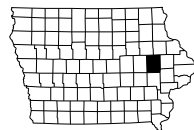


LINN Co.

FENCE - NEW
NHSN-100-1(113)--2R-57

LETTING DATE
JUNE 19, 2016

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 4	Project Key Maps
B Sheets	Typical Cross Sections and Details
B.1	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.1 - 2	Estimate Reference Information
C.2	Standard Road Plans & Index of Tabulations
C.2	Standard Notes
C.3	Pollution Prevention Plan
C.4	Tabulations
D Sheets	Mainline Plan Sheets
* D.1	Plan Legend & Symbol Information Sheet
* D.2 - 14	IA 100 Mainline
E Sheets	Side Road Plan Sheets
* E.1 - 2	Covington Road
G Sheets	Survey Sheets
G.1 - 4	Reference Ties and Bench Marks
G.5 - 6	Horizontal Control Tabulation
G.7 - 15	Mainline & Ramp Horizontal Geometric Alignment Geometry
G.16	Sideroad Horizontal Geometric Alignment Geometry
H Sheets	Right-of-Way Sheets
H.1 - 15	IA 100 Mainline
HE.16 - 17	Covington Road
K Sheets	Interchange Plan Sheets
* K.1	Covington Road Ramp A Plan Sheet
* K.2	Covington Road Ramp D Plan Sheet
* K.3	Edgewood Road Ramp B Plan Sheet
* K.4	Edgewood Road Ramp C Plan Sheet
U Sheets	500 Series, Mod.Std.s. and Detail Sheets
U.1	Small Animal Barrier Fence
U.2 - 5	Exclusionary Silt Fence Placement
	* Color Plan Sheets



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

LINN COUNTY

FENCE - NEW

IA 100 FROM COVINGTON ROAD
TO EDGEWOOD ROAD

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

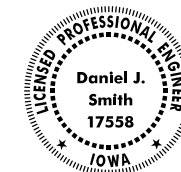
Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Daniel J. Smith	Primary Signature Block

For Project Location Map
Refer to Sheet A.2

ROADWAY DESIGN



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.

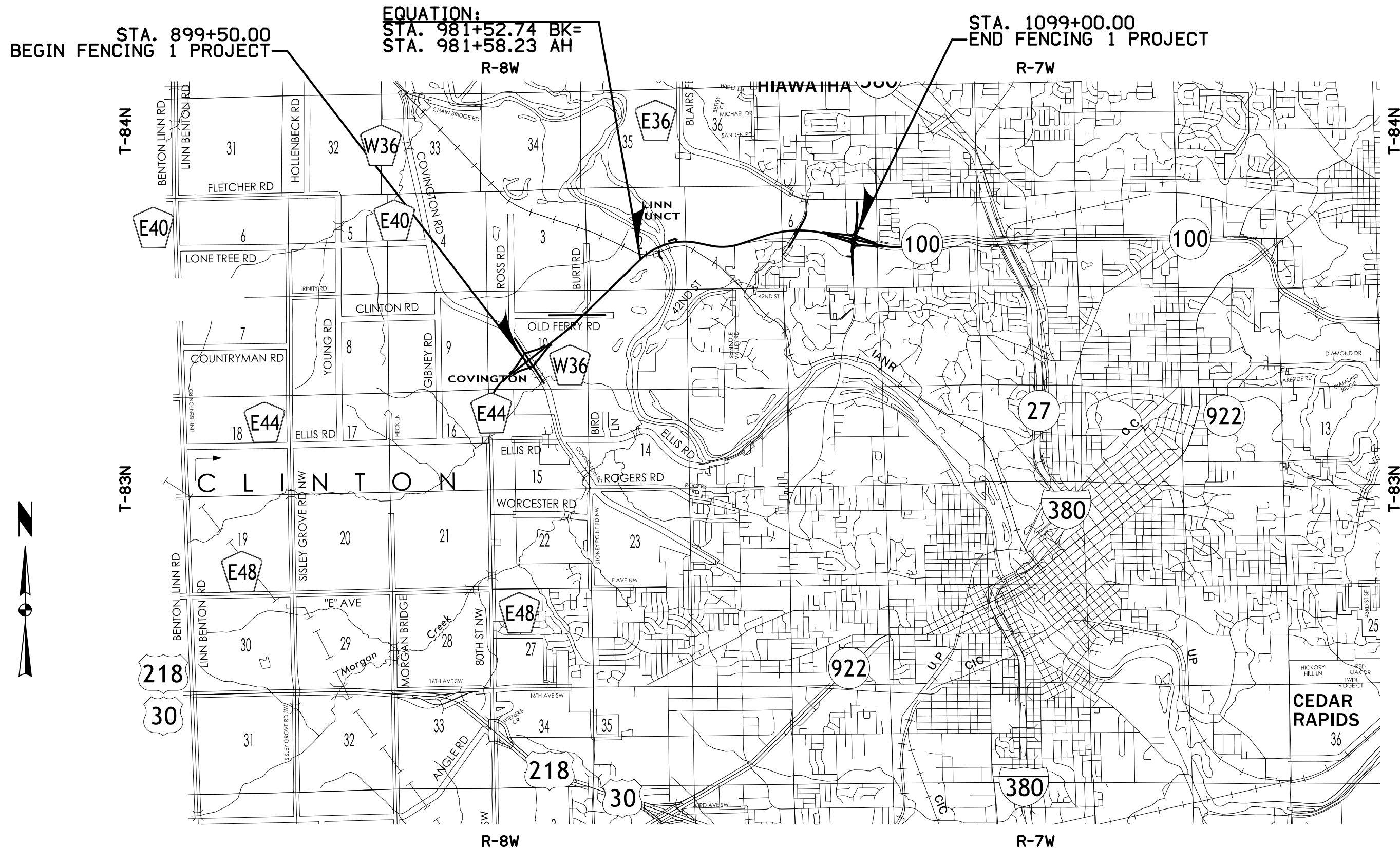
Signature Daniel J. Smith, P.E. Date _____

Printed or Typed Name

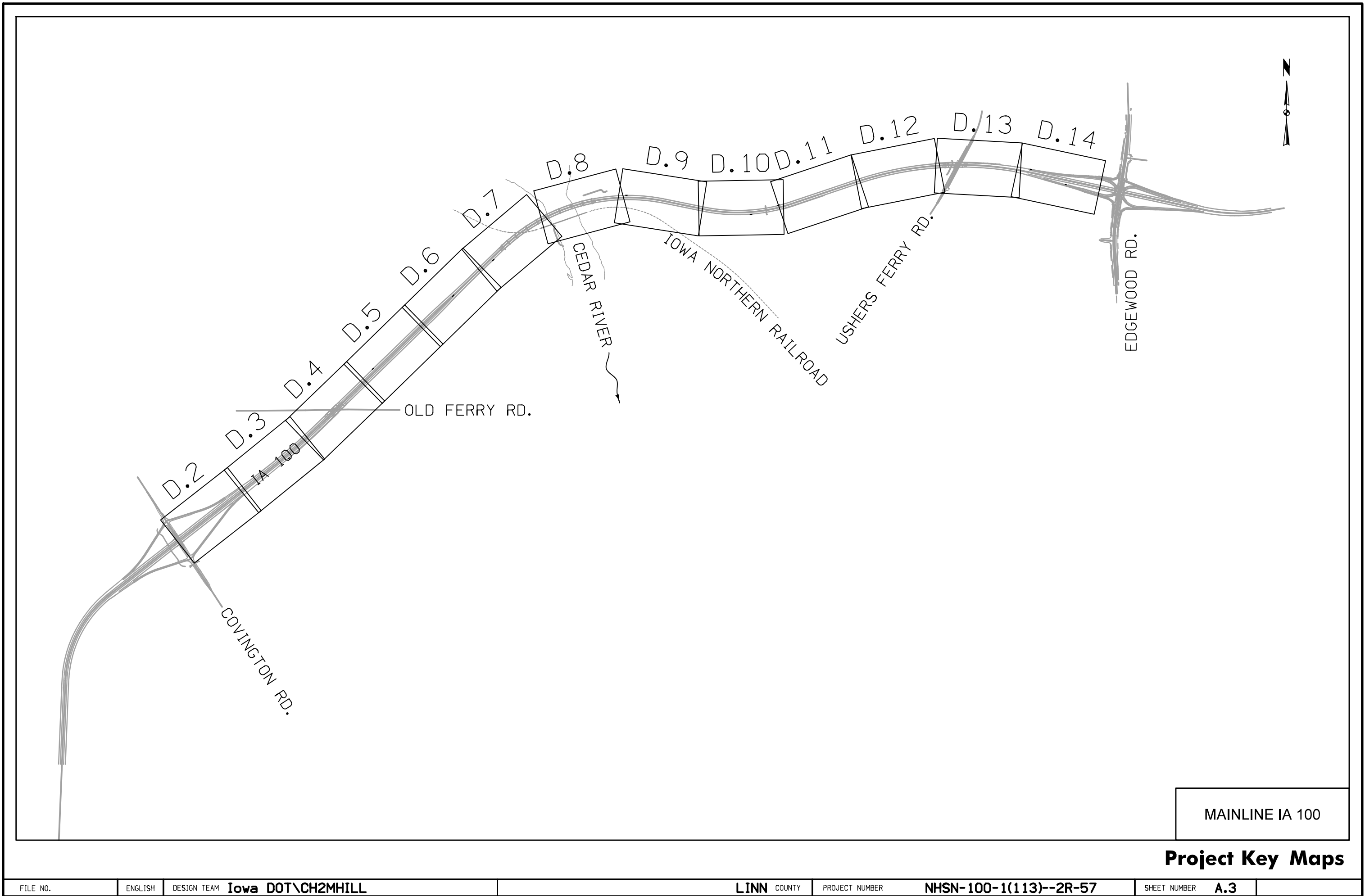
My license renewal date is December 31, 2016

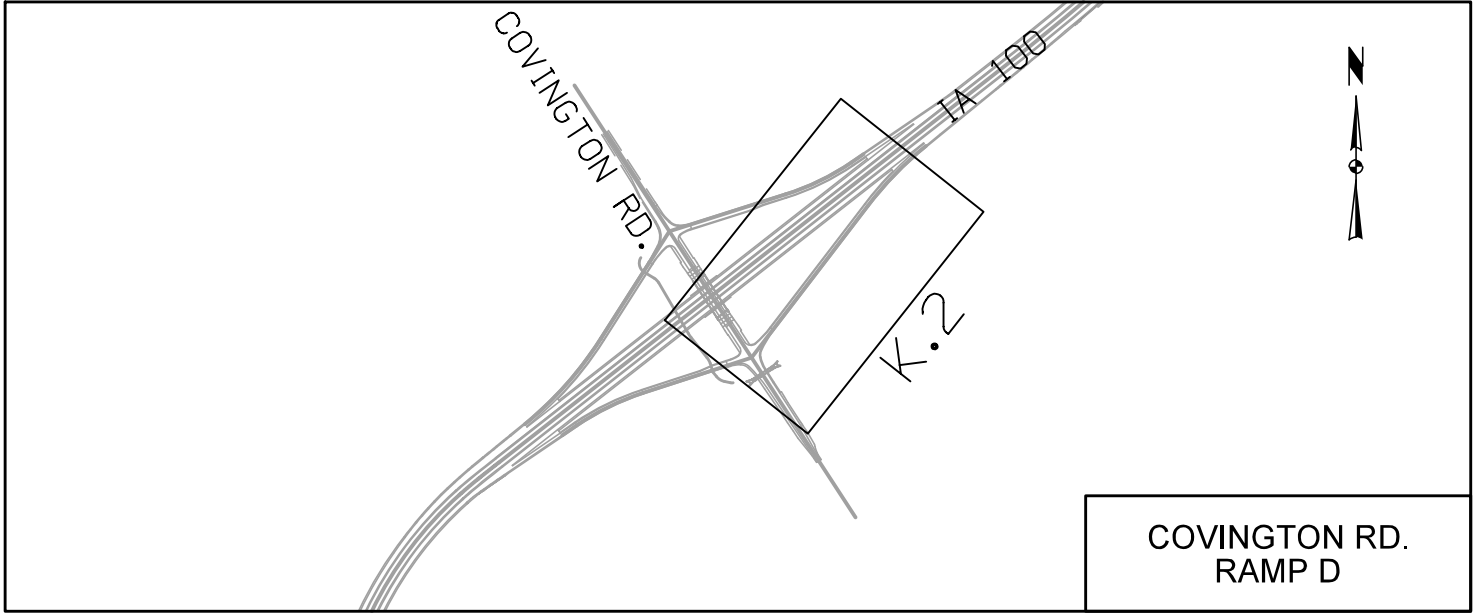
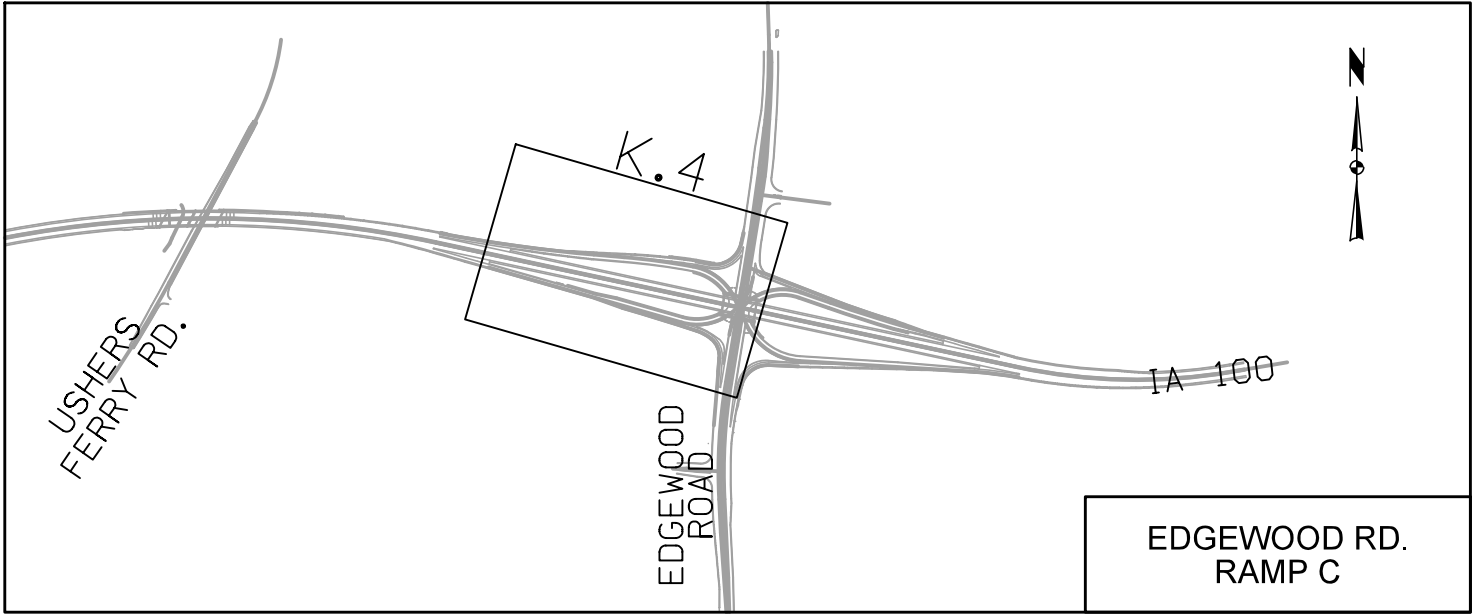
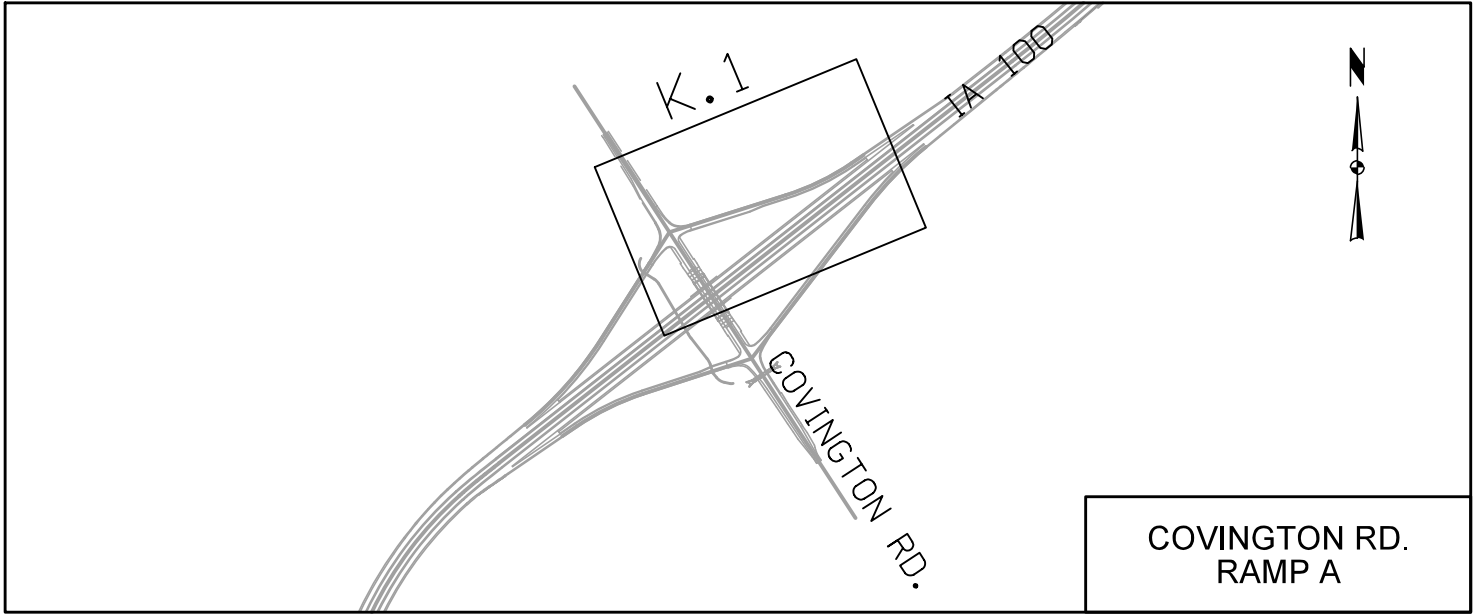
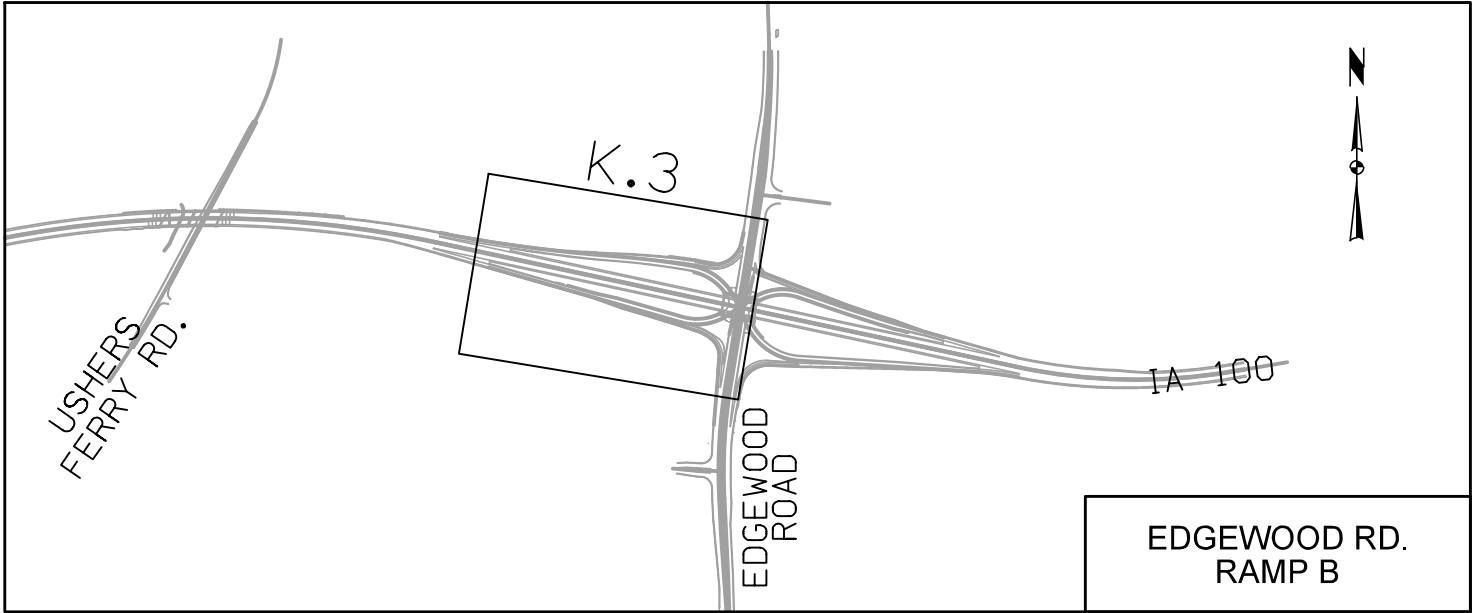
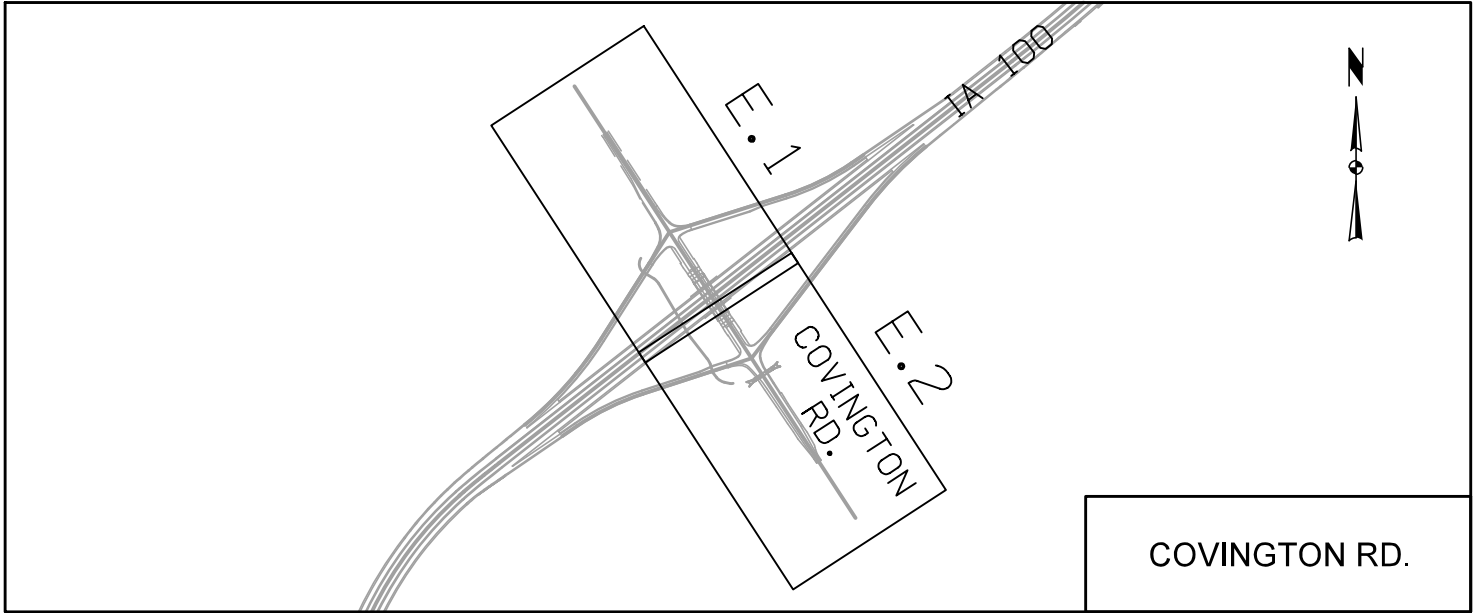
Pages or sheets covered by this seal: A.1-A.4, B.1, C.1-C.4, D.1-D.14, E.1-E.2,
G.1-G.16, H.1-HE.17, K.1-K.4, U.1-U.5

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	A.1	
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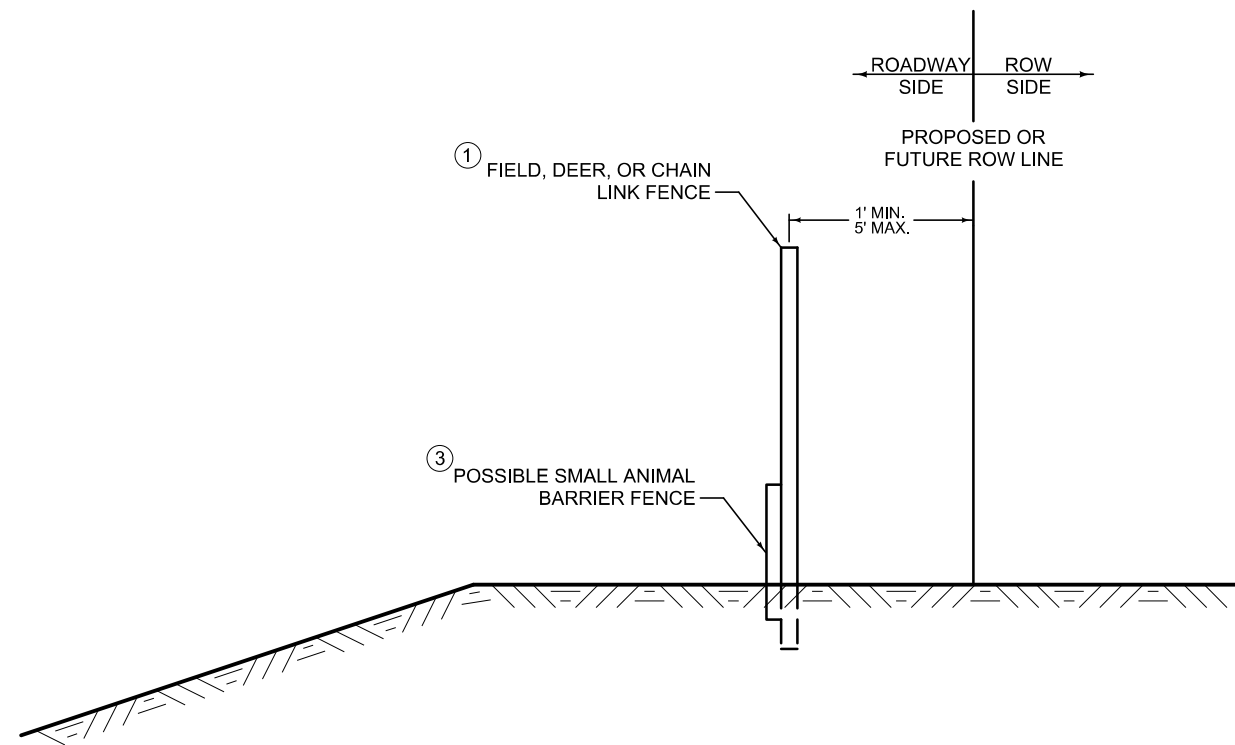


Location Map





Project Key Maps



FENCE PLACEMENT ALONG ^② ROW LINE

Notes:

- ① Refer to Standard Road Plans MI-101, MI-102, MI-103, and MI-104.
- ② See Fencing Tabulation on C.4 for Field Deer, and Chain Link Fence locations.
- ③ Refer to Sheet U.1 for Small Animal Barrier Details and see Small Animal Barrier Fence Tabulation on C.2 for locations.

100-1D 10-18-05					
PROJECT DESCRIPTION					
This project is for construction of field, deer, small animal barrier, and chain link fence along IA 100 mainline from Station 899+50 to 1099+00.00, along Covington Road Ramps A and D, and along Edgewood Road Ramps B and C.					

100-1A 07-15-97					
ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)					
Item No.	Item Code	Item	Unit	Total	As Built Qty.
1	2519-1002060	FENCE, CHAIN LINK, 60 IN. HEIGHT	LF	5700	
2	2519-2000010	FENCE CHANNEL CROSSING, TYPE A	LF	594	
3	2519-3280000	FENCE, FIELD	LF	16280	
4	2519-3300400	FIELD FENCE BRACE PANELS	EACH	223	
5	2519-3500096	DEER FENCE, 96 IN.	LF	12819	
6	2519-3600221	DEER FENCE BRACE PANELS	EACH	204	
7	2519-3610000	SMALL ANIMAL BARRIER	LF	9251	
8	2519-3700001	GATE, DEER, AS PER PLAN	EACH	1	
9	2526-8285000	CONSTRUCTION SURVEY	LS	1	
10	2528-8445110	TRAFFIC CONTROL	LS	1	
11	2533-4980005	MOBILIZATION	LS	1	
12	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE	1	
13	2602-0000020	SILT FENCE	LF	12565	
14	2601-0000030	SILT FENCE FOR DITCH CHECKS	LF	69	
15	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	17009	
16	2602-0010010	MOBILIZATION, EROSION CONTROL	EACH	1	
17	2602-0010020	MOBILIZATION, EMERGENCY EROSION CONTROL	EACH	1	

100-4A
10-29-02

ESTIMATE REFERENCE INFORMATION		
Item No.	Item Code	Description
1	2519-1002060	<p>FENCE, CHAIN LINK, 60 IN. HEIGHT</p> <p>Item is for construction of 60" tall Chain Link Fence along IA 100 mainline and Edgewood Road Ramp B and C between Ushers Ferry Road and Edgewood Road. Refer to Standard Specification 2519. Fence materials shall be per Standard Specification Article 4154. Refer to Tabulation 100-7 "Fencing" on Sheet C.4 for details.</p> <p>Fence locations as specified in Contract Documents were developed assuming constant post spacing of 10' when possible. Field adjust post locations to meet field conditions as needed. Field adjustments shall be approved by the Engineer prior to post installation.</p>
2	2519-2000010	<p>FENCE CHANNEL CROSSING, TYPE A</p> <p>Item is for construction of Type A Channel Crossings per construction documents and Standard Road Plan MI-104. Field adjust limits of channel fence crossing to match field conditions. Field adjustments shall be approved by the Engineer prior to post installation. Refer to Tabulation 100-7 "Fencing" on Sheet C.4 for location details.</p> <p>Type A crossings are to be installed at locations where a defined drainage way exits the proposed State ROW limits or where proposed fence crosses the flowline of proposed roadway ditches.</p> <p>Where specified in plan documents, small animal barrier fence constructed along Type A Channel Crossing Fence will be measured and paid for separately.</p> <p>Refer to Standard Specification Articles 2519 and 4154 for additional details. Measurement and payment for Type A Channel Crossing Fence will be per Standard Specifications 2519.04 and 2519.05. Payment will full compensation for all materials, equipment, and operations necessary to construct the Channel Crossing Fence.</p>
3	2519-3280000	FENCE, FIELD
4	2519-3300400	FIELD FENCE BRACE PANELS
5	2519-3500096	DEER FENCE, 96 IN.
6	2519-3600221	<p>DEER FENCE BRACE PANELS</p> <p>Item is for construction of Field Fence and Deer Fence along IA 100 mainline, Covington Road, and Covington Road Ramps A and D as shown in construction documents. Refer to Standard Specification 2519. Fence materials shall be per Standard Specification Article 4154. Refer to Tabulation 100-7 "Fencing" on Sheet C.4 for details.</p> <p>Fence, post, and brace panel locations as specified in Contract Documents were developed assuming a constant fence post spacing of 16' when possible and brace panels measuring 8'. Field adjust post locations to meet conditions as needed. Maximum fence post spacing and pull post spacing shall follow Standard Road Plan MI-103. Field adjustments shall be approved by the Engineer prior to post installation.</p>

100-4A 10-29-02		
ESTIMATE REFERENCE INFORMATION		
Item No.	Item Code	Description
7	2519-3610000	SMALL ANIMAL BARRIER Item is for construction of small animal barrier fence to be attached to Field Fence and Deer Fence as shown in plan documents. Refer to Tabulation 100-7 Modified "Small Animal Barrier Fence" for location details. Refer to Sheet U.1 for small barrier fence details. Small animal barrier fence is to extend a minimum of 12" below adjacent final grade. Small animal barrier fence over the Station Ranges indicated in plan documents shall be continuous and free of gaps or openings. Small animal barrier fence shall be placed along normal sections of fence as well as along brace panels and pull post assemblies. At Type A Channel crossings, continue small animal barrier fence past the Type A Channel Crossing end posts and terminate at first channel crossing post located near the top of drainage way bank. At Deer Gate locations, terminate small animal barrier fence at the last post prior to the gate opening. Method of Measurement Linear feet of small animal barrier fence constructed measured along the supporting field or deer fence at the bottom of the field or deer fence fabric. Basis of Payment Payment will be the contract unit price per linear foot of small animal barrier fence successfully installed measured along the supporting Field or Deer Fence at the bottom of the Field or Deer Fence fabric. Payment will be full compensation for all materials, equipment, and operations needed to install the small animal barrier fence per plan documents. Excavation, backfill, and seeding of disturbed areas are incidental to this item.
8	2519-3700001	GATE, DEER, AS PER PLAN Item is for installation of a Deer Gate north of IA 100 mainline per plan documents. Refer to Standard Road Plan MI-103 for gate details. Opening shall be provided at both ends of the deer gate. Location of Deer Gate can be field adjusted to meet field conditions with the approval of the Engineer. Method of Measurement Each Deer Gate Assembly per Standard Road Plan MI-103 installed will be counted for payment. Basis of Payment Payment will be the contract unit price for each Deer Gate Assembly per Standard Road Plan MI-103 successfully installed. Payment will be full compensation for all materials, equipment, and operations necessary to complete construction the Deer Gate.
9	2526-8285000	CONSTRUCTION SURVEY Prior to construction, perform a survey to lay out the proposed fence and post locations per Standard Specification 2526. Survey right-of-way line between permanent right-of-way corners at 100 foot intervals or less if needed. Mark these points by placement of lath to clearly identify the right-of-way line. Permanent right-of-way corners will be surveyed and marked in the field by the Engineer.
10	2528-8445110	TRAFFIC CONTROL Refer to the traffic control plan on Sheet C.2. Payment for traffic control will be the contract unit price. See Standard Specification 2528. For additional information refer to Part 6 of the Manual of Uniform Traffic Control Devices (MUTCD), current Iowa DOT TC Standard Road Plans, and Standard Specifications.
11	2533-4980005	MOBILIZATION Refer to Standard Specification 2533.
12	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING Included for disturbed areas as directed by the Engineer. Prepare seedbed according to 2601.03, B, 4, a. Seed mixture shall be: <div><div>Oats</div><div>50 lbs. per acre</div><div>Grain rye</div><div>50 lbs. per acre</div><div>*Canada wildrye (Elymus canadensis)</div><div>5 lbs. PLS per acre</div><div>*Big bluestem (Andropogon gerardii)</div><div>3 lbs. PLS per acre</div><div>*Little bluestem (Schizachyrium scoparium)</div><div>3 lbs. PLS per acre</div><div>Sideoats grama (Bouteloua curtipendula)</div><div>3 lbs. PLS per acre</div><div>Switchgrass (Panicum virgatum)</div><div>1 lbs. PLS per acre</div><div>Partridge Pea (Chamaecrita fasciculata)</div><div>2 lbs. PLS per acre</div></div> *Note: Canada wildrye, Big bluestem and Little bluestem shall be bearded or equal to facilitate the application of seed. Source Identified Class (Yellow Tag) Source G0-Iowa seed will be required. Seed may be applied by broadcasting or with a Native Grass Drill. Broadcasted seed will require one complete rolling of the area seeded with a cultipacker within 24 hours after seeding and prior to mulching or hydromulching. Native Grass Drilled seed must meet Article 2601.03, A, 11 and be completed per Article 2601.03, C, 5. prior to mulching.

