



United States Army Corps of Engineers

Ali Trunzo

From: Lori Ferry
Sent: Monday, April 17, 2017 12:11 PM
To: Ali Trunzo; Jayme Fuller
Subject: FW: Spire STL Pipeline-Project Update

-----Original Message-----

From: Hoerner, Melissa L CIV USARMY CEMVS (US) [mailto:Melissa.L.Hoerner@usace.army.mil]
Sent: Monday, April 17, 2017 7:36 AM
To: Lori Ferry <L.Ferry@gaiconsultants.com>
Cc: Douglas Sipe <dsipe@mdmcorp.com>; Wittenborn, Jaclyn C (Jacki) CIV USARMY CEMVR (US) <Jaclyn.C.Wittenborn@usace.army.mil>
Subject: RE: Spire STL Pipeline-Project Update

Hi, Lori:

Hope you had a great holiday weekend!

I've made a call to check the status of the notification. I submitted all the information to our Division office, and I believe they have forwarded the submittal to HQ, but I need to verify.

Yes, I'm taking a new job - not sure who will be handling my cases, but Jacki Wittenborn is the supervisor who is in charge of that assignment. She will handle in the interim. She can be reached at 314-331-8183.

Thanks!

Lynn Hoerner
Real Estate Division
St. Louis District
melissa.l.hoerner@usace.army.mil
314-331-8157

-----Original Message-----

From: Lori Ferry [mailto:L.Ferry@gaiconsultants.com]
Sent: Friday, April 14, 2017 3:52 PM
To: Hoerner, Melissa L CIV USARMY CEMVS (US) <Melissa.L.Hoerner@usace.army.mil>
Cc: Douglas Sipe <dsipe@mdmcorp.com>
Subject: [Non-DoD Source] Spire STL Pipeline-Project Update

Hi Lynn

Hope you well!

Just wanted to check in with you to see if the first notification had been made to Headquarters after our submittal in February?

Also we met with Ed this week and he let us know you are taking a new job! He wasn't sure who your replacement would be but if you have any insight into that, it would be great to meet with them.

Thanks and have a great weekend,

Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants

Chicago Office | 2300 Cabot Drive, Suite 395 Lisle, Illinois 60532

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l.ferry@gaiconsultants.com <<mailto:l.ferry@gaiconsultants.com>>

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Ali Trunzo

From: Lori Ferry
Sent: Wednesday, April 12, 2017 9:49 PM
To: Jayme Fuller; Todd Wheaton
Cc: Ali Trunzo
Subject: FW: DRAFT MOA for Spire STL Pipeline St. Louis District USACE Section 408 Review
Attachments: Spire STL Pipeline Section 408 MOA Section 214 USACE 12 APR 2017.pdf

FYI. Cost Agreement in hand!

-----Original Message-----

From: Rodriguez Robles, Edward C CIV USARMY (US) [mailto:Edward.C.RodriguezRobles@usace.army.mil]
Sent: Wednesday, April 12, 2017 4:55 PM
To: Douglas Sipe <dsipe@mdmcorp.com>; Lori Ferry <L.Ferry@gaiconsultants.com>
Cc: Hunn, Matthew J MVS <Matthew.J.Hunn@usace.army.mil>
Subject: DRAFT MOA for Spire STL Pipeline St. Louis District USACE Section 408 Review

Douglas,

As promised, see attached for the Memorandum of Agreement to be signed. The total estimated cost was increased from 70k to 80k.

Please review and let me know if there is any changes need to be made before we finalized the agreement.

See you tomorrow.

V/R,

Ed Rodriguez Robles
ICW Program Manager
US Army Corps of Engineers
St. Louis District Office
1222 Spruce St.
St. Louis, MO 63103
Office: 314-331-8568
Mobile (BB): 314-379-9065

Ali Trunzo

From: Lori Ferry
Sent: Wednesday, April 05, 2017 10:32 AM
To: Jayme Fuller; Ali Trunzo
Subject: FW: Spire STL Pipeline

-----Original Message-----

From: Rodriguez Robles, Edward C CIV USARMY (US) [mailto:Edward.C.RodriguezRobles@usace.army.mil]
Sent: Wednesday, April 05, 2017 9:11 AM
To: Lori Ferry <L.Ferry@gaiconsultants.com>
Cc: Douglas Sipe <dsipe@mdmcorp.com>; Hunn, Matthew J MVS <Matthew.J.Hunn@usace.army.mil>
Subject: RE: Spire STL Pipeline

Hi Lori,

Hope this email finds you well!

Our engineers are still reviewing the technical addendum provided in March. I anticipate a response of concurrence or some comments within a week or so.

On the other hand, we are ready to go forward with the Section 214 agreement as discussed for the remainder of our fiscal year. I am routing the document internally as we speak with the changes made after Spire reviewed it. I expect to bundle that document with my 408 public notice which I expect to release for public circulation in the next week or so. The public comment period will last 30 days upon release.

Let me know if you have any questions or concerns.

Thanks,

Ed Rodriguez Robles
ICW Program Manager
US Army Corps of Engineers
St. Louis District Office
1222 Spruce St.
St. Louis, MO 63103
Office: 314-331-8568
Mobile (BB): 314-379-9065

-----Original Message-----

From: Lori Ferry [mailto:L.Ferry@gaiconsultants.com]
Sent: Friday, March 31, 2017 3:10 PM
To: Rodriguez Robles, Edward C CIV USARMY (US) <Edward.C.RodriguezRobles@usace.army.mil>
Cc: Douglas Sipe <dsipe@mdmcorp.com>
Subject: [Non-DoD Source] Spire STL Pipeline

Hi Ed,

Just wanted to check in with you regarding your review of the Spire project. Wanted to know if you all had any further questions on the packages we have submitted.

Please let us know when you have a moment how the review is proceeding.

Thank you and have a great weekend,

Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants

Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505

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l.ferry@gaiconsultants.com <<mailto:l.ferry@gaiconsultants.com>>

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Ali Trunzo

From: Rankins, Jonathan E CIV USARMY CEMVS (US) <Jonathan.E.Rankins@usace.army.mil>
Sent: Wednesday, March 29, 2017 6:39 PM
To: Ali Trunzo
Cc: Lori Ferry; Prebianca, Jacob A CIV CEMVS CEMVD (US)
Subject: RE: Spire STL Pipeline - Coldwater Creek

No utility support required

-----Original Message-----

From: Ali Trunzo [mailto:A.Trunzo@gaiconsultants.com]
Sent: Wednesday, March 29, 2017 4:42 PM
To: Rankins, Jonathan E CIV USARMY CEMVS (US) <Jonathan.E.Rankins@usace.army.mil>
Cc: Lori Ferry <L.Ferry@gaiconsultants.com>; Prebianca, Jacob A CIV CEMVS CEMVD (US) <Jacob.A.Prebianca@usace.army.mil>
Subject: [Non-DoD Source] RE: Spire STL Pipeline - Coldwater Creek

Jon,

Thank you for evaluating this area. To clarify, would utility support still not be required for this crossing?

Ali

-----Original Message-----

From: Rankins, Jonathan E CIV USARMY CEMVS (US) [mailto:Jonathan.E.Rankins@usace.army.mil]
Sent: Wednesday, March 29, 2017 5:06 PM
To: Ali Trunzo <A.Trunzo@gaiconsultants.com>; Prebianca, Jacob A CIV CEMVS CEMVD (US) <Jacob.A.Prebianca@usace.army.mil>
Cc: Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: RE: Spire STL Pipeline - Coldwater Creek

No concerns regarding FUSRAP COC's at this new location. We have historic sample data in this area that indicates background levels of COC's.

JR

-----Original Message-----

From: Ali Trunzo [mailto:A.Trunzo@gaiconsultants.com]
Sent: Wednesday, March 29, 2017 9:58 AM
To: Prebianca, Jacob A CIV CEMVS CEMVD (US) <Jacob.A.Prebianca@usace.army.mil>
Cc: Rankins, Jonathan E CIV USARMY CEMVS (US) <Jonathan.E.Rankins@usace.army.mil>; Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: [Non-DoD Source] Spire STL Pipeline - Coldwater Creek

Jacob,

GAI, on behalf of Spire STL Pipeline LLC (Spire), previously coordinated with you regarding the crossing of Coldwater Creek as part of the proposed Spire STL Pipeline Project, located in St. Charles and St. Louis Counties, Missouri. Spire no

longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension").

The North County Extension proposes to cross Coldwater Creek via horizontal directional drill, as shown on the attached figure. The crossing location is approximately 0.3 miles downstream of the previously evaluated crossing location.

Are there any concerns regarding contamination with this proposed crossing?

Thank you,

Ali

Alessandra M. Trunzo
Project Environmental Specialist

385 E. Waterfront Drive, Homestead, PA 15120-5005

Direct 412.399.5096 Office 412.476.2000 Email a.trunzo@gaiconsultants.com <mailto:a.trunzo@gaiconsultants.com>

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Ali Trunzo

From: Ali Trunzo
Sent: Wednesday, March 29, 2017 10:59 AM
To: Ali Trunzo
Subject: FW: Spire STL Pipeline - Coldwater Creek
Attachments: Hwy_67_Coldwater_Creek_HDD_Map_2017_03_23.pdf

From: Ali Trunzo
Sent: Wednesday, March 29, 2017 10:58 AM
To: 'jacob.a.prebianca@usace.army.mil' <jacob.a.prebianca@usace.army.mil>
Cc: 'Jonathan.E.Rankins@usace.army.mil' <Jonathan.E.Rankins@usace.army.mil>; Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: Spire STL Pipeline - Coldwater Creek

Jacob,

GAI, on behalf of Spire STL Pipeline LLC (Spire), previously coordinated with you regarding the crossing of Coldwater Creek as part of the proposed Spire STL Pipeline Project, located in St. Charles and St. Louis Counties, Missouri. Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension").

The North County Extension proposes to cross Coldwater Creek via horizontal directional drill, as shown on the attached figure. The crossing location is approximately 0.3 miles downstream of the previously evaluated crossing location.

Are there any concerns regarding contamination with this proposed crossing?

Thank you,

Ali

Alessandra M. Trunzo
Project Environmental Specialist

385 E. Waterfront Drive, Homestead, PA 15120-5005

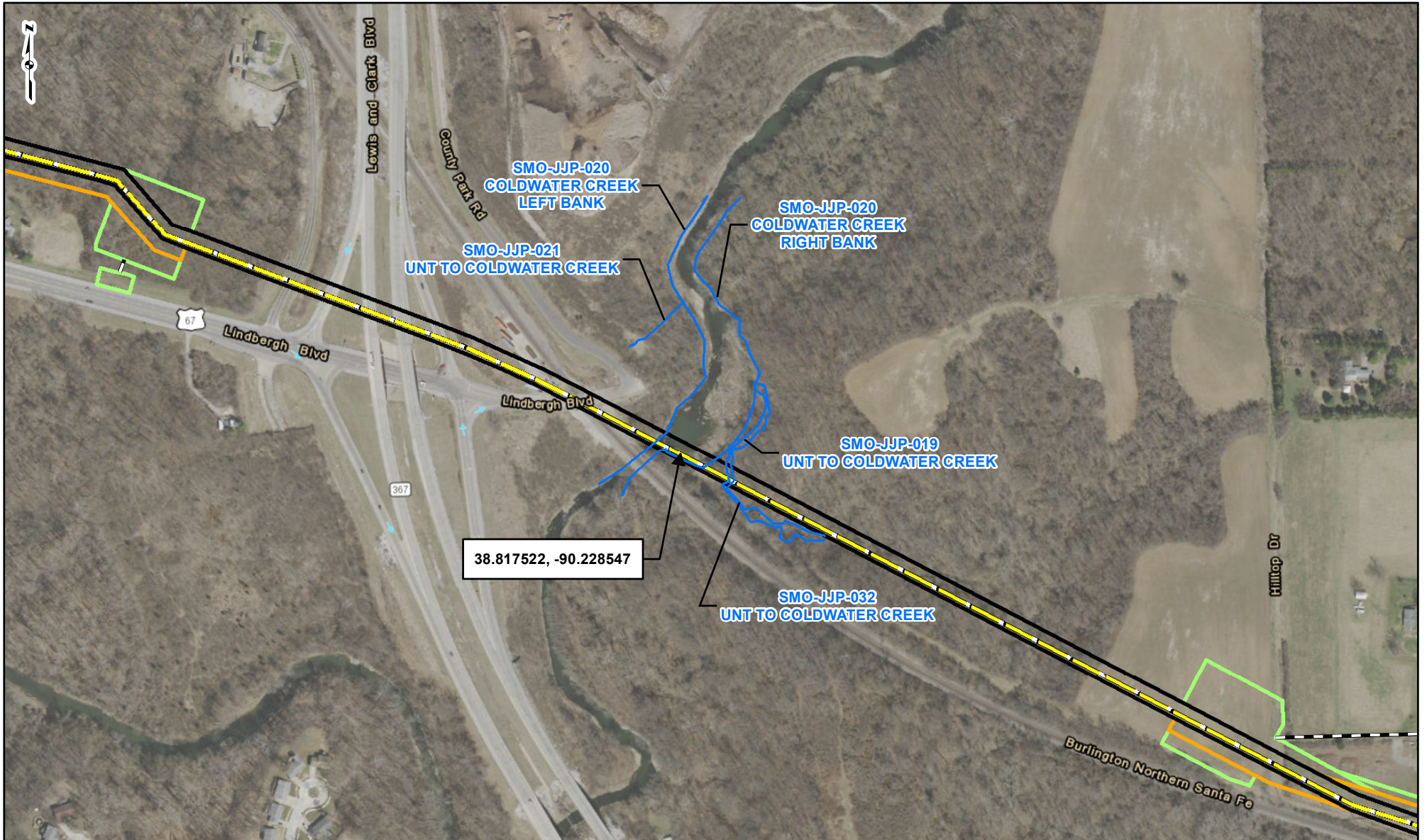
Direct 412.399.5096 **Office** 412.476.2000 **Email** a.trunzo@gaiconsultants.com

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REFERENCE:
 ESRI WORLD IMAGERY AND
 TRANSPORTATION, NAIP, USDA
 FSA, 2014, ACCESSED 03/2017.

DRAFT

LEGEND

- NORTH COUNTY EXTENSION
- ACCESS ROAD
- DELINEATED STREAM
- PERMANENT LIMIT OF DISTURBANCE
- TEMPORARY LIMIT OF DISTURBANCE
- ADDITIONAL TEMPORARY WORKSPACE

0 200 400 800 Feet

**HIGHWAY 67/
 COLDWATER CREEK HDD**

**SPIRE STL
 PIPELINE
 PROJECT**

DRAWN BY: PMH DATE: 3/23/2017
 CHECKED: APPROVED:



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. David Meyer
Regulatory Branch
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Meyer:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in to interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

The updated Project schedule includes the following target dates:

- July 22, 2016 - National Environmental Policy Act ("NEPA") process began (initiation of FERC Pre-filing process);
- August 2016 through March 2017 (Anticipated) - Biological and Cultural Resource Surveys;
- January 26, 2017 - Application Filed with FERC;
- April 2017 (Anticipated) - File Amended Application with FERC;
- September 2017 (Anticipated) - Draft NEPA Document Published; and
- December 2017 (Anticipated) - FERC Decision on Application.

Construction is anticipated to commence in January 2018.

On behalf of Spire, we'd like to take this opportunity to invite the United States Army Corps of Engineers - St. Louis District to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.

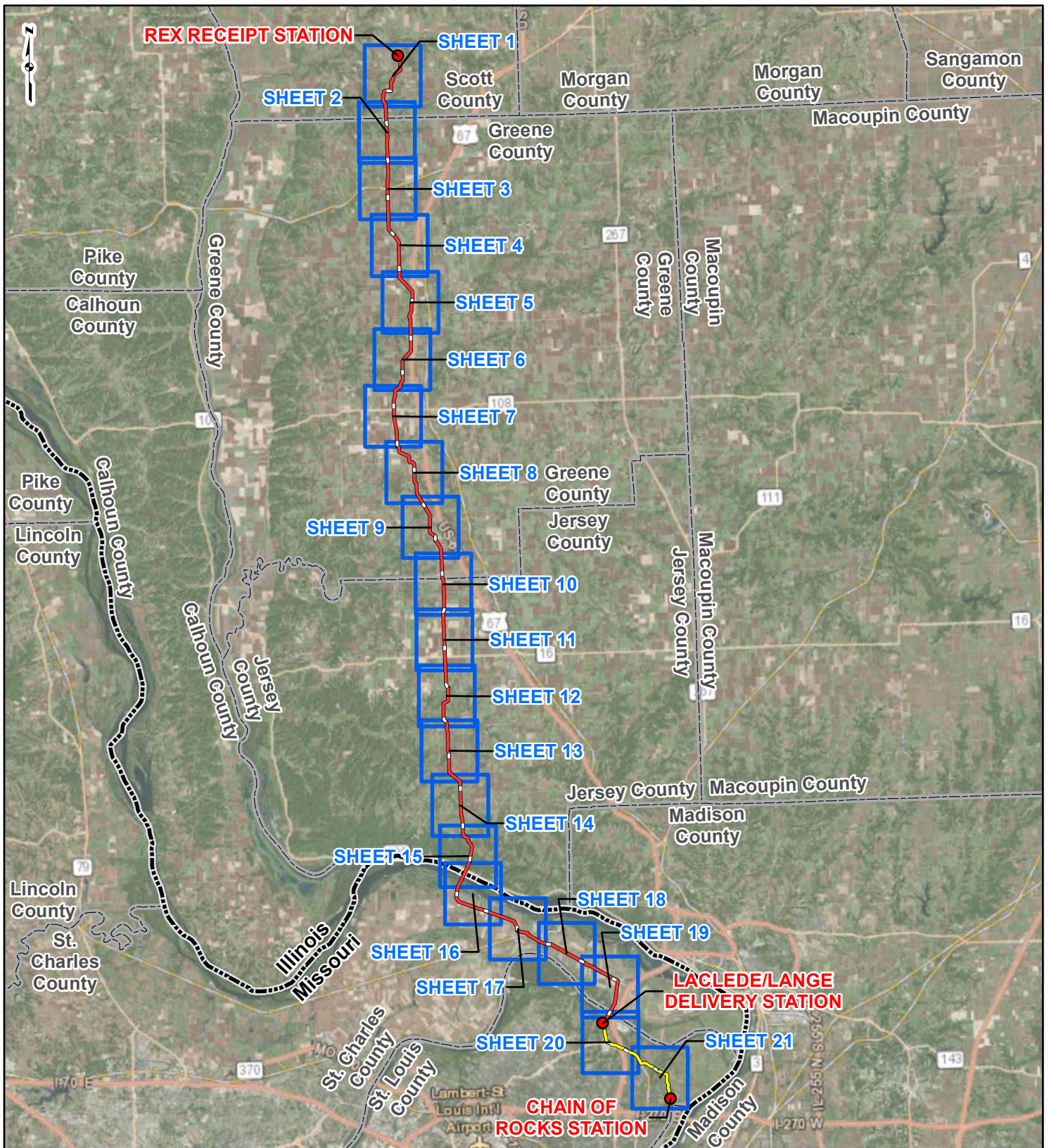


Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)

ATTACHMENT
USGS TOPOGRAPHIC MAP (FIGURE 1)



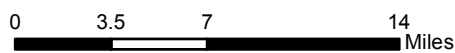
PROJECT LOCATION



SCOTT, GREENE AND JERSEY COUNTIES, ILLINOIS AND ST. CHARLES AND ST. LOUIS COUNTIES, MISSOURI

LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- NORTH COUNTY EXTENSION
- SHEET INDEX
- COUNTY BOUNDARY
- STATE BOUNDARY



**FIGURE 1
LOCATION MAP
SHEET INDEX**

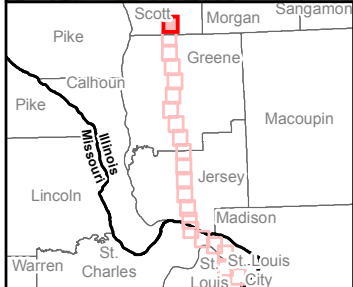
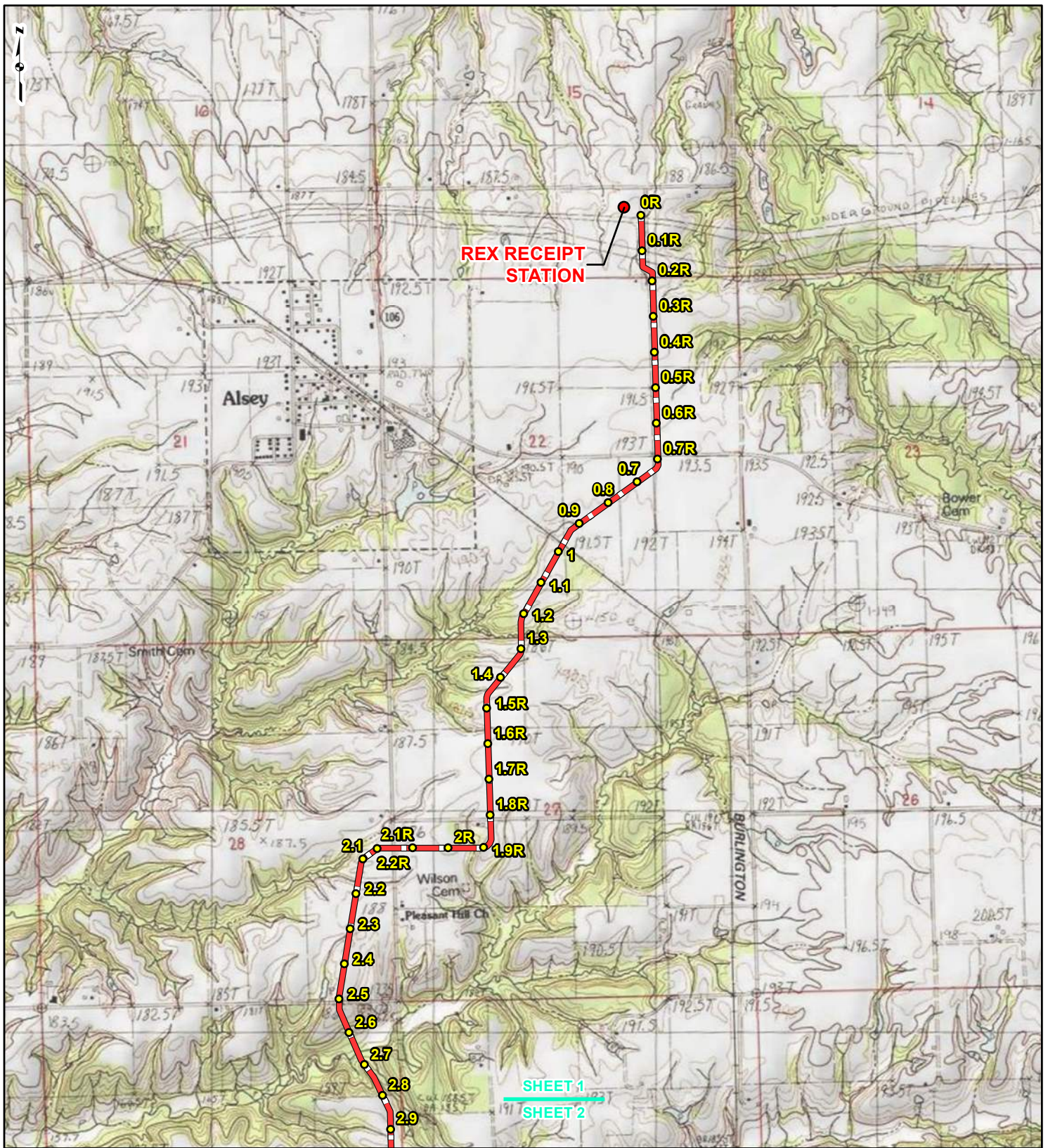
**SPIRE STL
PIPELINE
PROJECT**



DRAWN BY: PMH
CHECKED: SWW

DATE: 3/28/2017
APPROVED: LMF

REFERENCE: ESRI WORLD IMAGERY AND TRANSPORTATION, NAIP, USDA FSA, 2015, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE MILEPOST	— EXTENSION
○ NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION MILEPOST	▭ STATE BOUNDARY

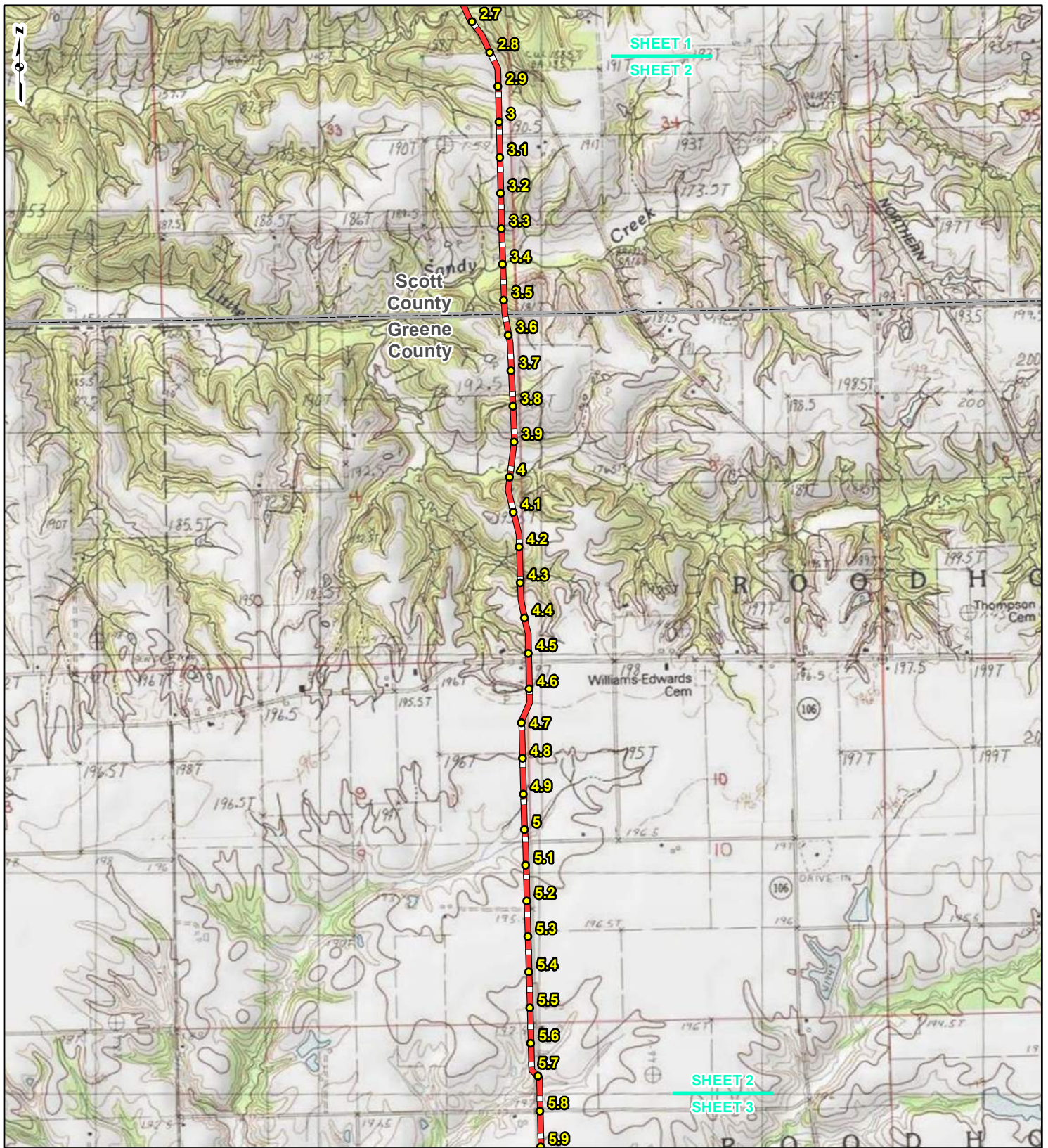
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**FIGURE 1
LOCATION MAP
SHEET 1 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
● MILEPOST	▭ STATE BOUNDARY

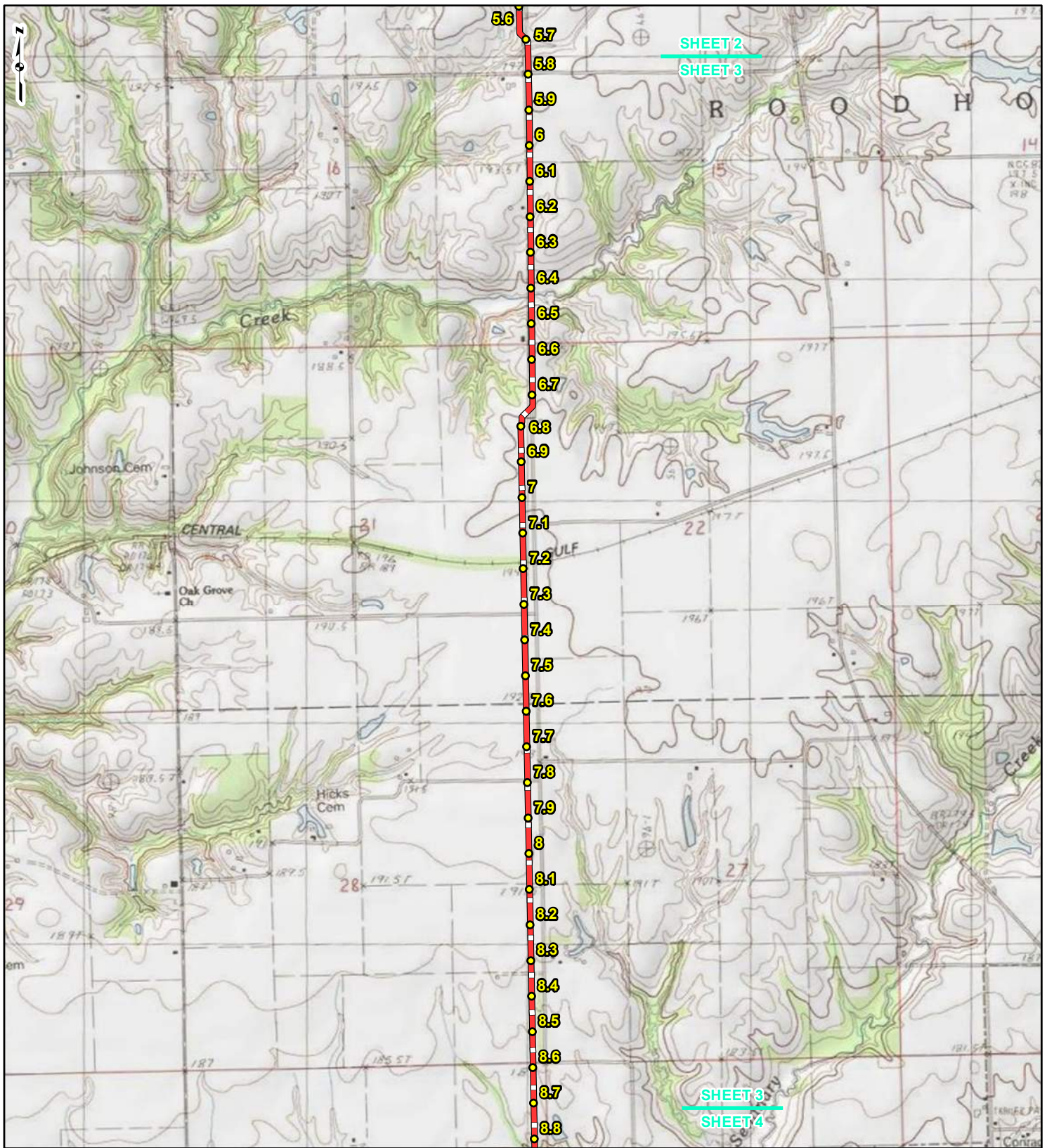
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**FIGURE 1
LOCATION MAP
SHEET 2 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

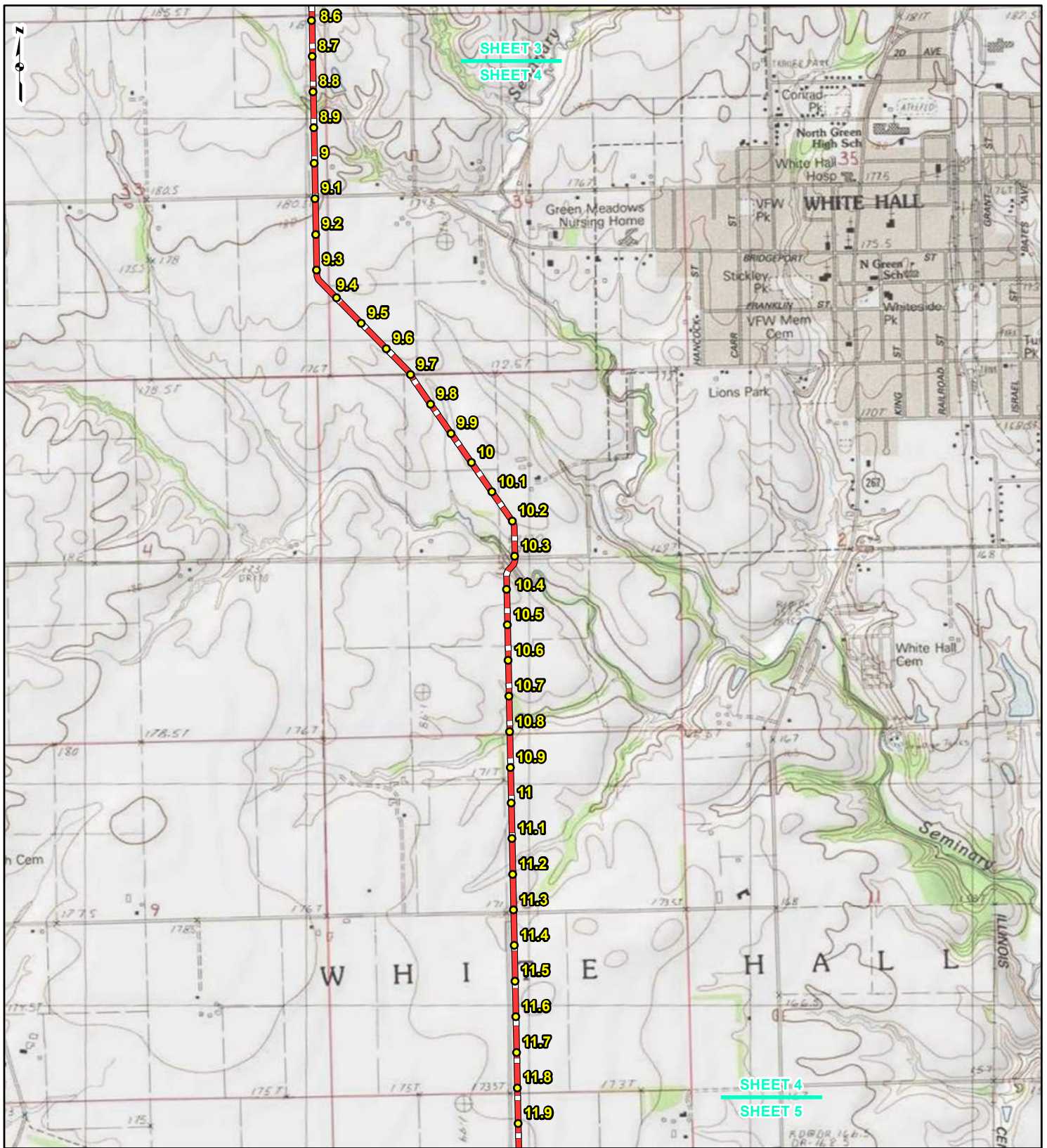
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FIGURE 1
LOCATION MAP
SHEET 3 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLORISSANT (1995), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

0 1,000 2,000 4,000
Feet

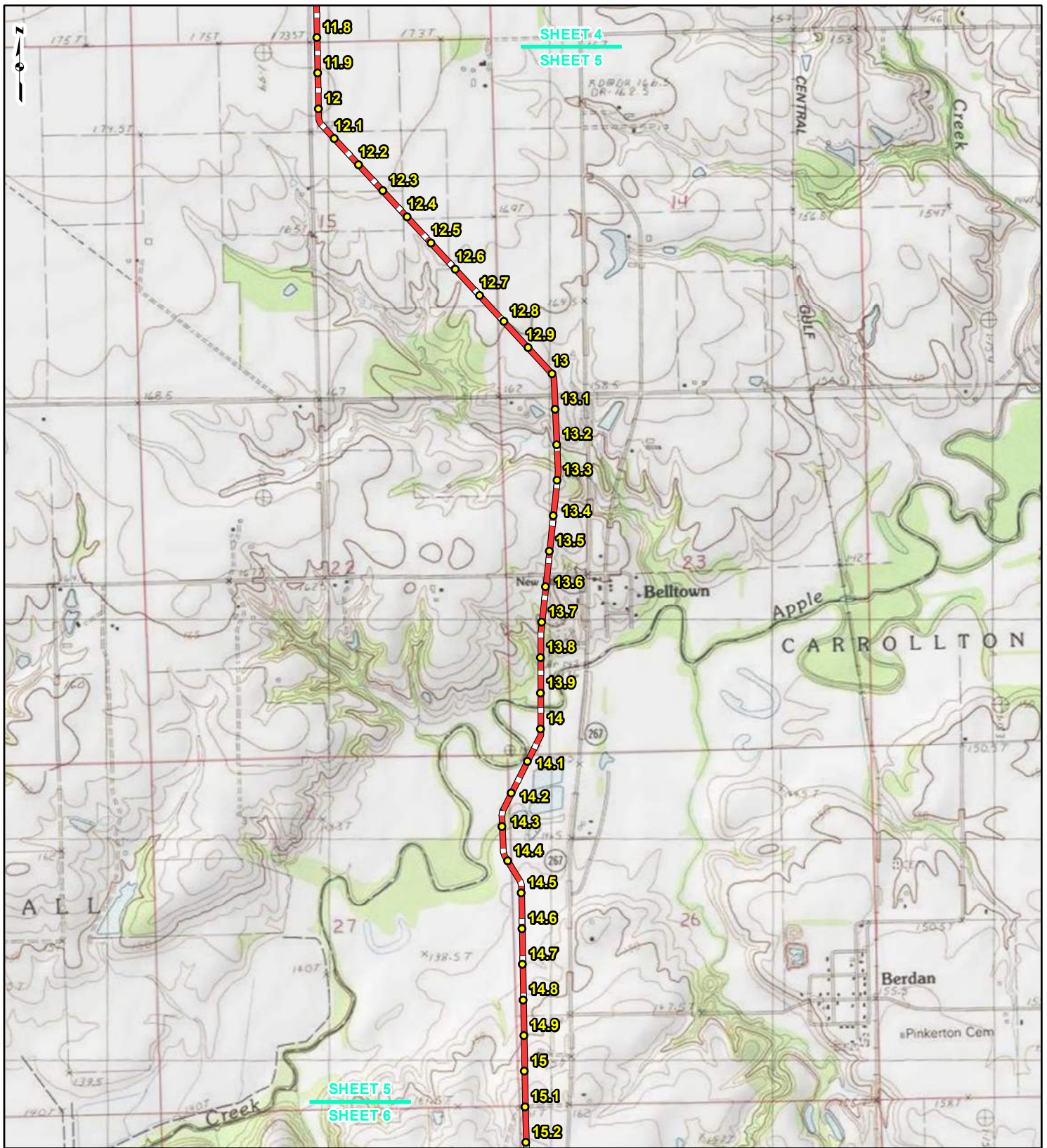
**FIGURE 1
LOCATION MAP
SHEET 4 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

gai consultants spire

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE MILEPOST
- NORTH COUNTY EXTENSION MILEPOST
- 24-INCH PIPELINE
- NORTH COUNTY EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY

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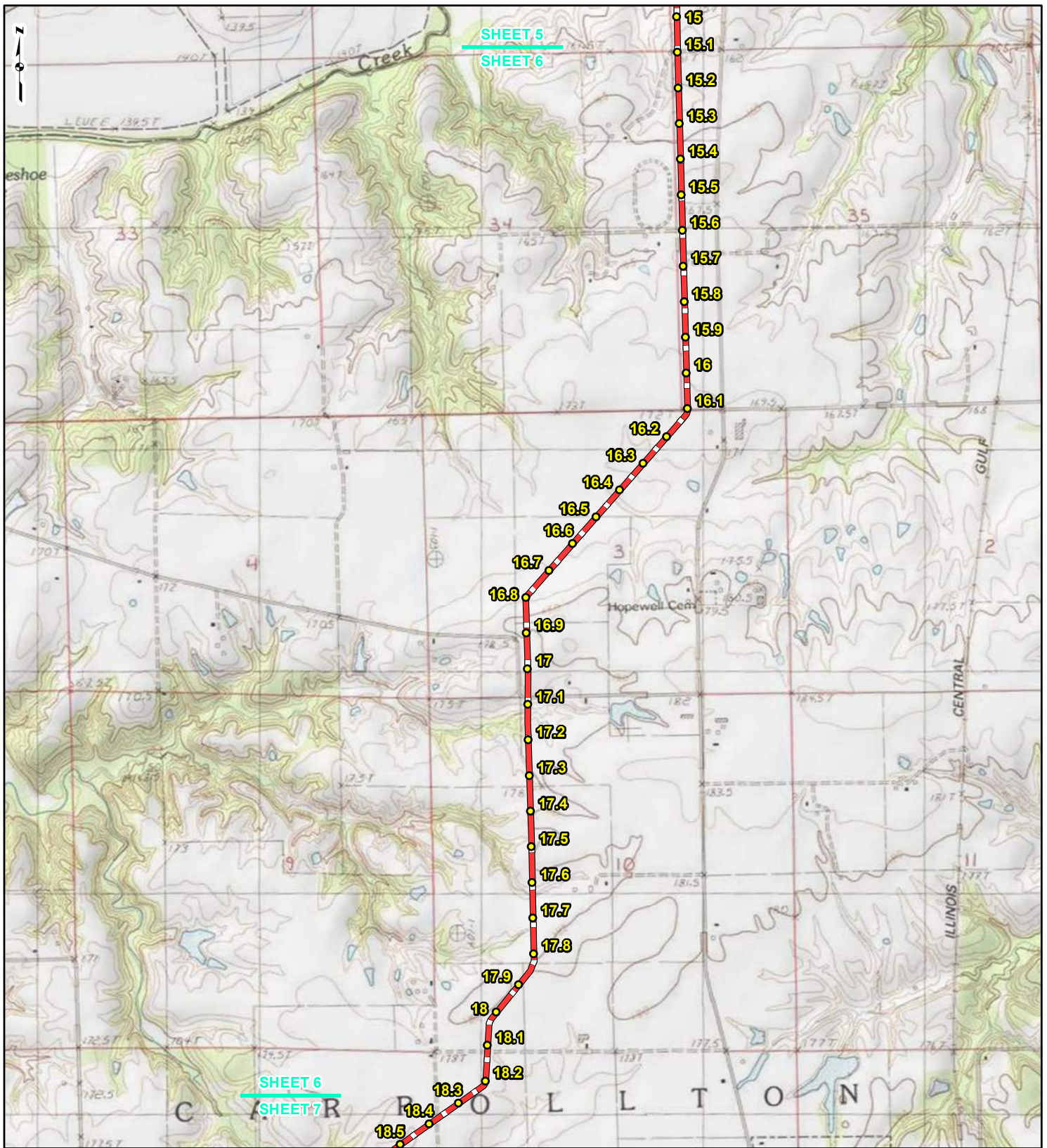
FIGURE 1
LOCATION MAP
SHEET 5 OF 21

SPIRE STL PIPELINE PROJECT

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
— NORTH COUNTY EXTENSION	▭ COUNTY BOUNDARY
● MILEPOST	▭ STATE BOUNDARY

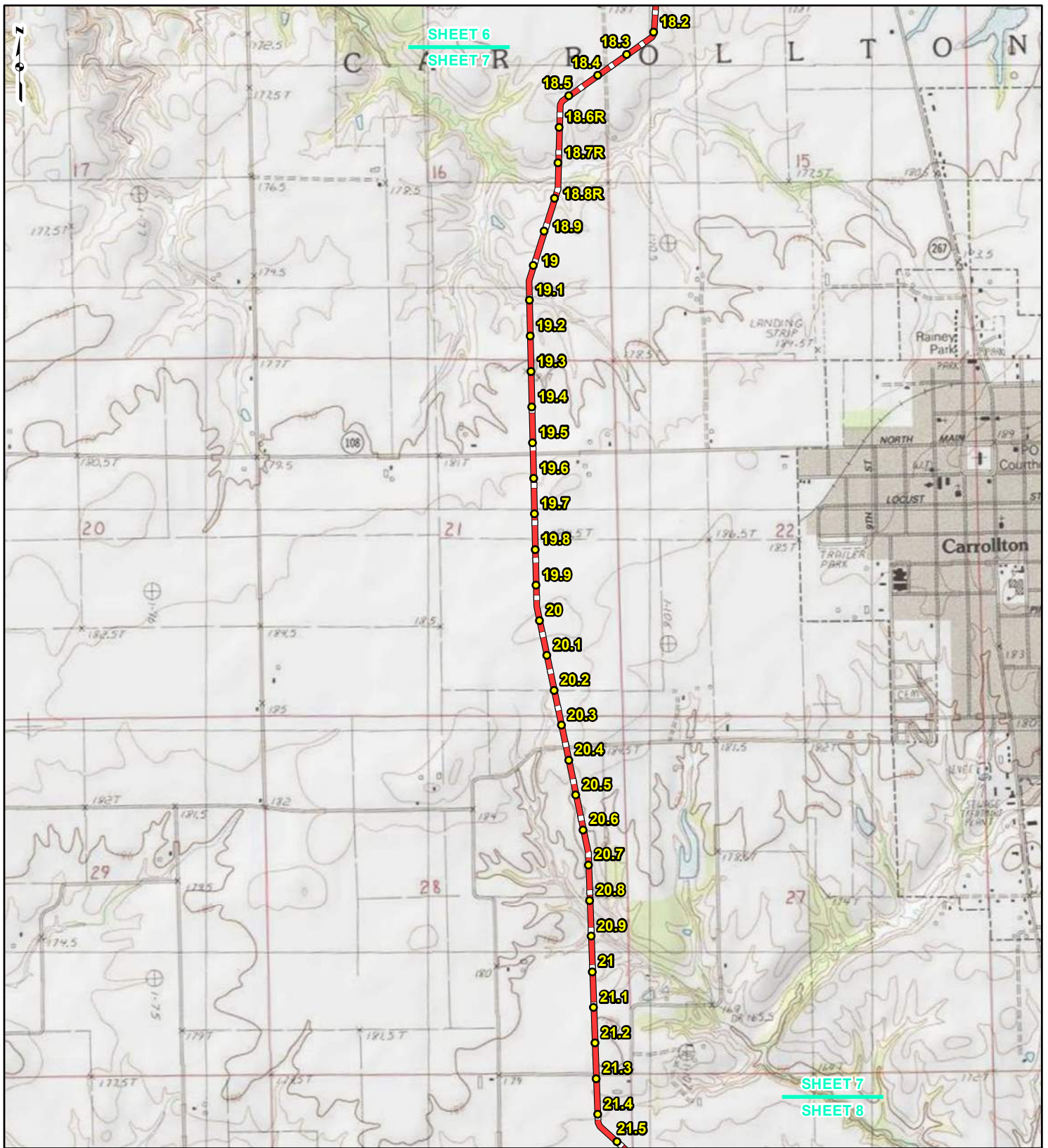
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 6 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

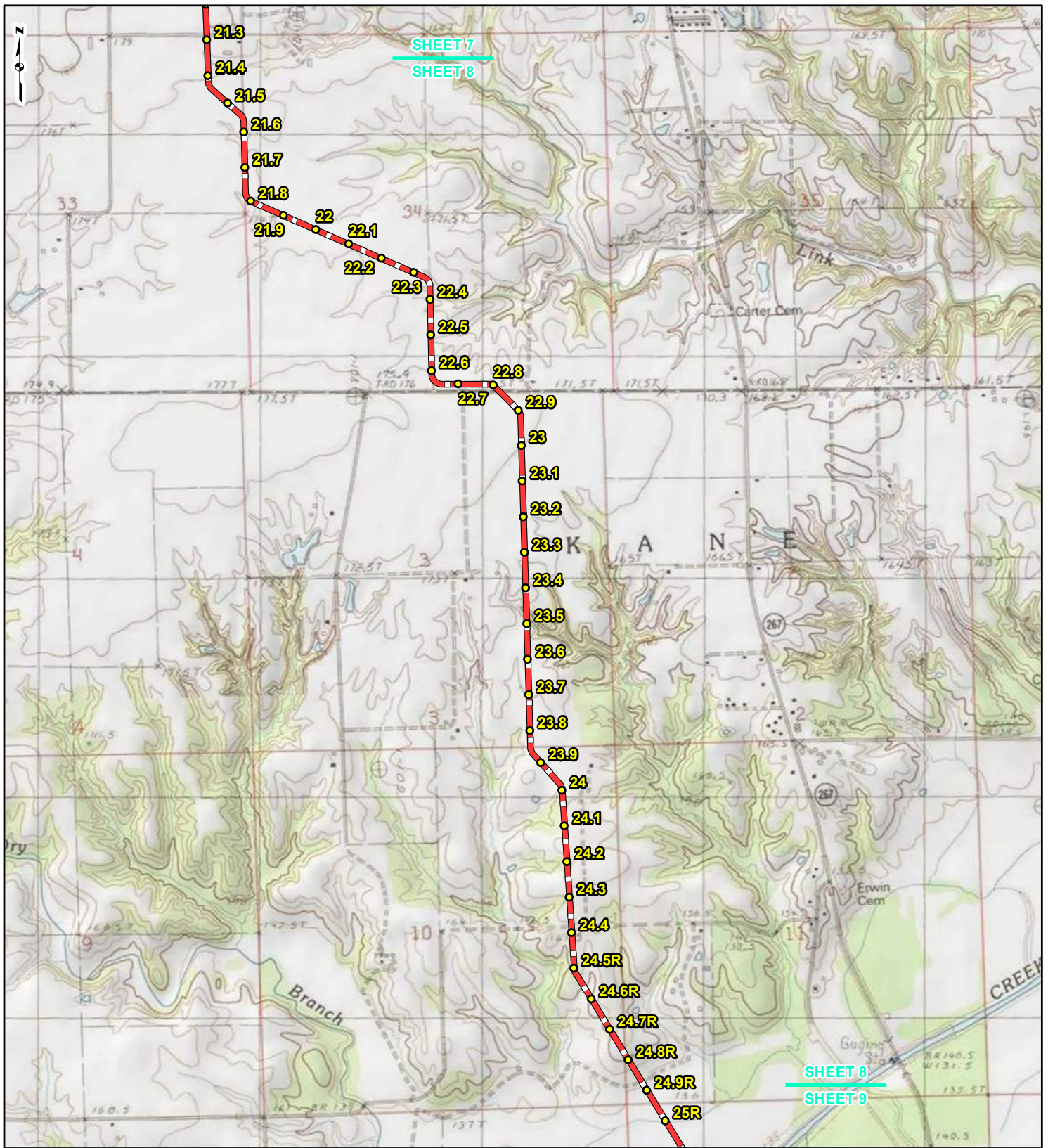
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 7 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

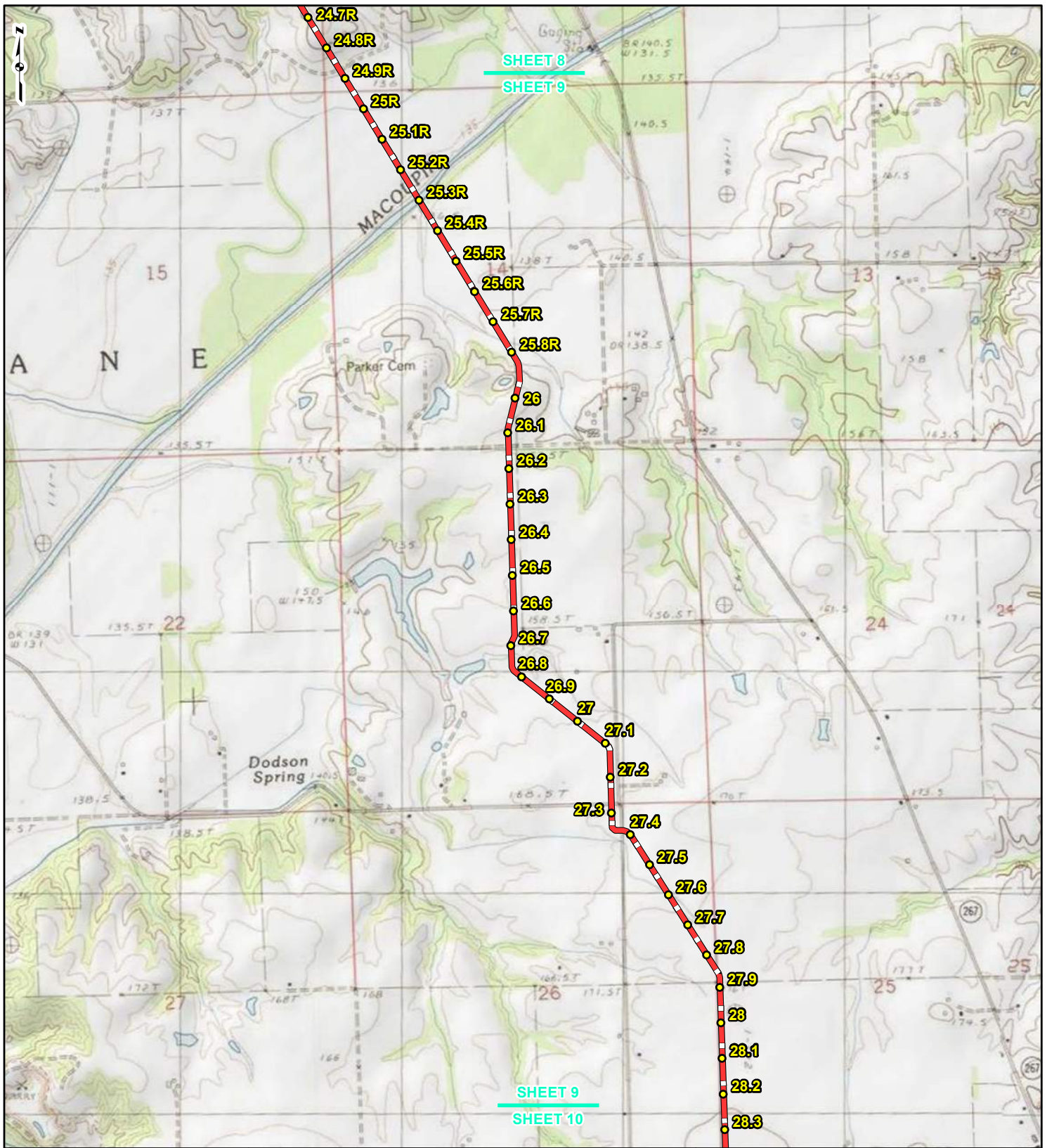
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 8 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

