Illinois Department of Transportation

Phase I Report Approval

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Key Route	Marked Route/Road Name	Job Number
FAU 8955/ FAU 8956	IL Route 3	P-98-004-13

Contract Number	Section	Project Length
76F84	60R-2	1,393 ft. (0.26 miles)

PPS Number	County(ies)
8-56067-0000	Madison

Location/Limits

IL Route 3 from 750 ft. west of Pierce Ln. to 650 ft. east of W. Delmar Ave.

General Description of Existing Facility

2-lane Minor Arterial

Need for Proposed Improvement

Delays and lower peak AM and PM levels of service at IL 3/Pierce Ln. and IL 3/ W. Delmar intersections

Scope of Project

☐ New Construction ☒ Reconstruction ☐ 3R ☐ 3P

☐ SMART ☐ Other intersections

General Description of Proposed Improvement

Reconstruct the intersections of IL Route 3/ Pierce Ln. and IL 3/ W. Delmar Ave. to propose roundabouts.

Environmental Processing

☐ EIS ☐ EA ☐ Federal Approved CE

☒ State Approved CE ☐ Other

Approximate Amount of ROW to be Purchased 7 Parcels Totaling 2.31 Acres.

Number of Businesses 0 and Residences 0 to be Acquired.

ROW Cost	Estimated Program Cost	Fund Type
$1,500,000.00	$8,000,000.00 (in FY23)	80/20 Fed/State

Construction Cost	Utility Relocation Cost	Consultant PE Cost
$6,447,500.00	$1,500,000.00	$1,000,000.00

Design Exceptions

- Level One Required ☐ Yes ☒ No
- Level Two Required ☒ Yes ☐ No
- If yes, note date approved 04/04/17

Type of Public Involvement Activity

- Public Hearing Offered ☐ Yes ☒ No
- Informational Meeting Held ☒ Yes ☐ No
- Property Owners Contacted ☐ Yes ☒ No

Regional Design Approval

IDOT Regional Engineer Signature	Date
Keith Roberts	2/2/21

Illinois Department of Transportation

Categorical Exclusion Determination and Approval

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Key Route	Marked Route/Road Name
FAU 8955/ FAU 8956	IL Route 3
Section	**Job Number**
60R-2	P-98-004-13
County(ies)	**Contract Number**
Madison	76F84

☒ State Approved Categorical Exclusion (CE)

IDOT has addressed all environmental requirements for this Project and determined that it has met the following requirements for a State Approved CE in the CE Programmatic Agreement (approved 10/14/15): (1) the scope is consistent with the project scope listed in Appendix ☒ A or ☐ B, item number 23 and (2) none of the circumstances in Section V exist. Therefore, on behalf of FHWA, IDOT hereby approves this project as a State Approved CE.

Approved by
Signature of Regional Engineer: Keith Robert (for)
Date: 2/2/21

☐ Federal Approved Categorical Exclusion

After reviewing the project information provided, FHWA has determined that this project will not have any significant impacts on the human environment and approves its designation as a Federal Approved CE.

Approved by
Signature of FHWA Representative:
Date:

Wetland Impacts Involved

☐ Yes ☒ No

The FHWA issued a programmatic Wetland Finding for CEs on October 14, 2015, in compliance with Executive Order 11990, Protection of Wetlands. The programmatic Wetland Finding is contained in the CE Agreements, available online in the BDE Manual Appendix A.

Illinois Department of Transportation

Phase I Checklist

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The Phase I Checklist is designed to assist district and consultant staff with documentation of Phase I issues. It is not meant to substitute a Phase I report but to serve as synopsis of the project to facilitate meetings or update staff on the status of project.

Project Information

District	Route	Section Number	Contract Number
8	FAU 8955/ FAU 8956	60R-2	76F84

Street	County	Municipality
West Delmar Avenue (IL Route 3)	Madison	Godfrey

Section I. Environmental Survey Request (ESR) Summary (Section 27-1)

ESR Submittal Criteria	Yes	No
Does the project:		
1. involve acquisition of additional right-of-way or easements (temporary or permanent)?	☒	☐
2. require a drainage structure runaround or any in-stream work (i.e., any work or other activity within the stream banks that modifies or otherwise affects the stream bed or stream banks)?	☐	☒
3. potentially affect a recognized Illinois Natural Areas Inventory (INAI) site or Illinois dedicated Nature Preserve (NP), a wetland, or a location where a State or Federal listed species (T/E) is known to occur?	☐	☒
4. potentially affect a historic district or historic property listed on, eligible for listing on, or potentially eligible for listing on the National Register of Historic Places (NRHP)?	☐	☒
5. involve the removal and replacement of existing sidewalks and ramps to ADA standards under the following circumstances: — in-kind materials will not be used; or — the improvement is located partially or completely within the limits of a National Historic Landmark (NHL)?	☐	☒
6. involve replacement or rehabilitation of a bridge or culvert 40 years old or older?	☐	☒
7. cross or otherwise involve railroad right-of-way other than a single rail rural right-of-way with no maintenance facilities?	☐	☒
8. involve excavation (as defined in Section 27-3.01) or subsurface utility relocation?	☒	☐

If yes to any of the above, an ESR is required; enter the PMA sequence number that is assigned for the project.

PMA Sequence Number

18539 and 18539A (for addendum)

Section II. Potential for Unusual Circumstances (Section 23-1.02)

Potential for Unusual Circumstance	Yes	No
Will the project:		
1. through Section 7 of the Federal Endangered Species Act consultation, result in a finding of “may affect, likely to adversely affect” a federally listed or candidate species, or proposed or designated critical habitat?	☐	☒
2. involve State designated Nature Preserves?	☐	☒
3. exceed the IDNR threshold for an increase in 100-year flood water surface elevations or has potential for a "significant encroachment” to floodplains, as defined in the Executive Order No. 11988.	☐	☒
4. involve impacts to a stream listed on the National Park Service's National Rivers Inventory and would adversely affect the listings Outstandingly Remarkable Value?	☐	☒
5. result in an "adverse effect" finding to a historic property, as defined in 36 CFR 800.16(l)?	☐	☒
6. require the use of properties as defined and protected by Section 4(f) of the Department of Transportation Act, 49 U.S.C. 303 that cannot be documented with either an FHWA de minimis determination or a programmatic Section 4(f) evaluation?	☐	☒
7. require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act of 1965 or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	☐	☒
8. be defined as a “Type I project” per 23 CFR 772.5 and therefore require a noise analysis?	☐	☒

9. Involve impacts that would require an Individual Section 404 Permit from the U.S. Army Corps of Engineers	☐	☒
10. require a permit from U.S. Coast Guard under Section 9 of the Rivers and Harbors Act of 1899?	☐	☒
11. require the use of a temporary road, detour or ramp closure, unless the use of such facilities satisfies the following conditions, as applicable? a) Provisions are made for access by local traffic and so posted, b) Businesses dependent on through-traffic will not be adversely affected, c) To the extent possible, there is no interference with any local special event or festival, d) There is no substantial change to the environmental consequences of the action, and there is no substantial controversy associated with such facilities.	☐	☒
12. require substantial changes in access, access control, or travel patterns?	☐	☒
13. have potential for controversy on environmental grounds as determined by FHWA, or inconsistency with federal, State, or local requirements relating to the environment or planning?	☐	☒
14. require one or more residential or business relocations and/or the acquisition of more than 10 acres (4 hectares) total for a non-linear improvement (spot improvement, e.g., bridge, intersection) or the acquisition of more than 3 acres per mile (0.75 hectares per kilometer)?	☐	☒

Note: If any of the "Yes" boxes are checked, the project must be processed as a federal CE and requires approval by the FHWA Transportation Engineer (TE).

Section III. Environmental Issues

The following section serves to summarize environmental issues that have or may arise during project development.
Note: References to the BDE Manual are shown as Section ##-#.

A. Natural Resources

Note: Please consult the Natural Resource Review (NRR) to complete this section.

Date of the NRR

04/03/14

Pursuant to 17 Ill. Admin. Code 1075.30, if more than two years elapse between the review and approval of the project and implementation, the Department shall review the project to determine the presence of new sensitive resources.

1. State and Federal Endangered Species Act Compliance (Sections 26-9 and 27-1).

Describe any commitments discussed in the NRR.

Was an Incidental Take Authorization required by IDNR? ..... ☐ Yes ☒ No

If yes, this is considered a potential for unusual circumstance and the project must be processed as Federal CE.

2. Illinois Natural Areas Inventory (INAI) (Section 26-9).

Will an INAI site be impacted by this project? ..... ☐ Yes ☒ No

If yes, described any commitments listed in the NRR.

3. Nature Preserves, Natural Heritage Landmarks, and Land and Water Reserves (Section 26-9).

Does the project involve a Nature Preserve or Land and Water Reserve? ..... ☐ Yes ☒ No

If yes, coordination with the Nature Preserves Commission is required.

Are commitments required?..... ☐ Yes ☐ No

Describe commitments

4. Tree, Forest, Savanna, and Prairie Resources (Section 26-17 and D&E-18).

Is tree removal required for the project?..... ☒ Yes ☐ No

If yes, insert number or acreage of trees.

94 trees

Does the project impact areas of forest larger than 20 acres (8 hectares) in size? ..... ☐ Yes ☒ No

Does the project involve prairie or savanna areas? ..... ☐ Yes ☒ No

If yes to either of the above, describe any commitments listed in NRR regarding these resources:

5. Floodplains (Section 26-7 of the BDE Manual and Chapter 3 of the IDOT Drainage Manaual).

Project occurs in the 100-year floodplain..... ☐ Yes ☒ No

Is a Floodplain Encroachment Study required?..... ☐ Yes ☒ No

Is a floodplain finding required?..... ☐ Yes ☒ No

6. Wetlands (Section 26-8).

Were Wetland Delineations performed?..... ☐ Yes ☒ No

If yes, was a Wetland Impact Evaluation (WIE) form submitted and response received? ..... ☐ Yes ☐ No

7. Surface Waters and Aquatic Habitat (Section 26-19).

USCG coordination

Does the project affect a stream classified as navigable? ..... ☐ Yes ☒ No

If yes, coordination with USCG is required.

NPS coordination

Does the project affect the Middle Fork of the Vermillion River which is a Wild and Scenic River?..... ☐ Yes ☒ No

If yes, coordination with the National Park Service (NPS) is required.

Describe NPS commitments

Corps coordination

Will the project require stream mitigation due to moving, shortening, or adverse effects to the stream?..... ☐ Yes ☒ No

Describe mitigation

IEPA coordination

Will the project affect any impaired (303(d)) listed streams? ..... ☐ Yes ☒ No

If yes, stream name and impairment.

Will the project contribute to the impairment? ..... ☐ Yes ☒ No

If yes, describe best management practices or mitigation.

Does the project affect a waterbody with a draft/final TMDL?..... ☐ Yes ☒ No

If yes, the project must comply with Waste Load Allocation (WLA) describe the TMDL.

8. Nationwide Rivers Inventory (NRI) (Section 26-20).

Does project involve bridge work over a stream segment listed in NRI?..... ☐ Yes ☒ No

If no, go to #9.

Is a new bridge being proposed over this listed segment? ..... ☐ Yes ☒ No

If the bridge is existing, does the bridge require a new alignment?..... ☐ Yes ☒ No

Will major instream work be required (i.e., bendway wiers, etc.)? ..... ☐ Yes ☒ No

If yes to any of the previous three questions, coordination with the National Park Service is required due to the potential for adverse effect, and commitments may be needed.

Describe commitments

9. Section 6(f) Land Conversion Request (Section 26-3).

Does project involve lands with Land and Water Conservation (LAWCON) funds?..... ☐ Yes ☒ No

If no, go to #10.

Will a conversion of the LAWCON funds be required? ..... ☐ Yes ☒ No

Has a conversion request been submitted? ..... ☐ Yes ☒ No

10. Open Space Land Acquisition and Development (OSLAD) Land Conversion Request (Section 26-4)

Does project involve lands with OSLAD funds? ..... ☐ Yes ☒ No

If no, continue to Section B.

Will a conversion of the OSLAD funded lands be required?..... ☐ Yes ☒ No

Has a conversion request been submitted? ..... ☐ Yes ☒ No

B. Cultural Resources

1. Section 106 Historic Act Compliance (Section 26-5).

Is the project eligible to be exempted from Section 106 review by district trained staff? ..... ☒ Yes ☐ No

(Note: A list of projects exempt from Section 106 review can be found in Appendix A of the Programmatic Agreement (PA) Among the Federal Highway Administration, the Illinois Department of Transportation, the Illinois State Historic Preservation Officer, and the Advisory Council on Historic Preservation regarding Section 106 Implementation for Federal-Aid Transportation Projects in the State of Illinois)

If yes, no further cultural review is required but document in project file. If no, continue below.

Did central office qualified staff initiate an archeological or architectural field survey? ..... ☐ Yes ☐ No

Following surveys, did Qualified Staff document that "no historic properties" will be affected by the project?..... ☐ Yes ☐ No

If yes, date of cultural resource review memorandum

If no, what was the results of coordination with SHPO?

☐ SHPO did not respond in 30 days.

☐ SHPO did respond, described results of coordination, as needed.

Commitments required? ..... ☐ Yes ☐ No

Describe commitments

Memorandum of Agreement required?..... ☐ Yes ☐ No

2. Section 4(f) Evaluation (Section 26-2).

Does the proposed use of the property fall under Section 4(f)? (Examples of these properties include publicly owned parks, recreation areas open to the public, public wildlife and waterfowl refuges, and public or privately-owned historic sites). ..... ☐ Yes ☒ No

If yes, check the box for applicable action:

☐ Proposed use qualifies for a de minimis impact determination.

☐ Proposed use qualifies for a programmatic evaluation.

☐ Proposed use requires an individual Section 4(f) evaluation.

C. Agricultural Resources (Section 26-10)

Will the project affect agricultural resources located in an unincorporated area (i.e., the farmland is not located within a city or village boundary) lands? ..... ☐ Yes ☒ No

If yes, form NRCS-CPA-106, Farmland Conversion Impact Rating may be required.

If no, Agricultural Resources will not be impacted, and this section is complete. Therefore, coordination with IDOA and NRCS is not required.

D. Noise (Section 26-6)

1. The project is:

☐ Type I project (noise analysis needed), continue to Step 2

Note: if any part of a project is determined to be a Type I project under this definition, then the entire project area is a Type I project.

☒ Type III project (no noise analysis needed)

If project is a Type III project, the following applies:

The referenced project meets the criteria for a Type III project established in 23 CFR 772. Therefore, the proposed project requires no traffic noise analysis or abatement evaluation. Type III projects do not involve added capacity, construction of new through lanes, changes in the horizontal or vertical alignment of the roadway, or exposure of noise sensitive land uses to a new or existing highway noise source.

E. Environmental Justice (Executive Order No.12898)

Will the project relocate one or more residents, one or more commercial facilities, or one or more Community Centers that are frequented by either a minority or low-income group? ..... ☐ Yes ☒ No

F. Air Quality

The U.S. Environmental Protection Agency (USEPA) has established NAAQS for six criteria pollutants including carbon monoxide (CO), ozone (O3), lead (Pb), sulfur dioxide (SO2), nitrogen dioxide (NO2), and particulate matter (PM).

Note:

- Entire State of Illinois is currently in unclassifiable/attainment for Particulate matter (PM2.5 and PM10).
- Carbon Monoxide is evaluated only for intersection improvements.

1. Air Quality Conformity (Section 26-11).

Pursuant to the Transportation Improvement Plan (TIP) is the project exempt from Conformity Requirements? ☒ Yes ☐ No

If no, consult the following link and describe the nonattainment status for relevant pollutants based on the county and area name that the project is located in. https://www3.epa.gov/airquality/greenbook/anayo_il.html

2. Microscale Carbon Monoxide (CO) Analysis (Section 26-14).

Per 40 CFR 93.126, is the project exempt from CO analysis? ..... ☒ Yes ☐ No

If no does the project:

☐ add through lanes or auxiliary turning lanes?

☐ have greater than 5,000 vehicles per hour (vph) or 62,500 Average Daily Traffic (ADT)?

☐ have sensitive noise receptor, as identified by the Air Quality Manual?

If none of the boxes are true, the project is exempt from a project-level carbon monoxide (CO) air quality analysis.
If any of the boxes are checked, use COSIM 4.0 to predict future build CO levels.

3. Mobile Source Air Toxics (MSAT) (Section 26-13).

Pursuant to the updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA documents, dated October 18, 2016, CEs are considered to have no potential for meaningful MSAT effects.

G. Regulated Substances

1. Regulated Substances Procedures (Section 27-3).

A regulated substances screening is required for all applicable State highway projects to identify the possible presence of regulated substances, pursuant to Departmental Policy D&E-11, Identifying and Responding to Regulated Substances in Highway Project Development, Implementation and Operations. See Section 27-3 for details.

Level 1, 2, or 3 screening completed: ..... ☒ Yes ☐ No

Level 1, 2, or 3 screening successful indicating a PESA is unnecessary: ..... ☐ Yes ☒ No

If yes, provide screening documentation and go to the next section.

Was a PESA performed? ..... ☒ Yes ☐ No

If yes, see BDE's PESA review transmittal memorandum.

Did the PESA identify Recognized Environmental Condition(s) (REC(s))? ..... ☒ Yes ☐ No

Have more than six months elapsed since completion of the initial Level 2 screening or PESA? ..... ☐ Yes ☒ No

If yes, must validate the assessment results using the Level 2 screening criteria.
If yes, provide updated Level 2 screening documentation.

Have more than six months elapsed since completion of the initial Level 3 screening? ..... ☐ Yes ☒ No

If yes, must validate the assessment results using the Level 3 screening criteria.
If yes, provide updated Level 3 screening documentation.

Will more than three years have elapsed between completion of the last PESA and the anticipated PS&E date associated with the desired letting date? ..... ☐ Yes ☒ No

If yes, project must be evaluated as a new project and a new PESA should be requested.
If yes, see BDE's PESA review transmittal memo for the new PESA (validation).

Section IV. Permits

This section can serve to help to identify which permits a project may require to avoid any potential project delays.

1. Section 402 National Pollutant Discharge Elimination System (NPDES) (Chapter 41).

Will the project involve more than one acre of ground disturbance and thus an ILR10 permit is required? ..... ☒ Yes ☐ No

2. Section 404 Permit (Section 28-2).

Does the project require a Section 404 permit? ..... ☐ Yes ☒ No

If yes, which type of permit is being sought?

3. Section 401 Water Quality Certification (Section 26-19).

Is Individual Water Quality Certification required? ..... ☐ Yes ☒ No

If yes, an Antidegradation Assessment is required.

4. Section 9 USCG Permit (Section 28-2). ☐ Yes ☒ No

5. Section 10 Corps Permit (Section 28-2). ☐ Yes ☒ No

6. IDNR/Office of Water Resources (OWR) Floodway Permit (Section 28-3). ☐ Yes ☒ No

Section V. Coordination (Include documentation of coordination in Phase I report and/or project file)

1. District Monthly Coordination Meeting (Section 22-5.03).

Date(s) of Coordination Meeting:

06/25/15, 04/05/17, 12/19/18

2. Coordination required with Aeronautics (Section 11-2). Yes No

Commitments.

Describe commitments.

3. Coordination required with FAA for publicly owned airports (Section 11-2). ☐ Yes ☒ No

If no, go to #4.

Response from FAA received. ☐ Yes ☐ No

Commitments required.

Describe commitments.

4. Railroad coordination required due to project involving a railroad crossing. ☐ Yes ☒ No

If no, go to #5.

Response from railroad company received. ☐ Yes ☐ No

5. Drainage District Coordination required for projects involving in-stream work affecting a water body under the jurisdiction of a drainage district. ☐ Yes ☒ No

If no, go to #6.

Response from drainage district received. ☐ Yes ☐ No

6. Has public involvement been implemented for this project (Chapter 19)? ☒ Yes ☐ No

Described public involvement as necessary:

Local Agency Coordination, Stakeholder meetings, CAG meetings, Public Meeting

Are Context Sensitive Solutions (CSS) being implemented for this project? ☒ Yes ☐ No

7. Other Coordination. ☒ Yes ☐ No

Coordination responses:

Public Meeting Comments, e-mails, phone conversations.

Section VI. Other Analyses

1. Hydraulic Analysis/Report (Section 2-602 of the IDOT Drainage Manual).

Hydraulic analysis/report: ☐ Yes ☒ No

2. Crash Data and Analysis (Section 11-2).

Reference report:

Exhibit I in Project Report

3. Bridge Condition Report (Chapter 39).

Bridge Condition Report Approval Letter: ☒ N/A ☐ Yes ☐ No

4. Pavement Design Submittal Required (Chapter 54). ☐ Yes ☒ No

5. Transportation Management Plan (BSPE Policy 3).

Transportation Management Plan. ☒ Yes ☐ No

6. Geotechnical Report (Section 11-2.10).

a.) structure ☐ Yes ☒ No

b.) roadway. ☐ Yes ☒ No

7. Geometric Design (Section 14-4 and 15-2.02).

Has the district submitted a completed BDE 2602? ..... ☒ Yes ☐ No

8. Mailbox Supports (Chapters 49 and 58).

Have hazardous mailbox supports been identified with the project limits? ..... ☐ Yes ☒ No
(Note results of survey in Phase I report).

Have supports been investigated and property owners contacted? ..... ☐ Yes ☐ No

9. Bicycle accommodations (Chapter 17).

Have accommodations been considered and investigated? ..... ☒ Yes ☐ No

10. Accessibility for the disabled (Chapter 58).

Required for all projects in an urban section.

Provisions for disabled access. ..... ☒ Yes ☐ No

11. Asbestos determination for bridge work (Section 27-4).

Ensure Asbestos Determination Certification, BBS 2536 has been properly filled out, included in the Phase 1 Engineering Report, and placed in project file.

Section VII. Commitment Summary

While commitments can be addressed for specific issues in previous sections, this section can be used to summarize all environmental or engineering commitments required for this project or add more information if needed.

Examples of commitment summary could be tree clearing restriction, tree replacement, temporary fencing, stream protection, detours, emergency vehicle access, etc.:

Commitment summary:

The Village of Godfrey responded on February 5, 2020 to a Letter of Intent with a signed concurrence to participation in the cost and maintenance of bike and pedestrian accommodation within this project along IL Route 3 from W. Delmar Ave to Pierce Lane, as well as roundabout center island treatments. The roundabout center island treatments will consist of perennial plantings with a 15 ft. ring of river rock.

Project Report for IL 3/ W. Delmar Ave. and IL 3/ Pierce Ln. intersection improvements Madison County

Illinois Department of Transportation/Division of Highways/ Region 5/District 8

TABLE OF CONTENTS

I. NEED FOR IMPROVEMENT

A. Project Location and Termini

1. Functional Classification - IL Route 3 within the project limits has a Minor Arterial functional classification designation.

2. Regional location – IL Route 3 runs east and west between Alton and Grafton in Madison County. The project location on IL Route 3 is 0.69 miles west of IL Route 111 (Godfrey Road) and includes the intersections of IL Route 3/ W. Delmar Ave. and IL Route 3/ Pierce Lane in Godfrey, IL.

3. Maintenance Jurisdiction – This section of IL Route 3 is in IDOT maintenance and jurisdiction.

4. Separate Classifications – IL Route 3 within the project limits is not classified as a NHS Route and has a Class II Truck Route classification.

See Exhibit A for the Location Map.
See Exhibit B for the project Ground Level Photographs.
See Exhibit C for the Aerial Photography Maps.

B. Description of Existing Conditions

1. Land Use (along route and in project vicinity)
   a. The land use along IL Route 3 within the project vicinity is urban residential and suburban commercial.

   b. There are no historical sites along the route or within the project vicinity.

   c. There are no parks or forest preserves within the project limits. There is a private school located on the north side of IL Route 3 east of the Pierce Lane intersection.

2. Existing Cross Sections
   a. The existing roadway typical sections
      i. IL Route 3 west of Pierce Ln consists of 2 – 11 ft. to 11. 5 ft. through lanes, 1 – 11 ft. WB left turn lane which transitions to 1 – 10 ft. bi-directional turn lane, and 4 ft. paved shoulders with Type B-6.24 curb and

gutter. The existing right-of-way within the project limits is 57 ft. (L) and 28 ft. (R) for a total width of 85 ft.

ii. IL Route 3 in between Pierce Ln. and W. Delmar Ave. consists of 2 – 11 ft. to 16 ft. though lanes, 1 – 11 ft. EB left turn lane, 1 – 14 ft. WB left turn lane, and 4 ft. paved shoulders.

iii. IL Route 3 (W. Homer Adams Parkway) east of W. Delmar Ave consists of 2 – 11 ft. lanes, 1 – 11 ft. bi-directional turn lane which transitions to 1 – 12 ft. right turn lane and 1 – 12 ft. right/through lane, and 4 ft. paved shoulders which transitions to

Refer to Exhibit D for Typical Sections.
Refer to Exhibit E for Plan and Profile.
Refer to Exhibit F for Cross Sections.

b. Existing Drainage – The existing drainage system within the project limits consists of open roadside ditches and storm sewer. The intersection of IL Route 3 and Pierce Lane is generally a highpoint between multiple watersheds. Storm water runoff generated within the study limits generally drains away from the project limits at one of eight different outlet points, by either open ditches or existing storm sewer systems. The IDOT D8 Bureau of Operations indicates that there are some drainage issues at the corner of Homer Adams Parkway and W. Delmar Ave. (southeast quadrant). The inlets repeatedly require cleaning but fill back in or still drain slowly.

Refer to Exhibit G for the Location Drainage Study.
Refer to Exhibit H for the Coordination and Correspondence.

C. Operational and Safety Analyses

1. Why project was initiated (need)

a. Safety concerns – This section of IL Route 3 is not identified as a 5 percent selected segment. The crash data for this project was obtained from the Illinois Department of

Transportation (IDOT), Division of Traffic Safety through the Local Crash Reference System (LARS). Crashes that occurred within the study limits were analyzed for the seven-year period from 2008 to 2014. The number of crashes reported within the project limits from January 2008 through December 2014 is summarized below:

Crash Types By Year																
Crash Type	2008		2009		2010		2011		2012		2013		2014		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Animal	1	7%	0	0%	2	18%	0	0%	0	0%	0	0%	3	23%	6	6.7%
Overturn	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Fixed Object	0	0%	0	0%	1	9%	2	12%	1	10%	0	0%	0	0%	4	4.4%
Other noncollision	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Turning	1	7%	1	8%	1	9%	2	12%	0	0%	1	8%	2	15%	8	9.0%
Rear End	11	79%	11	92%	5	46%	10	58%	9	90%	11	84%	8	62%	65	72.2%
Sideswipe	0	0%	0	0%	0	0%	1	6%	0	0%	1	8%	0	0%	2	2.2%
Angle	0	0%	0	0%	1	9%	2	12%	0	0%	0	0%	0	0%	3	3.3%
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	90	100%

Table 1 – Crash Type Summary

Crash Type - 90 crashes occurred on IL Route 3 within the project limits from 2008 to 2014. The predominant crash type is Rear End (72%), and the remaining predominant crash types were Turning (9%) and Animal (6.7%). A total of 65 Rear End crashes occurred in the study area, and this type of crash occurred in all seven years of the study period. Within the 7-year study period 12 crashes resulted in serious injuries (4 – type A and 8 – type B). No fatalities occurred within the project limits within the 7-year study period.

IL Route 3 and West Delmar Ave. intersection – Twenty-Nine (45%) of the Rear End crashes within the project limits occurred during the 7-year study period at the IL Route 3/ W. Delmar Ave. intersection. The majority (79%) of these Rear End crashes occurred on the north (W. Homer Adams Parkway) and west (IL Route 3) legs. These legs carry the highest traffic volumes. Most of the crashes on the north leg (86%) were in the south direction of travel, while most of the crashes on the west leg (89%) were in the east direction of travel. At this intersection there were 5 crashes that resulted

in 1 type A and 4 type B injuries. The crash that resulted in the type A injury was an overturned vehicle that occurred when the driver (traveling on SB Homer Adams Parkway) locked his brakes and hit a pothole in the pavement. Rear End crashes accounted for all 4 of the type B injury related crashes, but only one of the crash reports detailed the crash. The type B crash that was detailed involved a motorcycle following a vehicle on EB Homer Adams Parkway east of the intersection. The motorcycle failed to notice the vehicle slowing and had to jump off the motorcycle before it hit the vehicle in front.

Contributing Factors – The crash reports show that a common cause of the Rear End crashes at this intersection is inattentive drivers not recognizing that vehicles were slowed or stopped at the intersection for a red light. 13 (45%) of the 29 Rear End Crashes included descriptions that stated that the driver was inattentive before hitting the vehicle in front of them.

The crash reports show that a common cause of the crashes at this intersection is the driver seeing slowed or stopped vehicles, but not having enough time or distance to stop before hitting the vehicle in front of them. Crash reports confirm that 9 (28%) of the 29 Rear End crashes that occurred at this intersection included this description.

Delays during the peak AM and PM hour at this intersection is also a factor in the crashes that are occurring. Although this intersection is operating at an overall Level of Service (LOS) B during the peak AM hour and LOS C during the peak PM hour, many local users have complained about delays and backups during peak AM and PM times. 11 (38%) of the 29 crashes that resulted in a Rear End crash occurred during the peak AM and PM periods. During these peak times, delays lead to the queuing of vehicles. As the queuing increases, the distance at which approaching vehicles need to slow down in advance of the intersection increases.

Countermeasures – Improving the intersection LOS will reduce delays, queuing, and the duration of queuing at the intersection. Reducing the delays, queuing, and duration of queuing at this intersection should provide additional time and distance for approaching vehicles to react, which in turn should reduce the number of crashes at this intersection.

Reconfiguring the intersection from a signalized intersection to a roundabout configuration would reduce the number of vehicles that have to come to a complete stop during every signal cycle. Reducing the amount of time and the number of vehicles that are completely stopped at this intersection may help reduce the number of rear end crashes at this intersection. The need for vehicles to speed up to make a yellow or green light is eliminated with the roundabout design. Also, due to the elimination of many conflict points and slower speeds needed for operation, roundabouts significantly reduce the likelihood of crashes that result in a severe injury.

IL Route 3/ Pierce Ln. intersection – Thirty-Six (55%) of the Rear End crashes within the project limits occurred during the 7-year study period at the IL Route 3/ Pierce Ln. intersection. 97% of these crashes occurred on the west (IL Route 3/ W. Delmar Ave.) and east (IL Route 3/ W. Delmar Ave.) legs of this intersection. These legs carry the highest traffic volumes. All of the crashes on the west leg were in the east direction of travel and all of the crashes on the east leg were in the west direction of travel. At this intersection there were 6 crashes that resulted in 3 type A and 4 type B injuries.

Rear end crashes account for both crashes that resulted in type A injuries at this intersection. One of the crashes that involved a type A injury involved a driver (traveling WB on IL Route 3) distracted by eating while driving and failed to stop in time before hitting the slowed vehicle in front. The other crash that involved 2 type A injuries involved a driver (traveling WB on IL Route 3) distracted by picking something

up off the floor and hit the stopped vehicle in front. The struck vehicle then struck the vehicle in front of it.

Rear end crashes accounted for 2 of the 4 type B injury related crashes. One of the crashes that involved a type B injury involved a driver (traveling WB on IL 3) not realizing that vehicles were stopped at the traffic light. The other crash that involved at type B injury involved a driver (traveling EB on IL 3) distracted by sneezing and blowing his nose. This vehicle then struck a vehicle stopped at the stop light. Another crash that resulted in a type B injury involved an Overturned crash where a motorcycle (traveling WB on IL Route 3) turned left onto Frontenac Place and lost control. The final crash that resulted in a type B injury involved a Fixed Object crash where a motorcycle (traveling EB on IL 3) turned left onto Pierce Lane too wide, lost control, and hit a signpost.

Contributing Factors – The crash reports show that a common cause of the crashes at this intersection is the driver seeing slowed or stopped vehicles, but not having enough time or distance to stop before hitting the vehicle in front of them. Crash reports confirm that 20 (56%) of the 36 Rear End crashes that occurred at this intersection included this description.

The crash reports show that another common cause of the Rear End crashes at this intersection is inattentive drivers not recognizing that vehicles were slowed or stopped at the intersection for a red light. 9 (25%) of the 36 Rear End Crashes included descriptions that stated that the driver was inattentive before hitting the vehicle in front of them.

Delays during the peak AM and PM hour at this intersection is a factor in the crashes that are occurring. Although this intersection is operating at an overall LOS B during the peak AM and PM hours, many local users have complained about delays and backups during peak AM and PM times at this intersection. 13 (36%) of the 36 crashes that resulted in a Rear End crash occurred during the peak AM and PM

periods. During these peak times, delays and backups lead to the queuing of vehicles. As the queuing increases, the distance at which approaching vehicles need to stop increases.

Countermeasures – Improving the intersection LOS will reduce delays and queuing at the intersection. Reducing the delays and queuing lengths should provide additional time and distance for approaching vehicles to react, which in turn should reduce the number of crashes at this intersection.

Reconfiguring the intersection from a signalized intersection to a roundabout configuration would allow vehicles to not have to come to a complete stop during every signal cycle. Reducing the amount of time that vehicles are completely stopped at this intersection will reduce the number of queued vehicles and may help reduce the number of rear end crashes at this intersection. The need for vehicles to speed up to make a yellow or green light is eliminated with the roundabout design. Also, due to the slower speeds needed for operation and elimination of some conflict points, roundabouts significantly reduce the likelihood of crashes that result in a severe injury.

The realignment of Cook St. to provide greater separation from the intersection of IL Route 3 and Pierce Lane will improve the operations of this intersection by allowing vehicles to make turning movements outside of the queued vehicles for the Pierce Lane intersection. Also, the entrances to the Church of Christ school on Pierce Lane will be combined with Cook S. Combining these access points on Pierce Ln. will reduce the amount of conflict points on Pierce Ln.

Road, weather, and lighting conditions - The majority of crashes during the study period occurred during clear weather conditions (83%), dry surface conditions (81%), and daylight conditions (71%). No patterns exist in the data that show that weather, surface, and light conditions were a

significant contributing factor on crashes within the project limits.

Note that additional updated crash data from 2015 and 2016 was reviewed and discussed in the Crash Analysis. The number and type of crashes that occurred in these years are consistent with the 7-year period that was analyzed.

Refer to Exhibit I for the Crash Analysis.

b. Pavement condition – the CRS rating for IL Route 3 within the project limits varies from 5.2 to 7.4, which correlates to fair to good pavement condition.

c. Operation concerns/ capacity

Traffic safety - This section of IL Route 3 is not within a 5% selected segment.

The Village of Godfrey wrote a letter to State Representative Beiser on December 16, 2009 requesting that the intersections of IL Route 3/ W. Delmar Ave. and IL Route 3/ Pierce Ln. be investigated for improvement. In this letter it was stated that morning traffic backs up on IL Route 3 west of Pierce Lane causing long delays. The Village of Godfrey received numerous phone calls from the public complaining about the traffic flow both in the morning and the evening at these two intersections.

Capacity (VISSIM was used for capacity analysis)

i. IL Route 3/ W. Delmar Ave. – The overall intersection Level of Service (LOS) for the existing peak AM and PM times are at a B and C level respectively. The overall intersection LOS for the 20-year no-build peak AM and PM times are at a B and E respectively.

ii. IL Route 3/ Pierce Ln - The overall intersection Level of Service (LOS) for the existing peak AM and PM times are at a B level respectively.

The overall intersection LOS for the 20-year no-build peak AM and PM times are at a C and B respectively.

Drainage – Reports from IDOT Bureau of Operations indicate there are some drainage issues at the southeast quadrant of the IL Route 3/ W. Delmar Ave. intersection. The inlets are ineffective and commonly require cleaning, and runoff floods the WB right turn lane.

Refer to Exhibit G for the Location Drainage Study.
Refer to Exhibit H for Coordination and Correspondence.
Refer to Exhibit J for the IDS.

d. Existing Geometry and Profile

Horizontal Alignment – There are 2 horizontal curves on IL Route 3 within the project limits that have deflection angles of greater than 1 degree. Per BDE 32-2.04, curves with deflection angles of 1 degree or less can be retained. Minimum length of curve (BDE Fig. 32-2H) and minimum radius (BDE Fig. 32-3.D) were investigated.

IL Route 3 (W. Delmar Ave.) – Curve 3 – The PI is at Sta. 877+42.70, the radius is 6,906.67 ft., and the length is 197.35 ft. The minimum length of curve and radius requirement for the existing 40-mph design speed are met for this curve (BDE 32-2.04 and BDE Fig. 32-3.D).

IL Route 3 (W. Homer Adams Parkway) – Curve 5 – The PI is at Sta. 12+28.14, the radius is 477.46 ft., and the length is 237.66 ft. This curve occurs within a Turning Roadway at an intersection, so the existing design speed can be assumed to be 20 mph. The minimum length of curve and radius requirements for the 20-mph design speed are met for this curve (BDE Equation 32-2.2 & BDE Fig. 36-2.K).

Vertical Alignment – Due to the lack of vertical curve information in previous plans, vertical curves were created in CADD to match the existing curves within the project limits to check the minimum length

and K values. There are 2 existing crest vertical curves and 4 existing sag vertical curves within the project limits.

IL Route 3 (W. Homer Adams Parkway) – The PI's for the 2 sag vertical curves are at Sta. 11+25 and 17+80. The curves lengths are 150 ft. and 225 ft. respectively. The minimum sag curve length is 150 ft. The K values are 175 and 102 respectively. The minimum sag K value is 96. The PI for the crest vertical curve is at Sta. 13+50. The curve length is 150 ft. and the K value is 230. The minimum crest curve length is 150 ft. and the minimum K value is 84. The minimum sag and crest vertical curve lengths and K values are met.

IL Route 3 (W. Delmar Ave.) – The PI's for the 2 sag vertical curves are at Sta. 868+50 and 871+25. The curves lengths are 150 ft. and 225 ft. respectively. The minimum sag curve length is 150 ft. The K values are 147 and 97 respectively. The minimum sag K value is 96. The PI for the crest vertical curve is at Sta. 876+05. The curve length is 430 ft. and the K value is 71. The minimum crest curve length is 120 ft. and the minimum K value is 44. The minimum sag and crest vertical curves lengths and K values are met.

Intersection spacing – Cook St. is utilized to access the private school/ church just east of Pierce Lane. The existing intersection spacing between the IL Route 3 and Pierce Lane intersection and Cook St.is currently approximately 100 ft. This existing spacing is not desirable, as during peak hours traffic on Pierce Lane and IL Route 3 have to navigate between queued vehicles to make turning movements.

Median break and lane configuration between Pierce Lane and W. Delmar Avenue – The public has expressed confusion with the median break on IL Route 3 at Norwood Lane, as well as the through and turn lane configuration on IL Route 3 between Pierce Land and W. Delmar Avenue.

e. Structural deficiencies – There are no structures within the project limits.

f. Local interest – The Village of Godfrey wrote a letter to State Representative Beiser on December 16, 2009 requesting that the intersections of IL Route 3/ W. Delmar Ave. and IL Route 3/ Pierce Ln. be investigated for improvement. In this letter it was stated that morning traffic backs up on IL Route 3 west of Pierce Lane causing long delays. The Village of Godfrey received numerous phone calls from the public complaining about the traffic flow both in the morning and the evening at these two intersections.

2. Relationship to other projects (past, current, future) – In 2014 a 3P resurfacing project was completed on IL Route 3 west of the project limits to Pierce Ln. 2.25" of HMA surface was removed and 1" leveling binder and 1.5" of HMA surface course was proposed. IL Route 3 within the project limits was last resurfaced in 2008. 2" of HMA surface was removed and 0.75" of leveling binder and 1.5" of HMA surface course was proposed. No other current or future projects are planned in this area.

D. Project Purpose/ Identify Deficiencies – Traffic delays and vehicle queuing at the intersections of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. are contributing to the potential for crashes. In addition, undesirable LOS is predicted for design year traffic for part of the peak periods. Input from the public during the CSS process resulted in the following Problem Statement:

> "The transportation (all modes) related issues at the intersections of IL Route 3 with West Delmar Avenue and Pierce Lane are travel delays, confusing intersection design, the inability to accommodate for current and future traffic needs, and safety issues. There is also a lack of continuous pedestrian and bicycle accommodations within the project area."

II. DESCRIPTION OF PROPOSED IMPROVEMENT

A. Introduction

1. General Scope of work – The scope of this project includes reconstructing the intersections of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. to roundabouts, construct a WB IL Route 3 bypass right turn lane at the IL Route 3/ W. Delmar Ave.

intersection, propose a 6 ft. path for bicycle and pedestrian accommodations, and to make drainage improvements.

2. Relationship to the purpose and need for improvement – Traffic delays and vehicle queuing at the intersections of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. will be reduced with the proposed roundabouts. In addition, the proposed intersection designs will simplify movements thru the dual intersections, reduce conflict points and subsequently improve the operation of both intersections and will increase safety for the traveling public.

   Refer to Exhibit H for Coordination and Correspondence.

B. Design Criteria Utilized – Chapter 48 in the BDE Manual "Urban Highways and Streets" was utilized for this improvement.

C. Geometric Improvements

1. Typical roadway template (proposed cross section). This typical section is consistent with the lane configuration of the approaching roadways.

   IL Route 3 (W. Delmar Ave.) west of Pierce Ln. – Sta. 869+41.50 to Sta. 875+98.29 – The proposed typical section consists of:

   - 2 - through lanes (varies 12 to 20 ft. 11 in.)
   - Paved shoulder (varies 3 ft. 10 in. to 7 ft.) – LT Sta. 869+41.50 to Sta. 875+20.38
   - Type B-6.24 curb and gutter
   - Raised median (varies 14 to 24 ft. 7 in.) – Sta. 875+20.38 to Sta. 875+98.29
   - Sidewalk (varies 4 to 6 ft.) – 6 ft. proposed sidewalk transition to 4 ft. existing sidewalk

   IL Route 3 (W. Delmar Ave.) between intersection of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. – Sta. 0+87.68 to Sta. 5+36.31 – The proposed typical section consists of:

   - 2 – through lanes (15 ft.)
   - Raised median (10 ft.)
   - Type B-6.24 curb and gutter
   - WB Bypass Lane (15 ft.)

- Sidewalk (6 ft.) – Only on south side of IL Route 3. Accommodations on the north are provided along Cook St.

IL Route 3 (W. Homer Adams Parkway) – Sta. 12+82.75 to Sta. 17+83.37 – The proposed typical section consists of:

- 2 – through lanes (varies 12 to 17 ft. 6 in.)
- Paved shoulder (4 ft.) – RT only
- Type B-6.24 curb and gutter – LT only
- Raised median (varies 0 to 11 ft.)
- WB Bypass Lane (varies 0 to 12 ft.)

2. Intersection Improvements – The intersections of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. will be improved with this project. The existing signalized intersections will be reconstructed into roundabouts. Cook Street will be realigned to provide greater separation from the intersection of IL Route 3 and Pierce Lane. The proposed roundabouts are to address the project Problem Statement.

   IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave.

   - 1 – travel lane (18 ft.)
   - Truck apron (16 ft. 6 in.)
   - Center island diameter (100 ft.)
   - WB Bypass Lane (18 ft.) – LT only
   - Sidewalks (6 ft.) - Only on south side of IL Route 3. Accommodations on the north are provided along Cook St.

3. Vertical Alignment
   Proposed Vertical Curves – Within the project limits there will be 3 vertical curves (V.C.'s) on IL Route 3, 1 V.C. on Pierce Ln., 1 V.C on W. Delmar Ave., 1 V.C. on Frontenac Ave., 1 V.C. on Ridgedale Ave., 1 V.C. on Norwood Ln., 1 V.C. on the Cook St. connector, and 5 V.C.'s on Cook St. proposed. All 14 V.C.'s proposed meet the minimum curve length and acceptable K value.

   Roadway Profile – The only vertical roadway profile adjustments will be at the center of the roundabout for drainage purposes and for realigning Cook St. to move the intersection with Pierce Ln. further north away from IL Route

4. Horizontal Alignment - There are 17 proposed horizontal curves within the project limits. There are 4 on IL Route 3, 2 on Pierce Ln., 1 on Frontenac Pl., 1 on Norwood Ln., 1 on Ridgedale Dr., 1 on W. Delmar Ave., and 6 on Cook St. Many of these curves are being proposed to intersect with the proposed roundabouts. All proposed horizontal curves meet minimum radius and length policy.

5. Entrances – Due to the roadway and drainage improvements, 3 commercial and 11 private entrances will be reconstructed with this project. All of these proposed entrances will meet the IDOT Access Manual design standards. Entrance sight distance is met for all proposed entrances within the project limits.

Refer to Exhibit B for Ground Level Photographs.
Refer to Exhibit E for Plan and Profile.
Refer to Exhibit F for Cross Sections.
Refer to Exhibit H for Coordination and Correspondence.
Refer to Exhibit J to view the Intersection Design Study.

D. Approved Pavement Design/ Rehabilitation

1. Need for Geotechnical Survey – The need for a Geotechnical Survey will be assessed and coordinated if needed in phase 2 to develop the pavement design.

2. Documentation for pavement design or rehabilitation of pavement – The pavement approval memo and the pavement design analysis were not available before project report approval; therefore, these issues will be completed during the design phase. The District preference for roundabout pavement is to utilize PCC due to the turning movements. This will be further designed in Phase II. Once completed, the pavement approval memo and the pavement design analysis will be included in the project folder.

E. Pavement Drainage

1. Existing drainage – The existing drainage system within the project limits consists of open roadside ditches, entrance culverts, crossroad culverts, curb and gutter and storm sewer. The intersection of IL Route 3 and Pierce Lane is generally a highpoint between multiple watersheds. Storm water runoff generated within the study limits generally drains away from the

project limits at one of eight different outlet points, by either open ditches or existing storm sewer systems.

2. Proposed drainage – The proposed drainage design will generally match the existing condition and has been developed to assure that storm water run-off sent to the existing storm sewer systems does not increase once the improvements for this project are constructed. The intersection of IL Route 3/ Pierce Ln. is at the high point of multiple watersheds. Storm water runoff generated within the study limits will generally drain away from the limits. The proposed drainage design is made up of multiple watersheds. A summary of the proposed drainage within the project limits is listed below:

   IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. proposed roundabouts – Storm water will drain from the center of the proposed roundabouts to proposed curb and gutter. The proposed storm sewer system will generally direct this water from the curb and gutter to each leg of the roundabouts.

   North of the IL Route 3/ Pierce Ln. roundabout - Proposed storm sewer will direct storm water run-off north to an existing storm sewer system along the west side of Pierce Ln. or sent to a proposed detention basin that will be constructed in between Pierce Ln. and the proposed relocated Cook St. The storm water from the detention basin will be released through outlet pipes under Cook St. This storm water on the east side of Pierce Ln. will overland flow towards an existing 3 ft. x 3 ft. open throat Inlet.

   South of the IL Route 3/ Pierce Ln. roundabout – Proposed storm sewer will direct storm water run-off to the east.

   East of the IL Route 3/ Pierce Ln. roundabout – Proposed storm sewer will direct storm water run-off to the east. Ditching behind the curb and gutter will drain to inlets along IL Route 3 (W. Delmar Ave.).

   West of IL Route 3/ Pierce Ln. roundabout – Proposed storm sewer will direct storm water to the existing storm sewer on the north and south side of IL Route 3 (W. Delmar Ave.)

Northeast of the IL Route 3/ W. Delmar Ave. roundabout - Proposed storm sewer will carry storm water from the west to the east and into the existing ditching along the north and south side of W. Homer Adams Parkway. This storm water continues east away from the project limits along W. Homer Adams Parkway.

South of the IL Route 3/ W. Delmar Ave. roundabout - Proposed storm sewer will carry water from Ridgedale Dr. to the east towards W. Delmar Ave.

Southeast of the IL Route 3/ W. Delmar Ave. roundabout - Proposed storm sewer will carry storm water from the west across W. Delmar Ave. through a 24" crossroad culvert. Storm water on the north and south side of W. Delmar Ave. is carried by storm sewer to existing ditches on the north and south side of W. Delmar Ave. This ditching carries storm water east along W. Delmar Ave. to a nearby tributary.

West of IL Route 3/ W. Delmar Ave. roundabout – Proposed storm sewer will carry storm water on the north and south side of IL Route 3 (W. Delmar Ave.) to the east. Storm water on the north is sent to ditching on the south side of W. Homer Adams Parkway and storm water on the south is sent to ditching on the north side of W. Delmar Ave.

Cook St. – Storm water west of the dual front entrance to the Evangelical Church/ School is carried north and emptied into the proposed detention basin between Pierce Ln. and Cook St. Storm water east of the dual front entrance to the Evangelical Church/ School is carried to the east. This storm water continues east away from the project limits along W. Homer Adams Parkway.

Refer to Exhibit E for Plan and Profile.
Refer to Exhibit F for Cross Sections.
Refer to Exhibit G for the Location Drainage Study.

F. Design Exceptions – 7 design exceptions were requested and approved with this project.

A design exception was requested to use a BUS-40 design vehicle for the Cook St. connector road. The policy design vehicle is a WB-50. Because the connector road is so short that no other feasible alternative provides better accessibility without unreasonable adjustments to the intersection, a WB-50 is accommodated with encroachment. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested for a LOS D for the Cook St. connector road. The policy LOS C or better cannot be attained, as no other feasible alternative increases the LOS. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested to use a 25-mph design speed for the intersection of Cook St. and Pierce Ln. The policy design speed is 30-mph. No other feasible alternatives can be proposed without impacting the church entrance. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested to use a 90 ft. storage bay at the intersection of Cook St. and Pierce Ln. (RTL). The policy storage bay distance is 115 ft. No other feasible alternatives can be proposed without impacting the church entrance. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested to use a 75 ft. taper for the right turn lane at the intersection of Cook St. and Pierce Ln. The policy taper length is 117 ft. No other feasible alternatives can be proposed without impacting the church entrance. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested to use a LOS E in the AM 20-year design for the intersection of IL Route 3 and Frontenac Pl. The policy LOS is C or better. No other feasible alternatives increase the LOS for that leg. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

A design exception was requested to use a LOS D in the AM 20-year design for the intersection of IL Route 3 and Ridgedale Dr. The policy LOS is C or better. No other feasible alternatives increase the LOS for

that leg. BDE approved this design exception at the April 4, 2017 Monitoring meeting.

Refer to Exhibit J for IDS.
Refer to Exhibit H for Coordination and Correspondence.

G. Right-of-Way

1. Acquisition required
   a. A total of 7 parcels will have right of way impacts with this project.

   b. The land use along IL Route 3 within the project vicinity is urban residential and commercial.

   c. A total of 2.31 acres of proposed right of way will be required with this project.

2. Permanent easement required
   a. A total of 8 parcels will have permanent easement impacts with this project.

   b. The land use along IL Route 3 within the project vicinity is urban residential and commercial.

   c. A total of 0.27 acres of proposed easement will be required with this project.

3. Temporary easement required
   a. A total of 22 parcels will require temporary easement with this project.

   b. The land use along IL Route 3 within the project vicinity is urban residential and commercial.

   c. A total of 1.1 acres of temporary easement will be required with this project.

4. Residential/ business displacement – No displacements will be required with this project.

Refer to Exhibit E for Plan and Profile.
Refer to Exhibit H for Coordination and Correspondence.

H. Structures – No structures exist within the project limits.

I. Traffic Signal Modernization/ Installation – The existing traffic signals at the intersections of IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. will be removed with this project and will be replaced with roundabouts.

J. Lighting – Lighting will be proposed for the IL Route 3/ Pierce Ln. and IL Route 3/ W. Delmar Ave. intersections. Because roundabouts are proposed at these intersections, this lighting will be located so that they provide good illumination on the approaches, all conflict areas where traffic is entering the circulating stream, where the traffic streams separate to exit the roundabout, and at the pedestrian crossings. This lighting has an estimated cost of $300,000. The proposed lighting will be owned and maintained by the state.

K. On-Street Parking – No on-street parking exists within the project limits.

L. Sidewalks/ ADA Requirements/ Accommodations

1. Existing conditions – Within the project limits sidewalks exist on the north side of IL Route 3 west of Pierce Lane, along the west side of Pierce Lane, and on the north side of Cook St.

2. Proposed improvement – IL Route 3 has some existing pedestrian accommodations and provides primary access to pedestrian generators within the project limits. Therefore, sidewalk warrants are met for this project. To accommodate pedestrians within the project limits, a 6 ft. one-way concrete path will be constructed on both sides of IL Route 3 within the project limits. This accommodation will utilize the frontage road (Cook St.) on the north side of IL Route 3. Also, to transition the proposed into the existing accommodations, a 5 ft. sidewalk and 4 ft. paved shoulder (6 ft. gutter pan) will be provided on the west leg of the proposed Pierce Ln. roundabout. Due to the lack of local agency participation, pedestrian accommodations will not be provided along W. Delmar Ave. or along IL Route 3/ W. Homer Adams Parkway.

Refer to Exhibit K for Bicycle and Pedestrian Accommodation Analysis and Coordination.

M. Bikeways/ Trails/ Accommodations

1. IL Route 3 is not considered a designated bicycle route.

2. Existing accommodations – the existing 4 ft. paved shoulder along IL Route 3 within the project does provide minimum bicycle accommodations.

3. Proposed improvement – IL Route 3 has some existing bicycle accommodations and provides primary access to bicycle generators within the project limits. Therefore, bicycle warrants are met for this project. To accommodate bicycles within the project limits, a 6 ft. one-way concrete path will be constructed on both sides of IL Route 3 within the project limits. This accommodation will utilize the frontage road (Cook St.) on the north side of IL Route 3. Also, to transition the proposed into the existing accommodations, a 5 ft. sidewalk and 4 ft. paved shoulder (6 ft. gutter pan) will be provided on the west leg of the proposed Pierce Ln. roundabout. Due to the lack of local agency participation, similar bicycle accommodations will not be provided along IL Route 3/ W. Homer Adams Parkway. Proposed 4 ft. shoulders along IL Route 3/ W. Homer Adams Parkway will provide minimum bicycle accommodations. Due to the lack of local agency participation, bicycle accommodations will not be provided along W. Delmar Ave.

Refer to Exhibit K for Bicycle and Pedestrian Accommodation Analysis and Coordination.

N. Pedestrian Overpass/ Subways/ Other Facilities – No existing facilities are within the project limits and none will be proposed with this project.

O. Mass Transportation – Madison County Transit (MCT) bus service operates within the project limits. The MCT Route 10 State and Elm Shuttle services the D' Adrian Professional Park and the Pierce Lane Group Home. There are no MCT bus stops on IL Route 3 or Pierce Lane, as these buses pull into parking lots for these locations for pick up and drop off. There are also school buses that

operate within the project limits. These buses stop at Frontenac Place, Norwood Lane, and Ridgedale Drive within the project limits.

P. Utility Conflicts – The following utilities are located within the project limits:

Utility Company	Type of Utility
Ameren Illinois	aerial and buried gas & electric
AT&T Illinois	aerial and buried communication
Charter Communications, Inc.	aerial and buried cable tv
Village of Godfrey	Buried sanitary sewer
Illinois American Water Company	buried water

All the above utilities are J.U.L.I.E. members. The construction limits for this project cross the following utilities throughout the project limits: aerial and buried electric, aerial and buried communication, and buried cable tv, and buried water.

Refer to Exhibit E for Plan and Profile.
Refer to Exhibit F for Cross Sections.

Q. Encroachments - There are no encroachment within the project limits.

R. Mail Delivery – There are no mailbox turn outs or hazardous mailbox supports within the project limits. Mail delivery will be maintained throughout the construction of this project.

S. Landscape/ Roadside Development

All disturbed areas within the project limits will be reseeded. Trees that are removed will be replaced to the extent possible in accordance with D&E-18.

The Village of Godfrey has confirmed that they would like to participate in the cost and maintenance of a treatment of the center islands of the roundabouts. The village would like to landscape the center of the roundabout islands with a ring of decorative rock surrounding day lilies or

day lilies and rock scattered throughout the center of the island. A letter of intent to participate in the roundabout island landscaping was sent on July 8, 2019. A signed letter of concurrence of participation in the roundabout island landscaping was received from the Village of Godfrey on February 5, 2020.

Refer to Exhibit H for Coordination and Correspondence.

T. Construction Site Storm Water Pollution Control – 8.7 acres of soil will be disturbed with this project; therefore, the project must comply with NPDES permit requirements. Routine practices such as ditch checks and perimeter silt fences will be used to control sediment and erosion throughout the project limits.

Refer to Exhibit L for Environmental Correspondence.

U. At-Grade Railroad Crossing – No at-grade railroad crossings exist within the project limits.

V. Surveillance – No surveillance equipment exists within the project limits.

W. Pump Station – No pump stations exist within the project limits.

X. Retaining Wall – No retaining walls exist within the project limits.

Y. Public Educational Facility Entrances – Within the project limits access to the Evangelical United Church of Christ - Evangelical School (non public) in Godfrey, IL will be impacted. The entrances to this school along the frontage road (Cook St.) north of IL Route 3 will be reconstructed, as this frontage road is being realigned with this project. The entrance to the school on Pierce Ln. is being combined with Cook St. and moved north. Combining these access points on Pierce Ln. will reduce the amount of conflict points on Pierce Ln., and shifting this access to the north brings this intersection further north of the intersection of IL Route 3 and Pierce Ln. This additional distance allows vehicles entering and existing this intersection at Pierce Ln. additional distance to react to conflicting vehicular movement from Cook St.

III. ENVIRONMENTAL RESOURCE SUMMARIES

A. Environmental Survey Request

1. The original environmental survey request was submitted on April 2, 2014. The environmental survey request addendum A was submitted on February 15, 2018 (PESA expired).

2. Cultural Resource Concurrence was received on June 17, 2014. No archaeological, architectural, or historic sites were identified. No historic properties are affected by this project.

3. The Natural Resource Review was received on April 3, 2014.
   a. Endangered Species – There is no record of State-listed threatened or endangered species in the vicinity of the project location.

   b. Wetlands – The National Wetlands Inventory shows wetlands in the vicinity of the project location, but these consist of mature trees and non-hydric soils and will not be adversely affected by this project.

B. PESA

1. PESA Review - The PESA review was received on September 24, 2014. A revised PESA review was received on July 13, 2018 (original PESA expired).

2. REC Sites - Within the project vicinity, 21 REC sites were identified in this report consisting of 7 commercial, 11 residential, 1 vacant and 2 religious/ educational properties. The contaminants identified within these REC sites are above ground storage tanks, transformer, potential asbestos-containing material, lead paint, potential former chemical use, and potential impacted ground water.

3. REC Site Impacts – cubic yards

Site 8 - 8.3	Site 10 – 19.5	Site 19 – 32.9
Site 21 – 33.5	Site 23 – 9.8	Site 24 – 5.2
Site 16 – 5,525	Site 7 – 4.6	Site 12 – 15.8
Site 13 - 43		

The majority of impacts will be to Site 16, which is the Evangelical Church/ School. Excavation is required on this property to realign Cook St. and the Pierce Lane access to this property.

4. PESA Response – The PESA response was sent on April 25, 2020. Sites 2, 4, 7, 9, 10, 11, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29 will be impacted with this project for a total of 7,440.3 cubic yards of excavation.

C. FEMA – This project is not within a 100-year flood zone. This project is within Zone C, which is an area of minimal flooding.

D. Air and Noise Analysis

1. Air Quality Conformity

The project is located within a designated nonattainment or maintenance area but is a project type, which the U.S. Environmental Protection (USEPA) has designated as exempt from regional emissions analyses of transportation plans and Transportation Improvement Programs for purposes of determining conformity with the State Implementation Plan (SIP). This designation is based on USEPA's determination that the nature of the project is such that it would not affect the outcome of a regional emissions analysis.

The National Ambient Air Quality Standards (NAAQS), established by the US Environmental Protection Agency, set maximum allowable concentration limits for six criteria air pollutants. Areas in which air pollution levels persistently exceed the NAAQS may be designated as "nonattainment." States where a nonattainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS. Areas that had been designated as nonattainment, but that have attained the NAAQS for the criteria pollutant(s) associated with the nonattainment designation, will be designated as maintenance areas.

All areas of Illinois are in attainment of the standards for five of the six criteria pollutants: particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead.

For the eight-hour ozone, Cook, DuPage, Kane, Lake, McHenry, and Will Counties, as well as Aux Sable and Goose Lake Townships in

Grundy County and Oswego Township in Kendall County, have been designated as marginal nonattainment areas. Jersey, Madison, Monroe, and St. Clair Counties in the St. Louis area also have been designated as marginal nonattainment areas for the eight-hour ozone standard.

2. Hot Spot Analysis
   On December 27, 2018 the USEPA approved Illinois' May 8, 2018 request to revise the state's designation for $PM_{2.5}$ from unclassifiable to unclassifiable/attainment. (see 83 FR 66631) Based on this final rule, transportation conformity project-level qualitative Hot-Spot analysis for $PM_{2.5}$ is not required. Illinois is also in attainment for the PM_{10} 1987 standard.

3. Mobile Source Air Toxics
   This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special Mobile Source Air Toxic (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the non-build alternative. Moreover, USEPA regulations for vehicle engines and fuels will cause overall MSATS emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with USEPA's MOVES 2014 model forecasts a combined reduction of more than 90 percent in the total annual emission rate for the priority MSAT from 2010 to 2050. This will both reduce the background level MSAT as well as the possibility of even minor MSAT emissions from this project.

4. Noise
   Trucks and machinery used for construction produce noise that may affect some land uses and activities during the construction period. Residents along the alignment will, at some time, experience perceptible construction noise from implementation of the project. To minimize or eliminate the effect of construction noise on these receptors, mitigation measures have been incorporated into the Illinois Department of Transportation Standard Specifications for Road and Bridge construction as Article 107.35.

The types of projects that do not require a noise analysis are stated in 23 CFR Part 772. This project meets those criteria and does not require a traffic noise analysis, noise barrier, or other noise abatement measures.

The referenced project meets the criteria for a Type III project established in 23 CFR 772. Therefore, the proposed project requires no traffic noise analysis or abatement evaluation. Type III projects do not involve added capacity, construction of new through lanes, changes in the horizontal or vertical alignment of the roadway, or exposure of noise sensitive land uses to a new or existing highway noise source. A noise analysis would be required if changes to the proposed project resulted in reclassification to a Type I project.

D. Categorical Exclusion – This project is being processed as a State Approved Categorical Exclusion (CE).

Refer to Exhibit H for Coordination and Correspondence.
Refer to Exhibit L for Environmental Coordination and Correspondence.

IV. TRANSPORTATION MANAGEMENT PLAN AND RECOMMENDATIONS

Alternative analysis – After considering various staging alternatives, it was determined that staged construction is feasible without the need to detour IL Route 3 traffic. Some side streets within the project limits will be detoured during various stages of construction. Local routes are required for small portions of traffic during some stages of construction.

1. Detour Alternatives – After evaluation of the state roadways within the project vicinity, the shortest potential detour routes for IL Route 3, which carries an average of 15,300 vehicles per day, was more than 30 miles long. A secondary evaluation of county and municipal roadways in the project vicinity did not result in any adequate routes that could reduce the length of detour. Also, IL Route 3 acts as a detour route when IL Route 100 is closed due to flooding of the Mississippi River. Since there are no acceptable detour routes for IL Route 3, road closure is not a viable option to construct the project.

   Wide Load Detour – single lane pavement widths during staging will be 11-12 ft. (less than 14 ft.). A wide load detour does not need to

be signed as part of this contract. Once the contractor submits his OPER 2410 form with the 21-day advance notice, this will place a restriction on IL Route 3 and any wide loads will need to obtain their permits using whatever alternate route works for the specific needs.

2. Staging Alternatives – Construction of the project will involve seven (7) separate stages of construction over an estimated 180 working days. IL Route 3 through traffic will be maintained in both directions throughout construction with minimum policy lane widths; however temporary closures will be necessary for various side roads within the project limits. Various alternatives routes have been identified for each stage to verify the feasibility of traffic finding an alternative route during construction.

3. Staging Impacts – The staging concept will be further developed during the design and contract plan phase (Phase II) of project development. During this phase, coordination with local agencies will take place concerning the staging concept and possible alternative routes that may be utilized.

Refer to Exhibit M for the Traffic Management Analysis.

V. ESTIMATE OF COSTS

The estimate cost for this project is $6,447,460.

Refer to Exhibit N for Cost Estimate.

VI. COMMITMENTS

The Village of Godfrey responded on February 5, 2020 to a Letter of Intent with a signed concurrence to participation in the cost and maintenance of bike and pedestrian accommodation within this project along IL Route 3 from W. Delmar Ave to Pierce Lane, as well as roundabout center island treatments. The roundabout center island treatments will consist of perennial plantings with a 15 ft. ring of river rock.

VII. PERTINENT INFORMATION

Outreach should continue through design and construction phases. Direct contact with the church/ school and business park should be maintained throughout construction to assure they are aware of construction activities that have impacts to access for these properties. Direct contact with individual

homeowners or homeowner associations should be considered where construction activities have a major impact on access for side roads, such as Frontenac Place, Norwood Lane, and Ridgedale Dr.

Refer to Exhibit H for Coordination and Correspondence (center island treatment concept from Village of Godfrey).
Refer to Exhibit K for the Bike and Pedestrian Analysis and Coordination.
Refer to Exhibit M for the Traffic Management Analysis.

VIII. COORDINATION/ DOCUMENTATION

A. District Coordination Meetings – This project was presented at the 6/25/15, 4/5/17, and 12/19/18 District Coordination Meetings.

Refer to Exhibit H for Coordination and Correspondence

B. Coordination
    a. Municipalities/ Counties – The Village of Godfrey was coordinated with throughout project development and served as part of the Community Advisory Group (CAG) for this project.
    b. Mass Transit Agencies – Madison County Transit was coordinated with throughout project development and served as part of the Community Advisory Group (CAG) for this project.
    c. Utilities – Coordination with utilities was conducted through District 8 Project Support to provide utility information for the project area.

Refer to Exhibit H for Coordination and Correspondence

C. Public Involvement
    a. Stakeholder meetings – Stakeholder meetings were held with The Village of Godfrey, The Evangelical Church/ School, TK Carpet, Frontenac Homeowners Association, and the Riverbend Growth Association.
    b. Community Advisory Group (CAG) – An electronic message board was placed on IL Route 3 within the project limits to solicit CAG volunteers. CAG meetings were held on 10/22/2014 and 03/30/16.
    c. Public Involvement Meeting – A Public Involvement Meeting was held on 10/03/2018.

d. A website was created for this project to provide information and updates on the project and public involvement activities at www.idot.illinois.gov/projects/IL-3-Godfrey.

Refer to Exhibit H for Coordination and Correspondence

Refer to the Public Involvement Record (available under separate cover) to view public involvement exhibits and additional detailed information.

EXHIBIT A - LOCATION MAP

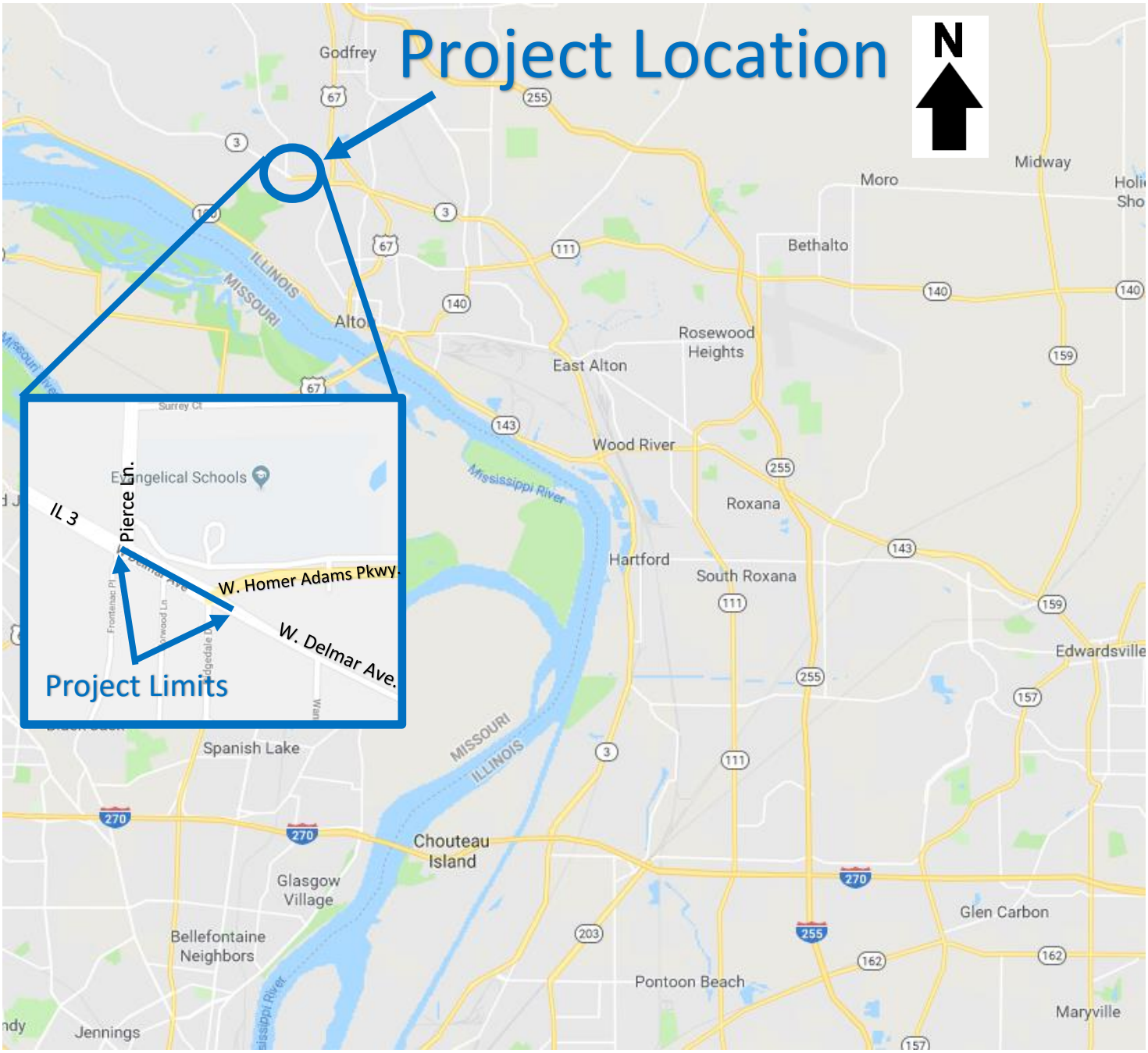


Exhibit A – Location Map

EXHIBIT B – GROUND LEVEL PHOTOGRAPHS

IL 3/ W. Homer Adams Pkwy. looking west

IL 3/ W. Homer Adams Pkwy. looking west at IL 3/ W. Delmar Ave. intersection

Cross Road culvert (18” RCP) under IL 3/ W. Homer Adams Pkwy looking north

Cook St. looking east

Cook St. looking west at the Evangelical United Church of Christ entrance

Cook St. looking west at intersection with Pierce Ln.

W. Delmar Ave. looking west

36” x 36” box culvert looking south at W. Delmar Ave.

W. Delmar Ave. looking west at the intersection with IL 3

IL 3 looking northeast at W. Homer Adams Pkwy. intersection

Ridgedale Dr. looking south

IL 3 looking east at the W. Delmar Ave. intersection

Norwood Ln. looking south

Looking east at the ditching between IL 3 and Cook St.

IL 3 looking west at the Pierce Ln. intersection

Frontenac Pl. looking south

Frontenac looking northeast at the Pierce Ln. intersection

3 ft. x 3 ft. inlet at the north limit of the Evangelical United Church of Christ property

Pierce Ln. looking south at the Evangelical United Church of Christ entrance

Pierce Ln. looking south at the Cook St. and IL 3 intersection

Looking east at Cook St. from Pierce Ln.

Pierce Ln. looking south at the intersection with IL 3

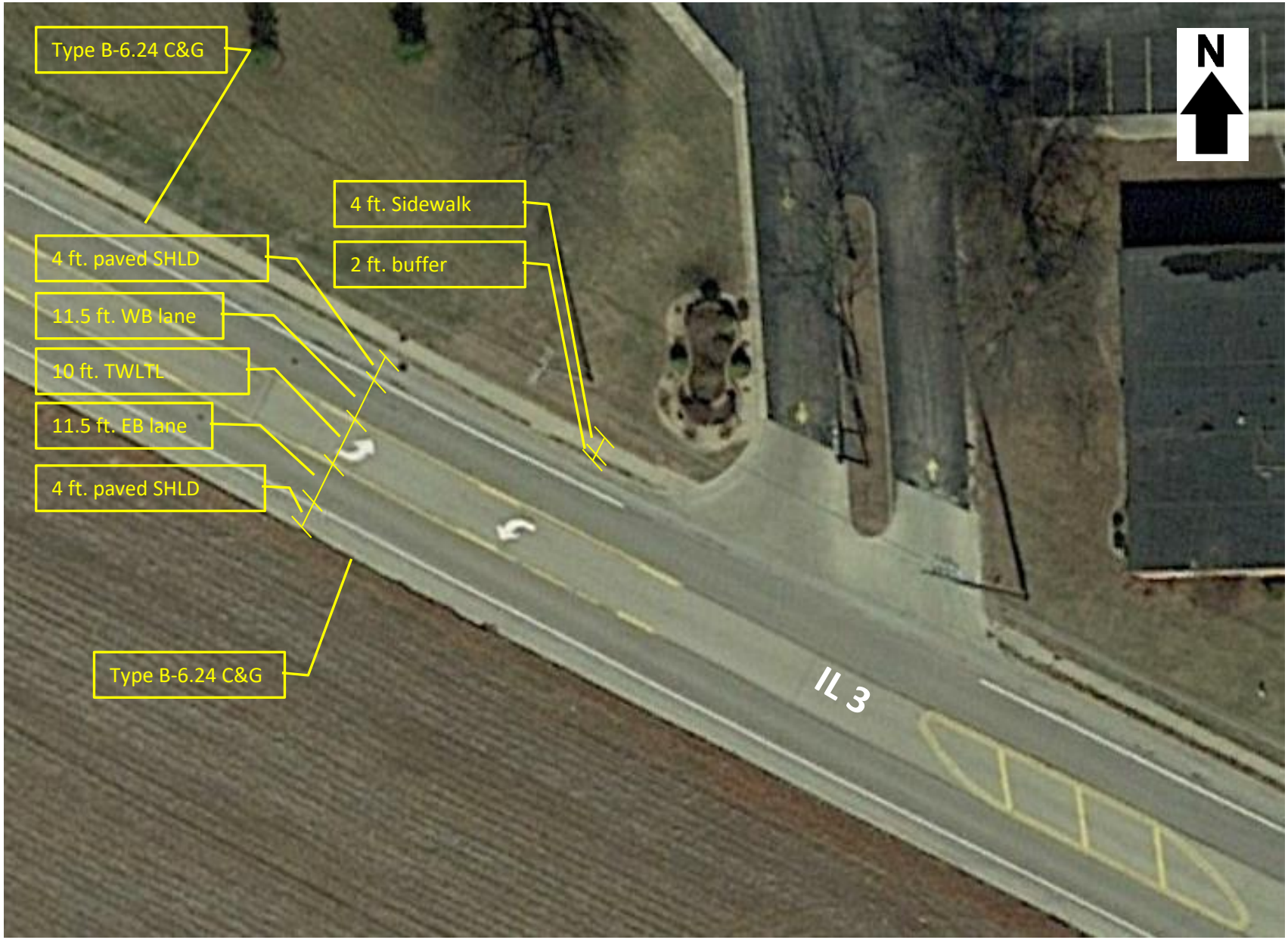
IL 3 looking east at the intersection with Pierce Ln.

IL 3 looking west just west of the Pierce Ln. intersection

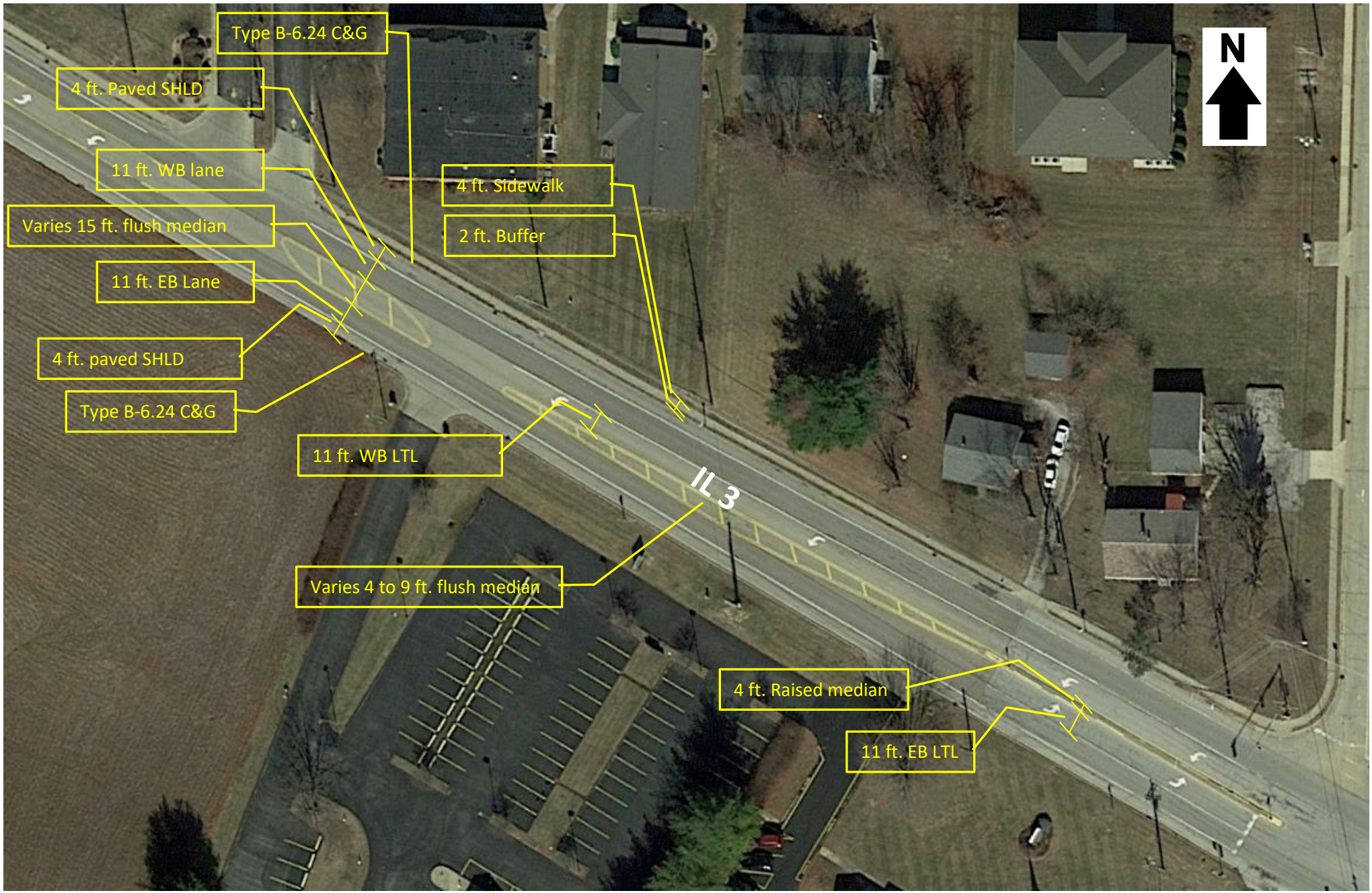
IL 3 looking west at the D' Adrian Professional Park entrance

IL 3/ W. Homer Adams Pkwy. looking west at IL 3/ W. Delmar Ave. intersection

EXHIBIT C – AERIAL PHOTOGRAPHY MAPS



IL 3 Aerial Photography (IL 3 north – Sta. 866+40.82 to Sta. 872+15)



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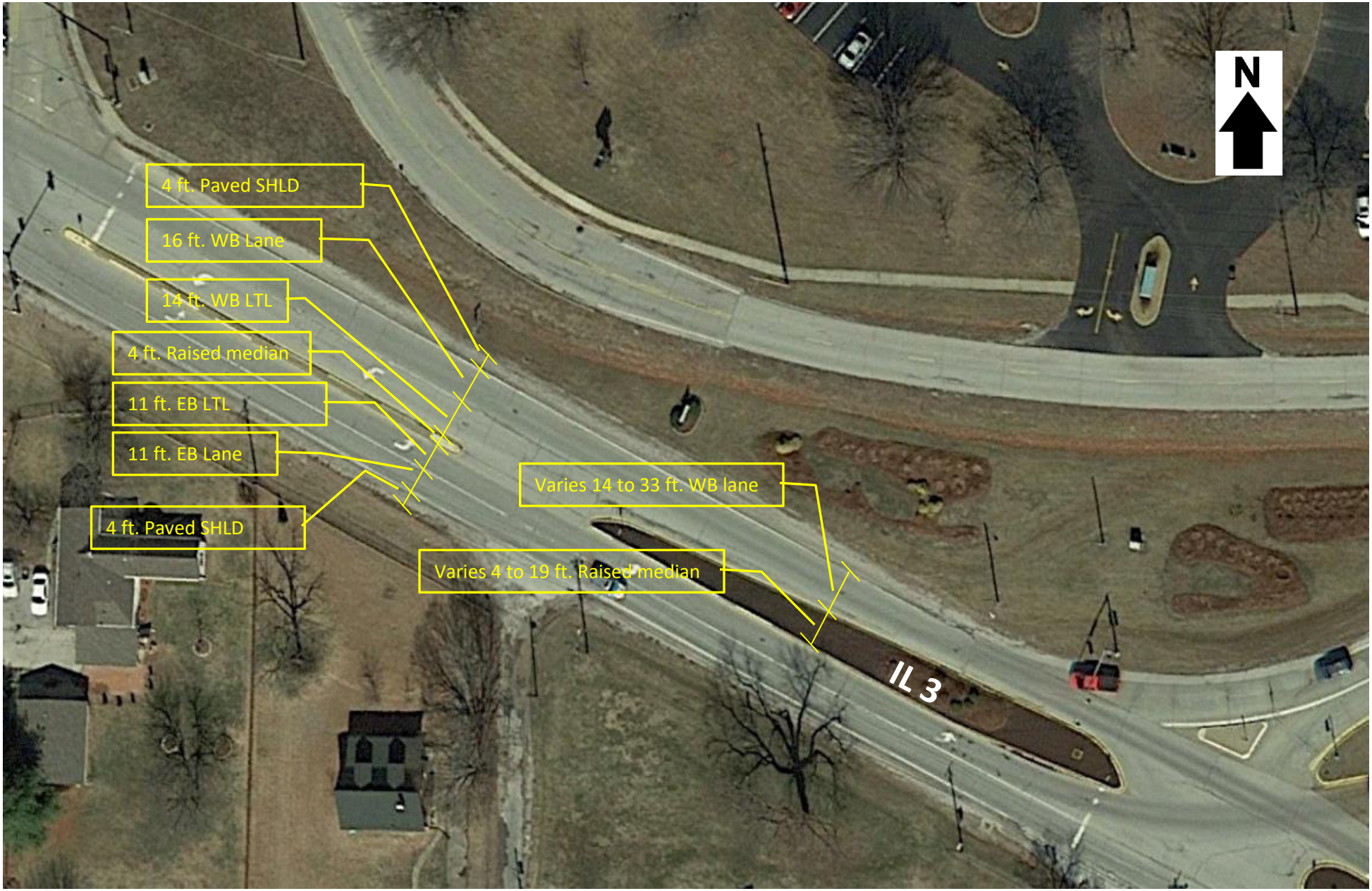
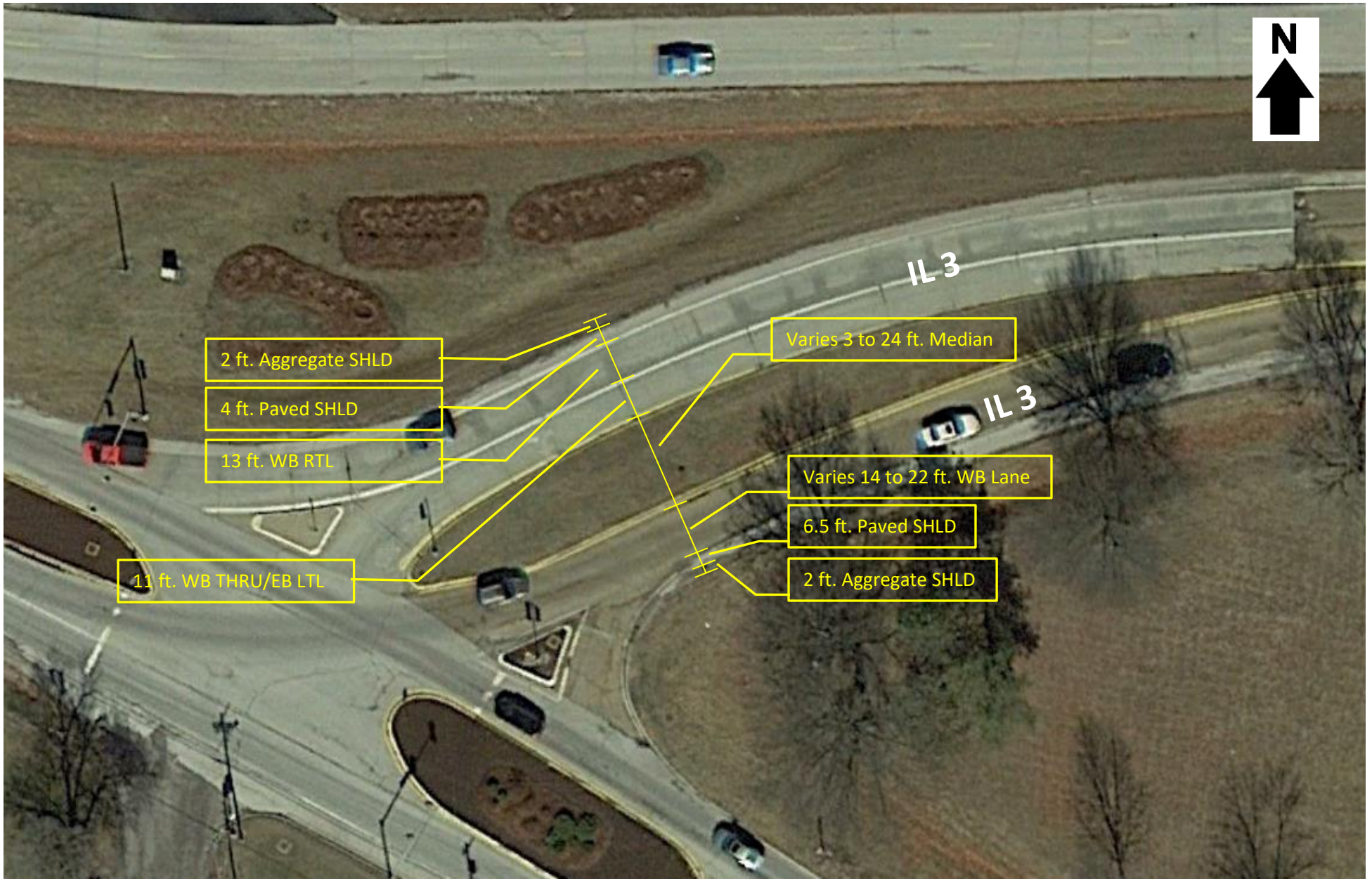


IL 3 Aerial Photography (IL 3 Sta. 877+71.65 to Sta. 882+18)



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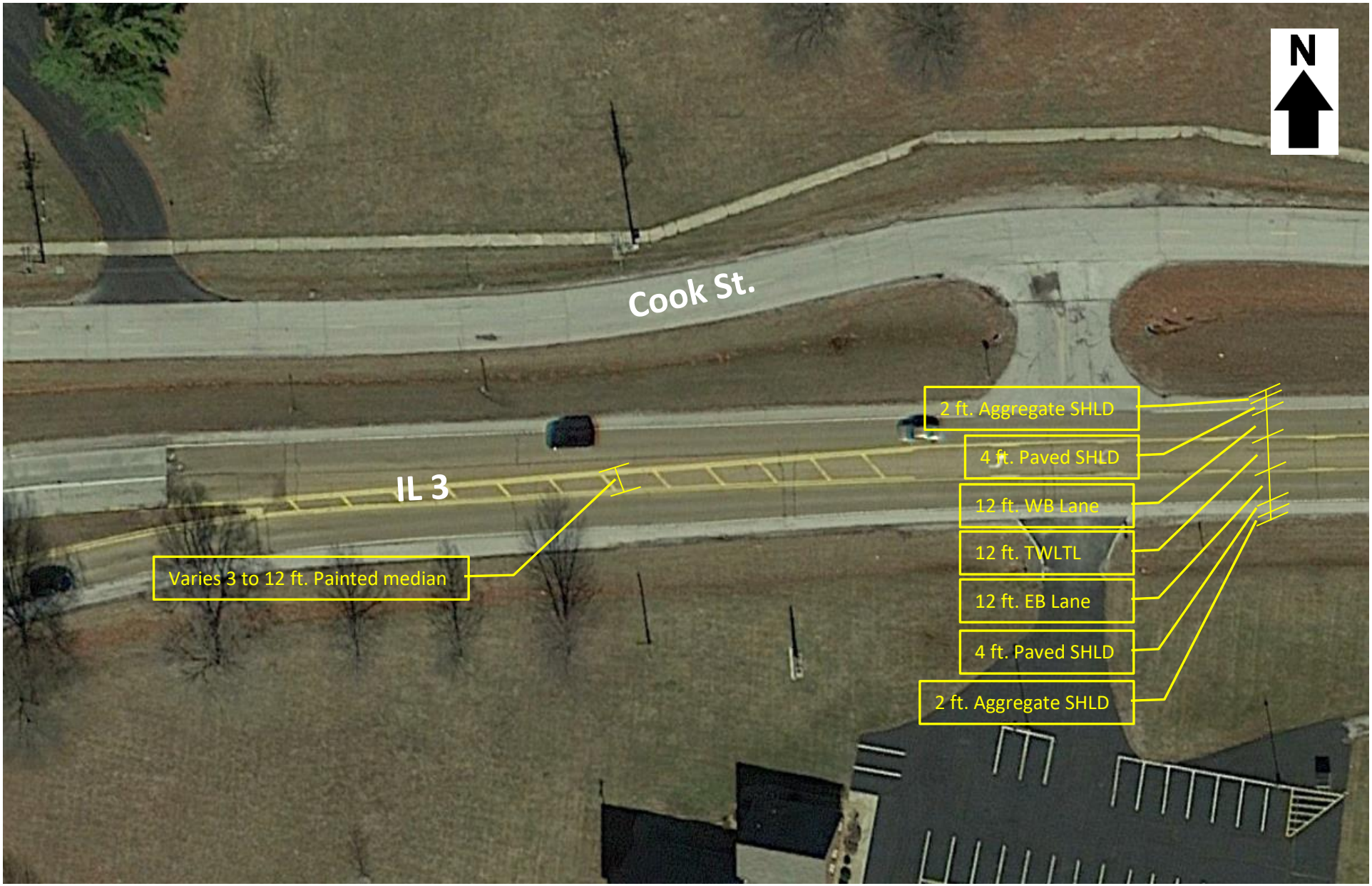
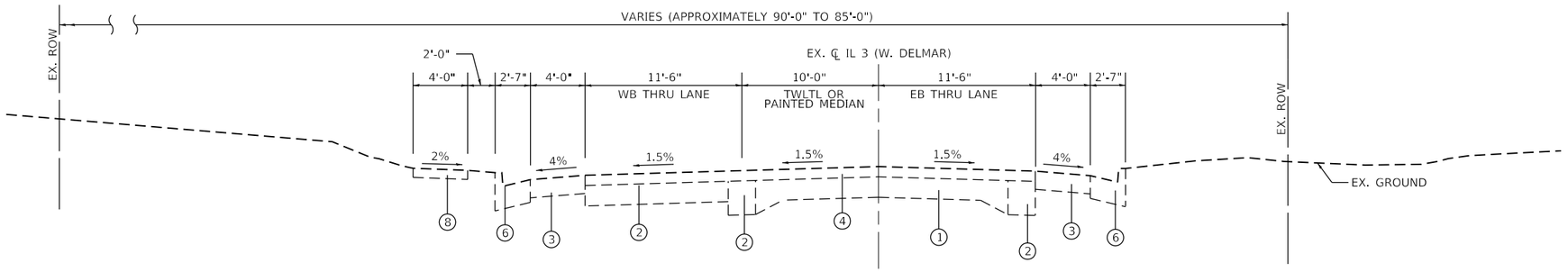


IL 3 Aerial Photography (IL 3/ Homer Adams Pkwy Sta. 13+92.99 to Sta. 17+83.39)

EXHIBIT D – TYPICAL SECTIONS



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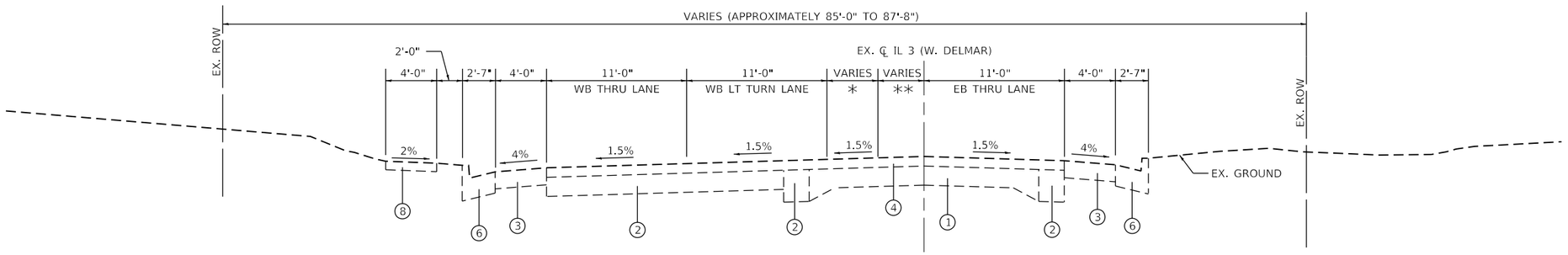
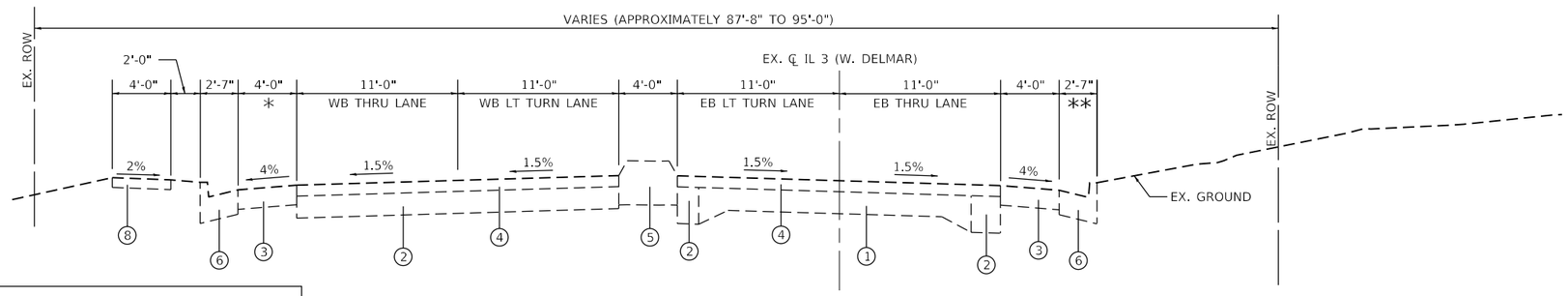


STA. 872+15.00 TO STA. 874+86.26

* PAINTED MEDIAN
STA. 872+15.00 TO STA. 873+60.00 - (4' TO 9')
STA. 873+60.00 TO STA. 874+86.26 - (9' TO 4')

** EB LT TURN LANE
STA. 872+15.00 TO STA. 873+60.00 - (0')
STA. 873+60.00 TO STA. 874+86.26 - (0' TO 11')



STA. 874+86.26 TO STA. 877+71.65

* STA. 877+44.45 TO STA. 877+71.65 - (6')

** STA. 877+28.03 TO STA. 877+71.65 - (0')

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
IL ROUTE 3 (W. DELMAR AVENUE)

SCALE: NTS | SHEET 1 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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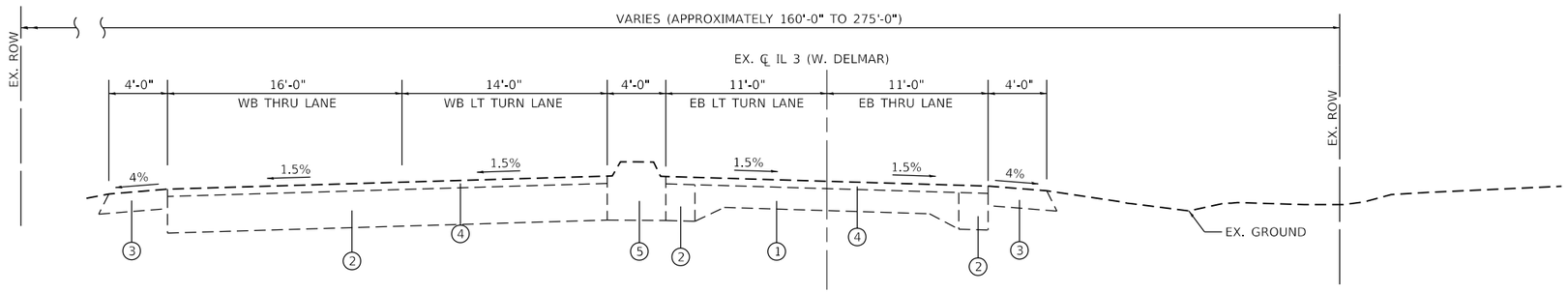

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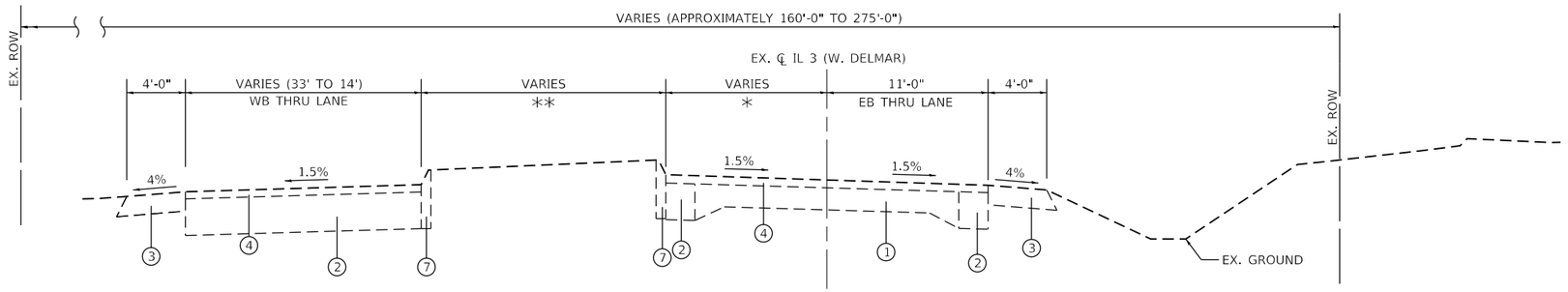

STA. 879+14.36 TO STA. 882+18.00

*EB LEFT TURN LANE
STA. 879+14.36 TO STA. 881+32.82 - (11')
STA. 881+32.82 TO STA. 882+00.88 - (11' TO 19')

** MEDIAN
STA. 879+14.36 TO STA. 879+71.84 - (0')
STA. 879+71.84 TO STA. 881+32.82 - (4' TO 19')
STA. 881+32.82 TO STA. 882+00.88 - (19' TO 4')
STA. 882+00.88 TO STA. 882+18.00 - (0')

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
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9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
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13. PR. HMA SURFACE COURSE
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15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
IL ROUTE 3 (W. DELMAR AVENUE)

SCALE: NTS | SHEET 2 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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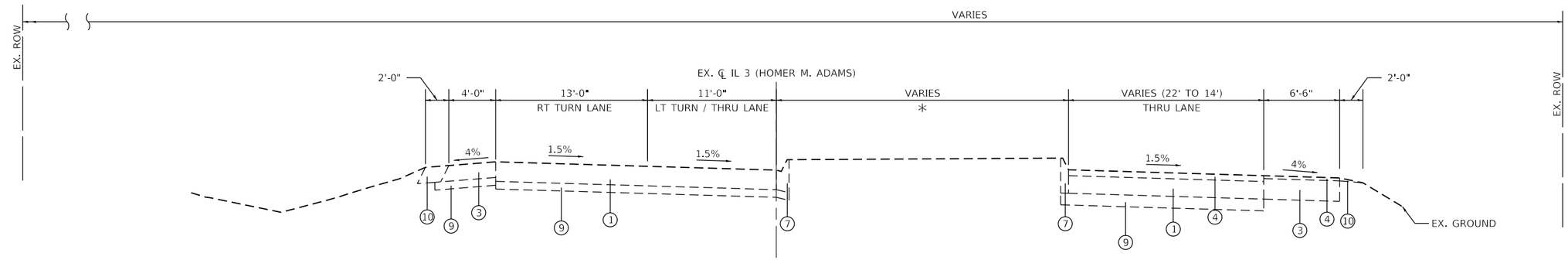
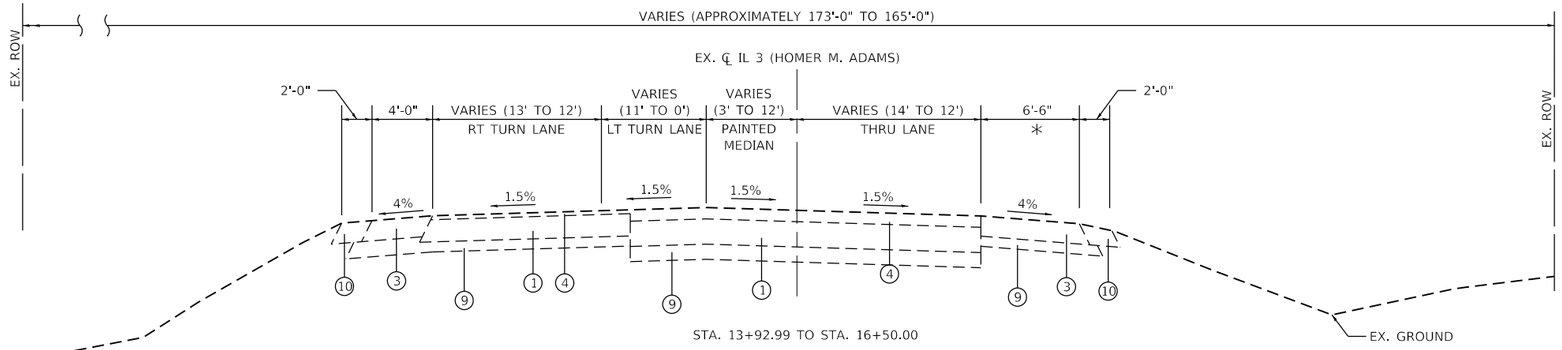
* 8955 & 8956



STA. 10+60.89 TO STA. 13+92.99

* MEDIAN
STA. 10+75.57 TO STA. 11+07.10 - (7' TO 24')
STA. 11+07.10 TO STA. 13+92.99 - (24' TO 3')

** THRU LANE
STA. 10+60.89 TO STA. 13+92.99 - (22' TO 14')



STA. 13+92.99 TO STA. 16+50.00

* SHOULDER
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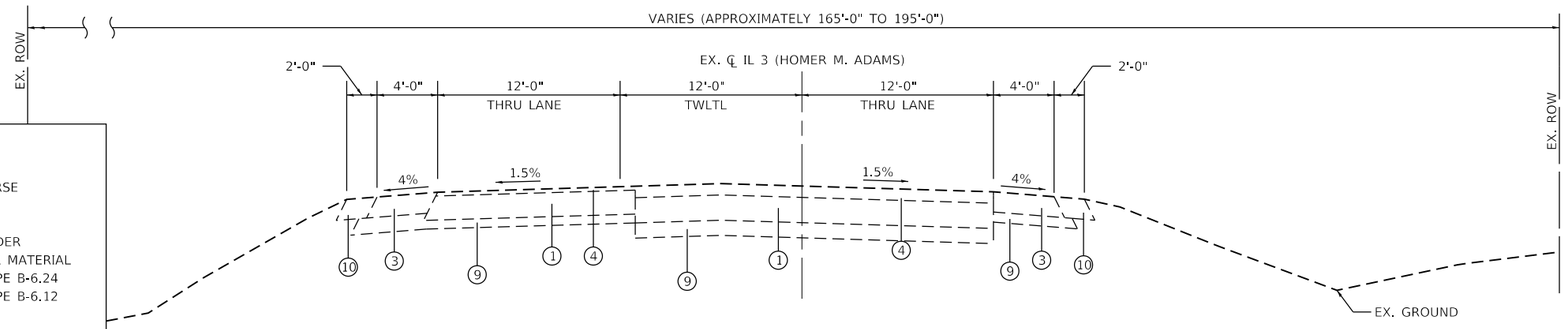

STA. 16+50.00 TO STA. 17+83.39

LEGEND

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4. EX. BITUMINOUS OVERLAY
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7. EX. CONCRETE C&G, TYPE B-6.06
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9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
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19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
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23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

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PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
IL ROUTE 3 (HOMER M. ADAMS PARKWAY)

SCALE: NTS | SHEET 3 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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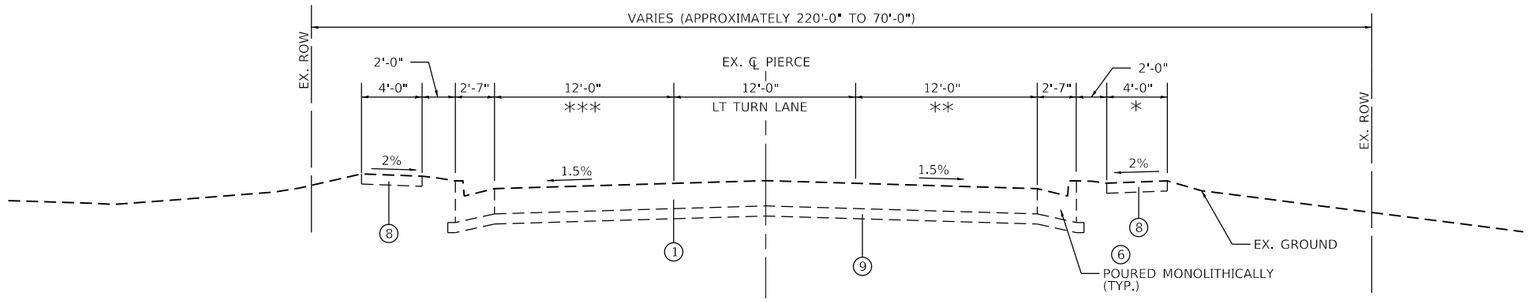
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

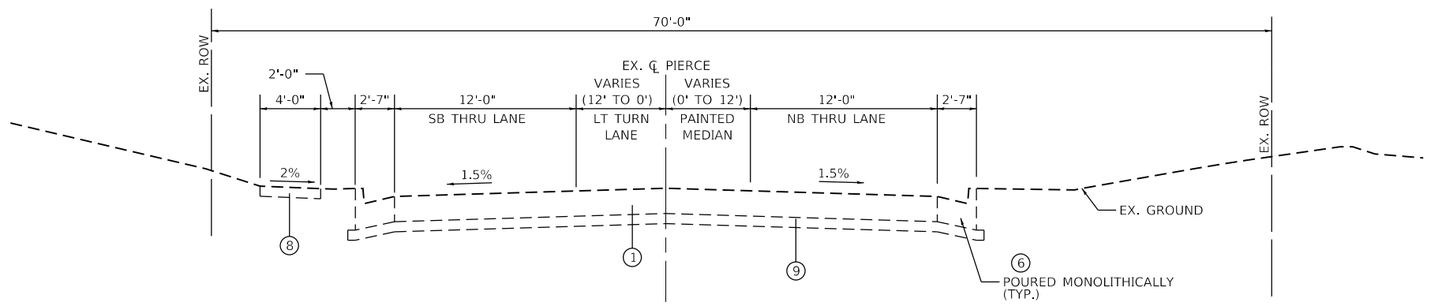


STA. 20+57.30 TO STA. 24+33.69

* SIDEWALK
STA. 20+57.30 TO STA. 22+18.64

** NB THRU LANE
STA. 20+57.30 TO STA. 20+93.82 - (30' TO 12')

*** SB THRU / RT TURN LANE
STA. 20+57.30 TO STA. 21+06.75 - (49' TO 12')



STA. 24+33.69 TO STA. 25+71.36

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
PIERCE LANE

SCALE: NTS | SHEET 4 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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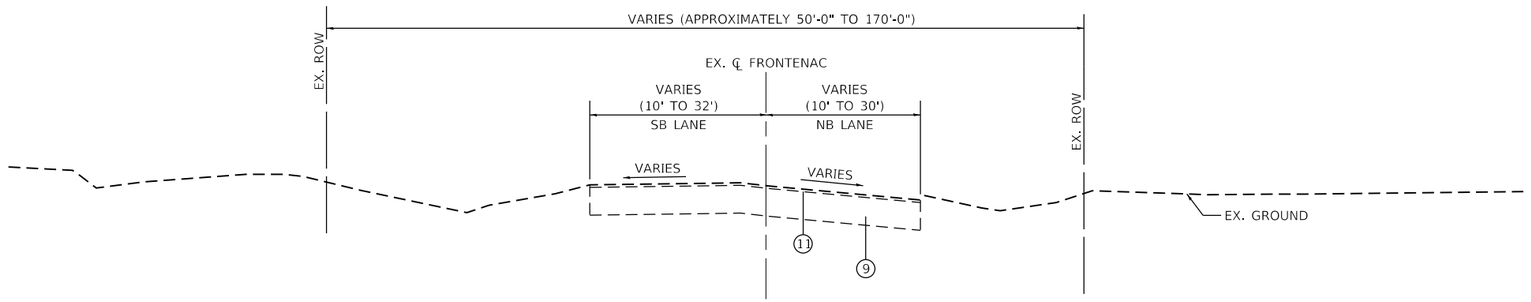

STA. 29+45.48 TO STA. 32+98.52

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
FRONTENAC PLACE

SCALE: NTS | SHEET 5 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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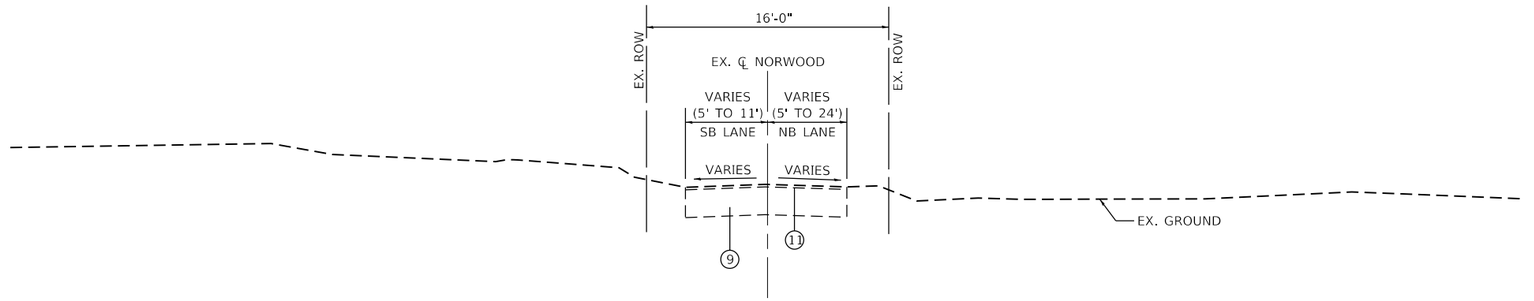

STA. 41+77.35 TO STA. 43+08.82

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
NORWOOD LANE

SCALE: NTS | SHEET 6 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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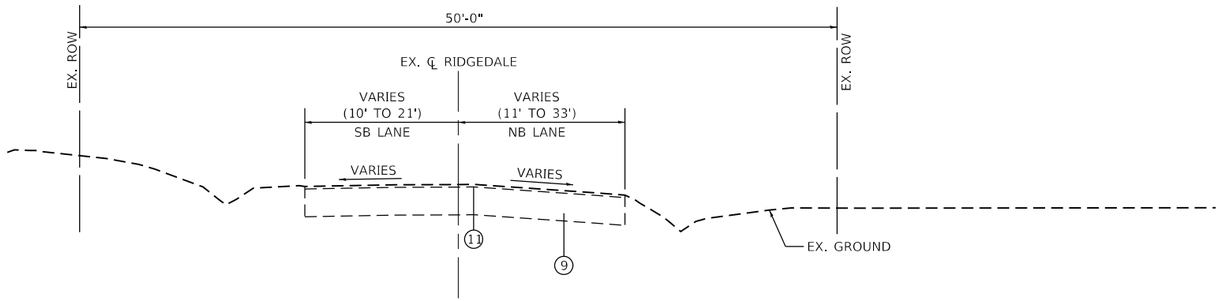

STA. 50+79.49 TO STA. 53+17.34

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
RIDGEDALE DRIVE

SCALE: NTS | SHEET 7 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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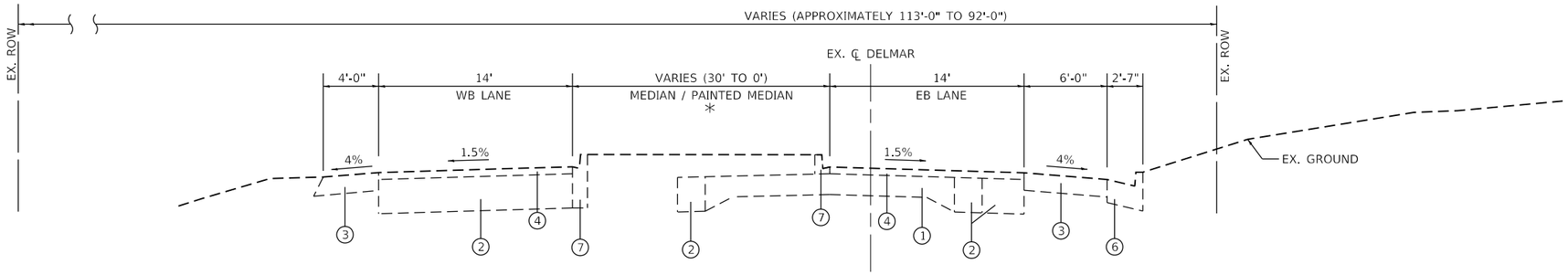
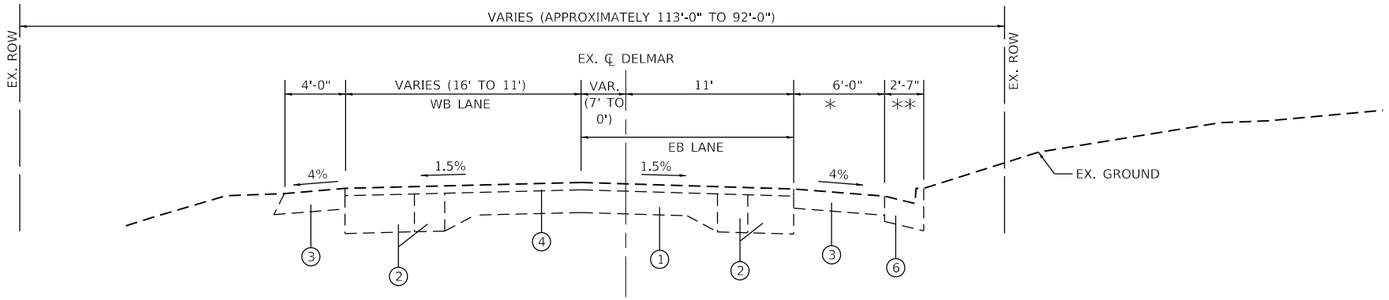


STA. 882+18.00 TO STA. 888+12.12

*STA. 887+05.25 TO STA. 888+12.12 - (VARIES 14' TO 16')



STA. 888+12.12 TO STA. 891+74.31

*SHOULDER
STA. 890+63.60 TO STA. 891+10.65 - (VARIES 6' TO 0')

* CURB AND GUTTER
STA. 888+12.12 TO STA. 890+63.60

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
DELMAR AVENUE

SCALE: NTS | SHEET 8 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

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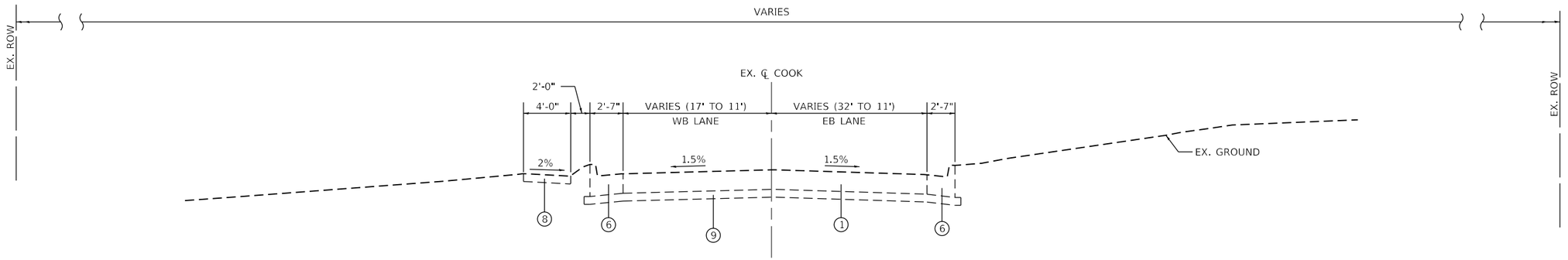
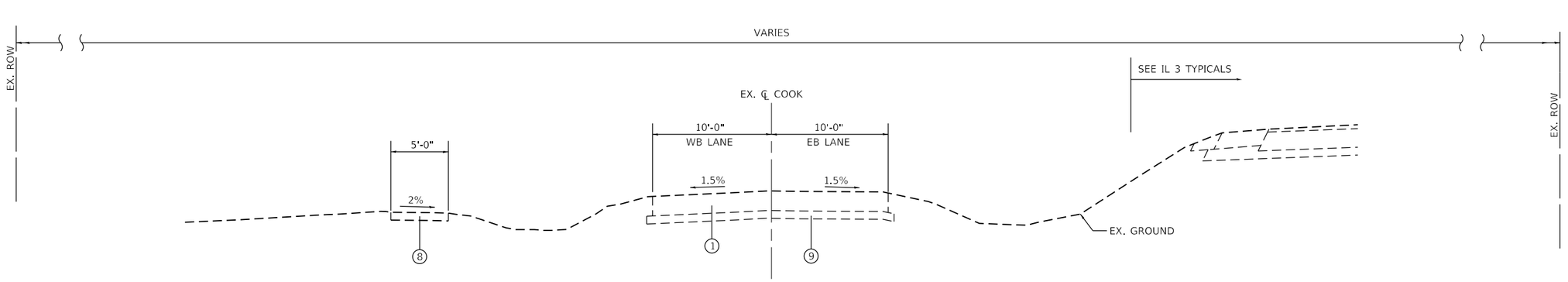


STA. 100+18.80 TO STA. 103+23.51



STA. 103+23.51 TO STA. 113+88.63

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING TYPICAL SECTIONS
COOK STREET

SCALE: NTS | SHEET 9 OF 9 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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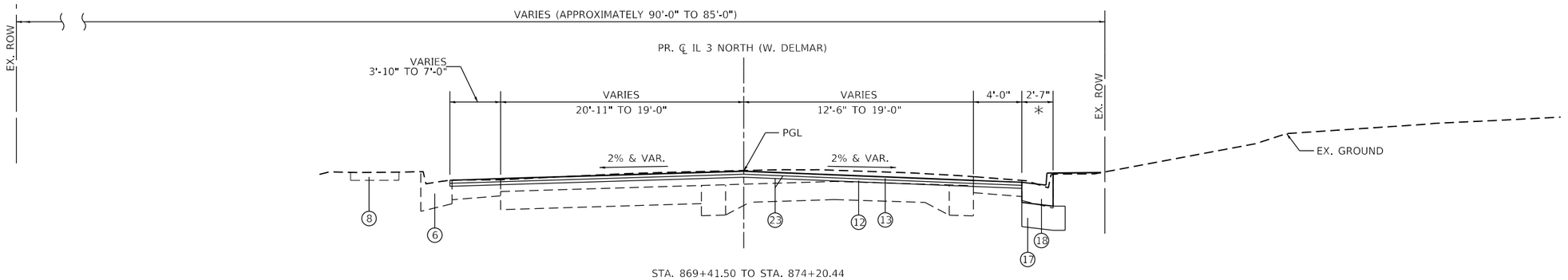
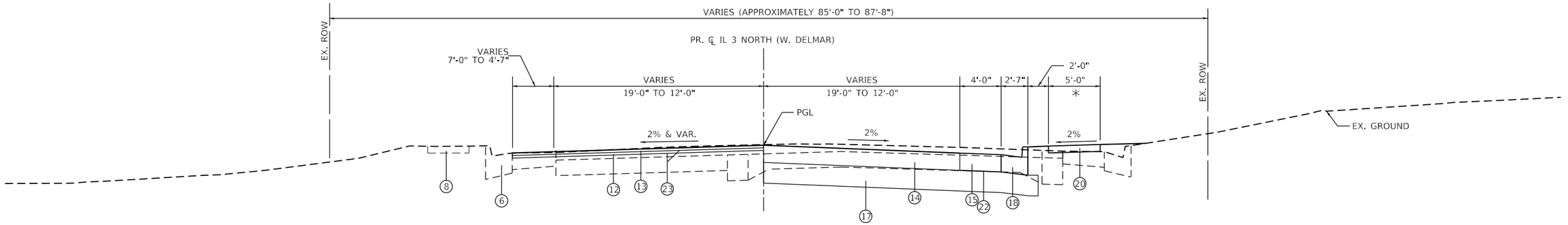
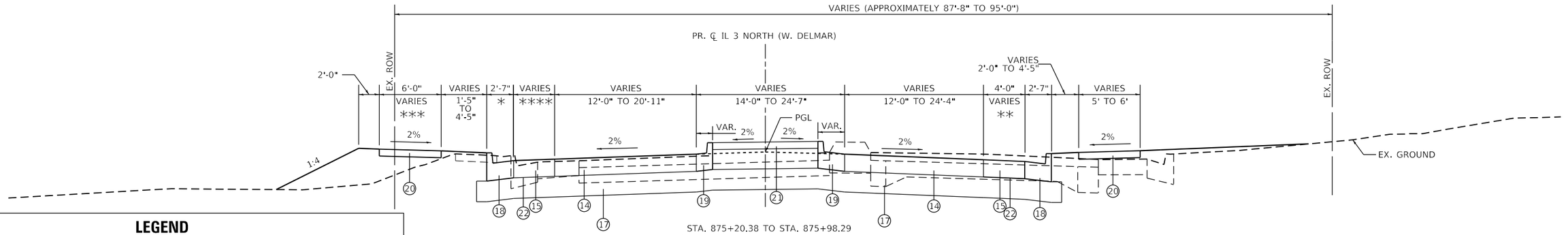


STA. 869+41.50 TO STA. 874+20.44
* STA. 872+61.65 TO STA. 874+20.44



STA. 874+20.44 TO STA. 875+20.38
* STA. 874+66.87 TO STA. 875+20.38



STA. 875+20.38 TO STA. 875+98.29
*STA. 875+37.97 TO STA. 875+98.29
** STA. 875+20.38 TO STA. 875+50.66 - (4'-0" TO 2'-0")
STA. 875+50.66 TO STA. 875+98.29 - (0'-0")
*** STA. 875+20.38 TO STA. 875+33.02 - (4'-0" TO 6'-0")
**** STA. 875+20.38 TO STA. 875+57.01 - (4'-7" TO 6'-4")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 3 NORTH

SCALE: NTS | SHEET 1 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
		ILLINOIS	FED. AID PROJECT	

* 8955 & 8956

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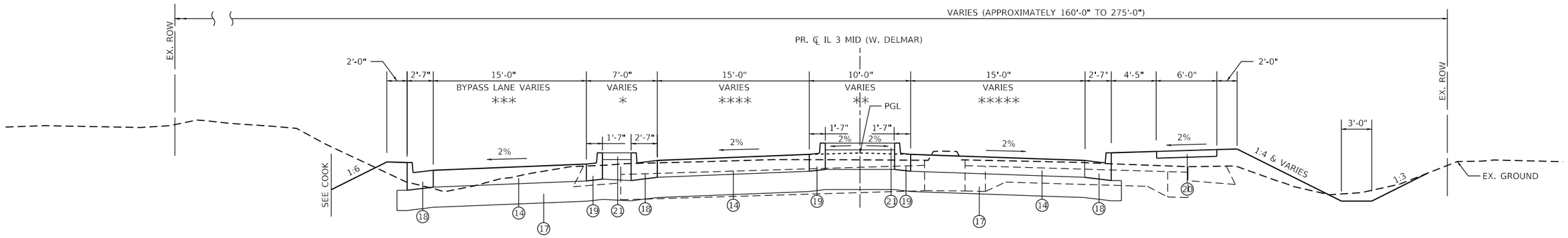

STA. 0+87.68 TO STA. 5+36.31

* STA. 0+87.68 TO STA. 1+70.06 - (12'-9" TO 7'-0")

** STA. 0+87.68 TO STA. 1+32.22 - (30'-0" TO 10'-0")
STA. 4+45.97 TO STA. 5+36.31 - (10'-0" TO 40'-5")

*** STA. 0+87.68 TO STA. 2+07.30 - (18'-0" TO 15'-0")
STA. 4+20.48 TO STA. 5+36.31 - (15'-0" TO 17'-10")

**** STA. 0+87.68 TO STA. 1+62.97 - (22'-6" TO 15'-0")
STA. 4+34.10 TO STA. 5+36.31 - (15'-0" TO 18'-3")

***** STA. 0+87.68 TO STA. 1+39.27 - (19'-3" TO 15'-0")
STA. 4+89.12 TO STA. 5+36.31 - (15'-0" TO 18'-3")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 3 MID

SCALE: NTS | SHEET 2 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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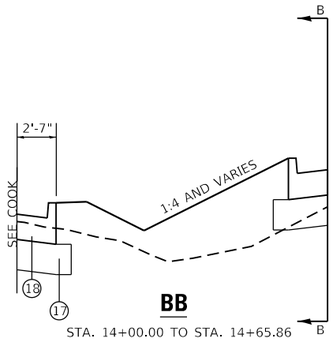
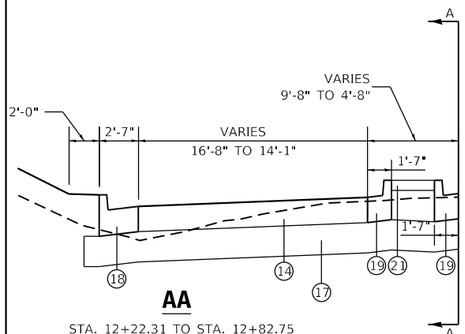


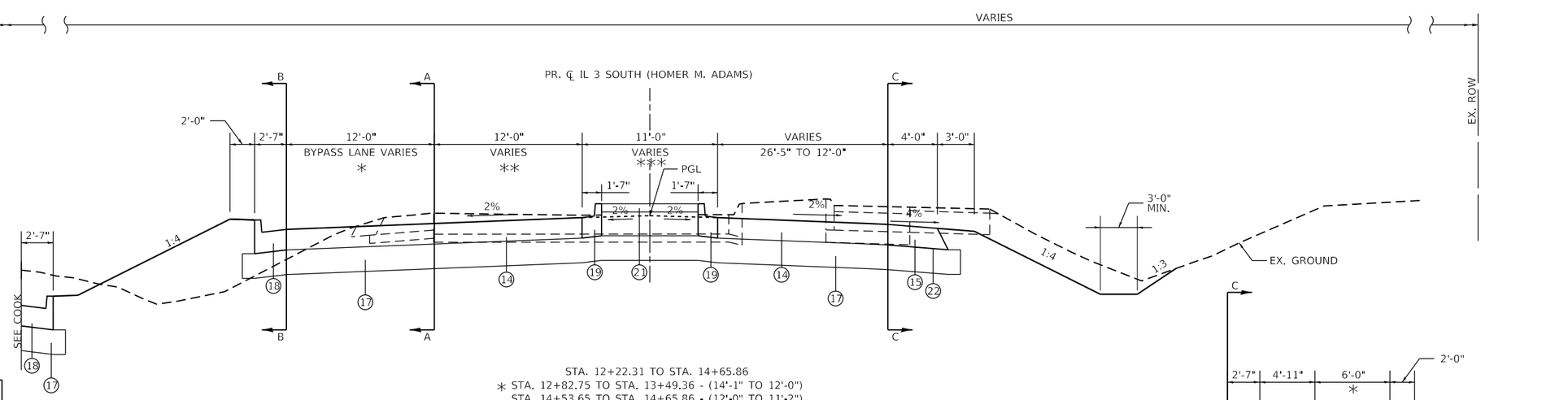
BB

STA. 14+00.00 TO STA. 14+65.86

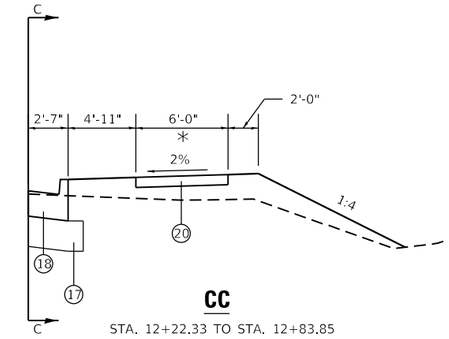


AA

STA. 12+22.31 TO STA. 12+82.75

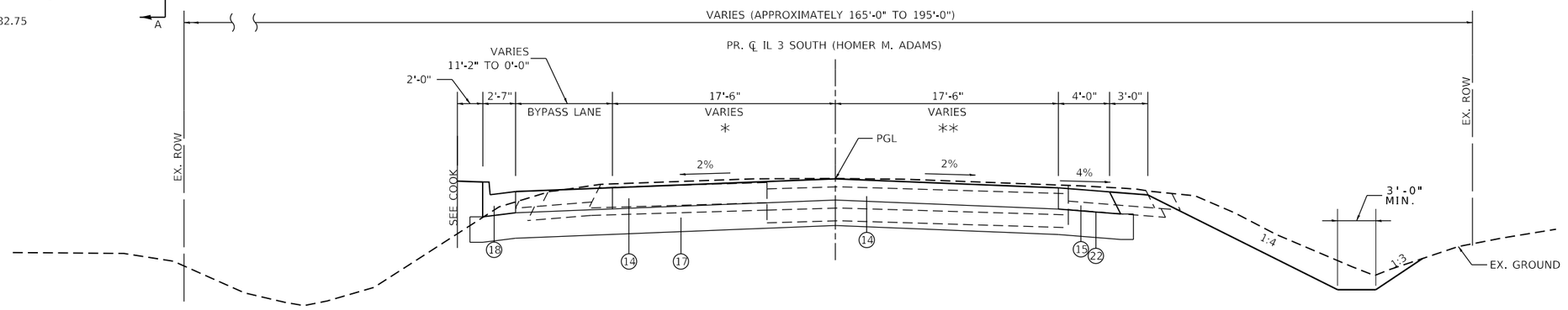


STA. 12+22.31 TO STA. 14+65.86
* STA. 12+82.75 TO STA. 13+49.36 - (14'-1" TO 12'-0")
STA. 14+53.65 TO STA. 14+65.86 - (12'-0" TO 11'-2")
** STA. 12+22.31 TO STA. 12+75.68 - (18'-3" TO 12'-0")
STA. 14+14.91 TO STA. 14+65.86 - (12'-0" TO 17'-4")
*** STA. 12+22.31 TO STA. 12+63.48 - (29'-2" TO 11'-0")
STA. 14+14.91 TO STA. 14+65.86 - (11'-0" TO 5'-8")



CC

STA. 12+22.33 TO STA. 12+83.85
* STA. 12+22.33 TO STA. 12+72.69



STA. 14+65.86 TO STA. 17+83.37
* STA. 15+98.03 TO STA. 17+83.37 - (17'-6" TO 20'-4")
** STA. 15+98.03 TO STA. 17+83.37 - (17'-6" TO 15'-7")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
IL 3 SOUTH

SCALE: NTS | SHEET 3 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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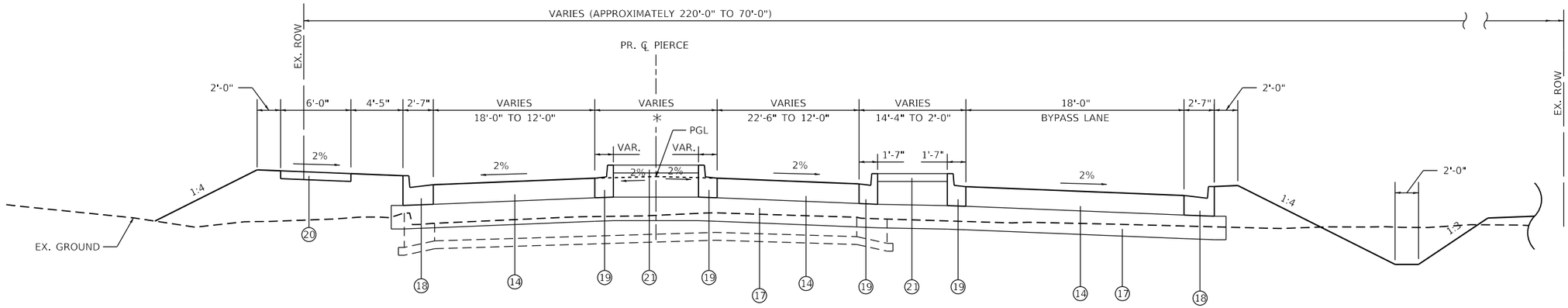
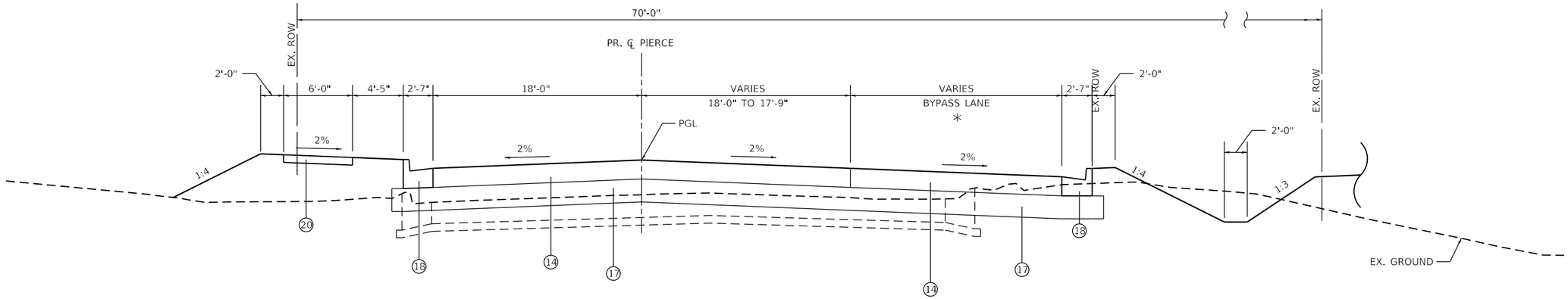


STA. 21+13.23 TO STA. 22+19.47
* STA. 21+13.23 TO STA. 21+97.23 - (30'-8" TO 12'-0")



STA. 22+19.47 TO STA. 25+71.36
* STA. 22+19.47 TO STA. 24+25.70 - (18'-0" TO 0'-0")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
PIERCE LANE

SCALE: NTS | SHEET 4 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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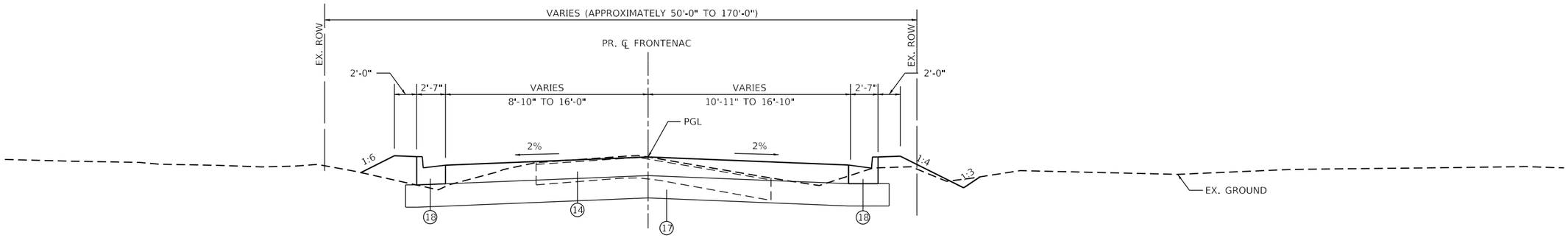
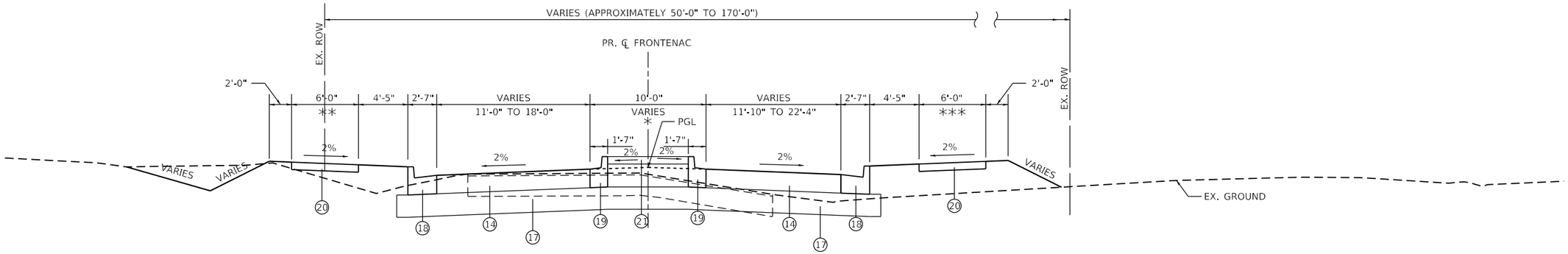


STA. 29+45.48 TO STA. 31+75.19



STA. 31+75.19 TO STA. 32+36.95
* STA. 32+03.13 TO STA. 32+36.95 - (10'-0" TO 24'-11")
** STA. 31+94.57 TO STA. 32+36.95
*** STA. 31+89.71 TO STA. 32+36.95

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
FRONTENAC PLACE

SCALE: NTS | SHEET 5 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

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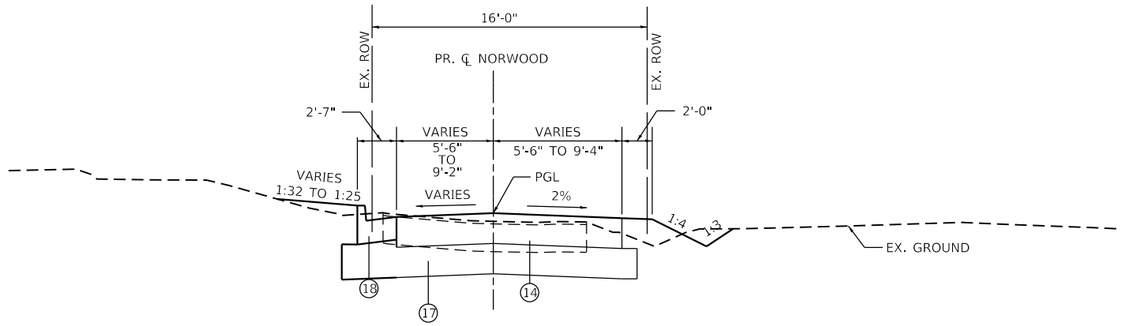
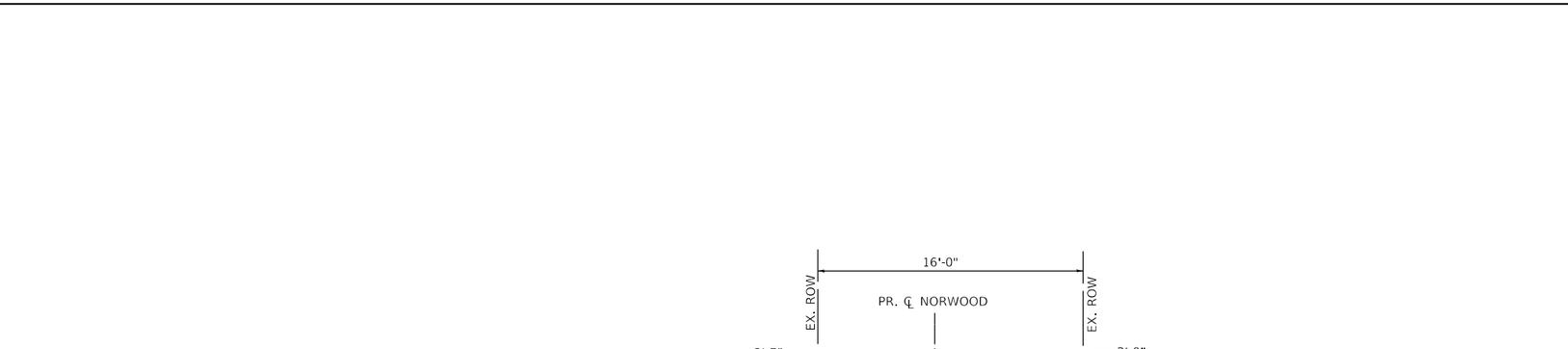
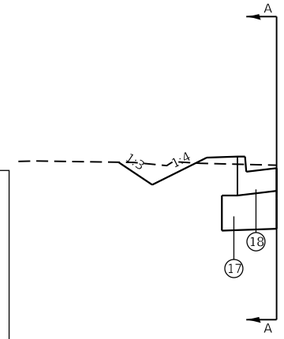


STA. 41+77.35 TO STA. 42+75.50



STA. 42+75.50 TO STA. 43+24.73



AA

STA. 42+88.91 TO STA. 43+24.73

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
NORWOOD LANE

SCALE: NTS | SHEET 6 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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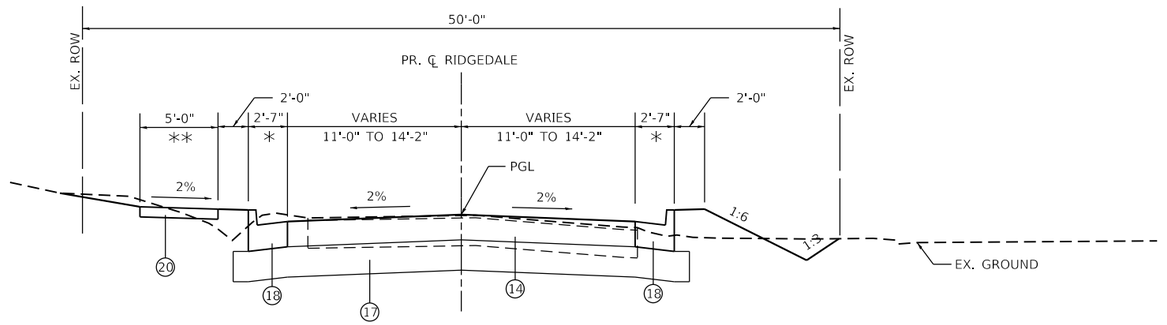
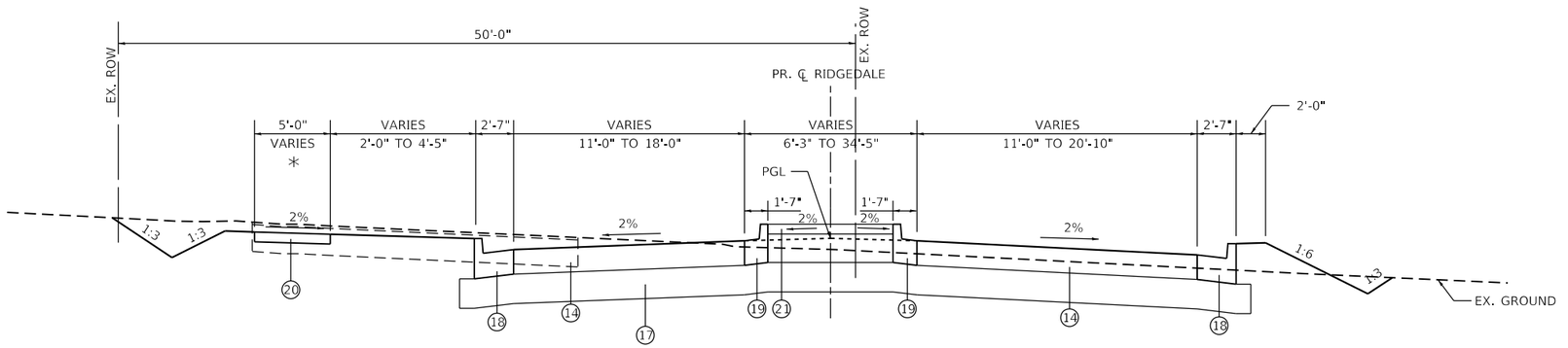


STA. 50+79.49 TO STA. 52+44.30
* STA. 50+89.50 TO STA. 52+44.30
** STA. 51+93.80 TO STA. 52+44.30



STA. 52+44.30 TO STA. 53+39.03
* STA. 52+94.96 TO STA. 53+39.03 - (5'-0" TO 6'-0")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

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PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/22/2020	DATE -	REVISED -	

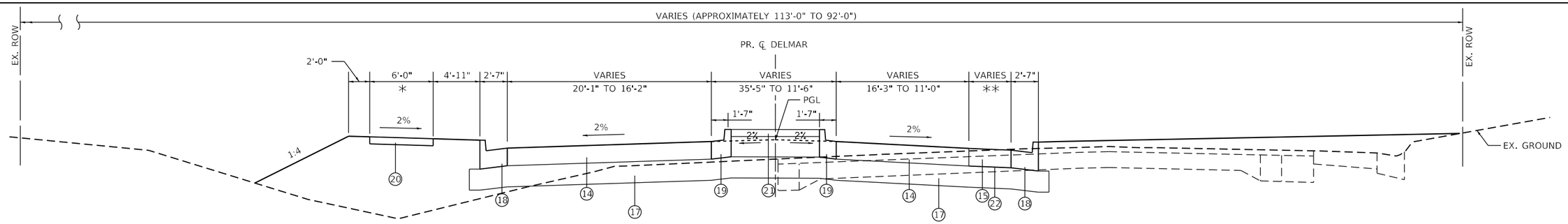
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
RIDGEDALE DRIVE

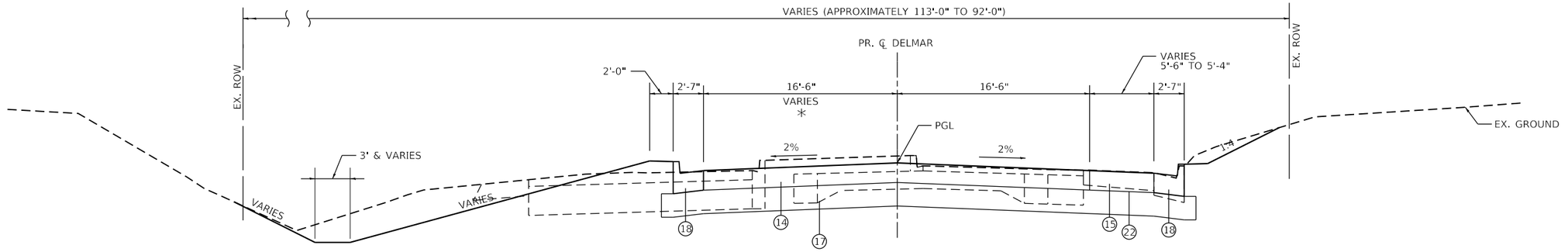
SCALE: NTS | SHEET 7 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

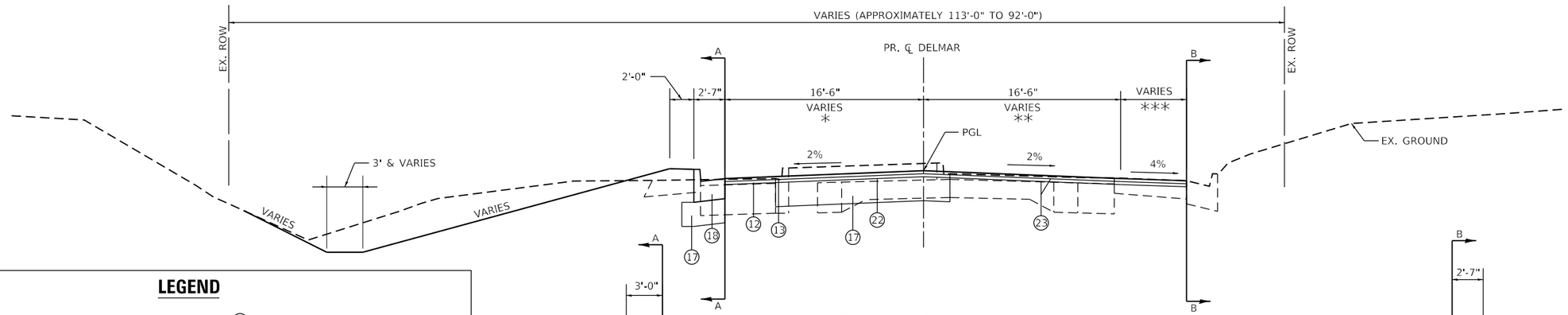
* 8955 & 8956



STA. 883+58.88 TO STA. 884+11.08
* STA. 883+58.88 TO STA. 884+09.09
** STA. 883+44.01 TO STA. 884+11.08 - (0'-0" TO 5'-6")



STA. 884+11.08 TO STA. 885+70.00
* STA. 884+11.08 TO STA. 884+53.06 - (22'-5" TO 16'-6")



STA. 885+70.00 TO STA. 891+74.31
* STA. 888+22.12 TO STA. 891+74.31 - (16'-6" TO 11'-0")
** STA. 888+22.12 TO STA. 891+74.31 - (16'-6" TO 11'-0")
*** STA. 885+70.00 TO STA. 891+10.65 - (5'-4" TO 0'-0")

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

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PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/22/2020	DATE -	REVISED -	

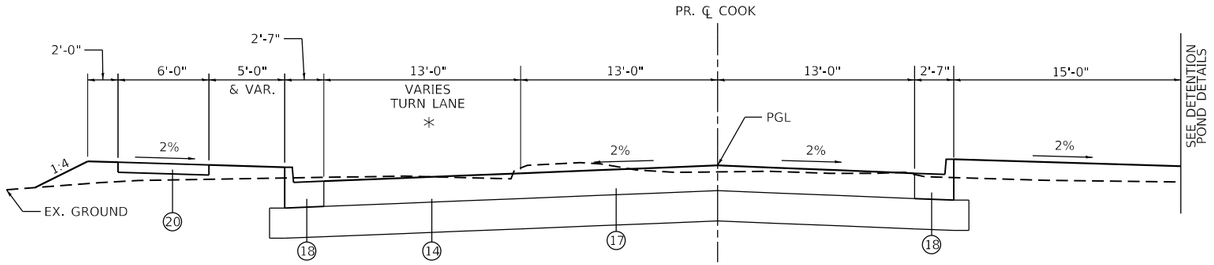
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
DELMAR AVENUE

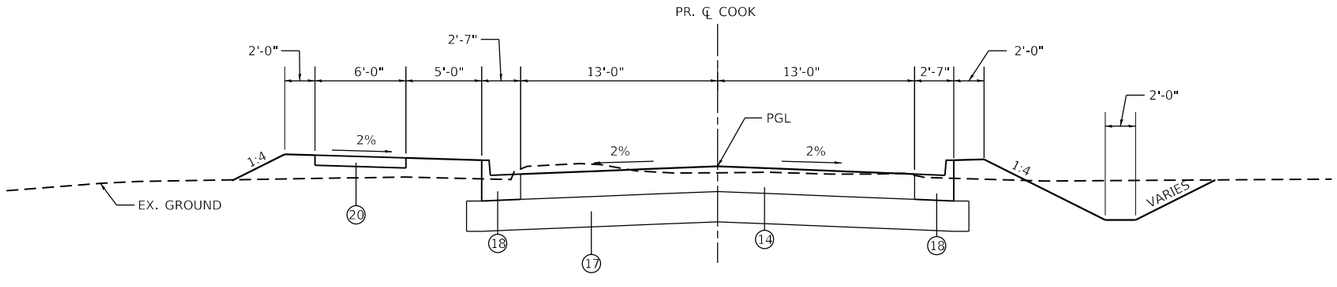
SCALE: NTS | SHEET 8 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

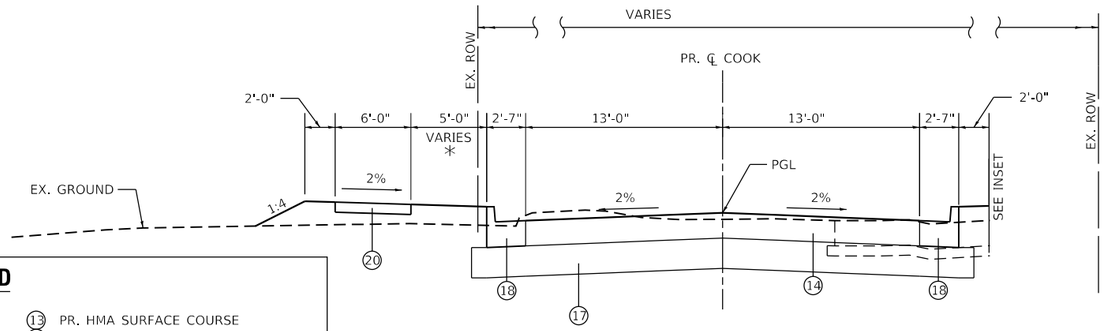
* 8955 & 8956



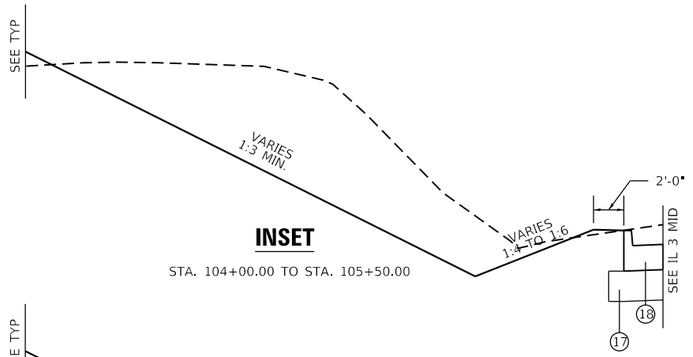
STA. 97+40.57 TO STA. 100+50.00
* STA. 97+57.47 TO STA. 97+75.76 - (19'-8" TO 13'-0")
STA. 98+40.28 TO STA. 99+12.86 - (13'-0" TO 0'-0")



STA. 100+50.00 TO STA. 104+00.00

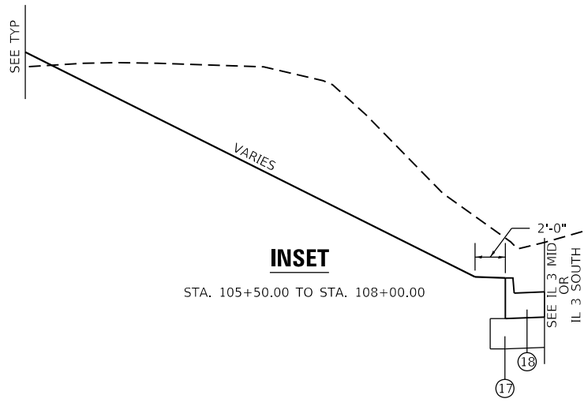


STA. 104+00.00 TO STA. 113+88.63
* STA. 105+78.50 TO STA. 111+54.74 - (4'-5")
STA. 111+54.74 TO STA. 112+85.03 - (4'-6")
STA. 112+85.03 TO STA. 113+78.76 - (4'-6" TO 14'-3")



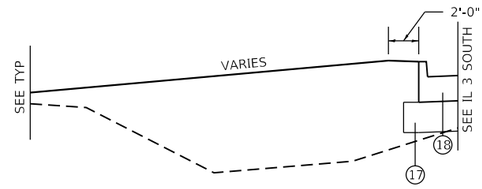
INSET

STA. 104+00.00 TO STA. 105+50.00



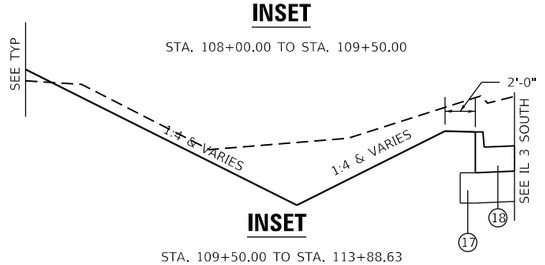
INSET

STA. 105+50.00 TO STA. 108+00.00



INSET

STA. 108+00.00 TO STA. 109+50.00



INSET

STA. 109+50.00 TO STA. 113+88.63

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

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PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/22/2020	DATE -	REVISED -	

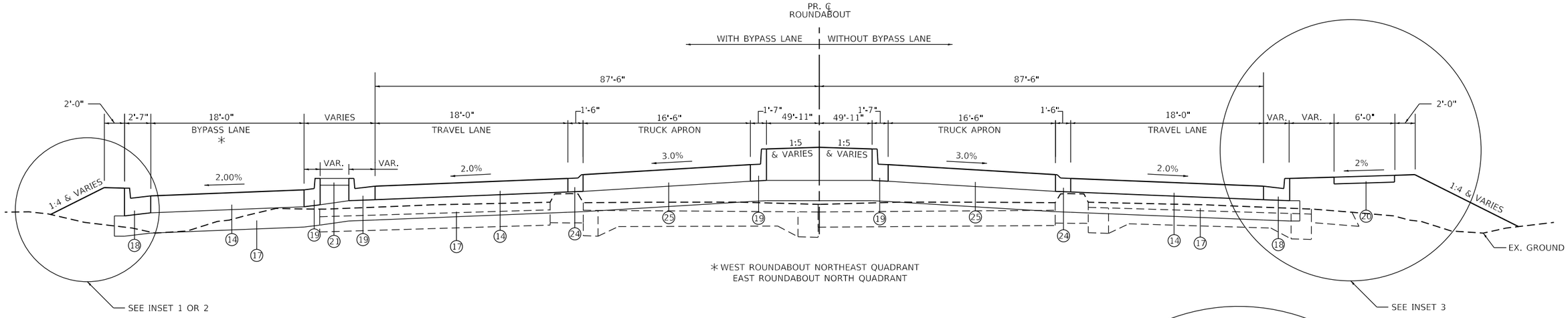
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
COOK STREET

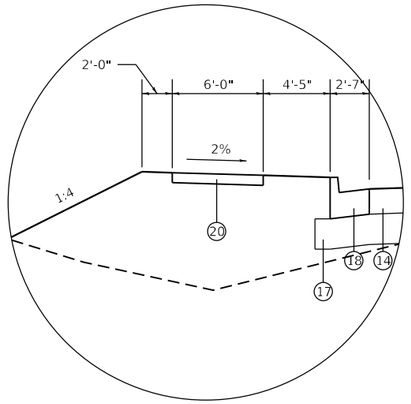
SCALE: NTS | SHEET 9 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

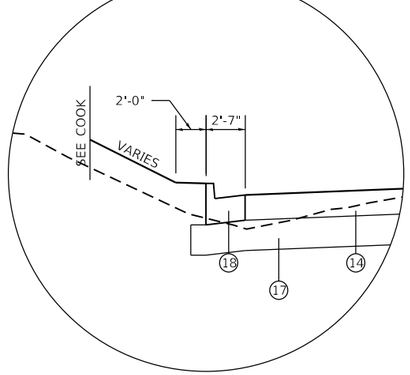


* WEST ROUNDABOUT NORTHEAST QUADRANT
EAST ROUNDABOUT NORTH QUADRANT



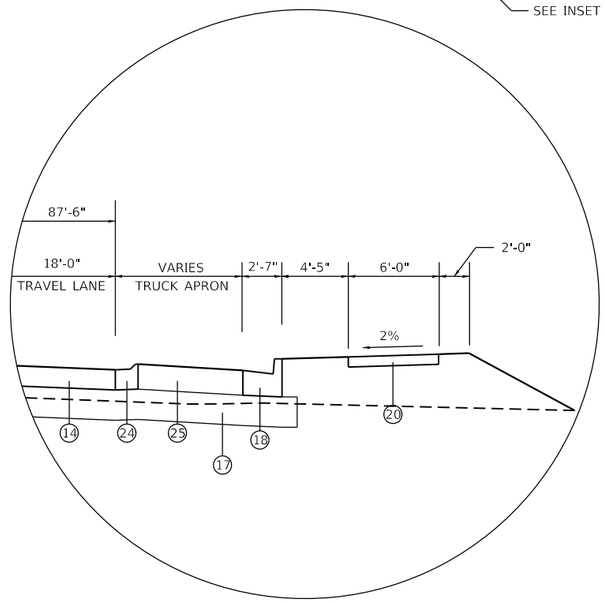
INSET 1

FOR WEST ROUNDABOUT SOUTHWEST QUADRANT



INSET 2

FOR EAST ROUNDABOUT NORTH QUADRANT



INSET 3

FOR WEST ROUNDABOUT NORTHWEST QUADRANT
FOR EAST ROUNDABOUT SOUTHWEST QUADRANT

LEGEND

1. EX. PCC PAVEMENT
2. EX. PCC BASE COURSE
3. EX. BITUMINOUS SHOULDER
4. EX. BITUMINOUS OVERLAY
5. EX. SB 6.06 CONCRETE MEDIAN
6. EX. CONCRETE C&G, TYPE B-6.24
7. EX. CONCRETE C&G, TYPE B-6.06
8. EX. PCC SIDEWALK
9. EX. SUBBASE GRANULAR MATERIAL
10. EX. AGGREGATE SHOULDER
11. EX. OIL & CHIP PAVEMENT
12. PR. HMA BINDER COURSE
13. PR. HMA SURFACE COURSE
14. PR. PCC PAVEMENT
15. PR. HMA SHOULDER
16. PR. AGGREGATE SHOULDER
17. PR. SUBBASE GRANULAR MATERIAL
18. PR. CONCRETE C&G, TYPE B-6.24
19. PR. CONCRETE C&G, TYPE B-6.12
20. PR. PCC SIDEWALK
21. PR. MEDIAN SURFACE
22. PR. PRIME COAT
23. PR. TACK COAT
24. PR. CONCRETE C&G, TYPE M
25. PR. STAMPED PCC PAVEMENT

USER NAME = dfee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/22/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL SECTIONS
ROUNDABOUT

SCALE: NTS | SHEET 10 OF 10 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

MODEL: Default
FILE NAME: P:\20131130624\Geofrey\4 CADD - DWG\4.7 Tran\CADD Sheets\0876f84-int-typ1cal.dgn

EXHIBIT E – PLAN AND PROFILE

PR. P.E.
LIMITS OF CONSTRUCTION
PR. RIPRAP
EX. ROW
EX. GAS MAIN
EX. ELECTRIC LINE
EX. WATER MAIN
EX. TELEPHONE DUCT
EX. CURB & GUTTER (TO REMAIN)
EX. SIDEWALK (TO REMAIN)
EX. TELEPHONE LINE
EX. ROW
MATCHLINE STA. 872+00
BEGIN CONSTRUCTION STA. 869+41.50
867
868
869
870+00
871
871
EX. ROW
LIMITS OF CONSTRUCTION
EX. WATER MAIN
EX. GAS MAIN
PR. ℄ IL 3 NORTH
EX. UNKNOWN UTILITY LINE
EX. CURB & GUTTER (TO REMAIN)
EX. ROW
N
0 20 40 60
SCALE IN FEET

PLAN
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
BY
DATE
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

PROFILE
SURVEYED
PLOTTED
DRAWN
CHECKED
NOTE BOOK
NO.
BY
DATE
B.M. NOTED
STRUCTURE NOTATIONS CHKD

EX. GROUND

630	625	620	615	610	605	600	595	590

611.24	611.50	611.76	612.07	612.40	612.79	613.34	614.05	614.93	616.05	617.34	618.83

866+50 867+00 867+50 868+00 868+50 869+00 869+50 870+00 870+50 871+00 871+50 872+00

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL 3 NORTH

SCALE: 1" = 20' | SHEET 1 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PROP. CURVE IL3NORTH1
PI STA. = 873+88.96
Δ = 5° 04′ 26″ (LT)
D = 1° 26′ 06″
R = 3,993.00′
T = 176.92′
L = 353.61′
E = 3.92′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 872+12.04
P.T. STA. = 875+65.65

EX. TELEPHONE LINE
EX. SIDEWALK (TO REMAIN)
EX. CURB & GUTTER (TO REMAIN)
PR. ℄ IL 3 NORTH
EX. TELEPHONE DUCT
EX. ROW
PR. P.E.
EX. GAS MAIN
PR. PCC SIDEWALK
PR. TCE
PR. ROW
MATCHLINE STA. 872+00
PC Sta 872+12.04
PI Sta 873+88.96
PT Sta 875+65.65
PI Sta 876+89.19
PI Sta 20+89.19
PC Sta 20+40.09
PC Sta 0+00.00
POT Sta 876+89.19
POT Sta 33+24.00
POT Sta 20+24.00
WEST ROUNDABOUT
EX. SECTION LINE
EX. WATER MAIN
PR. COMB. CURB & GUTTER
EX. ELECTRIC LINE
EX. CABLE LINE
EX. GAS MAIN
+51.04 CF
22.0 PCC
EX. ROW
PR. TCE
EX. UNKNOWN UTILITY LINE
LIMITS OF CONSTRUCTION
PR. SPLITTER ISLAND
PR. PCC SIDEWALK
PR. ROW
PR. TRUCK APRON
EX. ELECTRIC LINE
12"
14"
12"
872
873
874
875+00
876
N
0 20 40 60
SCALE IN FEET

PLAN
SURVEYED
PLOTTED
DESIGN CHECKED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DESIGN CHECKED
BKA. NOTED
STRUCTURE NOTATIONS CHKD
NOTE BOOK
NO.

650
645
640
635
630
625
620
615
610
℄ WEST ROUNDABOUT
633.64
EX. GROUND
624.83
PGL
+3.67%
VPI STA. 875+04.32
ELEVATION 630.31
+0.81%
+0.81%
+10.35 EL. 626.86
+98.29 EL. 631.07
187.94' V.C.
618.83
620.70
622.71
624.63
626.44
626.48
628.12
628.19
629.56
629.54
630.50
630.50
631.08
631.10
631.24
632.92
872+00
872+50
873+00
873+50
874+00
874+50
875+00
875+50
876+00
876+50

MODEL: Default
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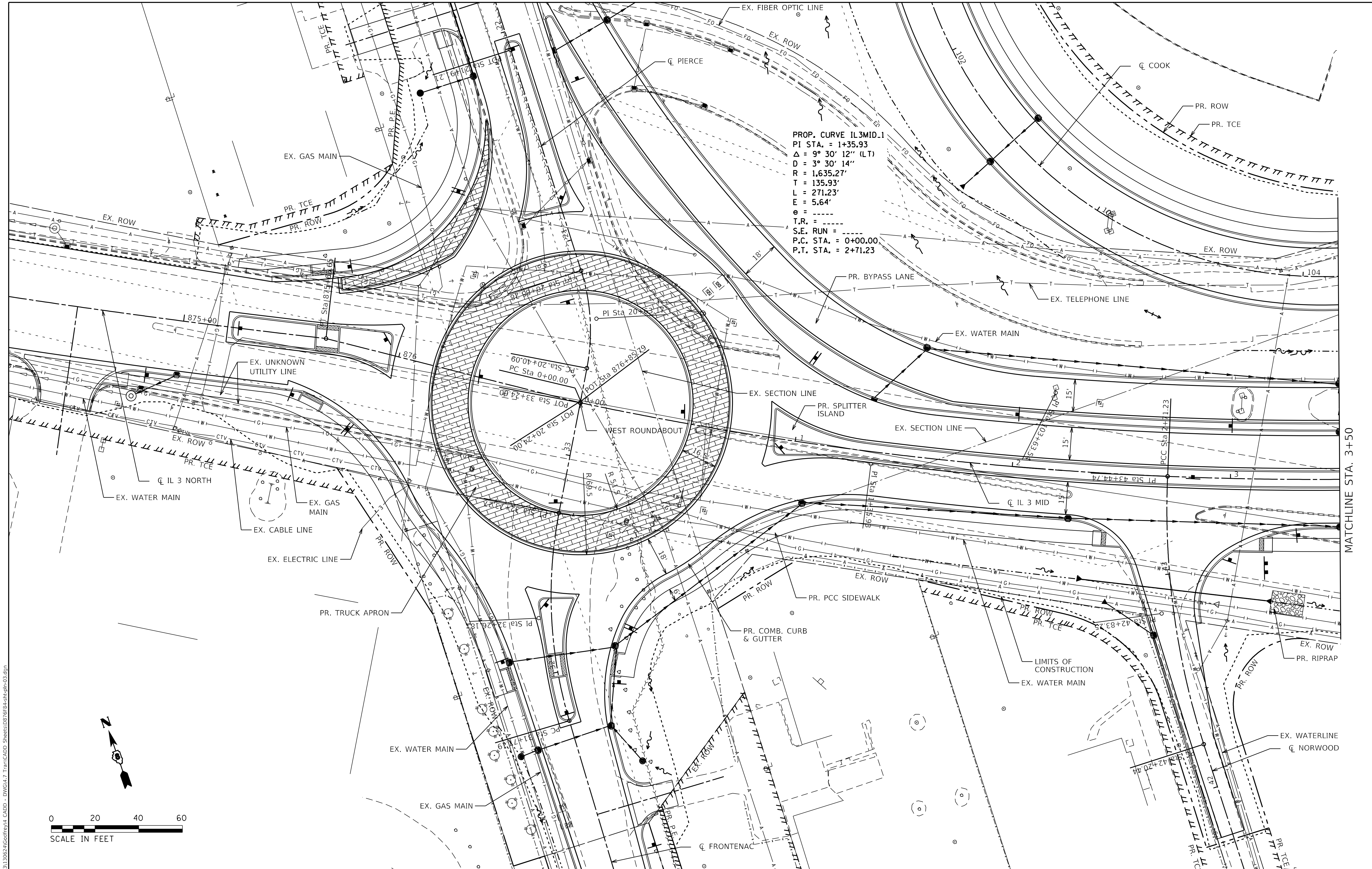
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

PLAN AND PROFILE
IL 3 NORTH
SCALE: 1" = 20' | SHEET 2 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956


EX. FIBER OPTIC LINE
EX. ROW
℄ PIERCE
℄ COOK
PR. ROW
PR. TCE
PROP. CURVE IL3MID_1
PI STA. = 1+35.93
Δ = 9° 30' 12" (LT)
D = 3° 30' 14"
R = 1,635.27'
T = 135.93'
L = 271.23'
E = 5.64'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 0+00.00
P.T. STA. = 2+71.23
EX. GAS MAIN
PR. TCE
PR. ROW
EX. ROW
PR. BYPASS LANE
EX. TELEPHONE LINE
EX. WATER MAIN
EX. UNKNOWN
UTILITY LINE
PI Sta 20+83.17
PC Sta 0+00.00
POT Sta 876+85.79
POT Sta 33+24.00
POT Sta 20+24.00
EX. SECTION LINE
PR. SPLITTER
ISLAND
EX. SECTION LINE
WEST ROUNDABOUT
℄ IL 3 NORTH
EX. WATER MAIN
EX. GAS
MAIN
EX. CABLE LINE
℄ IL 3 MID
PI Sta 43+44.74
PCC Sta 2+11.23
EX. ELECTRIC LINE
PR. ROW
PR. TRUCK APRON
PR. PCC SIDEWALK
PR. COMB. CURB
& GUTTER
LIMITS OF
CONSTRUCTION
EX. WATER MAIN
PR. RIPRAP
EX. WATERLINE
℄ NORWOOD
EX. WATER MAIN
EX. GAS MAIN
℄ FRONTENAC
MATCHLINE STA. 3+50
N
0
20
40
60
SCALE IN FEET

MODEL: Default
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	DRAWN - EKS	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
WEST ROUNDABOUT / IL 3 MID

SCALE: 1" = 20' | SHEET 3 OF 17 SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

MATCHLINE STA. 3+50

℄ IL 3 MID

℄ COOK

PR. TCE

PR. ROW

EX. TELEPHONE DUCT

EX. ROW

PI Sta 1+14.71

EX. SECTION LINE

PR. BYPASS LANE

PR. TRUCK APRON

PR. SPLITTER ISLAND

EX. WATER MAIN

15'

15'

PI Sta 4+48.21

PR. COMB. CURB & GUTTER

PR. PCC SIDEWALK

EX. UNKNOWN UTILITY LINE

EX. WATER MAIN

EX. WATER MAIN

EX. WATER MAIN

LIMITS OF CONSTRUCTION

EX. GAS MAIN

PR. RIPRAP

PR. ROW

EX. ROW

PR. TCE

PROP. CURVE IL3MID_2
PI STA. = 4+48.21
Δ = 12° 21' 14" (LT)
D = 3° 30' 14"
R = 1,635.27'
T = 176.98'
L = 352.59'
E = 9.55'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 2+71.23
P.T. STA. = 6+23.82

N

0 20 40 60

SCALE IN FEET

PC Sta 2+71.23

PT Sta 6+23.82

PC Sta 882+71.15

PT Sta 11+34.67

PT Sta 54+66.81

EAST ROUNDABOUT

R 69.5

R 51.5

18'

℄ RIDGEDALE

℄ IL 3 SOUTH

EX. WATER MAIN

EX. ROW

PT Sta 13+49.51

PC Sta 15+45.51

LIMITS OF CONSTRUCTION

℄ DELMAR

EX. ROW

PT Sta 885+49.11

EX. GAS MAIN

EX. FIBER OPTIC LINE

PR. TCE

PR. P.E.

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
EAST ROUNDABOUT / IL 3 MID

SCALE: 1" = 20' | SHEET 4 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

MODEL: Default
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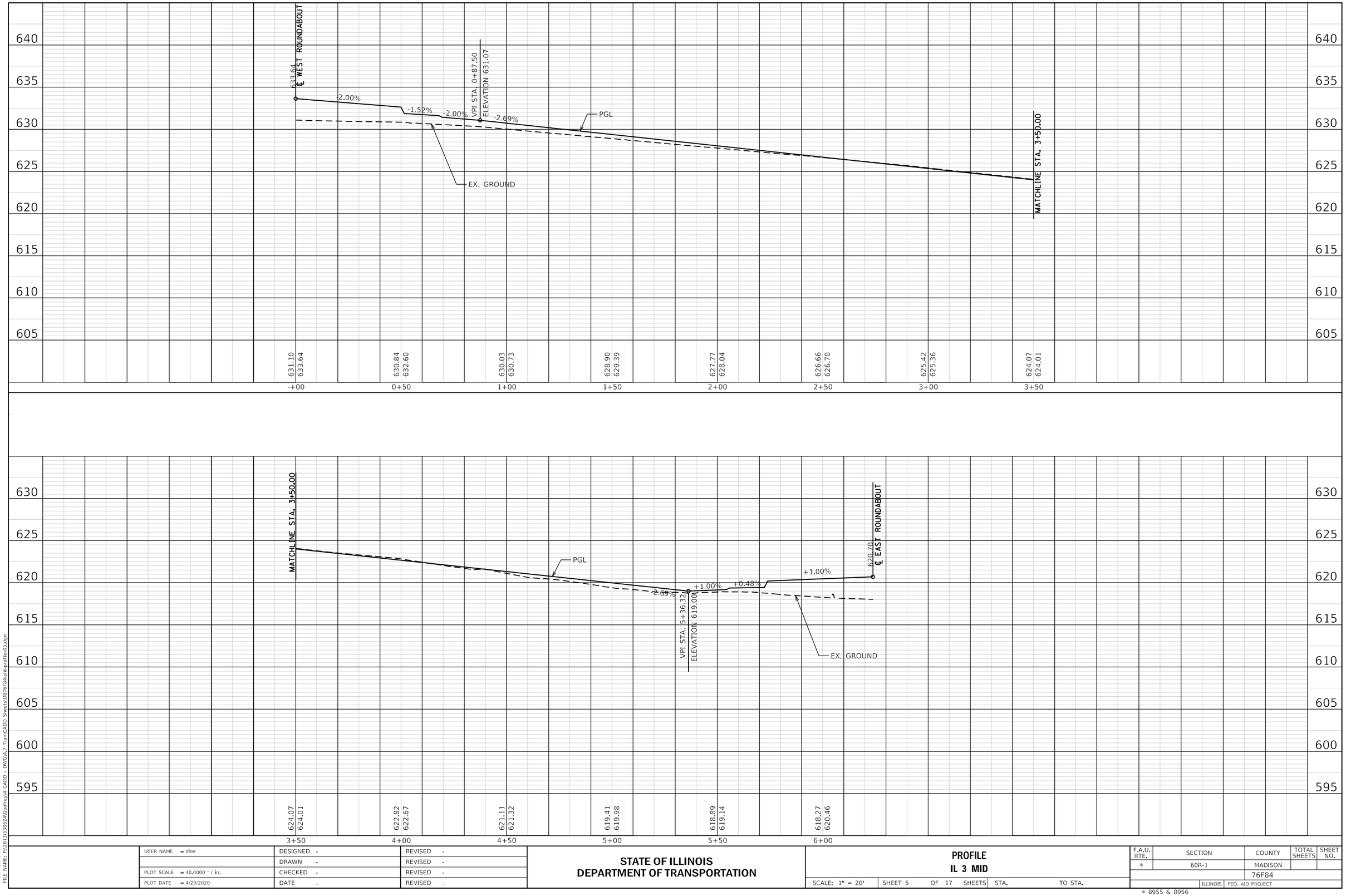

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NO'S CHKD
NOTE BOOK
NO.
BY
DATE

MODEL: Default
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	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROFILE
IL 3 MID

SCALE: 1" = 20' | SHEET 5 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

EX. TELEPHONE DUCT
PR. BYPASS LANE
PR. COMB. CURB & GUTTER
PR. PCC SIDEWALK
EX. SECTION LINE
℄ COOK
MATCHLINE STA. 14+50
℄ IL 3 SOUTH
PT Sta 13+49.36
PI Sta 12+45.51
PT Sta 11+34.67
PC Sta 6+23.82
PC Sta 882+71.15
EAST ROUNDABOUT
PR. RIPRAP
PR. SPLITTER ISLAND
PR. TRUCK APRON
PR. HMA SHOULDER
LIMITS OF CONSTRUCTION
EX. WATER MAIN
EX. ROW

PROP. CURVE IL3SOUTH_1
PI STA. = 12+45.51
Δ = 35° 08' 41" (RT)
D = 16° 22' 13"
R = 350.00'
T = 110.84'
L = 214.69'
E = 17.13'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 11+34.67
P.T. STA. = 13+49.36

N

0 20 40 60
SCALE IN FEET

℄ EAST ROUNDABOUT
620.70
-1.90%
-0.91%
-1.89%
-0.94%
VPI STA. 12+22.17
ELEVATION 617.46
PGL
EX. GROUND
-0.94%
-1.30%
VPI STA. 14+13.58
ELEVATION 615.66
+46.08 EL. 616.29
135.00' V.C.

