LETTING DATE 03-20-2012

WOODBURY Co. PCC PAVEMENT - GRADE AND REPLACE IM-NHS-29-7(44)149--03-97

INDEX OF SHEETS

Iowa Department of Transportation

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

WOODBURY COUNTY

PCC PAVEMENT - GRADE AND REPLACE

In The City Of Sioux City On Tri-View Ave.
Between Wesley PKY & Hamilton Blvd.

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.15 of the Specifications.

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

REVISIONS

TOTAL 88
PROJECT IDENTIFICATION NUMBER
03-97-029-010-02
PROJECT NUMBER
IM-NHS-29-7(44)149--03-97
R.O.W. PROJECT NUMBER
IMN-029-6(150)142--0E-97

MILEAGE SUMMARY 105-1 09-27-94

Div.	Location	Lin. Ft.	Miles
	STA. 2018+81.36 TO STA. 2037+32.23	1850.87	0.351

For Project Location Map
Refer to Sheet A.2

04-30-02 101-5

DESIGN DATA URBAN

2003 AADT	7,940	V.P.D.
2030 AADT	6,900	V.P.D.
2030 DHV	570	V.P.H.
TRUCKS	12	%
Total Design ESALs	--	

INDEX OF SEALS

SHEET NO.	NAME	TYPE
A.1	DAVID A. MEIER	Primary Signature Block
J.1	JENNIFER D. CRUMBLISS	Staging Design
M.1	AARON GRANQUIST	Drainage Design
Q.1	DENNIS L. HOOVER	Geotechnical Design

LICENSED PROFESSIONAL ENGINEER DAVID A. MEIER 11750 IOWA

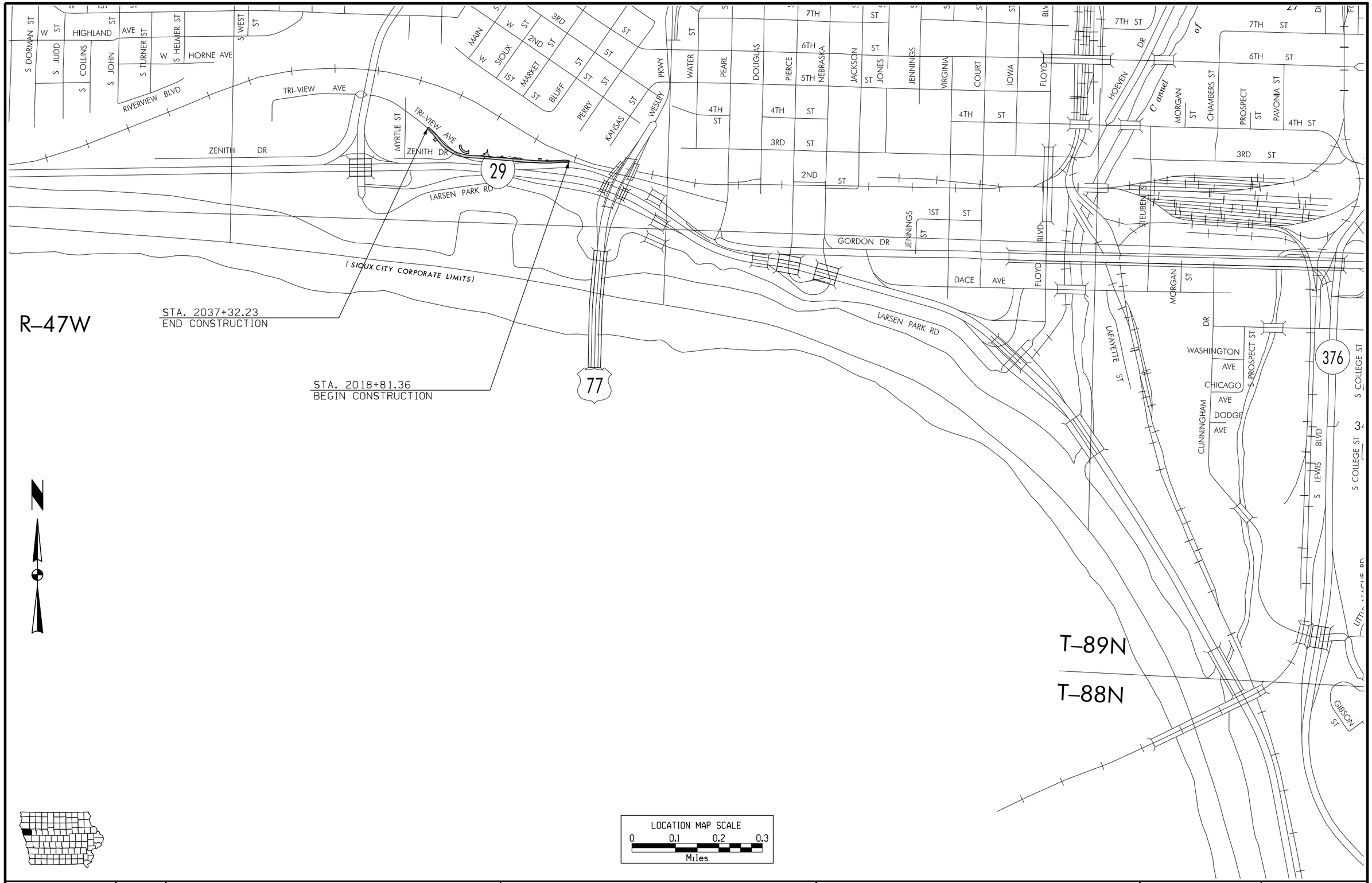
I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature David A. Meier Date 12/30/11

Printed or Typed Name

My license renewal date is December 31, 20 11

Pages or sheets covered by this seal: A.1-A.2, B.1-B.2, C.1-C.7, C.9, C-11 E.1-E.4, G.1-G.7, L.1-L.6, T.1, U.1-U.11, X.1-X.19



LOCATION MAP SCALE
0 0.1 0.2 0.3
Miles

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER A.2

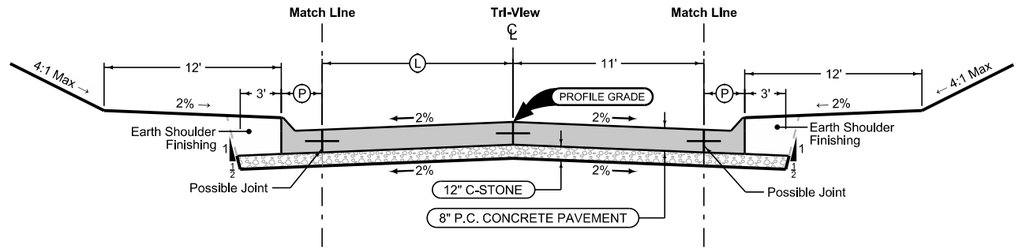
5:54:45 PM 12/29/2011 pknievel c:\pwworking\oma\d0675625\97029044A01.sht

Curbed Shoulder

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

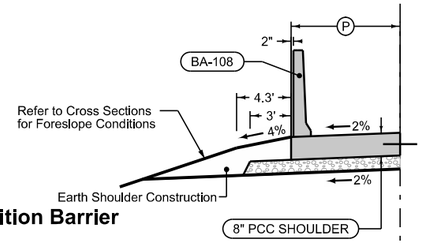
Single pour: L-2
Staged : KT-2
Transverse:C at 20' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
2018+81.36	2020+75.00	2.5	6" STD
2020+75.00	2020+85.00	4.5-5.4	6" STD
2033+30.00	2033+40.00	7.4-6.5	6" STD
2033+40.00	2036+21.72	4.5	6" STD
2036+21.72	2037+32.23	4.5-2.5	6" STD



Mainline Jointing:
Transverse joints: CD at 20' spacing
Longitudinal joint: L-2

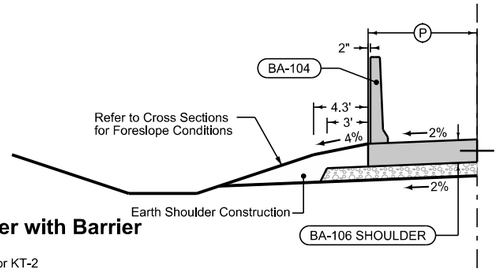
STATION TO STATION		(L) Feet
2018+81.36	2020+75.00	11
2020+75.00	2033+40+00	9
2033+40+00	2037+32.23	11



Full Depth PCC Shoulder with Transition Barrier

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

STATION TO STATION		(P) Feet
2020+85.00	2021+14.86	5.6
2033+00.94	2033+30.00	7.6



Full Depth PCC Shoulder with Barrier

Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

STATION TO STATION		(P) Feet
2021+14.86	2030+83.25	5.6
2030+83.25	2032+00.22	5.6-7.6
2032+00.22	2033+00.94	7.6

Curbed Shoulder

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

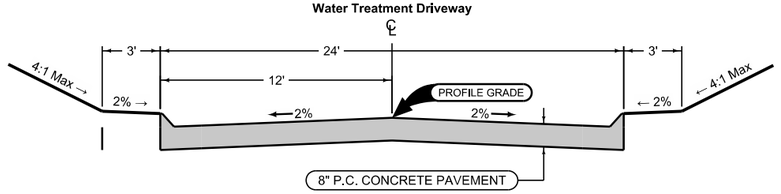
Single pour: L-2
Staged : KT-2
Transverse:C at 20' spacing

STATION TO STATION		(P) Feet	Curb Type See PV-102
2018+81.36	2030+60.59	2.5	6" STD
2030+60.59	2031+66.09	2.5-4.5	6" STD
2031+66.09	2035+81.27	4.5	6" STD
2035+81.27	2037+00.81	4.5-2.5	6" STD
2037+00.81	2037+32.23	2.5	6" STD

See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.
See L Sheets for jointing details.

Tri-View Ave.

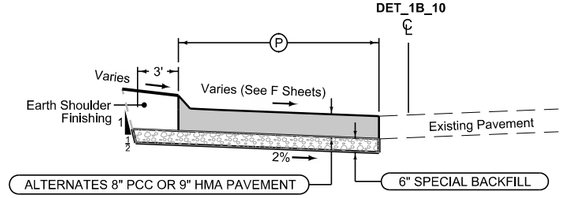
Water Treatment Driveway



Jointing:
Transverse joints: C at 20' spacing
Longitudinal joint: C

STATION TO STATION	
2231+07.61	2232+64.98

DET_1B_10

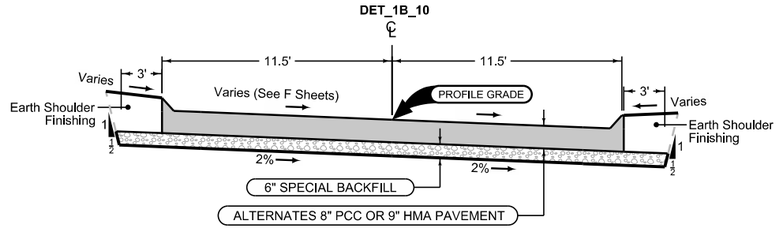


Detour Pavement Shoulder with Curb

Shoulder Jointing for PCC Alternate:
Longitudinal joint: B
Transverse joint: C Match existing spacing

ROADWAY	STATION TO STATION		(P) Feet	Curb Type See PV-102
DET_1B_10	10+25.8	11+36.4	0-23	6" STD
DET_1B_10	13+13.5	13+65.9	23-0	6" STD

DET_1B_10



Jointing:
Transverse joints: C at 20' spacing
Longitudinal joint: C

STATION TO STATION	
11+36.4	13+13.5

See Tab 100-24 for pavement quantities.
See Tab 112-9 for shoulder quantities.
See L Sheets for jointing details.

Water Treatment Driveway and Tri-View Ave. Detour

ESTIMATED PROJECT QUANTITIES

DIVISION 1: 100% STATE
DIVISION 2: 100% CITY
DIVISION 3: 13% STATE & 87% CITY

Item No.	Item Code	Item	Unit	Quantities						
				Estimated				As Built		
				Division 1	Division 2	Division 3	Total	Division 1	Division 2	Division 3
1	2101-0850001	CLEAR+GRUBB	ACRE	1.8			1.8			
2	2102-0425071	SPECIAL BACKFILL	CY	136			136			
3	2102-2710070	EXCAVATION, CL 10, RDWY+BORROW	CY	5252			5252			
4	2102-2712015	EXCAVATION, CL 12, BOULDER/ROCK FRAGMENT	CY	50			50			
5	2102-2713090	EXCAVATION, CL 13, WASTE	CY	242			242			
6	2105-8425005	TOPSOIL, FURNISH+SPREAD	CY	245			245			
7	2105-8425015	TOPSOIL, STRIP, SALVAGE+SPREAD	CY	490			490			
8	2107-0875000	COMPACTION W/MOISTURE+DENSITY CONTROL	CY	4266			4266			
9	2122-5191004	REINF PAVED SHLD	SY	755.1			755.1			
10	2123-7450000	SHLD CONSTRUCTION, EARTH	STA	12.5			12.5			
11	2123-7450020	SHLD FINISH, EARTH	STA	29.8			29.8			
12	2212-5070310	PATCH, FULL-DEPTH REPAIR	SY	209.3			209.3			
13	2213-6745500	RMVL OF CURB	STA	4.2			4.2			
14	2301-1034080	STD/S-F PCC PAV'T, CL C CL 3I, 8"	SY	5099.6			5099.6			
15	2301-6911722	PCC PAV'T SAMPLE	LS	1			1			
16	2304-0100000	DETOUR PAV'T	SY	645.1			645.1			
17	2315-8275025	SURF, DRIVEWAY, CL A CR STONE	TON	140.3			140.3			
18	2401-6745356	RMVL OF CONC FOOTING OF LIGHT POLE	EACH	8			8			
19	2401-6745650	RMVL OF EXIST STRUCT	LS	1			1			
20	2401-6745765	RMVL OF LIGHT POLE	EACH	8			8			
21	2416-0100018	APRON, CONC, 18"	EACH		1		1			
22	2435-0140200	MANHOLE, STORM SWR, SW-402	EACH		1		1			
23	2435-0140204	MANHOLE, STORM SWR, SW-402, TOP ONLY	EACH		1		1			
24	2435-0140400	MANHOLE, STORM SWR, SW-404	EACH		1		1			
25	2435-0250700	INTAKE, SW-507	EACH		9		9			
26	2435-0250800	INTAKE, SW-508	EACH		3		3			
27	2435-0251000	INTAKE, SW-510	EACH		2		2			
28	2435-0251224	INTAKE, SW-512, 24"	EACH		1		1			
29	2435-0251300	INTAKE, SW-513	EACH		1		1			
30	2435-0254500	INTAKE, SW-545	EACH		2		2			
31	2435-0254900	BARRIER INTAKE, SW-549	EACH		6		6			
32	2435-0600010	MANHOLE ADJUSTMENT, MINOR	EACH		1		1			
33	2435-0600120	INTAKE ADJUSTMENT, MAJOR	EACH		2		2			
34	2435-0700020	CONNECTION TO EXIST INTAKE	EACH		1		1			
35	2503-0114215	STORM SWR G-MAIN,TRENCHED, RCP 2000D,15"	LF		454		454			
36	2503-0114218	STORM SWR G-MAIN,TRENCHED, RCP 2000D,18"	LF		289		289			
37	2503-0114230	STORM SWR G-MAIN,TRENCHED, RCP 2000D,30"	LF			188	188			
38	2503-0116422	STRM SWR G-M,TRENCHED, RCAP 3000D,22X14"	LF	73	356	29	458			
39	2503-0116429	STRM SWR G-M,TRENCHED, RCAP 3000D,29X18"	LF	16		195	211			
40	2503-0116437	STRM SWR G-M,TRENCHED, RCAP 3000D,37X23"	LF			158	158			
41	2503-0200036	RMV STORM SWR PIPE LE 36"	LF	1086.3			1086.3			
42	2503-0200136	RMV STORM SWR PIPE GT 36"	LF	4			4			
43	2503-0200341	STORM SWR ABANDONMENT, FILL+PLUG, LE 36"	LF	6			6			
44	2510-6745850	RMVL OF PAV'T	SY	7051.4			7051.4			
45	2510-6750600	RMVL OF INTAKE+UTILITY ACCESS	EACH	11			11			
46	2511-6745900	RMVL OF SIDEWALK	SY	318.1			318.1			
47	2513-0001040	CONC BARRIER, BA-104	LF	1193.8			1193.8			
48	2513-0471001	CONC BARRIER, APPROACH, MODIFIED	EACH	2			2			
49	2515-2475006	DRIVEWAY, PCC, 6"	SY	271.3			271.3			
50	2515-2475008	DRIVEWAY, PCC, 8"	SY	799.2			799.2			
51	2515-6745600	RMVL OF PAVED DRIVEWAY	SY	2311.6			2311.6			
52	2518-6891820	PERMANENT RD CLOSURE, URBAN, SI-182	EACH	1			1			
53	2518-6910000	SAFETY CLOSURE	EACH	19			19			
54	2527-9263109	PAINTED PAV'T MARK, WATERBORNE/SOLVENT	STA	56.83			56.83			
55	2528-8445110	TRAFFIC CONTROL	LS	1			1			
56	2528-8445113	FLAGGER	EACH	10			10			
57	2533-4980005	MOBILIZATION	LS	1			1			
58	2538-6970000	SALV, RMVL, +DISPOSAL OF OBSTR-PARCEL #205	LS	1			1			
59	2599-9999003	C-STONE	CY	2645			2645			
60	2601-2633100	MOW	ACRE	5.6			5.6			
61	2601-2634105	MULCH, BONDED FIBER MATRIX	ACRE	2.8			2.8			
62	2601-2636044	SEED+FERTILIZE (URBAN)	ACRE	0.7			0.7			
63	2601-2642120	STABILIZE CROP - SEED+FERTILIZE (URBAN)	ACRE	2.1			2.1			
64	2602-0000020	SILT FENCE	LF	2469.3			2469.3			
65	2602-0000030	SILT FENCE-DITCH CHECKS	LF	345			345			
66	2602-0000060	RMVL OF SILT FENCE	LF	1975.4			1975.4			
67	2602-0000070	RMVL OF SILT FENCE-DITCH CHECK	LF	230			230			
68	2602-0000090	CLEAN-OUT OF SILT FENCE	LF	987.7			987.7			
69	2602-0000100	CLEAN-OUT OF SILT FENCE-DITCH CHECK	LF	115			115			
70	2602-0000306	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 6"	LF	100			100			
71	2602-0000312	PERIMETER+SLOPE SEDIMENT CNTL DEVICE,12"	LF	100			100			
72	2602-0000320	PERIMETER+SLOPE SEDIMENT CNTL DEVICE,20"	LF	200			200			

ESTIMATE REFERENCE INFORMATION

Item No.	Item Code	Description
1	2101-0850001	CLEAR+GRUBB
2	2102-0425071	SPECIAL BACKFILL Refer to Detour Pavement typical sections on B sheets and Tab 100-24 on C sheets.
3	2102-2710070	EXCAVATION, CL 10, RDWY+BORROW Overhaul will not be measured or paid for, but shall be considered incidental to roadway excavation on this project. Includes 3141 cubic yards of Class 10 material to be wasted per standard note 213-1 on C sheets. Includes Class 10 material for construction of entrances. Refer to T sheets for earthwork information. It is the Contractor’s option to use grading equipment controlled with a GPS machine control system. Prior to letting, the Iowa DOT will provide available electronic data files as part of the contract documents. The Iowa DOT will also provide construction survey for the project. If the Contractor elects to use GPS machine control grading, the Contractor will be required to: 1) Convert the electronic data provided by the Iowa DOT into the format compatible with the machine control grading system and develop surface models (as required), 2) Make available to the Engineer a rover for use during grading operations and provide training prior to construction on the use of the machine control grading system and rover to allow the inspector to make random checks (the rover will remain property of the Contractor), and 3) Check and recalibrate (if necessary) the GPS machine control system daily prior to start of work. No additional payment will be made if the Contractor elects to use GPS machine control grading, and there will be no additional payment or contract period extensions for any delays due to rework resulting from failure or errors using machine control or delays due to satellite reception. Also, no additional payment will be made if the Contractor elects not to use GPS machine control grading.
4	2102-2712015	EXCAVATION, CL 12, RDWY+BORROW Refer to Tab 103-7 on C sheets. Material shall be wasted as per Standard Note 213-1 on C sheets.
5	2102-2713090	EXCAVATION, CL 13, WASTE Includes material excavated for construction of Detour Pavement. Refer to F sheets. Material to be wasted per Standard Note 213-1 on C sheets.
6	2105-8425005	TOPSOIL, FURNISH+SPREAD Topsoil, 6” thickness, shall be placed in all disturbed areas indicated in Tab 103-4 on C sheets. The contractor shall furnish suitable topsoil material from an alternate borrow site outside highway right of way. Overhaul will not be measured or paid for, but shall be considered incidental to this bid item. Topsoil shall be high quality soil consisting of 6” of field or pasture loam containing a good supply of humus and a high degree of fertility. Surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of noxious weeds or other undesirable vegetation will not be accepted. Topsoil shall have a pH value from 6.0 to 7.5. It shall be free from hard clods, rock, and other debris larger than 2” in diameter.
7	2105-8425015	TOPSOIL, STRIP, SALVAGE+SPREAD Refer to Tab 103-4 on C sheets.
8	2107-0875000	COMPACTION W/MOISTURE+DENSITY CONTROL Refer to Tab. 103-1 on C Sheets. 1621 cu yds shown on the contract documents for embankment were determined by the template fill volume. Includes 2645 cu yds for placement of C-Stone. Shrinkage will not be included in moisture and density control quantity.
9	2122-5191004	REINF PAVED SHLD Refer to Tab 108-18B on C sheets.
10	2123-7450000	SHLD CONSTRUCTION, EARTH Refer to Typical sections on B sheets.
11	2123-7450020	SHLD FINISH, EARTH Includes 24.6 sta. along Tri-View Ave and 5.2 sta. along detour pavement. Material for the earth shoulder is included in the template quantities.
12	2212-5070310	PATCH, FULL-DEPTH REPAIR Refer to Tab 102-6C on C sheets.
13	2213-6745500	RMVL OF CURB For removal locations, refer to U sheets and Tab 110-4 on C sheets.
14	2301-1034080	STD/S-F PCC PAV'T, CL C CL 3I, 8" Refer to Typical sections on B sheets and Tab 100-24 on C sheets. 871.5 sq yds has been deducted from the shaded areas shown on the plan sheets to account for reinforced shoulder construction and drainage struction installation.

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

15	2301-6911722	PCC PAV'T SAMPLE
16	2304-0100000	DETOUR PAV'T Refer to Tab 100-24 on C sheets, Typical sections on B sheets and the F sheets for details and locations.
17	2315-8275025	SURF, DRIVEWAY, CL A CR STONE For construction of temporary driveways to maintain access to properties on Tri-View Ave. at Sta. 2027+04 and Sta. 2028+88, as directed by the Engineer. The temporary driveways shall be constructed to a compacted thickness of 6 inches. A density of 140 lb/cu ft was used to estimate the bid quantity. This bid item is complete compensation for construction and removal of the temporary surfacing with disposal per standard note 213-1. Refer to sheet J.9 and Tab 102-3 on C sheets.
18	2401-6745356	RMVL OF CONC FOOTING OF LIGHT POLE Refer to U sheets and Tab 110-2 on C sheets.
19	2401-6745650	RMVL OF EXIST STRUCT Refer to U sheets and Tab 110-2 on C sheets.
20	2401-6745765	RMVL OF LIGHT POLE Refer to U sheets and Tab 110-2 on C sheets.
21	2416-0100018	APRON, CONC, 18" Refer to Tab. 110-2 MODIFIED on C Sheets.
22	2435-0140200	MANHOLE, STORM SWR, SW-402 Refer to Tab. 104-5B in the M Sheets.
23	2435-0140204	MANHOLE, STORM SWR, SW-402, TOP ONLY Refer to Tab. 104-5B in the M Sheets.
24	2435-0140400	MANHOLE, STORM SWR, SW-404 Refer to Tab. 104-5B in the M Sheets.
25	2435-0250700	INTAKE, SW-507 Refer to Tab. 104-5B in the M Sheets.
26	2435-0250800	INTAKE, SW-508 Refer to Tab. 104-5B in the M Sheets.
27	2435-0251000	INTAKE, SW-510 Refer to Tab. 104-5B in the M Sheets.
28	2435-0251224	INTAKE, SW-512, 24" Refer to Tab. 104-5B in the M Sheets.
29	2435-0251300	INTAKE, SW-513 Refer to Tab. 104-5B in the M Sheets.
30	2435-0254500	INTAKE, SW-545 Refer to Tab. 104-5B in the M Sheets.
31	2435-0254900	BARRIER INTAKE, SW-549 Refer to Tab. 104-5B in the M Sheets. For bedding and backfill purposes under primary roads, use material complying with Article 4120.04 (Class 'A' Crushed Stone) of the Standard Specifications. Place and compact the material according to Article 2552.03, 'E' (Class I Materials).
32	2435-0600010	MANHOLE ADJUSTMENT, MINOR Refer to Tab. 104-10 on C Sheets.
33	2435-0600120	INTAKE ADJUSTMENT, MAJOR Refer to Tab. 104-10 on C Sheets.
34	2435-0700020	CONNECTION TO EXIST INTAKE Refer to Tab. 104-5b on M Sheets.
35	2503-0114215	STORM SWR G-MAIN, TRENCHED, RCP 2000D, 15" Refer to Tab. 104-5B in the M Sheets.
36	2503-0114218	STORM SWR G-MAIN, TRENCHED, RCP 2000D, 18" Refer to Tab. 104-5B in the M Sheets.
37	2503-0114230	STORM SWR G-MAIN, TRENCHED, RCP 2000D, 30" Refer to Tab. 104-5B in the M Sheets.
38	2503-0116422	STRM SWR G-M, TRENCHED, RCAP 3000D,22X14" Refer to Tab. 104-5B in the M Sheets.
39	2503-0116429	STRM SWR G-M, TRENCHED, RCAP 3000D,29X18" Refer to Tab. 104-5B in the M Sheets.
40	2503-0116437	STRM SWR G-M, TRENCHED, RCAP 3000D,37X23"Refer to Tab. 104-5B in the M Sheets. For bedding and backfill purposes under primary roads, use material complying with Article 4120.04 (Class 'A' Crushed Stone) of the Standard Specifications. Place and
41	2503-0200036	RMV STORM SWR PIPE LE 36" Refer to Tab. 110-2 MODIFIED on C Sheets and Tab. 104-5B on M Sheets.
42	2503-0200136	RMV STORM SWR PIPE GT 36" Refer to Tab. 110-2 MODIFIED on C Sheets and Tab. 104-5B on M Sheets.
43	2503-0200341	STORM SWR ABANDONMENT, FILL+PLUG, LE 36" Refer to Tab. 110-2 MODIFIED on C Sheets.
44	2510-6745850	RMVL OF PAV'T Includes 72 feet of full depth sawcut which is incidental to this bid item. Refer to U sheets and Tab 110-1 on C sheets.
45	2510-6750600	RMVL OF INTAKE+UTILITY ACCESS Refer to Modified Tab. 110-2 on C Sheets.
46	2511-6745900	RMVL OF SIDEWALK Refer to Tab 110-5 on C sheets.

ESTIMATE REFERENCE INFORMATION

47	2513-0001040	CONC BARRIER, BA-104 Refer to Tab 108-18B on C sheets.
48	2513-0471001	CONC BARRIER, APPROACH, MODIFIED Refer to Tab 108-18B on C sheets.
49	2515-2475006	DRIVEWAY, PCC, 6" Refer to Tab 102-3 on C sheets.
50	2515-2475008	DRIVEWAY, PCC, 8" Refer to Tab 102-3 on C sheets.
51	2515-6745600	RMVL OF PAVED DRIVEWAY Includes 603 feet of full depth sawcut which is incidental to this bid item. Refer to Tab 110-8 on C sheets.
52	2518-6891820	PERMANENT RD CLOSURE, URBAN, SI-182 Located on Zenith Drive. Refer to J sheets and Tab 102-4 on C sheets.
53	2518-6910000	SAFETY CLOSURE Refer to Tab 108-13A on C sheets.
54	2527-9263109	PAINTED PAV'T MARK, WATERBORNE/SOLVENT Refer to J sheets and Tab 108-22 on C sheets for details and locations. Quantity includes first application plus a 5% allowance.
55	2528-8445110	TRAFFIC CONTROL Refer to Traffic Control Plan on sheet J.1.
56	2528-8445113	FLAGGER Refer to Traffic Control Plan on sheet J.1 and Standard Road Plans TC-212 and TC-213.
57	2533-4980005	MOBILIZATION
58	2538-6970000	SALV, RMVL, +DISPOSAL OF OBSTR-PARCEL #205 Refer to U sheets
59	2599-9999003	C-STONE Refer to Tab 100-24. C-Stone shall be a manufactured aggregate made from class C flyash. Contractor to supply and place a 12" thick C-Stone layer in maximum loose lifts of 4 inches for hand compaction equipment and 6 inches for riding compaction equipment. C-Stone shall be compacted to a minimum of 95 percent of ASTM D698 and moisture conditioned to within minus 3 percent to plus 2 percent of optimum moisture content as determined by ASTM D698. See typical sections on B sheets for locations and layer thicknesses. Measurement and payment shall be made per cubic yard of material placed below the pavement and to a width of 3 feet beyond the edge of pavement or back of curb. Basis of payment shall be full compensation for furnishing, placing, adding moisture as needed, compaction, labor, tools, and equipment necessary to complete the work in conformance with the contract documents. Compacted unit weight of C-Stone estimated at: 135 pcf.
60	2601-2633100	MOW Full compensation to mow all seeded areas 2 times. Refer to Tab 100-11 on C sheets.
61	2601-2634105	MULCH, BONDED FIBER MATRIX Included for all seeded areas following final construction. The seed and fertilizer for the area to be covered by the mulch shall be applied before the Bonded Fiber Matrix hydraulic application. Minimum Rate: 3000lbs. per acre. Refer to Tab 100-11 on C sheets.
62	2601-2636044	SEED+FERTILIZE (URBAN) Included for all disturbed urban areas following final construction. Seed Mixture for Urban Areas: Seeding Rate: --4 lbs per 1000 sq. feet. Bluegrass, Ky (Park) 70% Fescue, Creeping Red 20% Ryegrass, Perennial (Fineleaf, Pennfine Manhattan or equivalent) 10% Fertilizer: Rate--750 lbs. of 13-13-13 or equivalent commercial fertilizer per acre. NOTE: The top six (6) inches of the seedbed shall be free of rock and debris and shall be suitable for the establishment of vegetation with the approval of the engineer. Refer to Tab 100-11 on C sheets.

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION

63	2601-2642120	STABILIZE CROP - SEED+FERTILIZE (URBAN) Refer to Tab 100-11 on C sheets. Seed Mixture (Urban) Spring--March 1 to May 20 Annual Ryegrass 65 lbs. per acre Bluegrass, Ky (Park) 25 lbs. per acre Perennial Ryegrass 25 lbs. per acre Summer--May 21 to July 20 Annual Ryegrass 85 lbs. per acre Bluegrass, Ky (Park) 25 lbs. per acre Perennial Ryegrass 25 lbs. per acre Fall--July 21 to September 30 Annual Ryegrass 65 lbs. per acre Bluegrass, Ky (Park) 25 lbs. per acre Perennial Ryegrass 25 lbs. per acre Fertilizer: Rate--450 lbs. of 13-13-13 or equivalent commercial fertilizer per acre.
64	2602-0000020	SILT FENCE Refer to Tab. 100-17 on C sheets. The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
65	2602-0000030	SILT FENCE-DITCH CHECKS Refer to Tab 100-18 on C sheets. The tabulation includes estimated locations for placement of "Silt Fence for Ditch Checks" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 50% additional quantity for field adjustments and replacements.
66	2602-0000060	RMVL OF SILT FENCE This item is included for removing silt fence when the Engineer has determined that they are no longer needed.
67	2602-0000070	RMVL OF SILT FENCE-DITCH CHECK This item is included for removing silt fence ditch check when the Engineer has determined that they are no longer needed.
68	2602-0000090	CLEAN-OUT OF SILT FENCE This item is included for maintaining the silt fence during the project. Quantity is 50% of silt fence tabulation.
69	2602-0000100	CLEAN-OUT OF SILT FENCE-DITCH CHECK This item is included for maintaining the silt fence during the project. Quantity is 50% of silt fence for ditch check tabulation.
70	2602-0000306	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 6"
71	2602-0000312	PERIMETER+SLOPE SEDIMENT CNTL DEVICE, 12"
72	2602-0000320	PERIMETER+SLOPE SEDIMENT CNTL DEVICE,20" The items 2601-0000306, 2602-0000312, and this item are included for the temporary perimeter sediment control and water velocity reduction on slopes. Wattles and sediment logs shall consist of wood excelsior or straw contained in a tube of ultraviolet (UV) degradable open weave fabric (synthetic netting). Wattle or sediment log installation shall be as per manufacturer’s recommended installation procedures. Filter socks shall be a continuous, tubular, knitted mesh netting with 3/8” opening, constructed of 5-mil thickness, photodegradable HDPE. The filter material shall be compost from an approved source meeting Article 4169.08 of the Standard Specifications. The sock shall be filled by blowing the filter material into the tube with a special pneumatic blower truck or similar device. Hand filling is not an acceptable means to fill the sock. Compost filter socks shall be installed as per manufacturer’s recommended installation procedures. Approximate Locations: Critical Perimeter Locations and Culvert Intakes.

111-25
10-18-11

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100-18	TABULATION OF SILT FENCES FOR DITCH CHECKS	C.6
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100-1D
10-18-05

PROJECT DESCRIPTION

This project is for the grading and paving of reconstructed Tri-View Ave. from just west of Wesley Pkwy. to just east of Myrtle St. The project includes the demolition and removal of the building on Parcel 205. Access to businesses along Tri-View Ave. will be maintained during reconstruction. Through traffic will be maintained during a portion of reconstruction.

105-4
10-18-11

STANDARD ROAD PLANS

The following Standard Road Plans apply to construction work on this project.

Number	Date	Title
BA-104	04-20-10	34" Concrete Barrier for use with Reinforced Paved Shoulder
BA-106	04-19-11	Reinforced Paved Shoulder for Concrete Barrier
BA-108	04-19-11	Concrete Barrier Tapered End Section
BA-401	04-20-10	Temporary Barrier Rail (Precast Concrete)
EC-201	04-20-10	Silt Fence
EW-101	04-19-11	Embankment and Rebuilding Embankments
MI-210	04-19-11	PCC Driveways and Alleys
PM-110	04-19-11	Line Types
PV-101	04-19-11	Joints
PV-102	04-19-11	PCC Curb Details
PV-103	04-19-11	Manhole Boxouts in PCC Pavement
RF-2	10-20-09	Construction of Type "C" Concrete Adaptors for Pipe Culvert Connections
RF-3	04-15-08	Concrete Aprons
RL-2A	10-18-05	Details of Embankment Subgrade Treatment, Moisture Density Control & Special Compaction
RR-2	04-19-11	Full Depth PCC Patch without Dowels
SI-182	04-20-10	Permanent Road Closure - Urban
SW-101	04-21-09	Trench Bedding and Backfill Zones
SW-102	04-21-09	Rigid Gravity Pipe Trench Bedding
SW-211	04-21-09	Special Pipe Connections for Storm Sewer
SW-402	04-21-09	Rectangular Storm Sewer Manhole
SW-404	04-21-09	Rectangular Base/Circular Top Storm Sewer Manhole
SW-507	10-20-09	Single Open-Throat Intake, Small Box
SW-508	10-20-09	Single Open-Throat Intake, Large Box
SW-510	10-19-10	Double Open-Throat Curb Intake, Large Box
SW-512	10-20-09	Circular Area Intake
SW-513	04-21-09	Open-Sided Area Intake
SW-545	04-19-11	Single Open-Throat Curb Intake with Extended Opening
SW-549	04-19-11	Single-Grate Barrier Intake, Rectangular
SW-602	10-20-09	Castings for Storm Sewer Manholes
SW-604	10-20-09	Castings for Area Intakes
TC-1	10-17-06	Work Not Affecting Traffic
TC-202	04-20-10	Shoulder Closure (One Lane)
TC-211	04-19-11	Spot Location Lane Closure on Low Volume Roadway
TC-212	10-16-07	Spot Location Lane Closure with Flaggers
TC-213	10-21-08	Lane Closure with Flaggers
TC-233	04-19-11	Pavement Marking Operations Two-Lane
TC-252	10-20-09	Road Closure
TC-402	04-20-10	Shoulder Closure (Multi-Lane)
TC-421	04-19-11	Lane Closure with TBR

POLLUTION PREVENTION PLAN

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

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

I. ROLES AND RESPONSIBILITES
- A. Designer:
  1. Prepares Base PPP included in the project plan.
  2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
  3. Signature authority on the Base PPP and NOI.
- B. Contractor/Subcontractor:
  1. Affected contractors/subcontractors are co-permittees with the IDOT and will sign a certification statement adhering to the requirements of the NPDES permit and this PPP plan. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
  2. Submit a detailed schedule according to Article 2602 of the Specifications and any additional plan notes.
  3. Install and maintain appropriate controls.
  4. Supervise and implement good housekeeping practices.
  5. Conduct joint required inspections of the site with inspection staff.
  6. Signature authority on Co-Permittee Certification Statements and storm water inspection reports.
- C. RCE/Inspector:
  1. Update PPP whenever there is a change in design, construction, operation or maintenance, which has a significant effect on the discharge of pollutants from the project.
  2. Maintain an up-to-date list that identifies contractors and subcontractors as co-permittees.
  3. Make these plans available to the DNR upon their request.
  4. Conduct joint required inspections of the site with the contractor/subcontractor.
  5. Complete an inspection report after each inspection.
  6. Signature authority on storm water inspection reports and Notice of Discontinuation (NOD).

II. PROJECT SITE DESCRIPTION
- A. This Pollution Prevention Plan (PPP) is for the construction of Tri-View Ave between Wesley Pky and Hamilton Blvd.
- B. This PPP covers approximately 200 acres with an estimated 155 acres being disturbed. The portion of the PPP covered by this contract has 5 acres disturbed.
- C. The PPP is located in an area of 2 soil association (Monona-Ida-Hamburg and Luton-Onowa-Salix). The estimated average SCS runoff curve number for this PPP after completion will be 81.
- D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:
  1. Drainage patterns – Plan and Profile sheets and Situation plans.
  2. Proposed Slopes – Cross Sections.
  3. Areas of Soil Disturbance – construction limits shown on Plan and Profile sheets.
  4. Location of Structural Controls – Tabulations on C sheets.
  5. Locations of Non-structural Controls – Tabulations on C sheets.
  6. Locations of Stabilization Practices – generally within construction limits shown on Plan and Profile sheets.
  7. Surface Waters (including wetlands) – Plan and Profile sheets.
  8. Locations where storm water is discharged – Plan and Profile sheets.
- E. The base site map is amended by contract modifications and progress payments of completed erosion control work.
- F. Runoff from this work will flow into unnamed ditches, Floyd River, and Perry Creek which flow into the Missouri River.

III. CONTROLS
- A. The contractor's work plan and sequence of operations specified in Article 2602.03 for accomplishment of storm water controls should clearly describe the intended sequence of major activities and for each activity define the control measure and the timing during the construction process that the measure will be implemented.
- B. Preserve vegetation in areas not needed for construction.
- C. Section 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water monitoring inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B.
  1. EROSION AND SEDIMENT CONTROLS
     a. Stabilization Practices
        1) Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized.
        2) Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased.
        3) Temporary stabilizing seeding shall be completed as the disturbed areas are constructed. If construction activity is not planned to occur in a disturbed area for at least 21 days, the area shall be stabilized by temporary seeding or mulching within 14 days. Other stabilizing methods shall be used outside the seeding time period.
        4) Stabilization measures to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan. Additional items may be found in the Inspector's Daily Reports (IDR) or Contract Modifications.
     b. Structural Practices
        1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site.
        2) Structural items to be used for this project are located in the Estimated Project Quantities (100-1A) and Estimate Reference Information (100-4A) located on the C sheets of the plan, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B sheets of the plan or are referenced in the Standard Road Plans Tabulation.
     c. Storm Water Management
        1) Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
  2. OTHER CONTROLS
     a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive laws, rules or regulations shall apply.
        1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
        2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
        3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
        4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
        5) Spill Prevention and Control - Implement procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
        6) Concrete Residuals and Washout Wastes - Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located.
        7) Vehicle and Equipment Cleaning - Employ washing practices that prevent contamination of surface and ground water from wash water.
        8) Vehicle and Equipment Fueling and Maintenance - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onside fuels and proper disposal of used engine oil or other fluids on site.
        9) Litter Management - Ensure employees properly dispose of litter.
  3. APPROVED STATE OR LOCAL PLANS
     During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

POLLUTION PREVENTION PLAN

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

V. INSPECTION REQUIREMENTS
- A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days and after each rain event that is ½" or greater. Storm water monitoring inspections will include:
  1. Date of the inspection.
  2. Summary of the scope of the inspection.
  3. Name and qualifications of the personnel making the inspection.
  4. Rainfall amount.
  5. Review erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
  6. Major observations related to the implementation of the PPP.
  7. Identify corrective actions required to maintain or modify erosion and sediment control measures.
- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found and complete all actions within 3 calendar days of the inspection.