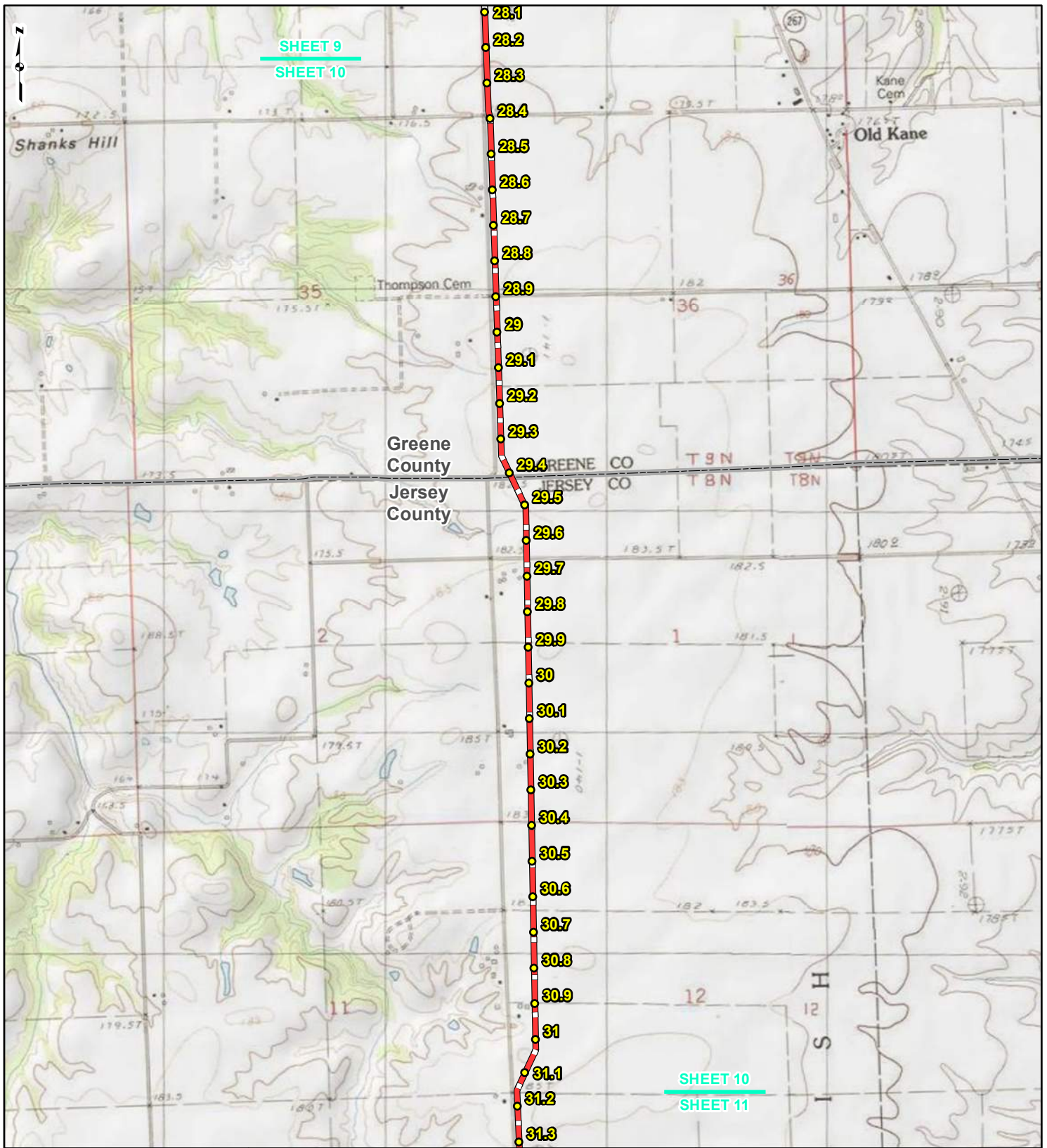
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 9 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 9
SHEET 10

SHEET 10
SHEET 11



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

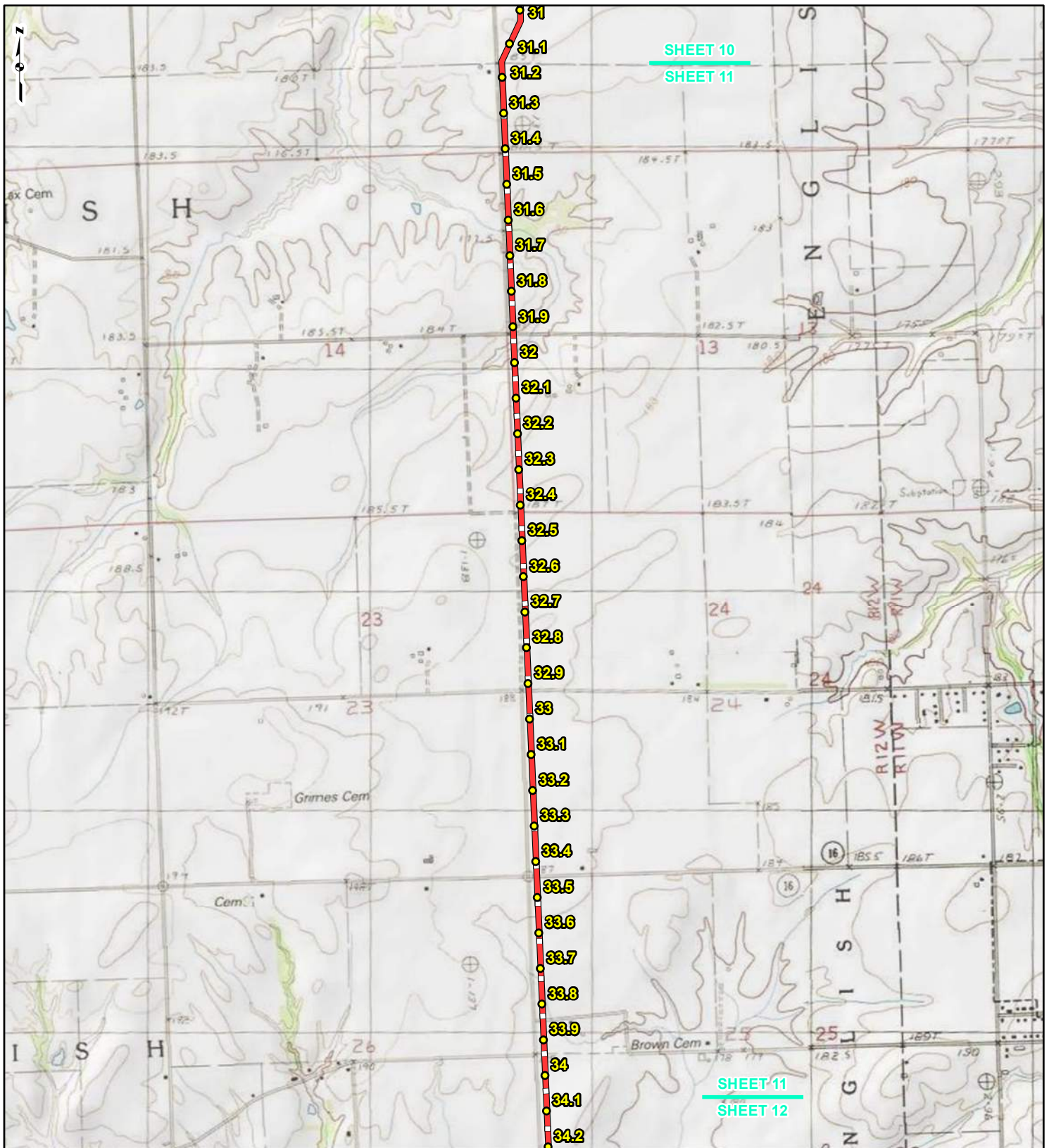
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 10 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

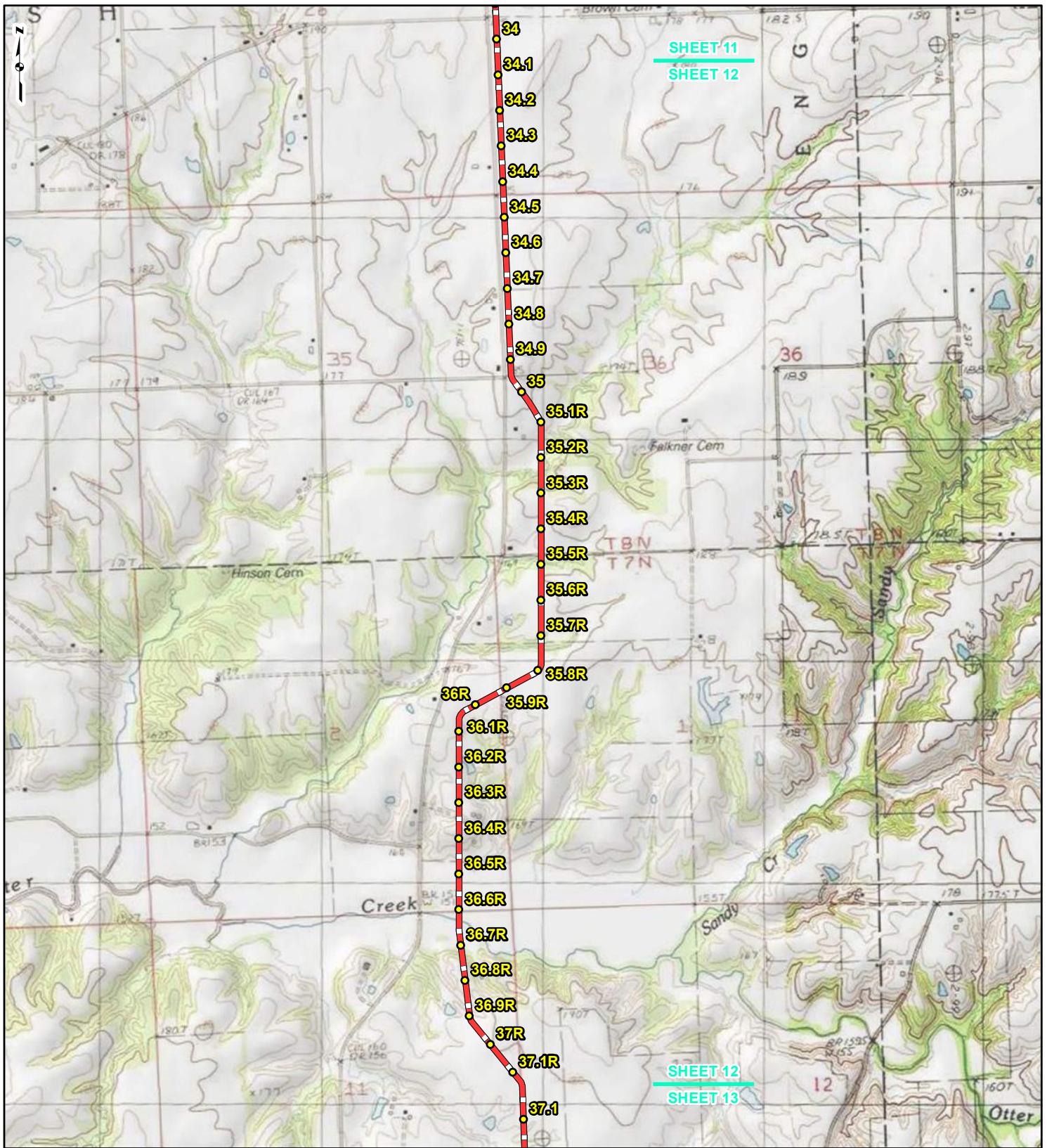
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 11 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 11
SHEET 12

SHEET 12
SHEET 13



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

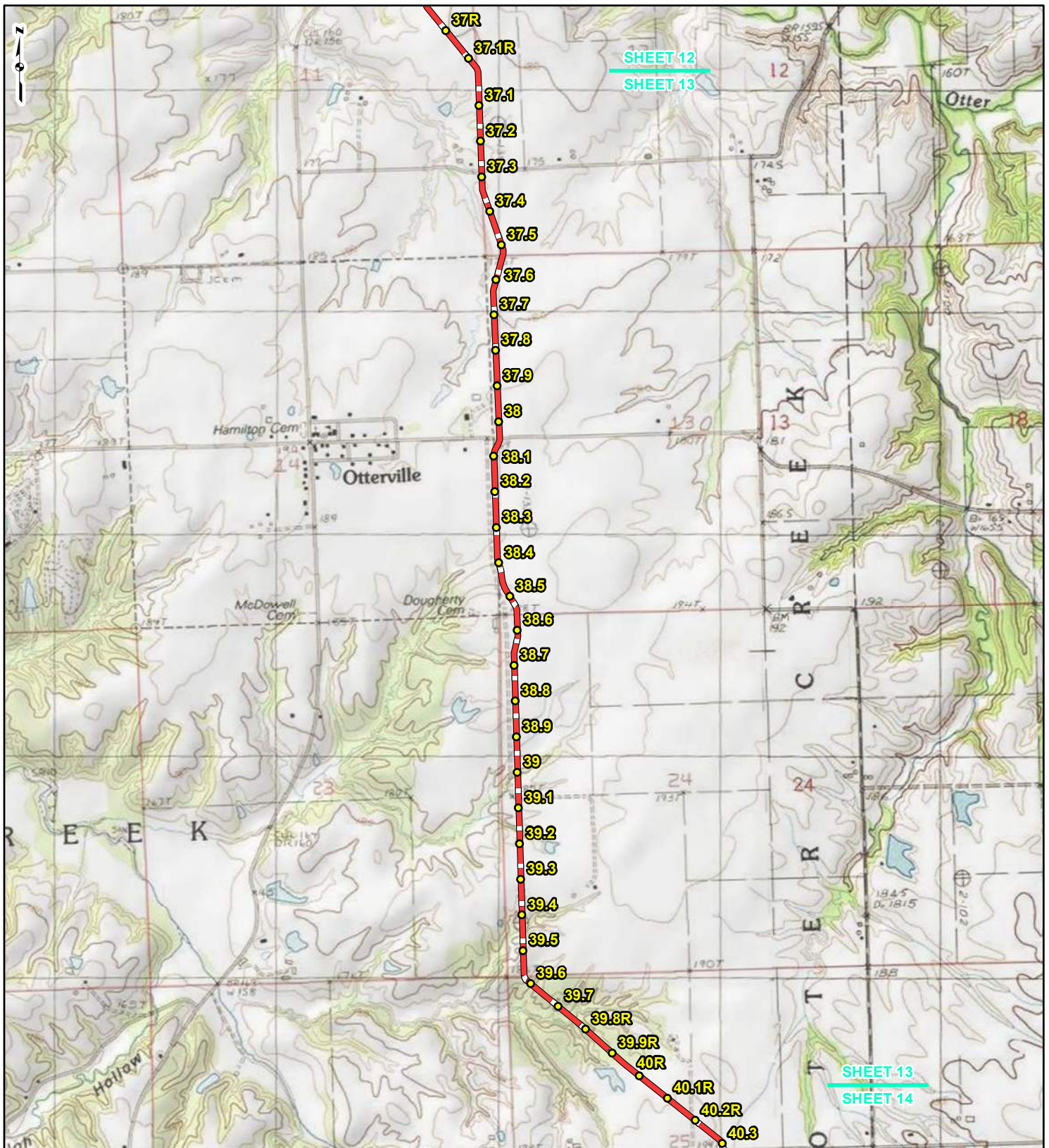
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 12 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

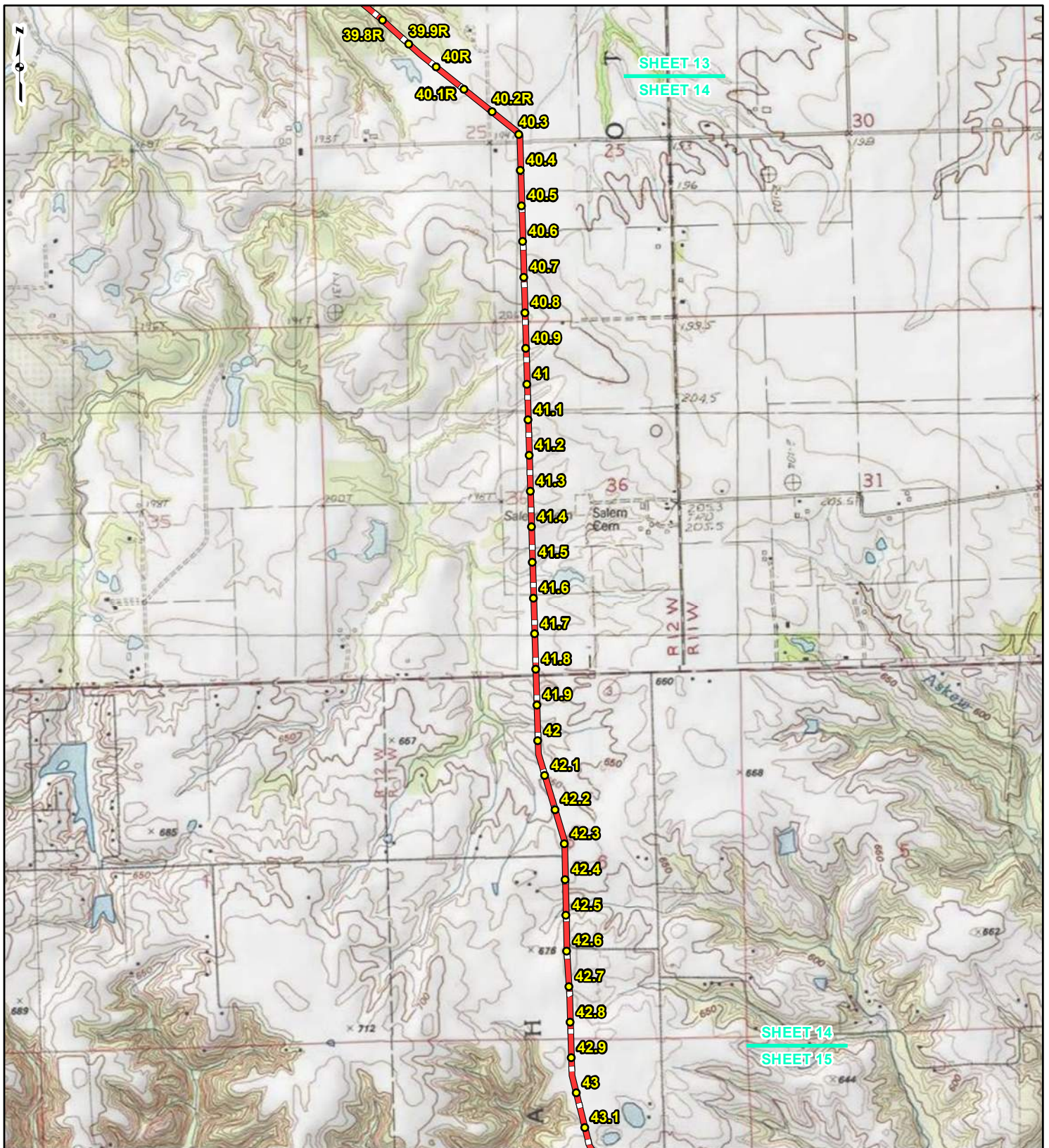
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 13 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

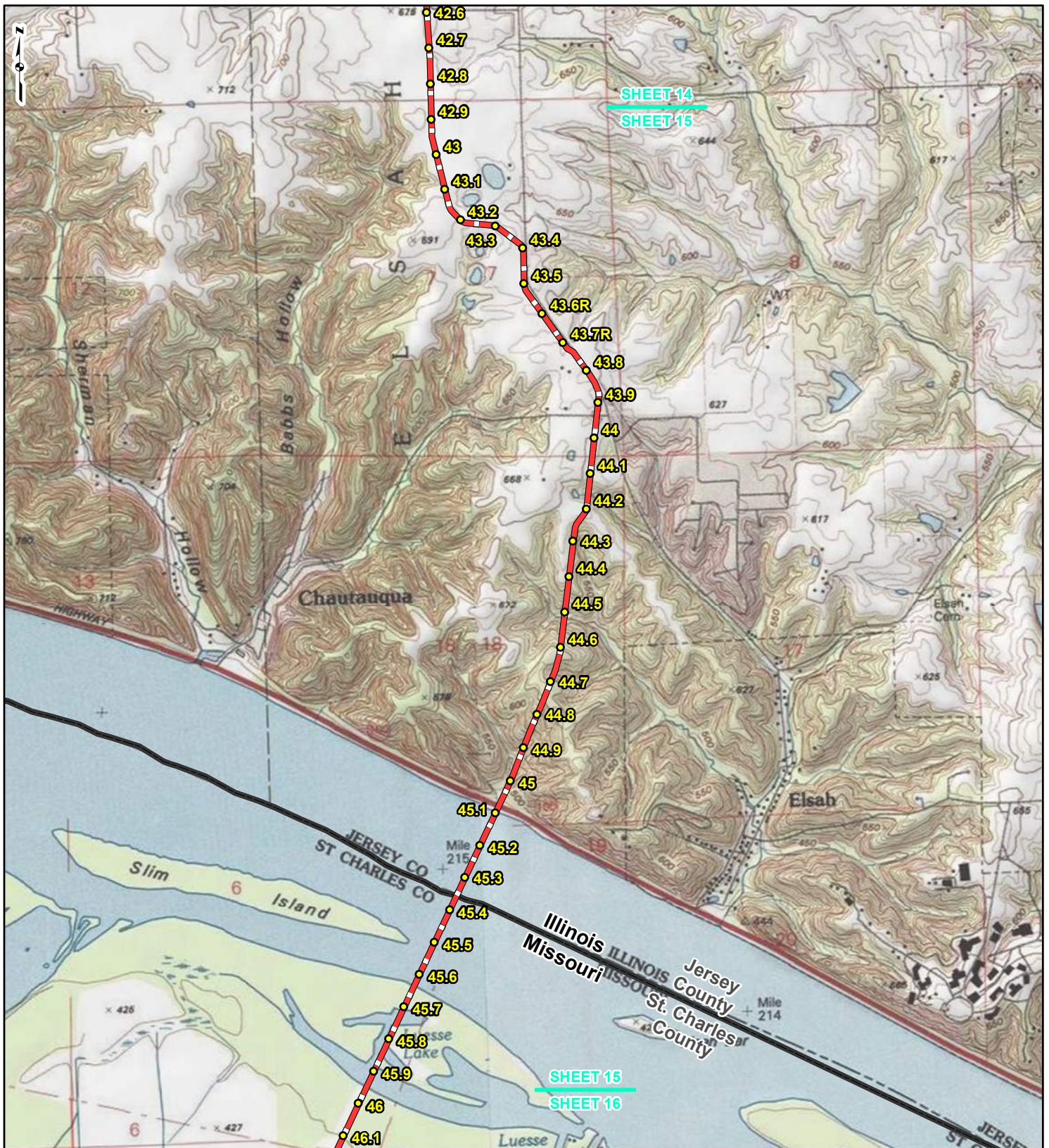
0 1,000 2,000 4,000
Feet

FIGURE 1
LOCATION MAP
SHEET 14 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- MILEPOST
- NORTH COUNTY
- EXTENSION
- MILEPOST
- 24-INCH PIPELINE
- NORTH COUNTY
- EXTENSION
- COUNTY BOUNDARY
- STATE BOUNDARY

0 1,000 2,000 4,000 Feet

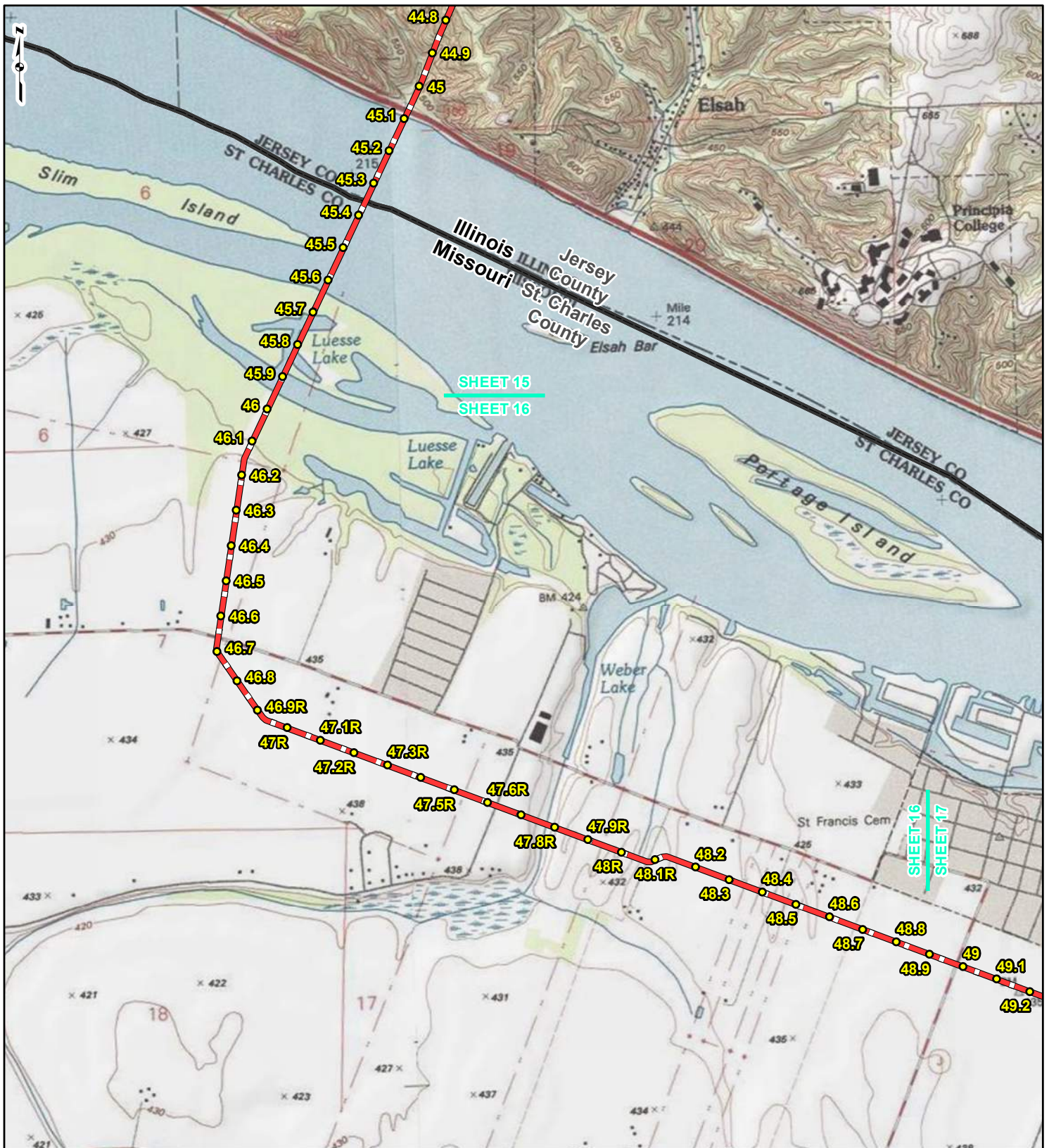
FIGURE 1
LOCATION MAP
SHEET 15 OF 21

SPIRE STL PIPELINE PROJECT

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

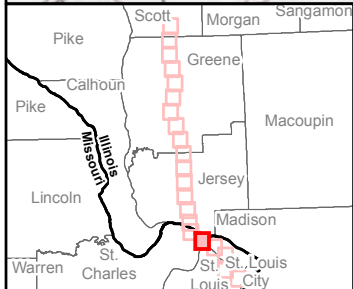
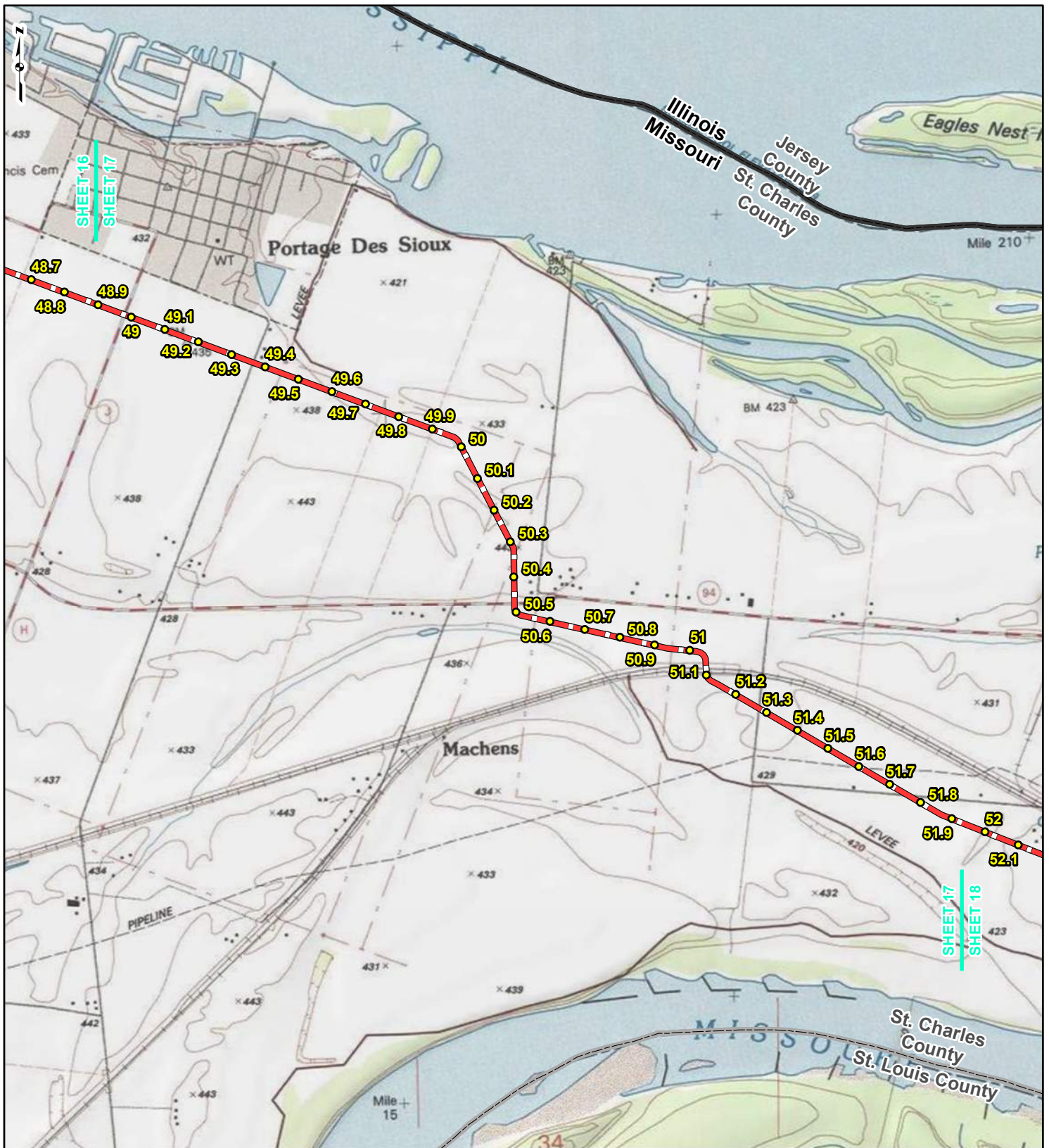
0 1,000 2,000 4,000
Feet

FIGURE 1
LOCATION MAP
SHEET 16 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

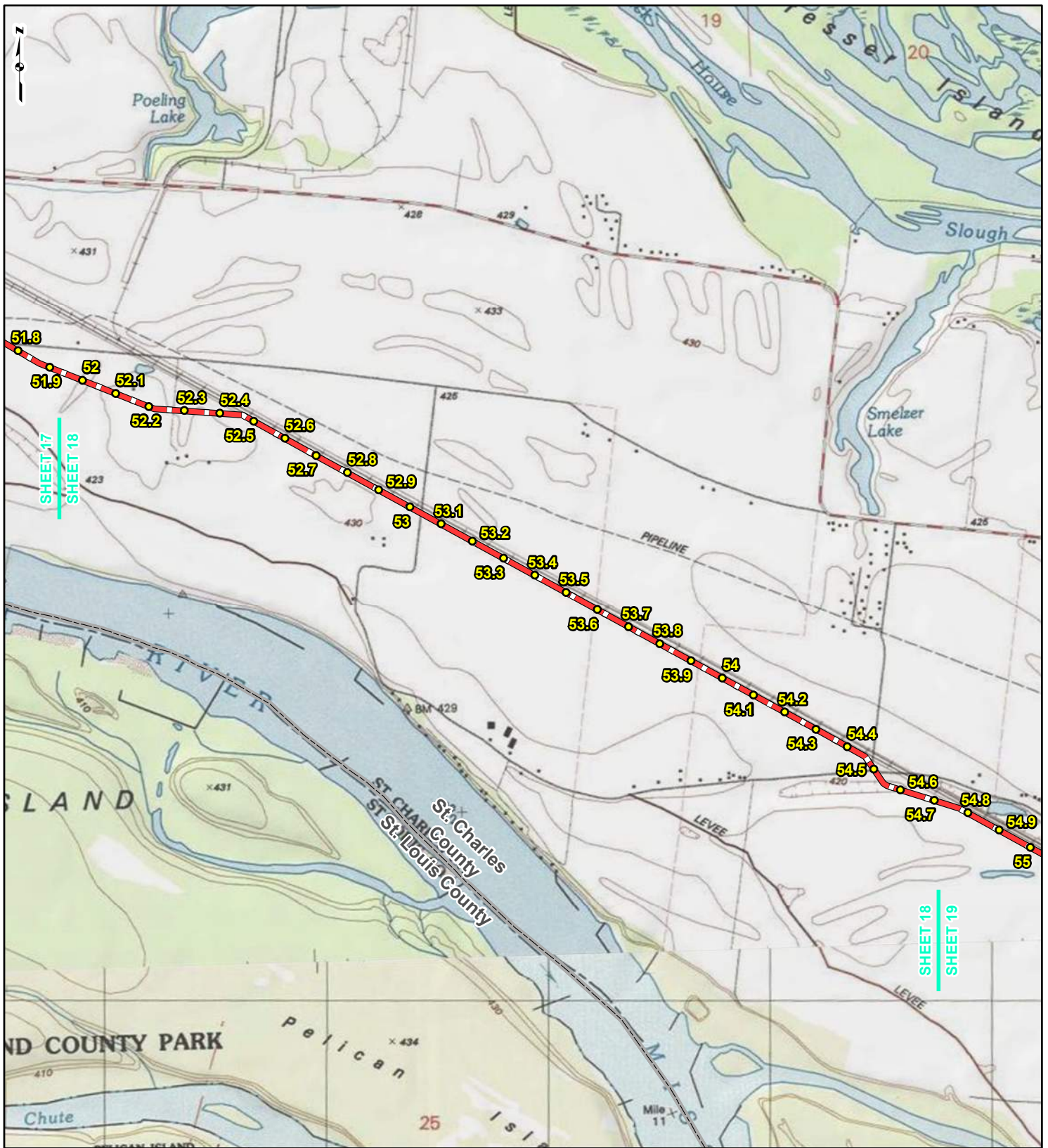
0 1,000 2,000 4,000
Feet

FIGURE 1
LOCATION MAP
SHEET 17 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.





LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

0 1,000 2,000 4,000
Feet

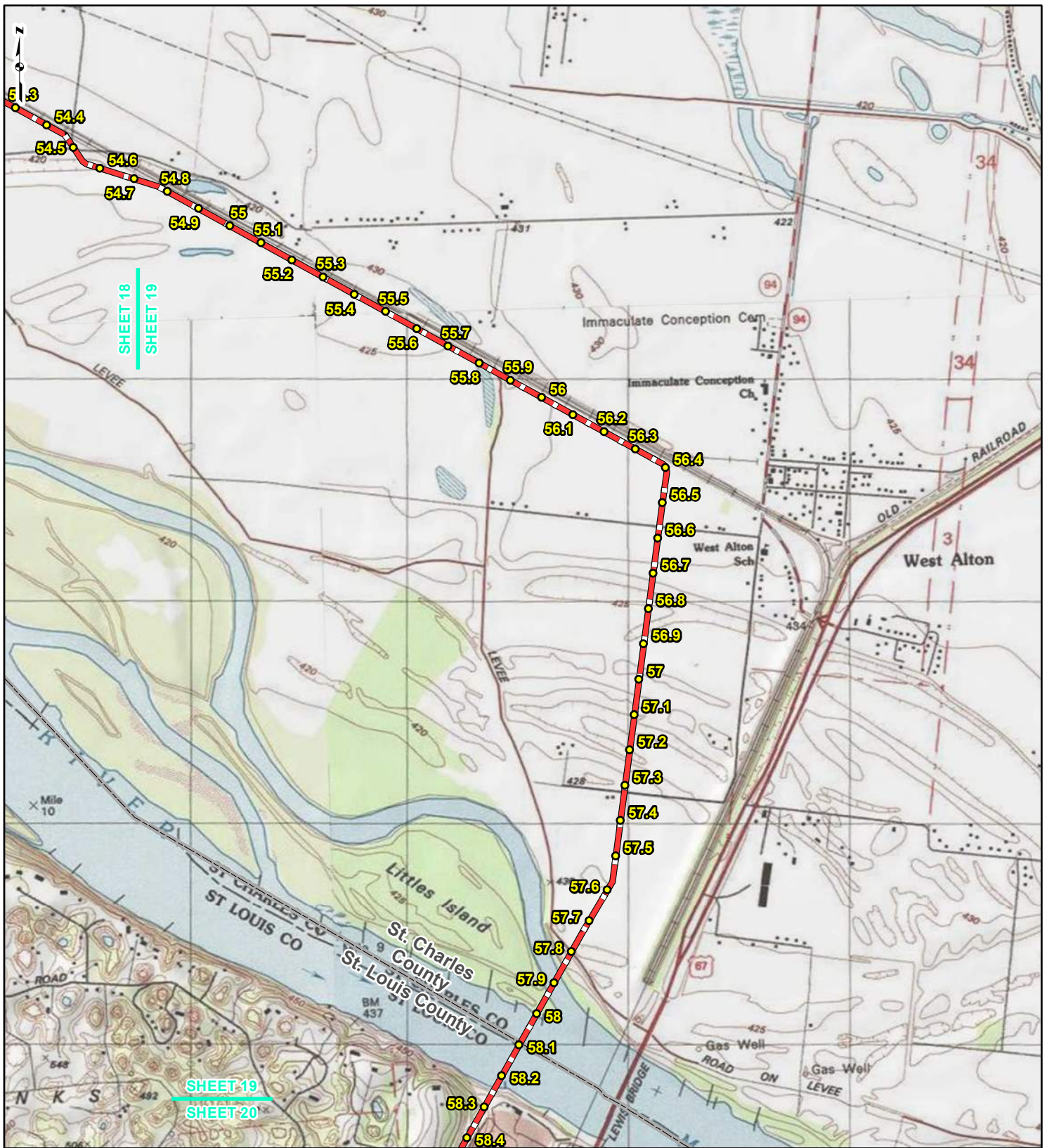
FIGURE 1
LOCATION MAP
SHEET 18 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

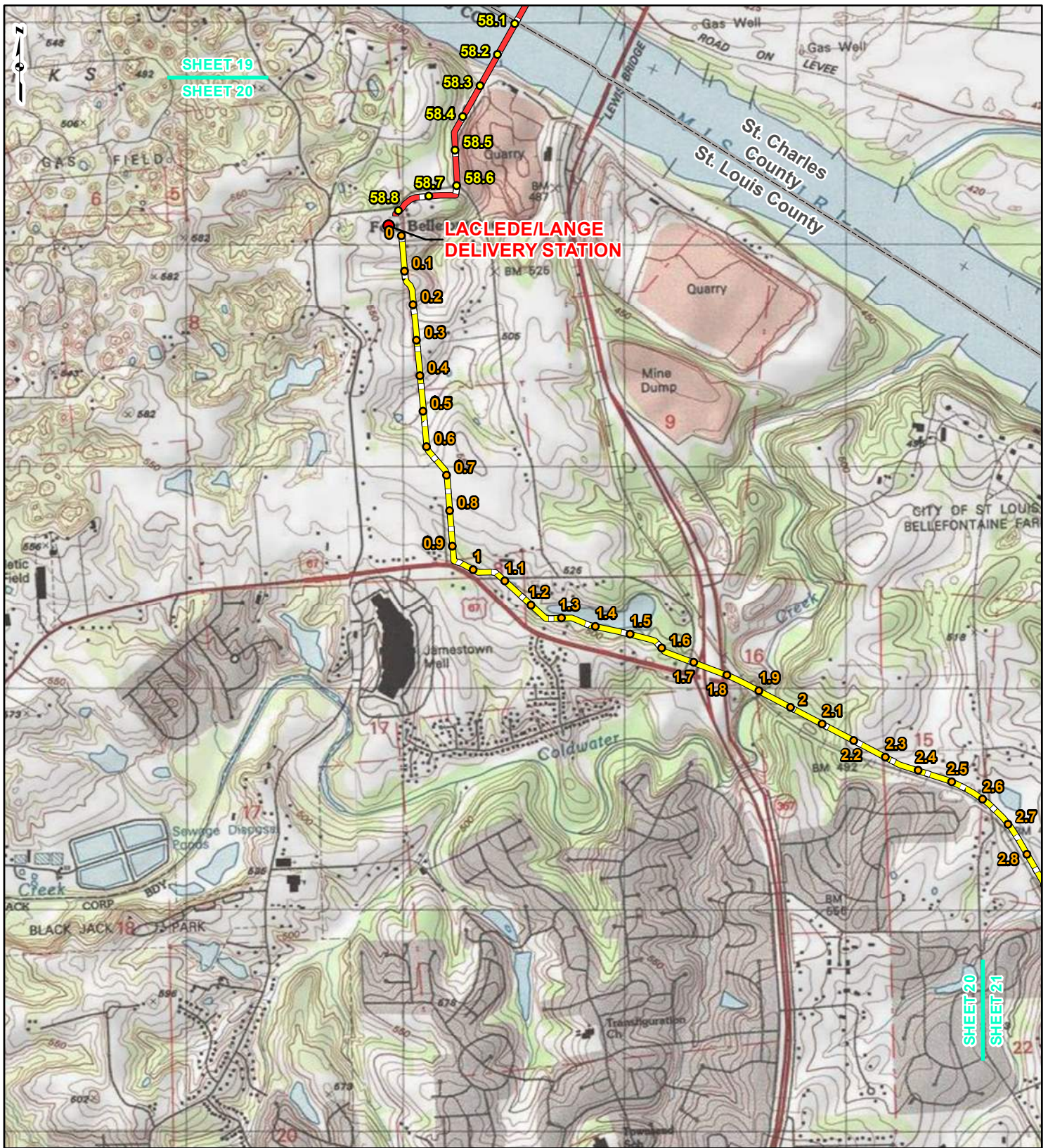
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 19 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 19
SHEET 20

**LACLEDE/LANGE
DELIVERY STATION**

SHEET 20
SHEET 21



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE MILEPOST
- NORTH COUNTY EXTENSION MILEPOST
- 24-INCH PIPELINE NORTH COUNTY
- EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY

0 1,000 2,000 4,000 Feet

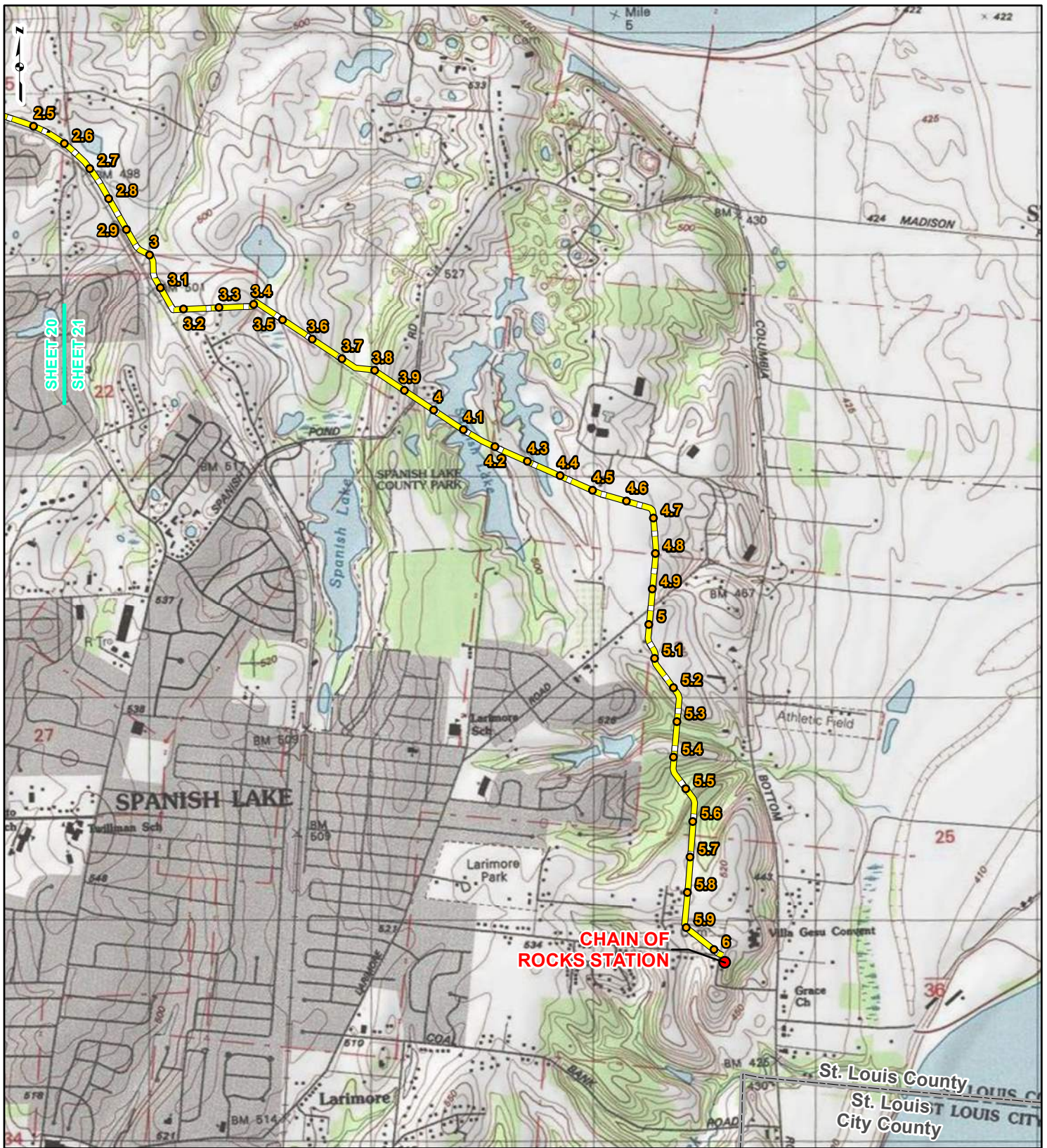
**FIGURE 1
LOCATION MAP
SHEET 20 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ELSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE EXTENSION	— 24-INCH PIPELINE EXTENSION
● NORTH COUNTY MILEPOST	▭ COUNTY BOUNDARY
● EXTENSION MILEPOST	▭ STATE BOUNDARY

0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 21 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Dr. Teri Allen
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street
St. Louis, MO 63103

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Dr. Allen:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in to interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC interconnect through the northern portion of St. Louis County and terminate at a new interconnect

with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

The updated Project schedule includes the following target dates:

- July 22, 2016 - National Environmental Policy Act ("NEPA") process began (initiation of FERC Pre-filing process);
- August 2016 through March 2017 (Anticipated) - Biological and Cultural Resource Surveys;
- January 26, 2017 - Application Filed with FERC;
- April 2017 (Anticipated) - File Amended Application with FERC;
- September 2017 (Anticipated) - Draft NEPA Document Published; and
- December 2017 (Anticipated) - FERC Decision on Application.

Construction is anticipated to commence in January 2018.

On behalf of Spire, we'd like to take this opportunity to invite the United States Army Corps of Engineers - St. Louis District to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. Michael Chapman
Implementation Manager - Missouri River Recovery Program
United States Army Corps of Engineers - Kansas City District
601 E. 12th Street
Kansas City, MO 64106

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Chapman:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

The updated Project schedule includes the following target dates:

- July 22, 2016 - National Environmental Policy Act ("NEPA") process began (initiation of FERC Pre-filing process);
- August 2016 through March 2017 (Anticipated) - Biological and Cultural Resource Surveys;
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- April 2017 (Anticipated) - File Amended Application with FERC;
- September 2017 (Anticipated) - Draft NEPA Document Published; and
- December 2017 (Anticipated) - FERC Decision on Application.

Construction is anticipated to commence in January 2018.

On behalf of Spire, we'd like to take this opportunity to invite the United States Army Corps of Engineers - Kansas City District to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

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2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Ms. Lynn Hoerner
Real Estate Division
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Ms. Hoerner:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

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Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

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On behalf of Spire, we'd like to take this opportunity to invite the United States Army Corps of Engineers - St. Louis District to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. Keith McMullen
Illinois Section Chief
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. McMullen:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in to interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

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Construction is anticipated to commence in January 2018.

On behalf of Spire, we'd like to take this opportunity to invite the United States Army Corps of Engineers - St. Louis District to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. Jon Rankins
Radiation Safety Officer
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Rankins:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

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Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

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If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. Jacob Prebianca
Formerly Utilized Sites Remedial Action Program
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Prebianca:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

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If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



March 28, 2017

Mr. Edward Rodriguez Robles
ICW Program Manager
United States Army Corps of Engineers - St. Louis District
1222 Spruce Street, #4
St. Louis, MO 63103-2833

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Rodriguez Robles:

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interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

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Sincerely,

GAI Consultants, Inc.



Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)



Indianapolis Office
6420 Castleway West Drive
Indianapolis, Indiana 46250

T 317.570.6800
F 317.570.6810

March 8, 2017

Project E160438.00.005.004

Mr. Ed Rodriguez Robles
ICW Program Manager
US Army Corps of Engineers
St. Louis District Office
1222 Spruce Street
St. Louis, Missouri 63103

**Spire STL Pipeline LLC
Spire STL Pipeline Project
Supplemental Information to Section 408 Permit Application for
Mississippi River, Missouri River, USACE Property
and Consolidated North County Levee Crossings**

Dear Mr. Rodriguez:

GAI Consultants, Inc. (GAI), on behalf of Spire STL Pipeline LLC (Spire), is submitting this additional information as a supplement to the Section 408 Permit Application, which was submitted to your office on January 27, 2017.

Correspondence between Spire and the Consolidated North County Levee District (CNCLD) has been ongoing in reference to the letter of endorsement required of the levee district. CNCLD has requested to conduct an independent review of the Project prior to issuing the letter of endorsement, which was stated in the attached letter dated February 23, 2017 (Attachment A).

Additional information regarding the proposed Horizontal Directional Drill (HDD) rigs and workspace has also been included as a supplement to Sections 3 and 4 in the previously submitted Section 408 Permit Application. These materials include dimensions and specifications of the proposed HDD rigs (Attachment B), a typical HDD bore entrance footprint drawing (Attachment C), and a typical HDD bore exit footprint drawing (Attachment D).

If you have any questions regarding this submission, please contact me at 614-270-9357 or via email at j.fuller@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.

A handwritten signature in blue ink, appearing to read 'Jayme Fuller'.

Jayme Fuller
Environmental Manager

JF/lmt

Attachments: Attachment A (Consolidated North County Levee District Correspondence), Attachment B (Proposed Horizontal Directional Drill Rig Specifications), Attachment C (Typical HDD Entrance Drawing), and Attachment D (Typical HDD Exit Drawing)



Indianapolis Office
6420 Castleway West Drive
Indianapolis, IN 46250

T 317.570.6800
F 317.570.6810

January 27, 2017
Project E160438.00

David Meyer
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, Missouri 63103-2833

**Nationwide Permit 12 Pre-Construction Notification and Section 10 Letter of Permission Request
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois, and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Meyer:

On behalf of Spire STL Pipeline LLC ("Spire"), GAI Consultants, Inc. ("GAI") is submitting a Nationwide Permit 12 Pre-Construction Notification (PCN) and Section 10 letter of permission request for the Spire STL Pipeline Project ("Project"), located in Scott, Greene, and Jersey Counties, Illinois ("IL"), and St. Charles and St. Louis Counties, Missouri ("MO").

The proposed Spire STL Pipeline Project will consist of approximately 59 miles of new, greenfield, 24-inch diameter steel pipeline (referred to as the "24-inch pipeline" portion of the Project) originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east in St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River and ties into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). As part of the proposed Project and subject to LGC's receipt of approval from the Missouri Public Service Commission ("MPSC"), Spire is proposing to purchase Line 880 from LGC and modify the pipeline before placing it into interstate service. Line 880 consists of approximately seven miles of existing 20-inch diameter steel natural gas pipeline located in St. Louis County, Missouri that will connect the 24-inch pipeline part of the Project to the Enable Mississippi River Transmission, LLC ("Enable MRT") pipeline along the western bank of the Mississippi River in St. Louis County, Missouri at the terminus of the Project. The total length of the Project pipelines will be approximately 66 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project will also include the construction of three new metering and regulating ("M&R") station interconnects with REX in Illinois and LGC and Enable MRT in Missouri and the construction of a new facility at an existing LGC site along Line 880. This Project, as proposed, falls under the oversight of the Federal Energy Regulatory Commission (FERC). The FERC plan and procedures will be adhered to in respect to aquatic resource crossings and restoration, and have been included as Attachment F.

GAI, on behalf of Spire, is hereby submitting for review two hard copies and an electronic copy of the Project's Nationwide Permit ("NWP") 12 PCN. This package has been prepared based on the Project adhering to the general and regional conditions of a NWP-12 and Section 401 Water Quality Certification General and Specific Conditions within the State of Illinois and Missouri. Individual water quality certification was required by the Missouri Department of Natural Resources for proposed impacts associated with Line 880 at the crossing of Coldwater Creek, a designated metropolitan no-discharge stream, as per 10 CSR 20-7.031. A copy of the Section 401 Water Quality Certification is included as Attachment B. An Illinois-specific copy of this PCN has also been provided to the Illinois Department of Natural Resources and the Illinois Environmental Protection Agency concurrently with this submittal for their confirmation of General Section 401 coverage.

United States Fish and Wildlife Service consultation was initiated on August 29, 2016 and a response was received on December 8, 2016. Correspondence with the Illinois Historic Preservation Agency and the Missouri Historic Preservation Agency was initiated on August 29, 2016. Responses from these agencies will be provided once received in the anticipation that this permit application's review can be initiated without those documents in hand. Since a portion of the Project is unavailable for cultural resources investigation access at this time, we are requesting

authorization of Single and Complete Projects that receive this concurrence on a time-staggered basis. Agency correspondence is included as Attachment D in the attached PCN.

Nationwide Permit (NWP) 12 and Section 10 Letter of Permission Request

Spire respectfully requests the United States Army Corps of Engineers' (USACE) concurrence that the proposed Project can be authorized under Nationwide Permit 12. The construction of the Project has been designed to limit the amount of impacts to streams and wetlands within the Project area that are assumed to be jurisdictional waters of the United States to the greatest extent practicable.

Additionally, Spire is requesting a Section 10 letter of permission for the crossing of the Mississippi and Missouri Rivers, which are both classified as Traditionally Navigable Waters (TNW's). In order to evaluate the feasibility, design, and constructability of the horizontal directional drill ("HDD") methods of pipeline installation under the Mississippi and Missouri Rivers, several geotechnical soil test borings were collected on land and along the river bottoms. The results of these test borings are outlined in the geotechnical report, included as Attachment E in the attached PCN.