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT/CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	C.1
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ESTIMATE REFERENCE INFORMATION			100-4A 10-29-02
Item No.	Item Code	Description	
		All seed shall be mixed off-site by a seed conditioner approved by the Iowa Crop Improvement Association or or other state's Crop Improvement Association. Bags shall arrive onsite from seed conditioner in sealed/unopened bags. All disturbed areas shall be fertilized per Article 2601.03, C, 1	
13 14	2602-0000020 2601-0000030	SILT FENCE SILT FENCE FOR DITCH CHECKS Item is for installation and replacement of silt fence and silt fence for ditch checks necessary for continued erosion control at locations where silt fence or silt fence for ditch checks previously constructed by others are in conflict with proposed fence construction. Removal of Silt Fence or Silt Fence for Ditch checks previously constructed by others that are in conflict with proposed fence construction will be measured and paid for separately. Quantiy assumes 12,565 linear feet of silt fence and 69 linear feet of silt fence for ditch checks will need to be installed. Silt Fence and Silt Fence for Ditch checks shall be installed within public ROW limits and as directed by the Engineer. Locations of proposed silt fence replacement shall be approved by the Engineer prior to installation.	
15	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS Item is for removal of 10,636 linear feet of exclusionary silt fence previously constructed by others. Refer to Sheets U.2-U.5 for details. Exclusionary silt fence shall not be removed until Deer Fence with Small Animal Barrier Fence is constructed. Exclusionary silt fence can be removed prior to Field or Deer Fence with Small Animal Barrier Fence at locations where the proposed fence is in conflict with previously installed exclusionary silt fence with prior approval by the Engineer. Item includes 6373 linear feet of silt fence previously installed by others for temporary erosion and sediment control as a contingency for possible conflicts with proposed fence construction. Installation of replacement silt fence will be measured and paid for separately. Silt fence removed shall become the property of the Contractor and removed from the project site.	
16 17	2602-0010010 2602-0010020	MOBILIZATION, EROSION CONTROL MOBILIZATION, EMERGENCY EROSION CONTROL See Standard Specification 2602.	

STANDARD ROAD PLANS			105-4 10-18-11
The following Standard Road Plans apply to construction work on this project.			
EC-201	04-21-15	Silt Fence	
MI-101	10-20-15	Fencing Layout	
MI-102	10-20-15	Chain Link Fence Construction	
MI-103	10-20-15	Deer Fence and Field Fence Construction	
MI-104	10-20-15	Fence Construction at Channel Crossings, Flood Plains, and Minor Ground Depressions	
TC-1	04-16-13	Work Not Affecting Traffic (Two-Lane or Multi-Lane)	
TC-202	04-21-15	Work Within 15 ft of Traveled Way	

INDEX OF TABULATIONS			111-25 10-18-11
Tabulation	Tabulation Title	Sheet No.	
100-1A	ESTIMATED PROJECT QUANTITIES (1 DIVISION PROJECT)	C.1	
100-1D	PROJECT DESCRIPTION	C.1	
100-4A	ESTIMATED REFERENCE INFORMATION	C.1-C.2	
100-7	FENCING	C.4	
Animal Barrier	SMALL ANIMAL BARRIER FENCE	C.2	
105-4	STANDARD ROAD PLANS	C.2	
108-23A	TRAFFIC CONTROL PLAN	C.2	
110-12A	POLLUTION PREVENTION PLAN	C.3	
111-1	COORDINATED OPERATIONS	C.2	
111-25	INDEX OF TABULATIONS	C.2	
232-3C	EROSION CONTROL (NATIVE GRASS SEEDING)	C.2	
262-5	UTILITIES (POINT 25 PROJECT)	C.2	
281-1	SECTION 404 PERMIT AND CONDITIONS	C.2	
ROW	ROW	C.4	
TURTLE	TURTLE MONITORING	C.4	

Animal Barrier
Modified

SMALL ANIMAL BARRIER FENCE

* Bid Item

Refer to Sheet U.1 for Details

Location				Side	Length (Feet)*	Remarks
From		To				
Station	Offset	Station	Offset			
968+26.00	114.0	981+86.00	44.0	LT	1488.0	Attach to Field Fence
1000+02.00	49.0	1036+69.00	44.0	RT	3752.0	Attach to Deer Fence
						Continue across RCB
1000+02 Rt	49.0	999+96 Lt	63.0		112.0	Attach to Deer Fence
						Cedar River East Bridge Abutment
999+96.00	63.0	1001+00.00	128.0	LT	136.0	Attach to Deer Fence
1001+48.00	123.0	1038+85.00	94.0	LT	3763.0	Attach to Deer Fence
						Continue across RCB

TRAFFIC CONTROL PLAN		108-23A 08-01-08
Traffic shall be maintain on all local roadways at all times. Access to residences and adjacent farms fields are to be maintained at all times. Traffic control for this project shall be in accordance with Iowa DOT Standard Road Plans.		
For additiona1 traffic control information refer to Part 6 of the Manual of Uniform Traffic Control Devices (MUTCD) and the current Iowa DOT standard specifications.		
The Contractor shall coordinate traffic control needs with other projects in the area. Refer to Tabulation 111-01 "Coordinated Operations"		

COORDINATED OPERATIONS		111-01 04-17-12
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.		
Project	Type of Work	
NHSX-100-1(79)--3H-57	GRADING	
NHSX-100-1(77)--3H-57	GRADING	
NHSX-100-1(84)--3H-57	TRAFFIC SIGNS	
NHSX-100-1(46)--3H-57	DUAL BRIDGES OVER CEDAR RIVER	
NHSX-100-1(106)--3H-57	GRADING	
NHSX-100-1(70)--3H-57	LIGHTING	
NHSX-100-1(51)--3H-57	PAVING	

UTILITIES (POINT 25 PROJECT)		262-5 10-18-05
This is a POINT 25 project and is subject to the provisions of IAC 761-115.25.		

SECTION 404 PERMIT AND CONDITIONS		281-1 10-15-13
Construct this project according to the requirements of U.S. Army Corps of Engineers Individual Permit, Permit No. CEMVER-0D-P-2013-13. A copy of this permit is available from the Iowa DOT website (http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx). The U.S. Army Corps of Engineers reserves the right to visit the site without prior notice.		

110-12A Modified				110-12A Modified											
POLLUTION PREVENTION PLAN															
<p>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.</p> <p>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.</p> <p>I. ROLES AND RESPONSIBILITES</p> <p>A. Designer:</p> <ol style="list-style-type: none">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. <p>B. Contractor/Subcontractor:</p> <ol style="list-style-type: none">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. <p>C. RCE/Inspector:</p> <ol style="list-style-type: none">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). <p>II. PROJECT SITE DESCRIPTION</p> <p>A. This Pollution Prevention Plan (PPP) is for the construction of a IA 100 Phase I construction projects.</p> <p>B. This PPP covers approximately 192 acres with an estimated 147 acres being disturbed. The portion of the PPP covered by this contract has 1 acres disturbed.</p> <p>C. The PPP is located in an area of 2 soil association (1) Kenyon - Clyde - Floyd and (2) Dinsdale-Klinger. The estimated average SCS runoff curve number for this PPP after completion will be 0.58.</p> <p>D. Storm Water Site Map - Multiple sources of information comprise the base storm water site map including:</p> <ol style="list-style-type: none">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. <p>E. The base site map is amended by contract modifications and progress payments of completed erosion control work.</p> <p>F. Runoff from this work will flow into the Cedar River.</p> <p>III. CONTROLS</p> <p>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.</p> <p>B. Preserve vegetation in areas not needed for construction.</p> <p>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.</p> <p>1. EROSION AND SEDIMENT CONTROLS</p> <p>a. Stabilization Practices</p> <ol style="list-style-type: none">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. <p>b. Structural Practices</p> <ol style="list-style-type: none">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. <p>c. Storm Water Management</p> <ol style="list-style-type: none">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.								<p>2. OTHER CONTROLS</p> <p>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.</p> <ol style="list-style-type: none">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 onsite fuels and proper disposal of used engine oil or other fluids on site.9) Litter Management - Ensure employees properly dispose of litter. <p>3. APPROVED STATE OR LOCAL PLANS</p> <p>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.</p> <p>IV. MAINTENANCE PROCEDURES</p> <p>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.</p> <p>V. INSPECTION REQUIREMENTS</p> <p>A. Inspections shall be made jointly by the contractor and the contracting authority at least once every seven calendar days. Storm water monitoring inspections will include:</p> <ol style="list-style-type: none">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. <p>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.</p> <p>VI. NON-STORM WATER DISCHARGES</p> <p>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.</p> <p>VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION</p> <p>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.</p> <p>VIII. DEFINITIONS</p> <p>A. Base PPP - Initial Pollution Prevention Plan.</p> <p>B. Amended PPP - May include Plan Revisions or Contract Modifications for new items and fieldbook entries made by the inspector.</p> <p>C. IDR - Inspector's Daily Report - this contains the inspector's daily diary and item postings.</p> <p>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.</p> <p>E. Signature Authority - Representative from Designer, Contractor/Subcontractor, or RCE/Inspector authorized to sign various storm water documents.</p> <p>-----</p> <p>CERTIFICATION STATEMENT</p> <p>I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p> <p>_____</p> <p>Consultant Signature</p> <p>_____</p> <p>Contracting Authority Signature</p> <p>Daniel J Smith Printed or Typed Name</p> <p>Printed or Typed Name</p>							
FILE NO.		ENGLISH	DESIGN TEAM Iowa DOT/CH2MHILL		COUNTY	PROJECT NUMBER NHSN-100-1(113)--2R-57	SHEET NUMBER C.3	REVISED							
3/2/2016 12:16:43 AM mander23 c:\pw_workdir\ch2mhill_tbg\mander23\d0286707\57100113C01.xlsm															

100-7

10-16-12

FENCING

* Bid Item

Refer to MI-101, MI-102, MI-103, MI-104, 510-3, and 510-5

Location				Side	Chain Link				Deer				Field				Channel Crossing		Remarks		
From		To			Fence		Gate		Fence Length*	Brace Panels*	Gate		Fence Length*	Brace Panels*	Gate		Length*	Type			
Station	Offset	Station	Offset		Length*	Type	No.*	Type			No.*	Type			No.*	Type				Length*	Type
331+01.00	75.0	335+40.00	95.0	LT								440.0	5					Covington Road			
346+12.00	155.0	348+35.00	182.0	LT								240.0	12					Covington Road			
31501+87.00	83.0	31512+41.00	94.0	LT								968.0	7		52.4	A		Tie to existing fence			
																		Covington Ramp A			
34501+40.00	218.0	34514+05.00	153.0	RT								1224.0	19		34.5	A		Covington Ramp D			
914+21.00	240.0	937+68.00	71.0	RT								2328.0	23		51.9	A		IA 100			
912+47.00	194.0	937+07.00	68.0	LT								2490.6	44		42.7	A		IA 100			
940+97.00	68.0	981+85.00	44.0	RT								4163.0	79		244.3	A		IA 100			
939+63.00	68.0	981+86.00	44.0	LT								4426.5	34		62.8	A		IA 100			
1000+02.00	49.0	1036+68.00	44.0	RT					3752.0	69								IA 100			
1043+38.00	44.0	1067+31.00	44.0	RT					2483.5	38								IA 100			
1000+02 Rt	49.0	999+96 Lt	63.0						112.0	4								IA 100 in front of east Cedar River Bridge abutment			
999+96.00	63.0	1065+72.00	47.0	LT					6471.0	93	1	Deer, As Per Plan			105.6	A		IA 100			
1070+51.00	44.0	1087+22.00	124.0	RT	1685.0	60 IN.												IA 100			
1070+86.00	48.0	1086+59.00	117.0	LT	1620.0	60 IN.												IA 100			
42587+25.00	42.0	42598+41.00	167.0	RT	1200.0	60 IN.												Edgewood Road Ramp B			
43586+63.00	47.0	43598+19.00	95.0	LT	1195.0	60 IN.												Edgewood Road Ramp C			

ROW

ROW

Locations identified as Proposed ROW delineates the limits of the ROW to be purchased by the State. Locations identified as Future ROW delineates the ultimate ROW for the project. The contractor shall not disturb areas beyond the Future ROW limit or beyond construction limits specified in the contract documents.

TURTLE

TURTLE MONITORING

The Contractor shall monitor all construction areas for the presence of turtle species. If turtle species are observed the contractor shall halt all construction activities in the observed areas and immediately notify the Engineer. Construction activities may resume once approved by the Engineer.

Turtle Monitoring and coordination with Iowa DOT is incidental to Mobilization and will not be paid for separately.

FILE NO.

ENGLISH

DESIGN TEAM Iowa DOT/CH2MHILL

COUNTY

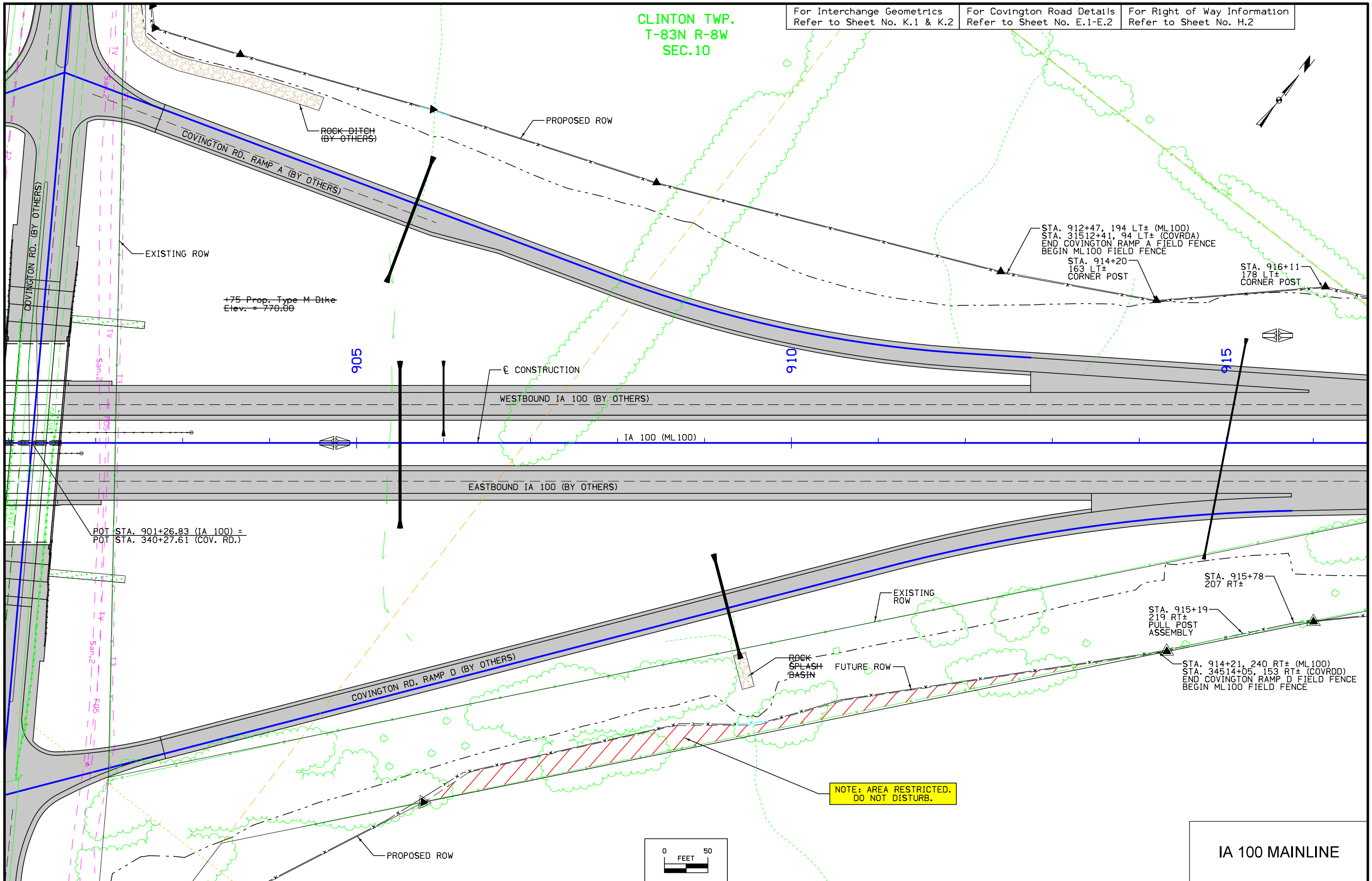
PROJECT NUMBER NHSN-100-1(113)--2R-57

SHEET NUMBER C.4

REVISED

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SURVEY SYMBOLS			UTILITY LEGEND		PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS			
<div><div><div><div><div></div><div></div></div><div>EW Edge of Water</div></div><div><div><div></div><div></div></div><div>HDG Hedge Row</div></div><div><div><div></div><div></div></div><div>INB Storm Sewer Beehive Intake</div></div><div><div><div></div><div></div></div><div>BNK Stream Bank</div></div><div><div><div></div><div></div></div><div>ENU Edge Unpaved Entrance & Parking</div></div><div><div><div></div><div></div></div><div>SNP Unpaved Shoulder</div></div><div><div><div></div><div></div></div><div>FCL Chain Link and Security Fence</div></div><div><div><div></div><div></div></div><div>FWD Wood Fence</div></div><div><div><div></div><div></div></div><div>GDL Guard Rail (Rail and Cable)</div></div><div><div><div></div><div></div></div><div>RR Centerline of Railroad Tracks</div></div><div><div><div></div><div></div></div><div>RET Retaining Walls</div></div><div><div><div></div><div></div></div><div>RIP Rip-Rap</div></div><div><div><div></div><div></div></div><div>TEV Evergeen Tree</div></div><div><div><div></div><div></div></div><div>TDC Tree Deciduous</div></div><div><div><div></div><div></div></div><div>LUM Luminaire</div></div><div><div><div></div><div></div></div><div>PPA Power Pole Co. 1</div></div><div><div><div></div><div></div></div><div>SI Sign</div></div><div><div><div></div><div></div></div><div>TA Tower Anchor</div></div><div><div><div></div><div></div></div><div>SWP Swamp or Marsh</div></div><div><div><div></div><div></div></div><div>MIS Miscellaneous</div></div><div><div><div></div><div></div></div><div>UB Utility Box</div></div><div><div><div></div><div></div></div><div>MH Utility Access (Manhole)</div></div><div><div><div></div><div></div></div><div>IN Storm Sewer Intake</div></div><div><div><div></div><div></div></div><div>TV Satelite TV Dish</div></div><div><div><div></div><div></div></div><div>GP Guard Post (Less Than 4 Posts)</div></div><div><div><div></div><div></div></div><div>FHD Fire Hydrants</div></div><div><div><div></div><div></div></div><div>FLG Flag Poles</div></div><div><div><div></div><div></div></div><div>TSG Traffic Signal</div></div></div></div>			<div><div><div><div><div></div><div></div></div><div>-E3-----</div><div>Alliant Energy</div><div>Contact: Jason Hogan</div><div>Phone: 608-458-4871</div></div><div><div><div></div><div></div></div><div>-E4-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-San.---</div><div>City of Cedar Rapids</div><div>Contact: Ken Russell (Water)</div><div>Phone: 319-286-5950</div></div><div><div><div></div><div></div></div><div>-W-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-St. S.---</div><div></div><div>Contact: Dave Wallace (Sanitary Sewer)</div><div>Phone: 319-286-5910</div></div><div><div><div></div><div></div></div><div>-San.2---</div><div>City of Palo</div><div>Contact: Glenn Lange</div><div>Phone: 319-540-6746</div></div><div><div><div></div><div></div></div><div>-T1-----</div><div>IMON Communication</div><div>Contact: Lennox Marnor</div><div>Phone: 319-261-4640</div></div><div><div><div></div><div></div></div><div>-F0-----</div><div>Iowa Communications Network</div><div>Contact: Larry Klawitter</div><div>Phone: 515-725-4741</div></div><div><div><div></div><div></div></div><div>-F02-----</div><div>Iowa Network Services</div><div>Contact: Jeff Klocko</div><div>Phone: 515-240-2644</div></div><div><div><div></div><div></div></div><div>-E1-----</div><div>Linn County REC</div><div>Contact: Kim Colberg</div><div>Phone: 319-377-1587</div></div><div><div><div></div><div></div></div><div>-E2-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-G-----</div><div>MidAmerican Energy - Gas Distribution</div><div>Contact: Greg Wildebour</div><div>Phone: 319-298-5162</div></div><div><div><div></div><div></div></div><div>-TV-----</div><div>Mediacom Broadband, LLC</div><div>Contact: Joe Ernster</div><div>Phone: 319-395-9699</div></div><div><div><div></div><div></div></div><div>-F05-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-TV-----</div><div>Windstream/PAETEC</div><div>Contact: Gregory Troeger</div><div>Phone: 319-790-7678</div></div><div><div><div></div><div></div></div><div>-F05-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-T2-----</div><div>Centurylink (Formerly Qwest)</div><div>Contact: Carroll Wheaton</div><div>Phone: 515-554-9711</div></div><div><div><div></div><div></div></div><div>-T3-----</div><div></div><div></div></div><div><div><div></div><div></div></div><div>-E5-----</div><div>ITC Midwest</div><div>Contact: Chad Levi</div><div>Phone: 319-297-6765</div></div><div><div><div></div><div></div></div><div></div><div>Iowa Department of Transportation</div><div>Contact: Dennis Perrin</div><div>Phone: 319-364-8189</div></div><div><div><div></div><div></div></div><div></div><div>City of Cedar Rapids - Joint Communications Network</div><div>Contact: Sean Hanna</div><div>Phone: 319-286-5027</div></div><div><div><div></div><div></div></div><div></div><div>City of Cedar Rapids - Traffic Engineering</div><div>Contact: John Witt</div><div>Phone: 319-286-5800</div></div><div><div><div></div><div></div></div><div></div><div>Atkins Telephone</div><div>Contact: Todd Christerson</div><div>Phone: 319-446-7331</div></div></div></div>		<div><div><div><div><div></div><div></div></div><div>LINEWORK</div><div>Design Color No.</div></div><div><div><div></div><div></div></div><div>Green</div><div>(2)</div><div></div><div>Existing Topographic Features and Labels</div></div><div><div><div></div><div></div></div><div>Blue</div><div>(1)</div><div></div><div>Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation</div></div><div><div><div></div><div></div></div><div>Magenta</div><div>(5)</div><div></div><div>Existing Utilities</div></div></div><div><div><div><div><div></div><div></div></div><div>SHADING</div><div>Design Color No.</div></div><div><div><div></div><div></div></div><div>Yellow</div><div>(4)</div><div></div><div>Highlight for Critical Notes or Features</div></div><div><div><div></div><div></div></div><div>Red</div><div>(3)</div><div></div><div>Delineates Restricted Areas</div></div><div><div><div></div><div></div></div><div>Lavender</div><div>(9)</div><div></div><div>Temporary Pavement Shading</div></div><div><div><div></div><div></div></div><div>Gray, Light</div><div>(48)</div><div></div><div>Proposed Pavement Shading (By Others)</div></div><div><div><div></div><div></div></div><div>Gray, Med</div><div>(80)</div><div></div><div>Proposed Granular Shading</div></div><div><div><div></div><div></div></div><div>Gray, Dark</div><div>(112)</div><div></div><div>Proposed Grade and Pave Shading "In conjunction with a paving project"</div></div><div><div><div></div><div></div></div><div>Brown, Light</div><div>(236)</div><div></div><div>Grading Shading</div></div><div><div><div></div><div></div></div><div>Tan</div><div>(8)</div><div></div><div>Proposed Sidewalk Shading</div></div><div><div><div></div><div></div></div><div>Blue, Light</div><div>(230)</div><div></div><div>Proposed Sidewalk Landing Shading</div></div><div><div><div></div><div></div></div><div>Pink</div><div>(11)</div><div></div><div>Proposed Sidewalk Ramp Shading</div></div></div></div></div>			
			UNIQUE SYMBOLS FOR THIS PROJECT		PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS			
<div><div><div><div></div><div></div></div><div>-G-HP-----</div><div>Proposed 10" High Pressure Gas</div></div><div><div><div></div><div></div></div><div>GP</div><div></div><div>Fence Gate Post</div></div><div><div><div></div><div></div></div><div>MB</div><div></div><div>Mailbox</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-401</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-402</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-508</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-509</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-510</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-512</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-546</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-547</div></div><div><div><div></div><div></div></div><div></div><div></div><div>SW-549</div></div></div>					<div><div><div><div><div></div><div></div></div><div>LINEWORK</div><div>Design Color No.</div></div><div><div><div></div><div></div></div><div>Green</div><div>(2)</div><div></div><div>Existing Ground Line Profile</div></div><div><div><div></div><div></div></div><div>Blue</div><div>(1)</div><div></div><div>Proposed Profile and Annotation</div></div><div><div><div></div><div></div></div><div>Magenta</div><div>(5)</div><div></div><div>Existing Utilities</div></div><div><div><div></div><div></div></div><div>Blue, Light</div><div>(230)</div><div></div><div>Proposed Ditch Grades, Left</div></div><div><div><div></div><div></div></div><div>Black</div><div>(0)</div><div></div><div>Proposed Ditch Grades, Median</div></div><div><div><div></div><div></div></div><div>Rust</div><div>(14)</div><div></div><div>Proposed Ditch Grades, Right</div></div></div></div>			
					RIGHT-OF-WAY LEGEND			
					<div><div><div><div></div><div></div></div><div>Proposed Right-of-Way</div></div><div><div><div></div><div></div></div><div>Existing Right of Way</div></div><div><div><div></div><div></div></div><div>Existing and Proposed Right-of-Way</div></div><div><div><div></div><div></div></div><div>Easement and Existing Right-of-Way</div></div><div><div><div></div><div></div></div><div>Easement (Temporary)</div></div><div><div><div></div><div></div></div><div>Easement</div></div><div><div><div></div><div></div></div><div>C/A Access Control</div></div><div><div><div></div><div></div></div><div>Property Line</div></div></div>			
					FENCING PLAN LEGEND			
					<div><div><div><div></div><div></div></div><div>Chain Link Fence</div></div><div><div><div></div><div></div></div><div>Field/Deer Fence</div></div><div><div><div></div><div></div></div><div>Channel Crossing</div></div></div>			
					PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET			
					(COVERS SHEET SERIES D, E, F, & K)			
FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	D.1



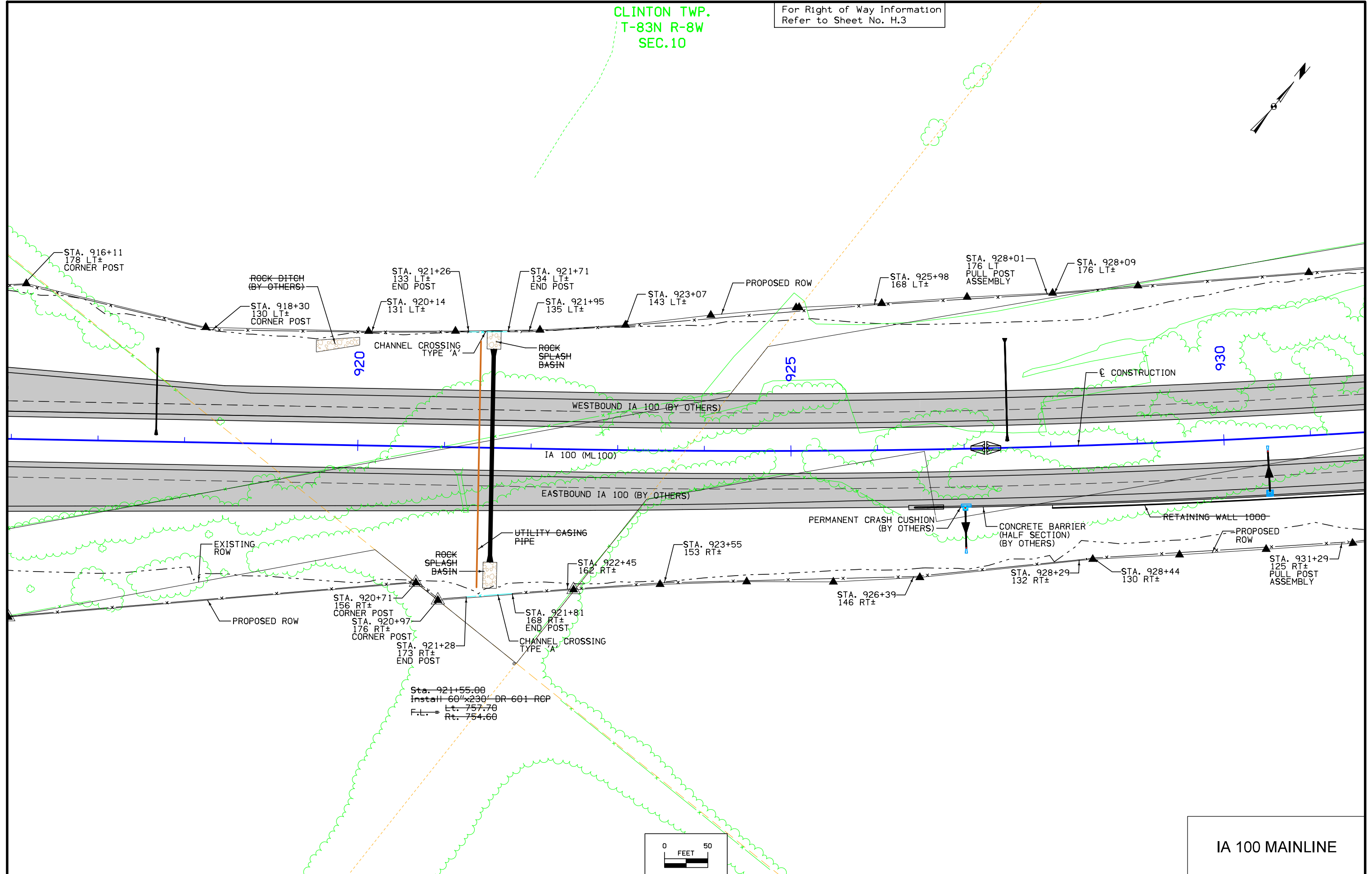
For Interchange Geometrics Refer to Sheet No. K.1 & K.2	For Covington Road Details Refer to Sheet No. E.1-E.2	For Right of Way Information Refer to Sheet No. H.2
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CLINTON TWP.
T-83N R-8W
SEC.10

IA 100 MAINLINE

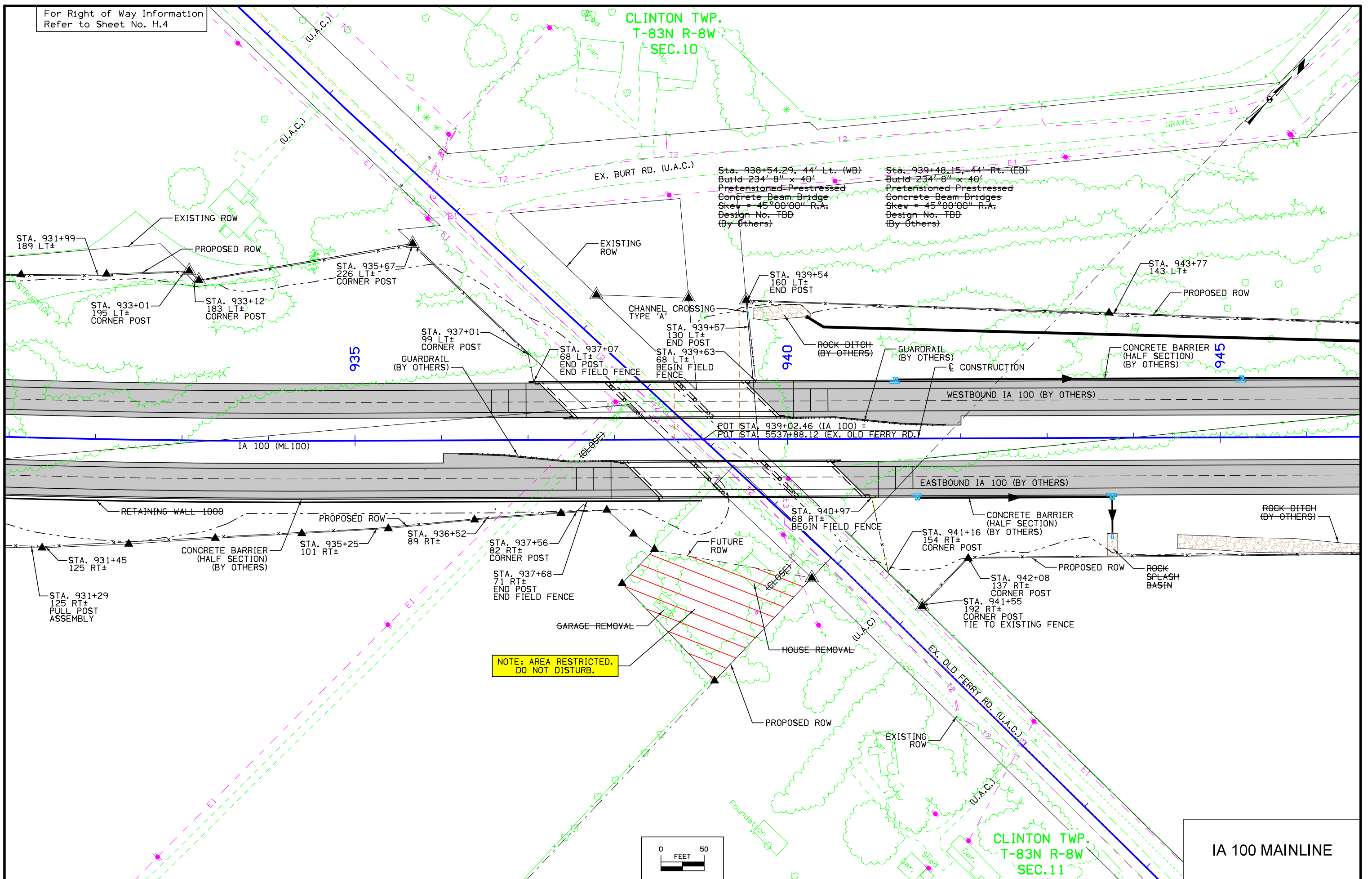
CLINTON TWP.
T-83N R-8W
SEC.10

For Right of Way Information
Refer to Sheet No. H.3

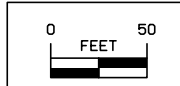


For Right of Way Information
Refer to Sheet No. H.4

CLINTON TWP.
T-83N R-8W
SEC.10



NOTE: AREA RESTRICTED.
DO NOT DISTURB.