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

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

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

100-11
08-01-08

TABULATION OF EROSION CONTROL DETAILS

Location		Over-Seeding and Fertilizing	Seeding and Fertilizing	Mulching	Special Ditch Control		Sod	Crown-Vetch Seeding	Stabilize Crop Seed and Fertilize	Ditch Reshaping	Mowing
Begin Station	End Station				Wood Excelsior Mat						
		ACRE	ACRE	ACRE	SQ		SQ	ACRE	ACRE	STA	ACRE
2018+81.4 LT	2021+84.8 LT		0.1	0.1							0.2
2021+84.8 LT	2035+41.7 LT			2.1					2.1		4.2
2035+74.3 LT	2037+32.2 LT		0.1	0.1							0.2
2018+81.4 RT	2033+35.0 RT		0.5	0.5							1.0
	TOTAL		0.7	2.8					2.1		5.6

100-27
10-20-09

PAVEMENT SMOOTHNESS + PCC TEXTURE

Road Identification	Begin Station	End Station	Proposed Posted Speed			Remarks
			35 or less	40 - 45	over 45	
Tri-View Ave.	2018+81.4	2037+00.8	X			

100-17
04-20-10

TABULATION OF SILT FENCES

Refer to EC-201

Location			Length	Remarks
Begin Station	End Station	Side	LF	
2018+81.4	2021+39.9	RT	292.8	
2020+25.0	2023+25.0	LT	343.7	
2021+60.0	2022+26.0	RT	87.5	
2025+10.5	2025+26.5	RT	38.8	
2027+14.6	2028+81.3	RT	220.5	
2032+50.0	2035+57.8	RT	231.1	
2033+10.8	2035+43.6	LT	666.8	SURROUND PARCEL 205
2036+25.0	2036+75.0	RT	94.2	
	TOTAL		1975.4	

100-18
04-20-10

TABULATION OF SILT FENCES FOR DITCH CHECKS

Refer to EC-201

Location Station	Side	Length	Remarks
		LF	
2022+00.0	LT	20.0	
2024+00.0	LT	20.0	
2026+00.0	LT	20.0	
2027+00.0	LT	20.0	
2027+10.0	LT	20.0	
2028+00.0	LT	20.0	
2032+00.0	LT	20.0	
2032+75.0	LT	20.0	
2032+85.0	LT	20.0	
2036+25.0	RT	25.0	
2036+75.0	RT	25.0	
TOTAL		230.0	

108-13A
08-01-08

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Closure Type		Remarks
	Road Qty.	Hazard Qty.	
Stage 1			
2027+02.0		1	Tri-View Ave driveway
Stage 2			
2025+39.0		1	Tri-View Ave driveway, lot
2026+80.0	1		Tri-View Ave
2027+23.0	1		Tri-View Ave
2028+57.0	1		Tri-View Ave
2029+20.0	1		Tri-View Ave
2031+05.0		1	Water Treatment Plant
2031+25.0	1		Tri-View Ave
2033+00.0	1		Zenith Dr
2034+10.0		1	Zenith Dr driveway
2035+52.0		1	Tri-View Ave driveway
2038+33.0	1		Tri-View Ave
Stage 3			
2021+70.0	1		Tri-View Ave
2022+38.0		1	Tri-View Ave driveway
2024+07.0		1	Tri-View Ave lot
2024+63.0	1		Tri-View Ave
2034+17.0	1		Zenith Ave
Stage 4			
2006+60.0	1		Tri-View Ave
2022+10.0	1		Tri-View Ave
TOTAL	12	7	

102-4
10-18-11

LOCATIONS OF ROAD CLOSURE BARRICADES

Refer to SI-181 and SI-182.

Location		(W)	SI-181	SI-182	Remarks
No.	Station	LF	LF	No.	
	2034+08, 202.9' LT	18.0		1	Zenith Drive

102-6C
10-18-11

FULL-DEPTH PATCHES

Refer to Standard Roads Plans RR-1, RR-2, RR-4, RR-18, and RR-26

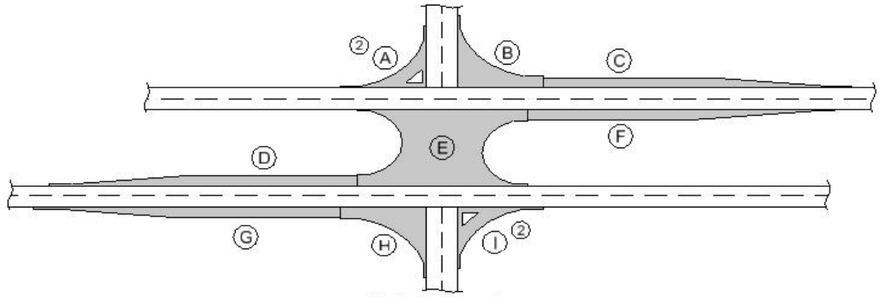
Location			Dimension			PCC Patches			HMA Patches	Composite HMA	Subbase Patches	Subbase Patch w/ 'EF' Joint	Patch Subdrain	'CD' Joints	'CT' Joints	'EF' Joints	Anchor Lugs Removal	Remarks
Count	Station or Milepost	Lane	Length	Width	Patch Thickness	With Dowels	Without Dowels	C R C										
						RR-4	RR-2	RR-18			RR-26	RR-1	RR-1 or RR-26			RR-1		
		L, R, or B	FT	FT	IN	SY	SY	SY	SY	TON	SY	SY	No.	No.	No.	No.	No.	
2	Zenith	B	6.0	9.0	UNKNOWN		12.0											
1	Zenith	EB	12.0	5.0	UNKNOWN		6.7											
1	Zenith	WB	12.0	10.0	UNKNOWN		13.3											
1	Zenith	B	72.0	18.0	UNKNOWN		144.0											Myrtle Int.
1	Myrtle	B	12.0	15.0	UNKNOWN		20.0											Zenith Int.
1	Zenith	EB	20.0	12.0	UNKNOWN		13.3											Zenith Return
					TOTAL		209.3											

102-5
10-18-11

EXISTING PAVEMENT

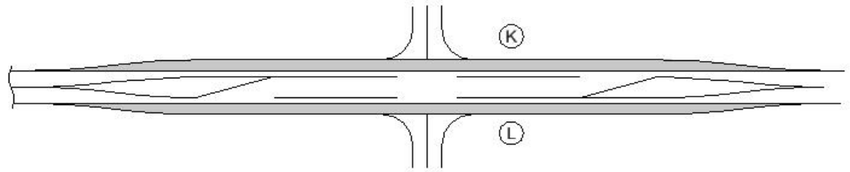
No.	Location					Year	Type	Project Number	Surface		Base		Subbase		Removal		Coarse Aggregate			Remarks
	County	Route	Dir. of Travel	Begin Milepost	End Milepost				Type	Depth	Type	Depth	Type	Depth	Type	Depth	Source	Type	Durability Class	
										IN		IN		IN		IN				
	Woodbury		E/W																	

TABULATION OF PAVEMENT

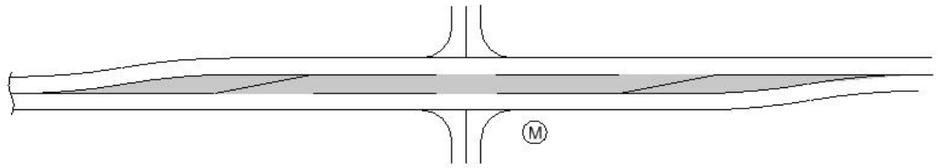


Typical Intersection

Ramp or Loop Taper (3)



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

(1) Quantity includes Pavement Header.

(2) Does not include Island area.

(3) Refer to PV-410, PV-411, PV-412, and PV-414.

Location						Area (1)													Total Area By Pavement Thickness		Special Backfill	C-Stone	Remarks
Road Indentification	Station to Station		Width	Length	Area	A (2)	B	C	D	E	F	G	H	I (2)	J	K	L	M	SY				
			FT	FT	SY														8 IN	0.0	CY	CY	
TRI-VIEW AVE.	2018+81.4	2037+32.2	27.0	1850.8	5099.6														5099.6			2645.0	
TRI-VIEW AVE. DETOUR PAVEMENT	10+25.8	13+65.9	23.0	340.1	645.1														645.1		136.4		

(1) Refer to MI-210

(2) Refer to RL-8 for Type B or C. Type A per plan.
Predetermined for access point not constructed with this project.

POINTS OF ACCESS

Refer to Cross-Sections

Location		Type (2)	Length of Opening			W	PR (1) (2)	SR (2)	Pipe Culvert (RF-30A or RF-30B)					Aprons	Driveway Surface Area		Driveway Surfacing Material	Remarks
Station	Side	A, B, C, or Predetermined	Case (1)	1½" Dropped Curb	3" Dropped Curb				H	Size	Pipe Length	Lt. (2)	Rt. (2)		HMA	PCC		
			1 or 2	LF	LF	FT	FT	FT	FT	IN	LF	LF	LF	No.	SY	SY	TON	
2021+49.9	RT	B	2	22.5		20.0										23.6		6" PCC
2022+37.8	RT	B	2	22.5		20.0										75.2		6" PCC
2024+90.5	RT	B	2	42.5		40.0										71.8		6" PCC
2025+38.5	RT	B	2		26.5	24.0										43.4		6" PCC
2027+02.6	RT	B	2	26.5		24.0										37.5		6" PCC
2028+88.0	RT	B	1	179.8		44.4	*									360.3		8" PCC
2035+57.8	LT	B	1		53.3	31.0	15.0									19.8		6" PCC
2031+07.7	RT															438.9		Connector driveway, 8" PCC
2027+02.6	RT	B		23.7		23.7	5.0										21.900	Class A Crushed Stone
2028+88.0	RT	B	1	160.0		34.1	50.0										118.400	Class A Crushed Stone
TOTAL																1070.5	140.300	

* See L sheets for return goemetry.

103-1
10-19-10

EMBANKMENT WITH MOISTURE AND DENSITY CONTROL

Moisture content shall be within the limits of minus 2 and plus 3 percentage points of optimum for maximum density within the area described and listed below.

Location		Lane	Depth	Compact	Remarks
Station to Station			FT	CY	
2018+81.4	2037+32.2	E/W		1621.0	Moisture and Density Control is required for all Class 10 fill placed in all locations and depths. Topsoil will not require Moisture and Density Control.
2018+81.4	2037+32.2	E/W		2645.0	Moisture and Density Control is required for C-Stone placement
	TOTAL			2645.0	

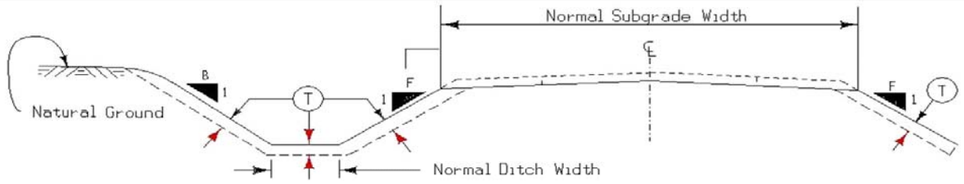
103-7
08-01-08

SHRINKAGE DATA

Material	%	Remarks
BORROW & TEMPLATE CUT	30%	
TOPSOIL	40%	
ESTIMATED BOULDER QUANTITY		50 CY

103-4
04-19-11

TABULATION OF SPREADING TOPSOIL



Perform this work according to Section 2105. Prior to placing topsoil on any cohesive soil, scarify the area to be covered to a minimum depth of 3 inches.

Appropriate adjustments have been made in the template quantities to reflect the placement of topsoil on foreslope, backslope and ditch bottom as detailed hereon.

Placement Description								Topsoil Excavation Available From			
Area	Quantity	Location		Side	Slope	(T)	Remarks	Amount Reserved	Station to Station		Remarks
No.	CY	Station to Station		L. or R.	B. or F.	IN		CY			
	67.2	2018+81.4	2020+85.0	L	B/F	6.0	Placement includes 40% shrinkage factor	46.0	2018+81.4	2020+85.0	
	592.2	2035+74.3	2037+32.2	L	B/F	6.0	Placement includes 40% shrinkage factor	425.0	2035+74.3	2037+32.2	
	75.6	2018+81.1	2033+35.2	R	B/F	6.0	Placement includes 40% shrinkage factor	19.0	2018+81.1	2033+35.2	
TOTAL	735.0							490.0			Contractor shall furnish topsoil, as needed, to cover difference between quantity required and quantity available.

108-22
10-18-11

PAVEMENT MARKING LINE TYPES

See PM Series

*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.

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

Location							Length by Line Type (Unfactored)														
Road ID	Station to Station		Dir. of Travel	Marking Type	Side		BCY4*	DCY4	NPY4**	BLW4	ELW4	ELY4									Remarks
					L	C R	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	STA	
Stage 2																					
DET_1B_10	10+00.0	14+63.8	BOTH	Waterborne/Solvent Paint		X		4.64													Temporary Zenith Detour
DET_1B_10	10+00.0	14+63.8	WB	Waterborne/Solvent Paint		X					4.64										Temporary Zenith Detour
DET_1B_10	10+00.0	14+63.8	EB	Waterborne/Solvent Paint	X						4.64										Temporary Zenith Detour
Stage 4																					
Tri-View Ave	2018+18.0	2037+32.0	BOTH	Waterborne/Solvent Paint		X		19.14													Permanent
				Factored Total: Waterborne/Solvent Paint			-	47.56	-	-	9.28	-	-	-	-	-	-	-	-	-	
				Bid Quantity: Painted Pavement Markings, Waterborne or Solvent-Based						56.83											

108-18B
04-20-10

CONCRETE BARRIER AT SIDE LOCATIONS

Refer to BA-102, BA-103, BA-104, BA-105, BA-106, BA-107, & BA-150.

(1) Lane(s) to which the installation is adjacent.

Location					Offset	Side Barrier					Remarks
No.	(1) Direction of Traffic	Station to Station		Side	(L2)	Barrier Type (BA-102, BA-103, or BA-104)	Length of Barrier (L)	BA-105 Transition Section	BA-107 End Section	Reinforced Paved Shoulder	
					FT		LF	No.	No.	SY	
	E	2021+14.9	2030+83.2	RT	1.0	BA-104	969.2			577.2	BA-108 MOD (U.1), EAST END
	E	2030+83.2	2032+00.2	RT	1.0-3.0	BA-104	120.6			90.9	
	E	2032+00.2	2033+00.9	RT	3.0	BA-104	104.0			87.0	BA-108 MOD (U.2), WEST END
			TOTAL				1193.8			755.1	

110-1
08-01-08

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5

* Not a Bid Item

Begin Station	End Station	Pavement Type	Area	Saw Cut*	Intakes and Utility Accesses	Remarks
			SY	LF	No.	
Stage 1						
2028+06.7	2030+07.6	PCC	39.6	200.9		Tri-View Ave
2030+36.2	2031+40.8	PCC	12.6	50.4		Tri-View Ave
Stage 2						
2031+50.8	2037+32.2	PCC	1868.5	27.0		Tri-View Ave
Stage 3						
2021+82.5	2031+50.8	PCC	2927.7			Tri-View Ave
2032+74.1	2034+15.4	PCC	652.2	18.0		Zenith Dr
2030+36.3	2033+20.9		645.2			Detour Pavement placed Stage 1
Stage 4						
2018+81.4	2021+82.5	PCC	905.7	27.0		
	TOTAL		7051.4	323.3		

110-2
08-01-08

REMOVAL OF EXISTING STRUCTURES

Location	Description	Disposal
2026+24	Business Sign	213-1
2025+55	Lightpole and Foundation	213-1
2025+82	Lightpole and Foundation	213-1
2026+70	Lightpole and Foundation	213-1
2026+85	Lightpole and Foundation	213-1
2028+90	Lightpole and Foundation	213-1
2029+75	Lightpole and Foundation	213-1
2030+60	Lightpole and Foundation	213-1
2031+47	Lightpole and Foundation	213-1
2031+31	Bollards	213-1
2031+61	Bollards	213-1
2025+53	Landscaping Boulders	213-1
2025+57	Landscaping Boulders	213-1
2025+85	Landscaping Boulders	213-1
2025+87	Landscaping Boulders	213-1
2027+17	Landscaping Boulders	213-1

110-8
08-01-08

REMOVAL OF CONCRETE DRIVES

Location		Area	Remarks
Station	Side	SY	
2021+49.9	RT	57.5	
2022+37.8	RT	108.9	
2024+44.7	RT	607.8	INCLUDES PORTION OF ASPHALT PARKING LOT
2025+38.5	RT	199.6	
2027+02.6	RT	302.8	INCLUDES PORTION OF ASPHALT PARKING LOT
2032+27.0	RT	713.6	
2033+45.4	LT	62.4	
2034+77.0	LT	59.8	
2035+57.8	LT	199.2	
TOTAL		2311.6	

110-4
08-01-08

CURB REMOVAL

Begin Station	End Station	Side	Length	Remarks
			STA	
2028+06.6	2030+07.7	LT	2.0	Temporary Driveway
2031+36.5	2032+95.4	LT	2.2	Detour Pavement
	TOTAL		4.2	

110-5
08-01-08

SIDEWALK REMOVAL

Begin Station	End Station	Area	Remarks
		SY	
2032+98.7	2035+50.8	318.1	

110-10
08-01-08

SALVAGE AND REMOVAL OF BUILDINGS

Item No.	Parcel No.	Address	Item	Foundation	Former Owner	Use of Building Previous/Present	Age Of Bldg.	Asbestos Content In Bldgs.
	205	1100 Tri-View Ave.	Building and pavement	Slab	ILL Inc.	Commercial/Warehouse	26 yrs	Unknown

104-10
08-01-08

ADJUSTMENT OF FIXTURES

No.	Location Station	Type of Fixture	Adjustment
812330	2036+43.60, 17.6'	Storm Intake	Remove existing intake top and rebuild as utility access. Paid as SW-402 TOP ONLY.
			See Tab 104-5B for additional details.
XSTS55	2032+60.00, -93.7'	Storm Utility Access	Adjust Rim Elevation to match proposed temporary pavement during Stage 1. Existing rim
			elevation is 1099.18, while the Proposed rim elevation is 1099.00.
			Paid as MANHOLE ADJUSTMENT, MINOR.
XSTS65	2026+05.28, 43.3	Storm Intake	Remove existing intake top and rebuild as utility access with rim elevation of 1096.09.
			Paid as INTAKE ADJUSTMENT, MAJOR.
XSTS66	2026+02.46, 74.3	Storm Intake	Remove existing intake top and rebuild as utility access with rim elevation of 1098.67.
			Paid as INTAKE ADJUSTMENT, MAJOR.

110-2
MODIFIED

REMOVE/ABANDON EXISTING STORM PIPE & STRUCTURES

ID	From (1)	To (1)	Length(LF)(2)	Description	Disposal
XSTP01	2031+87.45, 46.3	2031+82.19, 24.1	22.7	Remove exist sewer, dia < 36"	Note 213-1
XSTP02	2031+82.19, 24.1	2031+88.63, 44.5	69	Remove exist sewer, dia < 36"	Note 213-1
XSTP03	2031+88.63, 44.5	2032+11.40, 50.0	25.5	Remove exist sewer, dia < 36"	Note 213-1
XSTP04	2032+11.40, 50.0	2032+59.92, 93.7	70.5	Remove exist sewer, dia < 36" (5)	Note 213-1
XSTP05	2033+08.16, 66.4	2032+84.97, 77.6	28.8	Remove exist sewer, dia < 36"	Note 213-1
XSTP06	2032+84.97, 77.6	2032+59.92, 93.7	10	Remove exist sewer, dia < 36" (7)	Note 213-1
XSTP07	2036+39.09, 12.2	2036+45.94, 18.0	31	Remove exist sewer, dia < 36"	Note 213-1
XSTP08	2036+45.94, 18.0	2033+08.95, 24.2	326.3	Remove exist sewer, dia < 36" (5)	Note 213-1
XSTP10	2037+32.23, 23.8	2036+39.09, 12.2	91.6	Remove exist sewer, dia < 36"	Note 213-1
XSTP11	2022+59.06, 28.6	2022+59.64, 2.3	30.9	Remove exist sewer, dia < 36"	Note 213-1
XSTP12	2022+59.64, 2.3	2026+05.28, 43.3	349	Remove exist sewer, dia < 36" (5)	Note 213-1
XSTP15	2029+44.68, 53.1	2029+44.21, 84.0	31	Remove exist sewer, dia < 36"	Note 213-1
		Total:	1086.3		

ID	Location (1)	Type	Quantity	Description (3)	Disposal
XSTS51	2031+87.45, 46.3	INT	1	Existing Intake	Note 213-1
XSTS52	2031+82.19, 24.1	INT	1	Existing Intake	Note 213-1
XSTS53	2031+88.63, 44.5	UA	1	Existing Utility Access	Note 213-1
XSTS54	2032+11.40, 50.0	UA	1	Existing Utility Access	Note 213-1
XSTS56	2033+08.16, 66.4	INT	1	Existing Intake	Note 213-1
XSTS57	2032+84.97, 77.6	INT	1	Existing Intake	Note 213-1
XSTS58	2036+39.09, 12.2	INT	1	Existing Intake	Note 213-1
XSTS63	2022+59.06, 28.6	INT	1	Existing Intake	Note 213-1
XSTS64	2022+59.64, 2.3	INT	1	Existing Intake	Note 213-1
XSTS68	2029+44.68, 53.1	INT	1	Existing Intake	Note 213-1
XSTS69	2029+44.21, 84.0	INT	1	Existing Intake (6)	Note 213-1
		TOTAL:	11		

Notes:
1. Proposed Tri-View Avenue Stationing
2. Estimated; actual length will be measured in the field
3. Structure removals paid under item 2510-6750600, REMOVAL OF INTAKE & UTILITY ACCESS
4. See associated ID labels in M-Sheets
5. Cut pipe leaving 2-ft of pipe at downstream Utility Access and fill with PCC leaving a smooth surface on the interior. Volumes: XSTP04 = 2 LF, XSTP08 = 2 LF, XSTP12 = 2 LF.
6. Plug and abandon 2 LF of remaining pipe with PCC. Pipe to be removed in future phase.
7. Remove approximately 10 LF of pipe and install 18" RF-3 at Sta. 2032+74.00, -84.4, FL = 1094.30.

203-2
10-18-11

PLANS
(COORDINATING OPERATIONS)

Coordinate operations with those of other contractors working within the same area. Other work in progress during the same period of time will include construction of the following projects:
IM-029-7(42)149—13-97 – PCC Pavement – Grade and Replace (WESLEY)
IM-029-7(43)149—13-97 – PCC Pavement – Grade and Replace (THIRD)
IM-029-7(51)149—13-97 – Sanitary Sewer

212-1
10-18-11

SOILS DESIGN

Sounding and test boring data shown on plans were accumulated for designing and estimating purposes. Their appearance on the plan does not constitute a guarantee that conditions other than those indicated will not be encountered.

213-1
04-15-08

WASTE
(NON-DESIRABLE MATERIAL)

It shall be the contractor's responsibility to provide waste areas or disposal sites for excess material (excavated material or broken concrete) which is not desirable to be incorporated into the work involved on this project.

It shall be the contractor's responsibility to ensure that areas (including haul roads) selected for waste or disposal not impact 1) culturally sensitive sites or graves or 2) wetlands or "Waters of the U.S.", including streams or stream banks below the "ordinary high water mark", without an approved U.S. Army Corps of Engineers Section 404 Permit.

No payment for overhaul will be allowed for material hauled to these sites. No material shall be placed within the right-of-way, unless specifically stated in the plans.

232-8
10-18-11

EROSION CONTROL
(DISTURBED AREAS)

Ensure the top 6 inches of the disturbed areas are free of rock and debris and are suitable for the establishment of vegetation, subject to the Engineer’s approval.

232-10
10-28-97

EROSION CONTROL
(EQUIPMENT FOR MAINTENANCE)

The contractor is expected to have materials, equipment, and labor available on a daily basis to install and maintain erosion control features on the project. This may involve seeding, silt fence, rock ditch checks, silt basins, or silt dikes.

252-1
10-18-11

DETOURS
(INCIDENTAL)

Blading, shaping, and other work in preparation for maintaining temporary crossovers or detours is incidental to other work. Furnish and spread additional granular surfacing needed for temporary crossings or detours during construction at the contract price.

254-1
10-02-01

INCIDENT MANAGEMENT

An incident management plan, provided by the District Office, will be discussed at the pre-construction conference.

262-5
10-18-05

UTILITIES
(POINT 25 PROJECT)

This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.

263-1
10-18-11

UTILITIES
(SANITARY SEWER, WATER MAIN, AND APPURTENANCES)

For bedding and backfill purposes under Primary roads, use crushed rock or crushed gravel material complying with Article 4120.04 of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class 1 materials) of the Standard Specifications. Gravels must be 100% crushed produced by crushing material retained on a 1.5 inch or larger screen.

SURVEY SYMBOLS

- St.S.5 STE Storm Sewer Line Co. 5
- San.5 SAE Sanitary Sewer Line Co. 5
- San. SAA Sanitary Sewer Line Co. 1
- E1 ELA Underground Electric Line Co. 1
- G3 GLC Underground Gas Line Co. 3
- G GLA Underground Gas Line Co. 1
- W2 WLB Underground Water Line Co. 2
- G3-HP GHC Underground High Pres Gas Co 3
- E2 ELB Underground Electric Line Co. 2
- CP Control Point
- BM Bench Mark
- BB Billboard
- TEV Evergeen Tree
- TDC Tree Deciduous
- RET Retaining Walls
- FCL Chain Link and Security Fence
- GDL Guard Rail (Rail and Cable)
- EW Edge of Water
- HDG Hedge Row
- FWD Wood Fence
- RR Centerline of Railroad Tracks
- ENU Edge Unpaved Entrance & Parking
- SIGN SI Sign
- MIS Miscellaneous
- SHR Shrub
- Flg FLG Flag Poles
- SIGN SL Speed Limit Sign
- BNK Stream Bank
- TPC Telephone Pole Co. 3
- TP TPD Telephone Pedestal
- F04 FOD Underground Fiber Optic Co. 4
- T4 TLD Underground Telephone Line Co. 4
- W4 WLD Underground Water Line Co. 4
- Default_Point Default Point Feature
- C Centerline BL of Road (ML or SR)
- BL Topo Breakline
- C Centerline BL of Road (ML or SR)
- GR Ground Shot
- EG Edge of Gravel Road
- GP GP Guard Post (Less Than 4 Posts)
- COS Square Bridge Pier Column
- MH Utility Access (Manhole)
- EB EB Electrical Box
- WV WV Water Valve
- LUM Luminaire
- UB UB Utility Box
- OUT Tile Outlet
- UE Utility Elevation
- D Centerline Draw or Stream (Down)
- FHD Fire Hydrants
- RIP Rip-Rap
- PPA Power Pole Co. 1
- T1 TLA Underground Telephone Line Co. 1
- F05 FOE Underground Fiber Optic Co. 5
- F03 FOC Underground Fiber Optic Co. 3
- F0 FOA Underground Fiber Optic Co. 1
- W WLA Underground Water Line Co. 1
- F02 FOB Underground Fiber Optic Co. 2
- WEL Well
- San.2 SAB Sanitary Sewer Line Co. 2
- IN Storm Sewer Intake
- E5 ELE Underground Electric Line Co. 5
- WH WHD Water Hydrant
- INB Storm Sewer Beehive Intake
- E3 ELC Underground Electric Line Co. 3
- TLN Tree Line
- TSG Traffic Signal
- PPB Power Pole Co. 2
- GV GV Gas Valve
- PPD Power Pole Co. 4
- TPA Telephone Pole Co. 1

UTILITY LEGEND

E1
Woodbury County Rural Electric Cooperative
Phone: 800-469-3125

E2 / G3
MidAmerican Energy Company
Contact: Steve Fisher
Phone: 712-233-4834
Fax: 712-233-4888

E3
Iowa Department of Transportation
Contact: John Jepsen
Phone: 712-252-1836
Fax: 712-239-4970

E5
Unknown / Undefined Owners

F0
Sprint Communication
Contact: Thom Miller
Phone: 605-376-9931

F03
Northwest Iowa Telephone & Cable
Contact: Russell Black
Phone: 712-943-4742
Fax: 712-943-4742

F04
Cable One
Contact: Chip Groves
Phone: 712-233-2000
Fax: 712-233-2235

F05
City of South Sioux City, NE
Contact: Chad Kehrt
Phone: 402-494-7676
Fax: 402-494-7530

G
Magellan Pipeline
Contact: Steve Eddy
Phone(cell): 712-251-3480
Phone: 712-239-6656
Fax: 712-239-6656

San. / St.S. / W
City of Sioux City
Contact: Chris Payer
Phone: 712-279-6333
Fax: 712-279-6249

San.2
City of South Sioux City, NE

San.5
Unknown / Undefined Owners

St.S.5
Unknown / Undefined Owners

T1
Qwest Communications (US West)
Contact: Ben Little
Phone: 402-572-5873

T2
Sprint Nextel Communication
Contact: Kevin Person
Phone: 612-310-9742

Unknown / Undefined Owners

W2
City of South Sioux City, NE

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.**	
Yellow	(4)	Highlight for Critical Notes or Features
Red	(3)	Delineates Restricted Areas
Lavender	(9)	Temporary Pavement Shading
Gray, Light	(48)	Proposed Pavement Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed Grade and Pave Shading
Brown, Light	(236)	Grading Shading
Tan	(8)	Proposed Sidewalk Shading
Blue, Light	(230)	Proposed Sidewalk Landing Shading
Pink	(11)	Proposed Sidewalk Ramp Shading

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK	Design Color No.	
Green	(2)	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
- Temporary Barrier Rail
- 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
- A/C Access Control

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES E & F)

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER E.1

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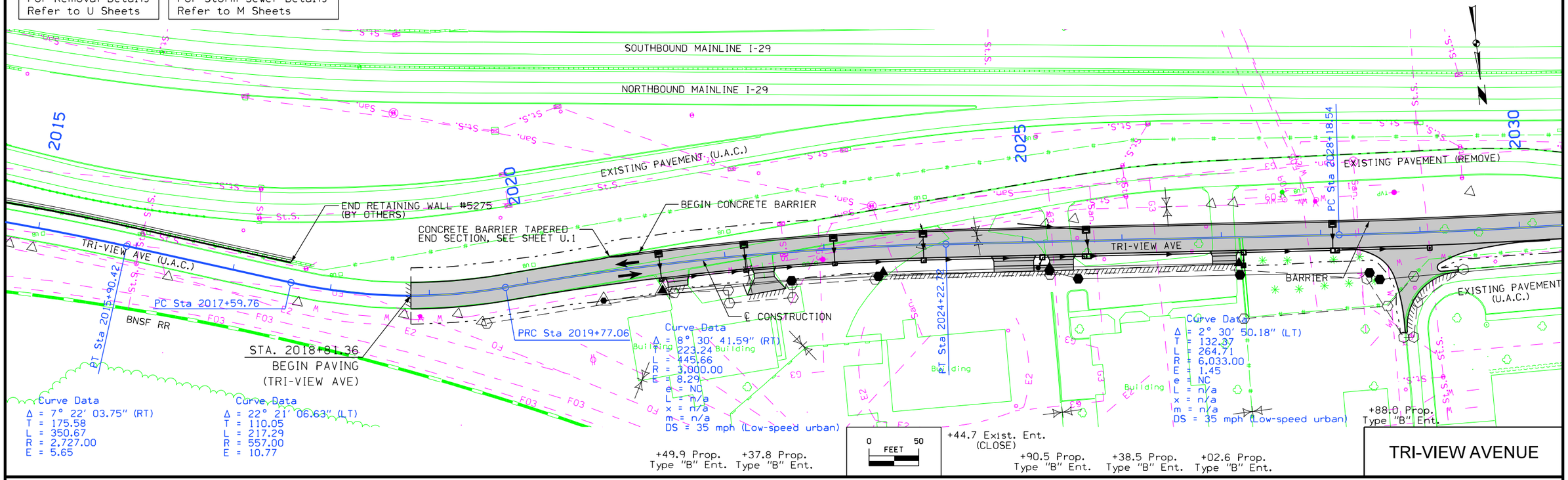
For Removal Details Refer to U Sheets

For Storm Sewer Details Refer to M Sheets

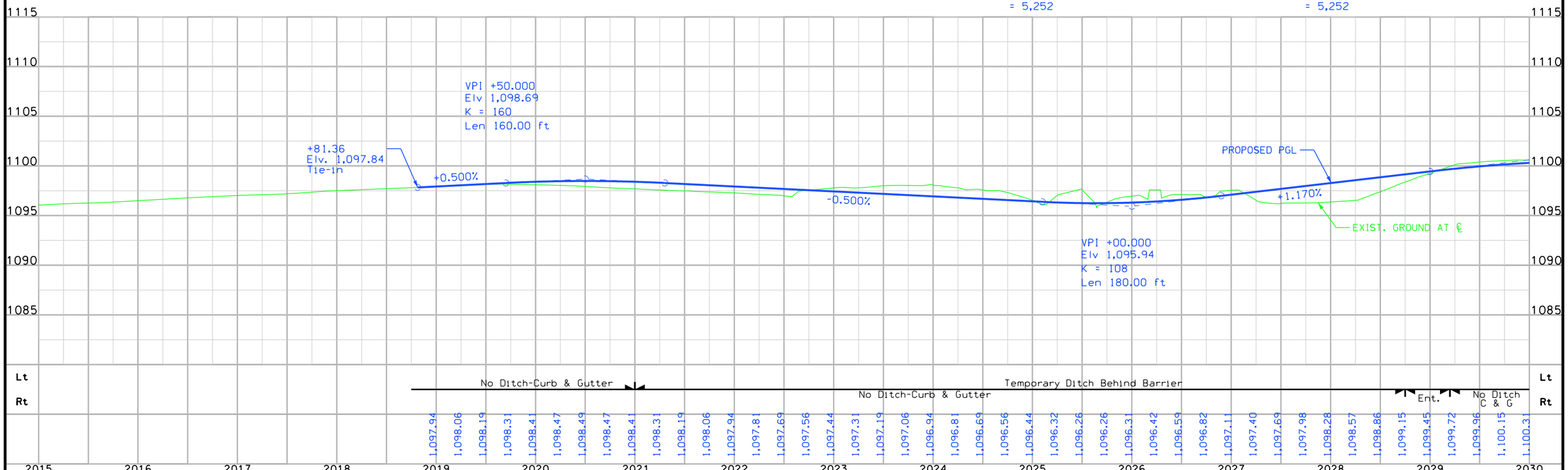


TRI-VIEW AVENUE

GRADING Sta. 2018+81.36 to Sta. 2037+32.23

Class 10 Suit Cut = 5,252
= 5,252

Class 10 Suit Fill + 30% = 2,111
Waste = 3,141
= 5,252



ENGLISH	IOWA DOT	DESIGN TEAM	Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER	IM-NHS-29-7(44)149--03-97	SHEET NUMBER	E.2

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For Removal Details
Refer to U Sheets

For Storm Sewer Details
Refer to M Sheets

+45.4 Exist. Ent. (CLOSE)
+77.0 Exist. Ent. (CLOSE)
+57.8 Prop. Type "B" Ent.

END CONCRETE BARRIER
CONCRETE BARRIER TAPERED END SECTION, SEE SHEET C.2
℄ CONSTRUCTION

NORTHBOUND MAINLINE I-29
EXISTING PAVEMENT (REMOVE)
TRI-VIEW AVE
EXISTING PAVEMENT (U.A.C.)
TRI-VIEW AVE (U.A.C.)
MYRTLE ST (U.A.C.)
HAMILTON BLVD

2035
2040
2045

PRC Sta 2030+83.24
PRC Sta 2035+57.79
PRC Sta 2037+00.81
PT Sta 2039+09.93
PC Sta 2041+73.99
PT Sta 2044+19.71
PRC Sta 2045+77.35

+27.0 Exist. Ent. (CLOSE)

STA. 2037+32.23 (TRI-VIEW)
END PROJECT

STA. 2037+32.23
END PAVING
(TRI-VIEW AVE)

STA. 2045+77.35 TRI-VIEW AVE
STA. 513+84.07 HAMILTON BLVD

Curve Data
Δ = 53° 18' 44.79" (RT)
T = 256.02
L = 474.54
R = 510.00
E = 60.65
e = NC
L = n/a
x = n/a
m = n/a

Curve Data
Δ = 16° 04' 05.40" (LT)
T = 71.99
L = 143.03
R = 510.00
E = 5.06
e = NC
L = n/a
x = n/a
m = n/a

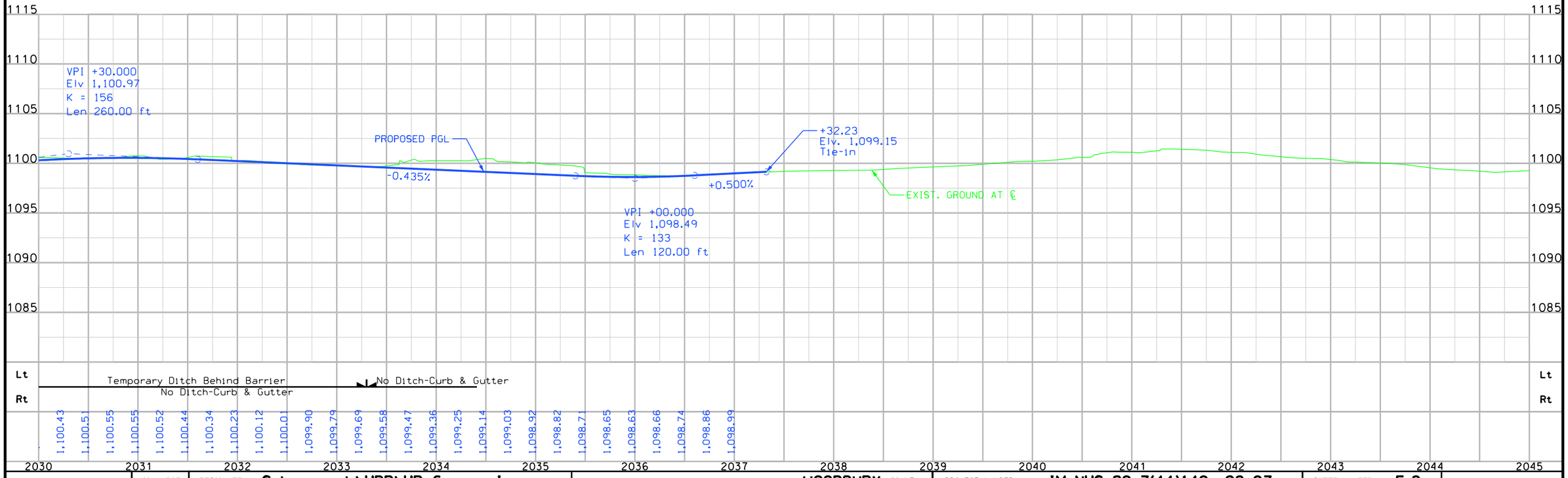
Curve Data
Δ = 4° 15' 02.54" (LT)
T = 104.61
L = 209.12
R = 2,818.69
E = 1.94
e = NC
L = n/a
x = n/a
m = n/a

Curve Data
Δ = 23° 49' 19.57" (LT)
T = 124.66
L = 245.72
R = 591.00
E = 13.00

0 50 FEET

TRI-VIEW AVENUE

GRADING Sta. 2018+71.36 to Sta. 2037+32.23
See Sheet E.2 for Earthwork Balances

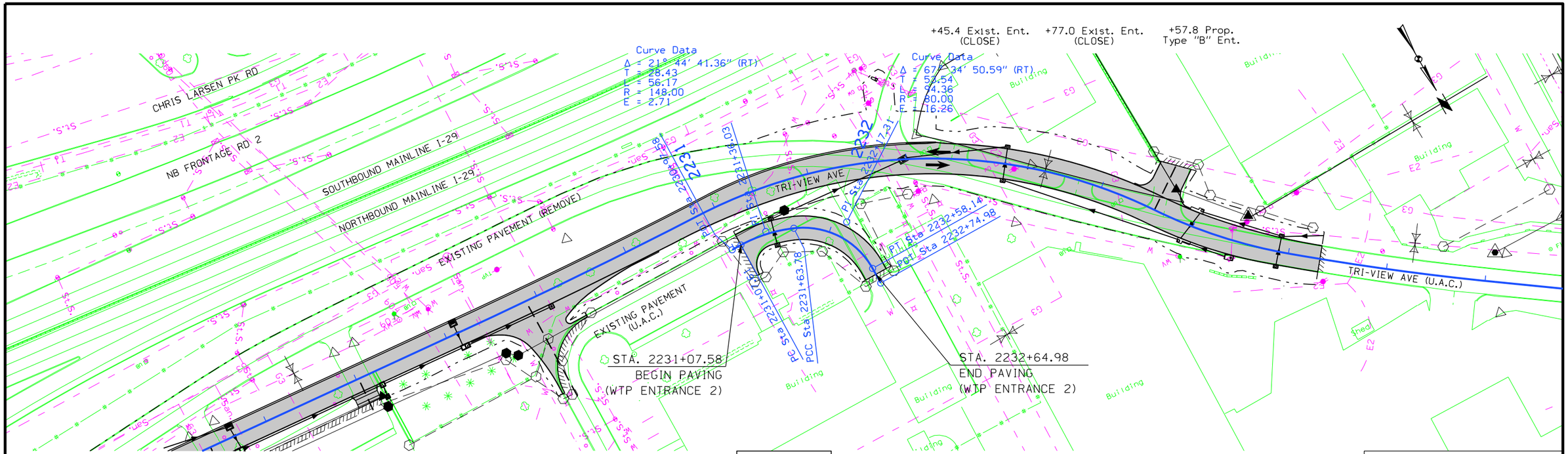


Lt: Temporary Ditch Behind Barrier
Rt: No Ditch-Curb & Gutter
Lt: No Ditch-Curb & Gutter
Rt:

2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
1,100.43	1,100.51	1,100.55	1,100.55	1,100.52	1,100.44	1,100.34	1,100.23	1,100.12	1,100.01	1,099.90	1,099.79	1,099.69	1,099.58	1,099.47	1,099.36	1,099.25	1,099.14	1,099.03	1,098.92	1,098.82	1,098.71	1,098.65	1,098.63	1,098.66	1,098.74	1,098.86	1,098.99

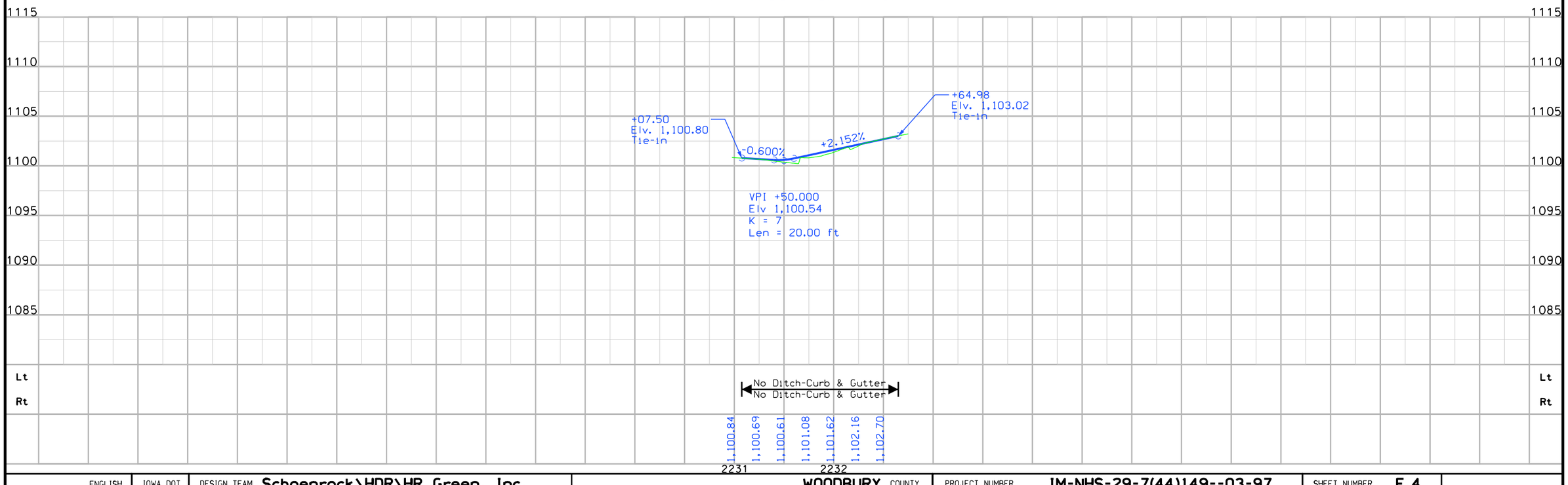
ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER E.3