11+50	12+00	12+50	13+00	13+50	14+00	14+50	15+00
617.87 620.41	617.56 618.17	617.03 617.20	616.53 616.73	616.04 616.26	615.77 615.75	615.22 615.17	614.57 614.54

645 640 635 630 625 620 615 610 605

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NO'S/NAMES CHKD, NOTE BOOK, NO., BY, DATE

MODEL: Default
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	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL 3 SOUTH

SCALE: 1" = 20' | SHEET 6 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PLAN
SURVEYED
PLOTTED
DRAWN
NOTE BOOK
NO.
BY
DATE
CHECKED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

PROFILE
SURVEYED
PLOTTED
DRAWN
NOTE BOOK
NO.
BY
DATE
CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD

MODEL: Default
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MATCHLINE STA. 14+50

110+00
EX. TELEPHONE DUCT
PI Sta 110+69.99
℄ COOK
PR. COMB. CURB & GUTTER
15+00
PC Sta 15+98.03
17'-6"
16
PI Sta 16+64.86
17
PT Sta 17+31.68
18
19
PR. RIPRAP
℄ IL 3 SOUTH
113+30.27
EX. SECTION LINE
END CONSTRUCTION STA. 17+83.37
PR. HMA SHOULDER
PR. RIPRAP
EX. WATER MAIN
EX. WATER MAIN
LIMITS OF CONSTRUCTION
EX. ROW
EX. ROW
±00.00 CE 25' HMA
EX. TELEPHONE LINE

PROP. CURVE IL3SOUTH_4
PI STA. = 16+64.86
Δ = 1° 23' 41" (RT)
D = 1° 02' 37"
R = 5,489.99'
T = 66.83'
L = 133.65'
E = 0.41'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 15+98.03
P.T. STA. = 17+31.68

N
0 20 40 60
SCALE IN FEET

645
640
635
630
625
620
615
610
605

181.08 Ft. 614.78
PGL
612.93
EX. GROUND

615.22 615.17 | 614.57 614.54 | 613.90 613.89 | 613.24 613.24 | 612.58 | 612.09 | 611.77 | 611.60 | 611.63 | 611.87 | 612.26

14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00 18+50 19+00 19+50

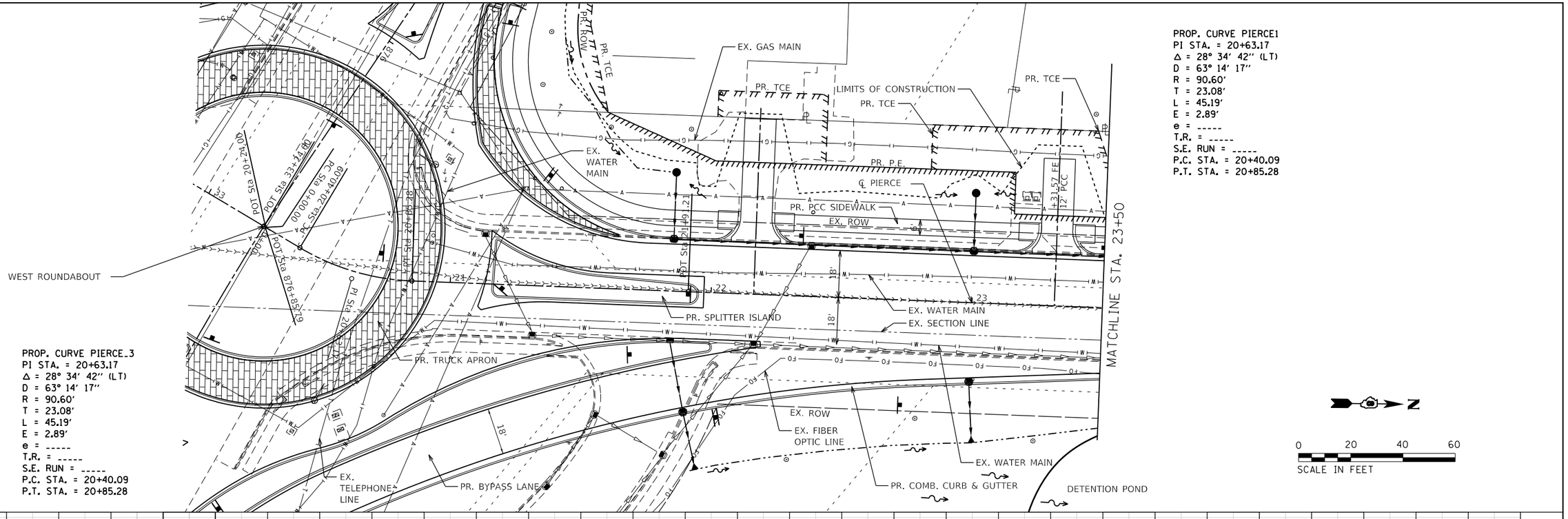
USER NAME = dlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
IL 3 SOUTH
SCALE: 1" = 20' | SHEET 7 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



PLAN — SURVEYED, PLOTTED, CROSS CHECKED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., 8½", BY, DATE

PROFILE — SURVEYED, PLOTTED, CROSS CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

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	DRAWN -	REVISED -	
PLOT SCALE = 40.0005 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
PIERCE

SCALE: 1" = 20' | SHEET 8 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PROP. CURVE PIERCE2
PI STA. = 25+51.65
Δ = 2° 10' 27" (RT)
D = 2° 28' 32"
R = 2,314.55'
T = 43.92'
L = 87.83'
E = 0.42'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 25+07.73
P.T. STA. = 25+95.56

EX. CABLE LINE
EX. ELECTRIC LINE
EX. TELEPHONE LINE
PR. PCC SIDEWALK
EX. WATER LINE
PR. COMB. CURB & GUTTER
℄ PIERCE
PR. P.E.
PR. TCE
LIMITS OF CONSTRUCTION
EX. ROW
MATCHLINE STA. 23+50
PC Sta 25+07.73
PI Sta 25+51.65
PT Sta 25+95.56
PC Sta 97+22.57
PC Sta 97+52.57
END CONSTRUCTION STA. 25+71.36
EX. FIBER OPTIC LINE
EX. GAS MAIN
EX. CURB & GUTTER (TO REMAIN)
EX. SIDEWALK (TO REMAIN)
EX. WATER MAIN
EOT Sta 27+70.06
EX. SECTION LINE
EX. TELEPHONE LINE
EX. CABLE LINE
℄ COOK
DETENTION POND
PR. ROW
PR. TCE
86'
24
25+00
26
27
18'
6'

0 20 40 60
SCALE IN FEET

155.00' V.C.
+41.11 EL. 617.09
PGL
4.98%
-1.83%
VPI STA. 23+63.61
ELEVATION 618.51
616.08
EX. GROUND

645 640 635 630 625 620 615 610 605

618.89 619.60 | 617.81 618.01 | 616.91 616.93 | 616.02 | 615.13 | 613.96 | 612.55 | 610.97 | 609.68

23+50 24+00 24+50 25+00 25+50 26+00 26+50 27+00 27+50

PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

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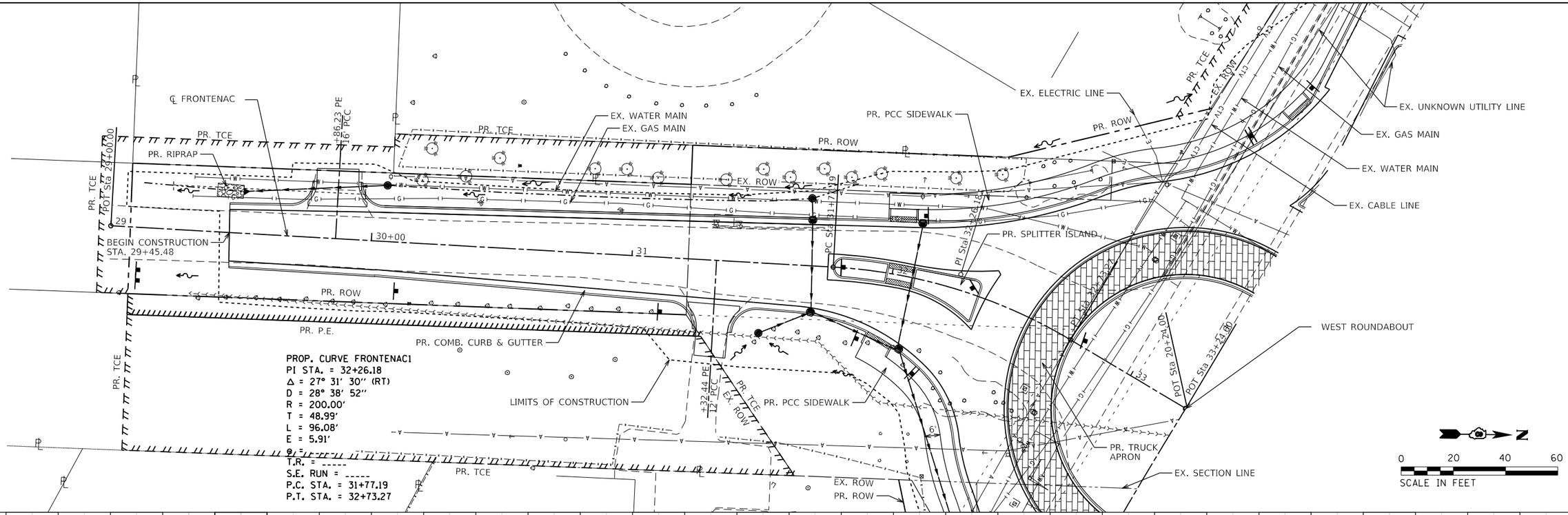
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

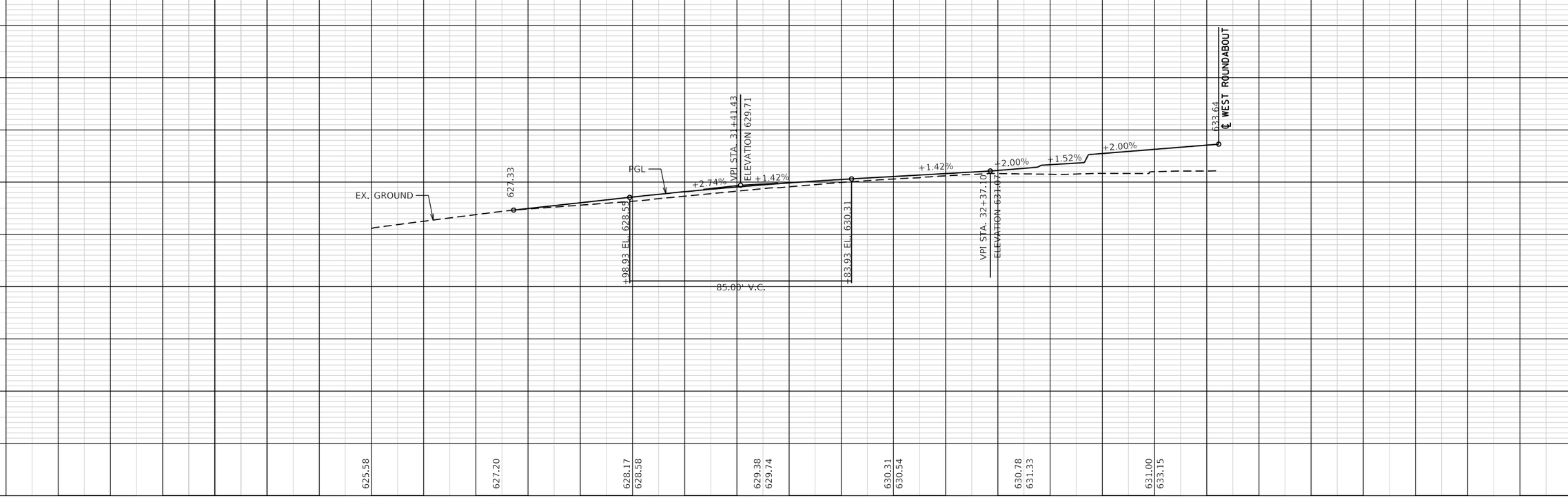
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
PIERCE
SCALE: 1" = 20' | SHEET 9 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956





USER NAME = dlee	DESIGNED -	REVISED -	**STATE OF ILLINOIS**
	DRAWN -	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

PLAN AND PROFILE
FRONTENAC

SCALE: 1" = 20' | SHEET 10 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PLAN / PROFILE: SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE; PROFILE: GRADE CHECKED, B.M. NOTED, STRUCTURE NO.&TA'NIS CHKD

MODEL: Default
FILE NAME: P:\20131130624\Godfrey\4 CADD - DWG\4.7 Tran\CADD Sheets\D876F84-sht-plnprf-10.dgn

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

EX. WATER MAINS
PR. COMB. CURB & GUTTER
LIMITS OF CONSTRUCTION
EX. GAS MAIN
EX. UNKNOWN UTILITY LINE
BEGIN CONSTRUCTION STA. 41+77.35
℄ NORWOOD
POT Sta 41+00.00
PR. TCE
EX. ROW
PR. ROW
PC Sta 42+20.44
PT Sta 42+83.35
PI Sta 42+83.25
PT Sta 43+44.74
PCC Sta 43+31.23
41
42
43
EX. ROW
PR. TCE
PR. ROW
EX. WATER MAIN
EX. ELECTRIC LINE
EX. TELEPHONE LINE
EX. WATER MAIN
EX. ROW
EX. WATER MAIN
EX. SECTION LINE

PROP. CURVE NORWOOD_3
PI STA. = 42+83.25
Δ = 20° 20′ 53″ (RT)
D = 16° 22′ 13″
R = 350.00′
T = 62.81′
L = 124.30′
E = 5.59′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 42+20.44
P.T. STA. = 43+44.74

0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
GRADE CHECKED
BM. NOTED
STRUCTURE NO.
NOTE BOOK
NO.
BY
DATE

645 640 635 630 625 620 615 610 605

625.49
EX. GROUND
+0.31%
-0.31%
VPI STA. 42+28.49
ELEVATION 625.65
PGL
625.74
-0.31%
+2.03%
+90.99 EL. 625.54
+65.99 EL. 625.53
75.00' V.C.
VPI STA. 43+25.51
ELEVATION 625.35

625.46
625.50
625.35
625.56
625.31
625.57
625.49
625.43

41+00 41+50 42+00 42+50 43+00

USER NAME = dfee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
NORWOOD
SCALE: 1" = 20' | SHEET 11 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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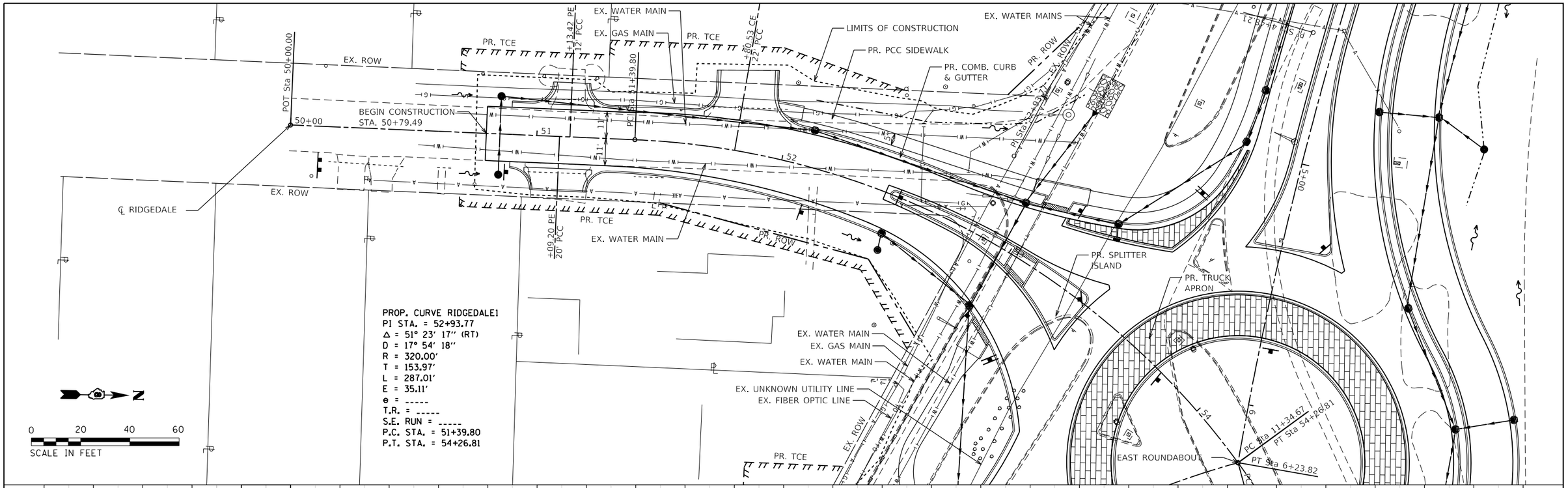

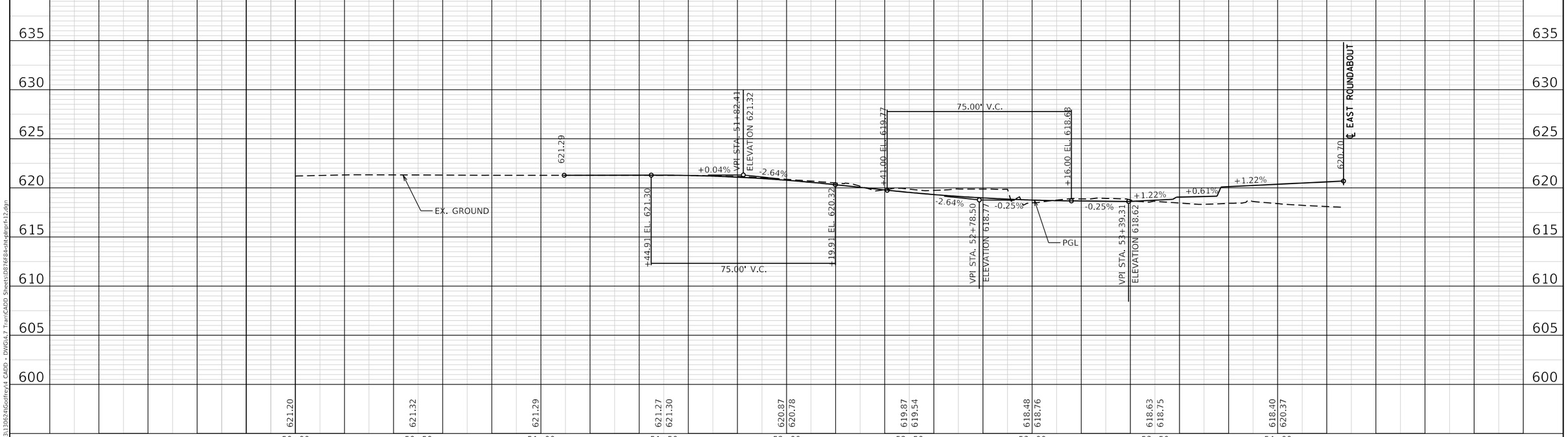

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO.; BY, DATE

PROFILE — SURVEYED, PLOTTED, GRADE CHECKED, B.M. NOTED, STRUCTURE NO.(S) CHKD; BY, DATE

MODEL: Default
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USER NAME = dlee	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

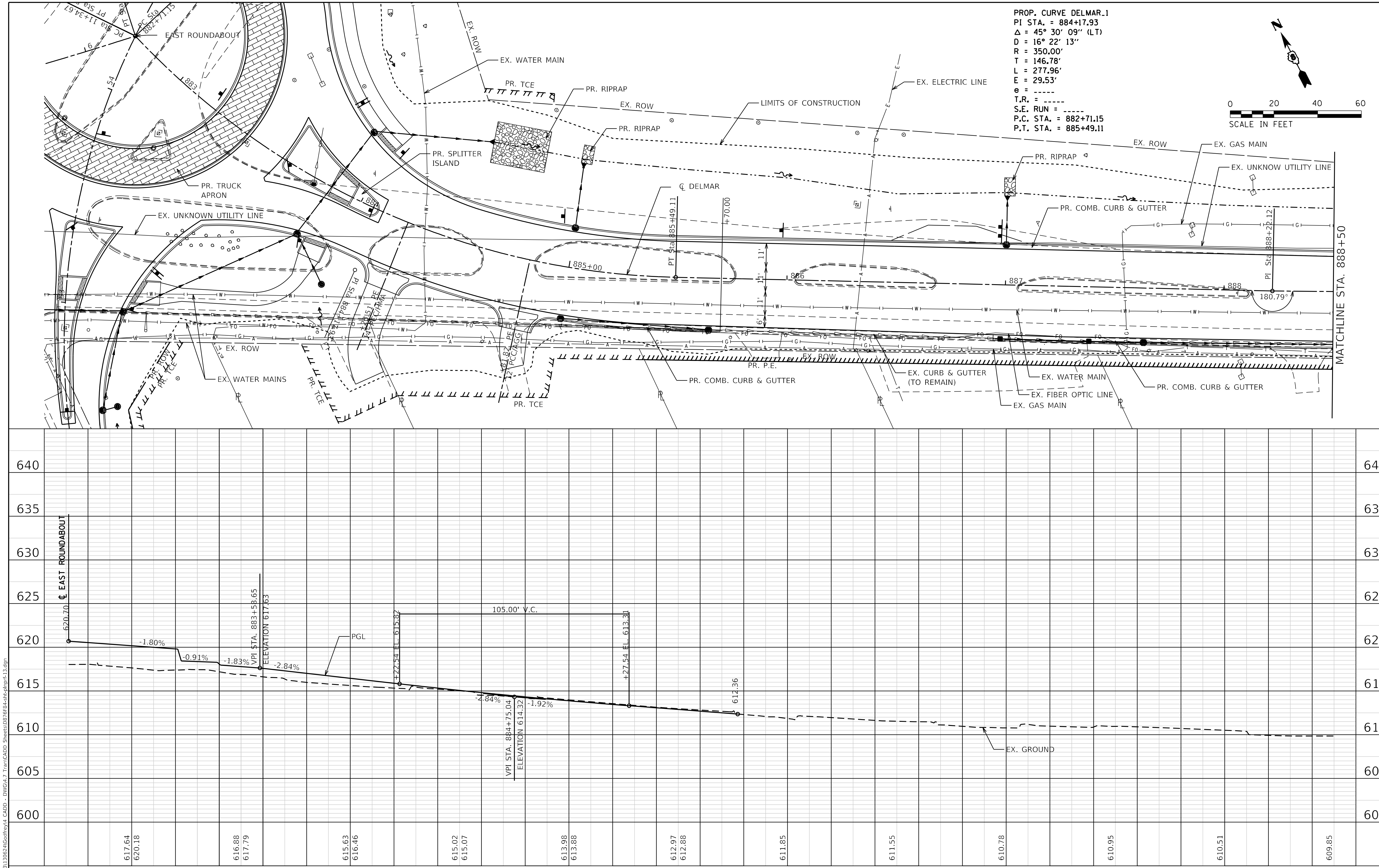
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
RIDGEDALE

SCALE: 1" = 20' | SHEET 12 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO. — BY — DATE

PROFILE: SURVEYED, PLOTTED, GRADES CHECKED, B.M. NOTED, STRUCTURE NOTAT'NS CH'KD, NOTE BOOK, NO. — BY — DATE

MODEL: Default
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USER NAME = dlee	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
DELMAR

SCALE: 1" = 20' | SHEET 13 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PLAN
SURVEYED
PLOTTED
CHECKED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
DATE
BY

PR. RIPRAP
EX. ROW
PR. TCE
PR. P.E.
PR. RIPRAP
LIMITS OF CONSTRUCTION
PR. TCE
EX. GAS MAIN
EX. UNKNOWN UTILITY LINE
PR. AGGREGATE SHOULDER
℄ DELMAR
EX. SECTION LINE
EX. ROW
END CONSTRUCTION STA. 891+74.31
MATCHLINE STA. 888+50
+15.32 CE
20' PCC
889
890+00
891
EX. ROW
PR. P.E.
EX. GAS MAIN
EX. WATER MAIN
EX. TELEPHONE LINE
EX. ROW
EX. ROW
EX. TELEPHONE LINE
EX. CURB & GUTTER (TO REMAIN)
EX. TELEPHONE LINE
EX. WATER MAIN
EX. ROW
N
0 20 40 60
SCALE IN FEET

PROFILE
SURVEYED
PLOTTED
CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
DATE
BY

EX. GROUND

640	635	630	625	620	615	610	605	600

609.85	609.89	609.85	609.77	610.00	610.13	610.14

888+50 889+00 889+50 890+00 890+50 891+00 891+50

MODEL: Default
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	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
DELMAR

SCALE: 1" = 20' | SHEET 14 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

PROP. CURVE COOK_3
PI STA. = 99+12.57
Δ = 90° 00' 00" (RT)
D = 35° 48' 36"
R = 160.00'
T = 160.00'
L = 251.33'
E = 66.27'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 97+52.57
P.T. STA. = 100+03.90

PROP. CURVE COOK_6
PI STA. = 103+63.54
Δ = 91° 22' 23" (LT)
D = 30° 09' 21"
R = 190.00'
T = 194.61'
L = 303.00'
E = 81.98'
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 101+68.93
P.T. STA. = 104+71.94

NOTE:
1. EXISTING COOK STR. NOT SHOWN FOR CLARITY.

PR. TCE
PR. ROW
PR. RIPRAP
LIMITS OF CONSTRUCTION
EX. ROW
EX. SECTION LINE
EX. PARKING LOT
EX. CURB TO REMAIN
PR. PCC SIDEWALK
℄ COOK
PR. COMB. CURB & GUTTER
MATCHLINE STA 103+00
DETENTION POND
PR. BOTTOM OF POND
PR. TOP OF BANK
EX. TELEPHONE LINE
EX. FIBER OPTIC LINE
EX. WATER MAIN
℄ PIERCE
PC Sta 97+52.57
PI Sta 99+12.57
PT Sta 100+03.90
PC Sta 101+68.93
24" CMP
0 20 40 60
SCALE IN FEET

EX. GROUND
PGL
K = 26
115.00' V.C.
+55.11 EL. 614.85
+70.11 EL. 616.07
VPI STA. 100+50.00
ELEVATION 618.68
+1.58%
+3.27%
-1.15%
+3.27%
VPI STA. 99+12.61
ELEVATION 614.19
+12.50 EL. 617.46
+87.50 EL. 619.28
K = 44
75.00' V.C.
616.14

97+50	98+00	98+50	99+00	99+50	100+00	100+50	101+00	101+50	102+00	102+50	103+00
616.49 / 616.06	614.91 / 615.48	613.30 / 614.91	614.84 / 614.72	614.95 / 615.49	616.67 / 617.05	619.86 / 618.53	621.68 / 619.48	623.21 / 620.27	625.06 / 621.06	626.96 / 621.85	628.73 / 622.64

PLAN: SURVEYED, PLOTTED, CHECKED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE: SURVEYED, PLOTTED, CHECKED, GRADES CHECKED, B.M. NOTED, STRUCTURE NO'S/TYPES CHKD, NOTE BOOK, NO., BY, DATE

MODEL: Default
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PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
COOK

SCALE: 1" = 20' | SHEET 15 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

0 20 40 60
SCALE IN FEET

N

MATCHLINE STA. 103+00

MATCHLINE STA. 108+50

P.T. STA. = 10...

PR. TCE
PR. ROW

℄ COOK

PR. TCE

EX. TELEPHONE DUCT

PR. PCC SIDEWALK

PR. COMB. CURB & GUTTER

LIMITS OF CONSTRUCTION

PR. TCE
PR. ROW

EX. FIBER OPTIC LINE

+19.87 CE
24" PCC

+55.27 CE
33" PCC

+44.94 CE
22" PCC

EX. ROW

EX. FIBER OPTIC LINE

PT STA. 104+47.79

104

105+00

106

107

108

13'

9'

EX. ROW

PR. TB TERM. TY 1 (SPECIAL) TANGENT

PR. SPBG, TY A, 9 FT POSTS

PR. TB TERM. TY 1 (SPECIAL) TANGENT

EX. SECTION LINE

℄ IL 3 MID

PCC Sta 42+41.23

PT Sta 43+44.73

Pipe 42+45.51

℄ IL 3 SOUTH

113

PLAN

SURVEYED
PLOTTED
DRAWN
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME

NOTE BOOK
NO.

BY
DATE

PROFILE

SURVEYED
PLOTTED
DRAWN
PROFILE CHECKED
BM. NOTED
STRUCTURE NO.

BY
DATE

EX. GROUND

VPI STA. 105+33.17
ELEVATION 626.33

+1.58%

3.78%

K = 44
113.00' V.C.

PGL

+55.65 EL. 625.11

K = 29
155.05' V.C.

+10.69 EL. 623.40

+93.44 EL. 616.49

-3.78%

VPI STA. 108+49.94

640
635
630
625
620
615
610
605
600

628.73 622.64
629.08 623.43
627.73 624.23
626.75 625.02
625.95 625.47
624.73 625.06
622.24 623.79
619.82 621.91
618.11 620.02
616.90 618.13
615.30 616.25
614.35 614.72

103+00 103+50 104+00 104+50 105+00 105+50 106+00 106+50 107+00 107+50 108+00 108+50

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PLOT DATE = 4/23/2020	DATE -	REVISED -

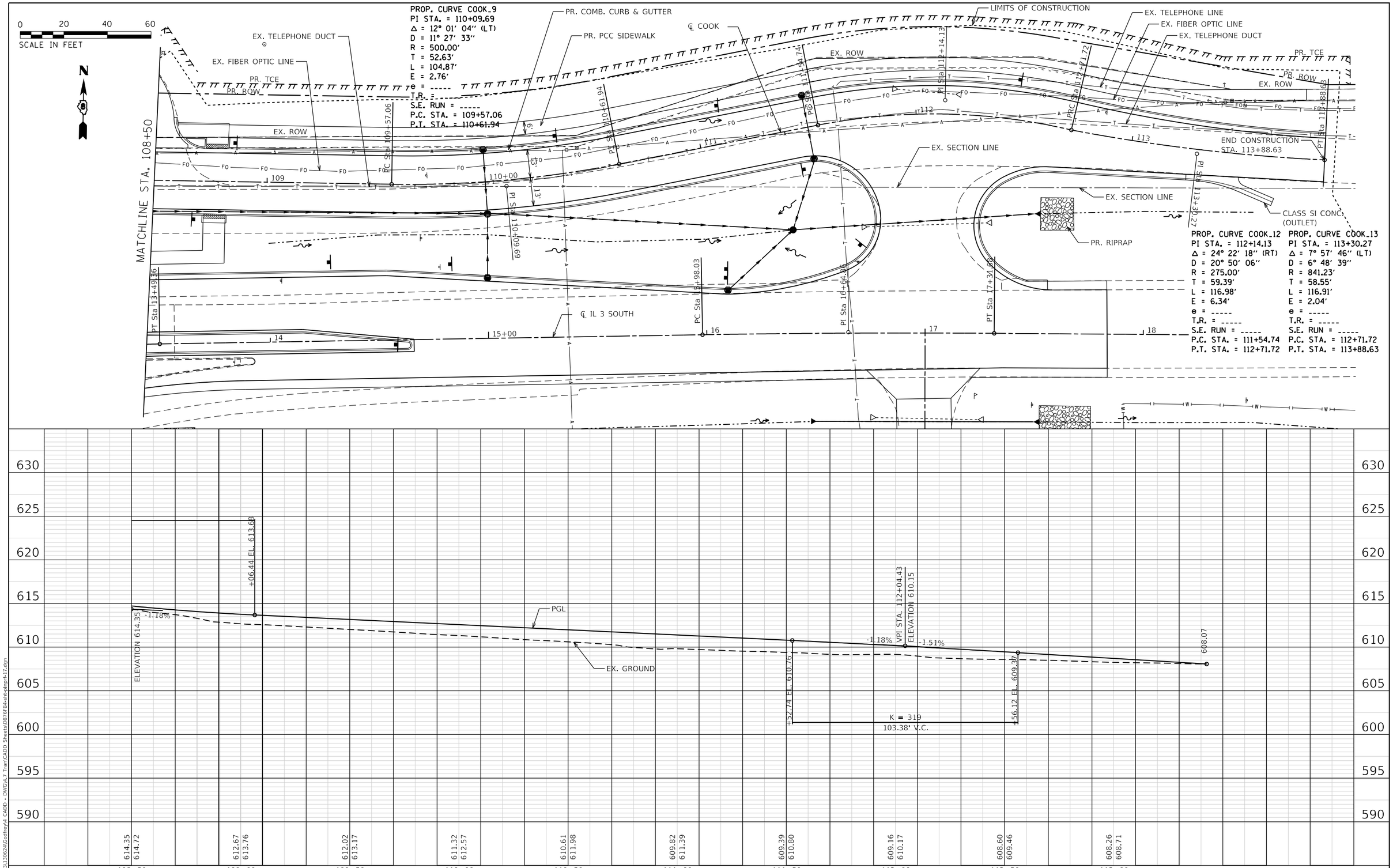
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
COOK

SCALE: 1" = 20' | SHEET 16 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



PLAN
SURVEYED
PLOTTED
ASSISTANT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
ASSISTANT CHECKED
BM. NOTED
STRUCTURE NO.
BY
DATE

MODEL: Default
FILE NAME: P:\2013\130624\Godfrey\4 CADD - DWG\4.7 Tran\CADD Sheets\D876F84-sht-plnprf-17.dgn

USER NAME = dlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

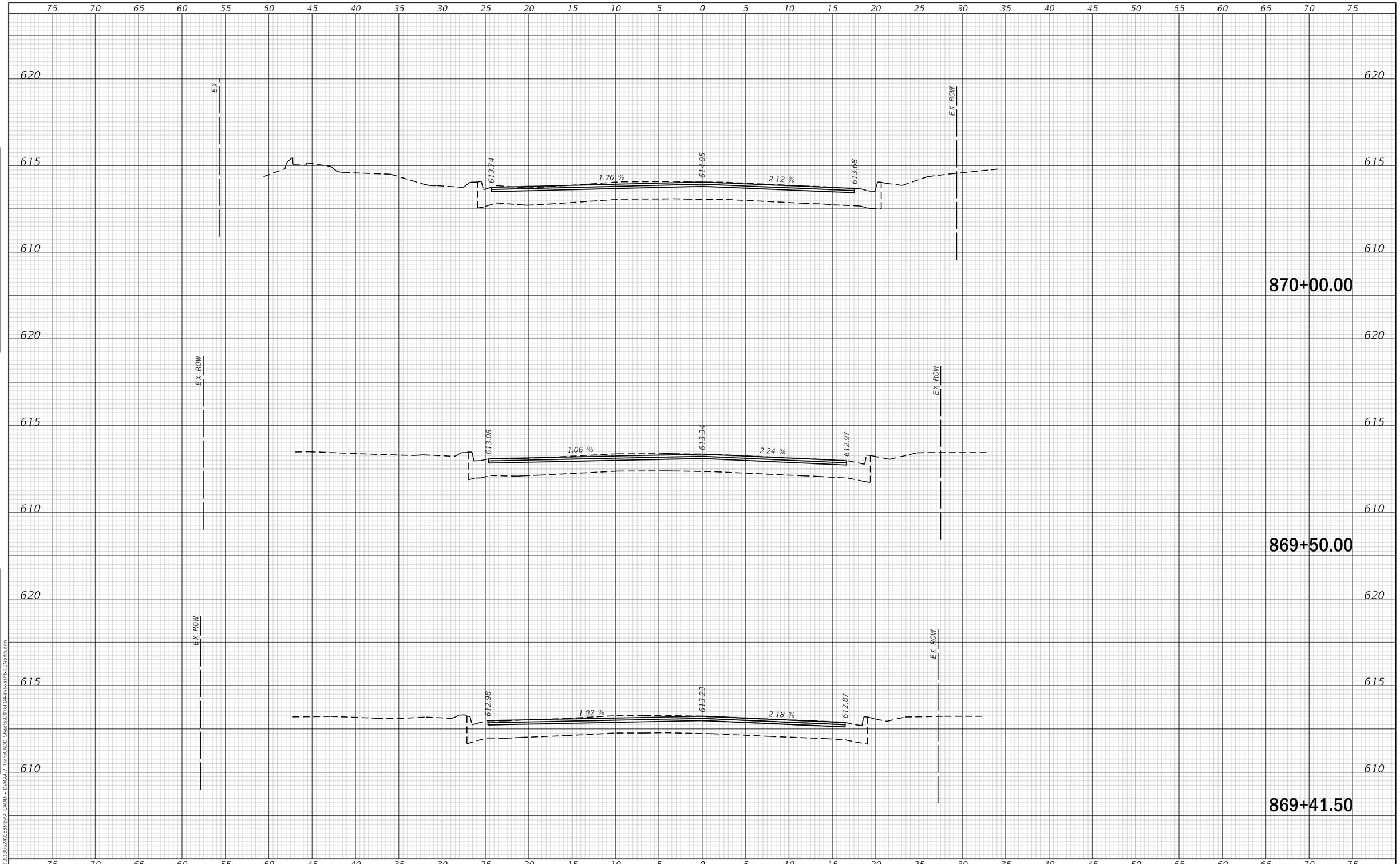
PLAN AND PROFILE
COOK

SCALE: 1" = 20' | SHEET 17 OF 17 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

EXHIBIT F – CROSS SECTIONS



FINAL SURVEY

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

NOTE BOOK
NO.

ORIGINAL SURVEY

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

NOTE BOOK
NO.

Default
P:\2013\130624\Godfrey\4 CADD - DWGs\4-7 Tran\CADD Sheets\D876F84-sht-xssht-IL3North.dgn

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

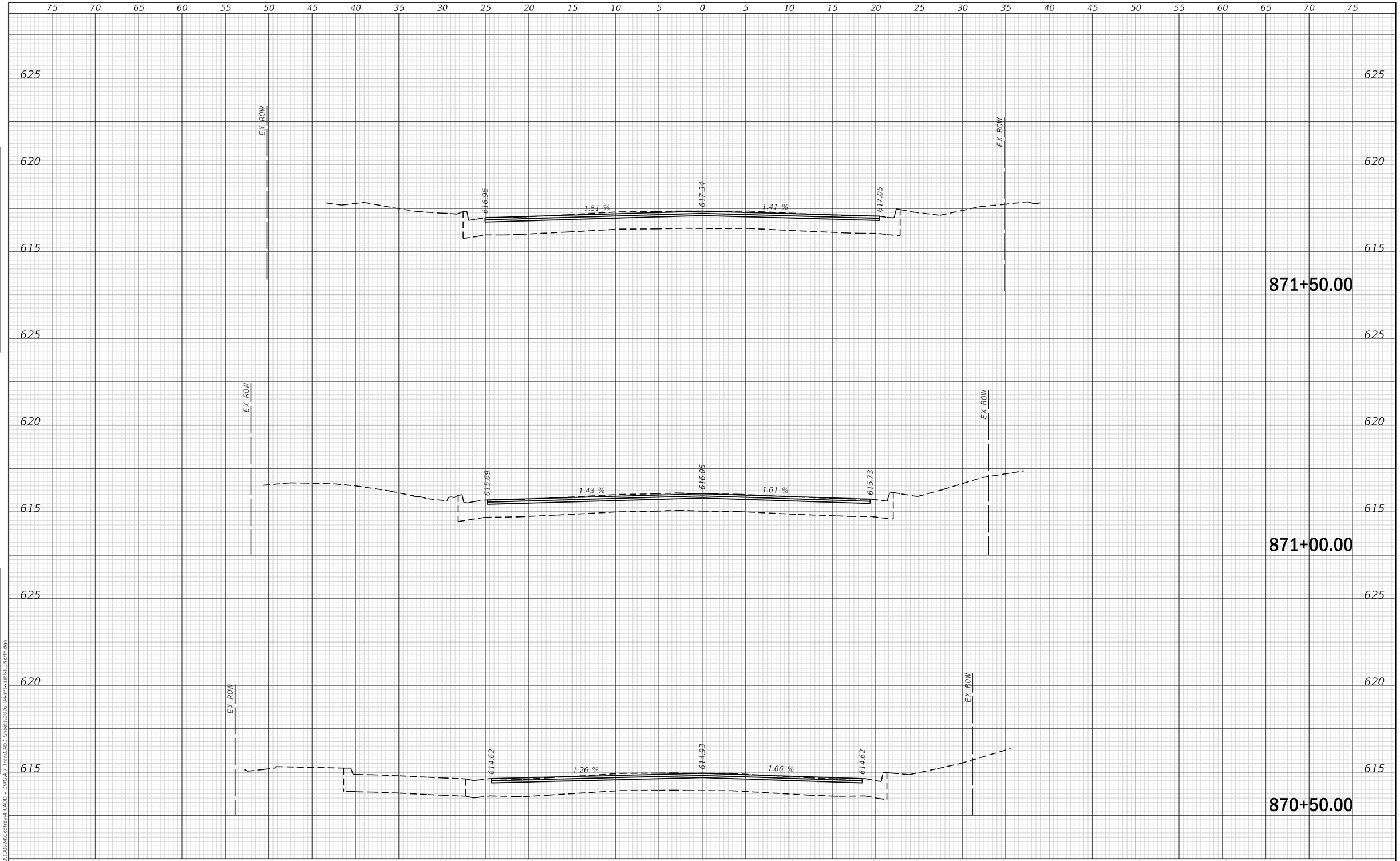
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 1 OF 6 SHEETS | STA. 869+41.50 TO STA. 870+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 2 OF 6 SHEETS | STA. 870+50.00 | TO STA. 871+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

Default
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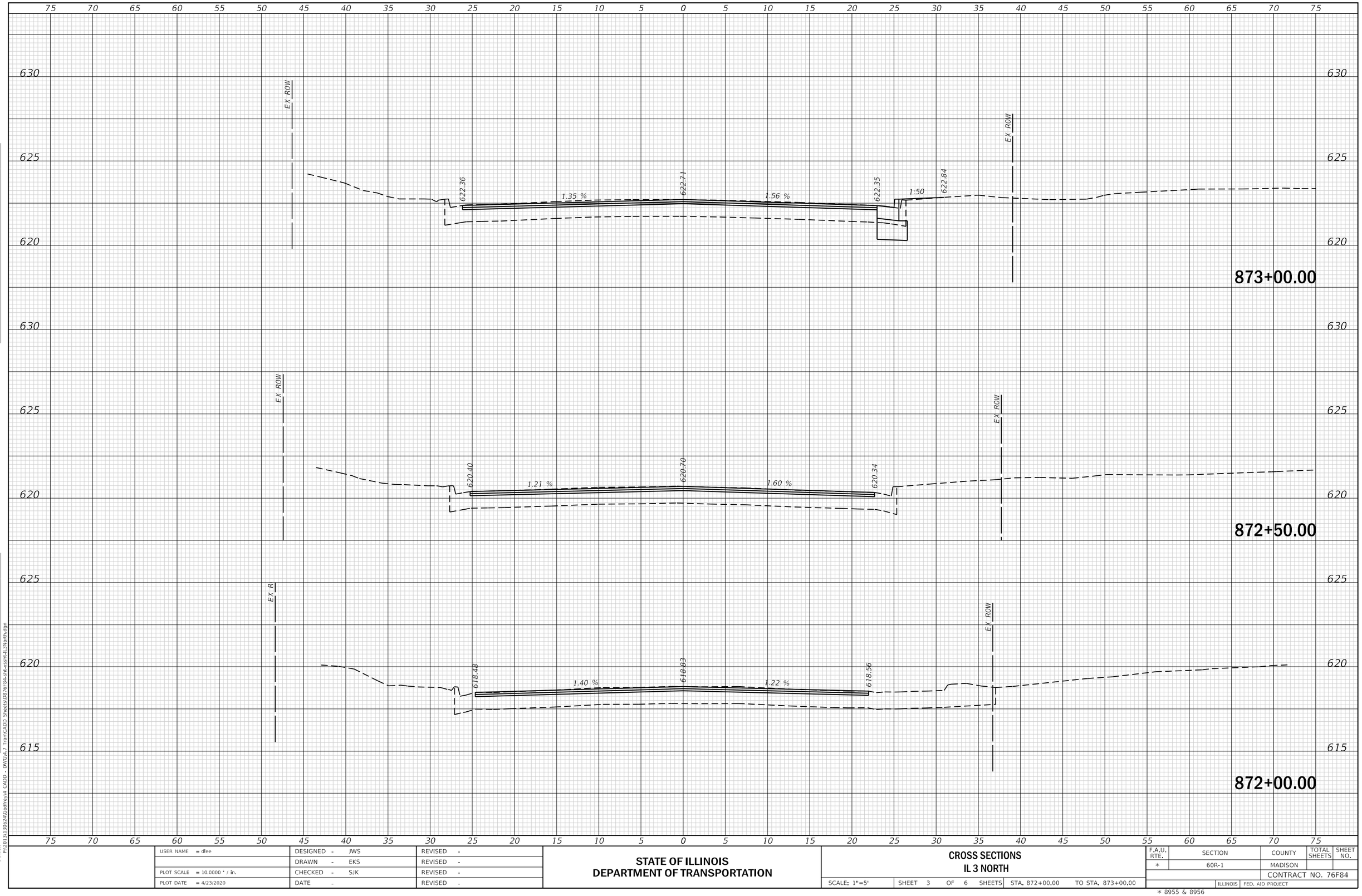


USER NAME = dfee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 3 OF 6 SHEETS | STA. 872+00.00 TO STA. 873+00.00

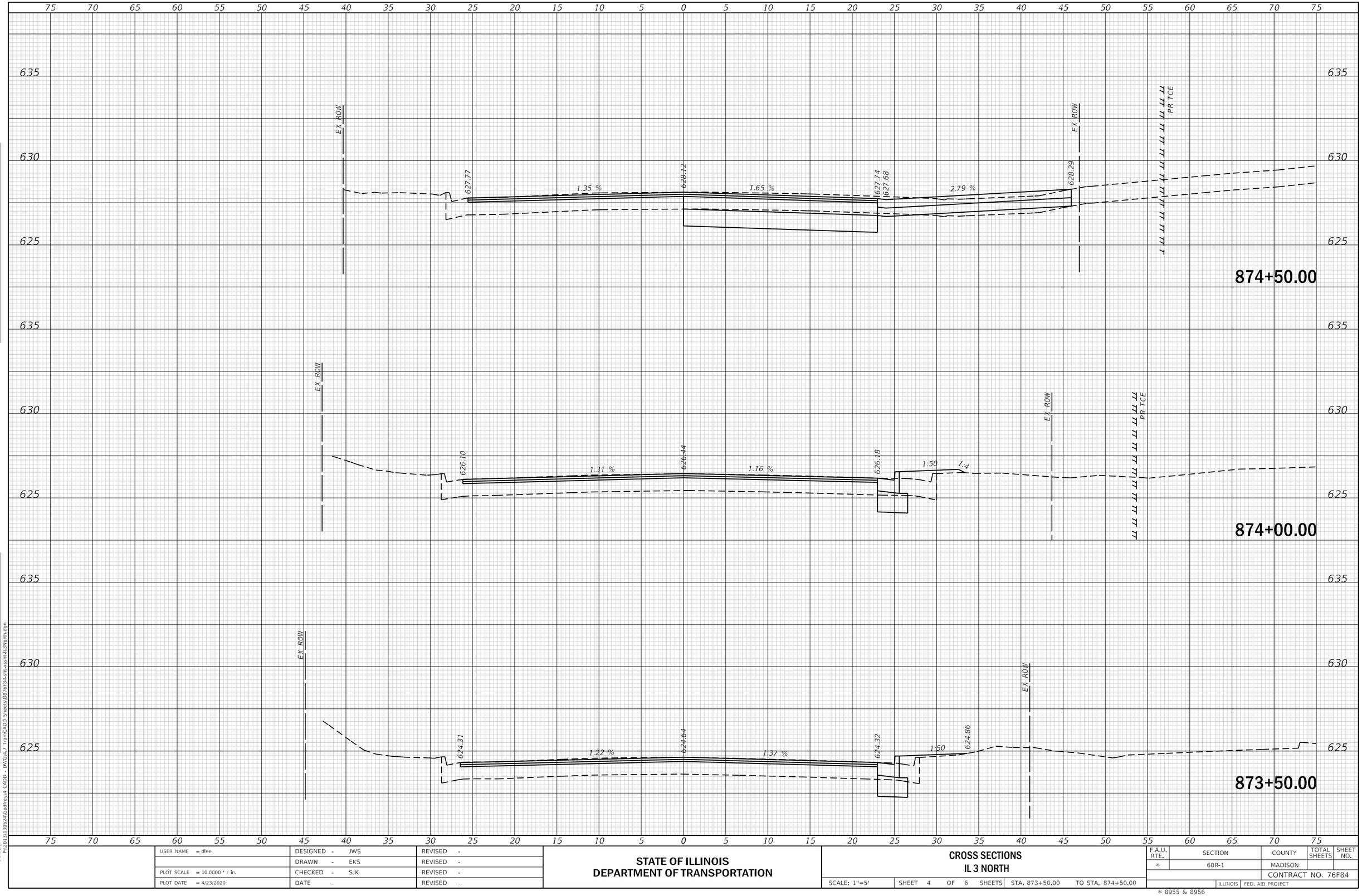
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

Default P:\2013\130624\Godfrey\v4 CADD - DWGs\6-7 Tran\CADD Sheets\D876f84-ht-xsht-IL3North.dgn



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 4 OF 6 SHEETS | STA. 873+50.00 | TO STA. 874+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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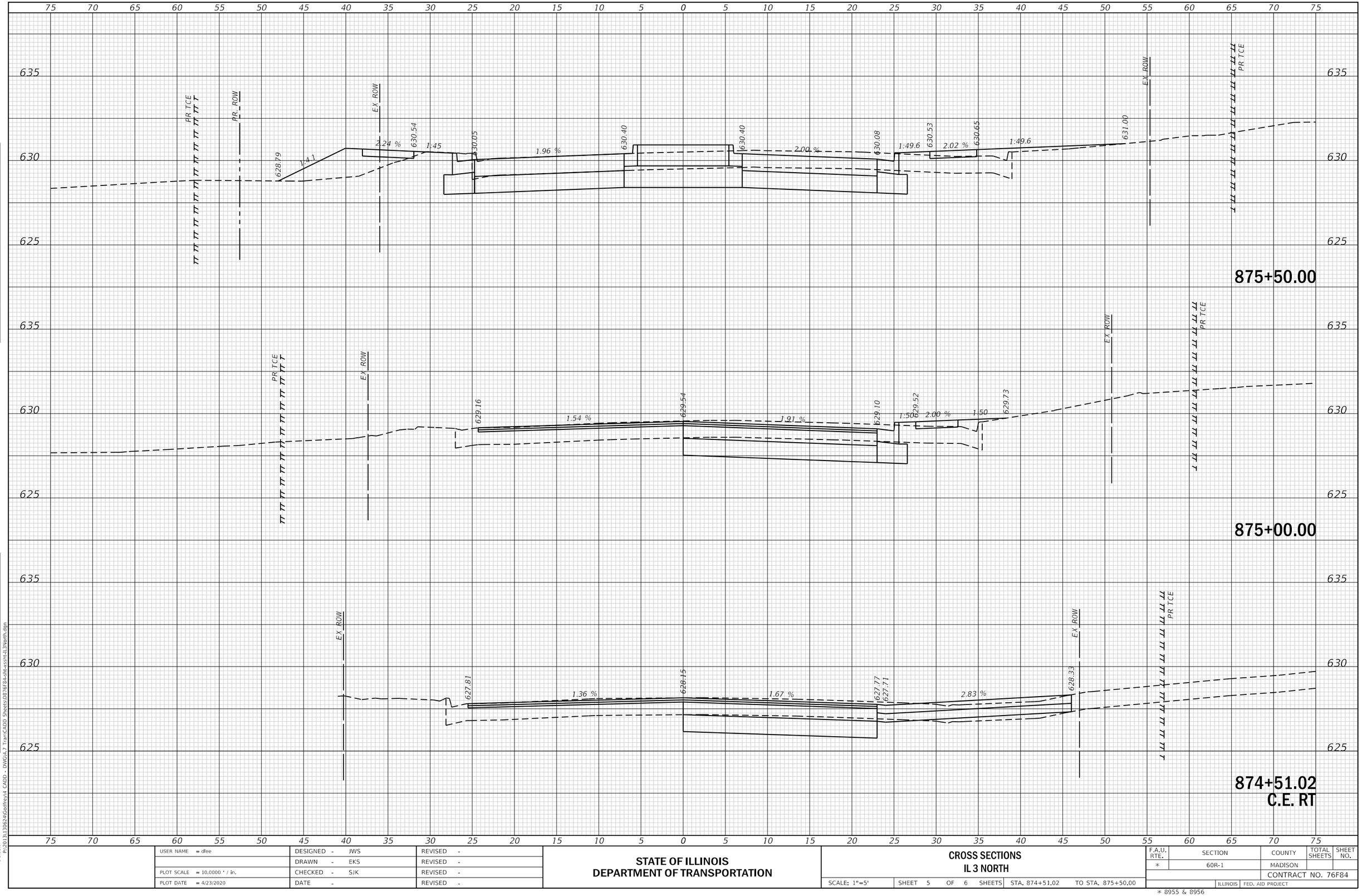

USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 5 OF 6 SHEETS | STA. 874+51.02 TO STA. 875+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO.

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO.

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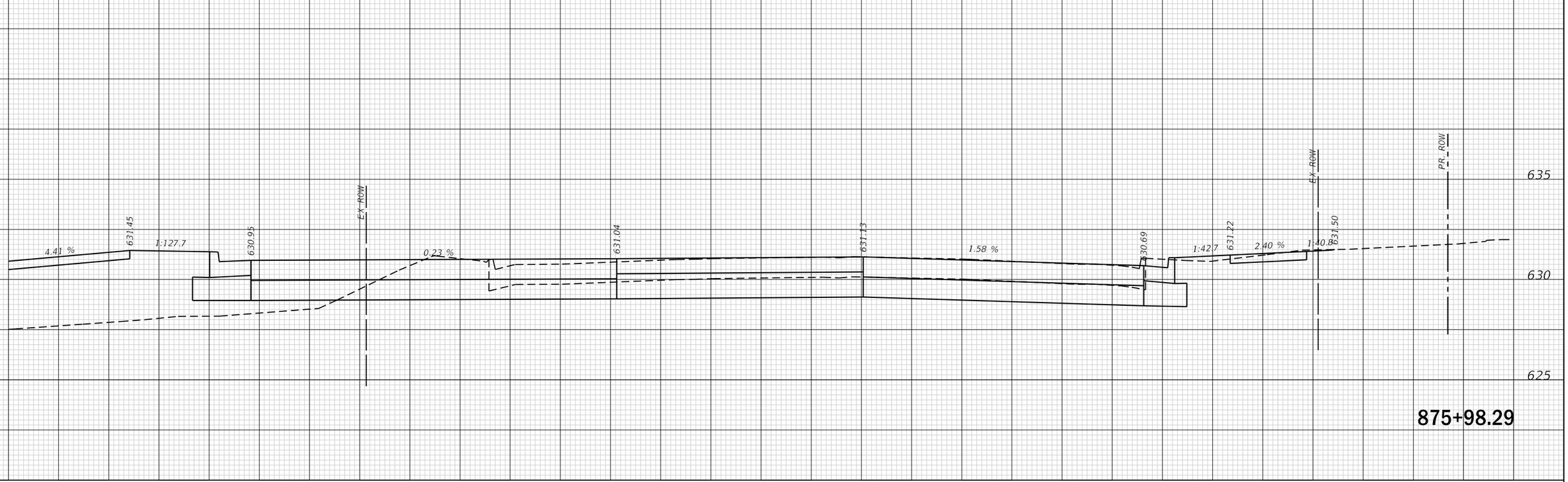


USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

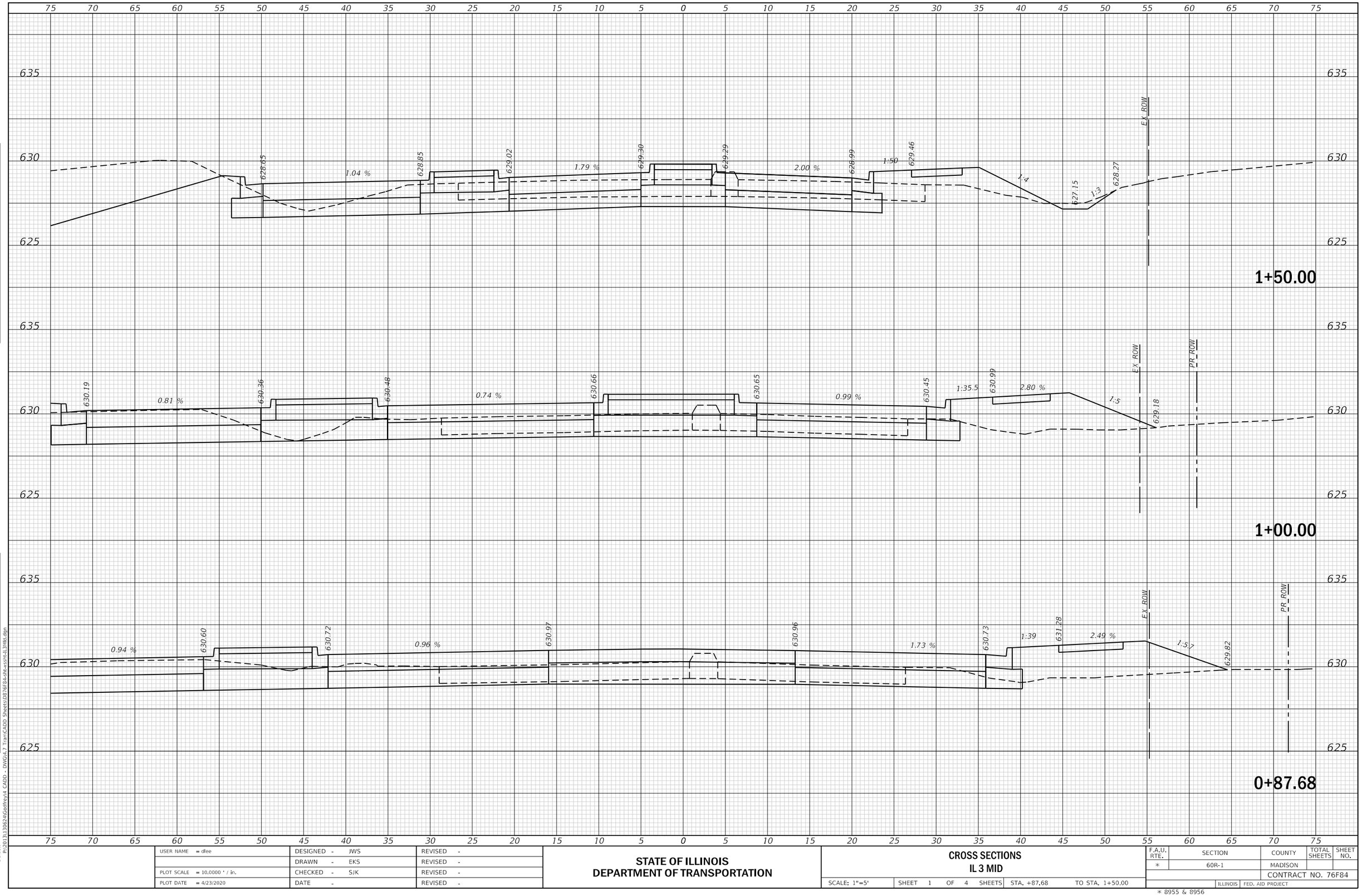
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 NORTH

SCALE: 1"=5' | SHEET 6 OF 6 SHEETS | STA. 875+98.29 | TO STA. 875+98.29

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dfee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
IL 3 MID

SCALE: 1"=5' | SHEET 1 OF 4 SHEETS | STA. +87.68 | TO STA. 1+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
		ILLINOIS	FED. AID PROJECT	

* 8955 & 8956

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

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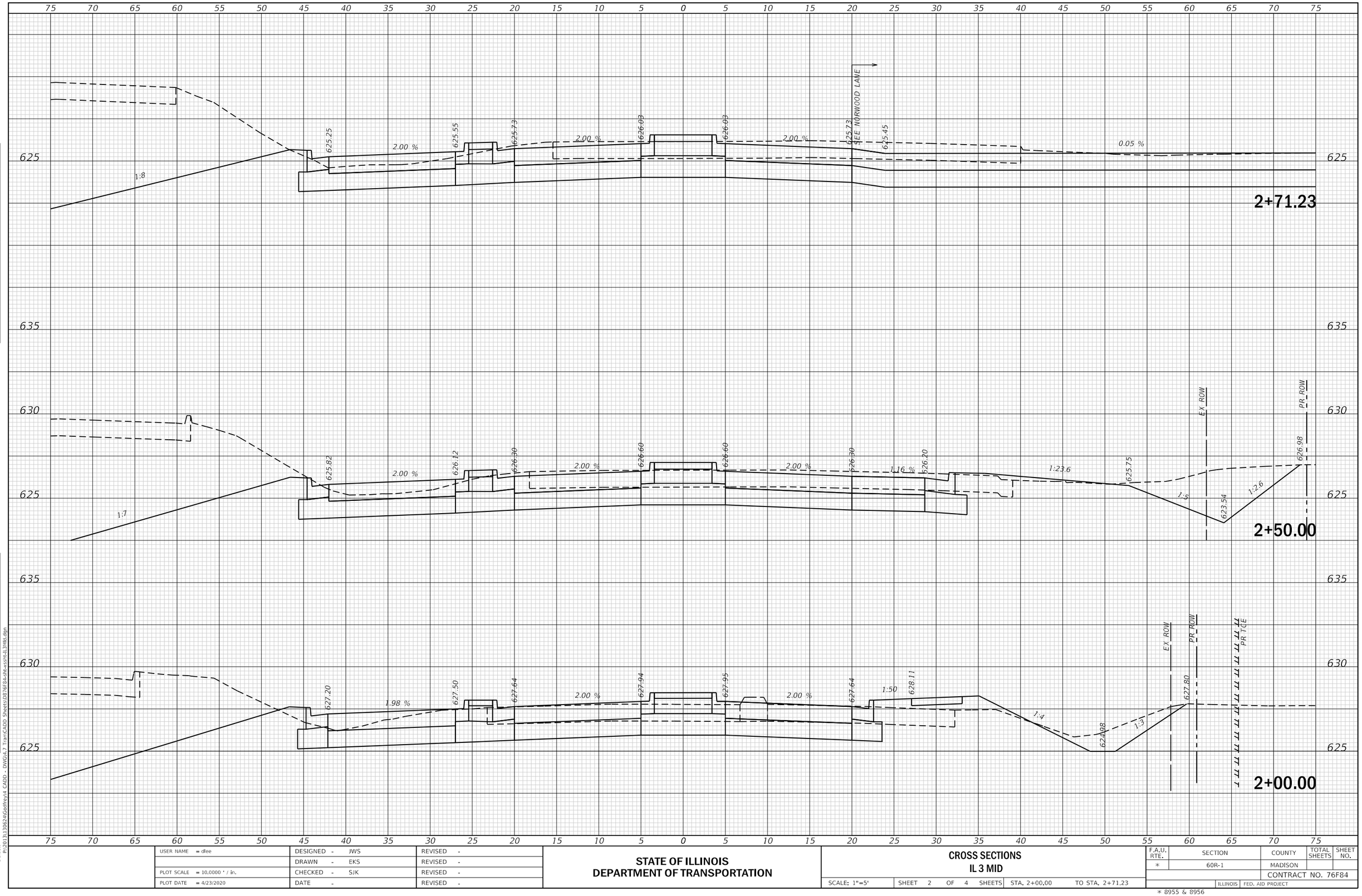

USER NAME = dfee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 MID

SCALE: 1"=5' | SHEET 2 OF 4 SHEETS | STA. 2+00.00 | TO STA. 2+71.23

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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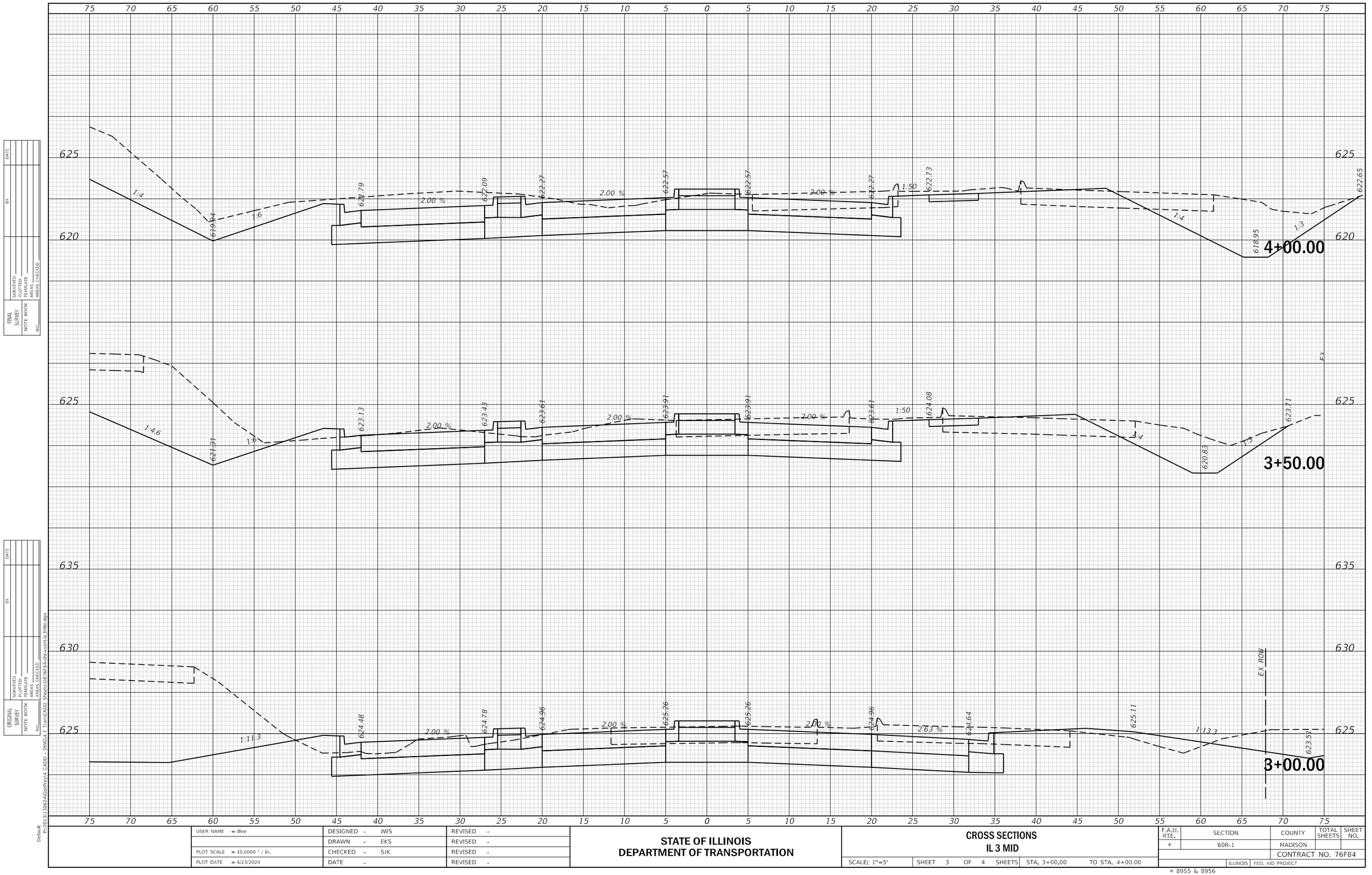

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	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 MID

SCALE: 1"=5' | SHEET 3 OF 4 SHEETS | STA. 3+00.00 | TO STA. 4+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

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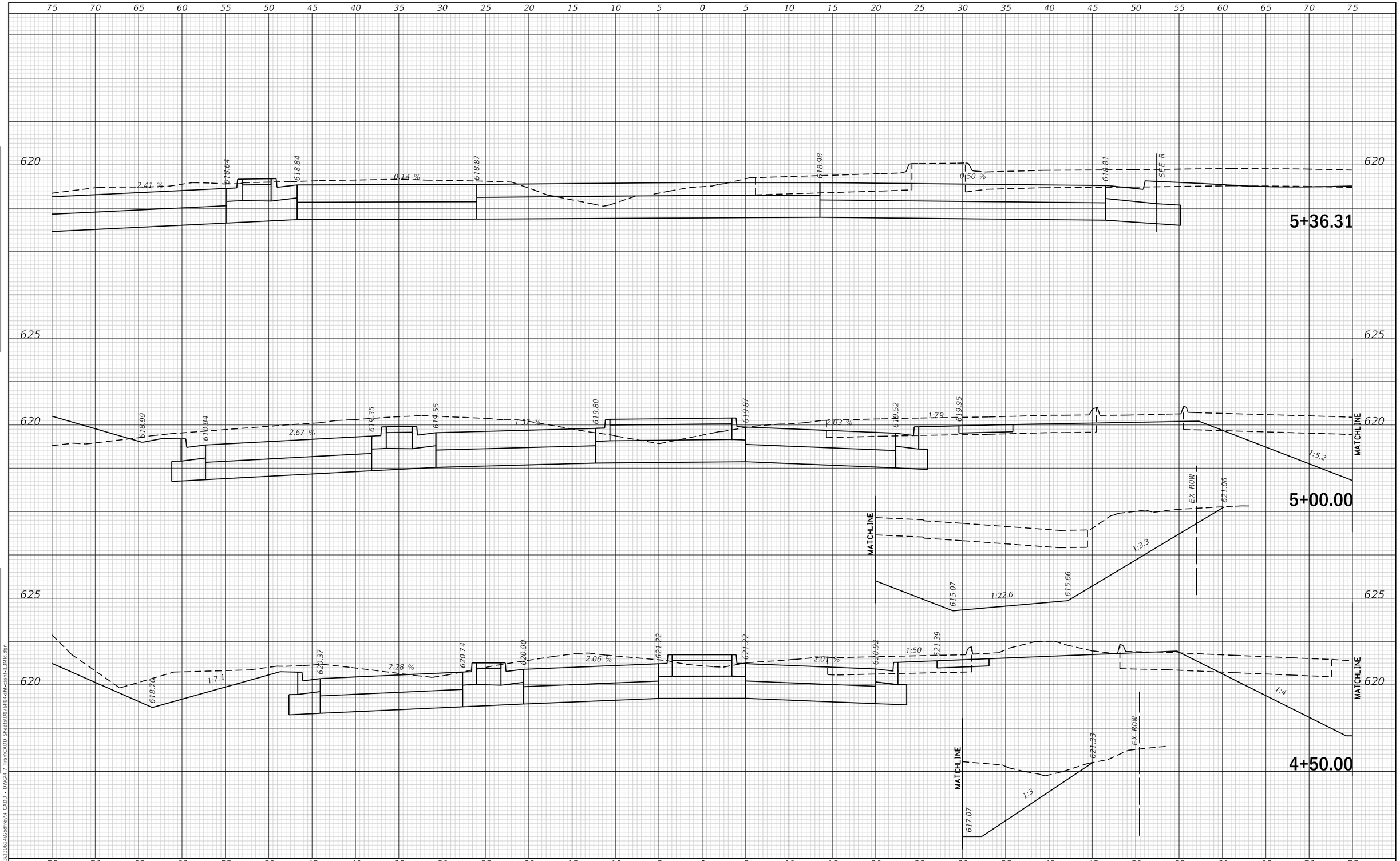

DATE | BY | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | NOTE BOOK | NO.

FINAL SURVEY

ORIGINAL SURVEY

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USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

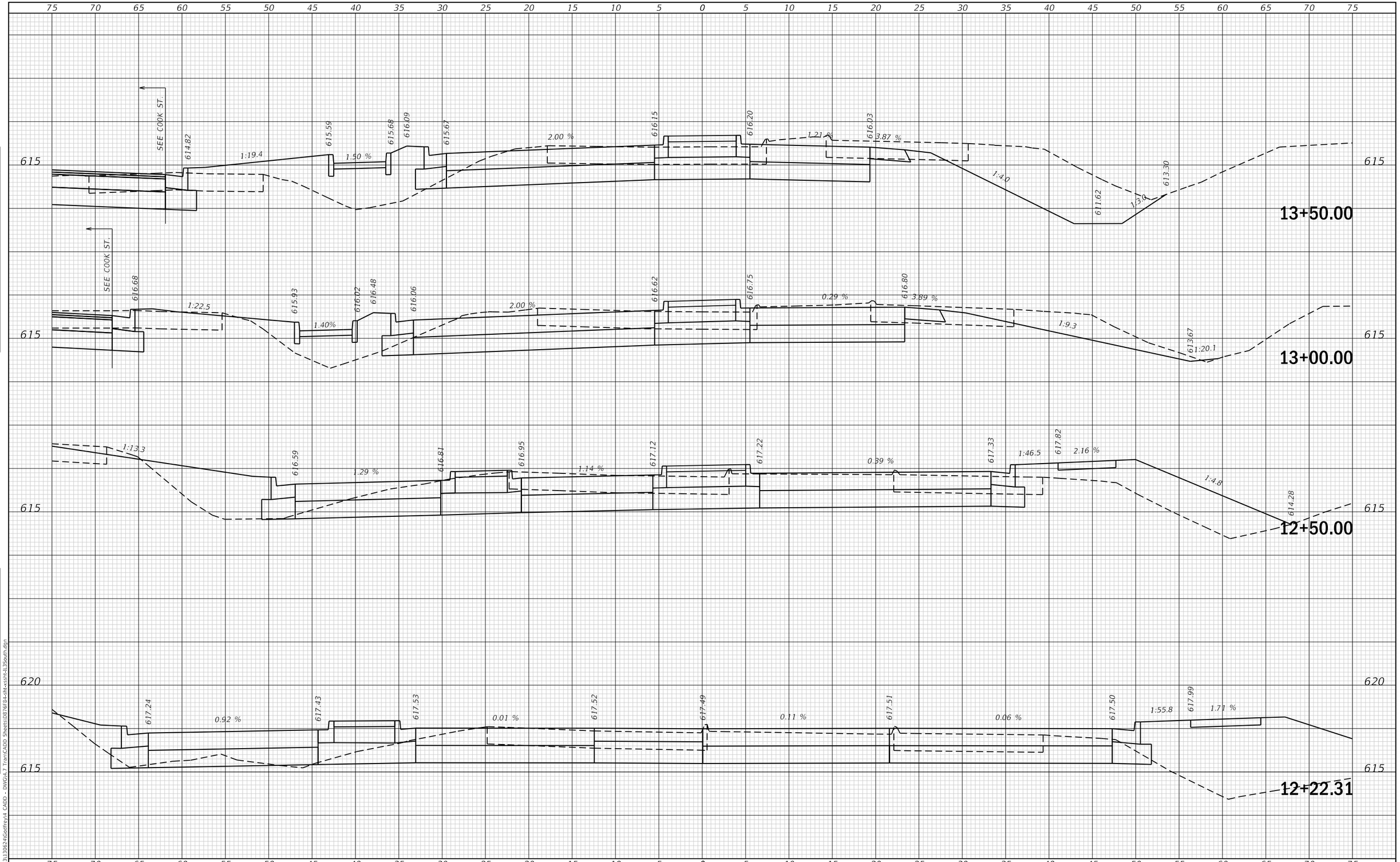
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 MID

SCALE: 1"=5' | SHEET 4 OF 4 SHEETS | STA. 4+50.00 | TO STA. 5+36.31

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED		
PLOTTED		
TEMPLATE		
AREAS		
AREAS CHECKED		

BY	DATE

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USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

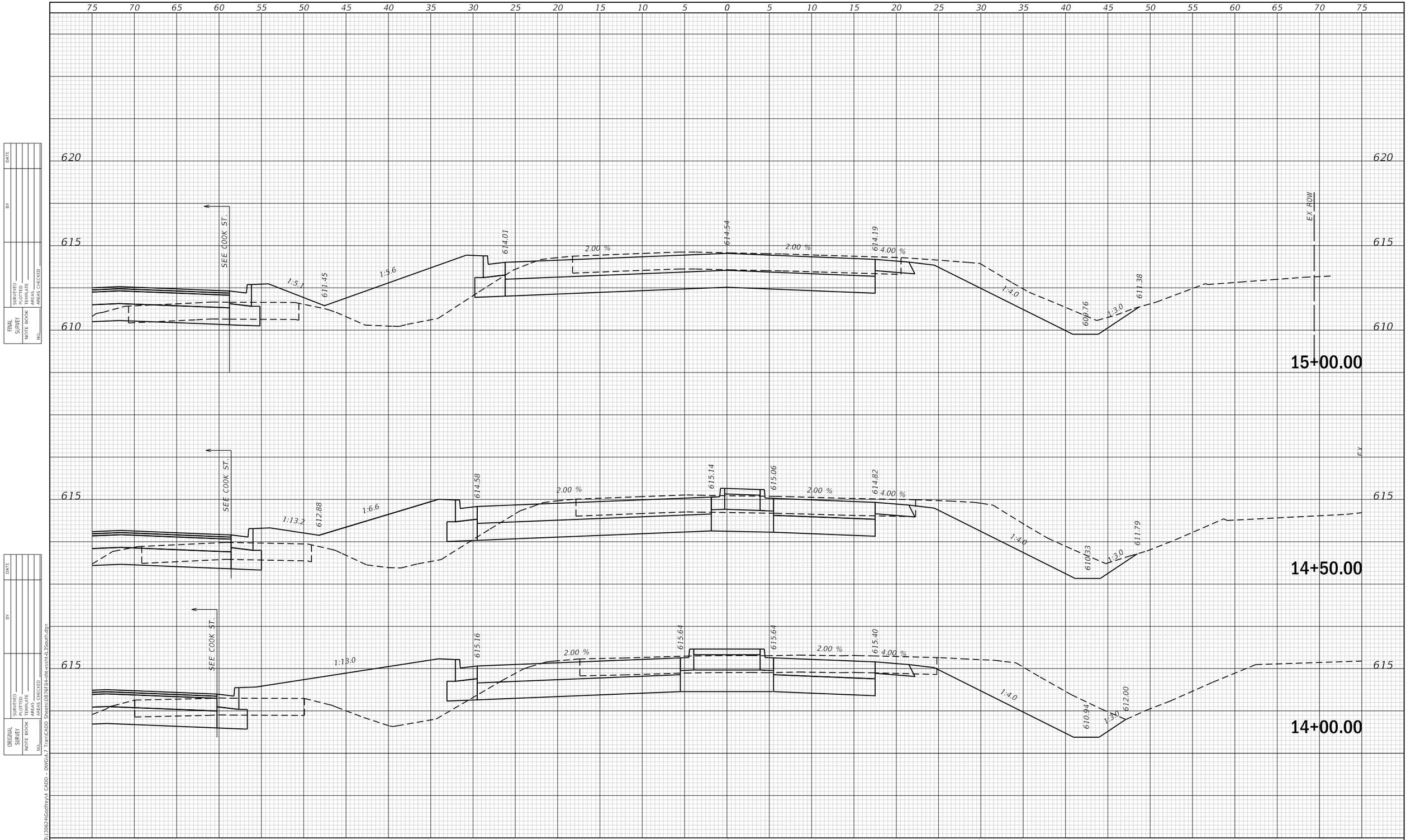
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 SOUTH

SCALE: 1"=5' | SHEET 1 OF 5 SHEETS | STA. 12+22.31 | TO STA. 13+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

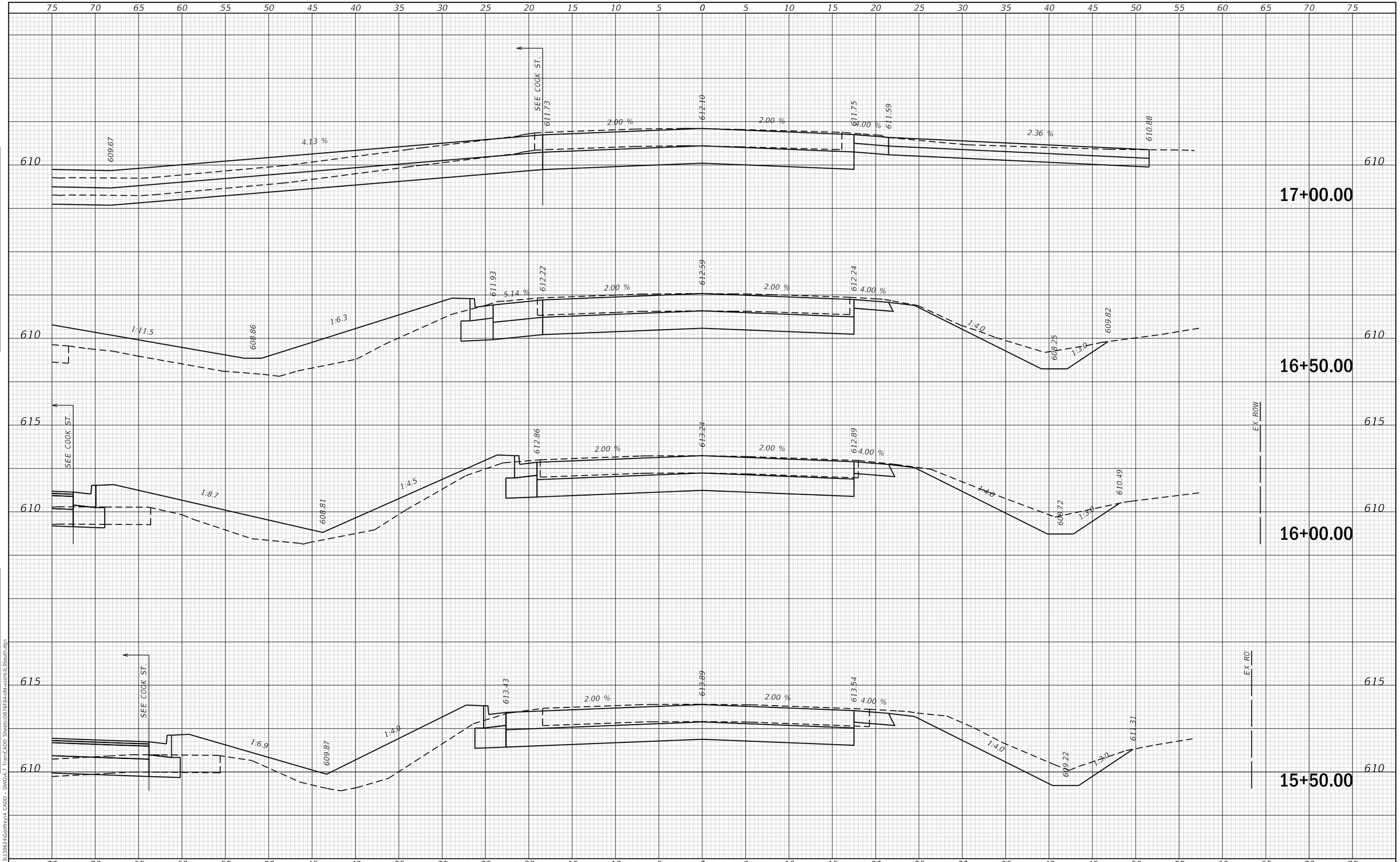
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 SOUTH

SCALE: 1"=5' | SHEET 2 OF 5 SHEETS | STA. 14+00.00 | TO STA. 15+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 SOUTH

SCALE: 1"=5' | SHEET 3 OF 5 SHEETS | STA. 15+50.00 | TO STA. 17+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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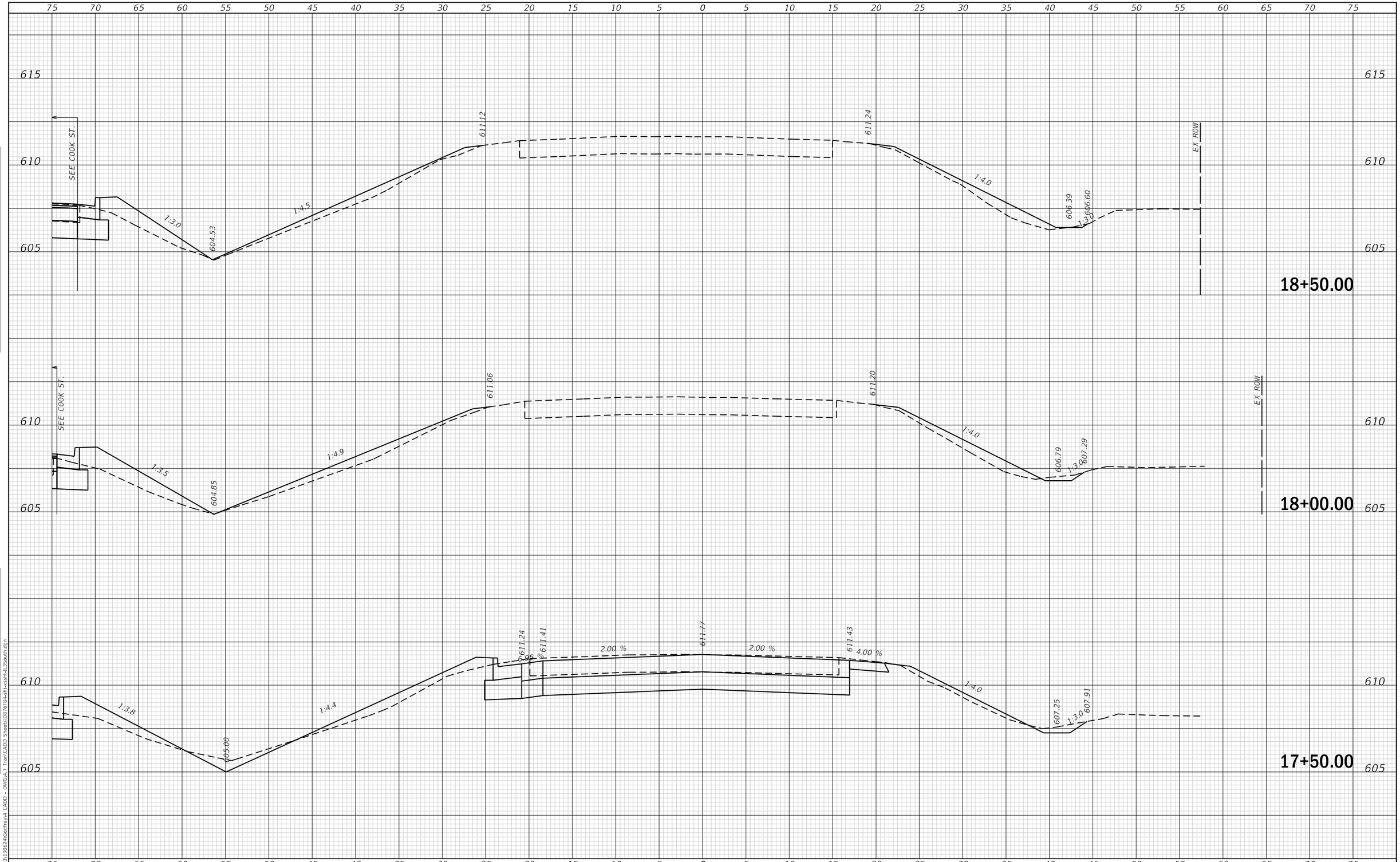

FINAL SURVEY	DATE	BY
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	DATE	BY
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
NO.	AREAS CHECKED	

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USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 SOUTH

SCALE: 1"=5' | SHEET 4 OF 5 SHEETS | STA. 17+50.00 | TO STA. 18+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY	DATE	BY
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	DATE	BY
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

610

605

604.21

611.47

1:4.0

605.80

EX. ROW

19+00.00

610

605

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

Default
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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

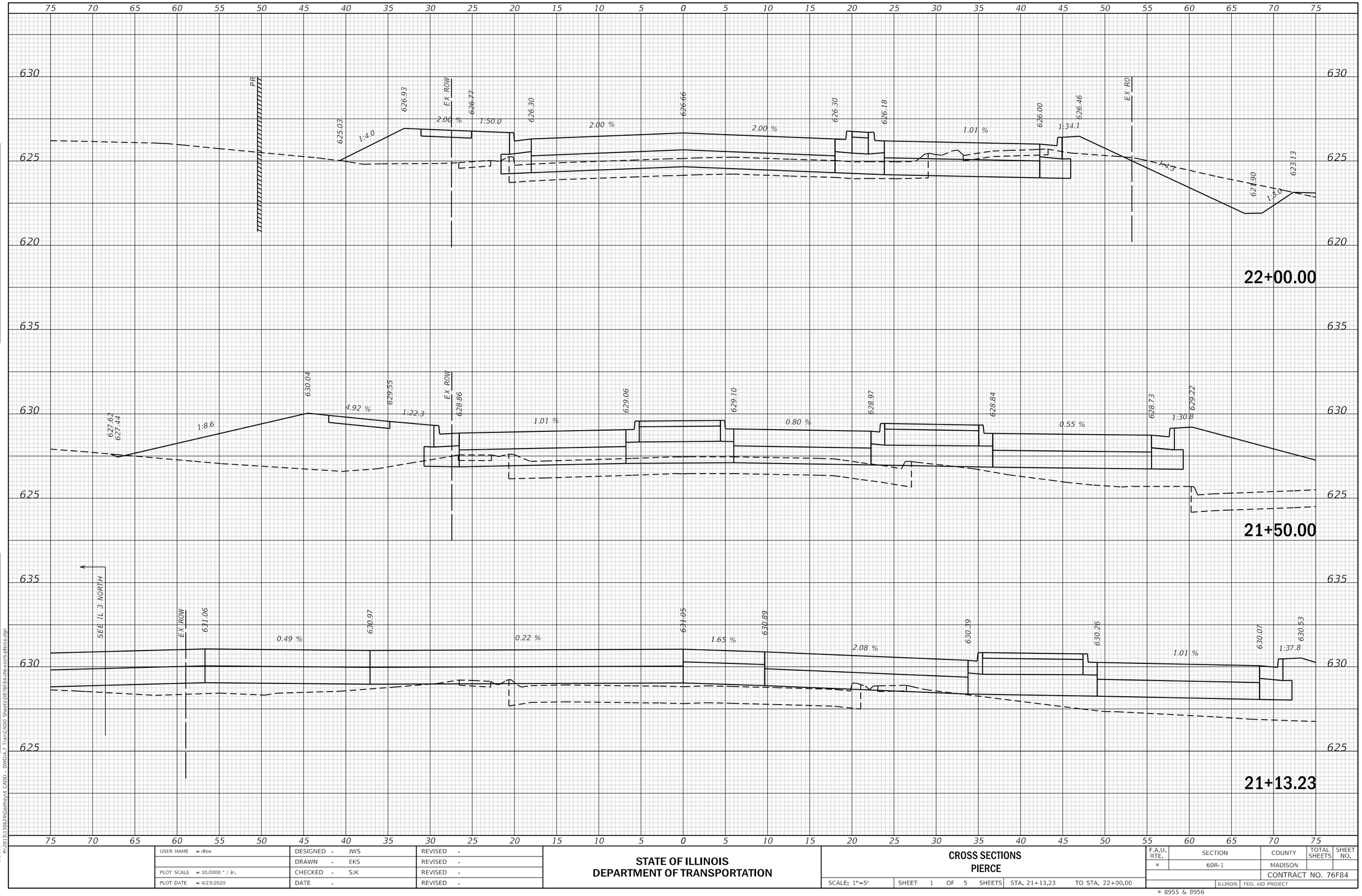
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL 3 SOUTH

SCALE: 1"=5' | SHEET 5 OF 5 SHEETS | STA. 19+00.00 | TO STA. 19+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**CROSS SECTIONS PIERCE**	F.A.U. RTE. * / SECTION 60R-1 / COUNTY MADISON / TOTAL SHEETS / SHEET NO.
	DRAWN - EKS	REVISED -			CONTRACT NO. 76F84
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -		SCALE: 1"=5' / SHEET 1 OF 5 SHEETS / STA. 21+13.23 / TO STA. 22+00.00	ILLINOIS / FED. AID PROJECT
PLOT DATE = 4/23/2020	DATE -	REVISED -			

* 8955 & 8956

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ORIGINAL SURVEY / FINAL SURVEY — NOTE BOOK / NO. — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

625 620 615 630 625 620

PR. TCE
PR. PE
620.85
619.47
1:3.0
1:4.0
621.97
EX. ROW
621.81
1:50.0
621.34
2.00 %
621.70
2.00 %
621.34
2.01 %
621.13
1:42.9
621.70
EX. ROW
1:3.9
617.75
1:2.9
618.51

23+00.00

625 620 630 625 620

PR. PE
622.48
1:4.0
624.44
EX. ROW
624.28
2.00 %
1:50.0
623.81
2.00 %
624.17
2.00 %
623.81
1.57 %
623.57
1:37.9
624.02
EX. ROW
1:4.1
619.75
1:3.0
620.52

22+50.00

630 625 620

PR. P
625.46
0.61 %
625.68
EX. ROW
1.09 %
625.49
2.00 %
625.85
2.00 %
625.49
625.44
1.11 %
625.23
1:35.3
EX. ROW
625.69
1:4.2
621.18
1:3.0
622.21

22+16.32

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO.

ORIGINAL SURVEY — NOTE BOOK — NO.

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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
PIERCE

SCALE: 1"=5' | SHEET 2 OF 5 SHEETS | STA. 22+16.32 | TO STA. 23+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

DATE	BY	
		SURVEYED
		PLOTTED
		TEMPLATE
		AREAS
		AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO.

ORIGINAL SURVEY — NOTE BOOK — NO.

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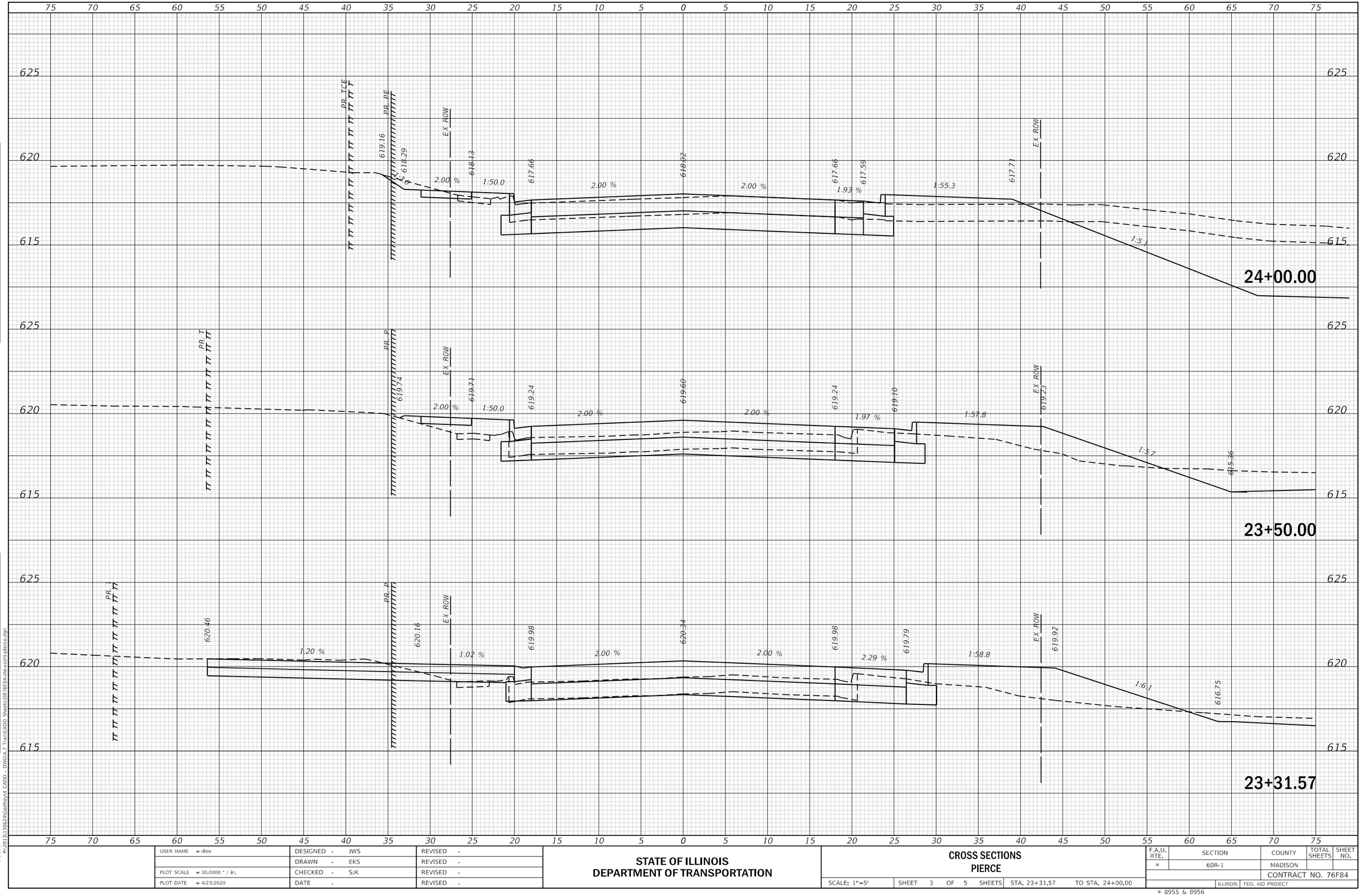


USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

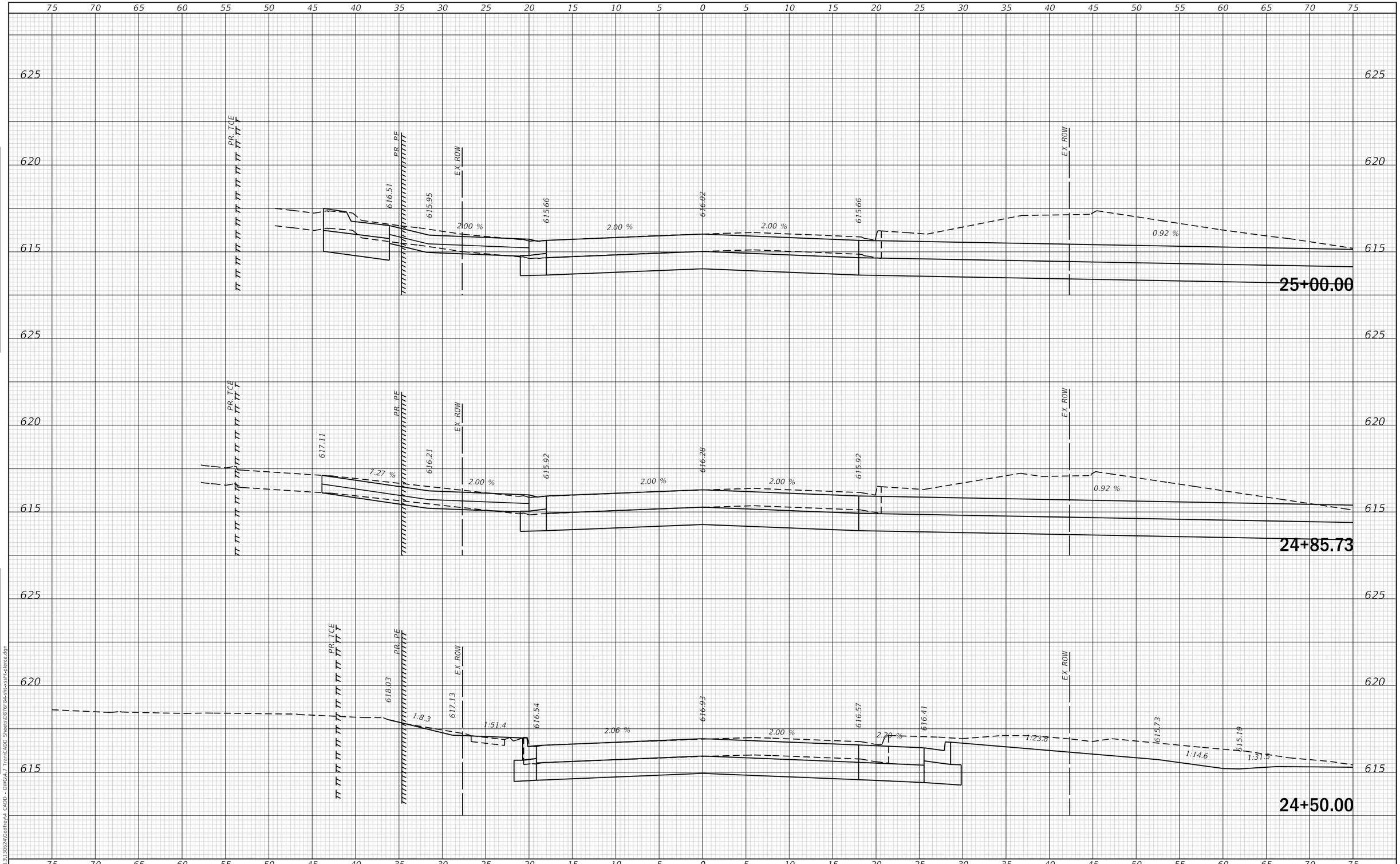
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
PIERCE

SCALE: 1"=5' | SHEET 3 OF 5 SHEETS | STA. 23+31.57 | TO STA. 24+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
PIERCE

SCALE: 1"=5' | SHEET 4 OF 5 SHEETS | STA. 24+50.00 | TO STA. 25+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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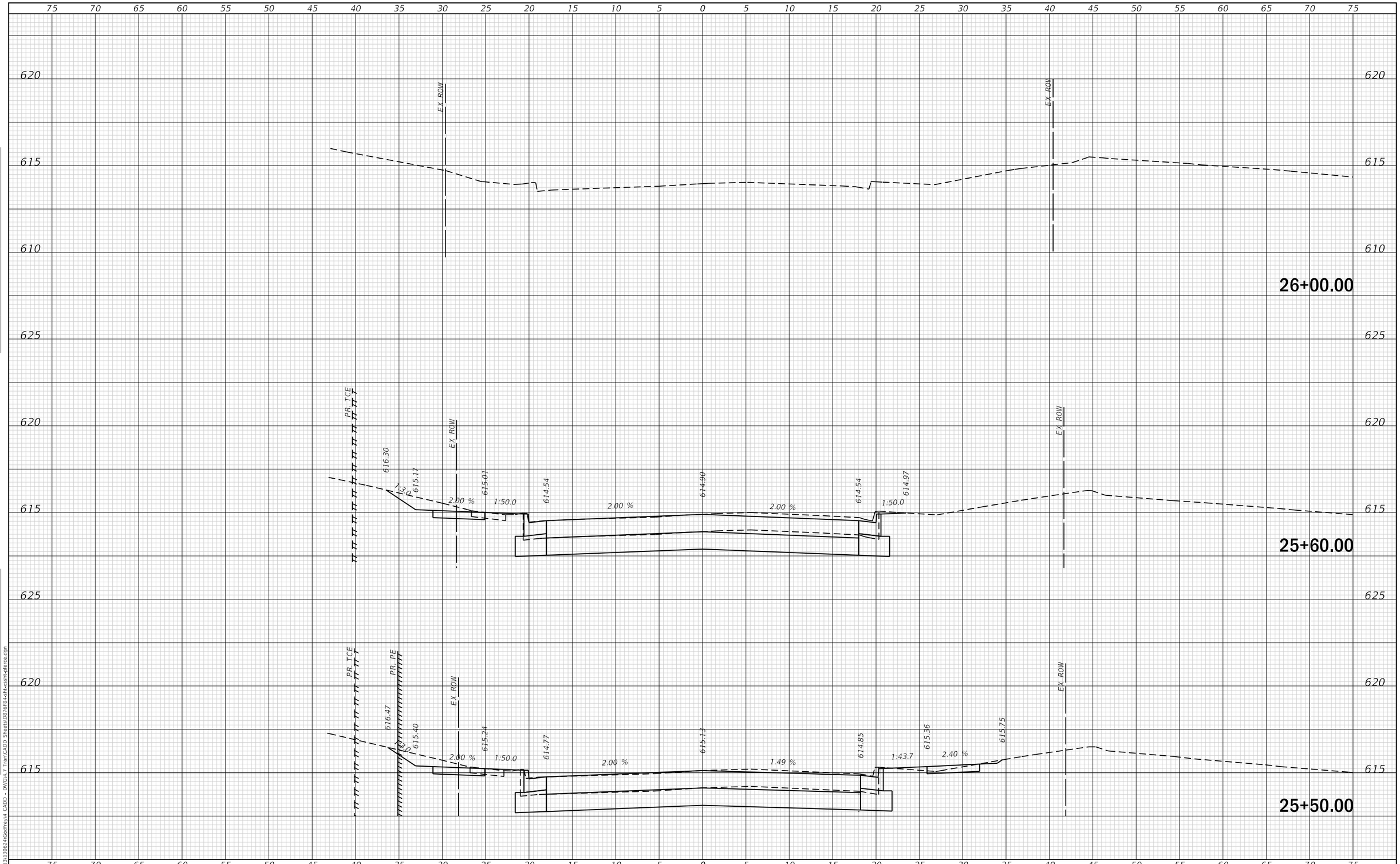

USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
PIERCE

SCALE: 1"=5' | SHEET 5 OF 5 SHEETS | STA. 25+50.00 | TO STA. 26+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

Default
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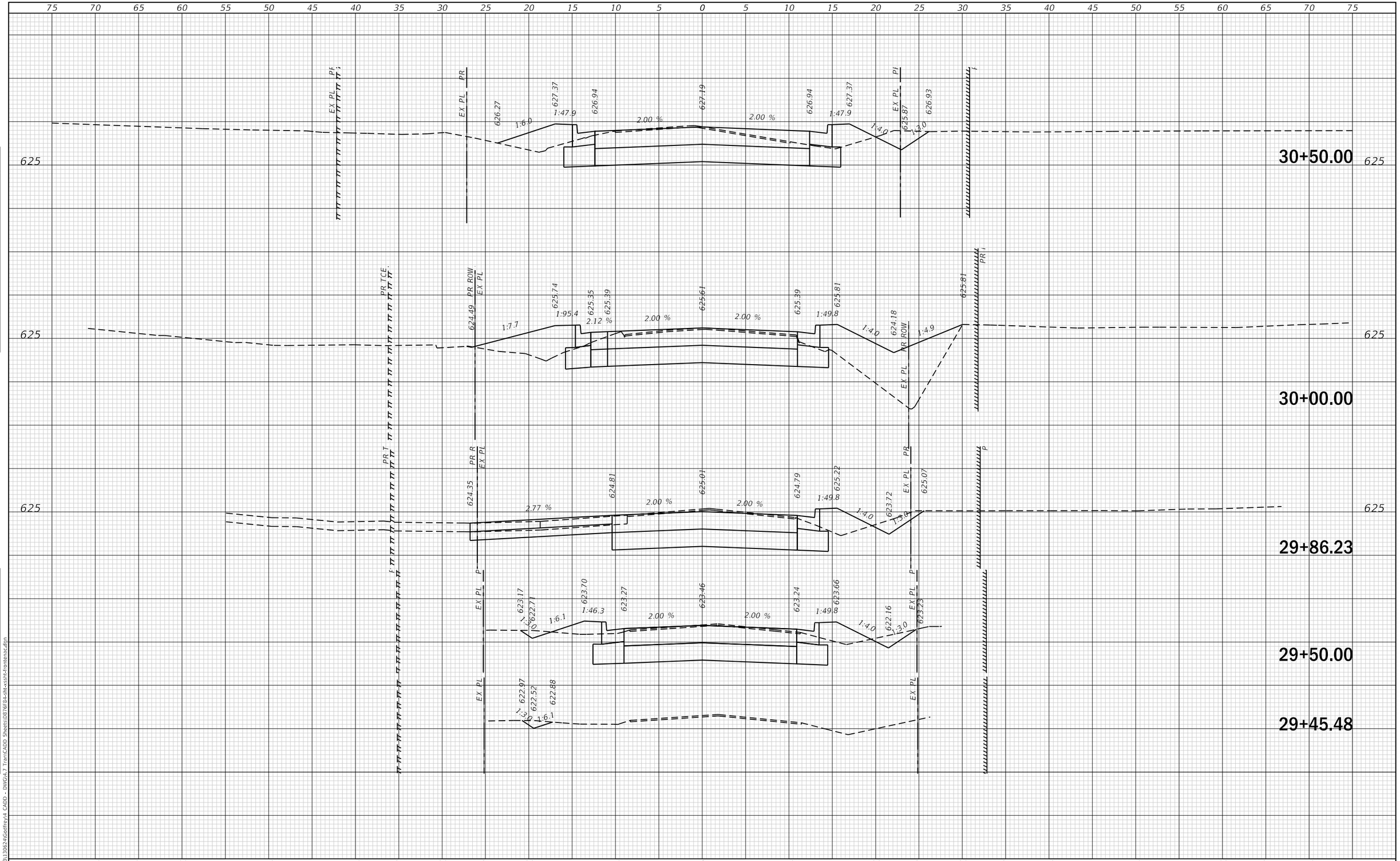

USER NAME = dlee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
FRONTENAC

SCALE: 1"=5' | SHEET 1 OF 3 SHEETS | STA. 29+45.48 | TO STA. 30+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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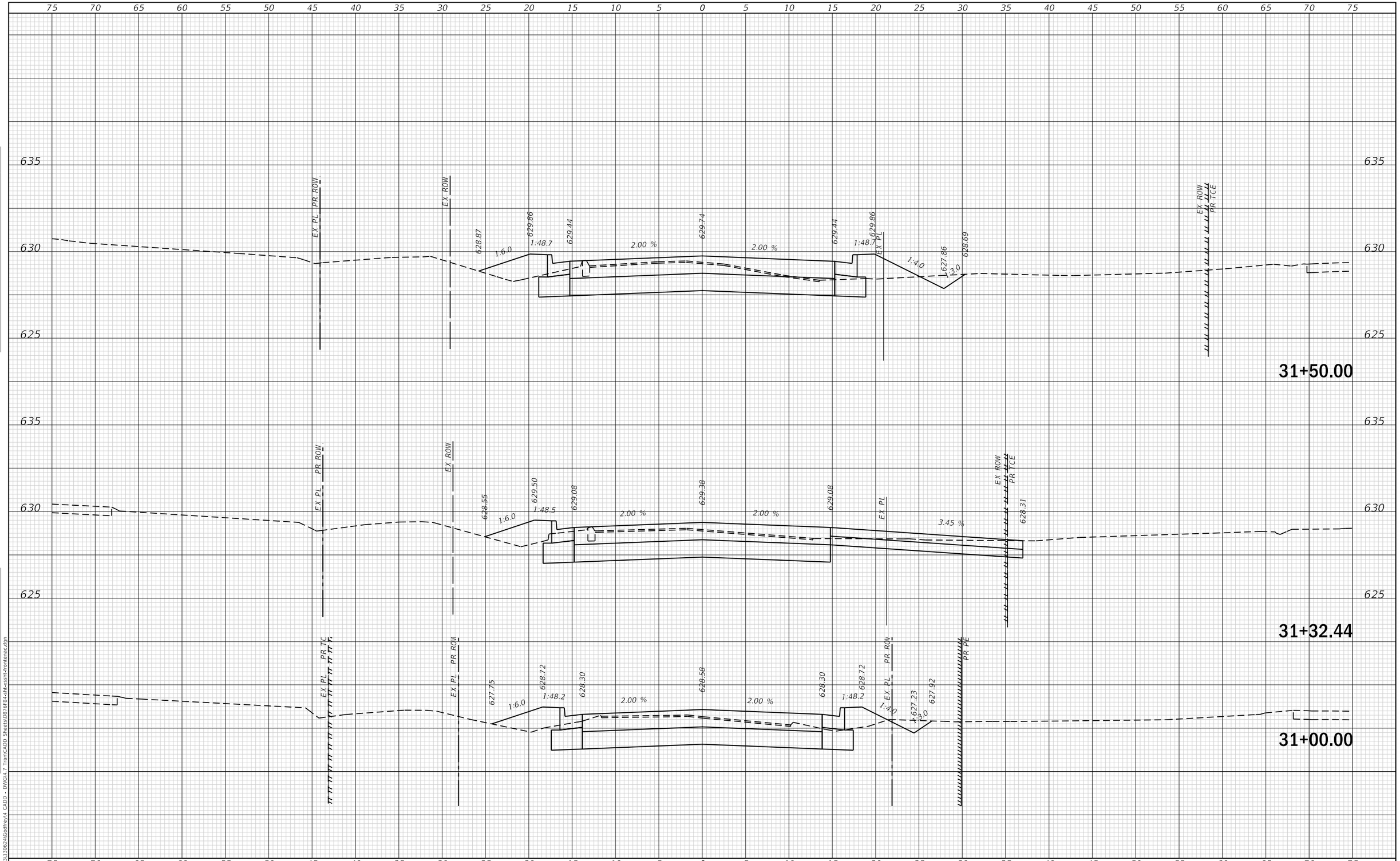

USER NAME = dlee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
FRONTENAC

SCALE: 1"=5' | SHEET 2 OF 3 SHEETS | STA. 31+00.00 | TO STA. 31+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

640

635

630

625

PR ROW
EX PL
631.77
631.02
631.37
2.30 %
631.15
EX ROW
1:43.7
630.63
1.55 %
630.95
0.94 %
631.06
0.15 %
631.05
EX PL
0.56 %
630.94
1.07 %
630.78
1:38.5
631.39
631.67
1:7.1
EX PL

32+36.95

EX PL PR R
630.69
629.84
630.83
EX RO
1:47.2
2.12 %
630.66
1:47.2
630.18
2.00 %
630.44
630.45
1.29 %
EX PL
630.22
1:40.8
630.73
2.54 %
1:38.7
630.96
1:4.6
629.93

32+00.00

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
FRONTENAC

SCALE: 1"=5' | SHEET 3 OF 3 SHEETS | STA. 32+00.00 | TO STA. 32+36.95

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

625 630 625 620

1:10.2 1:28.6 623.55 1:4.1 625.67 1.75 % 625.43 3.18 % 624.92

43+00.00

PR TCE PR ROW EX ROW EX ROW EX ROW PR ROW EX ROW

626.01 1:25 625.43 2.32 % 625.57 2.00 % 625.40 1:4.4 624.00 1:3.1 625.10

625 630 625 620

42+50.00

PR TCE PR ROW EX ROW EX ROW EX ROW PR ROW EX ROW

1:25 625.45 2.00% 625.56 2.00% 625.45 1:4 624.53 624.85 1:3

625

42+00.00

PR TCE PR ROW EX ROW EX ROW EX ROW PR ROW EX ROW

625.89 1:32 625.38 2.00% 625.49 2.00% 625.38 1:4 624.83

625

41+77.35

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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USER NAME = dfee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
NORWOOD

SCALE: 1"=5' | SHEET 1 OF 2 SHEETS | STA. 41+77.35 | TO STA. 43+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED

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626.56

2.56 %

625.71

2.59 %

623.92

43+24.73

625

620

USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

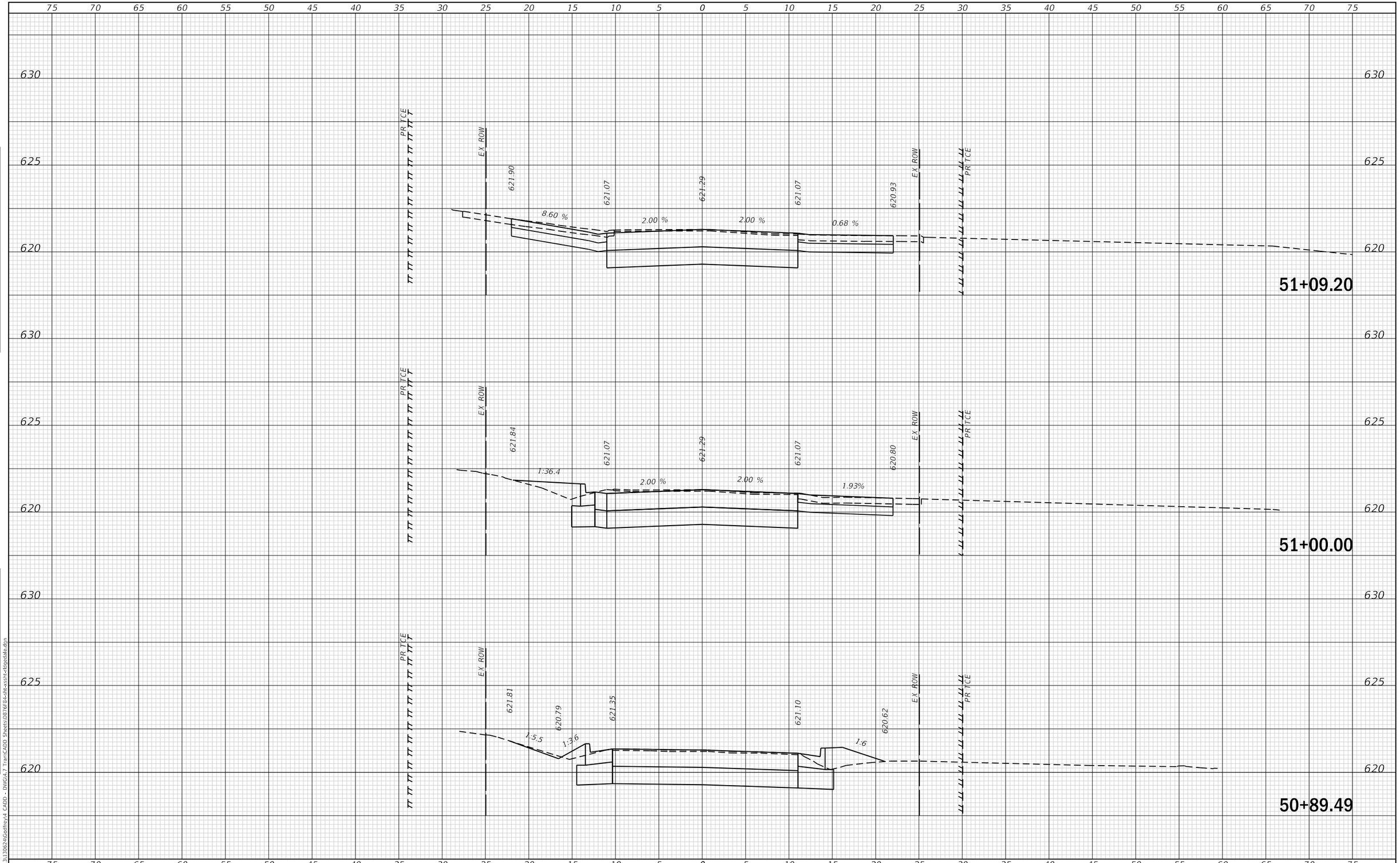
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
NORWOOD

SCALE: 1"=5' | SHEET 2 OF 2 SHEETS | STA. 43+24.73 | TO STA. 43+24.73

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
RIDGEDALE

SCALE: 1"=5' | SHEET 1 OF 4 SHEETS | STA. 50+89.49 | TO STA. 51+09.20

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

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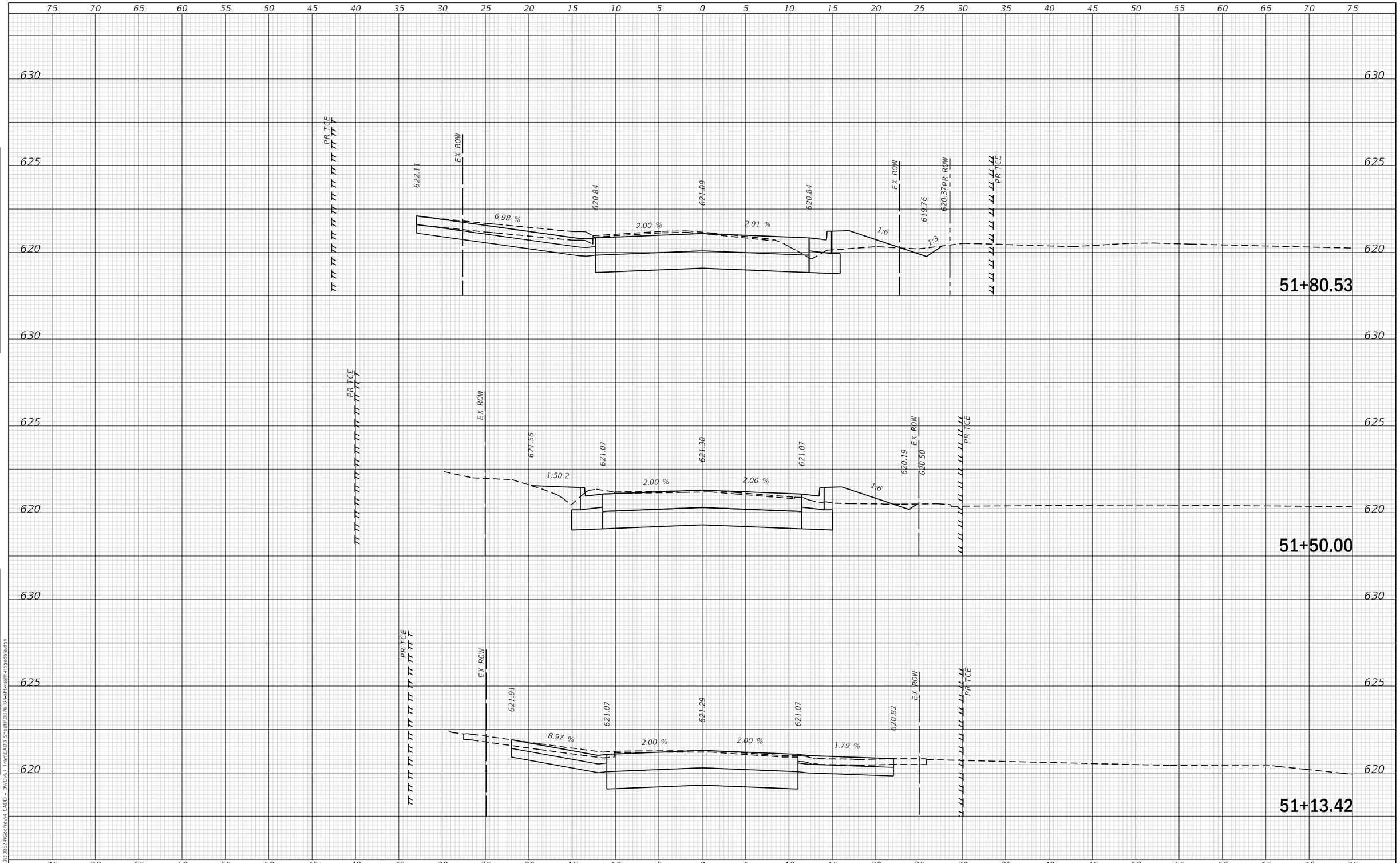

USER NAME = dlee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS**
	DRAWN - EKS	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	**CROSS SECTIONS**
PLOT DATE = 4/23/2020	DATE -	REVISED -	**RIDGEDALE**

SCALE: 1"=5' | SHEET 2 OF 4 SHEETS | STA. 51+13.42 | TO STA. 51+80.53

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

ORIGINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE — NO.

FINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE — NO.

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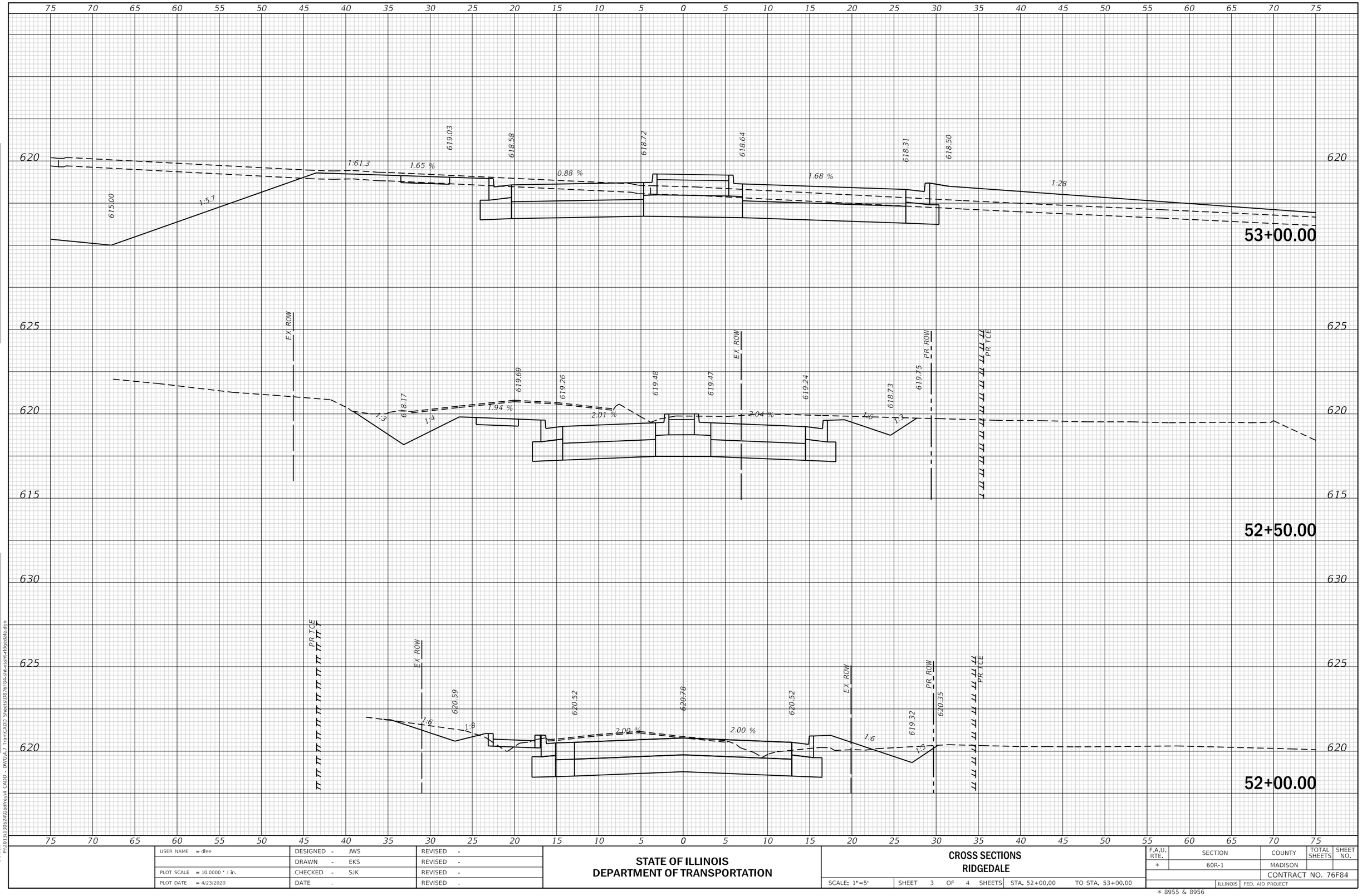


USER NAME = dlee	DESIGNED - JWS	REVISED -	**STATE OF ILLINOIS**
	DRAWN - EKS	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
RIDGEDALE

SCALE: 1"=5' | SHEET 3 OF 4 SHEETS | STA. 52+00.00 | TO STA. 53+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

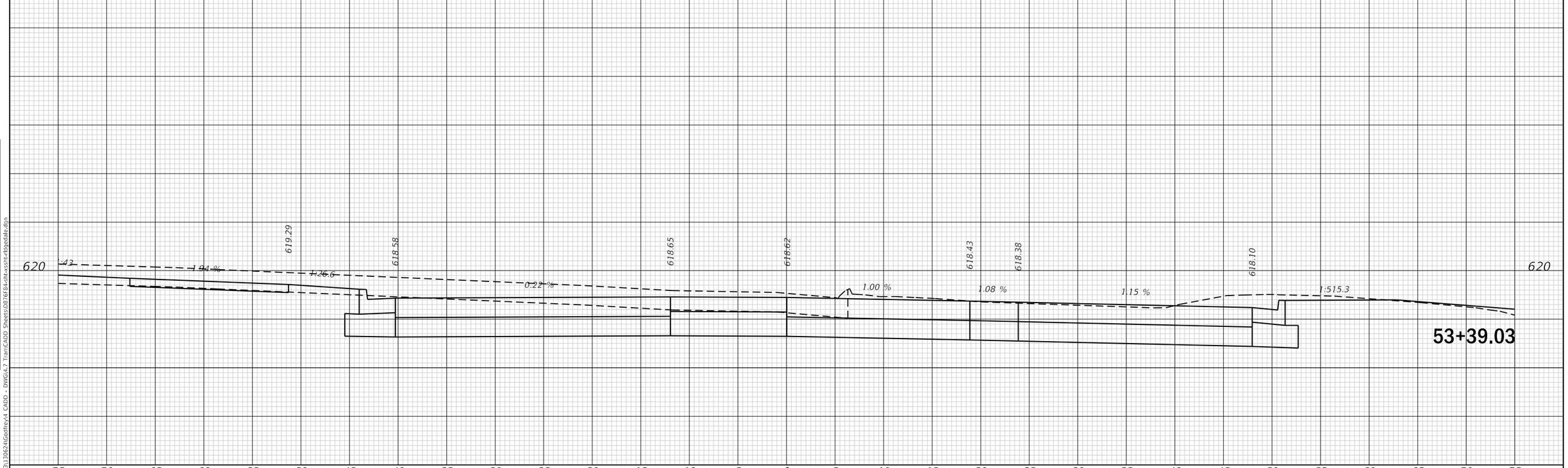
ORIGINAL SURVEY | NOTE BOOK | NO. | BY | DATE
SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

FINAL SURVEY | NOTE BOOK | NO. | BY | DATE
SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

Default P:\2013\13062A\Godfrey\4 CADD - DWG\4-7 Tran\CADD Sheets\D876F84-shts-xssht-ridgedale.dgn

FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED PLOTTED TEMPLATE AREAS AREAS CHECKED



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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

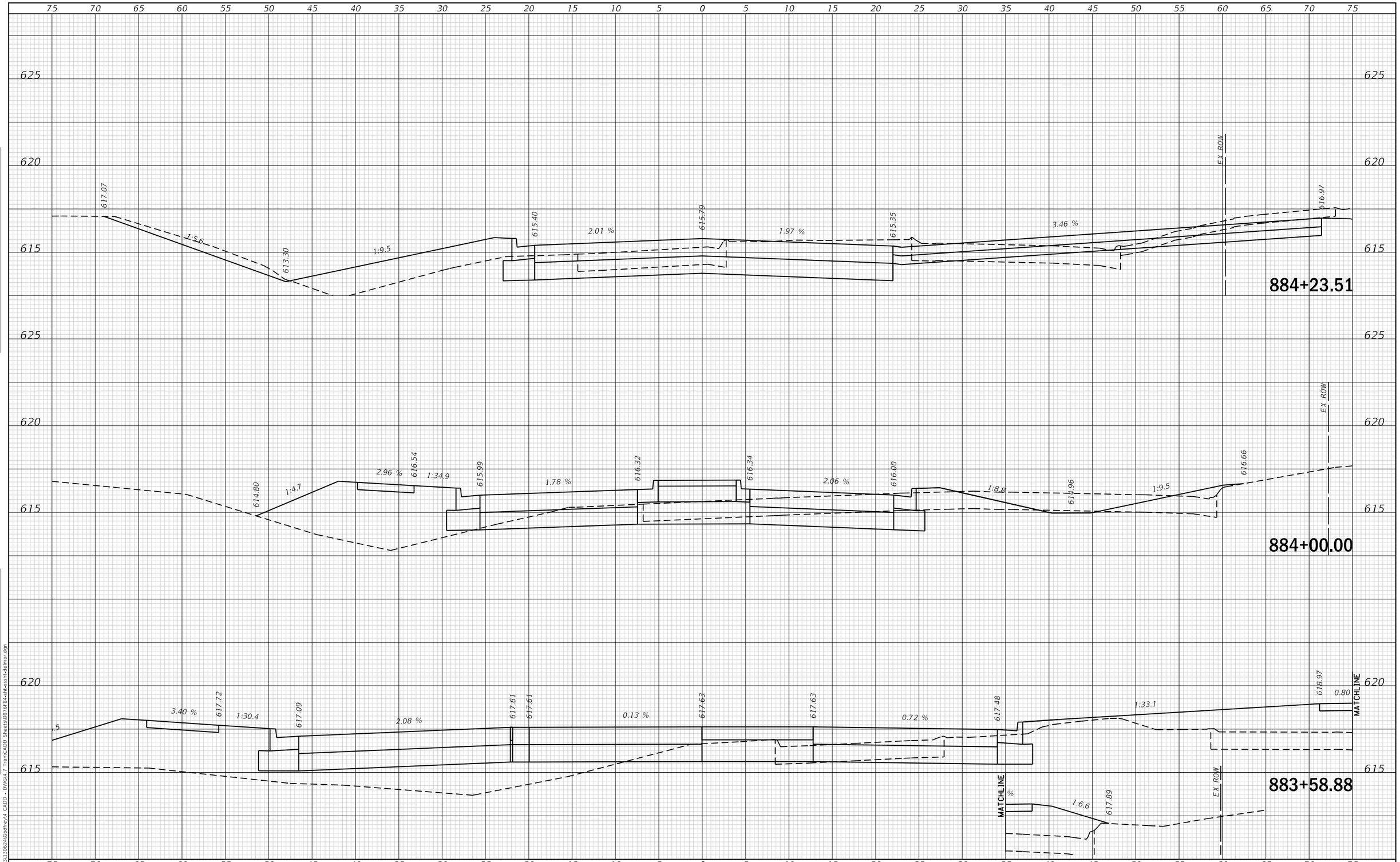
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
RIDGEDALE

SCALE: 1"=5' | SHEET 4 OF 4 SHEETS | STA. 53+39.03 | TO STA. 53+39.03

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
DELMAR

SCALE: 1"=5' | SHEET 1 OF 7 SHEETS | STA. 883+58.88 | TO STA. 884+23.51

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

DATE | BY | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | NOTE BOOK | NO.
FINAL SURVEY

ORIGINAL SURVEY

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FINAL SURVEY	NOTE BOOK	NO.
SURVEYED	PLOTTED	AREAS CHECKED
PLOTTED	TEMPLATE	
TEMPLATE	AREAS	
AREAS		
BY		
DATE		

ORIGINAL SURVEY	NOTE BOOK	NO.
SURVEYED	PLOTTED	AREAS CHECKED
PLOTTED	TEMPLATE	
TEMPLATE	AREAS	
AREAS		
BY		
DATE		

Default
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75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

620 615 610

EX ROW
614.10
1:3
610.82
1:10.0
613.58
2.00 %
613.91
2.00 %
613.47
1:13.8
614.31
EX ROW
PR TCE

885+00.00

620 615 610

EX ROW
615.74
1:3
611.25
1:9.3
613.98
2.00 %
614.31
2.00 %
613.87
6.28 %
615.70
EX ROW
PR TCE

884+81.82

625 620 615

PR TCE
EX ROW
616.33
1:3.5
611.81
1:7.6
614.75
2.00 %
615.08
2.03 %
614.63
1:29.8
616.17
EX ROW
PR TCE

884+50.00

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

USER NAME = dlee	DESIGNED - JWS	REVISED -
	DRAWN - EKS	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -
PLOT DATE = 4/23/2020	DATE -	REVISED -

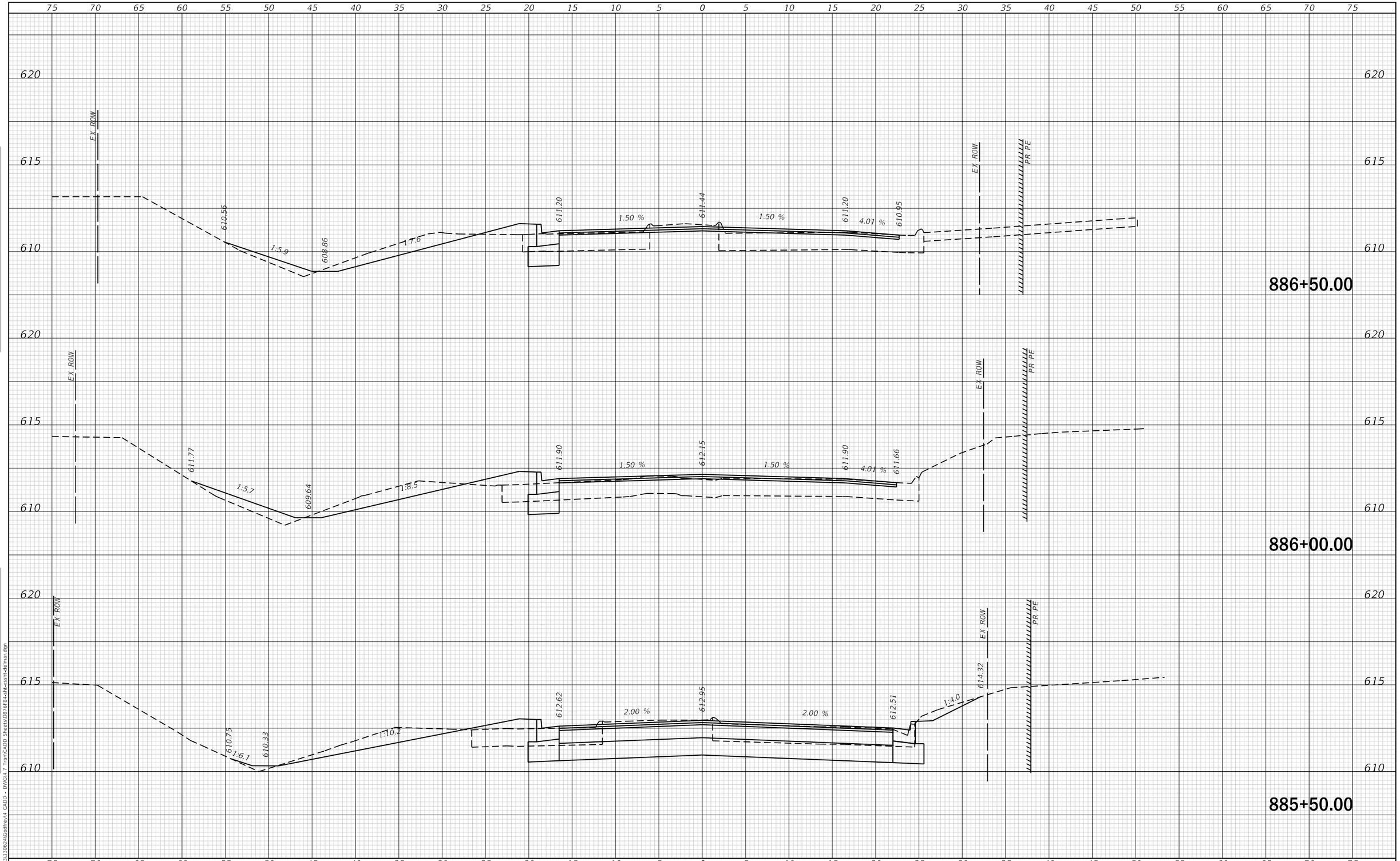
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
DELMAR

SCALE: 1"=5' | SHEET 2 OF 7 SHEETS | STA. 884+50.00 | TO STA. 885+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
DELMAR

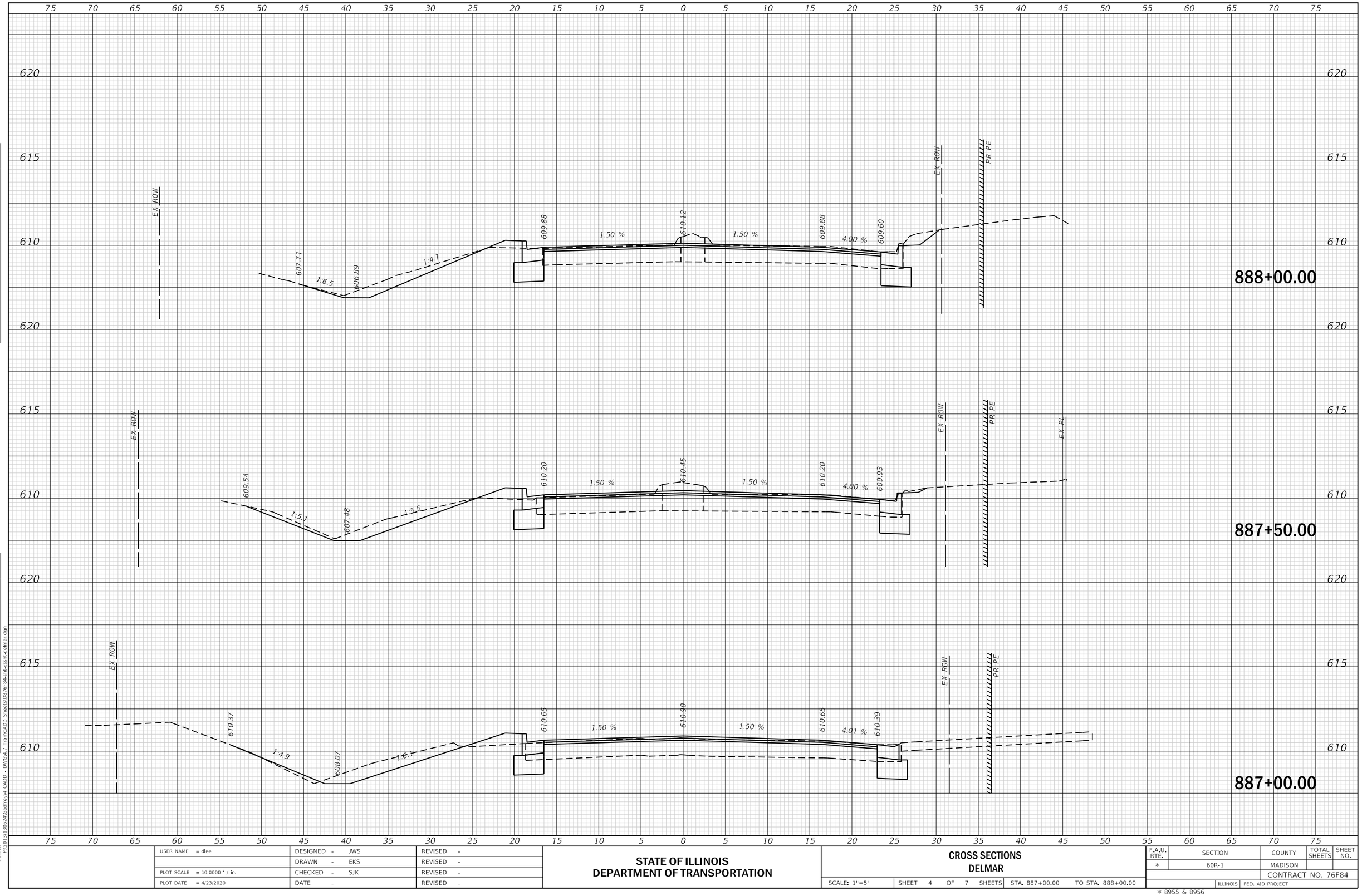
SCALE: 1"=5' | SHEET 3 OF 7 SHEETS | STA. 885+50.00 TO STA. 886+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

FINAL SURVEY / ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Default P:\2013\130624\Geofrey\v4 CADD - DWG\4.7 Tran\CADD Sheets\D876f84-sht-xsht-delmar.dgn



USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
DELMAR

SCALE: 1"=5' | SHEET 4 OF 7 SHEETS | STA. 887+00.00 | TO STA. 888+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY / ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

Default
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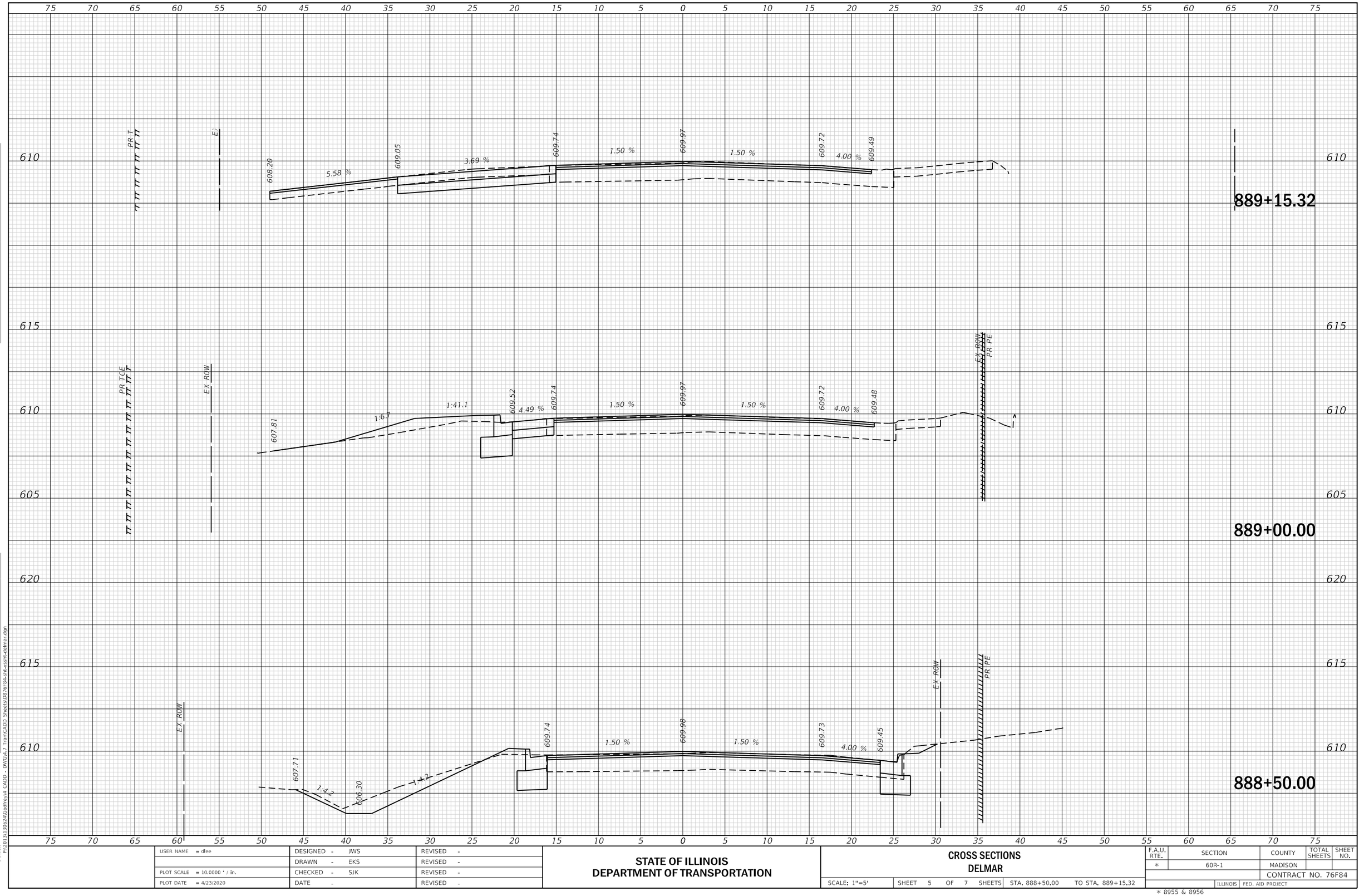

USER NAME = dlee	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

CROSS SECTIONS
DELMAR

SCALE: 1"=5' | SHEET 5 OF 7 SHEETS | STA. 888+50.00 | TO STA. 889+15.32

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

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75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

615
610
605

EX ROW

609.64 1.50 % 609.84 1.50 % 609.59 4.03 % 609.48

EX ROW

890+50.00

615
610

EX ROW

609.66 1.50 % 609.87 1.50 % 609.62 3.99 % 609.46

EX ROW

890+00.00

605
615
610

PR TCE

PR PE

EX ROW

606.28 1:3.4 604.86 1:3.6 609.74 1.50 % 609.95 1.50 % 609.71 4.00 % 609.50

EX ROW

889+50.00

605
615
610

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

FINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	DATE
	PLOTTED	BY
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	NOTE BOOK	NO.
	SURVEYED	DATE
	PLOTTED	BY
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

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USER NAME = dlee	DESIGNED - JWS	REVISED -	
	DRAWN - EKS	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - SJK	REVISED -	
PLOT DATE = 4/23/2020	DATE -	REVISED -	

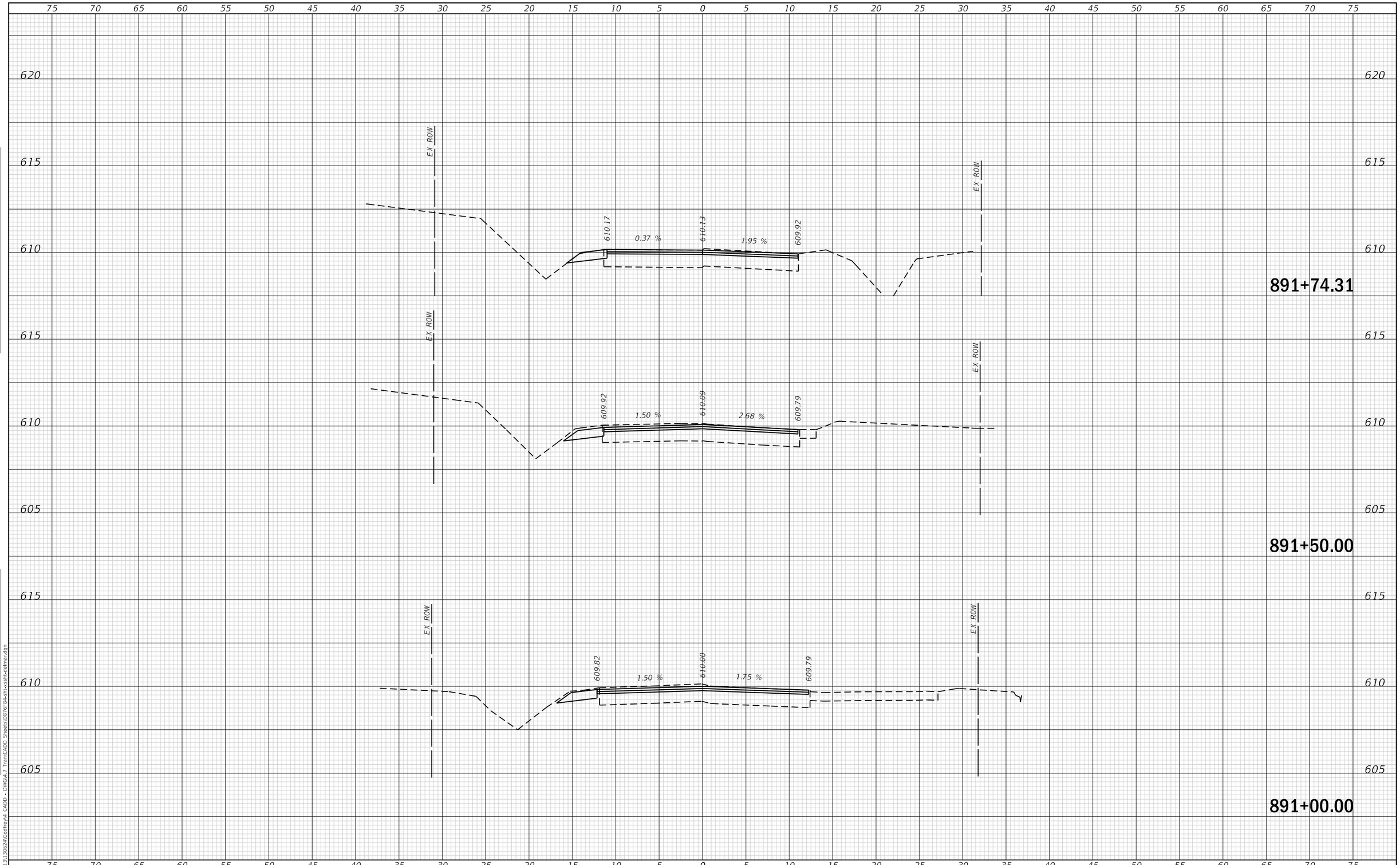
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
DELMAR

SCALE: 1"=5' | SHEET 6 OF 7 SHEETS | STA. 889+50.00 | TO STA. 890+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



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	DRAWN - EKS	REVISED -	
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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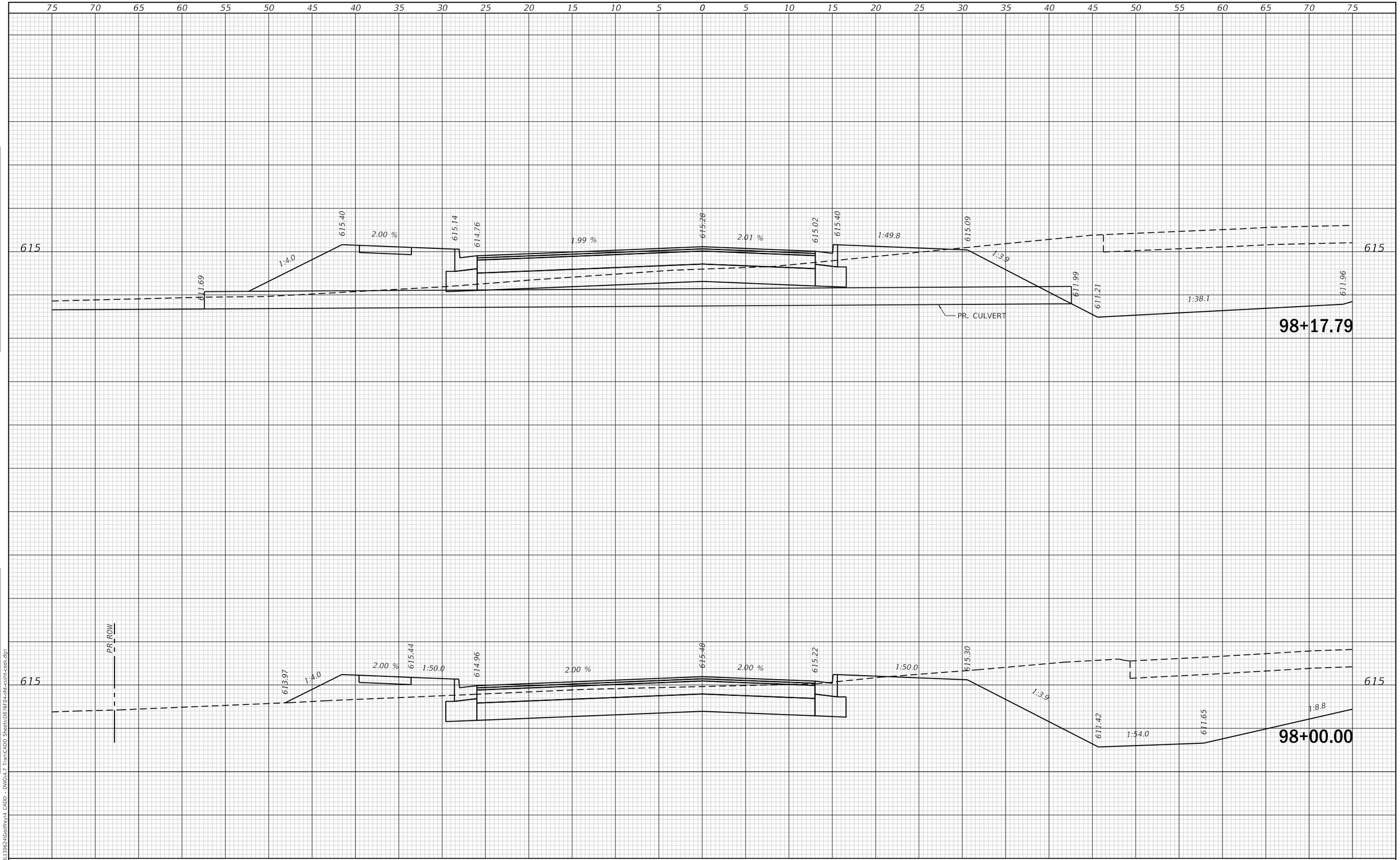

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
COOK

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		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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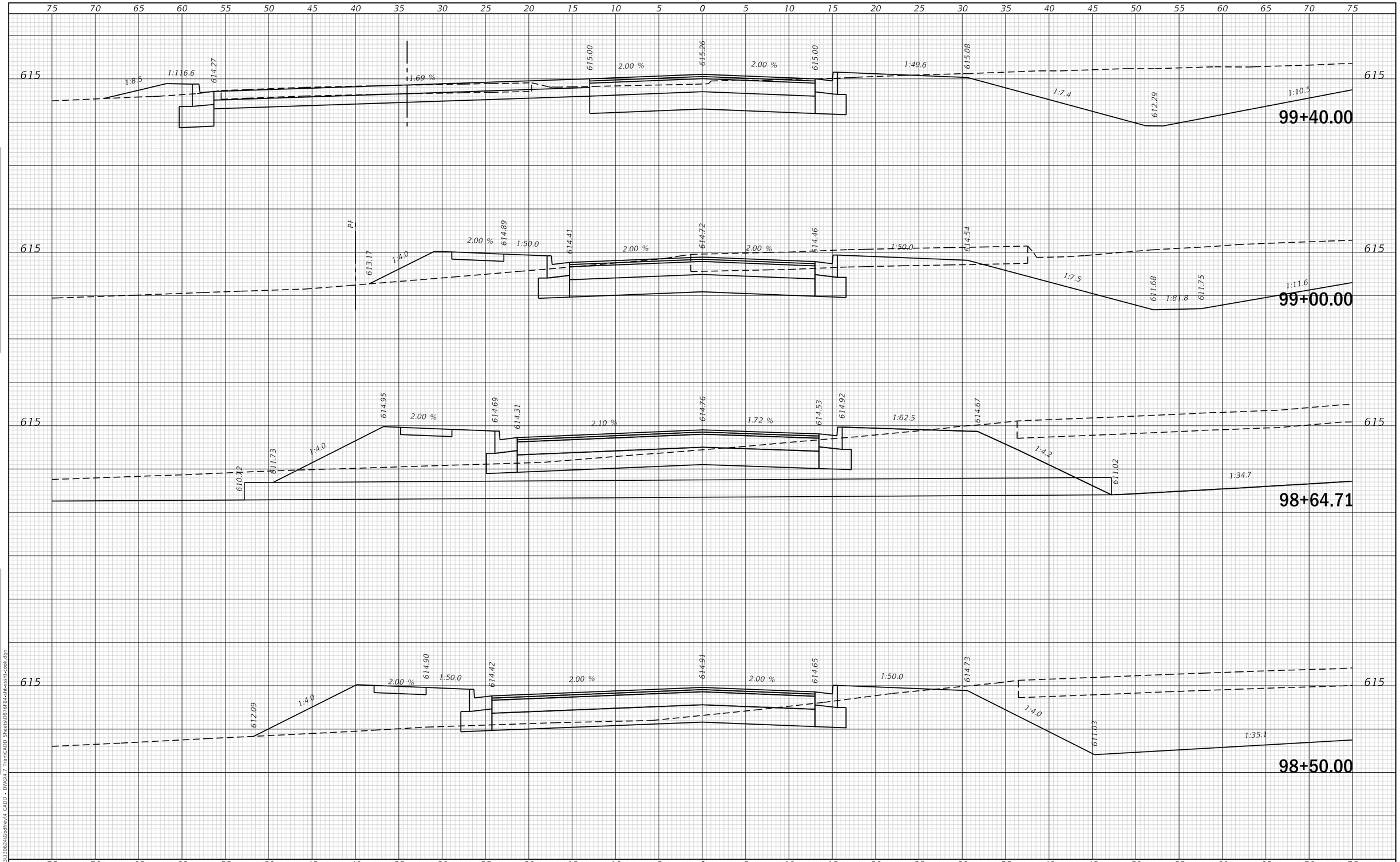

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CROSS SECTIONS
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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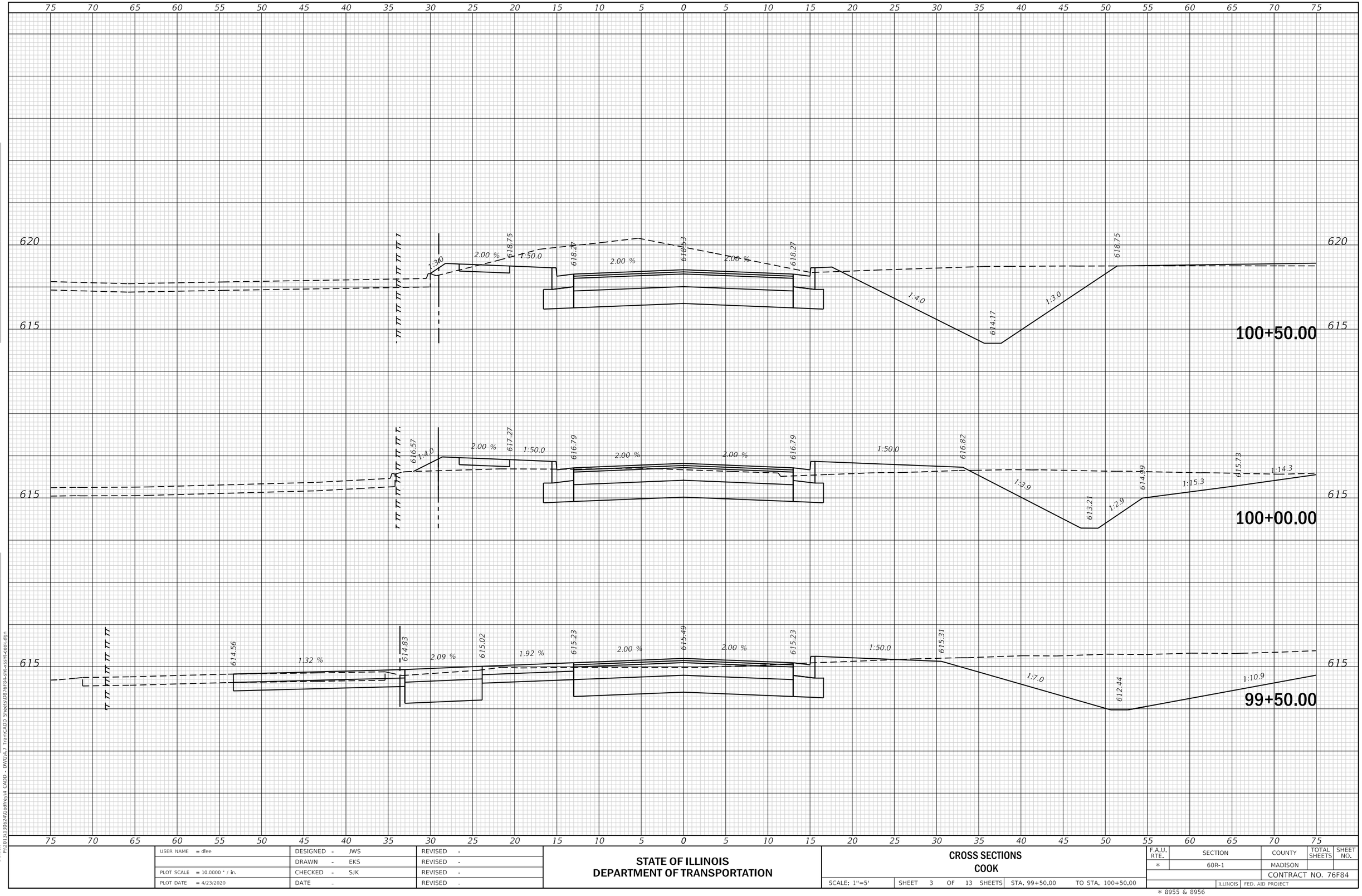

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CROSS SECTIONS
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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635 630 625 620

PR TCE

PR ROW

626.43

1:3.0

2.00 %

621.28

1:50.0

620.80

2.00 %

621.06

2.00 %

620.80

1:4.0

617.10

EX ROW

EX. COOK ST - TBR

102+00.00

PR

PR

623.94

1:3.0

2.00 %

620.49

1:50.0

620.01

2.00 %

620.27

2.00 %

620.01

1:4.0

616.12

1:8.9

101+50.00

620.77

1:3.0

2.00 %

619.70

1:50.0

619.22

2.00 %

619.48

2.00 %

619.22

1:4.0

615.14

1:3.0

620.96

101+00.00

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

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CROSS SECTIONS
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* 8955 & 8956

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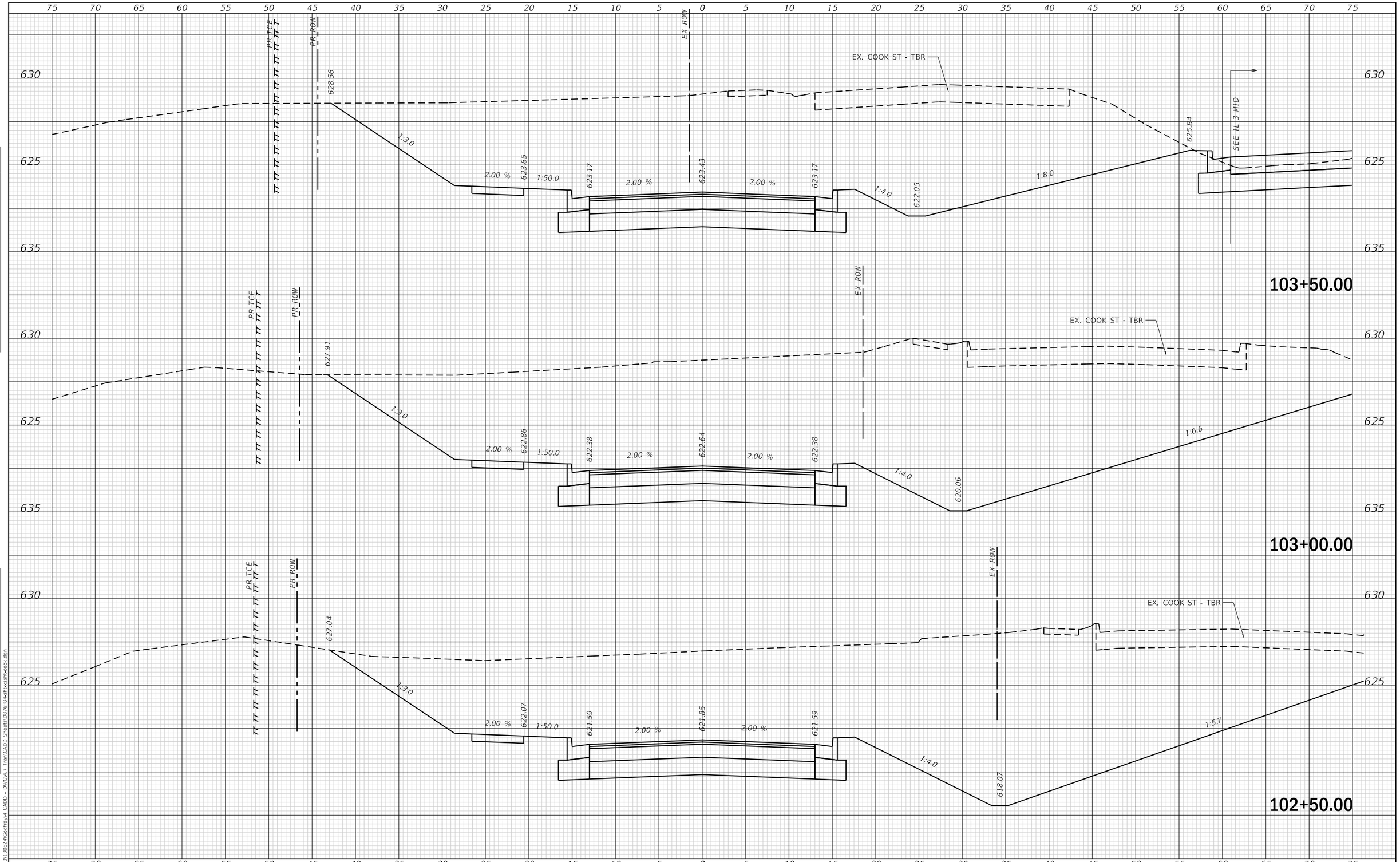

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 5 OF 13 SHEETS | STA. 102+50.00 TO STA. 103+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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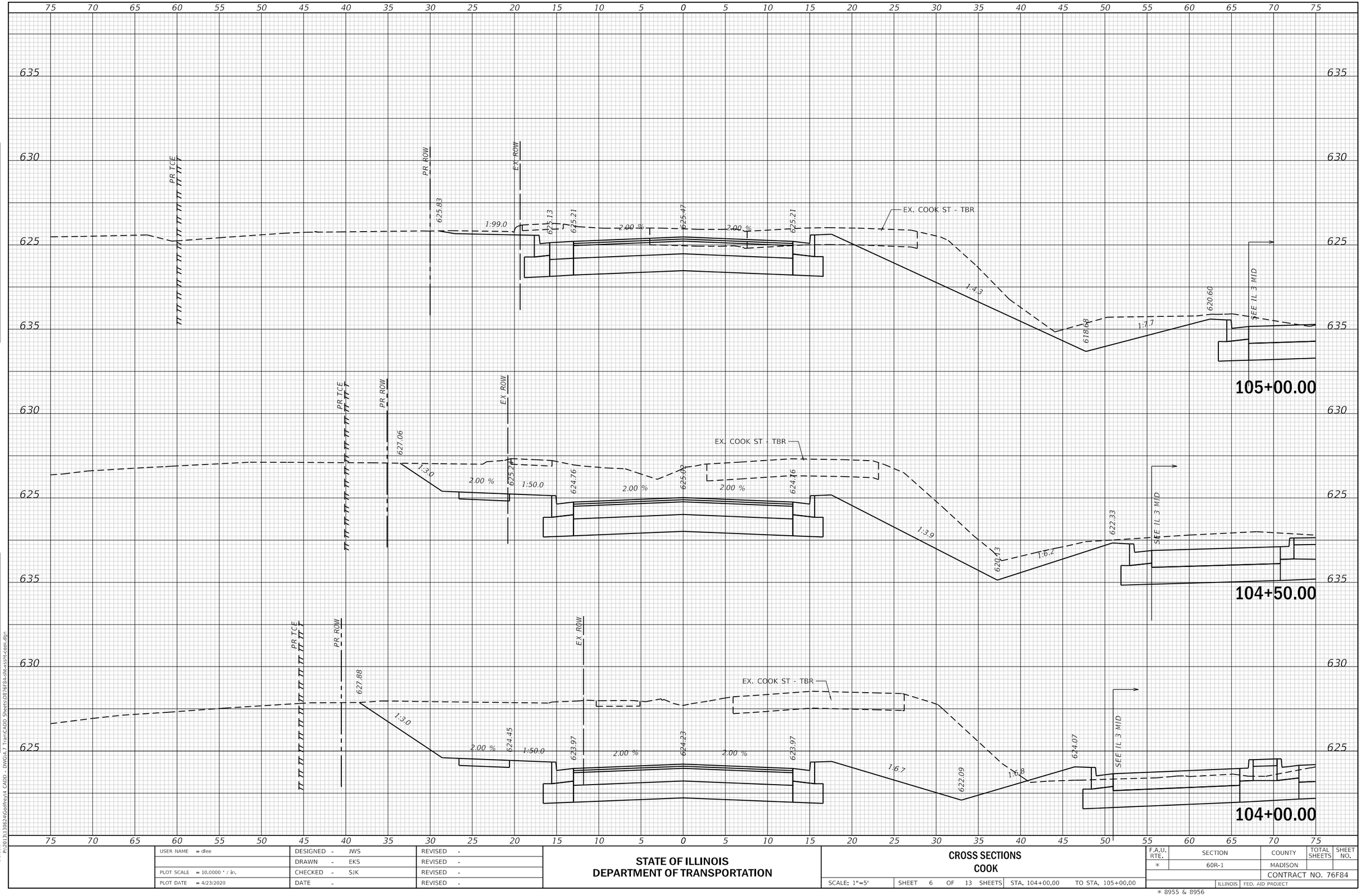

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 6 OF 13 SHEETS | STA. 104+00.00 | TO STA. 105+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY / ORIGINAL SURVEY
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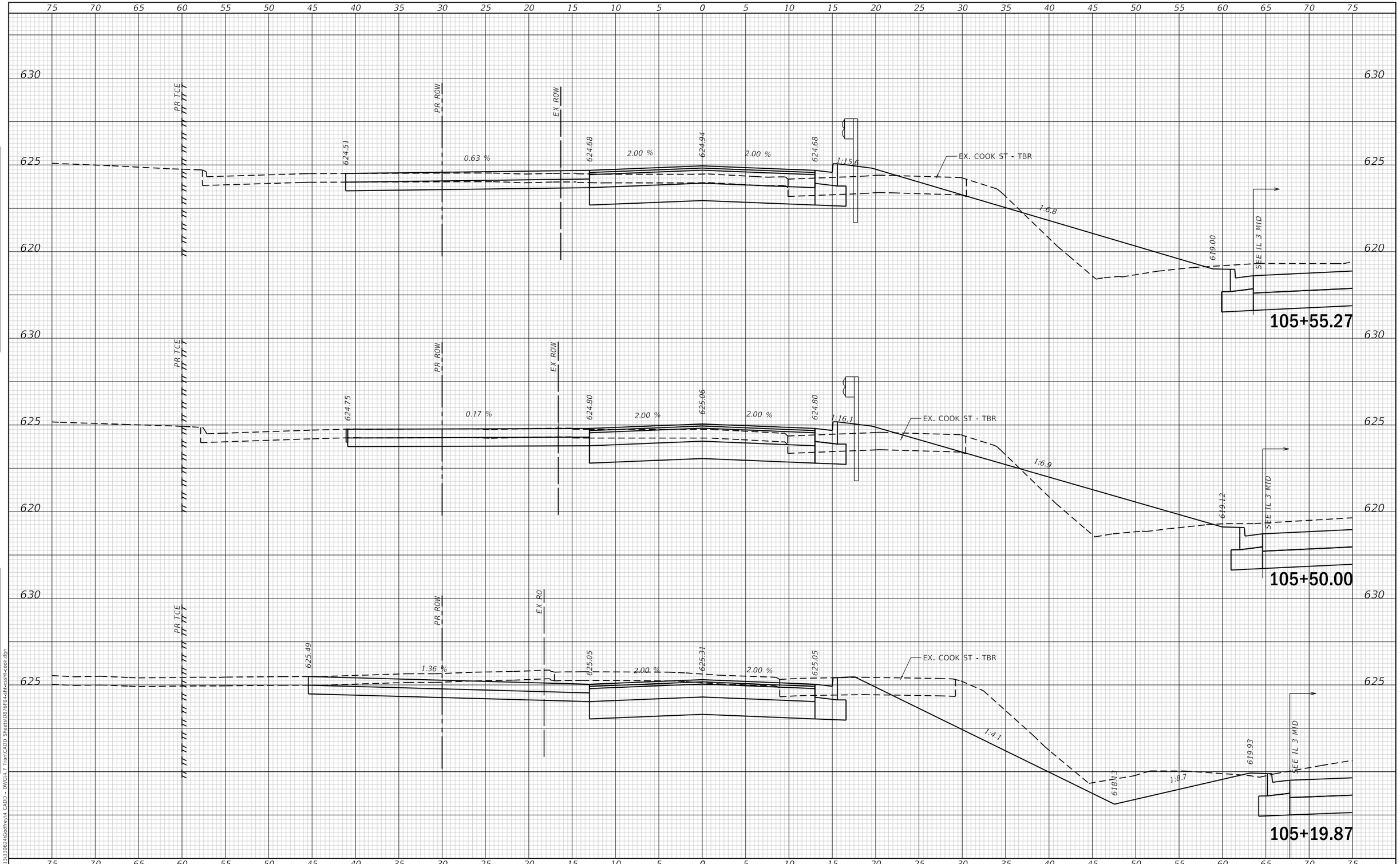

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 7 OF 13 SHEETS | STA. 105+19.87 | TO STA. 105+55.27

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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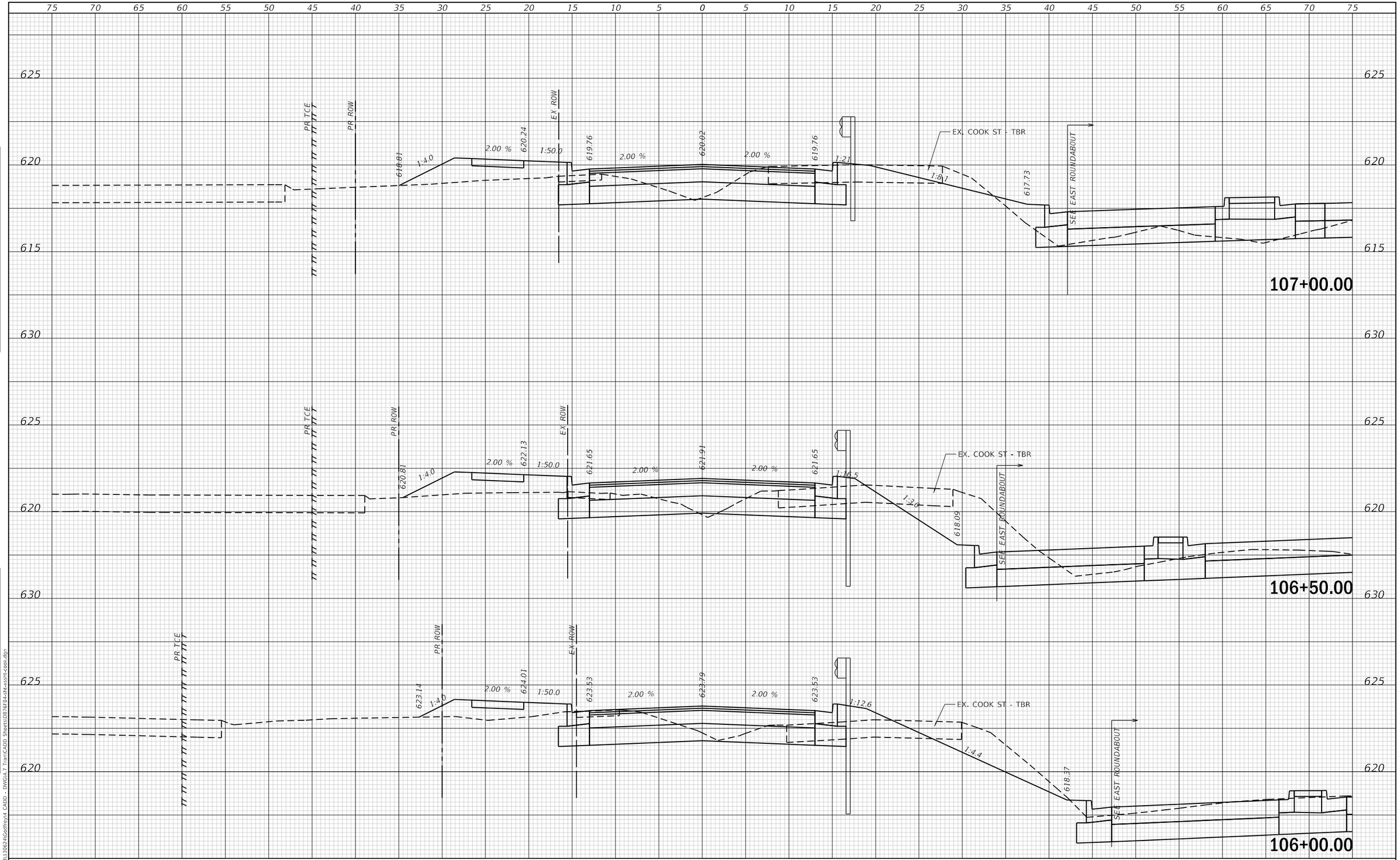
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956



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CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 8 OF 13 SHEETS | STA. 106+00.00 | TO STA. 107+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

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CROSS SECTIONS
COOK

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

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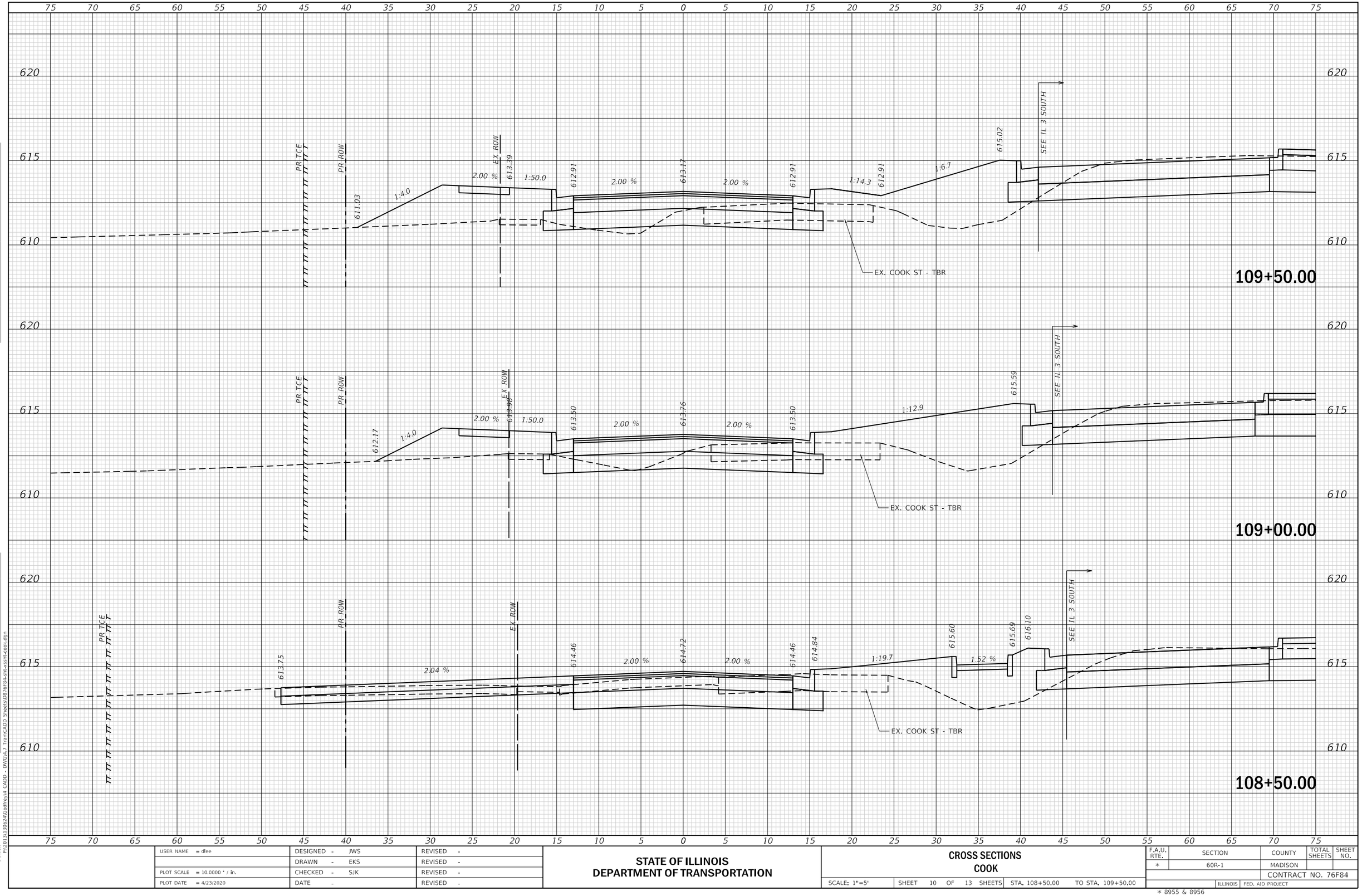

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 10 OF 13 SHEETS | STA. 108+50.00 | TO STA. 109+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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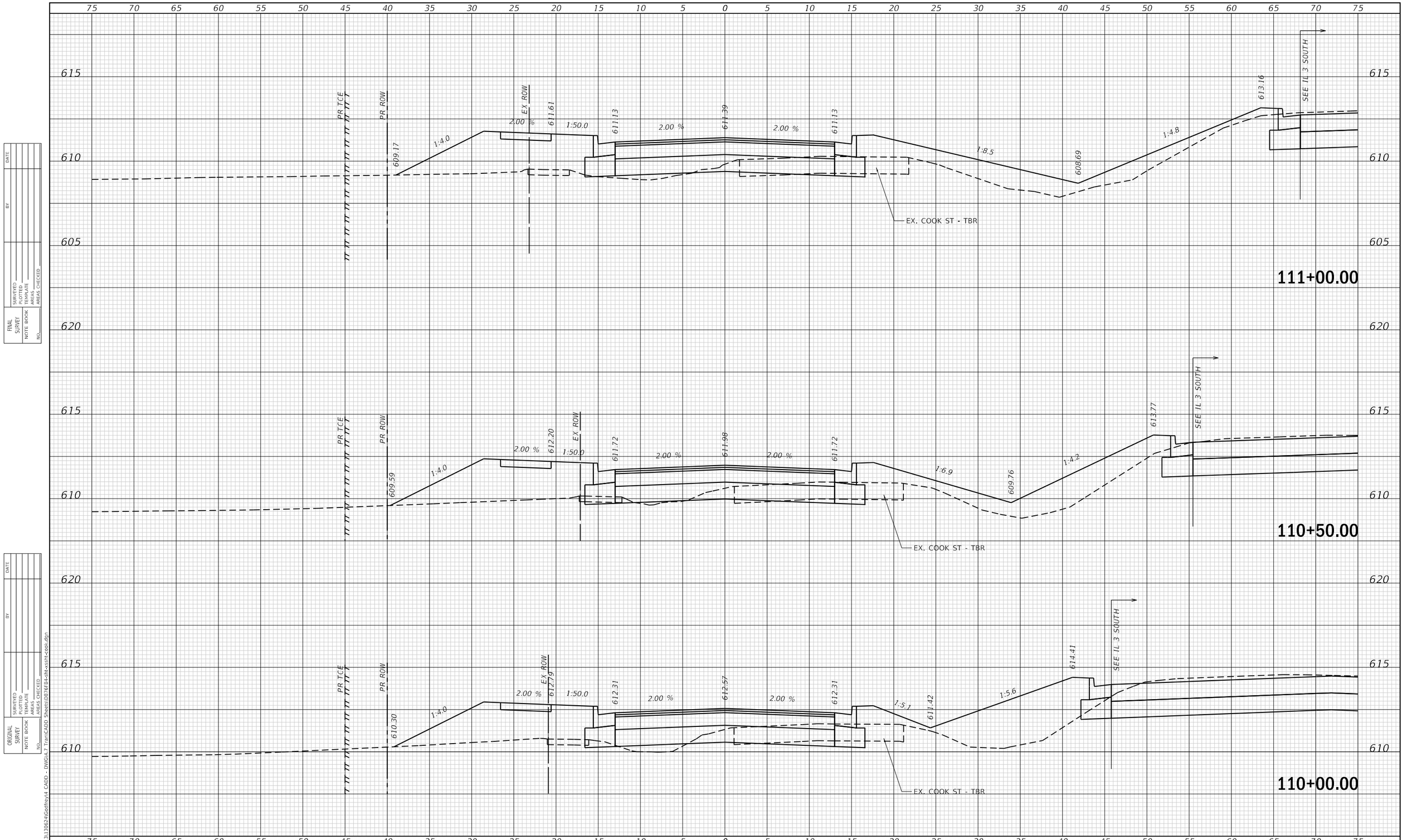

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
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SCALE: 1"=5' | SHEET 11 OF 13 SHEETS | STA. 110+00.00 TO STA. 111+00.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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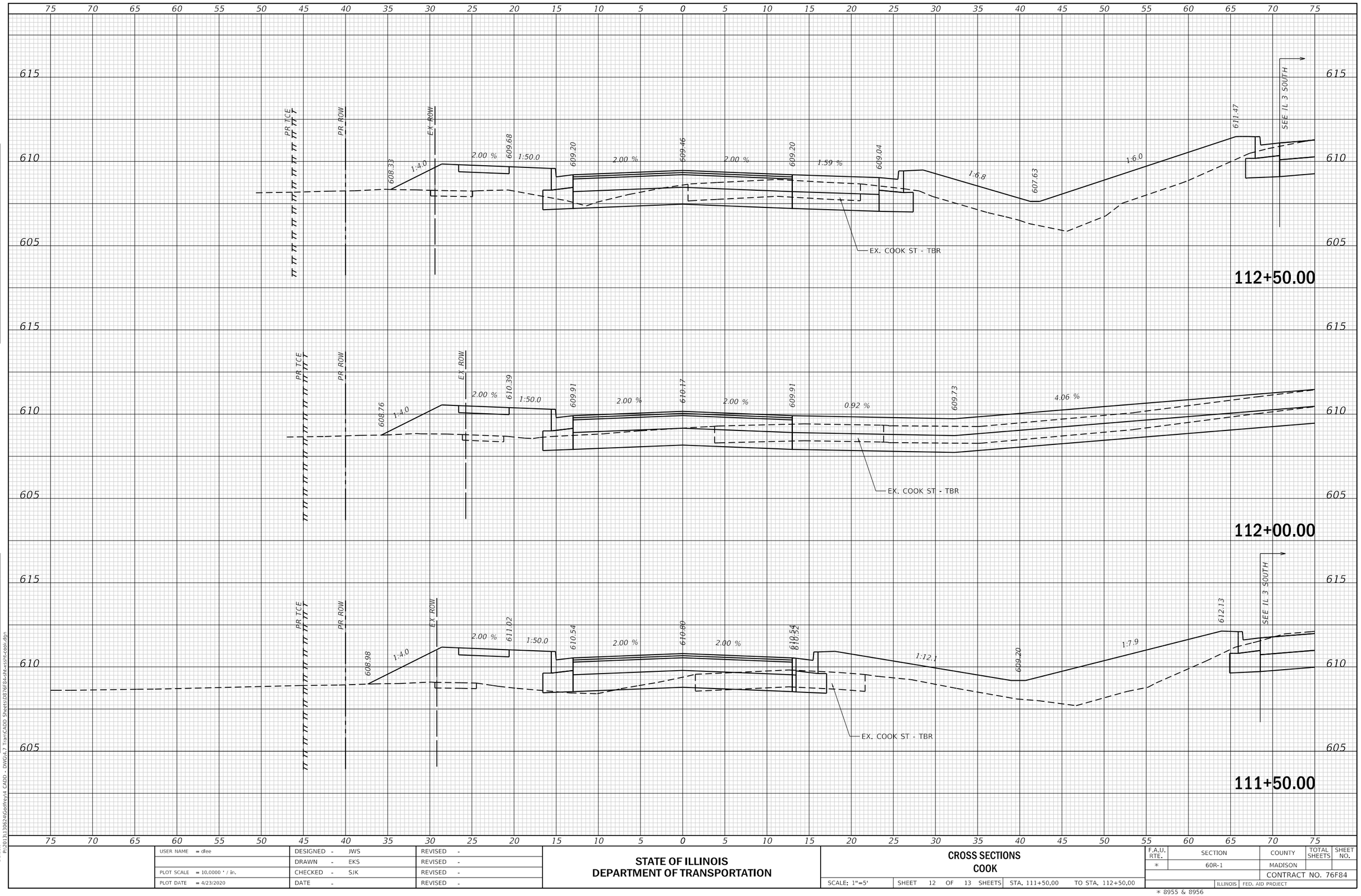

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CROSS SECTIONS
COOK

SCALE: 1"=5' | SHEET 12 OF 13 SHEETS | STA. 111+50.00 TO STA. 112+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

* 8955 & 8956

FINAL SURVEY | ORIGINAL SURVEY
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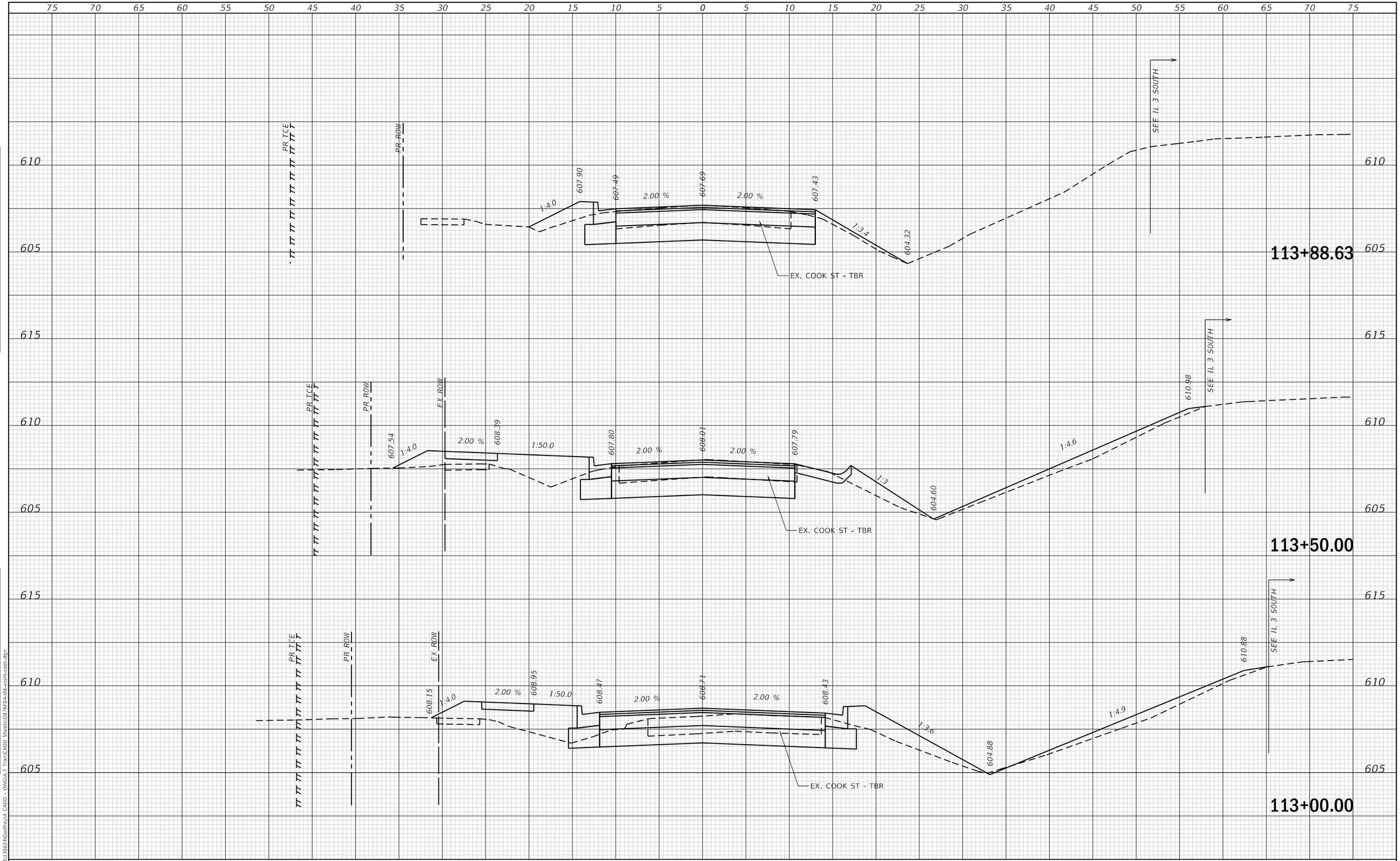

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

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EXHIBIT G – LDS

LOCATION
DRAINAGE STUDY

FAU Route 8955 & FAU Route 8956
(IL Route 3 at Delmar Ave. & Pierce Lane)
Section 60R-1
Contract No. 76F84
Job #: P-98-071-13
PTB 169-036

Madison County, Illinois

January 2, 2018

PREPARED FOR:

Illinois Department of Transportation

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, IL 62234

SUBMITTED BY:

THOUVENOT, WADE & MOERCHEN, INC.
4940 OLD COLLINSVILLE ROAD
SWANSEA, IL 62226
618-624-4488

Table of Contents

List of Attachments

I. EXECUTIVE SUMMARY

This project generally consists of the reconstruction of two signalized intersections as roundabout intersections along Illinois Route 3 in Godfrey, Illinois. Additionally, the adjacent frontage road, Cook Street, will be reconstructed in order to accommodate the proposed geometry of the new dual roundabout intersection configuration.