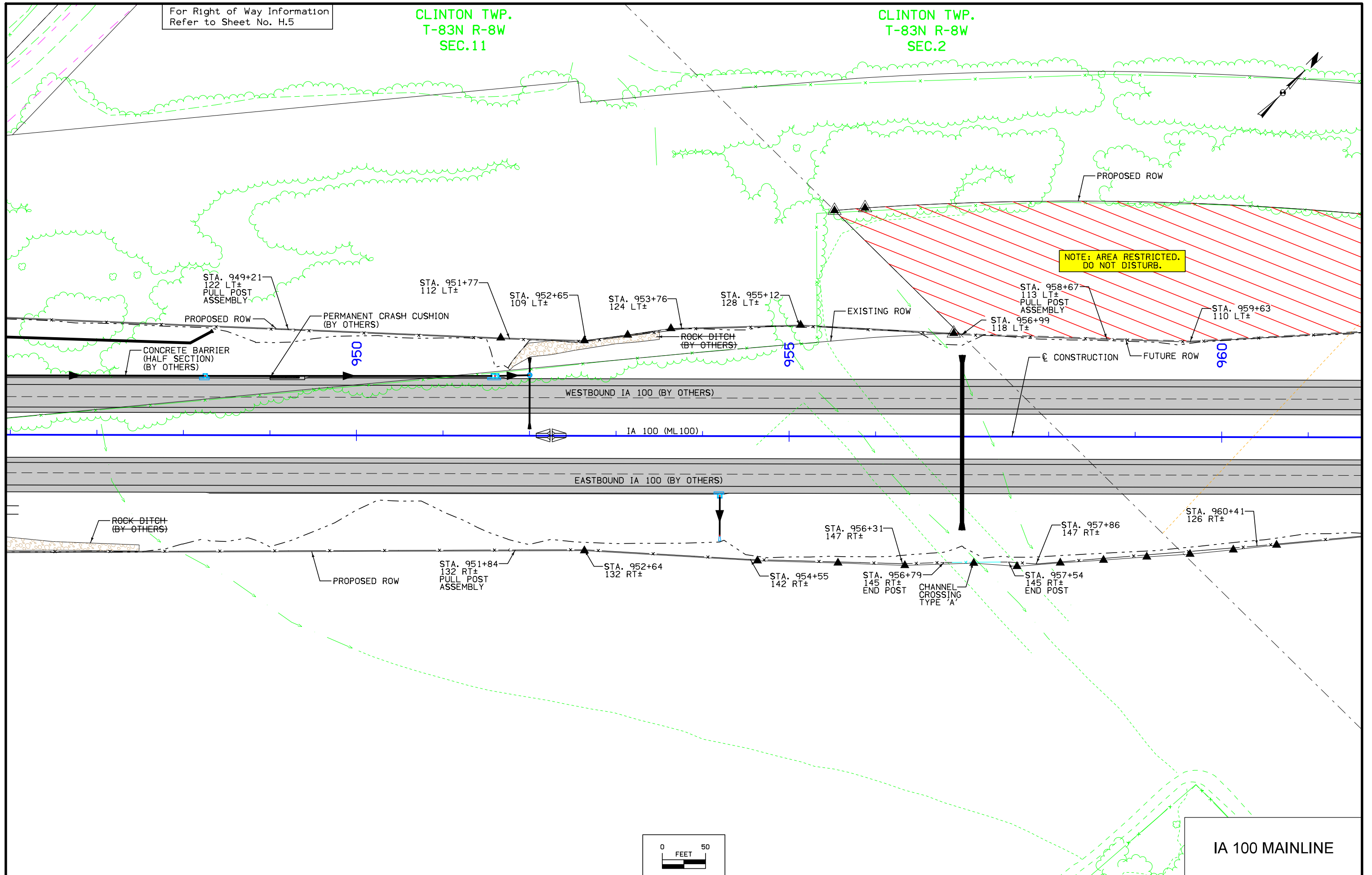
CLINTON TWP.
T-83N R-8W
SEC.11

IA 100 MAINLINE

For Right of Way Information
Refer to Sheet No. H.5

CLINTON TWP.
T-83N R-8W
SEC.11

CLINTON TWP.
T-83N R-8W
SEC.2



FILE NO.

ENGLISH

DESIGN TEAM Iowa DOT\CH2MHILL

LINN COUNTY

PROJECT NUMBER

NHSN-100-1(113)--2R-57

SHEET NUMBER

D.5

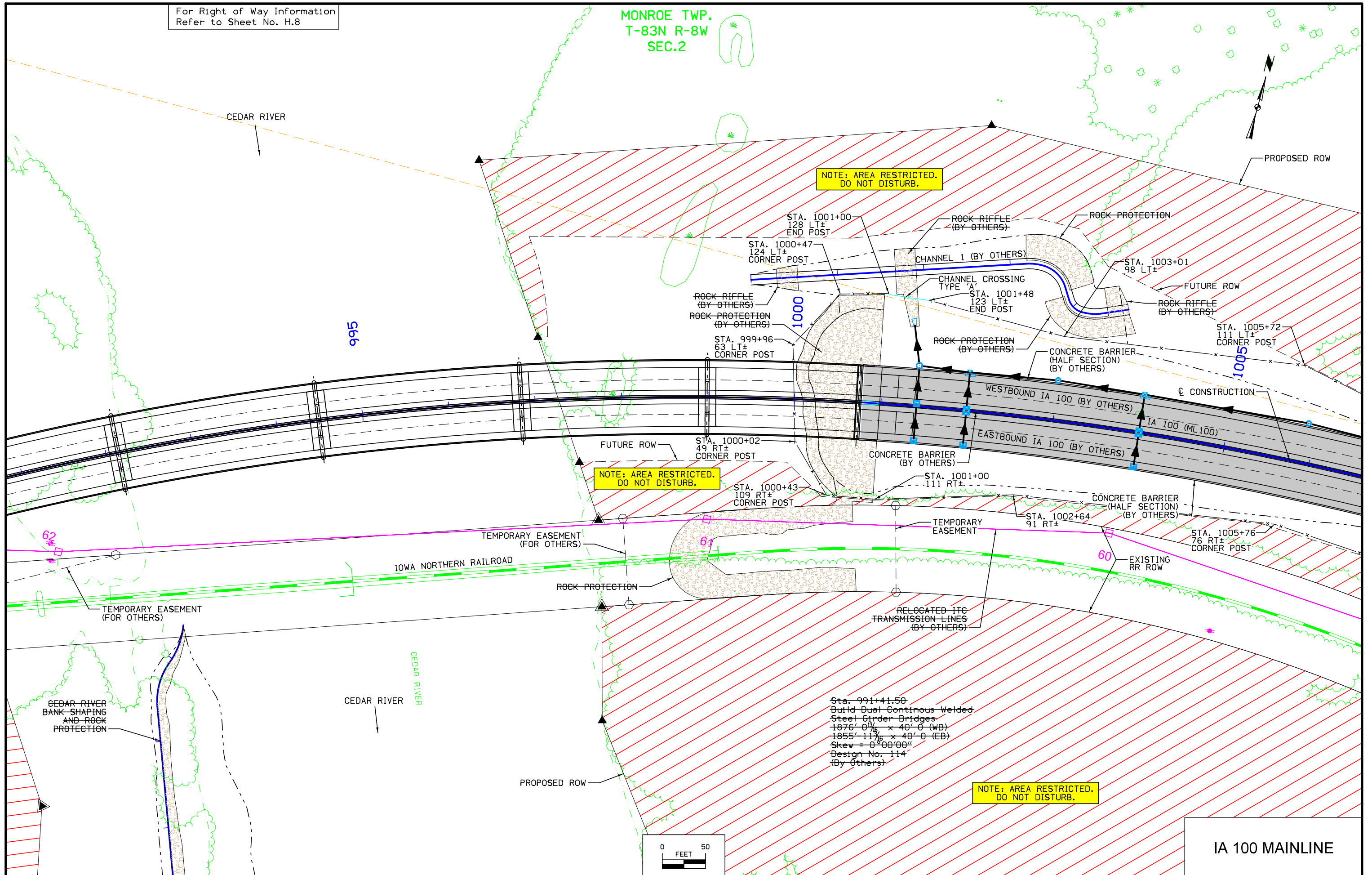
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CLINTON TWP.
T-83N R-8W
SEC.2 }



For Right of Way Information
Refer to Sheet No. H.8

MONROE TWP.
T-83N R-8W
SEC.2



FILE NO. ENGLISH DESIGN TEAM Iowa DOT\CH2MHILL

LINN COUNTY

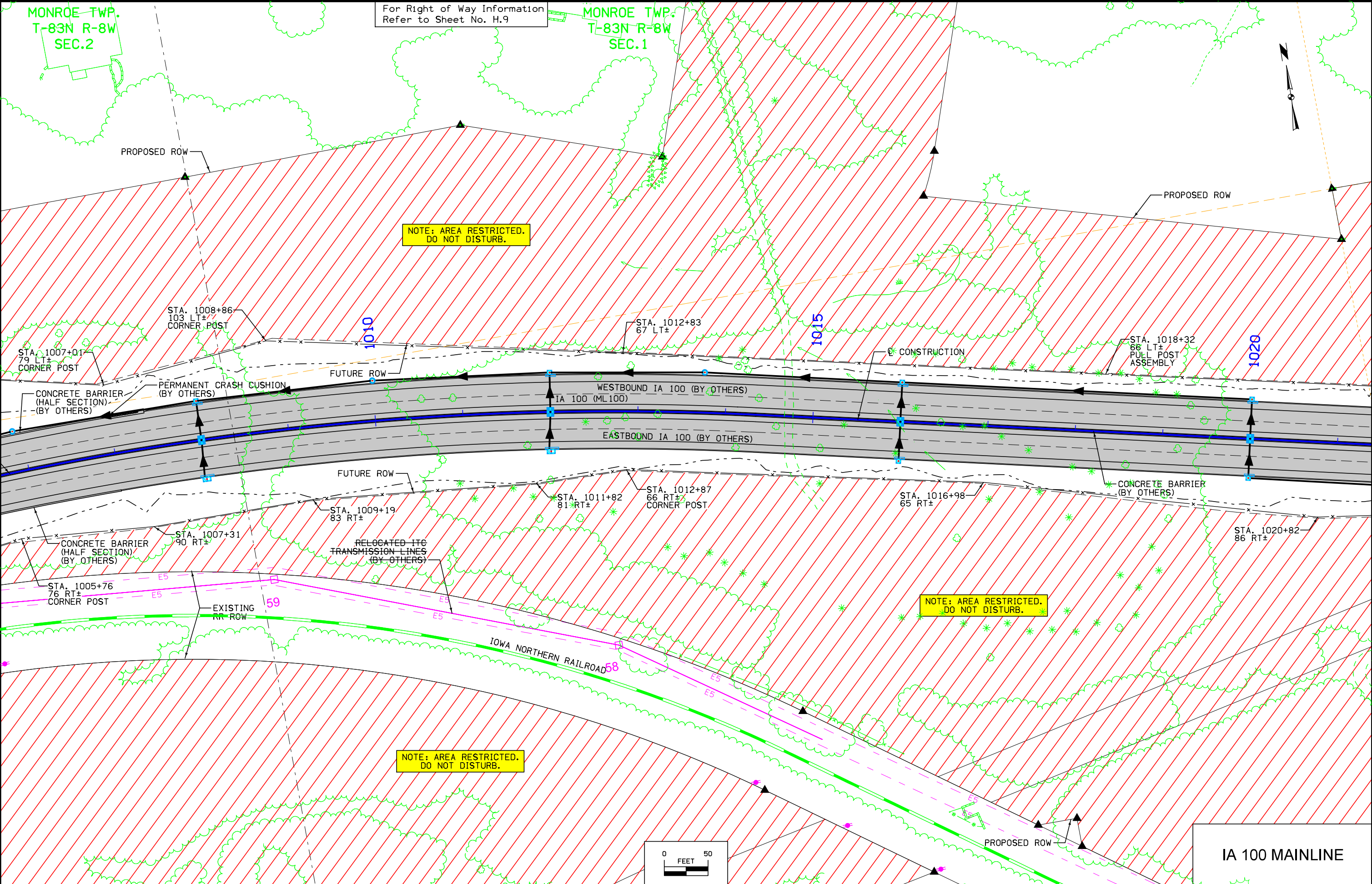
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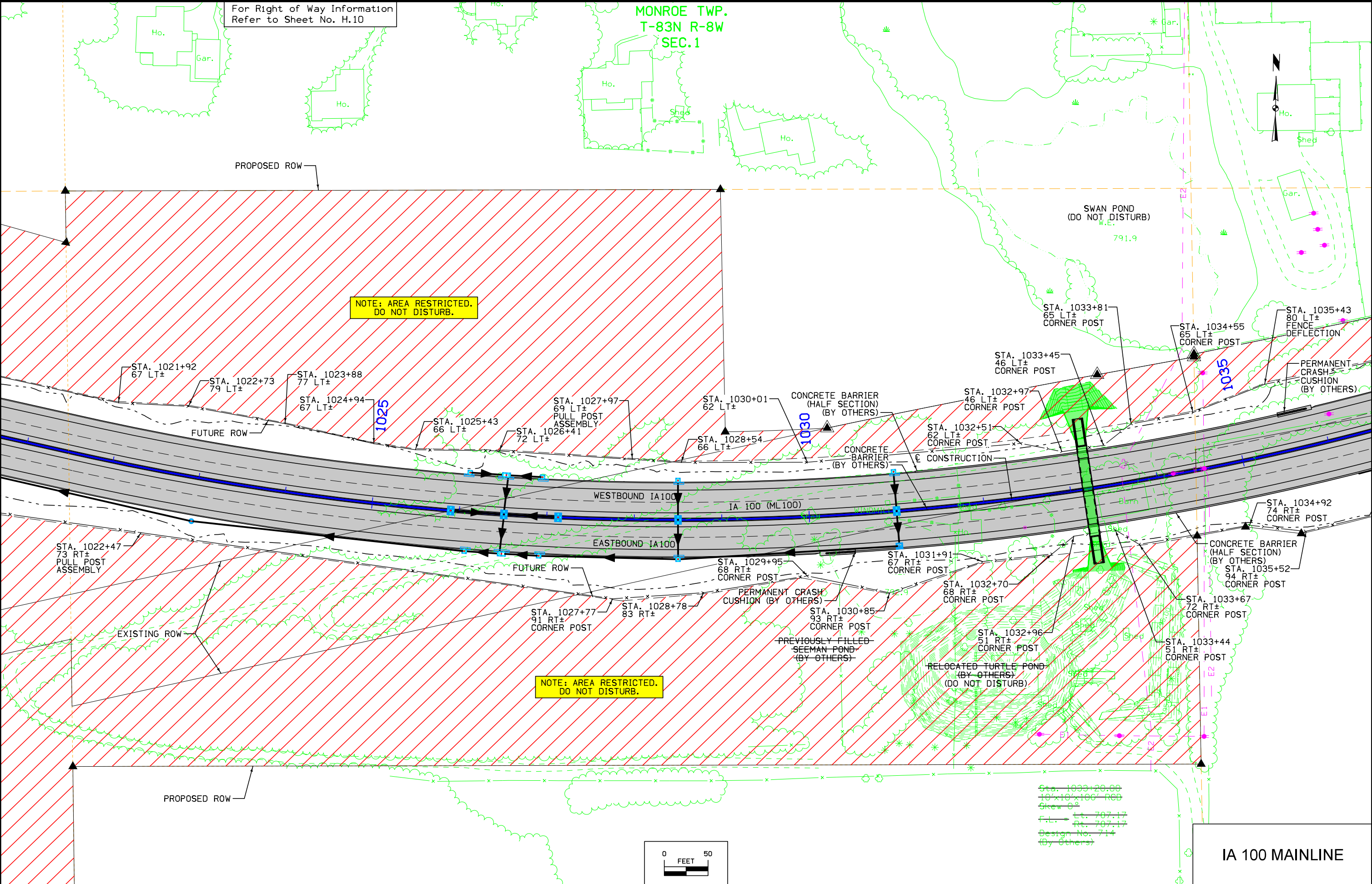
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SHEET NUMBER

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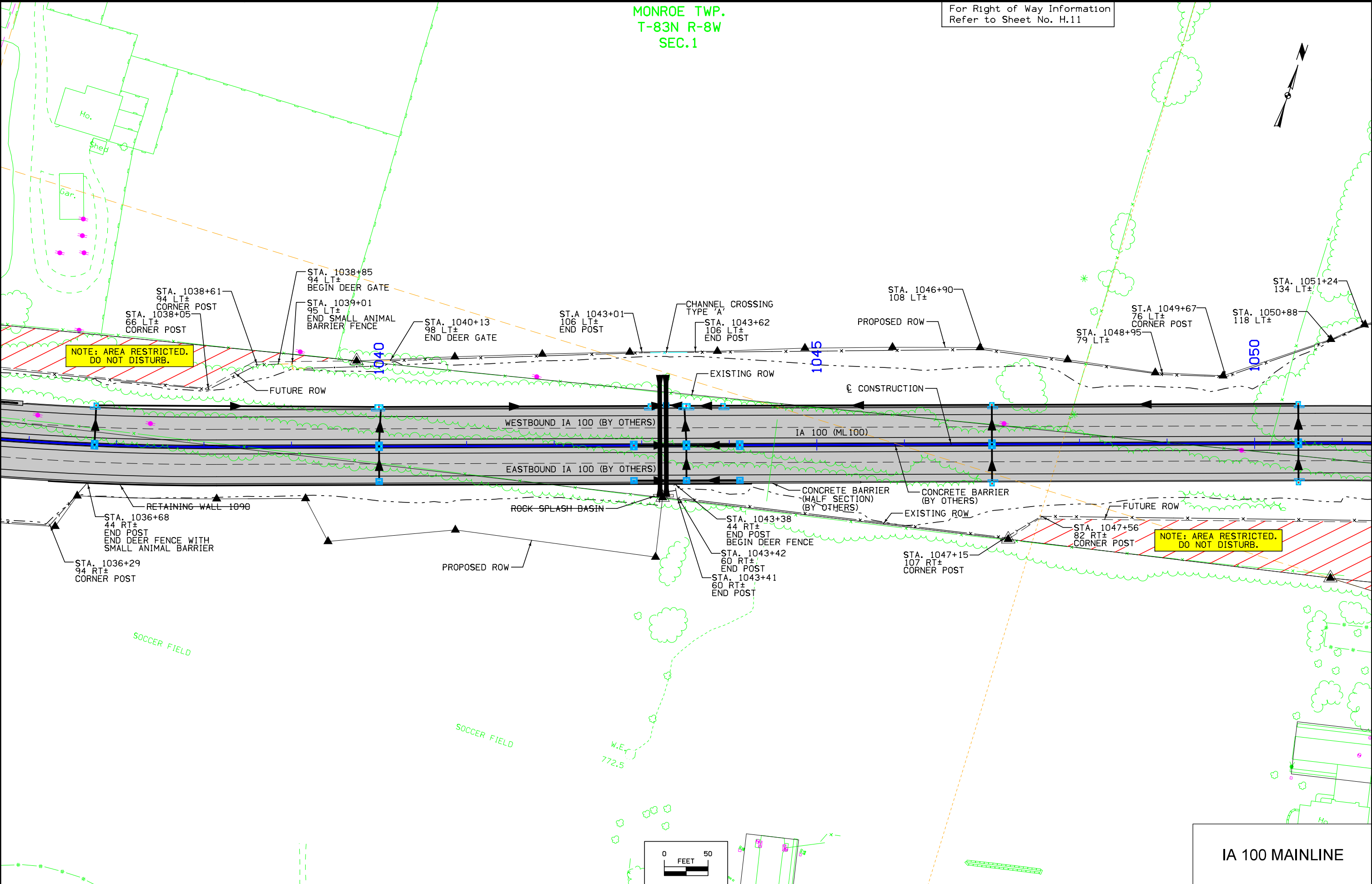
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MONROE TWP.
T-83N R-8W
SEC.1

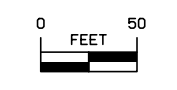
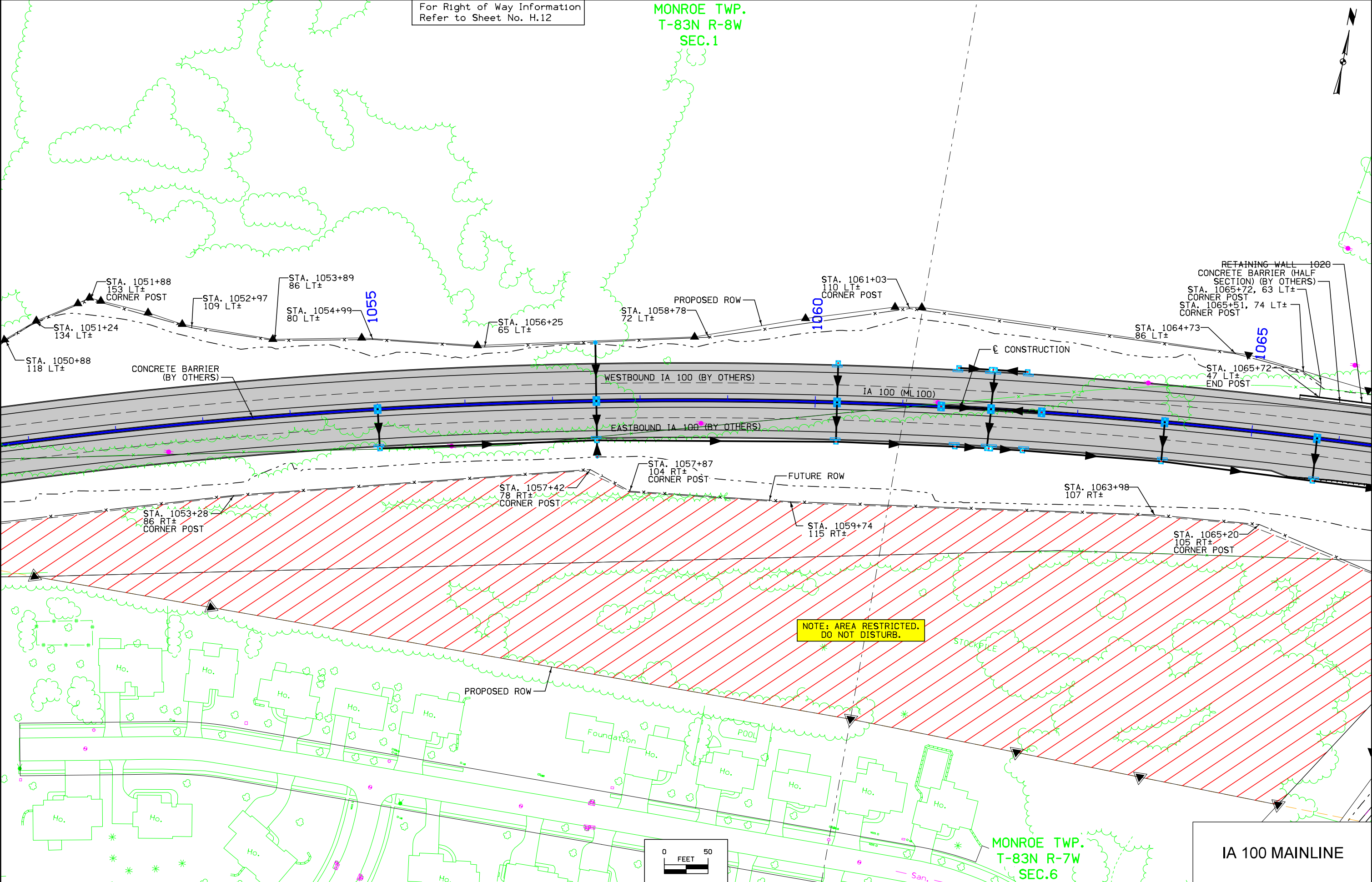
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Refer to Sheet No. H.11



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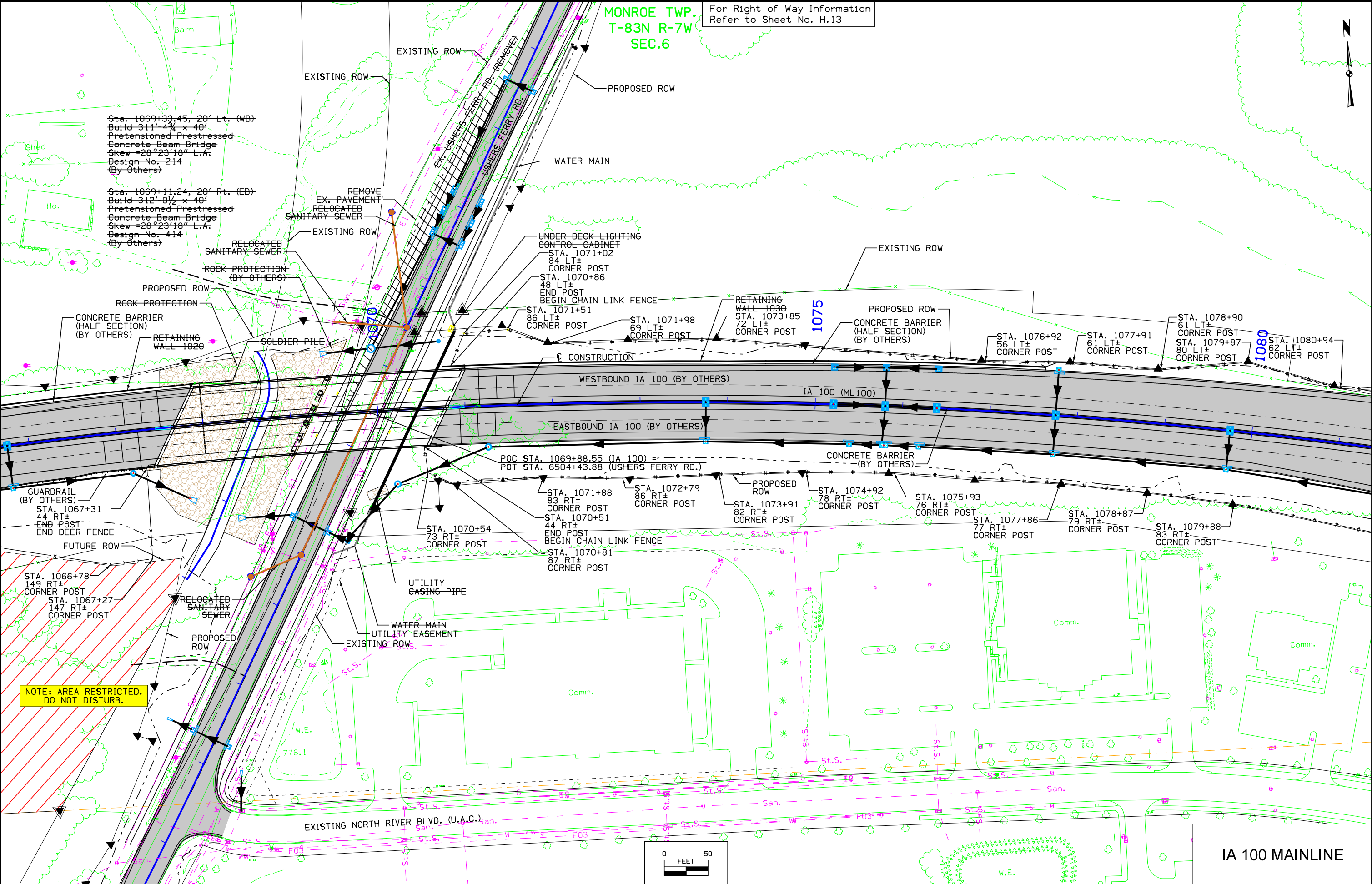
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Refer to Sheet No. H.12

