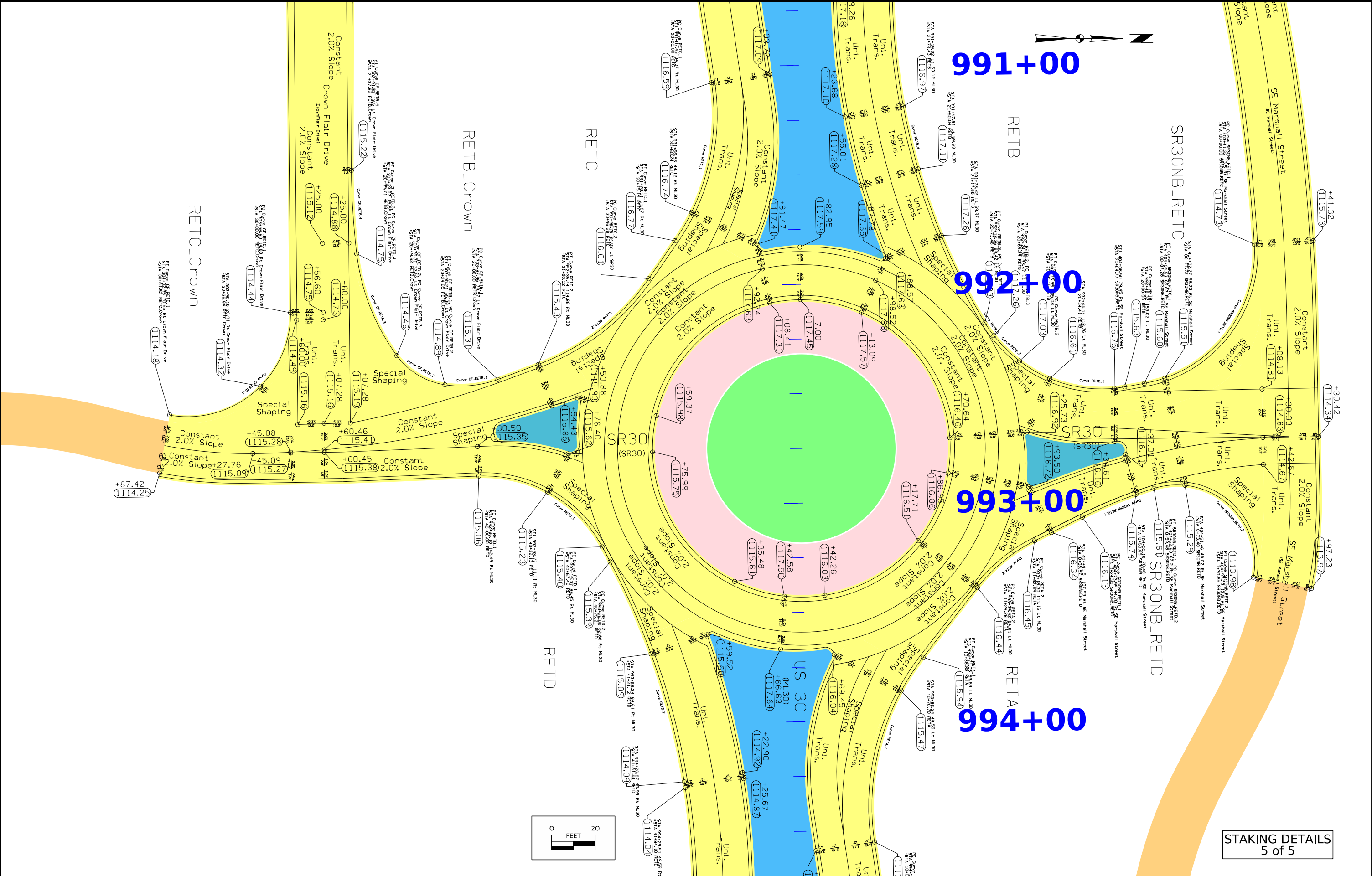


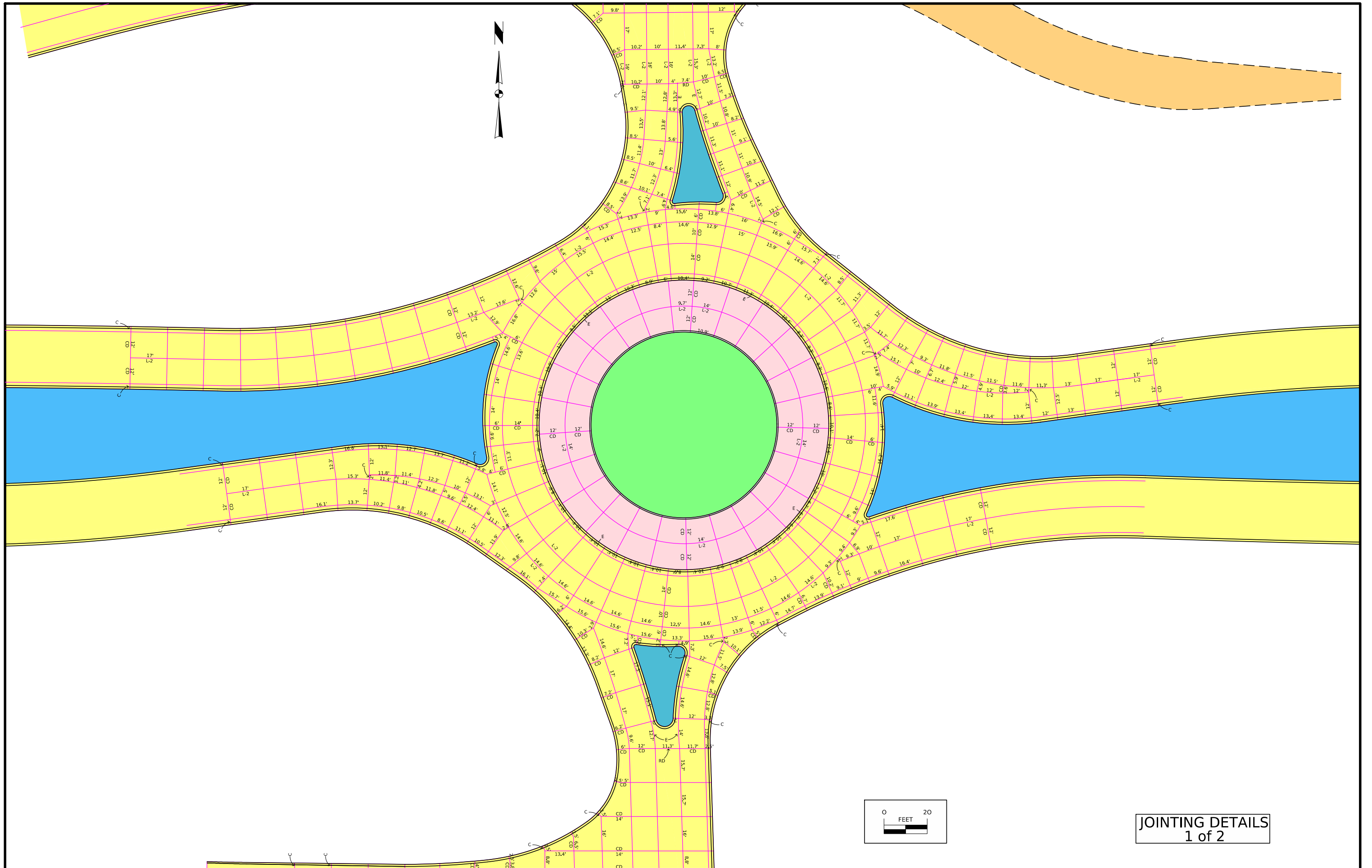


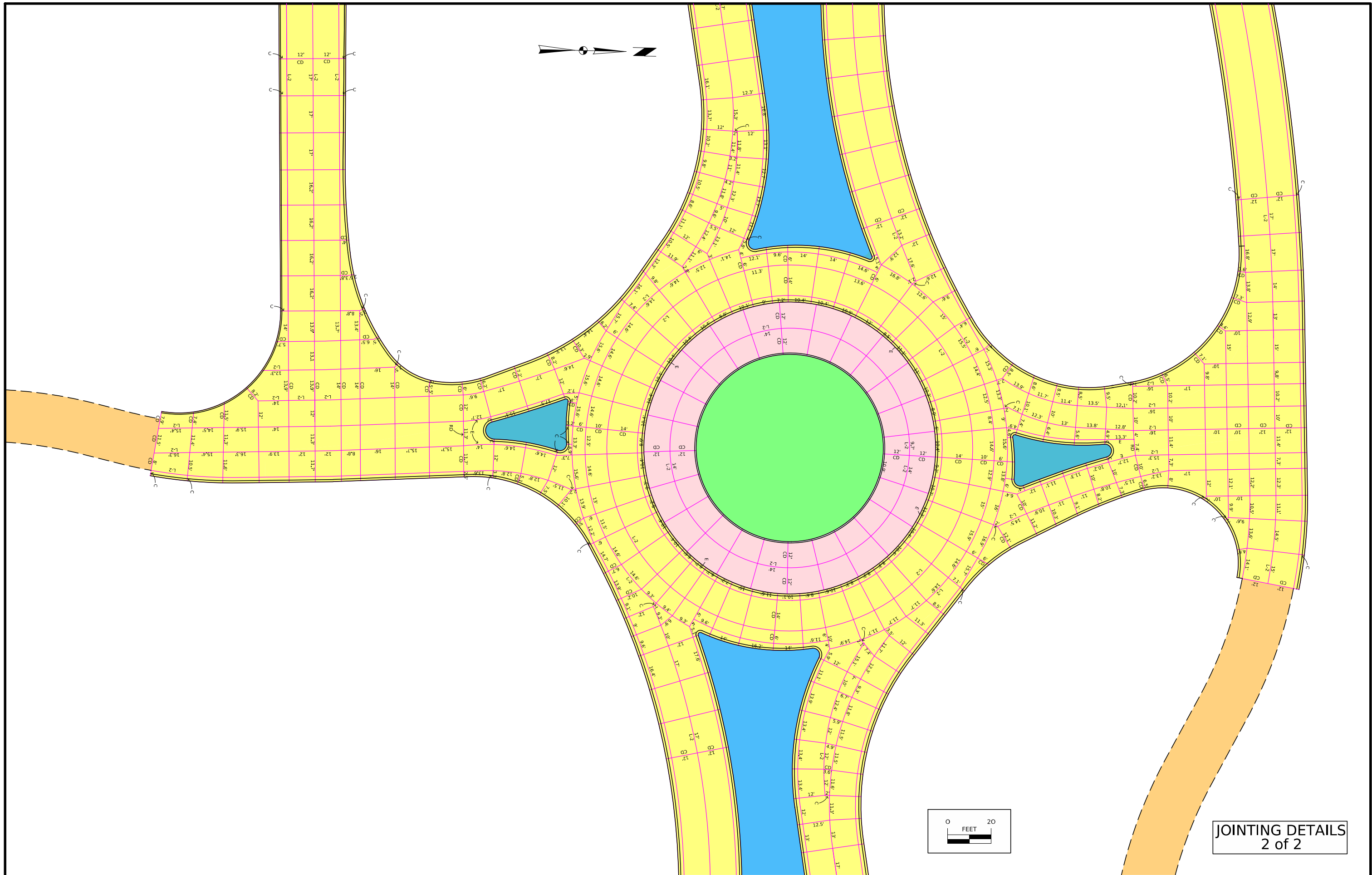


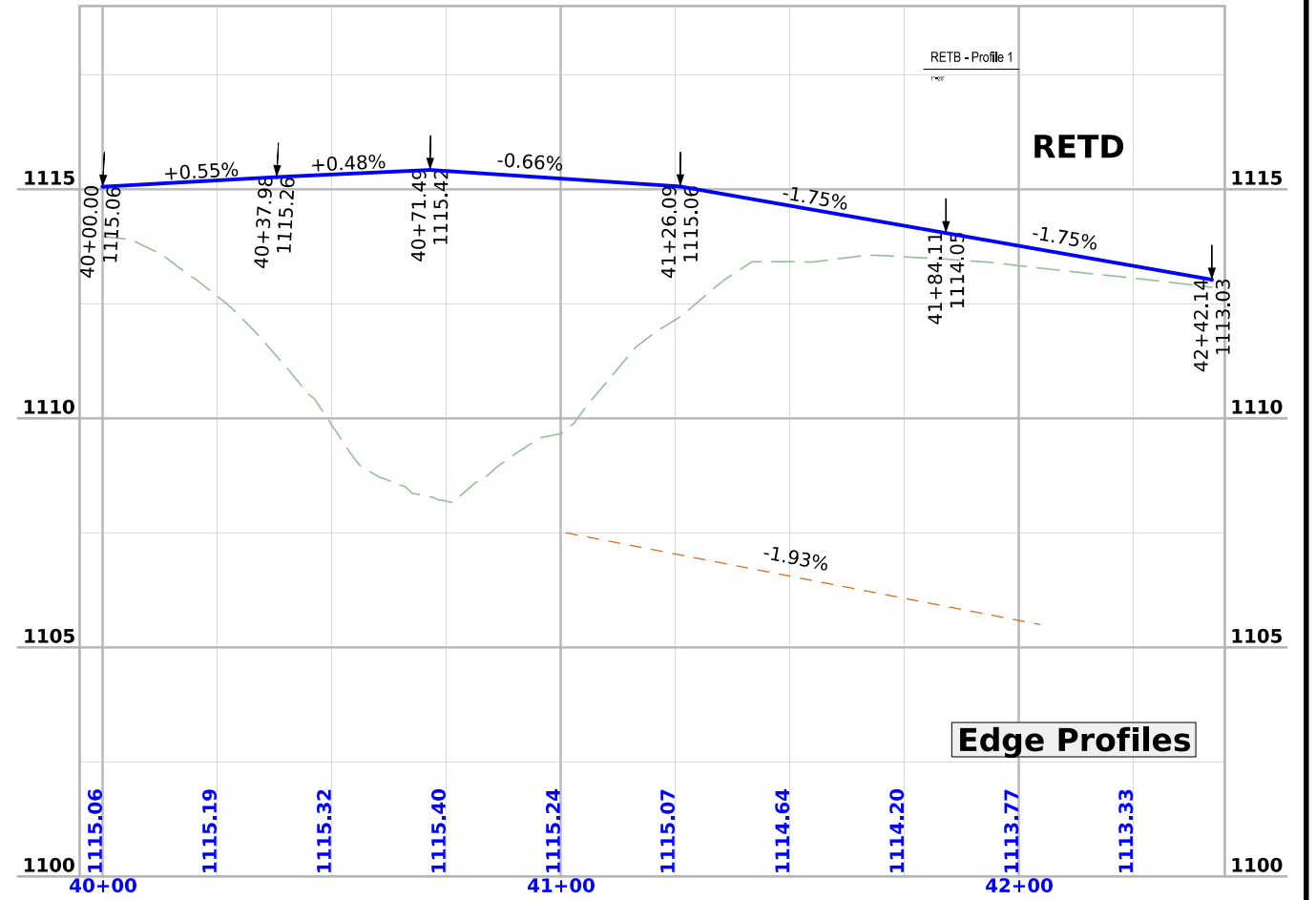
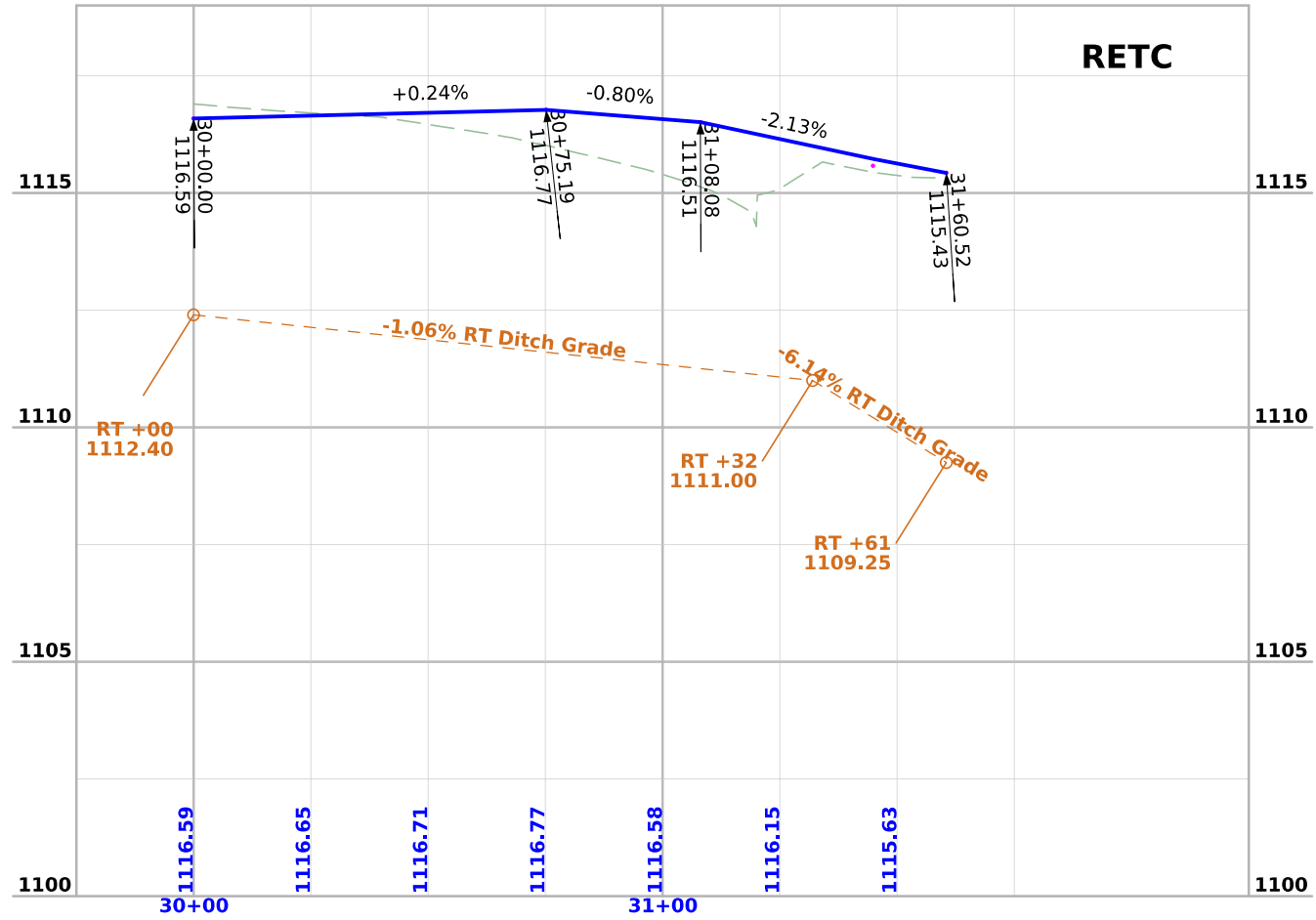
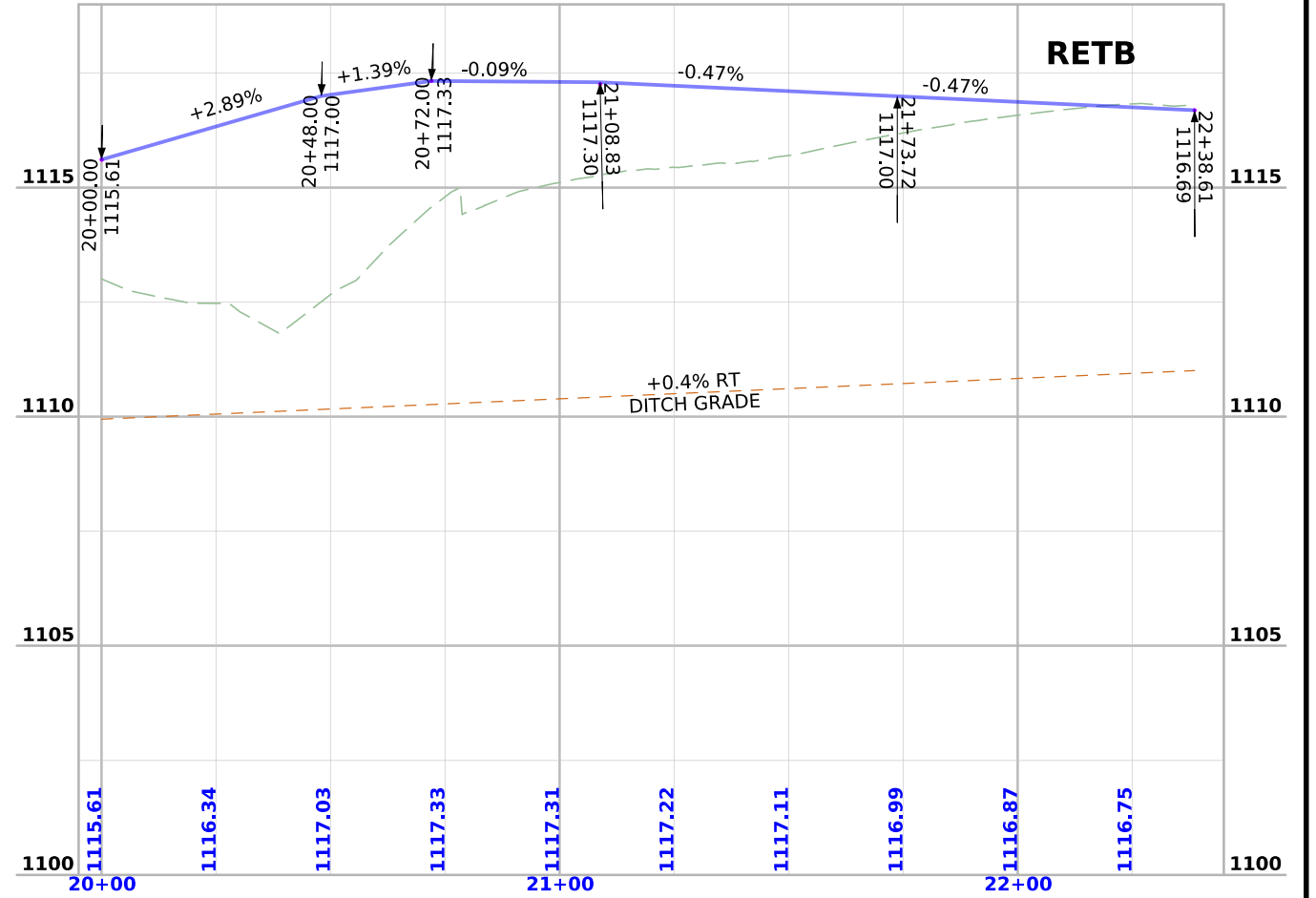
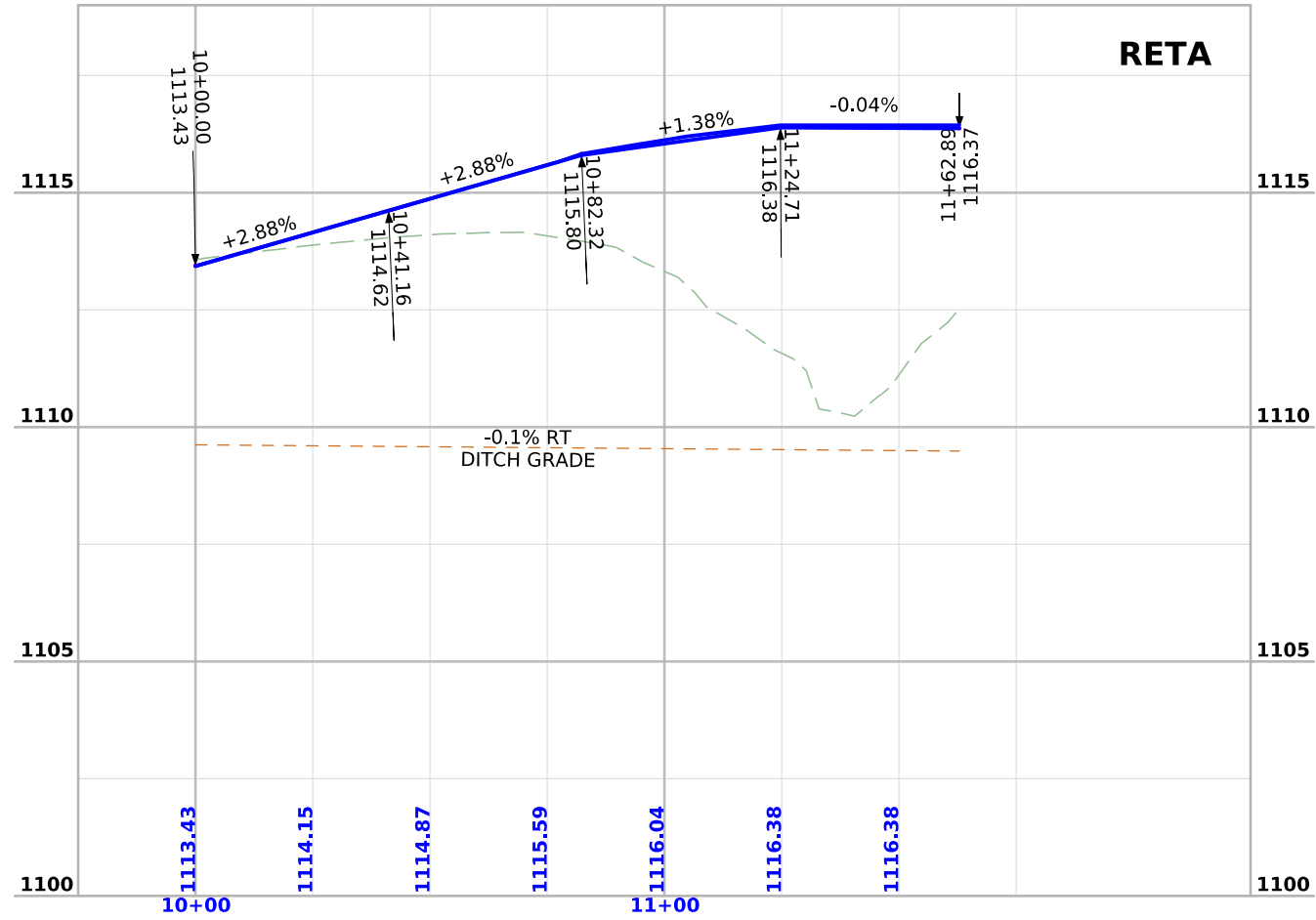