The purpose of this drainage study is to investigate the existing drainage patterns to establish a basis for judging the adequacy of existing drainage facilities within the project limits. Additionally, this study will determine drainage patterns for the proposed conditions and determine the general type, size and location of all drainage facilities required to accommodate the local drainage conditions in accordance with applicable design requirements.

The analysis of the existing conditions shows that most of the existing drainage facilities, storm sewers and ditches, within the study limits are adequate for the design storm. There are a few design criteria that are not met. These deficiencies are detailed later in this document. Of the existing deficiencies, the most notable is the inadequacy of three inlets just east of the project limits on Delmar Ave. The calculated flows to these inlets, based on available data, shows that these inlets could not accept the design flow, and therefore most of the eastbound lane would be flooded during the 10-year storm event. During a site visit on July 27, 2017, the adjacent business/property owner noted that this area of roadway does flood “once in a while”, and when it does, it floods the entrance at approximate Sta. 891+00 RT. The Village of Godfrey also has a documented complaint in this area. This observation by the property owner validates the findings of the analysis.

The area east of Pierce Lane and north existing Cook St. currently sheet flows to an open throat area inlet which is part of an existing underground storm sewer system that drains Surrey Court and surrounding areas. Due to the new geometry for realigned Cook St., this drainage area would see an increase in impervious area and therefore would increase the runoff rate to this inlet. In order to avoid this increase, the proposed design incorporates a small detention basin between Pierce Lane and realigned Cook St. The detention basin will control the release of runoff generated from the additional impervious area so as not to increase the runoff rate to the existing inlet.

The analysis of the proposed drainage facilities, both storm sewers and ditches, shows that the proposed design meets all design criteria with the exception of a minor few deficiencies, which are detailed later in this document.

In conclusion, the drainage design, detailed in this document and various attachments, will provide adequate drainage for the design storm(s) for the proposed reconstruction of the two intersections and their approach legs.

II. REPORT ORGANIZATION

Throughout this report and various attachments, drainage facilities are identified by either a pipe number or an inlet/structure number. The numbering convention used has three characters separated by dashes, and each character gives different information for the inlet/pipe. The first character will be an “E” or “P” defining existing vs. proposed. The second character is the

network number, Network 0 through 7. The final character is the structure/inlet number within that network. For example, Inlet E-1-3 is an existing inlet (E), in network 1 (01) and is the 3rd inlet/structure in the network (3).

All existing drainage facilities are identified in Attachment 03 and the proposed drainage configuration is identified in Attachment 06. Since the drainage plan and profiles only show storm sewer profiles for trunk lines that run along a given roadway section, Attachments 04 and 07 are provided to detail the calculated Hydraulic Grade Lines for each run of storm sewer pipe.

For clarity, all existing and proposed drainage areas are shown in Attachments 02 and 05.

All necessary calculations are provided in Attachments 08 through 16.

III. DESIGN CRITERIA

Hydrology

All drainage areas for inlets and culverts within the study limits are well below 200 acres, therefore the Rational Method will be used to determine all peak runoff rates in accordance with Section 4-102 of the IDOT Drainage Manual.

The runoff coefficient will be determined for each drainage area based on the specific topography, land use and surface characteristics according to Table 4-012a. For watersheds with varying characteristics, a weighted runoff coefficient will be determined to serve as an average representation of the entire watershed.

The time of concentration will be determined for each drainage area and will be used to determine the rainfall intensity from the applicable I-D-F curve (Figures 4-102b through k). The time of concentration will be obtained by determining the total travel time of overland flow, shallow concentrated flow, and open channel flow for the longest (travel time not distance) drainage path within the drainage area. For smaller drainage areas, a minimum time of concentration of 5 minutes will be used, in accordance with Section 8-008.02 of the Drainage Manual.

The rainfall intensity data used for the Rational Method is obtained from Figure 4-102k (Southwest Illinois) of the Drainage Manual. Specifically, since this project is located in Madison County, the data for the St. Louis Urban Effect for Madison County will be used. This adjusted data accounts for an anomaly around the St. Louis Urban area that increases rainfall amounts downwind of the city.

Storm Sewer Inlets

All storm sewer inlets within the study limits will be evaluated for the 10-year flood frequency in accordance with Table 1-305.

The maximum inlet spacing shall not exceed 250 feet and the maximum calculated depth of flow shall not exceed 0.30 feet. Specifically, inlet spacing and location will be determined by

considering the maximum allowable encroachment into the adjacent travel lane in accordance with Section 8-201 (summarized below):

1. Sections with full shoulders (6 ft or more) - no encroachment. Width of spread is limited to the shoulder width.

2. Sections with permanent parking lane - no encroachment. Width of spread is limited to the parking lane.

3. Sections with one lane each direction - allow a maximum encroachment of 4 ft. EXCEPTION: When the surface width (face to face) is less than 30 ft, allow a maximum encroachment of 3 ft.

4. Sections with two (2) or more lanes in each direction – allow a maximum encroachment of one half (1/2) traffic lane. EXCEPTION: Where traffic volumes exceed the maximum specified for the indicated level of service, as determined from policies included in the Bureau of Design and Environment Manual, allow a maximum encroachment of 4 ft.

5. Sections with three (3) or more lanes in each direction and one (1) lane draining to the median - allow a maximum encroachment of 4 ft on the median side. Allow a maximum encroachment of one half (1/2) traffic lane on the outside (right) lane.

6. When traffic is extremely high, the District may select a more stringent level of protection and allow only a maximum encroachment of 3 ft on the traveled lane.

There are several different roadway sections with the study limits, so the maximum allowable encroachment will vary depending on which roadway is being considered.

Storm Sewer Pipes

Storm sewers will be sized to carry the 10-year design flow, except for storm sewers that collect and convey ditch flows, which will be sized to carry the 50-year design flow.

Hydraulic grade lines represent the theoretical level of the water within the system during operation and will be determined to aid in the evaluation of the storm sewer design. The storm sewer outlets will have an assumed tailwater elevation at the calculated critical depth. Then the hydraulic grade line will be determined from the outlet upstream by considering the various energy losses due to inlets, manholes or other junctions along the run of storm sewer which may increase this elevation. Hydraulic grade lines will be kept below the top of the inlet grate at a given drainage structure. Energy losses will be calculated within the GEOPAK Drainage software.

The minimum size of mainline storm sewers shall be 15-inch and the minimum size of lateral storm sewers shall be 12-inch. Where possible, storm sewers will have sufficient slope to maintain a minimum velocity of 3 feet per second in order to avoid sedimentation and clogging. Calculated velocities greater than 10 feet per second will need to be evaluated for pipe/manhole erosion.

The minimum cover depth requirement from the top of the pipe to top of subgrade is 12-inch. For the purpose of this study, it is assumed that the pavement depth will be 12-inch with a 12-inch layer of improved subgrade. When the pavement design has been completed during Phase II, all pipe flowline elevations will need to be re-evaluated to ensure compliance with this criteria.

Storm sewer outlets will be evaluated for the potential of scour and appropriate countermeasures, such as riprap or erosion control blanket, will be implemented.

Ditches

All ditches will be evaluated for the 50-year flood frequency in accordance with Table 1-305 of the Drainage Manual.

Ditch flow depths will be limited to 1-foot below the shoulder of the adjacent mainline roadway, in accordance with Section 9-403 of the Drainage Manual.

Ditch velocities will be evaluated for the potential of scour and appropriate countermeasures will be implemented.

Culverts

All pipe culverts will be evaluated for the 50-year flood frequency in accordance with Table 1-305 of the Drainage Manual.

Since the culverts within the study limits are carrying ditch flows under entrances or side roads, the maximum allowable headwater will be limited to 1-foot below the shoulder of the adjacent mainline roadway, in accordance with Section 9-403 of the Drainage Manual.

The culvert outlet velocities will be evaluated for the potential of scour and appropriate countermeasures will be implemented.

IV. Existing Roadway Characteristics

The various sections of roadway within the project limits consist of a mixture of urban and rural designs. Below is an outline of the various roadway segments:

Illinois Route 3 (W. Delmar Ave.) from Pierce Lane to the West

This section of roadway consists of 2-11' HMA lanes with an 11' bi-directional left-turn lane, 4' HMA shoulders, B-6.24 C&G. There is an underground storm sewer system in place on both sides of the roadway to convey the storm water to the west of the project limits

Illinois Route 3 (W. Delmar Ave.) from Pierce Lane to W. Homer M. Adams Parkway (also IL Rt 3)

This section of roadway consists of 2-11' HMA lanes with 8' aggregate shoulders and open ditches. The ditch on the north side of the road conveys storm water to the east into an existing

open ditch system along the north side of W. Homer M. Adams Pkwy. The ditch on the south side conveys storm water to the east into an existing storm sewer system along W. Delmar Avenue.

Illinois Route 3 (W. Homer M. Adams Parkway) from W. Delmar Ave. to the East

This section of roadway consists of 2-11' HMA lanes with an 11' bi-directional left-turn lane, 4' HMA shoulders and open ditches. The ditch on the north side conveys storm water to the east through an existing 18" RCP culvert, and then into an existing storm sewer system east of the project limits. The ditch on the south side of the road conveys storm water to the east through an existing 15" CMP culvert, and then into an existing storm sewer system east of the project limits.

Pierce Lane from Illinois Route 3 (W. Delmar Ave.) to the North

This section of roadway consists of 2-13' PCC lanes with B-6.24 C&G. There is an underground storm sewer system in place which conveys storm water to the north.

Frontenac Place from Illinois Route 3 (W. Delmar Ave.) to the South

This section of roadway consists of 2-10' HMA lanes with earthen shoulders and open ditches, which convey storm water to the south of the project limits.

Ridgedale Drive from Illinois Route 3 (W. Delmar Ave.) to the South

This section of roadway consists of 2-10' Oil/Chip lanes with earthen shoulders and open ditches. The ditches convey water from Ridgedale Drive into an existing underground storm sewer system along W. Delmar Ave.

W. Delmar Ave. from Illinois Route 3 to the East

This section of roadway consists of 2-11' HMA lanes. The north side of this segment has 6' earthen/aggregate shoulders and an open ditch which conveys storm water to the east of the project limits. The south side of the segment has 6' HMA shoulders with B-6.24 C&G and an underground storm sewer system, which conveys storm water to the east of the project limits.

Cook Street from Pierce Lane East 200'

This section of Cook Street consists of 2-13' HMA lanes with B-6.24 C&G. and an underground storm sewer system, which conveys storm water into the existing storm sewer system along Pierce Lane.

Cook Street from 200' East of Pierce Lane to East Limits

This section of Cook Street consists of 2-10' HMA lanes with earthen shoulders and open ditches/swales to convey storm water to the east of the project limits.

V. EXISTING DRAINAGE FACILITIES

The intersection of Illinois Route 3 (W. Delmar Ave.) and Pierce Lane is generally at a highpoint between multiple watersheds. Storm water runoff generated within the study limits generally drain away from the limits at one of eight different outlet points, via either open ditches or existing storm sewer systems. There are several attachments that will supplement the information described in this section:

- Attachment 02 - shows the overall existing drainage areas as well as the individual drainage areas for each watershed.
- Attachment 04 - shows the calculated hydraulic grade lines for each run of storm sewer for the design storm.
- Attachment 08 – shows the existing inlet information based on the GeoPAK Drainage analysis.
- Attachment 09 – shows the existing pipe information based on the GeoPAK Drainage analysis.
- Attachments 12-16 – shows the various stand-alone calculations for existing drainage facilities.

Below is an outline of the various watersheds within the project limits.

Existing Network 00

This network generally drains storm water generated along the north half of Illinois Route 3 (W. Delmar Ave.) from the intersection of Pierce Lane to the west. Specifically, this drainage area consists of the north half of the roadway pavement, sidewalk on the north side of the road and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is no significant off-site runoff that drains into this network. (See Attachment 02)

The storm sewer that drains this network consists of an offset trunk line running behind/underneath the adjacent sidewalk with short laterals and manholes to connect the Type 3 Inlets along the B-6.24 C&G. The pipe sizes vary from 12-inch RCP for the most upstream section of the trunk line (and laterals) to 18-inch RCP for the last run of pipe at the outlet. The outlet consists of an 18-inch Precast Reinforced Concrete Flared End Section.

An analysis of the existing storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Inlet E-0-1: the calculated gutter flow depth is 0.32 feet compared to the 0.30 feet maximum per policy. Even though the gutter flow depth is over policy, the calculated spread at this inlet (6.42 feet) is less than the allowable (7.00 feet).
- Pipe E-0-2: the calculated flow velocity is 10.69 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.
- Pipe E-0-7: the calculated flow velocity is 11.41 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.

The calculated outlet velocity is 8.85 feet per second and will be evaluated for adequate outlet protection.

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Network 01

This network generally drains storm water generated along the south half of Illinois Route 3 (W. Delmar Ave.) from the intersection of Pierce Lane to the west. Specifically, this drainage area consists of the south half of the roadway pavement and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is also an area of existing parking lot that drains into this network via an area inlet at the west end of the parking lot. (See Attachment 02)

The storm sewer that drains this network consists of an offset trunk line running behind the curb line with short laterals and manholes to connect the Type 3 Inlets along the B-6.24 C&G. As mentioned above, there is one Type 8 Inlet (E-1-5a) that collects runoff from the existing parking lot and conveys it into the storm sewer system. The pipe sizes vary from 12-inch RCP for the most upstream section of the trunk line (and laterals) to 15-inch RCP for the last run of pipe at the end of the study limits. The lateral connecting Inlet E-1-5a consists of a 15-inch CMP pipe.

An analysis of the existing storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe E-1-3: the calculated flow velocity is 10.60 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.
- Pipe E-1-7: the calculated flow velocity is 13.13 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Network 02

This network generally drains storm water generated along Pierce Lane from Illinois Route 3 (W. Delmar Ave.) to the north. Specifically, this drainage area consists of the roadway pavement, sidewalk along the west side of the road and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is also a significant amount of residential and commercial area to the west of Pierce Lane that sheet flows onto the roadway. (See Attachment 02)

The storm sewer that drains this network consists of a trunk line that runs down the east side of Pierce Lane, under the curb. There are various laterals that convey the Type 3 Inlets on the west side of the road to the trunk line. The pipe sizes vary from 12-inch for the most upstream section of the trunk line (and laterals) to 18-inch for the last run of pipe at the end of the study

limits. The pipe materials vary within this storm sewer system. Most of the trunk line consists of RCP with one section of PVC and one section of CMP. The laterals are mostly RCP with one run of PVC.

An analysis of the existing storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Inlet E-2-9: the calculated encroachment is 5.36 feet compared to the 4-foot policy maximum.
- Inlet E-2-11: the calculated encroachment is 6.54 feet compared to the 4-foot policy maximum.
- Inlet E-2-11a: the calculated encroachment is 6.15 feet compared to the 4-foot policy maximum.
- Inlet E-2-13: the calculated encroachment is 5.52 feet compared to the 4-foot policy maximum.
- Inlet E-2-15: the calculated encroachment is 4.92 feet compared to the 4-foot policy maximum.
- Pipe E-2-14: the calculated flow velocity is 12.44 feet per second compared to the maximum 10 feet per second per policy.

No documented drainage issues have been provided by the Village of Godfrey for this section of roadway or adjacent properties.

Existing Network 03

This network generally drains storm water generated along the south half of W. Delmar Ave. from Pierce Lane to the eastern limits of the study limits. Specifically, this drainage area consists of the south half of the roadway pavement and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is also a significant amount of residential and commercial area to the south of W. Delmar Ave. that drains into this network. Some of the additional area sheet flows directly into the ditch or onto the roadway, however most of the additional area drains into the network via existing ditch networks adjacent to the various local streets within the larger drainage area. (See Attachment 02)

The existing drainage system for this network consists of an open ditch along the south side of W. Delmar Ave. from Pierce Lane to the intersection of W. Homer M. Adams Parkway/Ridgedale Dr. At this intersection, the ditch flow is captured by a pipe that ties into the existing underground storm sewer system that runs under the B-6.24 C&G, from this point to the eastern study limits.

There are several lateral connections into the trunk line. Generally, these laterals are pipe inlets that capture ditch flow along adjacent local streets. There is no visible structure to identify the exact location of the junction between the laterals and the trunk line. There are not available as-builts which detail the existing storm sewer in this area. For the purpose of modeling the existing storm sewer system, it is assumed that the laterals are connected to the trunk line using a standard manhole junction that has since been buried.

The pipe sizes vary from 12-inch to 24-inch most of which are RCP. There are isolated locations of CMP pipe, mostly at the lateral locations. The storm sewer outlets into a tributary

via a 36-inch by 36-inch reinforced concrete box culvert under West Delmar Ave. and continues north. The junction between the storm sewer and the box culvert is not shown in available as-built plans, and therefore, for modeling purposes, it is assumed to be a standard manhole junction.

An analysis of the existing open ditch was performed using Bentley FlowMaster software for the 50-year storm event. The analysis yielded a normal depth flow of 0.70 feet which would be contained within the limits of the existing ditch. However, since the ditch is only +/- 1-foot deep the policy freeboard is not provided.

An analysis of the existing storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Inlet E-3-7: the calculated encroachment is 17.02 feet compared to the 0-foot policy maximum and the calculated gutter flow depth is 0.62 feet compared to the 0.30 feet policy maximum. This calculated spread width essentially predicts that the entire eastbound lane would be flooded just upstream of the inlet during the design storm. This inlet has a significant amount of off-site area flowing to it.
- Inlet E-3-11: the calculated encroachment is 9.72 feet compared to the 0-foot policy maximum and the calculated gutter flow depth is 0.49 feet compared to the 0.30 feet policy maximum. This calculated spread width predicts that the most eastbound lane would be flooded during the design storm just upstream of this inlet. This inlet has a significant amount of off-site area flowing to it.
- Inlet E-3-12: the calculated encroachment is 4.45 feet compared to the 0-foot policy maximum and the calculated gutter flow depth is 0.43 feet compared to the 0.30 feet policy maximum.
- Pipe E-3-7: the calculated flow velocity is 14.67 feet per second compared to the maximum 10 feet per second per policy.
- Pipe E-3-9: the calculated flow velocity is 10.56 feet per second compared to the maximum 10 feet per second per policy.
- Pipe E-3-12: the calculated flow velocity is 12.15 feet per second compared to the maximum 10 feet per second per policy.
- Pipe E-3-Outlet: the calculated flow velocity is 11.17 feet per second compared to the maximum 10 feet per second per policy.

A few of the lateral connections have a higher calculated flow, based on drainage area, than the pipe can physically accept, so for modeling purposes, the flow used is the calculated maximum for each pipe based on size/type/slope rather than using the calculated peak flow for the drainage area.

During a site visit on July 27, 2017, the adjacent property/business owner noted that this section of roadway floods “once in a while” (See Attachment 017). She mentioned that when it does flood, the entrance at approximate Sta. 891+00 RT is flooded first and then spills onto the roadway. This observation validates the findings of the analysis for the deficient inlets above.

Existing Culvert 1

This network generally drains storm water generated along the north half of W. Delmar Ave. from Pierce Lane to W. Homer M. Adams Parkway, and then the north half of W. Homer M.

Adams Parkway to the eastern limits of the study limits. Specifically, this drainage area consists of the north half of the roadway pavement, the south half of the Cook St. roadway pavement and the ditch/greenspace between the roadways. There is no significant off-site runoff that drains into this network. (See Attachment 02)

The existing drainage system for this network consists of open ditches between the two roadways which conveys storm water to the east, through an existing 18" RCP culvert (Existing Culvert 1), and then to an existing storm sewer system to the east of the study limits.

An analysis of the existing open ditch was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the existing 18" RCP (Existing Culvert 1) culvert was performed using CulverMaster software and the result was that the culvert was adequate for the 50-year storm.

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Culvert 2

This network generally drains storm water generated along the south half of W. Homer M. Adams Parkway from W. Delmar Ave. east to the study limits. Specifically, this drainage area consists of the south half of the roadway pavement, and the ditch/greenspace generally consisting of the remaining right-of-way. There is no significant off-site runoff that drains into this network. (See Attachment 02)

The existing drainage system for this network consists of an open ditch south of the roadway that conveys storm water to the east, through an existing 15" CMP culvert (Existing Culvert 2), and then to an existing storm sewer system to the east of the study limits.

An analysis of the existing open ditch was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the existing 15" CMP (Existing Culvert 2) culvert was performed using CulverMaster software for the 50-year storm. The analysis determined that the calculated headwater elevation was 611.44 feet, compared to the mainline shoulder elevation of 611.90 feet. Therefore, the existing culvert does not provide the policy 1-foot freeboard at this location.

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Culvert 3

This network generally drains storm water generated along the north half of W. Delmar Avenue from W. Homer M. Adams Parkway east to the study limits. Specifically, this drainage area consists of the north half of the roadway pavement, and the ditch/greenspace generally

consisting of the remaining right-of-way. There is no significant off-site runoff that drains into this network. (See Attachment 02)

The existing drainage system for this network consists of an open ditch north of the roadway that conveys storm water to the east, through an existing 15" CMP culvert (Existing Culvert 3), and then to an existing tributary to the east of the study limits.

An analysis of the existing open ditch was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the existing 15" CMP (Existing Culvert 3) culvert was performed using CulverMaster software for the 50-year storm. The analysis determined that the calculated headwater elevation was 608.36 feet, compared to the mainline shoulder elevation of 608.70 feet. Therefore, the existing culvert does not provide the policy 1-foot freeboard at this location.

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Culvert 4

This culvert network is a sub-network of Network 03 generally drains storm water generated along the south half of W. Delmar Ave. from Pierce Lane to Norwood Lane. Specifically, this drainage area consists of the south half of the roadway pavement and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is also a significant amount of the adjacent properties to the south that drain into this network. (See Attachment 02)

The existing drainage system for this network consists of an open ditch south of the roadway that conveys storm water to the east, through an existing 12" CMP culvert (Existing Culvert 4), and then into a ditch that conveys the water into the Existing Drainage Network 03.

An analysis of the existing open ditch was performed using Bentley FlowMaster software for the 50-year storm event. The analysis yielded a normal depth flow is 0.70 feet which is contained within the limits of the existing ditch. However, since the ditch is only +/- 1-foot deep the policy freeboard is not provided.

An analysis of the existing 12" CMP (Existing Culvert 4) culvert was performed using CulverMaster software for the 50-year storm. The analysis determined that the calculated headwater elevation was 629.73 feet, compared to the mainline shoulder elevation of 626.73 feet. Therefore, the existing culvert does not provide the policy at this location, and would flood Norwood Lane and the adjacent shoulder of Illinois Route 3 (W. Delmar Ave.)

No documented drainage issues have been provided by the Village of Godfrey or the District for this section of roadway or adjacent properties.

Existing Open Throat Area Inlet (3x3)

There is an inlet, outside of the project limits, that is located behind an apartment building on the south side of Surrey Court. Specifically, it is behind the third unit from Pierce Lane. This inlet is

a 3' x 3' Open Throat Inlet (open on all four sides). This information was collected during a site visit on July 27, 2017 and is not included in the topographic survey provided for design.

Currently, this inlet collects runoff from the west half of the Evangelical United Church of Christ property, generally bordered by Cook Street and Pierce Lane (See Attachment 02). Runoff collected by this inlet is conveyed via storm sewer to the north through an existing underground storm sewer system, where it outlets into a tributary north of the development.

A rational method calculation was performed for this existing watershed and resulted in a computed discharge of 18.56 CFS for the 10-year storm and 33.05 CFS for the 100-year storm.

VI. Proposed Roadway Characteristics

After reconstruction, many of the existing sections of roadway will be significantly different due to the new horizontal and vertical geometry of the proposed roundabouts, bypass lane and relocated Cook St. Below is an outline of the various proposed roadway segments:

Illinois Route 3 (W. Delmar Ave.) from Pierce Lane to the West

This section of roadway will mostly remain the same as the existing condition. Currently, the roadway consists of 2-11' HMA lanes with an 11' bi-directional left-turn lane, 4' HMA shoulders, B-6.24 C&G. There is an existing underground storm sewer system in place on both sides of the roadway to convey the storm water to the west of the project limits. This system will remain and be used in place with the proposed improvements.

Illinois Route 3 (W. Delmar Ave.) from Pierce Lane to W. Homer M. Adams Parkway (also IL Rt 3)

This section of roadway will be completed reconstructed. It will consist of 2-15' lanes (one in each direction) with B-6.24 Combination Curb and Gutter. There will be a raised concrete median between the two lanes. Also, there will be a 15' bypass lane north of the westbound lane, separated with a raised concrete median. A 6' sidewalk will be adjacent to the southern curb line.

The roadway will be drained via proposed storm sewer along the roadway. There will be a ditch south of this section of roadway, generally following the alignment of the existing ditch, to collect runoff from adjacent property and convey it to the east into a proposed storm sewer system.

Illinois Route 3 (W. Homer M. Adams Parkway) from W. Delmar Ave. to the East

This section of roadway will be reconstructed from the intersection to the Cook St. connector. It will consist of 2-12' lanes. The westbound pavement will widen to 24' at the intersection to create the bypass lane for the roundabout. There will also be a raised concrete median approaching the roundabout intersection to aid in traffic flow operations. The westbound lane will have B-6.24 Combination Curb and Gutter while the eastbound lane will have a 4' HMA shoulder and 3' earthen shoulder with a ditch.

This section of roadway will be drain via proposed storm sewer on the north side (westbound lanes) and via a roadside ditch on the south side (eastbound lane).

Pierce Lane from Illinois Route 3 (W. Delmar Ave.) to the North

This section of roadway consists of 2-12' lanes with a 12' painted median. The northbound pavement will widen near the roundabout intersection in order to match in with the proposed bypass lane. Both sides on this section of roadway will have B-6.24 Combination Curb and Gutter with a 6' sidewalk will be constructed adjacent to the west curb line.

The roadway itself will be drained via proposed storm sewer installed along the roadway, which will convey runoff to the north where it will tie into the existing storm sewer system along Pierce Lane.

The proposed elevation of the roadway will be significantly higher than the existing condition, mostly near the intersection. This will result in newly formed fill slopes behind the west curb line. This will require swales, formed from the tie down of the fill slope, and area inlets in order to drain the adjacent properties.

Frontenac Place from Illinois Route 3 (W. Delmar Ave.) to the South

This section of roadway will be completely reconstructed in order to match the geometry of the proposed roundabout intersection. The reconstructed roadway will widen from the existing width of 2-10' lanes to 2-11' lanes with a 10' raised concrete approach median. The reconstructed roadway will have B-6.24 Combination Curb and Gutter on both sides. Swales will be constructed off of the back of the curbs in order to provide positive drainage.

The approach to the roundabout will be drained via storm sewer that will tie into the proposed system along Illinois Route 3. The section of roadway south of the approach will drain into the existing swales/ditches to the south.

Ridgedale Drive from Illinois Route 3 (W. Delmar Ave.) to the South

This section of roadway will be completely reconstructed in order to match the geometry of the proposed roundabout intersection. The reconstructed roadway will widen from the existing width of 2-10' lanes to 2-11' lanes with a 6' raised concrete approach median. The reconstructed roadway will have B-6.24 Combination Curb and Gutter on both sides. Swales will be constructed off of the back of the curbs in order to provide positive drainage.

The roadway will be drained via storm sewer that will tie into the proposed system along Illinois Route 3.

W. Delmar Ave. from Illinois Route 3 to the East

This section of roadway will be reconstructed to consist of 2-11' lanes with a 11' painted median. The existing curb and 6' paved shoulder along the south side of the roadway will remain in place. A new B-6.24 Combination Curb and Gutter will be constructed on the north side of the roadway.

The south half of the roadway will be drained via the existing storm sewer system that will remain and be used in place. The north half of the roadway will be drained via proposed storm sewers that will be installed along the new curb.

Cook Street

This roadway will be completely reconstructed with new horizontal and vertical geometry. It will consist of 2-13' lanes with Combination Curb and Gutter on both sides. There will be a 6' sidewalk on the north side of the roadway. The area to the south of the roadway will be seeded greenspace.

This roadway will be drained via proposed storm sewer systems. One system will collect the east portion and convey the runoff to the east. A separate system will collect the west portion and convey it to the west/north through a proposed detention basin.

VII. PROPOSED DRAINAGE FACILITIES

As explained in the previous section of this report the intersection of Illinois Route 3 (W. Delmar Ave.) and Pierce Lane is at the high point of multiple watersheds. Storm water runoff generated within the study limits will generally drain away from the limits at one of eight different outlet points, via either open ditches or existing storm sewer systems, generally matching the existing conditions.

The proposed roadway improvements will consist of reconstruction of the two signalized intersections within the project limits as roundabout intersections. With the intersection improvements, a dedicated bypass lane will be added on the north side of Illinois Route 3, to provide free flow movements for Illinois Route 3 traffic making the maneuver to Pierce Lane. Additionally, in order to accommodate the proposed geometry, the adjacent frontage road, Cook St., will be realigned to provide a new intersection point with Pierce Lane north of the existing intersection point. There are several attachments that will supplement the information described in this section:

- Attachment 05 - shows the overall proposed drainage areas as well as the individual drainage areas for each watershed.
- Attachment 07 - shows the calculated hydraulic grade lines for each run of storm sewer for the design storm.
- Attachment 10 – shows the proposed inlet information based on the GeoPAK Drainage analysis.
- Attachment 11 – shows the proposed pipe information based on the GeoPAK Drainage analysis.
- Attachments 12-16 – shows the various stand-alone calculations for propsed drainage facilities.

Below is an outline of each of the watersheds for the proposed conditions and how the storm water will be handled for each.

Proposed Network 00

This network generally drains storm water generated along the north half of Illinois Route 3 (W. Delmar Ave.) from the intersection of Pierce Lane to the west. The proposed drainage areas for this network are essentially the same as the existing conditions, with the exception of the two most upstream drainage areas for inlet E-0-5 and E-0-7, which are slightly different due to the new intersection geometry.

An analysis of the existing storm sewer system, with the proposed conditions, was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Inlet E-0-1: the calculated gutter flow depth is 0.31 feet compared to the 0.30 feet maximum per policy. Even though the gutter flow depth is over policy, the calculated spread at this inlet (6.18 feet) is less than the allowable (7.00 feet).
- Pipe E-0-2: the calculated flow velocity is 11.13 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.
- Pipe E-0-7: the calculated flow velocity is 11.42 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.

The outlet (Pipe E-0-Outlet) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocity is 8.98 feet per second, so the required length of protection will be 27 feet.

Proposed Network 01

This network generally drains storm water generated along the south half of Illinois Route 3 (W. Delmar Ave.) from the intersection of Pierce Lane to the west. The most upstream inlet, E-1-8, will have to be relocated, as proposed inlet P-1-8, to accommodate the proposed intersection geometry. The remaining drainage areas for this network are essentially the same as the existing conditions.

An analysis of the existing storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe E-1-3: the calculated flow velocity is 10.76 feet per second compared to the maximum 10 feet per second per policy. Since the design flow is relatively low for this single run of pipe, the potential for pipe erosion is very low.

Proposed Network 02

This network generally drains storm water generated along Pierce Lane from Illinois Route 3 (W. Delmar Ave.) to the north. Specifically, this drainage area consists of the roadway pavement, sidewalk along the west side of the road and adjacent greenspace generally consisting of the remaining roadway right-of-way. There is a significant amount of residential and commercial area to the west of Pierce Lane that sheet flows toward the roadway, much of which will be collected in area inlets on the west side of Pierce Lane.

Due to the significant horizontal and vertical geometry adjustments for the proposed intersection configuration, all of the existing storm sewer along Pierce Lane will have to be replaced from the Illinois Route 3 intersection north to the location of the proposed Cook St. intersection.

The proposed storm sewer that will drain this network consists of a trunk line that runs down the west side of Pierce Lane, under the curb. There are various laterals that convey the Type 8 Inlets west of the roadway embankment to the trunk line and the Type 3 Inlets on the east side of the road to the adjacent ditch.

An analysis of the proposed storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the proposed storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe P-2-1: the calculated flow velocity is 2.74 feet per second compared to the minimum 3 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.
- Pipe E-2-14: the calculated flow velocity is 12.17 feet per second compared to the maximum 10 feet per second per policy. This is an existing run of pipe that is not proposed to be replaced as part of this project. While the calculated velocity is over the policy maximum, it is 0.27 feet per second below the calculated velocity for the existing condition (12.44 feet per second).

Additionally, the storm sewers were analyzed for the 50-year storm event due to the fact that the system collects ditch flow from the west side of Pierce Lane. After this analysis, it was found that the storm sewer system is adequate for the 50-year storm event. Both the 10-year and 50-year Hydraulic Grade Lines are shown in Attachment 07.

The proposed storm sewer network is flowing into an existing storm sewer network that runs to the north along Pierce Lane. All existing storm sewer from Pipe E-2-12a (Inlet E-2-12a) to the north will be used in place. The proposed flow for Pipe E-2-12a is 5.34/7.55 (10-yr/50-yr) cubic feet per second, compared to the existing flow of 5.89/8.11 (10-yr/50-yr) cubic feet per second, which results in a slight decrease of 0.55/0.56 (10-yr/50-yr) cubic feet per second for this run of pipe from the existing to the proposed condition.

Proposed Network 03

This network generally drains storm water generated along the south half of W. Delmar Ave. from the southeastern limits of the east roundabout to the eastern limits of the study. Specifically, this drainage area consists of the Existing Network 03, except for the portion between the two intersections will be collected via a separate proposed drainage networks.

As described in the previous section, the Existing Network 03 is inadequate for the design storm, and based on a nearby property owner's observations, the road does flood during storm events. In order to bring this system up to standard, the proposed design will add 3 inlets between E-3-6 and E-3-7. These inlets will be placed just downstream of the point where a large offsite watershed flows onto the street (See Attachment 05 – Drainage Area for P-3-1)

An analysis of the remaining existing storm sewer system with the additional inlets was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe E-3-7: the calculated flow velocity is 14.67 feet per second compared to the maximum 10 feet per second per policy. While the calculated velocity is over the policy maximum, it is equal to the calculated velocity for the existing condition.
- Pipe E-3-9: the calculated flow velocity is 10.68 feet per second compared to the maximum 10 feet per second per policy. While the calculated velocity is over the policy maximum, it is 0.12 feet per second below the calculated velocity for the existing condition (10.56 feet per second).
- Pipe E-3-12: the calculated flow velocity is 11.89 feet per second compared to the maximum 10 feet per second per policy. While the calculated velocity is over the policy maximum, it is 0.26 feet per second below the calculated velocity for the existing condition (12.15 feet per second).
- Pipe E-3-Outlet: the calculated flow velocity is 10.92 feet per second compared to the maximum 10 feet per second per policy. While the calculated velocity is over the policy maximum, it is 0.25 feet per second below the calculated velocity for the existing condition (11.17 feet per second).

The outlet (Pipe E-3-Outlet) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocity is 10.91 feet per second, so the required length of protection will be 33 feet.

Proposed Network 04 and Proposed Culvert 2

This network generally drains storm water generated along the Illinois Route 3 (W. Delmar Ave.) between the two roundabout intersections. Specifically, the drainage area consists of the northern half of Illinois Route 3 between the roundabouts, the north side of the east roundabout, and the south half of Illinois Route 3 east of the east roundabout.

The storm water generated within this network will be collected and conveyed primarily via a proposed storm sewer network. The storm sewer trunk line will run from the eastern approach to the west roundabout along the northern curb line of Illinois Route 3 to the east roundabout where it will follow the median between the roundabout and the bypass lane, and then it will outlet into the ditch south of Illinois Route 3 (W. Homer M. Adams Parkway). From that point, the runoff will be conveyed via a proposed ditch through Proposed Culvert 2 to a downstream ditch which will convey the water to a nearby tributary.

An analysis of the proposed storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe P-4-5: the calculated velocity for this pipe is 2.83 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.
- Pipe P-4-15: the calculated velocity for this pipe is 2.05 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.

Additionally, the storm sewers were analyzed for the 50-year storm event due to the fact that the system collects ditch flow. After this analysis, it was found that the storm sewer system is adequate for the 50-year storm event. Both the 10-year and 50-year Hydraulic Grade Lines are shown in Attachment 07.

An analysis of the proposed open ditch which will convey flow from the storm sewer outlet to Proposed Culvert 2 was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the Proposed Culvert 2 (24-inch RCP culvert) was performed using CulverMaster software for the 50-year storm. The analysis determined that the culvert is adequate for the design flow.

The outlets (Pipe P-4-Outlet and Culvert 2) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocities are 4.64 and 7.48 feet per second, so the required length of protection will be 15 feet and 24 feet respectively.

Proposed Network 05 and Proposed Culvert 3

This network generally drains storm water generated from the west roundabout's south approach (Frontenac Dr.), the south half of Illinois Route 3 between the roundabouts, and southwestern approach to the east roundabout (Ridgedale Dr.). Additionally, this network collects storm water from the proposed ditch along Illinois Route 3 (W. Delmar Ave.) between the two roundabout intersections and the north half of Delmar Ave. beyond the roundabouts.

The storm water generated within this network will be collected and conveyed primarily via a proposed storm sewer network. The storm sewer trunk line will run from the southern approach of the west roundabout, run along the south curb line of Illinois Route 3, then cross the southeastern and southwestern approaches to the east roundabout, before it outlets into a ditch on the north side of Delmar Avenue. This ditch will convey the runoff through Proposed Culvert 3 to a downstream ditch which will convey the water to a nearby tributary. The flow from the ditch adjacent to Illinois Route 3 between the roundabouts will be collected via a Flared End Section and a single run of pipe that will convey the flow into the storm sewer network. The north half of Delmar Ave. will be collected in inlets along the proposed curb line. Each inlet will outlet into the adjacent ditch via a single run of storm sewer pipe.

An analysis of the proposed ditch along Illinois Route 3 between the intersections was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the proposed storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe P-5-2: the calculated velocity for this pipe is 2.98 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.

- Pipe P-5-2a: the calculated velocity for this pipe is 1.58 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.
- Pipe P-5-13: the calculated velocity for this pipe is 2.71 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.
- Pipe P-5-20: the calculated velocity for this pipe is 2.83 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.

Additionally, the storm sewers were analyzed for the 50-year storm event due to the fact that the system collects ditch flow. After this analysis, it was found that the storm sewer system is adequate for the 50-year storm event. Both the 10-year and 50-year Hydraulic Grade Lines are shown in Attachment 07.

An analysis of the proposed ditch that will convey the storm sewer flow to Culvert 3 was performed using FlowMaster. The result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the Proposed Culvert 3 (dual 18-inch RCP culverts), was performed using CulverMaster, and the result of the analysis is that the culvert is adequate for the 50-year storm. Dual 18" pipes were used in lieu of a single larger pipe due to limited cover at the entrance.

The outlets (Pipe P-5-Outlet and Culvert 3) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocities are 6.93 and 7.68 feet per second, so the required length of protection will be 21 feet and 24 feet respectively.

Proposed Network 05b

This network generally drains storm water generated along the west side of the south approach to the west roundabout (Frontenac Dr.).

The storm water generated within this network will be collected and conveyed primarily via a proposed swale/ditch and then conveyed under an existing private entrance via an area inlet and single run of storm sewer pipe.

An analysis of the swale was performed using FlowMaster. The result of the analysis is that the swale is adequate for the 50-year storm event.

The proposed area inlet and storm sewer pipe was analyzed using Geopak Drainage software. The analysis found that the inlet and storm sewer is adequate for the 10-year storm event.

The outlet (Pipe P-5b-1) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocity is 3.84 feet per second, so the required length of protection will be 12 feet.

Proposed Network 06

This network generally drains storm water generated from the eastern half of Cook St. and the northern half of the Illinois Route 3 (W. Homer M. Adams Parkway) east of the roundabout.

The storm water generated within this network will be collected and conveyed primarily via a proposed storm sewer network. There will be three sets of inlets on Cook St. to collect runoff. At each set of inlets on Cook St., there will be an adjacent inlet on Illinois Route 3. These inlets will tie into a single manhole in the greenspace between the roads. This manhole will have a median inlet on it to collect runoff from the greenspace between the two roads. The storm sewer will outlet under the Cook St. Connector into an existing ditch between the two roads, which will convey the runoff to an existing storm sewer system to the east of the study limits.

An analysis of the existing ditch between Cook St. and Illinois Route 3 was performed using FlowMaster and the result of the analysis is that the ditch is adequate for the 50-year storm.

An analysis of the proposed storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the proposed storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe P-6-9: the calculated velocity for this pipe is 2.60 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.

Additionally, the storm sewers were analyzed for the 50-year storm event due to the fact that the system collects ditch flow. After this analysis, it was found that the storm sewer system is adequate for the 50-year storm event. Both the 10-year and 50-year Hydraulic Grade Lines are shown in Attachment 07.

The outlet (Pipe P-6-Outlet) will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocity is 4.37 feet per second, so the required length of protection will be 15 feet.

Proposed Network 07

This network generally drains storm water generated from the western half of Cook St., the northeastern quadrant of the west roundabout (Pierce Lane) and the greenspace between Cook St. and Pierce Lane.

The storm water generated from Cook St. and Pierce Lane will be collected and conveyed via a proposed storm sewer into ditches along the alignments, where it will be conveyed north to the proposed detention pond (See Open Throat Area Inlet discussion – next section) at the intersection of Cook St. and Pierce Ln. Runoff collected in the proposed pond will be released via dual outlet pipes under Cook St. Multiple pipes are used for the detention pond outlet in order to spread the flow rather than creating a single point discharge from a single pipe.

An analysis of each ditch between Cook St. and Pierce Lane was performed using FlowMaster and the result of the analysis is that each ditch is adequate for the 50-year storm.

An analysis of the proposed storm sewer system was performed using GEOPAK Drainage software. The result of the analysis is that the existing storm sewer system is adequate for the 10-year storm event, except for the following:

- Pipe P-7-1: the calculated velocity for this pipe is 1.99 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.
- Pipe P-7-2: the calculated velocity for this pipe is 2.82 feet per second, compared to the 3.00 feet per second desired minimum. Since the flow for this run of pipe is relatively low the potential for siltation is low.

Open Throat Area Inlet

During a design meeting on June 29, 2017, the District asked the designer to investigate draining relocated Cook St. and the greenspace between Cook Street and Pierce Lane to the north, and outletting into the open space northeast of the intersection of relocated Cook St. and Pierce Lane. This would maintain the existing drainage pattern (area currently sheet flows to the 3' x 3' inlet). Also, if this area were conveyed into the Pierce Lane storm sewer system, the proposed conditions would send significantly more flow to that system than the existing condition and therefore would require additional analysis of that entire system.

A rational method calculation was performed for this proposed watershed and resulted in a computed discharge of 20.86 CFS for the 10-year storm and 37.97 CFS for the 100-year storm. This results in increases of 2.30 CFS and 4.92 CFS for the 10-year and 100-year storm events.

Due to this calculated increase, a small detention basin is proposed at the intersection of relocated Cook St. and Pierce Ln. in order to control the release rate of the watershed. The area that will be routed through the detention basin will consist of realigned Cook St., the northeast quadrant of the west roundabout (Pierce Lane) and the green space between realigned Cook St. and Pierce Ln.

A rational method calculation was performed for the drainage area to be detained and resulted in computed discharges of 6.10 CFS and 10.59 CFS for the 10-year and 100-year events. The proposed detention basin will have dual 12" diameter RCP outlet pipes, at differing inverts, resulting in release rates of 3.37 CFS and 5.06 CFS for the 10-year and 100-year events. The reduction in runoff rate for the drainage area being routed through the detention basin is 2.73 CFS and 5.53 CFS which is more than the calculated increase for the existing area inlet, therefore, the utilization of the detention basin will not increase the flowrate to the existing area inlet.

The proposed detention basin provides 3265 cubic feet of storage below the calculated highwater elevation of 613.07 for the 100-year event. This is more than the required storage for the detention basin which is 3253 cubic feet for the 100-year event. The back of curb elevation at the low point of the roadway is approximately 614.79.

The detention basin outlet pipes will be protected with Stone Riprap, Class A4. Per Section 6-202 of the Drainage Manual, the length of the protection along the downstream channel will be 3 times the outlet velocity measured along the flowline of the downstream channel. In this case the outlet velocity is 4.15 feet per second, so the required length of protection will be 15 feet.

VIII. CONCLUSIONS

In conclusion, the drainage design detailed in this document and various attachments will provide adequate drainage for the design storm(s) for the proposed reconstruction of the two intersections and their approach legs. Below is a list of drainage related design variances that will be required for the proposed drainage design.

Please note that since a pavement design has not been provided for this project, during Phase II design all elevations for drainage structures and storm sewers should be re-evaluated to ensure proper cover/clearances are met. Additionally, during Phase II design, when all pavement elevations and warpings are detailed within the roundabout and approaches, inlet locations should be re-evaluated for proper placement.

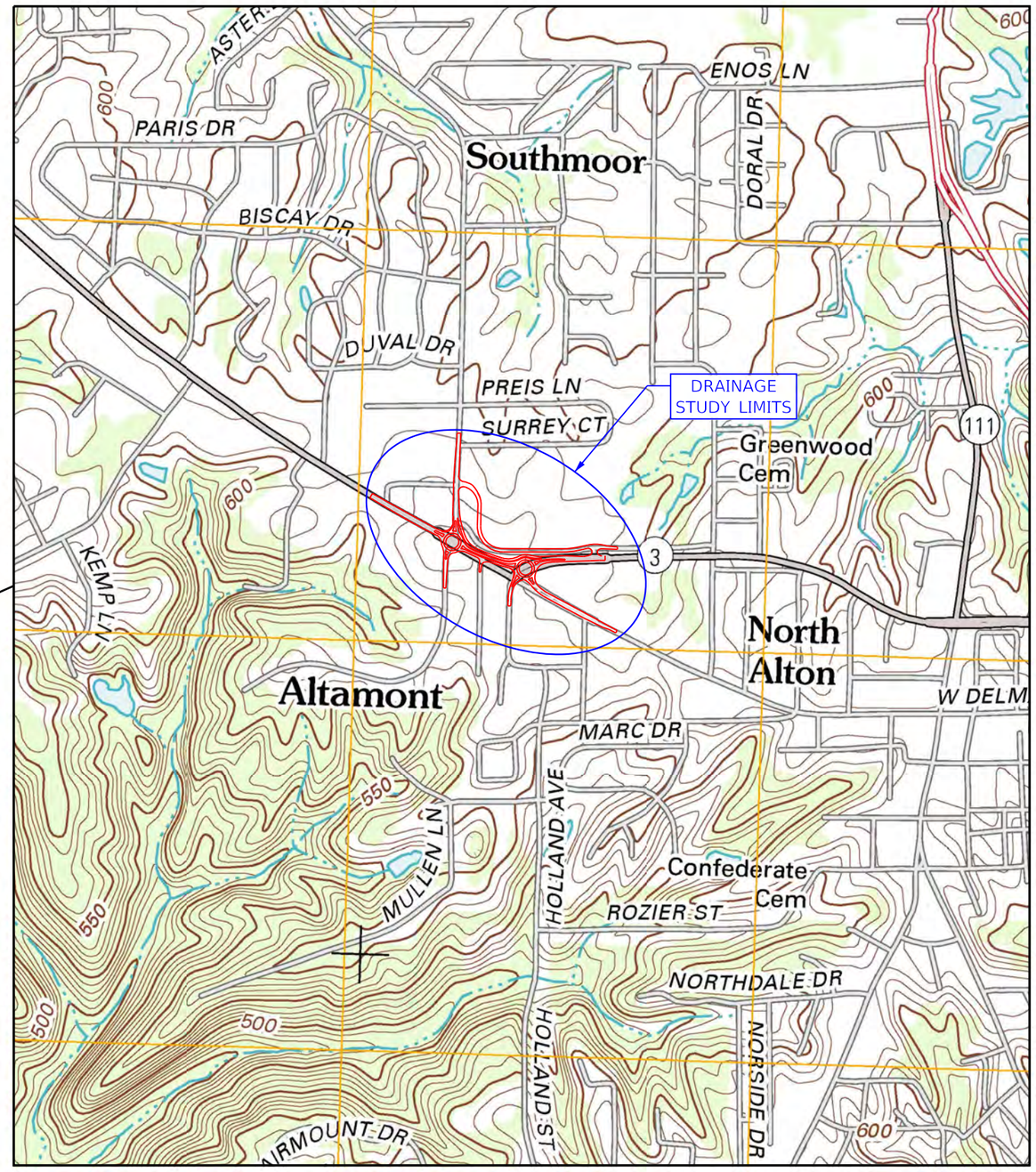
SUMMARY OF DESIGN EXCEPTIONS

Element	Policy	Policy Value	Provided Value	Ex. Condition Value	Justification
Inlet E-0-1	Gutter Flow Depth	0.30 ft.	0.31 ft.	0.32 ft.	Spread meets policy
Pipe E-0-2	Pipe Flow Velocity	10 ft/s Max.	11.13 ft/s	10.69 ft/s	Low Q - potential for pipe erosion is low.
Pipe E-0-7	Pipe Flow Velocity	10 ft/s Max.	11.42 ft/s	11.41 ft/s	Low Q - potential for pipe erosion is low.
Pipe E-1-3	Pipe Flow Velocity	10 ft/s Max.	10.76 ft/s	10.60 ft/s	Low Q - potential for pipe erosion is low.
Pipe P-2-1	Pipe Flow Velocity	3 ft/s Min.	2.74 ft/s	N/A	Low Q - potential for pipe erosion is low.
Pipe E-2-14	Pipe Flow Velocity	10 ft/s Max.	12.17 ft/s	12.44 ft/s	Existing Pipe to be used-in-place.
Pipe E-3-7	Pipe Flow Velocity	10 ft/s Max.	14.67 ft/s	14.67 ft/s	Existing Pipe to be used-in-place
Pipe E-3-9	Pipe Flow Velocity	10 ft/s Max.	10.68 ft/s	10.56 ft/s	Existing Pipe to be used-in-place
Pipe E-3-12	Pipe Flow Velocity	10 ft/s Max.	11.89 ft/s	12.15 ft/s	Existing Pipe to be used-in-place
Pipe E-3-Outlet	Pipe Flow Velocity	10 ft/s Max.	10.92 ft/s	11.17 ft/s	Existing Pipe to be used-in-place
Pipe P-4-5	Pipe Flow Velocity	3 ft/s Min.	2.83 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-4-15	Pipe Flow Velocity	3 ft/s Min.	2.05 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-5-2	Pipe Flow Velocity	3 ft/s Min.	2.98 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-5-2a	Pipe Flow Velocity	3 ft/s Min.	1.58 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-5-13	Pipe Flow Velocity	3 ft/s Min.	2.71 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-5-20	Pipe Flow Velocity	3 ft/s Min.	2.83 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-6-9	Pipe Flow Velocity	3 ft/s Min.	2.60 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-7-1	Pipe Flow Velocity	3 ft/s Min.	1.99 ft/s	N/A	Low Q - potential for siltation is low.
Pipe P-7-2	Pipe Flow Velocity	3 ft/s Min.	2.82 ft/s	N/A	Low Q - potential for siltation is low.

ATTACHMENT 01

LOCATION MAP

PROJECT LOCATION MAP



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Illinois Department of Transportation

IL 3 AT W. DELMAR AVE /IL 3 AT PIERCE LN

JULY 2017

ATTACHMENT 02
EXISTING DRAINAGE AREAS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE AREA
OVERALL

SCALE: 1" = 110' | SHEET 1 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

IL RTE 3
(W. DELMAR AVE)

EX. ℄ IL3 NORTH

E-0-1
E-1-2
E-0-2
E-1-4
E-0-3
E-1-6
E-1-5a
E-0-7
E-1-8

EX. ℄ PIERCE

PIERCE LN

SEE NETWORK 2

EVANGELICAL UNITED
CHURCH OF CHRIST

EX. ℄ COOK

COOK ST

UNITY FELLOWSHIP
CHURCH

EX. ℄ FRONTENAC

ELIAS-SMITH
FUNERAL HOMES

FRONTENAC PL

IL RTE 3
(W. DELMAR AVE)

N

0 40 80 120
SCALE IN FEET

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE AREAS
NETWORKS 00 & 01

SCALE: 1" = 40' | SHEET 2 OF 6 SHEETS | STA. | TO STA.

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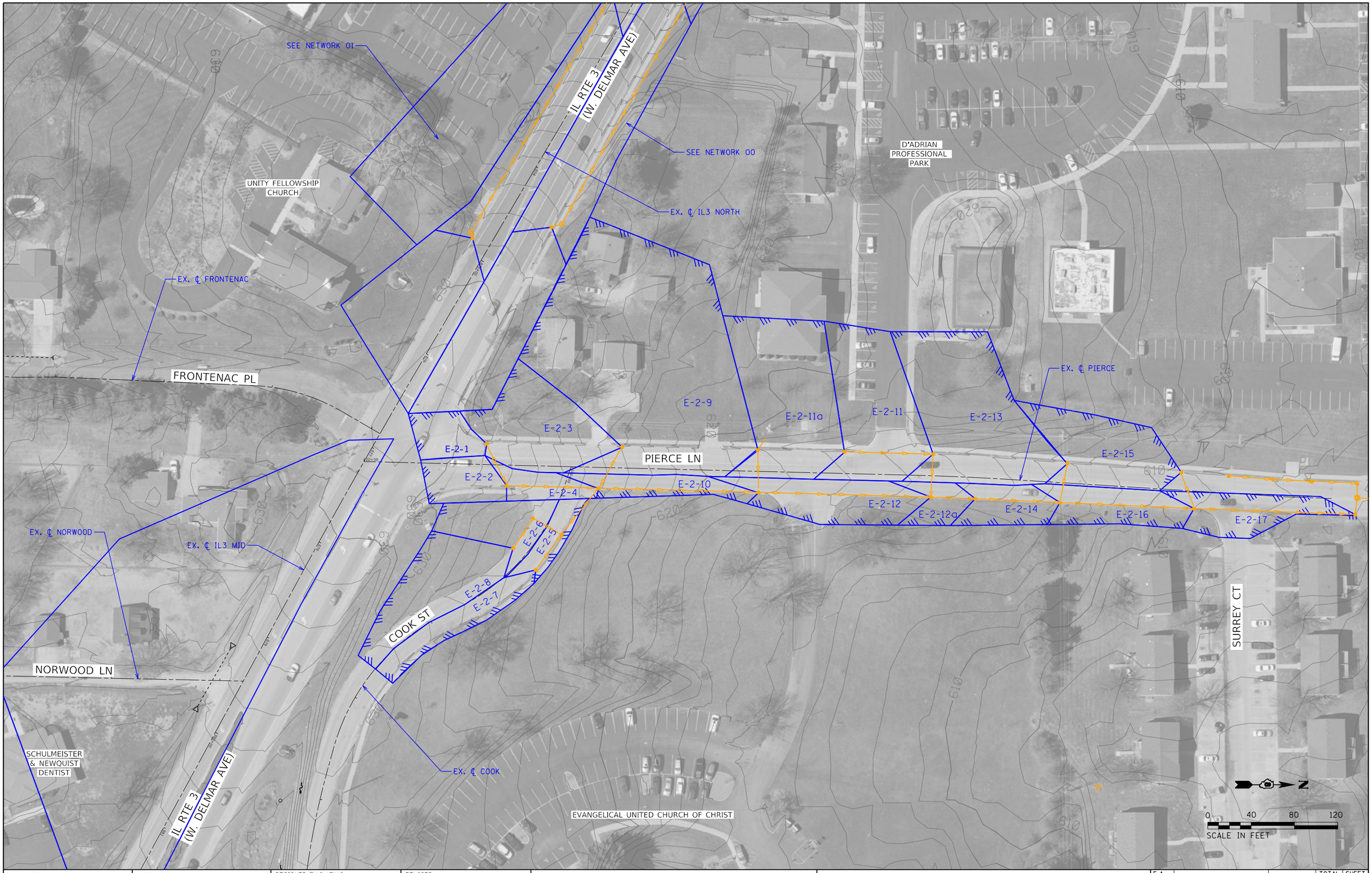
	ILLINOIS FED. AID PROJECT			



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE AREAS
NETWORK 02

SCALE: 1" = 40' | SHEET 3 OF 6 SHEETS | STA. | TO STA.

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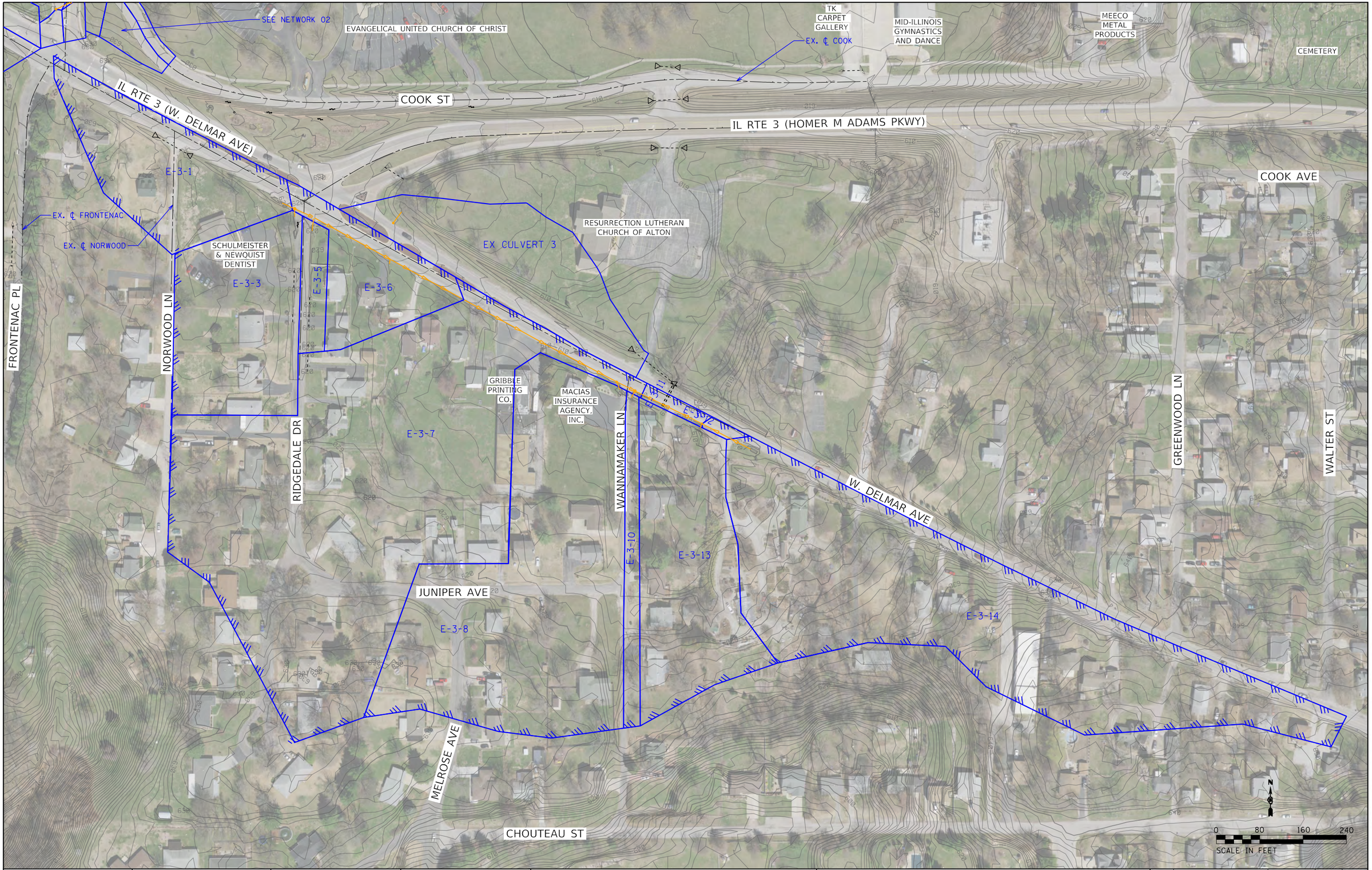
	ILLINOIS FED. AID PROJECT			



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STATE OF ILLINOIS
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EXISTING DRAINAGE AREAS
NETWORK 03

SCALE: 1" = 80' | SHEET 4 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

PIERCE LN

SEE NETWORK 02

EVANGELICAL UNITED CHURCH OF CHRIST

EX. ℄ COOK

COOK ST

IL RTE 3 (W. DELMAR AVE)

EX CULVERT 1

IL RTE 3 (HOMER M ADAMS PKWY)

EX CULVERT 4

EX CULVERT 2

EX. ℄ FRONTENAC

EX. ℄ NORWOOD

SCHULMEISTER & NEWQUIST DENTIST

RESURRECTION LUTHERAN CHURCH OF ALTON

EX CULVERT 3

NORWOOD LN

RIDGEDALE DR

W. DELMAR AVE

GRIBBLE PRINTING CO.

MACIAS INSURANCE AGENCY, INC.

E-3-11

E-3-12

N

0 50 100 200

SCALE IN FEET

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE AREAS
CULVERTS 1, 2, 3 & 4

SCALE: | SHEET 6 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

SURREY CT.

EX. 3X3 OPEN THROAT INLET

PIERCE LN.

SEE NETWORK 02

IL RTE 3 (W. DELMAR AVE)

FRONTENAC PL

EX. ℄ NORWOOD

E+3-1

EVANGELICAL UNITED CHURCH OF CHRIST

EX. ℄ COOK

COOK ST

IL RTE 3 (HOMER M ADAMS PKWY)

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0 60 120 240

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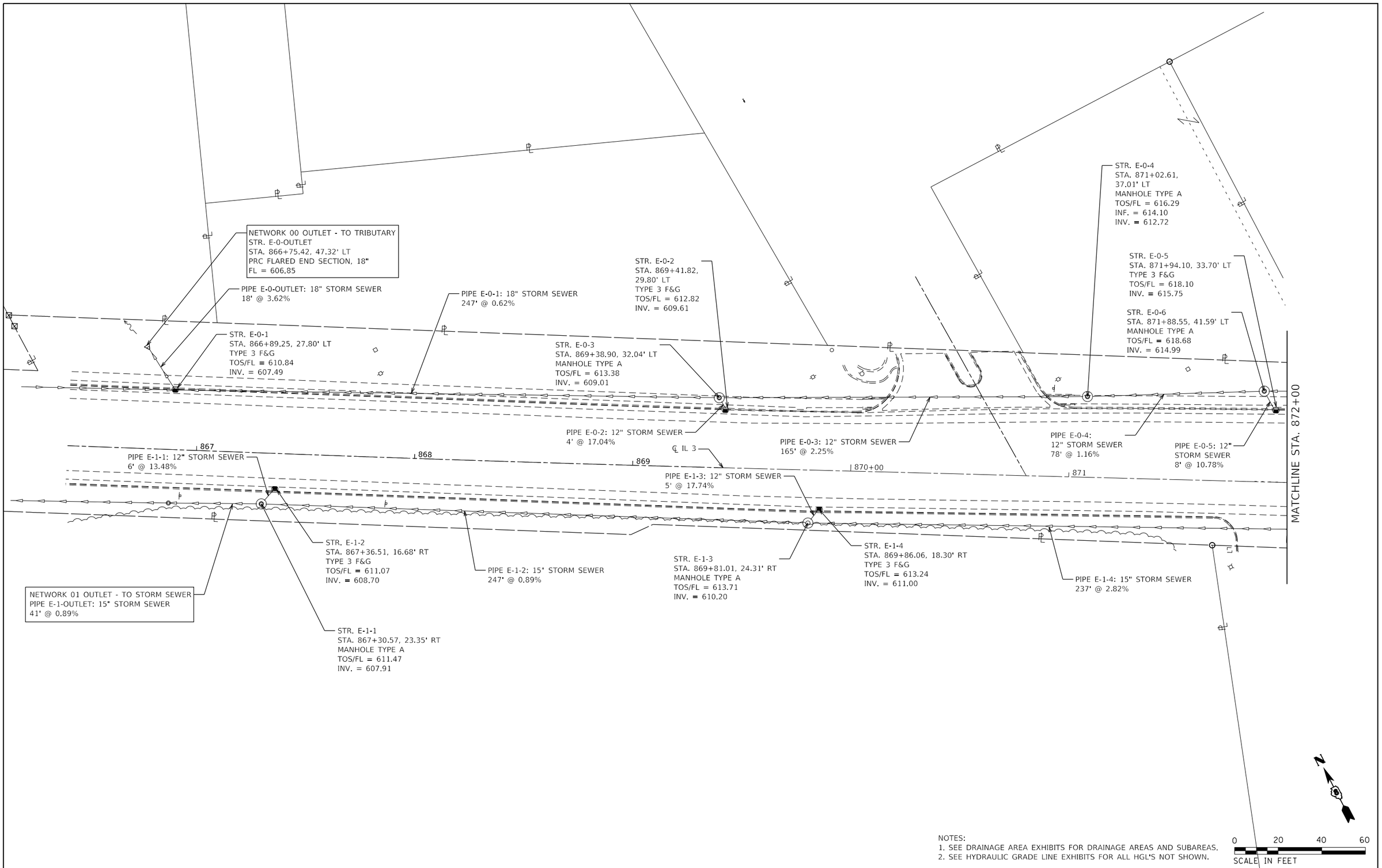
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE AREAS
EX. 3X3 OPEN THROAT INLET

SCALE: 1" = 80' | SHEET 5 OF 6 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ATTACHMENT 03
EXISTING DRAINAGE PLAN



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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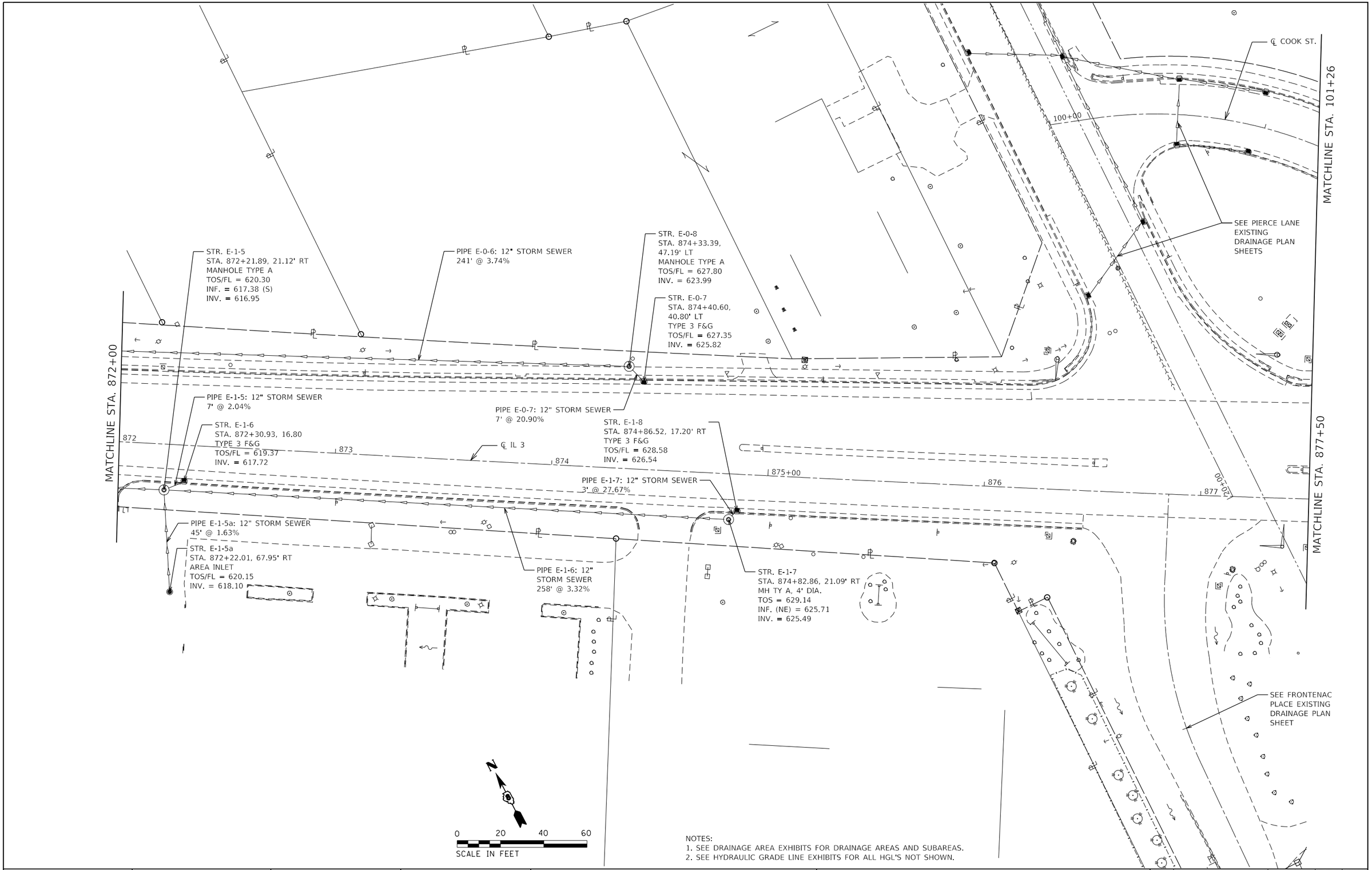
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
IL 3

SCALE: | SHEET 1 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
IL 3

SCALE: | SHEET 2 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

MATCHLINE STA. 101+26

MATCHLINE STA. 106+25

MATCHLINE STA. 11+50

℄ COOK

105+00

MATCHLINE STA. 877+50

EX CULVERT 4
12" CMP CULVERT W/ FES
61' @ 2.32%
US FL = 624.53
DS FL = 623.11

878

879

880+00

881

882

10+00

10+00

℄ IL 3

SEE DELMAR
EXISTING
DRAINAGE PLAN
SHEETS

℄ NORWOOD

SEE RIDGEDALE
EXISTING
DRAINAGE PLAN
SHEET

N

0 20 40 60

SCALE IN FEET

NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

℄ FRONTENAC

FILE NAME = P:\130624\Godfrey\4 CADD - DWG\4.7 Tran\Exhibits\Drainage Report\Existing\D876f84-sht-drain-pln ex 03.dgn	USER NAME = jstein	DESIGNED -	REVISED -
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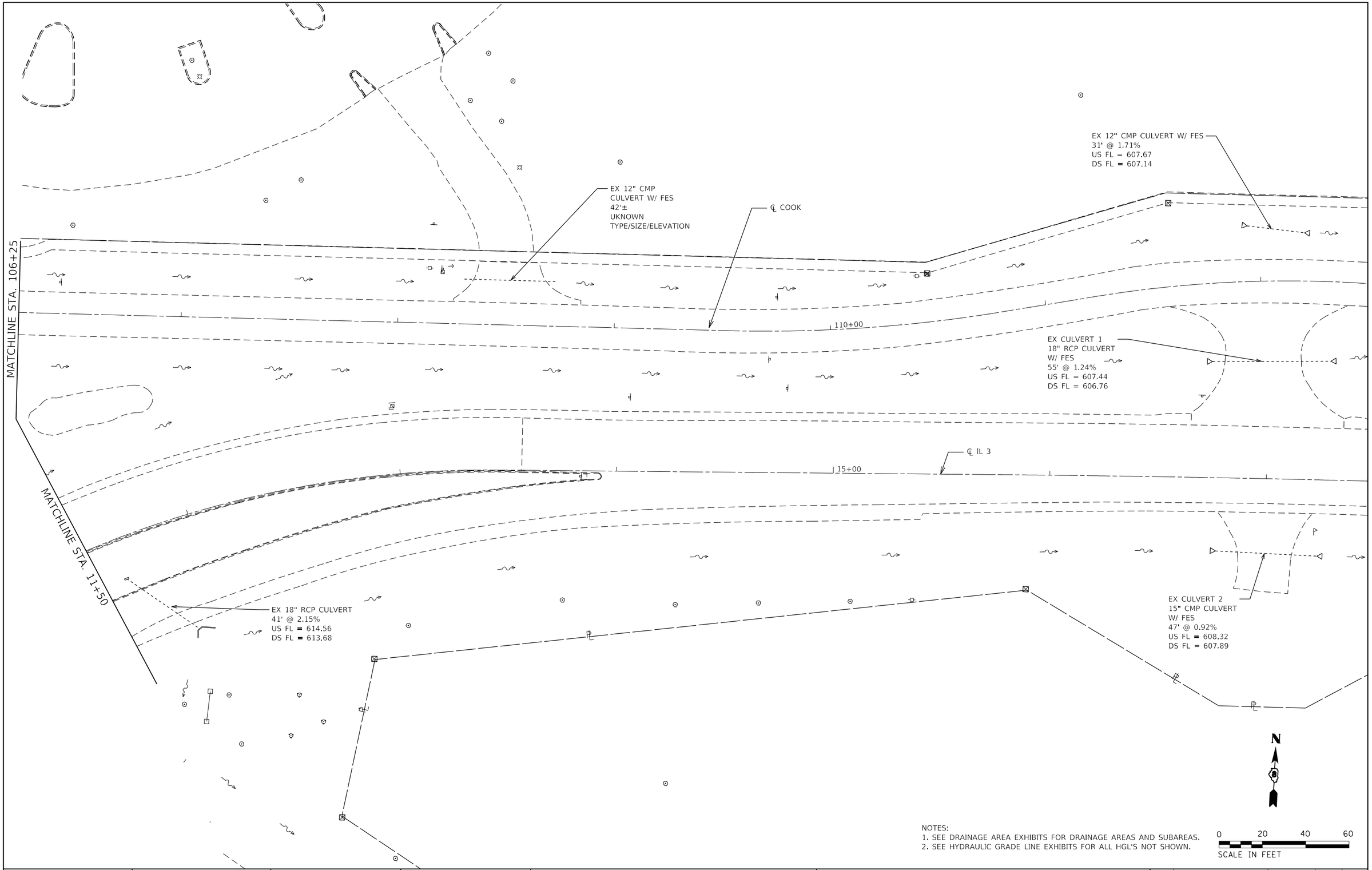
Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
IL 3 & COOK ST.

SCALE: | SHEET 3 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

CTION
(ASSUMED)

FILE NAME =	USER NAME = jstein	DESIGNED -	REVISED -
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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
IL 3 & COOK ST.

SCALE: | SHEET 4 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

STR. E-2-9
STA. 23+63.01, 19.73' LT
F&G TY 3
TOS/FL = 618.08
INV. = 616.28

STR. E-2-11A
STA. 24+43.04, 19.55' LT
F&G TY 3
TOS/FL = 616.59
INV. = 614.21

PIPE E-2-11A: 12" STORM SEWER, 81' @ 1.73%

STR. E-2-1
STA. 21+12.82, 19.59' LT
F&G TY 3
TOS/FL = 628.80
INV. = 625.29

STR. E-2-3
STA. 23+37.80, 19.59' LT
F&G TY 3
TOS/FL = 622.83
INV. = 620.13

SEE IL 3 EXISTING DRAINAGE PLAN SHEETS

℄ IL 3

PIPE E-2-1: 12" STORM SEWER, 41' @ 1.91%

℄ PIERCE LANE

PIPE E-2-3: 12" STORM SEWER, 41' @ 0.98%

PIPE E-2-9: 12" STORM SEWER, 37' @ 3.52%

PIPE E-2-2: 15" STORM SEWER, 82' @ 4.47%

PIPE E-2-4: 12" STORM SEWER, 146' @ 3.87%

MATCHLINE STA. 25+00

STR. E-2-2
STA. 21+32.09, 19.35' RT
F&G TY 3
TOS/FL = 627.86
INV. = 624.51

PIPE E-2-6: 12" STORM SEWER, 28' @ 0.82%

STR. E-2-6
F&G TY 3
TOS/FL = 625.25
INV. = 622.43

PIPE E-2-8: 12" STORM SEWER, 32' @ 1.48%

STR. E-2-8
F&G TY 3
TOS/FL = 625.34
INV. = 622.89

℄ COOK ST.

PIPE E-2-5: 12" STORM SEWER, 52' @ 2.19%

STR. E-2-4
STA. 22+17.00, 19.64' RT
F&G TY 3
TOS/FL = 624.03
INV. = 620.58

STR. E-2-10
STA. 23+64.72, 19.72' RT
F&G TY 3
TOS/FL = 618.11
INV. = 614.94

PIPE E-2-10: 15" STORM SEWER, 157' @ 1.87%

STR. E-2-5
F&G TY 3
TOS/FL = 625.12
INV. = 621.68

PIPE E-2-7: 12" STORM SEWER, 38' @ 2.78%

STR. E-2-7
F&G TY 3
TOS/FL = 625.30
INV. = 622.75

N

0 20 40 60
SCALE IN FEET

NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

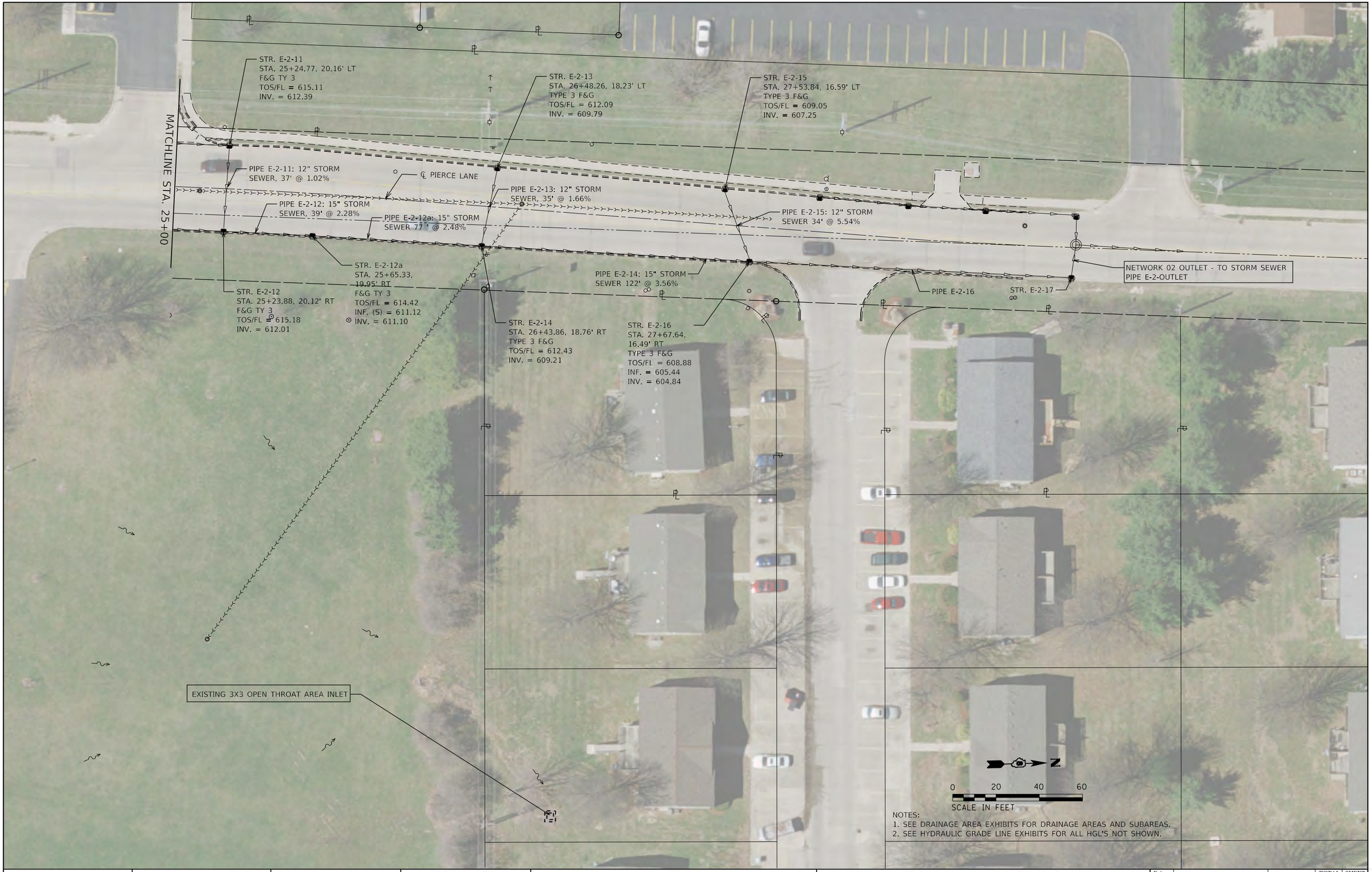
EXISTING DRAINAGE PLAN
PIERCE LANE & COOK ST.

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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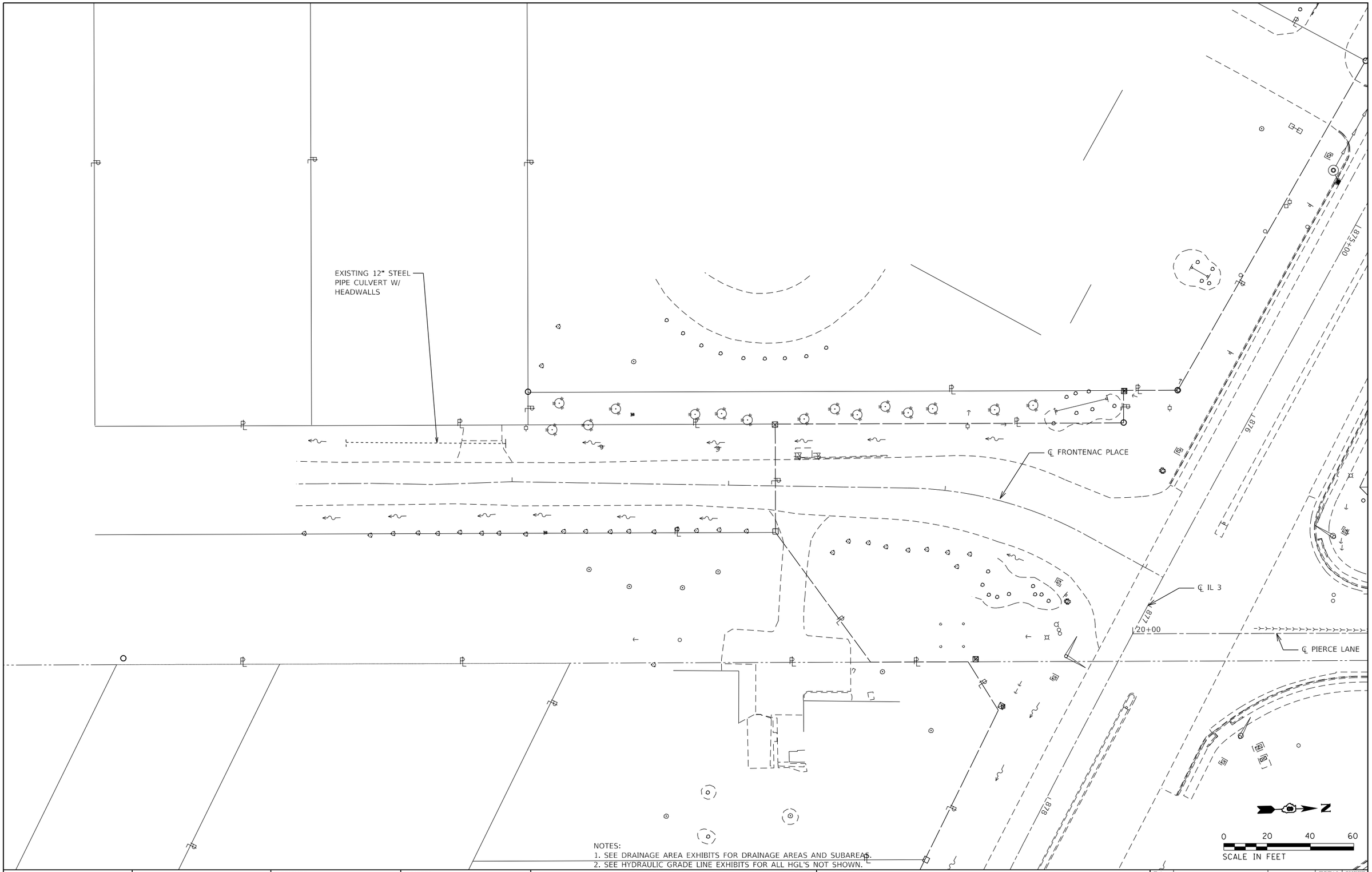
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
PIERCE LANE

SCALE: | SHEET 6 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			CONTRACT NO.	
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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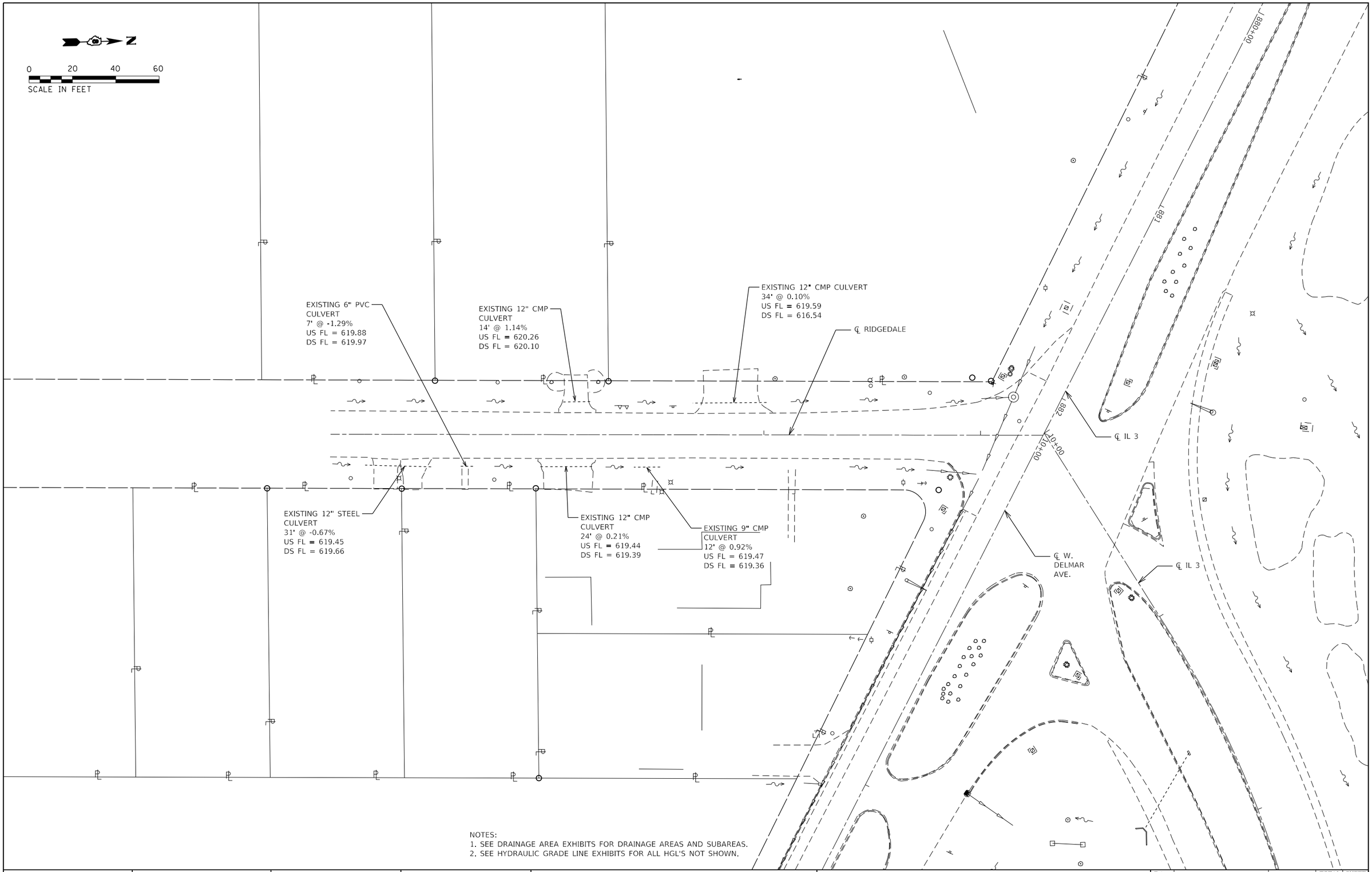
Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
FRONTENAC PLACE

SCALE: | SHEET 7 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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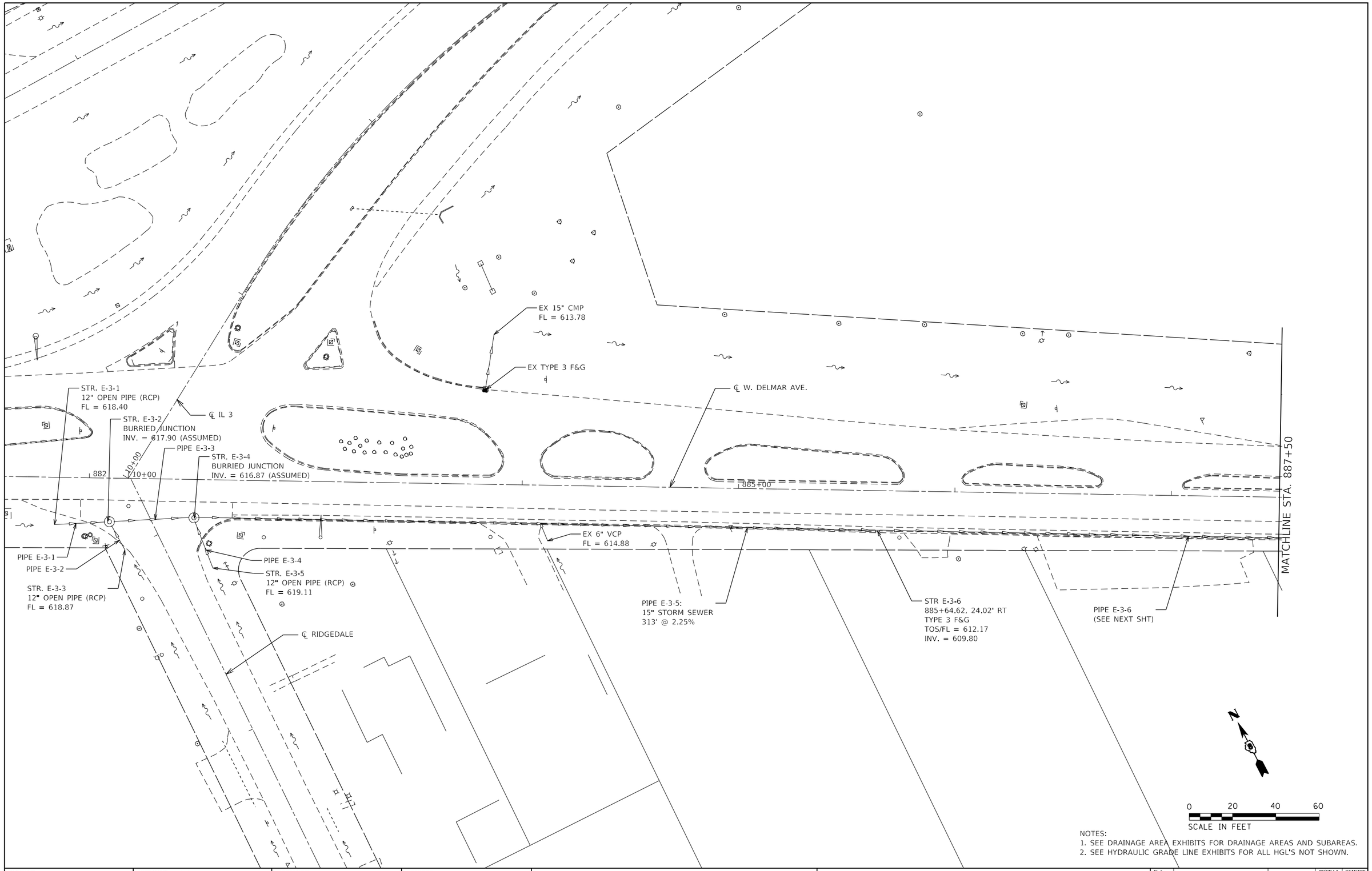
Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
RIDGEDALE

SCALE: | SHEET 8 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			CONTRACT NO.	
		ILLINOIS	FED. AID PROJECT	



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING DRAINAGE PLAN
DELMAR

SCALE: | SHEET 9 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

EX CULVERT 3
15" CMP CULVERT W/ FES
47' @ 0.92%
US FL = 608.32
DS FL = 607.89

NETWORK 03 OUTLET - TO TRIBUTARY
PIPE E-3-OUTLET
3'X'3 RC BOX CULVERT
42' @ 1.95%

℄ W. DELMAR AVE.

STR. E-3-12
890+60.15, 20.66' RT
TYPE 3 F&G
TOS/FL = 609.53
INV. = 606.05

MATCHLINE STA. 887+50

STR. E-3-9
BURRIED JUNCTION
INV. = 605.53 (ASSUMED)

889
890+00
891

PIPE E-3-8
PIPE E-3-10
PIPE E-3-11
PIPE E-3-13
PIPE E-3-12
PIPE E-3-9
PIPE E-3-7

STR. E-3-10
18" OPEN PIPE
FL = 607.32

PIPE E-3-6:
15" STORM SEWER
318' @ 1.26%

STR. E-3-7
STA. 888+84.73, 24.75' RT
TYPE 3 F&G
TOS/FL = 609.51
INV. = 605.78

STR. E-3-8
12" OPEN PIPE
FL = 608.50

STR. E-3-10
12" OPEN PIPE
FL = 607.90

STR. E-3-11
889+80.45, 22.60' RT
TYPE 3 F&G
TOS/FL = 609.47
INV. = 605.12

STR. E-3-13
12" OPEN PIPE
FL = 606.83

N

0 20 40 60
SCALE IN FEET

NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

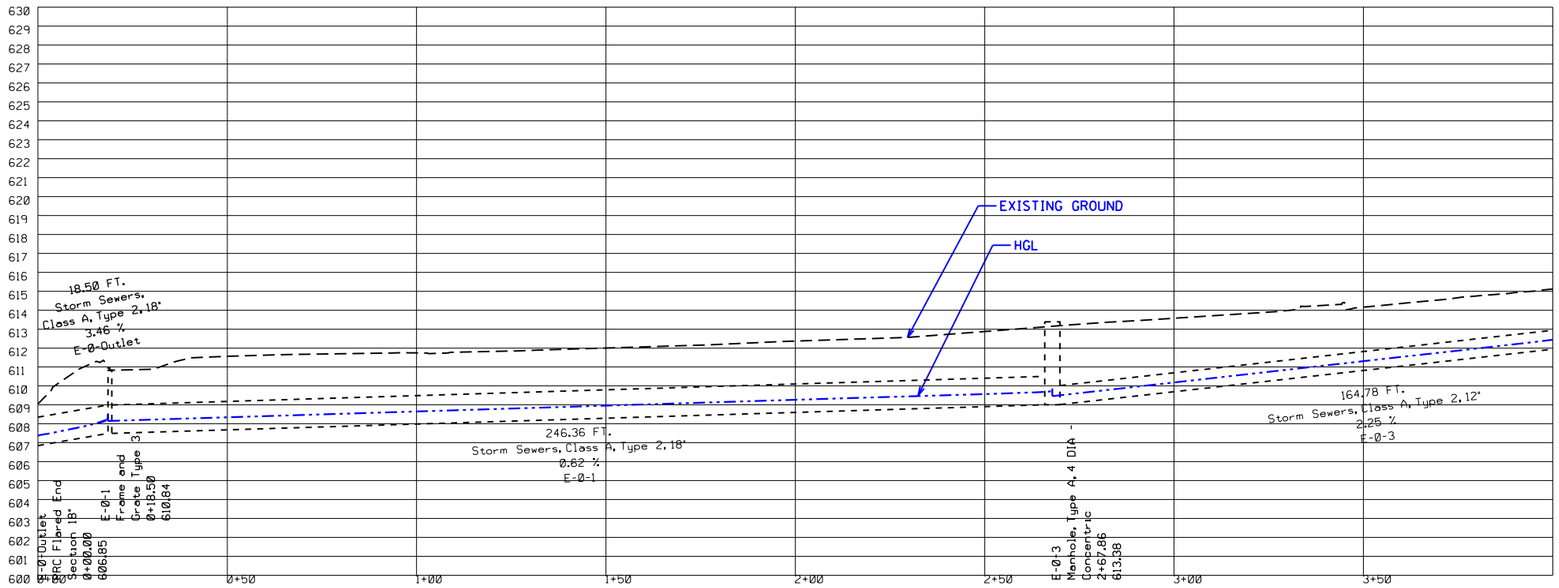
EXISTING DRAINAGE PLAN
DELMAR

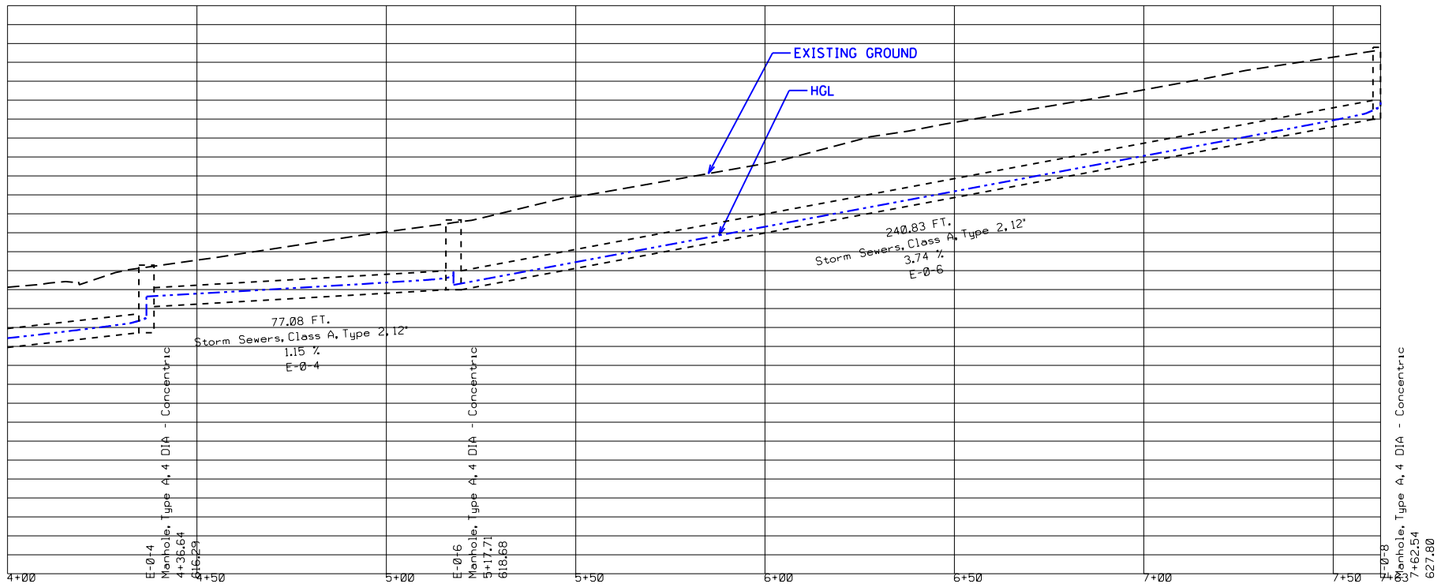
SCALE: | SHEET 10 OF 10 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

ATTACHMENT 04

EXISTING HYDRAULIC GRADE LINES





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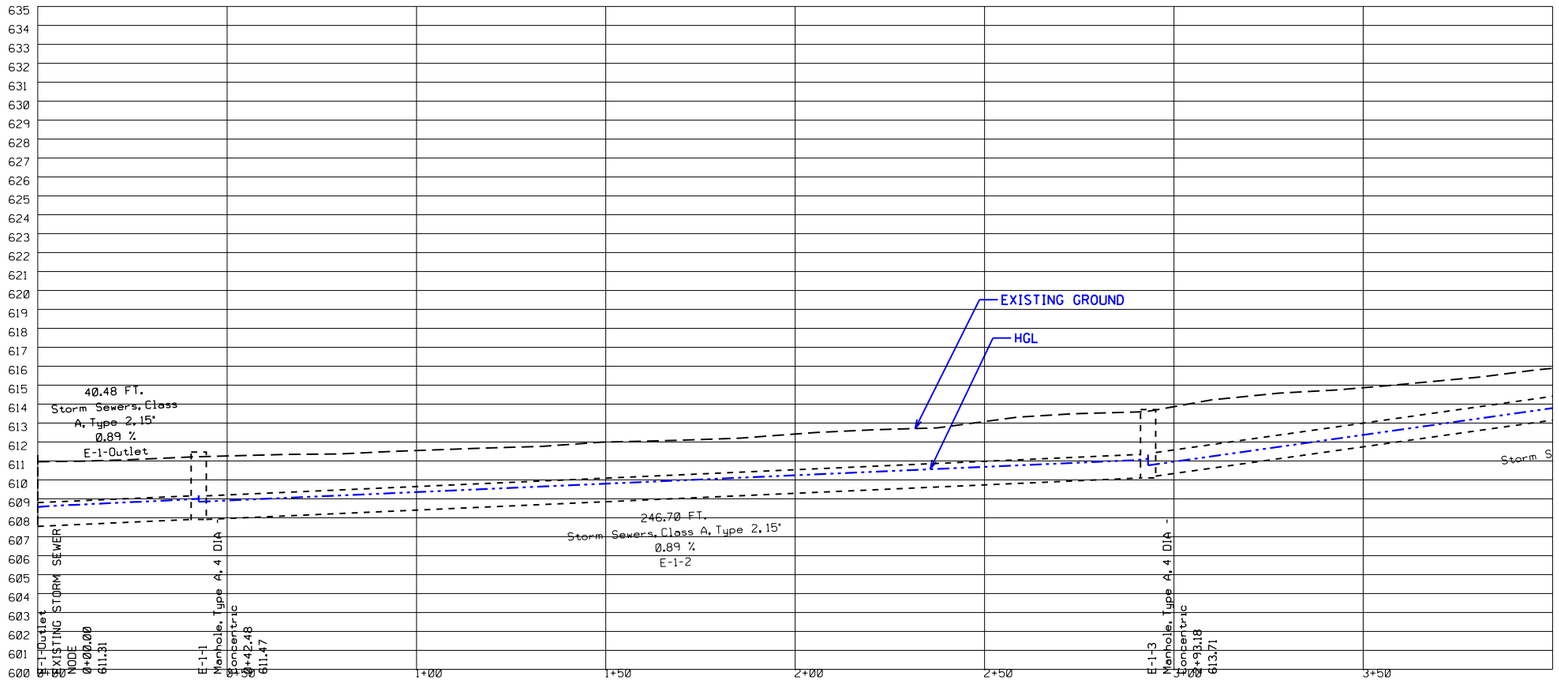
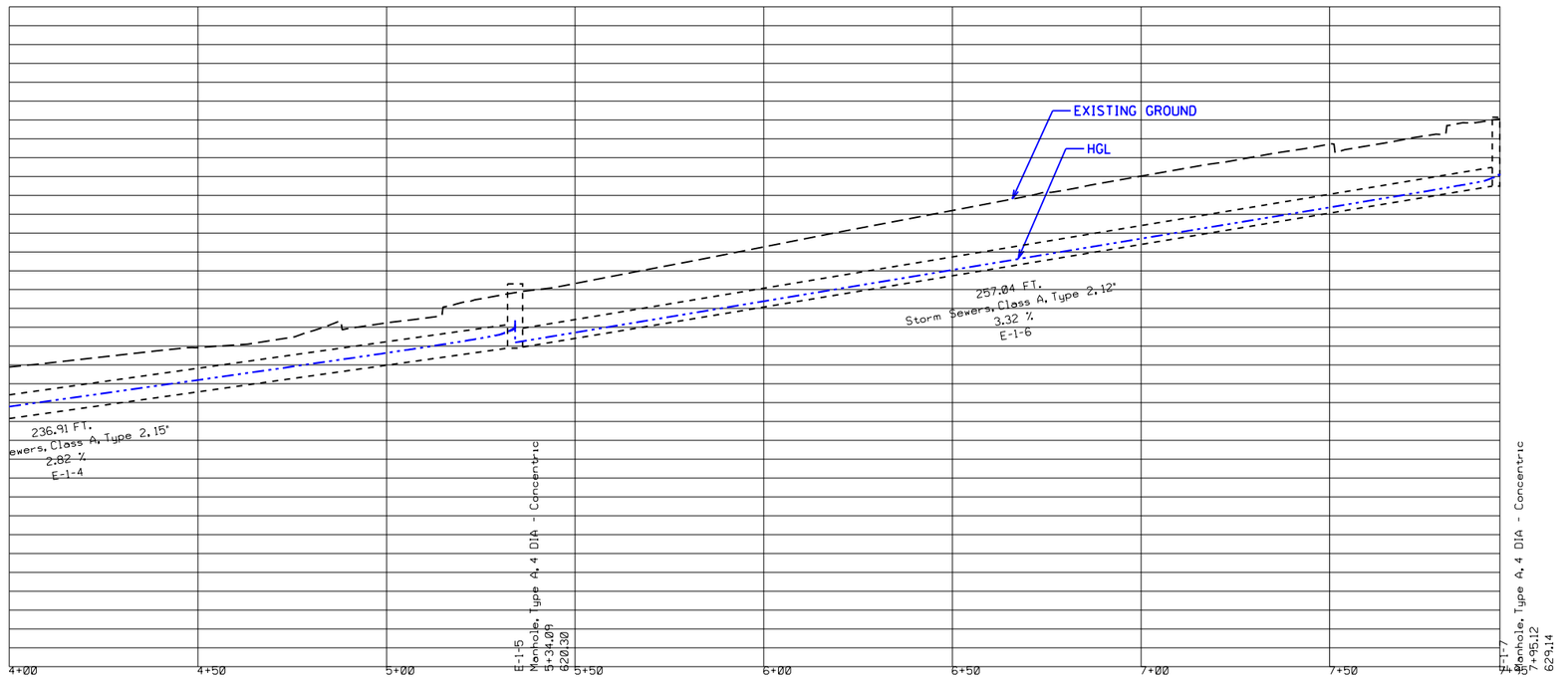
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISITING HGL
NETWORK 00

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

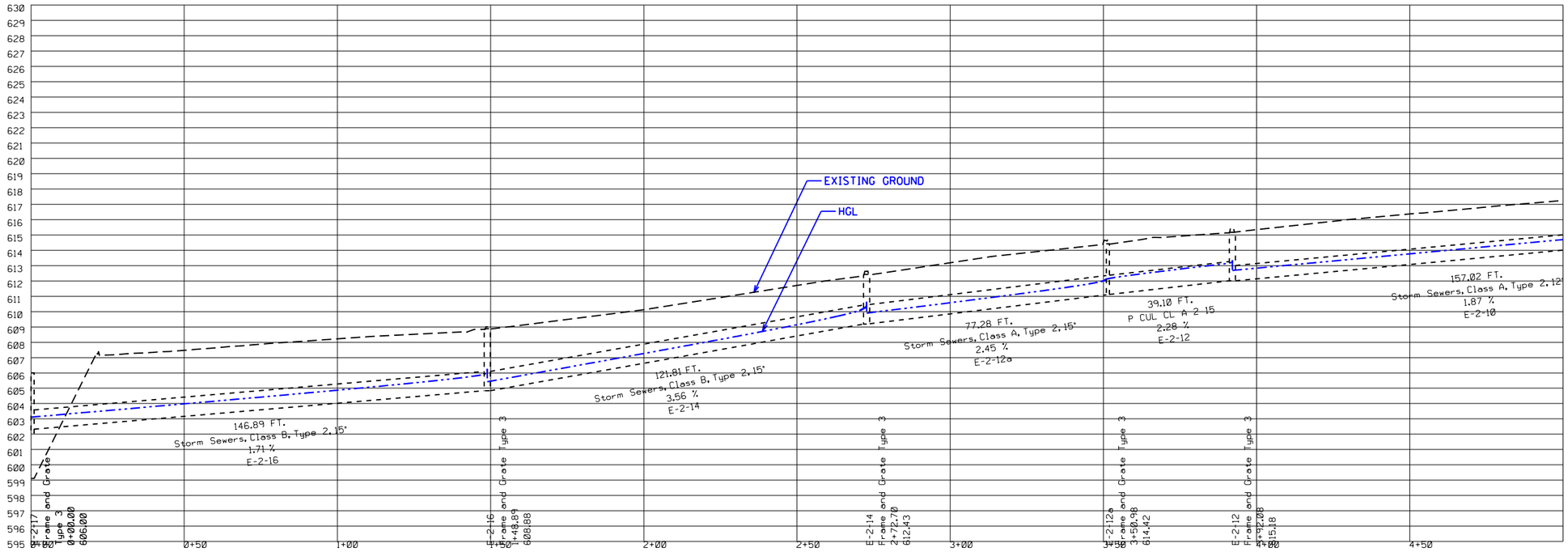
EXISITING HGL
NETWORK 01

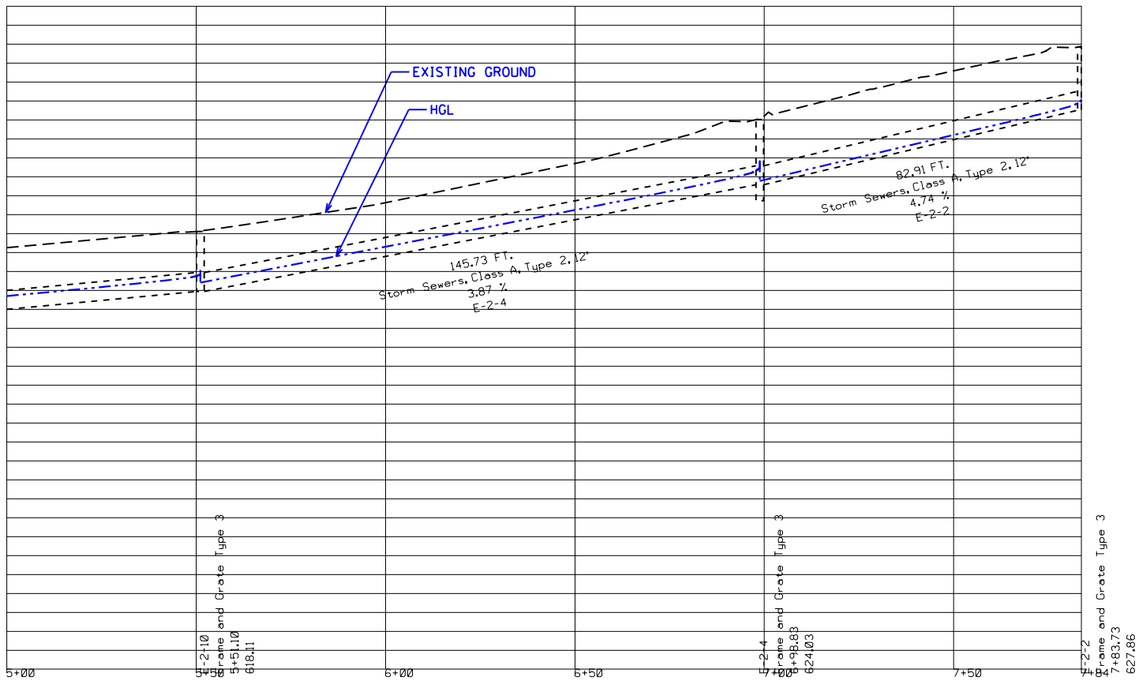
SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

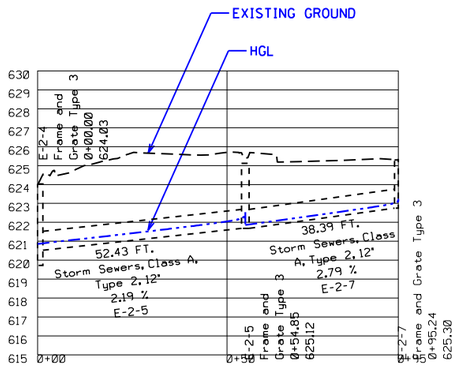
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT







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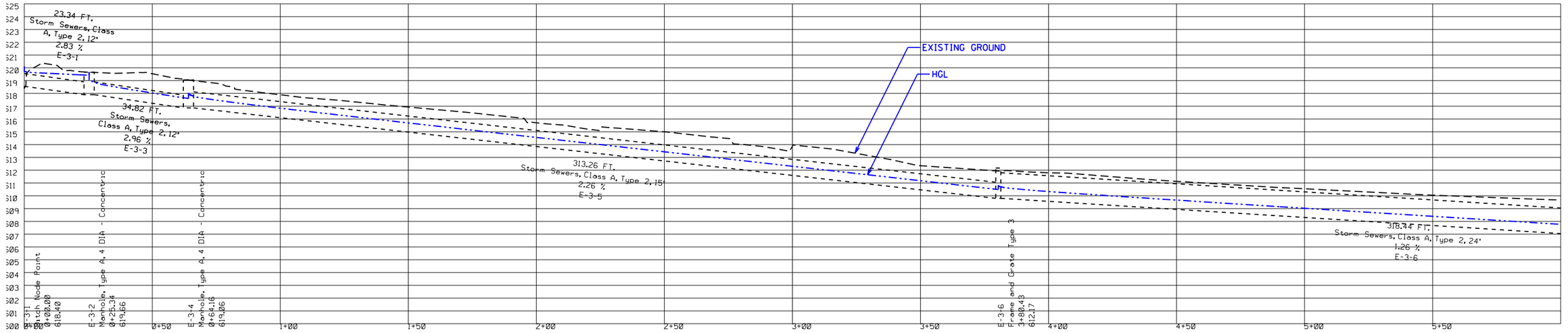
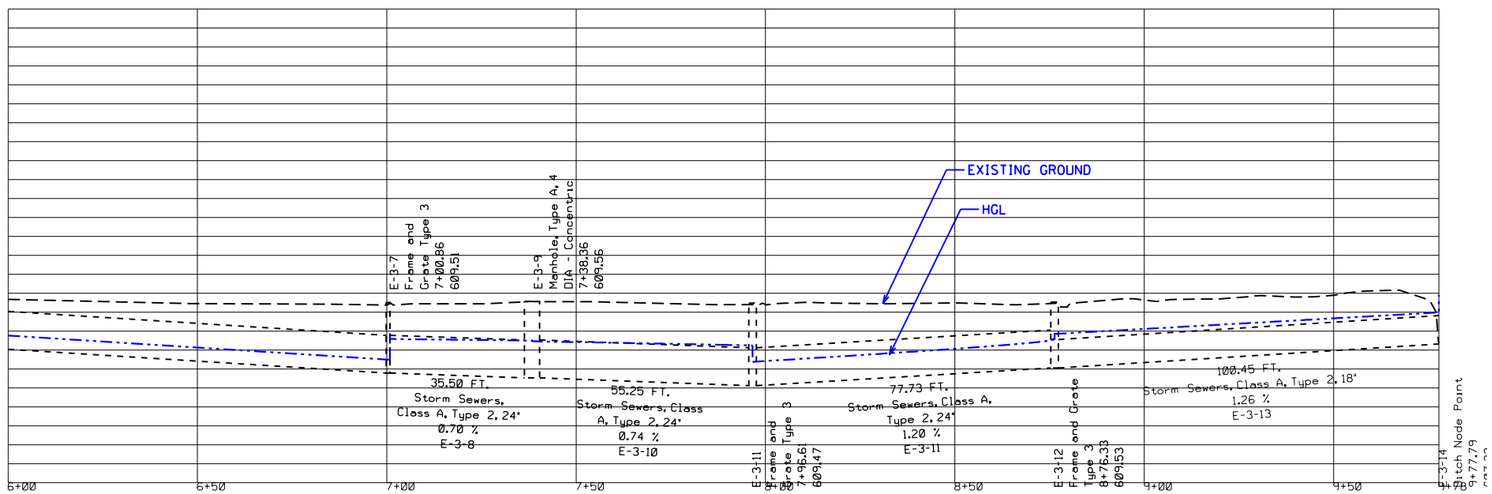
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

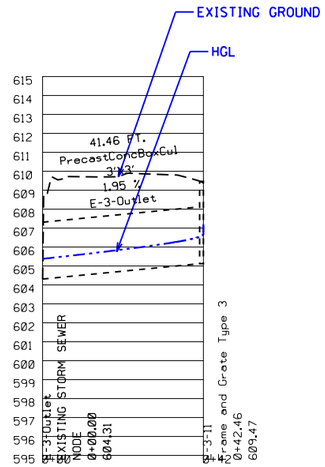
EXISITING HGL
NETWORK 02

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		







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Default	PLOT DATE = 11/7/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISITING HGL
NETWORK 03

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ATTACHMENT 05
PROPOSED DRAINAGE AREAS

PR NETWORK 02
PR NETWORK 00
3X3 AREA INLET
PR NETWORK 06
PR NETWORK 04
PR NET 07
PR NETWORK 01
PR NETWORK 05b
PR NETWORK 05
PR CULVERT 2
PR CULVERT 3
PR NETWORK 03
DADRIAN DR
PROVISIONAL LIVING AT GODFREY, LLC
IL RTE 3 (W. DELMAR AVE)
D'ADRIAN PROFESSIONAL PARK
PIERCE LN
SURREY CT
EVANGELICAL UNITED CHURCH OF CHRIST
GREENWOOD LN
TK CARPET GALLERY
MID-ILLINOIS GYMNASTICS AND DANCE
MEECO METAL PRODUCTS
CEMETERY
COOK ST
IL RTE 3 (HOMER M ADAMS PKWY)
COOK AVE
ELIAS-SMITH FUNERAL HOMES
UNITY FELLOWSHIP CHURCH
SCHULMEISTER & NEWQUIST DENTIST
RESURRECTION LUTHERAN CHURCH OF ALTON
FRONTENAC PL
NORWOOD LN
RIDGEDALE DR
GRIBBLE PRINTING CO.
MACIAS INSURANCE AGENCY, INC.
WANNAMAKER LN
W. DELMAR AVE
GREENWOOD LN
WALTER ST
JUNIPER AVE
MELROSE AVE
N
0 110 220 330
SCALE IN FEET

FILE NAME = D876F84-sht-pr_drain_overall.dgn Default	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
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	PLOT SCALE = 220.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE AREAS
OVERALL

SCALE: 1" = 110' | SHEET 1 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

IL RTE 3
(W. DELMAR AVE)

D'ADRIAN
PROFESSIONAL
PARK

EVANGELICAL UNITED
CHURCH OF CHRIST

PR. ℄ COOK

PIERCE LN

PR. ℄ PIERCE

COOK ST

E-0-1
E-1-2

E-0-2
E-1-4

PR ℄ IL 3 NORTH

E-0-5
E-1-6

E-0-7
P-1-8

E-1-5a

ELIAS-SMITH
FUNERAL HOMES

UNITY FELLOWSHIP
CHURCH

PR. ℄ FRONTENAC

FRONTENAC PL

IL RTE 3
(W. DELMAR AVE)

N

0 40 80 120
SCALE IN FEET

LEGEND

- EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)
- PR STORM SEWER
- PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network00&01.dgn Default	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
	PLOT SCALE = 80.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE AREAS
NETWORK 00 & 01

SCALE: 1" = 40' | SHEET 2 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

IL RTE 3 (W. DELMAR AVE)

PR. ℄ IL 3 NORTH

UNITY FELLOWSHIP CHURCH

D'ADRIAN PROFESSIONAL PARK

PR. ℄ FRONTENAC

PR. ℄ PIERCE

FRONTENAC PL

P-2-1

P-2-5

P-2-9a

P-2-9

P-2-10

E-2-13

P-2-2

P-2-6

PIERCE LN

P-2-3

P-2-7

P-2-8

P-2-11

E-2-12a

E-2-14

E-2-15

E-2-16

E-2-17

P-2-4

P-7-2a

P-7-2

P-7-10

P-7-1

P-7-4

P-7-3

PR. ℄ IL 3 MID

PR. ℄ NORWOOD

NORWOOD LN

COOK ST

P-7-6

P-7-5

P-7-8

P-7-7

SURREY CT

SCHULMEISTER & NEWQUIST DENTIST

IL RTE 3 (W. DELMAR AVE)

EVANGELICAL UNITED CHURCH OF CHRIST

0 40 80 120

SCALE IN FEET

LEGEND

EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)

PR STORM SEWER

PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network-02.dgn	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
Default	PLOT SCALE = 80.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PR DRAINAGE AREAS
NETWORKS 02 & 07

SCALE: 1" = 40' | SHEET 3 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

EVANGELICAL UNITED CHURCH OF CHRIST

TK CARPET GALLERY

MID-ILLINOIS GYMNASTICS AND DANCE

MEECO METAL PRODUCTS

CEMETERY

PR. ℄ COOK

COOK ST

IL RTE 3 (W. DELMAR AVE)

IL RTE 3 (HOMER M ADAMS PKWY)

COOK AVE

PR. ℄ FRONTENAC

PR. ℄ NORWOOD

PR. ℄ IL 3 SOUTH

SCHULMEISTER & NEWQUIST DENTIST

RESURRECTION LUTHERAN CHURCH OF ALTON

PR. ℄ DELMAR

FRONTENAC PL

NORWOOD LN

P-5-2

E-3-6

P-3-2

P-3-3

E-3-7

GRIBBLE PRINTING CO.

MACIAS INSURANCE AGENCY, INC.

PR. ℄ RIDGEDALE

P-3-1

RIDGEDALE DR

WANNAMAKER LN

E-3-10

E-3-13

W. DELMAR AVE

GREENWOOD LN

WALTER ST

JUNIPER AVE

E-3-8

E-3-14

MELROSE AVE

CHOUTEAU ST

N

0 80 160 240

SCALE IN FEET

LEGEND

EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)

PR STORM SEWER

PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network-03.dgn	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
	PLOT SCALE = 160.0000 ' / in.	CHECKED - JWS	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PR DRAINAGE AREAS
NETWORK 03

SCALE: 1" = 80' | SHEET 4 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

PIERCE LN

EVANGELICAL UNITED CHURCH OF CHRIST

PR. ℄ COOK

COOK ST

IL RTE 3 (W. DELMAR AVE)

IL RTE 3 (HOMER M ADAMS PKWY)

P-4-5
P-4-6
P-4-7
P-4-8
P-4-9
P-4-10
P-4-11
P-4-12
P-4-13
P-4-14
P-4-15
P-4-16
P-4-16a
P-4-17

PR. ℄ IL 3 SOUTH

PR CULVERT 2

PR. ℄ NORWOOD

SCHULMEISTER & NEWQUIST DENTIST

RESURRECTION LUTHERAN CHURCH OF ALTON

RIDGEDALE DR

NORWOOD LN

W. DELMAR AVE

N

0 40 80 120

SCALE IN FEET

LEGEND

EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)

PR STORM SEWER

PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network-04.dgn	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
Default	PLOT SCALE = 80.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PR DRAINAGE AREAS
NETWORK 04 & PR CULVERT 2

SCALE: 1" = 40' | SHEET 5 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

EVANGELICAL UNITED CHURCH OF CHRIST

PIERCE LN

PR. ℄ COOK

COOK ST

IL RTE 3 (W. DELMAR AVE)

IL RTE 3 (HOMER M ADAMS PKWY)

P-5-1a
P-5-1
P-5-2
P-5-2a
P-5-3
P-5-4
P-5-5
P-5-8
P-5-9
P-5-10
P-5-11
P-5-12
P-5-13
P-5-14_inlet
P-5-15
P-5-16
P-5-17
P-5-18
P-5-19
P-5-20
P-5-21
P-5-22
P-5-23a
P-5b-1
P-5a-1
P-5a-2
P-5a-4
P-5a-6
E-3-6

PR. ℄ NORWOOD

PR. ℄ IL 3 SOUTH

SCHULMEISTER & NEWQUIST DENTIST

RESURRECTION LUTHERAN CHURCH OF ALTON

PR CULVERT 3

W. DELMAR AVE

GRIBBLE PRINTING CO.

MACIAS INSURANCE AGENCY, INC.

FRONTENAC PL

NORWOOD LN

RIDGEDALE DR

WANNAMAKER LN

N

0 40 80 120

SCALE IN FEET

LEGEND

EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)

PR STORM SEWER

PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network-05.dgn Default	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
	PLOT SCALE = 80.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PR DRAINAGE AREAS
NETWORK 05, 05b & PR CULVERT 3

SCALE: 1" = 40' | SHEET 6 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

EVANGELICAL UNITED CHURCH OF CHRIST

PR. ℄ COOK

IL RTE 3 (W. DELMAR AVE)

COOK ST

P-6-3
P-6-4
P-6-5
P-6-6
P-6-7
P-6-8
P-6-9
P-6-10
P-6-11
P-6-12

IL RTE 3 (HOMER M ADAMS PKWY)

PR. ℄ IL 3 SOUTH

PR. ℄ NORWOOD

SCHULMEISTER & NEWQUIST DENTIST

NORWOOD LN

RIDGEDALE DR

RESURRECTION LUTHERAN CHURCH OF ALTON

W. DELMAR AVE

N

0 40 80 120
SCALE IN FEET

LEGEND

EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)

PR STORM SEWER

PR PIPE CULVERT

FILE NAME = D876F84-sht-pr_drain_network-06.dgn	USER NAME = jstein	DESIGNED - EKS/TMG	REVISED -
		DRAWN - EKS/TMG	REVISED -
Default	PLOT SCALE = 80.0000 ' / in.	CHECKED - JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PR DRAINAGE AREAS
NETWORK 06

SCALE: 1" = 40' | SHEET 7 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

LEGEND

- EX STORM SEWER - USED IN PLACE (EX TO BE REMOVED NOT SHOWN FOR CLARITY)
- PR STORM SEWER
- PR PIPE CULVERT

N

0 60 120 240

SCALE IN FEET

SURREY CT.

EX. 3X3 OPEN THROAT INLET

PIERCE LN.

SEE NETWORK 02

HATCHED AREA TO BE ROUTED THROUGH DETENTION BASIN

EVANGELICAL UNITED CHURCH OF CHRIST

EX. ℄ COOK

COOK ST.

IL RTE 3 (W. DELMAR AVE)

IL RTE 3 (HOMER M ADAMS PKWY)

FRONTENAC RL

EX. ℄ NORWOOD

E-8-1

FILE NAME = D876F84-sht-pr_drain_network-3X3INLET.dgn Default	USER NAME = jstein	DESIGNED EKS/TMG	REVISED -
		DRAWN EKS/TMG	REVISED -
	PLOT SCALE = 120.0000 ' / in.	CHECKED JWS	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE AREAS
EX. 3X3 OPEN THROAT INLET

SCALE: 1" = 80' | SHEET 8 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

ATTACHMENT 06

PROPOSED DRAINAGE PLAN

PR STONE
RIPRAP, CL A4
10' X 27'

NETWORK 00 OUTLET - TO TRIBUTARY
STR. E-0-OUTLET
STA. 866+75.42, 47.32' LT
PRC FLARED END SECTION, 18"
FL = 606.85

STR. E-0-1
STA. 866+89.25, 27.80' LT
TYPE 3 F&G
TOS/FL = 610.84
INV. = 607.49

STR. E-0-2
STA. 869+41.82,
29.80' LT
TYPE 3 F&G
TOS/FL = 612.82
INV. = 609.61

STR. E-0-3
STA. 869+38.90, 32.04' LT
MANHOLE TYPE A
TOS/FL = 613.38
INV. = 609.01

STR. E-0-4
STA. 871+02.61,
37.01' LT
MANHOLE TYPE A
TOS/FL = 616.29
INF. = 614.10
INV. = 612.72

STR. E-0-5
STA. 871+94.10, 33.70' LT
TYPE 3 F&G
TOS/FL = 618.10
INV. = 615.75

STR. E-0-6
STA. 871+88.55, 41.59' LT
MANHOLE TYPE A
TOS/FL = 618.68
INV. = 614.99

PIPE E-0-2: 12" STORM SEWER
4' @ 17.04%

PIPE E-0-5: 12" STORM SEWER
8' @ 10.78%

867 868 869 870+00 871

MATCHLINE STA. 872+00

LIMITS OF CONST. (TYP.)

℄ IL 3 NORTH

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

N

0 20 40 60
SCALE IN FEET

PLAN
DATE
BY
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.

PROFILE
DATE
BY
SURVEYED
PLOTTED
PROFILES CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.

635 630 625 620 615 610 605 600 595

611.24 611.50 611.76 612.07 612.40 612.79 613.34 614.05 614.93 616.05 617.34 618.83

866+50 867+00 867+50 868+00 868+50 869+00 869+50 870+00 870+50 871+00 871+50 872+00

STR. E-0-1
STR. E-0-3
STR. E-0-4
STR. E-0-6

PIPE E-0-OUTLET: 18" STORM SEWER
18' @ 3.62%

PIPE E-0-1: 18" STORM SEWER
247' @ 0.62%

PIPE E-0-3: 12" STORM SEWER
165' @ 2.25%

PIPE E-0-4:
12" STORM SEWER 78' @ 1.16%

FILE NAME = D876F84-sht-drain-plnprf-01-L.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 00
IL 3 NORTH DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 1 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

STR. E-0-8
STA. 874+33.39,
47.19' LT
MANHOLE TYPE A
TOS/FL = 627.80
INV. = 623.99

STR. E-0-7
STA. 874+40.60,
40.80' LT
TYPE 3 F&G
TOS/FL = 627.35
INV. = 625.82

PR. ROW

PIPE E-0-7: 12" STORM SEWER
7' @ 20.90%

MATCHLINE STA. 872+00

872 873 874 875+00 876

℄ IL 3 NORTH

0+00

33

PR. ROW

LIMITS OF CONST. (TYP.)

N

0 20 40 60
SCALE IN FEET

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS SECT. CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

650 645 640 635 630 625 620 615 610

CENTER OF WEST ROUNDABOUT
633.64

VPI STA. 875+04.32
ELEVATION 630.31

STR. E-0-8

624.83

626.86

+10.35 EL. 626.86

+98.29 EL. 631.07

±3.67% +0.81% +0.81%

187.94' V.C.

PIPE E-0-6: 12" STORM SEWER
241' @ 3.74%

618.83 620.70 622.71 624.63 626.44 626.48 628.12 628.19 629.56 629.54 630.50 630.50 631.08 631.10 631.24 632.92

872+00 872+50 873+00 873+50 874+00 874+50 875+00 875+50 876+00 876+50

FILE NAME = D876F84-sht-drain-plnprf-02-L.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 00
IL 3 NORTH DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 2 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
PROFILES CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

LIMITS OF CONST. (TYP.)

℄ IL 3 NORTH

867

868

869

870+00

871

MATCHLINE STA. 872+00

PIPE E-1-1: 12" STORM SEWER 6' @ 13.48%

PIPE E-1-3: 12" STORM SEWER
5' @ 17.74%

NETWORK 01 OUTLET - TO STORM SEWER
PIPE E-1-OUTLET: 15" STORM SEWER
41' @ 0.89%

STR. E-1-2
STA. 867+36.51, 16.68' RT
TYPE 3 F&G
TOS/FL = 611.07
INV. = 608.70

STR. E-1-1
STA. 867+30.57, 23.35' RT
MANHOLE TYPE A
TOS/FL = 611.47
INV. = 607.91

STR. E-1-3
STA. 869+81.01, 24.31' RT
MANHOLE TYPE A
TOS/FL = 613.71
INV. = 610.20

STR. E-1-4
STA. 869+86.06, 18.30' RT
TYPE 3 F&G
TOS/FL = 613.24
INV. = 611.00

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

N

0 20 40 60
SCALE IN FEET

635
630
625
620
615
610
605
600
595

STR. E-1-1

STR. E-1-3

PIPE E-1-2: 15" STORM SEWER
247' @ 0.89%

PIPE E-1-4: 15" STORM SEWER
237' @ 2.82%

611.24 611.50 611.76 612.07 612.40 612.79 613.34 614.05 614.93 616.05 617.34 618.83

866+50 867+00 867+50 868+00 868+50 869+00 869+50 870+00 870+50 871+00 871+50 872+00

FILE NAME = D876F84-sht-drain-plnprf-01-R.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 01
IL 3 NORTH DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 3 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

STR. E-1-5
STA. 872+21.89, 21.12' RT
MANHOLE TYPE A
TOS/FL = 620.30
INF. = 617.38 (S)
INV. = 616.95

℄ IL 3 NORTH

PR. ROW

MATCHLINE STA. 872+00

PIPE E-1-5: 12" STORM SEWER
7' @ 2.04%

872 873 874 875+00 876

STR. E-1-6
STA. 872+30.93, 16.80, TYPE 3 F&G
TOS/FL = 619.37
INV. = 617.72

STR. P-1-8
STA. 875+00.00, 25.00' RT
INLET TY A, F&G TY 3
TOS/FL = 628.88
INV. = 625.88

0+00

33

PIPE E-1-5a: 12" STORM SEWER
45' @ 1.63%

STR. E-1-5a
STA. 872+22.01, 67.95' RT, AREA INLET
TOS/FL = 620.15
INV. = 618.10

PIPE P-1-8: 12" STORM SEWER
20' @ 0.86%

STR. E-1-7
STA. 874+82.86, 21.09' RT
MH TY A, 4' DIA.
TOS = 629.14
INF. (NE) = 625.71
INV. = 625.49

PR. ROW

LIMITS OF CONST. (TYP.)

0 20 40 60
SCALE IN FEET

CENTER OF WEST ROUNDABOUT

633.64

VPI STA. 875+04.32
ELEVATION 630.31

STR. E-1-7

+3.67% +0.81% +0.81%

624.83

STR. E-1-5

+10.35 EL. 626.86

+98.29 EL. 631.07

187.94' V.C.

PIPE E-1-6: 12" STORM SEWER
258' @ 3.32%

650 645 640 635 630 625 620 615 610

618.83 620.70 622.71 624.63 626.44 626.48 628.12 628.19 629.56 629.54 630.50 630.50 631.08 631.10 631.24 632.92

872+00 872+50 873+00 873+50 874+00 874+50 875+00 875+50 876+00 876+50

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS SECS CHECKED
BM: NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

FILE NAME = D876F84-sht-drain-plnprf-02-R.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 01
IL 3 NORTH DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 4 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

STR. P-2-1
STA. 21+85.00, 45.50' LT
INLET TY A, MEDIAN INLET (604101)
TOS/FL = 625.00
INV. = 621.50

STR. P-2-2
STA. 21+85.00, 20.18' LT
INLET TY B, F&G TY 3
TOS/FL = 626.92
INF. (W) = 621.38
INV. = 621.00

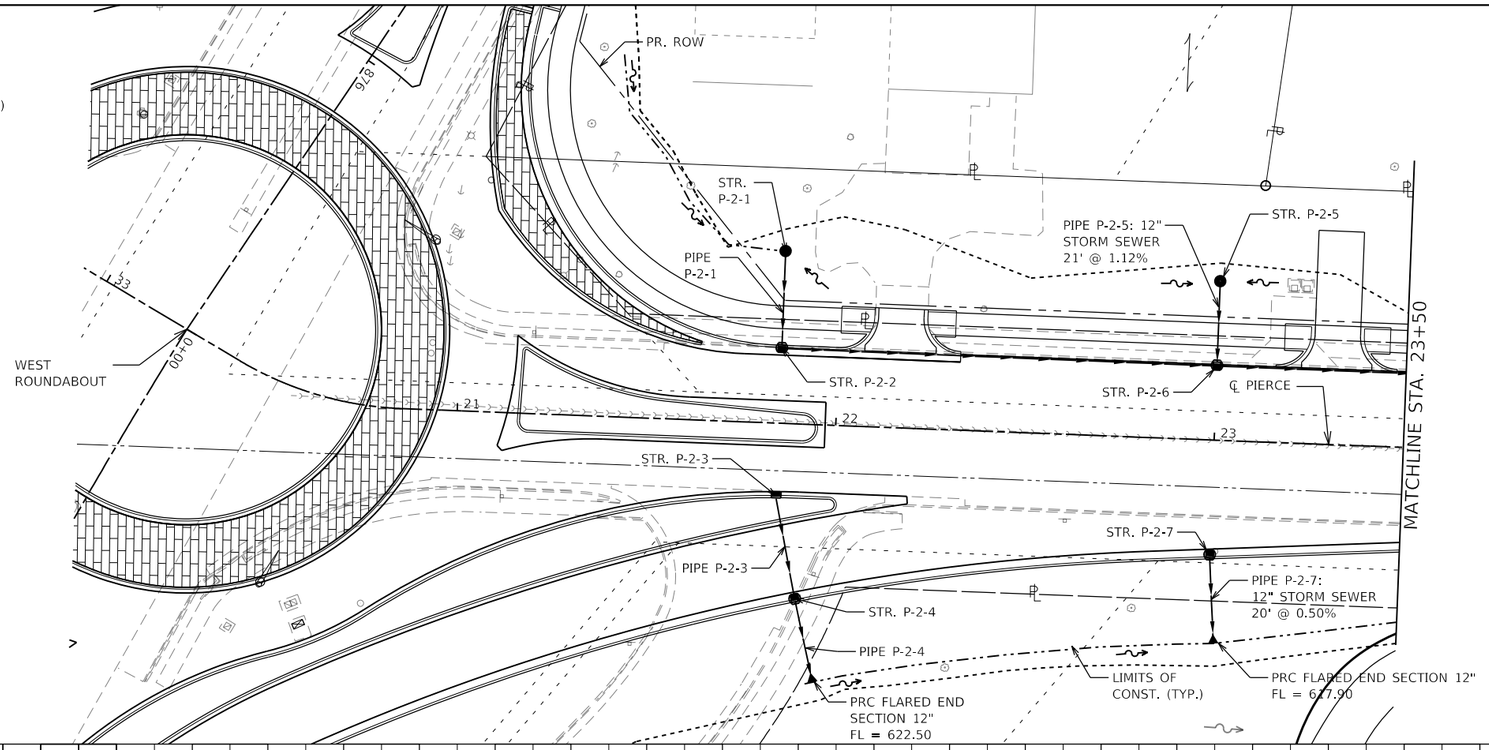
STR. P-2-3
STA. 21+85.00, 19.15' RT
INLET TY A, F&G TY 11
TOS/FL = 626.98
INV. = 623.98

STR. P-2-4
STA. 21+91.00, 46.37' RT
INLET TY A, F&G TY 3
TOS/FL = 626.28
INF. (W) = 623.28
INV. = 622.60

PIPE P-2-1: 12" STORM SEWER
24' @ 0.50%

PIPE P-2-3: 12" STORM SEWER
26' @ 2.70%

PIPE P-2-4: 12" STORM SEWER
20' @ 0.50%



STR. P-2-5
STA. 23+00.00, 42.00' LT
INLET TY A, MEDIAN INLET (604101)
TOS/FL = 620.00
INV. = 618.00

STR. P-2-6
STA. 23+00.00, 20.00' LT
MH TY A, 4' DIA. F&G TY 3
TOS/FL = 621.22
INV. = 617.75

STR. P-2-7
STA. 23+00.00, 30.50' RT
INLET TY A, F&G TY 3
TOS/FL = 621.00
INV. = 618.00

0 20 40 60
SCALE IN FEET

NOTES:
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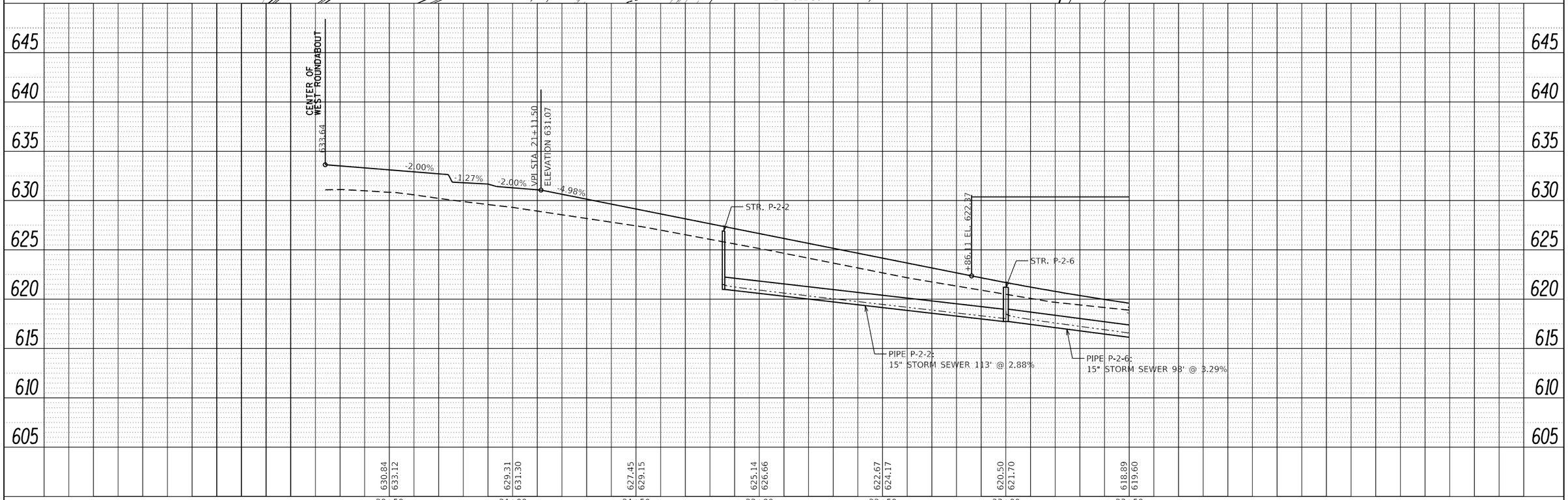
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

PLAN — SURVEYED; PLOTTED; ALIGNMENT CHECKED; RT. OF WAY CHECKED; CADD FILE NAME; NOTE BOOK; NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; GRADES CHECKED; BM. NOTED; STRUCTURE NO(ATN'S CHKD; NOTE BOOK; NO.; BY; DATE



FILE NAME = D876F84-sht-drain-plnprf-08.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 02
PIERCE LANE DRAINAGE PLAN AND PROFILE
SCALE: 1" = 20' | SHEET 5 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

NOTES:

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STR. P-2-8
STA. 24+50.00, 27.75' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 616.28
INF. (S) = 613.75
INV. = 613.75

STR. P-2-9
STA. 24+50.00, 20.00' LT
MH TY A, 4' DIA. F&G TY 3
TOS/FL = 616.45
INV. = 613.58

STR. P-2-9a
STA. 24+00.00, 20.00' LT
MH TY A, 4' DIA. F&G TY 3
TOS/FL = 617.53
INV. = 614.53

STR. P-2-10
STA. 25+33.00, 20.00' LT
MH TY A, 4' DIA. F&G TY 3
TOS/FL = 615.43
INF. (S) = 612.39
INV. = 612.39

STR. P-2-11
STA. 25+34.21, 25.34' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 614.84
INF. (S) = 611.75
INF. (W) = 611.84
INV. = 611.75

STR. E-2-12a
STA. 25+65.33, 19.95' RT
F&G TY 3
TOS/FL = 614.42
INF. (S) = 611.12
INV. = 611.10

STR. E-2-13
STA. 26+48.26, 18.23' LT
TYPE 3 F&G
TOS/FL = 612.09
INV. = 609.79

STR. E-2-15
STA. 27+53.84, 16.59' LT
TYPE 3 F&G
TOS/FL = 609.05
INV. = 607.25

STR. E-2-14
STA. 26+43.86, 18.76' RT
TYPE 3 F&G
TOS/FL = 612.43
INV. = 609.21

STR. E-2-16
STA. 27+67.64, 16.49' RT
TYPE 3 F&G
TOS/FL = 608.88
INF. = 605.44
INV. = 604.84

MATCHLINE STA. 23+50

PR. ROW

STR. P-2-9a

STR. P-2-9

PIPE P-2-10: 15" STORM SEWER 43' @ 1.29%

STR. P-2-10

PIPE P-2-8: 15" STORM SEWER 45' @ 0.38%

STR. P-2-11

STR. P-2-8

NETWORK 02 OUTLET - TO STORM SEWER (PIPE P-2-11)

℄ PIERCE

PIPE E-2-13: 12" STORM SEWER, 35' @ 1.66%

PIPE E-2-15: 12" STORM SEWER 34' @ 5.54%

PIPE E-2-OUTLET

STR. E-2-17

LIMITS OF CONST. (TYP.)

℄ COOK

PR. ROW

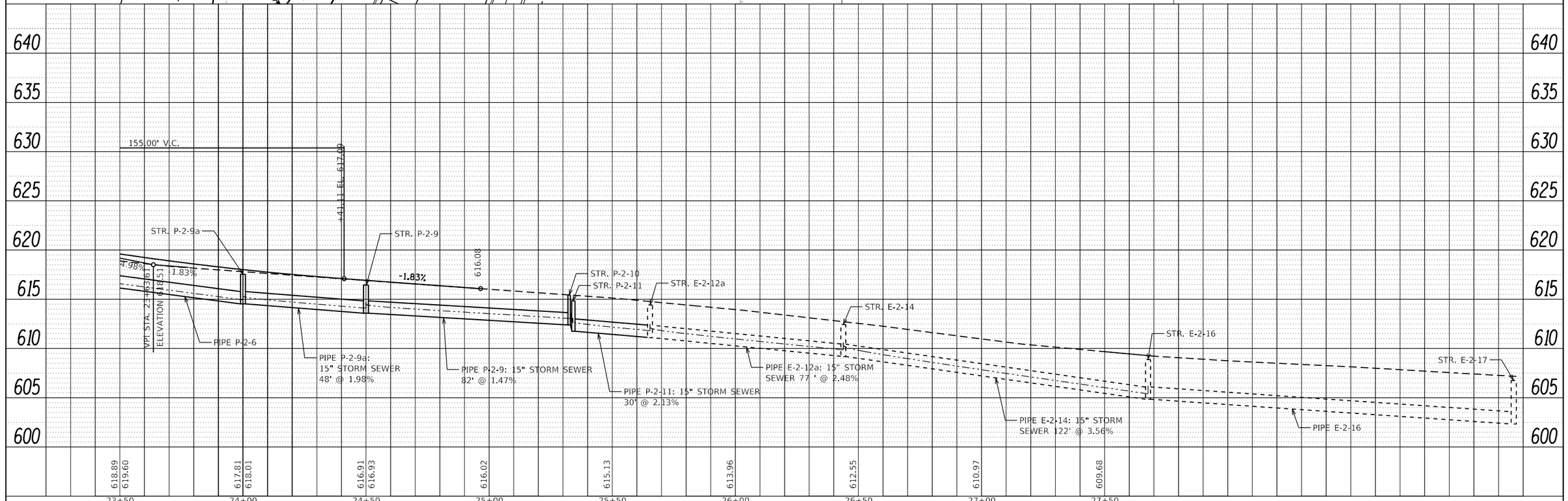
24

25+00

26

27

0 20 40 60
SCALE IN FEET



PLAN — SURVEYED; PLOTTED; ALIGNMENT CHECKED; RT. OF WAY CHECKED; CADD FILE NAME; NOTE BOOK; NO.; BY; DATE

PROFILE — SURVEYED; PLOTTED; PROFILE CHECKED; BM. NOTED; STRUCTURE NOTATNS CHKD; NOTE BOOK; NO.; BY; DATE

FILE NAME = D876F84-sht-drain-plnprf-09.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 02
PIERCE LANE DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 6 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

NOTES:

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EAST ROUNDABOUT

℄ DELMAR

LIMITS OF CONST. (TYP.)

STR. P-3-1
STA. 886+98.09, 24.78' RT
INLET TY B, F&G TY 9
TOS/FL = 610.39
INV. = 608.10

STR. P-3-2
STA. 887+38.68, 24.90' RT
INLET TY B, F&G TY 9
TOS/FL = 609.96
INV. = 607.61

STR. P-3-3
STA. 887+63.66, 25.17' RT
INLET TY B, F&G TY 3
TOS/FL = 609.79
INV. = 607.32

PIPE E-3-5

PR. ROW

STR. P-5a-1
STA. 885+00.00, 24.00' RT
INLET TY A, F&G TY 3
TOS/FL = 613.32
INV. = 610.32

STR. E-3-6

MATCHLINE STA. 888+50

0 20 40 60
SCALE IN FEET

CENTER OF EAST ROUNDABOUT

105.00' V.C.

-1.80% -0.91% -1.83% -2.84% -2.84% -1.92%

VPI STA. 883+58.65
ELEVATION 617.63

+22.54 EL. 615.82

+27.54 EL. 613.31

VPI STA. 884+75.04
ELEVATION 614.32

612.36

PIPE P-5-24:
15" STORM SEWER
67' @ 0.77%

PIPE E-3-6.1:
15" STORM SEWER
132' @ 1.26%

PIPE E-3-6.2:
18" STORM SEWER
39' @ 1.26%

PIPE E-3-6.3:
18" STORM SEWER
23' @ 1.26%

PIPE E-3-6.4:
18" STORM SEWER
119' @ 1.26%

617.64 620.18 | 616.88 617.79 | 615.63 616.46 | 615.02 615.07 | 613.98 613.88 | 612.97 612.88 | 611.85 | 611.55 | 610.78 | 610.95 | 610.51 | 609.85

883+00 883+50 884+00 884+50 885+00 885+50 886+00 886+50 887+00 887+50 888+00 888+50

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DUMPED CHECKED
BAR. NOTED
STRUCTURE NO/ATNS CHKD
NOTE BOOK
NO.
BY
DATE

FILE NAME = D876F84-sht-drain-plnprf-12-R.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 03
DELMAR AVE. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 7 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

NOTES:

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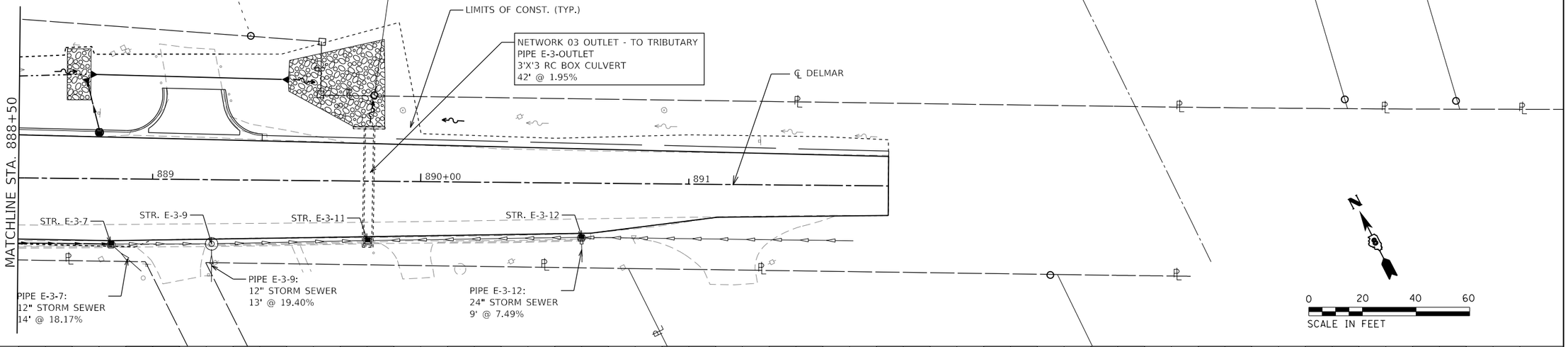
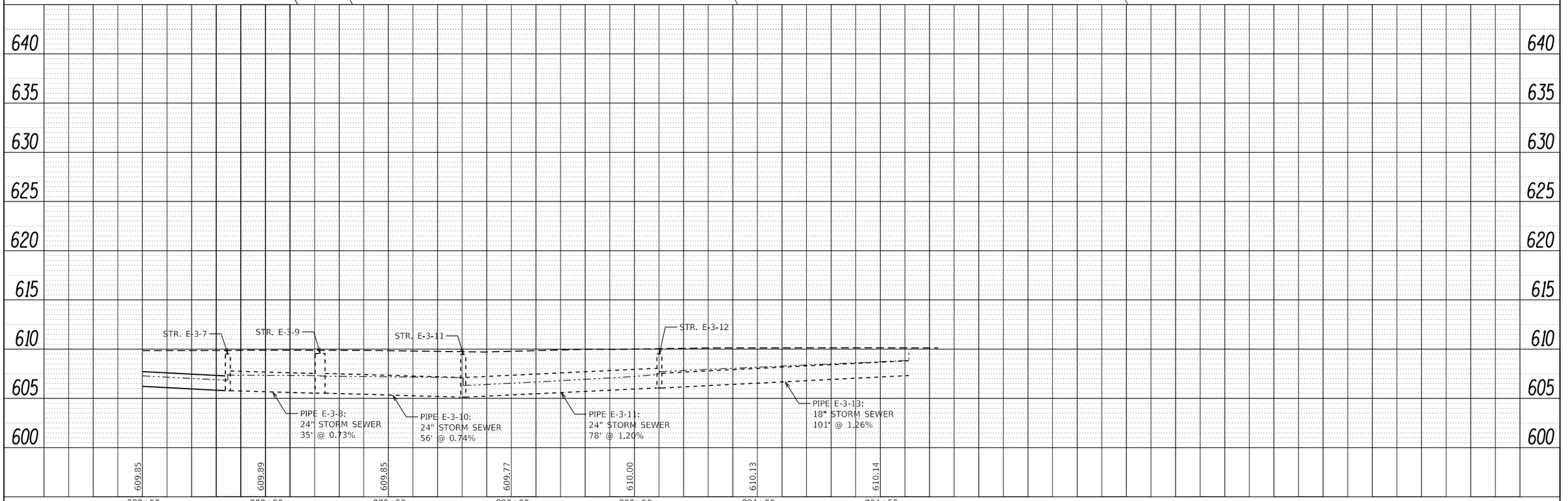
PLAN — SURVEYED — PLOTTED — ALIGNMENT CHECKED — RT. OF WAY CHECKED — CADD FILE NAME — NOTE BOOK — NO. — BY — DATE

PROFILE — SURVEYED — PLOTTED — PROFILES CHECKED — BM. NOTED — STRUCTURE NOTATNS CHKD — NOTE BOOK — NO. — BY — DATE





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		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 03
DELMAR AVE. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 8 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

STR. P-4-5
STA. 1+33.50, 24.18' LT
INLET TY A, F&G TY 11
TOS/FL = 629.51
INV. = 624.33

STR. P-4-6
STA. 1+55.18, 50.51' LT
INLET TY B, F&G TY 3
TOS/FL = 628.43
INF. (SW) = 624.05
INV. = 624.05

STR. P-4-7
STA. 3+50.00, 44.00' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 623.11
INF. (S) = 620.23
INF. (W) = 620.02
INV. = 620.02

STR. P-4-8
STA. 3+50.00, 22.00' LT
INLET TY A, F&G TY 3
TOS/FL = 623.59
INV. = 620.45

℄ PIERCE
PR. ROW
℄ IL 3 NORTH
875+00
876
0+00
WEST ROUNDABOUT
PR. ROW
℄ FRONTENAC
PR. ROW
℄ COOK
LIMITS OF CONST. (TYP.)
STR. P-4-6
PIPE P-4-5:
12" STORM SEWER
32' @ 0.88%
STR. P-4-5
STR. P-4-7
PIPE P-4-8:
15" STORM SEWER
20' @ 1.10%
STR. P-4-8
℄ IL 3 MID
PR. ROW
℄ NORWOOD
MATCHLINE STA. 3+50

N

0 20 40 60
SCALE IN FEET

NOTES:

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3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

FILE NAME = D876F84-sht-drain-pln-03-L.dgn	USER NAME = jstein	DESIGNED -	REVISED -
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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 04
WEST ROUNDABOUT PLAN

SCALE: 1" = 20' | SHEET 9 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
ILLINOIS	FED. AID PROJECT			

℄ COOK

PR. ROW

107

108

15+00

106

14

℄ IL 3 SOUTH

PIPE P-4-15:
12" STORM SEWER
25' @ 0.37%

STR. P-4-15

STR. P-4-13

PIPE P-4-13:
15" STORM SEWER
23' @ 1.04%

13

STR.
P-4-17

STR.
P-4-16a

STR. P-4-16

STR. P-4-14

105+00

PR STONE
RIPRAP, CL A4
15' X 15'

LIMITS OF
CONST. (TYP.)

NETWORK 04 OUTLET - DITCH TO CULVERT 2
STA. 13+50.00, 46.20' RT
PRC FLARED END SECTION 18"
TOS/FL = 611.73

STR. P-4-9

PIPE P-4-9:
12" STORM SEWER
21' @ 2.89%

STR.
P-4-12

STR. P-4-10

PIPE P-4-11: 15" STORM SEWER
23' @ 1.02%

STR. P-4-11

EAST
ROUNDABOUT

6

5+00

4

54

883

MATCHLINE STA. 3+50

℄ IL 3 MID

STR. P-4-9
STA. 4+75.00, 70.00' LT
INLET TY A, MEDIAN INLET
(604101)
TOS/FL = 618.00
INV. = 616.00

STR. P-4-10
STA. 4+67.00, 49.17' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 619.73
INF. (W) = 615.89
INF. (S) = 615.37
INF. (NE) = 615.40
INV. = 615.37

STR. P-4-11
STA. 4+71.40, 25.27' LT
INLET TY A, F&G TY 3
TOS/FL = 620.30
INV. = 615.60

STR. P-4-12
STA. 5+47.55, 50.51' LT
INLET TY B, F&G TY 3
TOS/FL = 618.41
INF. (W) = 614.99
INV. = 614.53

STR. P-4-13
STA. 5+84.84, 107.06' LT
INLET TY A, F&G TY 3
TOS/FL = 617.64
INV. = 614.58

STR. P-4-14
STA. 5+93.71, 84.53' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 618.12
INF. (N) = 614.35
INF. (W) = 614.35
INV. = 614.35

STR. P-4-15
STA. 12+28.28, 61.78' LT
INLET TY A, F&G TY 3
TOS/FL = 617.11
INV. = 614.00

STR. P-4-16
STA. 12+16.18,
39.08' LT
MH TY A, 4' DIA.,
F&G TY 3
TOS/FL = 617.60
INF. (W) = 613.67
INF. (N) = 613.91
INV. = 613.67

STR. P-4-16a
STA. 12+45.43,
23.24' LT
MH TY A, 4' DIA.,
F&G TY 11
TOS/FL = 616.74
INF. (W) = 613.00
INV. = 613.00

STR. P-4-17
STA. 12+67.12,
18.94' LT
MH TY A, 4' DIA.,
F&G TY 11
TOS/FL = 616.74
INF. (W) = 612.25
INV. = 612.25

886

885+00

℄ DELMAR

℄ RIDGEDALE

PR. ROW

PR. ROW

N

0 20 40 60

SCALE IN FEET

NOTES:

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FILE NAME = D876F84-sht-drain-pln-04-L.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 04
EAST ROUNDABOUT PLAN

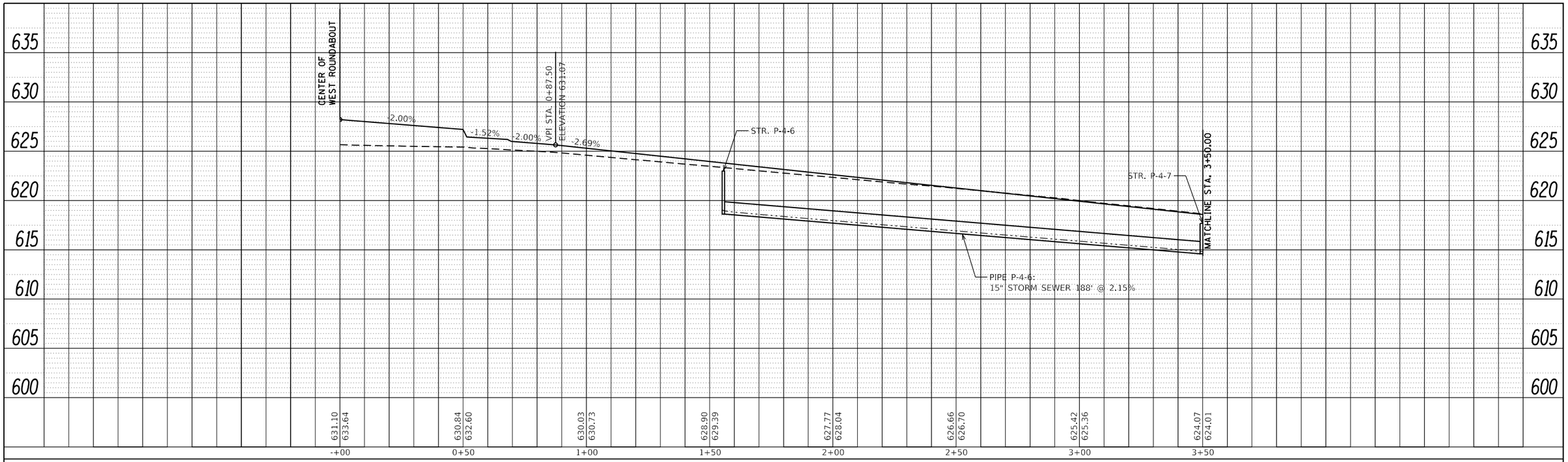
SCALE: 1" = 20' | SHEET 10 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

PLAN

SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	
CADD FILE NAME	
NOTE BOOK	
NO.	

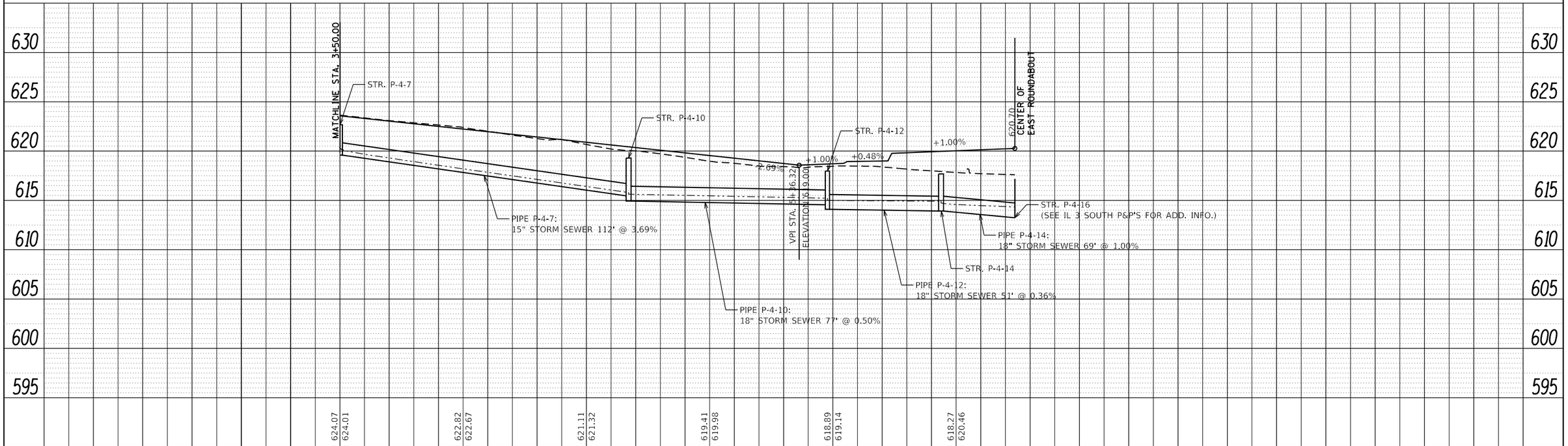
BY	DATE



PROFILE

SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
PROP. R/W NOTED	
STRUCTURE NOTATNS CHKD	
NOTE BOOK	
NO.	

BY	DATE



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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 04
IL 3 MID DRAINAGE PROFILE

SCALE: 1" = 20' | SHEET 11 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

PLAN

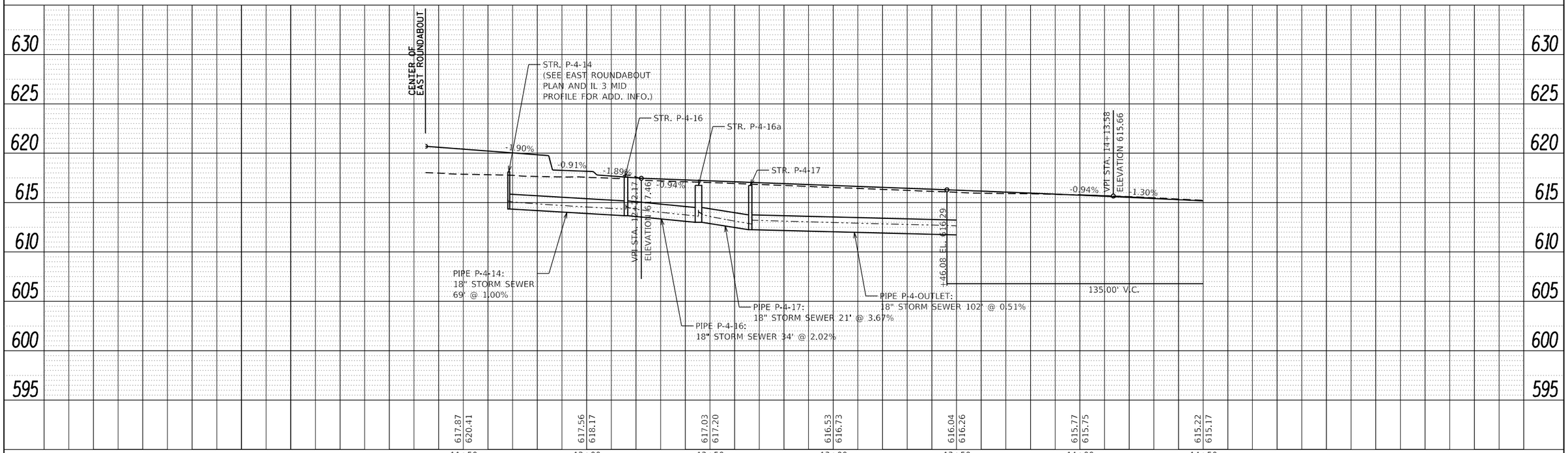
	BY	DATE
SURVEYED		
PLOTTED		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		
CADD FILE NAME		

NOTE BOOK
NO.

PROFILE

	BY	DATE
SURVEYED		
PLOTTED		
GRADES CHECKED		
ELM. NOTED		
STRUCTURE NOTATNS CHKD		

NOTE BOOK
NO.



FILE NAME = D876F84-sht-drain-plnprf-06.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 04
IL 3 SOUTH DRAINAGE PROFILE

SCALE: 1" = 20' | SHEET 12 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
CROSS CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

PR. ROW

112

111

113

110+00

℄ COOK

℄ IL 3 SOUTH

LIMITS OF CONST. (TYP.)

MATCHLINE STA. 14+50

STR. P-6-8
(SEE COOK P&P'S FOR ADD. INFO.)

STR. P-6-11
(SEE COOK P&P'S FOR ADD. INFO.)

15+00

16

17

18

19

PRC FLARED END SECTION 24"
TOS/FL=608.26

CULVERT 2 & NETWORK 04
OUTLET - DITCH TO TRIBUTARY

CULVERT 2
± STA. 17+00 RT
EX. 15" CMP CULVERT TO BE REPLACED WITH
PR. PIPE CULVERT, CLASS A, TYPE 2, 24"
100' @ 1.00%

PRC FLARED END
SECTION 24"
TOS/FL=607.26

PR STONE
RIPRAP, CL A4
15' X 24'

℄

N

0 20 40 60
SCALE IN FEET

NOTES:

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3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

635
630
625
620
615
610
605
600
595

STR. P-6-8
STR. P-6-11
612.93
611.08 EL. 614.78

615.22 615.17 | 614.57 614.54 | 613.90 613.89 | 613.24 613.24 | 612.58 | 612.09 | 611.77 | 611.60 | 611.63 | 611.87 | 612.26

14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00 18+50 19+00 19+50

FILE NAME = D876F84-sht-drain-plnprf-07.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 04 & CULVERT 2
IL 3 SOUTH DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 13 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

NETWORK 5B OUTLET - TO DITCH (PIPE P-5b-1)

PRC FLARED END SECTION 12" TOS/FL=622.10

PR STONE RIPRAP, CL A4 12' X 5'

STR. P-5b-1

STR. P-5-1a

PR. ROW

PIPE P-5-1A

STR. P-5-1

STR. P-5-3

PIPE P-5-2: 12" STORM SEWER 47' @ 0.97%

PIPE P-5-1

PIPE P-5-2a

STR. P-5-2

STR. P-5-4

29

30+00

31

℄ FRONTENAC

LIMITS OF CONST. (TYP.)

STR. P-5-2a

PIPE P-5-4 (SEE NEXT SHT)

PIPE P-5-1: 12" STORM SEWER 33' @ 1.00%

33

WEST ROUNDABOUT

STR. P-5-2a
STA. 31+50.00, 26.87' RT
INLET TY A, GRATE TY 8
TOS/FL = 627.85
INV. = 625.85

STR. P-5-3
STA. 32+07.42, 21.47' LT
INLET TY A, F&G TY 3
TOS/FL = 630.37
INV. = 626.38

STR. P-5-4
STA. 32+08.37, 28.02' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 630.18
INF. (W) = 625.93
INF. (SW) = 625.55
INV. = 625.55

STR. P-5-1a
STA. 31+67.70, 25.84' LT
INLET TY A, GRATE TY 8
TOS/FL = 628.65
INV. = 626.69

STR. P-5-1
STA. 31+68.37, 17.80' LT
INLET TY A, F&G TY 3
TOS/FL = 629.64
INV. = 626.60

STR. P-5-2
STA. 31+69.41, 17.97' RT
INLET TY A, F&G TY 3
TOS/FL = 630.10
INF. (W) = 626.27
INF. (SE) = 625.75
INV. = 625.75

STR. P-5b-1
STA. 30+05.00, 21.49' LT
INLET TY A, GRATE TY 8
TOS/FL = 624.13
INV. = 622.63

PIPE P-5-1A:
12" STORM SEWER
7' @ 1.38%

PIPE P-5-2a:
12" STORM SEWER
20' @ 0.52%

0 20 40 60
SCALE IN FEET

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE — SURVEYED, PLOTTED, CURVES CHECKED, BM. NOTED, STRUCTURE NO'S/TNS CHKD, NOTE BOOK, NO., BY, DATE

645 640 635 630 625 620 615 610 605

STR. P-5b-1

627.33

+98.93 FL. 628.55

+2.74%

VPI STA. 31+41.43
ELEVATION 629.71

+1.42%

STR. P-5-2

STR. P-5-4

+83.93 630.31

85.00' V.C.

VPI STA. 32+37.10
ELEVATION 631.07

+1.42%

2.00%

+1.52%

+2.00%

633.64
CENTER OF WEST ROUNDABOUT

PIPE P-5b-1: 12" STORM SEWER 55' @ 0.98%

PIPE P-5-3: 15" STORM SEWER 35' @ 0.58%

625.58
627.20
628.17 628.58
629.38 629.74
630.31 630.54
630.78 631.33
631.00 633.15

30+00 30+50 31+00 31+50 32+00 32+50 33+00

FILE NAME = D876F84-sht-drain-plnprf-10.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORKS 05b & 05
FRONTENAC DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 14 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

STR. P-5-5
STA. 1+07.11,
27.90' RT
INLET TY A, F&G TY 3
TOS/FL = 630.30
INF. (SW) = 624.76
INV. = 624.76

STR. P-5-8
STA. 2+27.06, 22.00' RT
INLET TY A, F&G TY 3
TOS/FL = 626.90
INF. (W) = 624.02
INV. = 624.02

STR. P-5-9
STA. 3+50.00,
22.00' RT
INLET TY A,
F&G TY 3
TOS/FL = 623.59
INF. (W) = 620.71
INV. = 620.71

℄ PIERCE
℄ COOK
PR. ROW
LIMITS OF CONST. (TYP.)
PR. ROW
℄ IL 3 NORTH
875+00
876
0+00
℄ IL 3 MID
STR. P-5-5
STR. P-5-8
STR. P-5-9
MATCHLINE STA. 3+50
WEST ROUNDABOUT
PIPE P-5-4:
15" STORM SEWER
105' @ 0.75%
PR. ROW
PR. ROW
PRC FLARED END
SECTION 12"
TOS/FL=623.40
CULVERT 4
± STA. 42+93 RT
EX. 12" CMP CULVERT TO BE
REPLACED WITH PR. PIPE
CULVERT, CLASS A, TYPE 2, 12"
80' @ 1.75%
STR. P-5-4 (SEE
PREVIOUS SHT)
PR STONE
RIPRAP,
CL A4
15' X 10'
PRC FLARED END
SECTION 12"
TOS/FL=622.00
PR. ROW
℄ NORWOOD
℄ FRONTENAC

N

0 20 40 60
SCALE IN FEET

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

FILE NAME = D876F84-sht-drain-pln-03-R.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 05 & CULVERT 4
WEST ROUNDABOUT PLAN

SCALE: 1" = 20' | SHEET 15 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

℄ COOK
PR. ROW
107
108
106
105+00
15+00
14
13
℄ IL 3 SOUTH
LIMITS OF CONST. (TYP.)
EAST ROUNDABOUT
MATCHLINE STA. 3+50
6
5+00
4
54
883
℄ IL 3 MID
SEE RIDGEDALE P&P
885
℄ DELMAR
885+00
886
PR. ROW
℄ RIDGEDALE
PR. ROW

STR. P-5-10
STA. 4+75.00, 22.00' RT
INLET TY B, F&G TY 3
TOS/FL = 620.22
INF. (W) = 615.82
INV. = 615.82

STR. P-5-11
STA. 4+96.77, 24.18' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 619.68
INF. (W) = 615.28
INV. = 615.28

N

0 20 40 60
SCALE IN FEET

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

FILE NAME = D876F84-sht-drain-pln-04-R.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

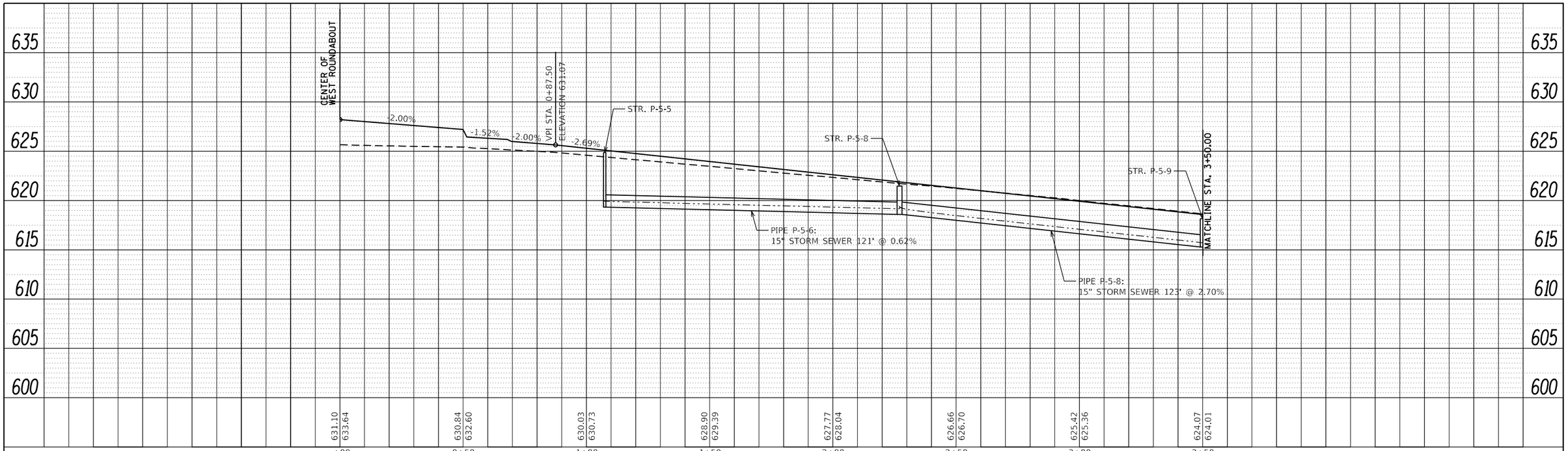
PROPOSED NETWORK 05
EAST ROUNDABOUT PLAN

SCALE: 1" = 20' | SHEET 16 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

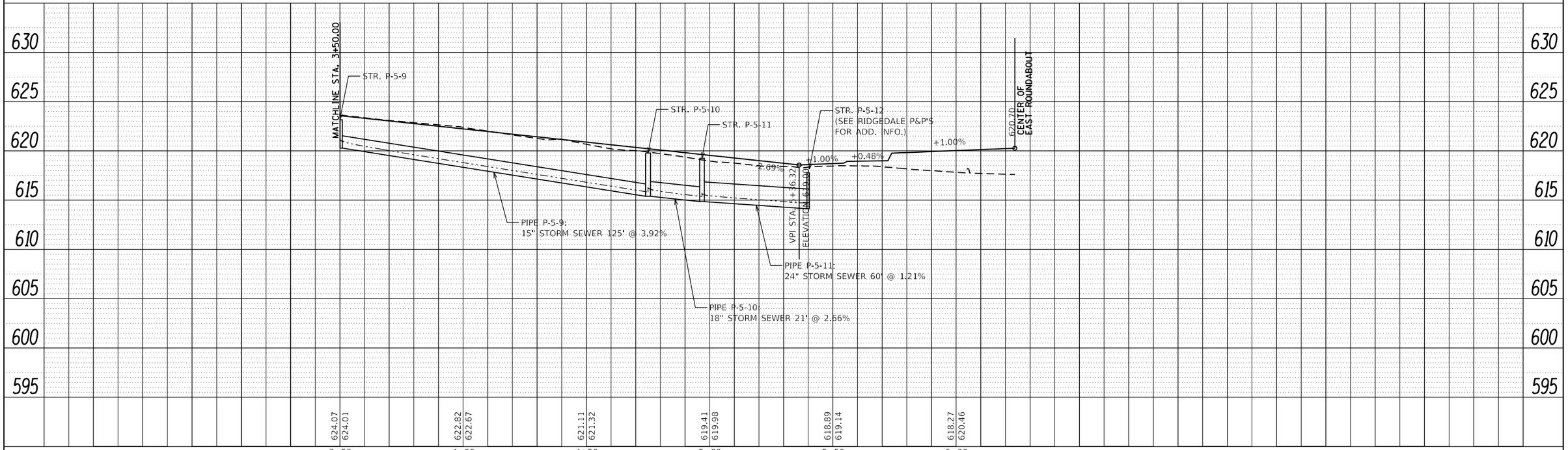
PLAN

SURVEYED	BY
PLOTTED	DATE
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	
CADD FILE NAME	
NOTE BOOK	
NO.	



PROFILE

SURVEYED	BY
PLOTTED	DATE
ALIGNMENT CHECKED	
DRAWN CHECKED	
SLM NOTED	
STRUCTURE NOTATNS CHKD	
NOTE BOOK	
NO.	