6:02:50 PM pknievel c:\pwworking\oma\d0675625\97029044E01.sht



GRADING Sta. 2231+07.58 to Sta. 2232+64.98

See Sheet E.2 for Earthwork Balances



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER E.4

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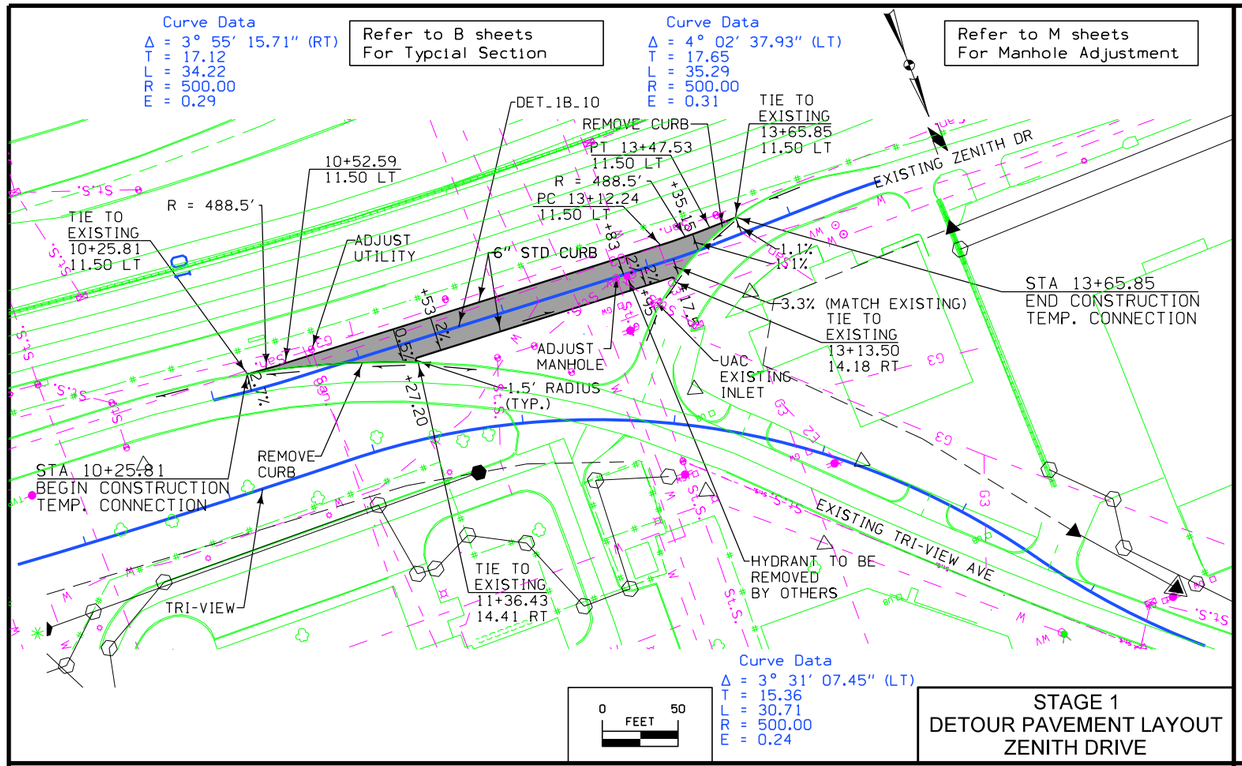
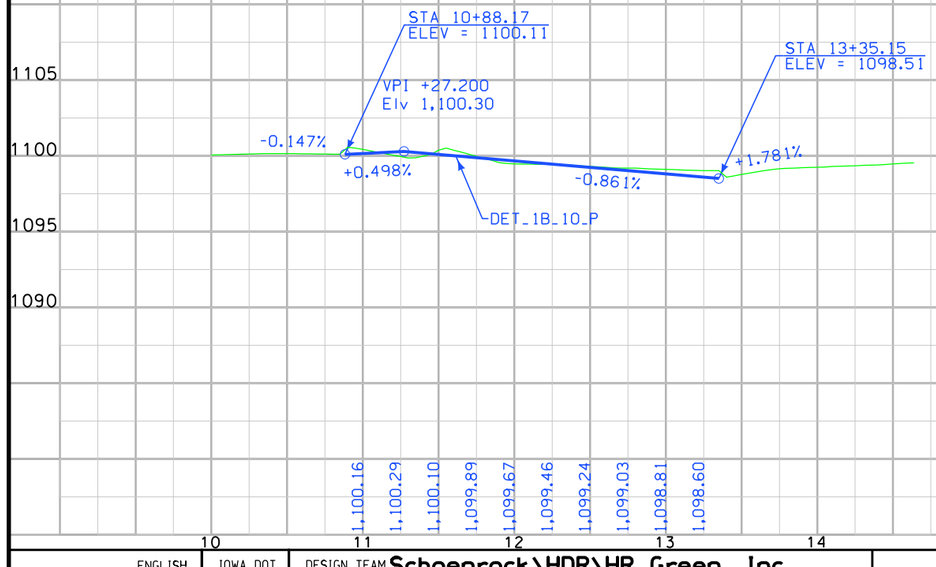


GRADING Sta. 10+25.81 to Sta. 13+65.85

CLASS 13 WASTE = 242
= 242



ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER F.1

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GENERAL INFORMATION

All Monuments for this survey are in English Units. The purpose of this survey was to provide data for proposed design improvements along I-29 from the Industrial Road Interchange North to the South Dakota state line.

The alignment was created by retracing IDOT project Nos. I-03-8(2), IR-29-8(18)151-12-97 I-03-8(1), and I(52)IN886(7).

The Control Points along this project were adjusted from the "G.P.S. Project Report For Corridor Improvements Along I-29 from the Industrial Road Interchange in Sioux City North to the South Dakota State Line and the Hamilton Blvd. Interchange." Project No. IM-29-6(104)142--13-97.

HORIZONTAL DATUM

The alignment was created by retracing IDOT project Nos. I-03-8(2), IR-29-8(18)151-12-97, I-03-8(1), and I(52)IN886(7).

VERTICAL DATUM

This survey is relative to NAVD88 vertical datum. Three wire bench level loops were run throughout this project. Vertical equations to the project datum Bench Marks and other benches along this survey are as follows:

Datum Benches:

BM	#619 This survey	EL=1100.64
= NGS BM	Stamped W 181	EL=1100.64
BM	#638 This survey	EL=1095.65
= NGS BM	Stamped B 181	EL=1095.65
BM	#654 This survey	EL=1105.05
= NGS BM	Stamped H 183	EL=1105.05

BENCHMARKS		ELEVATION
No. 619	Sta. 337+19.52 132.35 Rt.	STAINLESS STEEL ROD IN CASTING 2.35 MILES S OF CNW RR AND DACE AVE. 1100.64
No. 620	Sta. 337+60.74 49.01 Rt.	RR SPIKE IN E SIDE POWER POLE W OF RR TRACKS, ±100' NW OF BM No. 619 1100.69
No. 623	Sta. 361+69.15 74.67 Rt.	RR SPIKE IN W SIDE POWER POLE E SIDE N.B. I-29 NEAR STATION 361+00 1116.38
No. 624	Sta. 374+92.07 69.43 Rt.	RR SPIKE IN W SIDE OF TALL POWER POLE N OF A BILLBOARD, E SIDE OF N.B. I-29 NEAR MILEMARKER 145.90 1108.60
No. 625	Sta. 385+46.60 76.49 Rt.	RR SPIKE IN W SIDE OF POWER POLE E SIDE OF N.B. I-29 NEAR MILEMARKER 146.10 1103.97
No. 626	Sta. 399+60.11 62.32 Rt.	RR SPIKE IN W SIDE OF POWER POLE E OF N.B. I-29 NEAR STATION 398+00 1098.30
No. 627	Sta. 411+59.79 18.64 Rt.	I.H.C. BRASS PLUG IN SE'LY WINGWALL OF N.B. I-29 BRIDGE OVER OLD FLOYD DRAINAGE CHANNEL (BACON CREEK) 1102.32
No. 628	Sta. 417+31.47 18.89 Rt.	I.H.C. BRASS PLUG IN NE'LY WINGWALL OF N.B. I-29 BRIDGE OVER OLD FLOYD DRAINAGE CHANNEL (BACON CREEK) 1102.40
No. 629	Sta. 426+12.35 37.72 Rt.	"X" IN CONCRETE PRIVACY FENCE POST BASE E SIDE OF N.B. I-29 NEAR STATION 425+00 1098.02
No. 630	Sta. 430+32.47 0.22 Lt.	"X" IN CL CONCRETE MEDIAN BARRIER WALL NEAR MILEMARKER 146.95 1101.97
No. 631	Sta. 444+78.28 37.54 Rt.	"X" IN SE ANCHOR BOLT FOR METAL HANDRAIL ON SE'LY CORNER OF N.B. I-29 BRIDGE OVER THE FLOYD RIVER 1105.71
No. 632	Sta. 450+45.88 51.83 Rt.	I.H.C. BRASS PLUG IN NW'LY WINGWALL OF N.B. I-29 BRIDGE OVER THE FLOYD RIVER 1109.80
No. 633	Sta. 459+44.94 369.19 Rt.	RR SPIKE IN N SIDE GUY POLE AT ENTRANCE ALONG FLOYD BLVD. TO NUTRAFLOW PLANT E OF RR TRACKS 1101.43

NOTE:
ALL BENCHMARK STATION AND OFFSETS ARE BASED OFF OF THE SURVEY ALIGNMENT STATIONING.

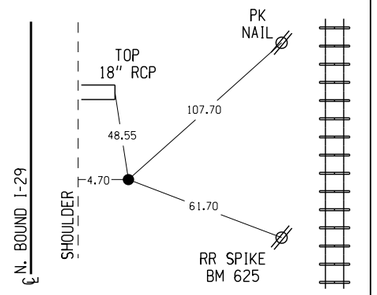
BENCHMARKS		ELEVATION
No. 634 Sta. 464+46.17 320.14 Lt.	"X" NE BOLT OF LIGHTPOLE #25 S SIDE OF LARSEN PARK RD., 2ND LIGHTPOLE W OF E ENTRANCE TO ARGOSY CASINO PARKING LOT----	1100.54
No. 635 Sta. 474+73.57 197.84 Lt.	"X" IN NE CORNER CONCRETE INTAKE N SIDE OF LARSEN PARK RD. N OF ARGOSY CASINO----------	1094.91
No. 636 Sta. 490+12.69 264.67 Lt.	CUT SQUARE TOP S END OF 24" RCP N SIDE OF LARSEN PARK RD., 2ND RCP E OF PED. TUNNEL UNDER S.B.I-29 RAMP 148----	1089.70
No. 638 Sta. 480+52.52 102.92 Rt.	STAINLESS STEEL ROD IN CASTING AT THE INTERSECTION OF DACE AVE. & GORDON DR.----------	1095.65
No. 639 Sta. 506+34.36 266.12 Lt.	I.H.C. BRASS PLUG IN E WINGWALL PERRY CREEK DRAINAGE STRUCTURE ±30' N OF LARSEN PARK RD.----------	1100.58
No. 640 Sta. 516+50.04 714.37 Lt.	CUT SQUARE SE CORNER CURB INTAKE E SIDE LARSEN PARK RD., 1ST INTAKE W OF HWY 77/WESLY PKWY. BRIDGE OVER MO RIVER----------	1098.14
No. 641 Sta. 524+20.29 216.42 Lt.	"X" ON CONCRETE INTAKE COVER S SIDE OF OF LARSEN PARK RD. NEAR STATION 385+56, ±216' RT.----------	1095.11
No. 642 Sta. 533+56.41 236.68 Lt.	"X" ON CONCRETE INTAKE COVER N SIDE OF LARSEN PARK RD., N OF MARINA BLDG.----------	1090.54
No. 643 Sta. 542+41.85 540.97 Lt.	"X" ON CONCRETE INTAKE COVER N SIDE LARSEN PARK ROAD----------	1087.71
No. 644 Sta. 545+95.27 38.77 Rt.	I.H.C. BRASS PLUG IN NW WINGWALL N.B. I-29 BRIDGE OVER HAMILTON BLVD.-------	1103.52
No. 645 Sta. 559+73.05 0.04 Rt.	"X" CL CONCRETE MEDIAN BARRIER WALL NEAR STATION 350+00----------	1104.30
No. 646 Sta. 572+82.11 0.04 Rt.	"X" CL CONCRETE MEDIAN BARRIER WALL NEAR STATION 337+00----------	1104.68
No. 649 Sta. 599+99.61 0.11 Lt.	"X" CL CONCRETE MEDIAN BARRIER WALL NEAR STATION 308+50----------	1105.20
No. 650 Sta. 612+95.55 0.10 Rt.	"X" CL CONCRETE MEDIAN BARRIER WALL NEAR STATION 296+00----------	1105.49
No. 651 Sta. 620+66.17 0.02 Rt.	"X" CL CONCRETE MEDIAN BARRIER WALL NEAR STATION 289+10----------	1106.50
No. 654 Sta. 635+21.50 135.43 Rt.	STAINLESS STEEL ROD IN CASTING 2.7 MILES W ON BNRR FROM JUNCTION W/ PEARL ST.----------	1105.05

BENCHMARKS		ELEVATION
No. 719 Sta. 480+90.85 369.13 Rt.	ARROW ON YELLOW FHD SE CORNER OF GORDON DR. & DACE AVE.----------	1099.60
No. 720 Sta. 472+28.35 693.36 Rt.	ARROW ON FHD NE CORNER OF GORDON DR. & VIRGINIA ST.----------	1098.93
No. 721 Sta. 491+60.76 199.94 Rt.	ARROW ON FHD NE CORNER OF PIERCE ST. & GORDON DR.----------	1100.90
No. 722 Sta. 499+21.07 157.20 Rt.	ARROW ON FHD NE CORNER OF GORDON DR. & PEARL ST.----------	1100.05
No. 723 Sta. 508+69.51 117.40 Rt.	I.H.C. BRASS PLUG IN SE CORNER CONCRETE GUARD RAIL N.B. I-29 EXIT RAMP BRIDGE TO WESLEY WAY----------	1114.75
No. 724 Sta. 512+61.49 441.95 Rt.	I.H.C. BRASS PLUG IN NE CORNER CONCRETE GUARD RAIL N.B. WESLEY WAY BRIDGE OVER RR TRACKS & TRI-VIEW AVE.----------	1130.56
No. 725 Sta. 511+45.55 1272.41 Rt.	ARROW ON FHD AT W END OF 4TH ST. W OF WATER ST. AND E OF WESLEY WAY N OF 4TH ST AND SIDEWALK----------	1106.85
No. 726 Sta. 515+64.04 48.17 Lt.	I.H.C. BRASS PLUG SW CORNER CONCRETE GUARD RAIL S.B. WESLEY WAY BRIDGE OVER I-29----------	1120.63
No. 727 Sta. 514+42.15 227.27 Lt.	CUT SQUARE SW CORNER W CONCRETE GUARDRAIL HWY.77 BRIDGE OVER BOTH I-29 AND WESLEY WAY BRIDGES----------	1147.03
No. 728 Sta. 543+68.50 848.40 Rt.	"X" IN CONCRETE TRAFFIC SIGNAL BASE IN THE SE CORNER OF HAMILTON BLVD. & TRI-VIEW AVE.----------	1100.42

CONTROL POINT 219

MM 146.10

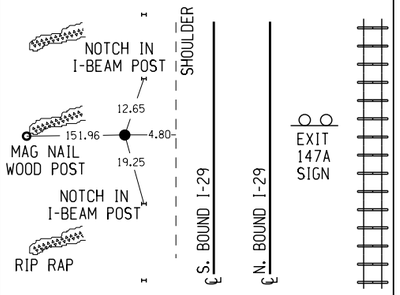
SET $^{5}/_{8}$ X 30" REBAR
XC=4144089.466, YC=3647183.731



CONTROL POINT 220

MM 146.30

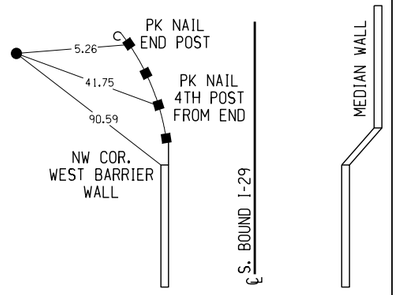
SET $^{5}/_{8}$ X 30" REBAR
XC=4143796.864, YC=3648226.238



CONTROL POINT 221

MM -

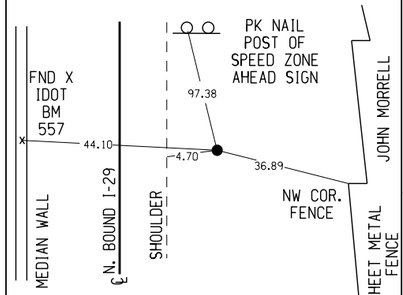
SET $^{5}/_{8}$ X 30" REBAR
XC=4142985.581, YC=3650155.462



CONTROL POINT 222

MM 146.95

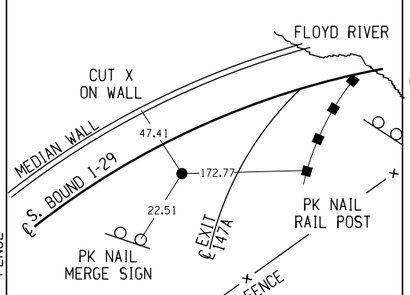
SET $^{5}/_{8}$ X 30" REBAR
XC=4142457.669, YC=3651282.540



CONTROL POINT 223

MM -

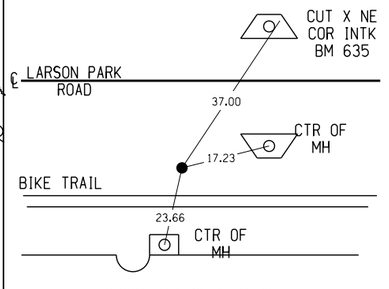
SET $^{5}/_{8}$ X 30" REBAR
XC=4141195.208, YC=3653047.178



CONTROL POINT 224

MM -

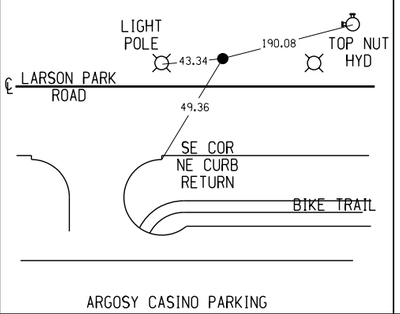
SET $^{5}/_{8}$ X 30" REBAR
XC=4139346.276, YC=3654168.622



CONTROL POINT 225

MM -

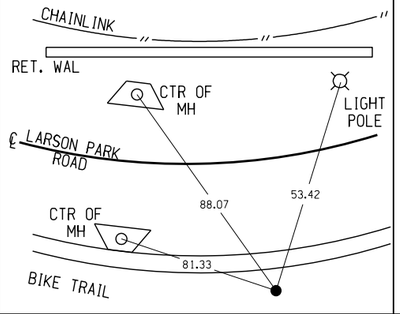
SET $^{5}/_{8}$ X 30" REBAR
XC=4138858.072, YC=3654344.412



CONTROL POINT 226

MM -

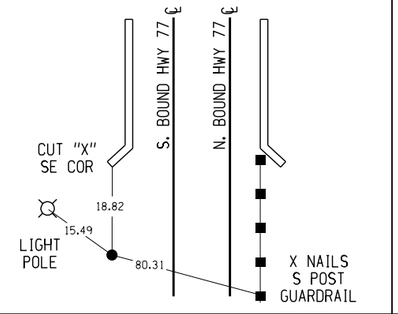
SET $^{5}/_{8}$ X 30" REBAR
XC=4138126.039, YC=3654344.817



CONTROL POINT 227

MM -

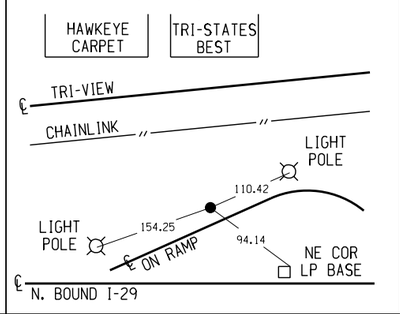
SET $^{5}/_{8}$ X 30" REBAR
XC=4135652.576, YC=3655489.020



CONTROL POINT 228

MM -

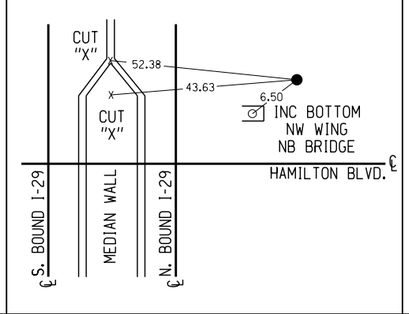
SET $^{5}/_{8}$ X 30" REBAR
XC=4135016.916, YC=3655996.313



CONTROL POINT 229

MM -

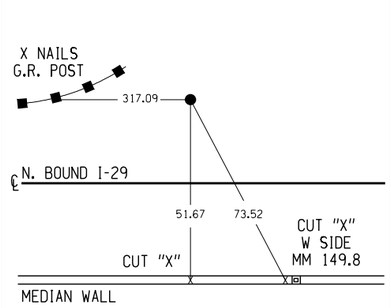
SET $^{5}/_{8}$ X 30" REBAR
XC=4132603.500, YC=3656024.709



CONTROL POINT 231

MM 149.8

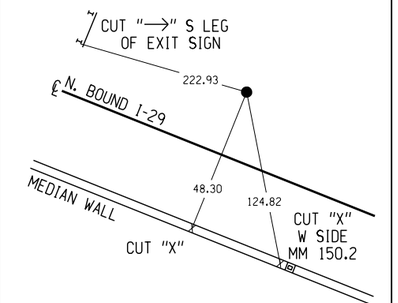
SET $^{5}/_{8}$ X 30" REBAR
XC=4129108.786, YC=3655976.105



CONTROL POINT 232

MM 150.2

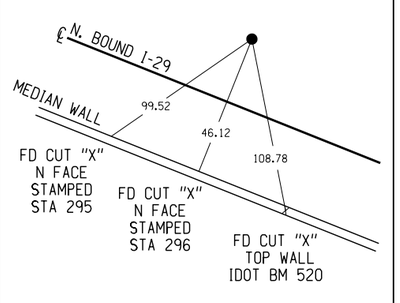
SET $^{5}/_{8}$ X 30" REBAR
XC=4126960.898, YC=3656156.558



CONTROL POINT 233

MM -

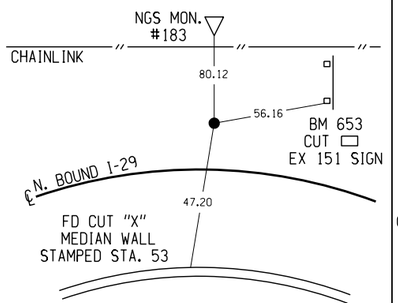
SET $^{5}/_{8}$ X 30" REBAR
XC= 4125868.866, YC=3656408.820



CONTROL POINT 234

MM -

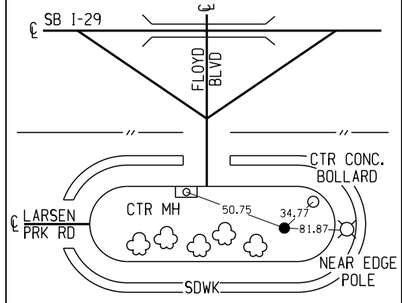
SET $^{5}/_{8}$ X 30" REBAR
XC=4123801.743, YC=3656948.871



CONTROL POINT 260

MM -

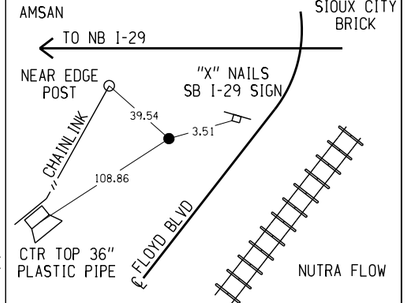
SET $^{5}/_{8}$ X 30" REBAR
XC=4140455.249, YC=3653425.598



CONTROL POINT 261

MM -

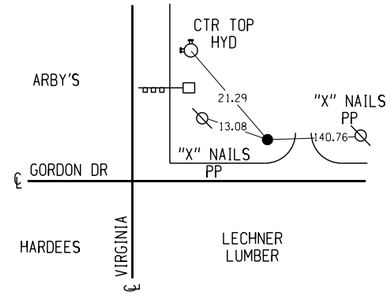
SET $^{5}/_{8}$ X 30" REBAR
XC=4140948.005, YC=3654023.706



CONTROL POINT 262

MM -

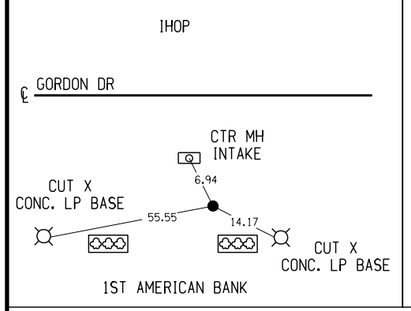
SET $^{5}/_{8}$ X 30" REBAR
XC=4139885.339, YC=3654965.110



CONTROL POINT 263

MM -

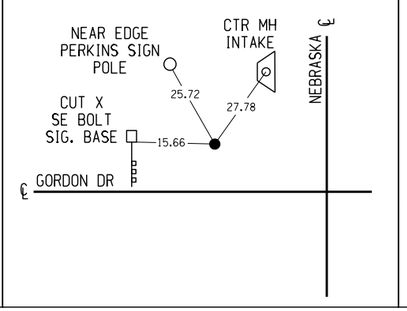
SET $^{5}/_{8}$ X 30" REBAR
XC=4139106.127, YC=3654900.442



CONTROL POINT 264

MM -

SET $^{5}/_{8}$ X 30" REBAR
XC=4138281.098, YC=3654997.088



CONTROL POINT 265

MM -

SET $^{5}/_{8}$ X 30" REBAR
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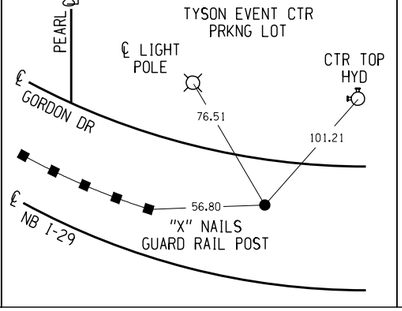
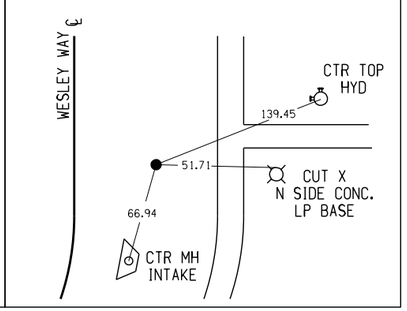


CONTROL POINT 266

MM -

SET $^{5}/_{8}$ X 30" REBAR
XC=4136443.513, YC=3656766.184



DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

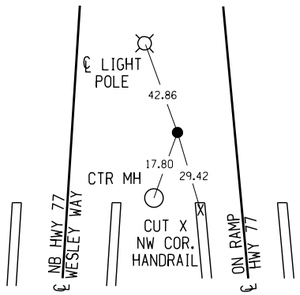
ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149-03-97	SHEET NUMBER G.3

CONTROL POINT 267

MM

SET $^{5}/_{8}$ X 30" REBAR

XC=4136063.864, YC=3656101.153



DETAILS OF REFERENCE INFORMATION

All References are Plumb Distances unless otherwise noted.

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149-03-97	SHEET NUMBER G.4

10:44:57 AM12/22/2011 gshuger \\hrgqcs\data\CAD\816440_Seg2\816440J11\97029044\CAD\Design\9702944G02.sht

ALIGNMENT COORDINATES

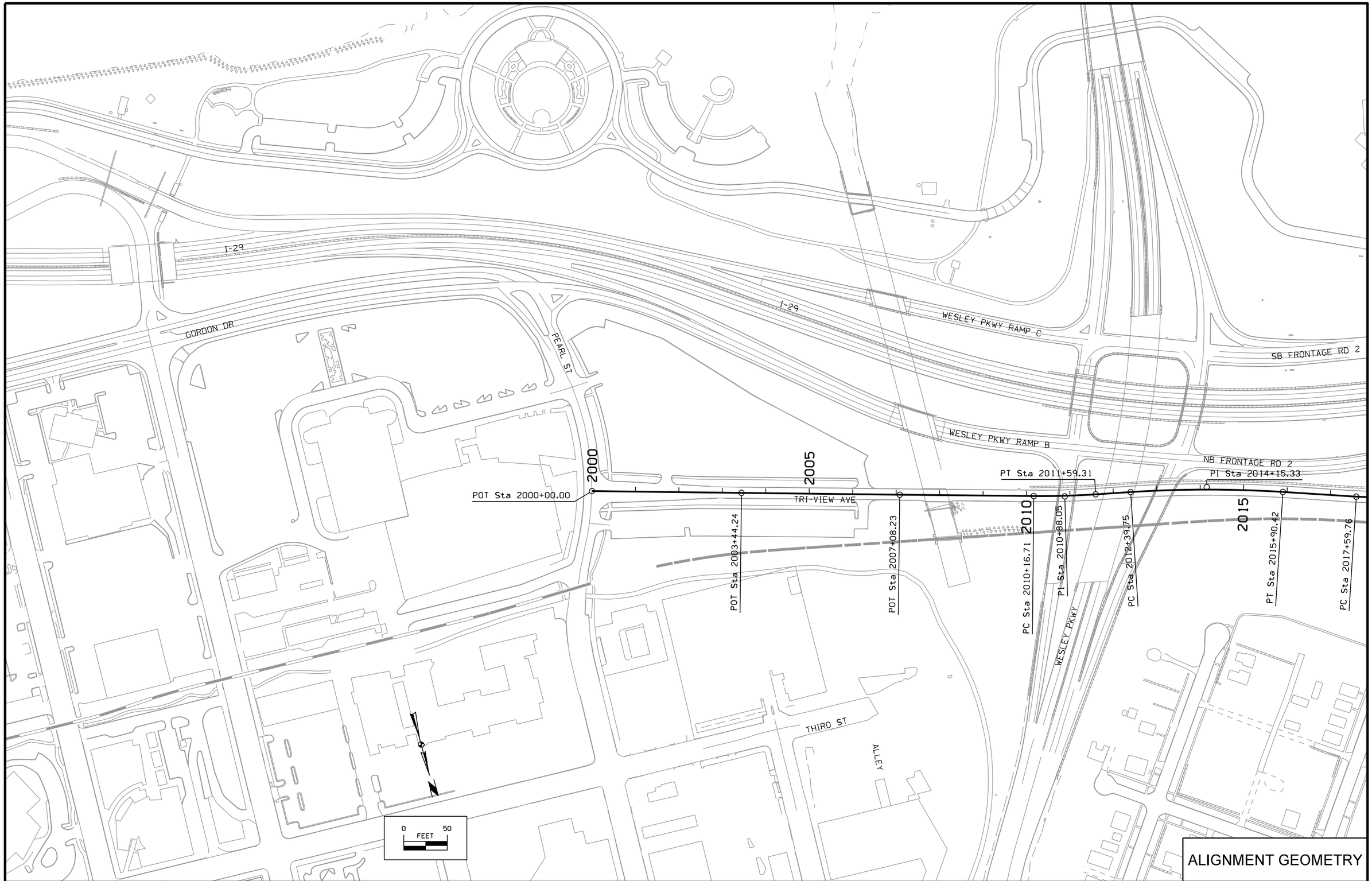
101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
22550	TRIVIEW	2000+00.00	3,655,576.99	4,137,036.40															
22551	TRIVIEW	2003+44.24	3,655,671.22	4,136,705.31															
22552	TRIVIEW	2007+08.23	3,655,770.74	4,136,355.19															
22553	TRIVIEW							2010+16.71	3,655,854.57	4,136,058.31	2010+88.05	3,655,873.96	4,135,989.66	2011+59.31	3,655,888.15	4,135,919.76			
22554	TRIVIEW							2012+39.75	3,655,904.16	4,135,840.93	2014+15.33	3,655,939.09	4,135,668.86	2015+90.42	3,655,995.81	4,135,502.70			
22555	TRIVIEW							2017+59.76	3,656,050.51	4,135,342.43	2018+69.81	3,656,086.05	4,135,238.29	2019+77.06	3,656,079.32	4,135,128.45			
22556	TRIVIEW							2019+77.06	3,656,079.32	4,135,128.45	2022+00.30	3,656,065.66	4,134,905.62	2024+22.72	3,656,085.14	4,134,683.23			
22560	TRIVIEW							2028+18.54	3,656,119.67	4,134,288.92	2029+50.91	3,656,131.22	4,134,157.05	2030+83.24	3,656,136.97	4,134,024.80			
22565	TRIVIEW							2030+83.24	3,656,136.97	4,134,024.80	2033+39.26	3,656,148.10	4,133,769.03	2035+57.79	3,656,359.85	4,133,625.14			
22566	TRIVIEW							2035+57.79	3,656,359.85	4,133,625.14	2036+29.77	3,656,419.39	4,133,584.68	2037+00.81	3,656,465.41	4,133,529.32			
22558	TRIVIEW							2037+00.81	3,656,465.41	4,133,529.32	2038+05.42	3,656,532.27	4,133,448.88	2039+09.93	3,656,593.00	4,133,363.70			
22559	TRIVIEW							2041+73.99	3,656,746.28	4,133,148.69	2042+98.65	3,656,818.64	4,133,047.18	2044+19.71	3,656,843.84	4,132,925.09			
22560	TRIVIEW	2045+77.35	3,656,875.71	4,132,770.70															
RET_131B-1	DRIVEWAY RETURN							0+00.00	3,656,147.90	4,134,078.71	0+39.49	3,656,145.84	4,134,118.15	0+78.81	3,656,150.12	4,134,157.41			
RET_131B-2	DRIVEWAY RETURN							0+78.81	3,656,150.12	4,134,157.41	0+96.99	3,656,152.09	4,134,175.48	1+14.85	3,656,159.77	4,134,191.96			
RET_131B-3	DRIVEWAY RETURN							1+14.85	3,656,159.77	4,134,191.96	1+31.93	3,656,166.98	4,134,207.44	1+25.57	3,656,167.39	4,134,190.36			
413102	DRIVEWAY RETURN	1+42.02	3,656,167.78	4,134,173.92															
RET_131C-1	DRIVEWAY RETURN							0+00.00	3,656,133.33	4,134,287.66	0+17.52	3,656,134.85	4,134,270.21	0+34.33	3,656,144.42	4,134,255.53			
RET_131C-2	DRIVEWAY RETURN							0+34.33	3,656,144.42	4,134,255.53	0+50.47	3,656,153.22	4,134,242.01	0+65.00	3,656,168.94	4,134,238.39			
RET_131C-3	DRIVEWAY RETURN							0+65.00	3,656,168.94	4,134,238.39	0+91.34	3,656,194.61	4,134,232.47	1+17.35	3,656,220.92	4,134,233.76			
413301	DRIVEWAY RETURN	1+21.28	3,656,224.84	4,134,233.95															
RET_132A-1	DRIVEWAY RETURN							0+00.00	3,656,171.90	4,134,003.48	0+30.73	3,656,172.58	4,133,972.76	0+60.72	3,656,184.60	4,133,944.48			
RET_132A-2	DRIVEWAY RETURN							0+60.72	3,656,184.60	4,133,944.48	1+22.29	3,656,208.68	4,133,887.81	1+69.24	3,656,270.24	4,133,888.46			
413223	DRIVEWAY RETURN	1+76.08	3,656,277.08	4,133,888.54															
413201	DRIVEWAY RETURN	0+00.00	3,656,218.82	4,134,002.13															
RET_132D-1	DRIVEWAY RETURN							0+00.74	3,656,218.08	4,134,002.12	0+25.00	3,656,193.82	4,134,001.52	0+36.00	3,656,199.04	4,133,977.82			
RET_132D-2	DRIVEWAY RETURN							0+36.00	3,656,199.04	4,133,977.82	0+48.63	3,656,201.75	4,133,965.49	0+61.19	3,656,206.69	4,133,953.86			
RET_132D-3	DRIVEWAY RETURN							0+64.81	3,656,205.36	4,133,957.24	1+12.99	3,656,221.82	4,133,911.95	1+48.64	3,656,269.99	4,133,912.46			
413204	DRIVEWAY RETURN	1+55.48	3,656,276.83	4,133,912.54															
RET_133A-1	TRIVIEW							0+00.00	3,656,400.10	4,133,574.36	0+54.15	3,656,440.73	4,133,538.56	1+08.05	3,656,474.87	4,133,496.54			
RET_133B-1	TRIVIEW							0+00.00	3,656,388.26	4,133,623.90	0+51.30	3,656,429.32	4,133,593.15	1+02.17	3,656,462.40	4,133,553.94			

SPIRAL OR CIRCULAR CURVE DATA

101-17
04-19-11

Name	Location	Δ_{scs}	Horizontal Alignment Data													Remarks
			Spiral Data								Curve Data					
			θs	Ls	Ts	Es	Xc	Yc	L.T.	S.T.	Δ_c	T	L	R	E	
22553	TRIVIEW										4° 17′ 28.17″ LT	71.33′	142.60′	1,904.00′	1.34′	
22554	TRIVIEW										7° 22′ 03.75″ RT	175.58′	350.67′	2,727.00′	5.65′	
22555	TRIVIEW										22° 21′ 06.63″ LT	110.05′	217.29′	557.00′	10.77′	
22556	TRIVIEW										8° 30′ 41.59″ RT	223.24′	445.66′	3,000.00′	8.29′	
22560	TRIVIEW										2° 30′ 50.18″ LT	132.37′	264.71′	6,033.00′	1.45′	
22565	TRIVIEW										53° 18′ 44.79″ RT	256.02′	474.54′	510.00′	60.65′	
22566	TRIVIEW										16° 04′ 05.40″ LT	71.99′	143.03′	510.00′	5.06′	
22558	TRIVIEW										4° 15′ 02.54″ LT	104.61′	209.12′	2,818.69′	1.94′	
22559	TRIVIEW										23° 49′ 19.57″ LT	124.66′	245.72′	591.00′	13.00′	



ALIGNMENT GEOMETRY

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER G.6

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SB FRONTAGE RD 2

I-29

SB FRONTAGE RD 2

HAMILTON BLVD RAMP C

I-29

PC Sta 2017+59.76

PI Sta 2018+69.81

PRC Sta 2019+77.06

2020

PI Sta 2022+00.30

PT Sta 2024+22.72

2025

TRI-VIEW AVE

PC Sta 2028+18.54

PI Sta 2029+50.91

2030

PRC Sta 2030+83.24

PI Sta 2033+39.26

2035

PRC Sta 2035+57.79

PI Sta 2036+29.77

PCC Sta 2037+00.81

PI Sta 2038+05.42

PT Sta 2039+09.93

2040

PC Sta 2041+73.99

PT Sta 2044+19.71

2045

HAMILTON BLVD

POT Sta 2045+77.35

PI Sta 2042+98.65

0 FEET 50

ALIGNMENT GEOMETRY

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER G.7

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For Main Line Details
Refer to Sheet No. D.18-D.21

For NB Frontage Rd 2 Details
Refer to Sheet No. E.19-E.21

For Hamilton Ramp B Details
Refer to Sheet No. K.10

For Retaining Wall #5275 Details
Refer to Sheet No. V.53

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

HAMILTON BLVD RAMP B

EXISTING PAVEMENT (U.A.C.)

NORTHBOUND FRONTAGE RD 2

TRI-VIEW AVE

TRI-VIEW AVE (U.A.C.)

END RETAINING WALL #5275

BEGIN BARRIER

STA. 2018+81.36
BEGIN CONSTRUCTION
(TRI-VIEW AVE)

℄ CONSTRUCTION

PERMANENT EASEMENT FOR UTILITIES

TEMPORARY EASEMENT FOR SHAPING AND SAWCUTS

+49.9 Prop. Type "B" Ent.

+37.8 Prop. Type "B" Ent.

+44.7 Exist. Ent. (CLOSE)

+90.5 Prop. Type "B" Ent.

+38.5 Prop. Type "B" Ent.

+02.6 Prop. Type "B" Ent.