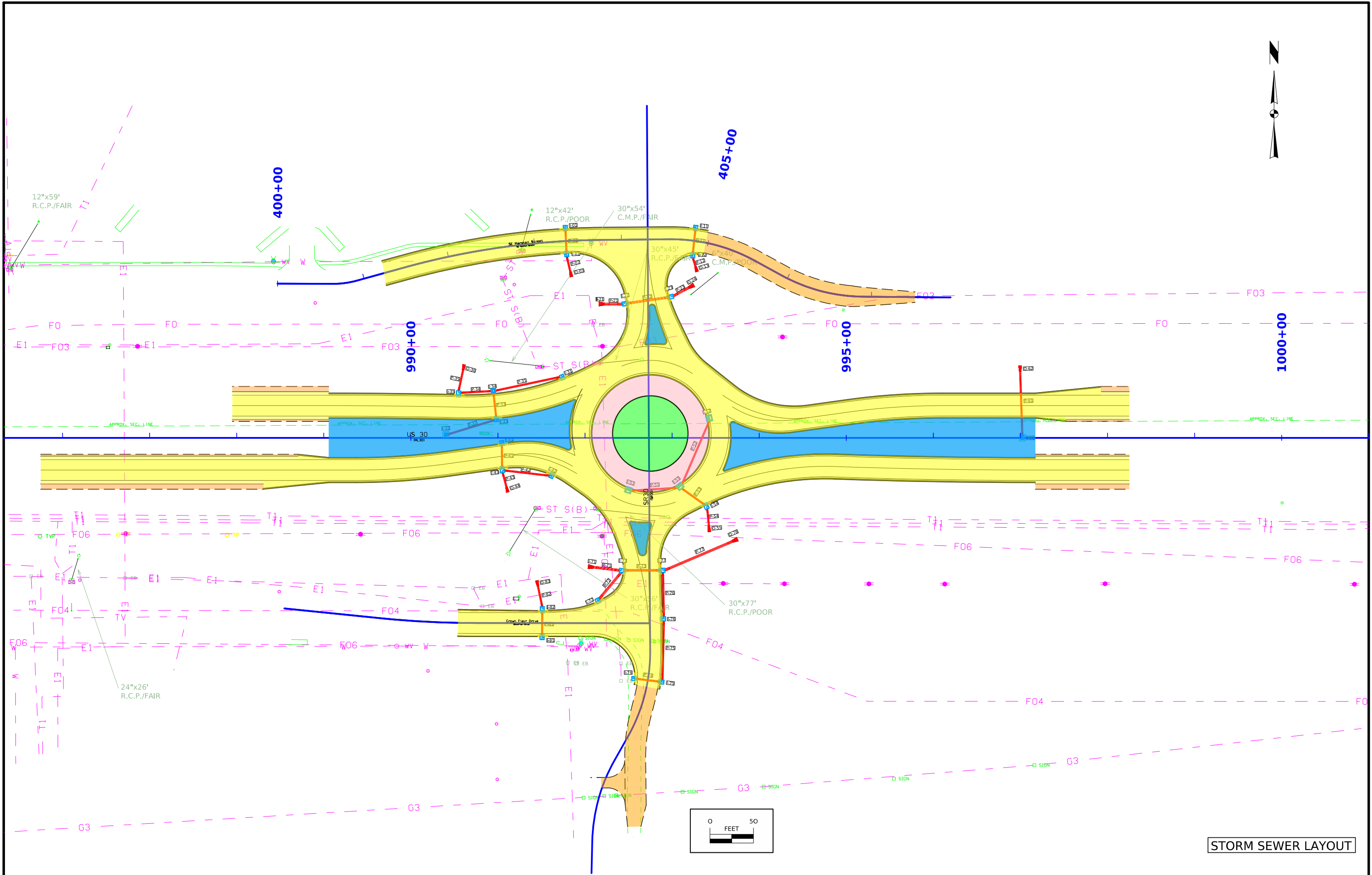




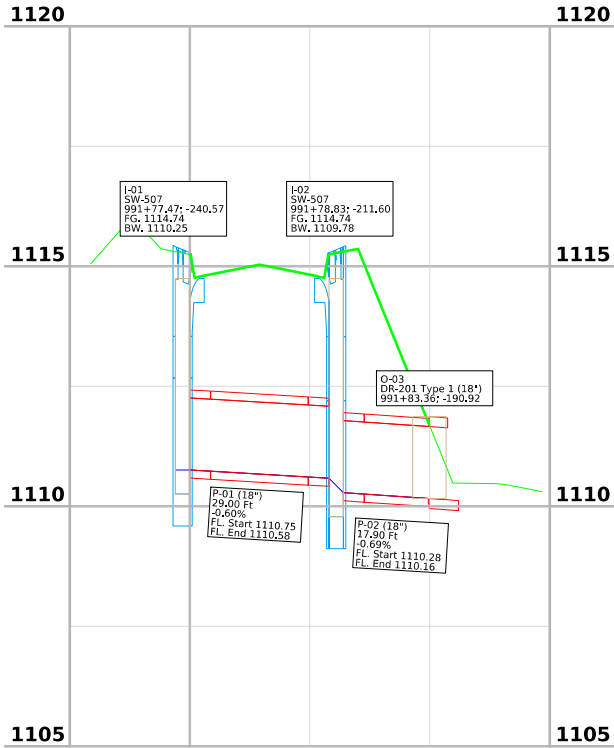




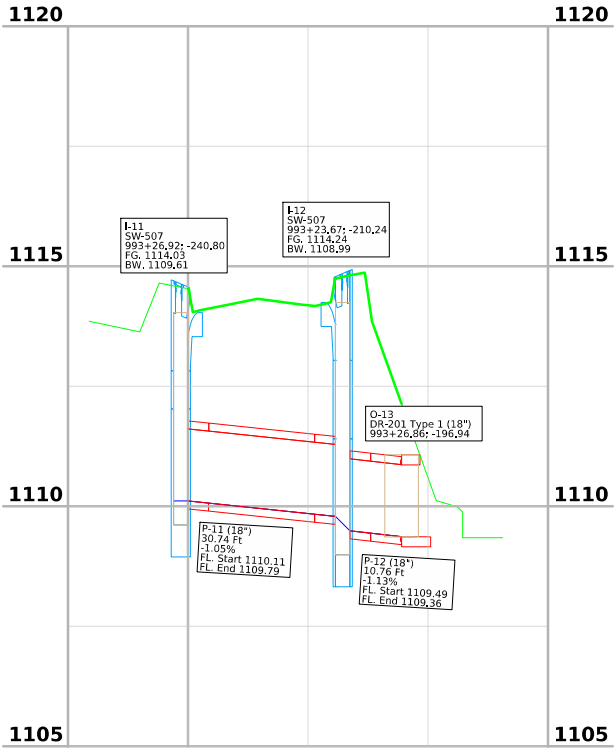




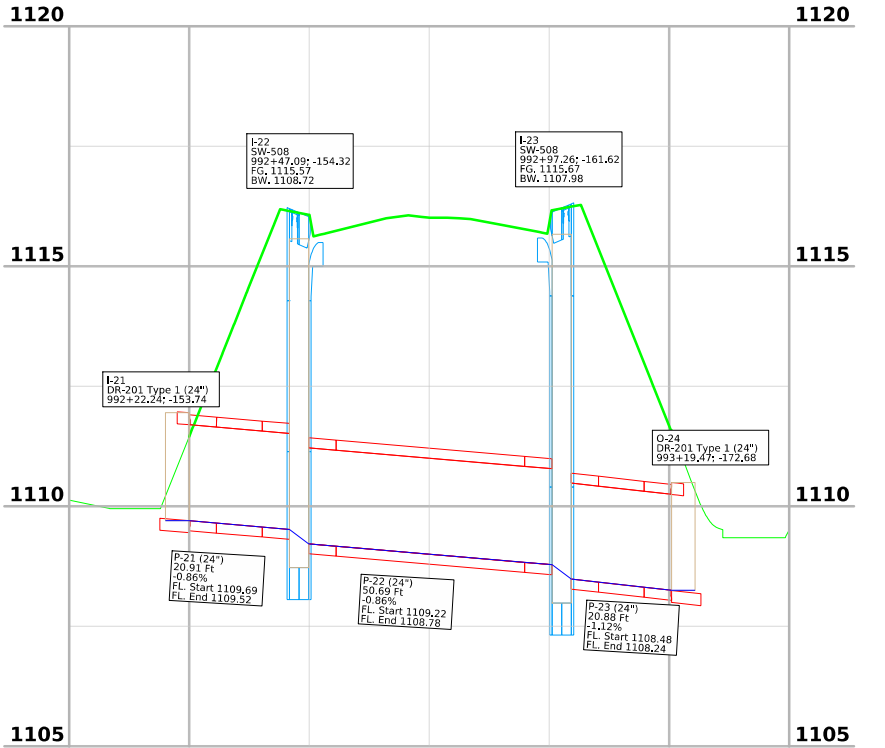
STORM SEWER LAYOUT



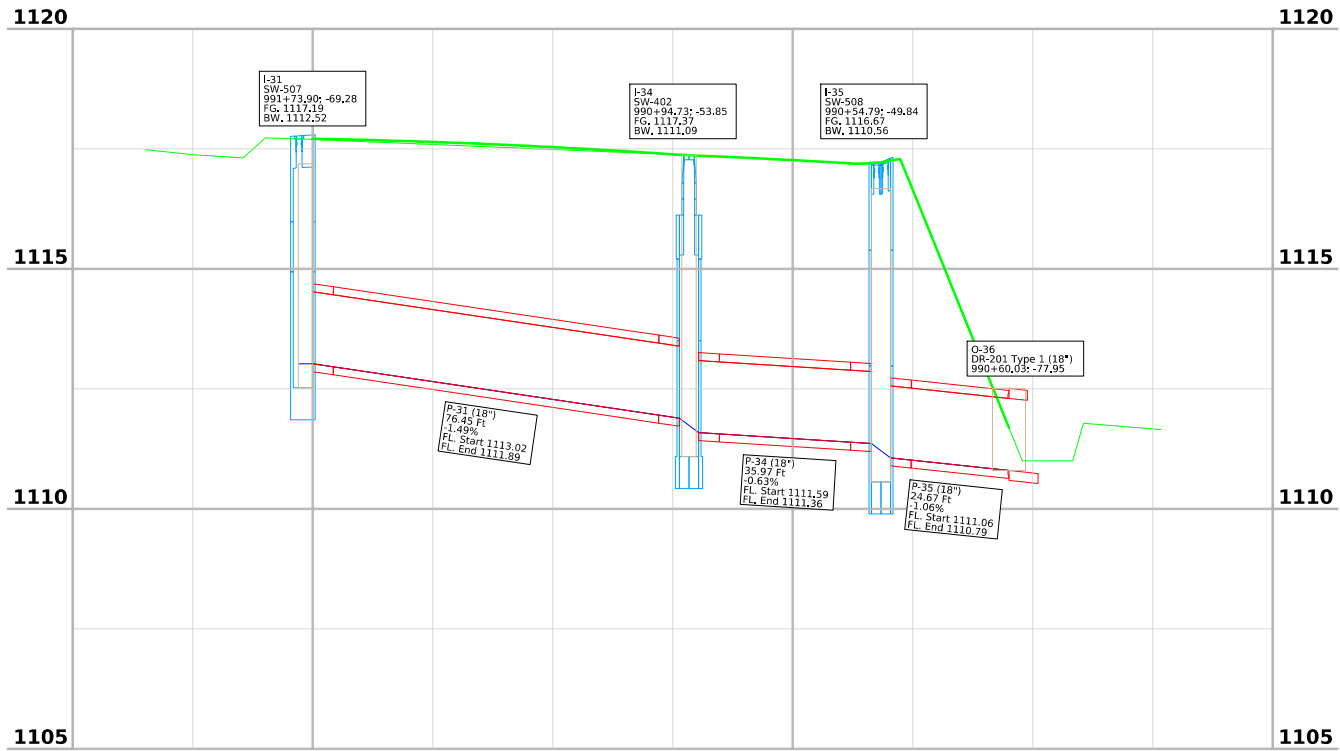
I-01 to O-03 - Profile



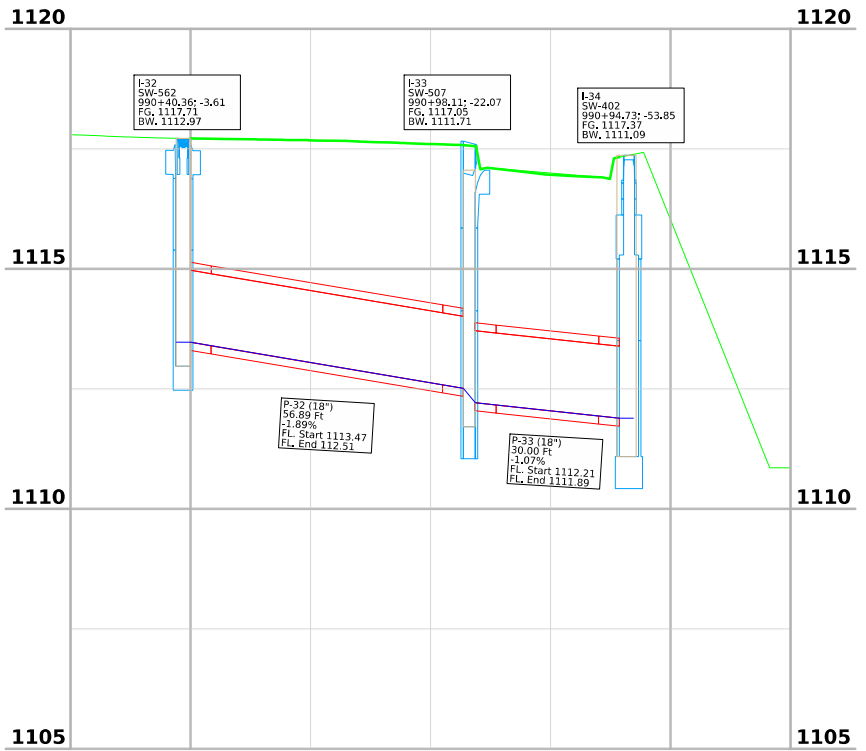
I-11 to O-13 - Profile



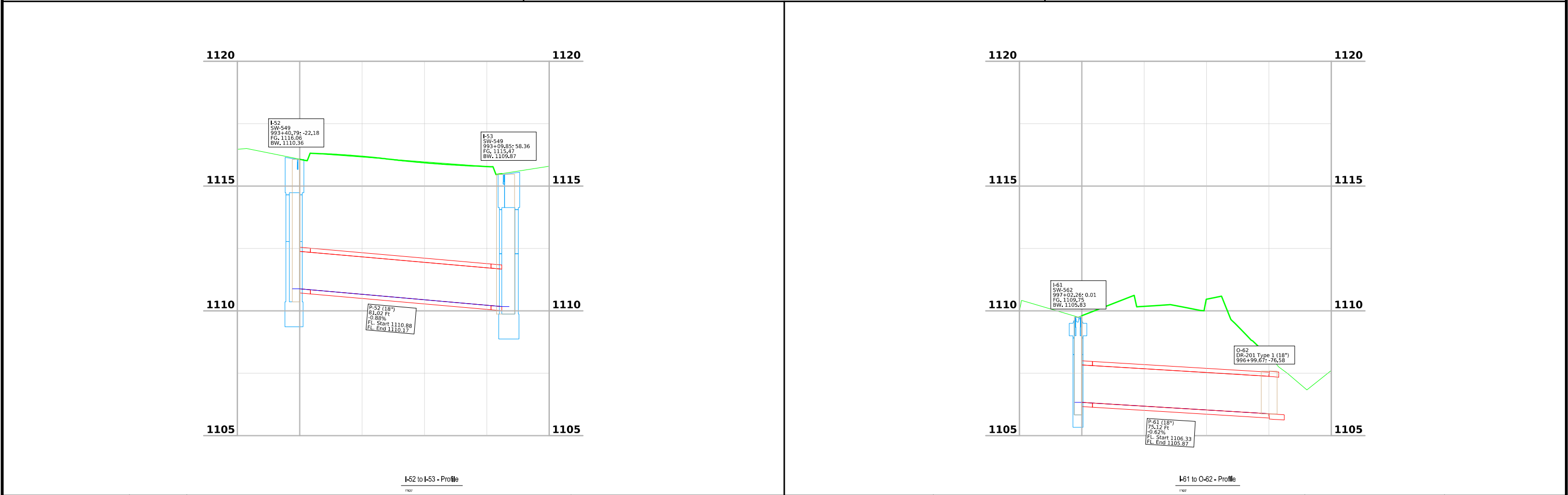
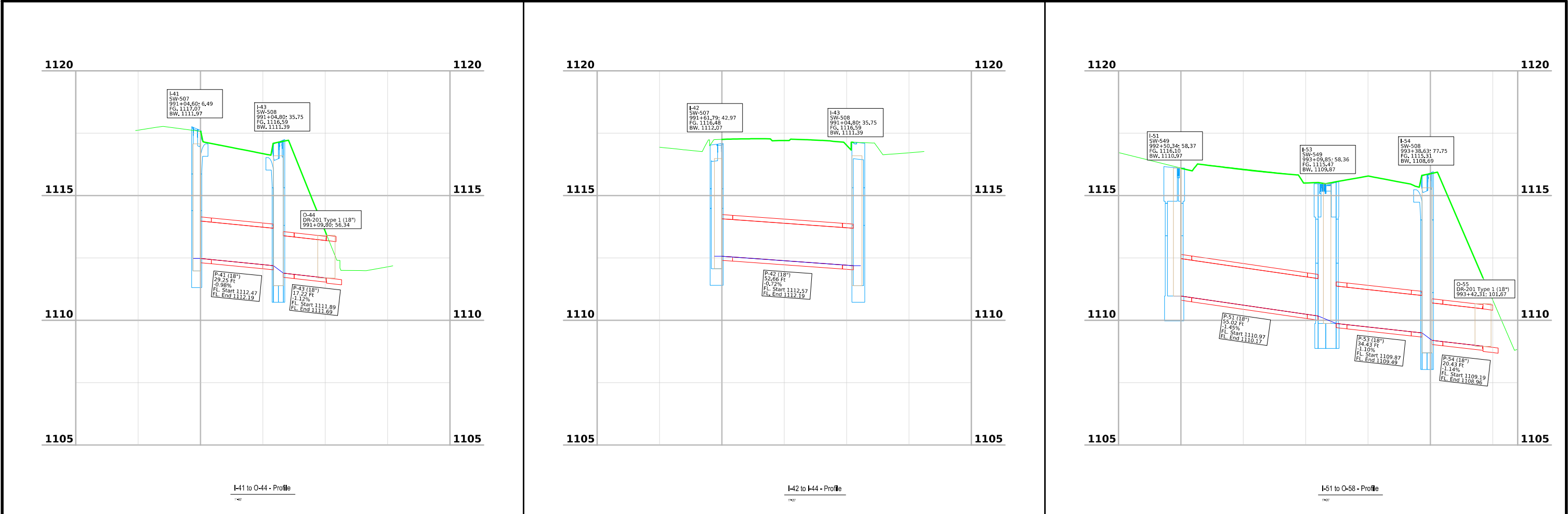
I-21 to O-24 - Profile

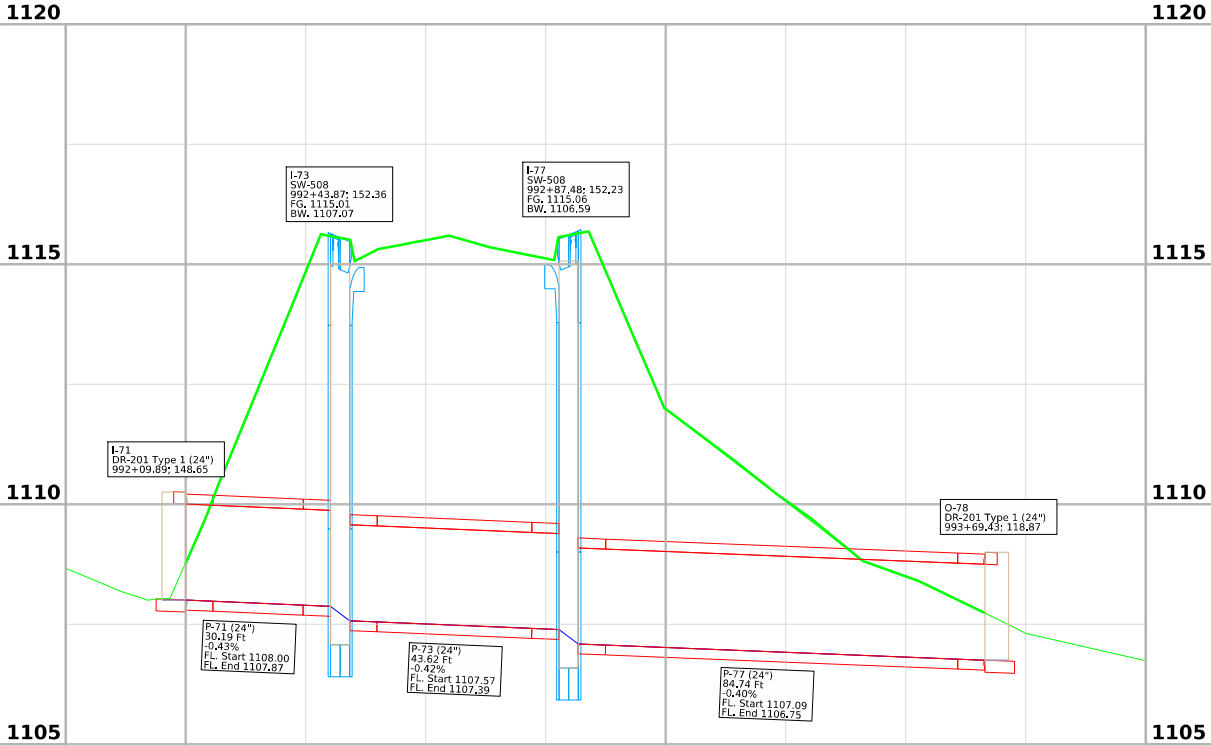


I-31 to O-36 - Profile



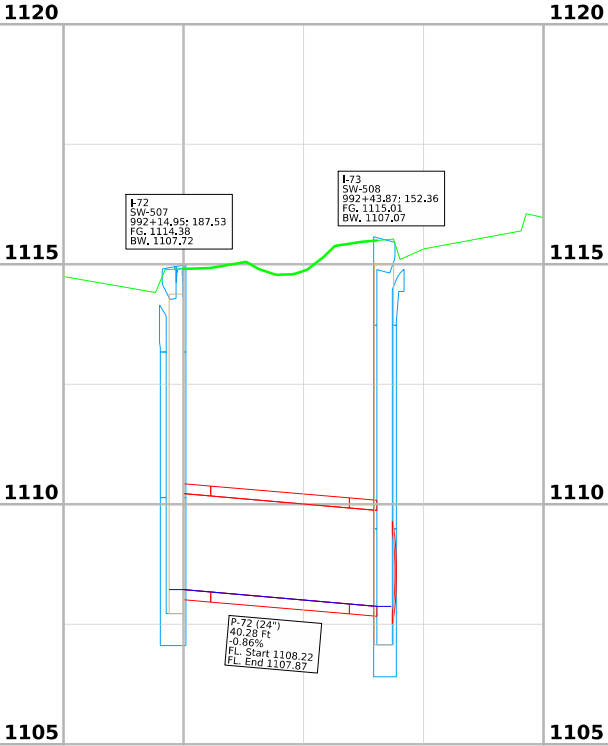
I-32 to I-34 - Profile





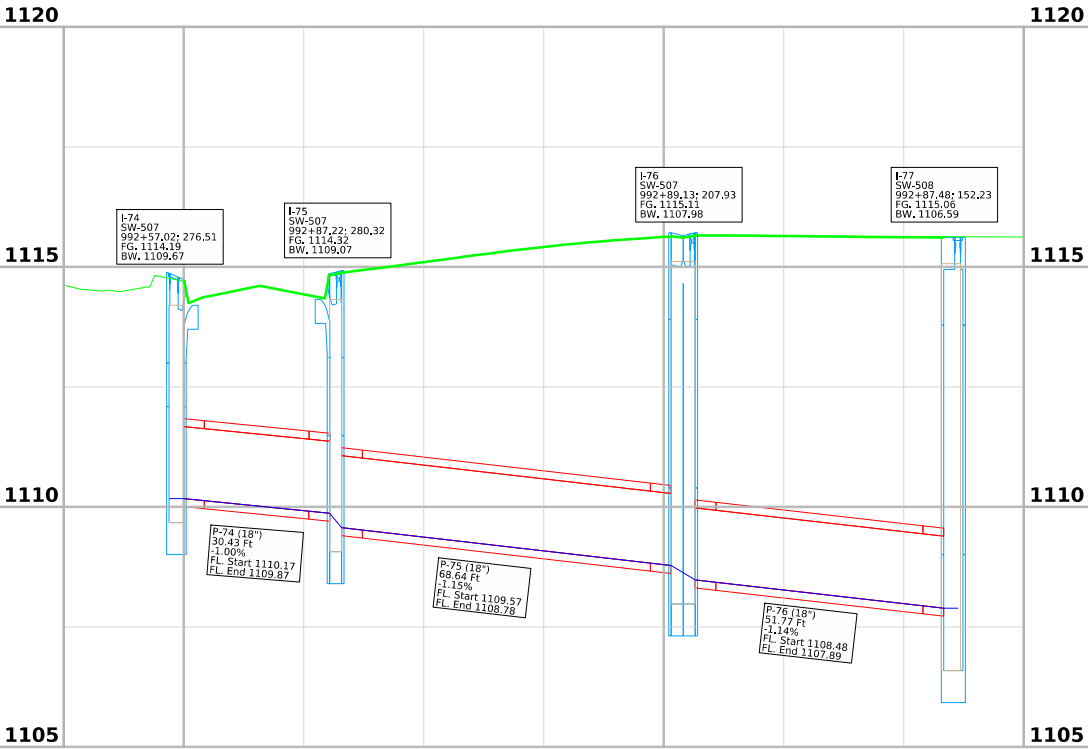
I-71 to O-78 - Profile

1"=40'



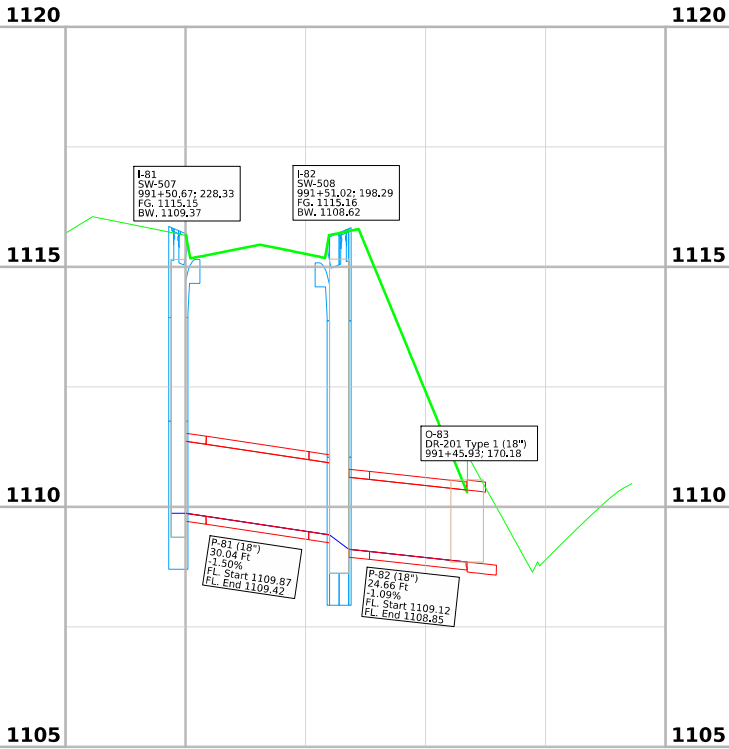
I-72 to I-73 - Profile

1"=40'



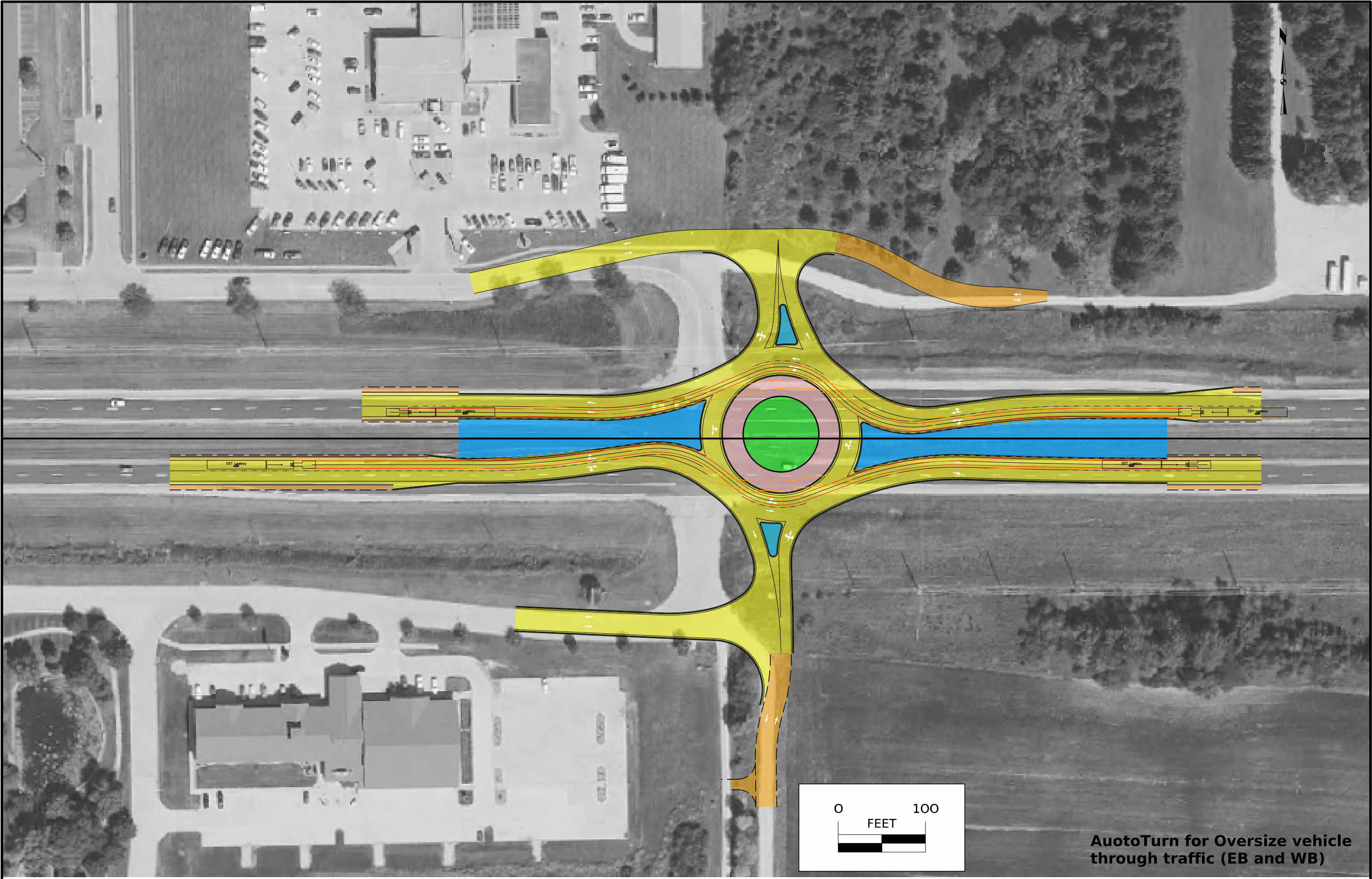
I-74 to I-77 - Profile

1"=40'



I-81 to O-83 - Profile

1"=40'



CROSS SECTION VIEW COLOR LEGEND			
Design Color No.	Feature	Design Color No.	Feature
Aggregate		Grading	
(64)	Choke Stone	(8)	Behind Curb Cut
(42)	Engineering Fabric	(6)	Granular
(8)	Flooded Backfill	(13)	Granular Back Fill
(92)	Macadam Stone	(48)	Rock Undercut
(20)	Modified	(8)	Shoulder Earth Fill
(12)	Plowing Shaping	(2)	Side Slopes
(14)	Porous Backfill	(226)	Side Slopes Dressing
(8)	Revetment Class A	Substrata	
(6)	Revetment Class B	(128)	Boulder
(62)	Revetment Class C	(209)	Boulder Removed
(188)	Revetment Class D	(48)	Broken Weathered
(28)	Revetment Class E	(210)	Broken Weathered Removed
(12)	Shoulder Special Backfill	(3)	Core Out
(12)	Special Backfill	(115)	Core Out Remove Only
(20)	Subbase	(195)	Core Out Remove and Replace
(20)	Subbase Lower	(203)	Existing Pavement
(20)	Subbase Upper	(184)	Existing Pavement Remove Only
(118)	Subgrade Treatment	(200)	Existing Pavement Remove and Replace
Asphalt		(6)	Loam
(207)	HMA Base Course	(211)	Loam Removed
(207)	HMA Interim Course	(80)	Rock
(207)	HMA Surface Course	(212)	Rock Removed
Bridge		(4)	Select Sand
(0)	Bridge	(214)	Select Sand Removed
Concrete		(3)	Shale
(0)	Barrier Concrete	(215)	Shale Removed
(0)	Barrier Concrete Footing	(10)	Topsoil
(0)	Curb Gutter	(2)	Topsoil Remove Only
(48)	Flowable Mortar	(4)	Topsoil Remove and Replace
(0)	Median Concrete	Unsuitable / Waste	
(0)	PCC Pavement	(3)	Unsuitable Type A
(0)	Sidewalk	(216)	Unsuitable Type A Removed
Existing		(13)	Unsuitable Type B
(0)	Existing Pavement	(217)	Unsuitable Type B Removed
Shoulder		(11)	Unsuitable Type C
(209)	Shoulder HMA	(218)	Unsuitable Type C Removed
(0)	Shoulder PCC	(3)	Waste
(6)	Shoulder Granular	(219)	Waste Removed
Structural			
(112)	Noise Wall		
(112)	Noise Wall Footing		
(112)	Retaining Wall Back		
(112)	Retaining Wall Back Excavate		
(112)	Retaining Wall Face		
(112)	Retaining Wall Front Excavate		
(112)	Retaining Wall Front Footing		
(112)	Retaining Wall MSE Gutter		
(112)	Retaining Wall Reinforced Earth		

NOTES:

Text

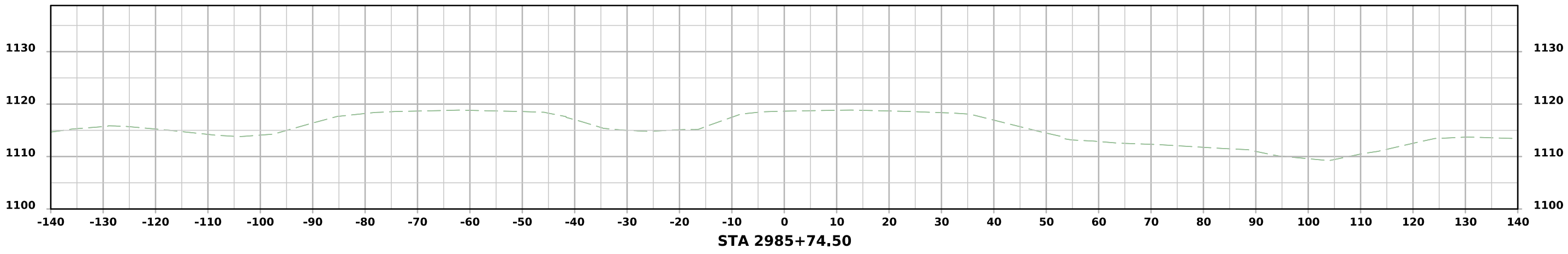
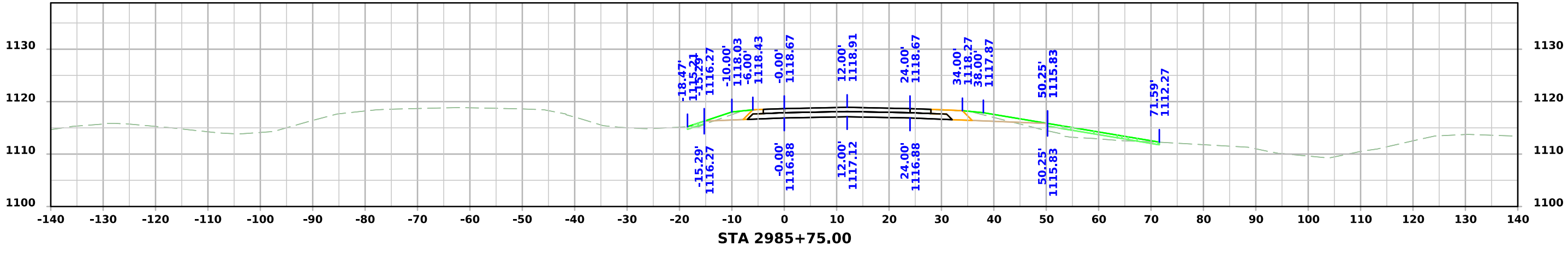
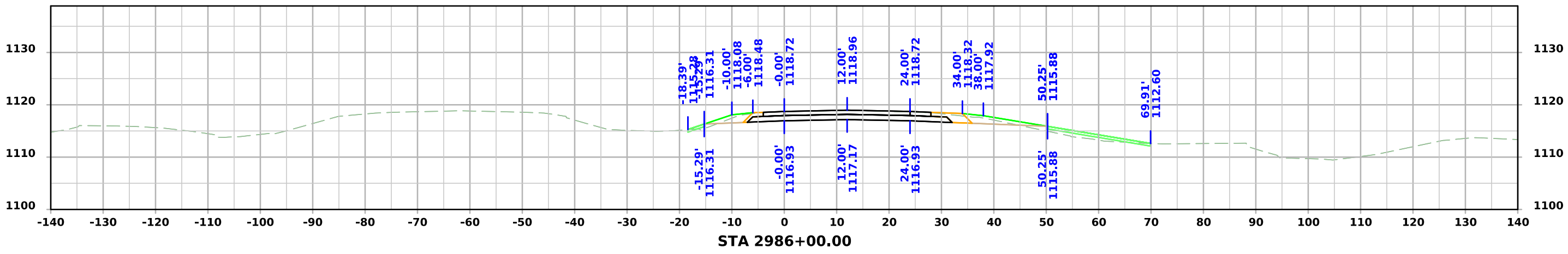
NOTES:

Text

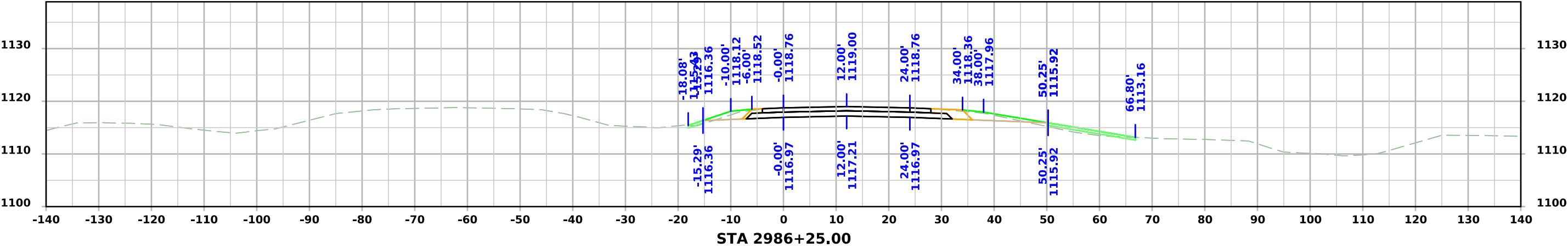
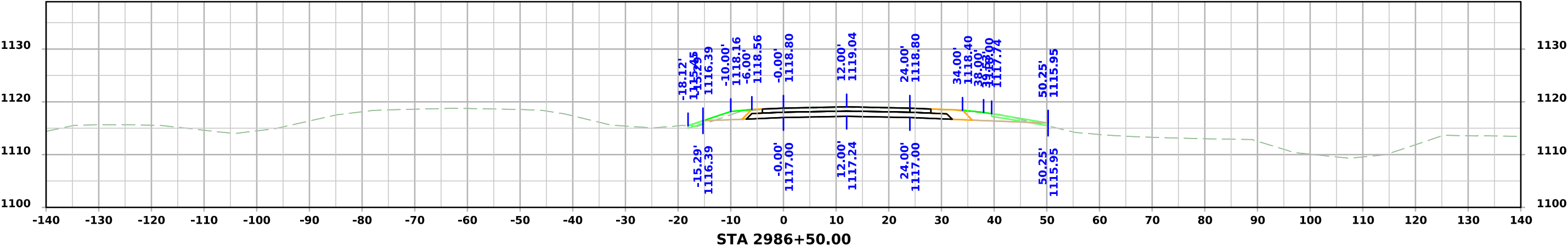
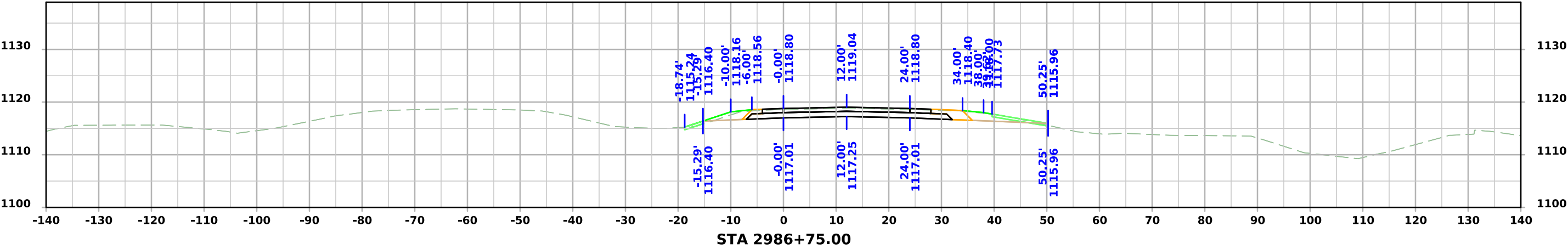
CROSS SECTIONS
LEGEND AND INFORMATION SHEET

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

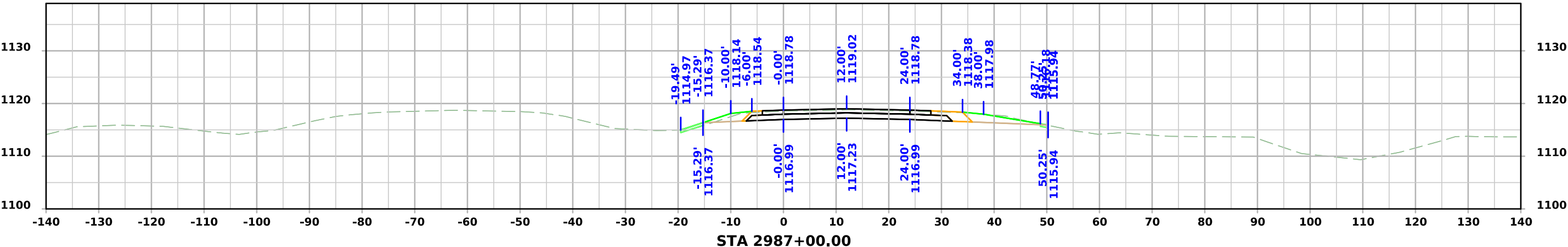
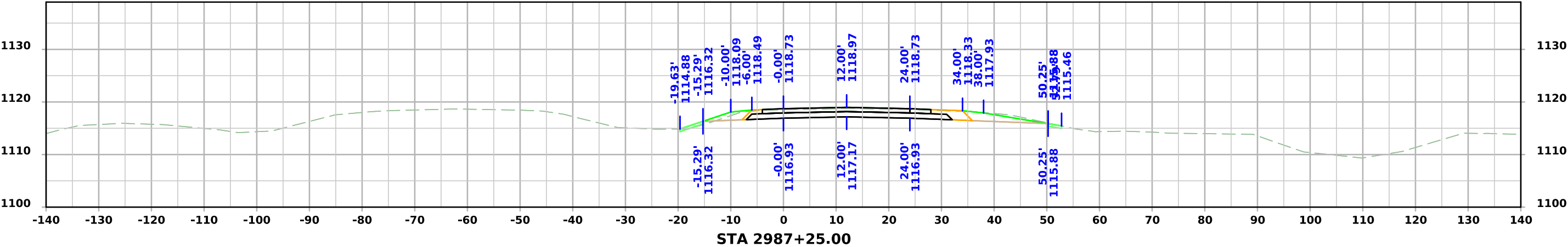
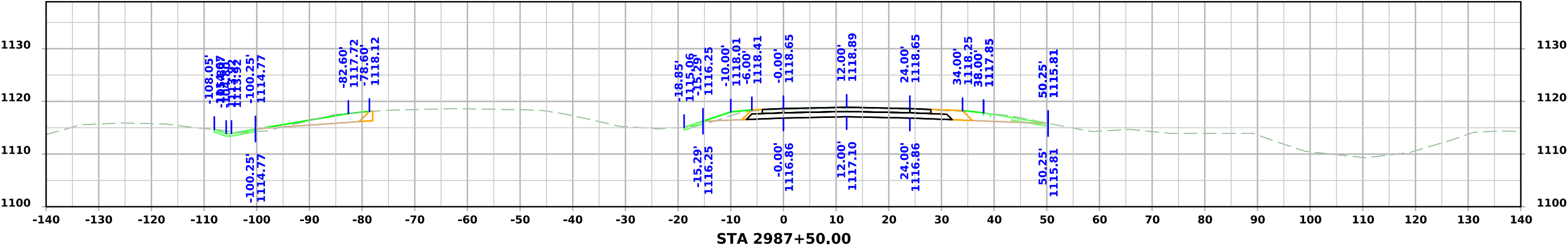
US30_EB_1



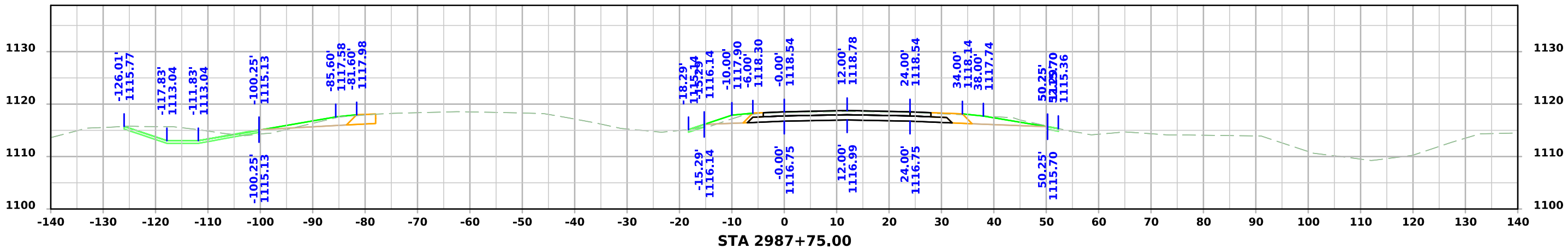
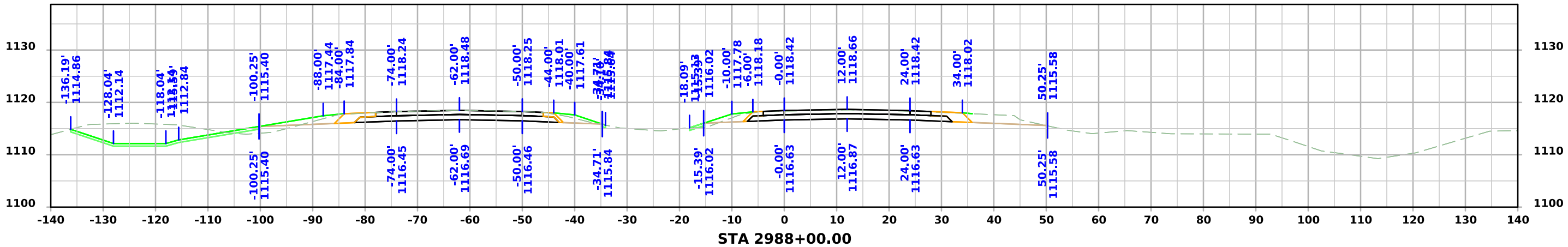
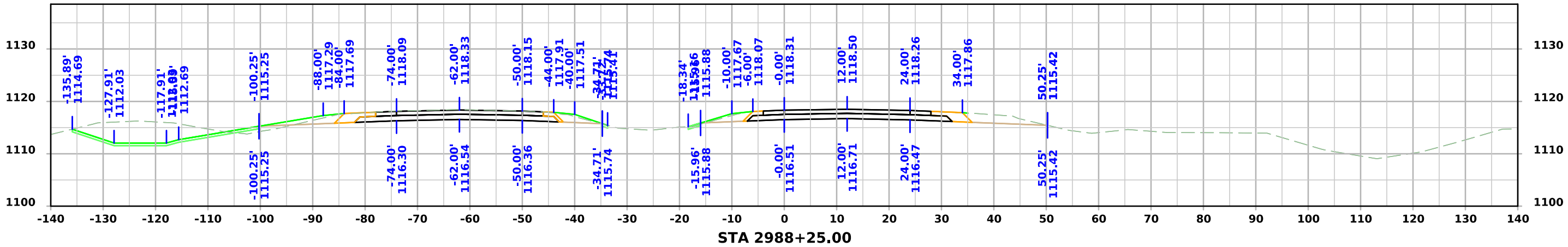
US30_EB_1



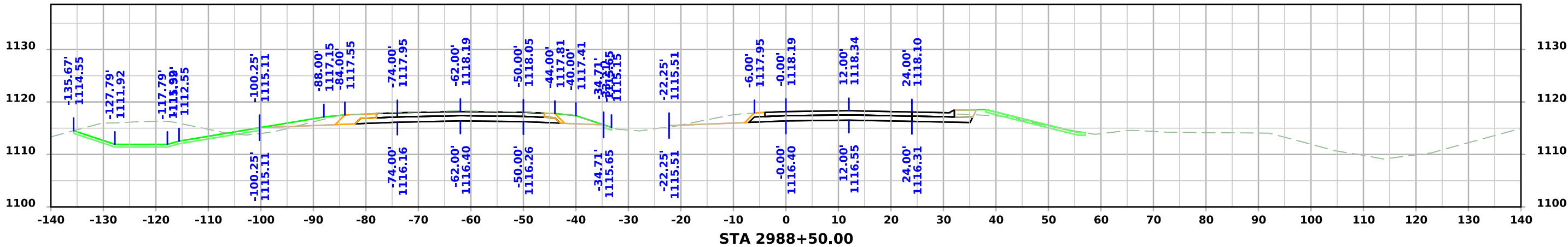
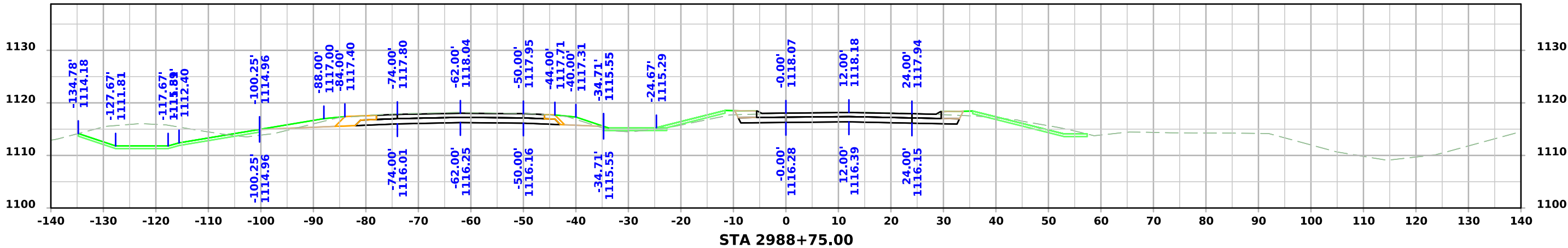
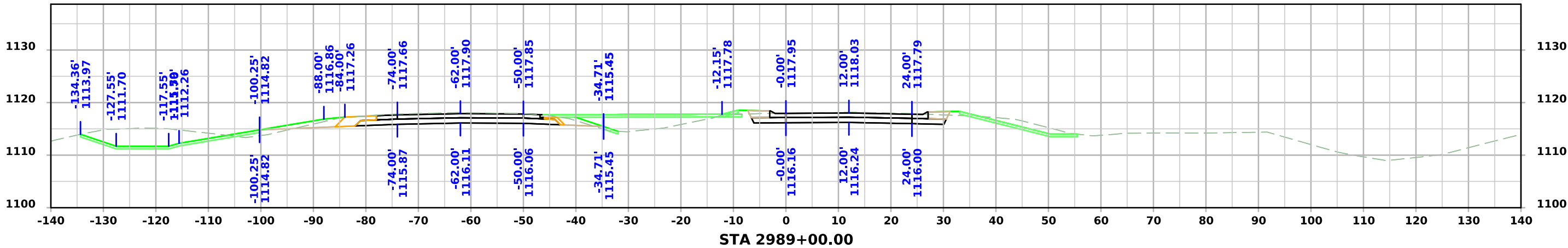
US30_EB_1



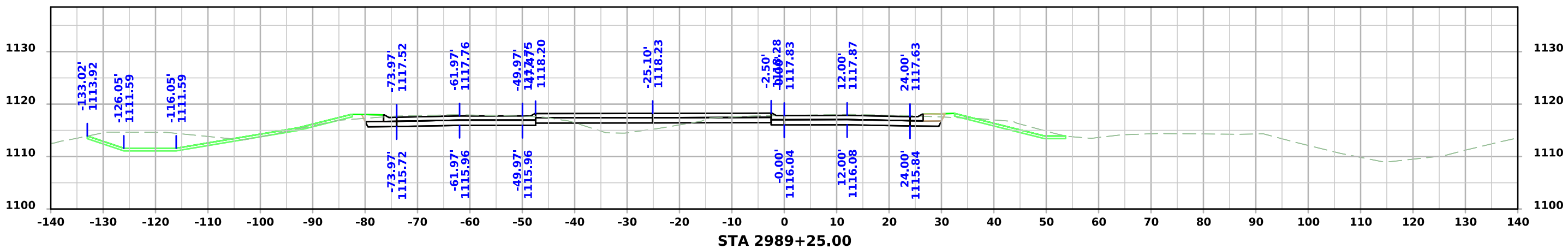
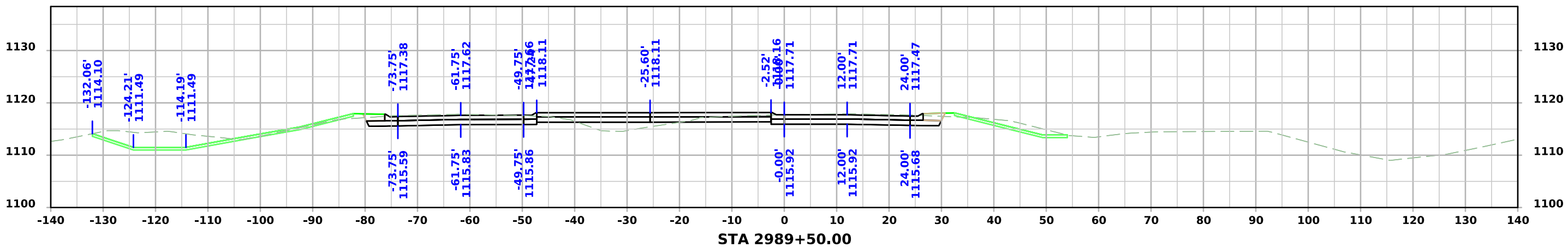
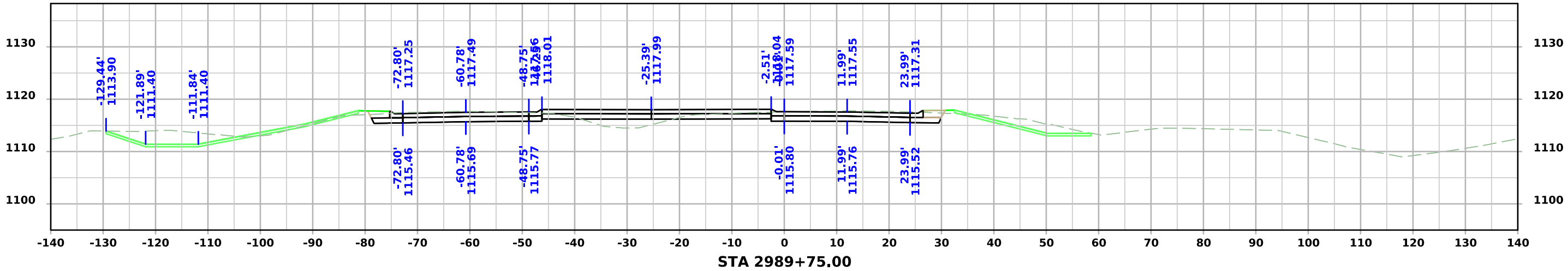
US30_EB_1



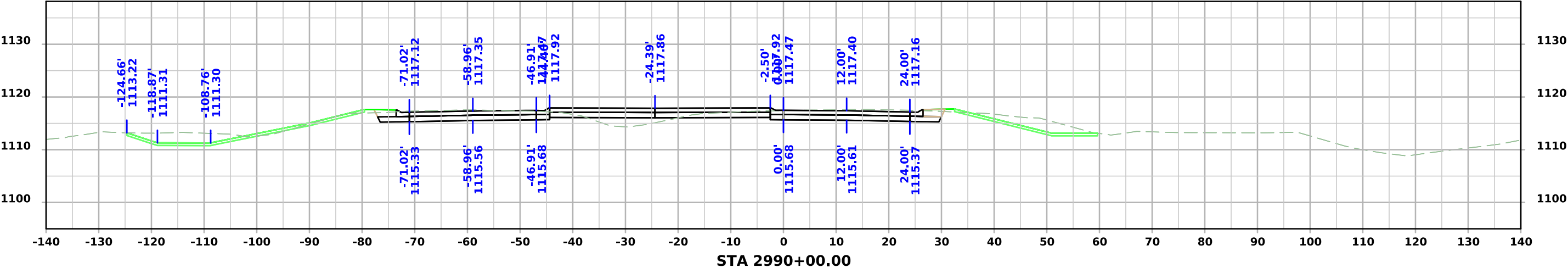
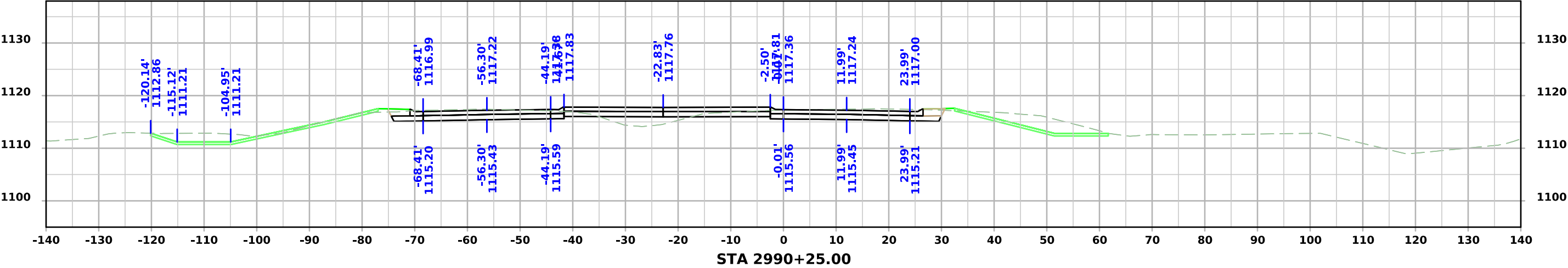
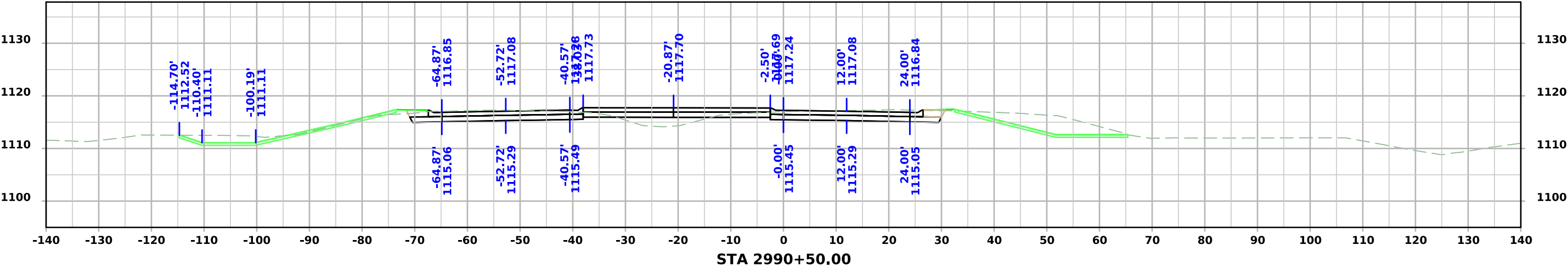
US30_EB_1



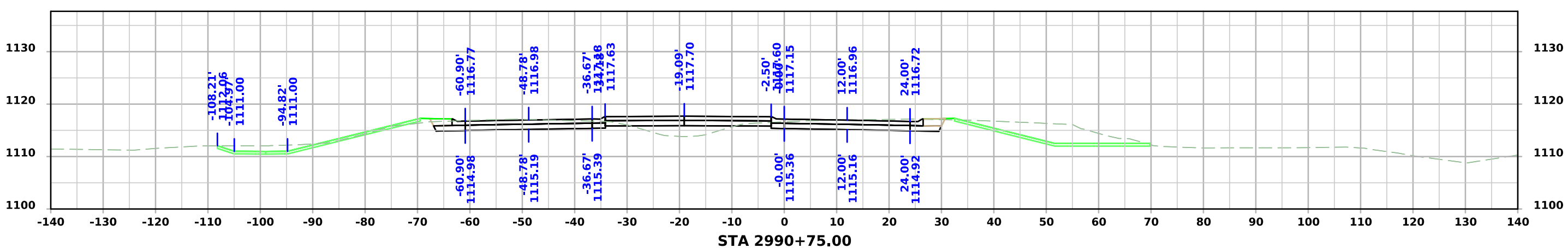
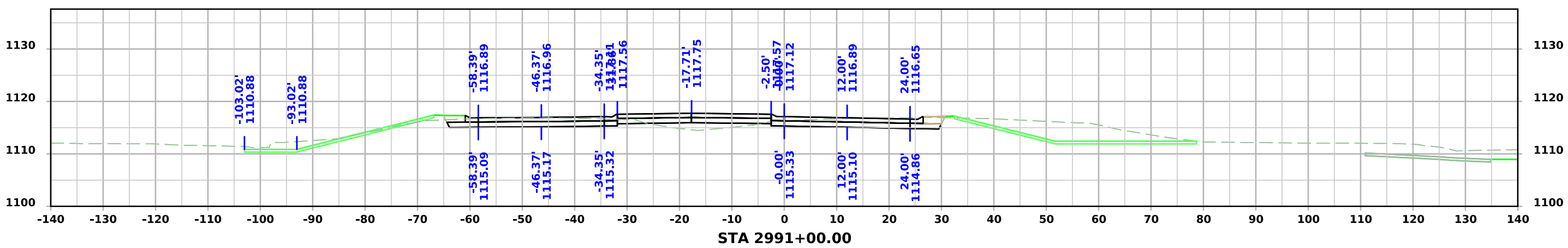
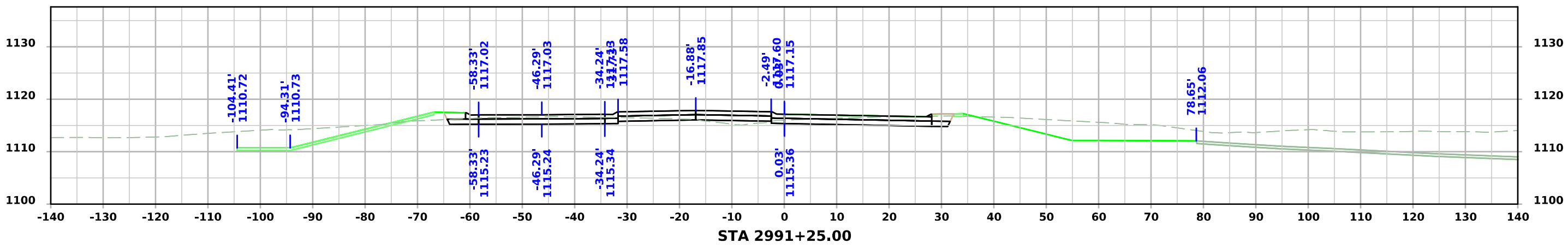
US30_EB_1



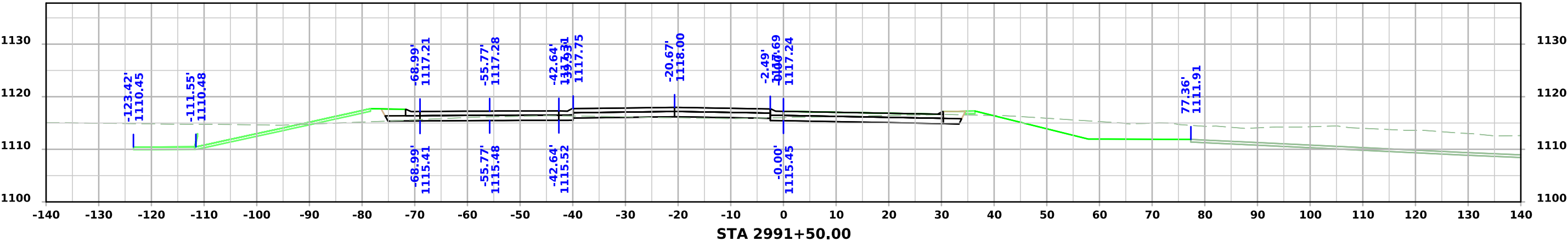
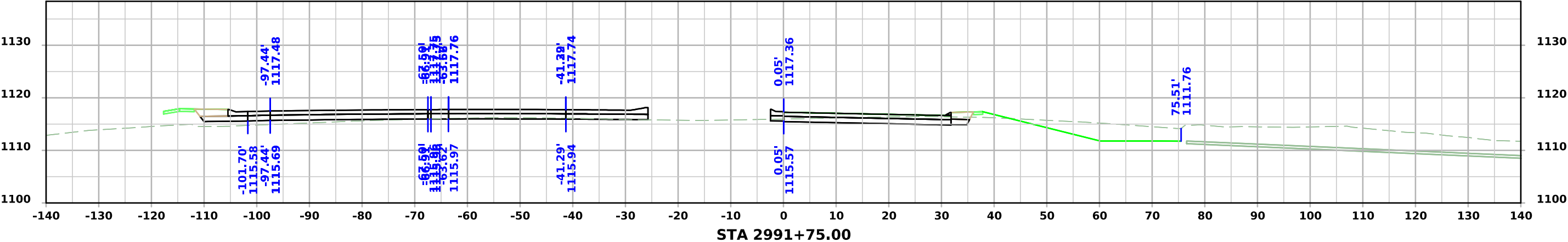
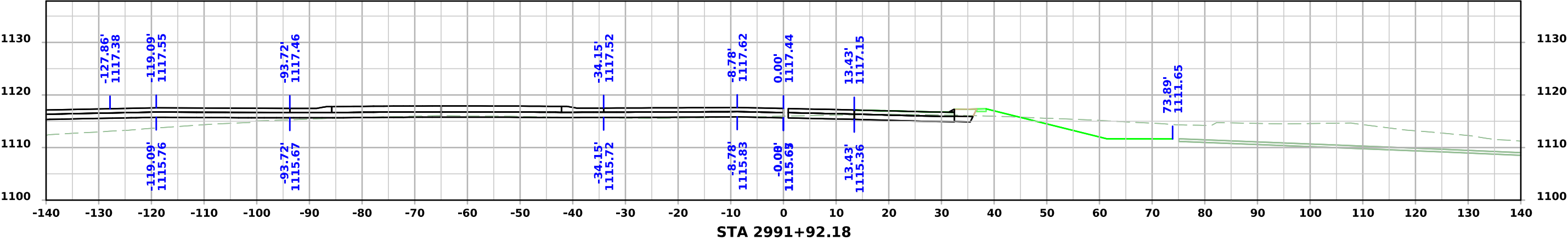
US30_EB_1



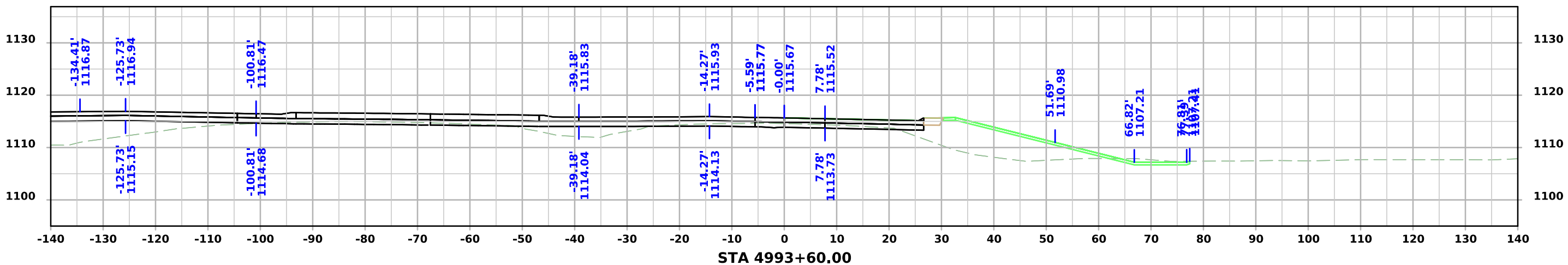
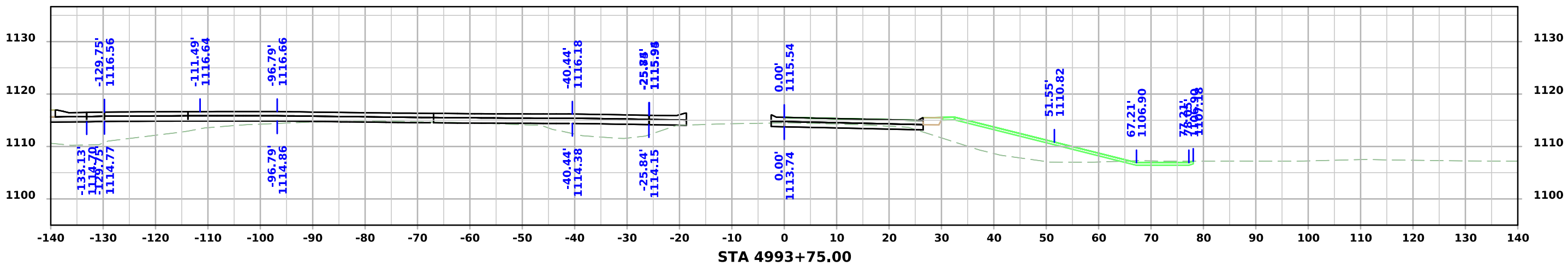
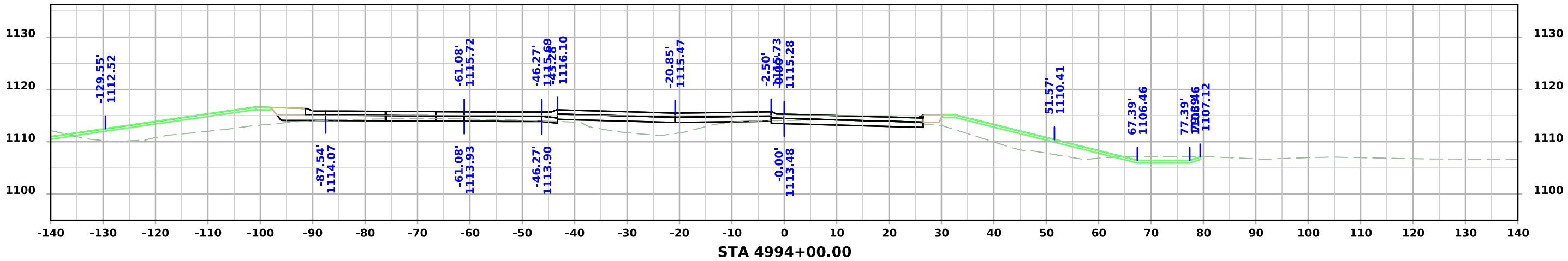
US30_EB_1