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		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 05
IL 3 MID DRAINAGE PROFILE

SCALE: 1" = 20' | SHEET 17 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

STR. P-5-21
STA. 50+85.00, 15.33' LT
INLET TY B, MEDIAN
INLET (604101)
TOS/FL = 620.51
INF. (E) = 618.00
INV. = 616.95

STR. P-5-22
STA. 52+10.00, 15.16' LT
INLET TY A, F&G TY 3
TOS/FL = 620.19
INF. (S) = 616.01
INV. = 616.01

STR. P-5-15
STA. 52+95.64, 21.13' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 618.41
INF. (SW) = 615.00
INF. (NW) = 616.40
INF. (N) = 614.36
INV. = 614.36

STR. P-5-20
STA. 50+85.00, 16.50' RT
INLET TY A, MEDIAN INLET
(604101)
TOS/FL = 619.90
INV. = 618.40

STR. P-5-23
STA. 52+48.89, 16.36' RT
INLET TY B, F&G TY 3
TOS/FL = 619.22
INF. (E) = 616.20
INV. = 616.20

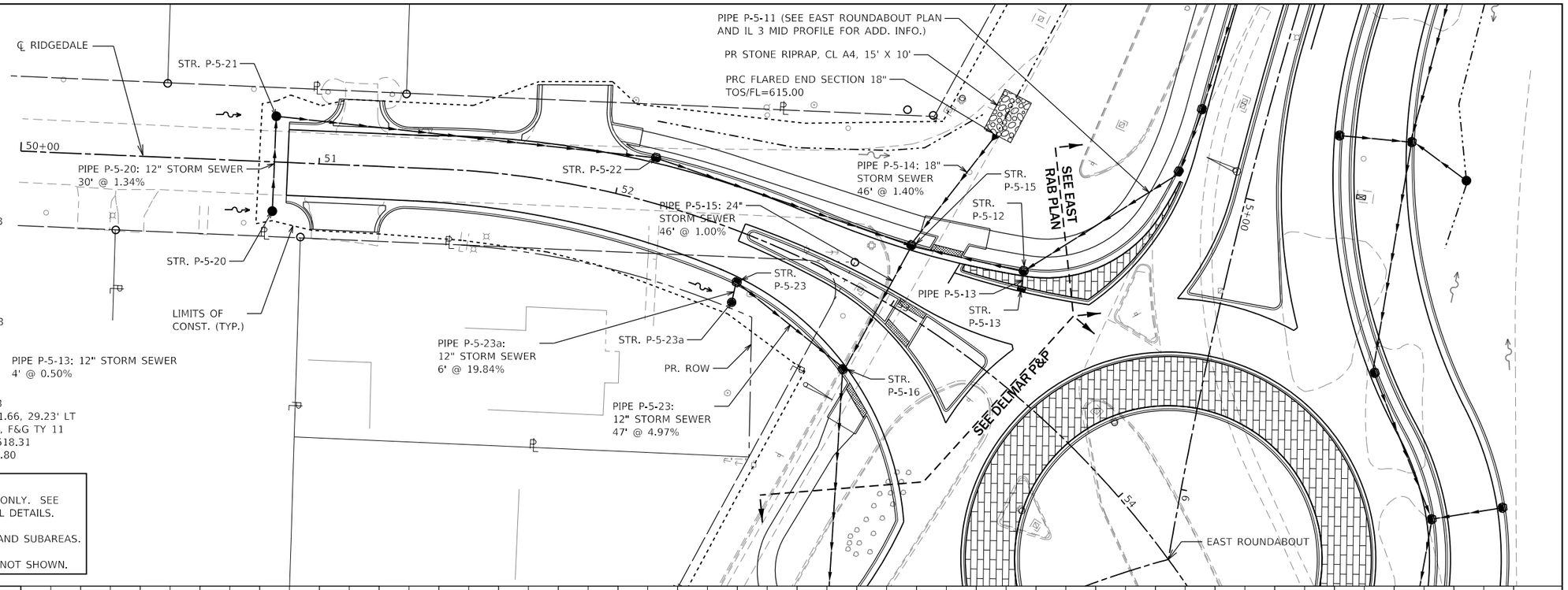
STR. P-5-23a
STA. 52+50.00, 23.02' RT
INLET TY A, GRATE TY 8
TOS/FL = 618.73
INV. = 617.23

STR. P-5-16
STA. 52+96.83, 26.79' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 618.26
INF. (SW) = 613.91
INF. (NW) = 613.91
INV. = 613.91

STR. P-5-12
STA. 53+28.88, 34.60' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 618.20
INF. (NW) = 614.56
INF. (E) = 615.78
INV. = 614.56

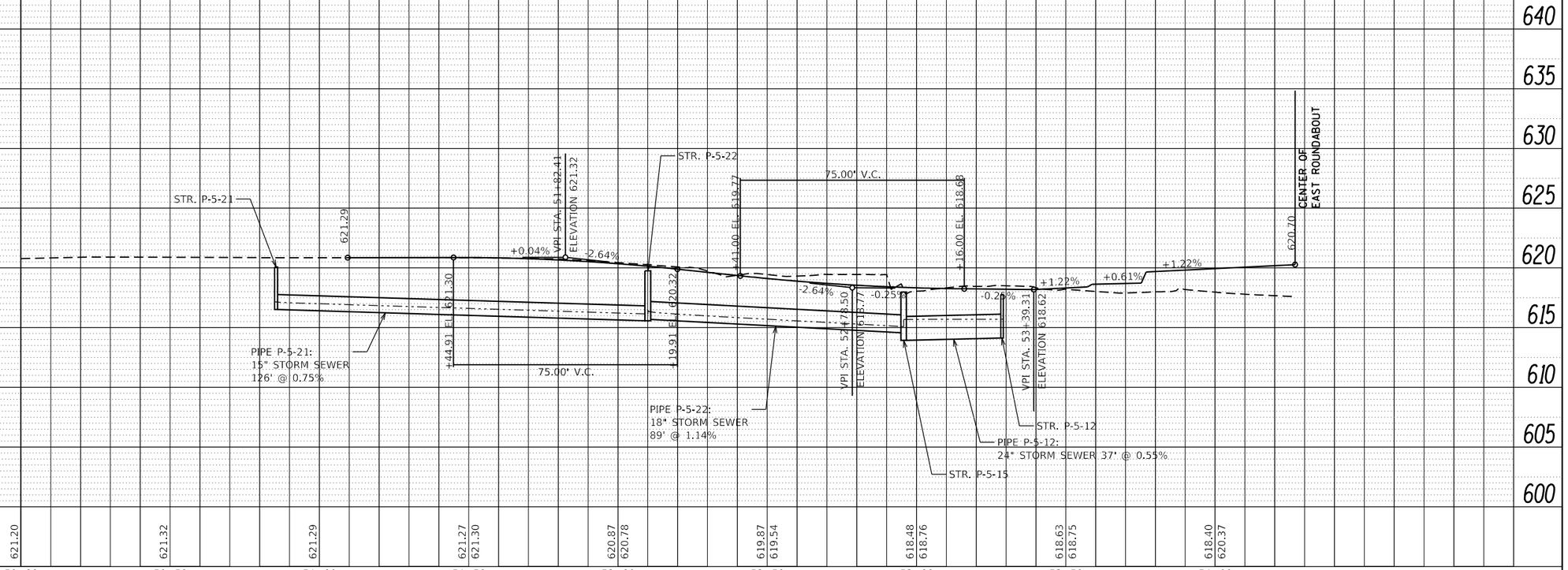
STR. P-5-13
STA. 53+31.66, 29.23' LT
INLET TY A, F&G TY 11
TOS/FL = 618.31
INV. = 615.80

0 20 40 60
SCALE IN FEET



NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.



PLAN — SURVEYED | PLOTTED | ADJACENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE

PROFILE — SURVEYED | PLOTTED | ADJACENT CHECKED | R.O.W. NOTED | STRUCTURE NOTATNS CHKD | NOTE BOOK | NO. | BY | DATE

FILE NAME = D876F84-sht-drain-plnprf-11.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 05
RIDGEDALE DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 18 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.
ILLINOIS | FED. AID PROJECT

EAST ROUNDABOUT

NETWORK 5 OUTLET - DITCH TO CULVERT 3

PRC FLARED END SECTION 24" TOS/FL=611.82

PR STONE RIPRAP, CL A4 15' X 21'

STR. P-5-19

PR STONE RIPRAP, CL A4 10' X 5'

PRC FLARED END SECTION 12" TOS/FL=610.82

PIPE P-5a-1: 12" STORM SEWER 30' @ 1.72%

PIPE P-5-17

PIPE P-5-16

SEE RIDGEDALE P&P

STR. P-5-17

PIPE P-5-18

STR. P-5a-2
STA. 885+00.00, 18.50' LT
INLET TY A, F&G TY 3
TOS/FL = 613.43
INV. = 611.32

STR. P-5-18
STA. 884+00.00, 41.95' RT
INLET TY B, GRATE TY 8
TOS/FL = 614.96
INV. = 613.50

STR. P-5-17
STA. 883+81.41, 26.81' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 616.53
INF. (W) = 613.04
INF. (S) = 612.99
INV. = 612.53

STR. P-5-19
STA. 883+90.95, 31.26' LT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 616.25
INF. (SW) = 612.25
INV. = 612.25

PIPE P-5-16: 24" STORM SEWER 85' @ 1.03%

PIPE P-5-18: 18" STORM SEWER 24' @ 2.19%

PIPE P-5-17: 24" STORM SEWER 57' @ 0.50%

PR STONE RIPRAP, CL A4 10' X 5'

PRC FLARED END SECTION 12" TOS/FL=608.07

PIPE P-5a-2: 12" STORM SEWER 22' @ 1.98%

STR. P-5a-4
STA. 887+00.00, 18.50' LT
INLET TY A, F&G TY 3
TOS/FL = 610.33
INV. = 608.50

LIMITS OF CONST. (TYP.)

℄ DELMAR

PR. ROW

MATCHLINE STA. 888+50

0 20 40 60
SCALE IN FEET

NOTES:

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2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

PLAN — SURVEYED, PLOTTED, ALIGNMENT CHECKED, RT. OF WAY CHECKED, CADD FILE NAME, NOTE BOOK, NO., BY, DATE

PROFILE — SURVEYED, PLOTTED, DESIGN CHECKED, BAR. NOTED STRUCTURE NOTATNS CHKD, NOTE BOOK, NO., BY, DATE

CENTER OF EAST ROUNDABOUT
617.64
620.18
-1.80%
-0.91%
-1.83%
VPI STA. 883+58.65
ELEVATION 617.63
616.88
617.79
-2.84%
615.63
616.46
105.00' V.C.
+22.54 EL. 615.82
+27.54 EL. 613.31
STR. P-5a-2
615.02
615.07
-2.84%
VPI STA. 884+75.04
ELEVATION 614.32
613.98
613.88
-1.92%
612.36
612.97
612.88
611.85
611.55
STR. P-5a-4
610.78
610.95
610.51
609.85
STR. P-5-19
PIPE P-5-OUTLET: 24" STORM SEWER 55' @ 0.79%

640 635 630 625 620 615 610 605 600

883+00 883+50 884+00 884+50 885+00 885+50 886+00 886+50 887+00 887+50 888+00 888+50

FILE NAME = D876F84-sht-drain-plnprf-12-L.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 05
DELMAR AVE. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 19 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

CULVERT 3
± STA. 889+00.00 LT
EX. 15" CMP CULVERT TO BE REPLACED WITH
2 - PR. PIPE CULVERT, CLASS A, TYPE 2, 18"
70' @ 1.57%

2 - PRC FLARED END SECTIONS 18"
FL=606.00

2 - PRC FLARED END SECTIONS 18"
TOS/FL=604.90

NETWORK 05 & CULVERT 3
OUTLET TO TRIBUTARY

PIPE P-5a-3:
12" STORM SEWER
20' @ 2.50%

PR STONE RIPRAP, CL A4
9' X 19'

LIMITS OF
CONST. (TYP.)

PR STONE RIPRAP, CL A4
35' X 11'-24'

PRC FLARED END
SECTIONS 12"
TOS/FL=606.00

NETWORK 03 OUTLET - TO TRIBUTARY
PIPE E-3-OUTLET
3'X'3 RC BOX CULVERT
42' @ 1.95%

℄ DELMAR

MATCHLINE STA. 888+50

889

890+00

891

STR. P-5a-6
STA. 888+80.00, 17.50' LT
TOS/FL = 609.44
INV. = 606.50

N

0 20 40 60
SCALE IN FEET

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
DIGITIZED
CHECKED
BM. NOTED
STRUCTURE NO
ALIGNMENTS CHKD
NOTE BOOK
NO.
BY
DATE

640 635 630 625 620 615 610 605 600

STR. P-5a-6

609.85 609.89 609.85 609.77 610.00 610.13 610.14

888+50 889+00 889+50 890+00 890+50 891+00 891+50

FILE NAME = D876F84-sht-drain-plnprf-13-L.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 05 & CULVERT 3
DELMAR AVE. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 20 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

STR. P-6-3
STA. 108+00.00, 15.00' LT
INLET TY A, F&G TY 3
TOS/FL = 615.87
INV. = 613.00

STR. P-6-4
STA. 108+00.00, 15.00' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 615.87
INF. (N) = 612.73
INF. (S) = 612.00
INV. = 612.00

STR. P-6-5
STA. 13+03.84, 34.75' LT
INLET TY A, F&G TY 3
TOS/FL = 616.06
INV. = 612.29

0 20 40 60
SCALE IN FEET

N

MATCHLINE STA. 103+00

LIMITS OF CONST. (TYP.)

PR. ROW

℄ COOK

STR. P-6-3

PIPE P-6-3: 12" STORM SEWER
28' @ 1.0%

STR. P-6-4

PIPE P-6-5:
15" STORM SEWER
29' @ 1.0%

STR. P-6-5

MATCHLINE STA. 108+50

VPI STA. 105+33.17
ELEVATION 626.33

+1.58%

3.78%

+55.65 EL. 625.11

K = 29
155.05' V.C.

-10.69 EL. 623.40

+93.44 EL. 616.49

K = 44
113.00' V.C.

3.78%

STR. P-6-4

PIPE P-6-4: 15" STORM SEWER
200' @ 1.71%

VPI STA. 108+19.94

635 630 625 620 615 610 605 600 595

628.73 622.64 | 629.08 623.43 | 627.73 624.23 | 626.75 625.02 | 625.95 625.47 | 624.73 625.06 | 622.24 623.79 | 619.82 621.91 | 618.11 620.02 | 616.90 618.13 | 615.30 616.25 | 614.35 614.72

103+00 103+50 104+00 104+50 105+00 105+50 106+00 106+50 107+00 107+50 108+00 108+50

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.
BY
DATE

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B.M. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.
BY
DATE

FILE NAME = D876F84-sht-drain-plnprf-15.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 06
COOK ST. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 21 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS FED. AID PROJECT

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

PLAN

DATE | BY | SURVEYED | PLOTTED | ADJOINT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO.

STR. P-6-6
STA. 110+00.00, 15.00' LT
INLET TY A, F&G TY 3
TOS/FL = 612.19
INV. = 608.87

PIPE P-6-6: 12" STORM SEWER
28' @ 1.00%

STR. P-6-9
STA. 111+50.00, 15.00' LT
INLET TY A, F&G TY 3
TOS/FL = 610.42
INV. = 607.14

PIPE P-6-9: 12" STORM SEWER
28' @ 0.50%

NETWORK 06 OUTLET - TO DITCH
PR FLARED END SECTION 18"
TOS/FL = 605.00

0 20 40 60
SCALE IN FEET

N

PR. ROW

MATCHLINE STA. 108+50

℄ COOK

109 | 110+00 | 111 | 112 | 113

STR. P-6-10

STR. P-6-7
STA. 110+00.00, 15.00' RT
MH TY A, 4' DIA., F&G TY 3
TOS/FL = 612.19
INF. (N) = 608.60
INF. (W) = 608.60
INF. (S) = 608.60
INV. = 608.60

PIPE P-6-10: 18" STORM SEWER
33' @ 0.78%

STR. P-6-12

PR STONE RIPRAP, CL A4
15' X 15'

PIPE P-6-8: 12" STORM SEWER
28' @ 2.60%

PIPE P-6-11: 15" STORM SEWER
39' @ 1.00%

℄ IL 3 SOUTH

LIMITS OF CONST. (TYP.)

STR. P-6-10
STA. 111+50.00, 15.00' RT
INLET TY B, F&G TY 3
TOS/FL = 610.42
INF. (N) = 607.00
INV. = 606.50

STR. P-6-12
STA. 16+40.00, 47.50' LT
MH TY A, 4' DIA., MEDIAN
INLET (604101)
TOS/FL = 608.00
INF. (N) = 606.25
INF. (SW) = 606.25
INF. (W) = 606.25
INV. = 605.50

14 | 15+00 | 16 | 17 | 18 | 19

STR. P-6-8
STA. 15+00.00, 28.00' LT
INLET TY A, F&G TY 3
TOS/FL = 613.83
INV. = 609.32

STR. P-6-11
STA. 16+10.00, 20.50' LT
INLET TY A, F&G TY 3
TOS/FL = 612.54
INV. = 606.63

PROFILE

DATE | BY | SURVEYED | PLOTTED | ADJOINT CHECKED | RT. OF WAY CHECKED | NOTE BOOK | NO. | S.M. NOTED | STRUCTURE NO'S/ITHS CHKD

625 620 615 610 605 600 595 590 585

+06.44 EL. 613.68

ELEVATION 614.35

-1.18%

STR. P-6-7

STR. P-6-12

-1.18%

VPI STA. 112+04.43
ELEVATION 610.15

-1.51%

608.07

PIPE P-6-4: 15" STORM SEWER
200' @ 1.71%

PIPE P-6-7: 15" STORM SEWER
139' @ 1.70%

152.74 EL. 610.76

156.12 EL. 609.37

K = 319
103.38' V.C.

PIPE P-6-OUTLET:
18" STORM SEWER 111' @ 0.45%

614.35	612.67	612.02	611.32	610.61	609.82	609.39	609.16	608.60
614.72	613.76	613.17	612.57	611.98	611.39	610.80	610.17	609.46

108+50 | 109+00 | 109+50 | 110+00 | 110+50 | 111+00 | 111+50 | 112+00 | 112+50

FILE NAME = D876F84-sht-drain-plnprf-16.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED NETWORK 06
COOK ST. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 22 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT

SEE SHEET 21A OF 23

PR STONE RIPRAP, CL A4 15' X 15'

PR STONE RIPRAP, CL A4 15' X 15'

PR STONE RIPRAP, CL A4 15' X 15'

STR. P-7-OUTLET 1

STR. P-7-2

PIPE P-7-2

PIPE P-7-1

STR. P-7-4

STR. P-7-1

PIPE P-7-3

PIPE P-7-4

STR. P-7-3

STR. P-7-5

PIPE P-7-5

STR. P-7-OUTLET 5

PR DET. BASIN OUTLETS

DETENTION BASIN

STR. P-7-6

PIPE P-7-6

STR. P-7-7

PIPE P-7-7

STR. P-7-OUTLET 7

℄ COOK

PR. ROW

LIMITS OF CONST. (TYP.)

℄ PIERCE

STR. P-7-8

PIPE P-7-8

STR. P-7-9

PIPE P-7-9

STR. P-7-OUTLET 9

MATCHLINE STA. 103+00

PIPE P-7-1:
15" STORM SEWER
24' @ 0.30%

PIPE P-7-2:
12" STORM SEWER
8' @ 0.30%

PIPE P-7-3:
12" STORM SEWER
8' @ 0.30%

PIPE P-7-4:
15" STORM SEWER
32' @ 0.30%

PIPE P-7-5:
12" STORM SEWER
14' @ 0.30%

PIPE P-7-6: 12"
STORM SEWER
28' @ 1.00%

PIPE P-7-7:
12" STORM SEWER
14' @ 0.63%

PIPE P-7-8:
12" STORM SEWER
28' @ 1.00%

PIPE P-7-9:
12" STORM SEWER
14' @ 0.70%

PR DETENTION BASIN OUTLET
2-12" RCP CULVERT W/ PCRCFES
100' @ 0.30 %
US FL = 611.50
DS FL = 611.20

PR DETENTION BASIN
10 YR HWE: 612.50
100 YR HWE: 613.08
VOLUME BELOW
100 YR HWE: 3265 CF

STR. P-7-1
STA. 98+40.00, 28.00' LT
INLET TY A, F&G TY 3
TOS/FL = 614.38
INV. = 611.80

STR. P-7-2
STA. 98+75.01, 21.50' LT
INLET TY A, F&G TY 3
TOS/FL = 614.19
INV. = 611.55

STR. P-7-3
STA. 98+75.01, 15.00' RT
INLET TY A, F&G TY 3
TOS/FL = 614.32
INV. = 611.40

STR. P-7-4
STA. 98+85.02, 19.50' LT
INLET TY B, F&G TY 3
TOS/FL = 614.20
INV. = 611.45

STR. P-7-5
STA. 98+85.02, 15.00' RT
INLET TY B, F&G TY 3
TOS/FL = 614.30
INV. = 611.30

STR. P-7-6
STA. 100+00.00, 15.00' LT
INLET TY B, F&G TY 3
TOS/FL = 616.67
INV. = 613.67

STR. P-7-7
STA. 100+00.00, 15.00' RT
INLET TY A, F&G TY 3
TOS/FL = 616.67
INV. = 613.37

STR. P-7-8
STA. 102+50.00, 15.00' LT
INLET TY B, F&G TY 3
TOS/FL = 621.47
INV. = 618.47

STR. P-7-9
STA. 102+50.00, 15.00' RT
INLET TY A, F&G TY 3
TOS/FL = 621.47
INV. = 618.17

NOTES:

1. DRAINAGE DETAILS ARE LABELED FOR THIS NETWORK ONLY. SEE DRAINAGE PLAN AND PROFILE SHEETS FOR ADDITIONAL DETAILS.
2. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
3. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

STR. P-7-OUTLET 1
PRC FLARED END SECTION 15"
TOS/FL=611.15

STR. P-7-OUTLET 5
PRC FLARED END SECTION 12"
TOS/FL=611.90

STR. P-7-OUTLET 7
PRC FLARED END SECTION 12"
TOS/FL=613.27

STR. P-7-OUTLET 9
PRC FLARED END SECTION 12"
TOS/FL=618.07

0 20 40 60
SCALE IN FEET

PLAN
DATE
BY
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
NOTE BOOK
NO.

PROFILE
DATE
BY
SURVEYED
PLOTTED
GRADES CHECKED
BM. NOTED
STRUCTURE NOTATNS CHKD
NOTE BOOK
NO.

K = 26
115.00' V.C.

K = 44
75.00' V.C.

616.14

+55.11 EL. 614.85

+70.11 EL. 616.07

STR. P-7-2/P-7-3

STR. P-7-4/P-7-5

STR. P-7-6/P-7-7

STR. P-7-8/P-7-9

-1.15%

+3.27%

+3.27%

+1.58%

VPI STA. 99+12.61
ELEVATION 614.19

VPI STA. 100+50.00
ELEVATION 618.68

+72.50 EL. 617.46

+87.50 EL. 619.28

PIPE P-7-2/P-7-3

625 620 615 610 605 600 595

616.49 616.06 | 614.91 615.48 | 613.30 614.91 | 614.84 614.72 | 614.95 615.49 | 616.67 617.05 | 619.86 618.53 | 621.68 619.48 | 623.21 620.27 | 625.06 621.06 | 626.96 621.85 | 628.73 622.64

97+50 98+00 98+50 99+00 99+50 100+00 100+50 101+00 101+50 102+00 102+50 103+00

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Default	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

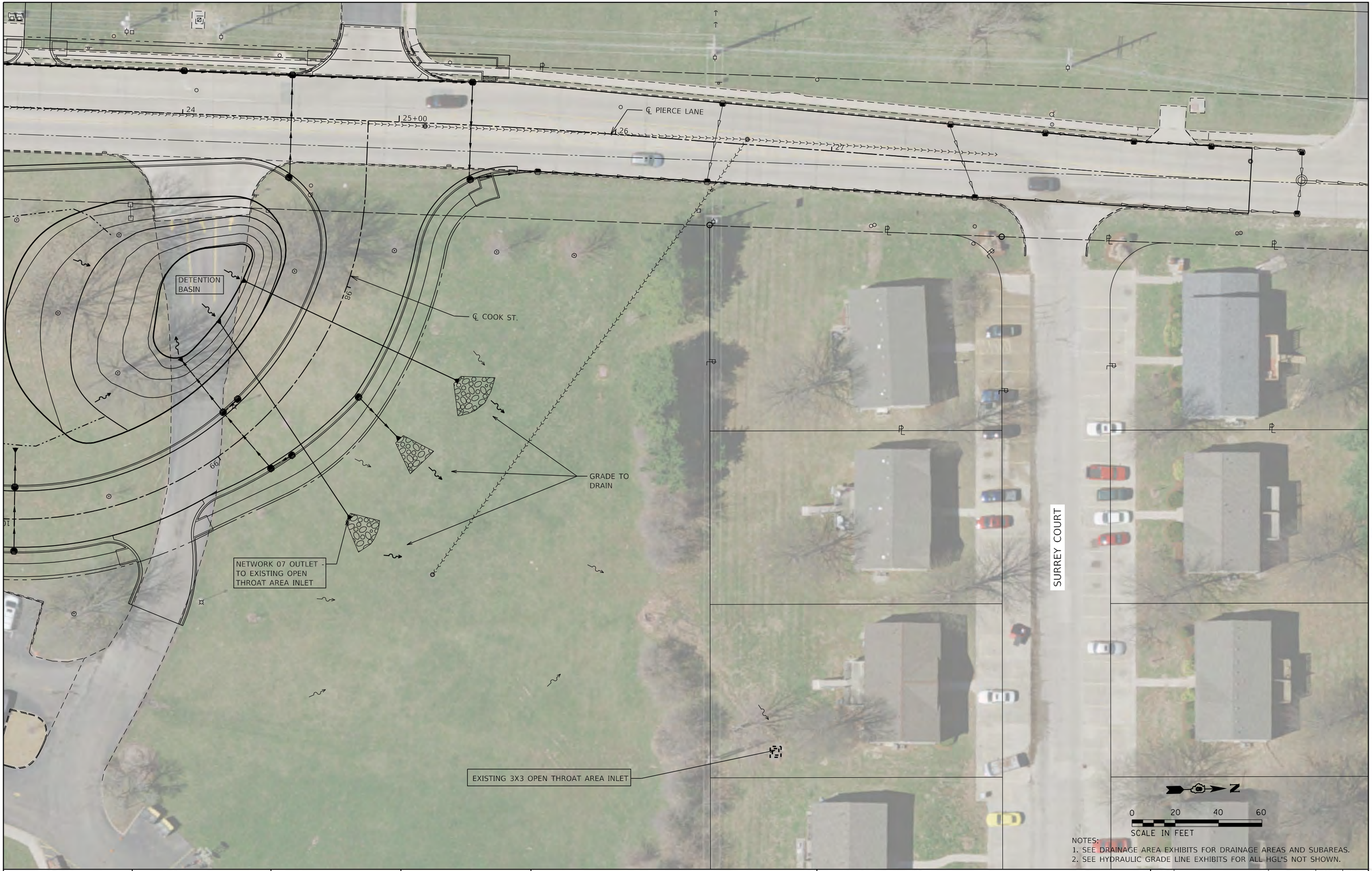
PROPOSED NETWORK 07
COOK ST. DRAINAGE PLAN AND PROFILE

SCALE: 1" = 20' | SHEET 23 OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT



NOTES:
1. SEE DRAINAGE AREA EXHIBITS FOR DRAINAGE AREAS AND SUBAREAS.
2. SEE HYDRAULIC GRADE LINE EXHIBITS FOR ALL HGL'S NOT SHOWN.

FILE NAME =	USER NAME = jstein	DESIGNED -	REVISED -
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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

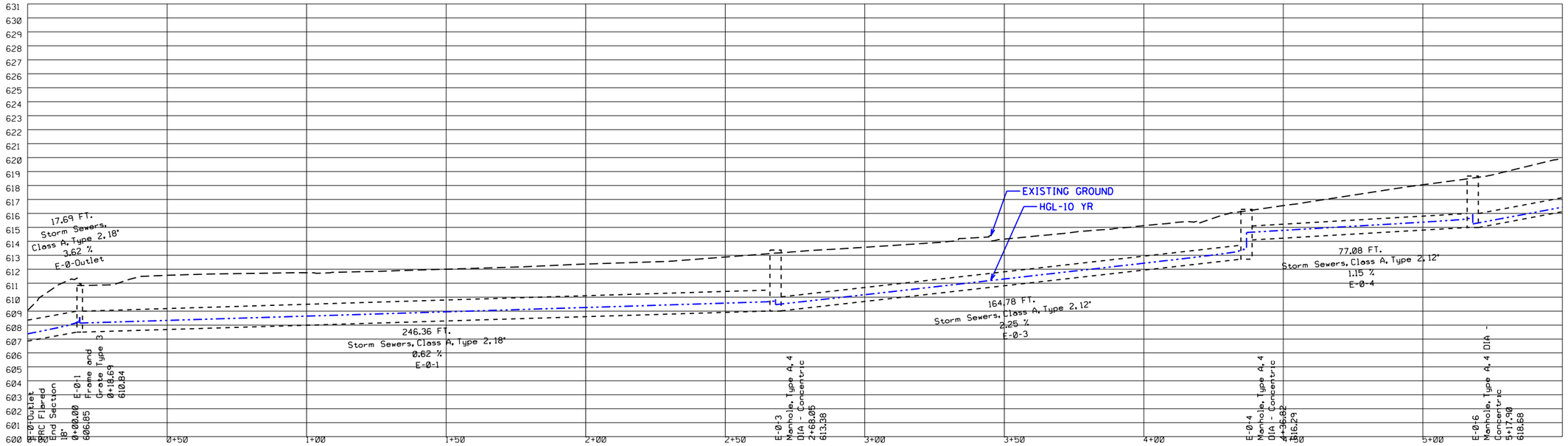
PROPOSED NETWORK 07
EXISTING 3X3 OPENT THROAT AREA INLET PLAN

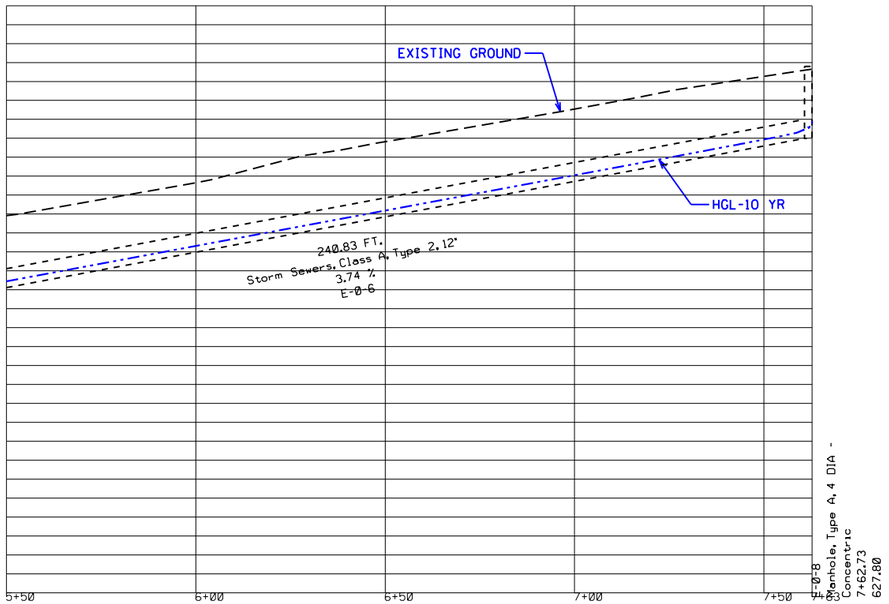
SCALE: | SHEET 21A OF 23 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

ATTACHMENT 07

PROPOSED HYDRAULIC GRADE LINES





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Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

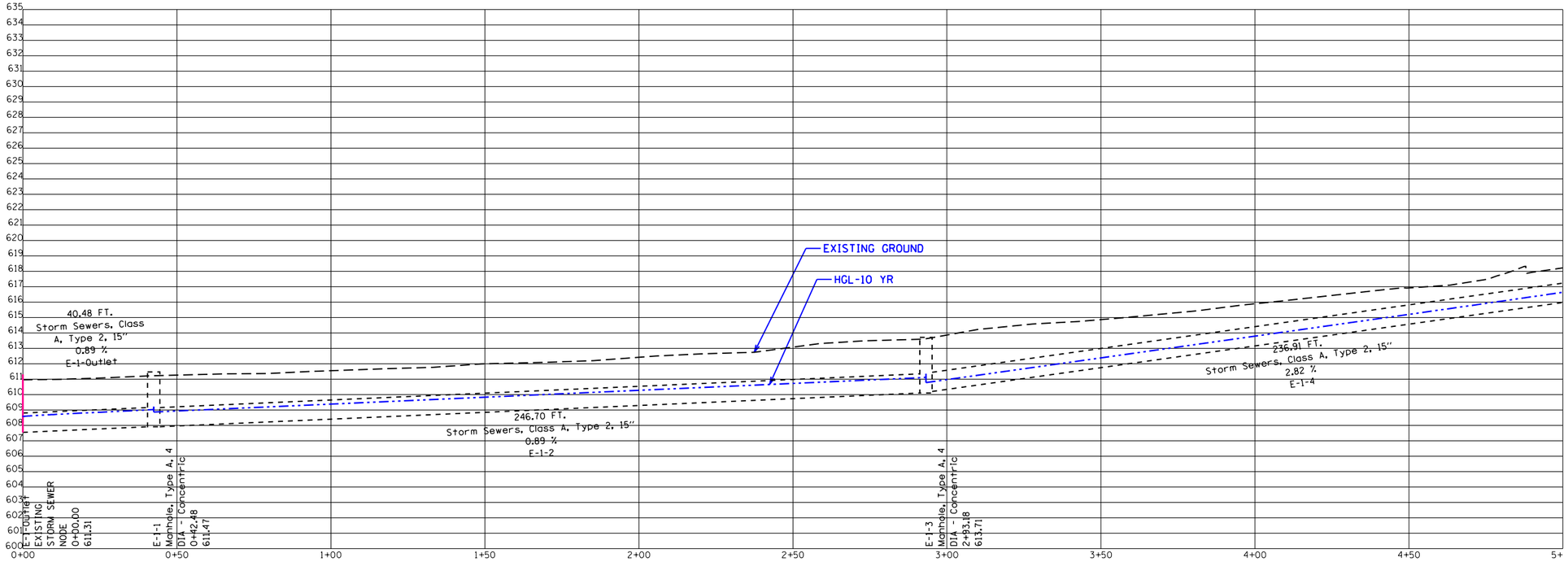
PROPOSED HGL
NETWORK 00

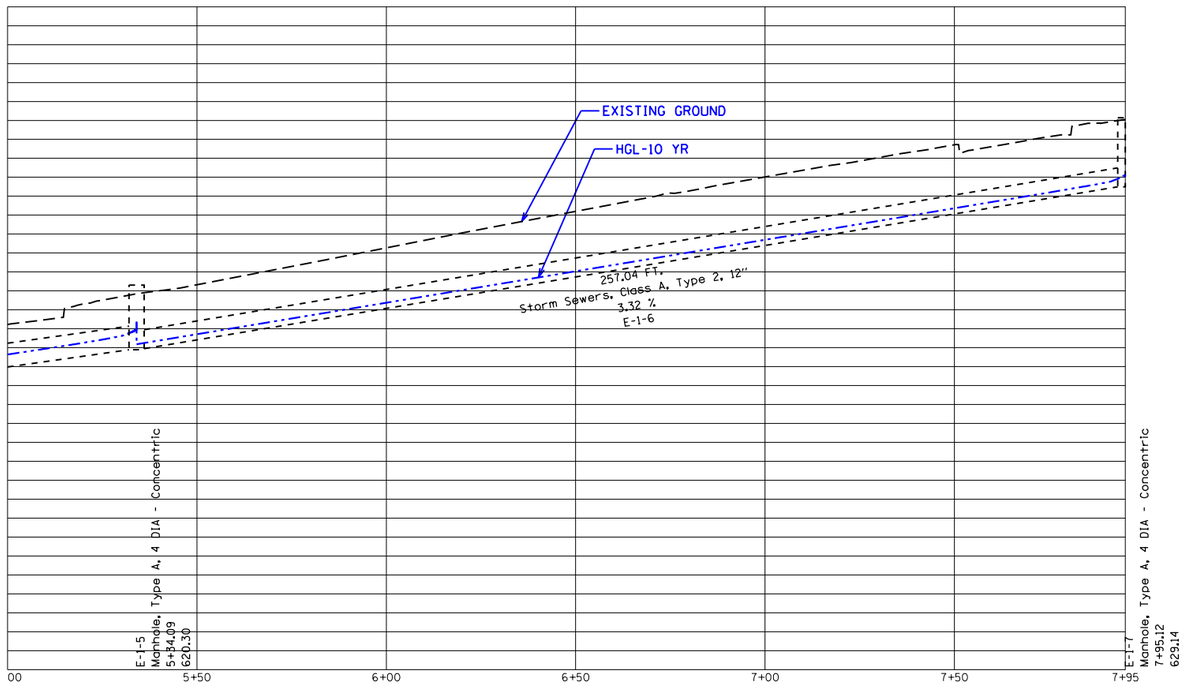
SCALE: | SHEET 1 OF 11 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT





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	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

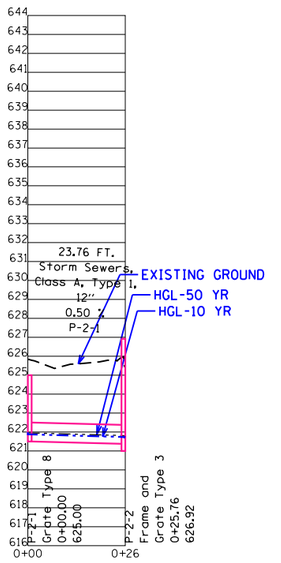
PROPOSED HGL
NETWORK 01

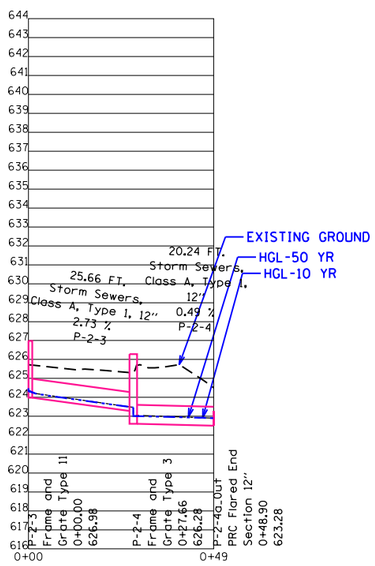
SCALE: | SHEET 2 OF 11 SHEETS | STA. | TO STA.

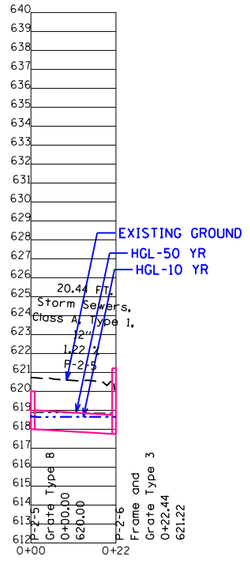
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

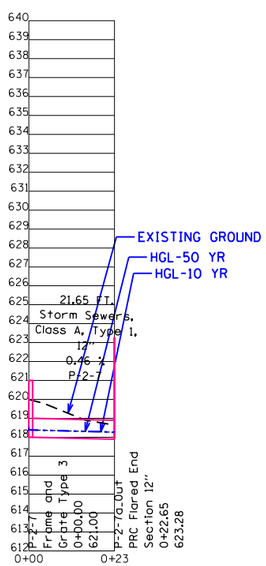
CONTRACT NO.

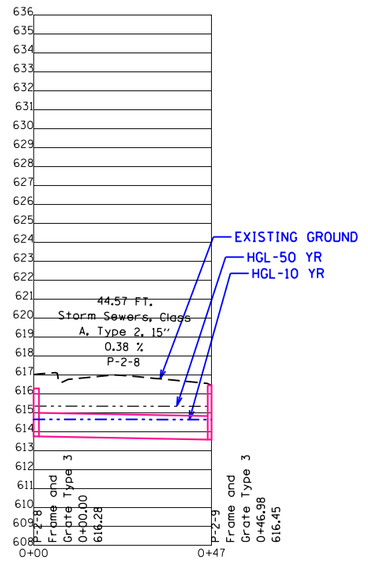
ILLINOIS | FED. AID PROJECT











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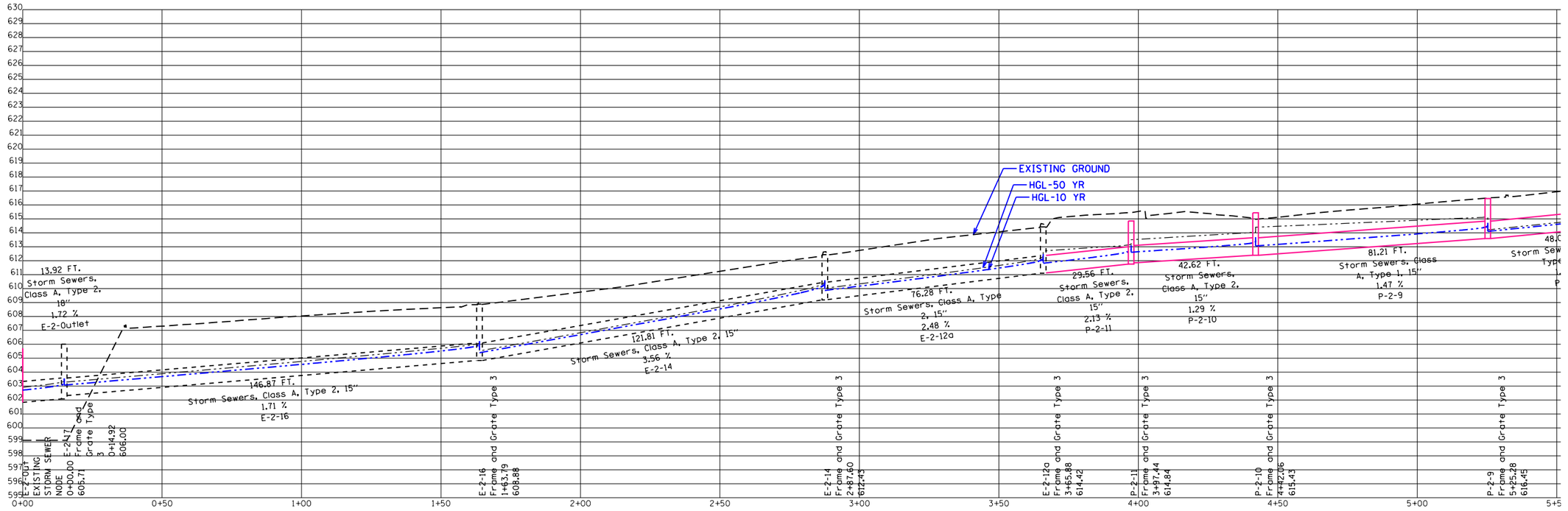
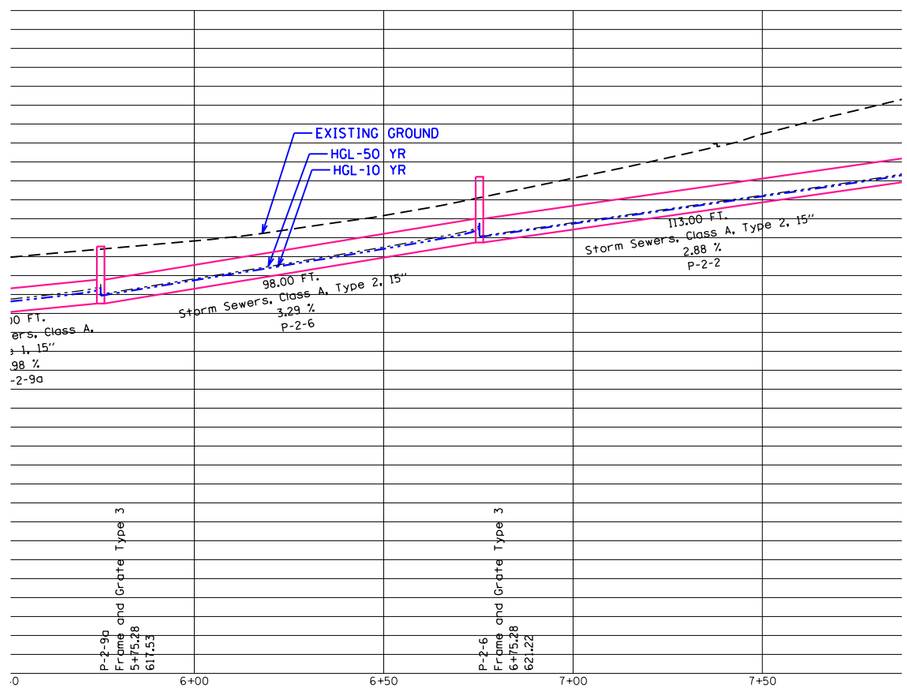
		DRAWN -	REVISED -								
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -						CONTRACT NO.		
	PLOT DATE = 12/20/2017	DATE -	REVISED -		SCALE:	SHEET 4 OF 11 SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT	





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		DRAWN -	REVISED -
Default	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

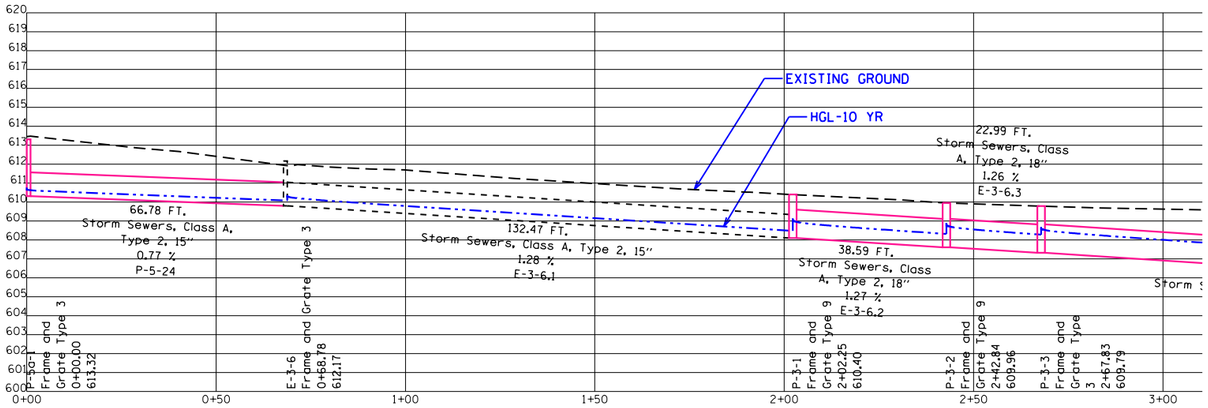
PROPOSED HGL
NETWORK 02

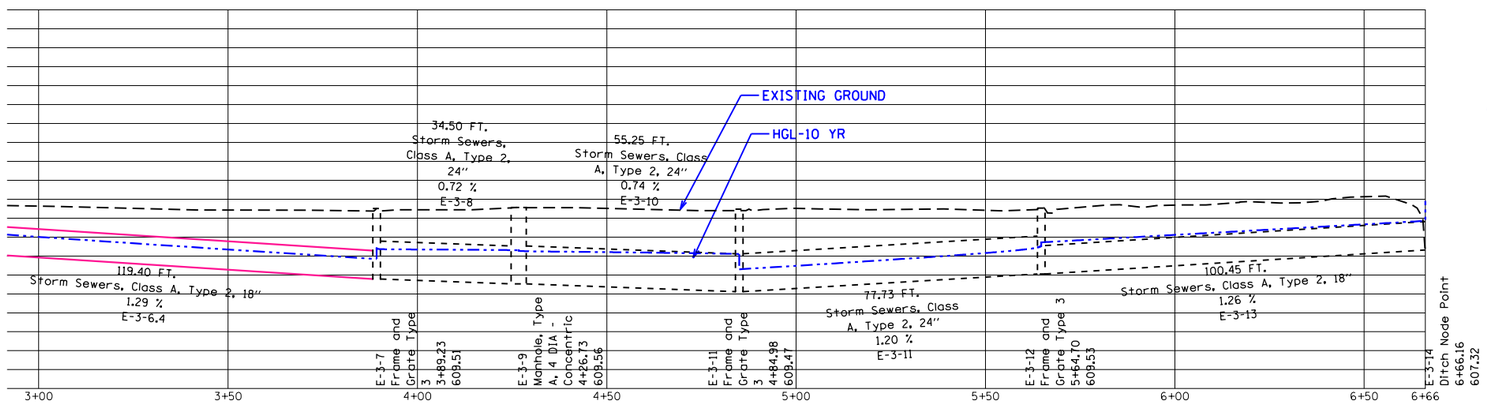
SCALE: | SHEET 3 OF 11 SHEETS | STA. | TO STA.

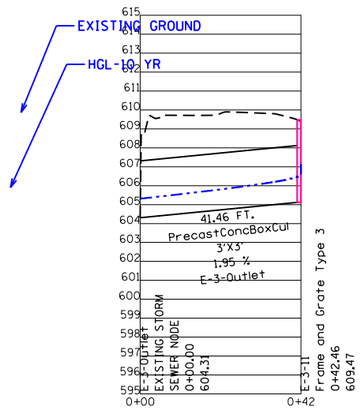
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.

CONTRACT NO.

ILLINOIS | FED. AID PROJECT







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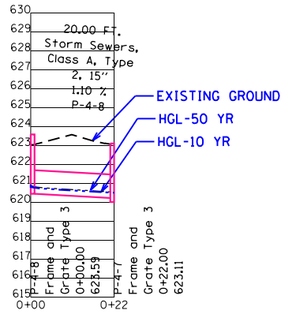
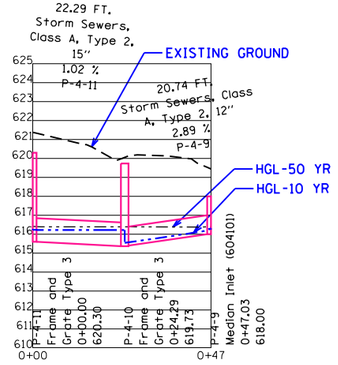
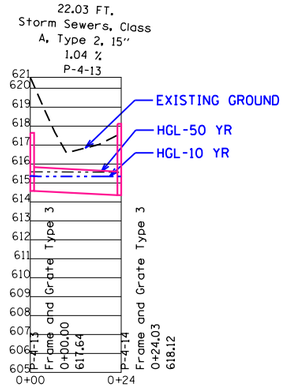
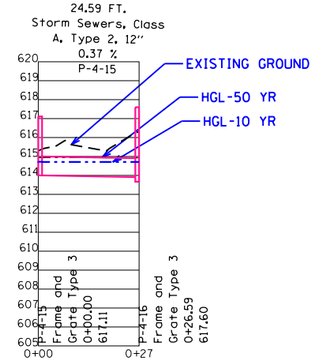
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			









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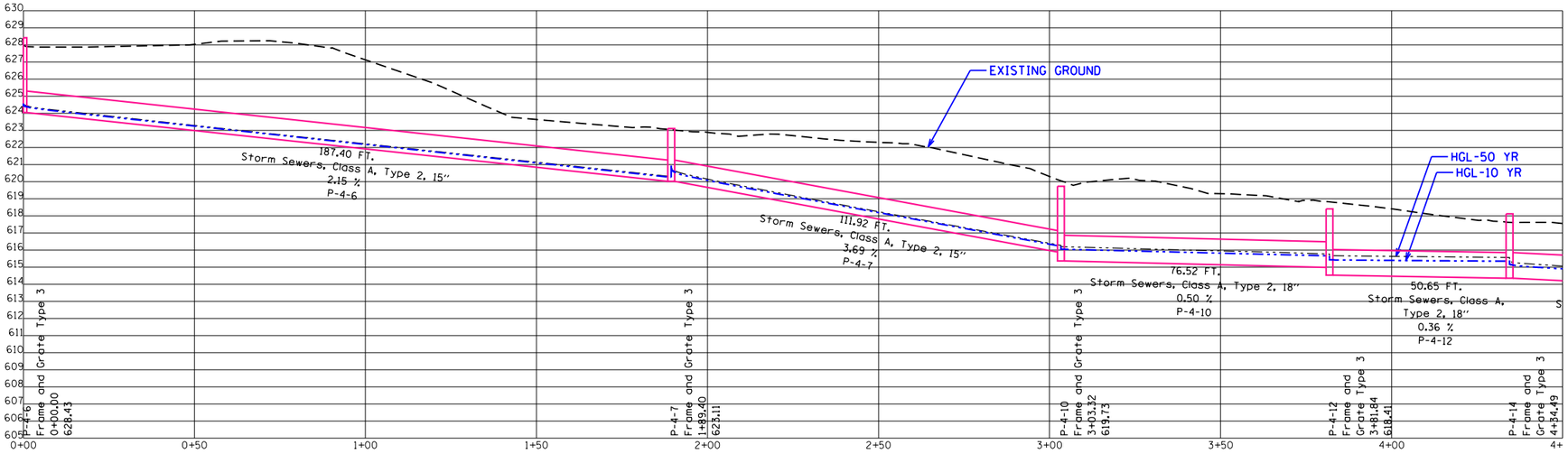
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

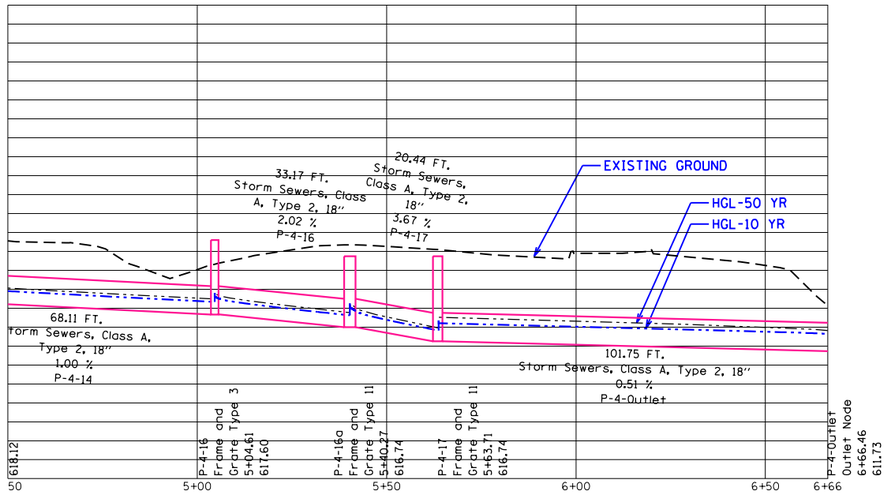
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HGL
NETWORK 04

SCALE: | SHEET 7 OF 11 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			





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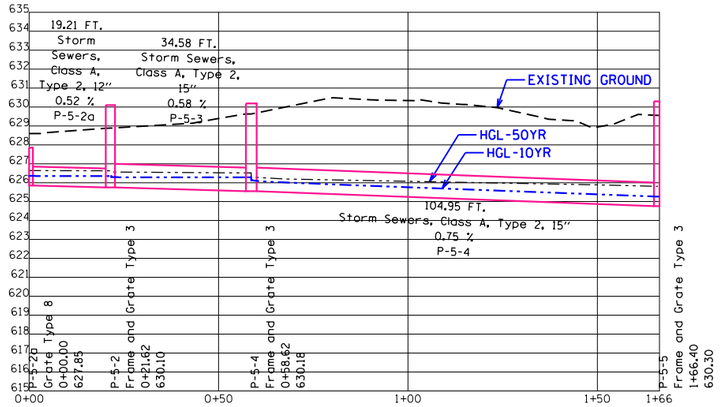
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

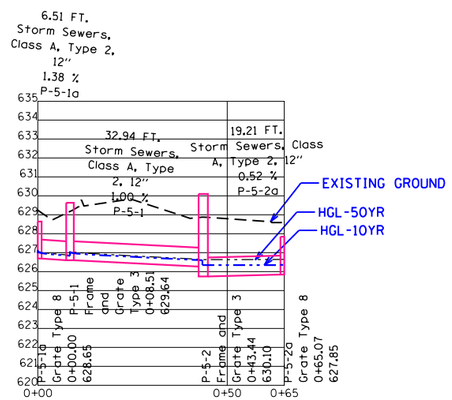
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

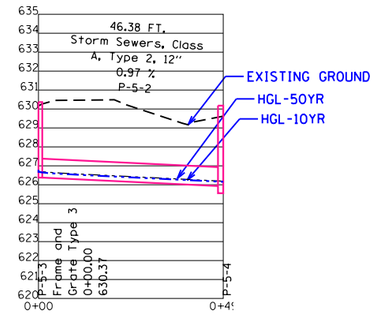
PROPOSED HGL
NETWORK 04

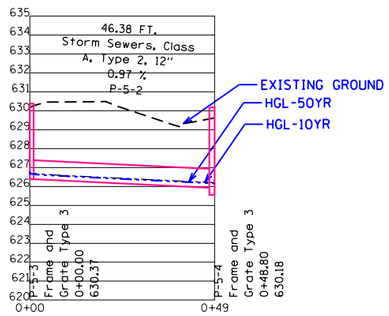
SCALE: | SHEET 6 OF 11 SHEETS | STA. | TO STA.

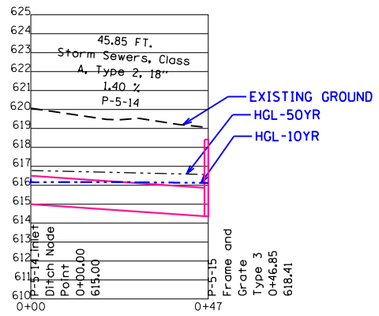
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			

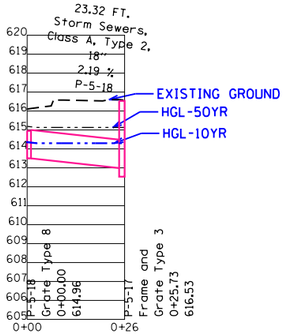


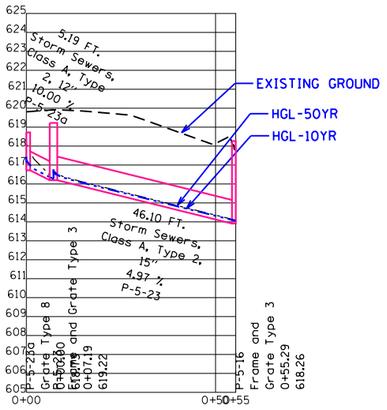












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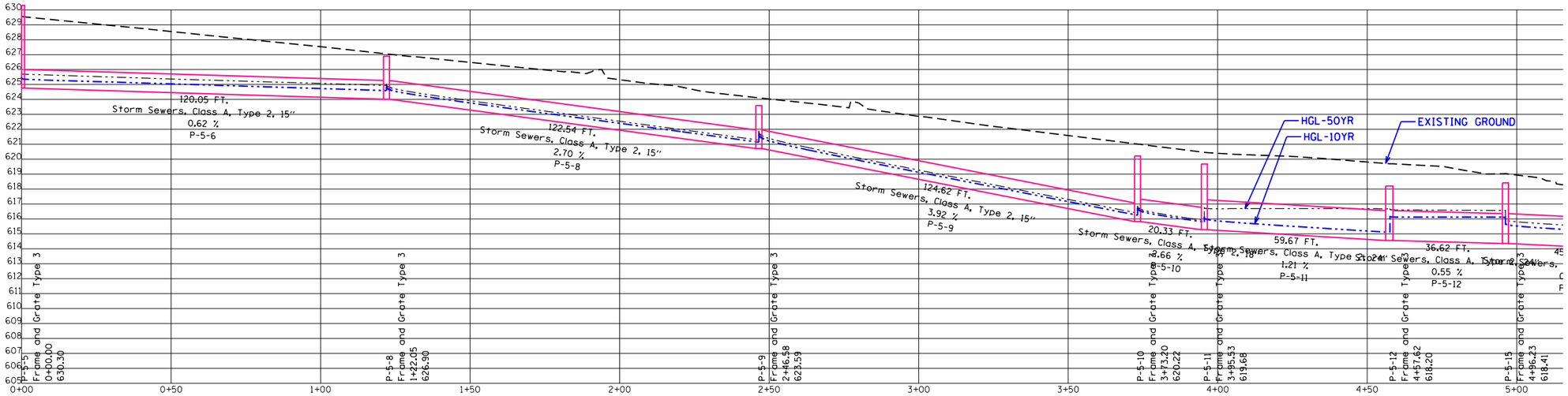
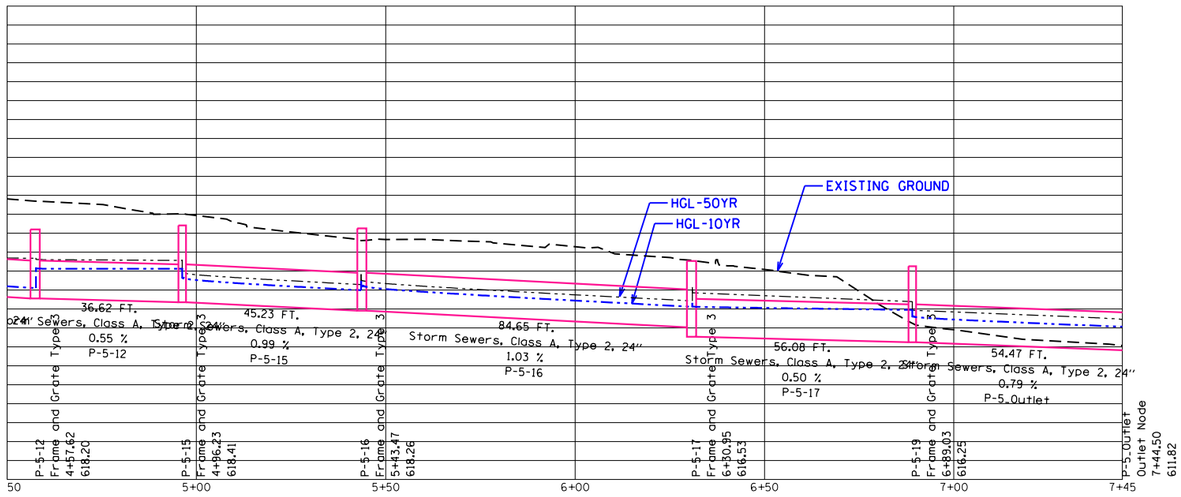
		DRAWN -	REVISED -									
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -							CONTRACT NO.		
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -		SCALE:	SHEET 9 OF 11 SHEETS	STA. TO STA.		ILLINOIS	FED. AID PROJECT		





FILE NAME = D876F84-sht-pr-profile-network-05.dgn	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
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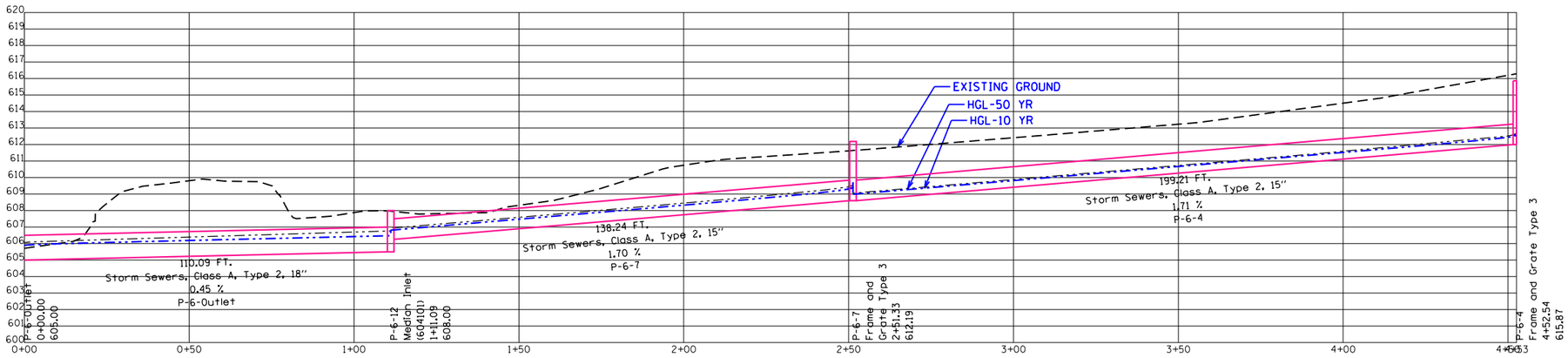
Default	PLOT DATE = 12/20/2017	DATE -	REVISED -

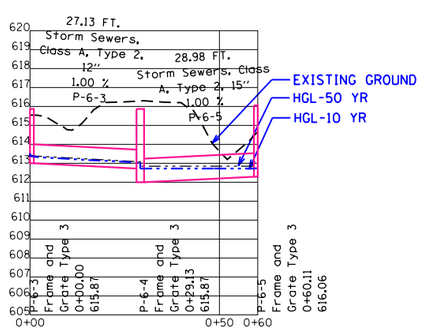
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

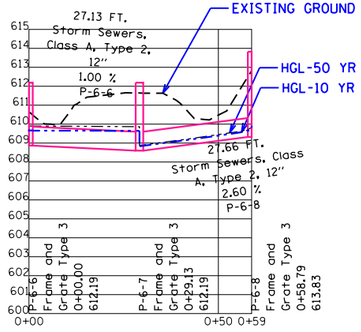
PROPOSED HGL
NETWORK 05

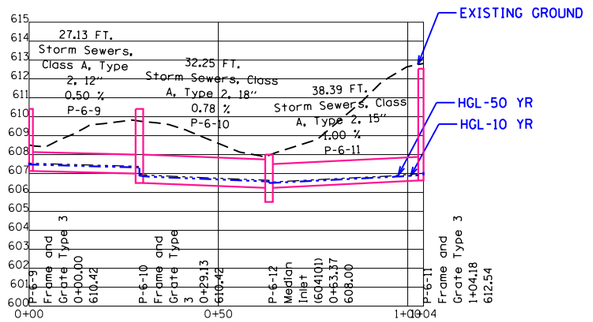
SCALE: | SHEET 8 OF 11 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



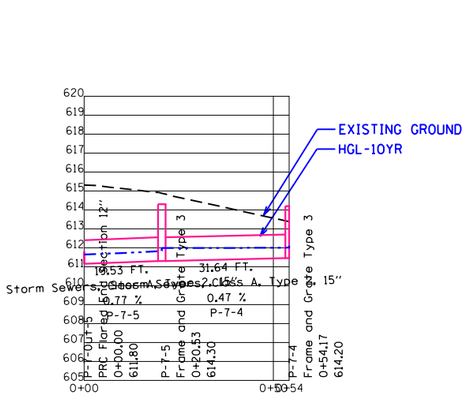


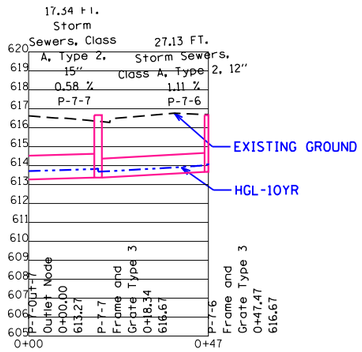


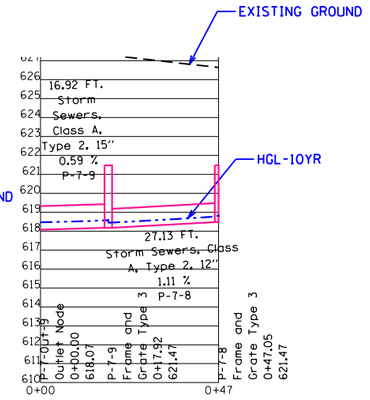


FILE NAME = D876F84-sht-pr-profile-network-06.dgn Default	USER NAME = jstein PLOT SCALE = 40.0000 ' / in. PLOT DATE = 12/20/2017	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**	**PROPOSED DRAINAGE PROFILE** **NETWORK 06**	SCALE:	SHEET 10 OF 11 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			







FILE NAME = D876F84-sht-pr-profile-network-07.dgn Default	USER NAME = jstein	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/20/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED DRAINAGE PROFILE
NETWORK 07

SCALE: | SHEET 11 OF 11 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

ATTACHMENT 08

EXISTING STORM SEWER INLET REPORT

INLET REPORT (EXISTING CONDITIONS)

	INLET	ALIGN	STA	OFF.	INLET TYPE	AREA					INLET						BY PASS		MAX PONDING	POLICY ?
						C	AREA	Tc USED	INTENSITY	Q	Q FROM	Q	INLET	LONG.	PONDING		FLOW	TO		
						(COMP)	(ACRE)	(MIN.)	(IN/HR)	(CFS)	BYPASS	(INLET)	CAPACITY	SLOPE	WIDTH (FT.)	DEPTH (FT.)	(CFS)	INLET	(FT.)	(Y/N)
Network 00	E-0-1	IL3	866+89.25	-27.80	Frame and Grate Type 3	0.69	0.26	5.00	6.96	1.27	0.64	1.90	1.14	0.30	8.42	0.32	0.76	0	9	Y
	E-0-2	IL3	869+41.82	-26.80	Frame and Grate Type 3	0.72	0.27	5.00	6.96	1.37	0.45	1.82	1.18	1.30	4.96	0.24	0.64	E-0-1	9	Y
	E-0-5	IL3	871+94.10	-33.20	Frame and Grate Type 3	0.69	0.29	5.00	6.96	1.38	0.27	1.65	1.19	3.12	3.89	0.20	0.45	E-0-2	9	Y
	E-0-7	IL3	874+40.60	-40.80	Frame and Grate Type 3	0.69	0.26	5.00	6.96	1.25	0.00	1.25	0.98	3.22	3.39	0.18	0.27	E-0-5	9	Y
Network 01	E-1-2	IL3	867+36.51	16.68	Frame and Grate Type 3	0.76	0.17	5.00	6.96	0.91	0.36	1.27	0.88	0.30	5.84	0.27	0.39	0	9	Y
	E-1-4	IL3	869+86.06	18.30	Frame and Grate Type 3	0.79	0.17	5.00	6.96	0.93	0.36	1.29	0.93	1.43	4.16	0.21	0.36	E-1-2	9	Y
	E-1-5a	IL3	872+27.01	67.95	Grate Type 8	0.69	0.58	5.00	6.96	2.77	0.00	2.77	2.96	n/a	2.64	0.88	0.00	0	9	Y
	E-1-6	IL3	872+30.93	16.80	Frame and Grate Type 3	0.76	0.25	5.00	6.96	1.32	0.19	1.50	1.15	3.96	3.53	0.18	0.36	E-1-4	9	Y
	E-1-8	IL3	874+86.52	17.20	Frame and Grate Type 3	0.54	0.27	5.00	6.96	1.00	0.00	1.00	0.81	2.58	3.21	0.17	0.19	E-1-6	9	Y
Network 02	E-2-1	PIERCE	21+12.82	-19.59	Frame and Grate Type 3	0.90	0.06	5.00	6.96	0.35	0.00	0.35	0.34	3.75	1.76	0.11	0.00	E-2-3	6	Y
	E-2-2	PIERCE	21+32.09	19.35	Frame and Grate Type 3	0.81	0.07	5.00	6.96	0.38	0.00	0.38	0.37	3.75	1.82	0.11	0.01	E-2-6	6	Y
	E-2-3	PIERCE	22+37.80	-19.59	Frame and Grate Type 3	0.55	0.19	5.00	6.96	0.71	0.00	0.72	0.62	4.97	2.79	0.13	0.10	E-2-9	6	Y
	E-2-4	PIERCE	22+17.00	19.64	Frame and Grate Type 3	0.77	0.05	5.00	6.96	0.26	0.00	0.26	0.26	4.97	1.50	0.09	0.00	E-2-10	6	Y
	E-2-5	COOK	101+51.55	127.02	Frame and Grate Type 3	0.40	0.04	5.00	6.96	0.12	0.06	0.18	7.44	n/a	1.09	0.07	0.00	0	6	Y
	E-2-6	COOK	101+77.81	141.69	Frame and Grate Type 3	0.90	0.09	5.00	6.96	0.59	0.05	0.64	7.44	n/a	4.22	0.15	0.00	0	6	Y
	E-2-7	COOK	101+74.66	93.78	Frame and Grate Type 3	0.83	0.08	5.00	6.96	0.47	0.00	0.47	0.41	2.02	2.85	0.13	0.06	E-2-5	6	Y
	E-2-8	COOK	101+88.62	114.36	Frame and Grate Type 3	0.36	0.17	5.00	6.96	0.43	0.00	0.43	0.39	2.02	2.60	0.13	0.04	E-2-6	6	Y
	E-2-9	PIERCE	23+63.01	-19.73	Frame and Grate Type 3	0.40	0.78	12.12	5.82	1.80	0.10	1.90	0.95	2.68	7.36	0.20	0.95	E-2-11a	6	N
	E-2-10	PIERCE	23+64.72	19.71	Frame and Grate Type 3	0.72	0.07	5.00	6.96	0.33	0.00	0.33	0.33	2.68	1.85	0.11	0.01	E-2-12	6	Y
	E-2-11	PIERCE	25+24.77	-20.16	Frame and Grate Type 3	0.66	0.24	5.00	6.96	1.08	0.96	2.04	0.96	1.78	8.54	0.22	1.08	E-2-13	6	N
	E-2-11a	PIERCE	24+43.04	-19.55	Frame and Grate Type 3	0.46	0.29	5.00	6.96	0.92	0.95	1.87	0.91	1.78	8.15	0.21	0.96	E-2-11	6	N
	E-2-12	PIERCE	25+23.88	20.12	Frame and Grate Type 3	0.68	0.13	5.00	6.96	0.63	0.01	0.64	0.48	1.78	4.09	0.15	0.16	E-2-12a	6	Y
	E-2-12a	PIERCE	25+65.33	19.95	Frame and Grate Type 3	0.48	0.04	5.00	6.96	0.14	0.16	0.31	0.30	2.37	1.84	0.11	0.01	E-2-14	6	Y
	E-2-13	PIERCE	26+48.26	-18.23	Frame and Grate Type 3	0.41	0.33	5.00	6.96	0.95	1.08	2.03	0.99	2.84	7.52	0.20	1.04	E-2-15	6	N
	E-2-14	PIERCE	26+43.86	18.76	Frame and Grate Type 3	0.46	0.07	5.00	6.96	0.22	0.01	0.23	0.22	2.84	1.58	0.10	0.00	E-2-16	6	Y
	E-2-15	PIERCE	27+53.84	-16.59	Frame and Grate Type 3	0.46	0.17	5.00	6.96	0.53	1.04	1.57	0.83	2.29	6.92	0.19	0.74	0	6	N
	E-2-16	PIERCE	27+67.64	16.49	Frame and Grate Type 3	0.51	0.10	5.00	6.96	0.34	0.00	0.34	0.34	2.29	1.93	0.12	0.01	E-2-17	6	Y
	E-2-17	PIERCE	27+70.06	12.57	Frame and Grate Type 3	0.74	0.10	5.00	6.96	0.51	0.01	0.52	0.43	2.00	3.22	0.14	0.09	0	6	Y
Network 03	E-3-6	DELMAR	885+64.62	24.02	Frame and Grate Type 3	0.52	0.99	7.04	6.69	3.44	0.00	3.44	1.91	1.94	5.99	0.28	1.53	E-3-7	8	Y
	E-3-7	DELMAR	888+84.73	24.75	Frame and Grate Type 3	0.25	7.68	16.94	4.97	9.54	1.53	11.07	4.01	0.20	25.02	0.62	7.06	E-3-11	8	N
	E-3-11	DELMAR	889+80.45	22.59	Frame and Grate Type 3	0.82	0.08	5.00	6.96	0.47	7.06	7.53	2.82	0.36	17.72	0.49	4.71	E-3-12	8	N
	E-3-12	DELMAR	890+60.15	20.66	Frame and Grate Type 3	0.81	0.04	7.42	6.64	0.21	4.71	4.92	2.18	0.38	12.45	0.43	2.74	E-3-14	8	N

Maximum Ponding Width

Network 00/01 - 2' Gutter + 4' Shoulder + 3' Encroachment = 9' Max Ponding
Network 02 - 2' Gutter + 0' Shoulder + 4' Encroachment = 6' Max Ponding
Network 03 - 2' Gutter + 6' Shoulder + 0' Encroachment = 8' Max Ponding

DOES NOT MEET POLICY

ATTACHMENT 09

EXISTING STORM SEWER PIPE REPORT

PIPE REPORT (EXISTING CONDITIONS)

	PIPE	US INLET	DS INLET	SECTION	MATERIAL	ITEM	N VALUE	LENGTH	US INVERT	DS INVERT	SLOPE	Q (CFS)	CAPACITY (CFS)	US HGL	DS HGL	VEL.	DEPTH
Network 00	E-0-1	E-0-3	E-0-1	Circular	Concrete	18" STORM SEW CL A 2	0.013	246.36	609.01	607.49	0.62	3.25	8.88	609.82	608.15	4.39	0.66
	E-0-2	E-0-2	E-0-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	3.51	609.61	609.09	14.82	1.18	14.75	610.55	609.33	10.69	0.20
	E-0-3	E-0-4	E-0-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	164.78	612.72	609.02	2.25	2.14	5.74	613.44	609.46	6.43	0.44
	E-0-4	E-0-6	E-0-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	77.08	614.99	614.10	1.16	2.14	4.12	615.85	614.64	5.00	0.54
	E-0-5	E-0-5	E-0-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	7.05	615.75	614.99	10.78	1.19	12.58	616.62	615.23	9.58	0.22
	E-0-6	E-0-8	E-0-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	240.83	623.99	614.99	3.74	0.98	7.41	624.59	615.25	6.21	0.26
	E-0-7	E-0-7	E-0-8	Circular	Concrete	12" STORM SEW CL A 2	0.013	6.51	625.82	624.46	20.90	0.98	17.52	626.98	624.64	11.41	0.17
	E-0-Outlet	E-0-1	E-0-Outlet	Circular	Concrete	18" STORM SEW CL A 2	0.013	18.50	607.49	606.85	3.46	4.26	21.02	608.49	607.38	8.85	0.48
Network 01	E-1-1	E-1-2	E-1-1	Circular	Concrete	12" STORM SEW CL A 2	0.013	5.86	608.70	607.91	13.48	0.88	14.07	609.58	608.10	9.47	0.18
	E-1-2	E-1-3	E-1-1	Circular	Concrete	15" STORM SEW CL A 2	0.013	246.70	610.10	607.91	0.89	5.51	6.55	611.26	608.85	5.59	0.94
	E-1-3	E-1-4	E-1-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	4.79	611.00	610.15	17.74	0.93	16.14	612.03	610.34	10.60	0.17
	E-1-4	E-1-5	E-1-3	Circular	Concrete	15" STORM SEW CL A 2	0.013	236.91	616.89	610.20	2.82	4.65	11.68	618.15	610.77	8.50	0.57
	E-1-5	E-1-6	E-1-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	6.87	617.12	616.98	2.04	1.15	5.47	618.19	618.15	5.23	0.32
	E-1-5a	E-1-5a	E-1-5	Circular	Steel	12" CL A TY 2	0.024	44.11	618.10	617.38	1.63	2.77	2.65	619.30	618.15	3.62	1.00
	E-1-6	E-1-7	E-1-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	257.04	625.49	616.95	3.32	0.81	6.99	626.03	617.19	5.63	0.24
	E-1-7	E-1-8	E-1-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	2.26	626.54	625.71	36.71	0.81	23.22	628.18	625.86	13.13	0.13
	E-1-Outlet	E-1-1	E-1-Outlet	Circular	Concrete	15" STORM SEW CL A 2	0.013	40.48	607.91	607.55	0.89	6.26	6.55	609.15	608.56	5.63	1.06
Network 02	E-2-1	E-2-1	E-2-2	Circular	Concrete	12" STORM SEW CL A 1	0.010	40.90	625.29	624.51	1.91	0.34	6.88	625.63	624.67	4.33	0.16
	E-2-2	E-2-2	E-2-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	82.91	624.51	620.58	4.74	0.71	8.34	625.01	620.78	6.15	0.20
	E-2-3	E-2-3	E-2-4	Circular	Concrete	12" STORM SEW CL A 2	0.010	40.93	620.13	619.73	0.98	0.62	4.93	621.74	621.72	4.07	0.25
	E-2-4	E-2-4	E-2-10	Circular	Concrete	12" STORM SEW CL A 2	0.013	145.73	620.58	614.94	3.87	3.17	7.54	621.72	615.41	8.71	0.47
	E-2-5	E-2-5	E-2-4	Circular	Concrete	12" STORM SEW CL A 2	0.010	52.43	621.68	620.53	2.19	1.60	7.38	622.43	620.87	7.11	0.33
	E-2-6	E-2-6	E-2-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	28.20	622.43	622.20	0.82	1.02	3.46	623.01	622.59	3.63	0.39
	E-2-7	E-2-7	E-2-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	38.39	622.75	621.68	2.79	0.41	6.40	623.12	621.86	4.33	0.18
	E-2-8	E-2-8	E-2-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	31.18	622.89	622.43	1.48	0.39	4.66	623.24	622.63	3.41	0.20
	E-2-9	E-2-9	E-2-10	Circular	Concrete	12" STORM SEW CL A 2	0.010	36.61	616.28	614.99	3.52	0.95	9.35	616.86	615.22	7.26	0.22
	E-2-10	E-2-10	E-2-12	Circular	Concrete	12" STORM SEW CL A 2	0.013	157.02	614.94	612.01	1.87	3.86	5.24	616.01	612.68	6.88	0.67
	E-2-11	E-2-11	E-2-12	Circular	Concrete	12" STORM SEW CL A 2	0.013	37.41	612.39	612.01	1.02	1.86	3.86	613.45	613.26	4.62	0.51
	E-2-11a	E-2-11a	E-2-11	Circular	Concrete	12" STORM SEW CL A 2	0.013	80.88	614.21	612.81	1.73	0.91	5.04	614.78	613.11	4.61	0.30
	E-2-12	E-2-12	E-2-12a	Circular	Steel	15" CL A TY 2	0.024	39.10	612.01	611.12	2.28	5.65	5.68	613.26	612.12	4.82	1.14
	E-2-12a	E-2-12a	E-2-14	Circular	Concrete	15" STORM SEW CL A 2	0.013	77.28	611.10	609.21	2.45	5.89	10.87	612.12	609.90	8.55	0.69
	E-2-13	E-2-13	E-2-14	Circular	Concrete	12" STORM SEW CL A 2	0.013	34.40	609.79	609.22	1.66	0.99	4.93	610.55	610.50	4.67	0.32
	E-2-14	E-2-14	E-2-16	Circular	Plastic	15" STORM SEW CL B 2	0.010	121.81	609.18	604.84	3.56	6.84	17.05	610.50	605.42	12.44	0.57
	E-2-15	E-2-15	E-2-16	Circular	Concrete	12" STORM SEW CL A 2	0.010	33.21	607.25	605.44	5.45	0.83	11.63	607.81	605.63	8.16	0.19
	E-2-16	E-2-16	E-2-17	Circular	Plastic	15" STORM SEW CL B 2	0.010	146.89	604.84	602.33	1.71	7.79	11.81	606.20	603.12	9.71	0.78
	E-2-Outlet	E-2-17	E-2-Outlet	Circular	Concrete	18" STORM SEW CL A 2	0.013	14.35	602.08	601.83	1.74	8.03	14.91	603.57	602.73	8.12	0.82

PIPE REPORT (EXISTING CONDITIONS)

	PIPE	US INLET	DS INLET	SECTION	MATERIAL	ITEM	N VALUE	LENGTH	US INVERT	DS INVERT	SLOPE	Q (CFS)	CAPACITY (CFS)	US HGL	DS HGL	VEL.	DEPTH
Network 03	E-3-1	E-3-1	E-3-2	Circular	Concrete	12" STORM SEW CL A 2	0.013	23.34	618.56	617.90	2.83	3.50	6.44	620.02	619.42	7.92	0.55
	E-3-2	E-3-3	E-3-2	Circular	Concrete	12" STORM SEW CL A 2	0.013	12.85	618.87	617.90	7.55	1.72	10.53	619.71	618.21	9.38	0.28
	E-3-3	E-3-2	E-3-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	34.82	617.90	616.87	2.96	5.22	6.59	619.42	617.60	8.76	0.71
	E-3-4	E-3-5	E-3-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	23.12	619.11	616.87	9.69	0.49	11.93	619.62	617.01	7.10	0.14
	E-3-5	E-3-4	E-3-6	Circular	Concrete	15" STORM SEW CL A 2	0.013	313.26	616.87	609.80	2.26	5.71	10.44	617.91	610.49	8.22	0.69
	E-3-6	E-3-6	E-3-7	Circular	Concrete	24" STORM SEW CL A 2	0.013	318.44	609.80	605.78	1.26	6.80	27.34	610.77	606.49	6.83	0.71
	E-3-7	E-3-8	E-3-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	13.76	608.50	606.00	18.17	2.75	16.34	609.66	606.33	14.67	0.29
	E-3-8	E-3-7	E-3-9	Circular	Concrete	24" STORM SEW CL A 2	0.013	35.50	605.78	605.53	0.70	13.47	20.42	607.84	607.50	6.54	1.25
	E-3-09	E-3-10	E-3-9	Circular	Concrete	12" STORM SEW CL A 2	0.013	12.22	607.90	605.53	19.40	0.82	16.88	608.69	605.69	10.56	0.16
	E-3-10	E-3-9	E-3-11	Circular	Concrete	24" STORM SEW CL A 2	0.013	55.25	605.53	605.12	0.74	14.13	20.96	607.50	607.24	6.77	1.26
	E-3-11	E-3-12	E-3-11	Circular	Concrete	24" STORM SEW CL A 2	0.013	77.73	606.05	605.12	1.20	17.49	26.62	607.85	606.38	8.56	1.24
	E-3-12	E-3-13	E-3-12	Circular	Concrete	12" STORM SEW CL A 2	0.013	9.27	606.83	606.21	6.69	5.32	9.91	609.32	607.85	12.15	0.55
	E-3-13	E-3-14	E-3-12	Circular	Concrete	18" STORM SEW CL A 2	0.013	100.45	607.32	606.05	1.26	11.10	12.71	609.88	607.85	7.60	1.16
	E-3-Outlet	E-3-11	E-3-Outlet	Box	Concrete	PCBC3'X3'	0.013	41.46	605.12	604.31	1.95	32.26	142.04	607.24	605.38	11.17	0.96

DOES NOT MEET POLICY

ATTACHMENT 10

PROPOSED STORM SEWER INLET REPORT

INLET REPORT (PROPOSED CONDITIONS)

	INLET	ALIGN	STA	OFF.	INLET TYPE	AREA					INLET						BY PASS		MAX PONDING	POLICY ?	NOTES
						C	AREA	Tc	INTENSITY	Q	Q FROM	Q	INLET	LONG.	PONDING		FLOW	TO			
						(COMP)	(ACRE)	(min.)	(IN/HR)	(CFS)	BYPASS	(INLET)	CAPACITY	SLOPE	WIDTH (FT.)	DEPTH (FT.)	(CFS)	INLET	(FT.)	(Y/N)	
Network 00	E-0-1	IL3	866+89.25	-27.80	Frame and Grate Type 3	0.69	0.26	5.00	6.96	1.25	0.60	1.84	1.12	0.30	8.18	0.31	0.73	0	9	Y	
	E-0-2	IL3	869+41.82	-26.80	Frame and Grate Type 3	0.68	0.27	5.00	6.96	1.29	0.46	1.74	1.15	1.30	4.86	0.24	0.60	E-0-1	9	Y	
	E-0-5	IL3	871+94.10	-33.20	Frame and Grate Type 3	0.69	0.29	5.00	6.96	1.38	0.27	1.65	1.19	3.12	3.90	0.20	0.46	E-0-2	9	Y	
	E-0-7	IL3	874+40.60	-40.80	Frame and Grate Type 3	0.72	0.25	5.00	6.96	1.25	0.00	1.25	0.98	3.22	3.39	0.18	0.27	E-0-5	9	Y	
Network 01	E-1-2	IL3	867+36.51	16.68	Frame and Grate Type 3	0.76	0.17	5.00	6.96	0.91	0.41	1.31	0.90	0.30	5.92	0.28	0.41	0	9	Y	
	E-1-4	IL3	869+86.06	18.30	Frame and Grate Type 3	0.79	0.17	5.00	6.96	0.93	0.45	1.38	0.97	1.43	4.29	0.21	0.41	E-1-2	9	Y	
	E-1-5a	IL3	872+27.01	67.95	Grate Type 8	0.69	0.58	5.00	6.96	2.77	0.00	2.77	2.96	n/a	2.64	0.88	0.00	0			
	E-1-6	IL3	872+30.93	16.80	Frame and Grate Type 3	0.77	0.28	5.00	6.96	1.52	0.19	1.71	1.26	3.96	3.74	0.19	0.45	E-1-4	9	Y	
	P-1-8	IL3NORTH	875+00.00	25.00	Frame and Grate Type 3	0.50	0.28	5.00	6.96	0.97	0.00	0.97	0.78	2.31	3.25	0.17	0.19	E-1-6	9	Y	
Network 02	P-2-1	PIERCE	21+85.00	-45.50	Grate Type 8	0.49	0.21	7.65	6.61	0.69	0.00	0.69	2.96	n/a	1.79	0.14	0.00	0	6	Y	
	P-2-2	PIERCE	21+85.00	-20.18	Frame and Grate Type 3	0.74	0.13	5.00	6.96	0.65	0.00	0.65	0.60	4.98	2.37	0.13	0.05	P-2-6	6	Y	
	P-2-3	PIERCE	21+85.00	19.15	Frame and Grate Type 11	0.76	0.14	5.00	6.96	0.76	0.00	0.76	0.44	4.98	4.24	0.13	0.32	P-2-7	5	Y	
	P-2-4	PIERCE	21+91.00	46.37	Frame and Grate Type 3	0.85	0.08	5.00	6.96	0.46	0.00	0.46	0.45	6.13	1.79	0.11	0.01	P-2-7	6	Y	
	P-2-5	PIERCE	23+00.00	-42.00	Grate Type 8	0.45	0.31	5.00	6.96	0.96	0.00	0.96	2.96	n/a	2.04	0.17	0.00	0			
	P-2-6	PIERCE	23+00.00	-20.00	Frame and Grate Type 3	0.87	0.09	7.65	6.61	0.50	0.05	0.55	0.53	4.70	2.03	0.12	0.02	P-2-9a	6	Y	
	P-2-7	PIERCE	23+00.00	30.50	Frame and Grate Type 3	0.87	0.11	5.00	6.96	0.64	0.32	0.96	0.75	4.70	3.40	0.15	0.21	P-2-8	6	Y	
	P-2-8	PIERCE	24+50.00	27.75	Frame and Grate Type 3	0.86	0.10	5.00	6.96	0.60	0.21	0.81	0.60	2.16	3.98	0.16	0.21	P-2-13	6	Y	
	P-2-9	PIERCE	24+50.00	-20.00	Frame and Grate Type 3	0.34	0.20	5.00	6.96	0.48	0.25	0.72	0.55	1.83	3.90	0.16	0.18	P-2-10	6	Y	
	P-2-9a	PIERCE	24+00.00	-20.00	Frame and Grate Type 3	0.37	0.33	5.00	6.96	0.83	0.02	0.85	0.61	1.83	4.35	0.17	0.25	P-2-9	6	Y	
	P-2-10	PIERCE	25+33.00	-20.00	Frame and Grate Type 3	0.71	0.25	5.00	6.96	1.21	0.18	1.39	0.83	1.78	5.87	0.20	0.56	E-2-13	6	Y	
	P-2-11	PIERCE	25+34.21	25.34	Frame and Grate Type 3	0.82	0.05	5.00	6.96	0.27	0.00	0.27	0.26	1.78	1.84	0.11	0.00	E-2-12a	6	Y	
	E-2-12a	PIERCE	25+65.33	19.95	Frame and Grate Type 3	0.77	0.02	5.00	6.96	0.13	0.00	0.13	0.13	2.37	1.34	0.08	0.00	E-2-14	6	Y	
	E-2-13	PIERCE	26+48.26	-18.23	Frame and Grate Type 3	0.37	0.30	5.00	6.96	0.77	0.56	1.33	0.78	2.84	5.87	0.18	0.56	E-2-15	6	Y	
	E-2-14	PIERCE	26+43.86	18.76	Frame and Grate Type 3	0.51	0.08	5.00	6.96	0.27	0.00	0.27	0.27	2.84	1.70	0.10	0.00	E-2-16	6	Y	
	E-2-15	PIERCE	27+53.84	-16.59	Frame and Grate Type 3	0.42	0.16	5.00	6.96	0.48	0.56	1.04	0.65	2.29	5.35	0.17	0.39	0	6	Y	
	E-2-16	PIERCE	27+67.64	16.49	Frame and Grate Type 3	0.52	0.10	5.00	6.96	0.37	0.00	0.37	0.36	2.29	1.99	0.12	0.01	E-2-17	6	Y	
	E-2-17	PIERCE	27+70.06	12.13	Frame and Grate Type 3	0.74	0.10	5.00	6.96	0.51	0.01	0.52	0.45	2.00	2.94	0.14	0.08	0	6	Y	
Network 03	P-5a-1	DELMAR	885+00.00	24.00	Frame and Grate Type 3	0.57	0.15	5.00	6.96	0.60	0.33	0.93	0.65	2.16	4.35	0.17	0.27	E-3-6	8	Y	
	E-3-6	DELMAR	885+64.62	24.02	Frame and Grate Type 3	0.40	0.45	7.04	6.69	1.20	0.27	1.47	0.86	1.92	5.92	0.20	0.61	P-3-1	8	Y	
	P-3-1	DELMAR	886+98.09	24.78	Frame and Grate Type 9	0.25	7.44	14.72	5.22	9.72	0.61	10.33	4.15	0.89	8.00	0.48	6.18	P-3-2	8	Y	Flowmaster - Open Channel Calculation
	P-3-2	DELMAR	887+38.68	24.93	Frame and Grate Type 9	0.72	0.07	5.00	6.96	0.36	6.18	6.54	3.22	0.89	7.99	0.41	3.32	P-3-3	8	Y	Flowmaster - Open Channel Calculation
	P-3-3	DELMAR	887+63.66	25.17	Frame and Grate Type 3	0.66	0.02	5.00	6.96	0.11	3.32	3.42	1.79	0.50	7.94	0.36	1.63	E-3-7	8	Y	
	E-3-7	DELMAR	888+84.73	24.75	Frame and Grate Type 3	0.79	0.10	5.00	6.96	0.55	1.63	2.18	1.38	0.20	7.44	0.37	0.80	E-3-11	8	Y	
	E-3-11	DELMAR	889+80.45	22.59	Frame and Grate Type 3	0.80	0.07	5.00	6.96	0.38	0.80	1.17	0.82	0.36	5.43	0.26	0.35	E-3-12	8	Y	
	E-3-12	DELMAR	890+60.15	20.66	Frame and Grate Type 3	0.86	0.06	5.00	6.96	0.34	0.35	0.69	0.54	0.38	4.22	0.21	0.15	E-3-14	8	Y	
Network 04	P-4-5	IL3MID	1+33.50	-24.18	Frame and Grate Type 11	0.73	0.12	5.00	6.96	0.62	0.00	0.62	0.38	2.86	4.39	0.13	0.24	P-4-8	5	Y	
	P-4-6	IL3MID	1+55.18	-50.511	Frame and Grate Type 3	0.85	0.06	5.00	6.96	0.38	0.00	0.38	0.37	3.74	1.82	0.11	0.01	P-4-7	6	Y	
	P-4-7	IL3MID	3+50.00	-44.00	Frame and Grate Type 3	0.84	0.10	5.00	6.96	0.60	0.01	0.61	0.52	2.69	2.93	0.14	0.09	P-4-10	6	Y	
	P-4-8	IL3MID	3+50.00	-22.00	Frame and Grate Type 3	0.90	0.13	5.00	6.96	0.78	0.24	1.02	0.71	2.69	4.32	0.17	0.31	P-4-11	6	Y	
	P-4-9	IL3MID	4+75.00	-70.00	Median Inlet (604101)	0.15	0.24	5.00	6.96	0.25	0.00	0.25	2.96	n/a	1.18	0.07	0.00	0			
	P-4-10	IL3MID	4+67.00	-49.17	Frame and Grate Type 3	0.84	0.06	5.00	6.96	0.36	0.09	0.45	0.44	3.21	2.03	0.12	0.02	P-4-13	6	Y	
	P-4-11	IL3MID	4+71.40	-25.27	Frame and Grate Type 3	0.90	0.07	5.00	6.96	0.43	0.31	0.74	0.49	2.69	4.82	0.14	0.25	P-4-12	6	Y	
	P-4-12	IL3MID	5+47.55	-50.51	Frame and Grate Type 3	0.85	0.10	5.00	6.96	0.61	0.25	0.86	0.53	1.97	5.53	0.15	0.33	P-4-14	6	Y	
	P-4-13	IL3MID	5+84.84	-107.06	Frame and Grate Type 3	0.72	0.09	5.00	6.96	0.45	0.02	0.47	0.37	0.51	4.45	0.17	0.10	P-4-15	6	Y	
	P-4-14	IL3MID	5+93.71	-84.53	Frame and Grate Type 3	0.76	0.04	5.00	6.96	0.20	0.33	0.53	0.37	0.55	5.91	0.16	0.16	P-4-16	6	Y	
	P-4-15	IL3SOUTH	12+28.28	-61.78	Frame and Grate Type 3	0.60	0.07	5.00	6.96	0.30	0.10	0.40	0.37	1.76	2.42	0.13	0.03	P-6-5	6	Y	
	P-4-16	IL3SOUTH	12+16.18	-39.08	Frame and Grate Type 3	0.60	0.11	5.00	6.96	0.46	0.16	0.63	0.42	1.50	5.12	0.14	0.21	P-4-17	6	Y	
	P-4-16a	IL3SOUTH	12+45.43	-23.24	Frame and Grate Type 11	0.74	0.05	5.00	6.96	0.27	0.00	0.27	0.21	0.85	3.91	0.12	0.06	P-4-17	5	Y	
	P-4-17	IL3SOUTH	12+67.12	-18.94	Frame and Grate Type 11	0.90	0.02	5.00	6.96	0.10	0.27	0.37	0.27	0.85	4.56	0.13	0.10	P-6-5	5	Y	

INLET REPORT (PROPOSED CONDITIONS)

	INLET	ALIGN	STA	OFF.	INLET TYPE	AREA					INLET						BY PASS		MAX PONDING	POLICY ?	NOTES
						C	AREA	Tc	INTENSITY	Q	Q FROM	Q	INLET	LONG.	PONDING		FLOW	TO			
						(COMP)	(ACRE)	(min.)	(IN/HR)	(CFS)	BYPASS	(INLET)	CAPACITY	SLOPE	WIDTH (FT.)	DEPTH (FT.)	(CFS)	INLET	(FT.)	(Y/N)	
Network 05	P-5-1	FRONTENAC	31+68.37	-17.80	Frame and Grate Type 3	0.69	0.03	5.00	6.96	0.15	0.18	0.34	0.32	1.66	2.09	0.12	0.01	0	6	Y	
	P-5-1a	FRONTENAC	31+67.70	-25.84	Grate Type 8	0.36	0.25	5.00	6.96	0.63	0.00	0.63	0.51	1.66	3.63	0.15	0.12	P-5b-1			
	P-5-2	FRONTENAC	31+69.41	17.97	Frame and Grate Type 3	0.86	0.02	5.00	6.96	0.14	0.14	0.28	0.23	1.81	3.33	0.11	0.05	0	6	Y	
	P-5-2a	FRONTENAC	31+50.00	26.87	Grate Type 8	0.20	0.07	5.00	6.96	0.10	0.00	0.10	2.09	n/a	1.42	0.04	0.00	0			
	P-5-3	FRONTENAC	32+07.42	-21.47	Frame and Grate Type 3	0.57	0.15	5.00	6.96	0.58	0.00	0.58	0.40	1.76	4.78	0.14	0.18	P-5-1	6	Y	
	P-5-4	FRONTENAC	32+08.37	28.02	Frame and Grate Type 3	0.71	0.10	5.00	6.96	0.51	0.00	0.51	0.36	1.76	4.48	0.13	0.14	P-5-2	6	Y	
	P-5-5	IL3MID	1+07.11	27.90	Frame and Grate Type 3	0.67	0.10	5.00	6.96	0.45	0.00	0.45	0.34	1.99	4.12	0.12	0.12	P-5-8	6	Y	
	P-5-8	IL3MID	2+27.06	22.00	Frame and Grate Type 3	0.78	0.10	5.00	6.96	0.56	0.12	0.68	0.55	2.69	3.21	0.14	0.12	P-5-9	6	Y	
	P-5-9	IL3MID	3+50.00	22.00	Frame and Grate Type 3	0.85	0.10	5.00	6.96	0.57	0.12	0.70	0.56	2.69	3.29	0.15	0.13	P-5-10	6	Y	
	P-5-10	IL3MID	4+75.00	22.00	Frame and Grate Type 3	0.77	0.10	5.00	6.96	0.56	0.13	0.69	0.56	2.69	3.27	0.15	0.13	P-5-11	6	Y	
	P-5-11	IL3MID	4+96.77	24.18	Frame and Grate Type 3	0.75	0.02	5.00	6.96	0.10	0.13	0.23	0.23	2.69	1.60	0.10	0.00	P-5-15	6	Y	
	P-5-12	RIDGEDALE	53+28.88	-34.60	Frame and Grate Type 3	0.68	0.05	5.00	6.96	0.26	0.43	0.68	7.44	n/a	4.57	0.16	0.00	0	6	Y	
	P-5-13	RIDGEDALE	53+31.66	-29.23	Frame and Grate Type 11	0.84	0.11	5.00	6.96	0.66	0.00	0.66	8.20	n/a	4.47	0.16	0.00	0	5	Y	
	P-5-15	RIDGEDALE	52+95.64	-21.13	Frame and Grate Type 3	0.75	0.06	5.00	6.96	0.30	0.00	0.30	0.27	0.90	2.52	0.13	0.02	P-5-12	6	Y	
	P-5-16	RIDGEDALE	52+96.83	26.79	Frame and Grate Type 3	0.83	0.02	5.00	6.96	0.13	0.01	0.14	0.14	0.75	1.69	0.10	0.00	P-5-17	6	Y	
	P-5-17	DELMAR	883+81.41	26.81	Frame and Grate Type 3	0.62	0.25	5.00	6.96	1.06	0.00	1.06	0.74	2.84	4.35	0.17	0.33	P-5a-1	6	Y	
	P-5-18	DELMAR	884+00.00	41.95	Grate Type 8	0.30	0.25	5.00	6.96	0.52	0.00	0.52	2.96	n/a	3.80	0.11	0.00	0			
	P-5-19	DELMAR	883+90.95	-31.26	Frame and Grate Type 3	0.67	0.13	5.00	6.96	0.60	0.00	0.60	0.52	2.84	2.85	0.14	0.08	P-5a-2	6	Y	
	P-5-20	RIDGEDALE	50+85.00	16.50	Median Inlet (604101)	0.54	0.06	5.00	6.96	0.23	0.00	0.23	2.96	n/a	1.57	0.07	0.00	0			
	P-5-21	RIDGEDALE	50+85.00	-15.33	Median Inlet (604101)	0.35	0.97	8.99	6.43	2.19	0.00	2.19	2.96	n/a	20.41	0.55	0.00	0			
	P-5-22	RIDGEDALE	52+10.00	-15.16	Frame and Grate Type 3	0.42	0.40	5.00	6.96	1.17	0.00	1.17	0.76	2.29	4.93	0.18	0.41	P-5-12	6	Y	
	P-5-23	RIDGEDALE	52+48.89	16.36	Frame and Grate Type 3	0.82	0.05	5.00	6.96	0.30	0.00	0.30	0.30	2.39	1.82	0.11	0.01	P-5-16	6	Y	
	P-5-23a	RIDGEDALE	52+50.00	23.02	Grate Type 8	0.20	0.07	5.00	6.96	0.10	0.00	0.10	2.09	n/a	1.42	0.04	0.00	0			
Net. 05a/b	P-5a-2	DELMAR	885+00.00	-18.50	Frame and Grate Type 3	0.85	0.06	5.00	6.96	0.34	0.08	0.42	0.39	2.16	2.31	0.13	0.03	P-5a-4	8	Y	
	P-5a-4	DELMAR	887+00.00	-18.50	Frame and Grate Type 3	0.83	0.10	5.00	6.96	0.57	0.03	0.60	0.50	2.16	3.19	0.14	0.11	P-5a-6	8	Y	
	P-5a-6	DELMAR	888+80.00	-17.50	Frame and Grate Type 3	0.82	0.09	5.00	6.96	0.50	0.11	0.61	0.50	2.16	3.20	0.14	0.11	0	8	Y	
	P-5b-1	FRONTENAC	30+05.00	-21.49	Grate Type 8	0.38	0.33	5.00	6.96	0.86	0.12	0.98	2.09	n/a	5.65	0.17	0.00	0			
Network 06	P-6-3	COOK	108+00.00	-15.00	Frame and Grate Type 3	0.77	0.19	5.00	6.96	1.02	0.00	1.02	0.75	3.63	3.89	0.16	0.27	P-6-6	6	Y	
	P-6-4	COOK	108+00.00	15.00	Frame and Grate Type 3	0.81	0.12	5.00	6.96	0.68	0.00	0.68	0.58	3.45	2.91	0.14	0.10	P-6-7	6	Y	
	P-6-5	IL3SOUTH	13+03.84	-34.75	Frame and Grate Type 3	0.59	0.12	5.00	6.96	0.47	0.13	0.60	0.45	0.94	4.31	0.17	0.15	P-6-8	6	Y	
	P-6-6	COOK	110+00.00	-15.00	Frame and Grate Type 3	0.77	0.13	5.00	6.96	0.69	0.27	0.96	0.63	1.19	5.34	0.19	0.33	P-6-9	6	Y	
	P-6-7	COOK	110+00.00	15.00	Frame and Grate Type 3	0.64	0.13	5.00	6.96	0.59	0.10	0.69	0.52	1.57	3.98	0.16	0.17	P-6-10	6	Y	
	P-6-8	IL3SOUTH	15+00.00	-28.00	Frame and Grate Type 3	0.85	0.16	5.00	6.96	0.93	0.15	1.08	0.68	1.26	5.62	0.19	0.40	P-6-11	6	Y	
	P-6-9	COOK	111+50.00	-15.00	Frame and Grate Type 3	0.72	0.10	5.00	6.96	0.47	0.33	0.80	0.57	1.57	4.39	0.17	0.23	0	6	Y	
	P-6-10	COOK	111+50.00	15.00	Frame and Grate Type 3	0.81	0.06	5.00	6.96	0.34	0.17	0.51	0.43	1.57	3.19	0.14	0.08	0	6	Y	
	P-6-11	IL3SOUTH	16+10.00	-20.50	Frame and Grate Type 3	0.81	0.07	5.00	6.96	0.42	0.40	0.82	0.57	1.30	4.71	0.17	0.25	0	6	Y	
	P-6-12	IL3SOUTH	16+40.00	-47.50	Median Inlet (604101)	0.15	0.20	5.00	6.96	0.21	0.00	0.21	2.09	n/a	0.78	0.06	0.00	0			
Network 07	P-7-1	COOK	98+40.00	-28.00	Frame and Grate Type 3	0.84	0.12	5.00	6.96	0.67	0.00	0.67	0.50	1.15	4.34	0.17	0.18	P-7-2	6	Y	
	P-7-2	COOK	98+75.01	-21.50	Frame and Grate Type 3	0.84	0.04	5.00	6.96	0.23	0.18	0.41	0.33	0.39	4.48	0.17	0.08	P-7-4	6	Y	
	P-7-3	COOK	98+75.01	15.00	Frame and Grate Type 3	0.80	0.03	5.00	6.96	0.18	0.00	0.18	0.17	0.39	2.31	0.13	0.01	P-7-5	6	Y	
	P-7-4	COOK	98+85.02	-19.50	Frame and Grate Type 3	0.78	0.10	5.00	6.96	0.54	0.40	0.94	7.44	n/a	5.90	0.20	0.00	0	6	Y	
	P-7-5	COOK	98+85.02	15.00	Frame and Grate Type 3	0.83	0.05	5.00	6.96	0.30	0.13	0.42	7.44	n/a	1.94	0.12	0.00	0	6	Y	
	P-7-6	COOK	100+00.00	-15.00	Frame and Grate Type 3	0.57	0.21	5.00	6.96	0.84	0.23	1.08	0.76	3.27	4.19	0.16	0.32	P-7-4	6	Y	
	P-7-7	COOK	100+00.00	15.00	Frame and Grate Type 3	0.82	0.10	5.00	6.96	0.58	0.12	0.70	0.58	3.27	3.05	0.14	0.12	P-7-5	6	Y	
	P-7-8	COOK	102+50.00	-15.00	Frame and Grate Type 3	0.56	0.21	5.00	6.96	0.81	0.00	0.81	0.58	1.58	4.41	0.17	0.23	P-7-6	6	Y	
	P-7-9	COOK	102+50.00	15.00	Frame and Grate Type 3	0.81	0.10	5.00	6.96	0.59	0.00	0.59	0.47	1.58	3.53	0.15	0.12	P-7-7	6	Y	

Maximum Ponding Width

Network 00/01 - 2' Gutter + 4' Shoulder + 3' Encroachment = 9' Max Ponding
Network 02 - 2' Gutter + 0' Shoulder + 4' Encroachment = 6' Max Ponding
Network 03 - 2' Gutter + 6' Shoulder + 0' Encroachment = 8' Max Ponding
Network 04/05/06/07 (TY 3) - 2' Gutter + 0' Shoulder + 4' Encroachment = 6' Max Ponding
Network 04/05/06/07 (TY 11) - 1' Gutter + 0' Shoulder + 4' Encroachment = 5' Max Ponding

DOES NOT MEET POLICY

ATTACHMENT 11

PROPOSED STORM SEWER PIPE REPORT

PIPE REPORT (PROPOSED CONDITIONS)

	PIPE	US INLET	DS INLET	SECTION	MATERIAL	ITEM	N' VALUE	LENGTH (ft.)	US INVERT	DS INVERT	SLOPE (%)	Q (CFS)	CAPACITY (CFS)	US HGL	DS HGL	VEL. (ft/s)	DEPTH
Network 00	E-0-Outlet	E-0-1	E-0-Outlet	Circular	Concrete	18" STORM SEW CL A 2	0.013	17.69	607.49	606.85	3.62	4.21	21.49	608.50	607.37	8.95	0.47
	E-0-1	E-0-3	E-0-1	Circular	Concrete	18" STORM SEW CL A 2	0.013	246.36	609.01	607.49	0.62	3.22	8.88	609.82	608.14	4.39	0.65
	E-0-2	E-0-2	E-0-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	3.05	609.61	609.09	17.04	1.15	15.82	610.67	609.32	11.13	0.19
	E-0-3	E-0-4	E-0-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	164.78	612.72	609.02	2.25	2.14	5.74	613.44	609.46	6.43	0.44
	E-0-4	E-0-6	E-0-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	77.08	614.99	614.10	1.16	2.14	4.12	615.85	614.64	5.00	0.54
	E-0-5	E-0-5	E-0-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	7.05	615.75	614.99	10.78	1.19	12.58	616.62	615.23	9.58	0.22
	E-0-6	E-0-8	E-0-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	240.83	623.99	614.99	3.74	0.98	7.41	624.59	615.25	6.21	0.26
	E-0-7	E-0-7	E-0-8	Circular	Concrete	12" STORM SEW CL A 2	0.013	6.51	625.82	624.46	20.90	0.98	17.52	626.98	624.64	11.42	0.17
Network 01	E-1-Outlet	E-1-1	E-1-Outlet	Circular	Concrete	15" STORM SEW CL A 2	0.013	40.48	607.91	607.55	0.89	6.40	6.55	609.18	608.57	5.60	1.10
	E-1-1	E-1-2	E-1-1	Circular	Concrete	12" STORM SEW CL A 2	0.013	5.86	608.70	607.91	13.48	0.90	14.07	609.58	608.11	9.54	0.18
	E-1-2	E-1-3	E-1-1	Circular	Concrete	15" STORM SEW CL A 2	0.013	246.70	610.10	607.91	0.89	5.63	6.55	611.28	608.86	5.60	0.95
	E-1-3	E-1-4	E-1-3	Circular	Concrete	12" STORM SEW CL A 2	0.013	4.79	611.00	610.15	17.74	0.97	16.14	612.05	610.34	10.76	0.17
	E-1-4	E-1-5	E-1-3	Circular	Concrete	15" STORM SEW CL A 2	0.013	236.91	616.89	610.20	2.82	4.72	11.68	618.16	610.78	8.54	0.58
	E-1-5	E-1-6	E-1-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	6.87	617.12	616.98	2.04	1.26	5.47	618.21	618.16	5.36	0.34
	E-1-5a	E-1-5a	E-1-5	Circular	Steel	12" CL A TY 2	0.024	44.11	618.10	617.38	1.63	2.77	2.65	619.30	618.16	3.62	1.00
	E-1-6	E-1-7	E-1-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	257.04	625.49	616.95	3.32	0.78	6.99	626.02	617.18	5.58	0.23
	P-1-8	P-1-8	E-1-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	19.70	625.88	625.71	0.86	0.78	3.56	626.40	626.04	3.46	0.33
Network 02	P-2-1	P-2-1	P-2-2	Circular	Concrete	12" STORM SEW CL A 1	0.013	23.76	621.50	621.38	0.50	0.69	2.71	621.97	621.72	2.74	0.36
	P-2-2	P-2-2	P-2-6	Circular	Concrete	15" STORM SEW CL A 2	0.013	113.00	621.00	617.75	2.88	1.25	11.79	621.60	618.04	5.93	0.29
	P-2-5	P-2-5	P-2-6	Circular	Concrete	12" STORM SEW CL A 1	0.013	20.44	618.00	617.75	1.22	0.96	4.24	618.69	618.65	4.15	0.34
	P-2-6	P-2-6	P-2-9a	Circular	Concrete	15" STORM SEW CL A 2	0.013	98.00	617.75	614.53	3.29	2.67	12.60	618.65	614.94	7.72	0.41
	P-2-9a	P-2-9a	P-2-9	Circular	Concrete	15" STORM SEW CL A 1	0.013	48.00	614.53	613.58	1.98	3.21	9.78	615.32	614.10	6.75	0.51
	P-2-8	P-2-8	P-2-9	Circular	Concrete	15" STORM SEW CL A 2	0.013	44.57	613.75	613.58	0.38	0.60	4.29	614.65	614.65	2.36	0.33
	P-2-9	P-2-9	P-2-10	Circular	Concrete	15" STORM SEW CL A 1	0.013	81.21	613.58	612.39	1.47	4.27	8.41	614.65	613.05	6.50	0.66
	P-2-10	P-2-10	P-2-11	Circular	Concrete	15" STORM SEW CL A 2	0.013	42.62	612.39	611.84	1.29	4.99	7.89	613.64	612.60	6.43	0.76
	P-2-11	P-2-11	E-2-12a	Circular	Concrete	15" STORM SEW CL A 2	0.013	29.56	611.75	611.12	2.13	5.23	10.15	613.02	611.81	7.88	0.67
	E-2-12a	E-2-12a	E-2-14	Circular	Concrete	15" STORM SEW CL A 2	0.013	76.28	611.10	609.21	2.48	5.34	10.94	612.38	609.86	8.38	0.64
	E-2-13	E-2-13	E-2-14	Circular	Concrete	12" STORM SEW CL A 2	0.013	34.40	609.79	609.22	1.66	0.78	4.93	610.48	610.45	4.35	0.28
	E-2-14	E-2-14	E-2-16	Circular	Concrete	15" STORM SEW CL A 2	0.010	121.81	609.18	604.84	3.56	6.29	17.05	610.45	605.40	12.17	0.55
	E-2-15	E-2-15	E-2-16	Circular	Concrete	12" STORM SEW CL A 2	0.010	33.21	607.25	605.44	5.45	0.65	11.63	607.76	605.61	7.59	0.17
	E-2-16	E-2-16	E-2-17	Circular	Concrete	15" STORM SEW CL A 2	0.010	146.88	604.84	602.33	1.71	7.21	11.81	606.16	603.08	9.56	0.74
	E-2-Outlet	E-2-17	E-2-Out	Circular	Concrete	18" STORM SEW CL A 2	0.013	13.92	602.08	601.84	1.72	7.58	14.84	603.51	602.71	8.00	0.79
	P-2-3	P-2-3	P-2-4	Circular	Concrete	12" STORM SEW CL A 1	0.013	25.66	623.98	623.28	2.73	0.44	6.33	624.37	623.47	4.40	0.19
	P-2-4	P-2-4	P-2-4a_Out	Circular	Concrete	12" STORM SEW CL A 1	0.013	20.24	622.60	622.50	0.49	0.89	2.69	623.05	622.89	2.94	0.41
	P-2-7	P-2-7	P-2-7a_Out	Circular	Concrete	12" STORM SEW CL A 1	0.013	21.65	618.00	617.90	0.46	0.75	2.61	618.50	618.26	2.74	0.38
Network 03	P-5-24	P-5a-1	E-3-6	Circular	Concrete	15" STORM SEW CL A 2	0.013	66.78	610.32	609.80	0.77	0.65	6.11	610.75	610.09	3.07	0.29
	E-3-6.1	E-3-6	P-3-1	Circular	Concrete	15" STORM SEW CL A 2	0.013	132.47	609.80	608.10	1.28	1.49	7.87	610.35	608.48	4.68	0.38
	E-3-6.2	P-3-1	P-3-2	Circular	Concrete	18" STORM SEW CL A 2	0.013	38.59	608.10	607.61	1.27	5.25	12.73	609.10	608.32	6.51	0.70
	E-3-6.3	P-3-2	P-3-3	Circular	Concrete	18" STORM SEW CL A 2	0.013	22.99	607.61	607.32	1.26	8.33	12.69	608.85	608.28	7.24	0.93
	E-3-6.4	P-3-3	E-3-7	Circular	Concrete	18" STORM SEW CL A 2	0.013	119.40	607.32	605.78	1.29	10.07	12.83	608.63	606.84	7.57	1.06
	E-3-7	E-3-8	E-3-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	13.76	608.50	606.00	18.17	2.75	16.34	609.66	606.33	14.67	0.29
	E-3-8	E-3-7	E-3-9	Circular	Concrete	24" STORM SEW CL A 2	0.013	34.50	605.78	605.53	0.73	13.96	20.72	607.41	607.31	6.69	1.26
	E-3-9	E-3-10	E-3-9	Circular	Concrete	12" STORM SEW CL A 2	0.013	12.22	607.90	605.53	19.40	0.85	16.88	608.70	605.70	10.68	0.16
	E-3-10	E-3-9	E-3-11	Circular	Concrete	24" STORM SEW CL A 2	0.013	55.25	605.53	605.12	0.74	14.65	20.96	607.31	607.11	6.83	1.29
	E-3-11	E-3-12	E-3-11	Circular	Concrete	24" STORM SEW CL A 2	0.013	77.73	606.05	605.12	1.20	15.83	26.62	607.72	606.30	8.36	1.16
	E-3-12	E-3-13	E-3-12	Circular	Concrete	24" STORM SEW CL A 2	0.013	8.27	606.83	606.21	7.49	5.08	66.62	607.95	606.70	11.89	0.39
	E-3-13	E-3-14	E-3-12	Circular	Concrete	18" STORM SEW CL A 2	0.013	100.45	607.32	606.05	1.26	11.10	12.71	609.88	607.72	7.60	1.16
	E-3-Outlet	E-3-11	E-3-Outlet	Box	Concrete	PCBC3'X3'	0.013	41.46	605.12	604.31	1.95	29.64	142.04	607.11	605.31	10.92	0.91

PIPE REPORT (PROPOSED CONDITIONS)

	PIPE	US INLET	DS INLET	SECTION	MATERIAL	ITEM	N' VALUE	LENGTH (ft.)	US INVERT	DS INVERT	SLOPE (%)	Q (CFS)	CAPACITY (CFS)	US HGL	DS HGL	VEL. (ft/s)	DEPTH
Network 04	P-4-5	P-4-5	P-4-6	Circular	Concrete	12" STORM SEW CL A 2	0.013	31.78	624.33	624.05	0.88	0.38	3.60	624.68	624.28	2.83	0.23
	P-4-6	P-4-6	P-4-7	Circular	Concrete	15" STORM SEW CL A 2	0.013	187.40	624.05	620.02	2.15	0.75	10.19	624.49	620.26	4.60	0.24
	P-4-7	P-4-7	P-4-10	Circular	Concrete	15" STORM SEW CL A 2	0.013	111.92	620.02	615.89	3.69	1.94	13.35	620.79	616.23	7.36	0.33
	P-4-8	P-4-8	P-4-7	Circular	Concrete	15" STORM SEW CL A 2	0.013	20.00	620.45	620.23	1.10	0.71	7.29	620.90	620.51	3.59	0.27
	P-4-9	P-4-9	P-4-10	Circular	Concrete	12" STORM SEW CL A 2	0.013	20.74	616.00	615.40	2.89	0.25	6.52	616.29	615.54	3.81	0.14
	P-4-10	P-4-10	P-4-12	Circular	Concrete	18" STORM SEW CL A 2	0.013	76.52	615.37	614.99	0.50	3.08	7.99	616.22	615.65	4.02	0.67
	P-4-11	P-4-11	P-4-10	Circular	Concrete	15" STORM SEW CL A 2	0.013	22.29	615.60	615.37	1.02	0.49	7.03	616.23	616.22	3.12	0.23
	P-4-12	P-4-12	P-4-14	Circular	Concrete	18" STORM SEW CL A 2	0.013	50.65	614.53	614.35	0.36	3.57	6.74	615.50	615.35	3.65	0.81
	P-4-13	P-4-13	P-4-14	Circular	Concrete	15" STORM SEW CL A 2	0.013	22.03	614.58	614.35	1.04	0.37	7.10	615.35	615.35	2.90	0.20
	P-4-14	P-4-14	P-4-16	Circular	Concrete	18" STORM SEW CL A 2	0.013	68.11	614.35	613.67	1.00	4.27	11.30	615.35	614.34	5.63	0.67
	P-4-15	P-4-15	P-4-16	Circular	Concrete	12" STORM SEW CL A 2	0.013	24.59	614.00	613.91	0.37	0.37	2.32	614.72	614.71	2.05	0.28
	P-4-16	P-4-16	P-4-16a	Circular	Concrete	18" STORM SEW CL A 2	0.013	33.17	613.67	613.00	2.02	5.00	16.05	614.71	613.62	7.61	0.60
	P-4-17	P-4-16a	P-4-17	Circular	Concrete	18" STORM SEW CL A 2	0.013	20.44	613.00	612.25	3.67	5.19	21.65	614.03	612.82	9.55	0.52
	P-4-Outlet	P-4-17	P-4-Outlet	Circular	Concrete	18" STORM SEW CL A 2	0.013	101.75	612.25	611.73	0.51	5.45	8.08	613.34	612.63	4.64	0.95
Network 05	P-5-1	P-5-1	P-5-2	Circular	Concrete	12" STORM SEW CL A 2	0.013	32.94	626.60	626.27	1.00	0.83	3.84	627.03	626.60	3.68	0.33
	P-5-2	P-5-3	P-5-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	46.38	626.38	625.93	0.97	0.40	3.78	626.74	626.16	2.98	0.23
	P-5-2a	P-5-2a	P-5-2	Circular	Concrete	12" STORM SEW CL A 2	0.013	19.21	625.85	625.75	0.52	0.10	2.77	626.35	626.35	1.58	0.14
	P-5-3	P-5-2	P-5-4	Circular	Concrete	15" STORM SEW CL A 2	0.013	34.58	625.75	625.55	0.58	1.16	5.29	626.35	626.29	3.27	0.41
	P-5-4	P-5-4	P-5-5	Circular	Concrete	15" STORM SEW CL A 2	0.013	104.95	625.55	624.76	0.75	1.91	6.03	626.29	625.26	4.11	0.50
	P-5-6	P-5-5	P-5-8	Circular	Concrete	15" STORM SEW CL A 2	0.013	120.05	624.76	624.02	0.62	2.22	5.46	625.48	624.60	4.00	0.58
	P-5-8	P-5-8	P-5-9	Circular	Concrete	15" STORM SEW CL A 2	0.013	122.54	624.02	620.71	2.70	2.73	11.42	624.76	621.14	7.26	0.43
	P-5-9	P-5-9	P-5-10	Circular	Concrete	15" STORM SEW CL A 2	0.013	124.62	620.71	615.82	3.92	3.26	13.77	621.55	616.25	8.71	0.43
	P-5-10	P-5-10	P-5-11	Circular	Concrete	18" STORM SEW CL A 2	0.013	20.33	615.82	615.28	2.66	3.78	18.42	616.63	615.80	7.78	0.48
	P-5-11	P-5-11	P-5-12	Circular	Concrete	24" STORM SEW CL A 2	0.013	59.67	615.28	614.56	1.21	4.00	26.73	616.11	615.11	5.81	0.54
	P-5-12	P-5-12	P-5-15	Circular	Concrete	24" STORM SEW CL A 2	0.013	36.62	614.56	614.36	0.55	5.29	17.99	616.18	616.12	4.75	0.77
	P-5-13	P-5-13	P-5-12	Circular	Concrete	12" STORM SEW CL A 2	0.013	3.97	615.80	615.78	0.50	0.66	2.71	616.27	616.18	2.71	0.35
	P-5-14	P-5-14_inlet	P-5-15	Circular	Concrete	18" STORM SEW CL A 2	0.013	45.85	615.00	614.36	1.40	4.66	13.35	616.31	616.12	6.54	0.64
	P-5-15	P-5-15	P-5-16	Circular	Concrete	24" STORM SEW CL A 2	0.013	45.23	614.36	613.91	1.00	12.51	24.27	616.12	614.99	7.37	1.06
	P-5-16	P-5-16	P-5-17	Circular	Concrete	24" STORM SEW CL A 2	0.013	84.65	613.91	613.04	1.03	12.92	24.68	615.43	614.12	7.54	1.07
	P-5-17	P-5-17	P-5-19	Circular	Concrete	24" STORM SEW CL A 2	0.013	56.08	612.53	612.25	0.50	13.84	17.20	614.31	613.95	5.73	1.44
	P-5-18	P-5-18	P-5-17	Circular	Concrete	18" STORM SEW CL A 2	0.013	23.32	613.50	612.99	2.19	0.52	16.71	614.31	614.31	4.06	0.19
	P-5-1a	P-5-1a	P-5-1	Circular	Concrete	12" STORM SEW CL A 2	0.013	6.51	626.69	626.60	1.38	0.51	4.51	627.10	626.84	3.60	0.24
	P-5-20	P-5-20	P-5-21	Circular	Concrete	12" STORM SEW CL A 2	0.013	29.83	618.40	618.00	1.34	0.23	4.44	618.67	618.16	2.83	0.16
	P-5-21	P-5-21	P-5-22	Circular	Concrete	15" STORM SEW CL A 2	0.013	125.95	616.95	616.01	0.75	2.40	6.02	617.81	616.58	4.38	0.57
	P-5-22	P-5-22	P-5-15	Circular	Concrete	18" STORM SEW CL A 2	0.013	88.37	616.11	615.00	1.26	3.04	12.66	616.85	615.52	5.59	0.52
	P-5-23	P-5-23	P-5-16	Circular	Concrete	15" STORM SEW CL A 2	0.013	46.10	616.20	613.91	4.97	0.40	15.49	616.57	614.05	5.12	0.14
	P-5-23a	P-5-23a	P-5-23	Circular	Concrete	12" STORM SEW CL A 2	0.013	5.19	616.72	616.20	10.00	0.10	12.12	617.05	616.27	4.46	0.07
	P-5-24	P-5a-1	E-3-6	Circular	Concrete	15" STORM SEW CL A 2	0.013	66.78	610.32	609.80	0.77	0.65	6.11	610.75	610.09	3.07	0.29
	P-5_Outlet	P-5-19	P-5_Outlet	Circular	Concrete	24" STORM SEW CL A 2	0.013	54.47	612.25	611.82	0.79	14.18	21.62	613.95	613.06	6.93	1.24
Net. 05a/b	P-5a-1	P-5a-2	P-5a-3_outlet	Circular	Concrete	12" STORM SEW CL A 2	0.013	29.15	611.32	610.82	1.72	0.39	5.02	611.67	611.02	3.61	0.20
	P-5a-2	P-5a-4	P-5a-5_outlet	Circular	Concrete	12" STORM SEW CL A 2	0.013	21.69	608.50	608.07	1.98	0.50	5.40	608.90	608.28	4.07	0.21
	P-5a-3	P-5a-6	P-5a-7_outlet	Circular	Concrete	12" STORM SEW CL A 2	0.013	19.97	606.50	606.00	2.50	0.50	6.06	606.90	606.20	4.43	0.20
	P-5b-1	P-5b-1	P-5b-2_outlet	Circular	Concrete	12" STORM SEW CL A 2	0.013	54.28	622.63	622.10	0.98	0.98	3.79	623.22	622.46	3.84	0.36

PIPE REPORT (PROPOSED CONDITIONS)

	PIPE	US INLET	DS INLET	SECTION	MATERIAL	ITEM	N' VALUE	LENGTH (ft.)	US INVERT	DS INVERT	SLOPE (%)	Q (CFS)	CAPACITY (CFS)	US HGL	DS HGL	VEL. (ft/s)	DEPTH
Network 06	P-6-3	P-6-3	P-6-4	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.125	613	612.729	1.00	0.75	3.83	613.499	613.04	3.59	0.31
	P-6-4	P-6-4	P-6-7	Circular	Concrete	15" STORM SEW CL A 2	0.013	199.208	612	608.6	1.71	1.77	9.08	612.726	608.988	5.44	0.39
	P-6-5	P-6-5	P-6-4	Circular	Concrete	15" STORM SEW CL A 2	0.013	28.981	612.29	612	1.00	0.45	6.95	612.739	612.726	3.03	0.22
	P-6-6	P-6-6	P-6-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.125	608.871	608.6	1.00	0.63	3.83	609.665	609.647	3.43	0.28
	P-6-7	P-6-7	P-6-12	Circular	Concrete	15" STORM SEW CL A 2	0.013	138.24	608.6	606.25	1.70	3.55	9.06	609.647	606.816	6.57	0.57
	P-6-8	P-6-8	P-6-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.665	609.32	608.6	2.60	0.68	6.18	609.801	608.834	4.93	0.23
	P-6-9	P-6-9	P-6-10	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.125	607.136	607	0.50	0.57	2.71	607.567	607.309	2.60	0.33
	P-6-10	P-6-10	P-6-12	Circular	Concrete	18" STORM SEW CL A 2	0.013	32.248	606.5	606.25	0.78	1.00	9.95	606.943	606.583	3.43	0.33
	P-6-11	P-6-11	P-6-12	Circular	Concrete	15" STORM SEW CL A 2	0.013	38.393	606.634	606.25	1.00	0.57	6.95	607.035	606.501	3.24	0.25
	P-6-Outlet	P-6-12	P-6-Outlet	Circular	Concrete	18" STORM SEW CL A 2	0.013	110.089	605.5	605	0.45	5.27	7.62	606.648	605.884	4.37	0.97
Network 07	P-7-1	P-7-1	P-7-Out-1	Circular	Concrete	15" STORM SEW CL A 2	0.013	23.943	611.8	611.73	0.29	0.50	3.76	612.181	612.001	1.99	0.32
	P-7-2	P-7-2	P-7-4	Circular	Concrete	15" STORM SEW CL A 2	0.013	9.439	611.55	611.45	1.06	0.33	7.15	612.093	612.087	2.82	0.19
	P-7-3	P-7-3	P-7-5	Circular	Concrete	12" STORM SEW CL A 2	0.013	7.076	611.4	611.3	1.41	0.17	4.56	611.988	611.986	2.64	0.14
	P-7-4	P-7-4	P-7-5	Circular	Concrete	15" STORM SEW CL A 2	0.013	31.635	611.45	611.3	0.47	1.27	4.79	612.087	611.986	3.11	0.46
	P-7-5	P-7-5	P-7-Out-5	Circular	Concrete	15" STORM SEW CL A 2	0.013	19.533	611.3	611.15	0.77	1.85	6.09	611.986	611.644	4.13	0.49
	P-7-6	P-7-6	P-7-7	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.126	613.67	613.37	1.11	0.76	4.03	614.174	613.676	3.75	0.30
	P-7-7	P-7-7	P-7-Out-7	Circular	Concrete	15" STORM SEW CL A 2	0.013	17.345	613.37	613.27	0.58	1.34	5.28	613.859	613.715	3.42	0.45
	P-7-8	P-7-8	P-7-9	Circular	Concrete	12" STORM SEW CL A 2	0.013	27.125	618.47	618.17	1.11	0.58	4.03	618.902	618.436	3.45	0.27
	P-7-9	P-7-9	P-7-Out-9	Circular	Concrete	15" STORM SEW CL A 2	0.013	16.921	618.17	618.07	0.59	1.04	5.34	618.603	618.46	3.19	0.39

DOES NOT MEET POLICY

ATTACHMENT 12
CULVERT SUMMARY

Culvert Calculations Summary															
Location		Q_{50} (cfs)	[1]Add Q_{50} (cfs)	Design Q_{50} (cfs)	Section	US FL	DS FL	Tail-water	Len.	Slope	HW (Calc)	HW (Max)	[2]Free-board	Velocity (ft/s)	Notes
No.	Location														
1 - EX	IL 3 South Sta. 17+00 LT	11.81	0.00	11.81	1 - 18" RCP w/ FES	607.44	606.76	607.51	54.67	1.24%	609.76	610.88	1.12	7.55	
1 - PR															Storm Sewer Network 6 Outlet
2 - EX	IL 3 South Sta. 17+00 RT	6.87	0.00	6.87	1 - 15" CMP w/ FES	608.32	607.89	608.52	46.88	0.92%	611.44	610.90	-0.54	6.23	Floods Shoulder/Sideroad
2 - PR		5.46	7.78	13.24	1 - 24" RCP w/ FES	608.26	607.26	608.26	100.00	1.00%	610.26	612.31	2.05	7.48	
3 - EX	Delmar Sta. 889+00 LT	5.12	0.00	5.12	1 - 15" CMP	606.04	604.90	605.53	88.49	1.29%	608.36	608.70	0.34	5.30	
3 - PR		1.76	22.49	24.25	2 - 18" RCP w/ FES	606.00	604.90	605.65	70.00	1.57%	608.18	610.25	2.07	7.68	
4 - EX		5.16	0.00	5.16	1 - 12" CMP	624.53	623.11	623.61	61.27	2.32%	629.73	626.73	-3.00	6.80	Floods Shoulder/Sideroad
4 - PR		3.31	0.00	3.31	1 - 12" RCP w/ FES	623.40	621.81	622.00	80.00	1.75%	624.65	626.76	2.11	6.83	
Det Pond		5.79	0.00	5.79	2 - 12" RCP w/ FES	611.50	611.20	611.20	100.00	0.30%	612.96	614.50	1.54	4.72	100-yr Det Pond Release Used

1 - Additional Flow from Storm Sewer Outlets	
2 - PR	
(P-4-Outlet 50 yr)	7.78
3 - PR	
(P-5_Outlet 50 yr)	20.55
(P-5a-1 50 yr)	0.706
(P-5a-2 50 yr)	0.686
(P-5a-3 50 yr)	0.55

2 - Freeboard = Edge of Shoulder Elevation - Calculated Headwater Elevations

ATTACHMENT 13
CULVERT CALCULATIONS
(CULVERMASTER REPORTS)

Culvert Calculator Report
Culvert 1 - EX (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	610.88	ft	Headwater Depth/Height	1.55	
Computed Headwater Elev	609.76	ft	Discharge	11.81	cfs
Inlet Control HW Elev.	609.76	ft	Tailwater Elevation	607.51	ft
Outlet Control HW Elev.	609.72	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	607.44	ft	Downstream Invert	606.76	ft
Length	54.67	ft	Constructed Slope	0.012438	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.24	ft
Slope Type	Steep		Normal Depth	1.24	ft
Flow Regime	Supercritical		Critical Depth	1.31	ft
Velocity Downstream	7.55	ft/s	Critical Slope	0.011516	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.50	ft
Section Size	18 inch		Rise	1.50	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	609.72	ft	Upstream Velocity Head	0.81	ft
Ke	0.20		Entrance Loss	0.16	ft

Inlet Control Properties					
Inlet Control HW Elev.	609.76	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	1.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
Culvert 2 - EX (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	610.90	ft	Headwater Depth/Height	2.49	
Computed Headwater Elev	611.44	ft	Discharge	6.87	cfs
Inlet Control HW Elev.	610.18	ft	Tailwater Elevation	608.52	ft
Outlet Control HW Elev.	611.44	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	608.32	ft	Downstream Invert	607.89	ft
Length	46.88	ft	Constructed Slope	0.009172	ft/ft

Hydraulic Profile					
Profile	CompositeM2PressureProfile		Depth, Downstream	1.05	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	1.05	ft
Velocity Downstream	6.23	ft/s	Critical Slope	0.036869	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	1.25	ft
Section Size	15 inch		Rise	1.25	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	611.44	ft	Upstream Velocity Head	0.49	ft
Ke	0.20		Entrance Loss	0.10	ft

Inlet Control Properties					
Inlet Control HW Elev.	610.18	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 45° (1:1) bevels		Area Full	1.2	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	A	
C	0.03000		Equation Form	1	
Y	0.74000				

Culvert Calculator Report
Culvert 3 - EX (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	608.70	ft	Headwater Depth/Height	1.85	
Computed Headwater Elev	608.36	ft	Discharge	5.12	cfs
Inlet Control HW Elev.	607.70	ft	Tailwater Elevation	605.53	ft
Outlet Control HW Elev.	608.36	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	606.04	ft	Downstream Invert	604.90	ft
Length	88.49	ft	Constructed Slope	0.012883	ft/ft

Hydraulic Profile					
Profile	CompositeM2PressureProfile		Depth, Downstream	0.92	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	0.92	ft
Velocity Downstream	5.30	ft/s	Critical Slope	0.027083	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	1.25	ft
Section Size	15 inch		Rise	1.25	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	608.36	ft	Upstream Velocity Head	0.27	ft
Ke	0.90		Entrance Loss	0.24	ft

Inlet Control Properties					
Inlet Control HW Elev.	607.70	ft	Flow Control	Transition	
Inlet Type	Projecting		Area Full	1.2	ft²
K	0.03400		HDS 5 Chart	2	
M	1.50000		HDS 5 Scale	3	
C	0.05530		Equation Form	1	
Y	0.54000				

Culvert Calculator Report
Culvert 4 - EX (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	626.63	ft	Headwater Depth/Height	5.20	
Computed Headwater Elev	629.73	ft	Discharge	5.16	cfs
Inlet Control HW Elev.	627.44	ft	Tailwater Elevation	623.61	ft
Outlet Control HW Elev.	629.73	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	624.53	ft	Downstream Invert	623.11	ft
Length	61.27	ft	Constructed Slope	0.023176	ft/ft

Hydraulic Profile					
Profile	CompositeM2PressureProfile		Depth, Downstream	0.92	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	0.92	ft
Velocity Downstream	6.80	ft/s	Critical Slope	0.061925	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	629.73	ft	Upstream Velocity Head	0.67	ft
Ke	0.90		Entrance Loss	0.60	ft

Inlet Control Properties					
Inlet Control HW Elev.	627.44	ft	Flow Control	Submerged	
Inlet Type	Projecting		Area Full	0.8	ft²
K	0.03400		HDS 5 Chart	2	
M	1.50000		HDS 5 Scale	3	
C	0.05530		Equation Form	1	
Y	0.54000				

Culvert Calculator Report
Culvert 2 - PR (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	612.31	ft	Headwater Depth/Height	1.00	
Computed Headwater Elev	610.26	ft	Discharge	13.24	cfs
Inlet Control HW Elev.	610.19	ft	Tailwater Elevation	608.26	ft
Outlet Control HW Elev.	610.26	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	608.26	ft	Downstream Invert	607.26	ft
Length	100.00	ft	Constructed Slope	0.010000	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.10	ft
Slope Type	Steep		Normal Depth	1.10	ft
Flow Regime	Supercritical		Critical Depth	1.31	ft
Velocity Downstream	7.48	ft/s	Critical Slope	0.005860	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	2.00	ft
Section Size	24 inch		Rise	2.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	610.26	ft	Upstream Velocity Head	0.57	ft
Ke	0.20		Entrance Loss	0.11	ft

Inlet Control Properties					
Inlet Control HW Elev.	610.19	ft	Flow Control	Unsubmerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	3.1	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
Culvert 3 - PR (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	610.25	ft	Headwater Depth/Height	1.59	
Computed Headwater Elev	608.18	ft	Discharge	24.25	cfs
Inlet Control HW Elev.	608.18	ft	Tailwater Elevation	605.90	ft
Outlet Control HW Elev.	608.13	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	605.80	ft	Downstream Invert	604.90	ft
Length	70.00	ft	Constructed Slope	0.012857	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.26	ft
Slope Type	Steep		Normal Depth	1.26	ft
Flow Regime	Supercritical		Critical Depth	1.32	ft
Velocity Downstream	7.68	ft/s	Critical Slope	0.011998	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.50	ft
Section Size	18 inch		Rise	1.50	ft
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	608.13	ft	Upstream Velocity Head	0.84	ft
Ke	0.20		Entrance Loss	0.17	ft

Inlet Control Properties					
Inlet Control HW Elev.	608.18	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	3.5	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
Culvert 4 - PR (50 yr)

Solve For: Headwater Elevation

Culvert Summary					
Allowable HW Elevation	626.76	ft	Headwater Depth/Height	1.25	
Computed Headwater Elev	624.65	ft	Discharge	3.31	cfs
Inlet Control HW Elev.	624.65	ft	Tailwater Elevation	622.50	ft
Outlet Control HW Elev.	624.65	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	623.40	ft	Downstream Invert	622.00	ft
Length	80.00	ft	Constructed Slope	0.017500	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.62	ft
Slope Type	Steep		Normal Depth	0.62	ft
Flow Regime	Supercritical		Critical Depth	0.78	ft
Velocity Downstream	6.50	ft/s	Critical Slope	0.009530	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	624.65	ft	Upstream Velocity Head	0.39	ft
Ke	0.20		Entrance Loss	0.08	ft

Inlet Control Properties					
Inlet Control HW Elev.	624.65	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
Det Pond (100 yr)

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	612.96	ft	Headwater Depth/Height	1.46	
Computed Headwater Elev	612.96	ft	Discharge	5.79	cfs
Inlet Control HW Elev.	612.63	ft	Tailwater Elevation	0.00	ft
Outlet Control HW Elev.	612.96	ft	Control Type	Outlet Control	

Grades					
Upstream Invert	611.50	ft	Downstream Invert	611.20	ft
Length	100.00	ft	Constructed Slope	0.003000	ft/ft

Hydraulic Profile					
Profile	CompositeM2PressureProfile		Depth, Downstream	0.73	ft
Slope Type	Mild		Normal Depth	N/A	ft
Flow Regime	Subcritical		Critical Depth	0.73	ft
Velocity Downstream	4.72	ft/s	Critical Slope	0.008486	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	2				

Outlet Control Properties					
Outlet Control HW Elev.	612.96	ft	Upstream Velocity Head	0.21	ft
Ke	0.20		Entrance Loss	0.04	ft

Inlet Control Properties					
Inlet Control HW Elev.	612.63	ft	Flow Control	N/A	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	1.6	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-1 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	619.70	ft	Headwater Depth/Height	1.30	
Computed Headwater Elev	619.70	ft	Discharge	3.49	cfs
Inlet Control HW Elev.	619.69	ft	Tailwater Elevation	617.16	ft
Outlet Control HW Elev.	619.70	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	618.40	ft	Downstream Invert	617.66	ft
Length	23.34	ft	Constructed Slope	0.031705	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.56	ft
Slope Type	Steep		Normal Depth	0.53	ft
Flow Regime	Supercritical		Critical Depth	0.80	ft
Velocity Downstream	7.68	ft/s	Critical Slope	0.010073	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	619.70	ft	Upstream Velocity Head	0.42	ft
Ke	0.20		Entrance Loss	0.08	ft

Inlet Control Properties					
Inlet Control HW Elev.	619.69	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-3 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	619.70	ft	Headwater Depth/Height	0.83	
Computed Headwater Elev	619.70	ft	Discharge	1.72	cfs
Inlet Control HW Elev.	619.62	ft	Tailwater Elevation	618.16	ft
Outlet Control HW Elev.	619.70	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	618.87	ft	Downstream Invert	617.66	ft
Length	12.80	ft	Constructed Slope	0.094531	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.30	ft
Slope Type	Steep		Normal Depth	0.27	ft
Flow Regime	Supercritical		Critical Depth	0.56	ft
Velocity Downstream	8.76	ft/s	Critical Slope	0.006497	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	619.70	ft	Upstream Velocity Head	0.23	ft
Ke	0.20		Entrance Loss	0.05	ft

Inlet Control Properties					
Inlet Control HW Elev.	619.62	ft	Flow Control	Unsubmerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-5 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	619.90	ft	Headwater Depth/Height	0.79	
Computed Headwater Elev	619.90	ft	Discharge	1.58	cfs
Inlet Control HW Elev.	619.86	ft	Tailwater Elevation	619.37	ft
Outlet Control HW Elev.	619.90	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	619.11	ft	Downstream Invert	618.87	ft
Length	23.11	ft	Constructed Slope	0.010385	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.46	ft
Slope Type	Steep		Normal Depth	0.46	ft
Flow Regime	Supercritical		Critical Depth	0.53	ft
Velocity Downstream	4.46	ft/s	Critical Slope	0.006334	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	619.90	ft	Upstream Velocity Head	0.21	ft
Ke	0.20		Entrance Loss	0.04	ft

Inlet Control Properties					
Inlet Control HW Elev.	619.86	ft	Flow Control	Unsubmerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-8 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	609.60	ft	Headwater Depth/Height	1.10	
Computed Headwater Elev	609.60	ft	Discharge	2.73	cfs
Inlet Control HW Elev.	609.49	ft	Tailwater Elevation	606.50	ft
Outlet Control HW Elev.	609.60	ft	Control Type	Entrance Control	

Grades					
Upstream Invert	608.50	ft	Downstream Invert	606.00	ft
Length	15.00	ft	Constructed Slope	0.166667	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.33	ft
Slope Type	Steep		Normal Depth	0.29	ft
Flow Regime	Supercritical		Critical Depth	0.71	ft
Velocity Downstream	12.06	ft/s	Critical Slope	0.008115	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	609.60	ft	Upstream Velocity Head	0.33	ft
Ke	0.20		Entrance Loss	0.07	ft

Inlet Control Properties					
Inlet Control HW Elev.	609.49	ft	Flow Control	Unsubmerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-10 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	609.92	ft	Headwater Depth/Height	2.02	
Computed Headwater Elev	609.92	ft	Discharge	5.72	cfs
Inlet Control HW Elev.	609.92	ft	Tailwater Elevation	606.03	ft
Outlet Control HW Elev.	609.88	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	607.90	ft	Downstream Invert	605.53	ft
Length	12.22	ft	Constructed Slope	0.193944	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.52	ft
Slope Type	Steep		Normal Depth	0.42	ft
Flow Regime	Supercritical		Critical Depth	0.95	ft
Velocity Downstream	13.79	ft/s	Critical Slope	0.022271	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	609.88	ft	Upstream Velocity Head	0.86	ft
Ke	0.20		Entrance Loss	0.17	ft

Inlet Control Properties					
Inlet Control HW Elev.	609.92	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	0.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

Culvert Calculator Report
E-3-13 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	609.70	ft	Headwater Depth/Height	2.87	
Computed Headwater Elev	609.70	ft	Discharge	6.67	cfs
Inlet Control HW Elev.	609.70	ft	Tailwater Elevation	605.34	ft
Outlet Control HW Elev.	609.17	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	606.83	ft	Downstream Invert	604.84	ft
Length	9.27	ft	Constructed Slope	0.214671	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	0.59	ft
Slope Type	Steep		Normal Depth	0.44	ft
Flow Regime	Supercritical		Critical Depth	0.97	ft
Velocity Downstream	13.86	ft/s	Critical Slope	0.030871	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.00	ft
Section Size	12 inch		Rise	1.00	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	609.17	ft	Upstream Velocity Head	1.14	ft
Ke	0.20		Entrance Loss	0.23	ft

Inlet Control Properties					
Inlet Control HW Elev.	609.70	ft	Flow Control	Submerged	
Inlet Type	Groove end projecting		Area Full	0.8	ft²
K	0.00450		HDS 5 Chart	1	
M	2.00000		HDS 5 Scale	3	
C	0.03170		Equation Form	1	
Y	0.69000				

Culvert Calculator Report
E-3-14 - MAX

Solve For: Discharge

Culvert Summary					
Allowable HW Elevation	610.00	ft	Headwater Depth/Height	1.77	
Computed Headwater Elev	610.00	ft	Discharge	13.49	cfs
Inlet Control HW Elev.	610.00	ft	Tailwater Elevation	606.59	ft
Outlet Control HW Elev.	609.91	ft	Control Type	Inlet Control	

Grades					
Upstream Invert	607.35	ft	Downstream Invert	605.84	ft
Length	101.46	ft	Constructed Slope	0.014883	ft/ft

Hydraulic Profile					
Profile	S2		Depth, Downstream	1.32	ft
Slope Type	Steep		Normal Depth	1.32	ft
Flow Regime	Supercritical		Critical Depth	1.37	ft
Velocity Downstream	8.21	ft/s	Critical Slope	0.014391	ft/ft

Section					
Section Shape	Circular		Mannings Coefficient	0.013	
Section Material	Concrete		Span	1.50	ft
Section Size	18 inch		Rise	1.50	ft
Number Sections	1				

Outlet Control Properties					
Outlet Control HW Elev.	609.91	ft	Upstream Velocity Head	0.99	ft
Ke	0.20		Entrance Loss	0.20	ft

Inlet Control Properties					
Inlet Control HW Elev.	610.00	ft	Flow Control	Submerged	
Inlet Type	Beveled ring, 33.7° bevels		Area Full	1.8	ft²
K	0.00180		HDS 5 Chart	3	
M	2.50000		HDS 5 Scale	B	
C	0.02430		Equation Form	1	
Y	0.83000				

ATTACHMENT 14
RATIONAL METHOD CALCULATIONS

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: May 23, 2017

Description of Watershed Area: Culvert 1 - EX

Design Storm Event (Year): 10 Year

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	1.172
Grass	0.15	1.137
Total **On-site** Area		2.309
Composite **On-site** Runoff Coefficient	0.53	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	2.31	acres
Total Composite Runoff C (on-site & off-site)	0.53	C

Time of Concentration:

Design Storm Year: 10

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	6.96	6.96	6.72
8.30	6.52	6.52	6.32
10.00	6.30	6.30	6.12

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.01	6.52	0.03		1.31
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>		1.31

INPUT Ponding Time (mins, if applicable) >>> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	975.00	19.92	0.02	2.32		6.99
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>		6.99

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	8.30	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	6.52	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	7.995	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: May 23, 2017

Description of Watershed Area:

Culvert 1 - EX

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	1.172
Grass	0.15	1.137
Total **On-site** Area		2.309
Composite **On-site** Runoff Coefficient	0.53	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	2.31	**acres**
Total Composite Runoff C (on-site & off-site)	0.53	**C**

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	10.20	10.20	9.36
8.11	9.64	9.64	8.84
10.00	9.30	9.30	8.52

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.01	9.64	0.03		1.12
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		1.12

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	975.00	19.92	0.02	2.32		6.99
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		6.99

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	8.11	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>	9.64	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	11.812	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area:

Culvert 2 - EX

Design Storm Event (Year): 10 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.594
Grass	0.15	0.994
Total **On-site** Area		1.588
Composite **On-site** Runoff Coefficient	0.43	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.59	**acres**
Total Composite Runoff C (on-site & off-site)	0.43	**C**

Time of Concentration:

Design Storm Year: 10

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	6.96	6.96	6.72
5.99	6.83	6.83	6.60
10.00	6.30	6.30	6.12

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.01	6.83	0.04		1.14
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		1.14

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	510.00	5.91	0.01	1.75		4.86
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		4.86

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.99	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	6.83	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	4.669	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area: Culvert 2 - EX

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (**On-Site**)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.594
Grass	0.15	0.994
Total **On-site** Area		1.588
Composite **On-site** Runoff Coefficient	0.43	

Tributary Land Usage (**Off-Site**)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.59	**acres**
Total Composite Runoff C (on-site & off-site)	0.43	**C**

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	10.20	10.20	9.36
5.83	10.05	10.05	9.22
10.00	9.30	9.30	8.52

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.01	10.05	0.04		0.97
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>		0.97

INPUT Ponding Time (mins, if applicable) >> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	510.00	5.91	0.01	1.75		4.86
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>		4.86

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.83	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	10.05	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	6.872	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area:

Culvert 3 - EX

Design Storm Event (Year): 10 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.324
Grass	0.15	1.403
Total **On-site** Area		1.727
Composite **On-site** Runoff Coefficient	0.29	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.73	**acres**
Total Composite Runoff C (on-site & off-site)	0.29	**C**

Time of Concentration:

Design Storm Year: 10

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	6.96	6.96	6.72
5.13	6.94	6.94	6.70
10.00	6.30	6.30	6.12

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	90.69	0.01	6.94	0.03		1.25
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		1.25

INPUT Ponding Time (mins, if applicable) >> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	500.78	8.74	0.02	2.15		3.88
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		3.88

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.13	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	6.94	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	3.485	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area:

Culvert 3 - EX

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.324
Grass	0.15	1.403
Total **On-site** Area		1.727
Composite **On-site** Runoff Coefficient	0.29	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.73	**acres**
Total Composite Runoff C (on-site & off-site)	0.29	**C**

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
0.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	90.69	0.01	10.20	0.03		1.07
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>		1.07

INPUT Ponding Time (mins, if applicable) >>> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	500.78	8.74	0.02	2.15		3.88
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>		3.88

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.00	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	10.20	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.120	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: July 22, 2017

Description of Watershed Area:
Culvert 4 - PR
Under Norwood

Design Storm Event (Year): 50 Year

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Residential	0.45	0.720
Pavement	0.90	0.202
Total On-site Area		0.922
Composite On-site Runoff Coefficient	0.55	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total Off-site Area		0.000
Composite Off-site Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	0.92	acres
Total Composite Runoff C (on-site & off-site)	0.55	C

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
0.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	10.00	0.15	10.20	0.03		1.35
						0.00
						0.00
Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>						1.35

INPUT Ponding Time (mins, if applicable) >>> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	165.00	5.60	0.03	3.00		0.92
						0.00
Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>						0.92

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>									0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>								0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.00	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>	10.20	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.159	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: July 24, 2017

Description of Watershed Area:
Inlet E-3-1
(Ditch Flow into Storm Sewer Pipe)

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.529
Grass	0.15	1.130
Total **On-site** Area		1.659
Composite **On-site** Runoff Coefficient	0.39	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.66	acres
Total Composite Runoff C (on-site & off-site)	0.39	C

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	10.20	10.20	9.36
7.96	9.67	9.67	8.86
10.00	9.30	9.30	8.52

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.15	9.67	0.02		6.18
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>		6.18

INPUT Ponding Time (mins, if applicable) >>> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	300.00	9.00	0.03	2.82		1.78
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>		1.78

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> 7.96
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>> 9.67
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> 6.241 **CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area:
Culvert 2 - PR (Add to SS Outlet Q)

Design Storm Event (Year): 10 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.440
Grass	0.15	0.927
Total **On-site** Area		1.367
Composite **On-site** Runoff Coefficient	0.39	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site) 1.37	acres
Total Composite Runoff C (on-site & off-site) 0.39	C

Time of Concentration:

Design Storm Year: 10

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
0.00	6.96	6.96	6.72
5.00	6.96	6.96	6.72
5.00	6.96	6.96	6.72

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)	Overland Time (mins)
Overland Flow	100.00	0.01	6.96	0.02	1.39
					0.00
					0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>	1.39

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)	Time (mins)
Unpaved	370.00	5.70	0.02	2.02	3.06
					0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>	3.06

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)	Time (mins)
							0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>			0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> 5.00
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>> 6.96
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> 3.724 **CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: March 22, 2017

Description of Watershed Area: Culvert 2 - PR (Add to SS Outlet Q)

Design Storm Event (Year): 50 Year

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement	0.90	0.440
Grass	0.15	0.927
Total On-site Area		1.367
Composite On-site Runoff Coefficient	0.39	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total Off-site Area		0.000
Composite Off-site Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.37	acres
Total Composite Runoff C (on-site & off-site)	0.39	C

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
0.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.01	10.20	0.02		1.19
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		1.19

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	370.00	5.70	0.02	2.02		3.06
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		3.06

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.00	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>	10.20	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.458	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: July 22, 2017

Description of Watershed Area:

Culvert 3 - PR (Add to SS outlet Q)

Design Storm Event (Year): 10 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Pavement		
Grass	0.15	1.329
Total **On-site** Area		1.329
Composite **On-site** Runoff Coefficient	0.15	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.33	**acres**
Total Composite Runoff C (on-site & off-site)	0.15	**C**

Time of Concentration:

Design Storm Year:	10		
	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
10.00	6.30	6.30	6.12
12.98	5.62	5.62	5.48
15.00	5.16	5.16	5.04

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.15	5.62	0.01		9.46
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		9.46

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	465.00	8.50	0.02	2.20		3.52
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		3.52

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	12.98	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.62	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	1.120	**CFS**

IDOT Rational Method of Drainage Analysis

Project:	IL 3 - Godfrey
Project Number:	T06-130624
Engineer:	JWS
Date of Analysis:	July 22, 2017

Description of Watershed Area:

Culvert 3 - PR (Add to SS outlet Q)

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Pavement		
Grass	0.15	1.329
Total **On-site** Area		1.329
Composite **On-site** Runoff Coefficient	0.15	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.33	**acres**
Total Composite Runoff C (on-site & off-site)	0.15	**C**

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
10.00	9.30	9.30	8.52
11.42	8.83	8.83	8.09
15.00	7.64	7.64	7.00

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.15	8.83	0.01		7.89
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		7.89

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	465.00	8.50	0.02	2.20		3.52
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		3.52

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>				0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	11.42	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	8.83	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	1.760	**CFS**

IDOT Rational Method of Drainage Analysis

Project: IL 3 - Godfrey
Project Number: T06-130624
Engineer: JWS
Date of Analysis: July 22, 2017

Description of Watershed Area:
Culvert 4 - PR
Under Norwood

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Residential	0.45	0.720
Total **On-site** Area		0.720
Composite **On-site** Runoff Coefficient	0.45	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	0.72	**acres**
Total Composite Runoff C (on-site & off-site)	0.45	**C**

Time of Concentration:

Design Storm Year: 50

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
0.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36
5.00	10.20	10.20	9.36

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)	Overland Time (mins)
Overland Flow	10.00	0.15	10.20	0.03	1.35
					0.00
					0.00
Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					1.35

INPUT Ponding Time (mins, if applicable) >> 0.00

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)	Time (mins)
Unpaved	165.00	5.60	0.03	3.00	0.92
					0.00
Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>					0.92

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>									0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)	Time (mins)
							0.00
Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>							0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	5.00	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	10.20	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	3.305	**CFS**

IDOT Rational Method of Drainage Analysis

Project: Godfrey RAB
Project Number: 130624B
Engineer: JWS
Date of Analysis: July 24, 2017

Description of Watershed Area:
Inlet P-5-14
(Ditch Flow into Storm Sewer Pipe)

Design Storm Event (Year): 10 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Composite	0.40	1.926
Total **On-site** Area		1.926
Composite **On-site** Runoff Coefficient	0.40	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.93	**acres**
Total Composite Runoff C (on-site & off-site)	0.40	**C**

Time of Concentration:

Design Storm Year: 10

	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	6.96	6.96	6.72
8.72	6.47	6.47	6.27
10.00	6.30	6.30	6.12

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Grass	100.00	0.15	6.47	0.03		6.67
						0.00
						0.00
Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>						6.67

INPUT Ponding Time (mins, if applicable) >>> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	325.00	8.61	0.03	2.65		2.05
						0.00
Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>						2.05

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>									0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>								0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	8.72	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	6.47	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	4.984	**CFS**

IDOT Rational Method of Drainage Analysis

Project: Godfrey RAB
Project Number: 130624B
Engineer: JWS
Date of Analysis: July 24, 2017

Description of Watershed Area:

Inlet P-5-14
(Ditch Flow into Storm Sewer Pipe)

Design Storm Event (Year): 50 **Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Composite	0.40	1.926
Total **On-site** Area		1.926
Composite **On-site** Runoff Coefficient	0.40	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		0.000
Composite **Off-site** Runoff Coefficient	0.00	

Total Tributary Drainage Area (on-site & off-site)	1.93	**acres**
Total Composite Runoff C (on-site & off-site)	0.40	**C**

Time of Concentration:

Design Storm Year:	50		
	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
5.00	10.20	10.20	9.36
7.72	9.71	9.71	8.90
10.00	9.30	9.30	8.52

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Grass	100.00	0.15	9.71	0.03		5.67
						0.00
						0.00
Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>						5.67

INPUT Ponding Time (mins, if applicable) >> 0.00

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	325.00	8.61	0.03	2.65		2.05
						0.00
Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>						2.05

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>									0.00

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>								0.00

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	7.72	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>	9.71	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	7.481	**CFS**

IDOT Rational Method of Drainage Analysis

Project:	**IL 3 - Godfrey**
Project Number:	**T06-130624**
Engineer:	**JWS**
Date of Analysis:	**July 28, 2017**

Description of Watershed Area:

Existing Conditions - Inlet - DS of Network 07
(Open Throat Inlet between church property and residential to north)

Design Storm Event (Year): **10 Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage (On-Site)	Runoff Coefficients	Drainage Area (Acres)
Impervious	0.90	2.290
Grass	0.15	6.280
		8.570
		-8.570
Total **On-site** Area		**8.570**
Composite **On-site** Runoff Coefficient	**0.35**	

Tributary Land Usage (Off-Site)	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		**0.000**
Composite **Off-site** Runoff Coefficient	**0.00**	

Total Tributary Drainage Area (on-site & off-site)	**8.57**	**acres**
Total Composite Runoff C (on-site & off-site)	**0.35**	**C**

Time of Concentration:

Design Storm Year:	10		
	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
10.00	6.30	6.30	6.12
10.53	6.18	6.18	6.01
15.00	5.16	5.16	5.04

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.15	6.18	0.04		**6.01**
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>		**6.01**

INPUT Ponding Time (mins, if applicable) >> **0.00**

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	730.00	20.00	0.03	2.69		**4.52**
						0.00
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>		**4.52**

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>					**0.00**

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>				**0.00**

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	**10.53**	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>	**6.18**	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	**18.558**	**CFS**

IDOT Rational Method of Drainage Analysis

Project:	**IL 3 - Godfrey**
Project Number:	**T06-130624**
Engineer:	**JWS**
Date of Analysis:	**July 28, 2017**

Description of Watershed Area:

Proposed Conditions - Inlet - DS of Network 07
(Open Throat Inlet between church property and residential to north)

Design Storm Event (Year): **10 Year**

Tributary Land Usage and IDOT Runoff Coefficients:

Tributary Land Usage **(On-Site)**	Runoff Coefficients	Drainage Area (Acres)
Impervious - Old	0.90	2.160
Impervious - New	0.90	0.730
Grass	0.15	6.270
Total **On-site** Area		**9.160**
Composite **On-site** Runoff Coefficient	**0.39**	

Tributary Land Usage **(Off-Site)**	Runoff Coefficients	Drainage Area (Acres)
Total **Off-site** Area		**0.000**
Composite **Off-site** Runoff Coefficient	**0.00**	

Total Tributary Drainage Area (on-site & off-site)	**9.16**	**acres**
Total Composite Runoff C (on-site & off-site)	**0.39**	**C**

Time of Concentration:

Design Storm Year: 10			
	1	2	3
	IDOT Bulletin 70 Rainfall Data	IDOT Bulletin 70 Rainfall Data - St. Louis Urban Effect for Madison County	IDOT Bulletin 70 Rainfall Data - WEST SOUTHWEST ILLINOIS
Tc (min.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)	Rainfall Intensity (in./hr.)
10.00	6.30	6.30	6.12
11.81	5.89	5.89	5.73
15.00	5.16	5.16	5.04

Rainfall Data Source (Select 1-3): 2

Overland Flow

Description of Flow Surface	Length (ft)	Manning's Coefficient	Rainfall Intensity (in/hr)	Slope (ft/ft)		Overland Time (mins)
Overland Flow	100.00	0.15	5.89	0.03		**6.82**
						0.00
						0.00
				Total Overland Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>		**6.82**

INPUT Ponding Time (mins, if applicable) >>> **0.00**

.

Shallow Channel Flow in Rills and Gutters (by Figure 4-103i, IDOT Drainage Manual) (if applicable)

Description of Channel Surface	Length (ft)	Elevation Change (ft)	Slope (ft/ft)	Average Velocity (ft/sec)		Time (mins)
Unpaved	720.00	15.79	0.02	2.41		**4.98**
Paved			0.00			**0.00**
				Total Shallow Channel Flow Time (mins) >>>>>>>>>>>>>>>>>		**4.98**

Calculation of Gutter Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Slope (ft/ft)	Longitudinal Slope (ft/ft)	Width of Flow Spread (ft)	Q Flow (cfs)	Area (sq.ft.)	Velocity (ft/sec)	Time (mins)
									0.00
				Total Gutter Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>>					**0.00**

Calculation of Channel Flow by Manning's Equation (if applicable)

Description of Channel Surface	Length (ft)	Manning's Coefficient	Cross Sectional Area (sq.ft.)	Wetted Perimeter	Longitudinal Slope (ft/ft)	Velocity (ft/sec)		Time (mins)
								0.00
				Total Channel Flow Time (mins) >>>>>>>>>>>>>>>>>>>>>>>>				**0.00**

Total Time of Concentration (mins) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	**11.81**	
Rainfall Intensity from IDF Curves (in.hr.) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>	**5.89**	
Computed Discharge, Q = CiA (cfs) >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	**20.854**	**CFS**

ATTACHMENT 15

DITCH CALCULATIONS

(FLOWMASTER REPORTS)

Ex Culvert 1 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.00664	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	11.81	ft³/s

Results

Normal Depth	1.07	ft
Flow Area	4.54	ft²
Wetted Perimeter	8.79	ft
Hydraulic Radius	0.52	ft
Top Width	8.53	ft
Critical Depth	0.88	ft
Critical Slope	0.01792	ft/ft
Velocity	2.60	ft/s
Velocity Head	0.11	ft
Specific Energy	1.17	ft
Froude Number	0.63	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.07	ft
Critical Depth	0.88	ft
Channel Slope	0.00664	ft/ft

Ex Culvert 1 Ditch

GVF Output Data

Critical Slope	0.01792	ft/ft

Ex Culvert 2 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01167	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	6.87	ft^3/s

Results

Normal Depth	0.78	ft
Flow Area	2.45	ft^2
Wetted Perimeter	6.45	ft
Hydraulic Radius	0.38	ft
Top Width	6.26	ft
Critical Depth	0.71	ft
Critical Slope	0.01926	ft/ft
Velocity	2.80	ft/s
Velocity Head	0.12	ft
Specific Energy	0.90	ft
Froude Number	0.79	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.78	ft
Critical Depth	0.71	ft
Channel Slope	0.01167	ft/ft

Ex Culvert 2 Ditch

GVF Output Data

Critical Slope	0.01926	ft/ft

Ex Culvert 3 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01006	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	5.12	ft³/s

Results

Normal Depth	0.72	ft
Flow Area	2.08	ft²
Wetted Perimeter	5.94	ft
Hydraulic Radius	0.35	ft
Top Width	5.76	ft
Critical Depth	0.63	ft
Critical Slope	0.02004	ft/ft
Velocity	2.46	ft/s
Velocity Head	0.09	ft
Specific Energy	0.82	ft
Froude Number	0.72	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.72	ft
Critical Depth	0.63	ft
Channel Slope	0.01006	ft/ft

Ex Culvert 3 Ditch

GVF Output Data

Critical Slope	0.02004	ft/ft

EX E-3-1 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01880	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	6.24	ft^3/s

Results

Normal Depth	0.69	ft
Flow Area	1.91	ft^2
Wetted Perimeter	5.69	ft
Hydraulic Radius	0.33	ft
Top Width	5.52	ft
Critical Depth	0.69	ft
Critical Slope	0.01951	ft/ft
Velocity	3.27	ft/s
Velocity Head	0.17	ft
Specific Energy	0.86	ft
Froude Number	0.98	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.69	ft
Critical Depth	0.69	ft
Channel Slope	0.01880	ft/ft

EX E-3-1 Ditch

GVF Output Data

Critical Slope	0.01951	ft/ft

Pr Culvert 1 Ditch (Net 6 Outlet)

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.00664	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	7.33	ft³/s

Results

Normal Depth	0.89	ft
Flow Area	3.18	ft²
Wetted Perimeter	7.35	ft
Hydraulic Radius	0.43	ft
Top Width	7.13	ft
Critical Depth	0.73	ft
Critical Slope	0.01910	ft/ft
Velocity	2.31	ft/s
Velocity Head	0.08	ft
Specific Energy	0.97	ft
Froude Number	0.61	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.89	ft
Critical Depth	0.73	ft
Channel Slope	0.00664	ft/ft

Pr Culvert 1 Ditch (Net 6 Outlet)

GVF Output Data

Critical Slope	0.01910	ft/ft

Pr Culvert 2 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01000	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	0.00	ft
Discharge	13.24	ft^3/s

Results

Normal Depth	1.03	ft
Flow Area	4.24	ft^2
Wetted Perimeter	8.49	ft
Hydraulic Radius	0.50	ft
Top Width	8.24	ft
Critical Depth	0.93	ft
Critical Slope	0.01765	ft/ft
Velocity	3.12	ft/s
Velocity Head	0.15	ft
Specific Energy	1.18	ft
Froude Number	0.77	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.03	ft
Critical Depth	0.93	ft
Channel Slope	0.01000	ft/ft

Pr Culvert 2 Ditch

GVF Output Data

Critical Slope	0.01765	ft/ft

Pr Culvert 3 Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.01000	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	3.00	ft
Discharge	24.25	ft^3/s

Results

Normal Depth	0.98	ft
Flow Area	6.79	ft^2
Wetted Perimeter	11.09	ft
Hydraulic Radius	0.61	ft
Top Width	10.85	ft
Critical Depth	0.87	ft
Critical Slope	0.01629	ft/ft
Velocity	3.57	ft/s
Velocity Head	0.20	ft
Specific Energy	1.18	ft
Froude Number	0.80	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.98	ft
Critical Depth	0.87	ft
Channel Slope	0.01000	ft/ft

Pr Culvert 3 Ditch

GVF Output Data

Critical Slope	0.01629	ft/ft

Pr P-5-14 (Ex E-3-1) Ditch

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.03240	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	3.00	ft
Discharge	7.48	ft^3/s

Results

Normal Depth	0.41	ft
Flow Area	1.89	ft^2
Wetted Perimeter	6.36	ft
Hydraulic Radius	0.30	ft
Top Width	6.26	ft
Critical Depth	0.47	ft
Critical Slope	0.01927	ft/ft
Velocity	3.96	ft/s
Velocity Head	0.24	ft
Specific Energy	0.65	ft
Froude Number	1.27	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.41	ft
Critical Depth	0.47	ft
Channel Slope	0.03240	ft/ft

Pr P-5-14 (Ex E-3-1) Ditch

GVF Output Data

Critical Slope	0.01927	ft/ft

Cook Ditch RT

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.02000	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	3.00	ft/ft (H:V)
Bottom Width	2.00	ft
Discharge	3.00	ft³/s

Results

Normal Depth	0.34	ft
Flow Area	1.10	ft²
Wetted Perimeter	4.50	ft
Hydraulic Radius	0.24	ft
Top Width	4.40	ft
Critical Depth	0.34	ft
Critical Slope	0.02157	ft/ft
Velocity	2.73	ft/s
Velocity Head	0.12	ft
Specific Energy	0.46	ft
Froude Number	0.97	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.34	ft
Critical Depth	0.34	ft
Channel Slope	0.02000	ft/ft

GVF Output Data

Critical Slope	0.02157	ft/ft

Pierce Ditch RT

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.05000	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	3.00	ft/ft (H:V)
Bottom Width	2.00	ft
Discharge	3.00	ft³/s

Results

Normal Depth	0.27	ft
Flow Area	0.79	ft²
Wetted Perimeter	3.96	ft
Hydraulic Radius	0.20	ft
Top Width	3.88	ft
Critical Depth	0.34	ft
Critical Slope	0.02157	ft/ft
Velocity	3.79	ft/s
Velocity Head	0.22	ft
Specific Energy	0.49	ft
Froude Number	1.48	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.27	ft
Critical Depth	0.34	ft
Channel Slope	0.05000	ft/ft

GVF Output Data

Critical Slope	0.02157	ft/ft

P-3-1 Spread

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00900	ft/ft
Discharge	10.32	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
-0+26	0.53
-0+08	0.36
-0+02	0.12
0+00	0.00
0+01	0.13
0+25	0.55

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+26, 0.53)	(0+25, 0.55)	0.012

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.36	ft
Elevation Range	0.00 to 0.55 ft	
Flow Area	3.20	ft²
Wetted Perimeter	22.27	ft
Hydraulic Radius	0.14	ft
Top Width	22.25	ft
Normal Depth	0.36	ft

P-3-1 Spread

Results

Critical Depth		0.42	ft
Critical Slope		0.00395	ft/ft
Velocity		3.23	ft/s
Velocity Head		0.16	ft
Specific Energy		0.52	ft
Froude Number		1.50	
Flow Type	Supercritical		

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.36	ft
Critical Depth	0.42	ft
Channel Slope	0.00900	ft/ft
Critical Slope	0.00395	ft/ft

Cross Section for P-3-1 Spread

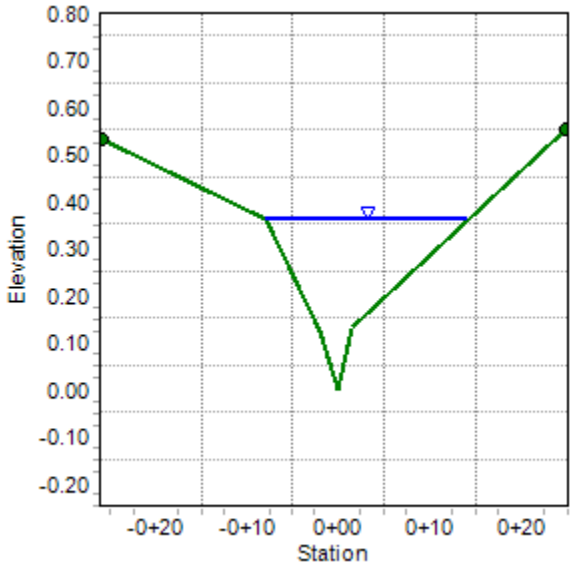
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00900	ft/ft
Normal Depth	0.36	ft
Discharge	10.32	ft³/s

Cross Section Image



P-3-2 Spread

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00890	ft/ft
Discharge	6.53	ft³/s

Section Definitions

Station (ft)	Elevation (ft)
-0+20	0.60
-0+08	0.36
-0+02	0.12
0+00	0.00
0+01	0.13
0+07	0.45

Roughness Segment Definitions

Start Station	Ending Station	Roughness Coefficient
(-0+20, 0.60)	(0+07, 0.45)	0.012

Options

Current Roughness Weighted Method	Pavlovskii's Method
Open Channel Weighting Method	Pavlovskii's Method
Closed Channel Weighting Method	Pavlovskii's Method

Results

Normal Depth	0.35	ft
Elevation Range	0.00 to 0.60 ft	
Flow Area	1.95	ft²
Wetted Perimeter	12.78	ft
Hydraulic Radius	0.15	ft
Top Width	12.76	ft
Normal Depth	0.35	ft

P-3-2 Spread

Results

Critical Depth		0.40	ft
Critical Slope		0.00379	ft/ft
Velocity		3.34	ft/s
Velocity Head		0.17	ft
Specific Energy		0.52	ft
Froude Number		1.51	
Flow Type	Supercritical		

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.35	ft
Critical Depth	0.40	ft
Channel Slope	0.00890	ft/ft
Critical Slope	0.00379	ft/ft

P-3-2 Spread

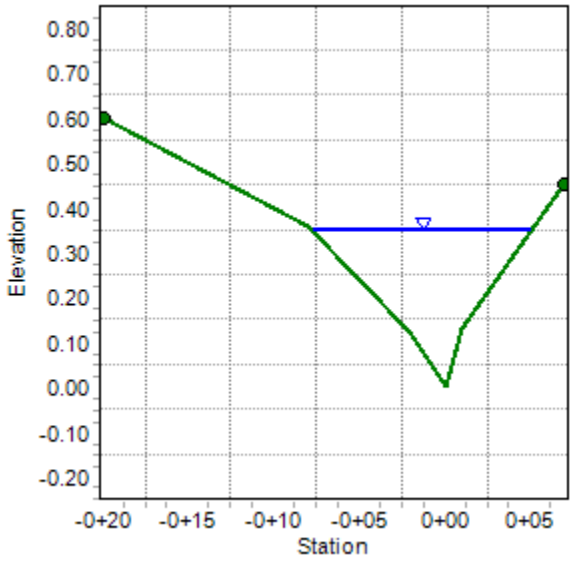
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Channel Slope	0.00890	ft/ft
Normal Depth	0.35	ft
Discharge	6.53	ft³/s

Cross Section Image



ATTACHMENT 16
DETENTION ANALYSIS

Rational Method (Area to 3x3 Open Throat Inlet)		
Year	10	100
Existing	18.56	33.05
Proposed	20.86	37.97
Increase	**2.3**	**4.92**

Area to be Detained (Infield/Cook St.)	10	100
Ex Area w/ Pr Conditions (Hydrograph 3)	6.103	10.59
Pr Area w/ Pr Conditions (Hydrograph 1)	7.754	13.45
Pr Detention Pond Release (Hydrograph 2)	3.373	5.058
Reduction in Release Rate	**2.73**	**5.532**
More than Increase?	**YES**	**YES**

Pond Volume		
Calculated HW (100 - year)	613.07	ft
Pond Vol. below HW	120.934	CY
	3265	CF
Required Storage (10 - year)	1733	CF
Required Storage (100 - year)	3253	CF

Hydrograph Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Tuesday, 10 / 31 / 2017

Hyd. No. 1

Infield - Pr Area/Pr Conditions

Hydrograph type	= Rational	Peak discharge	= 7.754 cfs
Storm frequency	= 10 yrs	Time to peak	= 7 min
Time interval	= 1 min	Hyd. volume	= 3,257 cuft
Drainage area	= 2.600 ac	Runoff coeff.	= 0.47*
Intensity	= 6.345 in/hr	Tc by TR55	= 7.00 min
IDF Curve	= 2002Idot70MadisonCounty.idf	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.020 x 0.90) + (1.580 x 0.20)] / 2.600

Hydrograph Report

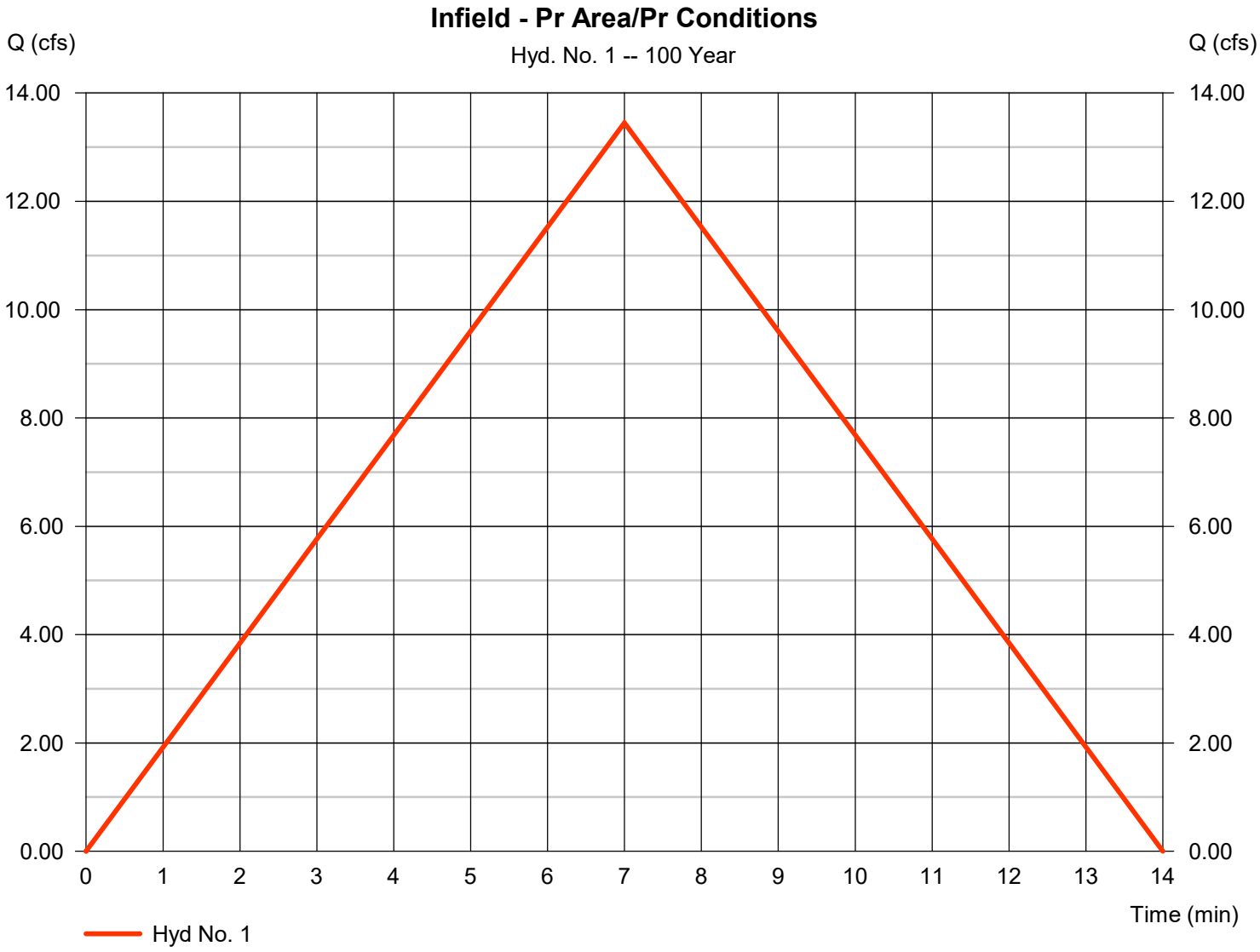
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Tuesday, 10 / 31 / 2017

Hyd. No. 1

Infield - Pr Area/Pr Conditions

Hydrograph type	=	Rational	Peak discharge	=	13.45 cfs
Storm frequency	=	100 yrs	Time to peak	=	7 min
Time interval	=	1 min	Hyd. volume	=	5,649 cuft
Drainage area	=	2.600 ac	Runoff coeff.	=	0.47*
Intensity	=	11.007 in/hr	Tc by TR55	=	7.00 min
IDF Curve	=	2002Idot70MadisonCounty.idf	Asc/Rec limb fact	=	1/1

* Composite (Area/C) = [(1.020 x 0.90) + (1.580 x 0.20)] / 2.600



Hydrograph Report

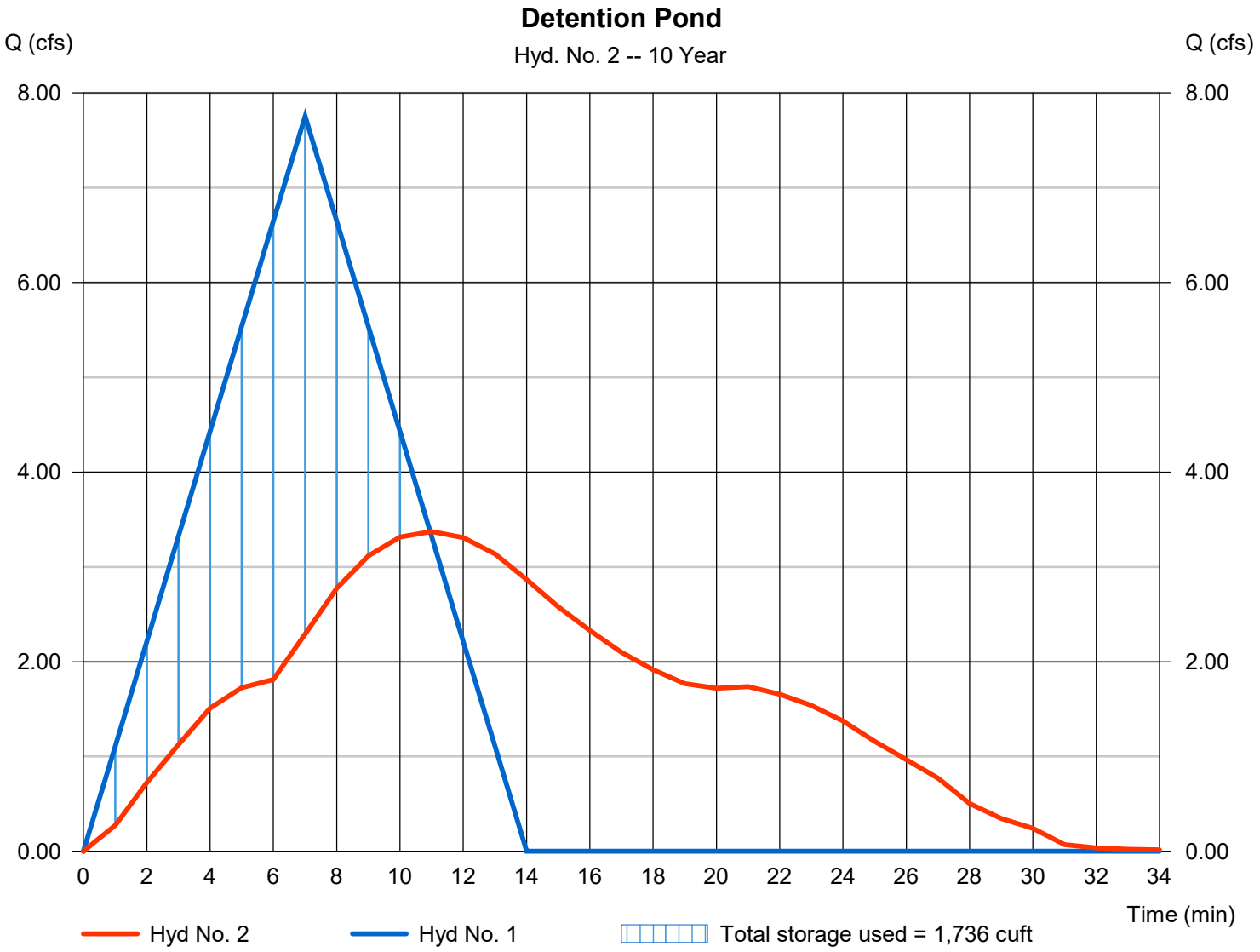
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Wednesday, 12 / 20 / 2017

Hyd. No. 2

Detention Pond

Hydrograph type	=	Reservoir	Peak discharge	=	3.373 cfs
Storm frequency	=	10 yrs	Time to peak	=	11 min
Time interval	=	1 min	Hyd. volume	=	3,256 cuft
Inflow hyd. No.	=	1 - Infield - Pr Area/Pr Condition	Max. Elevation	=	612.50 ft
Reservoir name	=	Det Pond	Max. Storage	=	1,736 cuft

Storage Indication method used.