MONROE TWP.
T-83N R-8W
SEC.1



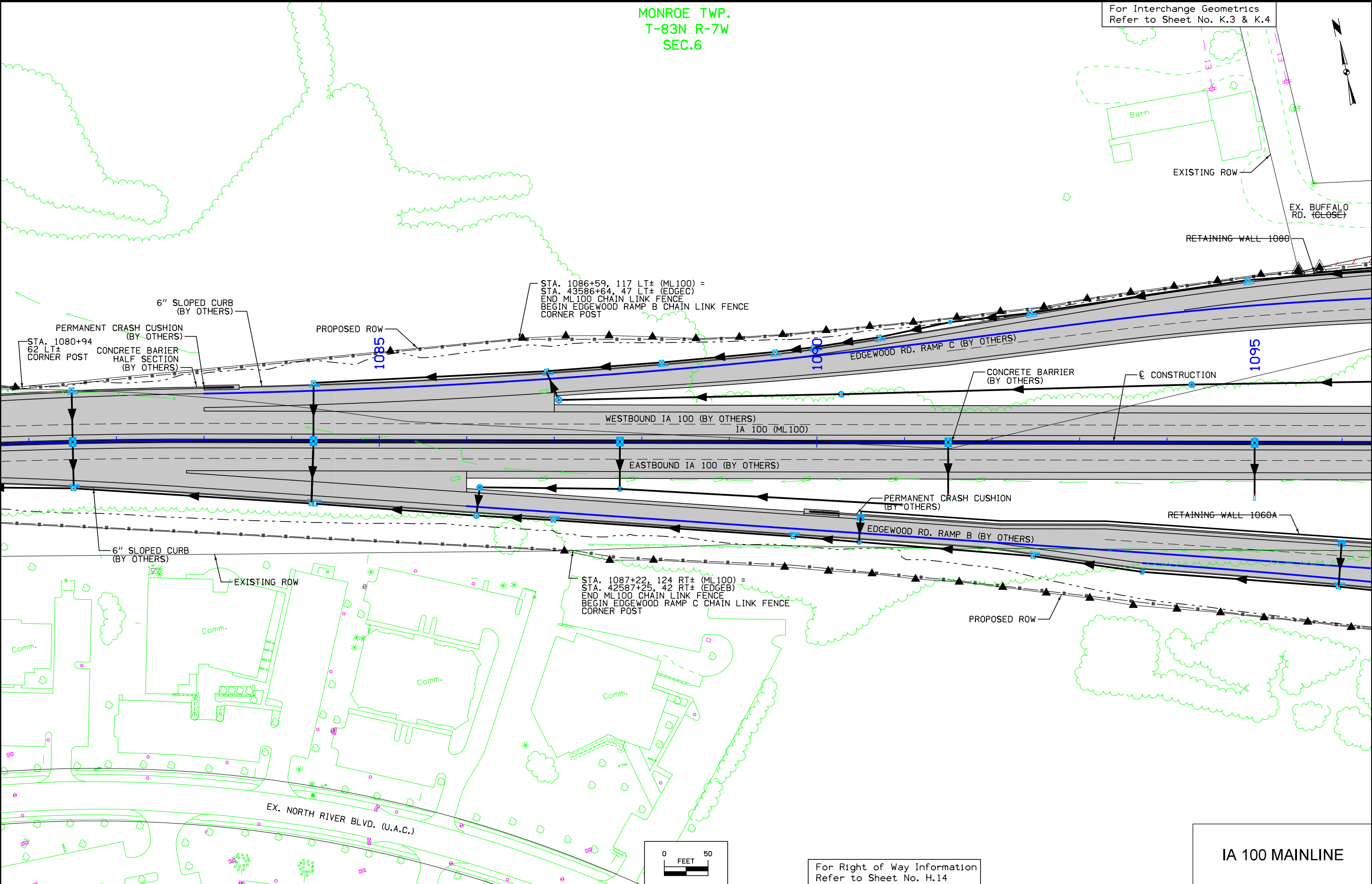
MONROE TWP.
T-83N R-7W
SEC.6

IA 100 MAINLINE



MONROE TWP.
T-83N R-7W
SEC.6

For Interchange Geometrics
Refer to Sheet No. K.3 & K.4



For Right of Way Information
Refer to Sheet No. H.14

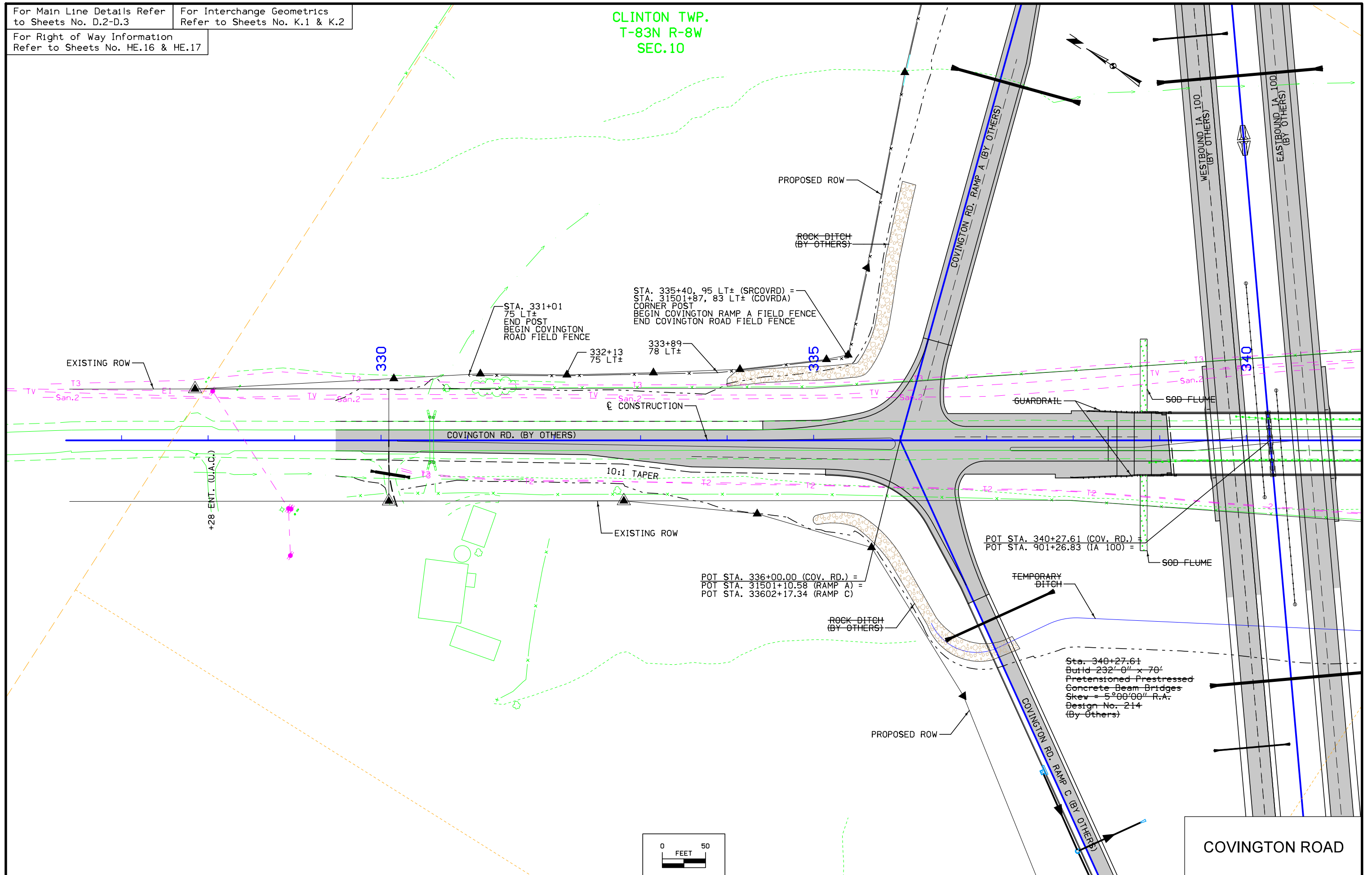
IA 100 MAINLINE

For Main Line Details Refer
to Sheets No. D.2-D.3

For Interchange Geometrics
Refer to Sheets No. K.1 & K.2

For Right of Way Information
Refer to Sheets No. HE.16 & HE.17

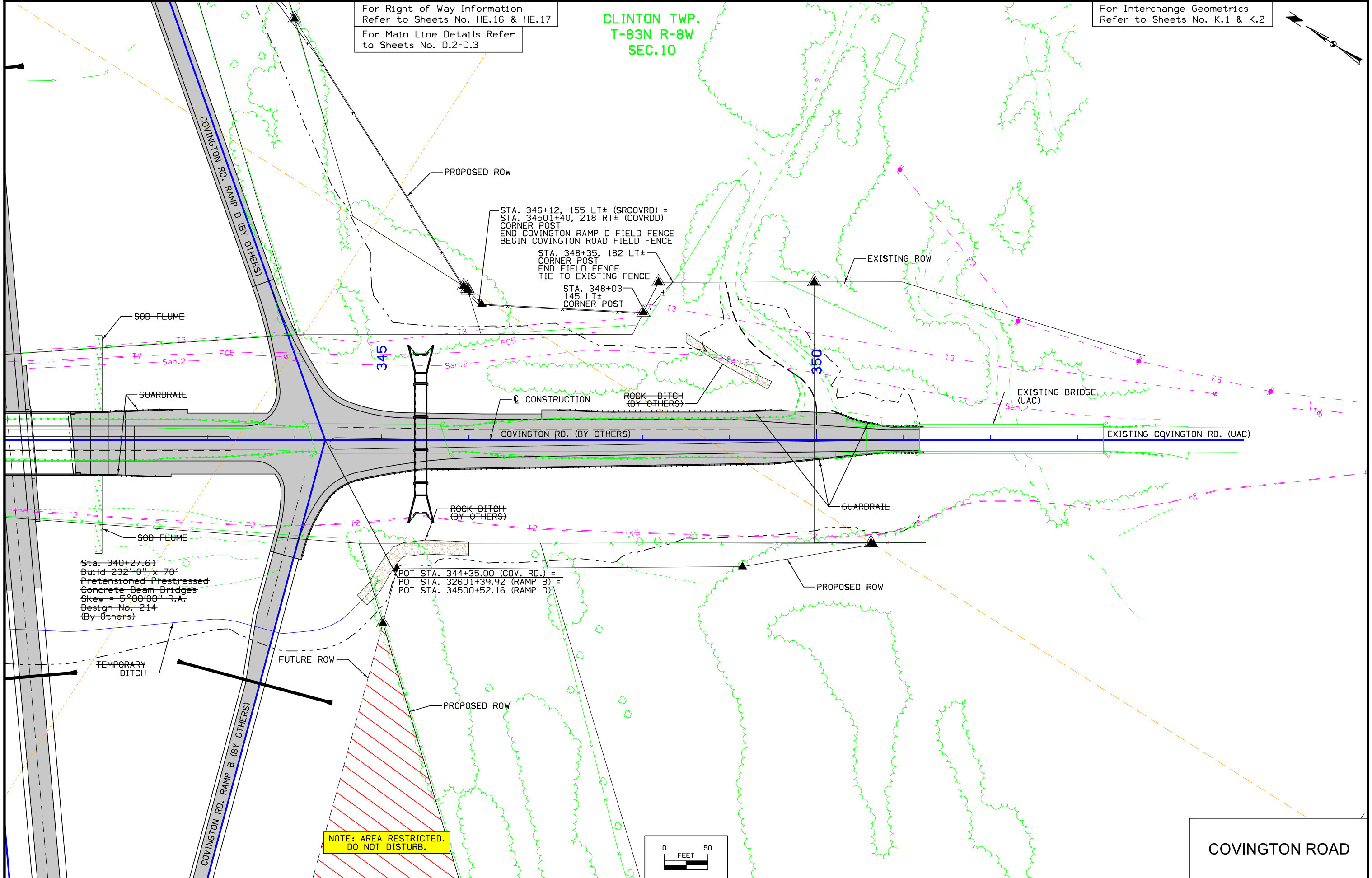
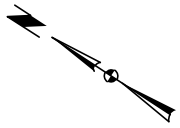
CLINTON TWP.
T-83N R-8W
SEC.10



For Right of Way Information
Refer to Sheets No. HE.16 & HE.17
For Main Line Details Refer
to Sheets No. D.2-D.3

CLINTON TWP.
T-83N R-8W
SEC.10

For Interchange Geometrics
Refer to Sheets No. K.1 & K.2



COVINGTON ROAD

HORIZONTAL CONTROL INFORMATION:

UTILIZING THE IOWA REAL-TIME-NETWORK GRID IN NAD(83)(1996), GPS OBSERVATIONS WERE MADE ON 14 CONTROL POINTS POSITIONED ALONG THE PROJECT ROUTE. CHECKS WERE MADE TO 9 PUBLISHED CONTROL MONUMENTS. GRID COORDINATES ON THE 14 CONTROL POINTS WERE SCALED TO GROUND AROUND POINT PUBLISHED CONTROL MONUMENT 8B. HORIZONTAL TRAVERSE WAS RUN THROUGH THE POINTS. A LEAST-SQUARES ADJUSTMENT WAS USED ON THE TRAVERSE TO OBTAIN COORDINATES ON A LOCAL PROJECT COORDINATE SYSTEM.

VERTICAL DATUM INFORMATION:

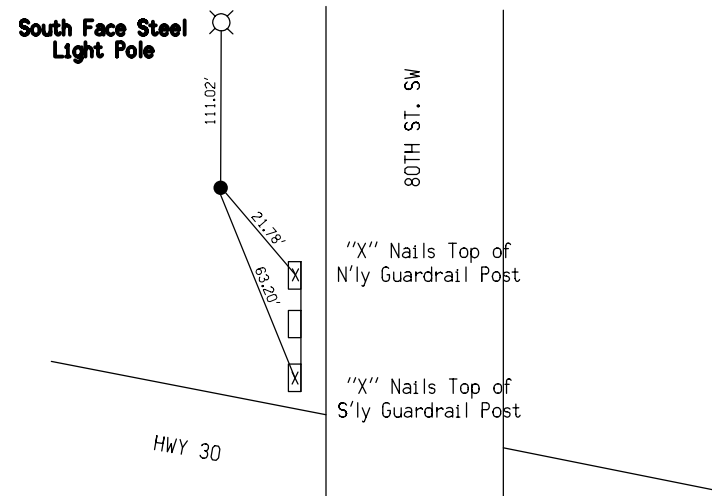
STANDARD ELEVATIONS BASED ON THE SEA-LEVEL DATUM NAVD 1988 ADJUSTED THROUGH A DIGITAL LEVEL LOOP STARTING AT BM 500 AND TURNING THROUGH ORIGINAL PROJECT BM’s 513, 521, 528, & 564. PROJECT NHS-100-1(36)--19-57

DETAILS OF REFERENCE INFORMATION

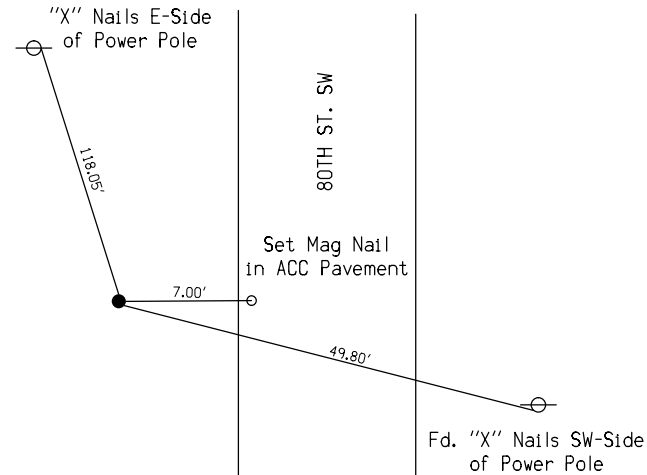
All References are Plumb Distances
unless otherwise noted.

Benchmarks		Description	Station (ML100)	Offset (ML100)	Coordinates		Elevation
					Northing	Easting	
IDOT BM	500	FD. IDOT PLUG IN WINGWALL - S. END OF FAIRFAX ROAD BRIDGE OVER HIGHWAY 30	-	-	3452333	5390473	876.25
IDOT BM	501	FD. RR SPIKE EAST SIDE P. POLE - FIRST P. POLE SOUTH OF WIENEKE CIRCLE - WEST SIDE OF ROAD	-	-	3453289	5390414	848.17
IDOT BM	502	FD. RR SPIKE EAST SIDE P. POLE - S.W. QAUD 16TH AVE. S.W. & 80TH ST. S.W.	-	-	3454576	5390394	828.37
IDOT BM	504	FD. RR SPIKE WEST SIDE P. POLE - APPROX. 1750 FT NORTH OF INTERSECTION 80TH ST. S.W. & 16TH AVE. S.W. EAST SIDE OF ROAD ALONG 80TH ST. S.W.	-	-	3456471	5390498	794.67
IDOT BM	505	FD. RR SPIKE EAST SIDE P. POLE - WEST SIDE OF ROAD 1/4 MILE SOUTH OF N.E. COR. 28-83-8W, ALONG 80TH ST. S.W.	-	-	3458662	5390392	783.76
IDOT BM	507	FD. LINN COUNTY DISK S.W. COR. CONC. HANDRAIL - APPX 650 FT NORTH OF N.E. COR. 28-83-8W ALONG, 80TH ST. N.W.	-	-	3460758	5390363	762.90
IDOT BM	508	FD. RR. SPIKE EAST SIDE P. POLE APPROX. 625 FT. SOUTH E. 1/4 COR 21-83-8W - WEST SIDE OF ROAD ALONG 80TH ST. N.W.	-	-	3462008	5390330	793.86
IDOT BM	509	FD. RR. SPIKE EAST SIDE P. POLE APPROX. 275 FT. SOUTH E. 1/4 COR. 21-83-8W - WEST SIDE OF ROAD, ALONG 80TH ST. N.W.	-	-	3462456	5390322	821.36
IDOT BM	510	FD. RR. SPIKE EAST SIDE P. POLE APPROX. 300 FT. NORTH E. 1/4 COR. 21-83-8W - W. SIDE OF ROAD, ALONG 80TH ST. N.W.	-	-	3463109	5390311	789.16
IDOT BM	511	FD. CUT X S.W. BOLT FIRE HYD. N.W. QUAD. OF 80TH ST. N.W. & WORCHESTER ROAD	-	-	3464097	5390361	822.19
IDOT BM	512	FD. RR SPIKE EAST SIDE P. POLE APPROX. 30 FT WEST OF N.E. COR. 21-83-8W ALONG 80TH ST. N.W.	-	-	3465388	5390275	821.57
IDOT BM	513	FD. LINN COUNTY DISK N.HDWL. TWIN 12x8 RCB CULVERT - APPROX. 225 FT WEST OF E. 1/4 COR. 16-83-8W	-	-	3468075	5390056	767.75
IDOT BM	521	FD. RR SPIKE NW. SIDE P. POLE	935+85.74	266.50’ LT	3474701	5394859	796.80
IDOT BM	528	FD. CUT X CONC. RR ABUTMENT	1016+77.92	441.43’ RT	3478104	5401490	786.05
AMENT BM	564	NE FLANGE BOLT HYD. @ SW COR N. RIVER BLVD. NE & EDGEWOOD ROAD	1100+37.11	973.11’ RT	3477804	5409554	853.55
BM	570	SET CHISELED X ON WEST FACE MANHOLE RIM, EAST SIDE OF 80TH ST., 100 FT. SOUTH OF 4TH P. POLE SOUTH OF ELIS BLVD. & 80TH ST. INTERSECTION	-	-	3467205	5390297	793.46
BM	571	SET RR SPIKE IN WEST FACE 18" DECIDUOUS TREE, APPROX. 1925 FT. S.W. OF CONVINGTON RD. BRIDGE OVER ABANDON RR TRACKS	879+88.52	770.43’ RT	3470484	5391330	758.03
BM	572	SET SURVEY NAIL IN S.W. BRIDGE PIER OF BRIDGE OVER ABANDONED RR ON CONVINGTON RD.	900+73.22	495.44’ RT	3471902	5392630	762.66
BM	573	SET RR SPIKE IN P. POLE, EAST SIDE BURT RD. APPROX. 215’ NORTH OF BEND IN ROAD, APPROX. 20 FT. N.W. OF CP #210	948+20.29	571.36’ LT	3475781	5395530	819.08
BM	574	SET RR SPIKE IN SOUTH FACE 24" DECIDUOUS TREE, APPROX. 385 FT. SOUTH RAILROAD TRACKS & APPROX. 600 FT. WEST OF WEST BANK CEDAR RIVER	985+42.69	403.66’ RT	3477635	5398854	728.02
BM	577	SET RR SPIKE IN EAST FACE 18" DECIDUOUS TREE APPROX. 40 FT EAST OF EAST BANK CEDAR RIVER & 1000 FT WEST OF CP #217	999+63.80	851.40’ RT	3477734	5400079	733.38
BM	578	SET PK NAIL IN SOUTH FACE P. POLE ON NORTH SIDE OF PRIVATE LANE & APPROX. 400’ EAST OF EAST BANK CEDAR RIVER & 30 FT WEST OF CP #216	1005+85.86	1003.16’ RT	3477648	5400546	779.18
BM	579	SET RR SPIKE IN SOUTH FACE P. POLE ON SOUTH SIDE SWAN POND	1034+74.74	106.12’ LT	3478553	5403333	795.19
BM	580	SET CHISELED X ON S.W. BOLT OF OLD CONC RR SIGNAL BASE ALONG ABANDONED RR APPROX. 200 FT NORTH OF HOUSE #5404 OAK CREEK DR. N.E.	1053+83.77	82.11’ RT	3478955	5405195	806.65
BM	581	FD. 60d NAIL IN WEST FACE P. POLE ON EAST SIDE OF USHERS FERRY RD. APPROX. 1000 FT NORTH OF INTERSECTION OF USHERS FERRY RD. & N. RIVER BLVD. N.E.	1072+36.35	439.72’ LT	3479691	5407021	783.25
BM	582	SET CHISELED X ON NE BOLT OF FIRE HYD. AT N.E. COR. PARKING OF #4700 N. RIVER BLVD. N.E.	1089+46.50	268.67’ RT	3478722	5408635	831.41
BM	583	SET RR SPIKE IN EAST FACE P. POLE AT S.W. COR. OF INTERSECTION OF EDGEWOOD RD. & W. BOUND HWY 100 (COLLINS RD.) OFF RAMP	1099+80.12	210.18’ LT	3478973	5409746	852.21

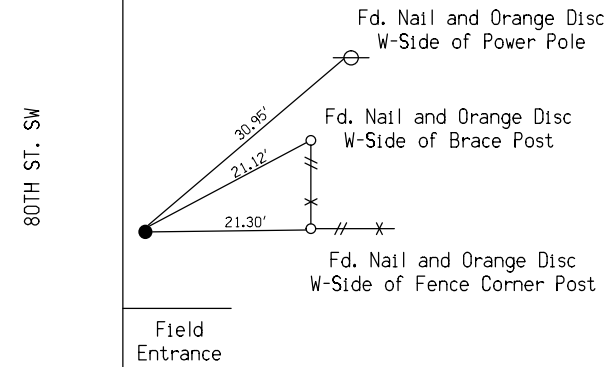
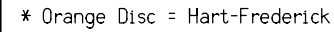
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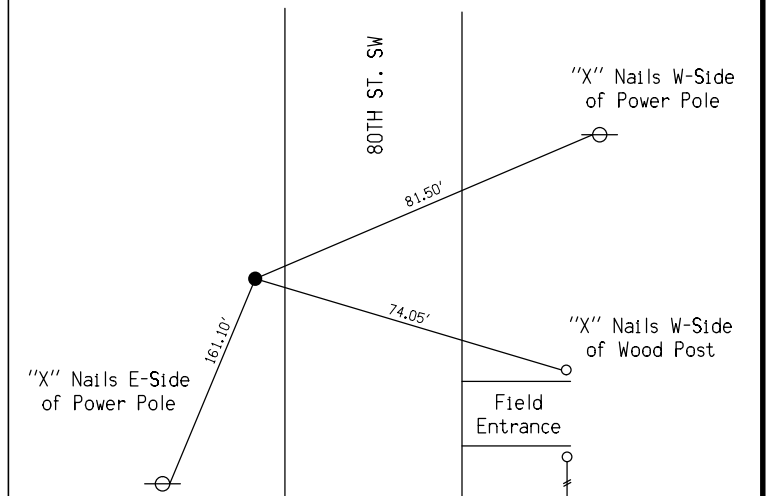
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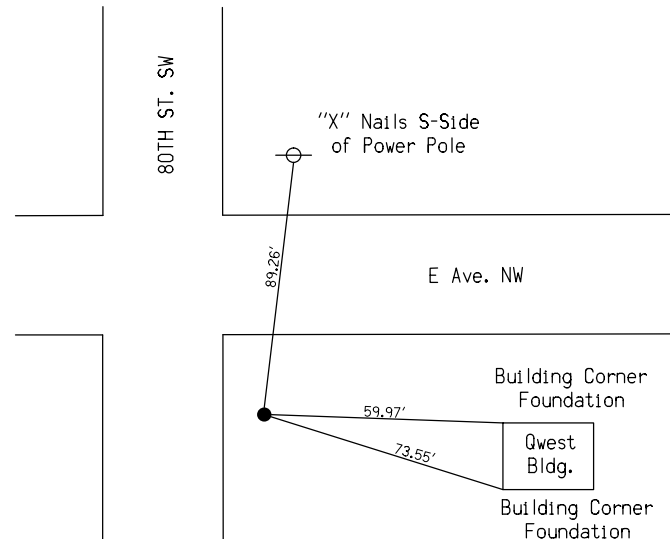
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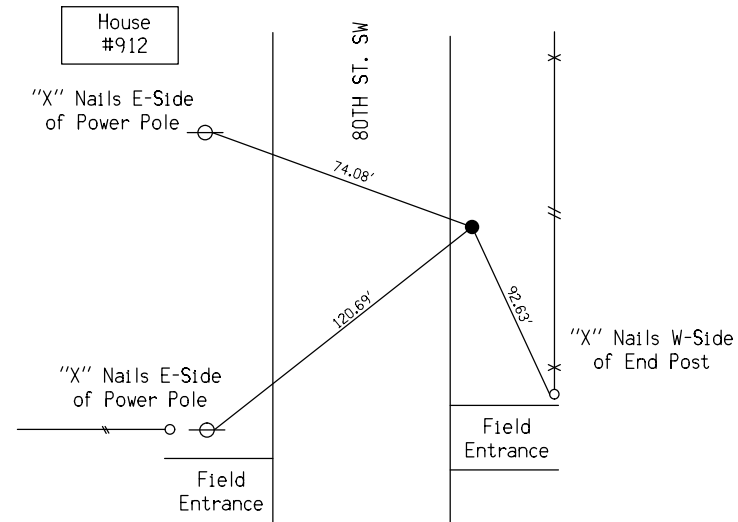
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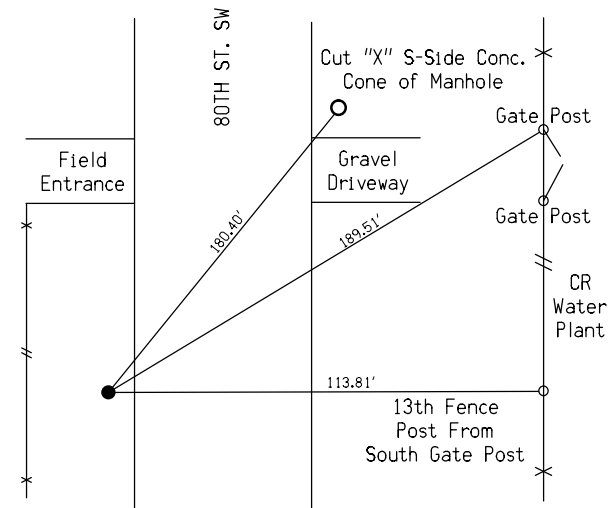
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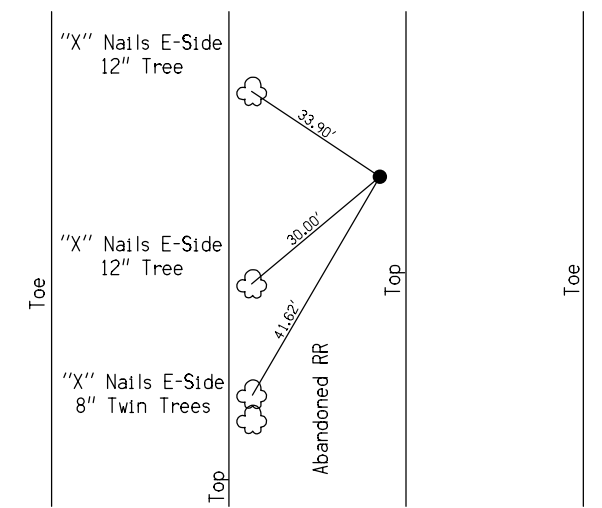
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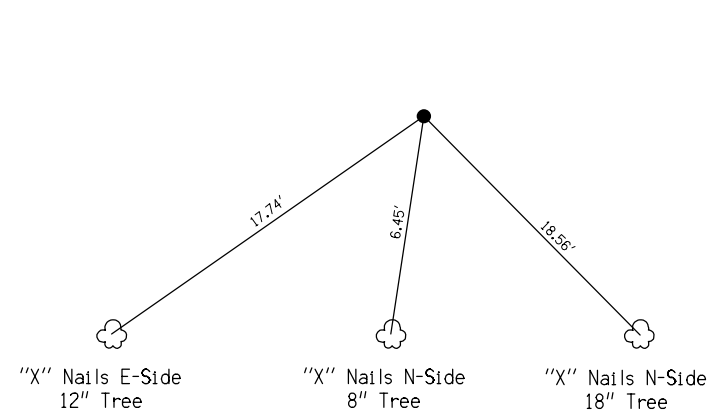
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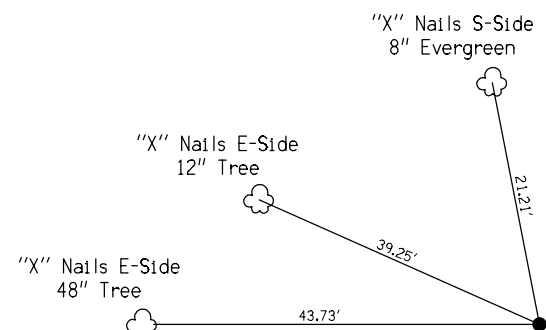
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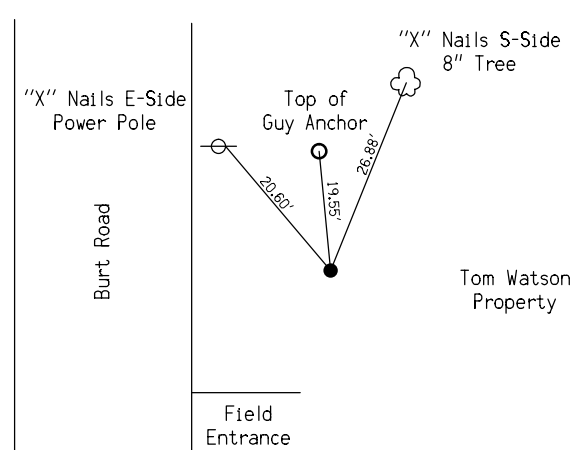
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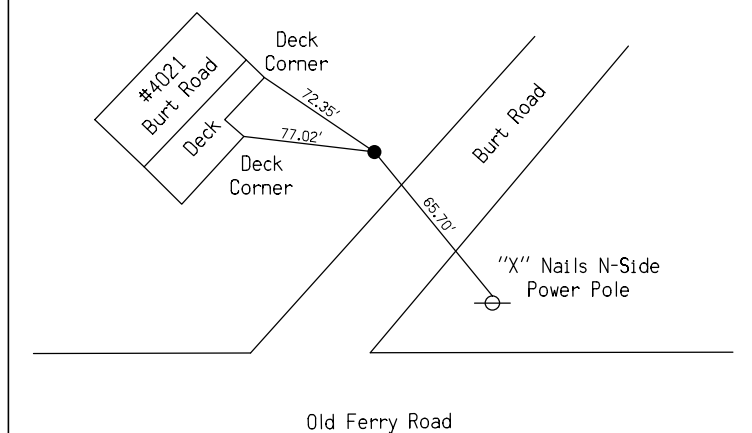
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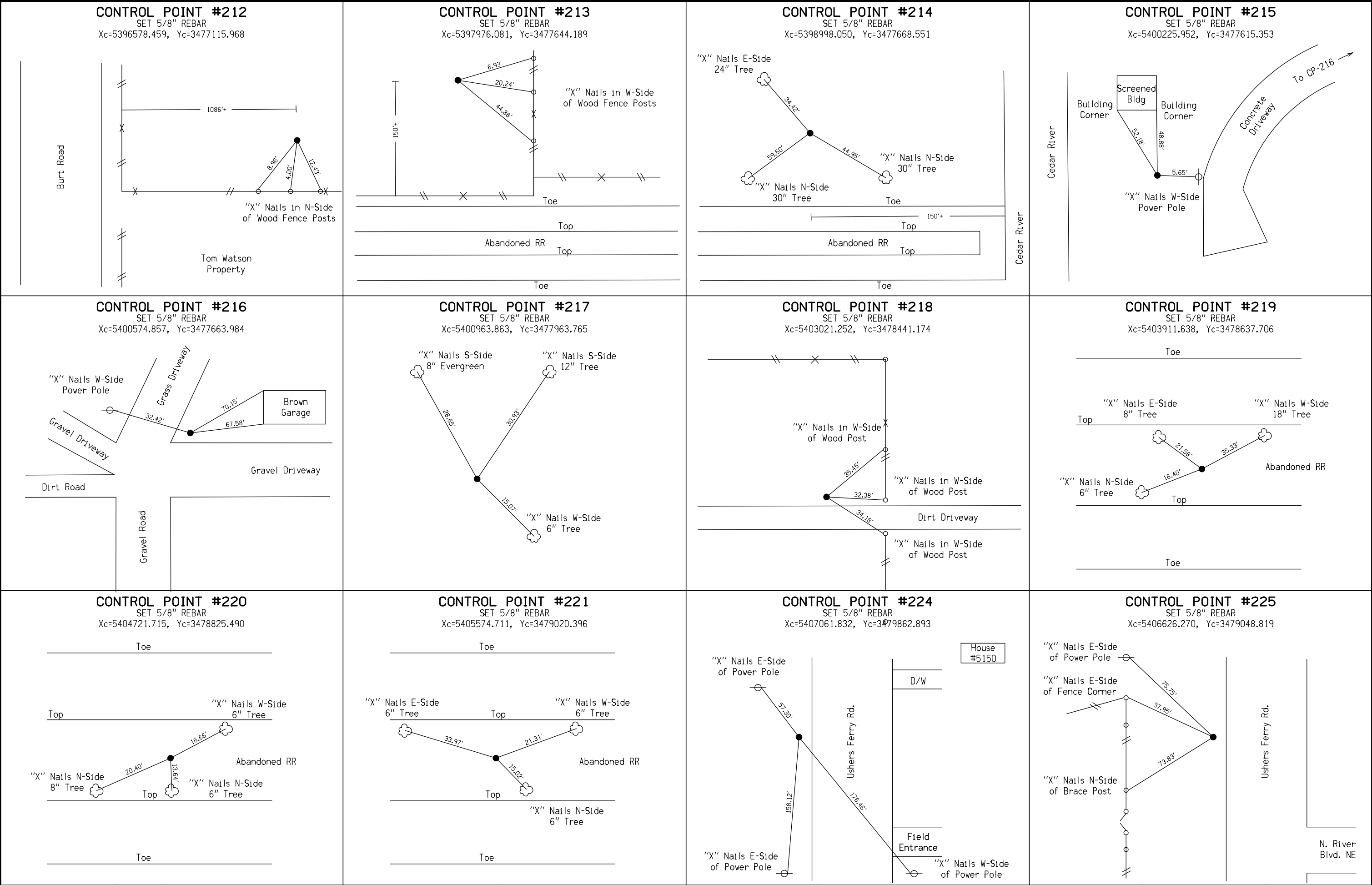