BARRIER

208
RUTH B. SCHULTZ

MAINLINE I-29

ELKS LODGE #112

206
SIOUXLAND HUMANE SOCIETY

209
CITY OF SIOUX CITY
(WATER TREATMENT PLANT)

TRI-VIEW AVENUE

Brush & Trees

Building

Shed

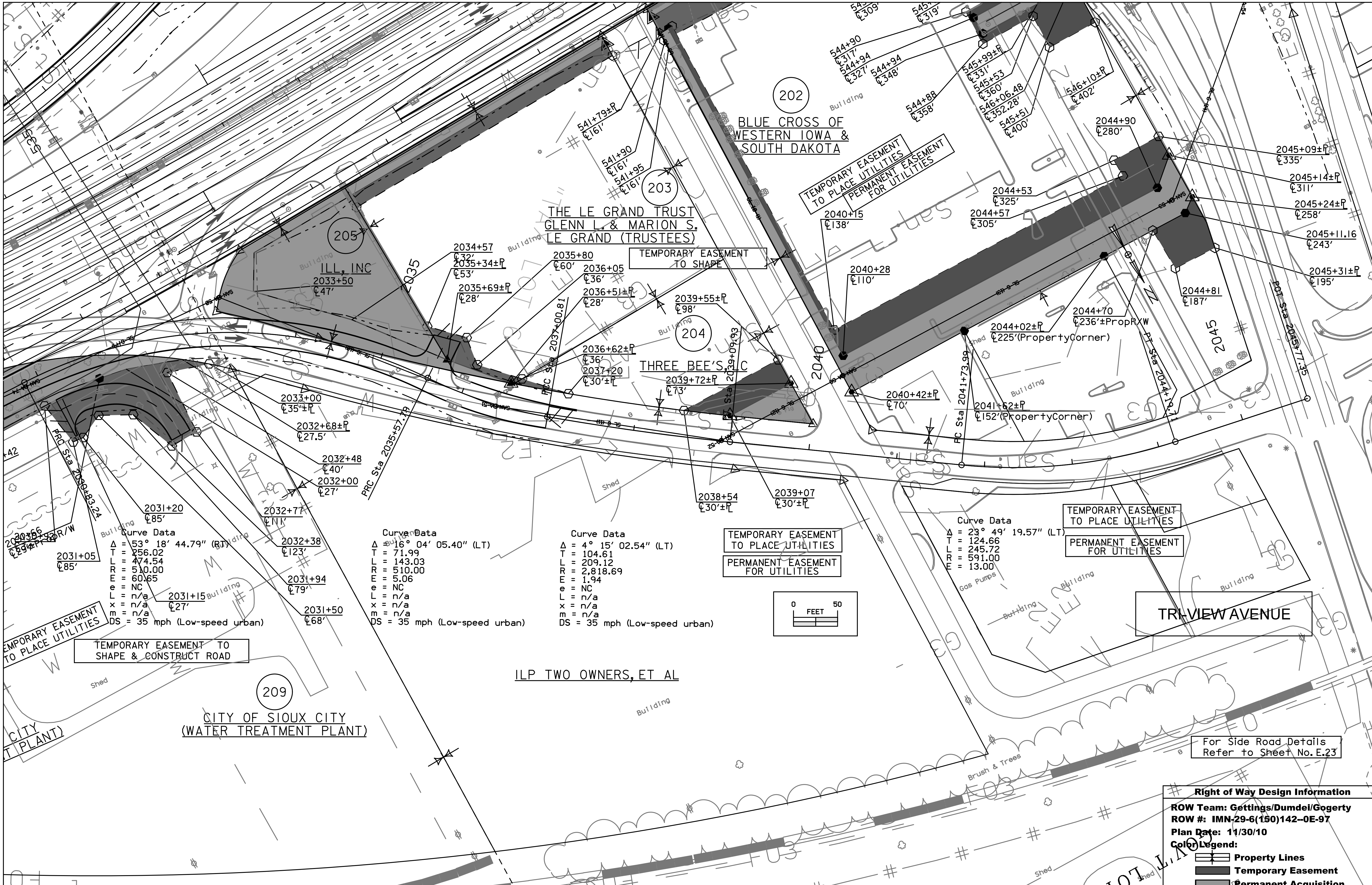
0 FEET 50

For Side Road Details
Refer to Sheet No. E.22

Right of Way Design Information

ROW Team: Gettings/Dumdel/Gogerty
ROW #: IMN-29-6(150)142--0E-97
Plan Date: 9/1/10
Color Legend:
- **Property Lines**
- **Temporary Easement**
- **Permanent Acquisition**

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock \ HDR \ HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER HE.1


202
BLUE CROSS OF WESTERN IOWA & SOUTH DAKOTA
203
THE LE GRAND TRUST GLENN L. & MARION S. LE GRAND (TRUSTEES)
205
ILL, INC
204
THREE BEE'S, LC
209
CITY OF SIOUX CITY (WATER TREATMENT PLANT)
ILP TWO OWNERS, ET AL
TRI-VIEW AVENUE
TEMPORARY EASEMENT TO PLACE UTILITIES
PERMANENT EASEMENT FOR UTILITIES
TEMPORARY EASEMENT TO SHAPE
TEMPORARY EASEMENT TO SHAPE & CONSTRUCT ROAD
Curve Data
Δ = 53° 18' 44.79" (RT)
T = 256.02
L = 474.54
R = 510.00
E = 60.65
e = NC
L = n/a
x = n/a
m = n/a
DS = 35 mph (Low-speed urban)
Curve Data
Δ = 16° 04' 05.40" (LT)
T = 71.99
L = 143.03
R = 510.00
E = 5.06
e = NC
L = n/a
x = n/a
m = n/a
DS = 35 mph (Low-speed urban)
Curve Data
Δ = 4° 15' 02.54" (LT)
T = 104.61
L = 209.12
R = 2,818.69
E = 1.94
e = NC
L = n/a
x = n/a
m = n/a
DS = 35 mph (Low-speed urban)
Curve Data
Δ = 23° 49' 19.57" (LT)
T = 124.66
L = 245.72
R = 591.00
E = 13.00
0 FEET 50
For Side Road Details Refer to Sheet No. E.23
Right of Way Design Information
ROW Team: Gettings/Dumdei/Gogerty
ROW #: IMN-29-6(150)142–0E-97
Plan Date: 11/30/10
Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition

C	ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock \ HDR \ HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER HE.2

8:12:32 AM 1/5/2012 mgogert W:\Projects2\P0012002\9702901003\ROW\Sec. 2\Grading Sheets\44 Grading Sheet PDF's\97029168he01.sht

TRAFFIC CONTROL PLAN

108-23
04-04-89

Refer to Staging Notes for Traffic Control Plan details.

1. Closures.
   A. The time, length, and duration of lane closures shall be as approved by the Engineer. The Department reserves the right to modify these restrictions to accommodate specific contractor activities and unforeseen traffic conditions.
   B. The Contractor may be allowed to close one lane of Tri-View Ave. as follows:
      - Closures may be allowed all days.
      - Contractor shall notify the Engineer a minimum of 48 hours before requested closure time.
   C. Temporary road closures of Tri-View Ave. may be permitted as follows:
      - Temporary road closures shall be in accordance with the layouts outlined in the plans.
      - Contractor shall notify the Engineer a minimum of 48 hours before requested closure time.
   D. Temporary lane closures shall be coordinated with Wesley Pkwy reconstruction project #IM-029-7(42)149--13-97. All signing adjustments will be made by the Tri-View Contractor if in conflict with Wesley Pkwy reconstruction signing, at the direction of the Engineer.

2. All signs and posts for the detour sign assemblies will be furnished by Iowa DOT. The Contractor shall erect, maintain and remove detour sign assemblies as shown in the Phasing Layout sheets (J.11-J.16). Detour signs and posts are property of Iowa DOT and shall be returned to Iowa DOT upon completion of the Project.

3. Permanent signing (including those mounted on posts, overhead trusses and signal mast arms) that conveys a message contrary to the message of the temporary signing and not applicable to the working conditions shall be covered by the Contractor at the direction of the Engineer.

4. Pavement markings shown in the plan sheets include proposed temporary pavement markings and some existing pavement markings as needed for clarity. Refer to Tab 108-22 for temporary pavement marking quantities.

5. Refer to the M sheets and C sheets Tab 110-1 for information on maintaining existing storm sewer during construction.

6. Contractor to coordinate traffic control with contractor for Wesley Pkwy reconstruction project #IM-029-7(42)149--13-97 (Stage 2C), which includes retaining wall reconstruction along Tri-View Ave and bridge removal and construction over Tri-View Ave. Mainline I-29, frontage roads, ramps, Wesley Pkwy and Hamilton Blvd traffic is shown for information only. Exact lane configurations and traffic control provided by contractor for the Wesley Pkwy reconstruction project.

7. Contractor to coordinate traffic control with sanitary sewer project #IM-NHS-29-7(51)149--03-97.

TABULATION OF SPECIAL EVENTS

102-15
10-29-02

Event	Location	Date
Sioux City 2012 Events		
February		
Siouxland Home Show	Sioux City Convention Center	February 23-26
March		
NAIA Women's Basketball Championship	Tyson Events Center	March 7-13
Spring Craft Fair	Sioux City Convention Center	March 17-18
May		
Komen Walk for a Cure - Mother's Day	Downtown	May 13
June		
Awesome Biker Nights	Historic 4th Street	June 14-16
Mardi Gras Festivale	Convention Center	June 28
The Big Parade	Downtown	June 29
Saturday in the Park	Grandview Park	June 30
July	**July**	**July**
RiverCade Parade	Downtown with fireworks at riverfront	July 18
Rock N Rods	Downtown	July 20-22
September	**September**	**September**
Artsplash	Riverfront	September 1-2
Public Museum Annual Car Show	Riverfront	September 1-2
June E Nylen Cancer Center Race for Hope	Adam's Nature Preserve	September 15
IA League of Cities Convention	Convention Center	September 25-29
November	**November**	**November**
Fall Craft Fair	Convention Center	November 17-18
NAIA Volleyball Championship	Tyson Events Center	November 27-Dec. 1

Other notable events:
- There is a major Block Buster exhibition scheduled for July 2012 - October 2012 at the Sioux City Art Center. The DaVinci exhibition will draw significant crowds (although probably less than 1,000 people per event) to special promotional events, however, those event dates have not all been scheduled yet. 'Out of town' tourism traffic will increase during these months as the DaVinci show is a significant national touring exhibition.
- Possible Opening of Cone Park in 2012

LICENSED PROFESSIONAL ENGINEER
JENNIFER D. CRUMBLISS
18513
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Signature _____ Date _____

Jennifer D. Crumbliss
Printed or Typed Name

My license renewal date is December 31, 20 12

Pages or sheets covered by this seal: J.1-J.16, F.1

STAGING NOTES

108-26A
10-29-02

Stage 1
Traffic:
- Use lane closure with flaggers on Tri-View Ave, Zenith Dr and Myrtle St to construct temporary pavement and patching. Tri-View Contractor shall coordinate traffic control with contractor for the Tri-View retaining wall under Wesley Parkway. Advanced signing for flagging for retaining wall work may need to be adjusted if flagging for Tri-View temporary pavement work is concurrent.
- Close the existing west driveway to the Humane Society (Sta 2027+00) and maintain access via the existing east driveway (Sta 2025+35).

Construction:
- Construct Tri-View Ave from Sta 2025+76.78 to Sta 2031+40.
- At Sta 2027+00 leave gap in the barrier on the south side of the road. Construct temporary granular driveway between the existing Tri-View Ave and proposed Tri-View Ave.
- Remove curb and construct the proposed east entrance to the Water Treatment Plant.
- Remove curb and construct temporary granular driveway from existing Tri-View Ave to proposed east entrance to the Water Treatment Plant. Do not construct proposed barrier on south side of Tri-View until the temporary driveway is no longer in use.
- Remove curb on Tri-View Ave and on Zenith Dr. Construct temporary detour pavement.
- Construct full-depth patching on Zenith Dr and Myrtle St.

Stage 2
Traffic:
- Close EB/WB Tri-View Ave to through traffic between Myrtle St and Zenith Dr. Detour Tri-View Ave traffic via Myrtle St and Zenith Dr.
- Close existing driveway to Water Treatment Plant and open temporary east entrance.
- Close the existing east driveway (Sta 2025+35) to the Humane Society and open the temporary west driveway (Sta 2027+00).
- Due to concurrent retaining wall work under Wesley Pkwy by others, flagging operations will be on-going in the work limits for this project.

Construction:
- Construct Tri-View Ave from Sta 2024+50 to Sta 2025+76.78 and from Sta 2031+40 to Sta 2037+32.22.
- Remove existing driveway to the Water Treatment plant and construct proposed circulating roadway.

Stage 3
Traffic:
- Close EB Tri-View Ave to through traffic at Myrtle St.
- Close WB Tri-View Ave to through traffic at Pearl St.
- Close WB Tri-View Ave to all traffic at Hawkeye Carpet Co.
- Shift local traffic to new Tri-View Ave pavement.
- Erect safety road closure on Zenith Dr east of Tractor Supply Co entrance for pavement removal work.
- Install permanent road closure on Zenith Dr east of Tractor Supply Co entrance after pavement has been removed.
- Use lane closure with flaggers on Tri-View Ave to construct barrier segments. Tri-View Contractor shall coordinate traffic control with contractor for the retaining wall under Wesley Parkway. Advanced signing for flagging for retaining wall work may need to be adjusted if flagging for Tri-View barrier work is concurrent.
- Use PCMS at approach legs to Tri-View Ave and Hamilton Blvd as advance warning of Tri-View closure.

Construction:
- Construct Tri-View Ave from Sta 2022+00 to Sta 2024+50.
- Construct barrier segments that were gapped for driveway access.
- Remove temporary driveway to Water Treatment Plant.
- Remove detour pavement.
- Remove existing Tri-View Ave pavement.
- Remove existing Zenith Dr from Tri-View Ave to the east Tractor Supply Co entrance.

Stage 4
Traffic:
- Maintain closure of EB Tri-View Ave to through traffic at Myrtle St from Stage 3.
- Open newly constructed Tri-View Ave pavement to local traffic from the west (Hamilton Blvd).
- Close Tri-View to all traffic at Pearl St.
- Use PCMS at approach legs to Tri-View Ave and Hamilton Blvd as advance warning of Tri-View closure.

Construction:
- Construct remaining Tri-View Ave.

STAGING NOTES

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	
— — —	Existing Elements
———	Proposed Elements

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

	Lane Open to Traffic		Pavement Removal
X	Lane Closed to Traffic		Temporary Barrier Rail

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

LINEWORK	Design Color No.	
Green	(2)	Existing Topographic Features and Labels
Magenta	(5)	Existing Storm Sewer
Blue	(1)	Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Yellow	(4)	Pavement Markings, Yellow
Off White	(254)	Pavement Markings, White

SHADING	Design Color No.	
Green, Light	(225)	Existing Pavement Shading
Gray, Light	(48)	Previously Constructed Pavement Shading
Gray, Dark	(80)	Previously Constructed Granular Shading
Gray, Dark	(80)	Proposed Granular Shading
Gray, Blue	(232)	Interim Pavement Shading
Blue, Light	(230)	Proposed Pavement Shading
Lavender	(9)	Temporary Pavement 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

	42" Channelizer		Temporary Traffic Signal
X	Drum		Traffic Sign
	Orange Plastic Safety Fence		Type III Barricade-Plan View
	Temporary Barrier Rail		Type A Warning Light
	Temporary Floodlighting		Pavement Removal
	Temporary Wall (Sheet Pile or MSE)		Flagger
	Temporary Lane Separator		Arrow Panel
	Tubular Marker	XXXXX XXXXX XXXXX	Portable Changeable Message Sign
	Temporary Impact Attenuator		Direction of Travel
XXXX	Pavement Marking Call Outs		Proposed Storm Sewer/Culverts
			Previously Constructed Storm Sewer/Culverts

TRAFFIC CONTROL AND STAGING

LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.3	

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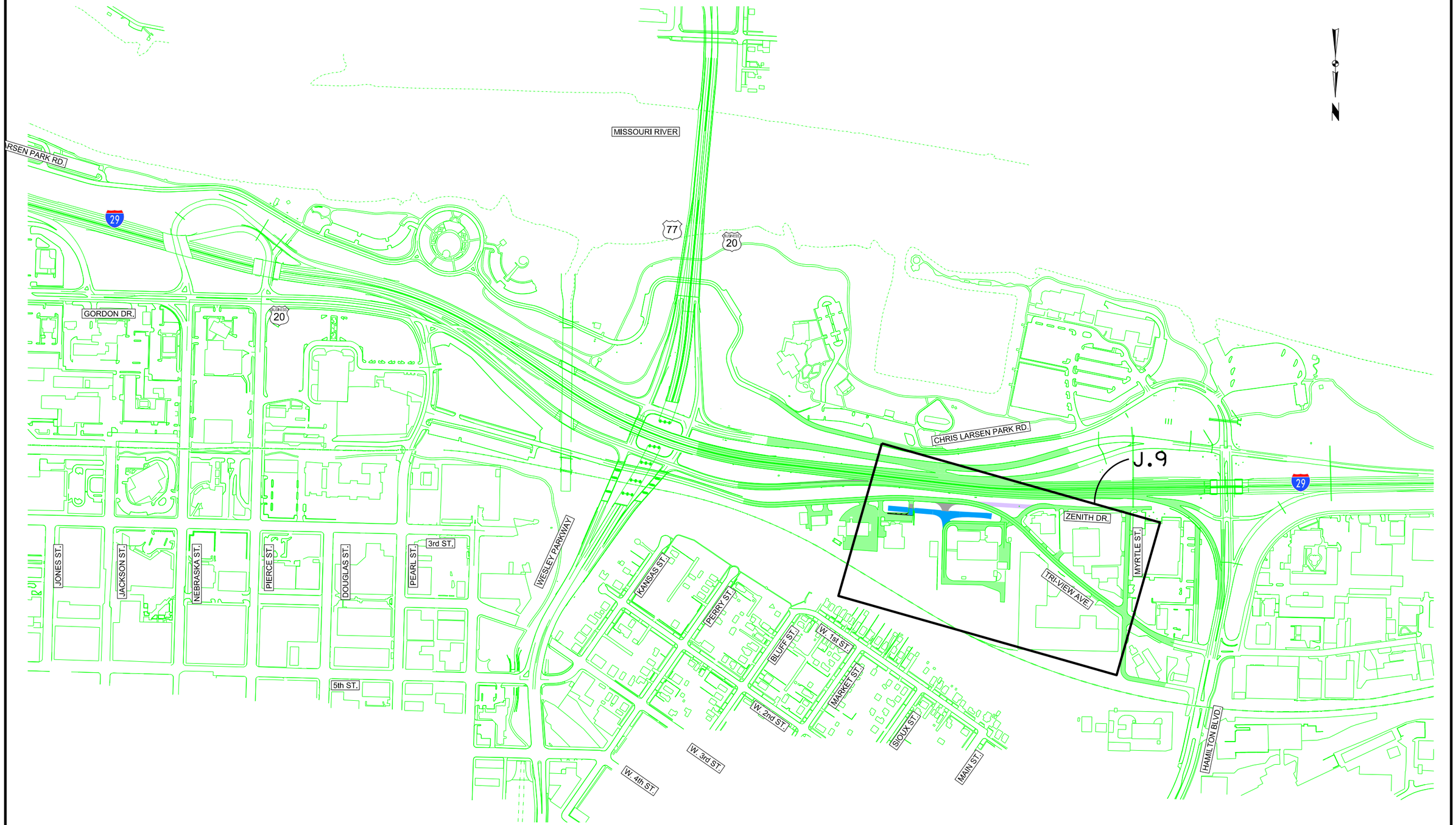

NO SCALE

STAGE 1
SHEET LAYOUT
OVERVIEW

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.4

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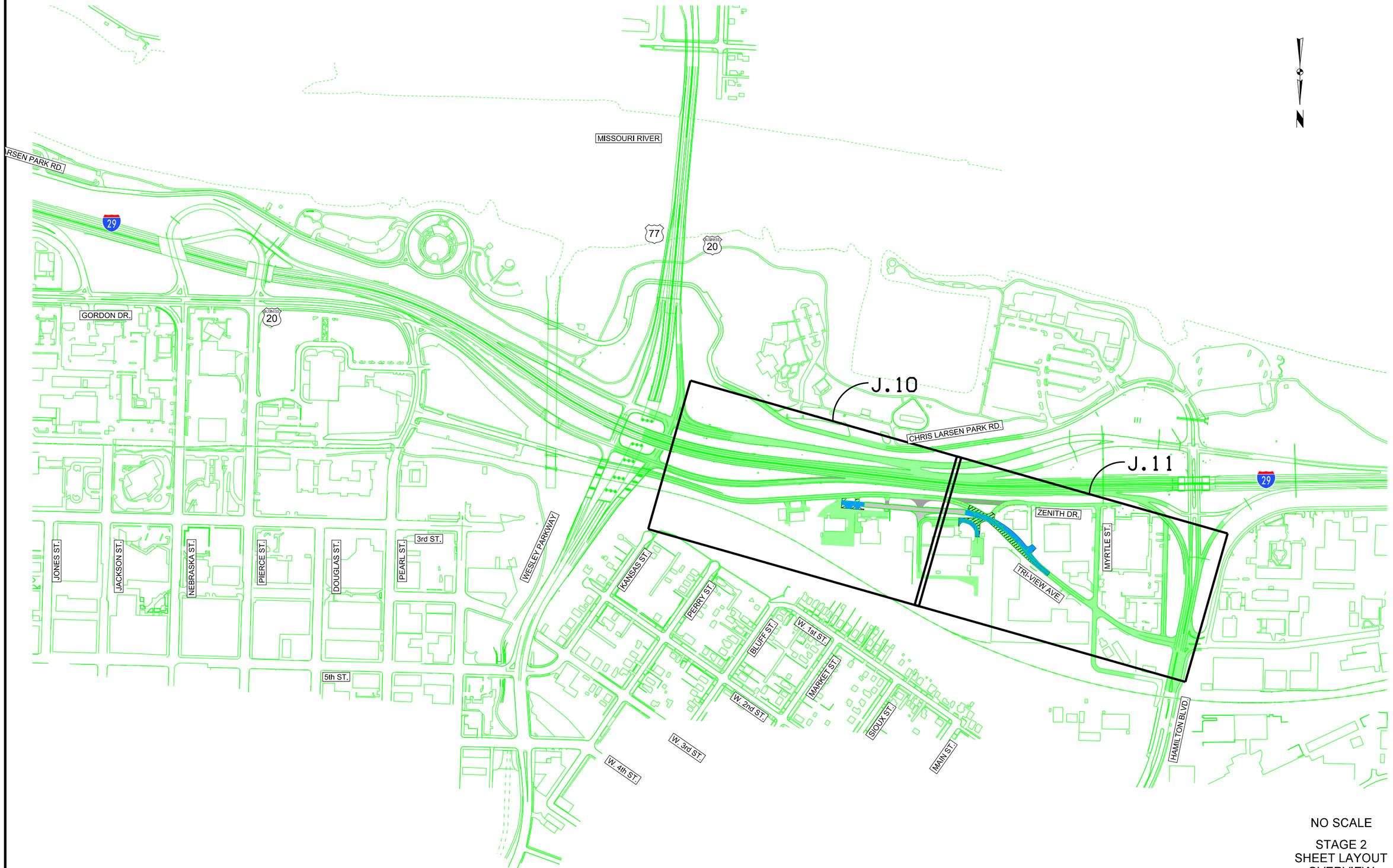

NO SCALE

STAGE 2
SHEET LAYOUT
OVERVIEW

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.5

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NO SCALE

STAGE 3
SHEET LAYOUT
OVERVIEW

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.6

10:35:49 AM prohan c:\pwworking\oma\d0675625\97029044J01.sht

NO SCALE

STAGE 4
SHEET LAYOUT
OVERVIEW

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.7

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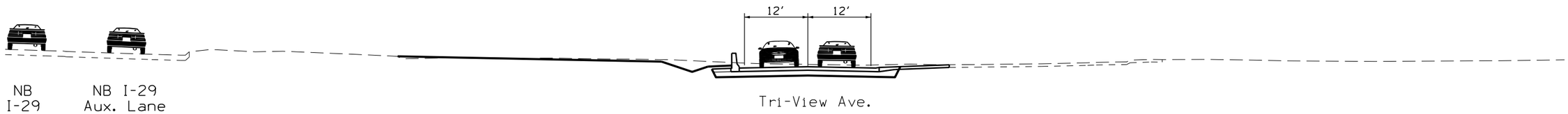
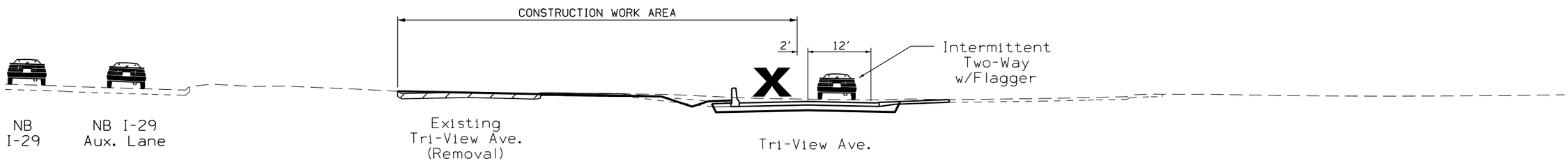
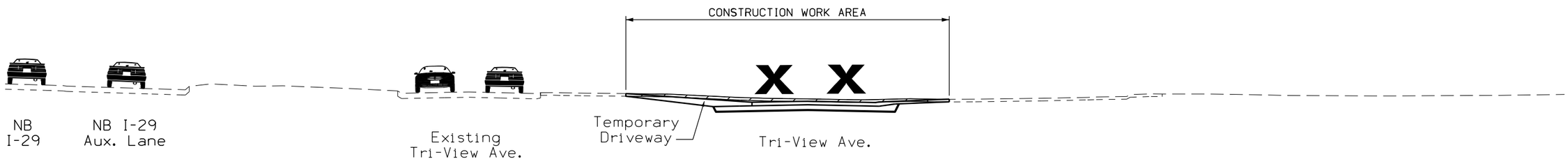
STAGE 4
TRI-VIEW AVE.
2027+00



STAGE 3
TRI-VIEW AVE.
2027+00



STAGES 1 & 2
TRI-VIEW AVE.
2027+00



PHASING TYPICALS
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.8

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For Detour Pavement
Refer to Sheet No. F.1

For Phasing Typical at Sta. 2027+00
Refer to Sheet No. J.8

SOUTHBOUND FRONTAGE RD 2

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

2025

2030

2035

2040

TRI-VIEW AVE

12'

12'

9'

9'

ZENITH DR

MYRTLE ST

11.5'

11.5'

SEE SIGN 'A'

ERECT
HAZARD CLOSURE

CONSTRUCT TEMPORARY
DRIVEWAY CONNECTION

REMOVE CURB AND CONSTRUCT
TEMPORARY DRIVEWAY
SEE TC-213, SEE NOTE 1

CONSTRUCT PROPOSED TRI-VIEW
LEAVE GAPS IN BARRIER FOR
TEMPORARY DRIVEWAYS

SAWCUT AND REMOVE EXISTING CURB
CONSTRUCT PROPOSED EAST ENTRANCE
USING LANE CLOSURE
SEE TC-211

REMOVE CURB AND PLACE
TEMPORARY PAVEMENT
SEE TC-213, SEE NOTE 1

MAINTAIN EXISTING ACCESS
TO EAST DRIVEWAY

ELKS LODGE

HUMANE SOCIETY

WATER TREATMENT PLANT

ILL INC

TRACTOR SUPPLY CO.

J & M STEVENS INC

BLUE CROSS OF
WESTERN IOWA

J & M STEVENS INC

ROAD
CLOSED

R11-2
48" x 30"

SIGN 'A'

NOTES:

1. ALL CURB REMOVALS SHALL LEAVE SMOOTH TAPERED ENDS.
2. CONSTRUCT PATCHING ON ZENITH DR AND MYRTLE ST. SEE TC-213.

0 FEET 50

STAGE 1
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.9

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For Phasing Typical at Sta. 2027+00
Refer to Sheet No. J.8

SOUTHBOUND FRONTAGE RD 2

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

WESLEY RAMP D (CLOSED)

TRI-VIEW AVE

2015

2020

2025

2030

10

DCY4

ELW4

DETOUR AHEAD
W20-2
36" x 36"

ROAD NARROWS
W5-1
36" x 36"

SEE SIGN 'A'

12'

12'

TRI-VIEW AVE

SEE SIGN 'A'

ERECT
HAZARD CLOSURE
SEE NOTE 1

ERECT
ROAD CLOSURE

ERECT
ROAD CLOSURE

HAWKEYE
CARPET CO

ELKS LODGE

HUMANE SOCIETY

MAINTAIN ACCESS
TO BUSINESS
SEE TC-213

SPEED LIMIT 25
R2-1
36" x 48"

ROAD WORK AHEAD
W20-1
36" x 36"

SPEED LIMIT 25
W3-5
36" x 36"

ROAD CLOSED
R11-2
48" x 30"

SIGN 'A'

NOTES:

1. HAZARD CLOSURE MAY BE ADJUSTED AS NEEDED FOR WORK BUT SHALL BE IN PLACE WHEN WORKERS NOT PRESENT.
2. SIGN SPACING SHALL BE 250' OR AS DIRECTED BY THE ENGINEER.

0 50
FEET

STAGE 2
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.10

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SOUTHBOUND FRONTAGE RD 2

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

SPEED LIMIT 25

R2-1
36" x 48"

9'
9'

ZENITH DR

SEE SIGN 'A'

SEE SIGN 'A'

ERECT HAZARD CLOSURE

DETOUR M4-8
TRI-VIEW AVE
M6-1R

DETOUR M4-8
TRI-VIEW AVE
M6-1L

DCY4

20 FT DRUM SPACING

11'
11'

ELW4

ILL INC

SEE SIGN 'A'

ERECT ROAD CLOSURE

TRACTOR SUPPLY CO.

2035

SEE SIGN 'A'

ERECT HAZARD CLOSURE

11.5'
11.5'

MYRTLE ST.

BLUE CROSS OF WESTERN IOWA

ERECT ROAD CLOSURE

ERECT HAZARD CLOSURE

WATER TREATMENT PLANT

PLACE TYPE III BARRICADE IN FRONT OF EXISTING GATE SEE SIGN 'A'

J & M STEVENS INC

SEE SIGN 'A'

2040

DETOUR M4-8
TRI-VIEW AVE
M6-1L

DETOUR M4-8
TRI-VIEW AVE
M6-1R

NICK KASOTAKIS

DETOUR AHEAD

W20-2
36" x 36"

ROAD WORK AHEAD

W20-1
36" x 36"

2045

HAMILTON BLVD

TRI-VIEW AVE

ERECT ROAD CLOSURE

200'

12'
12'

J & M STEVENS INC

ROAD CLOSED

R11-2
48" x 30"

SIGN 'A'

ROAD CLOSED TO THRU TRAFFIC

R11-4
60" x 30"

DETOUR

M4-10R
48" x 18"

END ROAD WORK

G20-2A
48" x 24"

0 FEET 50

STAGE 2
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.11

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WESLEY PKWY RAMP C

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

WESLEY PKWY RAMP B

SOUTHBOUND FRONTAGE RD 2

NORTHBOUND FRONTAGE RD 2

SEE SIGN "A"
SEE NOTE 2

200'

2000

2005

2010

12'

12'

TRI-VIEW AVE

PEARL ST

SEE NOTE 1

ROAD CLOSED TO THRU TRAFFIC

R11-4
60" x 30"

DETOUR

M4-10R
48" x 18"

ROAD CLOSED TO THRU TRAFFIC

R11-4
60" x 30"

SEE SIGN "A"
SEE NOTE 2

WESLEY PKWY

TRI-VIEW CLOSED
AT HAWKEYE CARPET
NO THRU TRAFFIC

SIGN "A"

NOTES:

1. WALL CONSTRUCTION AND OVERHEAD BRIDGE WORK IS CONCURRENT WITH THIS PROJECT, BY OTHERS.
2. INSTALL IOWA DOT PROVIDED DETOUR SIGNS ON APPROACH LEGS OF TRI-VIEW AVE AND PEARL ST.

0 FEET 50

STAGE 3
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.12

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For Phasing Typical at Sta. 2027+00
Refer to Sheet No. J.8

SOUTHBOUND FRONTAGE RD 2

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

EXISTING WESLEY RAMP D (CLOSED)

TRI-VIEW AVE

2015

2020

2025

2030

SEE SIGN 'A'

ERECT ROAD CLOSURE

ERECT HAZARD CLOSURE SEE NOTE 1

MAINTAIN ACCESS TO BUSINESS

HAWKEYE CARPET CO.

ELKS LODGE

HUMANE SOCIETY

CONSTRUCT PAVEMENT AND BARRIER SEE TC-212 OR TC-213

12'

DCY4

ROAD CLOSED
R11-2
48" x 30"
SIGN 'A'

NOTES:

1. HAZARD CLOSURE MAY BE ADJUSTED AS NEEDED FOR WORK BUT SHALL BE IN PLACE WHEN WORKERS NOT PRESENT.

0 FEET 50

STAGE 3
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.13

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ROAD CLOSED

R11-2
48" x 30"

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

ZENITH DR

ERECT ROAD CLOSURE

AFTER PAVEMENT REMOVED
INSTALL PERMANENT
ROAD CLOSURE
SEE SI-182

DEAD END

W14-1
30" x 30"
(TO REMAIN)

9'
9'

11.5'
11.5'

MYRTLE ST.

ILL INC

TRACTOR SUPPLY CO.

BLUE CROSS OF
WESTERN IOWA

2035

DCY4

12'
12'

WATER TREATMENT PLANT

J & M STEVENS INC

2040

TRI-VIEW AVE

NICK
KASOTAKIS

2045

HAMILTON BLVD

SEE SIGN "A"
SEE NOTE 1

ROAD
WORK
AHEAD

W20-1
36" x 36"

SEE SIGN "A"
SEE NOTE 1

J & M STEVENS INC

ROAD CLOSED
TO
THRU TRAFFIC

R11-4
60" x 30"

END
ROAD WORK

G20-2A
48" x 24"

SEE SIGN "A"
SEE NOTE 1

TRI-VIEW CLOSED
AT ELKS LODGE
NO THRU TRAFFIC

SIGN "A"

NOTES:

1. INSTALL IOWA DOT PROVIDED DETOUR SIGNS ON APPROACH LEGS OF TRI-VIEW AVE AND HAMILTON BLVD, 50' - 400' FROM THE INTERSECTION.

0 50
FEET

STAGE 3
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.14

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ROAD WORK AHEAD
W20-1
36" x 36"

WESLEY PKWY RAMP C
SOUTHBOUND MAINLINE I-29
NORTHBOUND MAINLINE I-29
WESLEY PKWY RAMP B
SOUTHBOUND FRONTAGE RD 2
NORTHBOUND FRONTAGE RD 2
PEARL ST
2000
2005
2010
ROAD CLOSED
R11-2
48" x 30"
12'
12'
TRI-VIEW AVE
TRI-VIEW AVE (CLOSED)
ERECT ROAD CLOSURE
SEE NOTE 1
ROAD CLOSED TO THRU TRAFFIC
R11-4
60" x 30"
DETOUR
M4-10R
48" x 18"
200'
ROAD WORK AHEAD
W20-1
36" x 36"
WESLEY PKWY

NOTES:

1. WALL CONSTRUCTION AND OVERHEAD BRIDGE WORK IS CONCURRENT WITH THIS PROJECT, BY OTHERS.

0 50
FEET

STAGE 4
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.15

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For Phasing Typical at Sta. 2027+00
Refer to Sheet No. J.8

SOUTHBOUND FRONTAGE RD 2

SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

EXISTING WESLEY RAMP D (CLOSED)

2015

2020

2025

2030

TRI-VIEW AVE

12'

12'

TRI-VIEW AVE

ROAD CLOSED

R11-2
48" x 30"

DCY4

WATER TREATMENT PLANT

HAWKEYE CARPET CO.

ELKS LODGE

HUMANE SOCIETY

ERECT ROAD CLOSURE

ERECT HAZARD CLOSURE

NOTES:

1. CHANGE MESSAGES ON DETOUR SIGNS PLACED IN STAGE 3 AT HAMILTON BLVD APPROACH LEGS. COVER "AT ELKS LODGE" WITH "AT HAWKEYE CARPET."

0 50
FEET

STAGE 4
PHASING LAYOUT
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER J.16

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PI Sta 2015+90.42

PC Sta 2017+59.76

2018

2019

PRC Sta 2019+77.06

2020

STA. 2020+85.00
14.42 LT (TRIVIEW)
BA-108 MODIFIED CONCRETE
APPROACH BARRIER

STA. 2020+75.83
13.50 LT (TRIVIEW)

2021

PI Sta 2022+00.30

2022

2.00%
13'

2.00%
13'

TRI-VIEW AVE

PI Sta 2018+69.81

+81.36

1098.30
1098.40
1098.20
1098.30

Curve Data
Δ = 15° 48' 19.13" (LT)
T = 77.32
L = 153.65
R = 557.00
E = 5.34

0 20
FEET

GEOMETRIC &
STAKING DETAILS
TRI-VIEW AVENUE

PI Sta 2022+00.30

2022

2023

2024

2025

2026

NORTHBOUND FRONTAGE RD 2

2027

2028

CONSTANT 2.00% SLOPE

TRI-VIEW AVE

CONSTANT 2.00% SLOPE

PT Sta 2024+22.72

1098.14
1098.24
1098.03
1098.13

STA. 2022+58.38
36.33 RT (TRIVIEW)

STA. 2022+19.02
39.71 RT (TRIVIEW)

STA. 2023+64.05
28.54 RT (TRIVIEW)

1096.85
1096.95

1096.81
1096.91

1096.65
1096.75

6" Standard Curb
PV-102 Curb Runout

1096.75
1096.85

STA. 2025+26.46
29.41 RT (TRIVIEW)

1097.11
1097.21

1097.39
1097.49

STA. 2027+14.58
26.89 RT (TRIVIEW)

Curve Data
Δ = 0° 24' 15.59" (LT)
T = 13.35
L = 26.70
R = 3,783.00
E = 0.02

0 20
FEET

GEOMETRIC &
STAKING DETAILS
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.1

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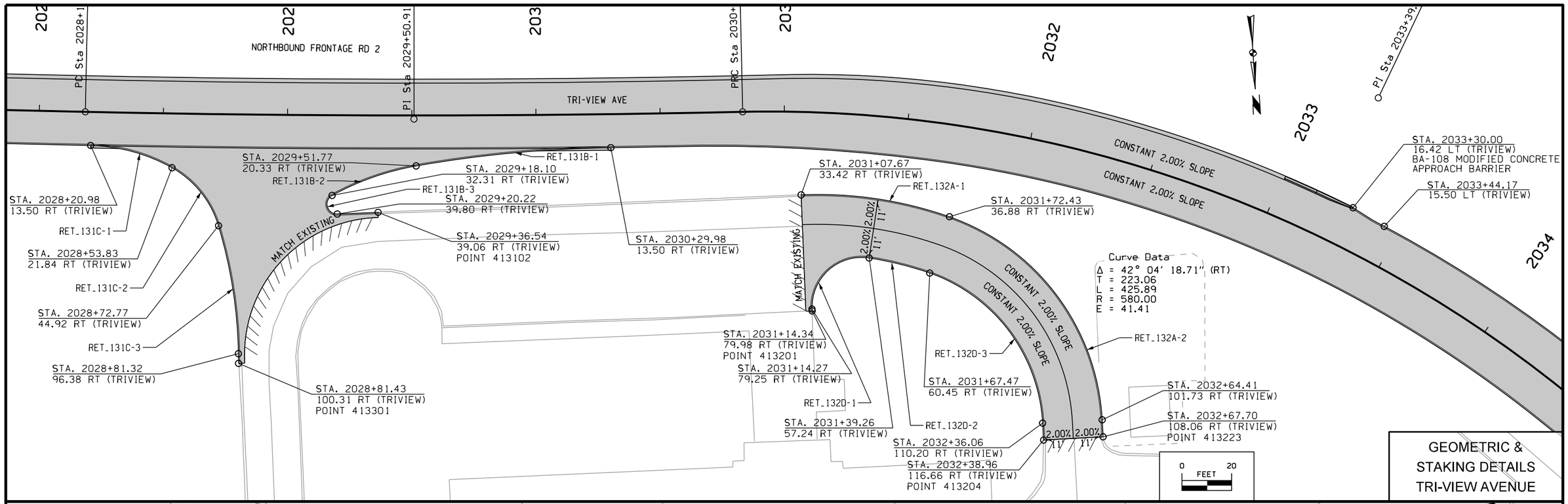

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.2

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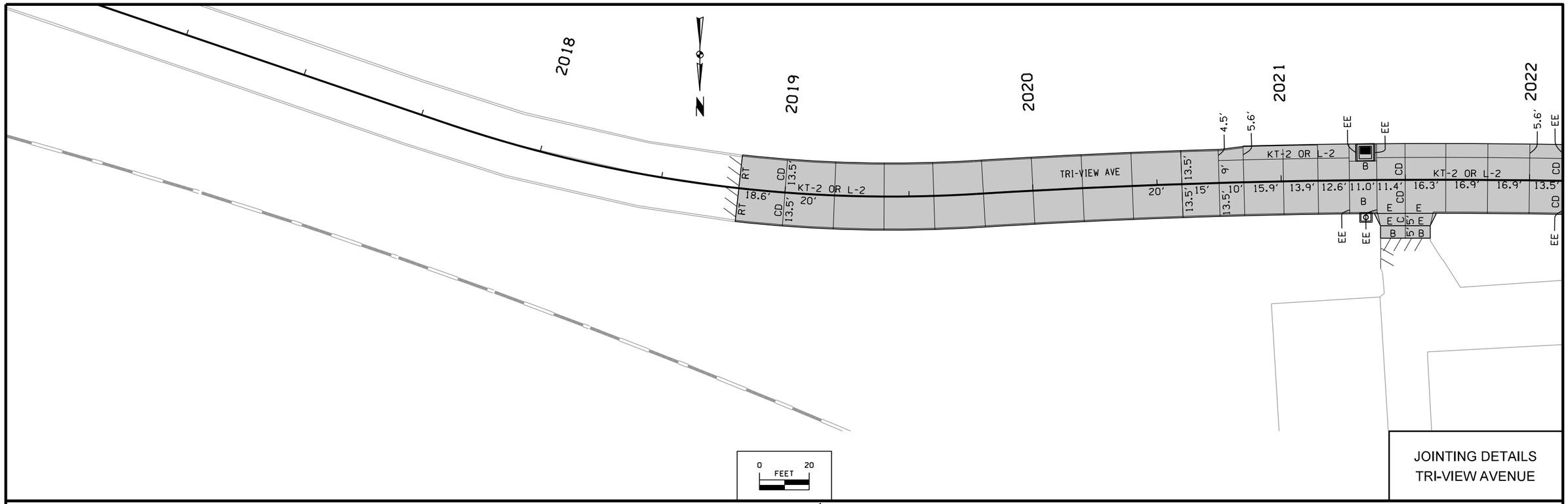
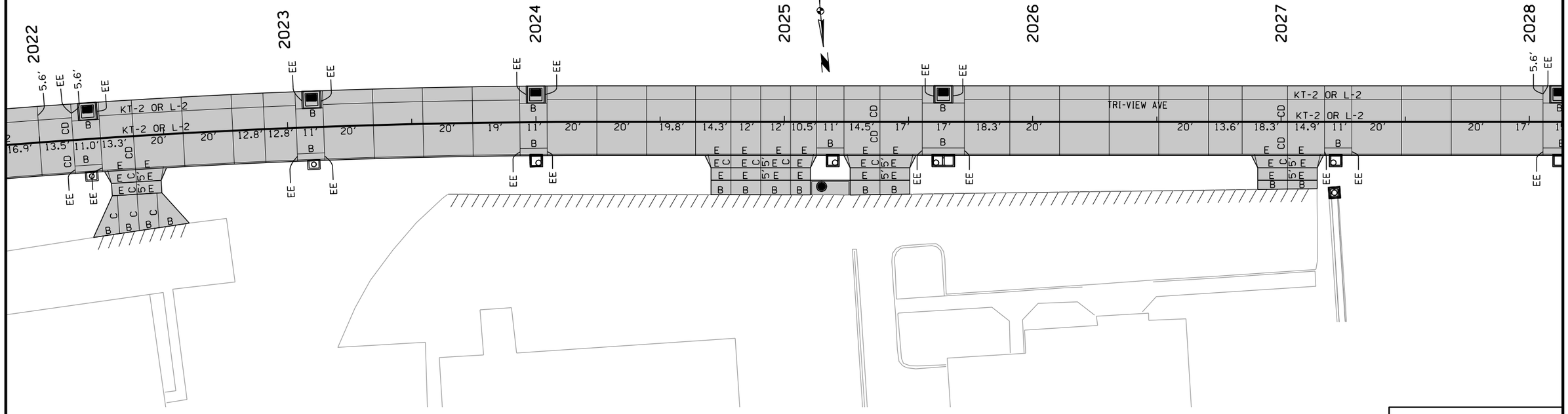