Temporary impacts to 72 streams and 50 wetlands will be necessary to construct the pipeline and access roads associated with the Project. Impacted streams and wetlands will be crossed using the dry-ditch open-cut method. A dam and flume method of dewatering is installed to create a dry work area, the trenches are dug, the pipeline is placed, and the trench is then refilled and the work area reclaimed. Additionally, temporary crossings of 24 streams and 17 wetlands located within the Project workspace will also be necessary during construction of the Project. Other aquatic resources, including the Mississippi and Missouri Rivers, will be crossed using a Horizontal Directional Drill (HDD) method. This method involves boring a tunnel beneath the aquatic resources through which the pipeline will be pulled and installed. No physical impacts to the aquatic resources are anticipated to occur with this construction method. Detailed information regarding these impacts can be found in Tables 1 and 2 in the attached PCN.

The State of Missouri Stream Mitigation Method (MSMM) was used to quantify unavoidable stream impacts associated with the Project. The MSMM is utilized to determine the amount of compensatory mitigation required to offset stream impacts, and to determine the number of credits that must be purchased if mitigation banking options are pursued. Spire intends to utilize mitigation banking to offset unavoidable stream impacts associated with the Project. The MSMM worksheets have been included as Attachment C.

Avoiding stream and wetland impacts has been one of the driving factors in designing the proposed Project, and the currently proposed alignment represents an alternative that reduces stream and wetland impacts to the furthest extent practicable, while still meeting the purpose and need of the Project. Spire intends to utilize mitigation banking programs in MO and IL should the District Engineer determine that compensatory mitigation is required for proposed impacts. Further avoidance and minimization includes the placement of timber mats for equipment crossings of streams and wetlands, and the Limit of Disturbance (LOD) width will be narrowed to a 75-foot width at all resource crossings.

Streams and Wetlands

Fieldwork associated with stream and wetland investigations for the Project was conducted between September and November, 2016. The surveys identified streams and wetlands within a approximately 300-foot wide corridor centered on the proposed pipeline, and a 50-foot wide corridor surrounding the proposed access roads. Field investigations identified 120 wetlands, 193 waterbodies, and 9 ponds within the Project study area. These features are outlined in the Wetland Delineation and Stream Identification Report, included in the attached PCN.

Rare, Threatened, or Endangered Species

Spire initiated consultation regarding the Project with the USFWS in June 2016 and held a meeting with the USFWS Rock Island Field office in July 2016. Prior to the initiation of field surveys, Spire reviewed various sources of available data to determine federally-listed and state-listed or protected species that could potentially inhabit or traverse the Project areas. The USFWS IPaC system was utilized to identify the federally-listed species that could potentially inhabit or traverse the Project area in Scott, Greene, Jersey Counties, Illinois and St. Charles and St. Louis Counties, Missouri. Spire reviewed this list and the information contained within consultation from the USFWS to determine the species potentially affected from the construction of the Project.

In order to determine state-listed species which have the potential to occur with the Project areas, Spire initiated consultation with the IDNR and MDOC in June 2016. Spire performed a 0.5-mile Project review search through the IDNR's EcoCAT. No Illinois state rare, threatened, or endangered species were present on the EcoCAT search receipt for Scott and Greene Counties. Since a large search buffer was surveyed in EcoCAT, multiple areas of concern are

present on the search receipt that do not occur within the Project area. Spire is coordinating with the IDNR regarding results of the EcoCAT for Jersey County. Consultation from the MDOC was received in July 2016. Spire is continuing coordination with MDOC and will provide updated species consultations upon receipt.

Agency permits and approvals associated with the project have been provided in Section 3, Table 3 of the attached PCN.

Cultural Resources

Background research was completed on the APE for the Project to gather information from previous cultural resource investigations and on known archaeological sites and historic architectural properties. Background research was acquired through an inventory search at the IHPA and MO SHPO offices. Additional online inventories were accessed by the use of the Inventory of Illinois Archaeological Sites Flex Archaeology Viewer, Illinois CRM Report Archive Database, and MO SHPO's Historic Districts and Sites viewer and Archaeology Viewer.

Eight previously identified archaeological sites extend into the defined APE. No historic or architectural resources are located within the Project's direct APE. Four of these archaeological resources are located in Greene and Scott Counties, Illinois, while the remaining four resources are within St. Charles and St. Louis Counties, Missouri. One of these archaeological sites has been recommended for Phase II archaeological testing, three have been previously determined as Not Eligible for listing in the NRHP, portions of one site were previously recommended not eligible, one site is recorded as being destroyed, and the remaining two sites have not been evaluated for NRHP eligibility. GAI conducted Phase I archaeological studies at each of these eight previously recorded site locations. Two small clusters of artifacts were identified along one site (GE00018). The remaining seven previously recorded sites were unidentified during Phase I survey.

Site GE00307 is situated on a terrace in a cultivated field. A portion of the site is crossed by a proposed access road for the current project. This site was identified in 1995 during a survey by the Center for American Archeology for a proposed four lane highway. The site is a small artifact scatter of lithic flakes and one prehistoric ceramic, dating the site from the Late Woodland. Site GE00307 was previously recommended for Phase II archaeological testing. However, since no artifacts were encountered during the current survey, no additional study is recommended.

Three previously recorded archaeological sites (GE00018, ST00499, and ST00500) in Illinois were determined to be Not Eligible for listing the NRHP. All but one of these resources (GE00018) were identified as a result of previous archaeological surveys. All three sites have an unknown prehistoric temporal affiliation.

Site SC1057 was identified in Missouri during a Phase I survey for the Keystone Pipeline Project in 2016. The portions of the site located within the study corridor of the Keystone Pipeline Project were determined to be Not Eligible for listing in the NRHP. This recorded site boundaries will be avoided by the Project construction right-of-way (ROW).

Site SC5 in Missouri is a Sioux Indian trail that is recorded as being destroyed. Systematic Phase I archaeological studies did not find evidence of an existing trail in the recorded location. This area is currently an active agricultural field.

The remaining two previously recorded archaeological sites (SL157 and SL158) are located in Missouri and remain unevaluated for NRHP eligibility.

Three historic districts are located within a 1-mile radius of the proposed Project. The Principia College Historic District is a National Historic Landmark and is situated approximately 0.8-mile from the APE. The Elsah Historic District is listed in the NRHP and is situated approximately 0.16-mile from the APE. The Chautauqua Historic District is also listed in the NRHP and located approximately 0.4-mile from the APE.

Closing

Spire and GAI thank you in advance for your review of this NWP-12 PCN package. Please feel free to contact me at 614-499-6258, or at j.fuller@gaiconsultants.com if there are any questions or concerns.

Sincerely,

GAI Consultants, Inc.



Jayme Fuller
Environmental Manager



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January 27, 2017
Project E160438.00

David Meyer
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, Missouri 63103-2833

**Nationwide Permit 12 Joint Permit Application
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois**

Dear Mr. Meyer:

On behalf of Spire STL Pipeline LLC ("Spire"), GAI Consultants, Inc. ("GAI") is submitting a Nationwide Permit 12 Joint Permit Notification for the Spire STL Pipeline Project ("Project"), located in Scott, Greene, and Jersey Counties, Illinois ("IL").

The proposed Spire STL Pipeline Project will consist of approximately 59 miles of new, greenfield, 24-inch diameter steel pipeline (referred to as the "24-inch pipeline" portion of the Project) originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east in St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River and ties into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). As part of the proposed Project and subject to LGC's receipt of approval from the Missouri Public Service Commission ("MPSC"), Spire is proposing to purchase Line 880 from LGC and modify the pipeline before placing it into interstate service. Line 880 consists of approximately seven miles of existing 20-inch diameter steel natural gas pipeline located in St. Louis County, Missouri that will connect the 24-inch pipeline part of the Project to the Enable Mississippi River Transmission, LLC ("Enable MRT") pipeline along the western bank of the Mississippi River in St. Louis County, Missouri at the terminus of the Project. The total length of the Project pipelines will be approximately 66 miles. The portion of the 24-inch diameter pipeline located within the State of Illinois is approximately 45 miles long. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project will also include the construction of three new metering and regulating ("M&R") station interconnects with REX in Illinois and LGC and Enable MRT in Missouri and the construction of a new facility at an existing LGC site along Line 880. This Project, as proposed, falls under the oversight of the Federal Energy Regulatory Commission (FERC). The FERC plan and procedures will be adhered to in respect to aquatic resource crossings and restoration, and have been included as Attachment D.

GAI, on behalf of Spire, is hereby submitting the Project's Nationwide Permit ("NWP") 12 Joint Permit Application. This package has been prepared based on the Project adhering to the general and regional conditions of a NWP-12 and Section 401 Water Quality Certification General and Specific Conditions within the State of Illinois. A full copy of this PCN, including resources specific to the State of Missouri, has been concurrently provided to the United States Army Corps of Engineers ("USACE").

United States Fish and Wildlife Service consultation was initiated on August 29, 2016 and a response was received on December 8, 2016. Correspondence with the Illinois Historic Preservation Agency ("IHPA") was initiated on August 29, 2016. A response from IHPA will be provided once received in the anticipation that this permit application's review can be initiated without those documents in hand. Since a portion of the Project is unavailable for cultural resources investigation access at this time, we are requesting authorization of Single and Complete Projects that receive this concurrence on a time-staggered basis. Agency correspondence is included as Attachment B in the attached Joint Permit Application.

Nationwide Permit (NWP) 12 Joint Permit Application

Spire respectfully requests concurrence that the proposed Project can be authorized under Nationwide Permit 12. The construction of the Project has been designed to limit the amount of impacts to streams and wetlands within the Project area that are assumed to be jurisdictional waters of the United States to the greatest extent practicable.

Additionally, Spire is requesting a Section 10 letter of permission from the USACE for the crossings of the Mississippi and Missouri Rivers, which are both classified as Traditionally Navigable Waters ("TNW's"). In order to evaluate the feasibility, design, and constructability of the horizontal directional drill ("HDD") methods of pipeline installation under the Mississippi and Missouri Rivers, several geotechnical soil test borings were collected on land and along the river bottoms. The results of these test borings are outlined in the geotechnical report, included as Attachment C in the attached Joint Permit Application.

Temporary impacts to 60 streams and 32 wetlands will be necessary to construct the pipeline and access roads associated with the Project in the State of Illinois. Impacted streams and wetlands will be crossed using the dry-ditch open-cut method. A dam and flume method of dewatering is installed to create a dry work area, the trenches are dug, the pipeline is placed, and the trench is then refilled and the work area reclaimed. Additionally, temporary crossings of 20 streams and 14 wetlands located within the Project workspace will also be necessary during construction of the Project. Other aquatic resources, including the Mississippi River, will be crossed using the HDD method. This method involves boring a tunnel beneath the aquatic resources through which the pipeline will be pulled and installed. No physical impacts to the aquatic resources are anticipated to occur with this construction method. Detailed information regarding these impacts can be found in Tables 1 and 2 in the attached Joint Permit Application.

Avoiding stream and wetland impacts has been one of the driving factors in designing the proposed Project, and the currently proposed alignment represents an alternative that reduces stream and wetland impacts to the furthest extent practicable, while still meeting the purpose and need of the Project. Spire intends to utilize mitigation banking programs in IL should the District Engineer determine that compensatory mitigation is required for proposed impacts. Further avoidance and minimization includes the placement of timber mats for equipment crossings of streams and wetlands, and the Limit of Disturbance ("LOD") width will be narrowed to a 75-foot width at all resource crossings.

Streams and Wetlands

Fieldwork associated with stream and wetland investigations for the Project was conducted between September and November, 2016. The surveys identified streams and wetlands within a approximately 300-foot wide corridor centered on the proposed pipeline, and a 50-foot wide corridor surrounding the proposed access roads. Field investigations identified 73 wetlands, 158 waterbodies, and 6 ponds within the Project study area. These features are outlined in the Wetland Delineation and Stream Identification Report, included in the attached Joint Permit Application.

Rare, Threatened, or Endangered Species

Spire initiated consultation regarding the Project with the USFWS in June 2016 and held a meeting with the USFWS Rock Island Field office in July 2016. Prior to the initiation of field surveys, Spire reviewed various sources of available data to determine federally-listed and state-listed or protected species that could potentially inhabit or traverse the Project areas. The USFWS IPaC system was utilized to identify the federally-listed species that could potentially inhabit or traverse the Project area in Scott, Greene, Jersey Counties, Illinois. Spire reviewed this list and the information contained within consultation from the USFWS to determine the species potentially affected from the construction of the Project.

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Agency permits and approvals associated with the project have been provided in Section 3, Table 3 of the attached Joint Permit Application.

Cultural Resources

Background research was completed on the APE for the Project to gather information from previous cultural resource investigations and on known archaeological sites and historic architectural properties. Background research was acquired through an inventory search at the IHPA and MO SHPO offices. Additional online inventories were accessed by the use of the Inventory of Illinois Archaeological Sites Flex Archaeology Viewer, Illinois CRM Report Archive Database, and MO SHPO's Historic Districts and Sites viewer and Archaeology Viewer.

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The remaining two previously recorded archaeological sites (SL157 and SL158) are located in Missouri and remain unevaluated for NRHP eligibility.

Three historic districts are located within a 1-mile radius of the proposed Project. The Principia College Historic District is a National Historic Landmark and is situated approximately 0.8-mile from the APE. The Elsah Historic District is listed in the NRHP and is situated approximately 0.16-mile from the APE. The Chautauqua Historic District is also listed in the NRHP and located approximately 0.4-mile from the APE.

Closing

Spire and GAI thank you in advance for your review of this NWP-12 Joint Permit Application package. Please feel free to contact me at 614-499-6258, or at j.fuller@gaiconsultants.com if there are any questions or concerns.

Sincerely,

GAI Consultants, Inc.



Jayme Fuller
Environmental Manager

Attachments: Nationwide Permit 12 Joint Permit Application

GAI Consultants, Inc.

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Letter of Transmittal

TRANSMITTAL NO.	T013
DATE:	1/27/2017
PROJECT NO.	E160438.00

Real Estate Division
U.S. Army Corps of Engineers
St. Louis District
1222 Spruce Street
St. Louis, Missouri 63103-2833
Attn: Lynn Hoerner

PROJECT TITLE:
Spire STL Pipeline
St. Charles County, Missouri

SUBJECT:
 Real Estate Easement

WE ARE SENDING YOU: Paper Documents
VIA: Next Day Delivery
PURPOSE: For Information

COMMENTS:

ATTACHMENTS:

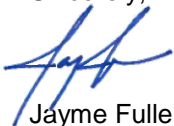
Qty	Document No.	Rev	Document Date	Document Description/Title	Status*
1	--	--	January 25, 2017	Real Estate Easement Documents	--

*Status Codes for Submittal Package Reviews: NE=No Exceptions; EN=Exceptions Noted; RR=Revise & Resubmit; RJ=Rejected

DISTRIBUTION:

Name	Company	Transmittal (Y/N)	Attachments (Y/N)

Sincerely,



Jayme Fuller
 Environmental Manager



United States Fish and Wildlife Service

Ali Trunzo

From: Jayme Fuller
Sent: Thursday, April 13, 2017 3:23 PM
To: kristen_lundh@fws.gov
Cc: Lori Ferry; Douglas Sipe; Ali Trunzo
Subject: Spire STL Pipeline MBTA Follow up discussion
Attachments: Spire STL Pipeline MBTA.xlsx; eBird_2017_04_10.kmz

Hi Kristen,

Thank you for taking the time to discuss MBTA concerns for the Spire STL pipeline today. I wanted to follow up with a more organized excel file of listed bird species by category as we discussed and have also attached a kmz of the ebird data.

I believe you said you wanted to check with Ryan about using Indiana safe dates for Illinois and if he had a more updated data set for Missouri since the last breeding bird atlas.

Also we wanted to get Ryan's opinion about the Peregrine Falcon record in Elsah along the Mississippi River in relation to our project and tree clearing restrictions. As we discussed tree clearing dates in relation to MBTA, we would like the ability to clear up to May 1st.

Thanks

Jayme L. Fuller, Environmental Manager

GAI Consultants, Inc.

Charleston Office | 300 Summers Street, Suite 1100, Charleston WV 25301

Indianapolis Office | 6420 Castleway West, Indianapolis, IN 46250

1-234-203-0763 | C 614.499.6258 |     

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telephone log



gai consultants

Date: 4/13/17

Project / Admin. No.: E160438.00

Call From: Lori Ferry, Jayme Fuller (GAI), Doug Sipe (Spire)

Company: GAI Consultants

Phone No.:

Call To: Kristen Lundh (Rock Island Field Office), Trisha Crabill (Columbia Field Office)

Company: United States Army Corps of Engineers

Phone No.:

Subject: Spire STL Pipeline Conservation Plan

cc:

Summary of Discussion, Decisions, and Commitments:

GAI requested the call as a follow-up to March 23, 2017 conference call. The purpose of the call is to review potential locations of decurrent false aster surveys in Missouri and updated information regarding migratory birds.

Decurrent False Aster

- Spire presented information on the decurrent false aster in the form of a KMZ. Spire outlined the areas within Missouri (St. Charles County) that could have the potential for decurrent false aster habitat according to the description the USFWS provided on the 3/23/2017 call. The following is a list of the habitats that were reviewed as part of this call:
 - Habitat 12-South of the Mississippi River-This area should be considered as the aerial mapping shows potential vegetation adjacent to the agricultural fields. If this area is fully planted with crops it can be eliminated. Spire agreed to survey this area as needed.
 - Habitat 13-Tributary to Weber Lake-Potential habitat may exist around the waterbody which is adjacent to disturbed agricultural lands. Spire has agreed to survey this area.
 - Habitat 14-Tributary-Potential habitat at this location which is adjacent to agricultural fields. Spire has agreed to survey this area.
 - Habitat 14a-Vegetation located near railroad crossing. Spire will bore the railroad so the vegetation should not be disturbed. No survey required.
 - Habitat 15-Vegetation contained within the railroad right-of-way which parallels the proposed right-of-way. Spire does not intend to be in the railroad right-of-way in this location so this area has been eliminated from surveys.
-

-
- Habitat 16-Road crossing-Visible vegetated part at the road crossing and pond. Spire has agreed to survey this area.
 - Habitat 16A-Railroad crossing-Identified wetland and disturbance from the railroad. Spire has agreed to survey this area.
 - Habitat 17/18-Potential vegetation locations near the river with adjacent agricultural activities, however, these areas are with Spire's HDD of the Missouri River, therefore no surveys are required.
 - Habitat 1-Chain of Rocks Station-Potential habitat in vegetated area within the floodplain. USFWS indicated they have no records this far south but will get back with Spire regarding the need to survey in this location.

Spire discussed the potential for habitat in Illinois. USFWS agreed that no further surveys would be needed in Illinois and no other surveys would need to be conducted at the reroute at Otter Creek where previous decurrent false aster surveys were conducted.

Plant Surveys

- Spire will conduct species-specific surveys for other plant species include eastern prairie fringed orchid and Mead's milkweed. The following guidance regarding the flowering periods was provided
- Eastern prairie fringed orchid-late June. Typically is flowering by July 4th.
- Decurrent False aster-Typically after September 1. Late September.
- Mead's milkweed-Third week of May.

Migratory Birds

- Spire also prepared a table of potential migratory birds that had the potential to breed in the Project area. This table was taken from Spire's January 2017 FERC application filing.
 - Spire reviewed the breeding bird atlases for Illinois and Missouri to confirm the potential nesting dates for the species on the list. Illinois's breeding bird atlas was incomplete and did not provide information for the May/June timeframe. Surveys were not conducted during those months. Therefore, Spire confirmed with the USFWS that nesting dates for these species could be based on the breeding bird atlas for Indiana. USFWS agreed that these dates were sufficient.
 - Spire presented that the majority of MBTA species identified typically nest in this area starting in May according to the breeding bird atlas.
 - Spire's proposed tree clearing window is February 2018 to May 1, 2018 (provided that clearing restrictions between April 1 and May 1 are approved for listed bat species and FERC and federal approval is obtained to start construction). USFWS agreed that these clearing dates were acceptable to protect migratory bird species and did not have concerns of clearing between April 1 and May 1.
 - USFWS is not concerned with the timeframe in which clearing is conducted in cultivated agricultural
-

areas. Clearing restrictions would apply to CRP properties, pasture lands that are not cultivated, timber stands, etc.

- USFWS has received its guidance from Headquarters. Therefore, USFWS intends to respond that at this point they feel that mitigation regarding MBTA would be optional and voluntary.
- If mitigation were considered, USFWS indicated that starting points could involve reviewing the blocks of timber that would become fragmented as a result of the Project (north end of the 24-inch pipeline and the north side of the Mississippi River). There are timber stands that are not otherwise cultivated in this area either because they are burial areas, steep terrain or contain poor soils. These areas could contain migratory bird habitat and could also be considered. USFWS also recommended that a HEA could be performed which would involve developing a GIS model based on stand data.

Bald Eagles

- Bald Eagle Report-provided in March 2017. No written response received. USFWS indicated that they agreed with the methodologies described and Spire indicated that no nests have been found to date in the vicinity of the Project. Further bald eagle surveys will be conducted in the proposed remaining areas once landowner permission has been obtained. Approximately 4 locations are left to survey; the highest potential area being north of the Mississippi River. If allowed, Spire will conduct surveys in this area in May 2017.
- Spire indicated they would inform USFWS if any bald eagles nests were to be found in any of the remaining Project areas. No further reporting required unless a nest is identified.

General

Spire has provided the following information to the USFWS for review and comment

- Bat Survey Study Plan-provided in March 2017. USFWS has not had a chance to review this document yet. Spire indicated that information related to the methodologies of conducting portal surveys was included in this plan as well. USFWS had no concern over the methodologies Spire has implemented to conduct portal searches. Portal searches have been conducted concurrently with biological surveys. Approximately 4 miles of survey along the pipeline routes is remaining. Portal searches will be conducted in these areas once landowner permissions have been obtained.
 - Draft Biological Assessment-provided in April 2017. USFWS has not had a chance to review this document. USFWS indicated that they would review this information and provide comments via email.
 - Response letter-provided in January 2017. This information included Spire's response regarding bird species associated with the river crossings and aquatic species. USFWS
-

indicated that the information on the HDDs seemed like it was sufficient. USFWS intends to submit a comment letter to Spire within the next week.



Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

April 5, 2017

Project E160438.00, Task 003

Mr. Kraig McPeek
Field Supervisor
United States Fish and Wildlife Service
Rock Island Field Office
1511 47th Avenue
Moline, Illinois 61265

**Re: Supplemental Information (Docket No. CP17-40-000)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. McPeek:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri; crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in to interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at an interconnection with the REX pipeline in Scott County, Illinois and extend down through Greene and Jersey Counties, Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a proposed interconnect

with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day. No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 are no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

The updated Project schedule includes the following target dates:

- July 22, 2016 - National Environmental Policy Act ("NEPA") process began (initiation of FERC Pre-filing process);
- August 2016 through March 2017 (Anticipated) - biological and cultural resource surveys;
- January 26, 2017 - Application filed with FERC;
- April 2017 (Anticipated) - file Amended Application with FERC;
- September 2017 (Anticipated) - Draft NEPA document published; and
- December 2017 (Anticipated) - FERC decision on application.

Construction is anticipated to commence in January 2018.

Site Description

Illinois

The Illinois portion of the Project is located in Scott, Greene, and Jersey Counties, Illinois, and is depicted on the attached portions of the Alsey (1983), Roodhouse West (1983), Carrolton (1985), Boyer Creek (1983), Otterville (1983), Elsay (1979), and Grafton (1995), Illinois, United States Geological Survey (USGS) 7.5-minute series topographic maps (Figure 1).

The pipeline is greenfield and crosses a primarily agricultural landscape with some areas of forest. The Project is located within the North Little Sandy Creek [USGS Hydrologic Unit Code (HUC) #071300110503], Little Sandy Creek (HUC #071300110504), Hurricane Creek (HUC #071300110806), Whitaker Creek-Apple Creek (HUC #071300110702), Coates Creek-Apple Creek (HUC #071300110703), Link Branch-Lower Macoupin Creek (HUC #071300120602), Wines Branch-Lower Macoupin Creek (HUC #071300120603), De Arcy Branch-Phils Creek (HUC #071300120502), Sandy Creek-Otter Creek (HUC #071300110901), Shilow Hollow-South Fork Otter Creek (HUC #071300110902), Lower Piasa Creek (HUC #071100090204), and Marais Temps Clair-Mississippi River (HUC #071100090401) watersheds.

Missouri

The Missouri portion of the Project is located in St. Charles and St. Louis Counties, Missouri, and is depicted on the attached portions of the Grafton (1979), Elsay (1979), Alton (1979), Florissant (1979), and Columbia Bottom (1979), Missouri, USGS 7.5-minute series topographic maps (Figure 1).

The 24-inch pipeline is greenfield and crosses a primarily agricultural landscape. The North County Extension crosses agricultural, forested, and residential lands. The Project is located within the Marais Temps Clair-Mississippi River (USGS HUC #071100090401], Outlet Missouri River (HUC #103002000804), Coldwater Creek (HUC #103002000803), and Maline Creek-Mississippi River (HUC #071401010401) watersheds.

Section 7 Consultation

GAI reviewed the proposed North County Extension using the United States Fish and Wildlife Service's ("USFWS's") Information for Planning and Conservation ("IPaC") tool. No critical habitats were identified on the North County Extension. The IPaC identified the following species that may be crossed or within close vicinity to the Project:

- Decurrent false aster (*Boltonia decurrens*);
- Gray bat (*Myotis grisescens*);
- Indiana bat (*Myotis sodalis*); and
- Northern long-eared bat (*Myotis septentrionalis*).

These species were also identified during previous consultations for this Project. Spire will continue to consult with the USFWS to establish an approved bat survey study plan for threatened and endangered bat species (provided for USFWS review on March 27, 2017). Bat surveys will be conducted from May to June 2017 (weather dependent), and a report of the survey results will be provided in July 2017. Spire is also coordinating with the USFWS regarding the potential need for additional surveys for decurrent false aster.

On behalf of Spire, GAI would like to take this opportunity to invite the USFWS to provide additional comments regarding the Project as it will be amended. Spire respectfully requests additional technical assistance from your agency to evaluate the species information presented above and a determination if any new species and/or habitat surveys will be required.

Spire understands that the Rock Island Field Office will handle coordination with the Columbia Field Office. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.



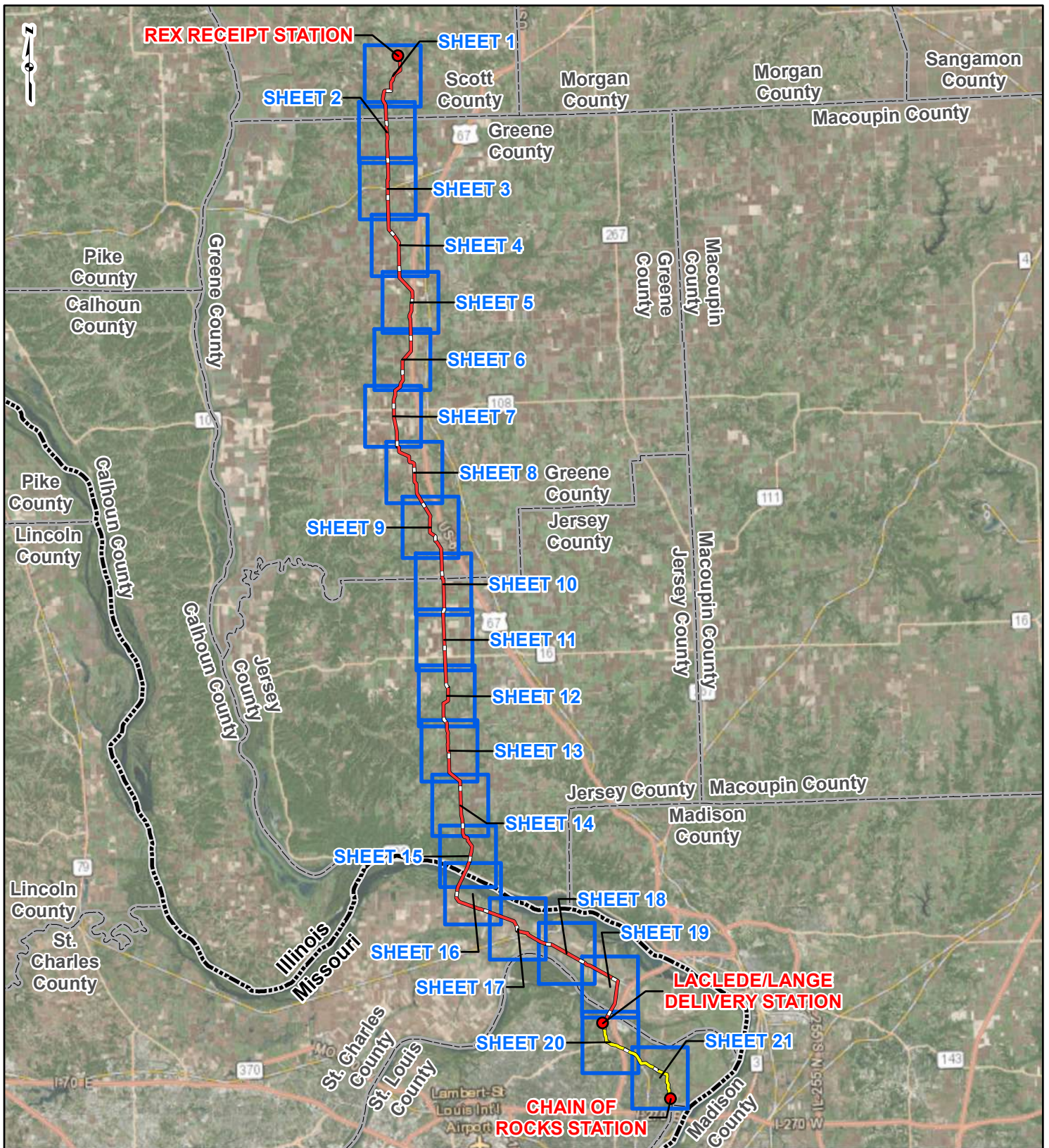
Lori M. Ferry, MS
Environmental Manager

LMF/gmg

Attachment: USGS Topographic Map (Figure 1)

cc: Ms. Kristen Lundh, USFWS, Rock Island Field Office
Ms. Trisha Crabill, USFWS, Columbia Field Office

ATTACHMENT
USGS TOPOGRAPHIC MAP (FIGURE 1)



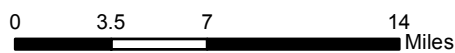
PROJECT LOCATION



SCOTT, GREENE AND JERSEY COUNTIES, ILLINOIS AND ST. CHARLES AND ST. LOUIS COUNTIES, MISSOURI

LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- NORTH COUNTY EXTENSION
- SHEET INDEX
- COUNTY BOUNDARY
- STATE BOUNDARY



**FIGURE 1
LOCATION MAP
SHEET INDEX**



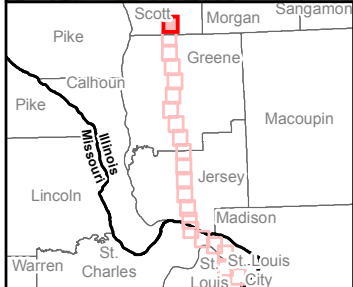
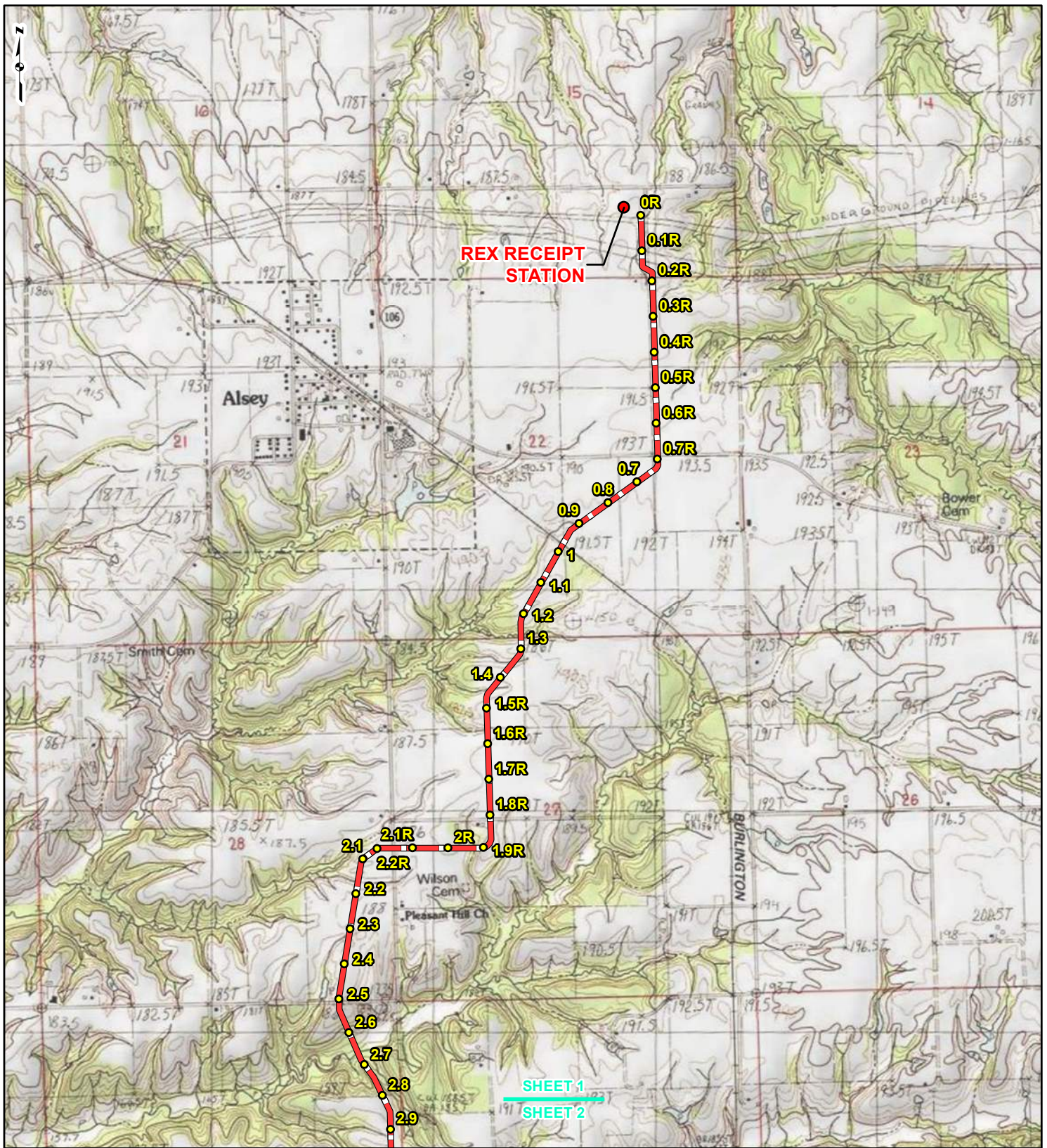
**SPIRE STL
PIPELINE
PROJECT**



DRAWN BY: PMH
CHECKED: SWW

DATE: 3/28/2017
APPROVED: LMF

REFERENCE: ESRI WORLD IMAGERY AND TRANSPORTATION, NAIP, USDA FSA, 2015, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE MILEPOST	— EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	□ COUNTY BOUNDARY
	□ STATE BOUNDARY

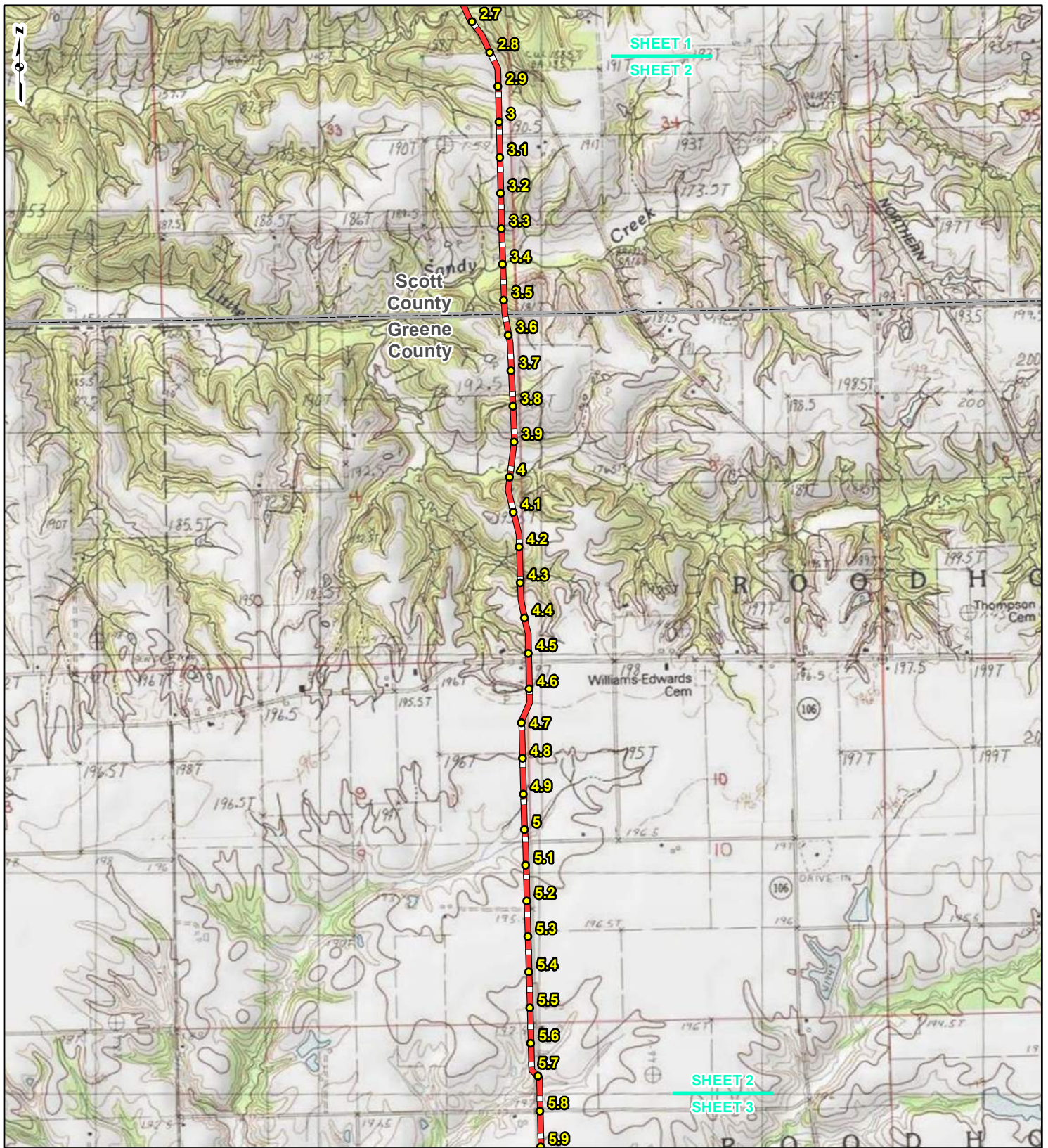
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**FIGURE 1
LOCATION MAP
SHEET 1 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
● MILEPOST	▭ STATE BOUNDARY

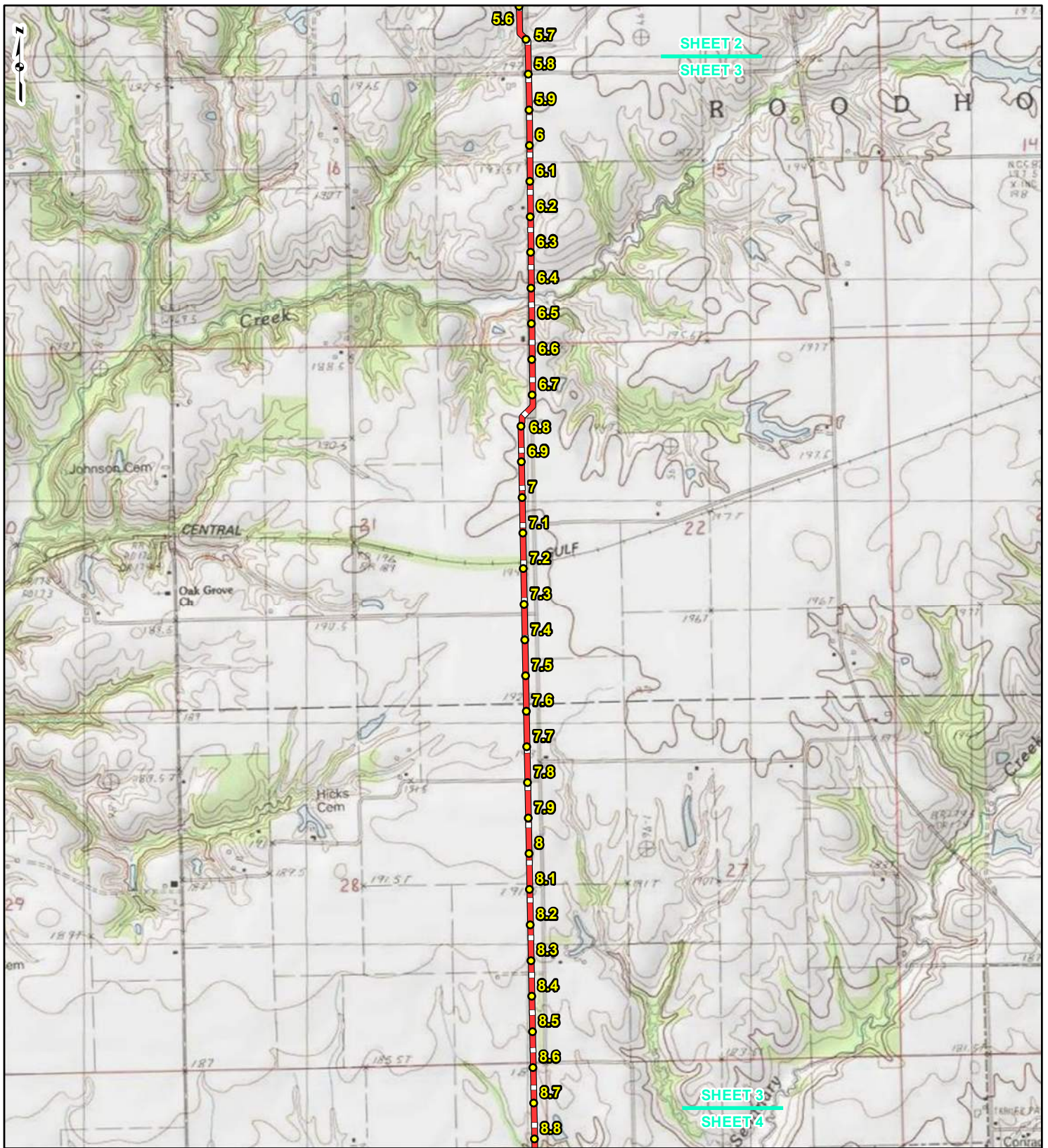
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**FIGURE 1
LOCATION MAP
SHEET 2 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

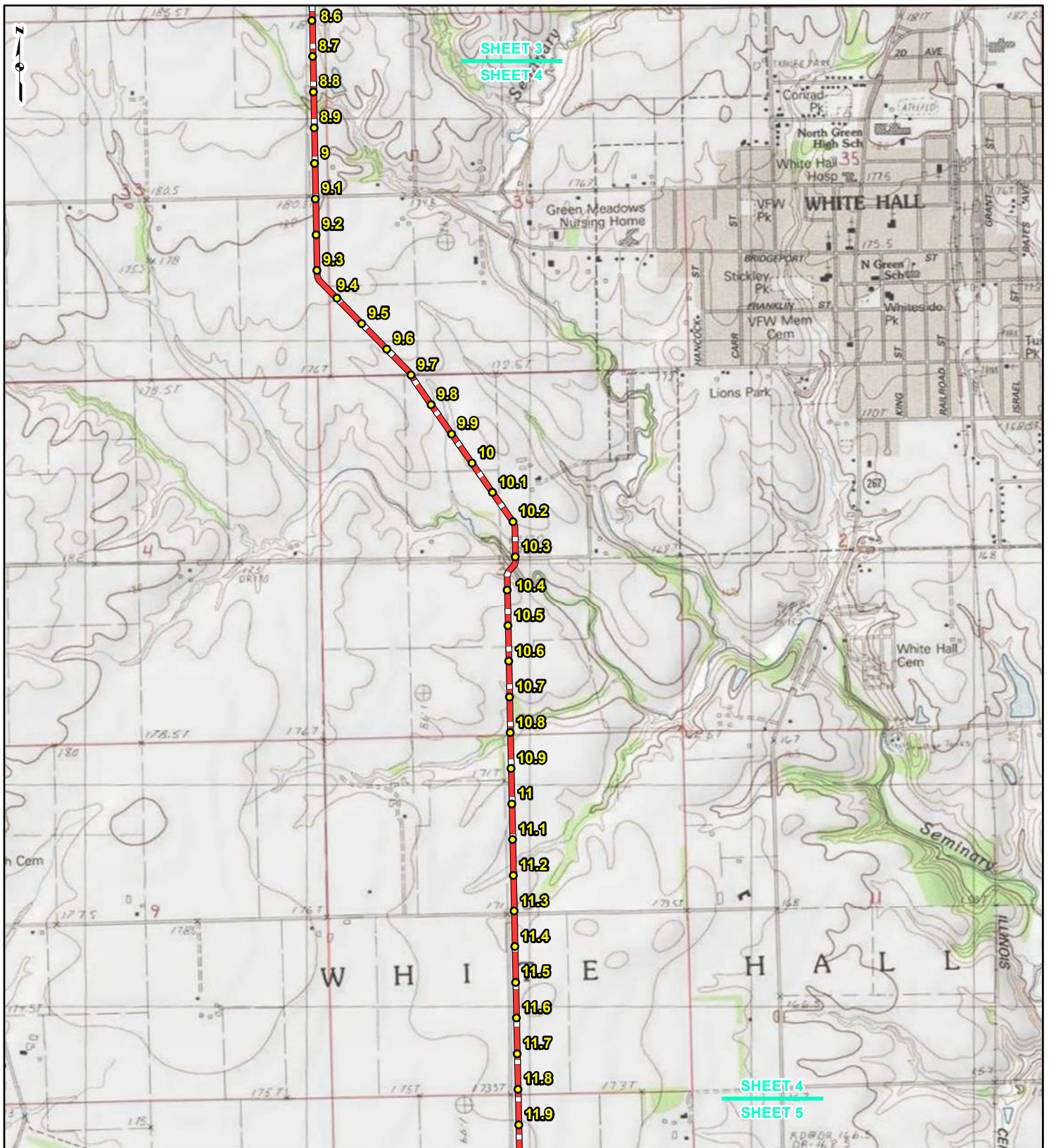
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FIGURE 1
LOCATION MAP
SHEET 3 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLORISSANT (1995), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

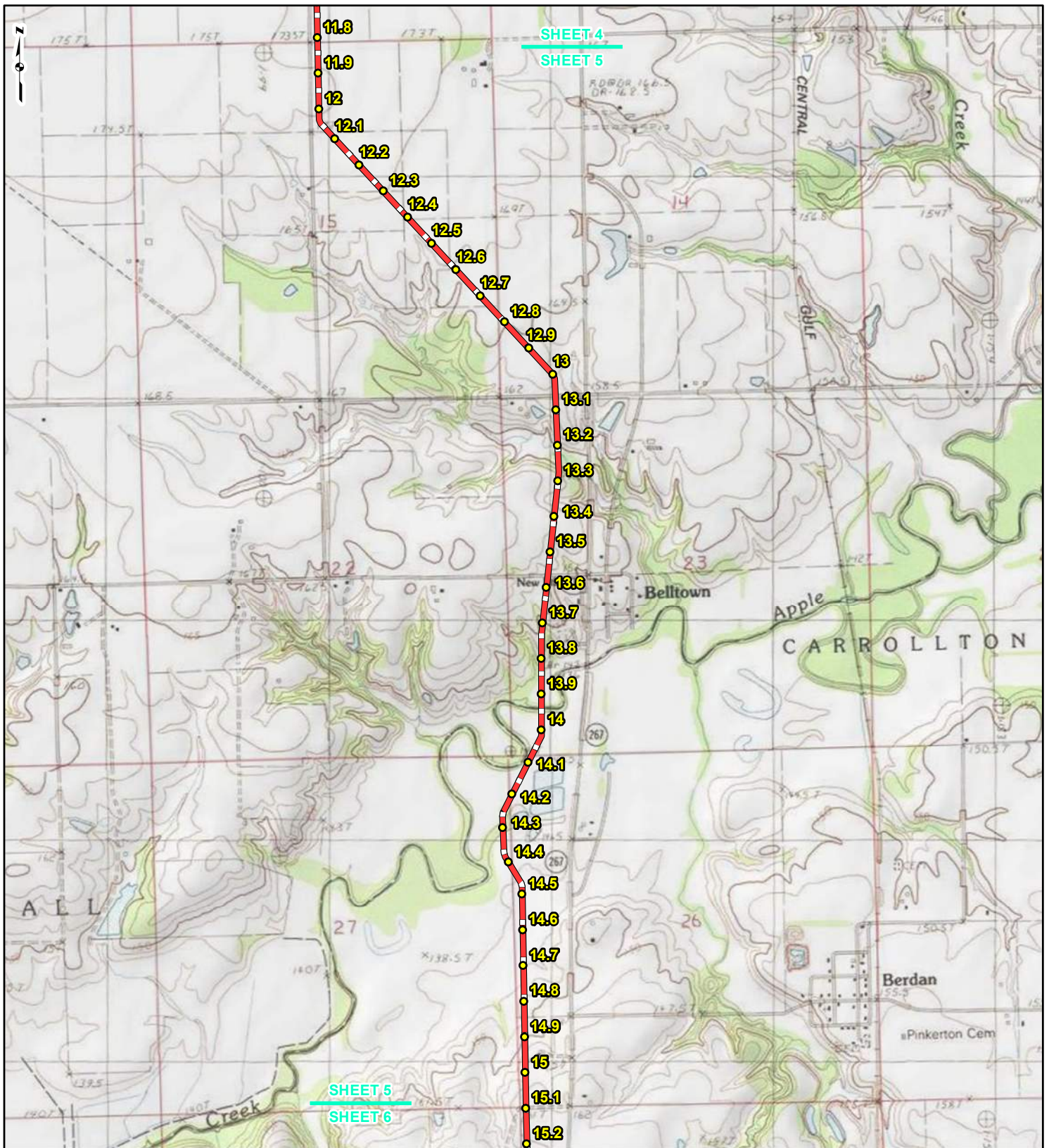
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**FIGURE 1
LOCATION MAP
SHEET 4 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

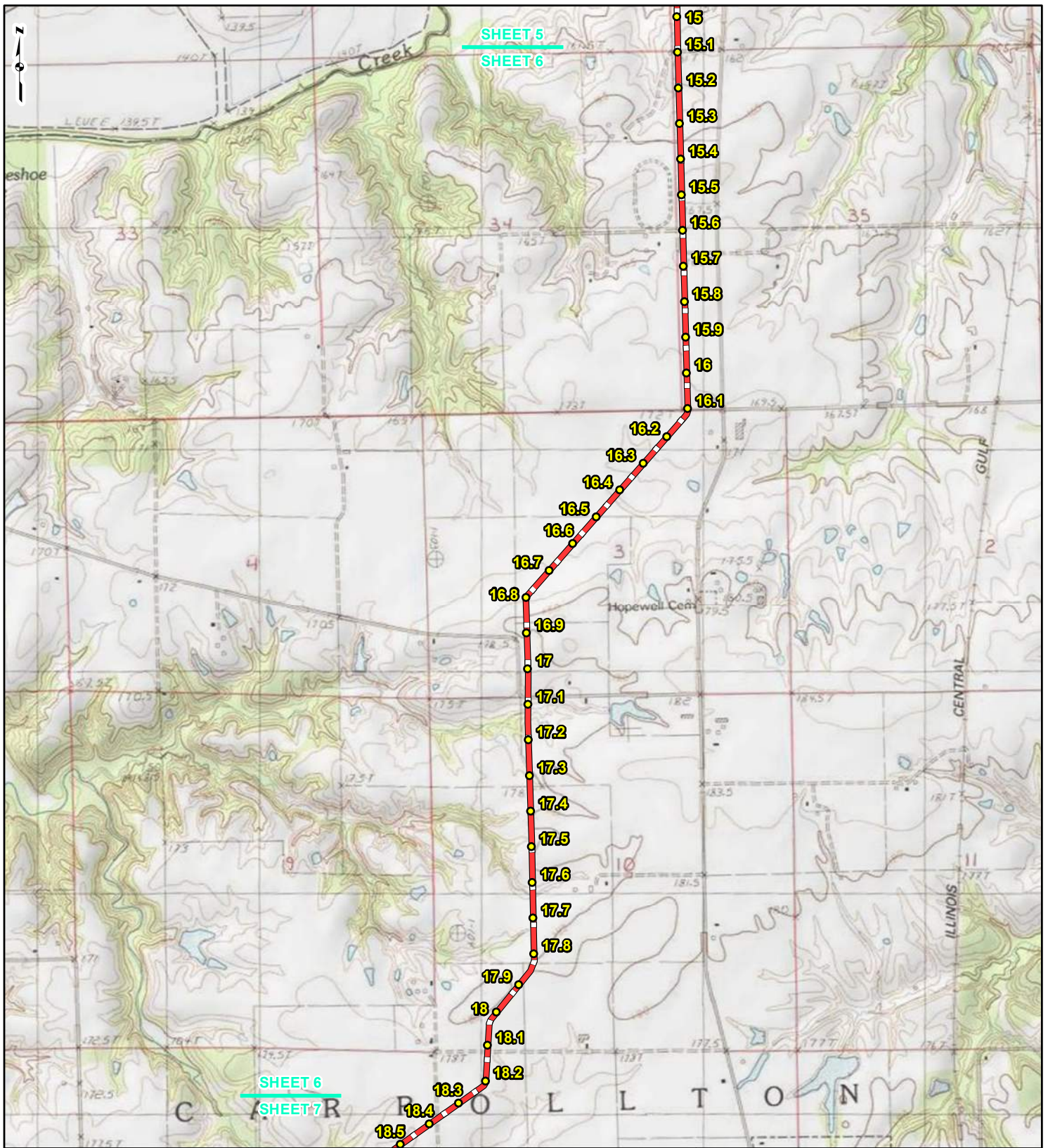
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**FIGURE 1
LOCATION MAP
SHEET 5 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
● STATE BOUNDARY	▭ STATE BOUNDARY