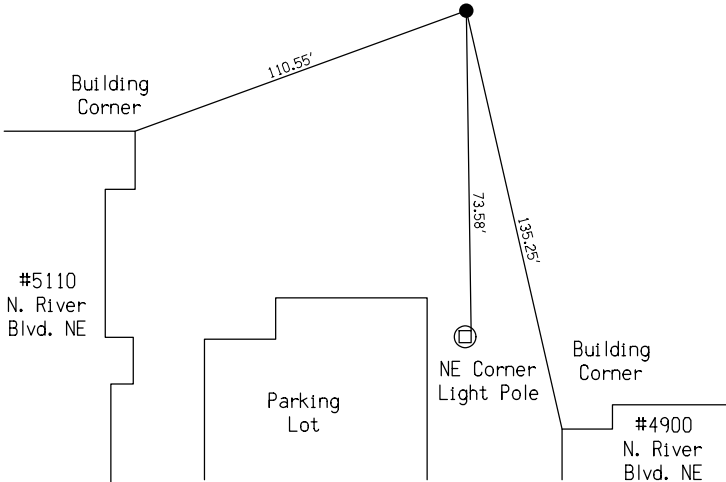
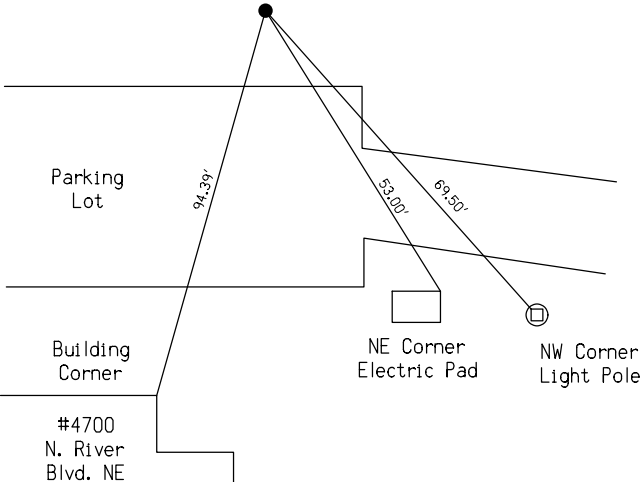
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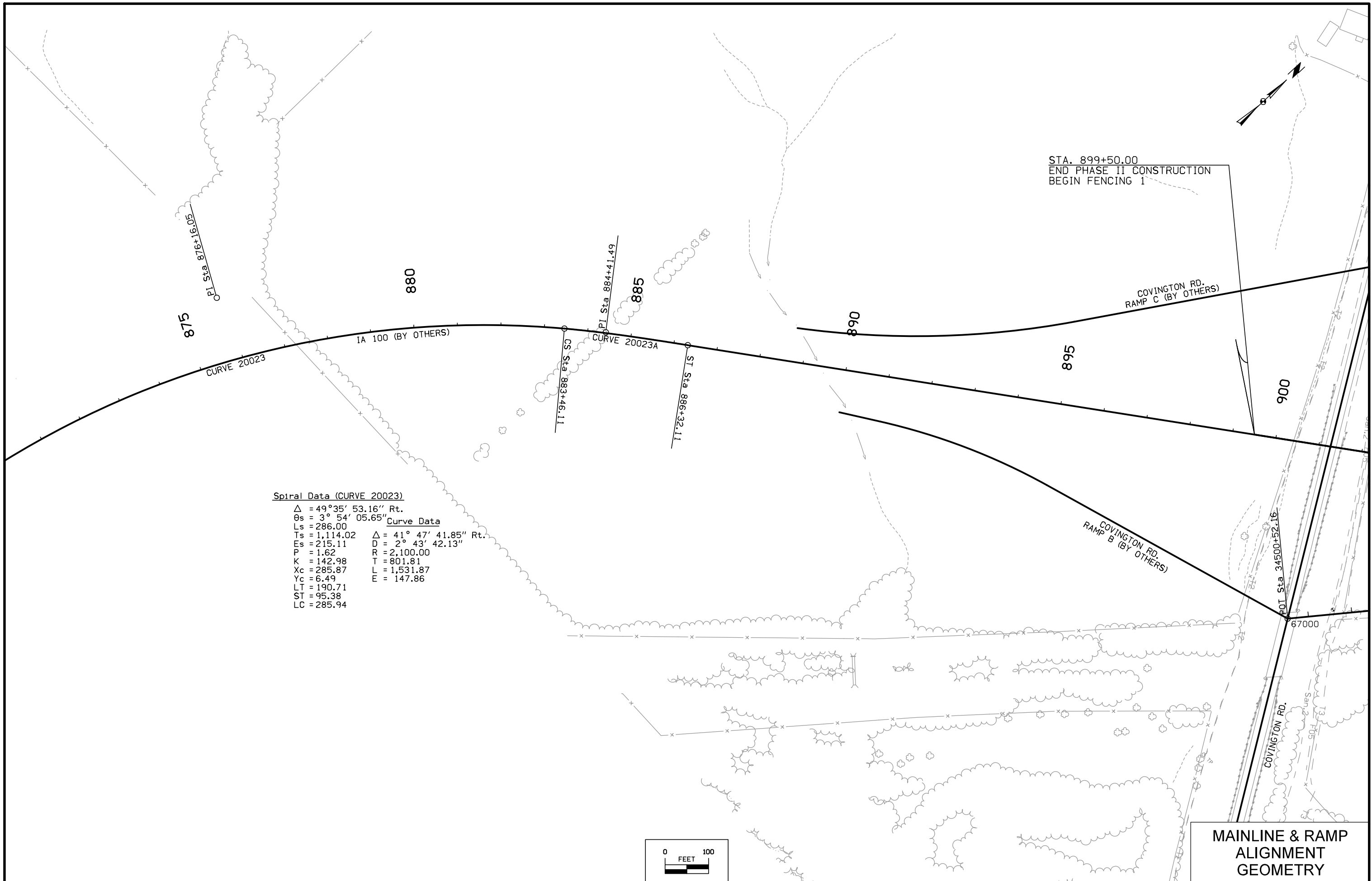
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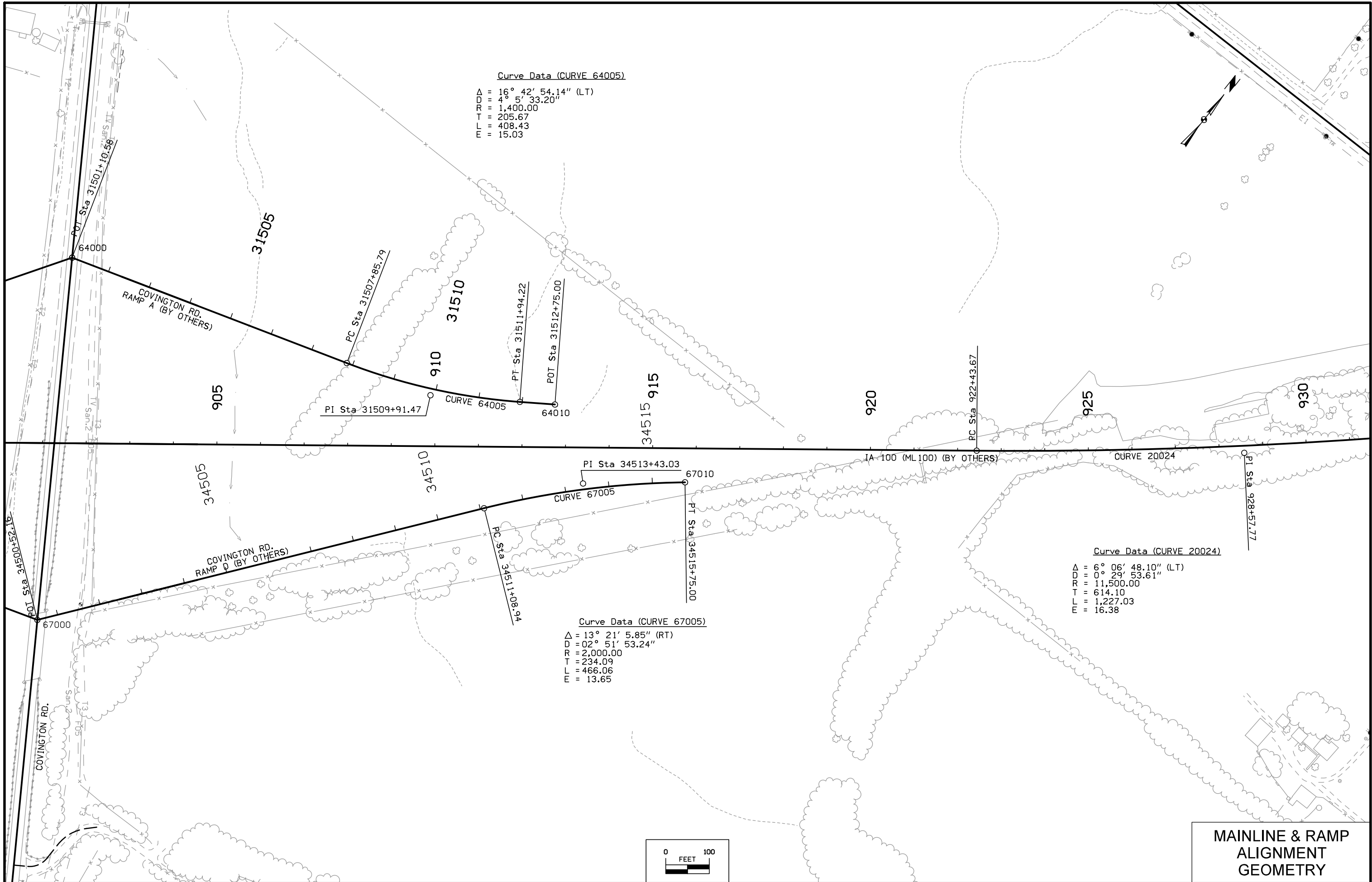
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10-20-09

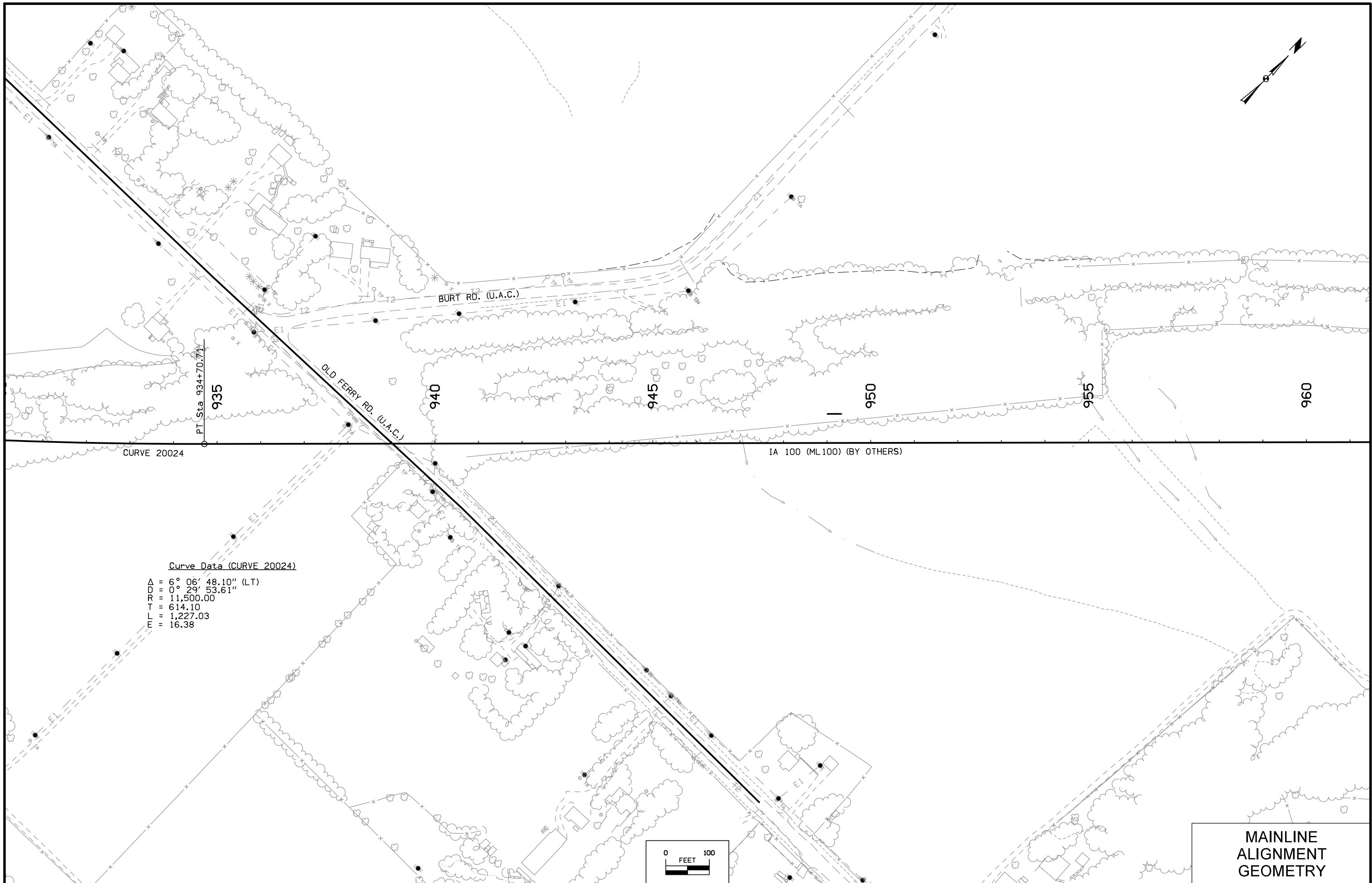
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101-17
04-19-11

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	G.6	
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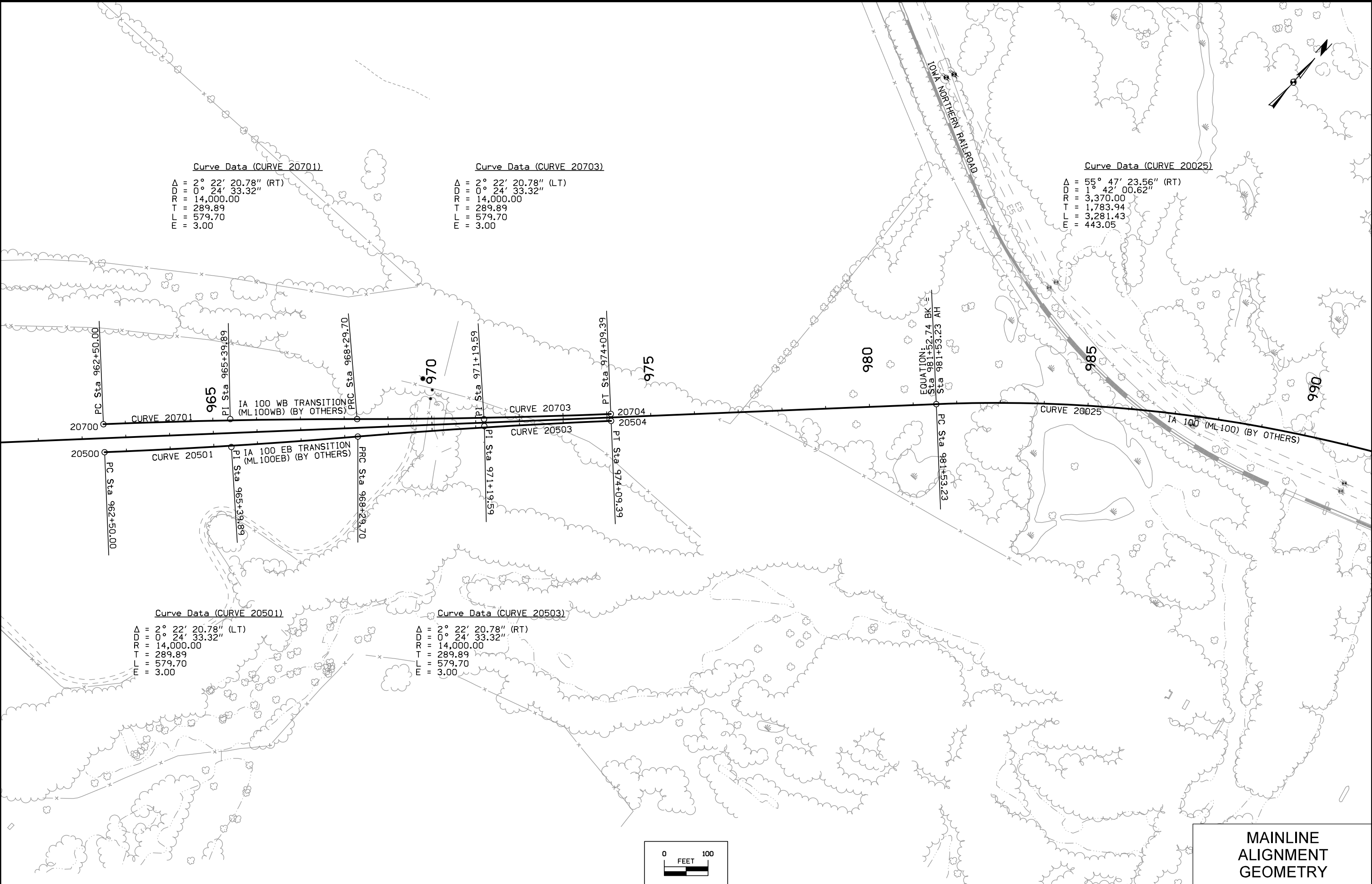


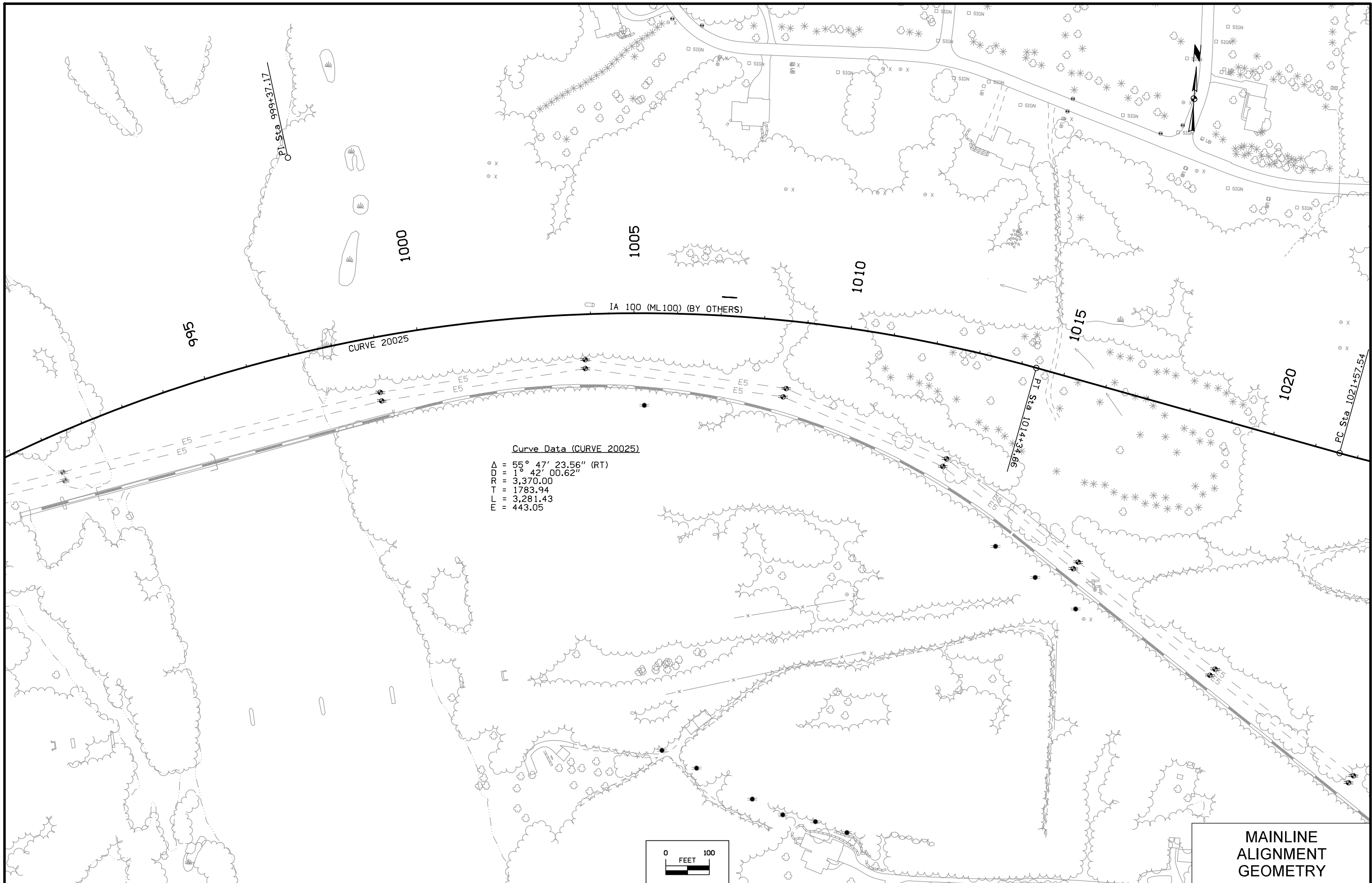




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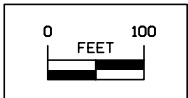
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Curve Data (CURVE 20025)

Δ = 55° 47' 23.56" (RT)
D = 1° 42' 00.62"
R = 3,370.00
T = 1783.94
L = 3,281.43
E = 443.05



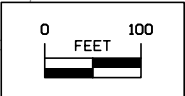
MAINLINE
ALIGNMENT
GEOMETRY

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	G.11
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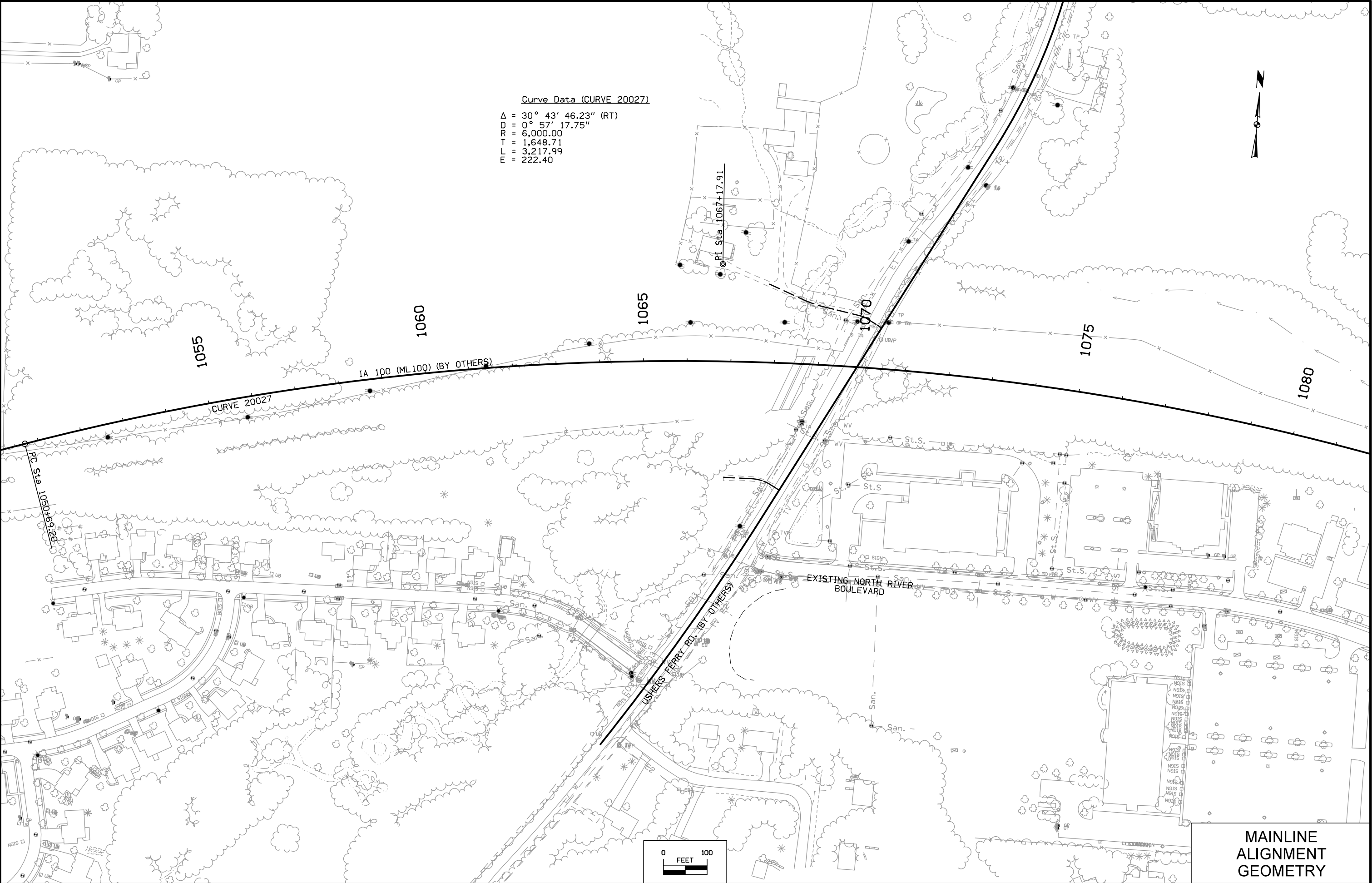
Curve Data (CURVE 20026)

$\Delta = 30^{\circ} 13' 50.88''$ (LT)
D = $1^{\circ} 49' 28.94''$
R = 3,140.00
T = 848.14
L = 1,656.75
E = 112.53



MAINLINE
ALIGNMENT
GEOMETRY

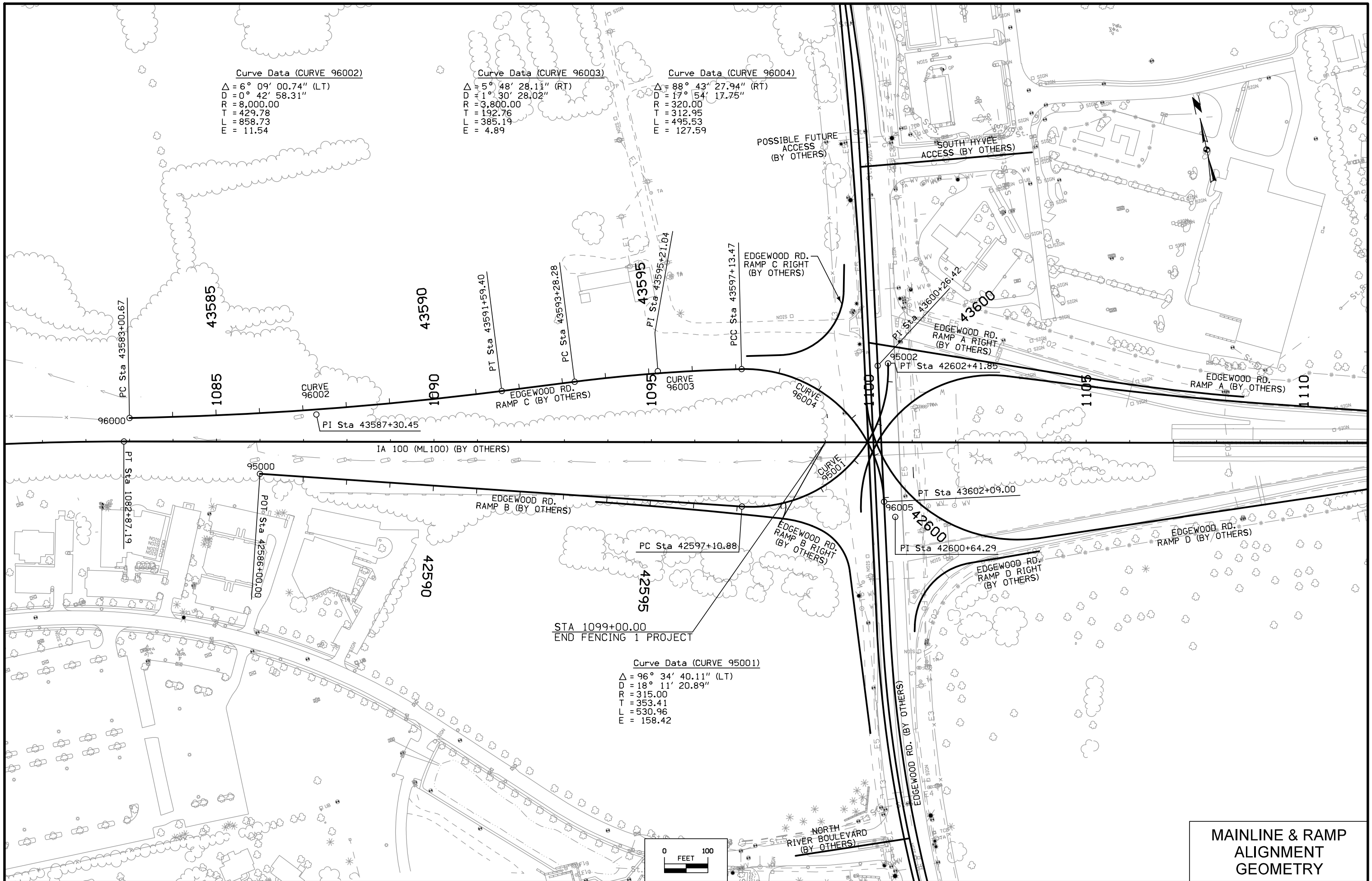
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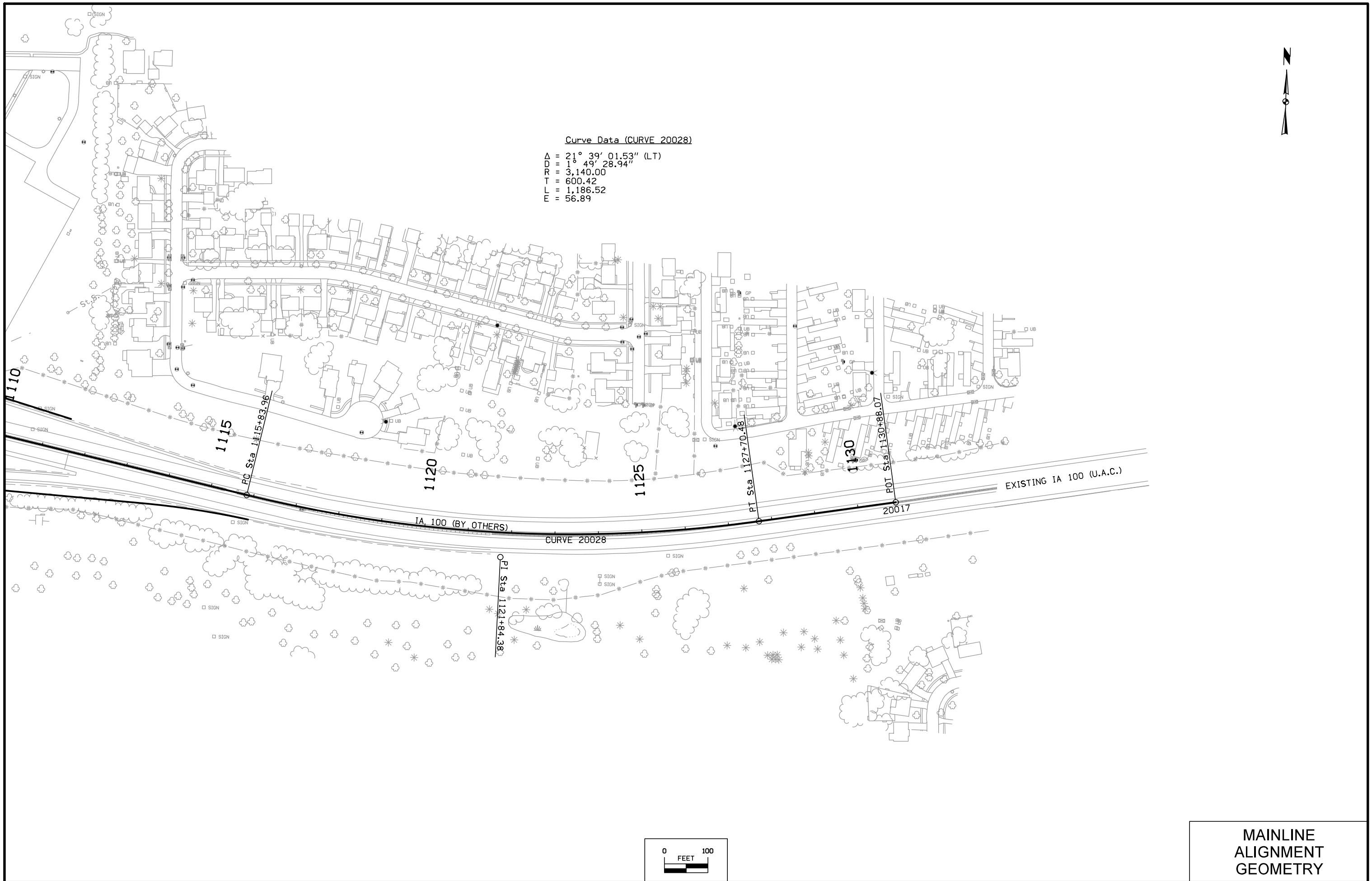
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D = 0° 57' 17.75"
R = 6,000.00
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L = 3,217.99
E = 222.40