Hydrograph Report

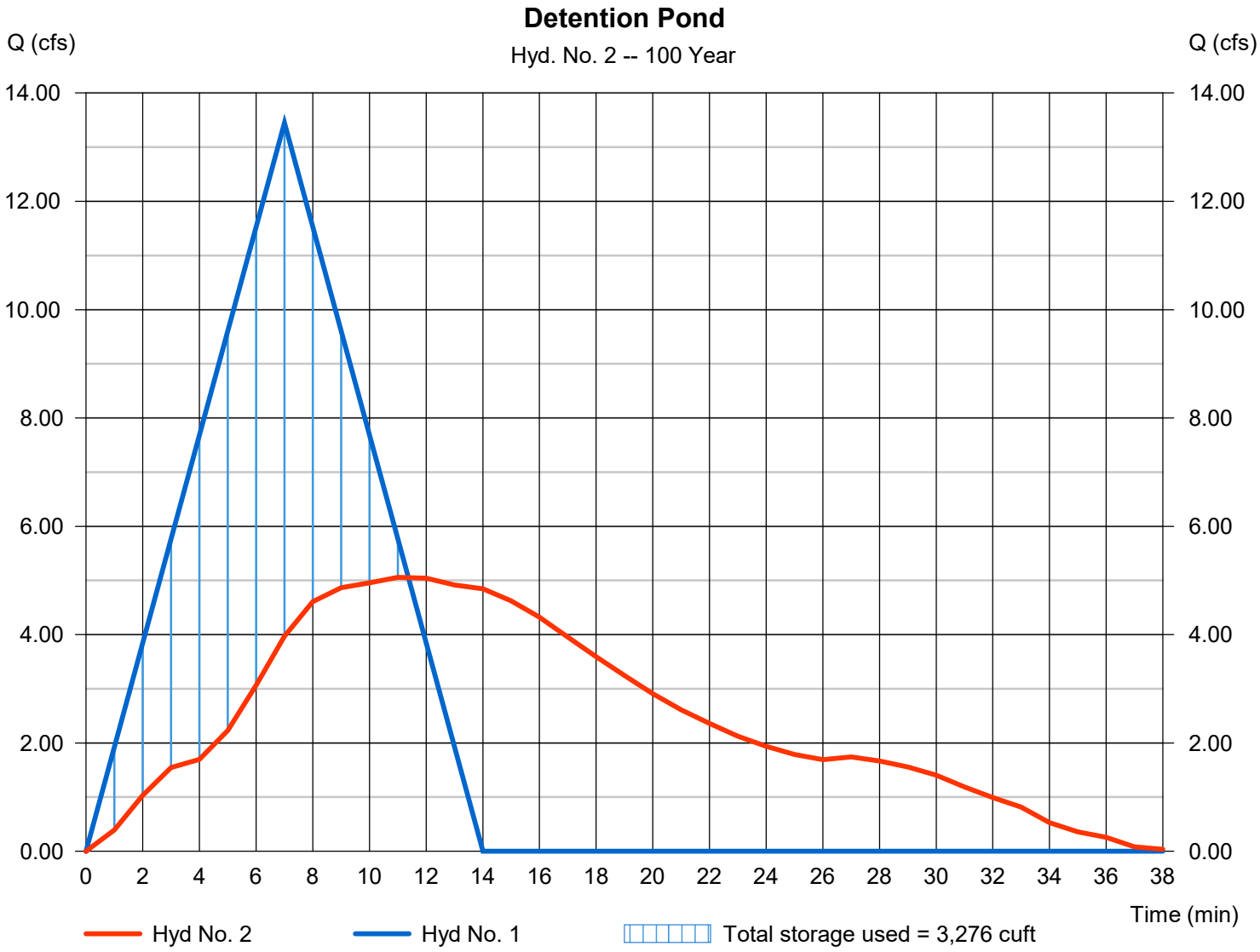
Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Wednesday, 12 / 20 / 2017

Hyd. No. 2

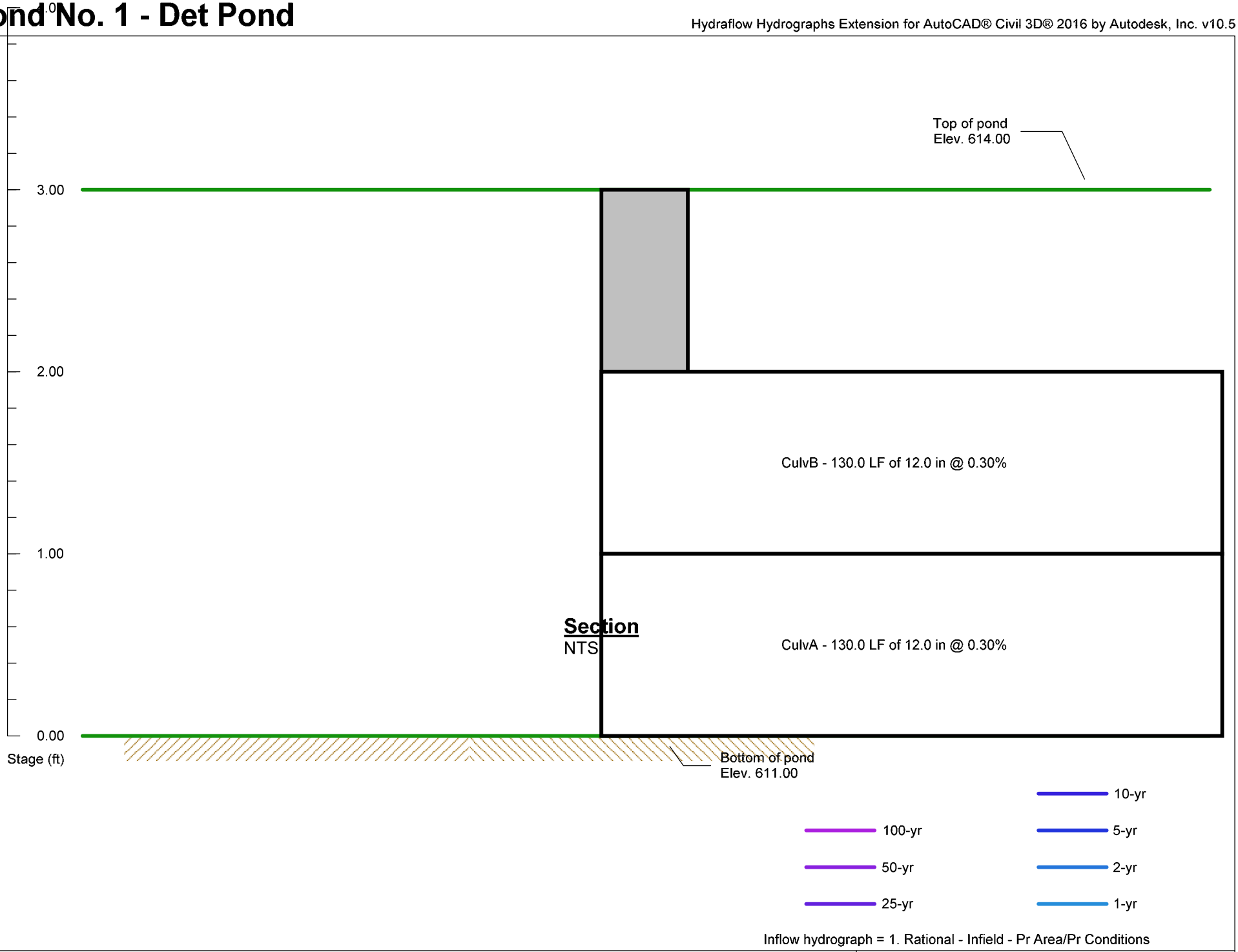
Detention Pond

Hydrograph type	= Reservoir	Peak discharge	= 5.058 cfs
Storm frequency	= 100 yrs	Time to peak	= 11 min
Time interval	= 1 min	Hyd. volume	= 5,648 cuft
Inflow hyd. No.	= 1 - Infield - Pr Area/Pr Condition	Max. Elevation	= 613.08 ft
Reservoir name	= Det Pond	Max. Storage	= 3,276 cuft

Storage Indication method used.



Pond No. 1 - Det Pond



Inflow hydrograph = 1. Rational - Infield - Pr Area/Pr Conditions

Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Wednesday, 12 / 20 / 2017

Pond No. 1 - Det Pond

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 611.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	611.00	00	0	0
0.25	611.25	162	20	20
0.50	611.50	561	90	111
0.75	611.75	1,206	221	332
1.00	612.00	1,789	374	706
1.25	612.25	2,048	480	1,186
1.50	612.50	2,331	547	1,733
1.75	612.75	2,639	621	2,354
2.00	613.00	2,971	701	3,055
2.25	613.25	3,327	787	3,843
2.50	613.50	3,708	879	4,722
2.75	613.75	4,113	978	5,700
3.00	614.00	4,543	1,082	6,782

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	12.00	0.00	0.00
Span (in)	= 12.00	12.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 611.00	612.00	0.00	0.00
Length (ft)	= 130.00	130.00	0.00	0.00
Slope (%)	= 0.30	0.30	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

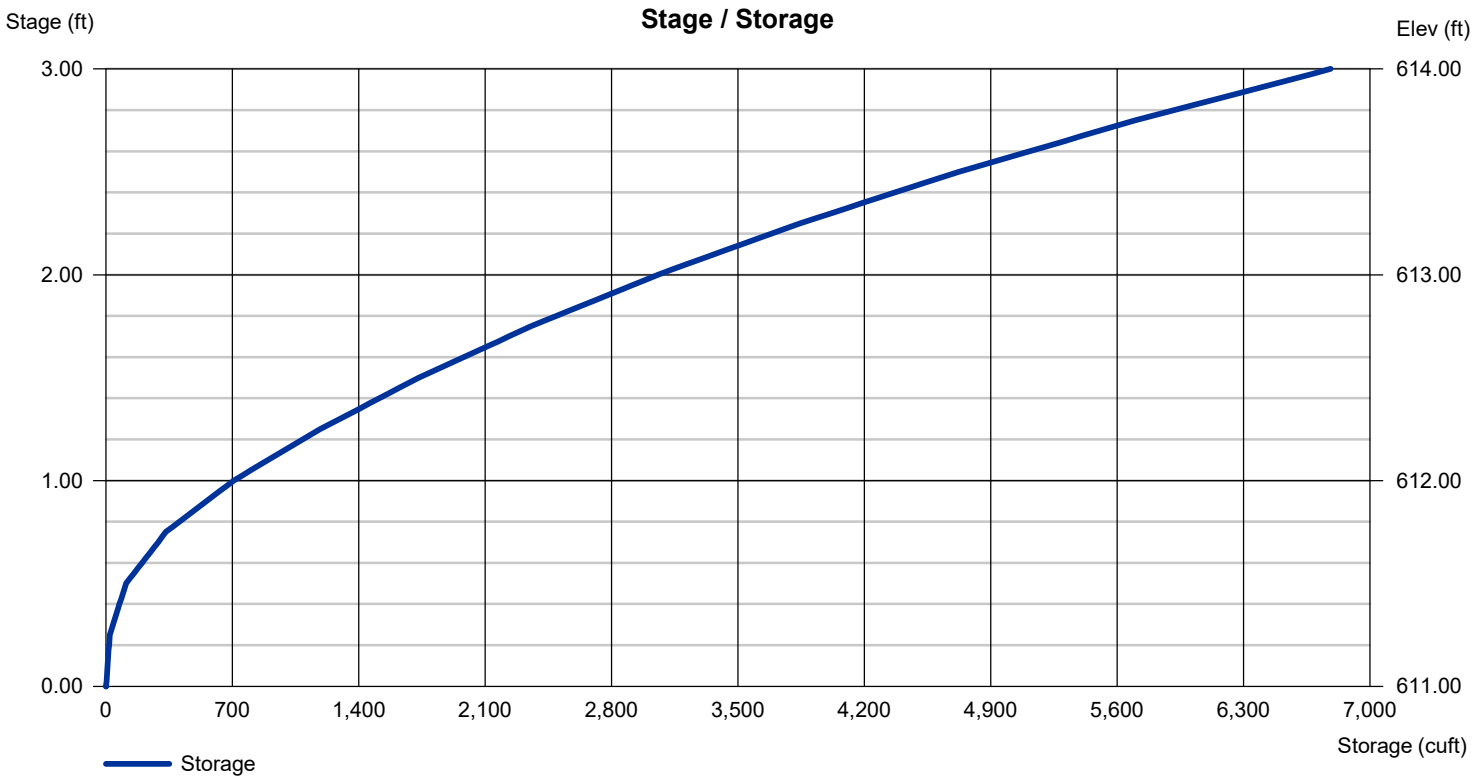
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Wednesday, 12 / 20 / 2017

Pond No. 1 - Det Pond

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 611.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	611.00	00	0	0
0.25	611.25	162	20	20
0.50	611.50	561	90	111
0.75	611.75	1,206	221	332
1.00	612.00	1,789	374	706
1.25	612.25	2,048	480	1,186
1.50	612.50	2,331	547	1,733
1.75	612.75	2,639	621	2,354
2.00	613.00	2,971	701	3,055
2.25	613.25	3,327	787	3,843
2.50	613.50	3,708	879	4,722
2.75	613.75	4,113	978	5,700
3.00	614.00	4,543	1,082	6,782

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	12.00	0.00	0.00
Span (in)	= 12.00	12.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 611.00	612.00	0.00	0.00
Length (ft)	= 130.00	130.00	0.00	0.00
Slope (%)	= 0.30	0.30	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

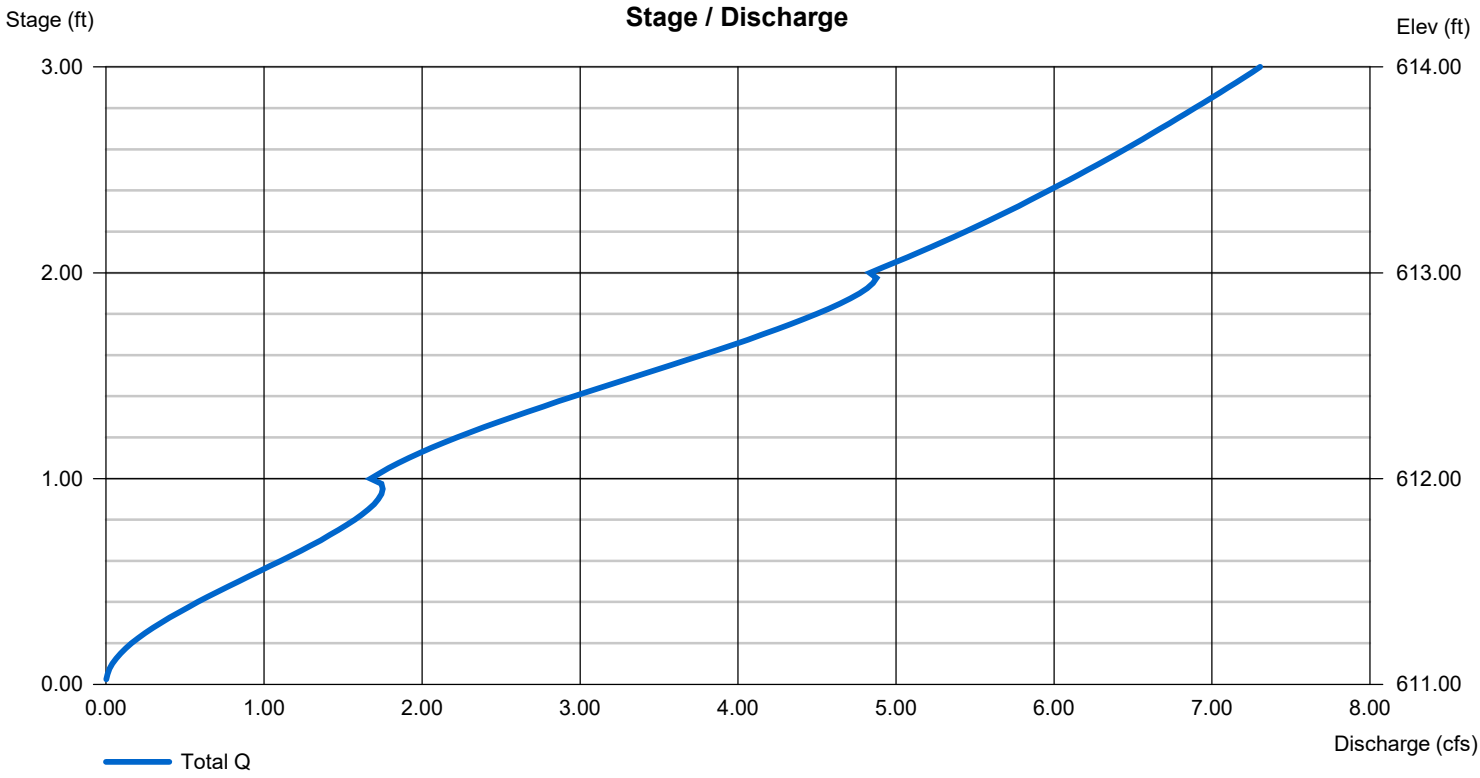
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Pond Report

Hydraflow Hydrographs Extension for AutoCAD® Civil 3D® 2016 by Autodesk, Inc. v10.5 Wednesday, 12 / 20 / 2017

Pond No. 1 - Det Pond

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 611.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	611.00	00	0	0
0.25	611.25	162	20	20
0.50	611.50	561	90	111
0.75	611.75	1,206	221	332
1.00	612.00	1,789	374	706
1.25	612.25	2,048	480	1,186
1.50	612.50	2,331	547	1,733
1.75	612.75	2,639	621	2,354
2.00	613.00	2,971	701	3,055
2.25	613.25	3,327	787	3,843
2.50	613.50	3,708	879	4,722
2.75	613.75	4,113	978	5,700
3.00	614.00	4,543	1,082	6,782

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	12.00	0.00	0.00
Span (in)	= 12.00	12.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 611.00	612.00	0.00	0.00
Length (ft)	= 130.00	130.00	0.00	0.00
Slope (%)	= 0.30	0.30	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Wet area)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	611.00	0.00	0.00	---	---	---	---	---	---	---	---	0.000
0.25	20	611.25	0.25 oc	0.00	---	---	---	---	---	---	---	---	0.248
0.50	111	611.50	0.84 oc	0.00	---	---	---	---	---	---	---	---	0.839
0.75	332	611.75	1.47 oc	0.00	---	---	---	---	---	---	---	---	1.472
1.00	706	612.00	1.67 oc	0.00	---	---	---	---	---	---	---	---	1.674
1.25	1,186	612.25	2.14 oc	0.25 oc	---	---	---	---	---	---	---	---	2.392
1.50	1,733	612.50	2.53 oc	0.84 oc	---	---	---	---	---	---	---	---	3.368
1.75	2,354	612.75	2.86 oc	1.47 oc	---	---	---	---	---	---	---	---	4.334
2.00	3,055	613.00	3.16 oc	1.67 oc	---	---	---	---	---	---	---	---	4.834
2.25	3,843	613.25	3.43 oc	2.14 oc	---	---	---	---	---	---	---	---	5.577
2.50	4,722	613.50	3.69 oc	2.53 oc	---	---	---	---	---	---	---	---	6.214
2.75	5,700	613.75	3.92 oc	2.86 oc	---	---	---	---	---	---	---	---	6.783
3.00	6,782	614.00	4.14 oc	3.16 oc	---	---	---	---	---	---	---	---	7.304

```
**********************************************************************
**                                                                  **
** Plane To TIN Volume Report -- Tue Dec 19 14:27:38 2017
**                                                                  **
** From Elevation <613.070> to TIN <P:\130624\Godfrey\4 CADD - DWG\4.9
Geopak\Tin\DetPond.tin>
**                                                                  **
** Prismoidal Volume
**                                                                  **
**                                                                  **
**********************************************************************
**                                                                  **
**  Total Cut =  120.934 Cubic Yards
**  Total Fill = 420.189 Cubic Yards
**  Area =       1023.216 Sq Yards
**  Balance =          -299.254 Cubic Yards
**                                                                  **
** Elevation Range Used
** 611.000 to 611.250  Cut = 0.601      Fill = 0.000
** 611.250 to 611.500  Cut = 3.153      Fill = 0.000
** 611.500 to 611.750  Cut = 8.001      Fill = 0.000
** 611.750 to 612.000  Cut = 14.392     Fill = 0.000
** 612.000 to 612.250  Cut = 17.748     Fill = 0.000
** 612.250 to 612.500  Cut = 20.258     Fill = 0.000
** 612.500 to 612.750  Cut = 22.994     Fill = 0.000
** 612.750 to 613.000  Cut = 25.956     Fill = 0.000
** 613.000 to 613.250  Cut = 7.829      Fill = 40.078
** 613.250 to 613.500  Cut = 0.000      Fill = 52.709
** 613.500 to 613.750  Cut = 0.000      Fill = 49.069
** 613.750 to 614.000  Cut = 0.000      Fill = 45.203
**                                                                  **
**********************************************************************
```

ATTACHMENT 17
CORRESPONDENCE

Thouvenot, Wade & Moerchen, Inc.

4940 Old Collinsville Road
Swansea, IL 62226
618.624.4488
618.624.6688

Communication Record

CONSULTING ENGINEERS | LAND SURVEYORS | PLANNERS

Subject:	Site Visit - Drainage Design		
Client:	IDOT District 8		
Project:	IL Rte 3 at Delmar Ave & Pierce Lane in Godfrey	Project No.:	TWM # 13 0624
Notes By:	Josh Stein		
Meeting Date:	07-27-2017	Meeting Location:	1021 W. Delmar Ave., Godfrey, IL

Attendees	Company / Affiliation
Josh Stein	TWM, Inc.
Greenery Owner (Name not provided)	Property Owner

Topics Discussed:

Josh Stein (TWM, Inc.) conducted a site visit for preparation of the Drainage Study. While conducting the site visit, Josh met with the owner of "Greenery" located at 1021 W. Delmar Ave.

Josh asked if the roadway has any drainage issues near the project limits. The owner said that it floods the driveway (approximate Sta. 890+00 RT) "once in a while". She noted that she had written a letter to IDOT in the last year or so complaining of the drainage and IDOT in response came out and reshaped the ditch (on the opposite side of her business).

Josh thanked her for the information and noted that he would document the communication in the Drainage Study

Joshua W. Stein

From: John C Uhl <engtech@godfreyil.org>
Sent: Wednesday, July 26, 2017 3:10 PM
To: Michelle L. Schwierjohn; TSchlueter@godfreyil.org; craig.noble@amwater.com
Cc: Joshua W. Stein; Bonnie
Subject: RE: Godfrey Utilities for the IDOT Project IL Rte 3 @ W. Delmar Ave & Pierce Ln
Attachments: Storm Sewer Reference Map - West Delmar-Pierce.pdf; Sanitary Sewer Reference Map - West Delmar-Pierce area.pdf

Michelle,

I (John Uhl, Village Engineer Technician) would probably be one of the best person to deal with this, however I will be out of the office the rest of the week (Thursday 27th and Friday 28th). Then it looks like I will be out of the office again on August 3rd, 4th and 7th. And one more day sometime July 31st to August 11th. The other person you may try is the Director of Maintenance Jim Lewis at the Public Works Department at 466-3133. All maps attached are not to scale and the Village of Godfrey can not be held responsible for how this data is used or interpreted by the end user.

Some of the drainage area that I know are on the west side of the purpose (roundabouts I am assuming our discussion is about) area, however I do not know if some of the drainage comes from this area. In the time around 2002 /2003 the Village extended the storm line from around 1430 West Delmar to the outfall at around 4719 D'Adrian Court. The resident at 4721 D'Adrian Court has complain many times about the additional flows he see at the creek behind his house. Also, at 1373 West Delmar (Nursing Home – Morningstar?) this area behind the road drains on the west side of the property and travels on the east property line of D'Adrian Dr. to a ground grate around 4711 D'Adrian Dr. Also we have dealt with drainage issue for the D'Adrian Professional Park parking lot draining onto the Normandy Drive properties and place a small detention basin in the area. I have notice a pond of water during some of these hard rains in the lower area just south of West Delmar at the 4624 Pine Grove lot. Seen water in some of the farm fields too in the area but never heard complaints. If we do get complaints we would send them to IDOT because of West Delmar being a State road along with Homer M. Adams Parkway. I know that some of the business and residents on W. Delmar east of Pierce Lane may have complain of water because most of this area is open ditching. I think I had received a complaint from 1021 West Delmar (Greenery) about the ditching and I sent them to IDOT. Our Public Work department would receive most of the drainage complaints so they may know more about complaints then I do. However, like I stated above we would send those people to IDOT.

I have attached the Sanitary Sewer Reference Map , because the area that is circle we seems to have a lot of I/I in our sanitary sewer system in this area during long or heavy period of rain for being such a small area of sewage collection. We have not figure out the cause of the I/I at this time in this area.

John C. Uhl
Engineer Technician
Village of Godfrey
(618) 466-4319

GODFREY
ILLINOIS
You can see your future from here

From: Michelle L. Schwierjohn [mailto:mschwierjohn@twm-inc.com]
Sent: Wednesday, July 26, 2017 8:31 AM
To: 'John C Uhl'; TSchlueter@godfreyil.org; craig.noble@amwater.com
Cc: Joshua W. Stein
Subject: Godfrey Utilities for the IDOT Project IL Rte 3 @ W. Delmar Ave & Pierce Ln

John,

As TWM finalizes the preliminary Drainage Study for the IDOT IL Rt 3 project (between W. Delmar Ave and Pierce Ln), we are requesting that the Village of Godfrey provide a list of areas with drainage problems within the project limits. While the scope of the IDOT project is limited to what is required to construct the project, we would like to know of any issues in the close proximity to the project limits.

After an initial analysis of the existing conditions, it appears that the inlets on the south side of Delmar Ave, just east of the project limits may be inadequate. Does the Village have records of any issues in this area?

TWM is tentatively planning to do another site visit later this week, ideally during a rain event. Please let us know who from the Village could meet us out there to discuss any problem areas. Josh Stein (cc'd on this email) is preparing the drainage study for the IDOT project. Contact him with the individual from the Village to meet with.

Thanks,

Michelle Schwierjohn, P.E., PTOE | **TWM** Project Engineer | 618.624.4488 | www.twm-inc.com
4940 Old Collinsville Road, Swansea, IL 62226

EXCEPTIONAL SERVICE. NOTHING LESS.
CIVIL, STRUCTURAL, & RAILWAY ENGINEERING | GEOSPATIAL SERVICES

EXHIBIT H – COORDINATION AND CORRESPONDENCE

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

April 21, 2010

Homer Adams Parkway (IL Route 3) at West Delmar
City of Godfrey
Madison County

Honorable Dan Beiser
State Representative
Illinois House of Representatives
111th District Illinois
528 Henry Street
Alton, IL 62002

Dear Congressman Beiser:

Thank you for your letter and petition from your constituents requesting improvements at the intersection of Homer Adams Parkway and West Delmar in Godfrey.

At this time, an improvement for this section of roadway is not included in the Governor's *FY 2011-2016 Proposed Highway Improvement Program*. However, we will evaluate options to improve the intersection capacity of Homer Adams Parkway at West Delmar, and continue to monitor the intersection until funding becomes available.

One of the most difficult tasks the Department faces is to maintain the existing 4700+ miles of roadway and 1300+ bridges. We evaluate all locations each year and prioritize to provide the largest benefit for each of our limited dollars spent. Each year, the Department updates the highway improvement program based on factors related to system condition, available funding, project readiness, and cost effectiveness. Projects are then modified, added or removed from the highway improvement program based on one or more of these factors.

We appreciate your interest in this matter and thank you for the opportunity to respond to your concerns. Should you have any questions or require additional information, please contact Mr. Jeffrey Keirn, our Program Development Engineer, at 618/346-3112 or Ms. Tiffany Brase, our Programming Engineer, at 618/346-3150.

Sincerely,

Mary C. Lamie, P. E.
Deputy Director of Highways
Region Five Engineer

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

April 21, 2010

Homer Adams Parkway (IL Route 3) at West Delmar
City of Godfrey
Madison County

Honorable Dan Beiser
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Illinois House of Representatives
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528 Henry Street
Alton, IL 62002

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Sincerely,

Mary C. Lamie, P. E.
Deputy Director of Highways
Region Five Engineer

bcc: Gary Hannig, Secretary, Illinois Department of Transportation
Christine M. Reed, Director, Division of Highways
Bill Grunloh, Chief of Staff, Illinois Department of Transportation
William R. Frey, Deputy Director/Assistant Chief Engineer
John Webber, Director, Illinois Department of Transportation

DISTRICT OFFICE:
528 HENRY STREET
ALTON, ILLINOIS 62002
618/465-5900
618/465-5150 FAX

CAPITOL OFFICE:
281-S STRATTON BUILDING
SPRINGFIELD, ILLINOIS 62706
217/782-5996
217/558-0493 FAX

ILLINOIS HOUSE OF REPRESENTATIVES

DAN BEISER

STATE REPRESENTATIVE
111TH DISTRICT

COMMITTEES:

CHAIRMAN:
- TRANSPORTATION REGULATION ROADS & BRIDGES

VICE CHAIRMAN:
- AGING

MEMBER:
- APPROPRIATIONS HIGHER EDUCATION
- BUSINESS OCCUPATIONAL LICENSES
- ENERGY & ENVIRONMENT
- VEHICLE SAFETY

February 2, 2010

Ms. Mary Lamie
Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234

Dear Mary:

Enclosed is a copy of a letter from Mayor McCormick regarding traffic congestion at Homer Adams and West Delmar in Godfrey. I believe Joe Monroe may have an understanding of this situation. I can certainly attest to this bottleneck.

Please let me know what the options are regarding this.

Sincerely,

Dan Beiser
State Representative
111th District

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RECYCLED PAPER - SOYBEAN INKS

The Village of
GODFREY

6810 GODFREY ROAD • BOX 5067
GODFREY • ILLINOIS • 62035
618 466-3324 • FAX 618 466-0890

December 16, 2009

The Honorable Daniel V. Beiser
Illinois State Representative, 111th District
528 Henry Street
Alton, IL 62002

Dear Representative Beiser:

The Village of Godfrey has a terrible bottleneck situation at peak traffic times. I am referring to the Islands on Route 3 in the area of Homer Adams and West Delmar. In the morning, the traffic is backed up well past the Casey's store heading West on Route 3 causing long delays. Village Hall receives numerous phone calls complaining about the traffic flow both morning and evening.

I am not an engineer, but this might be an ideal location for a Round About or any other solution that IDOT engineers would suggest to solve this problem.

The residents of Godfrey would be well served with a solution to this congestion problem.

Sincerely,

M J McCormick

Michael J. McCormick
Mayor

MJM/mfm

Illinois Department of Transportation

Division of Highways / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

February 16, 2010

Representative Dan Beiser
State Representative
111th District
528 Henry Street
Alton, IL 62002

Traffic Congestion at Homer Adams Parkway @ West Delmar in Godfrey

Dear Representative Beiser:

The Department is in receipt of your letter requesting an investigation of the traffic congestion at the intersection of Homer Adams Parkway and West Delmar in Godfrey. The Department will conduct an evaluation of this intersection. Options for intersection improvement will be submitted to you at the conclusion of the evaluation.

If you have any other concerns regarding this intersection, please do not hesitate to contact me at (618)346-3110 or Jeffrey Keirn at (618)346-3112.

Sincerely,

Mary C Lamie

Mary C. Lamie, P.E.
Deputy Director of Highways
Region 5 Engineer

Opfer, Francis M

From: Southerland, Wenda J
Sent: Thursday, April 15, 2010 10:05 AM
To: Keirn, Jeffrey L; Opfer, Francis M
Cc: Wedmore, John B; Barbee, Richard O; Pratt, Sarah B.
Subject: Homer Adams Parkway @ W. Delmar in Godfrey

Jeff/Frank,

Here are my findings.

The approved IDS from 2001 is a 10-year design (2011).

The ADT used was:
Homer Adams Parkway 11,500
Delmar 7,600
Ridgedale 1,450

Current ADT on the IDOT website is:
Homer Adams Parkway 11,200
Delmar 5,800
Ridgedale 750

The current IDS provides LOS C for 2021 AM and LOS E for 2021 PM.
If two through lanes are provided for W Delmar/IL 3, the capacity becomes LOS D for 2021 AM and LOS E for 2021 PM.

Neither of these designs are acceptable. I recommend investigating a roundabout at this location, as suggested by the locals.

Wenda J. Southerland
Geometrics Project Engineer
Illinois Department of Transportation
District 8
1102 Eastport Plaza Drive
Collinsville, IL 62234
Phone: 618/346-3159
Fax: 618/346-3202
Wenda.Southerland@illinois.gov

Opfer, Francis M

From: Stafford, Cindy J
Sent: Friday, April 16, 2010 8:34 AM
To: Keirn, Jeffrey L
Cc: Opfer, Francis M; Geldert, Karen B
Subject: RE: IL 3 from Delmar to Godfrey Rd

OK, if we end up going that way, we will need to do an addendum to the report. No biggee, just documentation. Just let me know...

From: Keirn, Jeffrey L
Sent: Friday, April 16, 2010 8:30 AM
To: Stafford, Cindy J
Cc: Opfer, Francis M
Subject: RE: IL 3 from Delmar to Godfrey Rd

Thanks. Based off of what Wenda looked at quickly on the approved IDS, we are starting over on the proposed intersection improvement and may end up with a roundabout.

From: Stafford, Cindy J
Sent: Friday, April 16, 2010 8:23 AM
To: Keirn, Jeffrey L
Cc: Opfer, Francis M
Subject: FW: IL 3 from Delmar to Godfrey Rd

Below is what Karen remembers as far as why the intersection wasn't improved.

From: Geldert, Karen B
Sent: Thursday, April 15, 2010 11:33 AM
To: Stafford, Cindy J
Subject: IL 3 from Delmar to Godfrey Rd

Hi Cindy,

I had no luck with finding a project report for this job. I looked under IL 3, the FAP's, and the FAU's, but it's not there. My recollection was that it was due to funding that we didn't pursue it, but we did get an IDS completed and approved to be used in the future. Hope that is enough information for you to give to Jeff.

Karen Geldert, PE
Senior Project Studies Engineer
Illinois Department of Transportation
Region 5/District 8
618-346-3157
Fax: 618-346-3202
Email: Karen.Geldert@illinois.gov

Illinois Department of Transportation

Memorandum

DISTRICT ENGINEER	
PROG. DEV. ENGINEER	
STUDIES & PLANS ENGINEER	
PATTI LE BEAU	
MIKE PRITCHETT	
FRANK OPFER	
CINDY STAFFORD	
GEOMETRICS	
S & P SECRETARY	
FILE	
OFFICE COORDINATOR	
LAND ACQUISITION	
PROGRAMMING	
UTILITIES	
CADD	
DESIGN SQUAD JOB FILE	
CONS. SERVS. - AGRMT.	
CONS. SERVS. - P&P	
LOCATION STUDIES JOB FILE	
ENTERED ON ACCESS	

To: File

From: Bo Wedmore

Subject: Minutes of Meeting with Village of Godfrey

Date: October 22, 2010

IL 3 (Homer Adams Parkway) @ Delmar Avenue
IL 3 (Homer Adams Parkway) @ Pierce Lane/Frontenac Place
Village of Godfrey
Madison County

Attendees:

Mike McCormick – Mayor – Village of Godfrey
Gary Carruthers – Village Engineer/Director of Public Works – Village of Godfrey
Frank Opfer – Studies & Plans Engineer – IDOT
Wenda Southerland – Geometric Engineer – IDOT
Bo Wedmore – Geometric Studies Engineer – IDOT

The meeting took place at the Village of Godfrey municipal building at 10:15am on October 20th 2010.

We, IDOT, provided the Village with a strip print of each of the two developed options and the capacity analyses for each option.

We introduced Option A, signalized reconfiguration of the existing layout, and Option B, roundabout reconfiguration of the existing layout. We prefaced this data and plans with the fact the topo was old and did not cover everything we needed and the analyses were for the individual intersections and had not been analyzed as a system with VisSim yet. We did mention that additional analyses would be required to bring this project further along. Gary asked about funding and we introduce the idea that many other cities have applied for and obtained funding from CMAQ when planning/constructing roundabouts. Frank and Wenda also stated that this project was not funded or programmed at this time and would have to be worked into the normal line of project submission.

The Village agreed with the concept in Option A regarding teeing Delmar Ave. into IL 3 since IL 3 has the greater volume of traffic and is the marked preference route. Gary had some concern with the proximity of the created frontage road for access to Ridgedale and Norwood. I told him with making it more of an obstacle to get to the Ridgedale/Norwood roads that the traffic would diminish and shouldn't pose too many traffic conflicts.

Both Mike and Gary like the look and layout of the roundabout Option B. Gary really liked the concept of the free-flow rights at both roundabouts but had some concern about the divider being only painted and pondered whether some sort of raised median would be more appropriate. Wenda suggested that can be designed into the roundabouts. I mentioned that the free-flow right onto Pierce could be separated from the roundabout if they so desired but the one for the Delmar roundabout couldn't be separated without impact to Cook St. Both Mike and Gary realized the need to relocate Cook St. further north on Pierce so as not to conflict with entering/exiting roundabout traffic. They both also felt that the impact to the church property didn't seem too extensive or beyond reason.

Gary did ask about utility costs. We stated that none were investigated but would need to be reviewed when or if the project continues.

Gary asked for a pdf be sent of the two options and the scan of the relocated Cook St. sketch. We will provide these to the Village.

Attachments

JBW/S:\Geometric Studies In Progress\Wp\IL3\IL 3 @ Delmar Avenue\IL 3 @ Delmar Ave - Minutes of Meeting with Village of Godfrey 10-22-10.docx

Opt for B

The Village of
GODFREY

6810 GODFREY ROAD • BOX 5067
GODFREY • ILLINOIS • 62035
618 466-3324 • FAX 618 466-0890

November 4, 2010

Jeff / Wendy / Bo - Great job! Thanks Mike

Ms. Mary C. Lamie, P.E.
Deputy Director of Highways
Region 5 Engineer
Division of Highways District 8
1102 Eastport Plaza Drive
Collinsville, IL 62234-6198

Dear Ms. Lamie:

I met with Ms. Southerland and Mr. Wedmore of your department on October 20, where they shared with me the two options for Ill Rt. 3 at Pierce/Delmar.

These options were then shared with the Village Trustees at our Village meeting on November 1st. The unanimous opinion of the elected officials was in favor of option "B", the roundabout.

We are aware of the lack of funds at the present time, but would like to be put on a list for future consideration. The residents of the Village of Godfrey would be well served by this modernistic and non-traditional solution to this congestion problem.

Sincerely,

MJ McCormick

Mike McCormick
Mayor

cc: Dan Beiser

Illinois Department of Transportation

Memorandum

To:	**Cindy Stafford**	**Attn:**	**Annie Prothro**
From:	**Kirk Brown**	**By:**	**Matt Tebbe**
Subject:	**UTILITY INFORMATION**		
Date:	**8/20/2012**		

Route: FAU 8955/FAU 8956
Section: 60R-2
County: Madison
D-JOB #: D-98-069-12
Description: Intersection Reconstruction at IL 3 & W. Delmar and at IL 3 & Pierce Ln.

Ameren Illinois 700 Oakwood Avenue MC AL 832 Alton IL 62002-	**Type** gas & electric	J.U.L.I.E.: ☑ Aerial: ☑ Buried: ☑ Reimbursable: ☐
AT&T Illinois 160 West Division Street Maryville IL 62062-	**Type** communications	J.U.L.I.E.: ☑ Aerial: ☑ Buried: ☑ Reimbursable: ☐
Charter Communications, Inc. 941 Charter Commons Town & Country MO 63017-	**Type** cable tv	J.U.L.I.E.: ☑ Aerial: ☑ Buried: ☑ Reimbursable: ☐

Route: FAU 8955/FAU 8956
Section: 60R-2
County: Madison
D-JOB #: D-98-069-12
Description: Intersection Reconstruction at IL 3 & W. Delmar and at IL 3 & Pierce Ln.

Village of Godfrey 6810 Godfrey Road P.O. Box 5067 Godfrey IL 62035-	**Type** sanitary sewer J.U.L.I.E.: ☑ Aerial: ☐ Buried: ☑ Reimbursable: ☐
Illinois American Water Company 4436 Industrial Drive P.O. Box 186 Alton IL 62002-	**Type** water J.U.L.I.E.: ☑ Aerial: ☐ Buried: ☑ Reimbursable: ☐

Illinois Department of Transportation

Memorandum

To:	Jeff Keirn	Attn: Cindy Stafford.
From:	Joe Monroe	By: Craig Poettker
Subject:	FAU 8955/FAU 8956 (IL Route 3)	
Date:	August 1, 2013	

RE: Problem Areas
FAU 8955/FAU 8956 (IL Route 3)
Section 60R-2
Madison County
P98-004-13

There are some drainage issues at the corner of Homer Adams Pkwy and W. Delmar (southeast quadrant) that the inlets are ineffective and runoff floods the right turn lane from NB W. Delmar to EB Homer Adams. These inlets repeatedly require cleanout from Operations but fill back in or still drain slowly. Also, there is a clearance issue between W. Delmar and Rigdale Dr. by evidence of vehicle scrapping the pavement. Attached is an aerial and Street View from Google Maps showing the problem locations.


Map
Traffic
Elias Smith Funeral Homes
W Delmar Ave
Pierce Ln
Cook St
Frontage Rd
W Homer M Adams Pkwy
Ridgedale Dr
Norwood Ln
Frontenac Pl
Juniper Ave
Greenery
100 ft
50 m
Edit in Google Map Maker
Report a problem


+You Search Images Maps Play YouTube News Gmail Documents Calendar More
Sign in
1184 West Delmar Avenue, Godfrey, Illinois, United States
Address is approximate
Resurrection Lutheran Church
© 2012 Google Report a problem Image Date: September 2009
(14 items remaining) Downloading picture http://mt0.google.com/vt/lyrs=h@186000000&hl=en&src=app&x=65384&y=100258&z=18&s=Ga...
Internet | Protected Mode: On
100%


+You Search Images Maps Play YouTube News Gmail Documents Calendar More
Sign in
1184 West Delmar Avenue, Godfrey, Illinois, United States
Address is approximate
W Delmar Ave
© 2012 Google Report a problem Image Date: September 2009
(11 items remaining) Downloading picture http://mt0.google.com/vt/lyrs=h@186000000&hl=en&src=app&x=65384&y=100258&z=18&s=Ga...
Internet | Protected Mode: On
100%

Illinois Department of Transportation

Memorandum

To:	Jeff Keirn		
From:	Kirk Brown	By:	Frank Opfer
Subject:	Context Sensitive Solutions Concurrence		
Date:	July 31, 2014		

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection reconstruction along IL Route 3 at Delmar Lane and at Pierce Lane in Godfrey, Madison County.

It is anticipated that this project will involve reconstructing the intersections of IL Route 3 and Delmar Ave. and IL Route 3 and Pierce Lane. This work will most likely include reconstructing the intersections into potential roundabouts and possible frontage road realignment. This project has potential for ROW impacts.

This project qualifies as a reconstruction project as stated by Illinois statute 605 ILCS 5/4-219. Therefore, Location Studies recommends that you please concur with the decision to use the Context Sensitive Solutions (CSS) process for this project.

CSS
Concurrence: _____

Jeff Keirn, P.E.
Deputy Director of Highways, Region Five Engineer

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Connie Waggoner
Division Manager
Illinois Department of Natural Resources
Office of Realty and Environmental Planning
One Natural Resources Way
Springfield, IL 62702-1271

Dear Ms. Waggoner:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

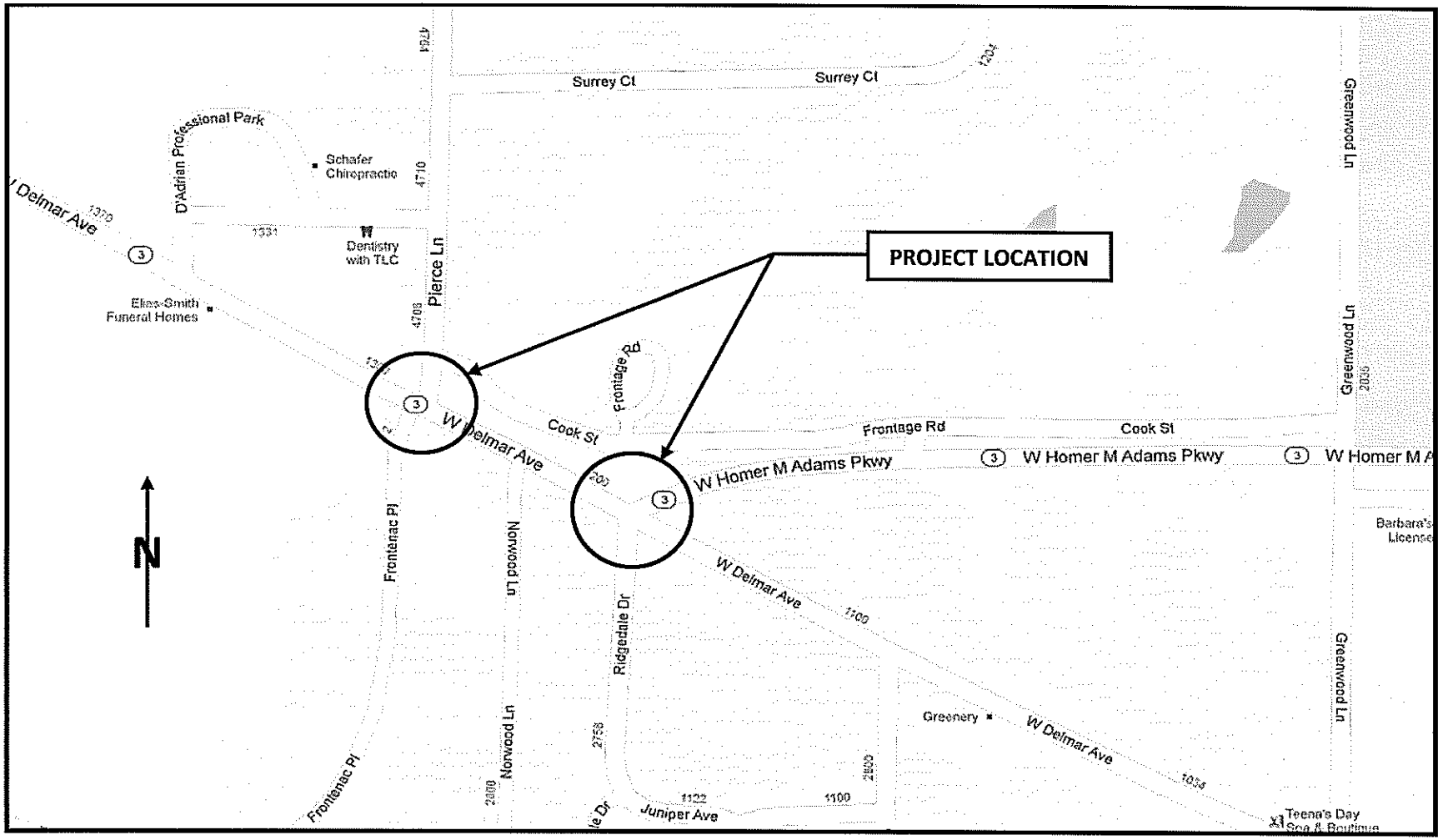
Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation

Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Ed Barsotti
Executive Director
League of Illinois Bicyclists
2550 Cheshire Drive
Aurora, IL 60504

Dear Mr. Barsotti:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

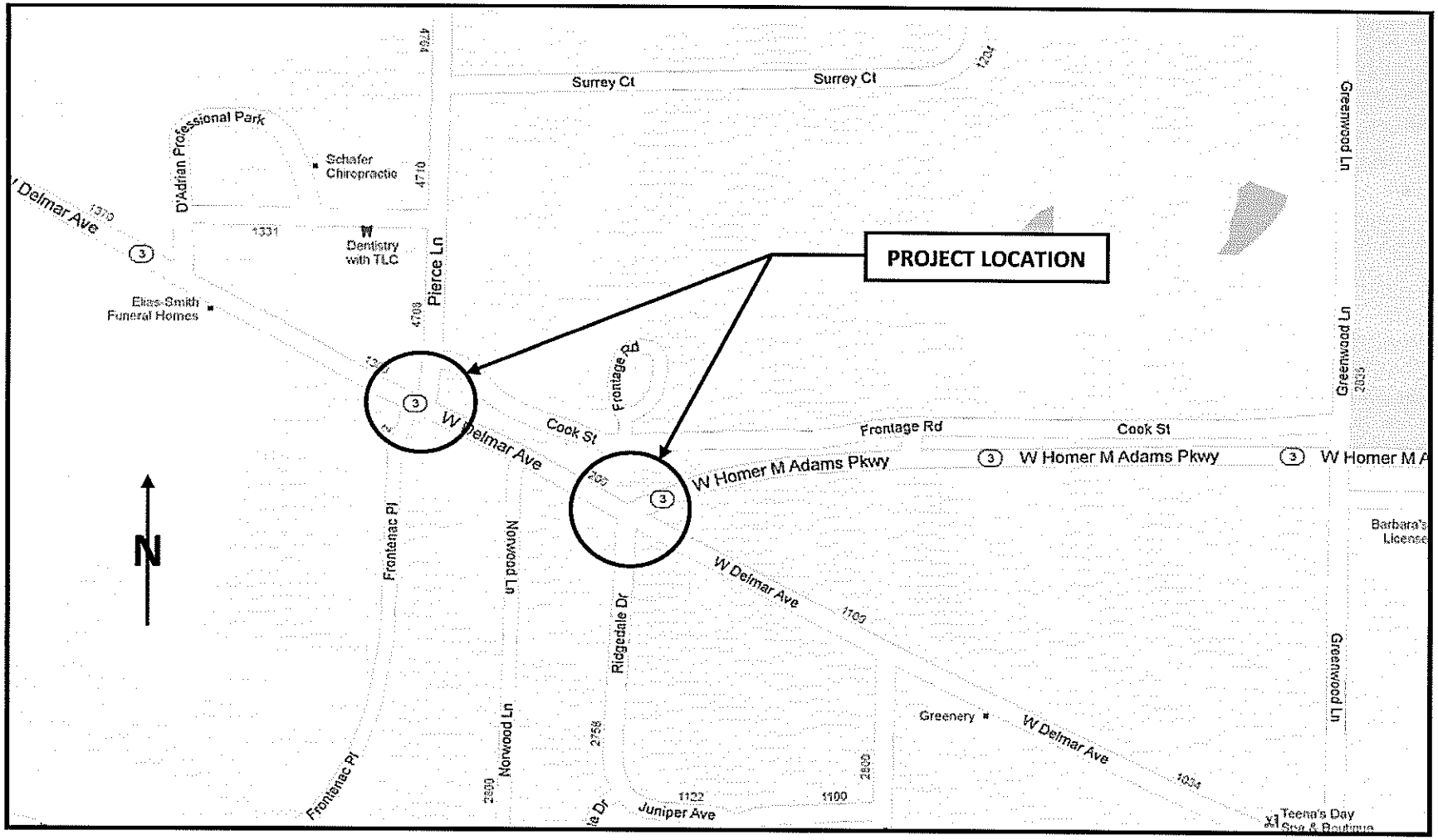
Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Jerry Kane
Managing Director
Madison County Transit
One Transit Way
P.O. Box 7500
Granite City, IL 62040

Dear Mr. Kane,

The Illinois Department of Transportation (IDOT) is currently studying IL Route 3 in Godfrey. This project will improve the intersection of IL Route 3 and Delmar Avenue and the intersection of IL Route 3 and Pierce Lane by addressing capacity and mobility for the 20 year projected traffic volumes. A location map has been provided for your reference. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

IDOT projects typically have three distinct phases. Phase I consists of developing the project scope, environmental studies and preliminary design of a project. Phase II consists of refining the design to develop contract plans and land acquisition. Phase III consists of the actual construction of the project. IDOT is currently at the very early stages of Phase I for this project.

At this time IDOT is requesting any Madison County Transit plans or studies that may affect IL Route 3 within the project limits, as this information will be helpful in developing this project. In addition, we ask that you provide any information on the existing and/ or future bus routes, existing and proposed bus stop locations, and peak number of busses stopping per hour at these locations.

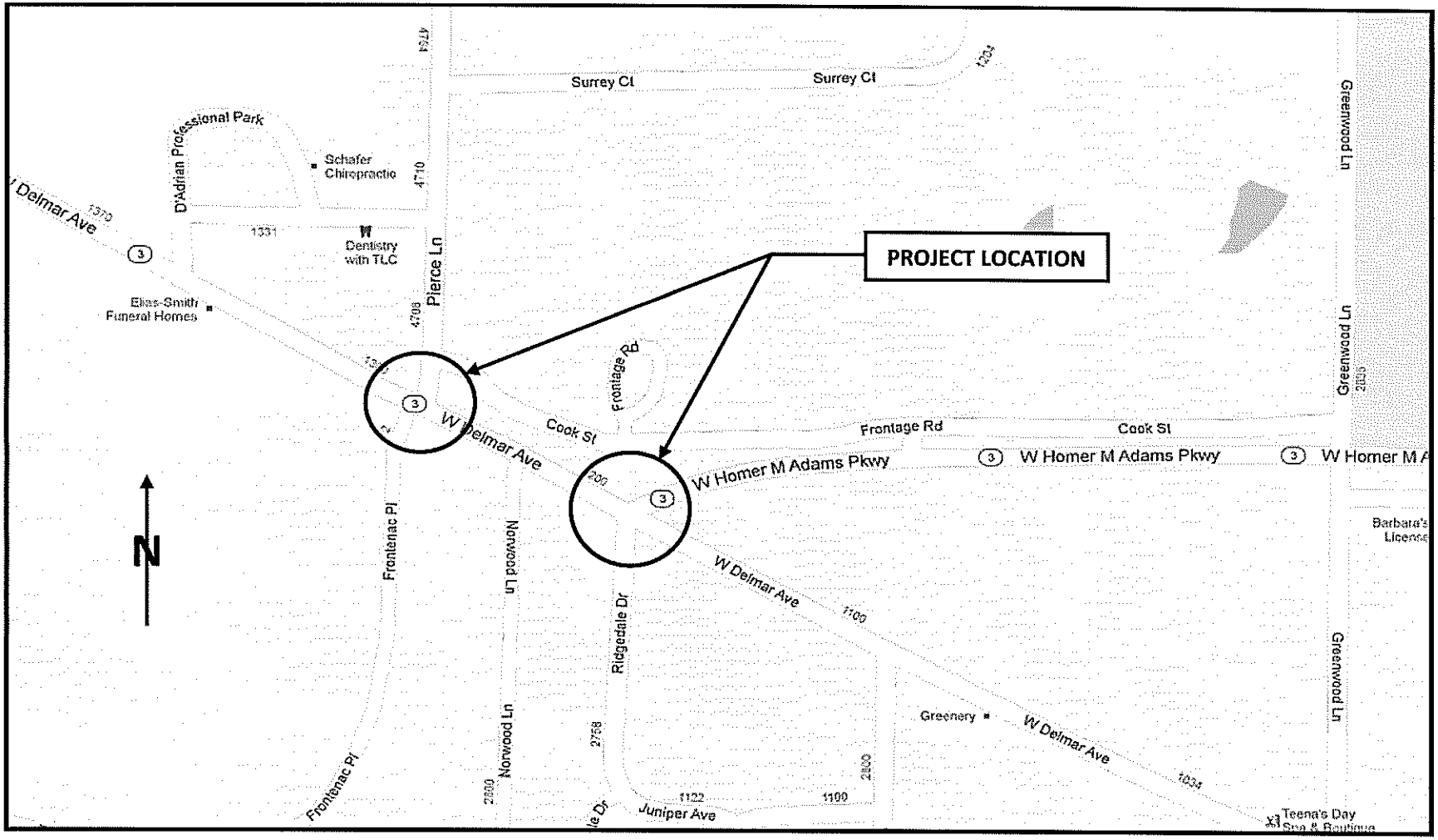
If there are any questions regarding the project, please contact Mr. Matt Meyer at 346-3160. We look forward to working with you on this transportation matter.

Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown, P.E.
Program Development Engineer

Attachment



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation

Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Steve Buchtel
Executive Director
Trails for Illinois
1639 Burr Oak Road
Homewood, IL 60430

Dear Mr. Buchtel:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

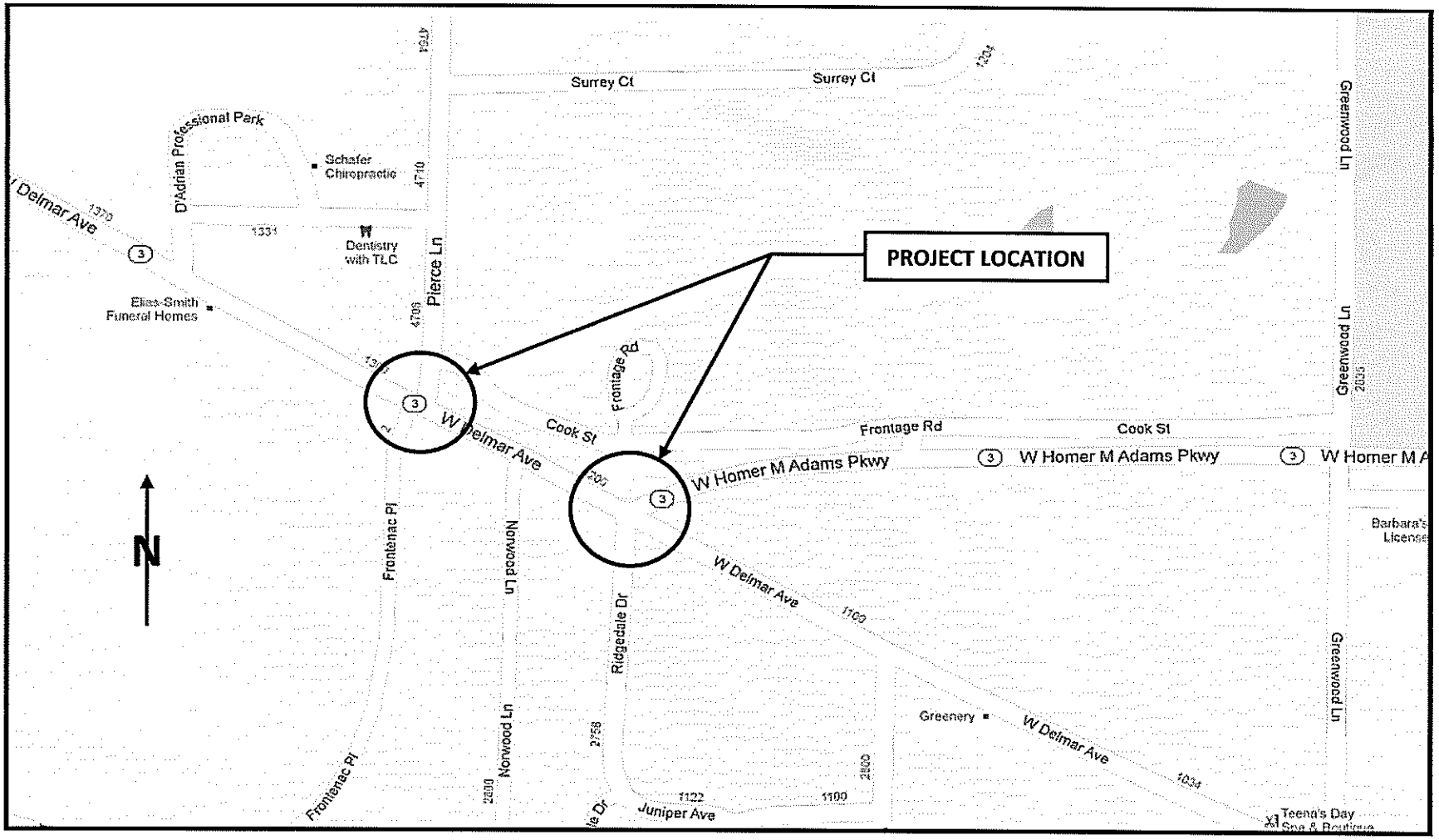
Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation

Telephone Conversation Record

Incoming Call: ☐ Date: February 25, 2015

Outgoing Call: ☒ Time: 10:15 ☒ AM ☐ PM

Project: IL Route 3 at Pierce/Delmar intersections

Caller Information:

Individual:	Cindy Stafford	Title:	Location Studies Engr
Organization:	IDOT	Location:	Collinsville
Phone No.:	618-346-3151	Contract No:	
Subject:	Bike/Ped accommodations	Job No:	
		Catalog No:	

Summary of Conversation:

Cindy Stafford contacted Mayor McCormick of Godfrey. She advised him that IDOT is required to consider bike and ped accommodations in projects. These accommodations can require a 20% match by a local agency, such as a municipality or bike agency like MCT, in order to construct them. She explained that the project team is about to further develop the intersection concepts and before a lot of time is spent designing bike and ped facilities, she wanted to get feedback from the Mayor to see if the village was open to the idea of sharing in the cost of bike and ped facilities. The Mayor said the village was open to sharing in the cost of those. Cindy indicated the project team would continue to design the concepts and would follow up with the mayor in a week or so with what they feel would be appropriate with these intersections and potential costs.

Comments / Follow-Up Obligations:

Cc: TWM
Village of Godfrey

By: Cindy Stafford

Agenda Item A-4

FAU 8955/ FAU 8956 (IL Route 3 at W. Delmar and at Pierce Lane)

June 25, 2015

This project was presented to initiate the project and to discuss the proposed bike and pedestrian accommodations. The scope of this project is to improve the intersections of IL 3 and W. Delmar and IL 3 at Pierce Lane. Improvements to these two intersections are being proposed to address traffic capacity issues that have resulted in crashes at these two intersections (majority are rear end crashes). Phase I (preliminary engineering) for this project is currently funded in the Department's FY 2016-2021 Proposed Highway Improvement Program, however Phase II (design) and Phase III (construction) are not.

It was explained that IL 3 is the main route within the project limits, and the current geometric configuration forces this main route to stop for W. Delmar, which has approximately half the ADT of IL 3. Because of all of the traffic generators in the area, peak traffic times in the morning and in the afternoon at both intersections have experienced capacity issues. Improvements are being proposed to improve the capacity at these two intersections in order to improve safety.

Due to the location and the possibility of impacts within the project limits, the Context Sensitive Solutions (CSS) public involvement process has been utilized. A Community Advisory Group (CAG) has been formed for this project and it includes over 20 members. The members are made up of local and county officials, business owners, residents, church organizations, and users of these intersection facilities. The 1st CAG meeting was held in October of 2014. At this meeting a Problem Statement was developed and agreed upon, context audit forms were completed, and four design alternatives were presented. The design alternatives included: no-build, minor improvements, signalized realignment, and dual roundabouts. The village and the majority of the CAG seemed to generally favor the dual roundabout alternative, with the exception of the Frontenac neighborhood association.

This project does meet warrants for bike and pedestrian accommodations, as there is school/ church, residential, and commercial generators in the project area. Currently pedestrian accommodations exist, however, no existing bike accommodations exist within the project area. Due to the ADT and type of facility, the policy suggests that a shared use path be provided to accommodate bikes and sidewalks be provided to accommodate pedestrians. IDOT met with the Village of Godfrey to discuss their willingness to participate in the cost and maintenance of bike and pedestrian facilities. Godfrey expressed that they have no existing or future plans to accommodate bikes within the project limits; therefore, they are not interested in participating or maintaining bike facilities within the project limits. Godfrey did express interest in participating in the cost and maintenance in pedestrian facilities within the project limits. An exhibit was presented showing a proposed pedestrian accommodation plan. This plan would connect with the existing pedestrian facilities and provide new connections for pedestrians within

the project limits. Cost was a major factor in the village's willingness to participate and maintain pedestrian accommodations for this project, so using the existing facilities and only providing accommodations where there is existing or future village plans for pedestrian accommodations were key factors for this design.

BDE agreed to the proposed pedestrian accommodations and recommended that a proposed graded shelf should be provided as well for possible future bike accommodations.

Matt Meyer

Thouvenot, Wade & Moerchen, Inc.

4940 Old Collinsville Road
Swansea, IL 62226
618.624.4488
618.624.6688

MEETING MINUTES

CONSULTING ENGINEERS | LAND SURVEYORS | PLANNERS

Subject:	Proposed Roundabout Discussion	
Client:	IDOT District 8	
Project:	IL Rte 3 at Delmar Ave & Pierce Lane in Godfrey	Project No.: TWM # 13 0624
Notes By:	SJK	
Meeting Date:	10-13-15	Meeting Location: IDOT Conf Room

Attendees	Company / Affiliation
Chris Fraley	FHWA
Paul Niedernhofer	IDOT BDE
Dwayne Ferguson	IDOT BDE
Cindy Stafford	IDOT D8
Matt Meyer	IDOT D8
Frank Opfer	IDOT D8
Wenda Southerland	IDOT D8
Rich Barbee	IDOT D8
Srinivas Yanamanamanda	CBB
Sheila Kimlinger	TWM

Topics Discussed:

Cindy started the meeting with a summary of the project to date, including a brief history of the project, public involvement to date, and status of design. Cindy said the main issue to discuss at this meeting was the south leg (Frontenac Pl) of the west roundabout (intersection of Pierce Ln). This leg has a projected 2036 level of service (LOS) of "F" during the peak AM hour due to very high traffic coming into the roundabout in advance of this particular subdivision entrance.

The group looked at the geometrics that Rich had completed to date, and Srinivas showed the original proposed roundabout design traffic model. The projected 2036 peak AM traffic is the critical case - the EB movements on IL Route 3 coming into the west roundabout are heavy, along with SB Pierce Lane also entering the roundabout. The projected 2036 AM peak hour delays on the south leg of the west roundabout (Frontenac) are 4 minutes on average (10 minute maximum worst case). Due to these peak hour delays, additional analysis was completed, and a bypass lane was added

at the SE quadrant for Frontenac traffic. With this design adjustment, the projected 2036 AM peak hour delays reduce to 65 seconds on average (with a 4 minute maximum worst case wait) to enter the roundabout. Additionally, if a bypass lane is added, it would help greatly with the angle of the merge into traffic, as the angle is not ideal in current configuration. The by-pass lane does cause property impacts to the adjacent residential property, bringing the sidewalk within about 20' of the building.

Matt noted that, even with the bypass lane, the south leg of the west roundabout still has a projected 2036 AM peak hour LOS of "E". Alternately, it has a projected 2036 AM peak hour LOS of "C" with a signalized configuration. Overall, the proposed roundabout design for the projected 2036 traffic has an AM peak hour "B" LOS. Matt added that an additional issue is that while the roundabout idea was well received by the Village of Godfrey and the Citizen's Advisory Group (CAG), it was not as well received by Frontenac Homeowner's Association.

When the project was initiated 5 years ago, the District, with the Village's encouragement, were developing a dual roundabout option to address existing and future capacity issues. The initial capacity analyses that were done at that time for these two intersection showed increasing capacity issues. However, Cindy said traffic and congestion seems to have been reduced over the past 5 years - probably due to the opening of IL Route 255, which likely has pulled through traffic from IL Route 3. Cindy said that the District was hesitant to impact the property at the southeast corner of the intersection since the existing and future existing no build conditions have a projected 2036 AM peak hour LOS that is acceptable. The proposed options do improve the overall situation, but not by as much as was originally anticipated. Cindy said IDOT has not yet coordinated with the Village on these modeling results, and the Mayor may not be in favor of the roundabout option once he is updated on the project development.

Chris noted that roundabouts are not particularly prevalent in District 8 yet. The roundabouts are approximately 500' apart. He felt some of the lane weaving action between the two roundabouts could add some confusion. Chris asked if lane improvements could solve some of these issues. For instance, add a dedicated second lane for WB IL Route 3 to turn NB onto Pierce Lane – essentially a long by-pass lane. This would likely require an exclusive lane prior to the first intersection. It was discussed in some detail, and it was decided that it could help eliminate some of the sideswipe type issues that could be present in the current configuration. Chris stressed it is important for public perception that roundabouts are successful from the beginning. This additional by-pass lane would not help with the Frontenac matter at all during the projected 2036 peak AM time.

The idea of speed bumps and metering to slow down traffic entering the roundabout was also briefly discussed, giving Frontenac more time to enter the roundabout, but discounted as not viable options.

Chris asked if extending the Frontenac by-pass merge point would help with the Frontenac projected 2036 AM peak hour LOS? Srinivas said it would not help, as eventually the lanes must merge anyway. An additional issue is that Norwood Lane is in the way. The group briefly discussed the idea of having Frontenac extended and/or reconfigured to enter IL Route 3 at a different location (either a new entrance further west (which was thought to be not feasible due to steep ravine/slopes), or combining with Norwood somehow (which would require rebuilding and widening Norwood, which was deemed too intrusive).

Cindy mentioned that the District was concerned with the cost of the project given that the existing and 20-year projected peak hour LOS is acceptable. Sheila said that there is an additional issue separate than just congestion. The CAG did feel there was confusion with so many different pocket turn lanes at and between these two intersections.

The group discussed the other main alternate which is realigning IL Route 3 to be the continuous roadway, keeping signals at both intersections. Turn lanes and through lanes would be adjusted for traffic needs. This alternate requires a frontage road be created to connect Norwood with the eastern signal. This takes the businesses along this area off the "mainline" and onto a "frontage" road, which they will likely object to. Chris said that since these business are 'destinations" and not 'pass-by' businesses, it shouldn't really affect them that much. Wenda also noted that this alternate does not require changes to Cook Street, which also reduced the cost and impacts. This alternative would still require signals, which have more conflict points than a roundabout design. A roundabout design reduces the conflict points and greatly reduces the more serious injury crash from occurring.

Paul said that neither option has a fatal flaw, and both intersection alternatives seem acceptable solutions to him, and Chris agreed. There are details/conflict points to clean up and improve, but generally they are both acceptable to BDE and FHWA.

The group did question why the cost of the double roundabout was so much more than the cost of the realignment/signal option. Matt explained that the District requires roundabouts to be constructed with new concrete pavement and possibly a new drainage system also. The realignment/ signal alternative could utilize the existing pavement for widening, which is much less costly. The group briefly discussed the idea of building the by-pass lane at Frontenac at a later date if needed to keep the cost and impacts down, but Cindy said that District 8 generally likes to build everything needed at one time. It is unlikely IDOT would come back in the near future for additional projects at the same location.

Chris said that they used to discourage roundabout use if the traffic on all the legs were not relatively equal, however, this is no longer the rule of thumb. Paul suggested Jason in District 1 could possibly take a look at the geometrics and the traffic modeling to see if he has any suggestions. Chris said that FHWA national could also look over and make possible suggestions. It was also suggested that the District's geometrics unit coordinate with Jeff Shaw with FHWA to get his input on the proposed dual roundabout design and the issues that are present. Cindy agreed that this coordination with FHWA was beneficial and that the District would initiate this coordination.

STUDIES AND PLANS -- TELEPHONE MEMORANDUM

PARTY CALLED:	Mayor McCormick (Village of Godfrey)
PARTY CALLING:	Matt Meyer (IDOT)

TIME: 3:00 ☐ AM ☒ PM DATE: 1-20-16

ROUTE(S):	IL 3 (FAU 8955/FAU 8956)
SECTION(S):	60R-2
JOB NO.(S):	P-98-004-13
COUNTY(S):	Madison

COMMENT(S):

Mayor McCormick was contacted so that the Department could update the Mayor on the IL 3 in Godfrey project and to clarify his stance on the bike/pedestrian accommodation participation. The Mayor was informed that the Department just completed the revised dual roundabout design and that we are planning to hold the 2nd CAG sometime in March. The Mayor agreed that this sounds good and that IDOT should let the Village know ahead of time so that they can schedule this meeting and reserve the room. Mr. Meyer agreed and stated that the Department would try to give one month of notice so that the Village of Godfrey and the CAG members have time to plan on attending this meeting. Next, Mr. Meyer asked to get clarification on if the Village would consider bike & pedestrian accommodations for this project. Previously the Mayor had stated that he was in favor of participating in sidewalks for pedestrians, but that bike accommodations did not really make sense, as this project would not connect to any existing facilities and this accommodation is not really in the plans for the Village at this time. Mr. Meyer noted that in the last meeting (10-26-15), the Department brought up the possibility of adding 1 ft. to the proposed 5 ft. sidewalks so that this 6 ft. facility could provide for both bike and pedestrian accommodations. Mr. Meyer asked if the Mayor would consider participating in this accommodation. Mayor McCormick stated that he would consider this accommodation, as accommodating bikes is something that Godfrey would like to provide for their community. These accommodations can be revised and obviously depend on funding availability for the Village of Godfrey. However, for the next CAG, the Department will reflect this

6 ft. bike and pedestrian accommodation to show to the CAG how this accommodation could be proposed with this project.

COPY(S) TO:

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

Design Vehicle.

Design Element Policy Value

Local to Arterial/Arterial to Local = WB-50.

Proposed Design Element Value

BUS-40.

Location(s) of Exception

IL 3 at the Connector road. Connector road is the access road between IL 3 and Cook St.

Crash History and Potential of Exception Location(s)

No reports found.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Greater diversion of Cook St. and Church's loss of additional use of their property.

Proposed Mitigation to Address Exception

Use a BUS-40.

Geometric Compatibility with Adjacent Sections

Compatible. Current configuration is less accommodating than proposed design.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

The Connector road is so short that no other feasible alternative provides better accessibility without unreasonable deformation of the intersection. WB-50 is accommodated with encroachment.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	03/29/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value	Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value	Cost of Using Proposed Element Value

Summary of Justification

Prepared By	Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

SB Connector road LOS.

Design Element Policy Value

LOS C or better.

Proposed Design Element Value

LOS D in the AM/PM 20 Year Design.

Location(s) of Exception

IL 3 at the Connector road.

Crash History and Potential of Exception Location(s)

No reports found.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Signalized intersection, lack of room for intersection and decrease in LOS of IL 3.

Proposed Mitigation to Address Exception

None.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative increases LOS for that leg.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	04/06/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value

Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value

Cost of Using Proposed Element Value

Summary of Justification

Prepared By

Date

APPROVAL/DISAPPROVAL

BDE Approval Date

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

Design speed.

Design Element Policy Value

30 MPH.

Proposed Design Element Value

25 MPH.

Location(s) of Exception

Intersection of Pierce Ln. and Cook St.

Crash History and Potential of Exception Location(s)

1 accident in 2011 with no injuries.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Storage bay and taper for right turn lane going through church entrance. Larger radius would impact church parking lot.

Proposed Mitigation to Address Exception

None. Queue length per HCS does not exceed bay length and taper and stop condition for Cook St.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative without impacting the church entrance.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	04/05/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value

Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value

Cost of Using Proposed Element Value

Summary of Justification

Prepared By

Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

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$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

Storage bay length.

Design Element Policy Value

115' bay required per BDE Fig. 36-3.J.

Proposed Design Element Value

90' storage bay.

Location(s) of Exception

Intersection of Pierce Ln. and Cook St. Cook St. right turn lane.

Crash History and Potential of Exception Location(s)

1 accident in 2011 with no injuries.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Storage bay and taper for right turn lane going through church entrance.

Proposed Mitigation to Address Exception

None. Queue length per HCS does not exceed bay length and taper.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative without impacting the church entrance.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	03/29/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value

Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value

Cost of Using Proposed Element Value

Summary of Justification

Prepared By

Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

Taper length for right turn lane.

Design Element Policy Value

9:1 ratio for 13' lane is 117' per BDE Fig. 36-3.J.

Proposed Design Element Value

75' taper.

Location(s) of Exception

Intersection of Pierce Ln. and Cook St. right turn lane.

Crash History and Potential of Exception Location(s)

1 accident in 2011 with no injuries.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Storage bay and taper for right turn lane going through church entrance.

Proposed Mitigation to Address Exception

None. Queue length per HCS does not exceed bay length and taper.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative without impacting the church entrance.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	03/29/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value

Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value

Cost of Using Proposed Element Value

Summary of Justification

Prepared By

Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

NB Frontenac Pl. LOS.

Design Element Policy Value

LOS C or better.

Proposed Design Element Value

LOS E in the AM 20 Year Design.

Location(s) of Exception

IL 3 at Frontenac Pl.

Crash History and Potential of Exception Location(s)

1 accident in 2008 with no injuries. Driver on Frontenac Pl. failed to yield to oncoming turning vehicle from Pierce Ln.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Additional lanes.

Proposed Mitigation to Address Exception

Was an LOS F but a right turn by-pass lane was established.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative increases LOS for that leg.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	03/29/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value

Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value

Cost of Using Proposed Element Value

Summary of Justification

Prepared By

Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Illinois Department of Transportation

Design Exception Request Project Identification

Print Form | E-mail | Reset Form

Key Route	Marked Route/Road Name	Contract #	State Job #
FAU 8955/FAU 8956	IL 3 / Delmar Ave. / Pierce Ln.	76F84	8-56067-0000

Section	County(ies)	Municipality
60R-2	Madison	Godfrey

Local Agency	LRS Section #	Permit Applicant	Permit #

Project Limits

The intersections of IL 3 @ Delmar Ave. and IL 3 @ Pierce Ln. and Cook St. adjacent.

Project Length	Current Posted Speed
	45 MP

Estimate of Cost	Functional Classification	Design Yr	Design Traffic ADT	Design Traffic DHV	
$6,700,000.00	Minor Arterial	2036	18,000	AM 1,270	PM 1,500

On the NHS System?	Structure Numbers	Type of Project (Construction, Reconstruction, 3R, 3P, SMART, HSIP, etc.)
☐ Yes ☒ No	N/A	Intersection Reconstruction

Brief Project Description

Reconstruct the intersections of IL 3 @ Delmar and IL 3 @ Pierce Ln. as roundabouts, relocate Cook St. to accommodate.

EXCEPTION DOCUMENTATION

Level of Exception ☐ **Level One** ☒ **Level Two**

Design Element for Which an Exception is Requested

NB Ridgedale Dr. LOS.

Design Element Policy Value

LOS C or better.

Proposed Design Element Value

LOS D in the AM 20 Year Design.

Location(s) of Exception

IL 3 at Ridgedale Dr.

Crash History and Potential of Exception Location(s)

1 accident in 2008 with no injuries. Vehicle on Ridgedale at stop hit from behind by another vehicle and then sideswiped by that vehicle's trailer as it fled the scene.

Cost of Using Policy Value	Cost of Using Proposed Exception Value

Impacts Other Than Cost of Using Policy Value

Additional lanes.

Proposed Mitigation to Address Exception

None.

Geometric Compatibility with Adjacent Sections

Compatible.

Potential Effects on Other Design Elements

None anticipated.

Potential Impacts on Mobility or Traffic Operations

None anticipated.

Summary of Justification for Exception

No other feasible alternative increases LOS for that leg.

Coordination Meeting Date	Prepared By	Date
04/05/17	Bo Wedmore	03/29/17

PAVEMENT/RESURFACING EXCEPTIONS

☐ **New Pavement** ☐ **Pavement Widening** ☐ **Resurfacing**

Design Period/ Expected Service Life	Design Year	Structural Design Traffic	%PV	%SU	%MU

Design Element Policy Value	Proposed Design Element Value

Location(s) of Exception

Cost of Using Policy Value	Cost of Using Proposed Element Value

Summary of Justification

Prepared By	Date

APPROVAL/DISAPPROVAL

BDE Approval Date

04/05/17

FHWA Approval Date (Level One)

Agenda Item B-3

FAU 8955/8956 (IL 3)
@ Delmar Ave/Pierce Ln
Madison County

April 5, 2017

This project was previously discussed at the June25, 2015 monitoring meeting.

Bo Wedmore, D8 Geometric Unit staff engineer, presented the requests for Design Exceptions. Discussion was held concerning the following:

1. LOS E in the 20 year design for Frontenac Pl. Previously an LOS F, but alleviated by means of a right turn by-pass lane but only obtained an LOS E. Frontenac Pl. is a dead end and no future development/increase in volume is expected.
2. LOS D in the 20 year design for Ridgedale Dr. Previously an LOS C, but due to increase ease of traffic from the right turn by-pass lane on Frontenac Pl. it decreased to LOS D. Ridgedale Dr. does have additional egress from other connections to the south, but no future development/increase in volume is expected.
3. Length of right turn bay storage and length of right turn taper for Cook St. @ Pierce Ln. The lengths needed would cause the turn lane and taper to happen through the church entrance onto Cook St. instead of outside the entrance as designed. HCS analysis shows only one vehicle length of queue.
4. Design Vehicle for IL 3 @ Connector Rd. Arterial to Local road requires a design vehicle of WB-50. Because of the short length of the Connector road and the tight geometrics required to tie into Cook St., a BUS-40 design vehicle is the largest vehicle that can make the turns without widening the intersection beyond feasible parameters. A WB-50 does physically make the turning movements with encroachment.
5. 25 mph Design Speed for Cook St. The design speed on Cook St. should be 30 mph. Due to the existing church parking lot and the way Cook St. needs to connect to Pierce Ln., radii for that design speed would cause impact issues with the parking lot. By using smaller radii, i.e. lower design speed of 25 mph, we can achieve a connection to Pierce Pl. and avoid impacting the parking lot.

BDE concurred with the Design Exceptions.

Bo Wedmore

BT

Mon 7/23/2018 2:16 PM

Brase, Tiffany T

RE: IL 3 Godfrey Roundabouts

To Meyer, Matthew C

You forwarded this message on 7/23/2018 3:07 PM.

Phish Alert + Get more add-ins

I've considered my email as the approval, unless you need a formal memo.

From: Meyer, Matthew C
Sent: Friday, July 20, 2018 9:09 AM
To: Brase, Tiffany T <Tiffany.Brase@illinois.gov>
Subject: RE: IL 3 Godfrey Roundabouts

Hello Tiffany,

I don't remember, but do you send us a formal memo saying that the LDS is approved? Or, does your e-mail act as the approval. Thanks Tiffany.

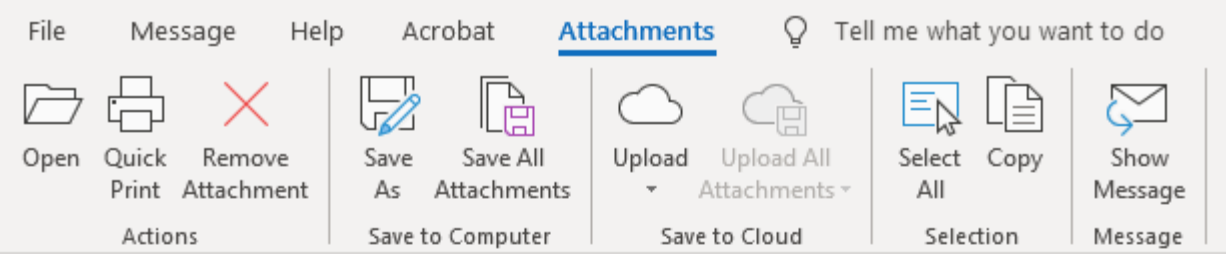
-Matt Meyer
3160

From: Brase, Tiffany T
Sent: Wednesday, January 10, 2018 7:56 AM
To: Meyer, Matthew C <Matthew.Meyer@illinois.gov>
Cc: Stafford, Cindy J <Cindy.Stafford@illinois.gov>
Subject: IL 3 Godfrey Roundabouts

Matt – I've reviewed the most recent submittal of the LDS. The Consultant has addressed all the comments from the previous reviews.

Please let me know if you have any questions.
Thanks

Tiffany Brase
Hydraulics Engineer
Illinois Department of Transportation - District 8
Phone: 618/346-3182
Fax: 618/346-3266
Tiffany.Brase@illinois.gov



[External] IL 3 in Godfrey - Roundabouts Center Island Treatment

RB

Rich Beran <rberan@godfreyil.org>
To Meyer, Matthew C
Cc 'Mike McCormick'

12/17/2018

You forwarded this message on 1/23/2019 9:56 AM.

Roundabout Landscaping.pdf
964 KB

Phish Alert + Get more add-ins

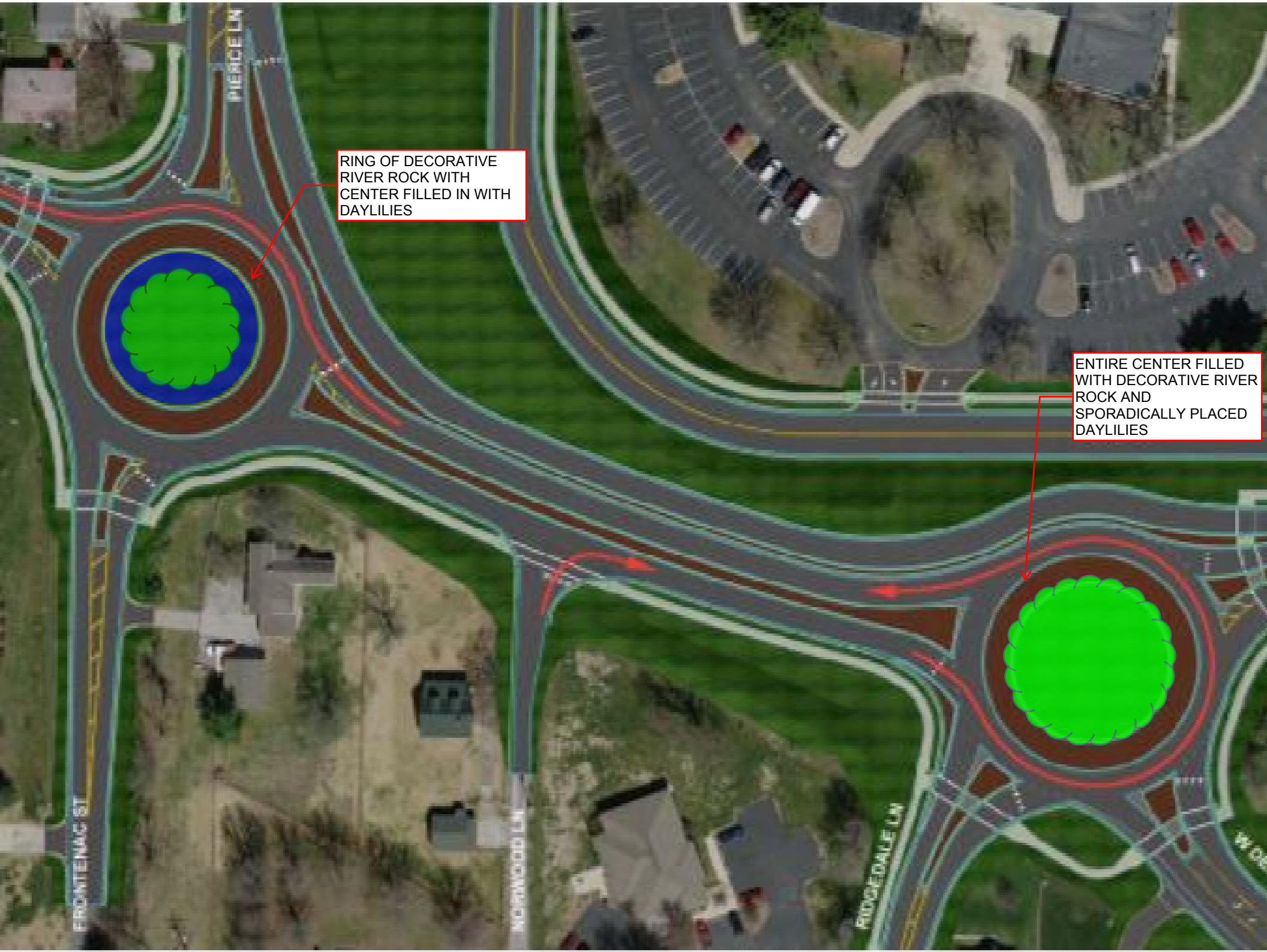
Matthew,

Thank you for the opportunity to provide input on the landscaping within the center of the proposed roundabouts. We have discussed the options believe that the best alternative is one that is both low cost to install and low cost to maintain after construction. We would like to landscape the center of the islands with a ring of decorative rock surrounding day lilies or decorative rock and day lilies scattered throughout the center. Attached is an example of the layout in mind and it would be preferred to have the landscaping of both islands match.

Thanks and let me know if you have any questions or concerns.

RICH BERAN, P.E.
VILLAGE ENGINEER
RBERAN@GODFREYIL.ORG
618.466.4319
FAX: 618.466.4519

GODFREY
ILLINOIS
You can see your future from here


RING OF DECORATIVE RIVER ROCK WITH CENTER FILLED IN WITH DAYLILIES
ENTIRE CENTER FILLED WITH DECORATIVE RIVER ROCK AND SPORADICALLY PLACED DAYLILIES
PIERCE LN
FRONTENAC ST
RIDGEDALE LN

Agenda Item 7

FAU 8955/ FAU 8956 (IL Route 3 at W. Delmar and at Pierce Lane)

December 19, 2018

This project was previously discussed at the April 5, 2017 monitoring meeting. This project was presented to get BDE concurrence on the clear zone policy and the suggested design.

Due to the design year ADT and design speed, the suggested 1:6H or flatter front slope clear zone for the frontage road (Cook St.) north of IL Route 3 is 10-12 ft. The proposed front slope on Cook St. at Sta. 106+50 is 1V:3H. Because this front slope is non-recoverable, a clear run-out width is required. The clear zone for the 1V:6H front slope of 10-12 ft. is applied per BDE policy. Also, the width of the non-recoverable 1V:3H slope is not considered as part of the clear zone. Because the distance between the back of curb on Cook St. and the back of curb on the IL Route 3 WB free-flow RTL is 16 ft., guardrail will be required to protect the clear zone and prevent vehicles on Cook St. from driving over the curb and conflicting with vehicles on the IL Route 3 WB free-flow RTL.

The back slope clear zone for vehicles traveling on the IL Route 3 WB free-flow RTL is 10 ft. for back slopes 1V:3H or flatter and 5 ft. for back slopes steeper than 1V:3H. This clear zone is attainable due to the 16 ft. distance between the back of curb on Cook St. and the back of curb on the IL Route 3 WB free-flow RTL.

BDE concurred with the clear zone policy and the suggested design.

Matt Meyer

Illinois Department of Transportation
Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois 62234-6198

July 8, 2019

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County
P-98-004-13

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane

The Honorable Mike McCormick
Mayor
Village of Godfrey
6810 Godfrey Road
Godfrey, IL 62035

Dear Mayor McCormick:

As you are aware, the Illinois Department of Transportation (IDOT) is in the process of finalizing the Preliminary Engineering studies for the proposed improvement of IL Route 3 at West Delmar Avenue and Pierce Lane. A location map has been enclosed for your reference. This project is currently not included in the Department's FY2019 to 2024 Proposed Highway Improvement Program. This project will be monitored and considered for inclusion in future programs.

The general scope of work for this improvement consists of improving the intersections of IL 3 at W. Delmar Ave. and IL 3 at Pierce Lane by reconstructing and replacing these intersections with roundabouts. During preliminary studies, the 6 ft. wide sidewalk installation and decorative roundabout center island treatments were identified by IDOT as requiring cost participation by the Village. This letter will serve as a Letter of Intent between the Village of Godfrey and IDOT confirming your concurrence with the proposed improvement plan and the cost and maintenance participation responsibilities.

Sidewalk
The Village of Godfrey will be responsible for 100% of the maintenance for all proposed sidewalks within the project limits that are constructed. The Department is responsible for 100% of the cost for removal and replacement of existing sidewalk affected by the roadway improvements. At locations along the project where the village has requested new sidewalk, a 20% cost participation is required plus 15% of this 20% cost participation for engineering.

Based on previous coordination with our office, it is the Department's understanding that the village desires new 6 ft. wide sidewalk (to accommodate both bikes and pedestrians) along IL Route 3 within the project limits (see attached map showing new sidewalk locations). Based on this, the amount of new sidewalk was estimated to be approximately 7,300 sq. ft. Therefore, the cost of the new sidewalk is estimated at $73,000. The Village of Godfrey's share of the costs would be approximately $16,800 (20% share of construction cost plus 15% engineering).

Roundabout Center Island Treatments

Based on previous discussion it is the Department's understanding that the village desires aesthetic landscaping in the center islands of both roundabouts. At this time the village has indicated it would prefer to landscape the center of the islands with a ring of decorative rock surrounding the outer edge. For estimating purposes, the Department has assumed perennial plantings with a 15 ft. ring of river rock for this landscaping treatment. The Village of Godfrey will be responsible for 100% of the maintenance for proposed decorative roundabout center island treatments that are implemented with this project. The village is also responsible for 100% of the cost for decorative roundabout center island treatments plus 15% for engineering cost. The cost of a 15 ft. ring of decorative rock around each of the two proposed roundabout center islands is approximately $40,000. Also based on this assumption, the cost of perennial plantings within the proposed roundabout center islands is approximately $2,500. The Village of Godfrey's cost responsibility for this landscaping would be $49,000 (construction cost plus 15% engineering). These landscaping costs are based on hypothetical quantities at this point in time. A more detailed estimate will be determined in Phase II when the landscaping plan is developed with the village's input.

The total estimated cost participation responsibility for the proposed new sidewalks and roundabout center island treatments is approximately $66,000. Please note the figures presented in this letter are estimates. The final amount of cost participation by the village will be based on actual bid prices.

At the end of this letter of intent, there is an area where you can state your concurrence to the cost participation items outlined above. This letter of intent will be used as a basis during Phase II contract plan preparation and land acquisition to develop or amend the existing Village/State agreement. Please return an original signed copy of this letter at your earliest convenience, or at the latest, within 30 days of its receipt.

If you have any question or need additional information concerning the improvement, please contact Sarah Wiszkon at 618-346-3157 or Matt Meyer at 618-346-3160.

Sincerely,

Keith Roberts

Keith Roberts, P.E.
Acting Region Five Engineer

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane (Replacing with Roundabouts).

The estimated village participation for the new proposed 6 ft. sidewalk is $16,800 along with jurisdiction and maintenance.

Concur: _____

Do not concur: _____

Title: _____

Date: _____

The estimated village participation for the proposed roundabout center island treatments is $49,000 along with jurisdiction and maintenance.

Concur: _____

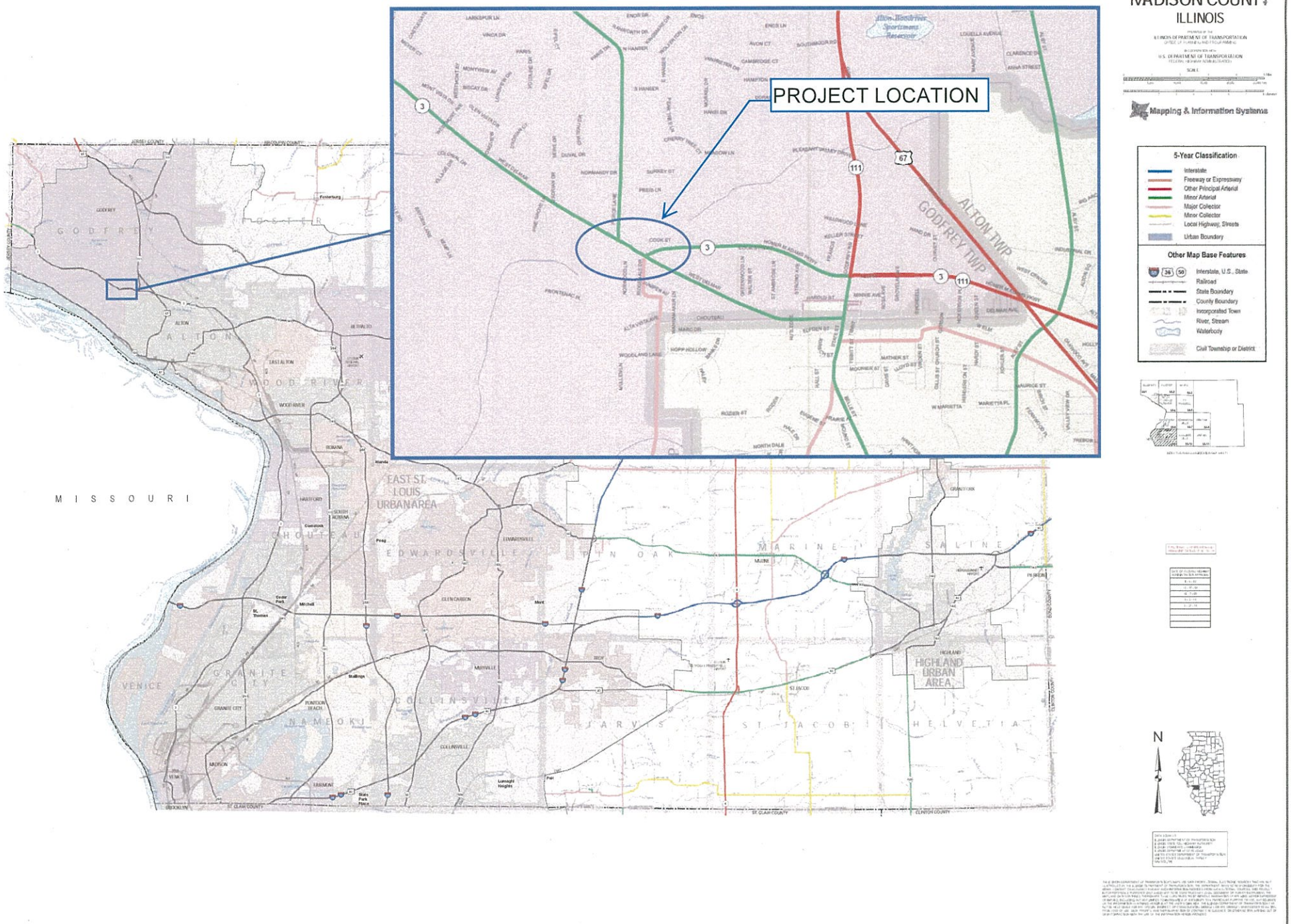
Do not concur: _____

Title: _____

Date: _____

Return To:
Keith Roberts
Acting Region Five Engineer
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234
Attn: Cindy Stafford

or fax to: 618-346-3119
Attn: Keith Roberts/Cindy Stafford


5YEAR CLASSIFICATION MAP
MADISON COUNTY
ILLINOIS
Mapping & Information Systems
PROJECT LOCATION
ALTON TWP.
GODFREY TWP.
MISSOURI
EAST ST. LOUIS URBAN AREA
HIGHLAND URBAN AREA
5-Year Classification
Interstate
Freeway or Expressway
Other Principal Arterial
Minor Arterial
Major Collector
Minor Collector
Local Highway, Streets
Urban Boundary
Other Map Base Features
Interstate, U.S., State
Railroad
State Boundary
County Boundary
Incorporated Town
River, Stream
Waterbody
Civil Township or District
N

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane (Replacing with Roundabouts).

The estimated village participation for the new proposed 6 ft. sidewalk is $16,800 along with jurisdiction and maintenance.

Concur: M J McCarthy

Do not concur: _____

Title: MAYOR

Date: 2/5/2020

The estimated village participation for the proposed roundabout center island treatments is $49,000 along with jurisdiction and maintenance.

Concur: M J McCarthy

Do not concur: _____

Title: MAYOR

Date: 2/5/2020

Return To:
Keith Roberts
Acting Region Five Engineer
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234
Attn: Cindy Stafford

or fax to: 618-346-3119
Attn: Keith Roberts/Cindy Stafford

From: Nancy Culiberk
Sent: Tuesday, March 10, 2020 9:21 AM
To: Meyer, Matthew C <Matthew.Meyer@illinois.gov>
Cc: Stafford, Cindy J <Cindy.Stafford@illinois.gov>; Wiszkon, Sarah L <Sarah.Wiszkon@illinois.gov>; Sheila J. Kimlinger <skimlinger@twm-inc.com>; Shelley Dintelman <sdintelman@efkmoen.com>
Subject: [External] RE: Godfrey Roundabout

Dear Matthew,

I very much appreciate your detailed reposnse email! I love Godfrey and I love our home. Nothing would be more disappointing than to move. I am so hopeful that this turns out as a great benefit. I have looked online at the plans and the sidewalk would be a benefit. I cannot tell, and I am not sure if you can provide any information on the distance from our driveway to the beginning of the construction. I can't tell if the roundabout extends down our street more or closer to center of Rte 100 and Pierce Lane? It may be entirely too premature to say and really not for public knowledge at this time. I agree that sound may actually improve with the removal of stalled traffic due to lights. I also believe the noise issue needs to be addressed in a separate forum and not with the product of the roundabout. I am pleased the project will result in the removal of traffic lights.

I think as we all age we consider future generations and would like to leave things a little better than they were. I truly hope that Godfrey can maintain its rural feel but attract younger families. It has so much to offer. The only way to ensure this is to be accountable for our part. I am invested in making sure that I will support this project to the best of my ability but voice concerns when appropriate.

Again, I appreciate your thorough response and hope this turns out the way that I envision or close to it!

Sincerely,

Nancy and John Culiberk
1 Frontenac Place
Godfrey IL, 62035
Ph:618-304-1589

Nancy Culiberk BSN,RN,CCTC
Barnes Jewish Hospital
Liver Transplant Coordinator
Ph: 314-362-5376/ Fx: 314-362-5468
-Please consider organ donation

From: Meyer, Matthew C [mailto:Matthew.Meyer@illinois.gov]
Sent: Tuesday, March 10, 2020 8:55 AM
To: Nancy Culiberk <nancy.culiberk@bjc.org>
Cc: Stafford, Cindy J <Cindy.Stafford@illinois.gov>; Wiszkon, Sarah L <Sarah.Wiszkon@illinois.gov>; Sheila J. Kimlinger <skimlinger@twm-inc.com>; Shelley Dintelman <sdintelman@efkmoen.com>
Subject: RE: Godfrey Roundabout

Dear Mrs. Culiberk,

Thank you for your e-mail and input concerning the IL 3 in Godfrey project. I would like to address your comments concerning this project.

A Location Drainage Study has been performed for this project to assure that positive drainage is achieved within the project limits and is consistent with existing drainage patterns. The preliminary proposed drainage design at the IL 3/ Frontenac Place intersection that is tributary to IL Route 3 will be sent to the east along the south side of IL Route 3 through a proposed storm sewer system. Storm runoff on Frontenac Place Drive and tributary areas that currently flow to the south along the ditch on Frontenac Place will continue to follow those patterns.

As part of the preliminary engineering and environmental study for this project, the department coordinated with the Illinois Natural History Survey (INHS) and US Fish and Wildlife Service (USFWS). Through the Natural Resources Review, it was found that no record of State-listed threatened or endangered species exist in the vicinity of the project.

An air and noise analysis was conducted for this project. This project does not add new through or auxiliary lanes. This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factors that would cause an increase in vehicle emissions or noise relative to the no-build alternative. According to the FHWA (Federal Highway Administration), roundabouts often provide environmental benefits by reducing vehicle delay and the number and duration of stops compared with signalized or all-way stop-controlled intersections. Even when there are heavy volumes, vehicles continue to advance slowly in moving queues rather than coming to a complete stop. This can reduce noise and air quality impacts and fuel consumption significantly by reducing the number of acceleration/deceleration cycles and the time spent idling (https://safety.fhwa.dot.gov/intersection/innovative/roundabouts/fhwasa10006/). Also, roundabouts can have traffic calming effects on streets by reducing vehicle speeds. Instead of traveling the speed limit through a green light, vehicles will need to slow down to negotiate the roundabout. Reducing vehicle speeds at the intersection may also help reduce vehicle noise.

The Village of Godfrey has let the Department know that they are interested in providing aesthetic center island treatments for both roundabouts proposed for this project. The treatments that have been discussed include a ring of decorative rock and perennial plantings within the proposed roundabout center islands. Also included with this improvement is a 6 ft. sidewalk for bike and pedestrian accommodations. These concepts are preliminary and subject to change during development of the contract plans for construction.

The proposed improvements to these intersections will reduce delays, improve safety, and provide pedestrian and bicycle accommodations through the project limits. Four options were studied, and the dual roundabouts option improves traffic delays and safety to a greater extent than the other

options. Roundabouts provide substantial safety and operational benefits compared to other intersection types, most notably a reduction in severe crashes. The dual roundabouts option does have the greatest initial cost due to new pavement and new drainage systems, but it does not have the future maintenance costs of traffic signals. The roundabout option was also selected as the preferred option by the Community Advisory Group (CAG), which was made up of local residents, businesses, government, development organizations, neighborhood organizations (including a representative from Frontenac Place), and commuters.

The Department has held 2 Community Advisory Group (CAG) meetings and a Public Involvement Meeting for this project. No additional Public Meetings are currently scheduled, however you can contact me concerning any future questions you may have concerning this project. I hope that my e-mail has helped answer some of your concerns for this project. This e-mail and response will be included and documented in the Public Involvement Record for this project. If you have any additional questions or comments, please contact me. If you haven't already visited the project website, you can find more information here: http://www.idot.illinois.gov/projects/IL-3-Godfrey. Thank you again for your input and interest in this project.

Matthew C. Meyer
Illinois Department of Transportation
Project Studies Engineer
(618) 346-3160

From: Nancy Culiberk
Sent: Wednesday, March 04, 2020 8:25 AM
To: matthew.meyer@ill.gov
Subject: Godfrey Roundabout

Hello Matthew,

I will introduce myself as a lifetime Godfrey resident and homeowner at 1 Frontenac Place in Godfrey for the last 25 years. I have been closely following the plans for the roundabout with some(more than some) apprehension. Several concerns that I have are drainage plans as well as maintaining property value/visual appearance since the location will be right up the street. I hope to attend the next meeting and perhaps with your response you can provide details of the next meeting planned when Godfrey residents can voice questions or concerns. The water flow down the street into our driveway necessitated us to replace the half of our driveway closest to the street so that it did not end up in our garage and subsequently, basement. The drainage of Frontenac has been sorely lacking primarily because it made itself a private street- not a new issue but with the road upgrades and global warming the volume has markedly increased over the last 20 years. The street on Norwood is horrendous. When I describe 3" of water in the garage that went into the basement, I am not exaggerating. I am going to video the next downpour and save to show the volume that comes on both sides of the street. There is a lot of erosion as a result. One of the biggest draws of living in Godfrey has been that you are close to the Alton Bridge but have the benefit of living more rurally. Preservation of wildlife is very important to me. There are many deer and woodpeckers that frequent our back yard. We love to work outside in our garden and sit out by our pool. I have noticed an increase in noise pollution where we live and it is a shame. Regardless of your views, when there is a lapse in consideration for people who are located near high traffic areas, people move. People who own their homes. I hope that the landscaping includes some native plants/trees that preserve our ever diminishing resources. I don't think most people are concerned about the impact construction has on this but I want to plan for the future generation. This could be a great idea or it could compromise a select few. I realize that the goal is to provide traffic flow for a high volume of cars and my concerns are probably not high on the priority list. I have watched Godfrey and Alton decline since I attended St. Ambrose school 40+ years ago. It has not been easy to watch. As a result my husband and I have considered moving because of the increase in crime and drugs, storage sheds and rental property. I truly hope that this does not turn into an eyesore. As a homeowner, it is people such as myself that I would hope that Godfrey would like to remain in their homes.

I look forward to hearing back from you and hope I have the opportunity to voice my concerns in a public forum.

Respectfully,

Nancy and John Culiberk
#1 Frontenac Place
Godfrey IL, 62035
Ph: 618-304-1589

Nancy Culiberk BSN,RN,CCTC
Barnes Jewish Hospital
Liver Transplant Coordinator

Ph: 314-362-5376/ Fx: 314-362-5468
-Please consider organ donation

From: Stafford, Cindy J
To: mayor@godfreyil.org
Cc: Wiszkon, Sarah L; Meyer, Matthew C; Owen, Billie J; Freimuth, Phillip D
Subject: IL 3 at Delmar/Pierce (Godfrey Roundabouts) update
Date: Wednesday, January 13, 2021 11:42:46 AM

Good morning Mayor,
I wanted to let you know of some good news regarding the project for the Godfrey Roundabouts. We should be getting Design Approval on the Project Report very soon, which will represent the completion of Phase I (preliminary engineering). Once Design Approval occurs, the department can proceed with Phase II, which is preparation of contract plans, specifications and land acquisition. PH II activities and engineering as well as construction are included in the Departments FY 2021-2026 Proposed Highway Improvement Program.

As we mentioned to your office in previous discussions, the staging of construction in order to convert the two signalized intersections to roundabouts will be complex. We have a concept that was developed in PH I that will allow for mainline traffic to continue through the project area during construction. Traffic from some of the side streets may have to use alternate routes during some of the stages. These details will be further refined during PH II project development and will be coordinated with your office during plan development.

Thank you for all your support for this project. If you have any questions about the Project Report, please don't hesitate to contact me. During PH II, the Project Engineer overseeing the plan development will be Billie Owen Billie.owen@illinois.gov and the Project Manager will be Phil Freimuth Phillip.Freimuth@illinois.gov.

Regards,

Cindy Stafford, P.E.
Location Studies Engineer
Illinois Department of Transportation
Region 5/District 8
(618) 346-3151

EXHIBIT I – CRASH ANALYSIS

CRASH ANALYSIS

FAU Route 8955 & FAU Route 8956
(IL Route 3 at Delmar Avenue & Pierce Lane)
Section 60R-1
Contract No. 76F84
Madison County

November 2018

Prepared For:

Illinois Department of Transportation
District 8
1102 Eastport Plaza Drive
Collinsville, IL 62234

Submitted By:

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4940 Old Collinsville Road
Swansea, IL 62226
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1.0 INTRODUCTION

The purpose of this study is to analyze the crashes that occurred in a seven-year period at the intersection of West Delmar Avenue (Illinois Route 3) and Pierce Lane and the intersection of West Delmar Avenue and West Homer M. Adams Parkway (Illinois Route 3) in the Village of Godfrey, Madison County, Illinois. The limits of this study include all legs of both intersections. See Exhibit A for Location Map.

2.0 EXISTING ROADWAY CHARACTERISTICS

The project limits generally consist of two major intersections and their approach legs. The eastern intersection (Intersection 1) is the intersection of West Delmar Avenue (east and west legs), West Homer M. Adams Parkway (north leg) and Ridgedale Drive (south leg). At this intersection Illinois Route 3 utilizes the north and west legs of the intersection. The western intersection (Intersection 2) is the intersection of West Delmar Avenue (east and west legs), Pierce Lane (north leg) and Frontenac Place (south leg). At this intersection Illinois Route 3 utilizes the east and west legs of the intersection. The south leg of the intersection leads to a residential area.

Intersection 1 (East)

West Leg – Illinois Route 3 (West Delmar Ave.)

- Consists of two 11-foot through lanes with 8-foot aggregate shoulders and open ditches. Additional pavement width is provided at the intersection for a dedicated left turn lane for eastbound traffic turning north and a dedicated left turn lane for westbound traffic approaching the west intersection.
- The posted speed is 35 MPH.
- The functional classification is minor arterial.

East Leg – West Delmar Ave

- Consists of two 11-foot through lanes. This leg has 6-foot earthen/aggregate shoulders and open ditches on the north side and a 6-foot paved shoulder with curb and gutter on the south side. Additional pavement width is provided for the median islands required for the dedicated turn lanes on the west leg of the intersection.
- The posted speed is 35 MPH.
- The functional classification is minor arterial.

North Leg – Illinois Route 3 (Homer M. Adams Parkway)

- Consists of two 11-foot though lanes with an 11-foot bi-directional left-turn lane and 4-foot paved shoulders and open ditches on each side. Additional pavement width is provided at the intersection to provide a dedicated right-turn lane.
- The posted speed is 45 MPH.
- The functional classification is minor arterial.

South Leg – Ridgedale Drive

- Consists of two 10-foot lanes with earthen shoulders and open ditches on each side.
- The posted speed is 30 MPH.
- The functional classification is major collector.

Intersection 2 (West)

West Leg – Illinois Route 3 (West Delmar Ave.)

- Consists of two 11-foot through lanes with a 11-foot bi-directional left-turn lane, 4-foot paved shoulders and curb and gutter on each side. There is also a 5-foot sidewalk on the north side of the roadway. Additional pavement width is provided at the intersection to provide a dedicated left turn lane for eastbound traffic turning north and also a dedicated left turn lane for westbound traffic turning south into a commercial entrance for the church.
- The posted speed is 35 MPH.
- The functional classification is minor arterial.

East Leg – Illinois Route 3 (West Delmar Ave.)

- Consists of two 11-foot through lanes with 8' aggregate shoulders and open ditches. Additional pavement width is provided at the intersection for a dedicated left turn lane for westbound traffic turning south and a dedicated left turn lane for eastbound traffic approaching the east intersection.
- The posted speed is 35 MPH.
- The functional classification is minor arterial.

North Leg – Pierce Lane

- Consists of two 13-foot through lanes with curb and gutter. There is also sidewalk on the west side of the road. Additional pavement width is provided at the intersection for a dedicated left turn lane for southbound traffic.
- The posted speed is 30 MPH.
- The functional classification is minor arterial.

South Leg – Frontenac Place

- Consists of two 10-foot lanes with earthen shoulders and open ditches on each side.
- The posted speed is 30 MPH.
- The functional classification is local road.

The land use of the area surrounding the project consists of residential, church, commercial, and church/school. Residential land use is sporadic along Illinois Route 3, although it is predominately located along the south side of West Delmar Avenue. Churches and commercial properties are located between the two intersections and along West Homer M. Adams Parkway on the south side of the roadway. A business park is situated to the northwest of the project. North of the project limits is a church with a preschool through 8th grade school and a few commercial properties.

3.0 CRASH SUMMARY – ENTIRE PROJECT LIMITS

IDOT compiles crash reports submitted from local and state police. All crash reports received from IDOT within the project limits were analyzed over a seven-year study period (2008-2014) to determine potential contributing factors for these crashes.

A couple items to note are that, not all crashes are reported and some crash reports may be recorded inaccurately as errors may occur due to lack of training, data entry, subjectivity, etc. The total number of crashes within the project limits for 2008, 2009, 2010, 2011, 2012, 2013 and 2014 are 14, 12, 11, 17, 10, 13, and 13, respectively, totaling 90.

A. Types of Crashes

Over the seven-year study period crash types were grouped as shown in the table below. Rear end crashes were the most frequent, accounting for 72 percent of the total crashes. Turning type crashes were the second most frequent accounting for 9 percent of the total crashes. The remaining types of crashes accounted for 19 percent of the total crashes, as shown in the table below.

Crash Types By Year (Entire Project Limits)																
Crash Type	2008		2009		2010		2011		2012		2013		2014		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Rear End	11	79%	11	92%	5	46%	10	58%	9	90%	11	84%	8	62%	65	72.2%
Turning	1	7%	1	8%	1	9%	2	12%	0	0%	1	8%	2	15%	8	9.0%
Animal	1	7%	0	0%	2	18%	0	0%	0	0%	0	0%	3	23%	6	6.7%
Fixed Object	0	0%	0	0%	1	9%	2	12%	1	10%	0	0%	0	0%	4	4.4%
Angle	0	0%	0	0%	1	9%	2	12%	0	0%	0	0%	0	0%	3	3.3%
Sideswipe	0	0%	0	0%	0	0%	1	6%	0	0%	1	8%	0	0%	2	2.2%
Overturn	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Other noncollision	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	90	100%

B. Crash Conditions

In addition to studying crash types, weather conditions, roadway surface conditions, and light conditions were also studied. The majority of crashes during the study period occurred during clear weather conditions (83 percent), dry surface conditions (81 percent), and daylight conditions (71 percent). The other weather conditions, surface conditions, and light conditions are shown in the tables below. Since the majority of crashes occurred on dry pavement during clear weather and daylight conditions, weather, surface, and light conditions did not significantly impact the crashes that occurred during the study period.

Crashes by Weather Conditions (Entire Project Limits)																
Condition	2008		2009		2010		2011		2012		2013		2014		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Clear	12	86%	9	75%	10	91%	15	88%	9	90%	9	69%	11	85%	75	83.3%
Rain	1	7%	3	25%	1	9%	1	6%	1	10%	2	15%	2	15%	11	12.2%
Snow	0	0%	0	0%	0	0%	1	6%	0	0%	1	8%	0	0%	2	2.2%
Fog/smoke/haze	0	0%	0	0%	0	0%	0	0%	0	0%	1	8%	0	0%	1	1.1%
Other	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	90	100%

Crashes by Surface Conditions (Entire Project Limits)																
Condition	2008		2009		2010		2011		2012		2013		2014		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Dry	12	86%	9	75%	10	91%	14	82%	8	80%	10	77%	10	77%	73	81.1%
Wet	2	14%	3	25%	1	9%	2	12%	2	20%	2	15%	2	15%	14	15.6%
Snow/Slush	0	0%	0	0%	0	0%	1	6%	0	0%	1	8%	1	8%	3	3.3%
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	90	100%

Crashes by Light Conditions (Entire Project Limits)																
Condition	2008		2009		2010		2011		2012		2013		2014		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Daylight	8	57%	10	83%	6	55%	13	76%	7	70%	12	92%	8	62%	64	71.1%
Darkness, lighted road	6	43%	1	8%	4	36%	2	12%	0	0%	1	8%	2	15%	16	17.8%
Darkness	0	0%	0	0%	0	0%	2	12%	2	20%	0	0%	2	15%	6	6.7%
Dawn	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	1	8%	2	2.2%
Dusk	0	0%	0	0%	0	0%	0	0%	1	10%	0	0%	0	0%	1	1.1%
Unknown	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	0	0%	1	1.1%
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	90	100%

C. Injury Crashes

The number of injuries during the seven-year study period totaled 33, none of which were fatalities.

Illinois traffic crash reports follow the KABCO injury scale established by the American National Standards Institute. The severity of the injury is determined by the police officer at the scene. Below are the definitions for each of the injury classifications:

- Type K - Fatal (one or more deaths occurred)
- Type A - Incapacitating Injury (i.e. broken limbs)
- Type B - Non-incapacitating Injury (i.e. abrasions, bruising)
- Type C - Reported, not evident (i.e. stiff neck)
- Type O - No indication of injury

Of the 33 injuries reported, the breakdown is as follows: 4 Type A, 8 Type B, 21 Type C and 0 Type K.

The majority of injuries were sustained during rear end crashes, which was also the most common type of crash. Of the injuries sustained during these crashes, the most common type of injury was Type C, which is consistent with a rear end crash. The following table details injuries vs. crash type.

Injury Crashes - Entire Project Limits (2008-2014)						
Crash Type	Number of Injuries	Injuries				Percent of Total
		Type A	Type B	Type C	Type K	
Rear End	26	3	6	17	0	78.8%
Turning	3	0	0	3	0	9.1%
Overturn	1	1	0	0	0	3.0%
Fixed Object	1	0	1	0	0	3.0%
Other noncollision	1	0	1	0	0	3.0%
Angle	1	0	0	1	0	3.0%
Animal	0	0	0	0	0	0.0%
Sideswipe	0	0	0	0	0	0.0%
Total	33	4	8	21	0	100%

D. General Discussion

According to the ***Highway Safety Manual***, about 50 percent of all urban crashes are related to intersections. The manual also discusses “improper lookout” as the most frequent type of human error contributing to crashes (***HSM***, 2-13). It states that 74 percent of these “improper lookout” errors occur at intersections (***HSM***, 2-13). An evaluation of crash reports provided within the project limits revealed that, in general, most of the crashes were due to driver inattentiveness. Many of these crashes were rear end type crashes, where a driver was unaware of a slowing/stopped vehicle in front of them, resulting in the crash.

The two major intersections within the project limits are currently signalized intersections. The values of traffic signals are described in ***Fundamentals of Traffic Engineering, 16th Edition.*** There are several advantages to an intersection being signalized, such as allowing drivers to know who has the right of way, increasing capacity of the intersection, allowing vehicles on the minor road, and providing bicycles/pedestrians an opportunity to interrupt the major road, etc. (Homburger et al., 15-1). There are also some disadvantages to an intersection being signalized. Delay for the intersection will increase since traffic on the major road will be forced to stop, rear end collisions may increase, and improper signal timing/location may result in driver frustration and promote driver disregard for the traffic signal (Homburger et al., 15-1***).*** Among the crash reports received within the seven-years studied, 95 percent of the total crashes occurred at the intersections.

See Exhibit B for an overall comprehensive spot map of crashes that were included in this study.

4.0 INTERSECTION 1 – ILLINOIS ROUTE 3 (WEST HOMER M. ADAMS PARKWAY) AND WEST DELMAR AVENUE CRASHES

The intersection of Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue is a four-legged, signalized intersection. The land use around the intersection consists of residential areas to the south and a church/school to the north. The average daily traffic along Illinois Route 3 is approximately 12,300 and along West Delmar Avenue is approximately 5,600. Currently, the intersection is operating at a level of service (LOS) B, and as currently configured, it is projected to operate at a LOS E in 20 years.

A. Crash Summary

During the seven-year study period, there were 34 crashes that occurred in conjunction with the intersection of Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue. The tables below summarizes the types of crashes and any injuries associated with the crashes.

Intersection 1 - Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue Crashes																													SEE BELOW FOR TOTALS
Crash Type	North Leg IL Rte. 3 (W. Homer M. Adams Parkway)						East Leg West Delmar Avenue						South Leg Ridgedale Drive						West Leg IL Rte. 3 (West Delmar Avenue)						Center of Intersection					
	No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries			
			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K	
Rear End	14	88%		1	1		5	100%		3	2		1	100%					9	90%			1			0%				
Turning		0%						0%						0%					1	10%					1	50%			1	
Animal	1	6%						0%						0%						0%						0%				
Overturn	1	6%	1					0%						0%						0%						0%				
Fixed Object		0%						0%						0%						0%					1	50%				
Other noncollision		0%						0%						0%						0%						0%				
Sideswipe		0%						0%						0%						0%						0%				
Angle		0%						0%						0%						0%						0%				
Total	16	100%	1	1	1	0	5	100%	0	3	2	0	1	100%	0	0	0	0	10	100%	0	0	1	0	2	100%	0	0	1	0

SEE ABOVE FOR BREAKDOWN	Crash Type	Total (all legs)						
		No.	%	Injuries				
				A	B	C	K	Tot.
	Rear End	29	85%	0	4	4	0	8
	Turning	2	6%	0	0	1	0	1
	Animal	1	3%	0	0	0	0	0
	Overturn	1	3%	1	0	0	0	1
	Fixed Object	1	3%	0	0	0	0	0
	Other noncollision	0	0%	0	0	0	0	0
	Sideswipe	0	0%	0	0	0	0	0
	Angle	0	0%	0	0	0	0	0
	Total	34	100%	1	4	5	0	10

B. Crash Types

The tables above show that 29 of the 34 crashes at the intersection of Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue were rear end type crashes which accounted for 85 percent of the total crashes during the seven-year study period. The remaining types of crashes were split between the following crash types: animal, overturn, fixed object and turning.

As rear end crashes resulted in the highest percentage of crashes, location of the crashes in respect to the intersection were reviewed, as well as the direction of travel for the vehicles as the crash occurred.

Intersection 1 - Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue Crashes																						
Direction of Travel for Rear End Crashes	North Leg IL Rte. 3 (W. Homer M. Adams Parkway)						East Leg West Delmar Avenue						South Leg Ridgedale Drive						West Leg IL Rte. 3 (West Delmar Avenue)					
	No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries			
			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K
North	2	14%		1				0%					1	100%						0%				
East		0%						0%						0%					8	89%			1	
South	12	86%			1			0%						0%						0%				
West		0%					5	100%		3	2			0%					1	11%				
Total	14	100%	0	1	1	0	5	100%	0	3	2	0	1	100%	0	0	0	0	9	100%	0	0	1	0
% of Int. Total (29)	48%						17%						3%						31%					

As shown in the table above, the of the 29 total rear end crashes at this intersection, the majority of crashes occurred on the north and west legs, as expected due to the higher traffic volumes on Illinois Route 3. Most of the crashes on the north leg (86%) were in the south direction of travel, while most of the crashes on the west leg (89%) were in the east direction of travel.

C. Injury Crashes

There were 8 injury crashes that resulted in 10 injuries. Of the injuries there was 1 Type A injury, 4 Type B injuries, 5 Type C injuries and no fatalities. The collision resulting in the most serious, Type A, injury at this intersection was an overturned vehicle. Rear end crashes contributed to 100 percent of the Type B injuries and 80 percent of the Type C injuries at this intersection. A turning impact made up the remaining 20 percent of the Type C injuries.

D. Contributing Factors

The majority of crashes at this intersection, Illinois Route 3 (West Homer M. Adams Parkway) and West Delmar Avenue, occurred on the north leg traveling southbound and the west leg traveling eastbound. Since the north and west legs of the intersection (Illinois Route 3) carry the most traffic (80 percent of the ADT) it is logical that these legs would see the most crashes.

Most of the crashes on the north leg are rear end crashes in the southbound direction. The common cause of these crashes is due to distracted or otherwise inattentive drivers. Specifically, many crashes were the result of a driver waiting at a red light and looking back at W. Delmar Avenue traffic for an opening, and when they see an opening or a green light they begin to move forward before the car in front of them has moved. This could be due to the severe angle of the right turn lane and the W. Delmar Avenue thru movement, where a driver looking back at approaching traffic on W. Delmar Avenue would not have the car in front of them in their line of vision.

Most of the crashes on the east and west legs were due to inattentive drives not recognizing vehicles stopped at the intersection for the red light.

Another potential factor in the crashes at this intersection could be the LOS/delay of the intersection. The longer drivers have to wait to make a particular maneuver will increase their impatience and inattentiveness, and thus increase the likelihood that they make an error resulting in a crash. This intersection is currently operating at a LOS B, so LOS/delay is not a currently a significant factor in these crashes. However, in 20 years the intersection is projected to be operating at a LOS E, which will only increase the potential of these types of crashes.

E. Recommended Countermeasures

The majority of the crashes are rear end and it is assumed this is due to drivers not paying attention to the vehicles stopped in front of them, therefore it is difficult to incorporate countermeasures to avoid this type of crash. In general, improving the LOS and reducing delay could help reduce driver impatience and aggressiveness, however the intersection is currently operating at a LOS B, so it is unlikely that improving the LOS will realize a significant impact on the number of crashes.

One recommendation would be to reconfigure the approach angles of the intersection with Illinois Route 3 as the through movement. This would eliminate the right turn from Illinois Route 3 (Homer M. Adams Parkway) to Illinois Route 3 (W. Delmar Avenue) which is currently at a severe angle. Then the south leg of the intersection would be W. Delmar Avenue, which has a significantly lower ADT than the Illinois Route 3 legs of the intersection.

Another recommendation would be to reconfigure the intersection as a roundabout. With a roundabout intersection, drivers entering the intersection will only have to focus on traffic from one direction and while traveling at a lower speed which will reduce confusion and distraction. Additionally, roundabouts have fewer conflict points compared to conventional intersection, therefore reducing the likelihood and severity of crashes. According to the FHWA, roundabout intersections see a 35% reduction in total crashes, a 76% reduction in injuries, and a 90% reduction in fatalities.

5.0 INTERSECTION 2 – ILLINOIS ROUTE 3 (WEST DELMAR AVENUE) AND PIERCE LANE

The intersection of Illinois Route 3 (West Delmar Avenue) and Pierce Lane is a four-legged, signalized intersection. The land use around the intersection consists of residential areas to the southeast, a church/school to the northeast, a church to the southwest and a business park to the northwest. The average daily traffic is approximately 12,300 for Illinois Route 3 and approximately 4,400 for Pierce Lane. The intersection is currently operating at a level of service (LOS) B, and, as currently configured, it is projected to operate at a LOS C in 20 years.

A. Crash Summary

During the seven-year study period, there were 56 crashes that occurred in conjunction with the intersection of Pierce Lane and West Delmar Avenue. The table below summarizes the types of crashes and any injuries associated with the crashes.

Intersection 2 - Pierce Lane and Illinois Route 3 (West Delmar Avenue) Crashes																													SEE BELOW FOR TOTALS
Crash Type	North Leg Pierce Lane						East Leg West Delmar Avenue						South Leg Frontenac Place						West Leg West Delmar Avenue						Center of Intersection					
	No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries			
			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K	
Rear End	1	33%			3		22	92%	3	1	6								13	72%		1	4			0%					
Turning		0%						0%												0%					6	55%			2		
Animal		0%					1	4%											4	22%						0%					
Fixed Object	1	33%		1			1	4%											1	6%						0%					
Angle		0%						0%												0%					3	27%			1		
Sideswipe	1	33%						0%												0%					1	9%					
Other noncollision		0%						0%												0%					1	9%		1			
Overturn		0%						0%												0%						0%					
Total	3	100%	0	1	3	0	24	100%	3	1	6	0	0	0%	0	0	0	0	18	100%	0	1	4	0	11	100%	0	1	3	0	

SEE ABOVE FOR BREAKDOWN	Crash Type	Total (all legs)						
		No.	%	Injuries				
				A	B	C	K	Tot.
	Rear End	36	64%	3	2	13	0	18
	Turning	6	11%	0	0	2	0	2
	Animal	5	9%	0	0	0	0	0
	Fixed Object	3	5%	0	1	0	0	1
	Angle	3	5%	0	0	1	0	1
	Sideswipe	2	4%	0	0	0	0	0
	Other noncollision	1	2%	0	1	0	0	1
	Overturn	0	0%	0	0	0	0	0
	Total	56	100%	3	4	16	0	23

B. Crash Types

The tables above shows that 36 of the 56 crashes at the intersection of Pierce Lane and West Delmar Avenue were rear end type crashes which accounted for 64 percent of the total crashes during the seven-year study period. The next most prevalent type of crash was turning crashes, accounting for 11 percent of the total crashes and animal crashes accounting for 9 percent of total crashes. The remaining crashes were split as shown in the table above.

As rear end crashes resulted in the highest percentage of crashes, location of the crashes in respect to the intersection were reviewed, as well as the direction of travel for the vehicles as the crash occurred. The table below represents this outcome.

Intersection 2 - Pierce Lane and Illinois Route 3 (West Delmar Avenue) Crashes																						
Direction of Travel for Rear End Crashes	North Leg Pierce Lane						East Leg Illinois Route 3 (West Delmar						South Leg Frontenac Place						West Leg Illinois Route 3 (West Delmar					
	No.	%	Injuries				No.	%	Injuries				No.	%	Injuries				No.	%	Injuries			
			A	B	C	K			A	B	C	K			A	B	C	K			A	B	C	K
North		0%						0%						0%						0%				
East		0%						0%						0%					13	100%		1	4	
South	1	100%			3			0%						0%						0%				
West		0%					22	100%	3	1	6			0%						0%				
Sub-Total (leg)	1	100%	0	0	3	0	22	100%	3	1	6	0	0	0%	0	0	0	0	13	100%	0	1	4	0
% of Int. Total (36)	3%						61%						0%						36%					

C. Injury Crashes

There were 16 injury crashes that resulted in 23 injuries. Of the injuries, there were 3 Type A injuries, 4 Type B injuries, 16 Type C injuries and no fatalities. The collisions resulting in the more serious injuries, Type A and Type B, were the rear end, fixed object and other non-collision crashes. The rear end crashes contributed to 71 percent of the severe type crashes. The collisions resulting in the most serious, Type A, injuries at this intersection were a result of rear end crashes. Type B consisted of a mix of 50 percent rear end crashes, and a 50/50 split between fixed object and other non-collision impacts. Rear end crashes contributed to 80 percent of the Type C injuries at this intersection with two turning and an angle impact making up the remaining 20 percent of the Type C injuries.

D. Contributing Factors

The majority of crashes at the intersection of Pierce Lane and Illinois Route 3 (West Delmar Avenue) occurred in the center of the intersection and on the east leg traveling westbound and west leg traveling eastbound. Since the east and west legs of the intersection (Illinois Route 3) carry the most traffic (86 percent of the ADT) it is logical that these legs would see the most crashes.

Along the east leg, rear end crashes have occurred when vehicles traveling westbound on Illinois Route 3 (W. Delmar Avenue) are approaching the intersection with Pierce Lane. These crashes tend to be caused by inattentive drivers hitting the vehicle stopped at the red light or ensuing drivers not stopping in time when a vehicle in front of them slows to make the right-turn onto Pierce Lane. Along the west leg, rear end crashes were typically due to drivers not paying attention to vehicles stopped at the intersection for the red light. Most crashes in the middle of the intersection occurred when drivers who were turning did not yield the correct right of way.

A common factor in most of the crashes at this intersection is inattentive or aggressive driving, which could be directly related to LOS/delay of the intersection. In general, the longer drivers have to wait to make a particular maneuver will reduce their patience and attention, and increase the likelihood that they make an aggressive maneuver. However, this intersection is currently operating at a LOS B, and is projected to be operating at a LOS C in 20 years, so this is likely not a significant factor in the crashes at this intersection.

E. Recommended Countermeasures

A majority of the crashes are rear end and it is assumed that this is due to drivers not paying attention to the vehicles stopped in front of them, therefore it is difficult to incorporate countermeasures to avoid this type of crash.

One recommendation, should the intersection remain signalized, would be to consider an exclusive westbound right turn lane for vehicles turning onto Pierce Lane. This would allow adequate distance to decelerate for the turning movement without impeding the through traffic movement.

Another recommendation would be to reconfigure the intersection as a roundabout. As discussed in the previous section, roundabout intersections have proven to reduce the number and severity of crashes. Specifically, reducing the speed of vehicles through the intersection and reducing the number of conflict points would significantly reduce the likelihood of crashes due to inattentive drivers at this intersection.

6.0 CONCLUSIONS AND RECOMMENDATIONS

In conclusion, while there are a significant number of crashes on the Illinois Route 3 legs of the two intersections within the project limits, according to the report issued by the Bureau of Safety Engineering, neither intersection is an Illinois 5% Selected Intersection, nor is the project within a 5% Selected Segment. Additionally, there have been no fatalities at these intersections within the study timeline. In total, there were 34 crashes at the east intersection and 56 crashes at the west intersection where:

- Majority of the crashes occur on the Illinois Route 3 legs of intersections (expected due to higher ADT)
- Most crashes are Type B and C which are less severe types of injury crashes
- Most crashes are rear end crashes (expected at signals)
- Weather, surface and light conditions do not appear to be a contributing factor

Three general recommendations to improve the safety of the intersections within the project limits are shown below:

<u>Remain Signalized with Current Geometric Configuration</u>

There is little that can be done to reduce the number of crashes if the intersections are to remain signalized while maintaining the current geometric configuration. Since most of the crashes are due to inattentive drivers, improvements would need to be made that bring more attention to the signals/intersection. However, there are already additional signal heads at each intersection, so these improvements would be limited to the installation of advanced warning beacons. Generally, advanced warning beacons are utilized in rural high-speed areas to realize the greatest impact, therefore their installation on this project would likely not have a significant impact the number of crashes.

In general, increasing the LOS, and therefore reducing delay, could help reduce driver impatience and aggressiveness, and potentially reduce the potential for crashes due to these factors. However, since both intersections within the study limits are currently operating at a LOS B, even if increasing the LOS is feasible, this would likely yield negligible results.

Remain Signalized with New Geometric Configuration

Reconfiguring both signalized intersections could significantly reduce the number of crashes. As previously discussed, most of the traffic is on the Illinois Route 3 legs of either intersection. At the east intersection Illinois Route 3 is the north and west legs of the intersection, which requires most of the traffic to make a right turn from the north leg to the west leg, which is currently at a severe angle and is likely a contributing factor to many of the crashes for this movement. If this intersection were reconfigured to make Illinois Route 3 the through movement, the severe angle right turn would be eliminated. This would force the south leg of the intersection for W. Delmar Avenue to become the "side road". However, since West Delmar Avenue carries significantly less ADT, the expected impact would be minimal.

Likewise, at the west intersection, providing an exclusive westbound right turn lane for vehicles turning onto Pierce Lane would allow adequate distance to decelerate for the turning movement without impeding the through traffic movement. This improvement could reduce the number of rear end crashes due to vehicles slowing for the right turn onto Pierce Lane.

Reconfigure Intersections as Roundabouts

Reconfiguring both intersections as roundabouts would greatly reduce the number and severity of crashes at both intersections. With a roundabout intersection(s), drivers entering the intersection will only have to focus on merging with traffic from one direction and while traveling at a lower speed which will reduce confusion. Additionally, roundabouts have fewer conflict points compared to conventional intersection, therefore reducing the likelihood and severity of crashes. According to the FHWA, roundabout intersections see a 35% reduction in total crashes, a 76% reduction in injuries, and a 90% reduction in fatalities.

Furthermore, if the intersections were reconstructed as roundabouts, a dedicated right turn bypass lane could be constructed for westbound Illinois Route 3 traffic making the turn to Pierce Lane. This would eliminate the need for this traffic to maneuver the roundabouts which will improve the operation of both roundabouts and further reduce the likelihood of crashes.

7.0 ADDITIONAL INFORMATION

Original crash data for this project was collected and analyzed for years 2008-2014. Additional crash data for 2015-2016 was obtained for the project.

Crash Types By Year (Entire Project Limits)

Crash Type	2008		2009		2010		2011		2012		2013		2014		2015		2016		Total		Average
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Rear End	11	79%	11	92%	5	45%	10	59%	9	90%	11	85%	8	62%	5	29%	3	33%	73	63%	9.1
Turning	1	7%	1	8%	1	9%	2	12%	0	0%	1	8%	2	15%	6	35%	4	44%	18	16%	2.3
Animal	1	7%	0	0%	2	18%	0	0%	0	0%	0	0%	3	23%	2	12%	1	11%	9	8%	1.1
Fixed Object	0	0%	0	0%	1	9%	2	12%	1	10%	0	0%	0	0%	1	6%	1	11%	6	5%	0.8
Angle	0	0%	0	0%	1	9%	2	12%	0	0%	0	0%	0	0%	2	12%	0	0%	5	4%	0.6
Sideswipe	0	0%	0	0%	0	0%	1	6%	0	0%	1	8%	0	0%	0	0%	0	0%	2	2%	0.3
Overturn	1	7%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	1%	0.1
Other noncollision	0	0%	0	0%	1	9%	0	0%	0	0%	0	0%	0	0%	1	6%	0	0%	2	2%	0.3
Total	14	100%	12	100%	11	100%	17	100%	10	100%	13	100%	13	100%	17	100%	9	100%	116	100%	14.5

As shown in the table above, the total number of crashes for the year 2015 was 17and for the year 2016 was 9, which is generally consistent with the previous 7 years. Additionally, the top three, and overwhelming majority of crashes consist of rear end, turning and animal type crashes, which is also consistent with the data from the previous 7 years.

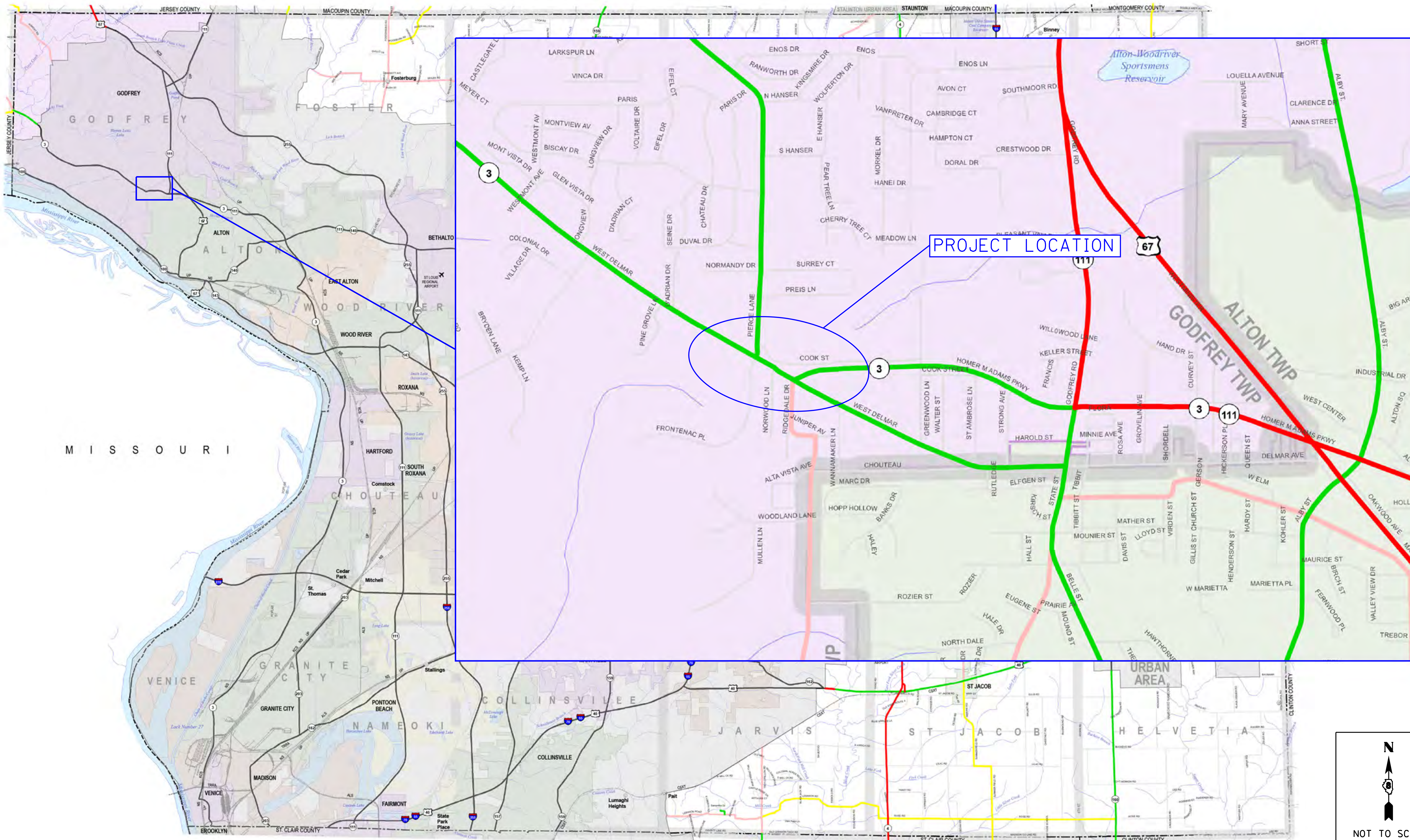
Injury Crashes (Entire Project Limits)																						
Type	2008		2009		2010		2011		2012		2013		2014		2015		2016		Total		Average	
	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries
K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)		
A	2	3	0	0	0	0	0	0	0	0	0	0	1	2	1	3	2	4	6	12	0.8	1.5
	(67%)	(75%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(0%)	(20%)	(22%)	(13%)	(21%)	(100%)	(100%)	(18%)	(24%)		
B	0	0	1	1	1	1	1	1	2	2	0	0	1	3	6	10	0	0	12	18	1.5	2.3
	(0%)	(0%)	(33%)	(25%)	(20%)	(13%)	(33%)	(33%)	(67%)	(67%)	(0%)	(0%)	(20%)	(33%)	(75%)	(71%)	(0%)	(0%)	(35%)	(35%)		
C	1	1	2	3	4	7	2	2	1	1	2	2	3	4	1	1	0	0	16	21	2.0	2.6
	(33%)	(25%)	(67%)	(75%)	(80%)	(88%)	(67%)	(67%)	(33%)	(33%)	(100%)	(100%)	(60%)	(44%)	(13%)	(7%)	(0%)	(0%)	(47%)	(41%)		
Tot:	3	4	3	4	5	8	3	3	3	3	2	2	5	9	8	14	2	4	34	51	4.3	6.4
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)	(0%)	(0%)

As shown in the table above, the total number of injury crashes for the year 2015 was 8, which is higher than the any of the previous 7 years. After taking a closer look at the breakdown of the injury crashes, the increase is isolated to Type B injury crashes. Of the Type B injury crashes in 2015 the breakdown is as follows: 1 Rear End, 3 Turning, 1 Fixed Object, and 1 was due to a parked vehicle on the roadway/shoulder. After an evaluation of these crashes, there is no discernable factor that can be attributed to the increase in crashes. The crashes for 2016 reduced back down to 2, which is generally consistent with the 2008-2014 years analyzed.

EXHIBIT A

LOCATION MAP

PROJECT LOCATION MAP



N

NOT TO SCALE

Illinois Department of Transportation

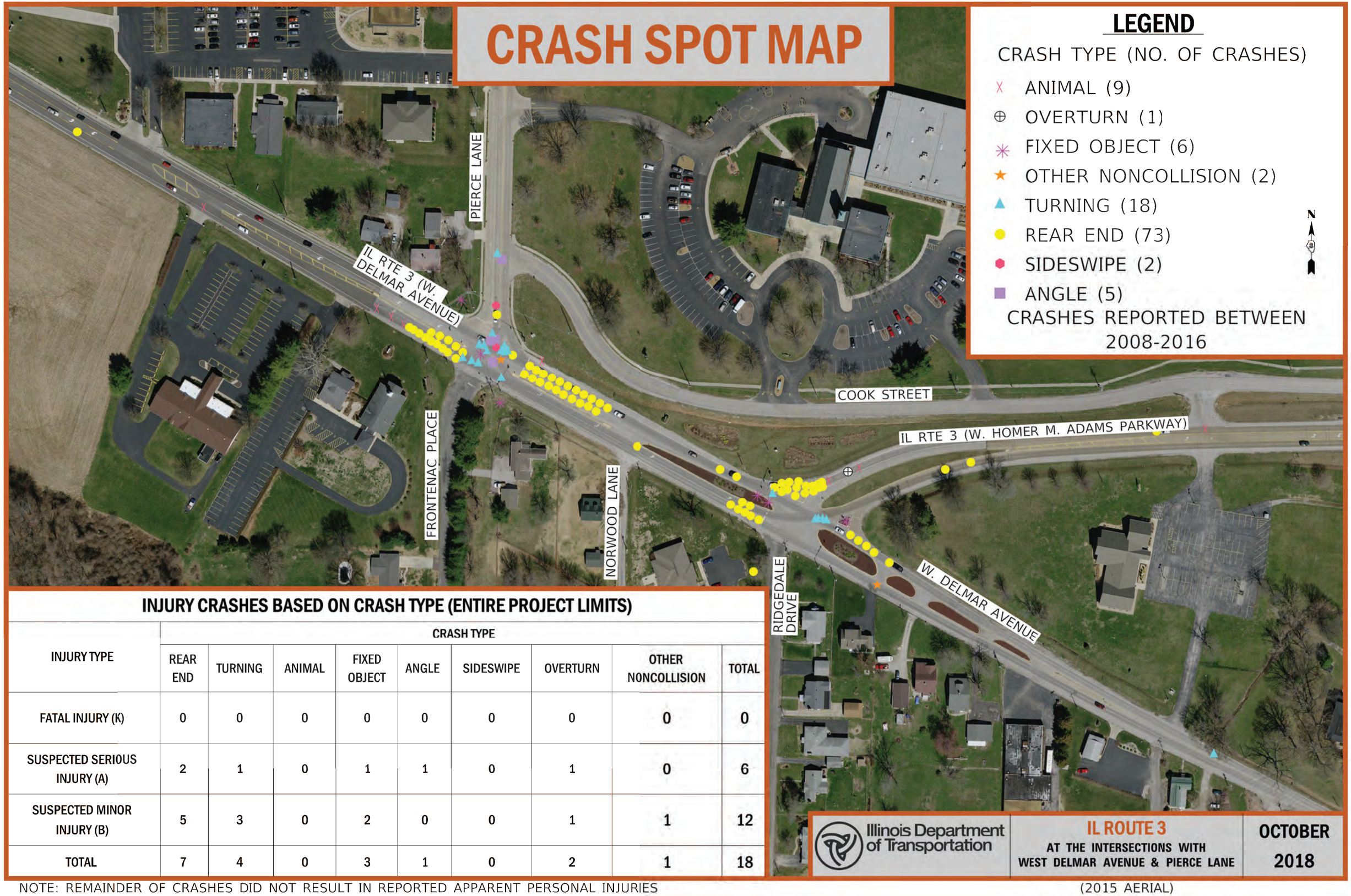
IL 3 AT W. DELMAR AVE /IL 3 AT PIERCE LN

JUNE 2016

EXHIBIT B

COMPREHENSIVE SPOT MAP

CRASH SPOT MAP



LEGEND

CRASH TYPE (NO. OF CRASHES)

- ANIMAL (9)
- OVERTURN (1)
- FIXED OBJECT (6)
- OTHER NONCOLLISION (2)
- TURNING (18)
- REAR END (73)
- SIDESWIPE (2)
- ANGLE (5)

CRASHES REPORTED BETWEEN 2008-2016

N

INJURY CRASHES BASED ON CRASH TYPE (ENTIRE PROJECT LIMITS)

INJURY TYPE	CRASH TYPE								
	REAR END	TURNING	ANIMAL	FIXED OBJECT	ANGLE	SIDESWIPE	OVERTURN	OTHER NONCOLLISION	TOTAL
FATAL INJURY (K)	0	0	0	0	0	0	0	0	0
SUSPECTED SERIOUS INJURY (A)	2	1	0	1	1	0	1	0	6
SUSPECTED MINOR INJURY (B)	5	3	0	2	0	0	1	1	12
TOTAL	7	4	0	3	1	0	2	1	18

NOTE: REMAINDER OF CRASHES DID NOT RESULT IN REPORTED APPARENT PERSONAL INJURIES

Illinois Department of Transportation

IL ROUTE 3
AT THE INTERSECTIONS WITH WEST DELMAR AVENUE & PIERCE LANE

OCTOBER 2018

(2015 AERIAL)

EXHIBIT J – IDS

PLOT DATE = 8/10/2017
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PLOT SCALE = 60.0001 ft / in.
USER NAME = wedmore_jb

INDEX OF SHEETS

1. OVERALL LAYOUT
2. IL 3 @ PIERCE LANE/FRONTENAC PLACE PLAN SHEET
3. IL 3 @ PIERCE LANE/FRONTENAC PLACE DATA SHEET
4. IL 3 @ PIERCE LANE/FRONTENAC PLACE RUNOUTS PLAN SHEET
5. IL 3 @ PIERCE LANE/FRONTENAC PLACE RUNOUTS PLAN SHEET
6. IL 3 @ DELMAR AVENUE/RIDGEDALE DRIVE PLAN SHEET
7. IL 3 @ DELMAR AVENUE/RIDGEDALE DRIVE DATA SHEET
8. IL 3 @ DELMAR AVENUE/RIDGEDALE DRIVE RUNOUTS PLAN SHEET
9. IL 3 @ DELMAR AVENUE/RIDGEDALE DRIVE RUNOUTS PLAN SHEET
10. IL 3 @ NORWOOD LANE DATA SHEET
11. COOK STREET LAYOUT SHEET
12. PIERCE LANE @ COOK STREET DATA SHEET
13. IL 3 @ COOK STREET CONNECTOR DATA SHEET
14. COOK STREET @ COOK STREET CONNECTOR DATA SHEET
15. FASTEST PATH SHEET
16.-20. PROFILE SHEETS
21.-24. SIGNING AND PAVEMENT MARKING SHEETS
25.-30. AUTOTURN SHEETS

MADISON 389

OVERALL VIEW

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE./PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=60' COUNTY MADISON

CONTRACT NO.: 76F84 PROJ. NO.

I.D.S. SHEET 1 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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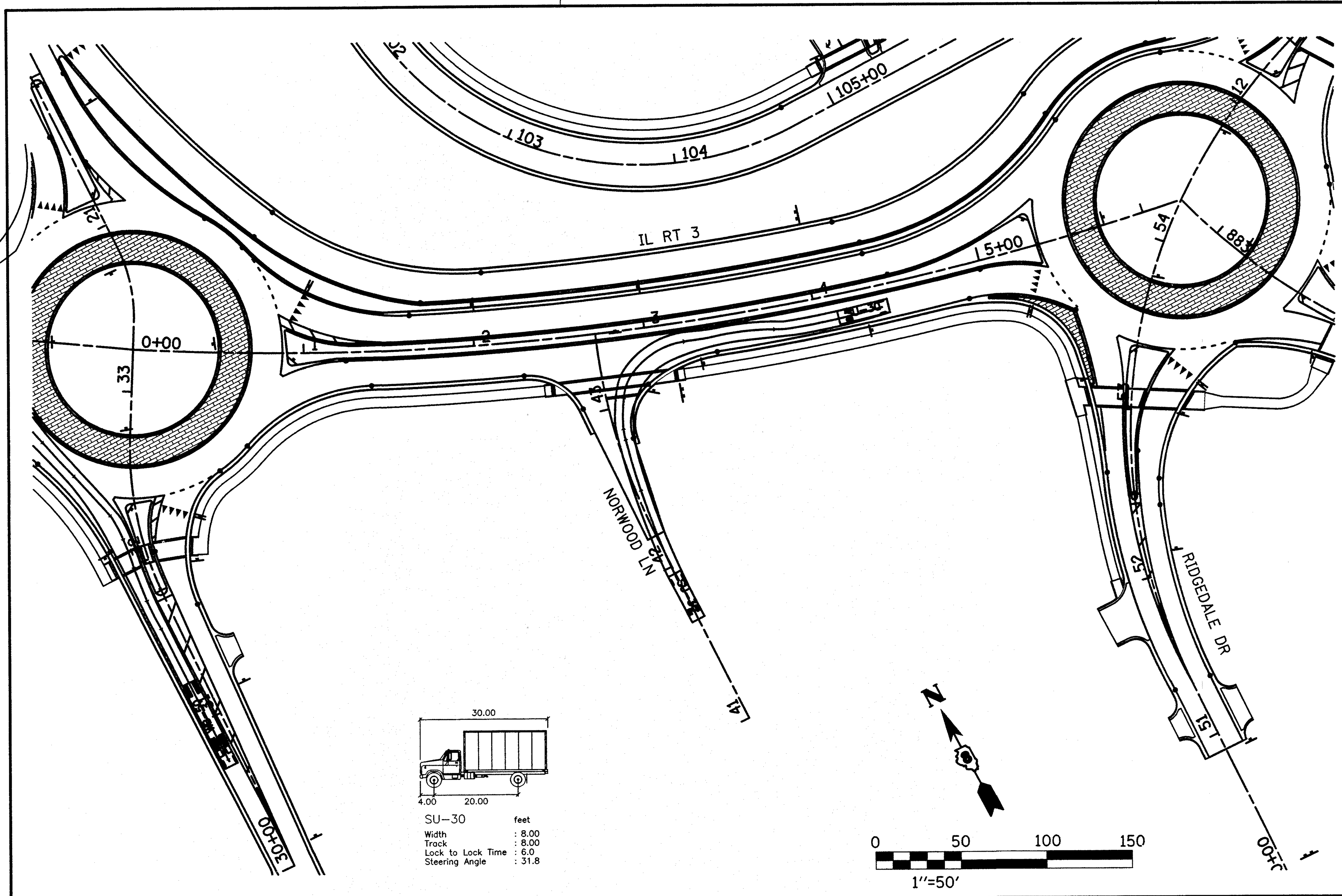

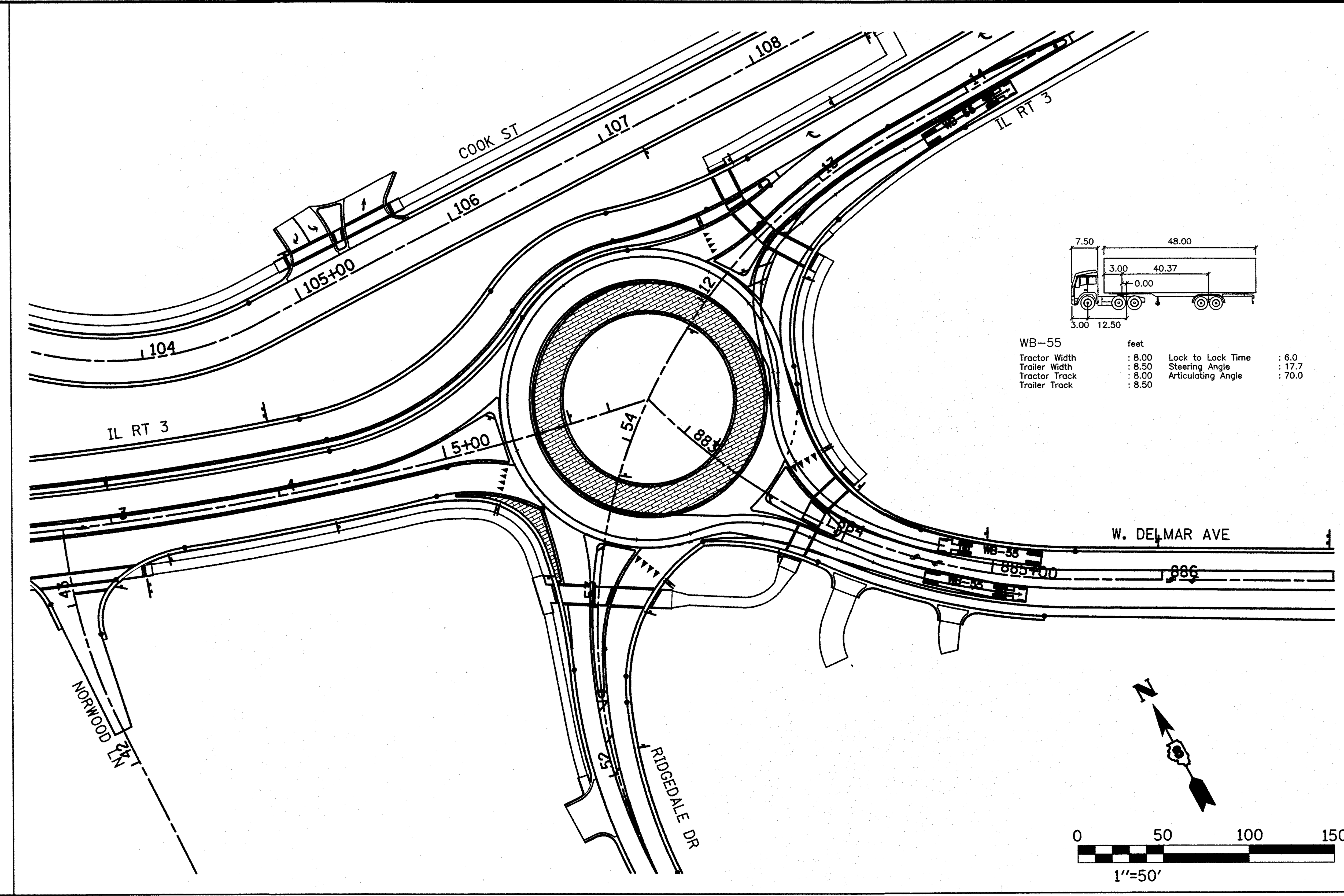

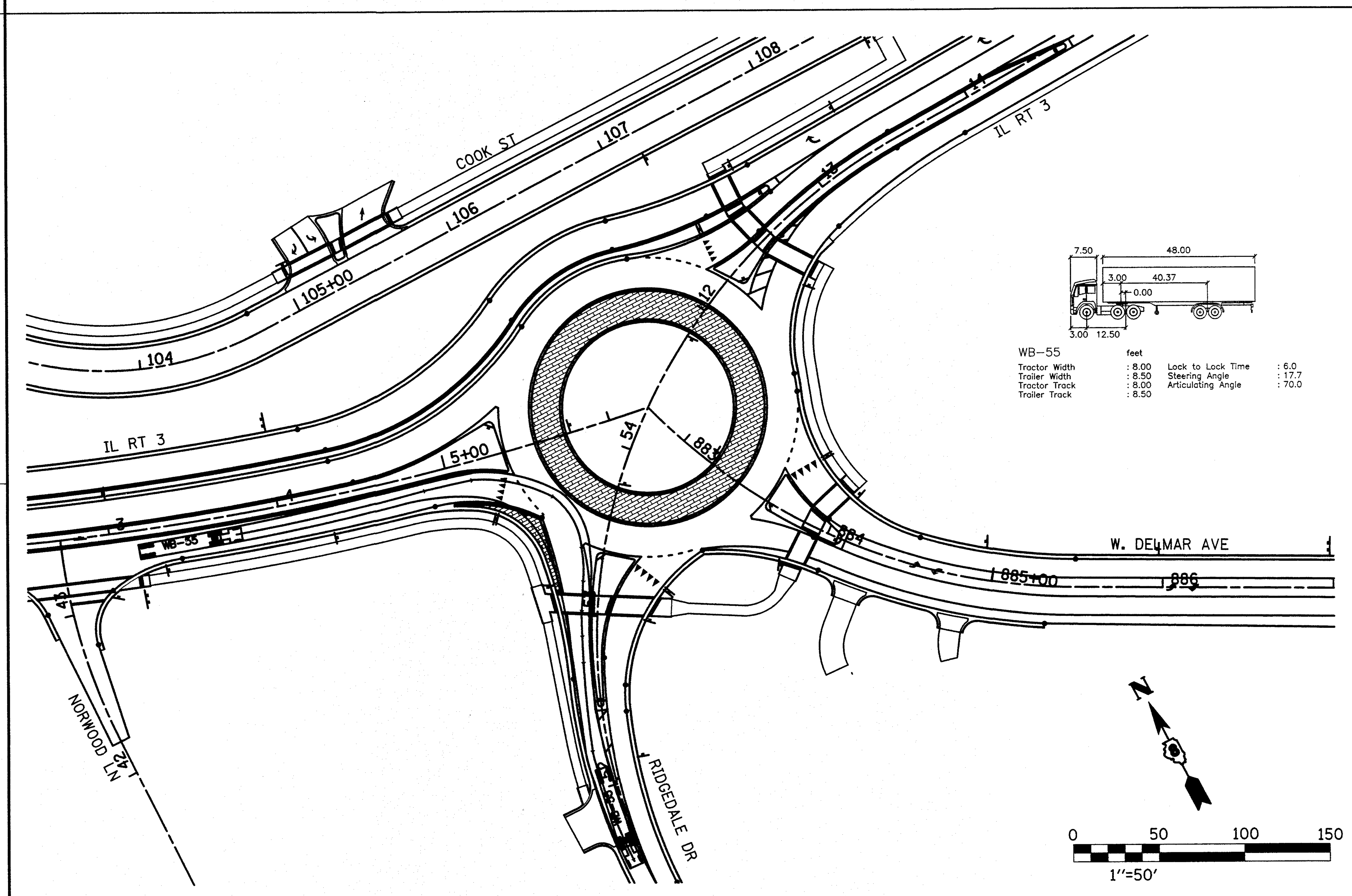

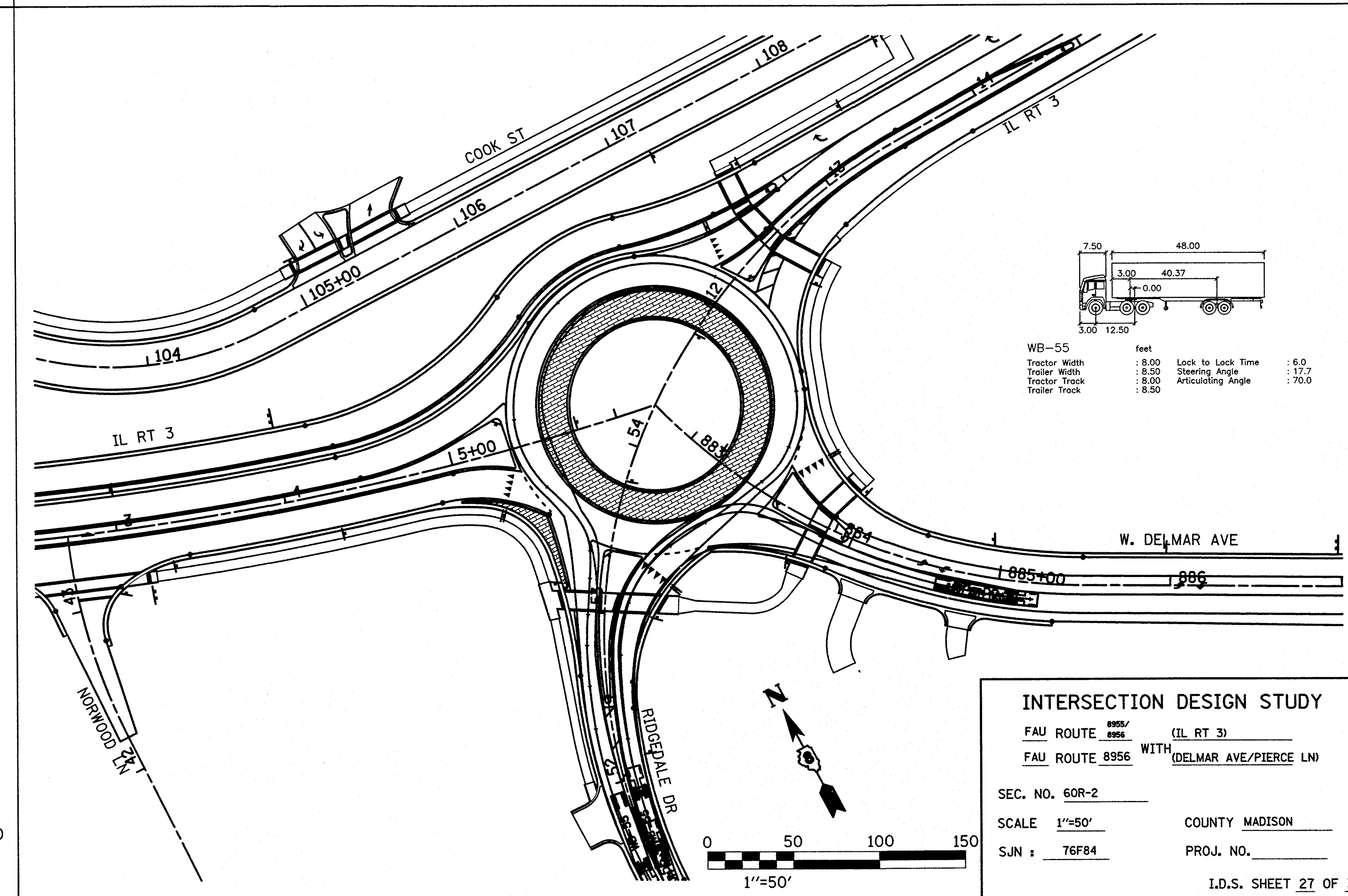

INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL RT 3)
FAU ROUTE 8956 WITH (DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=50' COUNTY MADISON

SJN : 76F84 PROJ. NO. ________

I.D.S. SHEET 27 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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USER NAME = wedmore_jb

SEE SHEET #4

SEE SHEET #5

SEE SHEET #6

SEE SHEET #11 FOR COOK ST LAYOUT

IL 3 (W DELMAR AVE)

EXISTING ROW

PROP ROW

EXISTING PAVEMENT TO BE REMOVED

PROPOSED 6' SIDEWALK WITH 5' BUFFER

4' EXISTING SIDEWALK

10' SIDEWALK TRANSITION

PROPOSED 5' SIDEWALK WITH 2' BUFFER

SIDEWALK TRANSITION

PIERCE LN

COOK ST

FRONTENAC PL

NORWOOD LN

℄ EXISTING IL RT 3

℄ PROPOSED IL RT 3

℄ STA. 876+85.61 IL RT 3 (W DELMAR)
℄ STA. 0+00.00 IL RT 3 (MID)
℄ STA. 20+24.00 PIERCE LN
℄ STA. 33+24.60 FRONTENAC PL

℄ FRONTENAC PL

℄ NORWOOD LN

Sta 876+85.61

1875+00

+54.21 CE
24.00' PCC

+87.01 PE
16.00' PCC

+8.67 PE
12.14' CONC/AGG

+32.15 PE
12.00' PCC

PI Sta 20+85.28

PC Sta 20+40.09

POT Sta 20+24.00

PC Sta 0+00.00

PI Sta 20+63.17

POT Sta 33+24.60

PI Sta 32+73.27

PI Sta 32+26.18

PC Sta 31+82.65

PC Sta 31+77.19

PC Sta 42+20.44

PI Sta 42+83.25

PI Sta 43+44.74

PC Sta 43+71.23

PT Sta 103+60.80

Sta 103+69.54

PRC Sta 101+79.99

MATCHLINE STA 30+61.19

MATCHLINE STA 30+61.19

PROP. CURVE FRONTENAC_3
PI STA. = 32+26.18
Δ = 27° 31' 30" (RT)
D = 28° 38' 52"
R = 200.00'
T = 48.99'
L = 96.08'
E = 5.91'
e = NC
T.R. = N/A
S.E. Run = N/A
P.C. STA. = 31+77.19
P.T. STA. = 32+73.27

PROP. CURVE NORWOOD_3
PI STA. = 42+83.25
Δ = 20° 20' 53" (RT)
D = 16° 22' 13"
R = 350.00'
T = 62.81'
L = 124.30'
E = 5.59'
e = NC
T.R. = N/A
S.E. Run = N/A
P.C. STA. = 42+20.44
P.T. STA. = 43+44.74

N

0 20 40 60
SCALE: 1"=20'

IL 3 @ PIERCE LN/FRONTENAC PL

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)
SEC. NO. 60R-2
SCALE 1"=20' COUNTY MADISON
CONTRACT NO.: 76F84 PROJ. NO.
I.D.S. SHEET 2 OF 30

BDE-9908

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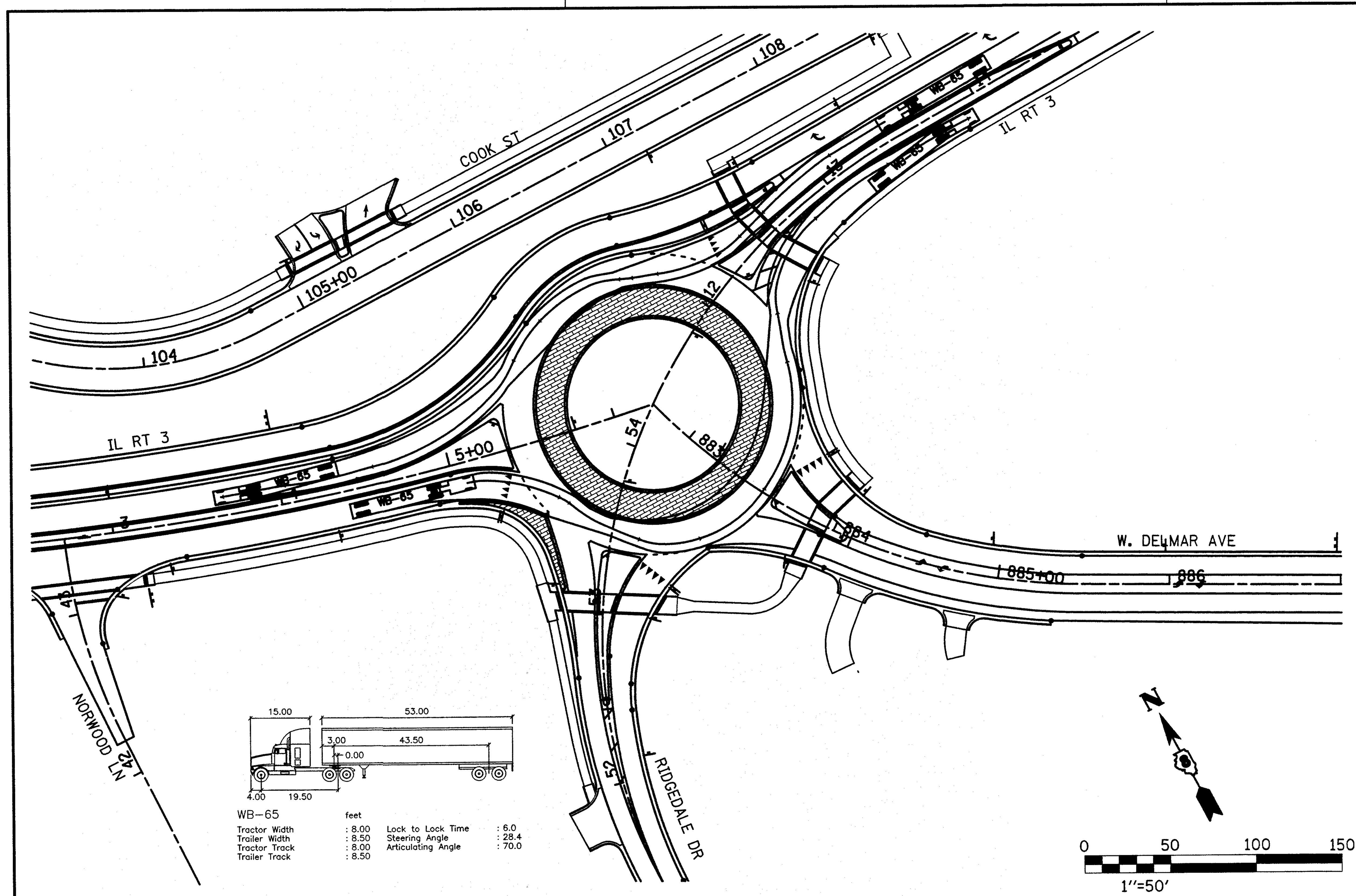
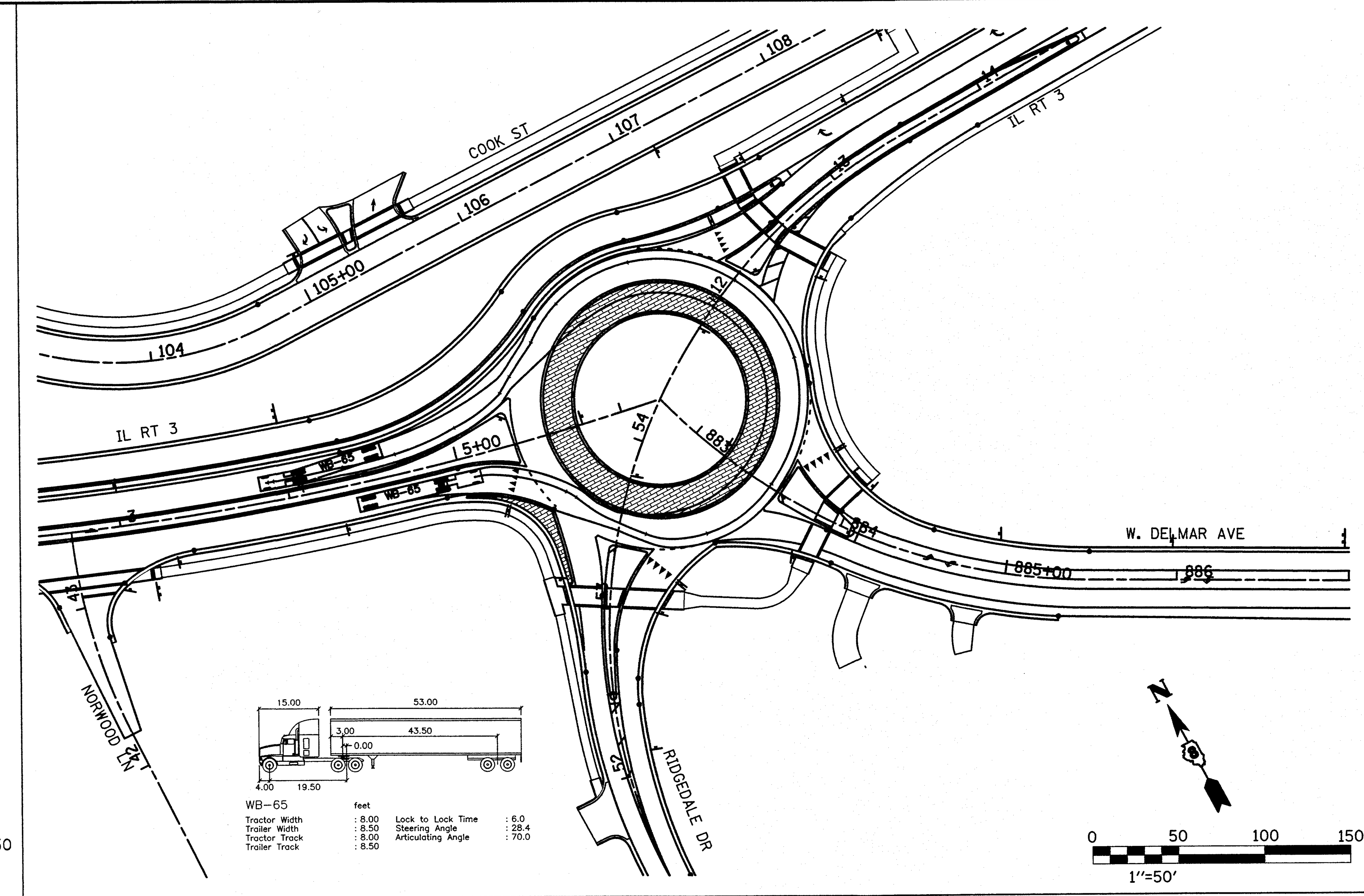
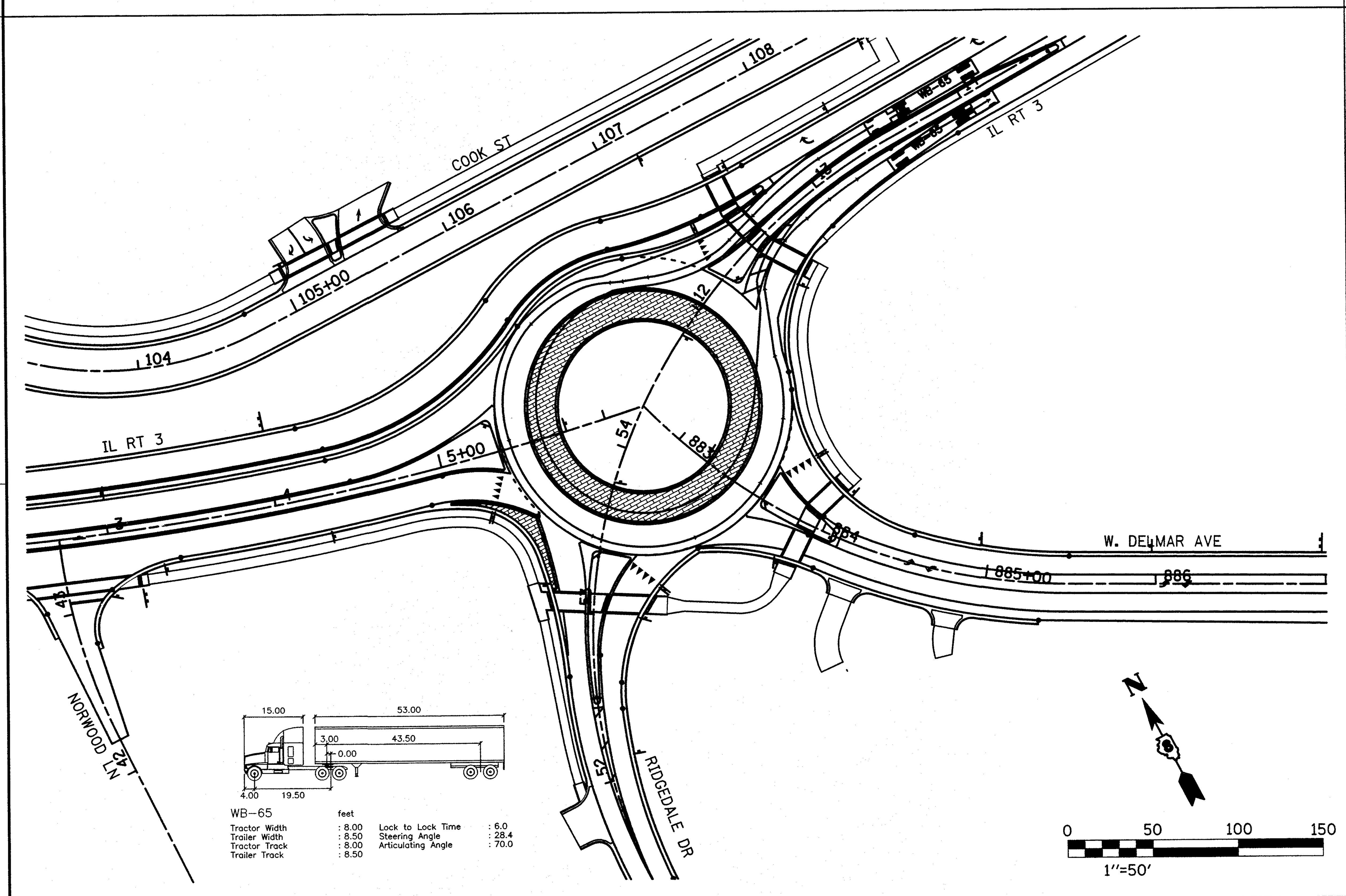
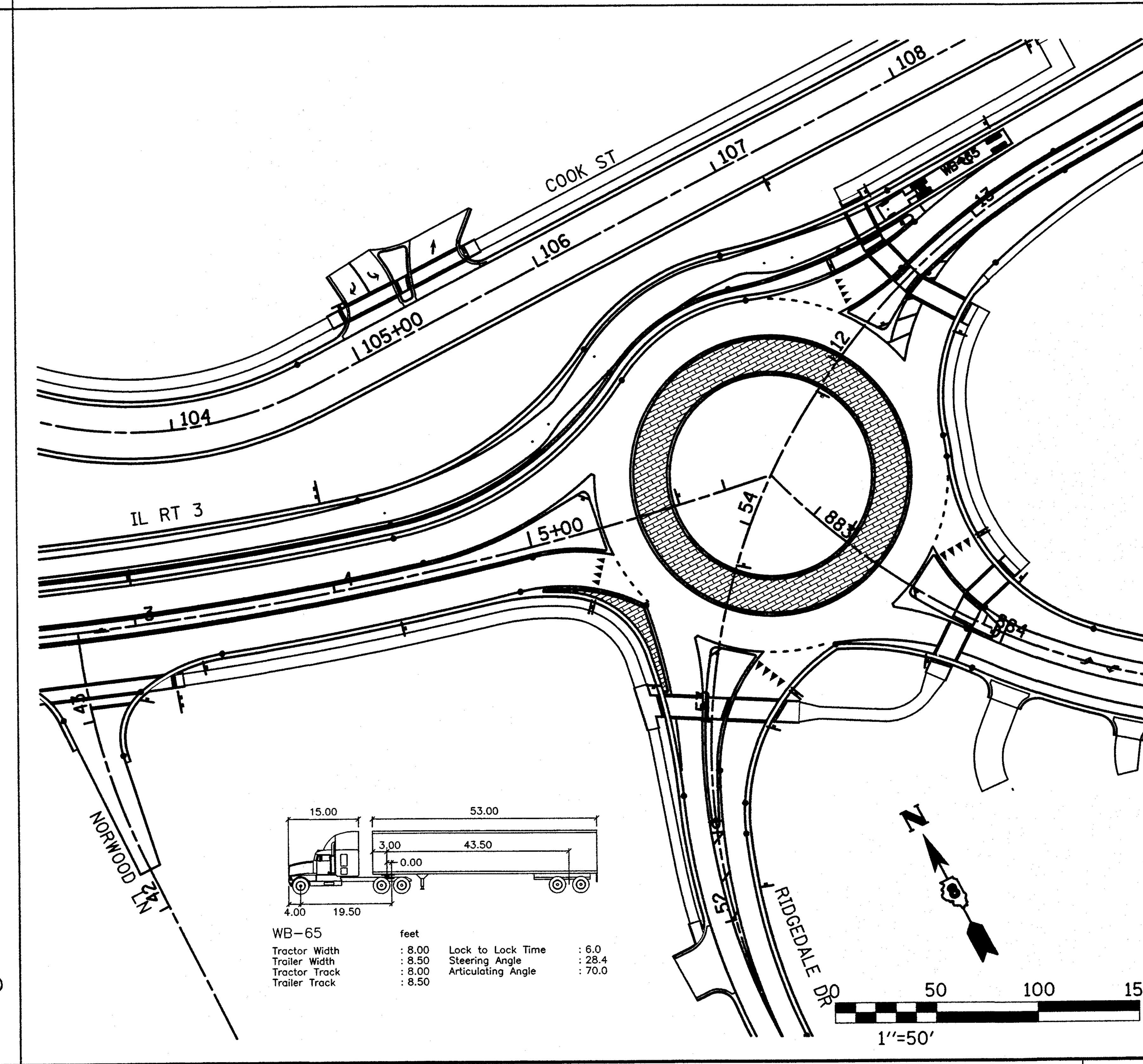








INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL RT 3)
FAU ROUTE 8956 WITH (DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1''=50'   COUNTY MADISON

SJN : 76F84   PROJ. NO. ______

I.D.S. SHEET 28 OF 30

BDE-9908

ROUNDABOUT CAPACITY DESIGN STUDY

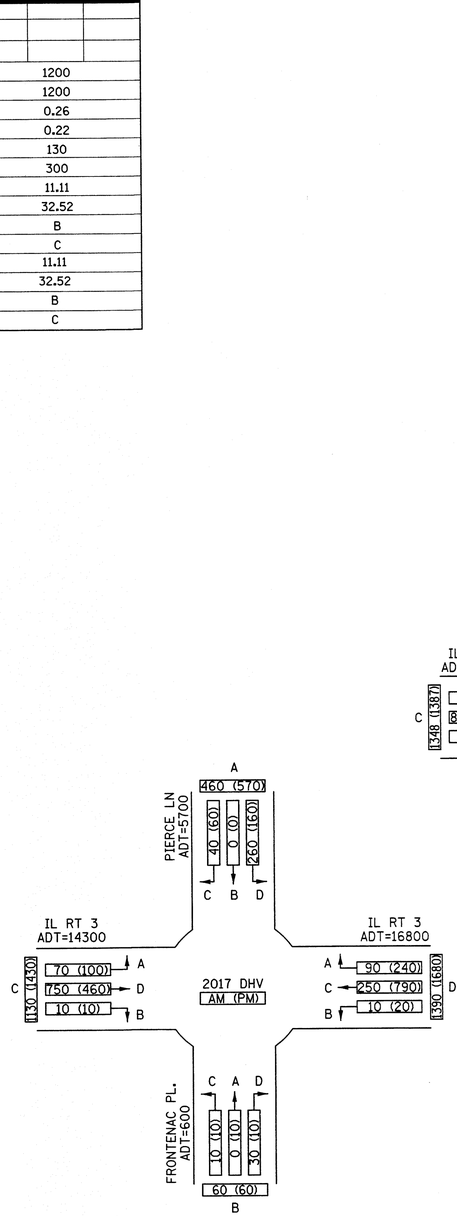
PROGRAM USED PTV VISSIM VERSION 8.00-15 AREA NON-CBD PEAK HOUR FACTOR 0.96
INTERSECTION CONTROL DELAY A.M. 15.52 SECONDS P.M. 8.46 SECONDS
INTERSECTION LEVEL OF SERVICE A.M. B P.M. A

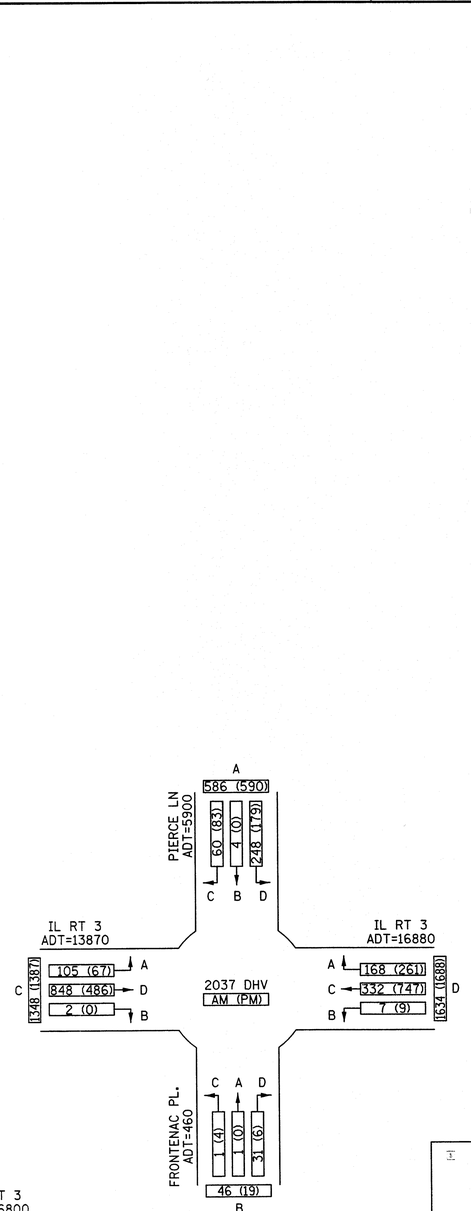
APPROACH		C - IL 3 - EB			D - IL 3 - WB			B- FRONTENAC PL			A - PIERCE LN. - SB		
LANE GROUP		L	T	R	L	T	R	L	T	R	L	T	R
2037 30TH MAX. HOUR TRAFFIC	A.M.	105	848	2	7	332	168	1	1	31	248	4	60
	P.M.	67	486	0	9	747	261	4	0	6	179	0	83
ENTRY FLOW RATE v_i, pce (pc/h)	A.M.	109	882	2	7	345	175	1	1	32	258	4	62
	P.M.	70	505	0	9	777	271	4	0	6	186	0	86
PED/HOUR CROSSING THE APPROACH	A.M.												
	P.M.												
LANE MOVEMENTS													
ENTRY FLOW RATE v_i (vph)	A.M.												
	P.M.												
LANE CAPACITY c_i (vph)	A.M.	1200			1200			1200			1200		
	P.M.	1200			1200			1200			1200		
x_i (v_i/c_i RATIO)	A.M.	0.80			0.42			0.03			0.26		
	P.M.	0.46			0.85			0.01			0.22		
STORAGE QUEUE LENGTH (FEET)	A.M.	1080			270			150			130		
	P.M.	100			70			20			300		
LANE DELAY, d (SEC)	A.M.	21.11			3.60			116.74			11.11		
	P.M.	4.48			4.07			15.66			32.52		
LANE LEVEL OF SERVICE	A.M.	C			A			F			B		
	P.M.	A			A			B			C		
APPROACH CONTROL DELAY, d (SEC)	A.M.	21.11			3.60			116.74			11.11		
	P.M.	4.48			4.07			15.66			32.52		
APPROACH LEVEL OF SERVICE	A.M.	C			A			F			B		
	P.M.	A			A			B			C		

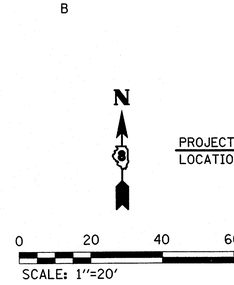
TRAFFIC DATA

MOVEMENT	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR ____ 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)	260	160	9	0					248	179
AB (T)	0	0	0	0					4	0
AC (R)	40	60	9.1	1.9					60	83
BC (L)	10	10	0	0					1	4
BA (T)	0	10	0	0					1	0
BD (R)	30	10	0	14.3					31	6
CA (L)	70	100	4.8	0					105	67
CD (T)	750	460	1.7	0.7					848	486
CB (R)	10	10	0	0					2	0
DB (L)	10	20	0	0					7	9
DC (T)	250	790	5.5	0.3					332	747
DA (R)	90	240	3.9	0.5					168	261
TOTAL A	460	570							586	590
TOTAL B	60	60							46	19
TOTAL C	1130	1430							1348	1387
TOTAL D	1390	1680							1634	1688

T = THROUGH, L = LEFT, R = RIGHT

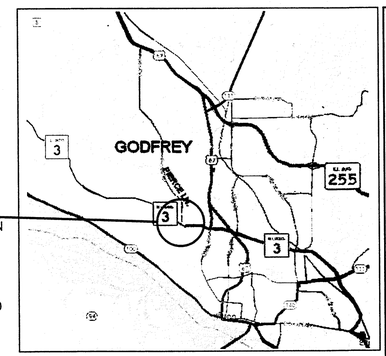






PROJECT LOCATION

LOCATION MAP



ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.U. ROUTE NUMBER: 8955/8956. MARKED ROUTE NUMBER: IL ROUTE 3.
STREET NAME: W. DELMAR AVE. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL. OSOW DESIGN: NO
EXISTING ADT: 16800 VPD. (2017) DESIGN YEAR ADT: 16880 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

SECONDARY ROUTE:

F.A.U. ROUTE NUMBER: 8985. MARKED ROUTE NUMBER: N/A.
STREET NAME: PIERCE LN. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR OSOW DESIGN: NO
EXISTING ADT: 5700 VPD. (2017) DESIGN YEAR ADT: 5900 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: FRONTENAC PL. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL ROAD. OSOW DESIGN: NO
EXISTING ADT: 600 VPD. (2017) DESIGN YEAR ADT: 460 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION: 2020.
EXISTING METHOD OF TRAFFIC CONTROL: TRAFFIC SIGNALS.
PROPOSED METHOD: YIELD (ROUNDABOUT).
DESIGN VEHICLE: IL 3: WB-65
PIERCE LN.: WB-55
FRONTENAC PL.: SU
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: CLASS II.
SECONDARY ROADWAYS: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
TYPE B-6.12 CURB AND GUTTER ON APPROACH MEDIANS.
TYPE M-2.12 CURB AND GUTTER ON THE TRUCK APRONS.
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 9.1.
THE SCOPE OF WORK: RECONSTRUCTION AND RELOCATION DUE TO INTERSECTION IMPROVEMENTS.
INTERSECTION DESIGN EXCEPTIONS:
1. LOS F IN THE AM 2037 FOR FRONTENAC PL. APPROVED BY B.D.E.: 06/28/17

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REFLECTIVE PAVEMENT MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED PER THE MUTCD AND IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE REMOVED AND SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF THE ARROWS WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIONS.
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

IL 3 @ PIERCE LN/FRONTENAC PL

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2 PROJ. NO. ____
SCALE N/A COUNTY MADISON
CONTRACT NO.: 76F84 REV. NO. ____

DESIGNED BY JBW/RB - IDOT D8 DATE AUGUST 2017

SATISFACTORY _____ 8/2/17
DISTRICT GEOMETRICS ENGINEER DATE

SATISFACTORY _____ 8/2/17
DISTRICT PROGRAM DEVELOPMENT ENGINEER DATE

SATISFACTORY _____ 8/22/17
DISTRICT OPERATIONS ENGINEER DATE

APPROVED _____ 8/22/17
REGION 5 ENGINEER DATE

CADD FILE NAME = [ ] I.D.S. SHEET 3 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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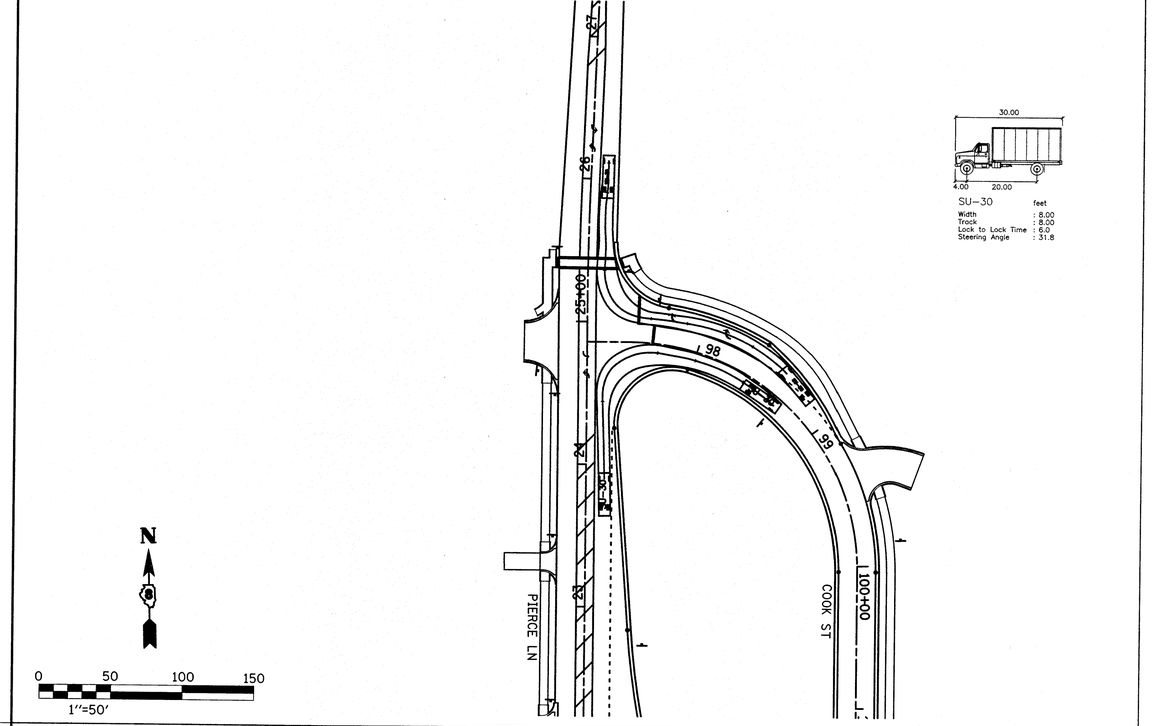
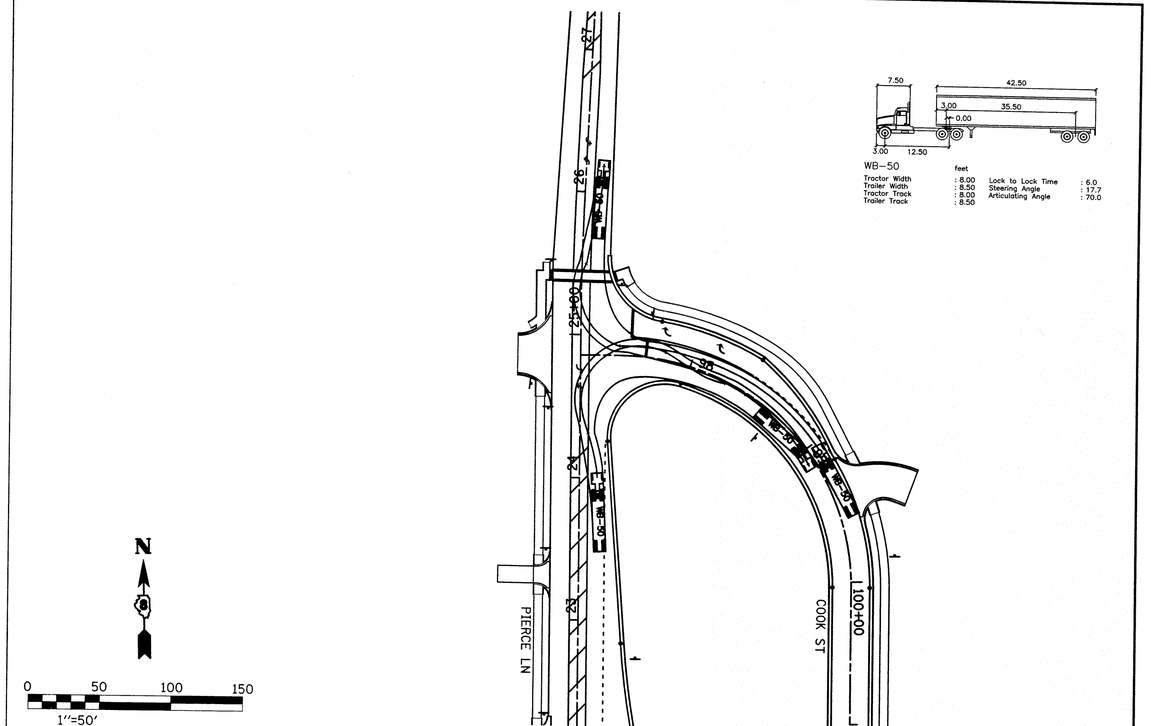




INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL RT 3)

FAU ROUTE 8956 WITH (DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=50'

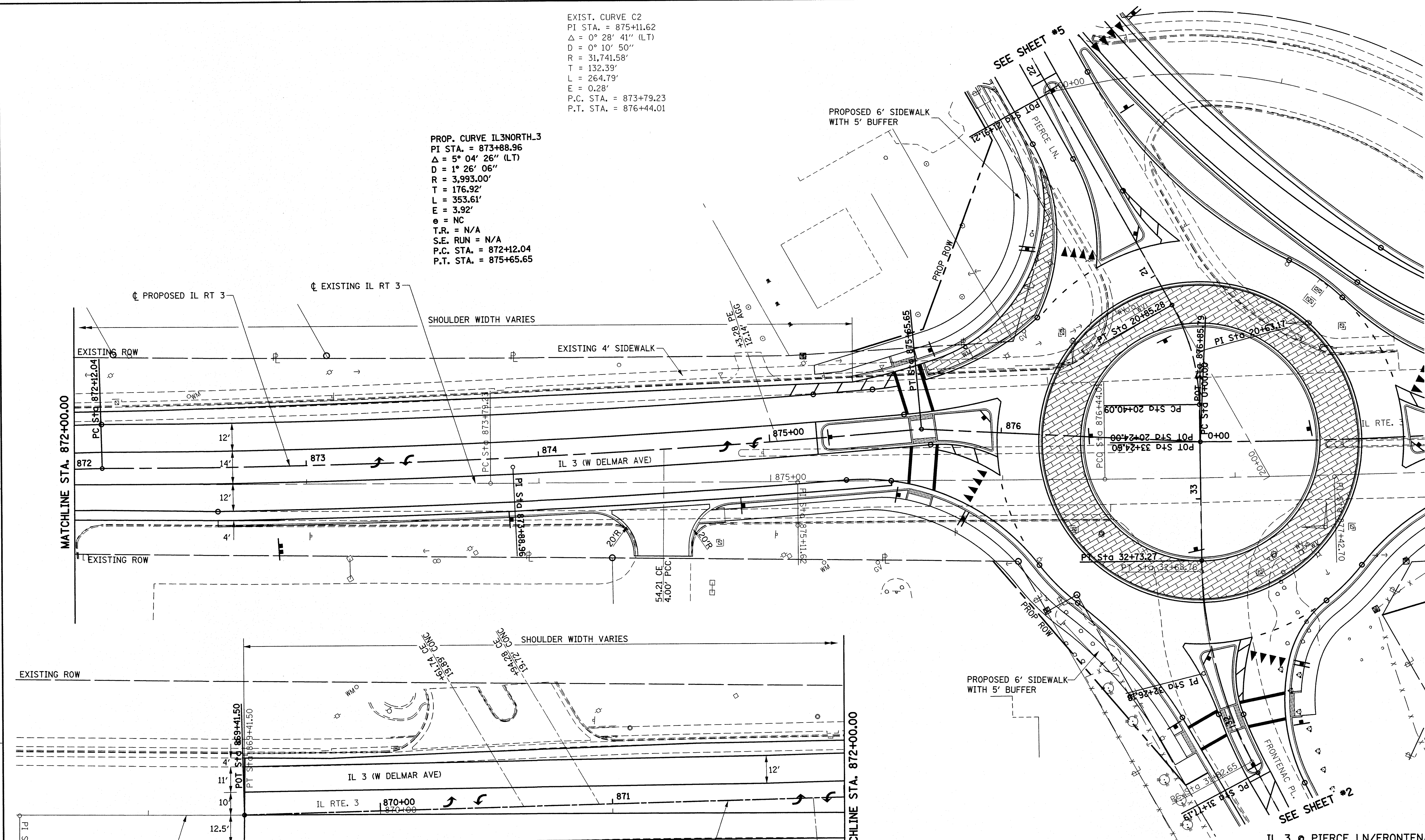
SJN : 76F84

COUNTY MADISON

PROJ. NO.