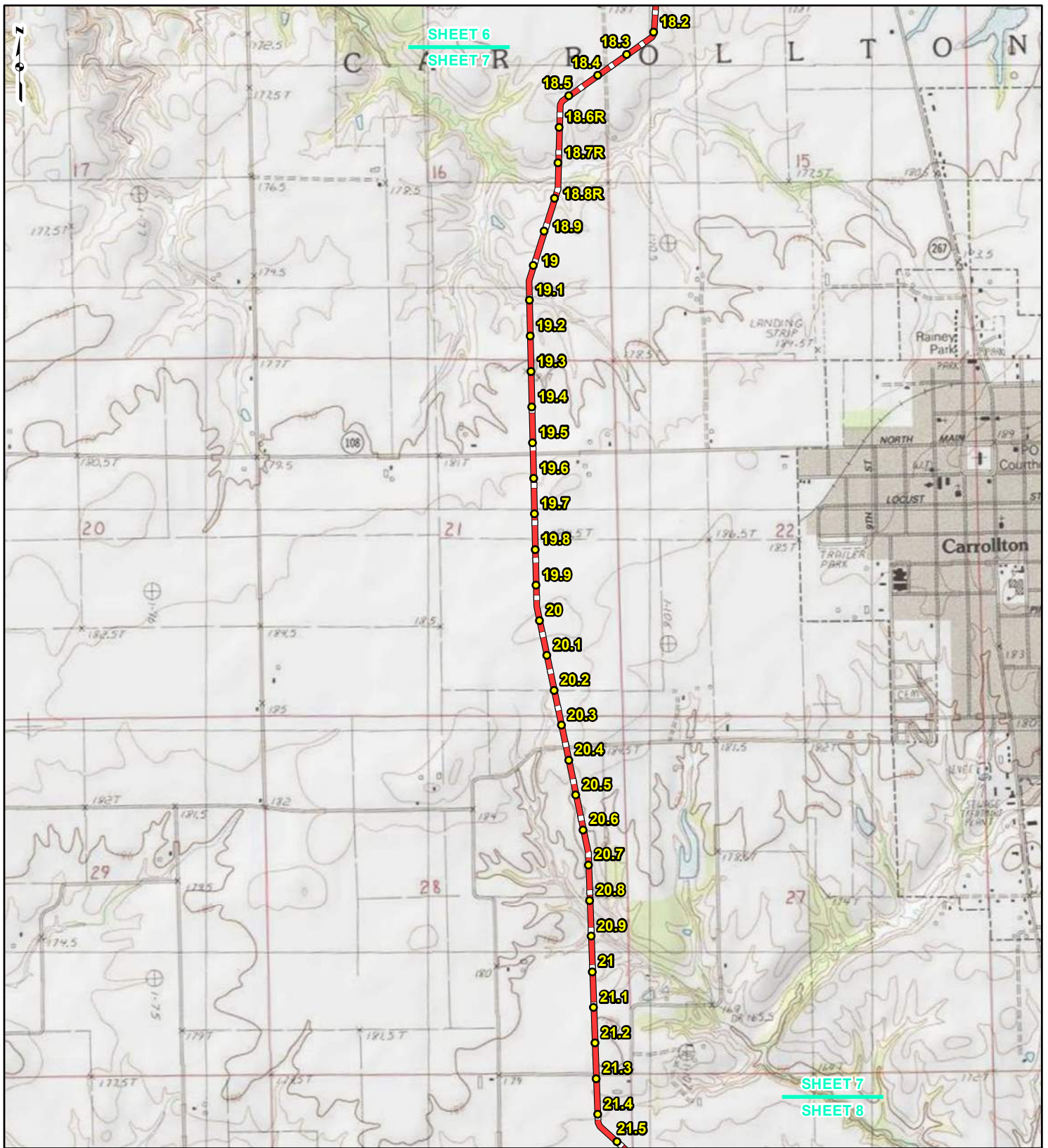
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**FIGURE 1
LOCATION MAP
SHEET 6 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

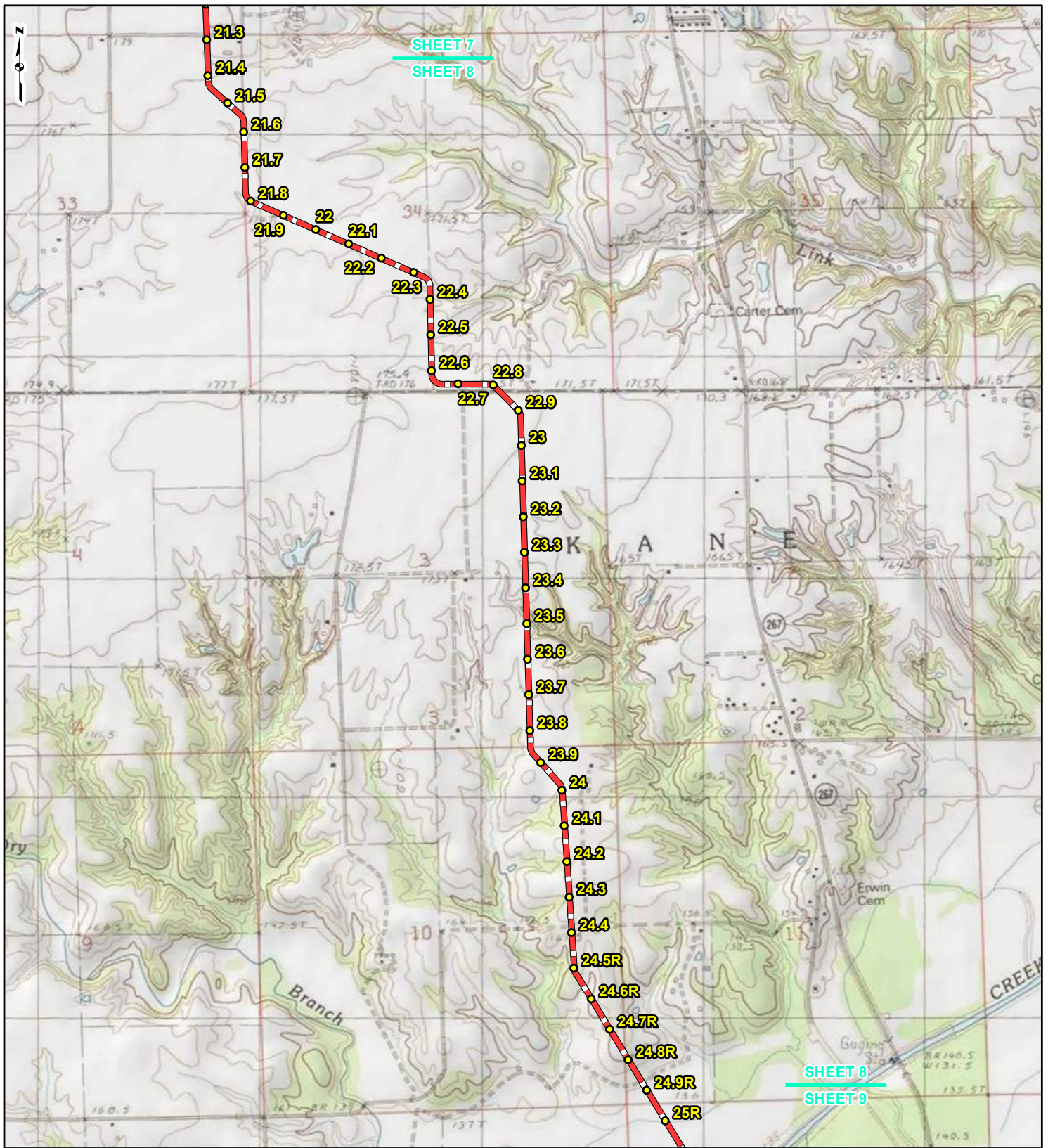
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**FIGURE 1
LOCATION MAP
SHEET 7 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
○ MILEPOST	▭ STATE BOUNDARY

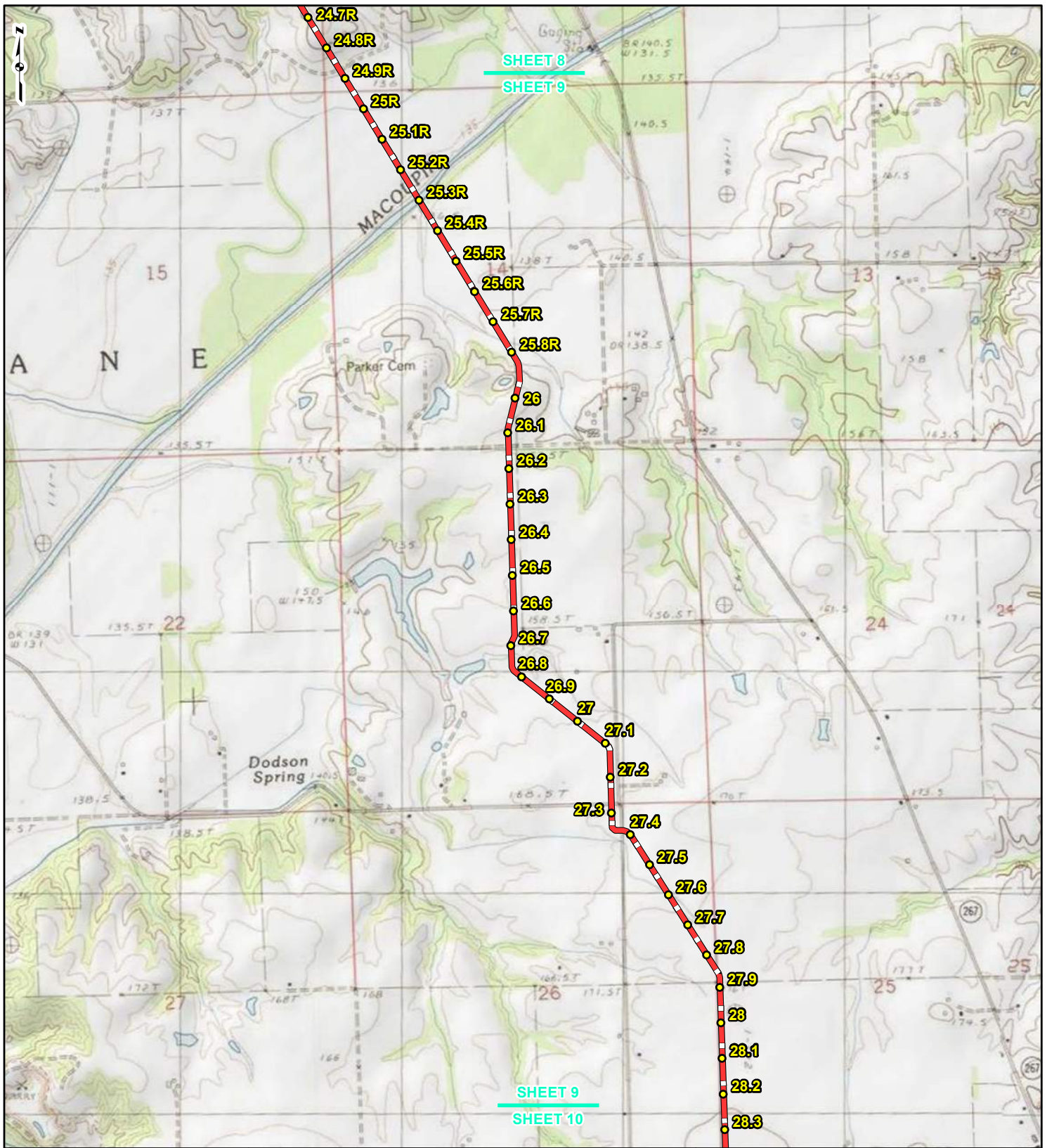
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**FIGURE 1
LOCATION MAP
SHEET 8 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

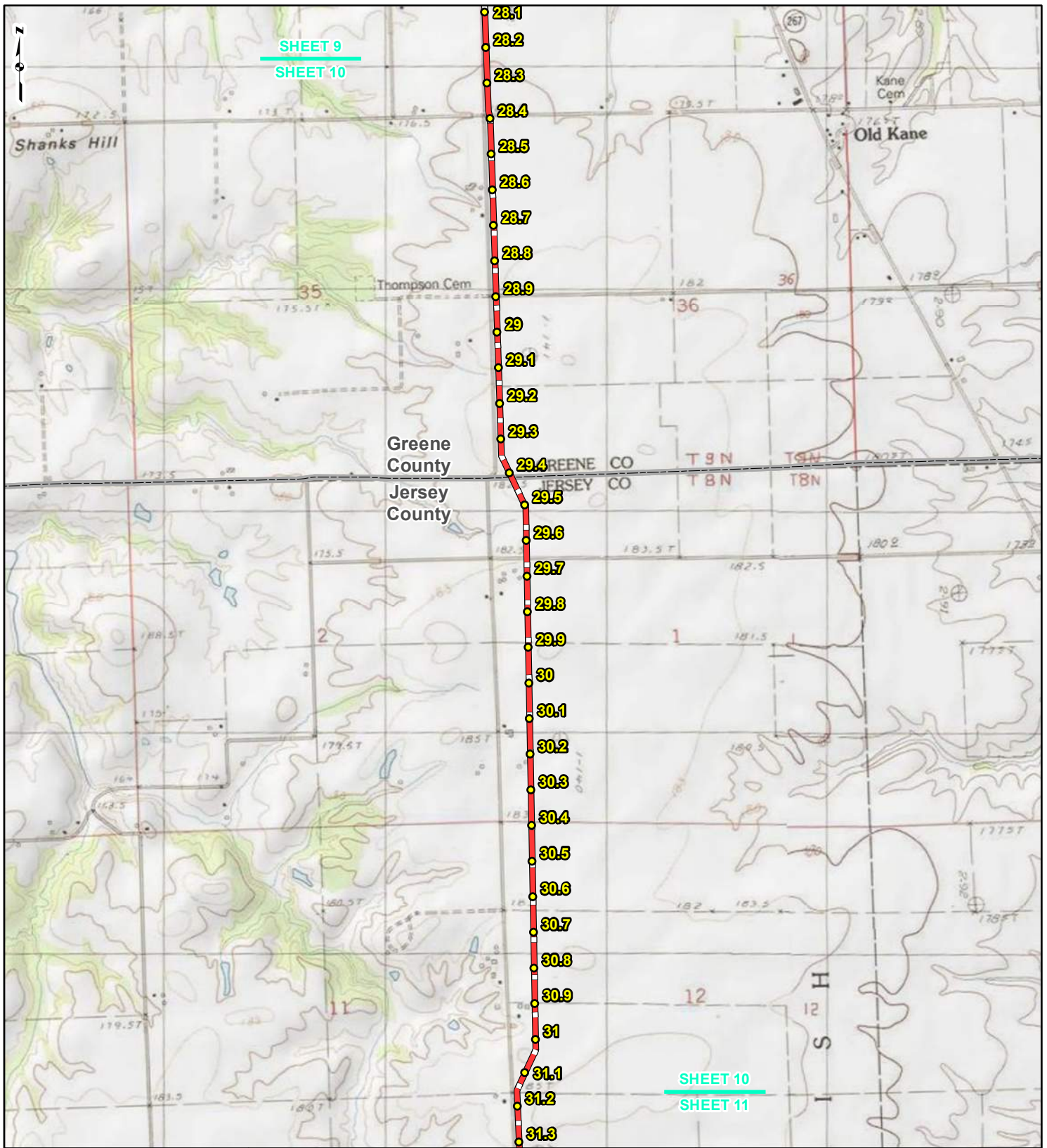
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**FIGURE 1
LOCATION MAP
SHEET 9 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

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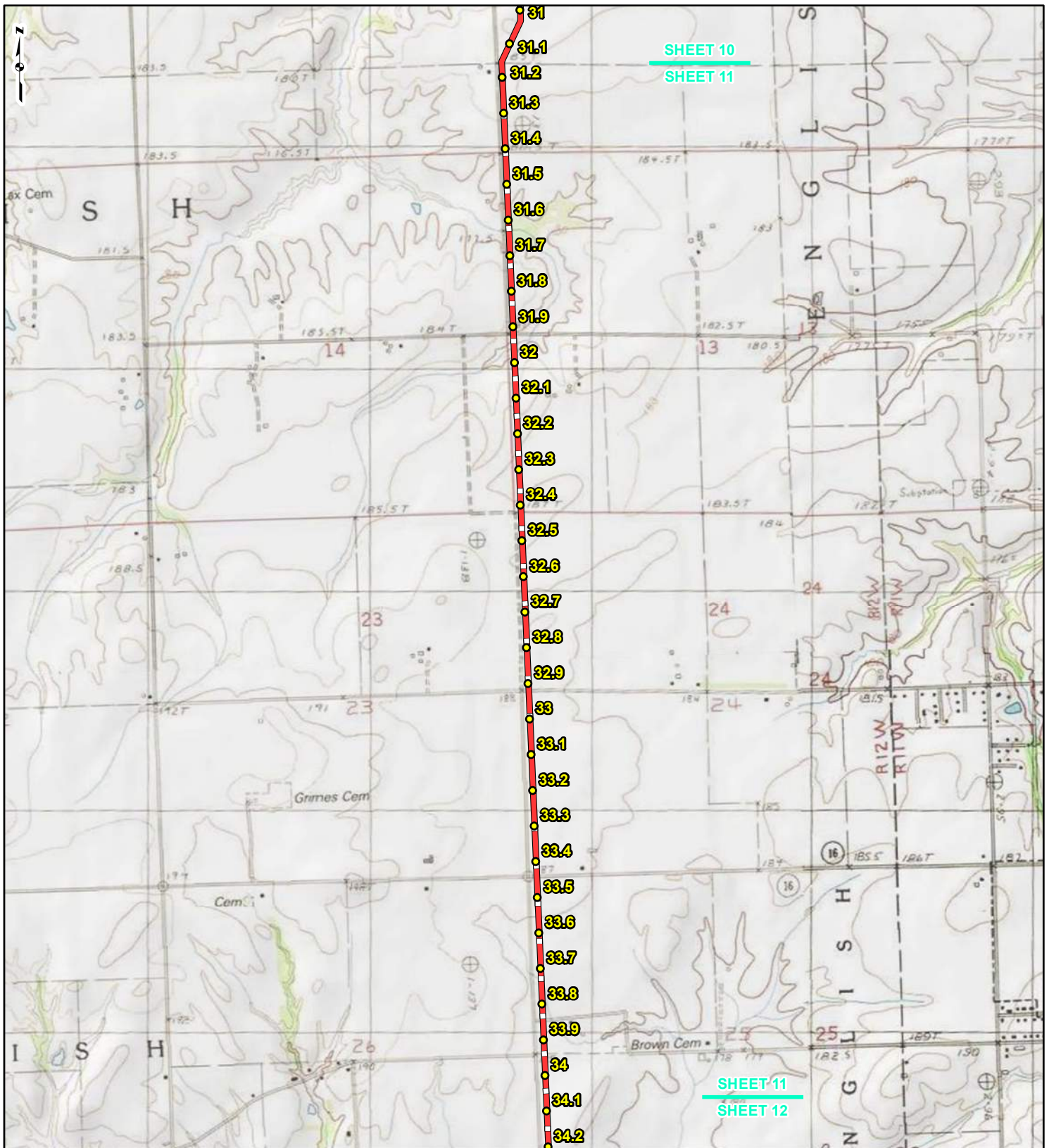
**FIGURE 1
LOCATION MAP
SHEET 10 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

gai consultants spire

DRAWN BY: PMH DATE: 3/28/2017
CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

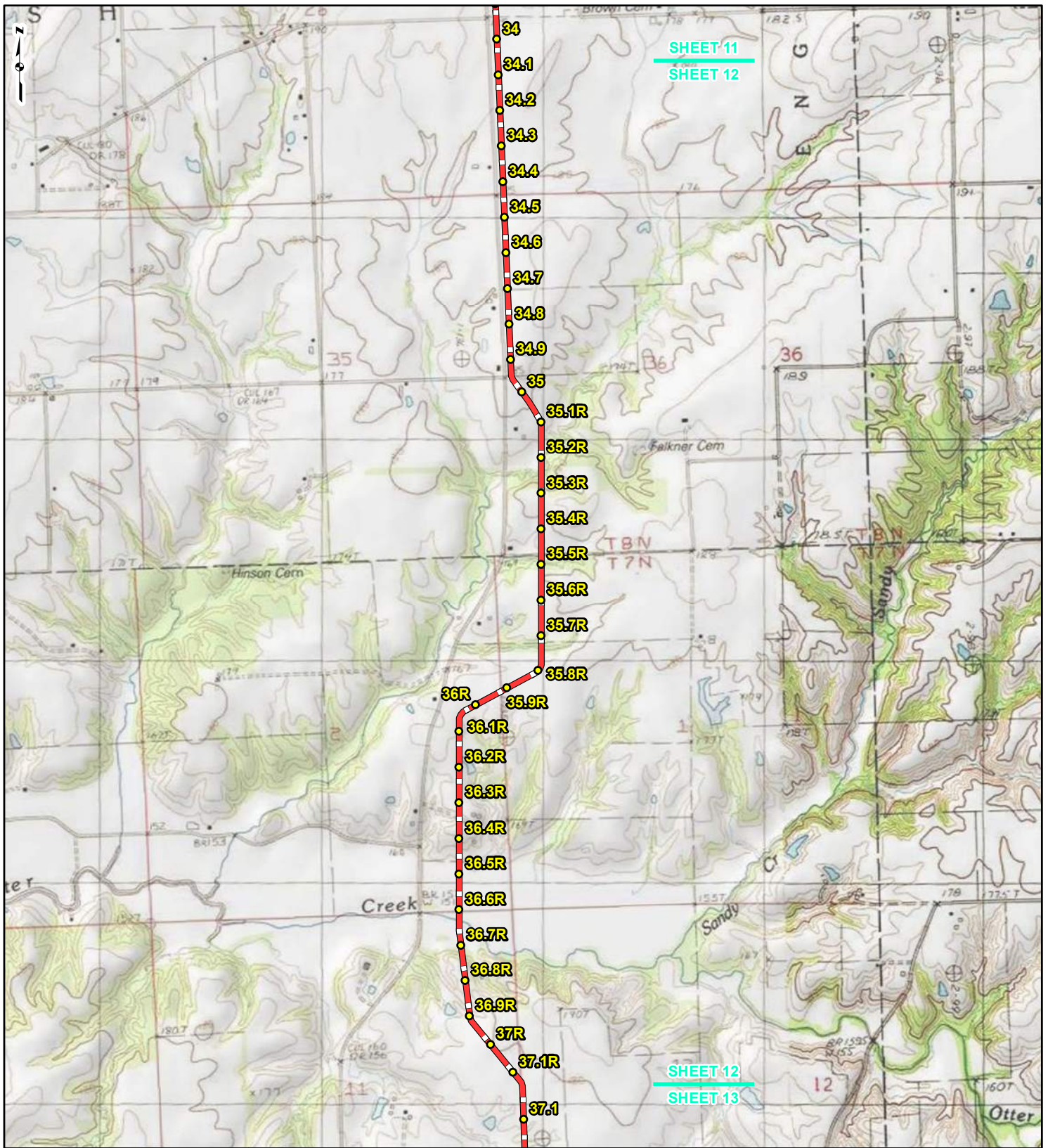
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**FIGURE 1
LOCATION MAP
SHEET 11 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 11
SHEET 12

SHEET 12
SHEET 13



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

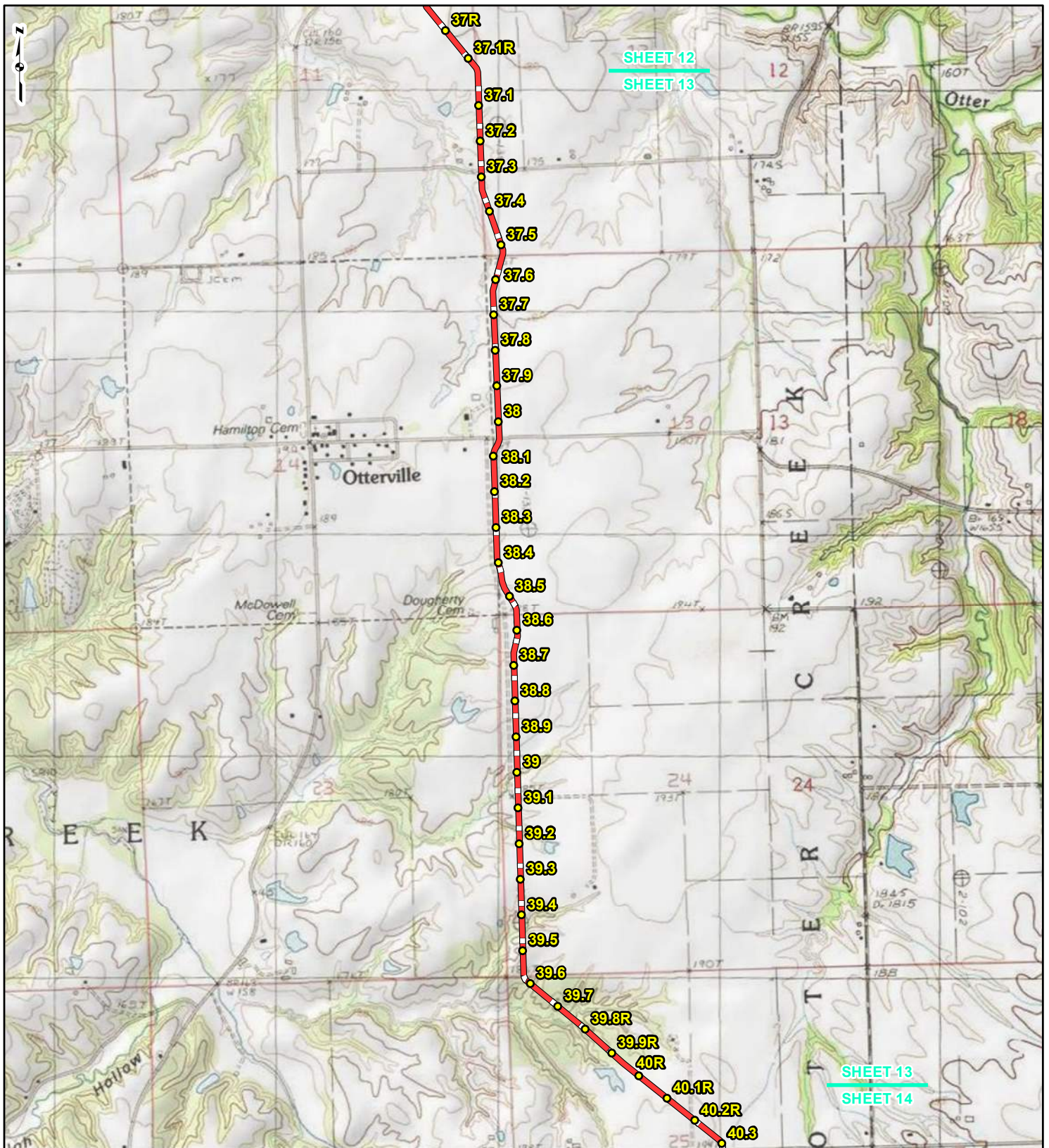
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**FIGURE 1
LOCATION MAP
SHEET 12 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	□ COUNTY BOUNDARY
	□ STATE BOUNDARY

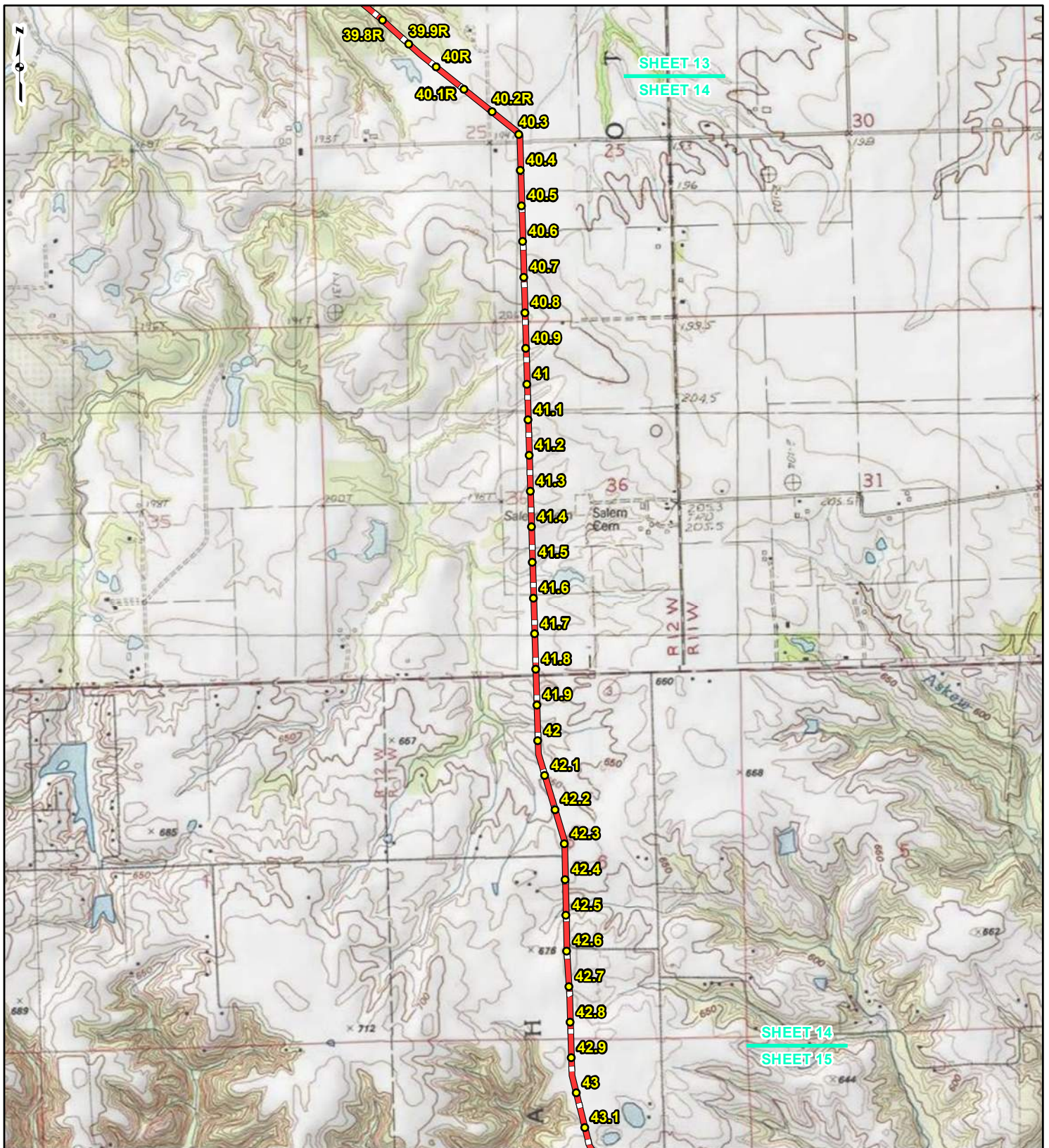
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 13 OF 21**

SPIRE STL PIPELINE PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

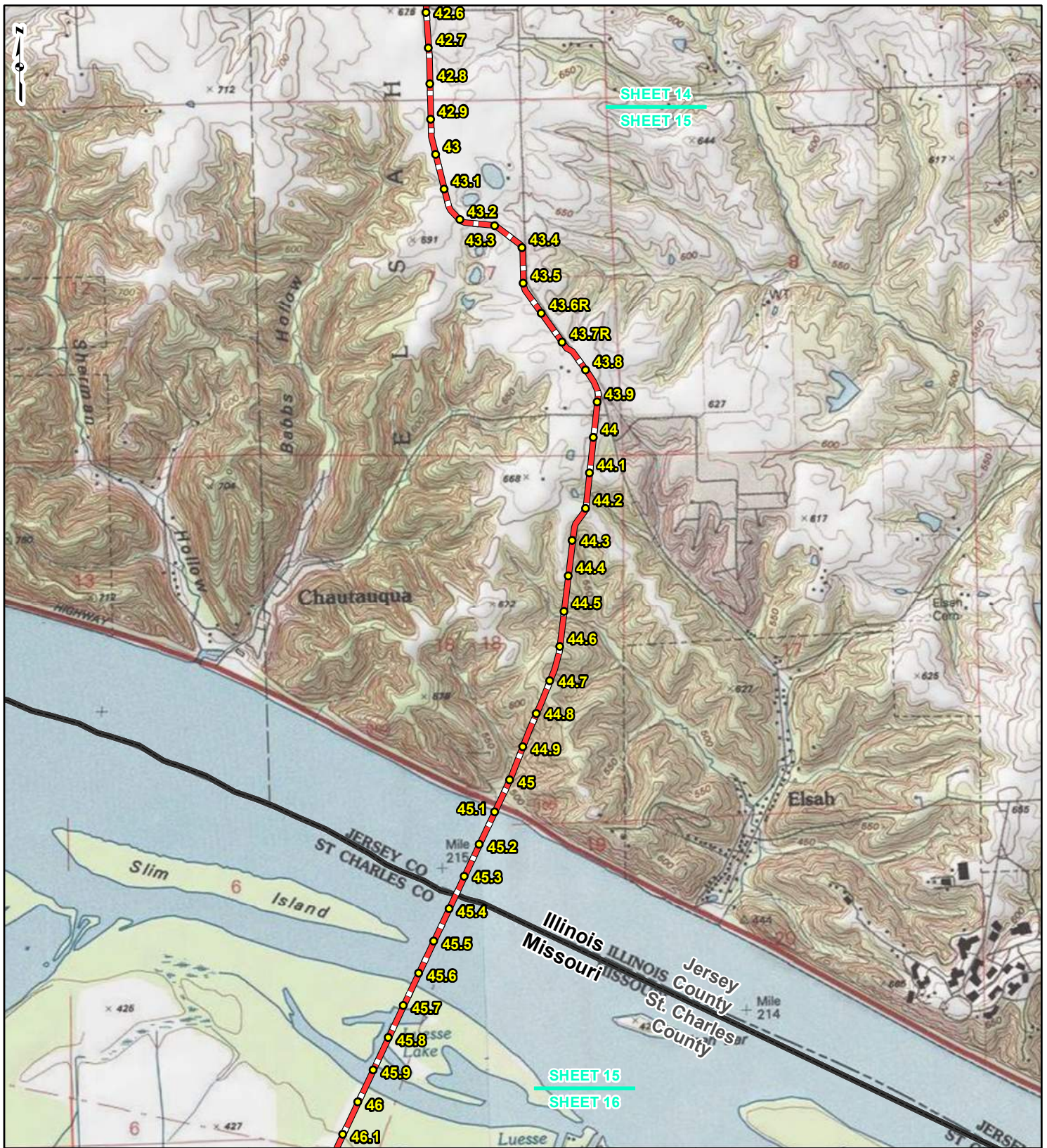
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**FIGURE 1
LOCATION MAP
SHEET 14 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- MILEPOST
- NORTH COUNTY
- EXTENSION
- MILEPOST
- 24-INCH PIPELINE
- NORTH COUNTY
- EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY

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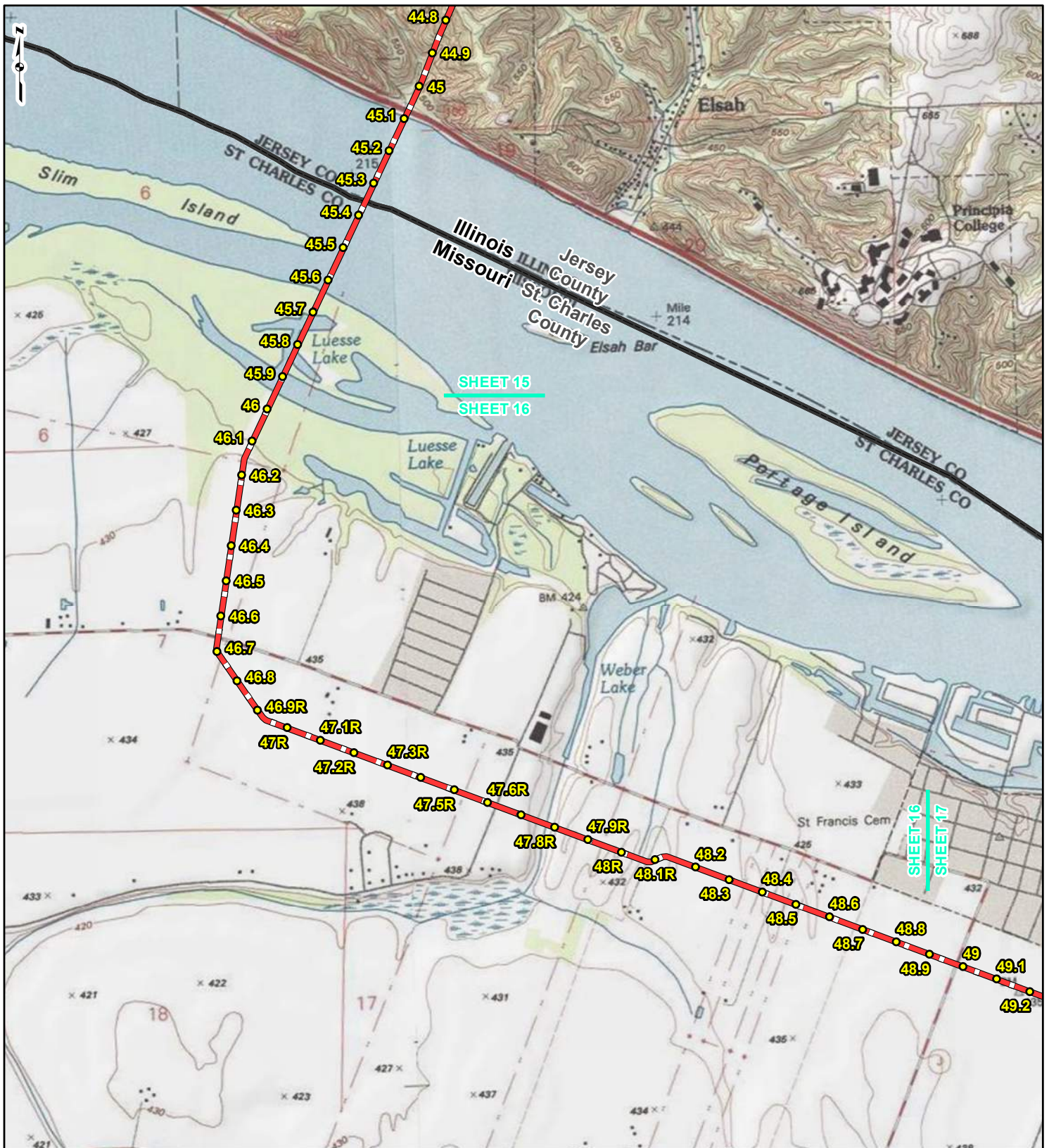
FIGURE 1
LOCATION MAP
SHEET 15 OF 21

SPIRE STL PIPELINE PROJECT

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 15
SHEET 16

SHEET 16
SHEET 17



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

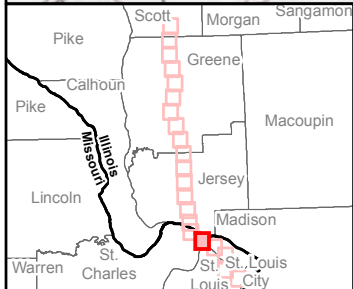
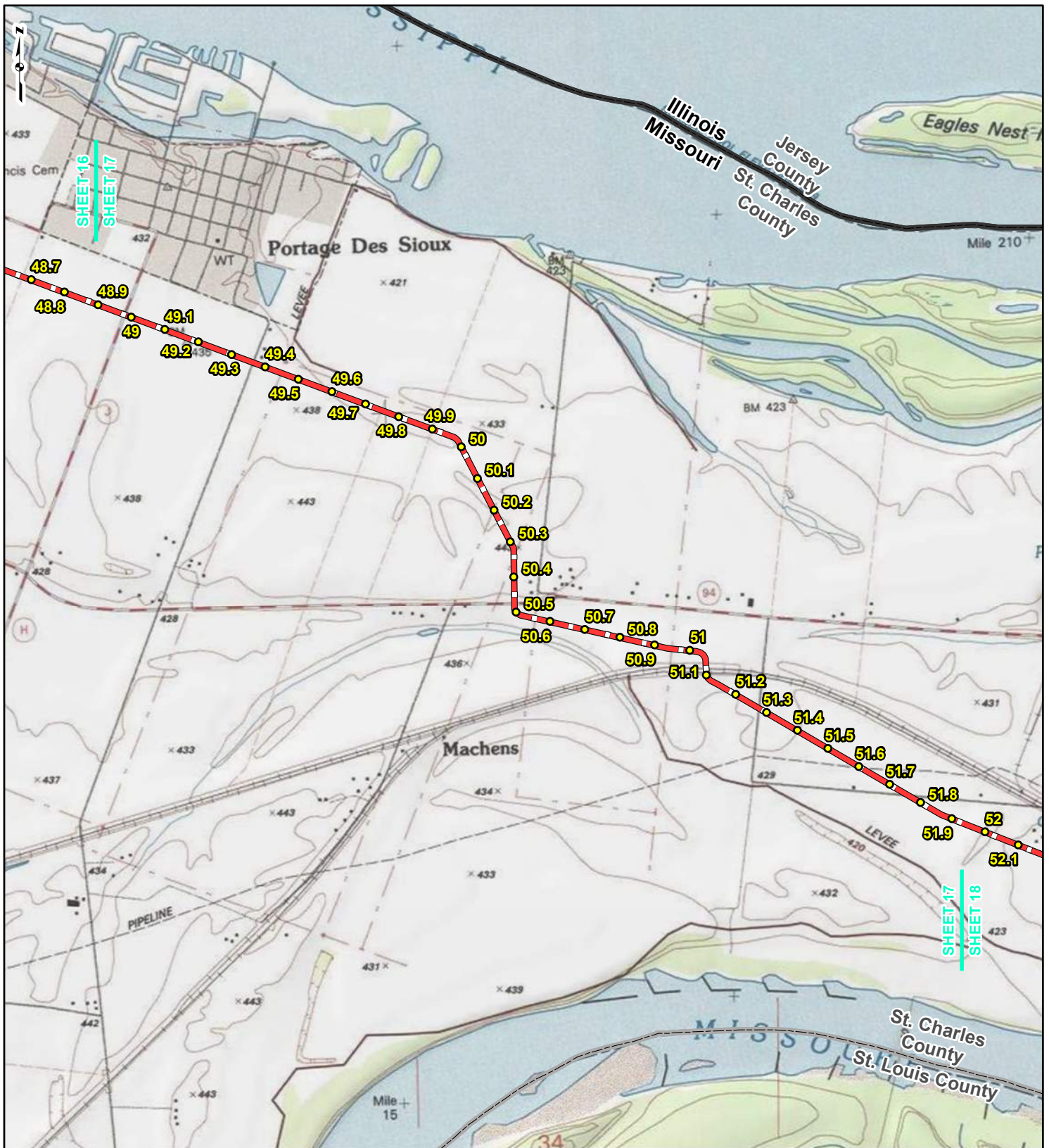
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FIGURE 1
LOCATION MAP
SHEET 16 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

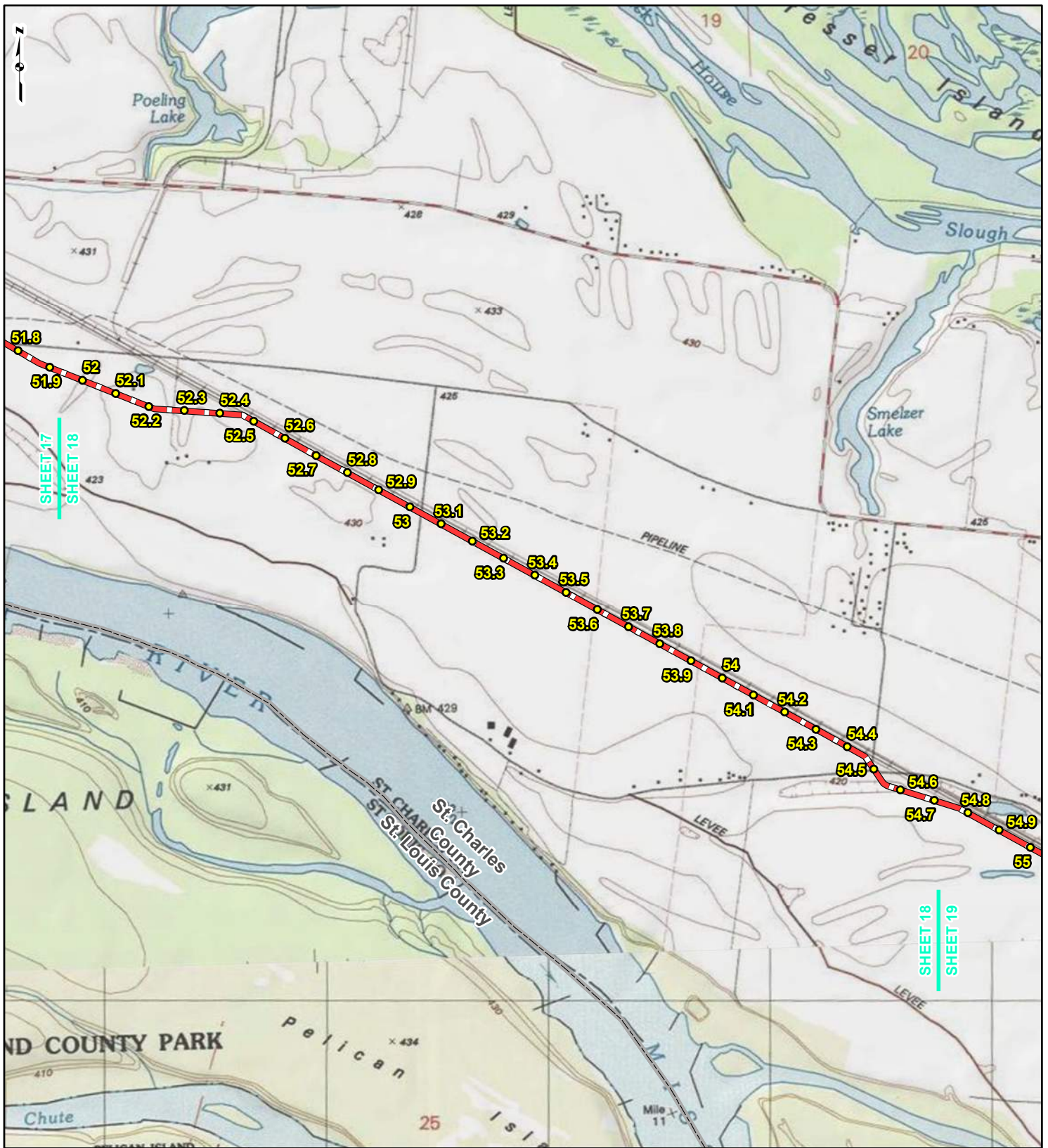
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 17 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

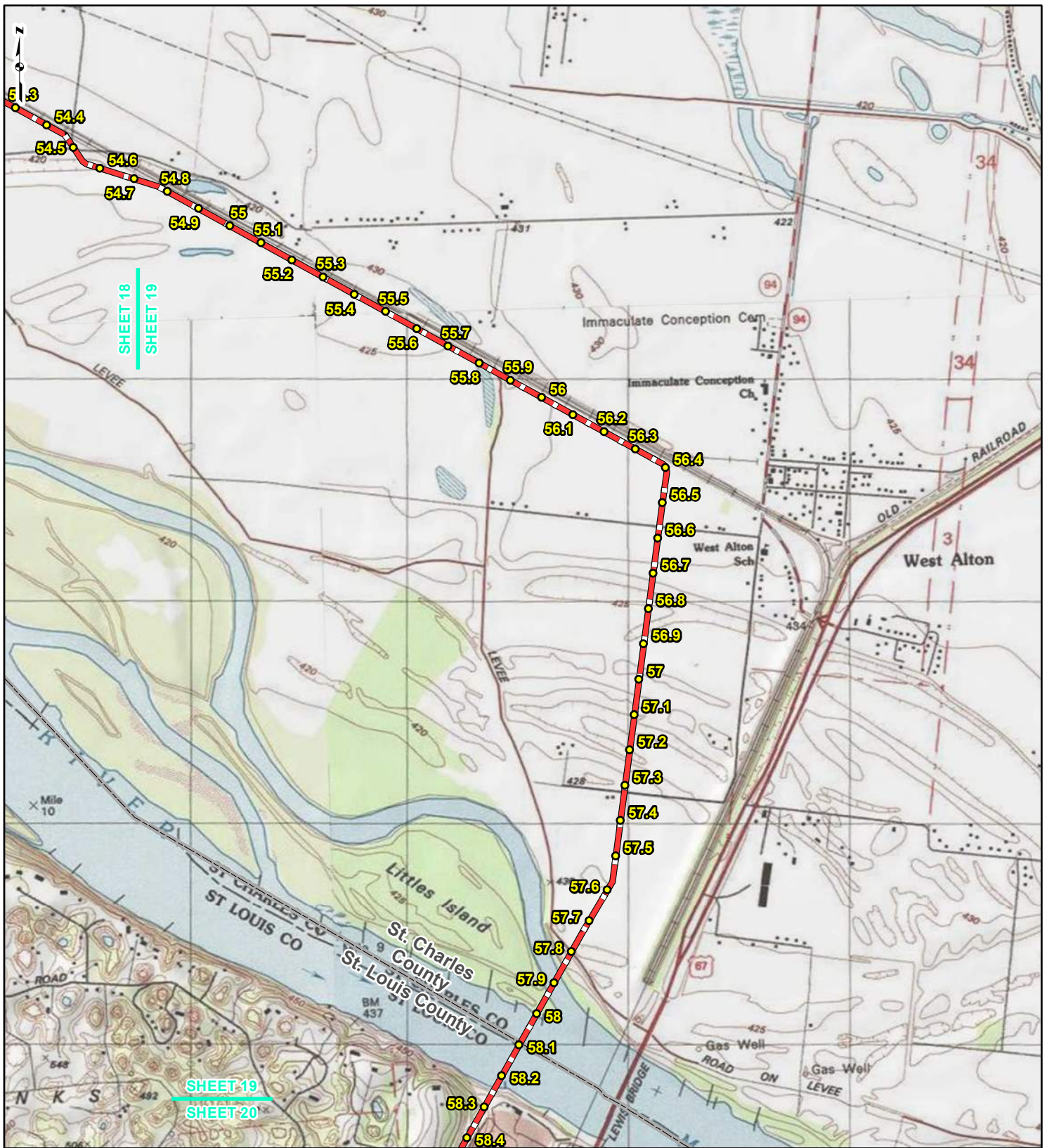
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Feet

FIGURE 1
LOCATION MAP
SHEET 18 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
● NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

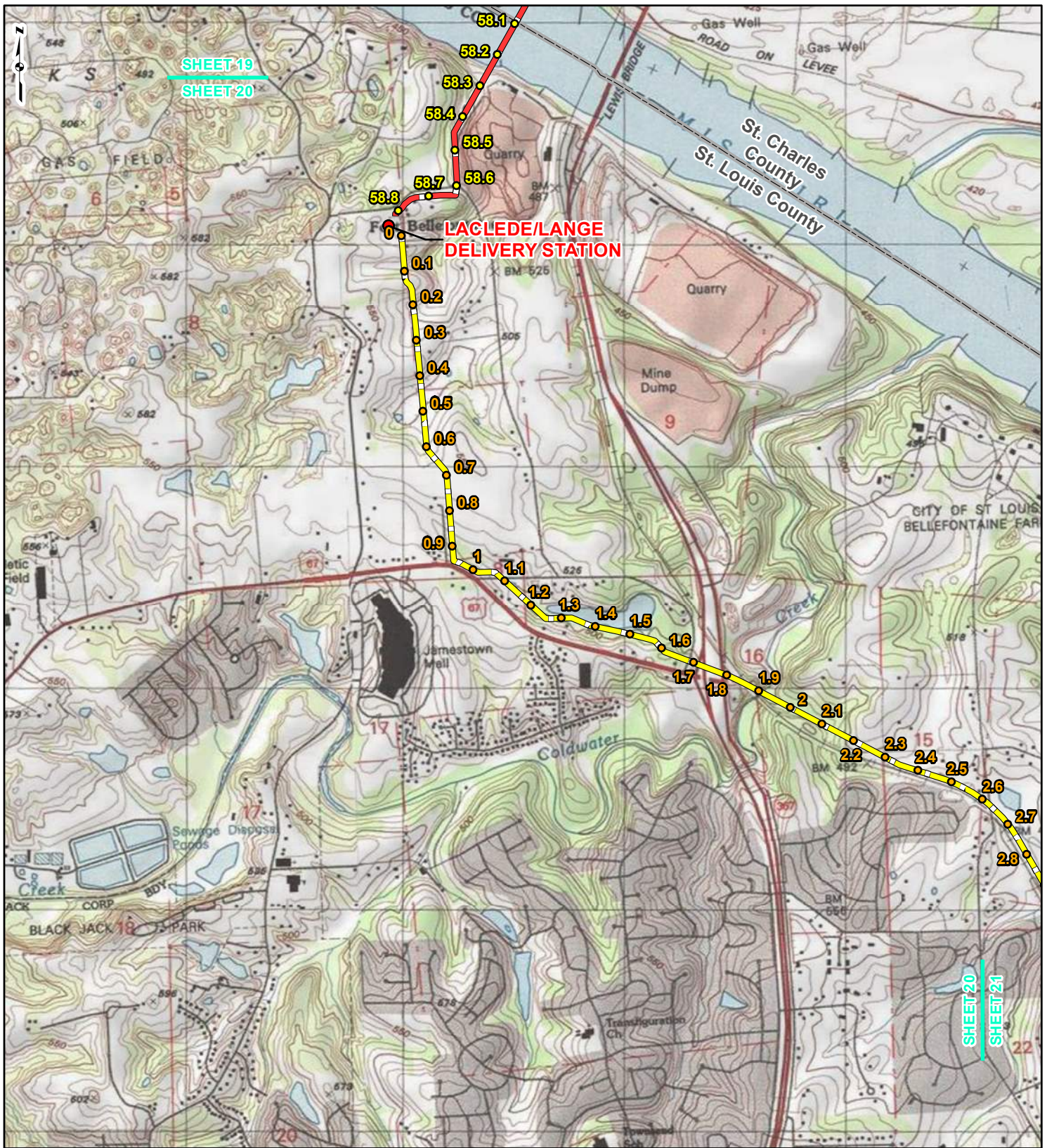
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**FIGURE 1
LOCATION MAP
SHEET 19 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 19
SHEET 20

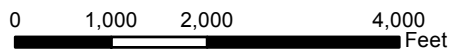
**LACLEDE/LANGE
DELIVERY STATION**

SHEET 20
SHEET 21



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE MILEPOST
- NORTH COUNTY EXTENSION MILEPOST
- 24-INCH PIPELINE NORTH COUNTY
- EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY



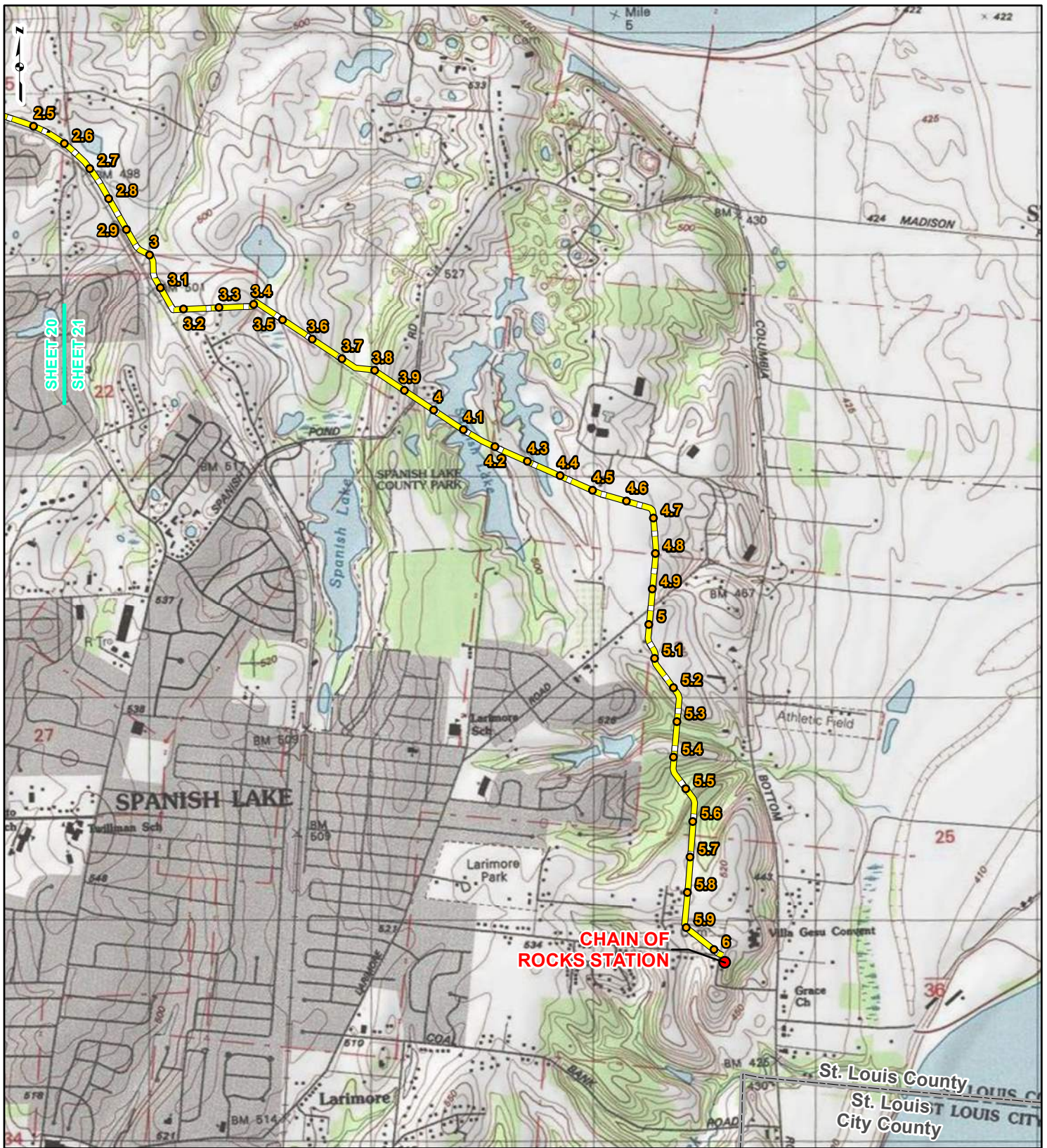
**FIGURE 1
LOCATION MAP
SHEET 20 OF 21**

**SPIRE STL
PIPELINE
PROJECT**



DRAWN BY: PMH DATE: 3/28/2017
CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ELSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE EXTENSION	— 24-INCH PIPELINE EXTENSION
● NORTH COUNTY MILEPOST	▭ COUNTY BOUNDARY
● EXTENSION MILEPOST	▭ STATE BOUNDARY

0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 21 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.