MAINLINE
ALIGNMENT
GEOMETRY

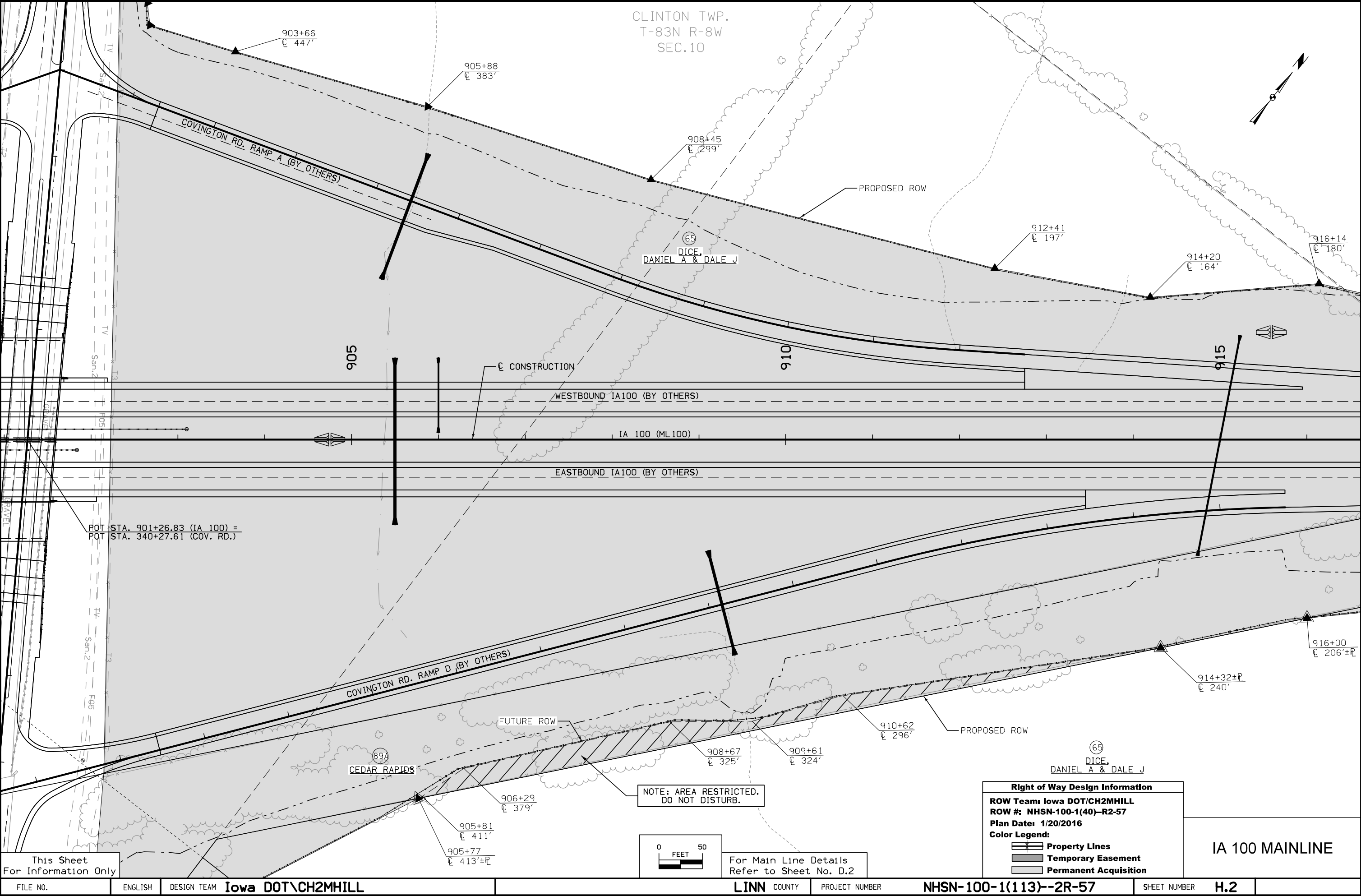


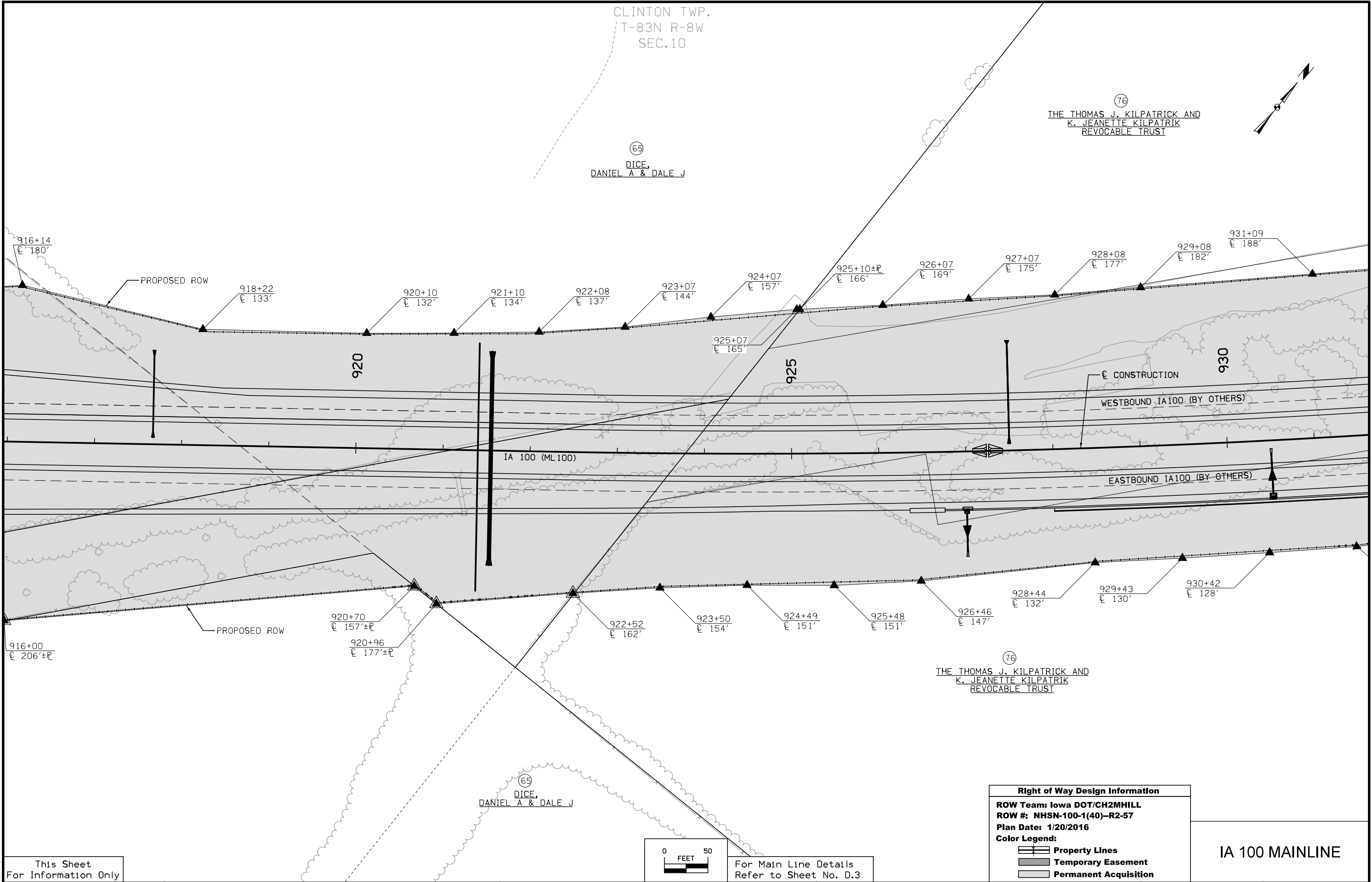
MAINLINE & RAMP
ALIGNMENT
GEOMETRY

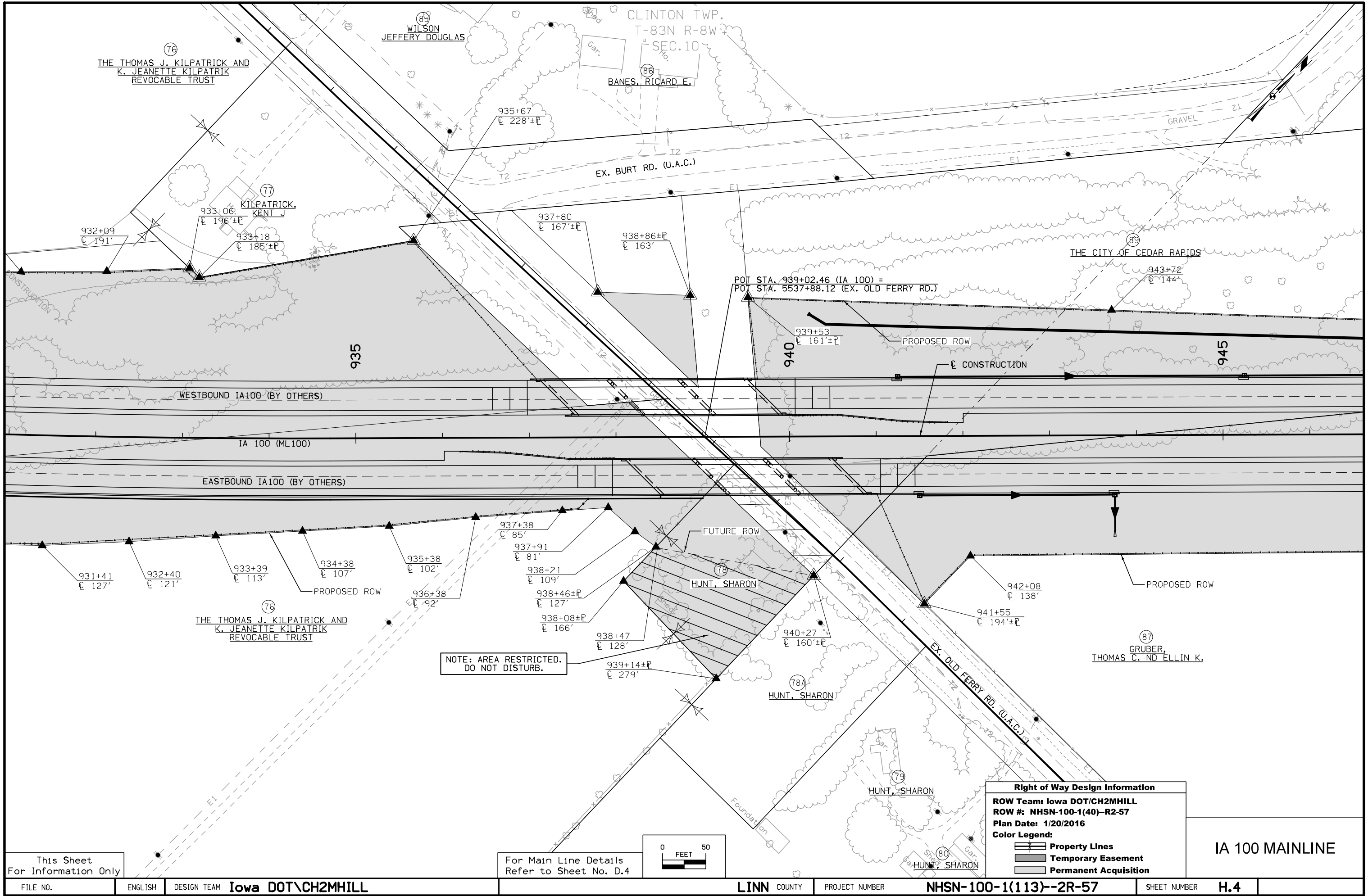


Curve Data (CURVE 20028)
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D = 1° 49' 28.94"
R = 3,140.00
T = 600.42
L = 1,186.52
E = 56.89

MAINLINE
ALIGNMENT
GEOMETRY

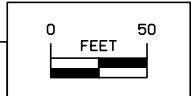






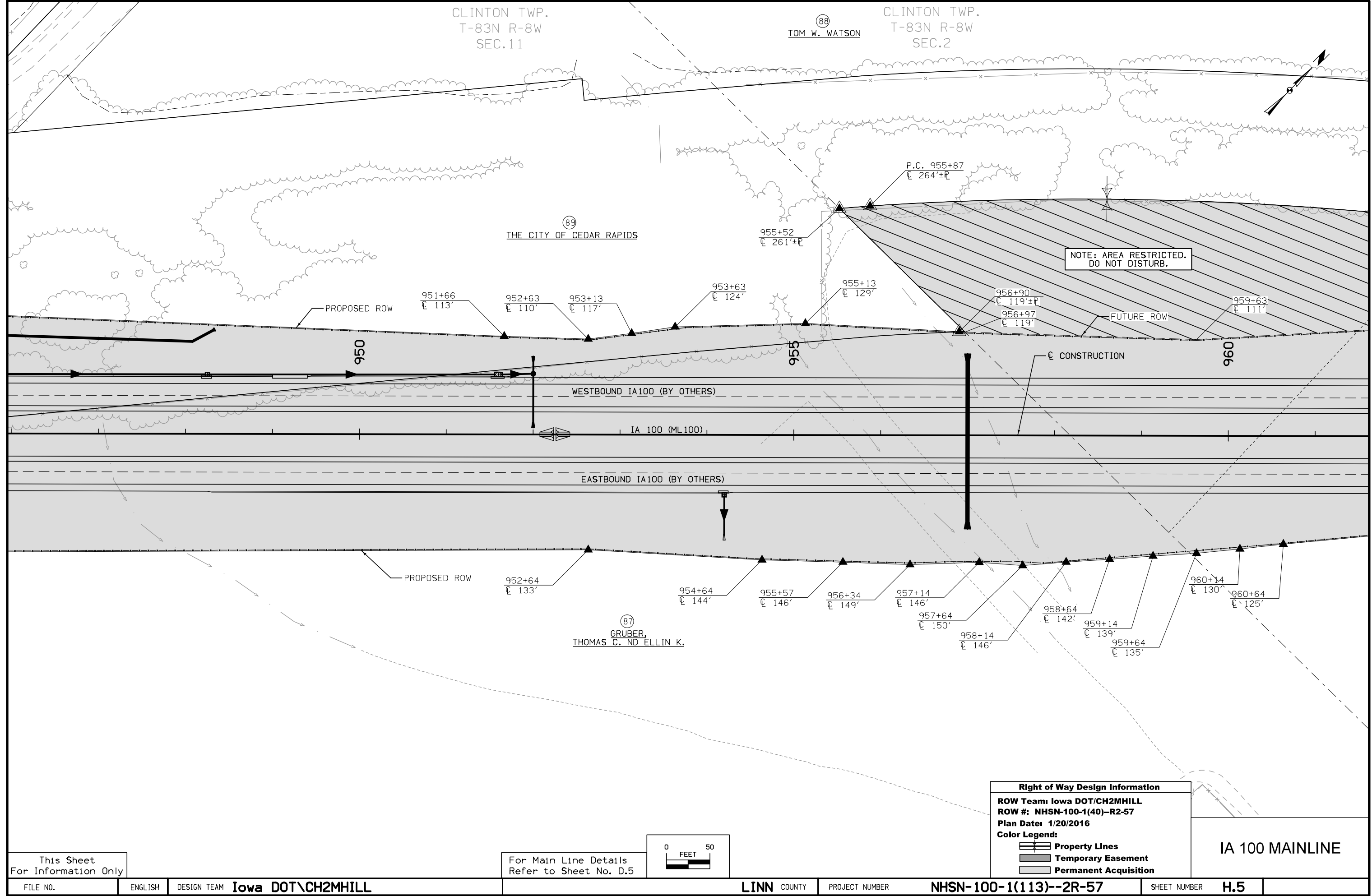
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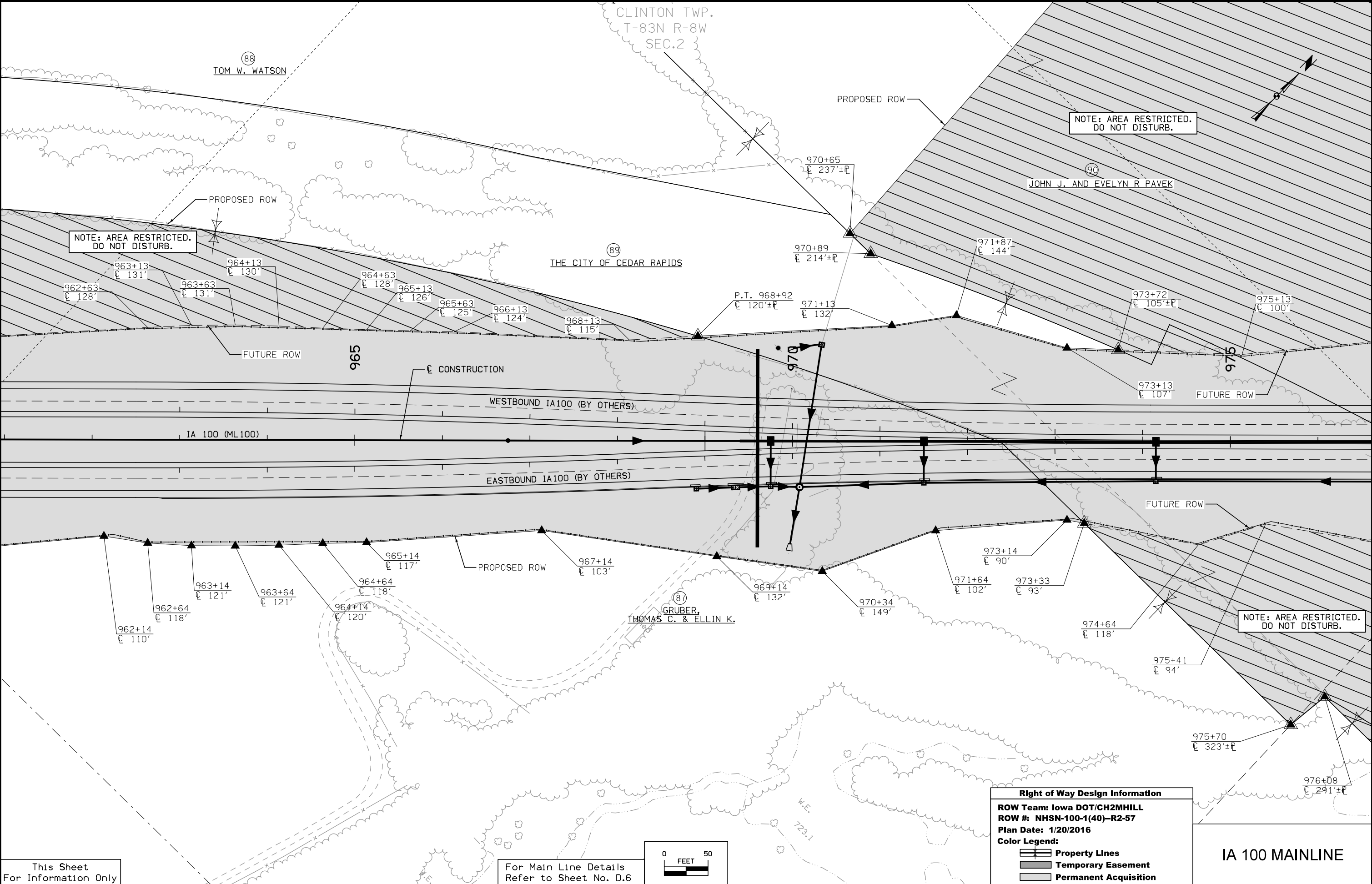
For Main Line Details
Refer to Sheet No. D.4



Right of Way Design Information	
ROW Team: Iowa DOT/CH2MHILL	
ROW #: NHSN-100-1(40)-R2-57	
Plan Date: 1/20/2016	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

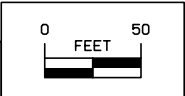
IA 100 MAINLINE





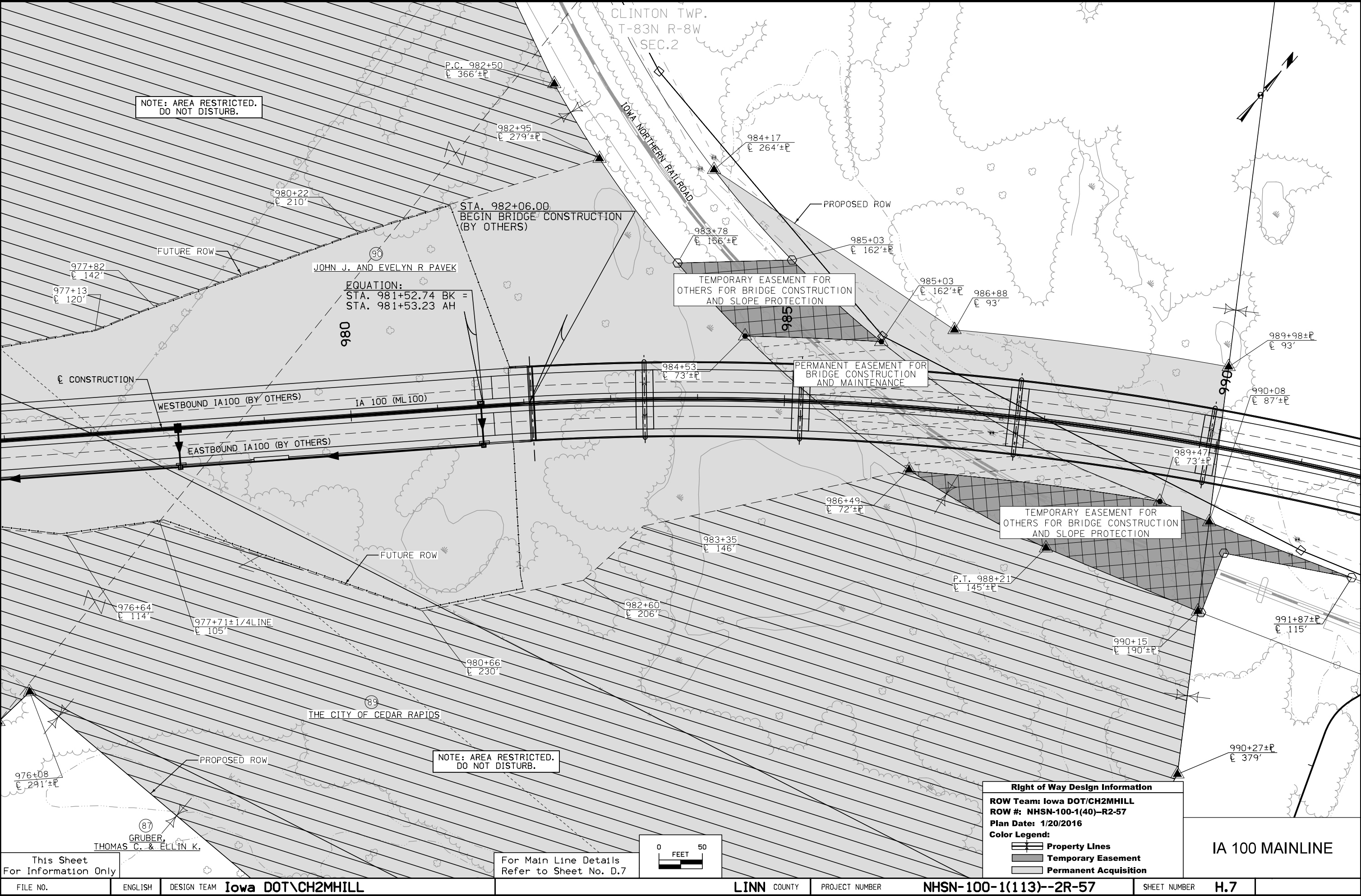
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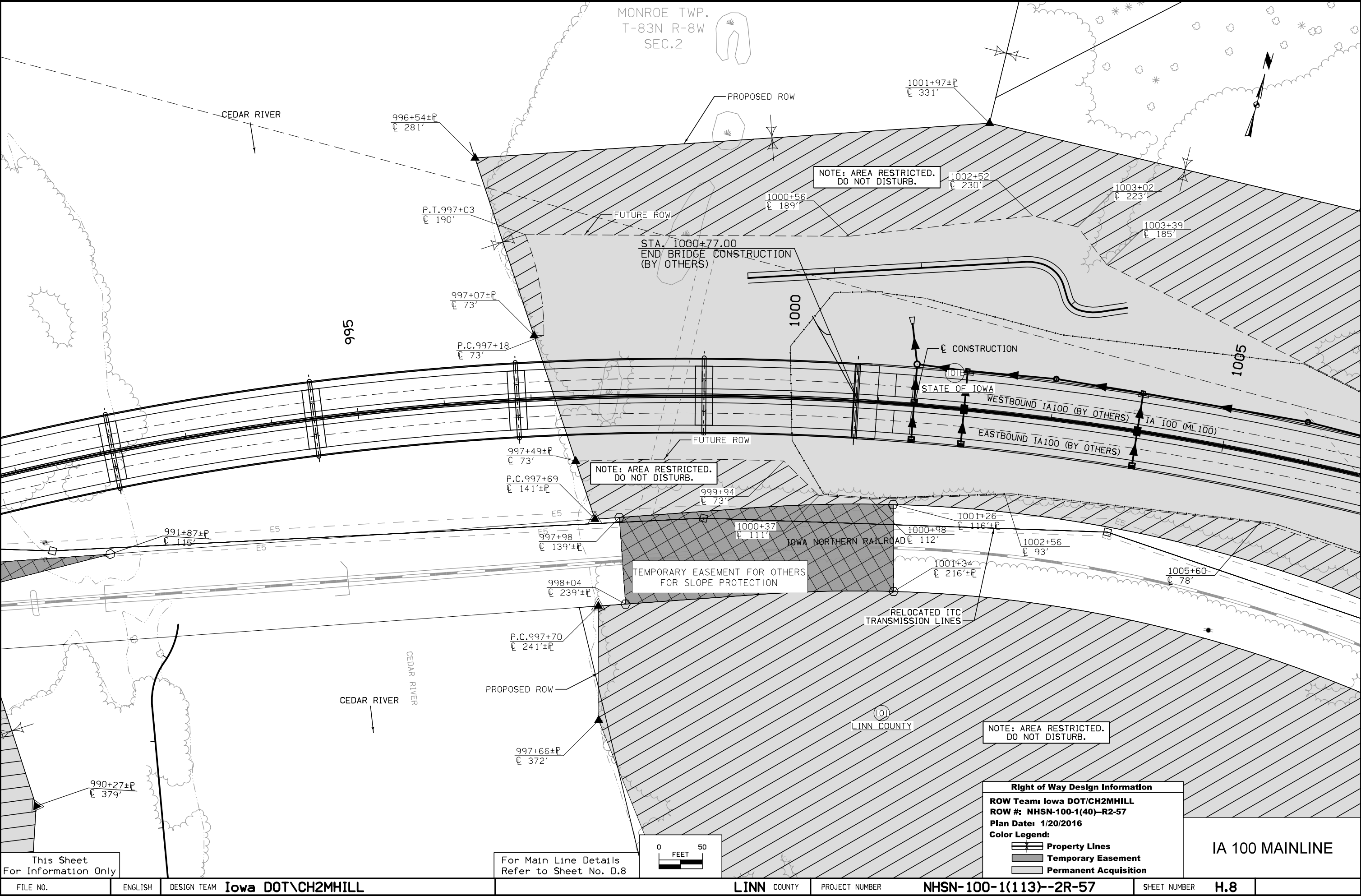
For Main Line Details
Refer to Sheet No. D.6

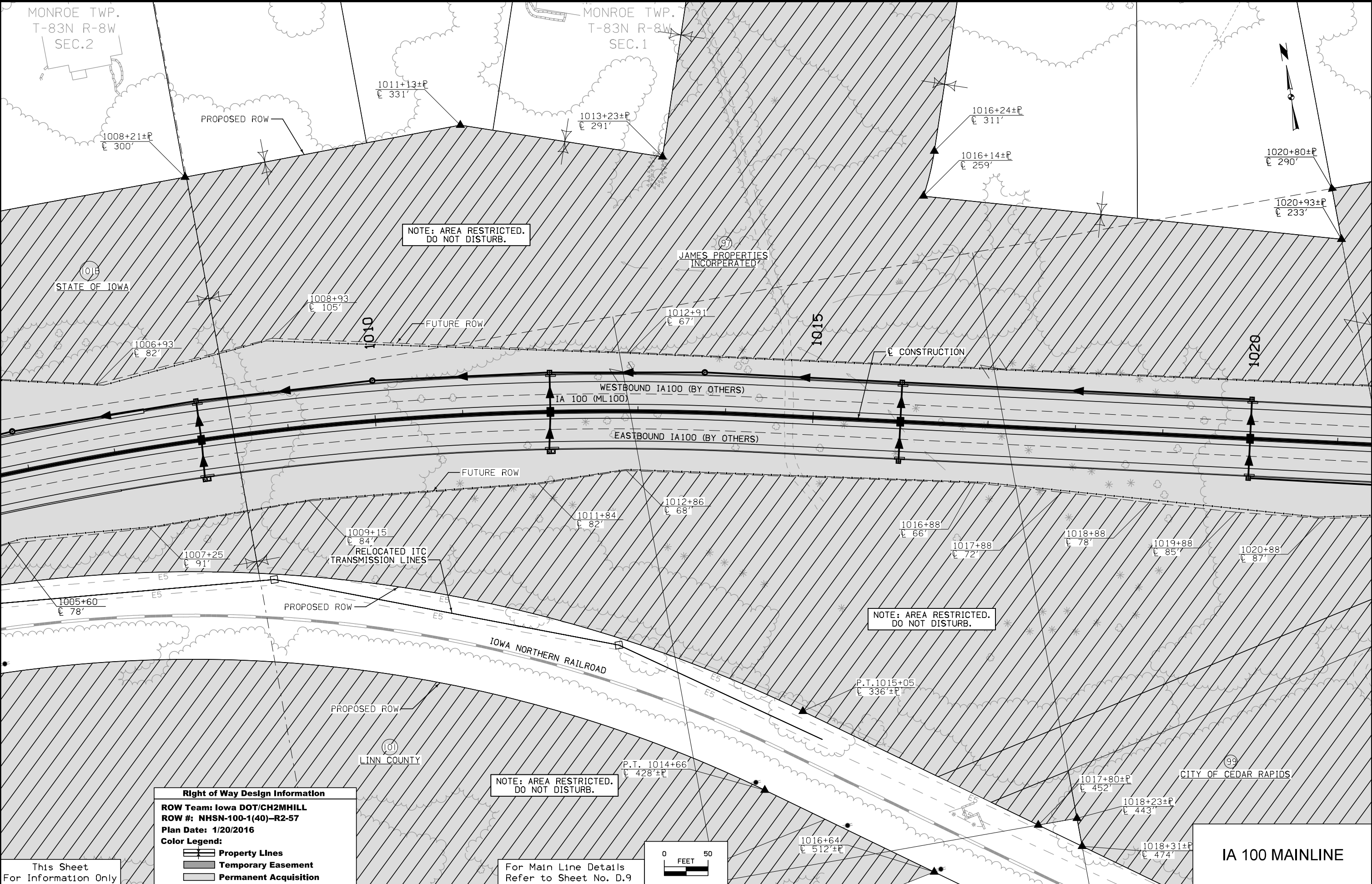


Right of Way Design Information	
ROW Team: Iowa DOT/CH2MHILL	
ROW #: NHSN-100-1(40)-R2-57	
Plan Date: 1/20/2016	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