JOINTING DETAILS
TRI-VIEW AVENUE



JOINTING DETAILS
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.3

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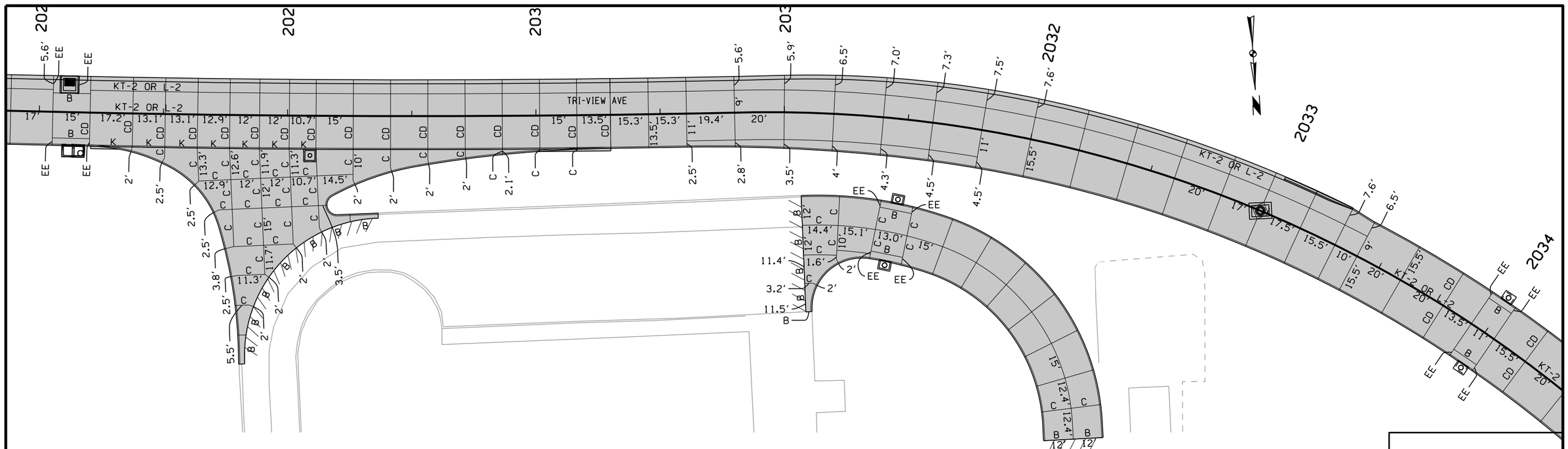
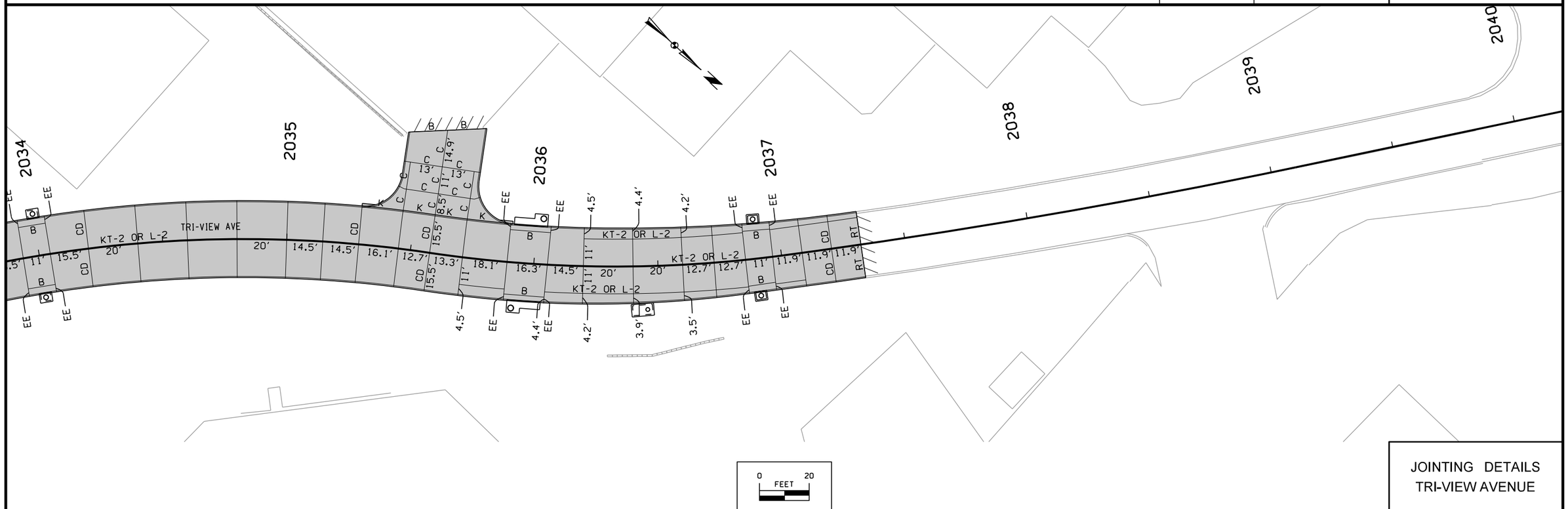


JOINTING DETAILS
TRI-VIEW AVENUE



JOINTING DETAILS
TRI-VIEW AVENUE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.4

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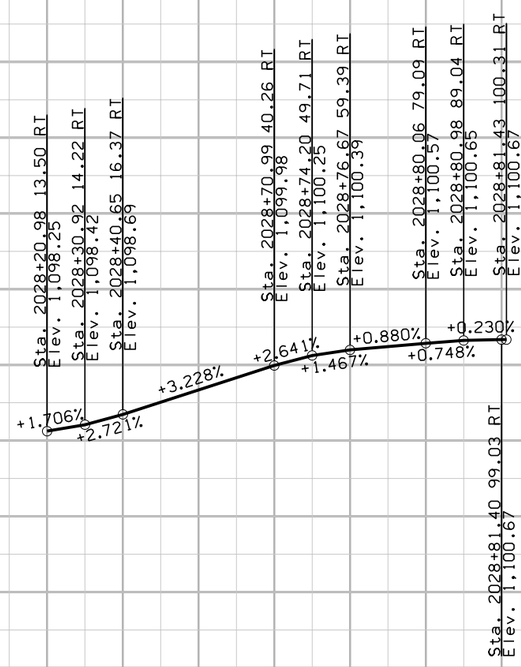
ENTWTP1_RET_3



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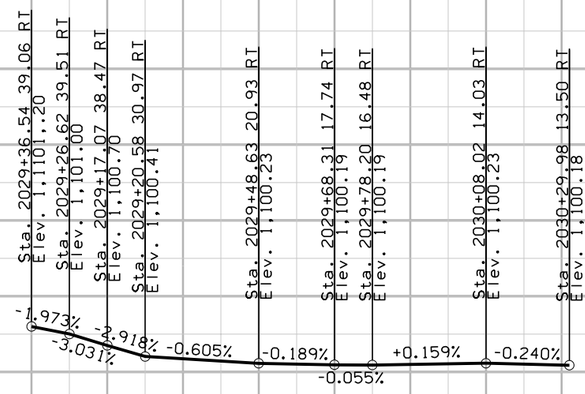

ENTWTP2_RET_4

EDGE RETURN PROFILES
WTP ENTRANCE 1 & 2

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.5

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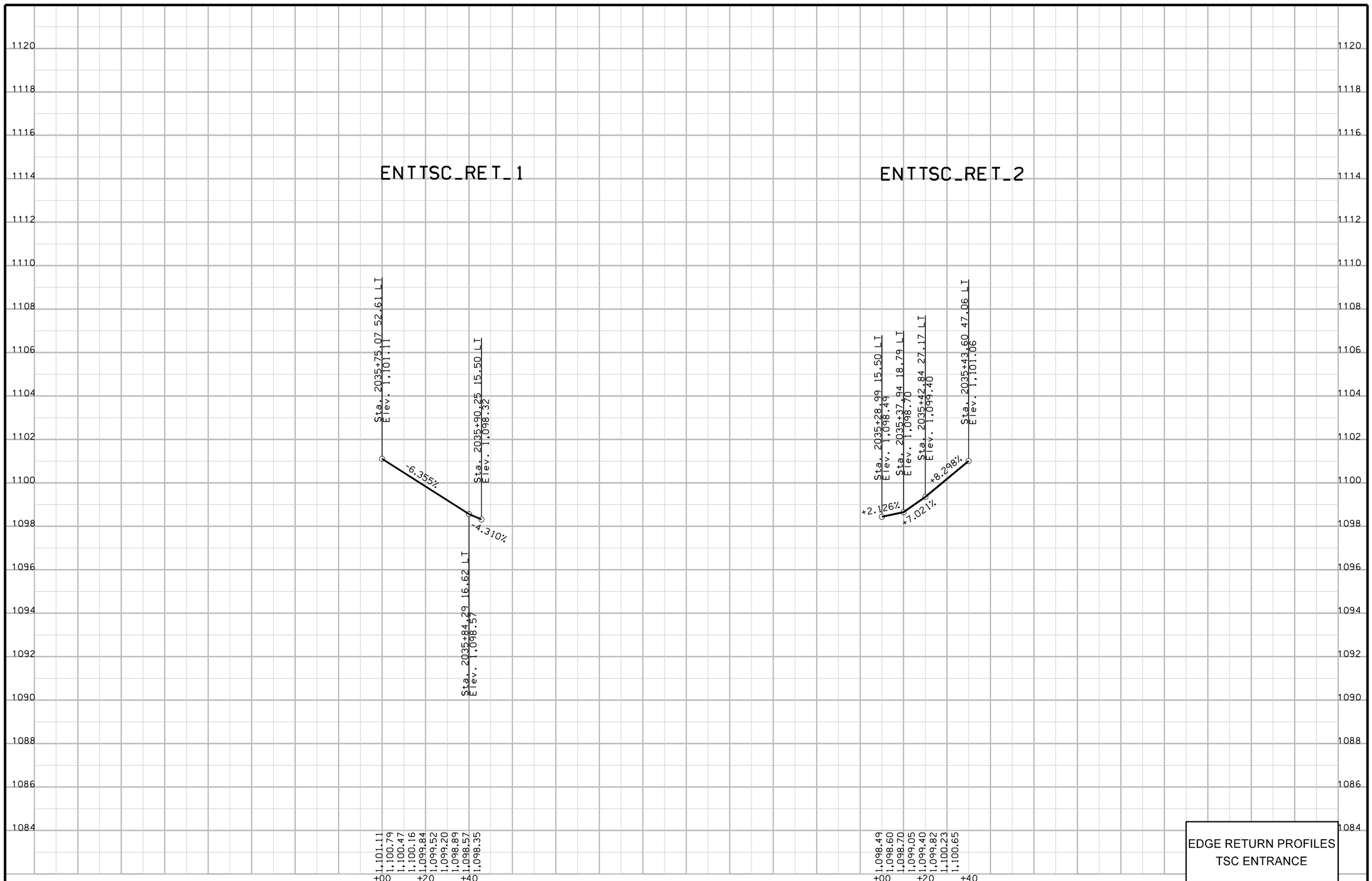

EDGE RETURN PROFILES
TSC ENTRANCE

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER L.6

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STORM SEWER

For bedding and backfill purposes under Primary roads, use crushed rock or crushed gravel material complying with Article 4120.04 of the Standard Specifications for all bedding and backfill. Place and compact the material according to Article 2435.03, A and Article 2552.03, E (Class I materials). Gravels must be 100% crushed produced by crushing material retained on a 1.5 inch or larger screen.

INTAKES AND UTILITY ACCESSES

* Bid Item
** For SW-545

No.	Location Station and Offset	*Type or Standard Road Plan	Form Grade Elev.	Bottom Well Elev.	Extension Length** FT	Notes
812301	2021+34.00, -12.80	SW-549	1098.01	1094.01		See Notes 4,6
812302	2021+34.00, 13.50	SW-507	1098.00	1094.00		See Notes 4,6
812303	2022+20.00, -12.80	SW-549	1097.58	1093.58		See Notes 3,6
812304	2022+20.00, 13.50	SW-507	1097.57	1093.57		See Notes 3,6
812305	2023+10.00, -12.80	SW-549	1097.13	1093.13		See Notes 3,6
812306	2021+34.00, 13.50	SW-507	1097.12	1097.12		See Notes 3,6
812307	2024+00.00, -12.80	SW-549	1096.68	1092.68		See Notes 3,6
812308	2024+00.00, 13.50	SW-508	1096.67	1092.67		See Notes 3,6
812309	2025+15.00, 26.00	SW-512	1096.40	1092.40		Case 1, 24" Dia.; See Notes 2,6
812310	2025+19.52, 13.50	SW-508	1096.07	1092.07		See Notes 2,6
812311	2025+64.00, 12.80	SW-549	1095.99	1091.99		See Notes 2,6
812312	2025+64.00, 13.50	SW-508	1095.98	1091.98		See Notes 2,6
812313	2027+21.50, 28.50	SW-513	1097.09	1092.57		See Notes 1,6,21
812314	2027+22.00, 13.50	SW-510	1097.09	1091.74		See Notes 1,6
812315	2028+12.00, -12.80	SW-549	1098.16	1092.35		See Notes 1,6
812316	2028+14.00, 13.50	SW-510	1098.17	1091.34		See Notes 1,6
812317	2029+09.11, 13.50	SW-402	1099.23	1091.15		See Notes 1,6,13
812320	2231+43.58, -12.00	SW-507	1100.35	1094.62		See Notes 2,6,20
812321	2231+43.58, 12.00	SW-507	1100.39	1094.40		See Notes 2,6,20
812323	2036+90.00, 13.50	SW-507	1098.63	1092.88		See Notes 2,6
812324	2036+90.00, -14.45	SW-507	1098.63	1092.47		See Notes 2,6
812325	2036+02.00, -15.50	SW-545	1098.32	1091.82	7'-10"	See Notes 2,6
812330	2036+43.60, 17.60	SW-402 TOP	1098.99	Exist		Top Only, See Notes 2,6,12
812326	2035+93.00, 15.50	SW-545	1098.32	1091.59	7'-10"	See Notes 2,6
812327	2034+00.00, 15.50	SW-507	1099.05	1090.73		See Notes 2,6
812328	2034+00.00, -15.50	SW-507	1099.05	1090.53		See Notes 2,6
812329	2032+97.00, 0.00	SW-404	1099.81	1086.93		See Notes 2,6,18

PIPES

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

Line Number	Intake/ Utility Access No. From	To	Class 'D'	Pipe Diameter IN	Bid* Length FT	Design Length FT	Slope %	Flow Lines Inlet Elevation	Outlet Elevation	Other Elevation	Pipe Profile Sheet No.	Notes
P-812301	812301	812302	3000	22x14	28	22	0.40	1095.08	1094.99		M.3	RCAP; See Notes 4,6
P-812302	812302	812304	3000	22x14	88	82	0.40	1094.94	1094.61		M.3	RCAP; See Notes 6,11
P-812303	812303	812304	3000	22x14	28	22	0.40	1094.70	1094.61		M.3	RCAP; See Notes 3,6
P-812304	812304	812306	3000	22x14	92	86	0.40	1094.56	1094.22		M.3	RCAP; See Notes 3,6
P-812305	812305	812306	3000	22x14	28	22	0.40	1094.31	1094.22		M.3	RCAP; See Notes 3,6
P-812306	812306	812308	3000	22x14	92	86	0.40	1094.17	1093.78		M.3	RCAP; See Notes 3,6
P-842910	Note 14	812307	3000	29x18	16	10	0.40	1094.01	1093.97		M.3	RCAP; See Notes 3,5,14
P-812307	812307	812308	3000	29x18	28	22	0.40	1093.92	1093.83		M.3	RCAP; See Notes 3,7
P-812308	812308	812310	3000	29x18	122	116	0.40	1093.78	1093.31		M.3	RCAP; See Notes 3,7,15
P-812309	812310	812309	2000	15	15	9	0.44	1093.52	1093.48		M.3	See Notes 2,6
P-812310	812310	812312	3000	29x18	45	39	0.40	1093.26	1093.11		M.3	RCAP; See Notes 2,7
P-841815	Note 10	812311	3000	22x14	73	67	0.40	1093.57	1093.30		M.3	RCAP; See Notes 2,5,10
P-812311	812311	812312	3000	22x14	29	23	0.40	1093.20	1093.11		M.3	RCAP; See Notes 2,7
P-812312	812312	812314	3000	37x23	158	152	0.40	1093.06	1092.45		M.3	RCAP, See Notes 7,16
P-812313	812313	812314	2000	15	16	10	0.44	1093.07	1093.03		M.3	See Notes 1,6
P-812314	812314	812316	2000	30	92	86	0.40	1092.40	1092.06		M.3	See Notes 1,7
P-812315	812315	812316	2000	15	28	22	0.44	1093.35	1093.26		M.3	See Notes 1,6
P-812316	812316	812317	2000	30	96	90	0.40	1092.01	1091.65		M.3	See Notes 1,7
P-812320	812320	812321	2000	15	30	24	0.40	1095.12	1095.03		M.4	See Notes 2,6
P-812321	812322	812329	2000	15	147	141	3.29	1094.90	1090.28		M.4	See Notes 2,6
P-812322	Note 17	812323	2000	15	47	41	0.80	1095.88	1095.56		M.4	See Notes 2,6,17
P-812323	812323	812324	2000	15	34	28	0.50	1092.38	1092.24		M.4	See Notes 2,6
P-812324	812324	812325	2000	15	87	81	0.50	1093.14	1092.73		M.4	See Notes 2,6
P-812325	812325	812326	2000	18	38	32	0.40	1092.48	1092.36		M.4	See Notes 2,6
P-812330	812330	812326	2000	15	50	44	0.93	1093.88	1093.47		M.4	See Notes 2,6,19
P-812326	812326	812327	2000	18	107	101	0.40	1092.26	1091.52		M.4	See Notes 2,6
P-812327	812327	812328	2000	18	37	31	0.40	1091.42	1091.30		M.4	See Notes 2,6
P-812328	812328	812329	2000	18	107	101	1.17	1091.20	1090.02		M.4	See Notes 2,6

Notes:

1. Constructed during Stage 1
2. Constructed during Stage 2
3. Constructed during Stage 3
4. Constructed during Stage 4
5. Division 1 (100% State)
6. Division 2 (100% City)
7. Division 3 (State & City Split)
8. Elevations, dimensions, and locations of existing structures are approximate. Contractor to field verify and make adjustments as required.
9. All locations are proposed Tri-View Avenue Stationing unless noted otherwise.
10. P-841815: Stub pipe for future connection, upstream end of pipe at Sta. 2024+95.11, 18.87 Lt., temp plug is incidental
11. P-812302: West 18' built in Stage 3, 64' built in Stage 4, FL at connection = 1094.68, temp plug is incidental
12. 812330: Rebuild top of existing intake as utility access; outer wall dimensions are approximately 9' x 4'
13. 812317: Interior wall dimensions = 48"x48"; 4' section of existing 27" pipe is to be cut flush with north and south interior walls and removed.
14. P-842910: Stub pipe for future connection; upstream end of pipe at Sta. 2023+97.56, 21.25' Lt.; temp plug is incidental
15. P-812308: West 68' built in Stage 2; East 47' built in Stage 3; FL at connection = 1093.59; temp plug is incidental
16. P-812312: West 144' built in Stage 1; East 8' built in Stage 2; FL at connection = 1093.03; temp plug is incidental
17. P-812322: Connect to existing 15" pipe at approx. Sta. 2037+32.00, 23.75' Lt., FL = 1095.56; RF-2, Type "C-1" connection is incidental
18. 812329: Interior wall dimensions = 54"x84" with long wall built around existing 48" pipe; Wall height = 6'; Circular riser height = 5.9'; 4' section of existing 48" pipe is to be cut flush with interior walls and removed.
19. Connection to existing structure to be paid as 2435-070020 "CONNECTION TO EXIST INTAKE"; Contractor to reuse hole after existing pipe is removed.
20. Water Treatment Plant Driveway Stationing
21. 812313: Interior wall dimensions = 36"x36"; Openings on North and West side; Connection to existing concrete channel is incidental and should direct runoff in said channel to the opening on the North side.

LICENSED PROFESSIONAL ENGINEER
AARON D. GRANQUIST
17560
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

12/22/2011
AARON D. GRANQUIST, P.E. DATE
License Number: 17560
My license renewal date is DECEMBER 31, 2012
Pages or sheets covered by this seal:
M.1 - M.4

SURVEY SYMBOLS

- St.S.5 — STE Storm Sewer Line Co. 5
- San.5 — SAE Sanitary Sewer Line Co. 5
- San. — SAA Sanitary Sewer Line Co. 1
- E — ELA Underground Electric Line Co. 1
- G3 — GLC Underground Gas Line Co. 3
- G — GLA Underground Gas Line Co. 1
- W2 — WLB Underground Water Line Co. 2
- G3-HP — GHC Underground High Pres Gas Co 3
- E2 — ELB Underground Electric Line Co. 2
- CP Control Point
- BM Bench Mark
- BB Billboard
- TEV Evergeen Tree
- TDC Tree Deciduous
- RET Retaining Walls
- FCL Chain Link and Security Fence
- GDL Guard Rail (Rail and Cable)
- EW Edge of Water
- HDG Hedge Row
- FWD Wood Fence
- RR Centerline of Railroad Tracks
- ENU Edge Unpaved Entrance & Parking
- SI Sign
- MIS Miscellaneous
- SHR Shrub
- FLG Flag Poles
- SL Speed Limit Sign
- BNK Stream Bank
- TPC Telephone Pole Co. 3
- TPD Telephone Pedestal
- FO4 — FOD Underground Fiber Optic Co. 4
- T4 — TLD Underground Telephone Line Co. 4
- W4 — WLD Underground Water Line Co. 4
- Default_Point Default Point Feature
- C Centerline BL of Road (ML or SR)
- BL Topo Breakline
- C Centerline BL of Road (ML or SR)
- GR Ground Shot
- EG Edge of Gravel Road
- GP Guard Post (Less Than 4 Posts)
- COS Square Bridge Pier Column
- MH Utility Access (Manhole)
- EB Electrical Box
- WV Water Valve
- LUM Luminaire
- UB Utility Box
- OUT Tile Outlet
- UE Utility Elevation
- D Centerline Draw or Stream (Down)
- FHD Fire Hydrants
- RIP Rip-Rap
- PPA Power Pole Co. 1
- T — TLA Underground Telephone Line Co. 1
- FO5 — FOE Underground Fiber Optic Co. 5
- FO3 — FOC Underground Fiber Optic Co. 3
- FO — FOA Underground Fiber Optic Co. 1
- W — WLA Underground Water Line Co. 1
- FO2 — FOB Underground Fiber Optic Co. 2
- WEL Well
- San.2 — SAB Sanitary Sewer Line Co. 2
- IN Storm Sewer Intake
- E5 — ELE Underground Electric Line Co. 5
- WH WHD Water Hydrant
- INB Storm Sewer Beehive Intake
- E3 — ELC Underground Electric Line Co. 3
- TLN Tree Line
- TSG Traffic Signal
- PPB Power Pole Co. 2
- GV GV Gas Valve
- PPD Power Pole Co. 4
- TPA Telephone Pole Co. 1

UTILITY LEGEND

E
Woodbury County Rural Electric Cooperative
Phone: 800-469-3125

E2 / G3
MidAmerican Energy Company
Contact: Steve Fisher
Phone: 712-233-4834
Fax: 712-233-4888

E3
Iowa Department of Transportation
Contact: John Jepsen
Phone: 712-252-1836
Fax: 712-239-4970

E5
Unknown / Undefined Owners

FO
Sprint Communication
Contact: Thom Miller
Phone: 605-376-9931

FO3
Northwest Iowa Telephone & Cable
Contact: Russell Black
Phone: 712-943-4742
Fax: 712-943-4742

FO4
Cable One
Contact: Chip Groves
Phone: 712-233-2000
Fax: 712-233-2235

FO5
City of South Sioux City, NE
Contact: Chad Kehrt
Phone: 402-494-7676
Fax: 402-494-7530

G
Magellan Pipeline
Contact: Steve Eddy
Phone(cell): 712-251-3480
Phone: 712-239-6656
Fax: 712-239-6656

San. / St.S. / W
City of Sioux City
Contact: Chris Payer
Phone: 712-279-6333
Fax: 712-279-6249

San.2
City of South Sioux City, NE

San.5
Unknown / Undefined Owners

St.S.5
Unknown / Undefined Owners

T
Qwest Communications (US West)
Contact: Ben Little
Phone: 402-572-5873

T2
Sprint Nextel Communication
Contact: Kevin Person
Phone: 612-310-9742

Unknown / Undefined Owners

W2
City of South Sioux City, NE

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 — Survey Line
- 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
- A/C Access Control

STORM SEWER LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES M)

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149-03-97	SHEET NUMBER M.2

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SOUTHBOUND MAINLINE I-29

NORTHBOUND MAINLINE I-29

2015 2020 2025 2030

XSTS63 XSTS64 XSTP11 XSTP12 XSTS65 XSTS66 XSTS68 XSTP15 XSTS69

812301 812302 812303 812304 812305 812306 812307 812308 812309 812310 812311 812312 812313 812314 812315 812316 812317

P-812301 P-812302 P-812303 P-812304 P-812305 P-812306 P-812307 P-812308 P-812309 P-812310 P-812311 P-812312 P-812313 P-812314 P-812315 P-812316 P-842910 P-841815

TRI-VIEW AVE

BNSF RR

Building

0 FEET 50

TRI-VIEW AVENUE

812302 SW-507 2021+34.00, 13.50 FG: 1098.00 BW: 1094.00

812303 SW-549 2022+20.00, -12.80 FG: 1097.58 BW: 1093.58

812304 SW-507 2022+20.00, 13.50 FG: 1097.57 BW: 1093.57

812305 SW-549 2023+10.00, -12.80 FG: 1097.13 BW: 1093.13

812306 SW-507 2021+34.00, 13.50 FG: 1097.12 BW: 1093.12

812307 SW-549 2024+00.00, -12.80 FG: 1096.68 BW: 1092.68

812308 SW-508 2024+00.00, 13.50 FG: 1096.67 BW: 1092.67

812310 SW-508 2025+19.52, 13.50 FG: 1096.07 BW: 1092.07

812309 SW-512 (TYPE 3B) 2025+15.00, 26.00 FG: 1096.40 BW: 1092.40

812311 SW-549 2025+64.00, -12.80 FG: 1095.99 BW: 1091.99

812312 SW-510 2025+64.00, 13.50 FG: 1095.98 BW: 1091.98

812314 SW-510 2027+22.00, 13.50 FG: 1097.09 BW: 1091.74

812313 SW-510 2027+21.50, 28.50 FG: 1097.09 BW: 1092.57

812315 SW-549 2028+12.00, -12.80 FG: 1098.16 BW: 1092.35

812316 SW-510 2028+14.00, 13.50 FG: 1098.17 BW: 1091.34

812317 SW-402 (48"x48") 2029+09.11, 13.50 FG: 1099.23 BW: 1091.15

P-812301 14"x22" RCAP 3000D L: 22' S: 0.40%

P-812303 14"x22" RCAP 3000D L: 22' S: 0.40%

P-812305 14"x22" RCAP 3000D L: 22' S: 0.40%

P-842910 18"x29" RCAP 3000D L: 10' S: 0.40%

P-812307 18"x29" RCAP 3000D L: 22' S: 0.40%

P-812309 15" RCP 2000D L: 9' S: 0.44%

P-812311 14"x22" RCAP 3000D L: 23' S: 0.40%

P-812313 15" RCP 2000D L: 10' S: 0.44%

P-812315 15" RCP 2000D L: 22' S: 0.44%

FL: 1095.08 FL: 1094.99 FL: 1094.70 FL: 1094.61 FL: 1094.31 FL: 1094.22 FL: 1094.01 FL: 1093.97 FL: 1093.92 FL: 1093.83 FL: 1093.48 FL: 1093.20 FL: 1093.52 FL: 1093.11 FL: 1093.03 FL: 1093.07 FL: 1093.35 FL: 1093.26

EXIST. GROUND AT ℄

812302 SW-507 2021+34.00, 13.50 FG: 1098.00 BW: 1094.00

812304 SW-507 2022+20.00, 13.50 FG: 1097.57 BW: 1093.57

812306 SW-507 2021+34.00, 13.50 FG: 1097.12 BW: 1093.12

812308 SW-508 2024+00.00, 13.50 FG: 1096.67 BW: 1092.67

812310 SW-508 2025+19.52, 13.50 FG: 1096.07 BW: 1092.07

812312 SW-510 2025+64.00, 13.50 FG: 1095.98 BW: 1091.98

812314 SW-510 2027+22.00, 13.50 FG: 1097.09 BW: 1091.74

812316 SW-510 2028+14.00, 13.50 FG: 1098.17 BW: 1091.34

812317 SW-402 (48"x48") 2029+09.11, 13.50 FG: 1099.23 BW: 1091.15

P-812302 14"x22" RCAP 3000D L: 82' S: 0.40%

P-812304 14"x22" RCAP 3000D L: 86' S: 0.40%

P-812306 14"x22" RCAP 3000D L: 86' S: 0.40%

P-812308 18"x29" RCAP 3000D L: 116' S: 0.40%

P-812310 18"x29" RCAP 3000D L: 39' S: 0.40%

P-812312 23"x36" RCAP 3000D L: 152' S: 0.40%

P-812314 30" RCP 2000D L: 86' S: 0.40%

P-812316 30" RCP 2000D L: 90' S: 0.40%

FL: 1094.94 FL: 1094.61 FL: 1094.56 FL: 1094.22 FL: 1094.17 FL: 1093.83 FL: 1093.78 FL: 1093.31 FL: 1093.26 FL: 1093.06 FL: 1093.11 FL: 1092.45 FL: 1092.40 FL: 1092.06 FL: 1092.01 FL: 1091.65

CONNECT TO EXISTING 48" FL: 1091.61±

1105 1100 1095 1090 1085

2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149-03-97	SHEET NUMBER M.3

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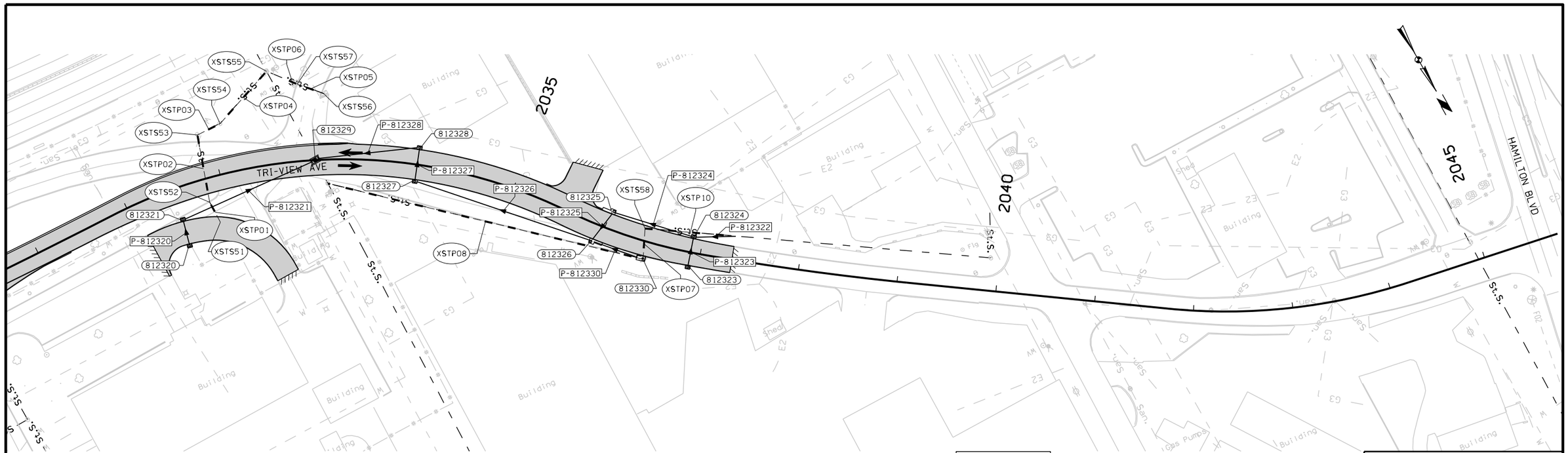

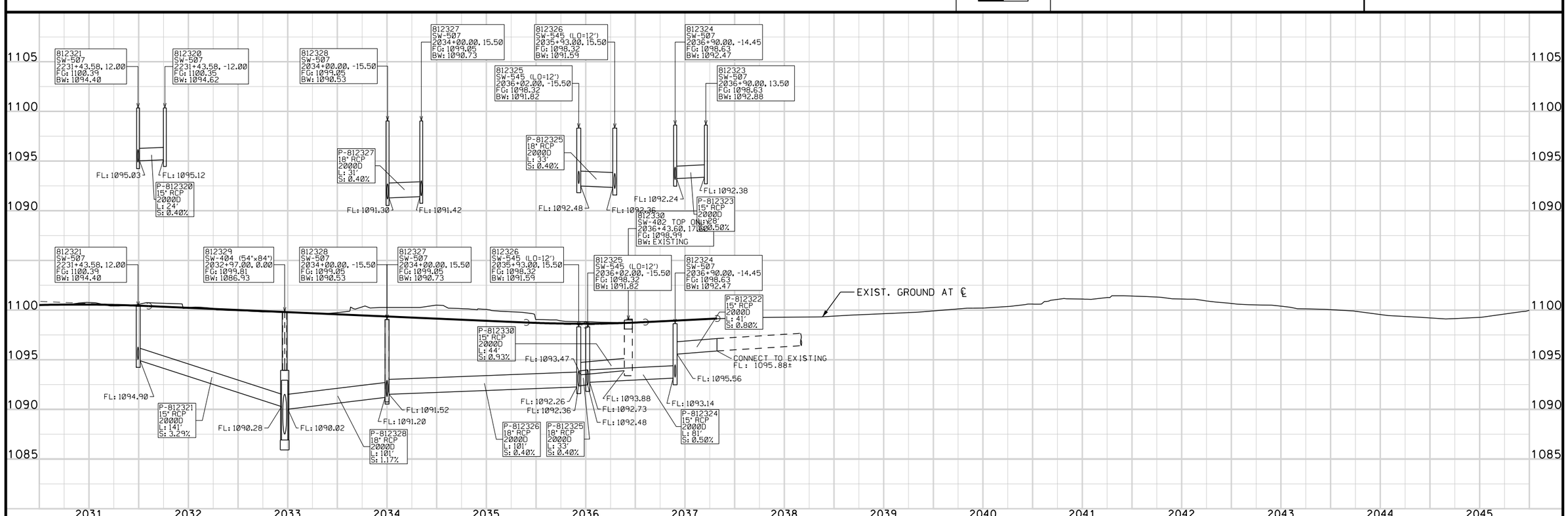

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149-03-97	SHEET NUMBER M.4

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SURVEY SYMBOLS

- St.S.5 — STE Storm Sewer Line Co. 5
- San.5 — SAE Sanitary Sewer Line Co. 5
- San. — SAA Sanitary Sewer Line Co. 1
- E1 — ELA Underground Electric Line Co. 1
- G3 — GLC Underground Gas Line Co. 3
- G — GLA Underground Gas Line Co. 1
- W2 — WLB Underground Water Line Co. 2
- G3-HP — GHC Underground High Pres Gas Co 3
- E2 — ELB Underground Electric Line Co. 2
- CP Control Point
- BM Bench Mark
- BB Billboard
- TEV Evergeen Tree
- TDC Tree Deciduous
- RET Retaining Walls
- FCL Chain Link and Security Fence
- GDL Guard Rail (Rail and Cable)
- EW Edge of Water
- HDG Hedge Row
- FWD Wood Fence
- RR Centerline of Railroad Tracks
- ENU Edge Unpaved Entrance & Parking
- SI Sign
- MIS Miscellaneous
- SHR Shrub
- FLG Flag Poles
- SL Speed Limit Sign
- BNK Stream Bank
- TPC Telephone Pole Co. 3
- TPD Telephone Pedestal
- FO4 — FOD Underground Fiber Optic Co. 4
- T4 — TLD Underground Telephone Line Co. 4
- W4 — WLD Underground Water Line Co. 4
- Default_Point Default Point Feature
- C Centerline BL of Road (ML or SR)
- BL Topo Breakline
- C Centerline BL of Road (ML or SR)
- GR Ground Shot
- EG Edge of Gravel Road
- GP Guard Post (Less Than 4 Posts)
- COS Square Bridge Pier Column
- MH Utility Access (Manhole)
- EB Electrical Box
- WV Water Valve
- LUM Luminaire
- UB Utility Box
- OUT Tile Outlet
- UE Utility Elevation
- D Centerline Draw or Stream (Down)
- FHD Fire Hydrants
- RIP Rip-Rap
- PPA Power Pole Co. 1
- T1 — TLA Underground Telephone Line Co. 1
- FO5 — FOE Underground Fiber Optic Co. 5
- FO3 — FOC Underground Fiber Optic Co. 3
- FO — FOA Underground Fiber Optic Co. 1
- W — WLA Underground Water Line Co. 1
- FO2 — FOB Underground Fiber Optic Co. 2
- WEL Well
- San.2 — SAB Sanitary Sewer Line Co. 2
- IN Storm Sewer Intake
- E5 — ELE Underground Electric Line Co. 5
- WH WHD Water Hydrant
- INB Storm Sewer Beehive Intake
- E3 — ELC Underground Electric Line Co. 3
- TLN Tree Line
- TSG Traffic Signal
- PPB Power Pole Co. 2
- GV GV Gas Valve
- PPD Power Pole Co. 4
- TPA Telephone Pole Co. 1

UTILITY LEGEND

E1 — Woodbury County Rural Electric Cooperative
Phone: 800-469-3125

E2 / G3 — MidAmerican Energy Company
Contact: Steve Fisher
Phone: 712-233-4834
Fax: 712-233-4888

E3 — Iowa Department of Transportation
Contact: John Jepsen
Phone: 712-252-1836
Fax: 712-239-4970

E5 — Unknown / Undefined Owners

FO — Sprint Communication
Contact: Thom Miller
Phone: 605-376-9931

FO3 — Northwest Iowa Telephone & Cable
Contact: Russell Black
Phone: 712-943-4742
Fax: 712-943-4742

FO4 — Cable One
Contact: Chip Groves
Phone: 712-233-2000
Fax: 712-233-2235

FO5 — City of South Sioux City, NE
Contact: Chad Kehrt
Phone: 402-494-7676
Fax: 402-494-7530

G — Magellan Pipeline
Contact: Steve Eddy
Phone(cell): 712-251-3480
Phone: 712-239-6656
Fax: 712-239-6656

San. / St.S. / W — City of Sioux City
Contact: Chris Payer
Phone: 712-279-6333
Fax: 712-279-6249

San.2 — City of South Sioux City, NE

San.5 — Unknown / Undefined Owners

St.S.5 — Unknown / Undefined Owners

T1 — Qwest Communications (US West)
Contact: Ben Little
Phone: 402-572-5873

T2 — Sprint Nextel Communication
Contact: Kevin Person
Phone: 612-310-9742

Unknown / Undefined Owners

W2 — City of South Sioux City, NE

GEOTECHNICAL DESIGN

LICENSED PROFESSIONAL ENGINEER — DENNIS L. HOOVER 10803 — IOWA

I hereby certify that this engineering document was prepared under my supervision and that engineering decisions with regard to the design were made by me or by other duly licensed Professional Engineers under the laws of the State of Iowa.