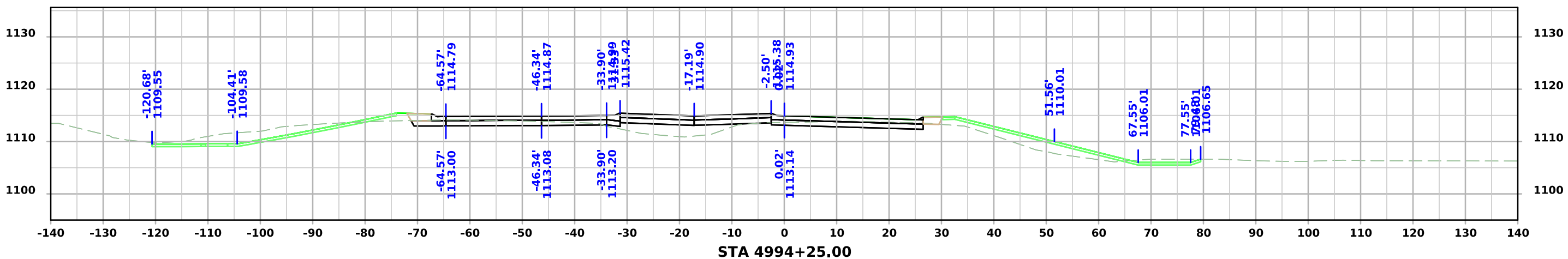
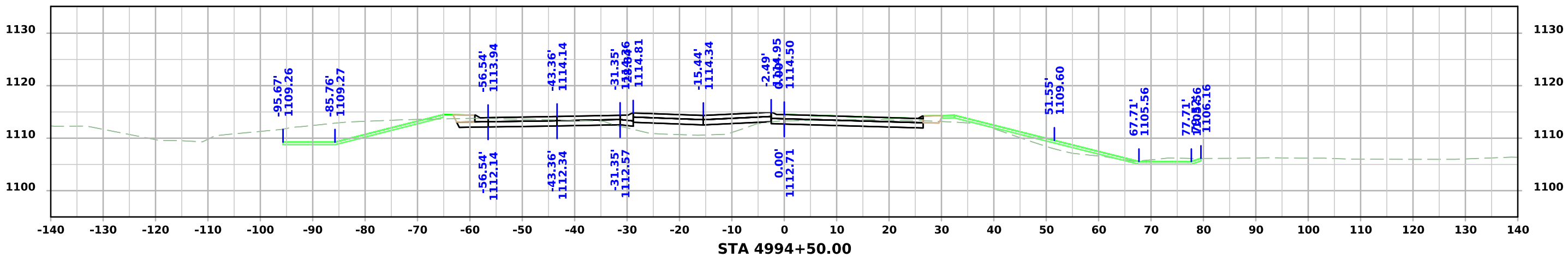
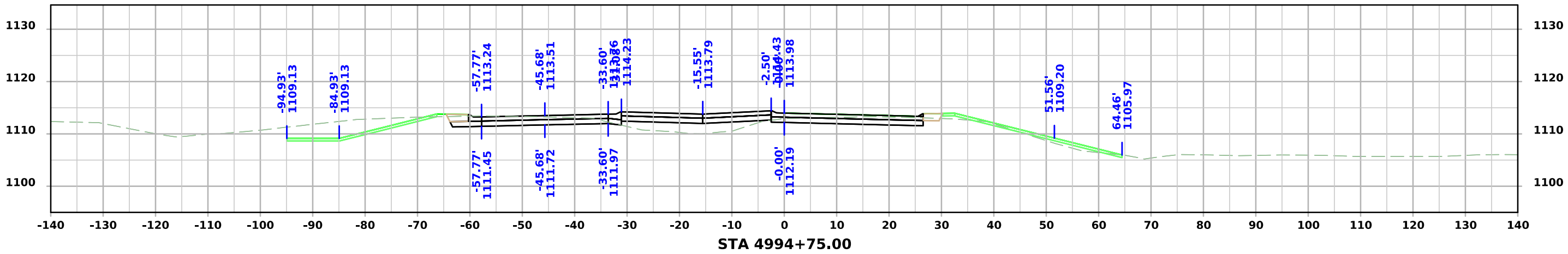
US30_EB_1



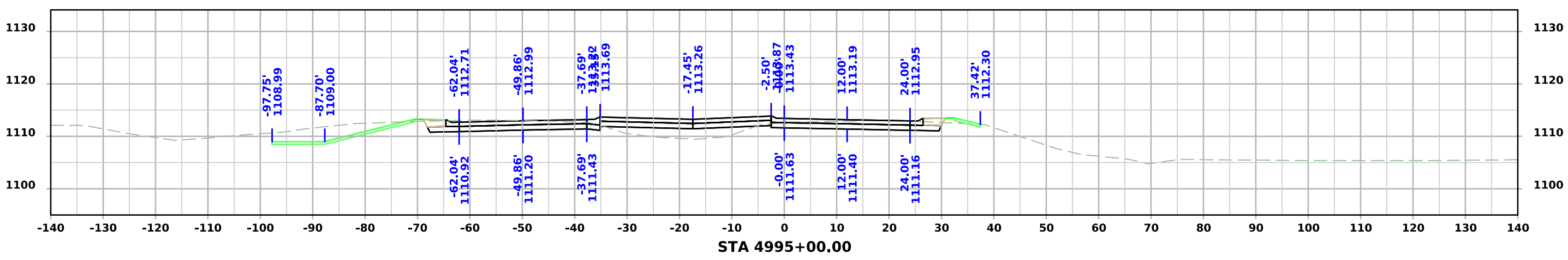
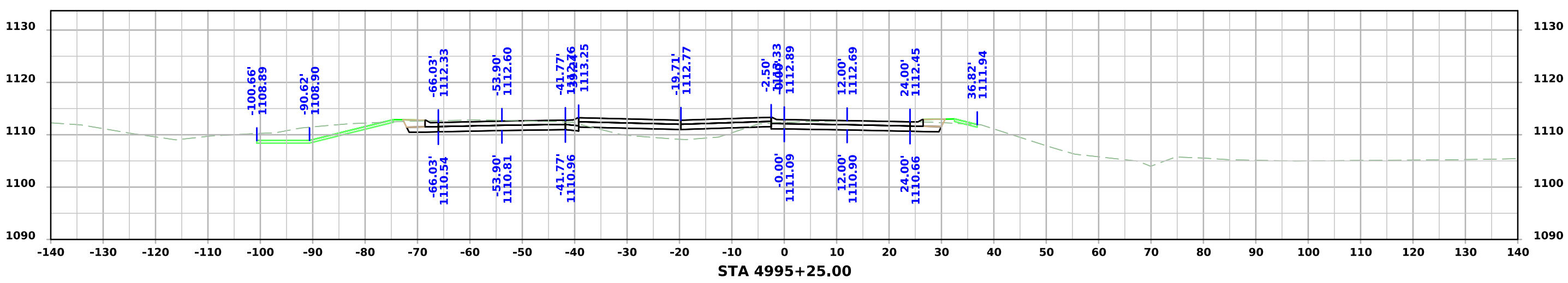
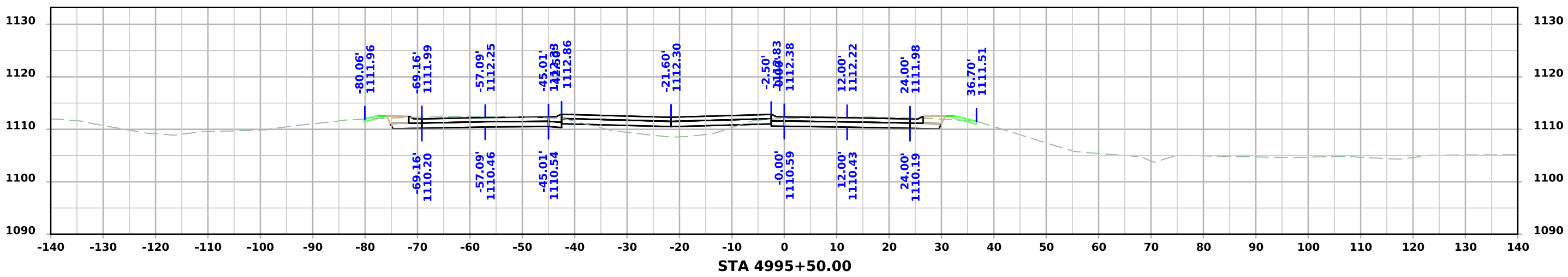
US30_EB_2



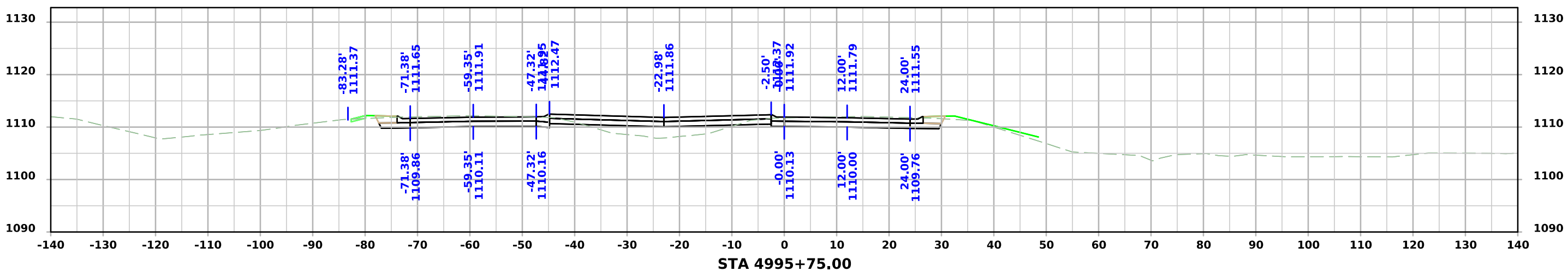
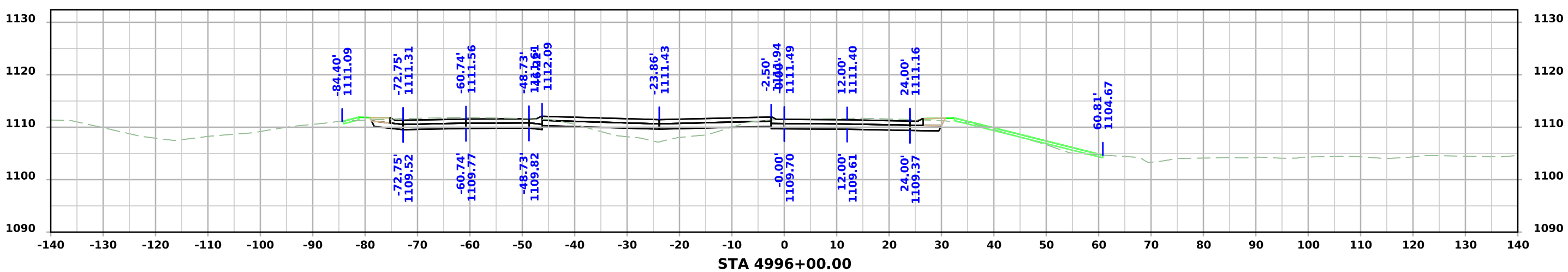
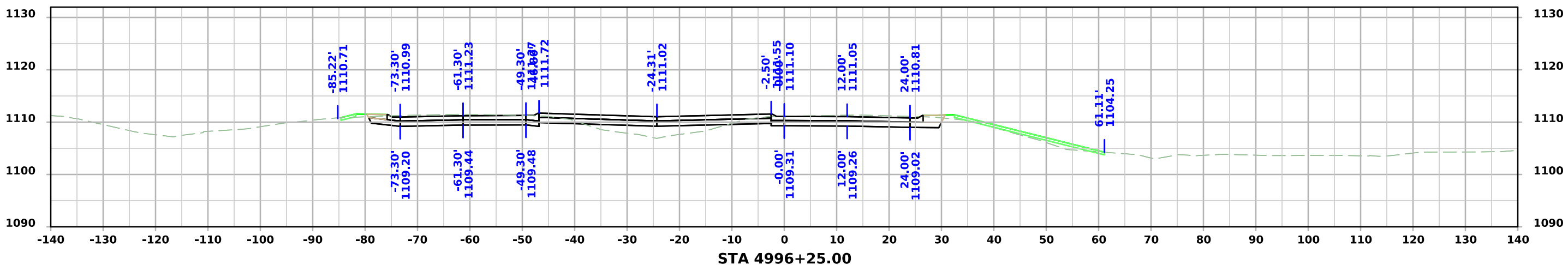
US30_EB_2



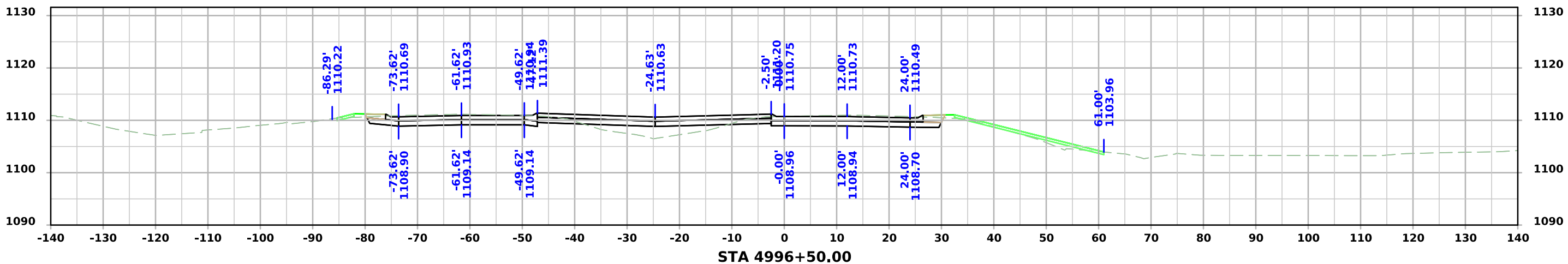
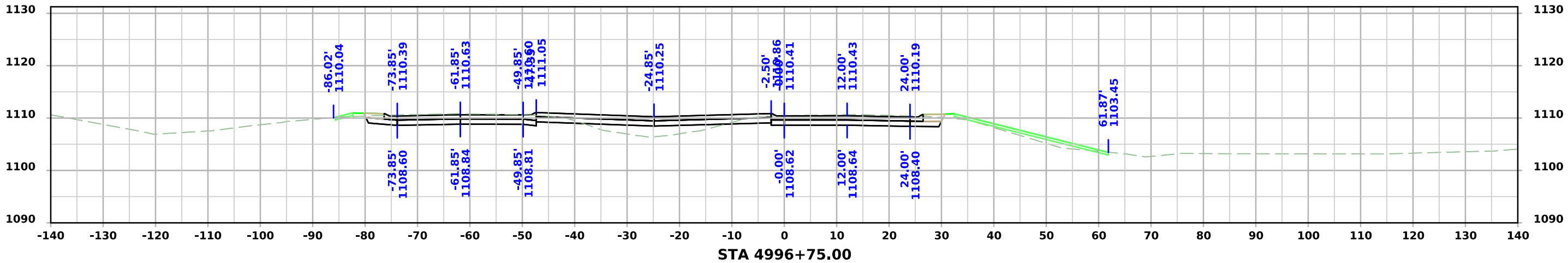
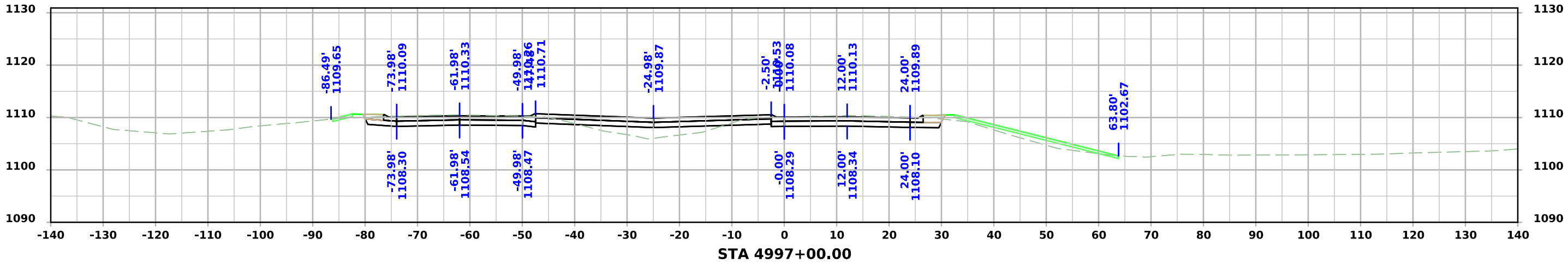
US30_EB_2



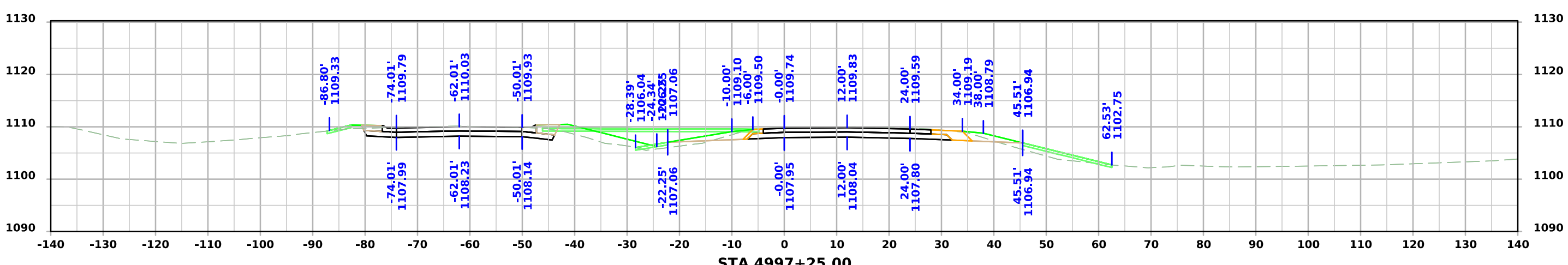
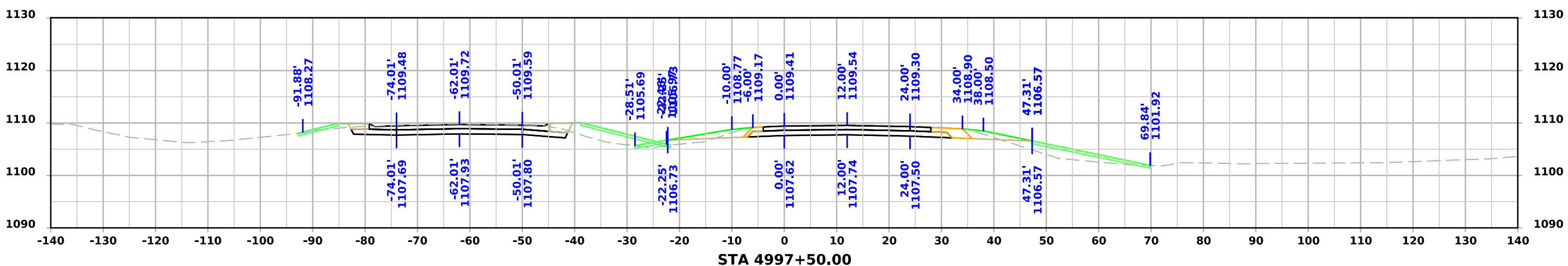
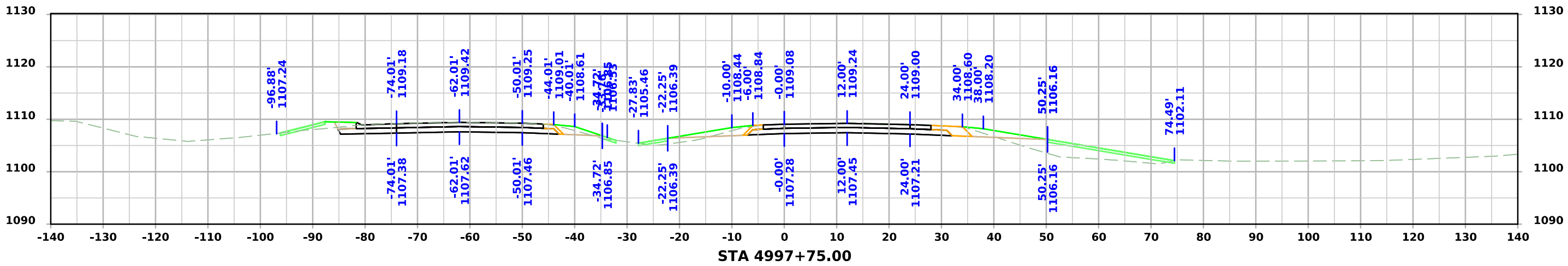
US30_EB_2



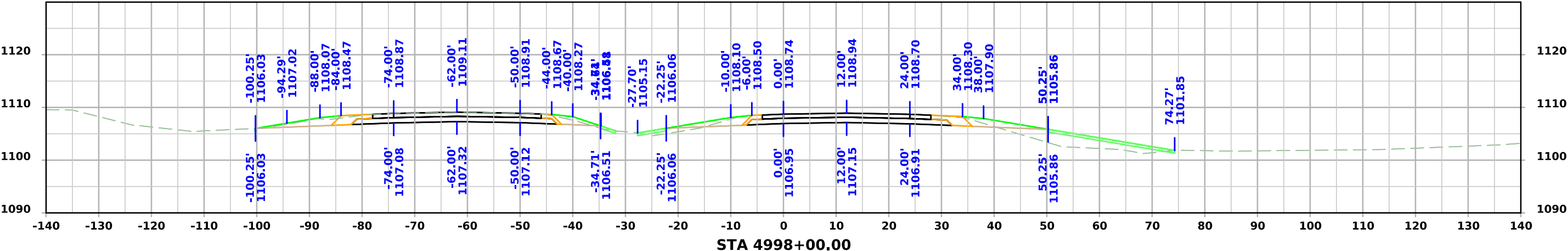
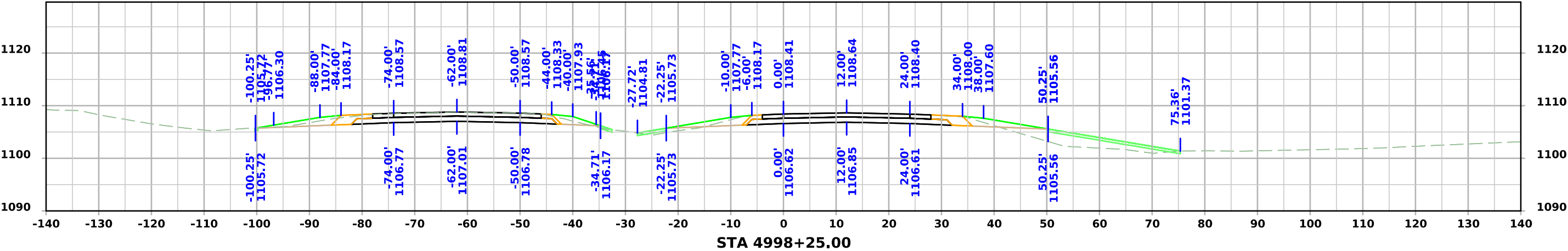
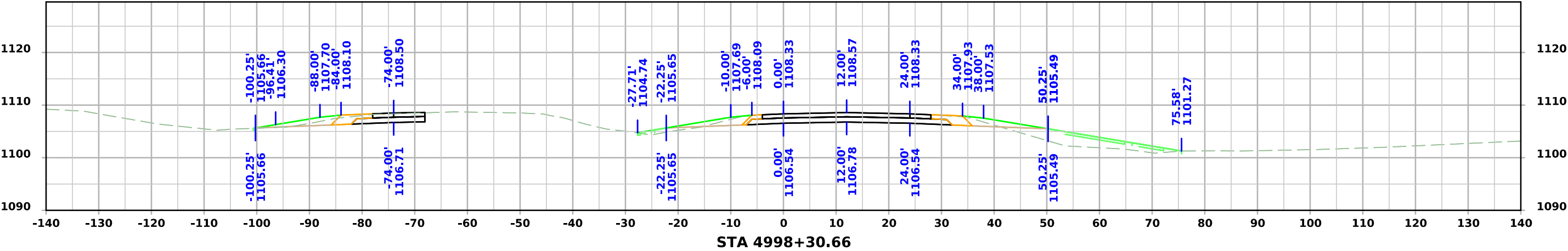
US30_EB_2



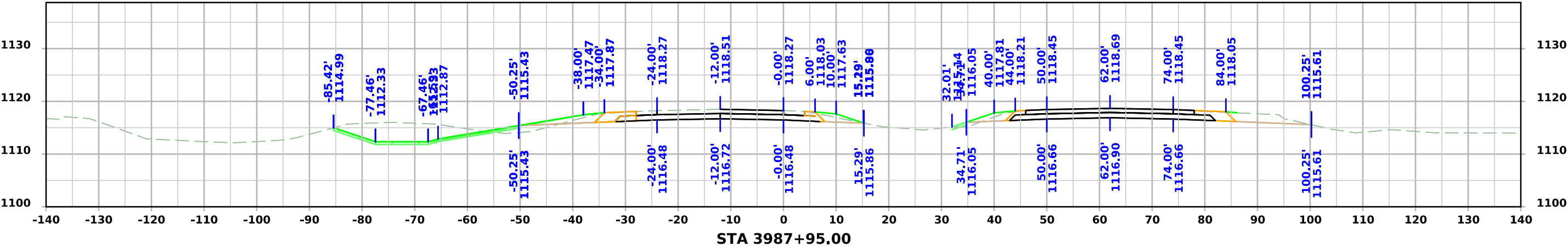
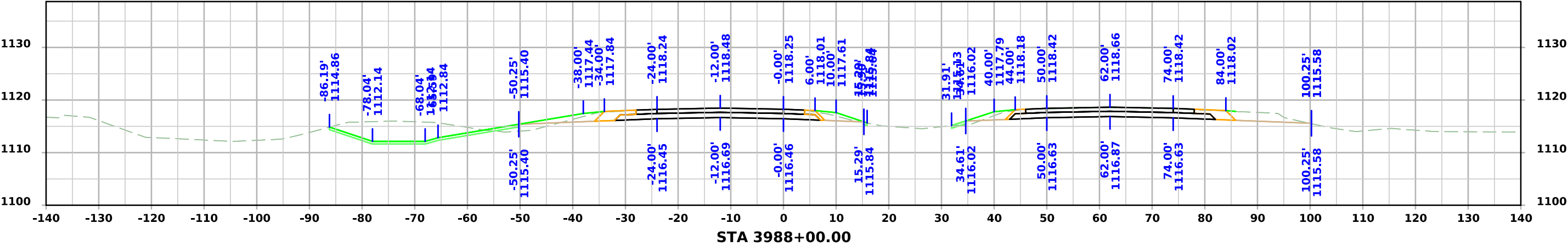
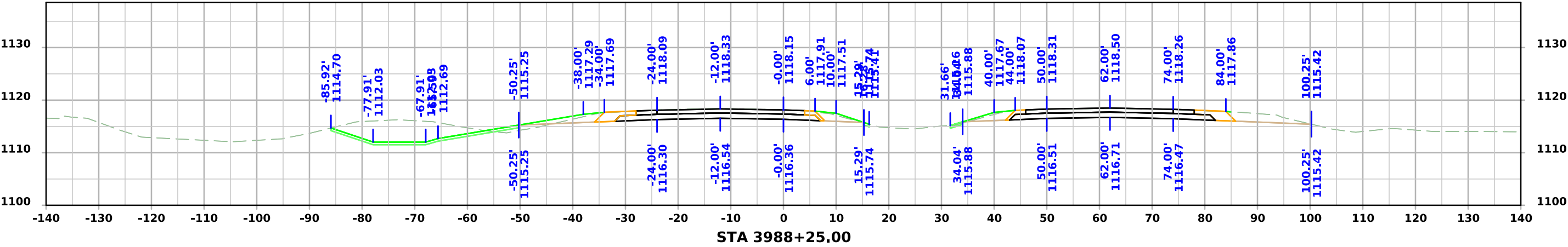
US30_EB_2



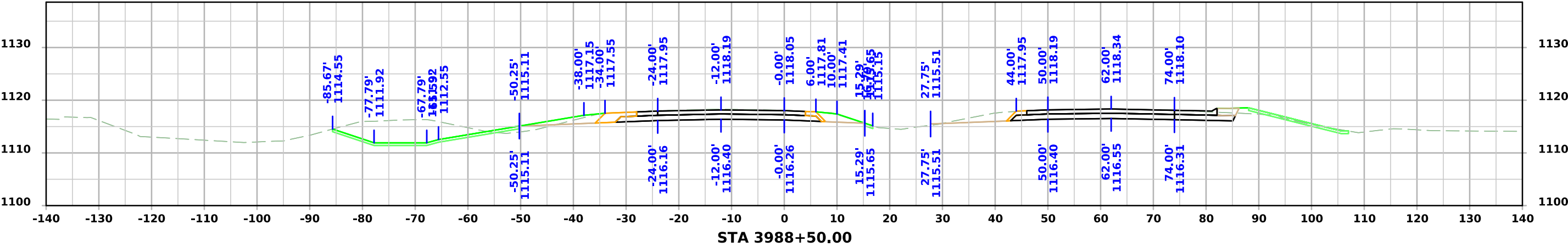
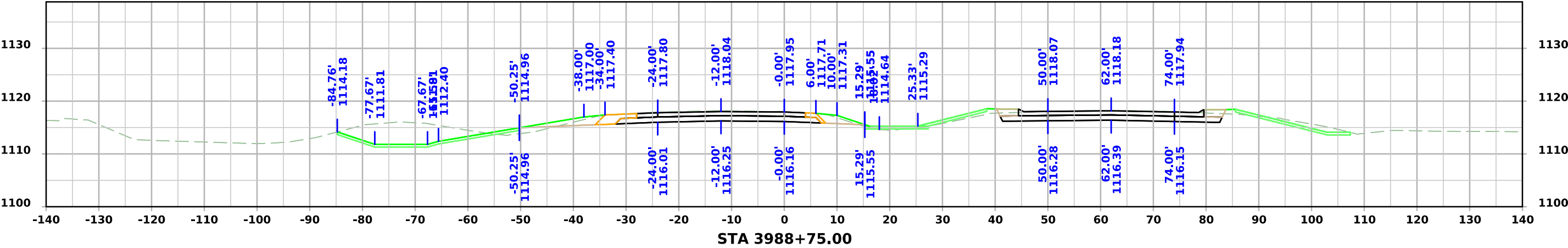
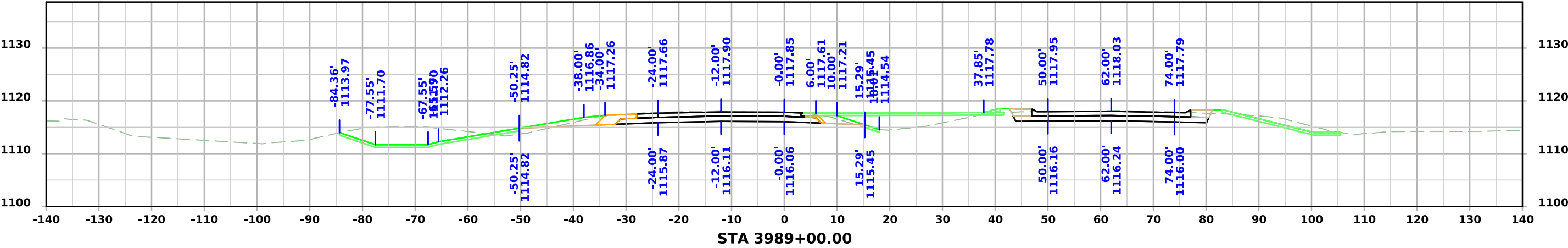
US30_EB_2