I.D.S. SHEET 29 OF 30

BDE-9908



IL 3 @ PIERCE LN/FRONTENAC PL

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=20' COUNTY MADISON

CONTRACT NO.: 76F84 PROJ. NO.

I.D.S. SHEET 4 OF 30

BDE-9908

PLOT DATE = 8/18/2017
PLOT SCALE = 20.0000 ft / in.
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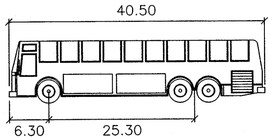

BUS-40 feet

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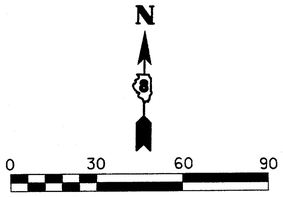
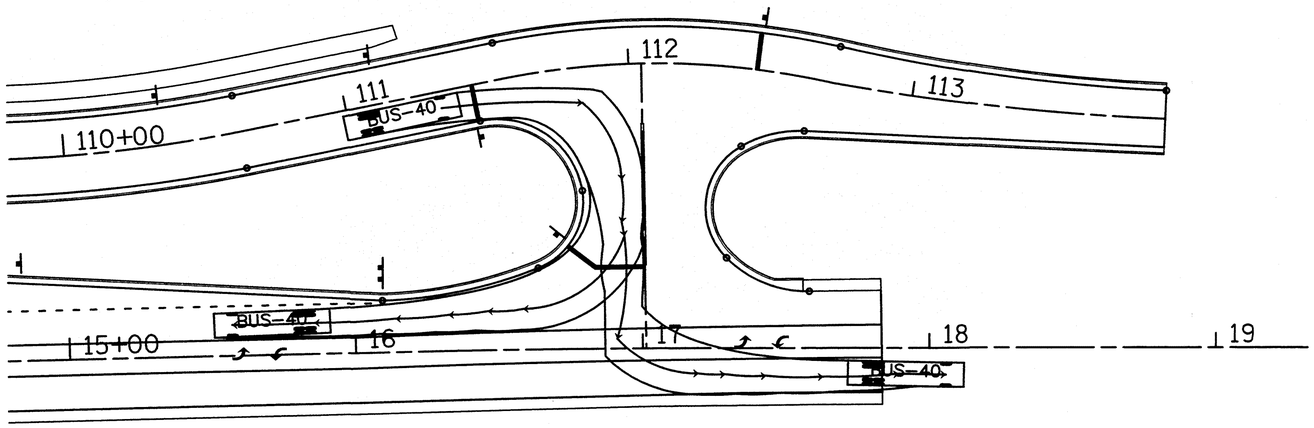
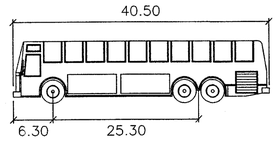
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.9







BUS-40 feet

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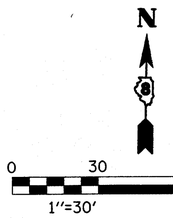
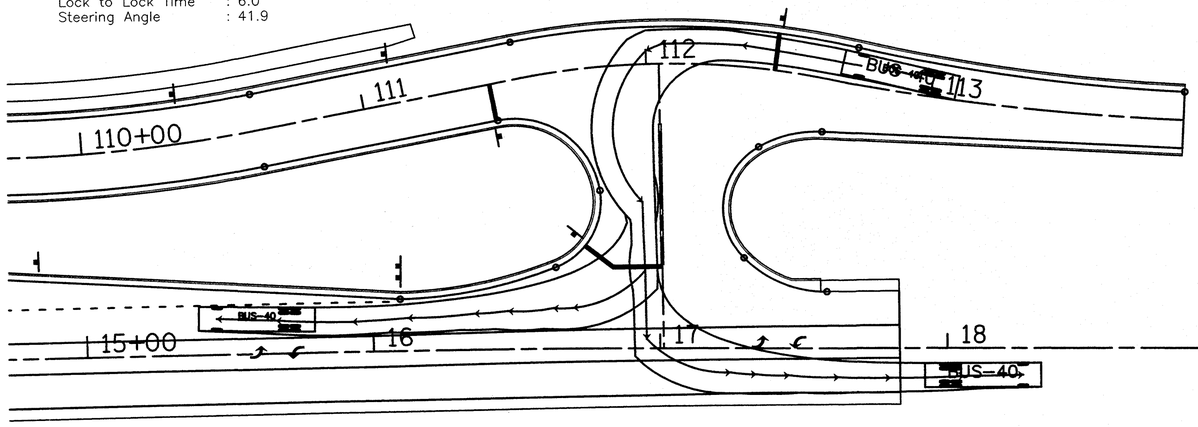
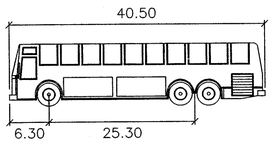
Lock to Lock Time	: 6.0
Steering Angle	: 41.9







BUS-40 feet

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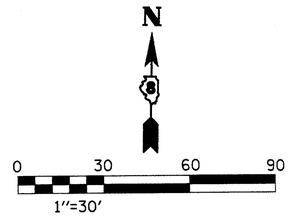
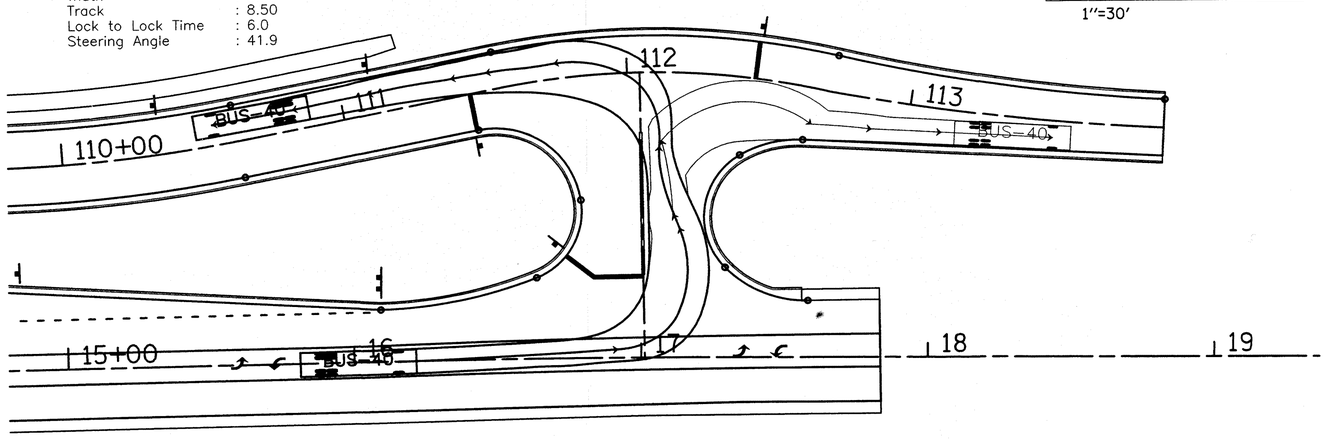
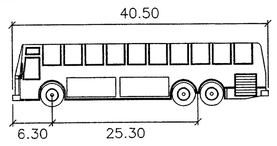
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.9

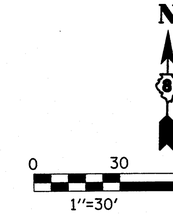


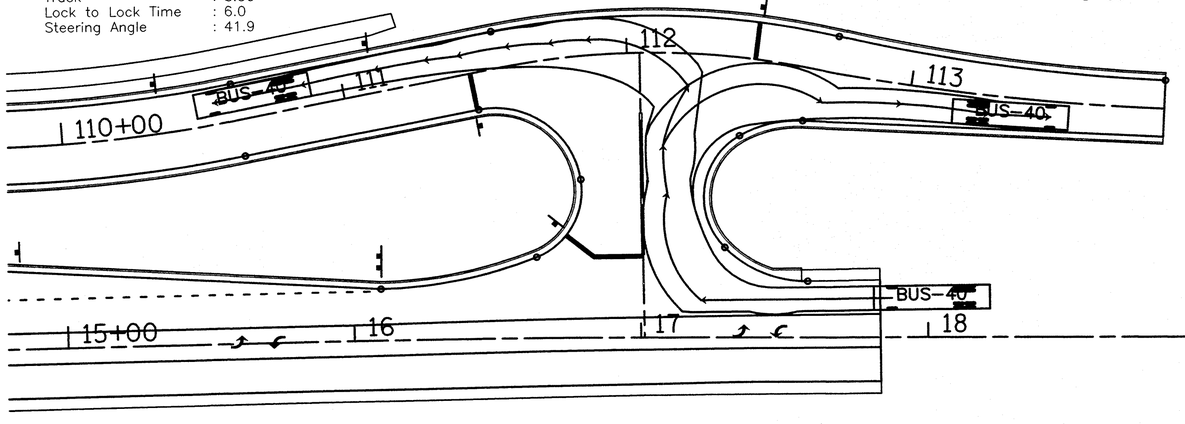




BUS-40 feet

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.9





INTERSECTION DESI

FAU ROUTE 8955/8956 (IL RT 3

FAU ROUTE 8956 WITH (DELMAR

SEC. NO. 60R-2

SCALE 1"=30' COUNT

SJN : 76F84 PROJ.

I.D

PLOT DATE = 8/10/2017
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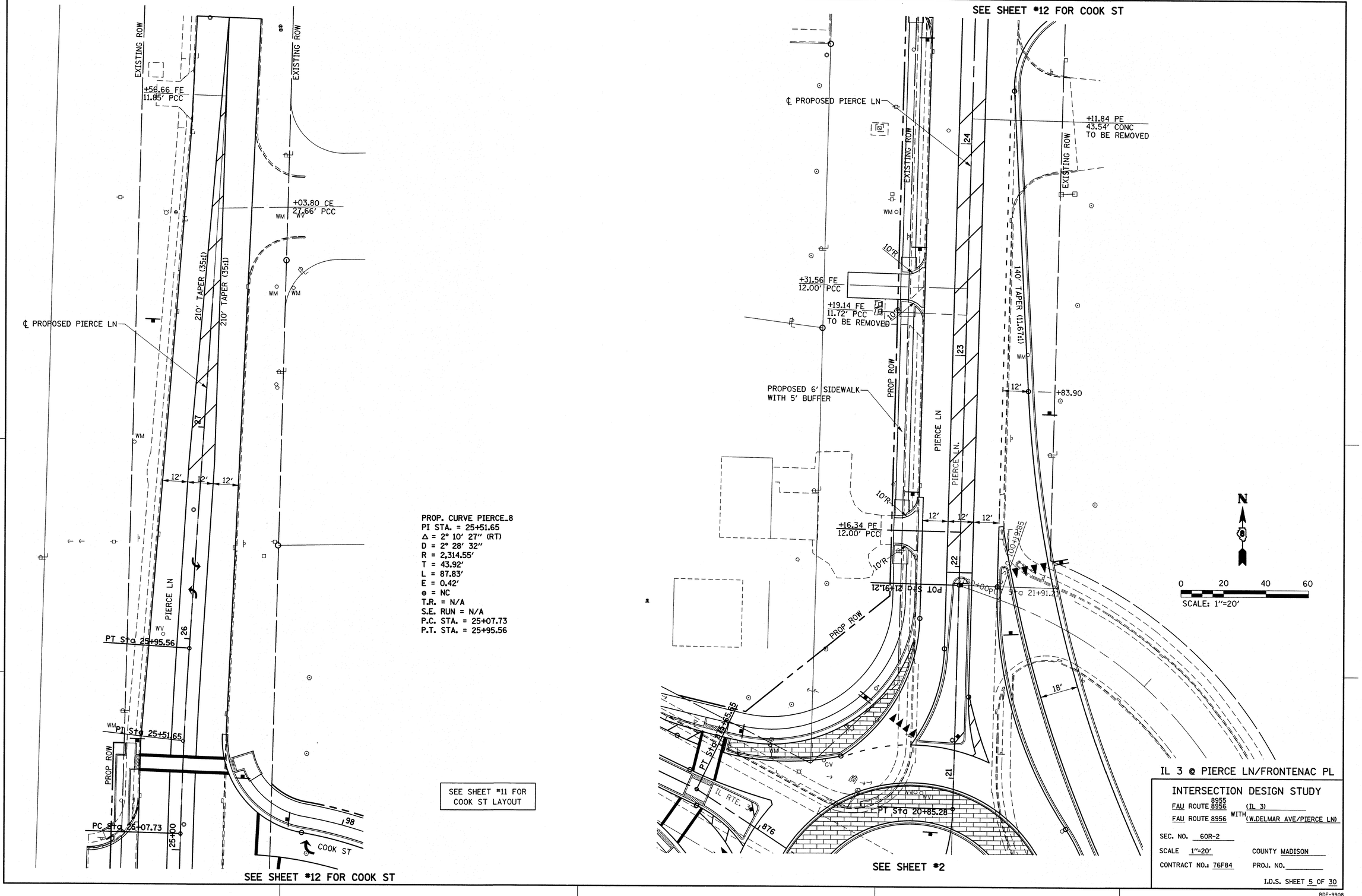

INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2
SCALE 1"=20'
COUNTY MADISON
CONTRACT NO.: 76F84
PROJ. NO.

I.D.S. SHEET 5 OF 30

BDE-9908

PLOT DATE = 8/18/2017
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PLOT SCALE = 20.0000 ft / in.
USER NAME = wedmore_jb

SEE SHEET #11 FOR COOK ST LAYOUT

PROP ROW

EXISTING ROW

PROPOSED 6' SIDEWALK WITH 5' BUFFER

EXISTING PAVEMENT TO BE REMOVED

COOK ST

COOK ST.

IL RT 3 (W DELMAR AVE)

IL RT 3 (HOMER ADAMS PKWY)

IL RTE. 3

RIDGEDAIL DR.

RIDGEDALE DR

W. DELMAR AVE

W. DELMAR

PC Sta 882+71.15

PT Sta 13+49.36

PI Sta 12+45.51

PI Sta 52+33.11

PT Sta 13+44.46

℄ STA. 6+23.82 IL RT 3 (W DELMAR AVE)
℄ STA. 11+34.67 IL RT 3 (HOMER ADAMS PKWY)
℄ STA. 882+71.15 W DELMAR AVE
℄ STA. 54+26.81 RIDGEDALE DR

PROP. CURVE IL3SOUTH_1
PI STA. = 12+45.51
Δ = 35° 08' 41" (RT)
D = 16° 22' 13"
R = 350.00'
T = 110.84'
L = 214.69'
E = 17.13'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 11+34.67
P.T. STA. = 13+49.36

SEE SHEET #2

SEE SHEET #8

SEE SHEET #9

SEE SHEET #9

N

0 20 40 60

SCALE: 1"=20'

IL 3 @ DELMAR AVE/RIDGEDALE DR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)

FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=20' COUNTY MADISON

CONTRACT NO.: 76F84 PROJ. NO.

I.D.S. SHEET 6 OF 30

BDE-9908

ROUNDABOUT CAPACITY DESIGN STUDY

PROGRAM USED PTV VISSIM VERSION 8.00-15 AREA NON-CBD PEAK HOUR FACTOR 0.96
INTERSECTION CONTROL DELAY A.M. 6.60 SECONDS P.M. 6.91 SECONDS
INTERSECTION LEVEL OF SERVICE A.M. A P.M. A

APPROACH		C - IL 3 - EB			D - W. DELMAR AVE. - WB			B - RIDGEDALE DR. - NB			A - IL 3 - SB		
LANE GROUP		L	T	R	L	T	R	L	T	R	L	T	R
2037 30TH MAX. HOUR TRAFFIC	A.M.	693	390	43	0	138	7	28	6	6	1	10	342
	P.M.	465	185	21	1	337	5	37	20	5	4	7	643
ENTRY FLOW RATE $v_{l\ pce}$ (pc/h)	A.M.	721	406	45	0	144	7	29	6	6	1	10	356
	P.M.	484	192	22	1	350	5	38	21	5	4	7	669
PED/HOUR CROSSING THE APPROACH	A.M.												
	P.M.												
LANE MOVEMENTS													
ENTRY FLOW RATE v_l (vph)	A.M.												
	P.M.												
LANE CAPACITY c_l (vph)	A.M.	1200			1200			1200			1200		
	P.M.	1200			1200			1200			1200		
x_l (v_l/c_l RATIO)	A.M.	0.94			0.12			0.03			0.29		
	P.M.	0.56			0.29			0.05			0.55		
STORAGE QUEUE LENGTH (FEET)	A.M.	45			130			65			255		
	P.M.	30			230			45			135		
LANE DELAY, d (SEC)	A.M.	3.60			17.82			34.02			4.73		
	P.M.	2.84			17.30			8.18			4.66		
LANE LEVEL OF SERVICE	A.M.	A			B			C			A		
	P.M.	A			B			A			A		
APPROACH CONTROL DELAY, d (SEC)	A.M.	3.60			17.82			34.02			4.73		
	P.M.	2.84			17.30			8.18			4.66		
APPROACH LEVEL OF SERVICE	A.M.	A			B			C			A		
	P.M.	A			B			A			A		

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.U. ROUTE NUMBER: 8955/8956. MARKED ROUTE NUMBER: IL ROUTE 3.
STREET NAME: W. HOMER ADAMS PKWY./W. DELMAR AVE. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL. OSOW DESIGN: NO
EXISTING ADT: 16800 VPD. (2017) DESIGN YEAR ADT: 16880 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

SECONDARY ROUTE:

F.A.U. ROUTE NUMBER: 8955. MARKED ROUTE NUMBER: N/A.
STREET NAME: W. DELMAR AVE. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR OSOW DESIGN: NO
EXISTING ADT: 5500 VPD. (2017) DESIGN YEAR ADT: 5420 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

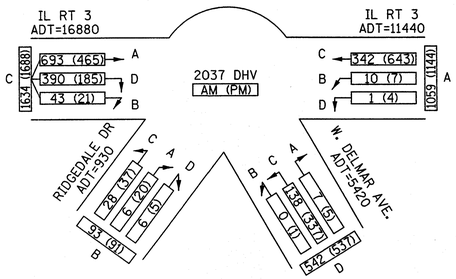
F.A.U. ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: RIDGEDALE DR. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR. OSOW DESIGN: NO
EXISTING ADT: 1200 VPD. (2017) DESIGN YEAR ADT: 930 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

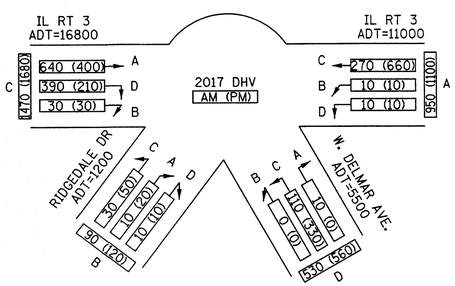
IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION: 2020.
EXISTING METHOD OF TRAFFIC CONTROL: TRAFFIC SIGNALS.
PROPOSED METHOD: YIELD (ROUNDABOUT).
DESIGN VEHICLE: IL 3: WB-65
W. DELMAR AVE.: WB-55
RIDGEDALE DR.: WB-55
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: CLASS II.
SECONDARY ROADWAYS: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
TYPE B-6.12 CURB AND GUTTER ON APPROACH MEDIANS.
TYPE M-2.12 CURB AND GUTTER ON THE TRUCK APRONS.
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 9.1.
THE SCOPE OF WORK: RECONSTRUCTION AND RELOCATION DUE TO INTERSECTION IMPROVEMENTS.
INTERSECTION DESIGN EXCEPTIONS: NONE

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REFLECTIVE PAVEMENT MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED PER THE MUTCD AND IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE REMOVED AND SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF THE ARROWS WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIONS.
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

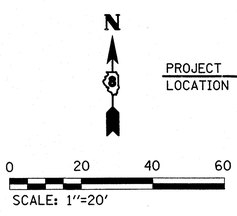




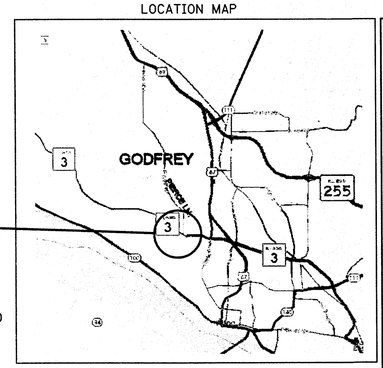
TRAFFIC DATA

MOVEMENT	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR ____ 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)	10	10	0	0					1	4
AB (L)	10	10	0	0					10	7
AC (T)	270	660	5	0.7					342	643
BC (L)	30	50	0	0					28	37
BA (R)	10	20	0	0					6	20
BD (R)	10	10	16.7	0					6	5
CA (T)	640	400	0.4	1.1					693	465
CD (R)	390	210	1.5	1.6					390	185
CB (R)	30	30	9.1	4.2					43	21
DB (L)	0	0	0	0					0	1
DC (L)	110	330	8.3	0					138	337
DA (R)	10	0	0	0					7	5
TOTAL A	950	1100							1059	1144
TOTAL B	90	120							93	91
TOTAL C	1470	1680							1634	1688
TOTAL D	530	560							542	537

T = THROUGH, L = LEFT, R = RIGHT



LOCATION MAP



IL 3 @ DELMAR AVE/RIDGEDALE DR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2 PROJ. NO. ____
SCALE N/A COUNTY MADISON
CONTRACT NO.: 76F84 REV. NO. ____

DESIGNED BY JBW/RB - IDOT D8 DATE AUGUST 2017

SATISFACTORY _____ DISTRICT GEOMETRICS ENGINEER — DATE 8/16/17
SATISFACTORY _____ DISTRICT PROGRAM DEVELOPMENT ENGINEER — DATE 8/17/17
SATISFACTORY _____ DISTRICT OPERATIONS ENGINEER — DATE 8/22/17
APPROVED _____ REGION 5 ENGINEER — DATE 8/22/17

CADD FILE NAME : [ ] I.D.S. SHEET 7 OF 30

BDE-9908

PLOT DATE = 8/10/2017
FILE NAME = pw:\\IL064-BIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 8\Projects\D876F84\CADData\Geometrics\76F84 - Geom_Main2B.dgn
PLOT SCALE = 20.0000 ' / in.
USER NAME = wedmore_jb

N

0 20 40 60
SCALE: 1"=20'

SEE SHEETS #14 & #15 FOR CONNECTOR DETAILS

SEE SHEET #11 FOR COOK ST LAYOUT

℄ COOK ST STA. 112+04.43
℄ COOK ST CONNECTOR STA. 1+00.32

10' SIDEWALK TRANSITION

PROPOSED 6' SIDEWALK WITH 5' BUFFER

℄ PROPOSED COOK ST

PROP ROW

EXISTING ROW

5' SIDEWALK

15'R

15'R

±44.94 CE
24.00' PCC

108

COOK ST

109

110+00

111

112

COOK ST.

113

PC Sta 109+45.67

PT Sta 111+17.52

PC Sta 111+21.53

PT Sta 112+59.36

POT Sta 0+86.52

℄ EXISTING COOK ST CONNECTOR

℄ EXISTING COOK ST

STA 113+88.63

13'

13'

10'

10'

SEE SHEET #6

PT Sta 13+19.36

185' RT TURN LANE STORAGE

156' TAPER (13:1)

53.65

PI Sta 110+10.49

PC Sta 15+98.03

9.05

PI Sta 16+64.86

PT Sta 17+29.68

4'

12'

12'

12'

12'

12'

4'

13

14

15+00

16

17

18

8.2'

IL RTE. 3

POT Sta 0+00.00

IL RT 3 (W. HOMER ADAMS PKWY)

PT Sta 13+44.46

PC Sta 15+77.50

STA 17+35.29

PT Sta 17+50.39

℄ PROPOSED IL RT 3

℄ EXISTING IL RT 3

℄ IL 3 STA. 17+01.26
℄ COOK ST CONNECTOR STA. 0+00.00

±1.80 CE
24.50' HMA

EXISTING ROW

EXISTING ROW

PROP. CURVE IL3SOUTH_1
PI STA. = 12+45.51
Δ = 35° 08' 41" (RT)
D = 16° 22' 13"
R = 350.00'
T = 110.84'
L = 214.69'
E = 17.13'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 11+34.67
P.T. STA. = 13+49.36

EXIST. CURVE C5
PI STA. = 12+28.14
Δ = 28° 31' 11" (RT)
D = 12° 00' 00"
R = 477.46'
T = 121.35'
L = 237.66'
E = 15.18'
P.C. STA. = 11+06.80
P.T. STA. = 13+44.46

EXIST. CURVE C6
PI STA. = 16+63.95
Δ = 0° 57' 19" (RT)
D = 0° 33' 09"
R = 10,370.42'
T = 86.45'
L = 172.89'
E = 0.36'
P.C. STA. = 15+77.50
P.T. STA. = 17+50.39

PROP. CURVE IL3SOUTH_4
PI STA. = 16+64.86
Δ = 1° 23' 41" (RT)
D = 1° 02' 37"
R = 5,489.99'
T = 66.83'
L = 133.65'
E = 0.41'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 15+98.03
P.T. STA. = 17+31.68

IL 3 @ DELMAR AVE/RIDGEDALE DR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2
SCALE 1"=20'
COUNTY MADISON
CONTRACT NO.: 76F84
PROJ. NO.
I.D.S. SHEET 8 OF 30

BDE-9908

SEE SHEET #6

PROP. CURVE DELMAR_1
PI STA. = 884+17.93
Δ = 45° 30′ 09″ (LT)
D = 16° 22′ 13″
R = 350.00′
T = 146.78′
L = 277.96′
E = 29.53′
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 882+71.15
P.T. STA. = 885+49.11

PROP. CURVE RIDGEDALE_3
PI STA. = 52+93.77
Δ = 51° 23′ 17″ (RT)
D = 17° 54′ 18″
R = 320.00′
T = 153.97′
L = 287.01′
E = 35.11′
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 51+39.80
P.T. STA. = 54+26.81

IL RTE. 3
PC Sta 882+71.15
PT Sta 54+26.81
PC Sta 11+06.80
PROPOSED 6′ SIDEWALK WITH 5′ BUFFER
EXISTING ROW
℄ PROPOSED W. DELMAR AVE
℄ EXISTING W. DELMAR AVE
W. DELMAR AVE
W. DELMAR
EXISTING ROW
PT Sta 885+49.11
PC Sta 888+00.02
MATCHLINE STA. 888+17.00
6′ SIDEWALK
PROP ROW
+84.75 CE 22.00′ PCC
+12.84 PE 12.00′ PCC
+9.49 PE 20.00′ PCC
+23.51 PE 16.00′ PCC/HMA
+81.82 PE 12.00′ PCC/AGG
+89.57 PE 17.55′ AGG
+81.82 CE 28.26′ HMA
+15.06 CE 20.00′ PCC
+39.94
+74.30
3′ AGG SHOULDER
350′ TAPER (63.6:1)
880+00
885+00
890+00
EXISTING 47.5′ SHOULDER TAPER
+34.15 CE 15.26′ CONC
SHOULDER WIDTH VARIES
+92.75 ALLEY 14.41′ HMA
+93.47 PE 11.10′ AGG
+10.88 CE 17.72′ AGG
+23.53
+63
5′ SIDEWALK
PC Sta 51+39.80
RIDGEDALE DR.
℄ PROPOSED RIDGEDALE DR
EXISTING ROW

SCALE: 1″=20′

IL 3 @ DELMAR AVE/RIDGEDALE DR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)
SEC. NO. 60R-2
SCALE 1″=20′ COUNTY MADISON
CONTRACT NO.: 76F84 PROJ. NO.

BDE-9908

PLOT DATE = 8/18/2017
FILE NAME = pw:\\IL804EBIDUNTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 8\Projects\76F84\CADData\Geometrics\76F84 - Geom_Main2d.dgn
PLOT SCALE = 20.0000 ft / in.
USER NAME = wedmore_jb

TWO-WAY STOP-CONTROLLED CAPACITY DESIGN ANALYSIS

PROGRAM USED HCS 2010 VERSION 6.90 PEAK HOUR FACTOR 0.92
SIGNALIZED INTERSECTION(S) WITHIN 0.25 MILES OF INTERSECTION ALONG MAJOR ROUTE? (YES/NO) NO
FLARED APPROACH FOR MINOR STREET RIGHT-TURNING VEHICLE? (YES/NO): NO ON THE EB/WB APPROACH NO ON THE NB APPROACH.
SINGLE OR TWO-STAGE GAP ACCEPTANCE? SINGLE

APPROACH		C - IL RT 3 EB						B - NORWOOD LN NB					
MAJOR OR MINOR LEG?		MAJOR						MINOR					
LANE GROUP		L	T	R				L	T	R			
NUMBER OF LANES		0	1	0				0	0	1			
2037 30TH MAX. HOUR TRAFFIC (V_i) (veh/h)	A.M.		711	0						24			
	P.M.		1173	24						4			
PEDESTRIANS/HOUR (ped/h) COUNT OR ESTIMATE?	A.M.	0	0	0				0	0	0			
	P.M.	0	0	0				0	0	0			
CAPACITY ($c_{p,x}$ OR c_t) (veh/h)	A.M.									397			
	P.M.									199			
v/c RATIO ($v_i/c_{p,x}$)	A.M.									0.07			
	P.M.									0.02			
STORAGE QUEUE (NO. OF VEHICLES)	A.M.									0.2			
	P.M.									0.1			
CONTROL DELAY (SECONDS)	A.M.									14.7			
	P.M.									23.4			
LANE GROUP LEVEL OF SERVICE	A.M.									B			
	P.M.									C			
APPROACH DELAY, d (SEC)	A.M.								14.7				
	P.M.								23.4				
APPROACH LEVEL OF SERVICE	A.M.								B				
	P.M.								C				

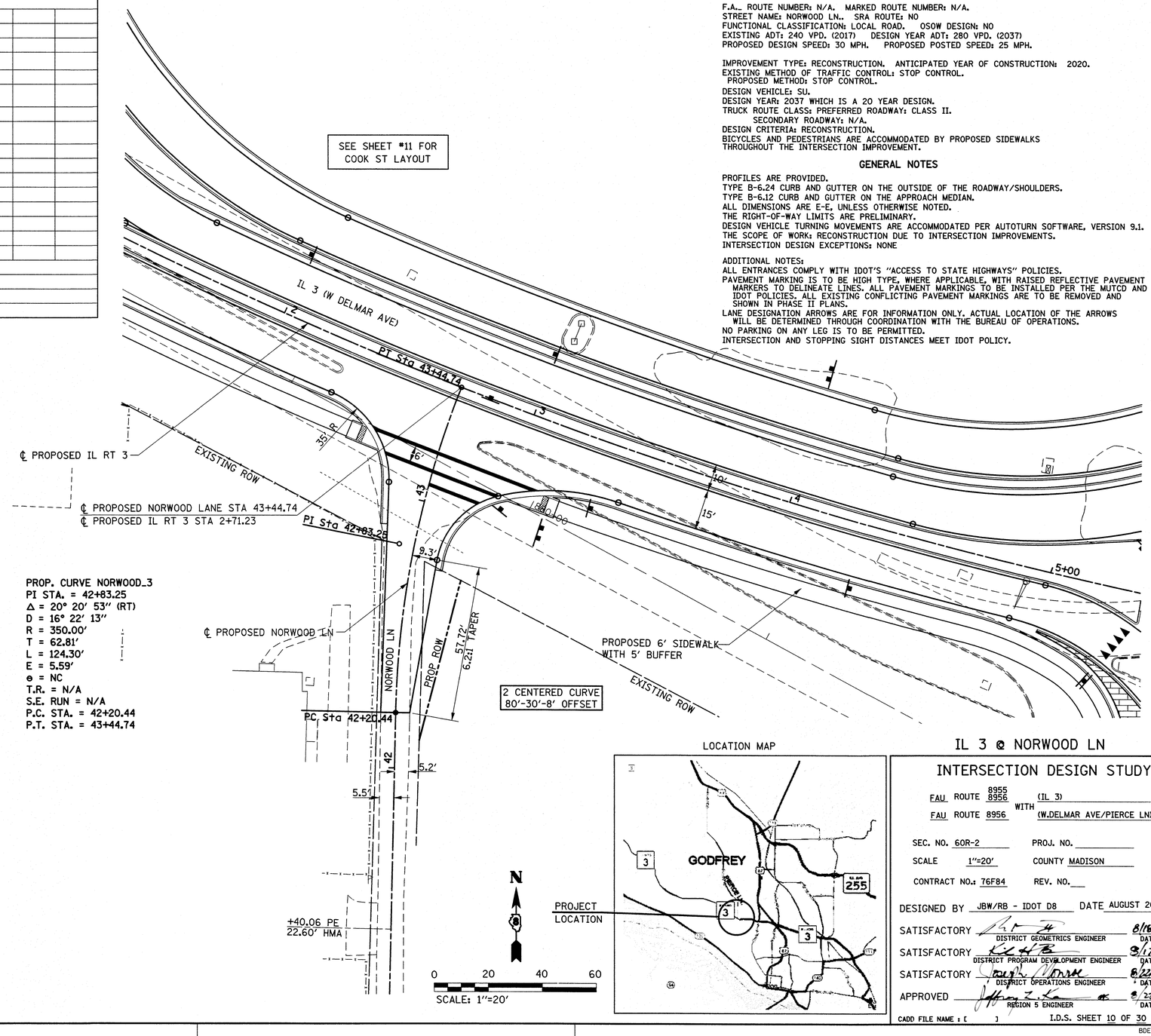
2017 DHV
AM(PM)

2037 DHV
AM(PM)

TRAFFIC DATA

MOVEMENT	YEAR 2014 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)										
AB (T)										
AC (R)										
BC (L)										
BA (T)										
BD (R)						21	3		24	4
CA (L)										
CD (T)						643	1061		711	1173
CB (R)						0	21		0	24
DB (L)										
DC (T)										
DA (R)										
TOTAL A										
TOTAL B						21	24		24	28
TOTAL C						643	1061		711	1197
TOTAL D						664	1064		735	1177

T = THROUGH, L = LEFT, R = RIGHT



PROP. CURVE NORWOOD_3
PI STA. = 42+83.25
Δ = 20° 20' 53" (RT)
D = 16° 22' 13"
R = 350.00'
T = 62.81'
L = 124.30'
E = 5.59'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 42+20.44
P.T. STA. = 43+44.74

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.U. ROUTE NUMBER: 8955. MARKED ROUTE NUMBER: IL ROUTE 3.
STREET NAME: W. DELMAR AVE. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL. OSOW DESIGN: NO
EXISTING ADT: 10610 VPD. (2017) DESIGN YEAR ADT: 11730 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

SECONDARY ROUTE:

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: NORWOOD LN.. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL ROAD. OSOW DESIGN: NO
EXISTING ADT: 240 VPD. (2017) DESIGN YEAR ADT: 280 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION: 2020.
EXISTING METHOD OF TRAFFIC CONTROL: STOP CONTROL.
PROPOSED METHOD: STOP CONTROL.
DESIGN VEHICLE: SU.
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: CLASS II.
SECONDARY ROADWAY: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
TYPE B-6.12 CURB AND GUTTER ON THE APPROACH MEDIAN.
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 9.1.
THE SCOPE OF WORK: RECONSTRUCTION DUE TO INTERSECTION IMPROVEMENTS.
INTERSECTION DESIGN EXCEPTIONS: NONE

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REFLECTIVE PAVEMENT MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED PER THE MUTCD AND IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE REMOVED AND SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF THE ARROWS WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIONS.
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

LOCATION MAP

IL 3 @ NORWOOD LN

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 (IL 3)
WITH
FAU ROUTE 8956 (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2 PROJ. NO. ____
SCALE 1"=20' COUNTY MADISON
CONTRACT NO.: 76F84 REV. NO. ___

DESIGNED BY JBW/RB - IDOT D8 DATE AUGUST 2017

SATISFACTORY _____ DISTRICT GEOMETRICS ENGINEER 8/16/17 DATE
SATISFACTORY _____ DISTRICT PROGRAM DEVELOPMENT ENGINEER 8/17/17 DATE
SATISFACTORY _____ DISTRICT OPERATIONS ENGINEER 8/22/17 DATE
APPROVED _____ REGION 5 ENGINEER 8/22/17 DATE

CADD FILE NAME : [ ] I.D.S. SHEET 10 OF 30

BDE-9908


PROP. CURVE COOK_3
PI STA. = 99+12.57
Δ = 90° 00′ 00″ (RT)
D = 35° 48′ 36″
R = 160.00′
T = 160.00′
L = 251.33′
E = 66.27′
e = RC
T.R. = 22′
S.E. RUN = 22′
P.C. STA. = 97+52.57
P.T. STA. = 100+03.90
EXIST. CURVE C8
PI STA. = 101+04.60
Δ = 46° 21′ 13″ (RT)
D = 28° 56′ 45″
R = 197.94′
T = 84.74′
L = 160.14′
E = 17.38′
P.C. STA. = 100+19.85
P.T. STA. = 101+79.99
EXIST. CURVE C9
PI STA. = 102+71.26
Δ = 49° 59′ 55″ (LT)
D = 29° 16′ 19″
R = 195.74′
T = 91.27′
L = 170.81′
E = 20.23′
P.C. STA. = 101+79.99
P.T. STA. = 103+50.80
EXIST. CURVE C3
PI STA. = 877+42.70
Δ = 1° 38′ 13″ (LT)
D = 0° 49′ 46″
R = 6,907.67′
T = 98.68′
L = 197.35′
E = 0.70′
P.C. STA. = 876+44.01
P.T. STA. = 878+41.36
EXIST. CURVE C10
PI STA. = 104+74.75
Δ = 16° 44′ 28″ (LT)
D = 8° 01′ 01″
R = 714.69′
T = 105.16′
L = 208.82′
E = 7.70′
P.C. STA. = 103+69.59
P.T. STA. = 105+78.41
EXIST. CURVE C11
PI STA. = 110+16.28
Δ = 10° 47′ 29″ (LT)
D = 8° 30′ 26″
R = 673.49′
T = 63.61′
L = 126.85′
E = 3.00′
P.C. STA. = 109+52.67
P.T. STA. = 110+79.52
PROP. CURVE COOK_13
PI STA. = 113+30.27
Δ = 7° 57′ 46″ (LT)
D = 6° 48′ 39″
R = 841.23′
T = 58.55′
L = 116.91′
E = 2.04′
e = NC
P.C. STA. = 112+71.72
P.T. STA. = 113+88.63
PROP. CURVE COOK_6
PI STA. = 103+63.54
Δ = 91° 22′ 23″ (LT)
D = 30° 09′ 21″
R = 190.00′
T = 194.61′
L = 303.00′
E = 81.98′
e = NC
P.C. STA. = 101+68.93
P.T. STA. = 104+71.94
PROP. CURVE COOK_9
PI STA. = 110+09.69
Δ = 12° 01′ 04″ (LT)
D = 11° 27′ 33″
R = 500.00′
T = 52.63′
L = 104.87′
E = 2.76′
e = NC
P.C. STA. = 109+57.06
P.T. STA. = 110+61.94
PROP. CURVE COOK_12
PI STA. = 112+14.13
Δ = 24° 22′ 18″ (RT)
D = 20° 50′ 06″
R = 275.00′
T = 59.39′
L = 116.98′
E = 6.34′
e = NC
P.C. STA. = 111+54.74
P.T. STA. = 112+71.72
N
0 40
1″=40′
EXIST.
PI STA.
℄ PROPOSED PIERCE LN
PROPOSED 6′ SIDEWALK WITH 5′ BUFFER
PROPOSED 6′ SIDEWALK WITH 5′ BUFFER
℄ PROPOSED COOK ST.
PIERCE LN
COOK ST.
EXISTING ROW
PI Sta 99+12.57
PC Sta 97+52.57
PT Sta 100+03.90
PC Sta 101+68.93
PT Sta 104+71.94
PC Sta 109+57.06
PT Sta 110+61.94
PC Sta 111+54.74
PRC Sta 112+71.72
PT Sta 113+88.63
PI Sta 113+30.27
PI Sta 103+63.54
MATCHLINE 112+40.11
IL RT 3 (W. HOMER ADAMS PKWY)
IL RT 3 (W. DELMAR AVE.)
EXISTING ROW
EXISTING ROW
COOK STREET
INTERSECTION DES
FAU ROUTE 8955 8956 WITH (IL 3)
FAU ROUTE 8956 (W.DEL
SEC. NO. 60R-2
SCALE 1″=40′
CONTRACT NO.: 76F84

TWO-WAY STOP-CONTROLLED CAPACITY DESIGN ANALYSIS

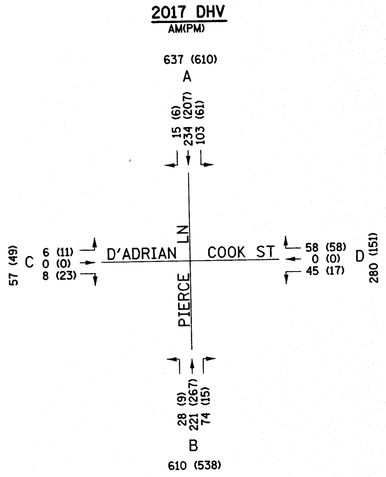
PROGRAM USED HCS 2010 VERSION 6.90 PEAK HOUR FACTOR 0.92

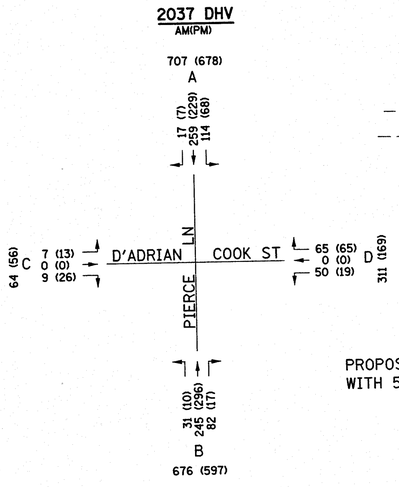
SIGNALIZED INTERSECTION(S) WITHIN 0.25 MILES OF INTERSECTION ALONG MAJOR ROUTE? (YES/NO) NO

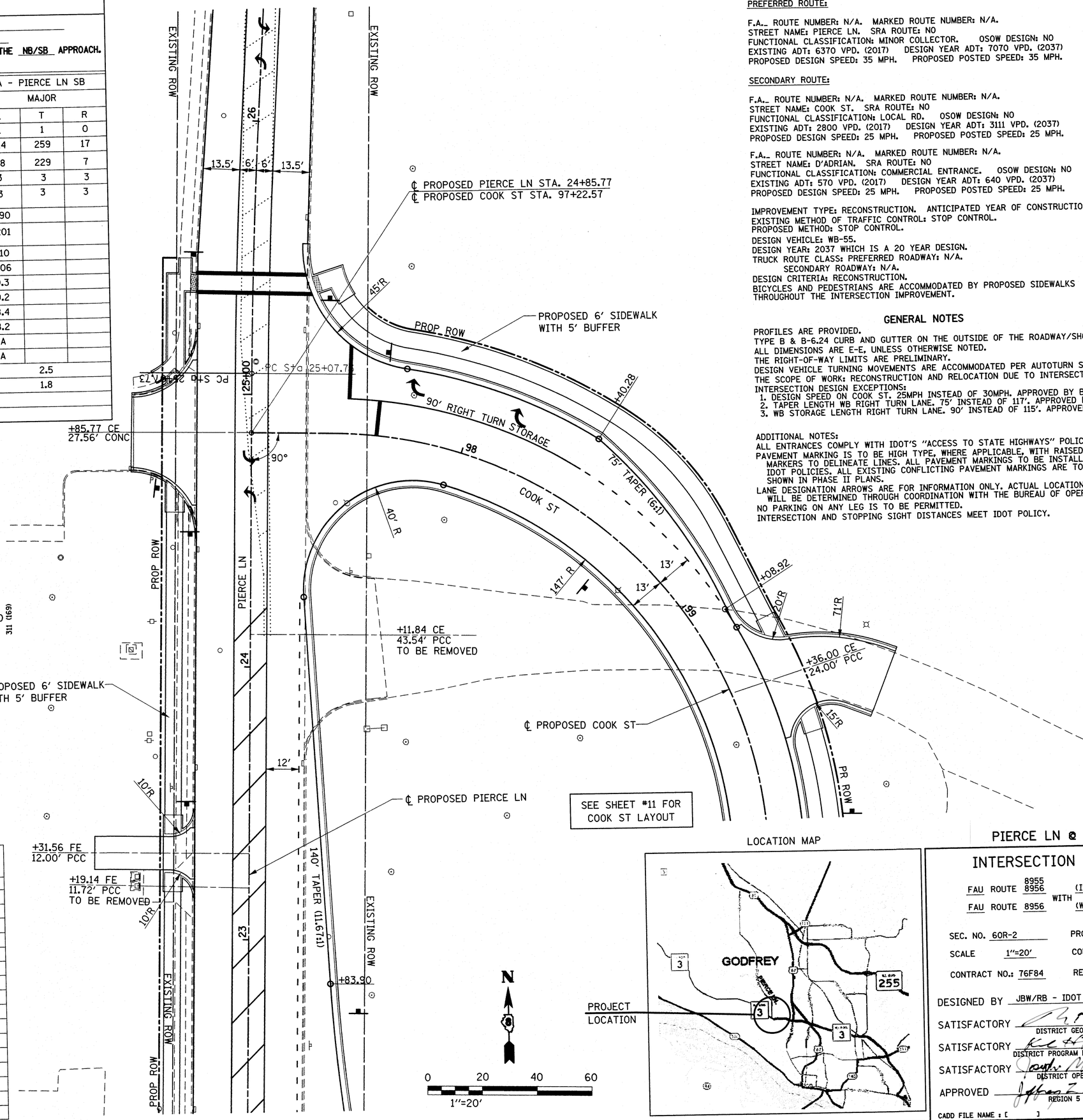
FLARED APPROACH FOR MINOR STREET RIGHT-TURNING VEHICLE? (YES/NO): NO ON THE EB/WB APPROACH NO ON THE NB/SB APPROACH.

SINGLE OR TWO-STAGE GAP ACCEPTANCE? SINGLE

APPROACH		C - D'ADRIAN EB			D - COOK ST WB			B - PIERCE LN NB			A - PIERCE LN SB		
MAJOR OR MINOR LEG?		MINOR			MINOR			MAJOR			MAJOR		
LANE GROUP		L	T	R	L	T	R	L	T	R	L	T	R
NUMBER OF LANES		0	1	0	0	1	1	1	1	0	1	1	0
2037 30TH MAX. HOUR TRAFFIC (V_1) (veh/h)	A.M.	7	0	9	50	0	65	31	245	82	114	259	17
	P.M.	13	0	26	19	0	65	10	296	17	68	229	7
PEDESTRIANS/HOUR (ped/h) COUNT OR ESTIMATE?	A.M.	3	3	3	0	0	0	3	3	3	3	3	3
	P.M.	0	0	0	4	4	4	3	3	3	3	3	3
CAPACITY ($c_{p,x}$ OR c_t) (veh/h)	A.M.		443		326		717	1244			1190		
	P.M.		570		403		697	1293			1201		
v/c RATIO ($v_1/c_{p,x}$)	A.M.		0.04		0.17		0.10	0.03			1.10		
	P.M.		0.07		0.05		0.10	0.01			0.06		
STORAGE QUEUE (NO. OF VEHICLES)	A.M.		0.1		0.6		0.3	0.1			0.3		
	P.M.		0.2		0.2		0.3	0.0			0.2		
CONTROL DELAY (SECONDS)	A.M.		13.5		18.2		10.6	8.0			8.4		
	P.M.		11.8		14.4		10.8	7.8			8.2		
LANE GROUP LEVEL OF SERVICE	A.M.		B		C		B	A			A		
	P.M.		B		B		B	A			A		
APPROACH DELAY, d (SEC)	A.M.	13.5			13.9			0.7			2.5		
	P.M.	11.8			11.6			0.2			1.8		
APPROACH LEVEL OF SERVICE	A.M.	B			B								
	P.M.	B			B								







TRAFFIC DATA

MOVEMENT	YEAR 2014 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)	101	60	4	4		103	61		114	68
AB (T)	230	203				234	207		259	229
AC (R)	14	5				15	6		17	7
BC (L)	27	8	4	4		28	9		31	10
BA (T)	217	263				221	267		245	296
BD (R)	72	14				74	15		82	17
CA (L)	5	10	3	3		6	11		7	13
CD (T)	0	0	3	3		0	0		0	0
CB (R)	7	22	3	3		8	23		9	26
DB (L)	44	16	3	3		45	17		50	19
DC (T)	0	0	3	3		0	0		0	0
DA (R)	57	57	3	3		58	58		65	65
TOTAL A	624	598				637	610		707	678
TOTAL B	597	526				610	538		676	597
TOTAL C	53	45				57	49		64	56
TOTAL D	274	147				280	151		311	169

T = THROUGH, L = LEFT, R = RIGHT

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: PIERCE LN. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR COLLECTOR. OSOW DESIGN: NO
EXISTING ADT: 6370 VPD. (2017) DESIGN YEAR ADT: 7070 VPD. (2037)
PROPOSED DESIGN SPEED: 35 MPH. PROPOSED POSTED SPEED: 35 MPH.

SECONDARY ROUTE:

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: COOK ST. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL RD. OSOW DESIGN: NO
EXISTING ADT: 2800 VPD. (2017) DESIGN YEAR ADT: 3111 VPD. (2037)
PROPOSED DESIGN SPEED: 25 MPH. PROPOSED POSTED SPEED: 25 MPH.

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: D'ADRIAN. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: COMMERCIAL ENTRANCE. OSOW DESIGN: NO
EXISTING ADT: 570 VPD. (2017) DESIGN YEAR ADT: 640 VPD. (2037)
PROPOSED DESIGN SPEED: 25 MPH. PROPOSED POSTED SPEED: 25 MPH.

IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION:
EXISTING METHOD OF TRAFFIC CONTROL: STOP CONTROL.
PROPOSED METHOD: STOP CONTROL.
DESIGN VEHICLE: WB-55.
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: N/A.
SECONDARY ROADWAY: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B & B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULD
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTW
THE SCOPE OF WORK: RECONSTRUCTION AND RELOCATION DUE TO INTERSECTION
INTERSECTION DESIGN EXCEPTIONS:
1. DESIGN SPEED ON COOK ST. 25MPH INSTEAD OF 30MPH. APPROVED BY B.D.E.
2. TAPER LENGTH WB RIGHT TURN LANE. 75' INSTEAD OF 117'. APPROVED BY B
3. WB STORAGE LENGTH RIGHT TURN LANE. 90' INSTEAD OF 115'. APPROVED BY

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REF
MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED P
IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE
SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF
WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIC
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

LOCATION MAP

PIERCE LN @ CO

INTERSECTION DE

FAU ROUTE 8955 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DEL

SEC. NO. 60R-2 PROJ. N
SCALE 1"=20' COUNTY
CONTRACT NO.: 76F84 REV. N

DESIGNED BY JBW/RB - IDOT D8

SATISFACTORY DISTRICT GEOMETRI
SATISFACTORY DISTRICT PROGRAM DEVEL
SATISFACTORY DISTRICT OPERATIC
APPROVED REGION 5 ENGIN

CADD FILE NAME : [ ]

PLOT DATE = 8/16/2017
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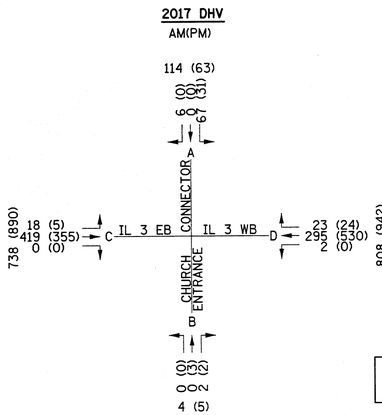
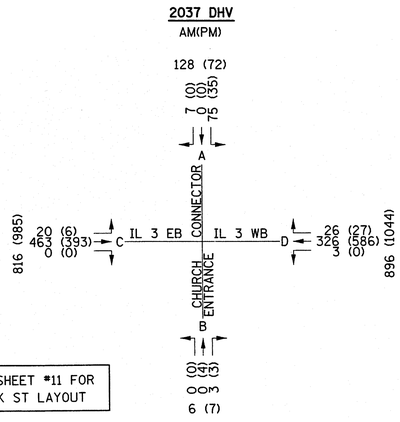
USER NAME = wedmore_jb

TWO-WAY STOP-CONTROLLED CAPACITY DESIGN ANALYSIS

PROGRAM USED HCS 2010 VERSION 6.90 PEAK HOUR FACTOR 0.92
SIGNALIZED INTERSECTION(S) WITHIN 0.25 MILES OF INTERSECTION ALONG MAJOR ROUTE? (YES/NO) NO
FLARED APPROACH FOR MINOR STREET RIGHT-TURNING VEHICLE? (YES/NO): NO ON THE EB/WB APPROACH NO ON THE NB/SB APPROACH.
SINGLE OR TWO-STAGE GAP ACCEPTANCE? SINGLE

APPROACH		C - IL RT 3 EB			D - IL RT 3 WB			B - CHURCH ENTRANCE NB			A - CONNECTOR SB		
MAJOR OR MINOR LEG?		MAJOR			MAJOR			MINOR			MINOR		
LANE GROUP		L	T	R	L	T	R	L	T	R	L	T	R
NUMBER OF LANES		1	1	0	1	1	0	0	1	0	0	1	0
2037 30TH MAX. HOUR TRAFFIC (V_f) (veh/h)	A.M.	20	463	0	3	326	26	0	0	3	75	0	7
	P.M.	6	393	0	0	586	27	0	4	3	35	0	0
PEDESTRIANS/HOUR (ped/h) COUNT OR ESTIMATE?	A.M.	0	0	0	0	0	0	0	0	0	0	0	0
	P.M.	0	0	0	0	0	0	0	0	0	0	0	0
CAPACITY ($c_{p,x}$ OR c_f) (veh/h)	A.M.	1170			1055				566			259	
	P.M.	918			1126				291			185	
v/c RATIO ($v_f/c_{p,x}$)	A.M.	0.02			0.00				0.01			0.35	
	P.M.	0.01			0.00				0.02			0.21	
STORAGE QUEUE (NO. OF VEHICLES)	A.M.	0.1			0.0				0.0			1.5	
	P.M.	0.0			0.0				0.1			0.7	
CONTROL DELAY (SECONDS)	A.M.	8.1			8.4				11.4			26.1	
	P.M.	9.0			8.2				17.7			29.4	
LANE GROUP LEVEL OF SERVICE	A.M.	A			A				B			D	
	P.M.	A			A				C			D	
APPROACH DELAY, d (SEC)	A.M.	0.3			0.1				11.4			26.1	
	P.M.	0.1			0.0				17.7			29.4	
APPROACH LEVEL OF SERVICE	A.M.								B			D	
	P.M.								C			D	





SEE SHEET #11 FOR COOK ST LAYOUT

ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:

F.A.U. ROUTE NUMBER: 8955. MARKED ROUTE NUMBER: IL ROUTE 3.
STREET NAME: W. HOMER ADAMS PKWY. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL. OSOW DESIGN: NO
EXISTING ADT: 9420 VPD. (2017) DESIGN YEAR ADT: 10440 VPD. (2037)
PROPOSED DESIGN SPEED: 45 MPH. PROPOSED POSTED SPEED: 45 MPH.

SECONDARY ROUTE:

F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: COOK ST CONNECTOR SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL ROAD. OSOW DESIGN: NO
EXISTING ADT: 1140 VPD. (2017) DESIGN YEAR ADT: 1280 VPD. (2037)
PROPOSED DESIGN SPEED: 30 MPH. PROPOSED POSTED SPEED: 25 MPH.

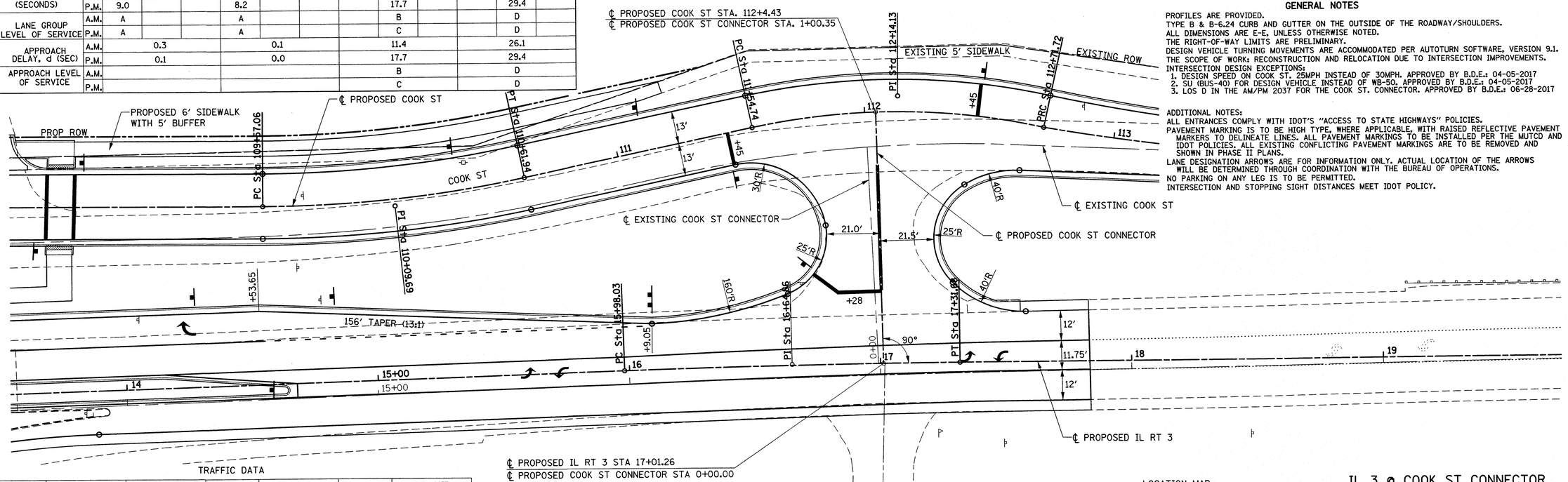
F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: CHURCH ENTRANCE. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: COMMERCIAL ENTRANCE. OSOW DESIGN: NO
EXISTING ADT: 50 VPD. (2017) DESIGN YEAR ADT: 70 VPD. (2037)
PROPOSED DESIGN SPEED: 15 MPH. PROPOSED POSTED SPEED: 15 MPH.

IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION: 2020.
EXISTING METHOD OF TRAFFIC CONTROL: STOP CONTROL.
PROPOSED METHOD: STOP CONTROL.
DESIGN VEHICLE: SU (BUS-40).
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: CLASS II.
SECONDARY ROADWAY: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B & B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 9.1.
THE SCOPE OF WORK: RECONSTRUCTION AND RELOCATION DUE TO INTERSECTION IMPROVEMENTS.
INTERSECTION DESIGN EXCEPTIONS:
1. DESIGN SPEED ON COOK ST. 25MPH INSTEAD OF 30MPH. APPROVED BY B.D.E.: 04-05-2017
2. SU (BUS-40) FOR DESIGN VEHICLE INSTEAD OF WB-50. APPROVED BY B.D.E.: 04-05-2017
3. LOS D IN THE AM/PM 2037 FOR THE COOK ST. CONNECTOR. APPROVED BY B.D.E.: 06-28-2017

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REFLECTIVE PAVEMENT MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED PER THE MUTCD AND IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE REMOVED AND SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF THE ARROWS WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIONS.
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

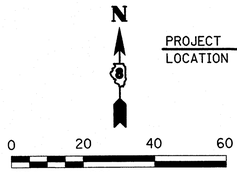


TRAFFIC DATA

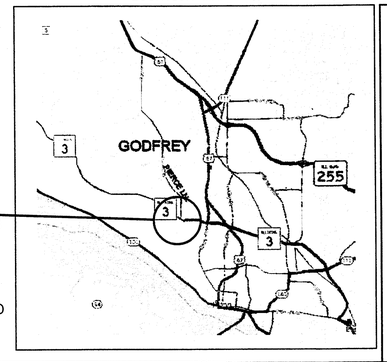
MOVEMENT	YEAR 2014 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)	66	30	3	3		67	31		75	35
AB (T)	0	0	3	3		0	0		0	0
AC (R)	5	0	3	3		6	0		7	0
BC (L)	0	0	3	3		0	0		0	0
BA (T)	0	2	3	3		0	3		0	4
BD (R)	1	1	3	3		2	2		3	3
CA (L)	17	4	3	3		18	5		20	6
CD (T)	412	349	0	0		419	355		463	393
CB (R)	0	0	0	0		0	0		0	0
DB (L)	1	0	3	3		2	0		3	0
DC (T)	290	522	0	0		295	530		326	586
DA (R)	22	23	0	0		23	24		26	27
TOTAL A	110	59				114	63		128	72
TOTAL B	2	3				4	5		6	7
TOTAL C	724	875				738	890		816	985
TOTAL D	792	925				808	942		896	1044

T = THROUGH, L = LEFT, R = RIGHT

PROP. CURVE IL3SOUTH_4
PI STA. = 16+64.86
Δ = 1° 23' 41" (RT)
D = 1° 02' 37"
R = 5,489.99'
T = 66.83'
L = 133.65'
E = 0.41'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 15+98.03
P.T. STA. = 17+31.68



LOCATION MAP



IL 3 @ COOK ST CONNECTOR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 WITH (IL 3)
FAU ROUTE 8956 (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2 PROJ. NO.
SCALE 1"=20' COUNTY MADISON
CONTRACT NO.: 76F84 REV. NO.

DESIGNED BY JBW/RB - IDOT D8 DATE AUGUST 2017

SATISFACTORY — DISTRICT GEOMETRICS ENGINEER — 8/16/17 DATE
SATISFACTORY — DISTRICT PROGRAM DEVELOPMENT ENGINEER — 8/17/17 DATE
SATISFACTORY — DISTRICT OPERATIONS ENGINEER — 8/22/17 DATE
APPROVED — REGION 5 ENGINEER — 8/22/17 DATE

CADD FILE NAME : [ ]

I.D.S. SHEET 13 OF 30

BDE-9908

PLOT DATE = 8/10/2017
FILE NAME = pw:\\IL9B4EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 8\Projects\108768A4\CADData\Geometrics\76F84 - Geom_Main2D.dgn
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USER NAME = wadmore_jb

TWO-WAY STOP-CONTROLLED CAPACITY DESIGN ANALYSIS

PROGRAM USED HCS 2010 VERSION 6.90 PEAK HOUR FACTOR 0.92
SIGNALIZED INTERSECTION(S) WITHIN 0.25 MILES OF INTERSECTION ALONG MAJOR ROUTE? (YES/NO) NO
FLARED APPROACH FOR MINOR STREET RIGHT-TURNING VEHICLE? (YES/NO): NO ON THE EB/WB APPROACH NO ON THE NB APPROACH.
SINGLE OR TWO-STAGE GAP ACCEPTANCE? SINGLE

APPROACH		C - COOK ST EB			D - COOK ST WB			B - CONNECTOR NB		
MAJOR OR MINOR LEG?		MAJOR			MAJOR			MINOR		
LANE GROUP		L	T	R	L	T	R	L	T	R
NUMBER OF LANES		0	1	0	0	1	0	0	1	0
2037 30TH MAX. HOUR TRAFFIC (V_i) (veh/h)	A.M.		57	90	0	82		47		0
	P.M.		38	34	3	36		25		8
PEDESTRIANS/HOUR (ped/h) COUNT OR ESTIMATE?	A.M.		0	0	5	5		0		0
	P.M.		3	3	6	6		0		0
CAPACITY ($c_{p,x}$ OR c_t) (veh/h)	A.M.		924		752			1613		
	P.M.		910		807			1609		
v/c RATIO ($v_i/c_{p,x}$)	A.M.		0.17		0.12			0.03		
	P.M.		0.09		0.05			0.02		
STORAGE QUEUE (NO. OF VEHICLES)	A.M.		0.6		0.4			0.1		
	P.M.		0.3		0.2			0.1		
CONTROL DELAY (SECONDS)	A.M.		9.7		10.4			7.3		
	P.M.		9.3		9.7			7.3		
LANE GROUP LEVEL OF SERVICE	A.M.		A		B			A		
	P.M.		A		A			A		
APPROACH DELAY, d (SEC)	A.M.		9.7			10.4			7.3	
	P.M.		9.3			9.7			5.5	
APPROACH LEVEL OF SERVICE	A.M.		A			B				
	P.M.		A			A				

N

0 20 40 60

SCALE: 1"=20'

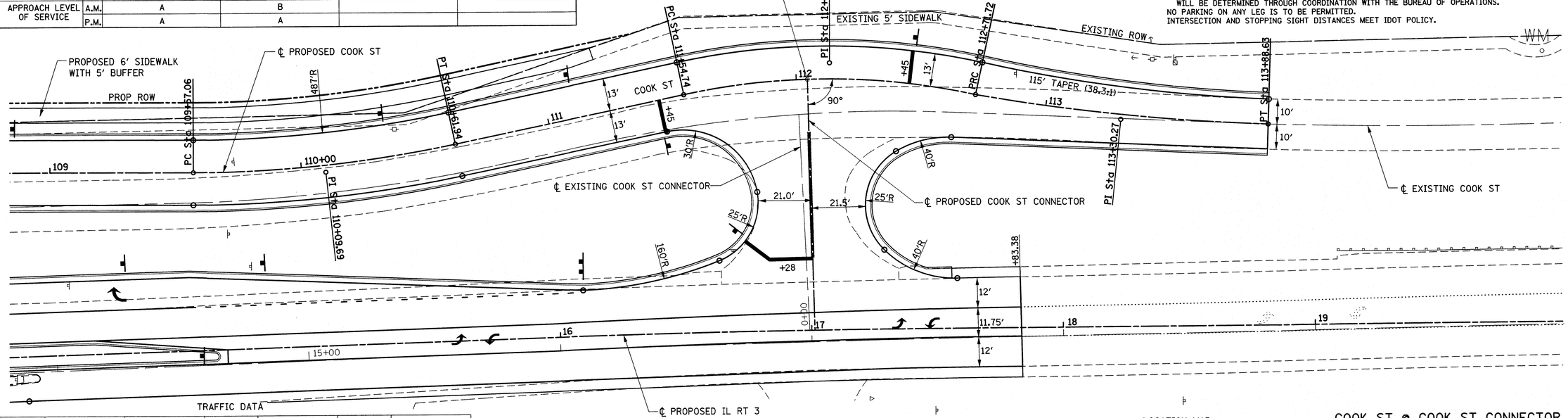
PROP. CURVE COOK_9
PI STA. = 110+09.69
Δ = 12° 01' 04" (LT)
D = 11° 27' 33"
R = 500.00'
T = 52.63'
L = 104.87'
E = 2.76'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 109+57.06
P.T. STA. = 110+61.94

PROP. CURVE COOK_12
PI STA. = 112+14.13
Δ = 24° 22' 18" (RT)
D = 20° 50' 06"
R = 275.00'
T = 59.39'
L = 116.98'
E = 6.34'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 111+54.74
P.T. STA. = 112+71.72

℄ PROPOSED COOK ST STA 112+4.43
℄ PROPOSED COOK ST CONNECTOR STA 1+00.35

SEE SHEET #11 FOR COOK ST LAYOUT

PROP. CURVE COOK_13
PI STA. = 113+30.27
Δ = 7° 57' 46" (LT)
D = 6° 48' 39"
R = 841.23'
T = 58.55'
L = 116.91'
E = 2.04'
e = NC
T.R. = N/A
S.E. RUN = N/A
P.C. STA. = 112+71.72
P.T. STA. = 113+88.63

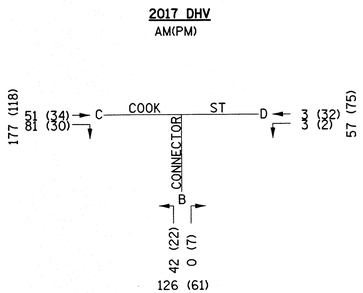


TRAFFIC DATA

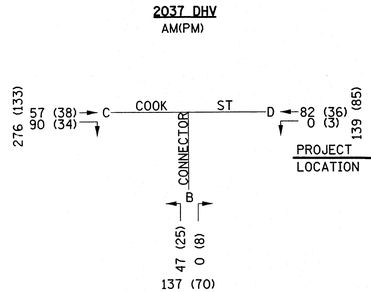
MOVEMENT	YEAR 2014 30TH MAXIMUM HOUR TRAFFIC		PERCENT TRUCK TRAFFIC IN 30TH MAX. HOUR		ESTIMATED PERCENT INCREASE BY	YEAR 2017 30TH MAXIMUM HOUR TRAFFIC		ESTIMATED PERCENT INCREASE BY	YEAR 2037 30TH MAXIMUM HOUR TRAFFIC	
	A.M.	P.M.	A.M.	P.M.		A.M.	P.M.		A.M.	P.M.
AD (L)										
AB (T)										
AC (R)										
BC (L)	41	21	3	3		42	22		47	25
BA (T)										
BD (R)	0	6	0	0		0	7		0	8
CA (L)										
CD (T)	50	33	3	3		51	34		57	38
CB (R)	79	29	3	3		81	30		90	34
DB (L)	0	1	3	3		3	2		0	3
DC (T)	72	31	3	3		3	32		82	36
DA (R)										
TOTAL A										
TOTAL B	120	57				126	61		137	70
TOTAL C	242	114				177	118		276	133
TOTAL D	122	71				57	75		139	85

T = THROUGH, L = LEFT, R = RIGHT

2017 DHV
AM(PM)

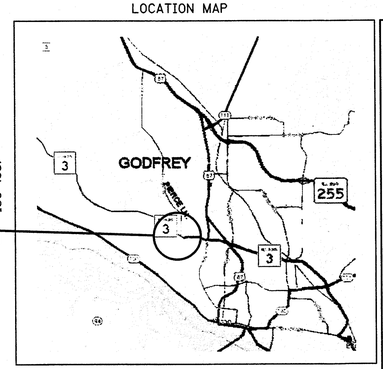


2037 DHV
AM(PM)



PROJECT LOCATION

LOCATION MAP



ELEMENTS CONTROLLING DESIGN

PREFERRED ROUTE:
F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: COOK ST. SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL ROAD. OSOW DESIGN: NO
EXISTING ADT: 1770 VPD. (2017) DESIGN YEAR ADT: 2037 VPD. (2037)
PROPOSED DESIGN SPEED: 25 MPH. PROPOSED POSTED SPEED: 25 MPH.

SECONDARY ROUTE:
F.A._ ROUTE NUMBER: N/A. MARKED ROUTE NUMBER: N/A.
STREET NAME: COOK ST CONNECTOR SRA ROUTE: NO
FUNCTIONAL CLASSIFICATION: LOCAL ROAD. OSOW DESIGN: NO
EXISTING ADT: 1260 VPD. (2017) DESIGN YEAR ADT: 1370 VPD. (2037)
PROPOSED DESIGN SPEED: 25 MPH. PROPOSED POSTED SPEED: 25 MPH.

IMPROVEMENT TYPE: RECONSTRUCTION. ANTICIPATED YEAR OF CONSTRUCTION: 2020.
EXISTING METHOD OF TRAFFIC CONTROL: STOP CONTROL.
PROPOSED METHOD: STOP CONTROL.
DESIGN VEHICLE: SU (BUS-40).
DESIGN YEAR: 2037 WHICH IS A 20 YEAR DESIGN.
TRUCK ROUTE CLASS: PREFERRED ROADWAY: N/A.
SECONDARY ROADWAY: N/A.
DESIGN CRITERIA: RECONSTRUCTION.
BICYCLES AND PEDESTRIANS ARE ACCOMMODATED BY PROPOSED SIDEWALKS THROUGHOUT THE INTERSECTION IMPROVEMENT.

GENERAL NOTES

PROFILES ARE PROVIDED.
TYPE B-6.24 CURB AND GUTTER ON THE OUTSIDE OF THE ROADWAY/SHOULDERS.
ALL DIMENSIONS ARE E-E, UNLESS OTHERWISE NOTED.
THE RIGHT-OF-WAY LIMITS ARE PRELIMINARY.
DESIGN VEHICLE TURNING MOVEMENTS ARE ACCOMMODATED PER AUTOTURN SOFTWARE, VERSION 9.1.
THE SCOPE OF WORK: RECONSTRUCTION DUE TO INTERSECTION IMPROVEMENTS.
INTERSECTION DESIGN EXCEPTIONS:
1. SU (BUS-40) FOR DESIGN VEHICLE INSTEAD OF WB-50. APPROVED BY B.D.E.: 04-05-2017
2. DESIGN SPEED ON COOK ST. 25MPH INSTEAD OF 30MPH. APPROVED BY B.D.E.: 04-05-2017

ADDITIONAL NOTES:
ALL ENTRANCES COMPLY WITH IDOT'S "ACCESS TO STATE HIGHWAYS" POLICIES.
PAVEMENT MARKING IS TO BE HIGH TYPE, WHERE APPLICABLE, WITH RAISED REFLECTIVE PAVEMENT MARKERS TO DELINEATE LINES. ALL PAVEMENT MARKINGS TO BE INSTALLED PER THE MUTCD AND IDOT POLICIES. ALL EXISTING CONFLICTING PAVEMENT MARKINGS ARE TO BE REMOVED AND SHOWN IN PHASE II PLANS.
LANE DESIGNATION ARROWS ARE FOR INFORMATION ONLY. ACTUAL LOCATION OF THE ARROWS WILL BE DETERMINED THROUGH COORDINATION WITH THE BUREAU OF OPERATIONS.
NO PARKING ON ANY LEG IS TO BE PERMITTED.
INTERSECTION AND STOPPING SIGHT DISTANCES MEET IDOT POLICY.

COOK ST @ COOK ST CONNECTOR

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2 PROJ. NO.
SCALE 1"=20' COUNTY MADISON
CONTRACT NO.: 76F84 REV. NO.

DESIGNED BY JBW/RB - IDOT D8 DATE AUGUST 2017

SATISFACTORY — DISTRICT GEOMETRICS ENGINEER — DATE 8/10/17
SATISFACTORY — DISTRICT PROGRAM DEVELOPMENT ENGINEER — DATE 8/17/17
SATISFACTORY — DISTRICT OPERATIONS ENGINEER — DATE 8/22/17
APPROVED — REGION 5 ENGINEER — DATE 8/22/17

CADD FILE NAME : C J

I.D.S. SHEET 14 OF 30

BDE-9908

PIERCE LN SOUTHBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	35°16'32.6"	-
R1 - ENTRY PATH RADIUS	118.59'	22.5
R2 - CIRCULATING PATH RADIUS	98.38'	19.6
R3 - EXIT PATH RADIUS	238.10'	29.1
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	65.76'	17.7
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

IL 3 EASTBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	34°24'48.94"	-
R1 - ENTRY PATH RADIUS	141.00'	24.0
R2 - CIRCULATING PATH RADIUS	89.28'	18.7
R3 - EXIT PATH RADIUS	130.39'	23.3
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	235.31'	29.0
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

IL 3 WESTBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	28°59'46.50"	-
R1 - ENTRY PATH RADIUS	205.89'	27.4
R2 - CIRCULATING PATH RADIUS	92.61'	18.7
R3 - EXIT PATH RADIUS	140.13'	23.9
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	347.81'	33.0
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

FRONTENAC PL NORTHBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	49°55'48.16"	-
R1 - ENTRY PATH RADIUS	84.74'	19.6
R2 - CIRCULATING PATH RADIUS	87.95'	18.7
R3 - EXIT PATH RADIUS	231.01'	28.7
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	127.60'	23.0
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

IL 3 EASTBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	34°41'43.57"	-
R1 - ENTRY PATH RADIUS	137.43'	23.9
R2 - CIRCULATING PATH RADIUS	167.07'	23.4
R3 - EXIT PATH RADIUS	165.74'	25.5
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	65.99'	17.7
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

IL 3 WESTBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	30°25'10.10"	-
R1 - ENTRY PATH RADIUS	239.16'	>29.1
R2 - CIRCULATING PATH RADIUS	144.69'	22.5
R3 - EXIT PATH RADIUS	216.17'	27.8
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	-	-
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

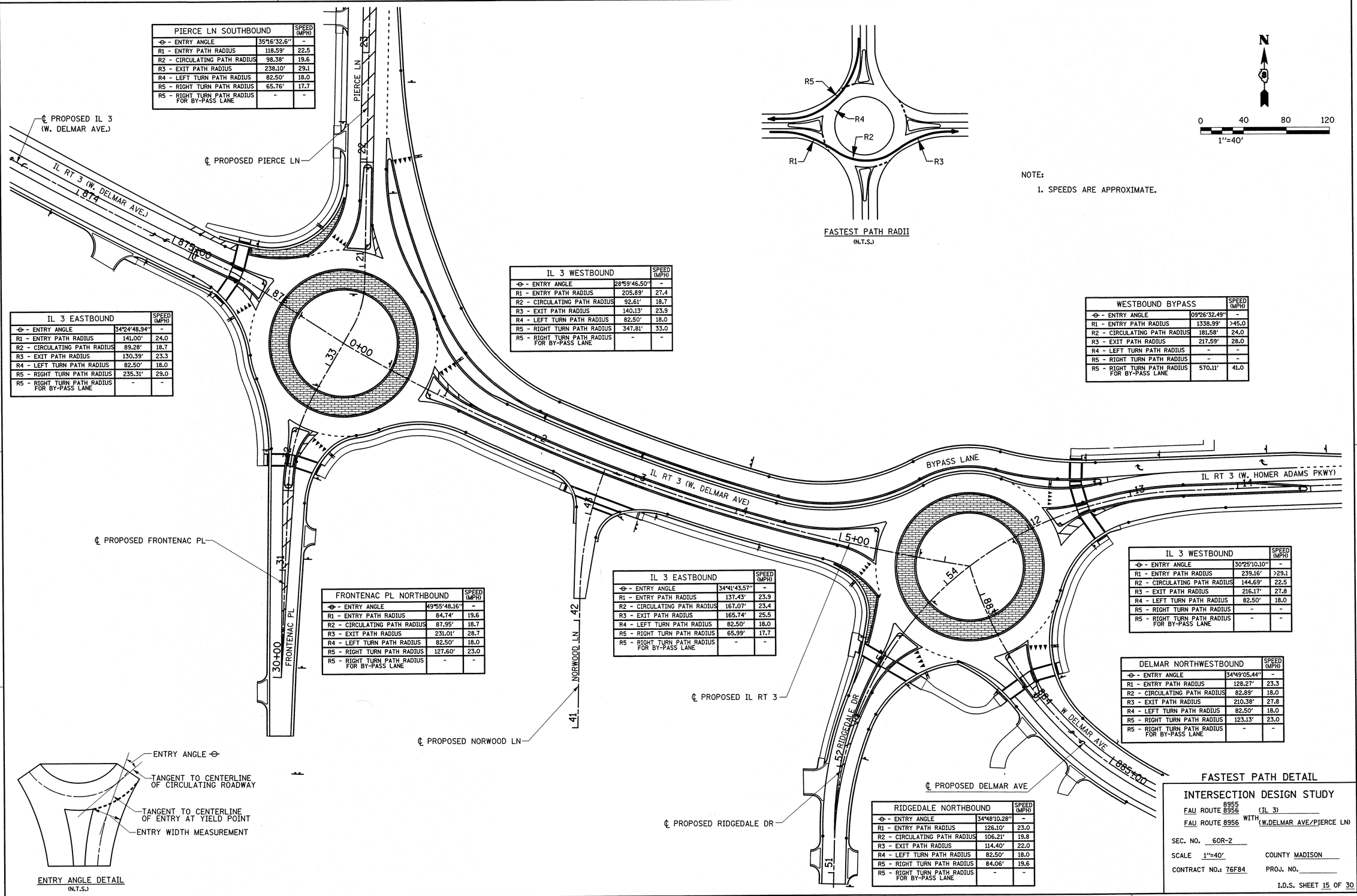
DELMAR NORTHWESTBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	34°49'05.44"	-
R1 - ENTRY PATH RADIUS	128.27'	23.3
R2 - CIRCULATING PATH RADIUS	82.89'	18.0
R3 - EXIT PATH RADIUS	210.38'	27.8
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	123.13'	23.0
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

RIDGEDALE NORTHBOUND		SPEED (MPH)
⊖ - ENTRY ANGLE	34°48'10.28"	-
R1 - ENTRY PATH RADIUS	126.10'	23.0
R2 - CIRCULATING PATH RADIUS	106.21'	19.8
R3 - EXIT PATH RADIUS	114.40'	22.0
R4 - LEFT TURN PATH RADIUS	82.50'	18.0
R5 - RIGHT TURN PATH RADIUS	84.06'	19.6
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	-	-

WESTBOUND BYPASS		SPEED (MPH)
⊖ - ENTRY ANGLE	09°26'32.49"	-
R1 - ENTRY PATH RADIUS	1338.99'	>45.0
R2 - CIRCULATING PATH RADIUS	181.58'	24.0
R3 - EXIT PATH RADIUS	217.59'	28.0
R4 - LEFT TURN PATH RADIUS	-	-
R5 - RIGHT TURN PATH RADIUS	-	-
R5 - RIGHT TURN PATH RADIUS FOR BY-PASS LANE	570.11'	41.0

FASTEST PATH RADII
(N.T.S.)

NOTE:
1. SPEEDS ARE APPROXIMATE.



ENTRY ANGLE DETAIL
(N.T.S.)

FASTEST PATH DETAIL

INTERSECTION DESIGN STUDY

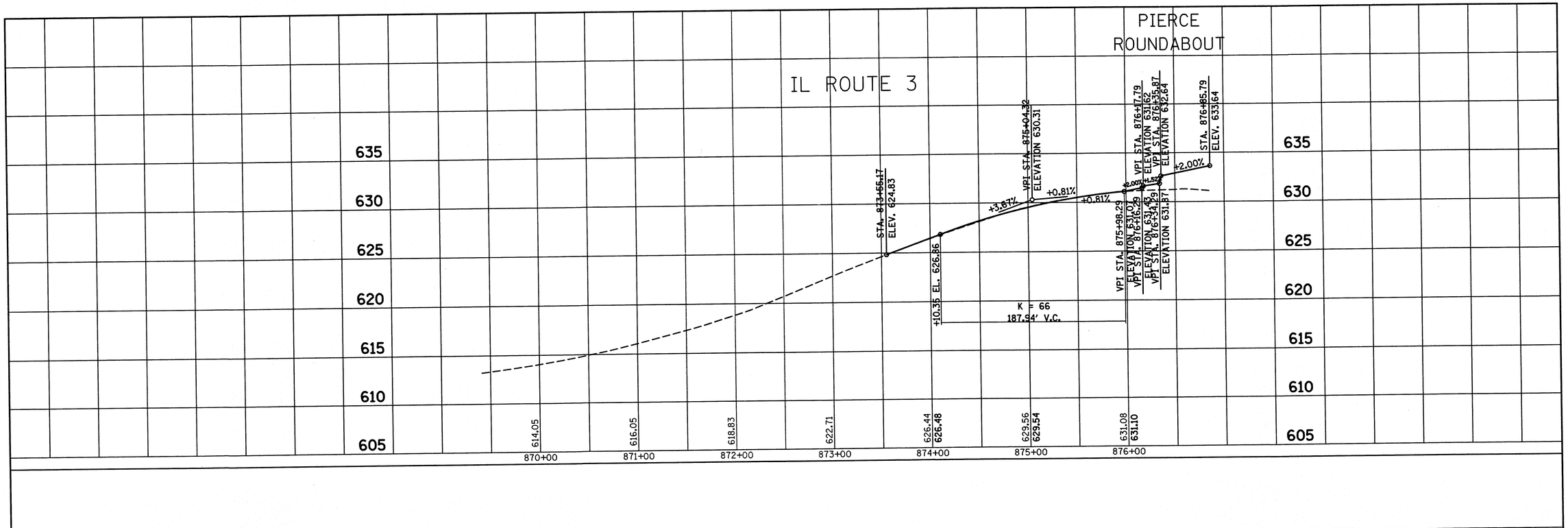
FAU ROUTE 8955 / 8956 (IL 3)
FAU ROUTE 8956 WITH (W.DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2
SCALE 1"=40'
COUNTY MADISON
CONTRACT NO.: 76F84
PROJ. NO.

I.D.S. SHEET 15 OF 30

BDE-9908

PLAN
NOTE BOOK
NO.
SURVEYED
PLOTTED
ALIGNMENT CHECKED
RT. OF WAY CHECKED
CADD FILE NAME
BY
DATE



PROFILE
NOTE BOOK
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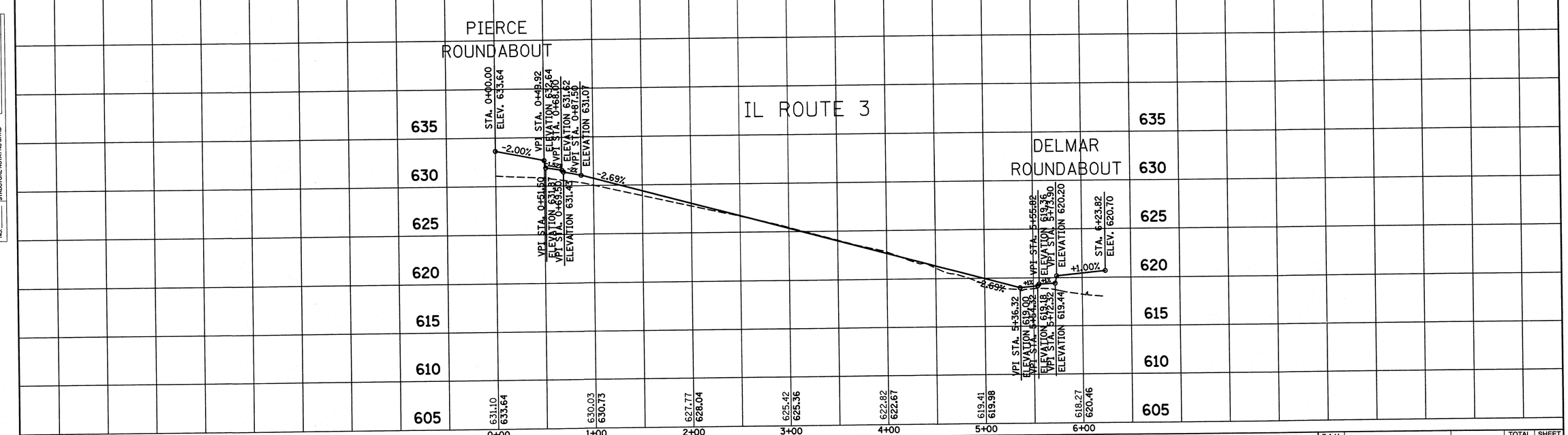
STRUCTURE NO(S)/ITNS CHKD
BY
DATE



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$MODELNAME$	PLOT DATE = 8/10/2017	DATE -	REVISED -

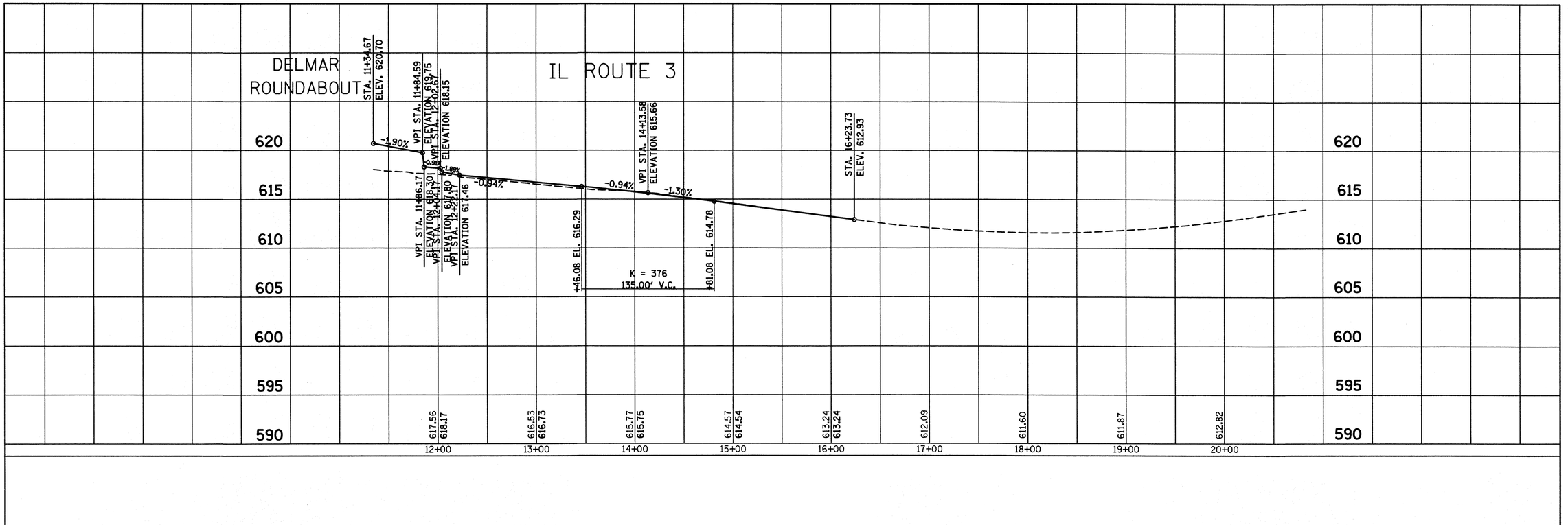
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3 PROFILES

SCALE: 1"=50' H/5' V | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-2	MADISON	30	16
* 8955/8956		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	DRAWN BY/CHECKED		
NOTE BOOK	ALIGNMENT CHECKED		
NO.	RT. OF WAY CHECKED		
	CADD FILE NAME		



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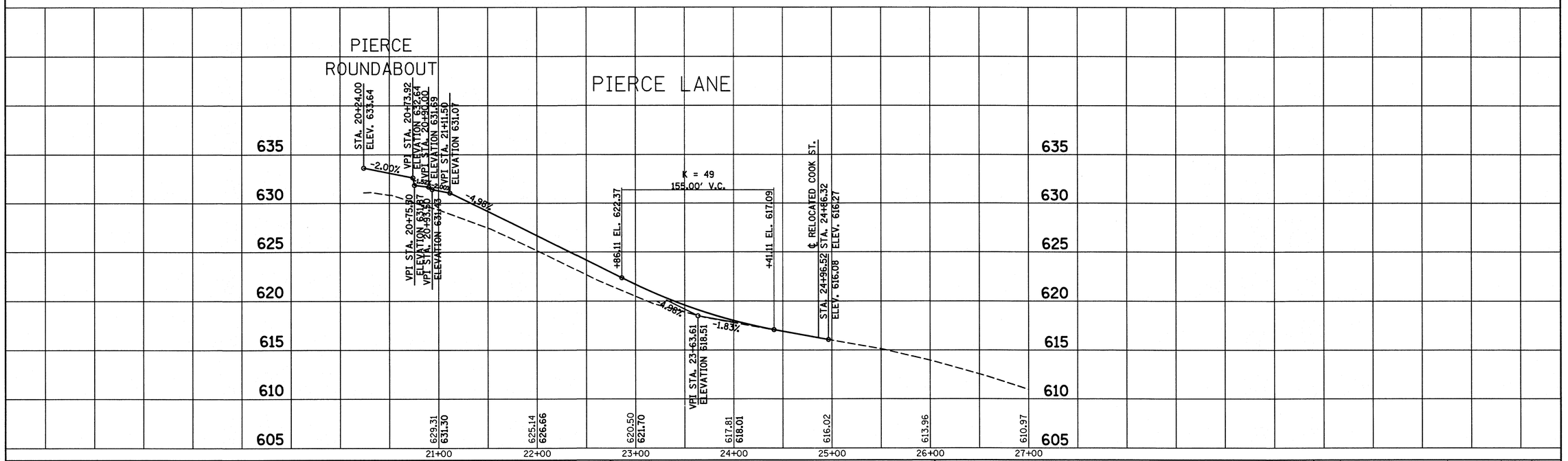
	PLOTTED		
	DRAWN BY/CHECKED		
NOTE BOOK	ALIGNMENT NOTE		
NO.	STRUCTURE NOTATNS CHKD		



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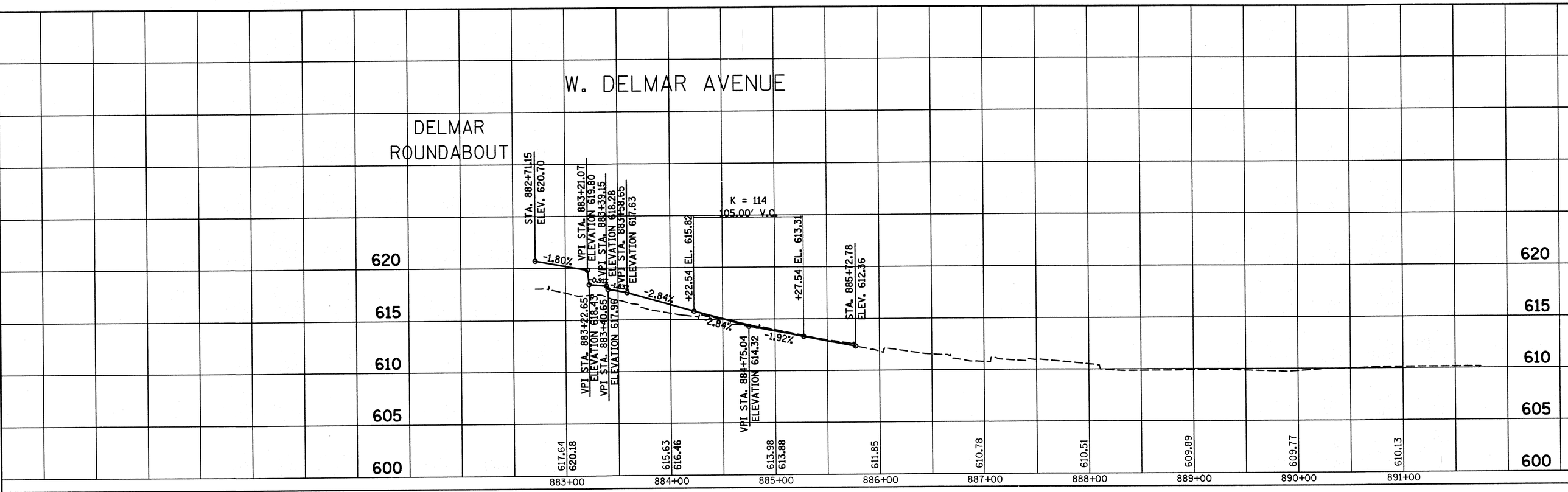
$MODELNAME$	PLOT DATE = 8/10/2017	DATE -	REVISED -

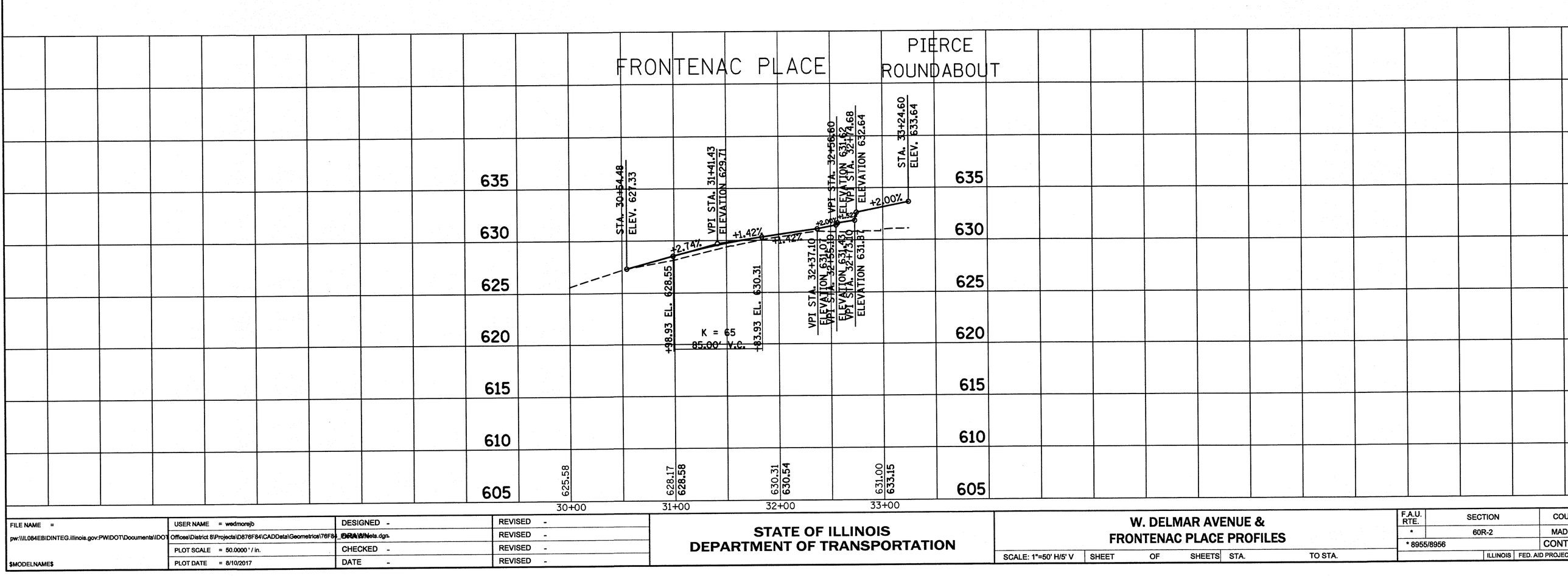
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3 &
PIERCE LANE PROFILES

SCALE: 1"=50' H/5' V | SHEET | OF | SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-2	MADISON	30	17
* 8955/8956		CONTRACT NO. 76F84		
		ILLINOIS	FED. AID PROJECT	





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$MODELNAME$	PLOT DATE = 8/10/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

W. DELMAR AVENUE &
FRONTENAC PLACE PROFILES

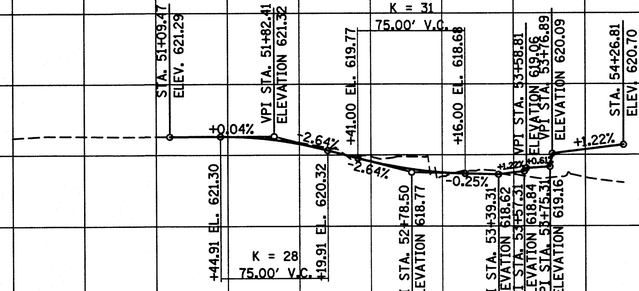
SCALE: 1"=50' H/5' V | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COU
*	60R-2	MAD
* 8955/8956		CONT
	ILLINOIS	FED. AID PROJEC

PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | GRADES CHECKED | STRUCTURE NO.ATA'NS CHKD | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE

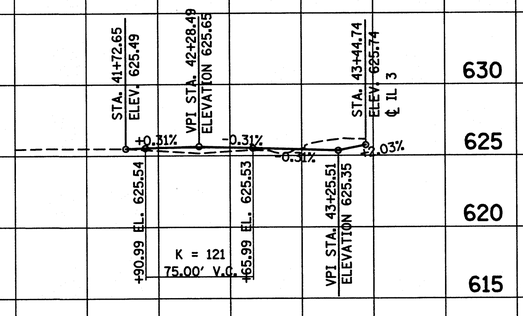
RIDGEDALE DRIVE

DELMAR ROUNDABOUT

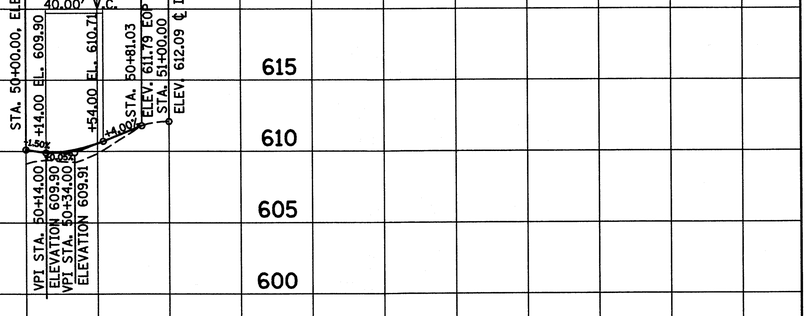


PROFILE | SURVEYED | PLOTTED | GRADES CHECKED | STRUCTURE NO.ATA'NS CHKD | NOTE BOOK | NO. | BY | DATE

NORWOOD LANE



COOK STREET CONNECTOR



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIDGEDALE DRIVE, NORWOOD LANE & COOK STREET CONNECTOR PROFILES

SCALE: 1"=50' H/5' V | SHEET OF SHEETS | STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-2	MADISON	30	19
* 8955/8956		CONTRACT NO. 76F84		
	ILLINOIS FED. AID PROJECT			

PLAN

SURVEYED	
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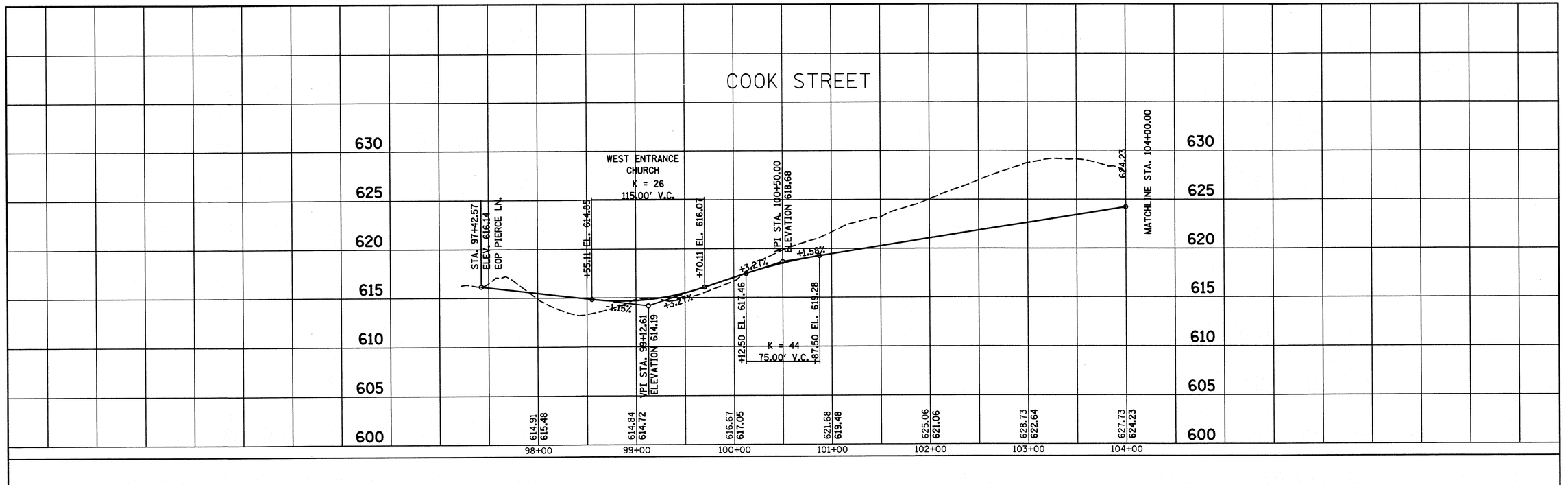
CORRECTLY CHECKED	
NOTE BOOK	RT. OF WAY CHECKED
NO.	CADD FILE NAME

BY	DATE



PROFILE

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NOTE BOOK	SHK NOTED
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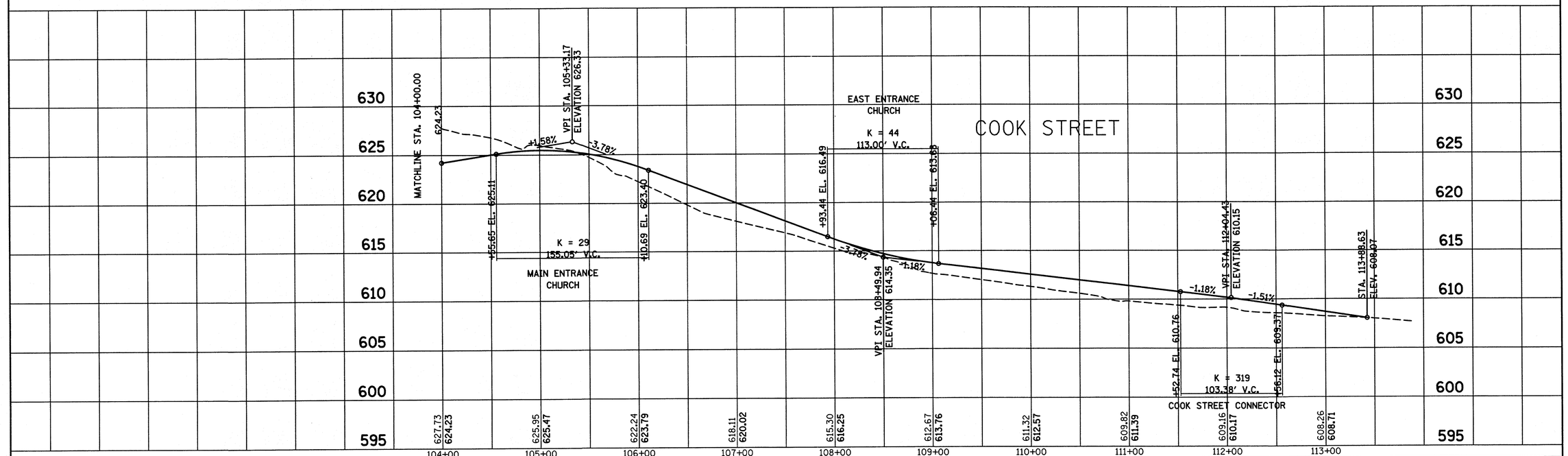
BY	DATE



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$MODELNAME$	PLOT DATE = 8/10/2017	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COOK STREET PROFILE

SCALE: 1"=50' H/5' V | SHEET OF SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-2	MADISON	30	20
* 8955/8956		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

PLOT DATE = 8/10/2017
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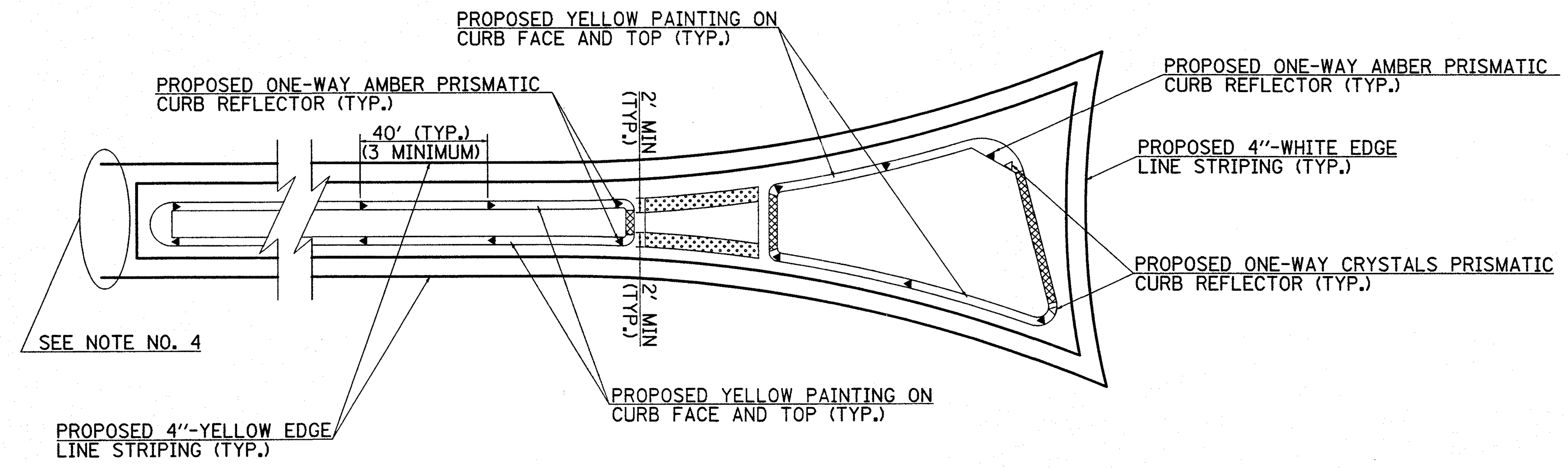
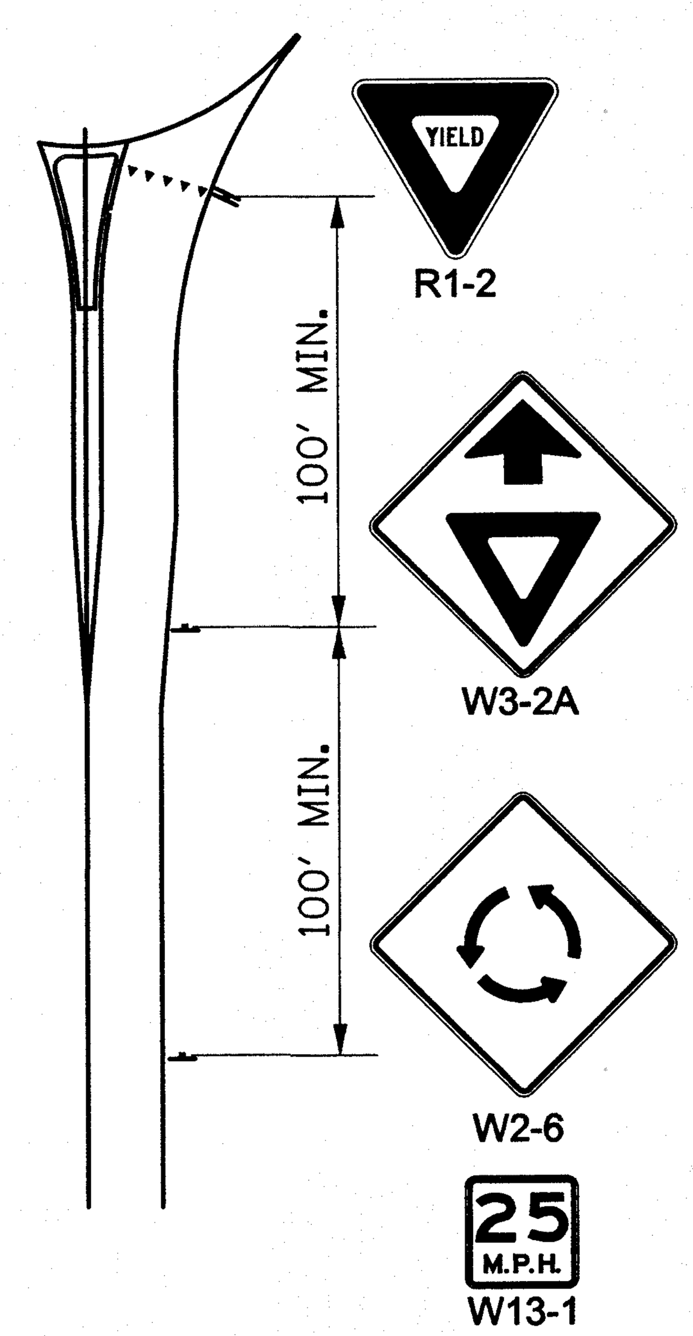


TYPICAL PRISMATIC REFLECTORS, STRIPING AND CURB PAINTING AROUND SPLITTER ISLANDS

(N.T.S.)

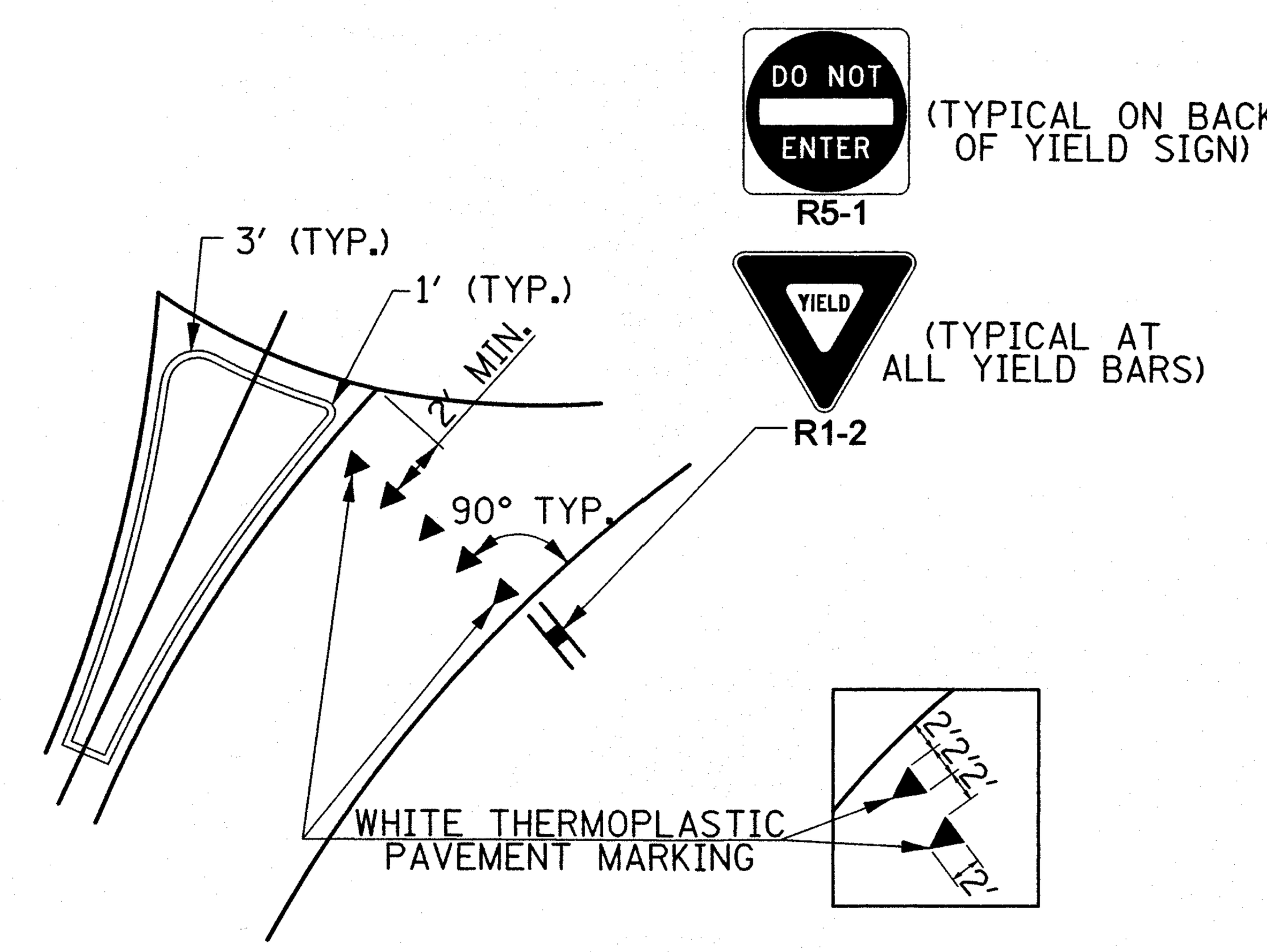
NOTES:

1. PRISMATIC REFLECTORS SHALL BE MONO-DIRECTIONAL AND POSITIONED SO THAT THE REFLECTIVE FACE IS FACING THE APPROACHING TRAFFIC.
2. PRISMATIC REFLECTORS SHALL BE CRYSTAL OR AMBER IN COLOR.
   - ▹ ONE-WAY CRYSTAL PRISMATIC CURB REFLECTOR
   - ▸ ONE-WAY AMBER PRISMATIC CURB REFLECTOR
3. CURB FACE AND TOP SHALL BE PAINTED AS PER THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION". SPLITTER ISLANDS AND MEDIAN SURFACES CAN BE UNPAINTED OR IF PAINTED, SHALL NOT BE SIMILAR COLOR TO THE TRUCK APRONS.
   WHITE PAINTING ON CURB FACE AND TOP
4. SEE PAVEMENT MARKING PLANS FOR PAVEMENT MARKINGS IN THE VICINITY OF THE SPLITTER ISLANDS.



TYPICAL APPROACH SIGNING

(N.T.S.)



TYPICAL YIELD BAR MARKING APPLICATION

(N.T.S.)

SIGNING & PAVEMENT MARKING

INTERSECTION DESIGN STUDY	
FAU ROUTE 8955 / 8956 WITH (IL 3)	
FAU ROUTE 8956 (W. DELMAR AVE/PIERCE LN)	
SEC. NO. 60R-2	
SCALE	COUNTY MADISON
SJN : 76F84	PROJ. NO.
	I.D.S. SHEET 21 OF 30

BDE-9908

MATCHLINE 23+00.00

MATCHLINE 30+00.00

4" SOLID DOUBLE YELLOW (TYP.)

12" SOLID YELLOW, 20' O.C. (TYP.)

WHITE THERMOPLASTIC YIELD BAR

4" SOLID WHITE

12" SOLID WHITE, 10' O.C. (TYP.)

4" SOLID YELLOW WITH 10'-30' SKIP-DASH WITH RPMs (TYP.)

4" SOLID YELLOW

12" WHITE 3'-3' SKIP-DASH (TYP.)

8" SOLID YELLOW (TYP.)

8" SOLID WHITE (TYP.)

4" SOLID YELLOW WITH 10'-30' SKIP-DASH WITH RPMs (TYP.)

12" SOLID WHITE (TYP.)

4" SOLID YELLOW (TYP.)

4" SOLID WHITE (TYP.)

12" SOLID WHITE (TYP.)

4" SOLID DOUBLE YELLOW (TYP.)

12" SOLID YELLOW, 20' O.C. (TYP.)

4" SOLID WHITE (TYP.)

4" SOLID WHITE

12" SOLID WHITE (TYP.)

PIERCE LANE

FRONTENAC PLACE

FRONTENAC PL

PIERCE LN

COOK ST

NORWOOD LN

BY-PASS LANE

IL 3 (W DELMAR AVE)

R4-7

W4-1

D1-1

M3-1

M1-1100

M6-1R

M3-3

R6-1R

R1-1

W11-2

W1-8

W16-7pL

NOTES:

1. SPLITTER ISLANDS AND MEDIAN SURFACES CAN BE UNPAINTED OR IF PAINTED, SHALL NOT BE SIMILAR COLOR TO THE TRUCK APRONS.
2. SEE SHEET NO. 21 FOR ADDITIONAL DETAILS.

SCALE: 1"=30'

SIGNING & PAVEMENT MARKING

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 8956 (IL 3)

FAU ROUTE 8956 WITH (W. DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=30'

COUNTY MADISON

SJN : 76F84

PROJ. NO.

I.D.S. SHEET 22 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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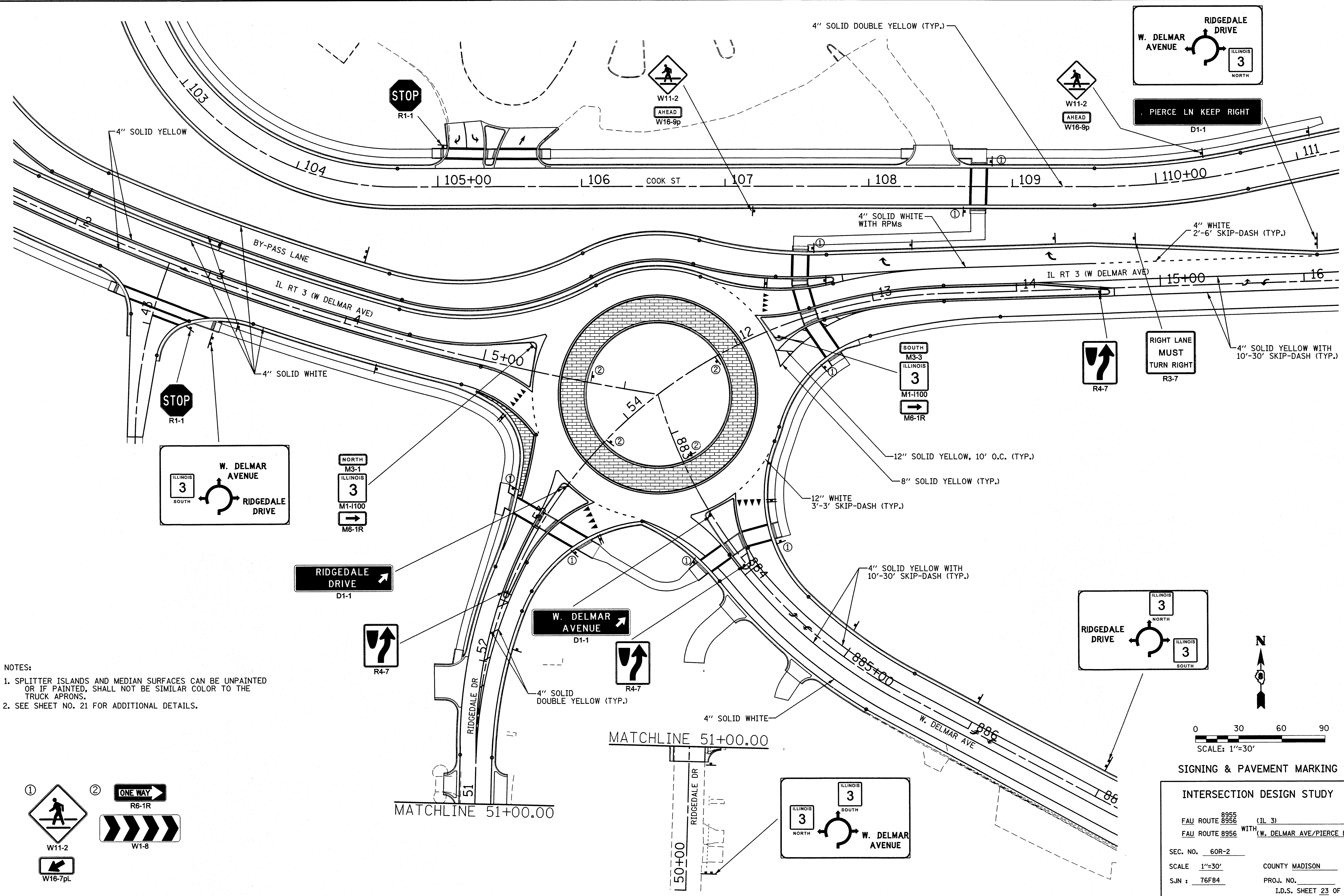

4" SOLID DOUBLE YELLOW (TYP.)
W. DELMAR AVENUE
RIDGEDALE DRIVE
ILLINOIS 3 NORTH
STOP
R1-1
W11-2
AHEAD
W16-9p
PIERCE LN KEEP RIGHT
D1-1
4" SOLID YELLOW
103
104
105+00
106
COOK ST
107
108
109
110+00
111
4" SOLID WHITE WITH RPMs
4" WHITE 2'-6' SKIP-DASH (TYP.)
BY-PASS LANE
IL RT 3 (W DELMAR AVE)
15+00
16
13
14
12
5+00
54
883
884
885+00
886
RIGHT LANE MUST TURN RIGHT
R3-7
4" SOLID YELLOW WITH 10'-30' SKIP-DASH (TYP.)
R4-7
SOUTH
M3-3
M1-I100
M6-1R
4" SOLID WHITE
NORTH
M3-1
12" SOLID YELLOW, 10' O.C. (TYP.)
8" SOLID YELLOW (TYP.)
12" WHITE 3'-3' SKIP-DASH (TYP.)
RIDGEDALE DRIVE
D1-1
W. DELMAR AVENUE
4" SOLID DOUBLE YELLOW (TYP.)
RIDGEDALE DR
W. DELMAR AVE
MATCHLINE 51+00.00
50+00
52
51
ONE WAY
R6-1R
W1-8
W16-7pL
N
0 30 60 90
SCALE: 1"=30'

NOTES:

1. SPLITTER ISLANDS AND MEDIAN SURFACES CAN BE UNPAINTED OR IF PAINTED, SHALL NOT BE SIMILAR COLOR TO THE TRUCK APRONS.
2. SEE SHEET NO. 21 FOR ADDITIONAL DETAILS.

SIGNING & PAVEMENT MARKING

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 WITH (IL 3)
FAU ROUTE 8956 WITH (W. DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2
SCALE 1"=30'
COUNTY MADISON
SJN : 76F84
PROJ. NO.
I.D.S. SHEET 23 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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PLOT SCALE = 30.0000 ft / in.
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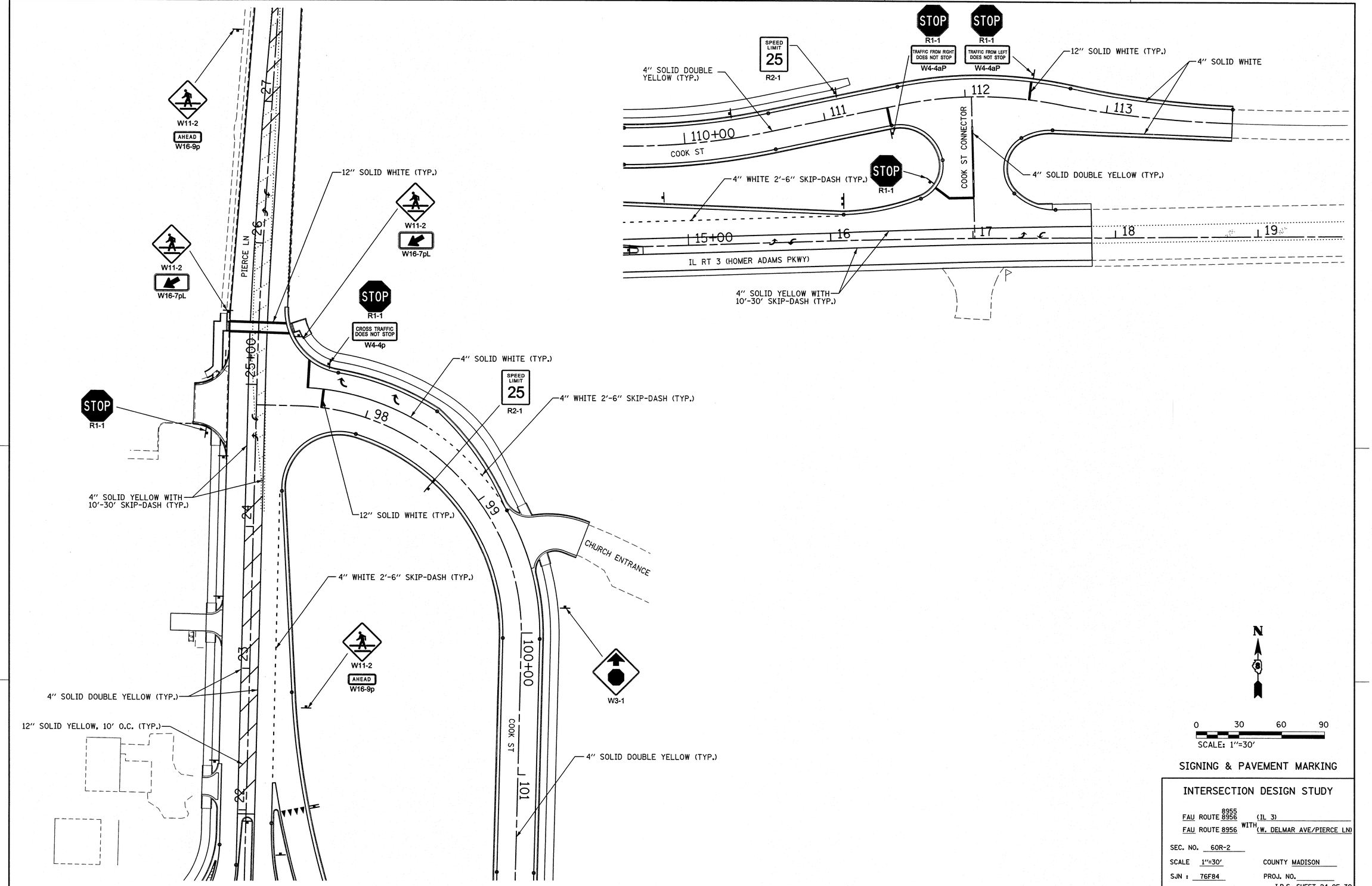

N

0 30 60 90

SCALE: 1"=30'

SIGNING & PAVEMENT MARKING

INTERSECTION DESIGN STUDY

FAU ROUTE 8955 / 8956 (IL 3)

FAU ROUTE 8956 WITH (W. DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=30' COUNTY MADISON

SJN : 76F84 PROJ. NO.

I.D.S. SHEET 24 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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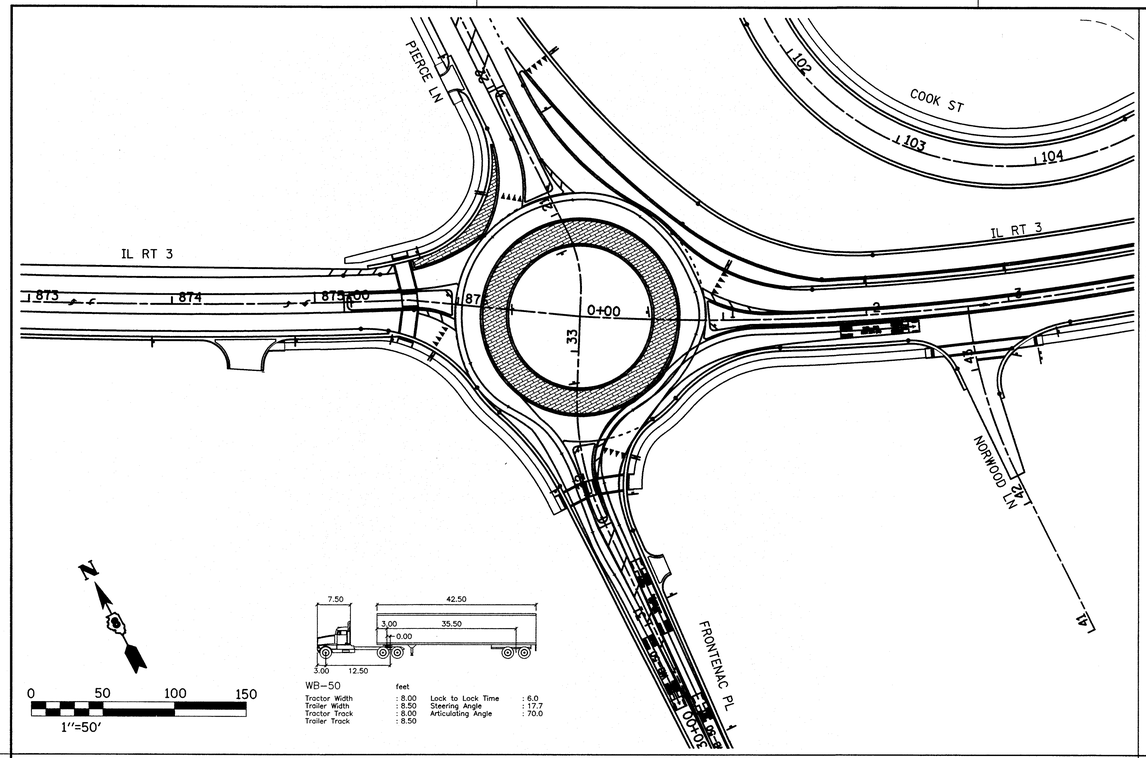

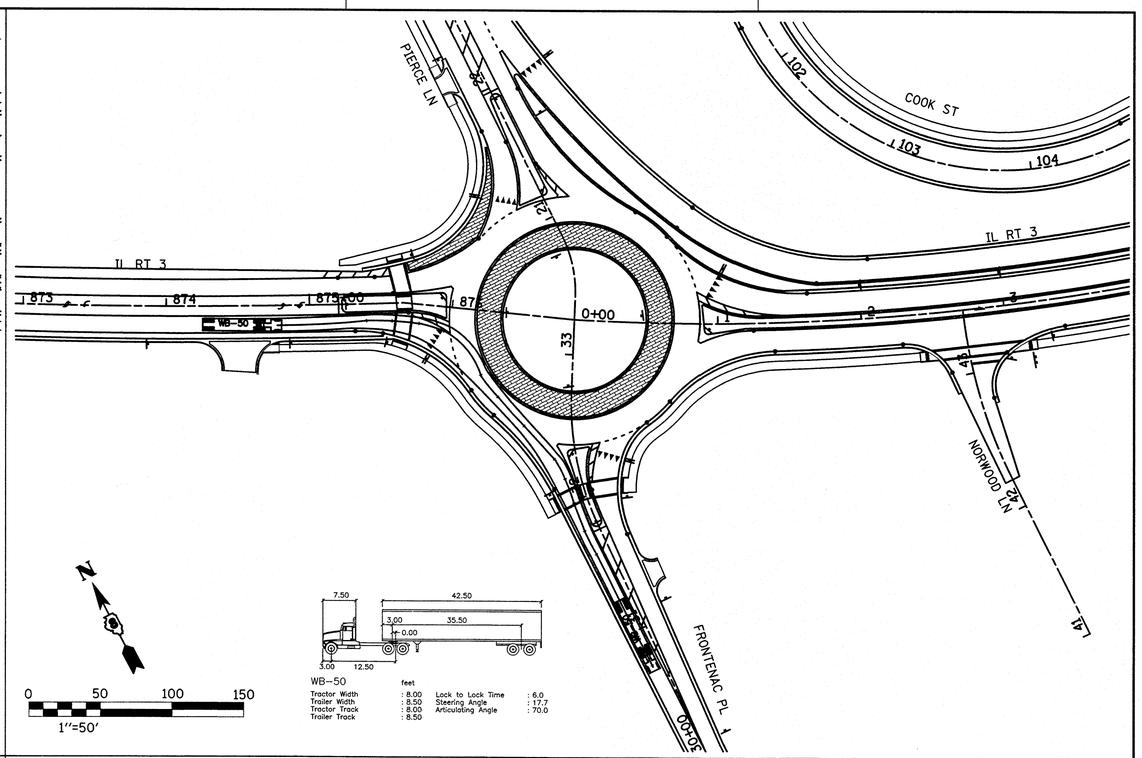

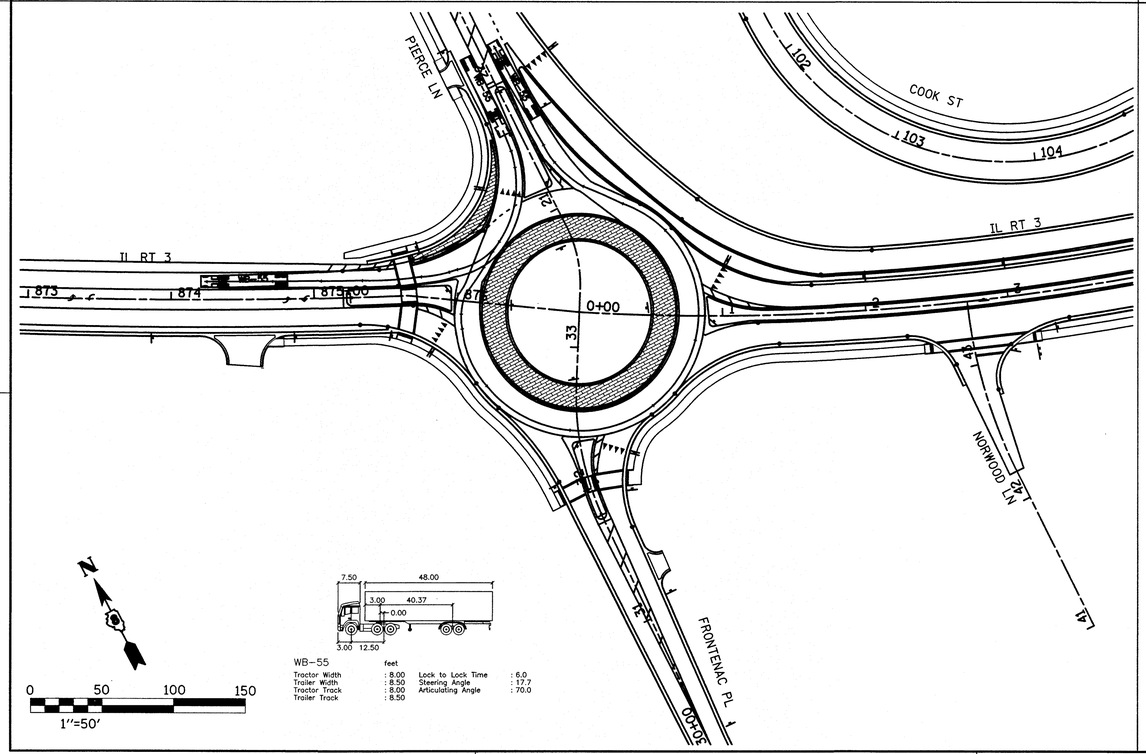

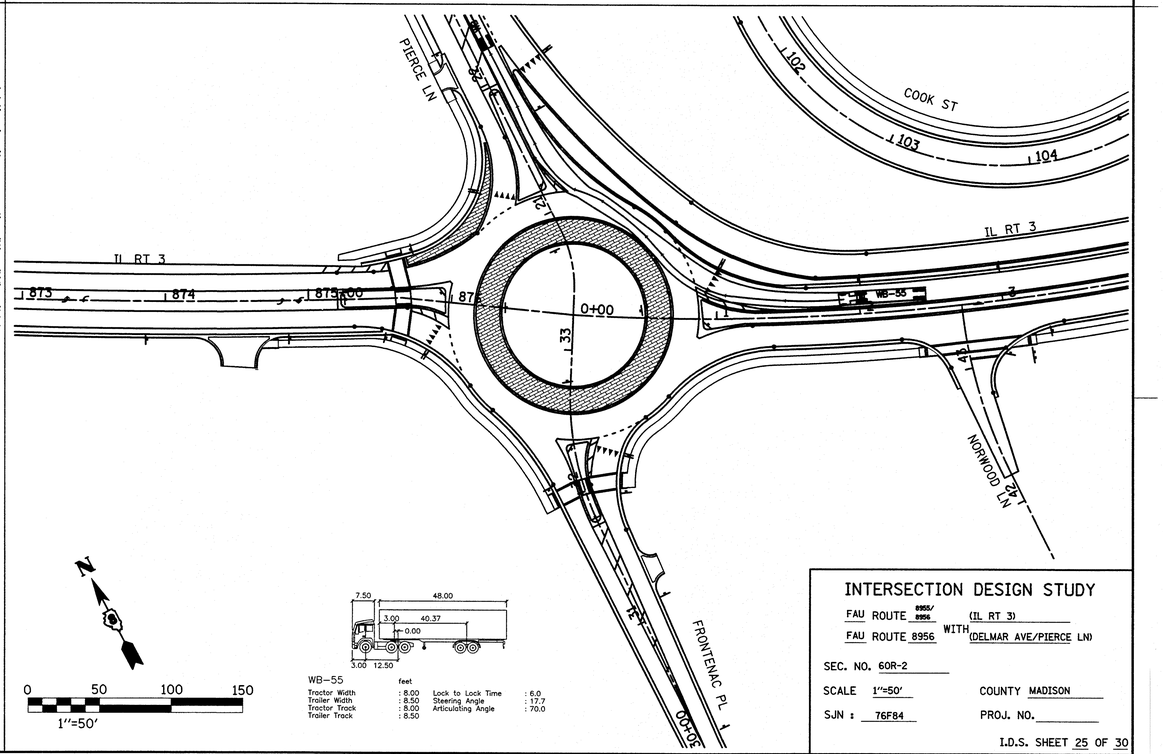

INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 (IL RT 3)

FAU ROUTE 8956 WITH (DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1"=50' COUNTY MADISON

SJN : 76F84 PROJ. NO.

I.D.S. SHEET 25 OF 30

BDE-9908

PLOT DATE = 8/10/2017
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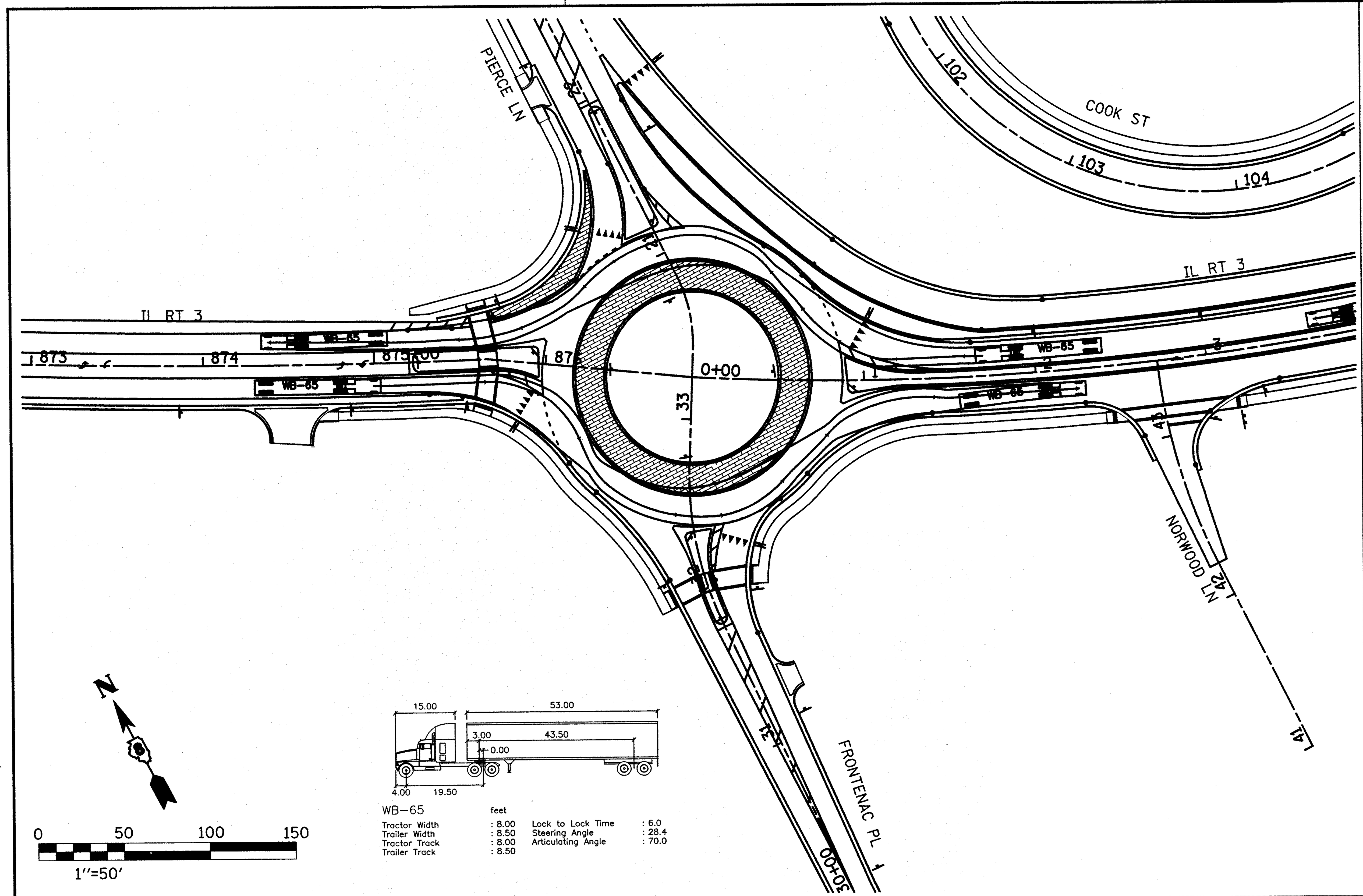
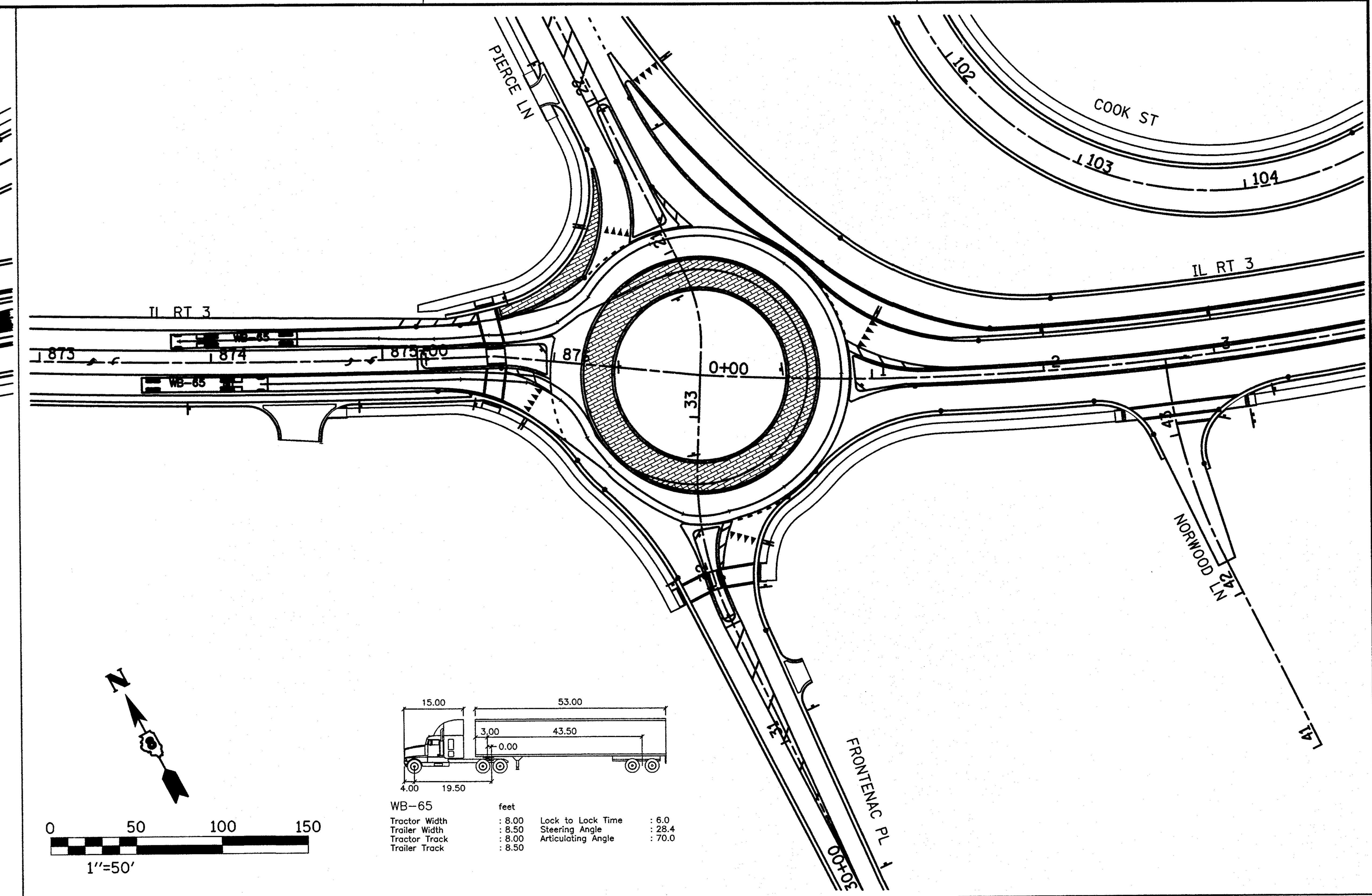
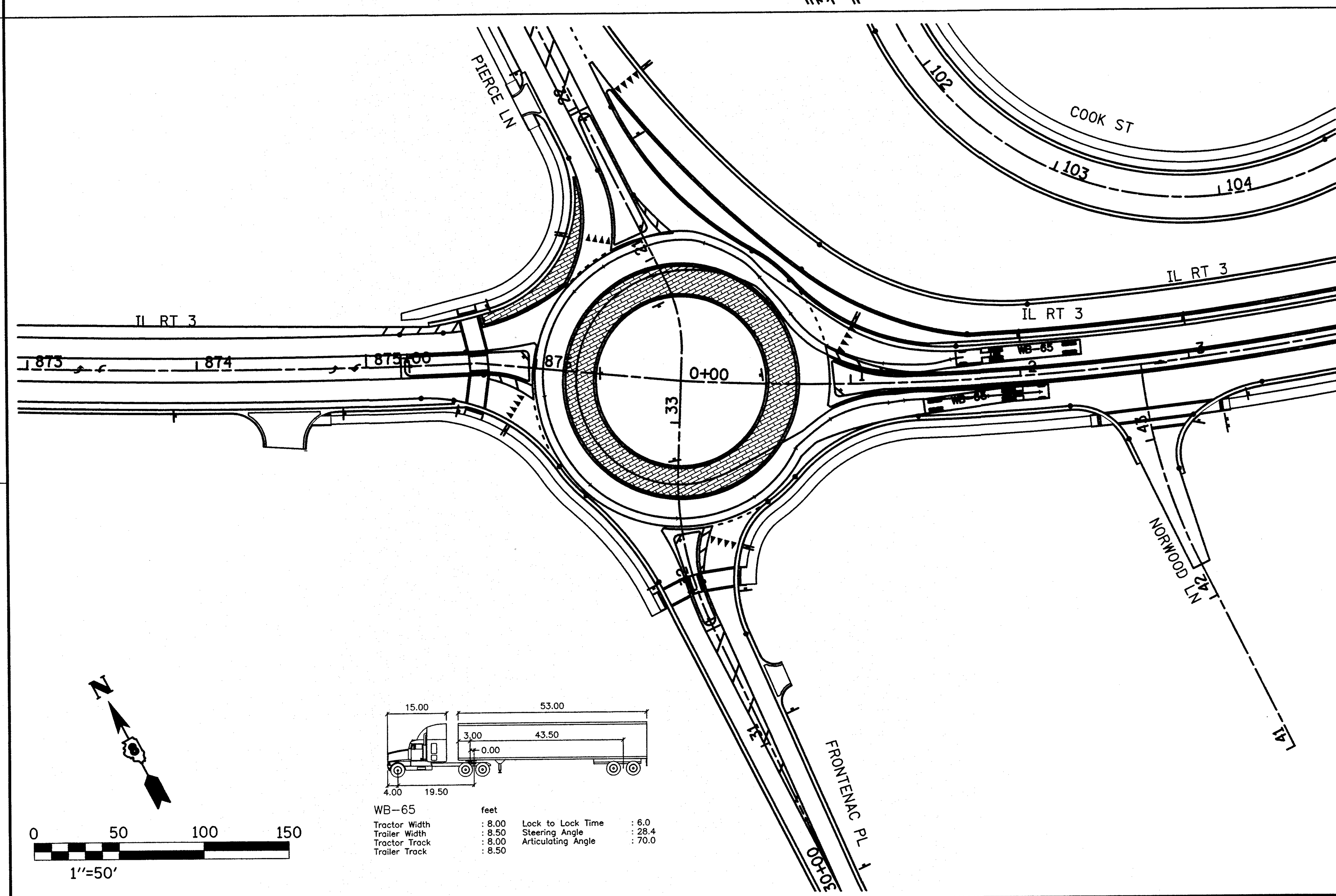
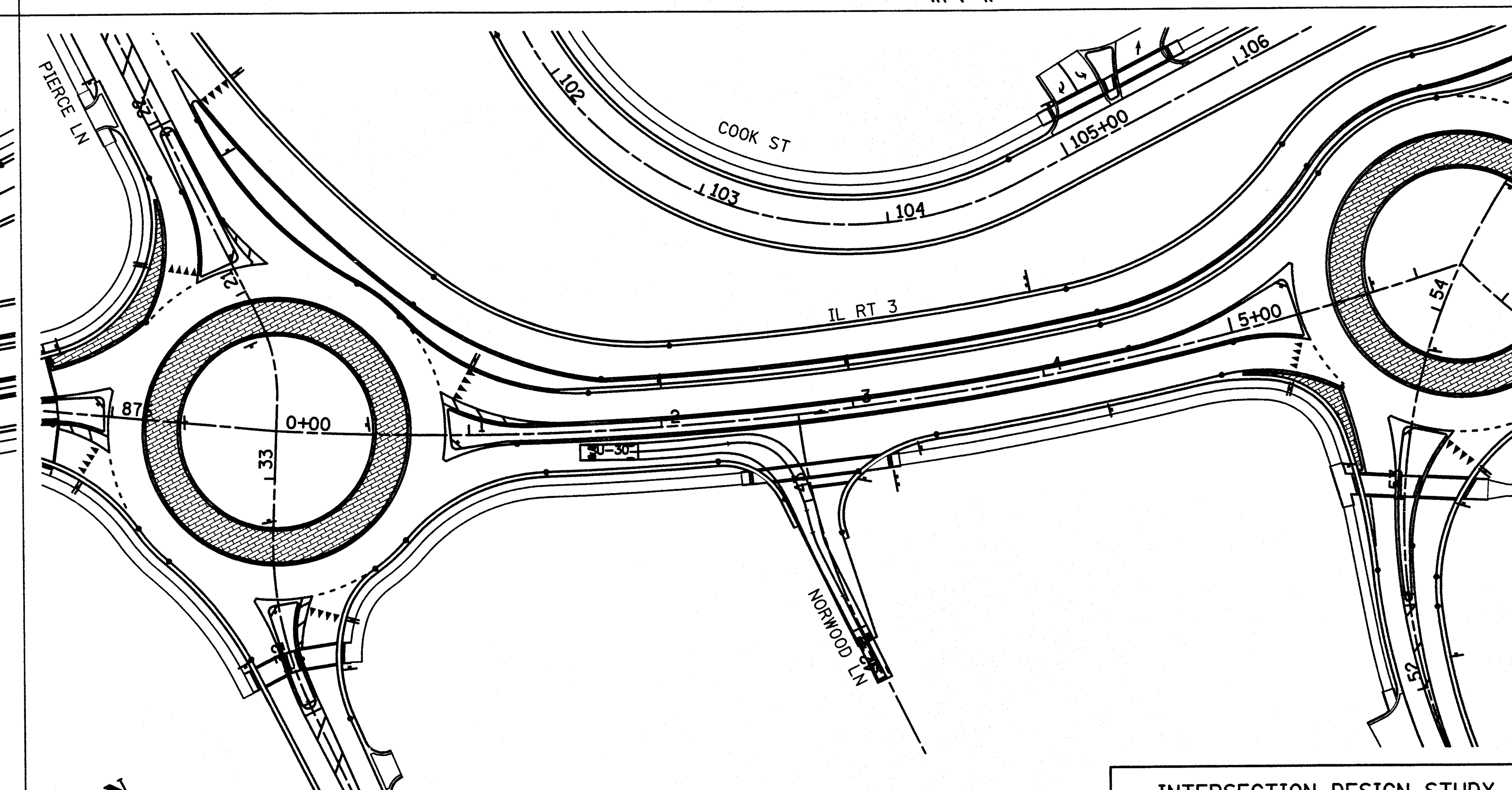








INTERSECTION DESIGN STUDY

FAU ROUTE 8955/8956 WITH (IL RT 3)
FAU ROUTE 8956 (DELMAR AVE/PIERCE LN)

SEC. NO. 60R-2

SCALE 1''=50' COUNTY MADISON

SJN : 76F84 PROJ. NO.

I.D.S. SHEET 26 OF 30

BDE-9908

EXHIBIT K – BIKE AND PEDESTRIAN ANALYSIS

Illinois Department of Transportation

Memorandum

To:	Gwen Lagemann	Attn: Kevin Jemison
From:	Frank Opfer	By: Cindy Stafford
Subject:	Request for Bike/Ped Accommodation Concurrence	
Date:	March 28, 2017	

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County
P-98-004-13

Intersection reconstruction at IL 3 and W. Delmar Avenue and IL 3 at Pierce Ln.

Location Studies is currently performing Phase I studies on the above captioned project. The general scope of this project is to reconstruct the intersections of IL 3 and W. Delmar Ave and IL 3 and Pierce Ln.

Based upon the Bikeway and Pedestrian Needs Assessment presented in BDE CH 17, the warrant of providing unique access to a school is met for this project. The suggested pedestrian accommodation is 5 ft. sidewalks. Because the roadway characteristics and the speed limit varies within the project limits, Figure 17-2A suggests 6 ft. paved shoulders, a 10-12 ft. bi-directional/ 6 ft. one-way path, and a 6 ft. bicycle lane (4 ft. plus gutter pan).

After coordinating with the Local Agency (Village of Godfrey) within the project limits, we suggest providing a 6 ft. one-way bike path (concrete sidewalk) on both sides of IL Route 3 within the project limits. This accommodation will utilize the frontage road (Cook St.) on the north side of IL 3. Also, to transition the proposed into the existing accommodations, and 5 ft. sidewalk and 4 ft. paved shoulder (6 ft. with gutter pan) will be provided on the west leg of the proposed Pierce Lane roundabout. Due to the lack of local agency participation, bike and pedestrian accommodations will not be provided along IL 3 east of the W. Delmar intersection and along W. Delmar east of the IL 3 intersection.

- We request your concurrence that providing the above described bicycle and pedestrian accommodations along IL 3 will accommodate bicycles and pedestrians for this project.

Kevin Jemison Concur _____ Not Concur

The bicycle and pedestrian accommodation analysis and plan are attached for your reference. In order to not delay the current project schedule, please review and return with comments by **April 11, 2017** to Location Studies. Please contact Matt Meyer at 3160 if you have any questions.

Attachments

BICYCLE ACCOMODATION ANALYSIS

Illinois BICYCLE AND PEDESTRIAN ACCOMMODATIONS March 2011

17-1.02(a) Exceptions to Consideration of Accommodations

Certain projects, depending on project type or location, can be immediately excluded from consideration of bicycle and pedestrian accommodations. As such, these exceptions require no warrant analyses or needs assessments:

- projects along fully access controlled highway facilities on which bicycle and pedestrian access is prohibited (Illinois law allows the Department to restrict access by signing). Note: Consideration for bicycle and pedestrian accommodation crossing a fully access controlled highway will be granted an exception from consideration only if the traversing road is also a fully access controlled highway; and
- existing pavement resurfacing projects that neither widen the existing traveled way nor provide stabilized shoulders (e.g., SMART, 3P). However, in the development of SMART and 3P projects, consider accommodations that do not change the overall scope of work (e.g., striping changes), but are consistent with Department criteria and the needs of bicyclists; see Section 17-2.02(g).

The improvements on IL Route 3 (W Homer M Adams Parkway/ W Delmar Ave) will include the intersections of Pierce Lane/Frontenac Place and W. Delmar Avenue. Pavement and shoulder improvements will be included with this project; therefore no exception to consideration of bicycle and pedestrian accommodations can be given. This project will be reviewed to determine if bike and pedestrian accommodation warrants are met.

17-1.03 Bikeway Warrants - Needs Assessment

The Department shall provide adequate on-road or off-road accommodations for bicycle travel in highway projects when any of the following situations exist:

- The highway or street is designated as a bikeway in a regionally or locally adopted bike plan or is published in a regionally or locally adopted map as a recommended bike route.

IL Route 3 within the project limits is not designated as a bikeway in a regionally or locally adopted bike plan or is published in a regionally or locally adopted map as recommended bike route.

- The projected two-way bicycle traffic volume (see Section 17-1.04) will approximate 25 ADT or more during the peak three months of the bicycling season five years after completion of the project.

IL Route 3 within the project limits has some bicycle accommodations due to the paved shoulder throughout the project limits. This paved shoulder varies in width and location. Unity Fellowship Church and other surrounding businesses, which are within the project limits, may be bicycle generators. Although the bicycle ADT may not reach 25 or more during the peak three months of the bicycling season five years after completion of the project, there may be bicycle traffic in proximity

- The route provides primary access to a park, recreational area, school, or other significant destination.

IL Route 3 within the project limits does provide primary access to Unity Fellowship Church. Consequently, this bicycle accommodation warrant is met for this project.

- The route provides unique access across a natural or man-made barrier (e.g., bridges over rivers, bridges over railroad yards, bridges over freeways or expressways, highways through a National Forest). Bicyclists will be accommodated on the bridge unless bicycles are otherwise prohibited to operate on the roadway approaches. See Sections 17-2.02(e) and 17-2.03(j) for bridge deck replacement or rehabilitation projects, or for culvert replacement projects. For projects that meet no other warrants, a minimum shoulder width of 4 ft (1.2 m) shall satisfy this warrant. For projects that meet this and other warrants, use the guidance provided in the Facility Selection Table in Figure 17-2.A.

IL Route 3 does not provide a unique access across a natural or man- made barrier within the project limits

- The highway project will negatively affect the recreational or transportation utility of an independent bikeway or trail. Highway projects will negatively affect at-grade paths and trails when they are severed, when the projected roadway traffic volumes increase to a level that prohibits safe crossings at-grade, or when the widening of the roadway prohibits sufficient time for safe crossing.

This improvement on IL Route 3 will not negatively affect the recreational or transportation utility of an independent bikeway or trail.

Based on the Bikeway Warrants Needs Assessment presented in Chapter 17 of the BDE Manual, bikeway warrants are met for this project, therefore refer to Figure 17-2.A for appropriate bike accommodations.

	Bicycle Accommodation Required			
Roadway Characteristics	Paved Shoulders (inclusive of rumble strip)	Outside Curb-lane Width	Bicycle Lane (includes gutter pan)	Side Path Bidirectional
Rural Roadways < 30 mph Posted				
Design Year ADT under 2000	None			
Design Year ADT 2000 – 8000	4 ft (1.2 m)			optional
Design Year ADT > 8000	4 ft (1.2 m)			optional
Rural Roadways 30 – 35 mph Posted				
Design Year ADT under 2000	4 ft (1.2 m)			optional
Design Year ADT 2000 – 8000	4 ft (1.2 m)			optional
Design Year ADT > 8000	6 ft (1.8 m)			optional
Rural Roadways 36 – 44 mph Posted				
Design Year ADT under 2000	6 ft (1.8 m)			optional
Design Year ADT 2000 – 8000	6 ft (1.8 m)			optional
Design Year ADT > 8000	6 ft (1.8 m)			optional
Rural Roadways > 44 mph Posted				
Design Year ADT under 2000	6 ft (1.8 m)			optional
Design Year ADT 2000 – 8000	8 ft (2.4 m)			optional
Design Year ADT >8000				10–12 ft (3.0 m – 3.6 m)
Urban Roadways < 30 mph Posted				
Design Year ADT under 2000		None		optional
Design Year ADT 2000 – 8000		13 ft – 14 ft (4.0 m – 4.3 m)		optional
Design Year ADT > 8000			5 ft (1.5 m)	optional
Design Year ADT > 15,000			optional 6 ft (1.8 m)	10–12 ft (3.0 m – 3.6 m)
Urban Roadways 30 - 35 mph Posted				
Design Year ADT under 2000			5 ft (1.5 m)	optional
Design Year ADT 2000 – 8000			5 ft (1.5 m)	optional
Design Year > 8000			6 ft (1.8 m)	optional
Design Year ADT > 15,000			optional 6 ft (1.8 m)	10–12 ft (3.0 m – 3.6 m)
Urban Roadways 36 - 44 mph Posted				
Design Year ADT under 2000			5 ft (1.5 m)	optional
Design Year ADT 2000 – 8000			6 ft (1.8 m)	optional
Design Year ADT > 8000				10–12 ft (3.0 m – 3.6 m)
Design Year ADT > 15,000				10–12 ft (3.0 m – 3.6 m)
Urban Roadways > 44 mph Posted				
Design Year ADT under 2000			6 ft (1.8 m)	optional
Design Year ADT 2000 – 8000			6 ft (1.8 m)	optional
Design Year ADT > 8000				10–12 ft (3.0 m – 3.6 m)
Design Year ADT > 15,000				10–12 ft (3.0 m – 3.6 m)

BICYCLE FACILITY SELECTION

Figure 17-2.A

BICYCLE FACILITY SELECTION

- Illinois Route 3/W. Delmar Avenue ADT is 16,300
- Illinois Route 3/W. Homer M. Adams Parkway ADT is 11,600
- Illinois Route 3/W. Delmar Avenue speed limit is 35 mph
- Illinois Route 3/W. Homer M. Adams Parkway speed limit is 45 mph
- Illinois Route 3/W. of Pierce Lane speed limit is 45 mph
- The cross section for Illinois Route 3 is Rural, (roadside shoulders and ditches) and Urban (curb and gutter).

To accommodate this facility for bikes, 3 different alternatives satisfy bicycle accommodation:

- 6 ft. paved shoulder, or a side path bidirectional (optional).
- 10-12 ft. two way path bidirectional / 6 ft. one way path
- 6 ft. bicycle lane (including gutter pan) or side path bidirectional (optional)

PEDESTRIAN ACCOMODATION ANALYSIS

17-4.03 Warrants

Pedestrian accommodations are required if they are not already available and any of the following conditions exist:

- there is current evidence of frequent pedestrian activity;

Pedestrian accommodations and cross walk currently exists along Illinois Route 3 at the intersection of Illinois route 3 and Pierce Lane. Therefore, this warrant is met.