Signature — Date 12/23/2014

DENNIS L. HOOVER
Printed or Typed Name

My license renewal date is December 31, 2013

Pages or sheets covered by this seal: Q.01-Q.3

PLAN VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design	Color No.	
Green	(2)		Existing Topographic Features and Labels
Purple (Halo)	(15)		Backslope Drains
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
SHADING	**Design**	**Color No.**	
Brown, Light	(236)		Soil Remediation Area

PROFILE VIEW COLOR LEGEND OF SOILS SHEETS

LINEWORK	Design	Color No.	
Blue	(1)		Proposed Alignment, Stationing, and Alignment Annotation
Green	(2)		Existing Ground Line Profile
Green	(227)		Class 10 Topsoil
Green	(226)		Unsuitable A Topsoil
Green	(225)		Unsuitable B Topsoil
Green	(224)		Unsuitable C Topsoil
Orange	(6)		Loam
Brown, Dark	(238)		Class 10
Brown, Med	(237)		Sand
Red	(3)		Unsuitable A
Pink, Dark	(13)		Unsuitable B
Pink	(11)		Unsuitable C
Red	(3)		Shale
Red	(3)		Waste
Gray, Light	(48)		Broken and Weathered Rock
Gray, Med	(80)		Rock
Gray, V.Dark	(128)		Boulders

PATTERN AND SYMBOL LEGEND OF SOILS SHEETS

Soils Book No._____
Date(s) Drilled_____

- $-H_2O-$ Water
- — DRY Dry
- (S) Sample
- Plugged
- M — Moisture
- Shelby
- Blow
- Dens. Core
- Treatment
- Sand Blanket
- Soil Remediation Area
- Select Soil
- Select Sand
- Shale
- Broken and Weathered Rock
- Rock
- Sandstone
- Unsuitable A Topsoil
- Unsuitable B Topsoil
- Unsuitable C Topsoil
- Unsuitable A
- Unsuitable B
- Unsuitable C
- Sandy Soil
- Boulders

Reference Point — Survey Line
Station — Section Corner
Ground Line Intercept
Saw Cut
Guardrail
Clearing & Grubbing Area
Pavement Removal

RIGHT-OF-WAY LEGEND

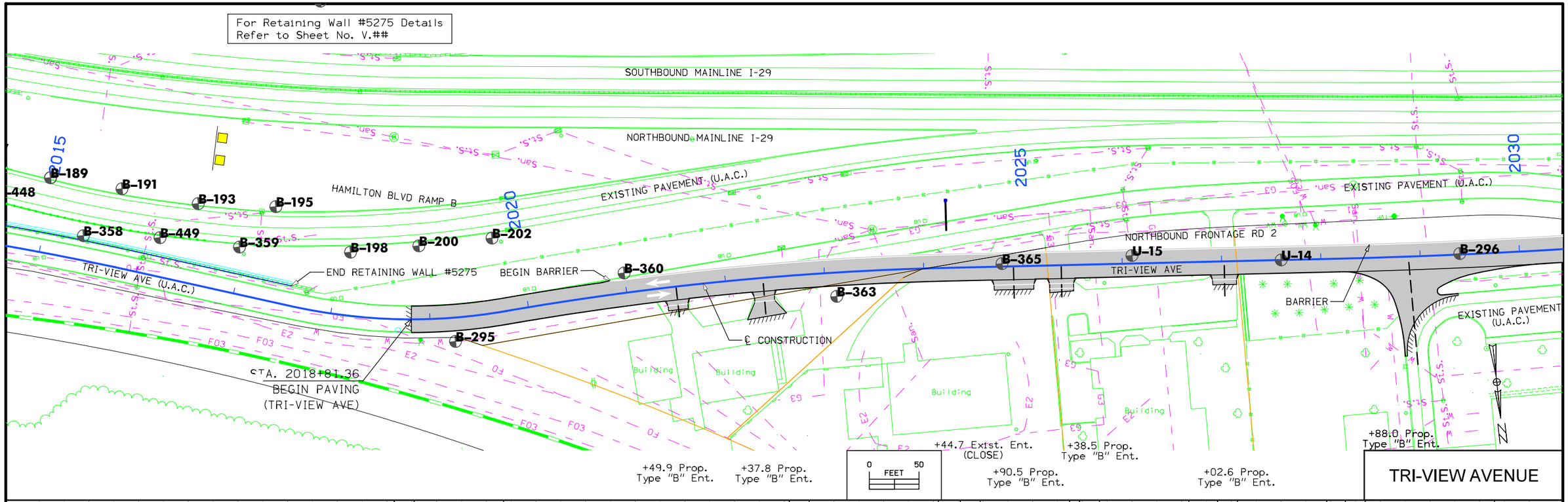
- Proposed Right-of-Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Borrow
- Easement (Temporary)
- Easement
- Excess
- A/C Access Control

SOILS LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES Q)

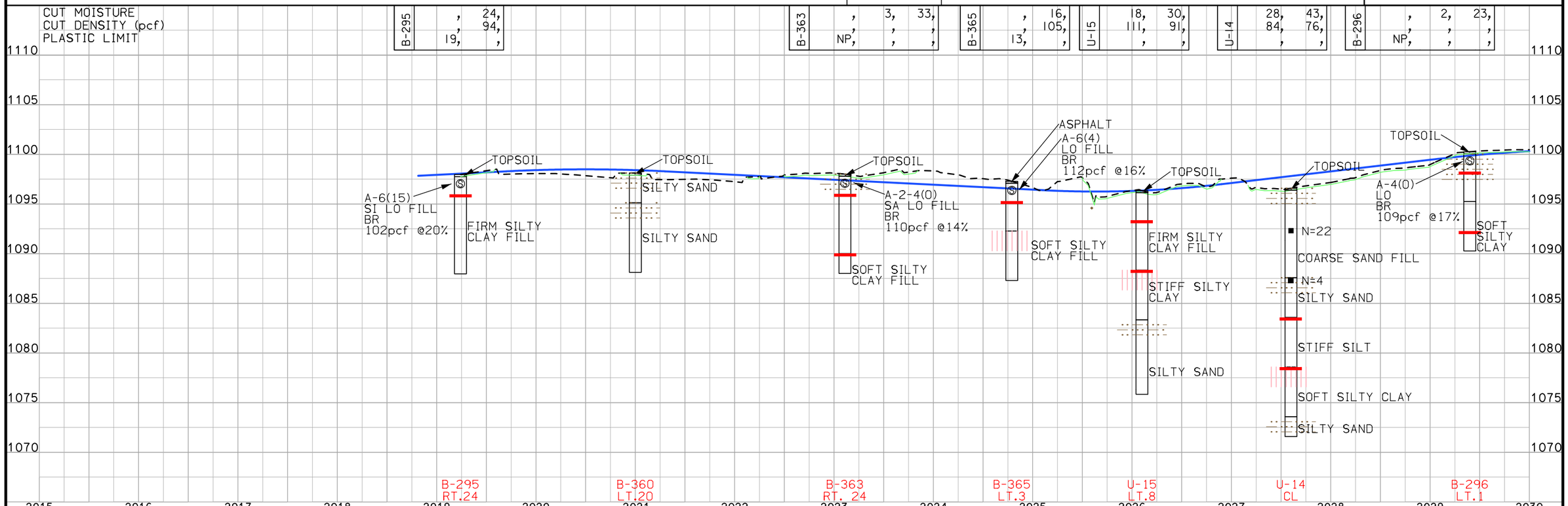
ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HR Green, Inc.\HDR\Terracon	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER Q.1

For Retaining Wall #5275 Details
Refer to Sheet No. V.##

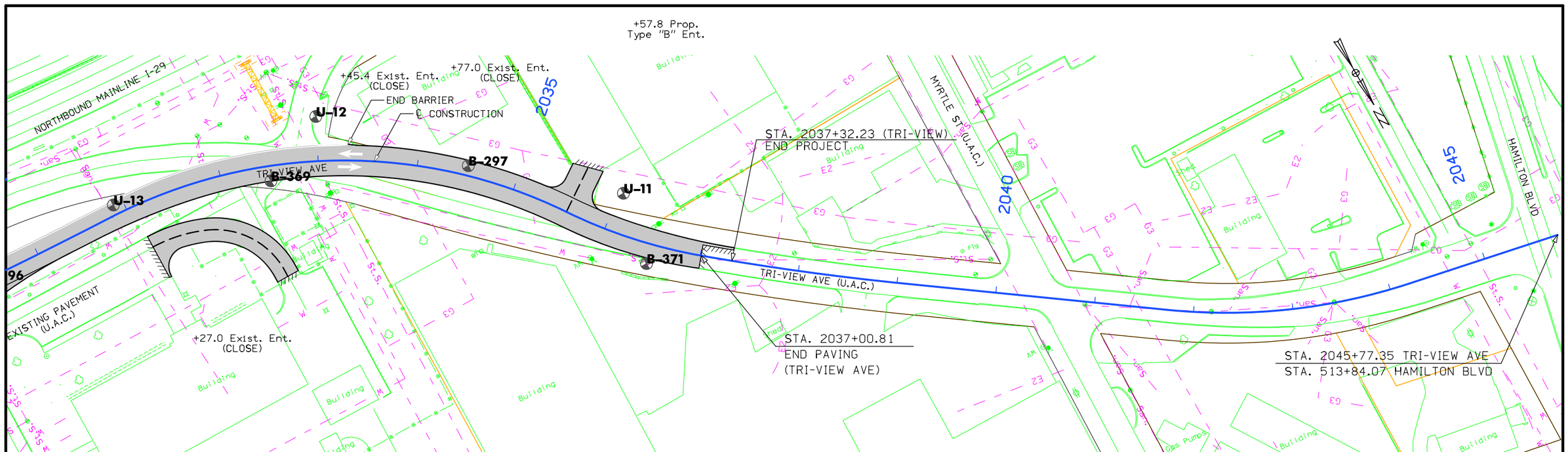


TRI-VIEW AVENUE

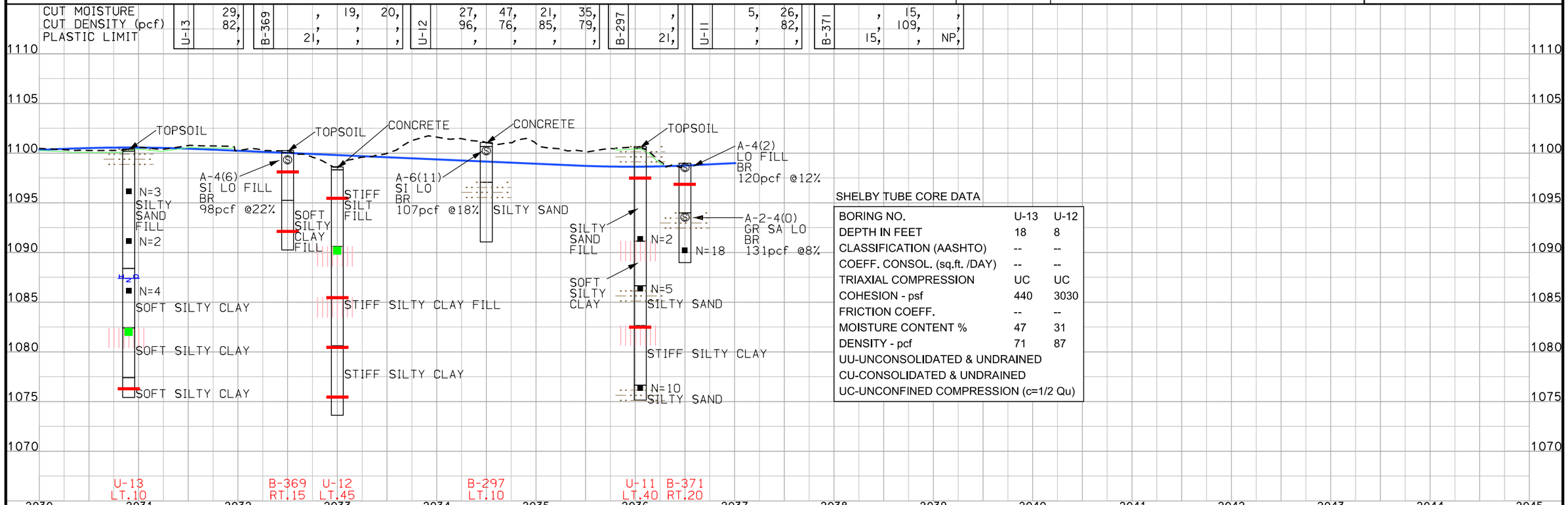
	B-295	B-363	B-365	U-15	U-14	B-296
CUT MOISTURE	, 24,	, 3, 33,	, 16,	18, 30,	28, 43,	, 2, 23,
CUT DENSITY (pcf)	, 94,	, , ,	105, ,	111, 91,	84, 76,	, , ,
PLASTIC LIMIT	19, ,	NP, , ,	13, ,	, ,	, ,	NP, , ,



ENGLISH	IOWA DOT	DESIGN TEAM	Schoenrock\HR Green, Inc.\HDR\Terracon	WOODBURY COUNTY	PROJECT NUMBER	IM-NHS-29-7(44)149--03-97	SHEET NUMBER	Q.2



	U-13	B-369	U-12	B-297	U-11	B-371
CUT MOISTURE	29,	, 19, 20,	27, 47, 21, 35,	,	5, 26,	, 15, ,
CUT DENSITY (pcf)	82,	, , ,	96, 76, 85, 79,	,	, 82,	, 109, ,
PLASTIC LIMIT	,	21, , ,	, , , ,	21,	, ,	15, , NP,



SHELBY TUBE CORE DATA

BORING NO.	U-13	U-12
DEPTH IN FEET	18	8
CLASSIFICATION (AASHTO)	--	--
COEFF. CONSOL. (sq.ft. /DAY)	--	--
TRIAXIAL COMPRESSION	UC	UC
COHESION - psf	440	3030
FRICTION COEFF.	--	--
MOISTURE CONTENT %	47	31
DENSITY - pcf	71	87

UU-UNCONSOLIDATED & UNDRAINED
CU-CONSOLIDATED & UNDRAINED
UC-UNCONFINED COMPRESSION (c=1/2 Qu)

ENGLISH	IOWA DOT	DESIGN TEAM	Schoenrock\HR Green, Inc.\HDR\Terracon	WOODBURY COUNTY	PROJECT NUMBER	IM-NHS-29-7(44)149--03-97	SHEET NUMBER	Q.3

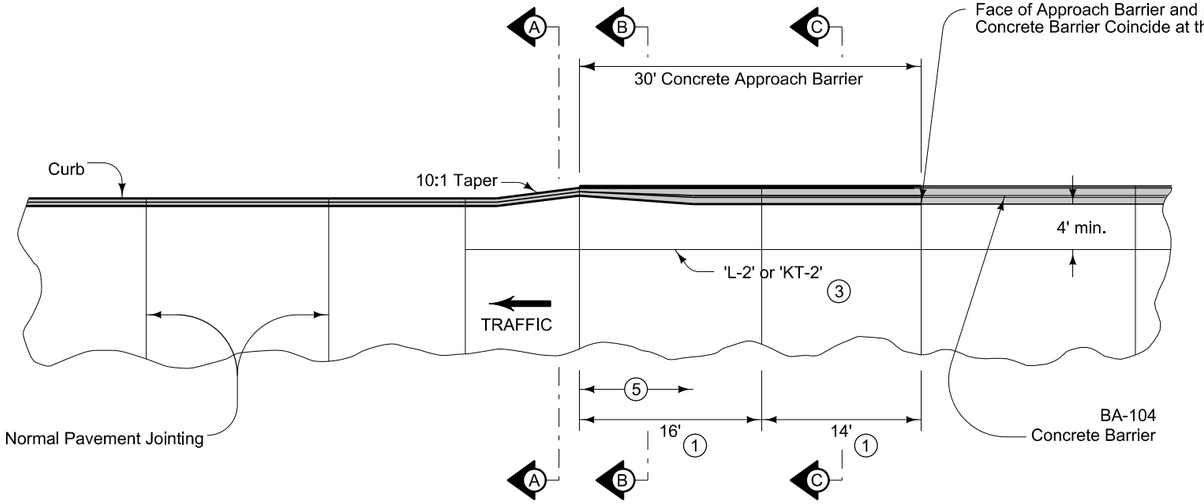
TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Refer to Standard Plan RL-1A and RL-1B.

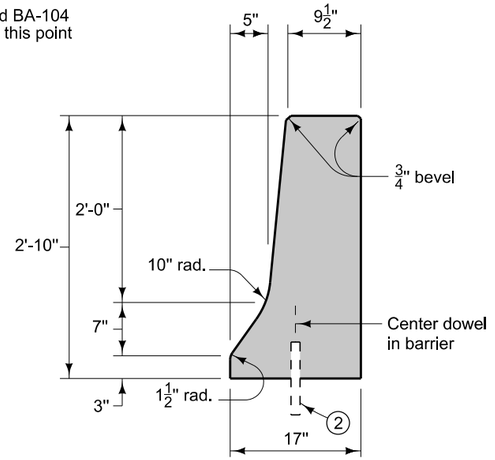
STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					
2018+81.36												+81.36
2019+00.00	32	5	27	27	5	7	7					
2019+25.00	43	6	37	37	6	8	8					
2019+50.00	43	6	37	37	6	8	8					
2019+75.00	40	6	34	34	6	8	8					
2020+00.00	34	6	28	28	5	7	7					
2020+25.00	27	5	22	22	5	7	7					
2020+50.00	22	5	17	17	6	8	8					
2020+75.00	18	5	13	13	8	10	10					
2021+00.00	19	5	14	14	9	12	12					
2021+25.00	21	5	16	16	10	13	13					
2021+50.00	18	4	14	14	8	10	10					
2021+75.00	22	3	19	19	7	9	9					
2022+00.00	30	5	25	25	10	13	13					
2022+25.00	34	4	30	30	12	16	16					
2022+37.80	16	1	15	15	6	8	8					
2022+50.00	16	1	15	15	6	8	8					
2022+75.00	44	4	40	40	13	17	17					
2023+00.00	54	5	49	49	13	17	17					
2023+25.00	61	6	55	55	13	17	17					
2023+50.00	73	6	67	67	14	18	18					
2023+75.00	88	6	82	82	16	21	21					
2024+00.00	98	5	93	93	17	22	22					
2024+22.72	88	2	86	86	16	21	21					
2024+25.00	8		8	8	2	3	3					
2024+50.00	88		88	88	18	23	23					
2024+75.00	89		89	89	17	22	22					
2024+90.50	56		56	56	10	13	13					
2025+00.00	33		33	33	6	8	8					
2025+25.00	88		88	88	17	22	22					
2025+38.50	55		55	55	9	12	12					
2025+50.00	59	1	58	58	7	9	9					
2025+75.00	121	8	113	113	18	23	23					
2026+00.00	102	12	90	90	21	27	27					
2026+25.00	109	12	97	97	21	27	27					
2026+50.00	109	12	97	97	22	29	29					
2026+75.00	96	12	84	84	24	31	31					
2027+00.00	91	6	85	85	24	31	31					
2027+02.60	10		10	10	2	3	3					
2027+25.00	63	6	57	57	27	35	35					
2027+50.00	42	15	27	27	42	55	55					
2027+75.00	34	15	19	19	46	60	60					
2028+00.00	35	15	20	20	48	62	62					
2028+25.00	39	15	24	24	48	62	62					
2028+50.00	51	15	36	36	48	62	62					
2028+75.00	81	22	59	59	54	70	70					
2028+91.00	61	16	45	45	35	46	46					
2029+00.00	31	7	24	24	18	23	23					
2029+25.00	100	18	82	82	51	66	66					
2029+50.00	109	16	93	93	53	69	69					
2029+75.00	97	15	82	82	53	69	69					
2030+00.00	88	15	73	73	53	69	69					
2030+25.00	82	14	68	68	45	59	59					
2030+50.00	84	13	71	71	34	44	44					
2030+75.00	90	13	77	77	28	36	36					
2031+00.00	98	11	87	87	21	27	27					
2031+18.70	83	4	79	79	14	18	18					
2031+25.00	32	2	30	30	5	7	7					
2031+50.00	134	13	121	121	16	21	21					
2031+75.00	134	12	122	122	16	21	21					
2032+00.00	131	11	120	120	24	31	31					
2032+25.00	134	10	124	124	33	43	43					
2032+50.00	128	7	121	121	26	34	34					
2032+75.00	97	2	95	95	15	20	20					
2032+80.09	15		121	121	2	3	3					
2033+00.00	62		62	62	9	12	12					

No Overhaul

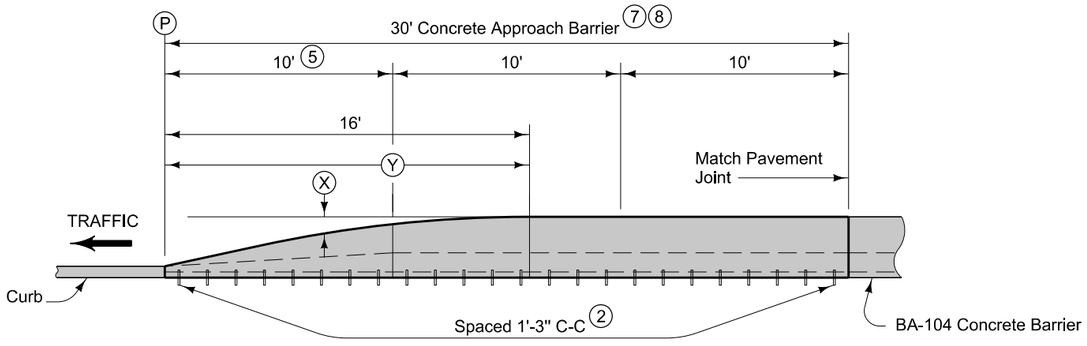
STATION	TOTAL CUT	TOPSOIL CLASS 10 SAVED -C	CLASS 10 SUITABLE CUT	ADJUSTED CLASS 10 TOTAL	TOTAL FILL	CLASS 10 SUITABLE + 30% SHRINK	TOTAL FILL WITH SHRINK					
2033+00.00	90		90	90	10	13	13					
2033+25.00	76		76	76	16	21	21					
2033+50.00	71		71	71	24	31	31					
2033+75.00	98		98	98	28	36	36					
2034+00.00	114		114	114	30	39	39					
2034+25.00	123		123	123	32	42	42					
2034+50.00	114		114	114	32	42	42					
2034+75.00	107		107	107	31	40	40					
2035+00.00	100		100	100	28	36	36					
2035+25.00	99		99	99	22	29	29					
2035+50.00	30		30	30	5	7	7					
2035+57.80	60		60	60	9	12	12					
2035+75.00	82	2	80	80	11	14	14					
2036+00.00	69	4	65	65	8	10	10					
2036+25.00	58	4	54	54	10	13	13					
2036+50.00	52	3	49	49	10	13	13					
2036+75.00	49	3	46	46	7	9	9					
2037+00.00	43	2	41	41	7	9	9					
2037+25.00	11	1	10	10	2	3	3					
2037+32.21												+32.21
TOTAL	5636	490	5252	5252	1621	2111	2111					



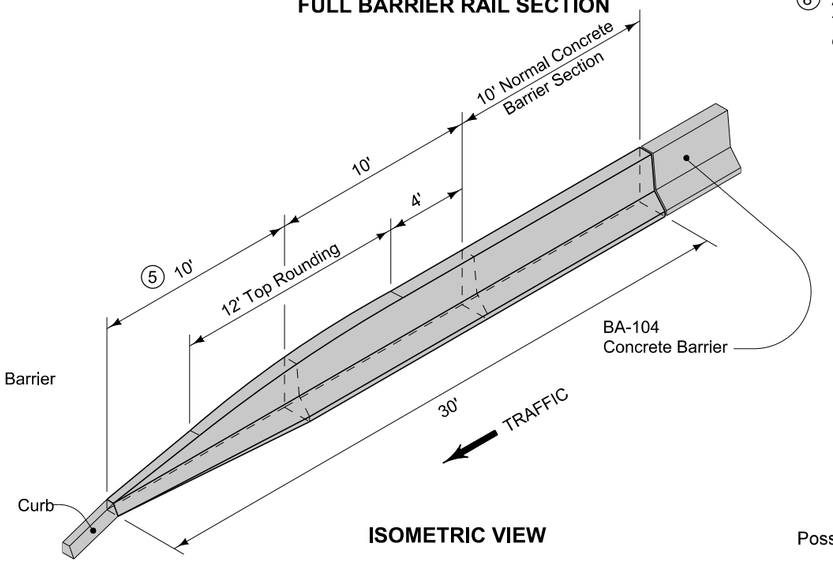
PLAN



FULL BARRIER RAIL SECTION

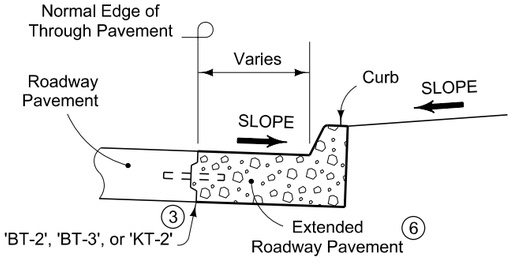


ELEVATION

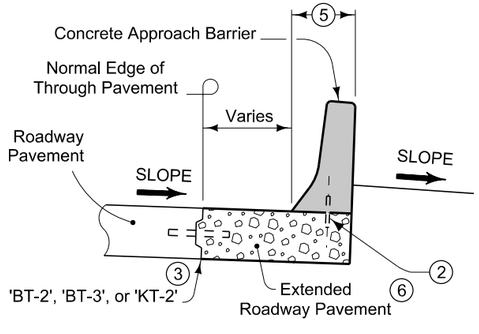


ISOMETRIC VIEW

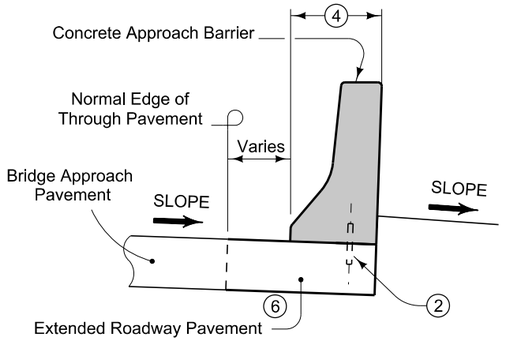
OFFSETS FOR ROUNDED BARRIER TOP																	
Y = Distance from (P)	ft.	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
X = Offset to Rounded Top	ft.	2.13	1.91	1.70	1.48	1.26	1.06	0.87	0.70	0.54	0.42	0.30	0.20	0.12	0.06	0.02	0.00



SECTION A-A



SECTION B-B



SECTION C-C

Install a 'C' joint in concrete approach barrier to match the location of each joint in both roadway and bridge approach pavement.

1. Typical joint spacing and location. Specific project requirements shall be as directed by the Engineer.
2. #8 x 8 inch deformed bars or 1 inch diameter smooth.
3. For joint detail, see PV-101.
4. Bottom width of barrier is maintained at 17 inches.
5. Bottom width of barrier transitions from 8 to 17 inches.
6. Additional concrete quantity required for extended roadway pavement will be included in roadway paving quantity.
7. Place no delineator or object marker in front of, or on, the barrier.
8. Approximately 2.0 cubic yards of concrete are required to construct barrier as shown. Amount may vary depending on individual site requirements.

Possible Contract Item:

Possible Tabulation:
108-18B

MODIFIED
STANDARD ROAD PLAN

REVISION	
1	04-19-11

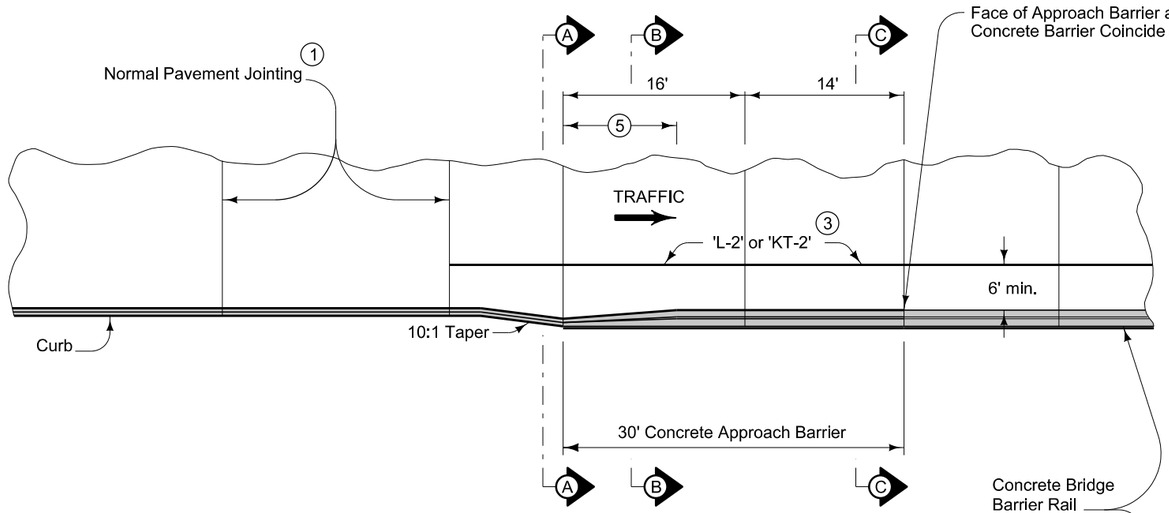
BA-108

SHEET 1 of 1

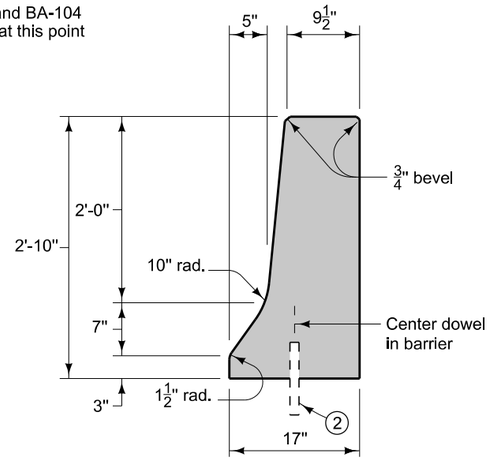
MODIFICATIONS: Changed location from bridge aproach slab to roadway pavement
Removed references to sidewalk.
Changed condition behind barrier.
Changed traffic direction with respect to barrier transition.

CONCRETE BARRIER TAPERED END SECTION

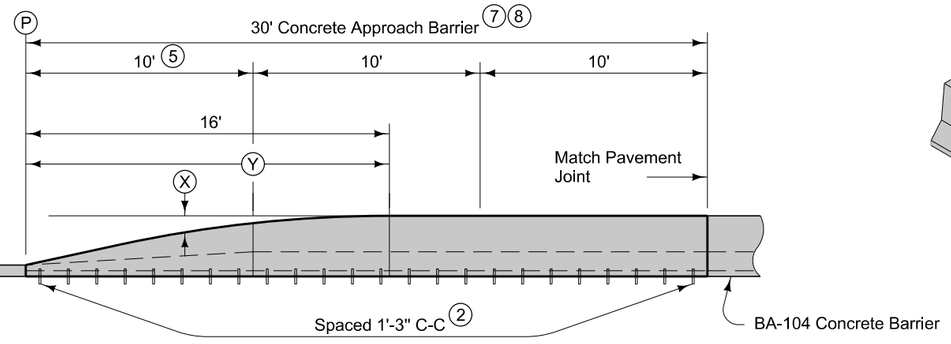
ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.1



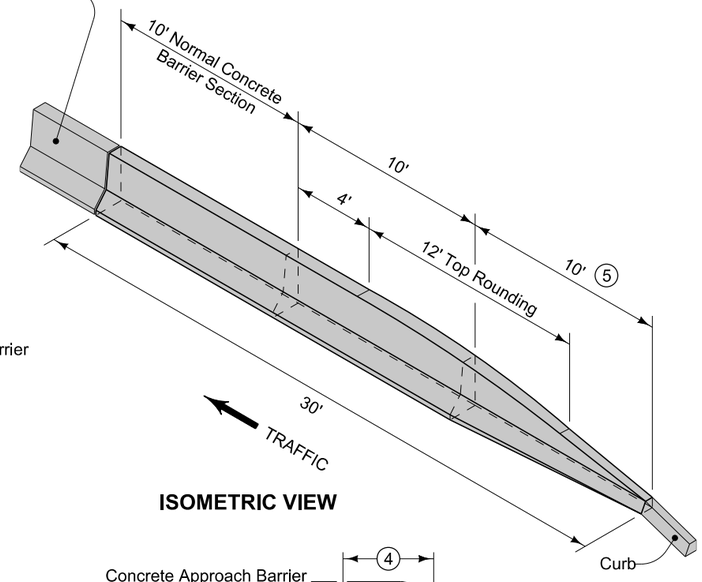
PLAN



FULL BARRIER RAIL SECTION

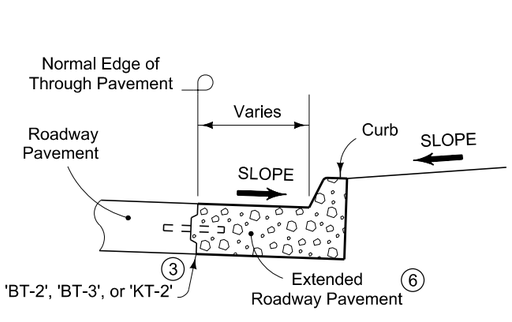


ELEVATION

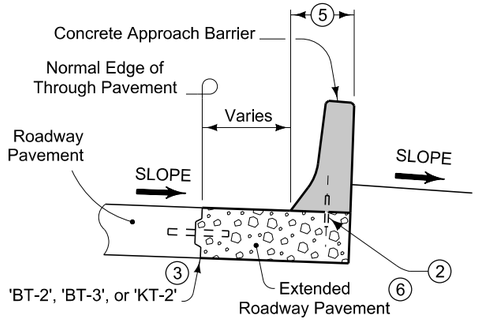


ISOMETRIC VIEW

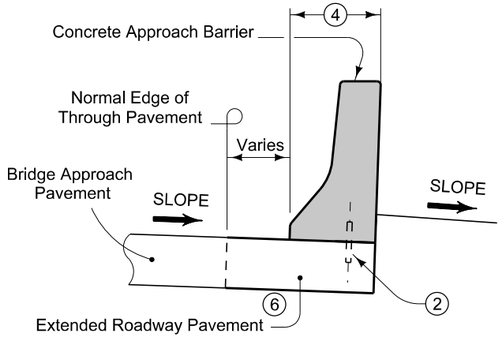
OFFSETS FOR ROUNDED BARRIER TOP																	
Y = Distance from (P)	ft.	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0
X = Offset to Rounded Top	ft.	2.13	1.91	1.70	1.48	1.26	1.06	0.87	0.70	0.54	0.42	0.30	0.20	0.12	0.06	0.02	0.00



SECTION A-A



SECTION B-B



SECTION C-C

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6. Additional concrete quantity required for extended roadway pavement will be included in roadway paving quantity.
7. Place no delineator or object marker in front of, or on, the barrier.
8. Approximately 2.0 cubic yards of concrete are required to construct barrier as shown. Amount may vary depending on individual site requirements.

Possible Contract Item:

Possible Tabulation:
108-18B

MODIFIED STANDARD ROAD PLAN

REVISION	
1	04-19-11

BA-108

SHEET 1 of 1

MODIFICATIONS: Changed location from bridge approach to roadway pavement.
Removed references to sidewalk.
Changed conditions behind barrier.

CONCRETE BARRIER TAPERED END SECTION

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.2

6:12:17 PM 12/29/2011 pknievel c:\pwworking\oma\d0675625\97029044U02.dgn

CHRIS LARSEN PARK RD

SB FRONTAGE RD 2

520

525

530

SOUTHBOUND I-29

NORTHBOUND I-29

WESLEY RAMP D

TRI-VIEW AVE

13.5′
13.5′

13.5′
13.5′

STA. 2018+81
BEGIN LANE MARKING

BCY4

0 FEET 50

TRI-VIEW AVE
PAVEMENT MARKINGS

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.3

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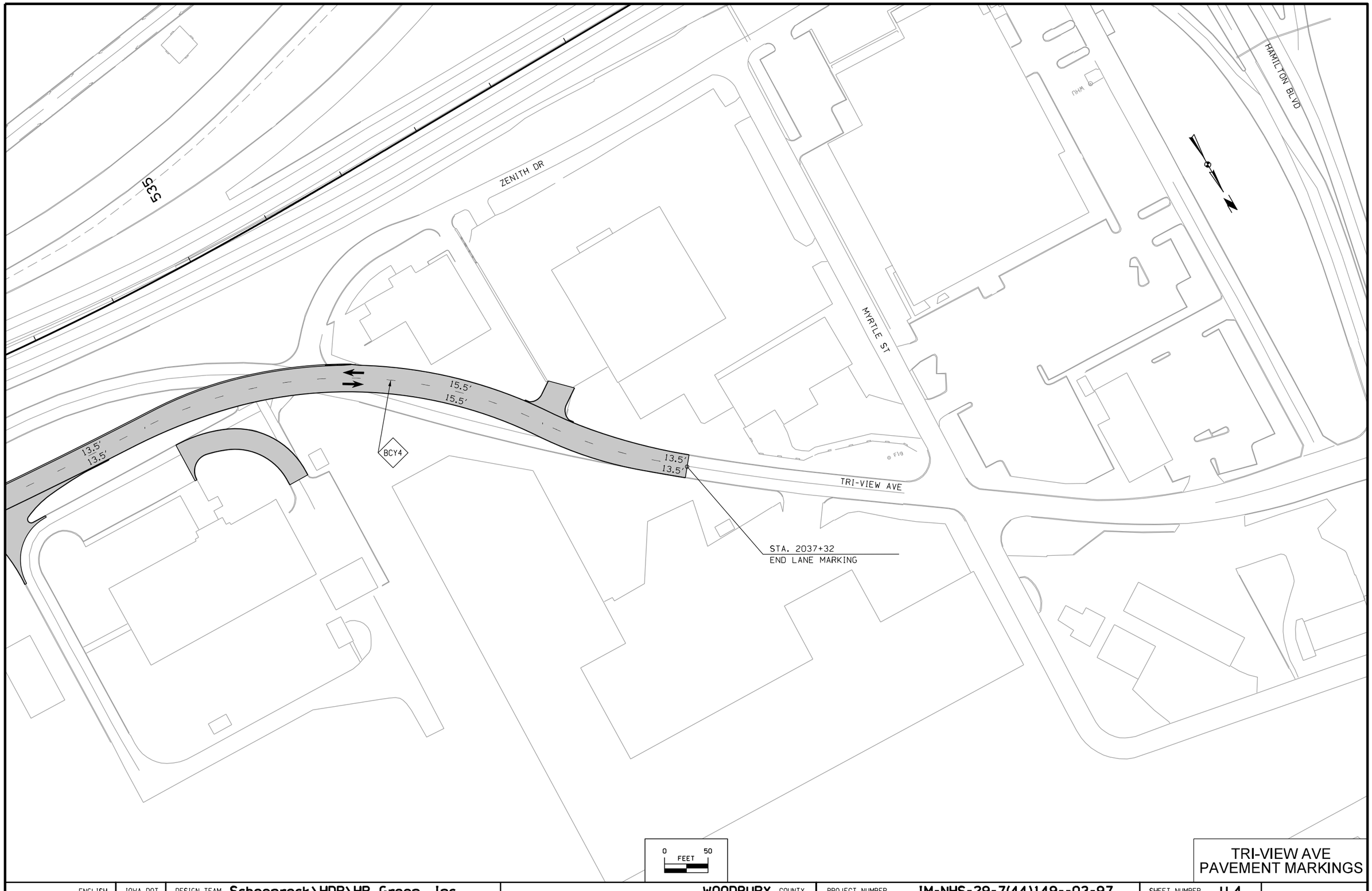

TRI-VIEW AVE
PAVEMENT MARKINGS

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.4

3:10:38 PM pknievel c:\pwworking\oma\d0675625\97029044U03.sht

CHRIS LARSEN PARK RD

SB FRONTAGE RD 2

SOUTHBOUND I-29

NORTHBOUND I-29

WESLEY RAMP D

TRI-VIEW AVE

BNSF RR

520

525

530

2015

2020

2025

2030

Remove Light Pole
2025+55.1, 2.9' LT

Remove Light Pole
2026+85.0, 11.3' LT

Remove P.C. Concrete
2030+07.6, 52.4' LT

Remove P.C. Concrete
2028+06.7, 53.1' LT

Remove Light Pole
2029+74.3, 32.8' RT

Remove Light Pole
2028+93.0, 55.6' RT

Remove Fence
2028+64.6, 71.6' RT

Remove Concrete
2027+19.4, 1.0' RT

Remove Concrete
2027+21.8, 37.9' RT

Remove Landscaping
2026+86.4, 16.3' RT

Remove Light Pole
2026+70.2, 13.2' RT

Remove P.C. Pavement
2028+81.4, 100.3' RT

Remove P.C. Pavement
2029+36.5, 39.1' RT

Remove Light Pole
2025+81.8, 19.1' RT

Remove Sign
2026+23.7, 3.3' RT

0 FEET 50

REMOVAL DETAILS STAGE 1

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.5

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Remove P.C. Pavement
2030+36.2, 75.3' LT

Remove P.C. Pavement
2031+40.8, 50.4' LT

Remove P.C. Pavement
2033+23.3, 143.0' LT

Remove P.C. Pavement
2032+92.0, 93.5' LT

Remove Fence
2031+40.9, 17.3' RT

Remove Light Pole
2031+46.2, 25.0' RT

Remove Fence
2031+52.3, 81.8' RT

Remove Light Pole
2030+58.6, 30.4' RT

ZENITH DR

TRI-VIEW AVE

MYRTLE ST

HAMILTON BLVD

BNSF RR

2030

2035

2040

2045

Building

Shed

Gas Pumps

Brush & Trees

0 50
FEET

REMOVAL DETAILS STAGE 1

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.6

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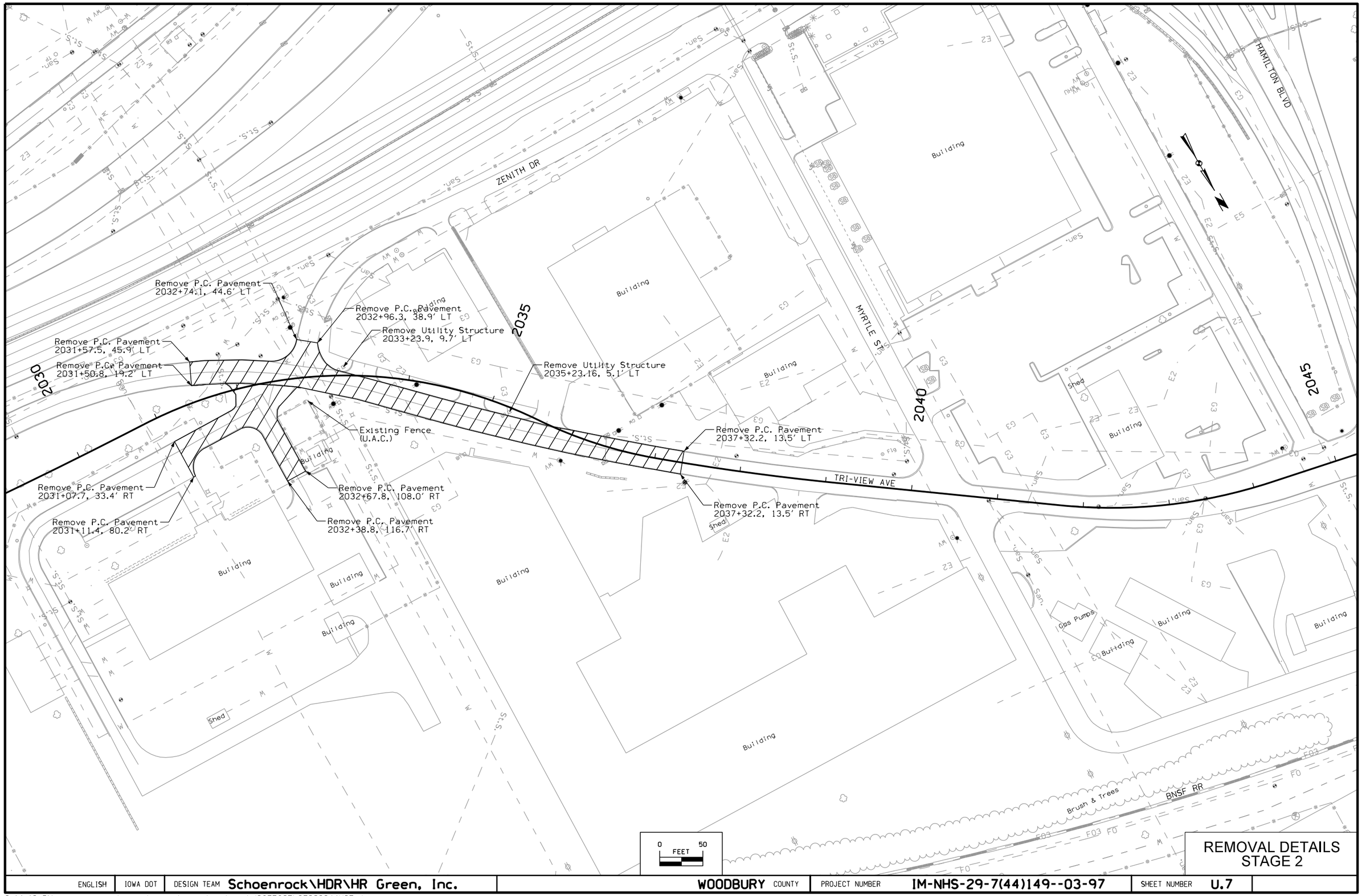