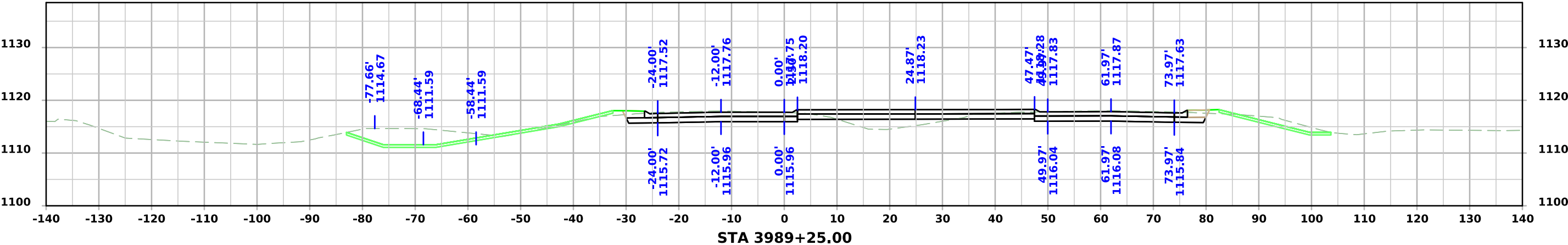
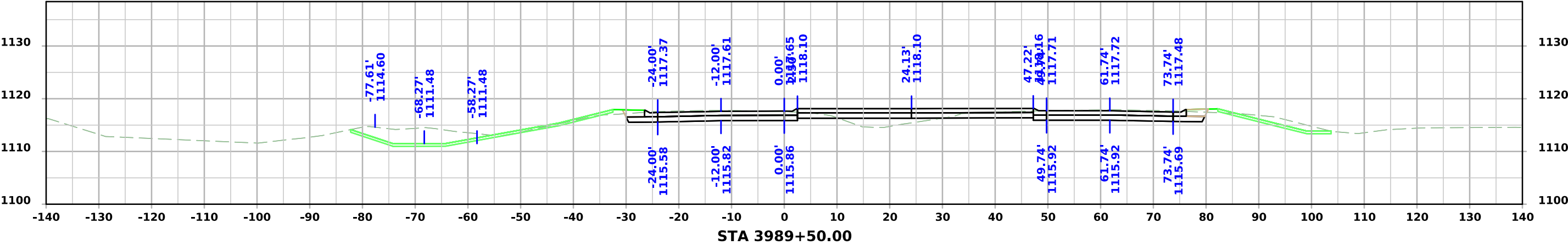
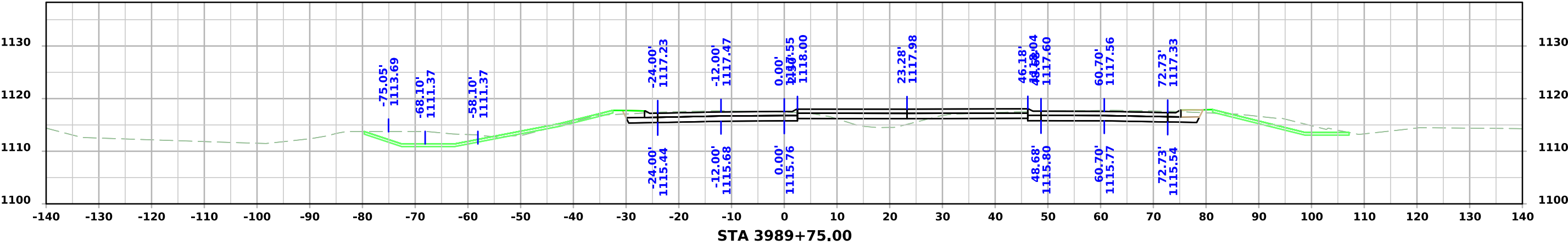
US30 WB_1



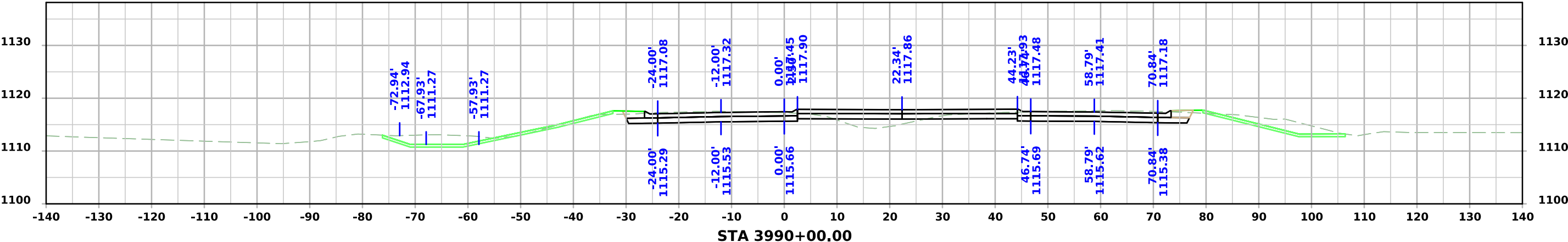
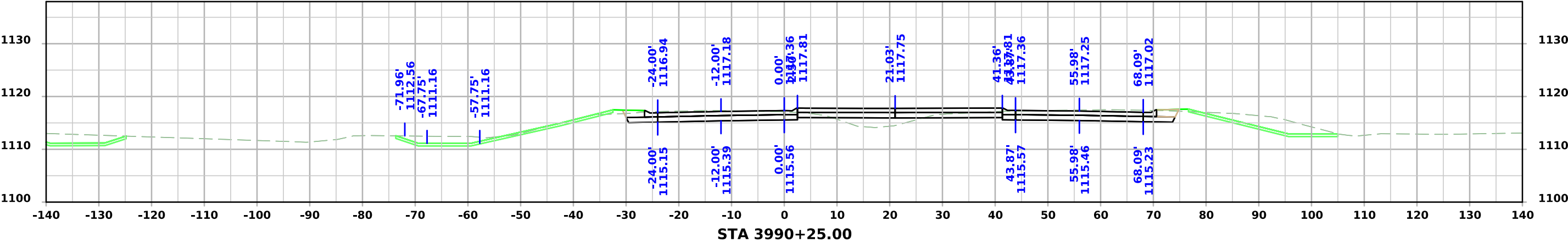
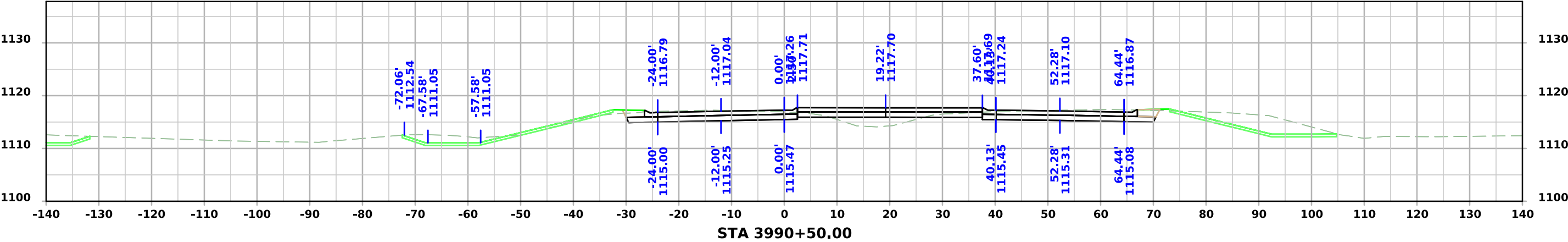
US30 WB_1



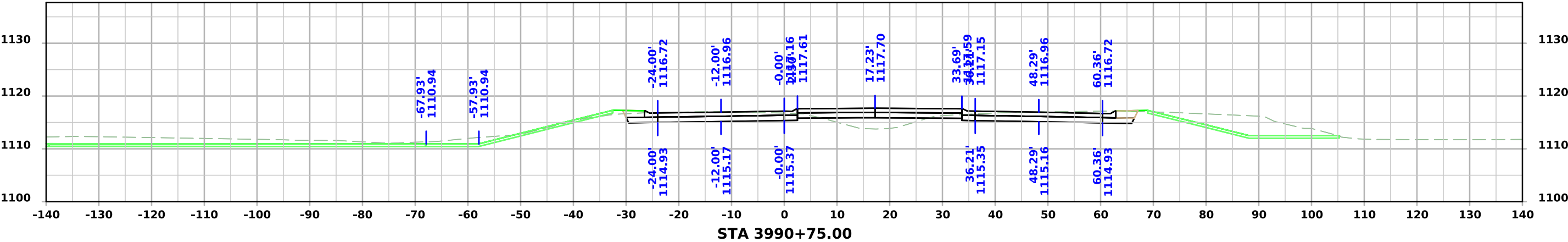
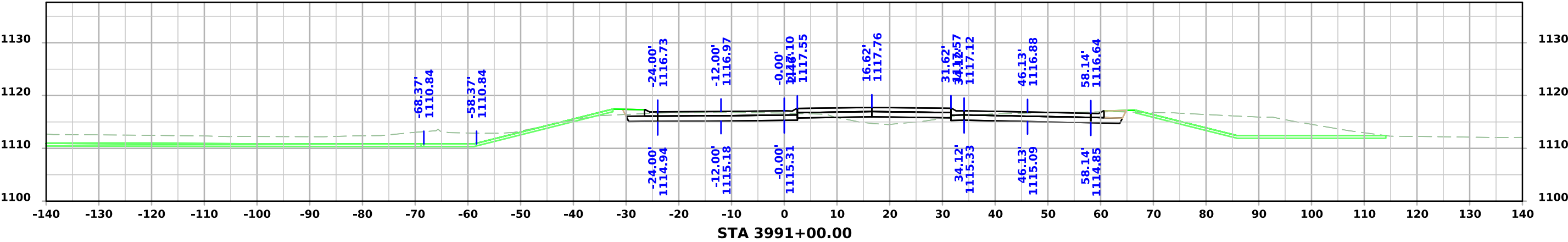
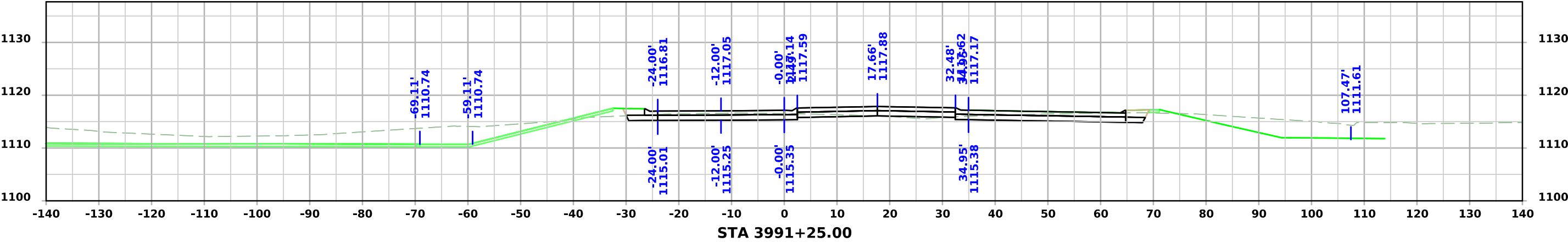
US30 WB_1



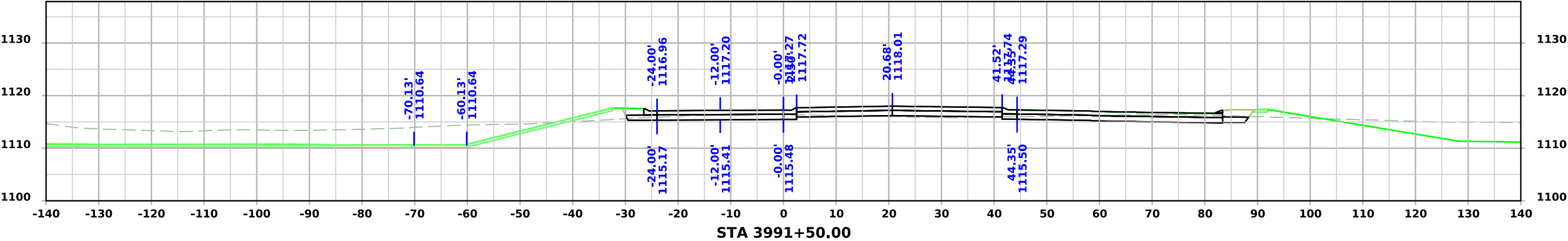
US30 WB_1



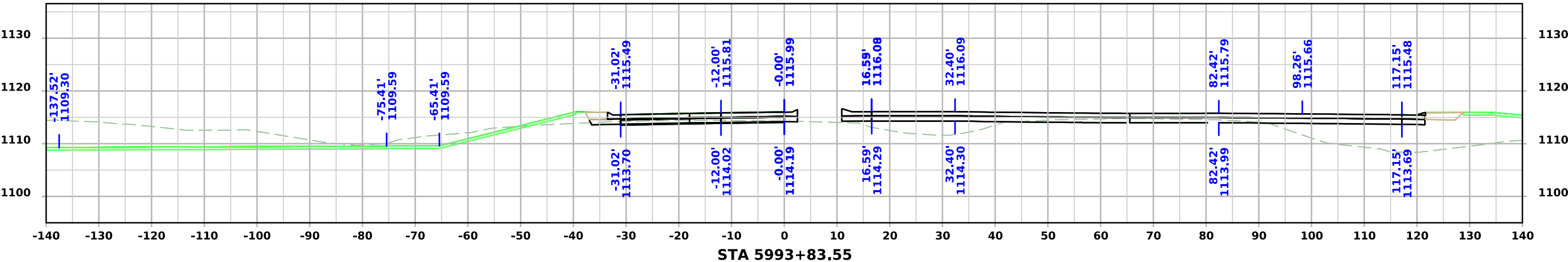
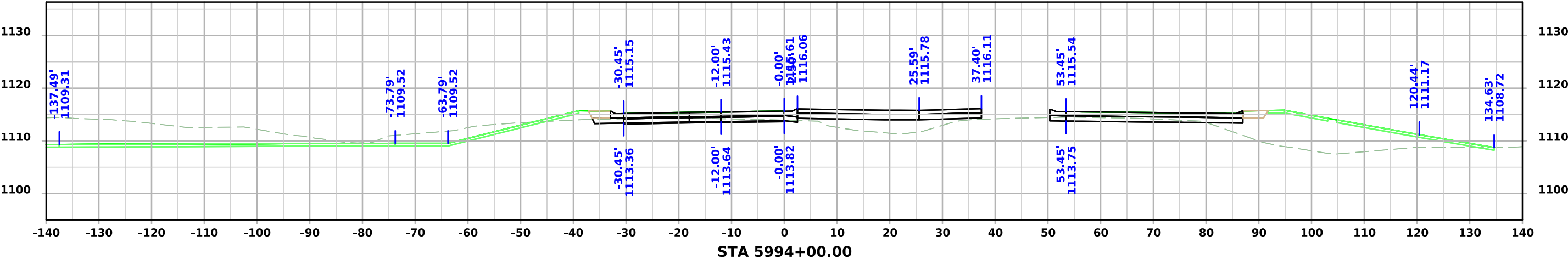
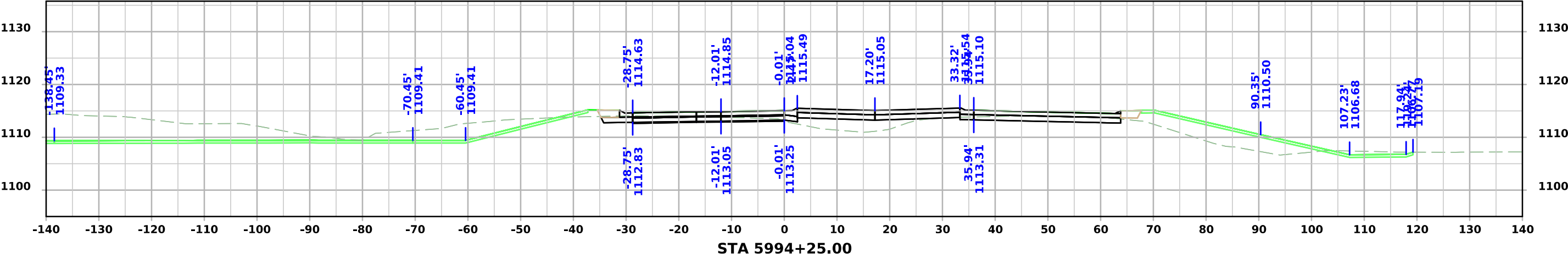
US30 WB_1



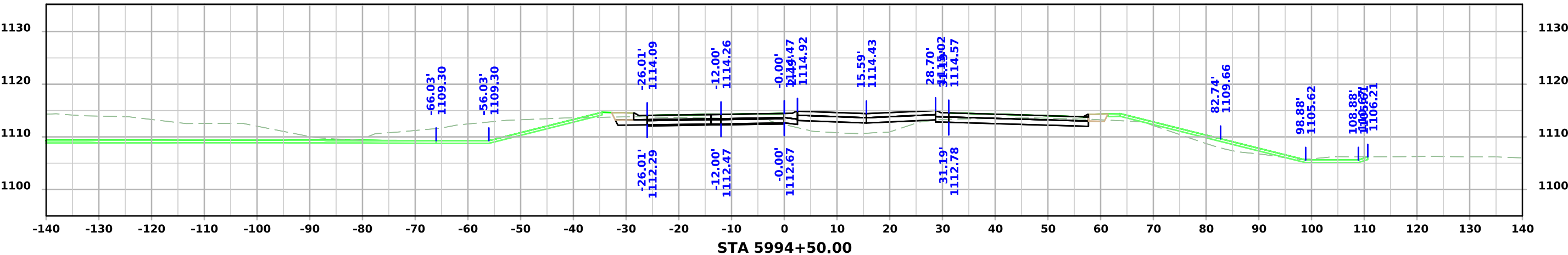
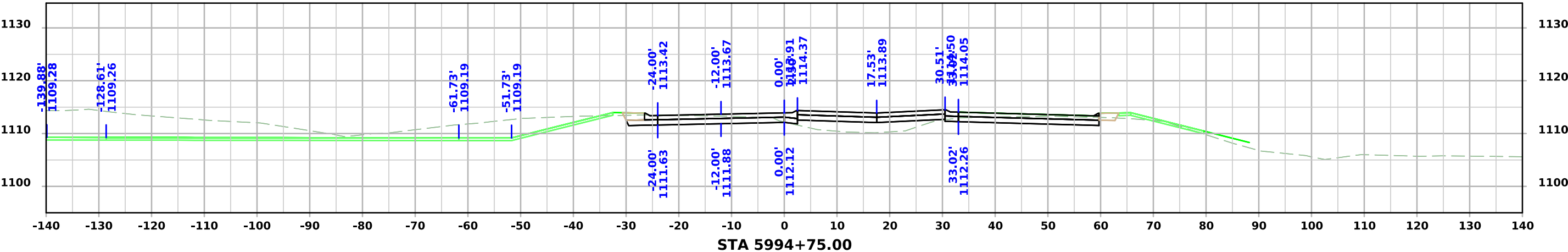
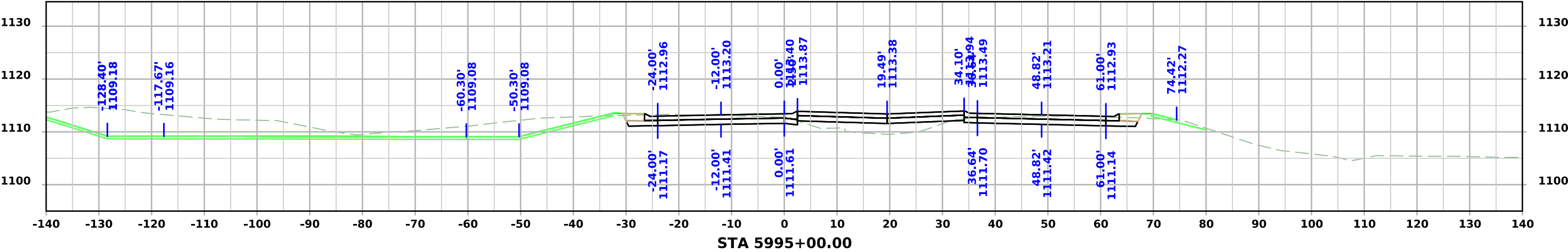
US30 WB_1



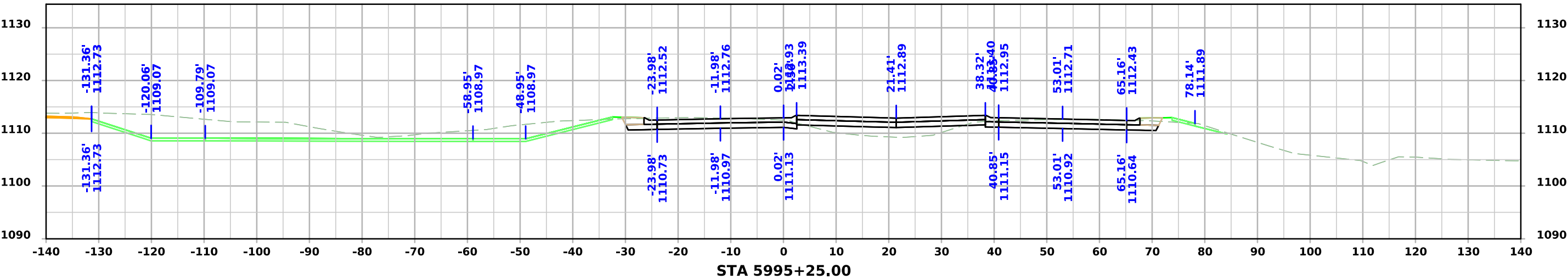
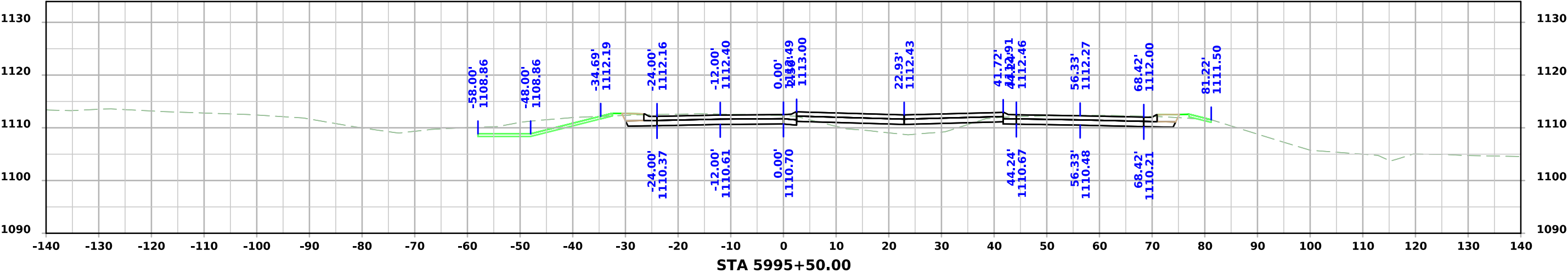
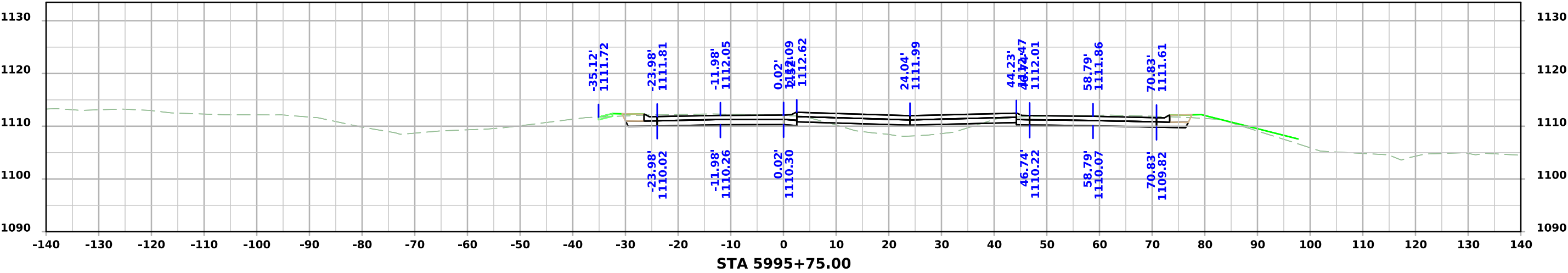
US30 WB_2



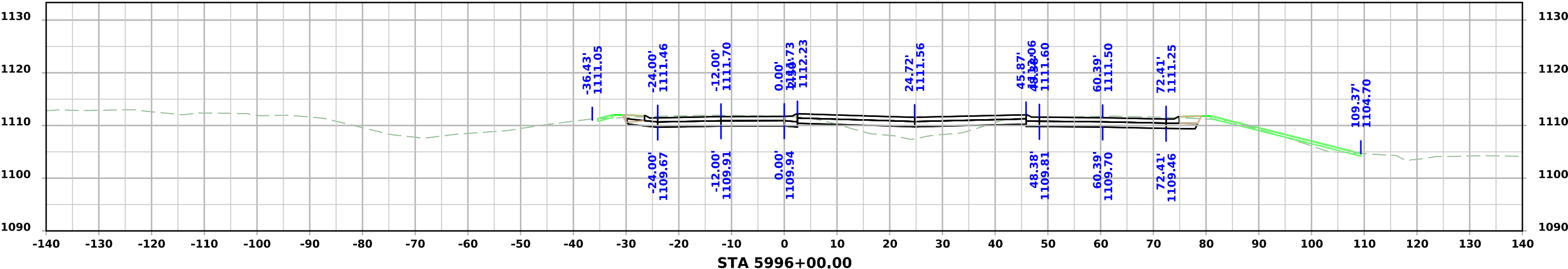
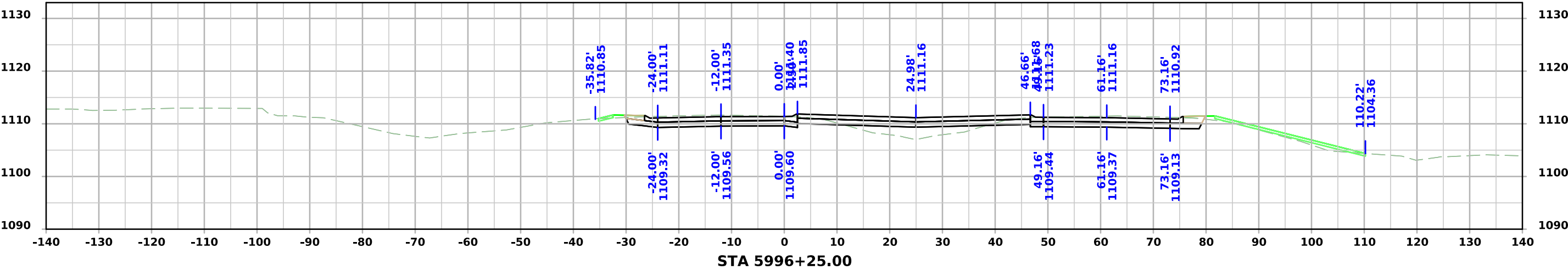
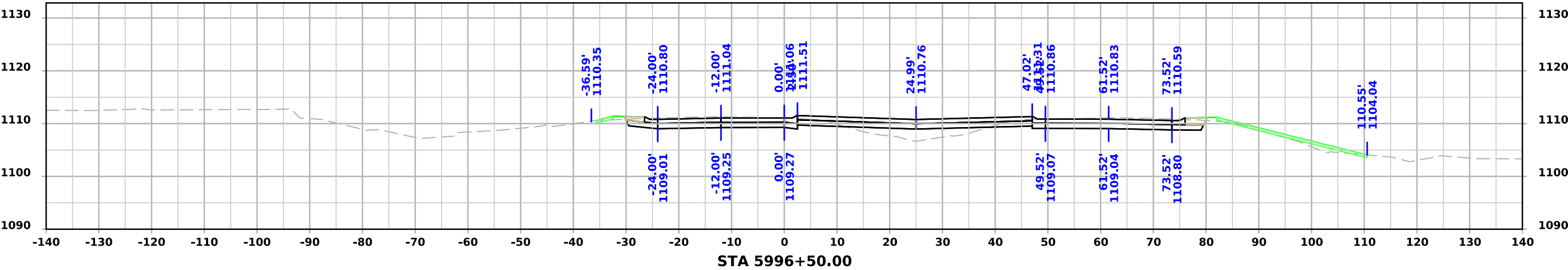
US30 WB_2



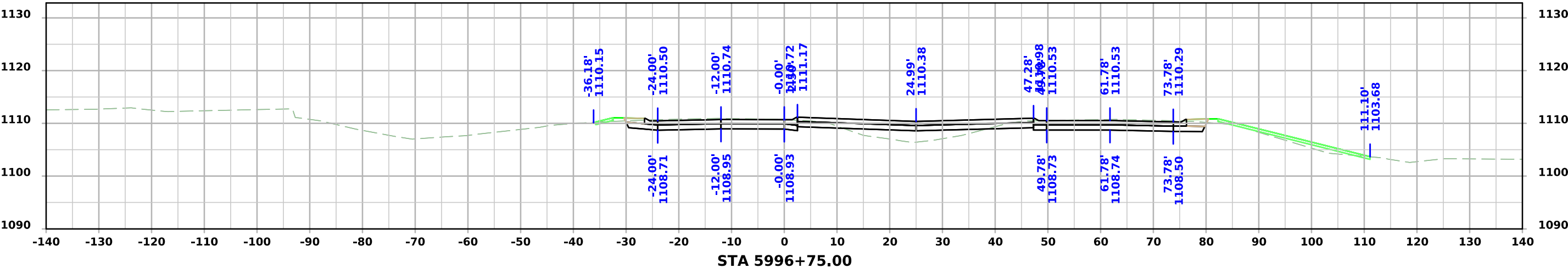
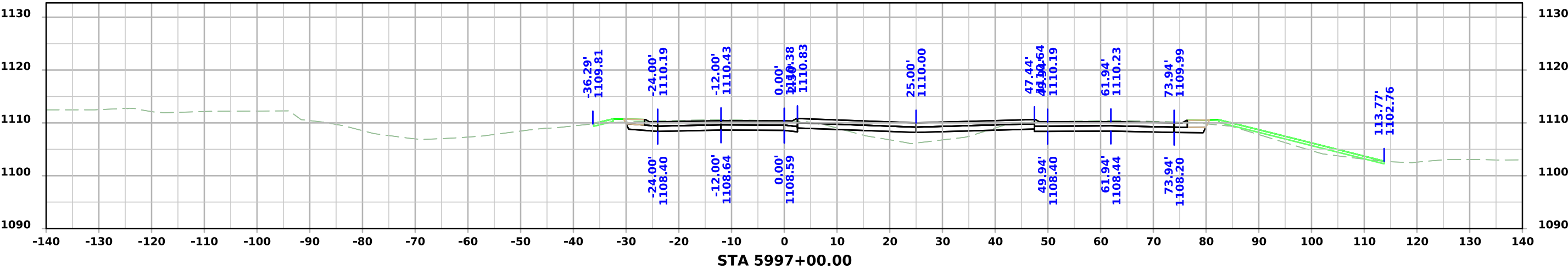
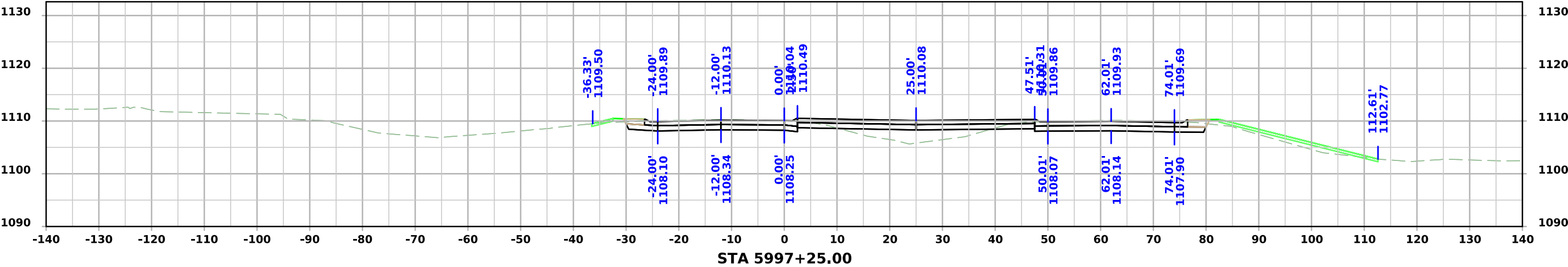
US30 WB_2