Ali Trunzo

From: Lori Ferry
Sent: Tuesday, April 04, 2017 6:14 PM
To: Ali Trunzo
Subject: FW: Spire STL Pipeline Draft Biological Assessment
Attachments: E16043800T004S006-BIOLOGICAL ASSESSMENT-20170404.pdf; E16043800T004-BA-LTR-JAD.pdf

From: Jason Duffey
Sent: Tuesday, April 04, 2017 5:04 PM
To: Lundh, Kristen <kristen_lundh@fws.gov>
Cc: Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: Spire STL Pipeline Draft Biological Assessment

Hi Kristen,

Attached is a courtesy copy of Spire's Draft Biological Assessment, as last discussed on a conference call on March 23, 2017. A hardcopy has been sent to arrive to your office tomorrow.

If you have any questions, please do not hesitate to contact us.

Thanks,


Jason

Jason A. Duffey
Senior Project Environmental Specialist

GAI Consultants
1830 Airport Exchange Blvd, Suite 220, Erlanger, KY 41018

T 859.647.6647 | **D** 859.692.4152 | **M** 937.554.8488 | gaiconsultants.com |     

* Please update your records with my new direct telephone number

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GAI Consultants, Inc. - Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 331.301.2002

April 4, 2017

Project E160438.00, Task 005.006

Ms. Kristen Lundh
United States Fish and Wildlife Service
Rock Island Field Office
1511 47th Avenue
Moline, Illinois 61265

**Re: Draft Biological Assessment
Spire STL Pipeline LLC
Spire STL Pipeline
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Ms. Lundh:

GAI Consultants, Inc. ("GAI") has completed a draft Biological Assessment ("BA") on behalf of Spire STL Pipeline LLC ("Spire"), for the Spire STL Pipeline Project ("Project") in Scott, Jersey, and Greene Counties, Illinois, and St. Charles and St. Louis Counties, Missouri. This BA is considered a draft BA for the purposes of informal review only, as last discussed on a conference call on March 23, 2017. It is not an initiation document, nor does it assume presence of, or effects to, any listed species. All Project descriptions and effects analyses will be re-evaluated following summer presence/absence bat surveys.

At this time, Spire and GAI are requesting your review and comment on the attached report. GAI and Spire thank you in advance for your assistance. If you have any questions regarding this submission, please feel free to contact me at 331.301.2002 or by e-mail at l.ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.

A handwritten signature in blue ink, appearing to read 'Lori M. Ferry'.

Lori M. Ferry, MS
Environmental Manager

Attachment: Attachment 1 (Draft Biological Assessment)

Ali Trunzo

From: Lori Ferry
Sent: Tuesday, April 04, 2017 12:40 PM
To: Ali Trunzo
Subject: FW: Spire STL Pipeline-Bat Survey Study Plan
Attachments: Spire Bat Survey Study Plan - 2017-03-24_Combined.pdf

From: Lori Ferry
Sent: Tuesday, April 04, 2017 11:35 AM
To: Shank, Keith <Keith.Shank@Illinois.gov>
Cc: 'Skufca, Jenny' <Jenny.Skufca@Illinois.gov>
Subject: Spire STL Pipeline-Bat Survey Study Plan

Hi Keith,





I have attached courtesy copy of Spire's Bat Survey Study Plan. Wanted to make sure that you all received. Hardcopies should have been received last week.


This Plan is currently under review with the USFWS as well.

If you have any questions, please do not hesitate to contact me.

Thanks!
Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants
Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505
T 331.301.2002 M 630.605.5255 | gaiconsultants.com |    
l.ferry@gaiconsultants.com

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March 24, 2017

Project No. E160438.00

Ms. Kristen Lundh
United States Fish and Wildlife Service
Rock Island Field Office
1511 47th Avenue
Moline, Illinois 61265

**Re: Bat Survey Study Plan
Spire STL Pipeline LLC
Spire STL Pipeline
Scott, Greene, and Jersey counties, Illinois,
and St. Charles and St. Louis Counties, Missouri**

Dear Ms. Lundh:

Please accept this letter as a study plan for GAI Consultants, Inc. ("GAI"), and our subcontractors, to complete additional portal searches and bat presence/absence surveys on the Spire STL Pipeline LLC ("Spire") Spire STL Pipeline ("Project") in Scott, Jersey, and Greene Counties, Illinois, and St. Charles and St. Louis Counties, Missouri (Figure 1). This letter also serves as our respectful request for site-specific approval to complete mist net surveys on the Project.

Project Description

As proposed, the Project consists of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with Laclede Gas Company ("LGC"). The second segment of new, greenfield pipeline (referred to as the "North County Extension"), will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable Mississippi River Transmission, LLC ("Enable MRT") and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new metering and regulating ("M&R") stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The Project will utilize a typical 90-foot-wide temporary construction right-of-way ("ROW"), and maintain a 50-foot permanent ROW. An additional 25 feet of additional temporary workspace will be required through agricultural areas and to facilitate construction prior to crossings of roads, railroads, waterbodies, wetlands, etc. The construction ROW will be reduced to 75 feet at waterbodies and wetlands. The Project will include approximately 5.3 miles of access roads with an anticipated width of 25 feet. Of these, approximately 4.4 miles are proposed for temporary use, and 0.9 mile will be permanently maintained for operation of the Project. The Project will also include the construction of minor aboveground facilities.

Overall, the Project will remove approximately 39.5 acres of forest, with approximately 18.6 acres as a permanent loss due to maintenance and operation of the Project within the 50-foot permanent ROW. As proposed, the Project will serve the energy needs of residential, commercial, and industrial customers in the eastern portion of Missouri, including the St. Louis metropolitan area and surrounding counties.

Recent Consultation

Spire initiated consultation with the USFWS in June 2016. On September 29, 2016, GAI submitted a letter to the United States Fish and Wildlife Service ("USFWS") Rock Island Field Office ("RIFO") requesting review of initial effects determinations and proposed survey protocol for rare, threatened and endangered ("RTE") species that may be impacted by the proposed Project. In a letter dated December 8, 2016, the USFWS RIFO indicated that the Project is within the range of three federally-listed bat species: Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and gray bat (*Myotis grisescens*). According to the USFWS RIFO, the Indiana bat and northern long-eared bat are known to occur within the counties where the proposed Project will be located. The Project is within the range of each of these species, but is not believed to be within any known active occurrence areas.

To comply with Section 7 of the Endangered Species Act ("ESA"), GAI is informally consulting with the USFWS RIFO, regarding potential effects to these species. Spire understands that the RIFO will continue to handle coordination with the Columbia Field Office. GAI proposes to conduct presence/absence surveys in the summer of 2017 along the portions of the Project that require tree clearing (Figure 2) to determine presence or likely absence of listed bats. Incidental take of northern long-eared bats as a result of Project tree clearing is not prohibited under Section 9 of ESA because the Project design meets the requirements of the final rule, under Section 4(d) of ESA, for the species (i.e., it is not within 150 feet of any known, occupied maternity roosts or within 0.25-mile of any known, occupied hibernacula). Although incidental take of northern long-eared bats associated with Project tree clearing is not prohibited by ESA, this species is state-listed by the Illinois Department of Natural Resources ("IDNR"). Therefore, GAI will utilize the presence/absence survey to evaluate effects to northern long-eared bats in consultation with IDNR.

Level of Effort

GAI proposes to perform presence/absence survey efforts in accordance with the latest protocols provided by the USFWS, currently the *2016 Range-wide Indiana Bat Summer Survey Guidelines, April 2016* (USFWS Guidelines). However, GAI assumes that the USFWS will update these guidelines in the spring of 2017. If the level of effort for presence/absence surveys for the Ozark-Central Recovery Unit differ from current guidelines, GAI will follow the most recent guidelines. Depending on multiple factors, including time, cost, and appropriate survey conditions, project proponents can choose to perform mist net surveys, acoustic surveys, or a combination of both methods. GAI intends to conduct mist net surveys; however, acoustic surveys may be substituted where land access or survey conditions are more appropriate for acoustic surveys.

The USFWS Guidelines require linear projects within the Ozark-Central Recovery Unit to utilize one mist net site or acoustic site per kilometer (0.6 mi) of suitable summer habitat (i.e., forest). Each mist net site requires a minimum of four net nights of survey effort (i.e., two net sets operated for two nights) and each acoustic site requires two detector nights (i.e. one acoustic detector operated for two nights). Through Geographic Information Systems ("GIS") analyses, the Project was divided into segments that were approximately one kilometer wide by one kilometer long, created by buffering the Project centerline by 0.5 kilometer along each kilometer of potentially suitable habitat proposed for clearing. One mist net site will be surveyed within each segment and will cover all linear Project facilities (i.e., those that require tree clearing) located within that segment. If no suitable mist net site can be found

or accessed within a segment, biologists will coordinate with the USFWS RIFO to locate an appropriate mist net site in the immediate vicinity, generally within an adjacent kilometer segment. If no appropriate mist net sites are available, GAI will survey an acoustic site. There are no non-linear portions of the Project that require additional efforts (Figure 2). Based on the current alignment, GAI proposes to operate 33 sites to provide adequate coverage of the Project. If Project changes occur, GAI will modify the level of effort based on potentially suitable summer habitat to be cleared in accordance with the methods just described.

Habitat Survey

During the GIS analysis for proposed mist net sites, some areas with very few or lone trees were identified as being potentially marginal habitat, where the quality and quantity of which may be low enough to justify excluding some segments from the survey. Likewise, some isolated woodlots, fencerows, or individual trees may be considered too isolated (i.e., by more than 1000 feet) or small to independently support listed bat species and may be excluded. GAI identified 12 locations along the Project alignment where trees and forested landcover were evaluated to determine if suitable bat habitat is present (Figure 2). These areas were evaluated for summer habitat suitable for use by both Indiana bats and northern long-eared bats because the presence/absence surveys will also be utilized to evaluate effects to northern long-eared bats as this species is state-listed by IDNR and therefore not approved under the ESA Section 4(d) rule at the state level.

Suitable summer habitat for these species, according to USFWS Guidelines, includes potential roost trees as well as forests and woodlots containing potential roost trees. Potential roost trees were defined as live trees and/or snags ≥ 3 inches dbh that have exfoliating bark, cracks, crevices, and/or cavities. In addition, linear features such as fencerows, riparian areas, and other travel corridors were limiting in the region and evaluated for the Project's potential to disrupt or fragment these resources.

On January 25, 2017, GAI dispatched a federally-permitted bat biologist to conduct a field habitat assessment of these twelve areas, and confirm whether suitable habitat was present. The habitat survey resulted in excluding 11 of the 12 areas from presence/absence surveys (Figure 2). One area, Area HAB-05, was not excluded due to the presence of two potential roost trees for the northern long-eared bat. Area HAB-12 was adjacent to a lone potential roost tree suitable for both listed bat species; however, the tree is within survey segment KM-21, and will thus be covered by surveys. Overall, areas excluded from presence/absence surveys contained young, live, and/or smooth-barked trees, including many landscaping trees in residential yards. No trees excluded from presence/absence surveys exhibited potential roosting structures, nor were they part of contiguous travel corridors that could be utilized by listed bats. GAI's Bat Habitat Assessment data sheets are found in Attachment 2.

Mist Net Site Selection and Sampling

Bat biologists will perform desktop and field reconnaissance efforts and select optimal survey sites based on availability of suitable travel corridors through forested habitat or other areas likely to capture foraging or traveling bats. Suitable travel corridors often include streams, upland roads, driveways, access roads, logging and ATV trails, forest edges, and existing utility ROW corridors.

GAI proposes to conduct presence/absence surveys during the timeframe of May 15 through August 15, 2017. Mist net surveys will be performed in accordance with GAI's ESA Section 10 recovery permit #TE03494B-1, and individual permits #TE88797B-0 and #TE03450B-1, belonging to our seasonal bat biologists (Attachment 3). GAI will also obtain the proper Endangered Species and Scientific Collecting Permits issued by the IDNR and Missouri Department of Conservation ("MDOC"). GAI also intends to employ subcontractors to assist with the surveys. Each subcontractor will individually request site-specific authorization from the USFWS RIFO (using this study plan) and obtain the required state permits.

In accordance with the USFWS Guidelines, a federally-permitted biologist will be present at each site during all mist net surveys and will be responsible for overseeing all aspects of the survey at that site, including adherence to mist netting standards and effort requirements. All bats will be identified by the permitted biologist. Trained assistants will work under the direct and on-site supervision of the permitted biologist.

In addition to collecting bat data, weather conditions will also be recorded regularly throughout mist net sampling to ensure compliance with the USFWS Guidelines.

Bat Captures and Radio-Telemetry

In accordance with the USFWS Guidelines, Indiana bats captured at mist net sites will be radio-tagged, tracked to diurnal roosts for seven days (if the transmitter is retained), and monitored for at least two emergence counts at each identified roost. Northern long-eared bats and gray bats captured at mist net sites will not be tracked.

GAI will notify the USFWS RIFO (as well as the IDNR or MDOC, as appropriate per state) in accordance with our federal and state permits if listed bats are captured. Notification will occur as soon as possible but not to exceed 48 hours after capture.

Biologists will follow tracking and emergence study protocols as described in the USFWS Guidelines. Telemetry will not be conducted on bats if transmitter attachment exceeds 6% of a bat's weight. Transmitters weigh approximately 0.35 grams each. Transmitters, receivers, and antennas will be tuned to 172 MHz. No bats will be banded during the survey efforts unless banding is requested and bands are issued by the state DNR or MDOC. No tissue or hair samples will be taken from any bats.

Acoustic Surveys

As described above, project proponents can choose to perform mist net surveys, acoustic surveys, or a combination of both methods. Although GAI intends to conduct mist net surveys, acoustic surveys may be substituted where land access or survey conditions are more appropriate for acoustic surveys. Acoustic surveys will only be conducted when mist net surveys cannot be conducted. If it is necessary to conduct acoustic surveys in certain areas, GAI will conduct the sampling, analyses, and reporting based on the USFWS Guidelines. The USFWS Guidelines for acoustic surveys require linear projects within the Ozark-Central Recovery Unit to utilize two detector nights per kilometer (0.6 mi) of suitable summer habitat (i.e., one detector for two nights or two detectors for one night).

Portal Searches

GAI conducted a desktop GIS analysis to determine the potential for karst features that are suitable for use by listed bats to exist in the Project area. Karst landscape layers from United States Geological Survey and sinkhole locations from the Karst Illinois State Geological Survey Prairie Research Institute and the Missouri Spatial Data Institute were compared to Project layers. No coal mining is known in the area; however underground limestone mines could exist in the region. The analysis showed that karst resource areas and numerous sinkholes could exist near the Project (Figure 3).

Simultaneous to other studies (wetland/stream delineations, cultural surveys, etc.) GAI personnel searched for portals (potential openings to subterranean voids) along the Project. Portal assessments were completed in the winter 2016/2017 for the majority of the Project, where access was obtained, and no portals were located. Should any have been found, permitted bat biologists would have assessed them to determine their ability to support bats.

Portal searches will be conducted for any new Project routes and re-routes, and in areas where access was not previously obtained. In a letter, dated December 8, 2016, the USFWS RIFO indicated that GAI should coordinate these efforts with the USFWS RIFO ensure our efforts are least disruptive to

hibernating bats. Should any potentially suitable portals be located during any remaining portal searches, GAI would coordinate with the USFWS RIFO prior to entering any feature to search for bats or conducting any type of harp trap or mist net surveys at potentially suitable portals. GAI would obtain the required site-specific authorization from the USFWS RIFO prior to conducting these activities.

Reporting

Following presence/absence surveys, GAI will produce and submit a report for summarizing the results of the presence/absence survey (and radio-telemetry efforts, if applicable). Should no listed bats be detected on the Project, and no other new occurrence records are reported, GAI will request (on behalf of Spire) that the Project is not likely to adversely affect these species, and that tree clearing can be conducted any time of year. GAI understands that negative presence/absence surveys are typically valid for at least two years in Illinois and Missouri. Should northern long-eared bats be documented, GAI assumes that the potential take associated with tree clearing will not be prohibited, provided Spire follows the conservation measures described in the ESA Section 4(d) rule for the species. GAI would consult separately with IDNR regarding effects to northern long eared bats. Should Indiana bats or gray bats be documented during the survey, GAI and Spire will consult with USFWS to determine the appropriate courses of action to avoid and minimize adverse effects to these species. However, the overall Project effects to gray bats are expected to be insignificant and/or discountable, assuming no effects will occur to potential subterranean habitat for this species. Regardless, potential effects to listed bat species will be evaluated based on the results of the presence/absence survey.

If you have any questions or need any additional information, please do not hesitate to contact Jason Duffey at 937-554-8488.

Sincerely,

GAI Consultants, Inc.



Jason Duffey
Senior Project Environmental Specialist



Adam Mann, MS
Environmental Manager

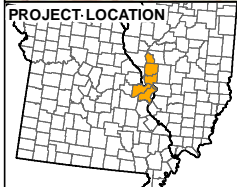
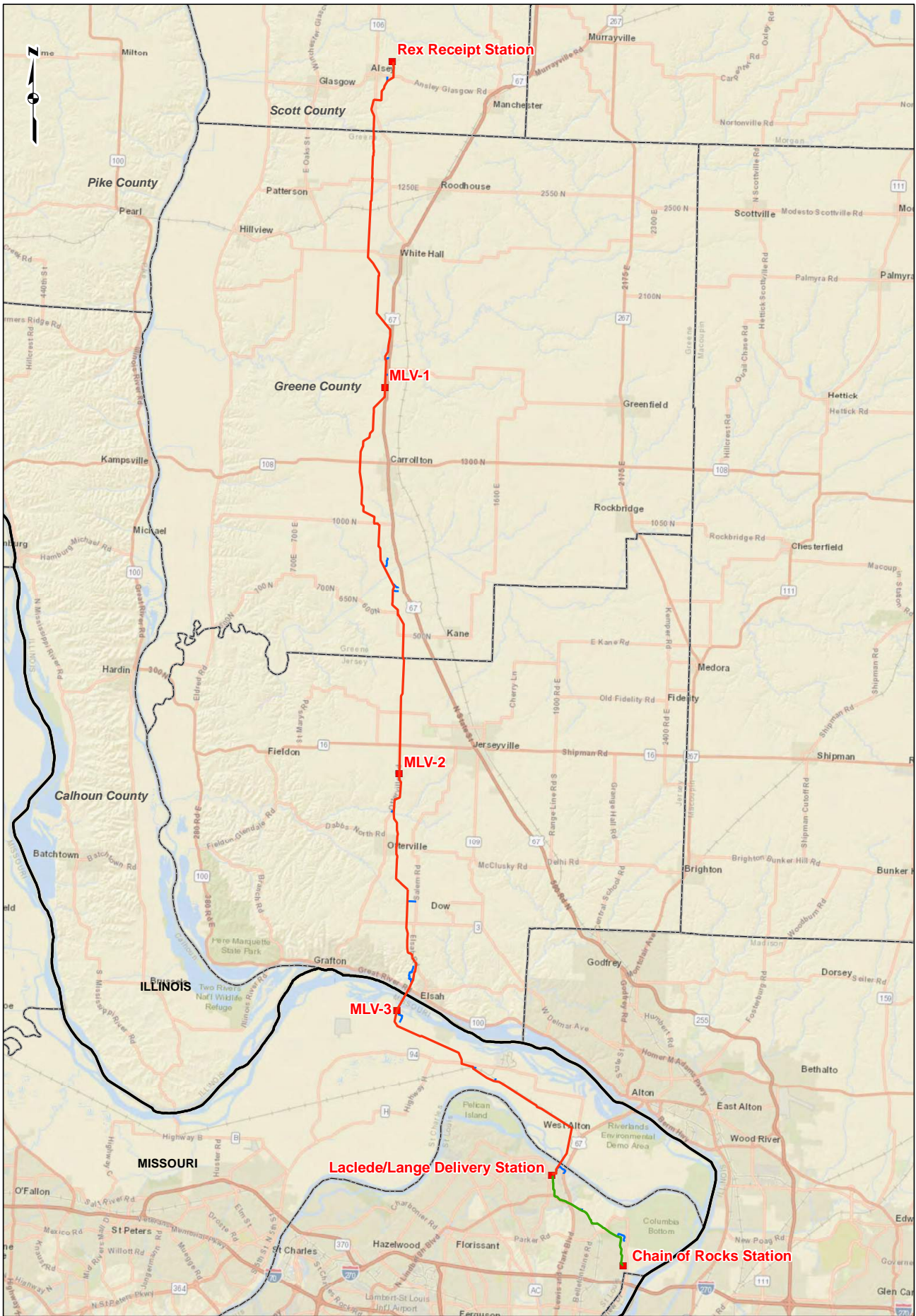
JAD:AMM/knh

Cc: Ms. Trisha Crabill, USFWS, Columbia Field Office
Keith Shank, IDNR
Jenny Skufca, IDNR

Attachment: Attachment 1- Figures
Attachment 2- Habitat Survey Data Sheets
Attachment 3- Federal Permits

March 24, 2017
Project E160438.00

ATTACHMENT 1
FIGURES



REFERENCE: WORLD STREET MAP, ESRI, 2017
 ACCESSED : 03/2017

GREENE, JERSEY AND SCOTT COUNTIES, IL
 ST. CHARLES AND ST. LOUIS COUNTIES, MO

LEGEND

- 24-inch Pipeline
- North County Extension
- Access Road
- Facility
- County Boundary
- State Boundary

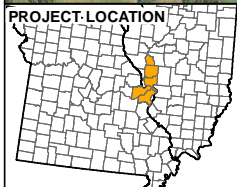
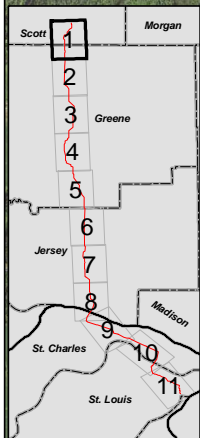
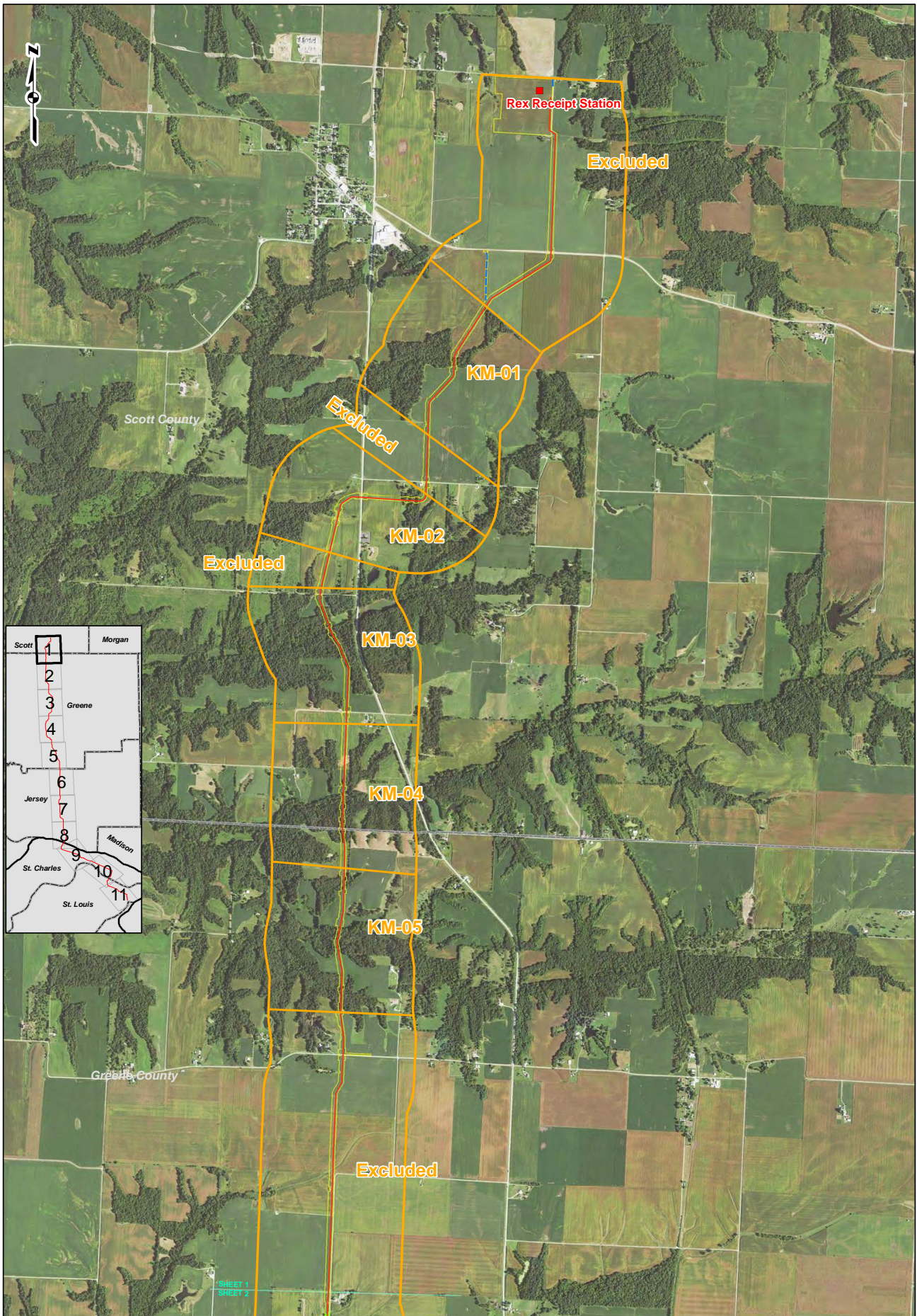
0 2 4 8 Miles

FIGURE 1 LOCATION

SPIRE STL PIPELINE PROJECT

igai consultants

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Habitat Survey Areas
- County Boundary
- Access Road
- Facility
- Matchline

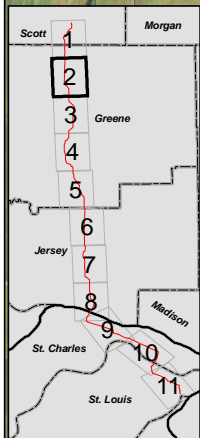
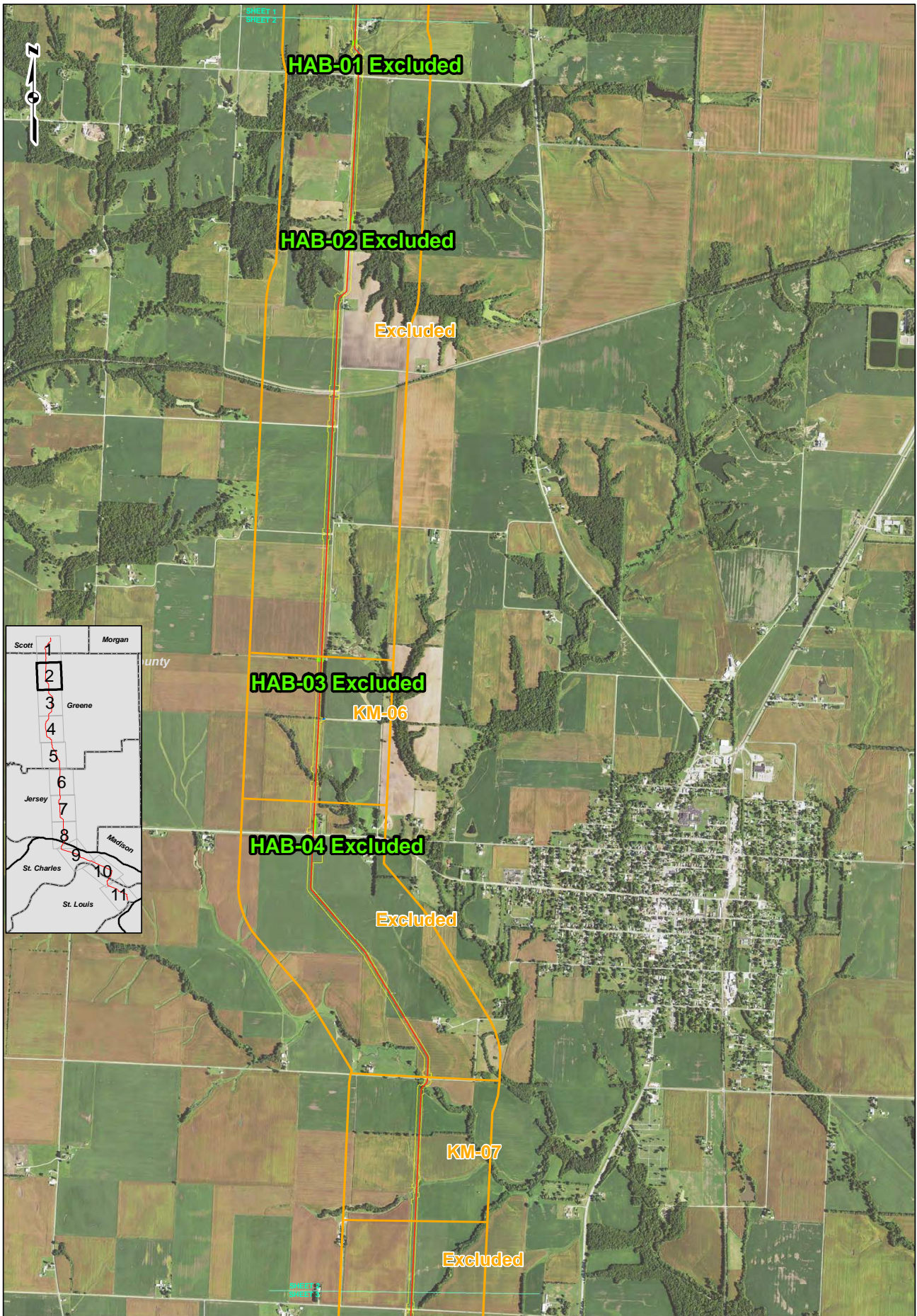
0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 1 OF 11

SPIRE STL
PIPELINE
PROJECT

igai consultants spire

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REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
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GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Habitat Survey Areas
- County Boundary
- - - Access Road
- Matchline

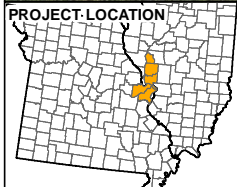
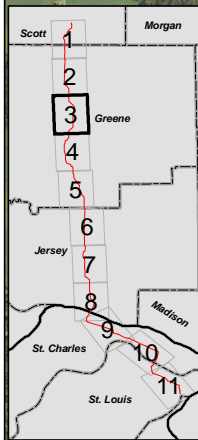
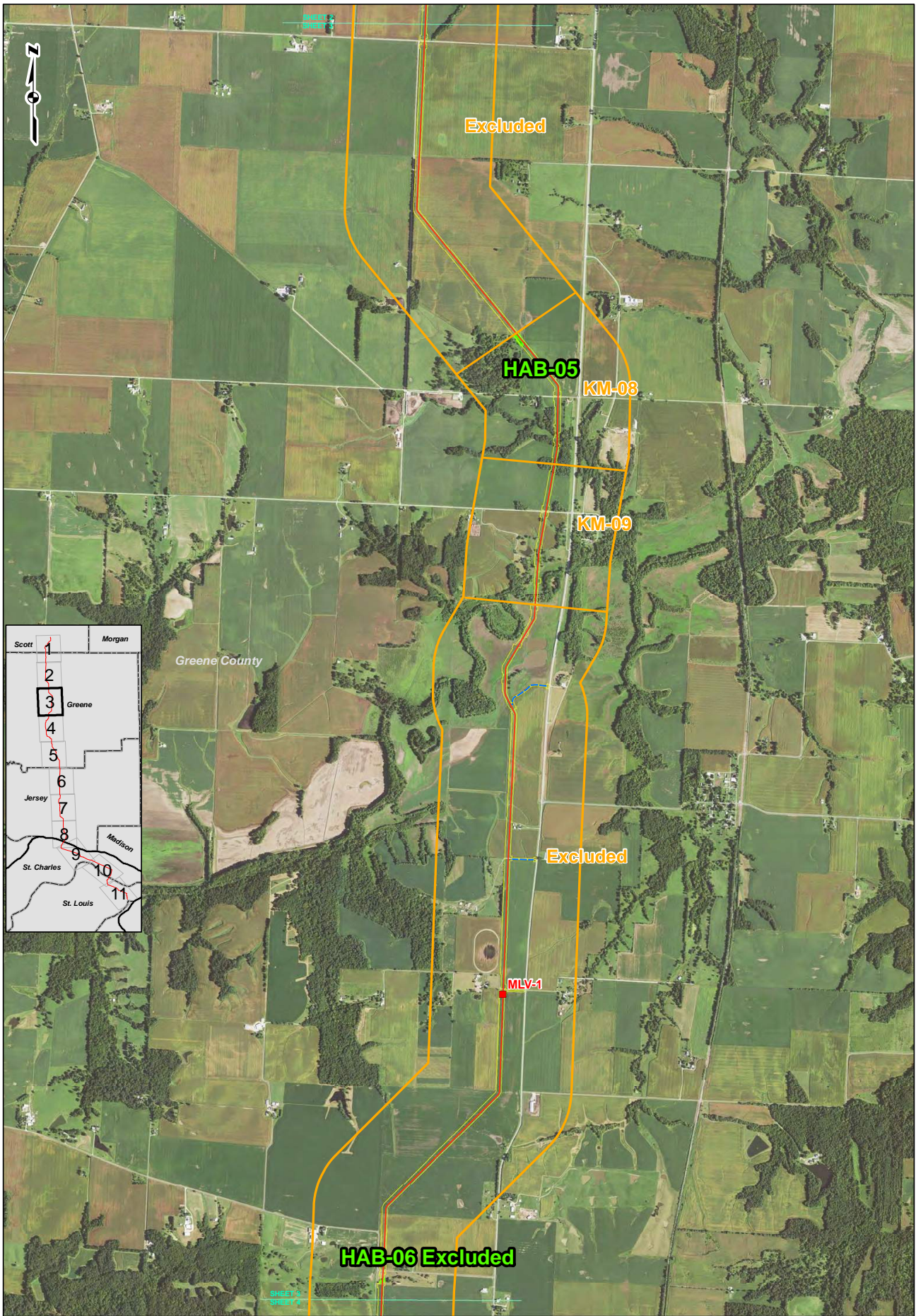
0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 2 OF 11

SPIRE STL
PIPELINE
PROJECT

igai consultants spire

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

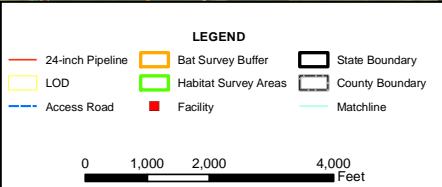




FIGURE 2
BAT PRESENCE/ABSENCE SURVEY

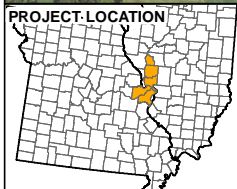
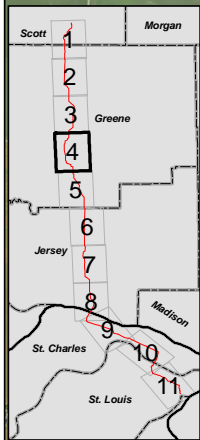
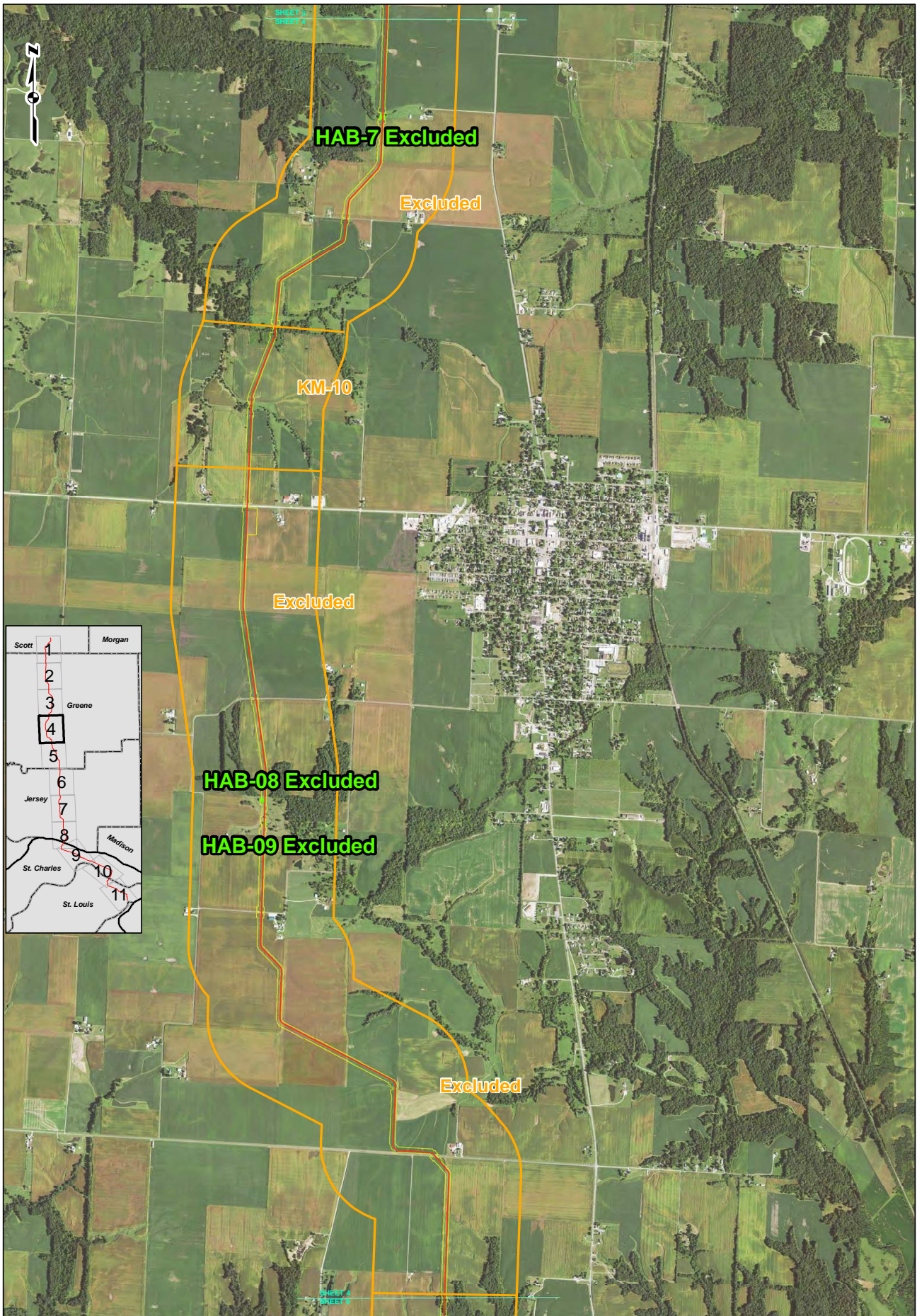
SHEET 3 OF 11

SPIRE STL
PIPELINE
PROJECT


 igai consultants


 spire

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND	
	24-inch Pipeline
	LOD
	Bat Survey Buffer
	Habitat Survey Areas
	State Boundary
	County Boundary
	Matchline

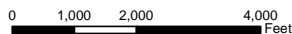
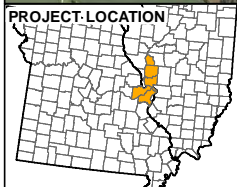
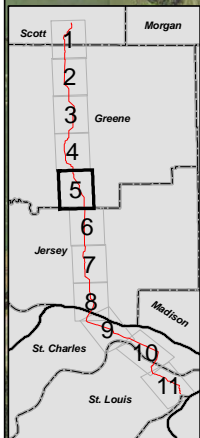
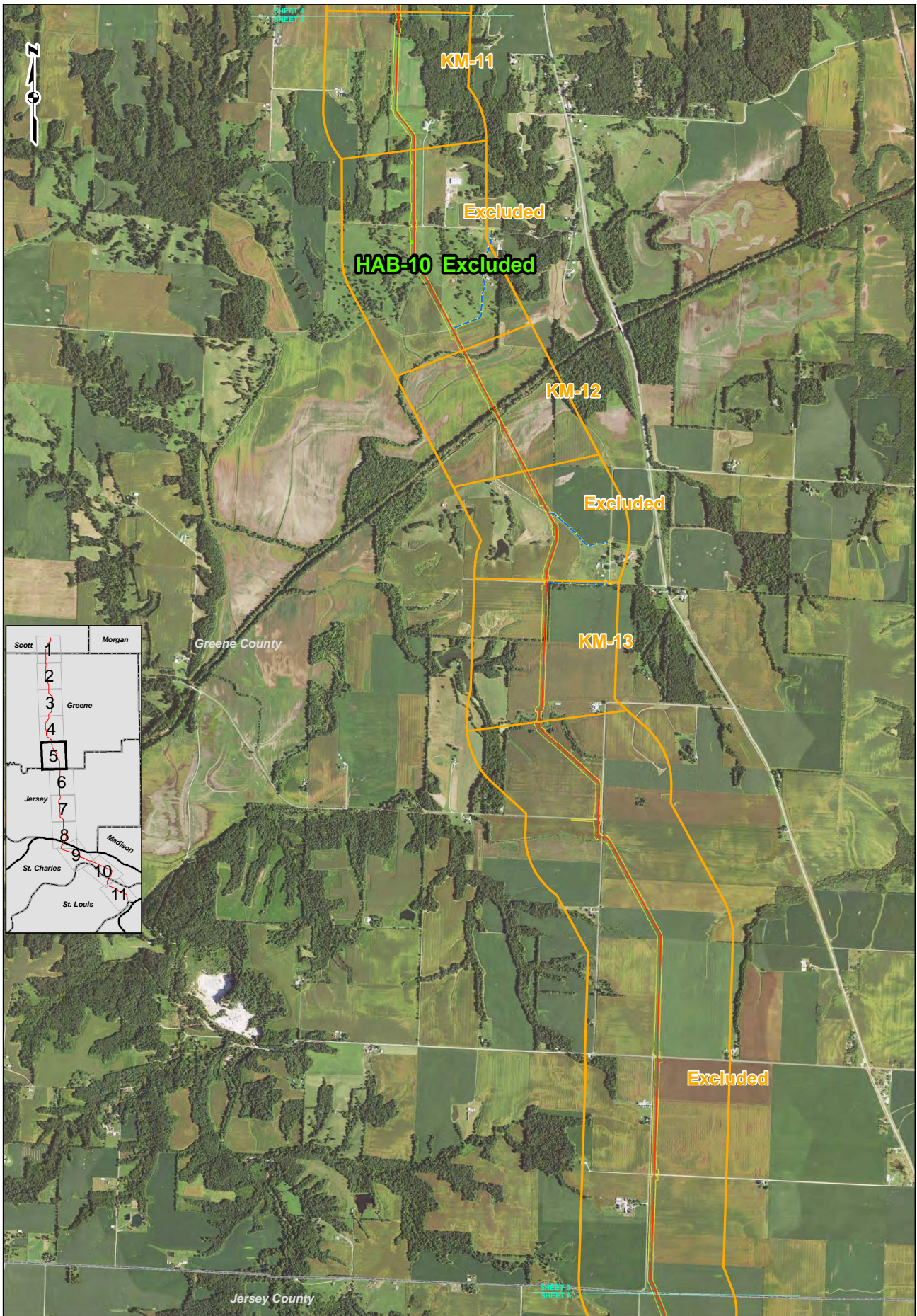


FIGURE 2
 BAT PRESENCE/ABSENCE SURVEY
 SHEET 4 OF 11

SPiRE STL
 PIPELINE
 PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND	
	24-inch Pipeline
	Bat Survey Buffer
	State Boundary
	LOD
	Habitat Survey Areas
	County Boundary
	Access Road
	Matchline

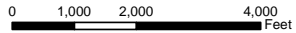
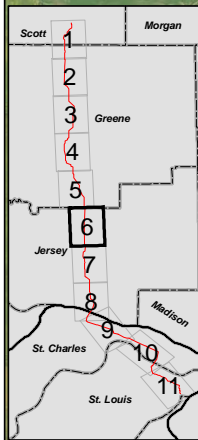
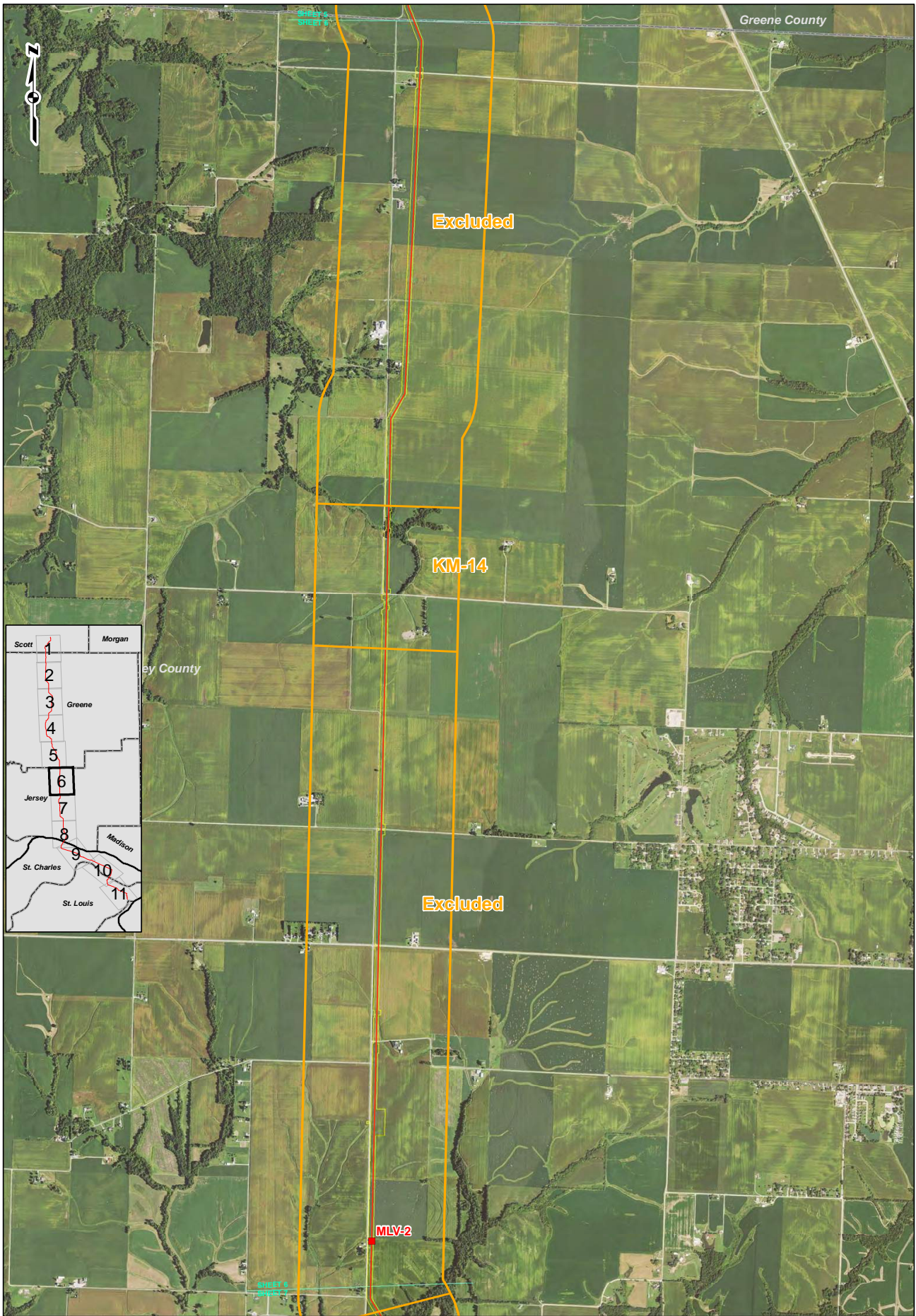


FIGURE 2
 BAT PRESENCE/ABSENCE SURVEY
 SHEET 5 OF 11

SPIRE STL
 PIPELINE
 PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

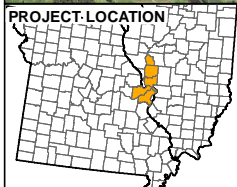
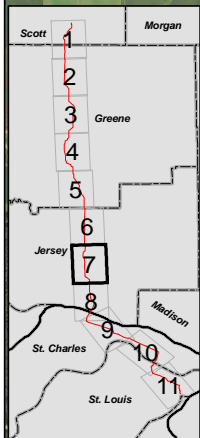
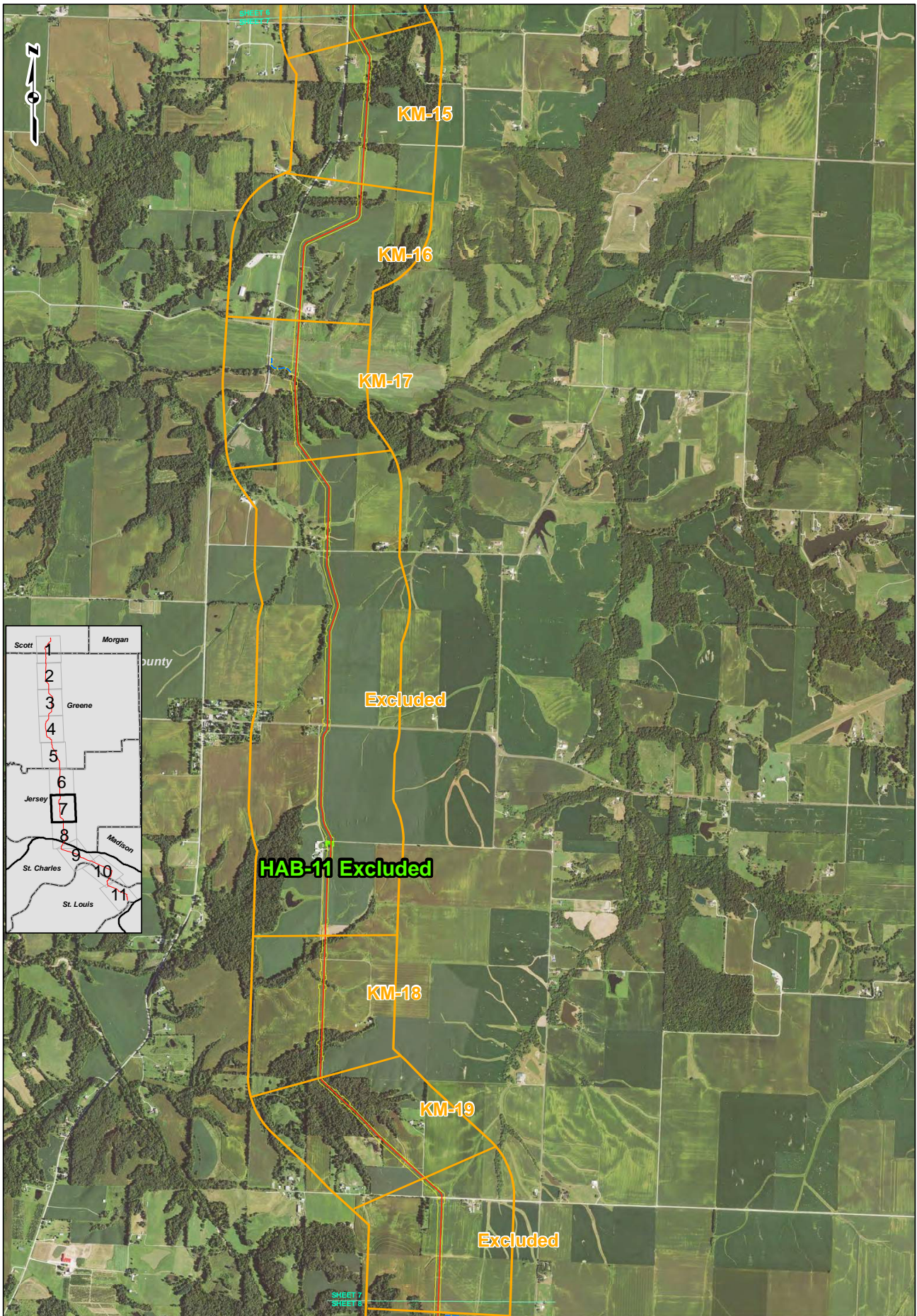
- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Facility
- County Boundary
- Access Road
- Matchline