- there is a history of pedestrian-related crashes;

There is no history of pedestrian-related crashes.

- the roadway improvement will create a safety impediment to existing or anticipated pedestrian travel (e.g., adding lanes so that the improvement itself acts as a barrier to pedestrian traffic);

The roadway improvement will not create a safety impediment to existing pedestrian travel.

- pedestrian-attracting development is expected along the route within five years of project completion, either as documented in a local plan or anticipated as a factor of similar development history; and/or

The department is not aware on any pedestrian-attracting developments or plans within the next five years of project completion.

- the roadway provides primary access to a park, recreation area or other significant destination, or across a natural or man-made barrier.

Illinois Route 3 within the project limits does provide primary access to Unity Fellowship Church. Therefore, this warrant is met.

LOCAL AGENCY COORDINATION

The District called the Local Agency (Mayor of the Village of Godfrey) on February 25, 2015 to see if the Village was willing to consider participating in the cost and maintenance of bicycle and pedestrian accommodations with the project limits. The Mayor said he was open to this participation.

The District met with the Mayor of the Village of Godfrey on June 17, 2015 to discuss their willingness to participate in the cost and maintenance of bicycle and pedestrian accommodations and to show some design alternatives and estimated costs for these accommodations. The Department showed two suggested bicycle and pedestrian accommodations along with their estimate cost. The first option discussed was the 10 ft. HMA shared-use path on one side of IL Route 3 and sidewalk on the other. The second option discussed was a one-way 6 ft. shared-use path on each side of IL Route 3. The Mayor was interested in participating in pedestrian accommodations; however he did not think the shared use path made sense, as he had no future plans for bicycle accommodations in the project area. The Mayor stated that he was not interested in participating in pedestrian accommodations along IL Route 3 east of the project or on West Delmar east of the project.

The District met with the Mayor of the Village of Godfrey on October 26, 2015 to provide a project update. Because the Mayor was interested in participating in pedestrian accommodations, an updated cost estimate for 5 ft. sidewalks on both sides of IL Route 3 was presented. It was also offered that adding an additional 1 ft. to these sidewalks on both sides of IL Route 3 to form a 6 ft. path would also provide policy bicycle accommodations.

During a January 20, 2016 phone memo the Mayor of the Village of Godfrey was asked if he would consider participating in the maintenance and cost for the 6 ft. sidewalk (both sides of IL Route 3) option presented during the October 26, 2015 meeting to accommodation both bicycle and pedestrians. The Mayor of the Village of Godfrey stated that he would consider participating in this accommodation.

Please see the attached meeting minutes, exhibits, and phone memo records for this Local Agency Coordination.

BICYCLE AND PEDESTRIAN FACILITY ACCOMODATION

The bicycle and pedestrian accommodation for this project will include a one-way 6 ft. concrete sidewalk (path) on both sides of IL Route 3 and a 5 ft. sidewalk and 4 ft. paved shoulder (6 ft. with gutter pan) within the project limits (see attached preliminary plan). The 5 ft. sidewalk and 4 ft. paved shoulder (6 ft. with gutter pan) will be provided on the west leg of the Pierce Lane roundabout in order to transition the proposed accommodation into the existing one.

In order to eliminate doubling this accommodation and minimizing the cost for the local agency participation, the 6 ft. concrete sidewalk (path) along the north side of Cook St. will accommodate the north side of IL Route 3 within the project limits. Also, because the local agency (Village of Godfrey) did not wish to participate in bicycle or pedestrian accommodations along IL Route 3 east of the project or West Delmar east of the project, no accommodation will be proposed in those legs of the project.

Illinois Department of Transportation

Telephone Conversation Record

Incoming Call: ☐ Date: February 25, 2015

Outgoing Call: ☒ Time: 10:15 ☒ AM ☐ PM

Project: IL Route 3 at Pierce/Delmar intersections

Caller Information:

Individual:	Cindy Stafford	Title:	Location Studies Engr
Organization:	IDOT	Location:	Collinsville
Phone No.:	618-346-3151	Contract No:	
Subject:	Bike/Ped accommodations	Job No:	
		Catalog No:	

Summary of Conversation:

Cindy Stafford contacted Mayor McCormick of Godfrey. She advised him that IDOT is required to consider bike and ped accommodations in projects. These accommodations can require a 20% match by a local agency, such as a municipality or bike agency like MCT, in order to construct them. She explained that the project team is about to further develop the intersection concepts and before a lot of time is spent designing bike and ped facilities, she wanted to get feedback from the Mayor to see if the village was open to the idea of sharing in the cost of bike and ped facilities. The Mayor said the village was open to sharing in the cost of those. Cindy indicated the project team would continue to design the concepts and would follow up with the mayor in a week or so with what they feel would be appropriate with these intersections and potential costs.

Comments / Follow-Up Obligations:

Cc: TWM
Village of Godfrey

By: Cindy Stafford

Thouvenot, Wade & Moerchen, Inc.

4940 Old Collinsville Road
Swansea, IL 62226
618.624.4488
618.624.6688

MEETING MINUTES

CONSULTING ENGINEERS | LAND SURVEYORS | PLANNERS

Project: IL Rte 3 @ Delmar/Pierce	
Subject: Godfrey Stakeholder Meeting	
Client: IDOT District 8	**Project No.:** T06-130624
Minutes Summary By: Sheila Kimlinger	
Meeting Date: ~~6/15/17~~ 6/17/15	**Meeting Location:** IDOT District 8, Collinsville, IL

Attendees	Company / Affiliation
Mayor Mike McCormick	Village of Godfrey
William Catalano	Village of Godfrey
Cindy Stafford	IDOT, Location Studies
Matthew Meyer	IDOT, Location Studies
Andrew Hooker	IDOT, Location Studies
Sheila Kimlinger	TWM
Michelle Schwierjohn	TWM

Topics Discussed:

Cindy Stafford made introductions and gave a brief overview of items the design team has accomplished since the October 22, 2014 CAG meeting. Cindy said that the purpose of today's meeting was to discuss bicycle and pedestrian accommodations for the intersection improvement project. She gave an outline of IDOT's Complete Street Policy and how it applies to bicycle and pedestrian accommodations along state roadway projects.

Sheila Kimlinger went over a quick summary of topics discussed at the first CAG meeting, and reported that the CAG seemed to be leaning towards the roundabout option. Additional stakeholder meetings have been held with RiverBend Growth Association and the Frontenac Home Owners Association. Sheila noted that the Frontenac meeting did not go as smoothly, and that the entire group seemed to have a very negative response to the idea of roundabouts. Additionally, the group even questioned if major improvements were needed at the intersections. We felt it was important for the Mayor to be aware of Frontenac's position on the project. The Mayor asked if roundabout education was presented at the meeting. Sheila explained that pros and cons were discussed briefly, but the education material presented was not as extensive as at the CAG meeting. We discussed that TWM is planning on contacting the Frontenac CAG member, to have an additional discussion in advance of the next CAG meeting, to gauge how that stakeholder group now feels about the project.

Sheila quickly reviewed the four options that have been developed to date (no build, minor improvements, signalized T-intersection, and roundabout intersection). The no build and minor improvement options will not address the long-term traffic congestion at the intersections. Only the signalized T-intersection and the roundabout intersections will fully address those issues.

Sheila explained that as part of the design process and IDOT policy, bicycle and pedestrian generators are studied in the project area, to determine if bicycle and pedestrian accommodations are warranted. Sheila presented the project area map showing existing pedestrian and bicycle accommodations in and around the project area. She explained with residential, church, school, and commercial generators all within walking distance of the project site, that accommodations were definitely warranted. Sheila went over how accommodations can be made, using a combination of separate bike lanes, an asphalt shared-use path, and/or standard concrete sidewalk. The group went over two options that have been developed which meet the requirements for bike/ped accommodations. The first option, a 10' HMA shared-use path on one side of street and a 5' concrete sidewalk on the other (for both the signalized alterate and the roundabout alternate) was discussed. Then a second option, a split/one-way 6' HMA shared-use path on each side of roadway for both of these intersection types was also discussed. Finally, an actual as-built example of pedestrian accommodations at the Belleville dual roundabout intersection was discussed, showing how a pedestrian could actually navigate a roundabout, using the splitter islands as refuge between individual lanes of traffic.

Cindy said that both of these exhibits meet the full IDOT policy. If the Village has no plans for future bike trails in the area, then perhaps it does not make sense to build a 10' wide shared-use path for such a short spot improvement. If that is the case, District 8 would coordinate with Springfield to relay what accommodations the Village prefers and is willing to participate in, and come to a consensus on accommodations that will work for this location.

Sheila then discussed the length and cost of the bike/ped accommodations, noting that both of the presented options are similar costs, and will be approximately 3500' to 4000' in length and $100,000 - $150,000 in today's dollars for the Village's share, which includes engineering and construction costs. The Mayor was surprised it was so much money, as it seemed to be more than the other project being coordinated with IDOT in the area. Cindy said that the costs are based on budgetary linear estimates, and that more design work is necessary to refine the amounts. It was noted that shared-use paths are more than sidewalks on a per square foot basis. Additionally, an asphalt trail may require more long-term maintenance dollars than a concrete sidewalk.

The Mayor said the Village is interested in participating in pedestrian accommodations, however, he is not sure that the bicycle path makes a lot of sense in this location. There are no future plans for bicycle accommodations along Homer Adams Parkway, West Delmar or Pierce Lane in the next 5-10 years. The Village does have long-term plans to complete a loop for pedestrian accommodations that would go north on Pierce Lane, then east on Stamper Lane (by Glazebrook Park), and continue east to Route 111, where it would terminate at Lewis & Clark Community College. The Village has no plans for pedestrian accommodations east or south of these intersections. Sheila noted that Village does have approximately one and a half miles of existing sidewalk west of these intersections along West Delmar and one and a half miles of existing sidewalk north of these intersections towards Stamper Lane, which are significant recreational assets to the Village. The Mayor noted they were used regularly by residents for exercise.

Cindy pointed out that if the Village does not choose to participate, IDOT will at a minimum replace the sidewalks along streets where they currently exist. This would include keeping West Delmar and Pierce Lanes connected at the intersection, and also the sidewalk along Cook Street. It is likely that in areas where no sidewalk was provided, a shelf would be built to accommodate a sidewalk for the Village to add should they decide to provide that at a future date. However, IDOT would not be able to cost share unless it was built concurrent with the rest of the project.

The group discussed that bike/ped accommodations were important to the CAG, and that quite a few residential neighborhoods to the south of these intersections would probably appreciate being connected to the

recreational sidewalks along West Delmar and Pierce Lane. The Mayor agreed that would be a good place to add accommodations. The group also discussed possibly adding accommodations between these intersections on the north side of Route 3, but since Cook Street already has a sidewalk, it was also thought that it could be redundant. A mid-block crossing could be created to connect the sidewalk on the north side of Cook Street, however, the group also had safety concerns. Additionally, the group questioned if pedestrians would take the time to cross all the way to the north side of Cook Street, just to cross back south, if they really just wanted to walk on West Delmar. Therefore, this section of sidewalk may be shown as an option and discussed further at a later date. TWM will consider options in this area when more layouts are completed.

Will asked who decides what would go in the center of the roundabout. Cindy said that the Village has a lot of input on this, however, IDOT would not be willing to place any landscaping without a formal agreement on how it would be maintained, as IDOT does not maintain landscaping. Without an agreement, likely gravel would be placed. The Mayor said that Godfrey maintains the grasses and other landscaping that is out there today. Sheila said that the CAG did note that the landscaping was a nice feature in the neighborhood that they would like to see something similar for any future project. Will asked who would be responsible for the initial cost of landscaping. Cindy said she would look into that.

With the noted changes, the amount of sidewalk would be substantially reduced, and Godfrey's match would be lessened. TWM will create an exhibit depicting these updates, and also update the cost estimate. This information will be forwarded to the Mayor for his review. Cindy said that IDOT will continue with coordination throughout Phase I and Phase II. Eventually a letter of intent will be needed from the Village. Prior to construction, a formal agreement would be signed between the Village and IDOT stating that the Village would be responsible for the maintenance of the sidewalk.

The group then briefly discussed the upcoming second CAG meeting. Sheila confirmed with the Mayor that the Village meeting room could be used again. She also noted that the meeting would likely be scheduled on a Wednesday, and at least 30 days' notice would be given.

Thouvenot, Wade & Moerchen, Inc.

4940 Old Collinsville Road
Swansea, IL 62226
618.624.4488
618.624.6688

MEETING MINUTES

CONSULTING ENGINEERS | LAND SURVEYORS | PLANNERS

Subject:	Proposed Roundabout Discussion		
Client:	IDOT District 8		
Project:	IL Rte 3 at Delmar Ave & Pierce Lane in Godfrey	**Project No.:**	TWM # 13 0624
Notes By:	SJK		
Meeting Date:	10-26-15	**Meeting Location:**	Village Conf Room

Attendees	**Company / Affiliation**
Mike McCormick, Mayor	Village of Godfrey
Matt Meyer	IDOT D8
John Uhl	Village of Godfrey
Srinivas Yanamanamanda	CBB
Sheila Kimlinger	TWM

Topics Discussed:

Matt started the meeting with an update of the project to date, including public involvement activities. The CAG meeting was just about a year ago, where stakeholders discussed their concerns with the project area, which included congestion and lane assignment confusion. Four possible options were presented for improving the intersections of IL 3 and W Delmar Ave and Pierce Ln: no build, minor improvements, realignment of IL Route 3 with signals, and reconstruction with dual roundabouts. Among other stakeholder meetings, one was held with the Frontenac Homeowner's Association in March. All four of the possible options were presented to them, however, the roundabout option was not well received by the group. Matt also said that IDOT had met with the Village a few months ago to discuss the pedestrian accommodations for the project, and the Village has indicated that, given funding availability, they are willing to participate in the construction and engineering costs for concrete sidewalks between the intersections and concrete sidewalks to connect to existing sidewalks within the project area.

Matt said after the public involvement meetings, IDOT had CBB investigate the traffic modeling. Although the proposed roundabout design does improve the majority of delays at the W Delmar Ave and Pierce Lane intersections, it does not for the south leg (Frontenac) of the west roundabout (Pierce Ln intersection). The

proposed roundabout design will increase delays for the northbound traffic on the south leg of the west roundabout (Frontenac), and IDOT wanted to discuss this with the Village prior to proceeding.

Srinivas from CBB then showed various traffic simulation models to the group. For the original proposed dual roundabout concept, the NB movement for the south leg of the west roundabout has a projected 2036 AM peak hour level of service (LOS) of "F". This is due to very high traffic coming into the roundabout in advance of this particular subdivision entrance. The average delay during the projected 2036 peak AM hour for NB movement for this south leg is 2 minutes. For this same particular leg, the projected 2036 "no build" option has an AM peak hour LOS of C. Therefore, the originally proposed dual roundabout configuration does increase the AM peak delay for NB vehicles for this south leg for the projected 2036 traffic. Srivivas noted that in the entire peak AM hour, there are approximately 800 vehicles on IL Route 3, and only 20 coming out of Frontenac. Srinivas said that CBB then revised the original dual roundabout concept and added a by-pass lane to their model at the southeast corner of this intersection, which allows northbound Frontenac drivers to not enter the roundabout at all, but rather merge into traffic just east of the roundabout. Doing this reduces the average delay during the projected 2036 peak AM hour to 1 minute, which is a LOS of E.

The Mayor asked what the delays for the signal option were. Srinivas explained that the existing signal is on a 90 second interval, so it is 90 seconds for a full cycle to occur in the peak AM hour, but the average delay would be more like 45 seconds.

The Mayor asked if a stop or yield light could be added to the west leg of the roundabout to slow down eastbound IL Route 3 drivers in the morning, allowing Frontenac users a chance to enter the roundabout. This was discussed briefly, but Srinivas felt it would be difficult to get full compliance with a signal that would only operate for an hour a day in the morning. Also, this would increase the delay for the majority of traffic moving through this intersection, which is the east and westbound movements.

The group discussed the impacts of construction to the residence at the southeast corner of the Frontenac/ Pierce Ln intersection. Matt explained that the edge of the proposed sidewalk would be less than 19' from the edge of the residential home. The Mayor said that this was a rental property, so he was not as concerned about impacts. Sheila said current setback zoning in Godfrey should be investigated for this condition. John pointed out that the tenants were likely long-term inhabitants of the home since they had recently added a garage or shed-type building to the property.

Matt said that IDOT wanted to bring the current design situation to the Village's attention, since there were delays on the local system, and also there was possible homeowner resistance to the project. Additionally, with the roundabout option costing more money, IDOT wanted to be sure the Village would still support continuing to study this option. The Mayor asked who makes the decision on the final option. Matt said that IDOT does. The Mayor said that he does still support the roundabout option, since it is for the greater good. He also noted that Frontenac was a private street, and not the Village's jurisdiction. He would like to see the bypass constructed with the project, so that the delays are minimized.

John wanted the group to know there was a force main and manhole near the Frontenac entrance. He also asked what the median material was on each leg of the roundabout. Matt said likely concrete, although other materials or landscaping is possible, but the Village would have to keep up the landscaping - IDOT would not do that. Sheila asked who keeps up the current landscaped areas along IL Route 3. The Mayor said there is a gardening group who has done it in the past, but once in a while Village takes care of it too.

Matt presented an updated cost for the Village's share of sidewalk construction for the project. He said that it has been calculated for a 5' concrete sidewalk each side, between the intersections, and tying into the existing sidewalk along West Delmar and Pierce Lane. This was the pedestrian accommodations that the Village agreed to in June. An additional calculation was made for a 6' wide concrete sidewalk. With this option, the project could technically meet bike policy, utilizing the 6' path each side of the roadway for each direction of bike travel. This would add 20% to the Village's share, but would then be fully compliant with policy.

The next steps were discussed. The idea of having a stakeholder meeting with Frontenac's CAG representative prior to the next CAG meeting was discussed. Matt will discuss with IDOT and schedule if appropriate. Sheila noted that at least a month notice is needed for a CAG meeting, so that would not occur until at least December or January.

STUDIES AND PLANS -- TELEPHONE MEMORANDUM

PARTY CALLED:	Mayor McCormick (Village of Godfrey)
PARTY CALLING:	Matt Meyer (IDOT)
TIME: 3:00 ☐ AM ☒ PM	DATE: 1-20-16

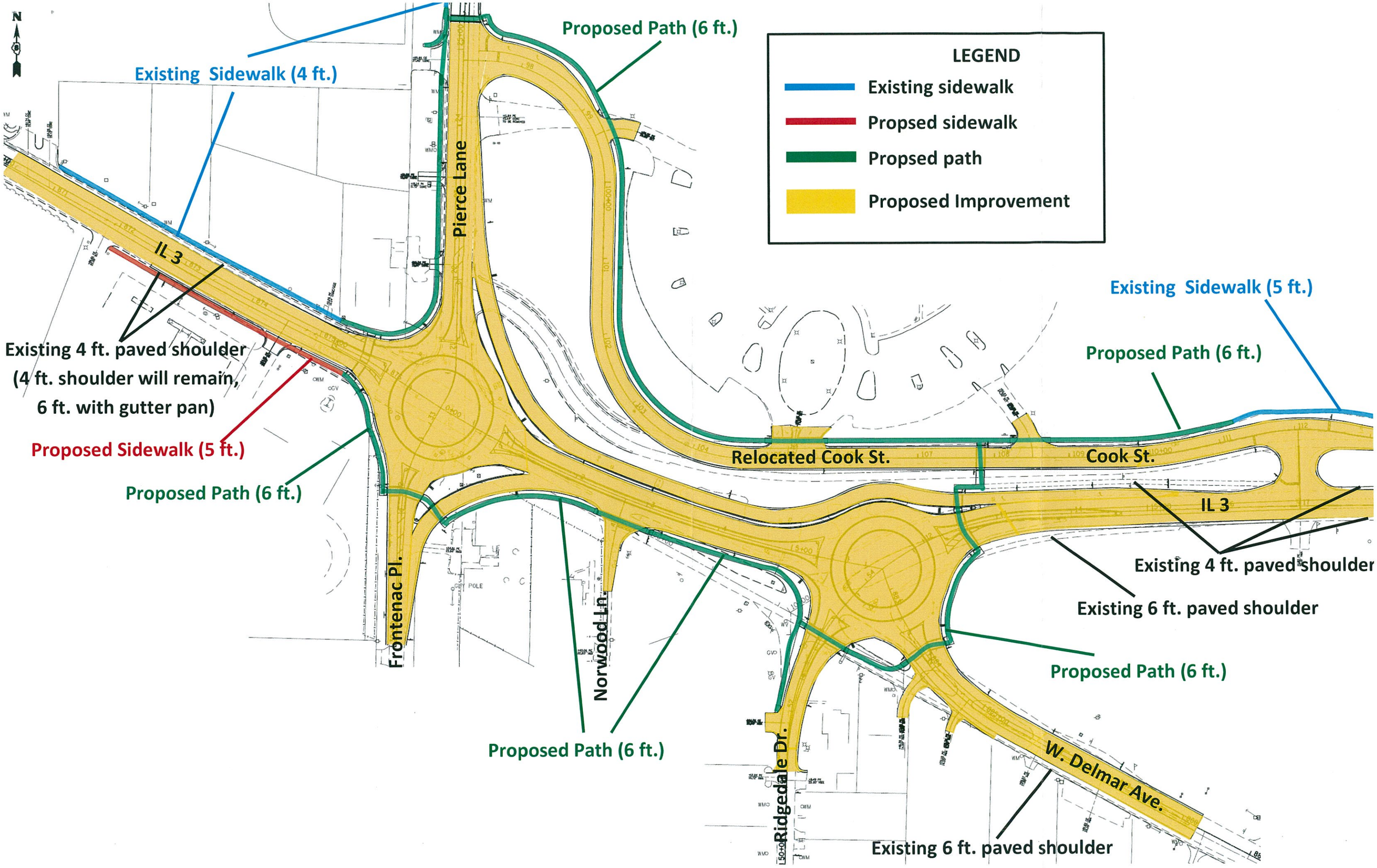
ROUTE(S):	IL 3 (FAU 8955/FAU 8956)
SECTION(S):	60R-2
JOB NO.(S):	P-98-004-13
COUNTY(S):	Madison

COMMENT(S):

Mayor McCormick was contacted so that the Department could update the Mayor on the IL 3 in Godfrey project and to clarify his stance on the bike/pedestrian accommodation participation. The Mayor was informed that the Department just completed the revised dual roundabout design and that we are planning to hold the 2nd CAG sometime in March. The Mayor agreed that this sounds good and that IDOT should let the Village know ahead of time so that they can schedule this meeting and reserve the room. Mr. Meyer agreed and stated that the Department would try to give one month of notice so that the Village of Godfrey and the CAG members have time to plan on attending this meeting. Next, Mr. Meyer asked to get clarification on if the Village would consider bike & pedestrian accommodations for this project. Previously the Mayor had stated that he was in favor of participating in sidewalks for pedestrians, but that bike accommodations did not really make sense, as this project would not connect to any existing facilities and this accommodation is not really in the plans for the Village at this time. Mr. Meyer noted that in the last meeting (10-26-15), the Department brought up the possibility of adding 1 ft. to the proposed 5 ft. sidewalks so that this 6 ft. facility could provide for both bike and pedestrian accommodations. Mr. Meyer asked if the Mayor would consider participating in this accommodation. Mayor McCormick stated that he would consider this accommodation, as accommodating bikes is something that Godfrey would like to provide for their community. These accommodations can be revised and obviously depend on funding availability for the Village of Godfrey. However, for the next CAG, the Department will reflect this

6 ft. bike and pedestrian accommodation to show to the CAG how this accommodation could be proposed with this project.

COPY(S) TO:


N
Existing Sidewalk (4 ft.)
Proposed Path (6 ft.)
LEGEND
Existing sidewalk
Propsed sidewalk
Propsed path
Proposed Improvement
Pierce Lane
IL 3
Existing 4 ft. paved shoulder
(4 ft. shoulder will remain,
6 ft. with gutter pan)
Proposed Sidewalk (5 ft.)
Proposed Path (6 ft.)
Existing Sidewalk (5 ft.)
Proposed Path (6 ft.)
Relocated Cook St.
Cook St.
IL 3
Existing 4 ft. paved shoulder
Existing 6 ft. paved shoulder
Frontenac Pl.
Norwood Ln.
Proposed Path (6 ft.)
Proposed Path (6 ft.)
Ridgedale Dr.
W. Delmar Ave.
Existing 6 ft. paved shoulder

Meyer, Matthew C

From: Stafford, Cindy J
Sent: Monday, April 24, 2017 10:43 AM
To: Meyer, Matthew C
Subject: FW: Shared Use Bike Path Question

This is what we were looking for

From: Meyer, Matthew C
Sent: Tuesday, September 30, 2014 10:26 AM
To: Stafford, Cindy J; Geldert, Karen B; Prothro, Annie C; Nieves.Rosario, Alvin I.
Subject: FW: Shared Use Bike Path Question

Hello Locations Studies,

We received a big piece of information today from Springfield concerning the bicycle and pedestrian accommodation chapter (see Michael Brand's e-mail below).

Mr. Brand states when Fig 17-2.A suggests that a 10-12 ft. Side Path Bidirectional bicycle and pedestrian accommodation is required (which many of our projects fall into), this path is only required on one side of the roadway. CH 17 does not state this and we had previously assumed that this accommodation was needed on both sides of the roadway.

Mr. Brand also states that if we want to provide the path accommodation on both sides of the roadway, then a one directional path (6 - 7ft.) can be installed to meet the bicycle and pedestrian accommodation. This is much less impact than the 10-12 ft. path.

Matthew C. Meyer
Illinois Department of Transportation
Project Studies Engineer
(618) 346-3160

From: Brand, Michael
Sent: Tuesday, September 30, 2014 9:17 AM
To: Meyer, Matthew C
Cc: Geldert, Karen B; Nieves.Rosario, Alvin I.
Subject: RE: Shared Use Bike Path Question

A two-way (bi-directional) shared use path accommodates both directions of travel in one path; therefore only one path is needed on one side of the roadway. If a shared use path were to be installed on each side of the roadway, each path would typically be designed as a one-way path and thus be narrower (see Figure 17-2.X).

Michael Brand
Acting Policy & Procedures Eng.
Bureau of Design & Environment, IDOT
217-782-7651

From: Meyer, Matthew C
Sent: Monday, September 29, 2014 3:27 PM
To: Brand, Michael
Cc: Geldert, Karen B; Nieves.Rosario, Alvin I.
Subject: Shared Use Bike Path Question

Hello Mike,

We are working on a project where Figure 17-2.A suggests that a 10-12 ft. Side Path Bidirectional bicycle and pedestrian accommodation is required. Do we assume that this 10-12 ft. two-way bicycle and pedestrian accommodation needs to be provided on both sides of the roadway? Figure 17-2.Z shows two cross sections of paths separated from an adjacent roadway, and they both show the path on only one side of the roadway. This may be just a snapshot to show the clearances for these paths, but it raised the question. Obviously other factors will be involved to select the correct accommodation for this project, but we just want to know if two-way bicycle and pedestrian paths should be assumed on both sides of the road as a starting point for this iterative process.

Let me know you thoughts. Thank you for your help on this issue.

Matthew C. Meyer
Illinois Department of Transportation
Project Studies Engineer
(618) 346-3160


Please consider the environment before printing this email

Meyer, Matthew C

From: Niedernhofer, Paul R
Sent: Tuesday, June 23, 2015 9:28 AM
To: Stafford, Cindy J
Cc: Meyer, Matthew C
Subject: RE: bike/ped coordination with Godfrey for intersection improvements

Cindy,

I concur with your proposal to at least build the sidewalks. If you can get the shelf in for a future path, please do. Try to get the most options for the non-driver.

Paul Niedernhofer, P.E.
BDE Field Engineer
Bureau of Design & Environment
Tel: 217-524-1651 Fax: 217-524-9357
Paul. Niedernhofer@illinois.gov

-----Original Message-----
From: Stafford, Cindy J
Sent: Monday, June 22, 2015 1:00 PM
To: Niedernhofer, Paul R
Cc: Meyer, Matthew C
Subject: FW: bike/ped coordination with Godfrey for intersection improvements

Paul, we have a project to improve two intersections in Godfrey: IL Rte 3 and Delmar and Pierce Blvds. We are anticipating we will be building roundabouts. We did a bike/ped analysis and determined there were generators/destinations. We recently met with Godfrey to discuss their interest in participating in cost for bike/ped accommodations.

The Village has no master bike plan and MCT has nothing planned in the village. The Mayor is in favor of bike/ped accommodations in general, but has to spend what little money they have where they can get the biggest benefit (such as for the Alton Godfrey improvement). For this isolated improvement, he was not interested in participating in bike accommodations since it would be a short segment that wouldn't continue to anything. He was however willing to consider sidewalks at the locations shown on the attachment, depending on cost.

Since the village is willing to participate in some accomodations, are we OK to proceed with the design as shown? If they weren't willing to participate at all, we would be doing a graded shelf. So should we build the sidewalk and leave room for a wider mutli-use path as a graded shelf, even thought the village has indicated they aren't interested in pursuing that?

The mayor also indicated he is not interested in on-road bike accommodations. They are a bedroom community and feel their residents would feel more comfortable riding on a separate path.

-----Original Message-----
From: D8SouthStudiesAndPlansMFD@illinois.gov [mailto:D8SouthStudiesAndPlansMFD@illinois.gov]
Sent: Monday, June 22, 2015 12:47 PM
To: Stafford, Cindy J

Subject: Scanned from a Xerox Multifunction Device

Please open the attached document. It was scanned and sent to you using a Xerox Multifunction Device.

Attachment File Type: pdf, Multi-Page

Multifunction Device Location: D8 South Studies and Plans
Device Name: D8 South Studies and Plans

For more information on Xerox products and solutions, please visit http://www.xerox.com

Agenda Item A-4

FAU 8955/ FAU 8956 (IL Route 3 at W. Delmar and at Pierce Lane)

June 25, 2015

This project was presented to initiate the project and to discuss the proposed bike and pedestrian accommodations. The scope of this project is to improve the intersections of IL 3 and W. Delmar and IL 3 at Pierce Lane. Improvements to these two intersections are being proposed to address traffic capacity issues that have resulted in crashes at these two intersections (majority are rear end crashes). Phase I (preliminary engineering) for this project is currently funded in the Department's FY 2016-2021 Proposed Highway Improvement Program, however Phase II (design) and Phase III (construction) are not.

It was explained that IL 3 is the main route within the project limits, and the current geometric configuration forces this main route to stop for W. Delmar, which has approximately half the ADT of IL 3. Because of all of the traffic generators in the area, peak traffic times in the morning and in the afternoon at both intersections have experienced capacity issues. Improvements are being proposed to improve the capacity at these two intersections in order to improve safety.

Due to the location and the possibility of impacts within the project limits, the Context Sensitive Solutions (CSS) public involvement process has been utilized. A Community Advisory Group (CAG) has been formed for this project and it includes over 20 members. The members are made up of local and county officials, business owners, residents, church organizations, and users of these intersection facilities. The 1st CAG meeting was held in October of 2014. At this meeting a Problem Statement was developed and agreed upon, context audit forms were completed, and four design alternatives were presented. The design alternatives included: no-build, minor improvements, signalized realignment, and dual roundabouts. The village and the majority of the CAG seemed to generally favor the dual roundabout alternative, with the exception of the Frontenac neighborhood association.

This project does meet warrants for bike and pedestrian accommodations, as there is school/ church, residential, and commercial generators in the project area. Currently pedestrian accommodations exist, however, no existing bike accommodations exist within the project area. Due to the ADT and type of facility, the policy suggests that a shared use path be provided to accommodate bikes and sidewalks be provided to accommodate pedestrians. IDOT met with the Village of Godfrey to discuss their willingness to participate in the cost and maintenance of bike and pedestrian facilities. Godfrey expressed that they have no existing or future plans to accommodate bikes within the project limits; therefore, they are not interested in participating or maintaining bike facilities within the project limits. Godfrey did express interest in participating in the cost and maintenance in pedestrian facilities within the project limits. An exhibit was presented showing a proposed pedestrian accommodation plan. This plan would connect with the existing pedestrian facilities and provide new connections for pedestrians within

the project limits. Cost was a major factor in the village's willingness to participate and maintain pedestrian accommodations for this project, so using the existing facilities and only providing accommodations where there is existing or future village plans for pedestrian accommodations were key factors for this design.

BDE agreed to the proposed pedestrian accommodations and recommended that a proposed graded shelf should be provided as well for possible future bike accommodations.

Matt Meyer

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Connie Waggoner
Division Manager
Illinois Department of Natural Resources
Office of Realty and Environmental Planning
One Natural Resources Way
Springfield, IL 62702-1271

Dear Ms. Waggoner:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

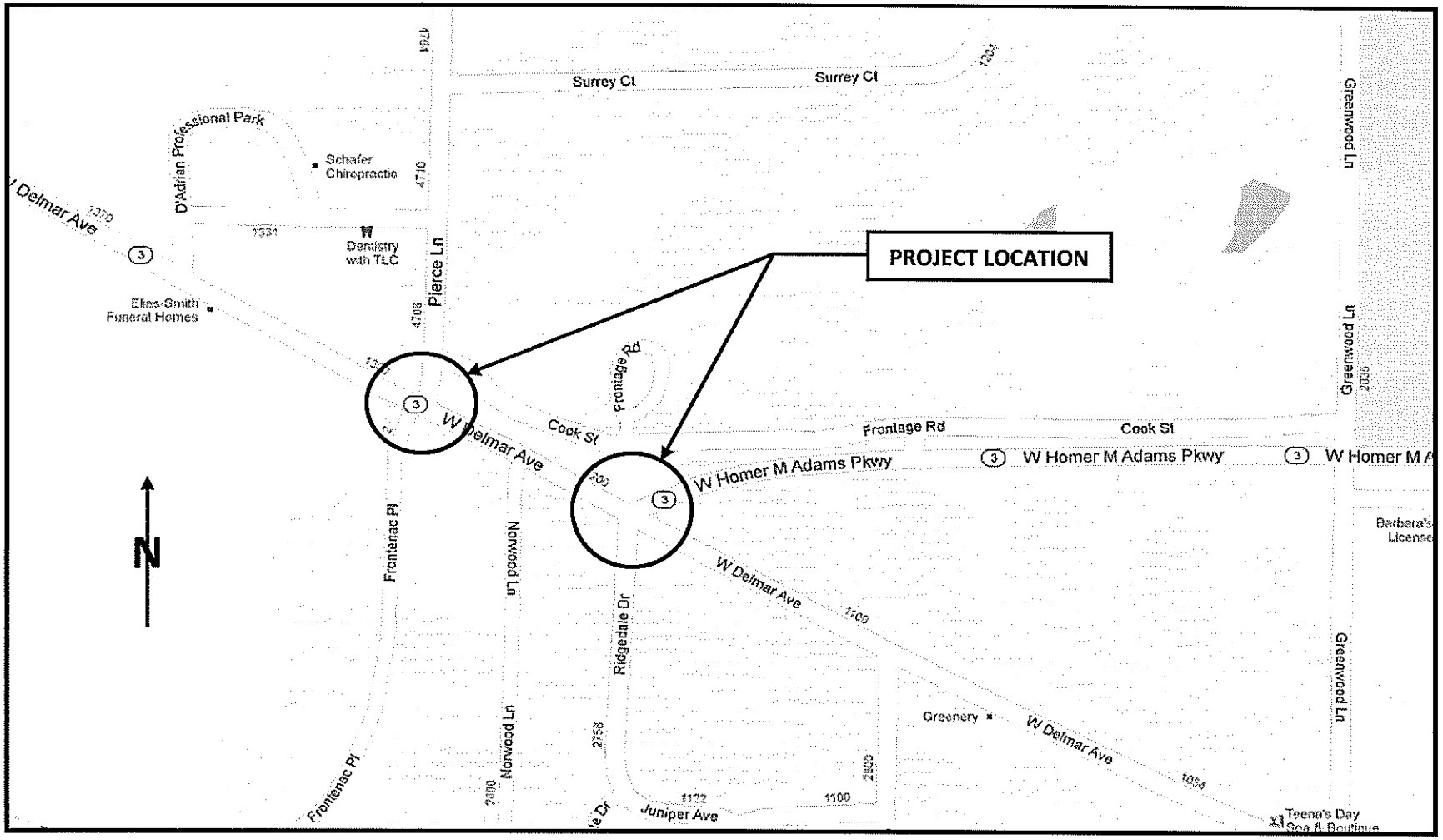
Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation

Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Ed Barsotti
Executive Director
League of Illinois Bicyclists
2550 Cheshire Drive
Aurora, IL 60504

Dear Mr. Barsotti:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

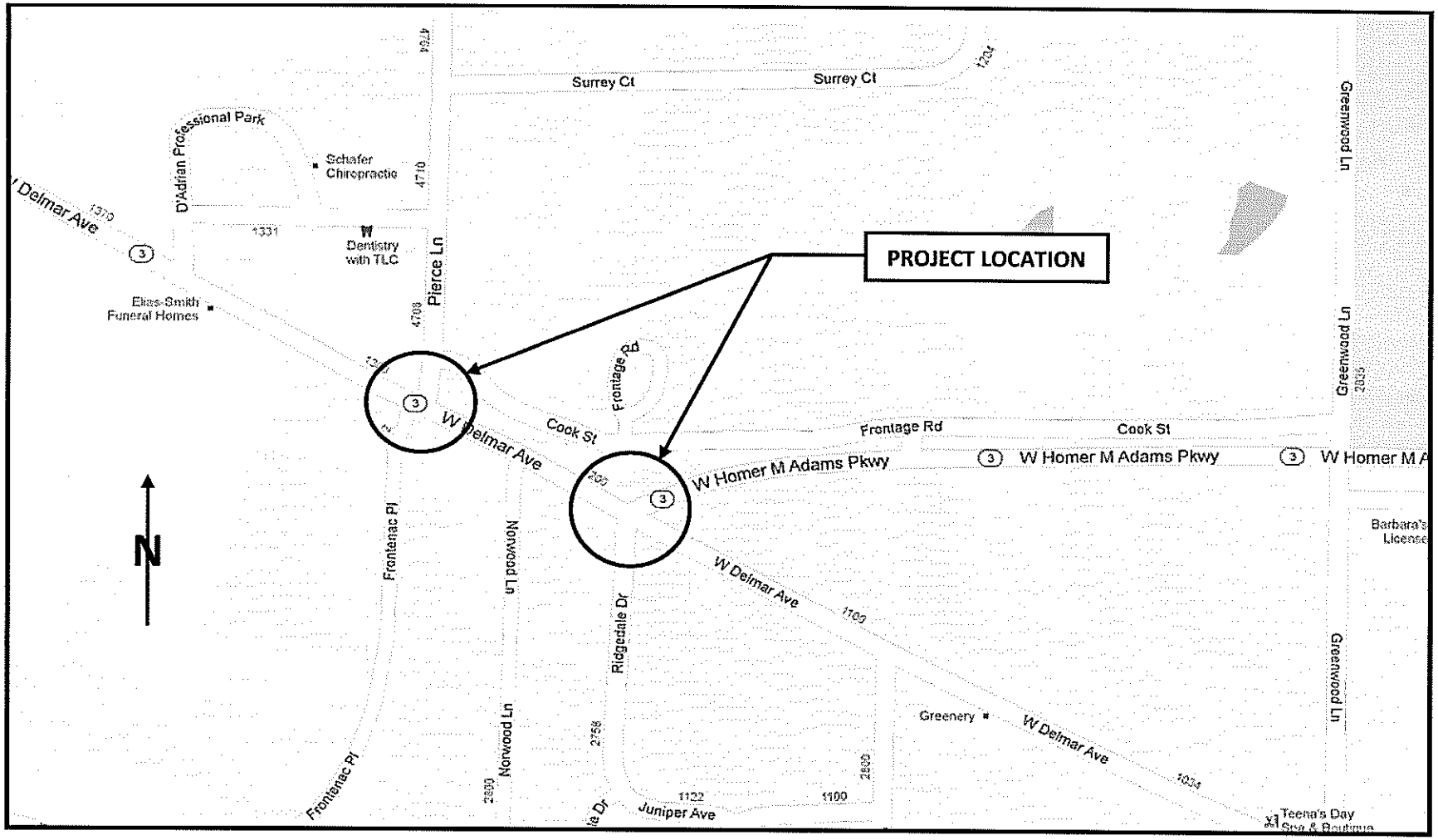
Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation
Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Jerry Kane
Managing Director
Madison County Transit
One Transit Way
P.O. Box 7500
Granite City, IL 62040

Dear Mr. Kane,

The Illinois Department of Transportation (IDOT) is currently studying IL Route 3 in Godfrey. This project will improve the intersection of IL Route 3 and Delmar Avenue and the intersection of IL Route 3 and Pierce Lane by addressing capacity and mobility for the 20 year projected traffic volumes. A location map has been provided for your reference. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

IDOT projects typically have three distinct phases. Phase I consists of developing the project scope, environmental studies and preliminary design of a project. Phase II consists of refining the design to develop contract plans and land acquisition. Phase III consists of the actual construction of the project. IDOT is currently at the very early stages of Phase I for this project.

At this time IDOT is requesting any Madison County Transit plans or studies that may affect IL Route 3 within the project limits, as this information will be helpful in developing this project. In addition, we ask that you provide any information on the existing and/ or future bus routes, existing and proposed bus stop locations, and peak number of busses stopping per hour at these locations.

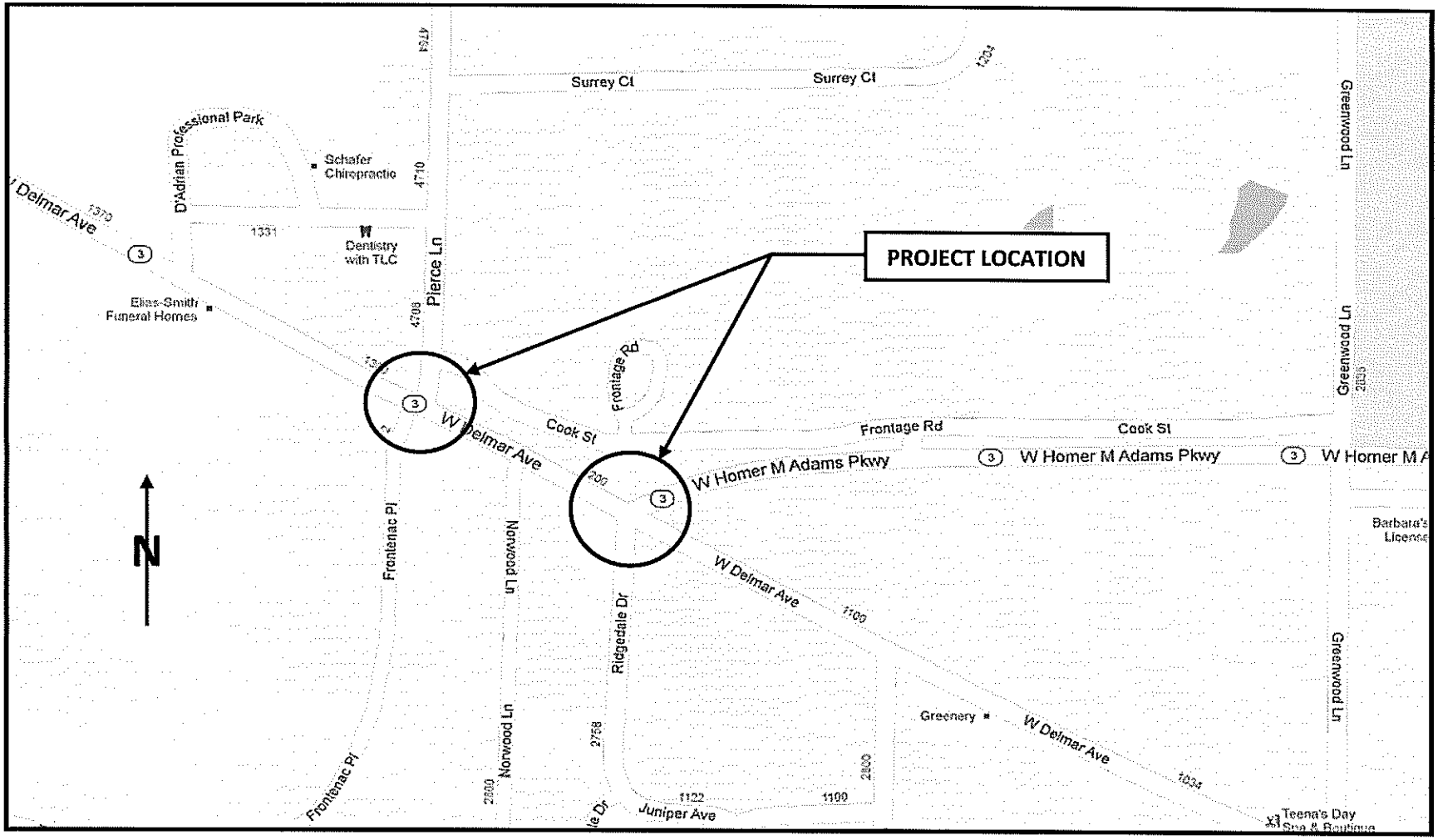
If there are any questions regarding the project, please contact Mr. Matt Meyer at 346-3160. We look forward to working with you on this transportation matter.

Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown, P.E.
Program Development Engineer

Attachment



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation

Division of Highways / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois / 62234-6198

October 20, 2014

FAU 8955/FAU 8956 (Illinois Route 3)
Section 60R-1
Madison County
Job No. P-98-004-13

Intersection Improvement at IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane in Godfrey, IL.

Steve Buchtel
Executive Director
Trails for Illinois
1639 Burr Oak Road
Homewood, IL 60430

Dear Mr. Buchtel:

The Illinois Department of Transportation is currently studying IL Route 3 in Godfrey, IL for improvement. This improvement will include the intersection of IL Route 3 and Delmar Avenue and IL Route 3 and Pierce Lane. A location map has been attached for your information. This project is not currently included in the Governor's FY 2015-2020 Proposed Multi-Modal Transportation Improvement Program, but will be monitored and considered for inclusion in future programs.

Based upon the Department's bicycle and pedestrian accommodation evaluation, bicycle and pedestrian accommodation warrants are met for this project. Therefore, bicycle and pedestrian accommodations will be proposed with this project.

Please notify the Department if you are aware of any nearby bicycle travel, planned development of recreational trails, or other generators that may affect this project. For more information, please contact Matt Meyer at (618) 346-3160.

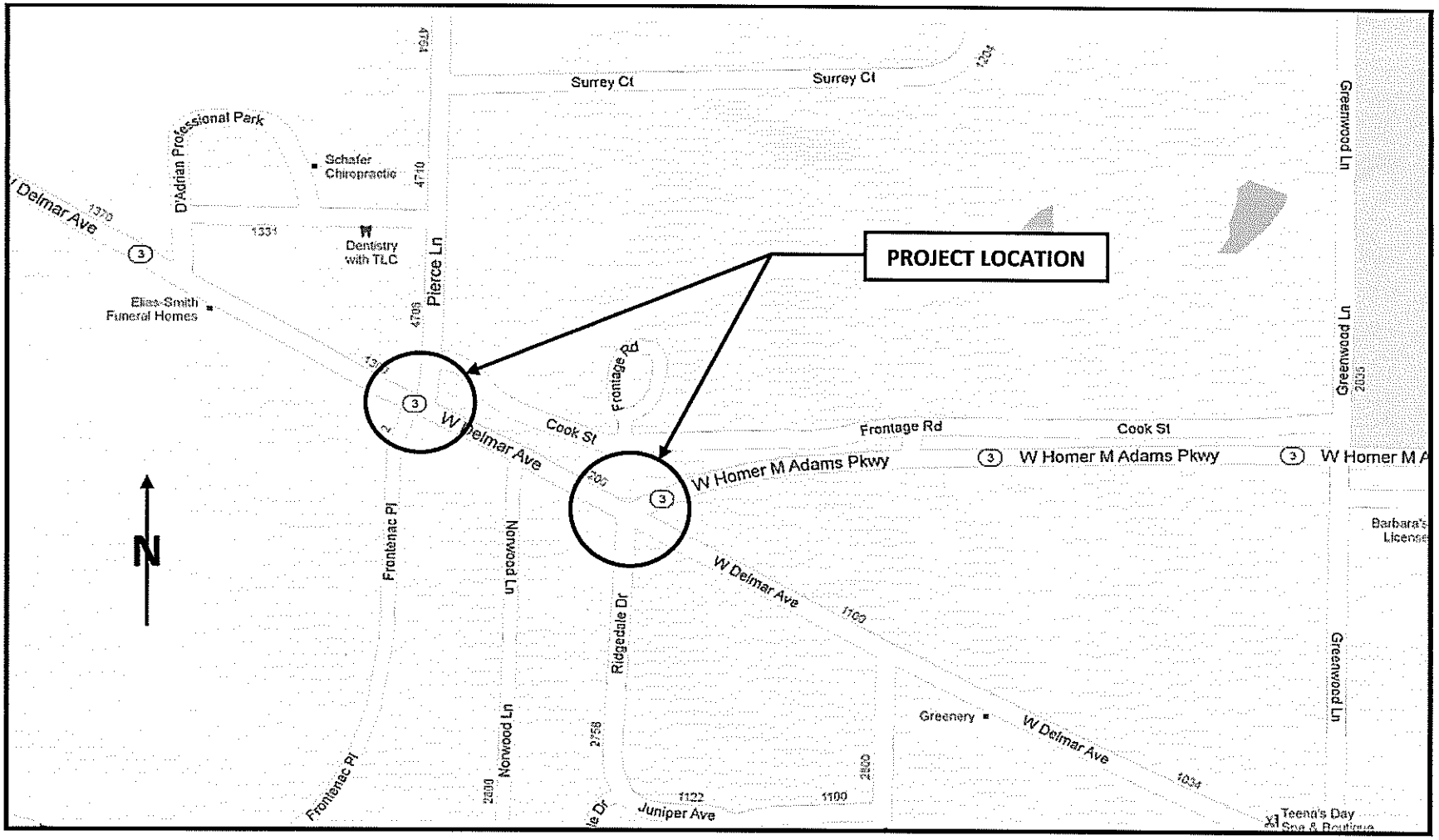
Sincerely,

Jeffrey L. Keirn, P.E.
Deputy Director of Highways
Region 5 Engineer

Kirk Brown

Kirk Brown, P.E.
Program Development Engineer

Attachment
cc: Joe Gray



PROJECT LOCATION MAP
Section: 60R-2
Route: IL 003 (FAU 8955/FAU 8956)
Location: IL 3 @ W. Delmar/Pierce Ln.
Madison County

Illinois Department of Transportation
Office of Highways Project Implementation / Region 5 / District 8
1102 Eastport Plaza Drive / Collinsville, Illinois 62234-6198

July 8, 2019

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County
P-98-004-13

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane

The Honorable Mike McCormick
Mayor
Village of Godfrey
6810 Godfrey Road
Godfrey, IL 62035

Dear Mayor McCormick:

As you are aware, the Illinois Department of Transportation (IDOT) is in the process of finalizing the Preliminary Engineering studies for the proposed improvement of IL Route 3 at West Delmar Avenue and Pierce Lane. A location map has been enclosed for your reference. This project is currently not included in the Department's FY2019 to 2024 Proposed Highway Improvement Program. This project will be monitored and considered for inclusion in future programs.

The general scope of work for this improvement consists of improving the intersections of IL 3 at W. Delmar Ave. and IL 3 at Pierce Lane by reconstructing and replacing these intersections with roundabouts. During preliminary studies, the 6 ft. wide sidewalk installation and decorative roundabout center island treatments were identified by IDOT as requiring cost participation by the Village. This letter will serve as a Letter of Intent between the Village of Godfrey and IDOT confirming your concurrence with the proposed improvement plan and the cost and maintenance participation responsibilities.

Sidewalk
The Village of Godfrey will be responsible for 100% of the maintenance for all proposed sidewalks within the project limits that are constructed. The Department is responsible for 100% of the cost for removal and replacement of existing sidewalk affected by the roadway improvements. At locations along the project where the village has requested new sidewalk, a 20% cost participation is required plus 15% of this 20% cost participation for engineering.

Based on previous coordination with our office, it is the Department's understanding that the village desires new 6 ft. wide sidewalk (to accommodate both bikes and pedestrians) along IL Route 3 within the project limits (see attached map showing new sidewalk locations). Based on this, the amount of new sidewalk was estimated to be approximately 7,300 sq. ft. Therefore, the cost of the new sidewalk is estimated at $73,000. The Village of Godfrey's share of the costs would be approximately $16,800 (20% share of construction cost plus 15% engineering).

Roundabout Center Island Treatments

Based on previous discussion it is the Department's understanding that the village desires aesthetic landscaping in the center islands of both roundabouts. At this time the village has indicated it would prefer to landscape the center of the islands with a ring of decorative rock surrounding the outer edge. For estimating purposes, the Department has assumed perennial plantings with a 15 ft. ring of river rock for this landscaping treatment. The Village of Godfrey will be responsible for 100% of the maintenance for proposed decorative roundabout center island treatments that are implemented with this project. The village is also responsible for 100% of the cost for decorative roundabout center island treatments plus 15% for engineering cost. The cost of a 15 ft. ring of decorative rock around each of the two proposed roundabout center islands is approximately $40,000. Also based on this assumption, the cost of perennial plantings within the proposed roundabout center islands is approximately $2,500. The Village of Godfrey's cost responsibility for this landscaping would be $49,000 (construction cost plus 15% engineering). These landscaping costs are based on hypothetical quantities at this point in time. A more detailed estimate will be determined in Phase II when the landscaping plan is developed with the village's input.

The total estimated cost participation responsibility for the proposed new sidewalks and roundabout center island treatments is approximately $66,000. Please note the figures presented in this letter are estimates. The final amount of cost participation by the village will be based on actual bid prices.

At the end of this letter of intent, there is an area where you can state your concurrence to the cost participation items outlined above. This letter of intent will be used as a basis during Phase II contract plan preparation and land acquisition to develop or amend the existing Village/State agreement. Please return an original signed copy of this letter at your earliest convenience, or at the latest, within 30 days of its receipt.

If you have any question or need additional information concerning the improvement, please contact Sarah Wiszkon at 618-346-3157 or Matt Meyer at 618-346-3160.

Sincerely,

Keith Roberts

Keith Roberts, P.E.
Acting Region Five Engineer

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane (Replacing with Roundabouts).

The estimated village participation for the new proposed 6 ft. sidewalk is $16,800 along with jurisdiction and maintenance.

Concur: _____

Do not concur: _____

Title: _____

Date: _____

The estimated village participation for the proposed roundabout center island treatments is $49,000 along with jurisdiction and maintenance.

Concur: _____

Do not concur: _____

Title: _____

Date: _____

Return To:
Keith Roberts
Acting Region Five Engineer
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234
Attn: Cindy Stafford

or fax to: 618-346-3119
Attn: Keith Roberts/Cindy Stafford

IL 003
FAU 8955/FAU 8956
Section 60R-2
Madison County

Intersection Reconstruction at IL 3 and W Delmar Avenue and IL 3 at Pierce Lane (Replacing with Roundabouts).

The estimated village participation for the new proposed 6 ft. sidewalk is $16,800 along with jurisdiction and maintenance.

Concur: M J McCarthy

Do not concur: _____

Title: MAYOR

Date: 2/5/2020

The estimated village participation for the proposed roundabout center island treatments is $49,000 along with jurisdiction and maintenance.

Concur: M J McCarthy

Do not concur: _____

Title: MAYOR

Date: 2/5/2020

Return To:
Keith Roberts
Acting Region Five Engineer
Illinois Department of Transportation
1102 Eastport Plaza Drive
Collinsville, IL 62234
Attn: Cindy Stafford

or fax to: 618-346-3119
Attn: Keith Roberts/Cindy Stafford

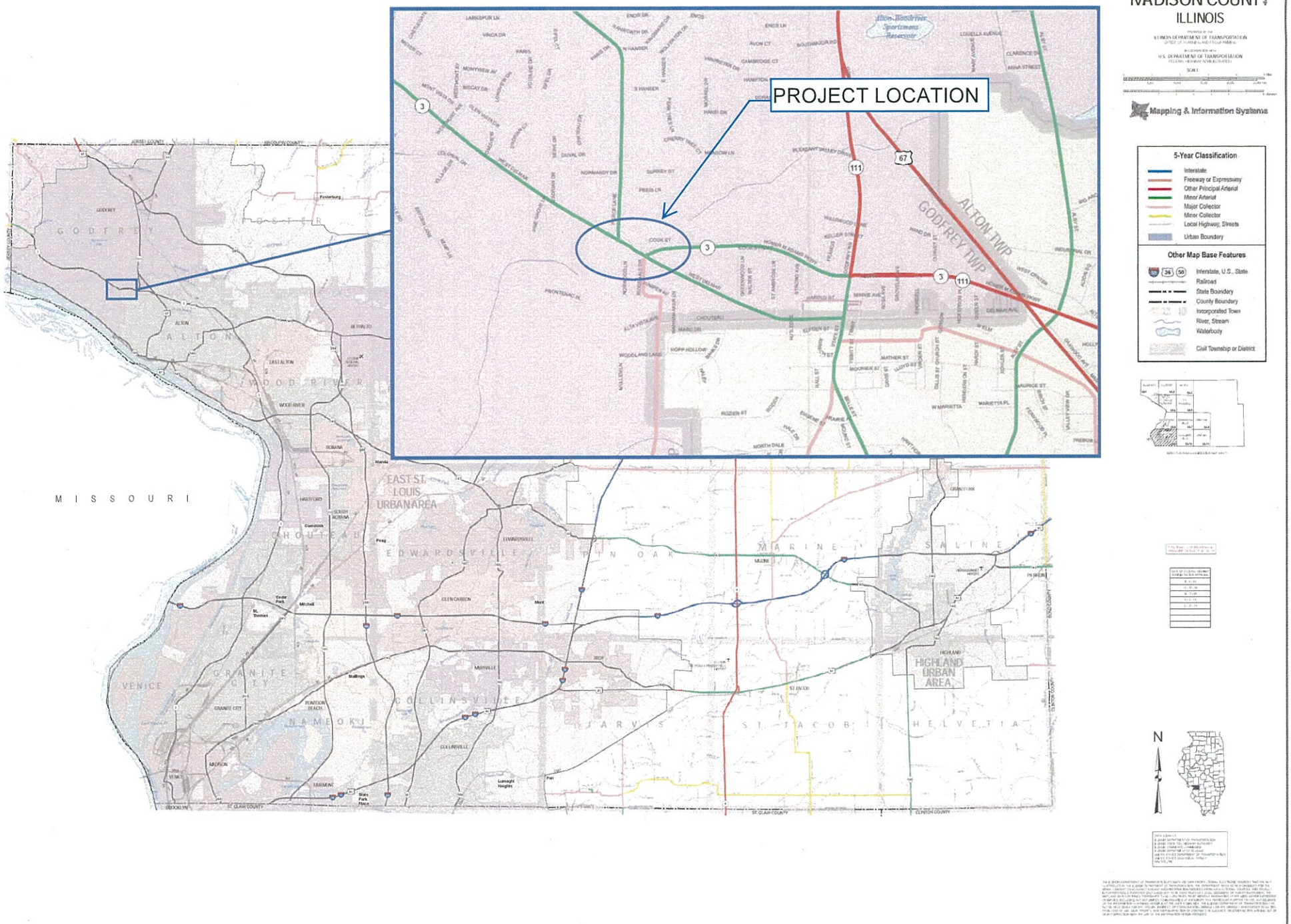

5YEAR CLASSIFICATION MAP
MADISON COUNTY
ILLINOIS
Mapping & Information Systems
PROJECT LOCATION
ALTON TWP.
GODFREY TWP.
MISSOURI
EAST ST. LOUIS URBAN AREA
HIGHLAND URBAN AREA
5-Year Classification
Interstate
Freeway or Expressway
Other Principal Arterial
Minor Arterial
Major Collector
Minor Collector
Local Highway, Streets
Urban Boundary
Other Map Base Features
Interstate, U.S., State
Railroad
State Boundary
County Boundary
Incorporated Town
River, Stream
Waterbody
Civil Township or District
N

EXHIBIT L – ENVIRONMENTAL COORDINATION

Attention: Central Office BD&E
Environment Section
Room 330

Environmental Survey Request

A. Project Information ☑ Bio ☑ Cultural ☐ Wetlands ☑ Special Waste

Submittal Date: 04/02/2014 **Sequence No:** 18539
District: 8 **Requesting Agency:** DOH **Project No:**
Contract #: 76F84 **Job No.:** P- 98-004-13
Counties: Madison
Route: FAU 8956 **Marked:** IL Route 3
Street: IL 3 (West Delmar) **Section:** 60R-1
Municipality(ies) **Project Length:** 0.644 **km** 0.4 **miles**
FromTo (At): 1000 feet west of Pierce Lane to 800 feet east of Ridgedale Drive
Quadrangle: Alton **Township-Range-Section:** T6N - R10W - Sec 34
Survey Target Date: 10/01/2014 **Anticipated Design Approval:** 01/01/2015

B. Reason for Submittal: (Check all that apply)

☑ **Acquisition of additional ROW or easement** **ha/** **acres**
☐ **In-Stream Work** **Stream Name:**
☑ **Other:** Excavation

C. Project Description: Intersection reconstruction along IL Route 3 at Delmar Lane and at Pierce Lane in Godfrey with the possible realignment of Cook Street

Proposed Work: ☑ **Highway** ☐ **Bridge** ☐ **Bike Trail** ☐ **Other**

D. Tree Removal?: Don't Know **Number?:** 0 **ha/** **acres**

Historic District Involved? No **Historic Buildings Involved?** No
Section 4(f) Lands Involved? No **Section 6(f) Lands Involved?** No
Wetland delineation performed by: **End. Species Consultation performed by:**

E. Funding: ☑ **Federal** ☐ **State** ☐ **TBP** ☐ **MFT** ☐ **Local Non-MFT**
☐ **404 Permit Required** **Anticipated Processing:** CE

F.

Contact Person:	Karen Geldert	**Local Contact Person:**	
Telephone #:	(618) 346-3157 ext.	**Telephone #:**	
Env.Contact:	Brian Macias	**E-Mail:**	
Telephone #:	6183463144	**Title/Company:**	

☐ **Field Sign Off (Bio & Cultural Only)** ☑ **Received in CO** 04/02/2014 ☑ **SW Received** 04/07/2014

Special Waste

Special Waste Submittal Date: 04/02/2014 **Anticipated Design Approval:** 01/01/2015 **Cleared for Design Approval:**

Cleared for Letting: **Survey Target Date:** 10/01/2014

Step 1: Level 1 Screening Criteria - District Sign-Off [27-3.02(a)]*

Yes	**1. Acquisition of additional right-of-way or easements (temporary or permanent)**
No	**2. Railroad ROW (other than single rail rural ROW with no maintenance facilities)**
Yes	**3. Excavation or subsurface utility relocation**

** For a Local Roads project, Level 1 and Level 2 screening criteria apply to the state route/state jurisdiction portion of the project. For the non-state route portion of the project, the Local Roads Manual/procedures should be followed. If all responses are No, then the SWC may Sign-Off the project. Projects answering "Yes" or "Don't Know" to #2 above are not eligible for District Sign-Off and must go through the PESA process. If any response is "Yes" or "Don't Know", continue to Step 2: Level 2 Screening Criteria.*

☐ **District Sign-Off of Special Waste - Level 1:** ☐ **Validation - Level 1**

Conducted By: Brian Macias **Revised Level 1 Sign-Off Date:**

Position: TM III

Telephone #: 618-346-3144 **Ext.:**

Note: This Level 1 District Sign-Off is valid for a maximum of 6 months, after which it must be validated; enter a "Revised Level 1 Sign-Off Date" in the box to the right above and click the "Validation - Level 1" box.

Level 1 Screening Comments: *Include your name and date with your comments.*

Step 2: Level 2 Screening Criteria - District Sign-Off [27-3.02(b)]

☐ **If for any reason, the presence of any environmental condition cannot be determined from the site reconnaissance or from database searches, please check this box, add an explanation below, and submit for PESA.**

1. Does the project involve any of the following environmental conditions within the corresponding minimum search distance?

Environmental Condition	Minimum Search Distance	Database Search	Site Reconnaissance
Industrial and/or commercial property	0.25 miles		
Other Environmental Conditions* (Please detail below)*	Property & adjoining property		
State UST	Property & adjoining property		
State LUST	0.5 miles		
State Voluntary Cleanup, Brownfield, or landfills	0.5 miles		
Federal NPL; NPL delisted; CERCLIS; CERCLIS NFRAP	1.0 miles; 0.5 miles; 0.5 miles; 0.5 miles, respectively		
Federal RCRA CORRACTS facilities; RCRA non-CORRACTS TSD facilities	1.0 miles; 0.5 miles, respectively		
Federal RCRA generators list	Property & adjoining property		
Federal Brownfield sites	0.5 miles		
Federal ERNS System	Property		

** Other Environmental Conditions are identified through site reconnaissance and include situations that may negatively affect the property including the presence of, for example, illegal dumping, unknown containers, waste associated with "crack" or methamphetamine houses (i.e., discarded hazardous material on the outside of a property), battery piles, paint spills, abandoned transformers, surface staining, vegetative damage, etc.*

*** Describe Findings/Other Environmental Conditions:**

2. Were photographs taken of the site and/or surrounding area?

In an effort to identify any property or condition that may negatively affect the project site or potential historical, industrial and/or commercial use, the following sources of information can be helpful while screening the project.

3. Place a check next to each reference that is reviewed. (Optional)

☐ Google - type aerial maps	☐ Extranet data	☐ Historic Aerial Photos	☐ Survey Books	☐ Other Files & Photos
☐ City Directories	☐ County Assessor	☐ Sanborn Fire Insurance Maps	☐ Plat Books	
☐ Other source (describe):				

If any historical reference indicates the possible presence of a property or condition that may negatively affect the project site, then a PESA is required.

If all responses for database search and site reconnaissance are "No", then the District Special Waste Coordinator may sign-off the project. If any response for database search and site reconnaissance is "Yes", or if a database search or site reconnaissance is not performed or is inconclusive, then a PESA is required.

☐ **District Sign-Off of Special Waste - Level 2:**

Conducted By:

Position:

Telephone #: **Ext.:**

☐ **Validation - Level 2**

Revised Level 2 Sign-Off Date:

Cleared for Design Approval:

Note: This Level 2 District Sign-Off is valid for a maximum of 6 months. After that date, the District Sign-Off must be validated and a Revised Sign-Off Date entered in the box to the right above.

After this Level 1 or Level 2 District Sign-Off has been completed:
1. Email a screen shot or Adobe.pdf of the form to the Central Office, BDE, Environment Section, Geologic & Waste Assessment Unit for Processing.
2. Complete the Cleared for Design Approval step by clicking on the Dist/CBLRS tab and adding the date to the special waste cell.
3. Complete the Cleared for Letting step in a similar fashion.
4. Add explanatory note in the Addtl. Info tab.

For questions about this form, see the submittal instructions, contact the District Special Waste Coordinator or contact the BDE Geologic & Waste Assessment Unit.

Sequence No: **18539**

Memo Date:	04/02/2014	**Memo By:**	Brian Macias
Memo:	Survey Limits: Along IL Route 3/Homer M Adams Parkway - 1000' west of Pierce Lane; 1000' east of IL 3/West Delmar Avenue Along West Delmar - 800' east of Ridgedale Drive Along Frotenac Place, Norwood Lane, and Ridgedale Drive - 300' south of IL 3/West Delmar Avenue Along Pierce Lane - 700' north of IL 3/West Delmar Avenue		
Memo Date:	04/02/2014	**Memo By:**	Brian Macias
Memo:	Due to a possible realignment of Cook Street, survey limits also need to include the Evangelical United Church of Christ property (see highlighted map)		
Memo Date:	04/02/2014	**Memo By:**	Brian Macias
Memo:	There is an unknown amount of ROW at this time		

Illinois Department of Transportation

Memorandum

To:	Jeffrey L. Keirn	Attn: Kirk Brown
From:	John D. Baranzelli	By: Thomas C. Brooks
Subject:	Natural Resources Review	
Date:	April 3, 2014	Thomas C. Brooks

IL 3
T6N/R10W/S34
Madison County
Seq. #18539

The proposed project involves intersection reconstruction at Delmar Lane and Pierce Lane along IL 3 in Godfrey. There is possible realignment of Cook Street as well.

The amount of land acquisition is undetermined. There will not be in-stream work. The amount of tree removal is undetermined. Land cover in the vicinity of the proposed improvement is residential.

Review for Illinois Endangered Species Protection and Illinois Natural Areas Preservation – Part 1075

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. **Therefore, consultation under Part 1075 is terminated**.

This review for compliance with 17 Ill. Adm. Code Part 1075 is valid for two years unless new information becomes available that was not previously considered; the proposed improvement is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the proposed improvement has not been implemented within two years of the date of this memorandum, or any of the above listed conditions develop, a new review will be necessary.

Review for Illinois Interagency Wetland Policy Act – Part 1090

The National Wetlands Inventory shows wetlands in the vicinity of the project location. The wetland consist of mature trees and non-hydric soils and will not be adversely affected by the project. **Therefore, the wetland review under Part 1090 is terminated**.

Review for Endangered Species Act - Section 7

See the attached US Fish and Wildlife Service list of endangered, threatened, proposed and candidate species and proposed and designated critical habitat that may be present within the county in which the proposed project is located. We cross-referenced the preferred habitat of each listed species with our knowledge of the project area and determined that listed species and critical habitat are not present.

Should the proposed improvement be modified or new information indicate listed or proposed species may be affected, consultation or additional coordination should be initiated.

Attachment—USFWS species county list

VH

Illinois County Distribution

Federally Endangered, Threatened, and Candidate Species

List Revised October 2013

County	Species	Status	Habitat
Madison **Field Office to Contact:** U.S. Fish and Wildlife Service Marion Illinois Sub-Office 8588 Route 148 Marion, Illinois 62959 Phone: (618) 997-3344, ext. 340 FAX: (618) 997-8961 e:mail Marion@fws.gov	Indiana bat *(Myotis sodalis)*	Endangered	Caves, mines (hibernacula); small stream corridors with well developed riparian woods; upland forests (foraging)
	Northern long-eared bat *Myotis septentrionalis*	Proposed as Endangered	Hibernates in caves and mines - swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests and woods.
	Least tern *(Sterna antillarum)*	Endangered	Bare alluvial and dredged spoil islands
	Eastern massasauga *(Sistrurus catenatus*)	Candidate	Graminoid dominated plant communities (fens, sedge meadows, peatlands, wet prairies, open woodlands, and shrublands)
	Pallid sturgeon *(Scaphirynchus albus*)	Endangered	Large rivers
	Spectaclecase mussel (*Cumberlandia monodonta*)	Endangered	Shallow areas in larger rivers and streams
	Decurrent false aster *(Boltonia decurrens*)	Threatened	
	Eastern prairie fringed orchid *(Platanthera leucophaea*)	Threatened	Mesic to wet prairies

Illinois Department of Transportation

Memorandum

To:	Jeffrey Keirn	Attn: Jennifer Hunt
From:	John Baranzelli	By: Brad Koldehoff
Subject:	Cultural Resource Concurrence	
Date:	June 17, 2014	

Madison County
FAU 8956, IL 3
Sec. 60R-1
Job No. P-98-004-13
Seq. # 18539

The attached letter documents the concurrence of the State Historic Preservation Officer in the following determination by IDOT's professional cultural resources staff: "No Historic Properties Affected." This concurrence completes the necessary cultural resource coordination for the above referenced project.

Brad Koldehoff

Attachment

BK:km

Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

Madison County
Godfrey
FAU 8956, IL 3
Intersection Reconstruction
IDOT Sequence #18539
ISAS Log #14037

June 10, 2014

RECEIVED
JUN 10 2014
PRESERVATION SERVICES

Federal - Section 106 Project

NO HISTORIC PROPERTIES AFFECTED

Ms. Anne Haaker
Deputy State Historic Preservation Officer
Illinois Historic Preservation Agency
Springfield, Illinois 62701

Dear Ms. Haaker:

Enclosed are copies of the Phase I Survey Report completed by Illinois State Archaeological Survey personnel concerning archaeological and historical resources potentially impacted by the above referenced project. Survey of the 15-acre project area resulted in the identification no archaeological sites within the project limits. No architectural resources eligible for National Register consideration were identified by IDOT's cultural resources staff.

In accordance with the established procedure for coordination of proposed IDOT projects, we request the concurrence of the State Historic Preservation Officer in our determination that no historic properties subject to protection under Section 106 of the National Historic Preservation Act of 1966, as amended, will be affected by the proposed project.

Very truly yours,

Brad H. Koldehoff, RPA
Cultural Resources Unit
Bureau of Design and Environment

CONCUR
By: Anne E. Haaker
Deputy State Historic Preservation Officer
Date: 6-10-14

Illinois Department of Transportation

Memorandum

To:	Jeffrey Keirn	Attn:	Frank M. Opfer
From:	John D. Baranzelli	By:	Jim Curtis
Subject:	PESA Review		*James R. Curtis*
Date:	September 24, 2014		

Project:	FAU 8956 / IL 3 (West Delmar); @ Homer Adams Parkway and Pierce Lane		
District 8:	Madison County	Job #:	P-98-004-13
Requesting Agency:	DOH	Contract #:	76F84
Survey Target Date:	10/01/2014	Anticipated DA:	01/01/2015
Anticipated Letting:	Not provided	Section:	60R-1
BDE Sequence #	18539	ISGS PESA #:	2934

Attached is a copy of the Preliminary Environmental Site Assessment (PESA) report prepared by the Illinois State Geological Survey (ISGS) for the subject project as described in your Special Waste Environmental Survey Request (ESR). Table 1 identifies sites along the project route that were determined to contain recognized environmental conditions (RECs). It is the opinion of this office, in consultation with the Chief Counsel's Office, that a preliminary site investigation (PSI) is required if any site identified in Table 1 of the PESA report involves any of the following situations:

- New right of way or easement (temporary or permanent);
- Railroad right-of-way, other than single rail rural with no maintenance facilities; or
- Building demolition / modification.

Additionally, a PSI is required if the project will have excavation or subsurface utility relocation on existing right-of-way adjoining a site identified in Table 1 of the PESA report.

If the district determines that they can avoid all the sites containing RECs, then a PSI is not required and the project will be in compliance with Departmental Policy D&E-11. If the district determines the project will involve a site containing a REC(s), then a PSI is required and the statewide special waste consultant should be requested to perform the PSI. Please notify this office of any actions you may decide to take concerning these sites (avoidance or further investigation). The PESA Response and Work Order form can be found on PMA.

The district should determine if any new right-of-way or easement will involve: any site identified in Table 1 of the PESA report, or any site adjoining a site listed in Table 4. For those identified situations, the District Bureau of Land Acquisition (DBLA) shall coordinate the acquisition with this office, Central Bureau of Land Acquisition, and the Chief Counsel's Office to determine if an "All Appropriate Inquiries" (AAI) assessment is required prior to the acquisition process for additional liability protection under CERCLA.

Other findings and recommendations of the report should be carefully considered. For questions regarding this report or the tasking of the statewide consultant, please contact James R. Curtis at 217/558-4653 or Steven Gobelman at 217/785-4246.

Attachments

cc: Office of Chief Counsel – Rm. 313
Central Bureau of Land Acquisition – Rm. 210
District Bureau of Land Acquisition
District Utility Coordinator

IDOT Sequence #: 18539 **ISGS: 2934**
IDOT Job #: P98-004-13 **IDOT District #: 8**

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

FINAL REPORT

DATE: September 19, 2014

IDOT DESIGN DATE: January 1, 2015

SURVEY TARGET DATE: October 1, 2014

DATE REQUEST RECEIVED: April 7, 2014

LOCATION: FAU 8956 (IL 3), west of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County; Alton quadrangle (USGS 7.5-minute topographic map), T6N, R10W, Section 34.

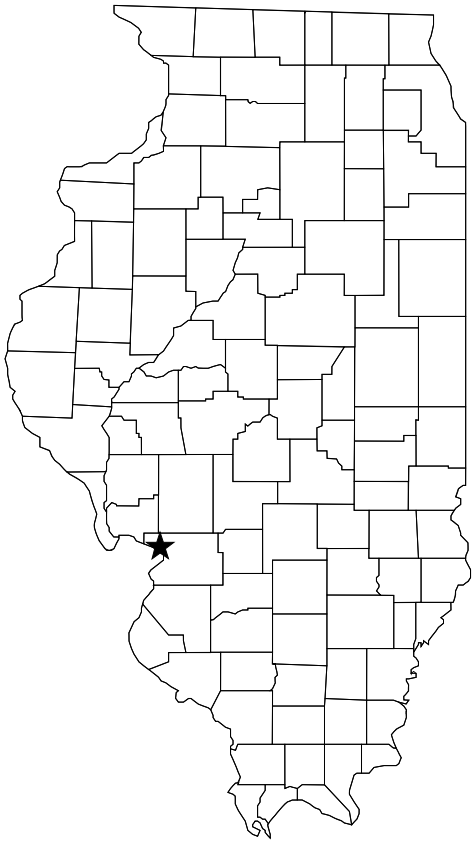


Table of Contents

GLOSSARY OF ACRONYMS

AAI	-	All Appropriate Inquiries
ACM	-	asbestos-containing material
AST	-	aboveground storage tank
ASTM	-	American Society for Testing and Materials
AULs	-	activity and use limitations (includes institutional controls, engineered barriers, and HAAs)
bgs	-	below ground surface
BOL	-	Bureau of Land (IEPA)
BTEX	-	benzene, toluene, ethylbenzene, and total xylenes
CDPH	-	Chicago Department of Public Health
CCDD	-	Clean construction and demolition debris
CERCLIS	-	Comprehensive Environmental Response, Compensation, and Liability Information System
CTA	-	Chicago Transit Authority
ERNS	-	Emergency Response Notification System
FEMA	-	Federal Emergency Management Agency
FIRM	-	Flood Insurance Rate map
FOIA	-	Freedom of Information Act
GIS	-	Geographic Information System
GRO	-	Groundwater Remediation Objective
HAA	-	Highway Authority Agreement
IDNR	-	Illinois Department of Natural Resources
IDOT	-	Illinois Department of Transportation
IEMA	-	Illinois Emergency Management Agency
IEPA	-	Illinois Environmental Protection Agency
IMD	-	Illinois Manufacturers Directory
ISGS	-	Illinois State Geological Survey
ISTC	-	Illinois Sustainable Technology Center (formerly Waste Management and Research Center)
ISWS	-	Illinois State Water Survey
LUST	-	leaking underground storage tank
µg/kg	-	micrograms per kilogram (ppb)
µg/l	-	micrograms per liter (ppb)
mg/kg	-	milligrams per kilogram (ppm)
mg/l	-	milligrams per liter (ppm)
M.M.	-	mile marker
M.P.	-	mile post
MSDS	-	material safety data sheet
MTBE	-	methyl tertiary butyl ether
NFR	-	No Further Remediation
NPL	-	National Priorities List
NRCS	-	Natural Resources Conservation Service
OSFM	-	Office of the State Fire Marshal
PAA	-	Permit Access Agreement
PAH/PNA	-	polynuclear aromatic hydrocarbons
PCB	-	polychlorinated biphenyls
PESA	-	Preliminary Environmental Site Assessment
P.G.	-	Professional Geologist
ppb	-	parts per billion (equivalent to µg/kg for solids, and µg/l in liquids)
ppm	-	parts per million (equivalent to mg/kg in solids, and mg/l in liquids)
PRP	-	Potentially Responsible Party
RCRA	-	Resource Conservation and Recovery Act
REC	-	recognized environmental condition
ROW	-	right-of-way
SIC	-	Standard Industrial Classification
SPLP	-	synthetic precipitation leaching procedure
SRO	-	Soil Remediation Objective
SRP	-	Site Remediation Program
SSTS	-	Section Seven Tracking System (USEPA)
SVOCs	-	semi-volatile organic compounds
TACO	-	Tiered Approach to Cleanup Objectives (IEPA)
TCLP	-	toxicity characteristic leaching procedure
TPH	-	total petroleum hydrocarbons
TRI	-	Toxics Release Inventory
TVOC	-	Total volatile organic compounds
USDA	-	United States Department of Agriculture
USEPA	-	United States Environmental Protection Agency
USGS	-	United States Geological Survey
UST	-	underground storage tank
VOC	-	volatile organic compounds

EXECUTIVE SUMMARY

This report presents the results of an environmental site assessment for the improvements to IL 3 from west of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County. This report was prepared on behalf of the Illinois Department of Transportation (IDOT) by the Illinois State Geological Survey (ISGS).

The following sites were examined for this project. The tables below list sites along the project for which recognized environmental conditions (RECs)* were identified for each address or address range (Table 1); sites along the project for which only de minimis conditions were identified (Table 2); sites along the project for which no RECs or de minimis conditions were identified (Table 3); and sites adjoining but not on the project that were identified on environmental databases (Table 4). Further investigation of sites with RECs may be desired.

Table 1. The following sites along the project were determined to contain RECs:

Property name IDOT parcel #	ISGS site #	REC(s), including de minimis conditions	Regulatory database(s)	Land use
Elias-Kallal and Schaaf Funeral Home NA	2934-4	Potential chemical use; potential ACM and lead paint	None	Commercial
Residence NA	2934-7	Potential UST(s); potential former chemical use; potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Unity Fellowship Church NA	2934-8	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Religious
Residence NA	2934-9	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934-10	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934-11	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential

Farrell, Hamilton & Julian NA	2934-12	Potentially impacted groundwater; transformers; potential ACM and lead paint	AUL	Commercial
Illinois Eye Surgeons NA	2934-13	Potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial
Commercial building NA	2934-14	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Commercial
IDOT ROW NA	2934-15	Potentially impacted groundwater	AUL	Transportation
Evangelical United Church of Christ NA	2934-16	Potentially impacted groundwater; transformers; potential ACM and lead paint	AUL	Religious
Residence NA	2934-17	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-18	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-19	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-20	Potentially impacted groundwater; transformer; potential ACM	AUL	Residential
Residence NA	2934-21	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-22	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-23	Potentially impacted groundwater; transformer; potential ACM	AUL	Residential

Residence NA	2934-24	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-25	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-26	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-27	Potentially impacted groundwater; transformer; potential ACM	AUL	Residential
Residence NA	2934-28	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-29	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-30	Potentially impacted groundwater; potential ACM	AUL	Residential
Residence NA	2934-31	Potentially impacted groundwater; transformer; potential ACM	AUL	Residential
Residence NA	2934-32	Potentially impacted groundwater; potential ACM	AUL	Residential
Lawrence Newquist and Jody Schulmeister Dental office NA	2934-33	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Commercial
Residence NA	2934-34	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential

Residence NA	2934-35	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
Residence NA	2934-36	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934-37	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934-38	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934-39	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
Restoration Lutheran Church NA	2934-40	Potentially impacted groundwater; potential ACM and lead paint	AUL	Religious
Commercial building NA	2934-41	Potential former chemical use; potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial
Macias Insurance NA	2934-42	Potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial
Residence NA	2934-43	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
The Greenery NA	2934-44	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Commercial
Teena’s Day Spa and Boutique NA	2934-45	Potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial

TK Carpet Gallery NA	2934-46	Potential chemical use; potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Commercial
Iron House CrossFit NA	2934-47	Former monitoring wells; potential monitoring wells impacted soil and groundwater; HAA; transformer; potential ACM and lead paint	HAA; AUL	Commercial
Summer's Port NA	2934-48	Potentially impacted groundwater; transformers; potential ACM and lead paint	AUL	Commercial

Table 2. The following sites along the project were determined to contain de minimis conditions only:

Property name IDOT parcel #	ISGS site #	De minimis condition(s)	Land use
Agricultural land NA	2934-1	Likely pesticide and/or herbicide use	Agricultural
Provision Living NA	2934-2	Transformer; potential ACM and lead paint	Commercial
Hughes and Associates NA	2934-3	Potential ACM and lead paint	Commercial
Fast Braces NA	2934-5	Transformer; potential ACM and lead paint	Commercial
Residence NA	2934-6	Potential ACM and lead paint	Residential

Table 3. The following sites along the project were determined not to contain RECs or de minimis conditions:

Property name IDOT parcel #	ISGS site #	Land use
None		

Table 4. The following additional sites, adjoining but not on the project, were identified on

environmental databases:

Property name	ISGS site #	Regulatory database(s)	Land use
Dixon Distributing Company	2934-A	LUST, UST, AUL, BOL, IEMA	Commercial
Residence	2934-B	AUL	Residential
Residence	2934-C	AUL	Residential
Commercial building	2934-D	AUL	Commercial
Residence	2934-E	AUL	Residential
Residence	2934-F	AUL	Residential
Residence	2934-G	AUL	Residential
Residence	2934-H	AUL	Residential
Residence	2934-I	AUL	Residential
Residence	2934-J	AUL	Residential
Residence	2934-K	AUL	Residential
Residence	2934-L	AUL	Residential
Residence	2934-M	AUL	Residential
Residence	2934-N	AUL	Residential
Residence	2934-O	AUL	Residential
Residence	2934-P	AUL	Residential
Residence	2934-Q	AUL	Residential
Residence	2934-R	AUL	Residential
Residence	2934-S	AUL	Residential
Residence	2934-T	AUL	Residential
Residence	2934-U	AUL	Residential
Residence	2934-V	AUL	Residential
Residence	2934-W	AUL	Residential
Residence	2934-X	AUL	Residential
Residence	2934-Y	AUL	Residential
Residence	2934-Z	AUL	Residential

Residence	2934-AA	AUL	Residential
Residence	2934-AB	AUL	Residential
Residence	2934-AC	AUL	Residential
Residence	2934-AD	AUL	Residential
Residence	2934-AE	AUL	Residential
Residence	2934-AF	AUL	Residential
Residence	2934-AG	AUL	Residential
Residence	2934-AH	AUL	Residential
Residence	2934-AI	AUL	Residential
Residence	2934-AJ	AUL	Residential
Residence	2934-AK	AUL	Residential
Residence	2934-AL	AUL	Residential
Residence	2934-AM	AUL	Residential
Residence	2934-AN	AUL	Residential
Power substation	2934-AO	AUL	Utility
Mid Illinois Gymnastics	2934-AP	AUL	Commercial
Vacant land	2934-AQ	AUL	Vacant
St. Patrick's Cemetery	2934-AR	AUL, BOL	Commercial

* For all sites:

Where REC(s) are indicated as present, a condition was noted that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the site, as discussed in the text. Potential hazards were not verified by ISGS testing. Radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may also be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

Where RECs are not indicated as present, radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may still be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

For the purposes of this report, the following are considered to be de minimis conditions:

- Normal use of lead-based paint on exteriors and interiors of buildings and structures.

- Use of asbestos-containing materials in building construction.
- Transformers in normal use, unless the transformers were observed to be leaking, appear on an environmental regulatory list, or were otherwise determined to pose a hazard not related to normal use.
- Agricultural use of pesticides and herbicides. In addition, most land in Illinois was under agricultural use prior to its conversion to residential, industrial, or commercial development. Pesticides, both regulated and otherwise, may have been used throughout the project area at any time. Unless specifically discussed elsewhere in this report, no information regarding past pesticide use that would be subject to enforcement action was located for this project, and such use is considered a de minimis condition.

The following data gaps exist for all PESAs:

- For residences, only areas visible from public roads are inspected.
- Interiors of buildings are not inspected.
- Interiors of agricultural areas are not inspected during growing seasons.

Radon and biological hazards are not considered in this PESA unless specifically noted.

NA = No parcel number was supplied by IDOT for this site.

Although potential natural hazards and undermining, if present, are described in this report, they are not considered as RECs or de minimis conditions for the purposes of this report, and are therefore not listed in the tables above.

INTRODUCTION

This is the **Final Report** of a preliminary environmental assessment by the ISGS of natural and man-made hazards that may be encountered for the improvements to IL 3 from west of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County (Attachment 1). The acquisition of additional ROW or easement and excavation or subsurface utility relocation will be required for this project. In-stream work and railroad ROW involvement will not be required for this project. IL 3 is known as W. Homer M. Adams Parkway east of the intersection with W. Delmar Avenue, and IL 3 is known a W. Delmar Avenue west of the intersection with W. Homer M. Adams Parkway, and will be referred to as such in this report. No stationing information was provided by IDOT for this project. This report identifies and evaluates recognized environmental conditions (RECs) that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the proposed project.

This assessment has been prepared using historical and geological information including aerial photographs, U.S. Geological Survey topographic maps, plat maps, file information of the ISGS regulatory file information from federal, state, and other agencies, and various other sources of information. An on-site investigation has been completed. The specific methods used to conduct the assessment are contained in "A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects" (Erdmann et al., 2014). If new information is received concerning this project that is considered to have a significant impact on the findings of this report, the report will be revised and resubmitted to IDOT Bureau of Design and Environment.

This Preliminary Environmental Site Assessment (PESA) was performed in compliance with the IDOT-ISGS PESA Manual (Erdmann et al., 2014) and not with the All Appropriate Inquiries environmental assessment standard (40 CFR Part 312) that took effect on November 1, 2006, or with the ASTM standard E1527-05 or E1527-13.

GEOLOGY

Bedrock geology. Bedrock geology in the portion of the project area east of the intersection of W. Delmar Avenue and W. Homer M. Adams Parkway consists of Pennsylvanian-age rocks of the Carbondale Formation which is composed mainly of shale, limestone, and sandstone. Bedrock geology in the portion of the project area west of the intersection of W. Delmar Avenue and W. Homer M. Adams Parkway consists of Pennsylvanian-age rocks of the Tradewater Formation which is composed mainly of shale, sandstone, and coal.

Surficial geology. The total thickness of surficial deposits in the project area has been mapped as approximately 8-15 m (25-50 ft). The topmost unit has been mapped as more than 6 m (20 ft) of the Peoria and Roxana Silt, underlain by more than 6 m (20 ft) of the loams and sands of the Glasford Formation.

Soils. Along the project ROW, the NRCS has classified the Winfield silty clay loam, 5-10% slopes and the Winfield-Orthents-Urban land complex, 2-8% slopes as non-prime farmland. None of the soils along the project ROW have been classified as hydric soils by the NRCS.

HYDROGEOLOGY

Due to project type or IDOT internal procedure, the sections on surficial public water supplies, groundwater recharge, groundwater protection areas, potential for contamination of shallow aquifers, and well log information are not included in this report.

Drainage direction. Surficial drainage in the project area is generally toward the southwest, in the direction of an unnamed tributary to the Mississippi River. However, since the project area is urbanized and storm drains and sewers are present, most surficial runoff will be controlled by the storm sewer system; such systems typically are designed to follow natural drainage patterns.

Neither the near-surface nor the shallow unconfined groundwater flow direction was specifically determined for this project, but they generally mimic local topography.

NATURAL FEATURES AND HAZARDS

Wetlands. According to National Wetlands Inventory maps, two wetlands have been mapped in the project area. Both wetlands are described as palustrine. One wetland is located west of the building associated with Site 2934-47, and the other wetland is located along the border of Sites 2934-16 and 2934-47 north of Site 2934-46. These wetlands maps were defined primarily by aerial photographs, which may reflect conditions specific to the year or season that the photography was completed. Therefore, wetlands areas may be either overstated or missing entirely.

No observed or known natural hazards were identified for this project.

PROJECT SITES

The project area is primarily under commercial and residential use. Sites will be described from west to east along the project route below. Attachment 1 contains a project location map. Attachment 2 contains maps of all sites discussed in this report. Attachments 3, 4, and 5 contain maps of Site 2934-A showing a groundwater VOC plume, a soil VOC plume, and an HAA map. The versions of the OSFM's UST database, IEPA's LUST database, IEPA's Bureau of Land database, and USEPA's CERCLIS database utilized for this report were dated September 10, 2014, September 8, 2014, September 10, 2014, and November 12, 2013, respectively. IEPA files were received on July 31 and September 10, 2014. No OSFM or USEPA files were reviewed for this project. Fieldwork for this project was conducted on August 12, August 26, and September 9, 2014.

This project intersects ISGS #300, which was submitted to IDOT on December 30, 1993, from the western project limit to Pierce Lane. This project is located entirely within PESA 2488/A, which was submitted to IDOT on January 9, 2012. No sites in this project were covered in ISGS #300 or #2488/A.

Data gaps applicable to the entire project area

The following data gaps applicable to the entire project area were noted for this project. Data gaps specific to individual sites are discussed in the site writeups below.

- Areas which were under residential use throughout all aerial photographs were not researched in city directories.

- Aerial photographs provided information only for those specific times covered by the photographs, as noted in the Information Sources section. No records were available for intervening years, and other land uses could have occurred in these years. A significant gap in historical aerial photograph coverage exists for this area between the years 1962 and 1978.

Site 2934-1. Agricultural land, 1300 block of W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue west of Frontenac Place; Attachment 2, page 1). This site is occupied by agricultural land. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 and later, this site was under individual use. On aerial photographs from 1939 and later, this site was under agricultural use.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

Because there are no buildings present and no evidence of fill or demolition debris was observed, asbestos-containing materials and lead paint are unlikely to be present at this site.

No RECs were identified at this site.

The following de minimis condition was identified at this site: Likely pesticide and/or herbicide use based on agricultural land use.

Site 2934-2. Provision Living, 1373 D'Adrian Professional Parkway, Godfrey (north side of W. Delmar Avenue west of Pierce Lane; Attachment 2, page 1). This site is occupied by a senior living community. A pad-mounted transformer was observed on the north side of the building. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On aerial photographs from 1978 until 2007, this site was occupied by a commercial building with a different configuration than the current building. On the 2012 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, no listings were found for this address. In the 2001 through 2007 city directories, this site was listed as D'Adrian Convalescent Center. In the 2011 and later city directories, the current occupant was listed.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or

surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-3. Hughes and Associates, 1321 D'Adrian Professional Parkway, Godfrey (south side of D'Adrian Professional Parkway west of Pierce Lane; Attachment 2, page 1). This site is occupied by an accounting office. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On the 1978 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, no listings were found for this address. In the 2001 and later city directories, an accounting office was listed.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-4. Elias-Kallal and Schaaf Funeral Home, 1313 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue west of Frontenac Place; Attachment 2, page 1). This site is occupied by a funeral home. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration. In the 1968 through 1987 city directories, no listings were found for this address. In the 1991 and later city directories, the current occupant was listed.

Potential hazards associated with funeral homes include alkalis, formaldehyde, metals, and phenols.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potential chemical use.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-5. Fast Braces, 1317 D'Adrian Professional Parkway, Godfrey (south of D'Adrian Professional Parkway west of Pierce Lane; Attachment 2, page 1). This site is occupied by an orthodontist office. A pole-mounted transformer was observed near the southeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On aerial photographs from 1978 until 1988, this site was occupied by grass-covered vacant land. On the 1993 and later aerial photos, the site had its current configuration. In the 1968 through 2001 city directories, no listings were found for this address. In the 2004 and later city directories, an orthodontist office was listed.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid

waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-6. Residence, 1306 W. Delmar Avenue, Godfrey (north side of W. Delmar Avenue west of Pierce Lane; Attachment 2, page 1). This site is occupied by a residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1955, this site was under agricultural use. On the 1962 and later aerial photos, the site had its current configuration.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-7. Residence, 1304 W. Delmar Avenue, Godfrey (northwest corner of W. Delmar Avenue and Pierce Lane; Attachment 2, page 1). This site is occupied by a residence and a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1949, this site was under agricultural use. On the 1955 and later aerial photos, the site had its current configuration. In the 1968 and later city directories, an individual name was listed. In the 1984 city directory, a car repair facility was also listed as being in the rear of this address. No evidence of vehicle repair was observed during site inspections by ISGS personnel.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

Potential hazards associated with vehicle repair facilities include waste oil, lubricants, and transmission fluids; spent solvents; waste paints and thinners; sludge from parts-cleaning tanks; oily sludge from floor sumps; used antifreeze; used lead-acid batteries; and undocumented USTs.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

The following data gap was identified for this site:

- The status and location of any undocumented UST(s) at this site are unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following RECs were identified at this site: Potential UST(s); potential former chemical use; potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-8. Unity Fellowship Church, 1305 W. Delmar Avenue, Godfrey (southwest corner of W. Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a church and an outbuilding. A pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and

later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1988, the eastern portion of this site was under agricultural use, and the western portion of this site was occupied by a residence. On the 1993 and later aerial photos, the site had its current configuration. In the 1968 through 1994 city directories, no listings were found at this address. In the 1997 and later city directories, the current occupant was listed at 1301 W. Delmar Avenue. In the 1968 through 1981 city directories, an individual name was listed at 1305 W. Delmar Avenue. In the 1984 and later city directories, the current occupant was listed at this address.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-9. Residence, 1223 W. Delmar Avenue, Godfrey (southeast corner of W. Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On the 1939 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in

the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-10. Residence, 1221 W. Delmar Avenue, Godfrey (southwest corner of W. Delmar Avenue and Norwood Lane; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On the 1939 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-11. Residence, 2830 Norwood Lane, Godfrey (south side of W. Delmar Avenue between Frontenac Place and Norwood Lane; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On the 1939 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that these residences were constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-12. Farrell, Hamilton & Julian, 1305 D'Adrian Professional Parkway, Godfrey (southwest corner of D'Adrian Professional Parkway and Pierce Lane; Attachment 2, page 1). This site is occupied by a title and escrow law office. Three pole-mounted transformers were observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On aerial photographs from 1978 until 2005, this site was occupied by grass-covered vacant land. On the 2007 and later aerial photos, the site had its current configuration. In the 1968 through 2007 city directories, no listings were found for this address. In the 2011 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformers; potential ACM and lead paint.

Site 2934-13. Illinois Eye Surgeons, 1310 D'Adrian Professional Parkway, Godfrey (northwest corner of D'Adrian Professional Parkway and Pierce Lane; Attachment 2, page 1). This site is occupied by a doctor's office. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial

photographs from 1939 until 1962, this site was under agricultural use. On the 1978 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, no listings were found for this address. In the 2001 through 2007 city directories, this site was listed as a law office. In the 2011 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-14. Commercial Building, 1316-1318 D'Adrian Professional Parkway, Godfrey (north of D'Adrian Professional Parkway on the west side of Pierce Lane; Attachment 2, page 1). This site is occupied by a chiropractic office and a dentist office. A pad-mounted transformer was observed near the southeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1969, this site was under individual use. On plat maps from 1973 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On the 1978 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, no listings were found for this address. In the 2001 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in

the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-15. IDOT ROW, 1200 block of W. Delmar Avenue, Godfrey (between W. Delmar Avenue, W. Homer M. Adams Parkway and Cook Avenue, east of Pierce Lane; Attachment 2, page 2). This site is occupied by vacant grass-covered ROW. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 and later, this site was under individual use. On aerial photographs from 1939 until 1955, this site was under agricultural use. On the 1962 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9,

2014.

No data gaps were identified at this site.

Because there are no buildings present and no evidence of fill or demolition debris was observed, asbestos-containing materials and lead paint are unlikely to be present at this site.

The following REC was identified at this site: Potentially impacted groundwater.

No de minimis conditions were identified at this site.

Site 2934-16. Evangelical United Church of Christ, 1212 W. Homer M. Adams Parkway, Godfrey (northeast corner of Cook Avenue and Pierce Lane; Attachment 2, page 2). This site is occupied by a church and a school. Two pole-mounted transformers were observed near the southeast corner of this site. A pad-mounted transformer was observed near the northwest corner of the church building. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 and later, this site was under individual use. On aerial photographs from 1939 until 1962, this site was under agricultural use. On aerial photographs from 1978, the eastern portion of the current building at this site was present. On the 1988 and later aerial photos, the site had its current configuration. In the 1968 through 1971 city directories, no listings were found for this address. In the 1974 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformers; potential ACM and lead paint.

Site 2934-17. Residence, 1233 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-18. Residence, 1231 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-19. Residence, 1229 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid

waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-20. Residence, 1227 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. A pole-mounted transformer was observed near the southwest corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM.

Site 2934-21. Residence, 1225 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-22. Residence, 1223 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial

photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-23. Residence, 1221 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. A pole-mounted transformer was observed near the southwest corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM.

Site 2934-24. Residence, 1219 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and

therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-25. Residence, 1217 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-26. Residence, 1215 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and

later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-27. Residence, 1213 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. A pole-mounted transformer was observed near the southwest corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further

information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM.

Site 2934-28. Residence, 1211 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or

stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-29. Residence, 1209 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-30. Residence, 1207 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-31. Residence, 1205 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. A pole-mounted transformer was observed near the southwest corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest

quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM.

Site 2934-32. Residence, 1203 Surrey Court, Godfrey (south side of Surrey Court east of Pierce Lane; Attachment 2, page 2). This site is occupied by a multi-family residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1978, this site was under agricultural use. On the 1988 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor

tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed after 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint is unlikely to be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis condition was identified at this site: Potential ACM.

Site 2934-33. Lawrence Newquist and Jody Schulmeister Dental office, 1203 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue between Norwood Lane and Ridgedale Drive; Attachment 2, page 2). This site is occupied by a dental office. A pole-mounted transformer was observed near the northwest corner of the building. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1993, this site was occupied by a residence. On the 1998 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, an individual name was listed. In the 2001 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-34. Residence, 2828 Ridgedale Drive, Godfrey (west side of Ridgedale Drive south of W. Delmar Avenue; Attachment 2, page 2). This site is occupied by a residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1949, this site was under agricultural use. On the 1955 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-35. Residence, 1131 W. Delmar Avenue, Godfrey (southeast corner of W. Delmar Avenue and Ridgedale Drive; Attachment 2, page 2). This site is occupied by a residence with a detached garage. A pole-mounted transformer was observed near the northeast corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On the 1949 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the

detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-36. Residence, 2827 Ridgedale Drive, Godfrey (southeast quadrant of W. Delmar Avenue and Ridgedale Drive; Attachment 2, page 2). This site is occupied by a residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On the 1949 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was

observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-37. Residence, 1129 W. Delmar Avenue, Godfrey (southeast quadrant of W. Delmar Avenue and Ridgedale Drive; Attachment 2, page 2). This site is occupied by a residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On the 1949 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-38. Residence, 1125 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue east Ridgedale Drive; Attachment 2, page 2). This site is occupied by a residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On the 1949 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-39. Residence, 1121 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue east Ridgedale Drive; Attachment 2, page 2). This site is occupied by a residence with a detached garage. A pole-mounted transformer was observed near the northeast corner of this residence. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On the 1949 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-40. Restoration Lutheran Church, 1211 W. Homer M. Adams Parkway, Godfrey (east corner of W. Homer M. Adams Parkway and W. Delmar Avenue; Attachment 2, page 3). This site is occupied by a church and a shed. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1982, this site was under individual use. On plat maps from 1989 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1988, this site was under agricultural use. On the 1993 and later aerial photos, the site had its current configuration. In the 1968 through 1994 city directories, no listings were found for this address. In the 1997 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-41. Commercial building, 1111 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue west of Wannamaker Lane; Attachment 2, page 3). This site is occupied by a building that appears to be vacant. An old printing press was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site is part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1956, this site was under agricultural use. On the 1962 and later aerial photos, the site had its current configuration. In the 1968 city directory, no listing was found for this address. In the 1971 city directory, this site was listed as “Copes Plastics”. In the 1974 through 1984 city directories, this site was listed as a women’s sportswear manufacturer. In the 1987 through 2007 city directories, this site was listed as “Gribble Printing”. In the 2011 and later city directories, no listings were found for this address. In the 1994 through 2011 IMDs, this site was listed as Gribble Printing.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

Potential hazards associated with print shops and lithography include alkalis, glues, metals, inks, petroleum hydrocarbons, resins, solvents, and varnishes. Potential hazards associated with plastics manufacturing include acids, metals, petroleum hydrocarbons, resins, and solvents.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or

underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following RECs were identified at this site: Potential former chemical use; potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-42. Macias Insurance, 1101 W. Delmar Avenue, Godfrey (southwest corner of W. Delmar Avenue and Wannamaker Lane; Attachment 2, page 3). This site is occupied by an insurance office. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939, this site was under agricultural use. On aerial photographs from 1949 until 1998, this site was occupied by a residence. On the 2005 and later aerial photos, the site had its current configuration. In the 1968 through 1997 city directories, an individual name was listed. In the 2001 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or

stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-43. Residence, 1025 W. Delmar Avenue, Godfrey (southeast corner of W. Delmar Avenue and Wannamaker Lane; Attachment 2, page 3). This site is occupied by a residence with a detached garage. A pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On the 1939 and later aerial photos, the site had its current configuration.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-44. The Greenery, 1021 W. Delmar Avenue, Godfrey (south side of W. Delmar Avenue east of Wannamaker Lane; Attachment 2, page 3). This site is occupied by a tree nursery consisting of an office building and other outbuildings. A pole-mounted transformer was

observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On the 1939 aerial photograph, this site was under agricultural use. On aerial photographs from 1949 until 1978, this site was occupied by a residence. On the 1988 and later aerial photos, the site had its current configuration. In the 1968 through 1984 city directories, an individual name was listed. In the 1987 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-45. Teena's Day Spa and Boutique, 1020 W. Delmar Avenue, Godfrey (north side of W. Delmar Avenue east of Wannamaker Lane; Attachment 2, page 3). This site is occupied by a health spa with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was occupied by a residence. On the 1978 and later aerial photos, the site had its current configuration. In the 1968 through 1987 city directories, an individual name was listed. In the 1991 through 2007 city directories, this site was listed as a bookstore and gift shop. In the 2011 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934-46. TK Carpet Gallery, 1100 W. Homer M. Adams Parkway, Godfrey (north side of Cook Avenue west of Greenwood Lane; Attachment 2, page 4). This site is occupied by a flooring installation and cleaning business. A pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1962, this site was under agricultural use. On the 1978 and later aerial photos, the site had its current configuration. In the 1968 through 1971 city directories, no listings were found for this address. In the 1974 through 1984 city directories, this site was listed as a heating and cooling business. In the 1987 and later city directories, the current occupant was listed.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. No further information was available in files for IEPA #1198065009 regarding this site.

Potential hazards associated with carpet cleaning include VOCs.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following RECs were identified at this site: Potential chemical use; potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-47. Iron House CrossFit, 2920 Greenwood Lane, Godfrey (west side of Greenwood Lane north of W. Homer M. Adams Parkway; Attachment 2, page 4). This site is occupied by a fitness club, wooded land, and a cell phone tower. Because of the presence of dense vegetation in the wooded portion of this site, a complete visual inspection of this site was not performed. A pole-mounted transformer was observed near the southeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1955, this site was under agricultural use. On aerial photographs from 1962 until 1988, this site was occupied by grass- and tree-covered vacant land. On the 1993 and later aerial photos, the site had its current configuration. This site was not listed in any of the city directories reviewed for this project. The complete commercial history of this site is unknown.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distributing Co.), six monitoring wells (MW-1, MW-5, MW-6, MW-7, MW-10, and MW-11 on Attachment 3) were installed at this site in association with an investigation performed for IEMA #891967. Groundwater and soil samples taken from the six monitoring wells exceeded TACO Tier 1 Class I GROs and residential SROs for BTEX (see Attachments 3 and 4 for the extent of impacted groundwater and soil). Concrete patches were observed in the areas MW-01, MW-05, and MW-06. Due to the presence of dense vegetation, MW-07, MW-10, and MW-11 could not be observed, and the status of these monitoring wells is unknown. An HAA was executed with the Village of Godfrey for Site 2934-A. The agreement area for this HAA adjoins this site. Attachment 5 contains a map showing the HAA associated with this site.

The detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for

an area in the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. This site was notified of this ordinance by the consultants hired by Site 2934-A. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on

The following data gaps were identified for this site:

- Because of the presence of dense vegetation in the wooded portion of this site, a complete visual inspection of this site was not performed. It is unknown if the monitoring wells on Attachment 3 remain at this site.

- The complete commercial history of this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following RECs were identified at this site: Former monitoring wells; potential monitoring wells impacted soil and groundwater; HAA.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934-48. Summer's Port, 3120 Greenwood Lane, Godfrey (west side of Greenwood Lane north of W. Homer M. Adams Parkway; Attachment 2, page 4). This site is occupied by club consisting of a pool, basketball courts, tennis courts, and associated buildings. Three pole-mounted transformers were observed near the northwest corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On plat maps from 1851 until 1926, this site was under individual use. On plat maps from 1956 and later, this site was part of a subdivision and individual sites were not distinguishable. On aerial photographs from 1939 until 1955, this site was occupied by grass- and tree-covered vacant land. On the 1978 aerial photograph, this site was under construction. On the 1988 and later aerial photos, the site had its current configuration. This site was not listed in any of the city directories reviewed for this project.

According to IEPA files reviewed for Site 2934-A (IEPA #1198065009; Dixon Distribution Co.), the detection of impacted groundwater at Dixon Distributing Company and the potential for impacted groundwater to migrate from that property resulted in a groundwater use restriction for an area in

the southwest portion of the Village of Godfrey. The groundwater use restriction covers the southeast quarter of Section 34, the south half of Section 35, the northwest quarter of Section 26, the south half of the southwest quarter of the northeast quarter of Section 14, and the northwest quarter of the southeast quarter of Section 14 of Township 6 North, Range 10 West. This site was notified of this ordinance by the consultants hired by Site 2934-A. No further information was available in files for IEPA #1198065009 regarding this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during site inspections by ISGS on August 12, August 26, and September 9, 2014.

No data gaps were identified for this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformers; potential ACM and lead paint.

ADJOINING SITES

The ISGS conducted a search of federal, state, and other environmental databases for reported environmental concerns on sites adjoining the project. For certain resources, the search distances may have been expanded when deemed applicable in the judgment of the environmental professional. Refer to the Appendix for complete citations for these databases and the date of update of each database. Sites along the project are listed in the preceding section. Sites adjoining the project that do not appear on regulatory databases are not included. The following sites adjoining but not along, the project were identified.

Federal records

CERCLIS: NPL, Active, and Archived
None.

RCRA sites subject to corrective action (CORRACTS)
None.

RCRA sites – non-CORRACTS TSD
None.

RCRA sites – other

None.

Brownfields pilot sites
None.

Non-LUST releases
None.

State records

Leaking underground storage tanks (LUST)
Site 2934-A. Dixon Distributing Company, 1000 W. Homer M. Adams Parkway, Godfrey. IEPA #1198065009; IEMA #891967; OSFM #6015543. Adjoining property to the south of Site 2934-47 (Attachment 2, page 4). Attachments 3, 4, and 5 depict groundwater and soil plume maps, and an HAA map, respectively.

Registered underground storage tanks (UST)
Site 2934-A. Dixon Distributing Company, 1000 W. Homer M. Adams Parkway, Godfrey. IEPA #1198065009; IEMA #891967; OSFM #6015543. Adjoining property to the south of Site 2934-47 (Attachment 2, page 4). Attachments 3, 4, and 5 depict groundwater and soil plume maps, and an HAA map, respectively.

Landfills, disposal sites, and solid waste management facilities
None.

Activity and Use Limitations (including institutional controls, engineered barriers, and Highway Authority Agreements)
Site 2934-A. Dixon Distributing Company, 1000 W. Homer M. Adams Parkway, Godfrey. IEPA #1198065009; IEMA #891967; OSFM #6015543. Adjoining property to the south of Site 2934-47 (Attachment 2, page 4). Attachments 3, 4, and 5 depict groundwater and soil plume maps, and an HAA map, respectively.

Site 2934-B. Residence, 1 Frontenac Place, Godfrey. Adjoining property to the south of Site 2934-8 and to the west of Site 2934-11 (Attachment 2, page 1).

Site 2934-C. Residence, 2828 Norwood Lane, Godfrey. Adjoining property to the south of Site 2934-11 (Attachment 2, page 1).

Site 2934-D. Commercial Building, 4710 Pierce Lane, Godfrey Adjoining property to the north of Site 2934-14 (Attachment 2, page 1).

Site 2934-E. Residence, 1232 Surrey Court, Godfrey. Adjoining property to the north of Site 2934-17 and to the northwest of Site 2934-18 (Attachment 2, page 2).

Site 2934-F. Residence, 1230 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-17, to the north of Site 2934-18, and to the northwest of Site 2934-19 (Attachment 2, page 2).

Site 2934-G. Residence, 1228 Surrey Court, Godfrey. Adjoining property to the northeast

of Site 2934-18, to the north of Site 2934-19, and to the northwest of Site 2934-20 (Attachment 2, page 2).

Site 2934-H. Residence, 1226 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-19, to the north of Site 2934-20, and to the northwest of Site 2934-21 (Attachment 2, page 2).

Site 2934-I. Residence, 1224 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-20, to the north of Site 2934-21, and to the northwest of Site 2934-22 (Attachment 2, page 2).

Site 2934-J. Residence, 1222 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-21, to the north of Site 2934-22, and to the northwest of Site 2934-23 (Attachment 2, page 2).

Site 2934-K. Residence, 1220 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-22, to the north of Site 2934-23, and to the northwest of Site 2934-24 (Attachment 2, page 2).

Site 2934-L. Residence, 1218 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-23, to the north of Site 2934-24, and to the northwest of Site 2934-25 (Attachment 2, page 2).

Site 2934-M. Residence, 1216 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-24, to the north of Site 2934-25, and to the northwest of Site 2934-26 (Attachment 2, page 2).

Site 2934-N. Residence, 1214 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-25, to the north of Site 2934-26, and to the northwest of Site 2934-27 (Attachment 2, page 2).

Site 2934-O. Residence, 1212 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-26, to the north of Site 2934-27, and to the northwest of Site 2934-28 (Attachment 2, page 2).

Site 2934-P. Residence, 1210 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-27, to the north of Site 2934-28, and to the northwest of Site 2934-29 (Attachment 2, page 2).

Site 2934-Q. Residence, 1208 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-28, to the north of Site 2934-29, and to the northwest of Site 2934-30 (Attachment 2, page 2).

Site 2934-R. Residence, 1202 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934-30, to the north of Site 2934-31, and to the northwest of Site 2934-32 (Attachment 2, page 2).

Site 2934-S. Residence, 1201 Surrey Court, Godfrey. Adjoining property to the north of Site 2934-32 (Attachment 2, page 2).

Site 2934-T. Residence, 2820 Ridgedale Drive, Godfrey. Adjoining property to the south of Site 2934-34 and to the west of Site 2934-36 (Attachment 2, page 2).

Site 2934-U. Residence, 2823 Ridgedale Drive, Godfrey. Adjoining property to the south of Site 2934-36 and to the west of Site 2934-38 (Attachment 2, page 2).

Site 2934-V. Residence, 2819 Ridgedale Drive, Godfrey. Adjoining property to the west of Site 2934-38 (Attachment 2, page 2).

Site 2934-W. Residence, 2815 Ridgedale Drive, Godfrey. Adjoining property to the west of Site 2934-38 (Attachment 2, page 2).

Site 2934-X. Residence, 1122 Juniper Avenue, Godfrey. Adjoining property to the southwest of Site 2934-38 (Attachment 2, page 2).

Site 2934-Y. Residence, 1118 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934-38 and to the southwest of Site 2934-39 (Attachment 2, page 2).

Site 2934-Z. Residence, 1114 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934-39 and to the southwest of Site 2934-38 (Attachment 2, page 2).

Site 2934-AA. Residence, 1110 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934-39 (Attachment 2, page 2).

Site 2934-AB. Residence, 1104 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934-41 and to the southwest of Site 3934-42 (Attachment 2, page 3).

Site 2934-AC. Residence, 2804 Wannamaker Lane, Godfrey. Adjoining property to the south of Site 2934-42, to the southeast of Site 2934-41, and to the southwest of Site 2934-43 (Attachment 2, page 3).

Site 2934-AD. Residence, 2803 Wannamaker Lane, Godfrey. Adjoining property to the southeast of Site 2934-42, to the south of Site 2934-43, and to the west of Site 2934-44 (Attachment 2, page 3).

Site 2934-AE. Residence, 2801 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934-44 (Attachment 2, page 3).

Site 2934-AF. Residence, 2715 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934-44 (Attachment 2, page 3).

Site 2934-AG. Residence, 2713 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934-44 (Attachment 2, page 3).

Site 2934-AH. Residence, 2707 Wannamaker Lane, Godfrey. Adjoining property to the southwest of Site 2934-44 (Attachment 2, page 3).

Site 2934-AI. Residence, 864 Chouteau Avenue, Godfrey. Adjoining property to the south of Site 2934-44 (Attachment 2, page 3).

Site 2934-AJ. Residence, 862 Chouteau Avenue, Godfrey. Adjoining property to the south of Site 2934-44 (Attachment 2, page 3).

Site 2934-AK. Residence, 860 Chouteau Avenue, Godfrey. Adjoining property to the southeast of Site 2934-44 (Attachment 2, page 3).

Site 2934-AL. Residence, 1015 W. Delmar Avenue, Godfrey. Adjoining property to the east of Site 2934-44 (Attachment 2, page 3).

Site 2934-AM. Residence, 1017 W. Delmar Avenue, Godfrey. Adjoining property to the east of Site 2934-44 (Attachment 2, page 3).

Site 2934-AN. Residence, 1012 W. Delmar Avenue, Godfrey. Adjoining property to the southeast of Site 2934-40 and to the east of Site 2934-45 (Attachment 2, page 3).

Site 2934-AO. Power substation, 1000 block W. Homer M. Adams Parkway, Godfrey. Adjoining property to the east of Site 2934-40 and to the northeast of Site 2934-45 (Attachment 2, page 3).

Site 2934-AP. Mid Illinois Gymnastics, 1032 W. Homer M. Adams Parkway, Godfrey. Adjoining property to the northeast of Site 2934-40, to the east of Site 2934-46, and to the south of Site 2934-47 (Attachment 2, page 4).

Site 2934-AQ. Vacant land, 1000 block of W. Homer M. Adams Parkway, Godfrey. Adjoining property to the south of Site 2934-47 (Attachment 2, page 4).

Site 2934-AR. St. Patrick's Cemetery, 2801 Greenwood Lane, Godfrey. IEPA #1198060018. Adjoining property to the east of Sites 2934-47 and 2934-48 (Attachment 2, page 4).

Brownfields

None.

IEPA Bureau of Land Inventory

Site 2934-A. Dixon Distributing Company, 1000 W. Homer M. Adams Parkway, Godfrey. IEPA #1198065009; IEMA #891967; OSFM #6015543. Adjoining property to the south of Site 2934-47 (Attachment 2, page 4). Attachments 3, 4, and 5 depict groundwater and soil plume maps, and an HAA map, respectively.

Site 2934-AR. St. Patrick's Cemetery, 2801 Greenwood Lane, Godfrey. IEPA #1198060018. Adjoining property to the east of Sites 2934-47 and 2934-48 (Attachment 2, page 4).

IEPA Site Remediation Program

None.

Non-LUST releases

None.

Municipal records

None.

Tribal records

There are no tribally owned lands in the state of Illinois; therefore, the checking of tribal records is not applicable for this report.

CONCLUSIONS

(1) RECs were identified at the following sites along the project:

- Site 2934-4: Elias-Kallal and Schaaf Funeral Home. Potential chemical use; potential ACM and lead paint.
- Site 2934-7: Residence. Potential UST(s); potential former chemical use; potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-8: Unity Fellowship Church. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-9: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-10: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-11: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-12: Farrell, Hamilton & Julian. Potentially impacted groundwater; transformers; potential ACM and lead paint.
- Site 2934-13: Illinois Eye Surgeons. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-14: Commercial building. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-15: IDOT ROW. Potentially impacted groundwater.
- Site 2934-16: Evangelical United Church of Christ. Potentially impacted groundwater; transformers; potential ACM and lead paint.
- Site 2934-17: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-18: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-19: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-20: Residence. Potentially impacted groundwater; transformer; potential ACM.
- Site 2934-21: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-22: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-23: Residence. Potentially impacted groundwater; transformer; potential ACM.
- Site 2934-24: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-25: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-26: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-27: Residence. Potentially impacted groundwater; transformer; potential ACM.
- Site 2934-28: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-29: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-30: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-31: Residence. Potentially impacted groundwater; transformer; potential ACM.
- Site 2934-32: Residence. Potentially impacted groundwater; potential ACM.
- Site 2934-33: Lawrence Newquist and Jody Schulmeister Dental office. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-34: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-35: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-36: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-37: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-38: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-39: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-40: Restoration Lutheran Church. Potentially impacted groundwater; potential

ACM and lead paint.

- Site 2934-41: Commercial building. Potential former chemical use; potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-42: Macias Insurance. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-43: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-44: The Greenery. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-45: Teena's Day Spa and Boutique. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934-46: TK Carper Gallery. Potential chemical use; potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934-47: Iron Horse CrossFit. Former monitoring wells; potential monitoring wells impacted soil and groundwater; HAA; transformer; potential ACM and lead paint.
- Site 2934-48: Summer's Port. Potentially impacted groundwater; transformer; potential ACM and lead paint.

(2) De minimis conditions were identified at the following sites along the project:

- Site 2934-1: Agricultural land. Likely pesticide and/or herbicide use.
- Site 2934-2: Provision living. Transformer; potential ACM and lead paint.
- Site 2934-3: Hughes and Associates. Potential ACM and lead paint.
- Site 2934-5: Fast Braces. Transformer; potential ACM and lead paint.
- Site 2934-6: Residence. Potential ACM and lead paint.

(3) The following properties were identified that appear on environmental databases and that are adjoining, but not along, the project:

- Site 2934-A: Dixon Distributing Company. LUST, UST, AUL, BOL, IEMA.
- Site 2934-B: Residence. AUL.
- Site 2934-C: Residence. AUL.
- Site 2934-D: Commercial building. AUL.
- Site 2934-E: Residence. AUL.
- Site 2934-F: Residence. AUL.
- Site 2934-G: Residence. AUL.
- Site 2934-H: Residence. AUL.
- Site 2934-I: Residence. AUL.
- Site 2934-J: Residence. AUL.
- Site 2934-K: Residence. AUL.
- Site 2934-L: Residence. AUL.
- Site 2934-M: Residence. AUL.
- Site 2934-N: Residence. AUL.
- Site 2934-O: Residence. AUL.
- Site 2934-P: Residence. AUL.
- Site 2934-Q: Residence. AUL.
- Site 2934-R: Residence. AUL.
- Site 2934-S: Residence. AUL.
- Site 2934-T: Residence. AUL.

- Site 2934-U: Residence. AUL.
- Site 2934-V: Residence. AUL.
- Site 2934-W: Residence. AUL.
- Site 2934-X: Residence. AUL.
- Site 2934-Y: Residence. AUL.
- Site 2934-Z: Residence. AUL.
- Site 2934-AA: Residence. AUL.
- Site 2934-AB: Residence. AUL.
- Site 2934-AC: Residence. AUL.
- Site 2934-AD: Residence. AUL.
- Site 2934-AE: Residence. AUL.
- Site 2934-AF: Residence. AUL.
- Site 2934-AG: Residence. AUL.
- Site 2934-AH: Residence. AUL.
- Site 2934-AI: Residence. AUL.
- Site 2934-AJ: Residence. AUL.
- Site 2934-AK: Residence. AUL.
- Site 2934-AL: Residence. AUL.
- Site 2934-AM: Residence. AUL.
- Site 2934-AN: Residence. AUL.
- Site 2934-AO: Power substation. AUL.
- Site 2934-AP: Mid Illinois Gymnastics. AUL.
- Site 2934-AQ: Vacant land. AUL.
- Site 2934-AR: St. Patrick's Cemetery. AUL, BOL.

(4) For the purposes of this report, the following are considered to be de minimis conditions:

- Normal use of lead-based paint on exteriors and interiors of buildings and structures.
- Use of asbestos-containing materials in building construction.
- Transformers in normal use, unless the transformers were observed to be leaking, appear on an environmental regulatory list, or were otherwise determined to pose a hazard not related to normal use.
- Agricultural use of pesticides and herbicides. In addition, most land in Illinois was under agricultural use prior to its conversion to residential, industrial, or commercial development. Pesticides, both regulated and otherwise, may have been used throughout the project area at any time. Unless specifically discussed elsewhere in this report, no information regarding past pesticide use that would be subject to enforcement action was located for this project, and such use is considered a de minimis condition.

ENDORSEMENTS

Project Manager: _____ **Date:** 9/19/2014
Scott Ellis

Approved: _____ **Date:** 9/19/2014
Mark R. Collier

ADDRESS LISTINGS

The following addresses along the project were evaluated for this project. Addresses of sites, if any, adjoining but not along the project are not listed here; see text for discussion of these sites.

Property name and address	ISGS site #	Parcel #
Agricultural land 1300 block of W. Delmar Avenue, Godfrey	2934-1	NA
Provision Living 1373 D'Adrian Professional Parkway, Godfrey	2934-2	NA
Hughes and Associates 1321 D'Adrian Professional Parkway, Godfrey	2934-3	NA
Elias-Kallal and Schaaf Funeral Home 1313 W. Delmar Avenue, Godfrey	2934-4	NA
Fast Braces 1317 D'Adrian Professional Parkway, Godfrey	2934-5	NA
Residence 1306 W. Delmar Avenue, Godfrey	2934-6	NA
Residence 1304 W. Delmar Avenue, Godfrey	2934-7	NA
Unity Fellowship Church 1305 W. Delmar Avenue, Godfrey	2934-8	NA
Residence 1223 W. Delmar Avenue, Godfrey	2934-9	NA
Residence 1221 W. Delmar Avenue, Godfrey	2934-10	NA
Residence 2830 Norwood Lane, Godfrey	2934-11	NA
Farrell, Hamilton & Julian 1305 D'Adrian Professional Parkway, Godfrey	2934-12	NA
Illinois Eye Surgeons 1310 D'Adrian Professional Parkway, Godfrey	2934-13	NA
Woulfe Chiropractic 1316 D'Adrian Professional Parkway, Godfrey	2934-14	NA
Dr. Danny Younger dental office 1318 D'Adrian Professional Parkway, Godfrey	2934-14	NA

IDOT ROW 1200 block of W. Delmar Avenue, Godfrey	2934-15	NA
Evangelical United Church of Christ 1212 W. Homer M. Adams Parkway, Godfrey	2934-16	NA
Residence 1233 Surrey Court, Godfrey	2934-17	NA
Residence 1231 Surrey Court, Godfrey	2934-18	NA
Residence 1229 Surrey Court, Godfrey	2934-19	NA
Residence 1227 Surrey Court, Godfrey	2934-20	NA
Residence 1225 Surrey Court, Godfrey	2934-21	NA
Residence 1223 Surrey Court, Godfrey	2934-22	NA
Residence 1221 Surrey Court, Godfrey	2934-23	NA
Residence 1219 Surrey Court, Godfrey	2934-24	NA
Residence 1217 Surrey Court, Godfrey	2934-25	NA
Residence 1215 Surrey Court, Godfrey	2934-26	NA
Residence 1213 Surrey Court, Godfrey	2934-27	NA
Residence 1211 Surrey Court, Godfrey	2934-28	NA
Residence 1209 Surrey Court, Godfrey	2934-29	NA
Residence 1207 Surrey Court, Godfrey	2934-30	NA
Residence 1205 Surrey Court, Godfrey	2934-31	NA
Residence 1203 Surrey Court, Godfrey	2934-32	NA

Lawrence Newquist and Jody Schulmeister Dental office 1203 W. Delmar Avenue, Godfrey	2934-33	NA
Residence 2828 Ridgedale Drive, Godfrey	2934-34	NA
Residence 1131 W. Delmar Avenue, Godfrey	2934-35	NA
Residence 2827 Ridgedale Drive, Godfrey	2934-36	NA
Residence 1129 W. Delmar Avenue, Godfrey	2934-37	NA
Residence 1125 W. Delmar Avenue, Godfrey	2934-38	NA
Residence 1121 W. Delmar Avenue, Godfrey	2934-39	NA
Restoration Lutheran Church 1211 W. Homer M. Adams Parkway, Godfrey	2934-40	NA
Commercial building 1111 W. Delmar Avenue, Godfrey	2934-41	NA
Macias Insurance 1101 W. Delmar Avenue, Godfrey	2934-42	NA
Residence 1025 W. Delmar Avenue, Godfrey	2934-43	NA
The Greenery 1021 W. Delmar Avenue, Godfrey	2934-44	NA
Teena’s Day Spa and Boutique 1020 W. Delmar Avenue, Godfrey	2934-45	NA
TK Carpet Gallery 1100 W. Homer M. Adams Parkway, Godfrey	2934-46	NA
Iron House CrossFit 2920 Greenwood Lane, Godfrey	2934-47	NA
Summer’s Port 3120 Greenwood Lane, Godfrey	2934-48	NA

INFORMATION SOURCES

Website addresses listed below were accurate and active as of the date viewed or cited in the Appendix; however, websites change frequently and web addresses may be different in the future or may cease to exist entirely.

Berg, R.C., and Kempton, J. P. (1988). Stack-unit mapping of geologic materials in Illinois to a depth of 15 meters. Illinois State Geological Survey Circular 542. GIS data produced from publication plates (1995, revised 1998).

Brink, McCormick (1873). Plat map. Madison County.

Edwardsville Intelligencer (1917). Plat map. Madison County.

Erdmann, A.L., Adomaitis, D.J., Bannon-Nilles, P.L., Kientop, G.A., and Schmidt, D.R. (2014). A manual for conducting preliminary environmental site assessments for Illinois Department of Transportation infrastructure projects. Illinois State Geological Survey Circular 585. 38 pp.

Federal Emergency Management Agency, National Flood Insurance Program (April 15, 1982). Flood Insurance Rate Maps (FIRM), panel #1704360145B, Madison County, Illinois.

Geiger, J.W. (2006). Summary of former manufactured gas plants of Illinois (draft). Illinois State Geological Survey.

Holmes and Arnold (1861). Plat map. Madison County.

Illinois Department of Transportation Site Assessment Tracking System:http://isgs-frostycap.ad.uillinois.edu/idot_extranet/default.asp.

Illinois Emergency Management Agency (September 9, 2014). Incident database: tier2.iema.state.il.us/ FOIAHazmatSearch/.

Illinois Environmental Protection Agency, Bureau of Land (September 10, 2014). BOL database: epadata.epa.state.il.us/land/inventory/.

Illinois Environmental Protection Agency, Bureau of Land (February 11, 2010). Brownfields database: epadata.epa.state.il.us/land/brownfields.

Illinois Environmental Protection Agency, Bureau of Land (September 9, 2014). Groundwater ordinance: epadata.epa.state.il.us/land/gwordinance/municipality.asp.

Illinois Environmental Protection Agency, Bureau of Land (September 8, 2014). Leaking Underground Storage Tank (LUST) database: http://epadata.epa.state.il.us/land/ust/.

Illinois Environmental Protection Agency, Bureau of Land (September 8, 2014). Site Remediation Program (SRP) database: epadata.epa.state.il.us/land/srp/.

Illinois Environmental Protection Agency, Bureau of Land (July 2013). State Underground Injection

Control inventory, 1984-July 2013.

Illinois Environmental Protection Agency, Bureau of Water (2014). Illinois Integrated Water Quality Report and Section 303(d) List: www.epa.state.il.us/water/water-quality/index.html.

Illinois Environmental Protection Agency, Bureau of Water (2014). Illinois Integrated Water Quality Report and Section 303(d) list: Appendix B-2. Stream Assessments: http://www.epa.state.il.us/water/tmdl/303-appendix/2014/appendix-b2.pdf.

Illinois Environmental Protection Agency, Bureau of Water. Illinois Water Quality Mapping Tool: maps.epa.state.il.us/website/wqinfo/.

Illinois State Geological Survey, Environmental Site Assessments section (2008). Summary of CERCLIS sites in Illinois (draft). Illinois State Geological Survey.

Illinois State Geological Survey, Environmental Site Assessments section (2008). Summary of landfill sites in Illinois (draft). Illinois State Geological Survey.

Illinois State Geological Survey, Environmental Site Assessments section (2008). Summary of LUST sites in Illinois (draft). Illinois State Geological Survey.

Illinois State Geological Survey. ILOIL Interactive Mapping System: http://maps.isgs.illinois.edu/iloil/.

Killey, M.M., Hines, J.K., and DuMontelle, P.D. (1985). Landslide inventory of Illinois. Illinois State Geological Survey Circular 534. GIS data produced from Plate 1 (1995).

Kolata, D.R. (2005). Bedrock geology of Illinois. Illinois State Geological Survey Illinois Map 14.

Manufacturers' News, Inc. (1941, 1949, 1955, 1964, 1966, 1974, 1976, 1980, 1983, 1990, 1994, 1996, 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013). Illinois manufacturers directories.

Markhurd Corporation aerial photographs: 46-479 (1988, 1994, and 1998)

Masters, J.M., Ipe, V.C., Smith, L.R., and Falter, M. (1999). Directory of Illinois Mineral Producers and Maps of Extraction Sites, 1997. Illinois State Geological Survey, Illinois Minerals 117.

Meyer, Charles (1851). Plat map. Madison County.

National Response Center (September 7, 2014). Emergency Response Notification System (ERNS) database: http://cgmix.uscg.mil/NRC/.

Office of the State Fire Marshal (September 10, 2014). Underground Storage Tank (UST) database: www.state.il.us/osfm.

Ogle (1906). Plat map. Madison County.

Piskin, K. (1975). Glacial drift in Illinois: Thickness and character. Illinois State Geological Survey

Circular 490. GIS data produced from Plate 1 (1994, revised 1998).

Polk city directories (1965, 1698, 1971, 1974, 1977, 1981, 1984, 1987, 1991, 1994, 1997, 2001, 2004, 2007, 2011, 2013). Alton.

Riniker, Hagnauer, Dickson (1892). Plat map. Madison County.

Rockford Map Publishers (1956, 1963, 1969, 1973, 1975, 1977, 1979, 1982, 1989, 1992, 1995, 1998, 2003, and 2007). Plat maps, Madison County.

Shineldecker, C.L. (1992). Handbook of environmental contaminants: A guide for site assessment. Lewis Publishers, Inc., Chelsea, MI.

USDA aerial photographs: 278-141 (1978)
1CC-150 (1962)
2P-103 (1955)
1F-111 (1949)

USDA-NAIP; Madison County photomosaic (2005, 2007, 2009, 2010).

U.S. Department of Agriculture, Natural Resources Conservation Service web soil survey (December 10, 2013). websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

U.S. Department of Transportation, Office of Pipeline Safety (2014). Pipeline Integrity Management Mapping Application: www.npms.phmsa.dot.gov.

U.S. Environmental Protection Agency. Asbestos ban and phaseout. http://www.epa.gov/asbestos/ban.html.

U.S. Environmental Protection Agency (November 12, 2013). Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database: cumulis.epa.gov/ supercpad/cursites/srchsites.cfm.

U.S. Environmental Protection Agency (1982-1989). Emergency Response Notification System (ERNS) database: www.rtknet.org/db/erns/.

U.S. Environmental Protection Agency (September 10, 2014). Illinois Brownfields pilot sites database: http://www2.epa.gov/cleanups.

U.S. Environmental Protection Agency (July 2014). Notification of PCB activity quarterly reports, Region 5: www.epa.gov/osw/hazard/tsd/pcbs/pubs/data.htm.

U.S. Environmental Protection Agency (February 2011). PCB transformer registration database: www.epa.gov/osw/hazard/tsd/pcbs/pubs/data.htm.

U.S. Environmental Protection Agency (September 10, 2014). Resource Conservation and Recovery Act Information (RCRAinfo) database, CORRACTS and non-CORRACTS databases: www.epa.gov/enviro/html/rcris/rcris_query_java.html.

U.S. Environmental Protection Agency (September 10, 2014). Section Seven Tracking System: http://www.epa. gov/enviro/html/fii/fii_query_java.html.

U.S. Environmental Protection Agency (1982-2013). Toxics Release Inventory (TRI): www.epa.gov/enviro/html/tris/tris_query.html.

U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, and Illinois Natural History Survey (1996). Illinois wetlands inventory.

U.S. Geological Survey (2014). Earthquake Hazards Program, National Seismic Hazard Map. Peak Acceleration (% g) with 2% Probability of Exceedance in 50 Years: http://earthquake.usgs.gov/hazards/products/conterminous/ 2014/2014_pga2pct50yrs.pdf.

U.S. Geological Survey (1950, 1954, 1968, 1974, 1994). Topographic map, 1:24,000 (7.5-minute) series: Alton Quadrangle.

U.S. Geological Survey and Illinois Environmental Protection Agency (2014). Source Water Assessment Program (SWAP) ArcIMS Mapping Tool: www.epa.state.il.us/water/ groundwater/source-water-assessment/index.html.

U.S. Geological Survey and Illinois Environmental Protection Agency (2014). Source Water Assessment Program for Illinois: www.epa.state.il.us/water/groundwater/source-water-assessment/index.html.

Weibel, C.P. and Panno, S.V. (1997). Karst terrains and carbonate rocks of Illinois [map], in Karst regions of Illinois. Illinois State Geological Survey Open File Series 1997-2.

Wright, Carolyn (July 31 and September 10, 2014). Written correspondence. Freedom of Information Officer, Illinois Environmental Protection Agency, Bureau of Land, Springfield, Illinois.

APPENDIX

ISGS PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT CHECKLIST

IDOT: P98-004-13 ISGS: 2934
City: Godfrey
County: Madison
Location Coordinates: T6N, R10W, Section 34

IDOT District Contact: ISGS Lead: Scott Ellis
Name: Brian Macias
Phone: (618) 346-3144

Task	Status*	Date	By
Original Material Copied	MF	4/7/14	ALE
IDOT Project Location Database – (All other projects/IDOT sites in the vicinity of the project)			
▸ Other Preliminary Environmental Site Assessments	MF	8/11/14	SRE
▸ Preliminary Site Investigations/Phase II Reports	NF	8/11/14	SRE
▸ Maintenance Facilities	NF	8/11/14	SRE
▸ Permit-Access Agreements	NF	8/11/14	SRE
▸ Draft Highway Authority Agreements/Highway Authority Agreements	NF	8/11/14	SRE
▸ Miscellaneous Sites	NF	8/11/14	SRE
Local Collections			
▸ County	NF	8/11/14	SRE
▸ City	NF	8/11/14	SRE
Geologic Information			
▸ ISGS Stack-Unit Map (GIS)	MF	8/11/14	SRE
▸ ISGS Glacial Drift in Illinois (GIS)	MF	8/11/14	SRE
▸ ISGS Bedrock Geology of Illinois (GIS)	MF	8/11/14	SRE
▸ USDA NRCS Soil Survey Maps	MF	8/11/14	SRE
▸ USDA NRCS Hydric Soils	MF	8/11/14	SRE
▸ USDA NRCS Prime Farmland Soils	MF	8/11/14	SRE
Hydrogeologic Information (non-CE projects only)			
▸ IEPA Restricted Status List	NA	8/11/14	SRE
▸ USGS-IEPA SWAP-IL Public Water Supplies	NA	8/11/14	SRE
▸ ISGS Wells (GIS)	NA	8/11/14	SRE
▸ ISWS Public Water Supply Surface Water Intakes in Illinois (GIS)	NA	8/11/14	SRE
▸ Potential for Aquifer Contamination Map	NA	8/11/14	SRE
▸ Potential for Aquifer Recharge Map	NA	8/11/14	SRE
▸ Sole Source Aquifer Protection Program	NA	8/11/14	SRE
Hydrogeologic Information (all projects)			
▸ USGS-IEPA SWAP Wellhead Protection	NF	8/11/14	SRE
▸ USGS-IEPA SWAP Fact Sheets /IEPA Well Site Survey Reports	NF	8/11/14	SRE
Historical Records			
▸ Aerial Photographs	MF	8/11/14	SRE
▸ USGS Topographic Maps	MF	8/11/14	SRE
▸ Plat Maps	MF	8/11/14	SRE
▸ Sanborn Fire Insurance Maps: Chadwyck-Healey Inc.	NF	8/11/14	SRE
▸ Sanborn Fire Insurance Maps: University Publications of America	NF	8/11/14	SRE
▸ Sanborn Fire Insurance Maps: Rascher Publishing Company	NA	8/11/14	SRE
▸ City Directories	MF	8/11/14	SRE
▸ Industrial Directories (optional)	MF	8/11/14	SRE
▸ IEPA-ISGS Summary of Former Manufactured Gas Plant Sites (GIS)	NF	8/11/14	SRE
▸ ISGS Draft CERCLIS Site Coverage (GIS)	NF	8/11/14	SRE
▸ ISGS Draft LUST Site Coverage (GIS)	NF	8/11/14	SRE
▸ ISGS Draft Landfill Site Coverage (GIS)	NF	8/11/14	SRE

Task	Status*	Date	By
Federal Records			
▸ CERCLIS (NPL, Active, Archived)	NF	9/10/14	SRE
▸ Mercury Site Lists	NF	9/10/14	SRE
▸ RCRA CORRACTS	NF	9/10/14	SRE
▸ RCRA Non-CORRACTS TSD Facilities	NF	9/10/14	SRE
▸ RCRA (Other)	NF	9/10/14	SRE
▸ ERNS	NF	9/10/14	SRE
▸ Brownfields Pilot Sites	NF	9/10/14	SRE
▸ Toxics Release Inventory	NF	9/10/14	SRE
▸ SSTS	NF	9/10/14	SRE
▸ PCB Transformer Registration Database/PCB Activity Quarterly Reports	NF	9/10/14	SRE
USEPA Information Request			
▸ Sent	No	9/10/14	SRE
▸ Received	No	9/10/14	SRE
State Records			
▸ IEPA Brownfields	NF	9/10/14	SRE
▸ IEPA Bureau of Land Inventory	MF	9/10/14	SRE
▸ IEPA Illinois Water Quality Reports	NF	9/10/14	SRE
▸ IEPA LUST	MF	9/10/14	SRE
▸ IEPA Site Remediation Program	NF	9/10/14	SRE
▸ OSFM UST	MF	9/10/14	SRE
▸ IEMA non-LUST Incidents	NF	9/10/14	SRE
▸ Activity and Use Limitations (AULs)	MF	9/10/14	SRE
▸ Groundwater Ordinances	MF	9/10/14	SRE
▸ Cook County Bridge List	NA	9/10/14	SRE
▸ Landfills (GIS)	NF	9/10/14	SRE
▸ State Underground Injection Control Inventory	NF	9/10/14	SRE
IEPA BOL Information Request			
▸ Sent	MF	7/29/14	SRE
	MF	9/3/14	SRE
▸ Received	MF	7/31/14	DJA
	MF	9/10/14	BAF
OSFM Information Request			
▸ Sent	No	9/10/14	SRE
▸ Received	No	9/10/14	SRE
Local Records			
▸ Fire Department Records (optional)	NF	8/12/14	SRE
Mining Maps and Publications			
▸ ISGS Quadrangle/County On-Line Coal Maps and Directories	NF	8/11/14	SRE
▸ ISGS Non-Coal Underground Mines	NF	8/11/14	SRE
▸ Lead Mining	NA	8/11/14	SRE
Oil and Gas Information			
▸ ISGS Oil and Gas Fields/Oil Wells (ILOIL GIS)	NF	8/11/14	SRE
▸ USDOT OPS Pipeline Integrity Management Mapping Application	NF	8/11/14	SRE
Natural Hazards			
▸ USGS Seismic Risk Map	NF	8/11/14	SRE
▸ FEMA FIRM Maps	MF	8/11/14	SRE
▸ ISGS Landslide Inventory (GIS)	NF	8/11/14	SRE
▸ Karst Terrains and Carbonate Rocks of Illinois Maps	NF	8/11/14	SRE
▸ USFWS, IDNR, and INHS Illinois Wetlands Inventory (GIS)	MF	8/11/14	SRE

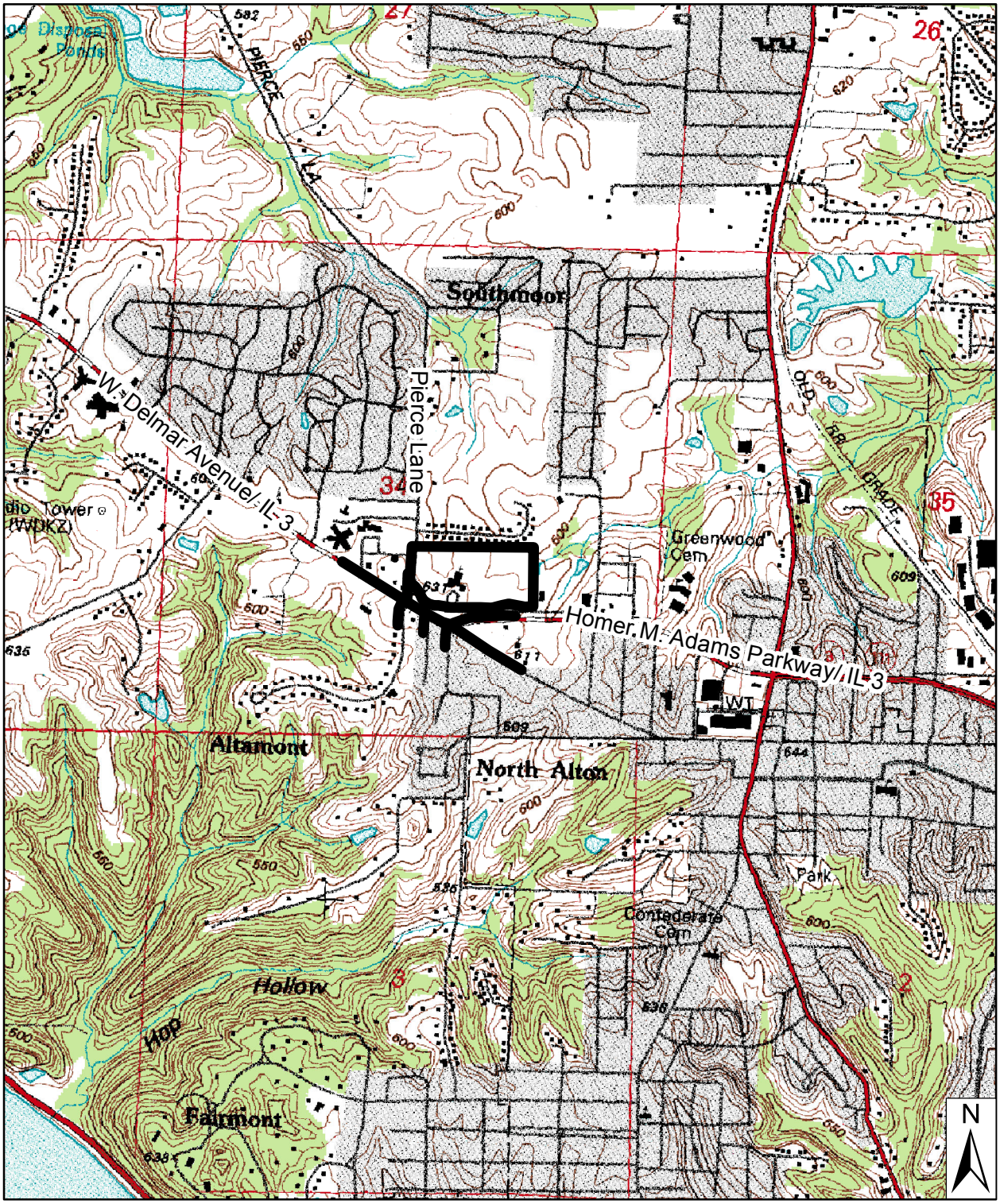
* MF = Material found within search radius; NF = Nothing found within search radius; NA = Not applicable

Date of Records Review Completion: September 10, 2014

LIST OF ATTACHMENTS

1. Project location map, ISGS #2934.
2. Site location maps (4 pages).
3. Site 2934-A. Estimated extent of impacted groundwater.
4. Site 2934-A. Estimated extent of impacted soil.
5. Site 2934-A. HAA map.

Attachment 1. Project location map, ISGS #2934.
Project area indicated by heavy black line.

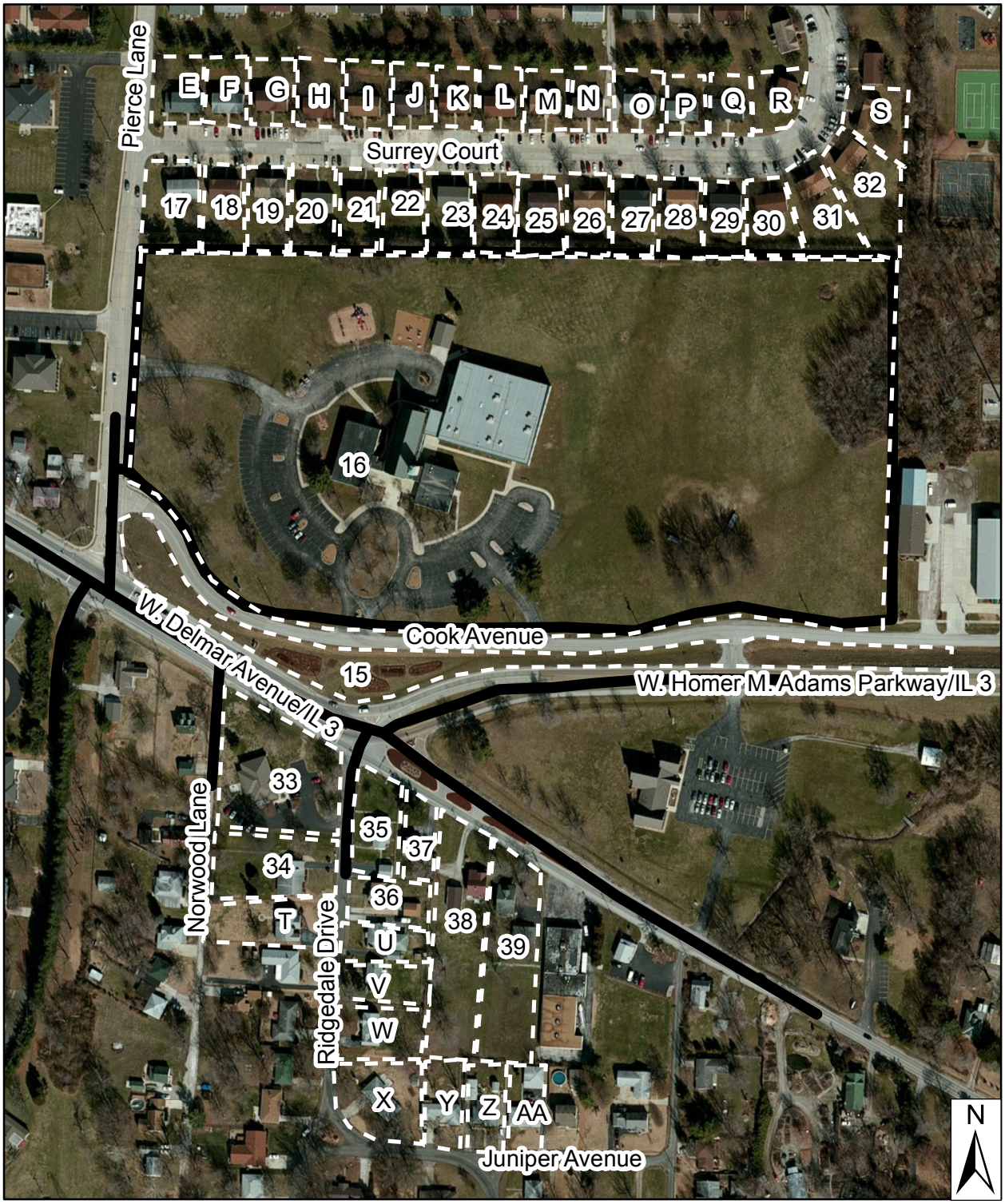


Attachment 2, page 1. Site location map, Sites 2934-1 through 2934-14.

All site boundaries are approximate and should not be used as actual parcel boundaries.

Attachment 2, page 2. Site location map, Sites 2934-15 through 2870-39.

All site boundaries are approximate and should not be used as actual parcel boundaries.

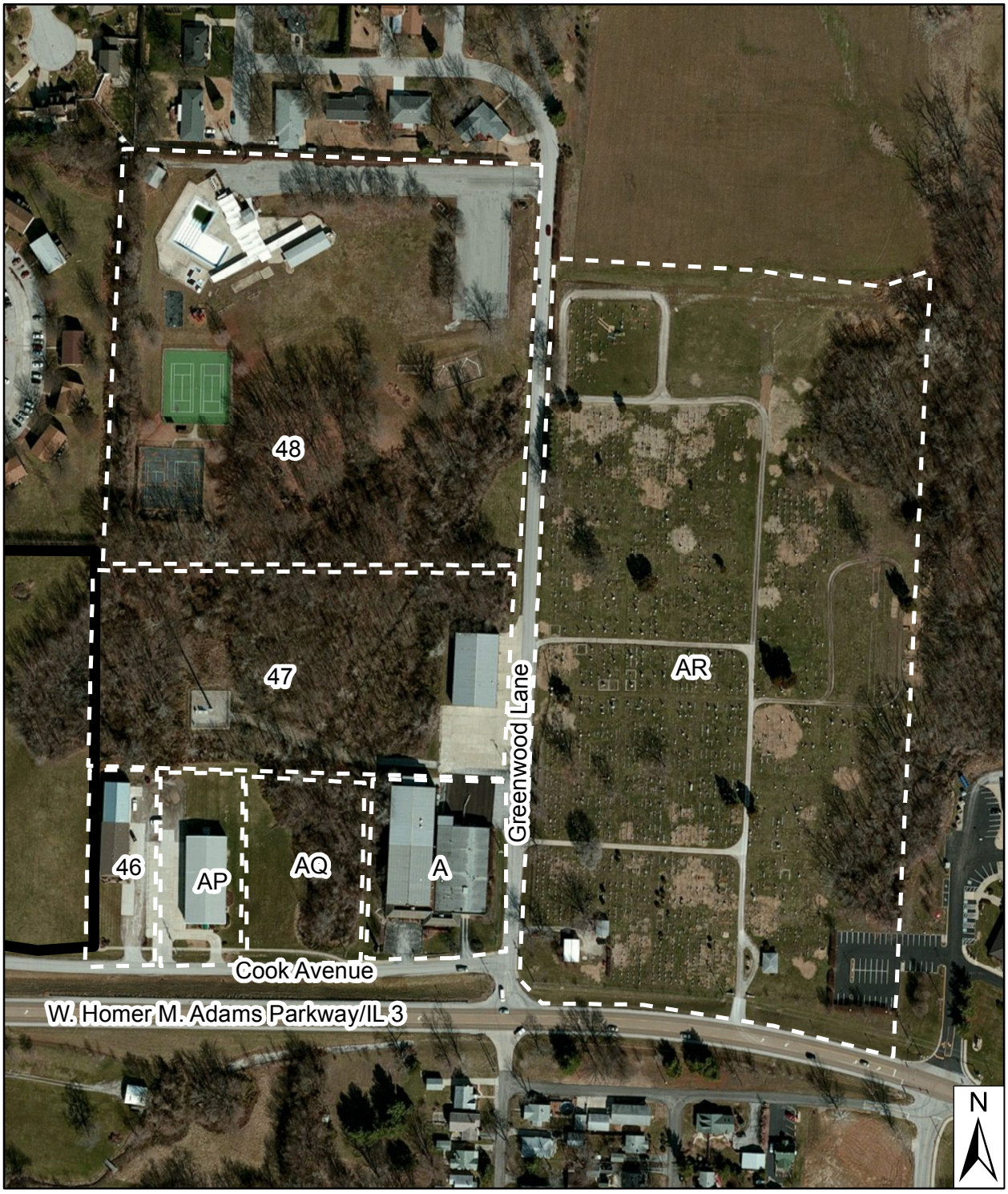


Attachment 2, page 2. Site location map, Sites 2934-40 through 2870-45.

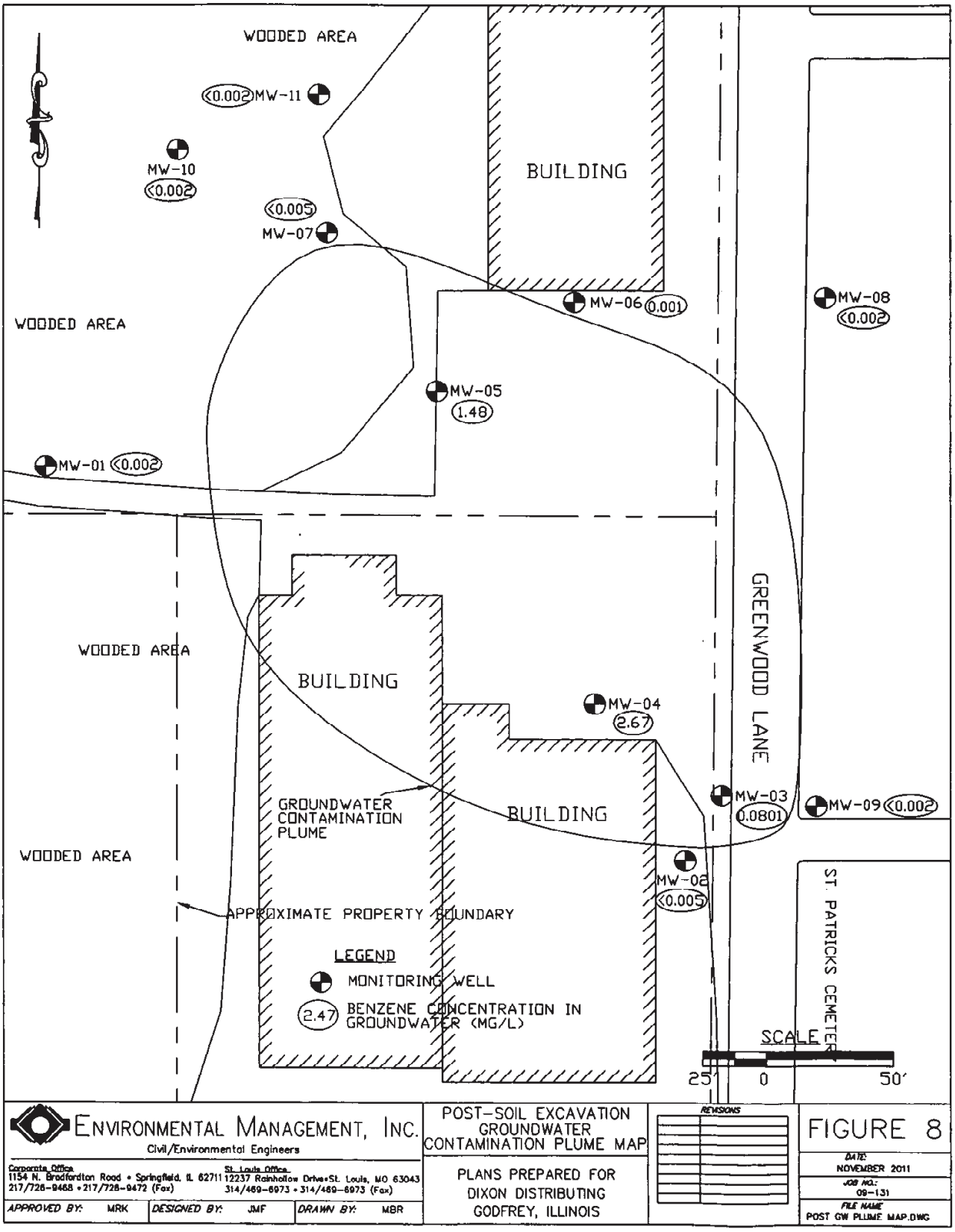
All site boundaries are approximate and should not be used as actual parcel boundaries.

Attachment 2, page 4. Site location map, Sites 2934-46 through 2870-48.

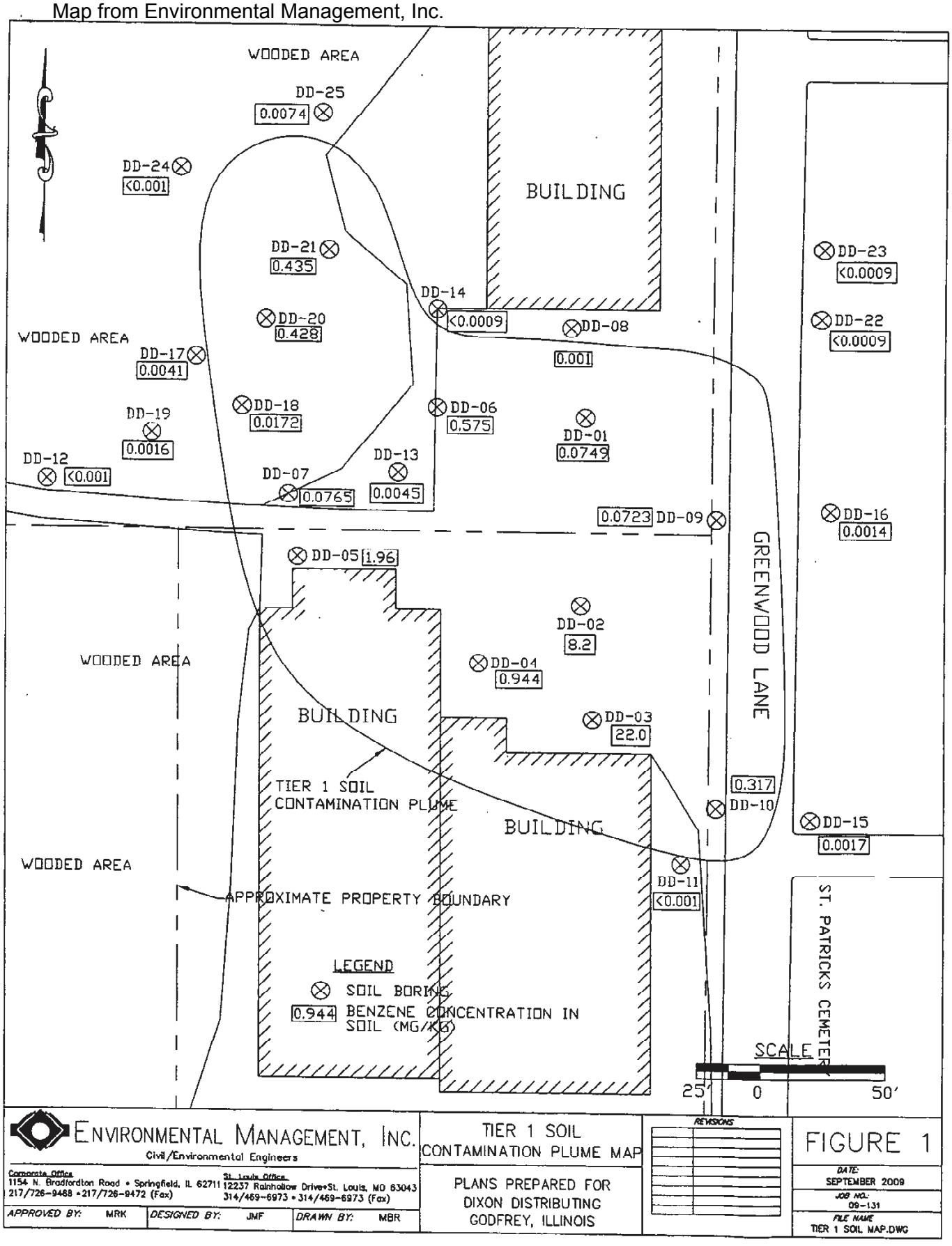
All site boundaries are approximate and should not be used as actual parcel boundaries.



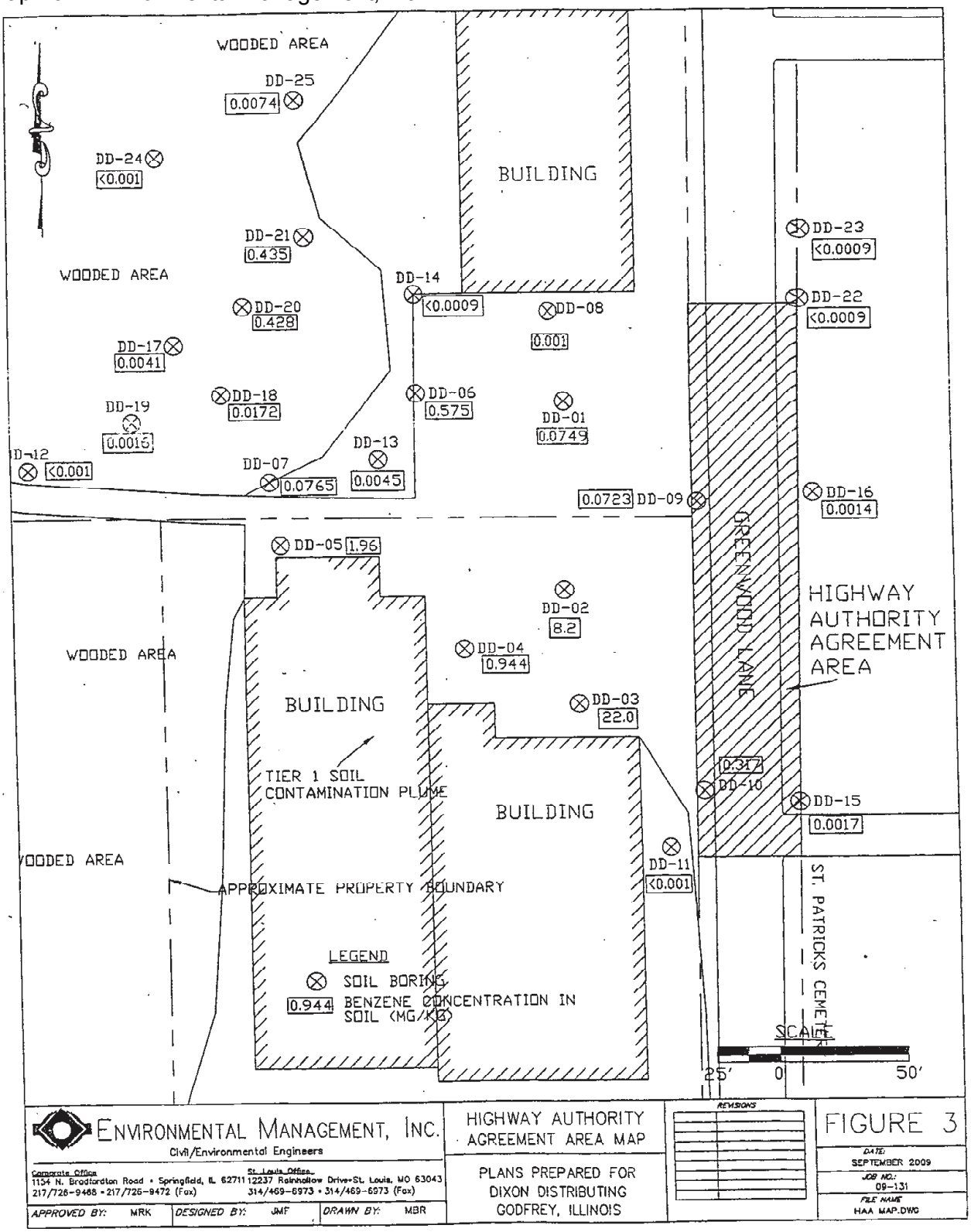
Attachment 3. Site 2934-A. Estimated extent of impacted groundwater.
Map from Environmental Management, Inc.



Attachment 4. Site 2934-A. Estimated extent of impacted soil.
Map from Environmental Management, Inc.



Attachment 5. Site 2934-A. HAA map.
Map from Environmental Management, Inc.



Attention: Central Office BD&E
Environment Section
Room 330

Environmental Survey Request Addendum

A. Project Information

☐ Bio ☐ Cultural ☐ Wetlands ☑ Special Waste

Submittal Date: 02/15/2018 **Sequence No:** 18539 A

District: 8 **Requesting Agency:** DOH **Project No:**

Contract #: 76F84 **Job No.:** P- 98-004-13

Counties: Madison

Route: FAU 8956 **Marked:** IL Route 3

Street: IL 3 (West Delmar) **Section:** 60R-1

Municipality(ies): **Project Length:** 0.6437 **km** 0.4 **miles**

FromTo (At): 1000 feet west of Pierce Lane to 800 feet east of Ridgedale Drive

Quadrangle: Alton **Township-Range-Section:** T6N - R10W - Sec 34

Survey Target Date: 08/15/2018 **Anticipated Design Approval:** 08/20/2018 **Anticipated NEPA Processing:** CE

B. Reason for Submittal: (Check all that apply) ; includes SW Level 1 Screening Criteriea

Survey Types: B = Biological; C = Cultural; SW = Special Waste

B,C,SW ☐ **Involves Acquisition of additional ROW or temporary or permanent easements. Addendum:** **acres**

Total Project: **acres**

SW ☐ **On a state-maintained route, crosses or involves RR ROW (except a single rail rural ROW with no maintenance facilities).**

B,C ☐ **Requires In-Stream work (e.g., drainage structure runaround). Stream Name:**

C ☐ **Potential to affect a historic district or historic property.**

C ☐ **Involves replacement or rehabilitation of a bridge/culvert 40 years old or older.**

SW ☐ **Involves acquisition of, excavation (defined in BDE Manual 27-3.01) on, or subsurface utility relocation on State ROW.**

☑ **Other:** Resubmittal of PESA due to time lapse

C. Addendum Description:

Addendum being submitted for an updated PESA report

D. Tree Removal?: Don't Know Number?: ha/ acres ☐ Within Mahomet SSA Project Review Area

Wetland delineation performed by: **End. Species Consultation performed by:**

E.

Contact Person:	Matt Meyer	**Local Contact Person:**	
Telephone #:	(618) 346-3160 ext.	**Telephone #:**	
Env.Contact:	Brian Macias	**E-Mail:**	
Telephone #:	(618) 346-3144 ext.	**Title/Company:**	

F.

☐ **Update Entire Project**

☑ **Addendum Only**

☐ **Closed** ☐ **PSI/RMP Only** ☐ **ESR Rec'd in CO** ☐ **SW Rec'd**

Sequence No: **18539 A**

Memo Date:	02/15/2018	**Memo By:**	Brian Macias
Memo:	PESA 2934 expired on 09/19/2017. Therefore, a new report is being requested by the district.		
Memo Date:	02/15/2018	**Memo By:**	Brian Macias
Memo:	Survey Limits: Along IL Route 3/Homer M Adams Parkway - 1000' west of Pierce Lane; 1000' east of IL 3/West Delmar Avenue Along West Delmar - 800' east of Ridgedale Drive Along Frotenac Place, Norwood Lane, and Ridgedale Drive - 300' south of IL 3/West Delmar Avenue Along Pierce Lane - 700' north of IL 3/West Delmar Avenue Along Cook Street: Just north of existing roadway, adjacent to the church parking lot		

Illinois Department of Transportation

Memorandum

To:	Jeffrey Keirn	Attn:	Frank M. Opfer
From:	Jack A. Elston	By:	Scott E. Stitt
Subject:	PESA Review		*Scott E. Stitt*
Date:	July 20, 2018		

Project:	FAU 8956 (IL 3): 1000 feet west of Pierce Lane to 800 feet east of Ridgedale Drive		
District 8:	Madison County	Job #:	P-98-004-13
Requesting Agency:	DOH	Contract #:	76F84
Survey Target Date:	08/15/2018	Anticipated DA:	08/20/2018
Anticipated Letting:	Not provided	Section:	60R-1
BDE Sequence #:	18539A	ISGS PESA #:	2934V

Attached is a copy of the Preliminary Environmental Site Assessment (PESA) report prepared by the Illinois State Geological Survey (ISGS) for the subject project as described in your Special Waste Environmental Survey Request (ESR). Table 1 identifies sites along the project route that were determined to contain recognized environmental conditions (RECs). It is the opinion of this office, in consultation with the Chief Counsel's Office, that a preliminary site investigation (PSI) is required if any site identified in Table 1 of the PESA report involves any of the following situations:

- New right of way or easement (temporary or permanent);
- Railroad right-of-way, other than single rail rural with no maintenance facilities; or
- Building demolition / modification.

Additionally, a PSI is required if the project will have excavation or subsurface utility relocation on existing right-of-way adjoining a site identified in Table 1 of the PESA report.

If the district determines that they can avoid all the sites containing RECs, then a PSI is not required and the project will be in compliance with Departmental Policy D&E-11. If the district determines the project will involve a site containing a REC(s), then a PSI is required and the statewide special waste consultant should be requested to perform the PSI. Please notify this office of any actions you may decide to take concerning these sites (avoidance or further investigation). The PESA Response and Work Order form can be found on PMA.

The district should determine if any new right-of-way or easement will involve: any site identified in Table 1 of the PESA report, or any site adjoining a site listed in Table 4. For those identified situations, the District Bureau of Land Acquisition (DBLA) shall coordinate the acquisition with this office, Central Bureau of Land Acquisition, and the Chief Counsel's Office to determine if an "All Appropriate Inquiries" (AAI) assessment is required prior to the acquisition process for additional liability protection under CERCLA.

Other findings and recommendations of the report should be carefully considered. For questions regarding this report or the tasking of the statewide consultant, please contact Josh Venaas at 217/785-4181 or James R. Curtis at 217/558-4653.

Attachments

cc: Office of Chief Counsel – Rm. 313
Central Bureau of Land Acquisition – Rm. 210
District Bureau of Land Acquisition
District Utility Coordinator

IDOT Sequence #: 18539A **ISGS: 2934V**
IDOT Job #: P98-004-13 **IDOT District #: 8**

PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT

FINAL REPORT

DATE: July 13, 2018

IDOT DESIGN DATE: August 20, 2018

SURVEY TARGET DATE: August 24, 2018

DATE REQUEST RECEIVED: February 22, 2018

LOCATION: FAU 8956 (IL 3), West of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County; Alton quadrangle (USGS 7.5-minute topographic map), T6N, R10W, Section 34.

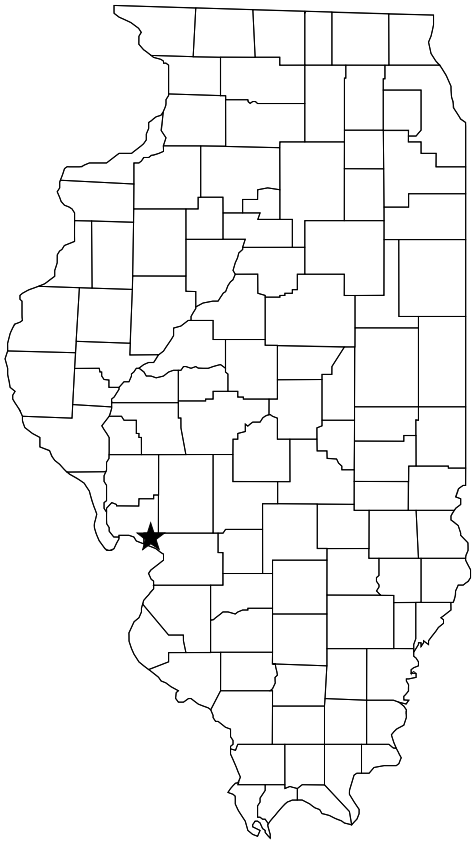


Table of Contents

GLOSSARY OF ACRONYMS

AAI	-	All Appropriate Inquiries
ACM	-	asbestos-containing material
AST	-	aboveground storage tank
ASTM	-	American Society for Testing and Materials
AUL	-	activity and use limitation (includes institutional controls, engineered barriers, and HAAs)
bgs	-	below ground surface
BOL	-	Bureau of Land (IEPA)
BTEX	-	benzene, toluene, ethylbenzene, and total xylene
CDPH	-	Chicago Department of Public Health
CCDD	-	Clean construction and demolition debris
CERCLIS	-	Comprehensive Environmental Response, Compensation, and Liability Information System
CTA	-	Chicago Transit Authority
ERNS	-	Emergency Response Notification System
FEMA	-	Federal Emergency Management Agency
FHWA	-	Federal Highway Administration
FOIA	-	Freedom of Information Act
GIS	-	Geographic Information System
GRO	-	Groundwater Remediation Objective
HAA	-	Highway Authority Agreement
IDNR	-	Illinois Department of Natural Resources
IDOT	-	Illinois Department of Transportation
IEMA	-	Illinois Emergency Management Agency
IEPA	-	Illinois Environmental Protection Agency
IMD	-	Illinois Manufacturers Directory
ISGS	-	Illinois State Geological Survey
ISWS	-	Illinois State Water Survey
LUST	-	leaking underground storage tank
µg/kg	-	micrograms per kilogram (ppb)
µg/l	-	micrograms per liter (ppb)
mg/kg	-	milligrams per kilogram (ppm)
mg/l	-	milligrams per liter (ppm)
M.M.	-	mile marker
MOU	-	memorandum of understanding
M.P.	-	mile post
MSSA	-	Mahomet Sole Source Aquifer
MTBE	-	methyl tertiary butyl ether
NFR	-	No Further Remediation
NPL	-	National Priorities List
NRCS	-	Natural Resources Conservation Service
OER	-	Office of Emergency Response (IEPA)
OSFM	-	Office of the State Fire Marshal
PAA	-	Permit Access Agreement
PAH/PNA	-	polynuclear aromatic hydrocarbon
PCB	-	polychlorinated biphenyl
PESA	-	Preliminary Environmental Site Assessment
P.G.	-	Professional Geologist
ppb	-	parts per billion (equivalent to µg/kg for solids, and µg/l in liquids)
ppm	-	parts per million (equivalent to mg/kg in solids, and mg/l in liquids)
PRP	-	Potentially Responsible Party
PSI	-	Preliminary Site Investigation
RCRA	-	Resource Conservation and Recovery Act
REC	-	recognized environmental condition
ROW	-	right-of-way
SEMS	-	Superfund Enterprise Management System
SGRO	-	Soil Gas Remediation Objective
SIC	-	Standard Industrial Classification
SPLP	-	synthetic precipitation leaching procedure
SRO	-	Soil Remediation Objective
SRP	-	Site Remediation Program
SSTS	-	Section Seven Tracking System (USEPA)
SVOC	-	semi-volatile organic compound
TACO	-	Tiered Approach to Corrective Action Objectives (IEPA)
TCLP	-	toxicity characteristic leaching procedure
TPH	-	total petroleum hydrocarbons
TRI	-	Toxics Release Inventory
UIC	-	Underground Injection Control (IEPA)
USDA	-	United States Department of Agriculture
USEPA	-	United States Environmental Protection Agency
USGS	-	United States Geological Survey
UST	-	underground storage tank
VOC	-	volatile organic compound

EXECUTIVE SUMMARY

This report presents the results of an environmental site assessment for the improvements to IL 3 from west of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County. This report was prepared on behalf of the Illinois Department of Transportation (IDOT) by the Illinois State Geological Survey (ISGS).

The following sites were examined for this project. The tables below list sites along the project for which recognized environmental conditions (RECs)* were identified for each address or address range (Table 1); sites along the project for which only de minimis conditions were identified (Table 2); sites along the project for which no RECs or de minimis conditions were identified (Table 3); and sites adjoining but not on the project that were identified on environmental databases (Table 4). Further investigation of sites with RECs may be desired.

Table 1. The following sites along the project were determined to contain RECs:

Property name IDOT parcel #	ISGS site #	REC(s), including de minimis conditions	Regulatory database(s)	Land use
Morningside of Godfrey NA	2934V-2	AST; transformer; potential ACM and lead paint	None	Commercial
Elias, Kallal and Schaaf Funeral Home NA	2934V-4	Potential chemical use; potential ACM and lead paint	None	Commercial
Residence NA	2934V-7	Potential UST(s); potential former chemical use; potential ACM and lead paint	None	Residential
Residence NA	2934V-9	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-10	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-11	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
ROW NA	2934V-15	Potentially impacted groundwater	AUL	Vacant

Religious/educational building NA	2934V-16	Potentially impacted groundwater; transformers; potential ACM and lead paint	AUL	Religious/ educational
Resurrection Lutheran Church NA	2934V-17	Potentially impacted groundwater; potential ACM and lead paint	AUL	Religious
Teena's Day Spa and Boutique NA	2934V-18	Potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial
Lawrence Newquist and Jody Schulmeister dental office NA	2934V-19	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Commercial
Residence NA	2934V-20	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-21	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-22	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-23	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-24	Potentially impacted groundwater; potential ACM and lead paint	AUL	Residential
Residence NA	2934V-25	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
Commercial building NA	2934V-26	Potential former chemical use; potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial

Macias Insurance Agency, Inc. NA	2934V-27	Potentially impacted groundwater; potential ACM and lead paint	AUL	Commercial
Residence NA	2934V-28	Potentially impacted groundwater; transformer; potential ACM and lead paint	AUL	Residential
The Greenery NA	2934V-29	Potentially impacted groundwater; transformers; potential herbicide and/or fertilizer presence; potential ACM and lead paint	AUL	Commercial

Table 2. The following sites along the project were determined to contain de minimis conditions only:

Property name IDOT parcel #	ISGS site #	De minimis condition(s)	Land use
Agricultural land NA	2934V-1	Likely pesticide and/or herbicide use	Agricultural
Hughes Cameron & Company NA	2934V-3	Potential ACM and lead paint	Commercial
Dentistry with TLC NA	2934V-5	Transformer; potential ACM and lead paint	Commercial
Residence NA	2934V-6	Potential ACM and lead paint	Residential
Unity Fellowship Church NA	2934V-8	Transformer; potential ACM and lead paint	Religious
Commercial building NA	2934V-12	Transformers; potential ACM and lead paint	Commercial
Quantum Vision NA	2934V-13	Potential ACM and lead paint	Commercial
Residence NA	2934V-14	Potential ACM and lead paint	Residential

Table 3. The following sites along the project were determined not to contain RECs or de minimis conditions:

Property name IDOT parcel #	ISGS site #	Land use
None		

Table 4. The following additional sites, adjoining but not on the project, were identified on environmental databases:

Property name	ISGS site #	Regulatory database(s)	Land use
Residence	2934V-A	AUL	Residential
Residential building	2934V-B	AUL	Residential
T K Carpet Gallery	2934V-C	AUL	Commercial
Residential building	2934V-D	AUL	Residential
Residential building	2934V-E	AUL	Residential
Mid-Illinois Gymnastics and Dance	2934V-F	AUL	Commercial
Ameren substation	2934V-G	AUL	Utility
Residence	2934V-H	AUL	Residential
Residence	2934V-I	AUL	Residential
Residence	2934V-J	AUL	Residential
Residence	2934V-K	AUL	Residential
Residence	2934V-L	AUL	Residential
Residence	2934V-M	AUL	Residential
Residence	2934V-N	AUL	Residential
Residence	2934V-O	AUL	Residential
Residence	2934V-P	AUL	Residential
Residence	2934V-Q	AUL	Residential
Residence	2934V-R	AUL	Residential
Residence	2934V-S	AUL	Residential
Residence	2934V-T	AUL	Residential
Residence	2934V-U	AUL	Residential

Residence	2934V-V	AUL	Residential
Residence	2934V-W	AUL	Residential
Residence	2934V-X	AUL	Residential
Residence	2934V-Y	AUL	Residential
Residence	2934V-Z	AUL	Residential
Residence	2934V-AA	AUL	Residential

* For all sites:

Where REC(s) are indicated as present, a condition was noted that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the site, as discussed in the text. Potential hazards were not verified by ISGS testing. Radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may also be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

Where RECs are not indicated as present, radon, biological hazards (such as mold, medical waste, or septic waste), and non-agricultural pesticides and/or herbicides may still be of concern. No further investigation concerning the presence or use of these factors was conducted for this PESA.

For the purposes of this report, the following are considered to be de minimis conditions:

- Normal use of lead-based paint on exteriors and interiors of buildings and structures.
- Use of asbestos-containing materials in building construction.
- Transformers in normal use, unless the transformers were observed to be leaking, appear on an environmental regulatory list, or were otherwise determined to pose a hazard not related to normal use.
- Agricultural use of pesticides and herbicides. In addition, most land in Illinois was under agricultural use prior to its conversion to residential, industrial, or commercial development. Pesticides, both regulated and otherwise, may have been used throughout the project area at any time. Unless specifically discussed elsewhere in this report, no information regarding past pesticide use that would be subject to enforcement action was located for this project, and such use is considered a de minimis condition.

The following data gaps exist for all PESAs:

- For residences, only areas visible from public roads are inspected.
- Interiors of buildings are not inspected.
- Interiors of agricultural areas are not inspected during growing seasons.

Radon and biological hazards are not considered in this PESA unless specifically noted.

NA = No parcel number was supplied by IDOT for this site.

Although potential natural hazards and undermining, if present, are described in this report, they are not considered as RECs or de minimis conditions for the purposes of this report, and are therefore not listed in the tables above. Wetlands and flooding hazards are not evaluated as part of this report.