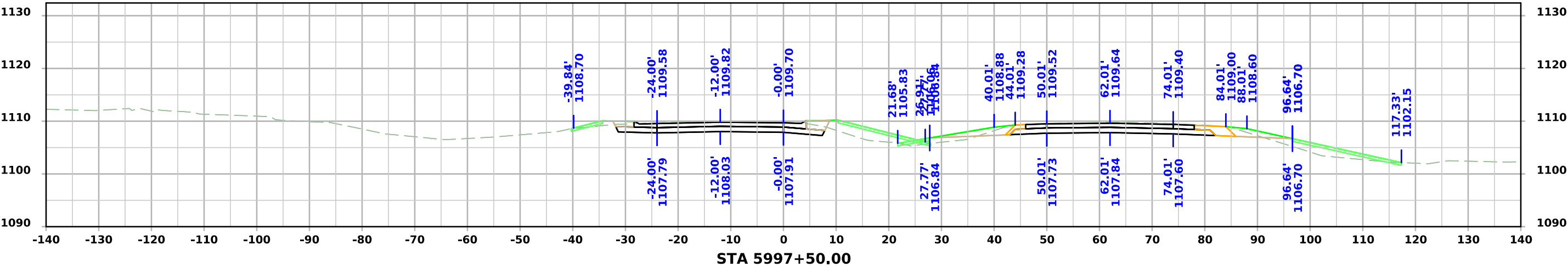
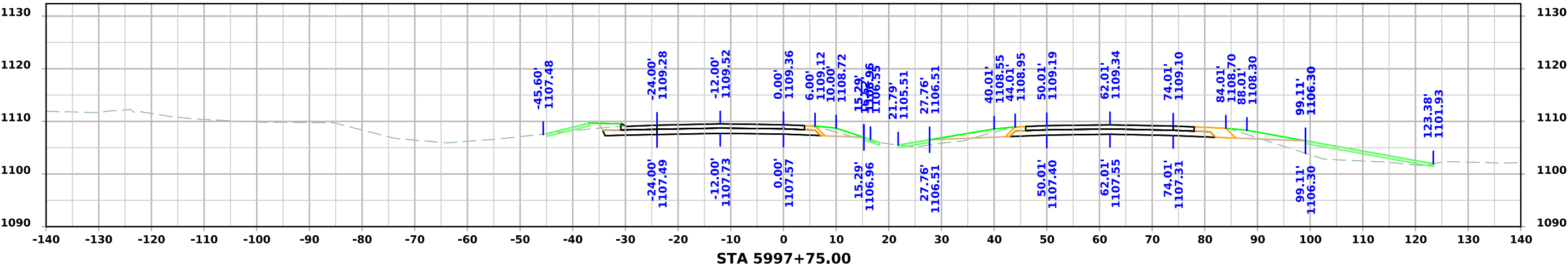
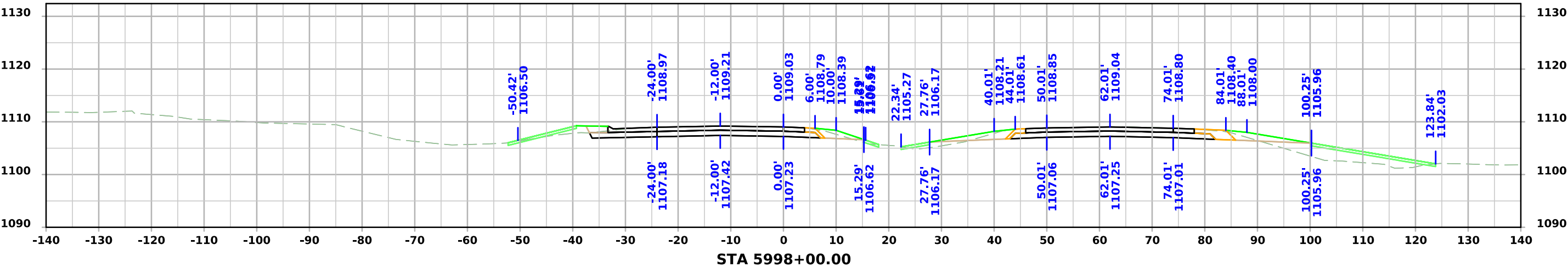
US30 WB_2



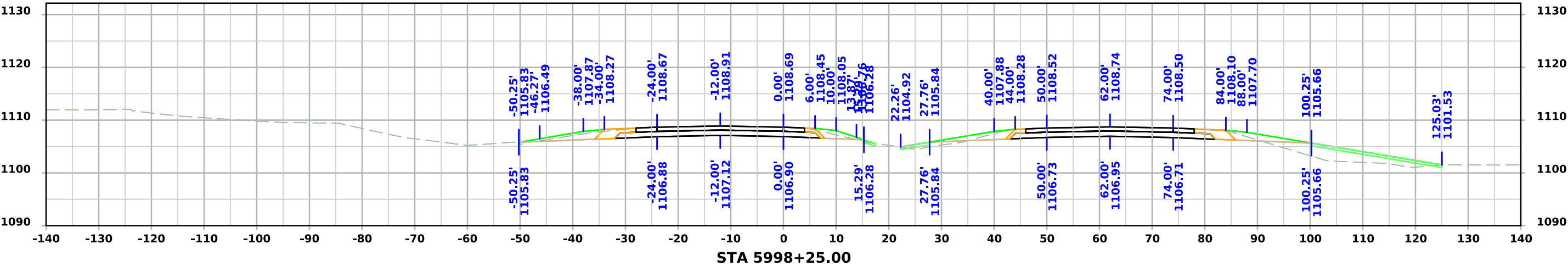
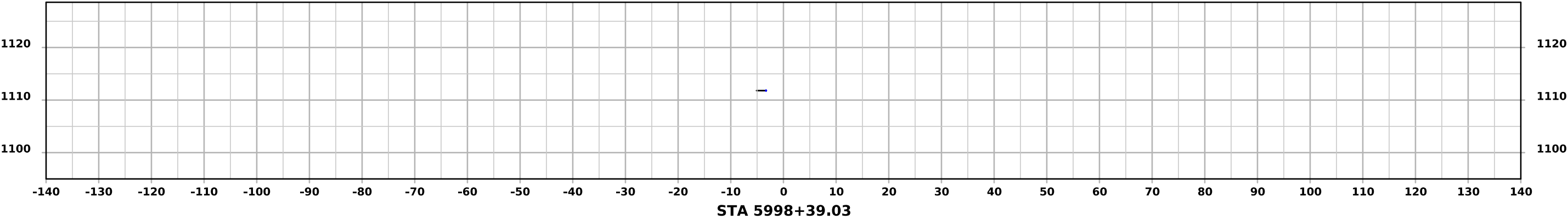
US30 WB_2

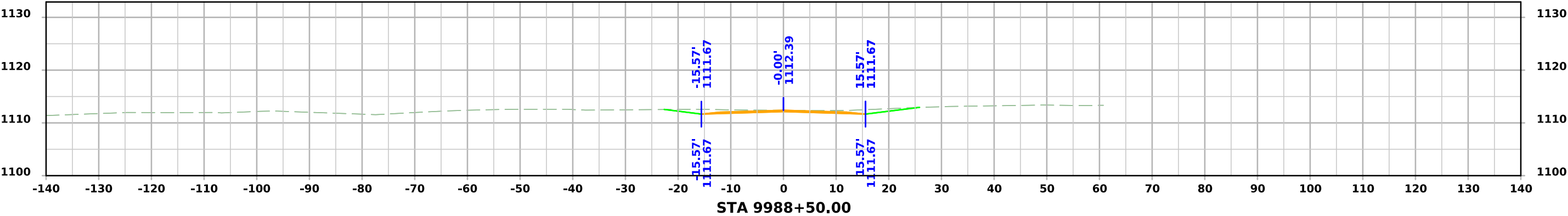
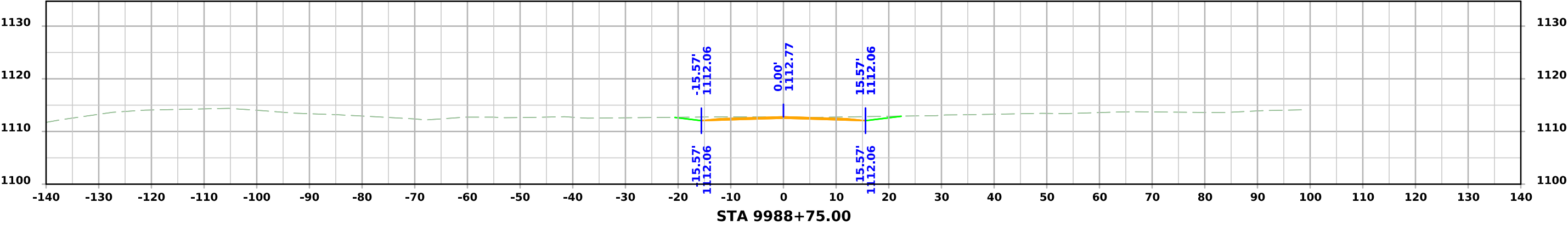
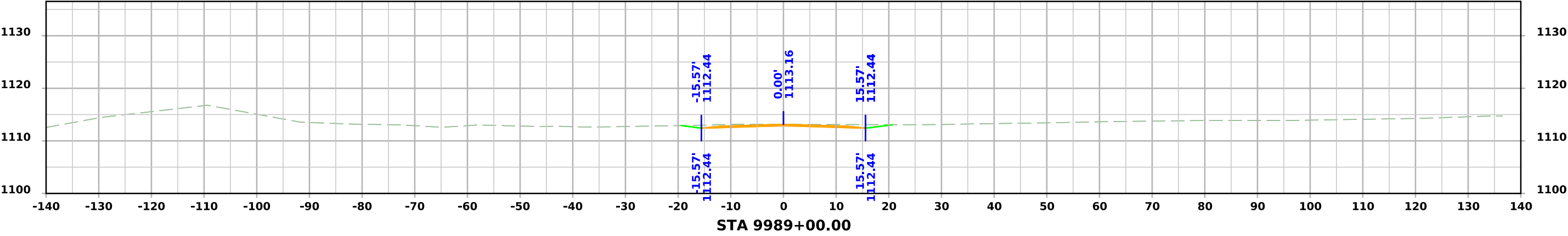


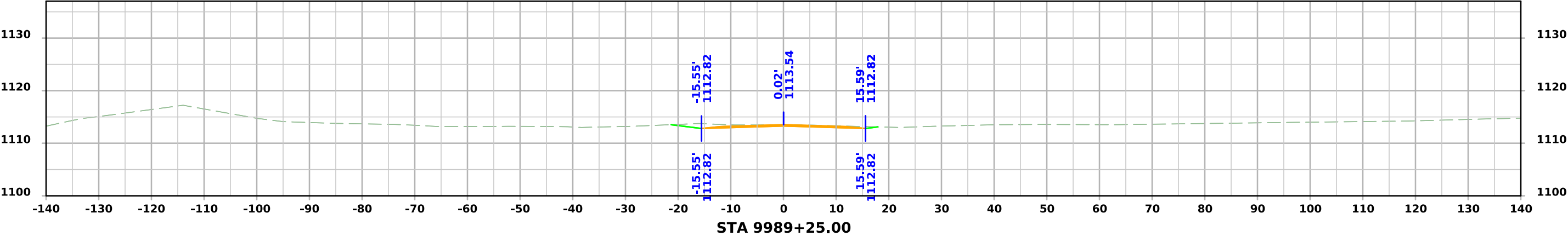
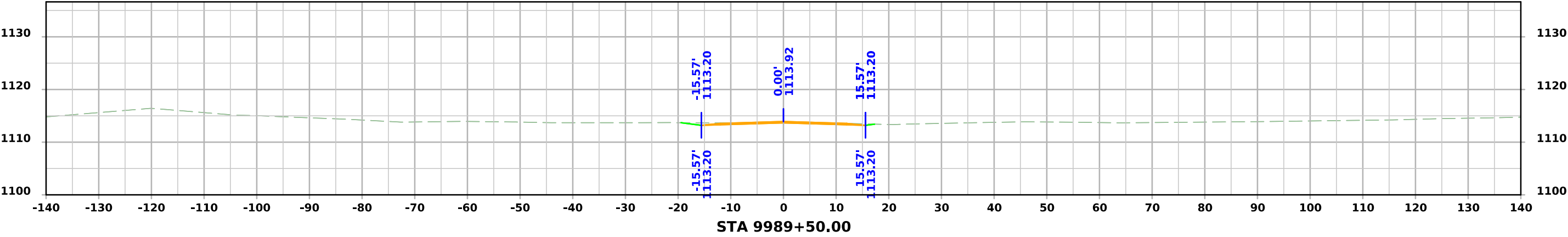
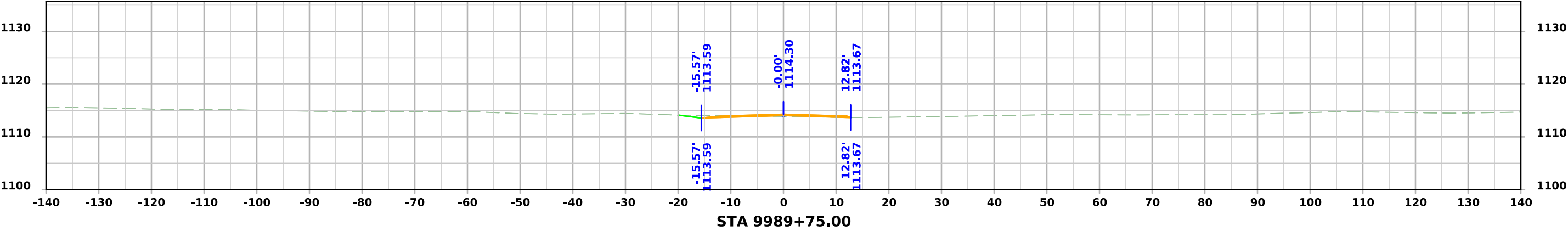
US30 WB_2

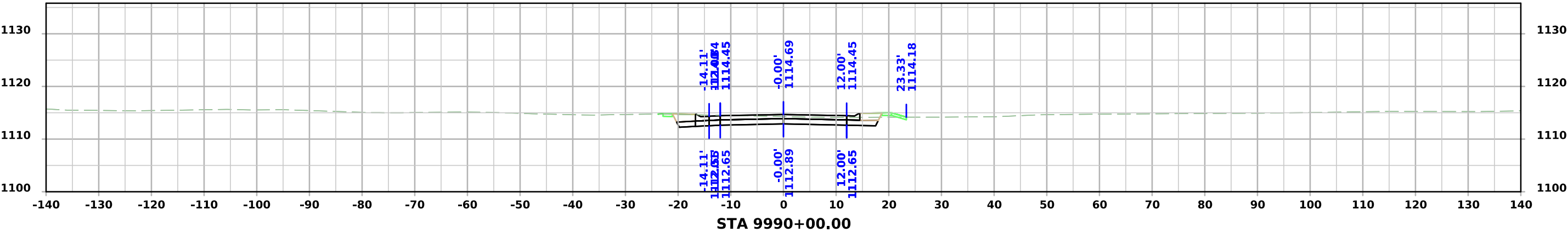
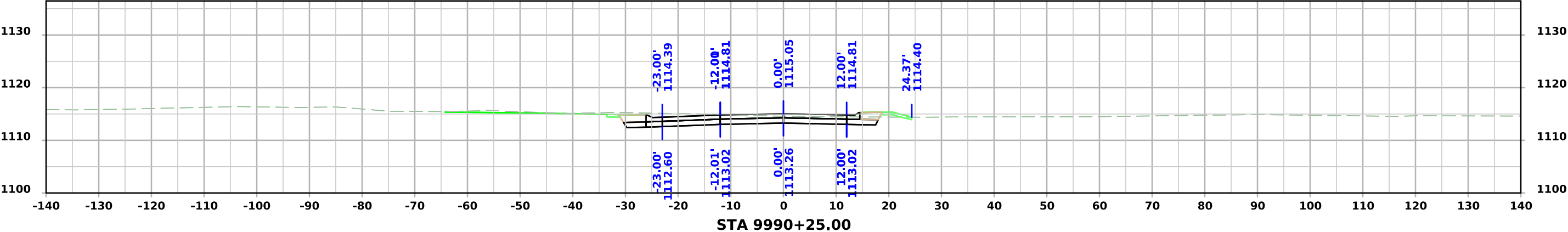
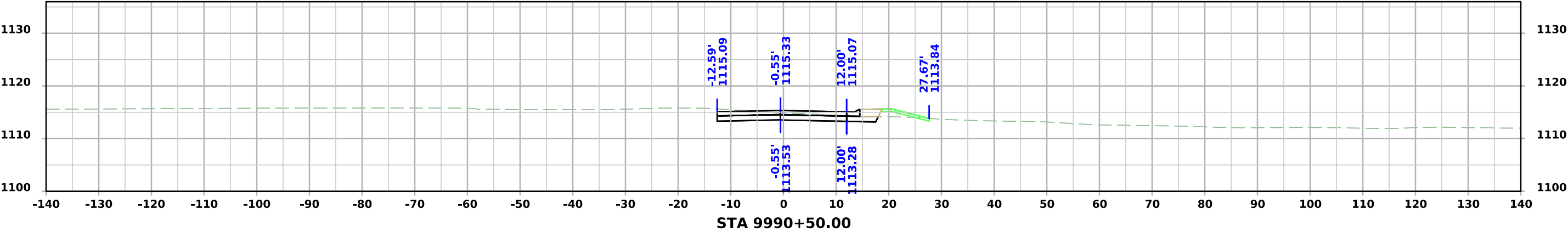


US30 WB_2

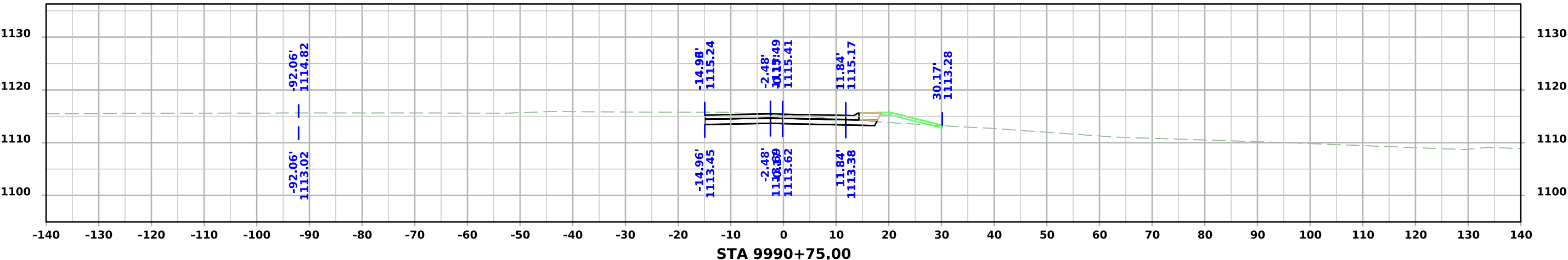
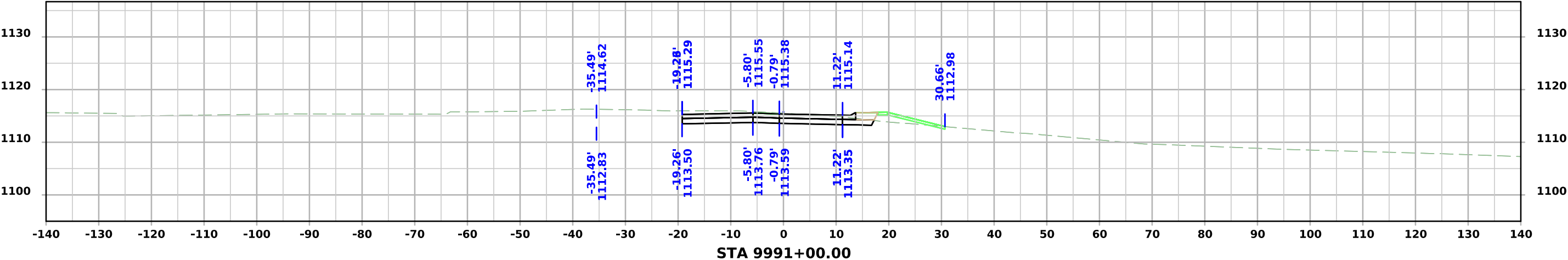
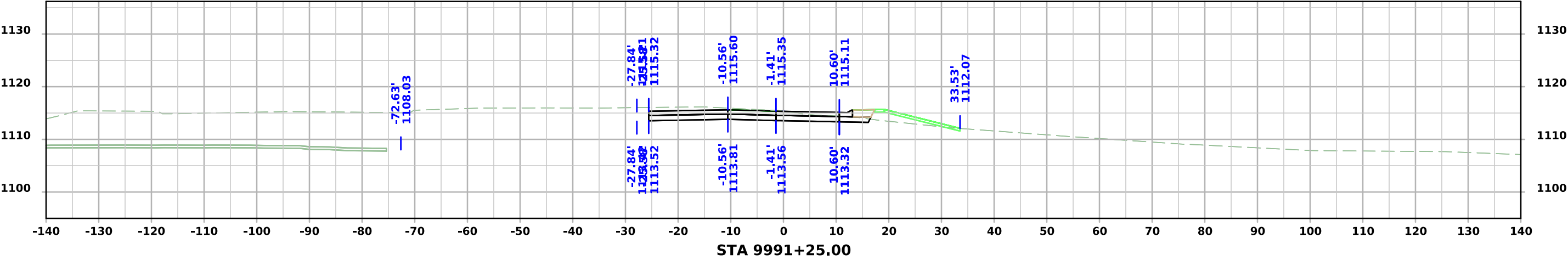




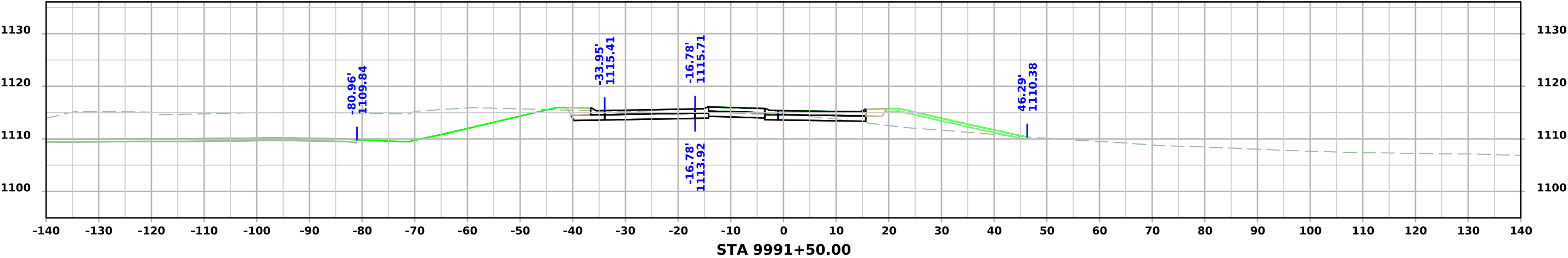
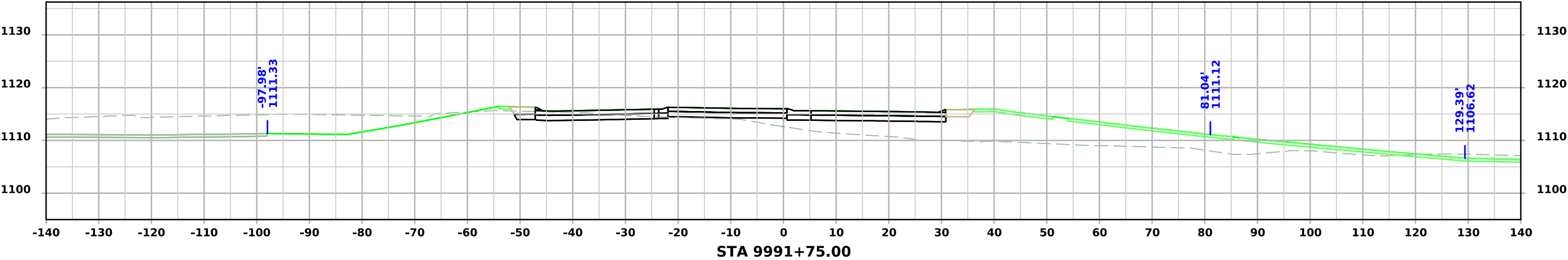
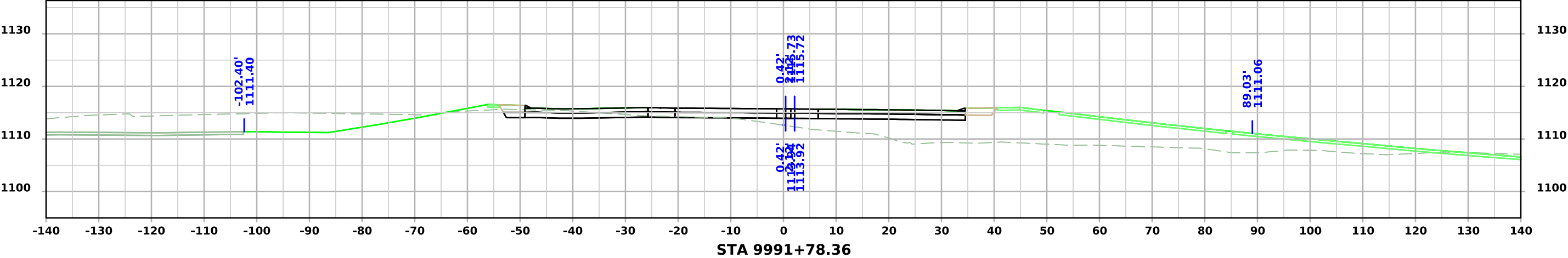




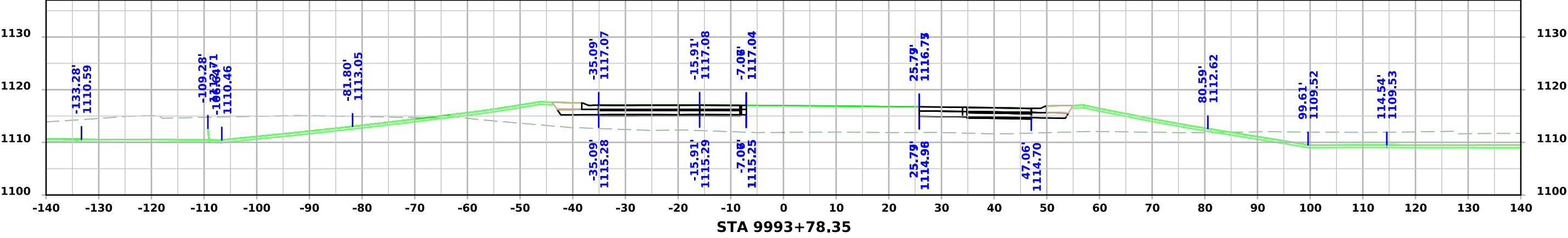
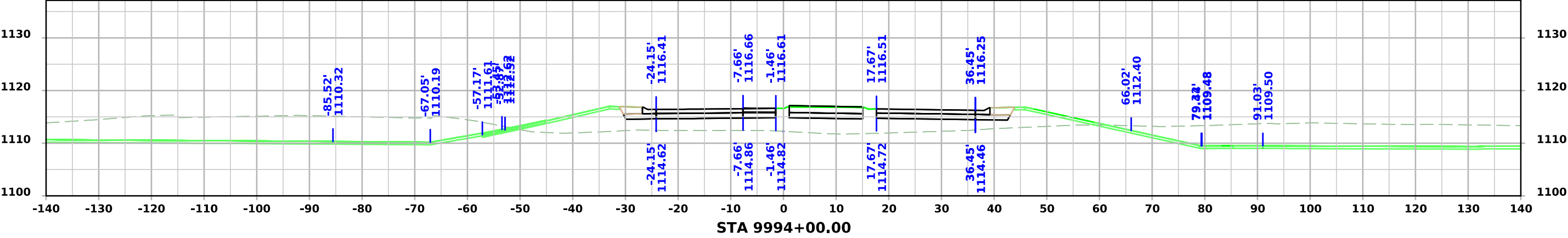
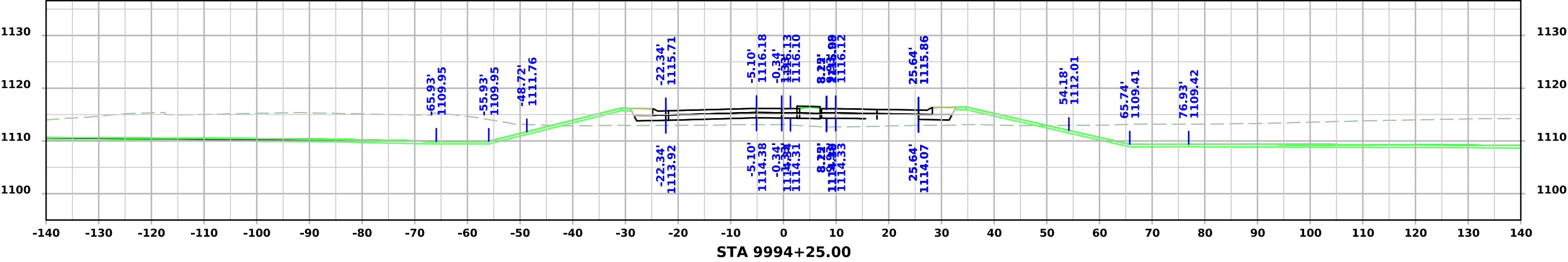
SR30