0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 6 OF 11

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

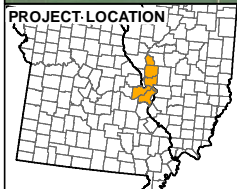
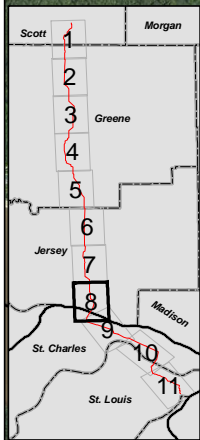
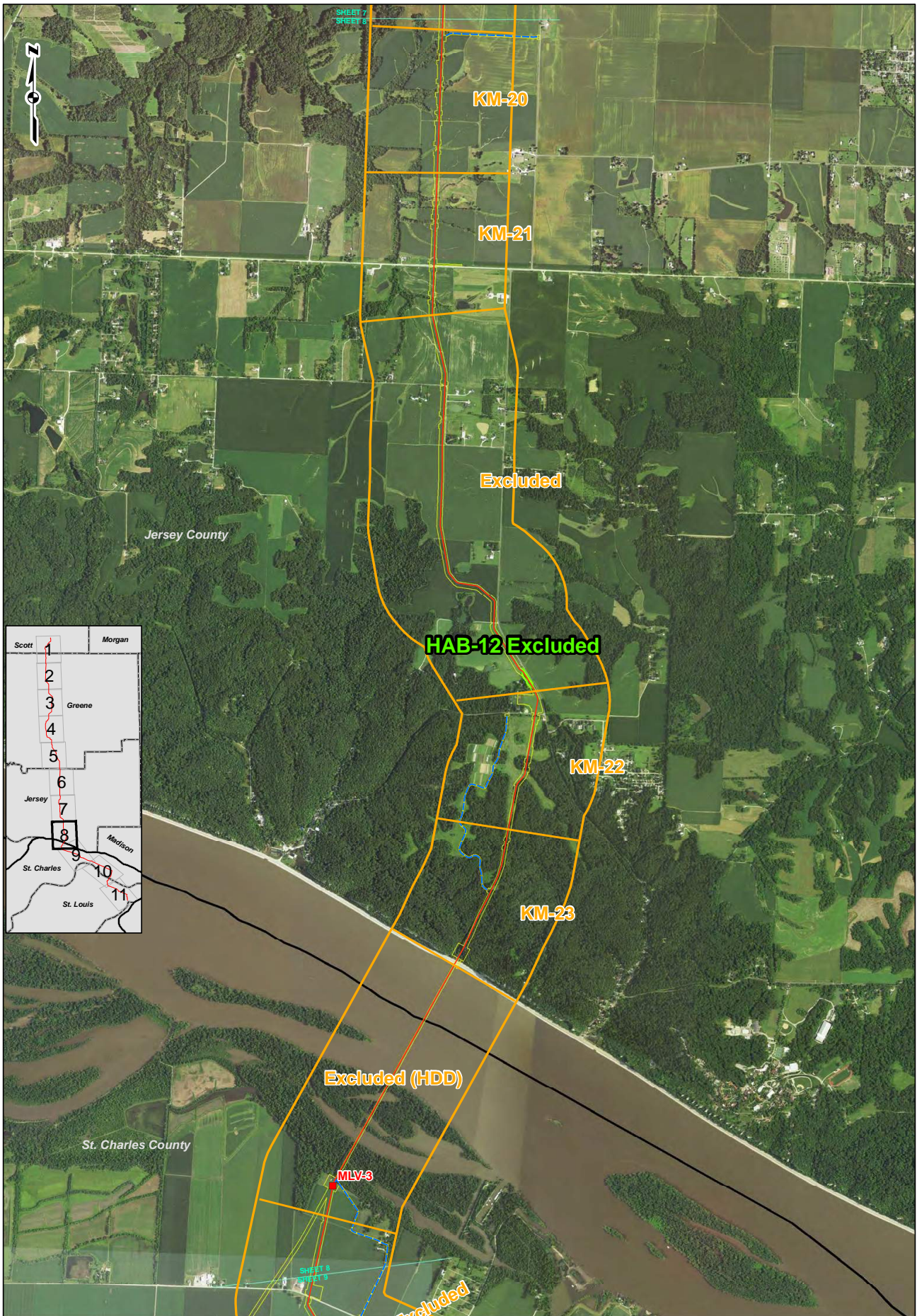
- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Habitat Survey Areas
- County Boundary
- Access Road
- Matchline

0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 7 OF 11

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PK DATE: 3/24/2017
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REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

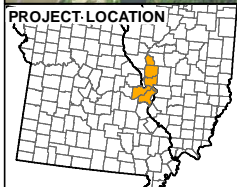
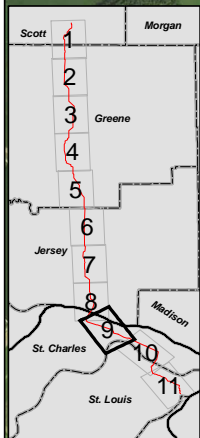
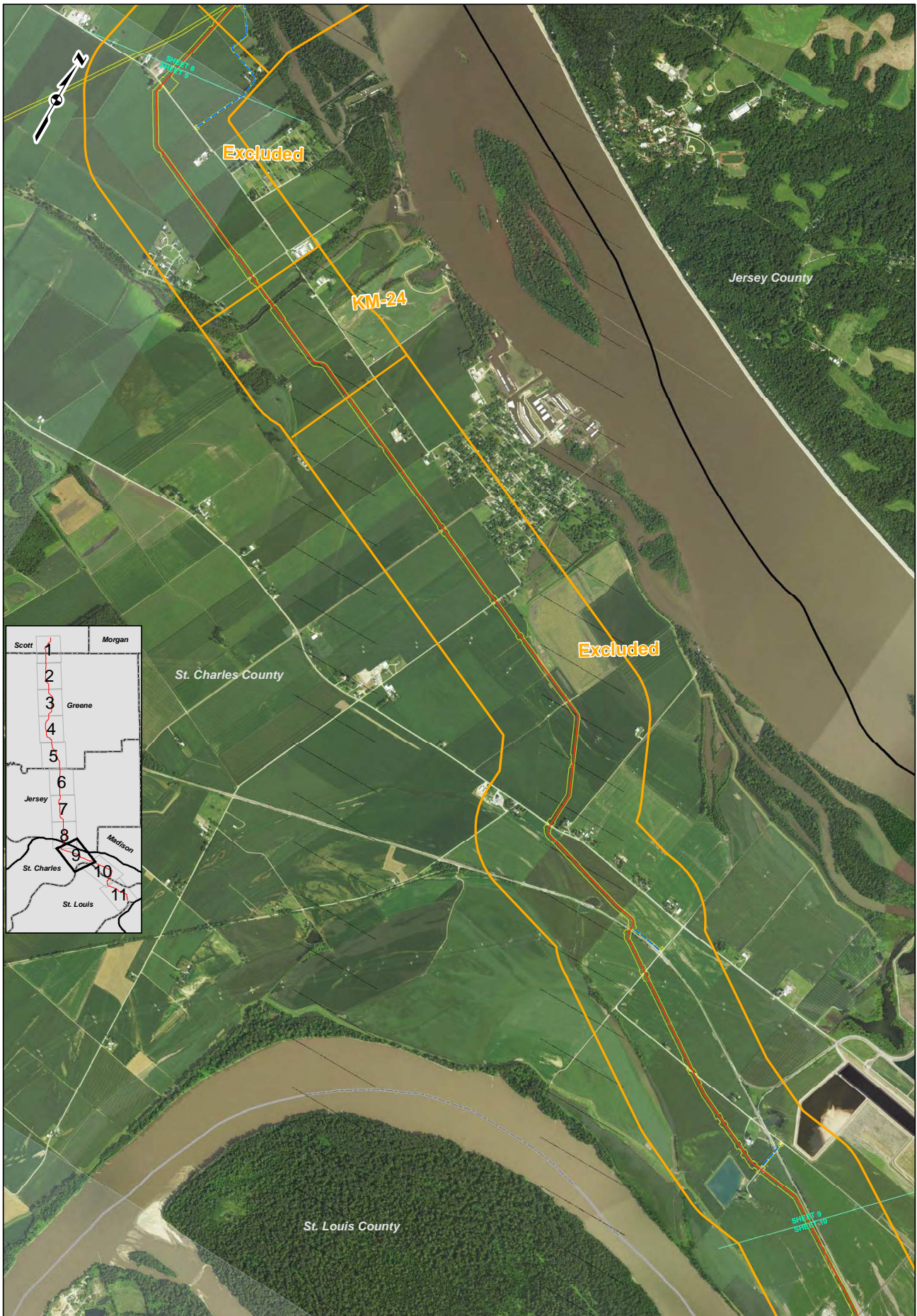
- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Habitat Survey Areas
- County Boundary
- Access Road
- Facility
- Matchline

0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 8 OF 11

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

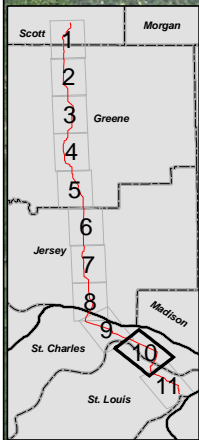
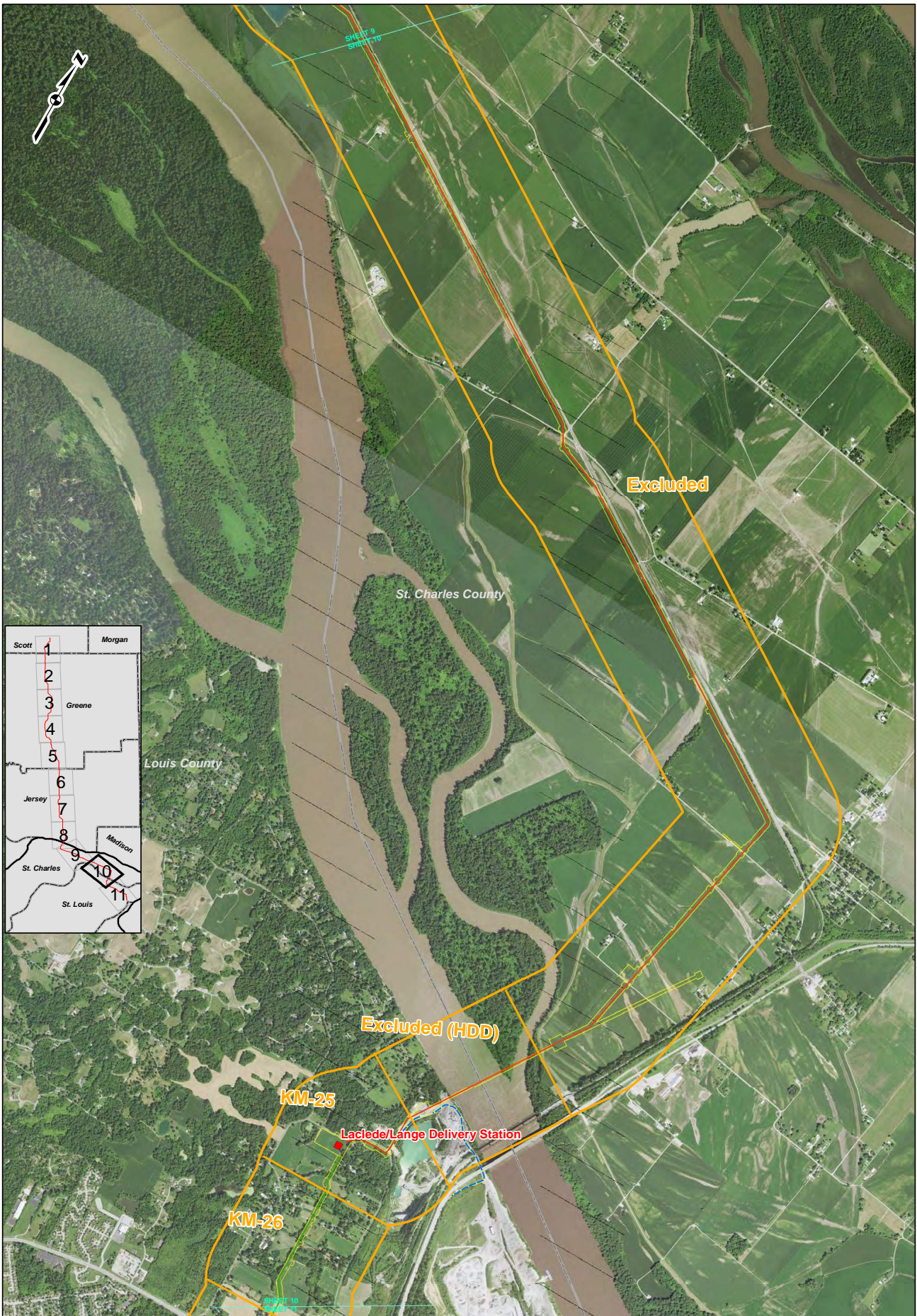
- 24-inch Pipeline
- Bat Survey Buffer
- State Boundary
- LOD
- Facility
- County Boundary
- - - Access Road
- Matchline

0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 9 OF 11

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

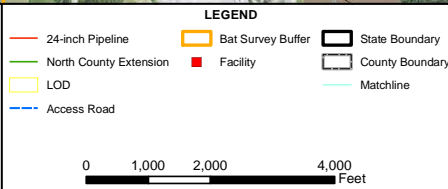
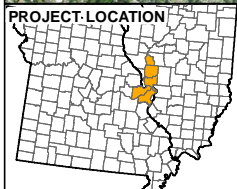
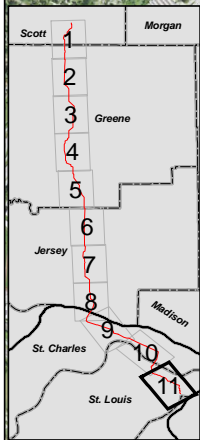
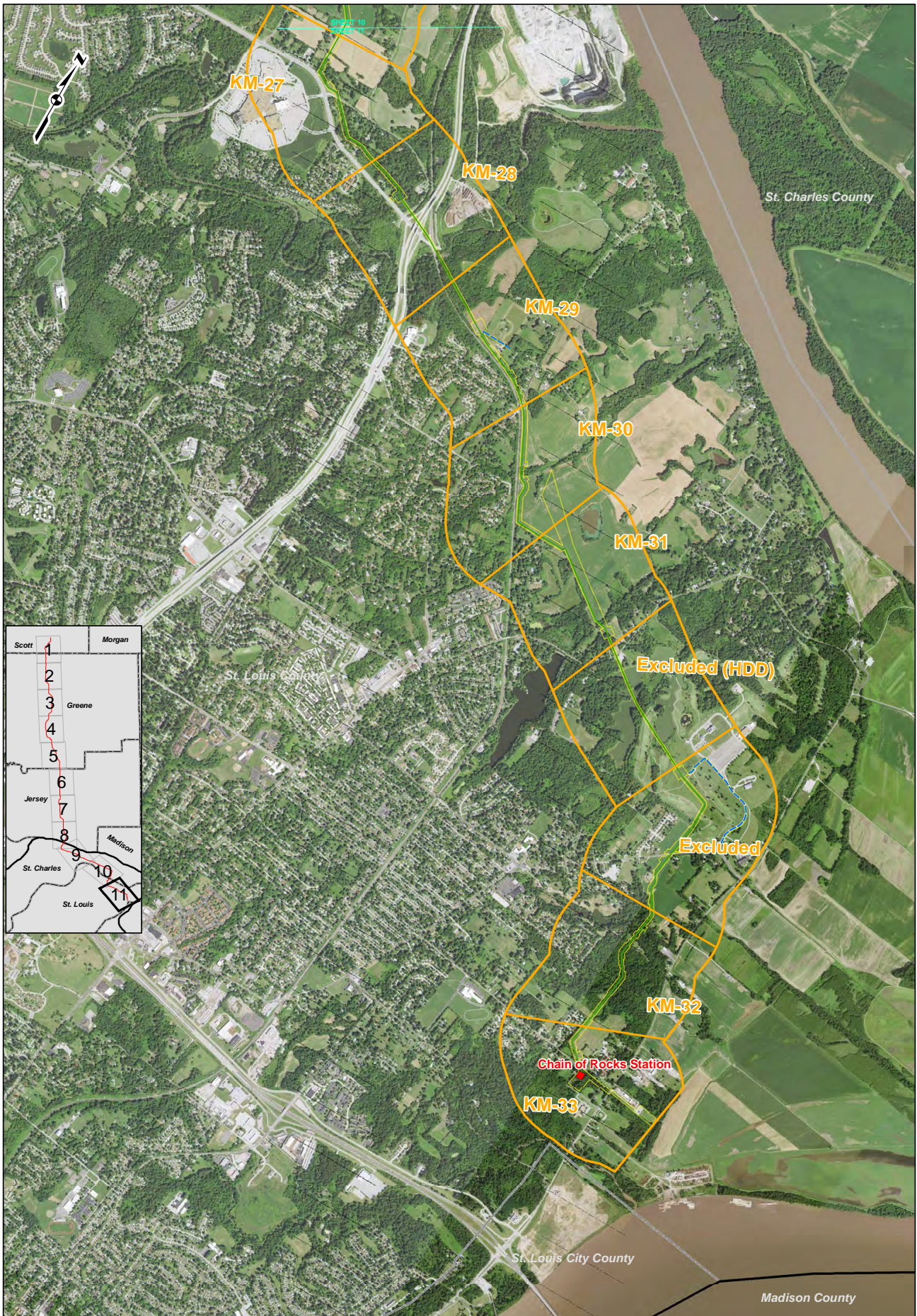


FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 10 OF 11

SPIRE STL
PIPELINE
PROJECT

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DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: NAIP
 USDA, FSA, ILLINOIS 2015
 MISSOURI 2014
 ACCESSED : 03/2017

GREENE, JERSEY
 AND SCOTT COUNTIES, IL
 ST. CHARLES AND
 ST. LOUIS COUNTIES, MO

LEGEND

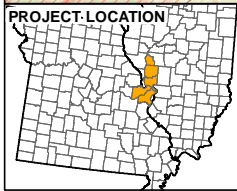
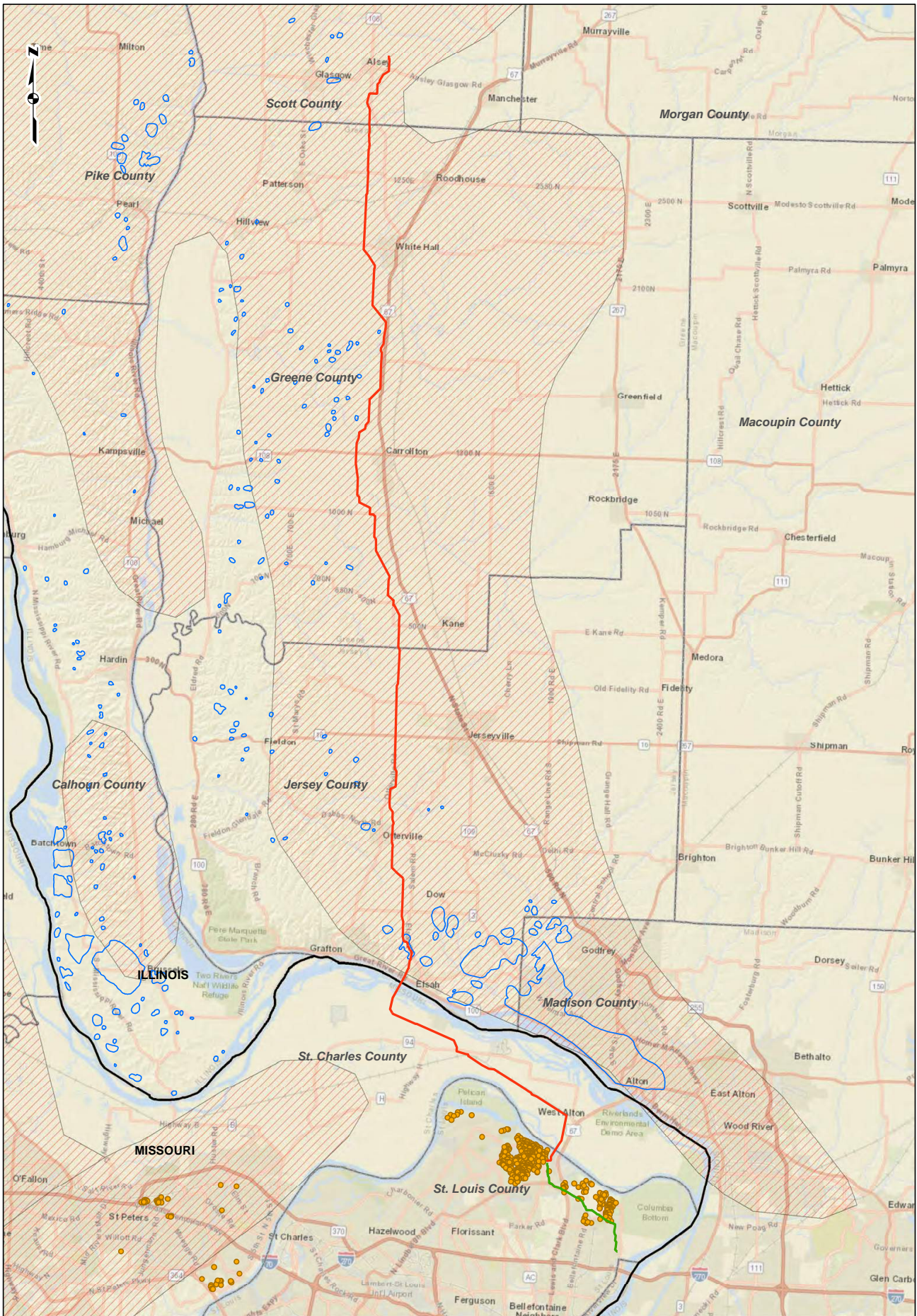
- North County Extension
- Bat Survey Buffer
- State Boundary
- LOD
- Facility
- County Boundary
- Access Road
- Matchline

0 1,000 2,000 4,000 Feet

FIGURE 2
BAT PRESENCE/ABSENCE SURVEY
 SHEET 11 OF 11

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PK DATE: 3/24/2017
 CHECKED: JAD APPROVED: JAD



REFERENCE: WORLD STREET MAP, ESRI, 2017
 ACCESSED : 03/2017

GREENE, JERSEY AND SCOTT COUNTIES, IL
 ST. CHARLES AND ST. LOUIS COUNTIES, MO

LEGEND

- 24-inch Pipeline
- North County Extension
- Sinkhole Areas in Illinois
- Sinkholes in Missouri
- Karst Areas
- County Boundary
- State Boundary

0 2 4 8 Miles

**FIGURE 3
 KARST AREA AND
 SINKHOLE LOCATIONS
 SPIRE STL
 PIPELINE
 PROJECT**

igai consultants

DRAWN BY: PK DATE: 3/22/2017
 CHECKED: JAD APPROVED: JAD

March 24, 2017
Project E160438.00

ATTACHMENT 2
HABITAT SURVEY DATA SHEETS



Bat Habitat Assessment

Project Name: SpiceProject #: E160138.00 State: IL County: _____Biologist(s): Adam MoonDate: 25 Jun 2017 GPS: _____ Camera: Amor

ID #	Roosting Potential			Habitat Type(s)	Canopy	Subcanopy	GPS (Wpt. or Coords.)		Photos	Description/Comments
	Rank	Type	Type(s)				Start	End		
	MYSO	MYSE								
12	N	N	-	IT	0	0		Exclude	S089 S091-S093	Mostly small trees, including cedar, red maple, white pine, small oaks and mulberry shrubs. No RP. Trees smooth bark w/ no cracks, leaves bark loose.
12a	M	M	P	IT	0	0		Already part of Krazz2	S088, S090	Large Silver Maple partially dead, serving as a PRT. Cedars and loose bark suitable for bats. Emergence?
11	N	N	-	IT	0	0		Exclude	S094-S097	Yard trees, a few pine (white, slash), small Xmas tree, and a couple deciduous trees with no RP.
10	N	N	-	IT	0	0		Exclude	S098	One single live oak in open field with no apparent RP.
9	N	N	-	IT	0	0		Exclude	S099- S100	Single oak tree. No RP for Indiana bat and NLEB.
8	N	L	L	IT	0	0		Exclude	S101- S102	Single oak tree. No RP for Indiana bat and very low RP for NLEB. May be hollow. Given it's in the field, very unlikely it will be used.
7	N	N	-	YS	0	C		Exclude	S103- S107	Small young patch of trees, isolated from woods by pasture. No PRTs. One mature willow in strip. Living oak.
6	N	N	-	IT	0	0		Exclude	S108- S109	Two mature trees, 1 oak and 1 sycamore. Isolated from other trees. No apparent RP.
5	N	L	P, D	MS	0	0		Cannot exclude	S110-S114	Stand of 12 trees, 11 live and 1 snag. All oak except one sycamore. Snag and 4 live oak have potential for NLEB, not PRT.

Roosting Potential Rank: H = High; M = Moderate; L = Low; N = None; NF = Non-Forested

Habitat Types: MS = Mature Stand; YS = Young Stand; D = Deciduous; C = Coniferous; MDC = Mixed Deciduous/Evergreen; RL = Recently Logged; NF = Non-forest; IT = Individual Trees

Canopy / Subcanopy: C = Closed; M = Moderate; O = Open

Roosting Potential Type: D = Dead; L = Live; P = Partial



Bat Habitat Assessment

Project Name: SpiceProject #: E160138.00State: IL

County: _____

Biologist(s): Adam MoranDate: 25 Jan 2017

GPS: _____

Camera: Amo 1

ID #	Roosting Potential		Habitat Type(s)	Canopy	Subcanopy	GPS (Wpt. or Coords.)		Photos	Description/Comments
	Rank	Type				Start	End		
	MY50	MY5E							
4	N	N	-	IT	0	0	Exclude	S115-S116	6 yard trees including hickory and cherry. No RP noted; however, trees not likely to breed because they are on a neighbour property.
3	N	N	-	IT	0	0	Exclude	S117-S118	2 mature walnut trees. No RP for either species.
2	N	N	-	IT	0	0	Exclude	S119-S121	1 scraggy black willow. No RP.
1	N	N	-	YS	0	0	Exclude	S122-S124	Small area of very immature black willow in a wetland area. No PRTs.

Roosting Potential Rank: H = High; M = Moderate; L = Low; N = None; NF = Non-Forested

Habitat Types: MS = Mature Stand; YS = Young Stand; D = Deciduous; C = Coniferous; MDC = Mixed Deciduous/Evergreen; RL = Recently Logged; NF = Non-forest; IT = Individual Trees

Canopy / Subcanopy: C = Closed; M = Moderate; O = Open

Roosting Potential Type: D = Dead; L = Live; P = Partial

March 24, 2017
Project E160438.00

ATTACHMENT 3
FEDERAL PERMITS



DEPARTMENT OF THE INTERIOR
 U.S. FISH & WILDLIFE SERVICE
 Endangered Species Permit Office
 5600 American Boulevard, West, Suite 990
 Bloomington, MN 55437-1458
 permitsR3ES@fws.gov

FEDERAL FISH AND WILDLIFE PERMIT

1. PERMITTEE

GAI CONSULTANTS, INC.
 1830 AIRPORT EXCHANGE BLVD.
 SUITE 220
 ERLANGER, KY 41018
 U.S.A.

2. AUTHORITY-STATUTES
 16 USC 1539(a)

REGULATIONS
 50 CFR 17.22

50 CFR 13

3. NUMBER
TE03494B-1 AMENDMENT

4. RENEWABLE
 YES
 NO

5. MAY COPY
 YES
 NO

6. EFFECTIVE
 02/23/2016

7. EXPIRES
 12/31/2018

8. NAME AND TITLE OF PRINCIPAL OFFICER (If #1 is a business)
 STEPHEN E GOULD
 VICE PRESIDENT

9. TYPE OF PERMIT
 NATIVE ENDANGERED SP. RECOVERY - E WILDLIFE

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED
 ON LANDS SPECIFIED WITHIN THE ATTACHED SPECIAL TERMS AND CONDITIONS

11. CONDITIONS AND AUTHORIZATIONS:

A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS.

B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL, TRIBAL, OR OTHER FEDERAL LAW.

C. VALID FOR USE BY PERMITTEE NAMED ABOVE.

C.1. VALID FOR USE BY ADAM M. MANN, JASON A. DUFFEY, AND CYNTHIA L. HAUSER. UNNAMED ASSISTANTS MAY WORK UNDER THIS PERMIT ONLY UNDER THE DIRECT AND ON-SITE SUPERVISION OF NAMED PERMITTEE. AT LEAST ONE NAMED PERMITTEE MUST REMAIN PRESENT AT EACH MIST-NET SITE WHILE IT IS BEING OPERATED.

D. ACCEPTANCE OF THIS PERMIT SERVES AS EVIDENCE THAT THE PERMITTEE AND ITS AUTHORIZED AGENTS UNDERSTAND AND AGREE TO ABIDE BY THE TERMS OF THIS PERMIT AND ALL SECTIONS OF TITLE 50 CODE OF FEDERAL REGULATIONS, PARTS 13 AND 17, PERTINENT TO ISSUED PERMITS. SECTION 11 OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED, PROVIDES FOR CIVIL AND CRIMINAL PENALTIES FOR FAILURE TO COMPLY WITH PERMIT CONDITIONS.

E. Permittee is authorized to take (capture, handle, radio-tag, and release) the Indiana bat (*Myotis sodalis*), gray bat (*Myotis grisescens*), Virginia big-eared bat (*Corynorhinus townsendii virginianus*), northern long-eared bat (*Myotis septentrionalis*), and Ozark big-eared bat (*Corynorhinus townsendii ingens*) for scientific research aimed at recovery of the species: presence/absence surveys, studies to document habitat use, population monitoring, and to evaluate potential impacts. This permit does not authorize the collection of voucher specimens.

ADDITIONAL CONDITIONS AND AUTHORIZATIONS ALSO APPLY

12. REPORTING REQUIREMENTS

ANNUAL REPORT DUE: 12/31

ISSUED BY


TITLE
 CHIEF - ENDANGERED SPECIES

DATE
 02/23/2016

F. Activities are authorized at the following locations:

- F.1. Locations within Region 2 of the USFWS: Oklahoma, upon receipt of written concurrence from the Field Supervisor, and upon coordination with Ozark Plateau National Wildlife Refuge prior to 1) surveys of caves known to be used by federally-listed bats, and 2) examination of caves suspected of containing federally-listed bats (some presence/absence surveys may require the presence of a U.S. Fish and Wildlife Biologist), and as outlined in Condition G.
- F.2. Locations within Region 3 of the USFWS: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
- F.3. Locations within Region 4 of the USFWS: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
- F.4. Locations within Region 5 of the USFWS: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia and West Virginia, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
- F.5. Location in Region 6 of the USFWS: Kansas, Nebraska, North Dakota, South Dakota, Montana, and Wyoming, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.

G. Permittee shall notify the USFWS Field Supervisor for the state in which activities are proposed to occur at least 15 days prior to conducting any activities (see (<http://www.fws.gov/offices/directory>)). Your request for this site-specific approval must be in writing and must indicate:

- G.1. Location of proposed activities, including project site, county, and state.
- G.2. A description of the activities (i.e., surveys, radio-telemetry studies, etc.).
- G.3. Dates when the project is proposed to take place.
- G.4. Evidence that Permittee has received any required contracts to complete the activities.
- G.5. You may proceed with activities only upon receipt of written concurrence from the applicable USFWS Field Supervisor. *Your concurrence letter must be carried with this permit to authorize site-specific activities.*

H. Permittee shall adhere to the following conditions involving capture and handling of bats:

- H.1. Bats may be captured with mist nets following the protocol included in the 2015 Range-wide Indiana Bat Summer Survey Guidelines (USFWS 2015). Guidelines are available at: <http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>. The monitoring interval for mist nets is +/- 10 minutes and may not exceed 15 minutes. Captured bats may be held for a maximum of 30 minutes, unless injured. In extenuating circumstances, bats shall be held for no longer than 45 minutes.
- H.2. Bats may be captured with harp traps with written concurrence from the Field Supervisor in the state in which trapping is proposed. Harp traps must be continually monitored. Captured bats may be held for a maximum of 30 minutes, unless injured. In extenuating circumstances, bats shall be held for no longer than 45 minutes.
- H.3. Permittees may carry out non-intrusive measurements on captured bats. Lipped metal bands having a unique identifier may be applied to the forearm of captured bats prior to release. No more than one band per bat may be used.
- H.4. Radio transmitters may be applied during summer roosting period via nontoxic skin bond adhesive. The total weight of the transmitter may not exceed 5% of the bat's body weight and the total weight of the package (transmitter and adhesive) may not exceed 6% of the bat's body weight. The lightest package (both transmitter and adhesive) capable of accomplishing the required task should be used, especially with pregnant females and newly volant juveniles. Bats carrying transmitters must be monitored daily for at least three days, or until the transmitter falls off, whichever occurs first.
- H.5. No trapping activities shall occur within 20 meters of a known Indiana bat maternity roost site, either natural or artificial roosts, unless Permittee receives prior written approval from the U.S. Fish and Wildlife Service Field Supervisor for the state in which the activities are proposed to occur.
- H.6. Equipment used to capture and handle bats shall be cleaned and decontaminated, including personal gear such as boots and gloves, using products cited in decontamination guidelines and in compliance with label directions. The most recent decontamination guidance is found on the web at: <http://whitenosesyndrome.org/>

I. Upon determination that listed bats are present at previously undocumented sites, Permittee shall notify the following offices within 48 hours: the U.S. Fish and Wildlife Service Region 3 Office (Condition L.), and the U.S. Fish and Wildlife Service Field Office within the geographic location of study areas (see (<http://www.fws.gov/offices/directory>)).



A handwritten signature in blue ink, enclosed in a rectangular box. The signature is stylized and appears to be "M. H. K." followed by a long horizontal stroke.

Authority: Statutes and Regulations: 16 USC 1539(a), 16 USC 1533(d); 50 CFR 17.22, 50 CFR 17.32, 50 CFR 13.

Location where authorized activity may be conducted:

Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

Reporting requirements:

Annual Reports are due by January 31 following each year that this permit is in effect.



this permit and all sections of title 50 Code of Federal Regulations, parts 13 and 17, pertinent to issued permits. Section 11 of the Endangered Species Act of 1973, as amended, provides for civil and criminal penalties for failure to comply with permit conditions. In addition, the permittee shall have all other applicable Federal, Tribal, State, and/or local government permits prior to the commencement of activities authorized in this permit.

E. Permittee is authorized to take (capture with mist nets and harp traps, handle, identify, band, mark with non-toxic paint, and radio-tag) Indiana bats (*Myotis sodalis*) and northern long-eared bats (*Myotis septentrionalis*) for presence/absence surveys, habitat assessments, and habitat use studies, as described in permittee's December 2, 2015, application and as conditioned below.

F. The permitted activities described above require prior, site-specific approval from the USFWS Field Supervisor in the State(s) where the project will occur. Permittee shall notify the USFWS Field Supervisor for the State in which activities are proposed to occur at least 15 days prior to conducting any activities. Contact information is in Condition P., below. Your request for this site-specific approval must be in writing and must indicate:

F.1. The purpose and a description of the activities proposed (e.g., surveys, radio telemetry studies, etc.).

F.2. Location of proposed activities, including project site (legal description and lat/long), county, and state.

F.3. Dates when the project is proposed to take place.

F.4. You may proceed with activities only upon receipt of written concurrence from the applicable USFWS Field Supervisor. *Your concurrence letter must be carried with this permit to authorize site-specific activities.*

G. Permittee shall adhere to the following conditions involving capture and handling of bats:

G.1. Federally listed bats may be captured following the protocol(s) provided by the USFWS, when available. Permittees must contact the USFWS FO in the State(s) in which activities are proposed to ensure correct protocol(s) are used. For example, the current Range-wide Indiana Bat Summer Survey Guidelines are available at: <http://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html>. The monitoring interval for mist nets is once every 10 minutes. Harp traps must be continually monitored.

G.2. Captured bats may be held for a maximum of 30 minutes, unless injured. If an exception is required to this prohibition, permittee must receive prior written approval from the USFWS Field Supervisor for the State in which the activities are proposed to occur.

G.3. Permittees shall carry out non-intrusive measurements on all captured bats. Data shall be recorded for all bats captured and include, but not be limited to, the data requested in any automated or species specific data form provided by the USFWS (e.g., USFWS Bat Reporting Form available at: <http://www.fws.gov/midwest/Endangered/mammals/inba/inbasummersurveyguidance.html>). Handling should be limited to the maximum extent practicable and should cease immediately at signs of undue stress (e.g., bat becoming unresponsive, etc.). Bats that appear stressed from handling should be placed in a dark, quiet location away from activity where it can safely fly away after recovery, and should be checked to ensure successful recovery before leaving the study site. Photographs of the identifying characteristics for each individual federally listed species captured are encouraged. The permittee may be requested to provide individual photographs after submittal of annual reporting data.



G.4. If bands are applied, they must be lipped metal bands having a unique identifier. Bands should be applied to the forearm of captured bats prior to release. No more than one band per bat may be used. Position the band on the wing so that when the bat is hanging upside down, the band numbers are right-side up. A single band should be placed on the right forearm of each male and the left forearm of each female bat.

G.5. When bands are not applied, bats may be marked with non-toxic marking paint to temporarily identify bats in case of recapture.

G.6. Radio transmitters may be applied during spring, summer, and fall roosting and migration periods via nontoxic skin bond adhesive. The total weight of the transmitter may not exceed 5% of the bat's body weight and the total weight of the package (transmitter and adhesive) may not exceed 6% of the bat's body weight. The lightest package (both transmitter and adhesive) capable of accomplishing the required task should be used, especially with pregnant females and newly volant juveniles. Bats carrying transmitters must be monitored daily for at least five days, or until the transmitter falls off, whichever occurs first. ** Although not required as a condition of this permit, in order to gather needed information to promote the conservation of the northern long-eared bat, it is recommended that the permittee radio-track female and juvenile northern long-eared bats captured when conducting mist-netting and radio-tracking of Indiana bats within the white-nose syndrome (WNS) zone of the range of the northern long-eared bat. Specifics on the number of females and juvenile bats to be tracked will be determined in coordination with the appropriate Field Office, as specified in Condition F (above).*

G.7. No capture activities shall occur within 20 meters of a known or potential summer or winter roost site, either natural or artificial, of a federally listed bat. If an exception is required to this prohibition, permittee must receive prior written approval from the USFWS Field Supervisor for the State in which the activities are proposed to occur.

G.8. Equipment used to capture and handle bats shall be cleaned and decontaminated, including personal gear such as boots and gloves, using products cited in decontamination guidelines and in compliance with label directions. The most recent decontamination guidance is found on the web at: [0](#) 1

H. Upon determination that endangered bats are present, permittee shall notify the following offices immediately (not to exceed 1 business day): the appropriate USFWS Regional Office (Condition N.), and the USFWS Field Office within the geographic location of study areas (Condition P.).

I. Permittee must carry a copy of this permit at all times when conducting the authorized activities. NOTE: This permit is limited to the above activities and identified species.

J. Issuance of this permit does not constitute permission to conduct these activities on National Wildlife Refuges or any other public or private lands; such permission must be obtained separately from the appropriate landowner or land manager before beginning these authorized activities. This permit, neither directly nor by implication, grants the right of trespass.

K. The Service anticipates that no federally listed bats will be injured or killed as a result of permitted activities. In the event that any accidental injury or mortality occurs, all activities must cease and the injury or mortality reported immediately (not to exceed 1 business day) to the Southeast Regional Office listed in condition N.3. and to the Lead Recovery Biologist for the species (Condition O). The USFWS will work with the permittee to determine the cause of injury or mortality and whether such could be avoided should activities be allowed to proceed. Dead or moribund bats may be retained for further study only with the written permission of the USFWS. Any bats that are not



M



DEPARTMENT OF THE INTERIOR
 U.S. FISH & WILDLIFE SERVICE
 Endangered Species Permit Office
 5600 American Boulevard, West, Suite 990
 Bloomington, MN 55437-1458
 permitsR3ES@fws.gov

2. AUTHORITY-STATUTES
 16 USC 1539(a)
 16 USC 1533(d)

REGULATIONS
 50 CFR 17.22
 50 CFR 17.32

50 CFR 13

FEDERAL FISH AND WILDLIFE PERMIT

1. PERMITTEE

ERIN LYNN BASIGER
 dba CONSULTANT
 3738 EAST COUNTY ROAD 700 SOUTH
 CLOVERDALE, IN 46120
 U.S.A.

3. NUMBER
TE03450B-1 AMENDMENT

4. RENEWABLE	5. MAY COPY
<input checked="" type="checkbox"/> YES	<input checked="" type="checkbox"/> YES
<input type="checkbox"/> NO	<input type="checkbox"/> NO

6. EFFECTIVE 07/25/2016	7. EXPIRES 12/31/2021
----------------------------	--------------------------

8. NAME AND TITLE OF PRINCIPAL OFFICER (If #1 is a business)

9. TYPE OF PERMIT
 NATIVE ENDANGERED & THREATENED SP. RECOVERY - E & T WILDLIFE

10. LOCATION WHERE AUTHORIZED ACTIVITY MAY BE CONDUCTED
 ON LANDS SPECIFIED WITHIN THE ATTACHED SPECIAL TERMS AND CONDITIONS

11. CONDITIONS AND AUTHORIZATIONS:

- A. GENERAL CONDITIONS SET OUT IN SUBPART D OF 50 CFR 13, AND SPECIFIC CONDITIONS CONTAINED IN FEDERAL REGULATIONS CITED IN BLOCK #2 ABOVE, ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS.
- B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, STATE, LOCAL, TRIBAL, OR OTHER FEDERAL LAW.
- C. VALID FOR USE BY PERMITTEE NAMED ABOVE.
 - C.1. VALID FOR USE BY ERIN BASIGER AND JACK BASIGER. UNAMED ASSISTANTS MAY WORK ON PERMITTED ACTIVITIES UNDER THE DIRECT AND ON-SITE SUPERVISION OF NAMED PERMITTEE. **At least one named permittee must remain present at each mist-net site while it is being operated.**
- D. ACCEPTANCE OF THIS PERMIT SERVES AS EVIDENCE THAT THE PERMITTEE AND ITS AUTHORIZED AGENTS UNDERSTAND AND AGREE TO ABIDE BY THE TERMS OF THIS PERMIT AND ALL SECTIONS OF TITLE 50 CODE OF FEDERAL REGULATIONS, PARTS 13 AND 17, PERTINENT TO ISSUED PERMITS. SECTION 11 OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED, PROVIDES FOR CIVIL AND CRIMINAL PENALTIES FOR FAILURE TO COMPLY WITH PERMIT CONDITIONS.
- E. Permittee is authorized to take (capture, handle, radio-tag, and release) the Indiana bat (*Myotis sodalis*), gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), Virginia big-eared bat (*Corynorhinus townsendii virginianus*), and Ozark big-eared bat (*Corynorhinus townsendii ingens*) for scientific research aimed at recovery of the species: presence/absence surveys, studies to document habitat use, population monitoring, and to evaluate potential impacts. This permit does not authorize the collection of voucher specimens.
- F. Activities are authorized at the following locations:
 - F.1. Location within Region 2 of the USFWS: Oklahoma, upon receipt of written concurrence from the Field Supervisor, and upon coordination with Ozark Plateau National Wildlife Refuge prior to 1) surveys of caves known to be used by federally-listed bats, and 2) examinations of caves suspected of containing federally-listed bat species (some

ADDITIONAL CONDITIONS AND AUTHORIZATIONS ALSO APPLY

12. REPORTING REQUIREMENTS
 ANNUAL REPORT DUE: 01/31

ISSUED BY

TITLE
 CHIEF - ENDANGERED SPECIES

DATE
 07/25/2016

presence/absence surveys may require the presence of a U.S. Fish and Wildlife Biologist), and as outlined in Condition G.

- F.2. Locations within Region 3 of the USFWS: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
 - F.3. Locations within Region 4 of the USFWS: Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
 - F.4. Locations within Region 5 of the USFWS: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia and West Virginia, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
 - F.5. Locations within Region 6 of the USFWS: Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming, upon receipt of written concurrence from the Field Supervisor, as outlined in Condition G.
- G. Permittee shall notify the USFWS Field Supervisor for the state in which activities are proposed to occur at least 15 days prior to conducting any activities. Contact information is in Condition M. Your request for this site-specific approval must be in writing and must indicate:
- G.1. Species for which proposed activities are being conducted.
 - G.2. Location of proposed activities, including project site, county, and state.
 - G.3. A description of the activities (i.e., surveys, radio-telemetry studies, etc.).
 - G.4. Dates when the project is proposed to take place.
 - G.5. Evidence that Permittee has received any required contracts to complete the activities.
 - G.6. Whether all annual reporting requirements have been fulfilled.
 - G.7. You may proceed with activities only upon receipt of written concurrence from the applicable USFWS Field Supervisor. *Your concurrence letter must be carried with this permit to authorize site-specific activities.*
- H. Permittee shall adhere to the following conditions involving capture and handling of bats:
- H.1. Bats may be captured with mist nets following the protocol included in the Range-wide Indiana Bat Summer Survey Guidelines. Guidelines are available at: <http://www.fws.gov/midwest/indangered/mammals/inba/inbasummersurveyguidance.html>. Note that you must use the most up-to-date version of the Summer Survey Guidelines, available at the USFWS web site, for your summer surveys. The monitoring interval for mist nets is +/- 10 minutes and may not exceed 15 minutes. Captured bats may be held for a maximum of 30 minutes, unless injured. In extenuating circumstances, bats shall be held for no longer than 45 minutes.
 - H.2. Permittees shall carry out non-intrusive measurements on all captured bats. Data shall be recorded for all bats captured and include, but not be limited to, the data requested in any automated or species specific data sheet provided by the USFWS (e.g., INDIANA BAT SURVEY AND BANDING DATA spreadsheet). Handling should be limited to the maximum extent practicable and should cease immediately at signs of undue stress (e.g., bat becoming unresponsive, etc.). Bats that appear stressed from handling should be placed in a dark, quiet location away from activity where it can safely fly away after recovery, and should be checked to ensure successful recovery before leaving the study site. Photographs of the identifying characteristics for each individual federally-listed species captured are encouraged. The Permittee may be requested to provide individual photographs after submittal of annual reporting data.
 - H.3. Lipped metal bands having a unique identifier may be applied to the forearm of captured bats prior to release. No more than one band per bat may be used. Bands should be applied to the forearm of captured bats prior to release. Position the band on the wing so that when the bat is hanging upside down, the band numbers are right-side up. A single band should be placed on the right forearm of each male and the left forearm of each female bat.
 - H.4. Radio transmitters may be applied during spring, summer, and fall roosting and migration periods via nontoxic skin

bond adhesive. The total weight of the transmitter may not exceed 5% of the bat's body weight and the total weight of the package (transmitter and adhesive) may not exceed 6% of the bat's body weight. The lightest package (both transmitter and adhesive) capable of accomplishing the required task should be used, especially with pregnant females and newly volant juveniles. Bats carrying transmitters must be monitored daily for at least three days, or until the transmitter falls off, whichever occurs first.

- H.5. No trapping activities shall occur within 20 meters of a known Indiana bat maternity roost site, either natural or artificial roosts, unless Permittee receives prior written approval from the U.S. Fish and Wildlife Service Field Supervisor for the state in which the activities are proposed to occur.
- H.6. Equipment used to capture and handle bats shall be cleaned and decontaminated, including personal gear such as boots and gloves, using products cited in decontamination guidelines and in compliance with label directions. The most recent decontamination guidance is found on the web at:
<<https://www.whitenosesyndrome.org/topics/decontamination>>.
- I. Upon determination that endangered or threatened bats are present at previously undocumented sites, Permittee shall notify the following offices within 48 hours: the U.S. Fish and Wildlife Service Region 3 Office (Condition L.), and the U.S. Fish and Wildlife Service Field Office within the geographic location of study areas (Condition M.).
- J. Accidental mortality may not exceed two specimens. In the event that this number is met, all activities must cease. Any bat mortality or serious injury must be reported within 5 calendar days to the applicable U.S. Fish and Wildlife Service office listed in Condition M. and to the nearest U.S. Fish and Wildlife Service Law Enforcement, Special Agent Office (<http://www.fws.gov/offices>). Dead or moribund bats may be retained for further study only with the written permission of the U.S. Fish and Wildlife Service. Any bats that are not authorized for retention are to be chilled and promptly transferred to the U.S. Fish and Wildlife Service for potential necropsy and/or contaminants analysis (Condition L.6.).
- K. An annual report of all activities conducted under the authority of this permit is due by January 31 following each year this permit is in effect. In addition, copies of all publications and reports resulting from work conducted under this permit must be submitted as they become available. Failure to furnish any reports required by this permit is cause for permit revocation and/or denial of future permit applications. At a minimum, your report shall include:
 - K.1. The date, time, geographic locations (including datum and projection information), species, age, sex, and weight of all bats encountered.
 - K.2. A description of locations surveyed where no bats were encountered.
 - K.3. Band numbers of all bats banded.
 - K.4. Information on any injuries and/or mortalities and disposition of specimens.
 - K.5. Location and characteristics of roost trees and bat colonies.
 - K.6. Copies of any separate reports and/or publications resulting from work conducted under the authority of this permit.
 - K.7. A completed data collection sheet as found in the Summer Survey Guidelines, Appendix B, cited in Condition H.1.
 - K.8. Data shall be submitted for all bats captured and include, but not be limited to, the data requested in any automated or species-specific data sheet provided by the USFWS (e.g., INDIANA BAT SURVEY AND BANDING DATA spreadsheet, the data collection sheets found in the current Rangewide Indiana Bat Summer Survey Guidelines cited in Condition H.1., or other species specific data sheets). Photographs of the identifying characteristics for each individual federally-listed species captured are encouraged. The Permittee may be requested to provide individual photographs after submittal of annual reporting data.
 - K.9. Copies of all site specific authorization letters required under Condition G.
- If no activities occurred over the course of the year, indication of such shall be submitted as an annual report.
- L. Copies of your reports shall be sent to the offices listed below. When possible, electronic copies shall be submitted in lieu of hard copies in MS Word, Portable Document Format, Rich Text Format, or other file format that is compatible with the receiving office.
 - L.1. Regional Recovery Permits Coordinator
U.S. Fish and Wildlife Service - Midwest Region (Region 3)



GAI Consultants, Inc.-Chicago Office
2300 Cabot Drive, Suite 395
Lisle, Illinois 60532

T 630.605.5255

March 28, 2017

Mr. Matthew Mangan
Ecological Services
United States Fish and Wildlife - Marion County Sub-Office
8588 Route 148
Marion, IL 62959

**Re: Supplemental Information (Docket No. CP17-40)
Spire STL Pipeline LLC
Spire STL Pipeline Project
Scott, Greene, and Jersey Counties, Illinois
and St. Charles and St. Louis Counties, Missouri**

Dear Mr. Mangan:

In June 2016, Spire Pipeline LLC ("Spire") initiated consultation with your office regarding their intent to construct, own, and operate the proposed Spire STL Pipeline Project ("Project") which consisted of approximately 59 miles of new, greenfield 24-inch-diameter steel pipeline (referred to as the "24-inch pipeline") originating at an interconnection with the Rockies Express Pipeline LLC ("REX") pipeline in Scott County, Illinois; extending down through Greene and Jersey counties in Illinois before crossing the Mississippi River and extending east into St. Charles County, Missouri, crossing the Missouri River and tying into an existing pipeline in St. Louis County, Missouri that is currently owned and operated by Laclede Gas Company ("LGC") (referred to as "Line 880"). Line 880 consisted of approximately seven miles of existing 20-inch-diameter steel pipeline. As part of the proposed Project, Spire was planning on modifying Line 880 before placing it in to interstate service. The Project also included the construction of minor aboveground metering and regulating ("M&R") stations. On January 26, 2017, Spire filed an application with the Federal Energy Regulatory Commission ("FERC") for a Certificate of Public Convenience and Necessity for the Project (Docket No. CP17-40-000).

On March 15, 2017, Spire filed a "Preliminary Notification of Preferred Route Change" with FERC, indicating that the Spire no longer plans to modify the existing Line 880 as part of the Project. Instead, Spire intends to construct a new, greenfield 24-inch pipeline (referred to as the "North County Extension") which will extend the 24-inch pipeline portion of the Project to a proposed interconnect with Enable Mississippi River Transmission ("Enable MRT"). Spire plans to file an amended application with FERC in April 2017. GAI Consultants, Inc. ("GAI"), on behalf of Spire, is submitting supplemental information to assist with your review of the Project as amended. An updated description of the proposed Project facilities and location map (Figure 1) are provided herein.

Amended Project Description

The amended Project as proposed will consist of approximately 65 miles of new, greenfield, 24-inch-diameter steel pipeline in two segments. The first segment (referred to as the "24-inch pipeline" portion of the Project) will originate at a new interconnect with the REX pipeline in Scott County, Illinois and extend approximately 59 miles through Greene and Jersey Counties in Illinois before crossing the Mississippi River and extending east through St. Charles County, Missouri. The 24-inch pipeline then crosses the Missouri River into St. Louis County, Missouri, and terminates at a new interconnect with LGC. The second segment of new, greenfield pipeline, North County Extension, will consist of a 24-inch-diameter steel pipeline which will extend approximately six miles from the LGC

interconnect through the northern portion of St. Louis County and terminate at a new interconnect with Enable MRT and LGC. The total length of the Project pipeline will be approximately 65 miles. The overall design capacity of the Project pipeline is expected to be 400,000 dekatherms per day ("Dth/d"). No compression will be required. The Project also includes the construction of three new M&R stations that provide interconnects with (1) REX in Illinois, (2) LGC in Missouri, and (3) Enable MRT and LGC in Missouri.

The acquisition and modifications to LGC's existing Line 880 is no longer proposed as part of the Project.

Spire anticipates a typical 90-foot temporary construction right-of-way width, and a 50-foot permanent easement. The construction right-of-way is anticipated to be reduced to 75 feet at streams and wetlands. An additional 25 feet of temporary work space will be required through agricultural areas, and additional temporary work space will be required to facilitate construction in certain areas, such as crossings of roads, railroads, streams, and wetlands.

The updated Project schedule includes the following target dates:

- July 22, 2016 - National Environmental Policy Act ("NEPA") process began (initiation of FERC Pre-filing process);
- August 2016 through March 2017 (Anticipated) - Biological and Cultural Resource Surveys;
- January 26, 2017 - Application Filed with FERC;
- April 2017 (Anticipated) - File Amended Application with FERC;
- September 2017 (Anticipated) - Draft NEPA Document Published; and
- December 2017 (Anticipated) - FERC Decision on Application.

Construction is anticipated to commence in January 2018.

On behalf of Spire, we'd like to take this opportunity to invite the United States Fish and Wildlife - Marion County Sub-Office to provide comments regarding the Project as it will be amended. We appreciate your continued involvement and cooperation in the review of this important Project.

If you have any questions or would like additional information, please feel free to contact me at 630.605.5255 or by e-mail at L.Ferry@gaiconsultants.com.

Sincerely,

GAI Consultants, Inc.