REMOVAL DETAILS
STAGE 2

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.7

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CHRIS LARSEN PARK RD

SB FRONTAGE RD 2

SOUTHBOUND I-29

NORTHBOUND I-29

WESLEY RAMP D

TRI-VIEW AVE

BNSF RR

520

525

530

2015

2020

2025

2030

Remove Utility Structure
2022+06.1, 25.7' LT

Remove P.C. Concrete
2021+80.7, 20.2' LT

Remove Utility Structure
2024+03.0, 47.6' LT

Remove Landscaping
2025+47.5, 34.5' LT

Remove Landscaping
2027+13.6, 47.0' LT

Remove Landscaping
2026+87.4, 45.7' LT

Remove P.C. Concrete
2021+82.4, 6.4' RT

Remove Utility Structure
2022+91.2, 13.3' RT

Remove Fence
2024+07.6, 1.9' RT

Remove Fence
2023+64.0, 28.5' RT

Remove Landscaping
2025+56.8, 20.9' RT

Remove
Temporary Pavement

0 50
FEET

REMOVAL DETAILS STAGE 3

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.8

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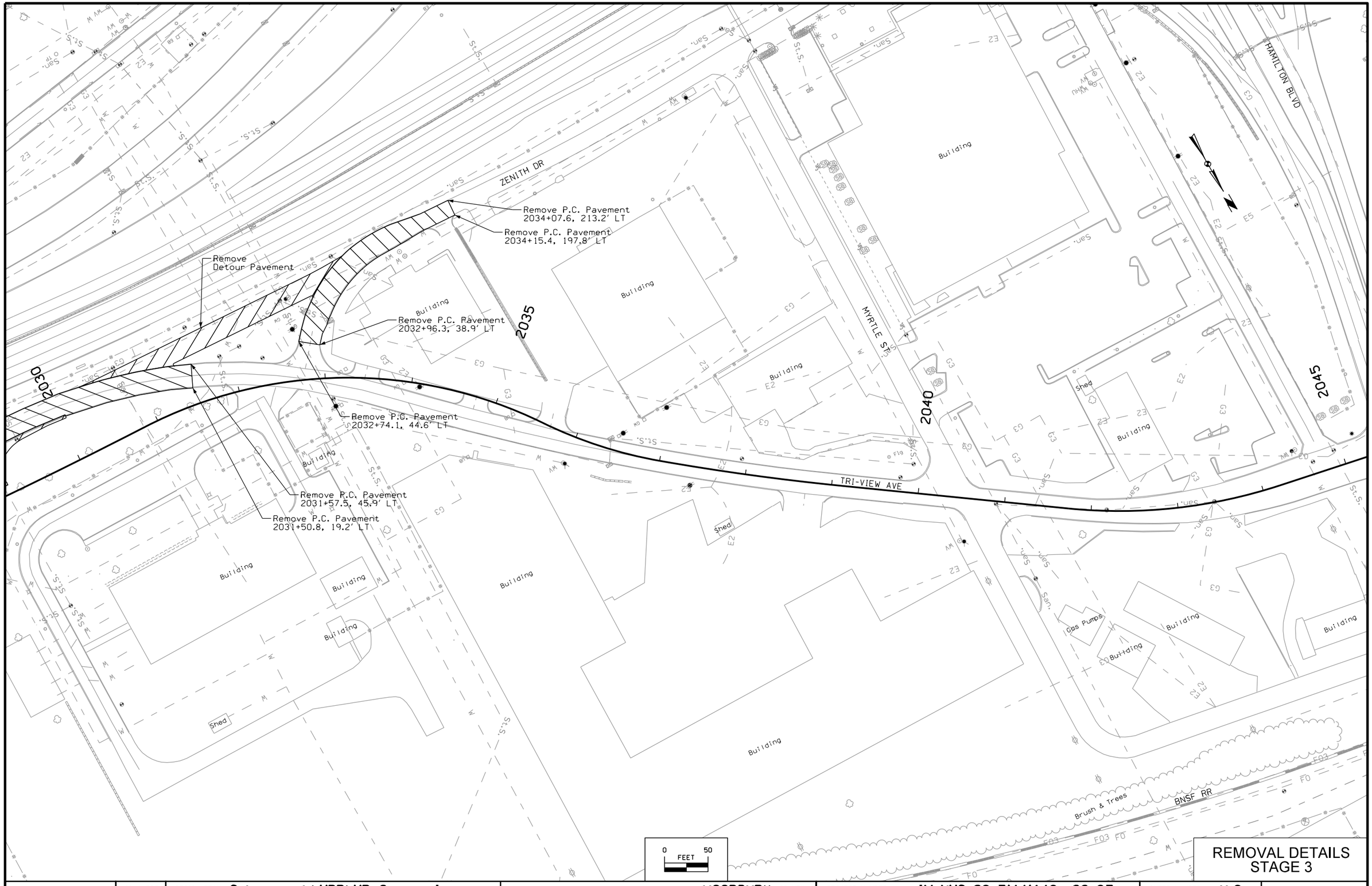

REMOVAL DETAILS STAGE 3

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.9

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CHRIS LARSEN PARK RD

SB FRONTAGE RD 2

SOUTHBOUND I-29

NORTHBOUND I-29

WESLEY RAMP D

TRI-VIEW AVE

BNSF RR

520

525

530

2015

2020

2025

2030

Remove P.C. Pavement
2018+81.4, 13.4' LT

Remove P.C. Pavement
2018+81.4, 13.6' LT

Remove Utility Structure
2020+08.7, 17.6' LT

Remove P.C. Pavement
2021+80.7, 20.2' LT

Remove P.C. Pavement
2021+82.5, 6.7' RT

0 FEET 50

REMOVAL DETAILS STAGE 4

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.10

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IOWA DEPARTMENT OF TRANSPORTATION

TO OFFICE:	Design	DATE:	November 18, 2011
ATTENTION	Jim Schoenrock	COUNTY:	Woodbury
		ROW PROJECT NO:	IMN-29-6(150)142—0E-97
FROM:	Linda R. Martens	PARCEL NO: 205	PIN:
		POSSESSION DATE:	See comments below
OFFICE:	Property Management	FORMER OWNER:	I.L.L. Inc.
		ADDRESS:	1100 Tri View Avenue
SUBJECT:	**PARCEL INSPECTION**		Sioux City, IA 51103
	REMOVAL OF IMPROVEMENTS		

The above referenced property was inspected to determine the feasibility to demolish, sell, or rent such property. The inspection also addressed pest or rodent control, property maintenance requirements, and hazardous waste concerns. A pest and rodent inspection was completed on this date.

ITEM (approx. size)	FOUNDATION	PREVIOUS USE	DEMOLISH, SELL, RENT
10,780 sq. ft. ground floor area concrete building, 1986 vintage	Concrete	Commercial Building	Demolish
16,846 sq. ft. parking lot	Concrete	Parking	Demolish
225' x 2' x 5' high = 2250 cubic ft.	Concrete	Retaining wall	Demolish
Chain link fence with barbed wire on top	1208 linear ft.	Fence w/barbed wire	Demolish
2) steel beams in concrete	Concrete	Overhead sign posts	Demolish
10) 4 ft. safety poles	Concrete	Safety barriers	Demolish

Approximate location of parcel See address above .

Comments Attached please find building layout, site plan, site view photos

Location of well (if known) ☒N/A

Location of septic system (if known) ☒N/A

Utilities have been notified. Yes ☐ No ☒ N/A ☐

There may be miscellaneous junk, debris, concrete and/or fencing located on this parcel.

Extermination of pest or rodent required? Yes ☐ No ☒

Buildings to be boarded or secured? Yes ☐ No ☒

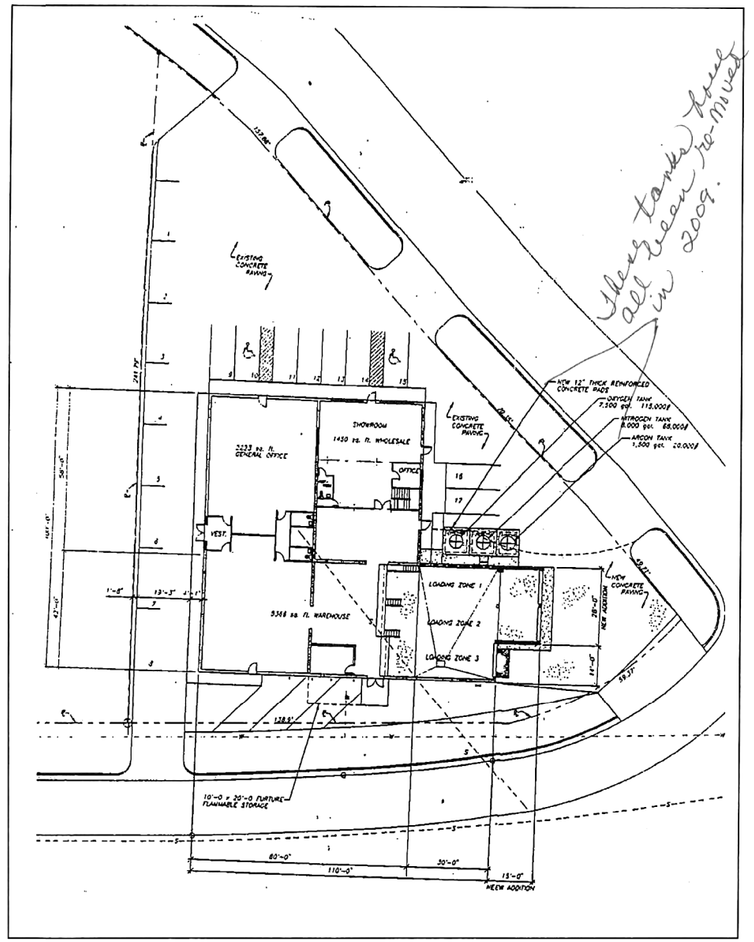
Tanks were secure upon possession? Yes ☐ No ☐ N/A ☒

By copy of this memo we are also requesting an asbestos inspection.

COMMENTS: Estimated date of possession is February 2012. Please contact Douglas C. Bates, Acquisition Supervisor at 515-239-1278 for further information.

LRM/man

cc: Brad Azeltine, Office of Location and Environment
Brennan Dolan, Office of Location and Environment
Tony Lazarowicz, District 3 Engineer
Dean Herbst, District 3 Resident Construction Engineer
Parcel File
Dave Widick, Right of Way Design.
Krandel Jack, Contracts
Shane Tymkowicz, Assistant District 3 Engineer
Linda Martens, Property Manager



PARCEL 205 - SITE PLAN

REMOVAL DETAILS
PARCEL 205

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.11

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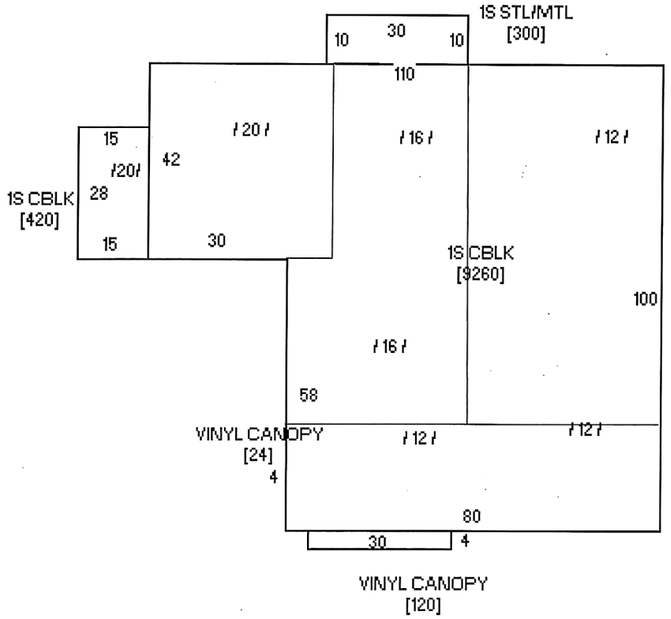
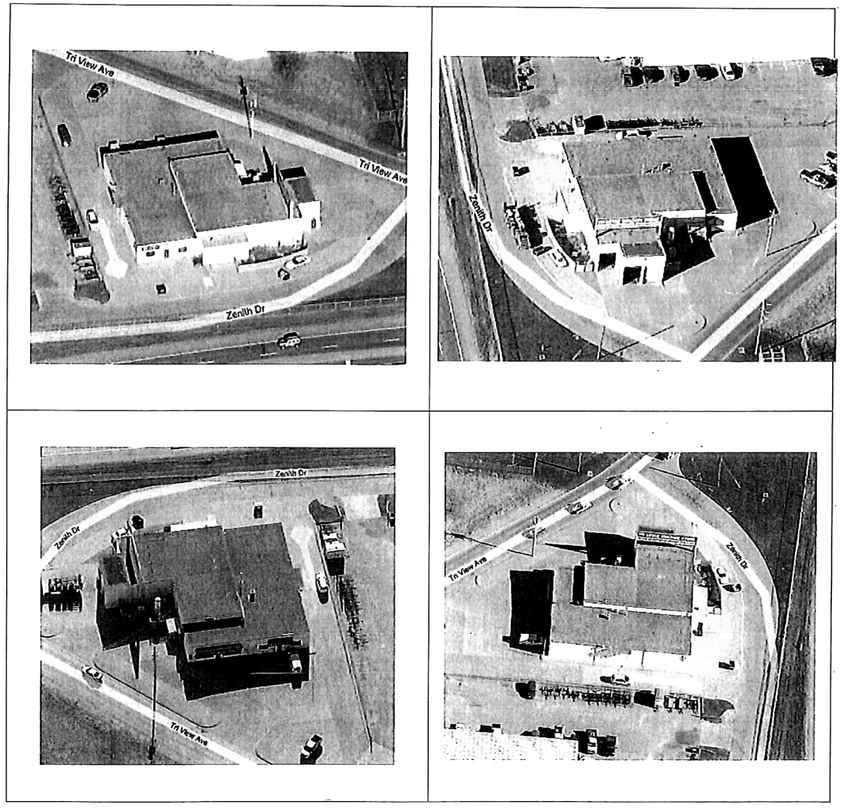


PARCEL 205 - ASSESSMENT SKETCH



PARCEL 205 - BIRD'S EYE VIEWS

REMOVAL DETAILS
PARCEL 205

ENGLISH	IOWA DOT	DESIGN TEAM Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER IM-NHS-29-7(44)149--03-97	SHEET NUMBER U.12

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LEGEND OF CROSS SECTION SHEETS (ROAD)

- Existing Ground Line
- Proposed Template
- Proposed Topsoil Placement
- Additional Topsoil Removal
- Subgrade Treatment
- Granular Shoulder
- Pavement
- Existing Pipe\RCB
- Proposed Pipe\RCB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LEGEND OF CROSS SECTION SHEETS (SOILS)

- TS — Topsoil (Class 10)
- TS A — Topsoil (Type A Disposal)
- TS B — Topsoil (Type B Disposal)
- TS C — Topsoil (Type C Disposal)
- CL 10 — Class 10 Materials
- SEL LO — Select Loams And Clay-Loams
- SEL SA — Select Sand
- UNS A — Unsuitable Type A Disposal
- UNS B — Unsuitable Type B Disposal
- UNS C — Unsuitable Type C Disposal
- SHALE — Shale
- WASTE — Waste
- B&W LS — Broken and Weathered Rock
- ROCK — Solid Rock
- BLDRS — Boulders

Note: All layer lines and descriptions identify layers above the line.

Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

CROSS SECTION LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES X)

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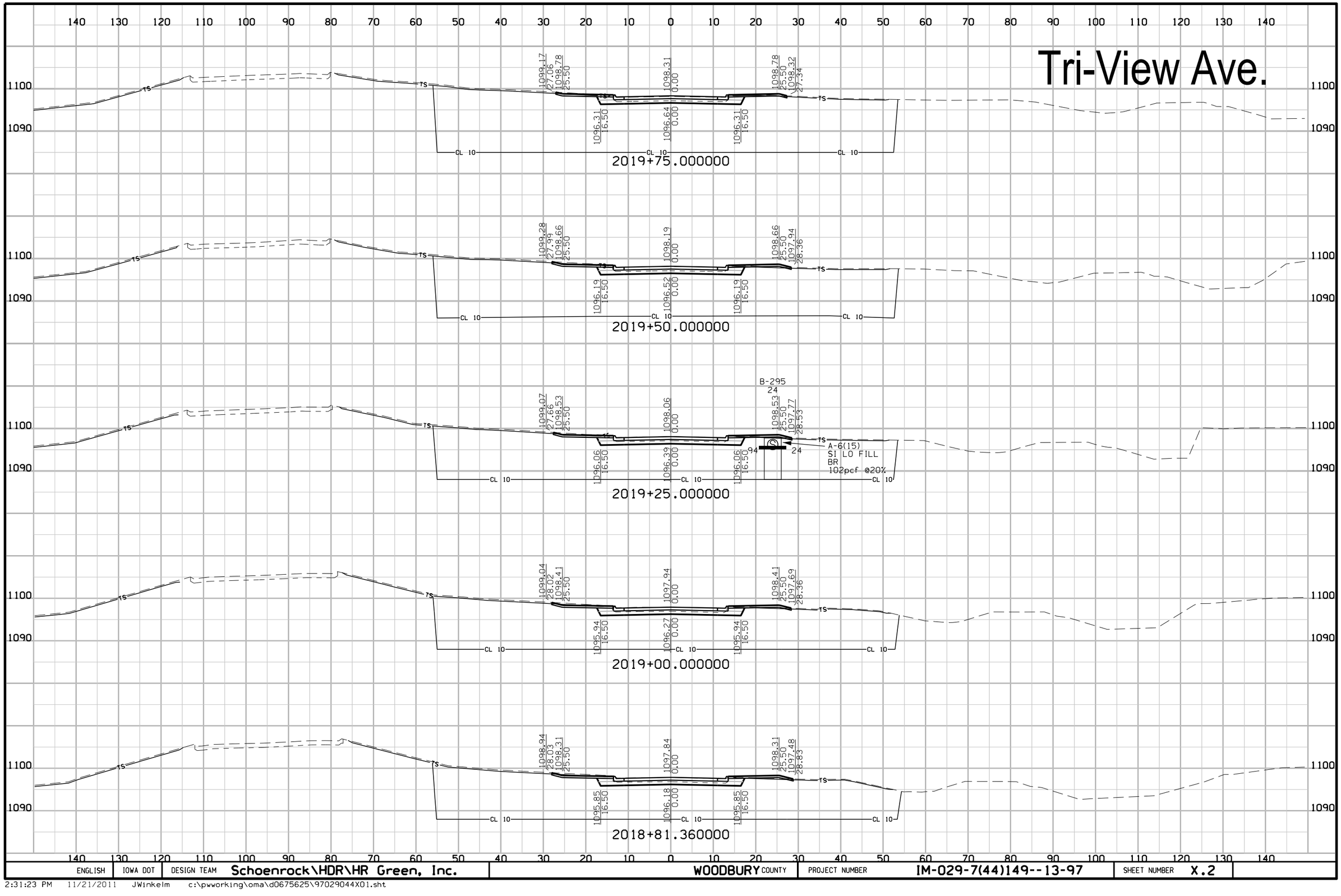

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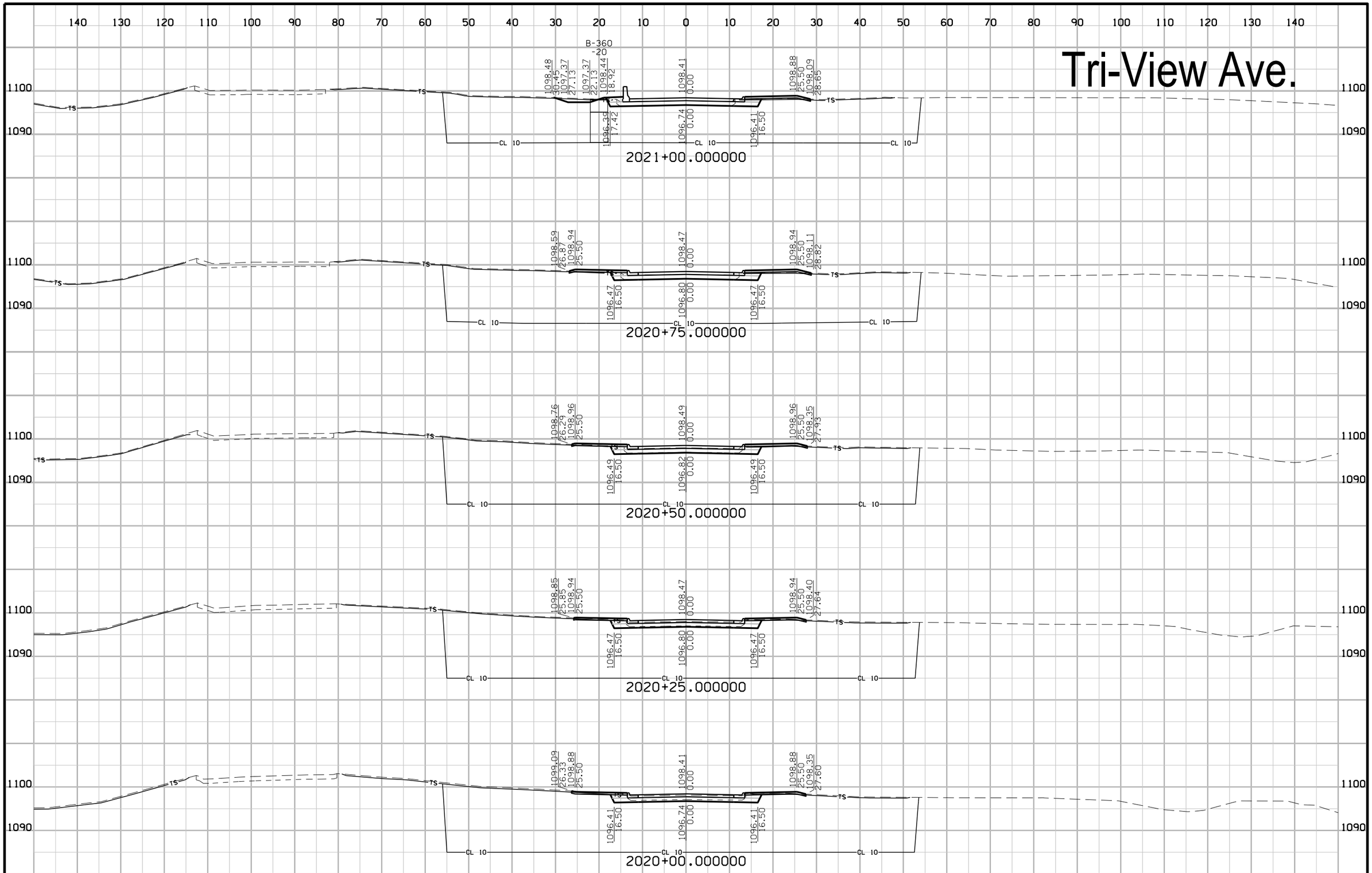

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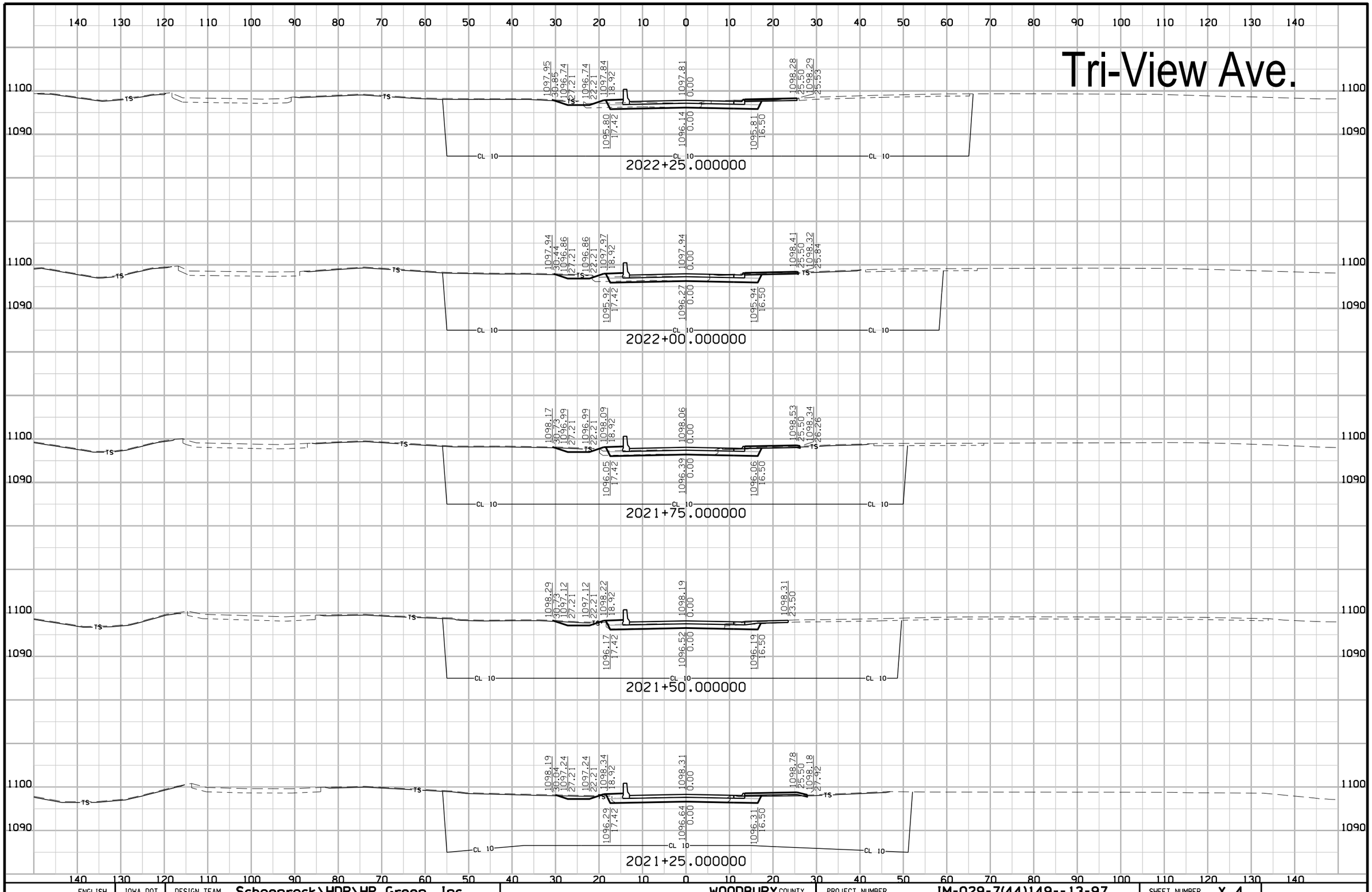

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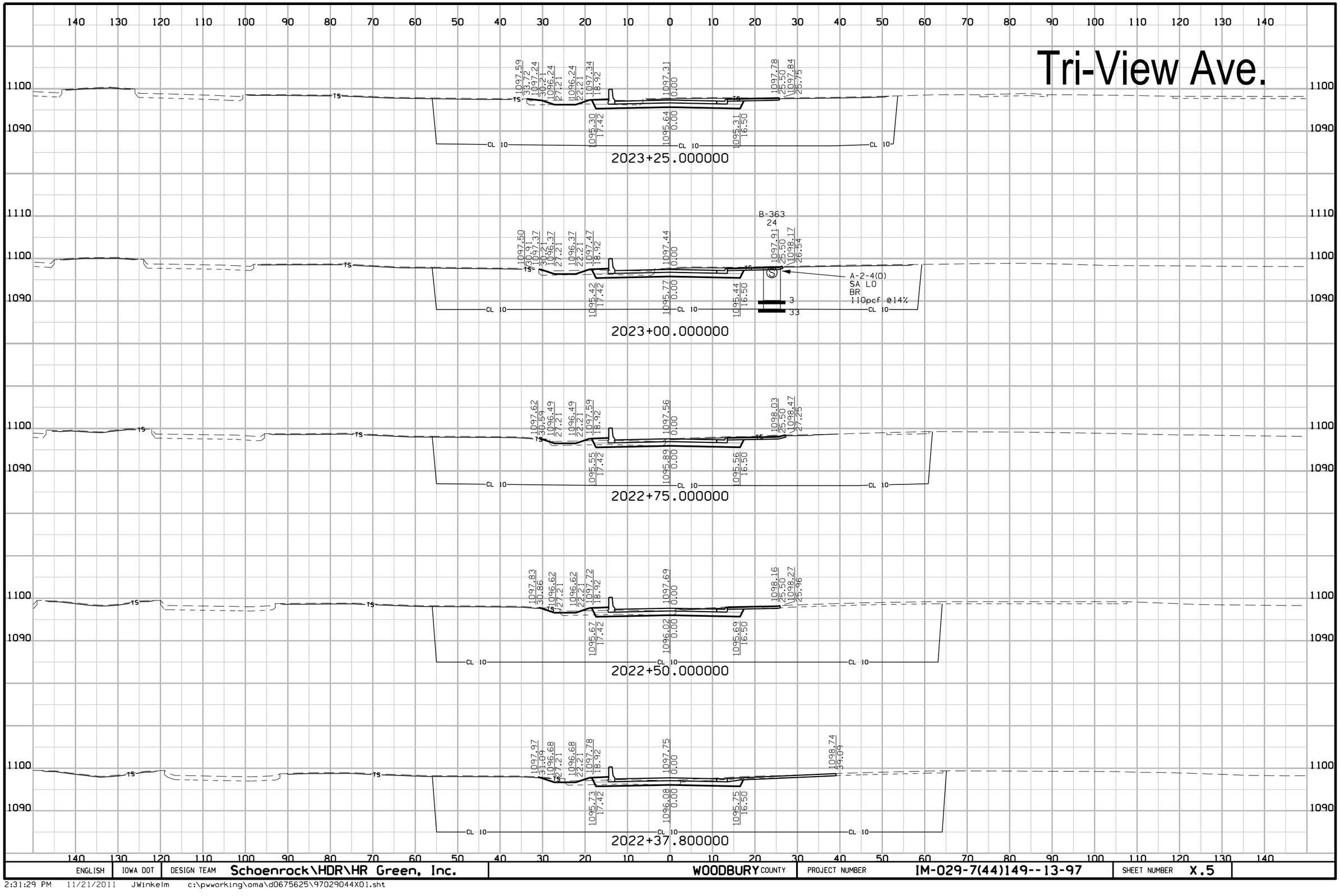

ENGLISH	IOWA DOT	DESIGN TEAM	Schoenrock\HDR\HR Green, Inc.	WOODBURY COUNTY	PROJECT NUMBER	IM-029-7(44)149--13-97	SHEET NUMBER	X.5

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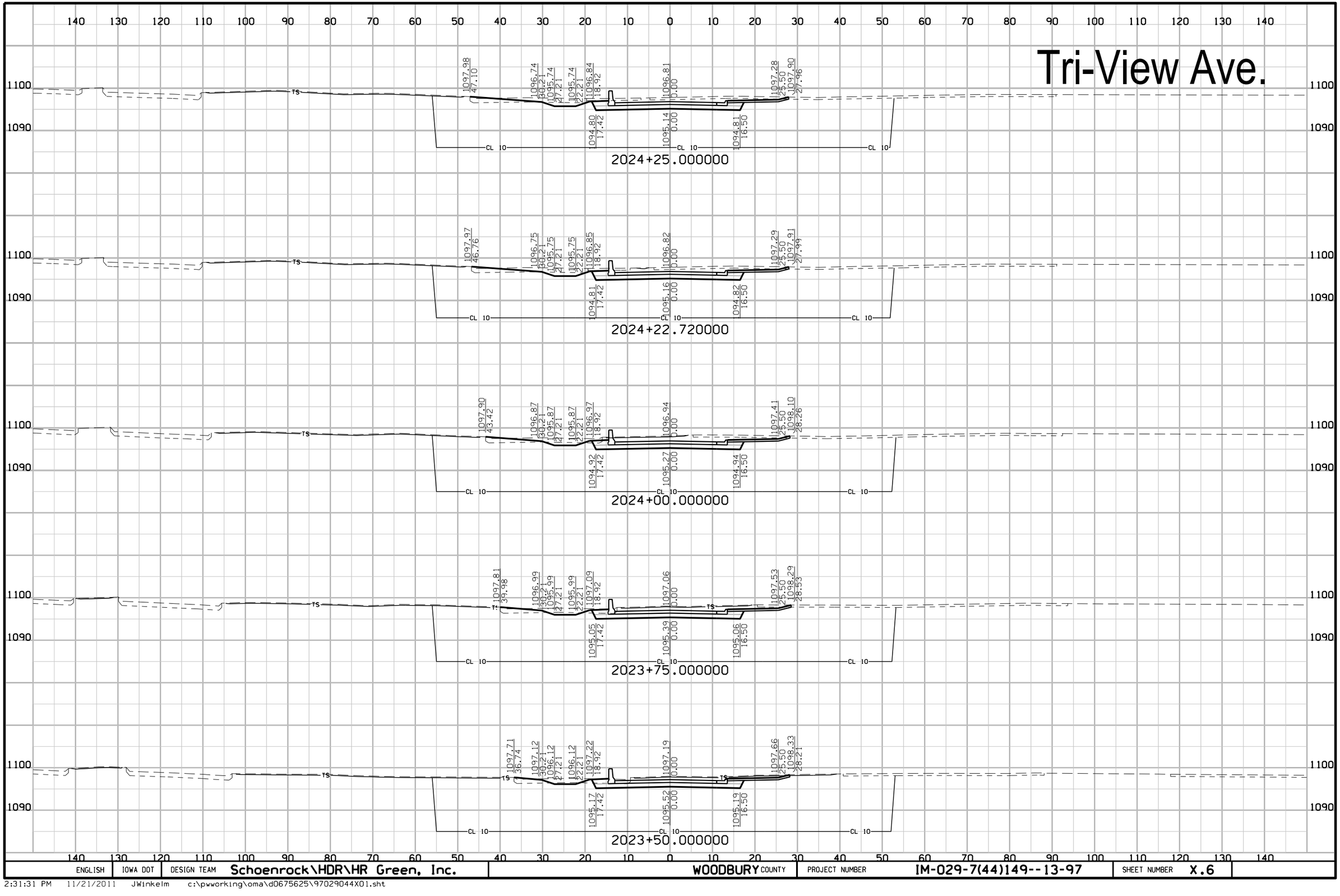

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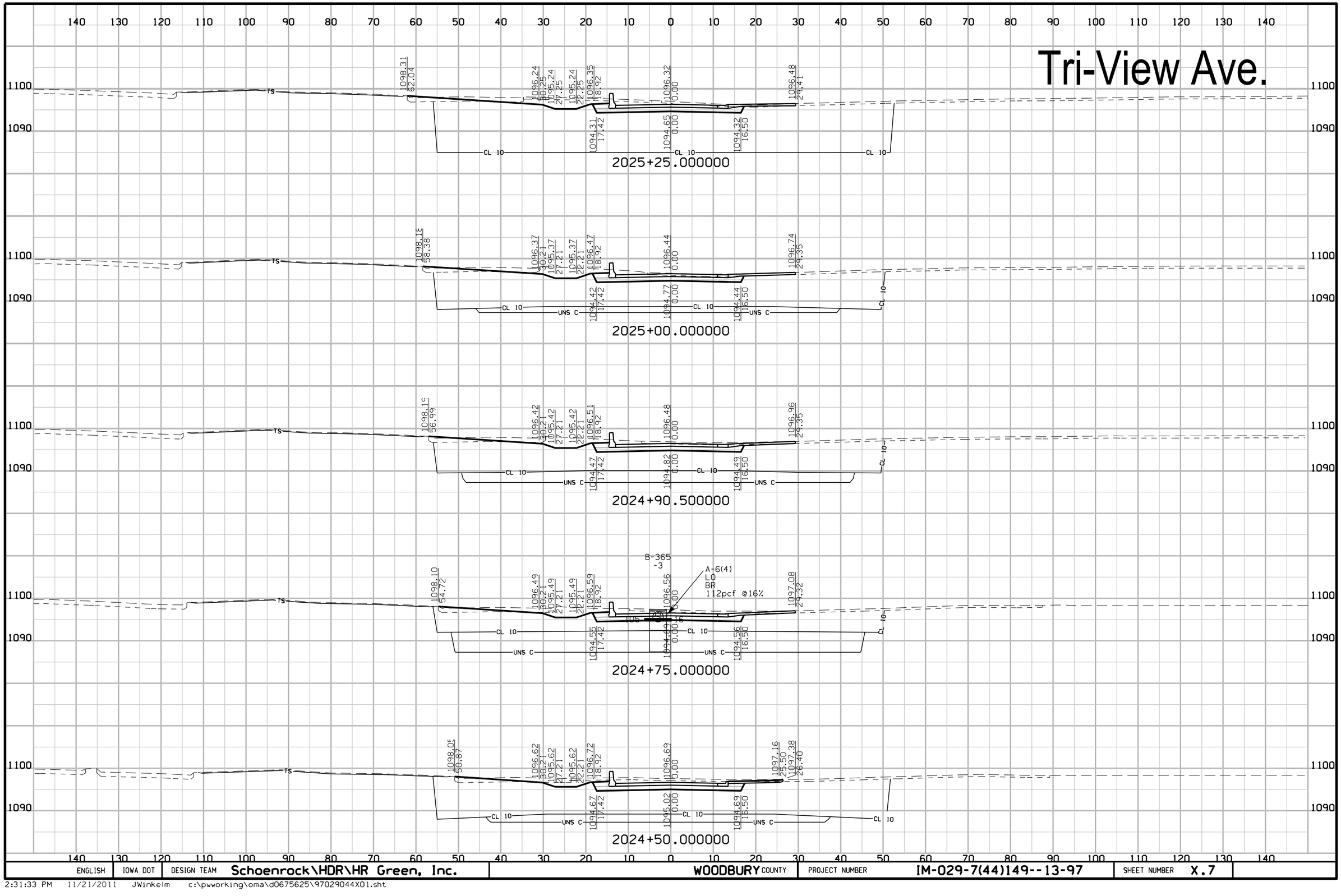

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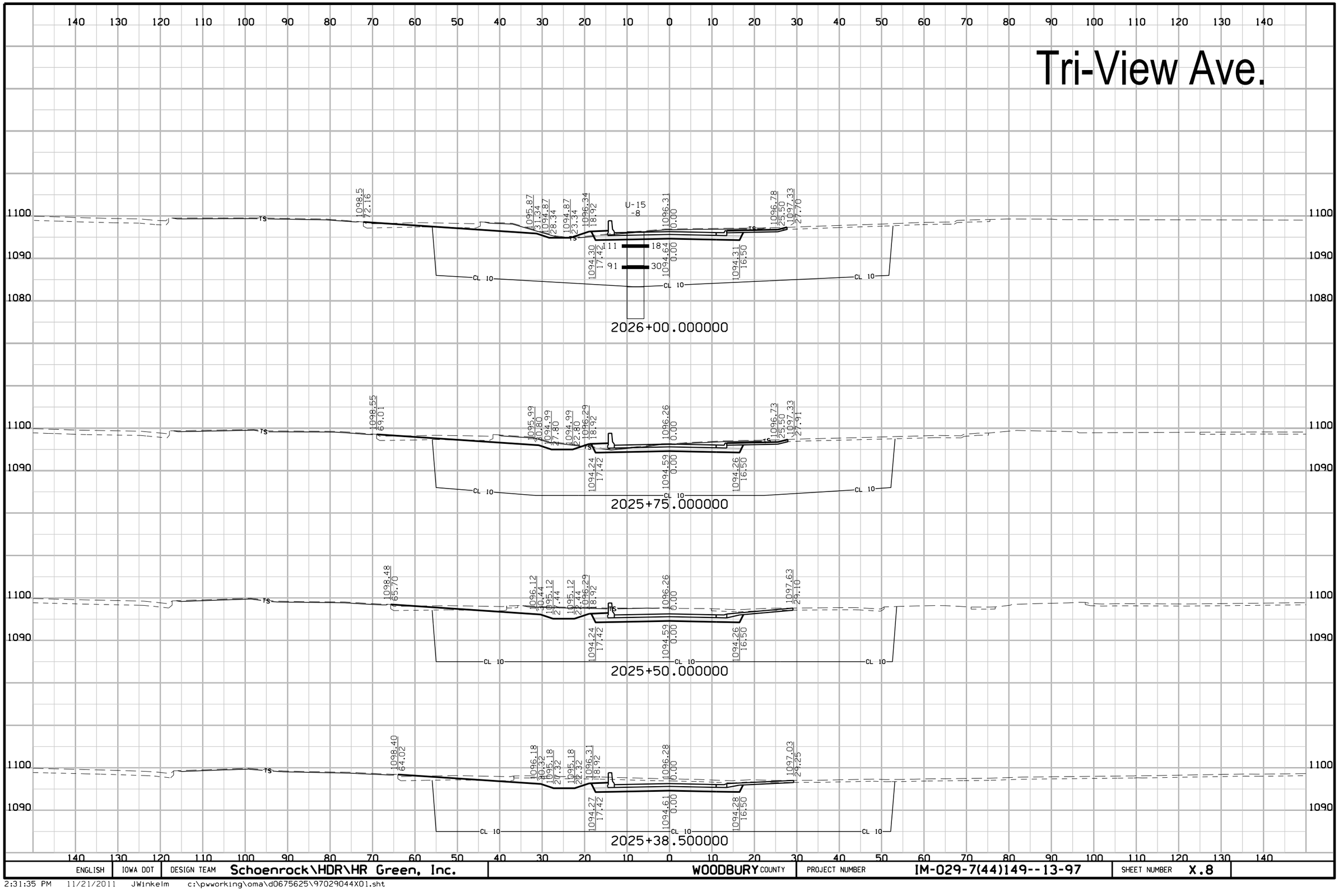