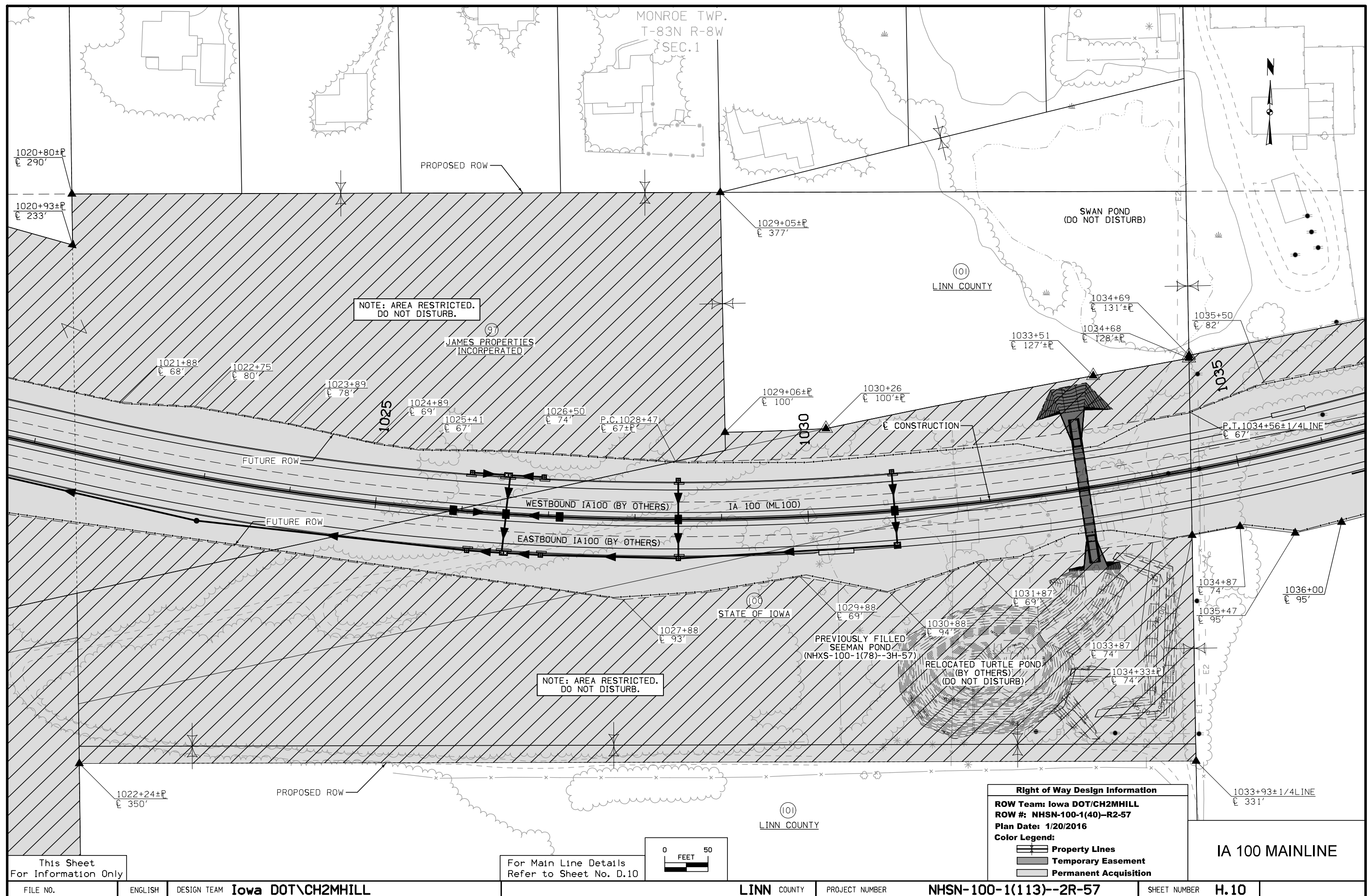
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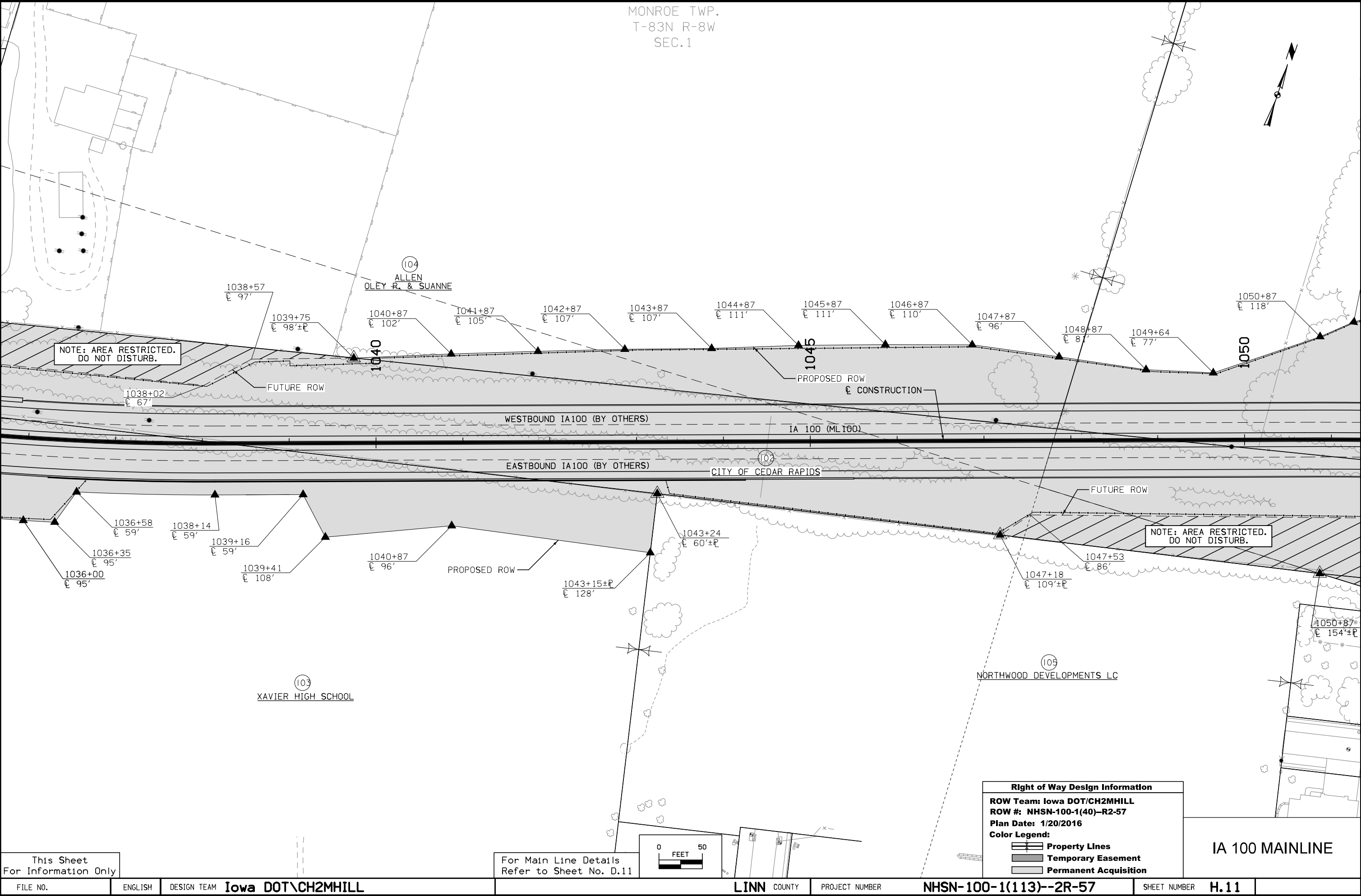


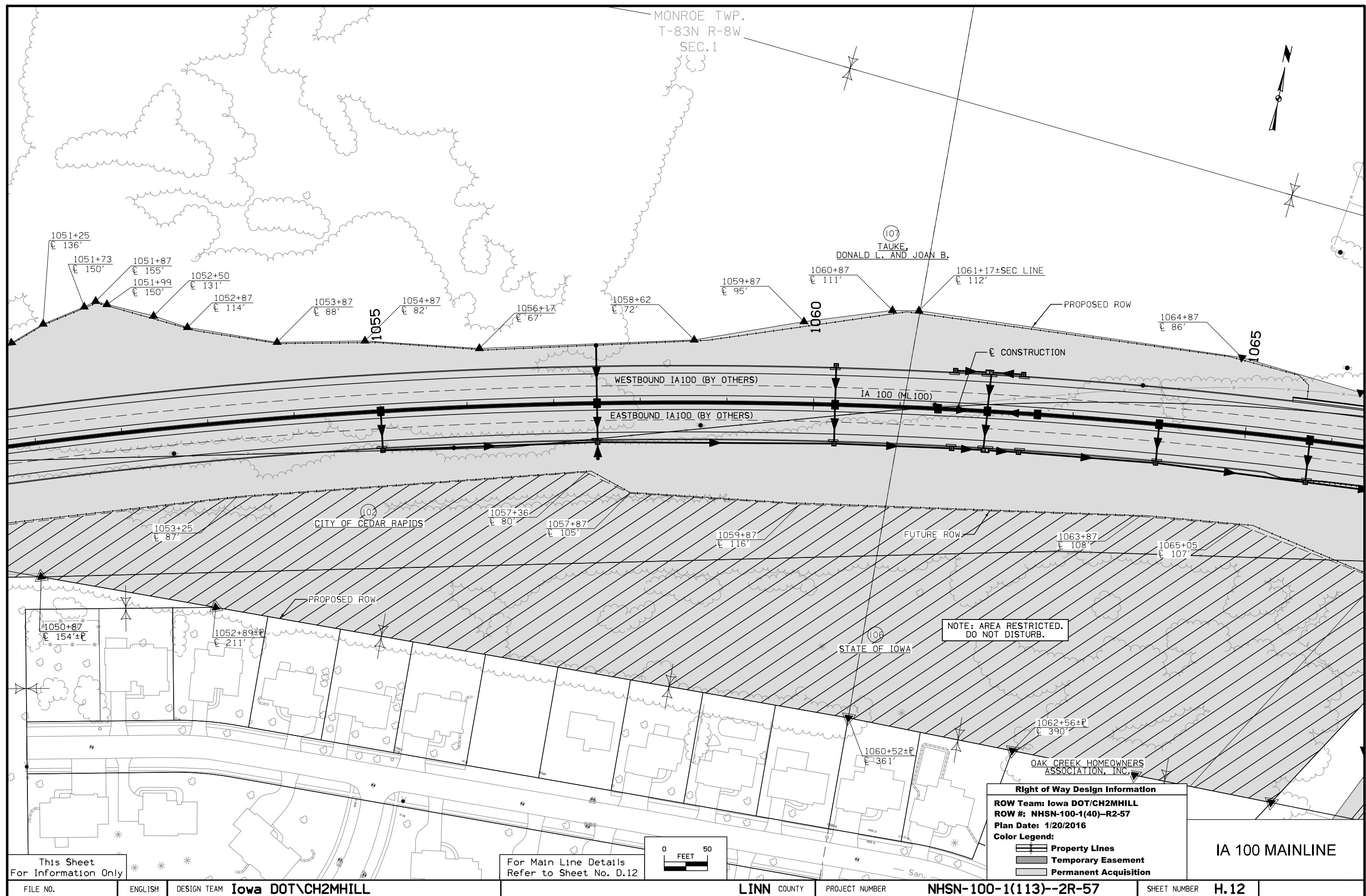


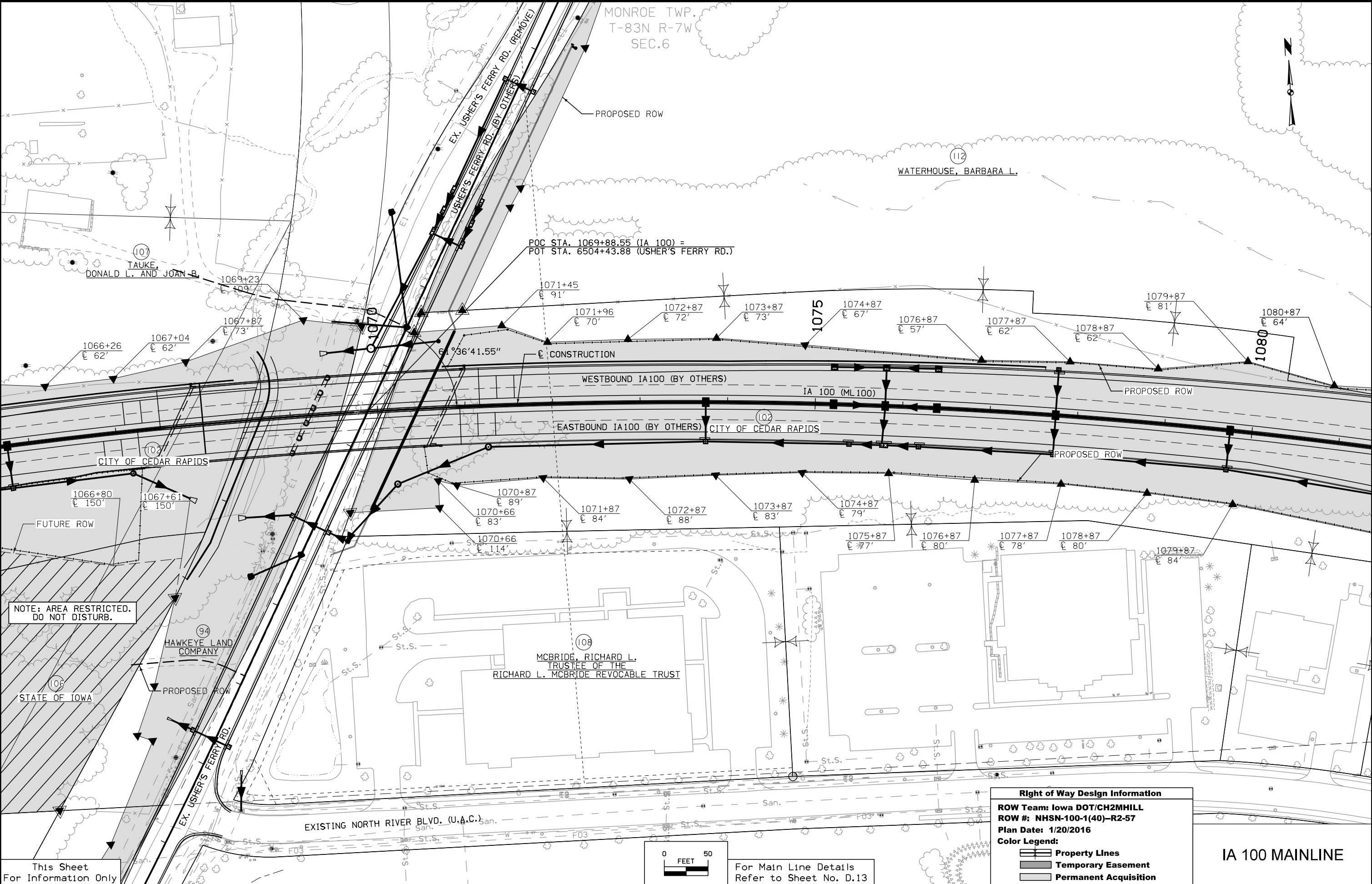


FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	H.9
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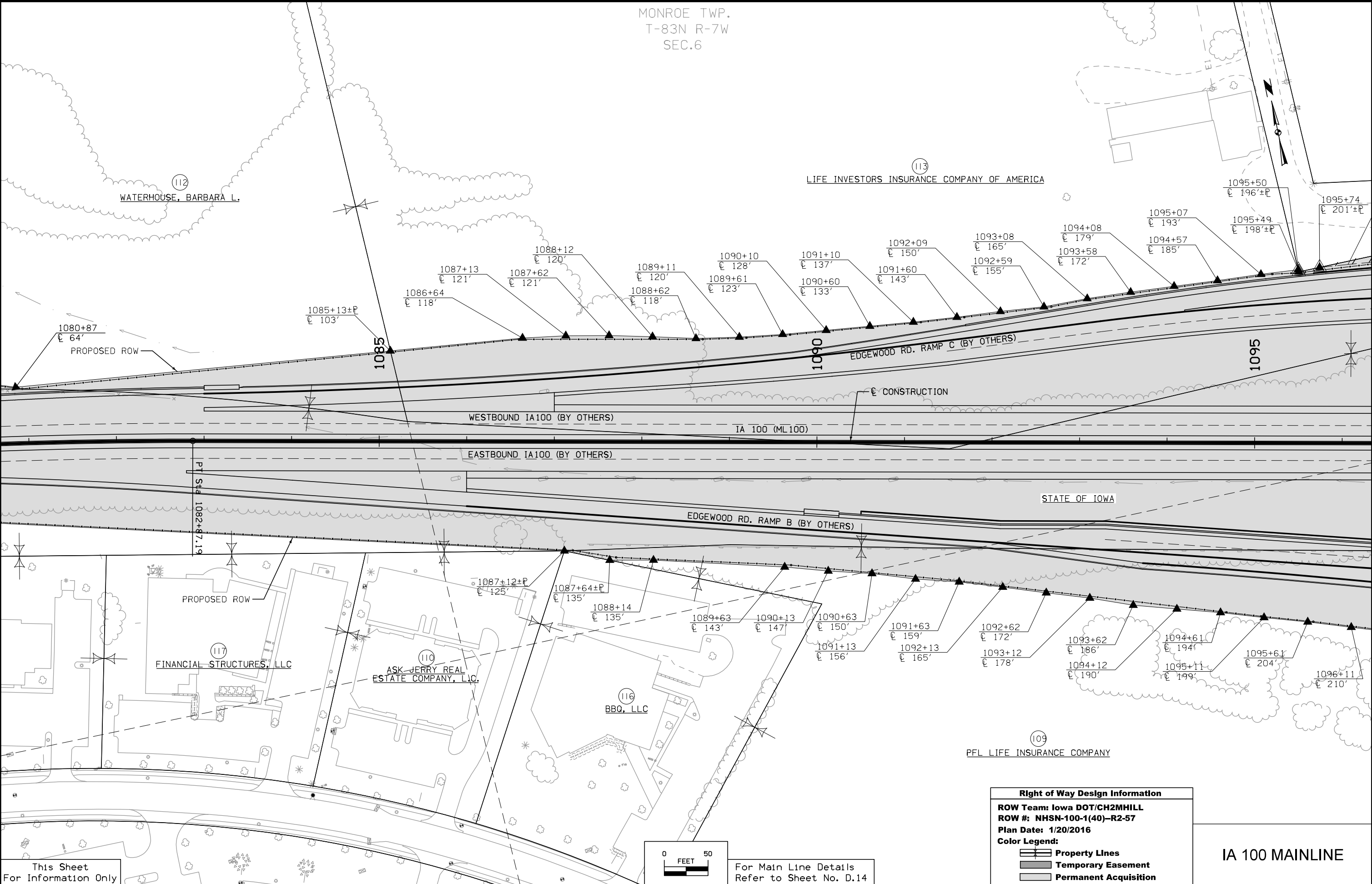


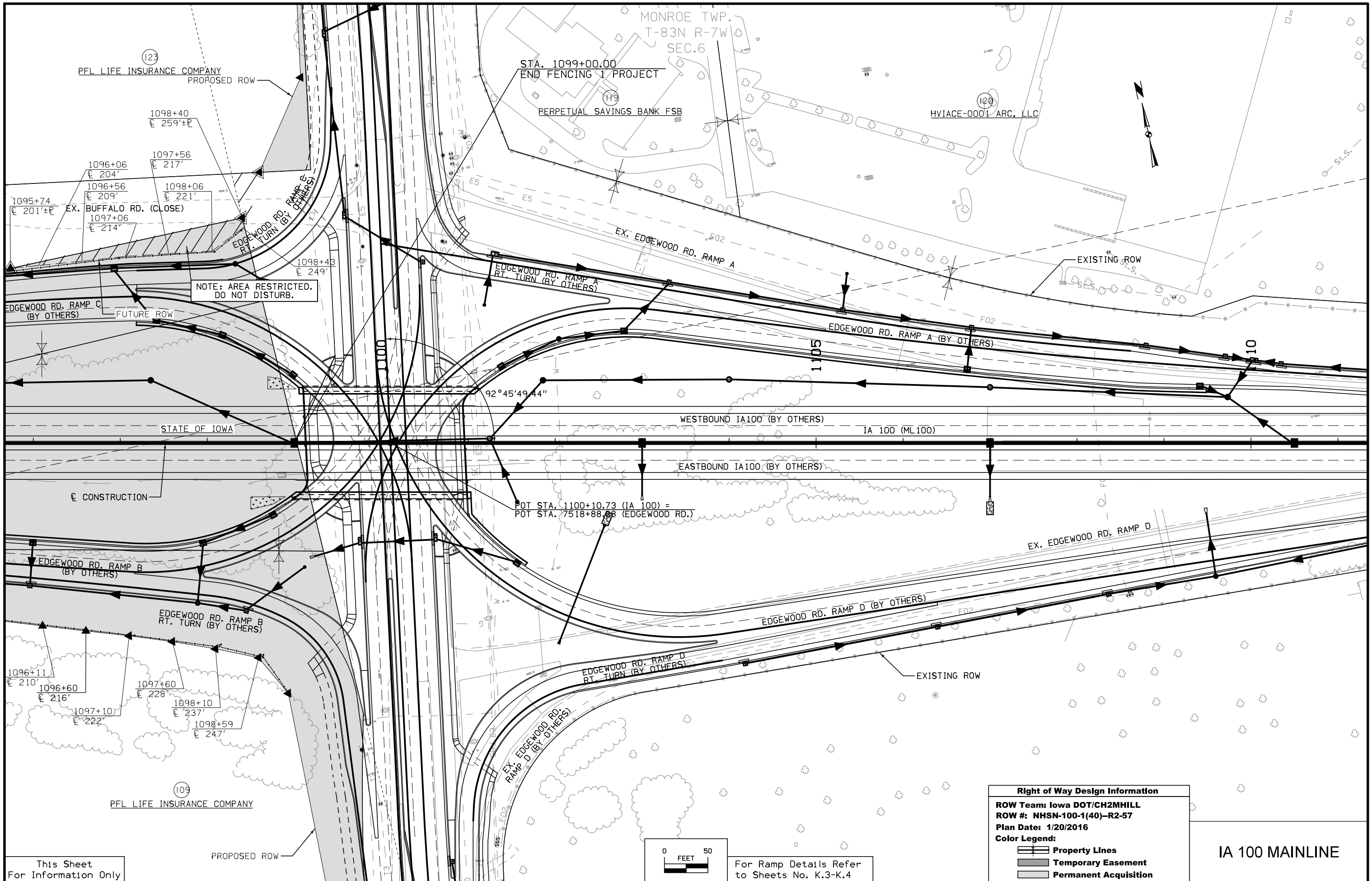
NOTE: AREA RESTRICTED.
DO NOT DISTURB.

Right of Way Design Information
ROW Team: Iowa DOT/CH2MHILL
ROW #: NHSN-100-1(40)-R2-57
Plan Date: 1/20/2016
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

IA 100 MAINLINE





This Sheet
For Information Only

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	H.15
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Right of Way Design Information

ROW Team: Iowa DOT/CH2MHILL

ROW #: NHSN-100-1(40)-R2-57

Plan Date: 1/20/2016

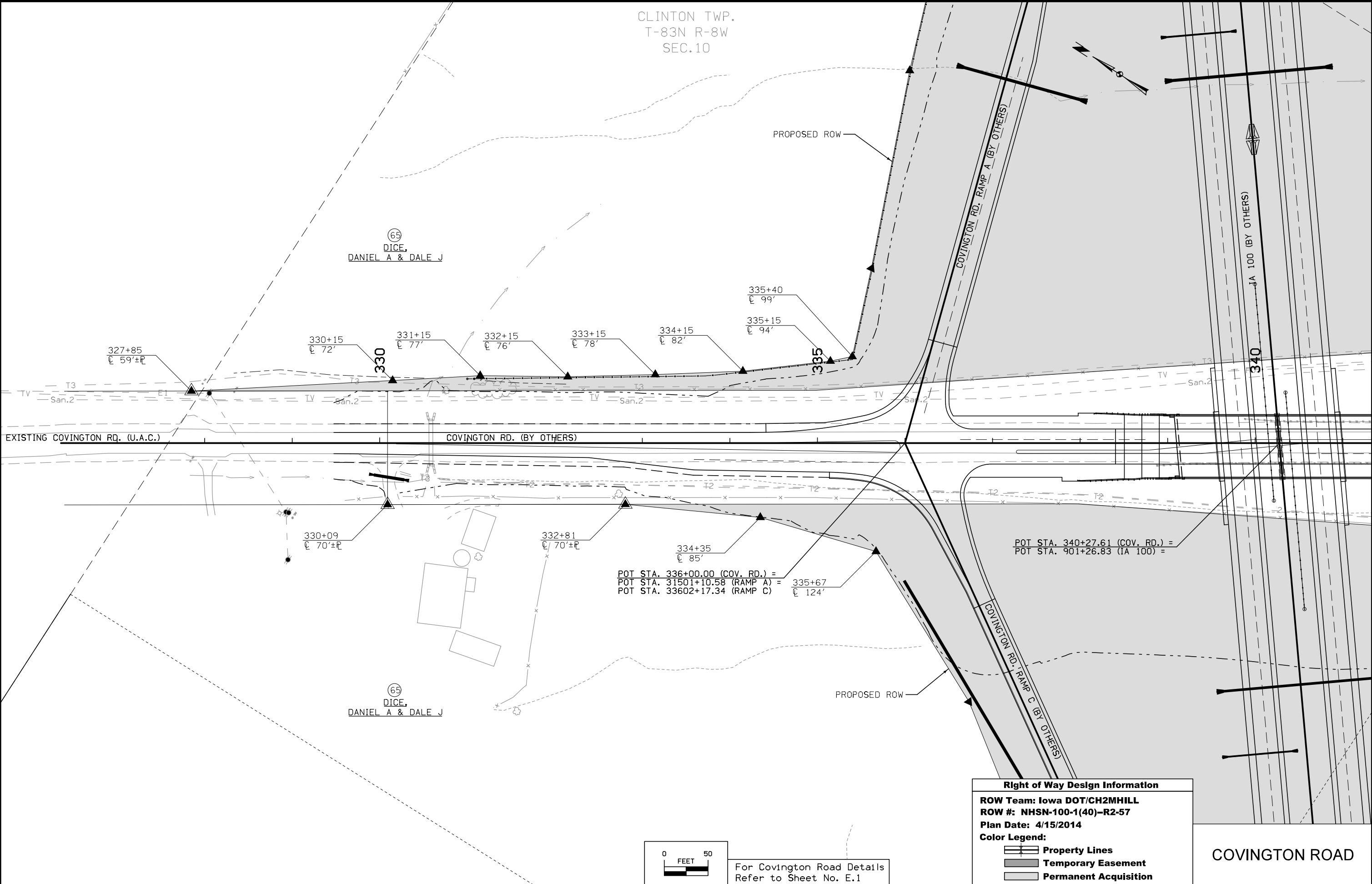
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Property Lines

Temporary Easement

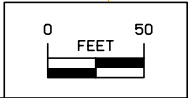
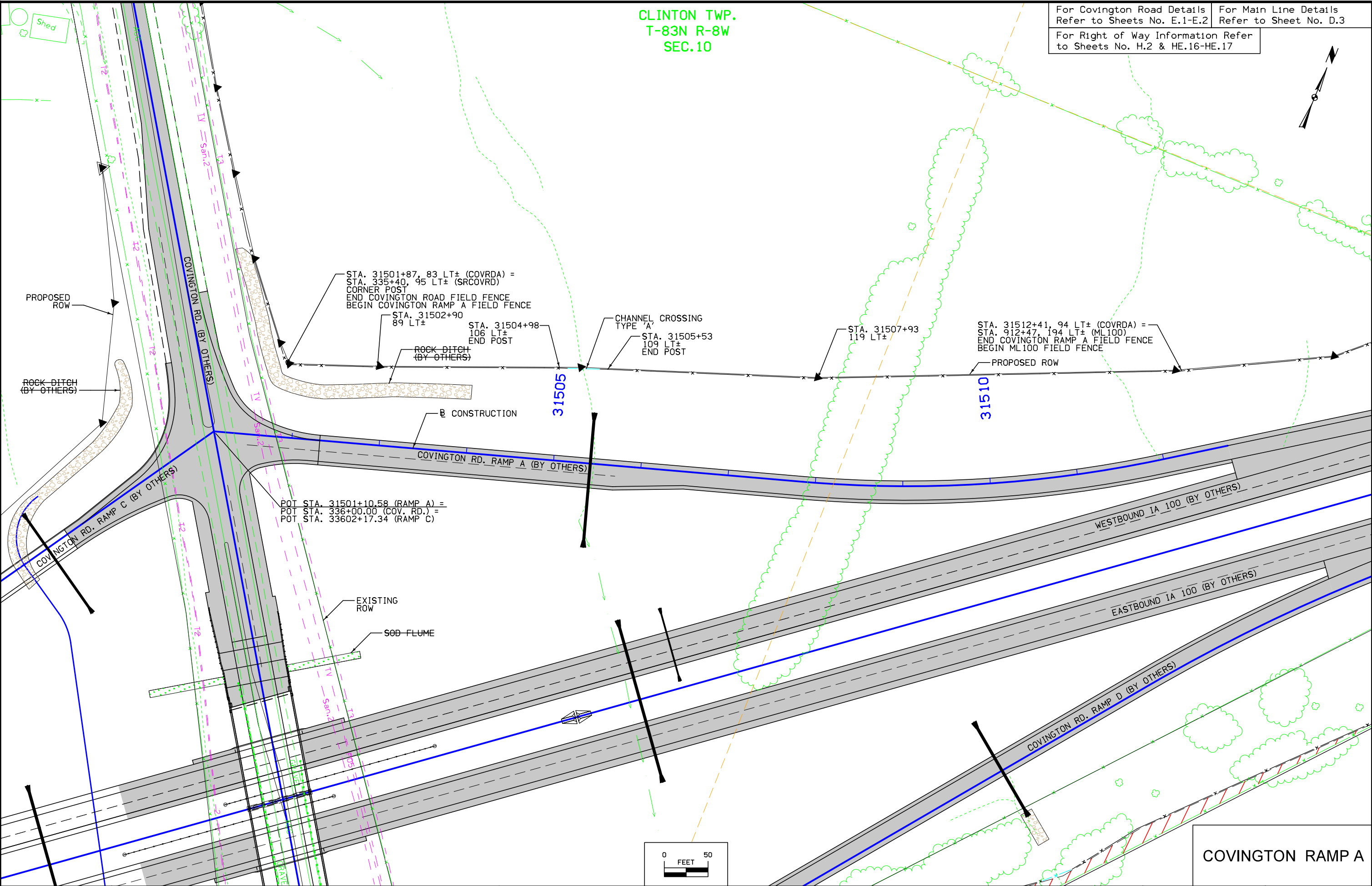
Permanent Acquisition