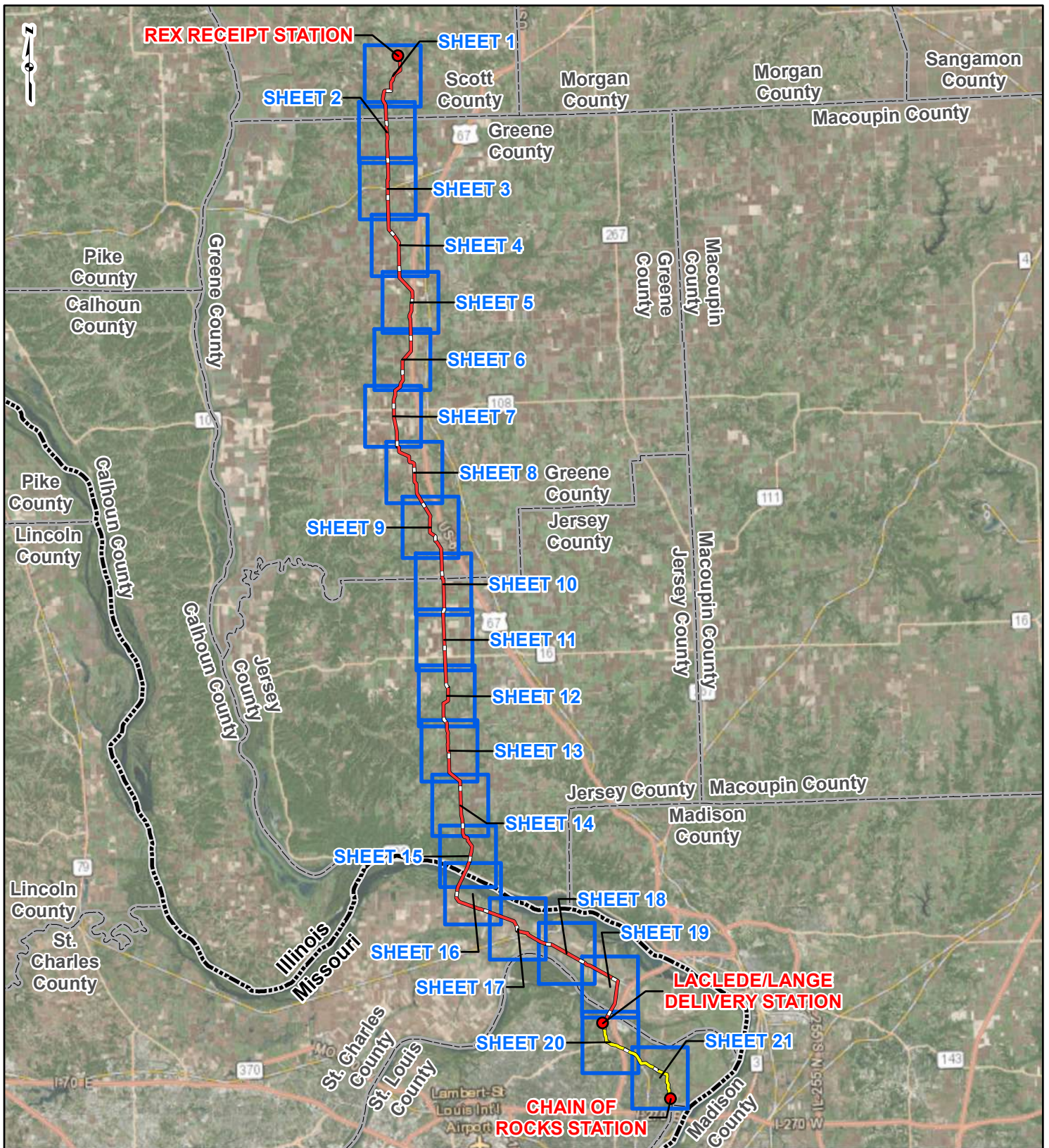


Lori M. Ferry
Environmental Manager

LMF/ka

Attachment: United States Geological Survey (USGS) Topographic Map (Figure 1)

ATTACHMENT
USGS TOPOGRAPHIC MAP (FIGURE 1)



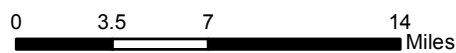
PROJECT LOCATION



SCOTT, GREENE AND JERSEY COUNTIES, ILLINOIS AND ST. CHARLES AND ST. LOUIS COUNTIES, MISSOURI

LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- NORTH COUNTY EXTENSION
- SHEET INDEX
- COUNTY BOUNDARY
- STATE BOUNDARY



**FIGURE 1
LOCATION MAP
SHEET INDEX**

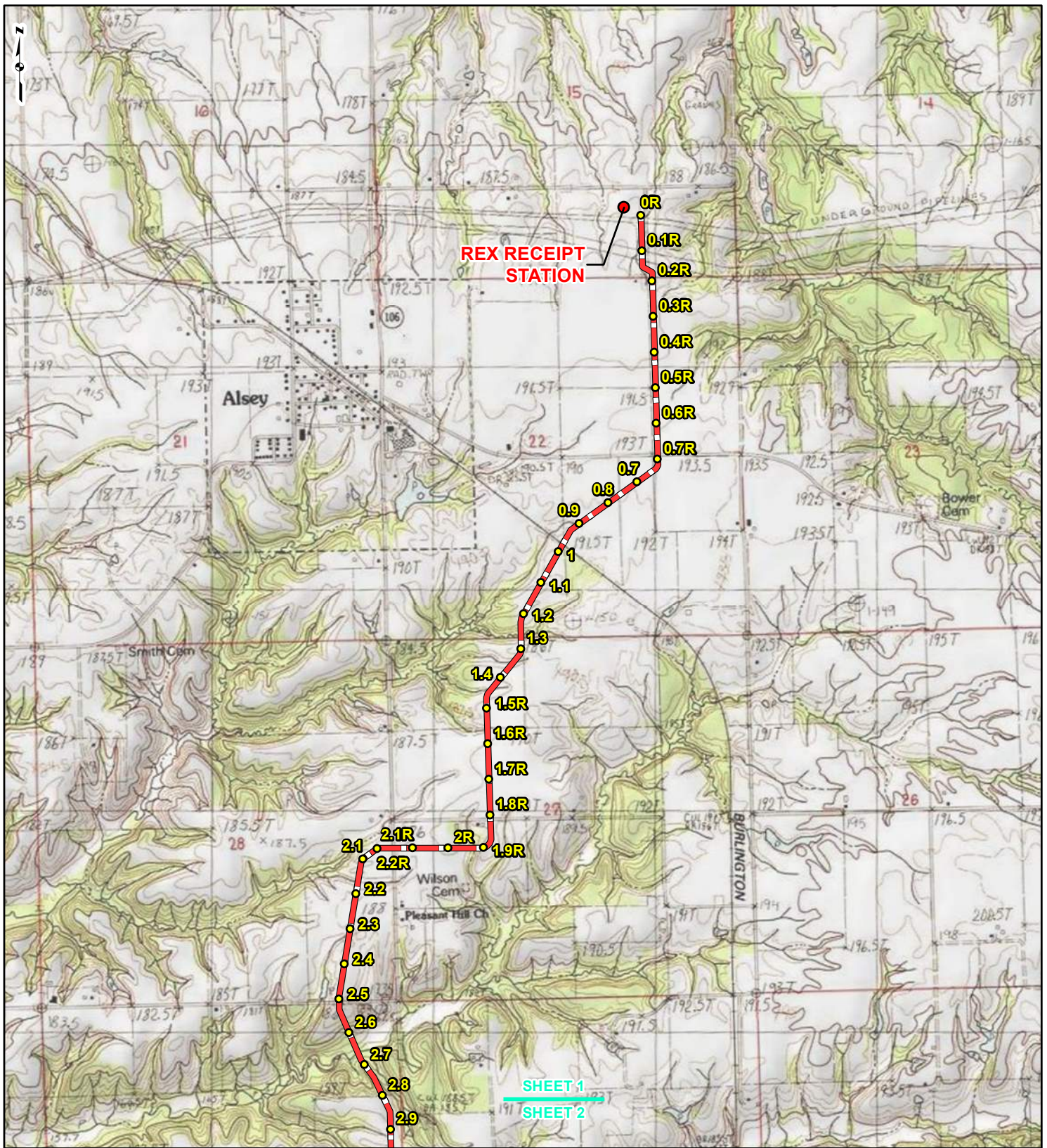
**SPIRE STL
PIPELINE
PROJECT**



DRAWN BY: PMH
CHECKED: SWW

DATE: 3/28/2017
APPROVED: LMF

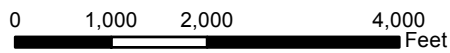
REFERENCE: ESRI WORLD IMAGERY AND TRANSPORTATION, NAIP, USDA FSA, 2015, ACCESSED 03/2017.



REX RECEIPT STATION

LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- MILEPOST
- NORTH COUNTY
- EXTENSION
- MILEPOST
- 24-INCH PIPELINE NORTH COUNTY
- EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY



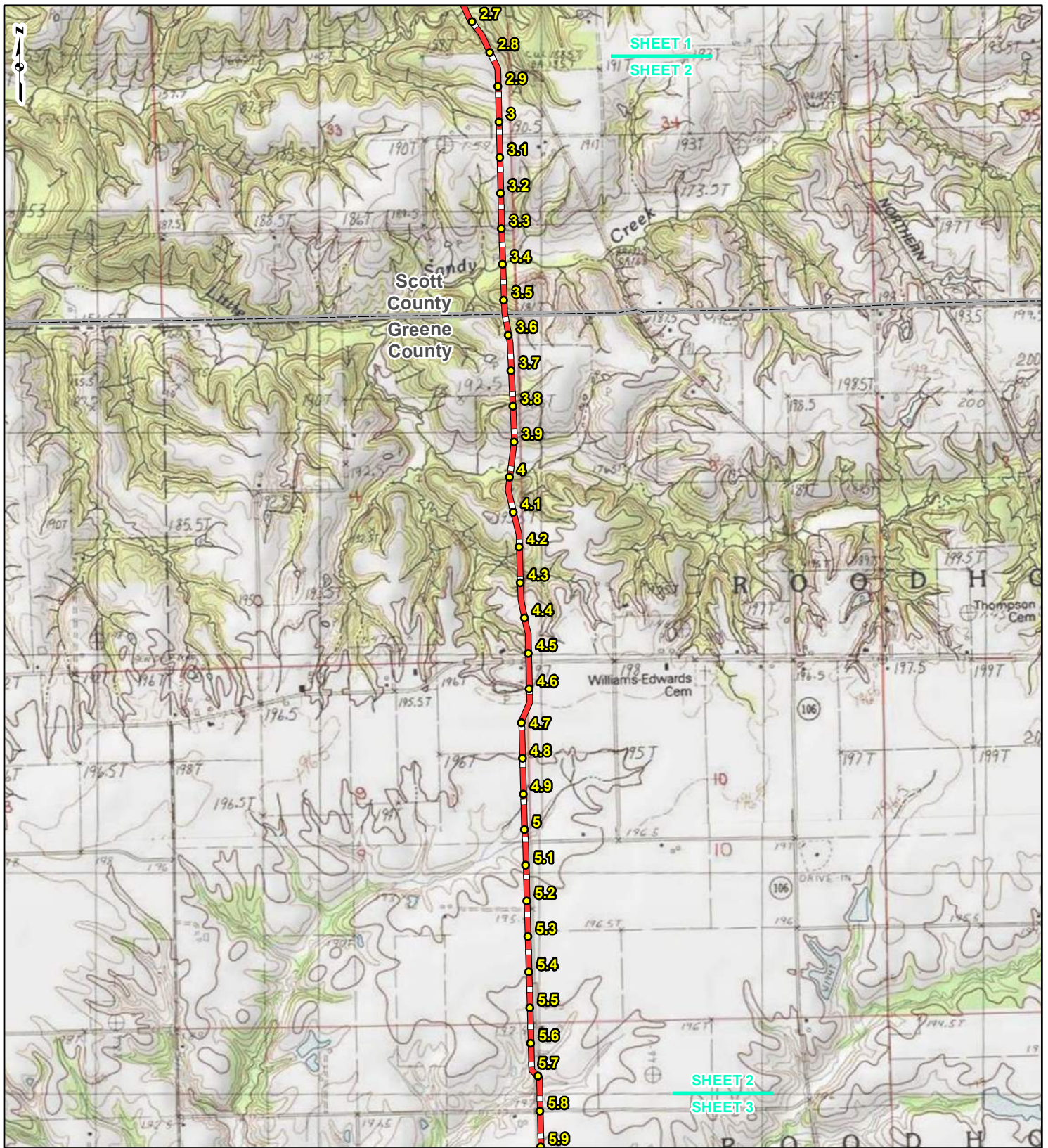
**FIGURE 1
LOCATION MAP
SHEET 1 OF 21**

**SPIRE STL
PIPELINE
PROJECT**



DRAWN BY: PMH DATE: 3/28/2017
CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSA (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	□ COUNTY BOUNDARY
● MILEPOST	□ STATE BOUNDARY

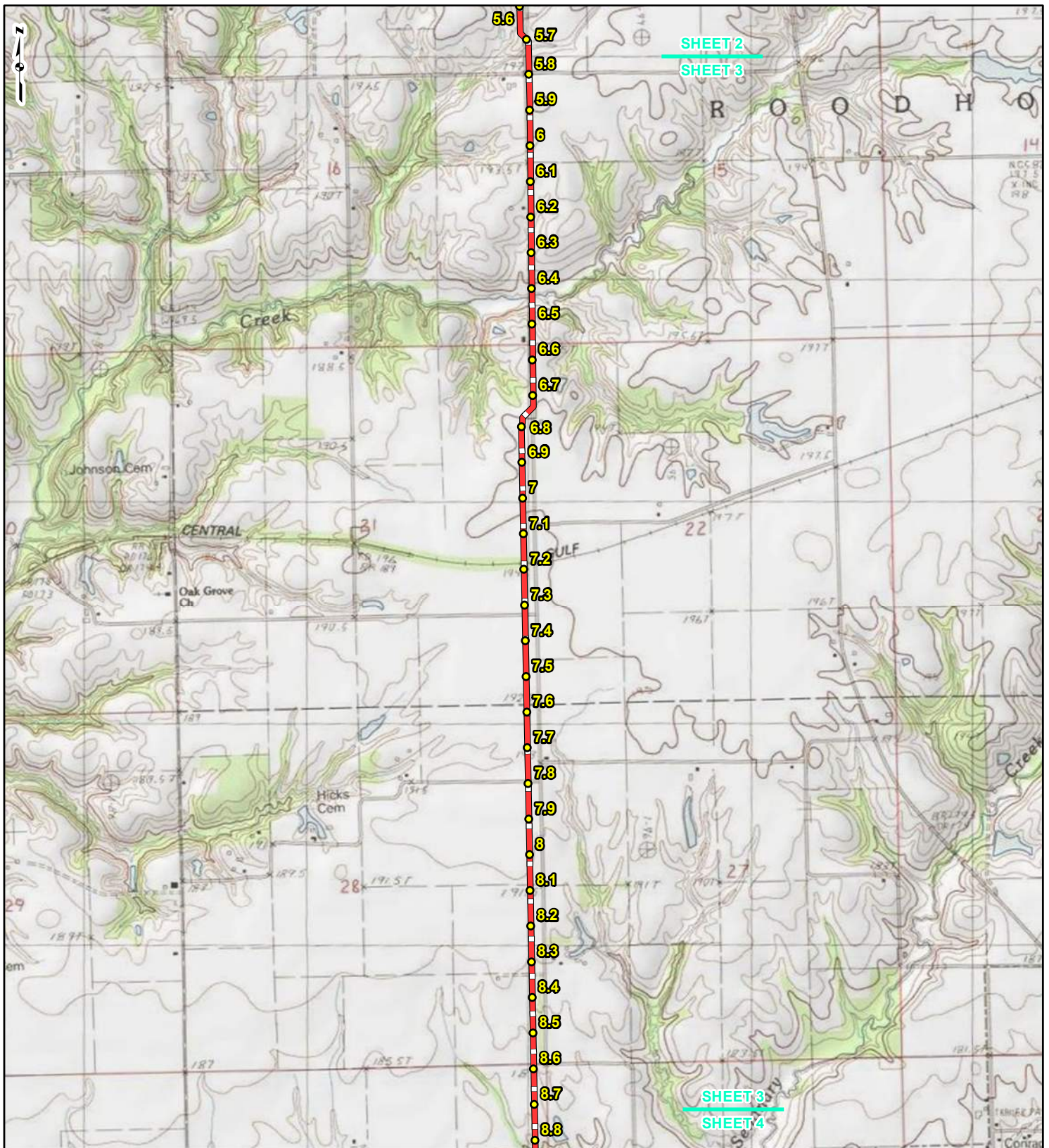
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 2 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.





LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

0 1,000 2,000 4,000
Feet

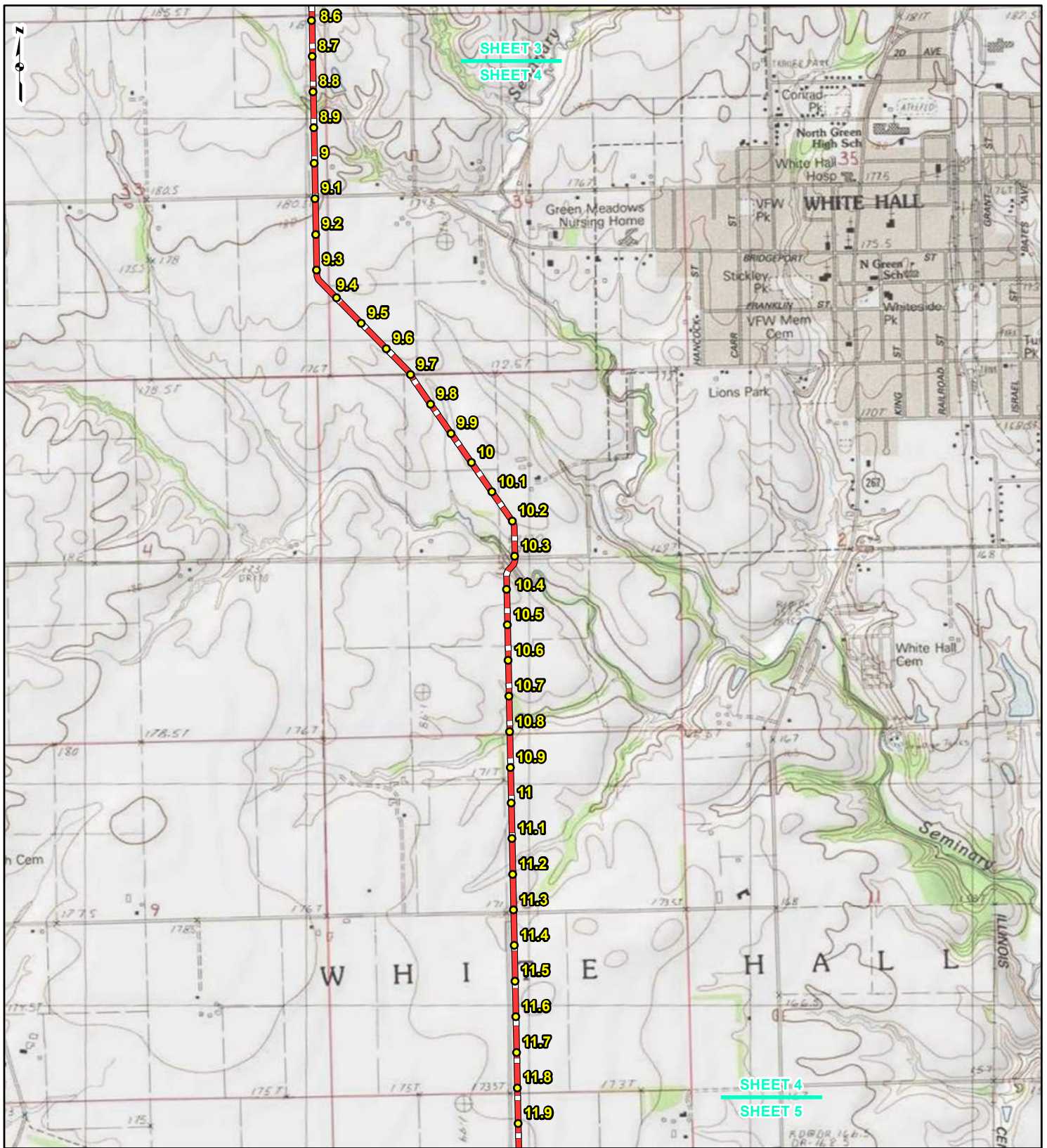
FIGURE 1
LOCATION MAP
SHEET 3 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1995), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
● NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

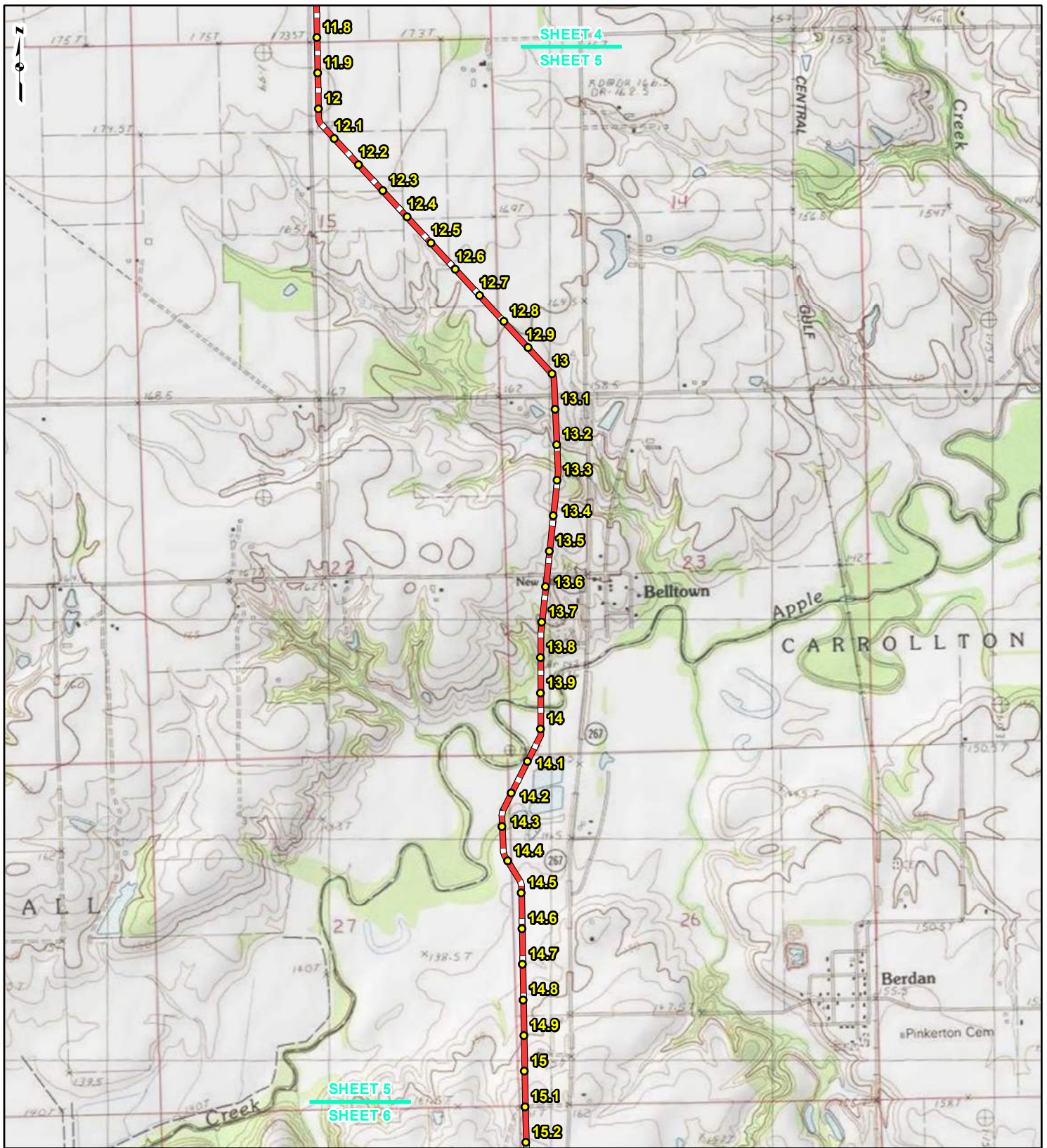
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**FIGURE 1
LOCATION MAP
SHEET 4 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

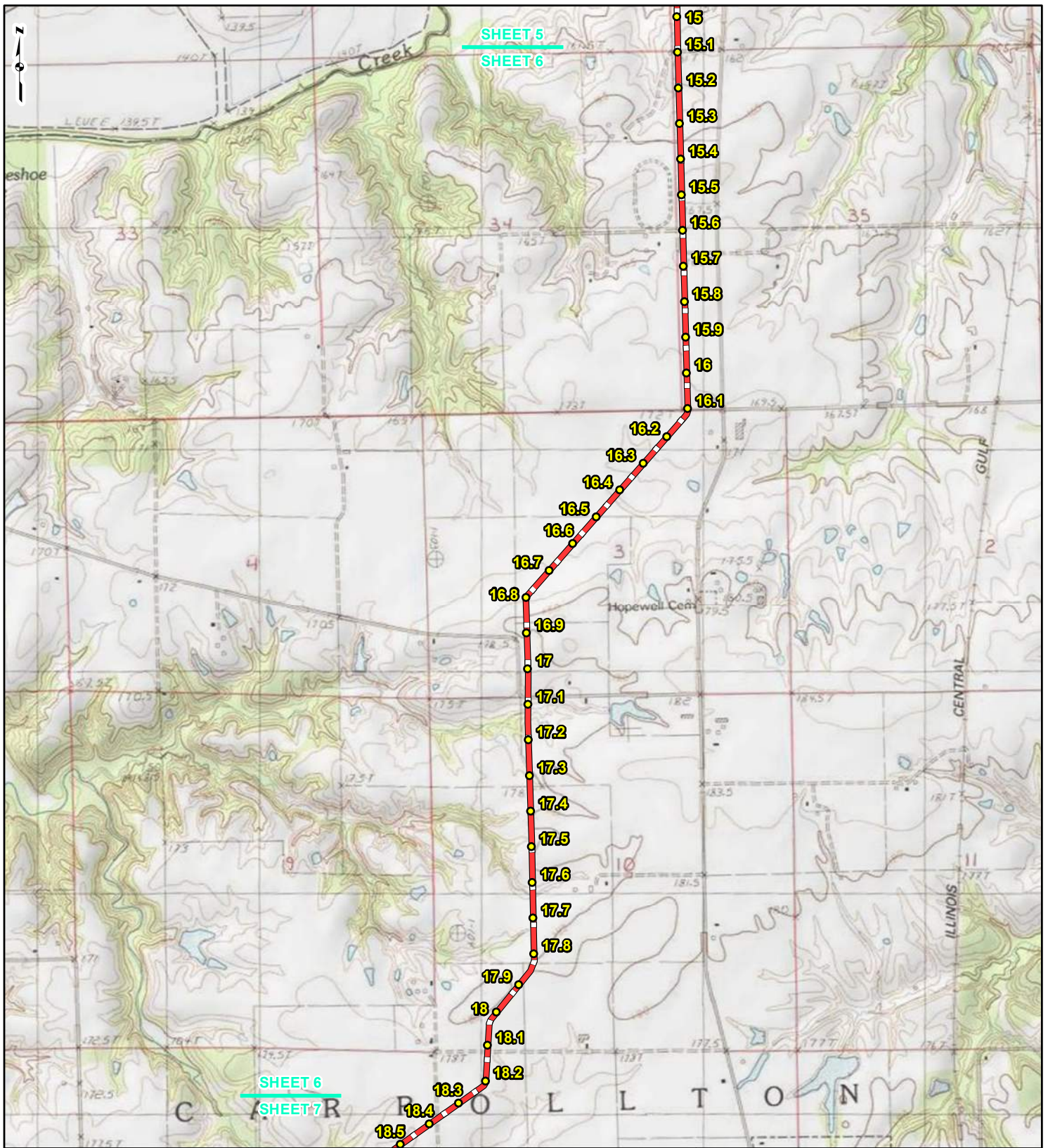
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 5 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

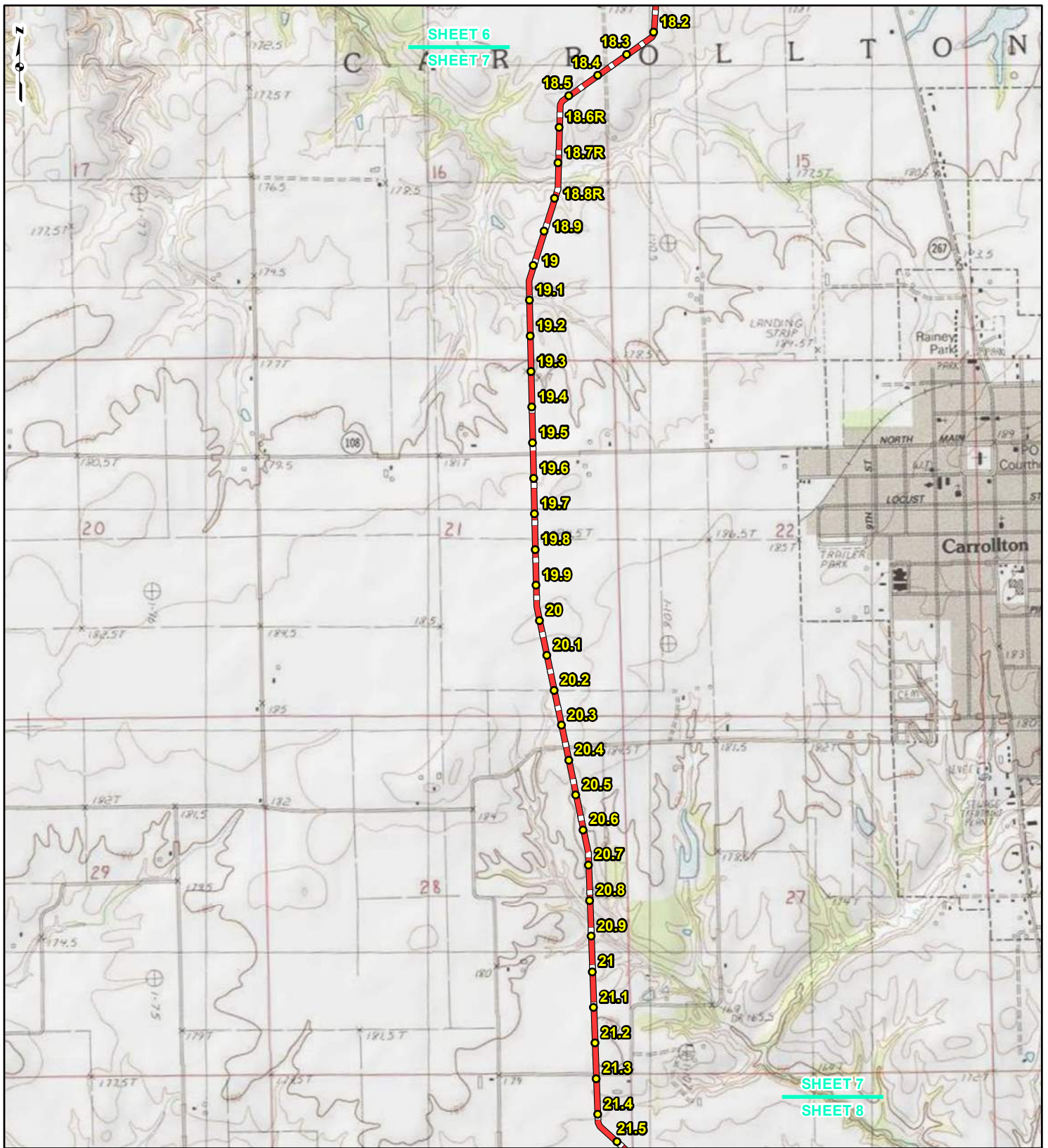
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Feet

**FIGURE 1
LOCATION MAP
SHEET 6 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

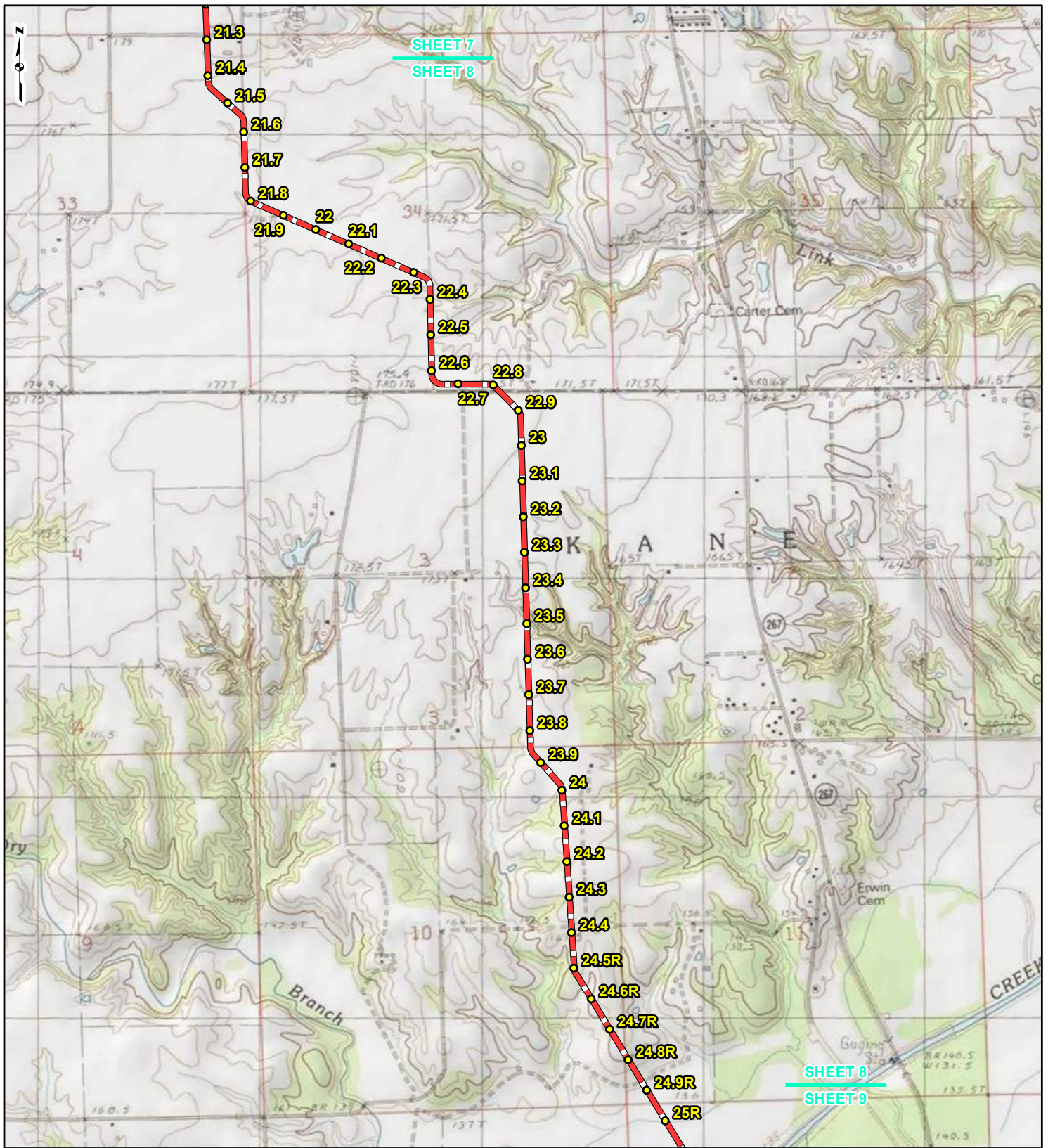
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 7 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

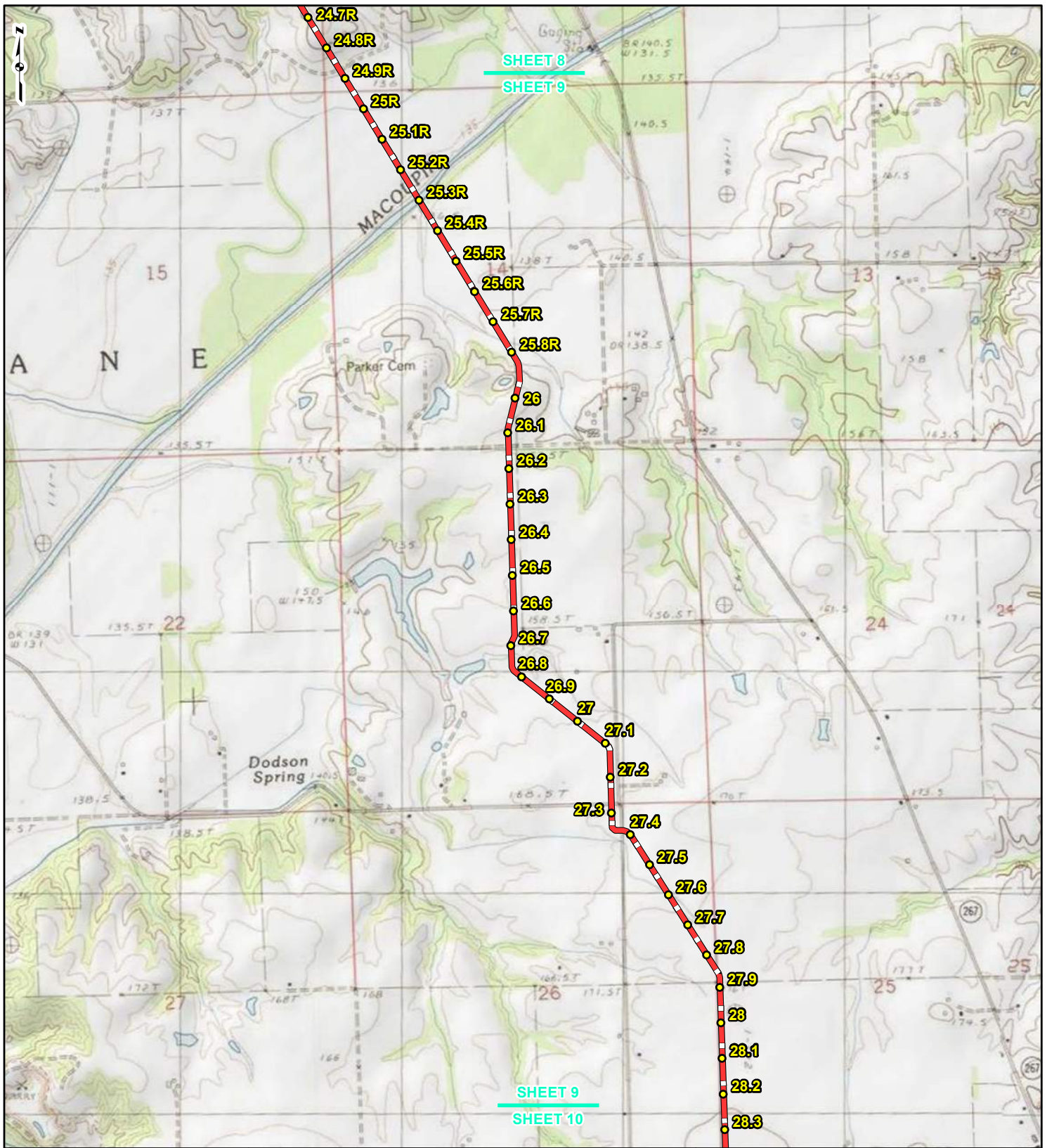
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**FIGURE 1
LOCATION MAP
SHEET 8 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

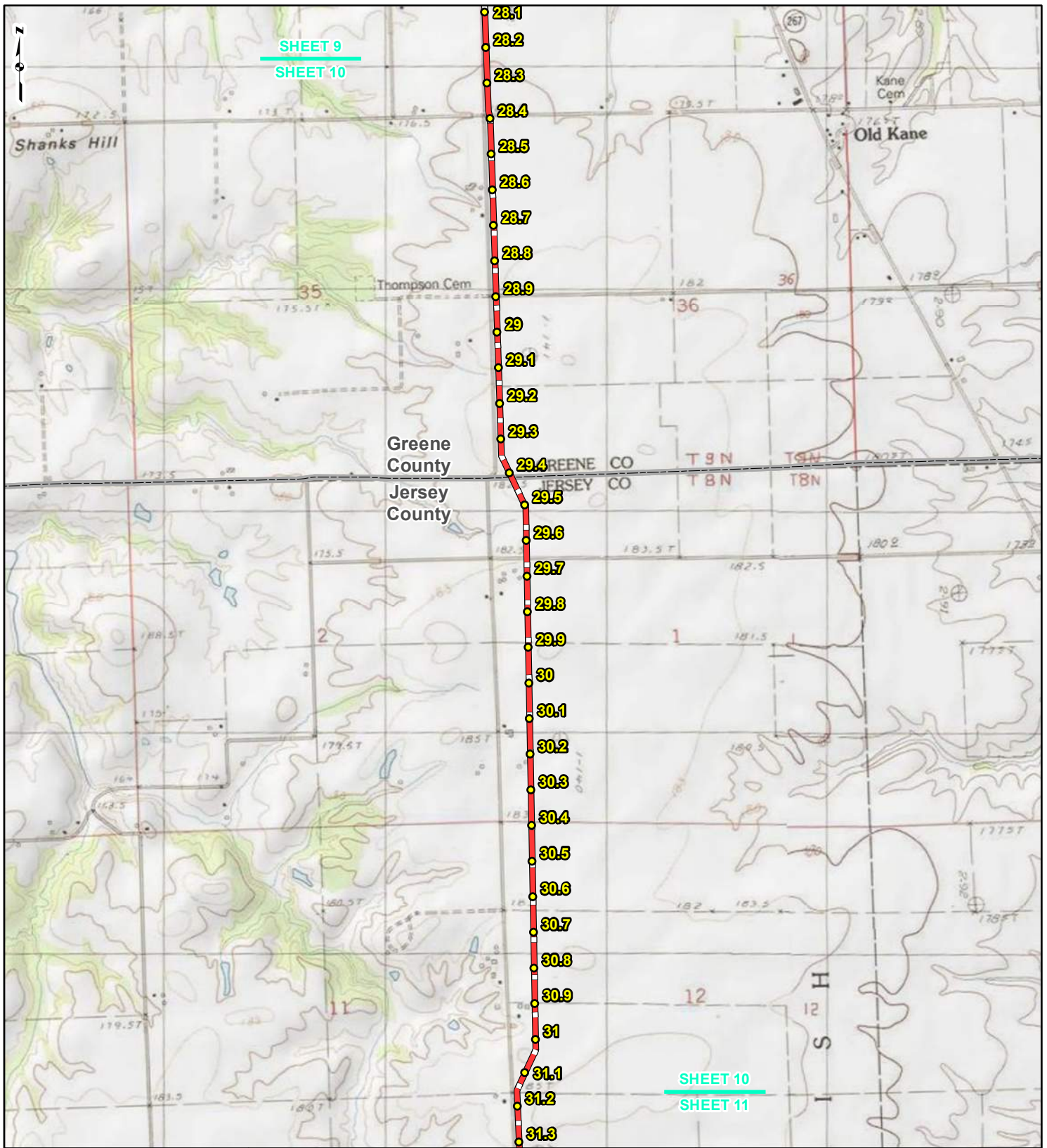
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**FIGURE 1
LOCATION MAP
SHEET 9 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 9
SHEET 10

SHEET 10
SHEET 11



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE MILEPOST
- NORTH COUNTY EXTENSION MILEPOST
- 24-INCH PIPELINE NORTH COUNTY EXTENSION
- ▭ COUNTY BOUNDARY
- ▭ STATE BOUNDARY

0 1,000 2,000 4,000 Feet

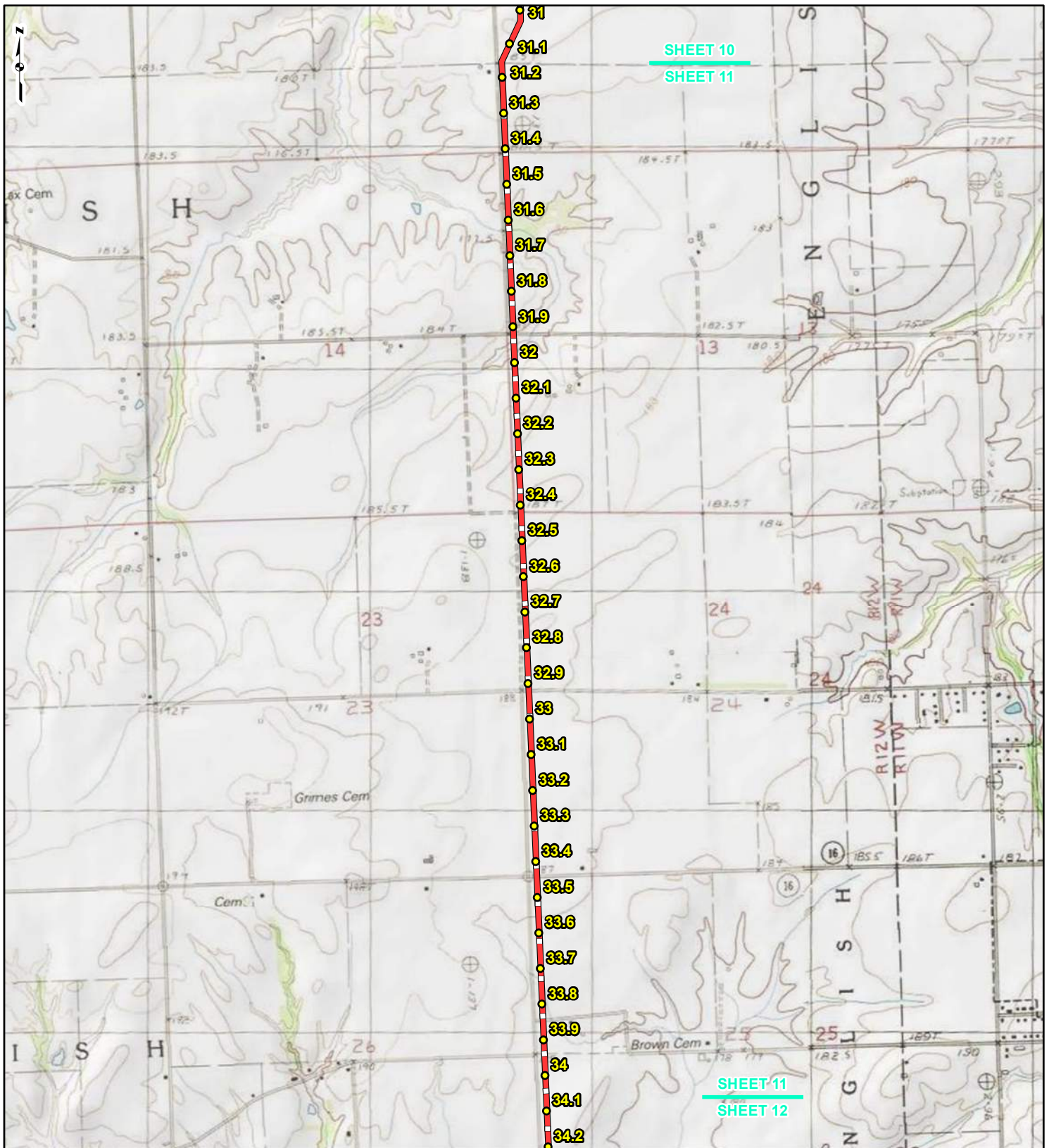
**FIGURE 1
LOCATION MAP
SHEET 10 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

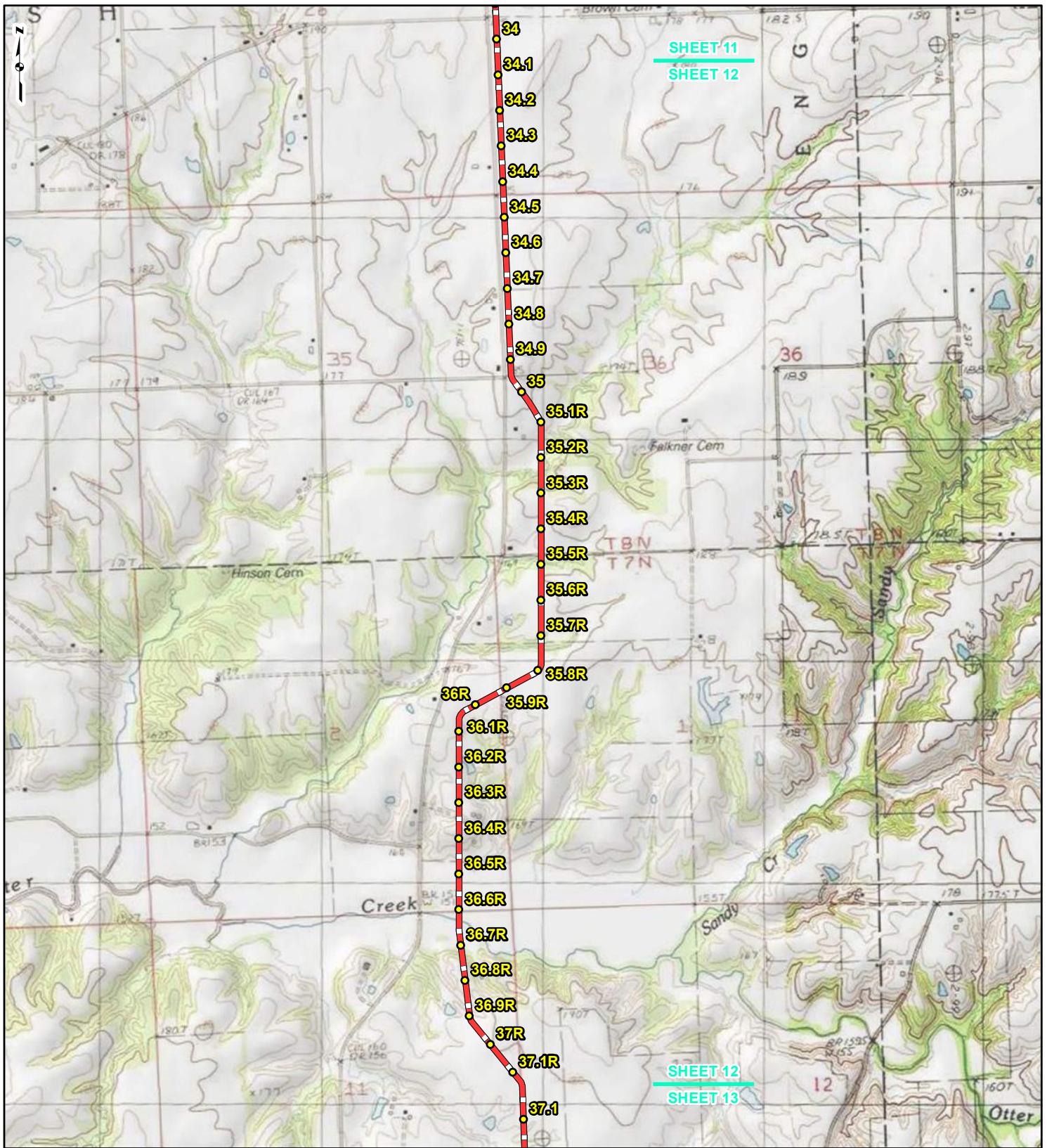
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 11 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), EL SAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



SHEET 11
SHEET 12

SHEET 12
SHEET 13



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
○ NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

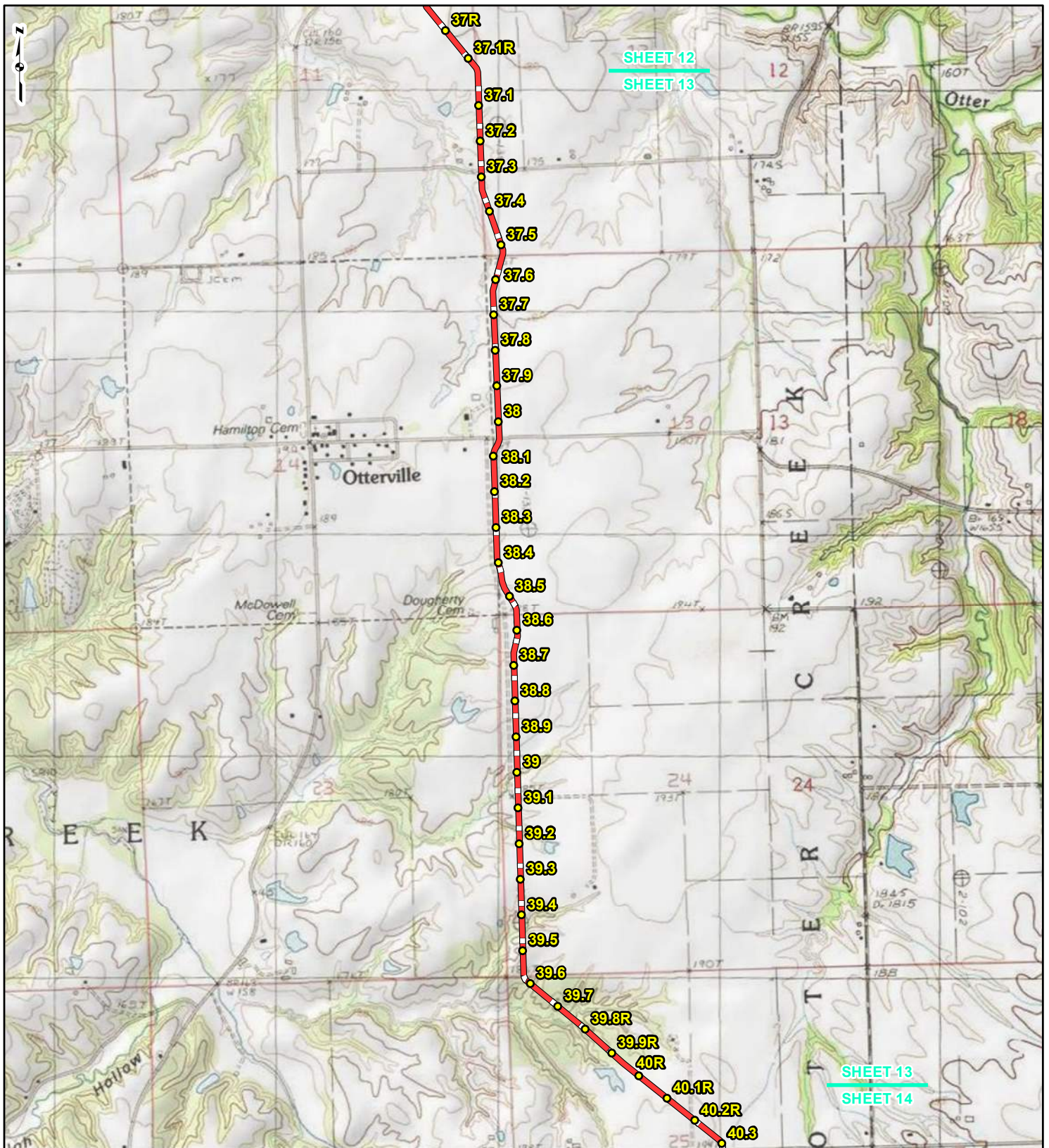
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 12 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