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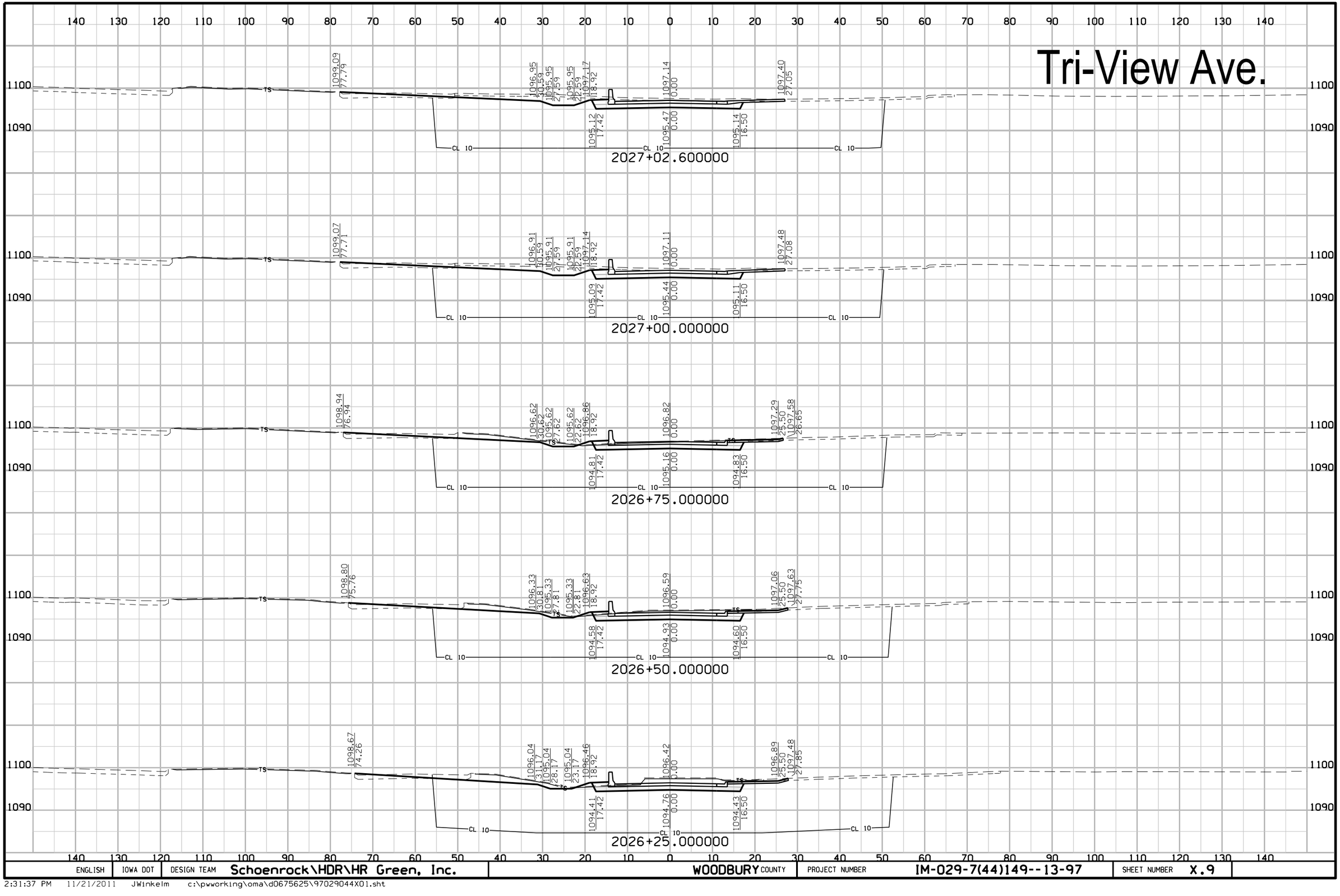

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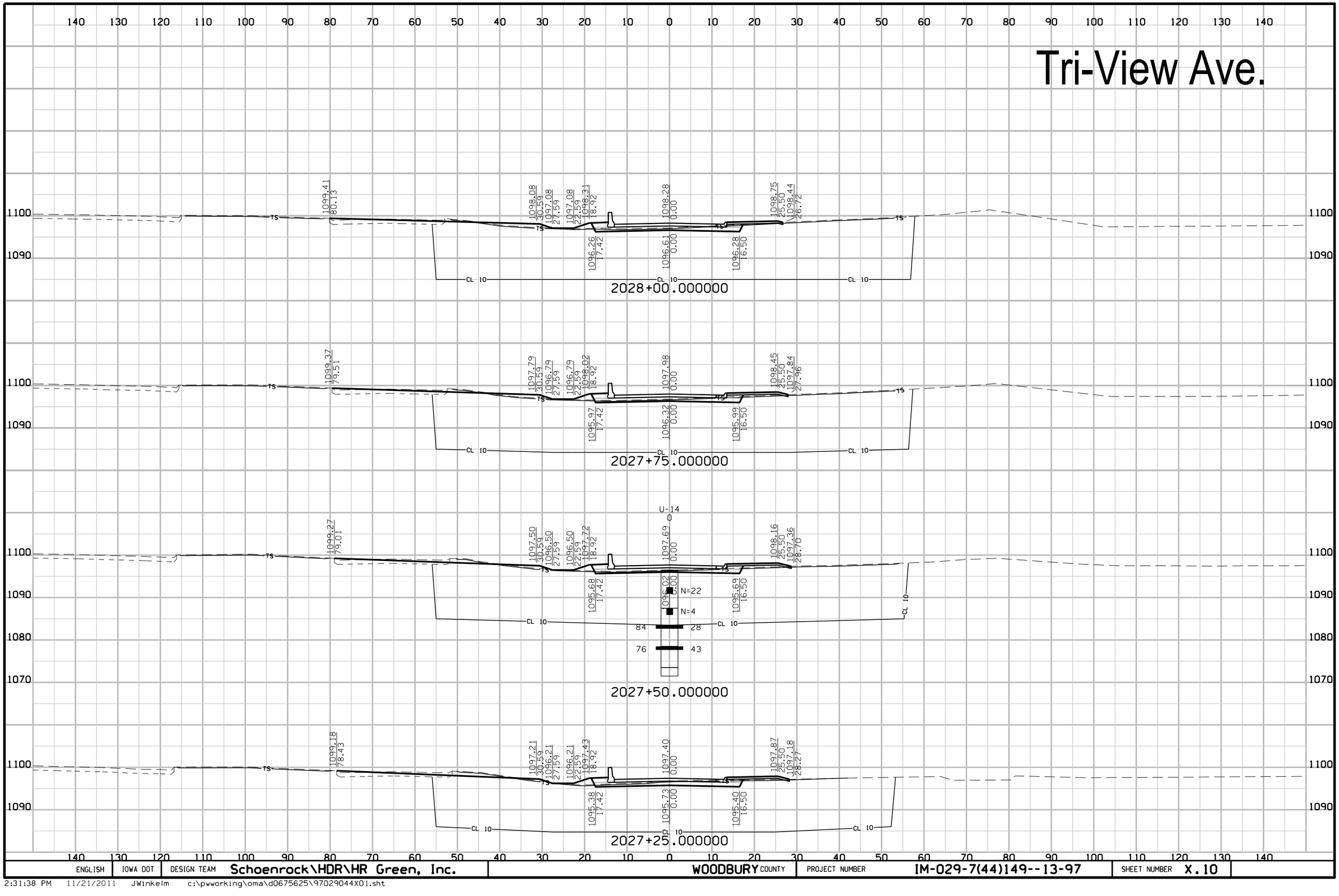

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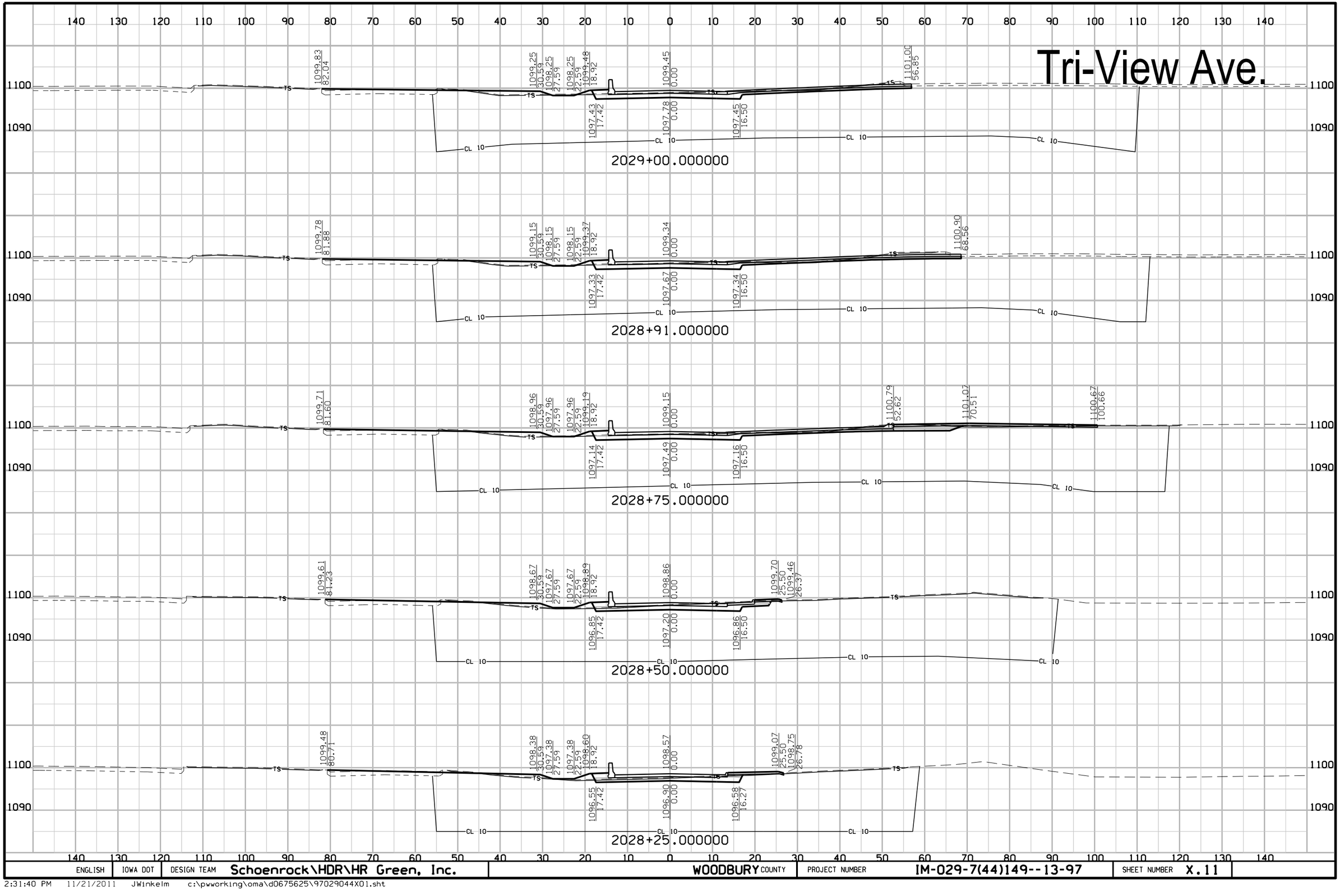

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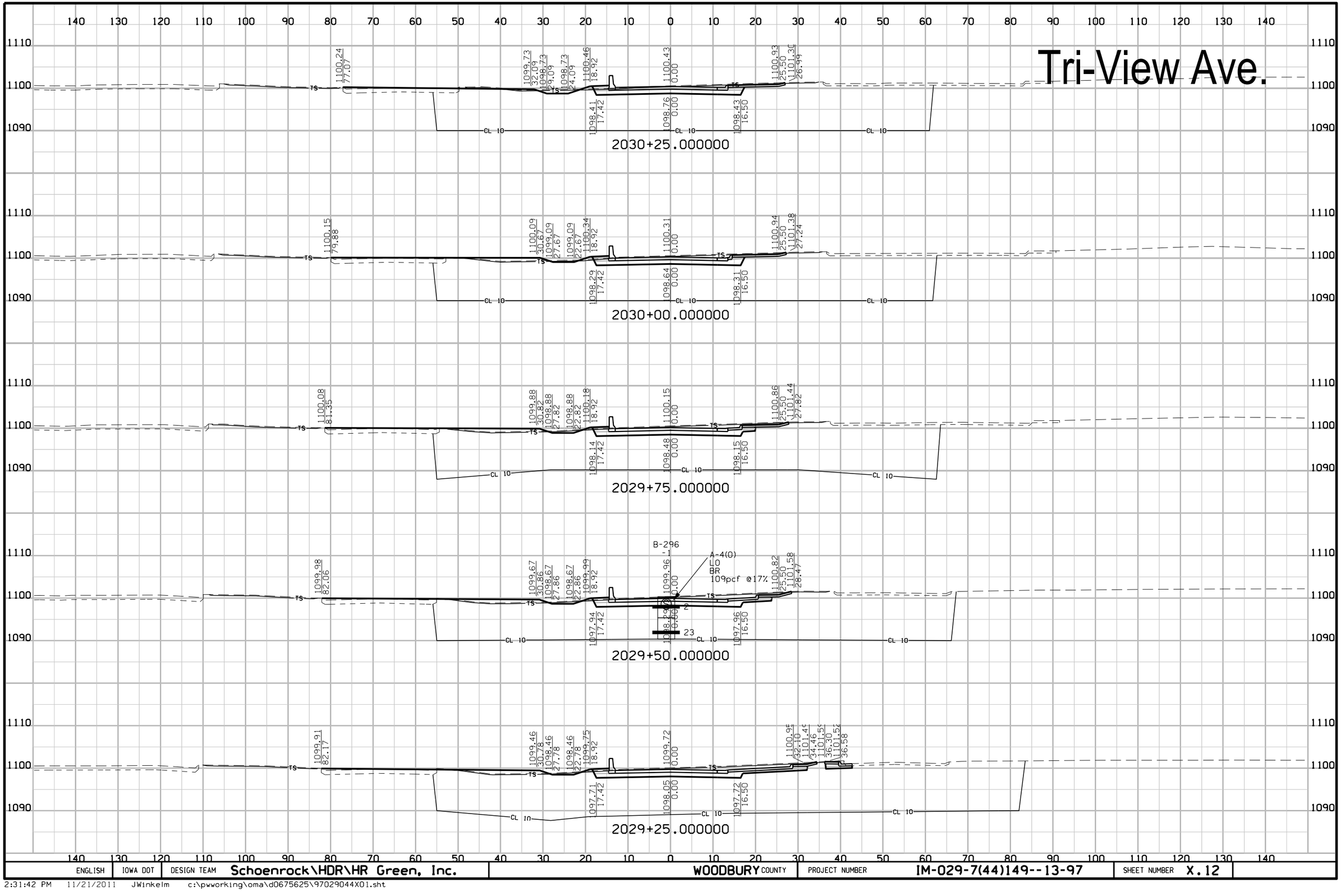

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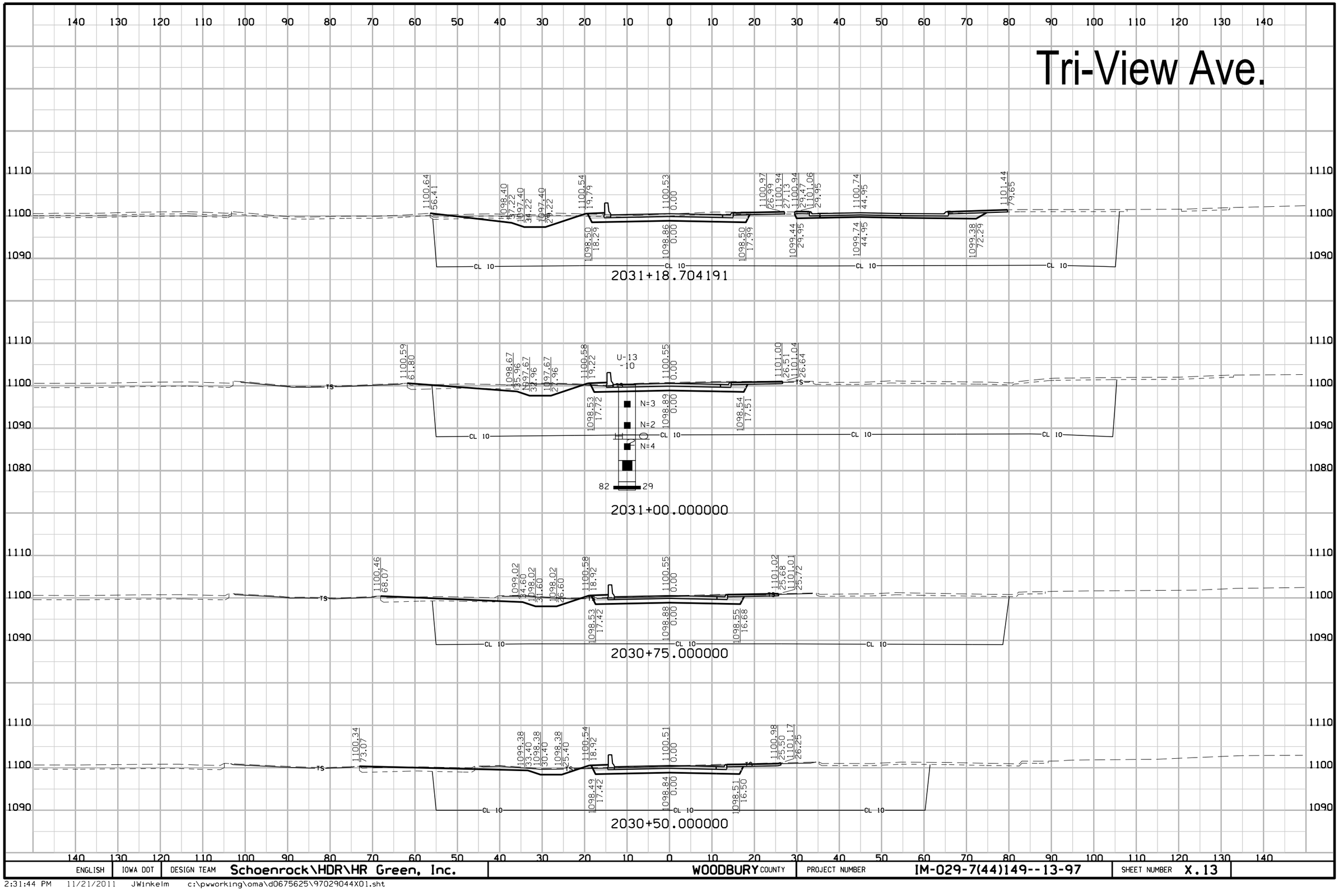

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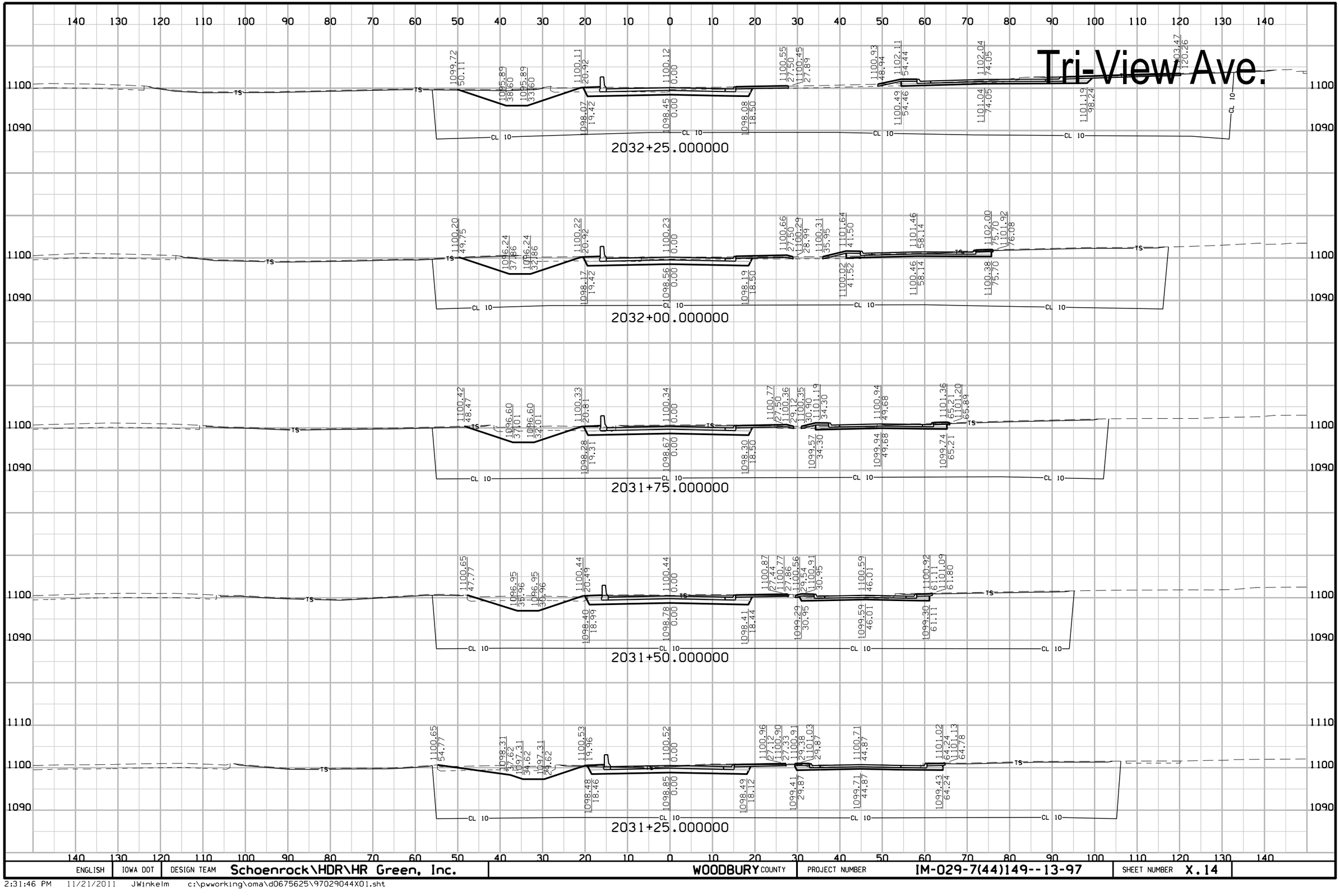

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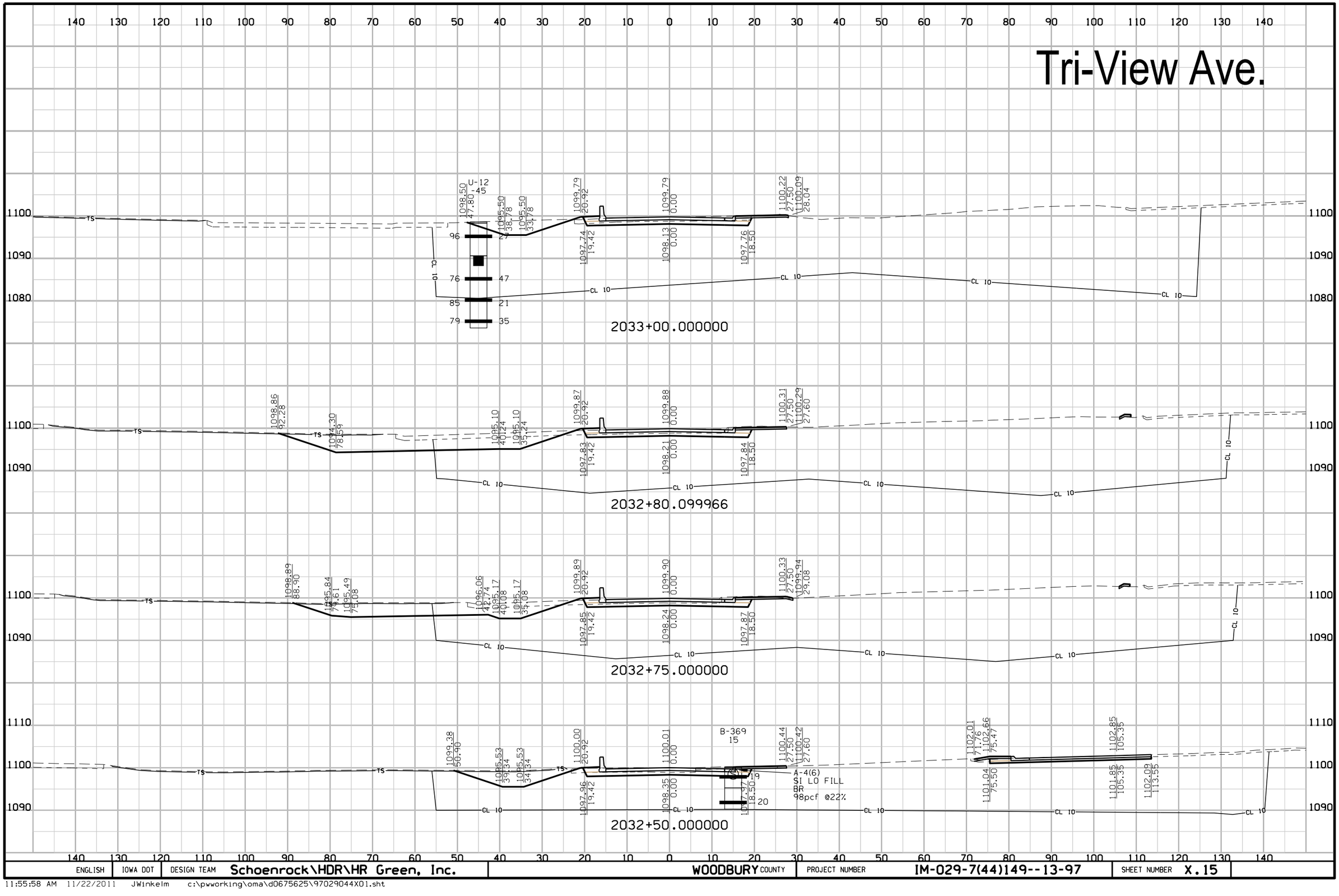

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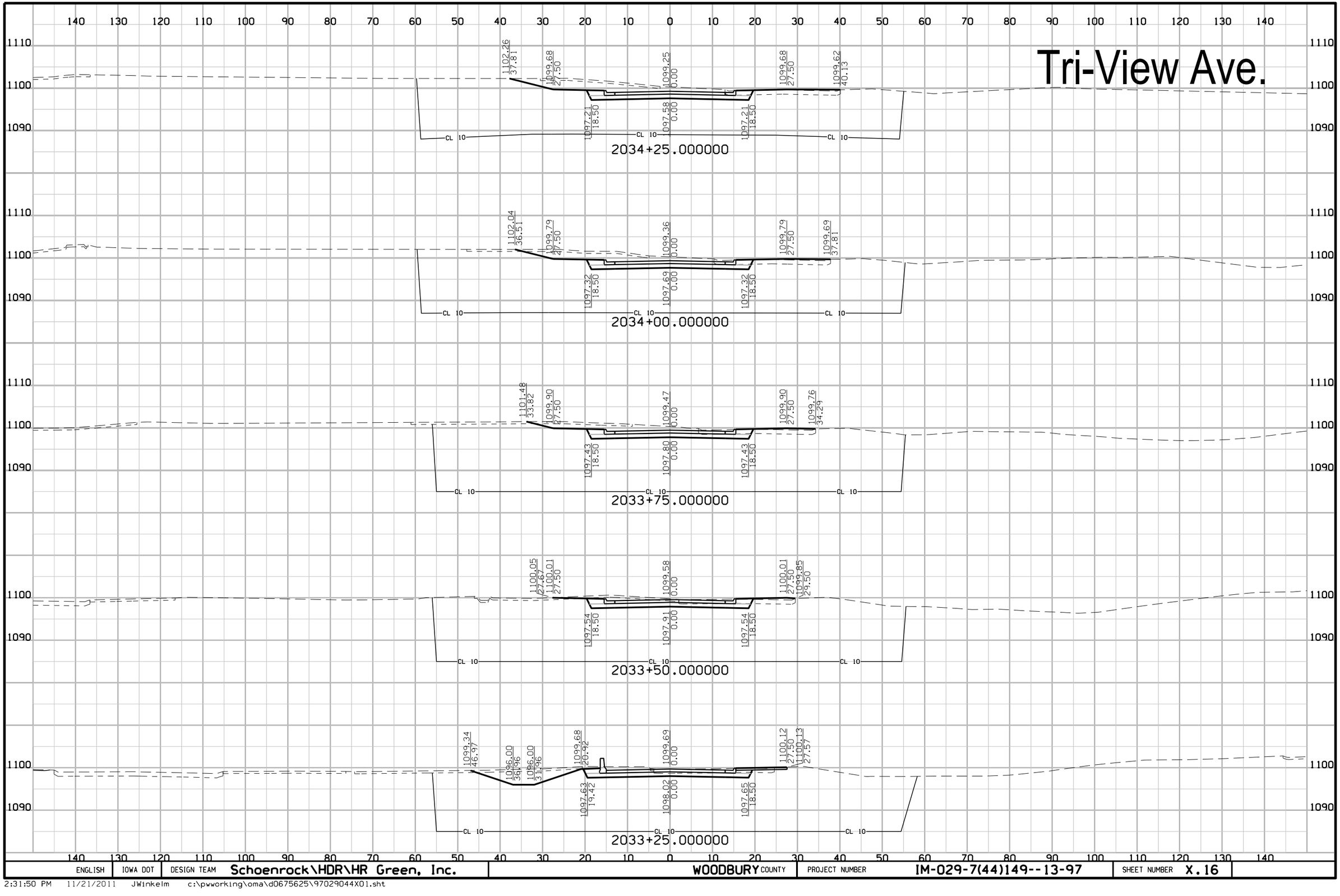

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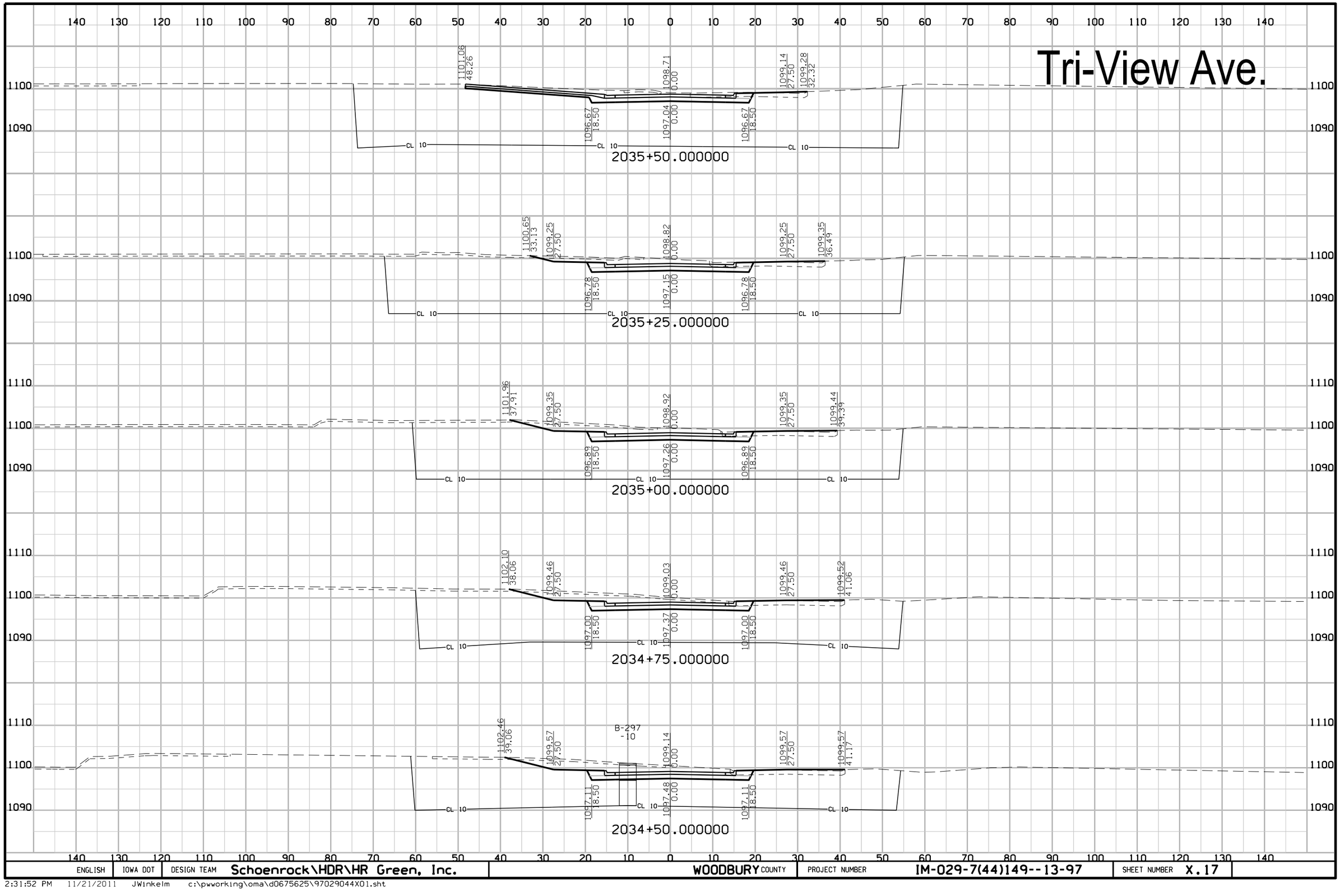

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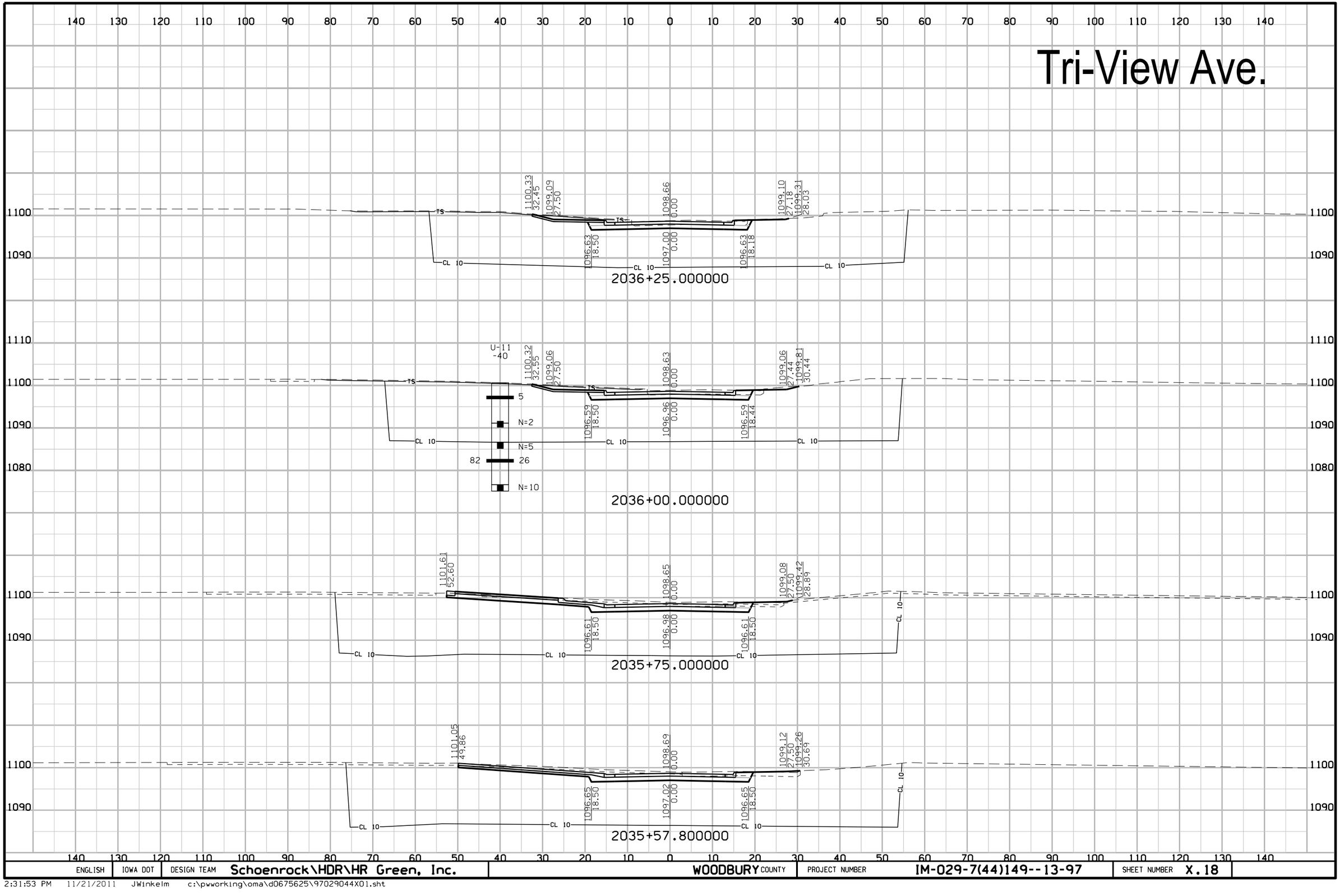

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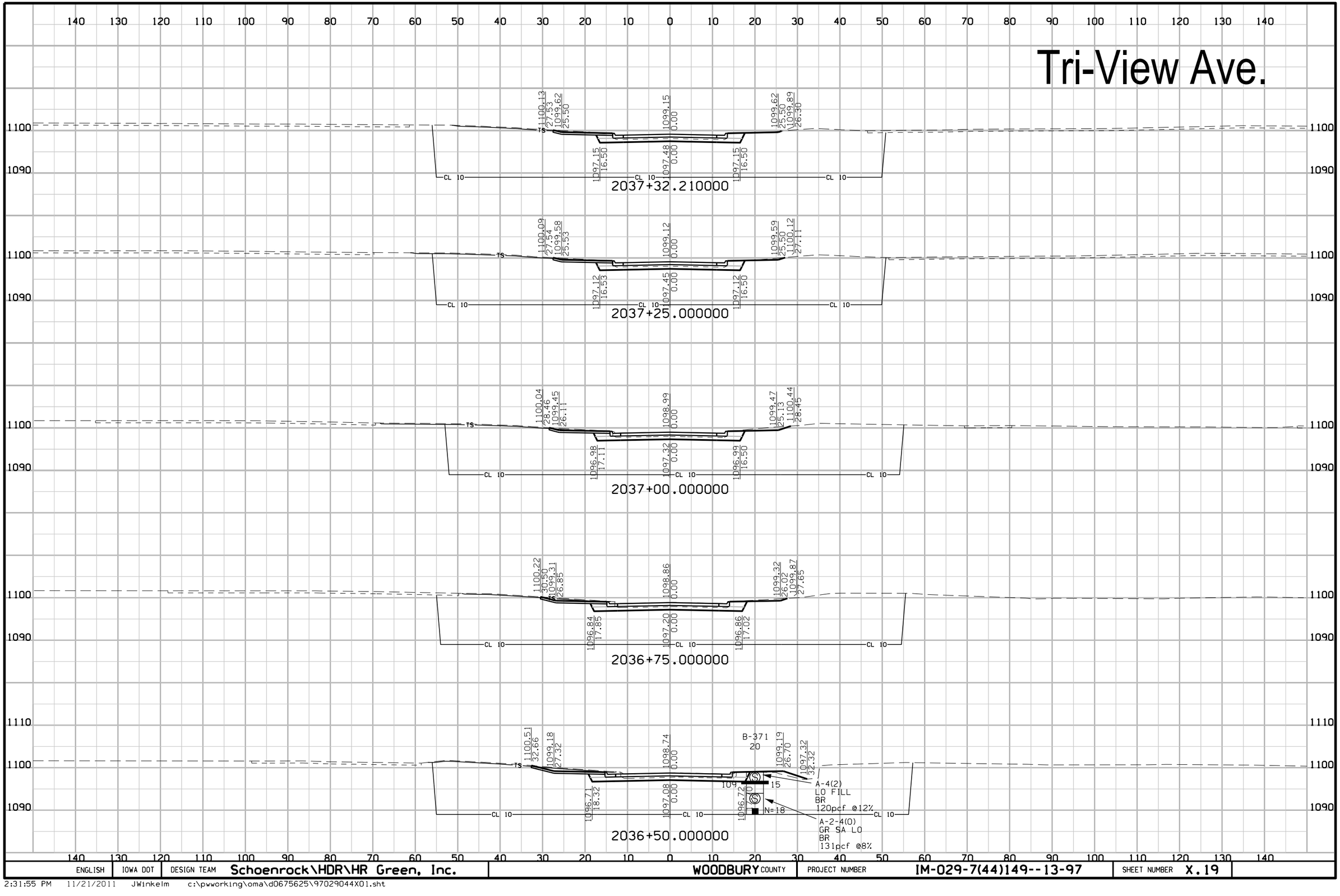

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