IA 100 MAINLINE

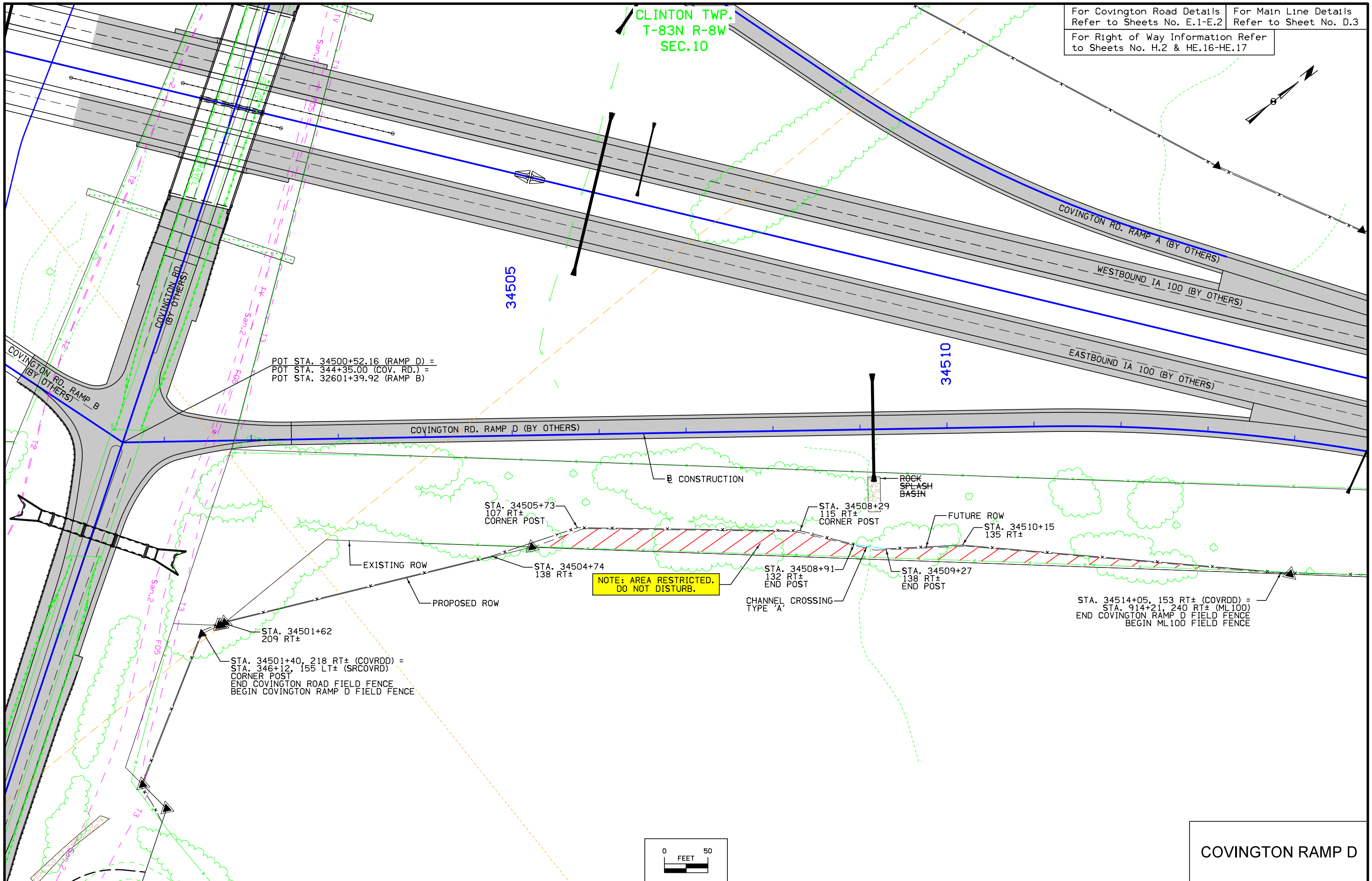


CLINTON TWP.
T-83N R-8W
SEC.10

For Covington Road Details Refer to Sheets No. E.1-E.2	For Main Line Details Refer to Sheet No. D.3
For Right of Way Information Refer to Sheets No. H.2 & HE.16-HE.17	

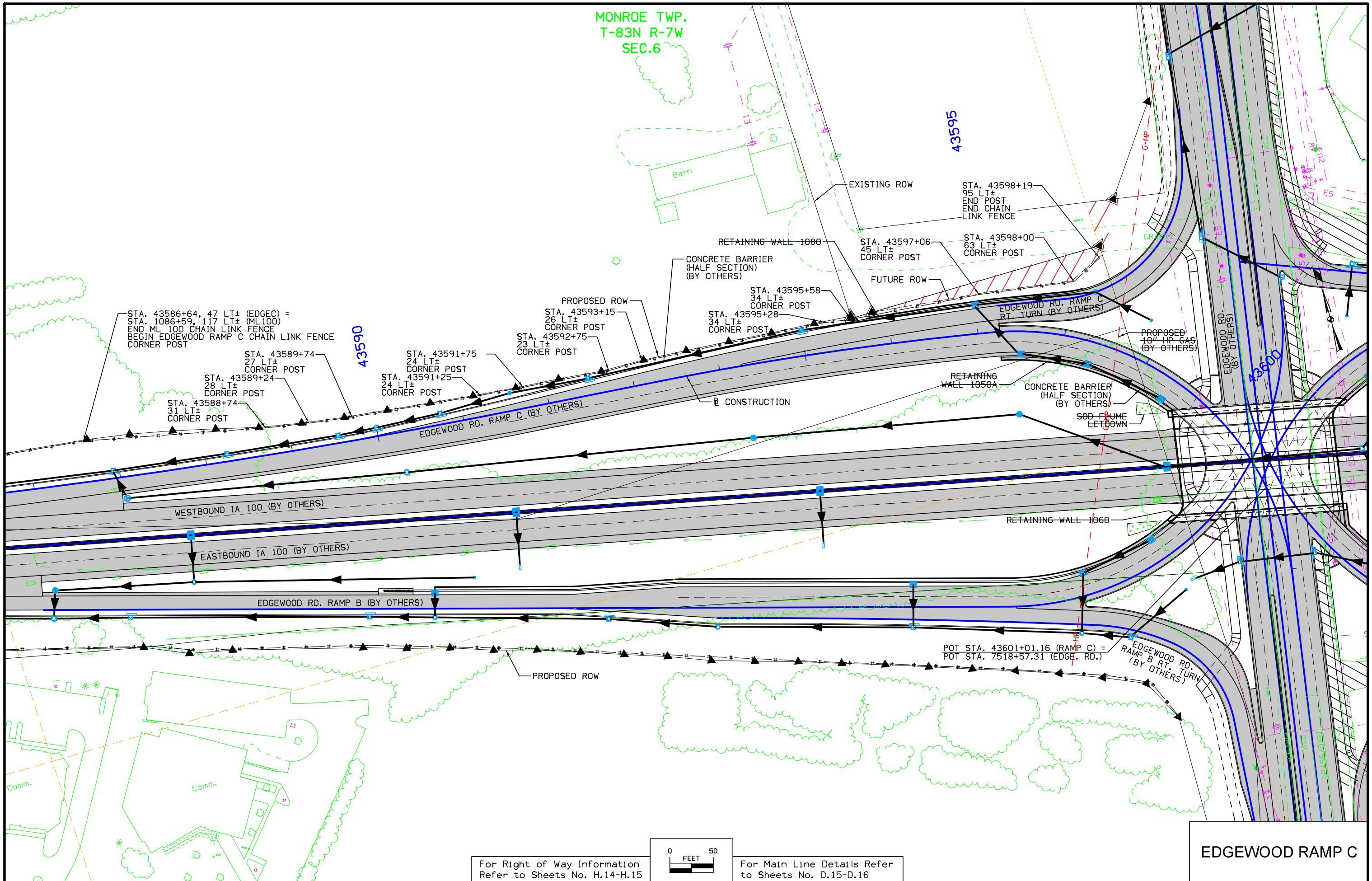


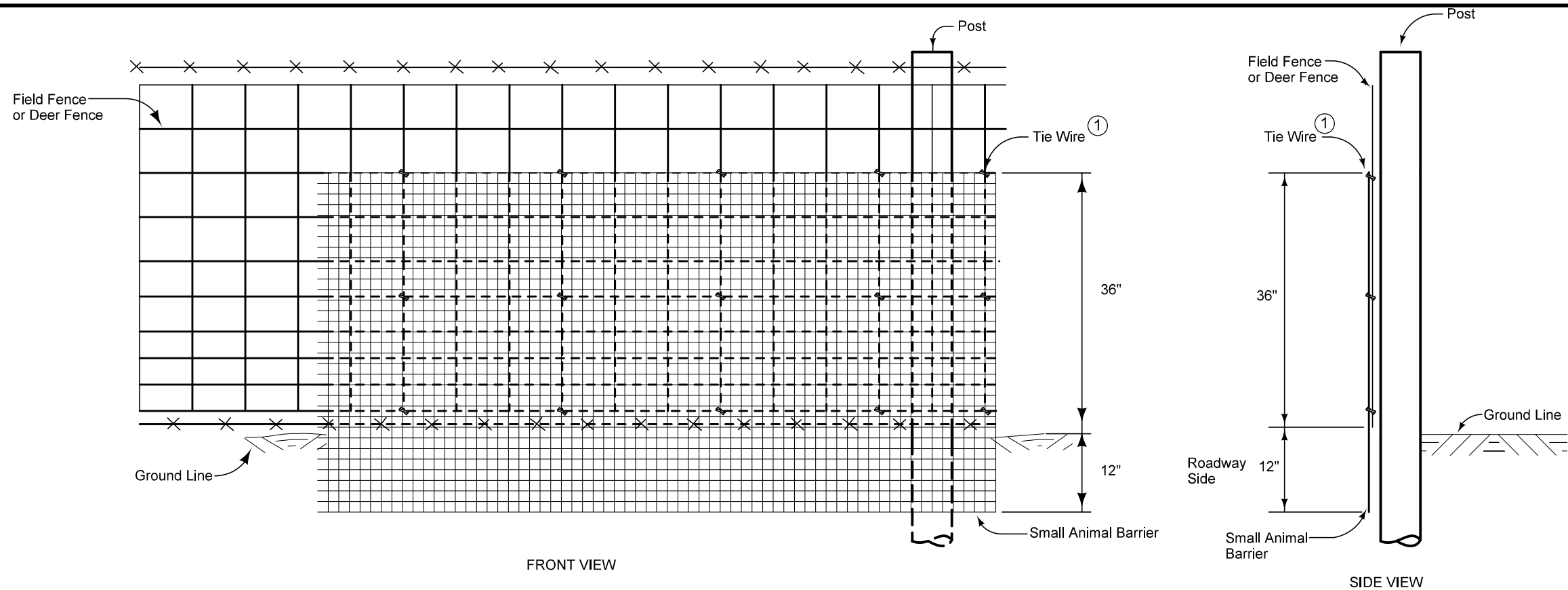
COVINGTON RAMP A



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Small Animal Barrier is used for preventing small mammals, reptiles and amphibians from migrating on to the highway right of way.

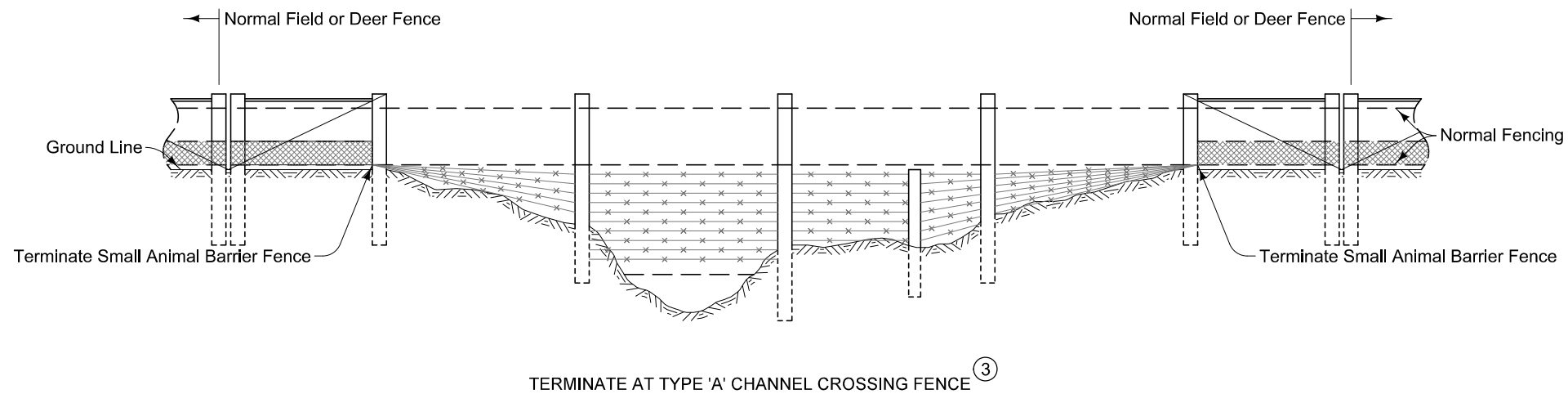
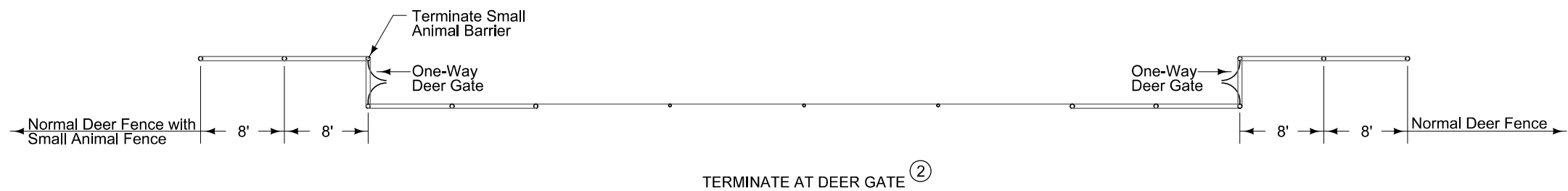
Contract item "Small Animal Barrier" includes chain link fence fabric, galvanized tie wires, 12 inch trench excavation, backfill and compaction around fence fabric, all materials, tools and labor required to construct barrier as detailed.

Construct Small Animal Barrier using 14 gage Chain Link Fence Fabric with a 1/2 inch grid Mesh spacing and a 48 inch total height. Use Chain Link Fabric per Standard Specification Section 4154 and install fencing per the Contract Documents.

Stretch Small Animal Barrier and mount on Field Fence or Deer Fence using Galvanized Wire Ties and as described in Standard Specification Section 4154. Bury the bottom 12 inches of the Barrier below the finished grade to restrict burrowing under the barrier. Do not damage or deform the barrier fabric when backfilling and compacting trench material around the fabric. Overlap the ends of the barrier fabric roll a minimum of 6 inches and tie both ends to the Field Fence, leaving no gap between the fabric ends.

Measurement will be in linear feet of installed Small Animal Barrier and paid for at the contract unit price per linear feet.

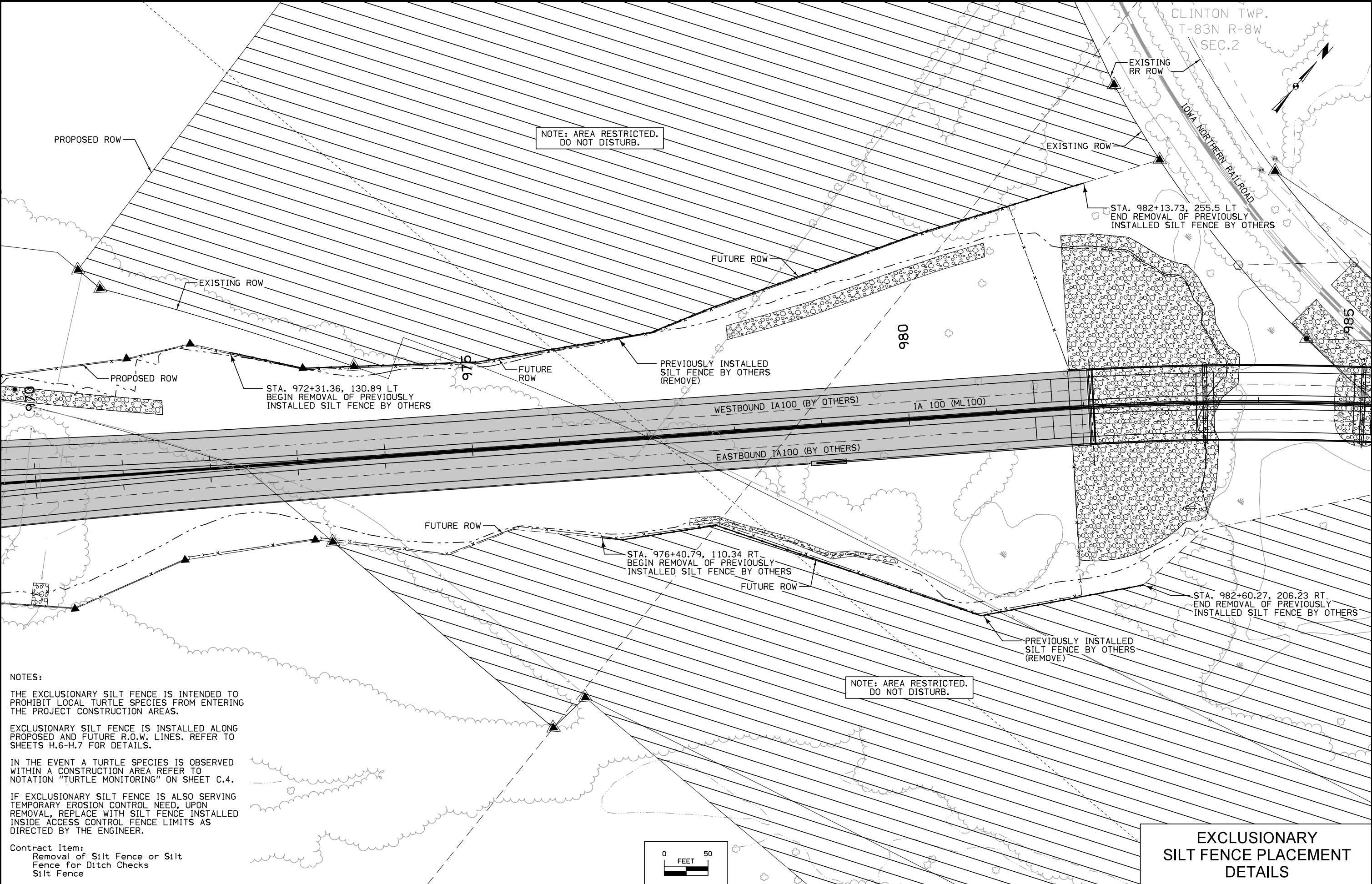
- ① Place galvanized Tie Wires at the following three vertical locations: top of chain link fence fabric, bottom of field fence, approximate mid point between the top and bottom ties. Repeat attachment locations at 1'-6" intervals along the length of the barrier.
- ② Refer to Standard Road Plan MI-103 for Deer Gate Details.
- ③ Refer to Standard Road Plan MI-104 for Channel Crossing Fence Details.

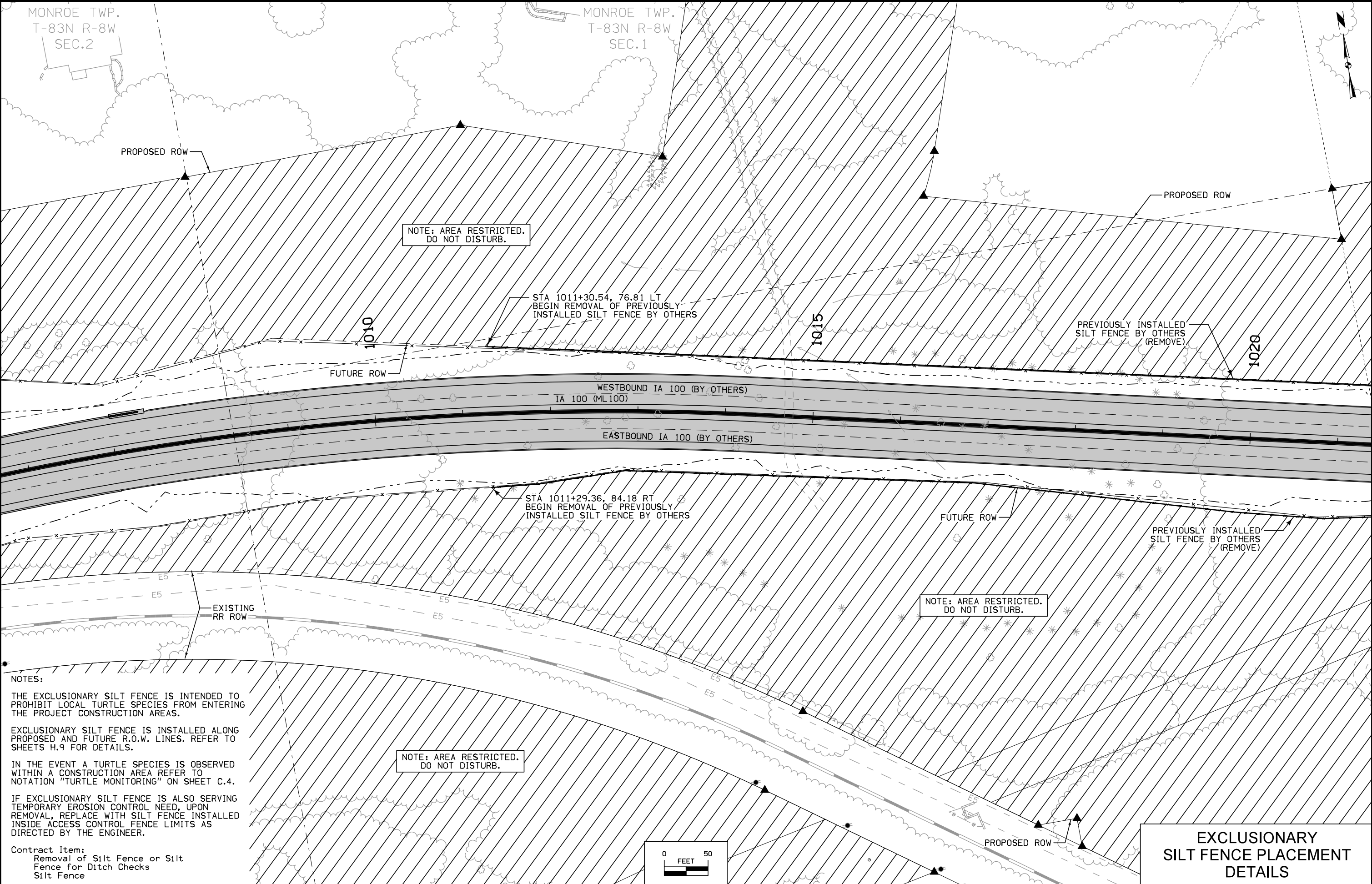


Possible Contract Items:
Field Fence
Field Fence Brace Panel
Deer Fence
Deer Fence Brace Panel
Small Animal Barrier Fence

Possible Tabulation:
100-7
100-7 MODIFIED

SMALL ANIMAL BARRIER FENCE DETAILS





NOTES:

THE EXCLUSIONARY SILT FENCE IS INTENDED TO PROHIBIT LOCAL TURTLE SPECIES FROM ENTERING THE PROJECT CONSTRUCTION AREAS.

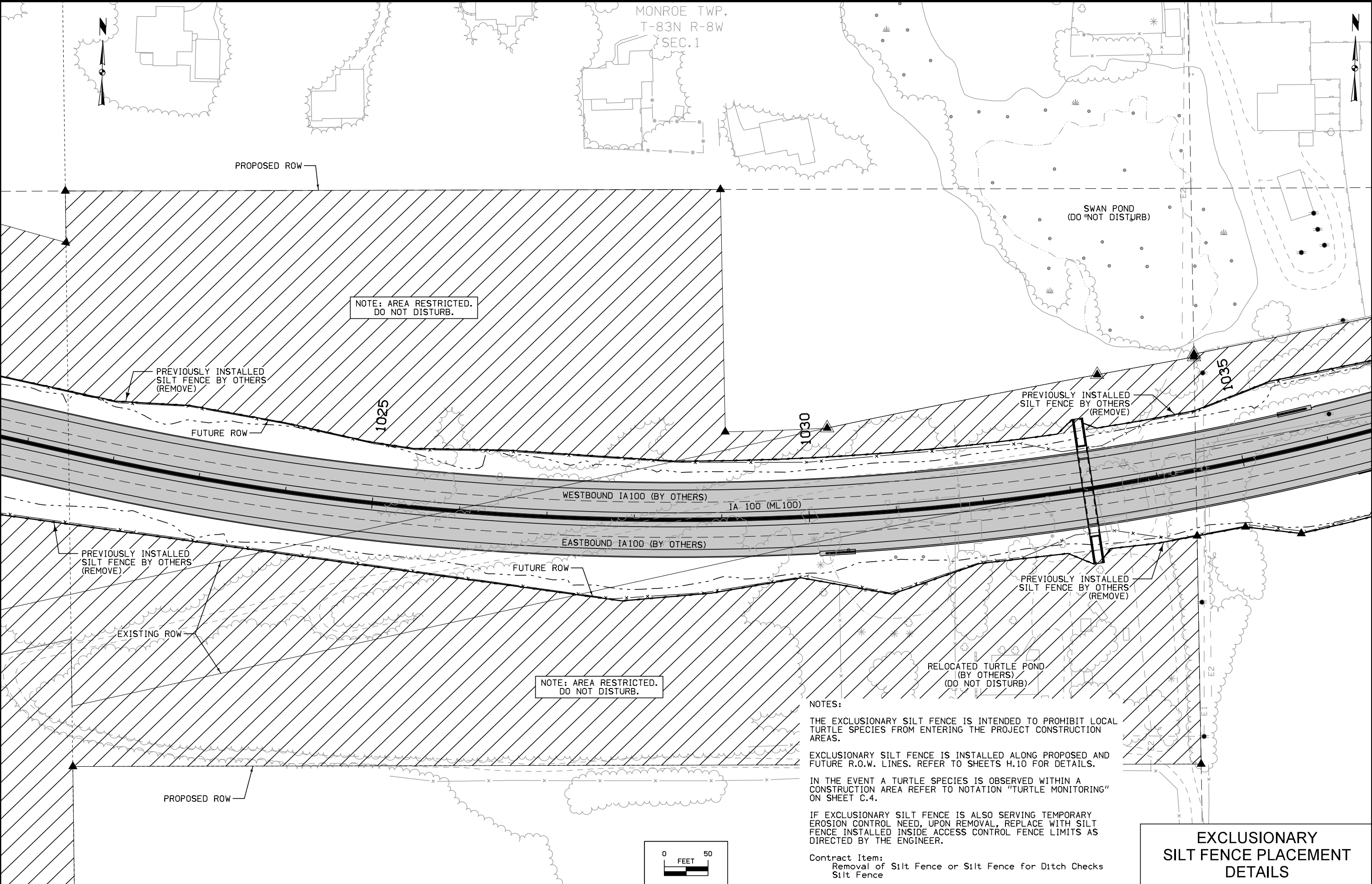
EXCLUSIONARY SILT FENCE IS INSTALLED ALONG PROPOSED AND FUTURE R.O.W. LINES. REFER TO SHEETS H.9 FOR DETAILS.

IN THE EVENT A TURTLE SPECIES IS OBSERVED WITHIN A CONSTRUCTION AREA REFER TO NOTATION "TURTLE MONITORING" ON SHEET C.4.

IF EXCLUSIONARY SILT FENCE IS ALSO SERVING TEMPORARY EROSION CONTROL NEED, UPON REMOVAL, REPLACE WITH SILT FENCE INSTALLED INSIDE ACCESS CONTROL FENCE LIMITS AS DIRECTED BY THE ENGINEER.

Contract Item:
Removal of Silt Fence or Silt
Fence for Ditch Checks
Silt Fence

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	U.3
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NOTES:

THE EXCLUSIONARY SILT FENCE IS INTENDED TO PROHIBIT LOCAL TURTLE SPECIES FROM ENTERING THE PROJECT CONSTRUCTION AREAS.

EXCLUSIONARY SILT FENCE IS INSTALLED ALONG PROPOSED AND FUTURE R.O.W. LINES. REFER TO SHEETS H.10 FOR DETAILS.

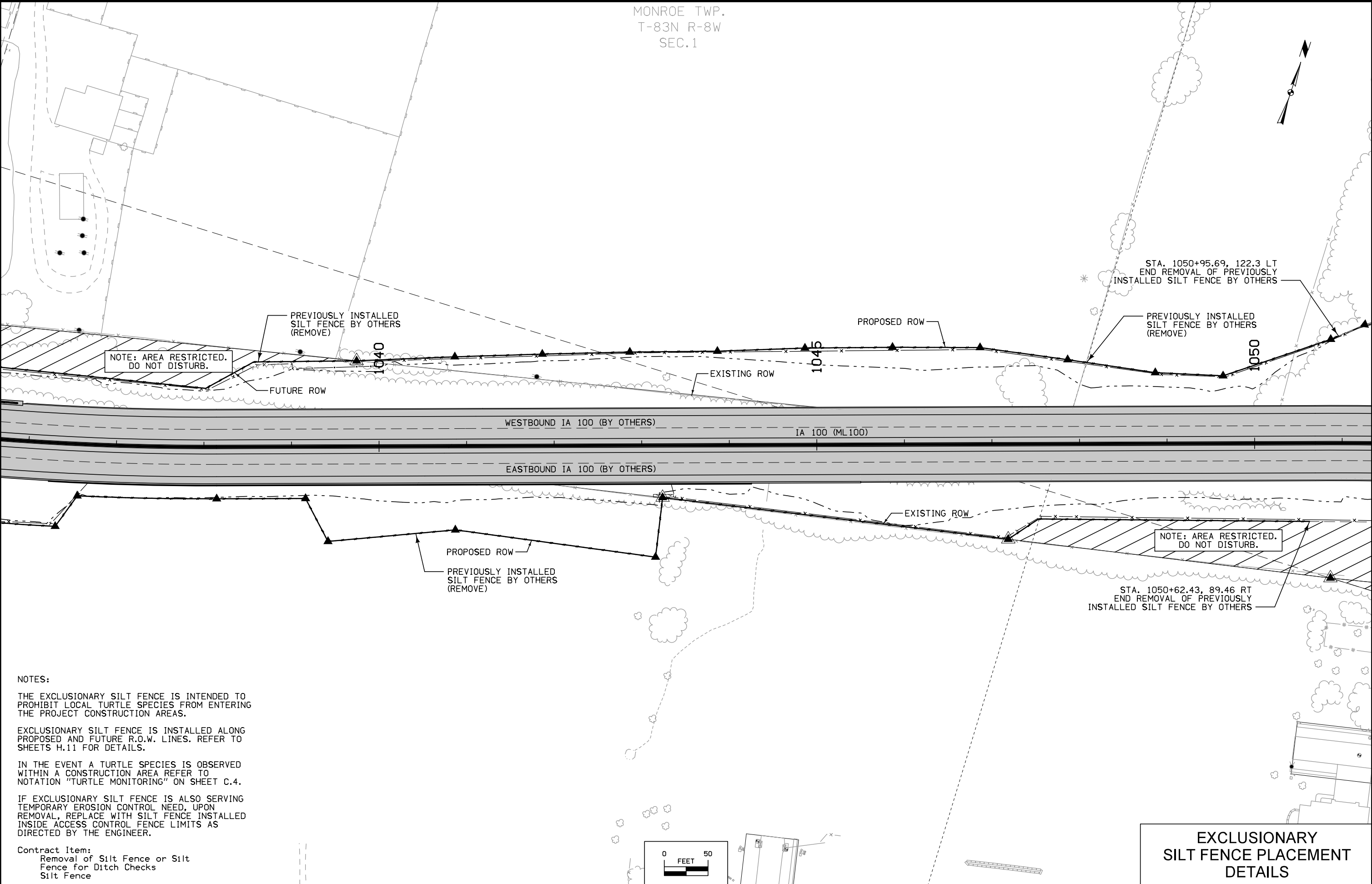
IN THE EVENT A TURTLE SPECIES IS OBSERVED WITHIN A CONSTRUCTION AREA REFER TO NOTATION "TURTLE MONITORING" ON SHEET C.4.

IF EXCLUSIONARY SILT FENCE IS ALSO SERVING TEMPORARY EROSION CONTROL NEED, UPON REMOVAL, REPLACE WITH SILT FENCE INSTALLED INSIDE ACCESS CONTROL FENCE LIMITS AS DIRECTED BY THE ENGINEER.

Contract Item:
Removal of Silt Fence or Silt Fence for Ditch Checks
Silt Fence

**EXCLUSIONARY
SILT FENCE PLACEMENT
DETAILS**

MONROE TWP.
T-83N R-8W
SEC.1



NOTES:

THE EXCLUSIONARY SILT FENCE IS INTENDED TO PROHIBIT LOCAL TURTLE SPECIES FROM ENTERING THE PROJECT CONSTRUCTION AREAS.

EXCLUSIONARY SILT FENCE IS INSTALLED ALONG PROPOSED AND FUTURE R.O.W. LINES. REFER TO SHEETS H.11 FOR DETAILS.

IN THE EVENT A TURTLE SPECIES IS OBSERVED WITHIN A CONSTRUCTION AREA REFER TO NOTATION "TURTLE MONITORING" ON SHEET C.4.

IF EXCLUSIONARY SILT FENCE IS ALSO SERVING TEMPORARY EROSION CONTROL NEED, UPON REMOVAL, REPLACE WITH SILT FENCE INSTALLED INSIDE ACCESS CONTROL FENCE LIMITS AS DIRECTED BY THE ENGINEER.

Contract Item:
Removal of Silt Fence or Silt
Fence for Ditch Checks
Silt Fence

EXCLUSIONARY
SILT FENCE PLACEMENT
DETAILS

FILE NO.	ENGLISH	DESIGN TEAM	Iowa DOT\CH2MHILL	LINN COUNTY	PROJECT NUMBER	NHSN-100-1(113)--2R-57	SHEET NUMBER	U.5
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