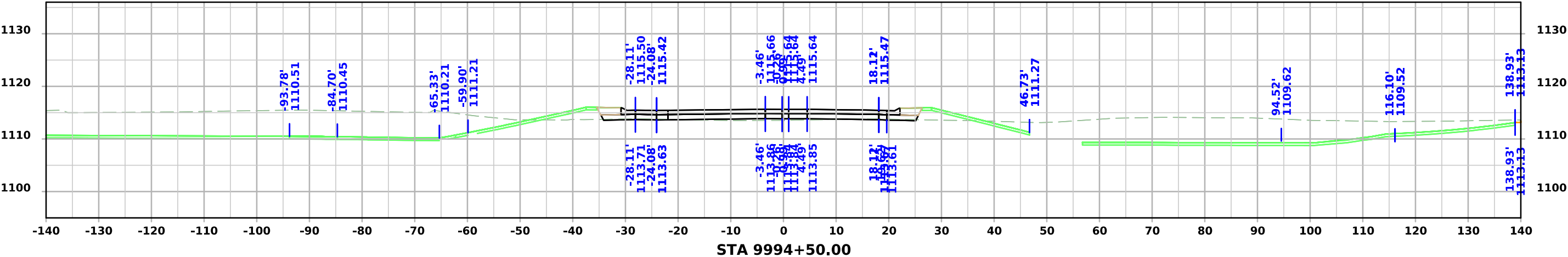


SR30

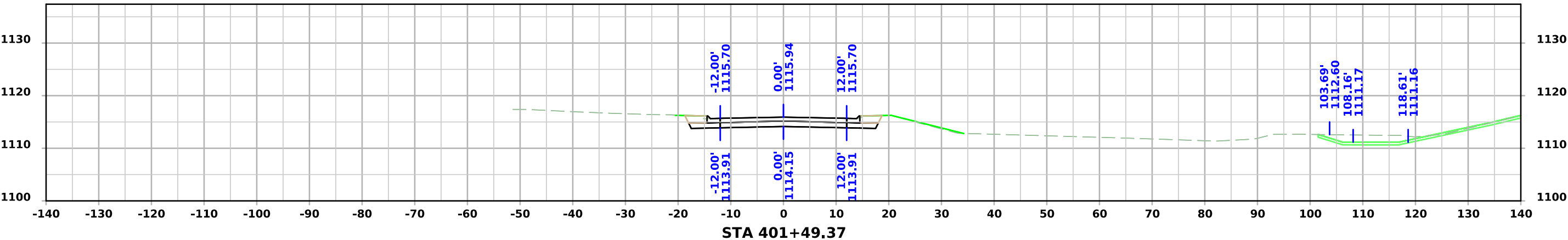
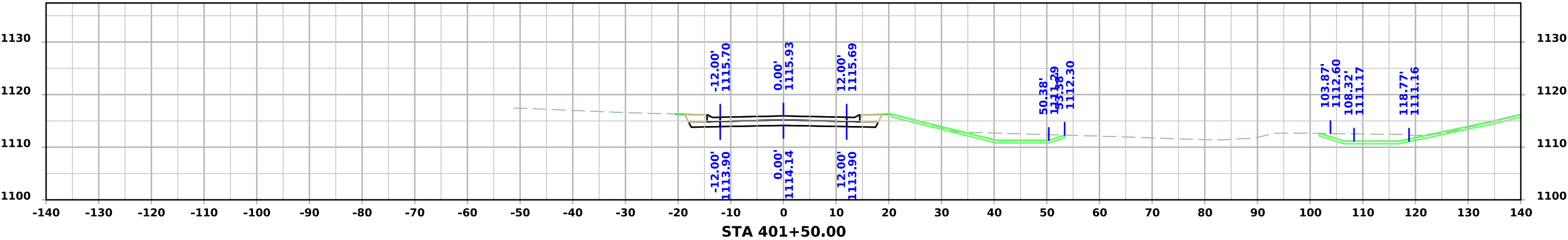
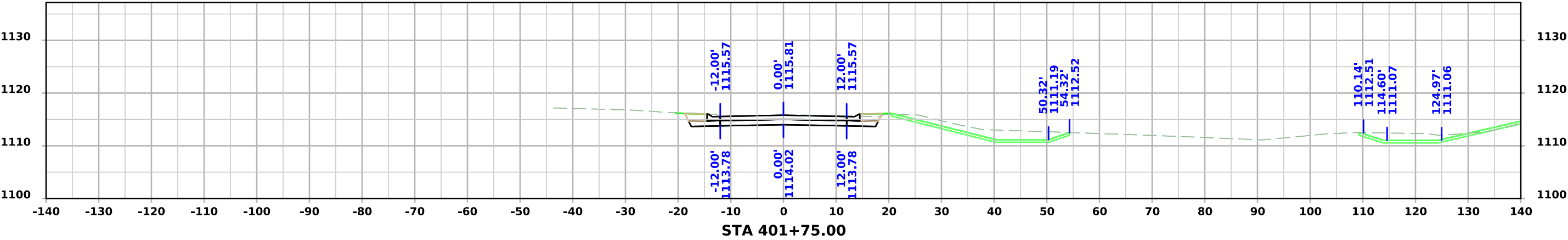


SR30_2

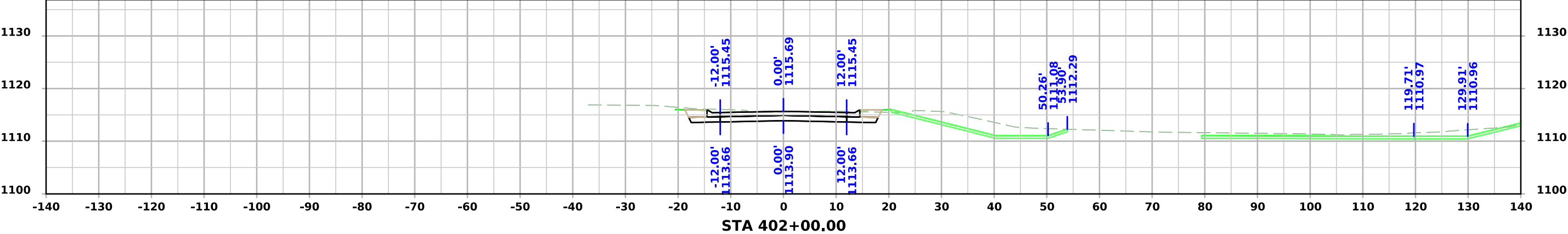
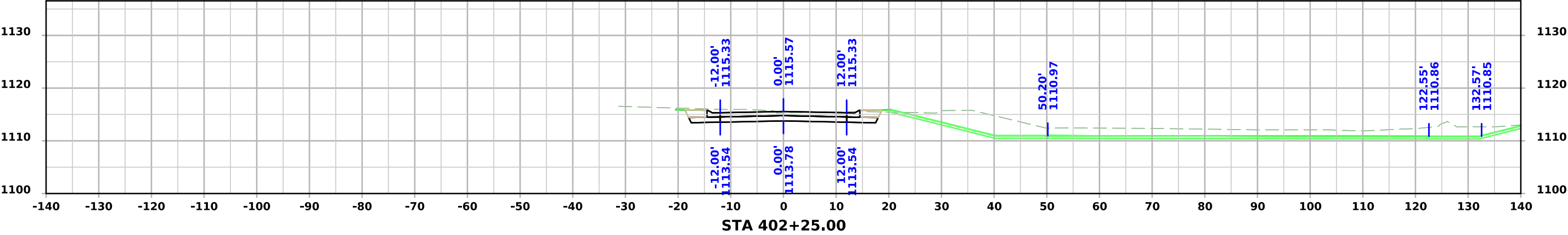
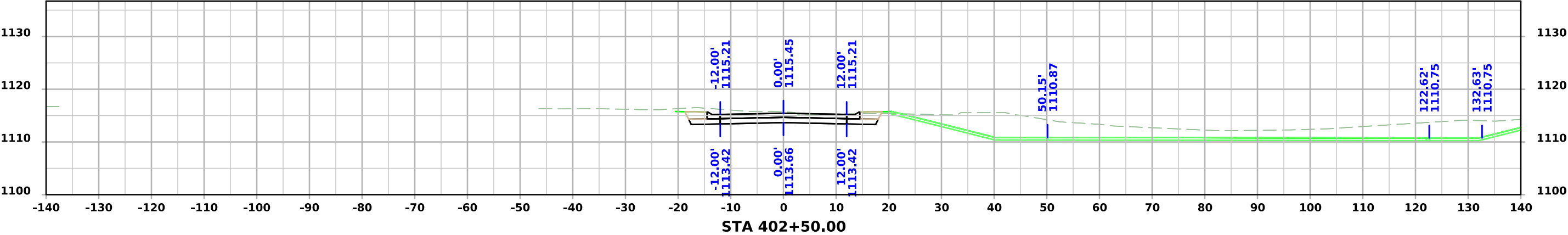




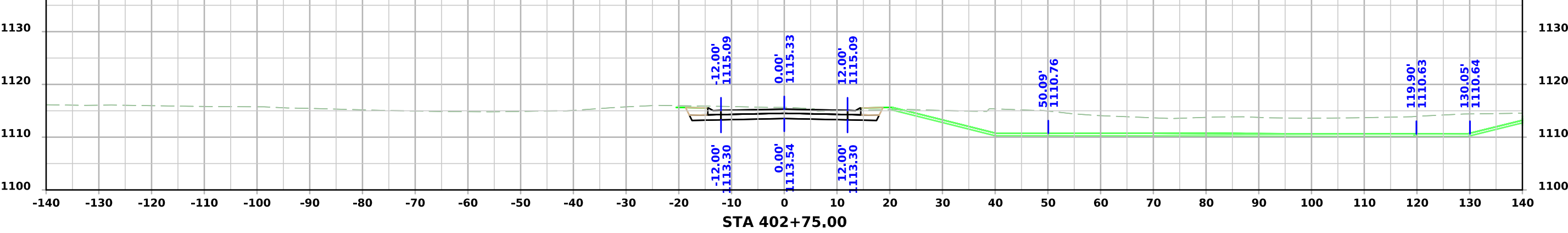
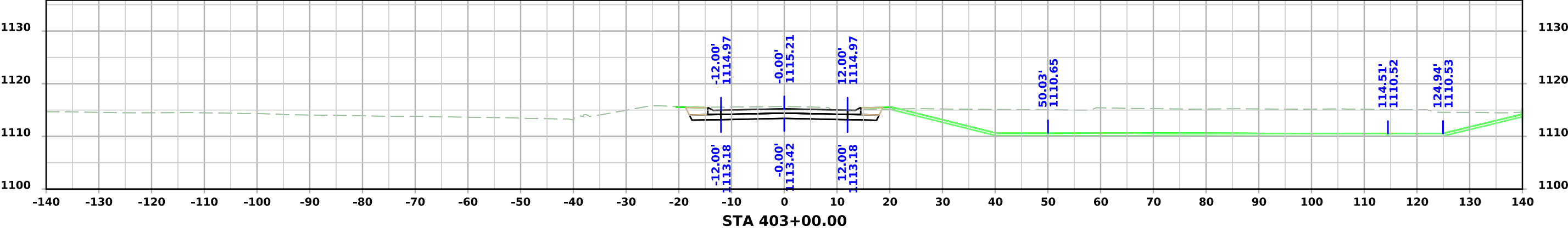
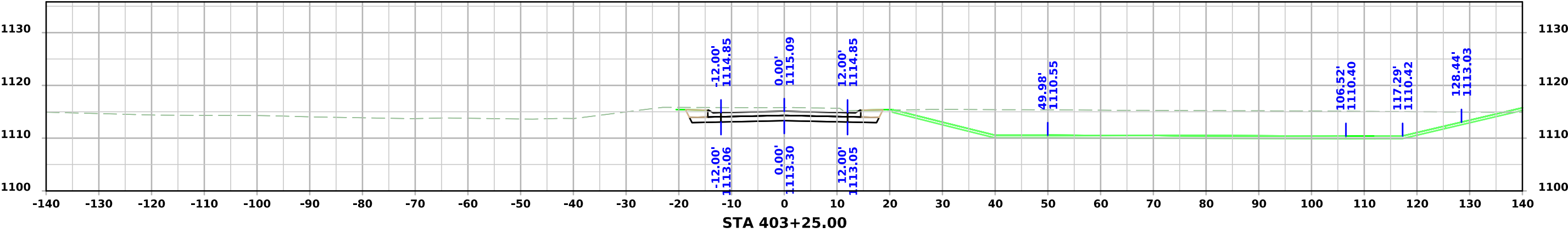
SE Marshall Street



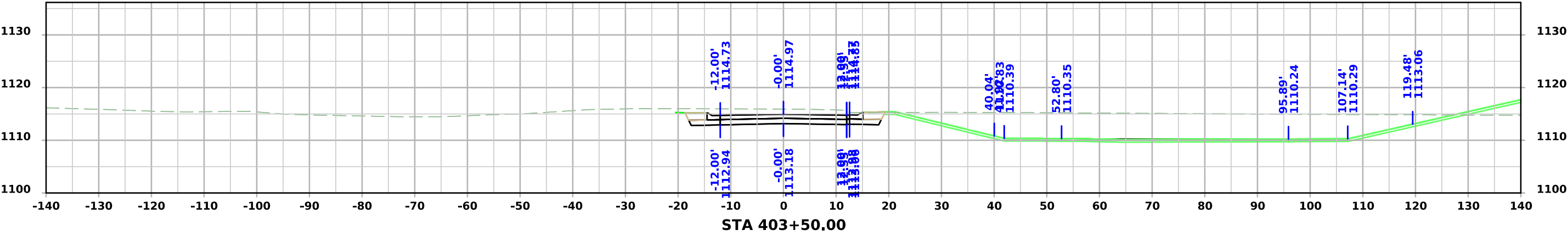
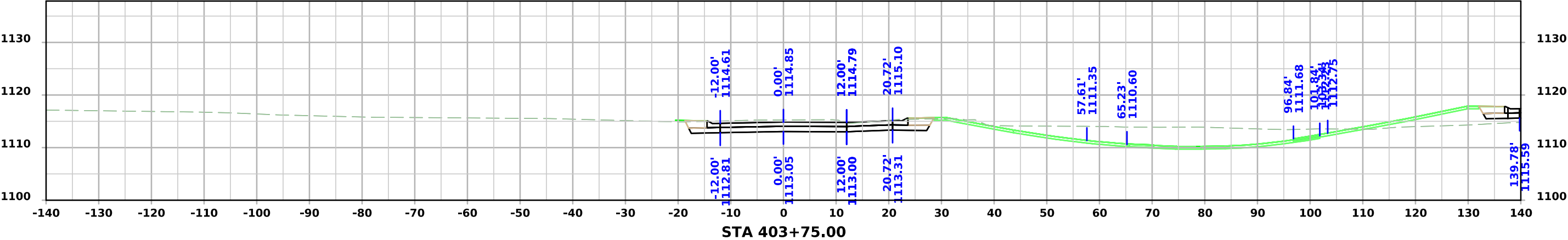
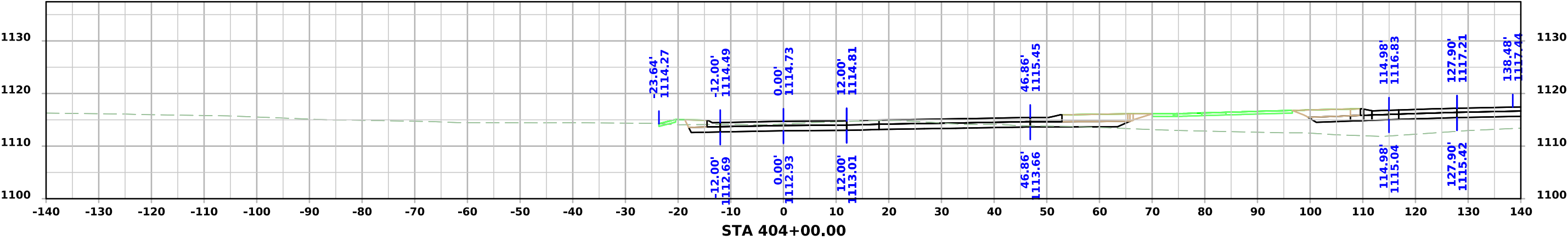
SE Marshall Street



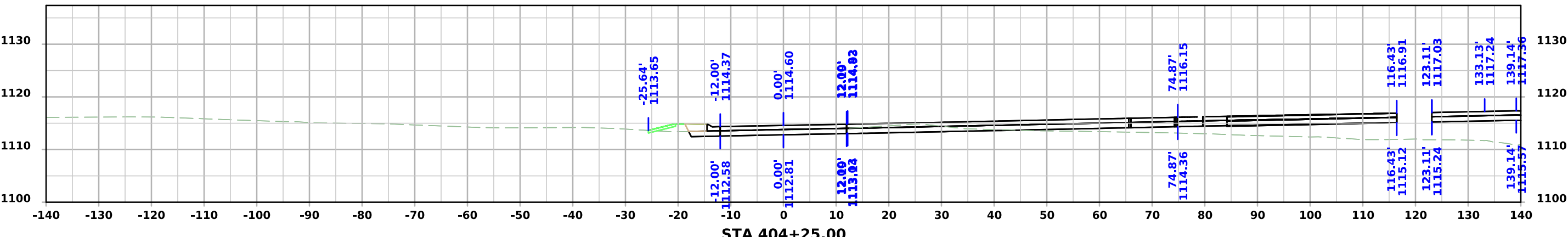
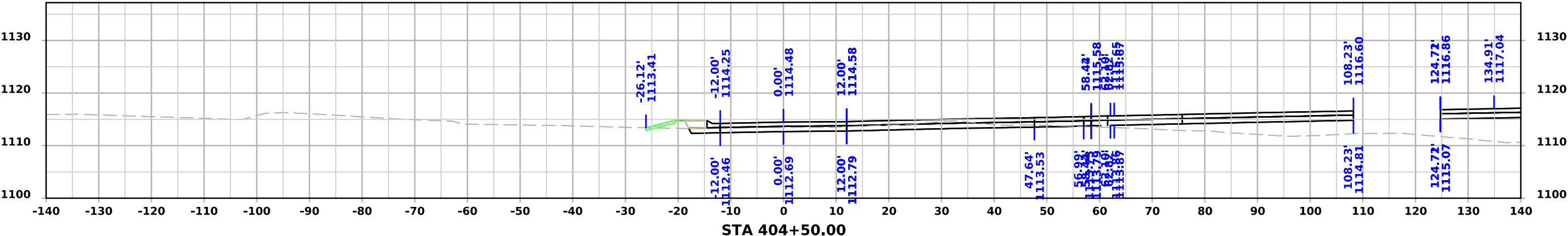
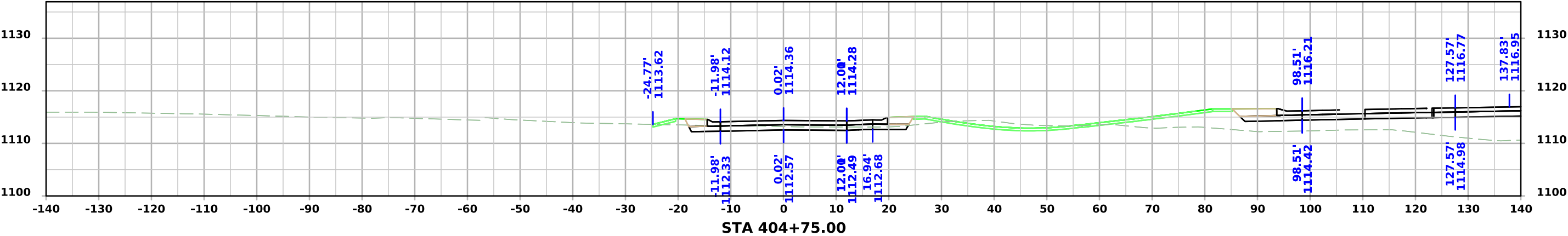
SE Marshall Street



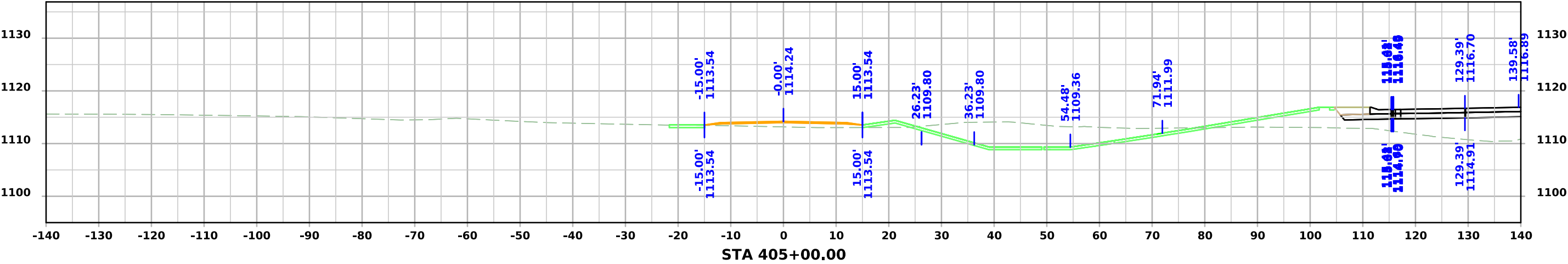
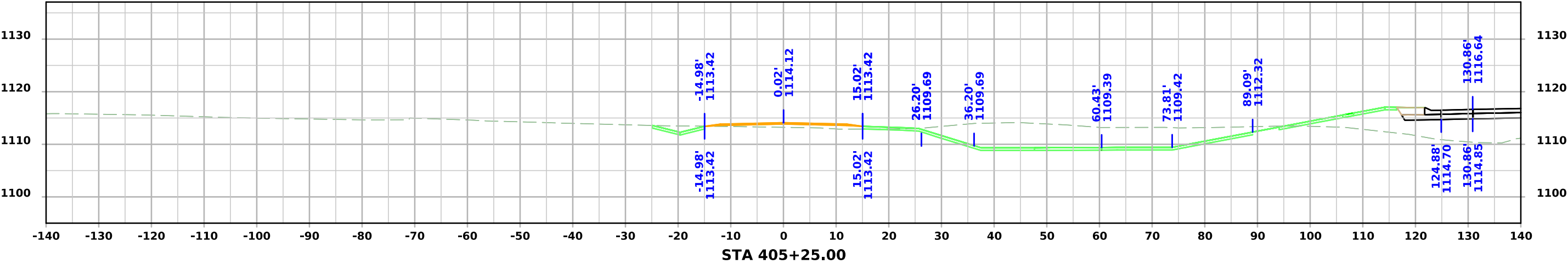
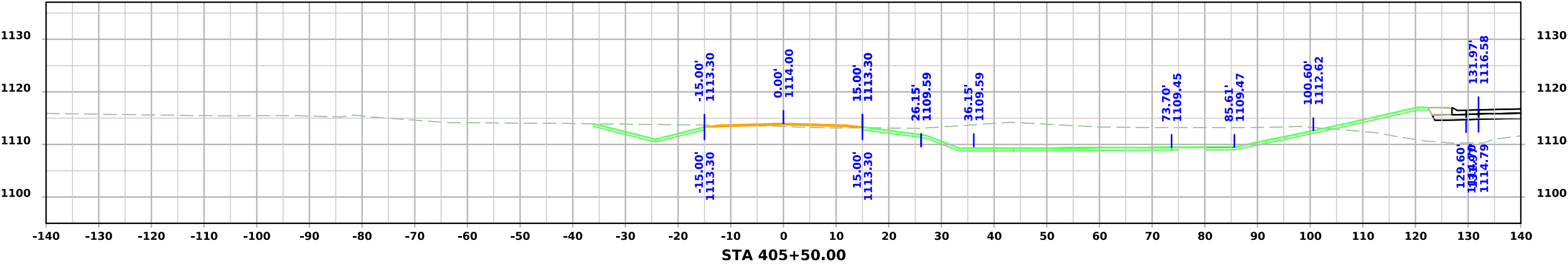
SE Marshall Street



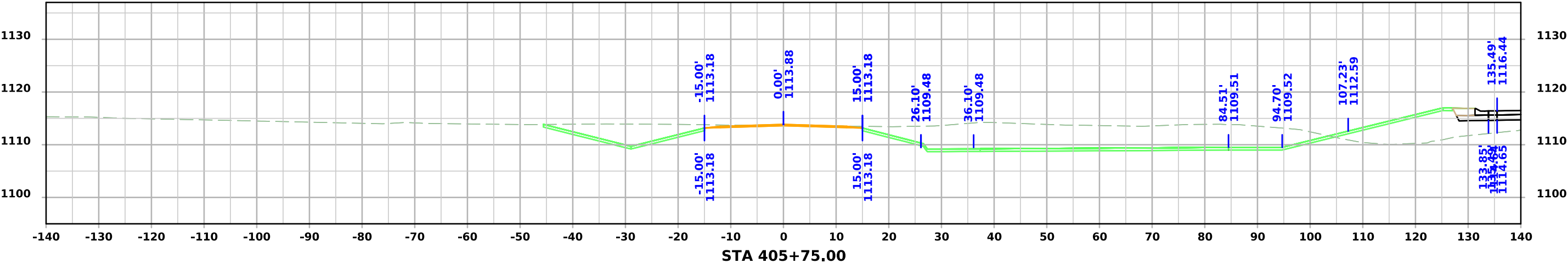
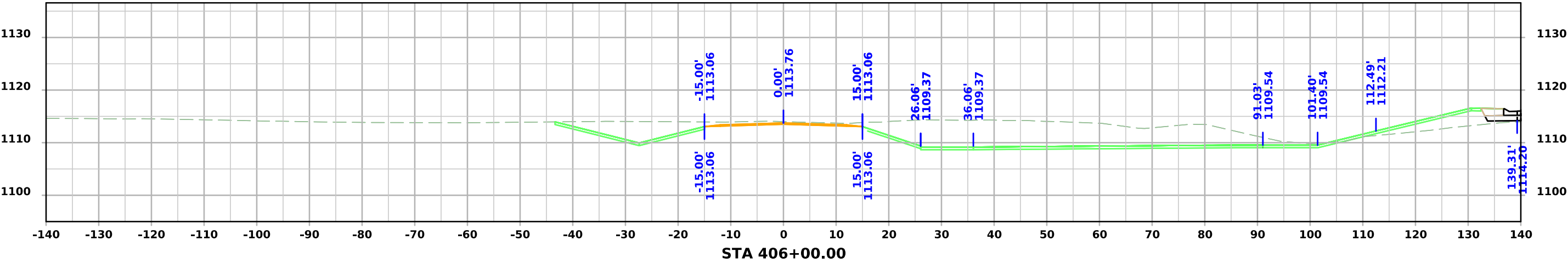
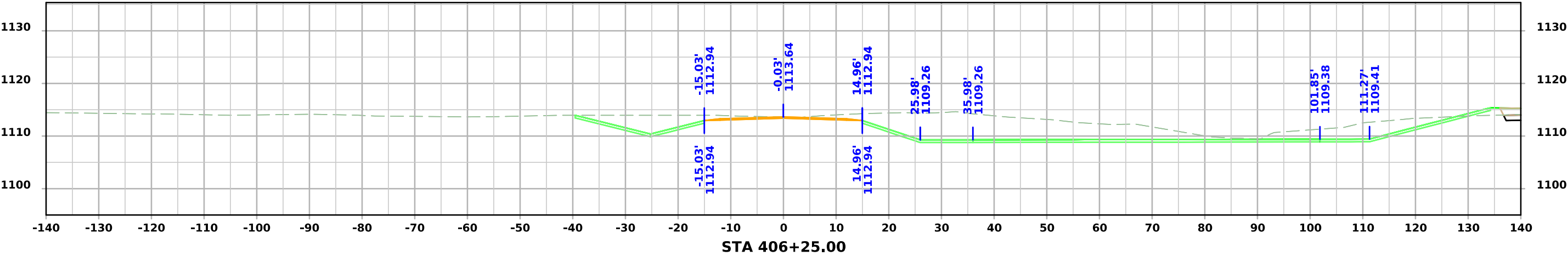
SE Marshall Street



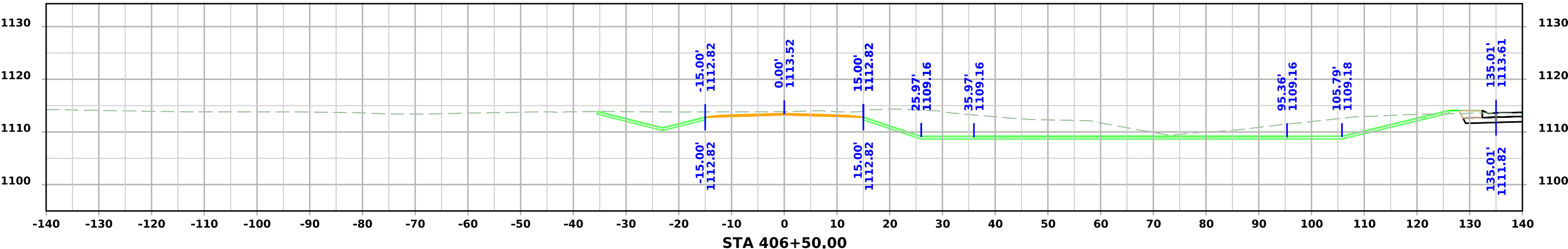
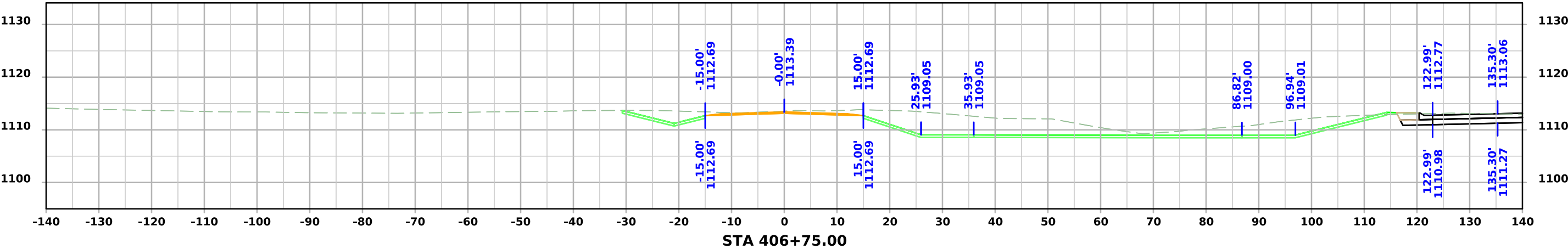
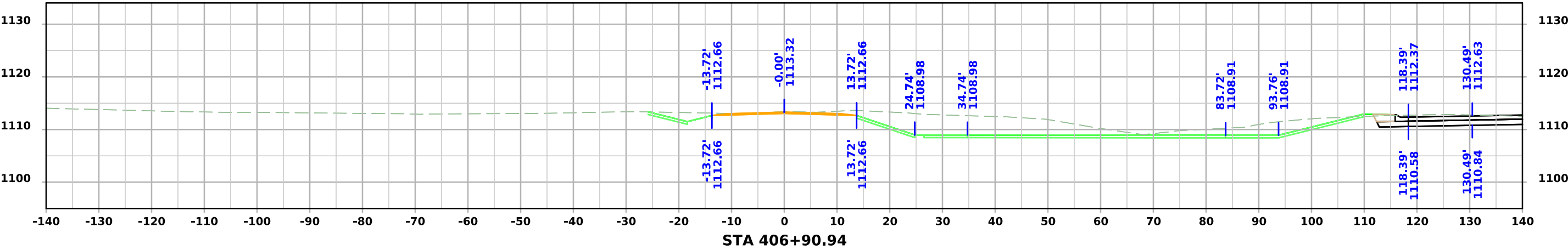
SE Marshall Street



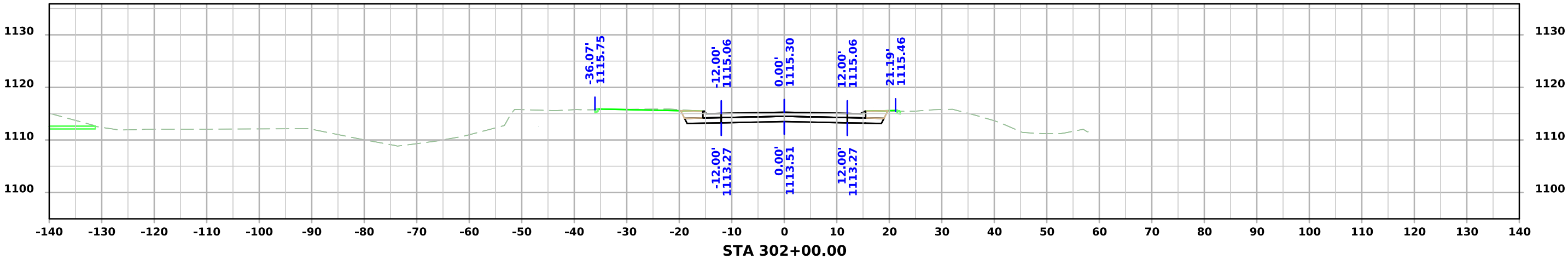
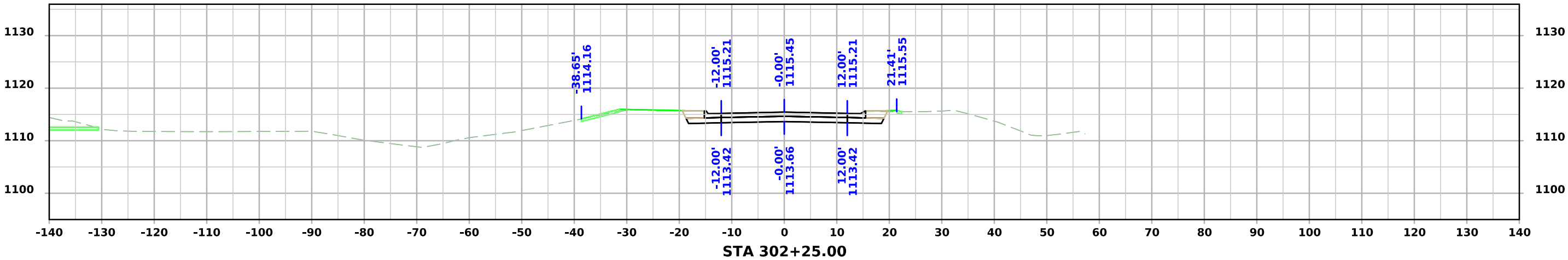
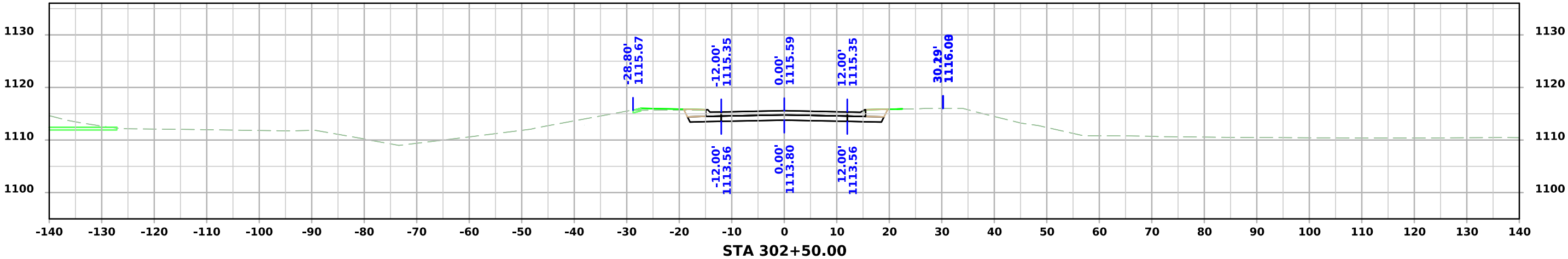
SE Marshall Street