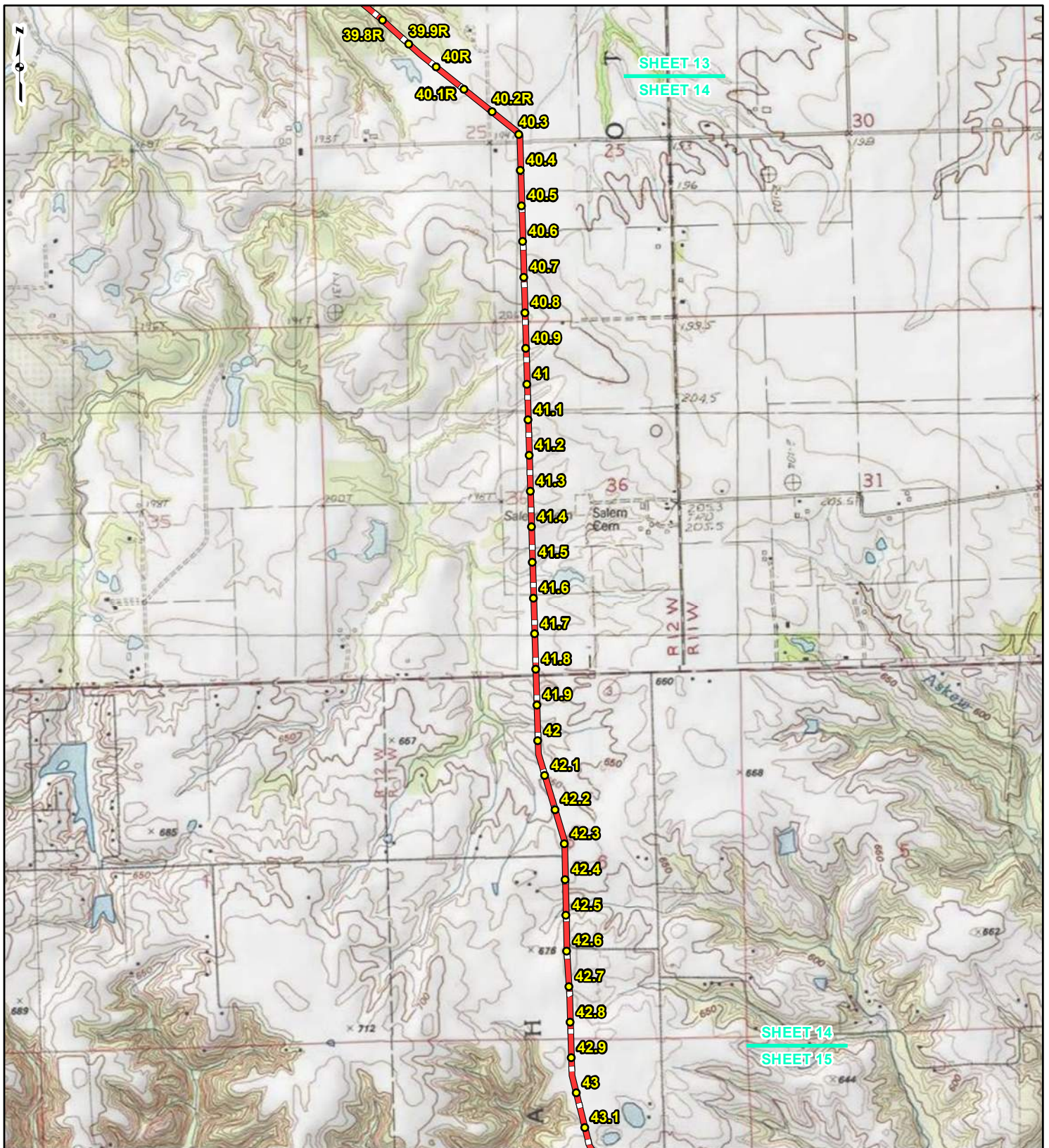
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 13 OF 21**

SPIRE STL PIPELINE PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

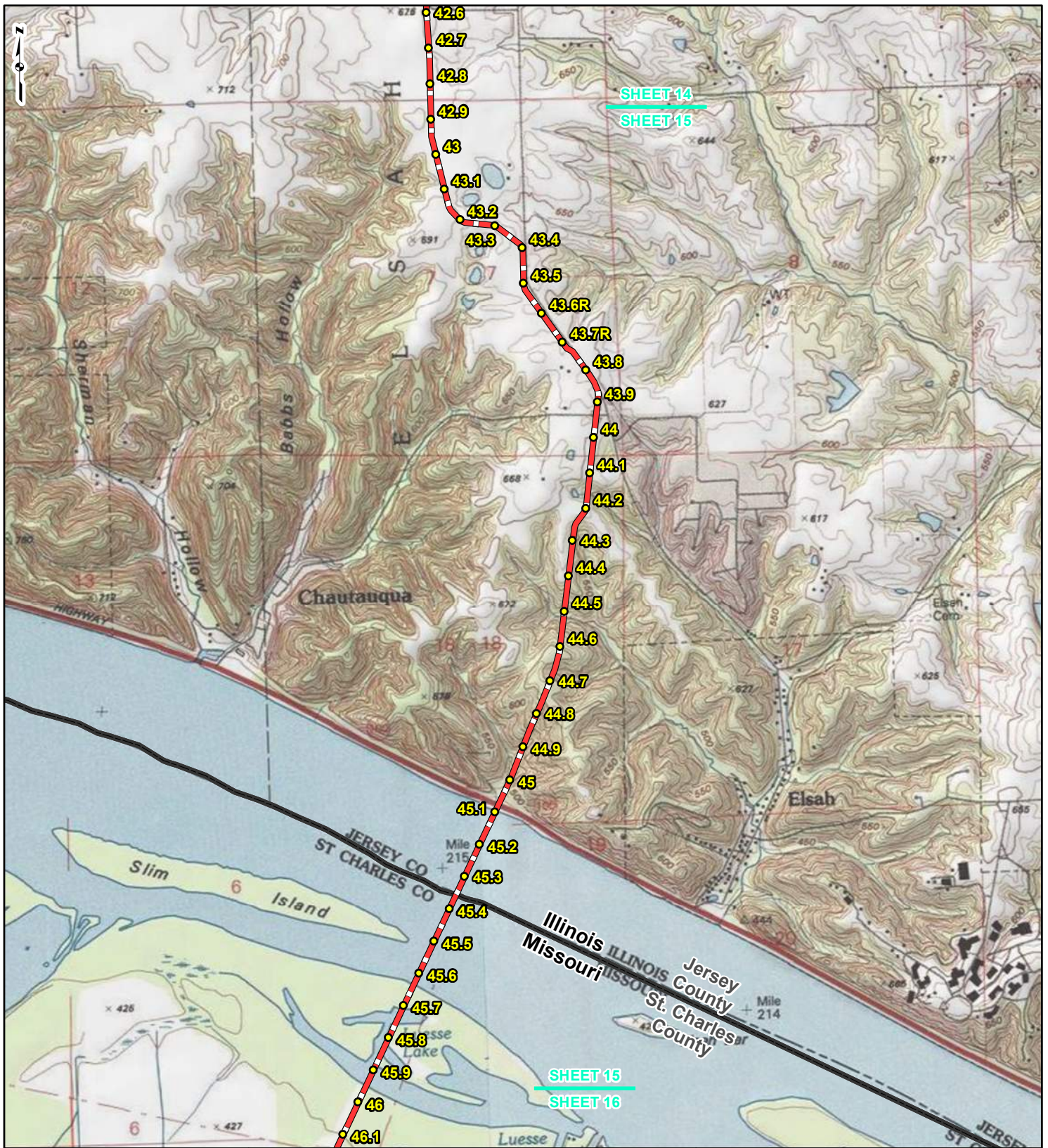
0 1,000 2,000 4,000
Feet

FIGURE 1
LOCATION MAP
SHEET 14 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

- PROPOSED FACILITIES
- 24-INCH PIPELINE
- MILEPOST
- NORTH COUNTY
- EXTENSION
- MILEPOST
- 24-INCH PIPELINE
- NORTH COUNTY
- EXTENSION
- COUNTY BOUNDARY
- STATE BOUNDARY

0 1,000 2,000 4,000 Feet

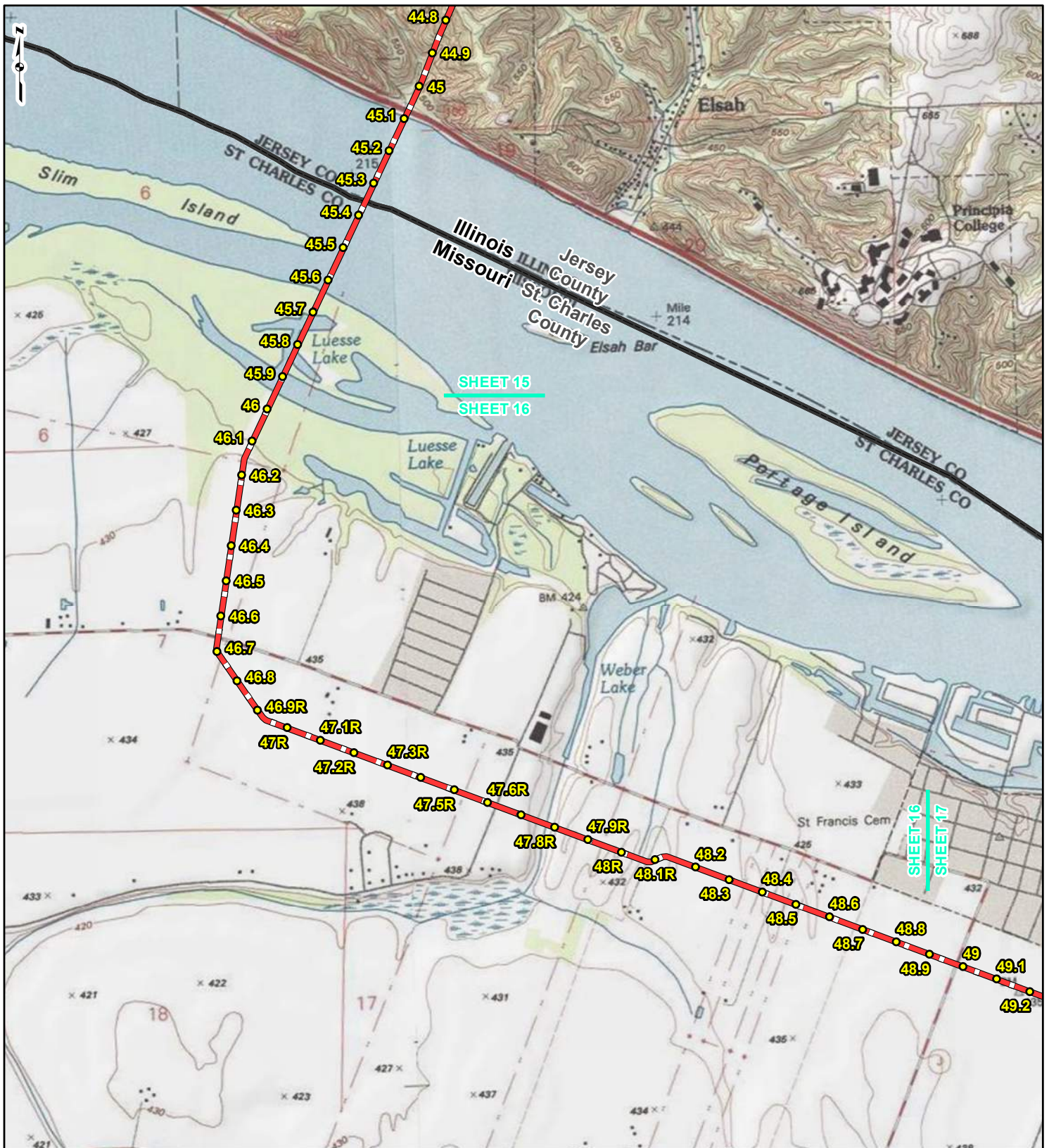
FIGURE 1
LOCATION MAP
SHEET 15 OF 21

SPIRE STL PIPELINE PROJECT

gai consultants **spire**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
	▭ STATE BOUNDARY

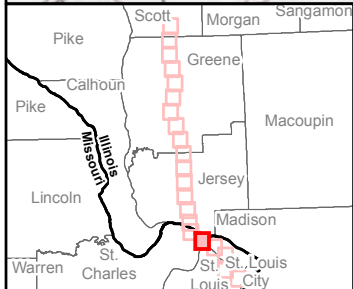
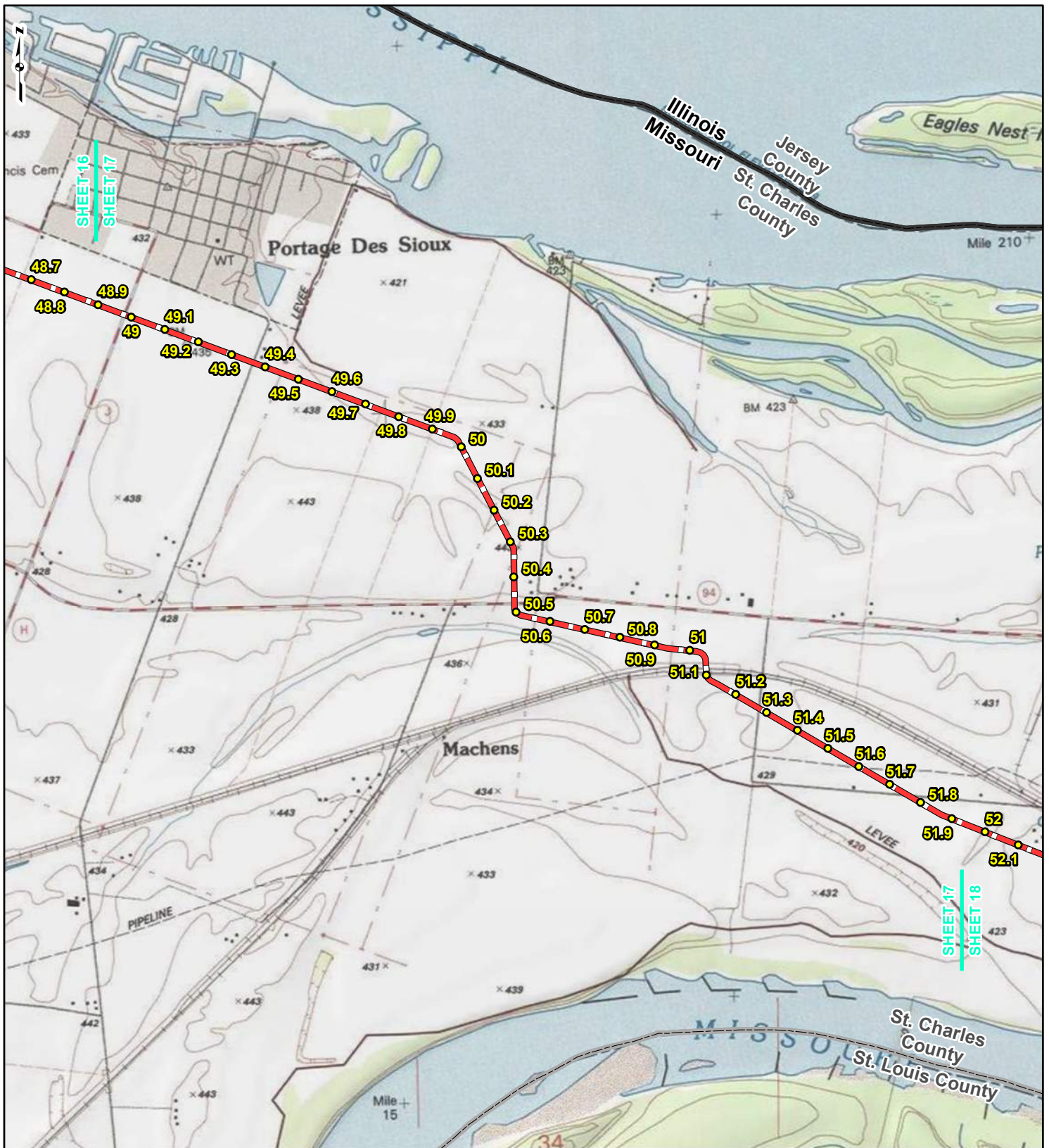
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 16 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
● NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

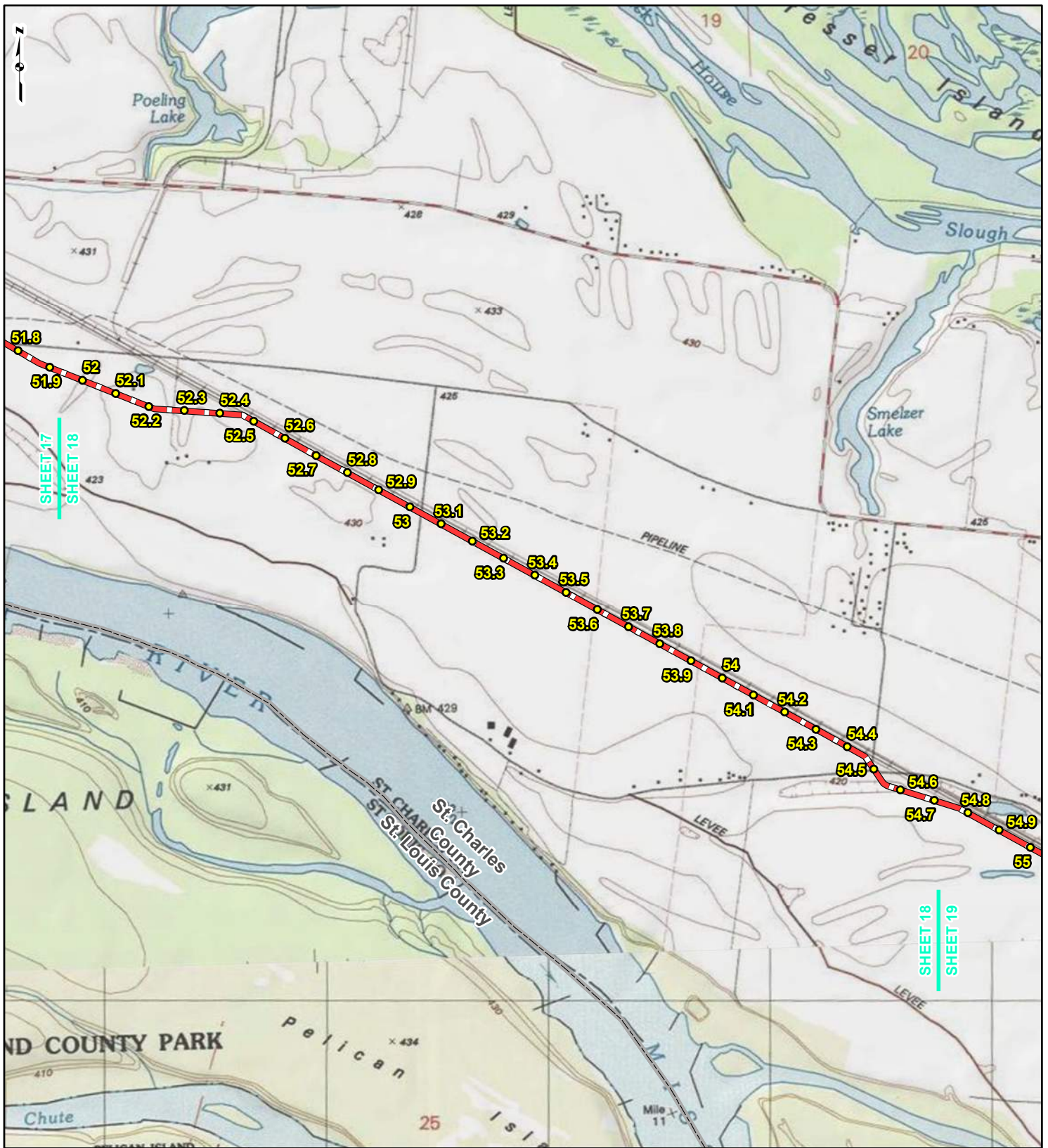
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Feet

FIGURE 1
LOCATION MAP
SHEET 17 OF 21

SPIRE STL
PIPELINE
PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE MILEPOST	— NORTH COUNTY EXTENSION
● NORTH COUNTY EXTENSION MILEPOST	▭ COUNTY BOUNDARY
● STATE BOUNDARY	▭ STATE BOUNDARY

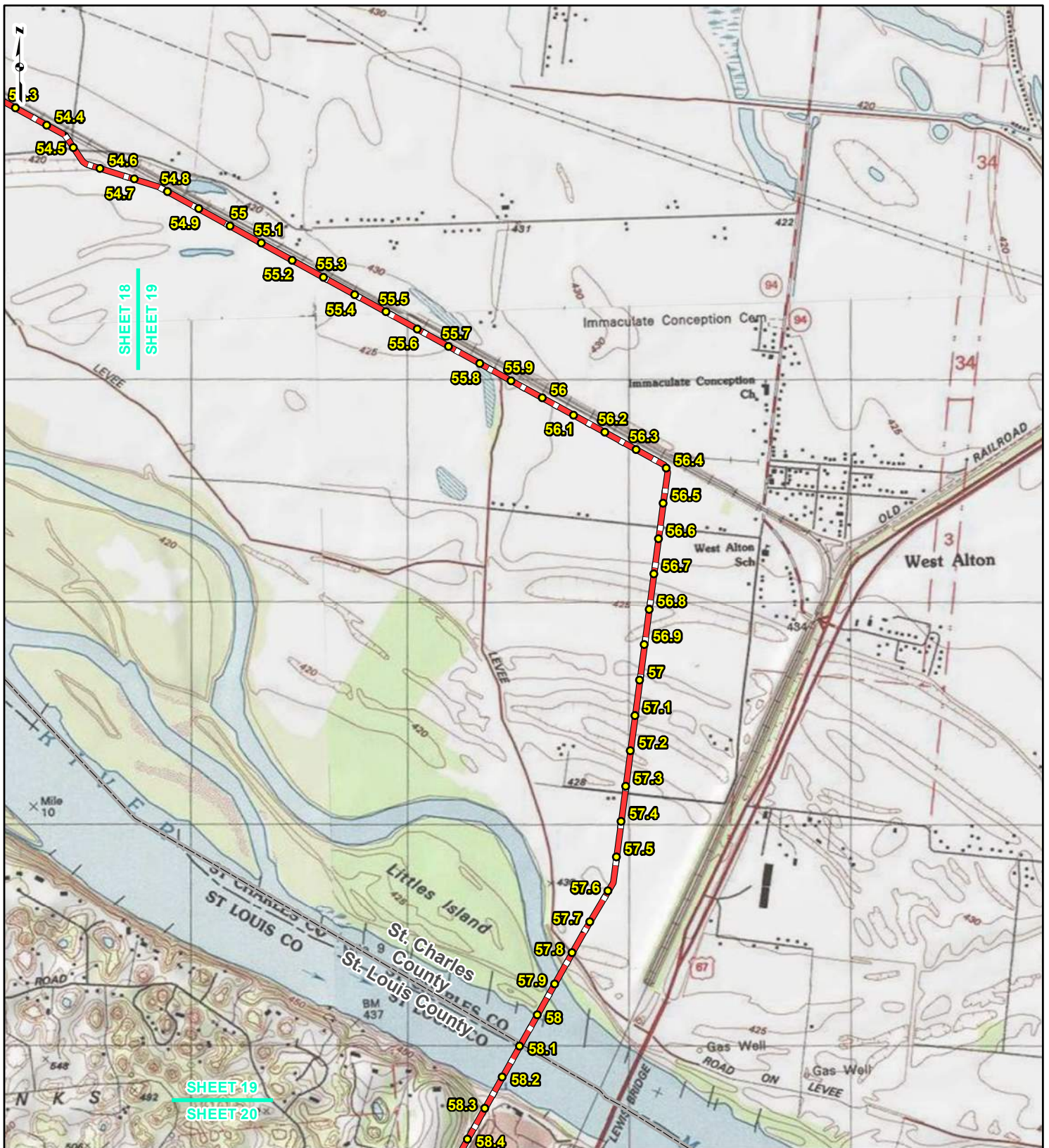
0 1,000 2,000 4,000
Feet

**FIGURE 1
LOCATION MAP
SHEET 18 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH	DATE: 3/28/2017
CHECKED: SWW	APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE
● 24-INCH PIPELINE	— NORTH COUNTY
● MILEPOST	— EXTENSION
— NORTH COUNTY	▭ COUNTY BOUNDARY
● EXTENSION	▭ STATE BOUNDARY
● MILEPOST	

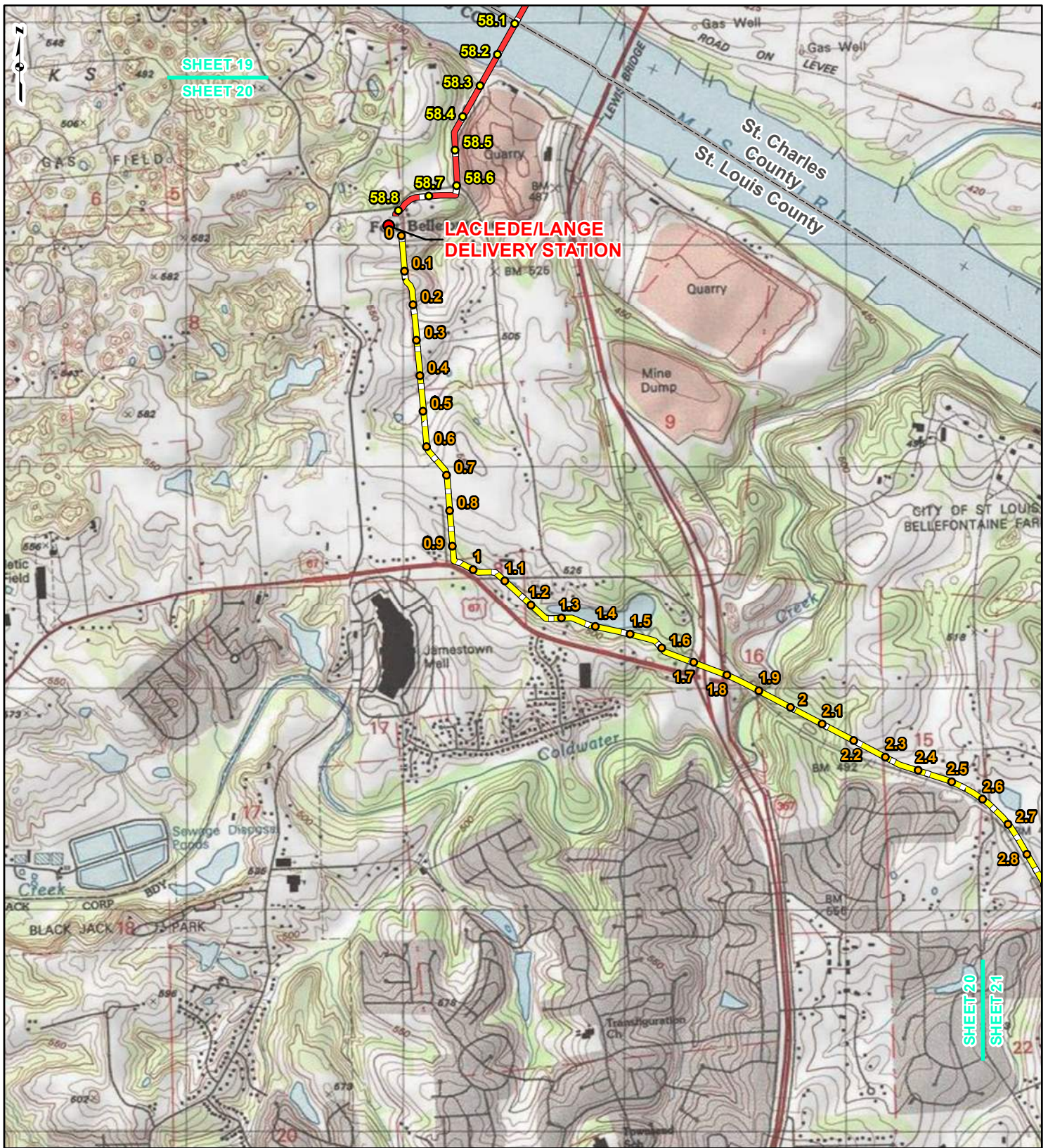
0 1,000 2,000 4,000
Feet

FIGURE 1
LOCATION MAP
SHEET 19 OF 21

SPIRE STL PIPELINE PROJECT

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLOISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE MILEPOST	— 24-INCH PIPELINE EXTENSION
● NORTH COUNTY MILEPOST	▭ COUNTY BOUNDARY
● EXTENSION MILEPOST	▭ STATE BOUNDARY

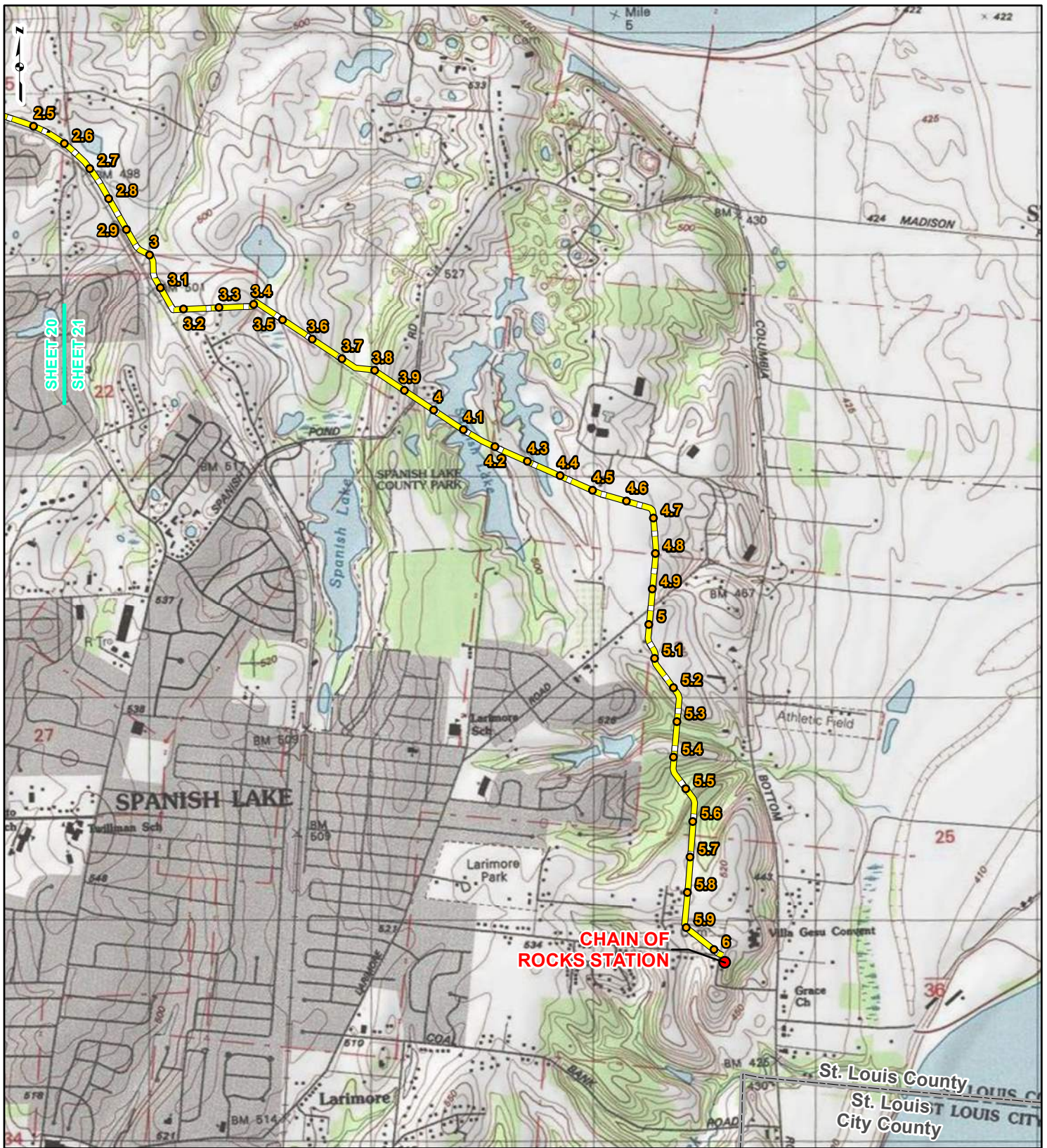
0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 20 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ELSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.



LEGEND

● PROPOSED FACILITIES	— 24-INCH PIPELINE NORTH COUNTY
● 24-INCH PIPELINE EXTENSION	— 24-INCH PIPELINE EXTENSION
● NORTH COUNTY MILEPOST	▭ COUNTY BOUNDARY
● EXTENSION MILEPOST	▭ STATE BOUNDARY

0 1,000 2,000 4,000 Feet

**FIGURE 1
LOCATION MAP
SHEET 21 OF 21**

**SPIRE STL
PIPELINE
PROJECT**

DRAWN BY: PMH DATE: 3/28/2017
 CHECKED: SWW APPROVED: LMF

REFERENCE: USGS 7.5' TOPOGRAPHIC QUADRANGLES: ALSEY (1983), ALTON (1994), BOYER CREEK (1983), CARROLLTON (1983), COLUMBIA BOTTOM (1999), ELSAH (1995), FLORISSANT (1999), GRAFTON (1995), JERSEYVILLE NORTH (1983), JERSEYVILLE SOUTH (1983), OTTERTVILLE (1983) AND ROODHOUSE WEST (1983), ILLINOIS AND MISSOURI, OBTAINED THROUGH ESRI USA TOPO MAPS, NATIONAL GEOGRAPHIC TOPO AND I-CUBED, ACCESSED 03/2017.

telephone log



gai consultants

Date: 3/23/2017

Project / Admin. No.: E160438.00

Call From: Lori Ferry, Jason Duffey, Jayme Fuller (GAI), Doug Sipe (Spire)

Company: GAI Consultants

Phone No.:

Call To: Kristen Lundh

Company: United States Fish and Wildlife Service

Phone No.: 309-757-5800

Subject: Spire STL Pipeline-Project Updates and Status of Review

cc:

Summary of Discussion, Decisions, and Commitments:

GAI requested the call as an informal discussion on the USFWS review of the Project response letter submitted in January 2017.

Project Update-USFWS received the Project update letter sent out in March 2017 regarding Spire's intention to pursue the North County Extension Project segment. Spire is no longer pursuing the modifications to the existing Line 880. These changes have not affected the Project's schedule, tree clearing dates or proposed construction schedule. Spire is filing an Amendment to its Certification Application with FERC on April 21, 2017. Spire ran a new IPaC on the proposed North County Extension. No new species were identified, however, running buffalo clover was no longer listed on the IPaC form.

Spire provided an update on the information that has/will be provided to the USFWS for review and comment:

- Project response letter including additional information on the techniques proposed to be utilized at the horizontal directional drill sites to address aquatic species concerns (January 2017)
- Bat Survey Study Plan-will be submitted in the next week (March 2017)
- Draft Biological Assessment-will be submitted in the next 2 weeks (April 2017)
- Bald Eagle Report-previously submitted in March 2017

Decurrent false aster

Ms. Lundh indicated that Trisha Crabill had provided her comments on the Project's decurrent false aster surveys. Ms. Lundh will need additional information on how Spire determined the one location in Illinois to conduct its surveys. Spire indicated that areas forested areas within floodplains that were proven to be disturbed was the guidance previously provided by the USFWS. USFWS indicated that known locations of

decurrent false aster have been found in Missouri on the edges of agricultural fields in disturbed floodplains/flooded. Therefore, the USFWS would like see additional information on the floodplain areas between the Mississippi and Missouri Rivers (St. Charles County). The Ms. Lundh will follow up with the Columbia Field Office to determine if shapefiles of known locations can be sent. Spire indicated that it would review the Project in these areas and provide the USFWS with additional information and/or propose additional sites to conduct decurrent false aster surveys in Missouri.

Migratory Birds

Ms. Lundh indicated that she has not responded on the Project's proposed MBTA strategies because the USFWS is awaiting guidance from Headquarters on MBTA issues. They cannot comment at this time on mitigation. USFWS expects the guidance to be issued within 2 weeks. USFWS indicated that in the past, they have seen other non-regulated projects provide information relative to the suitability of MBTA habitat in the Project areas via GIS and the size of timber blocks to be fragmented by the Project. Spire indicated that it would review its information on migratory birds and provide an update to the USFWS in the next conference call.

Bats

Spire is still on track to complete mist net surveys in May 2017. Spire indicated that they were anticipating that survey permission would be granted on the Principia property, however, this has not yet been confirmed. Conversations with this landowner are ongoing. Ms. Lundh indicated that Principia had contacted the USFWS and informed them that they had collected acoustic information for bats on the property. None of the calls have been verified and the USFWS did not know if the surveys were conducted in accordance within the federal guidelines. No data on these surveys has been provided to the USFWS.

Spire and the USFWS agreed to have a follow-up conference call the week of April 10, 2017 to discuss decurrent false aster and MBTA. Spire will also invite the Columbia Field Office for their comment on potential decurrent false aster surveys in Missouri.

Ali Trunzo

From: Lori Ferry
Sent: Wednesday, March 22, 2017 2:13 PM
To: Ali Trunzo
Subject: FW: Spire STL-Follow up

From: Lori Ferry
Sent: Wednesday, March 22, 2017 1:04 PM
To: 'Lundh, Kristen' <kristen_lundh@fws.gov>
Cc: Adam Mann <A.Mann@gaiconsultants.com>; Jason Duffey <J.Duffey@gaiconsultants.com>
Subject: RE: Spire STL-Follow up

Hi Kristen

That's great. I will schedule a meeting for tomorrow morning at 1030am central time.

Thanks for your response and your time,

Lori

From: Lundh, Kristen [mailto:kristen_lundh@fws.gov]
Sent: Wednesday, March 22, 2017 11:33 AM
To: Lori Ferry <L.Ferry@gaiconsultants.com>
Cc: Adam Mann <A.Mann@gaiconsultants.com>; Jason Duffey <J.Duffey@gaiconsultants.com>
Subject: Re: Spire STL-Follow up

Hi Lori,

I'm around the rest of the week. I have some meetings planned but would love to set something up. We have still been waiting for guidance before we provide comments to your last letter but I have some questions related to the Boltonia areas and your determination for Missouri I'd like to go through as well. Tomorrow I'm available between 10 and 11:30, and 1:30 and 3:00. Friday I've got several meetings already on my schedule but could potentially do a call first thing at 8:00 or at 2:30. I'm going to be out of town next week at a meeting Monday - Thursday but could talk on Friday.

Thanks,
Kristen

Kristen Lundh
U.S. Fish and Wildlife Service
Illinois & Iowa Ecological Services Field Office
1511 47th Avenue
Moline, IL 61265
ph: 309-757-5800 x 215
fax: 309-757-5807
kristen_lundh@fws.gov

On Wed, Mar 22, 2017 at 7:57 AM, Lori Ferry <L.Ferry@gaiconsultants.com> wrote:

Hi Kristen,

As a follow up to my voicemail earlier this week, I wanted to reach out to you to see if there was a good time to discuss a few project updates with you. We are getting ready some documents ready for you (i.e. Bat Study Plan) and wanted to go over a few things with you before we send them in. If you have time this afternoon or later this week, please let me know and I can schedule a call.

Thanks!

Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants

Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505

T 331.301.2002 M 630.605.5255 | gaiconsultants.com | 

l.ferry@gaiconsultants.com

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Ali Trunzo

From: Lori Ferry
Sent: Friday, March 10, 2017 4:33 PM
To: Ali Trunzo
Subject: FW: Spire STL Pipeline-Bald Eagle Report





From: Lori Ferry
Sent: Friday, March 10, 2017 3:19 PM
To: 'Lundh, Kristen' <kristen_lundh@fws.gov>
Cc: 'trisha_crabill@fws.gov' <trisha_crabill@fws.gov>
Subject: Spire STL Pipeline-Bald Eagle Report


Hi Kristen,
I have attached courtesy copy of Spire's Bald Eagle Survey report. This information was also filed with FERC today. Hardcopies should be following in your office on Monday.

If you have any questions, please do not hesitate to contact me.

Thanks and have a great weekend,
Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants
Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505
T 331.301.2002 M 630.605.5255 | gaiconsultants.com |    
l.ferry@gaiconsultants.com

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Ali Trunzo

From: Lori Ferry
Sent: Wednesday, March 08, 2017 2:17 PM
To: Ali Trunzo
Subject: FW: Project: E160438.00 - Spire - STL Pipeline Proj - File Transfer - Spire STL Pipeline-FERC Application Filing-January 2017

From: Lundh, Kristen [mailto:kristen_lundh@fws.gov]
Sent: Wednesday, March 08, 2017 1:11 PM
To: Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: Re: Project: E160438.00 - Spire - STL Pipeline Proj - File Transfer - Spire STL Pipeline-FERC Application Filing-January 2017

Yep,

We are waiting for some guidance from our regional office before we respond. I will definitely send an electronic copy to you.

Kristen

Kristen Lundh
U.S. Fish and Wildlife Service
Rock Island Ecological Services Field Office
1511 47th Avenue
Moline, IL 61265
ph: 309-757-5800 x 215
fax: 309-757-5807
kristen_lundh@fws.gov

On Wed, Mar 8, 2017 at 1:09 PM, Lori Ferry <L.Ferry@gaiconsultants.com> wrote:

Hi Kristen

No problem. You should receive another email from me shortly with the download information.

Also, if you all send your response letter, would you mind emailing it to me to? I just don't trust our mail delivery here in the office!

Thank you!

Lori

From: Lundh, Kristen [mailto:kristen_lundh@fws.gov]

Sent: Wednesday, March 08, 2017 12:41 PM

To: Lori Ferry <L.Ferry@gaiconsultants.com>

Subject: Re: Project: E160438.00 - Spire - STL Pipeline Proj - File Transfer - Spire STL Pipeline-FERC Application Filing-
January 2017

Lori,

Can you give me access to this filing information again.

Thanks,

Kristen

Kristen Lundh

U.S. Fish and Wildlife Service

Rock Island Ecological Services Field Office

1511 47th Avenue

Moline, IL 61265

ph: 309-757-5800 x 215

fax: 309-757-5807

kristen_lundh@fws.gov

On Thu, Jan 26, 2017 at 6:27 PM, Lori Ferry <L.Ferry@gaiconsultants.com> wrote:

IMPORTANT: Click a link below to access files associated with this transmittal that came in through the GAI Consultants, Inc. Info Exchange web site.

[Download all associated files](#)

Additional links:

[Reply to All](#)

Project Name: E160438.00 - Spire - STL Pipeline Proj
Project Number: E160438.00

From: Lori Ferry (GAI Consultants, Inc.)
To: melissa.l.hoerner@usace.army.mil; david.p.meyer@usace.army.mil;
edward.c.rodriquezrobles@usace.army.mil; kraig_mcpeek@fws.gov;
kristen_lundh@fws.gov; trisha_crabill@fws.gov; Laszewski.virginia@epa.gov;
Summerlin.joe@epa.gov; skmachens@live.com; keith.shank@illinois.gov;
jenny.skufka@illinois.gov; mike.diedrichsen@illinois.gov; terry.savko@illinois.gov;
rachel.leibowitz@illinois.gov; joe.phillippe@illinois.gov; darin.lecrone@illinois.gov;
audrey.beres@mdc.mo.gov; judith.deel@dnr.mo.gov; Teri.C.Allen@usace.army.mil;
lorisa.smith@dnr.mo.gov; mike.irwin@dnr.mo.gov; Michael.d.chapman@usace.army.mil

CC: Ali Trunzo (GAI Consultants, Inc.)
Subject: Spire STL Pipeline-FERC Application Filing-January 2017

Sent via: Info Exchange

Expiration Date: 2/9/2017

Remarks: Hello,
Files pertaining to the Spire STL Pipeline Project, FERC application filing are ready for download.
Spire STL Pipeline Project, FERC Application,

Volume II-Exhibit F-1, Environmental Resource Reports and appendices (Public)

Any questions or issues with the downloading process, please don't hesitate to contact me.

Thank you,
Lori Ferry
630-605-5255

Transferred Files

NAME	TYPE	DATE	TIME	SIZE
RR1_Description.zip	Compressed (zipped) Folder	1/26/2017	12:47 PM	376,989 KB
RR10_Alternatives.zip	Compressed (zipped) Folder	1/26/2017	12:48 PM	22,930 KB
RR11_Reliability_Safety.zip	Compressed (zipped) Folder	1/26/2017	12:48 PM	166 KB
RR12_PCBs.zip	Compressed (zipped) Folder	1/26/2017	12:48 PM	135 KB
RR2_Water.zip	Compressed (zipped) Folder	1/26/2017	12:47 PM	151,418 KB
RR3_Wildlife_Vegetation.zip	Compressed (zipped) Folder	1/26/2017	12:47 PM	951 KB
RR4_Cultural.zip	Compressed (zipped) Folder	1/26/2017	12:47 PM	1,308 KB

<u>RR5 Socioeconomics.zip</u>	Compressed (zipped) Folder	1/26/2017	12:47 PM	13,400 KB
<u>RR6 Geology.zip</u>	Compressed (zipped) Folder	1/26/2017	12:47 PM	2,865 KB
<u>RR7 Soils.zip</u>	Compressed (zipped) Folder	1/26/2017	12:47 PM	27,922 KB
<u>RR8 Land.zip</u>	Compressed (zipped) Folder	1/26/2017	12:48 PM	19,869 KB
<u>RR9 Air Noise.zip</u>	Compressed (zipped) Folder	1/26/2017	12:48 PM	8,256 KB
<u>Transmittal - 00018.pdf</u>	PDF File	1/26/2017	7:26 PM	65 KB

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Ali Trunzo

From: Lundh, Kristen <kristen_lundh@fws.gov>
Sent: Monday, March 06, 2017 1:17 PM
To: Lori Ferry
Cc: Jayme Fuller; Jason Duffey
Subject: Re: Spire STL Pipeline-Follow Up

Hi Lori,

We are working on our response and integrating some comments from the MO office. I hope to get it out to you by the end of this week.

Kristen

Kristen Lundh
U.S. Fish and Wildlife Service
Rock Island Ecological Services Field Office
1511 47th Avenue
Moline, IL 61265
ph: 309-757-5800 x 215
fax: 309-757-5807
kristen_lundh@fws.gov

On Thu, Mar 2, 2017 at 10:45 AM, Lori Ferry <L.Ferry@gaiconsultants.com> wrote:

Hi Kristen

I wanted to just check in with you to see if you've had a chance to review the materials sent to you in January regarding our project approach for federal listed species.

Also wanted to see if you had any questions on the information contained in our FERC filing and in our response letter or wanted to schedule a follow up discussion.

Please let us know as soon as you have a chance.

Thank you much,

Lori

Lori Ferry
Environmental Manager-Energy Business Unit

GAI Consultants

Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505

T 331.301.2002 M 630.605.5255 | gaiconsultants.com |     

l.ferry@gaiconsultants.com

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Ali Trunzo

From: Lori Ferry
Sent: Thursday, March 02, 2017 11:46 AM
To: Ali Trunzo
Subject: FW: Spire STL Pipeline-Follow Up

From: Lori Ferry
Sent: Thursday, March 02, 2017 10:45 AM
To: 'kristen_lundh@fws.gov' <kristen_lundh@fws.gov>
Cc: Jayme Fuller <J.Fuller@gaiconsultants.com>; Jason Duffey <J.Duffey@gaiconsultants.com>
Subject: Spire STL Pipeline-Follow Up





Hi Kristen

I wanted to just check in with you to see if you've had a chance to review the materials sent to you in January regarding our project approach for federal listed species.
Also wanted to see if you had any questions on the information contained in our FERC filing and in our response letter or wanted to schedule a follow up discussion.

Please let us know as soon as you have a chance.

Thank you much,
Lori

Lori Ferry
Environmental Manager-Energy Business Unit

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Chicago Office | 1444 Farnsworth Avenue, Suite 303 Aurora, Illinois 60505
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l.ferry@gaiconsultants.com

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Ali Trunzo

From: Lori Ferry
Sent: Tuesday, February 07, 2017 5:30 PM
To: Ali Trunzo
Subject: FW: Alternate Mist Nets for the Spire Project
Attachments: Spire_Recon_Areas_0201.pdf

From: Jason Duffey
Sent: Tuesday, February 07, 2017 4:13 PM
To: kristen_lundh@fws.gov
Cc: Lori Ferry <L.Ferry@gaiconsultants.com>
Subject: Alternate Mist Nets for the Spire Project

Hi Kristen,

I understand that you are currently out of your office; however, I left you a voice message earlier today regarding the Spire Project and our ongoing efforts to locate alternate mist net sites in and around the Principia properties. As you know, we have been identifying alternative mist net sites in the likely event that we will not be able to conduct surveys on the Principia properties. Attached is a map showing some of the results of those efforts. At your earliest convenience I would like to discuss this map and some of our options with you and request guidance on how we can meet the minimum survey effort required by your office. Overall, we just want to finalize some of our options in the Principia area prior to submitting a final Study Plan to you. Please do not hesitate to give me a call at my direct or mobile number below. I will also continue to try catch you in your office in the next few days.


Thanks,

Jason A. Duffey
Senior Project Environmental Specialist

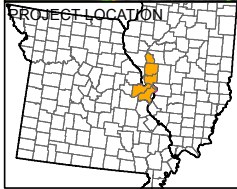
GAI Consultants
1830 Airport Exchange Blvd, Suite 220, Erlanger, KY 41018

D 859.692.4152 | M 937.554.8488 | gaiconsultants.com |     

* Please update your records with my new direct telephone number

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REFERENCE: BING MAPS HYBRID, © 2014 MICROSOFT CORPORATION AND ITS DATA SUPPLIERS, ACCESSED : 02/2017

GREENE, JERSEY AND SCOTT COUNTIES, IL
ST. CHARLES AND ST. LOUIS COUNTIES, MO

LEGEND

- Potential Survey Site
- LOD
- Netting Buffer
- Federal Land
- Parcels

0 350 700 1,400 Feet

MIST NET SURVEY

SPIRE STL PIPELINE PROJECT

igai consultants **spire**

DRAWN BY: PK DATE: 2/1/2017
CHECKED: JAD APPROVED:

Ali Trunzo

From: Lori Ferry
Sent: Wednesday, January 25, 2017 10:30 AM
To: Lundh, Kristen
Cc: trisha_crabill@fws.gov; Ali Trunzo
Subject: Spire STL Pipeline-USFWS Response Letter
Attachments: 2017_01_25_USFWS_Response_Letter_Submitted.pdf

Hi Kristen,

I've attached Spire's updated response letter for your review in advance of the hardcopy which was also mailed out to your offices.

The information contained with this letter is in response to your letter from December 2016. This information also reflects what you will see in our FERC application filing which is now scheduled to be filed tomorrow, January 26, 2017.

I know you indicated that you were busy until the end of the month so please don't hesitate to contact me should you have any questions on this or the schedule of the Biological Assessment that I sent to you last week when you have a chance to review.

Thanks,
Lori

Lori Ferry

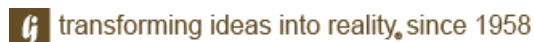
Environmental Manager-Energy Business Unit

GAI Consultants

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

CONFERENCE CALL

Spire STL Pipeline L.L.C.

Docket No: PF16-9-000

SPIRE STL PIPELINE PROJECT

January 4, 2017

11:30 AM Eastern/10:30 AM Central

Attendance

- Federal Energy Regulatory Commission (FERC)
 - S. Xiah Kragie
 - Kevin Bowman
 - Christine Mallory
 - Nancy Fox-Fernandez
 - Jennifer Ward (Edge Engineering and Science, LLC [EDGE])
 - Jenny McCoy (EDGE)
- United States Fish and Wildlife Service (FWS)
 - Kristen Lundh
- Spire STL Pipeline L.L.C. (Spire)
 - Russ English
 - Lori Ferry (GAI)
 - Jayme Fuller (GAI)
 - Doug Sipe (MDM)

Meeting Summary

On January 4, 2017, representatives from FERC, EDGE (FERC's contractor), FWS, Spire, GAI (Spire's contractor), and MDM (Spire's contractor) participated in a call to discuss Endangered Species Act, Section 7 consultation for the Spire STL Pipeline Project. The main topics of discussion included how to address no access parcels where Spire cannot complete field surveys (specifically the Principia College property), and options for formal consultation with the FWS, given the potential that Spire could not meet the recommended tree-clearing window for federally listed bats (April 1 through October 15).

Meeting Notes

Spire explained that the Principia College property is the largest contiguous tract of forest land that would be crossed by the planned Project. Since they have not been granted survey access, they have not been able to verify the presence or absence of sensitive species, including those federally listed species that Principia College indicates a high likelihood of occurrence on its property, including the Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), eastern prairie fringed orchid (*Platanthera leucophaea*), leafy prairie clover (*Dalea foliosa*), and Mead's milkweed (*Asclepias meadii*).

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

CONFERENCE CALL

Spire STL Pipeline L.L.C.

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Federally Listed Bats

- Spire indicated that two constraints may result in missing the tree-clearing window for federally listed bats:
 - several permits for the Project could be issued after the issuance of the FERC Environmental Assessment (EA). As tree-clearing could not commence until all federal permits are obtained, the timing of permit receipt raises concerns regarding their ability to complete tree clearing outside of the restricted period for bats (no clearing from April 1 through October 15).
 - Without access to the Principia College property, Spire would not be able to conduct mist nest surveys for bats within the recommended survey window (May and August of 2017) at that location.
- Given the above constraints, Spire stated that they would like to pursue formal consultation with FWS and an incidental take permit for Indiana bats in the event they do not have all the necessary permits required to allow tree clearing prior to April 1st.
 - Because Spire would still be constrained by the migratory bird clearing window (May 1 through August 15), they are essentially requesting that tree-clearing be allowed during April, when non-volant pups are unlikely to be present, but do not propose to clear past May 1st.
- FWS stated that formal consultation would require development of a Biological Assessment (BA), which would normally assess impacts on all species with the potential to occur within the entire Project area. In addition, for any areas where surveys were precluded, due to timing or no access, the “worst-case scenario” should be assumed. With regard to bats, the worst-case scenario would include finding primary roosts within the Project workspaces.
- FWS indicated that it would work with Spire during development of the draft BA. FERC also requested that FWS consider becoming a cooperating agency for the planned Project.
- The comment that representatives of Principia College filed to the FERC docket, which stated that they had conducted surveys on the parcel, was discussed. No participants on the call have this data, or data for islands in the Mississippi River based on surveys conducted by Illinois State University. Both Spire and FWS would be interested in reviewing any data that exists. If Principia’s surveys were conducted by someone with appropriate recovery permits (via Section 10(A)(1)(a) of the Endangered Species Act), Spire potentially wouldn’t need to resurvey that area. FWS stated that no known roosts were within 5 miles of the no access parcel.
- A discussion of how no access parcels should be handled in the BA identified the option of using data from results for surveys on nearby parcels, if they are close

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enough, which could help to support a probable absence determination on the no access parcel.

- At FWS' request, Spire described the planned construction footprint and collocation through the Principia College property.
- Based on a discussion of the Northern long-eared bat, FWS clarified that if survey results found no Indiana bats but did find Northern long-eared bats (and no telemetry was conducted), then the stream-lined consultation process associated with the 4(d) rule could be applied.

Federally Listed Plants

- Spire verified that species-specific surveys were completed for one federally listed plant (decurrent false aster [*Boltonia decurrens*]) and discussed the general methodology for determining where additional species-specific surveys were warranted along the planned pipeline route; FWS concurred with the general methodology and indicated that it did not need to approve the areas planned for survey.
- In its comment letter on the planned Project, Principia College indicated that certain plant species had a "high likelihood of presence" on its property, as previously noted; these species were discussed, as well as the habitat types likely to be present in the vicinity of the Principia College property.
- FWS specified that plant surveys should be conducted during the blooming period and, for any parcel without survey, the BA should indicate that a habitat assessment would be conducted once access to the site is granted. FWS also stated that as there are no take prohibitions for federally listed plants, the BA should include species determinations.

Other Topics

- No known bald eagle nests are located along the Project route; therefore, Spire is proposing to survey certain riparian areas in January or February. FWS concurred with that approach and timeframe, and indicated that pre-approval of survey locations was not necessary.
- Spire indicated that aquatic species in the Mississippi and Missouri Rivers would likely not be adversely affected by construction as the rivers would be crossed via HDD; FWS indicated that additional information should be included in their BA to support the determination.
- Spire stated that they would develop a schedule for development and completion of a draft BA and share that with FWS and FERC.