INTRODUCTION

This is the **Final Report** of a preliminary environmental assessment by the ISGS of natural and man-made hazards that may be encountered on or along the ROW acquired for the improvements to IL 3 from west of Pierce Lane to east of Ridgedale Drive, Godfrey, Madison County (Attachment 1). This report is a validation of ISGS #2934, which was submitted to IDOT on September 19, 2014. Changes to the project limits include a reduction to the north along Pierce Lane and a reduction to the east along Homer M. Adams Parkway. No acquisition of additional ROW or easements, in-stream work, railroad ROW involvement or excavation or subsurface utility relocation is expected for this project. IL 3 is known as W. Homer M. Adams Parkway east of its intersection with W. Delmar Avenue, and IL 3 is known a W. Delmar Avenue west of its intersection with W. Homer M. Adams Parkway, and will be referred to as such in this report. No stationing information was provided by IDOT for this project. This report identifies and evaluates recognized environmental conditions (RECs) that may be indicative of releases or potential releases of hazardous substances on, at, in, or to the proposed project.

This assessment has been prepared using historical and geological information including aerial photographs, U.S. Geological Survey topographic maps, plat maps, file information of the ISGS regulatory file information from federal, state, and other agencies, and various other sources of information. An on-site investigation has been completed. The specific methods used to conduct the assessment are contained in "A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects" (Erdmann et al., 2014).

This Preliminary Environmental Site Assessment (PESA) was performed in compliance with the IDOT-ISGS PESA Manual (Erdmann et al., 2014) and not with the All Appropriate Inquiries environmental assessment standard (40 CFR Part 312) that took effect on November 1, 2006, or with the ASTM standard E1527-05 or E1527-13.

GEOLOGY

Bedrock geology. The topmost bedrock unit in the project area east of the intersection of W. Delmar Avenue and W. Homer M. Adams Parkway has been mapped as Pennsylvanian-age rocks of the Carbondale Formation, which is composed of shale, sandstone, limestone, and coal. The topmost bedrock unit in the project area west of the intersection of W. Delmar Avenue and W. Homer M. Adams Parkway has been mapped as Pennsylvanian-age rocks of the Tradewater Formation, which is composed of sandstone, limestone, shale, and coal.

Surficial geology. The total thickness of surficial deposits in the project area has been mapped as 8-15 m (25-50 ft). These deposits have been mapped as 6-15 m (20-50 ft) of the Peoria Silt and Roxanna Silt, which are composed of windblown silt with little sand and clay. Bedrock may be present within 6 m (20 ft) of the ground surface throughout the project area.

Soils. None of the soils along the project ROW have been classified as containing more than 33% hydric components. The NRCS has classified the Winfield-Orthents-Urban land complex, 2-8% slopes, as non-prime farmland.

HYDROGEOLOGY

Due to project type or IDOT internal procedure, the sections on surficial public water supplies, groundwater recharge, groundwater protection areas, potential for contamination of shallow aquifers, and well log information are not included in this report.

Drainage direction. Surficial drainage in the project area is generally toward the southwest, in the direction of an unnamed tributary to the Mississippi River. However, since the project area is urbanized and storm drains and sewers are present, most surficial runoff will be controlled by the storm sewer system; such systems typically are designed to follow natural drainage patterns.

Neither the near-surface nor the shallow unconfined groundwater flow direction was specifically determined for this project, but they generally mimic local topography.

NATURAL FEATURES AND HAZARDS

Karst region. According to the ISGS map “Karst Terrains and Carbonate Rocks of Illinois”, the project is located in a karst region. Karst terrains develop due to the dissolution of carbonate bedrock. Karst features and resulting karst hazards are most common in areas where carbonate rocks either crop out at the surface, or where they are shallowly buried beneath unconsolidated materials generally less than 15 m (50 ft) in thickness. Hazards common to karst regions include sinkholes, springs, erratic surface water drainage and groundwater flow, and rapid subsurface movement of materials into and through the subsurface. Sinkholes and springs can also back up and cause local flooding during high-volume rain or snowmelt events. ISGS mapping indicates that karst features such as caves or sinkholes may be present in the project area; however, these features were not observed during ISGS field investigations for this project. The ISGS karst maps are published at a scale of 1:500,000 and may reflect conditions present in the area but not specific to the actual project location. Therefore, karst hazards may not be present within the project limits.

No other observed or known natural hazards were identified for this project.

PROJECT SITES

Project sites will be described from west to east along the project route below. Attachment 1 contains a project location map. Attachment 2 contains maps of all sites discussed in this report. Attachment 3 contains a map of Sites 2934V-9 through 2934V-11, 2934V-15 through 2934V-29, and 2934V-A through 2934V-AA showing the area of the groundwater ordinance. The versions of the OSFM's UST database, IEPA's LUST database, IEPA’s Bureau of Land database, and USEPA's SEMS database utilized for this report were all dated July 10, 2018. OSFM files were received on June 7, 2018. IEPA files were received on June 7, 2018. No USEPA files were reviewed for this project. Fieldwork for this project was conducted on June 28, 2018.

This project intersects previous ISGS PESAs as follows:

ISGS #	Date submitted to IDOT	Intersects

300	December 30, 1993	At Delmar Avenue and Pierce Lane
2488/A	January 9, 2012	Along entire project
2934	September 19, 2014	Along entire project

Information from these earlier PESAs will be summarized in geographic order below. No sites in this project were covered in ISGS #300 or ISGS #2488/A.

Data gaps applicable to the entire project area

The following data gaps applicable to the entire project area were noted for this project. Data gaps specific to individual sites are discussed in the site writeups below.

- Aerial photographs provided information only for those specific times covered by the photographs, as noted in the Information Sources section. No records were available for intervening years, and other land uses could have occurred in these years.

- Areas which were under residential use or vacant throughout all aerial photographs were not researched in city directories.

Site 2934V-1 (2934-1). Agricultural land, 1300 block of W. Delmar Avenue, Godfrey (southwest side of Delmar Avenue between D'Adrian Drive and Frontenac Place; Attachment 2, page 1). This site is occupied by agricultural land. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 2007 plat maps, this site was under individual ownership. On the 1941 through 2018 aerial photographs, the site was occupied by agricultural land.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

Because there are no buildings present and no evidence of fill or demolition debris was observed, asbestos-containing materials and lead paint are unlikely to be present at this site.

No RECs were identified at this site.

The following de minimis condition was identified at this site: Likely pesticide and/or herbicide use based on agricultural land use.

Site 2934V-2 (2934-2). Morningside of Godfrey, 1373 D'Adrian Professional Park, Godfrey (northeast side of Delmar Avenue between D'Adrian Drive and Pierce Lane; Attachment 2, page 1). This site is occupied by an assisted living community. One pad-mounted transformer was

observed along the north side of the building. A diesel generator on an attached AST was observed along the north side of the site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 2007 aerial photographs, a different commercial building was shown. On the 2009 through 2018 aerial photographs, the current commercial building was present. In the 1966 through 2000 city directories, no listings were found. In the 2005 through 2016 city directories, various healthcare facilities and a different assisted living community were listed. During fieldwork for ISGS #2934 in 2014, a different assisted living community, in the current commercial building, was present. The complete commercial history of this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The complete commercial history of this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: AST.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-3 (2934-3). Hughes Cameron & Company, 1321 D'Adrian Professional Park, Godfrey (northeast side of Delmar Avenue between D'adrian Drive and Pierce Lane; Attachment 2, page 1). This site is occupied by an accounting office. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 2018 aerial photographs, the current commercial building was present. In the 1966 through 2000 city directories, no listings were found. In the 2005 through 2016 city directories, the current occupant was listed. During fieldwork for ISGS #2934 in 2014, the current financial office was present. The complete commercial history of this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The complete commercial history of this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-4 (2934-4). Elias, Kallal and Schaaf Funeral Home, 1313 W. Delmar Avenue, Godfrey (southwest quadrant of W. Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a funeral home. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 trough 2007 plat maps, this site was under individual ownership. On the 1941 through 1978 aerial photographs, the site was occupied by agricultural land. On the 1988 through 2018 aerial photographs, the current commercial building was present. In the 1966 through 1981 city directories, no listings were found. In the 1986 through 2016 city directories, the current funeral home was listed.

Potential hazards associated with funeral homes include acids, VOCs, and metals.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potential chemical use.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-5 (2934-5). Dentistry with TLC, 1317 D'Adrian Professional Park, Godfrey (northeast side of Delmar Avenue between D'Adrian Drive and Pierce Lane; Attachment 2, page 1). This site is occupied by a dental office. One pole-mounted transformer was observed near the southeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 1988 aerial photographs, the site was vacant, with a grassy appearance. On the 1993 through 2018 aerial photographs, the current commercial building was present. In the 1966 through 2000 city directories, no listings were found. In the 2005 through 2016 city directories, various medical offices, including the current one, were listed. During fieldwork for ISGS #2934 in 2014, a dental office was present.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-6 (2934-6). Residence, 1306 W. Delmar Avenue, Godfrey (northwest quadrant of Delmar Avenue and Pierce Lane; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1955 aerial photographs, the site was occupied by agricultural land. On the 1962 through 2018 aerial photographs, the current residence was present.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or

underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-7 (2934-7). Residence, 1304 W. Delmar Avenue, Godfrey (northwest corner of Delmar Avenue and Pierce Lane; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1955 aerial photographs, the site was occupied by agricultural land. On the 1962 through 2018 aerial photographs, the current residence was present. In the 1966 through 1961 city directories, no listings were found. In the 1966 through 2016 city directories, an individual name was listed. According to ISGS #2934, the 1984 city directory listed an automotive repair business at the rear of this site. No automotive repair businesses were listed in city directories reviewed for this project. During fieldwork for ISGS #2934 in 2014, the current residence was present.

According to ISGS #2934, this site was located within a groundwater ordinance enacted by the village of Godfrey. A reinterpretation of the boundaries of groundwater ordinances within Godfrey indicated that this site is not located within a groundwater ordinance. The “potentially impacted groundwater” REC formerly associated with this site will no longer be attributed to this site.

Potential hazards associated with vehicle repair facilities include waste oil, lubricants, and transmission fluids; spent solvents; waste paints and thinners; sludge from parts-cleaning tanks; oily sludge from floor sumps; used antifreeze; used lead-acid batteries; and undocumented UST(s).

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified for this site:

- The status and locations of any undocumented UST(s) at this site are unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following RECs were identified at this site: Potential UST(s); potential former chemical use.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-8 (2934-8). Unity Fellowship Church, 1301 W. Delmar Avenue, Godfrey (southwest corner of Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a church and an associated community building. One pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 2007 pat maps, this site was under individual ownership. On the 1941 through 1988 aerial photographs, the west building was shown and resembled a residence, while the remainder of the site alternated between vacant land, with a grassy appearance, and agricultural land. On the 1993 through 2018 aerial photographs, the east building was present. In the 1966 through 1991 city directories, no listings were found. In the 1995 through 2016 city directories, an individual name and various churches, including the current one, were listed. During fieldwork for ISGS #2934 in 2014, the current church was present.

According to ISGS #2934, this site was located within a groundwater ordinance enacted by the village of Godfrey. A reinterpretation of the boundaries of groundwater ordinances within Godfrey indicated that this site is not located within a groundwater ordinance. The “potentially impacted groundwater” REC formerly associated with this site will no longer be attributed to this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-9 (2934-9). Residence, 1223 W. Delmar Avenue, Godfrey (southeast corner of Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-10 (2934-10). Residence, 1221 W. Delmar Avenue, Godfrey (southwest corner of Delmar Avenue and Norwood Lane; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use

restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-11 (2934-11). Residence, 2830 Norwood Lane, Godfrey (southeast quadrant of Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-12 (2934-12). Commercial building, 1305 D'Adrian Professional Park, Godfrey (southwest corner of D'Adrian Professional Park and Pierce Lane; Attachment 2, page 1). This site is occupied by a commercial building containing several legal service providers (see address table for listings). Three pole-mounted transformers were observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1939 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 2005 aerial photographs, the site was vacant with a grassy appearance. On the 2006 through 2018 aerial photographs, the current building was present. In the 1968 through 2005 city directories, no listings were found. In the 2011 through 2016 city directories, the current occupants were listed. During fieldwork for ISGS #2934 in 2014, the current occupants were present.

According to ISGS #2934, this site was located within a groundwater ordinance enacted by the village of Godfrey. A reinterpretation of the boundaries of groundwater ordinances within Godfrey indicated that this site is not located within a groundwater ordinance. The "potentially impacted groundwater" REC formerly associated with this site will no longer be attributed to this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Transformers; potential ACM and lead paint.

Site 2934V-13 (2934-13). Quantum Vision, 1310 D'Adrian Professional Park, Godfrey (northwest corner of D'Adrian Professional Park and Pierce Lane; Attachment 2, page 1). This site is occupied by an optometry office. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1963 plat maps, this site was under individual ownership. On the 1969 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 2018 aerial photographs, the current building was present. In the 1966 through 1997 city directories, no listings were found. In the 2001 through 2007 city directories, a law office was listed. In the 2011 and later city directories, various optometrists were listed. During fieldwork for ISGS #2934 in 2014, a different optometry office was present. The complete commercial history of this site is unknown.

According to ISGS #2934, this site was located within a groundwater ordinance enacted by the village of Godfrey. A reinterpretation of the boundaries of groundwater ordinances within Godfrey indicated that this site is not located within a groundwater ordinance. The "potentially impacted groundwater" REC formerly associated with this site will no longer be attributed to this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The complete commercial history of this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-14 (2934-B). Residence, 1 Frontenac Place, Godfrey (southwest quadrant of Delmar Avenue and Frontenac Place; Attachment 2, page 1). This site is occupied by a single-family residence. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1955 aerial photographs, the site was occupied by agricultural land. On the 1962 through 2018 aerial photographs, the current residence was present.

According to ISGS #2934, this site was located within a groundwater ordinance enacted by the village of Godfrey. A reinterpretation of the boundaries of groundwater ordinances within Godfrey indicated that this site is not located within a groundwater ordinance. The “potentially impacted groundwater” REC formerly associated with this site will no longer be attributed to this site.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

No data gaps were identified at this site.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in this building.

No RECs were identified at this site.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-15 (2934-15). ROW, 1200 block of W. Delmar Avenue, Godfrey (northeast side of Delmar Avenue and the north side of Homer M. Adams Parkway between Pierce Lane and Greenwood Lane; Attachment 2, page 2). This site is occupied by vacant grass-covered ROW. This site did not appear on any of the regulatory lists checked for this project.

On the 1951 through 2007 plat maps, this site was under individual ownership. On the 1941 through 1955 aerial photographs, this site was under agricultural use. On the 1962 through 2018 aerial photographs, this site had its current configuration.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

Because there are no buildings present and no evidence of fill or demolition debris was observed, asbestos-containing materials and lead paint are unlikely to be present at this site.

The following REC was identified at this site: Potentially impacted groundwater.

No de minimis conditions were identified at this site.

Site 2934V-16 (2934-16). Religious/educational building, 1212 W. Homer M. Adams Parkway, Godfrey (northeast corner of Cook Avenue and Pierce Lane; Attachment 2, page 2). This site is occupied by an interconnected church and a school (see address table for listings). A storage shed was observed north of the church and school building. Four pole-mounted transformers were observed along the south side of this site. One pad-mounted transformer was observed near the northwest corner of the building. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 2007 plat maps, this site was under individual ownership. On the 1941 through 1962 aerial photographs, the site was occupied by agricultural land. On the 1978 through 2003 aerial photographs, the west half of the current building and storage shed were shown. On the 2004 through 2018 aerial photographs, the building was expanded to the northeast, and the site had its current configuration. In the 1966 through 1971 city directories, no listings were found. In the 1976 and later city directories, the current church and school were listed. During fieldwork for ISGS #2934 in 2014, the current church and school were present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformers; potential ACM and

lead paint.

Site 2934V-17 (2934-40). Resurrection Lutheran Church, 1211 W. Homer M. Adams Parkway, Godfrey (east corner of Homer M. Adams Parkway and Delmar Avenue; Attachment 2, page 2). This site is occupied by a church. A storage shed was observed near the northeast corner of the site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1982 plat maps, this site was under individual ownership. On the 1989 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1988 aerial photographs, the site was occupied by agricultural land with a residence near the southeast corner of the site. On the 1996 through 2018 aerial photographs, the site had its current configuration. In the 1966 through 1995 city directories, no listings were found. In the 2000 and later city directories, the current church was listed.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-18 (2934-45). Teena's Day Spa and Boutique, 1020 W. Delmar Avenue, Godfrey (northeast side of Delmar Avenue between Wannamaker Lane and Greenwood Lane; Attachment 2, page 2). This site is occupied by a day spa with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the

1941 through 2018 aerial photographs, the current building was present. In the 1966 through 1986 city directories, an individual name was listed. In the 1986 through 2010 city directories, various book stores and gift shops were listed. In the 2015 through 2016 city directories, the current spa was listed. During fieldwork for ISGS #2934 in 2004, the current spa was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-19 (2934-33). Lawrence Newquist and Jody Schulmeister dental office, 1203 W. Delmar Avenue, Godfrey (southwest corner of Delmar Avenue and Ridgedale Drive; Attachment 2, page 3). This site is occupied by a dental office. One pole-mounted transformer was observed along the west side of the site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1996 aerial photographs, a residence was present. On the 1998 through 2018 aerial photographs, the current building was present. In the 1966 through 1995 city directories, an individual name was listed. In the 2000 through 2016 city directories, the current dental office was listed. During fieldwork for ISGS #2934 in 2014, the current dental office was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use

restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-20 (2934-34). Residence, 2828 Ridgedale Drive, Godfrey (west side of Ridgedale Drive south of Delmar Avenue; Attachment 2, page 3). This site is occupied by a single-family residence. One Pole-mounted transformer was observed near the northwest corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1949 aerial photographs, the site was occupied by agricultural land. On the 1955 aerial photograph, the site was vacant, with a grassy appearance. On the 1962 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-21 (2934-35). Residence, 1131 W. Delmar Avenue, Godfrey (southeast corner of Delmar Avenue and Ridgedale Drive; Attachment 2, page 3). This site is occupied by a single-family residence with a detached garage. One pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 aerial photograph, the site was occupied by agricultural land. On the 1949 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-22 (2934-36). Residence, 2827 Ridgedale Drive, Godfrey (southeast quadrant of Delmar Avenue and Ridgedale Drive; Attachment 2, page 3). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 aerial photograph, the site was occupied by agricultural land. On the 1949 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-23 (2934-37). Residence, 1129 W. Delmar Avenue, Godfrey (southeast quadrant of Delmar Avenue and Ridgedale Drive; Attachment 2, page 3). This site is occupied by a single-family residence. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956

through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 aerial photograph, the site was occupied by agricultural land. On the 1949 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-24 (2934-38). Residence, 1125 W. Delmar Avenue, Godfrey (southwest side of Delmar Avenue between Ridgedale Drive and Wannamaker Lane; Attachment 2, page 3). This site is occupied by a single-family residence with a detached garage. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 aerial photograph, the site was occupied by agricultural land. On the 1949 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or

surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-25 (2934-39). Residence, 1121 W. Delmar Avenue, Godfrey (southwest side of Delmar Avenue between Ridgedale Drive and Wannamaker Lane; Attachment 2, page 3). This site is occupied by a single-family residence with a detached garage. One pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 aerial photograph, the site was occupied by agricultural land. On the 1949 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or

stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-26 (2934-41). Commercial building, 1111 W. Delmar Avenue, Godfrey (southwest side of Delmar Avenue between Ridgedale Drive and Wannamaker Lane; Attachment 2, page 3). This site is occupied by a vacant commercial building. A non-functional printing press was observed near the northeast corner of this site that appeared to be used as a decoration. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1955 aerial photographs, the site was occupied by agricultural land. On the 1962 aerial photograph, the north half of the current building was present. On the 1978 through 2018 aerial photographs, the building was expanded to the south, and the site had its current configuration. In the 1966 city directory, no listings were found. In the 1971 city directory, a plastic products distributor was listed. In the 1976 through 1981 city directories, a manufacturer of women's sportswear was listed. In the 1986 city directory, "Bakken Industries, Inc." was listed. The nature of this business is unknown. In the 1991 through 2010 city directories, a printing company was listed. In the 2015 through 2016 city directories, no listings were found. In the 1994 through 2011 IMDs, this site was listed as a printing company. During fieldwork for ISGS #2934 in 2014, the site was occupied by a vacant commercial building. The complete commercial history of this site is unknown.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

Potential hazards associated with printing and lithography businesses and textile and clothing manufacturing include VOCs, SVOCs, acids, bleaches, and metals.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gaps were identified at this site:

- The nature of Bakken Industries, Inc. is unknown.

- The complete commercial history of this site is unknown.

- The status of impacted groundwater at this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following RECs were identified at this site: Potential former chemical use; potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-27 (2934-42). Macias Insurance Agency, Inc., 1101 W. Delmar Avenue, Godfrey (southwest corner of Delmar Avenue and Wannamaker Lane; Attachment 2, page 3). This site is occupied by an insurance office. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 2007 aerial photographs, a residence that resembled the current building was shown. On the 2009 through 2018 aerial photographs, the current parking area was shown, and the site had its current configuration. In the 1966 city directory, no listings were found. In the 1971 through 2000 city directories, an individual name was listed. In the 2005 through 2016 city directories, the current occupant was listed. During fieldwork for ISGS #2934 in 2014, the current occupant was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, transformers, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The building on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in

1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in this building.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Potential ACM and lead paint.

Site 2934V-28 (2934-43). Residence, 1025 W. Delmar Avenue, Godfrey (southeast corner of Delmar Avenue and Wannamaker Lane; Attachment 2, page 3). This site is occupied by a single-family residence with a detached garage. One pole-mounted transformer was observed near the northeast corner of this site. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 2018 aerial photographs, the current residence was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gap was identified at this site:

- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Evidence from aerial photographs indicates that this residence was constructed before 1978. Lead paint was banned for residential use in the United States in 1978, and therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformer; potential ACM and lead paint.

Site 2934V-29 (2934-44, 2934-AM). The Greenery, 1017-1021 W. Delmar Avenue, Godfrey (southwest side of Delmar Avenue between Wannamaker Lane and Greenwood Lane; Attachment 2, page 3). This site is occupied by a nursery and greenhouse consisting of an office

building, greenhouse, and several storage buildings. Three pole-mounted transformers were observed along the north side of this site. Due to the presence of a locked gate, a complete inspection was not possible. This site did not appear on any of the regulatory lists checked for this project.

On the 1851 through 1926 plat maps, this site was under individual ownership. On the 1956 through 2007 plat maps, this site was subdivided, with no ownership information shown. On the 1941 through 1978 aerial photographs, a residence that resembled the current office building was shown on the east side of the site, and the remainder of the site was occupied by agricultural land. On the 1988 through 2018 aerial photographs, the site had its current configuration. In the 1966 city directory, no listings were found. In the 1971 through 1986 city directories, an individual name or vacancies were listed. In the 1991 through 2016 city directories, the current occupant was listed. During fieldwork for ISGS #2934 in 2014, the current occupant was present.

According to IEPA records, a groundwater use restriction (Ordinance No. 05-2015) for a specified area in Godfrey that includes this site, was issued in May 2015 (see Attachment 3 for the area of this ordinance that affects this site). According to Ordinance No. 05-2015, this groundwater use restriction was not associated with any IEPA or USEPA regulatory numbers. No monitoring wells were installed and no testing was conducted on this site. The status of impacted groundwater at this site is unknown.

Potential hazards associated with nurseries include herbicides and fertilizers.

No visual evidence of stressed vegetation, pits or depressions, mounding or soil piles, lagoons or surface impoundments, stained soil or pavement, water discoloration, fill, storage tanks (above or underground), pumps or dispensers, protruding pipes, pipelines, drums, chemical containers, monitoring wells, solid waste, non-petroleum chemical use or storage, or unusual or noxious odors was observed at this site during a site inspection by ISGS on June 28, 2018.

The following data gaps were identified at this site:

- Due to the presence of a locked gate, a complete inspection was not possible.
- The status of impacted groundwater at this site is unknown.

The buildings on this site may contain friable asbestos-containing materials as a component of floor tiles, wall and pipe insulation, roof materials, patching or painting compounds, ceiling materials, or stove and furnace insulation. Lead paint was banned for residential use in the United States in 1978, but has not been banned for industrial and commercial use. Therefore lead paint may be present in these buildings.

The following REC was identified at this site: Potentially impacted groundwater.

The following de minimis conditions were identified at this site: Transformers; potential herbicide and/or fertilizer presence based on nursery use; potential ACM and lead paint.

ADJOINING SITES

The ISGS conducted a search of federal, state, and other environmental databases for reported environmental concerns on sites adjoining the project. For certain resources, the search distances may have been expanded when deemed applicable in the judgment of the project manager. Refer to the Appendix for complete citations for these databases and the date of update of each database. Sites along the project are listed in the preceding section. Sites adjoining the project that do not appear on regulatory databases are not included. The following sites adjoining, but not along, the project were identified.

Federal records

SEMS: NPL, Active, and Archived
None.

RCRA sites subject to corrective action (CORRACTS)
None.

RCRA sites – non-CORRACTS TSD
None.

RCRA sites – other
None.

Brownfields pilot sites
None.

Non-LUST releases
None.

State records

Leaking underground storage tanks (LUST)
None.

Registered underground storage tanks (UST)
None.

IEPA Site Remediation Program
None.

IEPA Bureau of Land Inventory
None.

Brownfields
None.

Non-LUST releases

None.

Activity and Use Limitations (including institutional controls, engineered barriers, and Highway Authority Agreements)

Site 2934V-A (2934-C). Residence, 2828 Norwood Lane, Godfrey. Adjoining property to the south of Site 2934V-11, to the southeast of Site 2934V-14, and to the southwest of Site 2934V-20 (Attachment 2, page 1). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-B (2934-17). Residential building, 1233 Surrey Court, Godfrey. Adjoining property to the northeast of Site 2934V-13 and to the north of Site 2934V-16 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-C (2934-46). T K Carpet Gallery, 1100 W. Homer M. Adams Parkway, Godfrey. Adjoining property to the northeast of Site 2934V-15, to the east of Site 2934V-16, and to the north of Site 2934V-17 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-D (2934-18). Residential building, 1231 Surrey Court, Godfrey. Adjoining property to the north of Site 2934V-16 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-E (2934-19). Residential building, 1229 Surrey Court, Godfrey. Adjoining property to the north of Site 2934V-16 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-F (2934-AP). Mid-Illinois Gymnastics and Dance, 1032 W. Homer M. Adams Parkway, Godfrey. Adjoining property to the northeast of Site 2934V-17 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-G (2934-AO). Ameren substation, 1035 Homer M. Adams Parkway, Godfrey. Adjoining property to the east of Site 2934V-17 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-H (2934-AN). Residence, 1012 W. Delmar Avenue, Godfrey. Adjoining property to the east of Site 2934V-18 and to the northeast of Site 2934V-29 (Attachment 2, page 2). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-I (2934-AL). Residence, 1015 W. Delmar Avenue, Godfrey. Adjoining property to the southeast of Site 2934V-18 and to the east of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-J (2934-T). Residence, 2820 Ridgedale Drive, Godfrey. Adjoining property to the south of Site 2934V-20 and to the southwest of Site 2934V-22 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-K (2934-U). Residence, 2823 Ridgedale Drive, Godfrey. Adjoining property to the southeast of Site 2934V-20 and to the south of Site 2934V-22 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-L (2934-V). Residence, 2819 Ridgedale Drive, Godfrey. Adjoining property to the west of Site 2934V-24 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-M (2934-W). Residence, 2815 Ridgedale Drive, Godfrey. Adjoining property to the west of Site 2934V-24 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-N (2934-X). Residence, 1122 Juniper Avenue, Godfrey. Adjoining property to the southwest of Site 2934V-24 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-O (2934-Y). Residence, 1118 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934V-24 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-P (2934-Z). Residence, 1114 Juniper Avenue, Godfrey. Adjoining property to the southeast of Site 2934V-24 and to the south of Site 2934V-25 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-Q (2934-AA). Residence, 1110 Juniper Avenue, Godfrey. Adjoining property to the southeast of Site 2934V-25 and to the southwest of Site 2934V-26 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-R (2934-AB). Residence, 1104 Juniper Avenue, Godfrey. Adjoining property to the south of Site 2934V-26 and to the southwest of Site 2934V-27 (Attachment 2, page3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-S (2934-AC). Residence, 2804 Wannamaker Lane, Godfrey. Adjoining property to the southeast of Site 2934V-26, to the south of Site 2934V-27, and to the southwest of Site 2934V-28 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-T (2934-AD). Residence, 2803 Wannamaker Lane, Godfrey. Adjoining property to the southeast of Site 2934V-27, to the south of Site 2934V-28, and to the west of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-U (2934-AE). Residence, 2801 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-V (2934-AF). Residence, 2715 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-W (2934-AG). Residence, 2713 Wannamaker Lane, Godfrey. Adjoining property to the west of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-X (2934-AH). Residence, 2707 Wannamaker Lane, Godfrey. Adjoining property to the southwest of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-Y (2934-AI). Residence, 864 Chouteau Street, Godfrey. Adjoining property to the south of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-Z (2934-AJ). Residence, 862 Chouteau Street, Godfrey. Adjoining property to the south of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Site 2934V-AA (2934-AK). Residence, 860 Chouteau Street, Godfrey. Adjoining property to the southeast of Site 2934V-29 (Attachment 2, page 3). Attachment 3 depicts the portion of the groundwater ordinance that affects this site.

Municipal records

None.

Tribal records

There are no tribally owned lands in the state of Illinois; therefore, the checking of tribal records is not applicable for this report.

CONCLUSIONS

(1) RECs were identified at the following sites along the project:

- Site 2934V-2: Morningside of Godfrey. AST; transformer; potential ACM and lead paint.
- Site 2934V-4: Elias, Kallal and Schaaf Funeral Home. Potential chemical use; potential ACM and lead paint.
- Site 2934V-7: Residence. Potential UST(s); potential former chemical use; potential ACM and lead paint.
- Site 2934V-9: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-10: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-11: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-15: ROW. Potentially impacted groundwater.
- Site 2934V-16: Religious/educational building. Potentially impacted groundwater; transformers; potential ACM and lead paint.
- Site 2934V-17: Resurrection Lutheran Church. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-18: Teena's Day Spa and Boutique. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-19: Lawrence Newquist and Jody Schulmeister dental office. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934V-20: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934V-21: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934V-22: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-23: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-24: Residence. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-25: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934V-26: Commercial building. Potential former chemical use; potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-27: Macias Insurance Agency, Inc. Potentially impacted groundwater; potential ACM and lead paint.
- Site 2934V-28: Residence. Potentially impacted groundwater; transformer; potential ACM and lead paint.
- Site 2934V-29: The Greenery. Potentially impacted groundwater; transformers; potential herbicide and/or fertilizer presence; potential ACM and lead paint.

(2) De minimis conditions were identified at the following sites along the project:

- Site 2934V-1: Agricultural land. Likely pesticide and/or herbicide use.
- Site 2934V-3: Hughes Cameron & Company. Potential ACM and lead paint.
- Site 2934V-5: Dentistry with TLC. Transformer; potential ACM and lead paint.
- Site 2934V-6: Residence. Potential ACM and lead paint.
- Site 2934V-8: Unity Fellowship Church. Transformer; potential ACM and lead paint.
- Site 2934V-12: Commercial building. Transformers; potential ACM and lead paint.
- Site 2934V-13: Quantum Vision. Potential ACM and lead paint.
- Site 2934V-14: Residence. Potential ACM and lead paint.

(3) The following properties were identified that appear on environmental databases and that are adjoining, but not along, the project:

- Site 2934V-A: Residence. AUL.
- Site 2934V-B: Residential building. AUL.
- Site 2934V-C: T K Carpet Gallery. AUL.
- Site 2934V-D: Residential building. AUL.
- Site 2934V-E: Residential building. AUL.
- Site 2934V-F: Mid-Illinois Gymnastics and Dance. AUL.
- Site 2934V-G: Ameren substation. AUL.
- Site 2934V-H: Residence. AUL.
- Site 2934V-I: Residence. AUL.
- Site 2934V-J: Residence. AUL.
- Site 2934V-K: Residence. AUL.
- Site 2934V-L: Residence. AUL.
- Site 2934V-M: Residence. AUL.
- Site 2934V-N: Residence. AUL.
- Site 2934V-O: Residence. AUL.
- Site 2934V-P: Residence. AUL.
- Site 2934V-Q: Residence. AUL.
- Site 2934V-R: Residence. AUL.
- Site 2934V-S: Residence. AUL.
- Site 2934V-T: Residence. AUL.
- Site 2934V-U: Residence. AUL.
- Site 2934V-V: Residence. AUL.
- Site 2934V-W: Residence. AUL.
- Site 2934V-X: Residence. AUL.
- Site 2934V-Y: Residence. AUL.
- Site 2934V-Z: Residence. AUL.
- Site 2934V-AA: Residence. AUL.

(4) According to the ISGS map “Karst Terrains and Carbonate Rocks of Illinois”, the project is located in a karst region. Karst terrains develop due to the dissolution of carbonate bedrock. Karst features and resulting karst hazards are most common in areas where carbonate rocks either crop out at the surface, or where they are shallowly buried beneath unconsolidated materials generally less than 15 m (50 ft) in thickness. Hazards common to karst regions include sinkholes, springs, erratic surface water drainage and groundwater flow, and rapid subsurface movement of materials into and through the subsurface. Sinkholes and springs can also back up and cause local flooding during high-volume rain or snowmelt events. ISGS mapping indicates that karst features such as caves or sinkholes may be present in the project area; however, these features were not observed during ISGS field investigations for this project. The ISGS karst maps are published at a scale of 1:500,000 and may reflect conditions present in the area but not specific to the actual project location. Therefore, karst hazards may not be present within the project limits.

(5) For the purposes of this report, the following are considered to be de minimis conditions:

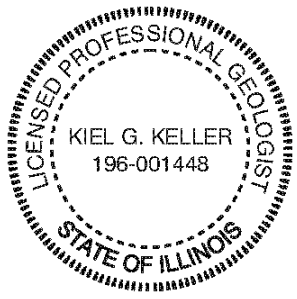
- Normal use of lead-based paint on exteriors and interiors of buildings and structures.
- Use of asbestos-containing materials in building construction.

- Transformers in normal use, unless the transformers were observed to be leaking, appear on an environmental regulatory list, or were otherwise determined to pose a hazard not related to normal use.
- Agricultural use of pesticides and herbicides. In addition, most land in Illinois was under agricultural use prior to its conversion to residential, industrial, or commercial development. Pesticides, both regulated and otherwise, may have been used throughout the project area at any time. Unless specifically discussed elsewhere in this report, no information regarding past pesticide use that would be subject to enforcement action was located for this project, and such use is considered a de minimis condition.

ENDORSEMENTS

Project Manager: _____ **Date:** July 13, 2018
Allen Cooksey

Approved: _____ **Date:** July 13, 2018
Kiel G. Keller, P.G., State of Illinois
License #196-0001448



ADDRESS LISTINGS

The following addresses along the project were evaluated for this project. Addresses of sites, if any, adjoining but not along the project are not listed here; see text for discussion of these sites.

Property name and address	ISGS site #	Parcel #
Agricultural land 1300 block of W. Delmar Avenue, Godfrey	2934V-1	NA
Morningside of Godfrey 1373 D'Adrian Professional Park, Godfrey	2934V-2	NA
Hughes Cameron & Company 1321 D'Adrian Professional Park, Godfrey	2934V-3	NA
Elias, Kallal and Schaaf Funeral Home 1313 W. Delmar Avenue, Godfrey	2934V-4	NA
Dentistry with TLC 1317 D'Adrian Professional Park, Godfrey	2934V-5	NA
Residence 1306 W. Delmar Avenue, Godfrey	2934V-6	NA
Residence 1304 W. Delmar Avenue, Godfrey	2934V-7	NA
Unity Fellowship Church 1301 W. Delmar Avenue, Godfrey	2934V-8	NA
Residence 1223 W. Delmar Avenue, Godfrey	2934V-9	NA
Residence 1221 W. Delmar Avenue, Godfrey	2934V-10	NA
Residence 2830 Norwood Lane, Godfrey	2934V-11	NA
Farrel, Hamilton & Julian P.C. 1305 D'Adrian Professional Park, Godfrey	2934V-12	NA
John W. Hoefert Law Office 1305 D'Adrian Professional Park, Godfrey	2934V-12	NA
Tri-County Title and Escrow, Inc. 1305 D'Adrian Professional Park, Godfrey	2934V-12	NA
Quantum Vision 1310 D'Adrian Professional Park, Godfrey	2934V-13	NA

Residence 1 Frontenac Place, Godfrey	2934V-14	NA
ROW 1200 block of W. Delmar Avenue, Godfrey	2934V-15	NA
Evangelical United Church of Christ 1212 W. Homer M. Adams Parkway, Godfrey	2934V-16	NA
Evangelical Schools 1212 W. Homer M. Adams Parkway, Godfrey	2934V-16	NA
Resurrection Lutheran Church 1211 W. Homer M. Adams Parkway, Godfrey	2934V-17	NA
Teena's Day Spa and Boutique 1020 W. Delmar Avenue, Godfrey	2934V-18	NA
Lawrence Newquist and Jody Schulmeister dental office 1203 W. Delmar Avenue, Godfrey	2934V-19	NA
Residence 2828 Ridgedale Drive, Godfrey	2934V-20	NA
Residence 1131 W. Delmar Avenue, Godfrey	2934V-21	NA
Residence 2827 Ridgedale Drive, Godfrey	2934V-22	NA
Residence 1129 W. Delmar Avenue, Godfrey	2934V-23	NA
Residence 1125 W. Delmar Avenue, Godfrey	2934V-24	NA
Residence 1121 W. Delmar Avenue, Godfrey	2934V-25	NA
Commercial building 1111 W. Delmar Avenue, Godfrey	2934V-26	NA
Macias Insurance Agency, Inc. 1101 W. Delmar Avenue, Godfrey	2934V-27	NA
Residence 1025 W. Delmar Avenue, Godfrey	2934V-28	NA
The Greenery 1017-1021 W. Delmar Avenue, Godfrey	2934V-29	NA

INFORMATION SOURCES

Website addresses listed below were accurate and active as of the date viewed or cited in the Appendix; however, websites change frequently and web addresses may be different in the future or may cease to exist entirely.

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Geiger, J.W. (2006). Summary of former manufactured gas plants of Illinois (draft). Illinois State Geological Survey.

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Hagnauer, R., Riniker, H., Dickson, G. (1892). Map of Madison County, Illinois.

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Illinois Environmental Protection Agency, Bureau of Land (February 11, 2010). Brownfields database: http://epadata.epa.state.il.us/land/brownfields.

Illinois Environmental Protection Agency, Bureau of Land (July 6, 2018). Groundwater ordinance: http://epadata.epa.state.il.us/land/gwordinance/municipality.asp.

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Illinois Environmental Protection Agency, Bureau of Land (July 10, 2018). Site Remediation Program (SRP) database: http://epadata.epa.state.il.us/land/srp/.

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Illinois Environmental Protection Agency, Bureau of Water (2018). Illinois Integrated Water Quality Report and Section 303(d) List: http://www.epa.illinois.gov/topics/water-quality/watershed-management/tmdls/303d-list/index.

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Illinois Environmental Protection Agency, Bureau of Water (2018). Source Water Assessment and Protection Program (SWAP): http://www.epa.illinois.gov/topics/water-quality/swap/index.

Illinois Environmental Protection Agency (May 29, 2018). Illinois Uniform Environmental Covenants Act (UECA) Registry: http://epa.illinois.gov/topics/cleanup-programs/ueca/registry/index.

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Illinois State Geological Survey, Environmental Site Assessments section (2008). Summary of SEMS sites in Illinois (draft). Illinois State Geological Survey.

Illinois State Geological Survey, Environmental Site Assessments section (2008). Summary of landfill sites in Illinois (draft). Illinois State Geological Survey.

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Killey, M.M., Hines, J.K., and DuMontelle, P.D. (1985). Landslide inventory of Illinois. Illinois State Geological Survey Circular 534. GIS data produced from Plate 1 (1995).

Kolata, D.R. (2005). Bedrock geology of Illinois. Illinois State Geological Survey Illinois Map 14.

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Manufacturers' News, Inc. (1990, 1994, 1996, 2000, 2001, 2002, 2003). Illinois manufacturers directories.

Markhurd Corporation aerial photographs: Line 46, IL 479 (1988, 1993).

Meyer, C. (1851). Map of Madison County, Illinois.

Miao, X., Lasemi, Z., Mikulic, D.G., and Falter, M. (2016). Directory of Illinois Mineral Producers and Maps of Extraction Sites. Illinois State Geological Survey, Circular 594.

National Response Center (July 8, 2018). Emergency Response Notification System (ERNS) database: http://www.nrc.uscg.mil/.

Office of the State Fire Marshal (July 10, 2018). Underground Storage Tank (UST) database: http://webapps.sfm.illinois.gov/ustsearch/Search.aspx.

Ogle, G.A. and Company (1906). Plat maps. Madison County, Illinois.

Piskin, K. (1975). Glacial drift in Illinois: Thickness and character. Illinois State Geological Survey Circular 490. GIS data produced from Plate 1 (1994, revised 1998).

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Storm Directory Co. (1966, 1971, 1976, 1981). Alton city directories.

USDA aerial photographs: SJ-1F-111 (1949)
SJ-2P-103 (1955)
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17199 278-141 (1978)

USDA; Madison County photomosaic (1941).

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APPENDIX

ISGS PRELIMINARY ENVIRONMENTAL SITE ASSESSMENT CHECKLIST

IDOT: P98-004-13 ISGS: 2934V
City: Godfrey, Alton
County: Madison
Location Coordinates: T6N, R10W, Section 34

ISGS Lead: AMC

Task	Status*	Date	By
Original Material Copied	MF	2/22/18	ALE
IDOT Project Location Database – (All other projects/IDOT sites in the vicinity of the project)			
▸ Other Preliminary Environmental Site Assessments	MF	5/24/18	AMC
▸ Preliminary Site Investigations/Phase II Reports	NF	5/24/18	AMC
▸ Maintenance Facilities	NF	5/24/18	AMC
▸ Permit-Access Agreements	NF	5/24/18	AMC
▸ Draft Highway Authority Agreements/Highway Authority Agreements	NF	5/24/18	AMC
▸ Miscellaneous Sites	NF	5/24/18	AMC
Local Collections			
▸ County	MF	5/24/18	AMC
▸ City	NF	5/24/18	AMC
Geologic Information			
▸ ISGS Stack-Unit Map (GIS)	MF	7/5/18	AMC
▸ ISGS Glacial Drift in Illinois (GIS)	MF	7/5/18	AMC
▸ ISGS Bedrock Geology of Illinois (GIS)	MF	7/5/18	AMC
▸ USDA NRCS Soil Survey Maps	MF	7/5/18	AMC
▸ USDA NRCS Hydric Soils	NF	7/5/18	AMC
▸ USDA NRCS Prime Farmland Soils	MF	7/5/18	AMC
Hydrogeologic Information (non-CE projects only)			
▸ IEPA Restricted Status List	NA	7/5/18	AMC
▸ IEPA SWAP-IL Public Water Supplies	NA	7/5/18	AMC
▸ ISGS Wells (GIS)	NA	7/5/18	AMC
▸ ISWS Public Water Supply Surface Water Intakes in Illinois (GIS)	NA	7/5/18	AMC
▸ Potential for Aquifer Contamination Map	NA	7/5/18	AMC
▸ Potential for Aquifer Recharge Map	NA	7/5/18	AMC
Hydrogeologic Information (all projects)			
▸ IEPA SWAP Wellhead Protection	NF	7/5/18	AMC
▸ IEPA SWAP Fact Sheets /IEPA Well Site Survey Reports	NA	7/5/18	AMC
▸ Sole Source Aquifer Protection Program	NF	7/5/18	AMC
Historical Records			
▸ Aerial Photographs	MF	5/29/18	AMC
▸ USGS Topographic Maps	MF	5/29/18	AMC
▸ Plat Maps	MF	5/29/18	AMC
▸ Sanborn Fire Insurance Maps: Chadwyck-Healey Inc.	NF	5/29/18	AMC
▸ Sanborn Fire Insurance Maps: University Publications of America	NF	5/29/18	AMC
▸ Sanborn Fire Insurance Maps: Rascher Publishing Company	NA	5/29/18	AMC
▸ City Directories	MF	6/28/18	AMC
▸ Industrial Directories (optional)	MF	7/9/18	AMC
▸ IEPA-ISGS Summary of Former Manufactured Gas Plant Sites (GIS)	NF	7/10/18	AMC
▸ ISGS Draft SEMS Site Coverage (GIS)	NF	7/10/18	AMC
▸ ISGS Draft LUST Site Coverage (GIS)	NF	7/10/18	AMC
▸ ISGS Draft Landfill Site Coverage (GIS)	NF	7/10/18	AMC

Task	Status*	Date	By
Federal Records			
▸ SEMS (NPL, Active, Archived)	NF	7/10/18	AMC
▸ Mercury Site Lists	NF	5/29/18	AMC
▸ RCRA CORRACTS	NF	7/10/18	AMC
▸ RCRA Non-CORRACTS TSD Facilities	NF	7/10/18	AMC
▸ RCRA (Other)	NF	7/10/18	AMC
▸ ERNS	NF	7/10/18	AMC
▸ Brownfields Pilot Sites	NF	5/29/18	AMC
▸ Toxics Release Inventory	NF	7/10/18	AMC
▸ SSTS	NF	7/10/18	AMC
▸ PCB Transformer Registration Database/PCB Activity Quarterly Reports	NF	5/29/18	AMC
USEPA Information Request			
▸ Sent	No	5/29/18	AMC
▸ Received	No	5/29/18	AMC
State Records			
▸ IEPA Brownfields	NF	5/29/18	AMC
▸ IEPA Bureau of Land Inventory	NF	7/10/18	AMC
▸ IEPA Illinois Water Quality Reports	NA	5/29/18	AMC
▸ IEPA LUST	NF	7/10/18	AMC
▸ IEPA Site Remediation Program	NF	7/10/18	AMC
▸ OSFM UST	NF	7/10/18	AMC
▸ IEMA non-LUST Incidents/IEPA OER lists	NF	7/10/18	AMC
▸ Activity and Use Limitations (AULs)	MF	7/6/18	AMC
▸ Groundwater Ordinances	MF	7/6/18	AMC
▸ Cook County Bridge List	NA	5/24/18	AMC
▸ IDOT Bridge List	NF	5/24/18	AMC
▸ Landfills (GIS)	NF	7/10/18	AMC
▸ State Underground Injection Control Inventory	NF	5/24/18	AMC
IEPA BOL Information Request			
▸ Sent	Yes	5/29/18	AMC
▸ Received	Yes	6/7/18	BLH
OSFM Information Request			
▸ Sent	Yes	5/29/18	AMC
▸ Received	Yes	6/7/18	AMC
Local Records			
▸ Municipal Records (optional)	NA	6/28/18	AMC
Mining Maps and Publications			
▸ ISGS Quadrangle/County On-Line Coal Maps and Directories	NF	7/5/18	AMC
▸ ISGS Non-Coal Underground Mines	NF	7/5/18	AMC
▸ Lead Mining	NA	7/5/18	AMC
Oil and Gas Information			
▸ ISGS Oil and Gas Fields/Oil Wells (ILOIL GIS)	NF	5/29/18	AMC
▸ USDOT OPS Pipeline Integrity Management Mapping Application	NF	5/29/18	AMC
Natural Hazards			
▸ USGS Seismic Risk Map	NF	7/5/18	AMC
▸ ISGS Landslide Inventory (GIS)	NF	7/5/18	AMC
▸ Karst Terrains and Carbonate Rocks of Illinois Maps	MF	7/5/18	AMC

* MF = Material found within search radius; NF = Nothing found within search radius; NA = Not applicable

Date of Records Review Completion: July, 10, 2018

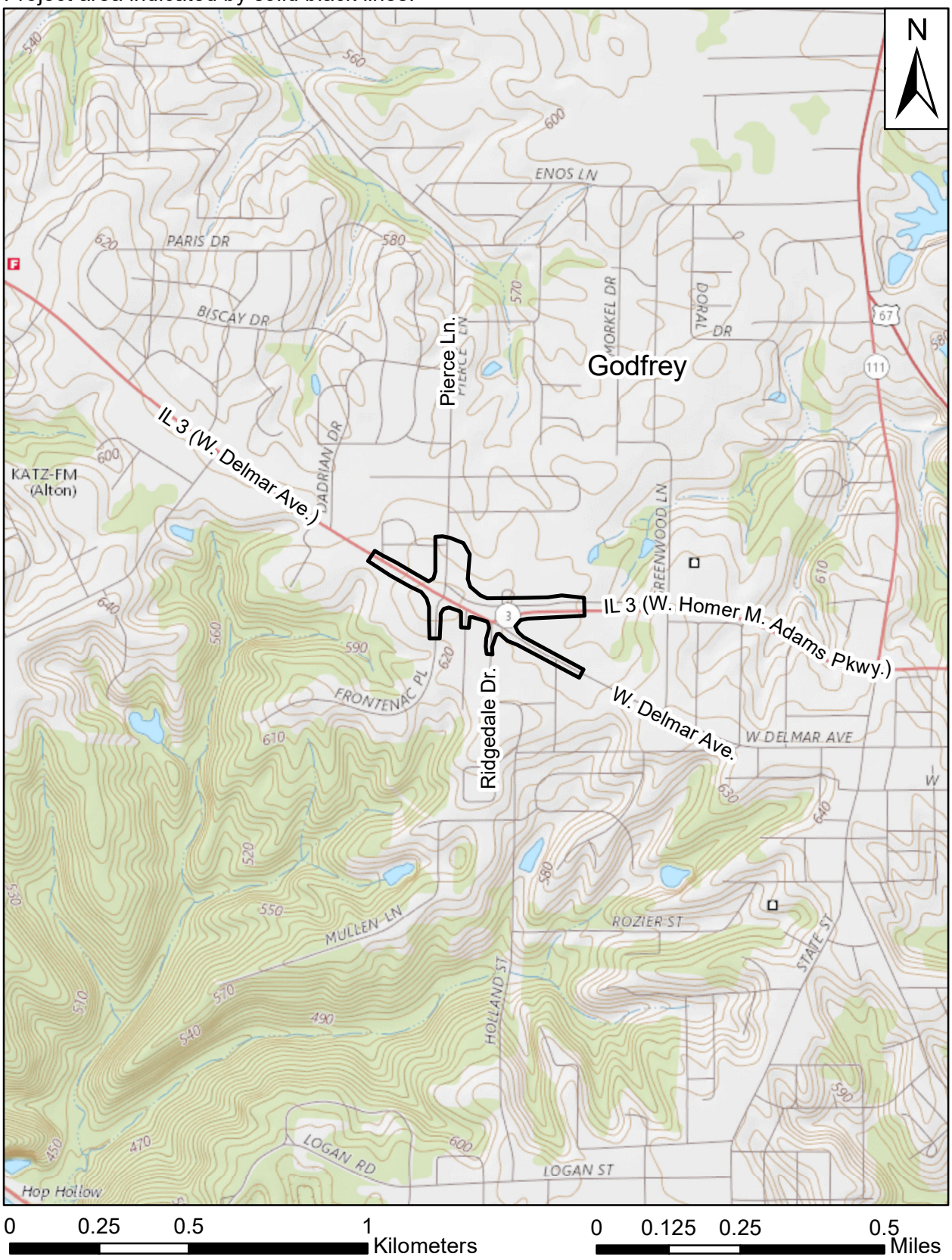
LIST OF ATTACHMENTS

1. Project location map, ISGS #2934V.

2. Site location maps (3 pages).

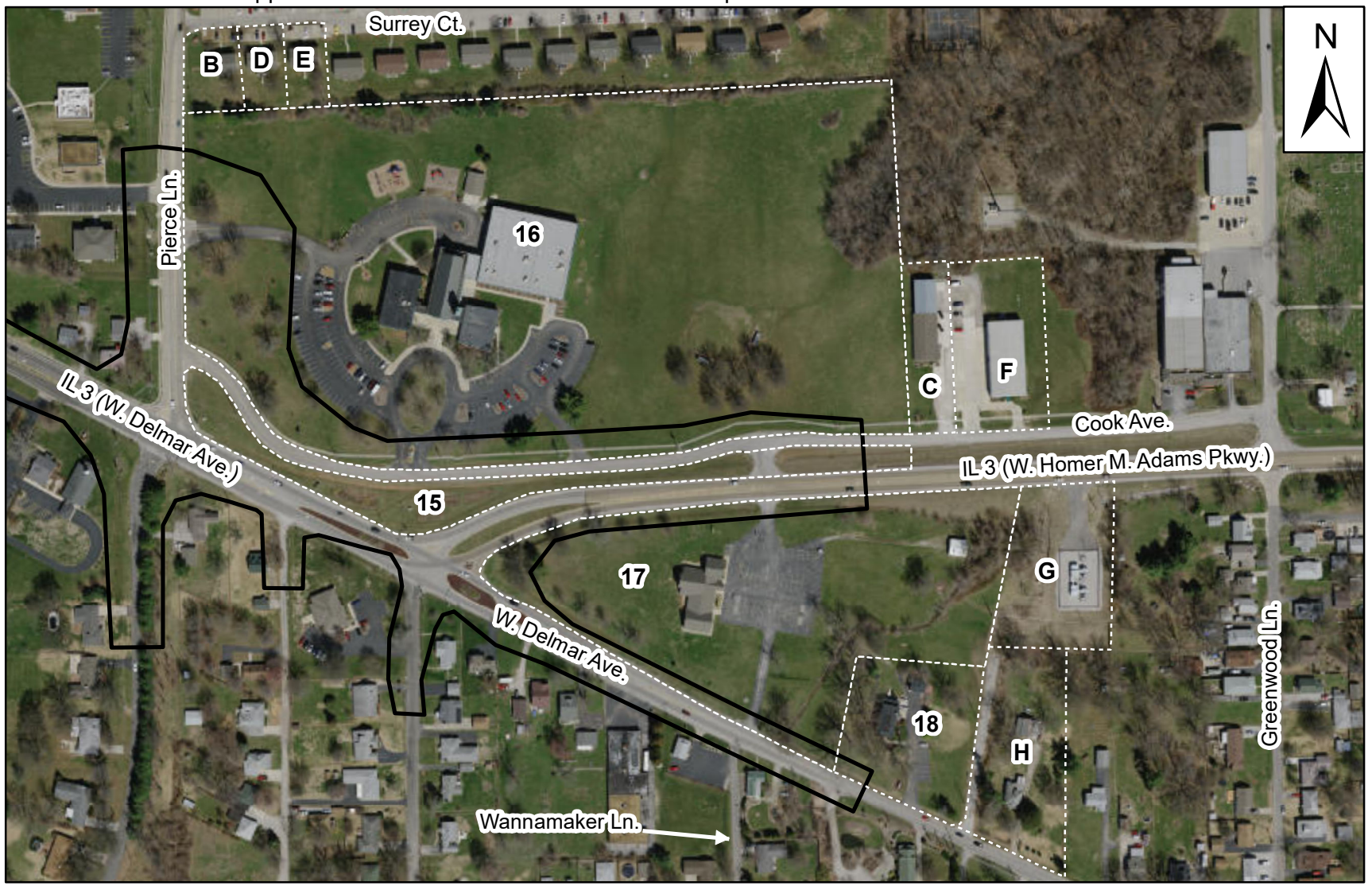
3. Sites 2934V-9 through 2934V-11, 2934V-15 through 2934V-29, and 2934V-A through 2934V-AA. Area of groundwater ordinance.

Attachment 1. Project location map, ISGS #2934V.
Project area indicated by solid black lines.

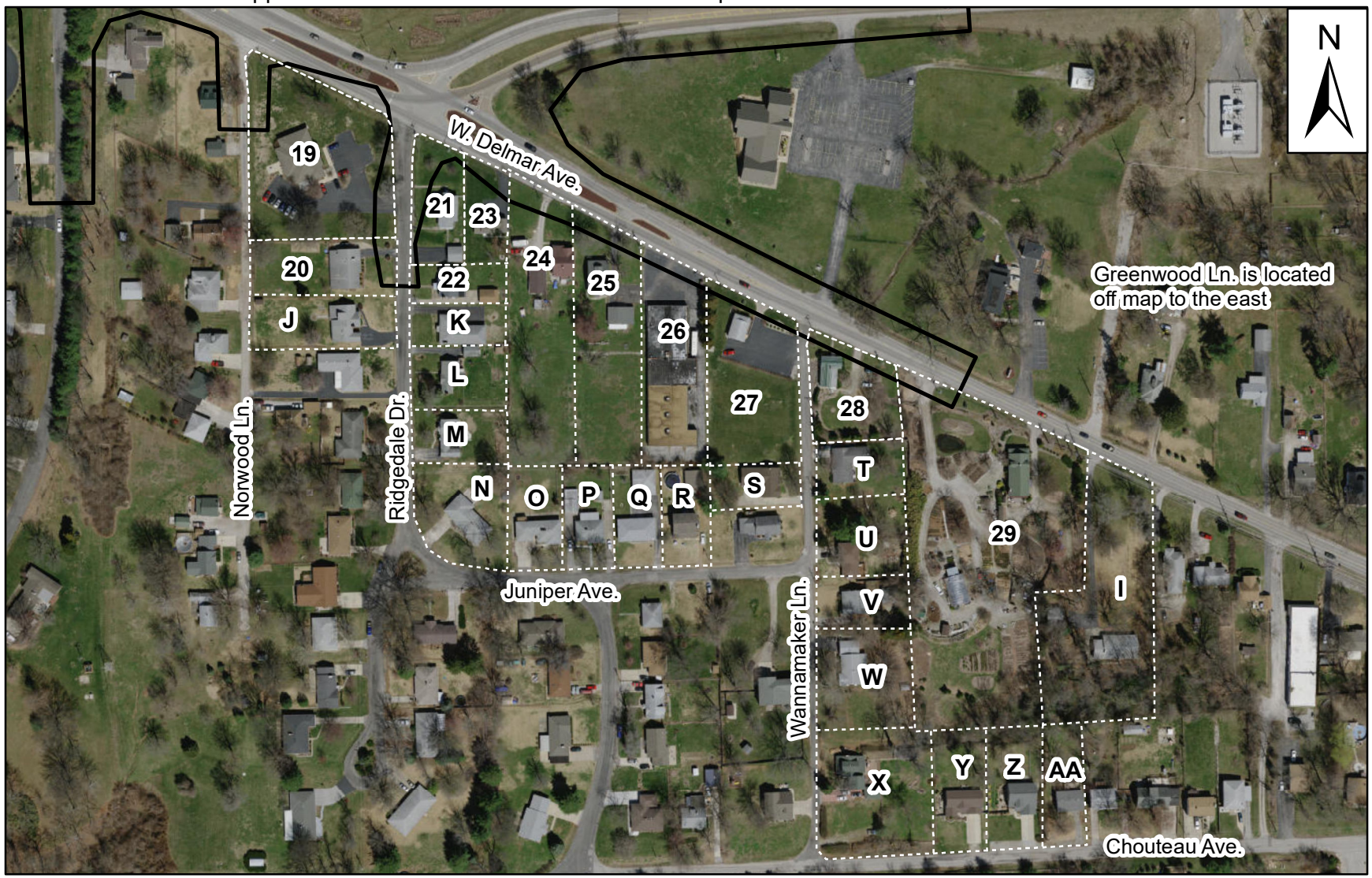


Attachment 2, page 1. Site location map, Sites 2934V-1 through 2934V-14.
All site boundaries are approximate and should not be used as actual parcel boundaries.

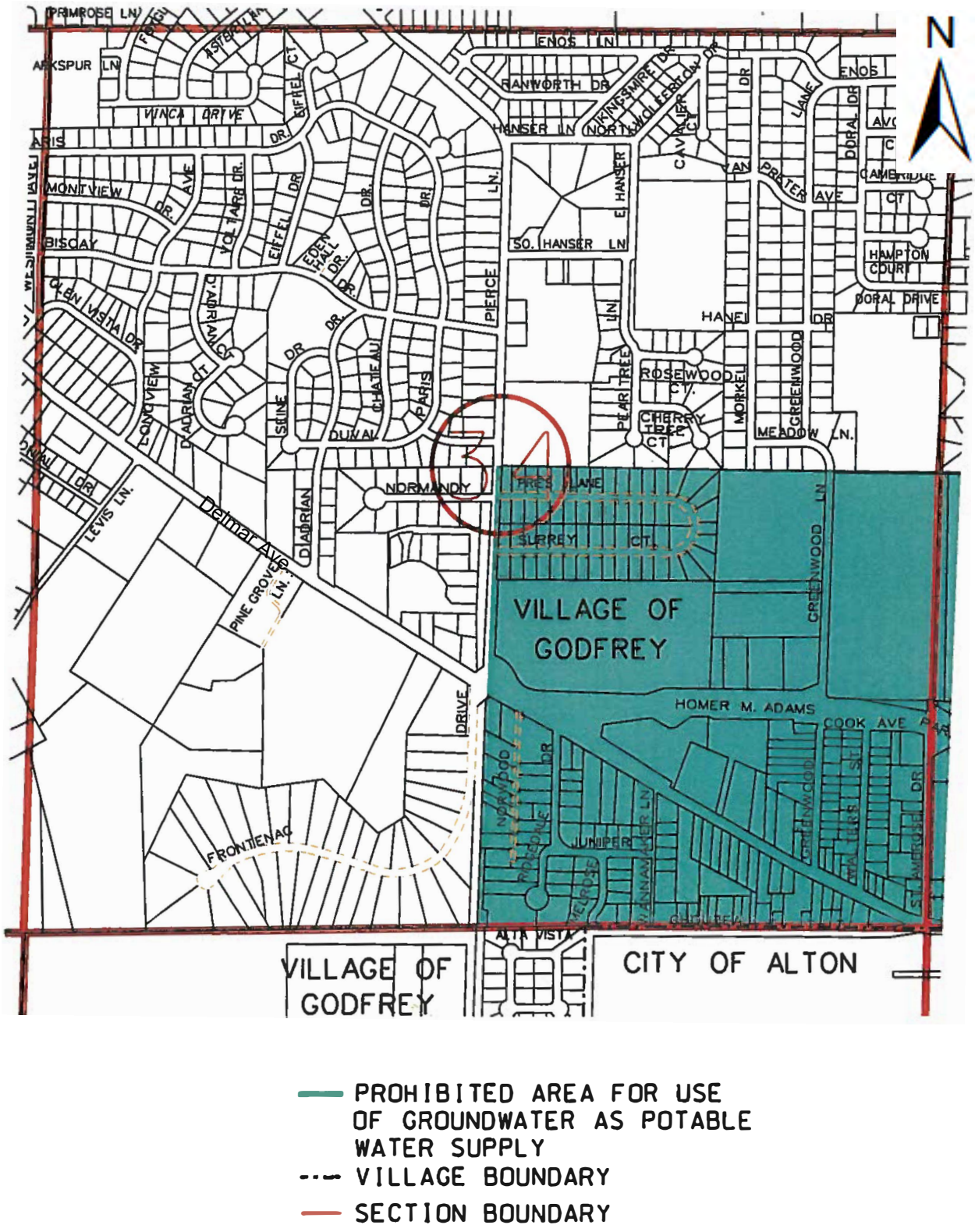
Attachment 2, page 2. Site location map, Sites 2934V-15 through 2934V-18.
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 2, page 3. Site location map, Sites 2934V-19 through 2934V-29.
All site boundaries are approximate and should not be used as actual parcel boundaries.



Attachment 3. Sites 2934V-9 through 2934V-11, 2934V-15 through 2934V-29, and 2934V-A through 2934V-AA. Area of groundwater ordinance. Map author unknown. Not to scale. North arrow and additional street names added by ISGS.



Agenda Item 7

FAU 8955/ FAU 8956 (IL Route 3)
(IL Route 3 at W. Delmar and at Pierce Lane)
Madison County

December 19, 2018

This project was previously discussed at the April 5, 2017 monitoring meeting. This project was presented to get BDE concurrence on the clear zone policy and the suggested design.

Due to the design year ADT and design speed, the suggested 1V:6H or flatter front slope clear zone for the frontage road (Cook Street) north of IL Route 3 is 10 to 12 feet. The proposed front slope on Cook St. at Sta. 106+50 is 1V:3H. Because this front slope is non-recoverable, a clear run-out width is required. The clear zone for the 1V:6H front slope of 10 to 12 feet is applied per BDE policy. Also, the width of the non-recoverable 1V:3H slope is not considered as part of the clear zone. Because the distance between the back of curb on Cook Street and the back of curb on the IL Route 3 WB free-flow RTL is 16 feet, guardrail will be required to protect the clear zone and prevent vehicles on Cook Street from driving over the curb and conflicting with vehicles on the IL Route 3 WB free-flow RTL.

The back slope clear zone for vehicles traveling on the IL Route 3 WB free-flow RTL is 10 feet for back slopes 1V:3H or flatter and 5 feet for back slopes steeper than 1V:3H. This clear zone is attainable due to the 16 feet. distance between the back of curb on Cook Street and the back of curb on the IL Route 3 WB free-flow RTL.

BDE concurred with the clear zone policy and the suggested design.

The District requested concurrence that this project is a non-exempt project for Air Quality. BDE concurred that this project is non-exempt. This project will be processed as a State Approved Categorical Exclusion. BDE and FHWA concurred.

Matt Meyer

PESA Response/Work Order

Attention: Central Office BD&E
Environment Section
Special Waste Unit
Room 330

Submittal Date: 02/15/2018 **Sequence No:** 18539 A
District: 8 **Requesting Agency:** DOH **Project No:**
Contract #: 76F84 **Job No.:** P- 98-004-13
Counties: Madison
Route: FAU 8956 **Marked:** IL Route 3
Street: IL 3 (West Delmar) **Section:** 60R-1
Municipality(ies): **Project Length:** 0.6437 **km** 0.4 **miles**
FromTo (At): 1000 feet west of Pierce Lane to 800 feet east of Ridgedale Drive
Quadrangle: Alton **Township-Range-Section:** T6N - R10W - Sec 34
Anticipated Design Approval: 8/20/2018 **Anticipated Letting Date:** 01/20/2023

PESA Response **PESA Number:** **Submittal Date:** 04/25/2020

Action Taken by District:

- ☐ **District will not need ROW from the contaminated property**
- ☐ **Avoid Site**
- ☐ **Excavation will not exceed recommended depths**
- ☐ **Further Investigation**
- ☑ **Other - Use Comments Section** 04/25/2020

Comments: The following sites containing REC's may be impacted during construction activities: 2934V-2, 2934V-4, 2934V-7, 2934V-9, 2934V-10, 2934V-11, 2934V-15, 2934V-16, 2934V-17, 2934V-18, 2934V-19, 2934V-20, 2934V-21, 2934V-22, 2934V-23, 2934V-24, 2934V-25, 2934V-26, 2934V-27, 2934V-28, 2934V-29

Contact Person: Brian Macias **Telephone:** (618) 346-3144 ext.

Work Order **Submittal Date:** 04/25/2020

Project Description: Addendum being submitted for an updated PESA report

Survey Type: ☐ **Potential Waste Site(s)** ☑ **UST-LUST** ☑ **Miscellaneous and Testing**

Reason Why Site(s) Cannot Be Avoided: Excavation for proposed intersection reconstruction

Property to be surveyed is owned by IDOT:

Property Owner/Tenants has been notified of future survey by certified letter:

Illinois Department of Transportation

PESA Response / PSI Work Order

E-mail | Reset Form

District	County	Municipality	Route	Marked	Street	Project Location To/From	Work Description
8	Madison		FAU 8955/FAU 895	IL 003		IL 3 @ W Delmar IL 3 @ Pierce Ln	Intersection Reconstruction

Requesting Agency	Letting Agency	IDOT Job Number	Contract Number	Section Number	BDE Sequence Number	ISGS PESA Number	Anticipated Letting Date	PS&E Date	Submittal to BDE Date
DOH	DOH	P-98-004-13	76F84	60R-2	18539A	2934V	01/20/23	10/21/22	04/25/20

Form Preparer - Title, Organization, Phone	Others Involved (Names, Title, Organization, Phone)	Additional Information
Brian Macias, Sr. Env. Specialist, IDOT D8, 618-346-3144	Matt Meyer, Project Engineer, IDOT D8, 618-346-3160	Project letting date may be moved up, depending on district funding

Property Identification		BDE USE ONLY FOR RMP PROJECTS		RECs		Regulatory Issues		ROW Acquisition or Easement				Proposed Construction			Estimated Volume of Soil Excavation (CY)	Notes
Parcel Name, as identified in the PESA, (include street address when available)	Site ID PESA#	BDE Classification	BDE Notes	(Yes/ No)	If Yes, describe RECs	Possible UST(s)	Regulatory Program	ROW Partial Take	ROW Full Take	Temporary Easement	Permanent Easement	Construction Activity on or adjoining (list all)	Stationing (From / To) (include off-sets)	Max Depth of Excavation (feet)		
Morningside of Godfrey	2934V-2			Yes	AST; transformer; potential ACM and lead paint	No	None	No	No	No	Yes	Excavation for intersection reconstruction	866+48 to 866+72	10	0.0	
Elias, Kallal and Schaaf Funeral Home	2934V-4			Yes	Potential chemical use; potential ACM and lead pain	No	None	No	No	Yes	No	Excavation for intersection reconstruction	873+62 to 874+32	10	0.0	
Residence	2934V-7			Yes	Potential UST(s); potential former chemical use; potential ACM and lead paint	Yes	None	Yes	No	Yes	Yes	Excavation for intersection reconstruction	875+13 to 876+10	10	4.6	
Residence	2934V-9			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	Yes	Yes	Excavation for intersection reconstruction	0+76 to 1+56 30+50 to 31+00	10	5.0	
Residence	2934V-10			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	1+56 to 2+53	10	19.5	
Residence	2934V-11			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	Yes	Yes	Excavation for intersection reconstruction	29+50 to 29+86.23	10	2.0	
ROW	2934V-15			Yes	Potentially impacted groundwater	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	104+00 to 111+50	10	1,803.8	
Religious/educational building	2934V-16			Yes	Potentially impacted groundwater; transformers; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	97+65 to 114+86	10	5,524.0	
Resurrection Lutheran Church	2934V-17			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	884+80 to 889+80	10	0.0	
Teena's Day Spa and Boutique	2934V-18			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	889+80 to 890+16	10	0.0	
Lawrence Newquist and Jody Schulmeister dental office	2934V-19			Yes	Potentially impacted groundwater; transformer; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	2+67 to 4+80	10	32.9	
Residence	2934V-20			Yes	Potentially impacted groundwater; transformer; potential ACM and lead paint	No	AUL	No	No	Yes	No	Excavation for intersection reconstruction	50+50 to 51+30	10	0.0	

Parcel Name, as identified in the PESA, (include street address when available)	Site ID PESA#	BDE Classification	BDE Notes	(Yes/ No)	If Yes, describe RECs	Possible UST(s)	Regulatory Program	ROW Partial Take	ROW Full Take	Temporary Easement	Permanent Easement	Construction Activity on or adjoining (list all)	Stationing (From / To) (include off-sets)	Max Depth of Excavation (feet)	Volume of Soil Excavation (CY)	Notes
Residence	2934V-21			Yes	Potentially impacted groundwater; transformer; potential ACM and lead paint	No	AUL	Yes	No	Yes	No	Excavation for intersection reconstruction	51+00 to 52+83	10	33.5	
Residence	2934V-22			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	No	No	Yes	No	Excavation for intersection reconstruction	50+80 to 50+97	10	0.0	
Residence	2934V-23			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	No	No	Yes	No	Excavation for intersection reconstruction	883+80 to 884+30	10	9.8	
Residence	2934V-24			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	No	No	Yes	No	Excavation for intersection reconstruction	884+30 to 885+34	10	5.2	
Residence	2934V-25			Yes	Potentially impacted groundwater; transformer; potential ACM and lead pain	No	AUL	Yes	No	No	No	Excavation for intersection reconstruction	885+34 to 886+25	10	0.0	
Commercial building	2934V-26			Yes	Potential former chemical use; potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	No	No	Excavation for intersection reconstruction	886+25 to 887+30	10	0.0	
Macias Insurance Agency, Inc.	2934V-27			Yes	Potentially impacted groundwater; potential ACM and lead paint	No	AUL	Yes	No	No	No	Excavation for intersection reconstruction	887+30 to 888+90	10	0.0	
Residence	2934V-28			Yes	Potentially impacted groundwater; transformer; potential ACM and lead paint		AUL	No	No	No	No					No impacts
The Greenery	2934V-29			Yes	Potentially impacted groundwater; transformers; potential herbicide and/or fertilizer presence; potential ACM and lead paint	No	AUL	No	No	No	No					No impacts

Add Row

Unprotect

Total Estimated Yards 7,440.3

Highway Authority Agreements (HAA) within Construction Area

PESA Site Number	Corresponding HAA Number(s)

Add Row

Additional information that could be used to help refine the soil management strategy

Is the project expected to be a net ☐ Importer ☐ Exporter of soil? Estimated Volume

Design Contact Name

Matt Meyer

Email

Matthew.Meyer@illinois.gov

Phone

(618) 346-3160

Notes

The amount of imported/exported soil has not been determined at this time. The District will be able to provide more information once the phase II process has begun.

Notes:
-The purpose of this form is to document detailed site and construction information to allow evaluation of regulated substances within the project limits and the potential impact on workers, construction activities, and the environment. This includes the presence of regulated substances even under conditions in compliance with applicable laws.
-The form should be submitted as soon as possible in the design process, and sufficiently in advance of the PS&E date to allow sufficient time to complete the due-diligence process and prepare a special provision. Not all of the requested information may be available at the time of submittal, for example, the net soil importer/exporter section, but BDE 2735 must be filled-out as completely as possible to allow for an adequate and accurate soil evaluation. An amended Form 2735 with any new or revised design information should be forwarded to BDE as soon as it becomes available so that new information can be incorporated into the analyses.
-Every site listed in the PESA must be addressed on this form, whether construction activities are planned in that area or not.
-Also include any other area(s) of potential concern the District may know about, not otherwise identified in the PESA.
-Alert the Bureau of Design and Environment and the District Environmental Studies Unit as soon as any potential project changes is anticipated (e.g., letting date, added or deleted properties, changes to project scope, such as location, limits, excavation depths, quantities, etc.)

Regulatory Program Key				
BOL - Bureau of Land	DC - Dry Cleaner	RAD - Radioactive	SEMS/NPL - Superfund Enterprise Management System/National Priorities List	SRP - Site Remediation Program
LF - Landfill	RCRA - Resource Conservation Recovery Act	UST - Underground Storage Tan	Other	

Instruction Sheet

Completion of the PESA Response / Work Order Form is the responsibility of the District Special Waste Coordinator, or equivalent personnel for local roads projects. This form is to be filled out completely. If a PESA site will be avoided, or no construction activity is planned, indicate that in the notes section. This is a checks and balance system to verify that sites are not missed. This form should be saved in a PDF format and sent electronically to BDE with supporting documentation including: 1) a site location map that clearly defines the extent of the work area (aerial or topographic maps), 2) plan sheets (to scale) depicting the planned construction areas, 3) other pertinent information not included in this form.

1. **District**	Indicate the IDOT District number that the work will be completed using drop-menu.
2. **County**	Indicate the county where the work will be completed using drop-menu.
3. **Municipality**	Indicate the municipality where the work is to be completed in. If unincorporated, indicate “Unincorporated”
4. **Route**	Indicate the assigned route name (example FAP 779, FAU 7706, etc.)
5. **Marked**	Indicate the common name of the route (example Business 55, etc.)
6. **Street**	Indicate the local street name (example Lincoln Pkw/Business 55)
7. **Project Location To/From**	Indicate the description that includes the entire area of construction.
8. **Work Description**	Indicate the description of the work to be completed. Provide adequate detail.
9. **Requesting Agency**	Indicate using drop-menu whether Department of Highways (DOH), Local Roads (Local), or Safety.
10. **Letting Agency**	Indicate using drop-menu whether Department of Highways (DOH(, Local Roads (Local), Capital Development Board (CDB) or to be determined (TBD).
11. **IDOT Job Number**	Indicate the 8-digit IDOT job number (alpha-numeric) assigned to the project.
12. **Contract Number**	Indicate the 5-digit alpha-numeric contract number(s) for the project. If there are multiple contract numbers, please indicate each contract number, separated with a comma(,).
13. **Section Number**	Indicate the road section number applied to the route that construction work will be completed on.
14. **BDE Sequence Number**	Indicate the BDE Sequence Number assigned to the project.
15. **ISGS PESA Number**	Indicate the Illinois State Geologic Survey PESA number for the associated project.
16. **Anticipated Letting Date**	Indicate the anticipated letting date. Please note, if the letting date is changed for any reason, please notify BDE of the change.
17. **PS&E Date**	Indicate the Illinois State Geologic Survey PESA number for the associated project.
18. **Submittal Date**	Indicate the date PESA Response/Work Order Form is submitted to the Bureau of Design and Environment (BDE)
19. **Form Preparer, Title, Organization, Phone**	Indicate the name of the person who filled out this form. Also, if the person is not an IDOT employee, please indicate the organization that employs this person. This information is important if there are questions or corrections that are needed.
20. **Others Involved (Names, Tittle, Organization, Phone)**	Indicate the name, title, organization and phone number of others that may play a prominent role in the project, but did not fill out BDE 2735.
21. **Additional Information**	Indicate any additional information that may be pertinent to the project.
22. **Property Identification**	Provide the parcel name, as identified in the PESA. Include the street address , as listed in the PESA.
23. **PESA Site #**	Indicate the PESA Site Number as it appears in the PESA report
24. **BDE Classification**	To be used by BDE ONLY for risk management projects. Drop-down menu based on Section 669 of the Spec. Book.
25. **BDE Notes**	To be used by BDE ONLY for risk management projects. Description of rationale for BDE Classification. Form to be returned to District for RPM projects only.
26. RECs?	
Yes/No	Indicate whether the site has a REC called out in the PESA
If Yes / Described RECs	Describe the RECs, as indicated in the PESA for each individual site. This information can be copied and pasted from the PDF version of the PESA Report, Table 1.
27. **Possible UST(s)/Other Remedial Program?**	Indicate YES or NO from the drop-down menu if underground storage tanks (USTs) or other regulatory concerns were present, historically removed or suspected in the PESA or if there is institutional knowledge of USTs or other regulatory concerns at the site.
28. **Regulatory Program**	If Section 27 is Yes, use drop-down menu to select appropriate regulatory issue. If Section 27 is No, leave blank.
29. ROW Acquisition or Easement	
ROW Partial Take	Indicate YES or NO regarding a Right-of-Way Partial Take
ROW Full Take	Indicate YES or NO regarding a Right-of-Way Full Take
Temporary Easement	Indicate YES or NO if a temporary easement is needed for this project
Permanent Easement	Indicate YES or NO if a permanent easement is needed for this project
30. Proposed Construction	
Construction Activity (List All)	List all construction activities that will be completed on or adjacent to the REC site. It is acceptable to use separate rows (see example sheet) if multiple activities are planned.
Stationing (From / To)	Indicate the stationing (to the nearest 1 foot), including applicable offsets for each construction activity (see the example sheet for clarification)
31. **Maximum Depth of Excavation (feet)**	Indicate the maximum depth of excavation planned for each phase of the project. Use a separate line if multiple depths are planned within **(feet)** the same work area. (see example sheet)
32. **Estimated Volume of Soil Excavation (cy)**	Indicate the estimated volume of soil that is to be excavated to complete each task of the planned work.
33. **Notes**	Indicate any project related information that would be beneficial to BDE, Statewide Contractors or Prime Contractors regarding the anticipated scope of work, known RECs or site conditions.
34. **Attachments**	Attach drawings to all submittals showing the area of construction and activities to be completed. The drawings should be submitted in a format directed by the District (CADD, MicroStation, PDF, etc.)

EROSION AND SEDIMENT CONTROL ANALYSIS FORM

1. Will the project involve soil disturbance of 1 acre or more? (*If "yes," the project must comply with NPDES permit requirements.*) ☒ YES. ☐ NO.

2. Identify by station the location of bridges and culverts and indicate the anticipated size of each.

Location	Culvert	Notes
IL 3 South Sta. 17+00 LT	1 existing 18" RCP	Will remain in place
IL 3 South Sta. 17+00 RT	1 existing 15" CMP	Will be replaced
IL 3 South Sta. 17+00 RT	1 proposed 24" CMP	
Delmar Sta. 889+00 LT	1 existing 15" CMP	Will be replaced
Delmar Sta. 889+00 LT	2 proposed 18" RCP	
Norwood Sta. 42+93 RT	1 existing 12" CMP	Will be replaced
Norwood Sta. 42+93 RT	1 proposed 12" RCP	
Detention Pond east Pierce	2 proposed 12" RCP	

3. Indicate the type and identify the location (by station) of any resources requiring special consideration for protection from sedimentation (e.g., wetlands, endangered and threatened species locations, other resources involving special commitments for protection).

   REC Sites - Within the project vicinity, 21 REC sites were identified in this report consisting of 7 commercial, 11 residential, 1 vacant and 2 religious/ educational properties. The contaminants identified within these REC sites are above ground storage tanks, transformer, potential asbestos-containing material, lead paint, potential former chemical use, and potential impacted ground water.

   REC Site Impacts – cubic yards

Site 8 - 8.3	Site 10 – 19.5	Site 19 – 32.9
Site 21 – 33.5	Site 23 – 9.8,	Site 24 – 5.2
Site 16 – 5,525	Site 7 – 4.6	Site 12 – 15.8
Site 13 - 43		

   The majority of impacts will be to Site 16, which is the Evangelical Church/ School. Excavation is required on this property to realign Cook St. and the Pierce Lane access to this property.

4. Describe or indicate on a figure the drainage areas, and soil types in locations of the project to be affected by clearing and grubbing, excavation, or placement of embankment.

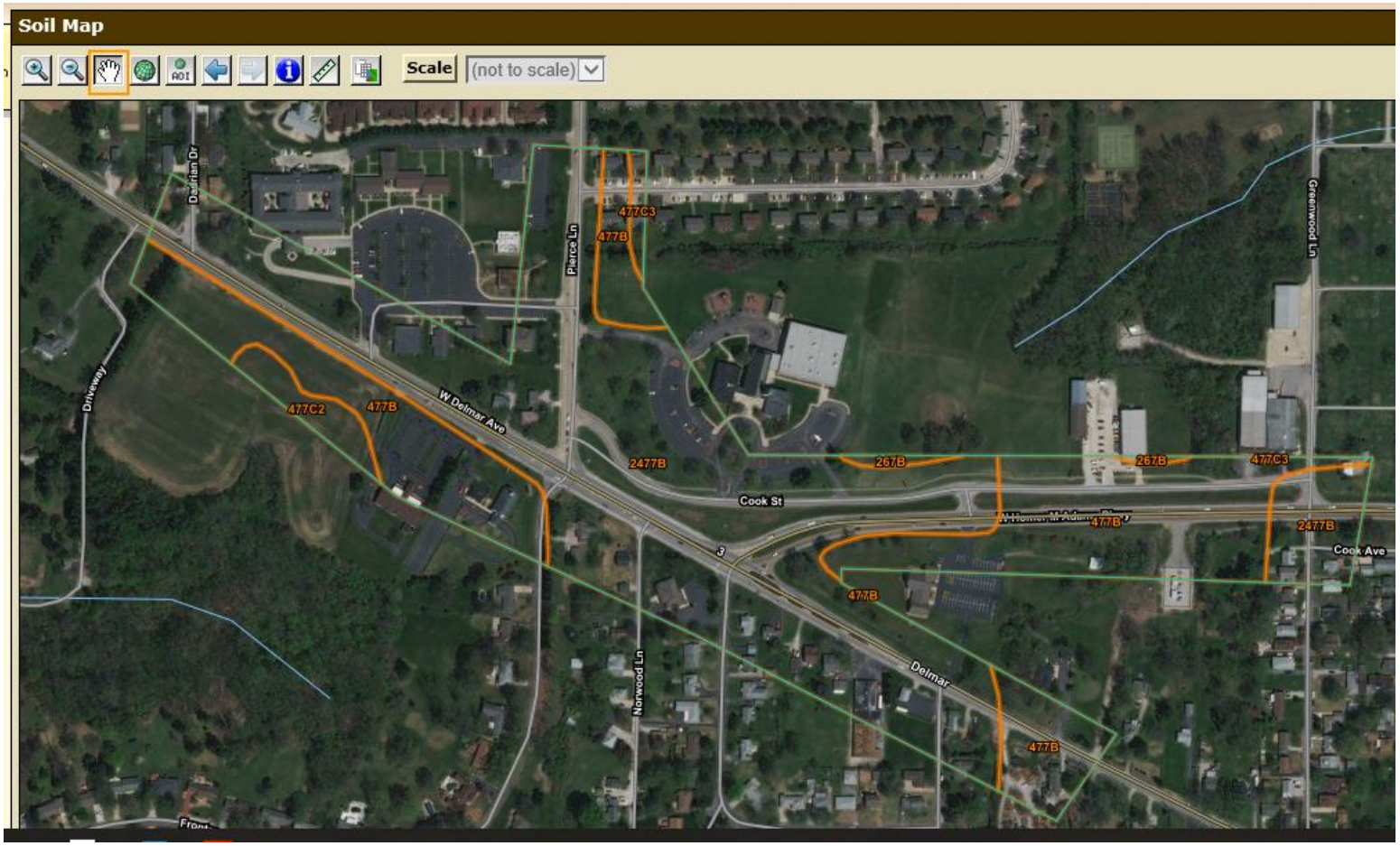
   SOIL TYPES

   267B Caseyville silt loam – 2 to 5 % slopes
   477B Winfield silt loam – 2 to 5% slopes
   477C2 Winfield silt loam – 5 to 10% slopes eroded
   477C3 Winfield silty clay loam – 5 to 10% slopes, severely eroded

2477B Windfield-Orthents-Urban-land complex – 2 to 8% slopes

5. Describe or indicate on a figure the locations in which routine practices such as ditch checks and perimeter silt fence will be used and indicate the type and location of other, non-routine practices for use.

   Routine practices such as ditch checks and perimeter silt fences will be used to control sediment and erosion throughout the project limits.



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
267B	Caseyville silt loam, 2 to 5 percent slopes	0.2	0.5%
477B	Winfield silt loam, 2 to 5 percent slopes	15.2	33.0%
477C2	Winfield silt loam, 5 to 10 percent slopes, eroded	1.0	2.1%
477C3	Winfield silty clay loam, 5 to 10 percent slopes, severely eroded	0.3	0.7%
2477B	Winfield-Orthents-Urban land complex, 2 to 8 percent slopes	29.3	63.6%
Totals for Area of Interest		**46.1**	**100.0%**

FEMA FLOOD MAP

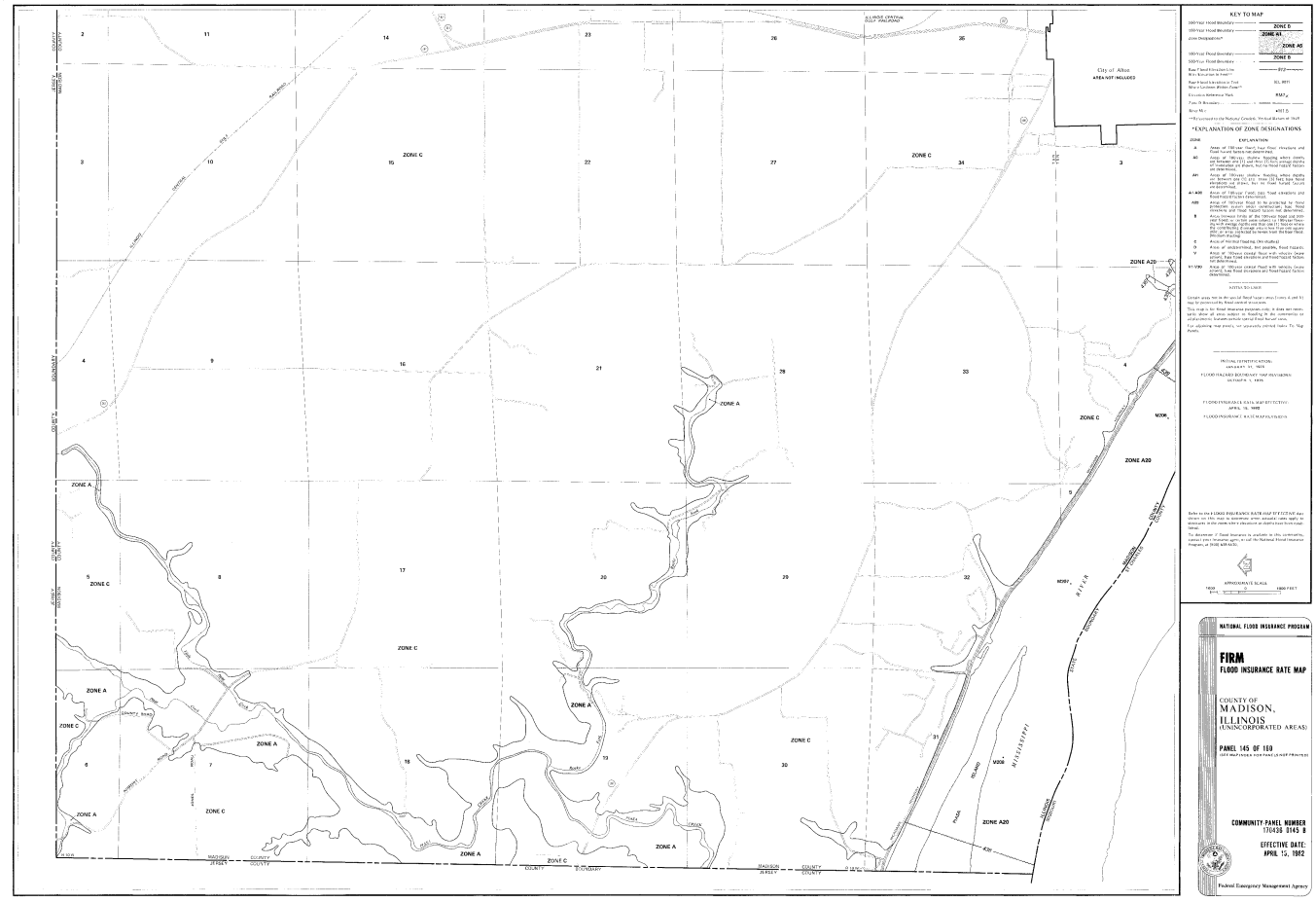


EXHIBIT M – TRAFFIC MANAGEMENT ANALYSIS

TRAFFIC MANAGEMENT ANALYSIS

FAU Route 8955 & FAU Route 8956
(IL Route 3 at Delmar Avenue & Pierce Lane)
Section 60R-1
Contract No. 76F84
Job #: P-98-071-13
PTB 169-036

Madison County, Illinois

January 2021

PREPARED FOR:

Illinois Department of Transportation

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 8
1102 EASTPORT PLAZA DRIVE
COLLINSVILLE, IL 62234

SUBMITTED BY:

TWM

THOUVENOT, WADE & MOERCHEN, INC.
4940 OLD COLLINSVILLE ROAD
SWANSEA, IL 62226
618-624-4488

Table of Contents

List of Attachments

I. EXECUTIVE SUMMARY

The project is situated along Illinois Route 3 at the signalized intersections with Pierce Lane and Delmar Avenue, located in Godfrey, Illinois (See Attachment 01 – Location Map). IL Route 3 is known as West Homer M. Adams Parkway (HAP) from its intersection with West Delmar Avenue to the east and known as West Delmar Avenue (WDA) from this intersection to the west.

In its current state, IL Route 3 is functionally classified as a minor arterial. Pierce Lane and Delmar Avenue are functionally classified as major collectors while Ridgedale Drive is classified as a minor collector. All other roadways within the area are functionally classified as local roads. IL Route 3 is classified as a Class II truck route. IL Route 3 and the subject intersections are under the jurisdiction of the Illinois Department of Transportation.

The various sections of roadway within the project limits consist of a mixture of urban and rural typical sections (See Project Report Exhibits for Existing Typical Sections).

The scope of work consists of the reconstruction of the two signalized intersections as roundabout intersections. Additionally, the adjacent frontage road, Cook Street, will be reconstructed in order to accommodate the proposed geometry of the new dual roundabout intersection configuration. Generally, the reconstructed sections of roadway will be an “urban” section with curb and gutter and raised median separating opposing traffic (See Project Report Exhibits for Proposed Typical Sections).

The purpose of this traffic management analysis is to investigate how to best manage traffic during the construction of the project, including the development of potential alternate routes for local traffic when access cannot be maintained.

After considering various staging alternatives it was determined that staged construction is feasible, without the need to detour IL Route 3 traffic, even though some side streets within the project limits will need to take alternate routes during various stages of construction. Detailed destination signage will need to be developed and installed in/around the project limits, through the various stages of construction. This signage will be needed to direct local users depending on destination.

Note that the staging concepts in this document are presented to demonstrate that the project can be built within the project right-of-way, while maintaining IL Route 3 traffic. During preparation of contract plans and specifications, detailed staging plans will be generated, which may include development of other more economical staging concepts.

II. STAGING ALTERNATIVES

The following alternatives have been considered:
Road Closure with Detour - After an evaluation of the state roadways within the project vicinity, the shortest potential detour routes for IL Route 3, which carries an average of 15,300 vehicles per day, was more than 30 miles long. A secondary evaluation of county and municipal roadways in the project vicinity did not result in any adequate routes that could reduce the

length of detour. Since there are no acceptable detour routes for IL Route 3, road closure not a viable option to construct the project.
Staged Construction – The existing facilities along with the proposed improvements were evaluated and it was determined that the project can be constructed while maintaining traffic in both directions along IL Route 3. Staged construction will, at times, require short term closures (with alternate routes) for local side streets within the project limits, however the large volume of traffic that IL Rt 3 carries would be maintained throughout construction. Therefore, staged construction is a viable option.

III. STAGES OF CONSTRUCTION (CONCEPTUAL)

The concept for construction staging is presented in order to demonstrate that the project can be built within the project right-of-way while maintaining traffic on IL Route 3. During preparation of contract plans and specifications, other more economic staging concepts may be developed.

Construction of the project will involve seven (7) separate stages of construction over an estimated 180 working days. Illinois Route 3 through traffic will be maintained in both directions throughout construction with minimum policy lane widths; however, temporary closures will be necessary for various local side roads within the project limits as shown in Attachment 03 – Alternate Routes (Conceptual). The individual stages are outlined below and shown graphically in Attachment 02 – Staging Plans.

Stage 1 Construction/Traffic

- Construct east and west portion of Cook Street, allowing the school/church traffic to utilize the central entrance to/from existing Cook Street to Pierce Lane. Ideally, this work would take place over the summer when school is not in session, otherwise it is recommended to construct the east and west sections separately as sub-stages, to minimize impacts to the school/church operations.
- Construct the east portion of Pierce Lane. Traffic will be shifted west to utilize the existing bi-directional turn lane.
- Construct north portion of IL Route 3 (HAP) from west side of east roundabout to Cook Street connector.
- Construct a small section of the east roundabout. A 100 ft section of the curb/gutter and median between the RAB and and the bypass lane should be omitted and temporary pavement installed in its place. This is necessary for later stages traffic movements.
- Lane usage similar to existing conditions, however traffic will be shifted in areas to provide adequate space to construct the improvements.
- Utilize existing traffic signals at both intersections
- Temporary concrete barrier could be considered along north side of IL Route 3 for east roundabout construction, even though it appears there should be adequate lateral distance (to be studied further during Phase 2)

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 1		Vehicle			Notes
Movement	Road Class	Policy	Max	Existing	
WB Cook LT to Pierce	Local to Collector	WB-50	Sch Bus	Sch Bus	WB-50: Back wheels encroach Staged/Existing conditions are the same
EB Prof. Park RT to Pierce	CE to Collector	SU-30	PV	PV	Staged/Existing conditions are the same
EB Prof. Park LT to Pierce	CE to Collector	SU-30	PV	PV	Staged/Existing conditions are same

Stage 1 Alternate Routes for Local Traffic

- A portion of Cook Street will be closed. Access to church/school is maintained.
- There will be no IL Route 3 detours during this stage of construction.

Stage 2 Construction/Traffic

- Construct remainder (middle section) of Cook Street. School/church traffic will utilize the new west and east entrances onto new Cook Street which will access Pierce Lane and IL Route 3 (HAP).
- Construct the WB by-pass lane section of IL Route 3 (WDA) between the two intersections and the remaining eastern portion of Pierce Lane to the north side of the west roundabout. Due to the difference between the existing and proposed profile grades, temporary pavement will be utilized at the intersection of IL Route 3 (WDA) with Pierce Lane to transition from the new pavement to the existing pavement. This temporary pavement should be constructed in a sub-stage prior to the rest of this stages work in order to utilize the temporary pavement for intersection turning movements.
- The center raised median east and west of the intersection with IL Route 3 (WDA) with Pierce Lane will be removed and replaced with temporary pavement to allow for traffic in subsequent stages.
- Lane usage similar to existing conditions, however traffic will be shifted in areas to provide adequate space to construct the improvements.
- Utilize existing traffic signals at east intersection
- Modify existing traffic signals at west intersection in order to accommodate temporary lane configuration.

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 2		Vehicle			Notes
Movement	Road Class	Policy	Max	Existing	
NB Pierce RT to Cook	Collector to Local	WB-50	SU-30	Sch Bus	Staged/Final conditions are the same. IDS shows encroachment for the WB-50
SB Pierce LT to Cook	Collector to Local	WB-50	SU-30	Sch Bus	
EB Prof. Park RT to Pierce	CE to Collector	SU-30	PV	PV	Staged/Existing conditions are the same
EB Prof. Park LT to Pierce	CE to Collector	SU-30	PV	PV	

Stage 2 Alternate Routes for Local Traffic

- A portion of Cook Street will be closed. Access to church/school is maintained.
- There will be no IL Route 3 detours during this stage of construction.

Stage 3 Construction/Traffic

- Construct WB lane of IL Route 3 (HAP) from east approach of the east roundabout to west of the east roundabout with the exception of a short section of median. Temporary pavement will be placed in this area to allow for access to/from Norwood Lane in future stages.
- Construct the east median/approach to the east roundabout.
- Construct the north part of the east roundabout.
- Construct the center section of Pierce Lane. Traffic will be shifted to the new Pierce Lane constructed in previous stage(s). The area of proposed splitter island will be constructed as temporary pavement (in a sub-stage) in order to allow traffic to navigate in later stages. Note that the work on North Pierce Lane near Cook Street (that restricts the left turn movements from Cook Street) could be completed in a sub-stage or pre-stage with a strict time restriction to minimize the time for this traffic to reroute through the D'Adrian neighborhood. A temporary traffic signal could be considered at Cook Street to assist with left turns onto Pierce Lane.
- Construct temporary pavement east side of Frontenac Place for future staged traffic.
- IL Route 3 remains open in both directions.
- Cook Street is open in both directions.
- Access will be limited depending on destination.
- Modify existing traffic signals at west intersection in order to accommodate temporary lane configuration.
- Remove existing signals at east intersection; install yield sign at W. Delmar Avenue
- Consider installation of temporary traffic signals at intersection of IL Route 3 (WDA) and D'Adrian Drive to allow locally detoured traffic to access Norwood Lane.
- Barricade Cook Street connector. Install temporary traffic signals at the intersection of Greenwood Lane and IL Route 3 (HAP)
- Temporary concrete barrier will likely be required at east roundabout construction (to be studied further during Phase 2)

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 3		Vehicle			Notes
Movement	**Road Class**	**Policy**	**Max**	**Existing**	
WB WDA RT to IL 3 (HAP)	Collector to Arterial	WB-55	WB-40	WB-40	Staged/Existing conditions are the same
SB Greenwood RT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
SB Greenwood LT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
WB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same
EB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same

Stage 3 Alternate Routes for Local Traffic

The routes presented below are meant to verify the feasibility of traffic finding alternate routes. Specific movements may require using parts of multiple alternate routes listed below. During Phase 2 plan design, detour signage will be designed for rerouting of state routes(s). Additionally, the Engineer should coordinate with the public the changes to traffic patterns in advance of any closures.

W. Delmar Avenue (no thru or LT), Ridgedale Drive (no LT), and Norwood Lane (no LT) to northbound IL Route 3 (WDA) – **3,030 ADT (2017)**

- EB W. Delmar Avenue to
- NB IL Route 111 (Godfrey Road) to
- WB IL Route 3 (HAP) to
- Westbound by-pass lane to
- WB IL Route 3 (WDA)
- Total Distance = **1.5 miles**; Duration = **25 Working Days**

W. Delmar Avenue (no thru or LT), Ridgedale Drive (not LT), Cook Street (when work on Pierce limits LT), IL Route 3 (HAP) (WB rerouted to WB bypass) to Norwood Lane – **150 ADT (2017)**

- NB Pierce Lane to
- WB Duval Drive to
- SB D'Adrian Drive to
- EB IL Route 3 (W. Delmar Avenue) to
- Norwood Lane
- Total Distance = **1.0 miles**; Duration = **25 Working Days**

Stage 4 Construction/Traffic

- Construct south side of IL Route 3 (WDA) between the west roundabout and Norwood Lane, including Norwood Lane. Construction to be sub-staged such that access to Norwood lane be maintained at all times.
- Construct the west section of Pierce Lane and construct temporary pavement at the approach to the roundabout (to taper from existing to proposed grade). The temporary pavement should be constructed in a sub-stage to utilize the pavement for intersection turning movements.
- Construct temporary pavement at the southern approach to the west roundabout, within the area of the proposed splitter island for subsequent stages.
- Construct eastbound lane of IL Route 3 at the east approach to the east roundabout.

- Construction the remainder of the east roundabout.
- Construct all of the W. Delmar Avenue improvements
- Construct all of the Ridgedale Dr. improvements
- IL Route 3 remains open in both directions.
- Cook Street is open in both directions.
- Access will be limited depending on destination.
- Modify existing traffic signals at west intersection in order to accommodate temporary lane configuration. The signal would likely be phased for each leg to have separate phase due to the geometric offsets. This will be studied further during Phase 2 to determine if intersection geometrics and turning movements can be safely accommodated with final staging layouts.
- Consider continued use of temporary traffic signals at intersection of IL Route 3 (WDA) and D'Adrian Drive to allow locally detoured traffic to access Norwood Lane.
- Continue closure of Cook Street connector and continue use of temporary traffic signals at the intersection of Greenwood Lane and IL Route 3 (HAP)
- Temporary concrete barrier will likely be required along south side of IL Route 3, east of east roundabout (to be studied further during Phase 2)
- Temporary concrete barrier will be required on west side of Pierce Lane (to be studied further during Phase 2)

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 4		Vehicle			Notes
Movement	**Road Class**	**Policy**	**Max**	**Existing**	
WB Cook RT to Pierce	Local to Collector	WB-50	WB-50	N/A	WB-50 w/ encroachment; similar to Approved IDS for final condition
WB Cook LT to Pierce	Local to Collector	WB-50	WB-50	N/A	
SB Greenwood RT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
SB Greenwood LT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
WB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same
EB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same

Stage 4 Alternate Routes for Local Traffic

The routes presented below are meant to verify the feasibility of traffic finding alternate routes. Specific movements may require using parts of multiple alternate routes listed below. During Phase 2 plan design, detour signage will be designed for rerouting of state routes(s). Additionally, the Engineer should coordinate with the public the changes to traffic patterns in advance of any closures.

W. Delmar Avenue (no access at east intersection) and Ridgedale Drive (no access to north) to IL Route 3 (WDA) or Pierce Lane – **3,800 ADT (2017)**

- W. Delmar Avenue to
- NB IL Route 111 (Godfrey Road) to
- WB IL Route 3 (HAP) to
- Westbound by-pass lane to
- WB IL Route 3 (WDA) or Pierce Lane
- Total Distance = **1.5 miles**; Duration = **45 Working Days**

Pierce Lane to W. Delmar Avenue (no access at east intersection) – **550 ADT (2017)**

- EB IL Route 3 (WDA) to
- EB IL Route 3 (HAP) to
- SB IL Route 111 (Godfrey Road) to
- W. Delmar Avenue
- Total Distance = **1.9 miles**; Duration = **45 Working Days**

Norwood Lane (no LT) to Pierce Lane – **40 ADT (2017)**

- EB IL Route 3 (HAP) to
- Greenwood Lane to
- Cook Street to
- Pierce Lane
- Total Distance = **0.9 miles**; Duration = **45 Working Days**

W. Delmar Avenue (no access at east intersection), Ridgedale Drive (no access to north) and IL Route 3 (HAP) to Norwood Lane – **150 ADT (2017)**

- W. Delmar Avenue to
- NB IL Route 111 (Godfrey Road) to
- WB IL Route 3 (HAP) to
- Greenwood Lane to
- Cook Street to
- Pierce Lane
- EB IL Route 3 (WDA)
- Total Distance = **1.7 miles**; Duration = **45 Working Days**

<u>Stage 5A Construction/Traffic</u>

- (Pre-Stage) Construct temporary pavement in sub-stages on the east side of the intersection of IL Route 3 (WDA) with Pierce Lane to allow traffic to travel eastbound on IL Route 3 (WDA).
- Construct portion of southeast quadrant of west roundabout
- Traffic will be open to two-way traffic for all travel access points with the exception of access to Frontenac Place and Pierce Lane.
- Access will be limited depending on destination.
- Frontenac will not be allowed a WB turn. A break in the traffic control of EB IL Route 3 could be studied further in Phase 2. Remove existing signals at west intersection. SB Pierce will not be allowed to traverse south across the intersection.
- Consider continued use of temporary traffic signals at intersection of IL Route 3 (WDA) and D'Adrian Drive to allow locally detoured traffic to access Norwood Lane.

- Continue closure of Cook Street connector and continue use of temporary traffic signals at the intersection of Greenwood Lane and IL Route 3 (HAP)
- Temporary concrete barrier may be required at southwest quadrant of west roundabout, at Frontenac Place (to be studied further during Phase 2)
- This stage could be accelerated with high early strength concrete and other methods.

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 5A		Vehicle			Notes
Movement	**Road Class**	**Policy**	**Max**	**Existing**	
SB Greenwood RT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
SB Greenwood LT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
WB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same
EB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same

Stage 5A Alternate Routes for Local Traffic

The routes presented below are meant to verify the feasibility of traffic finding alternate routes. Specific movements may require using parts of multiple alternate routes listed below. During Phase 2 plan design, detour signage will be designed for rerouting of state routes(s). Additionally, the Engineer should coordinate with the public the changes to traffic patterns in advance of any closures.

W. Delmar Avenue (no thru) and Ridgedale Drive (no LT) to IL Route 3 (WDA) – **3,030 ADT (2017)**

- EB W Delmar Avenue to
- NB IL Route 111 (Godfrey Road) to
- WB IL Route 3 (HAP) to
- Westbound by-pass lane to
- WB IL Route 3 (WDA)
- Total Distance = **1.5 miles**; Duration = **5 Working Days**

W. Delmar Avenue (no thru), Ridgedale Drive (no LT), Norwood Lane (no LT) and Frontenac Place (no thru or LT) to Pierce Lane – **1,000 ADT (2017)**

- EB IL Route 3 (HAP) to
- Greenwood Lane to
- Cook Street to
- Pierce Lane
- Total Distance = **0.9 miles**; Duration = **5 Working Days**

Pierce Lane (no thru or LT) to Norwood Lane and Frontenac Place – **40 ADT (2017)**

- WB Duval Drive to
- SB D'Adrian Drive to
- EB IL Route 3 (WDA)

- Total Distance = **0.5 miles**; Duration = **5 Working Days**

Pierce Lane (no thru or LT) to IL 3 eastbound, W. Delmar Avenue and Ridgedale Drive – **1,600 ADT (2017)**

- Cook Street to
- Greenwood Lane to
- IL Route 3 (HAP)
- Total Distance = **0.9 miles**; Duration = **5 Working Days**

W. Delmar Avenue (no thru), Ridgedale Drive (no LT), IL Route 3 (HAP) (WB rerouted to WB bypass), Pierce Lane (no thru or LT), and Cook Street to Norwood Lane – **150 ADT (2017)**

- NB Pierce Lane to
- WB Duval Drive to
- SB D'Adrian Drive to
- EB IL Route 3 (WDA)
- Total Distance = **1.0 miles**; Duration = **5 Working Days**

Stage 5B Construction/Traffic

- Construct the southwest quadrant of the west roundabout and construct temporary pavement west of the west roundabout to be utilized for traffic in future stages.
- Traffic will be open to two-way traffic for all travel access points.
- Access will be limited depending on destination.
- Frontenac will not be allowed a WB turn. A break in the traffic control of EB IL Route 3 could be studied further in Phase 2. SB Pierce will not be allowed to traverse south across the intersection.
- Consider continued use of temporary traffic signals at intersection of IL Route 3 (WDA) and D'Adrian Drive to allow locally detoured traffic to access Norwood Lane.
- Continue closure of Cook Street connector and continue use of temporary traffic signals at the intersection of Greenwood Lane and IL Route 3 (HAP)
- Temporary concrete barrier may be required at southwest quadrant of west roundabout, at Frontenac Place (to be studied further during Phase 2)
- This stage could be accelerated with high early strength concrete and other methods.

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 5B		Vehicle			Notes
Movement	Road Class	Policy	Max	Existing	
SB Greenwood RT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
SB Greenwood LT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
WB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same
EB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same

Stage 5B Alternate Routes for Local Traffic

The alternate routes for stage 5B will be the same as stage 5A. Construction duration is estimated to be 8 working days.

Stage 5C Construction/Traffic

- Construct the remaining portion of the west roundabout and associated splitter islands on IL Route 3. Construct the truck apron in a sub-stage to utilize this pavement for the design vehicle movement.
- Frontenac Place, Norwood Lane, Ridgedale Drive and W. Delmar Avenue will need to travel eastbound to Greenwood Lane to access Cook Street for the WB users.
- Traffic will be open to two-way traffic for all travel access points with the exception of access to Frontenac Place. Access to Pierce Lane will be via the east roundabout and the temporary pavement constructed between the roundabout lane and the bypass lane.
- Access will be limited depending on destination.
- Consider continued use of temporary traffic signals at intersection of IL Route 3 (WDA) and D'Adrian Drive to allow locally detoured traffic to access Norwood Lane.
- Continue closure of Cook Street connector and continue use of temporary traffic signals at the intersection of Greenwood Lane and IL Route 3 (HAP)

Turning movements were evaluated and areas that did not appear to meet policy are shown below. Several areas, as noted on the plan exhibits, require temporary and/or permanent pavement to be built during a pre-stage or sub-stage so it can be utilized for maintenance of traffic. During Phase 2, turning movements should be reevaluated to determine final staging layout(s) and to determine the limits of any sub-stage or pre-stage work that may be required:

Stage 5C		Vehicle			Notes
Movement	Road Class	Policy	Max	Existing	
EB IL 3 through W RAB	Arterial to Arterial	WB-65	WB-65	WB-65	Utilize Truck Apron (built in sub-stage)
SB Greenwood RT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
SB Greenwood LT to IL 3 (HAP)	Local to Arterial	WB-50	SU-30	SU-30	Staged/Existing conditions are the same
WB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same
EB IL 3 (HAP) RT to Greenwood	Arterial to Local	WB-50	WB-40	WB-40	Staged/Existing conditions are the same

Stage 5C Alternate Routes for Local Traffic

The routes presented below are meant to verify the feasibility of traffic finding alternate routes. Specific movements may require using parts of multiple alternate routes listed below. During Phase 2 plan design, detour signage will be designed for rerouting of state routes(s). Additionally, the Engineer should coordinate with the public the changes to traffic patterns in advance of any closures. Additionally, the Pierce Lane alternate route along Cook Street will need to be coordinated with the Village of Godfrey.

W. Delmar Avenue (no thru) and Ridgedale Drive (no LT) to IL Route 3 (WDA) – **3,030 ADT (2017)**

- EB W Delmar Avenue to

- NB IL Route 111 (Godfrey Road) to
- WB IL Route 3 (HAP) to
- Westbound by-pass lane to
- WB IL Route 3 (WDA)
- Total Distance = **1.5 miles**; Duration = **12 Working Days**

W. Delmar Avenue (no thru), Ridgedale Drive (no LT), Norwood Lane (no LT) and Frontenac Place (no thru or LT) to Pierce Lane – **1,000 ADT (2017)**

- EB IL Route 3 (HAP) to
- East roundabout to
- Bypass Lane via temp pavement to
- Pierce Lane
- Total Distance = **0.2 miles**; Duration = **12 Working Days**

Pierce Lane (no thru or LT) to Norwood Lane and Frontenac Place – **40 ADT (2017)**

- WB Duval Drive to
- SB D'Adrian Drive to
- EB IL Route 3 (WDA)
- Total Distance = **1.0 miles**; Duration = **12 Working Days**

Pierce Lane (no thru or LT) to IL 3 eastbound, W. Delmar Avenue and Ridgedale Drive – **1,600 ADT (2017)**

- Cook Street to
- Greenwood Lane to
- IL Route 3 (HAP)
- Total Distance = **0.9 miles**; Duration = **12 Working Days**

W. Delmar Avenue (no thru), Ridgedale Drive (no LT), IL Route 3 (HAP) (WB rerouted to WB bypass), Pierce Lane (no thru or LT), and Cook Street to Norwood Lane **– 150 ADT (2017)**

- EB IL Route 3 (HAP) to
- Greenwood Lane to
- Cook Street to
- NB Pierce Lane to
- WB Duval Drive to
- SB D'Adrian Drive to
- EB IL Route 3 (WDA)
- Total Distance = **1.4 miles**; Duration = **12 Working Days**

<u>Stage 6 Construction/Traffic</u>

- Construct south curb and gutter and entrance along IL Route 3 (WDA) west of the west intersection.
- Construct the raised medians along Pierce Lane in the north quadrant of the west roundabout in sub-stages such that roadway remains open at all times.
- Construct the remainder of Frontenac Place in sub-stages, maintaining roadway access to the residents at all times.
- Construct remainder of raised median between roundabouts.

- Traffic will be open to two-way traffic in all directions from all access points.
- Traffic will have isolated, minimal limitations during this stage of construction.
- Temporary concrete barrier will likely be required for median construction on Pierce Lane, north of the roundabout (to be studied further during Phase 2)

Stage 6 Detour(s) and Alternate Routes for Local Traffic

- There will be no closures during this stage of construction.

Stage 7 Construction/Traffic

- Construct final pavement markings and signage.
- Construct any remaining ancillary items (sidewalk, ADA Ramps, final seeding, etc.)
- Traffic will be open to two-way traffic in all directions from all access points.
- Traffic will have isolated, minimal limitations during this stage of construction.

Stage 7 Detour(s) and Alternate Routes for Local Traffic

- There will be no closures during this stage of construction.

IV. Alternate Routes and Staging Impact Analysis

To utilize the alternate routes as presented in this document, the pavement designs for the various routes should be evaluated for the additional traffic due to the construction sequencing. The Department may need to enter into an agreement with the appropriate local agencies for any marked detours that may occur on their facilities. The agreement will need to outline any necessary improvements to the local routes in order to accommodate the additional construction traffic. These improvements will be detailed in the Phase 2 contract documents.

Existing traffic signals, with modifications for temporary lane re-configurations, will be utilized during construction. The east intersection will not have opposing turning movements beyond Stage 2 and will not require signals. The west intersection will not have opposing turning movements beyond Stage 4 and thus not require traffic signals.

The concept of the staging plan is to maintain IL Route 3 traffic through the project limits. Using alternate routes on the adjacent local streets is acceptable due to the relatively small volumes of traffic on these streets, relative to IL Route 3. During Phase 2 design, directional/destination signage will be developed that will direct local traffic in and around the construction zone. Since there is no single alternate route for all to follow, this signage will be necessary to get users to/from various destinations.

The lane widths during phases of construction vary from 11’ to 12’ along IL Route 3. The policy width is 14’ minimum where traffic is channelized in one-way configuration. Since this occurs nearly every phase in multiple locations, a wide-load detour will need to be implemented. See Attachment 04 for wide-load detour route. Local road widths vary from 10’ to 11’ in areas of construction, which appears to meet policy.

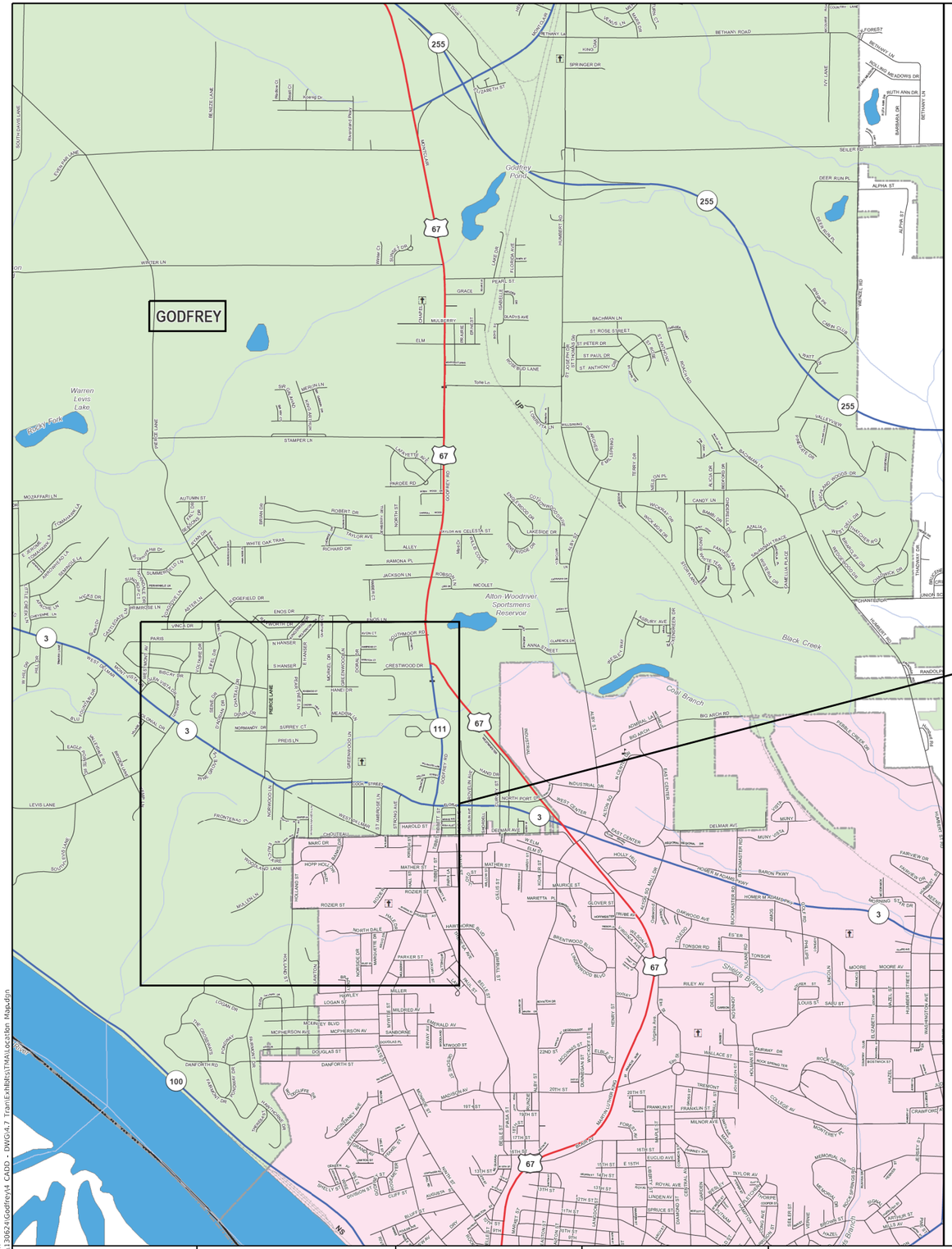
The use of changeable message boards at all four major legs (IL Rt 3 (HAP), IL Rt 3 (WDA), Pierce Lane, and West Delmar) is suggested. This will allow IDOT to alert traveling public on upcoming lane shifts and alternate routes for the various stages. Additionally, close collaboration with the Evangelical school, especially during Stage 1 and Stage 2 where Cook Street is being reconstructed, will be necessary.

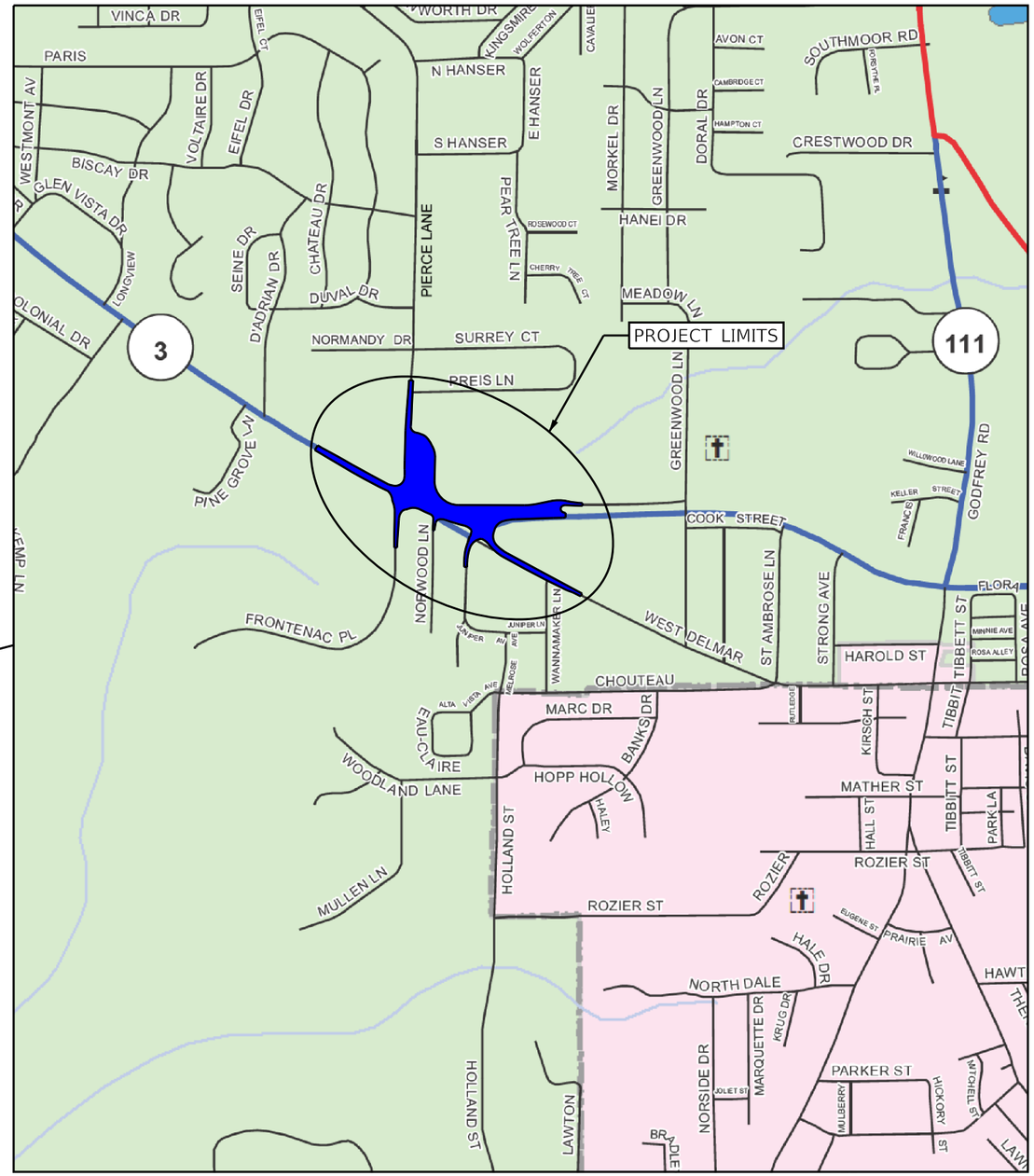
This project is a CSS project, and as such, outreach will continue through design and construction phases. Direct contact with the church/school and business park should be maintained throughout construction. Direct contact with individual homeowners or homeowner associations should be considered where construction activities have a major impact on access for side roads, such as Frontenac Place or Norwood Lane.

Construction stages have been estimated to have the following working days (total = 180 working days):

Stage 1: 30 working days
Stage 2: 25 working days
Stage 3: 25 working days
Stage 4: 45 working days
Stage 5A: 5 working days
Stage 5B: 8 working days
Stage 5C: 12 working days
Stage 6: 15 working days
Stage 7: 15 working days

ATTACHMENT 01





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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC MANAGEMENT ANALYSIS
ATTACHMENT 01 – LOCATION MAP

SCALE: NTS | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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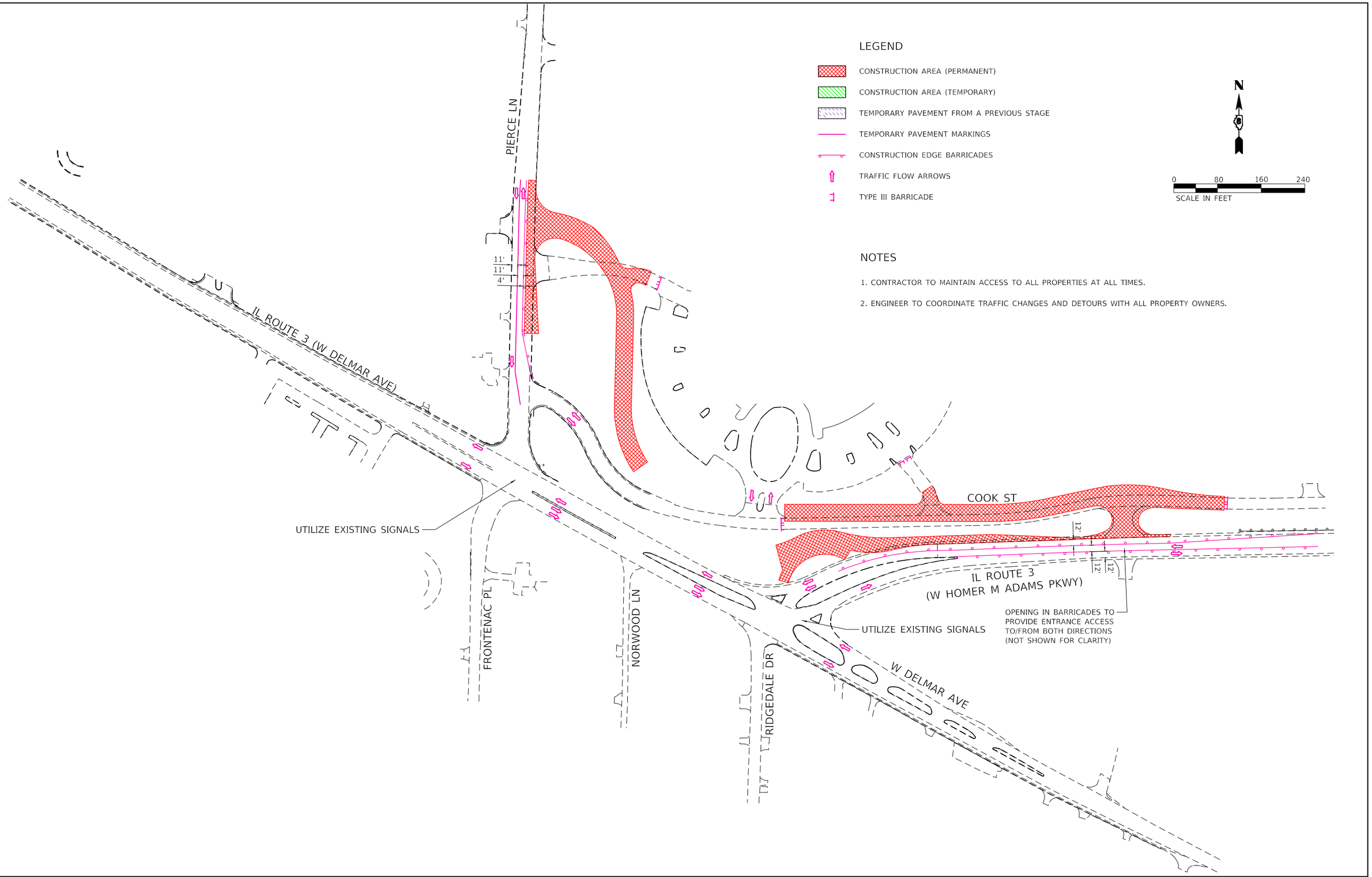
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

ATTACHMENT 02



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PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
MADISON

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 1

SCALE: 1" = 80' | SHEET 1 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

1" = 80'

LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

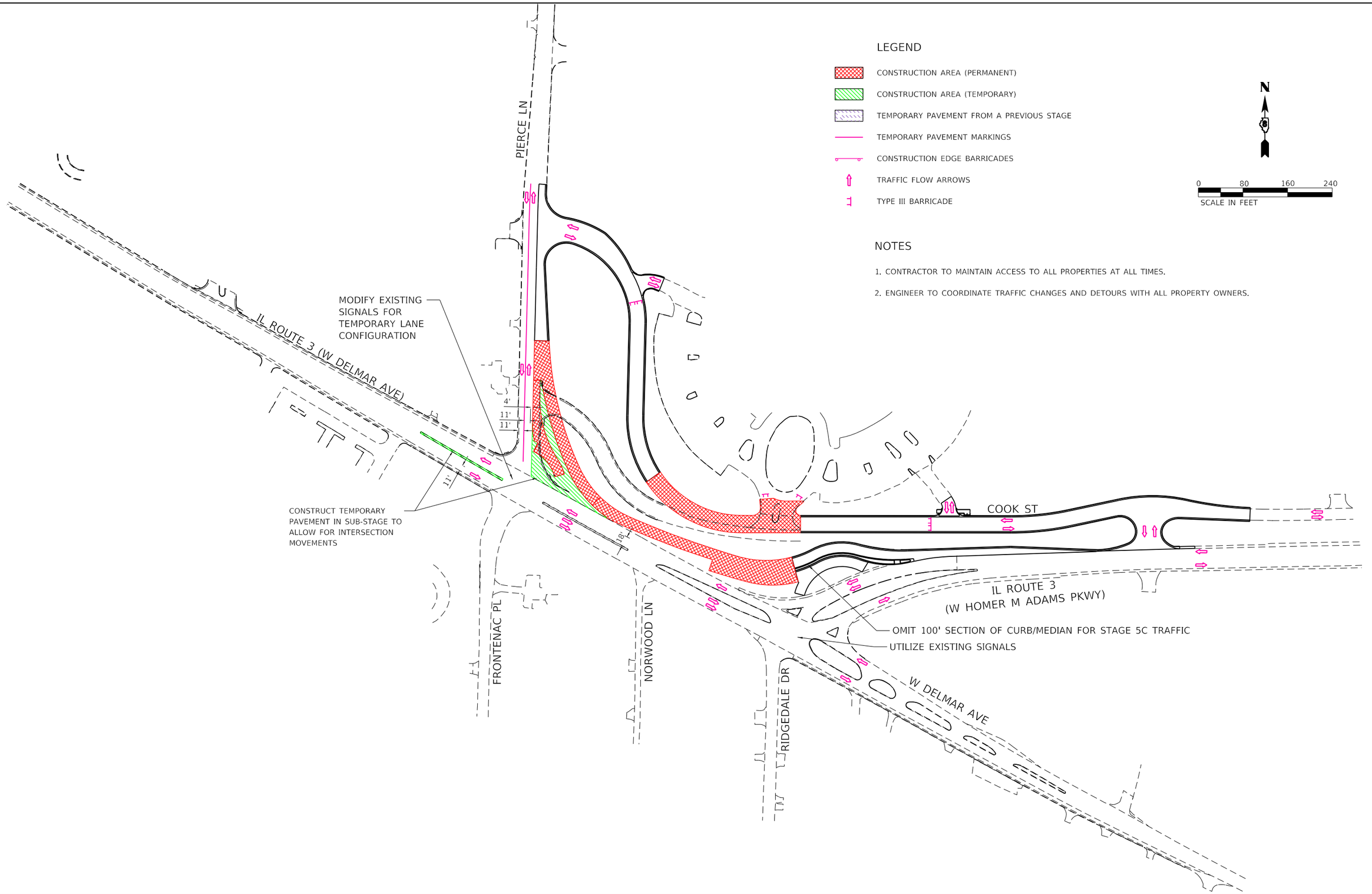
N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.



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PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 2

SCALE: 1" = 80' | SHEET 2 OF 8 SHEETS | STA. | TO STA.

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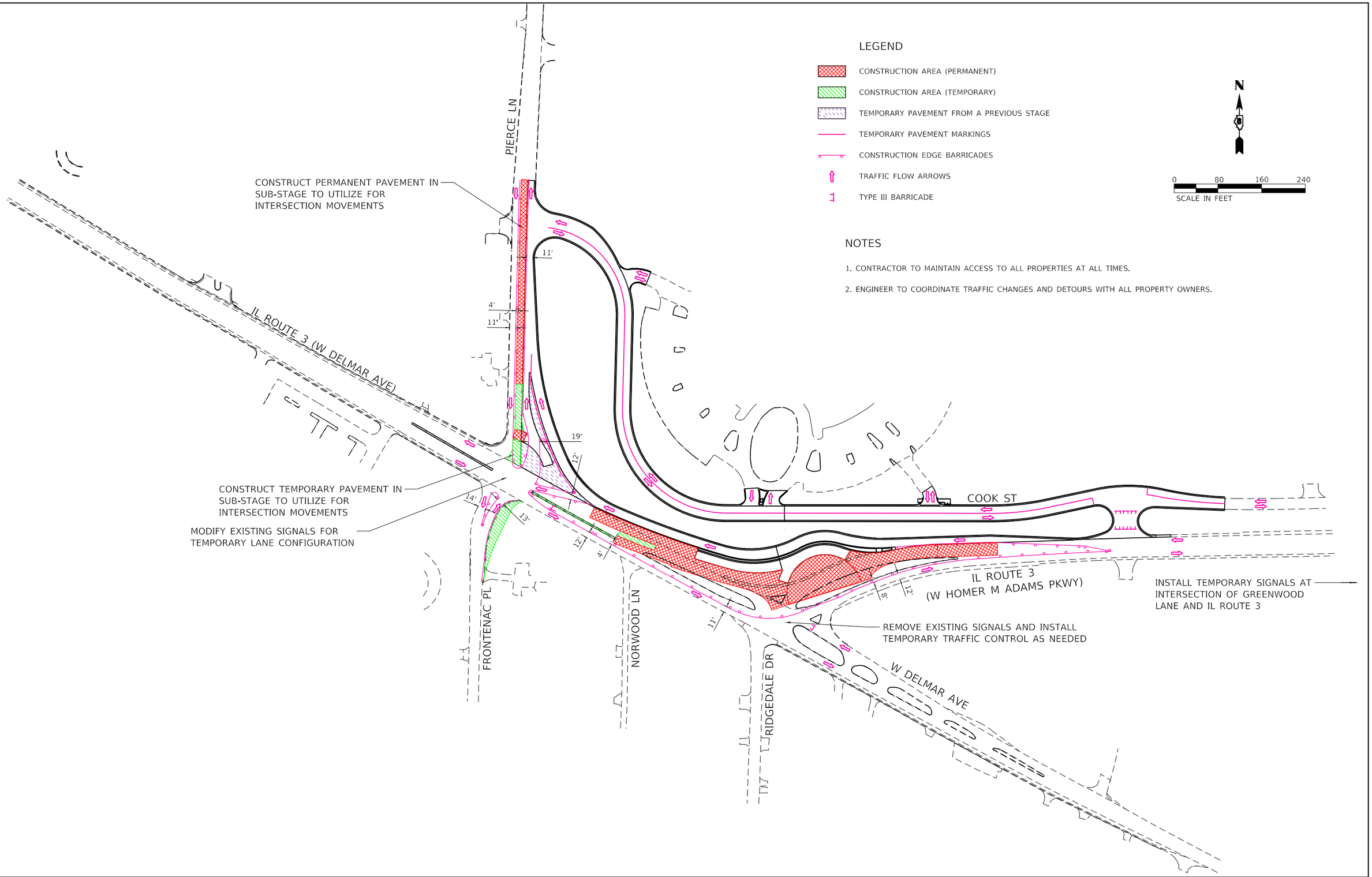
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



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	DRAWN - MLS	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 3

SCALE: 1" = 80' | SHEET 3 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
FILE NAME: P:\2013\13062A\Godfrey\4 CADD - DWG\4.7 Tran\Exhibits\TMA\D876f84-sht-stsdmp-03.dgn

LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

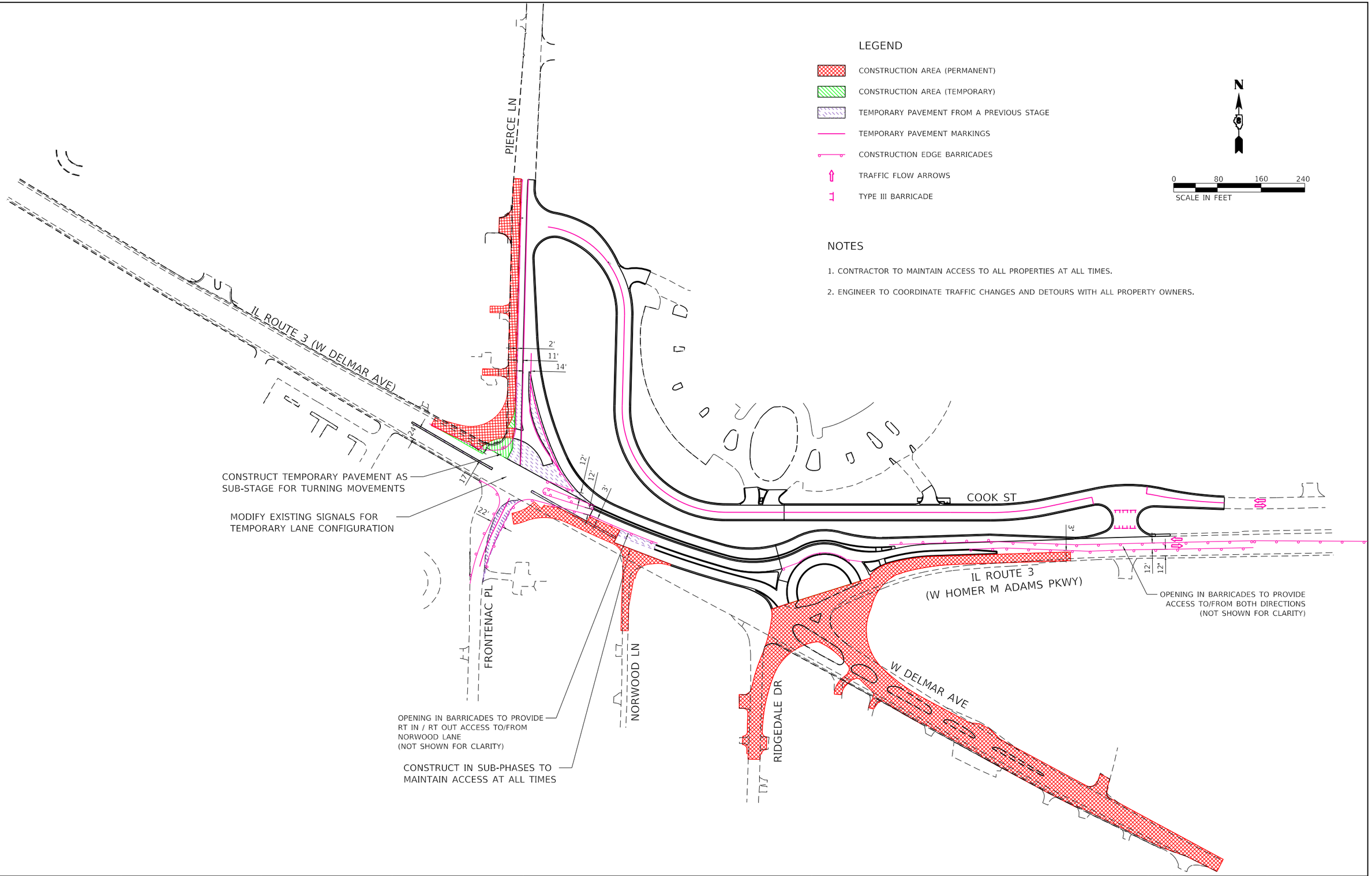
N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.



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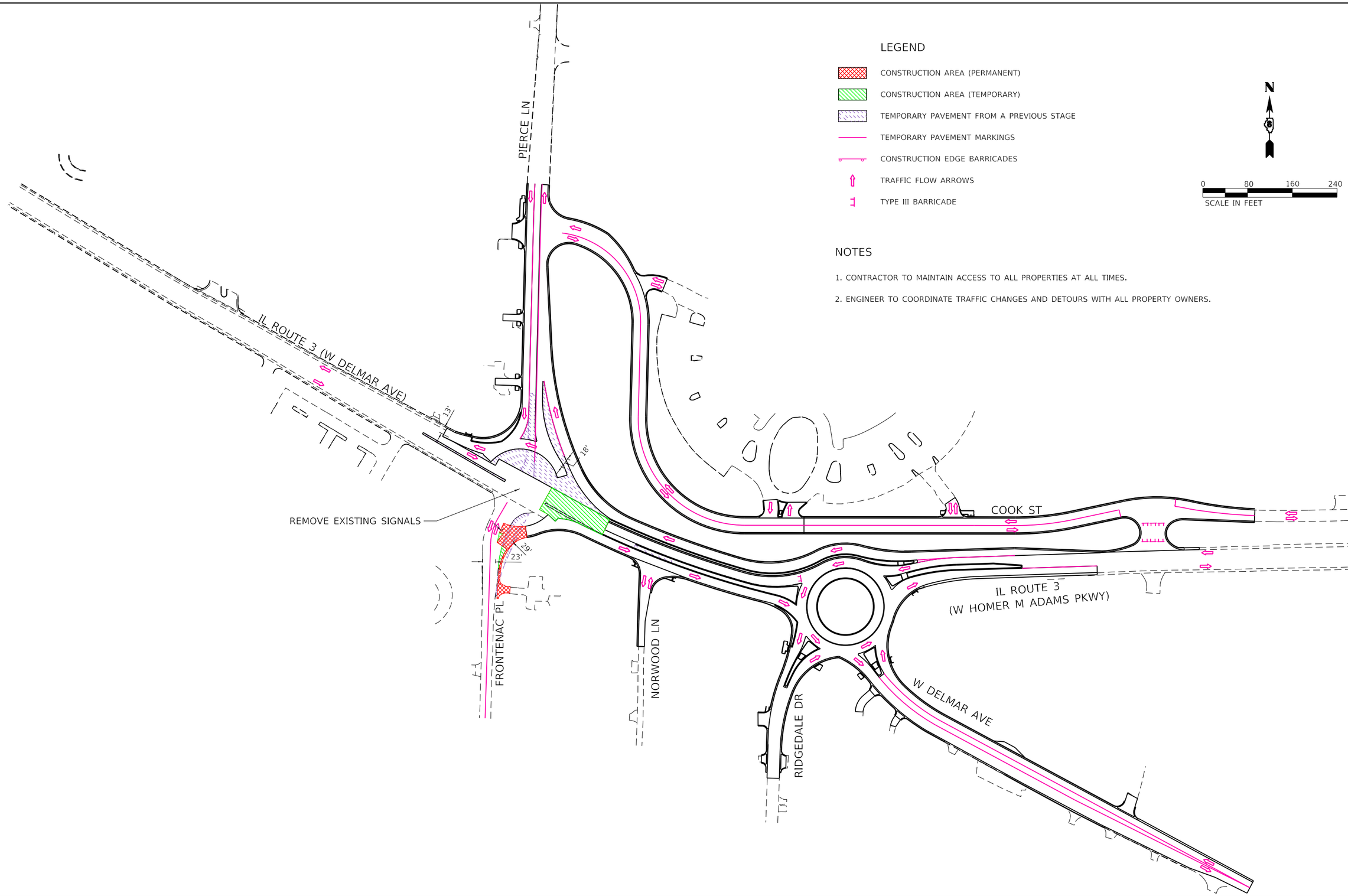
	DRAWN - MLS	REVISED -	
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 4

SCALE: 1" = 80' | SHEET 4 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.

MODEL: Default
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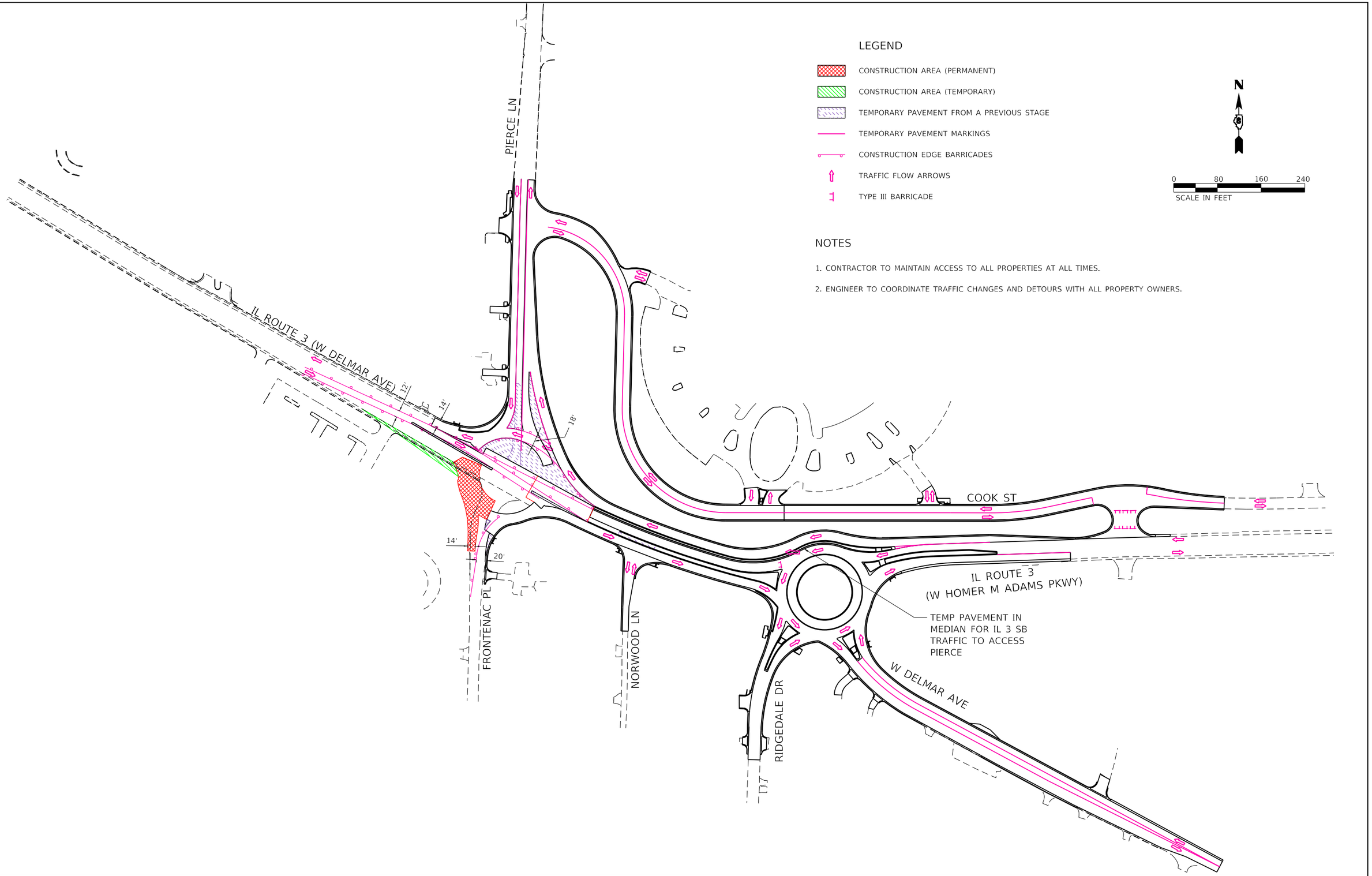
	DRAWN - MLS	REVISED -	
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 5A

SCALE: 1" = 80' | SHEET 5 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



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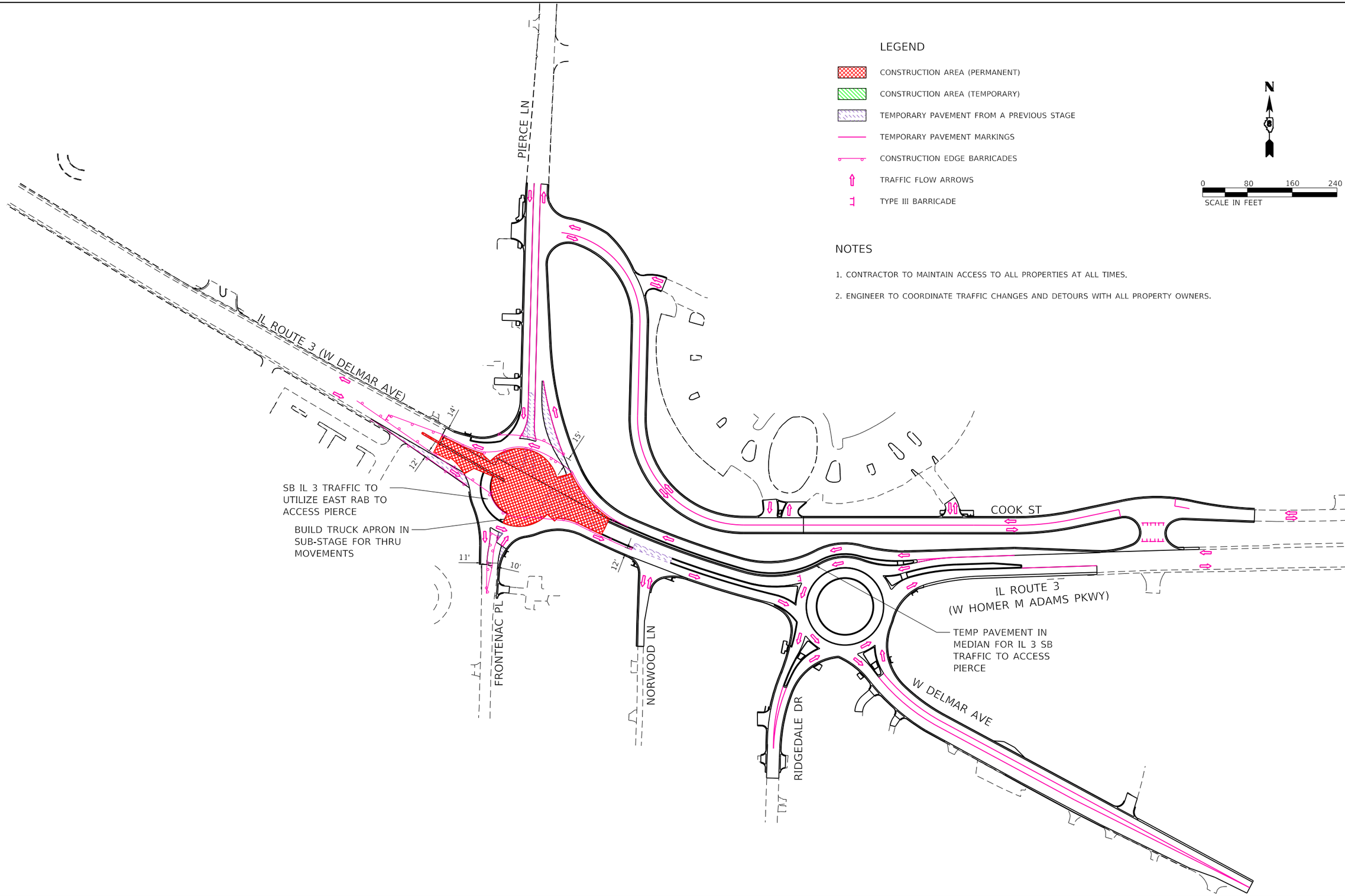
PLOT DATE = 1/18/2021	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 5B

SCALE: 1" = 80' | SHEET 6 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.

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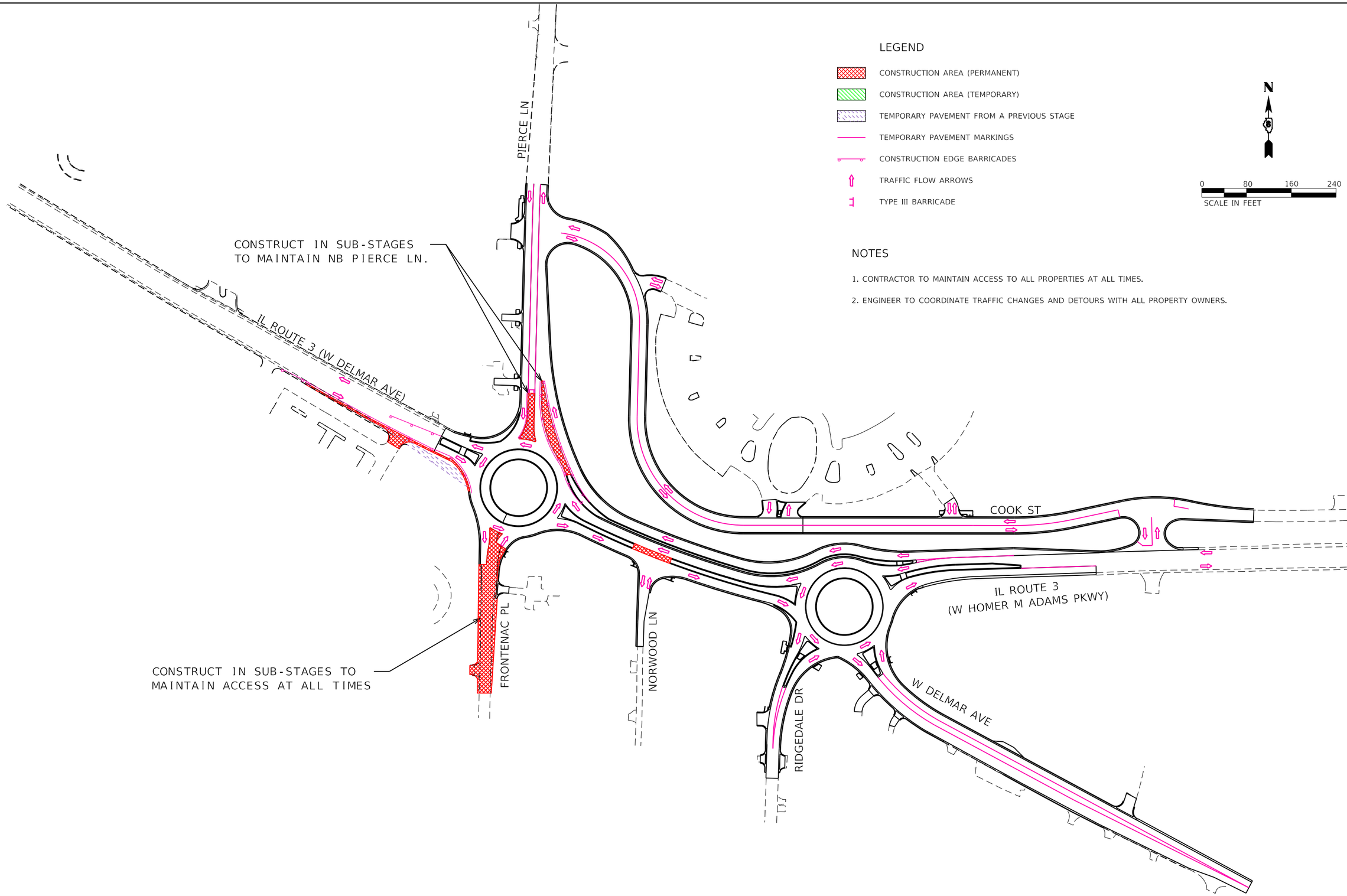
	DRAWN - MLS	REVISED -	
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 5C

SCALE: 1" = 80' | SHEET 6 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.

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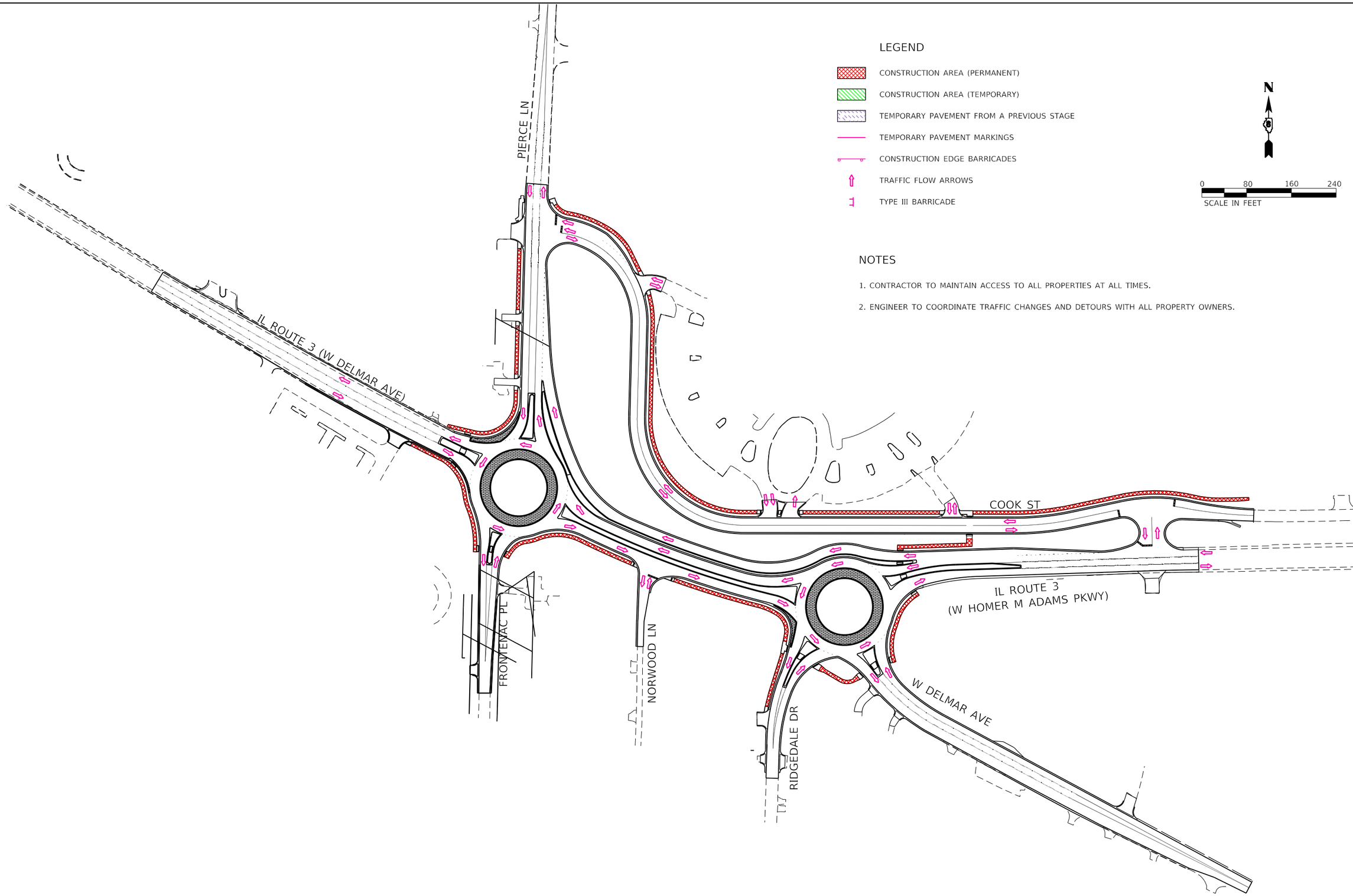
	DRAWN - MLS	REVISED -	
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 6

SCALE: 1" = 80' | SHEET 7 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- CONSTRUCTION AREA (PERMANENT)
- CONSTRUCTION AREA (TEMPORARY)
- TEMPORARY PAVEMENT FROM A PREVIOUS STAGE
- TEMPORARY PAVEMENT MARKINGS
- CONSTRUCTION EDGE BARRICADES
- TRAFFIC FLOW ARROWS
- TYPE III BARRICADE

N

0 80 160 240

SCALE IN FEET

NOTES

1. CONTRACTOR TO MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES.
2. ENGINEER TO COORDINATE TRAFFIC CHANGES AND DETOURS WITH ALL PROPERTY OWNERS.

MODEL: Default
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	DRAWN - MLS	REVISED -	
PLOT SCALE = 160.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - OCT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – STAGE 7

SCALE: 1" = 80' | SHEET 8 OF 8 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
		ILLINOIS	FED. AID PROJECT	

ATTACHMENT 03

LOCAL DETOUR ROUTES

W. DELMAR AVE. TRAVELING WEST TO IL RT 3

W. DELMAR AVE. TRAVELING TO PIERCE LANE

WESTBOUND TRAFFIC TO NORWOOD LN

NOTES:

DETOUR ROUTES ARE SHOWN FOR GENERAL TRAFFIC MOVEMENTS. SPECIFIC TRAFFIC PATTERNS MAY INCLUDE USING PORTIONS OF MULITPLE DETOURS AS SHOWN.

DESTINATION/DIRECTIONAL SIGNAGE WILL BE DEVELOPED DURING PHASE II.

ENGINEER WILL ALSO COORDINATE WITH ALL PROPERTY OWNERS DURING EACH STAGE OF CONSTRUCTION.

MODIFY EXISTING SIGNALS FOR TEMPORARY LANE CONFIGURATION

REMOVE EXISTING SIGNALS AND INSTALL TEMPORARY TRAFFIC CONTROL AS NEEDED

INSTALL TEMPORA
INTERSECTION OF
LANE AND IL ROUT

COOK ST.
CONNECTOR
NOT USED
FOR DETOUR

TEMPORARY
TRAFFIC SIGNALS

TEMPORARY
TRAFFIC SIGNALS
(IF REQUIRED)

0 400 800 1200
SCALE IN FEET

USER NAME = jstein	DESIGNED - JWS	REVISED -	
	DRAWN - MLS	REVISED -	
PLOT SCALE = 800.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - SEPT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – DETOUR STAGE 3

SCALE: 1" = 400' | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
ILLINOIS	FED. AID PROJECT			

MODEL: Default
FILE NAME: P:\2013\130624\Godfrey\4 CADD - DWG\4.7 Train\Exhibits\TMA\D876f84-pri-detour-03.dgn

LOCAL DETOUR ROUTES

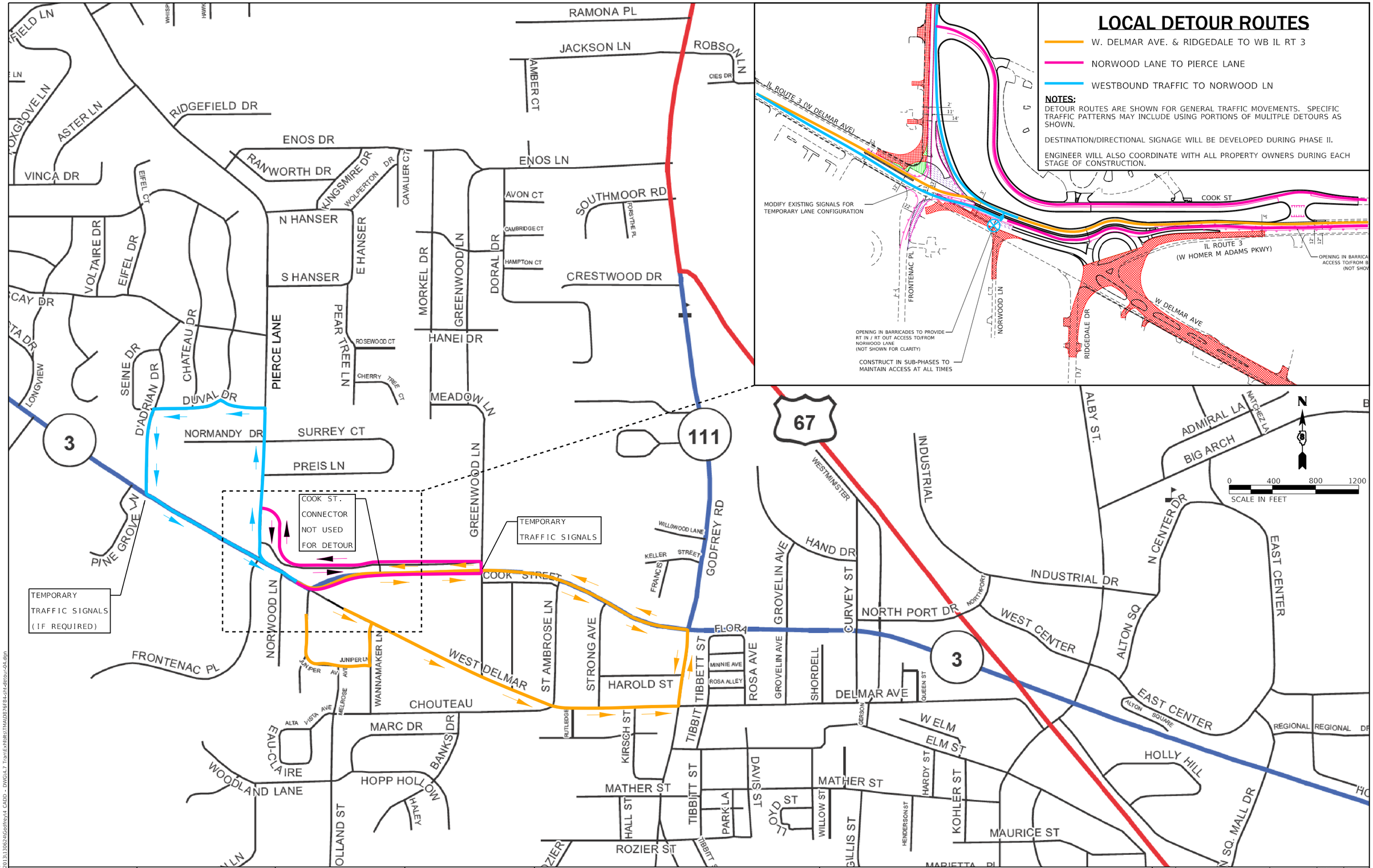
- W. DELMAR AVE. & RIDGEDALE TO WB IL RT 3
- NORWOOD LANE TO PIERCE LANE
- WESTBOUND TRAFFIC TO NORWOOD LN

NOTES:

DETOUR ROUTES ARE SHOWN FOR GENERAL TRAFFIC MOVEMENTS. SPECIFIC TRAFFIC PATTERNS MAY INCLUDE USING PORTIONS OF MULITPLE DETOURS AS SHOWN.

DESTINATION/DIRECTIONAL SIGNAGE WILL BE DEVELOPED DURING PHASE II.

ENGINEER WILL ALSO COORDINATE WITH ALL PROPERTY OWNERS DURING EACH STAGE OF CONSTRUCTION.



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PLOT SCALE = 800.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - SEPT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – DETOUR STAGE 4

SCALE: 1" = 400' | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

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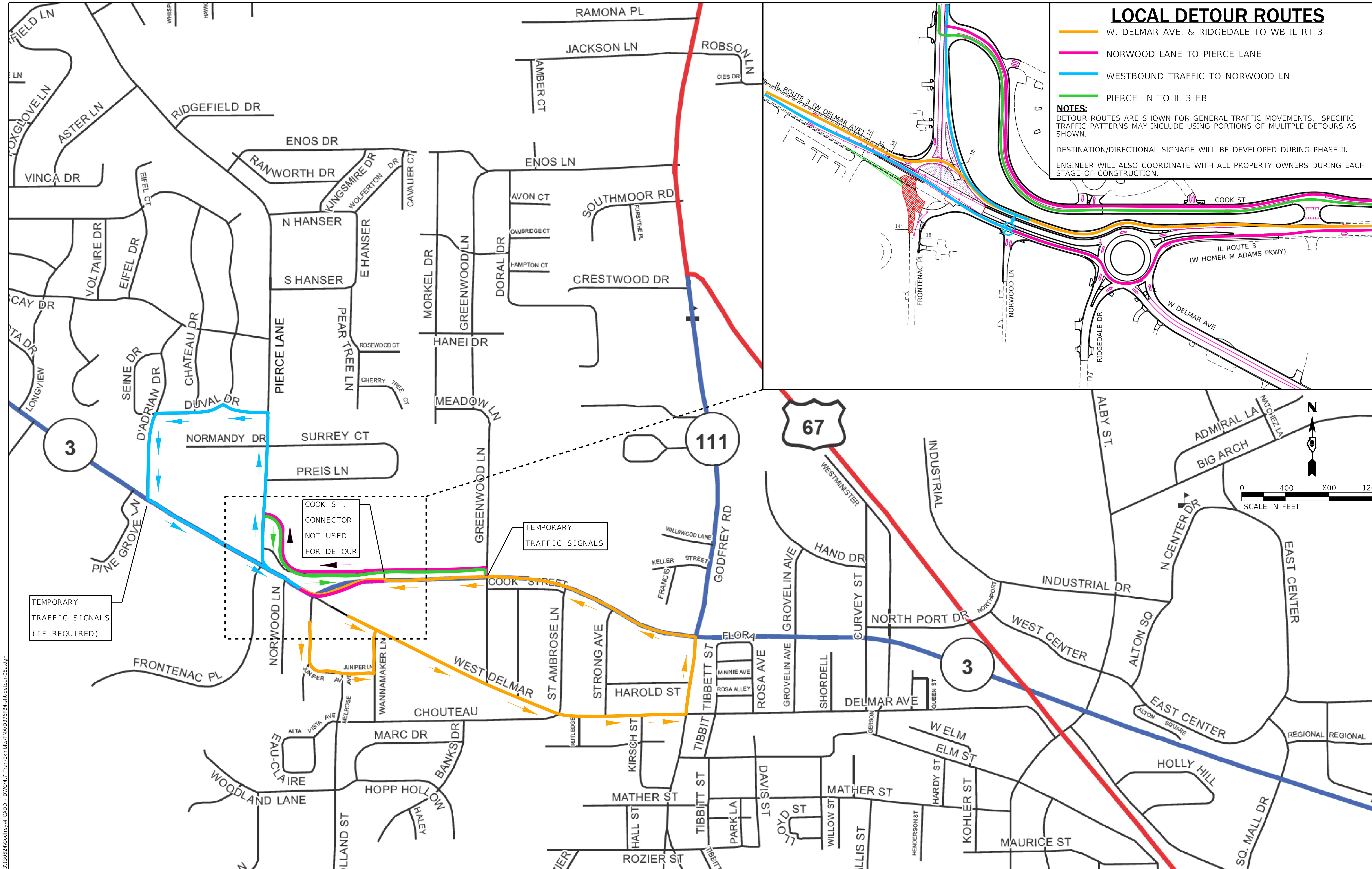

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USER NAME = jstein	DESIGNED - JWS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 3 TRAFFIC MANAGEMENT ANALYSIS – DETOUR STAGE 5A/5B
	DRAWN - MLS	REVISED -		
PLOT SCALE = 800.0000 ' / in.	CHECKED -	REVISED -		
PLOT DATE = 10/30/2020	DATE - SEPT 2018	REVISED -		SCALE: 1" = 400' SHEET 3 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
	ILLINOIS	FED. AID PROJECT		

LOCAL DETOUR ROUTES

- W. DELMAR AVE. & RIDGEDALE TO WB IL RT 3
- NORWOOD LANE TO PIERCE LANE
- WESTBOUND TRAFFIC TO NORWOOD LN
- PIERCE LN TO EB IL RT 3

NOTES:

DETOUR ROUTES ARE SHOWN FOR GENERAL TRAFFIC MOVEMENTS. SPECIFIC TRAFFIC PATTERNS MAY INCLUDE USING PORTIONS OF MULITPLE DETOURS AS SHOWN.

DESTINATION/DIRECTIONAL SIGNAGE WILL BE DEVELOPED DURING PHASE II.

ENGINEER WILL ALSO COORDINATE WITH ALL PROPERTY OWNERS DURING EACH STAGE OF CONSTRUCTION.

TEMPORARY TRAFFIC SIGNALS (IF REQURIED)

COOK ST. CONNECTOR NOT USED FOR DETOUR

TEMPORARY TRAFFIC SIGNALS

SCALE IN FEET 0 400 800 1200

USER NAME = jstein	DESIGNED - JWS	REVISED -	
	DRAWN - MLS	REVISED -	
PLOT SCALE = 800.0000 ' / in.	CHECKED -	REVISED -	
PLOT DATE = 10/30/2020	DATE - SEPT 2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL ROUTE 3
TRAFFIC MANAGEMENT ANALYSIS – DETOUR STAGE 5C

SCALE: 1" = 400' | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		MADISON		
		CONTRACT NO.		
ILLINOIS	FED. AID PROJECT			

MODEL: Default
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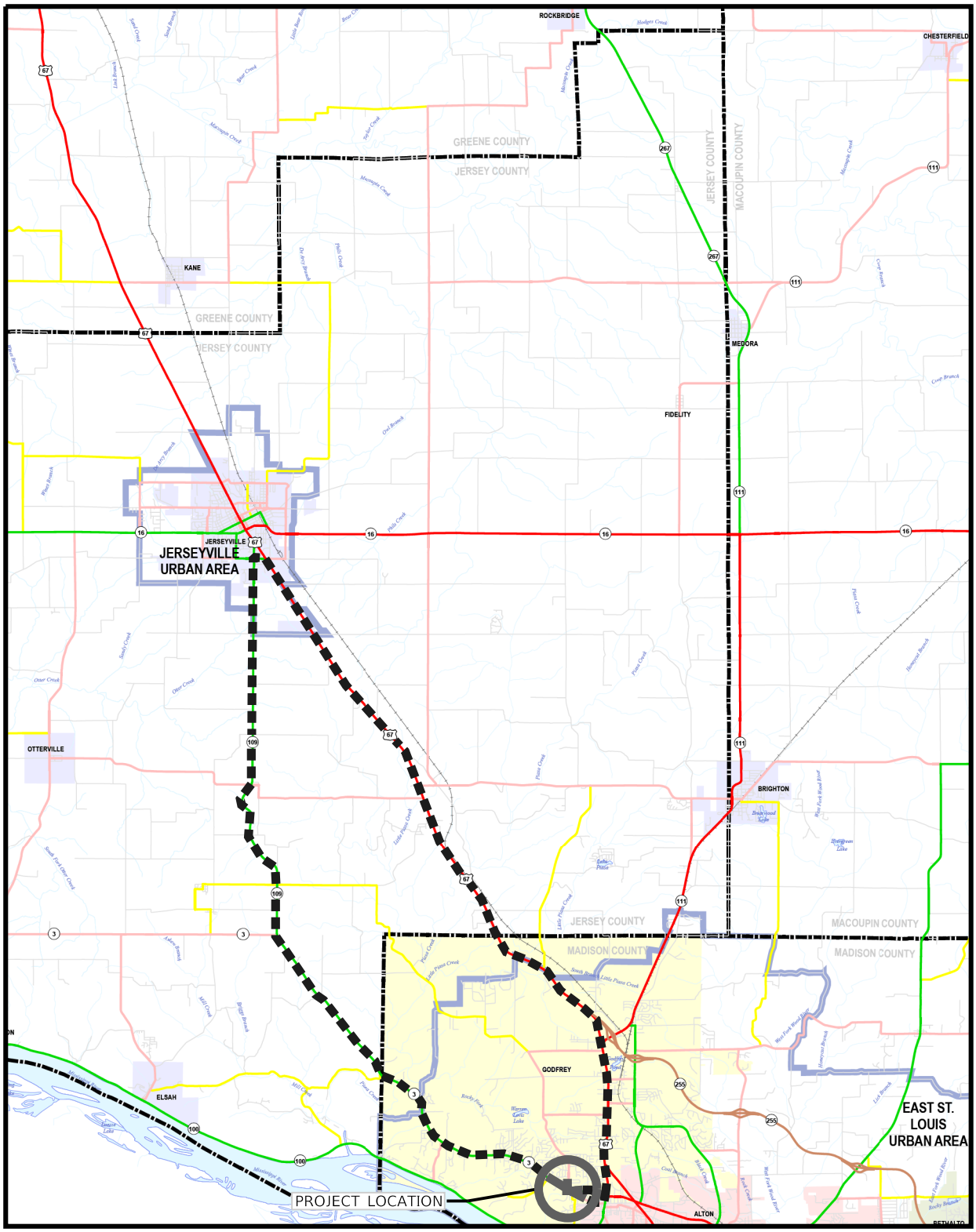
ATTACHMENT 04



LEGEND

ALTERNATE ROUTE (±30 MILES)

0 1.5 3 4.5

SCALE IN MILES

FILE NAME: P:\2013\130624\Godfrey\v4 CADD - DWG\4.7 TranExhibits\130624-AlternateRoute.dgn

TWM

WIDE LOAD DETOUR ROUTE

SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	60R-1	MADISON		
		CONTRACT NO. 76F84		
	ILLINOIS	FED. AID PROJECT		

* 8955 & 8956

EXHIBIT N – COST ESTIMATE

IL 3 in Godfrey - Cost Estimate

Item Number	Item Description	Quantity	Unit	Unit Price	Total Item Price
20200100	EARTH EXCAVATION	20713	CU YD	$ 25.00	$ 517,825.00
25000210	SEEDING, CLASS 2A (INCLUDING FERTILIZER NUTRIENTS)	2.5	ACRE	$ 4,000.00	$ 10,000.00
28000400	PERIMETER EROSION BARRIER	4000	FOOT	$ 4.00	$ 16,000.00
28000500	INLET AND PIPE PROTECTION	90	EACH	$ 150.00	$ 13,500.00
28100107	STONE RIPRAP, CLASS A4	393	SQ YD	$ 50.00	$ 19,650.00
31100100	SUBBASE GRANULAR MATERIAL, TYPE A	18394	TON	$ 27.50	$ 505,835.00
40600275	BITUMINOUS MATERIALS (PRIME COAT)	1221	POUND	$ 1.00	$ 1,221.00
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	910	TON	$ 100.00	$ 91,000.00
40700100	BITUMINOUS MATERIALS (TACK COAT)	2224	POUND	$ 1.00	$ 2,224.00
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10" (INCLUDING REINFORCEMENT)	18664	SQ YD	$ 70.00	$ 1,306,480.00
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	1167	SQ YD	$ 60.00	$ 70,020.00
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	21162	SQ FT	$ 8.00	$ 169,296.00
42400800	DETECTABLE WARNINGS	580	SQ FT	$ 35.00	$ 20,300.00
44000100	PAVEMENT REMOVAL	15141	SQ YD	$ 15.00	$ 227,115.00
44000200	DRIVEWAY PAVEMENT REMOVAL	1880	SQ YD	$ 15.00	$ 28,200.00
44000500	COMBINATION CURB AND GUTTER REMOVAL	4398	FOOT	$ 10.00	$ 43,980.00
44000600	SIDEWALK REMOVAL	8806	SQ FT	$ 3.00	$ 26,418.00
44003100	MEDIAN REMOVAL	1922	SQ FT	$ 3.00	$ 5,766.00
44004250	PAVED SHOULDER REMOVAL	1096	SQ YD	$ 15.00	$ 16,440.00
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	400	SQ YD	$ 60.00	$ 24,000.00
50105220	PIPE CULVERT REMOVAL	518	FOOT	$ 10.00	$ 5,180.00
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	16	EACH	$ 750.00	$ 12,000.00
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	1	EACH	$ 850.00	$ 850.00
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	7	EACH	$ 950.00	$ 6,650.00
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	3	EACH	$ 1,200.00	$ 3,600.00
542A1057	PIPE CULVERTS, CLASS A, TYPE 2 12"	280	FOOT	$ 40.00	$ 11,200.00
542A1063	PIPE CULVERTS, CLASS A, TYPE 2 18"	140	FOOT	$ 55.00	$ 7,700.00
542A1069	PIPE CULVERTS, CLASS A, TYPE 2 24"	100	FOOT	$ 65.00	$ 6,500.00
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	140	FOOT	$ 40.00	$ 5,600.00
550A0070	STORM SEWERS, CLASS A, TYPE 1 15"	130	FOOT	$ 50.00	$ 6,500.00
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	548	FOOT	$ 40.00	$ 21,920.00
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	1972	FOOT	$ 50.00	$ 98,600.00
550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	859	FOOT	$ 55.00	$ 47,245.00
550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	340	FOOT	$ 65.00	$ 22,100.00
60218500	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 3 FRAME AND GRATE	19	EACH	$ 2,250.00	$ 42,750.00
60219300	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 11 FRAME AND GRATE	2	EACH	$ 2,250.00	$ 4,500.00
60220005	MANHOLES, TYPE A, 4'-DIAMETER, WITH MEDIAN INLET (604101)	1	EACH	$ 2,250.00	$ 2,250.00
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	30	EACH	$ 1,500.00	$ 45,000.00
60236200	INLETS, TYPE A, TYPE 8 GRATE	4	EACH	$ 1,500.00	$ 6,000.00
60236800	INLETS, TYPE A, TYPE 11 FRAME AND GRATE	3	EACH	$ 1,500.00	$ 4,500.00
60238305	INLETS, TYPE A, WITH MEDIAN INLET (604101)	4	EACH	$ 1,500.00	$ 6,000.00
60240220	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	11	EACH	$ 1,800.00	$ 19,800.00
60240301	INLETS, TYPE B, TYPE 8 GRATE	1	EACH	$ 1,800.00	$ 1,800.00
60240303	INLETS, TYPE B, TYPE 9 FRAME AND GRATE	2	EACH	$ 1,800.00	$ 3,600.00
60240361	INLETS, TYPE B, WITH MEDIAN INLET (604101)	1	EACH	$ 1,800.00	$ 1,800.00
60600095	CLASS SI CONCRETE (OUTLET)	3	CU YD	$ 800.00	$ 2,400.00
60601105	CONCRETE CURB, TYPE M	861	FOOT	$ 30.00	$ 25,830.00
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	6126	FOOT	$ 32.50	$ 199,095.00
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	9319	FOOT	$ 37.50	$ 349,462.50
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	12779	SQ FT	$ 8.50	$ 108,621.50
63000009	STEEL PLATE BEAM GUARDRAIL, TYPE B, 9 FOOT POSTS	75	FOOT	$ 37.50	$ 2,812.50
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	2	EACH	$ 3,000.00	$ 6,000.00
70400100	TEMPORARY CONCRETE BARRIER	300	FOOT	$ 30.00	$ 9,000.00
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	200	FOOT	$ 10.00	$ 2,000.00
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	3	EACH	$ 10,000.00	$ 30,000.00
70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	3	EACH	$ 5,000.00	$ 15,000.00
72000100	SIGN PANEL - TYPE 1	621	SQ FT	$ 37.50	$ 23,287.50
72000200	SIGN PANEL - TYPE 2	90	SQ FT	$ 42.50	$ 3,825.00
72000300	SIGN PANEL - TYPE 3	384	SQ FT	$ 50.00	$ 19,200.00
72501000	TERMINAL MARKER - DIRECT APPLIED	2	EACH	$ 40.00	$ 80.00
72800100	TELESCOPING STEEL SIGN SUPPORT	1532	FOOT	$ 17.50	$ 26,810.00
78003100	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LETTERS AND SYMBOLS	250	SQ FT	$ 25.00	$ 6,250.00
78003110	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 4"	28400	FOOT	$ 3.00	$ 85,200.00
78003140	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 8"	310	FOOT	$ 6.00	$ 1,860.00
78003150	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 12"	1650	FOOT	$ 12.00	$ 19,800.00
78003180	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 24"	70	FOOT	$ 24.00	$ 1,680.00
78100100	RAISED REFLECTIVE PAVEMENT MARKER	78	EACH	$ 75.00	$ 5,850.00
78200005	GUARDRAIL REFLECTORS, TYPE A	4	EACH	$ 15.00	$ 60.00
LR420037	PORTLAND CEMENT CONCRETE PAVEMENT 10" SPEICAL (STAMPED)	1675	SQ YD	$ 115.00	$ 192,625.00
K0012970	PERENNIAL PLANTS, BULB TYPE	2	UNIT	$ 1,250.00	$ 2,500.00
K1001980	RIVER ROCK, 6"	890	SQ YD	$ 45.00	$ 40,050.00
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	4945	SQ YD	$ 5.00	$ 24,725.00
X5510100	STORM SEWER REMOVAL	1445	FOOT	$ 10.00	$ 14,450.00
Z0062456	TEMPORARY PAVEMENT	2000	SQ YD	$ 50.00	$ 100,000.00
				CONSTRUCTION SUB-TOTAL:	**$ 4,827,389.00**
MISC	**Miscellaneous**				
	TRAFFIC CONTROL AND PROTECTION	AT	6%	OF SUB-TOTAL	**$ 289,643.34**
	CONTINGENCIES	AT	20%	OF SUB-TOTAL	**$ 965,477.80**
				TOTAL	**$ 6,082,510.14**
	MOBILIZATION	AT	6%	OF TOTAL	**$ 364,950.61**
				Phase I Estimate of Construction Cost	**$ 6,447,460.75**

Programming has reviewed the scope of work as presented in this report, as well as the cost estimate.

Gwen Lagemann, P.E.
Programming Engineer

	COST ESTIMATE	**EXHIBIT**