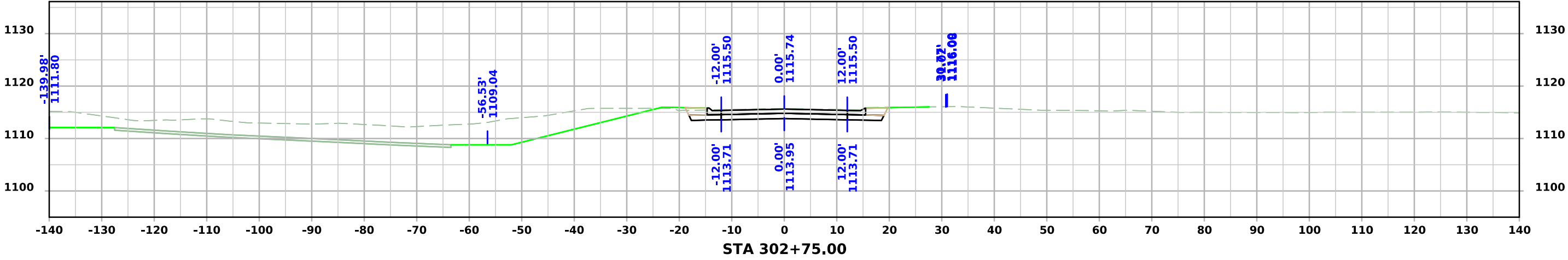
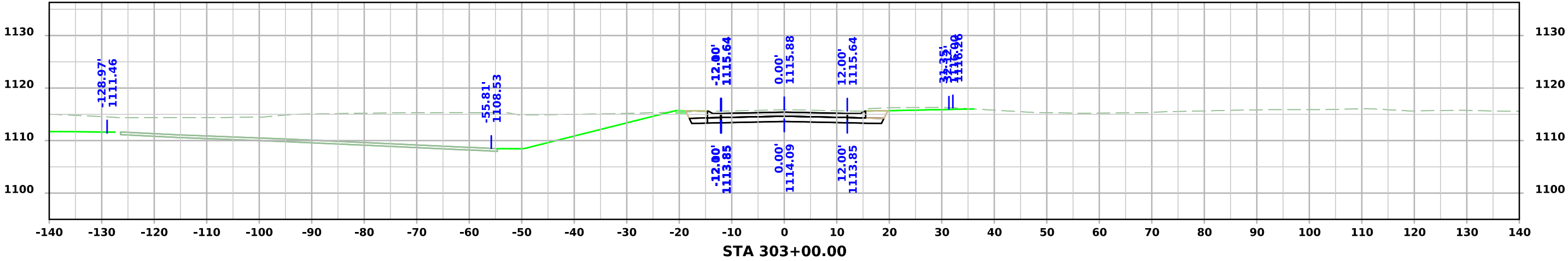
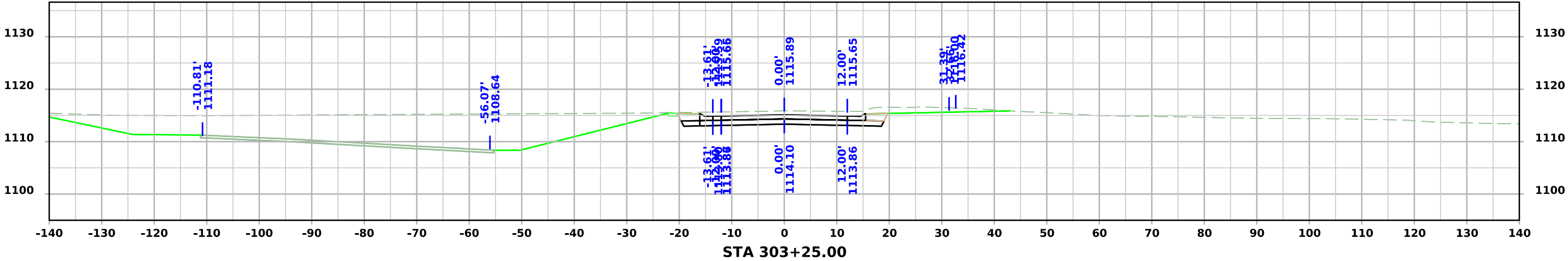
SE Marshall Street



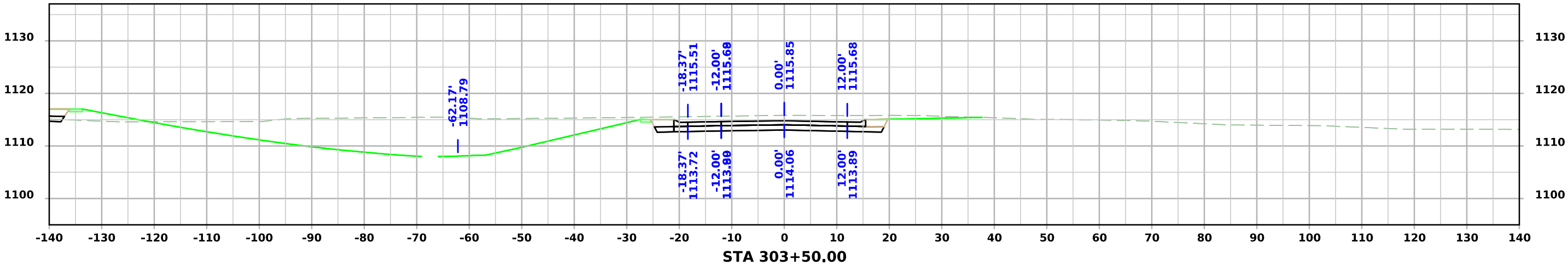
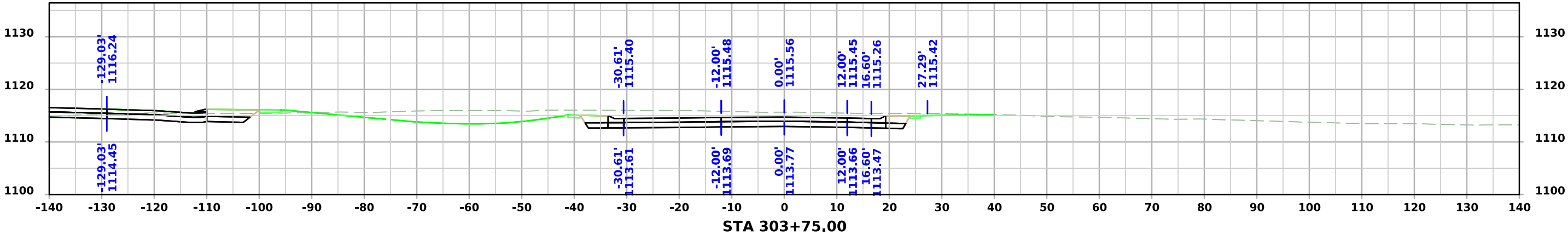
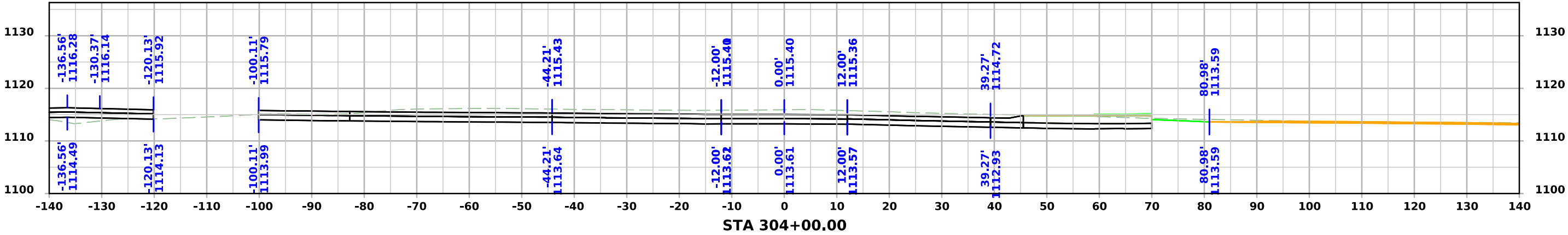
Crown Flair Dr.



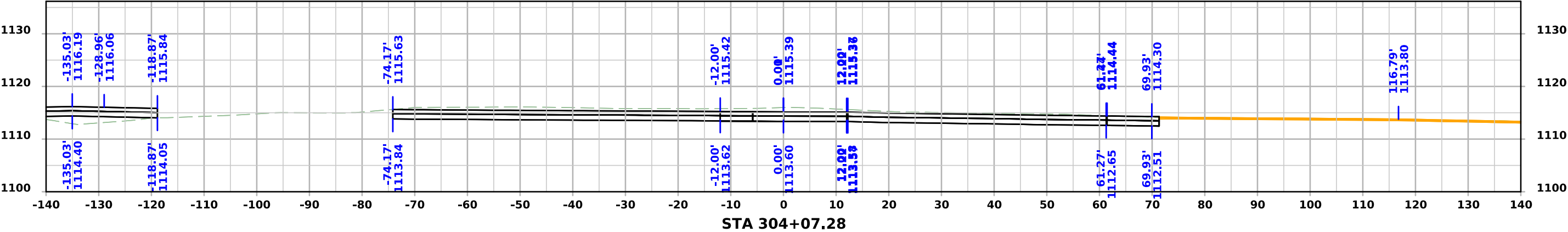
Crown Flair Dr.



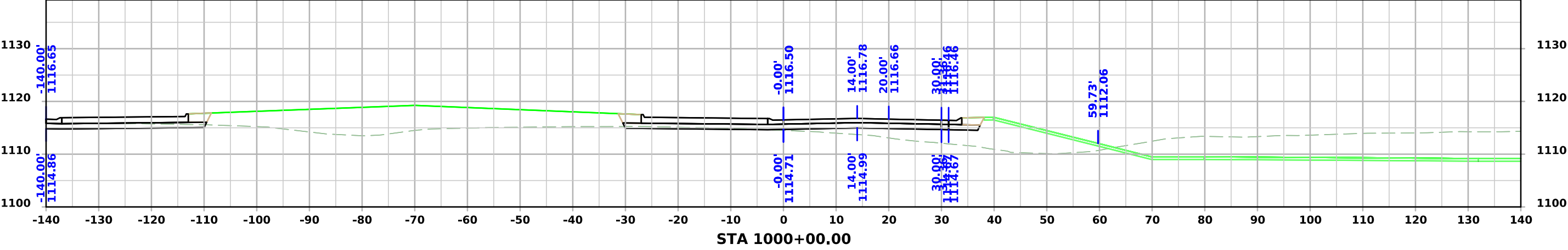
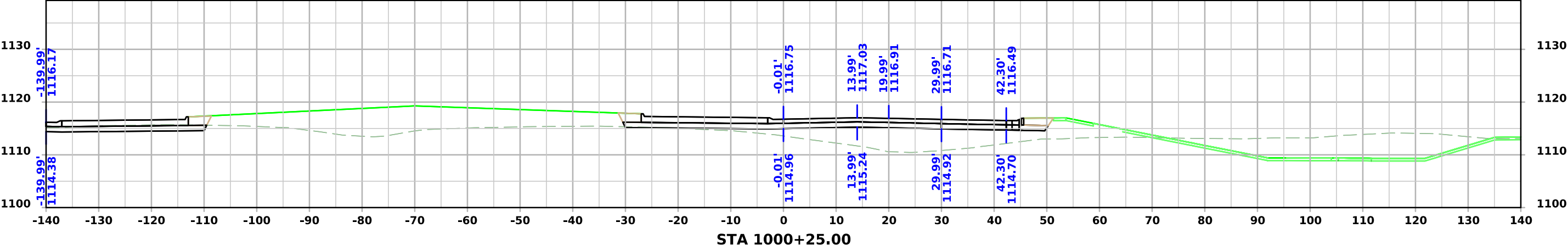
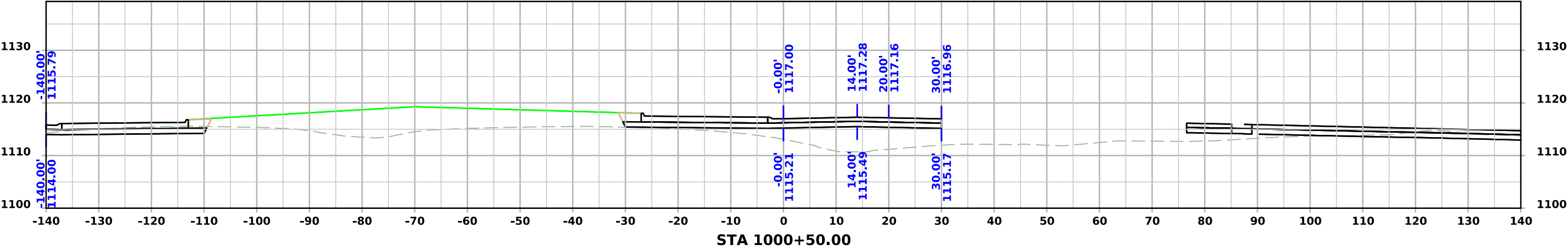
Crown Flair Dr.



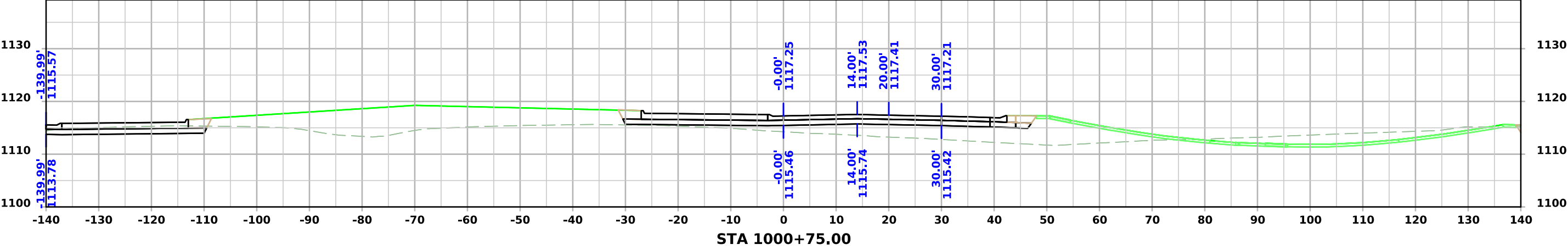
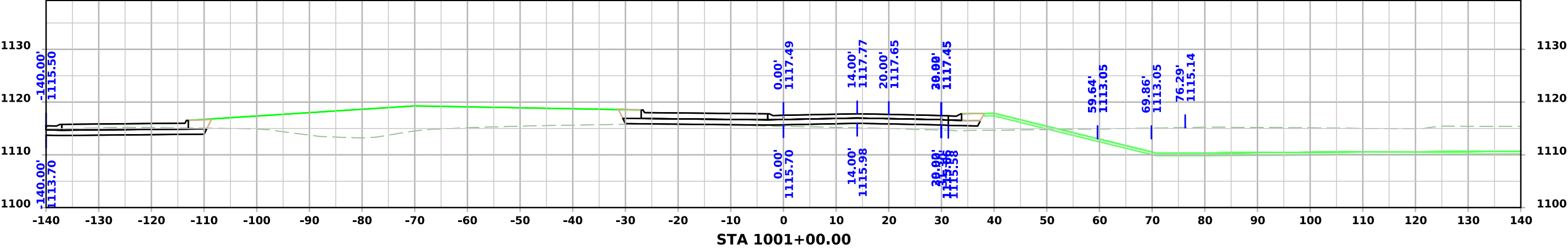
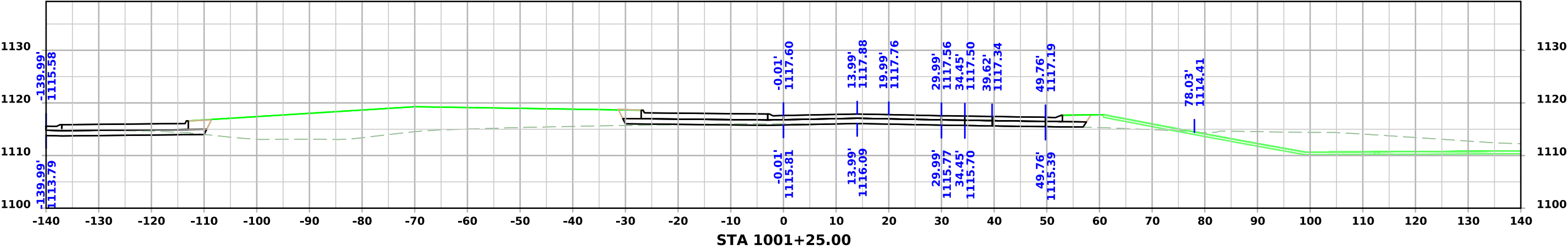
Crown Flair Dr.



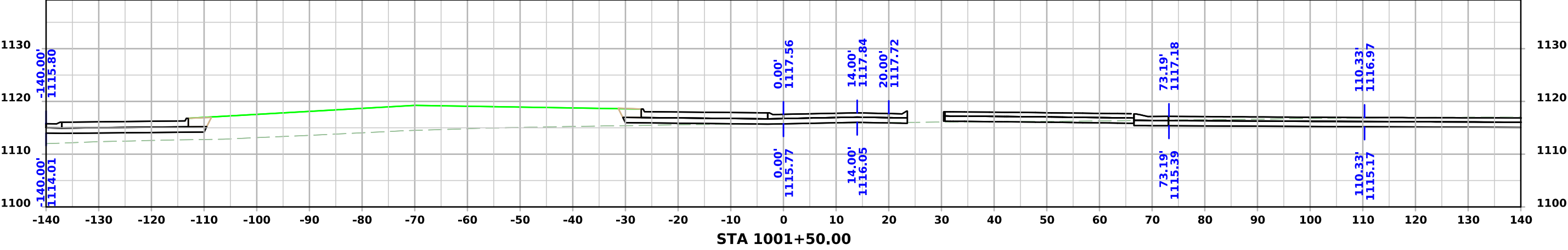
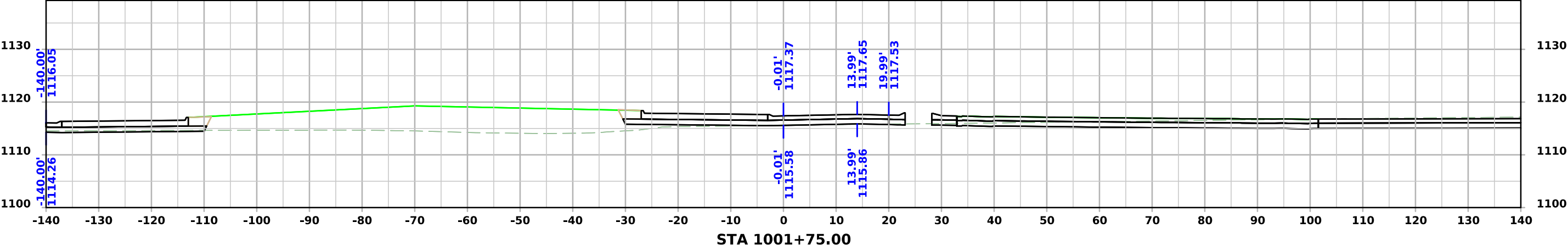
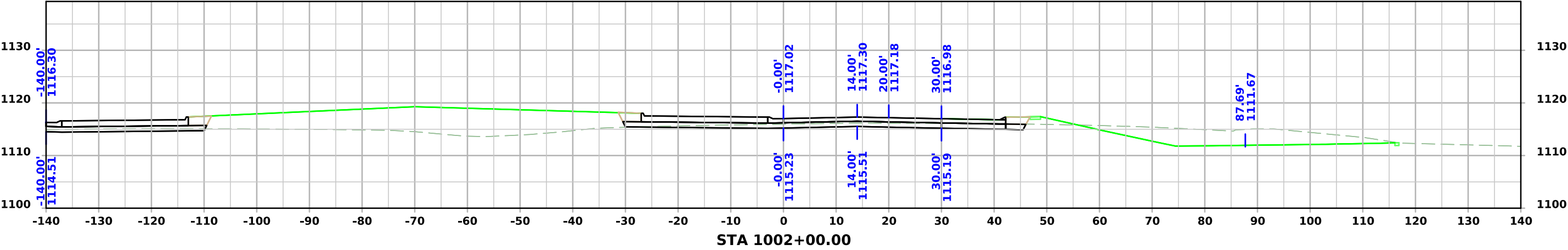
RA Circle



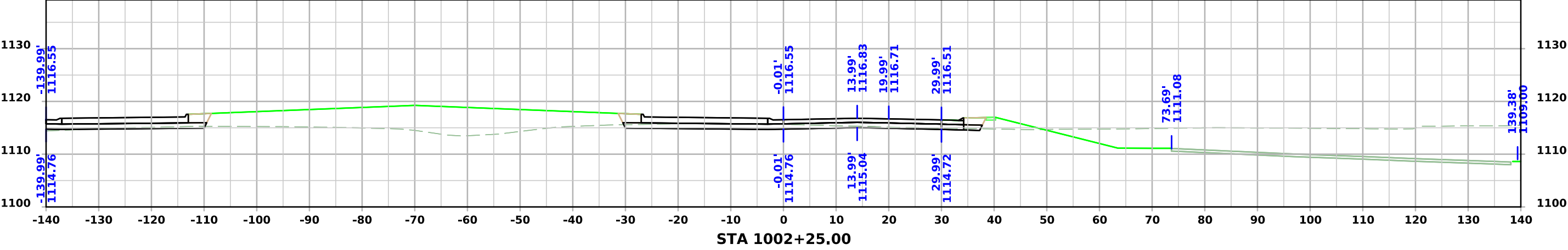
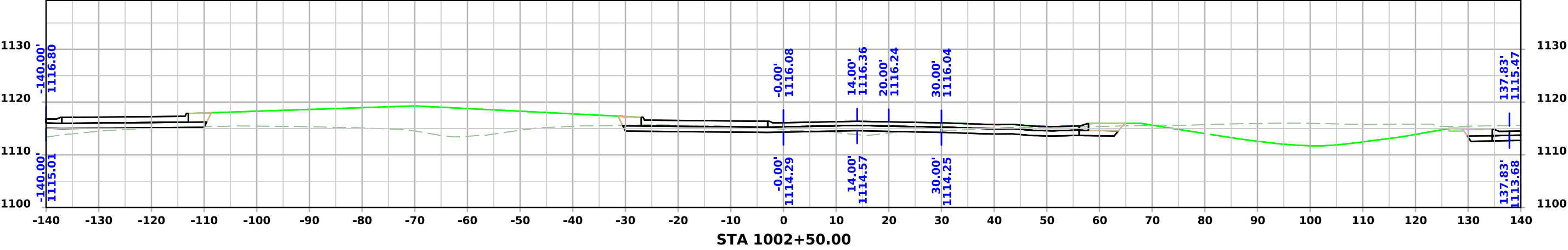
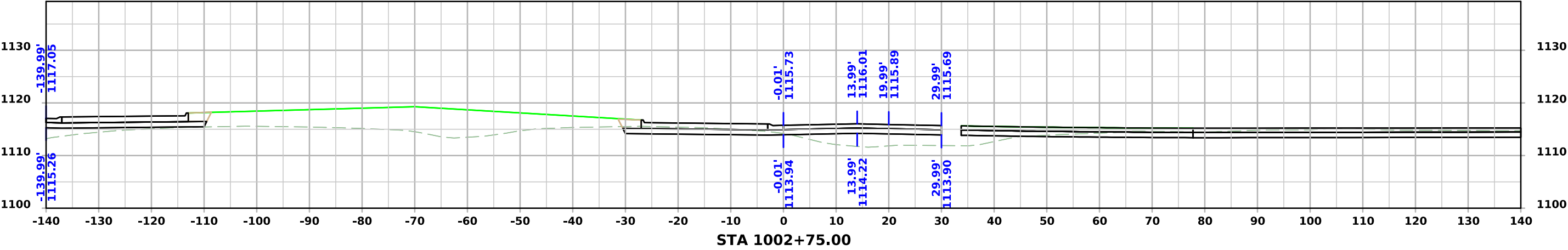
RA Circle



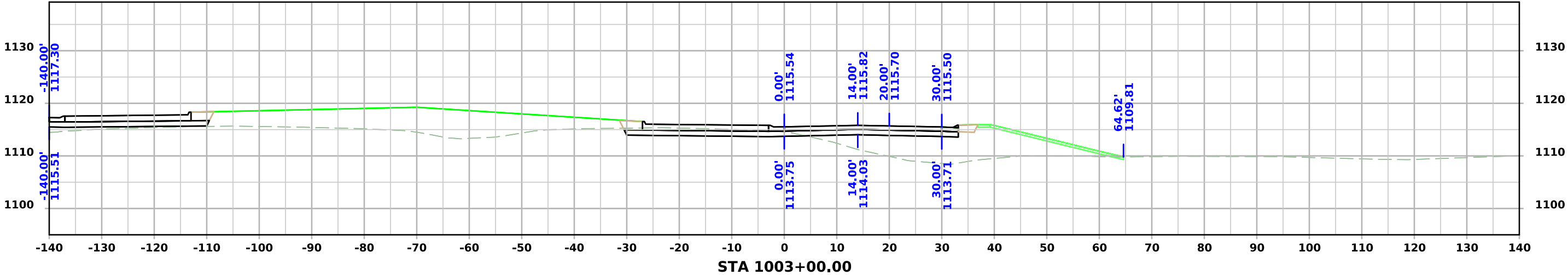
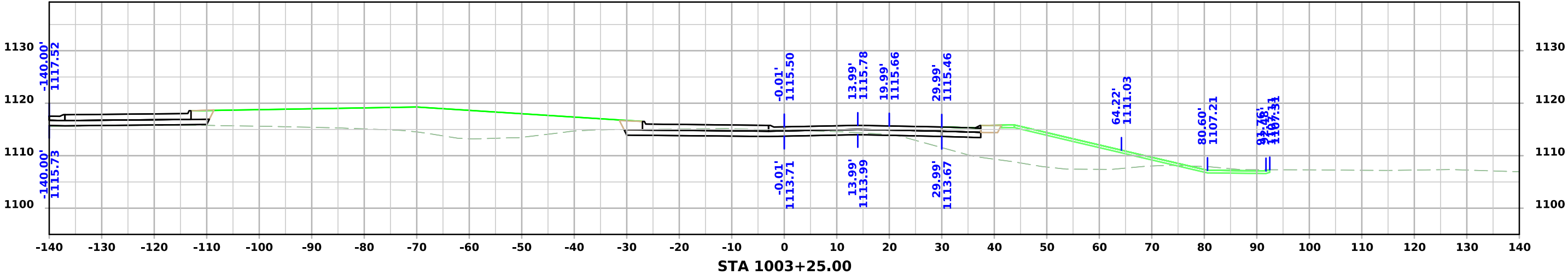
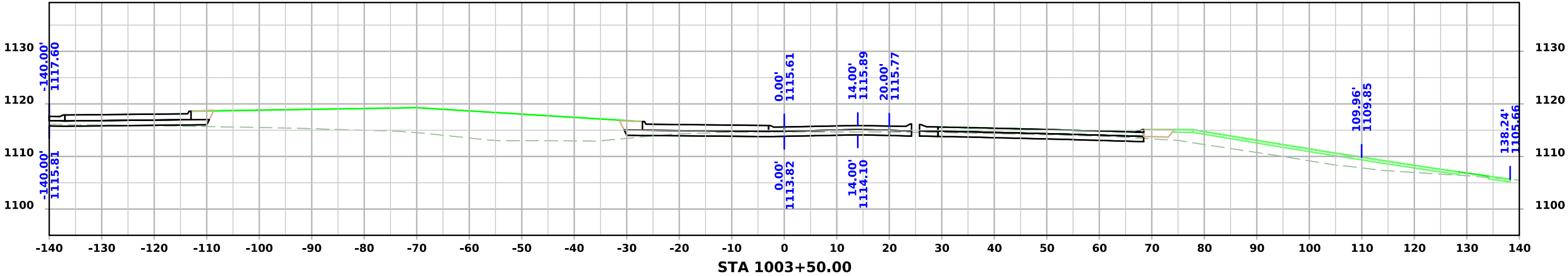
RA Circle



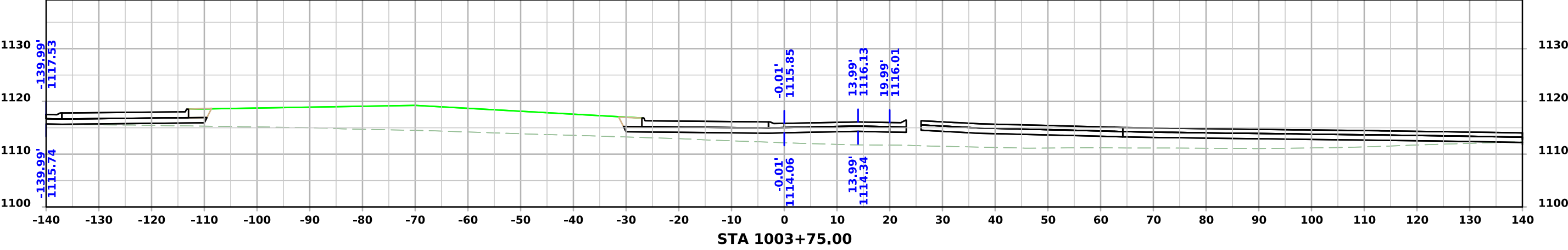
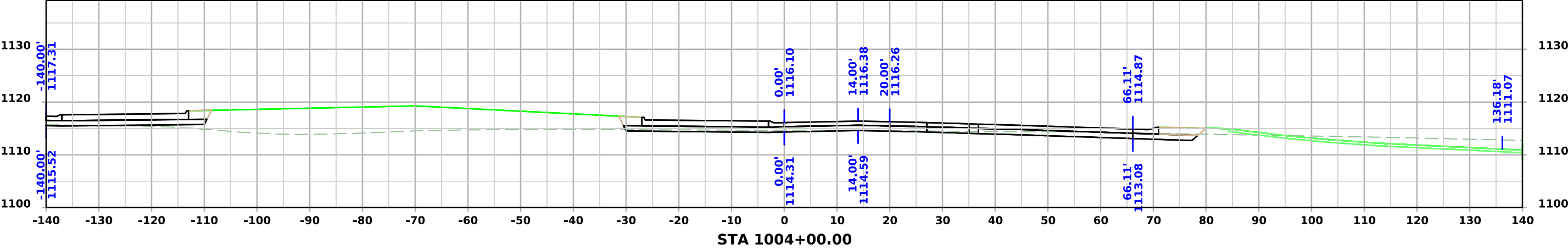
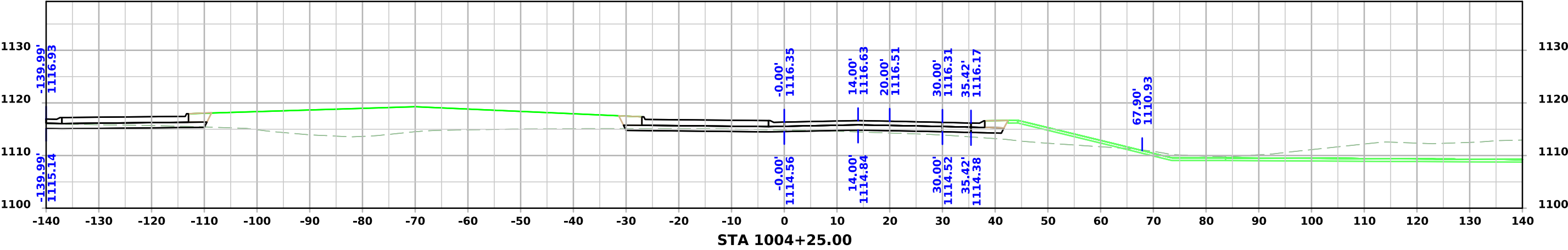
RA Circle



RA Circle



RA Circle



RA Circle

